This is How it Was
This is How it Was

The Memoirs of Ernest Franklin Dukes, Jr.
1920 – 2001

including

The Memoirs of Marie-Anne Dukes
1925 – 2005

Edited by
Edmond Craig Dukes
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Foreword

This is the story of my father, Ernest Franklin Dukes, Jr., a man who in his own words “lived a life without distinction.” If Dad’s assessment of his life is indeed true, then why these memoirs? As stated in the preface, he wrote his life’s story for the benefit of his children and future family members. And I have no doubt that they will be read by Dad’s yet unborn descendants with the same curiosity and delight that his present children and grandchildren have experienced. For he lived a most interesting life and recounts it with charm and humor. But there is perhaps a wider audience for Dad’s tale. For not only does he describe the saga of his and his family’s life, he also paints a wonderful picture of what it was like, for at least for one man, to live in one of the most critical periods of American, indeed, world history. Dad witnessed life on the American frontier with the cavalry, the waning years of American imperialism in the Philippines, pre-war China and Japan, the Second World War, postwar Germany, the birth of the Atomic Age, Jim Crow, and the Cold War. He is one of only a few to have witnessed the terrible power of both nuclear and thermonuclear weapons and, as a career officer in the army and air force, he was one of the unsung soldiers who fought the Cold War. But this is not the memoir of a war hero, for, despite Dad’s best efforts, he saw little action. Nor is it a memoir of a major political or military figure. So in that respect Dad’s self assessment is correct. But there are other measures of distinction; by those the reader can himself judge the veracity of Dad’s statement that he “lived a life without distinction.” Those who knew Dad well — his friends, children, grandchildren, sons- and daughters-in-law — would dispute his self assessment. He did everything with distinction.

So what was Dad like? Read the text. He was an incurable optimist, had not a scintilla of cynicism, and was blessed with a most cheerful disposition. It was a rare occasion when his voice rose in anger or exasperation. I never, ever, saw him melancholy, including the year and a half of his final illness, and he was not given to complaint. He had a deep sense of duty, be it to his country, neighborhood, family, students, or subordinates. Although he was not brought up in the church, he did attend Sunday Mass with his family, and in retirement kindled an interest in Christianity and was baptized a Catholic in 1992, much to Marie-Anne’s delight. He was a hard worker; he often didn’t come home until late at night, and was always meticulously organized. He had a sharp mind: five years after being acclaimed the most outstanding student at the Air Force Institute of Technology, he was voted
the most outstanding teacher at that same institute, a feat that few Americans of any ilk have accomplished. He excelled at almost everything he did. It was unusual for him not to be commended by his superiors: he received numerous certificates of achievement and commendation medals. But he was not given to brag about any of his accomplishments. Dad lived a life of moderation, drank little alcohol, drove practical cars, saved more than he spent, and exercised regularly, usually by taking long walks.

Mom and Dad were a most handsome couple: always well dressed and well groomed. Dad remained trim and fit his entire life; Mother kept her grace and beauty into her old age. They were well mannered — indeed, that was what first caught Mom’s eye when they met in Luxembourg. It was obvious to all that they were both smitten with each other — their love never waned.

Mother brought up the children. That is, she cooked — fabulously — cleaned house — immaculately — attended to our various needs, and pretty much ran the household, particularly when Dad was away, which was often. The life of a military wife was not easy. The pay was mediocre, there were long separations, and just when you were comfortably ensconced you were transferred to a new assignment. A good wife is vital for a military officer: Mother was such a wife. Dad and Mother did run a rather tight ship. Misbehavior was not tolerated; severe misbehavior was punished by spanking. Every Saturday morning our rooms were inspected: toys were to be put away, beds were to be made in the military fashion, the carpet was to be vacuumed, and the room dusted. We were always well dressed, with ties worn at church, a habit, which alas did not seem to take. But Dad, like his father, was mostly a hands-off parent. He was not given to excessive worrying about his children — it was Mother who lay awake in bed until we were all safely home.

The family lived modestly. We almost never ate dinner out, except when traveling, something unheard of nowadays. The only vacations we took before the move to Paris in 1961 were to Dad’s parents and, more rarely, to visit his brother in Knoxville, Tennessee.* That changed during our four years in Europe when Dad was working at NATO. We vacationed in Germany, Italy, Greece, England, Spain, and many times in Luxembourg, where we were much spoiled by Mother’s parents, friends, and family. It was a golden age for Americans in Europe. Europe still had its early twentieth-century charm, the ravages of the Second World War — even in Germany — had disappeared, there were few cars, and one could indeed travel for “five dollars a day.” Many of our trips were to Garmisch-Partenkirchen and Bertesgarten, Germany, where the military ran heavily subsidized hotels. After we moved to Washington, D.C., for a few years we summer vacationed at Rehoboth Beach, Delaware, were we stayed with friends in a rented house. And Mom and Dad would periodically visit Luxembourg, usually

*Although we usually lived an easy day’s drive from Dad’s brother, we seldom visited him and his family, and they rarely visited us, although we always enjoyed them very much. We visited Mother’s Luxembourg family more often, despite them being half a world apart!
traveling via Icelandic Airlines; occasionally bringing one or two of their children with them.

In the last decade of his life Dad, like many men in their waning years, kindled an interest in his past. He joined various veterans associations, read books about his pre-war and war-time experiences, and attended reunions. He started writing his memoirs in the early 1990s, if not earlier: his comment about Mount Pinatubo erupting while he was writing the chapter “Life in Stotsenburg” indicates it was being written in June, 1991. I became aware that he was writing his memoirs sometime later, in the mid-1990s, overhearing discussions, and sometimes arguments, he would have with Mother over some long-faded memory. My interest much piqued — I knew that Dad had lived an interesting life, but like most children I knew almost nothing about my parents’ lives — I would ask Dad if I could read them, but he always put me off. Whether or not Dad intended his memoirs to be read only posthumously, I do not know.

Unfortunately, Dad never completed the memoirs, although much of what was written, particularly the early chapters, is quite polished. The narrative ends in 1961, when he was 41 years old, with the exception of a final chapter on his 1967 inspection trip to Antarctica, largely excerpted from his diary of that voyage. The early title he gave the memoirs, Our Lives, and a short incomplete chapter about Mother’s experiences during the war years, suggests that he entertained thoughts of expanding the narrative to include her story as well.

The memoirs end with Dad completing a four-year stint teaching at the Air Force Institute of Technology. We then moved to Paris, France, in 1961 where Dad was the executive of the Avionics Panel of the Advisory Group on Aeronautical Research and Development (AGARD), a NATO agency, where he coordinated the activities of about 50 scientists and engineers from the (then) 13 NATO nations. The work included identification of low-flying aircraft and the use of flight recorders in military aircraft. Dad rarely talked about his work, so I do not know how interesting he found that position. However we all very much enjoyed living in Paris, visiting our Luxembourg relatives, and taking numerous vacations throughout Europe. Most of us, particularly Mother, would look back upon the Paris years as perhaps the highlight of our family life. The early 1960s were a wonderful time to be in Europe.

In 1965 we returned to the States; Dad was stationed in Washington, D.C. and worked on a joint project of the Arms Control & Disarmament Agency and the Department of Defense called Project CLOUD GAP, the purpose of which was to field-test various inspection techniques needed to verify nuclear weapons control agreements with the Soviet Union. Dad was responsible for field-test planning for inspection systems related to the control of production of fissionable material, destruction of nuclear weapons, and remote sensing of the status of nuclear weapons. The inspection trip to Antarctica was an offshoot of this.

Dad’s final post, again in Washington, D.C., was with the Air Force Technical Applications Center (AFTAC), an outfit which operated and maintained a global
network of stations monitoring nuclear weapons tests. Dad was head of the Diagnostics & Radio Propagation Division. As usual Dad said nothing about this classified work, which was punctuated with occasional calls that had him rushing to work in the middle of the night. Much of this work remained classified until very recently. Part of it involved placing remote sensors on satellites to monitor gamma and X-ray emission from nuclear weapons tests in order to insure compliance with the 1963 Partial Test Ban Treaty by the Soviet Union. Dad went to Cape Kennedy, as it was then called, in May 1969 to watch the first VELA V satellite launch. The VELA satellites discovered gamma-ray bursts — an unexpected phenomena that was one of the biggest mysteries in astronomy for many years — and so Dad inadvertently witnessed the birth era of gamma-ray astronomy.*

Although Dad consistently received the highest ratings and was recommended for promotion to general by one of his superiors, the promotion did not happen, perhaps due to a falling out he had with his civilian superior at AFTAC. So he retired in June 1972, after thirty years in the service, at the ripe old age of 52! He was too young to be finished working, and with two children still in college the family needed the money, so in typical fashion he wrote down a list of ideas for future work, including: writing an electronics dictionary, family financial planning, hospital electronics, Catholic school teaching, and industrial high-speed photography. Not on that list was work in the defense industry; he had strong ethical qualms against retired military working in that area and refused such offers. He did take courses at a local community college to get certified as a high-school teacher, and he would have certainly made a wonderful teacher, but he ended up with USAA, a company that specializes in selling insurance to members of the military and their dependents. After the responsibility and excitement of his work at AFTAC, one might think that he would have been indifferent about selling insurance, but he attacked his new job with characteristic enthusiasm. I never heard a hint of bitterness from him over not being promoted.

Dad retired again in 1980 and two years later moved with Marie-Anne to a house of their design on Lake Monticello, about twenty miles east of Charlottesville, Virginia, where their son Franklin and family lived. They both much enjoyed their new home on the lake. Dad spent his retirement playing golf, traveling with Marie-Anne (when her frail health permitted it), and enjoying his grandchildren, who appeared with increasing frequency up to the time of his death. He was also active in local community affairs. He never lost his interest in radio and became a ham radio operator. In 1989 Dad’s son Craig moved to Charlottesville to take a faculty position at the University of Virginia. In 1996 Dad and Mom moved to a smaller house in Charlottesville, only a short distance away from their son Franklin and family.

*On September 22, 1979 a Vela satellite detected the characteristic signature of an atmospheric nuclear explosion over the Indian Ocean. No nation claimed to have tested such a weapon. The veracity of the detection has been much debated; many think it was a joint test by Israel and South Africa of a low-yield nuclear weapon.
In the spring of 1999 Dad started unaccountably losing weight. By the fall of 1999 we, his children and Marie-Anne, became aware of an increasing forgetfulness. It progressed rapidly and by the end of the year he was no longer able to do simple mental tasks, such as balancing his checkbook. The weight loss continued, and Dad, who was always thin, became quite emaciated. Repeated visits to different doctors and many tests did not produce a definitive diagnosis of his ailment; it was only after Dad’s death that an autopsy showed he had suffered from Creutzfeldt-Jakob disease, an exceedingly rare brain disorder. We have no idea of how and when he contracted it. By the spring of 2000 any but the simplest communication with Dad was impossible — his mind was lost to us forever. Dad was cared for at home by Mother with help from her children as well as Hospice of the Piedmont. His good nature never left him throughout his illness, and he died on February 5, 2001 in his bedroom at home, surrounded by his beloved wife and children. He is buried in Arlington National Cemetery a few paces from his father and mother.

Mother was deeply affected by the loss of her husband and life-long companion. She never really recovered from her loss, and slowly deteriorated. She refused to entertain offers to move in with her children — both Mom and Dad never wanted to be a burden to their children — and lived by herself in Charlottesville. She did much enjoy seeing her grandchildren at every opportunity, and spoiled them as much as their parents would allow. After a relatively brief illness Mother died at home on February 25, 2005, surrounded by her children and grandchildren. She is buried alongside her beloved husband, Franklin.

To my knowledge Dad kept a diary only from 1950–1953, when he was engaged in photographing nuclear weapons tests, and during his trip to Antarctica, a diary he quotes heavily in the rather thorough descriptions of those parts of his life. Most of the early chapters of his memoirs must have sprung from his memory, as very few documents from Dad’s early life exist, although in the last decade of his life he did purchase and read books on the history of the United States in the Philippines, the US Cavalry, etc., undoubtedly to fill in some of the blanks. Dad kept his service records (201 File) and some correspondence, which he used to aid his memory of the war years and thereafter. His detailed description of the bombing mission over Rennes, for example, comes in part from a letter he sent to his parents and a journal he kept of the mission. He also wrote and kept several articles during the war and post-war years, a few of which he tried to get published. And, as I alluded to above, Mother helped at times recalling memories of their life together. When Mother and Dad were apart they kept up a voluminous correspondence, much of which still remains, writing each other almost every day. For whatever reason, Dad did not refresh his memories with these letters — they were clearly not reread — which besides revealing their deep love for each other, provide a rather complete record of their day-to-day activities at the time.

Dad did join various veterans associations while he was writing his memoirs, most in the early 1990s, perhaps to help him remember long-faded memories, but un-
doubtedly also out of the inevitable urge one has in one’s waning years to reflect upon one’s life and to reconnect with lost friends. These included the 34th Bombardment Group, the 106th Infantry Division, the 6th Armored Division, the Philippine Scouts, AFTAC, the University of Rochester, and MIT! He visited Forts Brown and Riley, Rochester, and Blythe, and attended various reunions. Unfortunately, when Dad started writing his memoirs the World Wide Web was not available to the general public (it was invented at CERN, in Geneva, Switzerland, when I worked there in the late 1980s, but only used by particle physicists in its early days). Had it been Dad would have had a much easier time finding hard-to-get information and contacting lost friends. In editing his memoirs I have availed the Web (and other resources) to correct rare mistakes and occasionally to further illuminate the text. These comments have been added as footnotes and identified as coming from me with an “ECD.”

Dad wrote his memoirs on his cherished Macintosh. In 1999 my sister-in-law Linda Dukes formatted the memoirs and gathered the chapters together to put them into book form; she did not change any of the text. Mother read the memoirs: her rare corrections, which with one exception are found only in the paragraphs about their wedding, have been added in brackets. Copies of the memoirs were given to Mother and my siblings at the end of 2000. They were fascinating reading. Dad proved to be an accomplished writer, something we children were unaware of, having never read anything from Dad other than an occasional letter.

After Dad died we children implored Mother to write her story, particularly that of her life in Luxembourg, which we knew only in its broadest outlines. So Mother began writing her tale in longhand, and she kept at it almost until the day she died. Mother’s memoirs can be found following Dad’s. Like Dad’s they are unfortunately incomplete, ending where his do: with the family leaving the States for Paris. They are not as well written as Dad’s — she was not as good a writer — but she was a much better writer than her words bear witness. Mother’s command of English was indeed good, but she was in poor health in her last years and did not have a chance to edit and rewrite what is really a rough first draft. Although I have edited her manuscript far more than Dad other than an occasional letter.

Mother’s memoirs came mostly from her memory, which was better than Dad’s, although she almost certainly used Dad’s slide collection to jog it. She never kept a journal, and very few documents of any sort were found in her effects.

The first half of Mother’s memoirs paint a fascinating picture of pre-war and wartime Luxembourg, indeed of a Europe that no longer exists. Her description of life under Nazi occupation — a time that was never discussed by anyone in her family — is chilling. Kicked out of the Lycée for mocking Hitler and not joining the Hitler Youth, Mother always remained a bit ashamed that she never completed high school: her children, on the other hand, considered her expulsion a great badge of family honor and were immensely proud of her. Mother’s memoirs offer an interesting counterpoint to Dad’s. She, for example, devotes much description to food, and indeed she has a
remarkable recall for such detail: she remembered that on the day I was born she had prepared a lemon pie! Dad hardly says a word on the subject; food was subsistence, not pleasure, to him. There are other differences: Mother’s post-marriage memoirs focus on her children, which were her responsibility. Dad’s memoirs center on his work.

After Mother died Linda sent me electronic copies of Dad’s memoirs, and in late 2005, Linda’s daughter, Lenore Dukes, sent me Mother’s, which she had laboriously transcribed to an electronic format. I then converted them to LaTeX, which is a markup language,* for several reasons. First, the text format is better for the long-term survivability. Even if LaTeX should disappear twenty years from now, which is unlikely, the text can be viewed with any text editor (unlike most proprietary editor formats, such as Microsoft Word). Second, LaTeX produces a much better product, and, indeed, is used by scientists and mathematicians to produce camera-ready text suitable for publication. Finally, LaTeX is free and widely available.

In the fall of 2005 I started perusing the files on Dad’s Macintosh, as well as his collection of floppy disks, no easy task given the crippled condition of the computer, which had been silent for some six years. In a part of the computer’s disk drive, separate from the folders containing the files of the memoirs, was a file called 1957 to 1965, dated March 14, 1999, which had not been included in Linda’s original manuscript. Outside of the account of Dad’s trip to Antarctica, it is the last chapter of the memoirs. The chapter only takes us to 1961, not 1965, but does give a complete account of Dad’s life as a professor of electrical engineering at the Air Force Institute of Technology.

In going through my parents’ effects after Mother’s death I found a trove of letters, writings, photos, postcards, and other memorabilia, much of which I had never seen before. Sorting through this material has been fascinating, although perusing one’s parent’s private possessions is a bit disconcerting. Recent technological advances — the availability of inexpensive mass storage, digital scanners, and color printers — have made it feasible to illustrate texts such as this at little additional cost; hence I decided to add images from my parents’ collection to the text. At first my intentions were modest, just a few images; however, as I kept finding more and more interesting material, the number of images increased to over 250 (out of several thousand that were scanned). They add much to these memoirs.

Some of the photos were taken by Dad’s parents, some from Mother’s parents and family friends.† Most were taken by Dad, who was a keen photographer. A few shots are absolutely brilliant: the photograph of Mother in their honeymoon hotel on page ??, taken with what was undoubtedly a very crude camera, is as good as any

*A markup language is one in which there is the text and commands which tell how the text is to appear. Perhaps the most famous example of a markup language is HTML, the language used to lay out Web pages.

†The photos of Dad and Mother’s wedding, for example, were shot by a scouting friend of Mother’s.
I have ever seen. And some of the photos Dad took in the desert during the nuclear tests have wonderfully vivid colors despite being over fifty-years old. (One wonders if the digital photographs taken today will even be able to be viewed half a century hence.) A large number of faded negatives were found; 150 large-format negatives were graciously scanned in by the staff at the Digital Media Lab at the University of Virginia, including a large collection from Dad’s childhood years. A number of 35-mm negatives — taken during Dad’s college, war, and post-war years — were developed by a lab in Richmond, Virginia. Although prints existed for many of these negatives, there were unexpected surprises, such as a series of photographs from Dad’s days at Dole and Lorient, France. There are gaps in this photographic record. There are no photographs of any of the houses that Dad lived in when he was young. Very few photographs exist dating to Dad’s service in Europe during the war years, particularly his time at Blythe and in England with the Eighth Air Force. And almost no photographs exist from the time he spent in Florida after returning to the States.

Documentation is sparse. During World War II he sent a few photos back to his parents, a few with brief annotations on the back, but most of the photographs in this collection have no words to help place them. So identifying the photographs has been difficult, and after much effort I’ve only partially succeeded. However, I have been rewarded with the pleasure of corresponding with some of Mom and Dad’s friends and relatives. The identification of the Beacham family members in the photo at the end of chapter 2 was done by one of Dad’s favorite cousins, Peggy Briscoe Jensen, and the Beacham clan — scattered throughout the Westminster, Maryland area — were kind enough to invite my family to one of their family reunions where they also helped identifying photographs. Paul and Carrie Scoglio gave us a fascinating tour of Avalon, the ancestral home of Dad’s grandmother, which they are painstakingly restoring. Dad’s college friend Don Hodgman identified the fraternity members in the photos taken at the University of Rochester. Mother’s childhood friend, Renée Perrin, was able to identify people and places in some photos from Mom’s early years in Luxembourg. And I was much thrilled to talk with members of the 423rd Infantry of the 106th Division in an attempt to find someone who could shed light on the photographs Dad took at Lorient.

I do not know what type of camera Dad used in his youth and during the war years. In late 1949 Dad bought a Kodak Retina and started taking color slides, which he continued to do until the end of his life. Unlike his earlier photographs, the slides are well cataloged and documented — many by Mother in French! But there are gaps in this collection as well: few photographs exist from his time spent testing nuclear weapons, and none from Eniwetok.

The photographs and slides were digitized by me. Prints, postcards, and other such items were scanned in at 300 dpi; color slides at 3200 dpi, and the large-format negatives at 4800 dpi! Many of the images had to be edited and restored using image-editing software. The large-format negatives in particular, many over eighty-years old, were so faded that after scanning their images were almost completely unrecognizable.
Foreword

Only a few of the illustrations come from sources outside of this collection, and have been identified as such. These include the photographs of the troop transports USS Wakefield and Grant and several photographs from the Ivy Mike thermonuclear test (one of which was probably taken by Dad), which were downloaded from the World Wide Web. The University of Virginia Library provided the copy of Life magazine from which two pages have been reproduced in chapter 22, the Infantry Journal article reproduced in appendix ??, and the Army Times photo of Dad dancing. I have also made six maps, which have been added to the front matter, identifying places from Dad’s travels in the United States, Far East, Europe, and the Pacific, as well as a map of Luxembourg.

In editing these memoirs I have taken the liberty, as I’m sure Mom and Dad would have wished, to make occasional factual corrections, (correcting a date, for example), to correct spelling errors, to make the spelling and punctuation more uniform, and to make some simple grammar corrections. In this I have consulted the Chicago Manual of Style. Very few such changes were made in Dad’s memoirs; rather more were needed for Mother’s, although I have kept the editing to a minimum. On rare occasions I have removed duplicated sentences. Excerpts from Dad’s diary entries have not been touched, or checked. Chapter and section titles were sometimes awkward — clearly some were working titles only — hence a few have been changed. The two chapters on the Antarctic trip, for example, which were undoubtedly separated due to file-size considerations, have been reunited as one. Mother did no separate her manuscript into chapters, and I have left it that way, although I have added page headings. Multiple copies of many of the chapters were found on Dad’s computer, not all identical. Unfortunately the file date was not always a reliable indicator of the latest version; other clues were used to determine which was the most recent. Occasionally I have added explanatory footnotes to further illuminate the material and to correct factual errors in the text. These are all minor changes, what you read all comes from Dad and from Mom.

Putting together this memorial to my parent’s lives has been a labor of love. Mom and Dad blessed us a wonderful, magical childhood, but that family of six they labored so hard to create and nurture, like all families, was ethereal and is gone now, alive only in their aging children’s memories, and in these words. Unfortunately, Mom and Dad were unable to complete their memoirs; had they, Dad would have undoubtedly dedicated his to his wife, Marie-Anne, and Mother, to her husband, Franklin. I dedicate these combined memoirs to them both. 

E. Craig Dukes
Charlottesville
25 November 2006
Preface

Why would someone who has lived a life without distinction set himself the task of writing his life story? I suppose there is some of the same motivation that causes an otherwise rational person to write his own obituary — there is a certain sense of curiosity as to how it will read. But the most powerful motivation, it seems to me, is the sense that I should have learned more, while they were here, about my own parents and their families. Learned and put the information down to satisfy the curiosity of future Dukes. So, in answer to the question I posed in the opening sentence, I propose to write my life story as best I can remember it so that my immediate descendants will have some idea of how their father, grandfather, etc. was born, raised, educated, married, and lived in the twentieth century. This will be what has been referred to elsewhere as a “petty memoir”, a description of its importance, not its size. I will write just about everything I can remember that interests me.
Maps
Map 1: Franklin’s travels in the United States.
Map 2: Franklin’s travels in East Asia. Present political boundaries are shown.
Map 4: Franklin’s travels in wartime Europe. Present political boundaries are shown.
Map 5: Franklin’s travels in the Pacific. Present political boundaries are shown.
Map 6: Map of Luxembourg.
CHAPTER 1

Antecedents

I was born, like most of my generation, at home, and delivered by a general practitioner, Doctor Baird, who cared for my family in Westminster for many, many years. I presume he was young Doc Baird when he delivered me but I never heard him referred to as other than “Old Doc Baird.” In my case, home was a farmhouse two or three miles outside of Westminster, Maryland, where my mother’s parents had raised corn, apples, wheat, and chickens and where my mother had also been born. The farmhouse (which still stands) was situated on the upper portion of a meadow sloping down toward the Western Maryland Railroad which cut through the farm on its way from Baltimore through Westminster to Emmitsburg in Pennsylvania.*

My grandparents on both sides were farmers; tenant farmers on my father’s, and on my mothers, landowners. My father, Ernest Franklin Dukes, was born on October 25th, 1889 in his father’s farmhouse on the Eastern Shore of Maryland.† The farm was located near Ruthsburg, where the post office was, and some six miles from Centreville, the county seat of Queen Annes County. He was one of seven children; Walter, who died very young, Florence, who died at the age of 20, and William, Effie, Virginia, and Claire, who lived full lives. Claire, who married a textile plant manager and who lived most of her life in New Bedford, Massachusetts, was the only aunt whom I knew. Virginia spent much of her life as a missionary in India. The others I may have met once or twice. According to my father all of the children had typhoid fever at one time or another, a fact that is hard to believe today. My grandfather was Thomas Dukes and my grandmother, Mary Ann Lang. So far as I know I never saw either of them. While my father never spoke of his father (nor his mother either for that matter), my mother once told me that his father had been a hard man and

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*The house, Avondale farm, no longer exists as is explained below. (ECD)
†Ernest Franklin Dukes was known to friends and wife as Ernest, his son, the writer of this story, Ernest Franklin Dukes, Jr., was always called Franklin. Franklin’s son, Ernest Franlin Dukes, III, is known as Bub to close family, and Frank to friends. (ECD)
that my father had resolved not to raise his children as he had been raised, a resolve
that he kept, for he was a most tolerant father.

Most of my father’s formal education took place in a one room school to which
he walked several miles each day. In the winter he would arrive at the schoolhouse
early in order to build the fire that provided warmth for his teacher and classmates.
He took considerable pride in the fact that he never missed a day of school in his life.
Like all farm boys and girls of that time he had to help with the hard work of the
farm. In fact the present school year in the United States with its extended summer
vacation was set long ago so that the children would be able to help with the farms
during the busiest farming seasons. He had no romantic memories of work on the
farm; it was hard work and he remembered it so.

In all likelihood he would have left school, like all of his schoolmates, after eighth
grade but for an accident. Somewhere he had picked up a copy of a popular book
of the time called, *Frank Merriwell at Yale*, a story about a poor young boy like
himself who attended Yale University. Reading that book opened new horizons to
him. For the first time it occurred to him that, like Frank Merriwell, he might go
to college. So, several years after leaving the eighth grade he was admitted to prep
school at Western Maryland College, a Methodist school in Westminster, Maryland,
so that he could prepare himself for entrance into the college despite his lack of a
high school education.* He was successful, matriculated at Western Maryland in
1910, and began the four year course of instruction that he hoped would lead him
to the ministry. Sometime during the first year or two he realized that he had no
calling for that life and he graduated in 1914 with a simple Bachelor of Arts degree,
with majors in Economics and History, quite an achievement in those days for a poor
young farm boy from the Eastern Shore.

My father must have enjoyed college though he never said a great deal about it.
For that matter, he seldom discussed his youth with any of us beyond pointing out the
obvious, that the Eastern Shore of Maryland was as close as one could get to heaven
here on earth. When we asked why he had been in such a hurry to leave it he had no
very good answer, though I always suspected it was to get as far away from the farm
as he could. He was an excellent athlete in those days when athletes went to college
to get an education, not to play games, though that was already beginning to change.
Although he weighed only about 150 pounds and stood around 5 feet 10 inches, he
starred on the football team, ran on the track team, and even played basketball which
was not then an intercollegiate sport at Western Maryland. As his photographs show,
he was a darkly handsome, well built young man and he made a very good impression
on the Beacham girls; Alice, Margaret, Eurath, Kate and Louise, who lived on a farm
outside of Westminster. One of these, Alice, also attended Western Maryland until
she found that maintaining her social life and mastering the intricacies of Latin were

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*Western Maryland College dissolved its ties to the United Methodist Church in 1974. It was
renamed McDaniel College in 2002 as it was thought that the previous name was misleading and
suggested a state university located somewhere in western Maryland. (ECD)
Antecedents

incompatible. On Sundays, after church, he would often walk out to Avondale, their farm, and join the other young men and girls in whatever passed for recreation in those days. According to my mother, there was always a crowd at Avondale, the girls acting as magnets for the young men at the College and from the Town. My grandfather made ice cream which was sold in town and consumed, I am sure, in large quantities on spring and summer days on the farm.

My mother was born Alice Ensor Beacham, on the family farm a few miles south of Westminster in Carroll County, Maryland on March 1st, 1893. Avondale was a typical Maryland farm of several hundred rolling acres with a large frame house, a barn just a few feet away, and a creamery equally close. The Western Maryland Railroad ran through the pasture some hundred yards or so in front of the house and furnished the principal means of transportation. I have a Western Maryland Time Table in front of me as I write, dated June 13th, 1886, and showing the trains from Baltimore to Shippensburg, Pennsylvania, by way of Mount Hope, Pikesville, Owings Mills, Carrollton, Westminster, New Windsor, Emmittsburg, and other small places in between. Avondale is actually shown as one of the many scheduled stops along the way! I also have in front of me a page torn from a notebook inscribed thusly:

====OFFICE OF====
James W. Beacham
ICE CREAM MANUFACTURER
Avondale, Md., ............................188_

James Beacham was my mother’s father and he obviously supplemented his farming income with the manufacture and sale of ice cream in the 1880s even before my mother was born.¹

My grandmother, Nellie Slingluff Beacham, was born on June 24th, 1866 and was married to James Beacham on November 16th, 1887. She died at her home in Avondale on March 15th, 1928, less than a year after the death of her husband, my grandfather. My mother and her sisters always said that they both died of overwork, caring for the farm, their family and their daughters’ many friends. My mother had four sisters, Margaret, Katherine, Eurath and Louise, and two brothers, James and “Sling,” undoubtedly short for Slingluff. Margaret, whom we always knew as Aunt

¹The Carroll County, Maryland Directory of 1878, a copy of which can be found on the Web, gives an economic description of the towns and villages in Carroll County. The town of Avondale is listed with a brief description (“Climate mild, place healthy and crops good.”). James W. Beacham is the Postmaster as well as a manufacturer of ice cream. (ECD)
Pog, died in a nursing home at the age of 99 (?) and Sling lived in a nursing home in Westminster until he died in the late 1990s.

I have always had the impression that the girls were somewhat spoiled and did very little work around the farm. Certainly none of them married a farmer and, after the deaths of my grandparents, Sling borrowed enough money to buy out his siblings’ interests in the farm and, with his wife, Ora, lived there and farmed it for most of his life. After he could no longer carry on, his son, my cousin Phil, continued. So far as I know all the girls graduated from high school but only my mother continued on to college. However, as mentioned above, she found my father much more fascinating than Latin and soon dropped out of Western Maryland.

In any event, my father graduated in June of 1914 at the relatively advanced age of 25 and went to work in the city of Baltimore for the Gas & Electric Company. From 1915 to 1917 he also attended Law School at night at the University of Maryland.\(^1\) In 1917 the United States entered the World War, the “war to end wars” which did not need the modifier “First” before it at that time. He, like so many young men, was swept into it and, being a college graduate, a considerable distinction in those days, was sent to Officers Training Camp in May of 1917, graduating as a 2nd lieutenant, or so-called “90 day wonder” or “Shavetail” in the Quartermaster Corps. The latter term, which was not considered a compliment, came from the practice at that time of cutting off the tail of the newly graduated lieutenants’ wool shirts to make officers’ epaulets for the shirts. This was such a sensible practice that it was revived in World War II, and my own first officer uniforms sported epaulets from my shortened shirt tails. Fortunately, the term “Shavetail” was not revived during the Second World War.

On November 17, 1917, after my father received his commission, my mother and father were married in the Grace Covenant Church at Richmond, VA (my father was stationed at nearby Camp Lee) and went to Jacksonville, Florida on their honeymoon, by far the greatest distance either had ever been from home.\(^2\) A short time later my father was shipped overseas to a remount depot near Bordeaux, France and thence to Bar-le-Duc near Verdun. A remount was a cavalry term for a military horse (actually for horses destined as replacements for or additions to the horses in a cavalry and other unit). This remount depot received and processed horses shipped from the United States to the war in Europe. It should be remembered that, while cavalry was little used on the European continent in World War I, nearly all artillery was horse drawn, wagons carried most of the supplies, and no staff officer above division level was without a mount.

\(^*\)Aunt Pog, who had the kindest disposition, was a great favorite of the family. Philip “Sling” Beacham Sr. died at the age of 100 in Westminster on August 19, 1996. (ECD)

\(^1\)Franklin’s father, after his final retirement from the Army in 1948, moved to Westminster, MD, where he sat as a justice of the peace and trial magistrate for a number of years. When we were visiting Franklin’s parents in Westminster, his father would take us into town for ice cream, and he would be addressed as “judge” by people in town. (ECD)

\(^2\)Grace Covenant Church still stands at 1627 Monument Ave., in Richmond. (ECD)
Antecedents

The war ended before anything exciting happened to my father and I never heard any stories from him concerning his experiences overseas. He did learn one song while in France which he sang in the shower for the rest of his life. It went like this:

A la wester, Jonesy a la wester. A la wester, Jonesy a la voo!

It was many years after I first heard this song, “Alouette,” elsewhere that I associated it with my father’s long time favorite. During his lifetime I heard him sing perhaps three or four songs, but he sang these over and over, normally repeating the first two lines which were all he could remember. He had no ear for music.

In September, 1919, my father was mustered out of the army and went back to work for the Baltimore Gas and Electric Company. But one of the popular songs of the time, which was also one of these few songs he used to sing, described his situation. It went,

How’re you going to keep them down on the farm, after they’ve seen Paree?

So he applied for a commission in the Regular Army which was being expanded, modestly, from the prewar establishment. Whilst he waited, I was brought into the world. Finally, my father received a special delivery letter from the War Department, dated September 10, 1920, and stating that “You are appointed First Lieutenant, Cavalry, Regular Army, with rank from July 1, 1920.” That was the good news. It then went on, “Pay commences with date of acceptance (not date of rank).” That was the bad news. He hastily accepted the appointment, resigned from the Gas and Electric Company, received orders to report to Fort Riley, Kansas, bundled his wife and his six month old son on the train, and proceeded there to attend the Basic Course of the Cavalry School which was to make a cavalry officer out of him.

On April 8, 1921, the following year, he received another letter from the War Department, addressed to the Commandant, Cavalry School, Fort Riley, Kansas, promoting him “to the grade of Captain, Cavalry with rank from July 1, 1920,” the date of his original commission nearly a year earlier. The order’s silence on the date that pay of that grade would commence strongly suggests that the retroactive promotion did not include retroactive pay! A month later War Department Special Orders No. 121-0 dated May 26, 1921, relieved some 33 officers (all Captains) from duty as students of the Basic Course and assigned them to various cavalry regiments. These included the 1st Cavalry at Douglas, Arizona; the 2nd Cavalry at Fort Riley; the 4th Cavalry at Fort Brown, Texas; the 5th Cavalry at Marfa, Texas; the 6th Cavalry at Fort Oglethorpe, Georgia; the 7th and 8th Cavalry at Fort Bliss, Texas; the 10th Cavalry at Fort Huachuca, Arizona; the 12th Cavalry at Del Rio, Texas; the 13th Cavalry at Fort Clark, Texas; the 15th Cavalry at Fort D.A. Russell, Wyoming; and the 16th Cavalry at Fort Sam Houston, Texas. These posts were not the garden spots of America. My father was assigned to the 4th Cavalry at Fort Brown. This shortly became the 12th Cavalry and he was to serve there as Troop Commander for the next six years.
CHAPTER 2

Fort Brown Days

Fort Brown was situated at the southernmost tip of the state of Texas, just across the Rio Grande from Matamoros, Mexico. It must date from shortly after the war with Mexico. D.S. Freeman in his biography of Robert E. Lee states that then Lieutenant Colonel Lee was in Fort Brown several times during 1856 as a member of courts martial. He states that,

On October 30, 1856, the court adjourned to Fort Brown, on the site of the present Brownsville, near the mouth of the Rio Grande. Thither Lee went — by boat for part of the way — and there he landed on November 4. His duties were not heavy. He had opportunity of visiting Matamoras, on the Mexican side of the river, and almost daily he walked along the banks of the Rio Grande.

At that time its primary function was surveillance and control of local Indian tribes. Just prior to and after the 1st World War it was one of a number of small posts garrisoned to keep an eye on the Mexicans who, in 1917 had sent raiding parties across the river into Texas. These 1917 raiders were chased back across the Rio Grande and followed some distance into Mexico by US troops under General Pershing. The legalities were given short shrift in those days when the Mexican government’s control over its border states was somewhat tenuous.

My father was a captain when he went to Fort Brown and, indeed, he remained a captain for all of my childhood and youth. The US Army had just been through “The war to end all wars,” a phrase that the nation took literally, and was entering a long period of benign neglect. It had been reduced to a total of around 100,000 officers and men, making it something like the twenty-third largest army in the world. It was scattered around the country in a number of small posts, built originally to protect the expanding frontiers of the country, but kept in existence mainly for political rather than military reasons. Its officers were a mix of West Pointers and officers like my
father who had been offered a regular commission a year or so after the end of the war. The enlisted men included the old timer non-commissioned officers (NCOs) and the young privates from the farm and the city, enlisted for a six year “hitch.” Most of the top NCOs were married and lived in quarters on the post, but marriage was frowned on for lesser soldiers and the government made no provision for wives of private soldiers. A common saying was that “if the army wanted you to have a wife it would have issued you one.”

This was a time of prosperity for the country and the enlisted soldier was looked down upon as someone who couldn’t make a living in civil life. He was generally uneducated and often fond of spirits. It was not until the Great Depression that the army was able to be somewhat selective and ask for and expect to get soldiers with high school educations. While officers ranked much higher on the social scale, the average American didn’t know the difference between an officer and an enlisted man, and an officer in uniform in a large city was likely to be mistaken for the doorman of the hotel.

**Life at Fort Brown**

Some year and a half after my birth, on Sept 21, 1921 to be exact, my mother delivered my brother, James Beacham Dukes. He was born in the army hospital at Fort Sam Houston in San Antonio, Texas, and was thus a Texan, a matter of some pride to him throughout much of his life. In those days, and in our circumstances, two children were considered standard. Only Roman Catholics had more, and people looked a little askance at larger families. In fact, I cannot recall any of my friends who had more than a single brother or sister. Strangely enough, larger families once again became fashionable after World War II.

For the next six years of my life we lived “on the border” as it was then called. The army had a name for everything and your home was called your “quarters.” Ours were a two story frame house, furnished by the government in a style called “Quartermaster” after that branch of the army from which you drew your furniture. Each married officer had his own set of quarters — single officers had to live in the BOQ (bachelor officers’ quarters), and enlisted men in barracks. The barracks were always built around the parade ground which doubled as the polo field and the athletic area.

We all thought we had a good life there. My brother and I had a Mexican woman who kept an eye on us during the day — then as now the Mexicans did a lot of the hard work in Texas for very little money. My father had a “striker,” an enlisted man who, in order to supplement his $21.00 per month pay, would work evenings at our quarters, polishing my father’s boots and doing other odd jobs including baby sitting for my brother and myself. My father learned to play polo and became quite proficient at it. In the cavalry in those days skill with the polo mallet was as important to an officer’s career as skill with the saber or pistol. The regimental polo team would travel
to San Antonio and even to Denver to take part in tournaments against other military and civilian teams. Polo was a sport of the upper classes in our classless society and my father and other penniless officers were wined and dined sumptuously at these tournaments. Silver plate or silver cups, suitably engraved were given as prizes and we still have some of that silverware.

As for myself, I liked being around soldiers even at that early age. I recall the regimental band used to give concerts in front of the officers’ quarters on summer evenings and we loved to listen to the music and to run around at dusk, chasing fireflies and one another. This was before radio and the phonograph had made music readily available to everyone and the only music I heard was by the band. I acquired a taste then for band music that I have never lost. For years I thought this taste was rather lowbrow, particularly when I read a comment during the Vietnam war that “military music is to real music as military justice is to real justice.” I don’t think this was meant as a compliment to either military music or military justice. However, I felt somewhat better a few years later when I read an article in the “New York Times” by a European music critic, stating that, in his opinion, the only important American composer was John Philip Sousa.

My formal education started at Fort Brown, somewhat inauspiciously, perhaps. I spent three years there in kindergarten. The kindergarten was on the post and the only school. We were picked up and taken to school by a horse-drawn ambulance that served as a school bus. I can’t remember much about that kindergarten but it must have been a good one. I know that I was reading a book, King Arthur and his Knights while I was still at Fort Brown. In fact, I enjoyed reading so much that I began reading at the dinner table, a practice which continued for years and brought me into daily conflict with my mother. I always felt and continue to feel that the time wasted in eating could be most gainfully employed in reading. I never convinced my mother, however.

My younger brother and I were close enough in age that we could play together, more or less as equals, throughout our childhood. I am not sure, however, that he ever accepted me as his equal. We have always had different personalities and different outlooks on life, and there was some friction over the years, but, on the whole, we had common interests and got along together reasonably well. One of the classic family stories relates the time we were taken to town to buy new shoes. When we returned home my mother asked my brother if his new shoes hurt.

“Yes,” was his reply.
“Where does it hurt you?” asked our mother.
“Oh, it doesn’t hurt me” replied my brother, “it hurts Franklin when I kick him.”

That story certainly summarizes one side of our relationship.

Another story concerns one of my first memories. We were upstairs taking our afternoon nap, a practice that we both hated. We found it difficult to go to sleep in the
This is How it Was

afternoon, though when mother tip-toed upstairs to check on us we always feigned sleep — we knew we could not get up until we had had our nap. This afternoon our mother was out of the house and we found sleep impossible. So, at someone’s suggestion, we crawled out of the window and onto the roof of the porch where we amused ourselves briefly. Tiring of this we attempted to climb back through the window and found it too high. After debating our alternatives, we decided that we would jump to the ground. I suggested that he jump first and I would follow. So, off the roof he launched himself and landed on his stomach on the ground below where he remained motionless. As quick as a wink I was back through the window and ran down the stairs to where my poor brother was lying on the ground with the breath knocked out but uninjured. Very shortly my mother came running — a neighbor had mentioned to her that her two boys were playing around on the roof of the house. As always she expected the worst and this time, she was not disappointed. This story typified both of us — my brother, fearless, and myself, cautious.

While we were at Fort Brown my father purchased his first automobile, a Buick. Buying a car then was not as simple as it is today and not everyone owned one. To save shipping costs, my father took the train to Detroit, picked up his car there, and drove it back to Brownsville. We still have a copy of the Brownsville newspaper with a large picture on the front page, showing him standing beside his shiny new Buick, one foot on the running board. This car was one of the first models with four wheel brakes and there was some concern throughout the country that drivers would lose control of the car when the front brakes took hold. Shortly afterwards my mother parked the car next to the railroad track outside of the Post Commissary where it was struck by a switching engine. Damages to the car and to the marriage were appreciable but repairable.

A haunting memory of those early days is lying in bed, late at night, unable to sleep, and wondering, vaguely, what was out there in the darkness. And then I would hear the faint “clip, clop, clip, clop, clippity clop” of a horse’s hooves as the mounted sentry walked his post in the prescribed “military manner,” and as the sound became louder and louder and then slowly receded I would feel a wonderful sense of security and soon fall back into an untroubled slumber.

Among the few memories that remain are the time I walked, fully clothed, into a swimming pool and had to be rescued by my father, who jumped, fully clothed, into the pool to save me (the shallow end, I presume. So far as I know he could never swim a stroke.) Then there were the times that he was Officer of the Guard, and took me with him as he inspected the Guard in breeches and boots, with sword strapped to his side. And the time that the regiment marched for several days to Fort Ringgold and back.* My mother drove me to their last night’s encampment on their return. There I spent the night in my father’s tent, and then rode home the next day with the troops, sitting proudly on the front seat of an escort wagon beside the driver and behind the team of four horses. The Cavalry still used what they termed

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*Ft. Ringgold is 100 miles up the Rio Grande river in Rio Grande City, Texas. (ECD)
“escort wagons” for carrying equipment and provisions. These were a sort of generic “prairie schooner” with canvas tops and four horses pulling.

In 1927 the War Department transferred my father to Fort Riley to attend the Advanced Course of the Cavalry School. In those days as now, an officer was granted 30 days leave a year and could accumulate up to 120 days (reduced to 60 days after World War II). This was very generous as civilian employment at that time grudgingly offered from ten days to two weeks at a maximum. The generosity was tempered somewhat by charging weekends and holidays during a period of leave as leave days. Nevertheless, an officer could take as much as four consecutive months of leave if he was willing, first, to go four years without. So, that summer we drove to Westminster and spent part of the summer at mother’s home, Avondale. While my memories of that summer are fuzzy I do remember getting to know my many cousins, uncles and aunts on my mother’s side and, most of all, the delights of living on a working farm. I recall the pleasures of eating apples off the trees, jumping in the hay in the barn, eating wonderful big meals, falling asleep in the light of a kerosene lamp (there was no electricity then) to the mournful, distant sound of the train’s whistle as it warned of its coming, and then the sound of the engine as it passed along the track in front of the house. I recall the excitement of riding to Medford in my grandfather’s buggy behind Dan (a horse so old my mother remembered riding him as a child) to take the milk to the railroad station and to pick up feed and fertilizer. My grandfather never owned or needed an automobile. The buggy sufficed for short trips and the train for longer. I recall the excitement of threshing time when the big self-propelled steam engine came up the road and then huffed and puffed all day long swallowing the sheaves of wheat or barley and then, miraculously, spewing forth grain from one duct and hay from the other. Then there were the many delicious odors; the fresh smell of the creamery, the dusty fragrance of the barn, the pleasant odor of horses and horse manure with which I was already so familiar, and the mouth watering odors of the kitchen where the women worked most of the day preparing meals for the family and the help. All in all, life on a farm seemed very pleasant for a seven year old.
CHAPTER 3

Fort Riley, The Cavalry School

Introduction

In 1927 my father was transferred to Fort Riley, Kansas, for the purpose of attending the Advanced Course of the Cavalry School. This was a year long course designed to prepare cavalry officers for what might lie ahead in their careers. The syllabus included Command, Staff and Logistics, Tactics, Animal Management, Horsemanship, Horseshoeing, Map Reading, Aerial Photography, Military History, etc. Also mentioned in the syllabus was Musketry, a quaint military term even in those days. In practice, however, the principal emphasis throughout the course was on horsemanship, for a good seat in the saddle was the mark of a real cavalryman as it had been for centuries.

Fort Riley was a large post, including as it did three regiments of cavalry, the 2nd, 9th and 13th, plus some artillery and assorted supporting troops. It was located on the bank of the Kaw river and just outside of the town of Junction City, called "Junktown" by the military kids. It was considered the home of the cavalry then and later, and just about every cavalryman had pulled at least one tour of duty there. It was a permanent post and many of the buildings were made of a very attractive stone that was quarried locally.

So we made the first of our military transfers, from Fort Brown to Fort Riley. The student quarters we were assigned at Fort Riley must have disappointed my mother. We lived there in a former hospital, hurriedly built during the war, and renamed, Godfrey Court. This consisted of a number of two story, wooden barracks (or wards) connected one to another by wooden hallways. Each of the barracks had been converted into several apartments. As homes these were somewhat spartan, though the hallways were ideal for pushing baby carriages and roller skating during inclement weather. We had central steam heat which kept us warm during the cold Kansas winters, but which had a bad habit of clanking and hissing during the night as it cycled on and off, and which made the air so hot and so dry that one could
hardly breathe it. One of the great advances of technology has been the elimination of steam heat.

**The Cavalry School**

While my father was furthering his education, mine and my brother’s posed a problem. I was seven years old, my brother six, and both of us were still in kindergarten when we left Fort Brown. The post school at Fort Riley covered grades one through five and was run by Roselyn McKinney, a spinster, and her attractive younger sister. My contemporaries there were all starting the third grade. Mrs. McKinney was approached, apprised of the situation, and solved it by putting me in the third grade and my brother in the second. Neither of us had the slightest problem, then or thereafter. I have my grade card in front of me and see that I started out with Cs and Bs the first grading period in Spelling, Reading, Writing, Language and Grammar, Geography, Arithmetic, Music and Drawing. These were As and Bs by the end of the year. I have sometimes wondered, since that time, whether first and second grades couldn’t be omitted for all children with great savings of time and money, and wear and tear on the brain and the seat of the child’s trousers.

Part of the curriculum of the Cavalry School was a brief course in aerial observation which consisted of several flights as an observer. There was a small airfield adjacent to the post and the student observer flights were made in a very large, single engined biplane fabricated from countless spars and struts over which olive drab fabric had been stretched and sewn as was customary in those days. As I recall it, the pilot sat out in the open and the five or six observers rode in the flimsy cabin behind him. This seemed to me an enormous airplane to be pulled aloft with only one engine. One of the pilots was Maj. H.H. (Hap) Arnold, who eventually led the Army Air Corps throughout World War II. My father used to tell about one of the flights he made when, after touching down in landing, the airplane veered and headed straight for the hangar. As the plane rumbled inexorably toward the hangar, one of the passengers, an old Air Corps enlisted man (probably the crew chief), grabbed his head and shouted, “Here’s where everything goes to Hell!” However, the pilot managed to ground loop the aircraft and brought it to a halt just short of the threatened hangar.

On June 9th, 1928, my father’s class graduated and he was assigned to the 13th Cavalry on the post.* That summer my grandmother, Nellie Slingluff Beacham, died at the age of 62, and my grandfather followed her within a year. The farm was sold to their son “Sling” at the beginning of the Depression and my mother received a small inheritance with which she purchased, eventually, the monogrammed set of sterling silver that she passed on to my wife, Marie-Anne some years after our marriage. The

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*The 13th Cavalry has a long and distinguished history. In 1940 it was re-designated the 13th Armored Regiment and became part of the 1st Armored Division. During the Second World War it fought in North Africa and Italy. (ECD)
last time I had seen my grandmother she was about 60, some 10 years younger than I am now, and she and my grandfather both seemed incredibly old! Two generations ago people were used up by 62. Today, life begins at that age! My brother and I hardly knew them so their deaths affected us not at all.

With my father’s assignment came permanent quarters on Forsyth Avenue. These were a spacious (or so it seemed to me) half of a duplex, of stone construction, and located on the street that fronted the parade ground and some hundred yards from the flagpole. Those quarters were well built. My wife and I stopped by Fort Riley in the 1980s, some 60 years later, and my old home looked as good as new and was still being used as officers’ quarters — the only difference being that they were occupied by a colonel instead of a captain.

It was a wonderful place to live. Across the parade ground to our left was the post headquarters — today the Cavalry Museum. To its right were the 13th Cavalry barracks, and further to the right, the 9th Cavalry barracks. Beyond the barracks were the riding halls which were used for instruction in horsemanship and for horse shows during the winter. Beyond these were the stables, around which much of the regimental activity revolved. Across the parade ground were the Post Exchange and the Post Theater. All were within easy walking distance of our quarters. All regimental activities were regulated by the bugler whose post was in front of the 13th Cavalry barracks and whose brassy melodies were always audible to us. The military bugle was a trumpet without valves and could, thus, only play some half dozen notes. The music for the bugle had to be written with this restriction in mind and the variety and tunefulness of the many bugle calls was surprising. The day started at 6:00 AM with “reveille” (pronounced “revelly”). Like most of the bugle calls this had traditional lyrics which went;

I can’t get ’em up, I can’t get ’em up,
I can’t get ’em up in the morning.
I can’t get ’em up, I can’t get ’em up,
I can’t get ’em up at all.
The corporal’s worse than the privates,
The sergeant’s worse than the corporal,
The captain’s worse than the sergeant,
And the colonel’s worst of all.
I can’t get ’em up, I can’t get ’em up,
I can’t get ’em up in the morning,
I can’t get ’em up, I can’t get ’em up,
I can’t get ’em up at all!

All this to a most lively tune. This was followed immediately with the quick, brief notes of “Assembly” whose lyrics were known to all of us army brats as,

There’s a soldier in the grass with a bullet up his ass,
Pull it out, pull it out, pull it out, Uncle Sam!
Then, a half hour later came “Mess Call” which went,

Soupy, soupy, soupy, without a single bean.
Porky, porky, porky, without a streak of lean.
Coffee, coffee, coffee, the weakest ever seen!

These and other calls were repeated as necessary during the day, all culminating in the so-called “Retreat ceremony” (strange name for it!) at five in the afternoon. Generally the bugler would play “To the Colours” followed by “Retreat,” two long and rather complicated tunes which had no rhyming lyrics to associate with them. Sometimes the 13th Cavalry band would fall out with the bugler and would play the “Star Spangled Banner” instead of “Retreat.” All activity on the post ceased during the playing of “Retreat” or the national anthem. When we kids heard the first notes of “To the Colours” we would stop whatever we were doing, turn around to face the flagpole, and prepare to stand silently at attention as the bugler or band played and the flag was lowered by the guard detail. Any automobile, driving down the street would stop, and the driver and passengers would sit silently. As soon as the last notes of the music died away all noise and activity resumed immediately. But with the retreat ceremony we all knew that dinner time was near, games would soon break up and the kids (as we called ourselves) would scatter home to their quarters. While we had no words for these bugle calls at retreat, we did have irreverent lyrics for the first few lines of the national anthem. These went,

Oh, say can you see, any bedbugs on me.
If you can, take them off.

And we never got beyond that. If we were within sight of the flagpole during this ceremony we watched the lowering of the flag with critical eyes; the flag should reach the hands of the guards just as the music ended, and we had nothing but contempt for a colour guard which had the flag in their hands before the music stopped and then had to stand there, foolishly, waiting for the music to end. Or worse, the colour guard who lowered the flag so slowly that it would still be halfway up the pole when the music ended, and have to be hauled quickly down in utter silence to the contemptuous stares of the children of the post.

The last bugle call of the day, of course, was Taps, that sad, haunting melody that signaled the end of the military day. But Taps was played at 11:00 o’clock and like all good children we were usually dead to the world at that time and seldom heard its mournful notes. For us children the day ended with Tattoo, the most complex and loveliest of bugle calls, which was sounded at nine and usually found us in bed but not yet asleep. This call was a challenge to a good bugler and I would nod off appreciatively when it was finished without false notes, which was not always the case. Until I was 15 years of age my life was, not regulated by, but accompanied by the bugle and I missed it when we finally moved away from cavalry posts. In later years the army tried to replace it with recorded and amplified bugle calls, but these
Fort Riley, The Cavalry School

were a poor substitute for the real thing. We children admired the bugler and, if we were fortunate enough to be on the parade ground when it was time for a bugle call we would watch him come out of the barracks with his bugle and saunter over to his post. He would then stand there fidgeting, and looking at his watch from time to time until the proper moment came. Then he would wet his lips, tighten them, lift his brass bugle and place it smartly against his taut lips, and the first piercing notes would sound. A poor bugler would sound the calls slowly. With a good bugler the notes would come tumbling one after another, briskly, in a cascade of sound and with never a false note.

Our activities would vary with the seasons. In the summer Kansas was very hot and the post swimming pool was a favorite spot. We were still too young to go there alone so we had to depend upon our parents to take us when they had the time and the inclination, which was not often. Summer picnics were exciting, when several families would drive to a shady spot along a stream on the reservation, and we would share our sandwiches with the ants. And each regiment had a fine baseball team and we would walk over to the baseball diamond to watch the well played games. Our favorite game was the annual game against the House of David team. This was some sort of a religious organization which seems to have disappeared but which was rather well known at that time. They fielded an excellent baseball team which traveled around the country playing local teams and which made an annual visit to Fort Riley. What made this game stand out in the eyes of us kids was the appearance of the House of David players — apparently their cult forbade the shaving of beards so all of their players with their full beards and long hair looked to us like patriarchs from the Old Testament. This was in the days of smooth-shaven faces and short cropped hair, particularly in the army. We also enjoyed watching the 9th Cavalry team. The 9th was a black regiment (with white officers, of course) and would play visiting black teams. They played with a flair that the white regimental teams could not match, making the simplest plays into a production that was half baseball and half ballet and all fun to watch. They always had a good team and we always cheered for them against their outside opponents.

Occasionally we would get enough children together to have a baseball game of our own. We had to play “work up” since there were never enough children near our age to field two teams. To play this, all but three children would go out in the field, and these three would come to bat. They would continue to bat and run the bases until one of them was put out, after which the errant batter would take his place in right field and everyone else would move up one position, the former catcher becoming then one of the three batters. Anyone putting the batter out by catching his fly ball would exchange places with the batter without the necessity of working his way through the lineup. Ideally 12 persons were required to play “work up” but, if we were truly desperate we could, and did, play with as few as 7 including, sometimes — ugh — a girl!

In the autumn football would catch our attention and we would play touch foot-
ball. We always had personnel problems there also so we might play with as few as two persons on each team. And, in the winter, sledding was our favorite occupation, though the Kansas winters did not favor that sport. They were cold enough, but there was not a great deal of snow. Nevertheless, every child owned a sled, and happy was he who owned a Flexible Flyer, the acknowledged king of the hill. I can’t remember enjoying anything more than coming home from school, grabbing our sleds, and going out sledding until it was too dark to see and our parents would come looking for us for dinner.

Then there were other playful occupations that were not seasonal but would appear, mysteriously, like a plague of grasshoppers, last for a week or two, and then disappear just as suddenly. Mumbleypeg was one. This was a game or games, played with a pocket knife (every boy had a pocket knife). The games had one feature in common which was throwing the open knife into the ground so that it stuck there. After that the rules varied and were too complicated to describe here. Another was tops. These were conical wooden spindles with a sharp nail protruding from the small end. A string was wrapped around the top and one end tied to the middle finger. The top was then thrown into the sidewalk with some force and, if this was done properly, it would remain there, spinning on the sharp point for some 15 or 20 seconds. But the real sport with tops was to play a nameless game wherein one player threw his top into a circle and, while it was spinning there, the other players tried to throw theirs so that they landed beside or on top of the first top and knocked it out of the circle. The ultimate achievement in this little game was to hit the spinning top with such force and such precision that the sharpened nail would split it. This was seldom accomplished but when it was, it was a disaster for the first player since his demolished top probably cost ten to fifteen cents.

Finally, once or twice a year there would be a marbles craze which would last a week or two and then disappear as quickly as it started. Marbles were little glass spheres of varied colors about 2 cm in diameter. There were a number of games that could be played with them but the most common was a game in which a circle about 2 meters in diameter would be drawn on the bare ground in the center of which each player would place several of his marbles. Each boy would take turn, then, shooting at these from the circumference with another marble, generally slightly larger and called a “shooter.” Any marble knocked outside the circle then belonged to the shooter, who would continue to shoot until he failed to knock a marble out, at which time the next player took over. When all the marbles were gone the game was over, and, if they were playing for keeps which was usually the case, each player kept the marbles he had removed. Some of the kids were amazingly proficient at this game and using their first finger to hold the shooter and their thumbs to propel it, could impart to their shooters an incredible velocity with remarkable accuracy.

While we were living there I encountered the first real tragedy of my life. One Christmas I received from Santa a 28 inch two wheel bicycle, brand new and in gleaming red and chrome. I mastered it very quickly and soon used it to go everywhere. All
the kids my age had bikes and they were our principal means of transportation. My father had a car but I almost never rode in it — there was no need to. Everything was within a mile of our house. When spring came I would leave the bike on our porch at night and one morning there was no bike — it had been stolen. I couldn’t believe it then and I still have trouble believing it. People just didn’t steal other people’s things but I guess a bicycle then was as attractive a target for a thief as it is today. To make a long story short, my parents bought me a second hand bicycle which I repainted and which gave me good service for years, but the magic was gone and I never owned another new bicycle.

Horseback riding was very important at Fort Riley. One would expect this to be the case amongst the officers since this was, after all, their profession. But in truth, all of life on the post revolved around horses. There were, literally, thousands of horses there and they had to be fed, watered, groomed, and cleaned up after. And, unlike armored vehicles which later replaced them, they had to be exercised regularly. The enlisted men did the housekeeping as part of their soldierly duties but they needed all the help they could get to keep the horses exercised. So anyone who wanted to ride was encouraged to do so. The troops went out in the field regularly on Fort Riley’s vast reservation, the officers played polo (on special mounts called “polo ponies”), the soldiers would take part in “gymkahnas” where they would show off their proficiency with difficult and daring stunts on horseback, there were riding classes for the officers’ wives, and even classes for us kids. And there were horse shows held regularly with events for officers, wives, and, sometimes, the kids. These were held outdoors in the summer and in the large riding halls in winter. We kids particularly enjoyed the winter shows since they were held at night and usually lasted until nearly midnight, giving us a rare opportunity to stay up late. My mother, who was a good horsewoman, would sometimes compete and it was great fun to sit at one end of the large riding hall, comfortably heated on a cold winter’s night, sip hot chocolate and eat doughnuts while watching your parents and the parents of your friends in a jumping competition. It was always a colorful affair and one of the regimental bands was usually present to entertain us with stirring marches or foot tingling waltzes between events.

As the children of cavalrymen we were expected to be “horsey” also and equitation classes were held each year for the post children. I was not a good athlete, then or later in life, but I felt duty bound to participate and so, with my brother, enrolled in the class one year. We learned to saddle up the horse, to mount properly from the left or “near” side of the horse, to adjust the stirrups, and to sit properly in the saddle with our legs slightly bent and heels down. We learned the differences among the “English saddle” (which we always used), the “Western saddle” and the “McClellan saddle,” the cavalry soldier’s saddle since it was invented by General McClellan before the Civil War. We learned the various gaits; the walk (my favorite), the slow trot (a bone jarring gait which I blame for my ruptured disk later in life), the trot (in which one “posts” or raises oneself with one’s legs in rhythm with the horse’s movements and thus avoids the punishment inflicted by the slow trot), and the canter, which is
This is How it Was

a slow gallop. After we had been exposed to all of this we participated one night in one of the horse shows in an event just for the children. Despite the instruction I knew myself to be a very mediocre horseman, utterly devoid of confidence, and was terrified of the prospect of competing in front of a large and presumably critical audience of parents and relatives. But someone must have had pity on me for, on the night of the horse show, I was given a horse whose name I have never forgotten, “Bledsoe.” Bledsoe was immediately recognizable because some inept trooper, while trying to qualify with the mounted pistol, had put a round through Bledsoe’s neck just below the mane, and the scar was Bledsoe’s most prominent feature. But I rapidly discovered that Bledsoe was a jewel. As we rode around the riding hall at the walk and then the trots, wheeling to the right and then to the left, and doing figure eights on the tanbark, Bledsoe responded to my slightest wish almost before I applied the appropriate command. A touch of my heel and he would change gaits; a slight pressure of the reins and he would wheel right or left. I was exhilarated. This was the way riding was meant to be and had never been before. Finally the order came to change to the canter and as I dug my heels into his belly with some authority, he began to canter. But instead of the rough bouncing gait I had grown accustomed to in the past, Bledsoe cantered with the smooth easy motion of a rocking horse. All I had to do was sit there, triumphantly, in perfect comfort while Bledsoe followed the other horses around the hall. At the finish, when I leaned over Bledsoe’s withers to receive my red ribbon denoting 2nd place in the competition I gave him a little pat on the withers. I knew why I had won the award and I was much more relieved and grateful than I was proud. Truth to tell I have always agreed with Peter Egan’s comment in Road and Track that “Horses embody everything I dislike in cars — poor throttle control, unreliable brakes, high center of gravity and erratic handling...”.

For us children the two big holidays of the year were Christmas and the Fourth of July. Christmas we celebrated as it is celebrated today with a tree, strings of electric lights (candles had disappeared as fire hazards or, more important perhaps, inconvenient), and presents on Christmas morning. We still believed firmly in Santa Claus and were determined to continue in that delightful belief. But the Fourth of July was celebrated then as it will never be again. A week or so before, our parents took us into town and let us select an assortment of fireworks. Our choices were not limited to the puerile assortment that one finds today. We would buy several cherry bombs that looked and exploded more like assassins’ weapons than children’s playthings. Then we would pick up a few four inch crackers that resembled sticks of dynamite in both appearance and action. These were followed by a dozen “torpedoes,” spherical devices about three cms in diameter that exploded with a very satisfying bang when hurled to the pavement. Next came the mainstay of the arsenal, packages of firecrackers about 5 cm long and some 8 mm in diameter. Each package would contain around 40 firecrackers and we would get four or five packages. Then we would pick up several packages of “ladyfingers,” tiny firecrackers about 15 mm long and 2 mm in diameter, and with their fuses entangled so that the entire package could be
set off if desired, by lighting one of the fuses. All of the firecrackers were made in China, which was considered the end of the world at that time, and we could count on the devious Orientals to have filled one in ten of the firecrackers with sand instead of powder in order to boost their profit. However, that was expected and, presumably, the prices were set accordingly. Finally, we would get several boxes of “sparklers” and several pieces of “punk” which would be used to light our hoard. Armed with this lethal arsenal we would go home and anxiously await the “Glorious Fourth.”

When that magic day arrived we had a ritual which was always followed. The Post Commander had decreed that there would be no fireworks before 6:00 AM and that they would be restricted to the parade ground in front of the Post Headquarters (and also in front of my father’s quarters). So, about fifteen minutes before six, the kids would begin to gather at the flagpole with their varied explosives, matches, and a heavy assortment of tin cans. As the time approached, each would select a potent piece for the opening salvo, punk was lighted, and all eyes turned to the clock on the tower of the headquarters building. As the clock struck its first note punk was applied to fuse, and by the fourth dong, there was a sharp explosion followed by a terrible din as everyone’s fireworks began to detonate. This was a moment of pure joy for us as we pictured our parents propelled from their beds in sleep-drugged confusion by the sounds of our fireworks. After this initial salvo, we set to work enjoying the sights and sounds of our treasure troves. We would set out a cherry bomb (powerful enough we believed with some justification to blow our hands off), light the fuse, quickly drop a tin can over it and dash for safety. In a matter of seconds, the bomb would explode and the can would be hurled 30 meters into the air with a splendid whistling-whooshing noise that defies description. Soon some of the bolder spirits would begin lighting a firecracker in their hands and hurling it at others. Then someone discovered that if you held the cracker tightly enough between thumb and forefinger, you could let it explode in your hand without harm. So it went until, all too soon, our stores of fireworks were exhausted, a half dozen of us were nursing burns, and we went back home for breakfast, tired and happy.

Looking back from these more enlightened times, I find it hard to believe that my parents let my brother and myself, at the age of ten, go out unsupervised with that lethal array of explosives and make every effort to blow ourselves up. The newspapers next day always featured articles on the mayhem that occurred on the 4th and these pleasures were legislated away before my own children had a chance to experience them. However, I wonder if the physical damage that resulted from the violence on the 4th was as harmful to children as the mental damage resulting from the daily violence they watch on television today.

In general, we led a very sheltered life at Fort Riley, associating with people just like ourselves both in and out of school. The first disturbance of this pleasant existence came when I went into the sixth grade. The Post School only went through fifth grade so I had to go to the Departmental School in Junction City when I reached the sixth. The fun part of this was getting to school. There was a trolley line that ran from
Fort Riley to Junction City, a distance of perhaps two miles, and I took the trolley to school. This was great as the trolley rocketed along its tracks at a thrilling 20 to 25 miles per hour making delightful singing and clackety-clack noises as it did. But school was something else. I was dumped in with a bunch of strangers with whom I had very little in common. I was a shy child anyway, the other children all knew one another from previous schools, so I stayed very much in the background during that year. I had one friend who helped me a great deal. He was a little black boy, the only black in our class, and he was a leader in the rough and tumble of the playground. He was the only black boy I had ever known — there were no black children at the Post School as I remember. Two things in the school curriculum stick in my mind. In Health they showed us a picture of the lungs of a cigarette smoker — black; and of a non-smoker — clear. That may have had some effect in making me a non-smoker for life. The other was History of Kansas. For the life of me I saw no reason why I should have to study the history of the state of Kansas when I had no intention of ever living there. Incidentally, cigarettes were sometimes referred to as “coffin nails” back in those days long before the US Surgeon General began his campaign against them.

My brother and I were reasonably healthy children but contracted most of the childhood diseases that were prevalent then. Diphtheria, typhoid and smallpox had yielded to vaccination but we still had chicken pox, mumps and measles to contend with. Measles were treated with particular severity — when we came down with them our bedroom was darkened and a red sign posted at the front door warning one and all that the house was quarantined and no strangers were to pass in and out. When I heard that we were quarantined I was quite let down to learn that my mother and father could enter and leave with no restrictions — I had pictured complete isolation from the outside world. The good news medically at that time was that the doctor would come to visit you when you were at all ill. The bad news was that, while this was most comforting, there was little or nothing he could do in those days to mitigate your illnesses or their symptoms.

For entertainment we had the movies. Each Saturday afternoon there would be a cowboy movie at the Post Theater which we would usually attend. On Sundays there would sometimes be vaudeville before the feature and this gave us the opportunity to see the only live entertainment available. Tom Mix was a favorite cowboy star and the movies were still silent at that time. The advent of “talkies” around 1928 was a mixed blessing since we were inflicted then with singing cowboys, a talent we felt was incompatible with the shooting and riding that we expected of our cowboy heroes. Second in popularity to cowboy movies were “war” movies about the World War, and we thrilled to the sight of the helmeted soldiers going “over the top” and shooting and being shot by the Germans. Movies showing the war in the air were particularly popular and we would go around for weeks afterward shooting our make believe machine guns through the propellers of our make believe planes at the evil German pilots. The Big Parade and Wings were the two favorite films. Unfortunately there
were also a few films advertised as war films but in which the soldiers seemed to spend all their time mooning over girls, kissing them and doing other such distasteful things instead of shooting at one another. We were, I am afraid, somewhat militaristic.

My brother and I were only dimly aware that these were very difficult times for the United States and, for that matter, the rest of the world. We read the daily papers, after a fashion, and we knew from them and from an occasional newsreel that the New York Stock Market had crashed and that a number of newly penniless financiers had celebrated by throwing themselves out of their office windows. But we felt, with considerable justification, that there were still sufficient financiers left for the country to continue to function. More serious, in our views, were the rash of bank failures, the collapse of farm prices, and the loss of jobs for workers. But none of this affected us and we were spared the nightly litanies of doom that modern television provides today. Looking back, I believe that if we had had television in those days there would have been a revolution in the U.S. In any event, while the army suffered severely from inadequate funding during the Depression, it was so small that serious consideration was never given to reducing its size as an economy measure. Sometime during the next few years the pay was cut and promotions were essentially nonexistent, but we never had to worry about food, shelter, clothing and medical care, and there were always Christmas gifts under the tree at Christmas time.

Unfortunately all of our family did not fare so well. The father of my favorite cousin, Peggy, who was married to my Aunt Eurath, lost his position, and, in despair, simply disappeared, leaving them penniless. My father once mentioned that mother’s relatives had told him he was crazy to stay in the army while the country was enjoying unprecedented prosperity and everyone was making their fortunes in the stock market. Then, in the summer of 1931, they told him how lucky he was to be in the army — nearly all of them had lost most of their money.

In June of 1931 my father was “relieved from his present assignment to the 13th Cavalry and...will proceed to New York City and sail on or about November 4, 1931, via Government transportation for the Philippine Department” where the United States maintained what passed for a strong military presence at that time. This was perhaps the most exciting news I have ever received. This meant a long ocean trip to a far off country that, like China, was considered the end of the world. I was so excited that I could hardly sleep for weeks after receiving the news, lying in bed and dreaming about the ocean trip and life among the natives of which I knew, like 99.99% of Americans, literally, nothing. To this day, nothing has given me as much pleasure and excitement as the anticipation of our trip to the Philippines.

Since my father had taken little or no leave during his stay at Fort Riley, he decided to take two months accumulated leave and spend it in Westminster. So we left Fort Riley in early September and drove to Westminster, moving in with my Aunt Kate who lived in a lovely old home on Willis Street with her husband, Bob Sharrer, and their three children, one of whom, Nellie, was about my age. For the first time we were able to meet and get to know some of our many cousins who lived in or
near Westminster. It was, in many respects, an idyllic time. My brother and I were
the center of attention from the half dozen or so neighborhood children of our age.
We felt that this was only our due since we considered ourselves quite cosmopolitan,
the locals having spent their lives around Westminster. There was a tennis court
at the end of the street and we passed our days playing tennis, baseball and cards
and in the warm summer evenings we would sit outside and talk, or walk to one of
the movies, a block or two from our residence. My cousin, Bob Sharrer, already in
college, had a small library with several Tom Swift books (*Tom Swift and his Electric
Rifle* being a typical title) and other juvenile editions which I devoured in my spare
time. We ate well — Uncle Bob was quite well to do and they had a black cook and
a housekeeper. I believe he inherited his money and I heard my parents mention that
he “hadn’t done a lick of work in his life.” They also mentioned that he was one of
the few people around who had not lost most of his investments in the crash, so he
was either shrewd or lucky. I think he was a decent man but he liked to drink and
I can remember hearing him verbally abusing my Aunt Kate in another part of the
house when he came home drunk once or twice. All in all I don’t believe my mother
envied her sister her husband. Oddly enough their oldest child, my cousin Katherine,
died an alcoholic and her son, Sewell was already an alcoholic by the age of 28.

This long summer leave finally came to its conclusion, my cousins were back in
school, and we were driven to Baltimore on November 1st where we boarded a train
for New York; much to the relief, I have no doubt, of my unfortunate uncle who had
provided us room and board in his home for those two months.

I still have two vivid memories of the brief train trip. When we passed through
Philadelphia we sighted two dirigibles on our left and they remained in sight for
almost an hour, paralleling our course with a stately majesty no airplane could ever
match. I proudly identified these as the *Akron* and the *Macon*, both belonging to the
United States Navy and the only US dirigibles on active duty. This was before the
spectacular crash of the *Hindenburg*. I had never seen a dirigible before and I never
saw another. Both of these were lost shortly after and with them ended United States
interest in such vessels.

The second memory is of soot. Our locomotive was a coal fired steam locomotive
and sent back from its smokestack a fine grit of coal dust. The better train cars
in those days were air conditioned but the air conditioning was rather primitive,
consisting as it did of a system of ducts and fans which passed air over large blocks of
ice. The ice, of course, would melt, and if it was not replaced frequently soon changed
from a solid to a liquid and then to a warm liquid, losing its capability to cool. This
was the case in our car and we had our choice of insufferable heat or gritty smoke.
We oscillated between the two, opening and closing our window, and finally ending
up soaked with perspiration and covered with coal dust.

We finally arrived in New York and took a cab to the Brooklyn Navy Yard where
we were shown into our BOQ room. We then went to dinner at a nearby restaurant.
Following dinner we walked down to the river where we saw the USAT *Republic,*
tethered to its dock with gigantic ropes. I was awe struck at the sight of its gleaming white bow, towering above us, silent and still, but with such an air of repressed power. This was to be our home for the next two months.
The Philippine Islands

Getting There is Half the Fun

After two days at the Brooklyn Navy Yard we finally boarded the USAT Republic on the afternoon of November 4th, 1931. I, at any rate, wildly excited. USAT stood for United States Army Transport and the Republic was the latest vessel in this shipping line run by the army with Civil Service crews. One would have thought that the Navy would have been given responsibility for transporting the personnel and impedimenta of the army to the few overseas posts with U.S. garrisons but that was not the case, though the Navy did run a similar shipping line for their own. The Army Transport Service had the Somme, the Cambrai, the Chateau Thierry, and the U.S. Grant, for transporting personnel and freight, and the Meigs for carrying horses and freight. Those were all small ships of 15,000 tons or less. The Republic, on the other hand, had been the Kaiser Wilhelm before World War I and had been taken from Germany by the United States as war reparations. This was to be its first trip as an army transport. It was a fairly large ship for the time, displacing some 30,000 tons, and with a very modest cruising speed of 14.7 knots. At some time in its past it had been lengthened by cutting it in half and inserting an addition in the middle. One could see where this had been done, and, in heavy weather, one could also see the joint at the deck opening and closing for a distance of an inch or so. I presumed that it was designed to do this and, at that age, I had implicit confidence in the competence of adults who engineered such things. Like all the transports but the Meigs it was painted white with cream stacks. The Meigs, which we saw while we were in San Francisco, was black — I presume the horses didn’t object. The Republic was the easiest riding ship I have ever been on. While we never had any really heavy weather, the sea did get up a few times but she ignored it. She simply plowed ahead in all kinds of weather at her stately 14.7 knots with little perceptible roll or pitch. The best one word description of the Republic was “comfortable.”
We went to our two cabins which were reasonably spacious and pleasant, though not luxurious, as befitted my father’s rank of captain. My brother and I shared one cabin, our parents another. We were informed that we would eat at the first sitting as also befitted my father’s rank of captain. All things were ordered aboard the ship as elsewhere in the “old army” according to rank, a custom which had its drawbacks but which did avoid a good deal of social maneuvering since everyone knew where he or she stood in the pecking order. Soon we heard the steward coming down the companionway (we rapidly picked up the nautical terms) striking his melodious chimes and shouting “First Sitting, First Sitting!” We proceeded to the dining room which was quite spacious and where we were assigned a table with some five or six other people for the remainder of the trip. Our mess steward brought us the menu of the evening, printed quite elegantly, and with the day’s date on it. I was much impressed, particularly when I saw the choice of desserts. I had envisioned going through a mess line with someone slopping beans on a tin tray but this was something else! There was just one little dark cloud on the horizon. I had never even been aboard a boat but I knew that some people got seasick and, having been prone to carsickness from time to time, I had a nagging suspicion that I might be one of those people. Sure enough, half way through the meal I began to feel queasy. I assumed we were out of New York harbor and into the choppy ocean but a glance out the porthole showed me we were still tied up to the dock. Then I really began to worry. If I were getting seasick here at the dock, what was I going to do when the ship was at sea? Fortunately I was distracted by something, finished the meal, and forgot about seasickness until we docked at Manila. That was not the last time that my overactive imagination found problems that didn’t exist.

Shortly after dinner the great manila lines that held our 30,000 tons to the dock were cast off, a saucy little tug turned us into the river, and we started toward the open sea, past the famous New York skyline and the Statue of Liberty. I was all eyes, running from one side of the ship to the other, afraid I might miss something. By dusk the pilot boat hove alongside, took the pilot aboard, and we were out in the open sea with the New York skyline diminishing in the hazy distance astern of us. I dropped into my bunk that night and fell happily asleep to the reassuring vibration of our great screws. Thus ended the most exciting day of my short life.

I was only dimly aware of the voyage before us. I knew that we would head south, pass through the Panama Canal, and thence to San Francisco. From there we would proceed to the Philippines by way of Hawaii. All of these names reeked with glamor to my eleven year old mind, and, in the event, I was not disappointed. I also knew that all of my friends were back in school and that my brother and I would not be able to return to school before Christmas. We were quite successful in concealing any chagrin at our enforced holiday.

Aboard the Republic we quickly settled into a happy routine as the ship plowed steadily south, the days lengthening and growing warmer as we headed towards the equator (which we would never reach during this voyage). We had no responsibilities
other than to appear for meals at the appropriate times and properly dressed (we were, after all, still in the army). I was somewhat disappointed when we passed Cape Hatteras without encountering any of the stormy weather for which it was renowned. Then we entered the Caribbean and I would spend hours at the bow of the ship, watching the flying fish skim the waters for incredible distances as they fled before us. Occasionally, a school of porpoises would accompany us, rolling easily and gracefully in and out of the calm blue water. All of these I found fascinating and I spent endless hours at the rail, searching the waters for any marine life. It has always struck me how seldom one sees any evidence of life on the surface of these seas which apparently teem with life below. One day we passed through the Saragossa Sea and saw the drifting seaweed which was famed in juvenile literature for snagging ships and holding them fast until their crews perished. For the first but not the last time in my life, I found that writers have an unfortunate tendency to exaggerate if not indulge in absolute lies. I was greatly disappointed at the seaweed which looked incapable of snagging and holding any ship larger than a canoe. Just after dusk the night before we arrived at Panama we passed a Matson Line cruise ship, all white and with lights gleaming from bow to stern. She was a vision of beauty as she sliced past us only a few hundred meters away, heading north from the tropics. Later that night we looked for our first glimpse of the Southern Cross which would be our nighttime companion for the next three years.

A day or two later we steamed into Colon, the port city at the Atlantic end of the Canal Zone, and docked at the army dock. We were scheduled to spend a day or two there unloading cargo but we learned that there had been a landslide at the Culebra Cut and that the Canal was blocked for the moment. This, apparently, was a not uncommon occurrence, but we would not be able to pass through until it had been dredged. Fortunately, being army, my parents had friends stationed there, so we were shown around Colon and the Canal Zone while we waited. Unfortunately, it didn’t take long to see the sights, there being no road across the Isthmus at that time and the jungle coming right up to the edge of Colon. The most interesting sight was the remains of the old French canal. The French company that did the Suez Canal started to dig a canal across the Isthmus but after spending a great deal of money they fell victims to engineering difficulties and the Yellow Fever. We drove out to an area where they had dug but it was very disappointing. It looked more like an abandoned Erie Canal than a Panama Canal — very small scale stuff! We visited our friends’ quarters on the army base there and these were interesting. All were constructed of reinforced concrete—as protection from termites I presume — but they certainly were damp, the humidity condensing on the relatively cool concrete. I was also interested in the weather, tropical of course. But what fascinated me was the daily rain that fell every afternoon at 3:30. It would pour for fifteen minutes, sending everyone scurrying for shelter, and then the sun would break out again and life would resume its normal course. To coin a phrase, one could almost set one’s watch by the afternoon deluge. We also went into town a few times and enjoyed the
This is How it Was

shopping. Colon was small enough that we could walk up the downtown area and back in just a few minutes. But the shops were full of oriental junk, mostly made from ivory or silver. I bought a small ivory elephant, nicely carved, for a dollar or so. No one worried in those days about the real elephants which were the raw material of this lively trade. Colon, downtown, was an attractive city, the sidewalk in front of the shops being protected from the sun by iron rails, second story balconies much like those of old New Orleans today. To my disbelief I was told here that when we would arrive at the Pacific end of the Canal we would actually be east of Colon!

After a few days in Colon we set off down the Canal for four or five miles until we came to the first set of locks, the Gatun Locks. We moved slowly into the first of these and were attached by cables to several small electric locomotives (called “mules,” probably because genuine mules had performed this function on other canals in the past). These electric mules pulled us very slowly into this first lock, the great doors closed behind us, and we began to rise almost imperceptibly as water was pumped into our lock, swirling around us as we arose. After ten or fifteen minutes we had risen to the level of the next lock, the great doors in front of us slowly opened, and the mules moved us in stately fashion into the next lock where the process was repeated before my fascinated gaze. When we finally passed out of the last lock we were at the level of Gatun Lake and there, before us, stretched this large, artificial lake. What was most striking was the great number of ships that were anchored there, all waiting for the dredging to be finished at the Culebra Cut so that they could resume their transit of the Canal. We soon lowered our own anchor and joined them, all of the ships presumably waiting there rather than at dock in order to save dock charges which, I was told, were a thousand dollars a day, an astronomical sum in those days. Fortunately our wait was brief and we continued on our way a day or two later, sailing down the length of the lake, then along the canal, through the offending Culebra Cut, and into the Pedro Miguel Locks and then the Miraflor Locks which lowered us to sea level of the Pacific Ocean. It was fascinating to move through the relatively narrow canal with its wildly jungled banks passing so closely that we could have thrown a stone over them (and undoubtedly would have if a stone had been available). After passing through Miraflor we docked again in Balboa where we spent another few days loading and unloading cargo. Here I was astonished to walk down the gangplank from ship to dock one afternoon and then walk down the gangplank again from dock to ship on our return several hours later. This was my first experience with and a very graphic illustration of the phenomenon of ocean tides which were unusually high.

Eventually we sailed and I had my first glimpse of the Pacific Ocean. It looked surprisingly like the Atlantic though I was to discover later that it sometimes truly deserved the title “Pacific.” There were to be days on end when it was smooth as glass, something I have never seen in the Atlantic.

The days began to be cooler and cooler as we headed north and we finally sailed through the Golden Gate and docked in San Francisco on a cool, foggy morning. There we remained at dock for several weeks — those were leisurely times in the army and
no one seemed to be in a hurry. We children amused ourselves with card games, by watching the seals, and by playing a nasty little game with the sea gulls that hovered constantly alongside the ship. We brought bread from the dining room, threw chunks of it in the air, and admired the gulls as they swooped down and plucked it out of the air. Then we tied one end of a string around a piece and threw the tethered bread bit into the air. The unsuspecting gull took the bait like an airborne fish and we hauled him in. We repeated this several times and the gulls never seemed to learn. Finally an adult noticed us and put an end to our sport.

There was a military post at Monterey in those days and our family spent one night there with army friends. Monterey was sparsely settled then and I can still recall the beauty of the bay and the fragrance of the air. California was very nearly a paradise in those days.

Our hosts drove us into San Francisco’s Chinatown the next night and we had a real Chinese dinner, the first experience with chopsticks for my brother and myself. My brother had previously explained to me that the Chinese rapidly rotated the two chopsticks through the rice, sending a stream of rice flying from the bowl into their open mouths. It wasn’t the last time that reality fell far short of anticipation.

Eventually it came time to depart and, after several exciting hours of hustle and bustle, battening down of hatches, and coming and going up and down the gangplank, we made the usual military departure with band playing, friends and relatives waving, and the ship moving slowly away from the dock, through the Golden Gate and out to sea. The next five days we plowed steadily west toward the setting sun and Hawaii, a fabled tropical paradise even in my eleven year old mind. Our arrival there was most exciting, with our first view of Diamond Head and then the docking to the sound, again, of a military band; friends on the dock shouting to newly arriving friends on the ship, then rushing up the gangplank and throwing leis around the necks of the newcomers in the traditional greetings for shipboard arrivals. Travel today by air is a lot quicker than it used to be by ship, but the fun and the excitement of departure and arrival are certainly gone.

Again, we had friends stationed in Hawaii; Chaplain Miller and his wife and two children whom we had known well at Fort Riley. They drove us around the island of Oahu and showed us fabled Waikiki Beach where we had our first glimpse of surfing, a sport that began in Hawaii and was pretty much limited to Hawaii at that time. We spent four or five days at dock and then sailed once more. Sailing from Honolulu was, if anything, even more exciting than arrival, with the band playing the “Song of the Islands” as the ship pulled away from the dock, and everyone throwing their leis into the water. If your lei floated back to shore, so the story went, then you would return to Hawaii. I can’t recall whether mine floated back, but I was quite confident that we couldn’t return from the Philippines without stopping again in Hawaii.

After the excitement of departure we settled back into the ship’s routine for the longest leg of our trip, some twenty days from Honolulu to Manila. Most of those
days the Pacific lived up to its name and our ship plowed its stately course through glassy smooth waters. For some reason I never tired of it. Mealtimes were enjoyable, there was a ship’s library with a reasonable selection of books and plenty of time to read. Most evenings there was a moving picture on the aft deck where a screen was unrolled. We sat on the upper deck, looking down at the screen and below us the enlisted men set up chairs or stretched out on the cargo deck, looking up at the screen. Sometimes the chaplain would organize a song fest before the film. He had a projector (called a “magic lantern” in those days) and he would project the words to such treacly old standards as “There’s a Long Long Trail a’Winding” or “It’s a Long Way to Tipperary” onto the moving picture screen and the soldiers would all join in. I had no idea what a Tipperary was but I knew the tune and I would sing along. It was really quite pleasant as dusk would turn to darkness and the ocean would foam past the sides of our great ship. After the movie was bedtime and the steady vibrations of our floating home made sleep come easily.

At long last, on Christmas morning of 1931, some two months after leaving New York, the good ship Republic entered Manila Bay, steaming past the odd concrete battleship, Fort Drum, and the island of Corregidor, whose big guns were designed to protect Manila from any Japanese seaborne invasion. We pulled into dock at high tide, and, during the next couple of hours, while we were going through customs, immigration and other red tape, the tide fell and the Republic settled ingloriously on the bottom and began to list a few degrees. Apparently the Republic had a greater draft than the dock was designed to handle. This alarmed me, though the list was very slight, but it seemed an ignominious end to a beautiful voyage to see our great ship stuck in the mud. In the excitement of our arrival my brother and I almost forgot that it was Christmas — the first Christmas we had not celebrated with tree and gifts. Republic was “comfortable.”

We were met at the dock by our sponsors, an officer and his family who were assigned by the regimental commander to greet us and to get us settled in our new home. They drove us north from Manila some 70 miles to Fort Stotsenburg and showed us to our new quarters, sparsely furnished with the usual “Quartermaster” furniture. It was dark when we arrived, we turned on the lights, and the mosquitoes began to bite us immediately. My heart sank as I envisioned serving every night for the next three years as a feast for the Philippine mosquitoes. However, in the event, after that first night I don’t recall being particularly bothered by mosquitoes. We finally went to bed, under mosquito nets, of course. These served two purposes to my mind: They usually trapped at least one mosquito inside and they more or less blocked any breeze that might have made the night more comfortable (my brother and I had no bedroom but slept on a screened porch). On the other hand they provided a cocoon that gave a young boy a delightful sense of security from the many perils of the night. We were used to them, of course. We had always used them in Texas, and sometimes at Fort Riley.
Fort Stotsenburg

Fort Stotsenburg, located some sixty miles north of Manila in the plains of Pampanga Province, was the major US military base in the Philippines. Named after Col. John M. Stotsenburg of a Nebraska regiment who was killed during the Philippine Insurrection, it served as the home for the 24th Field Artillery Regiment (PS) and the 26th Cavalry Regiment (PS). The PS stood for “Philippine Scouts” as all of the noncommissioned officers and enlisted men were Filipinos, the officers being nearly all American with only two or three commissioned Filipinos. Two miles from Fort Stotsenburg was Clark Field, home of the 3rd Pursuit Squadron, all of whose personnel were American. The surrounding country was in grass (mostly “cogan grass” which was a thick grass as tall as a man), light forest, and farmland, chiefly sugar cane. Dominating the view in the west was Mount Arayat, which looked much like Mount Fuji in Japan without the snow cover. In the southeast, some fifteen miles away was Mount Pinatuba, said to be an inactive volcano. A few miles from the Fort, to the south and southeast, the land became jungle which was sparsely inhabited by a primitive people called the Balugas who were part of a larger group called Igorotes. These lived in very small groups in the jungle and wore nothing but a loin cloth (called a “G String” for some reason by the Americans). Occasionally a group of these nearly naked Balugas would wander onto the post, women, children and all, and proceed up one of the streets carrying the very primitive bows and arrows with which they eked out a living from the jungle. So far as we children knew they were harmless, but, despite their diminutive size and skinny, ash encrusted legs, they awed us somewhat, and we gave them the respect due to armed men with little apparent concept of law and order.

During the 1930s the Philippines were still a possession of the United States (as opposed to Hawaii, for example, which was then a Territory; the Territory of Hawaii or T.H. to the Post Office). They were being prepared for self government and had their own popularly elected legislature which made laws under the watchful eye of the United States Governor General. Defense of the islands was the responsibility of the United States, which maintained a fair sized military establishment considering the size of the United States Army in those days. In addition to Fort Stotsenburg and Clark Field there was an American infantry regiment at Fort McKinley outside of Manila and a bomber squadron at Nichols Field nearby. Corregidor and Fort Drum in Manila Bay bristled with big coast defense guns under that branch of the army which was called the Coast Artillery. The navy had bases at Olongapo in Subic Bay and Cavite in Manila Bay where the Asiatic Fleet was based. The Asiatic Fleet consisted of a cruiser which served as flagship, and a number of old submarines and destroyers, plus a motley collection of gunboats in China. A very good description of naval life there at that time can be found in the novel, *The Sand Pebbles* which was also made into an excellent film.

The U.S. military in the Philippines had looked at military life for the English in
India and found it good. Consequently, our life was patterned very much after theirs. The Filipinos were liked by the Americans, but not taken very seriously, and were certainly second class citizens in their own country. In the 26th Cavalry there were only two or three Filipino officers. These were assigned quarters like ours and lived there as our neighbors; their children attended our school, and they mixed socially with us and our parents. One boy, my age, was called Carlos Ver, and I have often wondered what happened to Carlos in the turbulent years since then. So, socially, there were much greater differences between American officers and American enlisted men than between American officers and Filipino officers. But I am certain that the Filipino officers felt inferior and that the Filipino enlisted men considered them inferior to their American officers—not necessarily because of any differences in ability but basically because of race. Like the English in India we were able to enjoy a mode of life that we could never afford at home. We had, for example, a cook, Fernando; a houseboy, Panciano; and a laundress or lavandero whose name I never knew. If we had been infants my mother would also have had an amah to care for us. Our lawns were mowed and vines trimmed by Filipinos working for the army. Every night we sat down to dinner with sparkling silver and spotless linen, cooked by Fernando and served by Panciano. It must have turned the head of a farm girl like my mother, and I know she did not enjoy adjusting to life in the U.S. on our return. Of course it made little difference to my brother and myself—like most children we were quite accustomed to having our food prepared and served and our laundry done by someone else.

Fort Stotsenburg was laid out in two areas, one for the artillery and the other for the cavalry. The Post Exchange and the Post Theater occupied a concrete building situated between the two areas. The cavalry area was built around a large parade ground, half of which was used as a polo field. At one end of the area was the Post Exchange and in front of it the flagpole and the retreat gun. At the other end was the Post Hospital. On one side were the cavalry barracks and on the other side of the parade ground were the cavalry officers quarters and the Officers Club with associated tennis courts and swimming pool. A paved road ran in front of the hospital, up along the officers quarters and past the post exchange and on to the artillery area. All roads in the living area were lined with beautifully large acacia trees. Our quarters were behind this main road on a parallel secondary street.

The officers quarters were of a very interesting and practical design. They were built of wood frame, of a single story, and with a screened porch which went around three sides of the house. The walls which separated the various rooms did not run all the way to the ceiling, but had a gap of about two feet, allowing whatever breeze there may have been to circulate throughout the house. The roofs were of corrugated iron and there was an attic. But the most unusual feature of these houses was that they were set on reinforced concrete pillars some three to five feet high so that each house appeared to stand on stilts. For some reason there was no vegetation under the houses so we children used to use the dusty area as sand piles in which to play.
The Philippine Islands

The reason for the concrete pillars was to protect the houses from termites and ants and each pillar was set on a concrete base with a two inch moat around it. This was kept filled with oil and formed an effective barrier against those insects. Similarly, the front steps were of concrete and ended some two inches from the house, leaving a gap that also formed an effective barrier. Thus the houses were designed with local climate and insects in mind.

The climate was tropical. We had two seasons, the hot season and the rainy season. The rainy season was only slightly more humid than the hot season, but with much, much more rain. I found the climate debilitating, the entire year being much like July in Virginia. There was a popular song about the tropics, written by Noel Coward, and called, “Mad Dogs and Englishmen Go out in The Midday Sun.” Like those Englishmen, we ignored the tropical sun and forewent the siesta, so favored by the Latins. We sweated through every activity but made up for it somewhat by taking two or three showers a day and changing into fresh clothing each time. I didn’t like the climate and have never cared too much for summers since that time.

A typical day for my brother and myself would start with reveille at six. We would roll out from beneath our mosquito net, wash up briefly, shake our shoes to be certain there were no unpleasant insects within, and get dressed. Our clothing was identical to that of our friends and was well adapted to the climate. We wore, year round, a short sleeved shirt made from some very light material by the local Chinese tailor. Our trousers were khaki shorts, cut down by the same tailor from khaki, army-issue trousers purchased at the Quartermaster. Our socks were army issue, also purchased at the Quartermaster, and our shoes were usually regulation GI shoes (heavy high tops) from the same source. We also owned a pair of low cut shoes made to measure by the local Chinese shoemaker for more formal occasions.

Breakfast started with a mango or a papaya, two local melons which bore a deceptive resemblance to a cantaloupe, but tasted awful. Then cereal, fried eggs, bacon and toast. The local carabao milk could not be trusted so we used a powdered milk called, very appropriately, “Klim” or “Milk” spelled backwards. It always had lumps floating around in it and tasted something like milk of magnesia laced with chlorine. When we were thirsty we could go to the icebox and pull out a bottle of water that the cook had boiled to kill the local bacteria.

Following breakfast we walked two blocks to the Leonard Wood School (the Post school), which began at 0730. It was called “Leonard Wood School” of the San Fernando Division of the Dept. of Public Instruction of the Government of the Philippine Islands. It consisted of grades one through twelve and was taught by some of the wives of the officers stationed there. What their formal qualifications were I shudder to imagine but they were quite capable. Classes were small — there were as few as three pupils in some and as many as ten or twelve in others. Several classes occupied each room and one grade would study while another was reciting. Teachers were friendly and discipline was taken for granted — there was no unruly behavior or undue commotion. We had a brief recess in the middle of the morning and we
would all pour out of the schoolhouse and onto the playground where we would burn off the frustration of physical inactivity and return to the classroom with batteries recharged. One morning I had the misfortune to fall off of the seesaw and break my left arm at the shoulder. My brother had broken his jaw at Fort Riley, playing football, and it was most mortifying to tell people that I broke my arm falling off a seesaw! I have always held that against my brother.

I was a good student — I have my report card for the school year 1933-34 before me when I was in the 8th grade and my grades for the year were all in the mid to upper 90s in Physiology, Arithmetic, History, Spelling, English, Civics and Conduct. Straight As in Conduct — I wonder if they still give grades for conduct.

School ended at 1230 and we walked back home for lunch. My father, who had gone to work with the troops when we were arising, would also be home for lunch. We had one problem. The officers’ wives were ardent bridge players and we would often arrive home to find the bridge club still out on the screened porch, wreathed in cigarette smoke, chattering like magpies, and lunch not ready. This didn’t bother me since I never had much appetite, but it would infuriate my father, and led to a few arguments.

Following lunch we would sit down and do our lessons for an hour or so, after which time we would be free to do what we would. We might bicycle to the Officers Club and play some tennis or go swimming there for several hours with our friends.

The military day for my father began at 0700 and ended at 1300. Afternoons were devoted to sports and special activities. One or two afternoons a week, around four o’clock, there would be a polo game which we always enjoyed watching. The 26th Cavalry had a team, the 24th Field Artillery had one, and even the 3rd Pursuit Squadron fielded a polo team though the pilots were not very good polo players. All players, of course, were officers. Enlisted men played baseball and had their own swimming pool and tennis courts, but only officers played polo in the old army. From time to time there were polo tournaments and my father would go to Manila for several days to play in these against other service teams and an occasional civilian team. In fact, the best polo team in the Philippines was a civilian team, the Elizalde brothers. The Elizardes were four Spanish brothers, businessmen or landowners or both, who enjoyed playing polo and had the money to afford the best string of polo ponies in the Islands. They were excellent polo players but their successes were generally credited by the ungenerous military to the quality of their ponies. Being Spanish they fitted into the social order with no difficulty.

Dinner at home was usually formal and my mother made some effort to endow us with table manners. It seems to me that we were reprimanded each night for using our table knives instead of the butter knife to move butter from the butter dish to our own dish or to our bread. We could never see the logic of this and refused to take it as a matter of faith. It didn’t help that our father was as guilty as we in this respect. Our mother was, by nature, fastidious. Our father was not, and this fueled many a dissension between the two. After dinner I would usually read a book.
or Colliers or the Saturday Evening Post, two popular and excellent magazines of the day which contained fiction, non-fiction and splendid cartoons. Around nine o’clock we would put on our pajamas and try to sneak under the mosquito net without allowing any mosquitoes to enter. If we succeeded, we would drift off to sleep around the time the bugler would blow tattoo. We children referred to this as the “nine o’clock bugle,” never having heard of the word “tattoo.” Sometimes we would hear the most unpleasant buzz of the trapped mosquito, usually as we were about to fall asleep. Then a contest would ensue between one of us and the mosquito as we would try to feel him land on our face where we could squash him. Failing that we would get out of bed again and try to get the mosquito out also. Strangely, once the lights were on it was almost impossible to find the little monster, but there was no hope of sleeping until he was removed. As I mentioned, we slept on a screened porch with the stars twinkling outside, the soothing hum of thousands of insects, and air that was fresh and unpolluted if somewhat hot and humid.

Our houses were single story but they had attics and the ceilings of the rooms and the porch were made of woven reeds which allowed the warm air to rise into the attic. We had a resident lizard in our attic and we could often hear him scuttling around up there while we were trying to get to sleep. I sometimes speculated as to how large he was since he made considerable noise. However, we lived on terms of mutual tolerance — he never came down into our living area and we stayed out of his. Meanwhile, we assumed that he was devouring large quantities of unpleasant insects.
CHAPTER 5

Life at Stotsenburg

We were at Fort Stotsenburg from December 25, 1931 until around February of 1935, some three years. I was eleven years old when we arrived and fourteen when we left. By the time I was thirteen I had reached my full height of an even six feet and weighed less than 130 pounds — all “skin and bones” as the expression was at that time. I had an unruly head of thick black hair that led one exasperated barber to predict that “you will never have to worry about going bald!” When at the age of 60 I proved him wrong I consoled myself with the thought that there are very few things in this life that last a full 60 years.

We children led a pampered but reasonably active life there. We swam almost daily, played tennis and even golf since the post had a golf course. This course featured sand greens, something I have never seen since. After you putted you were supposed to pull a wooden drag over your ball and foot marks to smooth the surface for the next player. We played baseball when we could get enough boys together which was seldom. We had a Boy Scout troop with about nine or ten Scouts and hiked and camped out occasionally. We all owned bicycles and, since everything on the post could be reached by bicycle, we walked or rode our bicycles everywhere we went and very seldom went anywhere by car, though all of our parents owned automobiles by then. Each of us had cut down one of our father’s old polo mallets with which we played bicycle polo. Our parents were quite taken with this and they sponsored a bicycle polo competition following one of the post polo tournaments. We kids all lined up at one end of the field on our bicycles, mallets in hand, and at a word from the umpire began pedaling down the field, each striking his own polo ball as he went. The winner was to be the first one to hit the ball through the goal post at the far end of the field. This was not as easy as it sounds since we had to pedal furiously, steer the bike, and at the same time swing our truncated mallets so as to strike the moving and often bouncing ball in the appropriate direction without putting the head of the mallet through the spokes of our wheels. I was inspired by the presence of the parents
and spectators and the stirring music of the regimental band and was the unexpected winner. I didn’t have many athletic triumphs and I savored this one.

While not as “horsey” a post as Fort Riley, this was a Cavalry post and horses played a big part in everyone’s activities. Unfortunately the 24th Field Artillery was not horse drawn — instead their guns were drawn by caterpillar type tractors, left over from the First World War. You could hardly blame the military for doubting that these would ever replace horses since several of them would break down whenever there was a full scale parade and they were required to pass in review. It must have been embarrassing to the regimental commander to see them sitting there motionless in the middle of the parade ground while the rest of the troops were marching by the reviewing stand.

Some mornings my brother and I would mount up and ride out on the reservation with my father. Once he brought his pistol and taught us how to handle it safely and to load and fire it. It was the regulation U.S. Army Model 1911 .45-caliber automatic, a heavy, bulky weapon that was designed, not just to put a hole in a man, but to knock him off his feet. We enjoyed shooting it, though it was much too heavy for our scrawny little arms. My brother, in later years, has blamed our deafness on this youthful firing of the pistol with no protection for our ears. Unfortunately for this theory, nearly all of our relatives on both sides of the family have suffered from hearing loss whether they ever fired a weapon or not.

The military maintained a camping area on Mount Pinatuba, an inactive volcano some fifteen miles south and west of Stotsenburg. During the hot season small groups from the post would go up there to enjoy a week of cool air. Our family made this trip two or three times. We rode up on horseback in a column of perhaps thirty horses and mules, the horses carrying the officers, their wives and several of us children, and the mules our supplies. At Pinatuba we lived in tents, ate from a field kitchen, and amused ourselves hiking, pitching horseshoes, playing catch, etc. What everyone really enjoyed, however, was sleeping under blankets in the cool air, and escaping for a short time from the oppressive heat of the plain. The ride up and back was somewhat exciting as many parts of the trail skirted the side of mountains with precipitous falls on one side of the very narrow trail. I remember my mother’s horse slipping once and scrambling back onto the trail while my father shouted, “For Christ’s sake, Alice, what are you doing?” My father could be somewhat impatient.

One year on our way up we passed another group descending, a ticklish operation on the narrow trail. When the last horse had passed me, my horse decided he wanted to go back to the stable, so he turned around and followed them. I pulled the reins and kicked him but to no avail. He was going back and that little pipsqueak on top of him was not going to change his mind. So one of the officers in our group had to turn his horse around and pull mine back in the proper direction. I was humiliated.

(As I have been writing there has been a series of news reports from the Philippines concerning a violent eruption of Mt Pinatuba, which they report as having been dormant for some six hundred years. Damage to Clark Field, now an immense US
Life at Stotsenburg

military base, has been so severe that the US has decided to abandon it.)

The military also maintained a fairly large installation at Baguio, a small town located in the mountains about sixty miles north of Stotsenburg. Baguio was high enough that it enjoyed a delightful climate with warm, relatively dry days and cool nights. For this reason it was the home of the Philippine government during the hot season. The army installation, Camp John Hay, had a number of bungalows that were available for officers and their families for a nominal fee, and we spent one or two weeks there several times while we were in the Philippines. There were numerous gold mines in the area and I recall visiting a building where they refined the gold, and watching them pour the molten metal into ingots. The most interesting aspect of the Baguio area, however, was the agriculture. Rice was cultivated there intensively, and, since all was mountain, it had to be terraced. As a result the mountains around Baguio were covered with terraces where the Filipinos cultivated their rice in thousands of small plots, truly a stupendous engineering feat.*

While we were at Stotsenburg they organized a troop of Boy Scouts which my brother and I joined as soon as we were of the proper age. One of the Cavalry officers, Capt. Wright, was our Scoutmaster, presumably because he had two sons in the troop. Of course membership was restricted to the sons of officers so our troop numbered only a dozen or so Scouts. Nevertheless we were quite active.

We went on periodic bivouacs, generally hiking to the Bamban River, a dusty hike of about six miles, where we would pitch our pup tents (drawn from the quartermaster) and prepare our meals. The Bamban was not a large river by any means but we had a spot on the military reservation where it formed a quiet pool in which we could swim and wash our cooking utensils. One afternoon when we arrived at the Bamban we discovered that three American soldiers, presumably from Clark Field, had preceded us and were well on their way to getting roaring drunk. They were stumbling around the bank of the river, stark naked, shouting and singing, and drinking constantly from several bottles. This was quite unexpected, we did not have the Scoutmaster with us, and we were somewhat intimidated by what was a pretty disgusting sight. But we pitched our tents, and cooked our meals, keeping one eye on the revelers who soon reached the argumentative stage, further intimidating us. However, before dark, much to our relief, they finished their whiskey, put on their clothes somehow, and departed, leaving us in peace. I don’t know how my fellow Scouts felt, but I was quite shocked that adults could behave in such a revolting manner—I am not sure I had ever seen a drunk before.

I enjoyed hiking and would often go out by myself. The military reservation was quite extensive but there were farms and plantations scattered through it so we were never quite sure whether we were on the reservation or not. One afternoon I was hiking up a narrow gully and, stepping around a sharp bend, came face to face with a carabao, the biggest and fiercest looking carabao I had ever seen. There was a story

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*The Banaue rice terraces were carved out of the mountains some 2000 years ago and are a UNESCO World Heritage Site. (ECD)}
that circulated amongst us that carabaos did not like Americans, that we smelled different from the Filipinos (probably true), and that if a carabao did not have a water hole to wallow in that he became very evil tempered. I saw no reason to test the truth of this and scrambled back from whence I came, heart in throat, in a hasty and most undignified manner.

We did most of the things that Boy Scouts do everywhere. We had uniforms topped off with a wide brimmed, olive drab hat, called a “campaign hat” by the military, the same hat our fathers wore with their uniforms and very precious for that reason. Then we wore khaki shirts with Scout badges sewed on by our mothers, a yellow scarf around our neck (for the cavalry, of course), khaki shorts, and high topped G.I. shoes for hiking. We did have one unique uniform item — instead of a hatchet for cutting firewood, etc., each of carried a bolo in a leather sheath, fastened around our waists with a leather thong. My parents had given me a bugle, a lovely silvery thing, and I had my mother sew a yellow banner to it like the banners on the bugles the 26th Cavalry Drum and Bugle Corps. I was the troop bugler, and a worse bugler would have been hard to find. I had neither the lungs nor the lips to be a bugler, but I had the desire, and I had heard all the bugle calls often enough that I knew how they went. I could play “Assembly” and “Mess Call” and “Taps” after a fashion, so I could give a fair imitation of a bugler until I ran out of breath and/or my lips gave out. What I really enjoyed was playing marching music while we were hiking. There were words for some of these tunes, of course, and one of them went:

You’re in the army now.
You’re not behind the plow.
You’ll never get rich,
You son of a bitch,
You’re in the army now.

I don’t remember any expressions of interest in my bugling from the other Scouts, but at least they tolerated it.

Like Scouts everywhere, we sought advancement, and I progressed fairly rapidly from Tenderfoot through Second Class and First Class. Then to make Star Scout one needed five Merit Badges and for Life Scout, ten. I eventually got my ten badges and reached the grade of Life Scout. For Eagle Scout one needed 21 Merit Badges, including certain specific ones. My stumbling block was the the required badge called, Bird Study. To get this, one had to find and log some twenty or thirty different species of birds. This appeared impossible to me as I could, with greatest difficulty, remember seeing four or five different birds, and the thought of finding and identifying that many more was almost beyond my comprehension. Thus my Boy Scout career peaked at Life Scout.

One Merit Badge that we all obtained was “Blacksmithing.” The Scoutmaster arranged for the 26th Cavalry blacksmith, a huge Negro whose name eludes me, to give us instruction in his craft and then to test us for the Merit Badge. I found this
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fascinating. He would take a piece of stock, insert it into his fire, and when it was
white hot, pull it out and hammer it into whatever shape he wanted, with mighty
strokes of his massive hammer. Then he would heat it again until it reached a certain
color and, seizing it with his tongs, plunge it, sizzling, into a tub of water to temper
it. We spent several Saturday mornings watching and listening and then trying to
duplicate with our scrawny arms what he did so easily. Eventually, he decided we
were proficient enough to be granted the blacksmithing Merit Badge. To my great
relief he did not require us actually to shoe a horse. I think he recognized that there
were limits to what a twelve year old boy could do.

We children seldom left the military reservation since we had everything we needed
on the post. So we had a minimum of contact with Filipinos other than our servants.
Fort Stotsenburg was in Pampanga Province, an agricultural province, and most of
the Filipinos lived in small towns called barrios. There was a small barrio just outside
the post, called Sapang Bato, and we would occasionally walk into Sapang Bato to
buy firecrackers or some of the paper trinkets made in China or Japan and sold there.
Many of the Filipinos who worked on the post lived in Sapang Bato in conditions
that could charitably be called, primitive. The houses were typical of the area, made
of a grass called nipa (and thus called nipa shacks by the Americans), generally with
a single room, and always standing some five feet above the grounds on stilts. The
floors were also woven of nipa, and the dust and debris of housekeeping were allowed
to fall through the many cracks to the ground beneath. There was no water or sewer
system and the sewage ran along the streets in ditches. There was, thus, a constant
aroma in town. Most of the small children ran around the streets with a shirt but
no trousers. For all these reasons we kids called Sapang Bato, most appropriately we
thought, “Sloppy Bottoms.”

On certain afternoons Sloppy Bottoms would host the cockfights, and I spent
several afternoons watching this interesting spectacle. I would join the Filipinos
crowded around the small arena where the fight was to take place. Two owners
would bring their cocks into the arena and, after showing them to the crowd, would
wait patiently while the betting, accompanied by a great deal of shouting and waving
of pesos, took place. Then, once all bets had been placed, the owners held their
cocks facing one another and unsheathed the spurs. These were razor sharp knives,
some two or three inches long, and fastened to the cocks’ feet. The owners then
couraged their birds to peck at one another, building them up to a fighting frenzy.
They required very little encouragement as they seemed to have a built in antipathy
to other cocks. Then, amidst the cheers of the spectators, the owners released the
cocks which usually went right after one another, rolling around the dust in a blur
of flapping wings. Most fights were over in a matter of seconds with the loser either
fleeing ignominiously or lying struggling in the dust, mortally wounded, the audience
jeering the loser and his owner and cheering his opponent. Rarely the fight would last
longer and the winner might be in nearly as bad a shape as the loser. In these cases
the crowd would applaud and cheer both cocks. I found the cockfights interesting
but, like horse races, there seemed an interminable length of time between the brief moments of action.

As I mentioned, we children had little contact with the Filipinos. We felt no special affection for them but we also felt no animosity. If someone had asked us whether we liked them we would have had to pause — the question had never occurred to us. Speaking amongst ourselves we referred to them as “the Gooks,” but, again, it never occurred to us that this was a term of disrespect. I was surprised to note years later that the soldiers in Korea during the Korean war used the same word for the Koreans. We also called the Chinese “the Chinks” and the Japanese “the Japs” without meaning any special disrespect for either. On the other hand we did not mean these terms as compliments, and, like most Americans, we thought of ourselves in those days as a superior people. On the other hand, we called the son of one of the American officers on the post, “Fishface” because he looked like a fish, so while we were chauvinists, we spread our chauvinism around rather indiscriminately. There was a song we would sing that dated back to the Philippine Insurrection and it went like this:

Oh the monkeys have no tails in Zamboango.
Oh the monkeys have no tails in Zamboango.
Oh the monkeys have no tails,
They were eaten off by whales.
Oh the monkeys have no tails in Zamboango.

We sang this because it was local and because it had a catchy tune. It was many years later that it dawned on me that the monkeys in the song referred to the Filipinos. There were dozens of verses to this song, one of my favorite being:

Oh, the army and the navy have a club.
Oh, the army and the navy have a club.
Oh, the navy drinks the booze
And the army pays the dues.
Oh, the army and the navy have a club.

Again it was many years later that I realized that this song was based on the navy custom of not charging dues of members of their Officers’ Clubs.

While I never gave much thought to the Filipinos’ inferior position in their own country (and I don’t think most of the Filipinos worried about it either), one incident occurred which bothered me. Our family was driving north on the narrow, two lane road to Stotsenberg after a rare day in Manila. We shared the road with bicycles, buffalo carts, pedestrians and calesas; the latter a two wheeled carriage pulled by a small, sad looking horse, served throughout the country as a taxi. My father, in his usual hurry, brushed carelessly against the wheel of one of the calesas, upending it and, I have no doubt, doing it a bit of damage. To my chagrin, we did not stop to see what harm he may have done, but continued on our way. My thirteen year old
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conscience told me that this was not the proper thing to do and I was ashamed of his action and of how the Filipinos who witnessed this must feel about Americans. If I felt that we were superior to these people I also felt that we should act accordingly. That incident and my feelings about it stuck with me for many years — an indication, perhaps, that such an incident was rare enough.

One Saturday the 3rd Pursuit Squadron had scheduled an air show at Clark Field. At that time they were equipped with Boeing P-12s, the standard Army Air Corps fighter or “pursuit” plane as it was then called. These were small biplanes with radial engines and fixed landing gears and with very modest performance. This was the first such show that had been held there since we had arrived and it attracted a large crowd of Americans and Filipinos, seated and standing in front of the hangars. First there were some aerobatics and formation flying. Then they flew low over the field and fired their machine guns at fixed targets on the ground. After this came a dive bombing exhibition. Each plane carried one bomb fastened between the wheels of the landing gear. One by one they flew over us, nosed down, and dove steeply down on the target, releasing their bomb at a relatively low altitude, and pulling sharply out of the dive while the bomb hurtled to the earth and exploded on the target. We watched the third or fourth P-12 go into his dive and hurtle toward the target. At the moment of release, the airplane exploded and continued its dive right into the ground where it crashed in a second explosion. We were stunned — I had never seen a man killed before. Worst of all, the pilots’ wives were all seated around us and no one knew which of the pilots it was. The bombing stopped, of course, but the air show continued while they tried to find out who had been killed. Each wife sat there, heart in mouth, praying that it was not her husband. Finally an officer came and took away one of the wives, weeping. I was quite impressed with the drama, but it didn’t affect me emotionally. I knew that military pilots were in a dangerous profession and besides, I didn’t know this officer or his wife.

Just before the air show concluded I saw a maneuver that I had never seen before and have never seen since. One P-12 came across the field and then went into what appeared to be a vertical bank, but, instead of turning, proceeded across the entire airfield at a very slow speed, about ten feet above the ground, his fuselage at an angle of forty-five degrees with the ground and his wings near perpendicular to it. It was an incredible stunt and I still can’t see how he did it.
CHAPTER 6

Trip to China and Japan

While stationed in the Philippines each American family would take advantage of the opportunity to travel to China and Japan, and we were no exception. So in mid-March of 1933 we drove down to Manila, boarded the USAT *US Grant*, and set sail for China. The *Grant* was a venerable army transport of about 15,000 tons displacement, half the size of the *Republic*, and was what seagoing people call a “lively” ship — that is, she rolled and pitched in any sea at all. She was carrying replacements and supplies for the 15th Infantry which was stationed in Peking, of which more later. We were traveling free of charge on what was referred to then as “space available” status, and, since there were very few officers aboard, we had excellent accommodations. There were a half dozen families from Stotsenburg on the ship and we formed a very congenial group.

Our destination was Chinwangtao, a port on the Yellow Sea some 200 miles east of Peking. Our course took us almost due north, up the South China Sea, past Formosa, and into the Yellow Sea. One evening at dusk, just about where we entered the Yellow Sea, we ran into a fleet of fishing junks — there must have been hundreds of them. I don’t know whether Chinese junks still exist, but they were a standard sailing vessel for many years in China. They looked like nothing else in the world — a high bow, a high poop, and a peculiar sail. At that time, in the South China and Yellow Seas, pirates were still active and would stop and board an occasional steamer. I didn’t see how they could stop us but I was a little nervous as we passed slowly by this enormous fleet.

Some explanation might be appropriate at this point. China was changing rapidly in those days, and since, and they seem to have a fetish about geographical names. Chinwangtao appears to have disappeared from the map though it is undoubtedly there under another name.* The capital of China, Peking, had just had its name changed to Peiping (pronounced Bay-ping). Now I see it on the map as Beijing. And Formosa is now Taiwan — and so it goes.

*Chinwangtao is now known as Qinhuangdoa. (ECD)
Each day, as we headed north, the weather became cooler and, when we finally steamed into the bay where the city of Chinwangtao lay, there were small ice floes floating in the harbor, some snow on the ground, and a delightful chill in the air. Chinwangtao, opened in 1901 as a treaty port, was located in northeast Hopeh Province near the Great Wall, on the Gulf of Po Hai. On the Tientsin-Mukden Railroad it was a major commercial port, being more or less ice-free during the winter.

I watched with fascination as we moved ponderously into the wharf of this strange, very foreign city, the gangplank was lowered, and the usual hordes of officials and other busybodies swarmed aboard. As was always the case, unloading of cargo began immediately. Here, however, instead of machines, the cargo was unloaded by a stream of human beings, each carrying an enormous load on his head or shoulders. This was my first sight of the Chinese people and what struck me most vividly at the time was the size of the workers. I had expected the Chinese to be a small people — these men were giants! At that time all Chinese laborers were called “coolies,” a term that has disappeared from the English language because of its connotations. And, while one stream of coolies trotted down the gangplank with our cargo, another and much dirtier stream trotted up another gangplank carrying coal for our bunkers. Incredibly to me we were coaled by this human conveyor belt, each Chinaman carrying on his head a wicker basket, filled with coal, which he dumped into our bunkers, then trotted back for another load.

The next morning we boarded a train at the dock which was to take us to Peking. There were no Chinese on the train, only US military and their dependents. In the last car was a detachment of soldiers from the 15th Infantry; our protection for the trip. China, at that time, was in its usual state of turmoil only more so. While the country was ruled nominally by a central government headed by Chiang Kai-shek, his authority was far from absolute. Instead there were a number of so called “warlords,” each with his own army, each exercising some sort of control over a portion of the country, and each owing nominal fealty to the central government. Some of these warlords were little more than bandits and there was sporadic fighting among them at all times. Then, to make matters worse, the Japanese army had invaded and taken over the province of Manchuria several years earlier and was slowly and sporadically extending its hold on that province to the rest of China. In recognition of the inability of the central government to control the country, a number of European governments and the United States had, after the Boxer Rebellion, established conclaves in Peking, Tientsin and Shanghai where citizens of their countries lived and carried on business with China. These were protected by detachments of soldiers from the countries involved which were stationed there without a by your leave from the Chinese government. Because of this state of affairs the train from Chinwangtao to Peking was always protected by a detachment of US soldiers.

The train trip took a day and was fascinating. We rolled through some of the bleakest country I had ever seen in my short life. It was winter, of course, and the countryside was gray. There was an occasional tree but most had long ago been cut
Trip to China and Japan

down for firewood. The most prominent feature of the landscape which was flat and, presumably agricultural, were the grave mounds. These were man-made hills in which the people buried their dead and, since this was China where the dead were numerous and revered, there were many, many of these and they were not tiny. As we looked out of the window of the train at the roads and occasional village the landscape looked as though it had been swept with a giant broom. There was not a scrap, not a stick, not a piece of straw — everything was used by the peasants. This parsimony made the wasteful use of a good portion of the countryside for graves seem astonishing to me.

Considering the vast population of China I was surprised that we saw so few people from the train. At every town we passed there were soldiers in the quilted blue uniform that seemed to be universal in all Chinese armies. We stopped at the station in one large village and a company sized group of Chinese soldiers were drawn up in three ranks to witness, as it turned out, what would be described in the American army as Company punishment. Two soldiers held a third soldier by his arms and in a crouching position. Then an officer walked up to them with a large stick in his hands and began beating the soldier. He was still beating him when our train pulled out of the station, presumably for some minor violation of the regulations.

I was very interested in the equipment of the Chinese troops and noted it carefully. Most of the soldiers carried what seemed to be a variation of the old Mauser bolt action rifle. A large number of them, particularly the officers, carried old Mauser pistols which had a magazine in front of the trigger and was carried in a wooden holster which could be attached to the pistol grip in such a fashion as to make a shoulder fired weapon of it.

At Peking we settled into the Hotel des Wagons-Lits in the International Settlement. This hotel was owned and run by the British but staffed with Chinese. It was a luxury hotel and I enjoyed it — meals were good and we discovered the British custom of “tiffin” which was tea and sweets in the middle of the afternoon. The first order of business in Peking was to hire rickshaws. These were two wheeled carts but pulled by a man, not a horse. All rickshaws proceeded at the same speed, a brisk trot, and the “rickshaw boys” could maintain this trot indefinitely it seemed. Each of the four of us had his or her own “rickshaw boy” who was available at any time to take us shopping or sightseeing. Even at that early age I had a guilty feeling about having a fellow human pull me around in such a fashion. However, after seeing the size of some of the Chinese passengers in other rickshaws I realized that my boy had a good thing going in me. While there were automobiles in the streets, most of the traffic was rickshaws, bicycles and pedestrians.

We spent the days sightseeing and shopping and, of course, riding around in our rickshaws. Of the shopping I remember best the shops where they made and sold silverware. These were full of beautifully crafted items of sterling silver — not just plates and such, but houses and ships and other fine models. It seemed to me that half of the population of Peking was in this business. Of the sightseeing I recall
best visiting the Forbidden City which was full of beautiful and interesting items. When we would go back to the hotel for lunch or, perhaps, tiffin, the stairs to the entrance would be swarming with Chinese beggars, hawkers, pickpockets and just plain folks. There was always a policeman or soldier on duty there and he would have to beat the people back with his stick in order to make room for us to enter the hotel. This was shocking at first, but after several days exposure to the poverty and misery of the streets of Peking one began to apply Chinese standards to the actions of the authorities. Everywhere one went there were beggars with horrifying infirmities holding out their hands. And we were warned not to give anything as they would then swarm over us.

The International Settlement in Peking was a strange aberration. One saw soldiers, sailors and marines in uniform from France, Italy, the United States, Britain and Japan and probably other countries as well, all stationed there to protect their countries’ interests. At each busy street corner traffic was directed by a great, bearded Sikh, wearing the distinctive turban and khaki uniform of Sikhs in the service of the British Raj. I never learned why they seemed to have a monopoly on these positions but I do know that I would never have dreamed of disobeying a signal from one of these dignified giants.

After a few days in Peking we took a train to Tientsin, perhaps a hundred and some miles south and west.* Tientsin was very much like Peking in our eyes — swarming with Chinese in their blue quilted jackets and trousers, very much the winter uniform of the Chinese workingman — and beggars, beggars everywhere. We spent a couple of days there and then took a short train trip to Tientsin’s port, probably Hanku. There we boarded the Chojo Maru, a small Japanese passenger and cargo ship belonging to the great Japanese shipping firm OSK (Osaka Shosen Kaisha). And there we ran into another of the strange anomalies of that strange war between China and Japan. On one side of the railroad at the wharf were Chinese soldiers; on the other side, separated from them by a wire fence, were a couple of Japanese marines. Since these were the first Japanese military we had seen I looked them over with a great deal of interest. They were short (as I had expected), sturdily built, and had the bored lackadaisical air of the veterans that they probably were. If they were thinking, as I was, that this was a peculiar kind of war, they didn’t show it. They ignored the Chinese soldiers and were ignored in return.

The Chojo Maru of the Osaka Shosen Kaisha Line was a small black ship of 2600 tons displacement whose principal business was the carrying of general cargo — our family were four of about forty passengers aboard.† I didn’t get to know our fellow passengers very well because the sea began to build up shortly after we left port and I soon repaired to my bed without dinner and spent a wild night there as the ship tossed and plunged in the heavy seas. My father used to brag in later years that

*Now called Tianjin. (ECD)
†The Chojo Maru was sunk on the night of February 15, 1944 by the US submarine Tinosa. (ECD)
he was the only passenger who showed for breakfast the next morning. Fortunately we were in the Inland Sea in a day or so and the remainder of our brief voyage was pleasant. Pleasant but not memorable, apparently, since I can not recall much about it nor even what port we landed — probably Osaka.

We went to Tokyo where we had rooms in the famous Imperial Hotel — built by Frank Lloyd Wright in the early twenties — and renowned for having survived the terrible earthquake of 1923 that devastated Tokyo. Recall that this was only 1933 and that earthquake was still a recent memory. I was relieved to be staying at a hotel that had survived such a terrible quake and felt reassured that it would ride handily through any minor ones that might occur during our stay. My memories of Tokyo are sketchy but I do recall dining at the Imperial and attempting to impress the waiter by ordering water by asking for mizu. For years I had a Japanese vocabulary of that one word until, by the end of World War II, I had tripled my vocabulary with banzai, and kamikaze. The most persistent memories of Japan are of the children marching to and from school in their black and white uniforms and of so many of their parents in Tokyo bustling up and down the streets with white gauze masks fastened over their noses and mouths. Apparently they had a deathly fear of germs but, young as I was, I could not believe that these crude masks would filter out bacteria. I also recall the warlike atmosphere that existed in Japan then. There were posters everywhere exhorting the population to emulate the three human torpedoes who had apparently carried a bangalore torpedo up to a Chinese barbed wire barrier and thrown themselves and the torpedo on the wire, blowing themselves and the wire up. I don’t know whether I was more impressed by the bravery they exhibited or by their tactics, which didn’t seem too smart even to a twelve year old. However, this incident foreshadowed what was to come in World War II.

We visited Kyoto for one day but all I recall is exotic temples and snow on the ground. I have to confess that my principal interest in Japan was the fact that here was a country that was actually at war with all the excitement that that entailed in the mind of a young boy from a country that had decided to forgo future wars.

We spent just a few days in Tokyo and then repaired to Kobe where we boarded the SS President Jefferson of the American Mail Line, sometimes called the American President Line. This was a ship of moderate size that plied back and forth from the American west coast to Asia with passengers and some cargo. There were four or five families from Fort Stotsenburg with us and we had a lot of fun on that ship. We had purchased a mah-jong set in China and we played mah-jong with the adults every day. I had so much fun playing mah-jong that I have tried ever since to get up a game but have never met anyone else who wanted to play. Now, some sixty years later I still have the mah-jong set but can’t remember the rules! Incidentally the President Jefferson, a troop ship by then, was sunk by the Japanese in the harbor of Espiritu Santo in the New Hebrides on October 26th of 1942, just some nine years later.*

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*Franklin wasn’t quite sure of this and added a “(?’” at the end of the sentence. And his doubts were founded: this doesn’t seem to be the case. The President Jefferson, ex-Wenatchee, built in
Our first port of call on the way home was Shanghai. This was China’s principal industrial and business center at the time. We were not there long and took a quick sightseeing tour in a taxi. There was little of interest — by this time I had seen all of the beggars and coolies that I wanted to see. The Japanese had bombed a section of Shanghai some months before as a lesson to the Chinese, I presume, and this area was now one of the sights for tourists. The results of the bombing may or may not have impressed the Chinese but they certainly impressed me! The entire area of a number of city blocks had been leveled. By later standards in Europe this was small potatoes but at the time it represented state of the art. Like Peking and Tientsin, Shanghai had an International Settlement under the control of a consortium of European nations plus Japan and the United States, and traffic was under the direction of the imperturbable Sikhs. One thing I do recall about the harbor at Shanghai was the large number of foreign warships at anchor. Nations had a custom at that time of sending a warship to an area of international tension — this was called “showing the flag.” And Shanghai harbor was full of rakish gray cruisers from a number of nations. Cruisers were an inexpensive way to show the flag and were also chosen for that duty since they were little good for anything else.

Our next port was Hong Kong, a lovely island next to the Chinese mainland. We spent one night at anchor there and my parents went ashore for dinner and dancing leaving my brother and myself content to remain aboard ship — we had had a surfeit of sightseeing. Since Hong Kong was an island, transportation to it was by boat, and I spent hours watching the myriad of sampans, junks and nondescript boats plying their way around the island and the anchorage with its tourist ships, freighters and, again, gray cruisers from the world’s navies. The next morning we left and a few days later arrived back in Manila on April 10th.
As I mentioned earlier, the Philippines had only two seasons, the hot season and the rainy season, both terms adequately descriptive. But Nature could be quite violent upon occasion. Most rainy seasons would be marked by at least one typhoon, the local name for what we would call a hurricane here. Most typhoons deluged us with rain but did little damage. However, we had one typhoon during our stay that did considerable damage to the post.

Quoting from a published account, “On October 16th, 1934, a typhoon, the fury of which lasted about five hours, swept Manila and vicinities. The typhoon which seemed to come from nowhere, struck Manila unawares, the suddenness of the storm may be derived from the following data.

No. 1 signal at 8:10 PM. Oct 15
No. 4 signal at 1:40 AM. Oct 16
No. 7 signal at 4:53 AM. Oct 16
No. 5 signal at 6:20 AM. Oct 16

“At the height of the gale the wind had a speed of 57 MPH. In contrast to the typhoon of 1882 which had a speed of 122 MPH. Damage estimated at millions caused thousands to be homeless and suffering. Manila was half under water. Total rainfall was 12 inches for the day which, with high tides, combined to flood part of Manila. Seven ships in the bay were forced aground with some of the smaller ones completely demolished.”

As it appeared to us at Fort Stotsenburg, the storm began with the usual downpour. During the morning the wind began to increase, however, until it was blowing the rain almost horizontally. As the gusts increased in violence we huddled nervously on the lee porch of our home and watched the trees bending in the wind and the branches snapping off. Then we noticed that the metal roof on the neighboring house, some 50 meters away, was flapping up and down in the wind. Finally, as we gazed in horror, the wind stripped the heavy sheets of corrugated iron from the roof and sent them flying through the air as though they were paper. This, fortunately,
was the climax of the typhoon’s fury and the winds slowly subsided during the after-noon and the night while we slept nervously. The next morning the air was calm and the sky cloudless and we went out to see the damage. At first glance Fort Stot-lsenburg appeared devastated but it was soon apparent that the damage was mostly cosmetic and largely confined to the trees. All the streets were lined with beautiful old acacia trees and all of these had lost limbs and branches and some of them had been completely uprooted and lay across the roads. Some of the houses had, like our neighbor’s, lost their roofs, and there was some flooding. But, on the whole, we had survived the typhoon in reasonable shape, and within a few weeks the post looked nearly normal once again.

Earthquakes were also common in the Philippines and we had several while we were there. All were very minor but frightening nonetheless. When the ground began to tremble there was no assurance that this would be a minor quake, and I, for one, was terrified until it stopped, usually after a few seconds. As it eventually turned out, the greatest natural hazard there and the one that eventually wiped out Fort Stotsenburg and Clark Field in 1991, was neither typhoon nor earthquake but the then dormant volcano, Mount Pinatuba, of which I have spoken earlier. But, since this had been dormant for some 600 years, we gave it little thought.

Our last year in the Philippines was my first year of high school. Our class had some six or seven children in it and we took a normal curriculum. My favorite subject was French. The thought of knowing a foreign language fascinated me and we had an excellent teacher, Mrs. Hartman, like all our teachers, the wife of one of the officers. So I worked hard every day on the vocabulary and grammar, hoping that someday I might be able to use it, but never dreaming how useful it was to prove to be in the years ahead. Strangely, I can’t remember what other subjects we studied — English, undoubtedly, and some sort of mathematics. With a class of seven there were no electives! Like my brother, I was a good student, but not particularly outstanding.

The post had a good library and I would bicycle up to it once a week and take out a book or two since I always enjoyed reading. I enjoyed both fiction and non-fiction accounts of The World War, mysteries, and some science fiction, Edgar Rice Burroughs being a favorite author. I sometimes felt I should read something a little more challenging and managed to get through Dickens Our Mutual Friend without much enthusiasm. Our newspaper was the Manila Daily Bulletin and I would spread it out on the floor each evening, read the comics first, then go through the rest of the paper. Thus I was quite aware of what was happening in the world without being overwhelmed with humanity’s problems as are today’s young people, faced with television and a gloomy press. Although we were living through one of the world’s most difficult times, the press, the cinema, and people in general were remarkably optimistic. Looking back, my two greatest worries were whether I had B.O. (Body Odor) or Halitosis (Bad Breath), two diseases invented by the advertising industry and only curable through the use of Lifebuoy soap and Listerine mouth wash respectively.

Dancing was considered a social grace that all young people should master so our
mothers set up a dancing class for us. The girls all volunteered to attend and the boys were all drafted. One of the officers wives (naturally) who could play the piano taught the course and all of the children our age attended. I was terrified at the thought of holding a girl in my arms and trying to move my feet in incomprehensible patterns without tripping her up. But we had no choice, and, after a few lessons, I found that I actually enjoyed dancing though I would never have admitted it to anyone, particularly my male peers. Then and since, all girls seemed to know instinctively how to dance while nothing came easy to us boys. I have never understood how my female partner could anticipate what my next step would be when I didn’t know myself! This was a time when Fred Astaire and Ginger Rogers were just beginning their remarkable dancing careers and a comment I have heard about Ginger sums up my impression of my dance partners. This was that “Ginger Rogers did everything that Fred Astaire did | going backwards in high heel shoes!” Our performances were somewhat more modest than Fred and Ginger’s. We learned the one step, the waltz and the fox trot, and that was it.

One of our greatest pleasures was building and flying model airplanes. Like most youngsters of the time we were fascinated by airplanes and by the exploits of the military aviators in World War I. We built so called flying scale models. These were models of simple single-engine aircraft of the war and later. I built a Nieuport biplane, an Ansaldo biplane and a Bellanca monoplane, among others. These, which were purchased as kits for 35 cents to a dollar, had the various parts printed on balsa wood sheets. We would then cut these out with razor blade, assemble them by pinning them to the plan, glue everything together and cover the wings, tails and fuselages with rice paper held in place with something called banana oil. Then we would carve the propeller from a block of balsa wood, run a wire through the hub and attach a rubber band to a hook on the wire and to another at the tail of the model, inside the fuselage, of course. When it was finished we had a rather nice looking aircraft that we could admire at some length and then actually fly. To fly it we wound the propeller some fifty or so turns or until the rubber motor was sufficiently taut and then launched the model into the air. If we were lucky it would fly for some five or ten seconds and then gently land on the ground. More commonly, it would either dive promptly into the ground or rise steeply into the air and then dive into the ground. We were smart enough to fly over grass so that crashes were seldom fatal. We had to order a kit at least two months in advance since it took a month for our order to go through the mail to the States and then another month for the kit to get back to us. There was no air mail from the Philippines to the States at that time.

Part of the fun of building model airplanes was destroying them as spectacularly as possible. Sometimes we would set fire to the model and then launch it and watch it dive in flames into the ground. Once, I found a shell casing from a .50-caliber machine gun cartridge and decided to make a cannon out of it and shoot down my airplane. This shell had an opening one-half inch in diameter and was about five inches long. It had been fired, of course, so there was no powder and no cap in it. So I drilled a
small hole near the base of the shell, inserted a fuse from a pack of firecrackers I had purchased in Sapangbato, then broke open some twenty or so firecrackers, poured out the powder, and packed it into the shell. Finally I tamped the powder in place with a wad of paper and inserted a marble into the barrel of my cannon. I had mounted the .50-caliber shell carefully in a wooden carriage designed to make it resemble, to my imagination anyway, a proper cannon. Then I put it some three feet from my model, sighted it properly, and applied a match to the fuse. The fuse burned quickly, and for a moment nothing happened. Suddenly, there was an enormous explosion, the marble went one way and my cannon went the other with nearly an equal velocity. I never found the marble, which missed the airplane, and, dissatisfied with the spectacular recoil, I never fired another shot from my cannon.

On the whole my brother and I enjoyed life in the Philippines but it was an artificial environment for an American youth so we were both glad when our father announced one day that we were being transferred back to the States, and not to another military post but to the city of Buffalo, New York. A greater change of environment would be hard to imagine. We would be leaving the pleasant cocoon of military life for the rough and tumble of the large city and the tropics for the snow capital of America. It was with anticipation but with some nervousness that I looked forward to a new life so different from all that I had known till then.
Sometime in April of 1935 we drove from Stotsenburg to Manila, boarded the USAT \textit{U.S. Grant}, and sailed out of Manila Bay for San Francisco.\footnote{The USAT \textit{U.S. Grant} was built as the \textit{König Wilhelm II} in Stettin, Germany in 1918 and seized by the US Government in 1917 and renamed the USS \textit{Madawaska}. In 1922 she was renamed the USAT \textit{U.S. Grant}. (ECD)} As we passed Corregidor we little dreamed that in a short seven years Stotsenburg, Manila and Corregidor would be in the hands of the Japanese army and the soldiers of my father’s regiment, the 26th Cavalry, would all be killed or captured.\footnote{The 26th Cavalry fought bravely resisting the Japanese invasion. On January 16, 1942 the First Platoon of Troop F, led by Lt. E. Ramsey, charged the Japanese in Morong, pushing them back across the river. This was the last mounted charge of the US Cavalry. Lieutenant Ramsey, along with many other members of the 26th Cavalry, refused to surrender and built a guerrilla army on Luzon. His story can be found in \textit{Lieutenant Ramsey’s War: From Horse Soldier to Guerrilla Commander}. (ECD)} But that was in the future and certainly no concern at that time of myself or my brother. The long trip to Hawaii was pleasant and we were only there for a day or two, barely time to see the sights of Honolulu once again. We went in the afternoon to Waikiki Beach, had tea at the Royal Hawaiian Hotel (one of only two hotels on Waikiki at that time!), and watched the surfboarders and the outrigger canoes riding the surf. I began to feel somewhat strange while we were on the beach and when we got back to the ship, and after the ship had departed from the pier amid the usual band music, commotion and tears, my parents took me to the ship’s doctor. He diagnosed pneumonia and put me into the ship’s hospital, a small, dark area deep in the bowels of the ship. I remember nothing about the next five days until we docked at San Francisco where I was taken down the gangplank on a stretcher, placed in an ambulance, and carried to Letterman Army Hospital, perched on a hill at the Presidio and overlooking San Francisco Bay. I couldn’t have felt too bad by then because I recall being quite pleased at the attention I was getting!

My room there was large and bright and all mine, a private room, in short. At
that time there were no antibiotics and, really, no treatment for pneumonia other than rest. In my case the worst was over by the time I left the ship and, other than a great weakness and an inability to take more than half a breath, I really didn’t feel too bad. My bed was next to a big window through which I could see the Golden Gate and, between the hospital and the Bay, Crissy Field, a small army airfield with a single runway. At that time construction of the Golden Gate Bridge was well under way and I would spend hours watching the twin towers that were to hold the great suspension cables rise slowly from the sea. From time to time a great ship would pass through the Golden Gate and I would follow it with my eyes until it would disappear from view. And, below me, small yellow winged army biplanes would take off and land in apparent slow motion from the airfield. When I tired of looking out I would spend hours reading books from the well stocked hospital library. Then, three times a day, an orderly would come in with a tasty (to me) meal. Finally, at night I would put the earphones from the room radio to my ears and listen happily to drama, comedy or music. This was the golden age of radio and, coming from the Philippines, all the programs, musical, comedy and drama, were new and exciting to me.

In a nutshell, I thoroughly enjoyed my illness and my stay at Letterman. Still, I was glad to be released after some six weeks of very slow recuperation. My parents had rented a sparsely furnished apartment, on Geary Street if my memory serves me, and I moved into that while we were waiting for the next army transport to arrive from the Far East. It was early spring by then, the baseball season was just getting under way, and our father took us to Seals Stadium where the San Francisco Seals of the Pacific Coast League were playing. They had a young outfielder they were very keen on, a certain Joe DiMaggio, who made one sparkling catch and hit one home run for us. That was the only time I was to see “Jolting Joe DiMaggio” as the newspapers would call him. We also all went to see a movie, Roberta, with Fred Astaire and Ginger Rogers. This was the golden age of the cinema and the theater was a veritable gilded palace. The moving picture theaters in the large cities were, at that time, modeled after European opera houses, and the feature film was preceded by a splendid stage show complete with an orchestra in the pit. All this for about sixty-five cents a person. And the theater was packed, despite the Depression.

The good old Grant finally arrived in port and we moved immediately aboard. Thence we proceeded once again through the Panama Canal to New York and then to Buffalo where we rented a house at 72 Winston Road in the North Park section just off Hertel Avenue. This was the first time I had ever lived in anything other than government quarters. This house must have been about 15 years old, a two story frame house with a basement just like all the other homes nearby. It had a very small front yard and a somewhat larger back yard. The driveway went right past the house to the single car garage at the end of the back yard. We had steam heat from a coal fired furnace in the basement and there was, of course, no air conditioning — no one had heard of an air conditioned home at that time, though large department stores, theaters and museums were beginning to be cooled. My brother and I shared
a bedroom on the second floor.

We made acquaintances very slowly since the school year was winding down and we had little opportunity to meet other children. However, we were used to being on our own and my brother and I would spend hours in the back yard playing baseball with one another. We immediately developed an interest in the local baseball team, the Buffalo Bisons of the International League, and followed them avidly in the newspapers, the radio, and in person over the next three years. I must confess that neither of us ever did much work around the house and, if I were to fault my parents in any way, I would criticize them for not giving us more chores. We were not lazy, but we never had to work hard, and that was not good.

On the whole my brother and I thoroughly enjoyed our years in Buffalo despite initial apprehensions about city life. We enrolled in the autumn of 1935 at Bennett High School, the newest and presumably the best public high school in the city at that time, and for the next three years our lives revolved around school. In my freshman class at Stotsenburg there were about seven students — at Bennett my sophomore class numbered around five hundred! We had had no athletic teams at Stotsenburg — at Bennett there was a full range of interscholastic sports from football and ice hockey to fencing and golf. Our teachers were excellent and discipline in the school was no problem. Students were expected to be quiet and attentive and they were reasonably so. The one exception I recall was in the so-called “study hour” in our home room. This was generally crowded and was supervised by an unattractive old-maid teacher called Miss McNarney. Miss McNarney must have been nearing retirement, she was deaf and had a rather sparse head of hair. During the hour while most of us were studying, some of the students who were not particularly interested in school work would bait the poor old lady. From somewhere in the back of the room there would be a loud stage-whisper, “Miss McNarney wears a wig.” It had never occurred to me that Miss McNarney, or, indeed, anyone else might wear a wig, so I looked at her with more than the usual interest. Seeing no reaction from the deaf old soul, a second student would get bolder and repeat in a whispered shout that “Miss McNarney wears a wig!” Again no reaction so for a third time, and in a loud voice, “MISS McNARNEY WEARS A WIG!” This would finally catch her attention and she would cast a stern eye over the class, looking for the source of the noise that, I always hoped for her sake, she could not understand. But I noticed that I could never again pass her in the hallway without looking to see if she really did wear a wig. I finally concluded that that sparse, stringy red hair was indeed her own. No one would don such a head of hair willingly.

In those days grades nine through twelve were called “high school.” School began in late September and ended in early June. The school day was divided into seven one hour periods beginning at 0830 and ending at 1600 hours. Most students took five subjects and had one study hour. Including my year at Fort Stotsenburg I took four years of English, three years of French, Mathematics including Plane Geometry, Algebra and Advanced Algebra (Solid Geometry and Trigonometry were offered but
I didn’t realize I should take those), one year each of Physics and Chemistry, a year of World History and one of American History, Civics, and several electives, one of which, Typing, turned out to be the most useful subject of my academic life.

The bells would ring throughout the building at ten minutes to the hour and students would fill the hallways, rushing to their next class which would begin on the hour. Sometimes the first hour would be Assembly, a gathering of the entire student body in the school auditorium. If Assembly lasted more than a half hour then one class that day would have to be skipped. Assembly was, therefore, very popular, and there was much checking of the clock by the students as an Assembly would near the half hour mark and show signs of carrying on. Assembly might be devoted to anything from a pep rally for the football team to a concert by the Buffalo Philharmonic. The Philharmonic must have been delighted by the lengthy applause and calls for encores as, unbeknownst to them, the students attempted to prolong the music into the first class period.

Both my brother and I did well at the school from the first day.* I am looking at the program for “The Fourteenth Annual COMMENCEMENT of Bennett High School on June 28th of 1939,” my brother’s graduation. On scanning through it I notice that the State Scholarships for the previous year, my own, are shown. Bennett won 13 and, leading the list of names with a 96.33 average, is Dukes, Ernest F. The list of class officers was headed by James B. Dukes, President. He was also shown as recipient of a four year scholarship to Brown University for $300 per year — a scholarship that he did not use. My class is shown as graduating a total of 552 persons the previous year. Interestingly, in my brother’s class 82 boys and 127 girls are shown as having applied to higher institutions of learning. This was an unusually high percentage for those days but Bennett drew its student body from a white collar residential area of the city and was considered an “elite” high school — at least by its own faculty and students.

We were on a semester system; that is, the school year was divided into two semesters. Grades were numerical — you could get anything from zero to a hundred for an assignment or for a course. At the end of the fall semester we would get our report cards and the Buffalo Evening News would publish the names of all students throughout the city who had made the honor roll (grade average above ninety) together with their grades. There were three of us in our class of five hundred who would usually be competing for high grade and thus first on the honor roll list; Norma Knipple (she was as homely as her name), Jimmy Holderbaum (a somewhat effeminate intellectual) and myself. It took a semester grade of about 98.6 to carry the day.

New York State had a highly centralized school system at that time and the final exams at the end of each semester were issued by the State Board of Regents and

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*Franklin’s graduation description in the 1938 Yearbook reads: “participated in two interscholastic debates, was an office monitor and a member of the Student Council of 206, made 19 honor rolls. He belonged to the Legion of Honor, Fencing and Philosophians. He will attend Rochester University.” (ECD)
were identical for every school in the state. So the last week of every school semester was devoted to the “Regents” as the examinations were called. I don’t know whether this was a good system or not but it had the great virtue of being very impartial.

Athletics were very important to young people at that time. Even in Stotsenburg where there were no scholastic athletics, it was important to excel outside school in swimming or tennis, pickup baseball or touch football. At Bennett this was much more important. If you were on one of the interscholastic teams you could win your “letter,” a large B which your mother would sew on the front of your sweater. Then you would wear your sweater to school for all to admire and many to envy. Unfortunately I was one of those who envied. I loved sports, played many of them in Buffalo — golf, baseball, and hockey — basketball was not a big sport in those days. But I excelled in none; indeed I seldom rose to mediocrity in any of them.

I was taller then most, some six feet by then, and weighed about 130 pounds, so I thought I might be a runner. Consequently, one fall I went out for the cross-country team. The team practiced in Delaware Park and the first day of the season we were all transported there. The coach explained the course, lined us up, and we started running. Actually, the others ran — I jogged, but it was the best I could do. I finished the course, some five or six miles I believe, but when I arrived at the finish line everyone else had gone home and I had to take the trolley. I repeated this several days and then decided that cross country was not my sport either. So I never won my B to my intense disappointment. My brother, always a better athlete than I, did earn his letter in track, for which I truly envied him.

Of all the sports we played I enjoyed baseball most. Buffalo had a marvelous municipal baseball program with a number of leagues for players of various calibers and, literally, scores of teams. My brother and I played for several years on one of the teams and I enjoyed it immensely. We were sponsored by one of the local businesses who provided us with uniforms with the business’ name on the back. I was thrilled — I had never worn a baseball uniform before. Like all the leagues throughout the city our schedule was drawn up by the officials and we had real umpires furnished by the city and played on well manicured diamonds maintained by the city. Most of our games were played in the long summer evenings — I don’t remember lighted fields — and on weekend afternoons. The box scores would appear in the Buffalo Evening News where I could read my name — F.Dukes 0 for 4, F.Dukes 0 for 3 and so on. I played second base for some reason and, as someone else once wrote, “while he was not a very good fielder, neither could he hit.” But it was great fun. We played against some good players too. Warren Spahn, who later made the major league baseball Hall of Fame, pitched against us.

In the summer, when we weren’t playing baseball we played golf. The city had a modest 18 hole golf course at Delaware Park where we could play for 25 cents a round and we would play there with several friends [Don Blech, Bill Bain?] two or three times a week. Then, a year or so after we arrived in Buffalo, our father joined Meadowbrook Country Club which had an excellent 18 hole course. When my brother
and I got our car we would drive out there four or five times a week during the summer and play golf. We had rudimentary sets of golf clubs, never took a lesson, and had even more rudimentary swings, but we loved to play and would play 18 holes in the morning, eat a sandwich and then play another 18 holes in the afternoon. Since we only played during the week the course was usually all ours.

In the winter we were crazy about ice hockey. My brother and I would pile up the snow in the back yard so as to form an enclosed rectangle and then flood it from the garden hose. When it froze we had a small hockey rink and we played hockey alone or with several friends. There were also several small ponds (more properly, marshes) a few blocks from home and these gave us larger rinks when conditions were right. After school we would rush home, grab our skates, and walk to our makeshift rinks where we would play hockey until it became too dark to see the puck or our tired ankles would collapse — or usually both. Unfortunately, even in Buffalo there were periods during the winter when the temperatures would rise above freezing, the ice would become mushy, and we could not skate on it. We never gave up, though, until we were skating through slush and water and the puck just would not slide. We loved the game and hated to see the winter temperatures go above freezing.

In 1936 I reached the magic age of sixteen — a very important age since it made me eligible to apply for a driver’s license. New York state at that time allowed sixteen year olds to get what they called a “junior license.” It had all the privileges of a regular drivers’ license with one important exception — one couldn’t drive after dark with it. As my birthday approached my father took me out and taught me to drive his Chevrolet. It had, of course, a stick shift, and learning to drive was mostly learning to shift gears and release the clutch smoothly. Clutches then had a tendency to grab, and I had the devil’s own time learning to start smoothly. One had to push the clutch down with the left foot, shift the transmission into low, then feed just the right amount of gas through the accelerator with the right foot while releasing the clutch carefully with the left foot. If you had the bad luck to be starting on a hilly street you also had to use your right foot on the brake to hold the car in place while going through the above drill. That meant that you had three controls on the floorboard to handle with only two feet. If you released the clutch too quickly or gave too much gas (or both) the car would leap forward in a more or less uncontrolled fashion. Or the car would jerk forward, in a series of spasmodic lunges, causing your right foot to bounce up and down on the accelerator, which served simply to amplify the lunges. Those transmissions were the very devil to learn but I finally mastered ours and passed my driver’s exam and received my license.

When, a year or so later my brother also earned his license our father bought us our first car. This was a 1929 Ford Model A roadster with a fold-down canvas top and, instead of a trunk in the back, a so-called “rumble seat.” Normally it looked like a car with only a front seat but, when the rumble seat was unfolded two more persons could be accommodated, exposed of course to the air and the elements. We bought the car from a schoolmate, Don MacLeod, for $20.00 and it was licensed in
our father’s name. In those days formalities were a blessed minimum; we had no
insurance and the car did not have to pass a safety inspection. This was fortunate
since it would never have passed the most primitive such inspection. We were quite
surprised that dad bought us the car — we hadn’t expected to get one and hadn’t
tried to pressure him into it.

We were among the very few youngsters of our age who had their own car and we
thoroughly enjoyed the privilege. It was great to be able to jump in the car with our
friends and drive out to Meadowbrook to play golf or to the baseball diamond for a
game. And it cost very little to run. We put in two or three gallons of gas at a time at
around 18 cents a gallon. When the oil level ran low we went to the filling station and
added oil that had been drained from some more pretentious automobile. Perhaps
my memory is faulty but I don’t recall spending any money on repairs. The car had
four adequate tires — for the speeds at which it was driven. The spare was another
matter. It had holes in the sidewalls through which the tube protruded. Once, in
fact, when we were driving down Main Street in Buffalo we heard a loud pop in the
rear of the car. After stopping and carefully looking for the cause, we discovered that
the spare tire had blown out! Another time, after I had gone away to college, my
brother was driving (again down Main Street) when he felt the car lurch and begin to
wobble. Looking beside the car as it slowed down, he saw the right rear wheel come
rolling past!

When I left for college I left the car with my brother. When he left for college a
year later he either sold or gave the car away, probably the latter. My last memory of
it was the day I returned home from college for Thanksgiving vacation. Delighted to
see it again, I jumped in it, started off down the street and swung around the corner.
As I completed the turn the residue of the previous night’s rain, which had collected
on the canvas top over the passenger side, shifted abruptly to the driver’s side which,
unfortunately, had a permanent gap of some size. Through this gap poured the water,
drenching me and diverting my attention for a disastrous moment. When I looked
up there was a lamp post directly in front of me and, before I could take any action,
I hit it. I must have been traveling only five miles per hour but when I hit the post
there was a loud crash and the car and I were showered with glass and fragments of
lamp post. It sounded and felt as if the car had been destroyed, but getting out and
carefully inspecting it revealed little or no damage other than a strange change in the
geometry of the front wheels — they no longer pointed in the same direction! The
lamp post was another matter — it was tilted over the car, bent, and the glass all
over the ground and my car. Getting back in the auto, I carefully backed away and
drove straight back home as best I could with the car shimmying from side to side.
I parked the car in front of the house and went straight to my room to ponder what
had happened. Within five minutes our doorbell rang and a police officer was at the
door. He proffered me the front license plate of our car, stating that he had picked it
up at the scene of the accident! Faced with such damning evidence I confessed and
was duly ticketed. My father ended up paying for the lamp post and my fine and
never said a work of reproach to me. He knew I felt badly enough and that I was a reasonably careful driver for my age and experience. My brother was not nearly so understanding.

While I was in high school I still was hoping to attend West Point, though I did not think my eyesight was good enough to pass the then very stringent physical exam. At the end of my sophomore year I was sixteen years old and old enough to go to Civilians Military Training Camp or CMTC for short. The CMTC, like the National Guard and the Reserve Officers Training Corps, was an effort to provide a reservoir of half-trained soldiers, as cheaply as possible. Young men (boys, actually — nearly all of us were still in high school) would go to camp for thirty days where they would be trained by Reserve Officers on thirty days active duty and by acting non-commissioned officers who were CMTC with several years at camp. One could attend these camps for a total of four years after which one would be eligible to receive a Reserve commission. I never met anyone, however, who actually was commissioned through this program.

The closest CMTC encampment was at Fort Niagara outside of Niagara Falls and there I joined several hundred other youngsters from the Buffalo area one early summer morning. Fort Niagara was infantry and we were issued the appropriate uniform and equipment and assigned to units. Mine was Company E. Our uniforms were left over from World War I; olive drab wool shirt, black necktie, khaki breeches and wrap leggings. These latter were long strips of olive drab wool which were wrapped around the legs from shoe tops to the knees. If not fastened properly they would unwind and trail along behind the neophyte soldier in a very embarrassing manner. All this was topped off with a cloth cap which had been called an “overseas cap” during the previous war and which we continued to so term. This cap was completely useless since it had no visor and could not shield the soldier from the sun in the summer, and didn’t extend over the ears so it could not warm his ears in the winter. But we did think that it gave us a very rakish soldierly look and the cap, in a slightly more stylish version, is still in use in the military, presumably for that very reason.

But, best of all, each of us was issued a Rifle, Caliber 30.06, M1903, generally referred to as a Springfield, and a bayonet. First year CMTC was infantry and we were to be trained as infantrymen.

We had a busy 30 days from early morning reveille to taps at night. Drills, weapons instructions, the manual of arms, inspections, athletics and retreat ceremonies kept us fully occupied. My rifle weighed some nine pounds and I a mere 130 at that time so I had some problems throwing my “piece” around so as to do a snappy “port arms!”, “present arms!”, “right shoulder arms!” “inspection arms!” etc. in the approved manner. The high point of the camp came at the end when we spent several days on the rifle range attempting to qualify with our Springfields. For weeks there had been talk about the severity of the “kick” from the high powered Springfield so we were somewhat apprehensive when we went out to fire our first shots. And, indeed, the
Springfield gave us all the recoil we adolescents could handle, particularly if the sling was not adjusted properly and the rifle not held firmly against the shoulder when fired. Afterwards we compared bruises while asserting that the kick was not too bad.

Among my fellow trainees there was no one from Bennett High School. All were from the high schools in the blue collar or working men sections of the city and its suburbs. As usual, the military was not popular at that time with the intelligentsia and the professional classes and it would never have occurred to the parents of my schoolmates to send their sons to CMTC. I got to know my tentmates well and found them, while somewhat rough around the edges, pretty decent fellows.

It was at CMTC that I first heard the story that surfaced again during basic training in World War II. My tentmates noticed that their sexuality had abated while they were in camp and it was rumored that the army put saltpeter in the food for that purpose. It was common knowledge amongst my fellow trainees that saltpeter would do the trick, though I, in my innocence, had never heard of this before. However, while we all pulled KP in the mess hall no one had been able to catch the cook adding saltpeter to the food. My own opinion, then and later, was that a busy schedule and hard work were the more likely causes.
The University of Rochester

In early September of 1938 my parents drove me to Rochester, New York from our home in Buffalo, unloaded my trunk and me at the River Campus of the University of Rochester, and helped me move into a small dormitory room in Burton Hall. The University of Rochester, founded in 1850, was still a fairly modest school — in 1941 our class in the College of Arts and Sciences, the class of 1942, had some 118 women and 127 men. The men and women were divided between two campuses. The women were located at the so called Prince Street Campus which was near downtown. The men had moved within the past few years from Prince Street to the brand new River Campus, called after its location along the Genesee River which flowed through Rochester. The River Campus boasted a sparkling new collection of buildings consisting of two dormitories, some four or five academic buildings, a student center, a splendid field house and associated athletic fields, a magnificent library, and a collection of about eight fraternity houses. The architecture was, I believe, Georgian. The buildings were all built of red brick which still looked painfully new. The ivy which had been planted at the bases of the buildings to give the new campus an old look had just started groping its way up the brick walls. Classes were usually separate for men and women unless a course was not given in Prince Street or there was a scheduling difficulty in which case we might have a woman or two in a class. We accepted this modest separation of the sexes as normal. The University also had the renowned Eastman School of Music in downtown Rochester and the Medical School at Strong Memorial Hospital a couple of miles from the River Campus. But The Medical School and the Eastman School could have been on another planet so far as we were concerned.

College in those days was much different from today. Probably some two percent of all high school graduates went on to college — today the figure is closer to fifty percent. Our class, men and women combined, was just two hundred forty five — today it is probably two thousand. As a result the college or university student felt then that he was most privileged as indeed we were. We knew that to some extent our
presence at the university was at least as much a function of our parents’ economic status as of our own intellectual efforts. Even then, though, many of my classmates were poor as church mice. But, if a young person did reasonably well in high school and was determined to go to college, he could always find a way to do so. There were scholarships (which were generally given, though, on a basis of academic achievement rather than need) and there were jobs around the university which were awarded solely on the basis of need. In my case, for example, I was awarded an Optics Prize Scholarship by the university which carried a stipend of five hundred dollars a year, and a State Scholarship by the state of New York which added an additional hundred dollars annually. That six hundred dollars covered my tuition. In principle, any qualified person could go to college. In practice, most Americans at that time never considered college as an option and were content with their high school degrees.

One difference, then from now, was that there was no crime and certainly no violence on campus. We never locked our doors and I never heard of anything being stolen, nor of anyone being assaulted. This changed after World War II when the GI Bill of Rights resulted in a horde of subsidized veterans flooding into the colleges and universities. The highly motivated veterans did very well but after their departure the institutions of higher learning, which had expanded their faculties and their facilities, had to recruit students vigorously to keep those faculty and facilities employed. Now anyone can get into a college of some sort and we have athletes spending four years there who are literally unable to read! This increased availability of higher education is not necessarily a bad thing but I am reminded of a quote from someone that “Culture is like strawberry jam. The wider you spread it the thinner it gets.”

At any rate, after a week of orientation we plunged right into the academics. I discovered at once that academics were on another level from high school and the pace much faster. I had classes in the morning and laboratories most afternoons. Evenings I would study from around eight till midnight or later. Morning classes included Saturdays, and Saturday afternoons might be devoted to watching the football team in the autumn or a swimming meet in the winter. Then, as now, football was a very important collegiate activity. Following one’s team did add spice to the school year and was a source of pride or despair to the students. The big difference, at Rochester anyway, was that the football players were genuine students, and, if they had scholarships, they were given primarily for academic reasons. We took great pride in the fact that our undefeated football team, in our senior year of 1941–42, had as co-captains two Phi Beta Kappas, Fred Gehlman and Bill Bruckel. There was also another Phi Beta Kappa in the starting lineup, Bob Woods.

Fraternities were very important in Rochester then. A few weeks after classes began came Rush Week, when the fraternities would invite freshmen to social hours for the purpose of looking them over. There was, of course, great competition amongst the fraternities for the outstanding freshmen. Outstanding was measured in terms of personality, athletic ability, and to some extent, academic potential. At the end of the week the fraternities would ask their chosen ones to join them. There was
great relief when you were asked by your preferred house and heartbreak, no doubt, amongst those who were passed over by the fraternity they had set their heart on. The saddest were those few who received no bids. It was a somewhat cruel system. Of course, there were many students who did not want to join a fraternity or who couldn’t afford to. In any event, I set my heart on Alpha Delta Phi, and, together with two friends from Buffalo, Don MacLeod and Don Hodgman, was asked to join. Our pledge class that year consisted of thirteen freshmen and these were to be among my closest friends over the next four years.

These days when I read about the silly antics of college students I tend to forget that we were little better. One night there was an uproar in our dormitory and a cry went up to raid the women’s campus. Caught up in the infantile emotion of the moment or, more accurately, pushed by peer pressure, I piled into a car and some fifty or so of us roared over to their dormitory, where we jumped out, and ran back and forth outside in the darkness. I, at least, had no idea of what we were trying to do, and had the suspicion in the back of my mind that we were actually making fools of ourselves, and, worse, wasting time. Suddenly and without warning, I found myself on my back on the ground with a splitting headache. I had run into a guy wire which anchored a tall tree. It had hit me across the chest just below my neck, and I had done a backward flip and landed on my head, knocking myself unconscious momentarily. For the next two days I saw double. It was a painful lesson but I was a slow learner. Later in the year on a wintry Saturday night, someone suggested that we go over to the park and toboggan. It sounded good to me until we arrived at the park and I was sitting in the front of a four man toboggan on the top of the darkest hill I had ever seen. Someone pushed us and we disappeared into the darkness. As the toboggan rapidly gathered speed, the wind in my face, and unable to see an inch in front of me, I wondered, once again, what I was doing there. I envisioned the toboggan hurtling into a tree and my being smashed between the tree and the three other idiots seated behind me. The reality was nearly as bad. At the bottom of the hill the toboggan rammed suddenly into a steep knoll that threw it into the air and jammed my backbone through my skull — or so it felt. I was certain I had broken my back. Some forty years later when I was hospitalized with a ruptured disk I couldn’t help but wonder if that night in Rochester wasn’t the cause.

The first year at Rochester I did fairly well by dint of hard study. I had A’s in German, Mathematics, English Literature, and Physics 1 and B’s in Optical Drawing and Physics 2. The school year of 1939–40, however, was a difficult one for me. While I had an A in Physiological Optics, I had B’s in German, Economics and Physics 11; C’s in Physics 12 and Machine Shop; and a D in Advanced Calculus. That D really hurt. I had never had a poor grade in any course of study in my life and this one made me wonder if I might have chosen the wrong career. I couldn’t make any sense of the subject. Strangely, I repeated this course in 1957 at the Air Force Institute of Technology (actually using the same textbook) and found it easy!

That year my father was transferred to the 3rd Cavalry, one squadron of which
was stationed at Fort Ethan Allen near Burlington, Vermont. The other squadrons were at Ft. Myers, Virginia, just outside of Washington, DC. My father was assigned to Fort Ethan Allen and he and my mother had a very nice set of quarters there. It was quite a small post and in a very attractive setting. I went home there for the first time for Christmas vacation in 1940 and enjoyed the crisp, cold, sunny December days. My brother, who had enrolled at Rensselaer Polytechnic Institute that year, was also home for Christmas. We ice skated on the tennis courts in front of our quarters which the post had flooded for that purpose. We also went skiing at nearby Mount Mansfield, for the first time in our lives. We had as our instructor the son of another officer on the post who was attending Norwich University. He was on the Norwich ski team and was planning on trying out for the US Olympic team in ski jumping. He was killed jumping, just a year or two later.

The summer of 1940 we spent at Fort Ethan Allen. Cavalry reserve officers took their annual two weeks summer training on the reservation outside the post and my brother and I worked as orderlies for the six weeks that the camp was open. We did KP, swept and cleaned the barracks and made the beds for the reserve officers and their regular officer instructors. Our pay was 30 cents an hour but we did get some tips. At the end of each two week class the reserve officers would chip into a kitty for the orderlies and that might add another ten dollars to our two weeks pay. We slept in tents at the encampment and ate at the mess hall. It was a good healthy way to spend part of the summer but I found that I didn’t really enjoy that type of work.

The remainder of the summer we lived at home on the base, loafed and played golf. There were dances at the country club and a half dozen of us, boys and girls, would attend and dance to the music of the excellent band. This was the heyday of the so-called “big band” era with the orchestras of Benny Goodman, Tommy Dorsey, Artie Shaw and others playing the “swing” music that they had popularized since the mid thirties. And, all over the country, young musicians were forming local bands and playing the same arrangements that the big names had popularized over the radio and on records, and young people like ourselves were “fox trotting” and “jitterbugging” to the romantic songs and the swing pieces. The world was in terrible shape, the Depression was still devastating the country, there were terrible wars in Europe and in Asia and we were having a wonderful time.

The New York World’s Fair was the big event of the year and my brother and I borrowed our father’s car and drove to New York to see it. This was the first time either of us had driven such a distance and I am surprised, on reflection, that our parents let us do this. The Fair didn’t make much of an impression on either of us. All I remember of it is going to one pavilion where Tommy Dorsey and his orchestra were playing with Frank Sinatra as his lead singer. A week or two later we were both back in school.

My brother told a story later in life about his first year at Rensselaer. He had a fraternity brother who flunked out that year and, in discussing it with my brother, he admitted that he had been going out partying nearly every night of the week. As
he explained it, “I thought everyone else was doing the same. But, on looking back, I realize it was a different group every night!”

My junior year was a continuation of my second year. I worked hard but my grades were indifferent and I barely maintained the B average required to keep my scholarship. I had courses in physical optics, geometrical optics, photography, chemistry, and, of all things, history of art. I got an easy A in history of art and I began to wonder once again if I were pursuing the wrong field of study.

As a junior I was eligible to live in the fraternity house where my roommate was Donald Hodgman who is still a good friend some 50 years later. Living in the fraternity was somewhat distracting — there was always someone who wanted to play poker or anything else other than study. I was blessed in my roommate though and we stuck pretty closely to our books.

The war in Europe was well under way by then but it is surprising how little attention we gave it. There was no television to bring it forcefully to our attention and we were too busy with our studies to read the newspapers regularly. However, the war was beginning to have an effect on the country. Congress had passed a draft law and I had to register for the draft, getting an automatic student deferral. A fraternity mate of mine, Chuck Gleason, had become interested in flying and would go out to the nearby Rochester airport for flying lessons once or twice a week. I found my own interest aroused once again and before long I was also going out there for flight instruction. Flying lessons cost some seven and a half dollars for fifteen minutes so I would get my lessons fifteen minutes at a time whenever I could come up with the money.

My instructor was a very pleasant young fellow who was trying to build up his own flying time. I flew in one of the ubiquitous Piper Cubs, a small, fabric covered, high winged monoplane with a fixed landing gear and either a 40 horsepower or a 65 horsepower Lycoming or Continental air cooled engine. I never counted the number of cylinders but there must have been four. These planes sold, before the litigation revolution, for a couple of thousand dollars and you could have them in any color you wanted as long as it was yellow. The instructor sat in front, just behind the engine, and the student right behind him. There was no door but a couple of flaps, one folding down and one up. Once inside the plane, you closed the lower flap — the upper flap usually being left open while on the ground or in the air. The airplane was very easy to take off, to fly and to land. It must have been. After about six hours of instruction I soloed, making one v-e-r-y c-a-u-t-i-o-u-s circuit of the field and landing safely.

Those little Cubs were sometimes, though, the devil to land and to taxi afterwards. They landed at about 35 miles an hour and if there was any wind to speak of they would be hardly moving when they touched the ground. And, once the ground was warmed by the sun the heated air near the ground would rise and carry the little Cub with it. So there I would be, trying to make a respectable landing, and the plane would float down the runway, refusing to drop to the ground. Then, once on the
ground it had an unfortunate tendency to “windmill”; that is, to turn into the wind if there were any crosswind at all. It was most embarrassing to fly the plane safely around the airport and then be unable to taxi properly back to the hangar!

After eight hours I passed the test for my student pilot’s license. This authorized me to fly solo but not to carry passengers. There was small danger that any passenger would entrust himself to my precarious skills. I continued to pile up the flying hours until, at a total of sixteen hours, I ran out of money and my piloting career ended. My goal had been to get a private pilot license which required thirty-five hours and a ground and flight test.

I enjoyed the flying — mostly I enjoyed being around the airplanes and the people who flew and worked on them. But I don’t think I ever showed any particular knack for piloting an airplane — all my movements were mechanical — I never felt that the aircraft was a part of me as one feels with an automobile or a bicycle, for example. Perhaps, had I continued, that would have come.

In the summer of 1941 at the end of my junior year I found summer employment with Bausch and Lomb, then an old line optical company. The European war had given the optical industry a lift and Bausch and Lomb was slowly emerging from the depression. My job was to align and test industrial spectrographs under the guidance of an engineer who had been there for some time. It was not very interesting work, to say the least. I would strike an arc, focus the light on the slit of the spectrograph, expose the glass plate, take it into the dark room and develop it, check the spectral lines for location and sharpness. Then I would make several adjustments and go through the whole procedure once again. It was all trial and error and it took us some time to get a spectrograph adjusted properly. I was paid sixty cents an hour and worked 48 hours a week, eight hours of that on overtime. So my pay was $31.20 a week. I don’t remember having income tax or social security deducted from that but perhaps they were. I lived that summer in the home of the football coach, Dudley deGroot, with several members of the football team and we paid no rent. Today, the National Collegiate Athletic Association would probably suspend the coach for such a practice but it was considered a kindness then.

The Bausch and Lomb plant was a very dingy place, the work was dreary, and the pleasant and hard working engineer who supervised me was not making a whole lot more money than I. I didn’t see much of a future in optics.

During the year my father had been transferred from Fort Ethan Allen to Fort Leavenworth, Kansas. So, when I went home for a short vacation before the next term began, it was to Fort Leavenworth. I only remember two things about that brief vacation. One was a conversation I overheard between my father and another officer. The other officer predicted that the Germans, who had recently invaded the Soviet Union, would knock the Soviets out in a matter of weeks. The other was my brother being ejected from the dance floor of the Officers Club for dancing in a lewd and suggestive manner. I am certain that he would not even have been noticed today.

Upon my return to school in the fall of 1941 I found it harder and harder to keep
my mind on my studies as the war in Europe and the probability that we would enter it began to dominate my thoughts. The unexpected victory of the British in the air battle of Britain had captured my imagination and, with Hitler abandoning any thought of invading Britain and striking east into Russia, it began to look as though it might be a true world war before long. Like most Americans I was violently pro British and anti-Nazi. I was not anti German because I liked and admired the Germans but the Nazi regime as victor in a world war was unthinkable. Insofar as the long drawn out war between the Japanese and the Chinese was concerned, I sympathized with the Chinese but regarded that war as a side show to the real war in the west.

It was obvious to me that President Roosevelt was doing his best to get us involved in the German war. Like a true politician he insisted over and over again that he would keep the US out. At the same time he kept pushing us closer and closer to it. At first we would sell weapons to Britain, to be carried there in British ships. Then, when the British ran short of money, he started something he called Lend-Lease which, stripped of all rhetoric, meant that we continued to send them aid for which we never expected to get paid. Then we began to send this aid in American ships and, when the inevitable sinking of one of these occurred, he had the US navy escort the ships carrying aid to Britain. All of these measures were in massive and direct violation of the Neutrality Act which Congress had passed in the years between the wars to ensure that we would not get involved in another European war. President Nixon was forced out of office much later for a great deal less. It was obvious to me that we would get into the war if it lasted long enough. And, incidentally, I was behind the president one hundred percent in his support of the British and only regretted that he was moving so slowly.

One cold Sunday morning, December 7th 1941, I arose late and went down stairs in the fraternity house where the radio was on and a few of the brothers were lounging around. Suddenly I heard the words, “Pearl Harbor” on the radio as the news of the Japanese attack was broadcast to the nation. We all knew that we were finally at war. From that day on school held no further interest to me.* My only problem was how I was to get into the war.

I continued to go to class, spasmodically, and to do my assignments, but very halfheartedly. More than anything else I wanted to be a flier — preferably a pilot, but, if not, then a navigator or bombardier, nearly all of whom were commissioned officers. I knew that I had a slight astigmatism in my right eye and that I was perilously underweight — either of which could be cause for rejection for flight training. On

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*When I was at Fermilab outside of Chicago in the summer of 2003, Franklin’s friend and roommate Don Hodgman, with his wife Naomi, invited my family to a picnic on the shore of Lake Michigan in Evanston, Illinois. We were regaled with stories of Franklin at Rochester. Don confirmed Franklin’s total lack of interest in anything but the war: he had to kick him out of his room because he was making too much noise marching to and fro with a broom on his shoulder singing marching songs. (ECD)
the other hand, I also knew that there was an office in Toronto which had been set
up by some Americans who had flown with the British in World War I. This office
had, for some time, been interviewing young American men who wanted to fly in the
Royal Air Force. This was a very unofficial operation and the citizenship status of
Americans who enlisted in the RAF was somewhat hazy. However, there were lots of
them at that time. Furthermore, I knew that the British were much more desperate
for pilots than were the Americans and, for that reason, their physical requirements
were considerably less stringent. So I decided to try the Royal Canadian Air Force.

I contacted the Toronto office and arranged an appointment. Then, with another
American whose name I have long forgotten, I took the train to Toronto and reported
to the office there on a Sunday morning. I was interviewed by an elderly chap called
Knight, fairly well known as a writer in aviation circles, who had flown with the RAF
in World War I. He talked to us at some length, took our names and educational
data, etc. and then broke the bad news to us. Since the United States had gotten
into the war the Canadians were no longer enlisting Americans. But, he said, if they
change that policy, he would contact us to see if we were still interested. I was crushed
—I had set my heart on enlisting. It didn’t help any to see, everywhere in Toronto,
people in RAF uniform with a “USA” flash on their left shoulder; Americans who
had already enlisted in the RCAF. The British had so many military personnel from
other countries that they identified them with a distinctive flash — I saw many with
“Canada” of course, but also, “Australia,” “New Zealand,” “South Africa” and even
“Poland.” Most of the aircrew training for the British was being conducted in Canada
by then. How I envied those fellows, and how I kicked myself for not going to Canada
a year before!

So I returned to Rochester where I contacted the Air Corps Recruiting office and
filed an application for flight training with the United States Army Air Corps. To be
eligible for flying cadets an applicant had to have at least two years of college and to
pass the fairly rigorous physical examination. For a week I ate bananas and drank
gallons of milk in an effort to gain enough weight to pass the physical, which I took
and which I passed. The physician who examined me, however, told me that I would
probably be unable to pass the more stringent visual examination at flying school.
They also told me that they had plenty of applicants and that it would be at least
six months or so before I was called.

I decided very quickly that the Air Corps was not terribly eager to get me and I
did not want to sit around for six months waiting to be called. So I considered, briefly,
enlisting in either the Navy or the Marine Corps, both of which sounded exciting.
However, I finally chose the Army since I knew more about it than the other services
and also, and this was a strong consideration, I felt that my chances of becoming
an officer were better in the Army. So I went down to the recruiting office, signed
up, went back to school to pack my things. Then, on April 10, 1942, on a cold early
spring evening, I went back to the recruiting office, swore to protect the United States
against all its enemies, foreign and domestic, and was on a train to Long Island with
a scruffy group of draftees and enlistees. I was in the army and I felt as though I was starting a whole new life as, indeed, I was.

So, I had foolishly dropped out of school, some two months before I would have graduated, without saying a word to my parents or the school. I have never regretted what I did but I certainly have regretted the way I did it. It was the stupidest, most selfish thing I have ever done — and yet this brought me a career I have thoroughly enjoyed and a wonderful wife whom I would never have met otherwise! I could almost say, in retrospect, that “the wages of sin is happiness!”
The 6th Armored Division

The Recruit

The train took us across New York state to Camp Upton on Long Island which had been a reception center for recruits in World War I.* There we stood in innumerable lines to get shots, clothing, etc. Vaccinations were not all that common then in civil life and most of the new soldiers were somewhat apprehensive, though they tried mightily to conceal it. One or two would generally faint, even before getting the needle, in sheer anticipation. I noticed then and later that it was usually the biggest, toughest looking men who passed out.

We were all eager to get into uniform and to look like soldiers, at least. We were issued our winter uniforms, wool olive drab trousers and blouses, something that they called a garrison cap which matched the blouse and was worn with it, wool olive drab shirts, and other odds and ends. The shoes were what we called high tops and were fitted in an interesting fashion. I walked into the room, was told to pick up two buckets filled with sand, and my feet measured while I held the heavy buckets. The system worked — all of our shoes fitted us comfortably which could not be said of the rest of the uniforms. The bored supply people told us not to complain, the fat recruits would soon slim down and the scrawny and malnourished ones would soon put on muscle and weight. And so it turned out with the exception of me. My weight when I went into the army was about 135 pounds and it didn’t change for years. Now, at the age of 72, I have filled out to 146 having put on eleven pounds of fat somewhere. Finally, we were issued identification tags called, “dog tags.” We got two of these together with a chain by which they hung round our necks. The theory was that, when we were killed, one of them would be nailed to the temporary grave marker and the other left on the body. Each tag had our serial number — I

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*Camp Upton is the modern day Brookhaven National Laboratory run by the Department of Energy. I did my thesis experiment there in the summer of 1981 and recall it looking very much like a military base. (ECD)
can still remember mine some fifty years later — 12072791. I was quite proud of my serial number starting as it did with a 1. That identified me as Regular Army — draftees had a different initial number. The tag also had my blood type (which I later discovered was incorrect — thank heavens I never needed a transfusion), and my religion, Protestant.

When we returned to the barracks and put on our uniforms we looked very much like what we were, recruits in ill-fitting, glaringly new clothing. That night I went to bed in my underwear as I was to do for the next three years and feeling like a soldier anyway. Sometime in the middle of the night I heard a commotion in the bed next to mine, the lights were turned on and we saw a new soldier from the second floor of the barracks who had come down to our floor and was pummeling one of our barracks mates and shouting, “I know what you are thinking of me!” He was pulled off his poor victim and taken away but I went back to sleep somewhat shaken by the realization that my fellow recruits were a diverse group to put it rather nicely.

I was only a day or two at Camp Upton after which we were marched to the train station carrying all we owned over our shoulders and put aboard a train, bound we knew not where. We were in Pullman cars with three soldiers to each pair of seats. When night fell the porter came in and unfolded these ingenious seats and made beds of them. The only problem was that there were three soldiers to each pair of beds. My two seat mates were both New Yorkers and neither appeared to be anyone with whom I wanted to share a bed. My reluctance must have shown because the good fellows told me to take the upper while they shared the lower. I could have blessed them! I was still new to the army and somewhat squeamish.

After two days on the train we pulled into Fort Smith, Arkansas and were trucked to our destination, Camp Chaffee, where we joined the 6th Armored Division. I was delighted to be in the Armored Force which I considered the elite of the army. I was further assigned to Company C of the 68th Armored Regiment, a light tank company. The division had two armored regiments, the 68th and the 69th, to which all the tanks were assigned. Each battalion had two companies of medium tanks and one company of light tanks and we were the light tank company of the first battalion. The Sixth was just being formed with a cadre from the Second Armored Division. Our cadre consisted of one staff sergeant, S/Sgt Laughinghouse, of whom more later, and two buck sergeants whose names I have forgotten. I believe the motor sergeant also came from the Second and perhaps the mess sergeant. The rest of us were raw recruits.

We drew bedding and what was called “organizational equipment” from the company supply room and I made my bed in the barracks and put my equipment in a foot locker at its foot and hung my uniforms at its head. The barracks, of which Company C occupied two, were wooden, two story buildings of a standard design that were erected all over the United States for the new army. The soldiers lived in one large room on each floor with the top non commissioned officers in separate, small rooms at one end. At the other end there was a large latrine with rows of toilets, wash basins and showers and absolutely no privacy. The army at that time — perhaps all
armies at all times — was absolutely paranoid about venereal disease and the local medical officer had decided that wooden toilet seats might be a source of contagion. Consequently, he had had all the toilet seats removed. This meant that, whenever I wished to have a bowel movement, I not only had to perform it side by side with a dozen other soldiers but had to sit on the bare porcelain toilet bowl. The toilet bowl was not only cold and inhospitable but was also much too large for my scrawny bottom so I had to brace myself to keep from slipping down into the water below. This was the second thing I found to be squeamish about in the army.

My fellow soldiers were a mixed lot. There were only three or four of us with any college — the Air Corps and the navy got most of the college boys. A few were illiterate or nearly illiterate and the rest were somewhere in between. Almost all had been drafted — I was one of the very few volunteers. A couple of the men were so ignorant that it was difficult to find something that they could do. This was not necessarily bad since there were duties that most would find unpleasant that could be handled by the less educated. One was barracks fireman. There was a coal-fired boiler at one end of each barracks that was used for furnishing hot water and, in the winter, for heat. This had to be tended more or less constantly, so one of our men with a lower IQ was given this as his sole duty. He also slept in the boiler room, which suited him fine since he didn’t have to stand any formations. Indeed I never saw him in anything but fatigues with coal dust all over them. While he did a splendid job of tending the boilers and assuring us a constant supply of hot water, he did have one small failing. Once a month he would go into town, returning to Camp Chaffee drunk and somewhat disorderly. Now all the barracks in camp were absolutely identical and on one such occasion he returned from Fort Smith, staggered into what he thought was our barracks and, saw another soldier sound asleep in what he assumed to be his bed. Being as strong physically as he was weak mentally, he grabbed the unsuspecting sleeper, threw him bodily out of the room, and collapsed on the other’s bed. Every time the unfortunate occupant tried to reenter his room he would be thrown out again. Finally the MPs were called and our fireman was taken to the stockade for the rest of the night.

As yet we had no officers in the company so our basic training was started under the supervision of S/Sgt Laughinghouse, a small, wiry young man with two or three years in the service. He was from Oklahoma, didn’t have much education, but had a native shrewdness and self confidence that was an adequate substitute. Furthermore, he was a good soldier and had obviously been well trained in the 2nd Armored. The other sergeants were adequate and our basic training under them was excellent. Eventually we got a first lieutenant company commander right out of Armored Force Officers School, but we seldom saw him.

We arose every morning at 0530, dressed hurriedly in our fatigue uniforms (overalls), made our beds in the approved military manner, swept and mopped the barracks floor, washed and shaved, and then fell out for roll call. Following roll call we went to the mess hall for breakfast. At that time every company had its own cooks and its own
mess hall. The food was plentiful if not gourmet. A breakfast staple was a granulated meat in a white sauce on a piece of soggy toast — called SOS or “shit on a shingle” everywhere in the army. Following breakfast we fell out once again and normally had fifteen minutes of calisthenics followed by an hour of close order drill. Most of us rather enjoyed the drill, the army’s way of getting a body of men from one spot to another without total chaos. The rest of the morning was usually spent in classroom instruction in the various skills necessary to be a soldier. These included disassembly and assembly of the various weapons we would meet later — the .30-caliber M1 rifle, the .30-caliber M1 carbine, the .45-caliber Thompson submachine gun, and the air cooled .30-caliber and .50-caliber machine guns. We learned to put our gas masks on properly and were taken through the gas chamber where we were exposed to tear gas, with and without our masks, in order to give us confidence in them. Fortunately, gas had not been used in the European war and we, no doubt in common with all the soldiers on both sides, fervently hoped it would never be. We double timed in masks just enough to realize that warfare in gas masks was impractical.

Hollywood had been drafted into the army and we witnessed numerous training films. A prominent director, Frank Capra, I believe it was, had made a series called Why we Fight. These gave background on events that led up to the war and considerable information on the German and Japanese armies. We enjoyed these and were quite impressed by the German army — less so by the Japanese. We were also exposed, once a month, to films that showed the horrors of venereal disease, with disgusting pictures of the private parts of soldiers who had been unfortunate in their choice of sexual partners. For a good twenty-four hours afterwards no soldier would dream of making contact with a woman of the streets. Of course, with some twenty-thousand soldiers and no where to go but Fort Smith, Arkansas, there were so few single women that it would have been difficult to get venereal disease if we had been looking for it. And, while it may be hard to believe today, I never heard of any prostitutes in Fort Smith though they must have existed. I am sure that some of my fellow soldiers would have smoked them out if they had been present in any numbers.

Every evening at 1730 we would fall out for retreat in our Class A uniforms — wool blouse in the springtime and cotton khakis in the summer. We might have been slogging through the mud at 1600 hours but our shoes had to shine brilliantly by 1730. At retreat we would fall in in three ranks, by platoons, were inspected by our platoon sergeants, who then reported to the company commander using the stock phrase, “First Platoon, all present or accounted for!” This was a serious formation, but one evening, when Sergeant Laughinghouse was substituting for the company commander, our platoon sergeant enlivened it a bit by calling out at the top of his voice, “FIRST PLATOON! —pause—ONE MAN IN THE LATRINE!—pause—ONE MAN IN THE CANTEEN!—long pause—ONE MAN I AIN’T NEVER SEEN!”

Following this we all came to attention and saluted while the national anthem was played somewhere off in the distance. Supper followed retreat and we had the evenings to ourselves or to prepare for the next day. There was a base movie and we
did get to see an occasional film. And the Post Exchange served a weak beer that the drinkers amongst us would guzzle until it closed.

The army paid the soldiers, at that time, just once a month on the last working day of the month. We were paid in cash and, so the soldiers would realize where all good things came from, the company commander himself would pay us. He always sat at a table in the mess hall with a loaded pistol at his side and wearing his hat — the army insisted that anyone carrying a weapon always wear his hat. We were lined up according to rank, the highest ranking soldiers getting paid first. S/Sgt Laughinghouse would read off a name from the roster, the soldier would advance to the pay table, salute, repeat his name and hold out his hand for his pay. Receiving it, he saluted once again, did a smart about face, and marched out of the mess hall.

As a private I was paid a nominal twenty-one dollars a month. However, $6.60 was deducted for $10,000 of life insurance (my parents were named as beneficiaries), $0.25 for the Old Soldiers Home (from Regular Army only — draftees did not contribute, presumably on the assumption that they would not stay in the army long enough to qualify), $5.00 for canteen checks (which could be used to make purchases in the Post Exchange only), and $3.00 for laundry and cleaning. This left me each month with $6.15 to spend any way I wanted!

Fortunately, after some three months, there was a rash of promotions in C company, and I was made a T/5 or Technician, Fifth Class, a sort of a bastard corporal. At the same time, Congress raised the pay of the military so that my pay jumped from twenty-one dollars to sixty-three dollars per month. Since my deductions did not change, my take-home (?) pay soared to some forty eight dollars. There was no way I could spend forty-eight dollars every month, so I had money deducted from my monthly pay for the purchase of a twenty-five dollar war bond. We were encouraged to do this though some of the soldiers felt it was a little much that we were expected to fight the war and finance it too!

At about this time I began to be bothered by a soreness at the end of my spine which finally became so troublesome that I went on sick call. It was diagnosed as a pilonidal cyst and I was hospitalized and had it operated on. This was my first operation and I was somewhat apprehensive. However, they gave me a shot of something and, when they rolled me into the operating room I was in a great mood. There they removed the cyst under a spinal anesthetic. In civil life the doctors would normally sew the skin back together and the patient would be back to work in a week or so. But this resulted in a fair number of recurrences of the cyst, so the army medics preferred to leave the wound open and let it heal by itself. As a result I was in the hospital for an eternity, recovering. An eternity, in this case, was probably some three weeks. I was in what the patients referred to as the “Asshole Ward”; pilonidal cysts and hemorrhoids. One of my fellow patients, a hemorrhoids case, who had obtained a dental bridge and glasses since he had been in the army, commented that he “had GI glasses, GI teeth and now, a GI asshole.” A great many of the soldiers had never had medical or dental care before they were inducted into the army.
Each morning, while I was hospitalized, the nurse, a lovely young southern girl, would roll me over on my stomach, remove the dressing, and powder the open wound with a brand new medication called sulfonamide. Then she would replace the dressing, give me what I assumed was an affectionate pat on my bare bottom, and pass on to the next patient. The rest of my care was less tender. After some three or four days I was told that I, like the other patients, was responsible for making my own bed and sweeping around my own area prior to the daily morning inspections.

After several weeks I was judged sufficiently recovered to go back on duty and was released from the hospital to my company. There, any thoughts I may have had of lying around the barracks all day were swiftly removed. At that time there were only three status conditions for a soldier present in camp — duty, in the stockade, or hospitalized. As it was, the operative wound took a long time to heal completely. It drained off and on for nearly a year. However, it eventually healed, leaving an enormous but gratifyingly invisible scar, and the cyst has never recurred.

Not too long after my return from the hospital there was another round of promotions and I was made “buck” sergeant and proudly sewed the appropriate three stripes on the sleeves of my uniforms. I am sure the entire “old army” turned over in unison in their graves at the sight of a recruit with four months service making sergeant. However, we were nearly all recruits in the Sixth and the Table of Organization called for a certain number of soldiers in each grade. So the slots were there and the commander chose to fill them.

With my new rank came an additional raise in pay. I was now earning the princely sum of seventy-eight dollars a month less, of course, the deductions. With my jump in pay I could afford to save more so I increased my bond allotment to $37.50 per month which paid for a $50.00 bond. With my new rank came a certain amount of responsibility — not much though. I was made tank commander.

Our first couple of months of training were devoted to the individual soldier. But, just before I went to the hospital we began to take instruction in our tanks. While we were supposed to have seventeen tanks; three platoons of five tanks each plus a tank for the company commander and one for his executive officer, it was some time before we got all seventeen. These were the old M3 light tank. They weighed around eleven tons, had front armor about one and one half inches thick, carried one 37 mm cannon in the single turret and three .30-caliber machine guns. One machine gun was mistakenly called the coaxial gun because it was located alongside the cannon and traversed and elevated with the cannon. A second machine gun stuck through the hull on a sort of ball joint and, with the handle and trigger in his lap, was operated by the assistant driver. The third was mounted outside the tank on a flexible mount on the turret for the use of the tank commander. This was nominally for use against aircraft. The tank was designed to carry two more machine guns in the sponsons; that is, the hull on either side of the crew compartment. These were fixed guns and fired in whatever direction the hull happened to be pointing. We never installed these since they would have been worthless in combat and a great deal of trouble to keep
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clean and to load and unload. To tell the truth we had more machine guns in the
tank than we could properly care for and operate.

The tank had a four man crew. The tank commander stood in the turret, decided
where the tank was to go and what it was to do, and was responsible for aiming
and firing the cannon. The driver sat just below and in front of the commander.
He steered the tank with two levers that protruded through the floor on either side.
Each lever was actually a brake that would slow down or stop the track on its side of
the tank, a control system presumably adopted from caterpillar tractors and which
would turn the tank around in its own length. The driver was by far the busiest
man in the tank as he operated the accelerator, the steering levers and the manual
transmission’s gearshift lever. Since our M3 tanks did not have an intercom the tank
commander transmitted commands to the driver with his foot. If I kicked the driver
on his right shoulder he was to turn right. The left shoulder meant left, of course,
and if I wanted him to stop I would push my foot in the middle of his back. To start
forward required a light kick on the driver’s helmet. With those few commands we
were able to do just about anything we wanted to do.

Seated to the driver’s right was the assistant driver who had a set of duplicate
controls with which he also could drive the tank. However, the tank drivers were
jealous of their responsibilities and the assistant driver seldom had a chance to drive.
In recognition of the uselessness of the assistant driver he was given responsibility
for the so-called “bow gun,” a machine gun protruding from the hull in front of him
through a sort of a ball joint. The handle and trigger for the bow gun were in his
lap, the gun had no sights, and sprayed bullets in a manner similar to a garden hose.

The fourth and generally most useless member of the crew was the loader who was
in the turret with the tank commander and whose sole job was to keep the 37 mm
cannon loaded. When the cannon was not being fired he had nothing to do and was
basically a sightseer in the turret. For obvious reasons the loader was always the least
intelligent, least capable member of the crew and in some cases was pretty close to
non-functional. The hull was not roomy and the tank was noisy and crowded. It was
no place for anyone who was the least bit claustrophobic.

This tank had been designed before the war and was comparable with the light
tanks of the Italians and the Japanese. It had lots of deficiencies and a few good
qualities. The armor was easily pierced by any antitank weapon but that was the
nature of light tanks. It was riveted together rather than welded and we believed,
rightly or wrongly, that when the hull was hit by a shell the rivets would shoot around
inside the tank. It had no periscopes — visibility was through slits in the armor. The
37 mm gun was ineffective about which more later. The tracks as in all American
tanks had rubber blocks as treads and there was a great deal of criticism in the press
about this. All foreign tanks had steel treads. However, there was nothing wrong with
rubber treads. The problem was that the tracks of both our light and medium tanks
were quite narrow and the tanks would sink into any soft earth very easily. Indeed,
when we would be out in the field after some rainy weather it was quite common for
Each tank carried a heavy steel cable and several other tanks would then use these to pull the hapless tank back on to terra firma. The ordnance department had recognized that the treads were too narrow for soft earth and had issued us what they called growers. These were little steel tread extensions that could be bolted to the side of the individual treads and thus make the track wider. This was a monumental job, however, and I never saw them used or heard of them being used in combat. The best thing about the rubber treads was that they did not tear up hard surface roads the way steel treads would.

The good points about the tanks were few. They had wonderful engines — Guiberson diesels. These were radial engines and had been designed originally for aircraft. I don’t think they were ever used, however, in aircraft. But they gave a wonderful performance in our light tanks. Like all diesels, they had plenty of power and we could go anywhere with them. They also gave us a top speed of around fifty miles an hour and it was a real thrill to roll down the highway in this eleven ton monster at forty miles an hour as we would do on our way back to camp from the training ground.

The engines were started in a peculiar fashion. The driver would insert a blank shotgun shell into a chamber and fire it. The expanding gases from the shell would turn over the engine and it would start. On a cold morning, however, we would always have to fire several shells before the engine would start and continue to run. So, whenever the company would start all its tanks on a cold day it would sound like a battle underway.

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The M3 light tanks, and, in fact, all American tanks were driven by sprocket wheels in the front of the tank which drove the tracks. American tanks also had sets of small, so-called “bogey” wheels which ran on the tracks as they were laid down by the drive sprocket. The hull was suspended from the sets of bogey wheels with very heavy springs as can be imagined. Strangely enough, or perhaps, not so strangely, the tank normally rode like a luxury automobile, soft and springy. However, on those rare occasions when the suspension bottomed, it could jar your eye teeth. During our training we would sometimes dash across a field so heavy with vegetation that drainage ditches would be hidden from our view. When we would hit one of these, unexpectedly, the suspension would bottom and we would get a bone shaking jar. On those very rare occasions when the ditch was too wide for the tank to straddle, it would bury its nose in the ditch and come to an abrupt halt. The driver and assistant driver were strapped in and would feel a slight jar. But the tank commander, with half his body protruding from the turret, would be whipped forward and take a tremendous wallop. We had several broken noses as a result and I was always apprehensive when we were careening across one of these fields like a bunch of cowboys.

In addition to our tanks we had several two and a half ton trucks which were called “six by sixes” in recognition of their six-wheel drives. Usually they were just referred to as “six bys” or “GMCs” since they were manufactured by General Motors. These carried our kitchens and whatever supplies we were authorized. One had a crane.
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and winch and belonged to our motor sergeant, and carried him and his mechanics wherever we went as an entire company. We also had several half tracks. These were odd looking vehicles with tracks behind and wheels in front which were used to steer the beast. Unlike the trucks, these were armored, though the armor was very thin, and they were completely open on top. They drove very much like trucks but were, naturally, much more solid. This was brought home to me one day when we had been en route to the training area from our company area. I happened to be assigned to a half track that day and was standing next to the driver up front as was customary for the vehicle commander. The convoy, which was moving like an accordion in the manner of all convoys, had made one of its inexplicable stops in front of us just as we had rounded a blind curve. My driver jammed on the brakes to avoid the vehicle in front of us and I looked back, expecting the worst. Sure enough, the truck behind us came shooting around the curve. I heard the driver yell, “Oh, my God!” just as he rammed into our rear. Yet, while the front end of that truck was demolished, I didn’t feel a tremor when he struck us. That gave me considerable respect for the solidity of the half track. Otherwise, the half track was pretty useless, in my opinion, combining the worst features of the truck and the tank. Nevertheless they were used throughout the war.

We also had a number of jeeps in the company. Jeeps were officially entitled “Trucks, GP, 1/4 ton, 4 by 4.” The GP stood for “general purpose” and was the origin of the term “jeep,” a term used everywhere in the US armed forces except in the Armored Force. We called them, “Peeps” for some reason. “General Purpose” was certainly an appropriate term for them since they were used for everything. They were so popular that their direct descendants, still called “Jeeps,” are being built and sold today some fifty years later.

Then, as now, all officers and enlisted men of the armed services were entitled to thirty days of paid vacation each year. This was almost always taken in fairly small chunks and one of these chunks was called a “leave” for officers or a “furlough” for enlisted men. Thirty days a year was considered very generous in those days in comparison with the usual vacations in civil life. It was made somewhat less generous by the practice of including Saturdays, Sundays and any holidays that might fall during the furlough in your thirty days. Be that as it may, I was granted a ten-day furlough sometime in July of 1942 so I took the train to Washington where my father was newly stationed at the old Munitions Building on the Mall. When my father was assigned to Washington he purchased a house, one side of a duplex, on a street just off Connecticut Avenue in Northwest Washington.* When I arrived on furlough they were just moving in to the house and, in fact, I spent my first night with my father in the nearly bare house. It was beastly hot and, of course, there was no residential air conditioning in those days so I laid on top of the covers and sweated through the night in the upstairs bedroom.

*Franklin’s parent’s house was at 2927 Ordway St. N.W., not far from the entrance to the National Zoological Park.
My parents were kind enough not to chide me in any manner for having left the University of Rochester so abruptly though I know it must have wounded them deeply. I have always been grateful to them for that. I enjoyed my furlough, taking advantage of the opportunity to visit the wonderful museums on the Mall and enjoy their fascinating collections and delightful air conditioning. During the war military personnel were required to wear uniforms at all times — no civilian clothing — but I was proud to wander around the Mall in my khakis with my cap set, Armored Force fashion, on the left side of my head and the two little stripes of my rank on my sleeves. I also attended my first wedding when my favorite cousin, Peggy Meyers, married my cousin Bob Sharrer’s best friend, Jim Briscoe, in Westminster. Jim was a big, unassuming, quiet spoken fellow who realized what a gem he got in Peggy and who has made her a wonderful husband.

While I was in Washington I acquired a boil on the inside of my right leg, the first I had ever had. It never occurred to me to go to a doctor about it — I knew that boils would eventually burst and cure themselves. Meanwhile, however, it was painful and I hobbled around Washington with it. It did not burst until I was on the train on the way back to Arkansas — and that was a mess! Fortunately I’ve never had another.

Desert Maneuvers

Shortly after my return from furlough I approached the first sergeant about applying for Officers Training School in Armor. I filled out the necessary papers, obtained the Company Commander’s endorsement and it was forwarded. I then put it out of my mind and continued with training. At that time the war was not going at all well either in Europe or the Pacific. The British had just stopped Rommel at El Alamein but Tobruk had fallen and Churchill had brought General Montgomery in as commander of their Eighth Army in Africa. The United States had just landed on Guadalcanal and begun that bitter battle in an effort to finally stop the victorious Japanese. We, of course, were most interested in the African battles since these were fought primarily with tanks. We noticed in the newsreels that the British were using some of our M3 light and M3 medium tanks. They called the lights “Honeys” and the mediums “General Grants” and I suppose that they needed tanks so badly that they were happy to get them.

As a simple soldier I must confess that we knew very little of what was going on in the war. We didn’t get newspapers in the barracks and the only radio there was constantly tuned in to what I knew of as “hillbilly” music — it would now be called “country.” I acquired a distaste for it then that has stayed with me since. We would go to the “movies” two or three times a month and there was usually a newsreel reporting mainly on the war so we knew generally what was happening but not in any detail. I have to confess that we didn’t give the war much thought. We were
preoccupied and very busy with our daily activities and the war was distant from us both in space and in time.

Some time in the early fall of 1942 the Sixth received orders to proceed to the Desert Training Center in California for further training. This was exciting — some sign of progress — so we packed all our individual equipment into our “A” and “B” bags, our organizational equipment into our trucks, and ran our tanks, trucks and half tracks up onto flat cars at the railhead. We then loaded ourselves aboard Pullmans on the same train and, in high spirits, started west.

The trip took four or five days and was a lot of fun for me. There were no fatigue details, discipline was relaxed, accommodations were very comfortable, the countryside was interesting, and our only duties were sentry duty aboard our vehicles. Since my tank had a four man crew each of us spent about six hours a day in the turret. Supposedly we were alert for sabotage but we could not take that threat too seriously. But one couldn’t have asked for a better spot to ride the rails across the country than in the turrets of our tanks. Military trains were not all that common a sight, particularly military trains transporting part of an armored division, and we got stares from everyone we passed and friendly waves from most. We waved back, especially when the waver was a charming young lady as was often the case. At station stops the company would fall out alongside the train and do ten minutes or so of calisthenics to loosen up muscles stiffened from too much sitting. The company cooks fed us our three meals a day — I don’t know whether they prepared the meals from our field kitchens or from the railroad kitchens. All in all it was a pleasant break from our training routine.

In due course the train arrived at a railhead somewhere in the Mojave Desert of California where the army had designated a vast area as the Desert Training Center.* We unloaded our vehicles and drove them down the highway some twenty or thirty miles to a spot at the foot of one of the ubiquitous mountains where we were to erect our camp. Someone had laid out the locations for each of the regiments, battalions and companies of our division and “C” company erected two lines of pyramidal tents as directed, parked our tanks and trucks at one end of the company street, and dug a deep narrow ditch at the other end which served as our latrine. The army termed this ditch a “straddle trench” which term gives some idea of how it was used. For modesty’s sake the army furnished us with a short canvas screen which encircled the latrine. In addition to protecting our sensitive feelings the screen kept the wind from blowing dust up our bare asses as we squatted over the straddle trench. Eventually the straddle trenches were replaced with long boxes with holes for our bottoms — a slight but definite improvement.

For the next five months we lived in these tents, eight men to a tent, ate our

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*The Desert Training Center was set up in 1942 by General Patton when it looked like the American army would be fighting Rommel in North Africa for some time. It comprised a vast area (18,000 square miles) of the Mojave Desert in southeastern California and southwest Arizona. Franklin was probably stationed in Camp Young near Indio, California. (ECD)
meals in the company street from messkits, and learned how to live and operate in the desert. Life in the desert was not too bad. Fortunately for us we were there during the fall and winter so we had no problem with the heat. On the contrary, the days were remarkably pleasant. The nights were cold and falling out early in the morning for roll call could be chilling. If the morning was particularly cold someone would light a match to one of the bushes (creosote or sagebrush) that grew everywhere and we would have a fire for a couple of minutes. Our cooks prepared our meals on the field ranges and we ate them out of mess kits, squatting on the ground. When the meal was over you dipped your messkit and utensils into a mixture of hot, soapy water and then into a hot rinse, put the utensils into the messkit and locked the cover over it with the handle. There were no showers so you didn’t bathe. There was no running water. Instead water was delivered to us in five gallon “Jerrycans” so named by the British since they were copied directly from the original cans used by the Germans or “Jerrys” as the British usually called them. We normally washed our hands once a day, before shaving. Shaving and washing were done with cold water poured out of the Jerrycan into the steel helmet. The army had replaced the rakish helmets of the First World War with a two piece coal scuttle type of helmet. The inner piece, called the “helmet liner” was made of plastic, with an internal webbing that held it in place away from direct contact with the head. The outer piece was like a steel bucket that fitted directly over the liner. The whole thing was unstable when placed on the head and if you watch films of combat during the war you will notice that the American soldiers, when running on the field of battle, would hold their weapons in their right hand and with their left hand, hold their helmet in place atop their head. Whoever invented that helmet was a war criminal. But the steel portion of the helmet could be used, and often was used, for heating water. As a result most soldiers’ helmets presented a very unmilitary appearance with a layer of black soot over the olive drab. In the Armored Force we seldom wore our helmets but the helmet liner was our standard headpiece with fatigues, our normal working uniform. The helmet liner was not too bad a headpiece in hot weather since the internal strapping that held it out of contact with the head also allowed air to circulate. One last disadvantage of the steel helmet was that most soldiers firmly believed that wearing it would cause baldness. And, sure enough, some forty five years later I went bald!

A normal day in the desert began with us all falling out in fatigues for roll call in the cold darkness of early morning. This was followed by a general “policing” of the company area. Policing was the military term for cleaning an area by picking up trash, cigarette butts, etc. Breakfast that followed had one unique and delightful feature for us. We were in California, the land of oranges, and we were served orange juice in apparently unlimited quantities at breakfast. Orange juice was a luxury in those days and we couldn’t believe our good fortune! Following breakfast we might go to the motor pool and work on our vehicles or assemble for a class in the company street. The afternoons we might clean our weapons or go out in the field for some sort of a motorized field exercise. There was no more close order drill since marching
in step was nearly impossible in the sandy, dusty soil. At five o’clock we would have a perfunctory retreat ceremony followed by supper. At night there might be an outdoor film but there was little else in the way of amusement. There was a Post Exchange in a large tent and for those who had the inclination, 3.2% beer was available in the evenings. I have always thought that beer drinkers, in general, are slobs, and that opinion was reinforced. They would drink beer half the night and, too lazy to walk to the latrine, would urinate on the ground just outside the tents. This practice was officially frowned on but there was no way to control it.

Much of our early desert training was driving in convoy. This sounds simple enough — each tank simply followed the tank in front of it. The problem was that the desert was not sandy as deserts should be, but dusty. Each tank’s track, as it rolled along, picked up great quantities of this dust and blew it into the air. As a result we were constantly driving through thick clouds of dust — so thick, in fact, that it was often impossible to see the tank in front of you though it might be only a few feet away!

That desert dust was the bane of our existence! When we drove in convoy we drove with all the ports in the tank open. The only time a tank “buttoned up” was during an actual or simulated battle — visibility was too poor when the tank was closed up. So we drove through billows of dust which caked on our perspiring faces and filled our aching eyes. The army issued goggles to Armored Force personnel but these were plastic shields, encased in foam rubber to keep the dust out. They would keep the dust out of our eyes but the plastic would acquire an electric charge that attracted and retained the particles of dust. We would wipe them off but wiping them charged up the plastic and simply moved the dust from one portion of the plastic to another — the dust clung tenaciously to that plastic! In brief, the goggles were nearly useless. I noticed that the officers had provided themselves with airplane type goggles with glass lenses, which were much better, so I wrote home and asked my parents to get me a pair. They did and I was delighted to get them. But, when the dust was thickest the goggles had to be set aside and we drove through the dust with naked eyeballs straining to see ahead and muddy tears streaming from our eyes. The army also issued us with simple respirators but, like gas masks, they were “a pain in the ass” and we seldom wore them. With the amount of dust that we all inhaled it was remarkable that we had so few respiratory problems.

The desert dust, indeed, dictated much of what we did. As soon as we arrived in the desert we removed all the oil that we had so meticulously applied to our machine guns. The oil held the dust and the guns would not fire with that mixture of oil and dust on the sliding parts. However, even without the oil the dust would accumulate on the guns to such an extent that they would fire a few rounds and then jam. Our machine guns were made to close tolerances and a little dust would cause them to bind. We adjusted the head space on the guns until we risked ruptured cartridges but they still jammed. As far as I could see we never solved that problem and I often wondered how (and whether) the tankers solved this during the African battles. And,
of course, the same dusty air that we were breathing was being inhaled by our tank engines, mixed with fuel, and sucked into the cylinders where the dust could do all sorts of damage. To avoid this an automobile engine has little paper filters that filter out the small quantities of dust inhaled in normal driving. These filters are normally changed once or twice a year. Our tank engines, faced with a much worse problem, had what were called oil bath air cleaners. The incoming air was sucked through a pool of oil on its way to the carburetor and the dust was supposed to adhere to the oil. In fact, these worked very well. But the oil would pick up so much dust that we had to disassemble the air cleaners every night and remove up to two inches of mud from each of them. Even so, the engines had very short lives, largely because of the dust they ingested. Finally, the dust got into the transmission and after a day of driving in the dusty wake of a fellow tank it would sometimes become impossible to change gears.

Every couple of weeks we would have an overnight march. We might fall out very early in the morning, have a hasty breakfast, roll our blankets and shelter halves up and tie them to the outside of the tanks. Then we would get the order to start engines and the early morning darkness would be filled with the sound of exploding shotgun shells as the drivers fired the starters on the diesel engines. These would huff and puff and then burst into a satisfying roar which increased in volume until all seventeen tank engines were turning over, emitting clouds of smoke and the pleasant odor of diesel exhaust. We always drove under blackout conditions and the company convoy would leave the motor park in the darkness like a convoluted steel snake. Only the company commander in the lead tank would know where we were supposed to go — the rest of us simply followed the tank in front of us. To help us do so in the total darkness every vehicle in the American Army had a pair of backward facing lights on either side of the rear of the vehicle. Each of these lights, which were called “cats’ eyes,” consisted of a pair of greenish slits about an inch long and half an inch wide. In blackout driving (and this was the only kind of driving we ever did at night) this was the only light allowed. Each driver was to follow the tank in front of him by keeping these cats eyes in view. In theory, if he could see the lights at all he was not too far behind. However, if he could distinguish each light as a pair of slits (rather than as a single light) then he was too close.

As bad as it was to drive in convoy in daylight it was infinitely worse at night. We had the same quantities of dust and the darkness in addition. We would try to keep those cats eyes in sight at all times which, of course, was impossible. When we were able to keep them in sight we would eventually become hypnotized by them and would imagine them moving away or toward us. When we lost sight of them my driver would speed up, hoping that he was still following the tank in front and hoping further that it would not stop. This sort of driving was a terrible strain on the driver and also on me up in the turret. As was inevitable in a string of seventeen tanks, part of a larger string of hundreds of tanks, someone would lose the tank in front and wander off into the desert with everyone behind him following blindly. It was a
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wonder to me we ever arrived at our destination. Perhaps we didn’t — I never knew what our destination was! Also there were the inevitable collisions. We collided once in the darkness with the tank in front of us which had stopped just as we sped up in an effort to regain sight of him. In this case our bow machine gun made contact with his engine compartment and the machine gun barrel was bent backward like a piece of wet spaghetti.

We were always glad to see the dawn. Then we would spend the day driving across the desert in an effort to get we knew not where. Upon occasion we would deploy from column to line abreast or echelon and make a simulated attack. I shudder now when I think of the damage we did to the ecology of the Mojave. If, as we charged madly across the sand, we saw a Joshua tree we would make every effort to hit it with the tank and knock it into the ground. We churned every living plant under our tracks. The desert was boundless and it never even occurred to us that we might be damaging it. That was what the desert was there for, in our thoughtless minds.

At the end of the day, always after dark, we would halt and the tanks of our company would deploy in a circle like the wagon trains of old, with our guns pointing outward, uselessly, since we could see nothing. Then we dismounted and each crew would clean the mud from the air cleaners, grease the bogie wheels, and do the other little repairs that the army termed “first echelon maintenance.” After this, if we were lucky, the mess truck would come up to us and we would get some sort of a basic supper. By then it would be cold as the desert radiated its heat back into the black, cloudless sky. The cooks would have hot coffee and, for the first time in my life, I would drink and enjoy a canteen cup of hot coffee. We had no sleeping bags so we would wrap ourselves in our shelter half and blankets and lie down next to the tank for the night. I always made my bed as close to the tank as I could since there were vehicles running around in the darkness all night long and I once awoke to find tank tracks just three feet from where I had laid my head. Someone had to be on guard in each tank during the night so each of us would spend two hours in the turret. These were a long, miserable two hours; it was always bitter cold, and we were tired. We never pitched tents — we had great faith that it would not rain and it never did. That was one of the good things about military operations in the desert.

We were not too far from Los Angeles and that meant not far from Hollywood. Furthermore one of the soldiers in the 69th Armored Regiment was a brother of Rosalind Russell, a rather well known cinema star of the time. Anyway, for whatever reason, a group of entertainers from Hollywood came out to our camp one weekend evening and put on a very nice show for our division. In preparation for it we built a wooden dance floor and some stands for the officers — the soldiers sat in the sand as befitted their lowly position. But someone decided that we needed a little military atmosphere and directed that a couple of tanks be parked next to the stage. Mine was one and we drove it up and parked conspicuously adjacent to the stage and dance floor. Our crew was delighted — we had the best seats in the house, so to speak. Following the show all of the girls they had brought with them danced with the
soldiers to the music of the orchestra. While there were lots of soldiers and not that many girls, most of the soldiers either didn’t know how to dance or were too bashful to ask the girls. So, seeing my opportunity, I left my post in the tank and asked a tall, attractive girl to dance. We did, and I learned that she was Max Factor’s private secretary. Max Factor was the most prominent make-up man in Hollywood — in fact he did make up for most of the big films for all the studios so I was impressed. She was a very pleasant girl, June Knight was her name, and I was enterprising enough to get her address and phone number — she lived in Malibu.* While all the audience had come to the show as per orders in their Class A uniforms — in this case khaki shirt, trousers and necktie, I was wearing working fatigues, and a sort of an old fashioned football style helmet that the tankers wore instead of steel helmets when we were in our tanks. So I caught the eye of a photographer and he snapped a picture of me dancing with June, wearing that outlandish helmet. I never thought much about it but the picture appeared a few weeks later on the front page of Army Times, an army newspaper, and my parents saw it and recognized me!

During World War II the armed services spent an inordinate amount of energy worrying about the morale of the troops — particularly of the enlisted men. Among other things they were generous with three day passes. The 6th Armored decided that every soldier should get an opportunity to take a three day pass to Los Angeles while he was on desert maneuvers. So they ran a weekly convoy of trucks the two hundred miles from our camp to Los Angeles for that purpose. I made the trip at least twice. Once I stayed in a hotel for the two nights and another time I visited my new friend June Knight. She lived with her mother in a small, typically Los Angeles house. I don’t remember much about either visit except that June took me to a Hollywood party that was being given by one of the studios for some reason. The guest list included a couple of fading stars whose names I have long since forgotten. Nevertheless, for a young fellow living with sixteen-thousand other men out in the Mojave Desert, it seemed quite impressive. One thing about Los Angeles at that time — if you were in a uniform you were a VIP (Very Important Person) no matter what your rank. Everyone on the West Coast felt the threat of a Japanese invasion and the war felt much closer there than back in Washington.

Another boost to our morale occurred in December when the Engineers put in showers some twenty miles down the road from camp. These were used by everyone in the division and, for all I know, the other divisions at the Desert Training Center.

*Franklin’s memory must be faulty. Max Factor died in 1938. There was a Hollywood movie star named June Knight (born Margaret Valliquietto, 1913–1987) who appeared in a handful of movies in the 1930s, was popular enough to have a star on the Hollywood “Walk of Fame,” and disappeared thereafter, making no movies past 1940. She would have been 30-years old and recently divorced when she met Franklin. She did appear in a series of Army/Air Force war bond shows entitled Shot from the Skies and she was living in Los Angeles along with her parents at the time. As far as I have been able to discern, she never worked with Max Factor, although she did write about her beauty secrets in motion picture magazines and did design and market various fashion accessories, some under her own name. Franklin never ever mentioned her. (ECD)
The 6th Armored Division

Every few weeks Company C was given the opportunity to pile into trucks and proceed to the showers. There we disrobed and were herded into this forest of shower heads where we soaped and showered in an effort to remove the stains and odors of our daily lives. The only catch to this paradise was that we showered in the early evening, the winter evenings were cold, and there was no hot water. So it took a certain amount of courage to plunge into these icy showers but the results were worth it. If cleanliness were next to godliness then we were an ungodly crew. We had no laundry so on weekends we washed our uniforms. The only uniforms we ever wore were our green working fatigues, a very sturdy, one piece cotton coverall. At one end of the company street a fire would be built under a 55 gallon drum filled with water from the Jerrycans. When this reached a boil we would throw our fatigues into it, stir them around for several minutes, then remove them and hang them out to dry. They came out surprisingly clean and several sizes smaller to boot.

Just before coming out to the desert I had made buck sergeant and between my promotion and our move I went three months without receiving any pay. At the end of the third month, however, I received three months pay, a princely sum of around seventy-five dollars. At night, following pay day, there was always a big crap game at the motor pool at the end of the company street with the motor sergeant running it. Gambling was against regulations but the officers had too much sense to enforce the ban. When I had no money I had enjoyed watching the game and now that I had a little extra I thought I would indulge myself. As one player threw the dice onto the blanket stretched out over the sand other players, too impatient to await their turns, would make side bets with cries of “ten dollars he makes it!” or “He doesn’t!” I joined in with these side bets and before the dice came to me I had lost all my money — three months pay! I was a lamb among the wolves.

Christmas came and the army, as always, did its best to make it a special occasion. The army’s best was usually confined to providing the troops with a good, hearty meal and our company cooks were up to it. We had the traditional roast turkey, dressing, cranberries, etc. All heaped, one on top of the other in our messkits and eaten squatting on the ground as was normal. The good Lord did not look with favor on our celebration of His birth and provided a modest sandstorm to accompany our feast. We could not keep the sand out of the food and we had a gritty repast which, nonetheless, we enjoyed.

Six weeks or so after we arrived in the desert we turned in our old M3 light tanks and were issued the latest model US light tank, the M5A1. the M5 was disappointingly similar to the M3. The size and shape were nearly the same, the suspension system was unchanged, the armament was identical and the armor was very slightly thicker and was welded rather than riveted. There were two important changes; the good old air cooled Guiberson diesel radial engine was replaced by two Cadillac V-12 automobile engines and we now had an automatic transmission.

We rapidly discovered that we didn’t care for either of these changes. The M3 would go anywhere with the engine nearly idling. If we put the M5 at a hill the two
V-12s would be screaming, the automatic transmission slipping and the tank felt as though it would never make it. We badly missed the raw torque of the Guiberson. However, a war was on and Cadillac could easily produce all the V-12s and automatic transmissions the army could desire whereas Guiberson had a very limited production capability. The dust bothered the V-12s much more than the Guibersons and we were constantly changing engines which had only a few hours on them.

There was one novel feature on the M5 — it had a stabilizer for the 37 mm gun and attached coaxial machine gun which was designed to allow those guns to be fired while the tank was in motion. We disconnected these the day we picked up the tanks and never used them and, as far as I know, they were never used elsewhere. Now, fifty years later, all tanks have such a system and it is apparently successful. The M5s were not a good tank but they were used by the US throughout the rest of the war, for the lack of a better.

Our desert training culminated in the early spring of 1943 with a combined exercise with the 4th Armored Division and the 8th Motorized Division. This started off with a night march from our bivouac area. Things started badly for C Company. The march route out of camp passed close to the division garbage dump and in the darkness and dust our company commander’s tank strayed slightly and ended, hull deep in the division garbage. I was aware of this as the M5 tanks had radios. Our own march continued, presumably under control of the platoon leader of the first platoon. This was a typical night march — we couldn’t see anything, didn’t know where we were going, and were continually slowing and speeding, starting and stopping, losing sight of the tank in front of us and then nearly ramming it.

We drove all night and then through the next day. Unfortunately by the middle of the day my tank stalled and we couldn’t restart it. The march column continued past us for an hour or so until the last vehicle had passed and we were left there in the middle of the desert alone. I knew nothing about internal combustion engines at that time and I don’t think my driver knew much more. So we cleaned the air cleaners, greased the bogies, checked the oil and the transmission fluid and then sat back and waited for help. Meanwhile our assistant driver, a more or less useless little fellow from New York City, had started complaining of severe stomach pains. During the next twenty-four hours just one group of vehicles passed us but fortunately it included an ambulance and not so fortunately a doctor. We stopped them and asked the doctor to look at our assistant driver. He poked him perfunctorily and concluded that there was nothing seriously wrong. But the convoy commander, a captain, overruled the medic and ordered them to take him with them in the ambulance. This, as it turned out, was most fortunate since he ended up in the hospital where they removed his appendix.

Finally, in the middle of the afternoon, a wrecker came by. These followed all major vehicle movements as tanks were very prone to mechanical breakdowns. The wrecker stopped and a couple of very dirty mechanics opened our engine compartment, spent a half hour fiddling around, and then told us we could go on our way. So off we
went, following the very well marked tracks in the desert of yesterday’s convoy. Just before dark we caught up with the regiment and after a few questions made our way to Company C. The Company Commander, who had obviously been rescued from the garbage pit, was as happy to see me as I was to see the Company. I overheard him saying to the Executive Officer that if Sergeant Dukes could make it back to the company he couldn’t see why the others had failed to do so. I guessed that he and I were not the only casualties.

Our mess truck caught up with the company shortly after I did and after a hot meal we were told that we were going to simulate an attack across the desert the next day using live ammunition. The supply truck dropped off a load of ammunition for our machine guns and cannon which we loaded into the receptacles built into the tank for that purpose. Hard as it is to believe, we had never fired our 37 mm cannons before. In fact, we had never even seen the ammunition for it and we were fascinated by the shells. They were about fifteen inches long and looked like nothing so much as overgrown .50-caliber machine gun shells. Or beautifully made toy cannon shells. So we disassembled our machine guns, cleaned the dust out of them and reassembled them, hoping for the best.

The next day our company deployed with the medium tank companies of the first battalion in a line abreast and, at a signal from the company commander started off across the desert, guiding right on the company commander’s tank. It was an awe inspiring sight — as far as I could see to my right and my left and ahead of and behind me there were tanks advancing across the desert at about ten miles an hour, each leaving a long plume of dust behind it. After a few minutes the order came to “button up” and I dropped down into the turret and closed the hatch. At this point the principal shortcoming of all tanks became very apparent to me — I couldn’t see much of anything through the periscopes and the dust. Then came the order to charge, the pace quickened, and we began to fire our weapons. Above the shrill roar of our Cadillac V-12s I could hear the chatter of machine guns, the barking of the 37 mm cannons from the light tanks and the roar of the 75s from the mediums. My loader rammed home a round into our cannon and signaled the fact by hitting me on the back. I signaled the driver to stop, took careful aim on a sagebrush some 300 yards in front of us and hit the trigger. There was a muffled bang (the tank cannons made very little noise inside the tank — the muzzle blast outside, however, was deafening, even with the 37mms) and to my disappointment my first round hit the ground about 50 yards in front of us. The loader ejected the shell, rammed another round into the breech, and pounded my back. I signaled the driver to take off and away we went for a hundred yards or so when I stopped him again, aimed the cannon and pressed off another round with an equally disappointing result. Away we went again and, turning my attention to my machine gun, I pulled the trigger as we went bounding across the Mojave. As usual, after one or two bursts of five rounds the gun jammed. At about this time I began to have serious doubts as to how effective we were going to be in combat. So we continued for the next five minutes, stopping for me to fire the
This is How it Was

cannon, then clearing the machine gun and firing a few brief bursts before it would jam once again. Neither the driver nor I knew what we were doing or where we were going— or where everyone else was either. Finally I risked getting a so-called friendly round through my brain by popping my head up out of the turret and looking about me. It was quite a sight. There must have been at least fifty tanks in view all doing more or less what I was doing, the bark of cannons, the chatter of machine guns, and the crump of shells exploding in the distance. If I hadn’t known better I would have thought they knew what they were doing. I had not yet heard the expression, “the fog of war” but I was experiencing it first hand.

After we returned to our encampment to lick our self-inflicted wounds and refresh men and equipment I began, for the first time, to reflect on my situation. I still enjoyed the life of a soldier, I enjoyed the daily physical activity and the give and take with my fellow soldiers. After years of strenuous mental activity I found the freedom from mental stress refreshing. I still found the thought of going into combat in the reasonably near future exciting and was somewhat concerned that the war would end before we were in it. I felt better than I had ever felt in my life, slept and ate well, and had absolutely no worries. I realized that until the war was over there was no point in worrying about my future— there might not even be a future. I had no emotional ties— no girl friend, no wife. And, since there was no television, no daily newspaper and not even a radio we had only the faintest idea of what was occurring elsewhere in the world. I might comment in an aside that, until you have been deprived of all contact with the various news media, you can have no idea how soothing, how refreshing a lack of news can be!

On the other hand the recent maneuver had made a deep impression on me. It had brought home to me for the first time what I still regard as the greatest weakness of the tank— that it is very easy for the enemy to see you and very difficult for you to see the enemy. I was also beginning to feel the first faint stirrings of desire for a little more intellectual stimulation. My application for Officer Training in Armor had been processed and I had been to the doctor for a cursory physical exam. I was not passed because my pilonidal cyst had not completely healed but was still draining somewhat. Sanitary conditions being what they were in the desert I felt it was a miracle that it had not become infected. Nevertheless, I was disappointed at being turned down. Happy as I was as a sergeant I still wanted to be an officer. In the back of my mind was the faint hope that I might still be able to make a career of the army as an officer.

Meanwhile desert maneuvers came to a close and we began to tear down and fold up our tents and prepare our vehicles to be shipped to Camp Cooke, California— our next home. With the exception of our cadre from the 2nd Armored Division we had been in the army for nearly a year. We all felt at ease in the army by now. We walked like soldiers, talked like soldiers, looked like soldiers, acted like soldiers and had even begun to think like soldiers. We knew the language, the customs, the duties, what we could get away with and what we couldn’t. We had passed from civilians to
recruits to soldiers.

Nevertheless, in my opinion, our training, excellent in most respects, had been very deficient in one and that was in gunnery. We had had very little instruction nor practice in firing our weapons. My sidearm at that time was the Thompson sub-machine gun, made famous in the thirties by the Chicago gangsters. I had fired it just enough to lose confidence in it. It was supposed to be fired in short bursts since the muzzle would climb after the first round, putting succeeding rounds into the heavens. No one could hit anything with it after one round. Our crew served weapons were the Browning, caliber .30, air-cooled machine guns and we were well trained in caring for and maintaining these. But we had never had any instruction in firing them from the tank and had never exercised them on the firing range. Our primary weapon was the 37 mm cannon. We had never received any instruction in this weapon other than in how to load it. We had only fired it once, out on the desert exercise, and never under controlled conditions where we could acquaint ourselves with its capabilities and limitations — mostly the latter.

We left the desert by train for Camp Cooke, California with light hearts, looking forward eagerly to whatever our future was to be. The overnight ride to Camp Cooke was unremarkable with the exception of one incident. When we arrived at Camp Cooke we discovered that our First Sergeant, Laughinghouse, had become a private overnight. I later learned that he got drunk on the train, went in to the company commander’s compartment, and urinated on the floor. I don’t know what he had in mind but he certainly made a quick trip from the top to the bottom enlisted rank in the company. Not long after this he transferred to Airborne and left us, still a private. He was a good soldier, always light-hearted and never, so far as I could see, let himself get rattled by the continual mess ups of military activities. I liked him and was sorry to see him lose his position. He was replaced by our supply sergeant who was basically a paper pusher and a good deal better organized than Laughinghouse. I preferred Laughinghouse and, oddly enough, I will meet him again under much different circumstances later in this narrative.

Camp Cooke was, like Camp Chaffee, a new installation, and if you closed your eyes at Camp Chaffee and opened them next at Camp Cooke you would be hard pressed to know that you had moved. Cooke was located between the towns of Lompoc and Santa Maria on the coast of California between Los Angeles and San Francisco. Years later it became Vandenberg Air Force Base and the site for test launches of intercontinental ballistic missiles.

Camp Cooke was a big change from the Desert Training Center. Situated right on the coast it featured a daily fog that rolled in during the night and didn’t burn off until mid morning. We had acquired some habits in the desert that didn’t translate well to our new home. We left the desert with our guns dry — that is, unoiled, and within two or three days, before we had thought to begin oiling them once again, they had all acquired a light coating of rust in Camp Cooke’s very damp mornings. Nothing is more embarrassing to a soldier than rust on his weapons.
We arrived in Camp Cooke in April of 1943. The armored battles in North Africa were just reaching their peaks at this time and we all wondered whether we might be sent there. But I had a feeling, correct as it turned out, that we were destined for the invasion of the European Continent and that it would be some time yet before we would see any action. But, right after we arrived at Cooke, I received a letter from the War Department referring to my application for flight training of January 1942 and stating that I was accepted, if I so wished, for Aviation Cadets (non-rated) for training as a communications officer. I had signed a request for a waiver of my physical defect, “healing pilonidal cyst scar” in November of 1942 for officer training in Armor but had heard nothing since. So, while I would have preferred to have gone to officer training in Armor, I concluded that I might never get there and that this might be my last chance for a commission. While somewhat reluctant to leave the Sixth, I decided to accept and was ordered to report to Boca Raton, Florida. So off I went back across the country again by train, leaving my buddies from Company C with hardly a thought in the manner of a youngster.

Many years after the war I discovered that there was a 6th Armored Division Association and I joined it. I went to one reunion, in Richmond, Virginia, and found that the division had been reorganized after I left it and that C Company had been converted to an amphibious tank company, had made the assault landing at and many of the old company had been killed. The rest of the division went onto the European continent shortly after D Day and fought across France and Germany until the end of the war.
I reported for training as an Aviation Cadet, non-rated. I didn’t like the sound of that “non-rated” and it was to plague me for the rest of my Air Corps career. I had wanted to be a flying officer — pilot preferably — but would have settled happily for navigator. However, I already knew that in this life you couldn’t always have things just as you wanted them and I was happy enough to be taking that first step toward becoming an officer.

The cadet wing was located at the posh Boca Raton Club near Boca Raton, Florida. The Club had been a well known luxury resort before the Air Corps had taken it over for the duration. The accommodations were luxurious to me, accustomed to life in a barracks or tent. We were to get three months of basic military training there and then go to Yale University at New Haven, Connecticut for our technical training. The school was modeled along the lines of a VMI, a Citadel, or even a West Point. If my memory serves me, a new group of cadets arrived every month at which time the older classes moved up in responsibility and privilege.

The cadets were a varied lot. Most had come directly from civilian life but there were a few non commissioned officers like myself. Nearly all of the latter, however, were from the Air Corps. I may, in fact, have been the only cadet from the ground forces. The civilians were mostly just out of college and were referred to, disdainfully, by former Air Corps non coms as “Feather Merchants,” a term unique to the Air Corps that I had never heard before. Nearly all were about my age, so we were a youthful bunch on the whole.

Aviation Cadet was a rank as well as a description and I was no longer Sergeant Dukes but Cadet Dukes. We received the pay of a Staff Sergeant which was, as I recall, ninety-six dollars a month, a jump of eighteen dollars for me. We wore the uniform of an enlisted man but with gold wings on our collar tabs and a patch with a winged propeller on our left shoulder. I had to cut off my Sixth Armored Division
patch which I hated to do. Worse, I had to remove my Sergeant’s stripes from all my uniforms. Fortunately removal of the stripes left a mark on my sleeves which couldn’t be erased so that anyone could tell that I wasn’t a feather merchant. That was absurdly important to me at the time. In common with the other former NCOs I continued to wear the khaki service cap (called a “Flight cap” in the Air Corps) with the piping of my former branch, in my case the gold and green of the Armored Force. I also continued to wear it on the left side of my head as was customary in the Armored Force. All other branches of the army and all other armies wore it cocked to the right. Some three weeks into our program I was marching from one class to another with my flight when I heard the voice of a distant officer shout, “TELL THAT CADET WITH HIS CAP ON THE WRONG SIDE OF HIS HEAD TO MOVE IT OVER!” I had the feeling that he was referring to me, that he was ignorant of the Armored Force custom regarding their caps, and that, even if he had known he wouldn’t have cared. So, in the face of this lamentable display of military ignorance, I bowed to the inevitable and hastily recocked my cap to the position that it continued to occupy for the next thirty years.

Our training was the same training that was given to Air Corps officer candidates at the Air Corps Officers Training School at Miami where the Air Corps turned out the second lieutenants they needed for all purposes except flying and technical fields. A difference was that we wouldn’t get our second lieutenant’s bars until we graduated from technical training at Yale. There was a certain amount of harassment from the upperclassmen but when they saw that I had been a sergeant they pretty much left me alone. Some of the callow young feather merchants didn’t fare so well and their lives were filled briefly with a good deal of misery. We had a fair amount of physical training and, since we lived just a mile from the beach this included swimming several afternoons a week. I recall taking a platoon (called a “flight” in the Air Corps) to the beach after I had become an upperclassman myself and thus a cadet noncom. These were all feather merchants with pasty bodies and in terrible physical shape. I ran them all the way (this wasn’t my idea but I enjoyed it) in the heat and humidity of Florida in July. There is a little of the sadist, I fear, in most of us. Most of them dropped out but they couldn’t say a thing because I was running along with them.

We had a formal retreat ceremony five days a week and this was something nearly all of us enjoyed. The cadet wing must have consisted of about fifteen hundred cadets so we were an imposing sight when we marched into formation for the ceremony. It was always hot and humid at five in the afternoon and the ceremony involved a good deal of standing at attention in the heat. As a result we always had a number of cadets faint. There was an ambulance behind us and the corpsmen would drag the Unfortunate cadet back to the ambulance as unobtrusively as possible. I never fainted but I occasionally felt a twinge of apprehension that I might so disgrace myself. After we had arrived in the formation — line of squadrons abreast — the whole cadet wing would present arms (salute) to the reviewing officer, the orders of the day would be read (a formality) and, once or twice a decoration was awarded to a cadet who had
been in combat before he became a cadet. Then the Wing Commander would roar out, “PASS IN REVIEW!” and the action would begin. We would be standing in line of squadrons and the adjutant would start things off with the command, “COLUMN OF SQUADRONS! — FIRST SQUADRON! — RIGHT TURN!” and here there would be a series of shouts as the commanders of all the squadrons but the first would shout successively to their own squadrons, “STAND FAST!” And then after a moment’s pregnant silence the command would come, “MARCH!” and at that instant the band would strike up and every man in the first squadron would step off with his left foot in a wheeling turn of the entire squadron. Then as the first squadron completed the turn and marched briskly ahead to the sound of the music the commander of the second squadron would shout out, “B SQUADRON! — RIGHT TURN! — MARCH!” and the second squadron would wheel to the right and fall in marching behind the first. This would be repeated until all the squadrons were marching, one behind the other. This column of squadrons then made two left turns and passed in front of the reviewing stand which contained the School brass, the distinguished visitors and their ladies. As each squadron passed the reviewing stand the command was shouted, “EYES RIGHT!” and every head in the squadron except for the right file would snap to the right in recognition of the reviewing officers.

We didn’t have many amusements there and we did enjoy the parades. Unfortunately we had a jokester in our squadron who, when he was acting squadron commander during one parade, shouted out in a voice that would waken the dead — not “STAND FAST!” but “HALF ASS!” That sounded close enough and and we knew, regardless of what he shouted, what we were to do; that is, nothing.

The three months at Boca Raton passed pleasantly enough and our Feather Merchants began to resemble what passed in the Air Corps for soldiers. I found them a congenial group of fellows and with considerably fewer rough edges than my fellow soldiers in the Sixth Armored. Conversation was more stimulating, making up in intellectual content what was missing in colorful obscenity. My class I graduated at the end of July and was packed aboard a train once again and sent to Yale University at New Haven, Connecticut for our technical training.

Technical School, Yale University

Like many American universities Yale University, while continuing to run its normal academic program, managed to survive financially by offering its facilities to the government for war programs. The Air Corps used the University’s facilities to give technical training to its future officers who would be responsible for certain specialized functions. These were Engineering, Communications, Armament, Photography and Meteorology. The Cadet Corps was billeted in the school’s dormitories, ate at the school dining hall, took classes in the classrooms and used the physical training facilities for PT (physical training).

When I arrived I was assigned a room with three other cadets in a dorm that
was said to have been used by former Yaleman, Nathan Hale, the Revolutionary War hero who was executed by the British for spying. We were set to work immediately preparing for the Saturday morning inspection which was a feature of life at Yale. Among other things we were told to polish the massive handle on the old oak door. This turned out to be a monumental task as the handle was covered with the patina of (in our opinion) centuries of neglect. We were convinced that Revolutionary War cadet Hale had been the last person to polish this brass.

Life at Yale quickly settled into a pleasant routine. We marched from one class to another in the morning, then had a couple hours of classes in the afternoon. This was followed by an hour of PT and then, three times a week, a retreat ceremony. We had very little close order drill there — we were assumed, not too accurately for some of us, to have mastered those skills. But we did do a fair amount of marching from one place to another and, unlike the Ground Forces, the Air Corps encouraged singing while marching. So, as we marched along we would roar out such old favorites as “The Beer Barrel Polka,” “I’m a Yankee Doodle Dandy,” “Give my Regards to Broadway” and “She Wore a Yellow Ribbon.” We also sang a popular British wartime song, “I’ve Got Sixpence.” Then there was one that we sang to the tune of the British March, “Colonel Bogey,” that would have pained Herr Hitler and his top associates had they heard it. The words to that went —

Hitler—has only got one ball
Goering—has two but they are small.
Himmler—is somewhat similar,
And Doctor Goebbels has no balls at all!

“She Wore a Yellow Ribbon,” a popular Civil War song had been modified somewhat and went —

Around her neck she wore a yellow ribbon,
She wore it in the springtime and in the month of May, Hey Hey!
And when they asked her why the hell she wore it,
She wore it for her lover who was far, far away.

And in the house, her father kept a shotgun,
He kept it in the springtime and in the month of May, Hey Hey!
And when they asked him why the hell he kept it,
He kept it for her lover who was far, far away.

These were all good rollicking songs and the marching was easy with a jolly song to keep step to. And the civilians — particularly the young girls — loved to hear us sing as we marched through the town. This type of singing has been and continues to be sadly neglected in the American armed forces but the German army had a wealth of
The Air Corps

wonderful marching songs. The American army has developed, informally, a number of “cadence counts” where the NCO shouts out a rhythmic phrase or phrases and the marching troops shout back in a stylized reply, all in time with the marching feet. These are chants and are called “Jodie Calls” after the original, one version of which went —

NCO: “Sound Off!”
Troops: “One, Two!”
NCO: “Sound Off!”
Troops: “Three, Four!”
All: “One, Two, Three, Four!” pause “THREE, FOUR!”
NCO: “I had a good job and I left!” pause “Jodie was there when I left!”
All: “One, Two, Three, Four!” two step pause “THREE, FOUR!”

Some features of life at Yale were quite interesting. The Glen Miller Band, the most popular dance band of the time, had enlisted en masse and had become The Glen Miller Army Air Forces Band. It was stationed at Yale, presumably to be near New York City for radio broadcasts and recording sessions. In any event we profited greatly by their presence. Every day when we lunched in the enormous University dining hall we were serenaded by the band playing the popular swing music that had made it such a great favorite. Then, once a week, the entire Cadet Corps held a retreat ceremony on the New Haven Village Green, adjacent to the University. This was quite a show and attracted enormous crowds of spectators. The ceremony was identical to those we held at Boca Raton with the exception of the band which was, of course, the Glen Miller Band. We very much enjoyed watching those previously temperamental and highly paid musicians marching up and down the field as they provided the music for our parades. But they insisted on showing they were civilians in uniform by playing as we passed in review, not John Philip Sousa, but popular tunes of the day such as “The Saint Louis Blues” and “Blues in the Night” in march time. Once we got over the shock we rather enjoyed marching to these though I always felt they were not quite appropriate for a military spectacle.

The PT program at Yale was excellent. We had an hour of swimming three times a week and, on other afternoons, ran cross country. At that time Yale University’s swimming teams had dominated intercollegiate competition for years and their long time coach, Bob Kipputh I believe his name was, a wiry old bastard, showed us very little mercy. One exercise we were required to do was to jump from the high board with our clothes on, take our trousers in the water, knot the ends of the pants legs, invert the trousers so as to trap air in the legs, and using these as life jackets, to swim a hundred yards. The avowed purpose of this exercise was to prepare us to be torpedoed en route to whatever theater of operations our destiny would take us. Unfortunately, when I finally sailed across the North Atlantic some six months later the Germans failed to torpedo our ship and this exercise went for naught. On
afternoons when we didn’t swim we ran a cross country course of about five miles, ending in what we called “suicide hill.” By the time I graduated I could run this course, in heavy boots of course, and hardly breathe heavily. I left Yale in the best condition I have ever been in. It was all downhill for the rest of my life.

Our academics were interesting. We began with a study of circuit theory and then the theory of electronic devices — vacuum tubes in those days. After several weeks of these fundamentals we spent a week apiece on each of the radios that the Air Corps was using in their aircraft. These were, briefly, the SCR 287 (SCR meant “Signal Corps Radio”) which was the so-called “Liaison Set.” It operated in the low, mid and high frequency bands — that is from about 500 kilocycles to around 30 megacycles, and its function was medium and long range communications by means of CW (continuous wave) modulation using Morse code. This was a big, old fashioned radio, required a trained radio operator to operate it, and every bomber and transport aircraft in the Air Corps had one. Then came the SCR 274N which was called the “Command Set.” It was used by the pilot primarily to communicate with civilian and military air control facilities on the ground. It operated in a range of frequencies around three thousand kilocycles and was used on voice only. It was a nice little set and, since it could be easily converted to amateur radio frequencies, was very popular with amateur radio operators after the war was over. Then there was the radio compass. This was a receiver only and with a directional loop antenna that could be rotated by the operator. This was a popular set with bomber crews since it operated in and around the broadcast band and they could listen to commercial radio programs on it during long, boring flights. Its real function was to give bearings to any radio station it picked up and thus enable the navigator to get quick and reasonably accurate position fixes. There was the ILS (Instrument Landing System) receiver which allowed the pilot, by flying so as to keep a pair of crossed needles centered, to make approaches to airfields equipped with the ground portion of the system, in conditions of low visibility. Another receiver only was the Marker Beacon. This was supposed to be used in conjunction with the ILS receiver. Marker beacon transmitters were situated on the ground at the end of a runway and these transmitted a signal vertically in a narrow cone. When the pilot flew over such a transmitter he would hear the signal in his headphones and would know exactly where he was on his approach. And, finally, we studied the most useful set of all, the SCR-522. This was the radio that the pilot used to communicate with other aircraft in his formation and with military ground control. This set operated in the Very High Frequency (VHF) region of the spectrum; that is, around 150 megacycles. At those frequencies communications were “line of sight,” the radio energy traveling like light in straight lines and thus with range normally limited by the horizon. This region of the radio spectrum had been little used because of the difficulty of designing and building equipment that would operate reliably at what was then considered, as the name would suggest, very high frequencies. The 522 had been developed by the British and used in the Battle of Britain. It had four pushbutton channels, crystal controlled, and
The Air Corps

was a mechanical nightmare. When the pilot pushed the button for “A” channel, for example, a small motor would drive a rat’s nest of cams and levers which would tune up the transmitter and receiver on the appropriate frequency. The radio maintenance personnel had to preset all these cams and levers so that every stage of the transceiver would be properly tuned and that was a delicate and frustrating job. Nevertheless the 522, despite its bulk, weight and complexity was a great step forward in command communications. For some reason it was classified as Secret or Confidential, I don’t remember which, although the Germans by that time must have recovered hundreds of them from crashed aircraft. It was the only piece of airborne equipment that we studied that was classified.

Every one of the sets above required its own antenna and, in the case of the radio compass, two antennas. So the bombers of the day, the B-17 and the B-24 bristled with antennas of many shapes and sizes.

We spent a week, four hours each morning, studying each of the more important sets, and two or three days on the less important ones. To learn the sets we went over the schematics wire by wire and tube by tube, tracing every wire and learning the functions of every connection to every tube. Then we tuned them and tried to diagnose faults that the instructors had put into the equipments. It was a good program.

The Technical School at Yale was under the Air Corps Technical Training Command and the training was excellent. But — someone at a very high level had made two rules that applied to all training in the Command. The first rule was that there would be no lectures. The second was that students would remain standing during all classes. Both rules were probably designed to prevent napping in class and, if so, they were quite successful. But it was sometimes impossible for the instructors to avoid, completely, lecturing to the students. And we did not enjoy standing through all our classes in the morning. The Air Corps, then and later, drew a sharp line between training and education. The Air Corps training philosophy was that training should be a hands on experience, and I believe that they were right.

One of our courses was Morse Code. As communications officers it was felt, rightly, that we should be reasonably proficient in this, even though it was unlikely that we would need to use it ourselves. So we spent six weeks, one hour a day, listening to and copying code at an ever increasing speed. I ended with a code speed of sixteen words per minute which was about average. Since most Air Corps code traffic would be encrypted we were never exposed to what was called, “plain text.” Instead, all our practice was with five letter code groups. Copying these was more difficult than copying plain text since there was no context to provide missing letters or words. It was amazing how fatiguing it was to spend an entire hour on this. It was just another example of the tyranny of custom — classes everywhere have always been a nominal hour in length and so it was with code. After twenty minutes of code there was no learning. However this was the only class where we were allowed to remain seated.

Our class was due to graduate in November of 1943 and, a month or so before, we
met with the tailor to order our uniforms. At that time the Air Corps, being part of the Army, the officers wore the army uniforms. My winter uniforms started off with an olive green blouse with belt attached, one pair of olive green slacks and one pair of “pink” slacks (so-called though they were actually a grayish beige which furnished a nice contrast with the blouse). With this uniform we wore the “service cap,” a conventional military cap with leather bill, or the “garrison,” “overseas” or “flight” cap which was the officer’s version of the flat cap that I had been wearing since I had joined the army. Instead of the Armored Force piping of gold and green or the Air Corps piping of yellow and blue that enlisted men wore, this had the gold and black piping that marked the caps of officers of all the branches of the Army. While the blouse was worn on relatively formal occasions the more common uniform of officers or enlisted men was the long sleeve shirt with tie and matching slacks. The winter version of this uniform was olive drab wool and the summer uniform cotton khaki, both identical for officer or enlisted man save for the epaulets on the shoulders of the officers’ shirts. To save money I had the tailor cut a piece out of the shirt tails of my enlisted shirts and fashion epaulets of these — I was to be, after all, a “shavetail” though that term was not really used in World War II. I also ordered a “field coat” a marvelous version of the trench coat of World War I with removable wool liner. This kept me warm and dry throughout the rest of the war and for many years thereafter. Then, being an officer, I was no longer expected to roll up my uniforms and stuff them into duffel bags, so I ordered a B-4 bag, the original version of all the carry on bags that businessmen today take aboard aircraft to carry their suits and other gear. To pay for all of this a generous government would give me, as I recall, two-hundred dollars upon commissioning. The New Haven tailors, old hands at this game since Yale had long had a popular ROTC (Reserve Officers Training Course) on campus, charged us every penny of our allowances but gave us good uniforms for the money.

As graduation approached, two emotions began to predominate; relief that our schooling was to end and curiosity as to what our assignments would be. On 10 November I received Special Orders Number 313 discharging me from the service for the purpose of entering active duty as a second lieutenant in the Army of the United States, then ordering me to active duty effective 11 November. Thus, for one day I was apparently a civilian. I could find no way to take advantage of this, however. The same orders assigned me to the Air Corps and directed me to report to the commander of the 34th Bomb Gp, 2nd Air Force, Army Air Base, Blythe, California. I was authorized ten days leave en route and was warned that my dependents would not accompany me. That latter warning seemed somewhat inappropriate in my case but they were afraid, perhaps, that I would acquire a dependent now that my pay had gone from $78.00 a month to $137.00. In any event, like many military warnings, it did not really mean what it said. Its true meaning was that “if your dependents accompany you it will be at your own expense and they can expect no assistance from the government.”

The next day we graduated and received our “Temporary Appointments” as 2nd
lieutenants. The letter of appointment was somewhat interesting. It stated that:

1. The Secretary of War has directed me to inform you that the President has appointed and commissioned you a temporary Second Lieutenant, Army of the United States, effective this date. Your serial number is shown above.

2. This commission will continue in force during the pleasure of the President of the United States for the time being, and for the duration of the war and six months thereafter unless sooner terminated.

3. There is enclosed herewith a form for oath....etc.

4. This letter should be retained by you as evidence of your appointment as no commissions will be issued during the war.

Despite impressive references to “The President of the United States” and “The Secretary of War” the letter was signed by ROY R. WALKER 1st Lt., Air Corps, Actg. Asst. Adj. Gen. Nevertheless, for the duration of the war at least, Lieutenant Walker’s signature was to be the only proof that I was actually a commissioned officer. My serial number changed from 12072791 to 0-867362; from an enlisted to an officer’s number. I sometimes forget my telephone number and even my mailing address but those serial numbers are burned imperishably into my brain!

After the commissioning ceremony I rushed back to my room, pausing momentarily to honor the custom of giving a dollar bill to the first enlisted man who saluted me, packed my bags and took the train to New York, very self conscious in my officer’s blouse and slacks and very proud of my new gold bars. My lifelong ambition to be an officer in the United States Army had finally been fulfilled though in a way I could never have imagined. And there was still a big fly in the ointment — my commission was for the “duration plus six months.” But that was a problem I could worry about later; meanwhile I was savoring my new status.

Not the least of the attractions of my rank was an essential doubling of my pay. From a sergeant’s pay of $78.00 per month I went to a second lieutenant’s pay of $137.50 plus a ration allowance of $21.00 per month. A second lieutenant also had a housing allowance of $75.00 per month but if he was unmarried he never saw it since the government took it away immediately. A married lieutenant received his $75.00 if the government determined that his quarters were “inadequate” and any accommodations that were not sufficient for him and his wife were always considered inadequate. An unmarried officer, on the other hand, found that his living quarters were always considered adequate. One of the great unrecognized injustices of the war was the withholding of the $75.00 per month housing allowance from infantry second lieutenants on the basis that even a foxhole constituted “adequate” quarters for an unmarried officer!

I had planned to spend a few days in New York but couldn’t afford the somewhat seedy hotel and didn’t know what to do anyway, so I took the train next day for
Washington and my parents. I had ten days “delay en route” but, after visiting the museums for a day or two, I didn’t know what to do with myself. So I caught an early train for Blythe where I arrived after another five day train ride — but with a sleeper this time, au frais de la princesse as the French say. Blythe was then (and is now) a small town in the desert on the California-Arizona border. There appeared to be no particular reason for its existence but the land nearby was cheap and thinly populated, reasons enough to build an air base there during the war.
I arrived at Blythe Army Air Base, Blythe California on 26 November 1943, and on 30 November was reassigned, a paper transfer, together with everyone else in the 34th Bomb Group, to the newly designated 34th Combat Crew Training School. My assignment was as Communications Officer, Production Line Maintenance. On my arrival I had been directed to the BOQ (Bachelor Officers Quarters) where I was given half of a small, dusty room in this very temporary looking building. Shortly later I met my roommate, 2nd Lieutenant Alfred N. Steiner, who had been there for several months and who also shared my responsibilities on the job.

Al was a Jewish boy, about my age, and a previous graduate of AAFTS Yale. He had held an Amateur Radio license before joining the Army and this gave him a good practical background for our responsibilities. He was a soft spoken person but with an air of authority and complete confidence in himself. He was respected by both the officers and the enlisted men and I couldn’t have had a better working associate and roommate. I couldn’t say the same for most of the other residents of the BOQ who seemed to sleep through the day and carouse through the night. I soon discovered that the Air Corps officers seemed to take a good deal of pride in being “raunchy”, of which more later.

The 34th Combat Crew Training School was an RTC (Replacement Training Center); that is, it trained individual B-24 air crews to be sent out as replacements for those shot down or sent home. The Consolidated B-24 was one of two heavy bombers used in the Air Corps at that time and, for that matter, throughout the war. The other was the B-17, better known as the “Flying Fortress”. Both were four-engined bombers of similar speed, carrying capacity and armament. But, whereas the B-17 was a beautiful airplane with graceful lines the B-24 looked like a box with wings. The British, who had a habit of giving names to American equipment which we knew by numbers, called the B-24 the “Liberator” or “Lib” for short. I never heard an American refer to one by that name, however.
Individual air crew members would come to Blythe from flying, navigation, bombardier, radio, engineering and gunnery schools. At Blythe they would be melded and trained to function as a crew in the B-24. When they completed their training there they would be sent to operational units either as complete crews or as individual replacements. Al Steiner and I had no instructional duties — we were simply in charge of the radio maintenance for the aircraft radio and radio navigation equipment. This was the same equipment I had studied at Yale so I was quite familiar with it. We had a good group of enlisted radio technicians, many of whom had been working in that area for over a year so we had few problems. Our jobs were certainly not very challenging from a technical standpoint and we spent most of our time scheduling shifts, making sure that all the inspections were done as scheduled and documented, and keeping our men happy. The men were satisfied with their positions and their work and gave us very little trouble.

One of the little oddities of our work was the constant need to replace antennas that the gunners would shoot off of their own aircraft. The top turret was a particularly frequent offender since most of the antennas were on the upper part of the aircraft. One of the top-turret gunners even managed to shoot the vertical stabilizer off of his plane. This was not easy to do since the turret was supposed to have interlock switches which would prevent the guns from firing when pointed toward the stabilizer. Fortunately the B-24s had two vertical stabilizers and his aircraft was able to limp home with the remaining one. This was one of the earliest manifestations of Murphy’s Rule that “If anything can go wrong it will”.

At Blythe training went on day and night as did our maintenance so I spent a good deal of my time there working nights. I didn’t particularly mind since there was nothing else to do there anyway. For twenty-four hours a day, seven days a week the B-24s flew. And when they were not flying they were being worked on. Day and night the sound of aircraft engines was always present, from the intense roar of the engines as an aircraft sped down the runway on takeoff, fading as the airplane receded from the field, to the muted roar as a B-24 came in for a landing. Then, late at night when flying had stopped, there was still the constant roar of engines as the mechanics checked them out for the next day’s flying. These were the sounds I was going to live with for the next year and a half.

Fortunately I was at Blythe during autumn and winter. In summer Blythe was one of the hottest locations in the United States and working inside an airplane parked under the blazing sun was nearly impossible, so most of the flight line maintenance was done at night. But, in the fall and winter Blythe’s weather was delightful — mild and dry and very much as it had been with the Sixth Armored at Desert Training Center. The Base was just a couple of miles outside the city of Blythe but the fleshpots of Blythe — if such existed — did not tempt me. Blythe had been, in common with most other American cities outside of which military installations were located, completely overwhelmed by the army. We had no transportation anyway.

So, life for me was pretty much reduced to working, eating and sleeping. I ate my
meals at the officers’ club which was in another temporary building not far from my
BOQ. There I had to surrender twenty-five cents of my twenty-one dollar a month
ration allowance for each meal. The meals were plain in quality and adequate in
quantity and they satisfied me. Sleeping in the BOQ was not completely satisfactory.
I grew used to the sound of the aircraft but not to the sounds of the commissioned air
crews as they came into the building in the wee hours, singing, laughing and shouting.
However it always subsided eventually and I slept well in those days.

I had never completely abandoned hope of getting into pilot or at least navigator
training and I discovered that the Army Air Corps was sending officers as well as
cadets through flight training. So I applied once again and took the physical exam
again. This time, to my surprise, I passed, with my eyesight checking out as 20/20
in both eyes! My application and the results of the physical exam were forwarded
to wherever such things went and, again to my surprise and extreme gratification,
I received orders, dated 31 January 1944, directing me to “report to the Aviation
Cadet Examining Board at 0830, 4 February 1944 for purpose of taking a mental
screening test for Avn Cadet Tng.” I did so and on 15 March I received notification
from Headquarters Army Air Forces, Washington, DC that I had been “provisionally
accepted for this type of training…with the class reporting 12 May 1944…”

I was elated — I couldn’t believe I was finally going into flying training. I should
have known better. I quickly received another letter from Washington, dated 13
April, 1944, stating that “In accordance with recent instructions, applicants for Air
Crew Training in Officer Grade are restricted only to those Air Corps officers who
were combat crew members returned from overseas. Your application has, therefore,
been withdrawn.” And there went my last chance for flying training. At the time I
was very disappointed. However, I have usually been able to accept the inevitable
and I didn’t waste much time in regrets.

Meanwhile, sometime around early January, 1944, the 34th Bomb Group was
reactivated and I was transferred back to the 34th Bomb Group as Communications
Officer, 18th Bomb Squadron. The group was informed that it was to be sent overseas
but not where or when. There was considerable speculation that it might be India —
we knew that they flew B-24s there and we all had summer uniforms. As far as I know
everyone in the group was delighted — I certainly was. I was beginning to wonder
if I were fated to spend the entire war in the United States, or as the army called
it, the Zone of the Interior. We finally received our movement orders dated 1 April,
1944. In preparation for our departure we were encouraged to make out allotments
of our pay to parents or spouses in the United States — it was understood that we
would not need all of that money where we were going. So I made out an allotment
of one-hundred dollars a month to my father who was to buy War Bonds for me with
the money.

We were to move overseas in two echelons — a ground echelon and a flight echelon.
The air crews and certain selected ground personnel were to fly to wherever we were
going in the group’s B-24s. The rest of us boarded a train in early April and set off
This is How it Was

for we also knew not where. Across the country I went, one more time, ending one night at a railroad siding at a Camp Miles Standish, located as we deduced from the name, near Boston. There we prepared to depart for our destination that most of us had, by now, correctly guessed as England.

At Miles Standish we drew winter clothing, stenciled our bags with our movement order number, painted white stripes on the backs of our helmets — horizontal for enlisted man and vertical for officer, and began censoring the mail. All enlisted men’s mail was censored by their unit’s officers at the POE (Port of Embarkation) and overseas. Officers’ mail was not censored but it was rumored that it was opened and checked on a random basis. We were all given instructions as to what we could and could not write — where we were, for example, was a no-no. This was a tedious job, relieved only by the soldiers’ transparent attempts to hint to their correspondents as to their location, particularly. Statements such as “I can’t tell you where we are but we are getting lots of baked beans” were typical.

Most of the fatigue details at Miles Standish were handled by Italian POWs (Prisoners of War). As we marched our men from one place to another the Italians would jeer at us. We had never seen POWs before and this wasn’t exactly what we had expected. Those Italians were well fed and obviously pleased to be out of the war. We felt that they should show a little more respect for, if not fear of their captors. The Americans never took the Italians seriously as soldiers. In the newsreels we saw of them before the war they always seemed to be passing in review in front of Mussolini at a dog trot and wearing little caps with feathers stuck in them, hardly the stuff of serious soldiering.

Miles Standish was cold, drizzly and boring and I was glad when we boarded our transport on my twenty-fourth birthday, April 13, 1944. Our ship was the Wakefield, previously the West Point which, according to Admiral Morrison’s History of US Naval Operations in World War II had been torpedoed off Iceland.* This was her initial cruise since she had been repaired and put back in service. It was a ship of modest size — perhaps 25,000 tons — and modest performance — about 16 to 18 knots. Every officer and enlisted man was assigned a number and wore a large cardboard tag with the number on it. As we filed up the gangplank an officer checked off the number to be certain that everyone came aboard. Officers were assigned bunks in the upper decks while enlisted men were sent deep in the hull where they were crammed in like sardines. That was a good time to be an officer.

The last half dozen or so soldiers to come aboard were escorted by the MPs. These good folks had gone AWOL (Absent Without Official Leave), preferring to spend the

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*This is not quite correct. The Wakefield was the ex-liner Manhattan, launched in 1931, and displacing 33,560 tons. She was converted to a troop transport in 1941 and spent the early part of the war in the Far East. On September 3, 1942 she caught fire en route to New York from England and burned for four days. The ship was towed to Boston where she was almost completely rebuilt. The trip that Franklin took was her first after re-commissioning. The eventful life of the USS Wakefield is featured in a twenty-two minute film The Story of a Transport (USS Wakefield). (ECD)
rest of the war in the stockade to going overseas where they might possibly be put in harm’s way. The army saw it differently and sent them with us. I suppose that most of them eventually accepted their fate and did their job as well as the rest of us.

When the ship pulled away from the dock I was elated — I was finally part of the great and fascinating war after what had seemed an eternity of training. Somewhat to my surprise I discovered that we were not to be part of a convoy but that we were going to England alone with no escort at all. Our ship, with its speed of 18 knots or so, was considered sufficiently fast that it need not fear the German submarines, all of which were somewhat slower than that on the surface and much slower submerged. (This was a year or so before the *Indianapolis*, a heavy cruiser with about twice our speed, was torpedoed by a Japanese submarine in the Pacific.) The only way a submarine could hit us was if our course took us directly into its path — the odds against this were considerable. At least that is what they told us.

The North Atlantic in April was cold and somewhat stormy. I spent my time sleeping, eating, and standing on deck looking out over the forbidding water hoping to see something interesting — a whale, another ship, or a submarine. In the eight or ten days of our crossing I saw nothing. My only duty was an occasional two hours in the bowels of the ship with the enlisted men, keeping a fatherly twenty-four-year-old eye on them and letting them know that they were still under army discipline. I did not envy them. Their bunks were stacked about five or six deep with some twenty-four inches between. All of their personal property was in two bags which shared their bunks. There were hundreds of them in that portion of the damp, cavernous hold which I was sharing, temporarily. Their sheer numbers prevented their being allowed on deck so they spent the trip in their bunks and in the area where they messed. As I sat there with my back to the hull I reflected from time to time on the possibility that a torpedo might be just outside the half inch of steel that separated me from the North Atlantic. It was no place for anyone who was the slightest bit claustrophobic.

Southampton was our destination and we arrived there mid-morning after a slow traverse of the Solent. As we went up the Solent I was all eyes. Here I was, finally, in England where the war had been going on for five years. Everything I saw was strange and yet familiar from all I had read and seen in the films and newsreels. As we nearened Southampton I was fascinated by several very large structures that resembled castles on stilts in the water. I guessed that they were platforms for antiaircraft guns and I found out, years later, that they were that. At that time they were regarded as secret and I had never seen a photo of them. Everyone in Southampton, of course, and certainly the Germans, were well aware of their function.

Before we debarked I watched the English longshoremen begin to unload our ship. I noticed then the first of the many peculiarities I was to observe about the English. A peculiarity, of course, was anything about them that was different from us and, more especially, different from what we had expected of them. Where an American laboring man would wear jeans, overalls or some type of working clothing, these longshoremen were going about their tasks wearing suits. It is true that the suits were well worn,
but suits they were and it seemed terribly formal wear for manual labor.

We filed off the ship, the enlisted men carrying their duffel bags and the officers their B-4 bags. Each officer was allowed to have a foot-locker (small trunk) but these had been shipped in the hold of the ship and we were hoping to see them again after our arrival at our airfield—as we did. We filed directly on to a train where we settled down comfortably to enjoy our first view of England as we headed for we knew not where. England looked pretty much as I had expected, smaller and much neater than the United States. But what none of us had anticipated was the intense green of the countryside—so much more beautiful than our own.

Late in the day we arrived at our destination—where, I had no idea at the time nor now either. It could have been Ipswich. There we were loaded into trucks and in some forty-five minutes we were at our new home, an airfield set in the midst of the flat English country. At first glance it appeared to be a hodge podge of Nissan Huts scattered about a few larger, more conventional buildings. Our air crews were already there, having flown across the Atlantic, so the field had a reasonably bustling appearance already. We detrucked and were led to our respective huts which were to be our homes for some indeterminate period of time, presumably the duration of the European war.
Eighth Air Force – England

Mendlesham

I quickly learned that our airfield was called Station 156, and was located near the very small village of Mendlesham in Suffolk, about half way between the modest cities of Norwich and Ipswich. We were about 75 miles northeast of London “as the crow flies” and maybe 20 miles from the English coast and the Channel.

My new home was a Nissan Hut that I shared with the other non-rated (i.e., non flying) officers of the 18th Bomb Sqdn. A Nissan Hut was a corrugated steel structure having the exact shape of a cylinder, cut in half lengthwise, and set upon a concrete slab. It was painted nondescript gray outside and white inside. The white paint inside served also as the sole insulation. Our hut was about 50 feet long and 20 feet wide and had two very small cylindrical iron stoves to furnish heat. About twenty of us shared accommodations, with our beds in two rows on either side of an aisle up the middle of the hut. There were doors at either end and four windows. Toilet and washing facilities were in a separate building which we shared with several other huts. Showers, still further away, we shared with many more huts.

The airfield had been built by the British, as had all the American fields in England, and was nearly identical to all the other American fields there. Nearly everything on the field except what we brought with us as part of our TO & E (Table of Organization and Equipment) was English and thus, somewhat strange to us. The beds, for example, were steel cots with some sort of slats instead of springs. Instead of a mattress atop these slats we were issued what the British called “biscuits.” Three of these, placed end to end on the slats, served as a mattress. There was no mattress cover nor sheets. We slept directly on the biscuits and covered ourselves with thin, gray RAF blankets. The problem with this whole system was that the biscuits would separate during the night and your bottom would drop down between two of them.
The biscuits gave us something to complain about but we were young and we slept very well on them. We were used to air bases that were somewhat compact, in that there was a so-called “flight line” where there were hangars lined up behind a large ramp and all the aircraft were parked more or less together in front of the hangars. This field was different and for a good reason. We were just a few minutes flying time from Germany. In order to present a less attractive target to “Jerry” as the British called the Germans, the aircraft were scattered all over the field in small clusters of three or four aircraft on “hardstands” as the parking areas were called. Surprisingly, there were no revetments to protect the individual aircraft — perhaps the British felt that the German threat was no longer formidable enough to go to the trouble to build these.

While the aircraft were dispersed, our living quarters, messes, administrative buildings and the operations building were all clustered at one side of the field. The impression I got was that the British were more concerned about losing aircraft than people! However, it was convenient.

After I drew my bedding, made my bed, hung my uniforms at its head and set my foot locker at its foot (whence the term “foot locker”) I reported to the new Group Communications Officer, Bob Ingram, and found out what my new duties were to be. Communications was to be a group rather than a squadron activity. Bob was loosely responsible for all of it and the four squadron comm officers were allotted various responsibilities. Al Steiner was to be radio maintenance officer and the radio mechanics from each squadron were assigned to him. Severson was to be responsible for crypto and ground communications. And I was going to be assistant to Bob Ingram and responsible primarily for briefing the aircrews on communications prior to missions. I would be working with Bob in the communications section of the group operations building, a reinforced concrete building which was to be the nerve center of all group operational planning and direction for the next year or so. We had the teletype machines there in our office connected to Hqs Third Air Division and all the operations orders came in on these. As a result I was always one of the first people on the base to know the details about the forthcoming missions. However, that was still in the future. For the time being our aircrews were busy learning the many details of how the Eighth Air Force operated — quite differently than we had done in the United States which was now called, somewhat quaintly, the “Zone of the Interior.” We, in turn, were now in the “European Theater of Operations.”

Very shortly after our arrival one pleasant perquisite fell our way. All officers and all enlisted men of the first three grades (Master Sergeant, Technical Sergeant and Staff Sergeant) were issued personal bicycles, English made, of course. Since all enlisted aircrew were authorized to be Staff Sergeants or higher, this meant that all aircrew members had bicycles. And, being the Air Corps, a very large percentage of non-rated enlisted were also first three graders so it sometimes seemed that everyone had a bicycle. Justification for this issue was the spread out nature of the base,
the twenty-four hour per day nature of our duties and the lack of personal motor transport. Regardless, the bicycles were used for nearly all our on base transportation. They were also used to go into Mendlesham in the evening to visit the local pub and we had, at one time, more people in the base hospital from bicycle accidents than from enemy action. Many was the pub trip on a moonless, blacked out night, that ended in a ditch. Nearly all the Americans had ridden only bicycles with coaster brakes and the English bikes with their front and rear wheel calipers that clamped onto the wheel rims felt very strange. Our people were constantly running into one another — I ran into another cyclist one day. We were heading directly at one another, both of us knew it, and neither of us seemed to be able to do anything about it. That was a very common occurrence. However, the bicycles were a great blessing, I loved mine, and have always believed since that time that the bicycle was and is the supreme form of personal transportation. But it takes an appropriate road system, which we have never had in the U.S.

We had arrived at Mendlesham around April 24th. On May 23rd our group flew its first combat mission. We had been alerted for missions on the previous few days but they had been “scrubbed” for one reason or another — a pattern that was to grow very familiar for us. The most common reason for scrubbing a mission was the weather, either in England or on the Continent. This first mission was to Etampes Mondesir in France and the target was the airport. The group flew the normal thirty-six aircraft of which twenty-four made their bombing runs, dropping some 288 five-hundred pound bombs. Results were evaluated as “fair to good.” No enemy fighters were encountered and flak was “moderate to severe” resulting in minor damage to ten of our aircraft. There were no personnel casualties. All in all it was an ideal mission for a new group — a real confidence builder.

The next few days the 34th flew missions to the airfield at Poix, a railroad yard at Montignies sur Sambre and industrial targets at Metz. The Metz raid was something of a mess, not an unusual occurrence at all as we were to discover. The 34th couldn’t hit the primary target which was obscured by smoke and dust from bombs from the 92nd Wing. The secondary target, Woippy, was hit by only eleven of our thirty-six aircraft, the other two squadrons being off course.

For several reasons most of our early missions were to France. We were a new group and Eighth Air Force wanted to start us off easy. Also the invasion of the continent was very near and much of the Eighth’s efforts was going into “interdicting the battlefield”; that is, damaging the rail and road nets leading into the French coast so as to make it as difficult as we could for the Germans to move troops into the Normandy and Brittany areas.

On May 28th the group flew its first mission into Germany, bombing installations at Lutzkendorf. Then, on May 29th the 34th flew its first long mission into Germany, to Politz, near the Baltic coast. Politz was one of the centers of synthetic oil production which were favored targets for the Eighth throughout the war. Politz was defended by large numbers of heavy flak guns and the group lost three of its aircraft
to flak, our first battle losses, and nineteen of our aircraft received “major” and four “minor” damage, all from flak. The Eighth Air Force provided fighter support all the way to the target with long range P-38s but the support was “meager and late” on the way back. Nevertheless, the 34th was not hit by the German fighters defending, though other groups were. With the Politz raid the 34th felt that it had finally become a full fledged member of the “Mighty Eighth” Air Force. From that day on we regarded ourselves as professionals and the equal of any bomb group in the Eighth.

We didn’t have long to celebrate nor to mourn our losses. The next day, the 30th, we sent out 24 aircraft (two squadrons) to Diepholz, Germany where we bombed a Luftwaffe airfield with “fair to very good” results, and on May 31st 24 aircraft were dispatched to a Belgian target but were recalled without dropping their bombs because of ten-tenths cloud coverage over the target. Thus ended our first week of operations and the month of May.

June 1944

As we entered the month of June the whole world knew that the allied invasion of the Continent was imminent but none of us knew the exact date. Our first June mission was a small 12-ship raid on an airfield at Bretigny, France on the 4th. Then on the night of June 5th when I went to work at the communications room of the operations building there was a strong feeling throughout the building that D-Day was very near. And as the operations order began to come in around nine o’clock from 3rd Air Division the word was out — tomorrow, June 6th, was to see the invasion of Normandy and the Eighth Air Force was to throw its entire effort into supporting the landing. Lieutenant Ingram, the Group Communications officer, and I stayed glued to the teletype machine as information concerning the invasion — still secret throughout the world — came pouring in. The role of the heavy bombers would not be to provide direct support to the landings — the fighters and the medium bombers had that job — but to interdict the battlefield and to neutralize the Luftwaffe at its airfields.

Briefing for that day’s missions started around midnight and takeoffs around 0200 hours. I was at the briefing as always, and the crews let out a cheer when the curtain that always covered the operations map was pulled back and the invasion was announced. I often heard groans and sometimes whistles when the day’s target was shown but I never heard the crews cheer a mission, before or after. The short cross channel flight routes from home bases made it mandatory that virtually all of the mightiest air armada ever assembled to that date be airborne and in attack formations before the first unit started across the channel, partly to avoid alerting the Germans, only a few miles away. This and the incredible congestion of the very limited air space over England that night made it necessary for all the heavy bombardment groups to take off and fly formation for long hours in holding patterns high above East Anglia in order to free the skies below for all the medium and light bombers, fighters, troop
carriers and tow planes pulling troop-laden assault gliders, not to mention the RAF bombers returning from their normal night operations.

The 34th’s first mission that day had Caen, France as a target. The objective was to soften and to disrupt the German coastal defense and cut off resupply routes just before the Allies hit the beaches. Unfortunately, the weather, which nearly terminated the invasion, was foul that night and the ten-tenths cloud cover completely obscured assigned bridges and highway choke points. So the 34th had to return to England with bombs still in their racks since the usual emergency dumping areas of the English Channel were full of boats and ships carrying troops and equipment. Worse, one of the group’s aircraft ran out of fuel as it approached England on the circuitous return leg necessary to avoid conflict with the following waves of aircraft. This on one of the shortest missions, as the crow flew, that the group ever made! Fortunately the aircraft, the lead aircraft of the 7th Sqn., was able to land on a small fighter strip just inside the South English coast.

A second mission on the same day wound up in about the same manner but with no aircraft lost. Lisieux, France, was the objective but the weather was still very poor with ten-tenth cloud coverage. On the 34th’s third attempt to support the invasion forces the two squadrons involved dropped 57 tons of bombs on the Lisieux target with no losses.

All the tactical aircraft that passed over our base on that memorable day, and there were many C-47 troop carriers and the various fighters of the 9th Air Force, had suddenly changed appearance. To help the ground troops identify friendly aircraft all of those that would fly low over the battlefield had a row of black stripes over a white background pointing fore and aft on each wing. This made our own aircraft readily recognizable from the ground.

The next day, June 7th, the group flew a late afternoon mission to Tours, returning to England well after darkness. I was in the communications office in the operations building preparing for the next day’s mission when our radio operator who was monitoring 1TL, the 3rd Air Division ground station, rushed over to me with a message he had copied, “Bogies in the area. Disperse.” Leaving him to monitor the frequency, Lieutenant Ingram and I rushed out of the building. The night outside was ablaze with fire. A B-24 had crashed into the Personal Equipment building just a hundred yards from us and the aircraft and the building were burning fiercely, lighting the whole operations area. Fifty-caliber ammunition from the B-24 was popping off continuously and above the roar of the fire and the explosions of the ammunition we could hear our aircraft circling over the field, their lights extinguished by now as the crews realized what was occurring. Then I saw a line of tracers streak across the night sky just south of the field followed by a reciprocal streak as the bomber returned the fire. The German’s burst of fire couldn’t have lasted more than three or four seconds but in that time he mortally wounded the B-24 which could be seen fleeing south, afire.

Meanwhile there was a good deal of confusion on the ground as a crowd gathered
This is How it Was

around the burning Personal Equipment building. I stayed just outside our building watching, fascinated, as events unfolded. I had two quick thoughts. First, the exploding ammunition, though probably not particularly dangerous, was a reason to exercise some caution. Second, and much more serious in my opinion, the crowd around the fire made a perfect target for the German if he wanted to use up his remaining ammunition on people. And, third, I could see that the last thing that was needed was more people standing around the burning building. By now the last of our aircraft had fled and, aside from the roar of flames and of exploding shells, there was silence in the sky. I returned to our little hole and went back to work.

By the next day we had pieced out what had happened. As our aircraft returned from the mission in the dark they were joined by a German night fighter who flew back to the base with them, unobserved by us and by our air defense radars. This was a tactic that the Germans used with some success against the RAF which flew all their missions at night. The RAF was used to this tactic and the crews were extremely vigilant. Our crew knew of its existence but never gave it a thought that night. The “intruder”, as the RAF called them, waited until our aircraft were over our field and turned on their lights. Then, in the short span of ten minutes or so, he shot down four of our planes. The first B-24 was the one that crashed into the Personal Equipment building, completely destroying it together with the group’s parachutes, heated flying suits, oxygen masks, etc. A second crashed just outside the base. A third, badly damaged B-24, crash landed at Eye, a neighboring base. And the fourth, the one I saw, crashed several miles south of our base after the crew had bailed out from a very low altitude. Of the 36 crew members involved, 12 were killed and 9 wounded or injured. One of those killed was one of our best radio operators. He had apparently donned his flak jacket but a 20 mm slug tore into his body through the opening where the front and back sections of the jacket joined.

We never found out exactly what had hit us. The crews variously reported it as one to three Ju88s or Me410s. We also heard that an intruder had been shot down by the British on its way back to Germany but we never knew for sure. I do know that some Jerry or Jerries had done a good night’s work for the Fatherland.

We didn’t know it at the time but these were to be the only aircraft that we would ever lose to enemy fighters. As the war went on and the 34th flew mission after mission deep into Germany without being hit by fighters we began to think that we led a charmed life. Our crews could see groups in front of the 34th in the bomber stream and groups behind us in desperate struggles with attacking German fighters but they seemed to avoid the 34th. After a while our crews stopped thinking it was luck and believed the CO (Commanding Officer) when he told them at mission briefings to continue to fly good tight formations — that was why the fighters avoided them. When 36 B-24s were packed in tightly the firepower from their 360 .50-caliber guns could be awesome. Many years later when we were visiting my wife’s family in Luxembourg I watched a television series on World War II that was being shown on German Fernsehen (TV). One hour was devoted to the aerial war against Germany.
and two things have stuck in my mind from that show. The announcer made the erroneous statement that the Ami (American) heavy bombers had aircraft on the perimeters of the formations which carried only guns and which threw up enormous quantities of defensive fire against the German fighters. It may have seemed that way to the Germans but the fire that they were seeing came from the regular, bomb carrying aircraft. The other statement that I still remember was that “the quality of the American fighter pilots was extremely high.”

Our crews couldn’t have agreed more with the German evaluation of our fighters. By the time the 34th arrived in England the P-51s and P-47s (P stood for “pursuit,” a term used in the First World War for fighters and continued up to the Second) were equipped with auxiliary fuel tanks which were variously called “belly” tanks or “wing” tanks depending upon where they were attached to the airplane. These enabled our fighters to fly deep into Germany to cover our bomber stream. One of the worst things that could happen to a bomber was to be so damaged over the target that it could still fly home but couldn’t keep up with its formation. This was very frequent and the wounded bomber was easy picking for a German fighter. But if an American fighter saw such a laggard on the way home he would invariably drop down and accompany him as protection. Nothing — absolutely nothing — was so heartening to the bomber crews as to see one of our fighters drop into formation beside it as it struggled to reach England. The pilot of the fighter would encourage the bomber over the VHF (Very High Frequency Radio — the SCR 522 that I had gotten to know so well at Yale). Ignoring call signs they would call one another “Big Friend” and “Little Friend” over the radio. Once over the channel the fighter would say a farewell to the bomber and the bomber pilot would give him a heartfelt thanks as he peeled off.

Our crews loved our fighters and the P-51 had a beautiful, businesslike look that no fighter has matched since. Occasionally one would fly directly over our base on its way back home from the wars and as it would pass overhead at high speed just a hundred feet or so above the ground, the propeller seeming to be barely ticking over, I always thought that this was the epitome of what a war machine should be.

By now the 34th’s operations had settled down into a comfortable routine as had my own duties. The 8th Air Force at that time was under the command of General Doolittle. The bomber groups were divided into three divisions. The First Air Division consisted of all B-17 groups and the Second Air Division of all B-24s. The Third Air Division had been all B-17s until we, the 490th and the 491st Bomb Groups arrived and formed the 93rd Bomb Wing of B-24s. The commander of the Third Air Division was General Curtis LeMay, a cigar chewing character who eventually became Chief of Staff of the United States Air Force. From the start it was obvious that the B-24s did not fit into a division of B-17s. The biggest problem was that the B-24 cruised at about 10–15 miles faster than the B-17s. This meant that they had to weave around the skies in order to retain their place in the bomber stream. How this problem was solved will soon appear.
Flight Operations

A normal day for me went something like this. Anytime from just after dinner in the evening to 2200 hours I would report to the Communications Office in the Operations Building. Lieutenant Ingram, the Group Communications Officer would be there as would a teletype operator and a clerk. We would do some routine paper work or just loaf around, waiting to hear from Division headquarters what the next day’s activities would be. Sometime after 2200 hours we would get a warning order if there was to be a mission the next day or a notice that the group would “stand down.” If we were stood down then my work for the night was over. The operations people might plan a practice mission or just routine maintenance and flying but that didn’t involve me.

If we received a warning order on the teletype we would take it to the duty Operations Officer who may have gotten the information already over the phone. Then we would begin preparing “flimsys” for the radio operators. These flimsys were handouts, printed on rice paper so they could be eaten if necessary, and containing radio call signs, the days code to be used in encoding any messages sent or received in Morse code by the radio operator, various radio frequencies of interest (such as the frequencies of the Bunchers, which were radio beacons used for forming up over England). The flimsys were classified as SECRET which meant that “loss to the enemy could cause grave damage to the United States.” Obviously many, many of them were lost to the enemy and most of the information was known to them or readily determined. However, the code was changed daily so the secret information was useless to the enemy after a few hours. They were obviously over classified.

Sometime around midnight the Operations Order for the mission would start coming in over the teletype. It usually came in dribs and drabs as the various staff offices at Hqs Eighth Air Force and Third Air Division got their input to the teletype operators there. Any information that required immediate action we would take over to Operations at once. The rest of it could wait. The most important early information was the number of aircraft we would be sending and the bomb load. The Engineering people had already let operations know what aircraft were operational and Operations then had to let Engineering know which aircraft would be flying the mission. Engineering would work all night making certain that those aircraft were operation ready. The Armament people had to prepare, deliver and load up to 72 tons of bombs on the 36 mission aircraft plus the 3 supernumerary aircraft. This was a back-breaking job, the hardest work in the Eighth Air Force. And, occasionally, when there was a change in target due to changes in weather forecasts, the Armament people would have to unload it all and reload with another bomb load. One night the bomb load was changed twice and the weary and furious Armament men were still winching bombs into the bomb bays when the crews went out to their aircraft. But they always got the job done.

As the night wore on and bits and pieces of the field order continued to come in over our teletype the outline of the mission would slowly unfold. We would see
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where the group was going and why we were going there, how many aircraft the
Third Division was putting into the air, what the weather over the target looked like,
what the secondary target would be (in case we couldn’t hit the primary — usually
because of weather), what the flak (German word for anti-aircraft that was used by
everyone because it was much easier to say) would be over the target, what the rest
of the Eighth Air Force would be doing, where our aircraft would form up, what our
fighter support would be, and so on ad infinitum. With very little to do at this time
we would catch a few minutes sleep at our desks or listen on our Hallicrafters short
wave receiver, one of the perquisites of being in Communications, to the German
broadcasters. They would play music all night long with numerous interruptions, Es
gibt drei feindliche flugzeug über SüdDeutschland being typical of these interruptions.

By around 0300 the final field order would come in, repeating much of what we
had already received but with everything consolidated. One portion of the field order
was always devoted to communications, giving frequencies, call signs and so forth. It
was this portion that concerned me since I was to brief the crews on communications.
By then Bob Ingram would have gone back to his hut to get some sleep, leaving me
and one or two enlisted men to handle the rest of the night.

Around 0400 the duty NCOs in the squadrons that would be flying would wake
the crews and let them know what time briefing would be. Crew members would
dress and wander over to the crew mess hall where they would eat breakfast. There
they had fresh eggs — the only fresh eggs served on the base. The rest of us ate
powdered eggs. This doesn’t sound like much but the privilege of having fresh eggs
was treasured by the aircrews and envied by the rest of us. Small things assumed
great importance in those days.

The gunners and the flight engineers would then go to the Personal Equipment
building to draw their heated flying suits, parachutes, flak vests and such and then
cycle to the hardstand where their own aircraft were located. There they busied
themselves with preparing the airplane and their guns for the mission. The officers
— pilots, copilots, navigators and bombardiers — and the Technical Sergeant radio
operators would slowly gather in the briefing room, a separate Nissan Hut adjacent
to the Operations Building. They were a somewhat unmilitary looking group but a
group that looked as if they knew their business, as they did. The officers usually
wore officers’ dark green wool shirt and slacks, a leather A-2 jacket and a service cap
with grommet removed and a “50 mission crush.” Even more than the wings on their
chest, the flying officers of the Eighth Air Force regarded these “50 mission” caps
as the visible symbols of their manhood and the worse the caps looked, the more
they treasured them. The enlisted radio operators usually wore olive drab shirts and
slacks, sheepskin lined leather jackets, and sheepskin lined leather caps.

Into this haze of cigarette smoke and lively chatter of conversation the group CO
would appear and someone would shout “ATTENTION!” Everyone would jump to
their feet and conversation would cease sharply as the CO and the Group Operations
Officer and several of their hangers on would stride up the aisle to the briefing platform
when the command, “AT EASE!” would be given and everyone would slouch back into their seats and douse their cigarettes.

The CO and his retinue having taken their seats in the front row, the Operations Officer would step up on the platform, reach for the draw string on the curtain that covered the large map of Europe while everyone else held their breath. Pausing, with a sense of the dramatic, he would pull the string and reveal to his attentive audience the mission for that day. If the red string stretched from England deep into Germany there might be a groan from the crews. If it stretched briefly into France there might be a noticeable relaxing of tension. In either case he would tell them where they were going, what the target was, the bomb load, the mission altitude, where the group would be in the bomber stream, what the fighter support would be, the IP (the initial point from which the bombing run would start) and other information about the day’s mission.

Then he would call for the officer who would be giving the intelligence briefing, usually Lieutenant Blevins of our squadron. The Intelligence Officer would expand on the target information — whether it had been bombed before and with what results, its importance in the general scheme of things. Usually he would have aerial photos to help the crews identify their target. Lastly he would tell them what they were most interested in — what fighter opposition they could expect and what flak there was en route and back and at the target. For example, he might say, “There will be 350 light flak guns (88 mm, generally) and 270 heavy flak guns along the bomb run and only light flak on the way in and out.” The flak was shown permanently on the map as red plastic overlays which Intelligence brought up to date as information became available. The worst concentrations of flak were around Berlin and the Ruhr valley. The latter was known sarcastically as “Happy Valley” by both RAF and Eighth Air Force crews.

The Group Meteorologist would follow with information about the weather over England and the weather over the target. The Eighth Air Force was almost as sensitive to weather as the old sailing navies were in the nineteenth century. At that time it needed clear weather over the target — it had to see it to hit it. The Army Air Force boasted of being able to put a bomb in a pickle barrel from 30,000 feet, and it could come close under ideal conditions. But conditions in combat were never ideal. It was very common to miss the target by 600 feet (good bombing) to 60 miles (wrong target!). We also needed good weather over England, at some altitude at least, to form up the massive formations. And the crews hoped for good weather over the base on the way home so they could see the runways and each other. Many a mission was planned and briefed and then “scrubbed” because the weather worsened or failed to improve. In the early days of the Eighth the crews were also concerned about the temperatures at mission altitude — at 23,000 feet and up it was way below zero and in those days before electrically heated flying suits frostbite was one of the mission hazards. The aircraft could not really be heated since there were so many orifices to the outside air.
Finally my turn would come. My briefing was always short. I would give them their call signs and the VHF channels and let them know if there were any changes in communications procedures as there often were. If they had been having any problems with their radio equipment I would let them know what we had done about it. I would remind them from time to time about some of the capabilities of their equipment though the original crews of the 34th were pretty knowledgeable about that. I would remind the lead crew that their radio operator was to send in a “strike report” as soon as possible after bombs away. And, later in my tour, I would let the crews know how much “window” the radio operator would be dropping and when he was to begin. This was of great interest to the crews since they were convinced, and rightly so, that these bundles of foil strips truly confused the flak when it had to resort to radar direction. After my briefing the Group Navigator would get up and give a time “hack”, a synchronizing of everyone’s watches. All the officers had been issued “hack watches” which were ordinary wrist watches that could be synchronized with a click of the stem. Then the briefing would break up, the navigators to go to a separate room for more information on headings and times and the others to Personnel Equipment to pick up their electrically heated suits, flak jackets, etc. and thence to their aircraft.

Depending on the length of mission and the weather, take off might be anytime from 0600 to 1000 hours. My work over, I might stick around and watch the aircraft take off or go to the mess hall for breakfast (powdered eggs!) and then to bed. That afternoon I would arise and go back to work. If the group were stood down early I would quit work around 1700 hours and get a normal night’s sleep. If not, I would repeat the activities above. There were no holidays — if the weather was good the group flew.

V-1 Missions

During the rest of the month of June the 34th’s targets were mainly railroad marshaling yards, airfields and small factories in France. While these were considered “milk runs” we lost several aircraft to flak. For example, on June 22 a strike was made on marshaling yards at Tournan-en-Brie with hits on rolling stock and a possible hit on a rail bridge. Sixteen aircraft incurred minor damage, four received major damage and two were forced to make crash landings as a result of the accurate flak. Lieutenant Gipson crash landed his plane on the English coast with minor injuries to four of his crew. And T/Sgt Alvin Gibbons, the flight engineer on Lieutenant Hayes’ aircraft brought the aircraft back to England after the nose had been blown off near the target area and the pilot and co-pilot seriously wounded.

At the time our losses seemed quite minor — we would have several missions without losses and then lose an aircraft or two. But, by the time our original crews had finished their 35 missions and their tours of duty we would have lost a good third of the crews with whom we came from Blythe.
The air war was not going at all well for the Germans — they had been strictly on the defensive for the last year or so in Western Europe — so Hitler had pushed development of his two secret weapons, the so-called V-1 and V-2. The V-1 was a very small pilotless aircraft powered by a unique engine — a ram jet — the first of the jet engines to go into operations.* They had rather rudimentary internal guidance systems, were launched from fairly large ramps with rocket assist, and flew over the channel to England at about 800 feet altitude. Hitler began bombarding England with these, sometime in June, concentrating entirely on the city of London. He called these, “V” weapons, because their entire purpose was vengeance for the damage being done to German cities. They were the equivalent of a thousand pound bomb and, at the height of the bombardment, several hundred a day were landing on London. Their military significance was zero but they did serve to remind the civilians that there was still a war going on.

Their launching sites had been built along the French coast since they had a limited range. Before any had been launched, British intelligence was aware of them, and of the significance of the launching ramps that had been springing up along the coast. I was aware of them for the first time when we received a field order one night directing us to bomb a mysterious target code named “No Ball.” We ended up, eventually, flying a number of these “No Ball” missions which were fairly popular with the crews since the sites were close and were lightly defended. These were difficult targets to hit, however, and to damage since they were apparently made of concrete. In the event I don’t think our bombing had much effect on the V-1 offensive but the Allies soon overran the sites and the Germans had to resort to launching the “buzz bombs,” as they were soon called after their very distinctive sound, from aircraft. This drastically reduced the number they could launch and they became much less of a nuisance.

However, once Jerry began launching from aircraft, we became much more interested in them since their revised route was sometimes right over our airfield and, while London was their target, they were unreliable beasts and liable to land anywhere along their mission route. Their engines had a very distinctive “putt-putt” sound and when that putt-putting ceased the drill was to dive for cover, for the bomb would then go into its terminal dive. I awoke at night several times to the sound of one of these things passing directly overhead. And one night I was at one of the weekly Red Cross dances at Ipswich when one of them passed over the dance hall. As the sound of it approached, the music and the dancing stopped and we all stood there listening to the staccato roar of the engine get louder and louder. While the probability of it landing on us was infinitesimal, it wasn’t zero, and we all breathed

*As Franklin used to know — he told me when I was young — the engine for the V-1 was actually a pulse jet not a ram jet. That is, it had one-way vanes that let the air in, but when the air-fuel mixture was ignited, closed. The rapid firing of the mixture made a buzzing noise, hence they were often called buzz bombs. (ECD)
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a sigh of relief as the little device passed over on its way to a rendezvous with some poor devils in London.

I spent a couple of nights in London on pass during this time and as I was walking down a street one day I could hear one approaching. Just then an English woman passing me shouted, “There he goes!” and looking in the direction she pointed I saw it just as the motor stopped. It paused for a moment in its flight and then dived for the ground, disappearing behind the nearby buildings just before its explosion rocked the area and a large cloud of smoke and dust arose into the air.

It undoubtedly destroyed several buildings and probably killed a few civilians, uselessly. London was a large city and, though a number of them fell while I was there I only heard a few and that was the only one I ever saw. The flying bomb campaign annoyed the British somewhat, particularly those who were injured or killed, but it had little effect on life in London. Everyone went about his business as before, though some of the families resumed spending the nights in the Underground, as they had done during the Blitz.

With the loss of the launching sites on the French coast the buzz bomb bombardment was greatly attenuated since they could only launch a few each night from aircraft. And the British night fighters made that a dangerous occupation.

However, the V-1 attack was succeeded by the V-2 bombardment. The V-2s were rockets that could be launched from Germany itself. Again London was the target and, while the V-2s did as little real damage as the V-1s they were harder on the nerves. Their trajectories took them high into the stratosphere and they came down at such high speeds that there was no warning — just a sudden powerful explosion. I was in London again during the V-2 blitz but only heard one or two explode and saw nothing. They were not nearly as interesting as the V-1s.

Mission to Rennes

In mid-August I managed to talk one of the pilots of the 18th Squadron into taking me along on a mission as his radio operator. Each radio operator kept a log of messages sent and received and I have my log and some notes I made in front of me as I write this. The mission was on August 13th. The previous evening I was in the Group Operations Room waiting for the preliminary information on the next morning’s mission. Lieutenant Brain, one of the 18th squadron’s pilots came in and we chatted for a while. I happened to mention that I thought it would be a good idea for me to fly at least one mission so I would have a better idea of what the radio operators were up against when I briefed them. Lieutenant Brain took me at my word and suggested I go with him the next day. I gulped. As an abstract idea it made a lot of sense — faced with actual prospect I had a few doubts. I had never flown at mission altitudes and had no flying equipment. But I accepted Brain’s offer and arranged to borrow flying clothing from Lieutenant Stallcup, our radar officer. So, with Captain Ingram’s approval I turned over the next morning’s briefing to Lieutenant Harper
and went back to my Nissan hut and bed. Briefing was scheduled for 0400 hours so I left word with the Squadron Charge of Quarters to call me at 0300. At 0330 I awoke, looked at my watch, jumped out of bed and into my flying suit and dashed over to the Squadron Orderly Room prepared to murder the CQ. He informed me that briefing had been postponed until 0500 hours, a not unusual occurrence, and I crawled back to my bed for another half hour’s sleep. At 0400 I arose once again, dressed, grabbed a pencil, a knife, a couple of handkerchiefs, some chewing gum and a pistol. Feeling adequately prepared I cycled to the mess hall for breakfast, looking forward for once to having fresh eggs with the air crews. Unfortunately it was powdered eggs that day, even for the air crews, so I left the mess hall somewhat downcast. I was not alone. There were mutterings from other aircrewsmen that if they were going to go out to get shot at it was not too much to ask for fresh eggs for breakfast. At the 0500 hours briefing I carefully filled out the call signs and frequencies I needed. It felt strange to be on the receiving end of the mission briefing and feeling the suspense before the curtain was pulled to reveal the mission route and target. In this case it was a crossroads at Rennes, France. This was to be, if all went normally, what the crews called a “milk run” with little opposition expected. Lieutenant Harper who had completed 25 missions as radio operator in the early very rough days of the 8th Air Force always said that there were just three things that he wanted to know at the briefings; where he was going, how cold it would be and what flak and fighter opposition was expected.*

After the briefing I went with the rest of the crew to Personal Equipment to draw an electrically heated flying suit, oxygen mask, Mae West, parachute, etc. First I donned the heated trousers, then the boots and the jacket. The rest of the equipment I dragged out to the aircraft in the back of a truck with the rest of the crew. I climbed up into the airplane and did a hasty preflight inspection of the radio equipment and tuned up the liaison transmitter on the MF D/F section of the day. All of this was accomplished in a doubled up position, sweating in my heavy clothing, while odd members of the air and the ground crews trampled me as they went about their own preflight checks. After the preflights we put on our Maes (yellow, inflatable life jackets) our oxygen masks which dangled from our faces, climbed out of the aircraft and lay comfortably on the grass waiting for the signal to start engines. In the early days of the air offensive the 8th Air Force had enforced radio silence prior to a raid to avoid alerting the Germans. But, by this time, the Germans knew we were coming nearly every day anyway and we made no effort to hide the fact. I looked at the B-24 and thought for the umpteenth time what an ugly airplane that was on the ground. It looked a slab sided monster with excrescences everywhere — turrets, guns, antennas. But in the air, with its long slender wing, it would take on an unexpectedly graceful appearance.

*According to the official 34th bomb group website, the main purpose of the mission was to bomb V-2 launch sites in Ronen (Rouen?). Lieutenant Brain’s airplane, The Heavenly Body, was the lead bomber for target #4 of six targets that were bombed on the mission. (ECD)
After some time the pilot called us, we all climbed back into the airplane, I took my place at the radio, and the pilot, copilot and flight engineer went over their final checklist — the Air Corps lived and died by checklists. Then, at 0800, we started the engines. At 0813 we cut them again — undoubtedly a weather delay — a very common occurrence. At 0850 we started engines once again. One after another the big Pratt & Whitneys coughed and spluttered and then roared sweetly as the 100 octane gas, the dual spark plugs and the air combined as they were designed to do. I put on my headset and throat microphone, plugged them in to the jack box and turned the switch to “interphone.” At 0856 we started taxiing and, as we taxied out of our hardstand toward the runway the copilot called for an interphone check and each of the crew members gave him a brief callback. In a few minutes we were in a line of some 42 aircraft with one-hundred sixty-eight 2000 horsepower engines filling the air with the sounds of their explosions. As plane after plane took off at roughly fifteen second intervals we moved toward the head of the line. Finally, at the end of the runway, I took my seat on the deck with my back against the bomb bay bulkhead, the roar of our engines increased in pitch and volume and then, the pilot releasing the brakes, we slowly accelerated down the runway. Down and down the runway the heavily loaded plane rumbled, its speed increasing with agonizing slowness until it seemed it would never leave the ground. But, suddenly, the pounding of the wheels stopped and we were airborne. Within seconds the great wheels were retracted into the wings and, free of their enormous drag, the plane slowly gained altitude. Taking my seat again at the radio I logged our takeoff as 0904, just eight minutes after we started taxiing.

By the time we took off the weather was CAVU — ceiling and visibility unlimited. We slowly climbed, reaching for our assembly altitude. The pilot had tuned the radio compass to the frequency of the Buncher that we would use to form up with the other aircraft of our group. The Bunchers were radio beacons that the British had installed just for that purpose. I looked out the radio window as southern England passed beneath us, lovely green farms below and never out of sight of an airfield. Someone called England at that time an “unsinkable aircraft carrier” and that thought came to mind.

At 0930 I received the first signal from 1TL, the 3rd Air Division ground station, “QYT 0933B AR.” Unfortunately I no longer remember the meaning of the Q Signal QYT.* At 0945 the pilot instructed us to go on oxygen so I strapped on my oxygen mask, plugged its tail into the ship’s oxygen system and began breathing the mixture of air and pure oxygen that this supplied. I noticed the waist gunner plugging in his electrically heated flying suit and I did likewise.

As we continued our climb there was very little conversation over the interphone. Reaching the Buncher we began making very large circles in the sky as we slowly

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*I have not been able to determine the meaning of that Q Code: as far as I’ve been able to determine there are no QY codes at all. If it was QUT the meaning would be “Is position of incident marked?” I’ve not been able to locate Franklin’s notes on this mission. (ECD)
joined up with the other aircraft of the 18th Squadron; then the 34th Bomb Group,
the 93rd Bomb Wing, the 3rd Air Division and the 8th Air Force until, looking out
the window, I could see B-24s and B-17s everywhere.

At 1000 I copied a lengthy message from 1TL. All such messages were in four letter
code groups for which we radio operators had the key in our “flimsy.” I decoded it
quickly but it was not for us. In any event I missed part of the message because of
interference from other stations. At 1030 and again at 1130 I copied the same cryptic
message from 1TL that I had received at 0930, “QYT 1033 AR” and then “QYT
1133 AR.”

At 1100 I copied an uncoded message from 1TL to RZNC, call sign for the 3rd Air
Division command aircraft. The message read, “CHECK VHF SWITCHES CHAN-
NEL B BLOCKED.” Channel B of the VHF was one of the four VHF channels on the
SCR 522, the radio used for all voice communications during the mission. Someone
had his set tuned to B channel and had his microphone button jammed down. I
notified the pilot but we were having no trouble on that channel.

By now we had been in the air for over two and a half hours and were still circling
over England! But, finally, at 1140 hours, our formation stopped turning and headed
out over the English channel. In the sparkling clear weather I could see far up and
down the channel which was swarming with ships going in both directions in support
of the still recent invasion. Many of the ships had “barrage balloons” tethered to
them. These were small, blimp like balloons that the British had used for some years
over key targets in England. They were tethered by steel cables which were supposed
to entangle low flying German aircraft. I never heard whether any Germans had
ever been brought down with these but they probably imparted a certain sense of
increased security to those beneath. They might have served to keep the German
aircraft a little higher than the Germans would have liked.

At 1155 I signed off radio watch to join the rest of the crew in donning our flak
suits. These were olive drab vests with steel inserts, designed to furnish protection
from the shards of an exploding antiaircraft shell. Mated with the large steel flak
helmets, they gave considerable protection and the crews believed wholeheartedly in
their efficacy. Some of the navigators and bombardiers would line the nose of the
aircraft with the jackets if they could get their hands on enough of them.

As we passed over the far shore I could see jumbles of ships with their prows
sticking into the sandy beaches. Many were obviously damaged and abandoned but
others were busy unloading supplies and soldiers. We rapidly passed over the beaches
and I looked down on the French countryside for the first time. From our altitude
— probably eighteen to twenty-three thousand feet — there was no sign of life. One
of the greatest battles in history was taking place beneath us and the only sign of it
that I could see was long lines of foxholes alongside every road.

About this time I discovered one of the least publicized inconveniences of war in
the air — my nose was running in the cold, dry air and as it ran into my oxygen
mask it froze. So, from time to time, I had to remove good sized chunks of frozen
“snor” from my mask in order to be able to continue breathing. Other than that and an occasional belch I was quite comfortable.

Sometime during the next few minutes we passed over the “lines” and were flying over German-held territory. This was a bit of a disappointment — German or Allied, it all looked the same and so innocently peaceful. Where were all the soldiers and the masses of weaponry that were supposed to be locked into life or death struggles beneath us? Once or twice I saw long white streamers coming up from the ground toward us and hanging in the air. I have no idea what these were — not flak in any event. Perhaps signals from the Germans to their air defenses. And once or twice red flares from our bombers — again I have no idea why.

From time to time there would be a brief exchange over the interphone between the pilot and the navigator or the copilot but there was none of the boisterous chatter that I had half expected. The crew were all business. Most of the remarks on the interphone were unintelligible to me. This was partially, I believe, because of my poor hearing and partly because of the awful throat microphones that we used. To free up the aircrews hands some genius had invented the throat microphone. This consisted of two carbon filled buttons and an elastic strap. It was strapped around the neck with the carbon filled buttons held on either side of the vocal cords. When the user spoke, the vibrations of his vocal cords were transmitted to the buttons and converted to electrical signals. It was designed to free the hands of the crew members but, in practice, the quality of the audio output when it was used in that manner, was so poor that the user had to press the two buttons tightly against his throat while talking if he wanted to be understood. So, in real life, it would have been better to have used hand held microphones with their infinitely better audio output. The only advantage the throat mikes held was the convenience of having your microphone so readily at hand.

After a brief period of time, the bomb bay doors, which were visible from the radio position, slid up the sides of the fuselage and I concluded that we must have passed the IP and were on the bomb run. We had seen and expected to see no Luftwaffe fighters since our own fighters had pretty well eliminated them from this part of the sky over Europe. I saw no flak which was not unexpected given the nature of our target.

There was an occasional brief exchange of unintelligible (to me anyway) remarks between the pilot and the bombardier as we turned at our IP and began the bomb run. Since we were not the lead aircraft and since we were bombing in formation (as was nearly always the case) our bombardier had the not too onerous task of watching the lead aircraft and toggling our bombs when he saw the bombs drop from the lead aircraft. Because of this method of bombing the bombardiers had earned the ironic title of “toggleers” in the Eighth Air Force and a sad drop in prestige.

When we hit the IP (initial point — from which the actual bomb run started) the navigator began shoving the first of 792 units (bundles) of chaff into the chute beside him. He was to time this so that he would finish in 33 minutes — by which time we
would supposedly be out of range of the flak. I was surprised that we were dropping chaff since it seemed highly unlikely to me that the Germans were going to defend that rural crossroad.

Suddenly, at 1247 hours, the bombs dropped out of the bomb bay in a salvo and disappeared immediately from my sight. Shortly after, the radio operator on the lead aircraft transmitted the brief phrase, “Rainy Day” to Division Headquarters, the standard code phrase for letting them know that we had released our bomb load. As we banked into our turn from the target I had an excellent view of the ground below — farmland and narrow country roads. After about half a minute I saw a myriad of grayish blemishes appear around a small crossroad — it took me a moment to realize that these were the detonations of our squadron’s bombs. We must have dropped over a hundred bombs — 500 pounders I would guess — and I did not see a single explosion on the crossroad — our target. However, the nearby farmland was certainly churned up. It was, of course, ridiculous sending out a squadron of B-24s for a target like that. But the crews didn’t mind — it counted for their 35 missions the same as a raid on Berlin. After dropping our bombs we turned back and headed for home.

At 1230 and again at 1300 I copied more of the cryptic QYT messages. At 1329, still over France, I sighted four parachutes but saw no signs of any aircraft in distress. At 1330 I copied a six group coded message from M6K, our HF/DF (High frequency direction finder) station to BOGC, our wing command aircraft. I quickly decoded it and gave it to the navigator. Back over the channel and the white cliffs of what I later learned was Selsey Bill were a lovely sight. At 1430 I copied a similar message and at 1450 we were over our field and I signed off the radio.

So ended my first mission — a rather tame affair but very interesting and instructive for me. I believe I was the first ground officer to fly a mission with the group. Afterwards there were several, one of whom was lost, as I mention elsewhere. I got a better feeling for what the radio operators had to do on a mission and for some of the communication problems generally. It was also very interesting though I was too busy to take full advantage of the opportunity. I also had to watch the mission through the radio operator’s window which prevented my seeing very much. I was somewhat disappointed that I did not see any German fighters or any flak, though the disappointment was more in retrospect than during the flight. I decided that I was going to try to get in five missions if I could so that I would qualify for an Air Medal — that was the criterion for the award. As it turned out the principal problem was talking pilots into taking me. That and a certain reluctance on my part — I wasn’t too sure how they felt about a ground officer doing for a lark on an occasional basis what they had to do day after day. I had no close friends among the pilots. If I had had one it would have been easier.

Meanwhile, July and August went by rather uneventfully as the group continued to fly as often as weather permitted. In June we had flown missions on sixteen days including one stretch of nine missions in ten days; in July seventeen missions. Our
losses remained light. In July, one aircraft was shot down over France on the 9th with the loss of nine crewmen; on July 19th two aircraft were lost in a midair collision over Germany with the loss of 21 crew members; two days later one aircraft was lost with all its crew; three days later another aircraft was lost with all its crew over the St-Lo area in France. Six days before my mission our Group Operations Officer, Lt. Col. Joe Eaton was lost with his entire crew while leading a mission over France. We took losses, even on the milk runs over France though not all the targets in France were easy ones.

Personally I was enjoying life in England. My duties were certainly not onerous, the English summer was absolutely delightful — pleasant temperatures and frequent showers kept the landscape a brilliant green and every cottage in East Anglia seemed to be surrounded with flowers — the English certainly lived up to their reputation as keen gardeners. While we flew seven days a week there were days when the group was stood down early or the mission was canceled early in the evening so I had lots of free time.

During my stay in Mendelsham I took several three day passes to London. There I would stay at the Red Cross, spend the days walking around the city and enjoying its many attractions, and go to the theater or the cinema at night. It was a pleasure to get away from the military for a few days, though it was a pleasure diluted by the thousands of servicemen, mostly American, who swarmed the city.

The big surprise to me, when first I saw the city, was the small amount of visible damage from the great blitz of 1939. I had seen the newsreels during the blitz showing London under attack at night from the Luftwaffe and the whole city had seemed ablaze. Now, walking around, I saw an occasional house or building that had been leveled. Near where I stayed there was a large church with just fragments of its walls still standing. Around it the neighborhood was unscathed. One would have sworn that the Jerries had desecrated it intentionally and most of the English probably thought they had. But that was impossible. No one could hit a church at night with a single bomb intentionally. At least no one in the Eighth Air Force could and I don’t think the Germans were any better than we.

One of the most astonishing experiences in wartime London was Piccadilly Circus at night. With so many soldiers in town on leave or pass London was a fertile field for the world’s oldest profession and the “Piccadilly Commandos” swarmed into Piccadilly at night for the harvest. There was, of course, a rigid blackout and the Circus was black as pitch. So, as one walked through it one could hear the rustle of and feel contact with what sounded and felt like thousands of people — the hunters and the hunted — but could see nothing. There must have been many a disappointed soldier when the owner of that sensual female voice turned out to have a face that “could eat corn through a picket fence.”

Most of my free time was spent much nearer home. The Officers Club held frequent dances with English girls bussed in to be our partners. I have no idea how they selected the girls or who did it — perhaps the Red Cross — but there were plenty
of mostly attractive and mostly respectable girls who were only too happy to get
the opportunity to meet and dance with American officers. Most of their men were
away at war in the Far East, the Near East, and now, on the continent. And many
had been away for a long, long time in this war that had started for them way
back in 1939. While alcoholic drinks were readily available and freely imbibed, it
was rare to see anyone obviously under its influence. And, if a mission was to be
flown the next day, the drinks were cut off at eleven. The dancing ended anyway
around midnight and the girls piled into their busses and were on their way home
shortly after. Everyone enjoyed themselves — the girls were fascinated by the strange
Americans and the officers were equally taken with the fresh faced English girls and
their charming manner of speaking.

One of the peculiarities of these dances, and of life in England then, was that it
was still dusk in the height of the summer when the girls went home. England, to
my astonishment, turned out to be roughly at the latitude of Hudson Bay and the
English had what they called, Double Summer Time — a two hour difference from
Standard Time. This combination produced very late and very prolonged sunsets as
well as very short nights.

Our nearest city, Ipswich, had little to offer us in the way of entertainment but
there was a Red Cross Club there and the Red Cross sponsored Saturday night dances
for the Americans. They always had an excellent band which played the dance tunes
of the day in the style of the day that had been popularized by the many “big bands” of
the United States. Dancing was fox trots and jitterbugging and some of the dancers
were outstanding. Sometimes, when the band was really swinging, a particularly
talented couple would catch everyone’s attention with their wild gyrations and soon
would be the only dancers on the floor, everyone else watching and applauding. No
alcohol was served but that didn’t seem to prevent everyone from enjoying themselves.
A truck would take us to the dance and back to the base again afterwards.

I made friends with a young English girl there and she invited me to Christmas
dinner with her family. She was quite young — a student nurse at a local hospital. It
was a platonic friendship. Other than seeing her at an occasional dance, a movie or
two, and one Christmas dinner we had no contacts. It would have been very difficult
to carry on a courtship in those days, even if I had been so disposed, with no car,
very little money, and not much to do together in Ipswich.

Mendlesham was a very small village right outside our base with perhaps a few
dozen homes, a church and a pub. I am somewhat ashamed to say that it never
occurred to me to attend the church. There was a slightly larger village five or
six miles away with the delightfully English name of Greeting Saint Peter. From
time to time I would bicycle there just to get away from the base and to enjoy the
lovely English summer. There was a small paved road that wound its way amongst
the little farms and farm cottages to Greeting Saint Peter and it was a real joy to
make the trip on my bicycle. I met another English girl there — how, I can no
longer remember. She was very young, perhaps seventeen; short, with rosy cheeks
and the very English name of Felicity. She lived on a small farm between Greeting Saint Peter and Mendlesham and had the great charm that came with an utter lack of sophistication. Her parents would not let her attend the dances at the base, a parental decision with which I entirely agreed in her case. But we had several dates where we cycled through the countryside together and then had tea at a tea shop in Greeting Saint Peter. Eventually I received an invitation to Sunday dinner at her home and met her mother and father. He was a somewhat gruff East Anglian farmer and all I remember of the dinner was the wine; dandelion wine that he had made himself. I was even less an expert on wine then than I am now and I offered him some insincere congratulations on his excellent wine. This, too, was a platonic friendship. I liked both of these girls but both were really too young for me.

I enjoyed the names of many of the villages and towns nearby. One was a fairly large town — I believe it had a cathedral — called Bury Saint Edmund’s. Some of the other names escape me now and it was not until we moved to Virginia that I ran across so many oddly named towns.

After I had flown on my first mission several of the other non-rated officers did the same. My friend, our Group Communications Maintenance Officer, Al Steiner, flew one and ran into quite a bit of flak. And our squadron intelligence officer, Lieutenant Blevins, also wangled his way aboard an aircraft for a mission. He was not a close friend but he did occupy the bunk beside me in our Nissan hut. The aircrews knew him quite well since he usually gave the intelligence briefings prior to the missions and took part in the post mission de-briefings. The mission he ended up on (a poor choice of words) turned out to be a rough one and his aircraft was lost. The other crews reported seeing parachutes leave the plane as it fell so we knew that he had a chance of surviving. But it was several months later that the squadron received a letter from him from a POW camp. The letter was devoted almost entirely to a request that someone go to Ipswich and get his cleaning. In the June 1996 issue of Mendlesham Memories there is a letter from a Dr. Horst Wilhelm asking for information about B-24 crew members who died near his hometown on July 19, 1944. He said that two B-24s collided and crashed; one in the town of Schiffweiler and the second near Freidricksrahhl near Saarbrucken. According to him only two of the crew members survived and one of these was Lieutenant Blevins.

We were pleased to hear that he was alive but thought, from the letter, that he must have lost a good part of his mind. As an aside, when we heard that he had been shot down, I appropriated his pistol and carried it throughout the rest of the war and several years of peace. All aircrews were issued the regulation M1911 .45-caliber pistol. However, word had come back that downed airmen carrying weapons were treated rather harshly by German civilians so it was recommended that the crewmen not carry them on missions to Germany. I didn’t feel too badly about stealing Blevin’s pistol since he had undoubtedly acquired it in the same way from another downed crewman. Eighth Air Force airmen who parachuted to safety over Germany hoped fervently that they would be picked up by German soldiers rather
This is How it Was

than German civilians. One whom I met after the war was apprehended by a soldier who told him, perhaps enviously, in good English, “For you the war is over.” Another of our crewmen was mobbed by a group of understandably enraged civilians who were well on the way to hanging him when he was rescued by the Wehrmacht. It was not hard to understand the rage the German civilians felt after they had been pounded, day and night, from the air and seen friends and loved ones torn to pieces by this relentless aerial bombardment. That the Luftwaffe had done the same with Warsaw and London did not enter their minds.

During August the group continued to pound buzz bomb launching sites and airfields. The month ended with a mission on August 24th to Kiel in Germany. That mission was the last the 34th Bomb Group was to fly in B-24s. The B-24s of the 93rd Bomb Wing were the ugly ducklings of the Third Air Division whose other wings all flew B-17s. There was nothing wrong with the B-24 — in fact one of the principal problems was that they cruised a good fifteen knots faster than the B-17s which made it very difficult to fit them into the bomber stream of the slower B-17s. They also carried a bigger bomb load and could fly higher.

There may have been other difficulties of which I was not aware but the upshot of it was that Headquarters Third Air Division took the 34th off of operations, took away all our B-24s and sent us some 72 brand new B-17s. We were given three weeks to retrain crews, maintenance and supply people and then went back on operations on September 17th as a B-17 group. On looking back at this it was a rather remarkable feat. All our training and experience, aircrews and ground personnel, was with the B-24. Then, suddenly, different aircraft, different engines, different subsystems, and in three weeks we were flying operations in the new aircraft as though we had been doing it for years.

Our group and the other two groups of our wing must have been the only groups in the Air Corps that flew combat with both of the standard heavy bombers of the European Theater. It should have offered an interesting opportunity to get a knowledgeable comparison of the two aircraft but the crews seemed to have little preference for one over the other. The B-24 was a very difficult aircraft in which to fly a good tight formation whereas the B-17 was an easy aircraft to fly. On the other hand the 24 could fly faster, further and higher than the 17, virtues that were wasted so long as we were flying 24s with the Third Air Division. The B-17 could, reputedly, take more punishment than the 24 which had a reputation for catching fire easily. I don’t know whether that was true or not. The B-17 was a lovely aircraft on the ground but always looked tail heavy in flight. The B-24 looked like a freight car with wings on the ground but was graceful in the air. As far as we in communications were concerned there was nearly no difference — other aircraft carried the same radios and radars.

Around this time one of the group’s squadron commanders was relieved. The rumor was that he had aborted too many missions. When the 34th took off on a mission there were usually three extra aircraft airborne to replace any which might
have to turn back for problems, usually engine trouble, which might occur before the formation left the English coast. The story, true or not, was that he had turned back once too often and he was relieved and sent home.

From time to time someone would have had all the combat he could stand and would simply refuse to fly any longer. There was no courts martial — the individual would simply be quietly taken off flying status and sent back to the States where he would be given a non flying job. But this was very rare. The crews were very close knit and most flyers would do anything rather than let down the other members of their crew.

So far as I am aware no bomber formation of the Eighth Air Force ever turned back from a mission because of enemy action. In the early days there were missions where nearly every aircraft of a squadron was shot down and the remaining aircraft simply plunged ahead toward the target. In those days losses were terrible and the chances of finishing a tour of duty were remote indeed. In order to give the crews some hope there was a policy to send them home after 25 missions. Their chances of completing 25 were slim but the knowledge that they would not simply have to fly until they were shot down and killed or taken prisoner gave them hope and kept them going. By contrast an infantryman would remain in combat until he was killed, wounded or taken prisoner. And, even if wounded, he would normally be sent back to his combat unit after recovery. The Air Corps policy was a good one but it was wasteful of air crews and could only be exercised because we had a constant stream of replacement crews. In any event by the time we arrived in England crew wastage had dropped considerably and a tour was then 35 missions.

Incidentally RAF and Luftwaffe crews flew, in principle, until they were unable to continue — that is dead, crippled or broken mentally. In practice they had periods when they were taken off operations for brief periods of what we called “rest and rehabilitation”. Of course the stakes in the war were much higher for the British and Germans than for us. The Japanese, of course, flew till they were dead. However, very few if any Japanese pilots flew daily missions over extended periods of time. Their combat came usually in brief periods of high intensity.

With our new B-17s we went back on operations with a bang. From September 19 through 28 we hit targets at Oberwestal, Kassel, Ludwigshaven, Bremen, Ludwigshaven again and Merseburg, all tough missions. During September there was also a heavy crew turnover as most of the original crews completed their 35 missions and were returned to the ZI (Zone of the Interior — army-speak for the United States). The so-called “lead crews” with the best pilots, navigators and bombardiers flew only alternate missions so they took longer to complete their tours. These were the really important crews. The lead navigator guided the entire group to the target, the lead bombardier took over the bomb run for the entire group and the lead pilot made all of the command decisions for the group during the mission unless there was a designated “command pilot” along with him; usually one of the squadron commanders or the group commander. The retention of these lead crews gave continuity to
the group’s operations.

The greatest limitation to the effectiveness of the Eighth Air Force efforts in England was weather. European weather was notoriously bad, particularly in winter, and weather over England or the Continent caused many a mission to be scrubbed before takeoff. Weather over the target caused many missions to be diverted to “secondary” targets or to be abandoned completely with bombs dumped into the English Channel. The Channel, indeed, was probably the most heavily bombed area in Europe! But, by September, our group had achieved a capability to find and bomb targets through the clouds with reasonable accuracy. Certain lead aircraft had been fitted with Gee boxes which used radio waves transmitted from ground stations in England to navigate. These were extremely accurate but had a limited range — which did not extend into Germany. But, in September, these lead aircraft were fitted with PFF (Pathfinder) radars. These used a radio beam from the aircraft itself to paint a picture of the ground ahead on the radar scope. Obviously this helped navigate over cloud covered terrain but it also enabled the lead bombardier to bomb through the clouds when he could not see the target, the other aircraft, as usual, dropping their bombs when their bombardiers saw the bombs leave the lead aircraft’s bomb bay. While in theory this was not nearly as accurate as visual bombing, in practice it even improved the visual bombing since it helped the bombardier find and identify the target before he could see it. And, most important, it enabled us to fly missions in overcast weather; that is to say, most of the time over the continent.

Another innovation that came not long after our group went on operations was welcomed heartily by the aircrews; the use of Window or Chaff. These were code terms for thin metallic tinsel, very much like the tinsel used on Christmas trees, that we began to use to fool the German flak radar. The German defensive flak had the same problem that our aircrews had — hitting targets that were often obscured by clouds. And they came up with the same solution we had — the use of radar. The strips of Chaff were cut to resonate at the frequencies used by the German gun laying radar and, when dropped in sufficient quantities, would obscure the aircraft by producing massive reflections on the German scopes. This defensive measure had been known for some time but was not used by the Allies because of their fear that the Germans would employ it against us. By this time, however, it had become clear that it would be much more useful to us than to the Germans. As we learned after the war, the Germans had also considered using Chaff but had rejected its use for the same reason we had. Our aircraft were all modified to provide a small chute leading to the radio operator’s position and it was his responsibility to drop the bundles of Chaff through this chute at the appropriate times.

The first time we briefed the crews on the use of Chaff it met with a great deal of skepticism but after three or four missions they were sold on it. The crews described to me with great pleasure the sight of the initially accurate flak dropping below and behind their formation as the German gunners tracked the Chaff. Our intelligence people reported the consternation of the German flak crews as their scopes
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bloomed with the reflections from the thousands of metallic strips. The use of Chaff undoubtedly saved a lot of lives and it was a pity that it wasn’t used much earlier.

With autumn and with the German army back in its own country the easy missions to France ceased and the group flew day after day deep into Germany. The Luftwaffe was fighting desperately in defense of its Fatherland but it was now outnumbered by the P-51s and P-47s with their wing tanks even over Berlin. And it continued to skip the 34th for easier targets ahead or behind in the bomber stream.

Fall and Winter 1944

On September 17th the Allies launched the largest and most disastrous airborne assault of the war, Operation MARKET-GARDEN. The troop-carrying aircraft passed right over our base at a very low altitude en route to the drops in the Netherlands. It was a total surprise to us, of course, when this mass of troop carrying aircraft — most of them C-47s and many towing one or two gliders filled with troops — appeared suddenly on their way to we knew not where at the time. There must have been thousands of aircraft passing overhead for an hour at least. On the ground we looked up and imagined the inferno into which they were droning. Airborne assaults had captured the imagination of civilian and military alike with the successes achieved by the Germans in Belgium and Crete, but succeeding operations never lived up to that initial promise. The difficulty, and it was never resolved, was in dropping the troops where they were supposed to go. They always ended up scattered all over the landscape.

By the time the group went back on operations in B-17s on that same day, September 17th, the easy targets were gone — all future targets were in Germany. Future missions were to places like Ludwigshaven, Merseburg, Munster, Berlin, Cologne, Mannheim, Hamburg — all heavily defended. The weather had also taken a permanent turn for the worse with heavy cloud cover the norm over Germany. Fortunately the development and installation of PFF radar in our lead aircraft meant that we could now find the target and bomb through the overcast with some degree of success.

While we were trying to bomb targets we could not see through the overcast, the Germans were trying to shoot down aircraft they could not see through the same overcast. We both used radar but our use of chaff certainly reduced the effectiveness of the German gun laying radar whereas our PFF radar was much more difficult to jam. Nevertheless the German flak succeeded in downing six of our B-17s during October. That doesn’t sound like a lot but when one considers that we had some 72 crews, that meant that our group lost about 8% of its strength during one month.

During November, because of the weather, we only flew ten missions and lost but two aircraft. A typical post mission report from the Hamburg mission on November 4 was, “Unobserved. 10/10th undercast. PFF technique. Mickey (PFF) operators picked up target 38-40 miles away and think bombs fell in target area.”
In December the pattern of targets changed from industrial to transportation — mostly railroad marshaling yards. And on December 11th I flew on my second mission, to Giessen to bomb the marshaling yards. This time I flew with one of the few original pilots the 18th Sqdn. had left, “Swede” Lindstrom. He was short a waist gunner and he let me come along in that capacity. The waist guns were single, .50-caliber Brownings, on either side of the center section of the aircraft, just aft of the bomb bay. While I probably couldn’t have hit another aircraft if I fired at it all day, I was well acquainted with the gun and had disassembled and assembled them many times when I was in the 6th Armored.

This mission differed from my first in that we were going to bomb a German city and the weather was solid overcast when we took off. We climbed through the overcast and assembled over the Buncher in the clear. Then, once again, after interminable circling we headed out across the Channel. This time, however, I could see nothing below. But, as waist gunner, I had a great view of everything in the air. Again, we went on oxygen, donned flak suits and plugged in our electrically-heated flying suits. From time to time the navigator let us know over the interphone where he thought we were — actually, we were following the lead aircraft as were all the others in our formation. Trying to fill my role as waist gunner I scanned the sky for signs of enemy fighters but saw none — either enemy or friendly. I was somewhat taken aback when the other waist gunner — a professional waist gunner — sat down shortly after takeoff, took a paperback book out of his pocket, and read the book during most of the flight.

After a certain period of time I saw the bomb bay doors open and I assumed we were on our bomb run. Then, without warning, the bombs dropped from their racks and out through the opened doors, the intervalometer setting obviously on “salvo.” I watched the bomb load disappear into the clouds below, the bomb bay doors closed and we went home. My only thought when I saw the bombs disappear from view was that I hoped they would hit their target and not someone’s home. However, in war, everyone is caught up in the implacable grinding of the war machine and no one spends much time worrying about the results of his actions. To some extent conscience is suspended in wartime. This is easier to do since few individuals have any control over events. With the tenderest conscience in the world I could have had no influence on what happened down below. As someone once said, “No raindrop believes that it caused the flood.”

The bomb bay doors closed and our formation headed for home. Over the German, Belgian or French coast, I knew not which, we began to descend and the hairiest part of the mission began. Our squadron was pretty well by itself by this time and I couldn’t believe that we were going to descend through the overcast (undercast in this case) in formation but that is just what we did. For what seemed an eternity we were descending through the thick cloud cover in a formation of twelve B-17s where I couldn’t see another plane nor, I am certain, could our pilot. Presumably this was a standard procedure but how we avoided colliding with another aircraft I cannot
Imagine. I was greatly relieved when we broke out of the clouds and discovered we were all there and still in a loose sort of formation. The rest of the flight was routine and I now had flown two missions without seeing a German aircraft or a burst of flak.

On October 16th, 1944, on Special Orders Number 202 from Headquarters, Eighth Air Force, I (together with some hundred or so other officers) was promoted. The orders, written in that terse, inimitable army style, read:

7. The following O, are DP, temp promoted to the gr indicated in AUS w/rank fr date of this order. (Auth Cir 90, Hq European T of Opns USA, 17 August 1944):

3RD BOMBARDMENT DIV
2nd Lt to 1st Lt

ERNEST F. DUKES, JR, 0867362 AC

The capital letter “O” meant “Officer,” “DP” meant “Directed by the President” (!) “temp” meant that my promotion was “temporary” and “AUS” stood for “Army of the United States.” All wartime promotions were temporary and in the AUS rather than in the Regular Army. I had been a 2nd Lieutenant for about eleven months. I was pleased to exchange my single gold bar for the silver bar of a 1st Lieutenant and to receive the pay increase of about twenty-five dollars a month that came with it. The TO&E (Table of Organization and Equipment) for the 18th Bomb Sqdn. called for the Squadron Communications Officer to be a captain and, if the war would continue and I did nothing seriously wrong, I could look forward to being promoted to captain in another ten months or so. The war did its part but, as you will soon see I did not do mine.

In December the 34th flew eleven missions, all to targets in Germany. The weather continued very bad. On Christmas eve the 34th returned home from bombing Frankfurt, arriving over the field just as darkness was settling down. Unfortunately another group of B-17s from the First Division, which had passed over our field an hour before, unable to land because of weather over their own airfield, was diverted to Mendlesham, and arrived over the field just as did the 34th. Both groups were low on fuel, the weather was not that great at our own field and some 110 aircraft were trying to land all at once. Flares lit the sky everywhere as pilots tried to let the flying control people in the tower know that they had lost engines, had wounded aboard or were running desperately low on fuel. Somehow, incredibly, all 110 aircraft were brought safely down.

On Christmas day, and the day after, the group did not fly and I went to Ipswich and had Christmas dinner with an English family whose daughter I had met at the Red Cross and who invited me to share their meager rations. I hope I brought something — I can’t recall now but it was customary for Americans who were invited to an English home to bring what they could to supplement the fare. Tobacco and coffee were particularly appreciated. During the Christmas and New Year holiday season it was a custom for the theaters to present what they called “Pantomimes.”
These were not what we would call pantomimes but were musical extravaganzas based loosely on fairy tales such as Cinderella or Sleeping Beauty. I went to one of these in Ipswich during the holidays and discovered that it was not for children — scantily clad ladies and risque jokes abounded, but it was great fun.

Sometime during this period the Eighth Air Force flew a mission deep into Germany and then the aircraft continued on into Russia and landed at a Russian airfield. They were to fuel up there and then fly a return mission back to their own bases in England. The 34th, thankfully, did not take part in this because it was what the army called “FUBAR” — “fouled up beyond all recognition”. On their return their bases were socked in so an entire group again landed at Mendlesham. We put up the crews, and serviced their aircraft so they could straggle back to their own bases the next day. One of the pilots spent the night in a spare cot in our Nissan hut and he told us what happened. They hit their target all right and found the Russian airfield, landing there safely. But the Russians were not prepared for them, they had trouble getting refueled, and the Germans hit the airfield during the night destroying a goodly number of the American B-17s on the ground. The Russians were friendly enough and there were a goodly number of Russian women among the ground crews but they were all in men’s uniforms and built like blacksmiths. All in all it was an experience the pilot did not want to repeat. The whole operation was probably dreamed up by some staff officer without enough to do and approved by the politicians as a means of showing off to the Soviets.

One night toward the end of winter I was on duty, as usual, in the operations building when the next day’s field order came in. The target was to be Dresden but the 34th was “stood up”; that is, not to fly that day. We always got the 3rd Air Division field orders whether we were to fly or not and I always read them out of simple curiosity. This one said that Dresden had never been bombed and the target was simply the city of Dresden — the first and only time I ever saw a field order where the specified target was simply the city itself. The RAF bombed cities night after night but the 8th Air Force prided itself on always going after military targets, usually military, industrial or transportation targets — never the civilian population. The stated purpose of the bombing was to block the path of the retreating Wehrmacht with the debris of the city of Dresden. I knew very little about Dresden but I was aware that it was a beautiful old city with no industry to speak of and I was surprised and shocked at the decision to level an innocent city with the inevitable deaths of tens of thousands of civilians, innocent and otherwise. What made it particularly disappointing to me was the senselessness of it. The Germans were fleeing from the Soviets and the destruction of Dresden made no military sense. Since the war this has been properly regarded as a disastrous and disgraceful decision and, in my opinion, then as well as now, this was a war crime for which someone should have been prosecuted.

On February 2nd I prevailed upon Swede Lindstrom to take me along on the next day’s mission. He had a full crew but he agreed to take me as an observer.
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— the usual arrangement when a non-rated officer flew on a mission. I didn’t work that night so I had no idea what the target would be. I was up the next day well before dawn, had breakfast and went to the briefing room. The target was Berlin. Following the briefing I went through the usual procedure of drawing flight suit, etc. and proceeded to the aircraft with the crew. After preflighting the aircraft, Swede came up to me and told me that it was going to be a very long mission and that he would just as soon not have an additional person aboard using oxygen, etc. Would I mind canceling out? I had mixed feelings — I would have loved to have flown on a mission to Berlin and if he had said nothing to me would have accompanied them eagerly. But I had no intention of going if he had any reluctance at all about taking me as he obviously did. And there was a certain slight apprehension that made it somewhat easier to swallow my disappointment. Since the crew returned unscathed I have always regretted missing that flight.

In December, just before Christmas, the Wehrmacht attacked unexpectedly through the Ardennes in what was known at that time as the Battle of the Bulge and later as the Ardennes Offensive. They threw everything they could into the battle and the Americans suffered heavy losses and lost ground in the initial phase of the battle. The Germans were helped by the atrocious weather that nullified our overwhelming advantage in the air. When it did clear up our fighter bombers went to the aid of the infantry. The Eighth also wanted to contribute but throughout the war on the continent the heavy bombers were a disappointment against front line targets — they were as likely to bomb our own troops as the enemy. To improve communications between the ground and the heavy bombers my friend and former roommate, Al Steiner, was sent to France to set up a radio station. How I envied him getting over to where the fighting was going on! Once the front had been stabilized his station was closed and he was sent back to the 34th.

The heavy losses in junior officers of the infantry — the platoon leaders — in the Bulge, the Heurtgen Forest and elsewhere caused enough concern that Eighth Air Force sent out a message to all of its units stating that they were looking for non-rated junior officers with ground force training to volunteer for the infantry. When I saw this posted on the 18th Sqdn. bulletin board in early February I thought, “Here is my chance to get into the war.” The only negative I could think of was that it would destroy any chance of my making captain in the near future. On the other hand my job had become mere routine — anyone could handle it — so I would be no loss to the 34th. I didn’t give it much thought. I went into the Orderly Room and volunteered.

Confirming my own view of my value to the 34th, the group approved and I received orders from Headquarters Eighth Air Force dated 20 February 1945 relieving me and seventeen other lieutenants throughout the Eighth, and assigning us to the 9th Reinforcement Depot, Ground Forces Tng Center (Cont). These orders authorized us to be reimbursed for “actual and necessary expenses not to exceed $4.00 per day for qrs (quarters) and an alws of $1.25 per day to cover excess cost of subs where govt
qtrs and rations are not furnished or available while in travel status in the United Kingdom." Fortunately I never had to depend upon this generous per diem to survive en route.

On 23 February I packed my B-4 bag and foot locker, threw them both on a war weary B-24 that was shuttling back and forth to the continent and took off, full of excitement, for the next phase in my life and military career. There were several of us would-be infantrymen on the plane. I looked my companions over and then settled down in the nose and spent the flight looking at the clouds below us. We landed at Le Bourget, the airport where Lindbergh had terminated his famous flight. It was somewhat desolate — the hangars had been heavily bombed and there were a few aircraft, flyable and otherwise, scattered around the field. But, for the first time in my life, I was on the European continent!

Looking back on the fifteen months I spent with the 34th Bomb Group, it was, on the whole, an enjoyable experience. But, as a non-rated officer in a combat unit I always felt I was on the outside looking in. I envied the aircrews and wished so much I could have joined them. There was an enormous gap between the flying and the non-flying people in any aviation unit and particularly in a combat unit. We were second-class citizens in a mostly intangible way. They never rubbed it in — they may have referred to us as “groundpounders” but never in terms of contempt. Mostly they had an aura about them — the way they wore their caps, for example. No ground officer could ever imitate it though many tried. Having come from an armored unit where everyone was considered a combat soldier this rated-non rated gap always bothered me. However, I understood it and accepted it. But that was one of the reasons I was happy to transfer to the infantry. Interestingly, years later I was flying from Eniwetok to Hawaii in a C-54 and my seatmate was a captain who had just completed his tour of duty flying B-29s over Korea. He told me that when he got back to the States he was going to apply for training in some technical field so that he would be able to hold a job with some prestige in the squadron rather than being just another navigator. There is an expression today that “What goes around comes around” that seems to apply.

I believe that the 34th was an outstanding unit in every way. The Luftwaffe showed its respect for it by carefully avoiding it. The 34th flew 133 missions over the continent before they were finally hit by fighters on March 2, 1945 over Dresden. In that brief scrap no group aircraft were lost and our gunners claimed eight enemy fighters destroyed, two probables, and eight damaged, highly inflated figures without doubt since seven or eight guns would have been firing at each German fighter destroyed and each gunner certainly thought that he brought the plane down.

The only figures I can find for group losses is from a narrative history of the 34th BG prepared by Captain Provence on April 2, 1945 when the war was nearly over. He says that 797 group aircraft were damaged by enemy action during 155 missions, mostly by flak. During that time 90 men were confirmed killed in action, 46 wounded, and 203 carried as missing in action and presumed killed. Seventy-six
men became prisoners of war and eight were interned in Sweden. With ten crewmen on each bomber that is the equivalent of 42 crews killed, wounded or captured.

7th Sqdn. pilot Walt McAllister in an issue of the 34th Bomb Group *Mendlesham Memories* wrote that, “it was not at all unusual for a straggler from another unit, sometimes forced out of formation by intolerable weather and poor visibility, sometimes because of mechanical difficulties, whatever the cause, would join up as soon as possible with a unit of the same type aircraft. Largely this was for protection and, if they had not yet dropped their bombs, they would drop with their ‘newly adopted’ unit.”

“On one particularly bad weather day,” continued Walt, “when all the 24s were struggling mightily to get above the clouds and stay on top, drifting in and out, I came home with 6 or 7 ‘strangers.’ Included were a P-47, a P-38, a B-17, two B-24s from the Eighth Air Force and two B-24s from the Fifteenth Air Force in Italy! As lead pilot, from the markings I remembered, I made it a point to call the bases and ask WHY they had tagged on to us. The answer equated to this: ‘You were the only bunch of airplanes that resembled an organized squadron, and the only ones that looked like you knew where you were going, so we hung in with you.’ ”
At Le Bourget, much to my surprise, a two and a half ton truck was awaiting us to take us to our destination which, we soon learned, was to be Fontainebleau, some hundred kilometers from Paris. We piled into the back with our baggage and headed through the outskirts of Paris, bouncing over the cobblestoned streets and all eyes for the fabled city. We saw very little of it as we headed south and in an hour or so arrived at the ancient little town of Fontainebleau. There we pulled into the courtyard of a magnificent chateau which turned out to be the seat of Hqs 9th Reinforcement Depot and Ground Forces Training Center. Fontainebleau had been built and used by the kings of France as a summer palace and more recently as the site of a French Artillery School. Situated in the forest of Fontainebleau, it had just been transformed by a hard working cadre of officers and enlisted men from the Infantry School at Fort Benning, Georgia into an ambitious and impressive school for infantry platoon leaders. Aiding the cadre was a group of combat veterans who were there to temper theory with practice. Three schools in reality were running simultaneously; an Officer Candidate School, a Short Course for officers who had received battlefield commissions, and, last resort of an Army desperate for infantry officers, the Officers’ Basic Course for junior officers like myself who had been commissioned in other branches of the service. This last was known by its initials as OBC and we constituted OBC No. 1, the first class, a dubious honor as we soon learned.

We did have one proud boast, that we were 100 percent volunteer, but we were 100 percent volunteer in the same way that the French Foreign Legion had always been. As I was soon to learn, we were made up in great part of malcontents from other branches who saw in a transfer the legendary greener grass. While we had a hard core of enthusiastic, capable officers, the remainder ranged from a faded prewar juvenile movie star to a flustered officer who had escaped from England just ahead of an irate British husband’s formal challenge to a duel. Our ranks were full of officers who were career lieutenants — who had been denied promotion again and again. We


had another fair sized group who had been serving in various branches of the service in Negro units and had grasped at this straw in order to get away from them. All in all, OBC #1 bore, indeed, more than a slight resemblance to the French Foreign Legion.

Our class of some two hundred officers was organized as a rifle company of four rifle platoons. One of the few captains was arbitrarily appointed company commander and the highest ranking lieutenants were made platoon leaders, platoon sergeants and squad leaders. We were all issued M-1 rifles which we carried with us everywhere we went. We were in effect, while at Fontainebleau, infantry riflemen.

Our barracks had the faint odor of horse manure as well they might since they had served originally as a stable for the horses of one of the Louis of France. They were solid stone buildings as would be expected of a royal stable and one end had been enhanced with rudimentary plumbing. There was, of course, no heat nor any hot water but the month of February was nearly over and, as we were told if we complained, “There’s a war on.” Our curriculum was very practical — conditioning, weapons and small unit tactics. Each day after breakfast we would fall out with our rifles and our leaders would march us several miles to the training ground where the day’s activities would await us. I’ve always enjoyed walking and an hour’s hike in the cold morning air with my rifle slung over my shoulder was pure pleasure. We always marched at route step which meant no keeping step and talking was permitted. One thing OBC No. 1 could do was talk.

It has been said of the German people that their genius is not so much in their leadership as their capacity for being led. At OBC #1 we were found lacking in this very important quality. We had in our ranks men who had been more in the habit of giving than of obeying orders, who believed implicitly that it was more blessed to give than to receive, and who, in any case, had gone so long without promotion that they didn’t give a damn. In the old army phrase, we were “all Chiefs and no Indians.” Our unhappy company commander could not give the simplest order without the Napoleons in the ranks passing critical and, more often than not, vocal judgment upon its merits. We could not march through the streets in cadence, we would not clean our weapons; in short, each went his own way and be damned to the rest. Our group reminded me again and again of the saying that no one is completely useless — even the worst of us can serve as a horrible example. We served in that manner, splendidly.

Our training, however, which began at once, was an excellent combination of the theoretical with the practical, with the emphasis on the latter. Most of us were not in very good physical shape and we were thrown, willy-nilly, into a physical training program carried out with much enthusiasm by a small, bloodthirsty lieutenant colonel with a name which, unfortunately, eludes me as it is one that deserves to be remembered. When, for the first time, we cautiously marched onto the PT field, we were somewhat taken aback to observe this tough little character capering alongside of us in a very uncolonely manner and screaming at the top of his not inconsiderable
voice in a tone of delight that augured ill for us, “YOU’RE GOING TO DIE!” a conclusion that many of us reached independently a few minutes later. While his prediction turned out to be inaccurate, it was not for lack of effort on his part. Any dilatory performance in the dozen or so painful contests he staged with ourselves as unwilling participants usually ended with the laggard flying over the Colonel’s shoulder and smashing into the hard, hard ground. So, as we struggled and sweated with our chosen opponents, we kept one eye warily cocked lest this tiny but terrible officer show his displeasure in his own gentle manner.

In the short two months allotted to us neophyte platoon leaders much had to be skimped but little was omitted. We even devoted several of our precious hours to training in the use of the bayonet. The infantry felt, rightly perhaps, that enthusiastic practice with the bayonet would do much toward implanting an offensive spirit within each individual soldier as well as giving each of us a familiarity with and ease in handling his rifle. I fear that we little appreciated these virtues at the time. When we marched out upon the practice field to the accompaniment of the little Colonel’s usual shouts that we were going to die, we had tiny suspicions that this time he might be correct. We were of the modern generation which did its killing at a comfortable distance and did not relish the thought of cold steel. Nor did the Colonel’s screams of “THE EYES, THE EYES, GO FOR THE EYES!” tend to settle us as we traded short thrusts and horizontal butt strokes, the naked bayonets gleaming dully in the cold morning sun and the unsettling thought in most of our minds that our opponents might be taking the whole thing entirely too seriously. But, with the exception of one horrified officer who had a bayonet pass through his helmet liner and bury itself infinitesimally deep into his forehead, there were no casualties. Nevertheless, even the most mild mannered amongst us had caught himself with a snarl on his lips as he lunged and parried with the naked blade. OBC #1 was showing the first faint gleamings of an offensive spirit as opposed to the spirit of offensiveness, heretofore more noticeable.

While we were there we fired nearly all of the infantry weapons. We fired the M-1 rifle, the only weapon we fired for qualification, and I was pleased to make Expert with a score of 185, the eighth highest score of the 205 officers. High score was 194, low was an incredible 65! I also fired the flamethrower; the BAR; the 2.36 inch rocket launcher, usually referred to as the “bazooka”; and the M-1 carbine. The flamethrower was a nasty thing. You strapped the fuel tank to your back and held the nozzle of the connecting hose in your hands. When you pulled the trigger a stream of fiery liquid called napalm squirted out to a distance of about 60 feet, scorching anything it landed on and burning for several seconds. I decided immediately that I did not want to be on either end of a flamethrower! The BAR or Browning Automatic Rifle was great fun to fire. This was an old weapon dating back to the first World War but a highly effective one. It resembled a very large and rather heavy rifle and was fired either from the hip or from a prone position using the bipod on the end of the barrel as a support, and with the butt of the stock against your shoulder. It used a
magazine that held some twenty rounds of .30-caliber ammunition, the standard US cartridge for rifle and machine gun during the war, and was fired normally in short bursts of three or four rounds. We fired it for familiarization, using the bipod, at a dummy in a tree some four hundred yards distant. Every third round was a tracer and it was very impressive to see the tracers going into the target at this great range. One of the things that made this piece fun to fire was its absolute absence of recoil. It was like firing a .22-caliber rifle.

The 2.36 inch rocket launcher we fired at a derelict tank. The range of this antitank weapon was about the same as the range of the flamethrower which meant that the infantryman had to get a lot closer to the enemy tank than was comfortable. But, despite its small caliber, it was quite effective if it hit the tank. It was one of the first applications of the so-called shaped charge and would penetrate the side armor of most tanks of that era. It had a very rudimentary sight and the projectile had little thrust and a very short burn time. Its range and trajectory were very similar to a hand thrown grenade. Our target tank had been hit many times but it still burst into flames when my rocket hit it. When we examined our strikes we noted that each rocket made a hole completely through the armor but the hole was an unimpressive inch or so in diameter. But that small hole was usually fatal to a tank or crew.

Other infantry weapons that we did not fire but which were fired in demonstrations for us were the 60 and 81 mm mortars and the Browning .30-caliber light and heavy machine guns. In the US Army the only difference between light and heavy machine guns were the mode of cooling the weapons. The light machine gun was air cooled and the heavy was water cooled. Both dated back to the first World War. Water cooling enabled the gun to fire longer without overheating but made the gun considerable heavier. Both guns had relatively slow rates of fire-some 450 round per minute. By contrast, German machine guns, both crew served and individual, had much more rapid rates of fire. The American guns would go rat-tat-tat-tat and the Germans, Brrrrrp. Because of their sound the American infantrymen called them burp guns. It was very easy to tell which side was firing.

The last few weeks of our course were highlighted by a series of excellent firing problems, starting with the squad in the attack and ending, finally with tank-infantry attacks and an assault on a fortified position. These problems, smoothly run and with a bare minimum of safety precautions, did more to make infantrymen of us than anything else we did. The use of live ammunition added interest, accustomed us to battlefield noises, and, by increasing the realism made actual combat later a bit less of a shock. I always thought that the army placed so much emphasis on safety precautions when firing live ammunition that the trainees lost much of the potential value of the exercise. Our instructors were obviously of like mind, for none could accuse them of subordinating training to safety.

Our first firing exercise was not an unqualified success. It was extremely simple; merely a demonstration of a squad advancing by bounds toward a simulated enemy position. To add a little zip to the show one of our group was given an antitank rifle
Infantry Training — Fontainebleau

grenade to be fired just before the final assault.

The attack started auspiciously as the squad made its first rush forward, supported by fire from the squad’s Browning Automatic Rifle or BAR as it was universally called. At the end of the short rush the riflemen threw themselves to the ground and began, in turn, to lay down rifle fire on the objective. After a few moments the squad leader signaled for the BAR man to move forward, supported by fire from the rest of the squad. As the BAR man arose, gathered his heavy weapon in his arms, and began charging forward in a battlefield crouch, a deep silence fell over the remainder of the squad, which had chosen this unfortunate moment to reload. In an utter silence, broken only by the groans of the instructors, the BAR man continued his enthusiastic charge. Crouching, his BAR at high port, his knees working like pistons, he made a picturesque figure as he weaved and dodged, zig-zagging across the ground while his squadmates covered his advance with a painful silence. Finally, finding a position to his liking, he threw himself to the ground, burying the barrel of his weapon a foot into the sandy soil and flinging his legs wildly into the air like the screw of a foundering ship. At that moment a loud pop broke the silence as the rifle grenadier fired toward the enemy position, and the grenade, before the horrified gaze of the class, arched through the air with the approximate trajectory of a cold plum pudding and exploded within a yard of the BAR man, showering him with sand and providing a fitting climax to the occasion. OBC’s forte, our instructors assured us as we plodded our weary way home, was cold steel.

Late in the course we were the object of a visit of inspection by a very highly placed general officer of the Army Ground Forces, who seized upon the occasion to deliver an address to the unwilling ears of OBC No. 1. The speech was reasonably well received and the content immediately forgotten save for one brief paragraph near the end when the General, overcome perhaps by his own eloquence, congratulated our class on having volunteered one hundred percent for this course and for the infantry. He swore that a grateful nation would not forget this noble gesture, and promised that, upon his return to the Zone of the Interior, a personal letter of commendation would go out to each of us. This caught our attention and drew a resounding cheer. Cooler heads apparently prevailed, however, and assured the General that it would be madly generous merely to permit OBC No. 1 to graduate without a mass courts martial. For, alas, no letter ever made its appearance and we went on our way unrewarded. More, a faint stigma attached itself to us, for no future commanding officer could ever learn of my abrupt transformation from air to foot without leering knowingly at me as he leaped to the obvious conclusion that I was either mentally deficient if I had volunteered or hopelessly incompetent if I had been selected.

To me the most impressive experience was a TOT demonstration by a field artillery battalion. TOT was short for “Time on Target,” a method of artillery fire that had been developed by the American artillery. The batteries of an artillery battalion were normally spread out over a considerable distance so that they could fire individually at separate targets or as a battalion on a single target. For a TOT exercise each gun
would have registered previously on the target and the battery commanders would calculate the time of flight for the rounds from his battery to the target. Battalion, calling for a TOT would give the exact time the shells were to arrive at the target and the individual batteries, working backward, would calculate the exact time each would fire. The expected result was the arrival of all rounds on the target at exactly the same time. There would, thus, be no warning to the enemy. Against infantry the guns would use what were called “proximity” fuses. These would cause the shells to explode in the air when they were a certain distance above the ground, raining their lethal fragments on the infantry below.

For this particular demonstration the artillery was firing over our heads toward the target, a simulated infantry battalion. We heard the distant booms of the guns as they fired, followed very closely by the whispers of the projectiles as they flew over our heads. Then, over the target before us, all hell broke loose — that is the only way to describe it. The shells burst nearly simultaneously in the air just above the targeted area with a rapid series of flashes, and the ground over an area of several hundred square meters was churned into dust as the shell fragments peppered the earth. A few moments later the sounds of the explosions reached us. I was awestruck. For the first time I really faced what life in the infantry could involve. It was impossible to believe that anything could survive such an attack. It was sobering. I think that the object of the demonstration was to let us know what our artillery was capable of doing. It also impressed us with what the enemy might be capable of doing.

We had Saturday afternoons and Sundays free and transportation to Paris and back. I took advantage of the opportunity to see the fabled city a couple of times and, while Paris in wartime was not the renowned “City of Light,” it was still a beautiful place, and, in contrast to London, was essentially undamaged physically by the war. The trucks let us off at the Red Cross, a hospitality center on the Champs Elysees for allied soldiers operated by the American Red Cross. It offered various forms of wholesome entertainment for the soldier though the average soldier was not in Paris looking for wholesome entertainment. However it also offered a bed for the night and a solid base from which to sortie into the more interesting parts of the city. At that time soldiers of all nations could ride the Metro without paying so it was easy to get around. I spent my first visit walking around the city enjoying the sights and sounds. The early spring weather was delightful and what could equal the pleasure of walking along the banks of the Seine and watching the Parisians make the best of a wartime Sunday.

Paris was famed for the beauty and style of its women and, despite the wartime shortages of everything, they retained a je ne sais quoi that was very much different from their sisters in England. War or not the French women followed the latest fashion and it was obvious that the fashion in hair was an upswept hairdo that was not very attractive. Most of the young girls wore shoes with wooden soles, not because they were in fashion but because leather was unobtainable. However, even these had a certain style, the fashion of the moment being very thick soles on the order of two or
three inches. It was obviously not easy to walk on these thick, unyielding soles but they carried it off quite well. Like the hair, this was not a very attractive style but they all wore it. It was quite a sight to see the young girls riding down the street on their bicycles, their hair high above their foreheads, and their skirts flying in the air. It speaks volumes for French womanhood that they carried this off with style and elan.

I wandered through the city more or less at random on my first visit. Once I stopped at a bar for a glass of wine and an urgent visit to the bathroom. As I sat on the toilet trying to get rid of every trace of yesterday’s meals the door suddenly burst open and a woman of indeterminate age, sticking her agitated face in, shouted at me, “Depechez vous, depechez vous!” While I had become used to a certain lack of privacy in the army, this was a little much! It was here also that I first became acquainted with what passed for toilet paper in wartime France. It was on a conventional roll but the paper had a hard, shiny surface that refused to absorb liquid and that felt like a knife on that sensitive portion of the human anatomy.

I would certainly have enjoyed stopping at a restaurant for a good dinner but we had been warned that the French had little enough food for themselves and that we should not deprive them of any part of that little. There were several open messes in the city where the American soldiery could eat, however, but the meals were strictly GI.

One of the pleasures of Paris that I sampled was the ballet. I can’t remember the program but it was on a cold March Sunday and the Opera was unheated, of course. I sat through most of it, shivering, and wondering how the scantily clad dancers could stand it.

Of course I had to sample the fabled Place Pigalle (pronounced “Pig Alley” by the American soldiery and rather appropriately too). I got a ticket to the Folies Bergere through the Red Cross and went to Montmartre on a Saturday evening. I enjoyed the performance — I had never seen so many beautiful women with such elegant clothes that covered so little of their bodies! The show was fabulous to a rather unsophisticated young man like myself. Afterwards I walked along the street at Place Pigalle and marveled at the extraordinary spectacle of swarms of soldiers being tempted by swarms of ladies of the evening as they were often called in those innocent times. Suddenly, as I walked along, a young women grabbed my arm frantically and spurted something to me in French that I understood to mean, “Let me walk with you for a while — the police won’t take me if I am with an American!” She was wrong. Two Frenchmen in civilian clothes grabbed her, shouted something to me that I did not understand, and dragged her off, leaving me standing there completely befuddled and feeling like an idiot. Pigalle was a rough area in those days. I hoped that those men were police but I never had time to ask them for their credentials.

On 17 April our course ended, we all graduated and I, together with most of my classmates, was detailed to the infantry and assigned to the 106th Infantry Division. I was further assigned to the 423rd Infantry of that division. A day or two later we
were trucked with all our belongings to the railroad station at Fontainebleau where we piled into a train. At the station a most disgraceful episode occurred. We had boarded and were waiting for the train to depart when a sedan pulled up and several MPs pulled one of our classmates out of the car, obviously drunk. They then dragged him to the train, he sobbing and begging not to be sent to the fighting that he “didn’t want to be killed!”; the rest of us watching this disgusting performance in disbelief. I often wondered what they did with him.

As it turned out, he needn’t have worried. The two regiments of the 106th Division to which we were all going were not in Germany at all but at an old French training area called Camp Coetquidan in Brittany outside of Rennes.
ARRIVING AT RENNES around April 23rd we new infantry lieutenants were trucked to our regiments and then assigned to lower units. We were part of some 6,606 officers and men drafted from other arms of the service to reconstitute the 106th Division. Together with three other lieutenants from Fontainebleau, I was sent to Company D of the 423rd Infantry. We soon learned that two of the three regiments of the 106th Division had been decimated in the German offensive of December 16th, the so-called “Battle of the Bulge” or “Ardennes Offensive” or “von Runstedt Offensive”. The division, newly arrived from the States, had moved into position in the Ardennes just four days before the Germans struck. It was considered a quiet sector and the 106th was sent there to get an easy introduction into the war. These two regiments, the 422nd and 423rd, were now being reactivated at Coetquidan, an old French artillery range near Quimper in Brittany. The division was in tents.

An infantry division at that time consisted of three infantry regiments plus assorted tank, artillery, engineer and other miscellaneous units. Our third infantry regiment, the 424th, had been in reserve in the Ardennes, and, while badly battered, had survived and was now in Germany as a separate regiment. My new unit, the 423rd Infantry Regiment was organized in the standard fashion of three infantry battalions, a cannon company, an antitank company and a few other odds and ends of units. My battalion, the first battalion, consisted of three rifle companies, A, B and C, and one heavy weapons company, D. The heavy weapons company, in turn, was divided into three platoons, two heavy machine-gun platoons, each with four .30-caliber water-cooled Browning machine guns, and one mortar platoon with six 81 mm mortars. Our company had five officers; the company commander, the company executive and three platoon leaders. I was platoon leader of one of the two machine-gun platoons. Our company commander was a reserve officer, a wise old bird (about
26 years old), Captain Kerhulas, who had seen a good deal of combat with the 84th Division. He had that greatest virtue of a combat officer — nothing rattled him — neither the enemy nor his superiors.

With two exceptions all of our enlisted men were like our new officers — retreads from other branches of the army. Many were from antiaircraft units which, because of the demise of the Luftwaffe, were being reduced in number. I asked one of these whether his unit had ever shot down any aircraft. “Only one” was his quick reply, “a P-47”. Our antiaircraft were notorious for firing on any aircraft that flew over them.

My platoon sergeant, whose name I have forgotten, was a survivor of the Ardennes battle. The only other surviving member of the original company had been in the hospital during the Bulge. The sergeant was a good soldier and I chatted with him a good deal. He said that he and his fellows were so green that they assumed during the first few days of the Ardennes Offensive that these were just normal days at the front.

We spent a few days getting acquainted with one another and then had a review at which the new flags of the division were presented to us as part of the ceremony reconstituting our division. A day or two later we struck our tents and proceeded to the outskirts of the French cities of Lorient and St-Nazaire where we relieved two regiments of the 66th Division.* Lorient and St-Nazaire were the home ports of the German submarine service along the French coast. The Germans had built massive submarine pens at both ports and based their U-Boats there on the Bay of Biscay because it greatly shortened the distance to the approaches to the British Isles from the Atlantic. The pens had reinforced concrete roofs several-meters thick which had proved impervious to Allied bombs. When the Allies had swept north from the beaches of Normandy, strong German forces had retreated within these two port cities and held them. They could have been reduced but our high command obviously felt that they were not worth the cost and they were left to “rot on the vine” in a manner of speaking.†

*The bulk of the 106th Division went to Germany to guard many of the vast number of German prisoners of war that were surrendering at this late stage of the war, while the reconstituted 423rd and 424th Infantry Regiments stayed behind at Lorient and St-Nazaire. (ECD)

†The following story was found among Franklin’s writings. “Yesterday I saw something that touched me deeply, something that showed some of the regard felt by the French people for their American liberators. Down the dusty street of a small village came a little procession of greybeards and youngsters, bent old women and thin, wide-eyed girls, all bearing flowers. Just before reaching me, they turned off the road, crossed a grassy field, and gathered reverently around a small, wooden cross. There, as I curiously approached, one spoke a few soft words, bowed his head in silence for a moment, then gently placed a small wreath before the cross. Then each in his turn passed silently across, and placed an offering beside the wreath, until all had done so, when they departed as gravely as they had come. Taking my cap off, I respectfully approached the little mound of earth surmounted by a cross, and read on it:

LATRINE CLOSED
17 Nov. 1944
Co. D. 423 Inf.
106th Infantry Division

As an aside I might mention that both the RAF and the US Eighth Air Force had tried a number of times to demolish these sub pens but with no success. I recall that, while I was with the 34th Bomb Group, we received a field order one night informing us that, as part of the Eighth AF’s effort the next day there would be a single B-17 attacking the sub pens at one of these ports. The B-17 would be loaded with bombs and, after takeoff and reaching altitude, the skeleton crew would bail out over England and the aircraft flown under radio control from a sister ship. As it neared the French port the accompanying B-17 would attempt to guide it through the entrance to the sub pen with the hope that it would explode inside and create all manner of unpleasantness for the German navy. This was an early example of a crude “guided missile” or “smart bomb”. We never heard whether it worked but I assume not. This was a good example of some of the unorthodox ideas that were tried for exploiting our air power.*

We were relieving two regiments of the 66th Infantry Division and it was a matter of one hard luck division relieving another. Two regiments of the 66th were on their way from Southampton to Cherbourg on Christmas eve 1944 when one of the ships, the Leopoldville, a converted Belgian freighter, was torpedoed. The torpedo from U-486 struck the ship aft and exploded in the number four hold, where some three-hundred soldiers died from the explosion or drowned in the water that swiftly flooded two of the troop compartments. While the public address system on the ship kept repeating that there was no danger of sinking, most of the crew (mostly men from the Belgian Congo) with the exception of the four senior officers, climbed aboard and launched the lifeboats, deserting the ship. The heavy seas and darkness made efforts by the second transport, the British Brilliant, to take injured aboard extremely hazardous and, with the repeated reassurances that the ship was in no danger of sinking, most of the troops preferred to stay with the ship. Finally it became obvious that the ship was in great danger and the remaining lifeboats were launched. But, as a battalion commander, Lieutenant Colonel Martindale, later noted: “Until one minute prior to sinking, all indications and all information indicated that the ship would stay afloat.” At 2030 hours the ship gave a sudden lurch and slid beneath the heaving seas. The 66th lost eight-hundred men in the sinking, making it the worst disaster to befall a troopship carrying American soldiers in the war. The Belgian captain went down with his ship.

The remaining two regiments of the 66th had relieved the 94th Infantry Division outside of Lorient and St-Nazaire and had been there since. It had proved to be a very quiet area. The Germans had no intention of breaking out and no one had asked the 66th to break in.

We took over the 66ths positions in toto. They had spent months digging in and

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*Joseph Kennedy, the older brother of John F. Kennedy, died in a B-24 while undergoing a test of such a remote-controlled aircraft, which unexpectedly exploded over England on August 12, 1944. (ECD)
we were happy to accept the results of their work. Our company, in fact, relieved Company D of their regiment and they gave us their firing data for the mortars and even left the mortar base plates in position. A word of explanation here. When firing a mortar the first few rounds were not aimed at anything in particular but were fired to set the base plate firmly into the ground. After that the mortar could be expected to fire successive rounds with a small circular error. So we just attached our tubes to their base plates and, with their firing data, were ready to fire any of a number of preset fire missions.

By the time we arrived in front of Lorient it was obvious that the war was only going to last a few more days and, quite frankly, we did not take our mission of holding the Germans inside Lorient too seriously. If they had attacked us, green as we were, we would have been in deep trouble. But we were aware that negotiations with the Germans inside Lorient were already under way and rumor had it that they were supposed to surrender to the French irregulars or maquis in the local area. In this case rumor was true. Our commanders were probably happy not to have to handle the prisoners and it certainly helped heal some of the badly bruised pride of the French. We did, however, enjoy some booty from Lorient. Somehow our division got hold of the stocks of German alcohol and for several months each officer received a weekly liquor ration of a bottle or two of wine and some whiskey or cognac from the German stores in Lorient. Not being much of a drinker I usually gave mine to one of the other officers or one of the higher-ranking sergeants in our company. In front of St-Nazaire our regiment clashed briefly with the Germans the day before the surrender and our artillery fired a few rounds.

As the war was winding down I finally saw my first German soldier. One morning a bedraggled figure appeared in front of our position with his hands over his head. It was a German soldier who had decided to end his war on his own terms. The poor fellow must have been about 45-years old — ancient by my standards then — was garbed in an ill-fitting uniform, and was carrying a duffel bag and an old accordion. I had to explain to him as best I could in what German I could muster, that we could not accept his surrender but that he must remain with his unit. We looked him over with a great deal of curiosity — I doubt any of us had seen a real live German soldier before — and concluded that the Germans were in even worse shape than we had suspected if this was one of their infantrymen. I appropriated his version of the Combat Infantry Badge as a souvenir, an action that I have been ashamed of since. I then turned him around and sent him back to his unit. He took something of a chance, however, in coming to us. Not only did he most certainly catch hell from his company commander on his return but there were still mines in the area and, in fact, the only casualty we took while at Lorient was one of my classmates from Fontainebleau who stepped on an antipersonnel mine and had his foot blown off.

On May the 8th the war in Europe officially ended. Since the inevitable end had been obvious for some time the actual surrender was something of an anticlimax with us and there was little or no celebrating.
There was, after all, a war in the Pacific still being waged and we assumed we would be sent there in due time. So we stayed in our positions and awaited orders which were not long in coming. A few days after the war ended we were ordered to proceed to Germany. But, before we left I wanted to take a look at Lorient. So I got my driver and we set off in our jeep. We hadn’t gone far when we ran into piles of Teller mines along the side of the road. Presumably the Germans were clearing their minefields under the terms of their surrender. A little further and we ran into a battery of 88 mm guns, beautiful weapons. By then I began to think about the possible consequences of this unauthorized trip so we turned back. I saw no German soldiers.

The night before we were to depart the officers of our battalion held an impromptu party and belated victory celebration. Battalion headquarters was in an old stone chateau with a sort of moat or elongated pond alongside. Since there were no women the party consisted entirely of drinking, and as the drinking increased it became noisier and rowdier. At some point several of the veteran officers — you could tell who had been in combat since all such wore the Combat Infantry Badge — decided they would go fishing. So they piled into a rowboat and rowed it out into the pond. Then they would take a hand grenade, pull the pin, and throw it over the side of the boat into the water. In a few seconds there would be a muffled explosion and a dead fish or two would float up. This they thought was uproariously funny and between drinks the fishing continued with the fishermen getting drunker and drunker and the fishing, in my opinion, more and more dangerous. I left for my tent when the party reached its peak. The festivities ended late that night with casualties to no one but the fish.

Germany

The next day we pulled out our weapons, struck our tents, piled into our vehicles and headed out in convoy for Germany. I was in a jeep somewhere in the middle of the company as we headed north across France. As we passed through the small French towns we got an exhilarating reception from the residents who were still in ecstasy over the end of their long war. We were probably the first American unit which had passed through these villages since VE (Victory in Europe) day and the inhabitants lined the streets and cheered us as though we had won the war single-handed. We knew that we had small claims on their gratitude but we enjoyed it anyway. We passed through one town and, as we drove by, a young woman held a small basket of eggs out to me. I grabbed at it as we drove by and eggs went flying through the air and splattering over the road. Fresh eggs were precious — I hadn’t had one for months — and I felt terrible about the unfortunate results of her generosity. And I was touched that she would want to give them to an unknown American who then made a hash of her offering. I felt badly about those eggs for a long time. I hope she has forgiven me by now.
I don’t know what our exact route north was. I know we passed west of Paris and bivouacked one night near Soissons — a name that stuck in my mind because of its prominence in the first war. The following day we entered Luxembourg which was striking because of the sudden change in roofs — from orange to gray — and the road signs which looked and sounded very Teutonic. We actually passed through Luxembourg City and bivouacked again, this time in a field just across the road from the Luxembourg airport. After supper a couple of us officers took a jeep into Luxembourg City and walked up and down the streets, marveling at the clean, brightly lighted store windows, something we hadn’t seen for ages. We didn’t quite know what to make of the Luxembourgers — to our untutored ears they seemed to be speaking German and we were a little uncertain as to whose side they had been on. Of course they were speaking their own language which certainly sounded and sounds like German to us linguistically deprived Americans.

The next morning we continued on our way, crossing the Moselle at Wasserbillig on a Bailey Bridge which had a sign announcing “You are entering Germany courtesy of the XXth Engineers”, the unit that had erected the bridge to replace the stone bridge which had been demolished during the fighting a few months previously. Our destination was Nachtsheim, ten miles west of Mayen which is, in turn, some twenty miles west of Koblenz. Arriving there on 27 May, we went into bivouac in a wooded area and there we spent the next month living uncomfortably in pup tents — one officer or two enlisted men to a tent. There we were to continue our training in preparation, we all believed, for redeployment to the Pacific where the Japanese were still fighting and where a bloody invasion of Japan was anticipated by everyone. I didn’t enjoy life in a pup tent — the ground was hard and, worst of all, we were plagued by mosquitoes at night, something we did not expect in Germany and a plague for which we were ill prepared.

Theoretically we were part of the army of occupation of Germany but the immediate future of the 106th as of all infantry divisions was up in the air. We knew that there would be an army of occupation for some time and that some units would be designated for that. We also knew that many units would go back to the US where some would probably be disbanded and others shipped to the Pacific. Meanwhile we would continue to train. There was, of course, considerable grumbling among the troops but nothing serious. One irritant was an order that came down to us from above that we were not to cut down any trees without permission from the German forester. While we didn’t have any overriding reason to cut down trees, the order rubbed our enlisted men the wrong way. Their reaction was a “Who won the war anyway?”

On 1 June 1945 I raised the allotment I was sending home to my father for the purchase of war bonds from the $100.00 I had set when I was commissioned, to $137.50. Since my pay as a first lieutenant was, if my memory does not fail me, $175.00 per month plus a $21.00 ration allowance (which I did not receive when I was eating at a field mess), I was henceforth living on $37.50 per month. This was not as
bad as it sounds since there was almost nothing I could spend it on except when on pass or leave.

We began a fairly vigorous program of field exercises at company and battalion level. During these I got to know our battalion commander, Maj. Murrah, fairly well. When the battalion would deploy either in defensive position or in preparation for an attack i would accompany him on his preliminary reconnaissances. My job was to designate, with him, the positions for our eight heavy machine guns and our six 81 mm mortars. He believed in walking over the ground himself and he was a very, very fast walker — it was here that I acquired the habit of walking rapidly, a habit I retained for the rest of my life.

Major Murrah had come to us from the 84th Division as had our company commander, Captain Kerhulas. Captain Kerhulas told me that Maj. Murrah, who was a West Pointer, incidentally, had been relieved as battalion commander during the battle of the Heurtgen Forest because he refused an order for his battalion to make an attack that he believed was suicidal. That sort of refusal was usually professional death and I have often wondered what happened to him after the war. I thought he was the best officer I had ever served under. He apparently thought well of me because he gave me the additional duty of temporary battalion S-3 (operations officer) while we were in training there.

On 12 July we packed up and moved once again, this time to Oestringen, thirty miles north of Karlsruhe where we took over the Bruchsal-Karlsruhe Landkreise from the 84th Infantry Division. The area, part of the zone originally occupied by the French and later by the 84th Division in slight strength had never been really combed. So, a few days after our arrival we took part in Operation Tallyho, a VI Corps operation to check credentials of all civilians, displaced persons and military personnel to uncover firearms, ammunition, radio transmitters vehicles and any other contraband war materiel, and to search for black market operations. Quoting from St. Vith, Lion in the Way, a History of the 106th Division, “Initiated in great secrecy, the operation commenced at 4:30 AM, 21 July, when forty-six roadblocks throughout the Division area were manned and a house-to-house check began which lasted for forty-eight hours. One gathers that it consisted of much sound and fury, without tangible results. At any rate it resulted in a thorough, if somewhat informal, introduction of the Golden Lions to the good and not-so-good burghers of the area”.

Company D made a midnight march to a nearby village where we were joined by some of our security people. Then we were led to several houses where illegal activities had been suspected, entered fully armed after knocking, and followed the security people around as they searched and interrogated. So far as I could tell we found nothing and I don’t know who was more bewildered — the German families or me. I found it somewhat embarrassing breaking into a home and pushing the family around in a manner of speaking. We felt that this was the enemy and that we should show them who was in charge, but they looked like nothing so much as innocent, flustered citizens whose sleep had been interrupted and we felt a little ashamed of
The countryside where we were training showed astonishingly few signs of the ravages of war. It was a very rural area and aside from an occasional Panther or Tiger tank alongside the road there was scant evidence of the very recent conflict. There had been considerable concern that a hard core of the German army — the SS for example — would go underground and carry on a guerrilla war in the manner of the French and Russians but it never occurred. One would see an occasional wall with a shadowy figure painted on it and the soldiers said that this was the sign of the German underground. I learned later, however, that these had been painted by the Germans during the war as a warning to their own people of enemy agents. Another rumor that went around was that the Germans stretched piano wire across the road to decapitate the occupants of our jeeps as we drove down the road with the windshield down as we normally did. To prevent this, all our jeeps had vertical bars welded to their front bumpers which were supposed to break the piano wire. I never heard of any incidents of that nature and after a few months the protective bars were removed. The Germans knew that they had been conquered and there was not the hope and, indeed, expectation of outside help that sustained the French underground. The best description of the German people at that time was docile.

Germany then was in a condition of chaos. Their cities had been bombed to rubble, most of their villages had been fought over, their federal government had been overturned, their currency was nearly worthless, several million of their young and not so young men had been killed, their entire country was occupied by foreign armies, their industry had been largely destroyed, their transportation system was a shambles, and several million so-called “displaced persons” (a euphemism for former prisoners of war and foreign workers) were roaming the country. All of the conditions for complete anarchy were present. Two things, I think, saved them. Most important was their character — they were a hard working, intelligent and disciplined people, and their social structure remained intact. The second was (at least in the American Zone of Occupation) the taking over of their lower governmental echelons — the villages and cities — by the US Army. Every town was given a so-called “Town Major”, an army officer who had been trained for the occupation, and he had complete responsibility for the running of the town. Normally he simply retained the officials who had always been in charge but he had dictatorial powers. It was his responsibility to get the town running again.

In an effort to control somewhat the movement of undesirable people in our occupation area we set up roadblocks at key intersections where we would check the credentials of people passing through. It was never too clear to us what constituted adequate credentials so our people pretty much used their own judgment on whom to pass on and whom to bring in. I remember checking one of our roadblocks where the soldiers were obviously greatly amused. Upon being queried one of them told me that he had just passed a young German woman through. “She couldn’t speak any English but she had a handwritten pass that she showed me. It read, “This fraulein...”
is f—ing her way to Berlin. Spend one night with her and send her on her way — signed John A. Smith, Pvt US Army”.

One major problem in restoring the country was the “denazification” program that the US (and other) governments insisted on. All former Nazis were to be removed from any position of authority. Since almost all Germans in positions of any authority were members of the Party, either by choice or from necessity, this would have meant a wholesale cleaning out of people with experience. So, while the Army paid lip service to denazification, the local American authorities used a good deal of discretion in applying it at lower levels.

In order to satisfy the politicians back home the army also promulgated a policy called “non-fraternization”. American military personnel were to have no social relations whatsoever with German nationals. We were occasionally warned of dire consequences if we or any of our men violated this policy but we had very little opportunity to fraternize even had we wanted to since we were out in the country and were kept busy with little or no time free. The rest of the army of occupation, however, from privates to Major Generals, made a shambles of the policy. Indeed the American soldiery took an immediate liking to the Germans — particularly the German frauleins. Their common feeling was that of all the Europeans they had met, the Germans were most like Americans. They meant this as a compliment to the Germans, of course. One thing I noticed then and later. The soldiers who had been in Europe during the war were much kinder to the Germans than those who arrived later. These latter arrived with the attitude of conquerors and it took some time for that to wear off.

One of my duties there was to run the regimental mortar training program. In addition to the six 81 mm mortars that each of the three battalions heavy weapons company had, every rifle company had a so-called “weapons platoon”. If my memory serves me, these weapons platoons had four light machine guns and three 60 mm mortars. The only difference between the American light and heavy machine guns was that the lights were air cooled and the heavys, water cooled. The light machine guns couldn’t maintain the high rate of fire that the heavys could. The 60 mm mortars had a much smaller and lighter tube than the 81s and the projectiles had little more explosive power than hand grenades.

So, for a week or so, I was out on the range where the mortar teams from the rifle companies were firing their 60 mm mortars and those from the heavy weapons companies their 81 mms. This was enjoyable. A mortar team would come up to the line and set up their baseplate, attach the tube, and set the bipod firmly into the ground. The target was out of sight of the mortar crews, some thousand yards behind the elevation in front of the mortars. At the top of the elevation would be the team’s forward observer, usually the platoon commander, in contact with the mortar by sound powered telephone. The forward observer would estimate the range and take an azimuth reading with his compass. Then he would call back to the weapon crew “Target range eleven-hundred yards at 48 degrees”. The squad leader would
then look at his firing book which would give two pieces of information; the angle of elevation of the tube and the number of charges required to fling the projectile that distance.

A word of explanation here. A mortar is a most peculiar weapon. The tube is smooth; that is, like the cannons of the past, it has no rifling. Not only is it a smoothbore but it is also a muzzle loader — the shell is dropped into it from the muzzle. Furthermore, it has no trigger. The firing pin is fixed in the breech and the mortar is fired by sliding the shell into the muzzle from which it drops to the breech, hits the firing pin and is launched into flight with a loud “bong” that sounds like nothing else on the battlefield. The shell resembles nothing so much as a small aerial bomb. It is shaped like a tear drop and had four fins at its base. Around the fins a number of propulsive tabs are attached — eight if my memory serves me. If the firing table calls for five charges then the loader tears three of the tabs off before dropping the round into the tube.

The squad leader would point the tube as closely as he could to the azimuth given him by the forward observer and then, using a bubble clinometer, would adjust the bipod to the elevation called for in the firing tables. Usually the first round was fired with a full charge in order to set the base plate firmly into the ground. Then the squad leader would call out “One round, five charges”. The loader would pull three charges off the round and hold the round over the muzzle. “Fire!” from the squad leader and the loader would drop the round into the tube, clearing his head and hands from the muzzle as he did so. With a loud bong the mortar would launch the projectile.

The forward observer would then watch anxiously for the fall of the round. If all went well he would see the puff of the exploding round followed several seconds later by the sound of its explosion. He would then estimate how much the round was over or short and how far off it was in azimuth, calling back over the phone, “down 200 yards right 3 mils” (a mil being one yard in azimuth at one-thousand yards range). The squad leader would check the firing table quickly and, using two screws on the bipod, make the necessary adjustments. Another round would then be fired and the process repeated. When the forward observer had a bracket — succeeding rounds about the same distance over and under then he would call back the necessary adjustment and, “Three rounds, fire for effect!” The crew would then make the last correction and fire three rounds as rapidly as it could. Between each round the gunner would check the azimuth and, pressing the clinometer against the tube, make sure that the elevation had not changed. All three rounds would be fired in about eight seconds so that the last round was fired long before the first round hit the ground.

A mortar is a very simple, very mobile and a very effective weapon. The rounds are not very large and are intended for use against infantry in the open. To get a larger killing radius they have super sensitive, super quick fuses so that the round will explode before it penetrates the ground. Thus a mortar round does not make a crater — the force of the explosion is horizontal and the shell fragments likewise.
106th Infantry Division

I very much enjoyed the mortar range. I had to see that all safety precautions were observed and that the crews moved in and out in good fashion. I had no responsibility for their instruction — that was the job of their own officers. I had to evaluate the general performance of the regiment and so I spent most of my time with the forward observers where I could see for myself how quickly and how accurately they could bring down fire on the target. All of the rounds fired, of course, passed directly over my head and, by the time I had watched the fall of several hundred mortar rounds I became quite proficient at adjusting fire. In fact, I became so good that I felt I could have done it fairly well just from the sound of the exploding rounds without even observing their fall.

There was some slight risk in adjusting fire from a position directly in front of the mortars. Someone could make a mistake and pull too many charges off of the round or set the elevation improperly, but that never happened. However, once in a while one of the fins would come off the round in flight, and this always led to a wildly unpredictable trajectory. Whenever we heard the characteristic buzzing noise of a free wheeling fin we would flatten ourselves until the round hit the ground. Only once did one land close — just across the road from our observation point, missing us by only some twenty yards.

While we were near Koblenz I had a most mortifying experience. Our company had been out on a night exercise from which we returned at mid-morning. Some hours later I was summoned by the company commander. An elderly German whom I later learned was the Burgermeister of the nearest village was standing beside him. “Are you missing a machine gun?” he asked me. “Not that I know of, but I’ll check.” I replied with some uneasiness. Checking quickly with my platoon sergeant revealed that one of the machine-gun squads had indeed left their weapon in the field when they returned to camp. The Burgermeister returned the gun to me with a look that said, oh so plainly, “How did you people ever win this war?” The company commander never said a word to me but I could read his thoughts also. This was such an inexcusable dereliction of duty and abrogation of responsibility that it wasn’t even necessary to point it out to my platoon sergeant. I left it to him to speak to the squad leader — I really should have demoted the squad leader. With the end of the war in Europe discipline in the US Army, never very strong, had slipped further and incidents like this were the result. Fortunately this was an exceptional incident and our company, in general, had fairly good morale and discipline. I still cringe though when I recall this embarrassing episode.

It was obvious that the war against Japan would not require all of the troops that had been in Europe and there was a great hue and cry in the United States — the press at least — to “bring the boys home”. So the Army devised a rather complex system for determining who should be sent home first to be discharged. Points were given for length of service, time overseas, decorations, and other such factors and those soldiers with the most points were to be sent home first. However, there were not enough ships to send every high pointer home immediately and the authorities
cast about for ways of occupying the soldiers’ time while they waited. Leave Centers were set up and leave granted rather generously. And a so-called Information and Education Program was instituted. I was appointed I & E Officer for our battalion and was directed to proceed to Paris, France and report to the Cité Universitaire at 19 Boulevard Jourdan for the purpose of attending the I & E Course. I was given a jeep and a lucky driver and arrived in Paris on 1 July for the seven-day course. This drive most impressed me with the magnitude of the war effort. All the way from the German border to Paris the road was lined with piles of wooden crates containing ammunition — nothing but ammunition. Presumably it was stored that way so that any explosion would be limited, and so that it could be picked up by trucks and taken to the ports for shipment to the Orient. But for mile after mile we drove past those piles of shells, packed by the tens and hundreds of thousands in their wooden crates with the identifying marks stenciled on them. All of it was unguarded — it wasn’t the stuff that would tempt a thief.

I don’t remember much about the course but I’m sure that I had a good time in Paris. Back at the battalion and I gave weekly lectures to the soldiers. The subjects were selected by the army which sent me monthly pamphlets from which I prepared my lectures. One subject sticks out in my mind. The title was “Our Friends the Russians” and it was blatant pro-Russian propaganda that might have been written by Mrs. Roosevelt. I presented it as it was written but the soldiers were having none of it. They acknowledged the great Soviet contribution to winning the war but knew very well that the Soviets fought because they were attacked — not from any friendship for us. And our differences were already becoming apparent.
118th Infantry

By the end of July the 106th Division was being broken up — the high-point men going to the “cigarette” camps in France, Camp Lucky Strike, Camp Chesterfield, etc. to await what the army always called “surface transport” to the United States, and the low-point people to other units in the ETO. Together with some thirty other officers and a large number of enlisted men, I left by train on 5 August for the 118th Infantry in Dole, France. This was my first trip on what was known in World War I as a “Forty and Eight” — “40 hommes et 8 chevaux” printed boldly on the outside of the small French freight cars. I was always puzzled as to whether it was “40 men or 8 horses” or “40 men and 8 horses”. I would think it would be somewhat uncomfortable sharing one of those small cars with 39 men and 8 horses. In any event I was in a voiture with some thirty or so enlisted men. There was a bale of hay in the middle of the car which we spread over the floor, we unrolled our sleeping bags and made ourselves comfortable. The journey took some two days with much stopping, creeping over temporary bridges, reversing and general absence of forward movement. The soldiers were pretty well behaved — we didn’t lose anyone at any of the stops and no one got drunk. There were no hot meals — we brought along K-rations which we ate cold. Actually, once one got over the idea that one was traveling in a freight car, it was amazingly comfortable — plenty of room to stretch out.

At the end of the first night our train pulled into a station somewhere in Germany and another train similar to ours pulled in right next to us. I was standing in the open door of the car looking idly at the other train which was full of paratroopers from the 82nd Division when I recognized my old first sergeant from the 6th Armored Division, Laughinghouse, standing opposite. He had, if you recall, left our outfit in disgrace as a private in April of 1943. He was still a private, somewhat to my surprise, because he was a good soldier. We congratulated each other on surviving the war and

*The 82nd Airborne Division was a one of the best, if not the best division in the US Army, one of only a few that still exists in today’s army. (ECD)
he gave me news of our old outfit. Our company had been withdrawn from the 6th, converted to an amphibious tractor company and made several of the assaults on the Pacific islands with heavy casualties. Years later I learned that they had become part of the 773rd Amphibian Tractor Battalion. Laughinghouse had made several combat jumps with the 82nd.

Several times during our trip we passed trains jammed with men in nondescript uniforms, jammed tightly together in open topped freight cars. These were, we presumed, French prisoners of war held by the Germans or the Russians en route back home, though they may have been so-called “displaced persons” or people who could not return to their original nations because of Soviet occupation or for other reasons. It sometimes seemed in those days that all of Europe was on the move.

The next day our train arrived in Dijon, France and we were trucked to the small city of Dole, not far away, where our new unit the 118th Infantry was located. The following day, August 6th, as I was walking through the headquarters area I heard a fragment of an announcement over a radio in someone’s room. I was paying no attention, but one phrase caught my attention — something like “a bomb of unprecedented magnitude...” and, strangely, I knew immediately what it was. At the university our chemistry professor had made some brief comments about the power locked up in the nucleus of the atom and I knew at once that somehow we had unlocked this power. And I felt a moment of deep depression at the knowledge that this power had been opened to a world that had never shown any evidence that it might use such power wisely. In a few days the Japanese surrendered and, instead of preparing to be sent to the Pacific to invade Japan I was faced with the uncertainty of a world at peace. I had become used to a world at war and there was a strange tranquility in being in the grip of events beyond my control. Now I was faced with the many uncertainties of peace. Like most Americans of my generation, I had been jolted out of a predictable journey through life by the war and diverted

**Dole, France**

Dole was a town of about 20,000 persons, situated on a hill some 27 miles southeast of Dijon, in the Department of the Jura. The Doubs River, a small stream, flowed around the town. Dole had been a garrison town in peacetime and the regiment to which I reported occupied the caserne.

The 118th Infantry was a rather unusual unit at that time. It was a South Carolina National Guard regiment and had been nationalized prior to our entry into the war and sent to Iceland to defend that large island from any attempts by the Germans to seize it. Some rude persons might point out that we had been very critical of the Germans for doing the same thing to Norway at the beginning of the war but the Icelanders were considerably less disturbed by our action than the Norwegians had been. Nevertheless, then as now, the Icelanders were rather unfriendly to foreign inhabitants of their country and the 118th did not enjoy their duty there. It did,
however, for better or worse, keep them out of the shooting war. Upon the surrender
of the Germans the 118th was sent to Europe, presumably at the request of the
Icelanders, and ended up in Dole without seeing any fighting. Most of the officers and
men were what were called “high point” men at that time — that is, they had been
in during the entire war and had enough points to go home. We were replacements
for the first ones sent there. We all assumed that the regiment would eventually go
to the Pacific and take part in whatever fighting was necessary to end the war there.

I was assigned to Hqs 1st Battalion as Battalion Communications Officer, presum-
ably because my personnel folder identified me as a former communications officer.
However, I knew nothing whatsoever about infantry communications and didn’t want
to learn, so I begged off and was transferred to Company B, a rifle company. There I
was assigned as platoon leader, of the weapons platoon, which was much more to my
liking.

Life in the 118th was quite pleasant. We had comfortable quarters in the caserne,
the summer weather was delightful, and the regiment was very relaxed about life as
would be expected of a former National Guard outfit where officers and men had
known one another for many years. We had a light training schedule and lots of free
time. We would go out in the field for various training exercises in the morning and
usually play softball in the afternoon — our battalion commander loved softball and,
considering his age, was a pretty fair player. I recall one morning we went out for a
problem and as I stood in one of the lush meadows I looked up with astonishment.
There, sailing sedately through the meadow, was a large barge. Closer inspection
revealed the presence of a small canal and confirmed that the barge was sailing on
water, not grass. One could (and can) travel nearly everywhere in France through
their extensive system of waterways.

We had an excellent officers’ mess with charming French waitresses. Kitchen
police was done, not by our enlisted men, but by German prisoners of war from a
nearby French prison camp. Unlike the American soldiers, the German POWs loved
the job. The French, perhaps understandably, gave them a starvation diet, and the
POWs would save all the food we didn’t eat, including what we left on our dishes,
and take it back to the POW camp to supplement their and their comrades’ meager
rations. Some of our people were upset at this French treatment of the Germans but
the French had little enough to eat themselves.

We had several dances while we were at Dole and these were great fun. They
were held at the caserne and our partners were the local girls. I don’t know how
they arranged for the girls but there were always a goodly number of charming young
things for us to dance with. Dole was a small town, of course, and the girls did not
come by themselves — they were all accompanied by their mothers who sat primly
along the wall keeping an eye on their daughters and the American officers. The girls
were not very sophisticated — as I said, Dole was a small town — and they knew
little or no English but everybody seemed to have a good time, including the mothers.
Most of the officers knew no French and many of them could not dance very well so I
had a big advantage. In fact I made friends with the prettiest girl at the first dance and was able to dance most of the dances with her thereafter.

There was a very popular French song at that time, “Ah le Petit Vin Blanc,” a gay and lilting waltz and I still remember with pleasure the girls spinning around the floor to the sound of this waltz, all of them singing as they danced. It was enchanting. Unfortunately most of us could not waltz but that didn’t cause any real problem — the girls danced with each other and we enjoyed watching and listening.

My dancing partner and her mother invited me one day to their home for Sunday dinner, the only such invitation I received while in France. Her father was the baker in Dole and they lived in a typical old French middle class stone and stucco home in the city looking, like all French homes, as though it had been built hundreds of years ago. However, during the war and for some time after, the bakers and the butchers in France and elsewhere in Europe lived very well, and we had a good meal. I wish I could remember how it passed as a social occasion but my memory is blank on that. I wonder if her mother had any thoughts of me as a possible son-in-law. Probably not. French parents were not too keen at that time about acquiring American sons-in-law of questionable background. After the meal my friend and I went down to the river and spent a pleasant afternoon canoeing along its surface. If there was anything else one could do in Dole on a date I was unaware of it.

While outside of Lorient I had picked up two souvenirs that I had carried with me since. One was a German helmet which I had tried on and found much more secure on the head and more comfortable than the American helmet. You couldn’t cook or wash in it, however, since the supporting straps were part of the helmet. The American steel helmet came in two parts. There was a so-called helmet liner with an adjustable harness that could be fitted to the head. Then, over the helmet liner one slipped the actual steel helmet. The helmet liner could be and often was worn without the helmet itself as the soldier’s headpiece. My other souvenir was a Schmeisser machine pistol.* This latter was quite interesting. Other than the barrel it was made entirely of pressed rather than machined steel. As a result it looked somewhat flimsy though it felt solid enough and was certainly an effective weapon at close ranges. My Schmeisser was not in very good shape though — it looked as though it might have been run over by a truck and was slightly bent. I decided that it was a nuisance to carry with me around Europe, that it was not a very good example of the Schmeisser, and I had heard that we could not ship automatic weapons back to the US. So I threw it into the river at Dole one day and, presumably, it still rests there. The helmet I eventually shipped back to my family in the US but I never saw it again. I regret losing that — it was a very nice souvenir.

I took one three-day pass to Paris while I was at Dole. I rode there on a leave truck and stayed at the Red Cross. However, left to my own devices to get back to Dole, I

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*This was most likely the MP40 machine pistol, the Nazi weapon of choice in World War II movies. It was erroneously called a Schmeisser by the Americans, although Schmeisser had nothing to do with its design. (ECD)
started out on a Sunday morning by taking the Metro to the outskirts of Paris and then started walking. I didn’t expect to have much trouble getting rides and I was right. I walked an hour or so leaving Paris but it was a beautiful day and I enjoyed the walk, and was eventually picked up by a Frenchman driving an old car. Gasoline for private automobiles had been nearly impossible to get for years and this chap had done what quite a few of his countrymen had done— he had converted his car to run off of carbon monoxide. He had a rather large generator in the back of the car which burned coke. The coke released carbon monoxide which passed into the engine where it was burned to furnish power. At least that has been my understanding of the process. We looked like we belonged on a railroad track and we didn’t go very fast but it sure beat walking. On the level we hummed along very nicely at about forty or fifty kilometers per hour but the slightest grade brought us to a near walking pace. Fortunately the road was fairly level while I was with him. Subsequent rides on various military vehicles brought me back to Dole by the end of the day.

My sojourn in Dole was not to last long. One morning in early August I was in the courtyard of the caserne and a radio was playing in the background. The music was interrupted and I heard an announcement which I only half listened to. Then a phrase brought me up short. “...a bomb of unprecedented power...” and my mind went back sharply to a chemistry lecture at the University of Rochester and the professor’s statement that if the atom could be fissioned it would release enormous amounts of energy. I knew at once what had been accomplished and my heart sank within me. I could only see disaster ahead for the human race. Not even the knowledge that the Japanese must surrender and that we would not be going to the Pacific cheered me up. My fellow soldiers were much more sanguine and they cheered the announcement roundly.

With the end of the war in the Pacific the troops in Europe were being sent back to the US and discharged as rapidly as possible Many were sent back through the so-called “cigarette” camps on an individual basis and many were sent back as complete units. The 118th was full of high point men and was to go back as a unit. But those of us without sufficient points were transferred elsewhere and our places were taken by high pointers from other units. So on 28 September 1945, four of us from the 118th received orders transferring us to “Luxembourg City, Luxembourg” and assigning us to “Luxembourg Leave Center” whatever that might be. We were trucked to Dijon, entrained to Metz, and trucked to Luxembourg City, arriving there on 30 September. I reported to the Executive Officer, a certain Capt. Jack Worrell, of whom more later, who told me that I was to be the Billeting Officer for the Center.

“You have nothing to worry about” he reassured me, “You have two girls there, Mary Ann and Irene, who are quite capable of running the office themselves.” So I jumped into a jeep and was driven a short distance to the Alfa Hotel, directly across from the train station. In an alcove adjacent to the hotel a single room with a couple of desks, some chairs and a telephone served as the Billeting Office for the Luxembourg Leave Center. I met my sergeant and shortly afterwards the two girls
on whom I was to depend came in.

When I saw the first girl, a tall, slightly plump, fresh-faced young thing in pleated skirt and knee socks I thought to myself, “There is the loveliest girl I have ever seen.” We were introduced and, lest the reader think that good manners are unimportant, I must repeat what she told me years later. “What impressed me most when I met you was that you stood up and took your hands out of your pockets when we came in.” That says less, perhaps, about my manners than it does about those of my fellow Americans at that time. The girl’s name was not Mary Ann but Marie-Anne Doos and, within a year, she was to be my wife. And I’ve always called her Mary Ann, though I did learn to pronounce Marie-Anne in the French (and Luxembourg) manner when it was necessary.
CHAPTER 17

Luxembourg Leave Center

With several million Americans in Europe it was obvious that some time must elapse before all of them could be returned to their homes. It had taken years to get them all there and they could not get back in a matter of weeks. So the army went to great lengths to make this interim period of their service bearable. Education programs were opened at some of the European universities and leave was given liberally. However, Europe at that time was a shambles and there was little a soldier could do on leave. So the army opened a number of leave centers of which Luxembourg City was one. Luxembourg was a good choice since the city had suffered very little physical damage from the war, there were a number of good hotels, and the Luxembourgers were very friendly to the Americans who had liberated them from their German oppressors just a few months before. Most of the officers and soldiers came there on three-day passes or short leaves. They would check in at our billeting office, were assigned a hotel and found there a clean room with a bed, a bath and sheets, all incredible luxuries. They were served hot meals at the hotels or at one of several messes and in the evening they could go to any of a number of night clubs taken over by the army where they could eat, drink and be merry as the saying goes.

Most of the American soldiery conducted themselves reasonably well but an unfortunately large percentage of them behaved abominably as they did elsewhere in Europe during and after the war. Many of them regarded all women as fair game and there was nothing subtle about their approach. In fact, I am ashamed to say that the Luxembourg women felt safer on the streets of Luxembourg when the German troops were there than with the Americans. The Germans were under much tighter discipline and were closer to home. The American soldiers on leave in the big cities of the United States were much better behaved than they were in Europe. In any event the Luxembourgers were remarkably tolerant of the actions of the Americans. Part of the reason, I believe, is that almost every Luxembourger made friends with at least one American and found the individual American much better in person than
he appeared to be in the streets of Luxembourg.

In any event the two girls assigned me a room in the Alfa Hotel, next door to my new office. I was stunned when I saw it. It was modern, clean, had a bed with sheets which was made up daily by a maid, and — incredible luxury — had a sparkling private bathroom! Life couldn’t get much better than that. As I soon learned, the hotel dining room had been turned into an officers’ mess where I took my meals.

I was a most conscientious officer but I rapidly discovered that there was very little for me to do in my new position. While there was not enough work for me I also had an assistant, a sergeant, and he was quite capable of handling the routine work. I rapidly learned the job and I reported faithfully to work each morning at an early hour but had a hard time creating the illusion of activity.

We had requisitioned just about all the hotels in the city and they were run by their civilian owners and staffs. They were glad to have a source if income during those months following the end of the war but that didn’t stop them from complaining about everything from the food we issued them to the soldiers we sent as their guests. My two girls would listen to the complaints and try to mollify them. If things became too serious I might get involved but, with one exception, that rarely happened. The owner/manager of the Alfa Hotel was our worst offender and, since I lived there, he would complain directly to me. He seemed to be particularly upset with the cockroaches in his kitchen, something he swore he had never seen before the Americans requisitioned his hotel. Judging by the vehemence of his protestations he may have been telling the truth and I had the kitchen sprayed for him but, according to him, we never eliminated the cockroaches. I never saw a cockroach there and I told him that we had learned to live with them in the United States. This only served to confirm his obvious opinion of the Americans. I’m sure the Germans also had requisitioned his hotel and that he was convinced that they ran things much better. And perhaps they did. The hotel had been used by General Bradley for some months before, during and after the Ardennes offensive and he may also have felt a certain loss of prestige by its present status.

Along that line a friend of mine was helping the Luxembourgers set up an army — they were determined that they were not going to be neutral in the next war — neutrality had had availed them naught during the First and Second World Wars. Some of the young Luxembourger men he was training had served, involuntarily of course, in the German Army and they persisted in letting him know that it was done differently (and always better) in the Wehrmacht. Considering how much the Luxembourgers detested the German occupation and hated having to serve in their army their comments were somewhat surprising. The Luxembourgers’ hatred of things German, though, were primarily directed at the civilian authorities. They had a grudging respect for the German military.

I enjoyed being in the office with the two Luxembourg girls and when they were not too busy we chatted at length. The more I saw of Marie-Anne the more impressed I was with her. She had a soft voice and spoke good English with a distinctively
luxembourg leave center

charming accent. she had no affectations whatsoever but was delightfully natural in everything she said and did. after three or four days i told myself that this seemed to be the girl i had been looking for all my life. but i also thought; no, she is too perfect to be true. she was intelligent, she was honest, she was strikingly beautiful and, incredibly, she appeared to be mildly interested in me! there must be something wrong and i must be cautious. but it was too late. i was in love by the end of the first week.

my cautious courtship began with an invitation to her home for dinner one night. i met her father, mother and two brothers and we had a delicious dinner. i don't remember much about it though it must have been somewhat sparse since food was still quite scarce in luxembourg. but i do remember the soup. i had never had soup like that though i was to have its like many times in the next half century. her mother and her brothers knew a little english but her father, none. so the conversation was in english and french with considerable interpretation on the side. i think i must have made a favorable impression on marie-anne's mother, and her younger brother, edmond, thought that all americans were wonderful. her older brother, fernand, i never quite felt at ease with. her father was friendly but somewhat reserved. all of them probably considered me just another american — i was not the first who had been invited to their home.

a week or so after my arrival the girls informed me that they had a half day off to vote in the elections — luxembourg was and is what might be called a "constitutional duchy." on that day also an american officer, whom they had met before my arrival, appeared and asked them to go with him to the moselle to buy wine for his unit. i felt a slight but perceptible pang of jealousy as they drove off, gaily, in the young officer's vehicle. some hours later they were back in the office, giggling. they had helped the american pick out his wines and had sampled the various choices to make sure he got the best. they then drove to the polls where irene (marie-anne was not yet of voting age) exercised her right of citizenship. unfortunately, the wine had clouded irene's political judgment and she had voted for the wrong candidate. with the aid of the wine they found this hilarious and it was this that they were laughing about. fortunately democracy in the grand duchy survived this lapse of irene's and, from that date, luxembourg began a quick return to peacetime prosperity.

a few weeks after i took over the billeting office i received a call from captain worrell informing me that a general from the chemical warfare service was arriving that afternoon for a short visit and suggesting that i meet him with a jeep and escort him to his billet. it so happened that the commander of the luxembourg leave center, lieutenant colonel newman, was also a chemical warfare officer and wanted, apparently, to make a good impression on this general. unfortunately for him and for me i was not particularly impressed by generals in that branch of service and had something else i felt i should do that afternoon. so i sent my sergeant who, so far as i know took good care of the visiting general. that was not, apparently, what lieutenant colonel newman had in mind and the next day i was relieved from...
my assignment as billeting officer and assigned as Commandant of GI Joe’s #1. For someone who was hoping to be accepted into the regular army that was not how to go about paving the way. In fact, for my service from 1 to 26 October 1945 as Billeting Officer I received a 4.0 Effectiveness Rating, the lowest I ever received. At that time I felt that an officer’s duty was to do his job as well as he could and not to curry favor with his superiors. In fact, I was never quite able to shake that feeling during my entire career and it nearly got me into trouble several times. In retrospect I realize that an officer’s duty is also to obey orders and meeting an arriving general is not really a form of boot-licking or, as the army usually put it, ass-kissing. I had a lot to learn about life and I am not sure that I ever completely learned it.

However, I took my demotion in stride and reported to GI Joe’s #1 the next day. GI Joe’s was a small tent camp set up on the east side of the road from Luxembourg City to Grevenmacher just outside of the village of Berg. Its sole mission was to provide a hot snack for military convoys traveling from Germany to France through Luxembourg, mostly presumably on their way to the cigarette camps in France en route to the US. It had to be able to provide hamburgers and coffee to a thousand soldiers in fifteen minutes with no advance warning and it did. Since this was GI Joe’s #1 I always assumed that there must have been numbers 2 and higher but I never actually heard of any other — perhaps someone decided it was a bad idea. We had about fifty German POWs living there in pyramidal tents and they did all the cooking, washing, etc.; in short, all the work. There were also some dozen American enlisted men to supervise, order supplies, etc. The Americans were billeted in the town of Berg and ate their meals there in a friendly farmhouse.

It was a good assignment for both Germans and Americans. At a time when German POWs were near starvation in France our POWs had all the hamburgers they could eat, just enough work to avoid boredom, and, as usual, friendly relations with their captors. The POWs gave us no trouble at all — quite the contrary. They were excellent workers and highly disciplined. When I would walk into an area where they were working they would all snap to attention and salute. In fact I walked once past a tent atop which a German was working. As I passed by, the German performed the difficult feat of coming to attention and saluting while clinging to the tent pole. If he had been an American GI I would have known that he was showing his contempt for me, the army, or both. But this was quite in character for the Germans. The American soldiers at GI Joe’s also profited from an easy, unstructured military life amongst the very friendly Luxembourg population while they waited for their orders home. Indeed at least two of the enlisted men married Luxembourg girls while I was there.

Insofar as I was concerned this was an even easier assignment than billeting officer — perhaps this was why I was given it. I continued living at the Hotel Alfa and drove my jeep to Berg each morning, inspected the tents and the kitchens, took an occasional meal with the soldiers and then was pretty much on my own for the rest of the day. We were on the pasture of a farm and I was fascinated by the sight of the

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farm dog rounding up the cattle and taking them in to the barn all by himself. I was also there one day when the farmer slaughtered some pigs. How the pigs screamed!

Another afternoon I took a hike by myself into a woods that bordered on the farm. I was always armed when I was on duty — they were prisoners of war, after all. I wore a pistol belt and holster and the .45-caliber pistol that I had appropriated from our squadron intelligence officer after he was shot down over Germany. While walking through the woods I came upon an American helmet that someone had left there, probably during the Ardennes Offensive. It occurred to me that I might test the effectiveness of the helmet that I had, after all, worn under the impression that it would protect me. So I pulled out the pistol, pulled back the slide, released it, and aimed the now loaded and cocked piece at the helmet. I pulled the trigger and there was a sharp crack and a hollow bong, almost simultaneous. Checking the helmet I saw that I had hit it squarely and had put a reasonably sized dent in it but the round had not penetrated. I concluded that the wearer of the helmet would have suffered no ill effects other than the probability of a monstrous headache. For my curiosity I had to clean my pistol that night. That was the first and last time I fired it.

Meanwhile my courtship of Marie-Anne Doos was proceeding in a very satisfactory manner. We went one Sunday to Mondorf and floated around the pond there in a boat. We took late evening walks through the city and its gardens. One night I invited her to go dancing at the Officers’ Club in the Kons Hotel. She had never owned a pair of high heeled shoes but she borrowed a pair of her mother’s and walked and danced in them as gracefully as though she had worn high heels all her life. I would have liked to have spent every evening with her and perhaps she would have been willing were it not for her fear of her father. As it was, one of her father’s acquaintances saw us together in town one day and duly reported having “seen Marie-Anne in the town with an American.” He was not pleased.

I don’t remember proposing to her but after a month we seemed to have developed an understanding that we were going to get married. I do recall telling her, as we sat one evening on a stone step somewhere near her home, about my plans for our future. I told her that I hoped to get a commission in the Regular Army and to make the army my career. Knowing her reluctance to go so far away from her family I mentioned my conviction that the United States would keep troops in Europe for some time in the future and that we could look forward, perhaps, to alternating assignments between the US and Europe. This was more than my version of the old advice to “promise them anything” — I truly believed it. And, indeed, I was half right. We did keep troops there longer than I had any reason to expect. Unfortunately it would be many years before the second half of that prediction would come true.

For some reason I felt an urge to go back to England and take one last look at my old base at Mendlesham, so I applied for a week’s leave. I received orders in the usual quaint military manner, granting me “seven (7) days leave, plus necessary travel time, for the purpose of visiting Great Britain. WP (army talk for ‘will proceed’) fr his station o/a 11 Nov 1945 to Paris, France, rpt upon arrival to 23 Rue de la Paix
This is How it Was

for transportation to Great Britain via Paris-London Boat Train... Two (2) blankets, mess gear and canteen cup will be carried. Travel by rail, Govt motor T, Govt vessel, commercial steamship, and/or belligerent vessel is atzd. TDN.” The boat train had only recently resumed service, the English Channel having been cleared reasonably well of the thousands of mines that had been sown there during the war.

It was a fun trip over. I was able to get a reservation on the boat train so I didn’t have to travel by “belligerent vessel.” I got a room in London at the Red Cross where I didn’t need my “two (2) blankets, mess gear and canteen cup” and I spent a day or so wandering around the city before taking a train to Ipswich. From there I hitch-hiked to Mendlesham and spent an hour or so wandering around my old base, now deserted and in sad disrepair. It seemed incredible that this once bustling base had, in the space of a few months, degenerated into a weed infested collection of ramshackle buildings and rutted roads. I was anticipating nostalgia, I got nothing. Even the ghosts of my dead friends seemed to have forgone their old field.

So, back to Ipswich and aboard the train to London. Now the English trains at that time were quite different from American or Continental trains. The cars were divided into a number of compartments, each sitting about six to eight people, and each with a separate door to the outside of the car as well as a door to the central corridor. At the first stop after Ipswich the door to my compartment opened and two more or less nondescript Englishmen climbed aboard. When the train left the station they began playing a game of cards and shillings and sixpence changed hands as their fortunes varied. I watched them idly, trying to figure out the game which I had never seen before but which was rather simple. After a few minutes one of the — I won’t call them gentlemen for reasons which will become apparent — one of the men asked me if I would like to join them. The game seemed simple enough and the stakes were certainly reasonable so I assented. Well, to make a short story shorter, in a matter of minutes we were playing for pound notes and I was losing every hand. Suddenly it dawned on me that I was being taken. So I told them that they had cleaned me out — I had lost about six pounds — and that I would have to withdraw from the game. In a few minutes we reached our next stop, the two rascals popped out of the compartment and, I have no doubt, jumped aboard the next train, hoping to find another mark, preferably another innocent American with a little more money. To keep this story in perspective the English pound at that time was worth about four dollars so I had lost around twenty-four dollars. However, I had come to England with only about eighty dollars so this little experience had put a good sized dent in my holiday funds. But I charged it up to experience and was grateful that I pulled out as quickly as I had.

A week in London turned out to be more than I really needed, particularly with so little money. So I decided I would kill time constructively and try to earn a few pounds by writing an article for one of the many London newspapers. I borrowed a typewriter from the Red Cross and wrote a brief article describing my impressions of England and the English as I observed them during the war. It was a rather treaclly
article but I had no idea what would appeal to an English editor. Finished in two
days, I walked down to Fleet Street with considerable apprehension and, incredibly,
was ushered in to one of the editors’ offices where I showed him my article. He was
very kind. He told me that this had been done before and far, far better. Thus ended
my newspaper career before it was fairly started.

I took my meals at the Red Cross because they were inexpensive and because
food was still rationed in England. The meat was cut so thin that I could see the
pattern on the dish through it. And brussel sprouts were served at every meal as
the vegetable! No attempt was made to disguise the sprouts — they were boiled and
served dripping wet. I have never cared for them since. Now that I think of it I had
never cared for them before.

I was glad when my visit was over. For some reason that I no longer recall my
departure was delayed for several days — there may have been mines in the Channel.
I took the boat train back to Paris, transferred to the train for Luxembourg at the
Gare de l’Est and was soon back in Luxembourg. I had looked forward to Marie-Anne
meeting me at the station — I arrived about eleven o’clock at night — but she wasn’t
there. She told me later that she had been to meet the train several nights in a row
but I was not on it. So we were both disappointed.

About this time the Luxembourg Leave Center was closed as was GI Joe’s. A
cadre was sent under Lieutenant Colonel Newman to open a new leave center in the
French Alps but I was, not unexpectedly, not among the chosen few. Instead, I was
transferred to Hqs Oise Intermediate Section at Reims, France, a couple of hundred
kilometers from Marie-Anne in Luxembourg, and on 8 December, 1945 I was assigned
to Hqs Command for duty with the Utilities Section there.
CHAPTER 18

Reims, Paris and Bad Neustadt

Reims

Reims was about the size of Luxembourg City but, like all French cities at that time, was a much grimmer place. It had not suffered a great deal physically during the war but had the gray look of all of France then. There seemed to be no stores open, the streets were deserted after dark, there were few other than military vehicles on these streets and, so far as I was concerned there was nothing to do there but work.

I was billeted in a small room in an ancient hotel just a block from the cathedral. My room had a single light hanging from the ceiling with what must have been a 15 watt bulb burning dimly. This poor bulb had trouble casting a shadow and I could not read for any length of time by its light. However, since I had little to read that did not matter greatly. There was an officers club not far from the hotel but I was not interested in going there and drinking. And in the short time I was in Reims I did not get to know any of what the army called the “indigenous” population. After dinner at night I would walk through the dark, deserted streets from the mess to my hotel and this walk took me through the square that held the cathedral. The winter nights were always dark and often foggy and to walk down the street and see that massive old stone building towering into the foggy night would have sent chills through a less impressionable person than I. How much history was looking down upon me!

I reported to the Utilities Officer, a Major Campbell of the Ordnance Service, for duty as Assistant Utilities Officer, a job normally held by an officer from the Corps of Engineers. I don’t know what sort of impression I made on the major but I well remember the impression he made on me. He was an older man, perhaps in his mid-thirties, spoke with a Brooklyn accent, and in a breezy, falsely ingratiating manner. I was prejudiced against both his accent and his manner. However, he was my commanding officer and I didn’t have to love him. He introduced me to the ranking enlisted man in the detachment and then disappeared — this was to be a
This is How it Was

habit of his as I was soon to discover. The sergeant took me around the area and showed me what we had in the way of people and materiel.

Our function was to provide miscellaneous maintenance and engineering services for all the units in the Reims area. To do this we had about a dozen American enlisted men and a hundred or so German prisoners of war. The Americans scheduled and supervised the prisoners who did most of the actual work, very much like GI Joe’s. Both the Americans and the prisoners were skilled craftsmen; carpenters, electricians, painters and such. Our shops were very well equipped and we could handle almost any construction or repair work. Major Campbell and I were the only officers and I soon discovered that I would do all the work though that did not bother me. The reader may ask what did I know about this type of work and the answer is, nothing. But the detachment was functioning quite well under the guidance of the sergeant and I let it continue to do so while I tried to absorb an understanding of our people, organization and activities.

We were located in a complex of buildings that belonged to the family firm of Peiper-Heidseck, a well known bottler and distributor of champagne, the principal product of the Reims area. The firm was trying to reestablish its business after the disruptions of the war and wanted to get this complex back from the Americans. They also wanted to make certain that we didn’t damage their property in the meantime and one of the members of the family was in and out, constantly, checking on his property. He also resorted to the age-old tactic of bribery, with periodic gifts of cases of their best champagne to Major Campbell. At least I considered it bribery and was appalled that Major Campbell would accept these gifts. A bottle of champagne would be a friendly gesture but cases of champagne were a different matter in my mind. I had a conception of the ethical standards that an American officer should hold that was sadly battered in early postwar Europe.

Our German POWs were quite content with their situation and did a good job for us. As an interesting aside on their state of mind at that time, several of them approached me in an attempt to volunteer for the American army to, as they put it, help us invade Russia. German propaganda toward the end of the war had held out hope for the German people that the Anglo-Americans would take advantage of the exhaustion of the Soviets and would invade the Soviet Union. The Germans were astonished that the capitalistic west and the communistic east had joined against them and were convinced that the alliance could never last. Most of the American military, from the lowest private to the highest general, had the same conviction but there was a great deal of wishful thinking at that time in the higher levels of the civilian government and, even more so, in the media. Not that anyone I knew ever considered war with the Soviets. Everyone had their fill of war at that time.
Paris

I was in Reims for only a few months. The Oise Intermediate Section was closed and on 16 January, 1946, Major Campbell and I were transferred to the new Headquarters, Western Base Section of the Theater Service Forces, that had been opened in Paris. There we were again appointed Utilities and Assistant Utilities Officers. In Paris our responsibilities were considerably broadened. We had shop facilities in a large garage located, unbelievably, just a block from the Arc de Triomphe! We were responsible for maintenance of all the American requisitioned real property in the area and for its fire protection. Instead of POWs we had French craftsmen working for us and, again, a dozen or so American enlisted men.

In February Major Campbell recommended that I be promoted to captain, pointing out that I had “16 months in grade as a 1st Lt., or, counting time and a half for overseas duty, 24 months.” This worked its way through channels slowly enough that all promotions were frozen by the time it reached the Commanding General United States Forces, European Theater. It was to be a long time before I would become a captain.

Not long after our arrival in Paris Major Campbell applied for leave in the United States which was granted and he left me in charge. He never returned to our Section. A month or so later I heard that he was back in Paris and facing courts martial for misappropriation of government property. That he had done this came as no surprise to me — that he had been caught at it and was to be court martialed was a surprise. He was perhaps the worst officer I ever served under. In Reims the only time he ever did any work was when the Commander of Hqs Command put in a work order or phoned for some work to be done. Major Campbell would leap to his feet if he happened to be in the office, grab the senior NCO, and head for the headquarters at once. Or, if he was still in his hotel room — he had a mistress and the sergeant knew he could find him there until late most mornings — he would proceed post haste from his room. He was as phony, as the expression goes, as a three dollar bill. He also had the POWs working on private projects for himself. I heard that the courts martial stemmed from his possession of a yacht that the POWs had made for him. That, apparently, was going a little too far. I never heard the results of the courts martial but I never saw him again after he left on leave, and with his departure I became the Utilities Officer in name as well as in fact.

While I was in Reims and in Paris I was able to get to Luxembourg only about once every six weeks. I had a jeep assigned to me in both places and I could probably have gotten leave more often. However, I did not want to abuse the privilege and, with Major Campbell as a shining example I bent over backward to avoid taking what might have been regarded as excessive leaves or passes or using the jeep for trips to Luxembourg, some 346 kilometers from Paris. Years later I heard someone quoted as saying that “No one is completely useless. Even the worst of us can serve as a horrible example.” and Major Campbell sprang instantly to mind. Instead of my jeep.
I would take the train to Luxembourg. This was not the most pleasant train trip at that time. The railroads had not recovered from the long war, there was a shortage of rolling stock, and many of the bridges were temporary and single track. And the railroads were almost the only means of transportation since civilian automobiles and buses had nearly disappeared.

I would leave from the Gare de l'Est on a Thursday or Friday afternoon, piling into a wagon with my musette bag as my only luggage. The train would always be full but I usually got a seat in Paris — almost never when I had left from Reims. I didn’t usually bring any food with me but the other passengers — nearly all French — would have bread, wine, cheese and sausage which they would devour during the trip. The first stop would be Reims where chaos reigned. One or two passengers would leave there, vanishing into the mob of those trying to get on the train. A Frenchman might find a seat in our compartment, then open the window and those outside would pass their friends into the compartment through the window, baggage and all. All this accompanied by a good deal of shouting, gesticulating and blowing of horns. Finally everyone would be aboard, the compartments and aisles filled with standees and baggage, the little engine would toot its whistle and off we would go. Everyone would settle back, look at everyone else suspiciously, and a certain quiet would reign broken only by the clickety-clack of the wheels on the rails. From time to time the train would slow down to a crawl and sometimes stop completely. Not far from the Luxembourg border the train would halt for a while, then back up for several minutes, stop again, then inch forward painfully over a Bailey bridge that had replaced the original bridge blown by the French, the Germans, or, most likely, by both. Once across the border the train would speed up and my thoughts would fly to Marie-Anne, waiting I hoped, at the gare for me to arrive. We would always pull into Luxembourg around eleven at night and I would see Marie-Anne standing there, waiting for me as anxiously, I hoped, as I was for her.

Sometime after (or perhaps before) I left Luxembourg for Reims we became engaged. I am vague about this because it didn’t happen all at once — more by osmosis than by a proposal. It seems now to me that we just gradually came to understand that we would get married. One night I told her I was going to ask her father if I could marry her. It never occurred to me that we might marry without asking him and I am certain it never occurred to her either. But she objected strongly to my saying anything to him yet — she would have to prepare him for what would be a great shock. She was, of course, still only twenty-years old until March of 1946 and, whether true or not, we believed that she couldn’t marry without her parents’ consent before the age of twenty-one.

One night I was having dinner at her house and decided that we had tarried long enough. So I asked him for her hand. He was obviously stunned and began stammering out a number of reasons why she shouldn’t marry. But he didn’t say no. I hadn’t expected him to be delighted or even to give me a definite “yes” or “no,” but I felt that I had at least gotten things moving. I of course went my way then and left...
poor Marie-Anne to face the wrath of her father. He didn’t say a word to her for two weeks. I presume that she and her mother finally talked to M. Doos and convinced him that she was going to marry me and that she could do worse. At our next meeting he was careful to explain to me that he was reluctant to see Marie-Anne marry, not because he had anything against me but that he dreaded her leaving him for such a far-away land. I don’t recall his ever telling me that our marriage had his blessing but at least he did not actively oppose it. So plans began for a wedding to take place after her twenty-first Birthday. We learned years later that he had written to a friend at the Luxembourg embassy in Washington asking him to check on me. I might have been married already, of course, and would not have been the first American to have done so. The reply was satisfactory and M. Doos’ last chance had failed.

I had applied for a commission in the Regular Army and was interviewed by a board of senior officers in Paris. I felt my chances of getting a commission in the Army Air Forces was better than the Infantry since there were so many young Infantry officers with good combat records. So, though I would have preferred Infantry, I put down air force as first choice and infantry second. The interview went satisfactorily as far as I could tell and I returned to work and awaited the results.

Except for my separation from Marie-Anne I enjoyed Paris a great deal. I lived in a hotel on the Champs Elysees whose name I have forgotten and walked to work at our shops near the Etoile.* I took lunch and dinner at an enormous officers’ mess in the nearby Hotel Majestic on Avenue George V that housed Hqs Western Base Section. In running through my records I notice that on 27 April, 1946 I was appointed “Fire Marshal for Headquarters Command in Seine, Seine et Oise, and Seine et Marne Departments…” In this capacity I received bimonthly reports, one of which I saved and quote verbatim:

**TRANSLATION**

**Bi-Montly Report**

**AUBERVILLIERS, 31 August 1946**

Monsieur, LALAZ,

I beg to let you know the under-mentioned facts.

**Intervention**

Yesterday, a false alert took place at the depot, the fire-squadron of the Regiment misunderstood the address.

The squadron of the depot, alerted, have been awaiting for the confirmation of the commandant before leaving. Nothing to signal.

**Material**

The car, which is regularly verified by

*The hotel was the Hotel Jubilé, 125 Champs Elysees. It no longer exists. (ECD)
This is How it Was

the Motor Pool is all right. We are doing every day, the manoeuvre, to keep the men in a good training in their very job.

Clothing

The report "Clothing" claimed by M. SHEEHAN has been established by M. PERGAUD, working as a staff-sergeant.

Mutations

M. FRISSON and GUIOT, are resigned to the end of August.

PAid

VERY IMPORTANT The office of the depot refuses to class M. PERGAUD as a Foreman before handing an official notice. Enclosed, please, find a memo. of M. CHARPENAY, chief of Personnel.

M. PERGAUD, who is the responsible of his own team is very resentless by this state of thing and doesn’t understand the injustice of that.

Hoping that you will be able to manage that, I am, Dear Sir, your faithfully.

L.

I no longer recall how we handled M. PERGAUD’S problem but that is a sample of my monumental responsibilities as Fire Marshal for three French Departments. Actually the position had a certain interest because the French fire departments are so different from those in the United States. The Sapeurs-Pompiers as they are called in French are, as the name implies, part of the French army engineers and the people all have military rank and are under military discipline.

When our shops closed at five in the evening most of our workers would leave with large bags in their hands. These bags contained small scraps of lumber left over from their day’s work. This was a perk that helped us keep good workers who were beginning to be in demand as France started the long and painful process of recovery from the war. I was always a little concerned about how much of this lumber was genuine scrap and how much was artificial scrap but so long as the privilege was not blatantly abused I went along with it. There is an old saying that leadership is in large part knowing what to ignore, and I chose to ignore the probability of some abuse of this custom.

At this time the United Nations was setting up an organization called UNRRA (United Nations Relief and Rehabilitation Agency) and I was approached by a gentleman from our Paris Embassy who offered me a position in that agency. It was tempting. It paid a great deal more than I was making as a first lieutenant, the work would be interesting and useful, and it would have enabled me to remain in Europe for an indefinite time. But I was hoping to make Regular Army and, though
tempted, I turned the offer down. I wondered at the time, and still wonder why they
approached me and, in fact, how they ever heard of me.

While I was in Paris Marie-Anne and her mother paid a brief visit to me and to
relatives there. We went sightseeing together and to the theater one night to see and
hear, No, No Nanette. It was an old American musical play with songs by Vincent
Youmans; a tuneful if frothy affair. One of the songs was a true classic, “Tea for
Two.” Marie-Anne’s mother said that she had seen the same show shortly after the
first World War and, amazingly, at the same theater. I think they both enjoyed their
visit and I know I did.

On 5 July 1946 I received the news that I had been hoping to get — I was
appointed a second lieutenant in the Air Corps of the Regular Army with date of
rank 11 October 1943. My lifelong dream had finally come true. I got a new serial
number, 037936 and I was to retain my temporary rank, such as it was. For the time
being I would remain in my current assignment but I knew that would be temporary.
Best of all, I could tell Marie-Anne’s father that I was now in a position to support a
wife — after a fashion of course — and his last justification for opposing our marriage
had been removed. And Marie-Anne had reached her 21st birthday on March 4th
of that year so her age was no longer an issue. In anticipation of the wedding and
the financial burdens I was assuming I canceled the $137.50 a month that I had been
allotting monthly from my pay for the purchase of so-called war bonds.

By now we had the paperwork for our wedding well under way. Since I was an
officer I did not require command approval as enlisted men did. Once our wedding
date had been set for September 14, I did have to get approval for her to live with
me in Paris and I also applied for and received an extension of my overseas tour to
10 October 1947. I had been put on orders transferring me to Hqs United States Air
Forces Europe in Wiesbaden effective 30 September so I knew that our honeymoon
in Paris was going to be quite brief.

Marie-Anne had her share of paperwork. The US Army would not let her marry
me until she produced papers showing that she had not cooperated with the Nazis
during the occupation of Luxembourg, that she had not been in jail, and that she
was not a prostitute. Both of us also had to prove we had no venereal disease. All
in all the army was a lot pickier about her than I had been. She had to go to her
priest for counseling and he was somewhat negative. Among other questions he asked
was how she knew that I didn’t already have a wife, a question that infuriated her
but was actually rather appropriate in those days. She didn’t know that her father
had already checked on that. Among the documents she obtained to satisfy the army
was a Certificate from the Lycee de Jeune Filles dated 18 October 1945 which stated,
and I translate, “The undersigned certifies that Mademoiselle Marianne DOOS of
Luxembourg was expelled from the Lycee on the 21st of January 1941 for having
manifested anti-German sentiments.” That didn’t really tell the whole story. What
had happened was that she and a friend had hung a pair of gym shorts over the
portrait of Adolf Hitler in the school room, were caught at it and quickly expelled.
This was a very foolhardy exploit because the German authorities had no sense of humor about such things. It could have gotten both Marie-Anne and her family in much trouble and her father, in fact, went to the German authorities in a successful effort to avoid further punishment for Marie-Anne.

I had, of course, written my parents telling them that I was to be married to the most wonderful girl I had ever met and that they would adore her when they finally met. I received a reply from my father stating that they would be unable to attend the wedding since there was still no practical way to travel to Europe as a private person. He concluded with a gentle suggestion that marriage is a difficult adjustment at best and that it would be doubly so for a young girl who would have to move to a strange country far away from family and friends. That was a very accurate prediction and was as close as they came to disapproving of my marriage to a foreign maiden whom they had never met. As I had expected, when they finally met her they accepted her with open arms and hearts.

I was granted ten days leave and took the train to Luxembourg on 11 September, checking in at the Hotel Alfa where I normally stayed when I visited. As the groom I had, of course, no idea what was going on — even less than would usually be the case since I had no family or friends there. Her parents were making all the arrangements and I drifted along in blissful ignorance.

On the morning of the 14th I dressed in my best uniform, green Eisenhower jacket and pink trousers, and walked from the hotel to Marie-Anne’s home. There we got in a hired car [decorated with flowers]* and, with her parents and were driven to the Luxembourg Hotel de Ville or Town Hall where the mayor awaited us in his regalia of office including a tricolored sash thrown diagonally over one shoulder. In front of a few of Marie-Anne’s family’s closest friends the two of us stood before him, I in my uniform and Marie-Anne resplendent in parachute silk and her mother’s shoes, the loveliest bride that Luxembourg had ever seen. The mayor went through the civil ceremony, the only legal marriage ceremony in Luxembourg, conducting it entirely in French save for an aside or two in English just to show me what he could have done if he had so desired. [The ceremony was in French and English.] Luxembourg French being much easier to understand than French French I had a pretty fair idea of the promises we were making to one another though it didn’t really matter. At that time I would have promised anything. As a matter of fact we were married under the Code Napoleon under which the bride was shamefully short changed. As I understood it what was mine was mine and what was hers was also mine. At the proper moment I put the ring that I had purchased along with the engagement ring on her finger and we became one. The mayor then gave us a few brief sentences of advice. What I understood I have long since forgotten. Then back into the cabs and, after a stop at the photographer for the wedding photo, we proceeded to the church not far from my bride’s home. [We were married in the school building, due to the bombing of the church.] As a Protestant I was not allowed to be married before the altar but we

*From this point on Marie-Anne’s words have been added in brackets. (ECD)
again exchanged vows somewhat furtively in one corner of the church and I promised
to raise the children as Catholics. I felt that the priest was marrying me reluctantly
— perhaps he had not yet forgiven the Americans for dropping a bomb on his church
a year or so before. Perhaps he was still not entirely convinced that I had no wife back
in America. And that concluded our weddings, two ceremonies during which I had
only the faintest idea of what I was promising and what I was promised. But I had
great faith in Marie-Anne, a faith that was much more binding than any prenuptial
agreement.

We then returned to Marie-Anne’s home where some fifteen or so friends and rel-
atives joined us for the wedding dinner, prepared by the best cook in Luxembourg —
Marie-Anne’s mother. [Lunch and dinner were made by a hired caterer.] Everything
was done in a grand style with printed menus and the best linen and silverware.
There was wine galore and speeches and toasts in French and English and with a
good deal of Luxembourgisch on the side. And I sat and ate and drank in a daze and
hoping I would not disgrace Marie-Anne in front of all. The wine, of course, made
everyone happy and tolerant and it was a gay and a memorable and, I thought, a
very appropriate dinner.

Around three in the afternoon Marie-Anne went upstairs to change, we said our
goodbyes, and took the cab one last time to the station where we boarded the train
for Metz. After our departure, incidentally, more guests arrived and Mrs. Doos served
still another [catered] dinner. The Doos house was too small to accommodate all the
guests Marie-Anne’s parents had wished to invite at one sitting.

At Metz we were to transfer to the so-called Rapide, a short two car train that
would take us to Paris quickly as the name implied. We had very little time to make
the connection so when our train pulled into the gare I sent Marie-Anne running over
to the Rapide to hold it for us while I staggered over to it burdened down with our
luggage which was not inconsiderable. Apparently a Rapide did not wait for man or
beast because it began to roll while I was still running toward it, Marie-Anne on the
steps of the train frantically urging me on. With visions rolling through my mind
of our honeymoon — Marie-Anne in Paris and I in Metz — I made it to the train,
threw the bags aboard and jumped on myself. It was beginning to dawn on me that
married life was more complicated than bachelorhood.

The train was clean, comfortable and fast, living up to its name. It was dark
outside very shortly and we attempted to amuse ourselves. I pulled a pocket chess
game out of my musette bag and induced Marie-Anne to play. I was not a very
astute husband as yet, if I ever was to be, but I quickly realized that she was not
even slightly interested in playing chess. The lifelong process of getting to know one
another as husband and wife had started.

We pulled into the Gare de l’Est around eleven at night and took a cab to our
hotel, the Hotel Pierre 1er de Serbie which was just off the Champs Elysees on the
street of the same name and was considerably less pretentious than its name. We
were tired — it had been a long day — so we unpacked Marie-Anne’s bags, hung her
This is How it Was

clothes in the closet, and went to bed. Just as we were dropping off to sleep we heard a loud crash in the room — the clothes rack in the closet had collapsed under the weight of Marie-Anne’s clothing. We had a good laugh, closed our eyes and went to sleep, exhausted.

A few days of my leave remained and we spent them wandering around Paris which, despite the war, was still a beautiful if slightly dingy city. We had breakfasts in the hotel and lunches and dinners at one or the other of the the Officers’ Messes in the city. Then I spent a few more days at work, winding up the loose ends of my job while Marie-Anne enjoyed herself. She walked around the city during the days and we went dancing once or twice at an Officers’ Club in the evenings. It was a quiet honeymoon but a pleasant one. But, on 29 September, after a brief sixteen days of married life, I put Marie-Anne on the train to Luxembourg and the next day I left Paris for Wiesbaden in Germany where I reported to Hqs US Air Forces in Europe. There I was further assigned to Hqs XII Tactical Air Command in Bad Kissingen, some 150 kms north and east of Wiesbaden. A jeep came by, I loaded everything I owned in it — in one foot locker and a B-4 bag — and the soldier driver and I started off. Wiesbaden had received remarkably little damage in the war but once outside the city the environs were rubble. The road was full of potholes, most of which had been made by .50-caliber slugs from US fighter bombers, so we proceeded at a reasonable pace. There was remarkably little traffic and nearly all was military. Some 50 or 60 kms outside of Wiesbaden I noticed a 2 1/2 ton truck stopped about a mile ahead of us on our side of the road. My driver continued nonchalantly toward the truck at our modest speed and, as we approached it I began to wonder when he was going to slow down or change lanes. It finally dawned on me that he wasn’t going to do either and I let out a shout of warning just before he plowed into the back of the truck, flinging me into the windshield and banging my knee unmercifully on what passed for an instrument panel in a jeep. The jeep was through for the day as water from the radiator poured out upon the ground. A more senseless accident would be hard to imagine.

I hitched a ride to a nearby unit, leaving the driver to deal with the results of his ineptitude. There I was given another jeep and driver and continued on to Bad Kissingen, nursing my sore knee. Bad Kissingen had been a popular spa or “bad” in Peacetime and had received no wartime damage. Twelfth TAC headquarters was in one of the magnificent hotels and, after reporting I was assigned further to the 4th Tactical Air Communications Squadron or as my orders erroneously called it “4th TAC Communications Sq, AAF Sta Bad Neustadt.” I was to proceed there “without delay and not later than 2400A hours, 9 October.” Since Bad Neustadt was only about 32 kms up the road, this turned out to be quite easy.
4th Tactical Air Command

My unit, 4th TAC for short, had been activated in June of 1942 and had fought the war on the continent as part of the Ninth Air Force. Its mission was to furnish ground-air communications between aircraft of XII Tactical Air Command and Ground Force units. At the war’s end nearly all its people were sent home and the unit remained in limbo until 19 August 1946 when Maj. Chester F. Hawkins was assigned as commanding officer and given two enlisted men to begin reactivating it. The unit’s equipment had been stored for six months in a large warehouse at the kaserne outside Bad Kissingen without care of any kind and exposed to the depredations of any needy units. The vehicles were scattered from one end of Germany to the other. Jeeps were being used as taxis in Bad Kissingen or were out on loan (M/R) to various organizations throughout the theater.

As unit build up began, personnel were transferred to 4th TAC from other units in the area. Commanders took advantage of the opportunity to unload their malcontents and incompetents, a practice hoary with tradition that used to be called “The Old Army Game.” The first seven soldiers came from the station complement squadron at Bad Kissingen — two duty soldiers, four cooks and a rifleman. What was badly needed were automobile mechanics, radio technicians and operators. Three of the seven were soon sent before a board for elimination from the army on the grounds of an unacceptably low AGCT (Army General Classification Test) score. Later additions were to prove the first more or less typical.

On 29 August the 4th TAC was transferred from Bad Kissingen to nearby Bad Neustadt. Bad Neustadt, more properly called Bad Neustadt an der Saale to differentiate it from the other Bad Neustadts in Germany, was a small town of perhaps five-thousand souls at that time and quite undamaged from the war. Some 32 kms north and east of Bad Kissingen, it was also a mere 22 kms from what we called the “Russian Zone” or officially the “Soviet Zone of Occupation,” and what eventually became communist East Germany. The 4th TAC joined the 438th Signal Construction Battalion and a small unit of the newly organized Constabulary, already in place. The army had taken over an area outside of the town proper that had been used by Siemens to house workers from its nearby factory, then closed. Both units were billeted in comfortable homes there. The whole was surrounded by a barbed wire fence which may have been there before our arrival but which kept the Germans out and, more importantly, helped keep our men in.

A motor pool was quickly organized and work began on locating and bringing in the unit’s vehicles. The squadron was authorized a total of 104 jeeps and trucks. Those that had not been “borrowed” by other units had been stored outside in the mud of the Kissingen kaserne and had obviously been used for parts by other units. Batteries, plugs, lights, tops, seats, wipers and windshields were missing and it was a major job just to get the vehicles to Bad Neustadt. Miraculously, the unit received some excellent mechanics — almost the only people working in their proper MOS.
(Military Occupational Specialty). Within a couple of months most of the vehicles had been overhauled and painted and were more or less serviceable.

I reported for duty to Major Hawkins, the Squadron Commander, who had ended the war in one of 4th TAC’s sister units and was the only person with air-ground communication experience. He was a reserve officer, a graduate of Texas A&M and not rated. None of our people, in fact, were rated — we were all ground types. He was a few years older than I, had played football at A&M, and was a fairly rough character. But he was the type of man that soldiers responded to and respected and was a good leader. Capt. Buzzell, who arrived shortly before I did, was the adjutant and there was one other officer. On 4 November, Capt. Buzzell published a Squadron Special Order No 11 appointing, “By Order of Major Hawkins,” himself As Adjutant, with “additional duties of: Fire Marshall, Ground Safety Officer, Postal Officer, Personnel Officer, Personal Affairs Officer.” On the same order I was given primary duty of Supply Officer with “additional duties of: Information & Education Officer, Training Officer, Venereal Disease Control Officer, and Historical Officer.” These duties were required by regulation but I doubt it was envisioned that two officers would have to fill them all.

I met the supply sergeant and his assistant and saw a mound of equipment piled together in the center of the supply room. The sergeant had made no effort to inventory it — he had problems enough keeping the unit in clothing, bedding, and administrative supplies. So I set out to try to find out what we had and, eventually, to requisition missing items. For 4th TAC to fulfill its mission the furnishing of ground-air communications between infantry and artillery and XII TAC’s fighters and fighter-bombers we were supposed to be able to field 18 jeeps in which were mounted radio equipment used for that purpose. The radios were quite familiar to me being the same radios we had used in our B-24s and B-17s. When in action each jeep carried a driver and a liaison officer. Usually the liaison officer would be a pilot on temporary duty so that he had a very good understanding of what the aircraft could and could not do.

The CO soon accepted that he was not going to get the trained radio, teletype and telephone technicians he needed so he set up makeshift squadron school and took advantage of school facilities elsewhere. By the end of November there were 19 men training as radio operators in the squadron school, 5 men taking on-the-job training in the squadron radio shop and 5 men attending a radio school in Bad Kissingen.

During November we were reminded sharply of our unit shortcomings. An Air Corps C-53 had crash landed in the Alps and a call came to 4th TAC to furnish a radio jeep with operators to be flown to where the rescue party was trying to contact and reach the aircraft. We managed to get one jeep and associated radios in operating condition but the squadron commander had to go as operator and an additional operator and mechanic were furnished by another unit. For a unit that was supposed to be able to furnish 18 such vehicles with equipment and crews it was certainly a feeble effort!
Reims, Paris and Bad Neustadt

By this time it had become clear that the army was to be in Germany for a long time and it had begun bringing officers’ dependents to Germany wherever housing existed. And, even though Marie-Anne was a scant two- to three-hundred miles away, I had to apply through channels, as though she were coming from the US, to have her join me at Bad Neustadt where we had, fortunately, excellent housing in our little compound. And on November 25, 1946 I received a set of orders “authorizing and inviting her to proceed by the most direct and usually traveled route” to the so-called Military Community of Bad Kissingen of which Bad Neustadt formed a part. The orders did not say that I could use military transportation to go get her but Capt. Buzzell issued me Letter Orders No. 6 directing me to “proceed o/a 13 December 1946 from 4th TAC Sqdn., Bad Neustadt, Germany to Luxembourg on TDY, for a period of approximately four (4) days, for the purpose of securing supplies for the 4th TAC Sqdn.” The supplies in this case were my wife and her personal belongings. So off I went driving a squadron jeep to Luxembourg where I was overjoyed to see once again my dear wife.

We spent a day packing Marie-Anne’s things including all of our wedding gifts and all her clothes. [Some presents had to be left behind until our departure for the U.S. The rest were sent on by Marie-Anne’s parents.] All this we loaded onto the back seat of the jeep and, on a bitter cold December morning Marie-Anne bade a tearful farewell to her parents and brothers and we left. After a minute of sobbing, Marie-Anne, always resilient, put her past behind her and joined me in looking forward eagerly, if somewhat nervously, to our future. At Wasserbillig we crossed the Sure into Germany on a Bailey Bridge still marked “You are entering Germany courtesy of the XXth Engineer Bn.” Then down the left bank of the Moselle, through the abandoned Siegfried Line to Trier in the French Occupation Zone where we crossed the Moselle. From Trier we took a tortuous road through the mountainous forest to Hermeskeil and then Simmern. It was bitter cold and the driving had become treacherous. We slid off the road once when we hit what the Germans call glatteis, the French verglas and we call “black ice.” It is very common in Europe where it is caused by fog freezing on the road. It is invisible and so slippery one can not walk on it. By then also the cold in the open jeep had penetrated to our bones and we both began to feel an overwhelming need to relieve ourselves, a need that became so intolerable that we could think of nothing else. So I finally stopped our jeep in the forest and, despite the bitter cold, we managed to doff enough clothing to find the relief we so desperately needed. Back in the jeep, where we could then concentrate our minds on how cold we were, we proceeded to the Rhine at Bingen, drove along its banks to Mainz where we crossed and then through Weisbaden to Frankfurt. There, miserable with cold and the renewed need to urinate, we found an American Red Cross installation where we found relief, something to eat and drink, partially thawed out and left. Frankfurt was rather badly damaged but Hanau, a good sized suburb of Frankfort, had been completely destroyed. On either side of the roads which had been cleared completely there were piles of stone rubble, all that was left of Hanau. From
there the road led directly to Fulda where we turned right and took the picturesque road through Bischofsheim to Bad Neustadt. Arriving, completely frozen, we each spent a half hour in a hot tub trying to thaw out but neither of us felt truly warm until the next day. We have often talked of that drive and both of us agree that we have never been so cold and so miserable since.
CHAPTER 19

With Marie-Anne in Bad Neustadt

And so began married life in our first home. Our new home was an apartment in a two family house, 21 Hedwig-Fichtel-Strasse, Bad Neustadt an der Saale. The house, typical German construction with gray slate roof and stucco siding, was inside our military compound. We had the upstairs apartment which consisted of a bedroom, sitting room, kitchen and bathroom all arranged around a coke- or coal-fed stove which heated all rooms. It was bright and clean and quite modern for the time — probably built just a year or two before the war. We had two servants, a man whom we shared with other officers and a young woman who served as our maid. The man tended the stoves and did odd jobs around the apartments. The young woman helped Marie-Anne with the house cleaning and with the laundry. We purchased a scrubbing board — most people today have never seen one of those — and the two of them spent a good deal of time doing all of our laundry by hand. The German economy was in a shambles and it was US policy at that time to furnish work for the Germans.

Marie-Anne adopted naturally the role of housewife toward which she had been raised. She did most of the cooking but she labored under certain constraints. The greatest stemmed from the Soviet control of the electrical power which, for our area, was generated in the Soviet Zone. Due to a shortage of fuel and, probably, incompetent Soviet management, the electrical power was turned off each day at 0700 and on again at 1800 hours plus an hour for lunch. Our stove was electric so this meant that she could not begin cooking dinner until after 1800 hours. All of our groceries had to be purchased at the newly opened military commissary in Bad Kissingen since German agriculture was struggling hard just to feed the Germans. Farming was largely horse-drawn and the German army had requisitioned and lost most of the horses in the country. The Wehrmacht, contrary to popular opinion then and now, had depended primarily upon horses for transportation throughout the war. A not uncommon sight at that time was to see a farmer plowing his field behind the family cow, its udders swinging back and forth as she pulled the plow. There was a military
bus which ran from Bad Neustadt to Bad Kissingen one day a week. The officers’ wives piled into it and bounced their way there and back for the week’s provisions. These were mostly canned and many of the American canned and boxed items were complete mysteries to Marie-Anne.

Fortunately there was an officers’ mess where the single and unaccompanied officers ate three meals per day. The cooks were German and the meals were good and extremely inexpensive so we took advantage of the mess for at least one meal nearly every day. But, being newly married, I enjoyed Marie-Anne’s cooking and I guess she felt that it was her responsibility as well as good practice, so we normally ate at home. I believed when I married her that I was getting a splendid cook and didn’t learn until long after that she did very little of the cooking at her home. Perhaps my standards at that time were a wee bit low but I thought from the first meal she prepared for me that she was a great cook. As my standards rose over the years I never found any reason to change my mind.

Unfortunately I had been suffering from a skin problem for over a year. Our flight surgeon in the 34th Bomb Group treated me for scabies which only made it worse. Then he thought I might be allergic to the wool uniforms we wore which, considering that I had hoped to make the military my career, would have been bad news indeed. For a few weeks he had me wearing my cotton khaki summer uniform. I can’t recall why I even had a couple of sets of cotton khakis since everyone in England wore wool, summer and winter. This made me uncomfortably conspicuous around the base but didn’t help much otherwise. Symptoms were spasmodic, localized rashes and itching that worsened during the winter and pretty much disappeared the rest of the year.

Now, not long after bringing Marie-Anne to Bad Neustadt it became so bad that on 6 January 1947 our local doctor sent me to the military hospital in Wurzburg. There they kept me for three weeks, treated me with baking soda baths and sent me back to duty on 29 January with the diagnosis of “Tinia circinata, all extremities, moderate, acute.” It was not until I went to a civilian doctor in Boston in 1950 that I got a correct diagnosis — dry skin aggravated by the low humidity indoors in the winter. He prescribed oiling the skin and taking fewer baths and, whenever it became particularly bad, the local use of cortisone, then a rather new drug. With that knowledge I had no serious further difficulty with it for the remainder of my life.

Newly married life was not the easiest thing in the world for Marie-Anne. She was introduced to a world that was completely different from that in which she had been raised. She was lonely — all of her friends were elsewhere and the other officers’ wives were older than she, had nothing in common with her, and treated her with a certain condescension and suspicion. There was a feeling, not uncommon among Americans, that the European girls were marrying American men to get a free ticket to the United States. So, like the suspicion with which I was regarded by many male Luxembourgers, Marie-Anne was meeting the same attitude from many female Americans. American women at that time felt a certain resentment that so many of the soldiers were returning home with foreign brides. Finally, I am sure, there
was a certain amount of jealousy from the older women of this very attractive young Luxembourger. And I was not as much help to her as I could have been. She was alone mornings and afternoons though we did always have lunch together. One or two afternoons a week our units had what the army called “PT” for physical training. In the summer this consisted usually of softball games which I loved to play. But Marie-Anne found it difficult to see why I would not spend those afternoons with her and my explanations that these were military activities were not very convincing.

Our evenings together were quiet. We bought a little radio and listened to Armed Forces Network programs. There was a library in Bad Kissingen and we were able to find books there that we enjoyed. We had the use of a jeep and we took an occasional ride in the country. And we enjoyed hiking — the countryside there was beautiful and little damaged by war. I had purchased a small .32-caliber automatic pistol in Luxembourg which I carried for protection during our excursions in the country. I taught Marie-Anne how to shoot this but I don’t think she really enjoyed shooting. On one of our walks we came upon a tiny fawn lying in the wood and obviously dying. His eyes were covered with flies as he looked up at us hopelessly. I fired two rounds into his chest and he died quickly, his torments done. The small-caliber pistol did not even leave a recognizable hole where it entered. I couldn’t help but remember the horse I had seen put down in the Philippines with a .45-caliber pistol which left a hole in him as big as my fist.

There was also a small officers’ club in the town of Bad Neustadt with a bar and a dance floor and we would go there about one night a week and dance to the music of the small German orchestra. All the dozen or so officers in Bad Neustadt would be there with their wives or girl friends. And there I learned one of my first lessons in married life. I left Marie-Anne alone at a table one evening while I danced with someone else. When I returned she was furious. “You don’t leave your wife alone like that!” My lame but honest excuse was that we were such a small group where everyone knew everyone else that it hardly occurred to me that I was leaving her alone. I learned later that she did not want to dance with some of the other officers. They had been drinking and their dancing was offensive to her. Most of the officers of the 438th Signal Construction Bn were a rough group, many of whom had been enlisted men before the war, and some of their wives were not much better. And there was a lot of drinking.

Speaking of drinking, we had a young military physician attached to our units who had, of course, almost nothing to do. Like most military doctors he was wild to get back to the US and begin or resume his civilian practice. One evening, at our weekly dance, he had a guest, another young physician from Bad Kissingen, who had just received orders for home. He was celebrating by trying to consume all the alcohol at the bar. We saw him chug-a-lug Coca-Cola glasses full of straight whiskey. After scarcely an hour of this he suddenly stood up, leaned against the wall, went stiff and passed out. I had never seen such a reaction. Our doctor had him taken to our dispensary and spent the rest of the night trying to keep his friend alive. Fortunately
he succeeded.

On 2 April 1947 I took seven days leave and we drove a jeep to Luxembourg for a brief visit with Marie-Anne’s family. My orders contained a sentence in French stating that “L’officier et sa femme sont autorises d’entrer en Luxembourg pour visiter Luxembourg,” presumably to expedite our border crossings. Most of the remainder of the leave order was concerned with all the things the government would not spend money on — “transportation outside of Germany, per diem, transportation costs” and outside the occupied zones, “no US Army messing, billeting or other facilities” and “the bearer will not request any commander to provide such facilities.” In other words they washed their hands of us once we left Germany. We returned to Bad Neustadt with the few possessions we had not been able to take on our December trip. Upon my return I found that the squadron was to be deactivated, our commanding officer, Major Hawkins had left, and I was, in addition to my other duties, squadron adjutant in place of Captain Buzzell who became commanding officer. Others of my official duties were Community Air Inspector, Community Information & Education Officer, Community Auditing and Inventory Officer, Squadron Training Officer, Squadron Investigating Officer, and I was still Squadron Supply Officer. The squadron was left with just two officers, myself and Captain Buzzell.

On 15 May the squadron was deactivated and I was transferred to the 438th Signal Construction Bn., the only other unit in Bad Neustadt. On that same date I transferred all the property and property records for the 4th TACS to Bad Kissingen Air Base together with a painstakingly composed letter attempting to justify the condition of the property and records. These were, as I claimed, 100% better than the condition in which they were received but were far from perfect. I must have made my case because I never heard anything further about them.

By June I knew that I would be leaving for the ZI (Zone of the Interior-militareze for the US) soon so on 11 June we left on a four day leave to visit Luxembourg once more so Marie-Anne could bid her parents farewell. This time I received an entire set of orders in French and the same disclaimers of any responsibility for us while we were in Luxembourg. Again we drove a unit jeep and the brief leave was clouded by the knowledge that Marie-Anne would not see her home and parents again soon if ever. There were tears on both sides. While I did not know it until much later, Marie-Anne’s father took her aside and told her not to come running back home if married life became difficult unless it was my fault. That left the door a wee bit open.
CHAPTER 20

Back to the United States

On 13 June 1947 I received a set of what was called “Invitational Travel Orders” authorizing “Mrs. Marie Anne Dukes (Alien) age 22” to travel to the US. Then on 14 July I received orders relieving me from duty with the 438th and in late July Marie-Anne and I left Bad Kissingen on a troop train for Bremerhaven. There we spent a couple of days processing and then boarded a small troop transport and sailed for the US some three years and three months after I had arrived in Europe. What an eventful three years those had been for me!

That ocean voyage is a dim memory.* I bunked with several other officers at one end of the ship and Marie-Anne was in a large stateroom at the other end with twenty or so other so-called “war brides” though the army never used that expression. The army variously referred to her over the years as “alien,” “dependent” or “spouse.” Fortunately the term “significant other” had not been invented then. Unfortunately, all or nearly all of her cabinmates were German and Marie-Anne at that time did not find it easy to be friendly with Germans. We saw one another during the day at various times. The accommodations were spartan, there were no deck chairs, no amusements and the meals were so forgettable that I cannot recall how or how often we ate. From time to time the public address system would call for the “Paper Clips” to do something or go somewhere. We soon learned that Operation Paper Clip was an American program for bringing German scientists and their families to the US. The “Paper Clips” on our ship were mostly wives and children of those scientists and engineers.

We were on the ship around ten days, arriving at New York on August 7, 1947.† We were bussed to Camp Kilmer where we spent a day being processed, getting orders assigning me to the 316th Troop Carrier Wing, Greenville Army Air Base, Greenville,

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*The transport was the USS General Willard A. Holbrook commissioned as the Buckeye State in 1921, renamed the President Taft in 1922, and the Holbrook in 1941. She was 14,124 gross tons, length 535 ft. beam 72 ft. (ECD)
†The USS Willard A. Holbrook sailed from Bremerhaven on July 26 and arrived in New York (Staten Island) on August 5 according to the New York Times Shipping Mails. (ECD)
South Carolina and granting me 45-days delay en route (leave).* The next day we took a train from New York to Washington. Both of us had only winter clothes with us and I in my wool uniform and she in her wool skirt arrived in Washington hot, sweaty and exhausted. It was not a good introduction for poor Marie-Anne to the United States.

My brother who was now a physician, a radiologist in the Public Health Service and assigned to the Marine Hospital in Baltimore, met us at the station and drove us to the home that my parents had purchased — the first home they had ever owned — at 3209 Porter St. NW just off Connecticut Avenue. With him was his wife, Jerry, and his twin babies, Donna and Diana, darling identical twins. My father had retired at the end of the war but had been recalled to active duty and was absent on a one year tour of duty in Korea. My mother was living alone in their home, a nice two story stucco duplex on a shaded, hilly street, probably built in the 1920s. It was not, of course, air conditioned, very few homes were before 1960, and was often stifling hot at night. Marie-Anne, unused to the heat and humidity of summertime Washington (who ever did get used to it?) suffered a good deal.

Once we were settled and she got to know my mother, we passed the days as best we could. When my father had left for Korea he had given his car to my brother so that my mother was dependent upon the good public transportation system in Washington at that time and help from friends. As an aside I should point out that no cars had been built in the US during the war and for some time after. Everyone in the country wanted a new automobile and the manufacturers couldn’t begin to meet the demand. So we would take the bus on Connecticut Avenue to downtown and visit the museums on the mall. The Mellon Gallery was a favorite since it was air conditioned and such a relief from the heat outside. The staff must have thought us true lovers of art. One or two evenings we went out to dinner, either alone or with my mother. Hard as it is to believe now, there were not many restaurants in Washington in those days and one reason was that people could not afford to eat out more than occasionally. There was a beautiful Roman Catholic church not far from our home and Marie-Anne and I went there for mass Sundays. Thus began a custom that continued for our lifetime of my accompanying her to her church.†

Shortly before we left Washington my father returned from Korea and was retired once again from the army; this time for good. We were tiring of Washington and anxious to get settled so I cut my leave short, we bade farewell to my parents, and took the train to Greenville, South Carolina in early September. Our arrival there was very discouraging. Not only had no automobiles been built during the war but very little housing had been built since the start of the Depression in 1929. As a result

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*Camp Kilmer, two miles east of New Brunswick, NJ, and twenty miles south of New York, was the main processing center for the principle ports on the Eastern Seaboard during the Second World War. (ECD)
†Franklin and Marie-Anne’s children were all baptized and brought up in the Catholic faith. On December 27, 1992 Franklin converted to that same faith, much to Maire-Anne’s delight. (ECD)
there was an enormous demand for housing throughout the country. To meet this demand during and for years after the war anything that could possibly be occupied was converted to rental housing. The military, being transient, was at the end of the line for rentals.

On our arrival we checked the newspaper looking for a room where we could stay while we looked for more permanent quarters. We took a cab to a likely address and were ushered into a dingy room by a dingy landlady. It was not very clean and the sheets looked dirty but we needed a place so we agreed to rent it for $10 a week. When we left to get something to eat, and needing something to lift our spirits, we went to the only hotel in Greenville, The Poinsetta, a surprisingly nice hotel, where we had a delightful meal. Our spirits were still low and I hated the thought of Marie-Anne living in that room. Marie-Anne was in the throes of culture shock already and that appeared to me to be the last straw. So I told her, “We can’t afford it but let’s get a room in this hotel if we can while we are looking for a decent place.” We could and we did. I returned to the dingy room, told the landlady that we had changed our mind, picked up our scanty luggage, and joined Marie-Anne at the hotel. For the rest of our lives together we economized on many things but seldom on a place to lay our heads.

After a few days at the hotel we found a small room in a home owned by a woman and her daughter where we could afford to stay while we looked for an apartment. There were almost no rentals advertised but we finally found one where a lady had converted two rooms, a small kitchen and a porch to an apartment in her home. It was in an old but nice section of town and the landlady was pleasant and friendly. Unfortunately it was right on the highway and on a corner with a traffic light. The bedroom was really the porch and all night long big trucks would stop at the red light, then start on their way again with a clashing of gears and roar of engines. However, there are few things to which one cannot grow accustomed and we soon managed to sleep more or less soundly throughout the night. The rent of $105 a month seems low now but it represented about a third of our monthly income at that time.

On 27 July President Truman had signed the National Security Act of 1947 which was supposed to unify the armed services of the United States. Before unification we had the army and the navy competing for funding. After unification we had army, navy and air force competing. The navy kept its army (the Marine Corps) and its own air arm. Several years later the army managed to wangle its own air arm. These were not necessarily bad developments but unification it was not. For the time being nothing much changed visibly at our low level anyway. We still wore army uniforms but I was no longer in the army but in The United States Air Force.

Greenville AAB (which soon became Greenville AFB) was home to the 316th Troop Carrier Wing and I was assigned to Squadron A of the 316th Airdrome Group, the support group for the wing. I was immediately placed on special duty for five weeks for the purpose of attending the Interim Officers Training Course on base. I wasn’t certain just what an “Interim Officer” was, but soon concluded that the Air
Corps really meant an “Officers Interim Training Course.” In five weeks they hoped to give us sufficient information to carry out our duties properly until we would be able to attend one of the Air Corps formal schools. While at school I was appointed Commanding Officer of Squadron A. Two days later I was relieved as Commanding Officer and appointed Message Center Cryptographic Officer with additional duty as Base Signal Officer. I completed the course on 6 November 1947 and, I note in my files, graduated 1st of 26 students. Upon graduation I was then relieved from all my assignments with the 316th and reassigned to the Co. B of the 934th Signal Battalion as company supply officer.

The mission of the 934th was to furnish ground communications for headquarters of 12th Tactical Air Command. We had about half of our authorized strength in officers and enlisted men with a mixture of Signal Corps and Air Corps officers. Company B was commanded by a reserve captain, Captain Milton Johnson, considerably older than I. My supply sergeant was an old regular army enlisted man not, unfortunately, very knowledgeable about supply and, in particular, about supply of communications equipment. Neither was I, of course. He was also, like many of the old army, an alcoholic. The army was paid once a month in those days and he would disappear after pay day from time to time. He was technically AWOL (Absent without leave) but the old army was tolerant of the old timers who were within a year or so of retirement and I felt the same way so we overlooked his occasional binges. The enlisted men were not a bad lot and we had a very good first sergeant. The first sergeant had been an enlisted man before the war and had been commissioned an officer during the war. At the war’s end he, like many others in his situation, had been given a choice of getting out of the service or of reverting to enlisted status with rank of Master Sergeant or First Sergeant. He chose the latter. Many who took that course were unable to cope with the change in rank and status and became problems for the air force. But he made the change gracefully.

I still had, at that time, the .45-caliber pistol that I had appropriated from my hutmate, Lieutenant Blevins, when he was shot down over Germany. I had carried it through the rest of the war but the war had been over for some time now and my conscience told me that it belonged to Uncle Sam and not to me even though it had long since been written off by Uncle. So, reluctantly, I turned it in to base supply which picked it up on the books. Then, just a few months later, my supply sergeant told me that we were missing a pistol from our arms room. We had pistols, carbines and rifles which were stored under lock and key in the company arms room of our supply hut. There was no way to know what had happened to it. The supply sergeant and I were the only ones with a key to the room and I suppose the odds were that one of us had taken it. I wrote a Report of Survey on it, the only way to drop a piece of equipment from the books, but it was disapproved and the cost of the pistol was taken out of my pay check for the following month. I think it was around forty dollars, a not inconsiderable sum for a 1st lieutenant drawing around three-hundred dollars a month. The irony of it did not escape me.
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The military was still trying to get untangled from the mess left by the rapid demobilization, and President Truman’s Secretary of War was hell bent on paring it to the bone — the usual post war situation for the United States. There were petty economies — so little gasoline was authorized that supply officers had to pick up supplies with their own cars. Flight time for aircrews was so restricted that proficiency began to fall to dangerous levels. I spent most of my time trying to inventory our communications equipment — some of it fairly sophisticated for the time — and requisition the many, many missing items. This was a futile effort and we received very little that we requested. I began to feel that I was back in 4th TAC again.

Meanwhile Marie-Anne and I were looking for an automobile, a depressing task. New cars were unavailable unless you knew a dealer personally or were an old customer. So we looked at used cars. We finally decided on a 1936 Ford Model A coupe. It had a so-called rumble seat, a folding seat where the trunk would normally be, was powered by a V-8 engine, and looked pretty good on the outside. We paid $700 for it, approximately what it had cost new in 1936. For a comparison the seven year old 1929 model A Ford that my brother and I had owned in high school we had purchased for $20. This eleven-year-old car was costing us $700! The nation’s used car dealers were in flivver heaven those days. The clutch chattered but the car ran. I used it to go back and forth to the base, and we would go for an occasional drive into the mountains on weekends. It had no heater but the floor had mostly rusted out and the heat from the engine coming through the floor kept us reasonably warm. Unfortunately we could not turn that off when summer came.

Marie-Anne had become pregnant, the first of four unplanned pregnancies. There was a base hospital but it could only handle a few new pregnancies each month so we were forced to seek a civilian obstetrician. We found one who was highly recommended by our landlady and he agreed to provide prenatal care and to deliver the baby for $100, his usual charge. When she, Joanne, arrived we both agreed she was worth every penny of it.

The winter of 1947–48 we led a very quiet life. Evenings we would read or I would work on an article I was writing on my wartime experience in Fontainebleau for the Infantry Journal. Like most people I had the idea that I had a talent for writing and my experience in London had not completely disillusioned me. But, with a certain amount of time on my hands I decided to cast about for an idea for another article and decided my Fontainebleau experience might serve as the basis for an amusing piece. I struggled with it for at least six months and as many revisions before sending it to the Journal to which I still subscribed. I couldn’t get the infantry completely out of my blood. To my astonishment it was accepted and I received a check for a hundred dollars, a princely sum for us at that time. They cut one item out of it but illustrated it and printed it otherwise without editing.* Looking at it now it seems

*The Infantry Journal was not an official publication of the US Army. It published articles by some of the most renowned military and non-military men of the time: S.L.A. Marshall, Dwight 203
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quite juvenile. However it was obvious to me that writing was a much more painful
and time consuming process than I had imagined and I never again had enough free
time to try. I am still astonished that reporters and columnists can write daily articles
over periods of months and years.

For entertainment we sometimes played bridge with a pilot from the 316th Wing
and his young Belgian wife. He had left the Air Corps at the end of the war and,
with the money he had saved during the war he began “playing the stock market”
as it was called in those days. Quickly losing everything he had saved he applied
for active duty and was recalled. Unfortunately for him he was a good bridge player
while his poor young wife had no bridge sense whatsoever. Every time we played he
would struggle to control his emotions as his wife made blunder after blunder. His
efforts to correct her would rapidly bring her near to tears. Marie-Anne and I had
the most rudimentary notions of how to play but we enjoyed the games, both of our
opponents were quite nice people, and Marie-Anne felt a certain affinity toward the
young Belgian girl.

In addition we tried to go out to eat at the Poinsetta Hotel once every couple
of months and to the officers’ club for the monthly dances. That was all we could
afford. Marie-Anne fixed my breakfasts and dinners as she struggled to learn how
to cook with the foods she could find and afford at the commissary. Shopping with
her once I saw a can of tacos, something I had not had since a child on the border.
I bought it and asked her to prepare it for me. I expected a spicy Mexican dinner.
Poor Marie-Anne had not the faintest idea what tacos were, how to prepare them or
what to serve with them. So, following the instructions on the can, she fried them in
oil and served them to me as my dinner. That was it — fried tacos, period. Somehow
I had expected her to perform a miracle and to serve me a Mexican meal. I had only
the vaguest idea of what happened in a kitchen at that time, and, I confess, I never
made any great effort to find out. Craig still speaks of the time when he and I were
alone at home and I asked him if one cooked the potatoes before or after mashing
them. Apparently that was considered a stupid question.

Joanne was due sometime in April or May but Marie-Anne was having problems
with her blood pressure. The obstetrician decided that he would induce labor, he
did at eight o’clock at night and after ten-hours of labor Joanne was brought forth
from her exhausted mother in a breech delivery. I spent a few hours off and on in
the labor room with Marie-Anne but the sight of her suffering was more than I could
bear and I left early, went home and to bed. Husbands were barely tolerated in the
labor room, were banned from the delivery room, and in those days were glad of it.
Marie-Anne spent a couple of days in the hospital recovering and learning how to
care for her infant. When she returned home my mother was there for a few weeks
to help. As with all her children Marie-Anne nursed Joanne from the beginning. My

D. Eisenhower, McGeorge Bundy, and Joseph Stilwell were featured authors in the 1948 edition.
Franklin’s article, “When I was in the Infantry…” can be found in the August 1948 issue, on page
4. It is reproduced in appendix ??.
mother’s gift to us on the birth of Joanne was a bed for her. This was a very special sort of baby bed. It was called a “Kiddie Koop,” was made of wood and completely covered with screening. It had a screened top that was normally swung down out of the way but could be raised to bar reptiles and insects. The spring and mattress had two convenient levels and the whole unit, while rather large, would fold into a package that would fit atop a car. Both I and my brother had been raised in Kiddie Koops and my mother said there was nothing like them. She was right. They had kept us both from the cockroaches and mosquitoes of the Texas border and over the next decade we were to start our four children in my mother’s gift.*

Meanwhile, I was conscious of the importance of a college degree to a career officer and I was not happy about my lack of one. The air force was concerned about the large number of officers integrated into the air force at the end of the war who lacked college degrees — a much greater proportion than in the army. So it began a program of offering these officers the opportunity to spend up to two years at either a civilian institution or the air force’s own Institute of Technology to complete their education. I applied for the program and in January 1948 took the General Educational Development test from the Armed Forces Institute. I landed in the 99th percentile which, with my record at the University of Rochester, gave me considerable hope that I would be accepted. But I had no idea when that might be.

In late August of 1948, Tactical Air Command held a field exercise code named Operation COMBINE III at Eglin Air Force Base in Florida. Companies A and B of the 934th Signal Bn were to provide Hqs TAC with ground communications, our normal wartime mission. Since we didn’t have sufficient personnel or equipment to do this there was a shifting of people within the battalion and we drew new equipment from base supply. Then, leaving Marie-Anne alone with her baby, I left in a jeep with the convoy for Eglin. Our destination was satellite field #2. Eglin was and is an enormous base covering hundreds of square miles of sand and swamp and, in addition to the main airfield, there were some nine so-called auxiliary fields scattered around the reservation. We arrived there on the second day, erected the tents which were to be our quarters, and began putting in a switchboard and telephone and teletype systems for the headquarters which was beginning to arrive. We put up telephone poles, strung miles of cable and wire and set up a large switchboard in a Jamesway shelter, a sort of a portable, canvas and wood, Nissan hut. We were supposed to operate with our TO&E (Table of Organization & Equipment) people and equipment but we were short of everything. I spent a good deal of my time going back and forth to base supply at Eglin to draw equipment to supplement our own and was rewarded by a dressing down from Hqs TAC for not being available at the switchboard when a problem arose there. Such is life for a lieutenant.

Once we had everything in place there was not a great deal to do as Operation

*Franklin and Marie-Anne kept the Kiddie Koop throughout the years and gave it to Franklin III and Linda when they had their first child, Jesse, who in turn gave it to my family when we had our first child, Sarah. By then, however, it was in bad shape and we deposed it. (ECD)
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Combine III went on. We had problems of course. The soil there was mostly sand and there were thunderstorms nearly daily which affected our land lines, sometimes severely. Once, while thunderheads were in the area I saw the switchboard operators scrambling out of their Jamesway. They swore that a ball of fire had appeared suddenly over the switchboard and it probably did. There were some very odd atmospheric effects in that part of Florida.

I shared a wall tent with Captain Johnson, my commanding officer. He was about ten-years older than I, a reserve officer, he smoked and he liked to drink though in all fairness I never saw him under the influence of alcohol. But he kept a bottle next to his bed and early every morning, while still in bed, I would hear a glug-glug as he took his morning whiskey. Then he would begin to cough and that would go on and on as we arose and dressed. Finally, the coughing would cease and he was a perfectly normal and agreeable person the rest of the day. I was glad that I drank little and did not smoke.

Captain Johnson and the Commanding Officer of A Company had rented a house at Fort Walton Beach, a very small community right on the Gulf of Mexico, and brought their families down from Greenville. They invited me to bring Marie-Anne and Joanne to join them. So, I caught a C-82 from Eglin to Greenville, loaded Marie-Anne and Joanne in our old Ford, tied Joanne’s Kiddie Koop in the rumble seat and started south. Marie-Anne sat beside me and Joanne had a little bed on the deck under the window just behind our heads. Joanne had been weaned from the breast by then and was taking a mixture of condensed milk and water from the bottle. It was not simple in those days to travel with an infant. The medical profession believed that the bottles and rubber nipples had to be sterilized by boiling and the water had to be boiled before mixing with the milk. So every morning when we were traveling we had to sterilize a half dozen bottles and fill them with the mixture of milk and boiled water. Then we had to keep them cool in the car until they were ready for use, and heat them to the appropriate temperature when the time came to feed Joanne.

There were no expressways in those days — all roads were two lanes and passed through the main street of every town, small and large. And every town had twenty-five miles per hour speed limits and several traffic lights so at best we could average about thirty miles an hour. It was still summer and our Ford had a tendency to overheat. When it did it was prone to what was called a “vapor lock” which would cut off the flow of gas to the engine. The only remedy was to get a push and if that didn’t work, to wait for the engine to cool. So long as we were driving in the country or through small towns we were fine. But when we arrived in Atlanta and were slowed to a crawl in the center of the city the temperature gauge began to creep up. It was hot outside, the heat from the car’s engine coming through the floor boards made it hotter inside, Joanne was hot and uncomfortable and fussing; we were hot and uncomfortable and fussing, and every time we stopped in traffic I expected the car to stall. Sure enough, in the center of the city, both wheels on the street car rails, the car quit. In a moment a street car was behind us clanging its bell. In desperation
I jumped out, ran to the conductor and asked him to push us. He did and as we moved along, pushed by the trolley, I could only think that it doesn’t get much worse than this — being pushed through the city of Atlanta by a street car! Fortunately the engine caught and we made it out of the city. After that we had no large cities and all went well.

On the second day we arrived at Fort Walton Beach and Marie-Anne and Joanne joined the other two wives and their small children in the house, overlooking the sandy white beach and the Gulf of Mexico. They were there for a couple of weeks with we husbands joining them on weekends. They sunned themselves and enjoyed the pristine and lonely beach and the clean gulf water. The only negative was the drinking water. It came from a well and smelled incredibly of sulfur. We were told it was not a health hazard but when one almost had to hold one’s nose when taking a shower we were not completely convinced. Of course bottled water was not available in those days so we had to drink it. To make it at all tolerable we drank it as iced tea but the sulfur still overpowered the tea. After two weeks Mrs. Hullet left and Captain Johnson’s wife and child and Marie-Anne and Joanne moved into another rental in Niceville, a thoroughly misnamed town just outside of Eglin and no longer on the beach, and there they stayed until the end of Operation COMBINE a few weeks later. We were wonderfully mobile in those days.

A portion of our operation involved a so-called firepower demonstration before the assembled classes from various service schools and a number of high civilian officials from the War and Navy Departments. Most memorable was a paratrooper drop by the 316th Troop Carrier Wing. I would guess that they dropped a regiment of paratroopers. As they streamed out of the C-82s and the parachutes popped open we saw, with horror, one trooper plunging toward the ground with no open chute. Just before he would have hit his chute popped open and seconds later he hit the ground. I watched him jump up, disengage his parachute, and trot over to where his unit was assembling, apparently completely unconcerned. They made it look routine but I knew that nearly every unit jump resulted in sprains and broken limbs at best. It was no job for sissies.

After demonstrations of strafing and napalm and bomb drops we were treated to the sight of a B-36 approaching the field at a couple of thousand feet altitude. The B-36 was a relatively new aircraft and was designed to be able to fly to Moscow and back without refueling. It was an enormous aircraft, the largest American bomber ever. As it approached the target area it began dropping 500 pound bombs, one every half second. The plane flew across the field, majestically, with those big bombs dropping, one after another, for what seemed an eternity and what must have been at least half a minute. It seemed as though it would never run out of bombs. Of course it was a completely unrealistic scenario, the aircraft would never be used in that manner, but it was a vivid demonstration of the enormous bomb load the plane could carry. The B-36 was a dead end, however, a dinosaur. It was too big and too complicated and it did not remain long in the inventory.
A few weeks later the operation came to an end, we pulled out all our wires, struck our tents and Companies A and B of the 934th returned to Greenville. I did not go back with the convoy but took Marie-Anne and Joanne back in the Ford. The weather was cooler and the car passed through Atlanta uneventfully this time.

Christmas of 1948 we were to spend with my parents in Washington. The night before our departure we attended a party at the home of Captain and Mrs. Johnson. Alcoholic drinks were served as was very much the custom. Marie-Anne and I drank very seldom and I had no particular favorite so I accepted the gin and tonic that he was serving. As the evening wore on I had one other. Two turned out to be one too many — I staggered out to the car in Marie-Anne’s arms, feeling terrible. My stomach was bloated, my head reeling and my legs rubbery. We got me into the car and, with Marie-Anne’s help I was able to drive the mercifully short distance to our own home. There Marie-Anne got me into bed somehow and I spent a fitful night. The next morning when I tried to arise I couldn’t — the room was spinning around in a sickening manner. We were supposed to leave at nine in the morning — we finally got started at four in the afternoon. That was the only time in my life I have ever been inebriated. Happy, yes, but never totally drunk. It was an experience I never wanted repeated. I learned later from one of the other officers that Captain Johnson had made my drink nearly straight gin from some misguided attempt at humor. I have heard of happy drunks, maudlin drunks, aggressive drunks, and various other types but I was best described as a miserable drunk.

After the First World War every army unit had to have an officer designated as the unit chemical warfare officer. Now we were in the nuclear age and it was deemed necessary that every unit also have a so-called radiological defense officer. I was selected to fill that function for the 934th. So on 25 February 1949 we piled the Kiddie Koop into the rumble seat again and off we all went to Keesler AFB, Mississippi just outside of Biloxi where I was to attend the six-week Radiological Defense Course. We found a decent motel room with cooking facilities in Biloxi and right on the gulf. Indeed, when the wind and the tide were both up the water would lap right at our doorstep.

This was a very pleasant interlude for the three of us. The weather was delightful at that time of year, the course was interesting but not too time consuming, and we had time to drive around and sightsee. I would drive into the base in the morning and be back at the motel by mid afternoon. Marie-Anne could take Joanne for a morning stroll along the sidewalk paralleling the beach. One afternoon we were driving through Biloxi when Marie-Anne called out, “Stop!” She had spotted a couple she recognized. Incredibly the officer was Captain Worrell, the former adjutant at Luxembourg Leave Center, and the woman with him was a Luxembourg friend of Marie-Anne’s, Marianne Schwartgen. We knew that they had been very close friends in Luxembourg but Captain Worrell had had a wife back home. However, we learned that his marriage had been terminated and the two of them were now husband and wife. The girls were delighted to see one another and their companionship made the
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remained of our stay in Biloxi even more pleasant. Captain Worrell had returned to college after the war and then had applied for and been recalled to active duty as a reserve officer. Our paths were to cross again and again in the future.

As I said, the course was very interesting. We learned some of the fundamentals of nuclear weapons, their thermal, blast and radiological effects, how to detect and measure the radiation, and how to predict and plot the radioactive fallout. In six weeks we absorbed a lot of information and I left quite confident of my ability to fill the function of Radiological Defense Officer.

We had hardly returned to Greenville when I was put on orders to attend the Air Tactical School at Tyndall AFB, Florida. This was the lowest of the three professional schools for air force officers. The next higher was the Air Command and Staff College and the highest level was the Air War College. All company grade (captain and below) regular officers were supposed to attend the Air Tactical School; the other schools were progressively more selective and for higher ranking officers. So on the 25th of April we loaded up the Kiddie Koop again and headed for Tyndall which was located not far from Panama City. We found a small, sparsely furnished rental house on the gulf in an area called Mexico Beach, across the coastal highway from a sandy white beach and the gulf and about fifteen miles east of the base.

The house had two bedrooms, a large sitting room and a small kitchen, was of typical cinder-block construction with tile floors, and had a swamp behind it. The swamp, we soon discovered had alligators whose beady eyes just above the water level were all that was usually visible. Marie-Anne would find an occasional snake underfoot when she hung the hand washed laundry on the line outside. We spent the next seventeen weeks in an uneasy truce with the alligators and the snakes. Our more immediate problem was the discovery that the previous occupants must have owned a dog. The morning after we moved in we discovered flea bites all over Joanne after she crawled around the floor. Fortunately there were no rugs so we purchased a can of insect spray and a mop, mopped the entire house with the liquid spray, swept up the dead fleas, and never had any further problems.

Mexico Beach stretched for a couple of miles along the coastal highway. It was not a town but a development, or rather, a would-be development. There were only four or five houses there, two of them were occupied by classmates of mine and their families, and we essentially had the entire beach to ourselves. While I was at school Marie-Anne could take Joanne out to the beach — about a hundred yards across the highway — and sunbathe and play in the sand. Of course she was busy most of the day — all the laundry had to be done by hand and she prepared breakfast and dinner for all of us.

While we were there we both agreed it was time for Marie-Anne to learn to drive a car. It was an ideal place for her to learn since there was very little traffic and a number of places we could go with no traffic at all. Our Ford was not an ideal car to learn in. It had a manual transmission of course and, unfortunately, a clutch that chattered if it was not released with exquisite care. I taught her the way my father
had taught me. She sat at the wheel and I shouted at her. Actually I’ve always believed that I was very patient but she has seemed to feel otherwise. In any event my lessons were spasmodic and, in fact, she did not actually get her driver’s license until a year later in Boston.

The two other officer students who lived with their families on Mexico Beach were Major Turner, a fighter pilot, and a captain who was a navigator. Both were not only higher ranking than I but were also drawing flying pay — fifty percent of base pay at that time. (Incidentally, my own pay and allowances at that time as a first lieutenant were $338.00 a month. In October, however, this would be upped to $413.00 in a big pay raise for all the military.) Both officers had new cars — Major Turner a new Buick Roadmaster convertible which was one of the first of the huge American automobiles of the 1950s. I usually drove my Ford to the base each day but rode with one of them from time to time. The highway paralleled the beach most of the way to the base, there was very little traffic, and most mornings I would count from three to ten snakes on the road, crushed by cars as they lay on the warm pavement trying to get their blood stirring. It was snake heaven. On one side of the road was the beach and on the other, swamps and underbrush. There was very little construction.

The school was a first rate educational experience. The military educational system was (and is) head and shoulders above any civilian system. All the instructors were excellent and all were meticulously prepared. Every class was interesting and we were never bored. The curriculum covered everything a junior officer should know — writing, speaking, leadership, organization of the military, missions and equipment of the various services, etc. The seventeen weeks went by rapidly and we enjoyed our beach life.

As spring turned into summer the weather turned hot and, of course, there was no home air conditioning in those days. But there was usually a breeze off the gulf in the evenings and it was never too hot to sleep as it often was in Washington. Our bed was under a screened window which was always open in the evenings to catch the evening breeze. Unfortunately the screen had a hole in it and one evening we had gone to bed, just turned off the light when a slimy object landed squarely on my chest. I leapt into the air with a scream, we turned the light on and I discovered a frog had jumped through the hole in the screen and landed on me. We did live close to nature there. Once again we blessed my mother for giving us the Kiddie Koop which closed completely at night and kept insects and rodents well away from Joanne.

I graduated from the school on 19 August 1949. However, while I was at Tyndall the 934th had been transferred to Pope Air Force Base, North Carolina, a surprisingly sensible move since its mission was to furnish ground communications to Hqs Tactical Air Command which was at Pope. And I had received orders dated 1 July 1949 transferring me to Sandia Base, Albuquerque, New Mexico with a reporting date of 2 Sept 1949. So we drove back to Greenville, packed our few belongings, bade farewell to our very nice landlady and headed north for Washington to spend a few days with my parents and, very importantly, to pick up a new 1949 Chevrolet Coupe which my
father had been able to purchase for me from a friendly dealer in Westminster, Md. En route we spent one night at Fort Bragg which was adjacent to Pope AFB. To save money we stayed at the Visiting Officers Quarters, a big mistake. It was August, it was hot and humid, there was no air conditioning of course, and the enlisted men’s club, right across the street, was holding a dance, the music blaring out until the wee hours of the night. We slept very little and did not much enjoy the sleep we had.

We spent a few days with my parents in Washington where my father turned the new car over to me and I gave him title to our old Ford to dispose of as he would. I believe the Chevrolet cost $1600, he gave me credit for $400 which was the value of the car he had given my brother, and I paid him $100 a month until the remaining $1200 had been paid off. Every car we ever purchased after that we paid cash. At that time he also cashed the War Bonds that I had purchased during the war in his and my name. These amounted to around $3400 with which we opened a bank account in Albuquerque when we arrived. That $3400 was sacrosanct — we rarely touched it but it was important to us that it was there if we ever needed it. We had many military friends who lived from one monthly pay check to the next, eating hamburger the last few days of each month. We never had to do that. It was a great feeling to have that money available if we needed it and it never diminished much over the years. it also never increased much over the years.
Albuquerque and Boston

Albuquerque: Radiological Defense Training

In late August of 1949 we put the Kiddie Koop on the top of our brand new 1949 Chevrolet coupe, bade farewell to my parents, and started off for Albuquerque with the pleasure and confidence that comes with one’s first new automobile. We drove west over the mountains along old Route 40, across Ohio and then Indiana. At that time, hard as it is to believe now, Route 40 across Indiana was still paved with bricks! Then we headed south through Tulsa and Oklahoma City. We stayed at motels along the way. These were far fewer and much less reliable than today. We ate at restaurants which were also far fewer than today. We soon learned to avoid motels with signs advertising “MODERN CABINS” as these were invariably anything but. We also learned not to stop at restaurants with the sign “EAT” proudly displayed. And, of course, we had to be careful to stop at motels for whites and not those for blacks. Usually the motels for blacks would be identified as “Colored” but not always. There were not many of those and it must have been quite difficult for those few black families who could afford a car to travel by automobile. Motel and restaurant chains were either rare or non existent so every stop was something of a gamble. Joanne was by then off the formula and drinking milk and eating soft food. But, when we arrived in Texas, we had trouble finding pasteurized milk for her. Apparently pasteurization was not yet required in Texas.

If my memory serves me, what is now Interstate Route 40 from Amarillo through Albuquerque was then the famous Route 66. A two-lane road, it went through rather drab desert country made much worse by the incredible number of large billboards that lined the highway, completely spoiling what views there could have been of the desert and the mountains. When the interstate highway system was started under President Eisenhower a gallant attempt was made to outlaw such blights but over the years they have crept back and will, undoubtedly, continue to get worse.

Arriving in Albuquerque we found a motel room on the east-west highway through
the city. At first glance the principal east-west street through town, Route 66, seemed mostly motels. A second glance confirmed that impression. I reported in and was told to find a place to live while they filed my application for a so-called “Q Clearance.” After a week or so in a second-class motel we found a small unfurnished apartment, newly built, over a two car garage, on the northeastern outskirts of the city. It had one bedroom, a living room, a kitchen and a bathroom. It had no air conditioning, although for the first time in my life, I was in an area where many private homes had air conditioning. It was evaporative air conditioning, but it worked well in that dry climate and is still the usual type of air conditioning in the Southwest.

I drew some cots and bedding from base supply and we moved in. Our personal belongings arrived within a few days but these consisted of clothing, a card table with chairs, kitchen utensils, a radio and bedding. We agreed that the time had come to purchase some furniture so we repaired to the largest furniture store in town and purchased a double bed with bookcase headboard, two chests of drawers, a rocker, a coffee table and a sofa. These were all in white oak in what they called Franciscan style, were locally made and done quite well. They were not inexpensive and we paid cash for them, the first rewards of my thrift during the war. Once the furniture was delivered we felt we really had a home of our own (rented of course) for the first time. We enjoyed being in a new home and we retained a fondness for new houses (as well as new cars) for the rest of our lives.

At that time Albuquerque was beginning an explosive growth that has never ceased. Our home was on the northeast edge of the city which was expanding north and east towards Sandia Mountain, still miles away. Beyond us was the desert and the road past our home was unpaved. Thus, when the wind blew, as it often did, we were enveloped in dust. More than once, Marie-Anne was caught by a dust storm with the laundry on the line outside and it had to be rewashed. The dust would blow into the house somehow and we would have to sweep it up out of the bathtub under the bathroom window. This says as much about the construction of the house as it does about the climate. The dust and the dry air bothered both of us and we suffered from nose bleeds and itching skin.

As of 2 Sept. 1949 I had been assigned to Detachment B, The Special Reporting Group for duty as a student. My course was to be the Radiological Defense Course which was a four-month extension of the course I had completed at Keesler. I was then destined for one of the so-called Aviation Squadrons which maintained and assembled nuclear weapons for the Strategic Air Command. Anyone involved with these had to have a “Q Clearance,” and until my clearance came through I could do nothing. So for the next month or so I would drive to Sandia Base, report to the orderly room, then with one or two other officers who shared my predicament I would go to the Officers Club for a cup of coffee and a donut and then back home. I should point out that Sandia Base was a more or less secret installation and was involved in all sorts of activities connected with the nuclear weapons programs of all the services. At that time the services were still paranoid about any references to nuclear weapons. The Air
Force unit on base, for example, was called the “1100th Special Reporting Group,” and the nuclear weapons squadrons were entitled “Aviation Squadrons.” Nuclear weapons were never referred to as such but always as “special weapons.” The bombs themselves were referred to as “devices” or “gadgets.”

On 13 October 1949, I was assigned to one of the newly-formed units, the 570th Aviation Squadron. The squadron, which was still awaiting personnel, was slated eventually to proceed from Sandia to join a SAC unit at Rapid City, South Dakota. The supply officer of the squadron was Captain Worrell. He and Marieanne Worrell, whom we had last seen in Biloxi, had preceded us to Albuquerque and we were delighted to see them once again. They were renting a nice home not far from us and we got together from time to time for dinner at the Officers Club or for dinner and bridge at one or the other of our homes. We had no baby sitter so Joanne accompanied us to most places, though there was a base nursery where we could take her when we went to the club. One Sunday we drove to Santa Fe, the capital of New Mexico, but then a very small and sleepy western town. From Santa Fe we drove to Los Alamos, a pretty site in the mountain pines.

On November 4, 1949 I was awarded a new primary specialty of 7332, Radiological Officer. And after several months of tedious inactivity my clearance finally came through and sometime before Christmas, I began the course, a student once again. This course was specifically directed at training officers as Radiological Defense Officers in the Aviation Squadrons which were being activated at Sandia, one after another, as more nuclear bombs became available to the Strategic Air Command Groups. The course was a mixture of basic nuclear physics, bomb physics, a little meteorology as applicable to fallout patterns, and radiation detection instrumentation. We studied the theory of the fission bombs and of the three nuclear radiations; alpha, beta and gamma. We spent a lot of time on the theory and circuits of and in actually using the radiation detectors common then; ionization chambers and geiger counters. It was a good course and interesting. We worked in pairs in the laboratory. We were told that the policy was for no more than two people to work together. When they tried three men teams the third became a wanderer and with four there was also a disturber.

One weekend we joined the Worrells in their new Nash for a drive to El Paso. The road, a two-lane highway, paralleled the Rio Grande most of the way and passed through Las Cruces, not much of a town at that time. Of course we wanted to go into Juarez in Mexico but we ran into a small problem at the border. Neither of our wives were American citizens and upon inquiring we learned that they could cross into Mexico with no trouble but that returning to the US might pose a problem. Normally the American border people would simply ask where you were born and then pass you through if you said United States. But, if you were not a citizen then you could not reenter the US but would have to petition for readmission with results and delays uncertain. We agonized — the girls wanted to see Mexico and they could, of course, when returning simply have replied that they were born in the US.
if their accents betrayed them and they were asked to show proof they might have spent a long time in Mexico. We made the inevitable decision to leave them at the motel while Captain Worrell and I drove into Juarez. We did a little shopping for the girls and returned to the motel and two not very happy wives.

Then occurred another of those seemingly random events that was to divert my career once again. I was called to headquarters and interviewed by two civilians from a company that had received a contract to take part in forthcoming series of tests of nuclear bombs. They wanted to have some military people assigned to them in Boston to augment their own small organization. They were looking for people with backgrounds in the nuclear program and photography. I was interviewed and asked if I would like to join them if selected. It sounded much more interesting in every respect than Rapid City and I quickly volunteered.

On Wednesday, 8 February I received word that the company that had interviewed me wanted me. When I received my orders the word, “Germeshausen” caught my eye first and my heart stood still for a moment. “My God,” I thought, “They’re sending us to Germany!” Looking closer I saw that I was assigned to Hqs USAF Central Control Group, Washington, DC for duty with Joint Task Force Three (Task Group 3.1) with duty station at Edgerton, Germeshausen and Grier Company, 160 Brookline Ave., Boston, Mass. where I was to report on 24 February. My school was not to end until the 17th but I made arrangements to finish on the 10th, cleared the base the same day, the packers and movers arrived the next day, making quick work of our meager belongings. Everything we owned fitted on the tail gate of the big North American van. That night we spent with the Worrells and the next morning they gave us breakfast, we loaded up Joanne’s Kiddie-Koop once again in our ’49 Chevrolet and left Albuquerque for Boston in a blinding snowstorm. We crept through the pass east of the city and then made good time in the open highway beyond, though it snowed off and on throughout the rest of the day.

Our drive east was uneventful. We spent the first night in Amarillo then all day driving through Texas, bypassing Ft. Worth and Dallas and stopped just short of Shreveport. My comment at the time was that Texas was like Alice in Wonderland. One had to drive ever so hard to remain in one place. We were driving 400 to 450 miles a day and, in those days before the interstate highway system, it was tiring. We crossed the Mississippi at Vicksburg, then to Atlanta and through Greenville. We arrived at my parents home in Washington late in the evening of 16 February, exhausted. My orders had authorized me what the Air Force called a “delay en route” which was charged as leave. I actually had a couple of non chargeable days of leave since I was given travel time from Albuquerque to Boston based on 250 miles per day, the standard allowance for travel by automobile, and we were able to average considerably better than that.

We spent the next six days in Washington, resting. The second day we drove to Baltimore where my brother was stationed with the Public Health Service at the Marine Hospital there. My mother was with them as my brother’s wife, Jerry, was
having an apparent miscarriage. Another day we drove to Westminster where we were overwhelmed by aunts and uncles, nieces and cousins. While in Washington we saw a movie, had a little reunion with Captain Buzzell who was stationed at Andrews Field, and enjoyed a Chinese dinner at Ruby Foo’s in town.

**Boston: EG&G**

On 23 February we left for Boston, enjoying a pleasant and rapid drive up Route 1 until we left New York. The Merritt Parkway had icy spots and, after one or two skids we turned off and spent the night in Bridgeport rather than continuing on to New Haven. We arrived in Boston in the early afternoon of the next day, I reported in to EG&G and we found a room in a shabby hotel with cooking facilities in downtown Boston. The next morning we checked the papers for rentals but these were very, very few. What we could afford was depressing, what we liked was way beyond our means. We looked seriously at a big old waterfront house in Revere that looked as though it was about to fall into the water but couldn’t bring ourselves to make a commitment like that. We drove out to Lincoln to see a house in that upscale, country like suburb, that was offered for rent by an elderly lady. The house was old but in good condition, the surroundings beautiful and the rent reasonable. But when she found out that I was military she was not interested in renting to us. That was a big disappointment as we felt the house would be ideal. However, within four days we had found a suitable apartment in an apartment complex in Arlington. It was quite new, each building had two upstairs and two downstairs apartments, and there was a storage cubicle in the basement. There was a play area in the court and across the street the city of Arlington had an immense wading pool. My comment at the time was “moved to our new apartment today with both Marie-Anne and Joanne suffering from the grippe. It is rather depressing to move into an empty apartment with newspapers strewn over the floor and hollow footsteps echoing behind you whenever you move. And with a sick family and your household goods — somewhere — it is much worse. However, getting out of that gritty dirty apartment in Boston is such a relief to us all that with all its disadvantages we are very pleased to be here.” The next day a miracle occurred — our household goods arrived! Perfect timing.

Over the next ten days we were all ill, Joanne with a fever of 104, but I was given a week to get settled and we spent it in and out of bed. It was not until March 13 that I actually went to work, still very weak. Illnesses were to plague us all for several more months.

EG&G turned out to be a very interesting company. They had their offices and laboratories at 160 Brookline Avenue in Boston, about a half hour drive for me through the city of Cambridge. Fenway Park, the home of the Boston Red Sox, then and now, was just a half block down the street. Once or twice during the next few years I took an afternoon off and went to a ball game. EG&G had been founded as a partnership in 1931 by two MIT professors, Drs. Edgerton and Germeshausen, and a
colleague, Herb Grier, to work on electronic flash and stroboscopes. During the war they developed and produced very large and powerful electronic flash units which were used for night photography from aircraft as an alternative to flares. Later in the war the nuclear weapons project, the so called Manhattan District, commandeered the Boston factory manufacturing those units and converted it to the manufacturing of the weapon firing sets. At the end of the war Grier, who had been involved as a consultant in the design of these, accepted a contract at MIT to redesign the hastily conceived wartime sets.

In the summer of 1947 Los Alamos began planning a series of weapons tests to be held at Eniwetok atoll in the Marshall Islands and asked the MIT partnership if they would design special firing assemblies for these tests. When they agreed they were asked if they would also design, produce and operate a system of signals to actuate the unmanned instrumentation at the test site. The MIT director of research programs balked, saying that MIT was trying to get out of military research, not into it. He suggested to Grier that he and his partners form a corporation to take over the government business. Edgerton and Germeshausen didn’t care much one way or the other, but Grier thought it was a great idea, so the corporation of Edgerton, Germeshausen & Grier, Inc. was formed. Since Grier was the project director he became president and Chief executive officer, Edgerton, who wanted no business responsibilities, became the chairman of the board, and Germeshausen was vice president and treasurer.*

Dr. Edgerton or “Doc” was renowned as the inventor of the electronic flash for high speed photography and for exploiting it with remarkable photos of water drops, exploding balloons, speeding bullets, etc. He was an active professor at MIT, he had no airs, was somewhat of a tinkerer, and enjoyed projecting the image of a tinkerer. From time to time he would drop by the EG&G building, chat with everyone from the guards to the the military, ask what we were doing, and offer advice. He became involved in several projects while I was there, most of which had little or nothing to do with the company’s business. A few years later he became very interested in underwater photography and, tragically, his only son perished diving on the wreck of the “Andrea Doria.” I drove over to Tech one day with Doc to look for a site on top of one of the buildings that we could use to check distortion on the K-cameras (Air Force still cameras used in photo recon and for mapping — they used nine inch roll film). I mentioned that we were having trouble meeting some of the requirements for the photo work. “Let’s have no more of that kind of talk” he grinned. “If there is trouble meeting the requirements, damn it, let’s change the requirements!” That sounded like the old saw, “If the bridge is too low don’t raise the bridge, lower the river!” He seemed serious, though with him it was sometimes hard to be sure.

Dr. Germeshausen was the developer of the hydrogen thyratron which played an important role in radar and in triggering the atomic bombs. He was a rather serious,
colorless individual who looked and acted the part of the professor and, while he was
much more visible than Doc, I was never quite sure what his function was in the
company. But Herb Grier ran the company and so far as we could see made all the
decisions. He was the only one of the three who devoted full time to EG&G.

Chief engineer was Barney O’Keefe who had been deeply involved in engineering
the first nuclear weapons during the war as a navy ensign at Los Alamos. He went
to Tinian from which the B-29s flew with the two atomic bombs that were dropped
on Japan. There he was one of a small group who assembled the Nagasaki bomb, the
so-called “Fat Man.” He was scheduled to be the weaponeer aboard the B-29 that
would be dropping the third bomb which, fortunately, was not necessary. When the
Japanese surrendered a week or so later he was sent to Japan with a small group
of scientists to learn what he could about any Japanese nuclear weapons program.
They rapidly learned that there was none. He was smart and very practical, and had
the respect of everyone at EG&G. Years later he became Chairman of the Board
and Chief Executive Officer of EG&G after it had expanded from a partnership to
a large corporation, listed on the New York Stock Exchange, and with thousands of
employees. But when I joined EG&G it consisted of some fifty people: engineers,
technicians, and administrative, and I eventually knew all of them.

When I joined EG&G, nuclear weapons testing was still in its infancy. In July of
1946 the United States had conducted a highly publicized and spectacular series of
two tests against warships at Bikini atoll code named CROSSROADS. One had been
an air drop and the second an underwater explosion. Then in April of 1948 three
tower tests of new weapon designs had been held at Eniwetok atoll. Code named
SANDSTONE and shrouded in secrecy, these were the first heavily instrumented tests
since Trinity.

My first day at work I met an army captain Hale Mason who had been brought
aboard for the same reasons as I. The next morning he took me over to MIT to pick
up an oscilloscope and he introduced me to Dr. Edgerton. Then at noon an old duck
who looked slightly familiar dropped by my cubbyhole and chatted with me for five
minutes. It wasn’t until after he left that I realized it was Dr. Edgerton! Even then
I had a great memory for faces — I just couldn’t associate them with names.

My job at EG&G was still undefined so I helped Mason with his work. EG&G was
developing a very short exposure camera with an electro-optical shutter using crossed
polaroids. The first polarizer cut out the vertically polarized portion of the incom-
ing light and the second polarizer the horizontally polarized portion. A brief voltage
pulse rotated the plane of polarization of the light as it passed between the polarizers,
thus permitting it to pass briefly through the second polarizer. The exposure would
be just a few microseconds and the camera was to be used to get high-definition still
photographs of the fireball from the nuclear detonations during the first few microsec-
onds after detonation. Our problem was that the polarizers were not 100% effective.
Thus the intense light coming from the fireball after the desired microsecond exposure
would leak through the crossed polaroids and ruin the picture. So, a mechanical cap-
ping shutter was to be used. But that could not close rapidly enough — it would take around 100 microseconds — so we were experimenting with a shutter that consisted of two flat glass plates sandwiching a grid of fine lead wires. A high voltage pulse through the lead wires vaporized them, depositing the lead on the glass, serving as a rapidly closing shutter. We were testing these using a powerful electronic flash to simulate light from the bomb. Doc Edgerton told us that he had tried using dynamite caps and powdered graphite as a capping shutter — and succeeded only in blowing several holes in the lab walls.

Joanne was a sweet and delightful little child but kept us up until 3:00 AM one night, whining and whimpering. I finally gave her a spanking with my bare hand on her well padded, diapered bottom. It made a tremendous noise but probably caused no pain. She was silent briefly, probably from astonishment. In retrospect I was not the most patient father. Small children are irrational and it was that irrationality that I found difficult to deal with. They cry for no apparent reason, they refuse to follow their parents’ very modest requests, one cannot reason with them. I have often thought how fortuitous that all small beasts are so cute and lovable. Otherwise few would survive. Sometimes, however, they are very rational. One day I saw Joanne walking around with something in her mouth, looking furtively towards me. So I went to her, put my hand under her chin and wearily said, “All right, Joanne, let’s have it.” I had it — a mouthful of vomit right in my hand!

In early May Marie-Anne and I went to the Ballet Russe de Monte Carlo at the Boston Opera House. Premiere danseuse was Danilova and quite good. The corps de ballet mediocre. They did an unimpressive Swan Lake, a very enjoyable Nutcracker and a spectacular Scheherazade. There was very little ballet in the United States at that time and we enjoyed the evening immensely. We also discovered a little tea shop, The Window Shop on Brattle Street just o® of Harvard Square. It was run by Hungarian refugees and featured European pastry with the tea or coffee.* We would sit outside under a large umbrella, I would have tea and Marie-Anne a café glace. We could hear our neighboring customers speaking in various languages and the waitresses discussing modern art. Marie-Anne was delighted to have a little bit of Europe nearby and we were to return again and again for tea and sweets during the next few years.

Around this time an army Signal Corps Captain Cadwallader, a West Pointer, joined us from Sandia. His brother-in-law had gained a certain renown a year or so previously, posthumously of course, by °ying a B-25 into the Empire State Building. Cad, like many army people, became disillusioned because of the “no win” Korea war, left the army eventually, went back to school for a law degree, and later became EG&G’s general counsel.

*The Window Shop was founded in 1939 by a local group of Cambridge women, many of whom were refugees from Nazi Germany. Its purpose was to help other refugees integrate into American society by teaching them crafts to help them support themselves and their families. It included a store that sold hand-made crafts, as well as a bakery and a restaurant. It was closed in 1972. (ECD)
Albuquerque and Boston

On May 29th EG&G received a surprise requirement to take part in a month’s operation beginning around the first of July. A few days later we received our assignments — three of the military including myself were to operate the airborne equipment, principally because insurance would have presented a problem if civilians were to be used. Equipment being readied for GREENHOUSE was to be used and all work on GREENHOUSE came to a halt. Then on June 9th the whole thing was canceled.

On July 10th I was told that I was to be completely responsible for the structures program for GREENHOUSE — real time motion-picture photography showing the effects of nuclear blasts on several types of building structures. Our chief scientist, Lou Fussell, had finally obtained the requirements for that program and we were able to start planning.

EG&G’s total responsibilities for Operation GREENHOUSE were to be “timing and firing,” “fireball photography” and “effects photography.” For “timing and firing” EG&G would furnish the electronic pulse that would detonate the device at the precise time required. That was firing. For the many experiments involved we would also furnish similar pulses at precise times before and after the detonation. All or nearly all measurements and experiments would be started remotely and automatically by these signals from the control station on Parry Island. That was timing. We would photograph the early stages of the fireball with high-speed motion-picture cameras. These would be used primarily to obtain good measurements of the yields of the shots. That was fireball photography. And my program was the effects photography.

For the effects measurements several buildings were to be built on the largest of the Eniwetok islands, Engebi, and a small adjacent island, Muzin. A nuclear device would be detonated atop a three-hundred foot tower some thousand feet from the structures on Engebi and we were to attempt to obtain motion pictures of the actions of the thermal radiation and the blast on these buildings. This had never been done before and there were quite a few problems to resolve. The cameras, of course, had to be near the structures and thus exposed to the same blast, thermal and nuclear radiations. How much protection would they require from the shock wave and the heat and how would we protect them? What sort of film should we use and what exposure settings? To decide that we needed to know how much illumination our structures would be receiving from the detonation when the shock wave would hit them. And, since the film would be affected by the prompt and the delayed gamma radiation from the explosion, we would want a film not overly sensitive to gammas. Would the cameras and film require shielding from the nuclear and thermal radiations and protection from the blast? How serious a problem would the dust and smoke from blast and heat be? There were lots of phenomena that had to be considered and very little or no experience to guide us. No one had tried to take such pictures before.

The people from MIT and the Illinois Institute of Technology, I believe they were, who had requested and were to analyze the blast photography, wanted good time resolution — slow motion photography. This, of course, would require a relatively
high frame rate or film transport speed. They also wanted good spatial resolution which meant as large a film format as possible. Someone at EG&G obtained from the Air Force a number of surplus 35 mm motion picture cameras which had been used during the war by combat cameramen. The Air Force called them A-5s and I believe they were manufactured by the Arriflex Corporation. They were fairly compact cameras and were supposed to be able to operate at up to 64 frames per second as compared to the normal 35 mm frame rate of 24 per second. But we spent a lot of time trying to get them to operate at that rate and stay in focus.

To get better time resolution we also obtained a few Eastman high-speed cameras. They had a 16 mm format, and could run at around 1000 frames per second. At that speed it would be impossible to stop the film momentarily and open and close the shutter again for each frame (as was done by the A-5s). Instead, there was no separate shutter, the film ran continuously and the image was moved along at the same speed as the film by passing the light through a rotating glass prism which also served as shutter. The pictures were a little fuzzy, but we could get up to a thousand pictures each second. The down side was that they would only run for four or five seconds before the film was exhausted, but most of the information we were looking for took place in the few seconds after the shock wave hit. So we planned on a mixture of A-5s and Eastmans.

The people who were to analyze our film let us know what views they wanted and we set to work to design the camera installations. After some study, we decided that we wouldn’t worry about the effects of the gamma radiation on the film. We would use a type of microfilm that had been developed by Eastman for Charley Wyckoff of EG&G. It had a great latitude and was relatively insensitive to gamma radiation.

Next we considered how to protect the cameras from the blast and the thermal radiation. To do this we planned to put each camera on a concrete pillar about four feet high. Atop each pillar we would bolt a cubical box fabricated of quarter-inch steel and about three feet in each dimension. The side facing away from the shot tower and toward the structures we were to photograph was left open. This box would protect the cameras from the thermal radiation and, together with the natural resistance of the small cameras to blast, from the shock wave. Then we designed and had built for each station an adjustable mount to which we would fasten two cameras. We found the A-5s rather unreliable so the second camera gave us a back up and, as a bonus, allowed us to bracket exposures.

The cameras ran on 24 volts DC. Buried in the ground at each camera station would be a box which would hold a single large 24 volt aircraft battery and the associated electronics we would need. Since our cameras would be unattended for twelve to twenty-four hours before the blast I worried about rain and salt spray on the lenses during that time. The obvious solution was to put a door on the front of the steel boxes holding the cameras and open it just seconds before the blast. Trying to keep this as simple and reliable as possible I hit upon the idea of tying the door closed with wire and then passing a heavy current (readily available from the aircraft
batteries at each camera station) through the wire, melting it and letting gravity
open the door. Then, in case that failed, I decided to make the door of transparent
Plexiglas. I ran some tests using piano wire, a strong steel wire of relatively high
electrical resistivity. The first test worked fine. Then I doubled the size of the wire,
thus quadrupling the current through it to see what effect that would have. When
we tested the larger wire it became red hot, stretched, showered sparks, and set the
wooden camera shelter mock up on fire. All the spectators assured me it was the
demonstration of the year.

In order to analyze the film properly the analysts decided that they needed to
know the actual (as opposed to the nominal) frame rate at which each camera would
be running when the blast would hit the structure. Great accuracy was not necessary
so I designed a circuit based on the ignition system of the automobile. I found 24-volt
intervalometer motors in a war surplus catalog (an intervalometer was a timing device
used on bombers to set the time interval between bombs when dropped one after
another). I found that these rotated two times per second with sufficient accuracy for
our purposes. I had the intervalometer motor drive a cam which opened and closed a
set of ignition points. An ignition coil and capacitor furnished the necessary voltage
and current to flash a small argon bulb which we installed in each camera. This put
two marks per second on the edge of the film. It was crude but it was cheap, easy to
build and very reliable.

Finally, my cameras would have to be started at various times. The A-5s had
large enough film magazines that they could be started at the zero minus five seconds
time signal from the Control Center. But the Eastmans, with only a few seconds
of running time, had to be started at different times depending upon their distances
from the shot tower. So I designed a timing device with an adjustable delay. I
found some small commercial motors that came with a series of adjustable cams and
microswitches. These were used in washing machines, I believe, to time the various
wash cycles. They were available with 24-volt motors so I purchased a few, drew up
the simple circuits involved, and had them built in-house. Then at each station we
would receive the minus five second signal. This would start the motor and one cam
would send power to the piano wire to open the window. Then at the appropriate
time another cam would start the camera and its associated timing signal marker.
Finally power to the camera and to the motor driving the cams would be turned off.
This was a very simple system and very reliable.

Working with a small civilian company was an eye opener for me in many respects.
One of the pleasures was the ease with which one could spend small sums of money
when necessary. I believe that every military unit commander down to the smallest
units should have the authority to spend reasonable sums of money — say several
hundred dollars a year — without paperwork. The total money involved would be
tiny and the payoff in effectiveness and morale huge. Speaking of paperwork, one
of the other officers at EG&G had worked at Wright Field on development of new
aircraft. He said they had a saying there that a new aircraft should go into production
when the weight of the paperwork on it exceeded the weight of the aircraft.

One of the problems I had at work was identifying the status of your coworkers. In the military the uniform and badges of rank make the hierarchy easy to identify. At EG&G I was confused for some time before I finally sorted out who were the bosses, who were the engineers, who were the technicians and who were all the others. The confusion was confounded by the very informal atmosphere there. Everybody called Grier “Herb” and O’Keefe, “Barney.” And, of course, Edgerton was “Doc.” For a newcomer in an organization the military system is better — and became more so when the military began to mandate name tags a few years later.

I discovered that my old college roommate, Don Hodgman, was at Harvard pursuing a PhD in economics under the so-called GI Bill of Rights. That was a program for veterans that paid their college tuition plus a very modest living allowance. He, his wife Naomi, and a child were living in genteel poverty in Harvard graduate student housing, temporary shacks left over from the war. Since the other grad students were in similar circumstances they did not feel particularly deprived. He eventually got his PhD and enjoyed a long and successful career as professor of economics at the University of Illinois. We will meet him again in this memoir.

About this time I proposed as head of our family that each of us (Joanne excluded for the next several years) give a brief lecture at dinner on some subject with which he/she is acquainted or interested. Marie-Anne immediately objected that she couldn’t do it. When I insisted, she agreed provided she could give it in the Luxembourg language. The proposal died. About this time some of our friends began purchasing television receivers and we would spend an occasional evening watching at their homes. Television was very new but everyone was buying the sets and it was quickly supplanting radio as evening entertainment at home. The average screen size was ten to twelve inches, black and white, of course, and all programs were live. Picture quality was poor but viewer expectations were not high. One of the engineers at EG&G, a notorious pinch penny, bought a two-inch set.

About this time I made the decision to document our lives photographically with 35 mm color slides. Other options at that time were black-and-white prints and eight-millimeter motion pictures. I chose slides because a projected color slide was so much more satisfying than a black-and-white print, slides were much more flexible than motion pictures, and were much easier to store and catalog. Now, fifty years later I have a priceless record of our family in eight boxes of slides. And amateur motion pictures have disappeared completely, supplanted by video systems which will also be obsolete within a very few years. My slides at that time were shot with a Kodak Retina I I believe, which I had purchased in the PX at Paris. It folded to a pocket size unit, foreshadowing today’s small point and shoot cameras. It was much less sophisticated, however. The lens was 50 mm F/3.5, it had no rangefinder and no exposure meter. I guessed the distances and the exposures, and, looking at the pictures I took then, was pretty good at it. The only slide film was Kodachrome I

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with a film speed of 16 as I recall.*

To show our slides I purchased a projector. Each slide was inserted and removed, one at a time, but I got it for $7.50 and it worked well. But when I brought it home I was confronted with a moral dilemma. The tag on the projector itself said $27.50, that on the box $7.50. However, the tape that had closed the box had been put on carelessly and covered the numeral 2 in the 27.50 unintentionally reducing the price by twenty dollars. What should I do? Twenty dollars was a good deal of money to us but that was probably true for the store owner also. Was it any less dishonest to keep the purchase, knowing what I did, than to steal twenty dollars? I finally decided to do what I knew I would do from the start — to pay the store the twenty dollar difference. I probably got at least twenty dollars worth of smug satisfaction at stunning the clerk and renewing or, perhaps, initiating his faith in human nature.

With the coming of spring our health improved and we were able to enjoy Boston and its surroundings — so different from Greenville, Florida and Albuquerque. We drove up the coast to Salem, Marblehead and Gloucester, all of which had retained a great deal of their old charm. Along the way we stopped by the roadside where Marie-Anne saw wildflowers growing in profusion. As she was gathering a handful of flowers a state police car stopped and the officer told her, politely but firmly, that she was breaking the law. Stunned, she apologized and he went his way with only a warning. She couldn’t believe that people could not pick the wildflowers — as she had done all her life. But, of course, there was a much higher ratio of flowers to people in Luxembourg than in America.

Bob Davis, one of EG&G’s planners, told me a story one day that I felt was worth recording. During the war he was stationed in Italy, as a civilian working for the Air Corps. At one bomber base there was a succession of accidents wherein B-24s would blow up very shortly after leaving the runway. A succession of unexplainable incidents like that was always a great concern to the aircrews. An alert postal clerk, however, noticed that one crew chief had sent thousand-dollar money orders home shortly after each crash. After he brought this to his CO’s attention a watch was set up. Then, just before one mission they noticed the crew chief leaving an aircraft alone some time after all the maintenance had been done. In itself this was not unusual but under the circumstances it triggered a careful inspection of the aircraft that revealed the bomb load doctored to go off when the wheels were raised after take off. The crew chief confessed and said that an Italian had given him a thousand dollars for every aircraft he had destroyed. Then he brazenly asked what they were going to do about it. The CO’s reply was to court martial him and have him shot — within an hour. Later a wandering congressman on a so-called inspection trip heard about the incident, went home and made a big issue of the high handed manner in which some commanders were toying with the lives of the boys of American mothers, and the War Department

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*Watching slides became a favorite family pastime. In the last few days before Mother’s death we set up the screen and projector in her bedroom and, much to her enjoyment, watched the family slides. (ECD)
was forced to court martial the CO. Davis swore this happened but I found it hard to believe. On Sunday, June 25th the North Korean army invaded South Korea. This ended the hopes that the United States could continue to reduce the military to a true peacetime establishment. From this day we began the inexorable conversion towards a world military power. Though the two events were unrelated, on 30 June I received a temporary promotion to the grade of captain AFUS with a very welcome, though modest, increase in pay. I phoned Marie-Anne with the news and her first words were a delighted, “Now you can wear captain’s bars!” Then that evening as she was busy preparing dinner she suddenly stopped and said in dismay, “You won’t be a lieutenant any more!” I think she felt that being a captain made me so old. Better an aging captain, I thought, than an aging first lieutenant! I must confess that it was a pleasure to trade in that lone silver bar that I had worn for so long. My monthly pay and allowances increased to $488, a big improvement over the $328 I received as a first lieutenant in Greenville three years before. Of course Boston was more expensive than Greenville so we still couldn’t really save anything but we could now afford an occasional dinner out or night at the theater. And we were always able to avoid going into debt.

Late in July we drove to Natick some fifteen miles out of Boston on Route 9 to look at some new ranch homes advertised for sale. They seemed to our inexpert eyes rather cheaply constructed but attractive inside. Three small bedrooms, a living room with fireplace, dining room, bathroom and kitchen plus a good size garage — single car of course. Two cars in a family were nearly unknown at that time. Cost of home and lot was $12,200 which, I noted at the time, was a good deal higher than the same home would run elsewhere in the country. We would have had to make a down payment of $3200, which we could have done—just—and take out a twenty year $9,000 mortgage at 4% would have been $54.54 and total costs including taxes, insurance and utilities we estimated at about $91 a month, quite affordable. We were very tempted to buy but didn’t.

A new song from France had become popular here; “La Vie en Rose,” translated by one Boston radio announcer with unwarranted confidence in his high school French as “The Life of a Rose.” With the war in Korea there had been a good deal of discussion on the possibility of a nuclear war, triggered by Soviet attacks on the US. Our neighbor, Mrs. Oechsling, who lived with her naval officer husband in the apartment downstairs, seemed to have absorbed a curious mixture of fact and fiction from the newspapers, magazines and radio. She expected, if caught outside by a nuclear attack to go home, take off all her clothes, take a thorough shower, working her hair vigorously for several days. Or, if there were sufficient warning, she would take off her garters and brassiere and hide in the basement after closing all the windows. The society editor must have written those articles!

One Sunday we drove to New Bedford to visit my Aunt Claire, one of my father’s sisters. I had visited them there with my family when we returned from the Philippines. Her husband, Albert Ruth, had managed a large rayon mill there for years.
He commented that the most difficult part of his job was relations with the strong union. The union’s attitude was to get everything they could. Once, he told us, when he mentioned to the union negotiators that the stockholders were entitled to a reasonable return on their investment, their reply was a simple, “To hell with the stockholders!” Within a few years most of the once booming textile industry in New England had gone south or overseas. They had one child, Jack, whom I had remembered most vividly because of the dozens of movie magazines he had had in his room. When Marie-Anne and I visited them Jack was in Hollywood doing television work and modeling for advertisements. He later moved to New York City where he acted in a few plays and died mysteriously in his apartment. Like so many in his profession he was homosexual and, though it was before the AIDS epidemic, his death appeared to have been somehow related to his homosexual lifestyle.*

In August I flew out to Chicago to discuss our program with people from Armour Research Institute and then to Los Alamos for similar discussions. Los Alamos is an interesting place to land. The airfield is atop a small mesa and barely large enough for small aircraft to land or take off. Then to MIT to talk to Dr. Hansen who would be analyzing our structure photography.

In October we drove to Washington and I left Marie-Anne and Joanne there while I continued to Dahlgren, Virginia where the navy had a seaside installation for testing guns firing which they fired into the bay. I ran some film of local buildings by the light of million candlepower aircraft flares, simulating the light from a nuclear detonation. EG&G had quite a contingent there running different tests. Nearly all of the EG&G military took part: Captain Mason, Lieutenant Griffiths and myself and Sergeants Praisewater, Lang, and Sims. I returned to Washington, spent a few days with my parents, Marie-Anne and Joanne, and then we drove back to Boston. I had begun once again teaching Marie-Anne to drive and she was at the wheel when we passed through Aberdeen, Maryland. Unfortunately she drove blithely through a red light there. As luck would have it the local police force was sitting at the light in his Ford. As we pulled over to the side of the road I envisioned the worst. Marie-Anne was driving without a license, I was there beside her in a car licensed in Maryland and I with South Carolina and Massachusetts driving licenses. However the policemen did not even ask for our licenses. He warned us, and sent us on our way, much relieved, and with the only damage to Marie-Anne’s not too robust confidence. Back home, I wrote a letter to the town complimenting them on the courtesy of their police force.

The paragraph above reminds me of a conversation I had with the head of security at EG&G, a conversation that has stuck in my memory. He had been a state policeman at one time and he gave me some advice on relations with the law. “You look like a gentleman” he said. “If you are stopped the officer is going to be favorably impressed and if you are polite you are unlikely to be ticketed.” In Aberdeen it was Marie-Anne who obviously impressed the officer as being a lady.

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*Jack Ruth performed in two plays on Broadway (if not more): *The Next Half Hour* in 1945, and *The Solid Gold Cadillac* in 1953–1955. (ECD)
In October we all began working Saturdays to get the work done. As I noted in my diary, the EG&G technicians were paid time-and-a-half for the extra day, the engineers 20% extra, the office personnel an additional 30% and the military got the experience. We didn’t mind — there are other compensations to a military career.

We drove into Cambridge one fine October Sunday, had tea at the Window Shop, and walked around the Harvard Square area, pushing Joanne in her stroller, window shopping and enjoying that most interesting part of the Boston area. Harvard Square had an almost European atmosphere with many bicycles and students and faculty dressed in well worn, tweedy clothes, saved from shabbiness by the obvious intelligence and culture of their owners. We always found it interesting. The next weekend I gave Marie-Anne what was called a “home permanent.” After an initial setback or two and an occasional loss of temper on my part, I rallied and finished strongly. Her curls may have been a bit ragged but on the whole I had put them where they belonged. Since she could not afford regular trips to the hairdresser I would continue to give her home permanents in between here rare visits. I never became very proficient and I am sure she was much relieved when she no longer had to depend upon my clumsy efforts.

We had decided that Marie-Anne and Joanne would go to Luxembourg for an extended visit with her family while I would be in the Pacific. Passenger liners were still the preferred mode of transportation across the Atlantic since the Lockheed Constellations and Douglas DC-4s were more expensive at that time than ships. So we made reservations for Marie-Anne and Joanne to take the Holland America liner *Westerdam* from New York to Rotterdam. Marie-Anne was still a Luxembourg citizen and they required various records, certificates, visas, renewals, passports, etc. Joanne required her own passport and had to swear to bear true allegiance to the USA. I don’t recall how that came out — if they had asked her I am certain her answer would have been the answer that came most readily to her lips at that time, “No!”

In early December we had a visit from General Quesada who was the commander of Joint Task Force Three and, as such, the nominal employer of EG&G. He had been an outstanding commander of one of the Tactical Air Commands in Europe during the war. I chatted with him for several minutes. He was a very youthful appearing and enthusiastic person and made a point of telling me that he was glad to see Air Force officers working with the civilians as we were. “It is much more of a challenge than a routine assignment to an Air Force unit.” was his comment. He was partly right — it was certainly a different sort of challenge. We were all somewhat worried that we would be forgotten by the Air Force in our unusual situation so it was reassuring to see his attitude.

December was marred by a series of illnesses that carried over Christmas. We both liked Boston but never had we experienced such a succession of illnesses as our first year there. To boost our morale I finally purchased our first television set, a 16 inch RCA console model, as our family Christmas gift. We were all sick over Christmas but the television lifted our spirits.
Albuquerque and Boston

By the end of the year we had finished preparation for GREENHOUSE and early in 1951 we crated our equipment, tools, etc. and shipped them out for Eniwetok.
CHAPTER 22

Nuclear Tests

Eniwetok – Greenhouse

In early January the Sadler Wells Ballet was in Boston and we enjoyed a rare evening out. They presented a superb performance of *Sleeping Beauty* with Moira Shearer. She had starred in a film, *The Red Shoes*, which had aroused a great deal of interest in the US in ballet. The Ballet Russe of Monte Carlo had been the only touring company in the country and had done yeoman’s work in keeping the art form alive in the US. The Sadler Wells was on another level, however. It was a delightful evening.

I flew out to Los Angeles in mid January, was picked up by a representative of Holmes and Narver (which had the contract for the Eniwetok test site) and a chap from Los Alamos, and driven to China Lake or Inyokern where the navy had a large ordnance test station. They set off a detonation of 100 lbs of TNT in the presence of flares. We took films of this simulation of the nuclear test. Then back to Los Angeles and the flight back to Boston by DC-6, the four engined successor to the DC-4 (the military C-54). Commercial air travel at that time was quite pleasant. The seats were roomy and reclined to a near horizontal position. The food was very good and the stewardesses had lots of aisle room and not the enormous numbers of travelers to serve that they have today. Air travel has become faster and less expensive but comfort and service have gone way down.

On January 27th Joanne and Marie-Anne boarded the Holland America liner *Westerdam* and left for Europe. We had driven, the day before, to a hotel in New Jersey just outside of New York City where we met my parents and all spent the night. Joanne enjoyed being with her grandparents. After dinner she ran around the lobby, over to where we sat, pulled up her dress and asked us, “See my pretty panties.” She was all dressed up and enjoying it. The next morning I drove my wife and daughter through intermittent snow and icy roads to the pier in New York. I have always found ship departures exciting but it was no fun saying goodbye to the
two of them, knowing that I would not see them for four months. We clung to one another as long as we could, Marie-Anne shed a few tears, and then they boarded the Westerdam, the ship pulled away, and I returned to the hotel where I turned our car over to my father who would keep it until I returned from the Pacific. I took the train back to Boston, and a cab to our apartment from which all life seemed to have fled.

Marie-Anne’s transatlantic crossing was not an idyll. The North Atlantic in January lived up to its reputation — cold and rough. But Marie-Anne and Joanne both proved to be good sailors and were not overly affected, surprising perhaps since Marie-Anne was a few weeks pregnant though she didn’t know it. It was a vacation in a way — no cleaning and no cooking — and the food was excellent and beautifully served. When the ship approached the English Channel the weather became even worse; the seas were so rough that the ship could not enter the Channel for a day. They finally arrived in Rotterdam after an eight day crossing. There her parents met them in a friend’s car and they drove to her home in Luxembourg.

On February 1 the people to whom we had rented our apartment moved in and I moved into a room in the Brattle Inn, an old inn on Brattle Street near Harvard Square. The Window Shop was adjacent but without Marie-Anne I was not interested in European pastry. It was an interesting area and I quote from my diary. “It is most cosmopolitan — one hears every language spoken on the street and in the shops. It must be one of the most literate crossroads in the country. Harvard and Radcliffe are both adjacent to the square and the majority of the shops seem to cater to these schools. Every third shop is a bookstore, a restaurant or a clothier. The people in the street and the stores are striking. The girls are either extremely attractive in a fresh, unconventional way or extremely unattractive in much the same sort of way.”

Unfortunately, a day or two after I moved I became ill — nausea and weakness — and that continued off and on until I left for the Pacific. It was a strange illness if illness it was. There was nausea every day, sometimes better and sometimes worse. The only time I felt well was for an hour or so after each meal. I don’t know why I didn’t go to a doctor. That was a difficult time. I felt poorly and I was lonely.

On January 27th the US began a series of hastily planned nuclear tests at the new Continental Test Range, an area of 1350 square miles located some 63 miles north of Las Vegas, Nevada. The series was designated RANGER and consisted of five air drops at Frenchman’s Flat, a dry lake bed at the southeastern edge of the Nevada Test Site as it was usually called. EG&G was asked at nearly the last moment to coordinate the timing signals for all experiments and to do just enough high speed photography to determine the yields. We sent a small group of people with some of the equipment we were preparing for GREENHOUSE. Our people were all back by February 9th reporting mixed results. The fireball photography was excellent but the new electronic “bhangmeters” for quick yield measurements were unsatisfactory in this, their first real test.

The GREENHOUSE operation was to be a series of four shots. The first, shot DOG,
was a fairly low yield device and would be detonated on a tower on the island of Runit. The second, shot EASY, would be a fairly large shot, 47 kiloton TNT equivalent, and would also be fired on a tower but on the island of Engebi. GREENHOUSE EASY was the only shot for which I was to gather data. I left the atoll before the final two shots, GEORGE and ITEM. GEORGE was the first experimental detonation to demonstrate the feasibility of the thermonuclear principle of weapons design. It took place on 8 May and was a spectacular success with a yield of 225 kilotons, the largest nuclear explosion to date. The series ended with shot ITEM, another experiment, with a yield of 45 kilotons.

I left Boston on February 20th with Major Mason and Captain Cadwallader for San Francisco. We had an uneventful daylight flight aboard a DC-6, landing at San Francisco with one propeller feathered, a not unusual occurrence with four internal combustion engines driving the propellers. Jet engines would turn out to be much more reliable but these were still in the future for commercial airliners. We spent the night in a BOQ at the Presidio, then took a series of busses, street cars and cable cars to the Greyhound bus station and thence by bus to Travis Air Force Base at Fairfield, California. Travis was the aerial gate to the war in Korea at that time and the terminal presented a scene reminiscent of the recent war — infantry officers in neat combat boots and soldiers in helmet liners carrying carbines and waiting for their flights to the war in Korea. Elsewhere in the United States there was very little visual evidence that the nation was at war, declared or not. At 2300 hours on the 23rd we boarded our Pan American DC-4 for the long (at that time) flight to Honolulu. EG&G had made reservations for us at a hotel on Waikiki Beach. We checked in, had a drink, and watched the idle rich disport themselves on the sand.

At 1800 hrs the next day we boarded an R5D, the navy version of the Air Force C-54. This was a cargo flight and there were very few passengers. Cargo was stacked to the ceiling behind us and we made do wherever we could. At 2300 hours we landed at Johnston Island, a solitary speck in the middle of the Pacific barely large enough to hold an airstrip and a few buildings. We were given a cold brunch there while the aircraft was refueled and then took off for Kwajalein, arriving there around dawn. Somewhere between Johnston and Kwajalein we lost the 25th of February, a Sunday. From there it was a short flight to Eniwetok Island where we landed at 1000 hours. A short trip by water taxi took us to Parry Island, the next island from Eniwetok up the western side of the atoll.

Eniwetok Island is the largest of the islands comprising the atoll and was the only island long enough for a landing strip that could handle large aircraft. Most of the permanent military and civilian support installations and personnel were located there. I was assigned to Task Group 3.1, the technical and scientific portion of Joint Task Force 3. Both islands had borne copra plantations before the war but any trees that had survived the battle for Eniwetok had all been bulldozed and what remained was sand and dust. The sun was hot and the humidity high but there was an eternal breeze from the northeast so that it was a much more pleasant climate than
This is How it Was

Washington DC. There were practically no insects, bar an occasional cockroach, but this freedom from pests was courtesy of Holmes & Narver, not Mother Nature. They sprayed the areas diligently. The uniform for the military was short sleeved khaki shirts and khaki shorts, ideal for the climate and the work. The messes were run by Holmes & Narver, civilian contractor to the AEC in support of the test site. The food was bountiful and tasty and dinner each night became the high point of each day.

On March 2 I moved from Parry Island to Engebi, some twenty miles further up the atoll. Engebi was one of the largest of the islands. Shot Easy, the second shot of the series was to be from a tower there, and all of my photographic installations were to be there and on Muzin, a small island just south of Engebi. Sergeant Praisewater and myself were the only EG&G people billeted there but there was a good number of construction people living on the island. I moved into a wall tent — my tentmates were three construction stiffs, tough birds all three. All the construction people were on the atoll for one purpose — to make as much money as they could as rapidly as they could. The wages were fantastic by US standards and the hours were long and overtime pay generous. Most of their contracts were for a year and they saved almost all the money they were paid. One of my tentmates told me that he banked $170 a week. This when a captain’s pay was about $125 a week. This was, of course, typical of overseas jobs with American firms and the only way they could attract workers.

I noticed a sign on Engebi in the shower house, “Any man found wasting water will be put on a 48 hour work week!” A reduced work week was the most effective threat available and 48 hours would have been quite a reduction. Incidentally another sign pointed out, “We’ve got it made here — the water that is. Conserve water.” All fresh water on the atoll came from evaporating seawater.

My tentmates all worked on a drilling rig that was drilling exploratory holes in the island. Much of the construction required a firm foundation, and according to them the island, which was all coral, of course, was pockmarked with underground cavities. They said that, at one location where they had drilled, the engineers started filling the cavity they found with grout. They poured and poured grout into that cavity for a week and it just disappeared. They never did find out where it went. My tentmates were a rough trio with little education but they were hard workers, friendly, sober and very decent to me, a stranger in several ways. To my surprise when they did get a day off they spent it scanning the beach for shells! Other than swimming, eating, and the nightly film there was little else to do.

Most of my days were spent with my assistant, Sergeant Praisewater, installing camera racks, batteries and associated electronics at the various camera sites on the islands of Engebi and Muzin. We had a three-quarter ton army truck assigned to us. This carried our tools, camera racks, batteries and a small motor generator which provided us with power for our electric drills and soldering irons. Our cameras were to be mounted in pairs in the steel boxes that we had designed months before. These boxes had been fabricated by Holmes and Narver and fastened firmly atop the
short concrete pillars. At the base of each of these was a box embedded in the sand to protect it from blast and in which we installed our batteries and the electronics associated with each pair of cameras. Day after day the sergeant and I would go from pillar to post as the saying is, installing and wiring up. It was not very interesting work.

Evenings there would usually be an outdoors film or I would sit in my tent and write a letter to Marie-Anne and Joanne whom I missed greatly. Sundays were sometimes free and I took advantage of one fine Sunday afternoon to walk around the island, covering it in an hour. It was low tide and a good deal of the island that was normally covered with water was laid bare. I found some evidence of the late battle — machine gun shells and slugs, a rusted Japanese tank and an area marked “Danger—Live Mines!” where there were a number of rusty spheres about 18 inches in diameter that I assumed were the mines. Earlier a bulldozer, clearing part of the island, had hit a rock that would not budge though the operator struck it several times with his blade. Dismounting to investigate he discovered it was a 500 lb bomb buried in the sand.

Another Sunday I watched my tentmates as they drilled for cores alongside the so-called multi-building that I was going to photograph — hard, monotonous work. After lunch I took another walk around the island and then a swim in the lagoon side. The next day I took the little island hopper liaison plane to Runit, an island about halfway between Engebi and Parry, where the first shot was to take place. EG&G had camera towers on an adjacent island and in the lagoon and I had decided to install some of my cameras on the island some thousand feet from the shot tower. I wanted to check exposures and find out whether dust, radiation and blast would be serious problems.

The short flight down the island chain was fascinating. We flew along the lagoon side of the atoll at about 500 feet, and the shallow water beneath us was almost perfectly transparent. The bottom was white coral sand with patches of dark rock here and there. We flew over three large fishes and a big manta ray swimming lazily through the water and looking for all the world as though they were suspended in the air just above the sandy bottom. Most of the islands had been pretty well reduced to coral sand but one still had a hundred or so palm trees, laid out in rigidly geometrical rows and leaning away from the prevailing winds; mute testimony to the labor of the Japanese or perhaps the Germans who had preceded them.

On 23 March, Herb Grier called from Parry Island with the unpleasant news that a typhoon was headed toward the atoll and due to strike there within 48 hours. Our outdoor work stopped at once and I took stock of the situation. We had a Quonset shelter on Engebi which we used to store tools, etc. It was, however, sunk about seven feet into the ground and undoubtedly susceptible to flooding. But the navy had a concrete shelter some fifty yards from there and I talked them into letting me use space in it for my equipment.

I moved those items that I was not using every day and the rest I left where it
was, secure in the knowledge that we could move it in two hours if the typhoon was imminent. On 24 March the alert was called off but we were warned to expect heavy rain. I sandbagged the ends of our Quonset and put everything off the floor. However our only weather was what the civilian workers called, “Company Rain.” That was a rainfall that would begin each day at lunch time, around 1145 hours and end around 1230 when everyone went back to work. It would resume again when they knocked off work for dinner. On 25 March the remains of the typhoon passed about a hundred miles south of us and its only effects were winds and steady rain ranging from mild to torrential.

On 27 March I flew down to Runit again to check my camera sites there. I found Doc Edgerton struggling with some equipment he was going to take to the photo tower EG&G had in the water off Aitau Island. I gave him a hand and then took care of my own business. After I was through a squall swept across the island and I sat there for a couple of hours waiting for an airplane back. Later I learned that one of the liaison planes, L-13s that we used for inter island transport, had crashed on Japtan, just north of Parry.

The next day it rained all day — not hard, just a steady drizzle. I was working outside with wet tools, wet equipment, on wet sand, in wet clothing and with a very wet temper. As I stated in my diary, “From an island paradise this atoll has turned into a mud hole — or sand hole. The damp makes things difficult here — tools rust, my battery holes fill with water and photographic lenses fog up. Any fittings not covered with grease rust immediately.”

On 1 April, a Sunday, I was working on Muzin island and around 1600 hours a helicopter dropped out of the sky, out stepped Herb Grier and Mike Warchol, and Herb told me that Engebi was being evacuated prior to the dry run for the first shot and that he had arranged for me to catch the 1630 plane from Engebi for Parry. I jumped into the chopper with my tool kit and was whisked over to Engebi. That was the first helicopter flight I had ever taken. Helicopters were very new at that time. My strongest impression was that it stirred up an unconscionable amount of dust on takeoff and landing.

The next day, the day before the dry run, I and the EG&G people who were responsible for the equipment in the camera towers took an M-boat from my temporary home on Parry to Runit.* They left me there with four of my A-5 cameras and took the M-boat and a DUKW to the large camera towers with the film loads for the tower cameras.† I installed the A-5s in their steel boxes atop the short concrete piers and connected the lead acid batteries and the various cables running to

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* As Franklin explains later in the text, an M-boat was an LCM, or “Landing Craft, Mechanized.” They came in several different versions, but were roughly 50-feet long, and all could be beached and their front ramp lowered to allow soldiers or vehicles to rapidly be disembarked. (ECD)

† The DUKW was an amphibious truck with six wheels built by GM during the Second World War. Some are still in use at various tourist attractions such as the Wisconsin Dells and the Charles River in Boston. (ECD)
Nuclear Tests

the cameras and timing equipment. Then I made a very foolish mistake that could have been disastrous. I decided I would make a dry run of the camera installation starting with the signal to my equipment that would initiate the sequence of operations. To simulate the incoming signal I connected jumpers from the 24 volts of my batteries to the primary of the solenoid. Everything sequenced perfectly. The piano wire burned through, the Plexiglas cover dropped to the ground, the cameras began running, the intervalometer motors started driving the breaker points which sparked the argon timing lights inside the cameras. All went as planned. Or so I thought. I learned later that the cable that brought the signals to my site, and to which I had so cavalierly applied 24 volts, were in parallel with cables to other experimenters’ installations. Specifically the signals that were to launch a series of smoke rockets paralleled mine! The 24 volts I applied to my solenoids could well have initiated a spectacular and possibly dangerous rocket display! My blood still runs cold when I think of the potential consequences of that ill-considered action. Fortunately no one but myself ever learned what I had done and even more fortunately nothing had happened.

The following day we all watched the rocket trails as the shot was simulated and all the experiments run. When we went back to our camera stations I was relieved to see that the film had run through all my cameras. My equipment had worked. Then I moved from Parry back to Engebi and resumed my work there.

The first shot in the Greenhouse test series was scheduled for April 8 on the island of Runit. Like all of the shots it was to be a tower shot, that is, the device would be located in a cab atop a tower several hundred feet high. A tower was used for several reasons. One was to avoid the effects of the ground on the early phases of the detonation — this was an experiment and a number of fundamental measurements were being made. Another was to simulate an actual air drop — all air-dropped bombs used barometers and radars to initiate detonation several hundred feet in the air. Finally, a tower burst would have much less fallout than a ground burst. And a tower was preferable to an actual air drop because the location and time of the detonation were under complete control of the experimenters.

On April 6th everyone based on Engebi was moved from Engebi to Parry or Eniwetok in preparation for the Runit test. On the morning of April 7th Sergeant Praisewater and I took the M-boat to Runit with the EG&G tower camera loading crews. We spent an hour or so installing and lining up our four cameras and checking all electrical connections again. Our work was interrupted several times by heavy, driving rain. Then we had to wait four or five hours for the EG&G tower crews to finish their work and pick us up. General Quesada, Commander of Joint Task Force 3 and Dr. Alvin Graves, Test Director, dropped by in a liaison plane and sweated out one squall in the airstrip tent with us. Dr. Graves commented on one of the experiments which had already proved a failure, “After all it wouldn’t be an experiment if we knew how it was coming out.” I felt that was a piece of philosophy worth remembering, and hoped he would remember it if my program was unsuccessful!
The next morning we were routed out of our beds at 0500 hours, dressed in expectant silence, and ate an early meal in the mess hall. Then we got our dark glasses, neutral density 3 or 4, and walked down to the beach house on the lagoon side of Parry which we had chosen as our grandstand seat. Like very nearly all of the atmospheric tests over the next few years, the shot was scheduled for a half hour before dawn. This was dictated primarily by the need to have a dark background for the high speed motion pictures of the fireball. The primary method for determining the magnitude or yield of the shot, these were another of EG&G’s responsibilities, and were obtained from cameras installed in the camera towers I mentioned above.

Five minutes before zero was heralded by the wail of a siren. By then the stars were fading and there was just a hint of dawn in the dark sky. For some reason we then left our chairs and sat on the ground. At minus one minute the siren blared again, we all adjusted our goggles and each of us began peering intently at the spot in the infinity of goggle induced blackness where we thought the detonation would occur. A thought passed through my mind at that moment that the neutral density goggles were not, perhaps, dense enough to prevent damage to my eyes. So I squinted, closing my eyes to mere slits as though that would have helped. Then, suddenly, a ball of fire appeared and the illuminated condensation cloud bloomed, all in a deep silence. While I sat there, stunned, the brilliant light slowly faded and I cautiously removed my goggles. Without them the rising fireball resumed its brilliance and rose slowly, and then slowly faded once again, though it remained sufficiently bright to continue to illuminate our island ten miles away as though it were day. After several more seconds the glow was gone, disappearing into the nuclear cloud above the island. Finally, some 45 seconds later a sharp boom resounded in our ears, sounding for all the world like the firing of a 105 mm howitzer. That was my first view of a nuclear explosion — I was to be present at some thirty more during the next two years.

As we returned to our billets, somewhat awed by what we had just seen, daylight began to fill the sky revealing a brownish yellow cloud, seemingly directly over our heads, and towering high in the sky. It did not have the mushroom shape that we had expected but that was because of our viewing angle, nearly directly underneath. This cloud hung menacingly above us for the next hour, seemingly little dispersed over that time.

By 0800 hours we heard that radioactivity on our island, Parry, had reached 15 to 40 milliroentgen per hour so that we were getting, unexpectedly, considerable fallout on our base island.* At 1030, after drawing our coveralls and booties at Radiological Safety, we drove our trucks aboard the M-boat that was to take us to Runit to recover our films. About five minutes out, however, the boat was recalled —

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*The average American receives roughly 360 milliroentgen per year from natural sources. A dose of 450 roentgen will kill about 50% of those exposed, anything less than 25 roentgen will produce no noticeable effect in humans. The maximum permissible whole-body dose per year is 5 roentgen, according to the U.S. Nuclear Regulatory Commission. Note that the effects of radiation are not cumulative. (ECD)

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we assumed because radioactivity at Runit was either too high or had not yet been
checked. When our boat pulled up to the dock at Parry we were ordered ashore — our
boat was to go to Eniwetok to get the mail! A furious Bob Davis, who was in charge
of the EG&G recovery crew, stormed ashore, spoke to someone in authority, and
within fifteen minutes we were on our way again, encouraged to know that someone
considered our work more important than the day’s mail.

On the way to Runit we put booties over our shoes and wrapped tape around the
sleeves and trousers of our coveralls so as to exclude radioactive dust. We were not
given respirators which surprised me somewhat. As we approached the shot island
we were filled with a not unnatural curiosity — the device had exploded scarcely five
hours before and we were to recover my film and cameras from their location just
1600 yards from ground zero. From our approaching boat the island looked unchanged
with one exception. Its most prominent landmark, the zero tower, had disappeared.
When the M-boat grounded ashore on the beach, Bob Davis, Bob Morris, our
rad safety monitor and I drove our truck the hundred or so yards to my camera
stations, looking curiously about at the unexpectedly few signs of the recent blast.
The cameras looked OK though the lenses were half covered with sand as I had
feared. The sandbags with which I had supported the camera racks were charred —
obviously they had burned momentarily. We detached the cameras from their mounts
as rapidly as possible while our radiological safety man hovered over us like a mother
hen, constantly checking the radiation level with his ionization chamber. This read
a mild 40 milliroentgen — little higher than on Parry! We drove back to the boat
and proceeded to the next island where we recovered the fireball films from the two
camera towers there. Passing to windward of the late shot tower we encountered
somewhat higher radiation levels than we had yet measured. My pocket dosimeter
at that point showed an increase of about ten milliroentgen in five minutes, giving a
rough estimate of the radioactivity as about 0.12 roentgen per hour. When I turned
it in on our return to Parry it read 190 milliroentgen, about twice the recommended
daily maximum of 100 mr, but nothing to get excited about. We turned in our films
to be processed, then went to the Rad Safety building where our truck was hosed
down, we took off our contaminated booties and coveralls, were checked for residual
radiation, showered and were through for the day.

A few days later Frank Hartley, our photographic lab technician, told me that the
fallout on Parry had been sufficient to fog the film we had in the cold storage locker
there. That would imply a disturbingly high level of radiation and I was somewhat
skeptical of his statement. We were certainly not informed of this. However, this was
the first test and the radiological safety people were inexperienced. When I was in
the radsafety building after returning from film recovery the harried radsafety officer
was tearing his hair and complaining to no one in particular that “Everybody is
running around making radiation measurements and nobody knows what they are
measuring!” I am sure he was exaggerating slightly.

By 12 April my film had been processed and we had looked at it. Results were
mixed. The exposures were good so there was still sufficient light from the fireball when the shock wave hit the cameras and we were pleased to see that we had calculated this light level correctly. On the other hand there was a good deal of smoke from the effect of the thermal radiation on the soil and debris in front of the cameras. And the shock front, when it arrived, raised enough dust to partially obscure the field of view of the cameras. My gravity operated, piano wire initiated, Plexiglas windows had worked and had protected the cameras from the weather prior to the shot. The cameras had withstood the blast and the film had not been darkened by either the prompt or the delayed nuclear radiation. So, on the whole, the test had validated most of our assumptions while still showing us that we had potential problems from heat and blast effects in our fields of view.

We were not, of course, photographing anything other than the island itself and our cameras were facing away from the shot as they would be on our structures photography on Engebi and Muzin later. But the film from one camera was interesting. It started running a few seconds before the detonation and the first few feet of film were blank as would be expected in the predawn darkness. Then, suddenly, there was a frame showing the island, bathed in bomb light and coincidentally, a bird flying across the field of view of the camera. By the second frame the bird had burst into flames and succeeding frames showed it plunging to the earth, trailing smoke like an aircraft shot down in air to air combat. This was not surprising, though it was surprising that we had caught it on film. When we arrived on the island to recover our films we saw very few birds and those few we saw were all white ones. The dark birds were either dead on the ground or huddled there unable to fly. The white feathers had reflected enough of the thermal radiation at that distance from the fireball to protect the birds. Dark plumage was fatal. I have always thought that short strip of film would have made an impressive demonstration of the thermal effects of a bomb. The film was automatically classified SECRET or I would have kept it as a souvenir. EG&G kept the film in its files and probably destroyed it eventually though it may still be there. I have never seen anything like it in other films of atmospheric tests.

Following the shot we remained on Parry, commuting daily to Engebi and Muzin to work on our camera installations. There was a regular passenger boat service but we usually took an M-boat since we normally had our 3/4 ton truck with us. The passenger boat service was run by Holmes & Narver, the M-boats by the Navy. There were no uniform regulations on the atoll for civilians or military but the coxswains of the Holmes and Narver boats carried informality to its outer limits. One wore nothing but a pair of ragged denim shorts which had split at the crotch and through which his scrotum protruded hideously. The passengers were forced to sit in the small cabin watching this while he steered the boat with his toes. A civilian stood up during the entire hour and a half of one trip I took. A passenger beside me confided that the poor fellow had been bitten in the buttocks by a barracuda while swimming in the lagoon. In our infrequent time off we used to swim but I was a little leery after that.

On 17 April some of the people for whom I was doing the effects photography,
Sherwood Smith, Colonel Petit and others, came to me extremely worried about the dust problem that our test had revealed. After considerable discussion they decided to try to stabilize the soil between my cameras and the structures we would be photographing. This would be done by applying an asphalt/seawater mix to the soil on Muzin and sea water alone on Engebi. Since the Engebi cameras were much closer to ground zero than those on Muzin they feared that asphalt there might smoke under the more intense thermal radiation. Incidentally we at EG&G had more or less foreseen this problem and requested soil stabilization some six months before but our request had been turned down then.

My shot, the second in the series, was scheduled for 21 April and I began installing my high speed cameras, the 16 mm Eastmans, on the 18th. Crews from Holmes and Narver began soil stabilization the same day. My plan had always been to put the cameras in position as late as possible in order to minimize problems from moisture and the salt air. But I also wanted to reserve the day before the shot for unforeseen contingencies. Since many of our electrical connectors had already corroded, all had to be inspected and cleaned where necessary. With just the two of us, Sergeant Praisewater and myself, to do all the work, we didn’t have much choice but to start early. But every hour the equipment sat out increased the chances that it would not work properly.

On the 19th we put in and tested our 35 mm A-5 cameras and early on the 20th we completed our work on Engebi and Muzin and sent all of our remaining equipment to Parry, greatly relieved to have everything completed. We had done all we could — our success was now in the hands of the gods. My greatest worry at this point was that the lenses would cool off during the night and the high humidity would cause moisture to condense on them by shot time. But that hadn’t occurred on our test run at Runit so I was hopeful.

The Engebi shot went off as scheduled in the early morning darkness to my intense relief. If it had been postponed a day we would either have had to check and reload all our cameras or leave them to the mercy of the salt air for another twenty-four hours. Neither alternative was pleasant. This shot was of higher yield than the Runit shot and more spectacular even though it was twice the distance from us on Parry — some 20 miles. Again, following the shot we donned protective clothing and took an M-boat to the shot island to recover film and cameras. By 1000 hours we were on Engebi, around 3000 feet from ground zero, pulling out the cameras. The familiar island presented a desolate appearance. Stones were everywhere, there were strange cracks in the earth’s surface, and the structures we were photographing were in various states of destruction. Then we had a difficult time getting in to Muzin. It was low tide and our boat hung up about 30 feet from shore. But the truck made it ashore and we recovered the cameras and film there. On both islands the Plexiglas windows had all fallen away from the camera shelters so we knew that the timing sequences had all started anyway.

Back at Parry we turned in the films for processing, our protective clothing for
decontamination, and our dosimeters were checked. Mine read 500 mr which was some five times the normally acceptable daily dose of 100 mr but nothing to be particularly concerned about. The 100 mr daily and 300 mr weekly that were considered acceptable dosage levels at that time were based on personnel working regularly in the presence of nuclear radiation. For intermittent exposures considerable higher levels were considered safe. I was somewhat surprised again, however, that we were not given respirators to prevent ingestion of radioactive emitters. We wore film badges which were supposed to be turned in at the end of the day and which were used to keep a record of our exposures. However radsafety lost my film badge after the first shot and I forgot to turn it in after the second so my record is probably clean.

By 25 April most of my film had been processed and reviewed and the results were better than I had dared hope. All the cameras had run successfully, and the pictures were clear, well exposed, and in good focus. The structures people for whom we were doing the photography were ecstatic with the results. As a matter of fact a few years later LIFE magazine, the premier American photojournal at that time, featured a two page spread of a frame from one of my A-5s. It showed the front of one of the structures just as the shock wave hit it. I believe photo credit was given to the AEC or Defense Department and the caption began, “This remarkable photograph…” All in all I was very pleased with the results of my first year with EG&G.

With my part of the series over I worked with EG&G’s supply people to pack and crate my equipment for return to Boston. While we were working, Sergeant Sims, one of EG&G’s military people, mentioned with some pride that General Quesada had spoken with him recently. I asked him what the General had to say. “Not much” was Sim’s reply. “He said, ‘My God soldier but you’re dirty’.” We were all rather dirty — ninety percent of our work during the test series was physical labor, outside in the sun and dirt. We were all tanned and healthy from the good food, exercise, sunshine and fresh air. There was a steady trickle of visitors from the US while we were there, some for good reason and others out of curiosity. Most of the latter were fairly high officials — tourists we called them. They could all be recognized by their pasty white skin. Everybody wanted to see an atomic explosion.

On 29 April, a Sunday, I noted in my diary as “a day spent in rather complete idleness relieved from boredom only by the novelty of a day off. It was cloudy, threatening rain, but always refraining. All during our stay on the atoll there were rain squalls visible in the distance. After supper I took a lone stroll along the beach, kicking at sea shells and the scant remaining debris from the war, and climbing over the three wrecked Japanese tanks rusting away on the ocean side of the beach. I marveled how grown men could have worked in their tiny fighting compartments, so much smaller than the ones I thought cramped in my M-3 and M-5 light tanks in the 6th Armored Division.” One other reminder of the war was the two ships aground on either side of the narrow body of water between Parry and Japtan Islands. This was the so called “Deep Entrance” to the atoll and the only entrance and exit for sea going ships. Apparently when the tide was making or ebbing there was a strong
current flowing in or out of the lagoon through that narrow channel and the passage was tricky. Those ships had failed to make it and had been rusting away ever since.

A reminder of the cold war was the destroyer we would often see several miles off shore. It circled the atoll, day after day, week after week, its mission presumably to detect any Soviet ships or submarines that might have been interested in our doings. It must have been deadly monotonous duty though the crew did have grandstand seats for all the test shots.

A day or two later several of us from EG&G took a two-and-a-half ton truck to one of the northernmost islands to pick up equipment that was no longer needed there. We took an M-boat of course since that was the only way to get a truck from one island to another. I should have mentioned that what we called “M-Boats” were what the navy designated as LCMs or Landing Craft Medium. They were built by the thousands during the war and used primarily in the Pacific to land troops, vehicles and supplies on the island beaches. They were ungainly looking beasts, with flat bottoms, flat bows and flat sterns. The entire bow could be lowered so that vehicles could drive up it and into and off the boat. An LCM was just large enough to hold a couple of small vehicles or one two and a half ton truck.

This was an overcast day, windier than usual, and our course took us further into the lagoon than we normally went. I always used to enjoy riding high up on the bow of the M-Boats but on that day the swells increased until the boat was pitching violently. After getting drenched several times I beat a hasty retreat to the cab of the truck. But the boat was pitching so badly that whenever it dropped into the trough between swells that big truck would rise several inches into the air and then slam down onto the deck with a crash. We all ended up standing in the stern of the boat with the navy coxswain and were all soaked by the time we arrived at our destination. Several years later I read Samuel Morrison’s *History of US Naval Operations in World War II* and was amused at his statement that the only time he was seasick during the war was aboard an LCM in Eniwetok lagoon!

With my responsibilities completed I was anxious to get home, and on the morning of 5 May I boarded a MATS C-54 for Hawaii. We taxied to the near end of the runway and the pilot was running up the engines when there was a loud explosion and one engine came to a sudden halt. Back we went to the terminal and when the engine was checked they poured piston rings out of one cylinder — the engine had to be changed. I was taking some 90 pounds of film of the test, classified SECRET, back to Boston and the delay meant that I had to find secure storage for it until I got another aircraft. My orders read in part, “Captain Ernest F. DUKES, USAF, is designated as military Courier for the trip from Eniwetok Atoll to Edgerton, Germeshausen and Grier, Boston, Mass. In accordance with existing regulations, officer will be armed while carrying classified material. Officer is authorized one hundred (100) pounds of excess baggage which is official equipment and must accompany the officer on the aircraft. This equipment is exempt from Customs Inspections.”

I spent that night on Eniwetok and took off the next morning, a Sunday, on a
different C-54. We landed at Kwajalein Atoll after a two hour and fifteen-minute flight. There we had engine trouble again and we sat out a series of tantalizing one-hour delays for a total of six hours, not leaving the atoll until dusk, around 1900 hours. Our C-54 had come from Korea and was configured for cargo or medical evacuation. We had little cargo aboard and not many passengers, so around 2200 hours we set up the stretchers and slept soundly on these until we arrived at Johnston Island. Somewhere we crossed the date line and made up for missing Sunday on the way to Eniwetok by enjoying two Sundays. We finally landed at Hawaii around noon and I turned my Secret material, pistol and pistol belt over to the security officer for safekeeping. I grabbed a lunch, got a room in the BOQ and went to sleep. I was awakened at 1900 hours and told to check in at 1930 for a 2030 flight.

I boarded our aircraft with my classified material around 2030 and wondering what would delay us this time. The aircraft was something of a surprise. At that time MATS was a multiservice, multinational operation and the airplane was something I had never seen before or later — a Royal Canadian Air Force C-54 with liquid cooled Rolls Royce engines instead of the usual air cooled radial engines. We taxied to the end of the runway at which point they shut down the engines and I asked myself, “Why am I not surprised?” It appeared that there was a problem with the hydraulic systems. So back to the terminal with my classified baggage where we sat until 0200 the next morning, drinking coffee to keep awake. By then the problem had been resolved and back we filed into the airplane. I noticed that the Canadian crew inserted plugs into their ears before we took off, an unusual practice to say the least. Once we started our take off run I knew the reason why. The inline Rolls Royce engines had their exhaust stacks pointed toward the fuselage and the sound was deafening. The aircraft had seats and conversation was tried and abandoned. Sleep was tried and abandoned. So far as I was concerned the whole airplane had been tried and abandoned. But it did get us to Travis the next morning.

I checked my classified baggage again with security and grabbed a few hours sleep before taking advantage of my orders as a courier and getting a car and driver to take me to the San Francisco airport for a midnight departure on the so called “red eye special” to Boston. I was in uniform, of course, and armed, so I showed the ticket agent my orders and he had me escorted with my classified baggage to the airplane. There I reported to the pilot so he would know why he had an armed passenger. My baggage was stowed in the passenger cabin and I was given a seat where I could keep an eye on it. None of the airline people seemed particularly surprised by all this as military couriers were probably not unusual.

To my great satisfaction this airplane had an uneventful departure. But we ran into thunderstorms over one of the Midwestern states, lightning struck the aircraft and the outboard propeller on my side of the aircraft was ringed momentarily with a brilliant electrical discharge. Moments later something hit my window with a crack like a pistol shot. By then I was getting somewhat nervous. I was slightly relieved when I saw that the noise came from an antenna wire slapping against the side of the
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aircraft. In those days one of the aircraft radios used a wire antenna that stretched from just above the pilots’ cabin to the top of the vertical stabilizer. I assumed, correctly, that the lightning had severed the antenna and that it was flapping against the fuselage. For the next half hour we dodged thunderstorms as we approached the Chicago airport, Midway at that time, in zero visibility and, so far as I knew, no radio. And the antenna flapping against my window never let me forget our predicament. I confess that I was greatly relieved when we broke out of the clouds into clear weather near Chicago and made an uneventful landing. There we were told that we would have to change airplanes as one of our engines had been giving trouble the last hours of our flight.

Against all odds, the flight from Chicago to Boston was uneventful, I put my baggage into a cab which took me directly to 160 Brookline Ave. where I turned it all over to EG&G security, greatly relieved to be rid of it. I was apparently the first person to return from Eniwetok and the EG&G people who had remained in Boston were eager to hear about our activities there. There was little for me to do and our apartment was still occupied by our renters so I requested thirty day leave and around 16 May took the train to Baltimore where my father picked me up and drove me to my parents’ new home at 5 Gist Court in my mother’s home town, Westminster, Maryland.

On 21 May I drove up to New York to meet Marie-Anne and Joanne who were due to arrive the next morning on the French Line’s Ile de France. Marie-Anne’s parents had gone with them to Paris where they had taken the boat train to Le Havre. The Ile de France had been a famous ship, the pride of the French Line at one time, but had never recovered completely from the war and was a dowager that had fallen on slightly hard times. Marie-Anne and Joanne had an inside stateroom in tourist class — the best we could afford — but it was comfortable and there wasn’t a great deal to see crossing the Atlantic. Marie-Anne had confirmed in Luxembourg that she was pregnant and she had spells of morning sickness on the ship. Nonetheless she and Joanne made all the breakfasts which, like all the meals, were excellent. Marie-Anne did little socializing on the ship — there was no nursery and no baby sitters — so she had to be with Joanne at all times.

The ship was due to dock at 0830 and I was there well before that time, bursting with excitement at the prospect of seeing the two of them. However, it did not actually pull up to the pier until 1630 and I was tired and terribly disappointed not to have seen them among the crowds of passengers lining the rails and waving to friends and relatives below. By the time I finally spotted them as they filed down the gangplank an hour later I was feeling hurt that they hadn’t even bothered to look for me on arrival — that wasn’t at all the reunion I had pictured. I was somewhat consoled when Marie-Anne explained that as a Luxembourg citizen and traveling on a Luxembourg passport she had been herded from one room to another while the ship was docking to undergo the various formalities and indignities that the United States inflicted on arriving foreigners at that time.

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I got a porter and we took her baggage through customs and immigration — this took another hour or so — we loaded up our car and drove back to Westminster. I was in the usual quandary as to how much to tip the porter so I said to myself, “Better too much than too little” and I gave him ten dollars. In return I got a dirty look and a few well-chosen words but that represented close to a day’s pay for me and I was not about to give him more.

On 10 June we drove from Westminster to Boston and moved back into our apartment which our tenants had returned to us in good shape. Although my leave was not up I dropped by EG&G the next day to say hello and find out how things had gone. While I was talking to Lou Fussell Barney O’Keefe dropped by and said that Will Rowen, one of those for whom we had done the structure photography, had just called, bubbling over with enthusiasm about my films. He said they got information out of them that they had never dreamed of. Barney, of course, was quite pleased since it reflected well on EG&G and, since it had been my project, I was equally pleased. I also chatted briefly with Herb Grier who told me that EG&G had requested to be allowed to keep me for another year. I was more than willing to stay since I enjoyed working there and both Marie-Anne and I liked being in Boston.

One last story from Greenhouse. On one of the tower shots the nuclear detonation was to be preceded by ten seconds by the explosion of a small charge of TNT at the base of the tower. The evening before the shot, Barney O’Keefe had been up in the cab of the tower arming the bomb and was in the elevator on his way down when an explosion from the base of the tower shook the air. Barney jumped, of course, then realized with a shock that the TNT which had just exploded and the atomic bomb he had just armed were both to be fired by the same timing signal. So, as the elevator crept slowly toward the base of the tower Barney started counting off the seconds — 3, 4, 5, 6, 7, 8, 9 — Barney gulped and held his breath — 10. No explosion — all was well. The TNT had been fired locally to calibrate someone’s instrumentation.

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My leave ended on 19 June, a delightfully cool and pleasant Sunday, and the three of us drove to Wellesley and back along the Charles River. We were struck by the beauty of the Charles which, in its way, was comparable to the Seine. I hated to see my leave end as it had been such a delight being with Marie-Anne and Joanne. Back at work the next day with nothing in particular to do. We didn’t seem to have much information about the forthcoming test series.

On 26 June I was reassigned from the USAF Central Control Group, Washington DC to Headquarters Air Research and Development Command, Baltimore Md, with no change in duty station. My records moved from Washington where no one knew me to Baltimore where no one knew me.

We couldn’t afford to dine out often but the three of us had dinner on the 4th of July at a sidewalk cafe near Copley Square. I’ll quote again from my diary. “It was a
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fair meal and a rather pleasant Parisian atmosphere. However, a succession of seedy looking individuals kept walking by — one picking up cigarette butts and putting them away to be smoked later, and another walking unsteadily in the gutter. This being a fairly fashionable part of town we were rather surprised until we left the cafe. Then, rounding the corner towards which these individuals had staggered, we saw a large sign on a prominent building, ‘HEADQUARTERS CURLEY FOR MAYOR’. That had been Curley’s constituency we had seen.” I am not sure but that may have been the time that Curley was elected mayor of Boston while serving a jail sentence for corruption.

After dinner we went down to the Esplanade along the Charles for the concert by the Boston Pops. We sat on the bank of the river within shouting range of the orchestra and showed Joanne the ducks paddling around at our feet, chasing popcorn and doing duck antics for their and our amusement. However, we left soon after the concert began. It was impossible to enjoy the music which had to compete with distant firecrackers, nearby motorboats, and constant talking and shouting by our neighbors. Over the years I have found most outdoor concerts in urban settings to be frustrating.

On 8 July I flew to Los Angeles with about a hundred pounds of classified film, much of the fruits of GREENHOUSE. Again I went armed and in uniform as a military courier. I checked in to the AEC office at Los Angeles and arranged for guards, transportation, etc. Then I took the large format aerial camera film to the Air Force Lookout Mountain Film Laboratory for processing and printing.* These were films used to analyze the formation, rise and dispersion of the radioactive clouds from the shots. I spent the next few days at Consolidated Film Industries in Hollywood where they made fine grain positives and from those, duplicate negatives of the 35 mm film from my A-5 cameras and from some high-speed Mitchell and Bell & Howell cameras. From the duplicate negatives, 16 mm prints were made. The last day the Consolidated people hastily spliced the films together in a single reel and ran them off for me and for Dr. Kellog and Captain MacPherson who were involved in the analyses of the blast on the structures. I was out of the projection room for a couple of minutes and when I returned I saw the good doctor and the captain crouched over and looking at the film through their legs. I had a few odd thoughts about them until I noticed that the film was upside down. Rather than take the time to have it respliced they watched it that way to the end, commenting seriously upon various sections. I have noticed that scientists are prone to take unorthodox approaches to many of life’s little problems.

There was a military hospital in Waltham just outside of Boston, Murphy Army Hospital, and Marie-Anne was fortunate enough to be taken on as a patient by an obstetrician there. That meant that we would not have to pay for her physician or for

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*These films were only recently declassified. For a documentary on the Lookout Mountain Film Laboratory see Hollywood’s Top Secret Film Studio, DVD, directed by Peter Kuran (Thousand Oaks, CA, Goldhil Home Media International, 2003).
her hospitalization. Medical insurance was very nearly unknown in those days and we would have had to pay for both as we had done with Joanne. After Joanne’s birth the physician had advised Marie-Anne not to have any more pregnancies. However, my brother had later given her a fairly intensive physical examination in Baltimore and told us that it should be all right for her to have more children. As it turned out she bore this pregnancy quite well. I gave most of the credit to her appetite, which had not been very good before she left for Europe, but had made a remarkable recovery when exposed to the good food in Luxembourg. To be on the safe side, however, her obstetrician put her on a salt-free and non-fattening diet in July. That really gave her an appetite! As with all her pregnancies, she looked very well and her figure hardly revealed her condition until near the very end.

Buster-Jangle

In early August I and an EG&G civilian engineer, Harry Smith, were assigned the project of doing the cloud tracking photography for the next test series to take place in Nevada. We were to photograph the initiation, development and dispersion of the radioactive cloud during the first hour. This was done to help the theoreticians predict future cloud formation from knowledge of anticipated yield. This was important since the dispersion of this intensely radioactive cloud could then be forecast from a knowledge of the direction and strength of the winds aloft at various altitudes. This was particularly important for the Nevada Test Site since the radioactivity would be carried over much of the United States.

This was a relatively simple project — much simpler than my work on Eniwetok. In order to make measurements, the people for whom we were doing the work wanted photographs of the cloud from two widely separated sites. They wanted high resolution motion pictures of the early cloud formation and then a series of still photos of its late stages and of its dispersion. We decided to use Mitchell and Bell & Howell 35 mm cameras for the motion pictures — these were basically the same cameras used in Hollywood by the studios there. For the still photos we would use Air Force mapping cameras, K-17s. These used 200-foot rolls of film, nine inches wide, and produced negatives nine by nine inches. The K-17s came with intervalometers which could be adjusted to give a wide range of intervals between exposures. Both types of cameras had been used at Eniwetok and were on hand. And we decided to put all the cameras in the bed of a two and a half ton military truck so that we could easily site and move them if necessary. All these were easy decisions. I then spent a week roughing out a design for the camera racks, timing equipment and power supplies and gave it to our drafting department. From their drawings the equipment was procured and fabricated at EG&G which was again on a nine-hour workday in preparation for the tests. Once again EG&G was to furnish the equipment in the central control facility which would send out signals to detonate the devices and, at appropriate times both before and after the detonation, to initiate the many experiments in the area — tim-
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ning and firing as it was called. And the high-speed motion pictures of the early stages
of the fireball for determining yield was, once more, an EG&G responsibility, though
not mine. Finally EG&G had been developing an opto-electric device they called a
“bhangmeter” to give instant yield figures. This had been tried on GREENHOUSE but
had not been completely satisfactory and they were going to try an improved version
on BUSTER-JANGLE.

A few words of explanation might be in order here. In all nuclear tests one of
the most important measurements was the so-called “yield” of the device expressed
in kilotons of TNT equivalent. There were various ways of estimating that but the
primary method was from the motion pictures of the fireball development. The fireball
brightness as a function of elapsed time would increase for a time, then decrease
and finally increase once again before finally tailing off. The elapsed time from the
initiation of detonation to the first minimum was directly related to device yield.
This time was measured in milliseconds and could easily be determined from the high
speed motion pictures of the fireball. EG&G, which was always responsible for that
measurement, used Fastax cameras running about 3000 frames per second. I was not
responsible for those cameras though until Operation IVY. The bhangmeter referred
to above was an effort to make the same measurement using a photodetector, an
oscilloscope and a Polaroid camera. The advantage was that it gave yield in a matter
of seconds. It was used on most of the tests but was not very accurate. In any event
the scientists always wanted to see the fireball development which the pictures showed
beautifully.

I was supposed to leave for Nevada on 4 October but the arrival of our first son on
that day postponed my departure for two days. Because of my projected departure
my mother and father had driven up from Westminster and had moved in with us to
help Marie-Anne. Again I quote from my diary entry of 4 October.

A little baby boy was born to Marie-Anne this morning after a fairly difficult
period of labor. Last night, after dinner Marie-Anne began to feel a recurrent
pain. She was not due for another two weeks so we were both a little worried
— neither of us seriously considered that she was in labor. However, to be
conservative, we gathered her trousseau or whatever it was called, and I drove
her to the hospital. They admitted her and sent me on my way telling me
that they would call before anything happened. So I went home to an uneasy
sleep.

Some time before dawn (he was born between three and four AM) the
phone rang. “You are the father of a bouncing baby boy — mother and child
are both fine” they burst out in a fine show of originality. I was delighted and
greatly relieved and was at the hospital in the morning to take one look at
the baby in Marie-Anne’s arms — a wretched, little red thing with a lop sided
face who touched my heart in spite of myself. I was supposed to leave for
Nevada today, but I have postponed it until the 6th. Marie-Anne swears that
she had the child on purpose before I was to leave. My mother is the most
relieved person in all the world. I believe she was terrified to be in the house with a daughter-in-law on the verge of childbirth.

My father was so pleased to have a grandson — his first — that he insisted on having announcements made — quite out of character for him. This was Marie-Anne’s first stay in a military hospital and she thought her treatment there after delivery was a little too military. Very early in the morning, following two or three hours of exhausted sleep, she was awakened for breakfast, after which she had to walk from the recovery room to the maternity ward where she joined a half dozen other officers’ and soldiers’ wives. She stayed there for some five days, however, and though she had to make her own bed (which she thought a little odd) most new mothers today would be delighted to have such a lengthy stay following birth.

In anticipation of my absence I had resumed giving Marie-Anne driving lessons in our ’49 Chevrolet and she had taken her driver’s test. It was given in the city of Boston, not the easiest place to drive. To her dismay the examiner had her parallel park on one of Boston’s steep streets, a difficult operation in a vehicle with a manual transmission. But she passed, a tribute to my instructional skills, though that has never been acknowledged by her — quite the contrary in fact.

Two days later I departed for Nevada, leaving Marie-Anne and my parents to cope with the baby. While it wrenched my heart to leave them it never occurred to me to ask to have someone else take over my project. In a way, looking back, I am appalled that I left Marie-Anne like that. Yet I was a young captain, hoping eventually to become a young major, and I felt I had to do my job. I also had great confidence in Marie-Anne and we had close neighbors who could be counted on to help her in any way. As it turned out she did very well as always.

Arriving in Las Vegas I quote from my diary entry for 8 October. “I was driven out to Camp Three about 70 miles northwest of Las Vegas — this is to be our home for the next two months. The camp forms part of the newly activated Nevada Test Site and is not nearly finished. Our barracks where we will sleep eight to a room is a shell — no lights, no water, no heat, no paint — nothing. The camp is swarming with construction people who are building it and the Control Point while they also put in wiring, etc., for the many experiments planned for the tests.”

The army was also building a military camp called Camp Desert Rock just south of Camp Three. There the soldiers who would be viewing and participating in the tests would be billeted. Quoting again, from my diary entry of 9 October:

Was up north of Camp Three to the test site getting acquainted with the general layout. The road north from Camp 3 goes up over a small pass half a mile from camp — there is a gate at the pass where one shows one’s credentials to a guard — any sort of credentials seem satisfactory so long as they have that bureaucratic look. Beyond the pass lies Frenchman’s Flat where the tests last spring were held. After winding across this flat another low pass is crossed and Yucca Flat comes into view — a flat, hard white
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surface about two miles wide and four miles long. It sits in the middle of a large valley and will be the site of the forthcoming tests.

The Control Point or Command Post as it was sometimes called depending upon whether one was talking to a civilian or a soldier — the initials CP served well for either — was perched on the west slope of Yucca Pass and commanded a good view of all of Yucca Lake. It was a fairly small reinforced concrete building and would house the test control people including radiological safety and the EG&G timing and firing consoles. It was a long way from completion at that time. They were trying to build the test site and hold a test series at the same time and a certain amount of confusion was the inevitable result.

The next day’s entry read: "Harry and I got hold of a jeep and went out on a reconnaissance trip looking for sites for our camera trucks. We headed east from the Control Point, crossed the flat and drove up through a wide pass in the hills ringing the valley. The trail ended there and we struck out cross country, making our own trail over and through the sagebrush that dotted the desert."

After finding an appropriately elevated site, east of the Control Point and from which we could see the anticipated ground zeros, we retraced our route and headed west of the Control Point where we located a similar site for the other camera truck.

A few days later, Harry and I drove our camera trucks out to the sites we had selected — I had the east site and he the west. By 15 October we had all our equipment set up in the trucks and tested. Each of us had two K-17 aerial cameras with 6-inch lenses for coverage to about zero plus 30 minutes, and two 35 mm motion-picture cameras to give us high time resolution coverage of the detonation and the early cloud formation. The aerial cameras ran off the normal aircraft power at that time, 24 volt lead storage batteries, and the motion picture cameras used 115 volt AC furnished by a 750 watt motor generator which also provided us lights and the capability to charge up the storage batteries. We had built a power panel to control everything — the vacuum pump and intervalometers for the K-17s, timing markers for the motion-picture film, and so forth. We would not get the timing signals from the CP that EG&G would send out over wire to most experimental stations. Instead we would get a time hack some minutes before shot time and then start our equipments fifteen seconds or so before scheduled zero time.

A few days before the first shot EG&G learned that the drop aircraft were going to fly directly over my station just prior to bomb release. Herb Grier insisted that the site contractors sandbag my truck so that in the event of a premature drop I would have some protection. If such an unpleasant eventuality occurred they were to notify me by radio and I was to dive under the truck to the uncertain protection of the sandbags. In any case I didn’t trust them to notify me so I planned to watch the drop aircraft through my binoculars as it flew over me at some twenty or thirty thousand feet and observe the bomb release visually.

The first shot, however, BUSTER ABLE, was a tower shot and was scheduled for
predawn on 19 October. I drove my jeep out to my truck site the previous afternoon and spent the night in a sleeping bag in the bed of the truck. I was up at 0500, dressed quickly in the chilly early morning air, checked in to the CP by radio, started my motor generator and prepared my equipment well ahead of time. Then I settled back in my camp chair to wait. It was still dark and the stars shone very coldly indeed in the clear desert sky above me.

A half hour before the scheduled shot time I received a time hack over the radio and set my watch. By one minute to six the stars had faded, I had my dark glasses on my forehead, and was crouched over the power panel ready to start my equipment. At 0600 minus 15 seconds I threw my power switches, checked the operation of the cameras, drew the goggles down over my eyes, and peered intently forward, waiting tensely. The seconds passed and then a full minute, the silence broken only by the rattle of the cameras and the roar of the motor generator. Another thirty seconds passed and nothing. Feeling that somehow I had got my time wrong and not wanting to run all my film through, I turned off power to the cameras and, disobeying instructions, broke radio silence.

"Bluejay, this is Bluejay Baker, would you give me a time hack please, over."

"Bluejay Baker, that will not be necessary. Secure your station and return to the CP." I breathed a sigh of relief. The fault was not mine. As it turned out, someone had reversed a connector on the weapon and there was to be no shot that day. Barney O’Keefe or Herb Grier had to climb the hundred foot tower and disarm the device but they were being well paid for that unpleasant task and it was part of their job.

Two days later, 21 October, the shot went off on time. It was supposed to have been the first test of a “baby” bomb but the yield was less than 100 tons TNT equivalent. It may have been a “fizzle.” Weapons designers had always known that stray neutrons could cause preignition of the fissioning process and, in fact, I was once told that something like one in twenty weapons would catch a stray neutron, preignite and fizzle. There was no cloud to speak of. Small as it was though, the explosion obliterated the tower. I unloaded the cameras, put the film in my jeep, shut everything off and drove back to the CP where I checked clean for radioactivity and joined the rest in discussing the disappointing (to us) shot.

On 28 October we had Buster Baker, the first air drop which, like all air drops, took place in daylight — at 0720 hours on that day. I drove out to my site early in the morning, loaded my cameras, started the generator and waited. A few minutes before zero I sighted the drop aircraft, a B-50 I believe, approaching the flat from the southeast at an altitude of perhaps 30,000 feet. As it neared me I took my binoculars, laid on my back on the stony ground, and watched it. When it appeared to be directly over my head I saw the bomb drop from the aircraft and hurtle toward the earth with a stunning velocity. Happily the horizontal velocity vector exceeded the vertical vector over much of its flight but it never looked very far away as I followed it visually for about ten seconds. Then, jumping up, I threw the switch that started my cameras, pulled the dark glasses over my eyes, and waited. At 1,118 feet
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above the target it detonated, silently, in a brilliant flash of white light and I felt a
disturbing but short lived wave of heat like the heat from the midday sun. The shock
or shocks arrived at my site, some seven or eight miles from the detonation, about 35
seconds later with a double crack as usual. Reporters covering the shot from 35 miles
away said they “saw a dead-white, split-second flash of light,” supplanted by a “huge
orange-red ball.” The resulting mushroom “turned from purplish black to pink” as
it met the rays of the morning sun.” The yield was a modest 3.5 kilotons. The cloud
grew to a height of 31,700 feet before it began drifting north and west. Once my film
had run through I called and received permission to return to the CP. Radiation at
ground zero shortly after the detonation was only 6 R/hr.

The next shot, Buster Charlie, followed two days later at 0700 and I followed
the same procedure as for the previous shot. This was also a B-50 air drop and the
aircraft, once again, appeared to release the bomb directly over my camera truck.
I had gained a little confidence from the previous shot so I followed it with my
binoculars to about ten thousand feet. Further I dared not watch without my dark
goggles. It detonated slightly higher than Baker at 1,132 feet and had a considerably
higher yield of 14 kilotons. Both the heat and the shock were noticeably stronger
than Baker. The cloud ascended to 41,000 feet and, as was usually the case, the
stem of the mushroom twisted as the winds at different levels carried it in different
directions, dispersing it. Residual radiation at ground zero was measured after the
shot at 5 R/hr.

Two days later, 1 November, came Buster Dog, another 0730 hours air drop
with a detonation height of 1,416 feet and a yield of 21 kilotons. The cloud topped off
at 46,000 feet and the residual radiation level at ground zero reached a surprisingly
large (for such a high burst) 20 R/hr. By then I was getting rather blase about having
an atomic bomb dropped directly over my head. I was pretty sure the bombardier
would have no trouble identifying the target and I knew if he identified it he could hit
it. But I couldn’t help but recall the many times in the late war when our bombers
dropped well short of the target!

Then, three days later, 5 November, the Buster series came to an end with
Buster Easy. This was a good sized weapon with a yield of 31 kilotons — some
one and a half times the yield of the Hiroshima bomb. Height of burst was 1,314 feet
and the cloud top rose to an impressive 50,000 feet. I believe these cloud heights were
estimated by the radiation tracking aircraft. We tried to measure cloud height later
from our cloud photos but we were too near the clouds to be able to see their tops
on our photos.

The next series of shots, the Jangle series, were not to begin for two weeks so I
had talked Herb Grier into letting me return to Boston for a short visit with Marie-
Anne, Joanne and little Franklin. I flew back home the afternoon of the 5th and then
back to Nevada on the 9th for the two shot Jangle series. It was good to see them

at the Nevada Test Site that I have included in these memoirs are from this publication.
This is How it Was

even briefly and to note how much Franklin’s appearance had improved. Nothing looks less promising than a new born child.

We had the same set up for this as for BUSTER, everything had worked well there, and we had very little to do to keep busy. A couple of afternoons Harry Smith and I amused ourselves by taking one of our jeeps and exploring the desert and mountains around the test areas. Many years before our arrival the area had been prospected intensely by individual prospectors hoping to strike it rich, but no important strikes had occurred. We ran across several abandoned mines with shored up entrances that led only a few dozen feet into the hillside, evidences of early discouragement. Some even had a few feet of iron rail and iron wheels and axles scattered around the entrance, mute monuments to broken dreams. There were no roads so we simply drove around and through the scattered vegetation and up the rocky hillside. Remembering problems we had had with jeeps catching fire on desert maneuvers in 1942 I was very careful to check under ours every half hour or so and to remove any vegetation caught against the hot muffler and exhaust pipes.

JANGLE SUGAR, the first JANGLE shot took place on 19 November and was a small, surface level shot, with a yield of just 1.2 kilotons. The cloud which was mostly dirt rose to a height of only 15,000 feet. But the residual radiation intensity at ground zero was astronomical — 7,500 R/hr. I am still curious to know how that was determined since that was a high enough level to give a lethal dose in only four minutes! There was a fairly large number of army troops involved but I saw little of them.

The next and last shot was not to be for ten days which seemed an eternity with little to do and a family without me back in Boston. EG&G kept several hotel rooms in Las Vegas for their employees and I spent a couple of nights in town, gambling and observing the wild life, but that palled very quickly. At that time gambling was legal in only one state, Nevada. I decided that roulette was one of the few games where I understood the odds and where they were not stacked unduly against me. There were 36 numbers plus a zero and double zero on the roulette wheel, and the house’s only edge was the zeros (at Monte Carlo the odds were even better — they had no double zero there). And at that time the casinos did not use chips. Instead they sold silver dollars and all the betting was done with those large, heavy coins. And not just the casinos — everywhere in town silver dollars were the coin of the realm. This was a much more satisfying experience when you were winning than today’s chips or tokens — nothing can beat the solid feel of pile of silver dollars. And it was fun to plank down three or four silver dollars from a heavily laden pocket for breakfast the next morning.

While nothing could surpass the satisfaction of leaving a casino with bulging pockets, I did not always win, of course. Generally I would go into the casino with a twenty-dollar bill and a resolve to quit when it had either become forty dollars or had disappeared. I could usually spend several hours reaching one or the other of these goals since I did not play steadily but spent much time watching the other
gamblers who were a fascinating study. Even more so than today, the casino gamblers of that time were completely outside of my experience. I sometimes felt, mingling with the dudes, the cowboys and the painted women, that nothing was real but that I was taking part in a Hollywood western. Especially when a waitress would offer me a complimentary cocktail or when I would spot an easily recognized “shill,” a man or woman paid by the casino to move to empty tables and gamble. This on the well-justified theory that gamblers were attracted to tables where the action was already taking place. It was easy to recognize the shills. They were usually alone at the table and they gambled without emotion — very understandable since it was not their money and they could not keep any winnings. By the time I returned to Boston I had had a lot of entertainment and had come pretty close to breaking even at the roulette tables.

The last shot of the two series, JANGLE UNCLE, was detonated on 29 November and was the first US underground shot. It was scheduled to go at 0900 hours but, because of the intense radioactivity expected, it was necessary to have a wind from the south to blow the cloud toward the sparsely inhabited country north of the test site. At scheduled shot time the wind was from the north and shot time was postponed for a half hour. From one half hour to the next it continued to be delayed, the news coming to me over the radio in the usual cryptic form. Finally, at 1155 the wind, which I had been anxiously testing every few minutes, suddenly veered to the north and the radio announced it would go.

I had two EG&G people with me for this shot; Tony Fazio, an electronics technician and Nancy Mortenson, a mathematician. Herb Grier tried to give all the EG&G people who were in Las Vegas an opportunity to see at least one shot and they thought they would get the best view from my site. One minute prior to zero time we all put on our dark goggles and began peering toward the anticipated shot. Sixty seconds ticked by and nothing. Wondering, I finally peeked very cautiously from beneath the goggles and saw a small, dirty plume sticking a short distance into the air — the shot. I removed my goggles, checked my cameras very leisurely, made a few adjustments and watched the cloud briefly. Then, happening to look down from the back of the truck, I noticed Tony and Nancy still peering intently through their goggles, looks of excited anticipation on both their faces. The muffled sound of the explosion arrived about that time, and it was two very disappointed people who removed their goggles and saw the pathetic cloud. It was a relatively small bomb, 1.2 kiloton yield, and the cloud only rose to a height of 11,500 feet.

Some years later, following the atmospheric test ban treaty, the US detonated many underground shots, the idea being to prevent or greatly reduce the radioactive clouds. Those were set off deeply underground, but Uncle was only 17 feet below the surface and thus simply enhanced the intensity of the resultant radioactive cloud. Such a shot was a surprising thing to do knowing that the intensely radioactive cloud would fall out on much of the United States. The radiation intensity at ground zero immediately following the shot was again an astronomical 7,500 roentgen per hour.
Since that was the last shot I stowed all of my odds and ends of equipment behind
the camera and power racks in the bed of the two-and-a-half ton truck and prepared
to drive the truck back to the CP. My visitors had taken the jeep there with my
films shortly after the shot. However, the wind at ground level had dropped to near
calm, but what wind there was had reversed its direction and was blowing the lowest
portion of the radioactive cloud south along the flat which I would have to cross to
get to the CP.

I wasn't at all sure whether or not I should drive through the cloud. The only
radiation measuring device I had was my dosimeter which didn't measure radiation
intensity but only total radiation dosage received. I called on the radio and was told
that the radioactivity in the cloud was not terribly high so I was not too concerned
about getting a high total body dose, but was concerned about ingesting radioactive
particulate. However, I had a simple felt respirator that would give me reasonable
protection and I would be in the cloud only a matter of minutes so I decided to
go. Donning goggles and the respirator, I took off down the hill and across the flat.
Just before I entered the visible cloud I stepped on the gas and roared across the
flat at a good forty miles an hour, passing through the cloud in around a minute.
When I arrived at the CP I got a good dressing down from Herb Grier and was
sent immediately to radsafety for checking and decontamination if necessary. My
dosimeter showed I had received a rather small dose of total body radiation and I
and my clothing were OK. The respirator, however, we threw into the radioactive
waste bin for disposal. The truck had to be washed down and the tires, in particular,
were fairly hot. I suppose the intelligent decision would have been to wait for the
cloud to disperse completely but that would have taken many hours and the risk was
small.

That evening, around dusk, I was driving my jeep from the CP to camp 3 when
I noticed a flickering orange reflection on the side of the road and keeping pace with
me. It took several moments for me to realize that I was on fire. I screeched to a
halt, jumped out, and saw what appeared to be the whole underside of my jeep in
flames. I knew immediately what had happened and was trying frantically to tear
away the burning sagebrush trapped between exhaust and jeep when another vehicle
pulled up, an officer jumped out with a fire extinguisher, and quickly put out my
little fire. I thanked him, removed the remains of the sagebrush, and drove on to
camp and dinner.

The next day, November 30th, Harry Smith and I packed up all our film and drove
our trucks in to Las Vegas where we turned them in to EG&G there. That night we
had a good dinner and enjoyed one last tour of the casino. I played roulette as usual
and was fifty dollars ahead at one time. After paying for my dinner I lost the rest of
my winnings but still had the twenty dollars with which I had started the evening.

I wasn't to go straight home, however. On 2 December I drove one of EG&G's
rental cars across Death Valley to the Naval Ordnance Test Station at China Lake
(Inyokern). I was carrying film from the tests to be processed at the laboratory there.
I spent the next day getting that taken care of and then drove to Los Angeles from where I took a red-eye flight to Washington for some reason and then the next day to Boston, delighted to be with my family once again.

Two days before Christmas Joanne asked us, “Will sugar plums dance on baby brother’s head?” We had a white Christmas, sugar plums did dance on baby brother’s head, and the year of 1951 ended for our cozy family of four with all of us in good health. With my report on Buster-Jangle written, I awaited eagerly what the new year would bring.

**Boston Interlude**

Several of the people at EG&G had asked Doc Edgerton if he would design an electronic flash unit that we could use for our personal cameras. These were available at that time commercially but they were expensive. He did so and the company purchased the parts and fabricated the case and reflector. Then about twenty of us began putting our units together at night after work. It took only three or four nights’ work and I had a splendid electronic flash unit, by far the best I have ever owned. It was rather large — there were two big electrolytic capacitors mounted side by side and atop these was a spun aluminum reflector about six inches in diameter. It operated from 120 volts AC, had a power cord about thirty feet long, and weighed around two pounds — not your compact flash unit of today. But oh, did those big electrolytics put out the lumens! I can’t recall the guide number but I know it was very high.

I owned a Kodak Retina I at that time, This was a small 35 mm camera with a between the lens shutter which folded into a very compact unit comparable in size to the small cameras of today. It had no rangefinder and no exposure meter so I had to estimate distances and exposures but I got lots of good photos with that camera. It also had no connection for flash so I had to exercise a good deal of ingenuity to synchronize my new electronic flash. There was a small lever on the outside of the lens that one cocked to activate the shutter. When I pressed the button to take a photo this would snap back. So I attached an adjustable switch to my flash unit that this lever would strike when it snapped back. Then I mounted the camera on the flash, set the diaphragm wide open, opened the back of the camera, looked through the lens, and snapped one flash after another, adjusting the delay until I could see the light illuminating the entire lens opening. I knew then that the flash was being triggered while the shutter was wide open. I only had to do this once and it stayed in sync thereafter. Crude but very effective.

I noted in my diary that, “The baby is coming along fine. He coos now sometimes at Marie-Anne, though never at me, and smiles at her often. He is a darling little boy, so good natured, and so well behaved.” And, while I was roughhousing with Joanne she stroked my graying hair a bit. Then with childlike innocence she said, “Daddy, you have snow in your hair”. One day she saw Marie-Anne as she came out of her bath and was quite surprised to see her breasts. When I came home from work that
evening I asked her if she wanted to grow up like mama. “Oh yes,” she said, “and have big things on my tummy!”

On 18 January we had a big meeting at EG&G and were informed, finally, of the plans for the spring test series at Nevada. And that we would have to ship our equipment in about a month. We were discussing the difficulty we have had in trying to take pictures through the dust raised by the shock wave and one bright young thing — a secretary — piped up, “Can’t you use a dust filter?” And Barney O’Keefe commented when the discussion turned to who would go on forthcoming tests, “No one wants to go on these tests, but if we fail to ask someone he goes around with a hurt look on his face for days.” I guess it was the old story “I may not want to get married but I sure do want to be asked.”

I joined a group of people from EG&G who went to the Red Cross to give blood — I had never done this before. To my surprise I was told that my blood pressure was too low — below 110. They must have been desperate because they kept taking it until they got it somewhat above that level. But when they started taking my blood I nearly fainted and they had to stop. I had been feeling somewhat tired for weeks and I wondered if my low blood pressure was the reason.

On 4 February I was transferred once again, this time from Headquarters Air Research and Development Command in Baltimore to a so-called Special Activity Squadron at Bolling Air Force Base in Washington, DC for duty with Task Group 132.1, Joint Task Force 132 with duty station at EG&G. Once again there was no physical move involved.

On 10 February we had little Franklin baptized in the Catholic faith by the chaplain at Murphy Army Hospital. I noted at the time that it was an auspicious beginning for his military career. The priest was an army officer, his godfather proxy was a naval LtJG, Smoky Martin, and his godmother proxy the widow, Joan Pelland, of an Air Force pilot who had been killed in a crash a few years before. In retrospect that may not have been as auspicious a choice of proxy godmother as I believed at the time! His actual godmother was a Luxembourger, Nini Dupong, a close childhood friend of Marie-Anne’s.

On 22 February, Washington’s birthday, a holiday at that time, Marie-Anne took Joanne into Boston to see Snow White and the Seven Dwarfs. I stayed home and took care of little brother. I bathed and fed him. Then I expertly threw him over my right shoulder, protected of course by a folded towel, and tried to burp him. For two minutes I patted and patted his little back, but no burp. Then, he slowly turned his little head to my other shoulder and threw up, spewing remnants of his meal on my shirt, my suspenders and my trousers. As I said once before, it is a good thing that small children are so cute. Otherwise few would survive.
Tumbler-Snapper

On 20 February I was told that I would have to go to Nevada for at least two weeks for the spring test series. Five days later I broke the news to Marie-Anne. She took it quite calmly — she merely told me that she was going along and I never doubted for an instant that she would. There are times when one does not question a wifely decision and I could tell by the look in her eyes that this was one of those times. So on 7 March we loaded up our car, inside and out, and the four of us started south.

We stopped at Westminster to see my parents for a couple of days and then continued south and west, arriving in Las Vegas around the 15th. There we rented a small two-room apartment with kitchen which we shared with Harry Smith, his wife and child. I then proceeded to the test site where I would stay during the week, going into Las Vegas on weekends and odd times to be with my family.

Strangely, my mind is a near blank on my responsibilities for that series and my diary says little about it — for security reasons perhaps. I know that I had cameras photographing various items near the shots but I have completely forgotten what these were. I do have a diary entry for the first shot, TUMBLER ABLE.

TUMBLER ABLE, 1 April, was an air drop from a B-50, the bomb detonating at a height of 793 feet and with a yield of only one kiloton. Quoting from my diary, "The first bomb was detonated today — a beautifully accurate drop as usual. This one was detonated above the lake bed at Frenchman’s Flat, and, ringed by hills as it is, reverberated and rumbled for almost a minute. Oddly the sharp crack of the detonation was preceded by a gentle rumbling. The explosion was at 0900 hours and we went in to recover our cameras at 1130. Our nearest camera station was only 250 feet from nominal ground zero and we measured 900 milliroentgens per hour at that point.” (Miller gives the radiation level at ground zero as 5 R/hr which is in reasonable agreement.) I didn’t even require a shower after returning to the Radsafe building. I went into town on my return and we went out with the Warchols, leaving all six children with the Smiths. We went to several casinos, saw three floor shows, and lost ten dollars playing roulette.”

Quoting from my diary entry of 3 April; “We took Harry’s station wagon back to camp today. Apparently my pictures were quite satisfactory though two of the fourteen cameras did not run. I drove up to area 7 at Yucca Flat where the next shot is scheduled to go and found my camera shelters still incomplete. Spent the afternoon cleaning the cameras all of which are covered with dust with some of the lenses nearly opaque from the dust. None were very heavily radioactive.”

Then on 4 April; “Lou Fussell (our theoretician) was very pleased with my pictures. So much so that he is showing an intense interest in the next shot — wants me to add a tower and two Fastax (very-high speed 16 mm) cameras. This entails some slight changes including adaptation of my timing markers to the spark gaps in the Fastaxes instead of the neon bulbs in the A-5s.”

I was back in Las Vegas with the family on the 6th, a Sunday, and we took Joanne to the Last Frontier Village, a recreation of an old western town done with a good
deal of license. We had bought her a little cowgirl outfit and she took her first pony ride. In the evening Marie-Anne and I went to the El Rancho Vegas, one of the casinos, for dinner and the floor show. Dinners at the casinos were very inexpensive at that time — the casinos wanted to lure customers for the gambling — and dinner included elaborate floor shows. Then little Franklin kept us awake most of the night with a rattling throat. Two days later Marie-Anne called me to let me know that he had gotten much worse and she had taken him to the doctor who diagnosed asthma. This could have been a lifetime problem for him but, fortunately, it never recurred. Perhaps the diagnosis was in error.

The second shot, TUMBLER BAKER, another low yield (1 kt) air drop, took place at 0930 hours on 15 April. I presume I ran cameras on this shot but both my diary and my memory are blank for a week or ten days. This may have been the shot that I took Marie-Anne to see. She could not enter the test site but I knew when it was to go and we got close enough to see the fireball which was not particularly impressive. I did take a couple of Kodachromes of the fireball, the only shot I was ever able to photograph for myself.

TUMBLER CHARLIE, nicknamed operation “Big Shot” by the press, was a media event; the AEC and the military allowing newsmen access to the test site for the first time. Shot time was 0930 on 22 April. This was another air drop and a big one with a yield of 31 kilotons. With a height of burst of 3,447 feet the radiation at ground zero following the shot was a very modest 0.15 R/hr.

My diary entry for that day reads; “Reporters, cameramen and dignitaries were invited to witness the shot. The hill north of the CP was swarming with them when we arrived this morning to take up our own positions at the CP. The shot was beautiful. It was a perfect day and the drop aircraft left sharp white vapor trails behind as it gracefully approached the target. The reactions of the reporters were amusing. One stated later that when he felt the heat at the moment of detonation his first thought was — ‘something has gone wrong!’ One very well-known reporter from a large New York paper dived under a nearby table when he felt the heat from the detonation build up over the first few seconds.” I was not entirely unsympathetic. For most of the tests at which I was present, then and later, the most awe inspiring and sometimes frightening phenomenon associated with the bomb was not the blast or the radiation but the searing heat from the fireball which could be felt miles away.

TUMBLER DOG, at 0830 on 1 May, was again an air drop with a burst height of 1,040 ft and a hefty yield of 19 kilotons. This one had been delayed several days by intermittent drizzles, continuing a very wet spring for the desert area which had left it abloom with desert flowers and contributed, perhaps, to little Franklin’s respiratory problems. I quote once more from my diary entry of that date:

The last shot (of the TUMBLER series) went off today much to my relief. After waiting a good while for clearance to enter the shot area, Tony (my EG&G technician), the driver, the radsafe monitor and myself left in a jeep and a truck in full field dress (protective clothing) for our camera stations.
Nuclear Tests

Unloading the cameras most distant from ground zero was routine but as we approached those nearer ground zero the radiation levels shot up abruptly. We unloaded the cameras from the tower three thousand feet from ground zero with a few slight qualms as the ladder on the camera tower had been bent in a graceful arc by the blast. But the next camera tower — the one 750 feet from ground zero exhibited the effects of the full fury of the blast. It had been hurled to the ground together with my cameras and the heavy steel girders from which it was built had been bent and crumpled as though they were made of paper. I was anxious to get the cameras since the elevated radiation levels would certainly darken the films if they remained there long. So, leaving the truck and the other people at the 1 roentgen/hour line, the radsafe monitor and I continued forward in the jeep. About 150 feet from the tower the monitor began jumping up and down in his seat beside me.

“Hold it, hold it!” he shouted, “We can’t go any further!” He was reading a radiation level of 15 roentgen/hour, much higher than I had ever experienced before, and the reading was going up exponentially as we neared the tower. He was not to be talked into going any closer and, while I badly wanted to get to those cameras, I knew he was right. We turned around and both vehicles returned to the CP, without our nearest cameras and with about 3 roentgens gamma dosage — the largest dose I have yet received.

I note in Miller’s *Under the Cloud* that the marines, who toured the display area right after the shot, turned back at 2700 feet from ground zero. He commented further that had they continued to 900 feet they would have encountered radiation levels of 10 roentgens/hour. 900 feet was about the distance at which we had turned back and we were reading an even higher 15 roentgens/hr.

That ended the TUMBLER series of air drops and my participation in the tests. The remaining shots, code named Snapper, were weapons development tests and there was no effects photography scheduled. I could not enter the shot areas anyway since I had my allowable dosage of 3 roentgens. So EG&G released me to drive back to Boston and Tony was left to pack up the cameras and associated equipment. I would like to quote though from Miller’s comments on the next test, the 7 May Snapper test. The remarks in brackets are mine.

Photographers for the Cambridge, Massachusetts, firm of Edgerton, Germeshausen [*sic*] and Greer [*sic*], readied their cameras for the next day’s shot. Using a special electromagnetic shutter, the cameras would record the blast in terms of milliseconds (actually microseconds). On some of the tower shots, the cameras would take the photo too late (actually intentionally), showing only a white glare. Other times the shutter would trip too soon (also intentional). The result would show the bomb cab glowing, surrounded by intense radiation, with pockets of ionized air popping through the corrugated metal a microsecond before it is consumed by the fireball.
Those were the cameras I referred to earlier when I was working on their capping shutters at Boston. They had a shutter speed of about a microsecond which meant that they needed an enormous amount of light to get correct exposures. Fortunately (for photographic purposes anyway) nuclear detonations emitted that enormous amount of light. The camera took a single exposure so it was sometimes necessary to trigger the shutter at exactly the right time to the microsecond in order to get the picture desired. The cab atop the shot towers had a large window on the side facing the camera and I recall looking at one of the photos (they were highly classified at that time) which showed the glow from the detonating bomb which had not yet broken the window!

Some weeks later I received the following letter from Dr. Alvin C. Graves who had been the test director for TUMBLER-SNAPPER:

Dear Captain Dukes,

I am happy to express to you my appreciation for the excellent work you did for EG&G during Operations TUMBLER-SNAPPER. The organization and operation of the blast line camera stations was a large and difficult job. The quality of the pictures taken demonstrates your competence and testifies to the many hours of hard work you gave to the many problems involved. Your competence contributed appreciably in making that operation a success and in providing important blast data to the Department of Defense.

The pictures were good, we were proud of them, and it was thoughtful of Dr. Graves to recognize publicly the efforts of some of the lesser participants in the test — myself, that is.*

Las Vegas to Boston

Early on the morning of 5 May, 1952 the four of us left Las Vegas in our 1949 Chevrolet. We detoured slightly, making stops along the south rim of the Grand Canyon where I took several slides of the four of us. We stopped briefly at the Painted Desert but were not impressed. We had lunch in Flagstaff and drove on through Gallup to Grants, New Mexico where we spent the first night after a 370 mile drive.

The next day we were having problems with our car. It had no pep and was overheating on slight grades. So we stopped in Albuquerque to have the engine tuned up. The mechanic said that it did not need a tune up (whatever that may have been — I had little idea in those days how a car worked or what a tune up was). Instead

*Franklin received three commendation letters for his photography of nuclear tests. One is reproduced in the figure on page ??. (ECD)
he wanted to give it a valve job. I didn’t know what a valve job was either but I knew it would be expensive and I wanted a second opinion before spending our money and time. So we left Albuquerque around noon, headed toward Santa Fe, and the car seemed to run fine thereafter. The Rio Grande was in flood at Albuquerque when we crossed it — four feet deep! The most memorable description of the Rio Grande that I have heard was this, “A mile wide and an inch deep. Too thin to plow and too thick to drink.” The day’s run was 345 miles, stopping in a small New Mexican town.

We got off to a good start the next morning at 0815 hours with breakfast behind us. We drove north to Denver, enjoying the sight of the mountains west of the highway looking cool in their snowy caps. After Denver, which was not a particularly attractive city from the highway, we headed north east where the countryside began to green and ranches gave way to farms. We stopped for the night in Sterling, Colorado after a drive of 341 miles. I noted in my diary that there was a fragrance of spring in the air in Sterling — the unmistakable odor of manure.

The next day we drove completely across Nebraska, along a gently rolling, fertile plain with large farms and many small towns, quite lovely in the springtime. There were no interstates in those days so we had to go through every small town at 25 miles per hour, stopping at two or three red lights in each town. We planned to spend the night in the east side of Omaha but after driving through the city we could find no decent place to stop. So we continued past Council Bluffs finally running into a blocked road and having to return to Council Bluffs. There we found a reasonably decent tourist court (the word then for a motel) and got something to eat in a “greasy spoon.” I was tired and frustrated after a long drive of 484 miles.

The following day we drove across Iowa — much like Nebraska from the highway. A misty rain fell most of the day, just right for the crops but just wrong for driving. The average car of that time had no windshield washer and not enough rain was falling for the wiper to clear the windshield. Passing trucks sprayed it with a mud that the wipers merely succeeded in spreading into a translucent layer. Part of the time I had to drive with my head hanging out the window where the occasional car would spray it with mud. It was no fun. We ended up in a very nice motel in Galesburg, Illinois.

Poor little Joanne vomited four times during the night — all over the bed and herself. The next day at lunch she proudly told the waitress “I’m drinking tea ’cause I threwed up.” There used to be a comic strip character who would say, “I bruise easy but I heal quick.” That is an appropriate comment for most children, fortunately.

We hit the Pennsylvania Turnpike after noon on May 11th and soon ran into heavy rain. Then the car began to overheat and to run raggedly. We left the turnpike around dark and headed southeast across the mountains. As we climbed through the dark the fog became so bad that we could hardly see the side of the road and, to add to our woes, the car’s thermometer slowly crept up, finally pegging when we reached the top of a hill in the middle of nowhere. Just then, incredibly, we saw a lonely garage alongside the road and, even more incredibly, there was a mechanic on duty! He quickly diagnosed our problem — a leaky hose to the heater — he had a replacement.
in stock which he installed for a few dollars, and we went on our way with the car running perfectly. That was the last open garage we saw all night! We finally arrived in Westminster at 0300 hours on May 12th, exhausted after a long day’s drive of 442 miles.

We spent a couple of days with my parents and then drove back to Boston where I became involved immediately in planning for the fall test series in Eniwetok. A naval officer, Lt. Doug Cochrane, had recently joined our small military group at EG&G. He was a communications officer and was requested by EG&G to help them with their land/sea communications in this series. A couple of years later he was trapped with Barney O’Keefe in a bunker on Bikini, following massive radioactivity fallout from a test there. That was the same test that resulted in fatalities on a Japanese fishing boat that was caught in the fallout some hundreds of miles away. Fortunately the EG&G people were eventually evacuated by helicopter without getting too heavy a radiation dose.

Shortly after getting back to Boston I decided to replace our 1949 Chevrolet coupe with a new 1952 Nash Rambler station wagon, perhaps the first of the so-called “compact” cars, somewhat smaller than the Chevrolet. The Chevy had 32,000 miles and had served us well but the little Nash tickled my fancy and I rationalized trading at that time before we began to have any serious car problems. The price for the Nash was $2095 and it included a car radio and a set of six ply tires. We received $1225 for the three year old Chevrolet so the new car cost us just $870 and we paid cash for it as we did for every car we ever bought thereafter. The six ply tires were suggested by an article I read somewhere touting the extra two plies for safety and extended life. When we traded in the Nash years later after 60,000 miles it still had those original tires and they looked like new. They did make the car ride something like a truck but I never noticed how a car rode in those days. Marie-Anne hated the car from the day we bought it but I was always fond of it and enjoyed driving it.*

I note in my diary at that time that “Little Franklin is certainly an obnoxious child upon occasion. He sleeps very well during the day, taking several restful naps. Then comes night and he is exhausted. We pop a bottle into his mouth (Marie-Anne had weaned him by then) and settle him down for the night. He finishes the bottle and goes to sleep. Half an hour later he wakes up and starts to cry — still sleepy mind you, but unable to get back to sleep. He racks back and forth, scratches his head, turns it to and fro, then gives a frustrated cry as sleep does not come. We carry him, etc., and finally get him to sleep around 2200 hours. At 0100 he wakes again and cries out. One of us jumps out of bed and rushes into the living room and calms him once again. At 0530 he wakes and wants his bottle. This goes on night after night and takes a good deal out of us both. I honestly believe that he needs to suck

*Franklin’s affection for Ramblers continued until the decline of American Motors in the late 1960s. He purchased two more American Motors station wagons, a Rambler Cross Country and a Classic 660, the last around 1963. The Classic 660 provided my transportation throughout my college years and was sold in 1975. (ECD)
his thumb as Joanne was already doing at his age.” Thumb sucking was considered a bad practice at that time and there was no such thing as a pacifier which would probably have solved our problem.

**Back to Eniwetok: Ivy Mike**

In late May Herb Grier was back from Nevada for a few days and threw the entire photographic coverage of the forthcoming Eniwetok test series in my lap. Code named **Ivy**, there were to be only two shots. The first and most important, **Ivy Mike**, was to be the world’s first thermonuclear detonation, and the second, **Ivy King**, an air drop of a very large fission bomb.* **Ivy** was to be run by the army under Joint Task Force 132, and all of us at EG&G, civilian and military, were assigned to Task Group 132.1, the Scientific Task Group.

The thermonuclear detonation would not be a weapon but an experiment to demonstrate, hopefully, the feasibility of a thermonuclear weapon. The yield for the thermonuclear detonation, if successful, was predicted to be an order of magnitude higher than anything the US had yet tested. We would be providing fireball and shock wave photographic coverage of both tests, most of it from cameras on the island of Engebi, some three miles from the detonation site on Engellab. We had been given some sort of estimate of the shock and radiation figures at that camera site and it was obvious that we were going to have to provide considerable protection for the cameras from shock, blast, heat and prompt nuclear radiation at the time of the blast, and from fallout afterwards. In addition, since the cameras would be sitting on the island unattended for at least twenty-four hours before the shot, and up to several days afterwards, we had to protect them from the elements. My immediate problem was to get the appropriate camera shelters designed and built. The design that we had used on **Greenhouse** would be completely inadequate.

We quickly decided to mount the Engebi cameras atop a concrete bunker which would contain the power supplies and all the associated electrical equipment. Because of the number of cameras and the restricted area atop the bunker we were forced to place the cameras in three rows, one behind the other. After eliminating a number of ideas I finally settled on an unusual design. Each camera would be placed in a massive box consisting of two inches of lead sandwiched between two layers of quarter-inch steel. Each camera would be mounted vertically on the door of the box, looking at the detonation by its reflection in a mirror set atop the box. Each camera would look

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*Ivy Mike* was the first detonation of a so-called hydrogen bomb, which produces energy by fusing together two deuterium (heavy hydrogen) nuclei. Previous nuclear weapons had worked by splitting heavy (uranium or plutonium) nuclei, the process called fission. Stars produce energy by fission, nuclear reactors by fission. The quest for a fission-powered nuclear reactor has been ongoing for many years, but a feasible device still appears many decades away. Since supplies of deuterium are almost unlimited, fusion reactors could satisfy our energy needs for the foreseeable future. (ECD)
at the mirror through a two inch thick, four inch diameter, lead-glass window which would provide the equivalent of one inch of lead shielding from nuclear radiations. The mirrors would be closed over the windows after we loaded the cameras and left the site, so as to seal and protect the lead-glass windows from rain, salt spray and dust. A few seconds before the shot a heavy electrical current would fuse piano wires holding the mirrors closed and a counterweight would swing them open forty-five degrees giving the required field of view for the cameras. Each shelter box contained a single camera, was about three feet on a side, and would weigh over a ton. All these steel and lead boxes would be mounted on concrete piers atop the concrete bunker with each of the back piers only a few inches higher than the ones before them. This sounds complicated but was basically simple and proved completely reliable, though I would have some moments of anxiety. I got approval for the design, and drawings of the steel and lead shelter were sent to Holmes and Narver to be fabricated and shipped to Eniwetok. We ordered the mirrors, windows and associated electronics ourselves.

On July 21st *Life* magazine came out with a two-page enlargement from a frame of one of my films from *Greenhouse*. It showed one of the test structures, illuminated by bomb light just before the shock wave hit it, and with the ground in front of the building smoking from the thermal radiation. Nothing like it had ever been published before. Quality was not bad considering the cameras we used. No credit by *Life* to EG&G — just Atomic Energy Commission.

On 9 September I left Boston accompanied by Lt. Cdr. Doug Cochrane and Air Force Lieutenant McGolrick, recently assigned to EG&G. We flew commercial to San Francisco, took a bus to Travis AF Base, and then a MATS airplane to Hawaii. There we spent two days waiting for a MATS flight out of Hickam, did a little sightseeing, and then on to Eniwetok once again, arriving there at 0900 hours on 16 September.

*Ivy Mike*, the thermonuclear detonation, was to take place on Eugelab island, about three miles west of Engebi where my camera shelters were located. From Engebi we could see a large black building and what looked like a freight train running from Eugelab to two islands between there and Engebi. The black building contained the massive and complicated materiel that was the thermonuclear device, and the freight train was actually a long enclosed structure, filled with helium, I believe, and through which a number of important measurements were to be made.*

Once again we lived on Parry Island with the scientific groups and spent the next six weeks installing and testing the cameras and associated electrical equipment that we had on Engebi, Rojoa, Runit and Parry Islands. Once again it was back and forth daily by LCM (M-boat) from Parry up and down the island chain. A big difference from the *Greenhouse* test series was that the entire atoll was to be evacuated for Mike, with all personnel going aboard navy ships for the shot. Parry Island was about

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*This test, along with many others, was filmed by Lookout Mountain Studios. The film was declassified in 1997. See *America’s Atomic Bomb Tests: Operation Ivy*, Volume 3, VHS, Atwood Keeney Productions, Inc., 1997.*
Nuclear Tests

25 miles from the shot island and no problem was expected there from the blast but an enormous amount of fallout was expected and if the winds shifted Parry could have become uninhabitable. There had never been a detonation approaching the predicted size of Mike and there was much speculation on the atoll as to its possible effects. Wild guesses ran from complete destruction of Eugelab island to a massive tidal wave and even an uncontrolled nuclear reaction that would turn the earth into another sun. Obviously the possibility of the last was discounted by those who ran the test but that didn’t stop uninformed speculation by the rank and file.

Mike was scheduled for 1 November, and the previous day I went with Mel Lang of EG&G by helicopter to each of the islands, loaded the cameras, checked the associated electronics, set the mirrors and the power supplies and returned to Parry around 1500 hours. It was a great relief to know that there was nothing further we could do — it was now in the hands of the gods.

Quoting from my diary:

We did not have to make the boat to the Rendova until 1700 hours so we gave the island one last look. By this time it was pretty well deserted though there were still several queues at the debarkation points for the various evacuation ships. Most of the buildings had been anchored with wire rope and the shutters (there were no glazed windows) had all been removed from our barracks several days before in order to reduce the effects of the anticipated blast. This, I might say, much to the dismay of those who lived in the weather side of the barracks as the rains, which have come pretty often, have soaked their beds. I had the good luck to be on the lee side of the barracks and the foresight to take an upper bunk away from the window so I was not soaked.

We were on the dock by 1630 waiting for our water transportation. Soon a civilian came up, carrying his personal effects in a small but obviously heavy bag. He dropped the bag on the dock, opened it, scuffed around inside for several moments, then removed a lead brick, one of those commonly used for shielding from nuclear radiation. He looked a bit sheepish — putting lead bricks in neophytes’ hand luggage is a hoary occupational joke. Finally, we were herded aboard what looked like a junior M-boat and the navy took control of our lives. Climbing aboard the Rendova, which was anchored in the lagoon, I congratulated myself for having traveled light to Eniwetok. Everything I owned was in my B-4 bag and this was heavy enough, even so.

The Rendova was a CVE or escort carrier, exceedingly small for an aircraft carrier. It was one of many converted during the war from freighter hulled Victory ships. We were herded onto the hangar deck which was just what the name implied, a big hangar, one deck below the flight deck, with many large openings to the outside world through which we could see the lagoon. There we received our billeting assignments. Mine was a folding cot on that same hangar deck. This may not sound like much but I had reason later to be thankful. The ship was not air conditioned and because of the large
openings through the hull on the hangar deck it was the only place in the ship cool enough for a human being to sleep in comfort. The ship was so small that even some of the navy flight crews had their cots in the ship’s narrow passageways.

That night I found it difficult to wind down, so I went up on the flight deck after dark. We were leaving the lagoon at that time by the wide entrance between Eniwetok and Iguirin Islands, and from time to time a searchlight beam would spring out from the ship’s bridge and fasten upon a passing buoy. The sky was full of stars which boded well for the next morning’s shot. At around 2200 hours I slipped below to the hangar deck where my cot was awaiting me — not sleepy, but with nothing else to do. I spent a few minutes laying there worrying about my cameras and then was fast asleep. And there, surrounded by navy F4Us and TBFs, the glare of brilliant white lights and the continuous bustle of shipboard activity, I slept well until near dawn.

We were awakened around 0530, cleaned up, folded and stowed our bedding, had breakfast, donned our recovery clothing, and wandered up on the flight deck by 0630. There was considerable cloud cover with squalls visible south of us — not encouraging. We were almost due south of the atoll which was to be off our port beam at shot time. The sea was gentle and only two of the other ships were visible.

Leaving the diary momentarily I should mention that control of the shot and all the experiments, “timing and firing” as it was usually called, rested again with EG&G. But control had to be exercised by radio from the command and control ship which was, I believe, the Estes. There, EG&G had installed a complete television system through which they could read the appropriate instruments at the control center ashore. This was a UHF system and UHF television was somewhat experimental at that time. During preparation for the test we had been experiencing periods of signal outage which had been diagnosed as ducting, a propagation anomaly not too well understood then, and unpredictable. Everyone was hoping and praying that this would not be a problem on shot day. Now, returning to my diary:

We, Mel Heffernan and myself, got together with our Radsafe monitor and picked up life jackets and last minute recovery information. By this time everyone on the ship who could possibly do so was assembled on the port side of the flight deck, those with dark glasses facing the atoll, those without with their backs to it. As time ticked by the ship’s speaker system announced the time periods. At zero minus fifteen seconds, I slipped my goggles over my eyes and faced in the general direction of the expected blast. I had a melange of thoughts going through my mind. First was the fervent hope that nothing would prevent the firing — a complicated system of interlocks rendered this entirely possible. Second was the uncertainty that I shared with everyone
there — this was, after all, a first, and there had been dire speculations on the possible results of a thermonuclear detonation.

Uncertainty was resolved when the familiar brilliant white light appeared and rapidly expanded in my goggled field of view. It seemed, however, somewhat less brilliant than usual, probably because of our distance which was some forty miles from the explosion. The upward expansion of the fireball was also hidden by the low lying layer of clouds. But, horizontally the fireball grew, and grew, and grew — and looked as though it would never cease expanding (Fireball diameter was later estimated at 3 1/4 miles). The heat from it was intense, even at our distance, and as I felt the heat increasing I was momentarily alarmed, slipping behind a stanchion for protection. When, to my relief, the fireball growth ceased, the shock wave separated from it, and was clearly visible as it produced an expanding cloud, a cloud that then disappeared as rapidly as it had appeared. The fading, churning fireball, once again visible, continued to mount into the sky but the familiar mushroom cloud could not be seen through the clouds. All this took place in perfect silence, except for the hum of the ship and the muted comments of my neighbors. Then, a minute or two after the explosion, when no one was thinking about it, the shock wave hit our ship, shaking it and sounding for all the world like the shipboard firing of a heavy gun. This ended the show for me. Greatly relieved, I climbed aboard our helicopter and sat there for half an hour, waiting to be cleared for film recovery.

We were scheduled to recover film only from Parry Island on shot day as radiation intensities were expected to be too high on the other islands. Our helicopter took off from the Rendova and it was just a few minutes flight to Parry. Recovery there was routine, the cameras were easily accessible as they were in open shelters, protected only from the elements. I had a few anxious moments though. The first two cameras I opened had not run. Fortunately the others had and we obtained a complete record. As we approached the Rendova on our return and I looked down at the flight deck I found it incredible that fighters (there were Vought F4Us — Corsairs — on the deck) could possibly land regularly and in all kinds of weather on such a tiny landing area. All carrier operations are astonishing but operations from such a small ship almost belied belief.

Upon our return to the Rendova we ran into unexpected trouble. Radiation safety aboard ship was the responsibility of the navy — a wonderful training opportunity no doubt. But they were completely inexperienced and determined not to allow one radioactive atom below the flight deck. We were made to strip to our underwear before leaving the helicopter. Then we were told to place our film magazines to one side until they could be checked for radioactivity. I refused to let mine out of my hands and considered myself justified when some one else’s priceless tape record went flying across the
deck in the wind while its near naked owner ran frantically after it. So I sat on my records in shorts and undershirt until Mel had been decontaminated and returned above decks to relieve me.

I then headed forward to where the decontamination station had been set up. There I was carefully checked with a Geiger Counter. There had been absolutely no radioactivity at Parry when we were there and it was inconceivable that there should be any upon my naked person now, and so it appeared. But, after checking every portion of my body, including my genitals, the sailor with a cry of triumph finally discovered something less than one milliroentgen under my arm pits and I was told to get under the salt water shower. So I showered (no soap) and washed my hair in salt water. And with that the navy dismissed me, leaving me standing barefoot in my underwear, my clothes several decks below if I could find them. So the amused crew was presented with the sight of an unhappy, half naked Air Force officer wandering aimlessly through their ship, looking for his clothing.

That same day Parry was declared safe and we all returned from the ships to our billets there. The island showed few if any signs of the detonation some twenty-five miles away. The next day Engebi and the other islands were cleared for brief visits by recovery teams and I was lifted to Engebi from Parry by helicopter, wearing full protective clothing. Approaching Engebi a scene of utter desolation met our eyes. While we didn’t know it then it was determined later that the fireball had actually reached Engebi and the blast there, of course, had been horrendous. Our helicopter landed near the camera bunker and we climbed atop the bunker where our massive camera shelters were located. Incredibly, two of these one ton monsters had been lifted from their concrete piers and were sitting on the ground behind the piers. I was relieved to see at a glance that all the mirrors had opened. Working rapidly, because the radiation levels there were quite high, we opened the doors, one by one, and were further relieved to see that all the cameras had run. Grabbing the magazines from the cameras, which we left in place for later recovery, we were back in the helicopter and en route to Parry in a matter of minutes. There we turned the films over to our laboratory people and were, once again, checked and decontaminated. I still had one worry — that the mirrors or lead-glass windows might have had condensation on them from the combination of high humidity and early morning cool temperatures. It was not until the film had been processed a day or so later that I was reassured that the cameras had obtained the records we hoped for.

We later learned that the island of Eugelab on which the device had been detonated had nearly disappeared. The expected yield had been somewhere between four and ten megatons TNT equivalent — final determination was that it went at ten megatons, by far the largest man made explosion in the history of the world at that time.*

*To put the yield in perspective, the Hiroshima bomb had a yield of 15 kilotons, or about 1,000
During the next two weeks we were not terribly busy. The upper islands including Engebi were too radioactive for us to work on them. We did go in to recover our cameras there and made preparations for Ivy King, to be dropped over the island of Runit from a B-36 flying out of Kwajalein. Runit is about nine miles north of Parry and about halfway between Parry and Engebi. This was to be the largest fission bomb yet detonated, with an expected yield, I believe, of five hundred kilotons, so our cameras on Runit were in our lead shelters there while those on Rojoa were in conventional camera towers, unprotected. The drop was scheduled for 13 November but weather delayed it for three days. Quoting again from my diary entry for 16 November:

It was a beautiful day, relatively clear, and looked good all the way. Shot time was for 1100 hours and we were ready long before. About 0930 I strolled up to the CP on Parry outside of which we had several cameras. I checked these, lay down in the sun, and did a little sun bathing. At 1030, “Ace,” the lieutenant commander weather officer who does the forecasting for these shots, came over and congratulated me on my lack of nerves. I took his congratulations modestly, not bothering to mention that my stomach was tied up as tightly as his obviously was. So much effort and expense goes into every nuclear test that anyone connected with them has a dread that his part in them will fail. There are no second chances. The weather officer is particularly vulnerable.

At 1045 it was obvious that the shot would go, weatherwise anyway. By then a small crowd had collected and there was some jockeying around for a good location. At minus one minute I adjusted my ND-4 (neutral density four) glasses and waited. At zero there was the usual brilliant flash and surge of heat. But, once again I became alarmed at the intensity and duration of the thermal radiation and stumbled behind the pier upon which my camera was mounted, shielding myself from the really intense radiant heat. Once again the heat slowly receded and I removed my goggles to watch a truly awe inspiring fireball boiling up into the sky above me. As usual it looked as though it was directly over our heads, not surprising in light of our distance from ground zero of only nine miles. We could, in fact, look directly up through the torus formed by the roiling cloud of radioactive debris and condensate. Unfortunately, the cameras beside me stopped around zero time and I missed most of the spectacle as I tried in vain to get them to run. Their record was not particularly important but it was a failure and I felt it keenly. I finally gave up and, giving one last look at the cloud hanging menacingly above us, went to lunch.

At 1230 we (Mel Lang and myself) reported to RadSafe in protective times the largest conventional bomb at the time. Ivy Mike had a yield of almost 1,000 times the Hiroshima bomb! (ECD)
clothing, prepared to go on recovery. A word about our protective clothing which hasn’t varied much from operation to operation. Usually we strip to our underwear and don coveralls. Then we put on issue socks and issue high top shoes. Over the shoes go booties, cheap canvas protectors for the shoes. Formerly it was de rigueur to tape up the sleeves and trousers at the wrists and ankles, but this precaution is pretty much neglected now. Then gloves are donned, but these always come off when most needed because they are too clumsy to wear when trying to remove film or cameras. Next we get a fatigue cap and a respirator, don a life jacket for the over-water flight, and we’re ready to go.

We picked up our monitor, a naval Lieutenant Kelly (his real name was Zdynzwski or something like that but he answered very satisfactorily to Kelly). Kelly had our film badges and dosimeters which he turned over to us. Then we went over to our helicopter, an H-19 piloted by a navy commander. The pilot turned out to be an unusually particular cuss, making it quite plain to us at the start that he wanted no radioactive dirt tracked into his ‘copter.

We got off at about 1300 hours and whirled our way up to Runit, the shot island, touching down not far from our camera station. Life belts and all, we hit the sand, running, and recovered our film with admirable promptness. I could have been a little quicker but couldn’t resist looking around a bit at the damage. One curious thing I have noticed in the vicinity of nuclear blasts is the unusual amount of lumber in approximately two foot lengths that seems always to be scattered about. This particular lumber was the remains of several tent frames, but it always seems to be around. There was obviously quite a bit of blast at this station. Two of our three mirror assemblies were blown entirely off the camera shelters. However all the cameras ran.

We were back in our ‘whirlibird’ as the navy refers to helicopters, in no time, kicked off our contaminated booties (though radiation was at the usual very low level following an air burst — this one had gone at 1500 feet) and went whirling into the air toward the next camera station on Roja Island, about five miles north of the shot island. We passed right over ground zero and the water around it looked very sandy for a distance of about a quarter mile. Otherwise, from the air, we could see little evidence of the detonation. Some of our smoke mortar rafts had been sunk and others were completely black from the thermal radiation. (As an aside, EG&G had rafts in the lagoon carrying what we called “smoke mortars” but which were actually rockets. These were fired a few seconds before zero time, leaving long trails of smoke. In the film records the progress of the shock wave could be followed as it intersected with the smoke trails. These smoke trails are visible in many of the still and motion picture records of atmospheric nuclear tests that one occasionally sees in publications or on television.)

Landing on Roja we moved with somewhat less haste, though we wasted
no time. Apparently our equipment all worked, much to our surprise, as we had been having trouble there with film breaking and jamming in the Mitchell cameras. There wasn’t much evidence of the blast but, surprisingly, some charring from the thermal radiation even at that distance. In about ten minutes we were back aboard our ’copter, spinning our way back to Parry.

The next day, 17 November, I took an early boat to Eniwetok Island and left at noon aboard a MATS (Military Air Transport Service) C-54 for home. It was a short flight to Kwajalein where we stopped for an hour or so and had lunch, courtesy of the navy. They fed us navy fashion — waiters bringing the food to the tables. I chatted with one of the security officers there who spoke briefly about some of the security violations they had encountered. Some of the people on the operation had been foolish enough to write complete descriptions of their versions of the thermonuclear test to their families. The families turned the letters over to the local newsmen who printed them, of course, since the AEC had not released any information on the test. As you could imagine some of the stories were fantastic. One man wrote that it had rained monkeys on Guam after the shot! Public interest in the so-called “hydrogen bomb” was intense throughout the US at that time and was only exceeded by public ignorance of its effects. One of the EG&G people reported hearing one of the workers at the Las Vegas Test Site comment, “It ain’t that hydrogen exploding that worries me, it’s them radiators flying through the air.”

The next and longest leg of the flight was to Johnston Island where we landed before dawn. Our C-54 had canvas seats and carried cargo as well as stretchers for use on med evac flights from Korea. We set up as many of the stretchers as we could but there were more passengers than stretchers and I curled up on part of one and slept off and on through the flight. We were roused before arriving at Johnston, put away the stretchers, sat down on the canvas seats and hooked up our seat belts for an uneventful landing on the small island. There, more or less drugged, and stiff with the weariness of hours of fitful sleeping in cramped positions, we were given breakfast. Afterwards, while waiting for the aircraft to load, I sat outside the terminal and watched the rain swirling down a few inches in front of me. The fine rain blowing through the glare of the hangar lights looked for all the world like snow and I spent ten minutes lost in the illusion. The rain slackened off and I walked the few paces from the terminal to one edge of the island at that point. There I and a large white bird, presumably one of the famous “gooney birds,” succeeded in startling one another. He was standing there looking as miserable as I felt.

The flight to Hawaii was uneventful, arriving at Hickam AFB at 0900 on the 17th, three hours earlier than and the same date that I had left Eniwetok, thanks to the miracle of the international date line. I spent four impatient days in the VOQ there waiting for a MATS flight to the mainland, finally leaving at 1130 hours on the 21st for Travis, bus to San Francisco, commercial air to Boston and home on 23 November, delighted to be back again with my wife and children.

My tour of duty with EG&G was supposed to end after Operation IVY and I was
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to be assigned to Wright Air Development Center at Dayton, Ohio. However, the Armed Forces Special Weapons Project (AFSWP) was planning a test series for the spring of 1953 with by far the most extensive photographic coverage of the effects of nuclear detonations to date on a wide variety of materiel. The program director for the photographic coverage was a Maj. Greer, a Signal Corps major in the Pentagon, and he, knowing nothing about such photography, wanted EG&G to provide this coverage. Herb Grier recommended that he get me assigned as his deputy. So, on 3 December of 1952 I received orders assigning me to Hq Wright Air Development Center, Wright-Patterson AF Base Ohio, with approximately five months temporary duty at the 1090th Special Reporting Group at Sandia Base, Albuquerque for duty as Assistant Program Director, Program 9, Operation KNOTHOLE. Later orders extended my duty station at EG&G in Boston so we did not have to move.

It was fun being back with my family. Quoting from my diary for 20 and 25 December:

He (little Franklin) is certainly a prize. The most cheerful little fellow I’ve ever seen, he has a grin for everybody and on all occasions — and such an engaging grin. And such an eater. I have never seen him refuse to continue a meal. Today at lunch he ate almost three jars of baby food, then finished with some of ours. He’s a fat and saucy little cuss though his fat is not on a heavy frame. We’re both very, very pleased with him.

We had a joyful Christmas today. Midnight I took Marie-Anne to St. Agnes Church. Then, since it was so crowded, I returned home and put out the presents. Our apartment is so tiny that I expected Joanne to surprise Santa Claus at work at any moment. Christmas morning she was delighted with everything, and played with her new toys all day long. We received a silver plate candelabra from my parents who also sent little Franklin (we called him Bussie at that time and for several years thereafter) twenty dollars with which we bought him a set of blocks. (I am certain the blocks cost much less than twenty dollars but my diary is suspiciously silent on our use of the rest of the money!) My Aunt Pog sent us oatmeal cookies, her traditional Christmas gift.

I flew down to Washington on 29 December to talk to Maj. Greer and some of the AFSWP people about the program. I was visited there by a Colonel Giller who spoke to me at length about the effects photography program. He was actually in the thermal branch of the effects section of AFSWP and not in my chain of command at all. However he seemed to be a motion picture hobbyist and expressed his displeasure with the quality of the effects photography in past tests as not up to professional motion picture standards. He stated that this time AFSWP had decided to give effects photography the status of a separate program (thus the Program 9 designation) and generous funding. And he pointed out that they would hold me, not EG&G responsible for the success of the program. I had already assumed that was the case.
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I returned to Boston on New Year’s eve. Unfortunately the weather was terrible and most of the flights north were canceled so I got a train and was in the club car when the old year passed away. There were some attempts at hilarity but they fell mostly flat. We pulled in to Back Bay station at around 0800 on New Year’s day and I took a cab directly home. Then that night little Franklin came down with the croup. He awoke just after we went to bed, gasping for breath in a manner that alarmed Marie-Anne and myself. We looked up the symptoms in the good Dr. Spock’s book and decided it was croup or asthma. So, though it was midnight, we called Dr. Nauen, our pediatrician, who came over at once, gave us aureomycin for him, and more or less reassured us. We steamed him in the bathroom several times during the rest of the night and I slept in his room. All of us slept fitfully through the night. The next day he was considerably better and I went to work around noon.

Boston Interlude

The year was off to a bad start. Little Franklin’s fever didn’t abate for nearly a week and Joanne and I both came down with the flu and fevers. We were rather fond of the Boston area but we certainly did not enjoy good health during the winters there. On 7 January I drove Marie-Anne to the Naturalization office where she was scheduled to take her citizenship examination and get her second papers. However, upon arrival we were told that she needed character witnesses who had known her and lived near her for at least three years. We had been in Boston at that time three years less a month so our witnesses failed the test. We scheduled another try in six weeks.

Meanwhile I had trips to New York, to Wright-Patterson AF Base, to the Armour Research Foundation in Chicago, to Sandia Labs in Albuquerque and to Stanford Research Institute in Palo Alto to try to determine exactly what each of those people wanted in the way of photographic coverage of the forthcoming tests. I met some interesting people. In New York I spoke with a Dr. Arnold of the University of Colorado concerning his forestry program. He intended to transplant a small forest to the Nevada Test Site to observe the effects of heat and blast on the trees! At that time everyone seemed to want to know how nuclear detonations would affect their own particular fields. Common sense could have answered most of their questions. By early February I had a pretty good grasp of the photographic requirements and I spent most of the first week explaining and planning the coverage with two of the EG&G planners, Fred Barstow and Ben Brettler. The magnitude of the program was staggering and it became obvious that our only hope of completing it would be to standardize — to stick as closely as possible to a single type camera and a single camera station design, though that meant that most people would not get exactly the coverage they had requested.

We would be photographing a wide variety of objects. There would be a small forest, several aircraft, several frame houses, tanks, trucks, artillery pieces, foxholes, railroad cars and other items I can no longer recall. Some would be very close to
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ground zero and the remainder scattered at various further distances. We would need something like sixty cameras to provide all the coverages requested. Someone at EG&G located a large number of what the Air Force called gunsight aiming point cameras or GSAPs for short. These were war surplus — every fighter aircraft carried at least one. This was synchronized with the aircraft machine guns or cannons and recorded whatever the guns would fire at. Most or all of the motion pictures of aircraft being shot down during world war II were taken with one of these cameras. They were very simple, ran on 24 volts DC and at 64 frames per second, giving the slow-motion coverage that was desired.

On 15 February I flew out to San Francisco where I met Maj. Greer and Dr. Doll who was in charge of the weapons effects part of the coming tests for the AEC. We inadvertently spoke of “Frisco” and he warned us — it is either “San Francisco” or “S.F.” but never “Frisco.” We had a good deal of work to do at his home in Palo Alto but he surprised us by dawdling around all morning and then taking us for a long sightseeing drive all afternoon. That evening he showed us an unusual TV set he had at his home. It used a 2 1/2 inch cathode ray tube and projected the image on to a 14-inch screen. It had been made by North American Phillips when Dr. Doll was their chief engineer and reflected a bad guess on their part that cathode ray tubes as large as 14 inches could not be produced economically! The next day we worked hard all day long, primarily on the question of stabilizing the soil between our cameras and their photographic targets. As I have mentioned earlier the smoke from the bomb’s heat and the dust from the bomb’s blast were the major problems in real time weapons effects photography. We had made half-hearted efforts to stabilize the soil in past tests without too much success. Our conclusions for the forthcoming tests were that the cost of stabilizing the soil by paving the areas in front of the cameras would top $400,000 and the results would be questionable, but that it was absolutely necessary. It is so easy to spend someone else’s money! Major Greer and I took a train back to San Francisco in the evening, had dinner at the Mark Hopkins, and then drinks at the Top of the Mark, justly famed for its magnificent view of the city. On the way back to Boston our pilot announced that our DC-6 (four propellers driven by piston engines) was enjoying a ground speed of 453 miles per hour with the aid of an extremely high west-east wind.

I notice in my diary entry for 2 March that we suspected that Marie-Anne was pregnant once more. “What idiots we are” I commented but then added, “Two are so nice that three can only be better!” Finally, “But it is hard on Marie-Anne and will prolong for another several years diapers, sleepless nights, and frantic days.” That same day Dolly MacAuliffe, a neighbor and friend, and I went into town again as witnesses for Marie-Anne in her naturalization hearing. I commented, “She is a bit of a reluctant citizen though. Like all Luxembourgers she is a super patriot of that proud little duchy. She hesitated before swearing (as required) that she would willingly bear arms for the United States. She wouldn’t leave the children to do so, she explained to me later. I assured her that it was highly unlikely that she would
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have to.”

Around this time I gave some thought to resigning from the service and going to work for EG&G. Every career officer wonders at some time or times during his service what it would be like to exchange his uniform for a set of “civvies.” Most believe that they could better themselves financially and the pay scales in industry did look attractive. And, many wives dislike the military with its regimentation, frequent relocations, periodic separations, and modest monetary rewards. I never really seriously considered the change though. In the first place I always liked being an Air Force officer. I enjoyed the frequent changes of station and of duty. The thought of doing the same job over and over again for years, even a job I found interesting, horrified me. I liked the idea of working for my country rather than for a profit driven corporation. The West Point motto of “Duty, Country, God” appealed to me. And, while the pay seemed niggardly, and pretty much was in those days, there were compensations. There was free medical care for myself and my family when it was available (though it became less and less available over the next thirty years). There was one of the best retirement programs anywhere, but who thought of retirement benefits when one was thirty-two? As a matter of fact I did and I rightly considered it very important. There was the comradeship of military life — everyone in uniform, anywhere you met him, was immediately a friend. Finally, helping me to make up my mind were four factors. First, Marie-Anne liked military life. Second, she did not care for EG&G and my absences twice a year there on extended operations. Third, I thought at that time that EG&G led a shaky existence. “If anything happened to the partners or their relationship with Los Alamos, they’d lose 90% of their business.” That was probably true for a few years but EG&G survived to become a large, successful corporation. Finally, I knew that I needed an engineering degree to achieve any lasting success at EG&G or elsewhere and I hoped to get it through the Air Force.

In early March I spent a few days at Wright-Patterson Air Force Base talking with some of the people for whom we were doing test photography. While there I went to the Air Force Institute of Technology and spoke at length with the chief of evaluation. He told me that I was well qualified for entrance into their undergraduate program in electrical engineering and encouraged me to apply. With his encouragement and the necessary forms I returned to Boston and filed my application. Selection would be made at Hqs USAF. We then had our household goods packed and sent to Dayton, Ohio to await our arrival there.

That diary entry on March 10th was, unfortunately, the last diary entry of my life. The remainder of these memoirs will depend on memory, aided by my various personal files and the numerous 35 mm slides that I have continued to take.
Back to Nevada: Upshot-Knothole

On 21 March 1953 our family of four left Boston for Las Vegas in our little Nash Rambler by way of my parents home in Westminster, Maryland, arriving in Vegas on the 29th. There I installed Marie-Anne and the children in a motel and I continued on to Camp Mercury at the Nevada Test Site where I was given a room. Lieutenant McGoldrick joined us in Las Vegas with his wife and child. She was a very pleasant girl and they were good company for Marie-Anne while I was busy at the test site. The EG&G people were already there and the many camera towers that we would be using were already in place.

We all enjoyed Las Vegas during this series. I was not nearly as busy as on previous tests and was able to drive into Vegas on most weekends. Marie-Anne and I were able to have dinner at several of the casinos and to enjoy the fabulous shows that followed — all extremely inexpensive as the casinos made their money from the gamblers. And we took the children to Sunday brunch a time or two and Joanne to the Last Frontier to ride the pony.

This fourth series of Nevada tests, Upshot-Knothole, consisted of eleven shots, three of which were airdrops, seven tower shots, and one a warhead fired from an atomic cannon. About 21,000 military personnel took part in what was called Desert Rock V. The first two shots were tower shots that took place before my arrival. Since I have no notes on this series what follows is from memory supplemented by some information published on shot dates, yields, etc.

As I recall we did photography on two shots, both at Frenchman’s Flat. There a so-called blast line had been laid out extending linearly outward from the anticipated ground zero. Along that line were the items that we were going to photograph — everything from goats to houses, forests, tanks, railroad cars and tethered aircraft. I didn’t have a great deal to do. I had confidence in EG&G, most of my work had involved the planning for the test, and that was done. Major Greer did ask me to write a paper for the Defense Department while I was there giving guidance for anyone planning effects photography on future nuclear tests. It ended up as a fairly lengthy document and was, of course, classified SECRET so that I have no copy. Years later, however, a neighbor of ours in Northern Virginia, who had been working for months declassifying papers for the Department of Defense, told me that my report was among those he had reviewed. I don’t know whether it was declassified — probably so.

While preparations were underway for our first shot there were five other tests held in other areas of the test site. Yields ranged from 200 tons TNT equivalent (hardly worth looking at!) to 43 kilotons (quite impressive). I took Marie-Anne and the children to hilltop outside the test site on one of these so they could get their first (and only I sincerely hope) view of an atomic blast.

Our first shot, designated Upshot-Knothole Encore, went off at 0730 on the morning of 8 May. It was an air drop from a B-50, detonated at an altitude of 2,423
feet with a yield of 27 kilotons. Three days later I went to Los Angeles where the films were being processed. I spent five days there checking the films and then returned to Camp Mercury.

A week later on 19 May the ninth shot of the series, a tower shot at Yucca Flat, went off at 0405 hours. However, by now I had seen enough nuclear explosions that I would rather sleep than get up around 0300 to see another with which I was not directly involved. So I slept through that one. One of the EG&G people who had watched the shot mentioned an amusing remark he had heard one of the laborers working on site make to another. At that time there was much talk about the thermonuclear weapon, usually referred to in the press as the “hydrogen bomb.” The laborer told his friend that he “wasn’t worried about that hydrogen exploding” but that he was greatly concerned about “them radiators flying through the air.”

The second shot with which we were involved, Upshot-Knothole Grable, was something new — a test of the newly developed “Atomic Cannon.” This was an enormous 280 mm gun with which the army hoped to enter the atomic age. We used the same camera stations as for the previous shot and our photographic targets were similar. The shot went off as scheduled at 0730 hours on 25 May. Height of burst was just 524 feet and yield was a very satisfactory 15 kilotons. I say very satisfactory because this was a so called “gun type” weapon which was inherently less efficient than the usual “implosion” weapons. The expression “gun type” did not refer to the cannon but to the method of producing the nuclear detonation by firing two sub-critical masses of fissionable material into one another inside a heavy cylinder to produce a critical mass in a very short period of time. Again our equipment worked well and I again went to Los Angeles two days after the detonation to check the films. I was back at Camp Mercury on 29 May, quickly finished what little work remained for me. The Upshot-Knothole test series ended with a high yield 61 kiloton airdrop on 4 June but we did not wait around for that. Marie-Anne, Joanne, Franklin and I left Las Vegas for Wright-Patterson Air Force Base on 2 June in our little 1952 Nash Rambler.

There were only two more atmospheric test series in the Continental United States after Upshot-Knothole; one in 1955 called Teapot and another in 1957 designated Plumbob. Since then there has been a good deal of criticism of the Atomic Energy Commission and the Defense Department about continental atmospheric tests because of the inevitable radioactive fallout over the United States. I was surprised at the time that the government was willing to expose many of its citizens to potentially large and unpredictable dosages of radioactivity. The prevailing upper-atmospheric winds at the test site were to the northeast and thus carried the radioactive clouds across the entire country. Looking back I am even more astonished that these series were held. The only reference I have on these test series is a book by Richard L. Miller entitled Under the Cloud. The book is crammed with inaccuracies, misstatements, and exaggerations but it does give a decent chronology of the United States atmospheric testing program over the years and shows cloud trajectories for many of the
tests. When he strays from the straight facts he becomes unbelievable. For example, he describes “public relations detonations which exposed civilians and reporters to the same awesome atomic power that melted tanks before their eyes.”

We left Las Vegas on a blistering hot day and drove as far as Zion National Park, Utah, where we found a shady oasis, some relief from the heat, and spent the first night. The next day we made a brief detour through Bryce Canyon and continued east. Marie-Anne was five months pregnant with Craig at that time and suffered greatly from the heat which hovered near one hundred degrees every day. We had purchased an evaporative water cooler before we left Las Vegas with which to carry drinking water. These were common on automobiles in the southwest in those days. Tied to the front bumper the water was supposed to seep through the canvas bag, evaporate, and thus cool the remaining water within. Exposed to the hot sun as well as the wind ours was not very effective. Also fairly common in the southwest were evaporative automobile air conditioners, rather large cylinders which were fastened just above one of the front windows of the car. These, of course, were useless in other parts of the United States where the humidity levels were higher. Today’s automotive air conditioners may have existed but, if so, were extremely rare. We must have made quite a sight driving down the highway each morning with our water bag on the front bumper and the night’s laundry flapping in the breeze on the outside of the car.

As we approached Des Moines [Omaha] one late afternoon and the radio gave the outside air temperature as 105 degrees Marie-Anne could stand it no longer. We stopped at a restaurant, gulped down glasses of iced tea, and bought a large bucket of ice cubes. We transferred these to our wash pan, Marie-Anne took off her shoes, and plunged her feet into the ice. Somewhat refreshed by the tea and with Marie-Anne reasonably cooled by the ice cubes, we continued through Des Moines [Omaha]. A day or so later we arrived in Dayton, hot, tired but ready for whatever the future might bring.
Upon our arrival at Wright-Patterson Air Force Base we were assigned quarters in a brand new apartment at 5398 Mitchell Drive in Page Manor, a vast military housing area just outside of and due east of Wright Field. The military was greatly concerned at that time about the lack of housing for its people and the Congress had authorized several programs to provide it. Wherry Housing, of which Page Manor was an example, was one. It was cheaply constructed but it was worlds ahead of any housing we had enjoyed since we left Germany. A word or two about the base might be in order. It was an old air base dating almost back to the Wright brothers and had been the center of aeronautical research, development testing and logistics for the Air Corps for many years. It consisted of two separate fields. Wright Field, the original air field, was located just north of the city of Dayton and contained most of the installations of the Wright Air Development Center of the Air Force Research and Development Command. Its runways were too short for modern aircraft and Patterson Field had been built some eight or so miles north east of it to accommodate heavier aircraft and to provide space for Hqs of the Air Materiel Command.

After reporting in I was told to get my family settled and then to report back. Since our household goods, such as they were, had not yet arrived we drew bedding from Base Supply and camped in our new apartment for a few days. I had been told that I would probably be admitted to the Air Force Institute of Technology Resident Program in June of 1954 so I was looking for an assignment that would be appropriate for one year. I found an odd one. I was assigned duty as Research and Development Officer, Special, Vision Section, Physiology Branch, Aero Medical Laboratory, Directorate of Research. Justification for this was my three and a half years at the Institute of Optics at Rochester. One of the attractions of the assignment was that the Aero Medical building was one of the very few on the base that was air
conditioned. It was a five-minute drive from our apartment and convenient in every respect.

The Vision Section Chief was Colonel Emerson, a Flight Surgeon and an ophthalmologist. He was a fine man, very much a gentleman, but much too quiet and considerate for the position. I had no way of judging how competent an ophthalmologist he was but he was not a dynamic leader and certainly no researcher. The three other officers and one civilian in the Section were all optometrists and two of these officers were young non-rated lieutenants who were interested chiefly in getting out of the service and going into practice. Unfortunately they had no respect for their chief and made no secret of it. The third officer, a Captain MaCeachern, had graduated as an optometrist but had taken pilot training during the war and had served since as a pilot. He was a reserve officer on extended active duty, a decent man, but not particularly interested in his present position. It was not a really productive unit.

Some of the Section’s ongoing responsibilities included specifications for sunglasses, transparent shields on pilots’ helmets, and problems relating to aircrew visual exposure to nuclear detonations. I looked around to see if there was anything I could help with and decided to make visual reconnaissance my area of interest. Photographic, radar, and infra-red reconnaissance were very active research fields at the time but I was struck by how little information was available on the capabilities and limitations of visual surveillance of the battlefield from aircraft. Considering that it was a practice that dated back to the Civil War (from balloons) remarkably little was known about it. So I proposed that we start an experimental program to get some idea of what an observer could actually see from the air. In January of 1954 I went to the University of Michigan to talk to a Professor Blackwell who had done a series of experiments to try to relate visibility of targets of varying contrast under various conditions of haze. These were beautiful experiments but it was difficult to apply the results to practical surveillance from aircraft. I then went to Fort Bragg where I met with the commander of the 363rd Tactical Reconnaissance Group from nearby Pope Air Force Base and a counterpart from the army. I set out the experimental program that I proposed and got agreement from both to cooperate. Colonel Emerson then assigned Captain McCachearn to help me with the actual field testing.

In the meantime Marie-Anne’s mother had decided to pay us a visit — we were never able to get her father to come to the United States. So, around 15 September I took four days leave and drove to New York where she arrived on a ship. Driving back to Dayton I noticed that she kept looking nervously behind us. She eventually confessed that the large trucks roaring up behind us terrified her. And about halfway home she commented on the enormous number of churches we passed. It finally dawned on me that she thought the silos standing on nearly every farm were churches. It was a whole new world for her.

It was wonderful having Mme Doos with us for the next six months or so. She was so much help to Marie-Anne in the final months of her pregnancy and the few months following Craig’s birth. She adored Joanne and Franklin and did her best to
spoil them. She had always sent them clothing and our children dressed like little Europeans when we went out together. Fortunately her English, though somewhat broken, was quite good enough for any occasion. Marie-Anne’s father had hardly any English and that may have been one reason he always refused to come to the United States. I was very fond of my mother-in-law and had always been grateful that she had welcomed me so warmly as a son-in-law.

We should have been able to use the obstetrician at the Base Hospital for Marie-Anne but he could only handle a fraction of the pregnant military wives so she went to a civilian physician. Of course we had no health insurance but medical care was not yet terribly complicated and correspondingly expensive. The total bill for the obstetrician for prenatal care and delivery was, in fact, just $135. She saw the doctor every six weeks, he checked her blood pressure and listened to the baby’s heart and that was pretty much it. Fortunately she remained in good health throughout that pregnancy. As usual she looked wonderful and her abdomen only swelled moderately. I was always amazed at how she could be both pregnant and beautiful right up to delivery!

Craig was born on 27 October, 1953. I came home for lunch that day and Marie-Anne had prepared a lemon meringue pie for us all. She wasn’t feeling too well so she called the doctor in mid-afternoon and he told her to come to the hospital. I picked her up, drove her the few miles to the hospital, and Craig arrived without much trouble around 1900 hours that evening. Like all of our children he came with a full head of hair. We decided to call him Edmond Craig Dukes. Edmond was the name of Marie-Anne’s younger brother and Craig was just a name we liked. Somehow the men in our family seemed always to end up being called by their middle name and this caused a lifetime of small complications. But Craig Edmond Dukes didn’t sound right.

In those days of civilized medical care the new mother was expected to stay a few days in the hospital to recover from her ordeal, to regain her strength, and to learn how to care for her new baby. It was better for all concerned than the present day system of dumping mother and child out a day after the birth. Halloween arrived while Marie-Anne was still in the hospital and Joanne and Franklin had been invited to a Halloween party at Colonel Emerson’s home. We had some sort of a costume for Joanne and Mme Doos fixed up something for Franklin. Then she painted them up and I took them on a bitter cold night to the Emersons. A day or two later Marie-Anne was home and she and Mme Doos (whom I called and will call Mama from here on) had their hands full with Joanne, Franklin and baby Craig. But it was a labor of love for Mama as well as Marie-Anne.

On 11 November I accompanied Colonel Emerson to a meeting of the Armed Forces-National Research Council Vision Committee at Fort Knox, Kentucky. A number of interesting presentations were made by government and academic researchers. Most or all were classified and the meeting gave me a good background on the status of classified vision research particularly pertinent to the military. Some of the work
was rather far fetched. One participant, having noted that exposure to blinking lights at certain frequencies caused nausea in humans, proposed illuminating the battlefield with a large number of blinking searchlights in the hopes of rendering the enemy ill prior to an attack! In research no idea is too wild to be considered.

On 31 January, 1954 Captain McCachearn and I took the train from Dayton to Fayetteville, NC where we spent nearly three weeks setting up and then running our experiment in visual reconnaissance. We had a company of infantry from Ft. Bragg at our disposal which, together with various vehicles, were used as the targets. These were dispersed in a partially wooded area but all in open portions of the area — we knew that hidden or camouflaged targets could not be detected from the air visually. I worked with the infantry. Then the 363rd Tactical Reconnaissance Wing from Pope Air Force Base provided the aircraft and the observers. Captain McCachearn worked with the 363rd. We had good cooperation from both army and air and the experiments went smoothly. As control we had photographic coverage each day from the 363rd. In retrospect, however, it was not a very useful exercise and the results were discouraging to anyone trying to interest the Air Force or the Army in developing their capabilities to perform visual reconnaissance of the battlefield.

I had an army helicopter at my disposal and flew over the target area each day to make sure the troops were indeed properly disposed. Even from a helicopter at very low levels it was difficult to find and identify the target vehicles and personnel. I asked the helicopter pilot to hover at some fifty feet altitude but after doing this once or twice he told me that he would greatly prefer flying at a higher altitude if we were to hover or, if we must fly at very low altitudes, that he be allowed to maintain considerable forward momentum. If we lost power, he explained, while hovering near the ground we would crash. Hovering at higher altitudes or maintaining a reasonable forward velocity near the ground would give us a chance to autorotate to a safe landing in the event of power failure.

The infantry company commander was a black captain which was somewhat of a surprise to me. The military had just begun integrating white and black troops and I had not yet run across black officers leading white soldiers. Early in the exercise he took us out in the field in his jeep to select a suitable area for the targets — his people and troops. We drove through a very small and sleepy southern town around noon and I suggested that we stop there for a light lunch. I invited the captain to be our guest but he said that he was not hungry and would wait for us in the jeep. It wasn’t until we got inside that it dawned on McCachearn and myself that he would not join us because he was quite sure that he would not be served and possibly not even allowed to enter. The army could integrate itself but it could not force integration on the civilian population in the south. That was still a few years away.

We returned to Wright-Patterson on 21 February and began trying to put the data we had obtained from our tests in some kind of order from which we might draw conclusions. I am not sure we ever succeeded but it was obvious that visual reconnaissance of the battlefield from moving aircraft was not very profitable in a
static situation. I was reminded of my first mission to Rennes, France in a B-24 where we were flying over one of the major battles of the war on a sparkling clear day and I saw no evidence at all of any troop activity on either side. Of course we were flying at some four miles altitude.

In mid April Mama was to return home on the French Line’s *Ile de France*. I had considerable leave accumulated so we decided to go to Westminster for a few days and then drive her to New York for her departure. Our rather small car would not take the six of us so we put Mama and little Franklin on the train to Baltimore where my father would pick them up. The rest of us drove to Westminster. Mama and Franklin shared a lower berth. Unfortunately, Bubbie spread himself out over the entire berth and Mama spent a sleepless night in a small corner of the berth, afraid that she might wake him. We spent a few days in Westminster and drove Mama to Washington on a lovely April day to show her our capital city. A few days later the three of us, Mama, Marie-Anne and I, drove to New York where Mama boarded the *Ile de France*. This had been the flagship of the French Line but had obviously seen better days. I was surprised and somewhat shocked to see how dowdy she looked. We said our goodbyes, some tears were shed, and she left for home. All of us had thoroughly enjoyed her lengthy visit and she had obviously been delighted to spend so much time with her daughter and to get to know her three grandchildren so well. We had no idea when we would see her again. We drove back to Westminster, spent a few more days there and then back once more to our home in Dayton.

In early July I flew out to Douglas, Arizona to see what the army and the University of Michigan were doing at Fort Huachuca nearby. They had a joint program called Project Michigan, which was somewhat similar to what we had done at Fort Bragg. Joining us at Douglas was a group from Michigan with a B-26. This aircraft had been lent by the Air Force to the University of Michigan for an extended period of time for the experimental program. We arrived at noon on the 4th and with all activity suspended for the holiday we rented a car and took a sightseeing drive around the area. As luck would have it we ran into a local rodeo out in the middle of nowhere — and when I say local I mean really local. There was a large cleared area with forty or fifty cars and trucks clustered around it. Draped over the vehicles were the spectators, obviously cattlemen and their families. They had the usual events such as bulldogging and roping. The spectators seemed to be related to or at least to know all the contestants and there was a chorus of good natured catcalls whenever one of the contestants came a cropper. Most interesting to me were the events for the children — ten year old boys and girls roping, wrestling down and tying calves while dodging their flying hoofs. It was a little bit of Americana that I didn’t know still existed.

The next day I went up in the B-26 which flew over the test area to give us an idea of the terrain involved — rather mountainous. The B-26 was a relatively small aircraft with two enormous piston engines and a transparent nose section through which I could see very well. This was not the Martin B-26 of World War II but the
Douglas B-26, originally denoted the A-26. On our return to the airfield our pilot checked out the inexperienced copilot on landing the aircraft. I was not allowed to remain in the nose during landings but stood behind the pilot and copilot looking over their shoulders. We made a series of what the Air Force called “touch and gos,” the aircraft landing on the runway, then applying full power and taking off again without coming to a stop. This was a very “hot” aircraft for the time and was not easy to land. I could see that the pilot was rather nervous every time the copilot approached for a landing and there was a good deal of talk back and forth. If the pilot was nervous I certainly felt qualified to be so as well and I was just as glad when the series of landings were over and we were back on the ground for good.

The Aero Medical Laboratory had a number of German scientists who had been brought over after the war — some of the “Paperclip” scientists whose wives had been cabinmates of Marie-Anne when we sailed from Bremerhaven to New York in 1947. One evening I was duty officer for the Lab — a job that required among other duties the checking of all the safes in the building after closing time. One of the Germans was still at work when I went in to his office and I chatted with him briefly. At that time the best known of the German emigrees was Werner von Braun who had been largely responsible for the German rocket program during the war and who now had a similar position with the US Army. I asked our scientist if he had known von Braun. To my surprise he became extremely animated, said he knew him well, and then made the following statement that I have never forgotten. “I am glad” he said, in an accent which I will not try to emulate, “that the Americans have not let him have his own way. Because he only wants to get to the moon and he would bankrupt the country to do it!” This was just a few years before President Kennedy made reaching the moon a national objective. I think that there was a good deal of jealousy amongst the German scientists we brought to this country.

The Air Force Institute of Technology

From the middle of July I began turning my work over to Captain MacCachern and on 26 August, 1954 I reported to what was then The United States Air Force Institute of Technology (USAFIT) to attend the two year undergraduate course in Electronics. While I was there the name was changed to The Institute of Technology of the United States Air Force (ITUSAFA) and then, mercifully, to The Air Force Institute of Technology (AFIT). Since the Institute was located at Wright Field about a quarter of a mile from the Aero Medical Laboratory, no change in residence was involved. In various forms it had been in existence for many years with several changes in mission and name over the years. In 1954 its mission was to upgrade the educational level of the Air Force Officer Corps. Nearly all newly commissioned officers were coming with degrees from the Military or Naval Academy and from the Reserve Officers Training Courses (ROTC) on college campuses. But thousands of officers like myself had been integrated into the Regular Air Force right after World War II with less
than a college degree. The Air Force regarded this as a serious deficiency and had a massive program to remedy the situation. This involved sending officers back to civilian colleges full time for one or two years or to the so-called resident program at Wright-Patterson. A big advantage of attending the resident program was that it was designed to accommodate officers who had been out of school for ten or even more years. In the civilian program the officer was thrown in with the younger general student body and left to sink or swim.

I confess that I was apprehensive about my ability to return to school successfully. After all I was thirty-four years old, had a wife and three children, and it had been thirteen years since I left the University of Rochester without a degree. But I made three very wise decisions during the first week or two of classes. First, I was not going to try to get good grades. Instead, I was going to concentrate on looking for and trying to understand the principles underlying the subject matter of the courses. Second, I believed that understanding came from solving problems and I resolved to do as many of the exercises in the various textbooks as I possibly could. These were to be my guides for the next two years and in the main I followed them.

I and some 44 classmates reported to the Institute in late August. What we entered was a long, two story frame building whose architecture might be described as spartan World War II temporary, with windows that actually opened. There was no air conditioning, central or otherwise, except in the new computer room. There were offices for the faculty and administration, and classrooms for the students. Each class was assigned a room, took most of their classes there, and was able to use the room for study at other times. Our undergraduate group was divided into two classes. 1E56 was the aeronautical engineering class and 2E56 the electrical engineers. We were a small minority among a number of graduate programs as well as a one-year undergraduate program at the school.

Our academic program started with a six week mathematics review. In those six weeks we went completely through college textbooks in algebra, analytic geometry and plane trigonometry, spending two weeks on each. This was the complete immersion system. We had four hours of lecture each day and solved every problem the authors had provided as homework. This was a wonderful program. The instruction was excellent and at the end of the six weeks I felt I had a complete mastery of those fundamental mathematical subjects.

We also spent several hours learning to use the slide rule, that amazing precursor to the electronic calculator. Again, I had used it since my first days at Rochester but had never learned to use all of the many scales. It would probably surprise today’s engineering students to discover that the slide rule could do most of the calculations that an electronic calculator can do and was accurate to nearly one part in a thousand. For many years the slide rule was to the engineer what the stethoscope was to the physician — a badge of office. Like the physician with a stethoscope hanging round his neck, an engineer could be recognized by the small, six inch slide rule sticking out of his shirt pocket. Oddly enough, while it could perform fairly complex calculations
involving such things as trigonometric and logarithmic functions, it could not add or subtract! But for the engineering work of the day it was handy, quick and sufficiently accurate. We would live with the slide rule for the next two years.

The next two years were not easy for me. However, the math review had gotten me off to a very good start and I stuck to my resolve to try to understand the principles behind the subjects we were taught and to do problems, problems, problems. The Institute was on a quarter rather than a semester system. Thus each course lasted for ten weeks followed by final exams in the subjects. I liked that. We worked like beavers for eleven weeks, then had a week off before starting all over again. Having been exposed to real engineering problems while I was with EG&G I found the course work meaningful and could relate it to my experiences there and elsewhere. More than once I would hit my head and say to myself, “Oh I wish I had known that back when!”

We generally had three or four hours of classes in the morning and then a two or three hour laboratory most afternoons. We wore uniforms to class and the rated officers had to get in their four hours of flying per month, but other than that we had no military duties to perform. The faculty was a mixture of civilian and military with some of the best and worst of the professors in each category. On the whole the teaching was excellent.

Adjacent to the classrooms was a good-sized snack bar to which we would repair once or twice between classes or during a gap in the class schedule in the morning. There over a cup of coffee we got to know our professors and one another better, regained our enthusiasm, and returned to the classroom eager to learn. And we were eager to learn. I think the school was nearly unique with that attitude prevailing throughout the student body. There was also no competition amongst the students. The better students were always ready to help the academically weaker ones.

In October of 1954 we purchased our first home and moved out of Page Manor. Our new house was at 4002 Kittyhawk Drive in Dayton, just west of Wright Field, and less than a mile from our Page Manor apartment. It was a three bedroom, single-story house with a one car garage on a one block hillside street looking west over the city of Dayton. It was an unusual house in several respects. Built on a slab, the exterior walls were of cast concrete, bolted to the slab. The heating system was hot water pumped through wrought iron pipes buried in the slab; wrought iron as the builder told me because it had very nearly the same coefficient of expansion as the concrete slab. A very small gas furnace in the utility room heated the water and a small pump circulated it throughout the slab. The result was the quietest and most comfortable heat we have ever had. The floor would be barely warm to the touch but that sufficed to heat the entire house. I confess though that I woke up at night sometime and wondered what we would do if one of the pipes buried in our concrete floors ever leaked. There was a single bathroom but with six of us eventually in the house we seemed to share it with no problems. The house cost $18,600, my father lent us the money to buy it, and we paid him back $100 a month without interest. When I protested that I could borrow the money from a bank he told us that he had lent
Wright Patterson AF Base

my brother the money to buy his more elaborate home in Knoxville and that he felt he should do the same for us. I found that argument compelling because, perhaps, I wanted to find it compelling.

While our new home was just a half mile or so off the end of one of the runways on Wright Field we did not find it particularly noisy since that field was little used. But there was a squadron of Strategic Air Command (SAC) KC-135 tankers stationed at Patterson Field — there as part of an effort to disperse our strategic bombing fleet so as to make it less vulnerable to a first strike from the Soviet Union. At that time relations with the Soviets were so touchy that SAC was often on airborne alert — that is it maintained a portion of its fleet airborne at all times, loaded with nuclear weapons, and able to survive an unexpected attack on its bases. Each morning shortly after dawn a KC-135 would take off from Patterson Field and proceed to wherever it went to keep the B-52s aloft or to accompany them toward the Soviet Union in the event of war. The B-52s could not fly all the way without refueling. It was not expected that the bombers would return from the mission — it was a suicide mission. Of course the whole idea of flying airborne alert was to deter the Soviets from a first strike and to avoid ever having to make the long flight to Russia. But I digress. The KC-135s were loaded to and beyond capacity with fuel for themselves and for their bomber friends. As a result they took off from Patterson with maximum power, used all the runway even so, and when they passed directly over our home, some five or six miles from the end of the runway, they were less than a thousand feet in the air, still at maximum power, and making an incredible din, sounding as though they would fly right through the house. This happened twice a day — early in the morning, and twelve hours later in the early evening. It didn’t bother us at all — twice a day we could handle. In fact we felt somewhat reassured that we were not going to be caught napping if the Soviets decided on war.

While we were still in Page Manor a new Catholic Church, St. Helens, was started nearby. Much of the work was done by the parishioners and I spent several weekends helping with the wiring. First, a school was built and for a year or so mass was held in the school building. And when I started classes at the Institute, Joanne began first grade at St. Helens. Teachers were a mixture of nuns and mothers, but it was the good nuns who established the atmosphere at the new school. The church always paid secular teachers much less than the public school system paid but always seemed able to get well qualified and dedicated teachers nevertheless. There is a lesson there somewhere.

From our new home, St. Helens School was mile or so distant and walking to school involved crossing a very busy road. We had but one car, I needed it to get to my school, and Marie-Anne had two small children she could not leave alone. Little Joanne, therefore, had to walk to school and back each day. We were always uneasy about that and after one year at St. Helens she was enrolled in the nearby public school. Though the public school was satisfactory, we much preferred the Catholic school in every respect. Typical of Catholic schools, it was a no nonsense, disciplined
school which maintained high standards of pupil performance and deportment and an awareness of the students’ relationship with God. Joanne got a wonderful educational start in her year at Saint Helens.

Meanwhile I was getting a very fine education also. After the six weeks intensive review of mathematics I took two quarters of Calculus followed by Differential Equations and LaPlace Transform, then a catch-all math course called Mathematical Methods in Engineering. To my astonishment I got As in each of these which whetted my appetite for more mathematics. So the second year I continued with Advanced Calculus and finally, Functions of a Complex Variable. The instruction was outstanding. We used the same textbook for Advanced Calculus that I had used at Rochester but at Rochester I couldn’t make heads or tails of the material. At the Institute I found it quite simple. The only difference was the teaching.

On February 9, 1955 I was given a so called temporary promotion to the rank of major. Permanent promotions could only come after a certain number of years in grade. These temporary promotions enabled the Air Force to reward deserving officers. I should mention that up to the grade of major they were given fairly freely. It meant a nice pay raise and it was pleasant to wear the gold oak leaves on my epaulets, but other than that my life as a student continued with no changes. My permanent promotion to major came on 11 November 1957 but brought no change in pay.

During our first year we also took the traditional engineering courses in Engineering Drawing, Engineering Statics, Engineering Dynamics and Strength of Materials, plus an excellent three-quarters course in Engineering Physics. In our third and fourth quarters we began our electrical course work with the study of Electrical Circuits. There were, of course, laboratories associated with several of these courses. Mixed in with these core courses were Personnel Management, Oral Reporting and Technical Report Writing.

At the end of the 1955 summer quarter we had a month without classes prior to the resumption of school in the autumn. Following a brief orientation we were allowed to select one of the various laboratories of the Wright Air Development Center at which to spend that month. I selected the Infrared Reconnaissance Section of the Aerial Reconnaissance Laboratory and spent four weeks there doing very little other than reading reports and talking to the people about their work. They were pursuing the use of infrared detectors for nighttime aerial reconnaissance. At the time the images were somewhat crude and it did not appear to me that there was much of a future in that use of infrared. That month was basically a four-week rest from the rigors of study.

Sometime during that first year of school I began for the first time to smoke. The reason — sitting home studying for hours at a time I needed some sort of distraction. I began with a pipe. That was quite satisfactory since there was so much involved with smoking a pipe. One could have a collection of pipes and of pipe mixtures on one’s desk. Then lighting up involved considerable ceremony what with dumping
the old ashes, reaming out the bowl, passing a pipe cleaner through the stem and looking with satisfaction at the oils and tars the cleaner collected. Then the choice of several different flavors of tobacco, the filling of the bowl, tamping it down, and, finally lighting it. What followed was somewhat disappointing, however. As I would sit, drawing on the pipe and blowing out the smoke — I never inhaled — I would resume my studies and the pipe would promptly go out. The pipe, however, would remain in my mouth where I could absent mindedly chew on it. Some ten minutes of so later I would relight and go through the same process once again. It fulfilled its purpose admirably of giving me something to do with my hands while I studied. After a few months, however, I gave up the pipe, partly because I didn’t care much for the taste, but more because it burned the tip of my tongue. I decided I shouldn’t continue to burn my tongue on a regular basis.

So I switched to smoking cigars and, for the next five or six years I smoked two or three cigars a day. Again I did not inhale. The cigars gave me something to do with my hands — the adult equivalent of a baby’s pacifier. I certainly did not enjoy the taste of a cigar but there was a certain pleasure in lighting up and blowing clouds of smoke. I continued smoking off and on like that until one day at work I concluded that a series of colds might be correlated with my cigar smoking. So I stopped. For a week or so I missed them slightly but after that I never gave smoking a thought.

When school resumed in the autumn of 1955 I studied Electronics (vacuum tubes at that period just before solid state electronics), Electrical Machinery, Electricity and Magnetism, and Engineering Thermodynamics. The winter quarter saw a continuation of electronics in Applied Electronics, Communication Engineering, Applied Thermodynamics (primarily aircraft propulsion theory) and Advanced Calculus. Spring brought Communication Engineering and Servomechanisms, plus Applied Aerodynamics (theory of flight) and Functions of a Complex Variable. Then the final quarter, the summer of 1956 brought Elements of Transistor Circuits, Television Engineering, High Frequency Techniques and Measurements and Analog Computer Techniques. The latter course was a beautiful course but the analog computer was just about to give way to the digital computer which was so much more powerful and flexible.

I put in long hours of study while I was at the Institute and noticed that I was having occasional heart palpitations. It was occurring often enough that I went to see the doctor at the base hospital. He checked me out, then asked me about my assignment. I told him I was an engineering student at AFIT. He was in the mood to talk and he confessed that he had started out in engineering but found it too difficult and had switched to premed. I found that very gratifying to know. Then he said that the palpitations were probably stress related, exacerbated by drinking too much coffee and smoking cigars, and not to worry about them. I took his advice and they eventually disappeared.

In the spring of 1956 I came down with the mumps. I learned that mumps are much more serious in adults than in children. My mumps became orchitis and I was put on steroids. Of course I had to remain in bed for a couple of weeks and I fretted
about missing classes. Fortunately the orchitis went down and I was back in school rather quickly. My advice based on my personal experience is not to get orchitis. People think it is funny. It isn’t.

I had done very well in all my courses and one of my instructors suggested that I apply for a National Science Foundation (NSF) Fellowship for a year of graduate school. The application required that I select a school that I hoped to attend. My advisor recommended The Massachusetts Institute of Technology (MIT) and I followed his advice. I then took the Graduate Record Examination and several months later, to my astonishment, I was awarded an NSF Fellowship for a year of graduate study at MIT. I didn’t get any money, of course. Presumably it went to the Air Force or directly to MIT. But it did get me admitted into MIT. Furthermore I was scheduled to return to Dayton and to AFIT as a member of the faculty upon graduation from MIT.

In July of 1956 our entire class was sent on TDY to Columbus, Ohio to take the Ohio Professional Engineers Examination. I passed and received a document certifying me as a Registered Professional Engineer in the State of Ohio. Registration was being pushed at that time by a number of engineering societies in an effort to upgrade the status of engineering as a profession. It was required by law in Ohio for civil engineers filing plans, specifications, etc. I don’t think it was ever required for electrical engineers. I paid my annual renewal fee for several years before dropping it as being of no use to me.

Our class graduated on 28 August 1956 and at graduation I was awarded the Melvin E. Gross Award for “exceptional scholarship and high qualities of character, initiative and leadership.” With the award came a military decoration, believe it or not, the Commendation Ribbon. The Air Force Institute of Technology had been accredited since our class entered so we were the first class to receive degrees; in my case, Bachelor of Science in Electrical Engineering with Distinction. At the age of 36 I had finally graduated and the long wait made it even more satisfying. I was doubly pleased for the sake of my parents whom I had disappointed when I had left the University of Rochester before graduating.*

Incidentally, graduating with me were two officers who would become two of the original seven astronauts in the new US man in space program. These were Capt. Gordon Cooper, who was in a number of my classes and whom I knew reasonably well, and Capt. Virgil Grissom. Grissom later perished in the tragic fire in a Mercury capsule on the launching pad.† Neither was regarded as a particularly outstanding officer at AFIT. I think their choice reflected the attitude within the Air Force about the Mercury program — that a well-trained monkey could handle the job of Mercury astronaut. I may be doing Grissom an injustice but it seemed to us that they reached

*Franklin’s father kept in his possession a copy of The Democratic Advocate, the county newspaper from where he lived, and on the front page is an article titled “Major Dukes Awarded Mervin E. Cross [sic] By Air Force Institute.” (ECD)
†He actually died in 1967 in an Apollo spacecraft with Edward White and Roger Chaffee. (ECD)
down a bit in the barrel to get Cooper. The good Air Force test pilots were not at all interested in the Mercury program which, after all, involved shooting a capsule into a low earth orbit, letting it parachute into the ocean where the astronaut would be retrieved. There was a joke current at that time in the Air Force that revealed the general Air Force attitude toward the program. It seems that a monkey and an astronaut were to be shot into orbit. Both were strapped tightly in place and the astronaut was given a sealed envelope with instructions to open it after one hour in orbit. The lift-off went well and the capsule went into the proper orbit. At that time the monkey began to push the buttons, turn the dials and work the switches as he had been trained to do, responding to the readouts on the instrument panel in front of him. The astronaut watched impatiently as the monkey continued his work. Finally, at the end of an hour the monkey stopped and looked expectantly at the astronaut. The astronaut quickly tore open the sealed envelope and read his instructions. “Feed the Monkey.”
CHAPTER 24

Back to Boston – MIT

My studies at MIT were to begin on September 17, 1956. We had decided to rent our home since we would be returning to Dayton after my graduation from MIT. We were fortunate in finding a military couple whose needs for a home meshed exactly with ours for renters. They had no children and no pets [a dachshund] and, as it turned out, paid their rent promptly and returned the house to us in perfect condition.

The packers came and our household goods were on the way to Boston. We followed, wondering what we might find in the way of housing. Fortunately we found a small new development of modest homes in the very modest suburb of Hyde Park. These had not sold well and the developer was renting a number of them to military students like myself and to officers assigned to a newly deployed anti-aircraft missile group in the Boston area. Our house at 34 Joan Court was cheaply constructed but it was new, our military neighbors were friendly, and we were delighted to find it.

We were unable to get Joanne into a Catholic school so we enrolled her in the local public school. Most of the children were from fairly poor families but the instruction was not bad. In fact the children there had learned to write (rather than print) in second grade while her former school would not have taught her writing until third grade. So Joanne buckled down and taught herself to write in a matter of weeks. She did very well in that school.

MIT at that time was (as it still is) perhaps the premier engineering school in the country and I began my studies there with a good deal of apprehension. I expected it to be difficult and it was. There is a saying there that getting an education at MIT is like trying to take a drink out of a fire hose. And at the age of 37 I was in classes with bright young students twenty years younger than I. So I struggled, not so much because the course work was difficult but more because the two years at AFIT had left me mentally exhausted.

I have to say that the course work was excellent, the instruction top notch, and that I was given every consideration by everyone there. The first semester I got straight
Bs in four courses. Unfortunately the fifth course, Transients in Linear Systems was the most important course and I received a well earned D in that. I wondered how I could be granted a degree with that D on my record. However, no one called me into their office to warn me I was in trouble so I tried to put it out of my mind and hope for improvement.

I was very little help to Marie-Anne at home with three small children. We were able to get a young woman to help her with the housework and we did try to get out one night on weekends, but it must have been a somewhat dreary winter for her. And, early in my second semester, she was delivered of a fourth child on February 6, 1957. Christopher was born, like his brother Franklin, at Waltham Army Hospital.* He promptly came down with impetigo and had to be isolated in the hospital. He got over that and Marie-Anne was back home but with a husband, three children and an infant to care for now. Fortunately my parents drove up and spent a few weeks with us helping Marie-Anne while she recovered.

The second semester I had four core courses plus a start on my thesis. Somehow I managed to scrape by with three Bs and a C. I probably saved myself with a quick decision the first day of classes. I had signed up for a course in Electricity and Magnetism and went to class the first day. The lecturer was a Chinese gentleman and, so far as I could tell, his first lecture was in Mandarin. He had an impenetrable accent — I hardly understood a word he said. I went straight to my faculty advisor, told him my problem, and requested a different course.

One of my professors was a graduate student, Bernie Widrow, an excellent, conscientious teacher. I went to his office one day and was sitting there smoking a cigar when I noticed he seemed somewhat distressed. It finally struck me that my cigar may have been bothering him. Such a possibility would normally never have occurred to me. I was raised amid clouds of cigar smoke and smoking was still considered an acceptable vice at that time. I asked him, he admitted, I apologized and got rid of the cigar. He must have been about twenty-five years old and probably didn’t quite know how to handle a thirty-seven year old student. Since then I was generally careful to ask permission before smoking in front of others.

After the birth of Christopher I spent most of my days at MIT. I would drive in for my first class and then be either in class or in the library until eleven at night when the library closed. I would be home by eleven-thirty at which time Marie-Anne would be in bed feeding Christopher. She breast fed all of our children — this was a time when breast feeding was just being recognized as important for infants. Chris would go to sleep and sleep until six when we all would begin to be up and about. It was a great blessing that Chris was able to sleep the night through so consistently.

I took one course during the summer semester plus my master’s thesis. The course was Principles of Pulse Circuits and after searching frantically for an appropriate thesis subject I came up with the idea of determining the pulse response of lead-

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*The Frederick C. Murphy Army Hospital — named after a Medal of Honor awardee — in Waltham, MA no longer exists. (ECD)
sulfide photoconductors. I approached Doc Edgerton, showed him my proposal and asked if he would be my thesis advisor. He gave me a room in Building 20, an old wood-frame building that had been built in a matter of weeks during the war as home of the famous MIT Radiation Laboratory which had done most of the development work on radars in the US during the war. And that was just about the last I saw of him. I spent a lot of time afternoons and weekends in that lab trying to get my measurements. Basically I used a steady light source in front of which I had a rotating disk with adjustable opening and speed. The light would fall on the photoconductor and I would get a nice trace on a scope which I would photograph with a polaroid camera. I varied this, that and the other thing and plotted the various results. It is all pretty fuzzy now but it was clear enough to me at the time that it was not a very sophisticated experiment and I was very doubtful that it would be accepted. But it was too late to start on another and, besides, I had no better ideas.

On the fourth of July Marie-Anne came down with a sore throat, fever and aching joints. It was a holiday and we had no family doctor. Murphy Army Hospital was a long way from our home and she didn’t feel at all like dragging herself there. So we called a medical advisory service, were given the name and phone number of a physician, and he came to our place. He did not inspire confidence. He was Polish and could barely speak English. He diagnosed Marie-Anne’s illness as the flu and did not do a throat culture. It hung on and on and finally, some six weeks later she went to Murphy where it was diagnosed as a strep throat that had turned into either rheumatic fever or rheumatoid arthritis — they were never sure which. There she was hospitalized. My school was winding down, I was struggling with my thesis, and once again my parents came to help us out. When she returned home she could barely drag herself around the house. A few days later I took my final exam and turned in my thesis. My parents returned to their home in Westminster, our household goods were packed and sent to Dayton, and we drove to New York, all six of us in our little Nash Rambler. I had 45 days leave and we had made reservations aboard the Cunard Line’s Queen Elizabeth for Le Havre. My father took the train to New Jersey where he joined us in our motel the night before sailing. We took a bus to the dock the next day and he drove our car back to Westminster. Marie-Anne and I were exhausted but, fortunately, the children were all in good shape.

Trip to Luxembourg

From that moment in late August that we marched up the gangplank we knew we were going to like that ship.* At the top of the plank a young English lady greeted us, took Chris out of my arms and asked, “What’s the bybee’s nyme?” “Christopher.” “Oh splendid, I am getting so tired of all the Michaels.” She ran the ship’s nursery

*Consulting the New York Times Shipping-Mails shows that the Queen Elizabeth left W. 50th St. at 11:30 on August 28, 1957. (ECD)
and as it turned out, Christopher was her sole charge on that trip. Any time we
wanted a few hours without Chris we would simply drop him off at the nursery.

Those years were the last few years of the great transatlantic liners and the *Queen
Elizabeth* was probably the last and greatest of those. Transatlantic air service was
just beginning to be competitive in price with the great ships. I believe that the
*Queen Elizabeth* was the largest and fastest passenger liner afloat at that time and it
certainly carried on the Cunard tradition of luxury and great service. As I recall there
were still three classes of passengers, first class, cabin class and tourist class. We went
tourist — we couldn’t afford taking the entire family in one of the more expensive
classes. But, other than the size and location of the staterooms, we could see little
difference among the classes. Our cabins were down near the water line it is true.
But they were spacious and comfortable and we had very nearly the run of the ship,
though certain decks were reserved for the more affluent passengers. We thought the
tourist class dining room was luxurious and the food superb. The weather was balmy
all the way across and we were able to stretch out on the sun deck and soak up the
sun. For Marie-Anne it was heaven — five days with nothing to do but relax. From
the day we boarded, recovery from her rheumatic fever began. And I felt as though
a great weight had been lifted from my shoulders with freedom from three years of
constant school. I still didn’t know whether I would be awarded my master’s degree
but I had done my best, there was nothing more I could do and I left it in the hands
of the gods of academe.

If we had any complaint it was that the trip was too short. On the fifth day
we arrived at Le Havre.* We were herded into the dining room for immigration
formalities and afterwards we were anxious to get up topside and watch the docking.
With a crowd of other passengers we awaited the elevator, it came, people rushed
into it and the door closed with four-year old Craig in the elevator and the rest of us
still waiting outside. Marie-Anne was frantic. Knowing how curious Craig was she
could easily see him on the top deck leaning through the railing and trying to take
it all in. I dashed up the stairway to the topmost deck and, to my great relief, found
him there, hanging indeed halfway through the railing. I pulled him back and we
joined the rest of the family including a mother who, I am convinced, had only half
expected ever to see him alive again.

We left the ship, accompanied our luggage through a very cursory customs inspec-
tion, and boarded the train on the dock, our family of six nearly filling a compartment.
The trip to Luxembourg was interesting but uneventful. In Paris we had to transfer
from the Gare St-Lazare to the Gare de l’Est to get the train to Luxembourg. We
were met at the station by Marie-Anne’s cousins, Odette and her brother Jean, who
lived in Paris at that time, and who helped us with cabs and porters. We arrived in
Luxembourg, tired but happy, to be greeted by Marie-Anne’s parents, happy to see
their daughter and their grandchildren. We spent a joyful six weeks there with the

*According to the Shipping-Mails the *Queen Elizabeth* landed at Cherbourg, not Le Havre, on
September 2, 1957. (ECD)
Back to Boston – MIT

grandparents showing our children the many delights of the Grand Duchy and the Stadt. The children found everything interesting and everyone, of course, did their best to spoil them. Marie-Anne visited her friends and relatives and also enjoyed taking her children into the city and showing them off. We couldn’t help but be proud of our four fine looking children. Mama had procured a European style baby buggy for Christopher so we could take him along for walks. But Chris, unlike the Luxembourg babies who lay bundled up on their back in the buggy, insisted on lying on his stomach and sticking his head up to look around.

In looking back at that time I marvel at how Marie-Anne’s mother fitted the six of us into their small home and how she fed us all. Marie-Anne’s brother Fernand was living at home but her younger brother, Edmond, was in the Luxembourg army and stationed at the caserne outside of Diekirch. Marie-Anne was still too weak to help much but mama did have a cleaning woman, and Mme Thomas, a widow who lived across the street, helped with the cooking.

We all started the day with a continental breakfast with bread and pastry fresh that morning from the boulangerie. Lunch, or actually dinner, was the big meal of the day and always included soup — delicious homemade soup. For all of his married life Marie-Anne’s father had insisted on having soup with his dinner. Then for supper we would usually have what the Luxembourgers called a *schmiere*. This could be slices of *Jambon de l’Ardennes* with sausages, cold cuts, bread and jam and what have you.

Marie-Anne’s family never owned an automobile but one could travel anywhere in Luxembourg then by bus or train. We rented or borrowed a car two or three times — all of us driving once to Trier where M. Doos took us to a rathskeller for beer and great sausage and to the Porta Negre, and old Roman structure there. We had a guide who assured us that the Porta Negre had been a monastery “a century before the birth of Christ.” I suppose it could have been a heathen monastery. And Alice, a spinster schoolteacher who was Chris’ godmother, took Marie-Anne and myself for a long day’s drive throughout the northern part of Luxembourg which was beautiful in the early autumn. Once or twice Marie-Anne’s father took us on the bus to the north of the city for long walks in the woods. These always ended at a country inn where the adults had coffee and the children Sinalco, a fruit-like carbonated drink that they loved. One Saturday morning during our stay the entire Luxembourg army paraded down the Avenue de la Gare in celebration of something I have long forgotten. Edmond was then a sergeant and participated in full uniform. The Luxembourg army which was an artillery battalion used American weapons but wore British type uniforms. I have never seen better looking troops anywhere. Except for the officers and senior NCOs they were all draftees and their standards were very high. I was most impressed.

Two or three times Marie-Anne’s father took the children by himself on the train to Bettembourg where they visited the Parc Merveilleux and enjoyed the rides and other amusements. Each visit would also end in a cafe there for refreshments. M. Doos knew very little English but it didn’t seem to matter, the children loved to
go with him to the Parc. Some afternoons Marie-Anne and I would walk together into town to Namur’s, justly famed throughout the country for its chocolate and pastry. There, surrounded by chattering Luxembourg matrons we would enjoy tea, the incomparable pastry, and just being together without a care in the world. Of course we had also to make a number of calls on Marie-Anne’s closest friends and relatives. Each call involved several glasses of champagne — the pity was that I have never really enjoyed champagne.

The ocean trip and the Luxembourg idyll were the best things in the world for Marie-Anne. With no worries and few responsibilities she slowly regained her health and her strength. And, halfway through our stay, I received a letter from MIT letting me know that I had graduated and would be awarded the degree of Master of Science. Somehow I had received an A for my thesis and, with the thesis counting 25 credits, that gave me a grade-point average of 3.94. Which meant that my appointment to the AFIT faculty was secure and we could look forward to a four-year assignment there. Wright-Patterson was a good base, we loved our home there, and I was looking forward keenly to returning to AFIT as an assistant professor of electrical engineering.

In mid-October all of us, including Marie-Anne’s mother, loaded up in an automobile borrowed from a friend of Edmond’s, bad farewell to a teary eyed M. Doos, and left for Paris. We stopped at Celles, a small town outside of Paris, and spent one night with a cousin of Marie-Anne’s who lived there with her French husband. The next day we drove to the Gare St.-Lazare where we were met by Edmond and his friend who had taken the train from Luxembourg. They helped us load our bags, waved farewell, and we left for Le Havre. There we boarded the older sister ship of the Queen Elizabeth, the Queen Mary. The trip back to New York was pleasant but the North Atlantic was considerably colder and there was no sunbathing on the upper deck. My father met us in New York with our car and we drove to Dayton and moved back into our home there. Joanne and Franklin had missed a month of school but quickly made it up. After getting us settled I reported for duty at AFIT.

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*In June of 2005 my brother, Franklin, and his family vacationed to Luxembourg. While Franklin was sick in bed, his wife Linda and daughter Lenore went to Namur’s for pastry. They mentioned my parent’s visits to Namur’s to their elderly waitress only to find that she remembered Mother well! (ECD)

†Again, according the the Shipping-Mails the Queen Mary left what is most likely, Cherbourg, not Le Havre, on October 24, 1957, arriving in New York on October 29. (ECD)
I was very pleased to be back at the Air Force Institute of Technology in familiar and comfortable surroundings. The head of the Electrical Engineering Department was Doctor Zieman, a reasonable, soft spoken civilian about 45 years old whom I knew from my student days. He was not a dynamic individual and he led the department on a very loose leash. We had about a dozen professors, half civilians in permanent positions and half military on three or four year tours. Faculty morale was good and relations between military and civilian faculty excellent. There was some faculty research but not a great deal as the emphasis at AFIT was on teaching, and the teaching, as I had discovered as an undergraduate, was generally quite good.

The Air Force had been trying to upgrade the Institute over the past few years from something more than a training program to a full fledged degree granting institution. It had just begun giving undergraduate degrees while I was a student and, during my time as a professor, it began awarding masters’ and then doctoral degrees. In addition to the resident engineering school AFIT ran an extensive program sending officers to civilian institutions to complete their education, primarily in engineering and science. These led to undergraduate and graduate degrees including PhDs. There was some opposition within the Air Force to sending officers for PhDs on the basis that “the PhD was of more value to the individual than to the Air Force.” The basis for that belief was the high percentage of PhD holding officers who were leaving the Air Force a few years after getting their advanced degrees.

I, with my new Master of Science degree from MIT, was appointed Instructor in Electrical Engineering, the very bottom rank on the academic totem pole. I left AFIT four years later as Assistant Professor, just one step up. I was assigned an office which I shared with a Maj. Oliveras. He was a pleasant, easy going officer with little apparent ambition, and I often wondered how he had been selected for the faculty. When I call him easy going I do not exaggerate. Many’s the time I would look up from my desk to see him sitting at his, facing me, fast asleep, upright in his chair.
He had flown B-17s in World War II and on one mission a piece of flak had come into the pilots’ compartment and taken the head off of his copilot. He had flown the aircraft back to his base with the headless copilot in the right hand seat. After that I suppose nothing could shake him.

After Oliveras left AFI T I had a Maj. Green as my roommate. He was older but considerably more dynamic. However, he seemed to be more interested in the stock market than electrical engineering or the Air Force. I had never had enough money to invest in stocks but at that time the market was in one of its periodic investment frenzies. The transistor had been invented just a few years before and the new semiconductor companies were the darlings of that market period. Maj. Green would speak at length with his broker over his office phone just about every day and often several times a day, a practice which I regarded as somewhat unethical, particularly carried to such extremes. One day the broker recommended a company called Transistor which was a hot item in the semiconductor business — semiconductors at that time meaning transistors. When the major bought a hundred shares or so I decided I was going to invest. The stock was at 35 and I ordered ten shares — all I could afford. I then watched that stock go down, down, down. When it reached 15 I sold it and took my two-hundred dollar loss. It then continued down to 5 at which point the company apparently disappeared. That was a lesson and a painful one.

I accompanied Maj. Green to an investment presentation over lunch at the club one day and the broker made the statement that the market could only go up since there were not enough shares of stock in the market to accommodate all the money available for investing. I found that argument unconvincing. Furthermore I had already discovered that the market could go up and my own shares in it go down. With the stock market crash of 1929 always in my mind I did invest a few hundred dollars from time to time over the next few years but always had one guiding principle — I never invested more than I could easily afford to lose.

I enjoyed teaching for a number of reasons. I have found that most people enjoy teaching and I think I know why. There is a deep and selfish pleasure in standing in front of a classroom full of students, all of whom regard you as an expert in the subject at issue — and knowing that, at least in comparison with your students, you are indeed an expert. There is an equally deep and less selfish pleasure in trying to make a difficult subject clear and even interesting to the students. And, finally, there is a visceral pleasure in having a group of people completely at your mercy for some fifty minutes. Teaching in the classroom — successful teaching anyway — is a great ego enhancer.*

I found the key to successful teaching was extremely simple — preparation. I would spend hours preparing each lecture and, though I never taught more than two courses and a laboratory in any one quarter, I would be working most nights at home preparing the next day’s lectures. Whenever I stood up in front of a class I knew

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*Franklin was indeed a successful teacher: he was selected as the most outstanding teacher in the School of Engineering in the 1960–61 academic year. (ECD)
Professor of Electrical Engineering

exactly what I was going to cover and how I would do it. I would have done any
problems or derivations so that I knew they could be done. I have sat in more than
a few classes in which a professor started deriving a formula on the chalkboard, got
lost halfway through, and wasted the class’s time and his own trying to find his way
out.

As several people have said “The way to learn is to teach” and I found pleasure in
continuing to learn. Ohio State University had an extension program for the Wright
Air Development Center people with classes evenings at AFIT and I enrolled in a
couple of their courses each year. So between teaching and learning, I was very busy
all the time I was at AFIT.

Meanwhile Marie-Anne was equally busy with our home and the children. Wright-
Patterson had many activities for children and she took advantage of them. Joanne
and Franklin swam in the summers on the Base swim team, the “Flying Fishes,” and
Craig and Chris paddled around in the pool. Joanne, alas, was no more talented a
swimmer than I had been. When she was swimming free style her arms were trying
to pull her forward but her legs seemed to be pulling her back. As a result she had
lots of arm and leg motion but very little forward progress. However, as in everything
she did, she tried hard and eventually became a reasonably competent swimmer, and
certainly better than her father had ever been. There were also golf and tennis lessons
for the older children. The two weeks of tennis lessons culminated in a tournament.
Joanne won in her age group — she was the only contestant.

Since we had only a single car, Marie-Anne would often have to drive me to work
in the morning and pick me up at night. We had no servants, of course, so Marie-
Anne did everything around the house. I did dry the dishes at night, did the lawn
work and repairs around the house and took care of the car but all else fell upon her
shoulders. As always, since the day we had married, she was a jewel. Fortunately
our children were just about all anyone could hope their children would be and with
their mother as a shining example, they were developing beautifully.

In early February of 1959 Marie-Anne was asked if she would speak to the wives
of the incoming student engineering classes and give them some ideas of what their
lives would be like while their husbands were attending the Institute. She received a
nice thank you note later from the Dean’s office stating that “you did an excellent job
and presented exactly the type of thing that we wanted the student wives to hear.”
As I wrote this I asked her if she remembers what she said. “Yes” was her reply,
“I told them that they would not see much of their husbands and they should find
activities they could enjoy without them.”

In the spring of 1959, after the childrens’ school had ended, Joanne became some-
what listless. She felt well enough, however, that when a touring production of The
King and I announced tryouts for roles as the king’s children, she talked Marie-Anne
into taking her brother Franklin and herself to the tryouts. While waiting with the
other hopefuls and their mothers she told Marie-Anne that she didn’t feel well. When
Marie-Anne came back with the car she had fainted. Marie-Anne took her home and
called our pediatrician, a young lady who lived just a block or so from us. She made no specific diagnosis. A few days later I received a call at the Institute from a tearful Marie-Anne. Joanne’s condition had worsened alarmingly and Marie-Anne had taken her to the Wright-Patterson military hospital emergency room. There she had fallen into a coma and the physicians had told Marie-Anne that she might want to call for a priest. I got someone to drive me to the hospital where I rushed to the emergency room and into the arms of a tearful Marie-Anne. Since I had spoken to her Joanne’s blood tests had revealed diabetes, she had been given insulin, and was making a seemingly miraculous recovery.

Sometimes the ways of the Lord are mysterious. If Joanne’s diabetes had been diagnosed earlier when she was simply feeling listless, we would have been crushed. But following her coma and the doctors’ call for a priest we were overjoyed that, serious as it was in the long term, we would not lose her. That made it much easier for us to accept her condition.

The next few weeks we all began learning how to live with Joanne’s diabetes. She learned how to inject insulin, how to test her urine with strips of paper, and how to adjust her dosage for the injections she began to give herself twice a day. We learned how to be careful with her diet, though the doctors at Wright-Patterson were not as strict about the diet as had been the practice years before. She had to be able to recognize the symptoms of an impending insulin reaction caused by too much insulin. We also had to recognize when she was suffering an insulin reaction, most dangerously when it would come on during her sleep and we could not wake her in the morning. She had to carry some form of sugar with her at all times to counteract a reaction and we had to be able to force sugar into her mouth when she was suffering a full reaction and could not be awakened. From that first day her whole life would revolve around her condition. It was not easy for her, it was not easy for her mother, but she would end up by living a remarkably normal life despite her condition. She showed incredible courage in doing so.*

The AFIT faculty generally taught classes for three quarters and then had a quarter without any teaching responsibilities. This was like the old saw that “On six days shalt thou labor and on the seventh day do all thy odd jobs.” My quarter off came in the autumn of 1958 and I was appointed part of a three-man team to survey a number of sites for a possible relocation of the Resident School of AFIT. The

*Joanne’s diabetes did not stop her from living a full life, despite a progression of increasingly severe ailments from her condition. After graduating from Georgetown University with a nursing degree, she married Karl Hess in 1970. They lived in Washington, D.C., Charlottesville, Chicago, Ft. Collins, Tunisia, and Las Cruces, where Joanne taught nursing at the University of New Mexico, where she was named “Teacher of the Year” for the state of New Mexico. While there she received her PhD in nursing from the University of Colorado. Diabetes-related health problems forced her early retirement in 2005, and she moved back to Charlottesville to live in Marie-Anne’s house after her death. The kidney her brother Franklin gave her some twenty year’s earlier finally failed and Joanne died on February 28, 2007 during heart surgery in preparation for a second transplant of a kidney from her brother Christopher. (ECD)
Institute was trying to get authorization for construction of a new, permanent facility at Wright-Patterson AFB and someone at Air Force Headquarters had suggested that there were Air Force facilities available elsewhere that were redundant and could be converted for AFIT use at considerably less cost than building a new facility at Wright-Patterson. Three possible sites had been suggested — Eglin AFB in Florida, Maxwell AFB in Alabama, and Tullahoma, Tennessee where the Air Force had a complex of research activities, primarily wind tunnels. Three of us went; myself, Capt. Egger who was the aide of AFIT’s commanding general, and a Lt. Brenner. We were given a C-45 which Capt. Egger piloted. The C-45 was a small, twin engine aircraft which had been converted before World War II for use in navigator and bombardier training. A large number of them had been retained for proficiency flying and odd jobs after the war. They were generally referred to as “bug smashers” in recognition of their normal cruising altitudes of just a few thousand feet. Their chief, and perhaps only virtue, was that they cost little to operate.

We left Wright-Patterson late in the morning of 13 October and arrived at Eglin in mid afternoon. We spent the next day discussing available facilities with the Eglin people and it was obvious that they had nothing that could be useful as a home for AFIT. That same afternoon we made the short flight to Maxwell AFB where we received a similar reception. The following day we made another short flight to Tullahoma which gave us a now familiar report on lack of a suitable home in existing facilities. In an aside one civilian engineer I spoke with during the discussions told me not even to consider moving AFIT to Tullahoma. “It is an intellectual desert here” was his comment. The wind tunnels had been located there because of the availability of the enormous amounts of electrical power available from TVA. We returned to Wright-Patterson that same evening with a report on our failure to find any sites having excess facilities suitable for the Resident School of AFIT. Although we were not told so, I was confident that such was the report that had been hoped for and expected.

Unfortunately, I had left home with the start of a cold and the trip with constant changes of temperature and altitude had worsened it considerably. Even more unfortunately I was supposed to take a C-47 for Maxwell AFB the day after our arrival home to attend a five day Air Warfare Systems Orientation Course followed by a six week Academic Instructor Course. I felt badly enough that I stopped at the Wright Patterson Base Hospital where I was unable to see anyone in the short time before my flight. So Marie-Anne drove me to Base Operations and off I went. When I arrived at Maxwell I knew I had a fever. I went straight from the flight line to the Base Hospital, they diagnosed pneumonia, admitted me, and began treatment with antibiotics. I completely missed the Air Warfare Systems course but was discharged from the hospital after four days, got a room in the Student Officers Quarters, and spent most of the weekend in bed. By Monday I felt well enough to join my classmates in the Academic Instructor Course. Happily the classrooms were just a few hundred feet from my room and I was able to take meals at the Officers Club, also just a few
hundred feet away. I felt very weak but the course was not physically demanding and I was able to complete it, gaining strength day by day. I couldn’t help but compare this illness with that I experienced on my return from the Philippine Islands in 1934. Then I was hospitalized for over a month while my immune system fought it out with the pneumonia unaided. This time it was four days and out. Antibiotics were truly called miracle drugs. However I wondered, even then, what the long term effects of our growing dependence on antibiotics would be.

My first year or so at AFIT I taught circuit theory and electronics to the undergraduate electrical engineering students. After a couple of years I was asked to teach electronics to the undergraduate aeronautical engineering students. This was something of a challenge since most of them felt it was outside their field and thus not too important. Associated with the course was a laboratory which had always been done in the conventional manner of cookbook experiments wired up on what was called a breadboard and followed by the taking of data and the writing up of the results in a laboratory report.

I never liked that type of laboratory. Students had to work in groups and as I mentioned earlier in this memoir it usually meant that one student did the work and the others stood around and tried to understand what was going on. So I set out to do two things. First, I knew they could not learn much electronic theory in a two-quarter course so I didn’t try to make electrical engineers out of them. I stuck pretty much to fundamentals, I gave them lots of problems to work, and I didn’t make the problems very difficult. Second, I tried to get them interested in electronics. To do this I changed the laboratory completely. We did a few basic experiments early in the course and then I told them that the remainder of the laboratory would be devoted to building kits. There was a company at that time, Heathkit, that sold a wide range of electronics kits for building everything from cathode ray oscilloscopes to transistor radios. Each student decided what he wanted to build and I ordered the kits. The labs from then on were devoted to assembling the kits. The students loved it, they got hands-on experience in real world electronics, and a feel for the capacitors, resistors, vacuum tubes (it was nearly all vacuum tubes then) and the rest of the components used in electronic equipment. Their interest in the course perked up remarkably because they could see the utility of what they were supposed to be learning. I enjoyed teaching that course very much and the students response was very gratifying. A year or so later I received a letter from one of those students who was attending a Missile Operations Officer’s course for the Atlas, the first of the American intercontinental missiles to be operationally deployed. Referring to a block of instruction on the APCHE (Automatic Programmer Check Out Equipment) he wrote “To me, as all electricity is, the APCHE is an electronic nightmare. But with your course behind me and the slight review afforded by a handout, I understood the main function of the component parts. I could understand how the transistorized circuits did the jobs they were assigned because of the knowledge gained in your course.” He exaggerated, of course, but I was very pleased with the enthusiastic
attitude of my aeronautical students in the course and it was rewarding to get an unsolicited and unexpected testimonial. In both teaching and in learning, enthusiasm is everything.

When we returned from our trip to Luxembourg and I began my new assignment as a professor we had moved back into our home on Kittyhawk Drive. Our renters had left it in immaculate condition for which we were grateful. Looking back at that time I am surprised at how well our family of six made out in that rather small three-bedroom house with a single bathroom. Life was considerably simpler then than it is now. No air conditioning (a window fan sufficed on hot summer nights), no computer, no stereo, no cassette players, no compact disc players, no video recorders or players. Somehow all six of us managed to take care of all our bodily functions in our single, small bathroom. Looking at slides I exposed at that time I see that part of the secret was that Marie-Anne bathed all the boys in the tub at the same time. I am not convinced that was always the case but the camera does not lie. Marie-Anne and I saw an occasional film when we could get a baby sitter. The children were allowed to watch television on Saturday morning and they were allowed to have a Coca-Cola on Saturday. They knew that was the rule and they were quite content with it — it gave them something to look forward to. Marie-Anne took them to the Base for swimming, tennis or golf lessons on a seasonal basis and they had birthday parties with their friends. They went to bed early and there was never any fussing and whining about it. Very little anyway.

Of course they were not angels — at least not all of them were angels all the time. Chris would sometimes sulk when he felt he was not being treated fairly. The three boys slept in one bedroom and Joanne had a room to herself. Franklin and Craig had what were called bunk beds — one bed above the other — and Chris had the faithful old Kiddie Koop for a year or so when he graduated to what was called a Trundle Bed. This was a normal bed with a very low bed that slid under it. Two or three times when Chris was truly upset with us he went to the room he shared with his brothers, took out his little Tootsietoy cars, and took all the tires off. We never understood what satisfaction this gave him.

With the exception of our Luxembourg trip we did not take real vacations until we moved to France in 1961. But I am getting ahead of my story. Vacation was usually a drive to Westminster for a week or so with my parents in summer or at Christmas. That was the only vacation we could afford. And my parents would sometimes visit us.

Sundays Marie-Anne would get the children dressed in their finest and we would go to mass at St. Helen Catholic Church. People did not go to church at that time dressed in ragged blue jeans, undershirts and running shoes without socks. Certainly the Dukes family under Marie-Anne’s critical eye did not. And Marie-Anne’s mother would send us beautiful clothing each year for the children — clothing that we could not afford or even find in Dayton. Afterwards we might go to the buffet brunch at the Officers’ club. One Sunday at brunch little Franklin came back to the table with
the entire pineapple from the decorative centerpiece. It was unclear what he intended to do with it.

Our Christmases were very conventional. We always bought a tree — spruce by preference — which we would put up in the living room the day before Christmas and hang with strings of multi-colored electric lights, and a variety of decorations. Then, after the children had gone to bed we would put out their gifts, lovingly wrapped in brightly colored Christmas tissues, each with a small card “To Joanne (or Franklin, Craig or Chris) from ‘Santa’.” Early on Christmas morning the children would run into our bedroom, arouse us, and we would all go together into the living room to open our presents. Then, after church, Marie-Anne would prepare us a wonderful Christmas dinner, usually featuring a turkey but sometimes a real Christmas goose. By today’s standards there were not lots of presents but we all thought it was wonderful. what he intended to do with it.

I had always wanted to go to Indianapolis for the “Indy 500” automobile race, so I got two tickets for the 1959 race and invited my father to go with me. He and my mother drove to Dayton and he and I drove to Indianapolis early on the morning of the race. It was blessed with good weather, and we saw the entire race, won as I recall, by Roger Ward. That was near the end of the era of the big Offenhauser engines that had dominated the race for years. I enjoyed it very much but I think my father would just as soon have been elsewhere. We were seated half-way up the stands at the first corner after the starting line. Two things impressed me. First was the start of the race when after a lap or two the pace car pulled off of the track and all 33 cars blasted down the straightaway and into the turn in front of us emitting an incredible crescendo of noise from those enormous engines. The second impression that has remained with me was the sight of the cars going around the turn in front of us and actually lifting one wheel off the track as they cornered.

I became interested at that time in teaching a course on fundamentals of radar and infrared systems and I learned that The University of California at Los Angeles (UCLA) was offering a two-week short course on infrared systems during 20 to 31 July. I spoke to Dr. Zieman about this, got his approval, and applied for admission. So, leaving Marie-Anne once again to cope with the family, I flew out to California and spent a very interesting and profitable two weeks. The course was well done and I returned to Dayton with a solid foundation in infrared theory and practice. I stayed in a motel in Westwood Village and would walk to the University and back each day passing some beautiful homes, each apparently equipped with an oriental gardener. The weather was perfect and I got a feeling of why people liked California. This was before the state had become quite so crowded and, of course, not all of California was like Westwood.

My three-year tour of duty at AFIT was to end in October of 1960 but I applied for and was granted a one-year extension. And on 18 February of 1960 I was appointed to the academic rank of Assistant Professor of Electrical Engineering. So far as I could tell this jump from the lowly rank of Instructor brought me no perquisites whatsoever.
I presume I could have called myself Professor Dukes but military rank seemed to take precedence over academic rank. Our civilian counterparts at AFIT were referred to as Professor So and So but military faculty was always Major (Captain or Lieutenant) So and So.

I was unable to find any suitable textbook for my course on fundamentals of radar and infrared systems so I began teaching the course from notes that I wrote up as the course progressed and handed out to the students. It went well and I repeated it at least once. I also taught a one semester course on transistors and that was not quite as successful. I chose a text that emphasized the physics of the transistor rather than the design of transistor circuits — intentionally since transistor circuit design was changing so rapidly — but it was not too successful.

In October of 1960 I began to look into possible assignments after AFIT. I wanted, if possible, to get an assignment to Europe so Marie-Anne could be near her family (When courting her I had made a half promise (actually more a prediction than a promise) that we would be back in Europe within a few years. The few years had long passed and I wanted to honor my rash prediction. The problem was that there very few assignments there in my specialty of Research and Development. However, Capt. Joe Manci, a former AFIT professor, had heard that a Dr. Wattendorf was in Washington and looking for a qualified officer to act as the Executive for the Avionics Panel of a NATO agency called AGARD (Advisory Group for Aeronautical Research and Development) located in Paris, France. Joe, whom I knew well, had once contacted him about a similar position in another Panel but was told that there was no vacancy there at that time. Joe gave me Dr. Wattendorf’s phone number at the Pentagon, I called and made an appointment for an interview. I hastily drew up a resume and took a flight to Washington on 13 February 1961 where I was interviewed by Dr. Wattendorf. I felt that the interview went well but no decision was forthcoming as would be expected.

Joe Manci had also given me the name and phone number of Col. Nay, Commander of the European Office of the Air Research and Development Command in Brussels, Belgium where Joe was currently assigned. That organization followed European research pertinent to US Air Force interests and awarded and monitored contracts with European researchers. I called Col. Nay from the Pentagon and he asked me to write with a resume of my qualifications. I did so on 20 February. He replied on 7 March with the information that an officer he had previously requested for the position had been made available and there was no other openings at that time. So it was AGARD or bust.

Franklin’s memoirs end at this point, except for the final chapter describing his trip to Antarctica in 1967, exerted from a journal he kept of the voyage.
In August 1966 my immediate superior at CLOUD GAP called me and asked me to accompany him into General Quandt’s office. This was somewhat unusual and I entered the general’s office in a state of considerable curiosity. I was not to be disappointed. Without any preliminaries, General Quandt asked me, “How would you like to go to Antarctica?” I thought this over for about five seconds and replied, “I’d love to!”

The general then explained that the US Department of State was preparing to send a team of inspectors to Antarctica to conduct inspections of a number of foreign stations there to verify compliance with the terms of the Antarctic Treaty. This was the only treaty we had ever negotiated with the Soviet Union which contained provisions for on-site inspections to determine compliance or non-compliance with its terms, and the United States was determined to exercise these inspection rights. There was little question of any significant Soviet violations but in the never-never land of arms control and our Department of State it was felt important to use these precious rights.

As I learned later, there had been one previous inspection several years earlier, conducted by a team consisting of several rather well-known scientists (all Antarctic bases were scientific bases at that time) and one of the top men of the Arms Control and Disarmament Agency (ACDA). One of the lessons of that inspection was that it didn’t require all that talent so ACDA had directed CLOUD GAP to furnish the ACDA individual for this inspection team. I was selected, probably because I had little else to do at that time. As it turned out, I was pretty well qualified for the position.

Lewis O. Smith, Capt. USN, of the US Arms Control and Disarmament Agency, was the project officer. He was located physically at ACDA headquarters in the State Department building, about eight blocks from CLOUD GAP. I reported to him, once my nomination had been accepted, and he turned out to be a delightful person both personally and professionally. He was pleased with my technical background and my
This is How it Was

proficiency in the French language since we were to inspect a French station. He did decide that it would not hurt for me to brush up on my French and he enrolled me in a Berlitz course in conversational French. I reported to their offices, a fifteen-minute walk from CLOUD GAP in the other direction and was assigned a pleasant young Belgian lady as my instructor. For the next two months I would walk down there after lunch three days a week and talk French with my charming instructor.

As planning for the inspection proceeded I learned that my fellow inspectors were to be Frank G. Siscoe, a Foreign Service Officer from the State Department, who was designated as team leader; Merton E. Davies, an atmospheric scientist from Rand Corporation in California; Karl W. Kenyon, from the Fish and Wildlife Service in Seattle, Washington; and Cyril Muromcew, a Russian-language interpreter with the State Department, whose primary function was to act as our interpreter while visiting the Soviet stations.* Captain Smith designated me as official photographer for the team and purchased a Pentax Spotmatic 35 mm single-lens reflex camera for my use. I selected that particular model because I owned one, liked it, and was well acquainted with its operation and capabilities.

During the autumn and early winter of 1966 I reviewed the scanty available literature on the stations we planned to inspect and tried to become better acquainted with Antarctica in general. And in early December our inspection team was assembled for the first time at the State Department in Washington. There we met retired ambassador Paul Daniels, who had negotiated the Antarctic Treaty for the United States, and who spoke to us rather formally about the Treaty and its important provisions. And, in a little ceremony he presented us with our multilingual credentials (which no one ever asked to see) and laminated cards with our photos, brief descriptions, and our designations as “United States Antarctic Observer” (which no one ever asked to see).

Getting There

Cyril Muromcew and I left Washington Dulles Airport at 0930 hours on 11 January 1967 aboard a United Airlines DC-8. We flew non-stop to San Francisco and thence to Hawaii where we checked into the Moana Hotel on Waikiki Beach and went to bed exhausted. Despite our exhaustion we awoke early the next morning with our brains on Washington, not Hawaiian time. We spent the morning strolling the beach which, although greatly commercialized since my first visit in 1930, was still interesting and

*The inspection team was a rather distinguished lot. Merton Davies was one of the “world’s foremost experts in using deep-space photographs to map the planets,” according to an obituary in the New York Times after his death on April 21, 2001. Karl Kenyon had a distinguished career as a naturalist, and was perhaps the leading authority on sea otters. Cyril Muromcew, who later that some year was one of President Johnson’s interpreters at the Glassboro Summit with Chairman Kosygin of the USSR, was one of some twenty or so diplomatic interpreters in the State Department. Only Frank Siscoe seems to have disappeared from history. (ECD)
At the view of Diamond Head from Waikiki, however, was nearly eclipsed by the new high-rise hotels that lined the Beach. The temperature was pleasantly mild and we enjoyed the novelty of an hour on the beach sunbathing in January. That evening we boarded a Pan American 707 and took off just at dusk. For some time we flew southwest at some 31,000 feet and were rewarded with a seemingly endless sunset, the atmosphere on the horizon a brilliant red which darkened ever so slowly as we raced the sun toward the west. * For a long time Venus shone brightly in solitary splendor until darkness brought out the stars. Not for the first time I thought of how beautiful flight can be — particularly on the jets which fly above nearly all of the atmospheric debris in the cold, clear stratosphere.

At 2330 local time we arrived at Faaa (pronounced Fa-a-a) Airport in Tahiti. Charming local lasses threw leis of shells around our necks, a somewhat unexpected touch at this ungodly hour, and we passed into a little bit of overseas France. Entrance formalities were lengthy. I checked my box of photographic equipment and my large suitcase with the douane — a typical French douane in khaki shorts and black galons. He gave me a receipt for the equipment but would not include the suitcase. “Je ne peux pas m’amuser des valises de tout le monde.” he growled. I really felt as though I were back in France. We took a cab to our hotel, the Tahiti Village, and a night of troubled sleep, still suffering from “jet lag.”

The next day was Friday 13th of January 1967. Awoke at a reasonable hour and took a good look at our hotel. It was built in the old Pacific style — wood-frame construction and open to the sea breezes. No air conditioning nor was any needed. We rented a car and a driver for the day for 2,300 Tahitian francs or about $27.00 at the exchange rate of 86 francs/dollar. The price included tip and driver’s meal and drinks, not unreasonable we felt. The driver, Jean, went to a missionary college in Fiji and spoke excellent English. He was three-quarters Tahitian and one-quarter French and, like most of the Tahitians, a fine-looking young man. He professed to be not too fond of the French and claimed that De Gaulle had recently pulled a local deputy from his home one night and thrown him into jail indefinitely — all because he advocated independence for Tahiti. French administration appears to be enlightened in that they are not trying to change the local culture as the Americans would do. Indeed, they seem to be trying very hard to preserve it. The natives are not allowed to sell their land and immigration for over six months is forbidden. The local boys do their eighteen months military service just like the boys from metropolitan France.

Jean drove us around the road that circled the island which was like a large garden — flowers everywhere. We visited the Botanical Gardens and the Gaugin Museum. Both men and women go around with flowers in their hair and tucked behind their ears; one ear for unmarried and the other for married girls. I find this a charming and practical custom. In the evening we had dinner at a large hotel and watched a

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*Actually, Tahiti is almost due south of Oahu, indeed slightly west of it. The endless sunset is due to the longer days as one goes from the northern to southern hemisphere in the winter months. (ECD)
This is How it Was

floor show which the hotel had brought from Japan. The real show, however, was the audience which was full of lovely, well-dressed young women of a variety of shades of white and brown and all with lithe figures and superb carriages. Mothers and aunts were conspicuously present with their lovely charges. I noted at the time that they must have been well to do also since the rather poor dinner with one drink cost me some $13.00 which I thought a considerable sum at that time.

The next morning we had a real French breakfast at our hotel, croissants and French coffee. Then we took a cab to the quai at Papeete (Pa-pai-ai-tai) for a 0930 departure by small boat for the nearby island of Moorea, a beautiful mountainous island just a few miles from Tahiti. The boat moored at the Hotel Bali-Hai which turned out to be run by a group of lively young Americans. It was an unusual hotel, consisting as it did of a number of grass huts scattered along the beach. Strangely, neither there nor at Tahiti did we see many swimmers though the water looked inviting enough.

We awoke the next morning to find that our 0600 departure had been postponed to 1600 hours so we had breakfast and lunch courtesy of Pan American Airline. While waiting at the airport I talked at some length to a French soldier on duty there. He was from Verdun and had actually been assigned to SHAPE while we were stationed in Paris. He said that there had been a considerable influx of French military and civilians since the French nuclear testing program had opened with a consequent increase in the cost of living. He drew some two and a half times the pay he drew in France. Somehow I found Tahiti a bit disappointing—perhaps I was expecting too much. I didn’t enjoy the weather which was actually too cool in the evening!

New Zealand

Monday & Tuesday, 16 & 17 January

We crossed the International Date Line Sunday evening and it suddenly became Monday evening! We landed in Auckland, New Zealand at 1910 hours and were met by a representative from the United States Consulate there who drove us (down the left side of the road) to our hotel, the DeBrett. I felt myself coming down with a cold and went straight to bed. We awoke the next morning to a cold and sullen rain. Around 1300 hours we took off from Auckland in a Fokker F-27 Friendship, a fairly small twin-engined, high-winged, propeller driven plane which brought us to Wellington in little over an hour. There we were met by Naval Attache Cdr. Winton and the last member of our inspection team, Merton Davies. He took us to our hotel — again the DeBrett, where we had a very English dinner with starched white linen and heavy hotel silver for 17 shillings (20 shillings to the pound and the pound at $2.80 U.S.) with coffee in the lounge afterwards. Afterwards we strolled down to the dock to see our ship, the USCGC Eastwind (WAGB-279), then to bed with what had turned into a really nasty cold.
Antarctica

Wednesday, 18 January

We were introduced to the United States ambassador to New Zealand, Ambassador Powell, and then were driven around Wellington for a brief sightsee. It looked very much like a modest English city, neat and modest.

Thursday, 19 January

We took our baggage to the *Eastwind* in the afternoon and met with the Executive Officer, Cdr. Samuels. He laid it on a bit thick about life aboard an ice breaker and made a point of mentioning that he was a reserve officer who had come up through the ranks — the Navy calls them “Mustangs.” In the Army and the Air Force there is very little consciousness of the source of an officer’s commission, but in the Navy there is a very sharp line drawn between an officer commissioned from the Naval Academy, from the Reserve Officer Training Program (ROTC), and from the enlisted ranks.

Friday, 20 January

We flew to Christchurch on South Island on a New Zealand Airways Viscount. Before leaving, however, we dropped by the *Eastwind* to pay our respects to the captain, Mike (W.M.) Benkert. He was a big, hearty Coast Guard captain, nicknamed “The Bull” and looking every bit qualified for that nickname. The navy people with us said that command of an icebreaker in the Coast Guard corresponded to command of a carrier for a navy captain and that the Coast Guard captains, all of whom had lots of sea time, were all first-class skippers.*

The USN Support Forces Antarctica had their headquarters outside Christchurch at Harewood Airport under the command of Rear Admiral Bakutis. The ships involved in supporting the US effort in Antarctica were designated Task Force 43 and the entire operations Operation *Deep Freeze* 67, the number changing to correspond to the current year. The National Science Foundation also had offices there and we drew our cold weather gear from the NSF warehouse. We had red parkas, gloves, black fur hats (so the people we were to inspect could tell we were the bad guys, according to Davies) and “Mickey Mouse” overshoes, a most peculiar pair of white overshoes. These were double layered with air insulation between the layers, and, as a result, were very large indeed. Merton Davies, who stood about six feet six, had some trouble finding a pair to fit his size 15 feet. The rest of us looked like Mickey Mouse but Mert rather resembled Frankenstein — he even walked like Frankenstein. Cdr.

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*William M. “Mike” Benkert became an rear admiral, and after retiring from the Coast Guard in 1978, served as President of the American Insitute of Merchant Shipping. He died in December, 1989 at age 66. He is regarded as the father of the Coast Guard Marine Environmental Protection Program which recognizes excellence in marine environmental protection with the annual William M. Benkert Award. (ECD)*
Jack Venable, Ships Operating Officer, was our host in the evening at the Officers Club. I had one Scotch with water — it cost me twenty cents. I was still miserable with my cold and also discovered I had athlete’s foot.

**Saturday, 21 January**

I met the local navy doctor at breakfast and picked up something for my foot. The others drove out to RNZAF Base, Wigram where the Lady Wigram Trophy Race, a Formula 1 race was being held. Stewart, Clark and Brabham were all competing and I would have loved to have seen it but I decided to stay in the BOQ (batchelor officers quarters) and nurse my cold. I had four Scotch and Sodas at the club in the evening, met the last member of our inspection team, Kenyon, and went to bed feeling much better.

**Monday, 23 January**

Sunday we took a lengthy bus tour of the country around Christchurch. The countryside was very attractive — rolling green fields and sheep everywhere. Then everyone involved in our inspection effort received a final briefing from Hqs USN Support Force Antarctica.

Present were Admiral Bukatis, Philip Smith of NSF, Captain Benkert and some of his officers from Eastwind and, of course, all members of our team. Cdr. Venable ran the show. Our instructions from the first had been that our inspection visits were to be unannounced in order to be effective and, most important, to set a precedent for surprise inspections under arms control treaties. The Admiral questioned the wisdom of showing up at these foreign stations unannounced and uninvited as being impolite. He obviously was unaware of the diplomatic nuances of the inspection and how these could take precedence over good manners. Four hours was mentioned as a target time to be ashore at each station though this was generally regarded as being unrealistic as, indeed, it turned out to be. Admiral Bukatis cautioned Captain Benkert to take no risks — too many of our ships, he said, have been damaged already this year. I could see our team of landlubbers bobbing their heads up and down in firm agreement with the Admiral’s warning to our captain. We were advised to stay south of 65° south latitude in order to take advantage of the following seas and winds as we would proceed westerly around the continent.

The NSF had a requirement for Weddell Sea operations for the next two years and the *Eastwind* was given the additional mission of making an ice reconnaissance of the Weddell Sea after we had inspected our last station on the continent. The NSF representative mentioned, to my surprise, that we know very little about the Weddell Sea. Ice conditions there for shipping, we were told, look better than in past years but we were warned that storms could drive the ice back in to the Sea. The captain was reminded that our helicopters could not fly in winds over 35 knots.
Antarctica

We were informed that, after we had passed the French station of Dumont D’Urville, no further weather information would be available to us from US sources. Deception Island, Captain Benkert was told, puts out weather reports. “Yeah, if they’re sober” was our captain’s comment. “I was over there last year and they were all drunk.”

The air operations people asked *Eastwind* to get any information they could on aircraft operating sites and aircraft support at any stations beyond the Japanese station of Showa. They were interested in operating a photo C-130 there later for about 90 days.

We were warned that we might be questioned about the following items that have appeared in the news lately:

- Werner von Braun’s interest in Antarctica as a training station for moon walk.
- Mountain climbing expedition to Antarctica by the American Alpine Club.
- A round the world, pole-to-pole flight by Max Conrad in a Piper Aztec.
- Plans by the Century Club (a group of influential and affluent people, each of whom has been to at least 100 remote places) to charter a Boeing 707 and land at the pole.
- An Argentine naval ship with naval crew planning to land some 60 moneyed passengers at Palmer Station on the Antarctic Peninsula.

We were to discover that the people who are working in Antarctica have a very poor opinion of the tourists and publicity seekers who have recently begun to invade “their” continent. The navy people are unhappy because they know that the navy will have to endanger their own lives to rescue any of these people who get into trouble there.

**Tuesday, 24 January**

Cleared the base — there was no charge for the BOQ, probably because it was a navy base. They also do not charge dues for their Officers’ Clubs for some obscure reason. We left the airport at 1325 aboard a New Zealand Airways Friendship and arrived at Wellington at 1435 after a rough trip. The Cook Channel looked choppy in the high winds which had been blowing for the past two days. We all went to a local pub in the late afternoon to take part in what the New Zealanders aptly call the afternoon “swill.” Under their laws the pubs must close at 1800 hours (the law was passed so the men would go home for supper) and the patrons who jam the bars try to drink all they can between the close of work at 1700 and closing hour at 1800. This is one of many examples of what has been called “the law of unintended consequences,” referring to well-meaning legislation with what physicians would refer to as “unintended side effects.”
Our entire observer corps then had an excellent dinner at Le Normandie and then reported back to the ship. I was billeted with the ship’s first lieutenant, a Lt. Joe Cooley, whose gear was scattered all over the cabin. He never showed up during the night and I presumed that he was staying with “friends” ashore. The entire crew of *Eastwind* seem to have found the natives extremely friendly. Siscoe had the flag cabin adjacent to Capt. Benkert, Kenyon bunked with the ship’s doctor and Davis and Muromcew were in the sick bay.

**Wednesday, 25 January**

At 0930 we cast off our lines and set sail from Wellington for Antarctica. It was a cool morning and a slight drizzle was falling. Despite the rain, half the female population of Wellington seemed to be at the dock to wave farewell to our officers and crew. Once outside the harbor we ran into a stiff wind and a very choppy sea, but the wind and sea were following and the ship rode rather well. An hour or two out we passed our sister ship, the *Staten Island*, on its way back from “the ice” to Wellington. The *Staten Island* had been designated originally to take us but problems with its evaporators had dictated a change in ships. The *Staten Island* looked dreadfully tiny in the misty rain as it pitched and plunged its way past us and we undoubtedly looked the same to them.

At 1300 hours we had an orientation meeting where we met the ship’s officers and were given a briefing on the ship, its operation, and some of the customs of the service. The Coast Guard Cutter *Eastwind* was one of a series of WIND class icebreakers, built during World War II. At that time the US Navy was busy with other things and was glad to let the Coast Guard have the icebreakers. Since the war the Coast Guard has held onto them tenaciously. *Eastwind* was commissioned in San Pedro, California on June 3, 1944. She was 269 feet in length, had a maximum beam of 63 feet, a maximum draft of 29 feet, and displaced 5300 tons. She had a total horsepower of 10,000 provided by five diesel engines which generated the electrical power needed to drive her screws. Top speed was 16 knots. Her normal complement was 20 officers and 200 enlisted men. Designed from keel up as an icebreaker she had 1 5/8 inches of ice belt plating on her hull and carried heeling tanks with a capacity of 250 tons, used for shifting water ballast during icebreaking operations.*

The officers with whom we had most contact were the captain, of course; Joe Cooley, the First Lieutenant, who ran the Deck Dept.; Lt. Cdr. Moorehead and Lts. Wagstaff, Martin, and Keane, the helicopter pilots; Lt. O’Neill, the ship’s doctor; and Cdr. Ed Samuels, the executive, who had most of the dirty jobs aboard. I was assigned to Boat #1 as my Abandon Ship Station. We were invited to join the mess where for $1.50 per day we enjoyed three hearty and appetizing meals each and every day. The wardroom served as mess and sitting room for the ship’s officers and our group.

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*The *Eastwind*’s last voyage was in 1968 to Greenland. (ECD)*
Around supper time we picked up a cross sea and the ship added a nasty roll to its previous pitching. My stomach became queasy and I retired early. During the night the rolling increased and I began three days of the torture of the damned. If there is a purgatory, surely it will be inhabited by seasick souls! On the 26th I ate and drank nothing and left my bed only to go to the head. On the 27th, after vomiting, I made the supreme effort; dressed and dragged myself topside where I remained for 15 minutes, threw up again, and fled back to my bunk. I nibbled a few crackers and sipped some water to avoid dehydration. Finally, on the afternoon of the 27th the ship’s doctor came down and gave me some pills. I took one and soon discovered I could move around in my bunk. Before nightfall I took two more and had good night’s sleep for the first time. The next morning I was able to arise, and managed to shave and clean up by wedging myself against the wash basin. I managed a shaky lunch and from that moment was on my way to recovery.

Sunday, 29 January (57° S – 181° E)

The previous day the Eastwind heard over the radio that two Danish ships, the Thala Dan and the Nella Dan had been beset in the ice near the Australian station of Wilkes and had requested help. They were apparently in no immediate danger so the captain decided that we would proceed to our first inspection station, Dumont D’Urville before going to their assistance. This would only delay us a day or two.

While I was incapacitated, a radio message was received which the ship’s communications officer thought might have been for us. He brought it to me for decoding but I was in no condition to help him. Fortunately he was able to identify it as not for us. I had been designated as cryptographic officer for our group and was instructed, before leaving Washington, in the use of so called “one time” crypto pads. This was a very simple system used for messages having the relatively low security classification of our mission.

Because of our distress — Muromcew, Davies and myself all sick — we had been unable to complete plans for our first inspection. According to the crew the weather was unusually rough these past few days, even for these waters which are reputedly the roughest in the world. Captain Benkert had an inclinometer in his cabin and he recorded a roll of 49 degrees while I was ill. Because of her icebreaking duties Eastwind had a smooth bottom — no projecting keel — and she would roll 30 degrees in what appeared to be a calm sea (with swells). She had a very broad beam, however, and sat low in the water, and I never had the feeling I have had in other ships that she might roll right over.

Monday, 30 January (61° S – 156° E)

Weather had been mild and the sea calm but with a heavy swell. By dinner at 1700 hours the direction of the swell had changed and the ship was again rolling
T H I S I S H O W I T W A S

abominably. Dinner was a hazardous exercise with plates sliding back and forth despite the wetting down of the tablecloth.

Our group went over what information we had about Dumont d’Urville during the afternoon but had to desist because of the increasing roll. Life at sea is certainly complicated by the motion of the ship and the lack of space. When the ship is rolling heavily — as it has done at least half the time we have been aboard — even the simplest tasks become difficult. And the lack of exercise saps one’s ambition. This day we were passing through waters described as the “windiest in the world” but we had little wind and only the swell to contend with. We hadn’t seen the sun since leaving New Zealand.

We were checked out on the “helos” as the Coast Guard calls helicopters. In the Air Force they are “choppers,” a more descriptive term. We were to use them to take us to most of the stations we will inspect. Helicopter operations in these regions were described as “hazardous.” Winds, white-outs, cramped take-off and landing areas, and sudden weather changes all contribute. The helicopter crews always wear “wet suits” under their flight clothing. Survival in the waters here would be counted in minutes without them. We passengers had to take our chances. They are so awkward and confining that we were rather glad to do without wet suits.

Tuesday, 31 January (65° S – 151° E)

A bad night with little sleep. The ship rolled heavily, throwing me from side to side (my bunk was oriented fore and aft so that the rolling of the ship induced a rolling of me). My bunk was also below the water line and up against the ship’s hull so that I slept some six inches from the ocean. After an unusually difficult toilette I went up on the bridge and was rewarded with my first glimpse of icebergs. Most striking was the bluish color of some of the bergs. After we saw the first iceberg we were never again out of sight of one or two.

During the day we tried on some of our protective clothing. One of our concerns is the possibility of having to conduct an inspection under severe weather conditions (difficult to predict) and wearing unfamiliar and awkward protective clothing. Weather at Dumont d’Urville is quite variable depending on the winds, which average about 40 km/hour and may blow up to 245 km/hour. Mean temperatures at this time of year are only a degree or so below freezing, so the wind, not the temperature, is more likely to cause problems. I noted again that our helicopters (Sikorsky HH-52As) are not operated in winds over 35 mph.

The estimated time of arrival (ETA) was now set at 0600 for the following day — a good time to arrive, giving us a full day to conduct the inspection.

The weather had been cloudy since we sailed. This evening, however, it cleared partially and I spent from 1800 to 2200 hours on the ship’s bridge, fascinated by the bergs and floes passing by in ever increasing numbers. The sun set in a clear sky around 2100 hours, directly ahead of us. The air was so clear that the sun remained
shiny white until the moment it disappeared from view. Kenyon and a sailor swore
that they saw the famous “green flash” at that instant, but I had been looking for it
eagerly and saw nothing.

The sea and wind have been following all day and the ship rides like a rock
(relatively). The air temperature is freshening noticeably and some albatrosses and
snow petrels are following us. All in all it was an evening to remember.

Dumont D’Urville Inspection

Wednesday, 1 February (67° S – 140° E)

Eastwind arrived before the French station of Dumont d’Urville around 0500 hours
and our inspection team went ashore in the two ship’s helicopters at 0730. The
station’s helicopter pad was occupied and, in any case, was too small for our two
helos so we landed in the snow near their ship debarkation area — the only flat
location on the island. The station is located on the Ile des Petrels on the Adelie
Coast, a coastline discovered in 1840 by the French navigator Dumont d’Urville and
named for his wife. It was a glorious summer morning with temperature around
freezing and, as we approached the station the brightly colored buildings stood out
sharply in the sunshine against the snow and bare rocks of the island.

We were greeted shortly after our let down by the station head and by the visiting
US scientist, Dr. John Katsufrakis, an ionospheric physicist from Stanford University.
They took us by Weasel (a small American tracked vehicle used in World War II) up
the hill to their newly completed dining and recreation hall and offered us Scotch,
beer, and goodies. Siscoe then outlined briefly the purpose of our visit and asked
for a review of their program. This they gave orally in French, translated by one
of their party. We had some small difficulties with the language but Siscoe never
asked me for help and he was not a person one could push oneself on. I did do
some interpretation later for other members of our party. We spent two hours there
discussing some technical aspects of their program, then divided into three parties;
Davies, Muromcaw and myself in one, Kenyon another and Siscoe a third. We were
escorted through a number (but not all) of their buildings where we received brief
explanations of the purpose and capabilities. At noon we had to cut the tour short
for lunch and after noon we spent considerable time buying stamps at the post office.
Following that we slowly walked down to the landing site and waited a half hour for
our helos. My impression was that it was a poorly organized affair on our part.

Our French hosts were most hospitable — from nature; because it is an Antarctic
tradition; because visitors are so rare down there; and, no doubt, because they knew
we were on our way to rescue their relief ship, the Thala Dan, from the ice. They
were astonished to see our ship in the morning because they had heard from Paris
that we were on our way to Thala Dan. At lunch we were served wine, naturally,
but it was an Australian wine! Perhaps they felt that a good French wine would be
wasted on us, though my French companion said that they thought the Australian wine was excellent.

My companion and guide was a young engineer, M. LeFevre of the Centre Nationale pour les Etudes Spatiale or CNES. He was in charge of the rocket sounding program which they were pursuing this year. He knew Professor Vassy who had been Chairman of the Ionospheric Research Committee of AGARD while I was its Executive. Vassy was a somewhat elderly and mild mannered gentleman whom I had always liked, so I asked about him and Mme Vassy, also an atmospheric scientist. Both Marie-Anne and I knew her fairly well so when he said, “She still wears the pants in the family,” I had to smile. I detected a chafing under the very hierarchical system that science in Europe still maintains. Mme Vassy being married to the professor probably exercises more authority than her scientific achievements would give her. A M. Rene Merle also sat next to me at lunch and I chatted with him at some length. He was in charge of their 1965–66 wintering over party and a veteran of several hivernages.

The weather was superb all day — almost no wind, a bright sun, the air as clear as crystal, and temperature around freezing. It could change — they showed us a record where the wind went from 3 to 80 knots in 10 minutes and blew for 12 hours. We were dressed for the South Pole. Davies even wore his “Mickey Mouse” boots. Many of our hosts were in shirtsleeves and they must have snickered at us in our heavy NSF issue clothing.

Around 1600 hours Eastwind departed Dumont d’Urville and headed west towards the reported position of the two DAN ships.

Thursday, 2 February (65° S – 133° E)

We were occupied most of the day with the record of our inspection. In addition to the full report, Siscoe wrote up a brief report which I encrypted and which the ship’s radio operator sent to Washington. All day long we drove through broken ice floes which covered the sea but through which we could proceed at full speed. In the evening we ran into a long ice tongue projecting far north into the sea. It was only about a mile wide, however, and we cut through it in half an hour at full speed. We sighted a group of six or so killer whales sliding up and down through the water alongside the ship, their large fins sticking way out of the water and making them very easy to recognize. Small groups of three or four penguins stood here and there on ice floes and an occasional seal lay relaxing on the ice. The seals in this area are primarily crabeaters and leopards — the latter feeding on penguins.

Two surprising characteristics of much of the ice here; the deep blue of many of the bergs and the reddish tinge of the water and much of the ice. The latter is due, I am told, to algae or krill.

Incidentally, the stamped envelopes that we purchased and had canceled at d’Urville all bore a date on the cachet of 31 December. The postmaster there explained that
his cancellation stamping device did not have a rotating date so every day is 31 December. Each New Year’s day the year is changed.

**Friday, 3 February (65° S – 121° E)**

We were busy most of the day writing our report. This sounds easy but our work area was the captain’s cabin and there were a vast number of inconveniences and interruptions. The ship vibrates and rolls, making writing difficult. Then there was an abandon-ship drill followed by an hour-and-a-half captain’s mast. Then the table had to be cleared for lunch and dinner, so two or three hours of productive labor represented a day’s work. The sky was gray all day and we were out of sight of the continent. Good-sized icebergs were usually in view. Temperature and wind were mild.

**Nella and Thala Dan**

**Saturday, 4 February (65° S – 112° E)**

I arose at 0400 to see our rendezvous with the Dans. *Eastwind* lay motionless on a perfectly calm sea. *Nella Dan*, which had succeeded in freeing itself from the ice pack, lay to seaward of us while *Thala Dan* was just visible on the horizon, deep in the pack. The sun was just above the horizon but invisible in the overcast sky. I wanted to take some photos so I had loaded my Pentax Spotmatic with high-speed Ektachrome (ASA 160), but even so, exposures were marginal. By noon, however, with the sun shining through a misty sky I needed exposures of 1/1000 second at f/11. Removing my sunglasses I found the glare was intense.

After helicopter reconnaissance we drove into the pack with *Nella Dan* following us closely. The ice around us at first was largely what they called “pancake”; that is, small floes up to ten or twenty yards in diameter and three to five feet thick. At first there was some clear water between the floes but this soon disappeared and, as *Eastwind* broke the ice there was no place to push it and it closed again behind us. At this point *Nella Dan* began to have great difficulty pushing through the broken ice that *Eastwind* left in its wake, and would lose all forward progress every few hundred yards. By noon *Nella Dan*, which had only 2000 horsepower compared to our own 10,000, could not proceed any further despite our efforts. So Mr. Styles, Acting Director of the Antarctic Division of the Australian Department of External Affairs, and thus the officer in charge of the Australian party aboard, walked across the flat ice to *Eastwind* to talk over the situation with our captain.

We learned that *Nella Dan* had been in the ice, or just outside trying to get through it, since January 6th, or around 30 days. It had been chartered to carry the wintering-over party and resupply to Wilkes Base and, most important, materiel and workmen for finishing construction of the new base there. Mr. Styles, who was just
appointed Acting Head this year to replace the veteran Dr. Laws, was undoubtedly an incipient nervous case by then. One whole summer’s work appeared likely to be lost, a very bad situation for an “acting” director to find himself in.

He and the captain agreed that we would leave Nella for the time being and proceed to Thala Dan which was near the inner edge of the ice pack. Mr. Styles walked back across the ice to Nella Dan, not looking at all grateful to us for having brought him into the middle of the ice pack and then leaving him there!

All day long we saw seals stretched out on the ice, probably around one seal per square mile. All were crabeaters according to our expert, Kenyon. Kenyon was trying to make a census of crabeater seals and so was keeping a count of all we saw. I guessed that his census would be even less reliable than most censuses. The seals had no fear of our ship. One was lying on the ice dead ahead of us, and as we bore down on him he looked languidly up, not moving until we had pushed the ice he occupied aside. At that time he slid languidly into the churning water.

**Sunday, 5 February**

Awoke to find ourselves in the same position re Thala Dan that we had occupied yesterday afternoon with Nella. The ice around us was worse, the surrounding area now looking more like the Antarctic plateau than the sea. During most of the morning we simply lay in the ice. By noon, however, we began to break ice again following an ice reconnaissance by one of our helos. But, because the ice was so heavy, our ship adopted a different icebreaking tactic. Instead of breaking it with the Thala following behind, we would run forwards, then backwards, then forwards again for about a half kilometer, trying to crumble the ice in a channel a kilometer or so in length that Thala would be able to negotiate. Finally we would back ourselves to within a few meters of Thala, a hazardous operation that risked damage to our screws. Then we would proceed forwards once again through the ice that we had broken previously with Thala following us like a puppy nipping at our heels. The captain of Thala understood this game and followed very closely — its bow sometimes within five meters of our stern! And so we progressed all day, half a kilometer at a time. The ice varied somewhat in difficulty but our surroundings remained the same; like the South Pole with a windswept snow plain stretching to infinity in every direction.

The weather all day was a few degrees below freezing, clear skies and sunny, with no wind.

**Monday, 6 February**

By noon we had led the Thala to the open sea on the continental side of the ice pack and she departed for Wilkes. Our helicopter picked up a young electrical engineer, Mr. Bird, from Thala, using the helo’s sling hoist. He had lunch with us, then was taken by helo to Nella Dan. He said that they heard on the Antarctic “grapevine,” about three days before our arrival, that we would be coming to their rescue. He said
further that they were building a new base some two miles from the present Wilkes base (built and abandoned some years ago by the US), but that, because of their problems with the ice pack, the season’s work has been nearly completely lost.

While we were lying in the open water for several hours after the breakout we sighted a number of killer whales skirting the edge of the pack, looking no doubt for unwary seals. They have a cold, deadly, efficient look about them.

The weather was clear, colder (18°F. in the morning) and sunny. I had been wearing my long johns under my Air Force khakis for the past few days. The clothing issued us by NSF included a black pile cap. This, according to one of our observers was for the purpose of identifying us as the “bad guys.”

Around 1400 hours we began to beat our way back to Nella which was out of sight in the pack. But, instead of heading back through the pack the way we came, we did an end around, missing most of the pack. At 1800 hours we drove back into it from the north and by 2145 we were back with Nella, still in the ice where we had left her. The ice was much looser than it had been when we took her in on the 4th, and she followed us north, back to the open sea where we had found her initially, with ease.

It clouded up by evening and turned much colder. I went to bed at 2215 hours when it was still twilight and with excellent visibility. I recalled a statement in a book on whaling in the Antarctic that the whalers had to go north of 60° south after they had exhausted the waters around the Antarctic coast. They hated to do this because the more northerly waters were continually stormy and rough where the Antarctic coastal waters were sunny and calm. That had been just our experience so far.

It is surprising how ubiquitous the penguins are. We had seen them everywhere, usually in twos and threes — standing on ice floes or swimming in the open sea where they popped in and out of the water like porpoises. Almost every good-sized piece of flat ice has penguins or at least penguin tracks. Penguins walk only short distances over ice or snow. When they are serious about moving they throw themselves on their fat, white stomachs and slide along the surface, propelled by their wings and feet, the body leaving a shallow trench, the feet little indentations and the flippers, large dents in the snow. In this manner they move briskly across the ice.

**Tuesday, 7 February**

During the night we finished bringing Nella Dan out of the pack. Mr. Stiles wanted to try again to get through the ice to Wilkes but Captain Benkert discouraged him, telling him that he could not guarantee getting him out of the ice again if we couldn’t make it through and the weather and ice conditions worsened. We brought mail and some important supplies from Nella to Eastwind in our LCVP (Landing Craft Vehicles & Personnel) and bade farewell to Nella Dan which proceeded for the Australian base of Mawson, its second destination, with the year’s construction supplies for the new Wilkes station still aboard.

Just after the LCVP returned to our ship and the men aboard had stepped onto
Eastwind, a cable parted and down went the LCVP into the water. Fortunately no one was injured. We then set a course that took us around most of the pack ice but through a breathtaking group of icebergs. These flashed past us within a hundred feet as Eastwind pressed through the open water at a full 13 knots, an exhilarating ride through the icy waters.

Wilkes and REPSTAT Inspections

Our observer group held a short meeting before lunch to discuss plans for our second inspection. We agreed that we would inspect both old and new Wilkes (the latter called REPSTAT temporarily for “replacement station”). We planned on taking aerial photos this afternoon of both stations and doing a ground inspection tomorrow. With such a complete inspection of Wilkes we thought we could confine our inspection of the second Australian station, Mawson, to a flyover. The following inspection was to be the Soviet station of Novolazarevskaya but Captain Benkert was very reluctant to send his helicopters the 75 kilometers or so inland to look for Novolazarevskaya — he considered it too dangerous.

So, at around 1400 hours, Siscoe, Davies and I took off and flew over Wilkes and REPSTAT, photographing them from 1500, 1000 and 500 feet. We could see Thala Dan being unloaded by Australian Army DUKWs (amphibious vehicles manufactured by the US in World War II, roughly the size and with roughly the carrying capacity of 2 1/2 ton trucks). Photography from the helos was awkward and a bit nerve wracking. I sat in the open door, with a web safety belt attached to me and to the helicopter and tried to operate the cameras in the air stream.

Conspicuous on a knoll behind old Wilkes was a large sign WELCOME TO WILKES. We learned later that this was constructed several months ago from beer cans welded together. Only the Australians could have drunk enough beer to have made such a monstrous device!

Wednesday, 8 February (66° S – 110° E)

We went ashore in the morning at 0830 aboard the ship’s LCVP (Landing Craft Vehicle and Personnel). The Australians began the day’s activities in their recreation room with an excellent briefing.

Wilkes was built in 1957 by the Americans who planned to occupy it for two years. When the Americans abandoned it the Australians took it over and have been operating it since. It was comfortable but the roofs leaked during thaws and the station presented a somewhat shabby appearance. Much of the equipment — vehicles and scientific — was left over from the US occupation The Aussies traveled back and forth to REPSTAT by road in the summer and by go-kart and motorcycle (!) across the ice, in winter. The normal station complement was 25 men.
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The Australian Antarctic program is run by the Antarctic Division of the Department of External Affairs. This Division has its own programs, and, in addition, coordinates the work of other bodies such as the Bureau of Mineral Research and the Ionospheric Prediction Service. Various other Institutes and Universities also have small programs. The Aussies said that they have had difficulty recruiting physicians to winter over so, as an incentive, they offer facilities for research — what is done depends on the individual’s temperament and varies from year to year. I gathered that, as a result, not much is really done. The thaw this summer was unusually heavy — normally even during the summer there would be snow to the rooftops whereas we found the buildings completely free of snow. As a result of the heavy thaw items were being uncovered that had been buried for years — some of them proving quite useful! There was a rumor around the camp that there was an American motor launch buried somewhere under the snow and they were quite keen about finding it.

The Australians had much the same types of programs that we found at Dumont D’Urville and that we would find at other stations. These include glaciology, ionospheric sounding, meteorology, and cosmic ray and upper-atmospheric studies. We looked at their equipment, took pictures of just about everything, and made extensive notes. As we were to find everywhere, they were only too happy to show us around and talk frankly about their work. Some of the problems they faced are amusing. They had a fiberglass caravan (trailer) which, under winds in excess of 50 knots, produced spectacular static electrical displays!

Following the briefing we divided, with Mert Davies and myself being guided around the station by Mr. Richard Monks, an electrical engineer working for the Ionospheric Prediction Service of the Australian Department of the Interior. We finished somewhat tardily and joined the others at the dining hall for the tail end of a dinner that deserved better.

After dinner we were all taken, in a small Australian boat, over to REPSTAT, the new station under construction across Vincennes Bay from Wilkes. Our guides were Mr. McMahon and Mr. Blyth — the latter in charge of the previous year’s wintering over party.

The new station was novel and quite interesting. The buildings were constructed on simple pipe scaffolding in a line at right angles to the prevailing wind and were designed aerodynamically so that the snow would blow over and under them rather than building up around them as had been the case at Wilkes. The scaffolding, however, appeared inadequately anchored to me and I thought they could shake a good deal in the wind.

The Australians had about a dozen sled dogs at the station, ostensibly for use on traverses. Blyth stoutly defended the use of dogs — mainly on the basis of the men’s morale. I believe he put it that “They’re good for the blokes. The men enjoy going out to pet and feed them — they’re really more pets than working dogs.” Typical British reasoning but possibly correct.

Since Nella Dan had most of the year’s construction material for REPSTAT its
failure to arrive set back construction by a year.

**Thala Dan Inspection**

Since inspection of ships was authorized under the terms of the Antarctic Treaty Siscoe decided that we would exercise that right and inspect *Thala Dan* as she unloaded. So we went directly from REPSTAT to *Thala Dan* in the Australian boat. Mr. McMahon escorted us to his magnificent stateroom where we had drinks and chatted. We were somewhat surprised to see a number of *Eastwind*’s officers enjoying a splendid dinner in the officers’ mess (or whatever the nautical term is aboard a civilian ship). After drinks and conversation we went to the cabin of the ship’s captain, Capt. Wenzel Gommesen of Odensevej 5, Kerteminde, Denmark. There the ship’s officers and *Eastwind*’s officers were continuing a party which had obviously begun before dinner. While we had further drinks and coffee the party in the background began to get hilarious with *Eastwind* making most of the noise. Before long Cdr. Moorehead, our chief helo pilot, staggered noisily out of the cabin, obviously much the worse for drink. Captain Benkert and a couple of the other officers had to go out to restrain him, get him aboard *Eastwind*’s LCVP, take him back to *Eastwind*, have him hoisted aboard in a sling, and put in the sick bay under the care of the doctor who was none too happy about the duty. When the rest of us left — around 2030 hours — our Exec refused to get in the LCVP. Captain Benkert, whose patience was wearing thin at this point, left without him and upon reaching *Eastwind*, left orders that the Exec was not to be allowed aboard. Despite these orders he arrived in my cabin around midnight, mad as a wet hen because they had refused to allow him aboard when he arrived — they had to eventually, of course. Worse, his hat had disappeared. We, the First Lieutenant and I, kept him from going to see the captain which would have been disastrous at that point. We learned later that someone had thrown his cap overboard — we suspected Captain Benkert. All in all it was a gay affair. Our observers were quite drunk but behaved well. So far as I was able to determine we never did inspect the ship!

The weather was cloudy all day but very mild and no wind. I was certain that we were having better weather there in Antarctica than Marie-Anne was in Washington, where the ship’s radio reported six inches of snow!

**Thursday, 9 February**

I spent the morning writing up my notes on yesterday’s inspection. At 1300 hours I left with the other observers and a number of the ship’s officers to attend the change of command ceremony at Wilkes. Mr. Blyth turned over the base to Mr. Canham, a quiet, middle aged man with a steel gray beard. We all drank beer and applauded the speeches. I managed to collar the mailman (who is also chief radio operator and was just appointed “Two IC” — second in command). From him I purchased a number of
stamps and covers for myself and several others. By great good luck we hit a first day of issue — meaningless to me but apparently of some importance to stamp collectors.

In the evening we lay at anchor in the bay while our two LCVPs plied back and forth between the beach and Thala Dan, helping their crew and the Australians unload the cargo. The captain of Thala sent some Danish beer over to Captain Benkert so we had beer with dinner. I would not be at all surprised if the sailors from Eastwind who were helping unload Thala also had some Danish beer directly from the Danish captain.

Weather continued mild, clear and without wind. Siscoe and Davies did attempt to fly to an inland station (S2) but the helo had to turn back because of fog.

Friday, 10 February

We hoisted our boats aboard and left the bay at 1330 hours, followed by Thala Dan. I could just see a group of the Australians standing on a promontory in their camp, waving a hearty goodbye to us and their fellows in Thala. By about 1500 hours we were in very loose pack ice and being followed, gingerly, at some distance by Thala Dan. There was clear water beyond this loose inner pack and after that the outer pack which we expected to be much more difficult. I saw lots of penguins swimming through the water, popping up and down like dolphins. I made several, undoubtedly futile attempts to photograph them.

The unpredictable outer pack proved nearly as easy to pass through and around 1800 hours we bade farewell to Thala Dan after leading her through the ice. We then headed west again at full speed and the ship began to plunge and roll once more. We radioed to Dumont D’Urville, giving them an ETA (Estimated Time of Arrival) for Thala and wishing them luck.

Around 2130 hours we ran into a mile or two of moderate pack ice which caused us to slow down for some fifteen minutes. There was a fairly heavy swell running and it was fascinating to see the ice rise and fall as the ship ploughed through it. I never tired of watching the ice.

The weather was fair with little wind again, but it felt a bit colder. The crew was happy to be under way en route, eventually, for home. During our stay at Wilkes the Australians and our people unloaded 870 tons of supplies in a record four days — one third the usual time.

Saturday, 11 February (64°30’ S – 104° E)

At 0800 we were only 5,733 miles from Punta Arenas, our inspection team’s eventual destination aboard Eastwind. We ploughed through calm seas all day under an overcast sky. I spent most of the day encrypting a message for ACDA in Washington, reporting on our inspection of Wilkes and our plans for the next few stations.

I talked to Karl Kenyon, our wildlife expert, about the birds we have been seeing
down here. The four species most common were Skuas, Cape Pigeons, Snow Petrels, and Wilson’s Petrel.

I slept long and well aboard ship, helped somewhat by the twenty-five-hour days that we often had. Yesterday, today and tomorrow are all twenty-five-hours long as we proceed in a westerly direction around the continent. Despite (or because of) my deep slumbers, I found myself getting sleepy every afternoon before dinner.

**Sunday, 12 February (64°30’ S – 91° E)**

This was a very quiet Sunday at sea. I arose at 0800 hours, gave myself a thorough washing and changed all my clothing. I wear pretty much the same informal clothing that the ship’s officers wear — long johns (long-sleeved and long-legged cotton underwear) underneath and cotton khaki shirt and slacks as outerwear. No necktie. Then I went up to the wardroom and had a leisurely breakfast with two cups of coffee and much conversation.

After breakfast I spent an hour on the bridge looking at the sea and the icebergs. We had a following wind and the temperature was around 40° F, so I was comfortable in the summer flying jacket I usually wore outside. In the afternoon I tried to watch the movie in the wardroom but became too sleepy and went to bed instead. At 1600 I got a haircut and at 1700 hours we were served a magnificent dinner | roast beef an inch thick, Yorkshire pudding, potatoes and gravy. I thought to myself once again how good the food aboard was — and for $1.50 a day!

After dinner the bridge reported that a large pod of whales was visible around the ship and we all poured out on deck to look at and try to photograph them. It was truly a remarkable sight, there were spouts visible constantly forward and abeam of the ship — mostly from a quarter mile to three miles away. One or two whales came within several-hundred meters of the ship and I took several shots of them rolling out of the water, exposing their tiny dorsal fins. I had my longest lens on the camera — 135 mm — but the light was poor and I had to shoot at 1/125 second so that I feared that the slides would be both underexposed and have motion blurring. The whales seemed to be swimming along at very nearly the same speed as the ship; about fifteen knots. Occasionally one would thrust his head completely out of the water and fall back with a crash, but they mostly simply rolled out of the water, exposing their small fins and a length of shiny black back.

**Monday, 13 February (65°30’ S – 80° E)**

A dreary day at sea. It snowed for an hour or so in the morning and was overcast the rest of the day. I stayed up too late the previous night playing poker in the wardroom and was sleepy and slightly sickish all day. The ship was also a little cooler than usual and I wasn’t wearing my long johns so I was chilled all day.

I watched the aerological group launch a radiosonde balloon which they do from time to time. They fill it with helium until it is about 6 feet in diameter, attach
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the sensing and transmitting equipment, and up it goes like a rocket. The apparatus radios back a series of measurements of atmospheric pressure, altitude, etc., to the ship which, in turn, radios the information to the ship which, in turn, passes it on to the Coast Guard for the use of meteorologists the world over. Weather measurements from this part of the world are obviously rare and, consequently, precious to meteorologists.

Mawson Inspection

Tuesday, 14 February (67°30′ S – 65° E)

Awoke to find a light layer of snow over the ship for the first time and a dreary sky once again. We arrived in front of the Australian station of Mawson around noon, flew both helicopters in, took some aerial photos and then landed. We were taken to the recreation building, given some wine, and spent around an hour talking to the Aussies. I chatted at some length to Mr. Erskine, a civil engineer who had been hired for a year to command the 1967 wintering over group. Then I spoke to Brian Kilfoyle and Tony Kerr, the auroral physicists for 1966 and 1967 respectively. Finally, we went outside, clambering over the rocks to take a few photos, and had to jump in the helos and leave.

Mawson was like Times Square. The Nella Dan (Danish) was unloading in the harbor; the Eastwind (US) was lying just offshore; and a Soviet airplane could be seen flying west along the coast (probably returning to Molo from Mirny) just as we arrived.

Mawson was typical of the stations we had seen — a variegated collection of small buildings built on a stony outcrop with a variety of antennas everywhere. The “chaps” were most friendly. There was some wind, however, and with the overcast sky it felt very cold. Behind the station the snow goes up to the ice cap, and sticking out of the ice and snow are several fair sized mountains. The snow cap itself seems to recede right into the gray sky until it was difficult to tell what was snow and what was sky.

Like Dumont D’Urville, Mawson was ice free — that is, the sea route into Mawson was free of ice. Like Wilkes they have dogs here. A wag from Wilkes suggested that the principal use for dogs in Antarctica was to go fetch seal meat to be used for dog food!

Wednesday, 15 February (66° S – 57° E)

We proceeded all night on only two of Eastwind’s six diesel engines, the other four being out for, presumably, routine maintenance. Our speed was reduced to around ten knots by my estimate. The sea was very calm and the vibration in my bunk reduced to near zero — so I slept soundly and without dreaming. We awoke to continued gray skies and were in and out of loose fields of ice, the ship occasionally shaking as we hit a floe or a growler. The winds increased during the day to around thirty knots.
and the swell built up. The southerly winds drove a good deal of ice out to sea and we continued through broken patches throughout the afternoon. We passed north of an enormous berg, about ten miles long, during the middle of the afternoon. The sea turned a dark, angry blue; the spray was lashed by the wind and the ship was shaken time and again by collisions with large growlers, bobbing up and down in the deep swells. The snow blowing off the top of the huge berg looked like smoke from the distance. After smiling at us for so many days, Antarctica has begun to display her angry side.

Around 1600 hours word came from the bridge that another ship was in sight, dead ahead. I rushed up to the bridge with my binoculars and was able to see a ship, dim on the horizon, proceeding on a course parallel to ours. For an hour we maintained our relative positions whilst everyone tried to guess what this completely unexpected stranger could be. He did not reply to visual signals from our ship’s searchlight, perhaps because he was not keeping a watch aft. Finally, around 1715 hours, he reversed his course and passed us some two miles to port, between ourselves and the southerly ice fields; a small ship pitching violently in the deep swells, and a gloomy looking sight under the leaden skies. The general opinion was that he was a catcher for a whaling factory ship. He flew no colors but our captain assumed he was Russian. A most unexpected meeting.

**Thursday, 16 February (66° S – 49° E)**

I awoke to heavy seas and 47-knot winds under continued leaden sky. I went up on the bridge after breakfast and enjoyed the feel of the plunging ship as she plowed her way westward with following seas and an ESE wind. We were most fortunate that the sea was following as the ship would be rolling abominably with a quartering or beam sea. We would have to turn south shortly, however, to reach Molodezhnaya.

I saw a spout some seventy-five meters off the starboard bow and caught a glimpse of a black back and a short dorsal fin — undoubtedly a finback whale. I never saw him again in the windswept water.

**Molodezhnaya**

**Friday, 17 February (67° S – 45° E)**

I was awakened at 0645 and told that breakfast was being served and that we would take off for Molo (We refused to use all six syllables in our everyday conversation!) right afterwards. We actually left the flight deck at 0800 and arrived at Molo around 0830. Our chopper landed and we exited with all our gear some hundred meters below what appeared to be the recreation building. We saw no one and stood there awkwardly for several minutes until one lone Russian left the building and walked slowly down towards us. Meanwhile the other chopper landed and we walked up to
greet the Russian. He escorted us back up to the recreation/mess hall where breakfast was being served. We were offered black bread and a cup of something that may have been coffee with cream which was difficult to identify but warm and tasted good. For a half hour or so we were left pretty much to ourselves, the breakfasting Soviets paying us very little attention. Finally we were escorted to another building where the leader apparently resided. There we sat for awhile as a number of Russians slowly drifted in. Siscoe then gave a short greeting, apologizing for having left our credentials on the helo. He really gave an excellent presentation and the atmosphere slowly began to thaw. At the end of his little speech he asked the Soviets for a short briefing on the station and much of the following came from that briefing.

The base was being rebuilt over a period of time, the new buildings being on steel stilts where the old ones were on short wooden pillars. Like the Australians they wanted the snow to blow over and under the new buildings rather than piling up against them. They were constructing a new power station which would have four diesel generators of 320 kW each. Considerable power was required there as elsewhere since buildings were heated electrically, partially at least to minimize danger of fire, the most dreaded disaster everywhere on the continent. Interestingly, they got their water from the several lakes in the middle of the camp. Some were thirty five meters deep and thus did not freeze completely in winter. Buildings under construction included the power building and a building dug into a hillside for cold storage of meat and fish. There had been some speculation in the US as to the purpose of that excavation.

One of the buildings was occupied by a Polish scientist who (it was stated) was making gravimetric measurements. However, when we inspected the building it turned out that he was continuing a program of measurements of radioactivity of the air and of snow samples. His hut where he lived and made his measurements was quite different from and more comfortable than those of the Russians and it turned out that it had been built by an East German in 1963. He had an excellent radio receiver and antenna and said that he received a half hour program from Poland once a week directed just at him! He was undoubtedly the only Pole in Antarctica.

The OB (the Soviet supply ship) had already called that year, but, because of the ice, could get no closer than 70 km to the station and could not unload everything. Last year it had unloaded 13 km from Molo and in previous years had been able to get within 1.5 kms.

Following the briefing the Soviets queried us at some length about the US Antarctic program and Siscoe answered these quite well. Then the Russians, who were becoming friendlier by the minute, plied us with questions about the United States. One chap, as it turned out, had been in the US with a Soviet rowing team, and had obviously liked it very much. All of this conversation was being handled through Cyril Muromcew, our Russian interpreter.

The questioning exhausted, we broke into two groups, Siscoe and Muromcew in one and Davies, Kenyon and myself in a second. I wondered why Siscoe took Muromcew
since Siscoe was supposed to be fluent in Russian and this left the rest of with a
difficult communication problem. Probably Siscoe wasn’t as fluent in the language
as he had led us to believe. In any event I was escorted by a hard-bitten old Russian
from the Ukraine, Victor V. Yakunin, an engineer in charge of radio communications
and who, unfortunately, spoke not a word of any language but Russian. They led
us through a number of buildings which we looked at briefly and then to the radio
building and post office. There we were joined by another scruffy looking Russian
of about fifty years who, happily, spoke a very halting German and from then on he
and I were able to communicate reasonably well in German. His name was Nikolai
Medrueden, he was the geomagnetic scientist and a man who had spent six winters in
Antarctica. Before we left the radio building we exchanged stamps and money with
the Russians there. I had picked up a handful of Kennedy silver half dollars before
leaving the US and I handed these out, receiving in return a Soviet coin and a Soviet
Antarctic pin.

From there we went through the Aerology, Actinosonde, Ozonosonde and Balloon
buildings, and the Geomagnetic Laboratory. There my German speaking friend left
us with a short speech of hope for world peace and our original non-linguist guide
took over again. He had gotten a small tracked vehicle which they called a GAZ-47,
similar to the US built Weasels that we had seen at other bases, and we jumped into
that and were driven through a snow-filled gully to the new power station which we
looked at briefly.

We then walked back to the small building that the Russians had referred to
several times as “the Pole’s place.” The Polish scientist, who spoke some English —
the only English we heard during our stay — was there and he was most hospitable.
We and our Russian hosts had several Polish vodkas — much tastier than the Russian
vodka. From there we joined up with Siscoe and Muromcew and were driven back
to the leader’s building. There we joined some six or seven of the leading Soviets
for a light lunch during which several vodka toasts were drunk. The conversation
soon became quite animated, the atmosphere very jovial, and Muromcew was kept
busy translating back and forth. With the Russians’ occasional English word, their
animated gestures and Muromcew’s interpretation, we managed to understand them
quite effectively. Or at least we thought we did and the vodka certainly helped.
Everyone was enjoying himself thoroughly when a Russian poked his head through
the door to let us know that our helicopters had returned and were waiting for us. A
large group of the Russians accompanied us down the hill to the helos and waved us
a cordial goodbye as our helicopters rose a few feet, dipped their noses, and zipped
off towards our ship. The helos had been waiting for us for a half hour with their
engines idling, fuel was low, and we had to forgo the usual circling of the base for
photographic purposes.

It should be remembered that relations between the United States and the Soviet
Union at that time were very strained. They mistrusted us and we certainly mis-
trusted them, but relations in Antarctica had always been cordial and obviously were
Antarctica
during our visit. The only two political comments that I heard both concerned the
Chinese. We had some delicious large apples for lunch and I asked where they came
from. “From China” said the Polish scientist, “and they’re probably the last ones we’ll
get.” The reference here was to the recent cooling off of Soviet-China relations. The
other remark was a sarcastic one about the Chinese leader, Mao Tse Tung’s prowess
as an Olympic swimmer. The latter remark stemmed from some recent Chinese pro-
paganda photos of Mao swimming up some river and the accompanying nauseating
story about Mao’s incredible swimming ability. We in the United States had laughed
at this but we were somewhat surprised that the Soviets did also. After all, China and
the Soviet Union were supposedly Communist allies at that time. While the Soviets
mistrusted us they also envied and respected the United States. China, they simply
mistrusted.

Several of the people I met had been on a number of wintering over parties. It
appeared that many of the Soviets made Arctic and Antarctic work more or less a
career. This was probably explained by the existence of the Soviet Arctic Institute
and the excellent salaries they drew in these regions.

We did not inspect the airfield. We did observe an LI-2 aircraft sitting atop the
 glacier, one or two miles south of the camp.*

When we got back to the ship we went directly to dinner. All of our group were
in high spirits and Siscoe was more — he was drunk, but congenially so. On looking
back at our visit I was struck by the fact that we had seen no pictures of Lenin
anywhere.

Saturday, 18 February (68° S – 40° E)

Our next inspection was scheduled for the Japanese station of Showa. We left Molo
as soon as our helicopters landed on the ship and ran through ice all night. Early in
the morning the ice pack thickened and we spent the day breaking ice. Late in the
afternoon Captain Benkert flew a reconnaissance to Showa in a chopper and found
about fifty miles of fast ice between ourselves and the station.

It was a beautiful day — a little cold — around 28°F and with no wind. I found it
amazing how one’s spirits rose in fine weather — and when the ship was not rolling.
We broke ice most of the day — some of it pretty heavy going. In mid-afternoon we
found a series of open leads through which we could move much more rapidly. In one
area of open water a whale sounded directly in front of us. I was on the bridge at the
time and had my camera, so when he rolled out of the water again I snapped him.
I had the 135 mm lens on the camera and the light was good so I hoped for a good
shot. After supper the ship stopped and lay motionless in an open area of the pack
from which we planned to fly to Showa in the morning.

*The LI-2 was a Russian copy of the famous Douglas DC-3, a twin-engined propeller airplane
design in the late 1930s. (ECD)
Showa

Sunday, 19 February

Our helicopter left the flight deck at 0710 hours and then flew around the ship for half an hour waiting for the other helo to get off. Both helos had trouble with the automatic fuel metering system when the weather was cold. When the other helo finally took off we had to return to the ship for more fuel. Finally we were off the deck for good and headed for Showa at 1500 feet. The flight south was fascinating. The first twenty miles or so was over fairly dense pack ice. Visibility was superb and we could see the pack extending to the horizon with dozens of large bergs sticking out of it like mountains and mesas in the desert. After some twenty miles we ran into the area of fast ice, looking even more like a white desert. I was looking for seals which I knew were present, but could not be sure I saw a single one. A seal on ice looks like a black streak on white, and so did the shadows of the folded ice.

We continued over the fast ice for another fifty miles before reaching the station which was located on a small, snow-free island. It was brightly colored and attractive from the air. About a kilometer from the base there were some half-dozen large vehicles parked. This turned out to be the point at which their large icebreaker, the \textit{Fuji} had unloaded. The track of the \textit{Fuji} could still be seen leading around the island to the west.

We made several circles around the base for photographic purposes and then landed at about 0830. We were greeted by Dr. Torii, the Japanese station leader, who ushered us in to the lounge and mess hall. He apologized for not being prepared to greet us properly but, being Sunday, they had the day off and had slept late. Their time was also an hour ahead of ours which was fortunate or we would have caught them all asleep. By 1015 hours, their time, he had gathered his scientists and began briefing us on the station. At 1115 we were conducted on a tour of the whole base, at 1300 hours we were served lunch and at 1400 hours we left, the Japanese waving us frantic goodbyes.

They were completely surprised by our visit. They had seen the ship’s helicopter yesterday and thought it was an air raid (joke — laughter). They radioed the Soviets at Molo about the helo but apparently got no reply. Perhaps the Russians felt that, since they had been inspected with no warning, the Japanese should have the same experience.

All of the scientists spoke some English which was a good thing since we had no Japanese at all. We were served tea when we arrived — made from tea bags, much to my surprise. We later had a true green tea which tasted like hot water to me. They were much more reserved and timid than the Russians. We offered to take any mail and there was much scurrying about at the last moment to write letters. The \textit{Fuji} had left on 10 February and we would be their last contact with the world until next year. When asked why the \textit{Fuji} had left early, Dr. Torii replied, “Captain knows.” Apparently there had been friction between the navy and the scientists here.
Antarctica

In our absence the ship had received a message in our one-time cipher. I decoded it and it turned out to be a message from the State Department, somewhat garbled, but telling us not to inspect Molodezhnaya. This occasioned some hilarity as well as sarcasm, since we had inspected it two-days earlier. I encoded a rather lengthy reply, working on it until 2300 hours. We had beautiful sunny weather with no wind all day long.

Monday, 20 February (67° S – 36° E)

Leaving Showa we headed west once again for Roi Baudouin, a Dutch-Belgian station on the Princess Ragnhild Coast. We ran into moderate pack ice early in the morning and turned north, continuing on that course for a considerable length of time before again turning west. The weather was overcast as it always seemed to be whenever we were some distance north of the continent. Sea was calm but with a long swell. When we finally turned southwest around supper time the ship began to roll considerably as it always did in a cross sea. No ice was in sight after the middle of the afternoon. We worked all day long on our inspection report, watched the movie in the wardroom, went to bed early, and spent the night rolling from side to side in our bunks and snatching what sleep we could. The Antarctic winter was approaching and the days were getting shorter. It was dark when the movie ended — around 2200 hours.

Siscoe’s black-and-white film came back from the photographer’s mate who developed them. The entire roll of aerial shots of Molo was completely blank. He probably left the cap on the lens of his Rollei. Since he insists upon using the safety belt and occupying the open door of the helo at each station, Muromcew and I were only able to get what photos we could from the seated positions. At Molo he decided we should not take a couple of turns over the base on our arrival, as we usually did for photographic purposes, for fear of antagonizing them (that State Department mentality!). Then we were late leaving and could not anyway. As a result I got only a few shots of Molo from the air.

Roi Baudouin

Tuesday, 21 February (67°30’ S – 28° E)

I awoke to a rolling ship and no ice visible. We worked on our report until 1030 hours when I began to feel sick. I just made it to my bunk and stayed there through lunch. The ship was in a cross swell and rolling and pitching. It was not rolling more than fifteen degrees but the combined motion was too much for my stomach. We must have changed course slightly after lunch because the ship settled down somewhat and I arose and went back to work. At 1530 we entered the pack again, the ship stopped, and a helicopter took off for an ice reconnaissance toward Roi Baudouin. The helo went out twenty miles and returned with a report of excellent visibility but nothing
but ice for twenty miles and then as much further as they could see. Since the station has been reported as being abandoned it was decided that it was not worth spending two or three days trying to get close enough for a helicopter inspection. So we ceased our efforts to approach Roi Baudouin and resumed our westward course, beginning around 1800 hours. We were soon out of the pack and rolling abominably again. The sky around us was overcast all day, though the helos reported clear skies towards the continent as had usually been the case.

**Novolazarevskaya**

**Wednesday, 22 February (67°30’ S – 16° E)**

The sea was fairly calm and the sky overcast in the morning as we headed west. After breakfast I took a long walk around the hangar deck with Kenyon in an effort to get some much needed exercise. At around 0945 we ran into ice and by 1030 it had become so heavy that we stopped and launched a helicopter ice reconnaissance. We had very interesting examples of two phenomena called “water sky” and “ice blink.” To our north the overcast was dark since the open sea reflected very little light onto the clouds; a “water sky.” To the south the overcast had a white cast as the light was reflected from the ice onto the clouds; “ice blink.” Mariners and early explorers in these waters used these two phenomena is indicators of the sea and ice conditions in their neighborhood. I shot some slides of these which turned out fairly well.

The helicopters reported heavy ice between us and Lazarev so the captain pulled the ship out of the ice and headed north and west in the hopes of going around the pack as we had done at Wilkes. After some hours we turned back into the ice which became progressively thicker until we finally stopped once more. By then it was nearly dark so that air reconnaissance was out of the question (helicopters did not fly in those waters at night or when visibility was poor). However, flight quarters were set for 0500 Thursday. We were still about 35 to 40 miles from the old Soviet station of Lazarev which was only a short distance from Novolazarevskaya.

We saw lots of seals on the ice during the day.

**Thursday, 23 February (69° S – 11° E)**

The weather was foggy this morning so that the reconnaissance helicopter did not get off. After breakfast Siscoe asked us who would like to fly in to Lazarev (the old station and the unloading point for Novo). I volunteered of course. No mention was made of Novo. Meanwhile we lay motionless in the ice.

Apparently Captain Benkert and Siscoe had exchanged words about this inspection. While I did not know the details I could guess the gist. The captain had made no secret of his opinion that a helicopter flight in to Novo, some 80 km inland from Lazarev, would be a risky business of which he wanted no part. The only navigation
aid was a series of trail markers the Russians had supposedly set up between the two
stations. There was a radio beacon but we didn’t know the frequency and it would
probably not be operating unless we requested it by radio — and to date we had been
unable to reach any of the stations we inspected by radio prior to the inspections. We
would have been out of radio and radar contact with the ship and if we had crashed
in a whiteout or had mechanical trouble no one would have known where to look for
us. The helicopter pilots shared the captain’s views absolutely.

On the other hand, we had received a message the other day from State saying
that we should “make every effort to inspect Novo consonant with safety.” So Sis-
coe had undoubtedly been pressing the captain to go in — and Captain Benkert did
not respond well to pressure, particularly from a civilian. Both of them were prob-
ably doing what they should do. In any event the last word would certainly be the
captain’s.

We continued to sit in the ice while the weather continued poor. I went up on the
flight deck at 1300 hours for some exercise. Visibility was less than a kilometer, the
wind was blowing between 28 and 40 miles an hour and carrying a sparse, stinging
snow with it. Temperature was 18°F and the weather picture as a whole was very
gloomy. Walking was a chore with the hood pulled over my face and I gave up very
quickly.

I found Siscoe a mixed bag as a leader on this project. He had an extremely
retentive mind and his grasp of detail was very helpful. He was a reasonably good
linguist with some French, some Spanish, and, apparently, a decent conversational
Russian. He handled the Russians quite well, though his knowledge of Russian was
not good enough that he could spare Muromcew, our interpreter. Thus both Russian
speaking observers were together, making it awkward for the rest of us. He had no
leadership talent at all. He made very poor use of the other observers, reserving nearly
all the planning and reporting for himself. He was intolerant of suggestions from the
rest of us and critical of nearly everything we did. For example, though he knew
very little about photography he insisted, as I mentioned above, on occupying the
photographic position aboard the helicopter and doing most of the aerial photography
himself with his Rollei. Davies suggested that he use at least 1/500 second exposures
from the air to avoid motion blurring, but we discovered that he was shooting at
1/125. We finally stopped making any suggestions — they invariable provoked a
profane and sarcastic response. His instructions to us were always unclear. For
example, before we went to Molo he told us not to start taking notes right away.
So, at their briefing we kept waiting for him to let us know when he thought note
taking would be appropriate. He did — finally blurring out to us, “Why in the hell
isn’t anyone taking notes?” He was extremely profane, perhaps in emulation of the
captain, but profanity fitted the captain’s personality and position much better than
it did Siscoe’s. The ship’s executive officer reprimanded him one night in front of us
all for continual use of foul language, inappropriate in the wardroom. Before arriving
at the French station I had suggested that we should have some sort of photographic
This is How it Was

policy and plan if we were to get meaningful photographic coverage. He curtly told me that it wasn’t necessary — that everyone would take whatever pictures they wanted. So everyone, other than myself, was using his personal camera and personal film. I carried two cameras, my own with which I took slides and the State Department camera with which I exposed black-and-white negative film.

We lay all day in the ice while the weather draped us in low clouds, snow, wind and cold. Finally at 1730 hours, Captain Benkert’s very modest store of patience exhausted, he turned the ship about and headed northwest toward the open sea, all thought of an inspection there, even of Lazarev, abandoned.

We had reached 69° south, probably our most southerly penetration of the trip and it had felt and looked as I had imagined Antarctica would be.

After supper I went up on the bridge but the wind and cold were too much so, after twenty minutes I beat an ignoble retreat. I noted that, since leaving Wilkes, we had seen very few large floating icebergs at sea. Once outside the pack we saw no more bergs, all seemingly having been driven by the wind into the pack.

Friday, 24 February

Awoke to a continual overcast. Spent an hour after breakfast walking around the flight deck with Kenyon. We noticed two wandering albatrosses following the ship, large birds with wing spans of about six feet. Kenyon claimed that they were not supposed to be found this far south. Not much wind and a following sea but after an hour my cheeks were stiff cold. Spent the rest of the morning and part of the afternoon encrypting our report for radio transmission to the State Dept.

We passed the zero meridian (Greenwich) around 1230 and continued on course to around 2° east where we turned south once again. By the middle of the afternoon we were back in the pack. The captain sent out a helicopter reconnaissance around 1700 hours which reported navigable ice to the shelf — some 45 miles.

I went up to the bridge at 2230 hours, after the movie. It was dark with heavy clouds and low visibility. There was a wind from the south and we were heading straight into it, the driven snow stinging my face. The ice around us reflected so much light from the clouds that it was nearly as easy to see — near the ship anyway — as during the day! The ship was cutting through the snow covered ice at a steady speed of about six knots, shaking and vibrating with the effort, and the stack sending an occasional shower of sparks from the laboring diesels. It was eerie but beautiful. My face was finally to cold for me to enjoy the scenery and as I turned around to go below the captain growled at me, “This is a hell of a lot of trouble to go to for you guys.”

One peculiarity of traveling around the world this far south is that we were constantly changing our timepieces as we passed rapidly from one time zone to another.
Saturday, 25 February

We stopped in the ice late at night and lay there, motionless. I was awakened at 0600 hours and told that we would take off for the South African station of SANAE (South African National Antarctic Expedition). I took off in the first helicopter at 0735 and we headed due south at about 1000 feet in a heavy overcast. The first 20 miles or so was over the ice pack in which our ship was laying, the ice broken into many flat floes, each around 50 square meters, with very little open water showing between them. Then we ran into most peculiar looking ice — small round pancakes of a brownish color, looking like dirty ping-pong balls spread in a single tight layer across the sea. This gave way, in turn, to a black sea which was quickly followed by a magnificent view of the juncture of the continental ice shelf and the sea. We continued over the gleaming and perfectly flat shelf for some dozen miles and then saw SANAE below — nothing but a few vehicles and a tangle of poles, wires, and sticks projecting out of the snow. We circled and photographed what little there was to see while the other helo landed and the other half of our team, a few small figures, emerged from it. They stood there forlornly, like Napoleon at Moscow waiting for the Russian envoys to come to him. As at Moscow, there was no sign of the inhabitants. Our chopper set down beside them at 0825 and we climbed slowly out. We plodded through the wind and crunchy snow to our comrades and stood beside them, wondering what we should do if no one came. There were no buildings, no tracks, and no visible entrances to the underground station; just poles, antennas and a few very small instrument shelters. Finally, to our relief, a body appeared out of the snow some hundred-meters away and came slowly toward us. While we introduced ourselves as best we could in the cold and wind, the helicopters were up and away, back to the ship some fifty miles off.

We followed our guide to a hole in the snow (which we would never have found for ourselves) and descended hand over hand down an aluminum ladder to the station living quarters some thirty feet below the surface. We found ourselves in a long dimly lighted tunnel which was lined with cases of provisions and snow and ice underfoot, and ice and occasional dripping water overhead. While introductions were under way we crowded into a small dining-recreation room and shed our outer clothing. We then rapidly became involved in individual conversations around the table.

We explained why we were there and the South Africans then gave brief descriptions of their individual work programs. Following these formalities I got together with Mr. J.L. Steyn, the cosmic ray physicist, and Mr. A.W.V. Poole, the ionospheric physicist, and we discussed their programs. Mr. Steyn then took Davies and myself for a tour of the underground portion of the station. This consisted of a number of small buildings, all connected by a single tunnel. At five spots along the tunnel there were vertical shafts connecting it with the world above.

The entire station, which was built atop the snow five years before, was now some
thirty feet below and sinking at a rate of about five feet per year. The sinking was not uniform, however, the dining room having a decided list to starboard. At either end of the tunnel the moisture in the air had crystallized into beautiful white crystals which, in the half light, made it look like a fairyland. Along the sides of the tunnel were cases of provisions and, near the power room, drums of diesel fuel for the generators — uncomfortable underground (or undersnow) neighbors. Their greatest concern was fire which would be disastrous in such a complex and which, in my opinion, was a distinct possibility. In the event of a fire, even if the residents escaped from the tunnel they would be without shelter on the ice shelf, thousands of miles from help. They had stacked emergency supplies outside in the event of such a catastrophe.

At one corner of the tunnel was a dead seal which had been lying there, frozen for several years, eventually to be fed to the dogs. Among other provisions were small bales of whale meat, also brought down as food for their dogs. The temperature of the tunnel was a few degrees above freezing and the living and working areas were not much warmer. Consequently the South Africans worked in mukluks and heavy clothing — no shorts such as we saw at DuMont d’Urville, Wilkes and Mawson.

At 1100 we reassembled in the dining area where we were served wine, brandy, gin or whiskey. I chose a vile sweet wine which came out of a gallon jug. The South Africans were obviously overjoyed with our visit — we were the only visitors that the station had had in the memory of those present with the exception of a single Argentine observer some years before. We had heard from the Japanese that the *Fuji* was to have visited SANAE around 22 February, but the South Africans told us that it had lain off the base in the ice for five days waiting for the storm to abate and had finally given up and departed without making physical contact. The South Africans had all written what they expected to be their last letters home before the next Austral summer and we could imagine their disappointment. So our timely and unexpected arrival was a godsend.

A few minutes before noon we said our goodbyes and climbed up the ladder to a desolate scene above. The wind had increased and the visibility lowered — the snow was whipping across the surface and the cold wind bit through my cotton khaki trousers. We stood out in the wind for fifteen or twenty minutes with no sign of the helicopters. Finally it became obvious that they were not coming so we observers climbed back down into the relative warmth below. Lt. Cdr. Chuck Moorehead, the chief helicopter pilot, who had remained at the station with us when the helos returned to the ship, accompanied the South African radio operator into the radio room where they attempted to reach the ship by radio.

Meanwhile, we observers went back into the dining room where some long and spirited conversations began. The first thing I learned was that the last storm, which had started just like this, some ten days previously, had lasted a week and had winds up to 90 knots — it was that storm indeed which had prevented the visit of the *Fuji* people. So we began to think in terms of spending the next few days under the ice at SANAE — not the most pleasant thought under the circumstances.
The South Africans quickly rustled up some lunch — stew and hard bread. There was no cook at the station and the meal left a good deal to be desired. SANAE was your basic Antarctic camp — a throwback to the great age of Antarctic exploration. The cooking plus the cigarettes and cigars soon filled the small room with a thick smoky haze, so they opened a window at the end of the room. This had originally looked out over the ice shelf. Now it revealed only a block of solid ice which the heat of the room had hollowed out into a sort of cavern some two-feet deep and five-feet high. The smoke remained.

After lunch we continued our conversations which soon became quite frank and animated. One South African told me that they had received instructions not to discuss politics with foreigners, but they did nevertheless. They obviously had a very paternalistic government and were all one-hundred percent behind the policy of separation of the races. We were shown pictures of the “Republic” as they called it. I hadn’t realized it was such a beautiful and interesting country. They indicated that there was no longer any friction between the English and the Afrikaans (Europeans of Dutch origin), who were united before the much larger problem of race. All were quite young and, as they said, not used to doing domestic work such as cleaning and cooking. But they were all in good spirits and chipped in with a will.

When the conversation began to lag we played darts. I also found the room cool — particularly the floor which rested, of course, on ice. With the coffee and wine that we had imbibed I had to make several trips to what they called the “Palace.” There they had what used to be called “Chic Sale” or outhouse toilet seats — wooden benches with holes. We asked how they treated the feces. They didn’t. Each bowel movement plopped into the ice some six or seven feet below the seat and then sank slowly through it — a most practical and unusual sanitary arrangement.

In the meantime the South Africans had established radio contact with our ship which reported that it had been unable to find the station at noon but were going to try once again. So, once more we climbed up out of the bowels of the ice and, around 1530 hours, were again out on the snow awaiting the ship’s helicopters. Once again they could not find the station in the clouds and the driving snow and down we went into the icy rooms below. Now I began to consider seriously the very real probability that I would be spending the night and, perhaps, several nights at SANAE. I was ill prepared for this. We had no toilet articles and, worse, I was not dressed for the kind of weather we had encountered. A series of inspections of coastal stations under sunny skies and relatively balmy temperatures had made us careless. I was without my heavy “many pockets” lined trousers and without the fur liner to my coat. My clothing was just barely adequate inside the station and If we had had to leave it for any of a number of possible reasons I would have been in trouble. The bag of heavy clothing that I always carried in the event of a forced landing or helicopter crash was still aboard the helicopter.

However, this all became moot. An hour later the helicopters came looking for us once again, we stood out in the snow and wind while the South Africans fired flares
into the sky, and the helicopters dropped down near us to the audible sighs of relief from us and, undoubtedly, from the South Africans also.

At Sea

Sunday, February 26

Around 0500 hours when it became light enough to see well our ship left its haven in the ice and headed north toward the open sea. I went up on deck after breakfast — around 0930 — and it was a glorious day. We were still in the pack and there were some large floes but we crushed through them at a good steady speed. We hit one floe which was a good 20 meters on a side. An adelie penguin was standing on it and lost his poise completely. He rushed about hither and thither, falling on his stomach and paddling along the ice, then getting up again and resuming his waddling rush, flapping his flippers from time to time and looking fearfully at the onrushing ship. This was in marked contrast to most of the penguins we saw which would stand calmly on their floe, looking at potential destruction bearing down upon them as though they hadn’t a care in the world. Around 1030 hours we broke into the open sea and headed northwest toward our next destination, the South Orkney Islands.

Eastwind’s final mission was to have been an ice reconnaissance of the Weddell Sea. But ice conditions had been so bad along the Antarctic coast that Captain Benkert decided to forgo this and headed, instead, directly for the South Orkneys. I had a strong suspicion that Captain Benkert, his officers and his men, who had been away from home for a long time, did not want to spend several weeks driving through ice in the Weddell Sea with the always present risk of damage to the ship so far from any possible help. I was disappointed — I wanted to see the Weddell Sea and the more ice the better so far as I was concerned. Of course, I was a passenger — I had no responsibility whatsoever — and it was easy enough for me to want to take risks with someone else’s ship. But, once again, I was surprised at the nonchalance with which Captain Benkert abandoned another of his missions.

Monday, 27 February

We had unusual weather for those latitudes — a calm sea and little wind. The sky was its usual overcast, however. We continued to pass many icebergs in contrast to our experience sailing from Mawson to SANAE where, once out of sight of the pack, we saw very little ice.

While taking our morning walk on the flight deck we sighted two most unusual bergs on either side of the ship. Each had one side which was an extremely dark black-green color. I assumed, at the time, that this was probably a layer of rocks or sea growth which had been picked up by the berg when it was moving across the
Antarctica

continent or resting on the sea bottom. It could then have broken up and turned over, exposing that face to our view. Later we saw several other similar bergs.

Tuesday, 28 February

Weather continued overcast but the wind began to increase and, with it, the sea. By the middle of the afternoon we were rolling badly (I noticed one roll of 30 degrees on the ship’s inclinometer — still a good deal less than the 47 degrees I saw on our way from Wellington to the continent). I was not feeling too well so I ate a light dinner and went to bed before the movie. We were still passing many icebergs, bergy bits and growlers.

Signy

Wednesday, 1 March

I awoke to a calmer sea and enjoyed a good walk from 0803 to 0930 hours. The sky was heavily overcast and there were fog patches here and there which reduced visibility considerably. We passed a large domed berg which cast a white glow on the clouds above it. I tried to capture the berg and the “ice blink” above with the camera.

In mid-afternoon we came in sight of the South Orkney Islands, looking rather spectacular in the rapidly improving weather. They were mountainous, covered with snow, wreathed in white clouds which were difficult to distinguish from the snow. They were also surrounded by dozens of icebergs, some very large, that had grounded in the shallow water. As we drew near one island Cyril Muromcew said, “I can smell land!” “What does it smell like,” I asked, unbelieving. “Bird shit” was his prompt reply and, sure enough, when we drew closer I could also smell the strong odor of guano.

Shortly after dinner we crept up towards what we believed to be Signy Island (the captain was not certain) and anchored some half mile away. Through our glasses we could see several penguin rookeries with large numbers of penguins. As the ship had approached the island we had observed dozens of penguins swimming hastily away from us in their porpoise-like manner. There was no sign of the British station.

Thursday, 2 March (60°43′ S – 45°36′ W)

Our captain having confirmed that we were, indeed, off Signy, we left the ship by LCVP at 0745 and, picking our way through the small bergs, arrived at the British station fifteen minutes later. It was a small station on one side of what they called, “Factory Cove” after the old whaling factory that had occupied the site until about 1925. It was picturesquely located with mountains on two sides. The rocks nearby were nearly covered with several types of mosses or lichens and even (gasp) grass,
the first vegetation we had seen since we left Wellington. We were just a few degrees north of the tip of the Antarctic (Palmer) Peninsula, a region often referred to as the “Banana Belt” by true Antarcticans. The station was surrounded by penguin rookeries; the chinstrap penguin being the most numerous. The adlies had left, apparently, earlier in the year.

We were greeted at the wharf in a friendly but casual manner — typically British — and invited to the recreation room where we met the station leader, Dr. Richard Hillier, and had tea. Afterwards we spread out over the station, conducting our inspection, taking photos, and talking with our hosts. Since the research program there was almost entirely biological, I hadn’t much to do and concentrated on sightseeing and photography. The mosses were soft and damp and I had to watch my step to avoid sinking up to my ankles as I wandered to and fro. As relics of the old whaling station there were whalebones scattered around and an old boiler which had been used to process the blubber. There was even a tiny, narrow gauge railroad running some hundred and fifty feet from the wharf, where we had landed, to the storage platform.

All in all, the station bore a relaxed and casual air and I felt as though I were in Maine rather than Antarctica. Technically, the South Orkneys are part of Antarctica.

The station meteorologist pointed out to us that the clouds which we had observed the previous day over the island were fine examples of “Foehn Clouds,” a sort of a line of rolling clouds.

At 1100 hours the LCVP returned to pick us up and we departed for our ship with everyone, afloat and ashore, waving and taking photos. The weather, which had been cloudy bright, had deteriorated somewhat and we ploughed back to the ship under a driven light snow and through a heavier sea, the spray coming over the bow of our small vessel.

**Orcadas**

After our return we had lunch while the ship headed the few miles to Scotia Bay. At 1530 hours we took off by helicopter from the anchored ship for the Argentine station, Orcadas. It was located in a rocky valley on Laurie Island between Uruguay Bay and Scotia Bay in a beautiful setting. It was only a three or four mile flight from the ship but what a spectacular flight! We flew rather low, passing between sheer rock mountains just dozens of feet on either side of our helo and towering above us.

After we let down, the station leader came rushing up and introduced himself in excellent English. Siscoe’s helo then put down and we all went to the living building, a black, tar-covered structure. There we met their doctor and a young naval rating, Julio Alberto Linares, their meteorologist. Both spoke some English. We were offered some whiskey and then escorted through the base. This did not take long as there were only a few buildings. As elsewhere everyone was all smiles and, once again, our visit was completely unexpected.
Orcadas was the oldest continuously occupied station in the Antarctic, dating from 1903. Their scientific program was varied but extremely modest. All personnel were Argentine navy with only one officer there, the station commandant. Our escort, Linares, although a rating, was a very intelligent young man who spoke English remarkably well. (All Anglo Saxons regard any foreigner who speaks fluent English as very intelligent.) He said that he would spend a year at the base and then enter officer training as a meteorologist. After two years of that he would graduate and marry the girl next door.

The base looked very much like an old American CCC camp,* the buildings of wooden frame construction, resting on the ground, and many of them covered with black tar. We saw a skua picking at a red carcass which, we were told, was the remains of a seal shot recently. The station dog and our young guide chased a penguin, knocked it down, and then let it go, squawking, on its way. Obviously they took some of the provisions of the Antarctic Treaty somewhat lightly. There were many patches of snow on the ground and some of it had a reddish tinge — penguin piss, we were told. Throughout our entire Antarctic trip we were unimpressed with the provisions the penguins took to dispose of their excrement in a sanitary and wholesome manner! There was a small cemetery, the first we had seen, with a half-dozen graves dating back as far as 3 August 1903. A large cross also stood on a small knoll, facing Uruguay Bay with an inscription in Latin.

The setting of the base was very pleasant, located as it was between a mountain and a glacier on a very flat area covered with oval stones. Uruguay Bay was on one end and Scotia Bay on the other. The Eastwind was anchored in Scotia Bay in an area dotted with dozens of good-sized bergs.

Upon our return to the ship the captain set sail immediately for Punta Arenas, our inspections completed.

**Punta Arenas**

**Friday and Saturday, 3 and 4 March**

Our responsibilities ended we became passengers once again as our ship headed north-westward across the Scotia Sea for the Straits of Magellan. The first day the sky was overcast and the ship pitched and rolled in the heavy sea. The next day we awoke to sunny skies but with a heavy swell continuing from the northwest. I went up on the bridge after breakfast and enjoyed watching the ship pitch and roll in the heavy swells, sending plumes of spray into the air as its bow dug deeply into the waves. I tried to photograph the rolling ship, the massive waves and the foamy water shooting into the air, but photographs can never do justice the the actual sight of heavy

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*Civilian Conservation Corps, an organization set up during the 1930s to employ workers left unemployed by the Great Depression. (ECD)*
seas. Air temperatures were much milder as we headed north. As was the custom on Saturday evenings the wardroom had bingo, beer and a movie following dinner.

**Sunday, 5 March**

I spent most of the day getting ready for our departure from the ship. I packed my gear, destroyed the code books, signed the classified documents over to the captain, and turned all of our exposed film over to him as per our instructions. The latter was to avoid any difficulties or questions from the various customs officials on our way to Washington. We also wanted to avoid repeated exposures of our film to the X-ray inspections at the various airports along the way. We sighted land on the port side early in the afternoon and entered the Straits of Magellan around 1615 hours, at which time land was in sight a few miles to starboard. The actual entrance into the Strait was marked by a lighthouse. Along the low-lying land were many oil installations and each was marked by long columns of flame where they were burning off the natural gas, presumably a byproduct of the oil wells. It seemed terribly wasteful but was apparently the practice everywhere in the world. This land was called Tierra del Fuego, “Land of Flames” by the early explorers and it still deserved that title.

I found the straits fascinating. The water there was almost glassy, probably because of the protection from the winds afforded by the land. We passed through several narrows and in these one could see slicks and whirlpools caused by the current as the water rushed through these constrictions. Captain Benkert said that the current reached six knots at these points, which made me wonder how sailing ships and even steam ships in the six-to-eight-knot days ever negotiated the passage. It was still not a simple matter — I noticed the captain was on the bridge all during our transit of the straits, and the officers were constantly busy taking bearings of navigation markers along the shore.

I stayed on the bridge, fascinated by the waters and the shore, until after dark when I went below with visions of the fires still burned into my mind.

**Monday, 6 March**

When I awoke we were anchored off the city of Punta Arenas, the southernmost city in the world, looking like it belonged in the 19th century. There was even a large sailing ship anchored in the harbor, being used, I was told, as a prison. The captain was anxious to rid himself of us and start on his way home so we were hustled with our luggage into the ship’s boat, we bade a quick farewell to our Coast Guard friends, and the coxswain took us quickly to a small dock where we jumped ashore, grabbed our luggage as it was thrown at us, and looked around. Moored near us was a very small Royal Navy ship which, I was told, was an ice-strengthened ship (not an icebreaker) used by the British as a jack-of-all trades in the Antarctic. I have forgotten her name but would have liked to have gone over to her and visited. However, we had been met
by the American consul who piled us into a couple of vehicles and took us straight to
the airport, apparently as anxious to rid himself of us as had been the captain.

And so ended our voyage aboard the United States Coast Guard Cutter *Eastwind*
(WAGB-279). We had covered 8,600 nautical miles from Wellington to Punta Arenas
from 26 January to 6 March, some forty days in all.

**Return to the US**

We left the same day aboard a Chilean Air Line (LAN) aircraft for a flight up the
length of Chile to Santiago where we arrived late in the day. The next evening we
boarded a Pan American Boeing 707 and headed north for Miami. We stopped briefly
in La Paz, Bolivia and in Panama, the first time I had set foot in Panama since I
went through the canal in the *Grant* in 1934. We arrived in Miami shortly after dawn
and went through customs there before transferring to another flight for Washington.
We were waved through customs with little ceremony but I noticed that a scraggly
haired, unwashed, bearded young man was escorted by the customs officials into a
separate room for a closer search. Miami, at that time was (as it still is) a favored
port of entry for drug shipments from South and Central America to the US.

Following an uneventful flight I was back in Washington and very happy to see my
dear wife and children once again. It had been a long flight from Santiago but it had
one virtue — it had all been accomplished in a single time zone and there was no “jet
lag” involved! Since I had left home in early January I had circumnavigated the globe
in a rather peculiar manner — if circumnavigation could be defined as heading west
from Washington and traveling through all twenty-four time zones before returning.
Antarctica
Marie-Anne Dukes Memoirs
I was born in Luxembourg, a city of about 30,000 people, the capital of the Grand Duchy of Luxembourg, which at the time had 300,000 people. At the time there was no maternity hospital, so my mother delivered me in a small midwife’s hospital. I was christened six weeks later: my godmother was my father’s mother, and I was named after her. My godfather was my uncle, my mother’s sister’s husband, Jean Devalle, who was French and lived in Paris, so I was named Marie-Anne, Jeanne, and Henriette, after a close friend of my dad’s. My godfather’s name was Jean, so I became Jeanne. My father, Joseph Doos, worked for “Assurances Sociales,” Social Security. My mother stayed home to take care of the household, which consisted of my father’s mother; Fernand, my older brother by six years; myself; and my brother Edmond, who was five years younger than I.

My dad was an only child, his father, Jean-Pierre Doos, had two brothers: one was a jeweler in Luxembourg city who owned a store, while the other, after whom my dad was named, Joseph, worked for the railroad; he was station master in Esch-sur-Alzette, a large town in southern Luxembourg (where Colette, Danny’s wife, teaches in a private Lycée (school)).* My grandfather was clerk of the court; he and my grandmother, Marie-Anne Kiefer, also managed a café-restaurant in Luxembourg city, where clubs would meet. When Franklin and I dated it was the Red Cross club, where we danced a lot. My grandmother had sisters; one of the nieces married my grandfather’s brother, who was station-master. They had one daughter, Alice Doos; both Bub and Chris know her.† She also had a brother, who started a store with fruits; his son, with his sister, took it over and managed to make it quite a business, as, until after World War II, grocery stores were small and did not carry fruits or vegetables or meat. There were butcher stores, bakeries, and a few fruit or vegetable stores. Bread was delivered, as well as milk, which had to be boiled because it wasn’t pasteurized until I went to the Lycée.

One of my grandmother’s sisters was Hélène, who was the mother of Felix Urbany, who also worked with Social Security. He and his wife had no children, but my parents were close to them, and we saw them often.

My mother was born in Mondorf-les-Bains, a small town (spa) in southern Luxembourg, on the border of France and only miles from Germany. Since a lot of people used it every spring to drink the water, it had fountains in the park, playgrounds, and a river where you could boat. It also had hotels, one quite large, where people spent

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*Danny Doos is the first son of Marie-Anne’s brother, Edmond. (ECD)
†Bub and Chris are the nicknames of Marie-Anne’s sons Franklin and Christopher. (ECD)
their holidays. After the war leaders from Nazi Germany stayed there, like Goering.*

My grandfather was in the gendarmerie, which usually was located around the borders in Luxembourg, I don’t know too much about his family, only that he had some family in a place called Lamadelaine, close to Rodange, the last town before going into France. His name was Jean Muller. My grandmother was Catherine Ments. Her family came from Holland, and she spent a lot of time in a suburb of Luxembourg city with an aunt and uncle, who sent her to a private school in France, where she did beautiful handwork, now at Chris and Carol’s along with portraits of my mother’s parents. My mother had two brothers: one died at eleven, my mother said due to the wrong medication. The other son married a girl from Mondorf-les-Bains, and he joined the French in World War I. After the war he and his wife moved to Paris; they had one daughter, my Cousin Germaine, who was older than I, and we only saw them in summer when they returned to Mondorf, where my uncle’s wife, Niny, had a lot of relatives, and [where] my Uncle Theophile spent his time fishing. When I went through my parents’ papers, his death notice said that he was a “membre des Beaux Arts” in Paris. He died of a stroke in 1935 while fishing. My mother’s other sister was Clementine, who married Jean Devalle, a nephew of Pierre and Christine Devalle, who had a huge interior decoration and production store in Luxembourg city. I imagine Pierre’s brother must have gone to Paris to find work and married. His son, Jean Devalle, was also in World War I and was gassed during that war.

My Uncle Theo (for short) knew my dad, they may have been in school together, and my mother was introduced [by him] to my dad. At that time my grandfather had an accident. Luxembourg used to have local trains, one called “Charley” that ran from Luxembourg to Mondorf, and one, “Jangeli,” from Luxembourg to Echternach, halfway through Luxembourg to the German border town. My grandfather had rung the bell to stop, and he jumped off and his coat caught and he was killed. My mother was in a high school on her way home; she heard the train whistle and became very nervous. She was very close to her father, who had just bought her a piano; it was very difficult since she was the only child left at home. She finished school and worked in an office when she and my father got married in 1918.

My mother told me that she wasn’t eager to get married but gave in under pressure from her brother. They stayed with my father’s mother until 11 November 1918, when Germany, which had occupied Luxembourg, finally had to leave.† Then my father had the house built where my parents lived all their lives. Like all houses, it had a small yard in front and a larger [one] in the back which was used for [growing] vegetables. It was a townhouse. There was no sewage removal, so it had to be stored

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*Hermann Goering was the second leading figure in Nazi Germany; heir to Hitler and head of the Luftwaffe.

†Germany occupied Luxembourg during the First World War, although the Luxembourg government was allowed to function, albeit under the tight rein of Germany. On November 6, 1918, a defeated Germany announced that it would withdraw from Luxembourg. The 11th November 1918 was when hostilities ceased. (ECD)
in a closed part of the basement, and it was removed privately until they finally built a pipe, and the sewage was removed. There also was no electric lighting on the street, and I remember seeing a man lighting the gas lamp across the street from us. We had no central heating; my father didn’t like it. So we had a wood and coal stove in the kitchen, living, and dining rooms, and in my parents’ bedroom; we had a small electric stove in the bathroom. But when we children were small we were bathed in a small tub in the kitchen.

My dad’s mother lived with us until her death when I was five years old; she died of pneumonia at sixty-five. I remember her vaguely, pulling up my pants, etc.

I played outside a lot, but there were no girls in our neighborhood, only boys, so I played with my brother Fernand if he wasn’t playing with his friends. He had a small red car we could paddle sitting next to each other. Three lots up on our street there was the back of a private gym [where] we could play in the sand. When I started school I joined the gym; it was quite used by young [children] and 18 to 40 year olds. Next to the gym was the grammar school where I started kindergarten, which was given by Sister Delphine, a Catholic nun. Luxembourg was a Catholic country and we were taught the Bible and the New Testament in the public schools. Sundays I always went to church and in the afternoon to a short service where the “Tantum Ergo” was sung.* Once I remember walking home from church and while crossing a street I was hit by a bicycle; some woman picked me up, took me to the sidewalk, and insisted that I pee. I was unable to do so, too many people watching, but the woman thought that after a shock one had to pee. I continued going to church, even during the week, at 7:15, running over fields, as a lot of streets weren’t built, while I was in grammar school. When I made my First Communion my godfather came from Paris, I thought it was too long a Mass, especially the sermon. My mother would sometimes come with me on Sundays; in that case my dad cooked, he loved it, but he left a lot of pots and pans to wash. In the afternoon we would go walking with Josette Stanley’s parents, and always her grandfather Henri Omes, outside of Luxembourg, usually to a café where we would have “Eng Schmier,” which was often on homemade bread, homemade cheese, or ham.

When I was five Edmond was born, and my mother’s mother moved in with us. It was a surprise to me, as I was told my mother had injured herself and had to go to the hospital. Edmond was baptized shortly after. His godfather was a cousin of my dad’s, Jean-Pierre Kieffer, who owned the fruit store, but [he] was named after Dad’s friend, Capt. Edmond Miller, who was in college with Dad: college was the seven years of high school. Captain Miller went to the Belgium officer’s school and became aid to Prince Felix of Bourbon-Parma, husband to our Grand-Duchess. I remember Uncle “Jemp” (short for Jean-Pierre) distributing cornets of jordanian almonds (almonds with hard coating of sugar.) This was part of being baptized; the godfather giving

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*The “Tantum Ergo” are the opening words of the last two verses of “Pange Lingua,” a hymn written by St. Thomas Aquinas and sung during Benediction of the Blessed Sacrament. (ECD)
those sweets to all the children in the neighborhood, who waited outside the garden door.

Our house was very old fashioned: the kitchen had a table where we had breakfast; depending on the time my dad just had coffee, and if we got up in time we had a slice of bread. My mother would bake a yeast coffee cake (brioche) for the weekend, which was Sunday morning since we had school Saturdays. We had Thursday afternoon off; school started at 8:00 AM [and went] to 11:15 AM, and [from] 2:00 PM to 4:15 PM. The kitchen had a vaisselier, which consisted of mostly pots, pans, some every-day dishes, flour, sugar, lard jelly or jam, and a small icebox. Ice was delivered every day. On top of the icebox was the radio. Next to the table was a stove, which used wood and briquettes: large pieces of coal that were delivered once a year and [that] we children had to help bring in and store in the basement. My dad tried to get homeless people (men) to do it, but they refused. It was a dirty job, [we] had to bath as my mother washed the stairs going into the basement and the entrance to the house. We also had a gas stove which was used in [the] summer for cooking. There always was a lot of cooking going on; my dad wanted soup each day as a start for the noon meal, which was the main meal. My mother made the soup from scratch since no one had canned soup for sale, as well as jam or jellies. Everything was delicious. We had a cleaning woman after Edmond was born, and my mother took cooking lessons.

Our basement was well used; part of it with potatoes, which kept during the winter, and some onions and shallots from the garden. A large part was for washing: two large troths were built in, as well as a small fireplace where a large kettle was filled every week by hose and heated up with soap. We had a wash-woman who came on Mondays; the linens were moved into one troth, rinsed, then put in the other troth and rinsed again. Both troths had faucets; in summer they were hooked to a hose and the garden was watered. The dirty clothes were scrubbed on a table with a brush. It was a hard job. I did it once; it took me all day. This was during the war. If it was rainy the laundry was hung in the attic to dry; the attic had a glass lid which could be opened. When it was cold I remember bringing the sheets in half frozen and then hanging them after they had thawed in the attic. Another part of the basement, which was small, was for wine and liqueurs, which was never empty. We didn’t get a washing machine until after World War II; my mother had to be persuaded it would be easier than going to a washateria; they [had] come right after the war. My mother never wanted a dryer, nor did the neighbors.

The living and dining rooms were large. Both of them had a couch, [and] we had large buffets that my mother had redone into one long buffet or sideboard; it took almost the whole wall of the dining room. The living room had my mother’s piano,

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*Sideboard. (ECD)

†When we visited Luxembourg while we were living in Paris in the early 1960s, Marie-Anne’s mother still used the wood stove, although an additional gas-fired stove was also used by her. (ECD)
Growing up in Luxembourg

which she played from time to time on special occasions; there [was] also a desk and a small chest of drawers.*

On the second floor we had two bedrooms and a bath: my parents’ bedroom, where we all stayed until three years old; the other bedroom had two beds, and the bath had a large wardrobe and chest of drawers. The bath had a gas heater for the water. In my parents’ room was the wardrobe, which contained linens in the middle and clothes closets on each side. The room also had a stove where water could be heated, and whenever one of us children became sick we stayed in bed with my mother. On the third floor was another bedroom with two beds, wardrobe, chest of drawers, and a desk with lots of books. The other room was the attic where we had another wardrobe and a vaisselier, where my mother kept the jams and jellies that she made every summer. It also contained old trunks with old clothes.

The house was a townhouse; ours was the last [on the block] for quite a while. Our front yard had rose bushes, while the backyard had a hazelnut, peach, and cherry trees. We also had a red and black current bush, and several raspberry bushes, as well as strawberries. The rest were different vegetables: from bib lettuce to sorrel, red cabbage, white cabbage, carrots, parsley, cerfeuille† (an herb), celery, brussels sprouts, leaks, beans, [and] sometimes peas and tomatoes.

My father became president of the local garden club; he cleared our garden in early spring, then he used a spade and a rake after he had put in fertilizer and a softener, but my mother put in [the] plants and seeds since she knew what she needed. You couldn’t buy frozen vegetables or anything unless it was in season.

The garden club was mostly social, and on Mother’s Day we had a play given by children, and I was in it, to honor the mothers. I don’t remember anything about it.

My father belonged to two other clubs: right after the war I remember going to one of their balls and dancing.

On St. Nicolas Day all the children were invited to a party where St. Nicolas appeared handing out sweets. Also [there was] a horse with wheels, and a ? out of glass panels of Red Riding Hood, and trays of pastry. St. Nicolas [Day] was on the 6th December, when we children received a present and sweets. When I was young I received a [model] grocery store once, when older I remember [receiving] a jupe-culotte, or skirt-pant. This was our big holy day, and at [that] time St. Nicolas came to our house with his helper; if you had been good you received a present, if you had been bad the helper, dressed in a black robe, gave a stick to your parents. I remember once an angel came along. St. Nicolas was always dressed like a bishop, with a staff and a mitre on his head.

Christmas was a holy day; the tree appeared in the morning. When I was older I was able to stay up and help decorate the tree. We had real candles in candle holders

*By the time we were living in Paris in the early 1960s, the piano had disappeared. I don’t recall Grandmama, as we called her, ever playing one. However, she did take up painting in her senior years, and became quite accomplished. Our homes our much enhanced by her work. (ECD)

†Chervil in English (ECD)
attached to the tree and sparklers. However, we were able to light them and sing a Christmas song, as well as lighting the sparklers while my mother played on the piano with us; then the candles were snuffed. I don’t recall of anyone ever having a fire. We had a small gift when we had dinner at noontime, and when I was older I also bought a gift to exchange. I remember getting a tie for my father once.

We didn’t send Christmas cards, but [on] New Years my parents sent calling cards with best wishes to friends, and we called on relatives, who gave us children money. Christmas was the time we bought the Bûche de Noël,* and my mother made some Christmas cookies. Lent was the following holy day. On Carnival my mother would wear a costume and mask, and my parents would go out to one of the clubs, and have onion soup at one of the restaurants after the ball. The club had the affair in the building where my mother appeared on the decoration.† Carnival was just before Lent, and my mother would make donuts filled with her plum jam, as well as another type of donut. They were quite special. The ones with the jam we ate as desert.

Next came Easter. Three days before Easter the bells from church didn’t ring. The bells always rang before Mass. We also had Easter eggs and some chocolate ones. Schools closed before Easter; we had ten days off, plus Easter. After Easter we had Pentecost six weeks later; for me when [I was] in high school a great holy day because I was a member of the Girl Guides, and [at] Pentecost we went camping. I became a First Class Guide. The weather always was great in the Ardennes. In the mornings we did some work; in the afternoon we played games, and if we didn’t have rain we had a campfire [and] sang songs before going to sleep, six in a tent. I remember being blistered on my shoulders and having to put a towel on my shoulder when in the sun. Our leader was Henriette Omes, who later married Raymond Thevenin. The Omes family were very close friends of ours for years and years.

Summer [vacation] started in mid-July [and lasted ] for six weeks. Since my grandmother lived with us my parents took separate vacations, I remember my dad going hiking in the Black Forest with his friend Captain Miller, and my mother taking Fernand, who had been ill, to the Belgian coast. And when I was very young, about six or seven, I went to Paris with my Bomi Catherine.‡ That was her last trip, as she had heart problems; she was also moved to the second °oor of our house.

School started beginning early in September; the lycée I attended [in] mid-September. Fall meant cooler weather and Mama made special meals, especially when we had company, I remember Mama making noodles, eggs, and flour, the dough rolled very thin on the table, and she used something special for cutting the dough in strips,

*Yule-log cake. (ECD)
†The building Marie-Anne refers to is the Palais Municipal — also called the “Cercle” (circle) — an administrative building and site of the Luxembourg tourist o±ce . It is the most prominent building on the Place d’Armes, one of the main squares in Luxembourg city. Completed in 1909, it features a frieze by Luxembourg artist P. Federspiel portraying Countess Ermesinde handing down the “Charter of Emancipation” to the burghers of Luxembourg in 1244. Marie-Anne’s mother was the model for the young girl portrayed in the frieze. (ECD)
‡Bomi: grandmother. (ECD)
Growing up in Luxembourg

and hung them up on a drying rack. They were delicious. In fall and winter some specialty stores had deer and hares for sale hanging outside; these stores also carried different cheeses and fish. We would marinate a deer back, which always was a great dinner.

At that time Papa became sous-chef* of his office and saw quite a few injured people who waited for social insurance. He’d send them to a doctor he knew upstairs in the same building. They quite often were farmers, and they were grateful and sometimes would return with a gift from the farm, like bacon or [a] hare that they shot.

I passed the entrance test to the Lycée de Jeunes Filles.† Bomî Catherine (Mentz or Ments) had heart problems and fainted at times. Mama always had a half bottle of champagne that revived her, but one time she fell and broke her hip; [after] that time she just had to stay in bed. Mama and I managed to wash her: I recall washing her hair and pleating it. Papa carried her downstairs, and in [the] summer he’d put her in a garden lounge outside. She still had some friends who would visit her: Christine Devalle, her son-in-law’s aunt, as well as Josette Thevenin’s great-grandmother, who lived and had known her from Mondorf, but she visited her daughter, who was Josette’s grandmother, very often. Josette’s grandmother was Marguerite Omes, married to Henri, who was a good friend of my dad’s. At the time they lived in the Arbed, a very imposing building for the administration of the steel industry in Luxembourg.‡ The Omes family; Henri, Marguerite, their children, Henriette, Alby, and son, all worked for the Arbed. After Henriette married Raymond Thevenin (who died in 2003), they built a house close to us, and so did Henriette’s parents when they retired. Their son, Toni, became a counselor to the Arbed, and Raymond, President of Bresilux, a factory in Brazil that was part of the Arbed.

In 1939 Mama and I went to Paris; it looked like war was coming. My cousin Jean-Pierre was in seminary school; he took me to Notre Dame, showed me upstairs and downstairs, all quite interesting. Odette, his sister, was working and engaged. Mama and I returned early to Luxembourg; it looked like war and, of course, it started in 1939. My cousin left the seminary and entered the army.

In Luxembourg everyone we knew were against Germany. On Sundays, my father’s cousin, J. P. Kiefer, would ask us to take rides with him and his sister. Mama and I would join them, they had a large Buick; unusual for Luxembourgers, as very few

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*sub-chief. (ECD)

†Founded by Aline Mayrisch-de Saint-Hubert, wife of industrialist Emile Mayrisch, the Lycée de Jeunes Filles, an all-girls school, became coeducational in 1972 and changed its name to Lycée Robert Schuman. (ECD)

‡Luxembourg has had a large steel industry since the latter half of the 19th century, which has formed an important part of the country’s economy, although in recent years it has been eclipsed by the burgeoning banking industry. The Arbed was a Luxembourg steel company founded in 1911. In 2001 it merged with Aceralia of Spain and Usinor of France to become the world’s largest steel company, Arcelor, headquartered in Luxembourg. In June 2005, Arcelor merged with Mittal to form Arcelor-Mittal. (ECD)
people owned leisure cars, but Papa had two cousins who owned big cars. We’d drive along the Mosel, and we could see the Germans working, all in uniforms. If it was very cold Papa would join us (he preferred going for walks with Henri Omes), and we would often stop to eat at the restaurant on the Mosel.* My second cousin, the daughter of Papa’s cousin Jemp Kieffer, whose mother had died, sometimes came along, but she was older than I and we never were close. Papa had another close friend, Edmond Miller, with whom he met once a week at a café. They both had wine and would talk for an hour and a half. Papa also played cards, whist, bridge, after work. But if he didn’t find anyone to play with he’d come home from the café.

Mama also had some friends, but she didn’t see them often. I remember one, Maria, she played [the] violin and piano during the silent movies. She’d sleep at our house because the trains weren’t running late at night. I called her “Gaig” because the violin was “Geige” in German; this was when I was very small. She lived in Kayl, a town where they had mines. Her sister was married to a mine owner, her father owned a café and theater; it seems that several cafés that my parents knew also had theaters attached. Mama met with her friends at Namur’s, the pastry shop.

Things had improved: we had electricity outside, and sewage was removed automatically. Fernand had finished school and became a dental technician; he worked for a dentist; there were no laboratories at the time. A couple of girls moved into our street, and new houses were built, so we had a lot of new neighbors. Unfortunately, I never got a bicycle; I was promised one if I became No. 1 in my class, but Fernand was run down on his bike and was in the hospital for a while. He had a complicated break. I never received a bike; however, I did borrow some from friends.†

When we were all small we often had illness. I used to have tonsillitis (which may have been strep throat), and at times was quite sick, once with scarlet fever. We all had our tonsils clipped, but I kept continuing to get sick, and I had to have the tonsils peeled. I don’t think the doctor was very good. I missed going camping once to France because I hadn’t recovered completely from being ill. Fernand and Edmond were much stronger than I.‡

War started in September 1939 after Germany invaded Austria, Czechoslovakia, and finally Poland, which was the last straw; England and France at long last declared war. Belgium, Holland, and Luxembourg were neutral, but the people were against Germany. Nothing happened until the night of 9–10 May 1940; it was on [the] Friday before Pentecost, and I was ready for camping with the Girl Guides. But in the early morning German planes landed; we also could hear bombs falling. Papa called his

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*Marie-Anne is probably referring to a restaurant that we used to eat at each time we visited Luxembourg. We would order friture de la Moselle, a local dish of small deep-fried river fish, and compete to see who could eat the most. (ECD)

†Marie-Anne’s wish for a bicycle never left her and was finally fulfilled when Franklin bought her one when they were living in Lake Monticello. (ECD)

‡Marie-Anne’s health remained somewhat precarious throughout her life, and occasionally precluded her taking trips to Luxembourg and elsewhere. Nevertheless, she managed to outlive Franklin, who seemed to never be in ill health. (ECD)
friend who had become aide to the Grand-Duchess, Major Miller, to find out what was going on. He said that the Grand Ducal family had left; they asked him to come along, but he had an old mother with heart problems so he declined. Papa said that this had been planned ahead. The government also left for England, so did the Queen of Holland and family. King Leopold from Belgium stayed and they did fight under the King, so did the Dutch army. Luxembourg only had a palace guard, so there was no fighting. In the afternoon there was no school; we could see German troops walking in with horses pulling their wagons. They looked tired. The next day we heard shelling; apparently the French had entered. English planes flew over in fight with Germans. We wondered what to do. Papa’s cousin J. P. Kieffer called to let us know they were leaving for the north and [said that] if we wanted to leave to let him know; he had a van and they had, of course, their Buick too. We had heard from several friends who had asked us to come out of the city. We accepted an invitation and left in the van to Christnach, close to Larochette, a friend who happened to be a priest took us in. His house had enough rooms for us all, as well as a housekeeper. While we were on the way we saw a couple in German uniforms; they owned a travel store in Luxembourg. We knew they were Germans, but thought they had escaped Hitler. They obviously had been spies. We stayed for a couple of days, when a friend called to let us know that there hadn’t been any more shelling from the French. He urged us to return as the Germans were going into empty houses, also they were buying out stores. We packed up, and the priest found a farmer with a truck who drove us back. My parents were in the front while Fernand, Edmond, and I were in the back with our luggage. We had just arrived when a German sergeant and a soldier came in and wanted quarters. My father told them that we had a refugees since we hadn’t unpacked, but they said they would use the couches. The soldier told us to prepare for the brownshirts. He meant the Gauleiter and his men.* They stayed two days, but were out during the day. They apparently went shopping and couldn’t believe what was available. They bought shoes, clothes, food, and makeup to send to their wives. Mama had shopped too, and a lot of stuff had disappeared. There were few clothing stores in town: we had tailors and seamstresses. I recall Mama buying material for her and myself, and some ready-made clothes for the rest, also some shoes. Stockings were gone. The same with food: Mama had a hard time, she managed to buy a sack of coffee beans through a friend, they weren’t roasted yet. Sugar was difficult to find also. People were upset by the Germans who took everything off the shelves. Some store owners kept things for their customers.

We heard that the French troops were retreating or giving up. Prisoners were sent in railroad cars to Germany. We went on the bridges and threw bread down at the prisoners. We also saw some English planes fight German ones; one bullet

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*The brownshirts were the members of the SA, a paramilitary organization of the Nazi party. However, the soldiers were most likely using the term to refer to Nazi party members, who also wore brown shirts. Germany was divided up into districts, called gaus, each headed by a Gauleiter. (ECD)
landed on our roof. Another day we saw Germans with a couple of English flyers; we couldn’t get near them, so we just waved at the flyers. German soldiers stayed in Luxembourg, but we were slowly taken over by the brownshirts and came under Gauleiter Simon of Koblenz-Trier. Everything was taken over by them, every street had a German spy (Blockleiter) who would report if they suspected something, all in secret. I remember wearing my Luxembourg pin while walking towards town; some Luxembourger stopped me to tell me, “the Germans are going to tear it off and beat you.” So I put it in my pocket and, sure enough, I saw several people bloody and crying. When Fernand returned he’d been nipped too. They also took horses, and cars that didn’t use too much gas.

We couldn’t believe what was happening, or how they managed to win. We were completely taken over. And the worst four years of my life began: being scared every day of our lives.

School opened in a cloister that the Germans had emptied; our school was opened to troops only, and we finished [school] by going all summer. Our teachers were the same, but we had classes either early in the morning until noon, or in the afternoon until 6 o’clock; the cloister was smaller than our school, [hence] the reason for the change. French was considered a negroid language and was dropped.*

President Roosevelt was supposed to be Jewish: the Nazis called him Rosenfeldt. During the early months of summer the Jews had to wear the Star of David. They also were allowed to leave. Since most large stores were owned by Jews, [after] they left the Nazis took their property. In our neighborhood we had a couple of cow handlers; the children left, but the parents stayed. One of the couples we knew well, and my parents urged them to leave, but they didn’t want to leave, they didn’t want to leave their things. Of course, like the ones that stayed, they were taken during the night and never returned. Their son, Raymond Levy, had made it to the States. After the war he returned for a while to receive the money for his loss; my father helped him. He left Luxembourg; most of the store owners returned and took over their stores, but I only know one young woman who survived in the camps, she was blue eyed and blond.

That first summer Mama made a lot of plum jam in the copper kettle, as well as other jellies, and for the last time made mirabelle pies. We also went catching live snails from bushes for a special occasion, and Mama washed them. After watching her I never could eat them, they were so slimy, especially when she cooked them.

That summer a lot of younger people left for Belgium where they had started an underground. Everything changed; on Sundays German bands with a flag in front

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*French was, and still is, the main administrative language of Luxembourg, German was widely used in newspapers and business, and Lëtzebuergesch (Luxembourgish), a German dialect, was the spoken language. Only recently has a standard written form (orthography) of Lëtzebuergesch appeared, but it is not widely used. All three languages are taught in school — almost all Luxembourgers are trilingual, and most also speak English. Marie-Anne was fluent in Lëtzebuergesch, French, German, and English; and she also spoke a little Italian. (ECD)
would march through the streets, and if you were caught on the street you had to
give the Heil Hitler salute. This happened after Sunday Mass; as soon as we heard
the music we ran out of the way. By the end of summer we didn’t see any more David
Stars, also the Gestapo had moved into the big house of one of the physicians who
was sent to Germany to practice. The same thing happened to another doctor: both
of them I saw from time to time. The latter one was a kidney specialist who was sent
to Trier. His family stayed in Luxembourg, and he was able to return on weekends.

School started in September; pictures of Hitler [were in] every classroom, all sub-
jects [were] in German, while it used to be [in] French, French was not only forbidden
in school, but also in our language: no more merci. Luckily, we could use our Lux-
embourgish for some words.

Some people were so scared and did everything to keep in effect in good faith with
On special occasions he wore black pants [and] white shirt with the Hitler armband,
or swastika. His wife and daughter lived in a third-floor apartment just a couple of
houses across the street from us, and he spent a lot of time leaning on the windowsill
when the weather permitted.

Christmas 1940 was rather quiet, and school started [with us] in resignation: we
didn’t relish having all our subjects in German. We had a few more pupils in our
class due to the closing of a private Catholic high school, which was taken over by
the German government. Incidentally, we had to use German money. People (men)
had to wear pins “Heim ins Reich”, “Home into Germany.”

We tried to send a package with food to our relatives in France, like smoked
sausage, which my mother received from our long-time butcher.

But back to school: during a rainy day [in January, 1941] a few of us stayed in the
class, cleaned the blackboard, and played with the sponge, throwing it on the picture
of Hitler, which I covered with my gym shorts. We cleaned up before class started.
After several days we were called to the director of the school; apparently someone
reported us, and we were dismissed. Coming home I interrupted my parents greeting
to tell them. At first they wouldn’t believe it. After lunch my father called Renée
Perrin’s father, she also was fired, and that evening we all got together and my father
was chosen to see the German superintendent of all schools. Well, he had no luck:
the German told him, “die ‘Gören’ müssen bestroft werden” the girls, except it was
[a] worse name than “Mädchen,” which means girls. But, he added, if they join the
Hitler Youth and became very active in it, we may reenter.

My parents urged me to try the Hitler Youth. I attended one meeting, where they
sang the Hitler songs, and a speaker talked about what had been accomplished, and
they wanted all the girls in school to join. In between there were a lot of “Heils.” I
told my parents that I couldn’t join, and they agreed. For a while I kept receiving
threatening cards: I should attend or else...

*The purpose of the “Heim ins Reich” initiative promoted by the Nazi Party was to bring all
ethnic Germans into the Reich. (ECD)
There was one school left that was run by Luxembourgers. Renée and I joined it, and were able to finish our year. It was a private school and still had French and English. It also had an art class in which I managed to make a tray with Snow White in it. Unfortunately, the Germans took over the school the following September. It was coed and very pro German, especially the history class given by a German professor. French was out, and we had some Luxembourg professors, like in chemistry and algebra. This was supposed to be more of a business school. I had questioned the professor’s meaning of “Made in Germany.” Before Christmas we were dismissed; one of the Hitler Youth remembered us and told the director. I think Mama was glad to have help. We, Renée and I, had friends and we did get together; we tried to also study. Mornings were spent helping at home since neither of our families had any help anymore. The Germans needed workers; as a matter of fact, I was supposed to register and start working. One of my former doctors, who had to work in Trier, wrote me a certificate that I couldn’t stand very long, and that I needed fresh air. Since he was in Trier, the German doctor thought he was German too, and he let me help my mother. Renée and I had four-and-a-half years of high school; studying was getting difficult, but that winter was cold and we did some ice skating.

One morning while my mother was shopping, the doorbell rang and Fernand with two Gestapo men entered. I asked if I could call my father, they said no and started to go through the living and dining rooms, opening drawers and taking things out. Fernand told them that it all belonged to my parents, but they told him to shut up. We had a dog at the time, Jimmy, who was barking. I told them I would let him in the backyard. I closed the door and quickly changed the Swiss station on the radio, to which we listened in the morning: the British station was impossible to listen to, but the Swiss gave us news from England. Mama arrived after they had gone through the house. They had taken the radio and other things. They told my mother that Fernand did awful things. Mama responded that he hadn’t done anything to be ashamed of. They took Fernand in their car, and Mama called my dad, who came home at once. This all happened early in the morning; my father took a look at what was missing and went to the Gestapo headquarters. He asked to speak to our officer and asked him why they had taken Fernand. He was told that he was involved in a conspiracy, which my father denied, and my father asked to talk to my brother. He was told that Fernand was taken to Germany by special car, which was a lie. My father was quite upset; he told the SS that they had taken things that belonged to him, and they did return some things, but no money; however the radio was returned. The same day we heard from another parent whose son was also picked up. They had told him that he had a ring. It meant they were part of a conspiracy.

Fernand had made the rings out of independence pins that were forbidden to wear. Several of his friends had them, and all were taken. We spent the next few weeks in misery waiting to hear any news. One night a friend of Fernand came and told us that he had just been released the day before from a camp in Germany, and he expected Fernand to be released also. The smaller camps were all over Germany, with
barbed wire around them; I never could understand how the Germans couldn’t be aware of those camps. My father went to the station a couple of nights and finally brought Fernand home. He looked bad, smelled terrible; my parents took his clothes off, I only saw his shoulders, which were swollen. They washed him, and he never told me about his story. They all were back, but had to appear in court where they were sentenced to five months in jail.

During the last months we noticed that a lot of German soldiers were returning and going back east. We wondered if they were going to attack Russia. They were so overconfident, but we knew that it would be a mistake making war on two fronts. The U.S. had of course come in, and the British were much stronger.*

The Germans entered Russia and had a quick success at first, but they needed more men. They had already taken 18 year olds to work [in Germany] for six months, both girls and boys. (When I turned 18 the doctor again excused me).

One day the Gauleiter proclaimed a truce for all [sentenced] to go to prison, so Fernand was spared. At the same time there would be conscription for all young men, starting at 1920 and up to 18 years old; Fernand didn’t have to go to prison and luckily he was born in 1919. The day after the proclamation there was a general strike. This was stopped by just shooting the first three teachers in a school; a lot of people were beaten, including my father.† More people were taken in custody. We all were miserable, [particularly] most of Fernand’s friends, who were just a few months younger. The underground became more active. Parents who had two sons to be inducted let one of them join the underground and disappear. The other one had to join the army. The parents were left alone. If an only son didn’t join the family was taken to camps where they had to work. Some of them died. One of Fernand’s friends was killed in the underground, and two of them were killed in Russia. Also some of my parents’ friend’s sons died in Russia. We knew only of one who was sent to the West, where he surrendered to the Americans. He spent the war in a prison camp.‡ My dad was sent to school in Germany trying to persuade him to join the German party. He was delighted when he got back. Some families were also taken

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*The United States did not officially enter the war until Germany declared war on the United States four days after Pearl Harbor, and some six months after Germany invaded Russia. (ECD)

†Despite early assurances to the contrary, the Nazis methodically incorporated Luxembourg into the Third Reich, first by adding it to the gau of Koblenz-Trier on July 25, 1940. A census on October 10, 1941, asked Luxembourgers to declare their mother tongue, ethnic group, and nationality. The Germans made it clear that all three questions were to be answered “German”; nevertheless, 97% of Luxembourgers wrote “Dreimal Lëtzebuergeresch” (three times Luxembourgish). (Another version of this has the Luxembourgers writing “Mir wöll bleiwen, waat mir sin,” “we wish to remain what we are”; the national motto of Luxembourg.) On August 30, 1942, Luxembourg was annexed into the Third Reich as Gau Moselleland. Luxembourgers were then eligible to be drafted into the German army. This was followed by a general strike, one of only two against Germany in the occupied territories. (ECD)

‡Out of a total of 12,035 men who were drafted, 3516 deserted, 2752 were killed, and 1500 wounded. During the war 5959 Luxembourgers died, roughly 2% of the population. (ECD)
M a r i e - A n n e D u k e s M e m o i r s

to camps to work; it always happened early in the morning when a car arrived, and
people had to pack and leave before it was light.

One morning we found a note, typed, in our mailbox saying to expect to be taken
to a camp in the next few days. Papa again went to the Gestapo and inquired about
it. They claimed no knowledge of it. From then on we lived in complete fear; any
time one car drove by we held our breath.

One of our neighbors, who used to play cards with Papa, would come over at night
with his wife, mostly to give us news and exchange recipes. One [recipe] I remember
was for “pâté,” it had onions, breadcrumbs, a cup of bouillon, and two eggs. At first
we liked it, but after a while we got very tired of eating it.

On Saturdays, my mother would take the train about 25 km to a village where
she knew some people, and in exchange for cigarette coupons (cigarettes coupons
were the most popular ones) she’d get eggs and [with] other coupons some meat. She
always had to walk for several miles to catch the train; often I went along. Since
Papa had to work in the morning, he couldn’t do it; Fernand was back at work and
Edmond had school. I cooked on those days, unless I went along with Mama. Food
was getting difficult to get, and since Edmond and I were growing, it was especially
hard to get shoes. I had a jacket made out of a blanket and a coat that my father
had years ago.

After the Germans were defeated at Stalingrad, we were sure it was just a matter
of time, we never had lost faith; even when England stood alone, and we couldn’t
wait for the end and [to] be able to live a normal life without fear.

During those years I was sick often; I believe it was strep throat, and [since] we
didn’t have antibiotics I ended up with scarlet fever and [a] kidney infection. My
parents sent me to the country to get strong; my father came with me to the priest’s
house for a week, [in] Christnach, close to Little Suisse.* I was homesick. My father
and his friend took long walks every day, which was too much for me; I only went
partway. When I was sent again to friends, where there was a girl, I brought something
to read. We all helped on the farm, bringing in hay and picking up the potatoes. In
early spring of 1944 we noticed an increase [in the number] of bombers: during the
night, British bombers, daytime, American bombers, which at times we could see.
The sirens were quite often, and we spent hours in caves. I became ill with rheumatic
fever, and my father’s friend, Captain Miller and his wife, urged us to spend the night
with them so we didn’t have to go to the caves. They lived in the north-west part of
town, away from the railway station, which was being bombed. We did it for several
days, and had to stay there. My friend Renée Perrin’s parents asked me to stay with
them. On the day we left Captain Miller’s house we heard that the Allies had landed.
On getting home my mother and I noticed a plane in the sky, circling and dropping a
bomb. The house shook; Mama and I clung to each other, the bomb landed a block
away in a backyard. No one was injured, but there was damage. The railroad was

*The Petite Suisse (Little Switzerland) is a rugged area in eastern Luxembourg favored by hikers. (ECD)
Liberation

damaged mostly south of town; trains coming from France were hit, and a German police headquarters across the station. I stayed at my friends house for two weeks until I felt stronger.

In late August we noticed that German soldiers were walking back in groups, and by early September the soldiers in the gym, where they had a barrack, were packing up; at night a lot of Germans were leaving. On the 10th September word spread that Americans were here. There were some soldiers still in the barrack, and we could hear firing, the Germans were trying to explode the water towers. In the afternoon Renée and I went towards town and saw the first American tanks; people were out and embraced the soldiers. My father went into town and not knowing English kept telling them “thank you, thank you,” and shaking hands.

My parents celebrated with Renée’s parents; I still couldn’t stay up and had to be in bed. The following day we hung up the Luxembourg flag, and Major Miller called to tell us that Prince Felix, the husband of our Grand-Duchess, had lunch with them. His son, Jean, was also with them; they were with the British Army. Major Miller put his uniform on and accompanied them to the town hall; they were mobbed. They went on with the British Army; the Grand-Duchess would return in the following April when the Americans thought it was safe.

We had an American administration for the time being. The Germans had just gone across the border. They still sent bombs into Luxembourg every night, and some of their V-1 bombs. We could hear them during the day, and when we stopped hearing them we ran into the basement until they exploded.*

We got to know some American soldiers; the 4th armored and the 83rd infantry [divisions] were in Luxembourg, and some of us were invited to dances in [the] late fall. There were also some air force people. The dances we were asked to attend were given by officers.

Life was becoming normal again, and we were talking about my going to a business school in 1945.

But on December 16 the Germans attacked and came within 25 miles of Luxembourg.† It was cold and we had snow. We saw a lot of soldiers being driven north, [and the] bombing had increased again. But on Christmas it was nice; Renée and I were invited to our friends on the other side of town. We took our skates because the fields were covered with ice, and while skating we saw Patton’s tanks driving up. We waved at the soldiers in the turrets and were so happy to see them. The following day Renée called and asked me to come with her to the “Caserne” where a hospital was made. I picked her up, and we were able to go into the hospital where we saw

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*The V-1 would keep flying until the pulse-jet engine, which made a buzzing sound, ran out of fuel. It then became silent and fell to earth. (ECD)

†This was the famous Battle of the Bulge in which the Germans made a last-ditch attempt to win the war by attacking a weak point in the American lines. The battle, which lasted until the end of January, 1945, devastated northern Luxembourg and ended in a great defeat for the German Army. (ECD)
one of our American friend, who had been hit in his tank up north. He was a major from Utah, a Mormon, and he said that he was able to marry us both! There were a lot of injured [soldiers] on stretchers; they were all evacuated. I heard from him for a couple of years; the last time he was air attaché in Venezuela. Another officer told us that his company found quite a few G.I.’s shot by the Germans: they didn’t take prisoners.

One of my former classmates called me. She was working for the American administration in early 1945 and asked if I could work; they were asked by many air force people for help. I told her that my English wasn’t that good, but if they were hard up I would be willing to try.

The Americans had crossed the Rhine river, and Luxembourgers who had been in camps were returning, but not all of them. In April our Grand-Duchess and the rest of her family returned, as well as our government. In May 1945 Germany collapsed, and as Mama and I were leaving to go to church in thanksgiving for the end, a jeep stopped in front of our house and a sergeant asked if I was so and so, and asked me if I could come by their office the next day.

I was hired in the billeting office after passing an easy test, mostly [in] English. At the same time I was involved with scouting; I became a den mother, while a young man was Cub Scout master. Neither one of us was married, and I didn’t go camping with them, but I visited during the day. Scouting became very popular; we had *pike-niques* where we hiked, as well as parades.

Fernand had a small week-end place in the Ardennes which was destroyed, and two of his friends, who [had] used it with him, were killed: one in Russia and one in the underground. We went back to the village and stayed at an inn, and hiked all over with a few friends.

Fernand had been a Scout when young and still had friends from scouting. Edmond didn’t have a chance to be a Scout, but when the Americans came in he spent all his free time around them and brought them home often. They were stationed next to us at the gym and the barracks the Germans had used. He was still in school, so [he] had to study. But he was so interested in American troops. Before the war I’d take him to American movies on Sunday afternoons when it rained and we couldn’t go for walks; he and I, and sometimes Fernand, enjoyed the American movies.

People walked much more; cars were imported from the US and [were] quite expensive. Papa had a cousin who had a big Buick, but most people used trains or streetcars. It didn’t change until the late fifties, and even then you couldn’t rent a car.

While I was at the job, a couple of officers whom we billeted wanted to buy Luxembourg wines for their officers’ mess in Germany. The other girl in the office came from the Mosel, so after work we both rode with them in their large jeeps and bought cases of wine. There also were two soldiers in the office.

The hotels had given us their lay-outs, but some we had to check out, and sometimes there were fights if there was a girl involved, or the USO. Then I had to
accompany the billeting officer, mostly to translate. I didn’t like going to the hotels, the owners were upset, and I didn’t like leaving the hotel with an officer on my side. Luckily, I always told my parents what was happening, so if some acquaintance of theirs mentioned them seeing us, and some did, my parents were able to explain why I was at the hotel. Papa had been promoted and was Chef de Bureau, or chief of his section.

We finally had a few clothes coming into the country; the first thing I bought with my money was a raincoat from Switzerland. It took a month’s pay, but it still was quite difficult to find clothes in Europe. Bakers were beginning to produce, as well as the butcher and the grocery stores.

After working through spring and early summer, the billeting officer had enough points, so he could go home, and we were expecting another one. It was an easy job, and he had spent quite some time golfing. We knew all the officers in the headquarters, who would from time to time come and talk to us.

One day a lieutenant stopped at my desk; he took his cap off and was very polite. I was quite impressed. He turned out to be the new billeting officer, and after about two weeks I had fallen in love with him. He asked me to go to the Red Cross club with him several times, where we danced. I was allowed to go there because Mama knew the lady who checked the girls who were allowed into the club. Franklin and I spent time together walking and talking. Then one evening after two weeks he kissed me good-night, and shortly after he said no matter what he wanted to marry me. I was stunned. I hadn’t thought that far ahead; most Luxembourgers didn’t marry until 25 years old. Franklin said he didn’t care what religion I was: he wanted to marry me. I had brought him home several times, and he came to eat with us. Mama liked him and so did Papa. In autumn the billeting office closed and Franklin went on leave to England, his old base, and London.

My co-worker from the office Irene had started working for the douane, an office where they gave licenses for imports. She asked me to join as they needed help. Franklin was transferred to Reims; he could have gone home, but he extended staying over and applied for the Regular Air Force, which he thought would be more interesting. I didn’t want him to ask my parents for me, I wanted him to wait, but he went ahead. It was terrible: my father was so upset he couldn’t breathe and didn’t talk to me for weeks. Franklin left shortly afterwards to return to his hotel. I had started to work, so luckily I had something to do. Franklin left the day after, but he wrote me every day and I wrote him. My father told me since Franklin didn’t even have a job he would not agree to my marrying him. He was angry with me as well as my mother. Franklin came back every six weeks when he got a pass; he would come home and eat with us. We also would go out, walking and to the movies. When we had dinner often friends ate with us; they got to know Franklin. One was Major Miller and his wife; another friend had been in the States during the war, he and his wife spoke English and enjoyed Franklin. And, of course, Josette’s grandparents and parents. My father, after Franklin told him that he’d been accepted in the Regular
Air Force, finally told me since I was going to be 21 in a couple of months, he’d be willing to let me marry Franklin, rather than let me just leave with him.

Franklin was transferred to Paris shortly after my birthday, but he didn’t know for how long. He wrote to my parents and asked if I could visit him. Of course my father insisted that my mother came along. So at Pentecost we went to Paris. Franklin took us to a play and to a jeweler to order an engagement ring. At night we went to the officers’ club to dance. I hated leaving him but had to return to get the papers ready for getting married. The following time Franklin came to see me he asked to go for a walk in the woods. My parents expected friends for dinner, but Mama said to go. We took our walk, and after a few minutes Franklin stopped and gave me the ring and again asked me to marry him. We slowly walked back, and from then on I introduced Franklin as my fiancé.

I had all the papers which he needed ready by then: had a statement that I had never been to prison, and a friend of Fernand’s who was a young doctor gave me a certificate that I had no T.B. or syphilis. It was embarrassing, and I didn’t mention it to my parents. The doctor was also a friend of mine; we grew up together so he knew me quite well. I stopped working so I could go shopping with Mama for my trousseau, linens for the bed and table, and china. Silverware was not available, nor was a wedding dress or white shoes. I did get some clothes, nightgowns, etc., [but] no robe and hardly any shoes. My mother’s dress-maker went to Paris [where] she found silk, and Franklin brought me parachute silk. The one time he and I went to a formal dance I wore my mother’s formal black dress and her black shoes, the first time I [had] wore heels. At the wedding I wore a pair of her white shoes. The black gown was nice, and I still have the skirt, black silk taffeta.

Franklin came early in the week before our wedding. We talked to the priest: he [Franklin] had to agree to raise children in the Catholic faith. The church had been bombed, and there was a school where Masses were held. Franklin didn’t have any close friends, and, of course, we had to have the wedding [reception] at home. We did get a cook; my parents wanted to have two meals for relatives and friends.

One of Papa’s friends was the mayor of Luxembourg. He was willing to marry us on Saturday, then we could be married in church on the same day. I went to church early, got dressed with help of the dressmaker. Fernand went to get Franklin in a rented car: Papa and I rode in another hired car; he told me I could return if things didn’t work out, as long as it wasn’t my fault! Saturday was market day and since we [?] we were married at the town hall [Hôtel de Ville], which was on the big open space across from the palace. A Scout friend of mine was able to come into the hall to take pictures. I don’t remember what was said; I know we sat down while the mayor talked to us. And then we had to sign papers and we were congratulated and [received] best wishes. We left slowly as there were friends standing outside. With just a few guests we drove to the schoolroom, where the priest married us and we exchanged vows and rings. We drove to the photographer who took the pictures. When we got home everyone was already gathered with champagne. Between courses
everyone had something to say, and afterwards some of the telegrams were read and I went to change. We were catching the train to Paris at six. I had packed just a suitcase since Franklin would be transferred to Germany and I would have to return to Luxembourg and wait for orders to join him in Germany. We had to switch trains in Nancy; Franklin told me to run ahead and hold the train. He barely made it, as I couldn’t stop the train, but the porter helped him up. We arrived in Paris close to midnight; [there were] no taxis so Franklin went to find a cab while I waited with his duffle bag and my suitcase. We finally got to the hotel; I hung up some of my clothes while Franklin took a bath. We finally got to bed when we heard a crash: my clothes had fallen. We put them on a chair and put out the light.

We spent the two weeks in Paris; Franklin asked me if I wanted to go to Mont Saint-Michel for the weekend, but I wanted to stay in Paris for the fortnight we had. He had to go to work a few days. But we had time to go rowing in the Bois de Boulogne, we went on top of the Arc de Triomphe, and danced at the officers’ club. Once we were with another couple; the wife had just arrived from the States. The officer danced the first and last dance [with her], then went around to other tables, leaving his wife at our table. We didn’t like leaving her to dance, but she said she was used to it, to go ahead. I was utterly appalled, Franklin thought it was unusual too. At the end of September I left to return home. My parents had just returned from a trip to Switzerland. Franklin called me; he was leaving for Germany and hoped I’d be able to join him soon. He called me every week and drove [to Luxembourg] in a jeep (he did have a driver) after a month, but he still had no orders. This was a surprise; I hadn’t expected him. He had a three-day pass, and we were invited to dinner at the Omès family on one night. We did go to town and shopped a little. Franklin wanted to buy curtains, but he had no measures. A month later, in early December, he arrived by jeep to pick me up. It was bitter cold while loading up the jeep. I had a huge trunk which just barely fitted in the jeep, and for the first time wore wool slacks. The jeep didn’t keep us warm, and there weren’t any places where we could stop until Frankfurt, where we got coffee and donuts. Most of Frankfurt was demolished; Franklin had a difficult time finding our way out of there to Fulda and finally to Neustadt, where we saw lots of snow. We both were frozen and went directly to the officers’ mess where we had a hot meal, then a hot bath, but couldn’t warm up. The following day we moved into our apartment, which had a living and dining room, kitchen, bath and bedroom. It was somewhat furnished, but we had to get two G.I. cots for sleeping. Franklin’s Air Force company was small: a major, captain, and Franklin, the only married officer in it. There was also a signal company and a doctor. All of the officers were married. There was a small post exchange; for groceries a bus picked up the wives and drove [them] to Bad Kissingen, a bigger town than Neustadt. Neither one had been damaged. We took rides in the jeep and often hiked. Christmas was small; I bought a chicken, which still had the insides and head on. I expected Franklin to clean it since my father always did it. But he didn’t know how. Somehow I managed to get it clean, but [I] didn’t buy anymore
chickens. I found very little in the commissary that appealed to me, it seemed mostly canned vegetables and canned meat. I did make rouladen after we had returned to Luxembourg in early spring, and I brought some items back. But they didn’t last long. We often ate at the officers’ mess, where a German cook made quite passable meals.*

The river had lots of ice in it, which finally melted, and there was some flooding: the meadows were covered. But I was very glad for spring. Franklin had a terrible time with his skin and had to go to the hospital for three weeks in Wurzburg. The wool uniform bothered him, and his mother send him khakis, which was unusual, as everyone wore the wools. I was glad to have him back as I was very lonely. I embroidered a table cloth by candlelight. Being a young wife and an alien among the wives wasn’t easy, I didn’t make any friends, and the two air force officers Franklin worked with weren’t married. Spring helped his skin, and we went to Bad Kissingen where they had expositions. There was one artist who had done a drawing of Stalingrad which struck us both. Franklin wanted to buy it, but the artist wanted 16 cartons of cigarettes; we could easily have done it, but it was forbidden. I used to give away our coupons until I found that they were used in the black market. During the war my parents were able to buy food, especially meat, they paid money, but added a pack of cigarettes. People would pick up stubs in the gutters.

Franklin’s mother had friends in Europe who had written about all the things they purchased with cigarettes. Germans sold china and glassware for cigarettes.†

In Bad Kissingen we met another artist, Lore Friedrich-Gronan. She showed us some of her dancers. We liked them very much but told her we wouldn’t pay with cigarettes. She said she wanted Elizabeth Arden creams and coffee. The last time we went to Luxembourg before our departure for the States I bought the creams and coffee, [for] which she was grateful. She wanted to do a bas relief of us, but we had no time left.

On our honeymoon in Paris the “new look” by Dior came out. All my new clothes were passée; however, none of the American wives wore the “new look.”

We couldn’t pack up everything in Luxembourg, but my mother said she’d mail it. It was difficult to leave, but Franklin assured we would return since, even this early, the Russians were giving no date of leaving. We left Germany by train to Bremerhaven, and then by troop ship to the U.S. Franklin was billeted with some officers, and I, with German war brides. We had bunk beds, and the woman above me was married to an Canadian officer; she told me we would end up by going to war with Russia!

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*Marie-Anne became an accomplished cook, indeed, a great cook, which is one of the reasons the family almost never ate out: it always proved to be a disappointment! Rouladen was one of her signature dishes — it was last meal she ever made for her children. (ECD)

†Marie-Anne smoked a very occasional social cigarette in her younger years, Franklin, never, although he did smoke a pipe for a short period of time when at MIT. Their children were promised a thousand dollars if they did not smoke by age 21. (ECD)
I was seasick one morning; a nurse brought me some crackers to eat. After going up on deck I felt fine. From then on I avoided the bunk bed or even going downstairs to eat; I ate very little and ate up on deck any bread that I could get. Luckily, it was nice but cool: I wore a light jacket. There wasn’t much room for walking, but we stayed out as much as possible. I remember seeing the Statue of Liberty when we came near shore. Being an alien [I had to go] through a different checkout then Franklin. A man looked me over from head to foot. He asked me to tell him where Luxembourg was, [he was] one of most people who had never heard of Luxembourg. I believe in my married life, [I met] five people [who] had heard of Luxembourg; I thought after Belgium, Netherlands, and Luxembourg made their union and became Benelux, people might become aware, since it was the beginning of the European Union. But most people have no idea that it is a country.

We were driven to Camp Kilmer, outside of N.Y. City; [it] had more bunk beds and [we] stood in line for food. I urged Franklin to call his mother, but he wanted to wait until the next day. He was busy getting his orders and all [his] papers straightened out. The following day it was raining, which in Europe meant cool, so I wore my tweed suit and became aware shortly that I made a mistake. Both of us removed our jackets, which helped very little. Franklin’s brother met us; he also wore a uniform that I hadn’t seen before, it was navy [blue] since he was in the Public Health Service. It was so nice to be welcomed into a house by Franklin’s mom and Jerry, as well as meeting the little twin girls.* My first meal was a little new to me: baked potato and cube steak. I was surprised that it didn’t cool down much at night. It was over 90°F the whole time we were in Washington, and the humidity was bad. Franklin and I went by bus into town, mostly to the Mellon Gallery, which was air-conditioned. We went up to New York for a couple of days, took a tour of the city, danced at night, and saw the Yankees. Franklin enjoyed the game very much; all I remember is a name, Joe DiMaggio; [it was] the first time I’d watched a baseball game. I never watched soccer games in Europe; I played some tennis, but since there were two playing it was always difficult to get together, especially since we had to walk across town. I preferred ice-skating and roller skating.

Franklin’s dad returned from Korea, and the following weekend we all went to Westminster, where Franklin’s Aunt Eurath Beacham arranged for a dance at the Riding Club. We stayed at Aunt Kate’s farmhouse, a beautiful stone house; the farm was run by a farmer they employed. Her husband was well off, and he didn’t work according to Franklin. I met a few of Franklin’s cousins and his aunts. I never met [one] his mother’s two brothers, only Uncle Slingluff Beacham, who had the farm; his wife was Ora. Franklin tried to teach me golf: he showed me how to stand in front of the ball and make sure to keep my eyes on the ball, which I did unfortunately. I hit the ball and it hit his leg; I thought I’d broken his leg. But it wasn’t, and he had to use a cane for several days. But it turned me off golf.

*Jerry was Franklin’s brother, James’s, first wife. They had twin girls, Donna and Diana, who were born during the was. (ECD)
We left Washington by train for Greenville, South Carolina, where I was surprised by some people. We were looking for an apartment; one owner showed us his basement, there was a curtain dividing living and bedroom. He told us that he expected us in by nine, no liquor, no parties, no smoking. We found an apartment; it was at the end of a quiet street, but our side ended on Rt. 29, on a corner so there was a stop light. At night it took us a while to fall asleep because of the trucks stopping and starting. But we became used to it. The bedroom was built on a porch, but the living room was large and had a walk-in closet with a chest of drawers. There was an old kitchen and adjoining dinette. Our things had arrived, and I was able to make the place more pleasant.

I was pregnant with JoAnne, and had to see a private obstetrician who had been recommended, but first Franklin wanted me to open an account at a bank. There weren’t many banks, but to my surprise two were in trailers, which I wasn’t used to. I chose a solid building, which made Franklin laugh, but being from Luxembourg, I never saw trailers as banks. I rode the bus into town to the bank and the doctor; never had an exam like he gave me and was rather shocked. On the way back by bus I sat at the door in the back, where I could get off quickly. But I was told by a black person to sit in front of the door. Franklin hadn’t mentioned that the back of buses was for blacks. It took me a while to use a bus again. I walked to the A&P grocery store; it took me a while to get used to the bread. I made rolls, and meringues with fruit on them and always whipping cream. I couldn’t find a scale to measure European ingredients for making desserts, and had only a Luxembourg recipe book. Franklin did some shopping at the commissary, but most things I didn’t know about.

On one of my visits to the doctor, he told me that my blood pressure was a little high and I should reduce salt intake. While waiting for the bus a car stopped and a lady asked if I needed a ride. She had a driver, lived on our street, and had seen us walking. I was glad for the rides as I wasn’t feeling very well, and the bus ride stops and starts bothered me, so did going into Woolworth where they made popcorn. My mother sent shirts out of lite cotton, and I embroidered them. We had made friends with a girl from Belgium and at times we ate together. I had brought a French fryer from Luxembourg and often used it for frying potatoes, which everyone enjoyed, there were unusual for the U.S. This of course was long before McDonalds.

A month before JoAnne was due I developed high blood pressure, had to stay in bed, and barely ate. Franklin at the time was taking statistics at Furman University. He was quite busy, but a week later I had to go to the hospital where the doctor cut the water. Two hours later I was in labor and was exhausted after JoAnne came bottom first. Franklin returned, happy that it was over, and we had a small, 5 lb., 4 oz., cute and hairy baby girl. The doctor kept me five days so I could get my strength back. He also wanted to tie up my tubes; he didn’t want me to become pregnant because of my high blood pressure before JoAnne was born. But we said no, and

*Marie-Anne’s spelling of Joanne, “JoAnne,” in her memoir is unique: she always spelled it otherwise conventionally. (ECD)
I was glad to leave the hospital with my baby, who ate well, sometimes every two hours. Franklin’s mom had come to help, also we had an aide for two weeks. By then I felt better, and JoAnne kept gaining weight.

Franklin’s dad came to pick up his mom; he said JoAnne looked like a monkey. She was lying on her stomach, at the time babies were allowed to sleep on their stomachs, and all of ours did. They were able to turn their heads, however. I put them sometimes on their sides, as I would get tired lying on my stomach. I had to start making formula and give her cereal, and at times she drank some formula while I was weaning her.

I had some difficulties finding food that I had been used to. There was no veal, no lamb, and South Carolina was a dry state, I couldn’t buy any wine, nor some of [the] vegetables that I was used to: leeks, shallottes, etc. However, I made soups and used my passe-vite to mash potatoes and vegetables. At that time there were no plastic bottles; JoAnne’s were glass and had to be sterilized, so [too] had [to be] her formula. I did this until Chris was born, which made it much easier.

Franklin left on maneuvers at Eglin Air Force Base in late summer; this was near Ft. Walton Beach, Florida. After about a month, Franklin returned and we packed JoAnne and her stuff up, and we went all in the old Ford to Florida. We stayed in a house with two other couples. We had a small room; JoAnne slept in her carriage. On the way to Florida Joanne cooed, I’d never heard it [before], neither had Franklin. We both enjoyed it; JoAnne seemed so happy in that old car. None of the boys cooed, but we didn’t have the car, which had no backseat, but a large ledge under the rear window. We spent two weeks on the beach, which JoAnne enjoyed, then moved to Niceville, a small place, not on the beach. The house was nicer than the beach place, and we shared it with another couple for a month.

That year we decided to go up to Washington for Christmas. The day before we left, Franklin’s boss invited several of the officers and wives for a party. Our landlady’s daughter said she would leave the door to their part of the house open and keep an eye on JoAnne, who was asleep. When we got to the party we were handed [two] Tom Collins; I took a couple of sips and decided it was too strong for me. Franklin drank, and I noticed his boss kept filling his glass. After an hour or so I said I wanted to leave. Franklin could barely stand up, we managed to get to the car, but he was sick to his stomach, he unzipped his pants, and it was obvious he couldn’t drive. I went back in and asked a couple if they could drive us. He did and his wife followed us. We managed to get Franklin inside, and I got him to bed. It was the only time Franklin was drunk, thanks to his boss. I even felt the two sips I took, which must have been pure gin.

We didn’t leave until the following afternoon, and we arrived on late Christmas Eve in Washington, as we spent the night in a motel four hours from Greenville. Franklin was still not feeling normal the day after. Franklin’s brother and family were there too. He suggested that I be checked into the hospital where he worked to see if I was all right. I thought I was, but since I had the high-blood pressure before
JoAnne was born, Franklin must have talked to him about it. I didn’t want to spend my days in a hospital, but Franklin insisted. I missed him and JoAnne as this was the Marine Hospital in Baltimore. I spent several days there being checked from head to the kidneys, and on New Year’s day I finally left with a carton of Old Gold cigarettes, a shaver, and shaving cream. The following day we packed up and planned our trip by way of the Blue Ridge Parkway. The temperature went up to 80°F, very unusual. We had a much better trip going home than going up to Washington.

In early spring Franklin was sent to Biloxi, Mississippi. We drove through Alabama, which was in full bloom, and Biloxi had beautiful homes. We rented a room with kitchenette. One day, as we were driving along the coast, I saw a couple; she had her arm hooked into the man’s. I took another look, and [saw] it was a schoolmate of mine who had married Franklin’s boss in Luxembourg. They were dating at the same time we were, and we saw them often at the club dancing. They were the Worrells, and I’m still friendly with Marianne. Jack died a while ago; Franklin and I attended the funeral. We had a scary day while there; there was a bad storm and the gulf water came over the wall, and it continued raining until the water came close to the house. I [had] packed up when the mailman came by and told us not to worry; if this had been September I should move, but he told me that the rain would cease by afternoon. We were in Biloxi for six weeks, and shortly after our return Franklin was sent to an air force school at Tyndall Air Force Base, Florida. While in Biloxi, we went to New Orleans to see the Carnival parade, which was amazing, very unusual: they threw beads and necklaces. We drove through the town, saw the cemetery: all the graves were above ground because of the very low ground water. There seemed to be water all around the town.

Tyndall Air Force Base was also on the Gulf of Mexico. We found a house at a place called Mexico Beach, which consisted of five houses occupied by officers going to school. Our house had two bedrooms, living [room], and small kitchen. The water tasted terrible so I made ice tea, which was a little better, and JoAnne had bites on her legs; my feet were bitten to my ankles. We tried finding another place, but they were [all] terrible. So Franklin got a large can of flea killer, and he mopped the floor. My neighbors had a vacuum cleaner which I used to clean the house. Hanging up JoAnne’s diapers became scary as we had snakes in the area. There also was a pond not far from the house where we saw alligators. We had to be careful going out the door. Walking to the beach was a short walk, and we were safe. However, there were sharks there, but we also saw dolphins, and the beach was very nice. JoAnne liked the beach, except when the water would wash over her. Saturdays we would shop at the base commissary; I remember once counting eleven large snakes sunning on the highway.

Franklin’s brother and Jerry visited us, but they were scared going outside. I had to stop hanging up our laundry and used our neighbor’s yard, which was on the road, so I saw the snakes, and if I made enough noise they’d disappear. Luckily, JoAnne’s crib was a Kiddie-Coop with screens all around and a screened top.
Franklin started to teach me to drive, but that old car was pretty hard to drive. School lasted for four months, and in August we left for Greenville, where Franklin had orders for Albuquerque, New Mexico. We packed and proceeded to Washington via Fort Bragg, where we spent a sleepless night because of music and heat. Franklin’s dad had been able to get us a new Chevrolet, a two-door sedan, which made driving so much easier. We spent a few days in Washington. One morning while I was upstairs making our bed, JoAnne got out. Franklin and his parents were on their screened porch, and when I came down I couldn’t see her. We looked in the yard and finally found her walking up the street. I was frantic, and from then on I wouldn’t let her out of my sight. We left in late August, heading west. There were no highways except [the] Pennsylvania Turnpike, so it wasn’t easy traveling; we had to go from town to town. In Texas we couldn’t find pasteurized milk in one place for JoAnne. I read to JoAnne; she liked *Chicken Little*; Franklin and I became quite tired of it. She enjoyed eating out and always wanted to go to the bathroom so I could wash her hands. We arrived at Sandia Air Force Base on a hot day and found a motel on Route 66, which went through Albuquerque. It didn’t take us long to find an apartment, fairly new, built on two garages. We bought a bed, two chests of drawers of solid oak, and a living room suite; in the kitchen we used our card table, as it was not very large, but it had a window facing the Sandia Mountains. Franklin had to check in every day to get his Q clearance, then he’d have a chat with the other officers and coffee, then he could come home. The climate was very dry, and we suffered from the dryness; also the wind blew and came in through the windows into the bathtub. Sometimes if I didn’t get out to bring the laundry, it would turn beige: our street wasn’t finished, so the sand blew a lot right from the street. JoAnne and I walked every day unless the wind was bad. At the time the Worrells were also stationed at Sandia, and we got together often and took sightseeing trips together. One weekend we drove south to Mexico, but Marianne and I could go in, but might have problems returning to the US because we were aliens. Franklin and Jack found a motel room for us, and they proceeded across the border, where they bought a bag for me and some items for Marianne; she and I were sorry to have missed Mexico, but she was pregnant, and we had accents so we couldn’t claim to be Americans.

In February, when Franklin got orders for North Dakota, he also had an interview with some people from Boston. They [were interested in him], I guess, since he had a background in college in optics, and asked him if he would be interested [in working with them]. He said yes, and within four days we were packed and left while it was snowing. We stopped a couple of days in Washington and arrived in Boston on a miserable day. We stayed in a hotel with a small kitchen and started looking for an apartment. I became sick, but when we saw an ad in the paper, we went to check it out and rented it. Franklin was able to get cots for sleeping, and I collapsed with flu. Luckily, our furniture arrived shortly, and I was grateful to have a bed. I recovered enough to go and shop, so we had food. But again I got flu, and we were able to talk to a doctor. An army lieutenant and his wife and son lived in the apartment below.
us; he went to Tufts University. Young Bob Vechsling became a friend of JoAnne. Unfortunately, I became sick again; this time the doctor came and gave me a penicillin shot, that night I broke out in hives, but I felt much better the following day.

At the time Franklin’s friend from the University of Rochester, Don Hodgman, and his family were at Harvard; they lived in barracks on the campus that were left from the war. Don was on the G.I. bill, getting his masters degree. I liked them both, and we saw them, but not often since Don and Franklin were both busy. At Edgerton, Germeshausen, and Grier, (EG&G) where Franklin worked, there was a captain from Norwich, a private military school. He and his wife invited us to dinner on a Saturday. I was surprised that we had a typical Boston meal; baked beans, hot dogs, and brown bread. Franklin enjoyed it and he suggested that I make this dinner for us every Saturday. They were a nice couple; the other couple we got to know were the Warchols. Mike was an engineer at EG&G; his wife, Julia, was a lovely woman. They had two sons and a daughter, and the boys went to prep school at Andover. We visited each other for years. They were so nice. Mike died several years ago, and Julia had a stroke three years ago, but she still writes, or rather signs a Christmas card. And there were others who were kind to invite us to their cabin in Maine, where we went boating and hiked with JoAnne.

In autumn, Franklin mentioned that he was leaving for a test lasting four months. I was devastated, I couldn’t imagine life alone without Franklin. I dreaded it.

We had discovered the Window Shop, European restaurant and shop, which we really enjoyed. Also the Sadler Wells Ballet, which became the Royal Ballet with Margot Fontaine. Time flew, and on January 17, 1951, JoAnne and I left on the Westerdam for Rotterdam. We had sublet the apartment to a Canadian professor and his wife. Franklin had to stay in a rental until leaving for the Pacific; he hadn’t been feeling well, and so I worried and missed him. We had a rough trip across the Atlantic. I slept on the top bunk at first, but decided to sleep with JoAnne as it became more difficult climbing up and putting the side up. The tables were tied down and there were railings all around them. JoAnne and I didn’t get seasick, but some passengers didn’t show up for days. When we came close to the [English] Channel, the weather was so bad we couldn’t enter. We finally arrived in Rotterdam after ten days at sea. At the time ships didn’t have stabilizers, [which is] the reason so many people were sick.

My parents were waiting with a friend, who drove us to Bruxelles, where we had lunch, then on to Luxembourg. I missed Franklin terribly the whole time I was there. After missing two periods I realized I was pregnant. I wrote to Franklin who was on Eniwetok Island. He wrote back that he had made sure that I would return to him. I had no desire to stay without Franklin; it made me realize how very much he meant. I saw my friends and did some shopping. JoAnne received a lot of gifts on her birthday, and in May we took the train to Paris. While in Luxembourg I had seen my old friend, who examined me, and told me I was too thin, I should eat more, which I tried to do. When my parents and I arrived in Paris, we stayed at a hotel
Boston
close to the train station to Le Havre. My aunt and uncle had moved to Chelles, so we couldn’t stay with them. Also, I had to get up early to get to the train. It was very difficult for my parents to say good-bye again, especially to JoAnne. We took the Ile de France, and this was an easy trip, but I was sick in the morning a couple of days, possibly due to the pregnancy. JoAnne was very good, and I think she enjoyed all the attention. When we arrived in New York we couldn’t go to the rail to look for Franklin; being an alien I had to get checked out and over. We finally saw Franklin and were so happy. When he arrived from the Pacific he felt much better than he had in Boston. He looked tanned and fine.

We drove to Westminster and spent a few [days] with Mom and Dad before heading back to Boston. We unpacked, and JoAnne was put in her own room. Franklin made an appointment for me at Waltham Army Hospital, where I saw an obstetrician who told me to lose four pounds. He didn’t want me to gain more than 15 pounds because I had the [blood pressure] problem when JoAnne was born. I had a difficult time losing the weight; Franklin and JoAnne would walk with Popsicles and let me have a lick. But I also took driving lessons and studied to become an American. I was tired of registering every January as an alien. I didn’t like giving up my nationality. I passed the exam and also [got] my driver’s license, which was hard. I had to drive up a hill, park between two cars, then get out of the parking place. Of course, I hadn’t an automatic shift, but I passed. But [I] couldn’t become an American because someone outside the family had to know me for three years so they could vouch for me.

Franklin was supposed to leave for Nevada on the 8th of October. His mother arrived a week before. The baby was due mid-October. On the 3rd I’d cleaned and made a big dinner. After about an hour I felt a backache; I thought I’d done too much and lay down. But Mother urged Franklin to call the doctor, who asked if I had a baby before, so I should know what was happening. Well, it was different having constant back pain. He told Franklin to bring me in, and luckily the doctor I’d been seeing was there, and after examining me, said the baby was coming. Franklin was sent home, and the baby arrived at 3:30 AM. Early in the morning I was walked to a ward and the baby was brought to me to nurse, the second time I saw my little boy, who had a lot of hair. I saw him shortly after he’d been cleaned up, and he nursed at once. I had a little sleep, but after breakfast I had to clean up, make my bed, very different from a civilian hospital. Franklin came in to see his son; he had phoned his dad, who was very excited to have a grandson. Franklin asked if we could name him after his dad (and after him). I said as long as we wouldn’t call him Ernest. Franklin (baby) was a good baby who ate well. His father brought us home and left after a couple of days for Nevada. His father came up and stayed for several days; he shopped and sent announcements of his first grandson’s birth. Franklin returned after a month for a few days; he noticed that the baby’s testicles were large. The doctor assured us that if they didn’t go down, they could take care of it. And they did after several weeks. Franklin returned from Las Vegas, and we had a nice Christmas; [we] stayed home, as the baby was a little young for travel. Franklin’s mother gave me a
washing machine, a Bendix, so I wouldn’t have to go out and do it; [often] I couldn’t find any machines available. I had to fill it with water at our kitchen sink, as well as empty it.

In early spring there was another test in Las Vegas; one of the engineers said he’d bring his wife and child, so we decided to all go too. We shared a two-bedroom house and large kitchen. We were able to go out to the casinos several times after putting the kids to sleep. The Smiths, who shared the house, stayed home. And of course, we did the same for them. During the day we’d walk along the strip, which at the time was small, [with] very few casinos. After one walk I noticed the baby having some trouble breathing. I took him to the hospital, and I noticed while carrying [him] from the car a few steps to the hospital, [underneath] the trees [that] were in full bloom, his breathing became much worse. The doctor saw him at once, and he gave him a penicillin shot; he said he had asthma. He told me to put a tent over his crib and use a humidifier under it, and to continue taking penicillin. I rigged up a tent and the humidifier, and he slept well. When JoAnne and I went to bed I turned the light on, and to my horror, saw a large scorpion on the floor, which with help I got rid of. The following day we had the house sprayed under the floor, which was full of them. The man who came to spray opened a piece of flooring and showed them to us — awful. We were happy to leave shortly after; it was 100°F [so] we put a bag of water in front of the car and [were] glad we did as many cars couldn’t make it. We drove straight back and [were] so glad to get home. We did stop at the Grand Canyon, and in Westminster. Franklin had to fly west for reasons of the photos he’d been taking, mostly [to] Los Angeles, sometimes [to] Los Alamos, even to Dahlgren, Virginia, as well as Death Valley. His photos were very good, and he received quite a few congratulations.

In September he had to leave again for the Pacific at Eniwetok. I really was sorry to have him gone for several months, but EG&G asked him to stay on. I couldn’t go back to Luxembourg with two little ones; Bubbie, as we called him, [was] barely a year old. JoAnne called him Bubbie, I think like brother.* They played well together. JoAnne also had some mates; with them she played while I would be out with Bubbie, who kept watching them [sic]. I took them walking a lot until it became too cold. He was a good baby, smiled a lot and ate very well. But at night he’d wake up crying, and it took a while to get him back to sleep. I rocked him, and sometimes he got another bottle.

Franklin returned in late November and we had a nice Christmas. Franklin bought a television set since we had to stay in so much because of colds or bad weather. JoAnne would watch Captain Kangaroo. Franklin was gone over New Year’s Eve, the weather delayed [his return], but he made it on 1 January 1952. JoAnne was so excited to see him she jumped up and down and cut her forehead. Franklin took her to the hospital where they put [in] stitches. Luckily, the cut disappeared completely.

In early January little Franklin came down with a fever and terrible cough. He

*Joanne’s name, Bubbie, is still used by family members. (ECD)
Dayton

had trouble breathing; we called his pediatrician who came out in the middle of the night and told us it was croup. She prescribed an antibiotic, gave him an injection of it, and told us that we needed to have the shower on and [to] take him into the bathroom. If it didn’t work we’d have to let the hospital know and take him to it. We took turns in the hot bathroom until he was breathing regularly. Luckily, we had a warm steamer, so we made a tent over his crib and he slept well. It took several days for him to get the fever down. Then JoAnne and Franklin came down with the grippe.* It seemed we were sick a lot. Franklin had to make several trips to different places in the US.

In early March we left Boston for the last time. We liked Boston very much: Cambridge, the Window Shop, the Brattle Theatre, the Charles River, the Ballet, even the Pops; but we were sick so much that we were ready to leave. I was pregnant again; we had breakfast at our neighbor’s, and when I smelled bacon I felt morning sickness and couldn’t stay. We left for Westminster to spend a few days with Franklin’s parents, then headed west for Las Vegas again. We found a motel with living [room], bedroom and kitchenette, which suited us fine. JoAnne, little Franklin, and I slept on a couch-bed in the living room. One other military wife and her son, little Franklin’s age, were there too, so they played together. And we were able to go into town, where we saw a parade with lots of horses. Franklin was able to come back every weekend, so we’d take the children to the early show and had dinner there. I remember Van Johnson dancing, singing, and telling jokes that were family style. On Sunday we’d go and have our first brunch at a casino, which was quite large, and afterwards JoAnne went into [the] swimming pool. And I went out of town where it was flat, and we could see the top of the mushroom cloud. Franklin had been exposed to the [allowed] maximum of radiation, so we left Las Vegas for Dayton, Ohio. Again it was hot, but we got to one of Utah’s parks where it was cool; we slept in a cabin and had a good night.† The next day we drove through Bryce Canyon, which was beautiful but hot. We had a very hot drive east. In Omaha we stopped for lunch; we were really dehydrated and had several glasses of ice tea, and the children had lemonade. I’d kept milk in [a] small cooler, but the ice melted. We bought ice for the diaper bucket and added water so I could soak my feet. We were glad to arrive in Dayton and were able to get housing, the first time in the US.

It had a large living and dining room, and a big-enough kitchen for a small table; the bathroom was upstairs along with three bedrooms. Our furniture was waiting for us, and we settled in fast. We bought our dining room, and in early October my mother came over. Franklin met her in New York; they spent a day in Westminster and arrived late the following day. My mother was amazed at all the silos along the way; she thought they were steeples.

Unfortunately, I wasn’t able to get a doctor on base, so I had a doctor in town.

My mother had arrived in time for Bubbie’s second birthday; she brought coats

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*Flu. (ECD)  
†Zion National Park. (ECD)
for JoAnne and Bubbie, worn with hoods, as well as lots of other items. Mama was surprised that there were no shutters on windows, and lots of windows were clear so she could see inside at night. She enjoyed walking at night and going shopping; she bought so many things that she couldn’t find in Luxembourg, and was quite happy.

On the 27th of October I felt fine: I made a lemon pie for dessert at lunch. Franklin was coming home for lunch, so I always had a larger lunch. But I started having pains afterwards and called the doctor, who told me to come in the hospital at once. I packed quickly (all our children came earlier than expected). By the time we arrived I was having pains every three minutes. Craig was born shortly before seven in the evening; I was quite aware of everything, but when the doctor said “one more push hard like a b.m.,”* well somehow doing that among the pediatrician [and] nurses was too embarrassing. The baby came through, and he was big: 8.2 lbs. Like his brother and sister, he had lots of hair. He also gained weight while in the hospital. He certainly ate well. JoAnne and Bubbie couldn’t come in; Franklin brought them outside and I could wave at them. I missed them very much and was glad to return home. Craig, we named him because I wanted a short name; my mother wanted a family name, so he was baptized Edmond Craig, but we called him Craig, as Edmond would [have been shortened to] Ed. He was a great eater, often, and finally my nipples bled, and I had to stop nursing, which was very painful. Franklin had to bind me, which neither one of us knew how to do. I couldn’t stand up straight. Craig took to the bottle fine, he gained weight, he seemed to enjoy eating, and after several days I was able to straighten up. Franklin played with Bubbie and JoAnne in the evening while my mother and I cleaned up and made Craig’s formula; the kids enjoyed their life. And then Christmas came and Franklin’s parents arrived. Franklin gave me a small portable sewing machine, which I still have. Bubbie had a rocking horse and JoAnne, a doll carriage. Everyone had a good time, but shortly after Franklin had to leave on a trip, and poor Bubbie came down with measles. This was before they gave children injections for measles. The doctor came and Bub had to be isolated and the blinds had to be down. My mother took care of him. I couldn’t because the doctor said I may give it to the baby or JoAnne. It was a bad time; I missed looking after Bub, who hardly ate anything. I remember getting him a tiny train that he could play with in bed, but it was so hard not to hug him and tuck him in. He recovered, but looked very thin and I let him eat whatever he wanted. Franklin returned and was quite concerned about the weight loss, but happy to have him well, eating, and playing again. My mother left in April, but before she left we had Craig baptized. We couldn’t get everything in our little Rambler, so Bubbie and my mother rode with Franklin to Cincinnati where he put them on the train to Baltimore, where Grandaddy picked them up and took them to Westminster. We, Franklin, JoAnne, Craig, and I left the following day by car to Westminster, where we spent a couple of days; then Franklin and I drove my mother to New York: she left on the Ile de France. It was a very sad day that day. Franklin and I returned to Westminster,

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*b.m.: bowel movement. (ECD*)
spent a couple more days with Franklin’s parents, then returned to Dayton and took up our lives.

Franklin had complained about our cold floor; his feet were always cold sitting at his desk. We started looking for a house, but in autumn.

JoAnne started kindergarten [in] a private small school. At the time they had no public kindergarten. I took JoAnne to see the school, which was small, and she liked it. It lasted only half a day. She returned very enthusiastic and told, sang, and acted what she learned.

In spring we seriously looked for a house and ended up by choosing a three-bedroom house, which had floor heating and was well built. But we couldn’t get a loan because we always paid cash, so we couldn’t show any paid credit. The house was $18,000, and we had enough for a good down payment. Franklin’s father helped us to pay the whole amount, and we paid him back every month. Meanwhile Franklin was accepted at Wright-Patterson Institute of Technology;* he wanted to switch from optics to electrical engineering. The school had mostly officers who, because of the war had interrupted their college, like Franklin. We had settled in the house and bought bunk beds for the boys; JoAnne had a room for herself; Franklin and I had the middle-sized bed room. Craig was still small, but he could sleep in the bottom of the bunk beds.

Franklin and JoAnne started school, [Joanne] just down the street, Franklin at Wright Field. I started making curtains for the bedrooms and kitchen. Our kitchen was like a galley, but we had a long bar along the wall, with a sliding glass window into the dining room where I could pass dishes through when we ate there. Bubbie was three in October, and Craig, one year old. Franklin was very busy, but on birthdays he stayed to celebrate and take pictures. Usually he would just help me bathe them and put them to bed, then go into the bed room where he’d put up a blackboard and solve problems. I finished in the kitchen, and did sewing, and sometimes just relaxed. I was ready for bed by eleven, and so was Franklin. During the day I took the boys for a walk; Craig was too young, he rode in the stroller. When the weather was nice they played in the sandbox in our backyard while I planted roses in the back. And when winter came I took them on a sled; sometimes I rode down the hill with them. And after their nap we’d pick up JoAnne at school. Franklin took Friday nights off from studies. We’d get a babysitter and would attend a movie, or, if there was a dance at the club, we’d go dancing, I remember once Stan Kenton’s band that we danced to. And sometimes we had people in for dinner. It gave us both a break, but especially Franklin. Saturday mornings the kids came into the bedroom; they woke up early, as usual, while we tried to sleep in a little later. They climbed over us and into bed.

Franklin had quarters of school year around. Between each quarter there was [a] one-week break, and if JoAnne was off we’d drive to Westminster, a long drive, so we had to leave early. We’d stop at a place we knew after Columbus where they served

*Air Force Institute of Technology (AFIT). (ECD)
home-made rolls and a big breakfast. In winter we stayed home and got ready for Christmas. And sometimes Franklin’s parents would come and spend a week with us. I wasn’t pleased with JoAnne’s school, and we enrolled her in the St. Helens School farther away. Franklin dropped her off in the morning and I’d pick her up on her way home, across a main street. We all would attend the church, where JoAnne received her First Communion.

I took a Red Cross course in nursing and was able to leave Bubbie and Craig at the base nursery. Afterwards, I worked mornings in pediatrics or obstetrics. I only did it once a week; Bub and Craig were not too happy being around strange kids. It was in the morning, so I dropped Franklin off, and after school I picked up JoAnne, and later Franklin, from Wright Field. At the time there were no car seats, or straps, for children or grownups. But, of course, traffic was never bad. The car seat we had for JoAnne was made out of canvas; we kept it for all of our children.

There were usually parties at Franklin’s school, and I got to meet some students and their wives. This was maybe twice a year, during the break. There was only one black in the class, a Major Bonseigneur. I was curious about the name: I asked him if he had French background, he said, “yes, born in Louisiana.” They were part of the group; of course this wasn’t unusual since the armed forces had been integrated while Truman was president. At St. Helens they also had some blacks. And the Wives Club had a black chairwoman. In Greenville, South Carolina, I saw blacks in the Catholic church among whites. And in those years the blacks were still Negroes. While in Albuquerque, I never saw any blacks, but some South Americans, [and a] few Indians. We drove one day to Gallup where we saw lots of Indians, women in garish satin dresses, and some men were drunk. It was a disappointment; I’d read all Fenimore Cooper’s books about the Indians, of course, I guessed that they would have changed some. But since I’ve read Tony Hillerman* and driven through some small [Indian] villages, eaten at Indian restaurants, I thought they had so much improved. I didn’t see any drunks. Franklin and I enjoyed eating Indian bread and lamb stew. We returned there for breakfast too.

The second year AFIT came to a close and Franklin received the highest award; his dad was at the ceremony and we were so proud of him. Also he received a scholarship to receive a Master’s degree. He chose MIT, rather than traveling to California with all of us for less than a year. He was also asked to return to teach at AFIT. So we rented the house and left Dayton, driving to Knoxville to spend a couple of days with Franklin’s brother’s family. We stopped in Kentucky to have dinner and spend a night. I was pleasantly surprised to have ham that tasted like Luxembourg ham. We spent the weekend in Knoxville, then took a leisurely drive through the mountains to Westminster. I was pregnant again, and Franklin’s mother was not happy. The baby was due in February, not a convenient time, but none of our babies were planned. We left for Boston and luckily found a new house in a neighborhood where lots of officers

*Tony Hillerman is a popular author of crime mysteries, all set in and around Navajo country in Arizona, and featuring Indians as the main characters. (ECD)
also rented. It had a basement just a few steps down from the entrance, and [it was] a few steps up to the living and bedrooms.

JoAnne started in a Catholic school, and then Franklin started a hard year at MIT. He stayed until the library closed at 11:00 PM, got home half an hour later. By then I was in bed just like the children. Bubbie celebrated his fifth birthday, and Craig, his third. Bubbie started kindergarten, just half a day. It was close by, and I was able to walk with him to it. Craig had a little friend, and they played in our basement. Craig had a steam roller that he enjoyed, as well as trucks. When Franklin had a weekend off he took us to Cape Cod, but mostly he spent [his time] studying. But we did go to church on Sundays. After Christmas I was able to get a cleaning woman through a nun from JoAnne’s school. The woman had lost a child recently and wanted to work to get out of her house. Her other children were all at school. I was glad to have her, and I knew Franklin’s mother needed help when I had the new baby. The winter was snowy; we had a hill behind our house where the children would ride down, and in the evening I’d take them outside. In the front of our house we had a hill going in the middle of the road; the kids would slide down the road. I stayed in the middle of the road to make sure no car would pass. Cars had to drive slowly in the snow.

Our baby was due mid-February; in the last month I had to open the window in our bedroom as I needed fresh air, even though it was freezing outside. Franklin’s parents had arrived early in February. Franklin’s dad went to his sister in Bedford, Massachusetts, luckily, Franklin’s Mother stayed because my water broke in the middle of the night. Franklin drove me to Waltham Army Hospital, which was on the other side of Boston. He stayed just an hour as my pains were every five minutes. I spent the whole day there. Franklin returned after his classes, but they told him to go home. The baby finally arrived shortly before midnight, I remember the nurse saying “he is going to be a football player with those shoulders.” He was our biggest boy, 9 lbs., 3 oz., and [he] nursed very well. But after two days he broke out in a rash; he and I were put in a room by ourselves, and I couldn’t nurse him any more. Poor baby was starving; he needed more than the 3 oz. they’d give to babies. I finally got a nurse to come and let him have another bottle with 5 oz. of milk. In spite of the erythema, he ate well. They sent us home with a rash. After another three weeks the doctor gave him an injection of penicillin which cleared the erythema within a day. Luckily for us, I’d feed him for the last time at eleven, and by the time Franklin came home, the baby was ready to sleep during the night. Very seldom did he cry; he’d wake up before six AM. I would change him and feed him. And then [I] got breakfast for the rest of us.

After school ended JoAnne would watch me bathing the baby, who we named Christopher. Franklin was still busy in school, but the kids were able to play. July 5, I came down with a fever, sore throat, and aches. Franklin found a doctor who said it was flu and gave me an antibiotic. I didn’t get over it and went to Murphy Hospital to see a doctor after three weeks. He wanted to keep me there, but I couldn’t leave.
the children. But I was miserable; I ached all over, could barely turn over in bed, and lived on aspirins. Franklin called his parents who came to our help, and I finally ended in the hospital. They said that I had had strep throat, but they weren’t definite about rheumatic fever or rheumatic arthritis. I couldn’t cut my food, but after three weeks I felt better. Franklin brought the walking children to let me see them outside: Craig picked some little weeds to give to me, which Franklin brought in. When they left I cried; I missed them terribly. When I finally was discharged Franklin insisted on getting me enough medicine for six weeks. Franklin’s parents had left when I got home, and even though I couldn’t do much, I was able to pack. Franklin had to shop with JoAnne; she needed a coat, etc. The movers came and we left Boston for New York, where we met Franklin’s dad, who had come up by train. The next morning Grandaddy dropped us off at the pier, where we boarded the Queen Elizabeth and left for France.

It was a wonderful trip. We had a large state room for all of us. During the day it was warm enough to be out on deck after breakfast; Chris we could leave in the nursery, where he was the only baby and well taken care of. The others played shuffleboard; there [also] were movies, ping-pong, etc. For Franklin and myself it was a wonderful, relaxing trip, which we both needed. When arriving in Cherbourg, all of us, all packed, waited for the lifts to take us up; Craig couldn’t wait and got into one that was already full. I thought I’d die, Franklin ran up the stairs where he found Craig halfway between the rails, looking as the ship docked. He brought him back down, and we all went up together.

After debarking we took the boat train to Paris, where two of my cousins met us, helped us into two taxis with ourselves and luggage, and deposited us at the Gare de l’Est, where we took the train to Luxembourg. When we arrived my parents, Fernand, and Josette’s grandparents, close friends of my parent’s, waited for us [until] close to midnight. We were all tired and glad to get to bed.

The six weeks we were in Luxembourg were great; how my parents managed I don’t know. My mother did have a cleaning girl, and a widow from across the street came in every day to help. We had the usual Luxembourg breakfast and a big lunch [with] freshly made soup, an entrée, and dessert. We did go out in the afternoons to visit friends and relatives, and were able to use cars once in a while which we borrowed from friends. There were no cars for hire, and once I recovered, we walked. We were invited out also. My father’s cousin Alice drove us into the Ardennes; we ate in Wiltz, which showed damages from the Battle of the Bulge. We did a lot of walking through the woods and stopped to have a “Schmier,” which we usually had in the evening. Bread with ham, sausage, cheese, etc. In the morning I fixed Franklin bacon and eggs if he wanted it. Chris gained a lot of weight and enjoyed being wheeled in a European pram on his stomach, head up, looking around. My father would take Bub and Craig at times by train to the “Parc Merveilleux,” and [they] returned happy and filled. Bub’s birthday was celebrated there, and we got him a scooter, different from US ones.
Back to Dayton

When we left, my good friend Niny Dupont brought gifts to all the kids: a doll for JoAnne, a small harmonica [for Craig], and a guitar [for Bubbie]. Edmond’s friend lent us his car to drive to Paris; my mother came along and we spent the night in Chelles, outside of Paris, where my cousin lived. We left early for the train in Paris; Edmond and his friend met us at the train, and we had a tearful farewell. The train took us back to Cherbourg where we boarded the Queen Mary. This was in the latter part of October when it was too cold to be out, although we did walk on deck. We also celebrated Craig’s birthday with a cake the cook had made for him. In New York Franklin’s dad waited with the car. We drove to Westminster, where we spent just two days before returning to Dayton, where our furniture awaited us, and we quickly settled in. JoAnne and Bub started school; JoAnne 4th grade, Bub 1st grade. He had learned to print in kindergarten, but he learned quickly to write also. In 2nd grade his teacher, Miss Pipstick, was so impressed with him that she asked me to have him tested at Dayton University, which I did, and we were amazed that he tested 138: 140 was genius. She told me of a good school in Cincinnati that she wanted us to send him. Franklin and I thought very quickly that we didn’t want him to go away from us. His teacher was understanding, but we just couldn’t think of parting with our cute boy, who we loved like the others; we just couldn’t imagine being without one.

JoAnne made her First Communion at St. Helens Church, and we celebrated it, even though my family couldn’t make it. Franklin was busy with his work; I helped in school during lunch, and in [the] summer I took the children for swimming lessons: Chris was too young, but even Craig was able to learn. JoAnne had already had some, but had to continue taking more of them. [The] kids enjoyed it; Chris stayed in the baby pool. We also spent a week with Franklin’s parents. The following year Bubbie volunteered me as den mother, so he became a Cub Scout.

Whenever I was involved with anything, I had to take Franklin to work since we only had one car. Sometimes he was able to get a ride, which made it easier for us all, [otherwise] it meant taking the kids along, so we were busy.

When Chris was two years old he managed to get up early, climbed on a chair in the kitchen, from there on the kitchen counter to the refrigerator, where he opened a door to a cabinet where he took out our vitamins and managed to eat them. He then came to our bed, and when I saw his mouth I went to the kitchen where I found the bottle. I couldn’t make him vomit, so he had his stomach flushed. It taught him a lesson, and I had to hide the bottle, although I doubt he would have gone through [having] his stomach flushed again.

The children continued taking lessons at the base every summer: swimming, golf, and tennis; it kept them busy. When JoAnne was eleven I noticed that she seemed to have some itching, and Craig was yawning a lot. Instead of waiting for before starting school, I made appointments with their pediatrician, who said that JoAnne was going into puberty, but Craig needed iron supplements. We took our break in Westminster, and when we returned JoAnne saw an advertisement for children to appear in the
King and I, which would come to Dayton, and it seemed to perk her up so I agreed to take her. She talked Bub into coming also. It was a hot day, and we had to wait in line. After an hour I was ready to leave, but Joanne wanted to stay. I had to go and put another quarter in the parking meter. When I returned JoAnne had fainted; she looked very pale and we left right away. The following day, a Saturday, she’d perked up. I called the pediatrician, but was told he was on vacation. Franklin wanted to take us all on a trip to look at some mounds in the area. JoAnne wanted to go, so I made sandwiches for a pique-nique. JoAnne ate, but also drank a lot; it was a hot day and we were glad to get home. The following day we went to church, but JoAnne was listless. That night she threw up; I gave her some coke, but she took a while before she fell asleep. I called our general doctor early, but he was out. So I called our neighbor across the street and asked her to come and stay with the kids. She came right away. I awoke JoAnne and drove to the air force hospital where they took her to a doctor at once. He called the pediatrician; JoAnne’s vomiting had left her weak and thin. She was admitted at once, and I couldn’t see her; I just prayed. She had lost consciousness, and they had called a priest. I called Franklin, who was able to get a ride from Wright to Patterson. I didn’t know what was going on until the doctor came out and told me she had diabetes. I was able to see her and she seemed quite perky; she was glad to see us, but we were so happy. I called our home, and was able to stay until I was sure she was stable. The doctor (Dr. Connelly) told me that they would keep her until she was able to give herself the injections. At the time they couldn’t test the blood by finger, so she had to check her urine and see the doctor every six weeks to have blood tests done. It has improved so much since then. Dr. Connelly asked if she would write a small essay about her stay in the hospital. She wasn’t afraid during her stay; apparently some children were. She came home and she picked up rapidly. She gave herself the injections into her legs; she also tested her urine with strips and had to have her blood tested every six weeks. We had to watch her to be sure she’d wake up if she had too much insulin. In that case we had to pry her mouth open and give her a spoonful of sugar in orange juice. I gave her injections for a while, and so did Franklin. The syringe had to be sterilized each time, which I did in a special dish. It had to be boiled for 5 minutes. It took us three a while to get used to diet, etc. Dr. Connelly told me that on special occasions, she could eat cake. (Birthday).

The night after JoAnne was hospitalized Chris came down with a fever and earache. The next morning I took the boys to the base hospital. Chris had otitis and it was a good thing I arrived in time, as he could have punctured his eardrum. We couldn’t see JoAnne, so Franklin saw her that day.

The rest of the summer was fine. My brother Edmond visited us in Dayton, as well as a friend of mine, Jean Dupong, who became Minister for Health and Education in Luxembourg. The administrator of AFIT asked me to talk to the wives of the students, who had apparently some problems; having a husband studying during the time when they expected help with children, etc. I gave a short talk about what I
did during Franklin’s years, and also mentioned that being an instructor’s wife wasn’t much different. Franklin still had the blackboard up; getting ready for his classes that he taught. He was always well prepared and was voted the best instructor at AFIT.

During the summers the children took swimming, tennis, and golf lessons again. It kept me very busy, but the kids enjoyed it. Bub and JoAnne joined the base swimming team called the *Flying Fish*. They swam during winter. JoAnne took ballet also. They had lots of friends in school and in the neighborhood. Craig had started school at St. Helens with one of our neighbor’s children, and we were able at times to drive the kids [together]. Living close to the base was really wonderful for the children; even Franklin was able to play golf once a week. And Franklin was promoted to Lieutenant Colonel; we were delighted. While we were in Dayton we used a widow as a babysitter since there were parties, usually at the end of the quarter at school, and we did go to the movies at times, as well as dances at the officers’ club. The last year Franklin was at AFIT he heard about a job in Paris; he went to an interview in Washington, D.C. with Dr. Wattendorf. He must have made a good impression, as he did [get] orders to go to AGARD, in Paris.* My parents were delighted at the news. I was apprehensive for a while, since we hadn’t heard from our sponsor, the person Franklin was replacing and who was supposed to give us information about housing, schools, etc. We never heard from him, but the Deans, neighbors of ours, had visitors, the Timmers, who were on their way to Paris [and they] were glad to inform us; that really reassured us, especially having a clinic and schooling. We sold our house for less than we bought it for. We gave some of our furniture away, and some went into storage. We left one afternoon; [drove] just across into Kentucky and spent the night. The following day we arrived in Knoxville where Franklin’s brother and family lived. They had a big house and we stayed for three days. We played ping-pong with the twins and went up into the Smokies; saw lots of bears who came up to the windows wanting snacks to eat.

Then [we went] on to Westminster to spend ten days before leaving for Paris, by way of Greenland. It was an 18-hour flight. Paris was very hot when we arrived.

*Marie-Anne’s memoirs end at this point.*

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*AGARD was the Advisory Group for Aeronautical Research and Development, a part of NATO.*

(ECD)
Appendices
Ernest Franklin Dukes, Jr. Chronology

25 Oct. 1889 Franklin’s father, Ernest Franklin Dukes, is born in Centreville, Maryland

1 Mar. 1893 Franklin’s mother, Alice Ensor Beacham, is born on Avondale Farm outside of Westminster, Maryland

3 May 1917 Franklin’s father enlists in the US Army at Fort Meyer, Virginia

17 Nov. 1917 Franklin’s parents are married in Richmond, Virginia

13 Apr. 1920 Franklin is born on Avondale Farm outside of Westminster, Maryland

Sept. 1920–May 1921 Lives in Fort Riley, Kansas while his father attends the Cavalry School

May 1921–1927 Lives in Fort Brown, Texas

21 Sept. 1921 Franklin’s brother, James Beacham Dukes is born

1927–1931 Family moves to Fort Riley, Kansas while his father attends the Advanced Course of the Cavalry School

4 Nov. 1931 Leaves New York for the Philippines; arrives on 25 December 1931

Mar.–Apr. 1933 Travels to China and Japan

Apr. 1935 Leaves the Philippines for Buffalo, New York

This is How it Was

Sept. 1938  Enters college at the University of Rochester

June–Aug. 1940  Summers with parents at Ft. Ethan Allen, New Hampshire

June–Aug. 1941  Summers with parents at Ft. Leavenworth, Kansas

10 Apr. 1942  Enters service at Camp Upton, Long Island, New York

Apr.–Sept. 1942  Trains with the 6th Armored Division at Camp Chaffee in Arkansas

Sept. 1942–Mar. 1943  At the Desert Training Center in California with the 6th Armored Division

Mar.–June 1943  At Camp Cooke, California with the 6th Armored Division

June–Aug. 1943  Attends Aviation Cadet School at Boca Raton, Florida

Aug.–Nov. 1943  Attends Army Air Force Technical School at Yale University, New Haven, Connecticut

11 Nov. 1943  Appointed 2nd Ltnt.; leaves Yale for Blythe AFB

Nov. 1943–Apr. 1944  At Blythe AFB, California

31 Mar. 1944  Leaves Blythe AFB for England

Apr. 1944–Feb. 1945  With the 34th Bomb Group of the 8th Air Force at Mendersham Air Base, England

16 Oct. 1944  Promoted to 1st Ltnt.

26 Feb.–23 Apr. 1945  Attends Ground Forces Training Center in Fontainebleau, France

Apr.–July 1945  With the 106th Division in France and Germany

July–Aug. 1945  With the 118th Infantry at Dole, France

Sept.–Nov. 1945  At the Luxembourg Leave Center; meets Marie-Anne most likely on 1 Oct. 1945, a Monday


Jan.–Oct. 1946  Hqs. WBS, Paris, France; lives in Hotel Jubile, 125 Camps Elysees in Paris

28 June 1946  Appointed to the Regular Army
Ernest Franklin Dukes, Jr. Chronology

14 Sept. 1946  Marries Marie-Anne Doos in Luxembourg, Luxembourg

Oct. 1946–July 1947  4th Tactical Air Command, Bad Neustadt, Germany; lives with Marie-Anne at 21 Hedwig-Fichtel-Strasse, Bad Neustadt an der Saale, Germany

20 July 1947  Leaves Bad Kissingen, Germany for the United States


Sept. 1947–Aug. 1948  Moves to apartment on 126 James St., Greenville, South Carolina. Assigned to 316 Troop Carrier Wing in Greenville, and then 934th Signal Battalion.

21 Apr. 1948  Daughter Joanne is born in Greenville, South Carolina

Aug.–Nov. 1948  Moves to Eglin AFB to participate in Operation COMBINE III; family lives in Ft. Walton Beach, Florida

Nov. 1948–Feb. 1949  Moves back to Greenville, South Carolina

Feb.–Apr. 1949  Attends Radiological Defense Course at Keesler Air Base while living with family in motel at Biloxi, Mississippi

Apr.–Aug. 1949  Attends Air Tactical School at Tyndall Air Base while living in cottage with family at Mexico Beach, Florida

Sept. 1949–Feb. 1950  Takes the Nuclear Technical Training Course at Sandia Base while living in house on 515 Washington St., Albuquerque, New Mexico


27 Jan.–22 May 1951  Marie-Anne and Joanne visit Luxembourg while Franklin is in Eniwetok

Feb.–May 1951  Participates in the GREENHOUSE nuclear test at Eniwetok

4 Oct. 1951  Son Ernest Franklin Dukes III is born in Waltham, Massachusetts

Oct.–Dec. 1951  Goes to the Nevada Test Site to participate in BUSTER-JANGLE series of nuclear tests
T H I S  I S  H O W  I T  W A S

Mar.–May 1952 Participates in the TUMBLER-SNAPPER nuclear tests; family moves to Las Vegas, Nevada

Sept.–Nov. 1952 Participates in the IVY nuclear tests in Eniwetok, the first thermonuclear weapon detonation.

Mar.–June 1953 Back to the Nevada Test Site for UPSHOT-KNOTHOLE tests; family lives in motel in Las Vegas, Nevada.

June 1953–Oct. 1954 Moves to 5398 Mitchell Dr., Page Manor, Dayton Ohio. Project Officer, Vision Section, Aerospace Medical Laboratory at Wright-Patterson Air Force Base;

27 Oct. 1953 Son Edmond Craig Dukes is born in Dayton, Ohio

Oct. 1954 Buys first house at 4002 Kittyhawk Dr. in Dayton, Ohio

Aug. 1954–Aug. 1956 Attends the Air Force Institute of Technology, receiving his BS degree

Sep. 1956–Aug. 1957 Lives at 36 Joan Ct., Hyde Park, Massachusetts while attending the Massachusetts Institute of Technology

6 Feb. 1957 Son Christopher Doos Dukes is born in Waltham, Massachusetts


Oct. 1957–June 1961 Moves back to house on 4002 Kittyhawk Dr., Dayton, Ohio; Assistant Professor of Electrical Engineering at the Air Force Institute of Technology

Oct. 1958–Dec. 1958 Takes the Academic Instructor Course at the Air University at Maxwell Air Force Base in Alabama

Oct. 1959 Takes the Electronic Warfare Course at Keesler Air Force Base in Mississippi

Nov.–Dec. 1959 Takes the Weapons Employment Planning Indoctrination Course at the Air University at Maxwell Air Force Base in Alabama

June 1961–June 1965 Executive, Avionics Panel, Advisory Group for Aerospace Research and Development (AGARD) at NATO

June 1961–July 1961 Moves to Hotel de la Tour, rue de la Tour, Paris France

July 1961–June 1965 Moves to apartment at 10 Parc Du Chateau, Louveciennes, France
Ernest Franklin Dukes, Jr. Chronology


26 Jan.–6 Mar. 1967  Antarctic inspection tour in the Eastwind

June 1968  Assigned to 1035th Field Activities Group (Air Force Technical Applications Center [AFTAC])


Dec. 1968  Awarded Joint Services Commendation Medal

6 June 1970  Daughter, Joanne, marries Karl Hess

1 June 1972  Retires from service

29 May 1976  Son Franklin marries Becky Rider

9 May 1977  First grandson, Jesse Dukes, born in Charlottesville

21 July 1978  Franklin’s mother, Alice Ensor (Beacham) Dukes, dies in Falls Church, VA (Fairfax Hospital)

11 Dec. 1979  Franklin’s father, Ernest Franklin Dukes, dies in Falls Church, VA (Fairfax Hospital)

1982  Moves with Marie-Anne to Lake Monticello, 20 miles east of Charlottesville, Virginia

7 Mar. 1987  Son Franklin marries Linda Hankins

23 June 1988  Granddaughter Lenore Dukes born in Charlottesville

11 July 1992  Son Craig marries Catherine Ann Rivers

29 Aug. 1992  Son Christopher marries Carol Ann Morris

27 December 1992  Franklin baptized into the Catholic Church

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This is How it Was

1996  Moves with Marie-Anne to Charlottesville, Virginia

29 Sept. 1997  Granddaughter Sarah Rivers Dukes born in Charlottesville

7 Mar. 1999  Granddaughter Sophie Francoise Dukes born in Naperville, IL

22 June 2000  Granddaughter Alexandra Dukes born in Fairfax, VA

18 Dec. 2000  Grandson Christopher Franklin Dukes born in Charlottesville

5 Feb. 2001  Franklin dies at his home in Charlottesville, Virginia

25 Feb. 2005  Marie-Anne dies at her home in Charlottesville, Virginia
Marriages, Births & Deaths

Extracted from a family Bible of the Slingluffs which I received from my mother Alice.* I have tried to show each item as it reads in the Bible, but where I have discovered the Bible either in error or incomplete, I have added those items shown in brackets.

Marriages

On 1 December AD 1829, Isaac & Juliann (Englar) Slingluff. (Englar Juliann’s maiden name)
On 6 June AD 1854, Jesse & Mary E Weaver.
On 18th October AD 1855, Louis Philip & Ellen Slingluff. (No maiden name shown for Ellen)
On 21st November AD 1860, Ezra Stauffer & Frances Hannah Slingluff.
On 18th March AD 1861, Louis P. Slingluff and Margaret Alverda Cromwell. (My great grandparents)
On 16 November 1887, James Beacham and Nellie Slingluff. (My grandparents)
On 1st June 1901, Thomas J Stauffer and Katharine Slingluff.
On October 28th, 1905, Robert Lee Slingluff and Mary Imogen Dorsey.
On October 12th 1918, Thomas C Slingluff and Ella A Martin.
On September 23rd 1933, W. Wallace Symington Jr. and Katharine Francis Slingluff.
On September 2, 1936, Robert Lee Slingluff Jr. and Harriet McCormick.

*The Bible itself is missing, what I have in my possession is five pages of marriages, births & deaths. (ECD)
This is How it Was

Births & Deaths

Isaac Slinglu® was born 5th August 1807 in Baltr.
Isaac Slinglu® Departed this life on the 30th of April 1852. He was 44 years 8 months 25 days.

Juliann (Englar) Slinglu® was born AD 27 December 1809.
Juliann(n) Slinglu® Departed this life on the 4th of Dec December 1848. She was 38 years 11 months 17 days old. (Buried at Pipe Creek Cemetery near Union Bridge, Maryland)

Isaac Slinglu® (and) Julian(n) Slinglu® was married December 1 1829

1st Son, Louis Philip Slinglu® was born AD 1831, March 15th on Avalon Farm Fredk Co. Md*
Louis Philip Slinglu® Departed this life on the 24th day of November 1912.

Mary Elizabeth Slinglu® was born AD 1833 January 27 on Avalon Farm Frederick County.
Mary Elizabeth Weaver Departed this life on the 16th day of June 1920.

Ellen Slinglu® was born AD 1833. July 18th in Canal Davis Gascaraves Co Ohio.
Ellen Slinglu® Departed this life on the 8th of Sept 1856.

Zeke Slinglu® was born AD 1835 April 14 on Avalon Farm Federick County.
Zeke Slinglu® Departed this life on the 9 Octber 1836. He was one year four months and twenty-five days old.

Frances Hannah Slinglu® was born AD 1838 Apile 7th.
Frances Hannah Stou®er Departed this life on the 3rd day of January 1894 A.D.

Margaret Alverda Slinglu® was born 24 August 1839. Fred. Co.
Margaret Alverda Slinglu® Departed this life on the 8th day of December 1887.

1st Son Isaac Jackson Slinglu® was born on 17th Day December AD 1861.
Isaac J. Slinglu®. Departed this life on the 30th day of September 1890.

2nd Son Thomas Cromwell Slinglu® was born on 21st Day December AD 1862.

1st D. Nellie Slinglu® was born on 24th day of June AD 1866. (My grandmother)
Nellie Slinglu® Beacham Departed this life on the 15th of March 1928. 62 years

2D. Catharine Slinglu® was born on 22nd day of December 1867 AD.

3rd Son Robert Lee Slinglu® was born on 14th day of January 1877 AD.
Robert Lee Slinglu® Departed this life on the 29th day of September 1931 54 years.

Mary Imogen Slinglu® was born August 13th 1906 & died August 22 1906.

*The farm still exists and is on the National Register of Historic Places. It is being restored by the present owners. The address is 1111 Slinglu® Rd., New Windsor, MD, which is only a few miles down New Windsor Rd. from Avondale farm, where Franklin was born. (ECD)
Robert Lee Slingluff Jr. was born on the 30th day of September 1907.
Katherine Frances Slingluff was born on the 25th day of July 1910.

Children of Robert Lee Slingluff Sr. and Mary Imogen Dorsey.

Lee Slingluff Symington was born on the 15th day of March 1936. Lee Slingluff Sr. Granddaughter.

Robert Lee Slingluff III was born on the 16th day of September 1937. R. Lee Slingluffs Sr Grand Son.

Harriet Verdon Slingluff was born on the 16th day of February 1939. R. Lee Slingluff Sr. Grand Daughter.

Michael McCormick Slingluff was born on the 13th day of November 1940. R. Lee Slingluff Sr. Grand Son.


Katherine Wallace Symington Born September 13th 1945 R Lee Slingluff Sr Grand Child.


Ella A Martin Slingluff Departed this life on the 30th day of March 1919.

Thomas Joseph Stauffer Departed this life on the 29th day of August 1925 61 years Oct 25 Born 1864

From the above I conclude that:

Louis Philip Slingluff was born on March 15, 1831 on Avalon Farm in Frederick County, Maryland. In 1855 he married Ellen (last name unknown) who died on Sept 8, 1856. On March 18, 1861 he remarried, his second wife being Margaret Alverda Cromwell, daughter of Thomas Cromwell whose portrait we have hanging in our front hallway at Lake Monticello.* According to family tradition, Thomas Cromwell was a direct descendant of the famous Englishman, Oliver Cromwell the Commoner.† From this marriage my grandmother, Nellie Slingluff, was born on June 24, 1866. She married my grandfather, James Beacham, on November 16, 1887, and gave birth to my mother Alice Beacham on March 1, 1893 at Avondale Farm in Carroll County, Maryland. Alice Beacham married my father, Ernest Franklin Dukes, on

*The portrait now hangs in the house of my brother, Christopher. (ECD)
†Thomas Cromwell was a direct descendant of the grandfather of Oliver Cromwell. The lineage goes as follows: Thomas Taylor Cromwell (1814–?), Philemon Cromwell (1768–1851), Joseph Cromwell (1741–1783), Joseph Cromwell (1707–1769), William Cromwell (1678–1735), William Cromwell (1655–1685), Henry Cromwell (1586–1657), Sir Oliver Cromwell (1566–1655), Sir Henry Cromwell (1516–1603). Sir Henry Cromwell’s son, Robert Cromwell, was the father of the Great Commoner. Note that Henry Cromwell went to Virginia in 1620! (ECD)

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November 17, 1917 and gave birth to me, Ernest Franklin Dukes, Jr., at Avondale Farm on April 13, 1920 and to my brother, James Beacham Dukes, at the Army Hospital at San Antonio, Texas, on September 21, 1921. I married Marie-Anne Henriette Françoise Doos* at Luxembourg City in the Grand Duchy of Luxembourg on September 14, 1946. Our marriage was blessed with four children, Joanne Dukes, born on April 21, 1948 at Greenville, South Carolina, Ernest Franklin Dukes, III, born on October 4, 1951 at the Army Hospital in Waltham, Massachusetts; Edmond Craig Dukes, born on October 27, 1953 at Dayton, Ohio; and Christopher Doos Dukes, born on February 6, 1957 at the Army Hospital in Waltham, Massachusetts.

Ernest Franklin Dukes, Jr.
Sept 27, 1994

*A few words on Mother’s name. We always knew her to be Marie-Anne, although Franklin always pronounced it Mary-Ann. However, her Liver die Famille has her name spelled Marianne, as does her police registration form (Strasregisteramt) issued on 18 Nov. 1946, and a report card issued in 1940, as well as several other documents. A Carte de Légitimation issued in 1945 and a passport issued in 1946 have it as Marie-Anne. Did mother decide to change the spelling of her name to the (less Germanic) French Marie-Anne during the war? Or are the multiple spellings inevitable in a country where everyone speaks three languages? (ECD)