

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT
APPENDIX B

EUGENE G. EDMONDS

THE MEMOIRS

OF

EUGENE G. EDMONDS

CONTENTS

Chapter 1.	Early Life	1
Chapter 2.	Entering the Military	7
Chapter 3.	Prisoner of War	20
Chapter 4.	The Long March to Liberation	33
Chapter 5.	Return to Civilian Life	62
Chapter 6.	Joining NASA	75
Chapter 7.	Recoveries and Reorganizations	98
Chapter 8.	Move to Texas	115
Chapter 9.	Apollo	128
Chapter 10.	Skylab and Many Changes	147
Chapter 11.	The Shuttle Years	158
Chapter 12.	The Road to Retirement	175

PROLOGUE

Over the years, while working on my family genealogy, I have collected hundreds of pieces of paper, letters, charts, lists of names and dates, and copies of wills and other legal documents from friends, family records, Bibles, and library books and microfilm files. Countless times I would take a name and try over and over again to fit it into place like a piece of a jigsaw puzzle. Even though I knew the last name, often I would not know the person's age, parents' names, or date of birth. For instance, I handled the name James Warren Edmonds for years before I realized that Virginia Frances Barrott--another name I had shuffled around for months--was his wife. Last year I learned their birth dates; this year I found that they were married in 1858 and had eight children. Finally, I discovered that he was my great grandfather and was born in England.

Somehow I became attached to some of the names more than others and kept wondering what kind of personalities went with those names. I became aware of how even a will can reveal so much about an author's personality after reading one written in 1821 by an ancestor on my mother's side of the family.

When I thought about James Warren, I wondered if he was a good husband and father. Did his family love him? Did his

neighbors think well of him? Was he understanding and compassionate to others? What did he and Virginia look like and what kind of life did they have together? What was their religion?

Perhaps, in the year 2150, someone working on somebody's family tree may say, "You know, I keep coming up with this name Eugene Gardner Edmonds, born February 29, 1924. That was a leap year. I wonder what he was like and what life and times were like that long ago?" Maybe somewhere, sometime, that person just might find those answers if their research should lead them to this account of my life to date.

--Eugene Edmonds

CHAPTER 1 EARLY LIFE

My parents, Annie Laurie Hudgins and Septimus Eugene Edmonds, were married in Mathews County, Virginia, in April, 1923. My mother lived in Mathews in a small four-room house (with porch and attic room) with her mother, father, and sister Elizabeth. My dad lived in Baltimore, Maryland, and worked on a commercial steamboat (cargo and passenger) that ran from Baltimore to West Point, Virginia. In a new Model T Ford, he drove the 30 miles from West Point to Mathews to court Annie Laurie. A month after the wedding, Mother moved to Baltimore, where I was conceived shortly thereafter. She returned to Mathews before Christmas to await my arrival. After I appeared on the scene, Dad quit the boat and began doing painting and carpentry for a local house builder.

I was born on February 29, 1924. Since the 29th falls only on leap years, I didn't have my first birthday until 1928. At the party, I had my picture taken by a professional photographer, who posed me on a stump in the front yard. I remember that we had a freezer of homemade ice cream.

In 1930 my grandfather Walter Buck Hudgins died of a heart attack while he and I were eating breakfast. A few months later, Dad accepted a job in the next county, Gloucester, on a large 650-acre plantation located on the water. Eagle Point, as

it was called, was owned by a Wall Street millionaire named Rollins. He hired Dad to take charge of his large yacht, his speedboat, and several smaller boats. The "big house" had twenty-five rooms, twelve bathrooms, and three separate "upstairs," each with three rooms and a bath. Each of the two sons had his own "upstairs," with the third used for guests. There was a large Delco generator that provided electricity for the big house. We had never seen electric lights or a refrigerator before.

We lived in a large two-story home called the "field house" about a mile away. My grandmother Corena lived with us. I started school in September, 1930. Our schoolhouse consisted of two rooms, two teachers, six grades, and about thirty-four kids. Each teacher had one room and three grades. The teacher would teach English to each row in turn, then start over with arithmetic, and so on. We joined the local church, which made it necessary to switch from Methodist to Presbyterian.

Nineteen thirty-three was a big year in our lives. We had moved to the "Point" house (surrounded by water, literally), and my brother, John Walter, was born there on February 25th. Mr. Rollins had survived the 1929 stock market crash but was forced to sell the yacht and the speedboats, close the big house, and move his family back to New York. Before leaving, he appointed Dad overseer of Eagle Point, and we moved to the foreman's house next to the big house. The only other people who lived at Eagle Point were the Gunns--Boyd, Claudia, and

their daughter Janice. David White was another full-time employee, but his family--his wife Susie and daughter Frances--lived about six miles away. Approximately ten colored employees reported to work daily--some part-time and some full-time. We had a major flood that summer. My cousin Virginia and I swam in and out of the house through windows that were five feet from the ground.

The next few years were great for me. I was ten years old and enjoyed fishing, swimming, pets, and summer visits from my cousins Virginia and Marie (from Hampton) and Elizabeth (from Maryland). We had kerosene lamps for light and a small pot belly stove in each room for heat. Our family was very religious, and it seemed that everything except eating, breathing, and going to church was a sin. Anyone who played cards, drank, or looked at a woman in the wrong way was doomed to spend eternity as Satan's guest. I couldn't sing anything but hymns on Sunday. We were poor but always had food and clothes, and fared better than many. In 1936, when I was twelve, I graduated from the sixth grade and was salutatorian of my class at our commencement exercises. That was the last scholastic honor of any type I ever received. I really think it was a case of being the smartest of the dummies.

In September I started the seventh grade at Botetourt School at Gloucester Court House, the county seat. I rode the school bus from our post office, Naxera, which was about three miles from our house. In 1937 we moved to a house near Short

Lane post office after leaving Eagle Point. I started Botetourt High School in September. Sometime during the school year we bought 2½ acres with a fairly new four-room wood-frame house on Tidemill Lane (three miles outside of Hampton) for \$1200. Dad started a new job at a college, the Hampton Institute, as a painter for \$24 a week. I transferred to Hampton High School. I had developed a pretty good personality and didn't have any trouble adjusting.

We did not have a bathroom in the house, so it was back to the outside two-holer and the Sears catalog. My grandmother was still living with us, so I slept on a fold-up sofa in the living room. We adjusted to our new suburban living and life went on. We joined the Hampton First Presbyterian Church, I got a learner's driving permit in 1938 and spent a lot of nights in town with Virginia and Marie at Aunt Elizabeth and Uncle Henry's home on Elizabeth St. near the high school. In the summer of 1939, I worked on Uncle Henry's deep-sea trawling boat, the Malola. I made one last trip in early September, which made me late starting school. On the way back to port, we heard on the radio that the British had declared war on Germany.

On February 29th, 1940, I celebrated my sixteenth birthday (technically my fourth). I remember driving my date home in our old Model A Ford that jumped out of gear every five minutes if you didn't hold the stick shift. Soon after that, we rented out the house and moved into a rented home on the highway leading

into town. (I don't know why we moved. Maybe it was because the new place had a bathroom.) That summer I did some yard work for pay and later got a job in a Pender's grocery store. I worked twelve hours each Saturday for \$2.75 (before withholdings). I was a good salesman but later quit when I found that the manager had been skimming 25 cents off the top of my pay each Saturday.

Later in the year, we moved to 47th St. in Newport News, where Mother started a boarding house for shipyard workers. Thousands of young workers came up from North Carolina. They would work all week, head back home on Friday afternoon, and return to Newport News on Sunday night. My mother filled all the rooms of the three-story house. There were about five guys to a room for a total of about thirty roomers and over a hundred for meals and lunches every day. I slept in one of the halls under a hanging curtain. I rode the streetcar back to Hampton (ten miles) each day. I kept the move to Newport News secret so I could remain in and graduate from Hampton High the next June.

It was a hectic year for me, but I did graduate on June 1, 1941. I then worked full-time in the Young Men Shop--a clothing store on Washington Ave. I did well, but I heard of job openings at the Glen L. Martin aircraft factory in Baltimore. My close friend J.C. Forrest and I went for an interview, were hired, and reported for work, all within a month. We found a rooming house in Waverly and rented a room on the third floor.

Room and board (with a lunch) was \$9 a week. My starting salary was \$18.50 per week. Carpooling was \$2, which left me \$7.50 to live on. I quickly adjusted to the new lifestyle and was very happy with the new job. A year later J.C. married a girl from Hampton, and I moved in with them to help share the expenses. We lived in Govenstown, a suburb of Baltimore.

I went to church, made many friends, and worked out daily at the YMCA with my coworkers. Then it happened. I was touring the U.S. Naval Academy at Annapolis with a girl from church one Sunday afternoon when the loudspeakers asked all visitors to leave immediately. As I drove through the gate in a borrowed car, I asked the guard why we had to leave. He replied that the Japanese had attacked the naval base at Pearl Harbor. As we headed for Baltimore, I asked Lydia the same question asked by millions of Americans that afternoon, "Where is Pearl Harbor?"

As the months passed in 1942, more of my friends left work and went into the service. The military forces expanded, and by the end of the year they landed in North Africa. By the end of January, I returned home to wait for my call from the draft board. By quitting the aircraft factory, I forfeited my military deferment. As we later joked when telling about entering the service, I got my patriotism and stupidity mixed up. After a couple months, I received a letter from the president: "Greetings--We want you." My life was never the same after that invitation.

CHAPTER 2 ENTERING THE MILITARY

I reported to a military induction center in Richmond, Virginia, for mental and physical examinations in late March of 1943. The next day I was officially inducted into the U.S. Army Air Force and given a few weeks leave before reporting to Camp Lee, Virginia, for active duty. After a sad goodbye to my mother, father, and girlfriend, I entered the gate to the unknown. I quickly found out that my life no longer belonged to me. My long curly hair was the first to go.

Next I began basic training on May 2. I wasn't sure what to expect, but I certainly never expected to be sent to Miami Beach and housed in two of the finest hotels on the beach--the Cadillac and the President Madison. After twenty-one days of practicing close-order drill, we failed our passing review test and had to start over. Oddly enough, no one seemed to mind.

Of course, it couldn't last forever, and after passing our next test, it was on to Amarillo, Texas, and aircraft mechanic school. Here we experienced many sand- and snowstorms during the winter of 1943. I had never seen such high snowdrifts. I tried to learn something about a B-17 multi-engine heavy bomber, whatever that was. We studied Wright Cyclone 1200-horsepower engines, hydraulic and brake systems, and everything else about that airplane. The sad part was that they did not

make us understand how important it was to learn and remember what they taught.

We were given our PFC stripes and diplomas after five months, along with the title of aircraft crew chief. Some used the new title aircraft engineer, but that seemed too high-tech for me. Normally, the crew chief flew in the top turret and assisted the pilot and copilot in takeoff and landing, fired formation flares, checked oxygen and all fluid systems levels, and generally kept an eye on the entire aircraft.

Next we were sent to aerial gunnery school on Jan. 25, 1944, in Kingman, Arizona. Here we had weeks of classroom work, and then we were sent over to Yucca in the Death Valley area, where we actually flew B-17s for the first time. Each day we would load our 50-caliber guns and fire at either air-to-air or air-to-ground targets. In addition to learning how to fire the guns, I also learned how to scrub out the waist and other gun stations of a B-17 after being sick during the flight.

I completed the school on March 20, receiving my corporal stripes and my first furlough. I headed for home after one year of military life. Things would never really be the same again, and even though it was great to be home, I was happy to report to Lincoln, Nebraska, and wait to be assigned to a combat training crew. After assignment, I shipped down to Ardmore, Oklahoma, where all of the crew finally arrived and we started serious flight training on May 17. We flew day and night, including some very long, high, and tiring missions.

We had been assigned two crew chiefs. For the first two weeks, I rotated positions with Corporal "Pop" Donnally. He was six years older than I was and much more mature and serious. So I felt that the pilot, Lieutenant Harold Johnson, made the right decision when he appointed Donnally the crew chief and put me on the second waist gun. After another week I was told to train in what was by far the worst position on the plane-- the lower ball turret.

After spending ten days in that hell hole, Lt. Johnson told me to return to the waist gun permanently so that I would be quickly available to back up Donnally in the top turret. And that I was also now qualified to back up Flammer in the lower ball turret. I was really happy with the situation. We flew 150 flight hours, received our first wings, were given our last furlough, and then reported back to Lincoln to wait for our own plane and receive orders for overseas.

The big day came on August 14th, when we received our new B-17G and were ordered to England. We departed the morning of the 16th and flew for four days, stopping in Manchester, New Hampshire; Gander, Newfoundland; Reykjavik, Iceland; and Valley, Wales. On the way to Iceland, while we were flying at 13,000 feet one night, ice began to form on the wings. The pilots forgot to turn on the wing de-icers and slowly the ice built up, causing the plane to decrease speed until it went into a stall and the nose suddenly dropped straight down. The copilot started to pull the nose up and Johnson hit his hands

quickly and pushed the controls forward, sending the plane into a dive in order to pick up enough speed to regain flight control. He went straight down to approximately 4000 feet and a speed of 200 knots before they both pulled back on the controls. The plane leveled off and climbed back to the original altitude. Believe me, no one slept anymore that night.

We spent several days receiving so-called overseas orientation and then it was on to our newly assigned permanent airbase and organization. We arrived at a base near Polebrook, England (15 miles from Peterborough), which housed the 351st Bomb Group. The 351st comprised the 508th, 509th, 510th, and 511th squadrons. I was assigned to the 511th. After a couple of training flights, Lt. Johnson was instructed to remove his backup crew chief, since they were currently flying only nine-man crews. I said goodbye and was put in a flight pool where I'd be available to fly on a daily basis until I was assigned to a permanent crew. That was a frightening and lonely situation.

I was spending some time in the squadron room one day looking over some of Captain Clark Gable's memorabilia. He had flown several missions, taken motion picture film, and had left just before I joined the group. While looking at some of his still pictures, I overheard a first lieutenant asking for a crew chief to fly a special checkout flight to northern England. I was very happy to go, since there were to be only

three people on the flight. I even got to fly the plane for an hour.

Two days later I flew my first real mission with a crew that was making its last--35th--mission. Their crew chief was late getting back from a three-day pass and I was a last-minute replacement. It was amazing how smoothly they operated as a crew throughout the flight. I was nervous and scared, and I tried to act as if I knew what I was doing. We were the lead plane for our 94th Combat Wing, which consisted of our 351st and two other bomb groups, the 401st and the 457th. All went well, with an average amount of flak over the target. At least, they called it average, but I thought it was heavy. I'll never forget how beautiful the White Cliffs of Dover looked as we returned to England that afternoon.

I was promoted to sergeant after my first mission and was sure that I would be assigned to a permanent crew any day. However, I couldn't have imagined what was about to happen. A crew returned from the States and volunteered to fly a second tour of duty. The officers were all at least captains, the enlisted men technical sergeants, and they were fresh from a hero's welcome and a bond-selling tour back home. They would only fly as the lead crew on designated missions. On their first mission, the crew chief had been seriously injured and removed from the crew. You guessed the rest.

The pilot was in the hospital for a checkup when I met him. After giving me a 24-hour pass, his parting words were,

"Don't let them make you fly on a maximum-effort mission until I get out of here." He was referring to a type of mission where every possible plane and man, sometimes including cooks, chaplains, and truck drivers, take off. I might have exaggerated a bit, but some of those people did fly on missions. I took the subway down to Oxford to see an old friend that used to live in mother's boarding house in Newport News. He worked as an aerial photographic processor.

Bing Crosby and troupe entertained at his base Friday afternoon. Upon returning to Polebrook late that night, I saw that a mission was posted for Saturday, Oct 7th. Of course, that didn't affect me, so I went to bed thinking about the leisurely day of bike riding that I had planned for the next day. I had just bought a bicycle left by a barracks mate who was shot down earlier in the week. Everyone left the barracks for breakfast around 1:30 a.m. after receiving the dreaded mission wakeup call. Around 2:30, someone woke me and asked for Sgt. Edmonds. I told him that he wasn't here and went back to sleep. Twenty minutes later an MP hit my bunk extremely hard with his night stick and asked to see my dog tags, after which he ordered me, none too nicely, to get the hell out of that bed and dress for a mission on the double. Of course I explained why I couldn't fly, after which he grabbed my arm and said this mission had been declared a maximum effort, and "I don't give a damn if God told you not to fly, you're coming with me, now." This presented a different situation.

He drove me by the mess hall, and I picked up ten box lunches--part of the crew chief's duties--and went directly to the plane, which turned out to be new and had no name or prior missions. I climbed up through the nose door, bringing with me the box lunches, of which I hoped to use the tenth one for my breakfast. First I checked out my equipment and personal items. I had on my new leather A-2 jacket, which I took off and hung up near the turret. I felt my little English New Testament, my escape kit, and my .45 pistol. A little after 5 a.m., the pilots yelled, "Start engines." Suddenly, I knew I wasn't going to convince any of them that I wasn't going to fly the mission.

Upon facing reality, I turned to the pilot and tried to explain my problems to him, but he wasn't in the mood to listen. He said, "Later. For now do your job and let's get these engines running so we can take our position for takeoff. It's going to be a long rough day." Little did we know just how long and how rough. After we reached our flying altitude and all planes were in formation, I toured the aircraft and spoke to everyone, gave out the box lunches, and mulled over the information I had accumulated.

We were going to bomb the synthetic oil plant in Politz, Germany, which was located ninety miles north of Berlin near Stettin. It would be a very long mission, around twelve hours. Yes, it was a maximum effort all right. A normal 351st mission put up 35 to 38 aircraft; today 47 planes had taken off from Polebrook, led by Lt. Col. Glawe. Our pilot, Lt. Merrill

Danford, was on his 26th mission and had a daughter back home that he had never seen. He did not even know the copilot, Lt. Robert Ayyette.

While we were crossing the English Channel, I removed my flight cap and oxygen mask for some reason and, with a little sun on my face, looked directly toward the top turret gunner in the plane on our starboard wing. A few minutes later, after a quick exchange between the pilots, I was informed that my old crew (enlisted men only) was in the other plane. Suddenly about four 50-caliber machine guns, including mine, were moving up and down in recognition. Approaching the coast of Europe, we turned and flew a northeasterly course, which took us to the North Sea, where we turned right and headed eastward across the northern tip of Germany.

As the morning dragged on, we grew tired and restless, and the strain began to mount. As we passed south of Denmark and Sweden, the clouds broke and we saw the ground. We turned south and headed for the target. All was quiet. I just stood in my turret, turning and looking in all directions, enjoying the sunshine while I could. Through the constant drone of the engines I thought about the poor navigator, Lt. Mike O'Shea. This mission was a repeat for him. On August 9, his 14th mission, he had been forced to fly a maximum effort with a strange crew. Their plane had been hit over the target but apparently they did not suffer any significant damage. Then suddenly as they approached the English Channel, two engines

quit and one caught on fire, forcing them to bail out halfway across the Channel. Just before darkness, after giving up all hope, they were rescued. But not before one of them drowned in the overcrowded dinghy. I remembered being told that the second jump was more difficult than the first. Mike said he didn't know anyone on the plane and had not even seen them all during this flight.

The silence was soon broken when the pilot spoke on the intercom: "Target in sight." As we approached the IP, or initial point of the bomb run, someone sighted two large groups of B-17s coming in from the south and heading for our target. I later discovered that their target around Berlin had been closed in and this was their alternate one. Following an exchange of messages, we were told to make a 360-degree turn. We made a long, slow left turn and came back to the original IP about twenty minutes later. By this time, the other planes had passed over the target and every flak gun in the German 6th Flak Brigade around the second largest oil refinery in Germany had calibrated the exact altitude and flight path of our bombers; thus, the fuses on the anti-aircraft shells had automatically been cut to explode at the right time.

I will always believe that the leader in the other two groups outranked our leader. That was one of the longest twenty minutes of my short life. I thought about T-Sgt. Ralph Choquette, the tail gunner. He had completed his tour of duty, 35 missions, packed his possessions, signed out from his

squadron, and was down on the flight line waiting for the arrival of a military transport plane that he already had reservations on. It shows just how desperate they could get to fill maximum-effort requirements. Poor Ralph had never even flown in the tail before.

By the time we reached the IP again, the other planes had left the target, the flak had stopped, and momentarily a peaceful atmosphere existed. But everyone knew what could happen. The pilot turned the plane over to the bombardier, Lt. Custard, and called over the intercom, "We're on the 'run'...no talking...prepare for heavy flak, and enemy fighters when we come out of it." Before he finished, the sky began to turn black before us and our anxiety turned to fear as we all realized that the black sea of exploding shells over the target had suddenly compressed to a small and seemingly solid black wall directly in front of us. It was like day had turned to night.

Our 351st group leader, Lt. Col. Glawe, refused to let us change altitude or course. Seconds later he was hit and left the formation but made it to Sweden. We were in the lower box and near the back of the formation, and just as we dropped our bombs I turned the turret forward in time to see a plane directly in front of us explode. As I turned quickly to the left, an explosive white flash burst in front of my eyes and our plane shook violently and flames began to pour from a hole in the left wing between the fuselage and the gas tanks. The

pilot asked me to describe the damage as best I could from my position. Mike O'Shea came on the intercom and said, "I have a course to Sweden. It should take about 30 minutes." Of course, we all knew that if you couldn't get back home, Sweden was the next best place to go. Silence followed, and as the night turned back to day, the plane banked to the right and left as the pilots assessed the damage.

Needless to say, all of this action took place in a very short time. As we waited for the inevitable, I noticed that our right wing plane was still flying formation on us. Then it came: "Pilot to crew, pilot to crew, bail out, bail out, and God be with you." I disconnected my oxygen mask from the ship's supply system and hurried out of the turret, forgetting to connect the emergency bailout bottle to my mask. As I went through the cockpit, I found the smoke very dense by this time and could see the pilot and copilot slumped over. I couldn't tell what their condition was. I stopped to check and realized that there was nothing I could do to help them under the circumstances, so I jumped down into the nose hatch and pressed toward the open doorway. The flak was still exploding, figures were moving before me, but as I tried desperately to reach the hatch, I was rapidly drifting off into another world. It was like the time a doctor applied a chloroform mask to my face before my tonsil operation when I was a boy. Slowly my legs crumbled and I slid to the floor, falling away from the door.

Thirty-five years later, I read accounts of the mission in the letters and flight-log excerpts of two of my old crew members, who were flying in the plane on our right. First, A.J. Smetana, the tail gunner. I had been best man for his wedding in Ardmore, Oklahoma, just before we left for overseas. He wrote, "You were leading our element of three planes. Pop told us that he thought he recognized you in the top turret. We never changed altitude as we went in. It was one dark, boiling, bursting cauldron. When we finally reached daylight, the formation was all gone. Our two planes were still together and you were on fire. Our rookie pilot tried to stay with you until Pop cursed him and told him that if you blew we would both go down. We broke away and you continued down. I never saw any chutes. I prayed that you got out but never knew until I heard from you after the war."

Next, from my old waist gunner buddy, Robert Flanagan: "My log of Oct. 7, 1944, notes that we were flying on your right wing. We did have officers of a new crew--their first mission. It was my sixth--Politz Oil Refinery four miles north of Stettin. Bomb load was ten 500-pounders. Our group was forced to do a 360-degree turn at IP because of a screwup. Flak got us real heavy. We received only light damage but felt heavy concussions. Your ship and another in our element went down in flames."

Official postwar records listed the mission as being very successful, but the loss of personnel and planes was quite

severe. Our group alone lost 7 planes, 63 men, and had 24 out of 48 aircraft damaged significantly. One of our sister groups, the 457th, also lost its leader, Col. James Luper, and three other aircraft, and suffered some degree of damage to 36 of the returning planes.

CHAPTER 3
PRISONER OF WAR

I recall that, as I regained consciousness, I was saying, "Sweden, Sweden?" That would have been heaven compared to the hell that I was really in. By this time, my eyes were focusing clearly, and I saw a shiny bayonet held to my chest. I slowly looked up and asked again, although I don't know why, "Sweden?" Then I made out the swastika on the soldier's helmet and heard him say, "Nein, Deutschland." Something told me I wasn't in Sweden.

There was nothing left to say, so I closed my eyes and tried to imagine that this was just a dream. But I was rudely interrupted with a not-so-gentle push of the blade and a command that sounded something like "get the hell up." Then, for the first time, I saw civilians standing around, two holding pitchforks and arguing with the soldiers. They had taken off my big heavy sheepskin flight jacket, pants, shirt, and of course taken the .45 pistol from my holster. My new A-2 jacket had gone down with the plane. I still had a long wool hand-knitted scarf around my neck. While I was picking up my parachute and other things, one of the civilians ran toward me with the pitchfork, but the soldier stopped him with his rifle and ordered him and the others to leave. It was amazing how my respect for the German soldiers suddenly increased.

We walked across a huge farm field, and I saw houses burning and fallen debris in the distance. Then I understood the actions of the civilians. These were their fields and homes in an isolated area of northeast Germany. What had they done to deserve this treatment? This was the beginning of a new insight, for me, into the real horrors of war. As I sat in a little room in a small building serving as a guard or sentry outpost some miles from any town, I noticed a large picture of an American flyer in the form of a monster with fangs, long fingernails, and green skin. One soldier, who saw me looking at it, spoke English. He said that the caption read "American airman who rains destruction from the sky on innocent German people." "You are one of those," he said, "so why shouldn't those people hate you." And then he left.

I patted the mud on my face. I had caked it on earlier to stop the bleeding from cuts I must have gotten from the parachute cords as they opened across my face. But how and when did the parachute open? As I sat there alone, head bowed, I tried to retrace the events of the past few hours, but there always remained the same gap in time. My last coherent recollection was my legs wobbling and head spinning as I tried to reach the open hatch. What had happened after that? Would I ever know? I relived the sequence of events over and over, and each time I seemed to see the ground spinning and sense an eerie stillness as I swayed in the parachute. It was always the same--just a brief sensation and then it was gone.

Hours later I was taken by truck to a town building, like one of our smaller city halls, complete with several jail cells. Late that night I was questioned by a German army officer who asked me what I was looking for when he caught me shaking the parachute. I told him that I was trying to find my little Bible. I had rolled it up in the chute before leaving the outpost station. When he asked me why I wanted it, I told him that I believed it would give me additional strength in the days to come. We discussed religion for a few minutes and then he said, "I will have the truck and the street in front of the building searched in the morning if it means that much to you."

As I was being locked in a cell, he told me that they had picked up several more airmen that afternoon. No one mentioned anything about food as they slammed the cell door, leaving me in total darkness. Once again, I reenacted the events of the day, and once again I never reached the hatch, but the visions of falling kept flashing through my puzzled memory. I was cold, hungry, afraid, and very lonely for a long while. The door opened and I was handed a cup of coffee, but as I raised it to my mouth the guard knocked it out of my hands with a rifle butt and departed. Once again, I lay in the quiet dark room for a another hour. Again the door opened and I was taken outside, and this time an officer drew his pistol, put it to my head, pulled the hammer back, and then laughed and said, "Let's wait a while."

As I lay face down across the cold hard bunk, I prayed that God would give me the strength to make it through the night. Suddenly my high school ring hit an iron pipe running through the cells, and the sound of the tap was magnified by the quietness. A few seconds later I received an echo of the sound from the next cell. I tapped again and got the same response, so I tapped out the proverbial "shave and a haircut." It was like a voice from heaven when the message "two bits" was returned. It must have served as a tranquilizer, because I drifted off to sleep, and the next time the door opened it was daylight and I was given something to eat.

Shortly after that, I was taken down to a little canal dock with a couple other Americans that I didn't know. They could have been on my plane for all I knew. A small boat arrived and I sat beside an American Air Force lieutenant. Sometime after the boat was chugging down the river, we felt satisfied that our guards did not object if we began talking and introducing ourselves. I was sitting beside Lt. Danford Merrill, my pilot, and did not know it. He had come down the river from farther north. Neither of the other airmen had been my "angel in the night" in the other cell.

I had only seen everyone on the plane for a very short time, and they had on flight uniforms and helmets, and our looks had changed for the worse since yesterday. Lt. Merrill told me that he and Lt. Ayette had experienced difficulty removing their heavy flak suits while in their seats, but after

I jumped down into the nose they finally made it to the bomb bay where they jumped. Then I repeated my story, for which he had no answer or further help. Our ride would have been wonderful under different circumstances. It was like I had always imagined a ride down a canal in Holland would be.

Later in the day, we entered the Grand Central Station of Berlin. I was directed to go with one of the guards to get us some fresh water. On the way through the heavy crowds, we were separated. I saw what looked like a men's room. I entered and filled my container at the washbowl and noticed everyone looking at me, including an elderly high-ranking German officer. I suddenly remembered the 8th Air Force patch on my GI shirt. I slowly walked through the door and tried to find my way back. Needless to say, the guard was very happy to see me wandering around near our group.

That night we were on our way south in a closed compartment on the train. It was cold and bumpy, and the same guard, with his machine pistol, sat between Merrill and me. As the hours wore on, he kept nodding and his gun would almost fall on me. We tried to communicate but were unsuccessful, so I finally took hold of the pistol and really turned on the sign language until he agreed to put it under the seat, and we ended up sleeping on each other's shoulders for hours. What a strange turn of events.

We arrived in Frankfurt late the next night and were transferred to a local train that carried us 50 kilometers

north to the new Dulag Luft Transit Camp for interrogation and assignment to a permanent camp. We walked up a hill from the train siding and reached the camp cold, tired, and hungry at about 2 a.m., and completely unprepared for what was in store. After being counted off into small groups, we were treated to hot showers and issued new American GI uniforms and shoes. As I dressed, I wondered if this was all for real or a dream.

Next we walked to the mess hall, where we were warmly greeted by the American commanding officer (CO) of the camp, Colonel Charles Stark. He told us that the Germans let the American prisoners of war--or Kriegsgefangenen--run the camp, and that they had the best food, clothes, and lodgings in Germany. How well I remember him saying, "Now that's the good news. The bad news is that none of you are likely to be here more than four days. Our goal in this camp is to help you guys regain your physical strength and morale before moving on to your permanent camp." The icing on the cake was the nice room and soft bed where I went to sleep still trying to convince myself that this was really happening.

The next day I was interrogated by a real professional. The surprise was that I think he knew more about my base, bomb group, and our mission than I did. He joked about my accent and asked where my home was, and for some reason I decided I wouldn't tell him. He said he really didn't care to know, but it was just the principle of the thing after he had been so nice to me. When I refused again, he sent me to a solitary cell

that was very small. As I left his office, I asked how long this would last, and he said, "Maybe until the end of the war." I spent a pretty miserable night before they unlocked the door the next morning, took me by a bathroom, and then to a group of American "kriegies" lined up at the gate.

The Germans checked papers, called roll, and informed us that we were marching to the train station for shipment to our permanent camp--another unusual experience to record in my tired and confused brain. We were crowded into sleeper compartments on the train and spent many days traveling north and even stopped in my old stomping ground--the big Berlin station. It took so long because we were switched to sidings several times some days and often left there until they could find an engine to take us a little farther. Let's face it, we weren't very high among their priorities.

On one of those October nights we actually sang "White Christmas." Of course, none of us believed that the war would last until Christmas. Two days after leaving Berlin, we arrived at a small railroad station by the name of Kiefheide, near the town of Grosstychow. None of us had many personal possessions at that time, so our long march to the camp wasn't that bad. The camp was officially named Stalag Luft IV and was relatively new, having been opened in April of 1944. It included four large compounds, or Lagers as the Germans called them. They were designated Lager A, B, C, and D, and each was separately fenced in. There were ten barracks in each, with ten rooms per

barracks. By Christmas, there were approximately 8,000 POWs in the camp.

It was a model internment camp, with barbed-wire fences, machine gun towers, searchlights, and warning wires, all designed for maximum security. Ironically, the camp was located approximately 120 miles northeast of Berlin and was only about 50 kilometers from Politz, the place where I had been shot down. I was assigned to Lager B, barracks 6, room 7, where I found all 27 bunks filled and one fellow sleeping on the floor with one thin blanket. I had no choice but to share his floor and his blanket. With the night temperatures running below freezing already and with the cracks in the high wooden floor, Bill Delaughter and I quickly became close friends.

Whenever possible, the International Red Cross sent loads of equipment, food, and general supplies into Germany for the many POW camps. Included were Red Cross food parcels, sports equipment, musical instruments, art supplies, books, paper, pencils, games, and a few record players. Maybe 3 to 5 percent of this reached our camp. The four Lager chiefs, each representing approximately 2,000 kriegies, would meet with the Germans and cut cards for significant items to be released to us. Next, ten barracks chiefs drew cards for each of the items, then each room chief, and finally the 25 of us in a room would draw for the highest card. Once after the entire procedure, I won a POW wartime log book. Some of the items were just kept in the barracks for use by everyone, such as books and games.

There were never enough food parcels to issue a whole one to one person. The first month, I was on a one-parcel-to-three-people ratio, but that eventually changed to a one-to-six ratio. Did you ever try to divide a four-ounce can of beans, fruit cocktail, tuna, dry coffee, sugar, or a small candy bar into six equal piles? All food, both Red Cross and German bread and soup, was divided somehow into six portions, and one of two duplicate cards was placed by each item and a team of six people would then draw a card and match it to the like one beside a pile of food on the table.

One day the guards brought a load of open cans of salmon and set them in the hall, informing us that they had been open for at least five days. When the guards left, we stood there looking at the cans for a long time. Then a few of us took a chance and ate until we were stuffed. The others waited and watched to see whether we became sick, but before they were satisfied that we were not going to die, the guards returned and took the rest of the cans away.

Since there was no actual money in the camp, we quickly made American cigarettes the basic currency. A price, in terms of a number of cigarettes, was placed on all American Red Cross and German food, as well as other things of value. This was a real plus for guys like me that didn't smoke.

Another daily procedure was locking us in the barracks at 4 p.m. and shutting the blackout blinds, which resulted in our never seeing a sunrise or a sunset. The weather just got colder

and colder. It seemed strange that there was so little sickness in the barracks, considering the fact that we had no medication, not even aspirin. There were so few colds or digestive problems that one would have to take a hard look at our life today and wonder what went wrong.

An old boiler room in the front of the barracks had been cleaned out and six of the fellows had moved into it in the fall. Later, I was invited to move in. It was quite an improvement to sleep in a bunk, even if the mattress was straw--at least it was dry. The name of the six guys were John Maloney, Kenneth Bishop, Archie Stinebaugh, Ralph Groom, Lawrence Romig, and Ray Sheppard.

With so many people in the compound, there was a lot of talent available for numerous activities. We had organized sports and various reading, art, prayer, writing, music, and bridge groups. I think I played four hours of bridge every day, only to find in later years that we weren't playing by the right rules. In spite of all the activities that we had created, boredom was still our worst enemy. There were so many people in such a little space. We visited, played games, argued about everything that ever happened in the history of sports, politics, religion, education, and so on, told bailout stories, reread each other's letters thousands of times, talked about sex and lied about a lot of things. We sang songs like "Don't Get Around Much Anymore," "I'll Walk Alone," and "I'll Be Seeing You."

The entire mental process of coping was just as great as the physical one. I was one of the fortunate ones that could dream of home and family easily on any given night. After months with no contact from home, you realize that someone could die and you wouldn't even know it. On the other hand, they may not even know that you are alive. In fact, the first telegram, which listed me as missing in action, was delivered on Oct. 23, 1944. The one stating "Your son is a prisoner of war" was not delivered to my parents until Dec. 11, 1944.

One day the Barracks 5 chief brought us a handwinding record player with one record and said that it was our turn to have it for one night. We sat up and played it all night in the dark in each room and the hall. The record, "This Is the Story of a Starry Night," was almost worn through. Having had no taste for classical music, I did not know that many popular songs were created from classics. This was brought home to me thirty-eight years later when my son gave me a classical cassette for Christmas. While playing Tchaikovsky's Symphony #6, I jumped up and said, "Jeffrey, that's 'The Story of a Starry Night.'"

Right after Thanksgiving, we began to plan for the end of the war. We were all certain that we would be home before Christmas. It was just a matter of when and how we would get out of there. In early December, the Germans really hit the Allies with a surprise major offensive in Belgium called the Battle of the Bulge. The Germans told us that if they succeeded

in breaking through and capturing Antwerp that they would split our forces and certainly win the war. It all seemed so difficult to understand and impossible to believe. We would just have to wait and see.

In the meantime, our band and drama club had begun to practice for a special Christmas program. The Germans announced that they would issue us one parcel for two men Christmas week. What a windfall. In our room, Bishop and I were partners and we managed to restrain ourselves somewhat by eating our turkey and trimmings a little at the time throughout the day. Many got sick from eating too much at once on Christmas morning. After a quiet, lonely day, but in many ways a joyful one, we were ready for the program that night. I went to the early show at 7:00 p.m. The entire show was very emotional for everyone as the band played Christmas carols, and the players acted out the story of Jesus' birth. Of course, we ended it with the singing of "White Christmas" and "Silent Night." The German camp commandant and all his visitors sat in front of me, and they sure blew their noses quite often. As for us, we just let the tears roll. Believe me, the real spirit of Christmas transcends nationalities and wartime enemies.

Then came the new year, 1945. We just could not believe that the German offensive was still moving forward, even though Bastogne had been liberated just before the end of the year. On the night of January 4th, General George Patton, Jr., wrote in his diary, "This afternoon I made the statement 'We could still

lose the war.' It's the only time I ever made such a statement." For a long time we just waited and finally some of our so-called German underground friends told us that they were just flat running out of gas and ammunition for the tanks and could not go much farther. These same "friends" brought us equally important news a week later. The Russians had launched an awesome drive through East Prussia and into East Germany toward Berlin. Our camp lay directly in their path.

Near the end of the month, the Russian artillery was getting close. We listened with great anxiety and excitement, trying to visualize how it would end or if they knew about our camp. Our guessing ended on January 31st, when the German guards gave us a few hours to round up our possessions and be ready to march.

CHAPTER 4
THE LONG MARCH TO LIBERATION

We were moved to the train station at Grosstychow and forced into railroad boxcars where the floor was covered with a foot of wet weeds and straw with a little snow mixed in. They put approximately sixty of us in each car, and I was lucky to sit with my back against the wall. However, by the time everyone got in, we had to pull our knees up and back. As we rumbled along, it became obvious that the train wheels were somewhat less than round. Strange that we did not know how many of us left by train that day. There were almost 10,000 in the camp. We thought that everyone was put on the trains that day. Years later I found out that well over half of the camp remained and marched out five days after we left.

The next morning a guard gave us two 2-gallon pails to urinate in and suggested that we pour it out the one small window about five feet from the floor in a corner of the boxcar. Every time a can was full, it was passed all the way to the window and of course the poor fellows under the window had to stand up and try to throw out the contents, sometimes into the wind and snow. Two days later I made my third visit to the Berlin railroad station. The "Krauts" would open the door, throw in any food and water available, and, as always, refuse to let us stand outside for a few minutes.

Now there existed a more serious problem that could not be put off any longer--that of bowel movements. We had several small food cans that originally contained German meat of some type. Our three major problems were the lack of space, the darkness, and the vibration of the train. The group in our area volunteered to test a plan that had been devised after the failure of all normal procedures. It will be difficult to describe, but this scene should be preserved in the annals of history.

Luckily we had quite a few matches, so we all drew back farther and created room for our first volunteer to take his pants down and squat. He put his arms around the necks of the two body holders, while the two match holders lay on their stomachs and the two can holders zeroed in on their targets. With some skillful calculations and despite the shaking car, "Operation Bowel Movement" got underway. The biggest problem was that the matches kept going out at critical times as the operation was repeated throughout the night. In spite of our adversities, I have never witnessed, or been a part of, a more hysterically funny scene in my life.

Soon after the air raid sirens sounded the next night, the guards made their way to shelters and left us locked in our cars in the train yards of Dresden. The British night bombers came over and dropped bombs for thirty straight minutes. As the bombs fell closer and our boxcars shook, we conducted confessions and last rites, said goodbyes, cried, and prayed

until the last plane roared away. While waiting for track repairs, we noticed a rapid increase in dysentery throughout the car. People were suffering from cold, hunger, and vomiting as other sicknesses began to spread. All previously organized procedures broke down and the cans never made it to the window and the increased wetness of the weeds and straw was not from the rain or snow.

Arrival at our destination, the city of Nürnberg, nine days later was our only salvation. We were taken to a camp high on a hill overlooking the famous Hitler stadium. Our compound had recently been occupied by Russian POWs. The barracks were filthy, and there was very little water available for any type of washing. We quickly finished what little food we had left, and the Germans told us not to expect much from them. As the days wore on, we grew weaker and spent most of the time lying in our dirty bunks scratching head lice and watching the rats crawl over and around us.

One day a friendly guard told us that he heard about a group of American soldiers that had volunteered to drive twenty-five large army trucks loaded with Red Cross parcels in from Switzerland to several POW camps in southern Germany, and that Hitler's staff had approved the operation and worked out the details. If I had not been so weak, I think I would have laughed at this ridiculous story. Early one morning a couple days later, we heard what sounded like the roaring of large truck engines, and we looked at each other and said in unison,

"It can't be!" But it was. One by one we struggled outside and saw the dust from the silhouetted vehicles coming up the hill. After an awkward meeting between the Germans and the American soldiers, an agreement was reached for unloading the trucks, after which a few of the kriegies were allowed to talk to the drivers for a few minutes. By this time the tension had subsided but the drivers said they wanted to return quickly for fear that some German tank or aircraft personnel might not have been informed of this unusual operation. During the rest of the day, in spite of our good intentions, we all ate too much and paid the price that night.

A few days later, several thousand American POW officers marched into the camp and into a newly vacated compound adjoining ours. The guards set up a posting board system for us to display our names and organizations and later opened the gates so we could be free to visit. I discovered a Lt. William Custard, 351st Bomb Group, and tracked him down. He was indeed the bombardier on our crew. The first thing I asked him was to describe all the details related to our bailout. He said, "Lt. O'Shea seemed reluctant to jump at first, but as I headed to the hatch, he made another try and disappeared. When I reached the door, a series of explosions caused me to hesitate and look away. It was then I saw someone lying on the floor. I decided to try and help him to the hatch, pull his rip cord and push him out. When I started to pull the cord, I realized how far the chute pops out and how close the propellor blades on number

two engine come to the hatch. So, with time running out for both of us, I pushed him out. Then I jumped and watched the burning plane fall out of sight."

"Bill, that had to be me that you pushed out." He said that because of the smoke and intensity of the situation, he was never really sure. I then related my side of the events, the floating sensations, regaining consciousness on the ground, the ring on the pipe in the cell, and leaving in the boat on the canal. Suddenly he exclaimed, "Oh my God, you are Eugene Edmonds. When I was leaving the same place a day later, a German major came up to me and said, 'If you ever run into Sgt. Eugene Edmonds, one of your crew members, give him this Testament and tell him that I found it in the truck the next morning.'" I took it from him, gently opened it, raised my head, and said "thanks," still not able to believe what was happening. After he signed my log book, I noticed that he was from a distant place called Houston, Texas.

The next week, we were told that Hitler had issued an order to kill all prisoners of war so that thousands of German guards could be released to fight the Americans and Russians on the two major fronts, but confirmation had not come from any of the military leaders. We never heard any more concerning the order. Years later I read in Albert Speer's Inside the Third Reich that Hitler did issue that order as part of his "scorched earth" plan to destroy everything in Germany before the end. Speer said that he and the military commanders would not carry

out the orders, and because of Hitler's mental state, he never remembered issuing the order.

On April 1, 1945, one of our German underground sources told us that the American Third Army forces were approaching Nurnberg and that the camp commandant was anxiously awaiting orders as to whether they would surrender us or begin a forced march away from the Americans, the latter depending on their finding an additional seventy-five guards to assist with the evacuation and march. The next day, we were instructed to organize ourselves into squads, platoons, companies, etc., like the infantry, with leaders and commanders, and be prepared to leave on very short notice.

That afternoon we began to hear artillery guns firing from the west side of town, and they continued into the night. We were so close to being liberated, but I guess it just wasn't to be. At daybreak, we heard shouts of the now famous German word "Raus" (get up, get out, go) throughout the compound. While returning to the barracks from the latrine, I looked toward Nurnberg and saw the rising sun flickering across the stadium and I could visualize the sleeping American soldiers who would soon wake, eat K rations, capture Nürnberg, and maybe stand on this spot at sunset and wonder what POWs had occupied this camp and when they had left.

We ate a little breakfast, packed our things in whatever type of bag, box, or container we could find, and waited for the American officers to start yelling "Fall in." The German

guards, many with dogs, began taking their places alongside our long columns of kriegies. The gates were opened and the orders to march echoed throughout the camp. It happened that we were on the southeast side of town, so it didn't take us long to reach the country and then head south. Apparently most of the new guards must have come from the "home guard" since they were all quite old and could not march any faster than we could.

Around 2:00 p.m., we heard aircraft approaching and to our utter surprise discovered that they were American P47 Thunderbolt fighter planes. We waved at them but they did not seem to share our enthusiasm and went into a screaming dive with guns blazing. Our leaders, some being fighter pilots, recognized the maneuver before most of us did and began shouting to take cover. Luckily, there were trees on both sides of the road and most of us made it to the edge of the woods, where we watched the 50-caliber bullets rip up the road where we had been walking. Fortunately for us, they came in from the front, giving us more warning and a chance to escape with very few injuries. I often wondered if the pilots ever knew of their mistake. Of course, the Germans had a lot to say while we regrouped, and, as usual, our answer was, "Hey, if it wasn't for us, you would be on the Russian front." (By this time, the Russians were approaching Germany from the eastern side all the way from the south to the north.)

We walked all afternoon and stopped in the town of Newmarket before dark, after covering approximately twenty-four

kilometers. The guards did find us some barns to sleep in and then brought some soup and bread. We ate and nursed our sore feet, blisters, raw and chafed rear ends, and tired bodies. Later that night, there was a heavy raid on Nürnberg, indicating that the Americans had not captured it yet.

We continued south the next day, and while we rested at noon, it started to rain. The rain worsened during the afternoon. My friend Sgt. Irwin Weiss, who had sat beside me during the famous boxcar saga, was sort of my partner on this march. He began to feel ill after we had been soaked by the cold rain for hours. Even the guards decided that we should seek shelter in the thick wooded area. Weiss and I ended up under a big tree and tried to dig in for the night. The storm and rain continued all night. We were a wet bunch of kriegies the next morning when we made formation and continued our march to the south. Some of the guards went ahead of us, and when we arrived in a little town named Berching, they had managed to come up with soup again. Of course we never knew what was in the soup and never asked. We remembered once, in Stalag Luft IV, that what we thought were black eyes in the peas turned out to be the black end of a worm in every pea. Nothing mattered at this point; we would have eaten anything.

Cold, wet, and tired, we moved on and later stopped in a town called Beleingreis in mid afternoon. An American doctor in our company took Weiss and me to a nearby hospital. It was full of wounded German soldiers. A German doctor examined Irwin and

diagnosed him as being very close to pneumonia but would not put him in the hospital. The doctor explained that they had very little help and medications and just could not take an American when so many of their own were dying. I was impressed by the fact that he took time to explain his situation. I had been fortunate to have been accepted into a hospital in Nürnberg for a few days after my left ear had been hurting for a week.

When we got back to the formation, they had packages of food. Somewhere the guards had obtained quite a few British Red Cross parcels and some freshly baked bread. I never did know where they found the parcels, but it didn't really matter. After an hour of walking in the sunshine and on a full stomach, we made a left turn and it was obvious that there was a long high incline in front of us. Everyone must have felt as I did, because all started yelling "break, break." The guards didn't offer any objections. Oddly enough, this time we sat under the trees to avoid the sun instead of the rain.

I sat there wondering when and how it would end. As the old cliché goes, "So close and yet so far." I caught myself looking at the old German guard sitting on my left, and thought how he looked at least as old as my Dad. Maybe he fought in WWI. Hell, who knows, maybe they were in opposite trenches firing at each other. Stranger things had already happened to me.

Then, on the more serious side, I thought about Dad and how when his company, or what was left of it, was completely cut off from the rear with no communication, he volunteered to try and cross no-man's-land and make his way back to the battalion. His captain said that it was impossible for anyone to make the crossing, but Dad insisted, and with bullets hitting all around him like hail, he survived and delivered the captain's message, and the company was rescued. For this, Dad later was awarded the Silver Star, the second highest medal in WWI, for exceptional bravery. I suddenly felt a little ashamed for feeling sorry for myself. I also realized it had been seven long months since I had heard from my family. Were they well? Did they know that I was alive? My daydreaming was interrupted by the shouts, "Let's go, let's take this hill," and a few others that I will not record.

It did not take long to realize that this was a tough one. Weiss was on my left and the old guard was on my right. Both looked ready to fall. I asked Irwin to ask the old man if I could carry his rifle for him. He was the only guard for at least 50 yards in front or back. He was reluctant at first, but then removed the clip and handed it to me. Somehow we all made it to the top and made a right turn on level ground. I quickly gave the rifle back and the expression on his face said all the thanks I needed.

The town sign read Paulushofen. I would always remember that little place. In fact, forty-two years later, I stood on

that same spot and looked at that sign or one like it on my first return visit. The Germans surveyed the town, talked to the Burgermeister (mayor), and then informed us that we would stay there two nights. They pointed to several large two-story barns across a field on our left and suggested we find a place and bed down for the night. There would be a formation the next morning, Saturday April 7th. I managed to get Weiss in the hayloft and laid out some clean dry straw. In a few minutes, we both were asleep.

The next morning, the German guards tried to lay down the rules, but it was obvious that they could not control us to any great extent. They said that we could roam the town all day but they would be posted throughout the town and anyone caught escaping, stealing, or attacking a civilian would be shot on sight. I thought that was fair enough. Of course, it would be fairly easy to escape, but there really was no reason to, since the Russians and Americans were rapidly closing in on both sides. We had been told that morning that a company of Americans was headed south from Nürnberg. The war could not possibly last more than another month. After we broke formation, I walked around two of the homes to try and discover which one owned our barn. This was a small isolated country village, and these people had never seen an American soldier or even many German ones, and all of a sudden thousands of them were running around their yards and town at 8:00 a.m. in the

morning. It must have been frightening for them. After all, we were those monsters that killed women and children.

Weiss rested well but needed some hot soup or any food to help him get his strength back. On my return by the two homes, a man was in one of the yards. I tried talking but did not accomplish much on the first attempt. Just then, my old guard friend strolled by while walking his post. I tried to tell him to inform the man about my sick friend up in the barn. They talked at some length and I was sure he had told them that I was not such a bad guy. At least when I left, the man nodded and smiled. Late that afternoon, I even went into the town church and took the tour as many others did. We were given a little bread and soup before dark with a reminder that we would be leaving early the next morning.

I found our doctor and asked him to look at Irwin again. He did and advised me to try hard to get him some more good food if possible and ask the guard to try and get him to a hospital in some passing vehicle, which we both knew was nearly impossible. I did a lot of thinking instead of sleeping that night. I was a nonsmoker and had a few packs of cigarettes, some chocolate bars, and some needles and thread in my personal bag. Of course, I had paid off a guard here and there during the march. So the next morning, when the others left the barn, we moved to another location in the loft and hid until the town was deserted.

They made a feeble attempt to check all the barns, climbing the ladders and calling out, but they had no way of taking an actual head count. After the all clear, I got Irwin to write the German words for a list of things I had written down, such as "help me," "very sick friend," "up in your barn," "need milk, eggs, potatoes, or anything available," "have chocolate and cigarettes." I waited an hour and then walked cautiously around the barns and behind the houses. I had heard the church bells and figured maybe everyone was in church. Sometime later, they all returned to their homes. I decided to knock on their backdoor and see what happened.

Even though they were startled, I was invited or at least allowed in. On second thought, they had just come from church and maybe their preacher had reminded them to love their enemies. I didn't discover, until later, why the situation seemed so awkward, beyond the fact that I was an American soldier. There I sat in a German home, the folks just home from church, and we couldn't speak the same language. Well, out came my list and I went into my act. There was a certain amount of risk on my part also. Could I trust them? After all, they had suffered and sacrificed for almost six long years. To my surprise, the lady of the house fixed Weiss a plate of real soup and some food and a jar of milk. I ate a bowl of soup, thanked them, and gave them a chocolate bar.

You could almost see color and energy return as Irwin ate. He even wrote more things for me to tell and ask them. I talked

to them in the backyard before dark and they told me to come for early breakfast. She fixed Irwin eggs the next morning and sent another jar of milk, telling me she needed a few cigarettes to pay some friends for the eggs since they didn't have any left. Tuesday was a beautiful day, so I took a chance and walked around town several times. Most people were aware of Weiss and me but no one had seen him yet. He was improving very nicely. I had to be careful because often during the day a truckload of retreating soldiers would stop in town. The regular army people realized that the war was almost over and seemed to be as glad as I was, but the dreaded SS troops got meaner as the end drew closer. That night I walked to church and stood out in the foyer where I could look out the door and leave before the service was over.

The next day Weiss got up and walked around the barn for a while. I cleaned him up and then went to visit the family, where he made a big hit with his knowledge of their language. I visited some other young people and almost got caught when a convoy came through. A couple vehicles stopped and told the townsfolk that the Americans were getting closer so prepare for some heavy fighting in the area soon. After hearing this information, I went back and discussed it with Weiss and the family, and decided that we had better head south early the next morning. We ate with them that night and when we said goodbye the mother hugged and kissed us and said that they had had two sons killed in the war. I can't explain the mixed

emotions that I felt at that moment. That was why the situation after church was so awkward when I first visited them.

Sleep wasn't easy as we both lay there and wondered what tomorrow would bring. The next morning we left Paulushofen by going around the barns and out the back way. Of course, as always, we wanted to head south. The doctor had told me that we were going to a POW camp in Moosburg, which was located slightly northeast of Munich.

As we cut through a tiny village trying to get back to the main road, a group of six or seven uniformed Hitler youth appeared from nowhere armed with clubs. Their leader carried a gun of some type, but it was impossible to tell if it was loaded or even workable. One thing we knew was that they were playing war games and had just cornered two American POWs. Without wasting any time, Weiss started talking to the 15-year-old leader. The others were much younger and acted very childish, which could have been bad. So they talked, argued, and continued to play their game for hours. They put us in a small, shabby firehouse that contained a horse-drawn fire cart.

I figured Weiss was trying to convince the leader that we had gotten lost from the formation and were trying to rejoin them. It certainly made a good story. The sounds of the advancing American artillery grew louder, and the group started asking lots of questions, for which Irwin made up a lot of astonishing answers. He told them we had seen the fighting from Paulushofen right after daybreak and watched the Americans rout

the Germans. From the sounds, he said, they were almost in Paulusnofen (we didn't know where they were). Last, but far from least, he explained that the Americans would shoot them immediately if they hurt us. We strongly suggested that they go down the other side of the hill and hide, and we would continue south. Finally, they decided there wasn't much they could do at this time to help the Fuehrer's cause, so they headed for the hill. The leader did say "Auf Wiedersehen" to us.

Quickly we headed for the main road, but first we found some heavy brush and took a long break. Upon waking, we took a few bites of what little food we had left and walked south along the side of the road. A few times we had to hide from truckloads of retreating troops. Late in the afternoon, we saw a tank truck approaching, and upon seeing that the driver was alone, we ran out and waved him down. He stopped, surprisingly, and Weiss went into his "lost during the big storm last week and trying to find our guards" routine. We crowded into the fuel truck and headed for the unknown.

The driver said he was going to Munich for a tank of fuel and would then return to the front, if there was one left when he got back. Weiss told him the truth concerning our escapades of the past week. We agreed that it was utterly pointless to continue the fighting another day. He said that it was the Danube that we were crossing now. A little later we stopped in a town where our driver was able to get us some food. I gave him a pack of cigarettes. We didn't know it, but the big group

of our kriegie buddies was bedded down for the night close by. We drove on south.

Upon reaching a major east-west intersection, we ran into all types of military vehicles and personnel. They stopped everyone and informed us of a major air raid in progress in Regensburg. Our driver told them who we were and where he was going. They quickly took us out of the truck and sent the driver on to Munich. We expressed interest in getting to the POW camp in Moosburg, to which they angrily replied, "If you had stayed with your group you would get there without all these problems. We should shoot you, but for now go over there and sit with your American friends."

There were about 20 kriegies that had been picked up for many reasons. Some were sick, some were lost, and others were just strays like us. Shortly after midnight, a large truck drove up, loaded us aboard, and headed for Moosburg. We arrived at the original Stalag VII-A and were told to go into any barracks we chose, since they were all crowded. Once again we had to ask people to squeeze together to make space on the floor. It was interesting the next day to discover how big the camp was and how many POWs of all nationalities were already there. I knew of a couple thousand more that would arrive within a week.

The Germans had added several additional compounds and filled them with tents. Weiss made friends with one of our floormates, a soldier from Israel, and found that he had a very

good friend in the German staff office in Moosburg. There were thousands of both regular army and SS troops in and around Moosburg. Theodore Goloreich, our new friend, went into town every day for four hours and brought back reports on the latest American and Russian troop positions and movements. They were closing in from all sides; however, those moving down from Nürnberg were still meeting fierce resistance. Years earlier, Theodore had been a classmate or roommate at a university in Israel with the German officer in Moosburg.

We never knew when our old group arrived, because they were put in another compound or camp nearby. Prisoners were arriving from all directions every day, adding to the unbelievable overcrowding and confusion throughout the camps. Many were just sleeping on the ground. A strong rumor, which didn't help to ease the tension any, was that the Germans intended to march us to Salzburg, Austria, and hold us as hostages. That could have been disastrous. During the ensuing days, our worries and fear were offset by the thrill and excitement of possible liberation. The only information coming in was that full battle preparations were being finalized in town.

Early on Saturday, April 28th, about 12 miles northeast of us, an attack had been launched on the rather large town of Landshut. At the same time, the 47th Tank Battalion had been ordered to break off, head south, and attack Moosburg at 6 a.m. the next morning. As we were unaware of these events at the

time, that Saturday in the camp was much like any other. The weather was perfect; we walked, we talked, played a little catch football, and of course told the guards that their days were getting fewer.

By late afternoon, various rumors began drifting in, even from some of the guards. They included us being liberated, being deserted, being shot, or being marched to Salzburg. I was not overly concerned until Theodore did not show up all night. We got up early Sunday morning and looked in all directions, even from the top of the barracks, for some indications of American troops in the area. There were none. A little after 8 o'clock, I saw Theodore come in the gate. After rounding up Weiss and a few close friends, Theodore told us one of the most incredible stories I had heard. At least it ranked near the top.

He said that a German delegation driving a white Red Cross jeep drove down about a kilometer below us to the American command post and asked to see Brigadier General Karlstad, the commanding officer. Now our troops were supposed to have arrived there and set up camp around 10 p.m. the previous night. The Germans were ushered in just before 6 a.m., and they presented a complex surrender plan that would protect the prisoners and the town. It called for a halt in all fighting until a joint plan for releasing the prisoners could be worked out. Gen. Karlstad rejected the proposal, stating that he would

accept nothing less than an unconditional surrender offer. He said he would delay the attack until 10 a.m.

There we sat, absolutely shocked by the story but sure he had not made it up. I think everyone in our compound heard the story within 30 minutes. The chaplain best expressed our feelings when he said, "I find the story hard to believe, but let us move our 11 o'clock service up to 9 o'clock." I am sure God knew that our minds, including the chaplain's, were not on the sermon that morning. At least everyone agreed with what he asked for in his final prayer. There was nothing but total silence as tens of thousands of POWs stood there in the sunshine just watching and waiting. Just before 10 o'clock, two American P-51 fighter aircraft roared over the treetops and across the camp. Excitement mounted as they returned, did a slow roll, and pulled up in a steep climb. While we were watching them, all hell broke loose.

There was no doubt left. This was it. Large artillery shells roared over the camp in both directions. One barracks was hit, tanks were seen moving toward the town, and door-to-door street fighting was taking place before our eyes. Machine gun and small arms fire was all around us and eventually forced us to go inside or lie on the ground.

The battle lasted for two and a half hours. At about 12:30 p.m., two Company C tanks rumbled up to our main gate. Several jeeps with high-ranking officers soon drove up. There was a quick ceremony of officially surrendering the camp, and at 1:15

the American flag was raised. Hands raised to salute it, tears fell to express our love for it, and hearts beat faster as we thanked God that we had lived to see it again.

The next hour was utter chaos everywhere. The troops gave up on us for a couple of hours. I went across the road and down the street to where a tank was sitting. Some Russian slave laborers, including women, were there and we all embraced, patted the tank, and thanked the crew for freeing us. Then the tank sergeant suggested that I climb up and take a tour. It was my first, and last, time inside a tank. It was wonderful to sit there and see the "Stars and Stripes" paper, all those K rations, headphones, and ammunition. Funny, I thought of them as brave heroes and then the sergeant said, "Hey man, nothing is too good for you guys. You gave it all and deserve the best." They insisted that I ride into town with them.

After we stopped in town, I got out and walked around. Later an American soldier rolled a German motorcycle up to our group and everyone looked it over. His sergeant told him to try and get it running. I can't figure out how they got the mess line set up and the food ready so fast. I ate real, hot American food, but my stomach could not take much of it. All the time I was eyeing the K rations as the men were telling me how they hated them. There were still quite a few German snipers around the streets and woods, so I decided that I had better get back to camp before dark. The sergeant put all the K rations he could find in a bag, sent for the soldier with the

motorcycle, and told me to standby. I quickly became the proud owner of a German motorcycle and a bag full of rations. I wasn't sure I could ride it, but with their help I finally managed to head back to my camp compound. As I rode on, I passed compound after compound of screaming, celebrating POWs.

The following are some official statistics and comments from the historical files of the 14th Armored Division of the 3rd Army:

Official estimates of the total Allied prisoners freed at Moosburg were 110,000, including an estimated 30,000 Americans, officers and men. Besides a series of seven POW camps, the Division captured a German garrison of 6000 men at Moosburg.

Once the sharp, pitched battle by the SS was over, the German defenses crumbled. The 600-man 47th Tank Battalion took 2000 prisoners; the 600-man 94th Reconnaissance Squadron took 2000 more. Division total for the day was set at 12,000.

Scenes of the wildest rejoicing accompanied the tanks as they crashed through the double 10-foot wire fences of the prison camps. There were Norwegians, Brazilians, French, Poles, Dutch, Greeks, Rumanians, Bulgars. There were Americans, Russians, Serbs, Italians, New Zealanders, South Africans, Australians, British, Canadians--men from every nation fighting the Nazis. There were officers and men. Twenty-seven Russian generals, sons of four American generals. There were men and women in the prison camps--including three Russian women doctors. There were men of every rank and every branch of service; there were war correspondents and radio men. Around the city were thousands of slave laborers, men and women.

All combined to give the 14th the most incredible welcome it ever received. The tanks were finally slowed to five miles an hour as they went through the camps.

"You damned bloody Yanks, I love you," shouted a six-foot-four Australian and threw his arms around a peep driver.

A weary, bearded American paratrooper climbed on a tank and kissed the tank commander. Tears streamed from his cheeks. The women had flowers, and they threw the flowers on the tanks and in the peeps. Italians and Serbs, tired and drawn, jammed around the vehicles, eagerly thrusting out their hands to touch their liberators, weeping.

An American Air Corps lieutenant kissed a tank. "God damn, do I love the ground forces," he said. "This is the happiest day of my life!"

British ex-POWs rode bicycles through the towns-- freed prisoners took most of the bicycles and motorcycles and autos with which Germany was so well supplied. Slave laborers, men and women, stood by every road, making a "V" with their fingers and grinning and throwing flowers.

German prisoners taken included boys of nine, fully uniformed and armed, and girls of 17 and 18-- also uniformed and armed.

Tec/5 Floyd C. Mahoney of C-47 freed his own son, a lieutenant in the Air Corps.

While reading and enjoying the above information, I was saddened by the following few lines I found in these records: "The enemy in C Company's sector had fallen back to Paulushofen. C Company dug in on the ridge and called for artillery on the town. The artillery, mortars, and tank guns pounded at Paulushofen and the town was in flames."

I received quite a welcome back in camp when my friends discovered the rations. While we waited for trucks to evacuate us to airports, we walked the streets and took hikes outside of town. After what seemed like an eternity, we were taken to an airport and positioned on the sides of the runways. Our lines were about 20 feet wide and stretched for miles. Day after day passed before the old workhorse, the DC3, showed up by the hundreds. They would land one after the other, then taxi right

up to the tail of the one in front, load in about 10 minutes, and take off immediately. A picture I acquired later shows at least 20 planes "bumper to bumper." I left on May 6th and never looked back. That night Weiss and I landed in Reims, France, and were taken to an army base especially set up to process returning POWs. It was much like the old Dulag Luft in Wetzlar except it was totally American.

We rode a French train from Reims to the port of La Havre, where we boarded a troop ship for New York. I stood on the stern of the troop ship as we left the harbor and watched La Havre fade into the horizon. Beyond that horizon lay France, Germany, and the other war-ravaged countries, but also all those POWs who would never return home. How lucky I was to be on this ship. I began to review my experiences since that day when our B-17 left the runway in Polebrook. As we cleared the harbor, I walked along the side of the ship and toward thousands of ex-POWs and realized how much I had in common with them.

They too had once been trained, assigned to combat duty, and captured. They were sent by train, by truck, or by foot to POW camps, where they suffered from cold, hunger, and disease, were harassed or tortured, experienced loneliness, depression, and sometimes joy, shed tears, prayed, and dreamed of home. They too shared all these acts with their fellows prisoners. We all had similar experiences, some better, some much worse, some funny, some tragic, and some miraculous. I think of mine as a little bit of them all.

The ocean crossing was mostly routine, if that was possible under the conditions. We enjoyed good weather and good food. For a few days, I filled in as the ship's disc jockey and had a great time playing all the songs I had not heard before. I fell in love with Doris Day's "Sentimental Journey" and played it so often that the ship's captain called and ordered me not to play it again.

After landing in New York, we were sent to a processing center in New Jersey, where they sent Weiss to New York and me to Fort Mead, Maryland. At Fort Mead I was briefed, issued new orders, and given a 60-day furlough. During my physical examination it was discovered that I had suffered a punctured eardrum during my descent from the plane. My orders called for me to report to San Antonio, Texas, for discharge from the Army Air Force.

I visited old friends in Baltimore the first night and of course called my family. What a relief to find that everyone was alive and well. The next night I took the Chesapeake Bay passenger steamer to Hampton. The family welcome was very emotional for everyone. It took a while to readjust to the new style of life. In fact, it was very difficult for me. I was more than ready to report to San Antonio when my furlough was up. I didn't have any plans for my life at that time. My girlfriend, Frances, had been dating my childhood buddy and they were serious, so I felt that maybe I should go back to the Glen L. Martin aircraft plant.

In San Antonio, my records were updated and credit given for the Purple Heart (awarded for my punctured eardrum), overseas time, and missions flown, and then I was told to report for discharge in two days. The next morning I received some shocking news. I was told that because I had flown only two missions and had been overseas less than a year, and even with all other additional points, I was still well short of the amount needed for discharge. They called army headquarters and discovered that when the minimum-point system was put into effect, no one considered POWs in my situation. Their instructions were to give us a Class A pass and wait until this problem could be reviewed.

For two weeks, I did nothing but roam the base, go into town occasionally, and check with the discharge board daily. I became friends with one of the girls in the office, and, while having lunch one day, she told me that a discharge base in Greensboro, North Carolina, had called and offered to take 500 people for immediate discharge. Of course their records must show that they had the necessary points. I asked her how would anyone know until the folders were examined in Greensboro. Why couldn't an office clerk make a mistake and put someone else's folder with the other 499? Yes they could, she said, but she wasn't going to do it. "Now just wait a minute, let's talk it over," I told her.

I wondered, but really didn't care, what was going to happen as I sat in the discharge briefing office in Greensboro

the following Monday morning. After the group (500) briefing and a few minor stops, I found myself in front of a pencil pusher who was checking my records. "Who in hell is playing jokes, Edmonds? What do you know about this? Why are you in this group?" I calmly said, "Is there something wrong? I was given orders to report to this base, and one thing I have learned is never question a direct order in this man's army."

An hour later I listened to the CO of a base permanent party company tell me, "I don't know what to do with you. I can't assign you to any work detail, so here's a Class A pass and a nice room in Barracks Five. Stay clear of my men and I'll call you when I hear more."

I took the bus home and stayed a few days and then drove my prewar car back. One day in late October, with nothing better to do, I drove to Durham, and while there I visited Duke University. I was awed by the beauty of its Gothic structures. I toured the campus, including the beautiful chapel. As I sat in the famous Sara B. Duke Gardens (among the most beautiful anywhere in the spring), I wondered what it would be like to go to college. No one on either side of my family had attended one.

After returning to the base, I read or heard about a new education benefit program for veterans and immediately rushed back to the administration office at Duke, where I was informed that if my high school grades were good enough, I just might be accepted into the first postwar veterans class starting in November. The school was still on a four-semester wartime

program. Back to the gardens for additional meditation. Should I even consider doing it? After all, my grades only averaged C+ in high school and this was a tough school. Then, on the other hand, why not? The government would pay for my room and board and give me \$50 a month to spend (a whole \$12.50 per week). I didn't really have a job, had very little money, but, after all, I had developed a knack for survival. I decided to do it.

First, I called Hampton High School and asked them to forward my grades to Duke. I returned to the base, checked in and hung around for a couple days before returning to Duke to see if I had been accepted. I was getting excited now and refused to face the discharge problem. I figured I would just start classes anyway. When I reached the office, I was told that my joke was not funny. It seems that most of my grades were D's and F's. I apologized and headed for Hampton. I rushed into the principal's office early the next morning and had a few unkind remarks for the entire staff. The principal accepted them because of my uniform and its impressive ribbons, which still carried a lot of weight at that time.

It didn't take long to discover that the secretary had pulled the file on the other Gene Edmonds that had been in the class behind me--a football hero. (A year later he told me that he had always wondered how he had been accepted at the University of Virginia in September but would never ask.) I returned the correct grades to Duke and was accepted to start classes on November 13th.

When I got up early at the base the next morning, I was told by the company CO that orders had come through to discharge all POWs regardless of their points, and I was to start the routine five-day discharge schedule Monday morning, November 12th. After receiving no help elsewhere, I went to see the base CO. I told him my story and added that having been through part of the system I knew that a person could be discharged easily in one day. Intrigued by my story and desire to attend college, the CO called an officer and asked what the chances were of rushing me through in one day. After a brief silence, he shouted, "Major, you will have Sgt. Edmonds and his honorable discharge in my office at 4:30 Monday afternoon. I spent a long, restful weekend calling home, going to church, and reflecting on the events of the past year.

Monday afternoon, November 12, 1945, after a somewhat disgruntled major left the CO's office, I was given that elusive piece of rolled-up paper and congratulated. He wished me luck as I thanked him and said goodbye. It was with sadness and mixed emotions that I returned to the barracks, put on my new civilian clothes, packed my uniform, and drove to Durham. Somehow I had the feeling that I had just been reincarnated.

CHAPTER 5 RETURN TO CIVILIAN LIFE

The campus was painted with beautiful fall foliage, and there was a chill in the air as I drove around trying to find my new dormitory. I was to share a room with two more veterans. We all quickly settled in, went to orientation, and started classes. It was very exciting and certainly a new experience. Almost everyone admired and respected us and went out of their way to help in any way they could. The professors were considerate and gave us every opportunity to go back and review many of the things that we had forgotten. The average veteran had been out of high school between four and five years.

As the weeks passed, I realized that I was still having difficulty with the transition from military to civilian life. Most of the nonveterans came from rich families with big homes. Of course, I could not begin to fit into their lifestyle, as I knew nothing of classical music, art, fashion, theater, or society living. I think I began to feel somewhat inferior to them and maybe even to the professors and staff at the university. Somehow I forced myself to understand that I was there for one thing only and that was to survive that first semester. I did not have time to think about these other things, so I settled down and studied day and night. Before I realized it, I was home for the Christmas holidays enjoying

good home cooking and being with the family. Naturally, they all boosted my ego--the ex-POW and now college student home for Christmas. Maybe that was all I needed to go back and get ready for exams.

I took stock of it all after successfully completing that first semester. I now felt that I could finish the freshman year, which I knew would be the most difficult of the four. The next three and a half years, including the summers, were similar but certainly never dull. During the next semester, I had a serious car accident returning from Greensboro on a military matter. I hit a snowbank while trying to avoid a car and went off the bank on the opposite side of the road. I was lucky to escape without serious injuries. After having the car repaired, I sold it. I did not have one for the rest of my college career.

As a sophomore, I took several sociology and psychology courses, which I enjoyed very much. My parents bought a home on Columbia Ave. in the heart of Hampton and moved in during my first year. Mother rented a building on Shields St. facing an elementary school and opened a small store/lunchroom combination. Of course, she had sold the boarding house in Newport News. Dad had transferred to the National Advisory Committee for Aeronautics (NACA) at Langley Field just north of Hampton.

During two summers, I worked on the fishing boat Malola with my Uncle Henry and lived with him and Aunt Elizabeth in

Gloucester, Mass. I managed to save some money each summer to help with expenses at school. My two very close cousins Marie and Virginia lived in Gloucester each summer and several of their girlfriends from Hampton would usually come up for a month. Lewis, Marie's husband, would take a carload of us to different nightclubs in Boston during the summer--a new experience. Virginia taught me how to dance, or at least got me started.

I seemed to have developed more confidence in myself by the time I started my second year. I attended church at the beautiful Duke chapel the first year but stopped after that except when I was at home. Most of the philosophical and psychological material was very disturbing at times, since it seemed to contradict every principle that I believed in, or at least many of the professors went out of their way to make it seem that way. Some of them even pushed atheism, pointing out that no one should put his life into the hands of a God that didn't exist. You should strive, they said, to make your own decisions and control your own life. In fact, here is one direct quote: "To put one's faith and dependence in a mystical being is signifying immaturity and the inability to face reality as a mature adult." The result of this kind of teaching was major confusion for many of us. Maybe the whole purpose behind their teachings was to cause one to examine his beliefs in relation to the real world and someday formulate his or her philosophy.

My kid brother, John Walter, came to visit me for a few days. I think he was about 15 at the time. I had always felt sorry for him because he had lived his whole life in my shadow. He had grown up hearing about my high school graduation, my going to Baltimore to work in an airplane factory, my entering the Air Corps, my being missing in action, my return from Germany, and my going off to college. I had never seemed to have any time to spend with him. There was an eight-year difference in our ages.

I had become extremely interested in photography after moving into a room with Aggie Capsalis, who had already set up an enlarger and processing equipment. He taught me how to develop and print pictures. I then located the university's head photographer, introduced myself, and volunteered to help just for the experience. Later, I was allowed to use the school darkroom.

I took advantage of this situation by shooting group pictures, printing 8 x 10's, and selling them. I did quite well during my senior year. I think that influenced my wanting to open a photographic business of some type after graduation. Of course, another influence was learning that all I could expect from any type of social service work--my major--was around \$2000 a year. I really worked hard during my last semester, knowing that I could not falter at this point.

One day in March, a reporter, Earl Porter, wrote an article using me as a typical veteran ready to graduate in the

first postwar veteran class. It made the Associated Press wire service and later I received a congratulatory letter from the retired Greensboro base CO. Just as that CO had ended a chapter in my life with the army discharge, the dean ended another chapter with a Duke diploma in June 1949. Mother, Dad, John, and Aunt Elizabeth proudly watched from their seats in the Cameron Gym at Duke. While packing to return to Hampton, I momentarily reviewed my current situation. I was 25 years old, had no money, no job, no car, and was headed home to open a new business. Maybe the psychology had confused me more than I realized.

Mother and Dad insisted that I convert the back of the store into a studio. My family gave me a little money and Uncle Henry cosigned a loan at the bank. I ordered equipment, and the family helped me build the darkroom and repaint the area. After a few weeks, everything was in place and my opening ads were in the paper. I opened the studio under the name "Gene Edmonds, Photographer."

My first mistake was not borrowing more money. I had spent it all and did not have any working capital left. Believe me, I struggled for some time. If my parents had not given me the studio area rent-free, I would not have survived. The second problem was trying to make enough money for a down payment on a car, which I had to have. Finally, I accumulated \$200 and bought my first new car--a 1949 Plymouth for \$1500.

Dealing with the public (in business) was a new experience, and there was a lot to learn. I met other photographers, did a lot of free work (for the publicity), and put in long hours. My bedroom was next to the darkroom, so that made it easier to work earlier and later every day. Slowly my pictures improved and I gained more confidence in myself and my work. In the meantime, I had taken a job with an insurance company in order to have a little steady income. They paid a small salary and the rest on commission. I was pretty good, but slowly my love for photography began to take over. I had too many 10-cents-a-week collections to make. It was unbelievable that about 30 people on my books had been paying 10 to 25 cents a week for years and would continue to do so the rest of their lives. In late summer of 1950 I quit the insurance company, and in October a Mr. Parsons came to see me and offered me a surprisingly good deal for his studio in Newport News, which was seven miles from Hampton.

I was slightly familiar with his business. They did mostly baby portraits and quick studio package deals. Their work was not of the quality that I had hoped to obtain; however, they did have a good business. He would put a price on the business and then set up the following deal for me: He would pay all the monthly bills, give himself a fixed salary, take out \$300 of the balance as my payment on the business, and give me the rest as monthly salary. The rest could be none or any amount I could make it. He called it the incentive part of the deal.

After examining the books, it looked like an average of \$200 per month, which would all add up to quite a nice deal, and I could still keep my business in Hampton as long as I put in 8 hours a day at Parsons' studio. I signed the papers and began reporting in every day. During the next few months, I began to make a lot of changes in the operations of the studio. Also, I did a lot of cleaning up and painting. As 1951 started, things were working out well for both of us. I was averaging around \$180 per month.

It was at that time that a local showman named Tiny Hutton asked me to come up with a Playboy-type calendar skit for the March of Dimes show to be held on the stage of the Palace Theater in February. I started looking for twelve girls (one for each month) for the show. One of my leads took me to the basement of the Bank of Virginia and to a very attractive young lady named Frances Hood. I talked to her, observed her features, including her legs, and made an appointment for some bathing suit pictures. Later I selected her as "Miss June Bride." She wore a white bathing suit and bridal veil and carried a bridal bouquet. I think it was her innocent type of charm that caused me to ask her for a date after the show was over.

I later had a very rewarding agreement with the owners of the Palace Theater. Whenever celebrities came to perform, I would cover their entire stay and performance. I took pictures in their rooms, ate with them, and toured with them locally. I

would then provide a complete album of their visit (like a wedding album). Some of the celebrities that I worked with were Tony Randall, Mitzi Gaynor, Jeff Chandler, and Elvis Presley.

Frances and I dated quite a bit that summer and started talking about getting married in December. However, after deciding not to wait that long, I asked Mr. Parsons what kind of a month September was financially, and he said it was usually a good month. Frances and I made all the arrangements, spent all our money, and were married on September 16, 1951. I bought a new 1951 light-green Plymouth, and we took it with us on the boat to Baltimore after the wedding. We returned home broke, and she moved into the Hampton studio near the end of September. I waited for Mr. Parsons to complete the bookkeeping for the month and give me the much-needed check. It turned out to be the worst month since I had been there. I made a whopping \$9.00 for the month. What a way to start a marriage.

We struggled through the rest of the year and spent our first Christmas in the studio, but we were already planning our first home. In early 1952, we bought a home being built on Lee Street. Dad saved us money by doing most of the interior painting. No need to say how excited we were when we moved in. The little white house was like a dream. The payments were \$57 per month. We didn't have much money, but we were on our way with a new home, car, and two jobs. The next two years settled into a routine of long hours and hard work.

Frances had four brothers named Harold, Robert, Gene, and Wallace, none of whom were married at that time. Her mother and father were Mae and David. They lived in Crewe, Virginia. She had quite a few very nice friends at the bank, and we enjoyed many social events with them during the next few years. I closed the studio behind the store and my parents gave up the entire building and tried to live an easier and more relaxed life. My brother, John, married Nancy Gough in 1952.

A studio competitor, Stuart Lane, approached me with a very complicated offer for me to acquire his studio. He had a two-story, air-conditioned building that was extremely well equipped. He had a higher-quality clientele. It was located on Kecoughtan Rd. halfway between Hampton and Newport News. It was a very good location, building, and business. He knew I could not afford to buy the building, but he in turn had a buyer who would require a five-year lease on the building, including the second-floor apartment. Lane would sell me the business for \$500 cash. I then bought the business from Lane, signed a five-year lease with his buyer, and rented the apartment.

I felt very bad when I sat down and told Mr. Parsons about the deal. I asked if we could discuss a workable plan to operate both studios, to which he replied, "Wait until I return in 30 minutes." He returned from the bank, handed me a check, and said, "I have just bought the business back. It's the best way. Now you are free to devote your full time to your new

place. I am sure you will need it." I thanked him for helping me. I knew that I had hurt him.

Then in July of 1953 I opened the studio, using the original name: "Gene Edmonds, Photographer." The next year passed quickly and the business improved very well, except that there were always two major problems. First, I worked 12 to 14 hours a day, seven days a week. Second, I could not even begin to get out of debt. There was always something needed to improve the business. Frances was doing well with her job and our families were fine. My dad was always trying to get me to apply for a photographic job with the government at Langley.

Near the end of 1954, Frances became pregnant, and we decided to rent the house and move above the studio. It helped in many ways. I could work longer hours and write off more on taxes. John and Nancy had their first child, Catherine, on March 16, 1955. Frances quit her job in the summer. Very early on the morning of September 15th, I took her to the hospital, as the pains had reached the correct frequency, so she said. I happened to have a well-paying commercial job scheduled with an insurance company that morning. Dr. Inloes advised me to go and cover it, since I assured him I would be back before noon.

The job was on a tanker anchored in the "dead fleet" in the James River. (What we would now refer to as being in mothballs.) The ride out to the ship in a small boat took us about 30 minutes. The boat owner said he would be back in an hour to pick us up. I don't think a human being had been on

that ship for 10 years--not since the end of the war. I took damage photographs, and we returned to the ladder around 11 o'clock. We waited for hours. Of course, we had no food, no water, and no way to communicate. When our ride finally returned at 4 p.m., he found two sad and tired people who didn't feel like listening to his apologies.

I walked into Frances' room at 6 o'clock to find her sitting up, looking very pretty, and surrounded by flowers, relatives, and friends. Then I discovered that we had a fine-looking son named Jeffrey Lee. He had been born just before noon. Something else had been born that day also--a hurricane named Diane, and it was headed directly for our area. It hit us on the 18th and delayed Frances' and Jeffrey's homecoming. Frances never returned to work (officially) until 22 years later.

We were very happy during the next few years. The business kept improving, I bought a new station wagon and better studio equipment. Electronic lights, for both studio and portable use, came on the scene, and of course I just had to buy a set of each. I had become good friends with another competitor named John Holland and his wife Judy. We helped each other in emergencies. In June 1958, Charlie Anderson, owner of the building, decided to sell it, since my lease was up that month. After learning that I could not buy the building (\$20,000), he forced me out. I found a nice commercial building close by, rented it, and moved in.

Since we had sold our home prior to that, we located and rented a house on Powhatan Parkway and moved in in July. We made all the moves in the 30 days that Anderson had given us. There was a beautiful backyard filled with flowers where we lived. Jeff, now three years old, got a new kitten from his grandparents in Crewe and named it Muff. We had an enjoyable year there. We read the pony book Misty to Jeff 10,000 times, Muff turned the Christmas tree over, and we had a beautiful 12-inch snow that winter. Of course, Christmas was one of the busiest times of the year at the studio.

As usual, Christmas Eve was a nightmare, what with the many orders to complete and deliver. I still had some portraits at the colorist at 6 p.m. I made a fast trip to her home and found her still painting the last order. While I waited, her husband invited me into his study and handed me a cup of eggnog. Norwood Evans was the head of the personnel branch at the National Aeronautics and Space Administration (NASA) at Langley Field. He said, "Gene, this is Christmas Eve, you should be home with your wife and boy. You work all the time." Of course, I could not disagree with him. "Why don't you let me try and get you a photographer's job at Langley."

I hesitated and figured in my mind that after operating expenses were paid I might make close to \$5000 for the year at the studio. I asked him what kind of salary he was talking about, to which he replied, "I think I can get you on as a GS-7 at \$5500 per year. Now remember, that is eight hours a day,

five days a week, with sick and annual leave, and a few other perks included. Why don't you think about it and come out and see me after Christmas."

As much as I loved the studio, how could I think of leaving? As I closed the studio doors around 9 p.m. and drove home, I really took a hard look at my options and the future. I think I made my decision while watching Frances and Jeffrey on Christmas morning. That afternoon I told her the story and asked for her opinion, which was expressed very quickly. I was very concerned as to whether I could qualify for the job, since I knew that motion picture experience was required. What the hell... It wouldn't be the first time I had jumped into the unknown.

CHAPTER 6
JOINING NASA

After I submitted the application, I was told that it might be weeks before any decision would be made, so I tried to bury myself in my work and wait. One day, out of the blue, I received a call from John Holland, who, in addition to operating his studio, worked at the Navy Weapons Depot at Yorktown. He was in charge of the small photographic department. He offered me a job as a GS-5, which was about \$4985 per year. I asked him for two weeks to think about it. I was sure I would hear something from NASA by then.

In early February, Evans called and said that a final review of my application showed that I lacked three points of the necessary 80 required to be eligible for consideration. The personnel board reviewed and submitted the highest three applicants to the employing organization, who could then request any one of the three and were not restricted to the applicant with the most points. Evans told me they had only two with more than 80 points, but that did not help me any. In his office the next day, he tried to help, and while rambling on over points, service time, etc., he mentioned awards. I jumped up and yelled, "Purple Heart--does that carry any extra points?" "Can you believe it--five," he replied. "Now bring me proof as quickly as you can."

I returned a copy of my discharge, which listed my Air Medal and Purple Heart. Later that day he called the studio and told me that they could not accept the discharge as proof, and unless I could do better before their 3:30 p.m. meeting the next day, it was all over. That job was a short-lived dream, I thought, as the phone rang again. It was Holland telling me that he must have an answer by 4 p.m. the next day. After going to bed, I made a big decision. At 4:30 a.m. I began driving 80 miles per hour to the Pentagon. I finally found the right department and pleaded my case before five colonels who in turn called the National Bureau of Records in Saint Louis. An hour later we received a telegram containing the information I needed with an "official letter to follow."

Tired, sleepy, and hungry, I reached the personnel office around 3 o'clock and delivered the material. I wasn't even sure that this would satisfy them; however, I did ask Norwood to please let me know the outcome by 4:00 if possible. I could tell by his expression that I was pushing it a little far. Just as I figured, Holland called the studio at 4 o'clock, and I reluctantly turned down his offer. I had decided to go for the big one, so I closed the studio and went home and waited. Norwood called around 6:00 and politely said, "Gene, if you are still interested, you can report to work on March 3rd."

I reported to work at the NASA personnel office and was sent over to a small building on the main Langley Air Force Base. After talking to several people, I was interviewed more

extensively by a somewhat puzzled personnel officer. He made several phone calls, left me a couple of times, and after 2 hours instructed me to go back to the office that I had originally reported to that morning.

After a few more conversations and a couple more phone calls from the Langley office, I was told to report to a John R. Brinkmann, chief of the Photographic Instrumentation Branch. John welcomed me aboard and assigned me to the still photography section. He told me that after a month I could transfer to and begin training in the motion picture section, which made me very happy.

After a couple weeks, I was very confused over the names of the organizations. The Public Affairs Office, PAO, offered me some written material and also provided me with an oral briefing around the middle of April 1959. I learned that the original National Advisory Committee for Aeronautics, NACA, with headquarters in Washington and laboratories in other states, had been engaged in research for 43 years. The Langley Aeronautical Laboratory was the oldest, followed by Ames in California and Lewis in Ohio.

Following WWII, both NACA and the military became involved in developing and testing faster and higher-flying aircraft and many types of rockets, such as the Jupiter, Vanguard, Atlas, and Redstone. The Army, Navy, Air Force, and NACA all worked for years without any direction or master plan from Congress. Then on October 4, 1957, the Russians orbited

Sputnik I. From that moment on, all efforts were directed toward the ultimate goal of putting a man into space and returning him safely to earth.

On July 29, President Eisenhower signed into law the National Aeronautics and Space Act of 1958, which established the National Aeronautics and Space Administration, or NASA. Much to the bitter disappointment of the Air Force, in August the president assigned the responsibility for the development and execution of a manned spaceflight program to NASA. On October 1, 1958, NASA was officially activated and the old NACA was closed out. The names of all the NACA agencies old and new were changed to "research centers." Thus emerged the name Langley Research Center.

Everyone became excited over the new NASA mission and initiated all types of new programs. It was obvious that there was going to be a lot of duplication and fighting between the centers, since no center had been named the leader. However, the decision was made in Washington in late October to establish a new NASA organization to be responsible for implementing this manned satellite project, which a month later was officially named Project Mercury. Where would this new organization be located? That announcement came on November 5th. The new organization was named the Space Task Group (STG) and was to be housed, in the beginning, on the Langley Air Force Base, but not as part of the Langley Research Center. Thirty-five key people from the Research Center were

transferred to form the nucleus of the STG, with Dr. Robert Gilruth appointed as project manager.

In the beginning, as was to be expected, things were in a turmoil at STG. People, equipment, and procedures were all new. Decisions had to be made quickly and on the spot. All operational support was provided by the Langley Research Center. After several months of steadily increasing photographic support for STG, John Brinkmann complained bitterly to STG management, who finally responded, "All right, we will tell Langley to hire us a photographer to help out." The trouble was that they never told their personnel office of the decision. That is why no one knew what to do with me when I was sent to them that day I reported for work.

That also explains why I was put on STG's payroll and then loaned to Brinkmann at Langley. I reported my regular and overtime hours daily to STG by phone, since no written time cards were required. Shortly thereafter, STG requested that I be assigned to most of their overtime support jobs, and especially those involving the astronauts. In many areas there was confusion between STG and the Langley Research Center as to operating procedures related to overtime and travel. Langley had always operated on a tight budget with almost no overtime or travel. Suddenly STG, with its large budget, was demanding unlimited support of all types and at all times seven days a week.

In early May, the original seven astronauts, Malcom Scott Carpenter, Leroy Gordon Cooper, John Herschel Glenn, Virgil I. Grissom, Walter Marty Schirra, Alan Bartlett Shepard, and Donald Kent Slayton reported to STG for permanent duty. I assisted in taking their first official astronaut portraits.

As he had promised, Brinkmann assigned me to work with and train under the lead motion picture photographer, Andy Sea. After a month I was going on assignment alone, where I encountered countless strange new terms, such as "booster," "capsule," "boilerplate," "heat shield," "Atlas," "Little Joe," "escape tower," and so forth. I was often told that those were just a few and that there would be hundreds more within another year.

Daily, in machine shops, wind tunnels, drop towers on the river, and in fabrication shops, we would photograph all types of straps, seats, shields, motors, covers, small towers, bolts, wires, barrel-like containers, and many other items too numerous to describe. The engineers told me that all those things would be tested, reviewed, and tested over and over until they were accepted or discarded. If accepted, most would then be assembled as components of larger packages, which would be dropped from aircraft and studied for their aerodynamic characteristics.

Next, after hearing about Little Joe and Big Joe several times, I knew that there was still a lot more for me to learn about the current programs. With the help of Brinkmann and some

on-site engineers, I learned that many major operational decisions had been made long before I came to work. Types of flight hardware had been determined, flight programs named, and booster rockets tentatively selected. The more I learned, the more amazed I became at the overall complexity of Project Mercury.

Of course, the military had developed an intercontinental ballistic missile with a warhead nose cone that would separate and explode, but never had they faced the problems of putting a man in place of the warhead and guaranteeing him protection from launch "g" forces, mechanical failures, radiation, unknown outer space dangers, reentry heat, landing impact, and the possibility of not being located or recovered after landing. I was surprised to find out just how much the old NACA personnel had accomplished in designing the basic hardware for this history-making program.

Some had spent months trying to determine program phases, schedules, cost, and the types, sizes, and availability of the booster rockets needed throughout the program. Three major phases were outline in the beginning. Committees, engineers, and management personnel from all of NACA took off in all directions to conduct research and support studies with all branches of the military and with manufacturing companies. As a result of these extensive studies, the following was decided:

Phase one would begin with the design, developing, and testing of the basic hardware needed to proceed further. Of

course, it was obvious that the manned capsule was the most important piece of equipment, if any piece could be considered more important than any other. Its size, shape, and weight had to be determined. This phase of the program would require a small, inexpensive rocket.

Phase two would involve several suborbital missions that would prepare for the ultimate goal of earth-orbital missions. It would be more sophisticated and require a larger booster rocket. NASA selected Wernher von Braun's Redstone missile for this phase, and the program was called Mercury-Redstone (MR).

For phase three--orbiting the earth--the country's largest ICBM missiles would be required. After reviewing the quality and availability of existing rockets, NASA selected the Air Force's Atlas missile and named phase three the Mercury-Atlas (MA) program.

The booster rocket for phase one was designed by Langley engineers. They settled for a cluster of four solid-fuel Sergeant rockets with four large fins at the base of the booster. They often joked that the four dark holes on the blueprints resembled two dice with two dots on each. In the jargon of crapshooters, that is referred to as "Little Joe." The name stuck, and both the rocket and phase one became known as Little Joe.

I quickly discovered that the development of the capsule itself started from dropping different types of barrels, filled with concrete, from cranes. From these tests came the basic

capsule design, and then the shops began fabricating mock-up capsules, which were called boilerplates. Several different models were being made--some empty and some with a degree of interior design and instrumentation. I was told that other components would eventually be attached to the capsule, like the heat shield, retro rockets, escape tower, and separation bands. It was all so intriguing and exciting.

Brinkmann called me in for a branch meeting with his nine desk-loving senior photographers, who had been with NASA an average of 10 or 12 years. He reminded us how much hardware testing had been done on the ground, in the water, and in wind tunnels. Then he went on to describe the kinds of tests we could expect in the near future, such as the firing of explosive bolts, parachute deployment, and escape rocket motor tests. There would be many launches and high-altitude drops before the Little Joe program was complete. Then he got to the point: Photographing these events would require the photographer to shoot from the backseat of a high-performance jet fighter, something that had never been done before. He told us that the Air Force had agreed to provide the pilots and planes if we wanted to try it. "Hey, fellas, it's a first. What do you say?" He added that it had to be on a volunteer basis because some danger was involved and personnel management thought we would not be covered by our government insurance. Cal Worthington, Brinkmann, and I were all that signed up. Cal had to quit after his check-out flight due to an ear injury.

When I completed the classroom phase, I was given an orientation flight with an Air Force captain. It was the highest that I had ever flown--34,000 feet--and the flight included my first 360-degree roll. I took my movie camera to see how it felt in my hands. Sometimes it weighed nothing and sometimes it weighed 30 pounds. Brinkmann and I flew several practice missions where we chased each other up and down and around. We decided that in future we'd call them chase missions or chase flights. The next few weeks we chased a boilerplate capsule after it was released from the tailgate of a C-130 at 20,000 ft. I would follow it to about 12,000 ft. and Brinkmann would move in at 10,000 and follow it to impact. Next was parachute deployment and then the firing of the explosive bolts to release the clamp rings that held the major part of the entire package together. It was a new and exhilarating experience, and we did provide some useful motion picture photography.

I learned that the total package (or cluster) would include the rocket, the capsule attached to it by a V-band or clamp ring, and an escape tower on top of the capsule. The escape tower was necessary to pull the capsule away from the rocket booster in case of an emergency while the rockets were still firing. On the bottom of the capsule was a heat shield (to protect against intense reentry heat), and in the nose cone was the drogue (pilot) and main parachute. I found it difficult to realize just how critical it was for all the programmed

sequences to respond to the command signal at the precise instant in order for all the major events to occur successfully.

During the next few weeks, I flew standing in a metal basket specially welded to the nose of a large Marine helicopter. I covered astronauts egressing from a capsule in deep rough water and being picked out of the water by another helicopter. I filmed low-level capsule drops (for observing minor failures that couldn't be detected at high altitude) and impact studies of the capsule on land and water. As phase one got into full swing, I flew two and three flights a day.

I had thought in the beginning that the three phases would follow each other in order. I was wrong. The Redstone and Atlas rockets were to be fitted with boilerplate capsules and launched from Cape Canaveral, Florida, at the same time that Little Joe rockets would be launched at Wallops Island, Virginia.

On November 4, 1959, Brinkmann and I were scheduled to fly an observation flight only for the launch of Little Joe (LJ-1A). By the time we reached 30,000 ft. and were circling 10 miles from the launch pad, we saw Little Joe leave the ground and zoom past us. It was a thrill, even though we were so far away. Soon after I landed, I heard someone say, "I held my breath as Little Joe went through max-q." The next day I learned that "max-q" meant maximum dynamic pressure, which was the point at which a combination of the highest speed and

highest atmospheric density created the greatest pressure on the vehicle. Max-q on Little Joe was predicted to be 1000 pounds per square foot at 31,680 ft., 1 minute after launch. These figures would change with different rockets and different payloads. It would always be one of the most critical moments in any launch.

It appeared that we were going to get our big chance before the end of the year when we were scheduled to chase LJ-2 on December 4, 1959. STG had allowed the Air Force School of Aviation Medicine to fly its package, which included a small rhesus monkey named Sam, after its alma mater. This time I flew at 30,000 ft. and Brinkmann was at 20,000. The pilots had been cleared to fly as close as they felt was safe. How close was that? I wondered. I started the camera right after liftoff and, as the rocket drew closer, it looked very close to the plane, but the image on the negative was very small. Radar showed us still five miles away as it reached our altitude. We estimated that we had to be at least one mile for our lens to provide useful pictures. That was a frightening thought. In other respects, the mission was highly successful, and Sam survived, although he was a little shaken up. By the year's end, five launches had taken place (including a Big Joe), all of which were successful overall, despite some minor failures.

With Christmas approaching, my attention turned to the family and our new brick home on Redheart Drive. It was located

in a very nice area and much closer to work. We had a large window air conditioner in the living room. Frances ran the studio during the day and I worked there at nights. Jeffrey stayed with his aunt Nancy and cousin Cathy during the day in their rented home on the edge of Hampton near my parents. We had stopped going to church years ago, but with Jeff four years old, we felt that we should think seriously about returning. We went to see the Hood families in Crewe as often as possible. Two of Frances' four brothers were married and each had a child near Jeffrey's age.

We didn't have to wait long for another try to get closer to Little Joe. As we closed in after liftoff on January 21, 1961, I thought we were going to collide with Miss Sam and her booster as it sped upward and passed within a mile of our plane. What a fantastic sight as it roared by with all four rockets burning fiercely. My pilot said over the intercom, "Hey, Gene, I've got it now. The next time I'll really get you close."

The next big launch on the schedule was a Mercury-Atlas (MA-1), which would carry an early Mercury capsule into space. The capsule was basically an outer shell with one instrumentation package inside. I had a pleasant surprise when told that I was to go to San Juan, Puerto Rico, and fly on a large Navy plane and photograph the capsule's reentry. Of course, the odds were against us even seeing it. Some scientists had figured a course and flying time necessary for

us to arrive at a point 200 miles in the ocean at the same time MA-1 reentered the atmosphere. They told me to look out of the side hatch window 45 degrees toward the nose and then up 45 degrees and that would be where the capsule would reenter. After I absorbed all those instructions, I shook my head and walked away. My respect for the scientific world hadn't reached that level yet.

The trip included my first flight in a commercial 707 jet plane. I was not welcomed aboard the Navy plane, since the pilot had bounced a Navy photographer because of me. Just before arriving at the reentry point, we heard that the capsule had separated from the Atlas a minute after launch. It was a long trip back to Virginia.

It was about this time that I had two pleasant surprises. Frances was pregnant again and doing well, and I received my first promotion, a GS-9 (\$5985). The raise caused resentment on the part of the other photographers, because they had waited so many years for theirs. John had hired a new photographer, Wendall Ayers, and he had agreed to fly. I bought my dad's old Plymouth to drive to work, making us a two-car family. Jeff had several friends on our street, was growing fast, and seemed very happy in our neighborhood environment.

On election day, November 8, the first fully instrumented Mercury capsule, fresh off the McDonnell assembly line, was launched atop LJ-5. The entire cluster was lost when the escape tower rockets fired 16 seconds after launch. The rocket,

capsule, and tower continued to an altitude of 10 miles before being shattered to fragments upon impact 2 minutes later. The parachute could not deploy. It didn't seem possible that just thirteen days later the first Mercury-Redstone, MR-1, with another McDonnell capsule, would fail. When the Redstone ignited, the escape tower shot upward and away, but 3 seconds later the drogue and main parachutes shot out of the nose cone and just fluttered down the side of the Redstone. It was disappointing and embarrassing to say the least.

Even though failures are expected, these two did nothing to help improve our morale or the Thanksgiving holiday. However, employee enthusiasm and confidence in the program was just too high to let this keep us down any longer than it took to return to work. Workers at the Cape quickly regrouped, made several changes in the command-signal firing systems, and on December 19 had a highly successful MR-1A launch. What a great way to end the year--we needed that.

In early 1961, the schedule showed alternate MR, MA, and LJ launches during the first four months, but foremost in everyone's mind was the first Mercury-Redstone manned flight. Wendall and I received an invitation to become the first photographers to chase a NASA rocket launched from the Cape. It was to be the MR-2 mission, carrying a chimpanzee named Ham. After a 4-hour hold, we were airborne and on the way. The launch was beautiful and everything went well for Ham. He reached a speed of 5857 mph and an apogee (highest point) of

157 miles. He was weightless for 6 minutes and experienced over 17 g's. He performed all his tasks as planned and really paved the way for the upcoming manned flight.

As for Wendall and me, we did not get as close to the Redstone as we would have liked, but the pilots had been instructed to play it safe. President Eisenhower and Congress had recently been somewhat critical of NASA, and this was not the time to risk an accident of this nature. Naturally, I agreed.

I was happy to be able to stay at home for a while as Frances was approaching that time again. She was doing fine, and on March 2 gave birth to a precious little girl that we named Jane Lee.

Several years earlier, I had gotten my private pilot's license. I flew every chance I got. There was just something different from the type of flying I did at work--a lot less dangerous, too. I would take family members on local sightseeing tours whenever possible.

The decision had been firmly made that, before there could be a manned spaceflight, there must be a successful mission where the escape system functioned as it should at max-q. That certainly added pressure and importance to the March launch of LJ-5A (a replay of LJ-5). I really felt confident of a success as I watched those four columns of fire headed for us. Then it happened again--a premature firing of everything far too soon to save the mission.

There was only one Little Joe booster left, and the pressure for the manned flight was coming from all sides. If that wasn't enough, on April 12, rumors were confirmed that a Russian spacecraft, Vostok, piloted by Major Yuri Gagarin, was in orbit around the earth. It was disappointing news for NASA and most Americans. President Kennedy said that we were behind, and that the news would get worse before it got better. Little did he know how true his statement was.

All was ready for MA-3 to lift off and make one orbit around the earth carrying a crewman simulator that could inhale and exhale. I remember waiting at the Cape, standing beside John Glenn in the sunshine. It was the first launch I had witnessed from the ground. Gus Grissom flew by in an F-106 and headed for the Atlas as it shot upward, but 40 seconds after liftoff there was a violent explosion, and when the smoke cleared there was nothing. I even thought Grissom's F-106 had gone up with the Atlas. If there was anything good to come out of the failure, it was the fact that before the rocket was destroyed (it had failed to initiate the pitch and roll program), the escape system carried the capsule to safety and Gus was not close enough to be hurt. I rushed home from the Cape to fly chase on the last Little Joe launch scheduled in two days.

The Air Force had called in a hotshot major and an F-101 jet from Florida to chase LJ-5B, the last and most critical of all the Little Joe launches. The previous mission report

indicated that a structural failure near the clamp ring had caused the early closure of two main clamp-ring limit switches. Of course, the clamp ring and limit switches had been redesigned and reviewed. Mission parameters called for a max-q of 990 pounds per square foot and a steep trajectory of 45,000 ft. before the tower separation and chute deployment.

Rehearsals, on radar, had been beautiful, and Major Carson, my pilot, was planning to rendezvous with Little Joe at 45,000 ft. and then follow the capsule and parachute down to 25,000, where Wendall would be waiting. He was the best pilot that I had ever flown with in a jet. At 9 a.m. on April 28, 1961, we flew across the shoreline in a climbing half circle and watched the four pillars of fire and smoke from the booster as Little Joe headed directly for us. With the adrenalin flowing, I started to squeeze the camera button but quickly yelled, "Oh God, not again," as I saw large flashes around the escape tower. This would be the third time that everything had taken place far below me, and so it did. The tower separated, the capsule rolled over, and the chute ejected. I screamed, "Down, go down." Simultaneously, he executed a violent inside loop maneuver (since the capsule was behind us now) in order to catch the capsule and follow it down.

Quickly we rolled out, and I had never experienced such weightlessness and quietness in a plane before. I kept yelling to go down, and then he came back, loud and clear, "Edmonds, will you please shut up while I try to restart these damn

engines. Both engines have flamed out." I froze. I had never experienced an engine flame-out before, and now I was getting two for the price of one. He pushed the stick forward, and as we started down I closed my eyes and my mind drifted back to another time when I headed to the ground in a disabled airplane. I sensed the increase in g's as we pulled out, and I opened my eyes to face reality again. This time the major calmly said, "Relax, Gene, they're both running OK, but the show is over for us today. Let's have a restful ride back to Langley." After communicating with the tower, he pulled the nose up and made a quick roll and headed home.

I happened to look down at the river we were crossing and thought of one cold morning when we were flying back very low and down that river when the pilot saw several oystermen standing in a small boat ahead of us. He dipped the nose and went down to 50 ft. and flew directly at them at around 300 mph. They all jumped into the water.

One thought led to another as I remembered the day my good captain, who was the base safety officer, dropped his oxygen mask, forgetting it was on 100 percent, to have one final cigarette before landing. He was able to cut off the oxygen quickly and escaped with only minor facial burns. You should have heard him trying to explain the cause to his boss.

Oh yes, there was the morning the previous week when Major Carson asked me, as he released the brakes, "What's the fastest you've ever reached 30,000 ft.?" "I guess 2 or more minutes," I

replied. "Well, look at your second hand," he said, as I felt the wheels of the powerful F-101 leave the runway. Sixty seconds later I saw the altimeter reach 30,000 ft. I just couldn't believe what I saw.

I will always remember the time we flew through the edge of a hurricane for a turbulent 20 minutes before arriving at Langley. We still hadn't seen the ground when we got down to 1000 ft. My new young pilot called Wendall's captain (we were still flying in a tight formation) and told him that we had inverted the planes somewhere along the way and had to turn over again. The captain ordered him to continue as he was. After the tower gave us clearance to land, he said, "Gene, I know we're flying upside down and I'm going to roll over." Just at that moment, 500 ft. from the ground, the clouds opened and there was the runway--we were flying right side up. They called it vertigo in the Air Force.

As I was scanning the instruments, I thought of another moment of excitement last year. This happened the morning of my first ride in one of the Air Force's largest and fastest and newest planes, the F-106. The pilot had just completed his briefing and bail-out procedures and we were strapping in. He turned on the intercom and told me to notice that on top of the instrument panel was a long black box with six small glass panels in it. He told me, "Should a red light come on in any panel, don't even wait for me to tell you to go. Just bail out." As we leveled off at 35,000 ft., I was still marveling at

the smoothness and comfort of the plane when one of the lights came on.

"Oh hell," I screamed as I searched for the ejection seat handle and tried to conduct a last-minute cockpit check before squeezing it. At that instant he yelled, "Wait, wait, we may have an electrical short in the panel box." I waited. There was a short, but I don't remember much more.

I once had another big surprise. After a Little Joe launch, my pilot received a message for us to land immediately (we had never landed at Wallops before) and tell Edmonds to get out with his film. STG had requested Brinkmann to send a small chartered plane to take me to Washington National Airport where a car was reserved. I was to take all the aerial and ground color film to Eastman Kodak where they would process it immediately. Then I had a first-class reservation on a commercial flight leaving after midnight. I was to have the film in the conference room at 6 a.m.

I was relaxed and smiling as Major Carson told me to prepare for landing. By the time we arrived in flight operations, they had received word that, much to our surprise, the mission had been declared a success. A slight malfunction in one of the four booster rockets had resulted in the decision to fire the escape rocket motors at a lower altitude. They even recorded a higher max-q than had been anticipated. Wendall had some nice film, and I told him that it just might be time for

me to switch positions with him. Neither of us realized that that was our last rocket chase mission.

Earlier in the year, Dr. Gilruth had selected John Glenn, Alan Shepard, and Virgil Grissom as the three candidates for the first American to go into space. Even though it was known among the astronauts, Alan Shepard's selection was not made public until after the first postponement of MR-3 on May 2. On May 5, 1961, Shepard lay in the capsule for 4 hours and 14 minutes before he finally lifted off at 9:34 a.m. with 45 million Americans watching on their TV sets. Freedom 7 functioned as programmed. Shepard experienced 12 g's, 5 minutes of weightlessness, reached an altitude of 116 miles, and a speed of 5180 mph during his successful 15-minute flight.

Dean Conger, a National Geographic photographer, had been allowed to go on the recovery ship in addition to the Navy photographers; however, few of their pictures ever reached Langley or the Space Task Group. There was a definite need for NASA personnel to coordinate many of the recovery operations, including photography. On June 11, Walt Williams of STG informed the Navy that a NASA representative or team leader from such areas as engineering, medical, public affairs, photography, and the Mercury program office would depart on the aircraft carrier for the next recovery mission. That set the stage for the first of my 28 trips to sea on Navy ships, mostly carriers, in the Atlantic and Pacific, to coordinate all

photographic support activities among the news media, the Navy, and NASA.

CHAPTER 7 RECOVERIES AND REORGANIZATION

For the MR-4 mission, we departed from Jacksonville, Florida, on the USS Randolph. Sailing on a Navy carrier was a new experience for me. After a few days, I knew I was going to enjoy it extremely well. The clear fresh air, rolling seas, plenty of sleep, good food, and the VIP red carpet treatment by all of the Navy personnel was more than one could ask for. The main events to be covered were the splashdown, pilot egress, capsule recovery by helicopter, pilot arrival on the ship, capsule arrival on-board, medical examination, and pilot departure. Even with all of the Navy and one extra NASA photographer, I was still a little shorthanded. I would bring more NASA guys the next time.

Two Navy photographers and I left the ship in the three recovery helicopters and headed for the splashdown area after we received word that pilot Gus Grissom was reentering the atmosphere. Just before we arrived on the scene, the capsule door suddenly blew off and water began to rush in. Grissom got out and into the water immediately, but he forgot to close his suit inlet valve and his suit began to fill with water.

The prime helicopter was trying desperately to lift the water-filled capsule and instructed the backup helicopter to pick up the astronaut. They moved in, lowered the "horse

collar" (recovery sling), and approached Grissom. They were flying too low and the air flow from the rotor blades just blew him away from the collar, which was dangling in front of his outstretched hands. We moved in closer and watched their second try, and it became obvious that Grissom was struggling to stay afloat. Our pilot suggested that they pull up and drop down on him, which they did quickly. The collar fell on calm water and into his hands. Meanwhile, a red emergency light appeared on the number one helicopter's panel, and the pilot decided to release the capsule, which then sank in 15,000 feet of ocean. Grissom now had the collar on, but backward, and we held our breath as they raised him and dragged him into the helicopter.

About 10 seconds of my footage was used in the Hollywood film The Right Stuff 22 years later. Gus told me during the medical examination that he was really struggling at the end. I was flown to Cape Canaveral that afternoon and was interviewed by several TV and radio stations before getting a good meal and a flight home with all the film. Aside from the post-splashdown problems, MR-4 was a success, and NASA decided to cancel the rest of the Redstone suborbital flights and go directly to the orbital missions with the Atlas rocket.

Upon returning from one of my trips, I discovered that the Space Task Group had decided to create a photographic office and had appointed Andy Sea to head it. Soon after he transferred, he convinced Al Morowitz to transfer and be his assistant. Al was another of John Brinkmann's 15-year GS-9 desk

lovers. By this time, most of them had little to say to me--a GS-9 after two years, traveling so much of the time and putting in so much overtime. In early August, Andy called me, and when we met later in his office, he offered me a job in the new photography organization. We all knew, by then, that STG would move to a new location in the near future.

Brinkmann and the Langley personnel office had coerced me into officially transferring to Langley in early 1961. They convinced me that there was no future with STG and that they would look out for me. Of course, I was definitely interested in rejoining STG, moving on with them, and being a vital part of the space program. I stressed the importance of Brinkmann not finding out about my feeling at this point. For a month, I worked when I could with Andy and Al, writing purchase requests for new equipment and planning the new organization. The problem was that I couldn't trust either of them and was not sure what position they would offer me. The new division would have at least three section heads, two branch heads, and one division chief. I realized that I had very little experience in government service.

I had closed the studio, and Frances and the children were enjoying life on Redheart Dr. Of course, I wasn't helping much by being gone so often. I was driving to work in the old Plymouth, which had about 65,000 miles on it. Jeff would be starting school in September--another milestone. Jane was still a little baby.

The success of MA-4 with a mechanical crewman simulator on-board would be critical to the program at this stage of the schedule. After a successful launch, the capsule became the first to attain an earth orbit. It was recovered by a destroyer over a hundred miles from the carrier. I flew there in a small Marine helicopter, dropped onto the deck, took pictures and movies, collected the important on-board items, was reeled back into the helicopter, and returned to the carrier. A few days later, the long-awaited announcement came that the new Manned Spacecraft Center (the new home for STG) would be built in the Clear Lake area 26 miles southeast of Houston, Texas. Where on earth was this?

During the month of October, many things were happening behind the scenes. Brinkmann had found out that I was going back to STG and was waiting for the right time to confront me. He had been creating problems with his men and management because he was favoring STG a little too much even though he claimed to dislike them. A high-level management friend of his, Jack Heberlig, transferred to STG and was put on a committee to review the planned photographic organization. Heberlig had been involved in reorganizing Langley's diversified photo support people into one division several years before. Upon hearing about Andy Sea and Al Morowitz, he told the group that they were not qualified and should be put in charge only of public affairs activities, including news photography. He thought that STG should establish an engineering, aerial, and still

photographic division with a complete processing laboratory. Naturally, he told them he had a good man in mind to head the division: John Brinkmann.

During a routine visit the next morning, Andy and Al asked me to pledge my allegiance to them again and to spend more time helping them to write purchase requests. When I returned to the office, Brinkmann suggested that we go off base for lunch. After sipping his beer for a few minutes, he let me have both barrels. "Why in hell did you do it? Those guys will never do anything for you once you've moved. I know them, and besides, what makes you think that the Manned Spacecraft Center will ever succeed on its own? You're leaving job security. Why? Tell me!" "Dammit, John, I'm sorry but I've put too much into this program to leave it. I started on the ground floor and, with your help, I've come a long way. I have all the faith in the world in their future, and I'm going to Houston." Then he informed me that he had been offered the job of photographic division chief and wanted to be sure that I wasn't going to back out before he called Heberlig with his answer after lunch.

"It will not be easy," he said, "the move, new homes, our wives, and starting over from the ground up." We shook hands, and I realized that I had just double-crossed Andy and Al. My double-cross was mild compared to the anguish they suffered when told of the major changes in the structure and personnel of the new photographic division. When looking back on the relationship between our two organizations during the

subsequent 25 years, I know now that they declared war on us that afternoon--one that would never end.

John and I worked overtime planning the laboratory layout for the builders, discussing personnel, deciding the division structure, and writing purchase requests for lab equipment. I was given a momentary reprieve from the internal organization problems when I reported to the recovery carrier for mission MA-5. This was to be the dress rehearsal for the manned orbital mission. MA-5 lifted off with a 37-pound chimpanzee named Enos, who performed his duties successfully during the flight, which was cut short by one orbit. Enos was recovered by a destroyer and found to be in excellent condition. He posed for pictures and stole the show at his press conference. A later cartoon showed him walking away from the capsule with Ham, saying, "Well, we're a little behind the Russians and a little ahead of the Americans." The next day, John Glenn was announced as the pilot for the first orbital flight, scheduled for early 1962.

Formal management offices were now opened in Houston, and the name STG was being replaced by MSC (Manned Spacecraft Center). STG had chartered a shuttle plane to fly from Langley to Hobby Airport in Houston twice a week for personnel to use. Upon returning home from MA-5, I found that John had scheduled us for a trip to Houston that week. We stayed in a motel named the Carousel, located in the Gulfgate shopping center. We toured the area where the Center was to be built, and there was

nothing but cows in the field and one narrow approach road. Houston had unusually cold temperatures the first night, and the motel pipes froze, so we got off to a bad start the second day. A visit to Ellington Air Force Base did nothing to alter our disappointment with the entire area.

I was pleased with a housing project named Fairmont Park. The houses started at \$14,500, though, and I was not sure I could qualify for an FHA loan. During the return flight, Brinkmann began to have second thoughts, and after we landed that night he called our director at home and asked if he could keep his job with Langley, as we had not officially transferred to MSC. Unfortunately, he insisted that I stay with him. I didn't care what he did at that point. The next day he broke the news to Heberlig. After a quick management meeting, they asked Brinkmann if he would continue to work on the building plans, as time was critical, and they would try to replace him as soon as possible. Of course, when they asked me, my answer was, "I want to go to Texas." The game plan was to get John so involved in division planning that he would not want to back out. Of course, they would delay his replacement, and in less than a month he changed his mind again.

Frances was not very happy about leaving our friends, but she knew that I would have a much better future if we moved. I knew that this would be our last Christmas in Hampton but had little time to dwell on it, because MA-6 had been scheduled for January 27. We submitted a division staffing plan calling for a

division chief, two branch chiefs, and four section heads. I was listed as one branch chief and Bob McGee, from Langley, the other. We would find the section heads in Houston. Brinkmann and I were officially transferred to the Manned Spacecraft Center on January 20, 1962, one day before I sailed for MA-6.

After two launch postponements, the carrier returned to port and I went home to find that McGee had decided he didn't want any part of Texas. Things were moving fast: We now had an office over in the old STG area, Brinkmann was going to Houston for a week, and many STG personnel were already moving. When leaving, John told me to find a replacement for McGee before he returned. After much persuasion, I convinced my old friend John Holland to accept the job. Since he had been a GS-9 at the Naval Weapons Depot for over five years, he was eligible for a GS-11. During his interview with Brinkmann and personnel, he decided that since he really didn't want to go anyway, he would ask for a GS-11. They called his bluff and gave him the raise. In civil service, there is an absolute minimum period of 12 months between promotions. In most cases, the higher the raise, the longer it takes. I had not been a GS-9 but eight months.

Holland started two weeks before I was to return to the ship. I pulled some strings and had him cleared for travel, and much to his surprise I took him with me. On February 14, weather conditions forced another postponement, and we anchored off San Juan and spent four days there. We had daily meetings with Admiral Eastwald and his staff on the beach. It was my

first experience lying in the sun on a beach in February. Of course, the meetings were official.

On February 20, John Glenn became the first American to orbit the earth and land safely. However, his flight was not without several hair-raising experiences, some of which could have been fatal. One of the most dramatic and critical moments of the Mercury program came when a signal light came on in mission control indicating that the capsule's heat shield was no longer locked in position or that it had come loose from the capsule. If the heat shield fell off before or during reentry, the capsule would burn up. Breaths were held and prayers quietly said as the capsule entered the atmosphere and the flames became visible through the window. Those prayers must have been answered, because Glenn survived the reentry.

He was recovered by the destroyer USS Noa, and quickly three of us were dispatched by helicopter from the carrier USS Randolph. We could not establish contact with the destroyer; nevertheless, we hovered over the fantail while I was lowered with a movie camera in one hand and a case in the other. Just as I was ready to slip out of the sling, the destroyer executed evasive action and left me hanging over the water. I was raised a little and left swinging while the helicopter chased the damn destroyer for another try. It was obvious that they did not want us to come aboard.

However, once I was aboard, I located Glenn in the ship's ward room. The doctor was trying to examine him but could not

because of the total chaos that existed there. Someone from every department on the ship, including the captain and the chaplain, was trying to present him an award, proclamation, or make him Man of the Day for everything in the Navy. Eventually, Glenn said goodbye and was lifted into the helicopter as the setting sun provided a beautiful background for my film. As he headed for the carrier, I went to the capsule and picked up the vital items to be returned as quickly as possible.

I found the captain of the destroyer and asked him to call for a helicopter to take me back to the Randolph. "There will be no helo pickup from my ship after dark, so why don't you eat a nice meal and go to bed," he replied. I tried to explain that the data had to be returned immediately. After all else failed, I designated a witness and, as a NASA representative, officially requested that he contact Admiral Eastwald and let him make the decision. I then left for that good meal.

The carrier and destroyer were both heading for Grand Turk Island at flank (full) speed, and the destroyer was scheduled to overtake the carrier at 9 p.m. Thirty minutes later, the captain sent word for me to join him on the bridge. He greeted me and said, "You must be the most important man in NASA, or Admiral Eastwald has lost his mind. I have been instructed that you will make a highline crossing to the carrier in the dark at flank speed, which is forbidden for Navy ships. Good luck to you."

Back on the carrier, three S4B planes were being made ready for catapulting as John Glenn and John Holland made their way to the flight deck and boarded the first two. They strapped in and waited and waited. No one told them why. Around 8:45, we moved alongside the Randolph and slowed to 30 knots. The lines were shot across to the Noa as the waves leaped 20 ft. into the dark canyon between the two ships. The scene was awesome as I watched those cables swinging and snapping, heard the loudspeakers barking signals, and saw the cable chair being put into place. I was strapped in and sent off on one of the wildest and most frightening crossings I ever witnessed. I was battered by the wind and waves and hardly aware of the chain of events that followed. The deck hands unstrapped me, the marines grabbed me and my bags and practically carried me to the flight deck.

I strongly complained as they pushed me into the third S4B and slammed the door. A pilot yelled, "Quick, fasten your seatbelt." As the buckle snapped, the plane was released and I was on my way to somewhere. I saw the three-plane formation and was told who was in the other two and how long they had waited for me. Someone had packed all my personal belongings and the suitcase was in the back of the plane. Still wet and cold, I arrived in Grand Turk, where Holland and I boarded an empty C-130 cargo plane and flew to Cape Canaveral. A few hours later we were flying to Langley and home.

The next afternoon, February 22, I left on the shuttle plane for Houston to set up and open our first operational photographic office. NASA had opened headquarters in the Farnsworth Chambers building on Telephone Rd. I was provided a temporary office next to the acting director, Marty Byrnes. During the next two weeks, I made everyone aware of the new photographic division and its needs. I was able to get a full-time van assigned to us, and I requested more space, equipment, and personnel. Somewhere along the way, I found time to go back to Fairmont Park and buy a lot and apply for an FHA home loan.

I took the house plans back to Virginia where Frances approved them, provided we could add a fireplace in the living room. For the next four months, Holland and I rotated going to Houston every two weeks. With Mr. Byrnes' help, my loan was approved, and I signed final papers for construction to begin when ready. With the radio playing "Stranger on the Shore" in the background, Frances cried when I told her I had put the fireplace in the den because that was the custom in Houston. I think it was her final realization that there was no turning back now, in spite of the fact that no one, especially wives, had any nice things to say about Houston. A few weeks later, I received my GS-11 promotion (\$7560).

As I sat on the flight deck of the USS Intrepid soaking up the salt air, I wondered what unusual events the MA-7 recovery would bring and what Scott Carpenter and his capsule Aurora 7 could do to top the excitement of John Glenn's

recovery. When I look back on the Mercury missions, I realize just how dangerous, exciting, and frightening the flights and recoveries were and how fortunate we all were that no one had been seriously injured or killed. There was never anything else like them.

NASA still used the small Marine helicopters and pilots that trained with the astronauts at Langley. On this trip, the Navy had a squadron of large new HSS-2 helicopters on-board for sea trials. Every time six would leave the ship, three would experience problems in a short time and return. The launch went well and Scott enjoyed the flight. In fact, he enjoyed it so much that Mission Control had difficulty at times getting his attention away from the outside scenery. Due to a 25-degree capsule yaw error when the retro-rockets were fired, the capsule landed 250 miles downrange from the carrier. I was on the flag bridge with Admiral Eastwald when the Marine major informed him that the distance was too far for them to go and left the bridge dejectedly.

Navy helicopter commander Wonderjim casually commented that he surely would like to have a shot at the pickup. Eastwald laughed and said, "If you took your whole squadron, I doubt if one would reach the capsule 240 miles from here." His smile faded quickly when he was told that Mission Control at the Cape was waiting for his plans for rescuing Carpenter, who was sitting in or on top of the capsule with no means of communication. We did not know that his landing signals had

been picked up and Navy frogmen were arriving at the scene. The admiral, with tongue in cheek, reported that he had a fine new squadron of long-range helicopters on-board and that he planned to send two primes and two backups, with launch scheduled in 15 minutes. Eastwald was reluctant to let me go, but Wonderjim insisted that I go in his pickup helicopter.

Smiles broke out; we shook hands and ran for the flight deck. Everyone on the flight deck was astounded when the loudspeakers announced the plan. The top media photographers ran to our helicopter door and threw Nikon and Leica 35mm cameras in, yelling "Take some for me" as the crew chief closed it. We flew in a four-helo formation for a while and then one dropped out. We received a message that a seaplane from Puerto Rico was on the way to the capsule and had been told that whoever got there first would recover the astronaut. Wonderjim pushed the throttle forward, and we shook, vibrated, and heard loud noises everywhere. Half the panel instruments were close to the redline markers.

By this time, a second helicopter had returned to the Intrepid. We roared on to our rendezvous with Carpenter. A few minutes later we received word that the seaplane had been cleared for pickup, after the pilot had confirmed that the wave height was safe, and that we could return to the carrier or proceed and watch the recovery. We all nursed our disappointment as we approached the splashdown area. The plane made another low-altitude pass and all of a sudden pulled up

and left. I learned later that it was an Air Force seaplane and that the Navy convinced NASA that it was unsafe and NASA waved it off at the last minute. Later there was an investigation and a congressional hearing in Washington.

We were then told to recover the astronaut as quickly as possible. I had never seen so much dark green dye marker on the water before (it is released to help high-flying aircraft locate the capsule). As we slowly approached, there sat Scott on top of the capsule with his camera in his hand. The sling was lowered with extra slack in the line in case the helicopter rose any while he was putting the collar on. When Scott was ready, he raised his head, gave a big thumbs-up signal, and jumped off the top of the capsule. Two mistakes happened at the same time. First, he should not have left the capsule until the line was tight; but worse than that, the hoist operator, in his excitement, pushed the down button instead of the up button when Scott jumped. Carpenter disappeared into the pool of slimy dye marker.

I had my Arriflex movie camera running but could only think of the collar slipping off of him while he struggled under the water. In a few seconds, a bare green head popped up, followed by a green body. As he neared the helicopter, dye marker was pouring out of every cavity in his suit. As we dragged him inside, he was coughing and choking and trying to hold onto his camera. We cleaned him up and tried to make him rest, but he would not. Next I took the media cameras and

framed some great shots of him talking to Wonderjim with the sun setting through the cockpit windows. (A year later I found out that one of those pictures had been selected for a cover of Life magazine and that all the covers had been printed. But they had been pulled at the last minute for a stock market crash picture.)

By this time, we were closing with the carrier at flank speed, and I could not believe that I had already been nearly 400 miles in a helicopter over the ocean. We received quite a welcome upon landing. I also enjoyed covering the medical examination, since it was the last one with just the two doctors and myself present. Not long after, they turned into a three-ring circus.

Once again, I changed clothes, ate, catapulted off the carrier, and landed in Grand Turk, where we were greeted by most of the astronauts. I flew on to the Cape, Hampton, and then Houston to find that our new house was well under construction. Mass movement of Center personnel was also well underway. I worked with our house builder selecting colors, floor types, cabinets, etc., and then returned to bring the family up to date. They all seemed a little more excited over the coming trip to Houston.

On my return to Houston, I drove my old Plymouth. It was my first trip by car, and I had it loaded with plants for my new yard. Frances notified the movers in early July and all our worldly possessions arrived around July 15. The house had been

completed, and I received word from the local office that the truck would be at the house before noon that Saturday. I waited until after 4 p.m., called Houston, and then waited some more. Around 8 o'clock, I was told that they couldn't locate the truck but would keep trying. When it arrived Sunday morning, the driver told me they got lost, and after spending most of the day around Texas City and La Marque, they gave up and slept in the truck somewhere around Seabrook. I was disgusted with them and the company but managed to put everything in place and hoped the family would like it. The next day I flew back to Hampton to drive Frances and the children to Texas.

CHAPTER 8 MOVE TO TEXAS

I'm sure Frances and the kids felt like pioneers heading across the country as we loaded the De Soto with everything we had left in Virginia, said farewell to our families, and headed for Texas. Jeffrey was almost seven, Jane was 16 months, Frances was 29, and I was 38. The trip was fine until we hit a heat wave in Beaumont, and with no car air conditioner Jane really was tired and restless the last 100 miles. When we arrived on August 1, 1962, it was 102 degrees and stayed over 100 for seven days. John and Judy Holland had stocked the refrigerator with the essentials and greeted us. Later in the afternoon, the Drummonds, friends from Hampton who also had moved to Fairmont Park, came over to visit us.

During the weeks that followed, we tried to adjust to the new life, the heat, and the community. It was harder for Frances than anyone, because the children were too young to be concerned and I had my work to take up most of my time. I was already planning my next recovery, which was to be in Hawaii in late September. Frances got her Texas driver's license, found a new doctor, and made a few new friends. We began attending the local Methodist Church in La Porte. My biggest task at home was to save the newly planted sprigs of grass, which had been put in 6 inches of clay-like sand. I waded through it and watered

it twice every day, and much to my surprise it rooted and began to spread before winter.

I left for Hawaii around the middle of September and on arriving in the lobby of the Hawaiian Hilton was given a message that the launch had been postponed for eight days. Our recovery team leader, John Stonesifer, asked Houston if we should return the next day. The first reply was to sit on our suitcases until further notice. After 2 hours we were told, "It's cheaper for you to stay than the cost of airfare home and back." Of course, these were tough orders to obey, especially since it was our first trip to Hawaii.

A week later, we sailed on the carrier USS Kearsarge. Wally Shirra in Sigma 8 was launched October 3 and after 9 hours landed five miles from the Kearsarge, which was located 275 miles northeast of Midway Island. He elected to be brought aboard the ship in the capsule. I photographed it from the helicopter as it was lifted from the water and lowered to the deck. Wally's urine bag had burst upon the capsule's impact with the ocean, and we had lots of laughs while undressing him for the medical examination.

Earlier in the week, the captain of the carrier had related his experiences during the Battle of Midway when we were located over the exact place of the battle. I asked him if I could fly in with the planes going into Midway, after lunch, to pick up the other six astronauts and a couple of NASA VIPs. I had about 2 hours on the small, unusual island with all the

birds on the airfield. I visited the government liquor store and bought the very best for \$2.00 a bottle. Of course, there was a Navy rule that no alcoholic beverages were allowed on Navy ships.

All the astronauts left the plane first and walked across the flight deck to a musical welcome. The captain and commodore were out on the bridge watching. I had to take my large briefcase with me as I walked across the deck. Well, I could barely carry it and I was leaning considerably. Later I received a message from the captain wanting to know what was in the briefcase. I quickly wrote a return note that said, "Silverware, sir." Several days later at a luncheon at the governor's palace in Hawaii, while I was taking a picture of Shirra, the captain, and the governor, the captain told the governor that I was a NASA photographer and that I had visited Midway Island and had bought quite a bit of silverware to take home. Then he looked at me and smiled.

I found things going quite well back at home. The weather had started to cool down, and I was sure we had saved the grass. Jeffrey was in the second grade but was nearly a year younger than most of his classmates. We were about to have our first Thanksgiving and Christmas in Texas. There was one more Mercury mission scheduled for mid-May of 1963. Gordon Cooper was to become the first U.S. astronaut to spend more than 24 hours in space. Faith 7 was launched May 15 and landed 7000 feet from the same carrier, the Kearsarge, after a 34-hour

flight. Cooper also elected to be brought aboard the carrier in the capsule and thus Project Mercury became history.

Six of the seven original astronauts had been in space and returned safely. Donald Slayton had been grounded due to a heart murmur. To paraphrase a saying of later years, "Never had so much been accomplished by so few in such a short time." We said farewell to the program with a Center-wide party in the "Little White House" on the bay in La Porte. Near the end of May, I did my own celebrating with my GS-12 promotion, which in 1963 was worth \$10,960 per year. I think even Brinkmann was sold on the future of the Manned Spacecraft Center at this point.

It was time for MSC to regroup and look at what had been accomplished before moving on. It was also time for people like me who had traveled so often to return home and spend some time with the family. We lived on a street called Winding Trail Rd., and our good friends the Bones and Franks lived on Belfast Rd. I sold the old Plymouth, bought a white Falcon, and started driving the De Soto to work. Jeffrey began the third grade in a newly opened school, Baker Elementary, within walking distance of the house.

We made the first of our 25 or more trips to Virginia by car to spend one week with my parents and one with Frances'. The usual trip highlights going and coming were hearing voices from the backseat: "Stuckey's!" and "Green, Green!" (Holiday

Inns). These trips have continued even though the children have left home. Cumulative statistics for these trips: 113,000 miles, 5600 gallons of gas, 100 different motel rooms, and an undetermined number of restroom stops. Also undetermined would be the quantity of domestic arguments and the times we heard, "Mother, make Jeff stop" and "Daddy, Jane is touching me" and "Are we there yet?" When I look back now, I realize how blessed we were to survive them all without serious problems or highway mishaps.

The Manned Spacecraft Center had been completed and we all moved into it, coming from many temporary locations all over Houston and Ellington Air Force Base. Even though everyone wanted to begin the Apollo program and put a man on the moon, as President Kennedy had promised when speaking in Houston the night before his assassination, there was yet so much more work that needed to be done. The decision had been made some time before to go with a two-man spacecraft in a project named Gemini. The main purpose of the project was to develop such techniques as precision maneuvering of vehicles in space, the rendezvous and docking of two spacecraft, long-duration missions, and extravehicular activity (EVA).

During the time before the first Gemini launch, it was like Langley all over again. We photographed astronauts egressing from boilerplates, went on astronaut field trips, chased capsules dropped from aircraft, and so forth. In April of 1964, the first Gemini-Titan was launched with a boilerplate

capsule on top. All systems worked as planned; however, there was no recovery of any hardware. We departed the port of Providence, Rhode Island, on the USS Lake Champlain for the recovery of the full-blown unmanned Gemini 2 mission. The spacecraft survived a high max-q, and the post-recovery examination showed it to be in excellent condition. All systems seemed to be "go" for a manned launch.

NASA quickly announced that Virgil Grissom and John Young would fly on the first manned Gemini-Titan flight in March. The Titan was the new two-stage booster rocket for the Gemini program. Some referred to the mission as GT-3, but officially it was Gemini 3. Because of his vivid memory of what happened to his first capsule, Liberty Bell-7, Grissom named his Gemini spacecraft, much to the displeasure of NASA officials, Molly Brown, after the Broadway show The Unsinkable Molly Brown.

During the recovery, I decided to remain on the carrier and send some of the new men out in the helicopter. As I watched the pilot Gus Grissom walk across the flight deck, I noticed how much happier he looked on this recovery. I thought of the time, years before, when he and I boarded a Continental 707 for Los Angeles. After we were airborne, he went to the back of the plane. Sometime later he tapped me on the shoulder and said, "Come on back, we're going to serve all of the food. The girl in charge became ill and the other girl is new." So we did, and believe me that was an unusual experience.

After Gemini 3, I returned home and bought a new blue Falcon station wagon, fully loaded--our first with factory-installed air conditioning. Again, just before leaving for the next recovery, I received another raise: GS-13 (\$12,075).

We sailed out of Norfolk, Virginia, on the USS Wasp for the recovery of Gemini 4, which was launched on June 3, 1965. It was the first flight to be controlled from the new and beautiful Mission Control Center in Houston. It was also to be the first time an astronaut ever attempted to "walk" in space. It was a very stimulating experience as astronaut Ed White, attached to an umbilical cord, propelled himself around the spacecraft for 15 minutes with a hand-held maneuvering gun with a 35mm camera attached. When he was ordered to come inside, he replied, "This is the saddest moment of my life."

After a few close calls, White and McDivitt landed and we recovered them safely. After physical exams, some hot food, and a good night's sleep, they returned to the medical ward for more tests the next morning. While walking across the hangar deck, they saw a crew tug-of-war in progress. Ed left his doctors and NASA VIPs and slipped into the line and grabbed the rope and pulled. The other team was so surprised that they momentarily let up, and about 50 sailors crumbled to the floor on top of Ed. The entire episode was funny until one realized that at the bottom of the pile was a man who had just returned from the longest spaceflight to date and had walked in space.

There were a few sighs of relief when he got up and stumbled toward the dispensary.

I remember taking Jeffrey out to the Center late the night I returned and photographed him holding the maneuvering gun that White had used. Even now, that and so many similar events are already history. In August, Gemini 5 set another record for duration--eight days--as they practiced simulated rendezvous techniques. In the fall of 1965, Jeffrey was 10 years old, Jane 4, and I had passed the big "four-oh."

I will never understand how I found the time to coach Little League baseball for four years. We had some great teams. Jeff played first base. We won two championships. During two of those years, I had to leave for a recovery just before the big playoff game. My assistant, a NASA director, took over. I was able to hear the scores within hours thanks to a local ham radio operator who contacted a ham operator on the carrier. We won one game and lost the other.

As in the past, every recovery was different and offered some new experience. We had traveled to places like Boston, Norfolk, Providence, Jacksonville, and Honolulu to board different carriers with different helicopter crews and media personnel. We visited ports like Puerto Rico, the Virgin Islands, the Dominican Republic, Bermuda, Hawaii, Midway, and the Johnson Islands in the South Pacific. It was always a thrill to see the large full parachutes slowly and gracefully lowering the swaying spacecraft into the water, to watch the

astronauts egress and later step out of the helicopter onto the flight deck, and to listen to them talk about their flight experiences during the medical examination.

While flying back to the States one night, I reminisced about some of the fun things that had happened to me on various trips. There was the time that I was taken ashore from the carrier alone in the admiral's launch. Another time they launched a plane from the carrier just to take me into San Juan. Then there was the time the admiral's chief of staff and I flew into port and spent the weekend alone in the admiral's elite mountaintop villa with a car and driver at our service. The carrier sailed early on Monday morning, but we did not fly out to the ship until mid afternoon. We were given fine quarters on the ship and had many of our meals with either the captain or the admiral. I think you can see why I still enjoyed life on the ship.

All good things come to an end, of course, and I could see a change coming. As time passed and the missions became longer, more frequent, and routine, they began to interfere more and more with other naval operations and thus lost some of their glamour. However, the Navy always gave us full support as requested and in most cases was as excited as we were during the flights. During the Mercury program, the number of NASA and media personnel on-board averaged around 18, but now that figure had more than doubled and was causing the Navy some concern.

There had been a late change in mission scheduling and now the next mission was to be Gemini 6A and Gemini 7, both manned, with rendezvous and stationkeeping as the prime objective. Lovell and Borman, GT-7, launched on December 4, 1965. While waiting for Schirra and Stafford, GT-6A, they removed their flight suits in space--a first. The GT-6A crew and spacecraft did not arrive until December 15, but it successfully rendezvoused with the GT-7 spacecraft and tired crew. They looked at each other, waved, held up cards, and flew in formation (anywhere from 1 to 100 feet apart) for three and a half orbits before GT-6A returned home. The GT-7 crew set a new record of 14 days in space. We just made it home a few days before Christmas.

During this time, space hardware and systems testing for the Apollo program was increasing at Houston. The success of the latest Gemini missions boosted the morale of the Apollo engineers and researchers. Each mission brought a new milestone. In Gemini 8, the Gemini Agena Target Vehicle (GATV) was launched an hour before the astronauts Neil Armstrong and David Scott in March 1966. The crew sighted, rendezvoused with, and for the first time docked with another vehicle in space. Twenty-seven minutes later, a major problem developed with the spacecraft, and after separation from the GATV, only a near miracle saved the crew as they returned to earth immediately and were recovered in the Pacific.

Gemini 9 was to be the same type of mission, but the launch covers or shrouds failed to drop off and remained partially separated, causing Stafford to refer to it as the "angry alligator." Actual docking was not possible. During the longer-than-usual delay before the next flight, I made a wild field trip with a group of new astronauts to the dense jungle outside of the Panama Canal, where I had a couple of close brushes with the deadly bushmaster snake. Upon returning to Panama from the jungle, we all found that we were well covered in the private areas with chiggers. The NASA doctor sent word to all our rooms for us to shower, unlock our room door, lie on our backs, spread our legs, and wait. He went from room to room and painted a minimum of 30 chigger bites on each person with what he called some special medicine. However, I'm certain it was just clear fingernail polish.

Many people thought "Well, it's about time..." after the Gemini 10 flight with John Young and Mike Collins proved to be so successful. They docked with the GATV, performed a stand-up EVA, and then separated after being docked 40 hours. Then three hours later, for icing on the cake, they rendezvoused with the original Gemini 8 Agena. Mike, using an umbilical and a maneuvering gun, removed an experimental package that had been attached since launch five months earlier. Collins had removed the dark slide from his 70mm Hasselblad camera when going EVA. While he was removing the package, the camera separated from

his suit and sailed off into space.

The most significant event during the next flight, Gemini 31, was the breathtaking climb into deeper space after the crew was in orbit. After a smooth docking, a difficult EVA, and a safe return to the spacecraft, the propulsion system of the GATV vehicle was fired, and the two vehicles shot straight up to an incredible apogee (maximum altitude) of 741 miles above the earth. After two fantastically exciting revolutions, it was fired again to return them to their normal apogee of 164 miles—the average mission altitude. This proved to be my last Gemini recovery. Gemini 12, already scheduled and ready, just seemed to improve and perfect many of the procedures and operational maneuvers required for the success of the moon landing. With the landing and recovery of astronauts James Lovell and Edwin "Buzz" Aldrin on November 15, 1966, so ended the much-needed and very successful Gemini program. After Thanksgiving, my branch was expanded to three sections, and I now had 25 photographers.

Our fifth Christmas was a month away, and there was the shopping to do and the usual tree and house lights to put up. We felt that we had become real Texans. We lived in the same home, attended the same church, and Frances still would not consider going to work as long as the children were in school. Her youngest brother Wallace Lee married Martha Jacob in December. Christmas day was very satisfying for all. After the

festivities, I just sat back and wondered what the new year would bring.

CHAPTER 9
APOLLO

Everyone wanted to just relax and wait until the New Year to get serious about the Apollo project. Of course, that was a joke. But for the very first time, when an engineer called now for coverage of a vehicle drop, field trip, test program, or whatever, I at least did not have to ask him if this was for Mercury, Gemini, or Apollo. It was the end of the tunnel-- nothing left now but going to the moon. For every piece of hardware used in Gemini, there was a similar piece that had been built and tested for Apollo. All vehicles and their component parts were larger and more complex, and there was the exciting lunar module (LM), which would take the astronauts to the moon and return them to the three-man Apollo spacecraft orbiting the moon.

Even though all the operational procedures, such as rendezvous, docking, and EVA, had been tested during the Gemini missions, all of them had to be reflown using the larger Apollo spacecraft, the huge multi-stage Saturn boosters, and the new lunar landing vehicle. First they had to be tested individually, where possible, and then flown in space as a complete working unit. In fact, during the last year of Gemini, there had been several unmanned Apollo-Saturn (AS) launches. I even went on one of the recoveries.

There were thousands of major and minor changes made in the vehicle, wiring, spacesuits, handles, couches, windows, lighting, fuel and oxygen supply lines, food, waste facilities, and so on as a result of experience gained from the Gemini flights and early Apollo hardware tests. The goal was to have as much hardware tested as possible so that there would be little delay between the end of Gemini and the first manned Apollo launch. In fact, NASA named the astronauts for the first flight in March 1966: Gus Grissom, Ed White, and rookie Roger Chaffee. As the year moved to a close, it appeared that a February or March launch was possible.

In early January, preparations for Grissom's AS-204 flight were in full swing. However, behind the scenes there was much reluctance and fear that we were moving too fast and not making enough necessary changes in the spacecraft's vital systems. During a full-scale launch simulation at 6:31 p.m., January 27, 1967, a fire broke out in the spacecraft and caused the death of all three astronauts. They were the first to die from direct spaceflight operations. The detailed accident investigation resulted in the decision to make major changes in all wiring and subsystems in the command module, which was the official name for the spacecraft.

We knew that there would be a long wait for the first Apollo flight--maybe a year. In the spring I was sent to the Hasselblad camera factory in Sweden with a four-man team to evaluate new cameras for the Apollo program. Before returning,

we visited the Zeiss lens factory in Germany, which was located only a few miles from the Dulag Luft POW camp where I had received the new clothes, good food, and nice bed that memorable night in early October, 1944. This was my first return trip to Germany since the war.

After returning from our annual visit to Virginia that summer, I made several field trips, including one to the Grand Canyon. Just before the end of 1967, NASA successfully launched Apollo 4 (the new designation for future flights), which tested the giant Saturn V booster that would be used for all lunar flights. In early January, Apollo 5, using the smaller Saturn 1B booster, launched the first LM into space. There was no recovery, but mission objectives were met.

The objective of Apollo 6 was to put a command module on top of a Saturn V (with all stages included) and go for a dress rehearsal of the first Apollo manned flight. Pete Stanley and I sailed from Ford Island, Pearl Harbor, on the USS Okinawa for the recovery. There was a problem with the Saturn--an unacceptable amount of vibration that was later referred to as the Pogo effect. Since the Apollo spacecraft came through with flying colors, NASA decided to use the Saturn 1B booster and go with a manned flight in the fall. No LM was needed for an earth orbital flight. Apollo 7 was then scheduled for October 1968.

Training activities, including recovery, doubled; equipment was readied and shipped. For the Navy it was new ships, personnel, helicopter squadrons, and weeks of preparing.

We had nearly 50 support people on-board the USS Essex when we sailed. It had been 22 months since the tragic fire. The crew called the command module the "magnificent flying machine" after a surprisingly great mission. Inside, cabin TV had been used for the first time, and the public loved it. Because the command module again performed so well, the Saturn V pogo problem had been solved, and the LM would not be required, NASA shocked the world by announcing on November 11 that Apollo 8 would be a lunar orbital mission, with the launch set for December 21, 1968.

Astronauts Borman, Lovell, and Anders had been assigned to Apollo 8 in August. I had only one month to select four photographers' equipment, prepare travel, and reach Pearl Harbor in time to sail two weeks prior to liftoff. Upon arriving on-board the USS Yorktown, I found that my old friend Commander Wonderjim was the captain's chief of staff and also a captain himself. I quickly realized that this situation would be much to my advantage. There were going to be more problems, arguments, and demands than ever before. We spent days and weeks in meetings, flying, and recovering the boilerplate dummy spacecraft as we sailed to the tiny recovery spot in the Pacific Ocean.

One day, I think to ease the tension, Wonderjim must have decided that it was time to pull a good one on Gene Edmonds for a change. As we finished lunch, he said, "Gene, I need your help to test the Marine guard at the top security vault on the

ship. Since you can talk your way into anywhere, tell him you have to get some of your special film immediately. Just try to get into that vault." After five minutes of persuasion, the poor kid started to unlock the vault. A Marine lieutenant rushed up, asking, "What in hell is going on?" and accused me of violating all Navy security as presented to us before sailing. He raked me up and down, called the sergeant, and told him to throw me in the brig.

I yelled, "Hey, come on, lieutenant, enough is enough, we both know why I did it." As he turned to leave he barked, "I know nothing, except that I'm tired of you damn NASA people who think you can run this ship," and he walked away. As I sat in the dark confinement of the brig, I suddenly felt convinced that something had gone wrong with the original plan. No one would take a message from me to the captain. Ten minutes later the lights went on, and there stood everyone laughing at me. They were all in on it, including the lieutenant, who should have received an Academy award for his performance. The captain had cleared the plan with John Stonesifer, the NASA team leader, ahead of time. I was treated royally after that for being such a good sport, but it took several days for my pride to recover.

After listening to the successful launch and watching a movie in the wardroom, I went to bed. John Stonesifer woke me at 5 a.m. and took me to the front of the flight deck and explained that the three vehicles going to the moon (command

module, service module, and S-IVB propulsion stage of the Saturn V) would have to be fired and depart from the same spot where the spacecraft was scheduled to land. He then pointed to a specific area, looked at his watch, and said, "Anytime now the S-IVB will fire for five minutes." I had never seen so many bright stars in the sky in my life. Then it happened. It was hard to believe that, as we watched, the vehicles turned upward, increased to a speed greater than any man had ever traveled, and escaped earth's gravity, leaving a long trail of bright flame. Three of our friends were heading for the moon. I'll never forget those few moments.

Two days later, Lovell looked at the entire earth and said, "Frank, I was just thinking that if I were a lonely traveler from another planet and looked at the earth from this view, I would wonder if it was inhabited or not. Also, I would be curious as to whether I should land on the brown part or the blue part of it." They later made a successful lunar orbit insertion and late on Christmas Eve read the first 10 verses of Genesis, closing with, "Good night, good luck, and merry Christmas, and God bless all of you...all of you on the good earth." If that wasn't a Christmas Eve tearjerker, I have never heard one.

I knew Christmas morning that this would be the most memorable of all my recoveries. In fact, it was only the third Christmas that I had ever spent away from home. The first was on a troop train in New Mexico, and the second in a POW camp in

Germany. I had brought a small Christmas tree with me/decorated it and put presents from Frances and the children under it. It was a long and lonely Christmas day as our thoughts were divided between home and the moon. Two days later we recovered three tired but happy astronauts, and since they spent the night on the carrier, I got to talk to them in their rooms as I took pie-cures of them sorting personal items from the spacecraft.

Returning film and other on-board data had been a very simple job at first, but by the end of Gemini it had become an impossible task. Removing and packing all the on-board high-priority items had become the most hectic part of recovery. The Navy always provided a plane to fly me to the closest land or airport for a connecting plane to Houston. We would provide them with a more accurate departure time when we began removing the material. After removal, it was sent up to a small, overcrowded, unlighted room, where the NASA team leader, doctors, scientists, engineers, and others would examine it, list and check off serial numbers, record comments, and then give the items to me for final packing.

In addition to the usual still, motion picture, TV, and computer data tapes, cassettes, and magazines (around 35), there were crew radiation buttons, blood and urine samples, and

sometimes things like frog eggs or bags of feces. As time grew shorter and the tension mounted, I could always expect a wave of comments: "Gene, you can't pack those urine bottles like that." "This blood will have to be iced at each of your stops and the temperature kept the same." "Houston is screaming for a list of everything and said to hurry." "Edmonds, 15 minutes to takeoff." "Gene, I'm missing a voice tape." "You can't pack the eggs until I've taken more readings." "Gene, here is the missing tape, and it has to go in container #5, the one you just finished packing." "Houston called again and wants an update on what container each item is in."

I remember once when we were at that frantic stage, an admiral came in, yelling, "Edmonds, hurry, the plane will be launched in 10 minutes." I yelled back, "I'm sorry, Admiral, but I can't make it; just launch the damn thing without me." One must understand that if the Navy doesn't catapult that plane within 10 seconds of the scheduled time, the world will end. As I was getting into the plane 35 minutes later, an ensign told me that after they left my room, he told the admiral that maybe he should reconsider and hold the plane, since the flight was only scheduled to take me to Hawaii, anyway. After about 30 sleepless hours, I would arrive in Houston and meet a group of vulture-like individuals and begin the process all over again--in reverse.

Incidentally, one time, because we couldn't find anything else, we packed about 25 clear plastic bags of feces in one of

the Navy's dark-green, 2-gallon grease buckets and loaded it into the back compartment of the plane with all the other on-board items. Lorenzo McCarty, my courier for that trip, told the plane's crew chief to set the containers on the ramp when they arrived in Hawaii while he found a ride to the waiting Air Force plane. Unfortunately, the crew chief left the NASA bucket sitting beside two similar-looking aircraft buckets. McCarty did not count the containers and didn't discover that container #9 was missing until he arrived in Houston. For the next two days, everyone on Hickam Field, the Air Force plane, and the carrier searched for that bucket. Just before we docked in Pearl Harbor, the crew chief discovered it where he had left it in the back of the plane. Guess who took it to Houston on a commercial airline--in his seat?

The entire world had viewed and been thrilled by the exciting events that occurred during Apollo 8. NASA was back in the space business and charging full speed ahead as New Year 1969 rang in. Everyone now realized that fulfilling President Kennedy's eight-year commitment was now a real possibility. The primary objective of Apollo 9 was to fly the entire lunar package in earth orbit and practice the full set of maneuvers that would be required for a lunar landing. First, the crew would separate the command module, turn it around, fly in and mate the nose to the LM, and back the LM out of the S-IVB. Then two astronauts would crawl into it, close the tunnel, separate from the spacecraft, simulate dropping to the moon, return to

the spacecraft, and reverse the entire procedure. This was one of the most complex but vital set of maneuvers of the entire Apollo program. The mission satisfied the outlined requirements. We safely recovered the crew on the USS Guadalcanal and returned them to Norfolk in March 1969.

I had recently bought two wooded lots in one of those big promotional deals at Lake Livingston 100 miles from home. When I returned from the recovery, I borrowed a truck, packed camping gear and clearing tools, loaded the family, and headed for a "fun weekend." We worked very hard cutting, raking, burning, clearing, and cooking. I don't think the rest of the family shared my enthusiasm throughout that great camping experience. Their idea of camping was more like work until you're tired, hungry, and hot and then go to a motel. In early May, before I left for the Apollo 10 recovery, we bought a big new car--a 1969 green Pontiac Bonneville.

Apollo 10 was considered a full dress rehearsal for the long-awaited lunar landing. It was supposed to do all the things that were done on Apollo 9 but do them above the surface of the moon. Again the crew and the vehicles performed as planned, and mission objectives seemed to have been met. We picked the astronauts up on May 26, and once more I rushed some important film and data back to Houston from Pearl Harbor.

Even though the Apollo 11 crew of Neil Armstrong, Edwin Aldrin, and Mike Collins was vigorously preparing for a moon landing, everyone knew that the mission would not be given a

"go" until a thorough evaluation of the Apollo 10 results was complete. The thrill, excitement, and anticipation among the employees at the Center was so great that no one waited for any announcement but just assumed that the crew of Apollo 11, scheduled to be launched July 16, would land on the moon. I also knew that we would not drive that new car to Virginia this June. I just knew that I would be going back to Hawaii in early July.

As I stood on the flight deck of the USS Hornet in Pearl Harbor, I could not believe the people, equipment, and vehicles coming aboard. I had five of my own photographers and 15 loaned to me by the Navy. The media had brought vans, trucks, and over 100 people. No question about it, this would be the biggest and most demanding of all recoveries.

On-board the carrier were two mobile quarantine facilities (MQFs) and one lunar receiving laboratory (LRL). The MQFs were like big Airstream house trailers. The astronauts, dressed in biological isolation garments and masks, would enter an MQF as soon as they left the recovery helicopter and stay inside until they returned to Houston. The LRL would be used by two isolated scientists who would unpack, sort, list, weigh, examine, and repack everything brought back from the flight. The "hottest" items would be packed in sealed containers and lowered into a tank filled with formaldehyde, and after 10 minutes the package would move into an empty unit that could be opened from the outside.

The entire hangar deck looked like a convention center floor. There were about 25 different types of badges for as many different places. I knew that we would conduct rehearsals for 12 hours a day for at least a week and then President Nixon's secret service men would come aboard the night before recovery and change whatever they wanted to. At last we sailed, and after a few days crossed the equator, which was my first time, so I was compelled to take part in the Navy's traditional King Neptune ceremony. I prayed I would never ever experience it again. If they were trying to impress the civilians, they did an excellent job of it.

Somewhere over the South Pacific at 40,000 feet, in a huge Air Force C-141 aircraft, one night late in July, I sat with Dr. Thomas Payne, the director of NASA. We were laid back with glasses of V-8 juice in our hands and a bare foot each resting on two shiny, white, pressurized metal containers. We just sat and grinned as the plane roared nonstop to Houston, still 10 hours away.

"How do you feel?" I asked.

"Numb," he replied. "I guess we've been on our feet for around 30 hours now. God, mine hurt," he said.

"Dr. Payne, was it all worth it?"

"Gene, do you realize that the entire world is waiting to see what is in those two boxes. I don't know whether to laugh

or cry when I look at them. I just get goose pimples all over. Do you realize what it was like at the launchpad that morning?"

And then he began telling me the mission story. Of course, it was all history now. After a successful lunar landing on July 20, 1969, Neil Armstrong became the first human being to set foot on another celestial body as he stepped on the surface of the moon at the Sea of Tranquility and told the world, "That's one small step for man, one giant leap for mankind." The Eagle had landed, and as the world watched and listened, they walked, took pictures, collected rocks, unveiled a plaque, and held a flag-raising ceremony before returning to the LM.

Then, 21 hours and 36 minutes after landing, came the maneuver that caused the world to hold its breath--the firing of the ascent engine that would lift the LM from the surface of the moon and hurl it back to the command module and the lonely Mike Collins, who had missed the entire show. Early on the morning of July 24, the command module, the last and smallest vehicle in the original cluster, splashed down near the USS Hornet. The recovery helicopter was rolled off the elevator and placed in front of the MQF, where the astronauts entered wearing their isolation suits.

It all ended when President Nixon led an emotional welcome home ceremony as the astronauts, then in regular flight suits, watched through the window of the MQF. Several hours later I was called to the LRL and informed that the first of two special containers was ready to be passed out to me. Two hours

later a NASA recovery engineer, Dr. Payne, and I catapulted from the Hornet and flew to Johnson Island, a dot in the Pacific. There we were taken to the largest plane that I had ever been on. It could have transported around 300 troops, so there was quite enough room for the three of us.

"Gene, have you ever been on one of these recoveries before?" After he asked the second time, I answered from a sleepy daze, "Yes sir, a few times." I didn't let him see me laugh.

We talked a while, and seeing that I was falling asleep, he asked me, "Will you do me one last favor?"

Imagine, the director of NASA asking me for a favor.

"I'll try, sir. What can I do?"

"Take a picture of me standing on this box." And he stepped on the box and did a Tarzan bit with the fists on the chest. Then he looked down at me solemnly and asked, "Did you ever stand on a box this size that was worth 20 billion dollars?"

"No sir."

"Then stand on it; you may never have the opportunity again." The last thing I heard him say before I went out was, "I wonder what the rocks look like and what is on all of that film."

We received a tremendous reception when the plane landed at Ellington Air Force Base, and after signing all the quality-

control release papers, I returned to my office, greeted everyone, and went home.

After I returned to work, Brinkmann decided that I should "hang them up" and not go on any more recovery trips. We were now starting to look beyond the Apollo program. TV support was on the increase, mission experiments were requiring more scientific types of cameras, film, and remote systems, and multi-camera clusters (using four types of film and operating off of one switch) were just the beginning of a new era in photography. New to us at the center was the pressure to hire special contract personnel to research and perform in isolated areas of any field. So I was told to expand, develop, and improve all aspects of my motion picture, still, instrumentation, and aerial photography.

The family decided to take the delayed 1969 trip to Virginia at Christmas because we had not spent one there since we had moved to Texas. We returned by way of Saint Louis to visit our friends the Minshews, and Jane got to see her first snow. We all enjoyed it very much.

The Apollo flights slowed up but continued into the 1970s. During much controversy in 1970 as to whether we should continue to send men into space, Jeffrey, then 15, wrote an article in high school defending the space program. It was great and I was proud of him for writing it. Then sometime in late 1971, I sent a copy to our congressman, Bob Casey, and he

entered it into the Congressional Record on January 26, 1972. I must include it here.

Why We Go into Space
by Jeff Edmonds

And they wait. Above the pathetic culture of modern humanity hang the stars. The passage of time affects them not. Their life is eternity, each heartbeat an eon, and each breath countless ages. In one breath of their cosmic existence they watched over a promising humanity. And in the dim light of morning they heard the echo of the excited words, "Land ho."

And upon the return of the explorers, there arose a triumphant welcome from those who understood the importance of such a discovery and realized the treasure of a new continent. But there was a shrug of ignorance from the others who could not comprehend the value of new discoveries and new territories.

In the same breath, the stars looked down upon the struggles of a primitive humanity and guided those who would reach out with the first step. "A small step for man, a giant leap for mankind."

And again, amidst praise and applause, there were those who displayed only apathy toward such an astounding event. It is these people today who are so nearsighted, imperceptive, and worldly practical that in every conversation strike up the familiar question, "Why should we go the moon?" Such a well-thought-out question deserves an answer as complicated as "Because it is there."

But actually this statement says quite a lot, for it sums up the reasons for all the great ventures of the past. Though many practical reasons are stated to explain the current space program, the real reason, known by every scientist and dreamer, is simply because it is there. The moon, the planets, the stars, the universe.

But this is usually counterattacked with a variation on the ancient argument: "If the Lord had meant for us to fly he would have given us wings." To answer this and remain on the previous subject, one need only say, "He did." For as God created life in great diversity, he blessed man with intelligence, reasoning, and most of all, curiosity. For without curiosity, man's intelligence would serve no purpose. This inherent trait allowed man to gain the two most sacred possessions: knowledge and wisdom. And with knowledge there came ability. Though we were not blessed with wings, we were given the ability to obtain them.

Curiosity offers a general and undisputable motivation for space travel, yet are countless sums of money being provided simply to give scientists something to mollify their eternal

thirst for new knowledge and frontiers? Though the scientists seem to be the only ones concerned with space exploration now, in the future it will have a tremendous effect on each of us. Our earth is becoming exhausted, and our demand for almost everything is growing daily. Our tremendous swell of population is forcing us to extract vital materials from a planet incapable of regeneration. Someday our dying world will require a steady supply of raw materials to furnish food and necessities to the societies of the future. The possibilities of wealth in our sun's family are great. Life, health, and luxury are all offered in some manner by the trillions of miles of unknown. And the greatest luxury is, of course, room.

And from reaching out into space we will gain knowledge that we and our young must have to survive and flourish. And through the eyes of the lunar observatory we will gain knowledge of the stars that lie in the path of the destiny we so seldom think about in our material world. But there is yet another aspect of space travel which may seem philosophical, but it is even more concrete than the need for material resources and technical knowledge. It may be one of the few ways to save our nation from corruption, dehumanization, and general decline. It is clear that our great nation is declining from internal conflict, and the reason is unrest. The urge and yet inability to pioneer new frontiers. And eventually a stagnant society must grow foul. The oceans may be the beginning of the answer, but when the earth is crowded and depleted, we must reach upward where there is an infinity of space filled with uncountable planets of fresh resources. Each planet a frontier to be explored and tamed by a new species of the hearty pioneer. Each one offered free in exchange for curiosity and courage.

Can our current decline be reversed by the discovery of a new frontier and the awakening of the pioneer spirit in those who live only to die? Or will the history of the United States prove analogous to the rise and fall of the Roman Empire in the historic literature of a future society?

For these reasons, space travel is something we cannot hold back. It can be delayed, but it is progress. And there will always be those with the will to move forward and outward, to add to our knowledge and better our existence. And in this way it is necessity. The universe is a world which bustles with life and activity, and we must depart from our cradle, the earth, and join a world far different from our wildest imaginations. We will discover intelligent races, and learn to live and share together with our superiors. For the intelligence of the universe will exist in peace and harmony as it seeks that which is to come: The Ultimate.

Those who insist this has no significance in the practical world of today have only to observe. For what is our problem today but lack of unity? Our world is divided, both in boundaries and in thought. Attempting to achieve unity through

politics is like walking through an endless maze. The people of •the world must be united, not through a written agreement, but united in heart and soul for a common cause. And what better cause is there than the exploration and colonization of space? We have already shown that we can talk and share freely on the topic of space. And for one brief moment in the summer of 1969, the inhabitants of the entire world shared feelings of relief, joy, admiration, and pride. They were united.

Maybe someday soon we will live and work and learn together in space, a limitless void with no boundaries to separate race or opinion. A place where all men brave danger and the unknown together. A place where all men strive to reach a common goal.

And the brilliant jewels of the night shine ever onward. Forever beckoning. We struggle upward, ever upward. And they wait...

To sum up Apollo 12 through 17, they were filled with such activities as setting up and leaving scientific data packages, collecting soil and rocks, testing a moon buggy called the lunar rover, and taking all types of pictures. Twelve men walked on the moon before it all ended on December 19, 1972, when •the crew of Apollo 17 splashed down in the Pacific.

Soon after, people began to say, "If we could put a man on the moon, why can't we ---?" Well, let me tell you, there will never be another program on this earth that will bring as many dedicated men and women together and accomplish a feat so spectacular as that of the Apollo program. Counting Mercury and Gemini, nine years of hard work resulted in 27 manned

spaceflights, six of which involved moon landings, and only one major accident, and that occurred during a training exercise on the ground. That accomplishment will never be matched again in the history of man.

CHAPTER 10
SKYLAB AND MANY CHANGES

Once again, NASA had developed the hardware for another project to follow Apollo. The Skylab was a 100-ton orbital scientific space station. Skylab, a floating laboratory, would allow the astronauts to maneuver, work, and play in space as they never had before. The laboratory was designed with a docking port for the Apollo spacecraft. The program launch schedule called for the unmanned Skylab to be launched first. Then, three crews of three men each would visit the laboratory in turn.

As in the past, the excitement mounted during all phases of hardware development and astronaut training. There would be time for more and better photography, since the first crew was scheduled to stay in the lab for 28 days. The Skylab Laboratory (SL-1) was launched atop a Saturn V launch vehicle on May 14, 1973. Unfortunately, a protective shield failed to deploy and the inside temperature reached 126 degrees. NASA personnel worked around the clock for two weeks to develop a fix that the first crew could take with them. SL-2 was launched May 25 and, after some difficulty, successfully docked with Skylab. The next day the crew went outside and deployed a reflective sunshade or parasol. By June 4, the temperature inside the orbital workshop was down to 75 degrees. After 28 days, the

Skylab 2 crew splashed down safely southwest of San Diego on June 22.

Jeffrey graduated from high school during that mission. I had not intended to go on the recovery mission anyway, since for all practical purposes I had been told to stay behind my desk. I went with Jeff to Texas A&M University, where he was accepted and registered for the fall semester. I had pressured him into entering the field of chemistry, something I would later regret.

Skylab 3 was launched in July, and the crew watched a big spider spin beautiful webs. They took showers for the first time, slept longer and better, and performed three long EVA sessions, all in addition to performing nearly 100 scientific and medical experiments before returning home after 59 days in space.

Jeff had departed for college before splashdown, leaving two proud parents at home.

SL-4 was launched in November, and the crew set a record for time in space before returning to earth, 84 days later, in February 1974. Now that another major program was history, I sat at my desk and examined my life, my job, and my family and reviewed my priorities. I knew there would be nearly two years before the next spaceflight and that would be only a one-time, one-week mission. Considering it was to be a joint flight with the Russians, one might think there was a good chance it might never fly.

The biggest of our photographic division programs at the Center was the Earth Resources Program, which involved three large aircraft and hundreds of large high-altitude aerial-mapping cameras. Black and white, color, and infrared films were used and all of the cameras were operated from a large camera console. The cameras were mounted in the bottom of the aircraft in clusters. Most missions lasted approximately two weeks, with rivers, mountains, cities, shorelines, and crops being photographed all over the country. We also made several trips to foreign countries. Usually the photographers traveled in two-man teams. It was a good, solid photographic program, and one I was happy to have, since the long-range future of spaceflight was uncertain.

While spending most of my time at home, I became more aware of family and church activities. I missed Jeff, who was now in his second semester but not doing too well and did not seem very happy. I was very active at church: I was chairman of the trustees and was on a building planning committee. Frances and I were the adult counselors for the junior Methodist Youth Fellowship, or MYF. We worked hard and were rewarded by a dedicated and delightful large group, including our daughter. I taught Sunday school for 10 years. Frances and I tried to help young people and teach them the way of life that we thought was best for them.

With Jeff in college and Jane headed that way, I thought about how fast time had passed. In a short time, both children

would be gone. Suddenly you realize how many mistakes you've made along the way. You have devoted almost 20 years to raising your children. Something about this had always bothered me. Now I was more certain than ever. I was well aware of God's greatness, His creations, His forgiveness, love and understanding; however, I felt there was a flaw in His system of human relationships, especially between parents and children.

In every professional walk of life, one must train, take specific courses, and get on-the-job training before being accepted for the job. However, without any formal training or experience, two young people can suddenly become parents and face the biggest responsibility of their lives. As they raise their children, they work hard, make sacrifices, and love them until the children leave home. The parents sincerely believe that everything they did, at the time, was in the best interest of the children. Unfortunately, the young leave home never fully convinced that this was true, and parents never get the second chance to profit from their mistakes and experiences. If you are lucky, then maybe after many years, when they have grown older or have become parents themselves, they will come back and tell you that they better understand the things you did and tried to teach them.

Meanwhile, administrative changes were taking place at the Center. More and more, we were turning over what we thought

were untouchable jobs to contractors. Even in our Photographic and Television Division, my Photography Branch was the only organization left that was completely staffed with civil service personnel. After an outside contractor took over an organization or branch, the civil service personnel became so-called monitors who observed, advised, and graded the contractor. Within a few years, the contractor became unobserved and unadvised, and the grading became a joke.

Much to my surprise, by the end of the year we were able to remove all the political and technical roadblocks and become very serious about flying the American-Soviet joint test mission in space. The excitement escalated as the new year rolled around and the cosmonauts arrived at our Center. We took joint crew portraits as well as individual ones, and we were thrilled as we realized that we were directing and touching Russian astronauts. They autographed pictures for us and were extremely cooperative and friendly.

My father died in March of 1975, and I spent a week at home in Virginia with Mother after the funeral. Upon returning home, I received a very disappointing letter from Jeffrey. He said that he just could not continue studying chemistry since he did not like it and that he had always wanted to study English literature. It was then I realized that I had pressured him in the beginning and had caused him to waste one and a half years. He was advised to visit Sam Houston State if he was serious about English literature. We drove to Huntsville and

consulted the dean. After studying his A&M record, the dean suggested that he take summer classes at San Jacinto Junior College, which was only three miles from our home, and return to Sam Houston for the fall semester. Jeff took four summer courses and received A's and B's and started a new academic career in September 1975.

The Russians and Americans successfully launched their spacecrafts, rendezvousing and docking in mid-July. They visited each other by crawling through a small tunnel in the docking vehicle, exchanged greetings, took pictures, and helped each other perform experiments before landing. Thus ended a long era of American spaceflights using capsules and parachute landings. It all began with Alan Shepard, May 5, 1961, and ended with Tom Stafford, Vance Brand, and Deke Slayton (of the original seven astronauts) on July 24, 1975.

Jane was now in high school, and I was head of our building fund drive at church. We had decided that we'd have a kickoff fund raiser. We figured we needed at least \$15,000 in pledges in order to proceed with the new building. The entire affair was great. Jane was in a group called the High Hopes that entertained. Frances sold one of her oil paintings for \$85 during the auction, and one of my photographers at work, Terry Slezak, sang several numbers. We finished the night with over \$25,000 in pledges.

It felt strange to begin a new year with no spaceflights scheduled. We had been conducting preliminary drop-tests on a

sleek blue-and-white model that resembled an aircraft rather than a spacecraft. Larger models were being fabricated in the shops. We had been told that the model was to be the spacecraft of the future and that the program would be called the Space Shuttle. In the spring, here's how a NASA media release described the program:

In the remaining years of the 1970s, NASA is assembling all elements of the U.S. Space Transportation System (STS) for the next decade and beyond. Its principal vehicle, the Space Shuttle, is in the process of intensive preparation and testing involving most of the NASA centers and facilities. It is a major national effort using some 40,000 skilled workers and some 200 contracts of over \$1 million each in the current fiscal year. All the elements are working toward an epoch in manned spaceflight. With the shuttle, the U.S. will be entering space and returning in a reusable spacecraft, on a regular, even scheduled, basis.

The Kennedy Space Center will tremble again under the assault of millions of pounds of rocket engine thrust. The vehicle that rises in the Florida sky will not have the clean, symmetrical lines of a Saturn V carrying an Apollo spacecraft en route to the Moon. It will be instead an odd-looking, four-pointed package resembling a stubby jetliner perched on a belly tank, flanked by two slim rockets.

The shuttle would land on a normal runway when returning from outer space. Starting again covering the development of a new vehicle was certainly nothing new for the personnel in my organization. We were just thrilled to be involved again with a totally new program. It meant more flying, traveling, astronaut training, and planning meetings for the next five years at least.

We had a ground breaking at church for our new gym and recreation building during the July 4th celebration of our

country's 200th anniversary. Jeffrey completed his first full year and received all A's in 10 courses (32 semester hours). Needless to say, we were very happy and proud of him.

I spent another week in Virginia cleaning out Mother's house, attic, and garage in preparation for selling the house. I was able to rent a very nice one-bedroom condominium in La Porte for Mother to move into. The trip here by car was very tiring, since the physical and mental strain of selling out, packing, and saying goodbye had taken its toll on her. She finally moved in around the first of August.

Another big event of the year was our trip to Hawaii to celebrate our 25th wedding anniversary in September. Our old friends Jerney and Sadie Minshew were stationed there with the Air Force. We spent a week with them and then toured the other islands before returning home. We spent a day and night in Los Angeles, touring Universal Studios and visiting some TV studios. Then, after all those years, Frances started back working. She took the secretary's job at our church. The church building was coming along fine, and the children were both doing well in school. I had given Jeff our old Pontiac Bonneville and I drove the blue Falcon station wagon to work.

At work, we were preparing for a shuttle landing test at Edwards Air Force Base in California's Mohave Desert later in the year. The first shuttle, Enterprise, would be carried piggyback on a commercial-type 747 aircraft and released so that the astronauts could experience an actual landing. Early

one morning, I was scheduled to fly to the Dryden Flight Research Center (DFRC) at Edwards in a T-38--a high-speed jet chosen as the astronaut training plane--to photograph the Enterprise. It would be mounted on top of the 747 and was to be displayed to the news media the next day. When reporting for takeoff, I was told that no NASA pilot was available, but that astronaut Vance Brand, pilot on the Russian space mission, would take me.

That was the first time I had ever flown with an astronaut, but in the next few years I flew with seven or eight that piloted the shuttle in space. They were all different while flying. John Young complained a lot, Karol Bobko never talked, Robert Overmyer talked all the time, Bob Crippen was just a great guy, Owen Garriott was sort of quiet, and Hank Hartsfield always tried to perfect his tight roll around another T-38. The worst times for me were when flying in a formation with three or four and having them decide to practice some Blue Angel stuff or show off when landing at a big airport that was expecting a formation of astronauts to arrive. I knew I would be slammed with 4 to 6 g's, but thank God it was just for a few seconds--a momentary blackout for me in the backseat. Nothing like bad weather, fog, storms, low fuel, or low ceilings seemed to bother these guys.

When Vance Brand and I were taxiing toward the Dryden ramp, we saw what looked like a skyscraper coming toward us. It was the shuttle on the 747. They had mated it a day early. So I

raised the canopy, unbuckled, and stood up in my seat and shot a roll of film as we taxied past them. It was absolutely fantastic. After lunch and our meeting, I talked Vance into a fast takeoff and trip back to Houston. Holland processed and printed the pictures during the night and delivered them to all the VIP offices the next morning before the press conference at DFRC. I gained a few points for that little episode.

Shortly after that I returned to Edwards AFB to fly chase with one of the astronauts for the first piggyback shuttle landing test, which was very successful.

Frances' mother and father were enjoying good health and all was going well on the farm. Her brother Harold had two children: Allen Dale and Bryan Keith; Bob had two: Catherine Mae and Debra Gay; Gene had one: James Clinton; and Wallace had two: Janet Lee and Mary Frances, just born in March and likely to be the last from the four brothers and one sister. As for my brother, he had two children: Catherine Ann and Scott Gough. John and Nancy had been divorced, and John had moved to Dallas. Nancy later remarried.

Two of Mother's closest childhood girlfriends (and somewhat related), Lizzie Hudgins and Blanche Sadler, flew here to visit with her. She liked the apartment and was very happy as she faced a new environment and type of life. Jeffrey graduated from Sam Houston State with a 3.8 grade point average and decided to apply for graduate school and a teaching

fellowship. During the summer, he received both. In the fall, Jane began her senior year.

John Brinkmann retired from NASA at the end of the year. Contractor support continued to increase throughout NASA; it was becoming a way of life whether we liked it or not. I made three trips early in 1979 to plan photographic support for two projects. Shuttle engines were being test-fired in Mississippi, and testing and training was in full swing at every contractor and NASA site involved in the program. It was announced that the first five shuttle landings would be at Edwards Air Force Base on the dry Lakebed, where some of the world's greatest and fastest aircraft had landed, including the X-15.

Jane finished high school and started college at Sam Houston with Jeff in the fall. We were a couple of proud parents whenever we visited them. It was so difficult to realize that another decade was drawing to an end, because it seemed like so much had happened in this one. Just looking back through the last two chapters, I can read about astronauts going to the moon, two children finishing high school and starting college, my father dying, my mother moving to Texas, Americans flying in space with Russians, and a new era of space hardware and missions ready to be launched.

CHAPTER 11 THE SHUTTLE YEARS

In all the years of capsule landings, the NASA team leader was totally in charge on the ship and the Navy never interfered. The Johnson Space Center (formerly the Manned Spacecraft Center) was the lead center for the shuttle program and in charge of all mission activities. However, NASA headquarters placed the Dryden Flight Research Center at Edwards in charge of the shuttle landings. Relations between the JSC and DFRC had been strained for several years. Also, the Air Force owned and controlled all runways both on and off the Lakebed. Finally, 15 years earlier, the Air Force had developed and tested a smaller vehicle similar to the shuttle, but then Congress cut off funds and gave them to NASA. Little did I realize the utter misery I would experience during the next five years as a result of this situation.

At our first joint planning session in the spring of 1980, requirements were submitted for a total of 18 photographers to be at the touchdown position beside the Lakebed runway. It was quite natural for DFRC and the Air Force to feel that they should make all the rules and provide the support personnel since it was their show, runways, and Lakebed. Much to our surprise, the DFRC team leader announced at our next meeting that the Air Force had decided that, due to the uncertainty of

the shuttle vehicle's behavior during touchdown, only three photographers would be allowed near the runway. After absorbing the shock, I asked headquarters and JSC public affairs personnel if they would turn over their requirements to me and then let me fight the battle with Dryden and the Air Force (which were basically the same thing). We adjourned, conducted a private meeting, and resumed the big meeting after lunch.

The headquarters team leader informed everyone that I would be responsible for the photographic requirements (including press release pictures) of JSC and headquarters. He also felt that DFRC and the Air Force did not have any requirements that I could not provide for them. There was a moment of silence and then all agreed. However, I knew it was not that simple and I would pay in many ways.

A young DFRC employee named Larry Biscayart was assigned to assist me as I attempted to develop a photographic plan for DFRC and Air Force approval. Larry had a wife named Conni, a daughter Trish, age 7, and a son Larry Jr., age 4. Over the next five years I became one of the family and an uncle to the children. As the years passed, the Mohave Desert became my second home. The town of Lancaster where we stayed was 20 miles from Edwards. Everything in between was tumbleweeds and sand. Larry was well liked at work and seemed to know people in key places. Whenever he got something done for me, they would say, "I'm not doing this for JSC or Edmonds, I'm doing it for Larry."

I found that the Air Force had extremely capable instrumentation photographers, and they were friendly and wanted to be part of the action. They agreed with my idea of a large plate with three or four high-speed motion picture cameras wired to one switch, with each camera having a different focal length lens--from wide-angle to telephoto. In other words, when a single person operated the cluster, it would be the equivalent of several photographers. By doing the same with still cameras, two photographers could equal six or eight.

I then proceeded to produce a 20-page operational plan, which called for support from one Air Force and one DFRC photographer. I would add two of my best and throw in Larry as the driver of the equipment van. I listed him as the Lakebed coordinator. After he had positioned everyone, he would retreat in the van to a safe area and stay in radio contact with me back at my trailer office. Both DFRC and the Air Force bought the plan, including the fourth man, and Larry as the driver. I think what really sold the plan was my staying off the Lakebed and using their personnel.

Northrup Strip on the White Sands Missile Range in New Mexico was an alternate landing site, so we had to plan, organize, and train there just as we did at Edwards. Due to many favorable factors, everything worked much smoother there. For the next few months, we ran simulated landing exercises

over and over until we could see something landing in our sleep.

Then it finally happened, and around 400,000 people watched as John Young successfully landed the shuttle on the Lakebed at 12:20 p.m. on April 12, 1981. NASA made history again by launching an aircraft-like vehicle into space and landing it on a conventional runway after two days in space. Naturally, there were many minor problems, but when the smoke cleared everyone was satisfied. I was allowed another photographer and could move a little closer to the runway for STS-2.

In June of 1981, our daughter surprised us at the end of her sophomore year by quitting college and moving back home. She took a part-time job at our bank, where she had worked during previous summers. She enrolled at the University of Houston at Clear Lake and was able to complete her junior year and maintain her overall 4.0 average. Meanwhile, after receiving his masters degree, Jeffrey was given a graduate teaching job at Oklahoma State University, where he went to pursue his doctoral degree. Also in June, Frances completed her first year as secretary in one of the local elementary schools.

Working relations at DFRC improved somewhat during the fall, but the petty rules and regulations seemed to get worse. For STS-2 in November, it seemed like it would take a miracle to get into all the areas that we were cleared to enter. There were more guards, more badges, more checklists, and more people

involved than on the first landing. Photographers were required in the following areas: convoy departure, landing, rollout, inspection, hazardous, and medical. We were required to have a special badge for each area and to be on the checklist at each. God help you if you weren't on the list, even though you had a badge.

It was extremely frustrating to have to fight everyone all the time just to do the job I was sent there to do. I tried so hard to get them to issue some type of "top priority" badges for those cleared for several areas, but I had no success. The major problems were the lack of communication throughout the large organization, the bringing in of new/additional security personnel at the last minute, and the "little guy" that was never told or didn't care. A typical experience from a later landing illustrates my point.

All personnel approved to be at the shuttle for astronaut egress and shuttle post-inspection were required to report to area A at Dryden to receive a "hazardous" badge. To get the badge, you had to turn in your JSC, DFRC, or Air Force permanent badge. My number-one Air Force photographer pleaded to keep his badge but to no avail. Two hours later as the Air Force photographers left for the Lakebed runway, they were stopped at three different flightline gates and told that Connerly could not proceed without an Air Force badge. As a last resort, they called me on the NASA frequency, and even though I was running late myself, I hurried to the gate where

they were being held (I had replaced Biscayart as Lakebed coordinator). I explained to the AP (air police) that had been summoned by the guard-gate AP. I finally had to stop short of being arrested myself. I apologized to Connerly and sent him walking back to the photo lab.

We headed to the desert quite unhappy. As I raced toward our landing position, I glanced in the rearview mirror and saw four air police cars rapidly approaching with lights flashing and sirens sounding. We were surrounded and stopped. The lead AP, who threatened me at the guard gate, ordered me out at gunpoint. This was one of four times I had guns pointed at me during my recovery career. The first was during the prank on the Navy carrier, but the others were real: once during STS-3 at White Sands and once during a later shuttle landing where an MP put an automatic rifle in my left ear as I sat in the driver's seat.

The AP's reply to my obvious question was, "You -----, you backed up, opened your rear door, picked him up, and took off. We'll handcuff him, throw him in the brig, and hold you until this landing is over." I couldn't believe it. With his gun waving, he opened the rear door and yelled for Connerly to get the hell out. I don't think I've ever seen the shock, despair, and embarrassment that he experienced as he saw nothing but cameras, tripods, and film. With his snow-white face drooping, he said, "If you guys are going to cover this landing, you'd better hurry." We made it okay but cut it a bit close. All

because Connerly couldn't keep his Air Force badge and the base AP knew nothing about a NASA hazardous badge. I did file a complaint, hoping that it would bring some of these problems to light.

Incidentally, the investigation revealed that about 30 seconds after we had left the gate, the AP on duty in the guard house called "my friend" on the radio and told him that the NASA van had backed up, opened the doors, and the Air Force guy had jumped in and they had headed for the Lakebed.

At all times the prime landing strip, whether concrete or sand, was always well protected from people and vehicles. It was declared hallowed ground and well policed. Our JSC television group did not have the problems that I did because their TV cameras were equipped with very long lenses and located well outside the controlled landing area on either side of the runway.

When we arrived for STS-3, we found the Lakebed almost covered with water. After the launch, a decision was made to land at Northrup Strip in seven days. Train convoys were dispatched, vans rented, small planes chartered, and support personnel just took off however and whenever they could for the White Sands Missile Range. The next five days and nights were packed with meetings, training, security exercises, and even simulated landings. We had high winds during this time and even had to postpone the actual landing because of a vicious sandstorm that day. The landing was successful but most

postflight activities were difficult to perform because of the wind and sand, and I think that everyone felt that Northrup Strip should definitely remain an alternate landing site.

Later in the spring, Jane provided us with our annual surprise. This time, she told us she was going to get married in June at the end of the school semester. She would marry her high school boyfriend James Black. The wedding was enjoyed by all, and the next morning Jeff and I went to the airport together. He returned to school in Oklahoma, and I went on to Lancaster to prepare for STS-4. Jeffrey had taken a semester off from his English studies and was reviewing movies and editing for the school's newspaper. After President Reagan announced that he would attend the landing, NASA scheduled it for the 4th of July. Frances decided to fly out and join the festivities. We spent the night of July 3rd with Larry and Conni in their motor home on the Dryden ramp.

After Columbia made a smooth landing, the ceremonies took place on the Dryden ramp. The shuttle trainer Enterprise had been placed behind the president's platform, the new shuttle Challenger flew over as it headed for Houston on the 747, and the Columbia was towed in front of the platform after leaving the Lakebed. It was a memorable day. We spent three days in Las Vegas before returning to Houston. As fall approached, our zero-gravity aircraft support activities doubled. With the increase in shuttle flights and so many new astronauts to train, the zero-g aircraft flew almost every day.

STS-5 in November and STS-6 in April, 1983, were more or less routine to the outsider. Of course, there were the usual in-house disagreements, but I had been accepted--I'm not sure whether for better or worse--and was being allowed much more freedom on the Lakebed.

At the bottom of the shuttle steps, astronauts were always greeted on national TV by top NASA officials, presidents, congressmen, or generals. STS-7 was scheduled to land at the Kennedy Space Center in Florida, and I think all of the above might have been waiting. As usual, we were in our positions beside a Lakebed runway waiting in case of a change in the landing location.

Well, that's just what happened at the last possible minute. Commander Robert Crippen, with America's first woman astronaut, Sally Ride, on-board, made a beautiful touchdown right in front of me. Later, with no one except technicians and photographers present, I was looking at Crippen through the lens as he kept coming closer and closer. Suddenly I saw his hand lifting toward me so I quickly lowered the camera. I couldn't resist, so I shook it and welcomed him home. Then to my surprise there stood Sally right behind him, so I offered her the same greeting. After they headed for the crew van, I realized what I had done, but then I never had been overly shy. It was later suggested to me in Houston, by some top officials, that maybe I shouldn't repeat my performance.

The next milestone coming up was a night landing on the main concrete runway at Edwards. I found during simulated night landings that there just was not enough light to get a good still picture. I checked with the Nikon camera company and found that a new lens with an aperture of f/1.2-T was available. They said the "T" made the lens equivalent to a true f/1.0 lens.

There was a dirt road that ran parallel to the runway and was about 200 feet from the edge of the concrete. From the road, there was 150 ft. of thick tumbleweed and other green thorny brush that ended at the bottom of a 50-ft. clear steep incline leading to the edge of the runway. We were absolutely restricted to the dirt road for the landing. I had a serious problem and presented it to Dryden but to no avail. The new lens unfortunately had a very short focal length of only 50mm. In other words, from the road the image on the negative would have been too small to obtain any quality at all in the enlarged finished picture.

Twenty-five minutes before landing, I began crawling through the thick brush on my stomach in total darkness. When I was near the edge of the brush, I just stopped and lay there, stretched out, and waited. The DFRC security guards were driving both the runway and the dirt road using their searchlights, checking all support personnel and their positions. Now we all knew what crawled through those bushes at night: large ants, lizards, spiders, scorpions, and I won't

mention snakes. After ten minutes, many of them were crawling around, over, and judging from the burning sensations, seemingly through me. By now the landing searchlights had come on and after the two loud sonic booms, indicating that the shuttle was nearing final approach, I stood up, brushed off, thanked God, and walked part of the way up the incline, where I knelt and waited to take pictures.

The results were later used extensively throughout NASA and the news media for years to come. I then ran back to the road and was picked up at my original assigned position. The next day, while treating me, the Dryden doctor asked, "What the hell did you do, Gene, lie on the Lakebed last night?" "Of course not. I've got more sense than that." I stopped by the press trailer, picked up 25 8x10's of my touchdown picture and was asked how I got close enough to get that great shot. I smiled, scratched a little, and headed for Houston.

We had a new division chief named Paul Penrod, and I had been assigned a new secretary. Jane and James had moved to Houston, where she had gotten a new job with quite an increase in salary. James was getting started in the acting field. I had bought a blue Toyota pickup truck, which I was quite pleased with. Mother was getting over the mini-strokes she had been experiencing and was doing much better. She had many nice friends living around her.

The last mission of 1983 was the largest to date--six crew members--and the first to carry a non-U.S. crewman; otherwise,

it was routine. The first shuttle to fly in 1984 landed at the Kennedy Space Center in Florida, the next flew at the highest operating altitude, the fourth featured the first woman to go EVA and the first seven-person crew.

On the family side, Jeffrey decided to call it quits and come home for good. There were many factors involved, but my personal opinion was that he had simply burned out from too much school.

While walking into the office early in October, my left leg began hurting. As I sat at my desk, it continued to get worse during the morning. At lunch time I made it to my truck with the help of Nick Nelms and a crutch. Jeffrey took me to the doctor. After many x-rays, he sent me to the hospital and a specialist, who diagnosed my problem as a slipped or ruptured disk in the lower vertebrae. It was the specific one that causes pressure on the left sciatic nerve, which runs all the way down to the foot.

That was my first time in a hospital other than as an outpatient. After five days, he routinely told me that he was going to operate on me the next day. I replied, "Oh no you aren't. Not without a second opinion." I knew that there were risks involved when messing with those vertebrae and disks. I checked myself out and went to see another specialist. After new x-rays and an examination, he said that if I could endure the severe pain for about three weeks, with the help of medication and heat, I would have a 50 percent or better chance

of getting well. Of course that was no problem for me. I stayed in Jane's old room and bed, took pills, used heating pads, read, cried, listened to music, but above all got well after a month. I moved slowly for the rest of the year. I missed two flights but both of them landed in Florida.

Nineteen eighty-five was scheduled to be the busiest year in the history of NASA spaceflights. There were nine flights scheduled, each carrying at least six crewmen. A new NASA policy went into effect that allowed outsiders to fly. Some were military, some scientists from other companies, some American politicians, and others foreign royalty. A few that I worked with while they trained were Patrick Baudry from France, Prince Al-Saud, nephew of the king of Saudia Arabia, Senator Jake Garn, Ernst Messerschmid from Germany, and Christa McAuliffe, a schoolteacher from New Hampshire. The first two flights landed at Kennedy and the other seven at Edwards. One flight in October carried a crew of eight. It was a very busy year, and I spent around 10 days at Dryden for each flight.

In January, Frances' mother had a heart operation, so Frances went to spend spring vacation with her in March. While she was there, Mae had a stroke and was taken to the hospital and then a rehabilitation home, where she got much better and returned home. She did suffer speech and memory damage but began to improve slowly.

Jane announced that she and James were separating. Jeffrey had gone to live with a high school buddy in New Haven,

Connecticut, who was working on his Ph.D. at Yale. My back was feeling fine, and I thanked God more than once that I didn't have the operation. The year passed very quickly. There was always so much to do for my mother when I was home. Frances bought her groceries and checked on her every day when I was gone. I'll never know how Frances managed all those early years with the kids when I was sometimes gone from 50 to 100 days a year. She never complained. So many times she would have problems but wouldn't tell me until I got home, like the time she broke her toe or when the kids had the chicken pox.

One day Jeff called and said he was living with a couple in a little town called Peterborough, New Hampshire, and that it was a beautiful place. I hoped so much that he might find a job there and settle down. In September we managed to squeeze in a trip to San Francisco with our closest friends, the Franks. That was an exciting place, and we had a great trip. We were there on our 34th wedding anniversary.

Prior to the last flight of the year, I recommended that we turn all landing photography coverage over to the DFRC photographic branch and get out. They had a new boss, additional personnel, and more new equipment. When I arrived for the last mission of 1985, I presented my plans and they quickly agreed. Late in the morning of December 3rd, I selected one of my favorite positions and set up my cluster of four Hasselblad 70mm still cameras near the runway, and to my amazement, no one complained. I was alone and had over an hour

to wait. I didn't mind, because the sun was shining and the air was cool.

As I looked around, I thought of the misery that I had suffered on this Lakebed for five years. We were required to report to our positions 3 hours before touchdown, so counting approximately 30 simulations and 18 actual landings, that was a lot of waiting hours. Many times we drove out in total darkness following spraypainted X's every 50 yards for two or three miles. It may be freezing at night or 115 degrees in the day. The surface was a sandy clay, swept clean by the wind, full of cracks from dryness and as hard as concrete. Most outsiders hated the Lakebed, but to me it was a challenge and even beautiful when viewed relative to its surroundings.

I could remember standing on this spot in 100-degree heat and looking south at the sun reflecting off the snow-covered San Gabriel mountains, or looking to the east across the desert for miles as it faded into the horizon and stretched to the Colorado River 150 miles away. Northward, I could see the desert crawl to the foot of the Sierra Nevada mountains, with Mount Whitney and the Sequoia National Park, and then gaze westward toward the Pacific Ocean. I had spent so much time in many of those mountains photographing redwood trees, waterfalls, and acres of spectacular wildflowers. Suddenly I realized that this would probably be the last time I would see this exotic panorama of natural beauty, and for the very first time I thought about retiring.

Maybe I was burning myself out, or maybe I had pushed fate too far, or as we often said, "I wonder how many of my seven lives I have left." I sat there and compared the beautiful snow-covered mountains to heaven and the Lakebed in front of me to hell. I tried to think of what I really did believe about a hereafter and heaven and hell. Of course, I grew up believing in all three, but in the last 25 years of living on the edge of space, so to speak, and listening to so many people's opinions and beliefs, I began to realize just how much people really care what others think of them, whether they admit it or not. Many times I had heard sentiments such as "I would be in heaven just to know that my friends and loved ones remembered me as a good person that cared for others." I had heard such expressions as "My life has been a living hell" and "Heaven right here on earth" and, my favorite, "A person is never dead until he is forgotten." Maybe death is just a continuation of the life you are living now. Or is heaven and hell simply the way you are remembered by those you leave behind?

Then I thought of a few lines that I had always remembered, I don't know why, from "The Rubaiyat of Omar Khayyam," which I had studied in college:

I sent my Soul through the Invisible,
 Some letter of that After-life to spell;
 And by and by my Soul returned to me,
 And answered, "I Myself am Heav'n and Hell"--

Heaven but the Vision of fulfilled Desire,
And Hell the Shadow from a Soul on fire

There comes a time in every person's life when he must seriously reexamine his values and beliefs. However, before I could look any further, I was quickly brought back to the present by two loud sonic booms. There was a huge dome-like tumbleweed directly in front of me and a picturesque cloud formation behind as the shuttle Atlantis touched down within the imaginary frame that I had visualized, and I recorded my last and best portrait of a shuttle returning to earth.

It was especially difficult saying goodbye to the Biscayart family. They had done so much for me. As I had felt and said so many times before, "This is the end of another chapter in my life." It was home to Houston, family, and Christmas.

CHAPTER 12 THE ROAD TO RETIREMENT

January, 1986, brought me plenty of excitement early. I flew on a zero-g flight with our new visiting schoolteacher, who had been chosen to fly on mission 51L (the new designation for flights). There was to be a flight with a congressman aboard on January 12, but of course I was back chained to my desk. Christa McAuliffe told me that the town Jeffrey was living in was absolutely super and was not far from her. She was one great person and was just counting the minutes until liftoff. The zero-g aircraft was referred to as "the vomit comet." Almost everyone gets sick when they fly, especially the first time, but she didn't. She laughed all the way through the two-hour flight. She made out better than I did.

Jeffrey moved back home and was considering teaching at his high school, where he had done some substitute work. On the morning of January 28 at 10:36 a.m., I watched the liftoff of the Challenger with my boss in his office. The rest is history. What else can I say, except that I hope history will someday show that NASA took a bum rap from the news media, politicians, and the public. The shuttle was not a commercial aircraft and all the crew members knew the risk involved.

It was the first in-flight disaster in 25 years of spaceflight. NASA had set one of the most incredible records in

the history of aviation. There was a lot of political pressure on the NASA brass that morning. President Reagan was scheduled to make a state-of-the-budget address that night, and he had planned to include the successful launch of the schoolteacher in the speech. I will always believe that that had much influence on the final NASA decision to launch. Of course, there would be no more flights for a long time.

With Jeff here to take care of the house, Frances and I decided to go to Europe for a long vacation. Jane had started going steady with a young man named Mike Martin. For a couple of months I was busy making reservations, calling hotels in Germany and Austria, and planning our first week with friends in central England. In early May, Jeff was notified by his friends in Peterborough that there was an opening for a copy editor on the sophisticated computer magazine BYTE. He flew there for an interview, and just before we left he was notified that a woman had been selected. It hurt deeply to see his disappointment. He had experienced more than his share for his age. It had been a draw between them to the end.

After getting off to a bad start in Houston and Atlanta, we had a pleasant trip to London, and the four-hour train ride north was great. After a week in England and Scotland, we took the hydrofoil to Ostend, Belgium, and then Eurail to Kaiserlautern, Germany, where we stayed with Frances' niece Cathy and her family. Her husband took us to Paris for three days. On the way, we stopped at Verdun, where I found the

battlefield and monument where my dad fought and won his honors in WWI.

Frances and I later took the train to Salzburg, Austria, our favorite. Then on to Innsbruck and Garmisch, Germany, where we rented a car. I drove north to the little town of Paulushofen where Weiss and I slept in the barn while he was sick. I walked down the street to visit the church, and while I stood on the front steps, the chimes began to ring announcing the 10 a.m. Sunday service. After leaving Paulushofen, I retraced other memorable roads and towns as we headed north. After a boat ride down the Rhine, overnight stops in Cologne and Trier, we arrived in Amsterdam, Holland, where we toured for a day and then departed on a nonstop flight for Houston on Sunday.

After arriving in Houston, we saw Jane and Mike, but no Jeff, behind the glass waiting while we cleared customs. As if the excitement of the trip and being home were not enough, Jane informed us that Jeff was in Peterborough working for BYTE. After catching my breath, I gasped, "What happened?" We had read in the newspaper about a possible hurricane heading toward the Houston area two weeks ago. Jane said that on the Tuesday of that week, Jeff started to prepare for a storm as he had seen us do before, when he received a phone call from the BYTE editor asking him how soon he could report for work if he still wanted the job.

After hearing that the woman had been fired before she even started because she kept saying "just a few more days and I'll be there," Jeff said, "I'll start Monday morning." He packed about 50 boxes of his stuff from the attic and his room, labeled everything, left us notes, made plane reservations, and left Thursday night. I had never seen him move that fast before. We had an extra thank you to add in our prayers that night.

Mother had been in Virginia and flew home a week later. She loved to fly, but it was very difficult getting her off and on the plane and into her seat. She was feeling surprisingly good.

Since I had made my retirement plans public, and the laboratory contract was up for renewal in 1987, the decision had been made to eliminate my branch and turn photography over to the new contractor. I was prepared for it, but it was like seeing someone die anyway.

Jane's annual surprise came just before Thanksgiving. She and Mike were going to get married the next spring. In the meantime they had rented an old house in West University Place and asked us to help them move on Thanksgiving day. We met Mike's family while working together during the move. After we finished, we all went to their home for Thanksgiving dinner. Of course, we discussed Jeff during the meal. He seemed to be doing great and was satisfied with his new job, and we knew

that he liked the town. We just prayed that he would find some of the happiness that had so long eluded him.

In early December, I put off my retirement again when I found out that the announcement of the new contractor had been delayed for three months. I began the new year helping to plan the turnover of the branch to the contractor, inventorying all our equipment, surplusng old equipment, and assisting in planning the remodeling of our area.

In March I was taken sick at work and found to have a serious liver problem. Of course, cancer couldn't be overlooked, so I was given several scans called Magnetic Resonance Imaging, which was the newest thing and provided very high resolution on the final negative. I spent the longest two days of my life waiting for the results. My prayers were answered as the scans proved negative. With rest and medication, I improved enough to participate in Jane's wedding on April 4th, 1987.

We had been assigned new projects in connection with the Challenger accident, and I was told that I could move into the division office and be put on hold for a short time if I would like to stay on for a while longer. I thought it would be fun, and I could observe all the changes taking place.

Several years before, I had become interested in genealogy and had begun collecting information from people related to all of Frances' and my families. I began going to the genealogy

library in Houston and was fascinated to find how much family data there was on microfilm.

Frances and I decided to visit Jeff in early October when the autumn leaves would be at their peak. Much to our surprise, Jane and Mike decided to go a week earlier and overlap with us for two days. We rented a car and drove to Peterborough and were completely awed by the beauty of the area and town. We five went out together for a dinner at the Powder Mill, which was a large house in the country that had been converted into a restaurant. It was cold while we were in New Hampshire, but the love, pride, and excitement of being all together for the first time and seeing Jeffrey happy was just wonderful for us. The next morning I got everyone up and out early so I could start taking pictures and slides. Everything everywhere we went was so colorful and beautiful, and it even started to snow just before Jane and Mike left for the airport.

Upon returning to work, I found that I had a new division chief. Since we were enjoying a slow, quiet period, I got to spend a lot of time with Dave Billingsly. We became good friends, and I liked him very much. In early November, he requested a serious talk, which went like this: "Gene, I've spent some time with our director and personnel and have an offer for you. As you know, I'm not a photographer and do not know the people under me--who I can trust, what we should buy, and those types of things. I want you to stay and just be my personal assistant and advisor. We'll have to take away your

branch chief title and change your job description. Think it over."

We had wanted to do about \$10,000 worth of remodeling in the house, and of course I wanted very much to be part of our new slogan, "Return to Space," which should happen the next summer. Also, it would add to my retirement benefits. Maybe I used all of these as excuses, but I said yes. Then I wondered if I would ever retire.

The year ended on a few nice notes. Jeff came home for Christmas. Mother was well, and we were all together for the holidays. Frances had been working for eight years at the school and practically ran it now. She was doing very well physically.

Mother moved slower each year because of her arthritis. I just had to watch her closely and do more for her now. Blanche couldn't fly here anymore, but Lizzie still managed to visit. She brought many old pictures, and I listened to them talk about their childhoods, teen years, and courtships.

My work and relationship with Dave had proven to be a great arrangement. We had several major activities at the Center, including a visit by the president in which I represented the division while planning all photographic and TV coverage. I also had ample time to spend on my family tree hobby. Our house work was completed by June, so we made our yearly sojourn to Virginia.

That summer of 1988, excitement once again mounted throughout NASA as we entered the final phase of preparation for the return to space. We should never have taken so long, but it was the bad publicity that forced us to wait. Some of my old photographers had resigned and gone to work for the contractor and some had become contract monitors. I enjoyed my position more every day, but in my mind I knew this would be my last year. I was preparing myself for it. The only thing on my mind was the shuttle launch, scheduled for mid-September.

Frances returned to school, Jane received another nice promotion, and they rescheduled the launch for September 29. I remember how hard it was to watch the first few minutes after liftoff that day, but everything went as planned and we were back in the space business. Later in October, we received an invitation to an astronaut party in honor of the successful mission. Dave tried again to get me to stay, but I told him that there was no turning back this time.

Just before Christmas I traded in my blue Toyota truck for a new red one. I considered that my retirement present. I worked or at least went to work every day during the holidays as I had previously agreed to do. As usual, there weren't many people at work between Christmas and New Year's, so I just walked around, visited other areas, and made lots of phone calls. In my office I drank coffee, packed boxes, looked out of the window, and lost myself in memories of 30 years of thrills,

excitement, dedication, and hard work. I felt that NASA and I were even--neither owed the other anything. I was paid a good salary and would have a good retirement, but most of all I had my good health.

There was almost no one left in the building on the afternoon of my last day, New Year's Eve, 1988. As I took my last long look across the "campus" and then slowly walked to my new truck, I thought, "And so ends another chapter of my life." The transition to retired life was a little difficult for a while. Frances was still working but seemed to understand how I felt. She gave me the support I needed so badly and helped me to make the transition a pleasant one.

Soon I really began to enjoy my new life. I worked on our family trees, recorded music on tapes, started playing golf again, read a little, and wrote lots of letters. When you add all of that to the time I spent with Mother, then I had a full schedule. I planned our trip to the ex-POW convention in Niagara Falls in September and one to Ireland and England early the next year. I suppose that if I had a real hobby it would have to be taking care of my flower gardens, rose beds, and yard. Incidentally, I turned 65 last month. I guess that's a good retirement age.

One spring morning I kissed Frances goodbye as she left for work, took my cup of coffee and went into the backyard and sat in my swing. I watched the early morning sun creep across

the green grass and listened to the birds chirp as they ate from the feeders. I looked at the dew-covered rosebuds, sipped hot coffee, and thought how much I had to be thankful for. Today I am the luckiest man in the world. Yesterday is filled with memories. Tomorrow, well, tomorrow is full of hopes and dreams.