# Four Full Years

A portion of an autobiography

by

Glenn Thomas Black

# Preface

It was after we moved to Oregon in 1985 that I began writing my autobiography. In my "retirement" I have been so busy that my writing has been sporadic. Using a computer helped, but completion remained a distant goal. Recently Wally Nygren, our daughter's father-in-law, suggested that I complete my autobiography in sections. That sounded like a good way to proceed.

For millions of people, World War II was a defining "moment." Certainly for me, World War II set the course for the rest of my life. Probably those who read my biography will find that section to be the most interesting section.

Many nations preceded our nation's becoming involved in the war. The attack on Pearl Harbor catapulted us into the conflict. That is where I begin this section of my writing. Although the war was over in August of 1945, for me, in a sense, it has never ended. I suffer endless physical pain from it. (Usually the pain is not great. I don't even think about it most of the time.)

As a title for this section I have chosen "Four Full Years." It is not an intriguing title. I have been admonished that the title should be more spectacular. It was an intense time for me, full of unrepeatable activity. The years were filled to overflowing, and the time is actually more than four years.

Why should I be writing an autobiography? Is it not a self-seeking activity? God forbid! If it is that, it is a self-condemning activity. If God is not glorified in and through it, it is, at best, wasted time. ". . . whatever you do, do all to the glory of God." (I Corinthians 10:31 NKJV.)

Glenn T. Black

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# 1
# Pearl Harbor

Immediately after the Japanese attacked Pearl Harbor on December 7, 1941, I wanted to enlist in the military. I had no desire to kill or to be killed, to hurt or to be hurt, but I believed that it was necessary for someone (really a multitude of "someones") to put a stop to the aggression of the Axis powers, and I didn't believe it would be right to leave that up to others entirely. However, none of my friends seemed to feel as strongly about this as I did, so I merely continued at Denver University and the Secretary's Office for a time.

Even before Pearl Harbor I would sometimes be in what was to me a boring class, daydreaming. Instead of being in class I would be in a Spitfire, rising to prevent Nazi bombers from dropping their lethal loads.

One evening in January 1942 on the front page of THE DENVER POST was a very small article that caught my attention. It stated that the requirements for entering aviation cadet training had been changed. The age limit had been lowered to eighteen, and only high school graduation was required. Instead of going to my classes at the university the next day I went to the army recruiting office. The recruiters were ignorant of the change but encouraged me to keep in contact with them. That encouragement was unnecessary.

Oftentimes government wheels turn slowly, and this was no exception. In spite of my moving as fast as I could, it wasn't until near the end of March that I was sworn into the army. (At my first physical exam I came close to being rejected; I was underweight for my height or too tall for my weight. The examiner said, "Let's check your height and weight again." I couldn't do anything to change my weight at once, but I could do something about being too tall. Upon the next measurement I bent my knees slightly. Sure enough, I was no longer too light for my height.)

Immediately following being sworn in I was furloughed to await the time I could actually enter cadet training. In the meantime I had not continued in my classes at the university but had begun working full time at the Secretary's Office. I have regretted my discontinuing my university studies, for it turned out that I could have completed one full year of college at that time.

June 9, 1942 was to be Carmen's graduation day. With my receiving a new 30 day furlough in April and May it appeared that I might still be in Denver for her graduation. We had had such a good time the night of my graduation that we were planning a similar night, if I was still in Denver.

June 1st Carmen and I decided to be engaged officially. When we would marry was completely uncertain, but we agreed that we'd let the world know we were committed to each other.

# 2
# California Bound

It was with mixed feelings that I received the letter instructing me to be at the City Auditorium prepared to leave for Santa Ana, California June 6th. I was very anxious to enter pilot training, but I didn't want to leave my loved ones, especially Carmen, and I didn't want to miss her graduation.

Parting WAS difficult! To this date tears well up in my eyes when I recall what Carmen's mother told me later. Carmen had held up very well at the auditorium, but when she got home she cried as if her heart had been broken.

The trip to Santa Ana was a most unpleasant one! We boarded the train in Denver fairly late in the day on the 6th. I think it was between Denver and Colorado Springs that I saw beautiful towering cumulus clouds to the east, tinted peach and pink by the setting sun. Colorado was too beautiful to leave.

As far as I know, all the young men on the train were headed for Santa Ana. Most of them were 20 to 26 years of age. I don't remember meeting any who were under 20 at that time. Neither do I remember meeting any who had not had two years of college.

When I first heard I was to go to Santa Ana, a place I had never heard of before, I was disappointed. Having known of Randolph and Kelly Fields in Texas for years, it was my hope and expectation that that was where I was to go.

On this trip to California we were in New Mexico three times and in Texas twice. From Colorado we went into the northeast corner of New Mexico, then to Dalhart, Texas. From there we went back into New Mexico and then to El Paso, Texas. From El Paso we went back into New Mexico, then to Arizona and California.

Oftentimes we would be shunted off onto a siding to await the passage of another train. As we passed through the desert we thought it was unbearably hot. It turned out I had been assigned to a railcar that was air conditioned. We thought it was hot in our car, but other cars were not air conditioned, and their passengers would try to find excuses to come into or pass through our car.

It was either late at night on the 8th or early in the morning on the 9th that we arrived at Santa Ana. At any rate, we were stopped in Santa Ana when I awoke on the 9th. I believe it took us a little less time than it would have taken for a letter to go from Colorado to California via Pony Express.

# 3
# Santa Ana Army Air Base

Special thanks are due James William Clardy (Bill). Bill, who served as Best Man at our wedding, sent me a copy of "The SAAAB Story." It is a detailed history of Santa Ana Army Air Base. The first cadets to arrive at SAAAB arrived February 20, 1942, according to the book. The base, therefore, was quite new when we arrived on June 9th. It became our classification center and preflight school.

"Classification Center?" Prior to Santa Ana I don't remember hearing that aviation cadets might be trained for being something other than a pilot, i.e. a navigator or bombardier.

Newly-arrived cadets were greeted with, "You'll be sorry!!!" "So you wanted to fly?!" Neophytes were readily recognized, even after donning ubiquitous coveralls, by long hair and pallid skin; but those changed quickly, and it wasn't long before we were calling out, "You'll be sorry," and meaning it, and, "So you wanted to fly," and meaning it.

Our "SAAAB" stories were not all happy ones! Most of us were fresh out of civilian life. The only thing worse than weary bones being aroused by the bugle's reveille call early in the morning, as the way to start the day, was when we were aroused more quietly a couple of hours earlier for KP duty. That duty started very early in the day and included being involved in the serving of two meals at each meal time, two breakfasts, two lunches (dinners) and two dinners (suppers). We had to scrub the tables and the floors after each meal.

There were at least two reasons for the "So you wanted to fly" calls. One was that MANY who arrived with the hope of becoming pilots, never became pilots. The other was that even for those who eventually became pilots, the goal seemed very remote at Santa Anna.

Concerning the first of these reasons, even though we had had fairly thorough physicals prior to being accepted by the army, many were eliminated for physical deficiencies discovered at Santa Ana. They weren't all eliminated from the army, but they were eliminated from the cadet program. Some were eliminated through psychological examinations. One was eliminated because of his father's German ancestry. Some failed academically.

Concerning the goal seeming to be remote, very little that we were doing at SAAAB seemed to be preparing us to pilot airplanes. It was a thrill to us when a BT-13 circled the base at perhaps a thousand feet.

What I can still see to this day was another morale booster. A dangerous, foolish thing was done, but it was encouraging to me. At that time there was a great deal of sensitivity about a possible invasion by the Japanese, or at least their conducting a nuisance attack. Coastal patrol was conducted by pilots flying P-38's, in addition to other types. One day a P-38 swooped down toward the parade ground. As he passed over the wide open area he did the most beautiful slow roll I had ever seen. As his wingtips passed the vertical they were only a few feet above the ground. Shortly after he passed by he was followed by a second P-38 which did exactly the same thing. It was beautiful! Foolish? Yes. Dangerous to themselves and hundreds of others? Yes. But that's not the way I thought about it then.

SAAAB was an experience unlike any other most of us had ever had. Most of us came from civilian life where we had dressed more or less as we pleased, got up in the morning and went to bed at night according to the schedules we had worked out for ourselves, were free to come and go as we pleased (with some requirements according to our school, work or family schedules), etc. But at SAAAB we all wore the same kind of zoot suits (coveralls) until we were issued uniforms, and then we all wore the same uniforms that the occasion required. We could be gigged (receive demerits) for any irregularity of uniform, such as having a shirt pocket unbuttoned. We got up at the despised call of the bugle. Taps sounded at 10:00 p.m.

Some were at SAAAB because they wanted to be officers rather than enlisted men. Some were there because they didn't want to be in the infantry. Some of us wanted very badly to be pilots.

The time came for classification of those who had not been eliminated for physical, psychological or other reasons. We had been given the opportunity to express our preference, but the tests could result in our being classified for our second or third choices, rather than our first. My only desire was to be a pilot, but if, God forbid, I would not be classified as a pilot trainee, then navigator was my second choice and bombardier a distant third. We were told we could appeal our classification if we didn't receive what we wanted, but there was no assurance the appeal would accomplish our purpose.

It was a tense time as our names were read off, together with our classification. We were to respond immediately as to whether or not the classification was accepted. When "pilot" followed my name I began to breathe again. I learned that my qualification for pilot was only one point above my qualification for navigator training, and my points were high for both.

It wasn't until we were classified that we received our uniforms. They were an improvement, psychologically, over our zoot suits. They were not comfortable in summer weather, however. Our class "A" uniforms were comfortable in cool weather, but not in warm or hot. Our khaki shirts and trousers were made of very heavy material and were uncomfortable in hot weather. We always had to wear a tie when we were in uniform.

During WW II all in the military services were required to wear their uniforms at all times except when engaged in athletic activities or other times when a uniform would be inappropriate, such as in a shower.

Once we were classified we began our classes in earnest. I didn't have much confidence in my academic abilities, but, as it turned out, my grades were good consistently.

Aircraft identification was emphasized heavily. Generally that was no problem for me, but I didn't like the WEFT system we were required to learn. Because I had looked at pictures of airplanes as much as I could all my life, and I looked up at just about every airplane I heard overhead, it was second nature for me to identify airplanes from many different angles, merely by glancing at them. But the WEFT system required us to describe the shape of the Wing, the number of Engines and the shape of the Fuselage and the Tail. (Wing, Engine, Fuselage, Tail equaled WEFT.) In our tests we would be shown, for a fraction of a second, a formation of planes, or an airplane or part of an airplane. Can you imagine going through the WEFT system in a fraction of a second? Aircraft identification tests were dreaded by some, but, apart from WEFT, they were a snap for me.

Having learned the Morse code as a Boy Scout, code proved fairly easy, also. As a Scout, however, although I had learned the alphabet, I had not had training in aural reception of code. That came to me fairly easily. My final grade was 99%. Actually, in all my tests I received 100%. On one test, however, one letter was sent wrong. All of us who had recorded the letter as it was sent were marked as if we were wrong on that letter. I complained that my grade showed a consistent 100%, whereas my final grade was 99%. I was told, "Nobody can be perfect," and I couldn't argue with that.

The army tried to make it clear to us that we were training, first of all, to become officers. That we were training to be pilots was to be considered as secondary. That's what THEY said. If a measurement could have been taken to identify which classes were interesting to me and which were boring, I expect it could have been seen that THEY were not very successful in my case. Some of the time it was difficult to stay awake in class. It may be there were times I <u>didn't</u> stay awake in class. Falling asleep was not a problem on the firing range on the beach. I enjoyed firing the Thompson submachine gun, but I didn't enjoy firing the .45 semi-automatic pistol, and I didn't score very well with it. I know I would have been more accurate with it had we used the present day stance, holding the gun in the right hand and steadying it with the left hand, holding the gun directly in front of

oneself, standing in a semi-crouched stance. We had to stand erect, holding the pistol in the right hand with the hand and arm pointed 90 degrees to the right and our head also 90 degrees to the right. With me the gun wavered and danced continually, and my score consistently corroborated that fact.

After about five weeks at SAAAB we were given a weekend pass which allowed us to be off the base from late afternoon Saturday to approximately the same time Sunday. We weren't permitted to have a car in the vicinity, so most of us made use of the bus transportation that was available. Cadets were not supposed to hitchhike. Once when I was walking toward Balboa Beach a couple, probably in their forties, picked me up. They said they planned to go to a movie, but when they learned I wanted o go to Balboa Beach they decided they would take a drive instead, and they took me to Balboa Beach. En route they told me that the locals commonly would pick up cadets who looked wistfully at passing automobiles, and there was no regulation against that.

Charles Goodner had preceded me to Balboa Beach. When I located him at the USO he had not obtained overnight lodging for us, but we were on the USO's waiting list. Eventually we did get a clean room in a private home, and it cost each of us $1.50 for the night.

The only recreational activities I engaged in on my few weekend passes were swimming and sailing. Salt-water swimming was a new experience for me. I have never floated with ease, so the greater buoyancy I had in salt water was appreciated as an advantage. Body-surfing was also a new experience for me. On one occasion I was the only one swimming in the area. Charles Goodner was watching me from the beach. The beach sloped steeply to the water, and one could be unable to touch the bottom only a few feet from the water's edge. The breakers did not break until quite close to the shore. I thoroughly enjoyed the shore-ward rides I was getting. Right now it doesn't seem possible that it could have happened, but I remember distinctly being deposited on the shore not far from Charles, feet first and sitting upright.

Sailing was also a new experience. Charles was experienced in sailing, and we were able to rent a very small sailboat for a nominal fee. All our sailing was done in the calm waters of the bay. This, too, was a very enjoyable experience.

Although there were many, many things I did not like about my situation at SAAAB, what was the hardest for me to take was my separation from Carmen. Our training didn't leave us much free time every day. We really needed to study during what "free" time we had, but I managed to write Carmen daily. It wasn't a chore for me to do so. I felt as if I were talking with her. There was always more I wanted to say than time allowed. She kept my letters, and it is because of them that I have been able to write some of the foregoing.

Prior to the war cadets had not been permitted to marry; no married men were accepted into cadet training. I suppose it was at the same time that the age limit was lowered and the college requirements were dropped that married men were accepted and cadets could marry while they were still cadets. It had always been my intention, however, that I would not marry until I was able to support a wife. It was my intention that we would not marry until after I graduated, <u>IF</u> I graduated. In my letters to her and in hers to me it was quite evident that graduation couldn't come too soon for either of us.

When we were classified we were assigned to a particular class. The class was identified according to the time graduation would take place - if one graduated. I was assigned to Class 43C. This meant that I was in the class that would be the third to graduate in 1943. After Pre-flight pilot candidates would go to Primary, then to Basic and then to Advanced flight training. Each of these would last about nine weeks. At each school (Primary, Basic and Advanced) there were two classes at the same time, the lower class and the upper class. The classes graduated about five weeks apart, so 43C would graduate in March 1943.

Probably there were fewer changes at SAAAB after the base had been in operation for a number of months, but during our time at SAAAB there were many things that didn't go as we had

been told they would. I'll give only one example. Before I was classified I was assigned to three different squadrons in three different locations in about the same number of days. Late in July, for some reason I don't recall ever hearing, we were moved into Class 43B. To us the reason wasn't important. We would be delighted to leave SAAAB and were anxious to begin actual flight training.

It has probably been true throughout the ages that rumors abound in military organizations. We had heard our share in our weeks at Santa Anna. We had had contacts with many cadets who had washed out of pilot training and had been returned to SAAAB for reclassification. Therefore we knew something about the various schools that might be our next destination. Hancock College of Aeronautics at Santa Maria, California had a reputation of being a HARD flight school. We had heard that the class that had just finished its Primary flight training there had a 97% attrition rate. That was the school to which I was assigned.

# 4
# Hancock College of Aeronautics

After a bus trip of about 180 miles we arrived at Hancock College of Aeronautics in the morning of July 27, 1942. Virtually everything about our new, temporary home looked good to us. Santa Maria was attractive, and the school was right on the edge of the city. Although our barracks were older than those at SAAAB, they were more attractive. I can recall one exception to the attractiveness - the upperclassmen!

Because of the pattern we had become accustomed to at SAAAB, of things not taking place as we had been told they would, we expected that we wouldn't get to begin our flight training for perhaps a week. We were wrong! I had my first army instructional flight on Thursday, July 30th. In that day's letter to Carmen, concerning that flight I said, "It was plenty okay." I loved it!! Including stalls and a spin.

Our airplanes were Stearman PT-13's or PT-17's. The PT-17 had a 220 h.p. Continental engine. The PT-13 had a 225 h.p. Lycoming engine. I couldn't tell any difference in their performances.

Cy Perkins was my instructor. At 36 he was the oldest instructor in our squadron and perhaps in the school. As it turned out I was happy to have him as my instructor, rather than some of the others. He was demanding, but he wasn't rude or abusive. I had no complaints about him whatsoever. (Throughout the years we sent him our annual Christmas letter, and usually we heard from him in response. He died in 1997.)

The Primary schools were civilian schools under contracts with the army. We were told that Hancock College was owned by a millionaire who wasn't out to get every penny he could from the army. Feeding the cadets was a part of the contracts' requirements. Other schools, seeking to gain the most profit possible, skimped on the food. We were fed royally! We had steak so often during the week that we would seek hamburgers when we were on weekend passes. At every noon meal there would be a gallon of ice cream at each end of each table. If we emptied them we could request more, and it was always given to us. This was NOT typical army chow!

Soon after we arrived we asked the upperclassmen why there were so many less of them than of us. They answered, "Wait and see." We didn't have to wait very long.

Cadets were required to have a minimum of eight hours of dual instruction before they soloed. If they had not soloed by the time they had eleven hours they had to go up for a check ride. There was a good possibility of being washed out if you had not soloed by then.

At that time in my life I wasn't in the habit of asking God to guide me into His will for me. I decided what I wanted to do, then asked God to enable me to do it. He did give me gifts that enabled me to make good progress as a student pilot. Flying seemed to come easily to me. (I didn't realize this fully until years later when I was instructing.) I became confident that I would solo as soon as I had eight hours. But it wasn't to be. About the time I had six hours of dual my instructor said I should be able to solo at eight hours, IF I kept making as good landings as I had been. I didn't!

The Stearman has a high center of gravity, narrow landing gear and a tail wheel. The center of gravity is behind the main landing gear on an airplane with a tail wheel. On landing, if the nose is pointed at all to the right or left at the time the main gear contacts the ground, the tail will seek to go first. A ground loop is a likely outcome.

During the time that many cadets were soloing for the first or second time, at each noon and evening meal a request was made. (I'm confident a "buddy" would make the fact known if someone who should respond failed to do so.) Those who had ground looped that morning or afternoon were asked to stand. They would be "applauded."

A ground loop early in one's solo experience usually did not send him to the Maytag, the washing machine, the washing-out process. A ground loop after one had a number of hours could signal the beginning of the end.

At the dual flight after I reached eight hours my instructor said some of the instructors would have let me go solo. This was mid-August, and we were having gusty cross-winds, and there were many students ground looping. Mr. Perkins said he wasn't going to let any of us (he had five students) solo until we had ten hours. He said he had never had a student ground loop, and he didn't want his record spoiled.

As my time built up I seemed to get worse. On August 21st Mr. Perkins said, after an hour's instruction, that I had been doing things all wrong and that I needed to loosen up. He said I should forget it if I was thinking of soloing. He said I wouldn't solo until I improved. He indicated I was letting the airplane do what it wanted rather than making it do what I wanted it to do. I thought, "I'll show you!" Throughout the next take off, flight around the pattern and landing I made the plane do exactly what I had been taught it was supposed to do.

The following is quoted from my letter to Carmen that evening. "After the last landing he told me to go back and try another. He kept watching me in the mirror as I taxied and approached the wind "T" in the middle of the field where all the instructors get out for soloing their students. I kept right on taxiing. When we reached the place he told me to slow down, and one of us stopped the plane. He looked up in the mirror and grinned. I don't remember what he said, if he said anything, but I grinned, too, for some reason. He got out and unfastened the gosport and fastened the safety belt in the front seat and made everything fast in the front cockpit. He gave me some final instructions as to traffic and keeping the plane from drifting from using too much crab angle and what to do if traffic was so that I couldn't land. He said to go around again and again if I didn't feel it was safe to land, because I had enough gas for 3 hours if it was needed. He also told me he didn't want me to spoil his record by getting a wing and told me he didn't think I would if I remembered everything he told me."

The flight went very well! As is not uncommon for one's first solo landing, it was a good one. He sent me back for a second solo trip around the pattern, and that went very well also. Solo flight was great!! My dual time prior to solo was nine hours twenty- three minutes.

Dale Wilson, a farm boy from Iowa whom I liked very much, had not done as well as I had in our early hours. He was afraid he would wash out, and he wanted very badly to succeed. He also soloed that day, the first of Mr. Perkins' present students to solo. I was almost as happy that he soloed as I was that I had. Later one of our five did ground loop and end Mr. Perkins' perfect record.

By this time we were beginning to understand what the upperclassmen had meant when they told us to wait and we would see why there were so few of them. It was common to call the procedure by which cadets were eliminated from flight training the "Maytag," or the "washing machine." By whatever name, it was busy. By the time 43B completed its Primary training at Hancock 58% of our class had washed out. Later I heard that 85% of Class 43C at Santa Maria had washed out. The school earned the name, "Hancock College of Elimination."

Bill Albright, whom I first met in the recruiting office in Denver (perhaps in January), had had Advanced CPT (Civilian Pilot Training) through which he had obtained his commercial pilot's license. We could hardly believe him (I think he said this while we were at SAAAB) when he said he expected to wash out. He said he was too slow thinking and probably would not be able to fly to the army's standards, and he was correct. When he did wash out he told us he was surprised he had gotten as far as he had. I was very sorry to have him leave. He went on to OCS (Officers Candidate School) and probably became an officer before 43B graduated. He did become an officer, and I believe he spent the rest of the war in Florida.

## Moving toward Marriage

Making plans via letters was not the most satisfactory way, but it was the only viable option open to Carmen and me. It was my intention not to marry until I was able to support my wife. I figured that, as far as military life was concerned, one had to be an officer in order to support a wife. Many enlisted men were married, but almost invariably their wives worked outside the home. We received no solid information as to what to expect relative to furloughs, leaves or any kind of time off. Normally we had parts of Saturdays and Sundays off, but even on those days we might be restricted to the base for one reason or another. In my daily letters to Carmen occasionally I would write about rumors bearing on what we might expect relative to time off. Not one of them proved to be correct.

Gradually we began thinking about marrying at the end of December. I would not have finished my training by that time, but if I had not washed out by that time there was a good possibility that I would make it the rest of the way. Actually it was believed that if one survived the school at Santa Maria, there was a high probability that one would make it through Basic and Advanced.

Carmen and I were very young to be planning to marry, but neither of us had any doubt concerning our love for one another or our commitment to one another for life. Dad's only expressed objection had been our youth, but he appeared to have acquiesced. Likewise Carmen's mother and stepfather, who were going through divorce proceedings, were not opposed. Her mother had been the most vocal opponent, but over time she became more willing to accept our plans.

All of us cadets were from 18 to 27 years old. A cadet could not have reached his 27th birthday at the time he was accepted into training, but he wasn't kicked out if he turned 27 during his training. Only a very few were married. I think admitting married men into cadet training came about at the same time the lower age limit was set at 18. But, married or not, we all had loved ones for whom we were lonely.

One cadet had played the trumpet in one of the popular big bands of that time. He did a most beautiful job of playing "Taps" each night. Total silence didn't always follow his playing of "Taps." But one night was different! Following his playing of "Taps," he played "The Blues in the Night." He played it slowly, perfectly and with purity of tone. I consider it the most beautiful rendering of a popular song I have ever heard. I'm confident the thoughts of every cadet were focused on persons many miles away. Total silence followed the last note. I don't recall hearing another sound prior to falling asleep.

It was difficult to write Carmen daily, but I had promised to do so. I took advantage of waiting time on the flight line, any breaks in our tight routine and use of some of our night study time. Often we flew off of satellite fields, which we reached either via bus or airplane. When we flew from them, we had more time free for such things as writing letters. When we flew off of the home field, we were to see to it that a cadet would be at each wingtip of each plane taxiing in to the flightline. That allowed less time for writing. Often it was a time filled with "Hangar flying." Hangar flying was simply airplane or aviation talk. Probably the ignorance that was expressed during such times could fill more books than have ever been written on aviation.

## Progress toward the Goal - Wings

Flying time built up very slowly prior to solo. We were scheduled for morning flying one day and for afternoon flying the next day. Sometime the fog would not burn off until after noon, so there would be no flights that morning. Some times the fog would roll in from the Pacific early enough in the evening that late afternoon flights would be curtailed. When an instructor had five students, sometimes less than the five would be able to fly on a particular day.

Following the first solo flight a student was to complete successfully two more supervised solos before he could obtain a plane for unsupervised solo flying. Once that hurdle was passed, a student might get in three or four flights in one morning or afternoon. Neither our planes nor our field were equipped for night flying. Even if they had been, and even if night flying was practiced at Primary schools we probably could not have flown at night because of fog. Maybe I did see them, but I don't remember seeing stars at night while at Santa Maria.

Usually we had a pass each weekend, beginning sometime in the afternoon on Saturday and ending perhaps at 1800 on Sunday. The townspeople of Santa Maria had "The Little Theatre," a building exclusively for the recreation of aviation students and aviation cadets. (Earlier Hancock College had been training aviation students only. If and when a student got his wings he became a flight officer rather than a second lieutenant. A flight officer was equivalent to warrant officer.) The Little Theatre had books and magazines, card tables and ping pong tables. Free soft drinks were available. At times there would be special events. Sometimes there would be dancing. It was a kind, thoughtful thing the Santa Marians had done for us.

In addition to spending time at the Little Theatre on weekends I managed to go swimming at least once and horseback riding at least once. Arthur Clarke went horseback riding with me. I was delighted to obtain a lively, responsive mount at the riding academy.

Our pay was $75 per month. At Santa Anna money was taken from our pay for a number of things. Less was taken out at Santa Maria, and I was able to send as much as $50 per month to Carmen to put in savings in preparation for our life together.

My first solo had come later than Mr. Perkins and I had anticipated. If I had any further problems in Primary, they are lost to my memory. We sweated out each of the progress checks, at 20, 40 and 60 hours. We received a minimum of cross-country experience, hardly worthy of the name. We had one dual flight to and from San Luis Obispo, then one solo flight to and from the same destination. The distance was 27 miles, and we didn't land at San Luis Obispo. The dual round trip took 43 minutes, and two days later the solo took 42 minutes. (Time was then recorded to the minute, starting with the take off and ending when we shut the engine down after returning to the line.)

If there was a disadvantage to the excellent meals we were enjoying, it was that we ate a lot, and some didn't do so well keeping their recent meal down if they flew soon after eating. This was true especially when we got into acrobatic flying. The only time I came close to airsickness was when we were practicing Lazy Eights. We were not taught then to do Lazy Eights as pilots are taught now. Now the bank is to be 30 degrees or less. Then our banks approached the vertical. I enjoyed them, but when doing one after the other for quite a period of time I would begin to become conscious of my stomach.

Early in our introduction to Stearmans we were told that the Stearman was a rugged airplane, that it could take anything we could take. Except for being low powered for its size, weight and draginess, it was a good plane for acrobatics. For any maneuver requiring much speed we had to power dive to attain the desired speed. Because they wanted us to learn to fly "by the seat of our pants," they had covered the airspeed indicator in the back cockpit, the student's cockpit. When doing acrobatics dual, our instructor would indicate when we had attained a high enough speed for the particular maneuver he had requested. When doing them solo, we would dive until we thought we were approaching the speed we wanted, then we would lean to the left far enough to look at the airspeed indicator in the front cockpit. Those, with only one exception, were the only times I saw an airspeed indicator in flight in Primary.

Dale Wilson once said, with tongue in cheek, that at first he thought a slow roll was designed for a quick loss of 500 feet. In my estimation a well-done slow roll is a most beautiful maneuver, much more beautiful than an aileron or barrel or snap roll. In a well done slow roll in level flight there is neither a loss nor a gain in altitude throughout the maneuver. When one is learning, there is a distinct

tendency to do exactly the wrong thing when flying upside down. When you are inverted, the nose tends to come down. When flying right side up and the nose is going down, to stop the downward movement you pull back on the stick. When you are inverted and the nose is going down, you rather naturally pull back on the stick and ruin your attempted slow roll. You end up doing half of a loop. Eventually one learns to hold sufficient forward pressure to keep the nose up while inverted.

One of the most difficult things about the slow roll is that since the plane is rolling slowly, but continuously, throughout the maneuver, the wings' lift is varying constantly, so elevator pressure must be varied continuously, whether back pressure while right side up or forward pressure while inverted. Also rudder pressure must be varied and must be used to hold the nose up as the wings approach and pass through the vertical attitude. Those two P-38 pilots at Santa Anna were sharp!!

I'm not sure I ever got to the point that I could really hold altitude throughout a slow roll, but I did get so I ended up at the same altitude at which I started.

**Check Rides**

Our check rides were given by Army pilots. I think it was at my 20-hour check that the following occurred. The air was rather turbulent, and I didn't feel as if I was doing a very good job. The lieutenant said, "Let me have it." I released the controls, and he flew for awhile. I don't remember what maneuvers he went through, but I remember that, in his hands, the airplane seemed to be rock-solid. I was impressed!

The captain who gave me my 60-hour check ride was known as a stickler for details, a hard man to get by. Before we took off, he told me exactly what I was to do and in what order. He said that if I did everything right the flight would take 41 minutes. If I remember correctly, he didn't say a word to me throughout the flight. I logged 42 minutes. I wondered, "Did I pass?" I had no inkling from him.

After the engine was shut down, he critiqued my flight with two negative comments. He had told me to do a spin following the 720-degree steep turns both right and left, and I had done so. But before I did the spin I had done clearing turns (which we always did before doing any acrobatic maneuver). But he said I had wasted time by doing the clearing turns. He said my steep turns had provided the opportunity to clear the area prior to the spin. The truth is that I had concentrated very hard on doing the best steep turns possible. I think we were to keep our altitude within 100 feet of our starting altitude. I remember distinctly that on one of my steep turns I had lost less than 10 feet in the beginning of the turn, and the needle didn't move a whisker for the rest of the turn.

The captain's second objection to my flight was that after I turned onto the final approach I had allowed the plane to drift one plane-width to the left. We didn't have a runway that we used for our landings - it was simply a wide grass field. He said I could have drifted in front of another plane that might have been landing behind us.

Following his two criticisms he warned me about the danger of becoming overconfident. He evidently didn't realize I was wondering whether or not I had passed the checkride. It was only after I had been instructing others for a number of years that I realized that I had done a nearly perfect job of flying on that occasion, that the captain had had to stretch to find something to criticize. Probably he thought there was danger of my becoming overconfident. Confidence wasn't in my vocabulary at that time.

If it wasn't the last flight in Primary, it was one of the last flights, one that was anticipated with relish, a flight in which the student flew from the front cockpit and the instructor was in the rear cockpit. This was a flight in which we were at somewhat of a disadvantage because of having learned to fly with a minimum of instruments. One way of controlling airspeed in a climb was to hold a particular cylinder on the horizon in our line of sight. (The radial engine's cylinders were all

visible as you looked at the engine standing in front of the plane, and several of the upper cylinders were visible from our cockpits.) In level flight the top cylinder was held in a certain relationship to the horizon; I don't recall exactly what it was. In the power off glide the top cylinder was held a certain number of inches below the horizon. To make a shallow turn you placed and held the lower low-wing's tip a few inches below the horizon. For a medium-banked turn you laid a wire, one that ran at something less than a 45 degree angle, right on the horizon. For a steep turn you laid on the horizon the strut that connected the upper wing to the fuselage in front of the front cockpit. It was not difficult to know whether or not you were making precisely banked turns.

The problem in this special flight was that our perspective was changed. It wasn't difficult to govern our banks, but pitch control was more difficult. But overall it was an enjoyable flight. Mr. Perkins would do a maneuver, a loop, for example, then I would do a loop. As I remember we went through all of the maneuvers we had learned. I don't recall how well I did them from the front, but the pressure was off, we weren't expected to do as well as we had been doing in our regular place.

My final Primary flight's length was just right; my total flight time was 60 hours to the minute. It marked the end of a bittersweet time. It had been a time of great pressure, but it was a time of enjoyment and satisfaction. I heard that 58% of our class had washed out. Most eliminations occurred because of not measuring up to the flying standards, which may have been too high. (In 1993 Bill Clardy told me that the army later conducted an investigation of Hancock College of Aeronautics because of their consistently high washout rate. I also heard that Class 43C lost 85% of their class to washouts. But you know how rumors are. I don't have solid evidence of these figures.) Some washed out because of academic inadequacies. I don't recall any washing out because of discipline problems, but that doesn't mean there weren't eliminations for that reason.

Of all the places I was stationed I liked Santa Maria the best. I would have liked to have had Carmen enjoy it with me. The best I could do was to tell her about it in my letters. At the time, however, I wasn't reluctant to leave Santa Maria, because I looked forward eagerly to flying BT's (Basic Trainers) and AT's (Advanced Trainers) and completing my flight training. Prior to 1942 I had never heard of Santa Maria. Likewise I had never heard of Taft, my next station.

# 5
# Gardner Field

Taft, California is located in the southern end of the San Joaquin (pronounced Wahkeen) Valley. We moved to Gardner Field, just east of Taft, at the end of September. The summer was over, but the heat wasn't! Summer at Santa Maria was comfortable. Early fall at Taft was not! It wasn't hot the entire nine weeks I was at Taft; there were days that were overcast and comfortable. There was some rain, but if you would ask me for a quick response regarding my memories of Taft, I'd answer, "Hot and dry!!"

Gardner Field, unlike Hancock College, was strictly military. As far as I know, Gardner Field was built during WW II and used then only. Its sole purpose for existence was to provide Basic training for budding army pilots.

The BT-13 was a distinct step us for us. At 450 h.p., horsepower was doubled. Additionally the BT had wing flaps, a two-position propeller, a full panel of instruments and two-way radio.

While in Primary we heard that going from a Stearman to a BT-13 was like going from a Model T to a Cadillac. On my first flight in one I understood why that had been said. Although the headset I wore was not designed for noise attenuation, it helped some. And, since the student while flying dual was to keep his sliding canopy closed, there was less noise than was pervasive in an open cockpit. Then, being heavier and faster, it was not tossed about by turbulence as easily as was the Stearman. In short, it was a pleasure to fly.

My instructor was considerably older than I was. He was 21! I liked him from the start.

Although the two-position propeller was an asset, it added a hazard. Low pitch was used for take off and climb. High pitch was used for cruise. Woe be to you if you attempted to take off with the prop in high pitch; almost certainly you would run out of runway before you reached flying speed. In a motor vehicle it would be like trying to start up a hill from a standing start and in high gear.

Instructor/student communication was much better than in the Stearmans. We had two-way communication with hand mikes and headphones. Also we were introduced to tower communications. Light signals from the tower were available in the event of radio failure.

My first solo in a BT occurred following 4 hours and 45 minutes of dual instruction. If it was not on my first solo, it must have been soon after that, like Red Skelton, "I scared myself! I scared myself!" During take off and landing dual, the instructor kept his canopy open (to make escape from a crack-up easier). Prior to beginning the approach for landing we were to throttle back somewhat then push the prop pitch control forward to place the prop in low pitch. Low pitch gave a higher rpm. On that occasion I reduced the manifold pressure (pulled the throttle back somewhat), put the prop into low pitch, then advanced the throttle. The noise increase was sudden and great! My first thought was that another airplane was close. I remember looking quickly to the right to see where that other BT was. There was nothing there. Then I realized things sounded differently with the canopy open!

That wasn't the only time I scared myself in the BT-13. In our solo practice in Primary we were permitted to practice all the standard maneuvers we had been taught, but because of the spin recovery record of the BT-13 we were not supposed to practice spins solo during our Basic training.

One maneuver we were supposed to practice was a rudder-exercise stall. In it we were to pull the nose up rather steeply, power on, and hold the nose well above the horizon until the stall occurred and with the stick full back. We were to keep the stick full back as the nose fell, keep the ailerons neutral and keep the wings as level as possible using the rudder only. Recovery was to be initiated by forward movement of the stick after the nose fell through the horizon.

It was such a rudder-exercise stall that I was doing on this memorable occasion. When the stall occurred and the nose was dropping, so also was the left wing. I applied right rudder, but the left

wing didn't come up. I think I even used full right rudder without the left wing rising. I thought, "I must be using the wrong rudder." I kicked in full left rudder. Immediately the plane snapped into a tight left spin. I had never before entered a spin with power on, and I had never before done a spin to the left. I pulled the throttle back and held the stick full back and the left rudder all the way forward for a brief time, for we had been taught that recovery from a spin in the BT-13 was more likely to take place, and take place promptly, if we were in a clean spin. Then I followed the procedure I had been taught, kicking and holding full opposite rudder (in this case the right), counting to three, then slamming the stick full forward. The rotation stopped promptly, and recovery to level flight was anti-climactic.

The stall, the spin and the recovery took only a few seconds. During those few seconds I was not frightened, but after I was flying straight and level again it was a different matter. Throughout the history of flight, to this very day, accidental spins have claimed many lives. In my case I was high enough that the recovery was made with altitude to spare, and I had received adequate instruction so no harm resulted. It may be that I have been a safer pilot these past 60 years because of this experience.

There was another occasion I'll not likely forget, but this time I damaged something. In Basic we were introduced to what erroneously has been called "blind flying." Instrument flying requires continuous use of the eyes. True, you may be totally blind to anything outside the cockpit, but you must be able to see your instruments continuously. In training for instrument flying, one way or another the student is enabled to see his instruments but prevented from seeing anything outside.

On this occasion the instructor told me to do a spin. I entered the spin. When he told me to recover, I followed the procedure we had been taught for the BT's. I jammed the rudder to its stop. When I did that, I heard a loud bang. I had broken the rudder cable! The limpness of the rudder pedals confirmed that. The spin continued. I tried every control I had. The spin continued. Being at a loss as to how to stop the spin, I lifted the Link trainer's cover and told the instructor sitting at his desk that I had broken the rudder cable. He got up from his desk, walked toward the trainer and reached out and stopped the trainer's rotation. (The Link trainer was a ground-based means of supplementing the airborne instrument training.)

A sometimes-enjoyable part of instrument training in Basic was the "buddy rides." After having obtained instrument experience with our flight and Link instructors, sometimes we practiced with a "buddy." One student would fly in the front seat for take off and landing. The other student would ride in the back seat. At some point after being airborne the back seat student would shut off his outside view by a black hood that would extend from behind his shoulders and over his head to the top of his instrument panel. Then the front student pilot would tell the back student what to do. The front-seater had the responsibility to keep them in the practice area, to avoid collisions and to recover if the back-seater should lose control

As I think about those buddy rides from the stories that cadets told, it may be that during them more time was spent on one particular "maneuver" than on any other, "recovery from unusual attitudes." This was a legitimate "maneuver." As part of our training our instructors would tell us, "Remove your hands and feet from the controls, close your eyes, and, when I shake the stick, recover to straight and level flight." He would then make turns, perhaps skidding and/or slipping, pitch up and/or down, in short do all kinds of things so that we might not be able, by our feelings, to tell what attitude we were in at the time he shook the stick. When he shook the stick, we were to return our hands and feet to the controls and, by interpreting our instruments, determine our attitude and return to straight and level flight promptly and without overstressing the airplane.

On one of those occasions I was the student under the hood. We were practicing "recovery from unusual attitudes." Evidently my buddy up front was enjoying what we were doing. One time evidently he didn't do a very good job confusing me. My feelings told me he was rolling us inverted.

When he shook the stick, I simply completed the roll. I'm not at all sure what I would have done if I had not known what was taking place.

One cadet claimed the following had taken place when he was recovering from unusual attitudes while flying with his instructor. I don't remember what took place first, but somehow he had excessive airspeed in a dive. He pulled the nose up, but he waited too long to reduce the back pressure on the stick. When he did release the back pressure, it simply helped round out the top of the loop he was making. He claimed they did three loops, one right after the other, before they returned to straight and level. He told this as a fact. It's hard, but not impossible, to believe.

Prior to my entering cadet training I had never heard of Santa Anna, Santa Maria or Taft. Even though I had lived most of my life in the next state north, I had never heard of Roswell, New Mexico until learning that I was being transferred there for my Advanced flight training.

During Basic we had a second opportunity to express a preference. Did we prefer to go to single-engine Advanced or to multi-engine Advanced? Again, there was no assurance we would get what we preferred, but we were given the opportunity to express our preferences.

For several reasons I preferred single-engine. Graduation from single-engine Advanced most likely would lead to flying fighters. Some graduates might end up instructing in Basic or Advanced, and some might find themselves flying liaison airplanes such as the L-4 (a Piper J-3 Cub in olive drab). My instructor in Basic said I was good in aerobatic flying, so he thought I ought to fly fighters. I enjoyed aerobatics and would have liked to do them in an airplane powerful enough that one didn't have to dive to gain enough airspeed to do slow rolls or other maneuvers requiring excess speed. Also I liked flying alone, and I did not want the responsibility of a crew.

There was only one reason I wanted to go to multi-engine Advanced - I thought I would have a better chance getting a job with the airlines after the war if I had multi-engine experience. The practical won out, and when we were given the opportunity to choose, I chose multi-engine, and I got my choice. When I received my orders for Advanced I learned I was being transferred to Roswell Army Air Force Advanced Flying School (RAAFAFS), Roswell, New Mexico.

Four Full Years

# 6
# Roswell Army Air Force Advanced Flying School

Gardner Field members of Class 43B arrived at RAAFAFS December 3, 1942 after another slow train trip. Having felt so sluggish at sea level, the base's elevation of 3,671 feet was a welcome change. On the other hand, Roswell's December temperatures were not most welcome after a summer and fall in southern California. Assembling outside of our barracks before dawn was not a pleasant experience! What pleased me most about this assignment was that now I was just over 400 air miles from Carmen. Mail would be received more quickly, the very few telephone calls would cost less, and there was a possibility of getting to Denver if I would ever be given enough time away from the base.

The one thing we could be confident about the army was CHANGE. What appeared on the bulletin board one day might be superseded with an entirely different order the next day. My last name being near the first part of the alphabet guaranteed an early participation in virtually everything. Being among the first to receive pay was appreciated. Being early in being assigned to a particular duty was not always appreciated. Especially disconcerting was the fact that often lists would disappear, and the new list again would start with the first of the alphabet. I did get a lot of experience that way.

The uncertainty regarding obtaining time for our wedding made planning very difficult! Lt. Long, my instructor in Basic, said he was required to report for instructor preparation the day he was commissioned and received his wings. At some point we were told we would have no leave or delay en route to our assignment following our graduation. On the other hand we were assured we would have New Year's Day free.

Both Carmen and I preferred to be married at our church in Denver with Rev. Paul D. White officiating. He had always looked upon Carmen and my relationship with favor. And of course we would have liked to have family and friends at our wedding. None of that could be accomplished if I had only one day free.

We heard that it might be possible for a cadet, if he could persuade his instructor to do so, to fly with his instructor to other places for a weekend. It would be necessary to go on Saturday, probably in the afternoon, and return on Sunday. Denver was within the limits. I asked my instructor if he would be willing to do that. He said he might be. Carmen proceeded to arrange for us to be married in Denver, but with the realization we might not be able to go through with it.

My first flight at Roswell was on December 8, 1942 in a Curtiss AT-9-R-650. The AT-9 was an all-metal, two-place, twin-engine trainer specifically designed to be a military advanced trainer. Roswell was the only place I ever saw an AT-9. It had 285 h.p. radial engines and very little wing. A side view of the fuselage, showing an airfoil shape, gave credence to the claim that 10% of the lift was generated by the fuselage. Some said it was an airplane which had no visible means of support. With tongue in cheek it was said it climbed at 120 (mph), cruised at 120 and glided at 120. The truth was that it cruised faster than that.

In AT-9's instructors demonstrated something that students were never supposed to do, a full-flap, power-off descent for a landing. To see the runway during a gear-down, full-flap, power-off approach one had to look through the eyebrow glass over the top of the windshield. It was said the descent angle was 70 degrees. I have trouble believing that, but it was true that one had to look at the runway through the glass above the windshield. Also it was necessary to add power while rounding out at the bottom of the approach to prevent stalling.

After 5 hours 35 minutes in AT-9's I was transferred to Cessna AT-17's. All cadets were supposed to have some AT-9 time, but most hours would be spent in the much more plentiful AT-

17's. I would rather have had my AT-9 time after getting twin-engine experience in the 17's, but some cadets had to have their AT-9 time first, and I was among those.

The performance of the AT-17 was similar to that of the BT-13. The major difference was that the AT-17 had retractable landing gear and two 225 h.p. engines with constant-speed props whereas the BT-13 had fixed gear, one 450 h.p. engine and a two-position prop. The AT-17 was a civilian airplane drafted into military service. (Some AT-17's had been manufactured for the Royal Canadian Air Force and were equipped with fixed-pitch wooden propellers.)

In addition to learning the complexities of multi-engine flying we had more formation, cross-country and night flying in Advanced.

**Damaging Aircraft and Men**

Whether it was true of AT-9's as well as AT-17's, I don't remember. Perhaps it was because the weather was warmer the first week of our flying at Roswell, but I don't remember there being any ice or snow while I was flying the 9's. We had a problem in the cold-weather starting of the AT-17's. If an engine was over primed, and fairly heavy priming was required for a cold-weather start, and a backfire occurred, a fire was likely to occur. The fire might be on the ground (blacktop) directly under the engine, or in the exhaust stack or in both places. When we were ready to start an engine, a man had to be standing-by close to the engine, ready with a fire extinguisher. Fires were so common we almost took them for granted. But I don't recall ever hearing of any serious damage done by any of the fires.

Speaking of aircraft damage, this appears to be a good time to broach the subject of casualties during cadet training. In Primary there were many planes that suffered relatively minor damage in ground loops. I observed one accident that caused rather serious damage to two planes on the ground.

All but one of us in Class 43-B at Santa Maria were Aviation Cadets. The exception was an officer, Second Lieutenant Kedian. On one occasion I was watching a Stearman taxiing into the parking area after landing. In the three-point position it was impossible, from either cockpit, to see anything but fuselage and engine straight ahead. To avoid hitting what might be in front we were required to do S-turns continuously, looking first out one side then out the other as we turned. Also we were supposed to taxi no faster than a man could walk, and a cadet was supposed to have a hand in the handhold that was on each lower wing tip when we were taxiing in the parking area. None of these requirements were being followed by whoever was taxiing this particular Stearman. He was taxiing straight ahead at a faster-than-a-man-could-walk speed and with no wing walkers. As I watched I thought my depth perception must be off, for it appeared to me that he was heading directly toward the first Stearman on the parking line. My depth perception was NOT off! The plane smashed into the sitting plane's fuselage just behind the rear cockpit, the lower left wing hitting the sitting plane's tail and the right wings colliding with the sitting plane's right wings. The engine stopped at once, and there was no fire, and the student pilot was unhurt. Perhaps he had to take a "wash" ride. If he did, he passed it, for Lt. Kedian was with us at Gardner Field where he earned a nickname for another, lesser failure. I have wondered if his being an officer had anything to do with his not being washed out.

When flying with an instructor in BT-13's we were to have our canopy closed, whereas the instructor was to have his open during take offs and landings. When we were flying solo, we were to have our canopy open for take offs and landings. Whether it was for a one-time occurrence or for doing it repeatedly, I don't know. But for failing to have his canopy open, Lt. Kedian earned the name "Canopy Kedian" at Taft.

This brings to mind another minor mishap that resulted in a minor injury to a roommate of mine. Evidently not all cadets always used all their "Buddy" time as we were supposed to. Mister (that's how cadets were addressed) Allen was up for instrument time with a buddy. He was relaxing in the rear cockpit, with his safety belt unfastened or very loose, when his buddy suddenly dumped the stick forward, making Allen a little less than weightless. In other words, the plane went down faster than an unattached body would begin its fall. Allen's head went through the canopy, but only to his nose. Every time I think of him I see him with the scab on his nose where the skin had been scraped off. I don't remember the story the two cadets gave to explain the hole in the canopy and the missing skin, but it was not the story they told us, and they were permitted to continue their training.

Charles Goodner was from Colorado Springs. I may have met him on the train en route to Santa Ana. I considered him a good friend through Pre-flight, Primary and Basic. At Taft I watched him go through something I'm confident he remembers to this day. I was with my instructor, doing take offs and landings. A low ceiling had restricted our flying to the home field. There were 20 or 30 planes taking off, landing and taxiing back for another take off. We were taxiing back for another take off when we saw a solo BT-13 flying at a very low speed about 20 feet in the air. I think the sequence was as follows: he stalled about 20 feet above the runway, gave the engine full power to recover from the stall and go around, dropped to the ground left wing first, cartwheeled, hitting the engine, then the right wing, then the tail, knocking off both wings, the engine and the tail, leaving the fuselage intact and sitting right side up. The engine came to rest on the stub of the right wing. Immediately the student stood up in the cockpit and waved to us before crawling out. It was Charles Goodner!

Goodner probably was near the bottom limit in height. I thought he may have been too short to give full right rudder, and that was why he hit left wing first. He said that was not true. He passed the check ride, went on to Advanced, graduated and flew in the army until the end of the war.

To my knowledge Class 43-B had no fatalities in Primary at Santa Maria or Basic at Taft. In Advanced at Roswell there were several fatalities. I don't remember if any of them were in 43-A while we were underclassmen or in 43-C when we were upperclassmen or in 43-B either of those times. There was at least one mid-air collision. I think one of the four men parachuted safely, but the other three were killed. On one occasion a wing came off of an AT-17, and from that time on we were to keep our speed under a specific number. I believe it was in my last week at Roswell that a B-25 crashed, killing all who were on board. It was theorized that the automatic pilot might have been involved. (It was possible to have the plane enter a violent, uncontrollable maneuver if the controls of the autopilot were not set properly at the time the autopilot was engaged.)

**Logging "Solo"**

When we were ready to "solo" in Advanced, we didn't really solo, we had another cadet as our "copilot." He didn't perform any duties as a copilot - he just sat there. The "captain" did everything - at least in theory. One cadet, a Mr. Bennett, had told us that the only reason he passed his check flight in Basic was that the check pilot didn't want to have to ride with him again. He was very sharp and knowledgeable relative to military things, but he readily admitted incompetence in flying. Often I had to fly as his copilot. One day he was the pilot, and we were to be in the number three position in a formation flight (flying to the left of the lead plane). He was doing a poor job, not getting in nearly as close to the lead plane as he should. Several times our instructor in the lead plane told him to get in closer, but Bennett didn't. After he didn't respond to a rather severe threat from our instructor, without even asking I took over the controls and moved in VERY close. I held it in like that throughout the rest of that flight. Bennett didn't say a word about it either during the flight or any time afterwards. I never heard anything about it from the instructor. I always wondered if the instructor ever knew what had taken place.

On two other occasions, and I think these were on two nights in a row, as I was flying as Bennett's copilot, upon returning from night cross-countries he entered the down-wind leg going exactly the wrong way, 180 degrees to the direction we should have been flying, and we were NOT alone in the pattern. It may be I should have corrected him sooner than I did, but we did not present a hazard to any others that I saw. I would have taken over the controls again if I had waited until words would not have been sufficient.

In Basic our flight time, taking off, climbing, descending and landing for the benefit of the cadet in the back cockpit, was not logged. The cadet in the back cockpit logged only the time he was actually flying via instruments. In Advanced our "copilot" time was not logged.

**Married!**

Fairly early in our time at Gardner Field I had selected wedding rings for Carmen and me in Taft. For countless reasons, now long forgotten, I was unable to obtain them before I left for Roswell. They had assured me they would mail them to me.

Although my instructor at Roswell had said he would consider a dual cross country for a weekend so Carmen and I could be married in Denver, eventually he said he would not do so. In the meantime Carmen and I were, via letters and very rare telephone calls, trying to determine where and when we would marry. We had concluded we would marry before I graduated, for every indication was there would be no certain time available between graduation and the time I would be due at my next assignment. We considered various ways for me to get to Denver on a Saturday and to return on Sunday. The bus and train schedules were too slow for the times that might be available on a weekend. To go by airline I would have to use bus or train to get me to and from Albuquerque. If weather prevented us from keeping on schedule we might have to fly on the weekend we planned for me to be in Denver. And throughout cadet training there never was assurance that a cadet would be able to leave the base on the next weekend.

As far as our personal lives were concerned, December 1942 was a very difficult time for Carmen and me. I had very little unoccupied time for preparations; but Carmen's stress probably was greater than mine. She was making tentative arrangements for us to be married in Denver, but with a totally uncertain date. Our pastor, the Rev. Mr. Paul D. White, would officiate, if I could get to Denver. The church building would be available. Carmen drew a sketch showing who would be where on the platform. Her mother planned to pay for a room for us at the Brown Palace Hotel for our wedding night. Carmen was working a split shift as a long distance telephone operator.

The problem remained that there was no assurance that I could obtain a leave or pass before I graduated or afterwards. The only day assured us as a free day was New Year's Day. (Although I was determined not to marry until I could support a wife, having done well in Preflight, Primary and Basic, it seemed I surely would graduate unless I did something drastically wrong.) Finally it was decided that Carmen would come to Roswell the day after Christmas and we would be married on New Year's Eve. Although originally Carmen had told the telephone company she would work until the end of the year, they agreed to let her go earlier if she would work Christmas day.

Eventually I gave up on getting the rings from Taft and obtained rings in Roswell. Carmen obtained her blood test certificate in Denver. The army made out a New Mexico certificate for me, based on blood taken soon after I arrived in Roswell. Bill Clardy, with whom I had gone all the way through cadet training, agreed to be my best man. Twila, who was willing to come to Roswell for the wedding, had already agreed to serve as maid of honor. The Protestant chaplain agreed to officiate, and the ceremony would be in the base chapel. Almost everything was taken care of at last.

Although I had very little time in which to do the investigating, Roswell was such a small town that it didn't take much time to determine that there was very little choice of places for Carmen

to stay from the end of December through February 6th. A room was available at the hotel at $3 per night. My pay of $75 per month, from which the army subtracted for various things before it came to me, didn't make $3 per day an attractive option. We had some money, for we had been saving some each month, but we wanted a more economical housing if at all possible. I did find a room that we could rent. A woman was renting several rooms in her large house, renting them to army wives, and she was careful as to whom she rented them.

After Christmas Carmen and her mother left Denver for Roswell via bus. While at the bus station in Santa Fe, Carmen fainted. Exhaustion evidently was the reason for it.

On the 30th I was able to go into town, almost too late in the day for my purpose. Our marriage license bears the time of issue, 4:50 p.m., December 30, 1942. The office closed at 5:00 p.m., and I was scheduled to fly late in the afternoon on the 31st. That brief window was the only time we had for getting the license.

December 31st Bill Clardy and I flew until about 1800, and the wedding was scheduled for 1900. Following showering and dressing in Class A uniforms, we barely made it by 1900. When we arrived at the chapel, there were just four of us present - the chaplain, Bill, Dale Wilson who came as a witness, and I. Eventually four more showed up - Carmen, her mother, Dad and Twila. They had called for the taxi well in advance, but it was late in picking them up. Finally, after months, and especially the December weeks, of uncertainty, we were married. Virtually the whole world has been celebrating our anniversary ever since, only they call it New Year's Eve.

**Mostly Night Flying**

Lowerclassmen at Roswell slept in very new barracks and did all their flying in daylight. Upperclassmen lived in tents and did most of their flying at night. It was easier to sleep in daytime in tents. They were made of heavy, dark canvas and had no windows.

Link trainers were kept busy day and night. I can recall getting up about 0230 to get an hour's Link time.

Early in our night flying we spend a fair amount of time doing takeoffs and landings. There were so many of us that we wouldn't simply stay in the traffic pattern, landing and taking off on each circuit of the field. We would climb to our assigned altitude and orbit in our assigned sector until we were cleared for a landing. Roswell Army Air Base at that time had a large blacktopped field. It did not have runways. For night flight, flarepots would be set out to designate runway sides - a row of flarepots on each side.

One night as I was orbiting over the field, I saw something I couldn't believe. Through my left window, looking down at the field, I saw what appeared to be a formation of three airplanes taking off and crossing the active "runway". I thought I might be seeing reflected lights, so I opened a hinged portion of the window so I could look at the same area without looking through any glass. I WAS seeing three planes taking off, following a wrong path. I didn't see it happen, but a plane taking off on the "runway" passed between the lead plane and one of the wingmen (I think it was the left wingman - the one in the number three position). One of my tentmates was in one of the planes, I don't remember which. Just a moment or two difference in timing and two or three planes might have been destroyed and four or six men killed. Probably one of the wingmen would have been untouched.

For years, for identification purposes (to identify the direction of flight) airplanes have had a green light on the right wingtip, a white light on the tail and a red light on the left wingtip. If you see two lights on another airplane and the lights seem to be spreading apart, you are getting closer. If they seem to be spreading apart rapidly, you are getting closer rapidly. I think it was as I was approaching the field, returning from across country one night, that I was watching the red light (the left wingtip light) of a preceding airplane, and a white light, telling me that I was to the left and

following a preceding airplane. Suddenly the red light and the white light began spreading apart rapidly. Immediately I pushed the nose down and retarded the throttles. How could I be catching up with the other so quickly? As I watched those spreading lights, it dawned on me that the white (tail) light was actually a star. The airplane had begun a turn to the left, but the star didn't turn with it. I had to explain the sudden dive to my "copilot."

In the winter of '42-'43 New Mexico didn't have many lights on the ground in much of the state. I can recall flights of about 100 miles without a single light on the ground. Usually we had clear nights for our cross-countries, so there was plenty of starlight. We weren't getting enough sleep. One crystal clear night the air was glassy smooth. My "copilot" had drifted off to sleep. Twice I fell asleep. Each time the plane began a descending turn. Airspeed increased in the descent without a power change, so the sound changed and woke me up. Probably I was asleep for very brief times.

When Undertaking Very Hard Routes Keep Direction By Good Methods. WUVHRKDBGM was the order of light-signaled identifiers from the west coast eastward on lighted airways. I think the lights were about 15 to 20 miles apart. They were rotating beacons that flashed the Morse code identifiers. One night on a northwest course from Roswell to a particular beacon on an east-west airway, the first leg was something over 100 miles in length. There had been a few lighted bombing targets in the first part of that leg, but I saw no other lights until I began seeing the airway lights. For navigation I simply had been holding the predetermined compass heading as accurately as I could. Some distance away I could see a rotating beacon to my right and one to my left, but I couldn't see one straight ahead. Although my concern was increasing, I maintained the compass heading. Finally the proper beacon suddenly appeared almost straight ahead. Evidently it had been hidden by a hill or mountain whereas there had been no interference to my line of sight to the beacons to the right and to left, each of which was 15 or more miles away when I reached the airway.

Arthur Clarke, a good friend in Preflight, Primary and Basic, had chosen single-engine Advanced and had been sent to Williams Field in Arizona (where he got to fly both single-engine and multiengine advanced trainers). Once he was scheduled to come to Roswell, I think in an AT-10, with an instructor. For some reason he didn't make the flight, but the instructor and student who did, never arrived at Roswell. I was on a search mission that searched for them. On that mission we flew a very loose formation at a lower altitude that we were ever permitted to fly, ordinarily. Although it was not a happy situation, looking for a missing plane and its occupants, I enjoyed the low flying very much. At 140 or 150 mph an AT-17 was not a fast airplane, but at such low altitudes the speed was impressive. And this was especially noticeable as one looked at the ground in the background with another airplane in the foreground going the same speed in the same direction.

A rather startling thing, the first time I experienced it, was the lack of a physical sensation at a time of an impressive visual sensation. This occurs when one is flying low over a plateau, then comes to the drop-off to a lower terrain. You are very much aware of your speed visually over the plateau. Then, when you suddenly are much farther from the ground, your visual cues tell you have slowed down suddenly. But you have no physical sensation of deceleration, because there has been no actual deceleration. I have experienced that a number of times since then, but none of them have been as impressive as was true the first time.

It may have been on that search mission that we landed at El Paso for fuel. If so, why were we that far south? And, as we flew west out of El Paso, did we actually get into Mexico? My only navigation was via keeping us a certain distance from the plane on our right. I wasn't using an aeronautical chart, but I was fairly confident that we were over Mexico for awhile.

In recent years Arthur Clarke reminded me of that missing plane, and he said it had been found about 40 years after it disappeared.

When I enlisted early in `42 it was not because I wanted to hurt or kill anyone; I believed someone had to stop the Axis powers, and it wouldn't be right to leave it to someone else. Neither did I want to risk my life or limb, but it wasn't right to leave it to others to do so. At Roswell Army Air Base not only were pilots receiving their advanced flight training, but bombardiers were receiving theirs also. They had their actual bombing practice in Beechcraft AT-11's. The AT-11 looked attractive to us who were flying the Bamboo Bomber, AT-17. To fly the AT-11 would be a step up. Prior to graduating I gave thought to seeing if I could be assigned to fly the bombardier students at Roswell. Not only would it be a step up, but staying at Roswell would assure my being able to remain with my bride for a fair length of time, but also it would keep me out of combat for the time being. I made no attempt to bring that to pass, however, because I felt it would be shirking my duty. I expect that if I had obtained that duty at Roswell and later heard of a fellow pilot's having been killed in combat, I would have felt guilty - I would have felt that I had shirked my duty.

These thoughts bring to mind another Roswell couple, Leonard Allen Kidd and his wife. As I recall, they married while we were in Roswell. One of the reasons I remember them is that her maiden name was Child. A Child married a Kidd. The other reason I remember them especially was because Mrs. Kidd was very pleased that, upon graduation, Lt. Kidd was assigned to be a flight instructor at Roswell. She was so pleased that he wouldn't be going into combat, at least not in the foreseeable future. I don't know what the time element was, but soon after he began instructing he and his student, or students, were killed in a take off accident at Roswell.

Someone had come up with the idea of using B-25's in advanced training. I finished my 70 hours of advanced flying a week before graduation was scheduled. I had a number of things to take care of in that week, but it promised to have more unscheduled time than had been true any other time during cadet training. Carmen and I planned to go horseback riding the Saturday afternoon after my required flying had been completed. Saturday I went to the base to change into a uniform appropriate for horseback riding and saw a notice asking for graduating cadets to volunteer to fly B-25's for 25 hours the next week. Contrary to military wisdom I volunteered. To this date Carmen hasn't let me forget that I went back on our plan to go horseback riding that day and that my volunteering kept us from being together during the free time I would have had.

At some twin-engine advanced flight schools cadets flew AT-6's for aerial gunnery experience. At Roswell we did not. That was a disappointment to me! Our only firing practice at Roswell was skeet shooting with 12 gauge shotguns. I did better with my first shots than I did after I was told how to improve my score.

Graduation, at which I received my wings and commission, took place February 6, 1943, exactly eight months from the day I left Denver for Santa Ana. Those were the most intense eight months of my life. Military training, officer training, physical training, ground school and flight school, all were accomplished in eight months; and, if that wasn't enough, getting married.

Had we known that we would have ten days between graduation and reporting for duty wherever we were assigned, we would have been married in our church in Denver in the presence of friends and relatives. We did go to Denver for that period, but I was so exhausted that it was not much of vacation.

Four Full Years

# 7
# Greenville Army Air Base

My having chosen to fly the 25 hours in B-25's at Roswell probably made my being sent to B-25 crew training a certainty. Greenville Army Air Base, Greenville, South Carolina was my assignment. Virtually all stateside military travel, whether in units or alone, was via train. We left Denver in a passenger car that had been taken out of "mothballs" to fill the war's demands. This car had bench-type wicker seats, the backs of which could be moved so as to have its occupants facing either forwards or backwards. This trip was in February, and it gets cold in February in Colorado. This car had a coal-burning stove (I think it had one at each end of the car). Our train, as did almost all trains at that time, was pulled by a coal-burning steam engine. It was not a clean way to travel, and that probably was more true in the older cars than in the newer ones.

Somewhere along the way we transferred to a Pullman car. This became Carmen's first opportunity to occupy a berth. During the night each time the train would stop, Carmen would sit up so as to look outside. She explained she didn't want to miss anything. But, evidently forgetting where she was, three times she bumped her head against the upper berth as she sat up. Once? Yes, I can understand. Twice? Well, yes, this was a new experience. But three times? In the same night?

South Carolina was a new experience for both of us. Overall we liked it. What we liked least about the climate was the heat and humidity later in the year. And we were uncomfortable with the South's attitude toward and treatment of blacks. Carmen tells of being reprimanded by our landlady for allowing the black boy who had helped her carry groceries from the store, to sit on the porch swing while she went in to get some money for him.

Greenville Army Air Base (GAAB) was an RTU, Replacement Training Unit. I was assigned to the 471st Squadron, 334th Bombardment Group. During the first month at Greenville most of my time was spent in ground school. We were encouraged to spend as much time as we could in ways that were not specifically scheduled. For example, somebody, on takeoff, had pulled the gear up too soon. Rather than repair it or junk it, they had taken the skin off of the left half of the plane and had it jacked up so the gear could be retracted. (I don't remember if the flaps could be operated also.) We were encouraged to spend as much time as possible becoming acquainted with everything about the B-25. This plane was in a building, so it could be studied in all weather conditions.

Another extracurricular activity that was encouraged was skeet shooting, with a hand-held shotgun, with a turret-mounted shotgun or with a shotgun that was mounted as if it were a flexible machine gun. There were two types of turrets. The older type had two-speed controls. The newer type had infinitely variable speeds between immobile and its top speed. Perhaps not surprisingly I had the greatest success with the newer turret. With it, on one occasion, I hit 23 out of 25. I missed those two only because I got overconfident and didn't even track those two.

My first flight out of Greenville was on March 17, 1943. The minimum B-25 flight time for those who were to be sent overseas as copilot of a crew was 50 hours. For pilot it was 150 hours. Capt. Charles G. Willis, commanding officer of the 471st squadron, signed me off as Limited Co-pilot and as Copilot in good weather May 2nd. June 12th he signed me off for Limited Pilot Local Day. July 14th I was qualified as Limited Pilot for Local Day or Night Flying. September 1st Major John T. Sharp qualified me as Limited Pilot for Day and Night Navigation Flights (Good Weather). In each case the alternative to progressing into the next higher category was to be transferred to the next period as copilot. On Oct. 1st I was designated as Unlimited Pilot on B-25 type aircraft. From April 17th through October 16th I logged 185 hours day, 70 hours night and 40 hours instrument time, for a total of 295 hours flight time. Why so much more than the minimum hours for being the captain of the crew? At the time I didn't have the slightest idea. Later, overseas, someone told me that I had been assigned for so many "training" flights that included RON (remaining overnight) at bases in Florida, Louisiana and other places, because the officers I was with knew I didn't drink

alcoholic beverages, and they wanted to be sure there was a pilot they could be confident would be in condition to fly the next morning. I don't know whether that was a fact or merely a theory.

Of course our training involved much more than merely learning to fly B-25's. We were being prepared for combat, and that was not to be as individuals, but as crews and as crews who coordinated their activities with other crews.

There were many hours of formation flying, day and night. In formation flying only the lead pilot looked where he was going (I'm talking about close formation flying which ours almost always was). From the time of forming up until the end of the formation flight a wingman (pilot) would look only at the lead plane. The leader of the second element in a six-ship box would focus only on the lead plane in front of and above him though with his peripheral vision he would probably see the leader's wingmen. Most of the time the only controls used while flying formation were the flight controls and the throttles. If other controls were needed, they would have to be reached and operated without looking for them. The formation flying was NOT a relaxing way to fly! And especially at night! I never flew at night without the lead ship's navigation lights being on, but we were told that if we were ever going to fly formation at night in combat it would be done without any exterior lights. We were assured that it could be done, focusing on the lead plane's exhaust flames. To reduce being seen at night by enemy forces some B-25's engines had a separate stack for each cylinder, 28 per plane.

On August 23rd I could hardly raise my hands to eat my noon meal in Tulsa, Oklahoma. We had been assigned the number five position in a box of six. The flight leader had a wingman on the right and on the left. The leader of the second element flew behind and below the flight leader, and he had a wingman on his right and on his left. The number five position was that of the element leader's right wingman.

On this training flight we were to fly from Greenville to Tulsa, Oklahoma and back. My crew had been assigned a B-25G. The G's had a 75 mm. cannon under the pilot and 50 caliber machine guns in the nose and on each side, all of this being ahead of the center of gravity. I always considered a G a harder plane to fly, for it was nose-heavy. This particular G did not have a copilot's seat. A wooden box had been provided for my copilot, Walt Uhl. After a time I turned the controls over to him. Before long he indicated he simply could not handle it, sitting on the wooden box. This was mid-summer and the air was turbulent. Our element leader was inexperienced in flying as an element leader, so he was continually making corrections, and that amplified the corrections we had to make. Our flight to Tulsa took four hours. By the time we got there my arms were so sore that I could hardly eat my lunch. Because of the turbulence my navigator, and I think one or two of my gunners, had gotten airsick on the way to Tulsa. The return flight to Greenville took 3.8 hours. I don't remember whether it was all the way back or just the latter part, but I think it was all the way back we flew a loose formation. That was much more tolerable.

## A Crew Is Formed

Presently I have no recollection of the time when I was assigned a crew. Walt NMI (no middle initial) Uhl, Jr., Gardenia, California, was my copilot. I can't remember the name of my first navigator. Peter C. Cardimino, North Adams, Massachusetts, was my flight engineer. Cecil A. Hollar, Catawba, North Carolina, was radio operator. Melvin S. Rennie, Wetonka, South Dakota, was top turret gunner.

It was my first navigator who was with us on the Tulsa flight. He became airsick on almost every flight. As a result he was transferred to B-17's, we heard. Evidently they hoped the heavier planes flying at higher altitudes would alleviate the air sickness problem.

Robert Butler was assigned as our next navigator. He liked to consider himself to be Rhett

Butler of "Gone with the Wind" fame. I don't remember how long he was with us. The last time I saw him was when I visited him in the hospital. He married a woman he had divorced earlier. The day they were remarried they visited several bars, and they provided drinks for the taxi driver who was taking them barhopping. Somewhere along the way they had an accident that put ""Rhett" into the hospital with a broken leg. From his hospital bed he told me that the accident was probably a good thing; that if he had gone overseas with us he would have caused the death of the whole crew.

Each crew was to have at least one long-range flight. Ours was to be a nonstop flight from Greenville to Oklahoma City and return. To have enough fuel a "Tokyo" auxiliary fuel tank was installed in the bomb bay. It was named "Tokyo" because that was the type designed for Doolittle's attack on Japan, 16 B-25's taking off from the Hornet the year before. The tank didn't occupy the whole bomb bay but left room for a partial load of bombs. Flying at a lower than usual cruising speed increased our range. It was on Sept. 27th that we made our flight to and from Oklahoma City non-stop. It took us nine and a half hours, averaging about a 180 mph. It was non-eventful.

Another crew's long-range flight was NOT uneventful! Carmen's best friend in Greenville was Nene Holt. Her husband, Bob, was a classmate of mine in cadet training and was also in crew training in Greenville. His long-range flight was to the Bahamas area and back. He and his crew did not return. I took part in search missions. No trace was found. Another crew had been on a similar long-range flight in the same area on the day Bob and his crew disappeared. They reported that they encountered a thunderstorm. It was theorized that Bob had, also, and that they were downed by the storm.

Carmen and I stayed with Nene in her apartment for a time. Nene refused to accept the evidence that Bob had died. After a time she heard a rumor that Bob (and his crew?) had been picked up by a German sub. After WW II ended she thought that he had been held in the part of Germany that the Russians occupied and that Bob had been taken to Russia. The last we heard from her on this matter she still maintained that Bob was alive.

**Ordnance Training**

For air-to-ground gunnery practice we flew to Myrtle Beach, South Carolina. En route we were flying above a layer of clouds. Not being able to see the ground for navigation and not having a beam that would lead us to Myrtle Beach I made use of something I had never used before. This plane, unlike others I had been flying, had an Automatic Direction Finder (ADF). Many pilots today abhor the ADF. But it was such an improvement over anything else I had been using, I thought it was great! There was no beacon at Myrtle Beach, but I was able to obtain a reasonable knowledge of our progress via triangulation, getting bearings from two or more beacons on either side of us. The cloud layer ended as we neared the coast, and there was Myrtle Beach, directly in front of us!

Besides getting to fire the twin 50 caliber machine guns in the top turret I fired the 75 mm. cannon at a target just off shore. The “75” was the artillery piece most used by the allies during WW I. In the B-25G the canon was mounted directly under the pilot in the area that was the crawlway between the navigator’s and bombardier’s compartments in other B-25’s. Aiming the cannon was accomplished by aiming the whole airplane. The sight was placed directly in front of the pilot. The sight was used to aim the canon, the fixed 50 caliber machine guns, and the bombs when skip-bombing.

Although it is an exaggeration to say this, when the cannon went off it felt as if the plane stopped in mid-air. (If you were looking at another B-25 when its cannon was fired you couldn’t see any hesitation.) Without question, the sound was very great! Each round was hand-inserted into the breach. Loading the cannon was Pete Cardimino’s task.

Although the cannon and the fixed, forward-firing machine guns could be effective weapons against some targets, sometimes their main purpose could be the suppression of the enemy’s anti-

aircraft fire to enable the B-25 to skip-bomb the target. When dropped while flying very close to the water, a bomb could bounce before submerging, like skipping a flat stone off the smooth surface of a lake or river. The ideal striking place to sink a ship was right at the water line. If a bomb was released too late, it would hit higher on the ship or pass over it. If it were released too early to hit directly at the water line, it might skip into the ship's side at, or a little above or below, the water line.

On a large lake not too far from Greenville a vertical target had been erected for practice skip-bombing. When no one is getting hurt by it, that was an enjoyable type of flying. I would use the same sight as was used for aiming the cannon and machine guns. I would release the bomb when the target disappeared under the nose. Usually we had someone lying in the tail, looking as far forward as possible through the tailcone, to inform the pilot where the bomb hit.

Even practice bomb runs in friendly territory were times of tension. In B-25G's there were three buttons on the pilot's yoke (the yoke was the equivalent of a driver's steering wheel). Most B-25's had one of the three, the push-to-talk switch for operating the throat mike. In the "G" model a second button was for releasing bombs. The third was to fire the cannon or machine guns. Other switches to choose whether it was the cannon or the machine guns that would be fired by the third switch were mounted on the fuselage to the pilot's left. And there were other switches to choose which of the machine guns would be fired. On at least one occasion after a practice bomb run the observer reported that no bomb had dropped. It turned out that I had pushed the push-to-talk switch instead of the bomb release switch.

**Domestic Life**

Carmen had worked as a telephone operator from May of '42 until she came down to Roswell just after Christmas to be married. Learning of her experience, the telephone company wanted her to work for them. The additional money would have been nice. We had started "housekeeping" with virtually nothing. But we decided that she should not work outside our home. My schedule, if you could call it that, was unpredictable. We wanted to be together as much as possible when I had free time. One thing was predictable; I had to be present for inspection, with all the others of our squadron, at 0730 each morning. And that held true even if we had flown until midnight the night before.

Capt. Willis, our squadron C.O., was a West Point graduate. He was a stickler for details. I didn't believe he had a sense of humor. I was wrong. One morning he asked the officer next to me (I'll call him Baker), "Baker, did you shave this morning?" Baker: "No, Sir." C.O.: "Fall out, shave, and report back to me in my office." Baker: "Yes, Sir". C.O.: "Black, did you shave this morning?" Me: "No, Sir." C.O., after a pause: "Did you shave yesterday morning?" Me: "No, Sir." C.O., after a long pause: "Well, rack back your chin, and nobody will notice it."

We had left the '32 Plymouth with Waldo. We bought a '34 Chevrolet sedan so we would have a greater flexibility in our activities. Although I had a room in the Bachelor Officers Quarters (BOQ), only occasionally would I remain there overnight. Usually I would drive into town to be with Carmen in our apartment.

We didn't keep the `34 very long but obtained a `36 Chevy coupe. Dr. McElhenny had one that had proved to be a very satisfactory car for him. The least desirable thing about the one we bought was that it needed a paint job.

All of our married life Carmen has liked to "Eat out." (I always was pleased with her cooking, but eating out has been a way of recreation for her throughout our years together.) In my mind's eye I can still see the inside of a restaurant that we frequented in Greenville. Also we ate at the Officers' Mess on the base frequently.

Not too far from Greenville was a park, Paris Mountain. Row boats were available for rent on the lake. One day I rowed us to the concrete dam. Carmen wanted to sit on the dam. Its top was probably two or three feet above the water. Carmen placed both hands on the dam and tried to lift one foot to the dam's top. As she reached with the one foot she was pushing the boat away from the dam with her other foot. Soon both hands were on the dam, both feet were in the boat, and her stomach was either in the water or close to it. (She had a bathing suit on and could swim, but all I could do was laugh.) She managed to gather herself together and return to her original position with both hands on the dam, both feet in the boat, and the boat against the dam. Again she started to lift a foot toward the dam and naturally was pushing away with her other foot and ended up with her stomach in or very near the water. She didn't think it was funny. I saw it otherwise. If I remember correctly she never got onto the dam, and I don't believe she got into the water fully.

Although we had studied Civil Air Regulations I certainly didn't know them all. Without knowing it at that time I broke a couple of them. I didn't know that being rated as a military pilot didn't qualify me to fly civilian aircraft. We went to a civilian airport and rented a J-3 Cub, I think it was, and took Carmen up for her first flight. I didn't think there was much point in one's going up without doing some acrobatics. At the amusement parks in Denver Carmen had ridden with me on perhaps every ride except the merry-go-round or other, similar mild rides. She did very well on all of them, so I expected she would tolerate, and maybe even enjoy, acrobatic flying, and she did. I'm not sure what all we did on her first flight, but I know we at least did no less than one spin and one loop.

The next time we went to that airport we had a young woman friend with us, and we rented a Piper J-5 Cruiser, a three-place plane. When we got up to an altitude high enough for the reason for flying (i.e. acrobatics), in order to be able to talk with Carmen and her friend in the back seat, I throttled the engine back. Immediately her friend cried out, "Turn that thing on!" I increased the power to reassure her and talked above the roar, telling her we could control the plane from there to the ground without the engine running at all. Then I demonstrated flying for awhile with the engine throttled all the way back. From then on she didn't mind when I retarded the throttle, and she didn't complain about any of the acrobatic maneuvers we did.

The third plane we rented probably was a Tailorcraft. In addition to the maneuvers we had done before, we did one that was a first for Carmen, a split-S. A split-S is a half roll followed by a half inside loop. Let's say you started flying east, right side up. You finish it flying west, right side up. Of all maneuvers we had done, that was the only one that bothered Carmen. She had not told me before we flew, but afterwards she told me that she hadn't been feeling well before we took off. And she was expecting our first child, Roger. (Roger now has more than twice the number of hours as a pilot as I have.)

It is with some reluctance that I tell the foregoing. Though I then was ignorant of civil air regulations regarding licenses and acrobatic flight, ignorance is not an excuse. We were flying planes that were not specifically approved for aerobatic maneuvers. I knew they were not as strong as Stearmans or BT-13's, so I was very careful to minimize the stress in the loops, spins and rolls. Nevertheless, I was wrong in doing them. And these three flights were Carmen's first flights, and she didn't complain. If I remember correctly, she didn't volunteer the fact that the split-S bothered her. I learned that because I asked her if any of the flights had bothered her.

## Combat-Bound

When the Air Force was satisfied that our crew was ready for combat, we, and a number of other crews, were each assigned a brand new B-25G. Each crew had the responsibility of testing everything to be sure the plane also was ready for combat. We found a number of things, mostly minor things, that needed correction. The only thing I remember about a flying discrepancy was a nose-wheel shimmy. That was a straightforward problem that was corrected fairly quickly. But

correction of a combat-readiness problem required a number of flights. We couldn't release the bombs. I don't recall how many times we would go to the lake where we did the skip-bombing practice and would return with all bombs still securely held in their racks. Adjustments would be made, everything seemed to be just as it ought to be, and we would return without dropping a single bomb. Finally a technician rode with us to see if we were doing something wrong or were failing to do something right. He returned, reporting that we had been doing everything exactly as we should.

Finally somebody got an idea that worked. It turned out that in flight the bomb bay doors were being held open about an inch more than when they were open on the ground. There was a switch that prevented the bombs from being dropped while the bomb bay doors were closed. The way the air flowed in flight kept the doors open beyond the setting that closed the switch. By moving the switch, or that which closed the switch, about an inch, the problem was solved. The next test flight was the last necessary, relative to that problem.

It was after we had completed the testing, when we were told that we were not going to be flying our plane overseas. On these "G's," in addition to the two 50 caliber machine guns mounted in the nose above the cannon, two 50 caliber machine guns (we called them "package" guns) were mounted on each side of the fuselage about abeam the pilot and copilot. All of these machine guns, in addition to the cannon, were to be aimed and fired by the pilot. We, in our testing, had test-fired all the guns. Someone discovered the firing of the package guns had broken, or at least damaged, bulkheads adjacent to the guns. As a result, all these new "G's" were grounded and were going to be returned to the factory in Kansas City. We were going to be taken overseas via ATC (Air Transport Command, which we called "Allergic To Combat"). Not being able to fly our own plane to wherever we were to be assigned was a great disappointment to me!

The timing of the following is uncertain to me. Probably it took place after our testing our own plane, then having them all grounded. Our crew, and probably all the other crews that had had planes assigned to them (and taken away), were given five-day passes. It was possible to take advantage of a few hours of the day before the passes became effective and the first seven hours of the day following the end of the fifth day of the pass, so seven separate days would be involved. Carmen and I decided we would drive our car to Denver, leave it there and return by public transportation.

To conserve fuel the national speed limit had been set at 35 m.p.h. Also fuel was rationed. Each car had been issued coupons allowing a certain amount of fuel for given periods of time. How much was allowed varied according to the way the car was used. I don’t believe just being in the military gave any advantage over the ordinary citizen who was not involved in war production jobs.

Many of the details of the trip escaped me long ago. We stayed in a motel or hotel the first night. We didn’t get any sleep the second night. It took us 26 hours to drive from St. Louis to Denver. There were no freeways. Traffic through Kansas in the middle of the night was almost non-existent. Several times I got rather unhappy with Carmen during that time - she kept talking (to keep me awake). I can recall being so sleepy that I couldn’t keep my eyes open.

Evidently we arrived in Denver about mid-morning on Sunday. We went into our church in the middle of the sermon. Dad’s work didn’t allow time for adequate sleep. It was common for him to doze off, or at least become somewhat inattentive during a sermon. That was the case that morning when we slipped in and sat down beside him. We had not told anyone that we were coming. Dad was wide awake during the remainder of the sermon! It was a good thing he had a strong heart!

I’m not sure that we got back to Greenville so that I reported back on the base within the hours permitted by the five-day pass, but I don’t recall receiving any reprimand if I didn’t get back on time.

Near the end of October 1943 we received orders to ship out via rail. We were to go to Savanna, Georgia where we were to check out equipment to be taken overseas with us. Saying

goodbye to Carmen was **very** painful! She was expecting our first child. We had had a **very** pleasant first ten months of marriage! In ordinary circumstances when two people part they do not know for sure that they will see one another again in this life. How much more this is true when one is departing, expecting to be going into combat! We made arrangements for Carmen and Nene Holt to travel together via rail to Denver, then Nene would go on to her home area, which was either Clarkston, Washington or Lewiston, Idaho.

Four Full Years

# 8
# North Africa

In Savanna we received such items as winter flying trousers, coat and helmet and numerous items I don't recall. In addition we each filled a footlocker with things we couldn't take with us, and the footlockers would go over via ship. We weren't supposed to take cameras with us, but we could include them in the footlockers, so I packed mine, together with GI underwear, various uniform items, an abundance of toothpaste and shaving cream (we were told these items were scarce overseas) and my favorite fountain pen. According to my records we were issued our .45 semi-automatic pistols at that time.

From Savanna we went by rail to Palm Beach, Florida where we were housed in the Floridian Hotel. We were in Palm Beach for nearly a week. When it was known that we wouldn't be departing that day, we were free to do whatever we wished. Apart from some close encounters with jellyfish, we had some very enjoyable swimming in the Atlantic. One day several of us rented a car, a convertible. I don't recall where we went, but I surely enjoyed driving it in the balmy south Florida November weather.

I **do** recall one place we went with the car - a bar at a hotel. I was the only one in the car that didn't want to go to the bar, but I told the others I would wait for them in the car. I had never been in a bar, and I had no desire to change that record. The others insisted I go in with them. They said I didn't have to drink any liquor - that cokes would be available if I wanted. I refused for quite some time, but finally I agreed to go with them. After awhile I did order a coke or some other soft drink. I was **not** enjoying myself!

After a time a young woman joined us at our table (I don't recall anyone inviting her). If I recall correctly, she said her husband was overseas. After we had had enough conversation with her to become "acquainted," she invited me to go with her up to her room in the hotel. Though I gave her an unequivocal negative answer she pursued the matter for some time. Eventually she laughed and said she was amused at how common it was for recently married men to be faithful to their wives. I was confident that the fact that I had been married less than a year was not my reason for refusing her. My primary reason was that adultery was contrary to God's revealed will. My wife might never know, but God would! Though I was saved by God's grace, through faith in Jesus Christ, how could I knowingly, consciously, deliberately sin in such an obvious way? And I had made vows of faithfulness, and I intended to keep them! I'm sorry I didn't plainly tell her and my friends that these were the reasons I refused her. I figured that my saying she was wrong, in saying my refusal was because I had been married recently, would not be accepted. How could I prove it? I ended up not giving any reason for my refusal. I was glad when we got out of there!

Several times we talked about going deep-sea fishing. We made definite plans to go on one particular day, but we had to get some shots that day and, after the shots, our arms were so sore we knew we shouldn't go that day. The next day that we planned to go deep-sea fishing was the day we were shipped out. We had missed our chance!

For some reason I was chosen to carry a couple thousand dollars cash to North Africa. I understand it was for somebody's pay. At that time my base pay, as a second lieutenant, was $150 per month. Flight pay was 50% of base pay. Then there was an allowance for housing and one for meals, if I recall correctly. And officers received an additional 10% (of base pay, I think), and enlisted men received an additional 20% of base pay while overseas. A couple thousand dollars seemed like a lot of money! I wasn't pleased to be given the responsibility of guarding all that money through unknown circumstances for an unknown period of time.

Our transportation from Florida to Brazil was via C-46 Commandos. Passengers sat on aluminum bucket seats which ran the length of the fuselage on both sides, facing the center. Cargo was piled on the floor between the rows of passenger seats. I'm not sure how many stops we made

en route, but I know we were in Trinidad, and I believe we stopped at Belem, Brazil. We spent several days at Natal, Brazil. It had the South American air base that was closest to Africa.

An abundance of pineapple was available at the base at Natal. I ate so much of it that I began to have sores inside my mouth. We had rather pleasant swimming at a beach - the water was a pleasant temperature, and the breakers were large enough to be interesting but not dangerous. However, I had the unpleasant experience of tangling with a Brazilian man-o-war. It left scarlet streaks across my neck and shoulders.

One Brazilian-made item proved quite popular among the flight crews - boots. They were Wellington type boots. They were dyed a shade of brown that made them acceptable with our uniforms. They were not quality footwear, but they were inexpensive. I bought a pair.

Had we been flying our own planes we would have had to find the tiny Ascension Island in the middle of the Atlantic. The B-25 didn't have enough range to make it across non-stop. We crossed the Atlantic in a C-54 which could make it from Natal to Dakar non-stop. Evidently for me the Atlantic crossing was a non-event. I recall nothing of consequence about it.

We went from Dakar to Casablanca via a C-47. There I was separated from the rest of my crew, probably because of the payroll cash I was carrying, and was flown to Oran or Algiers in a B-26 flown by a pilot who had completed a tour of duty (50 missions?) in B-26's. I know I was in both Oran and Algiers at least once, possibly twice, in my early time in North Africa.

In Denver I had experienced bitter cold, but I had never been as cold for so long a time as I was in North Africa. We had been instructed to wear our summer uniforms, and they proved inadequate for what we were experiencing. The tents we slept in were not heated. The beds had rope "mattresses," and the army blankets were not sufficient. The building in which we had our meals were either unheated or inadequately heated. The temperatures were above freezing, but never before nor since have I been uncomfortably cold for so long a time.

Our next temporary stop was at Telergma. B-25's had flown combat missions from Telergma during the North African campaign. November 21st and 23rd I flew a total of 7 hours and 45 minutes locally. Bill Callery was my only crewmember who had arrived at Telergma when we flew on the 21st so he flew as copilot. It was the most enjoyable B-25 flying I have ever had. Some of it was in formation, but most of it was sightseeing and some of it was simulated dogfighting. We observed Roman ruins that probably are never objects of tourist sightseeing. We saw an unattended herd of camels. Branum's copilot claimed he saw some zebras while we were flying formation.

The following is a quote from my letter to Carmen November 23, 1943. "Today I was airdrome officer of the day. All I have had to do was sign the clearances and check the runway to see that there was no livestock on it. (Another day while flying I called the tower to tell them there were two donkeys at the runway's west end.) It's the AO's job to chase them off. I had my own jeep to run around in, so of course there were many errands for me to go on. This one was a wreck, though."

It was colder at Telergma that it had been at Algiers, but the air was drier. At night some of the men slept in their long, winter underwear, plus their winter flying suits (jackets, trousers and some even wore their fleece-lined helmets). If I remember correctly one or more slept <u>between</u> two mattresses.

One day a number of us went to Constantine, primarily to obtain showers. Constantine proved to be a very interesting place, but we were unable to get showers. Someone made contact with an officers' establishment of some kind, but they were told, <u>not</u> in uncertain terms, that this facility was only for field-grade officers. As I remember it, it was a British officer that gave them that information. And, they were told, there were facilities for showers on the base at Telergma. Later we learned that this was correct. At those showers the water was unheated, and there was nothing enclosing them, not even a building! I don't recall any of us taking advantage of them.

**Philippeville**

November 24, 1943 we moved to Philippeville, Algeria. The distance wasn't very great, but it took us all day to get there. We were assigned to the 381st Squadron in the 310th Bomb Group. Crews that had completed 50 missions had been sent home. The following sentence is quoted from the squadron's records: "December has been the first month in which the 381st Squadron has operated as a training unit." For the squadron and the group this was to be a brief interlude between the North African and the Italian campaigns.

Again, pyramidal tents were our home. I was placed in a tent with four ground officers who had been with the squadron, perhaps from the original landing in 1942. In a letter to Carmen written the day we arrived I told her my four tent mates were all captains. Perhaps my memory is faulty, but I'm fairly confident that one of them was a first lieutenant. There is no question, they all out ranked me. They also proved to be very good roommates.

My roommates had made improvements to our living quarters. They had made a stove that burned 100-octane aviation gasoline. From scrap aluminum they had made a sink that drained to the outside. And they had made a door that helped keep the warm air inside.

Being overseas and anticipating combat can elicit serious thinking, even for a 19-year old, thinking about death and eternity. I don't remember any time I didn't believe in God. The first I remember any thoughts about what follows death was something my mother said when I was, at most, just over four years old. We were discussing heaven, and I asked her how people would be dressed there. Her answer bothered me. Almost certainly she was thinking people would be dressed as they were in biblical times, and she said the clothes would be like my nightshirt. I didn't like the idea of being dressed in what I wore to bed! I didn't consider that what I wore to bed would be appropriate to wear in public!

My parents took us to church faithfully, weekly. There was no change in that after mother died, just before my 5th birthday. When I was eleven, I publicly professed faith in Christ and became a communicant member of the Reformed Presbyterian Church (often called the Covenanter Church) in Denver. Throughout my teen years I was active in the young people's group and remember the social activities more than specific spiritual growth. We had many parties and recreational activities such as roller skating, ice skating, and horseback riding (my favorite). Evidently I demonstrated a grasp of biblical truths and had evidence of spiritual gifts, for when I graduated from high school our pastor, the Rev. Paul D. White, told me I should go to the church's college, Geneva College in Beaver Falls, Pennsylvania, and, following college, attend our seminary in Pittsburgh and become a minister. Prior to that, as best as I can remember, the thought of my becoming a minister had never entered my mind.

Although we were kept fairly busy, overseas I had a fair amount of discretionary time. I began reading the Bible because I wanted to. How does one quantify spiritual growth? I can't, but I can say I grew most rapidly spiritually while I was overseas, and I believe that growth began with the regular, probably daily, Bible reading in Philippeville. Never have I had Saul of Tarsus's Damascus Road experience. Only gradually did I become aware of the sinfulness of my sin. Those around me, who didn't know of God's perfections, might have been willing to say that I didn't sin. They might not have been able to say, "By such and such you have broken that (one of the Ten Commandments) commandment." They may not have known that failing to love God with all one's heart, soul, mind and strength, or failing to love one's neighbor as one's self involves the breaking of one or more of the Ten Commandments. They may not have known that often we sin in our thoughts without betraying any external evidences.

With awareness of sin there was a growing appreciation of who Jesus Christ is and of what He has done. Again, I can't pretend to know precisely when I was aware of that. I only know that I grew in my knowledge and appreciation that Jesus Christ is truly God and truly man, and that He is

the only Savior of sinful man (man, expressed generically, as the Bible does). As a repentant sinner who trusted in Christ as my Savior I was confident that, at death, I would be taken to heaven and be present with my Lord rather than to be cast into hell, as I deserved.

Although I did have more free time, in addition to flying as scheduled, for awhile I was assistant squadron intelligence officer. I was assigned the responsibility of censoring enlisted men's outgoing letters. (If I also censored outgoing officers' letters, I don't remember having done so.) For the most part it was a boring task. Seldom was there anything that was likely to be of value to the enemy, but there were many things we weren't supposed to say, and such things were to be removed whether we thought such censorship was sensible or not.

Later I was assigned to be the assistant engineering officer. What I did in that capacity was not very impressive, i.e. it did not impress me; I don't remember anything about serving in that way.

Although the following occurred while we were in Philippeville, at what time it occurred escapes me. I received notice that there was some kind of uncertainty concerning the more than two thousand dollars I had carried from Miami to North Africa. Who had it? Where did it go? I didn't have the slightest idea beyond my having turned it in promptly and to the designated person, according to the instructions I had received. I had the receipt. If I recall correctly I wrote at least two letters in response to the communications concerning the matter. After my last letter I heard nothing confirming that everything was okay, but neither did I hear anything else questioning what I had done with the money.

There was another unusual event that took place while we were in Philippeville. My crew, and some others, had not received their footlockers. I'm fairly sure that Bill Callery went with me, but I don't remember who else, if anyone else, did go with me. We were permitted to take a B-25 to try to find and bring back our footlockers. We went to Algiers and to Oran, but we were unable to locate any of them.

The north coast of North Africa was not very cold through the winter, but it was wet! Mud was a problem on the airbase. Our runway was covered with a steel mat - a kind of a mesh. We could not have operated off that field if it were only grass-covered. One day I got stuck on the runway. I was taxiing slowly with my left wheel perhaps two or three feet from the edge of the runway. The wheel sank in, in spite of the steel mat. The mat was flexible. The interlocking strips were about 18 inches wide. At either end of the runway one could begin to remove the steel mat by lifting up the first strip, then the second, etc. So a concentrated weight on a very soft surface could cause the mat to sink in one spot and rise ahead of the concentrated weight. That's what happened to us, and it brought us to a stop. From the pilot's seat I could see the left wheel and realized what had taken place. I assumed I could get it moving again if I would use enough power. As I applied higher and higher power (probably to the left engine only) the nosegear compressed. The higher the power I used, the lower the nose and the closer the prop was to the steel mat. We didn't move. To avoid a greater problem, should the prop strike the runway, I shut down the engines and called for a tug. No damage was done, but I was blamed for causing extra work for ground personnel because I should have known not to taxi so close to the edge of the runway.

A fair amount of time was spent to assemble and prepare a Quonset hut for an officers' club. If I remember correctly it was finished and opened for use not long before New Year's Eve (my first wedding anniversary). A party was held there New Year's Eve, and I only heard about it, I didn't take part. Heavy drinking was taking place, and everyone's tie was being cut off a few inches below the knot.

With the end of 1943 came a storm not unlike the one recorded in Acts 27. Later we heard that ships had gone down in the Mediterranean, perhaps a destroyer and a freighter. We had rain and a wind so strong that at least one tent blew down. The next day we were told that a drunken officer

was asleep in his tent, the tent fell on him but left his legs exposed, and he didn't awaken until morning.

On a somewhat lighter note another pilot and I had one thing in common - we both wanted to fly fighters. On our base was a Hawker Hurricane, the fighter that actually did more to win the Battle of Britain than did the Spitfire. Why the Hurricane was on the base, we never knew. We did know it wasn't being flown. Bob Whitehead was the other pilot. He and I contacted the appropriate British officer and obtained permission to fly the Hurricane if we got it into flying condition. Neither Bob nor I had any idea as to what it needed or how to get it into flying condition, and we were transferred before we accomplished anything.

At this point I'll tell a story about Bob which he himself told me. At a rather low altitude, approaching to land at Philippeville and evidently too close to the B-25 ahead of them, they were rolled by propwash (which they now call wake turbulence). They were rolled into nearly a vertical bank. Bob thrust both throttles forward. One engine took hold, but the other did not. Providentially it was the bottom engine that took hold. (If the top engine only had powered up, they probably would all have been killed. The best of pilots is not likely to complete a slow roll with gear and landing flaps down and flying at approach speed.) With the sudden high power on the bottom engine they rolled into a steep bank the opposite way. Bob retarded both throttles, rolled back to level and landed. He told me that his crew said they would never fly with him again. (I'm not sure he retained the same crew, but he was one of the first in our group to complete 70 missions.)

Also based with us at Philippeville were some British liaison planes; I think they were called Auster Taylorcrafts. These were side-by-side T-Crafts with in-line engines of greater power than the U.S. T-Crafts with which I was familiar. In exchange for a ride with us in a B-25, I got a couple of rides in the Taylorcrafts with British pilots. I remember the first ride very well. Most of the time we flew down on the deck (i.e. very low). We weren't quite close enough to determine the color of the eyes of the farmers working in the fields we passed. As we approached, at almost ground level, a row of slim, tall trees (perhaps poplar), the pilot waited a fraction of second longer than I would have to pull up abruptly so as to clear the trees. He knew what he was doing and was familiar with the plane, and I enjoyed the ride, even though doing what he did wasn't the smartest thing to do. He also dropped down to fly over a narrow winding river that was lined with trees on both sides. I was relieved when, as we were approaching a bend that turned more sharply than we could have, he pulled up before we reached the bend. Then we flew briefly over the breakers along the shore of the Mediterranean, looking up at the people on the sand not far from the water's edge. (I don't remember the ride we gave him in a B-25. It was not a flight simply for his sake.) I don't remember much about the second flight in a Taylorcraft. I do remember that we spent most of it a thousand feet or more above the surface.

In January rumors floated as to where we would go from Philippeville. In the third week rumors were displaced by facts. January 21st Major Cometh led 12 B-25G's to Ghisonaccia Station, Corsica. Gradually the rest of the 381st were moved there. The only thing I remember about my move was that we took with us in our B-25 the last of the rabbits. The B-25 was said to be the noisiest (inside) of U.S. WW II military aircraft. When I set the rabbit on the ground on Corsica he just shook his head, as if he was trying to clear his ears.

Four Full Years

# 9
# The First Fifty Missions

The following two paragraphs are taken from the "Special Outline Section ---January 1944" official record of the 381st Squadron:

"Ghisonaccia Station is situated half way up the east coast of Corsica, standing between the sea and a range of jagged hills which are now glistening with snow. "X" shaped, the tiny village is huddled about the intersection of a highway and a railroad which is three miles east of the town of Ghisonaccia. The majority of its buildings are thick walled dwellings, constructed along the lines of French Provincial architecture. It exudes an atmosphere comparable to that which Hollywood (sic) into motion pictures depicting French villages of 1912.

Formerly having been totally occupied by the British, most of these buildings were empty when the Squadrons arrived, and were immediately requisitioned for the use of the group. Group Headquarters is situated in the former railroad station, while the 381st Squadron's departmental offices and Officer personnel are housed in a group of buildings formerly belonging to the Hotel de la Gare. Intelligence and Operations Offices are located in a wooden barrack built by the British. The field, situated less than a mile from the village, is shared by the Group with Squadrons of French Spitfires and American P-39's whose personnel occupy some of the village's buildings. It is a very comfortable set-up for winter, as well as being ideally situated for daily interference with Axis shipping, for the field is only 58 miles from the enemy-held island of Elba, and 83 miles from the shores of Italy."

My crew and I, together with a number of others, were briefed for what would have been my first mission. La Spezia, probably the harbor there, was the target. The intelligence report was that the area was heavily defended. As we were loading in trucks to be taken to our planes, we were told to wait. I don't remember the full sequence of events, but we were told the mission had been canceled. I think we returned to the briefing room, then we were told the mission was to be flown after all. I believe we went to the trucks again, and again we were told to wait. Finally the mission was canceled definitely. I was relieved!

February 1st I flew a B-25H. The H was a new model, designed specifically around the 75 mm. cannon. The G's cannon weighed something less than 1500 pounds, and the H's weighed less than 800 pounds. The H had twin 50's in the tail, and the gunner controlled them in a way similar to the way a top turret gunner controlled his. Instead of lying flat on his belly, the tail gunner, because of a redesign of the fuselage at the tail, knelt. This added a lot of weight far back, but the top turret in the H was in the rear of the navigator's compartment, ahead of the bomb bay. Additionally the H had four 50's in the nose and two 50's on each side of the fuselage not far from the pilot. Notice, I said "pilot," not "pilots." Our squadron had two H's, (I think ours were the only H's in our group at that time) and they did not have copilots' seats or controls.

February 6, 1944, exactly a year from the day I was commissioned and received my wings, I flew my first mission. It was what we called a "Sea Sweep" mission. Four crews were to fly this mission, and we were to have eight Spitfires, flown by French pilots, as our escorts. Lt. Dorman was to lead our flight, and I was to lead the second element. Dorman and I were to fly the two H's. We flew very low over the water, searching for enemy naval or transport craft. We found none. According to the official record we encountered only "Slight heavy inaccurate flak from the south-east tip of Elba."

February 7th I flew a G as a wingman on my second mission. Our target was Leghorn, called Livorno by Italians. (All my missions would be over Italy or Italy's coastal waters.)

**A Vivid Memory**

My third mission, on February 8th, is etched in my memory! There were 8 B-25's, six G's and Dorman and my H's, escorted by eight Spitfires. Our targets were two schooners, about 150-175 feet in length, and a 175-200 foot barge, in a cove in San Stefano Harbor. Again Dorman led the mission. He had Brigadier General Davis D. Graves, Commanding General of the 63rd Fighter Wing, flying as copilot (remember, there was no copilot's seat and no copilot controls in these two H's). I led the second element of the first flight of four.

We attacked in pairs, Dorman and his wingman, Lt. Douglas G. Foote, going in first and my element following. We were quite a ways out when I began firing my cannon. After firing a shot, I would do evasive action while Sgt. Pete Cardimino reloaded the cannon. My evasive action undoubtedly made Pete's reloading more difficult. At the same time none of my crewmembers complained about my taking evasive action. I don't remember seeing bursts from the Germans' 88's or 40's, but I can still see the arcing of the 20's tracers and the fireworks appearance of the 20's when they reached a particular distance. Soon I was aware that Dorman was reversing his course and was burning. From my viewpoint it appeared to me that the fire emanated from the navigator's compartment. That's where Bill Callery was. On these missions only the flight leader had a navigator. Bill had flown with Dorman on the 6th and again on the 8th.

Between firing the cannon, while I was doing the evasive action, I watched the progress of the blazing plane. The last time I saw them in flight, and just about abeam of me but going in the opposite direction, they were perhaps 50 feet above the water in nearly level flight. It looked as if they were going to make a controlled water landing, but they were going at a high speed. The next time I looked all I could see was a number of black specks, parts of the plane, scattering in white foaming water. They had hit at a high speed, and there was no doubt in mind that they, who had not been burned to death, died in the crash.

Later I heard that Dorman's wingman had reported that it appeared to him that Gen. Graves had tried to pull Dorman's body back from the controls to enable him to get to the controls. If that had been true, the very best that could have been done was that the general might have been able to ditch the plane at a slow enough speed that some of the crew might have survived. Blazing the way the plane was, it could not have gone far!

Lt. Foote's report says, in part, "As Lt. Dorman's a/c closed to within 300 yards of the vessel and about 150 feet off the deck, a fire broke out in the upper turret, apparently from a direct hit. By the time he passed over the vessel at a height of about 100 feet, the fire had spread to the bomb bay. The distressed aircraft chandelled to the left, leveling out at 300 feet. By this time the fire had broken out in both engines." The report also says, "The aircraft crash landed…approximately 30 seconds after it was noticed in trouble."

With our flight leader gone, I led our mission back to Corsica. (A few years ago I had contact with the leader of the second flight of four B-25's on our mission. He said he thought that, because he was a flight leader, he had led us back. I remember not being sure what I should do after Dorman was shot down, and I had no desire to lead; but our flight had been the lead flight, and I am rather confident that my memory is correct, that I did lead the remaining seven of us and our eight Spitfire escorts back to Corsica.)

By the time I climbed down from my plane back at our base, there were executive officers awaiting to question me. I believe both our group C.O. and our squadron C.O. were there, and there may have been others. I told them what I could about our mission. It may have been then, or it may have been later, that they asked me a question. Did I think it was wise sending a plane into combat without a copilot and the necessary controls for a copilot. The H was a nicer flying plane than was

the G. The G had such a forward center of gravity that upon landing it was impossible to keep the nosewheel in the air as we normally did in our C's and D's. Also I think the H had a booster system for the controls that made the controls lighter to the touch. In short, I liked the H and would have liked to keep it, but it did seem wiser to have a copilot who might be able to salvage a crew and an airplane even though the pilot had become incapacitated. Reluctantly I said I thought it would be better not to use the H in combat. "My" plane's combat experience ended with its record of two combat missions.

In the rather brief time, probably from October to February 8th, Bill Callery had become my best friend. We had some good times together in Florida before we went overseas. He had had a fair amount of "stick" time (handling the controls of an airplane in flight) before he came onto my crew. At least one time in North Africa he flew as my copilot. We went boar hunting together out of Phillippeville. He was older, perhaps by as many as seven years, but we shared moral beliefs, and we enjoyed one another's company. Our time together in Corsica was so brief I can't say for sure, but I believe we and Walt Uhl and others, were roommates.

Recently I heard that our group, and perhaps the entire wing, ceased the low altitude missions because of what occurred at San Stefano. I don't recall hearing anything like that back in '44. The fact was that we continued the sea sweeps for awhile. I thought the reason we ceased was that the Germans were keeping their shipping and naval craft in the harbors during the day and only moving them at night. The fact was that we were finding very little surface activity out in the open water.

**Life Goes On**

From the 10th through the 26th, the date of my last low altitude mission, I flew 8 more sea sweep missions. Additionally, during that same period of time, I flew 6 medium altitude missions. In 15 days I flew 15 missions, but I didn't fly every day; twice I flew two missions on one day.

When we had Spitfires escorting us, they were flown by French pilots. I remember one of the pilots, Rene, I think was his name. He had flown against the Germans when they invaded France. As a Vichy French pilot he had flown against us when we invaded North Africa. Now he was flying with us against the Germans. We considered the French pilots to be quite good in the air, but in our area they had a poor reputation for their ground operations, such as one landing on another.

Some of the time we were escorted by American pilots flying P-39's (Airacobras). Prior to WW II I thought P-39's were beautiful planes. It turned out that they were inferior to most fighters, ours or our enemies.' They served us well, nevertheless.

Not all our time or efforts involved combat. We, who were billeted in permanent buildings, as contrasted with being in tents, as was true of a large percentage of our men, had the luxury of fireplaces in our rooms. Wood for burning in them was not always easy to find. The following is quoted from 381st records dated 5 February 1944: "Some of the fellows have devised a unique method for gathering fire wood (sic). There is a `Toonerville Trolley' sized French flat car in Ghisonaccia's three track `Marshalling Yards' which is small and light enough for two or three men to push along the track leading out into the country. Here they gather fire wood (sic), which is stacked on the car. Then giving it a hefty shove, they climb aboard and coast down the slight incline back to the village. The other night the car got out of control, whipped through the village at a brisk thirty or thirty-five miles per hour, and was not stopped until it was a mile or so the other side of the railroad station." More than once I took part in gathering and transporting wood, as just described. I don't remember the runaway incident. It seems to me that the car wasn't available very long. Perhaps the runaway was the reason.

Following is quoted from a 7 February report: "The rumor enthusiasts who specialize in stories about German parachutists would have us believe that 15 or 20 of them landed in the hills last

night, and that one was shot by a French soldier. The story has all the hall marks (sic) of pure bunk. If these people aren't careful, we are going to be wearing helmets, gas masks and rifle belts, and carrying our rifles again, like we did at Berteaux last winter." We heard stories of Germans entering quarters like ours in the middle of the night and firing with submachine guns at the level of our army cots. Our particular room was at ground level with one unlocked door to the outside. It would have been easy to attack us in that way. Throughout my time at Ghisonaccia I slept with my loaded .45 under my "pillow." We didn't have pillows. I think I used my doubled-up winter flying jacket as a pillow.

In my experience, bathing was always a problem overseas. The following was from the 10 February report: "A notice appeared on the bulletin board announcing that tomorrow morning at 08:00 hours and tomorrow afternoon at 13:00 hours, trucks will leave the Squadron area for the baths. What they will be like, or where they are, remains a mystery. The announcement itself was a surprise, as there is absolutely nothing in the village which would give the least indication that the natives were acquainted with this practice. None of the buildings have bath rooms…."-

For a time, each Friday and Saturday trucks took men for baths to Pietrapola, a small village about 12 miles southwest of Ghisanaccia Station. The bathhouse was Pietrapola's largest building. Individual rooms each contained a single tub. The squadron's report says that each tub was carved from solid stone. Hot water came from a natural hot spring. If one chose to have a hot bath, he would choose a room accordingly. In that room there would be no cold water. If one wanted cold water, he could choose a room that had the cold, but no warm or hot water. I always liked to conclude a hot shower by rinsing with cold water. At this bathhouse that was not possible. After several cold baths I decided to have a hot one for a change. As I dried after bathing, I was soon wet from perspiring. This was winter. We were riding in the open in the back of the truck. I wore my winter flying suit. When I first got into the truck following my bath, I was still sweating, but it didn't take long for me to cool off. The next morning I awoke with the worst sore throat I had ever had, other than when I had my tonsils out. That day I went on sick call - the only time I did that while in the army. Some time later the army cobbled together some showers, surrounded by canvas, much closer to our base.

When one is away from home and loved ones, mail is about as essential as food. At least that was the way we felt. Mail was the only way we could communicate with loved ones. We who were in combat couldn't write about that which was most important and was of most interest to us in our daily activities, but we would write, nevertheless. As promised, I wrote to Carmen every day. No, there was one exception. One day, because of circumstances, I could not write; but the next day I wrote two letters. There were other times I wrote her twice in a day. Usually our mail came in bunches - this was true especially of surface mail. As I recall, about two weeks was the average time letters took. One of the most painful things was when promised regular writing did not occur. As usual Dad was working long hours, six days a week; but he was very faithful, writing at least once a week.

We were engaged in a very serious business, but there were many touches of humor. Storey Larkin was another young, blond pilot. I was his senior, at least by a few weeks. For some time he had been growing a moustache. Nobody noticed it. As a test, he shaved off half, either the left or the right. Finally, one evening, standing in the chow line, somebody noticed that he had half a mustache. Then, disgusted, he shaved off the other half.

Storey wasn't alone. The following is quoted from our squadron's report March 19th. "Lt. Glenn T. Black, who finds it necessary to shave at least twice a month, has been growing a moustache since arriving in Corsica. It is now visible from a distance of one pace."

Prior to my entering combat, it had been our outfit's practice to award an Air Medal on the basis of five missions, an Oak Leaf Cluster for every additional five missions, and the Distinguished

Flying Cross upon the completion of fifty missions. Squadron's 25 March 1944 report included, "Hereafter, it (the Air Medal) is to be recommended by individual citation for meritorious service instead of on the basis of 5 combat missions." The same was true regarding awarding the DFC.

Sunday, March 26th, Mt. Vesuvius erupted and damaged or destroyed all of the 340th Bomb Group's planes. One of the 381st's planes, a veteran of 97 missions, also was damaged beyond repair.

Exactly when my contact with the SCL (Servicemen's Christian League) began, I cannot say. It may very well have begun in North Africa. Whenever a Protestant chaplain held services in our area, the services were fairly well attended. (Remember the saying, "There are no atheists in foxholes.") However, not all chaplains were Bible-centered. It may be that Sergeant C. R. Johnson began the SCL. There was no structured organization; a small number of Christians met on Wednesday evenings for Bible study and prayer. Sgt. Johnson, whom we called C.R., was assigned to group headquarters and had been with the outfit through the North African campaign. He was an outspoken Christian and was, by some, derisively spoken of as "Deacon Johnson." We who participated in the SCL were said to be "His (Deacon Johnson's) boys." Besides the spiritual growth that resulted from participation in the SCL, lasting friendships were cemented across denominational lines.

Bob Whitehead, about whom I have spoken earlier, was one with whom I was somewhat acquainted in Greenville, if I remember correctly. At Philippeville we became better acquainted. As far as I knew, he was not liked by anybody, including me. Gradually he became somewhat attached to me, perhaps because I tolerated him as others didn't. We did have that common interest in getting the Hurricane into flying condition so we could fulfill our desire to fly fighters. Our frequent contacts continued on Corsica. Often we would talk about spiritual matters. After a time he began attending the SCL meetings. The Spirit of God worked upon the written word of God, and Bob became a believer and was baptized. He was a new creature in Christ!

Although I had time and opportunities for personal Bible reading and study, it was often difficult to find a quiet time and place for prayer. Sometimes I would kneel by my cot, and generally my roommates and others present would refrain from excessively loud talk. There was a small closet-like room in the hallway under the stairs leading to the second floor. To some extent that was a favorite place for prayer, for it was a place totally unused otherwise.

On February 26th, "Because local rains have rendered Ghisonaccia Station's landing strip almost completely unservicable (sic), the two flights of four B-25-G's each which took off on sea sweeps today landed at Borgo, where they will be based temporarily." (381st Sq. Official Record.) Ours was one of those eight crews. As it turned out, because of adverse weather, we didn't fly any missions out of Borgo. If it were not for my access to our squadron's records, I would have said that we spent those days at Bastia.

There is an old saying, "An army travels on its stomach." That meant that soldiers needed to eat in order to fight a war. Modern warfare has been absolutely dependent upon supplies. If an enemy can be denied its supplies, it can be defeated. Our mission primarily was to deny the Axis powers, namely Germany in our case, their supplies. The only exceptions, in my experience, were when we attacked naval vessels. Our medium altitude targets were either supplies or the means of transporting supplies and personnel. In harbors our targets were ships and harbor facilities. Inland targets were bridges, tunnels, railroad marshaling yards, fuel and ammunition dumps, etc. Italy is mountainous, so there are many rivers, many bridges and not a few tunnels. Someone called the 57th Bomb Wing, the Bridgebusters.

On most of our missions we had fighter escorts. Some of the time American pilots flying P-39's escorted us, other times it was French pilots flying Spitfires, and, late in my experience, we had British pilots flying P-51 Mustangs. It has been said of the Muskeegee Airmen that they never lost, to enemy fighters, any bomber they were escorting. Our fighter pilot escorts could say the same

thing. By that time we never came under attack by German fighters. There were a few reports of sighting of enemy fighters, but none attacked us. On medium altitude missions our nemesis was 88's. The 88 was an effective weapon against both surface and air targets. Intelligence reports warned us where we could expect 88's and how many there would be. But intelligence had no way of warning us where there would be mobile railroad-mounted guns. And they were the ones most likely to hit us with their first shots.

While on our bomb runs we had to fly straight and level. Our only turns would be in response to the Pilot Direction Indicator (PDI). When the bombardier would adjust his bombsight right or left, the PDI would signal the pilot to turn right or left. Usually those turns would be very slight turns, so, if observed from a distance, it would appear that we were flying straight. As we neared the bomb release point, we would skid our corrections rather than make a normally banked turn. If the bombs were released in a bank, they would be thrown to the opposite side (banking left, the bombs would be thrown to the right of the intended path).

Planes flying straight and level are much easier to hit than those changing altitude or direction. Whenever we were flying in an area in which we thought there was a possibility of anti-aircraft guns reaching us, we would do evasive action (except on the bomb run itself). In our medium altitude missions we had flights of six planes. The lead element consisted of three planes in a "V." The second element consisted in another three planes in a "V," flying slightly below and behind the first element. We sometimes referred to such a flight as a "box." On most of our MA missions the group was made up of three six-ship flights. Usually there was enough distance between the flights for each flight leader to take evasive action, which amounted to evasive action for the entire box. The other five planes remained in their respective positions relative to the flight leader throughout the maneuvering. Because of being about two miles above sea level and untold distances horizontally from the anti-aircraft guns, there was a time lapse between the time the anti-aircraft gunners identified where their shells were bursting in relation to us, and the time they could get their next shells up to us. Therefore gentle turns and gradual changes of altitude constituted sufficient evasive action.

A number of times our group mounted 36 B-25's on a mission. This required nothing new for most pilots on the mission. We would still have our three-ship elements and six-ship flights, and the group formation would be made up of two units of eighteen planes each. The leader of the second eighteen would keep his unit in a particular relation to the lead unit, but he had a measure of flexibility as to his relation to the lead eighteen.

Sometimes the group mission would be made up of 24 bombers. As I recall it, the leader of the second twelve had flexibility in much the same way as the leader of the second eighteen had in the 36-plane missions. During my first MA missions each element had a rated bombardier and made its bomb run separate from all the other elements. On a 36-plane mission, therefore, there were twelve elements maneuvering during the bomb run. When the target was the same for more than one element, or perhaps for every element, the possibilities for collision or for dropping bombs on other bombers were great.

I have looked almost directly overhead into the open bomb bay doors of an element or a flight about ready to release its bombs. (When normal high explosive bombs are released from a plane they continue forward at virtually the same speed until they reach the ground. Air resistance causes them to slow, but only so slightly that, if you would continue straight ahead and watch the bombs until they hit, you could not tell that they had hit slightly behind you.) At some point a decision was made to have each flight of six, rather than each element, bomb as a unit. That required only one rated bombardier per flight, reduced the likelihood of dropping bombs on our own planes, reduced the possibilities of collisions on the bomb run, provided a greater concentration of the bombs, and probably increased accuracy.

March 13th First Lt. J. B. Arnoult flew as my copilot to check me out as an element leader in the MA missions. In one way, element lead was the worst position. The flight leader was not far ahead and not far above me. His wingmen were slightly ahead and a little farther above me. My wingmen were on my left and right and a little above me. If any collision occurred within our flight, it probably would include us, i.e. my crew and me.

Although Grady Paul, navigator, and Nick Katsirubas, bombardier, probably had flown with me on the practice missions a few days before, March 13th was the first they flew with me in combat. They remained with me for the rest of my missions.

Each pilot had the responsibility to insure his plane and crew were ready for the mission. On occasion a pilot would, after take off, for any one or more of many possible reasons, decide they should not continue on that mission. Engine problems or aircraft or machine gun malfunctions were valid reasons to turn back not long after take off. After checking with the pilot, the gunners would test fire their guns when in a good position to do so over the sea.

In the attempt to have the desired number of planes over the target in spite of crews returning to base soon after take off, "spares" were provided for each mission. When the mission called for 18 planes, three crews were assigned to be spares, two wingmen and one element/flight leader. Spare crews would take off last and would accompany the formation up to a certain, predetermined point. If none of the assigned crews dropped out, the spares would return to the base. I had mixed feelings when flying as a spare. I would want us to fill in for an aborting crew, so as to have another mission credited toward going home, IF the mission was completed without loss; but, of course, no human knew in advance what the end result would be.

When there were thirty-six planes on a mission, forming up after take off took a fair amount of time. Our runways were so narrow that only one plane could take off at a time. The lead plane would make a very wide circle. Each plane seeking to join the formation, would cut inside the circle so as to join as soon as possible, as compared to following in line at a higher speed so as to catch up with the lead plane. There wasn't much that could be done to hasten forming up times, but eventually a change was made that speeded up the landing procedure.

When I started in combat, the landing pattern was the same as we had been taught in the states. Approaching the base for landing, the lead plane would approach lined up with and 1,000 feet above the runway. The other five planes would be in a right echelon. When the leader reached the near end of the runway, he would rack his plane into a steep left turn and circle to land. The number two plane would wait a certain number of seconds (I forget how many seconds), then he would rack his plane into a steep left turn and follow the leader to his landing. The other four planes would do the same as the second one did. The leader of the second flight would try to bring his six over the runway so as to follow the sixth plane of the first flight as closely as safety would allow. If the leader of the second flight came over the runway too soon, he would have to delay his left turn, perhaps until he had flown way past the runway. If he misjudged so as to have the leading flight's planes well into the pattern or already on the ground, it would make the landing procedure unnecessarily long for his flight and for those following him. There were times when our landing pattern would get so extended that pilots, kidding about the situation, would say they had to pay attention to their check points on the approach just as was necessary on a cross country flight.

After a time it was determined that we would follow a landing pattern practiced by fighters, and it turned out to be much more satisfactory (and much more enjoyable if everyone was returning in good condition). Again it would start with the six planes in echelon and stepped up to the right. But instead of approaching the runway at 1,000 feet, the flight leader would drop down, almost to the level of the runway. (After a commanding officer, it was said, dived under his Jeep [because the leader was so low on his approach] flight leaders were told they were not to descend lower than 200 feet. But, from what followed, evidently not every flight leader could tell what constituted 200 feet.)

Upon reaching the near end of the runway the flight leader would chandelle to the left (do a maximum performance 180 degree climbing turn to the left), but without increasing power. At the end of the chandelle he should have slowed down to 170 m.p.h., the maximum speed for lowering the landing gear. He would continue his circle seeking to slow to 150 m.p.h., the maximum speed for lowering the wing flaps. His pattern would be like following the edge of a coin, with the coin resting on the runway and leaning about 45 degrees to the left.

In this kind of landing pattern, as soon as the flight leader started his chandelle the number two pilot would also start a chandelle, but his turn would be a little less steep than the flight leader's was. The remaining four pilots each would do the same thing as the number two pilot did, only each in turn made a shallower bank than the one preceding him. When I was flying as a flight leader, upon turning off the runway following my landing, I have seen the number two plane on the ground about half way down the runway, and number three touching down. This way we could get six planes down very quickly. If the flight leaders got their six into the pattern precisely, eighteen or more planes could be landed in a much shorter time than was true with the former pattern. And it was easier for flight leaders to space their flight in a more timely position, because the pattern of the preceding flight was much more compact.

**Close Ones**

It was during the time in which we had the old landing pattern that often gave us a very long straight-in approach that the following took place. As we were perhaps number two or three on the approach for landing, the tower called and told us and all others to go around. A bomb from the plane that had just landed had dropped onto the runway. I don't remember whether this was an occasion on which we all had returned with our bombs, or if one had hung up on this particular plane and had broken loose upon landing. The bomb didn't explode, it just slithered to a stop somewhere without doing any damage of which I was aware.

Our 500 and 1,000 pound high-explosive bombs were supposed to be dropable from 10,000 feet to concrete without exploding - if they had not been armed. If a bomb-loaded plane in flight needed to get rid of its bombs without their exploding, they could be salvoed "safe." A bomb salvoed "safe" would be dropped with a wire extending through a small propeller in the nose of the bomb and extending the full length of the bomb, and through a similar prop in the tail of the bomb. If a bomb was to be dropped "armed," the wire would be retained in the plane when the bombs were released. When the bomb dropped into the airstream, the airstream would turn the propellers. After the props had turned a certain number of revolutions, they would drop off and the bomb would then be "armed." Once it was armed, the nose and tail fuses only required a tap or blow to set them off, and they would cause the bomb to explode. In the situation in which the bomb fell onto the runway, the fuses were not armed so the bomb didn't explode. All of us who were still in the air continued to circle until the bomb was removed from the runway or the runway area, and we all landed without further incidents.

The following took place while we were in the process of launching another mission. I think this, too, was fairly early in my combat experience. We were waiting our turn to take off. A B-25G (it turned out to be "our" plane that we, in Greenville, had prepared for combat) had taken off. Soon after take off fire broke out in the right engine. The pilot, Jim Harris, feathered the prop on the burning engine and activated that engine's fire extinguisher, and the fire was extinguished. The copilot attempted to salvo the bombs but was unsuccessful. He injured his fingers in this attempt. Jim managed to toggle off four of the bombs in the lake east of our base but was unable to get rid of two of them (remember our bomb-release problem we had with that plane at Greenville?). He circled to land, flying on the left engine. Being concerned because of the left engine's rising temperatures

and still having a full load of fuel, ammunition and a half ton of bombs, Jim was anxious to get the plane on the ground safely as soon as possible. In such circumstances the aircraft in distress is given priority over other aircraft. However, whether it was a breakdown of communication or something else, somehow a British sergeant pilot, flying a Lockheed Hudson loaded with tires, was approaching to land on the active runway. As I recall it, the tower instructed the Hudson pilot to go around. The tower also gave the Hudson pilot a red light and fired red flares. The Hudson continued. Under normal circumstances the approach speed of a B-25 is considerably higher than that of a Hudson. When flying a twin-engine plane on one engine, it is highly desirable to maintain at least the single-engine minimum control speed, and that is higher than the normal approach speed. The distressed B-25 caught up with the Hudson about the time the Hudson was touching down. Still in the air, Jim flew over the Hudson and landed in front of him. There was not enough runway left for stopping. Going off the end of the runway the nosewheel gave way, leaving them sliding to a stop tail high very quickly. The copilot required medical attention for his cut hands, but the crew suffered no other injury. The Hudson pilot, who should not have been landing in the middle of a mission launching unless it was an emergency, was arrested. That's as much as we know about him.

**Are you sure?**

A number of times we returned without dropping our bombs. Unforecast weather over the target and/or over the alternate was the most common reason. Regardless of the reason, armament personnel understandably hated that, if the next mission required a different bomb load. This was true especially when the load that had to be unloaded was made up of frag bombs (fragmentation bombs). Frag bombs were much more sensitive. It was much easier to set them off accidentally. The 500 and 1,000 pound high explosive bombs could be unloaded with much greater safety.

On more than one occasion I helped armament personnel unload 500 or 1,000 pound bombs. The only task I remember doing was, upon signal from someone outside, releasing the bombs, one at a time. Probably I never became comfortable with doing it. I do remember feeling **very** strange the first time I dropped one. I had been assured that it was perfectly safe. The armament personnel standing by the plane were just as vulnerable as I was. The bombs were dropped onto the hard ground. Upon release of the bomb I could feel the plane rise a tad, and I would hear it thud as it hit the ground. The ground personnel would roll the bomb to a side, and when they were ready they would signal me to release the next one.

For awhile I served as assistant armament officer. Perhaps it was while I had that duty that I was involved with unloading bombs. Apart from that possibility I don't recall anything else that I did as assistant armament officer.

**Some Bombing Facts**

It is common for people to have the false idea that bombs fall straight down from an airplane in flight. They may think the bombs continue forward for awhile, but that, after a time, they fall straight down.

The fact is that normal high explosive bombs continue moving forward until they hit the ground. If one watches from the plane from which they were released it appears that the bombs continue falling directly under the plane. If the plane were to continue on the same heading until the bombs reached the ground it would appear that the bombs hit directly under the plane. Because of air resistance the bombs slow their forward movement slightly, so they would hit a little behind the airplane. Viewing from the plane one could not discern that little difference. The trajectory of

fragmentation bomb clusters, and the individual bombs after the clusters are separated, presents a different story. I'll not elaborate on that.

Often when we were carrying eight 500 pound bombs our intervelometer would be set to have the bombs hit 50 feet apart. This would be accomplished by releasing each bomb at a different time - a short time! With a ground speed of 240 m.p.h. (about 352 feet per second) the time between releases would be about 1/7$^{th}$ of a second. It would take a little over a second to release the eight bombs. Each bomb would hit the ground 1/7$^{th}$ of a second later and 50 feet farther than the preceding bomb. This is approximately what would be the case when we were flying at 12,000 feet, indicating 200 m.p.h. on a standard temperature day.

Our smallest target I recall was a bridge 20 feet wide and 50 feet long. Normally we approached such a target at a 45-degree angle. Those who observed our bombs hitting and the photos taken at the time indicated that our string walked right across the bridge. Later reconnaissance photos revealed the bridge was still standing. Careful reviewing of the photos taken at the time of bombing revealed that one of our bombs hit short of the bridge and the next one hit beyond the bridge. Certainly the bridge must have been damaged, but it was still standing. If our bombs had been released 1/14$^{th}$ of a second sooner or later, one of the bombs would have hit near the middle of the bridge.

Besides the factors of speed and altitude, there were many bits of data that had to be taken into account - the type of bombs, wind speed and velocity (impossible to know what various wind speeds would affect the bombs from bomb release point to the ground), temperature and barometric pressure.

Thinking again of 8 bombs hitting 50 feet apart, the last bomb would hit 350 feet from the first one. Traveling at 352 feet per second, if the bombs were released one second too soon or one second too late a pinpoint target would not be hit directly.

Even **if** the bombardier had all the correct data, fed it into the intervelometer and bombsight perfectly, and did a perfect job of tracking the target through the Norden bombsight, if the pilot didn't do his job well enough, the target could be missed. The pilot needed to hold his altitude and maintain his airspeed precisely. He was to hold his compass heading, except for course corrections received from the bombardier via the PDI (Pilot Direction Indicator). Our planes didn't have autopilots. When the bombardier made course corrections through his bombsight, the PDI's needle would move left or right. If the needle moved left, the pilot would turn a few degrees to the left, and the needle would move toward the center. If he overcorrected, the needle would move past the center to the right. Ideally the needle would remain centered from the beginning of the bomb run to the point of release. Probably the ideal was never reached.

During the latter part of the bomb run all heading corrections would be made by skidding turns rather than coordinated turns. If the bombs were released during a coordinated turn the bombs would be thrown to the right or left of the intended track. How did we know it was time to skid rather than to coordinate the turns? I don't know. I expect this is where it became a question of art rather than science.

## War Games

The following is a quotation from our squadron's records dated 6 April: "For the past two days the Squadron and Group have been on a 24 hour alert for the purpose of repulsing a force of French Commandos who will attempt to take our Headquarters and Landing Ground in practice maneuvers. All personnel are to be ready to be at their assigned posts within five minutes after the alert is sounded. The French forces will be distinguishable by the fact that they will wear no hats or

headgear. Any man on either side who is hit by a flashlight beam is theoretically dead and out of the game. The maneuvers will last five hours."

At 1830 the next day the alert was sounded, and the practice maneuver continued until 2230. The results included: "Prisoners were taken by both sides, and many men, "killed" by flashlight beams, slinked back to their quarter while the battle raged. At 2030 hours when the maneuver ended, the enemy in the Western sector had been routed, while the enemy's Southern force was found to have advanced to within 1,500 yards of the runway." Personally I had no contact with the "enemy." As I recall that night there was moonlight. My only need for the flashlight was as my "weapon."

For a time some of our combat officers were sent to Italy to spend time with Army Infantry officers, and ground combat officers were assigned to fly with us. When our officers returned, their primary complaints were about the mud and other discomforts they experienced. The ground officers who flew with us were bothered by the close formations we flew on each mission and by the fact that they couldn't shoot at those who were shooting at us. It was reported that one of the ground officers, in his frustration, blindly fired the bombardier's flexible 50-caliber machine gun at the ground. From about two miles high he couldn't see an 88, let alone the gunners manning it.

What policy our outfit had relative to sending combat crews to rest camp was never made known to me. Crew after crew was sent to the Isle of Capri. They returned with glowing accounts of their experience. A 6 May squadron report included: "All flying personnel will have had rests at either Cairo or Capri by the end of next week." That wasn't true. By that date I had 40 missions, but no rest camp! I think that generally crews were sent to rest camp on Capri after they had 25 missions and sent a second time, perhaps to Cairo after 50 missions. When I had 25 to 35 missions I felt I needed a rest. Later I didn't feel I needed a break. If there were to be a break by going home - I was all in favor of that!

**Can't Do It, or Doesn't Care?**

In the 18th chapter of the Gospel of Matthew, verses 15-17, we have a teaching of the Lord Jesus Christ that is given, primarily, to the Church. But I think the principles apply to our relationships with everybody. I don't recall being aware of that in 1944, and, even if I had been aware of it, I'm not at all sure I had the intestinal fortitude to put those principles into practice. Additionally, I can say without question, I did not put the principles in practice in the following situation.

One of our flight leaders, who also led the Group at least once when I was flying as a flight leader, may have been a very good pilot, but he was not, in my opinion, a good flight or group leader! (Because up to that time I had never known anyone with the name "Rick," that is what I'll call him as I relate this.) When leading a group or flight, the lead pilot must keep in mind that, in a sense, he is flying a plane with a wingspan of hundreds, perhaps even thousands, of feet. When turning left, for example, the left wing tip is going to travel a shorter distance than the right wing tip. Both tips must travel at different speeds than the fuselage maintains. And the steeper the turns, the greater variation there must be in the speeds. Usually the group leader will maintain his speed during turns. To maintain position relative to the group leader, every plane on the inside of the turn must reduce speed and every plane on the outside of the turn must increase speed.

Within a group leader's flight of six, the element leader, who is directly behind and a little lower than the leader, will maintain the same speed as the leader when the leader turns. In a turn the wingmen will not only change their speed, they will also change their altitude in order to remain in the same position relative to their leader. The wingman on the inside of the turn must drop lower, and the wingman on the outside must climb higher. In doing so, the wingman's view of the leader

remains the same. If he takes note of the background, the wingman on the inside of the turn sees sky only; the wingman on the outside sees ground or water - whatever they're flying over.

The following happened on one occasion as we were forming for a mission. I was leading the second element of the third flight. (In an eighteen-plane formation the third flight of six would be to the left of the lead flight.) In my position I looked up at the lead plane and nowhere else. If I needed more or less power to hold my position, I added or reduced power without looking at my instruments. I was flying a C or D, but my two wingmen were flying G's. Having the cannon and extra machine guns, G's were heavier, therefore they had a higher stalling speed. (A simplified, technically inaccurate definition of a stall is, "reaching a speed too low to provide the lift needed to sustain flight.") As we were in a left turn at a very reduced speed, my co-pilot told me our wingmen were not to be seen. Our speed was so low both G's had stalled out. We were high enough that they both recovered and eventually rejoined the formation.

On another occasion, this time while we were maneuvering for landing following a mission, again I was flying as an element leader. Rick was our flight's leader on this occasion. I was already quite aware of his poor leading. As we were in echelon to the right I was in the number four position with my two wingmen to my right. Because of his poor planning, or perhaps because he didn't care, Rick made a steep turn to line up with the runway for the low approach. His first wingman had to fly faster than the leader, and the same was true of each of the other four of us. My second wingman had to have a higher speed than any other of us. Knowing how Rick flew, I expected that he would roll out of the turn abruptly instead of anticipating it and rolling out slowly. Sure enough he did! I reduced my power at once, but I didn't want to slow so rapidly that my two wingmen, who were going faster than I was, would be unable to slow quickly enough to retain their place in formation. To keep my element together as a unit, I arrested our descent somewhat so as to clear the lead element as I crossed over them from right to left. We did stay together as a unit, and I was able to reposition us to the lead element's right before we reached the runway.

Earlier I mentioned an occasion when Rick was leading the Group while I was leading a flight. Usually we dived immediately after releasing our bombs. The change of speed and altitude helped us to evade flak and it helped us get out of range of anti-aircraft fire more quickly. On this occasion as we were leaving the target area in a dive, and I was holding my flight in its position to the left of Rick's flight, I took my flight lower than usual, anticipating what Rick was likely to do. I expected Rick to decelerate abruptly once he figured we were far enough out of the flak's range. For the sake of the other five planes in my flight I didn't want to decelerate as rapidly as I expected Rick would. When he did as I had expected and decelerated rapidly, I reduced my power less than would have been necessary to keep from passing up Rick's flight, but, at the same time, I reduced our rate of descent and thereby raised my flight's position relative to Rick's flight until we were level with his. We did not overrun him, and my flight didn't have to sweat keeping together.

Now I realize I should have spoken to Rick about my displeasure with the way he led. I should have pointed out my concern for the safety of all involved. Then, if he did not respond acceptably, I should have gone to our C.O. and expressed my concerns. I know I had read Matthew 18, but I doubt I had thought of its application to this matter; and if I had thought of it I doubt that I would have had the strength to carry it through.

**Me? A Minister?!!**

Often we would talk about what we would do after the war - if we survived. (Walt Uhl said he assumed he would die in combat, then, if he survived, it would be a pleasant surprise. As it turned out, he and Bob Whitehead were the first two in our squadron to complete 70 missions safely.) I realized, as a Christian, there would be the need for Christians to be in all kinds of occupations, but

the greatest need throughout all the world was for people to get into a right relationship with their Creator, and there was only one way that can be done - through repentance from sin and faith in Jesus Christ (viewing faith and repentance as a unit - two sides of one coin).

It is impossible for me to be specific as to why this came to be, but my Christian friends expressed their thoughts that I should become a minister after the war. I did not want to become a minister. I wanted to become an airline pilot! Often we talked about pilots being a dime a dozen after the war. Nevertheless I was convinced I could become an airline pilot. At nineteen I was made the captain of a combat crew. At twenty I flew all my missions as a first pilot, I was made an element leader, a flight leader, and there is more I want to relate later. In no way had I made an effort to get on the good side of the "wheels" above me or to do anything to be advanced in my responsibilities. One of the reasons I would have preferred to fly fighters was that I didn't want the responsibility of a crew. But God had given me the combination of capabilities that made me a good pilot and a good lead pilot.

**Leading**

Before I was assigned regularly to lead an element in our medium altitude missions, an experienced leader flew as my copilot on one mission in the element-lead position. As I recall, he didn't touch the controls or say a word. (Remember, however, verbal communication in a B-25 in flight was difficult!) That flight was my "checkout" as an MA element leader. However, that was more of a checkout than I received as a flight leader. But, as far as I was concerned, leading a flight was easier than leading an element. As long as you thought of yourself as being a huge airplane and made your turns and speed changes accordingly, it was easy flying. The five others in your flight had the responsibility to keep themselves in their proper relationship with you. Yes, the flight leader was responsible to keep his flight in a proper relationship with the lead flight, but, unless the group leader led as Rick did, keeping that relationship was not difficult.

March 19th, on my 20th mission, I led the second flight (six planes) in the second 18 of a 36-plane mission. When there were 36, the second 18 flew as a unit. The leader of the second 18 was responsible to keep his 18 in a certain relationship with the lead 18, but he had a good measure of freedom in leading his unit. I think we had much the same setup when the Group mission numbered 24 planes - there would be two units of 12 each.

If I remember correctly, my first mission as a flight leader was not planned that way. I believe I took off as a spare. For some reason the flight leader in position 25 (the flight leader of the second flight of the second 18) turned back, and I took his place.

A similar thing happened 30 missions later. I had taken off as a flight leader spare, and Major Lawrence G. Hill, our squadron C.O., was leading the Group (18 this time). He turned back. I was not pleased to be thrust into that position, but what was I to do; I was the spare flight leader, a flight leader was aborting, and there was no one else to take his place. I did have full confidence in Grady Paul, my navigator and in Nick Katsirubas, my bombardier. As it turned out, on that mission we had 100% accuracy and 100% efficiency. In this case it meant that each of our 18 planes released every bomb (72 1,000 pound bombs), and every bomb fell in the target area. (We heard that the heavy bombers, B17's and B-24's, averaged about 30 % accuracy and efficiency. They normally bombed at twice our normal bombing altitudes, or more.)

One day I was called in to the squadron C.O.'s office. He and other administrative officers were present. He said, "We'd like you to lead the next mission." Notice, it wasn't a command. I'm not sure what all he said, but when I answered I said, "No." He said they were confident I had the ability, that I should think about it, and later they would ask me again. I don't recall having any doubt about my ability to fly as I ought as leader of the Group - my concern was with the possible

decisions I might have to make, which, if wrong decisions, could have costly consequences. Wrong decisions could result in injuries, deaths, equipment loss, a poor mission result or outright failure of the mission. These decisions, in many cases, might be decisions that had to be made exceedingly quickly. (Remember, we're talking about a 20-year old who had a great lack of self-confidence.)

Besides thinking about it, I prayed about it! Prayer was part of my daily life, but usually I wasn't praying for specific guidance concerning a particular question. Each night I would pray for safety the next day. Frequently I would pray that the Lord would enable me to do a good job of bombing. If that sounds strange, keep in mind that we were convinced that if we did a good job of destroying our targets, we would be contributing to ending the war. The more effective our bombing, the sooner the war-caused suffering and dieing would end. Also, since our targets consistently were strictly military targets, bombs hitting the target were less likely to injure or kill civilians or to damage non-military property. We were instructed quite specifically to avoid hitting anything non-military.

Later I was asked again to lead the next mission, and I said I would. As far as the flying was concerned, leading the Group turned out to be the easiest of my combat flying. Everyone else had to maintain their position in relation to me. It did require more careful planning so as to avoid the problems Rick's leading created. For example, we were supposed to fly over our base at a particular minute, fully formed (all planes in their flights, and all flights in their proper place). To get 18 airplanes, especially 18 that have just joined together in formation, over a particular point at a particular time required planning and careful execution of the plan. Navigator Paul was a great help in accomplishing this. We were quite successful in arriving over the field on time.

Those who planned the missions included very specific times for everything, and I would say they did a good job relative to the timing. Enough time was allowed for briefing, picking up equipment, travel to the planes, loading of equipment into the planes, preflighting, starting engines, taxiing to the runway and doing the runup. As Group leader I took delight in being in position on the runway, adding power and releasing brakes the moment the sweep second hand passed 12. (During our briefing we all set our watches to agree to a second.) Because of the good time planning I never found it difficult to start rolling right on the second.

Arriving over the base right on the minute was more difficult, but not impossible. Arriving on time at the point at which we would pick up our fighter escort, at the initial point (the point at which we would turn directly toward our target), and at the target, depended more on the planners than on the group leader. At least that was true when I led the group. I would climb at an indicated 170 mph and would maintain the power setting I had been taught to maintain while climbing. At cruising altitude I would use whatever power setting resulted in an indicated 200 mph (at standard temperature at 12,000 feet an indicated 200 would be 248 true airspeed). IF the planners had had accurate winds aloft forecasts, and IF they had done an accurate job of figuring distances and times, and IF Paul did his navigating well, and IF I flew the headings accurately, we would arrive at all those points at the time planned. Generally it didn't matter how closely we attained the time goals.

We didn't always have a fighter escort, but we were always pleased to have one. Usually timing was more critical for our fighter escort than it was for us. It would be especially bad if we were late arriving at the point at which the escort was scheduled to meet us, for generally their range was more limited than ours was. As I recall, P-39 pilots asked us to cruise at a lower speed. It was not that they couldn't fly that fast - it must have been for the conservation of fuel. Generally, the slower you fly the farther you can go with a given amount of fuel. P-39's were quite limited in range. Spitfires were also. On the other hand P-51's may have had a greater range than we did.

Until February 18th our escorts were either P-39's or Spitfires. From my second mission on the 18th to just about the end of my missions, Spitfires were our escorts. P-39's were flown by American pilots, Spitfires were flown by French pilots, and P-51's by British pilots.

It can be said by the pilots escorting us, "No bomber was lost to enemy aircraft while I was escorting them." That was true. However, though unidentified aircraft were reported sighted by our crewmembers, and ME-109's and at least one FW-190 were reported sighted, to my knowledge we (the 310th Bomb Group) were never attacked by enemy fighters while I was with the Group. In pre-mission briefings we were informed of the number of German fighters said to be based in the vicinity of our targets or route of flight. We heard reports of B-26's and "heavies" (B17's and B-24's) being attacked, but we weren't. A number of B-25's were shot down by German fighters during the North African campaign. It would have taken a brave pilot to attack a tight formation of six B-25's! Depending on the angle from which the attack would be made, there was the potential of being shot at by perhaps a minimum of six and a maximum of thirty 50-caliber machine guns.

**Roger**

It must not have been long after we were aware that Carmen was pregnant that we began calling our baby, "Roger." In most of our correspondence when our baby was mentioned, we spoke of Roger. We realized our baby might be a girl, and we tentatively spoke of Sandy as a possible name for a daughter, but almost always in my letters I referred to Roger.

In Greenville the doctor gave April 23rd as the date on which to expect Roger. The doctor in Denver gave April 25th as the date. Knowing that babies sometimes are born earlier than predicted, it was probably from early April onward that I thought, "Perhaps today is the date!"

May 8th I received a telegram announcing Roger's birth. It said, "Son born – Family All Well – Please Don't Worry." There was no date, or any other information. Later I learned he had been born May 3rd. May 23rd I received the first letter from Carmen telling me details about his birth.

**A Busy Month**

Our squadron reported that May 1944 was the squadron's busiest operational month up to that date. Twenty-eight MA missions and one nickelling mission were flown. (Nickelling was the dropping of metal foil to interfere with the enemy's use of radar to aim their 88's.) The squadron had flown 41 missions in February, but many of them were low-level missions involving fewer planes per mission, for a total of 215 sorties compared with 245 sorties in May. The Group had been informed that every effort should be made to have every plane ready to fly missions. We were called upon to support the army's effort to enable the 5th Army to break through to the troops on the Anzio beachhead.

May 27th our Group C.O., Colonel Anthony G. Hunter, gave the Group the following message:

> "1. The following message has just been received from the Commanding General, Twelfth Air Force, to the Commanding General, 57th Bombardment Wing:
>
> 'Missions flown yesterday with the twelve you have scheduled for today is a magnificent effort. I desire to express my appreciation to you and your entire command for both their spirit and effort during this critical period. Suggest that effective tomorrow, 28 May, and until further notice you cut your effort to your normal rate of six missions of two four planes each per day. There will probably be other periods when we will once again require your full effort. Signed `CANON.'
>
> 'In forwarding this message from Major General "UNCLE JOE " CANON, I wish to add that the results of your bombing efforts were most gratifying and I am convinced that the 57th Bomb Wing can prove that the Baker dash Twenty-Five is a medium bomber second to none.'

> '2. My hearty congratulations to each and every member of my command whose concerted effort has made this magnificent achievement possible. We shall not be content with this commendation for a job "well done," but shall go on smashing targets in the future whenever called upon, to prove beyond any question of doubt that the B-25 Medium Bomber can and will out-bomb the B-26 anytime, anywhere."

In addition to May's being a busy month operationally, there were other memorable events. Sometime during the night of May 12th the German Air Force bombed the field at Borgo where night fighters were based. At about 0400 on the 13th they attacked the 340th base. I don't recall that we could hear any of the explosions, but we could see some of what was taking place. It was reported that 35 were killed, 100 were injured, and 80 B-25's were destroyed or damaged.

The 340th had recently moved from Italy. When Mt. Vesuvius erupted, it destroyed all, I think it was, of the 340th's B-25's. The Group was re-supplied with planes and resumed operations. This raid virtually wiped out the Group again.

In addition to bombing the field, JU-88's strafed with their landing lights on. Some men were killed in their beds. Others were killed in their slit trenches. Some who were killed were members of crews who had just arrived from the States on the 12th.

On the 13th there was a flurry of slit trench digging at our base. Shortly after completing their digging, for better dispersal 50 men were ordered to move their tents - every second tent was ordered to be moved. These dug new slit trenches at their new locations.

At the morning briefing on May 14th Col. Hunter complimented our combat crews on the "…accuracy of the bombing on the recent missions in support of ground forces in the new Anzio Beachhead offensive."

At 1920 on May 25th our base was rocked by a powerful explosion. Armament personnel had been unloading frag bombs from a 379th plane, intending to reload it with 1,000 pound bombs. They dropped one of the frag bombs, and it exploded and set the B-25 on fire. Evidently the fire caused the 1,000-pound bombs, lying under a wing, to explode. After the frag bomb went off, 381st medical personnel raced to the scene in their ambulance. They got one wounded man on a stretcher and carried him to safety. Before they could return for other injured men they were blown off their feet by the explosion of the 1,000 pounders. Six 379th men died. Only three bodies could be identified. The plane and ambulance were destroyed.

On a mission against Anzio railroad bridges the next day Lt. Irving B. Akst's fuel tanks were holed by flak. He and his crew were unaware of that damage until after debriefing was concluded. The self-sealing of the tanks had been effective.

On the evening of May 26th a battle-damaged 321st Group B-25 circled our area while its crewmembers bailed out. I believe their right vertical fin and rudder had been blown away. The pilot could not control it at any speed below 190 mph, so attempting a landing would have been foolish. After the rest of the crew bailed out, the pilot left the controls for his exit. When he left the controls, the plane probably went into a spiral, and the pilot had trouble getting to the exit. The normal exit procedure for the crew in the forward part is to fold up and lock in position an inside trap door in the floor of the navigator's compartment. Then the bottom or outside trap door is released. If the bottom one is released first, it will be difficult or impossible to raise the inside trap door - air suction would resist or prevent opening it. When the pilot arrived in the navigator's compartment, he found that the inside door had fallen back into place. After a struggle with it, he finally got it open. He dropped out, and his parachute opened just in time to allow him to land without injury. He landed very close to the burning wreckage of his plane. His final concern was for the 50-caliber bullets that were exploding in the fire.

We heard that this plane had crashed on the MP tent that was located at a road intersection. There were reports that a number of MP's were killed. The report of their deaths was erroneous. Shortly after this incident a new tent was erected and a sign was placed on it, "Off limits to all aircraft."

The following is quoted from the squadron's 28 May report: "Shortly before 23:00 hours this evening, ten Italian civilians from Porto San Stefano landed near one of our ack-ack outposts after having been in an open boat for three days. They were immediately taken into custody, and placed in the Group Stockade waiting to be turned over to Allied Counter-Intelligence authorities. They stated to interpreters that San Stefano is `finished,' and that the Germans in that vicinity are deporting all able bodied men to German for labor duty. It is this fate which they were seeking to escape."

# 10
# A Brief Respite

After completing 50 missions, on May 29th I left for "Rest Camp" in Cairo. Portions of two crews flew together. Nick Katsirubas and Grady Paul were my only crewmembers going with us. I don't recall what other pilot flew with us. That day I logged 4 hours 50 minutes pilot and 4 hours passenger time. Enroute we landed at Tripoli for fuel.

As I was flying between Tripoli and Cairo I saw a C-47, probably enroute to Cairo also. As I had done before near Phillipeville, I feathered the left engine and passed the C-47 on the right side and climbed. (Although I was pleased to be flying a faster plane, the truth is I would have been glad to fly a C-47 that was not a target of enemy guns.)

Overseas we did not feel the restraint of our country's Civil Air Regulations. When I spotted the great pyramids, I dropped down and circled them at a very low altitude. Great view!

Cairo was accustomed to see in its streets military personnel of the various allied nations. Cairo's natives took advantage of the resulting commercial opportunities.

We obtained hotel rooms at what seemed to us a fairly reasonable price. It was great to sleep between sheets and to have a bath available as often as we wanted it and without having to travel some distance to get it.

All kinds of things were available that we had not seen elsewhere outside of the States. There were also things to see that didn't exist in the States, such as the pyramids and the Sphinx. We visited a mosque where our guide impressed us with the beauty and material value of its various parts. At no time were we told anything about the religion unless we asked questions. Riding a camel was a memorable experience! I'm not sure it was really his name, but we called our guide, when we were riding the camels in the vicinity of the Sphinx and pyramids, Ali Babba. (We spoke of, "…and the 40 thieves," when we spoke of him. He led us to a number of "Tourist Traps.")

For reasons I cannot remember I took the train to Alexandria. I think I returned the same day.

Before we left Corsica, my C.O. said, "Do not take your plane to Palestine!" How I would have liked to have done so! I spent many hours trying to arrange transportation to the Holy Land. Finally I managed to obtain space on a British C-47 (received from the U.S. through the Lend-Lease program). I spent a couple of days at Tel-Aviv. I would have liked to have gone to Jerusalem and to many other biblical cities, but I spent most of my time attempting to make sure I would have transportation back to Cairo within a certain time period. Finally I came across a pilot friend who was attached to the 321st Group. (I must admit I envied him. He had flown about the same number of missions I had, and he had not had more leading responsibilities than I, but he was wearing captain's bars.) He already had more scheduled to ride with him than I had ever heard of in a B-25. In the States we were supposed to limit our occupants to seven. I think I was the thirteenth to board that B-25. With others I stood in the navigator's compartment from Tel-Aviv to Cairo.

On the day scheduled for our return to Corsica, when I arrived at Cairo's air base I was faced with a surprise. In all my piloting experience prior to this, someone else had taken care of the airplane's fuel and maintenance requirements. In preflighting the plane we found we needed fuel and oil, and one or more of the tires needed air. It took a fair amount of time to get everything ready for our departure.

It was our intention to land at Tripoli for fuel. When we over the Mediterranean, west of Benghazi, it appeared to me that our fuel consumption was higher than normal, and I began to think we might run out of fuel before getting to Tripoli.

After careful consideration I decided we should turn around and get fuel at Benghazi. That would probably mean that we wouldn't get to Corsica that day, June 6, 1944, the day we were due

back. (I don't believe we learned about D-Day until later.) I realized I was responsible to have us back on schedule, but I considered being reprimanded for being late was preferable to crash-landing or bailing out somewhere east of Tripoli, out of fuel.

The first Allied base was a British base. When we landed and requested fuel, we were told we couldn't get it there. We were told of an American base where we could obtain it. Following my run-up prior to take off, I had a problem, one I never had before or since. As I advanced the throttles to move onto the runway, the plane would only turn right, pivoting on the right wheel. Pivoting on a wheel is not good for a tire! The right brake was locked, and for a while I couldn't release it. I made a complete 360-degree turn before I got it unlocked. The tire appeared to be okay, so we took off and flew to the U.S. base.

The hospitality of the base's C.O. may have contributed to my decision to RON (remain overnight) there. We were still six hours flight time from Corsica, and we had to take into account time in Tripoli obtaining fuel. Whatever our reasons, we did stay overnight. We had good food, a comfortable place to sleep, and a C.O. who treated us in such a way I wondered if there wasn't some way I could arrange to stay and fly for him. (I don't know why the base existed as an active airbase at that time, or what duty I might have served.) The base was filled with evidence a war had been waged there.

When I had about 25 to 35 missions, I felt like I needed to go to rest camp. When I had completed 50 missions without going to rest camp, and was informed that I was to go to Cairo for that purpose, I didn't really feel that I needed a break. However, while we were at Benghazi I became aware I would like very much not to resume combat missions!

With reluctance, June 7th we took off for fuel at Tripoli and "home" at Ghisonaccia. As we were flying north over Sardinia we met 18 B-26's returning from a mission. They were flying the same formation we did in our missions. I almost felt sick to my stomach.

We arrived at our base without further problems. As expected, the C.O. called me to his office. I remember nothing of what he said to me. I believe I gave him the full story of why we were late, and he simply said what was appropriate for a C.O. to say under the circumstance.

# 11
# Back to Work

It may have been because of D Day occurring on June 6th that another politically important event on June 4th was little spoken of then or since. Rome, the first Axis capitol to be occupied by Allied forces, was entered by General Mark Clark and the American 88th Division on the 4th of June. Militarily, the invasion of France was of far greater importance than was the occupation of Rome.

The major difference Rome's capture made for us was that Rome became the place for crews to go to "Rest Camp." Rest Camp is hardly an appropriate term for the activity (any more than it was appropriate for going to Cairo). Rome simply became the place to which individuals or crews were sent when they were given a break from their missions.

For about my first 100 hours as a B-25 pilot I wasn't particularly pleased to be flying the B-25. After a time I not only felt comfortable flying it, I enjoyed it and felt that, relatively speaking, I was its master.

Both in North Africa and Corsica, on occasions when I didn't have to be doing a particular thing, like bombing or gunnery practice, I got into very mild dogfights with another B-25 or a P-47. Very steep turns or steeper than normal climbs or descents, these were the extremes of my maneuvering, no inverted flight or other negative stresses on the aircraft.

Having become fairly well acquainted with the B-25 I found myself doing some things I hadn't been taught.

Our starters were inertia starters. When everything else for starting had been completed, priming, for example, we would activate the inertia until it had reached a particular rpm. We judged it had reached the desired rpm on the basis of time and sound. Then we would engage the starter, and the engine would begin turning. If everything was just right, after a few revolutions of the engine, the cylinders would begin firing and the engine would start. Then we would go through the same procedure to start the other engine. I found that I could get the two engines to start within a very few seconds of one another. This could be done by having everything else ready for starting but the inertial motors, then getting the first inertial motor wound up but not engaged, then wind up and engage the second, and quickly engage the first before the inertial force was spent too far. It could be done quickly enough that it almost appeared that the engines were starting simultaneously.

We were taught, and usually did as we were taught, to run up the engines one at a time in our preflight checks. I may have done it at other times, but I only remember for sure that I did it on one particular occasion. I was scheduled for a local flight for some reason. When I was taxiing to the runway, the tower informed me that a mission was about to return. I don't remember how many were on that mission, but often the number was 36 planes. Whatever the number, I wanted to get airborne before the returning planes arrived. As I was taxiing, I ran both engines up, at the same time, to the normal power settings for checking mags, carburetor heat, prop cycling, feathering, etc. Rather than sitting still and checking one engine at a time, I checked them both while rolling.

On that same occasion I did something else that we hadn't been taught. When brakes are applied while taxiing, the nose pitches down, either somewhat or abruptly, depending on factors such as how hard the brakes were applied. Also, when there is a dip in the area over which you are traveling, the nose may pitch down as you enter the dip, and it will pitch up after you hit the upslope on the far side of the dip. On this occasion, there was a distinct dip as one went from the taxi strip and onto the runway. I had gotten clearance for take off prior to arriving at the runway, and I was taxiing faster than usual. We were all set up for a pronounced nose dip followed by a pronounced pitch up in making that transition. To avoid that, I applied brakes gently before we entered the dip, I released the brakes at the time we would enter the dip, and I applied brakes again as we hit the

upslope. The result was that there was minimal pitching as we moved through that dip. It was a joy to have it all go so smoothly and to get airborne before the returning planes arrived.

To avoid concentration of planes in the event of an enemy attack, our planes were widely dispersed. Our taxi strips were seldom straight for any distance. The B-25 has a castering nosewheel. At low speeds guiding was done by braking the left or right wheel and/or increasing the power on the appropriate engine. At high speeds the rudders became effective. To avoid fouling the lower plugs, we were to maintain 1,000 rpm or more. On the other hand, we weren't supposed to use the brakes any more than we had to. I never heard anyone reprimanded for taxiing too fast! Some claimed that the hardest thing about flying the B-25 was the taxiing. On the other hand, it was a joy to taxi on the curving taxi strips at high speed, using differential power and the rudders and keeping braking to a minimum.

# 12
# My Longest Day

June 22nd I wrote a five-page letter to Carmen. Commenting on how well things had gone with our new son I said, "I can't get over how well things have gone for us all the time. The Lord has certainly watched over us and has really taken care of us." I had never assumed that I would not be shot down, captured or killed. Before going overseas I had thought of the possibility of being wounded, but we had not had anyone wounded severely during my months in combat, so that possibility was not in the forefront of my thinking. In spite of the awareness of the possibility of a personal catastrophe on the next mission, I never lost any sleep over the matter. To the Philippians the Apostle Paul wrote, "Do not be anxious about anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and minds in Christ Jesus." (Phil. 4:6,7.) To the church in Rome Paul wrote, "And we know that all things work together for good to them that love God, to them who are the called according to his purpose." (Ro. 8:28, KJV.) I knew, believed and kept those verses in mind continually. At the same time I didn't believe that those truths meant that I would not be captured, wounded or killed. I believed that whatever happened to me, it would be what was best for me and for my believing loved ones. I didn't know how my death, for example, would be best for my beloved wife and for the son I would not see in this life, but I was confident that it would be best for them and for me. I was confident that, because of the grace of God, if I died my soul would enter immediately into God's loving presence, and that would be so much better than anything this life has to offer.

June 21st I had led a mission of 18, successfully bombing a railroad viaduct at Piteccio Fabrica. On the 22nd most of our squadron was involved in a mission, but my crew and I, and a few others in our squadron, had a day off. However, we were told to remain in the squadron area, at least until 1700, because they might have a mission for us. I had hoped to go swimming that day, but, as ordered, I remained in the area. I think it was not long before 1700 that we were called for a briefing. I was to take three from our squadron and three from the 380th and lead the third flight, joining 12 from the 428th, which was to lead the mission. Personally I didn't like the setup, the 18 coming from three different squadrons. I felt we did a better job when all 18 were from the same squadron, but obviously that couldn't always be arranged.

Our target was to be a unique one! Allied ground troops were moving northward along the boot of Italy. Compared to the stalemate at Anzio, the present northward movement was rapid. It appeared that Leghorn would soon be taken by Allied forces. Intelligence reported that the Germans had plans to prevent Allied use of the Leghorn harbor without a massive salvage effort. The report was that the Germans intended to take two hulks of ships or barges, hulks that were still floating, and sink them across the two entrances of the harbor. The Allies then, could not bring in navy or merchant marine ships until the harbor entrances were cleared. Our mission was to sink those two hulks right where they were, so the Germans could not move them to where they wanted to sink them.

Perhaps it was because our target didn't require us to be over Italy very long, but, whatever the reason, we weren't supposed to have a fighter escort on this mission. As it was, we picked up an escort about the time we left the north end of Corsica - British pilots flying P-51's. Contrary to what often is shown in movies, we made very little radio communication between planes. Fighter pilots often spoke very brief messages, but most of the time we didn't utter a word over the radio on a mission other that in communicating with the tower, and then it might be the group leader only.

Also, about the same time as we passed the north end of the island, we encountered a layer of broken clouds. For a brief time I lost sight of the other two flights as we climbed through the clouds' level. Space between the clouds was sufficient that our whole flight remained clear of the clouds.

The depth of the clouds was not very great, so we soon were above them and had the other flights and the escort in sight.

Flight to the Initial Point was routine. Because we were to be the highest flight on the bomb run, I determined that I would make my turn at the IP so as to be sure we would not be directly over either of the other two flights. It is very uncomfortable to look overhead into the open bomb bay doors of an element or flight that is about ready to drop its bombs. I have! (I believe it was Rennie, our top turret gunner, who claimed a string of bombs missed our tail by only a few feet on one occasion.) I was determined that we would not endanger those below us. Also I did not want us to discover there was a flight in danger from us, and that would preclude our dropping our bombs or might tempt me to make a second run.

(I don't know why the following was never mentioned as one reason we had the problem of a higher flight overrunning a lower one. Normally we maintained an indicated airspeed of 200 mph on our bomb runs regardless of the altitude. Under standard conditions, including a standard lapse rate, TAS [True Airspeed] is 2% higher than Indicated Airspeed for each 1,000 feet of altitude. At 8,000 feet TAS would be 16% higher than IAS. At 10,000 feet it would be 20% higher, and at 12,000 feet 24% higher. At 8,000 at 200 IAS the TAS would be 232 mph; at 10,000 it would be 240; at 12,000 it would be 248. Those differences aren't great, but it is obvious that the relative positions are going to change. A higher flight may begin the bomb run behind a lower flight, but each second that distance would diminish.)

Upon completion of my turn at the IP we were well behind the other two flights.

Normally, when bombing a coastal target, when bombs were away we would dive and turn toward the sea. The purpose was to get out of range of antiaircraft fire as soon as possible. Of course the enemy gunners were aware of these things. It was my intention, this time, to do the opposite of the usual; hoping to outwit the flak crews, I intended to climb and turn left (inland) as soon as I heard, "Bombs away!"

We tried to limit our bomb runs to three minutes or less. (I think Nick claimed it was one minute or less.) Whatever the time may have been this day, it seemed to me that the bomb run was longer than usual. We had experienced an intercom malfunction the day before, and I began to wonder if we were having that problem again. Had Nick released the bombs and called, "Bombs away," and I hadn't heard it? Flying in smooth air the plane rises somewhat when 4,000 pounds are released in about a second. Flak bursting close underneath or turbulent air may give the same feeling as does releasing the bombs. I had not had any positive evidence that the bombs had been released, but I was tempted to assume they had been and begin my turn. It was one of those times I would have avoided if I had not been put into the position of a flight leader. If I turned too soon we would miss the target or return to base with our bombs or be tempted to make another run. Making a second run would invite the concentration of all the flak in the area, and the gunners would have a better awareness of our altitude and of our probable bomb release point. Making a second run magnified the probability of being hit.

Finally I did hear Nick's call, "Bombs away." By this time I was aware that the other two flights had turned right, heading out to sea, and they were what I considered to be too far ahead of us. So, instead of climbing and turning left, I began a diving turn to the right. Moments later our plane seemed to shudder and stop in midair. Everything was brilliant white. Time seemed to stop. Now I am aware all of that took place in a moment of time. My right hand had been on the throttles. Now it was lying on my lap. Looking at my arm, I could see bone in the upper arm and bone in the lower arm. In between there was red meat that held the two parts together. My lower arm reminded me of an oversize drumstick ready for the frying pan.

Probably my peripheral vision alerted me to a scene somewhat below and to my left. A B-25 was passing us with its right engine burning so fiercely I knew they would not get home. I saw a

gunner leave from the lower rear hatch, and his chute opened at once. (Many years later I learned that two gunners went out over the target. Sgt. John Vest was one of them, and he spent the rest of the war as a POW. The other was killed upon landing in Leghorn.) Prior to our take off we had heard that the 380th element lead crew was scheduled to return to the States, leaving the next day. At that time we all agreed that the crew should not go on the mission. In the 1980's I had contact with Sgt. Vest. He said that only the pilot was scheduled to leave the next day. Would he have done differently if that had not been the case? As I observed the burning plane, it was my opinion that all the crew should bail out as soon as possible. As it turned out, they continued out to sea until the right wing came off (probably because the spar was weakened by the heat). When the wing came off, the pilot and copilot went out the top hatch (which would be suicide if done in normal flight, but there is nothing normal about a plane with a wing missing). They each broke a leg, exiting from the plane. The pilot's body was retrieved and the copilot was picked up by a British Air/Sea Rescue boat. Probably the pilot had drowned.

Jerry seemed to be okay, so I turned the controls over to him and called for Nick, whose duties were completed, to come and give me first aid. Jerry couldn't see normally through his side of the windshield. It had holes with lines radiating from the holes; and hydraulic fluid and blood and pieces of my bone and flesh were splattered over the inside of the windshield. He slid his side window open and stuck his head out so as to see ahead. I think he lost most of what he was wearing on his head. He brought his head back in and closed his side window.

We were still within range of the 88's, and Jerry was flying straight and nearly level, so I took over again and did evasive action. My turns and climbs and dives were steeper than essential, but I, and I expect the rest of the crew also, felt better about not behaving like sitting ducks. When I believed we were out of range over the sea I turned the controls back to Jerry.

Surveying the instrument panel I realized we had no power in our left engine. I called that to Jerry's attention, and he feathered the prop. (Feathering a windmilling propeller reduces the drag. Reduced drag makes the plane easier to control and improves performance. Improving performance can make the difference between getting to a desired location or not making it that far.) The hydraulic pressure gauge read zero, telling us we could not lower the landing gear or flaps or use the wheel brakes in a normal manner. But planes have emergency procedures for such critical items. There was a neat hole in the middle of the artificial horizon. The bar that should have been horizontal, according to our present attitude, was vertical; but in day visual conditions that instrument was not essential for safe flight.

Though I had called for Nick to give me first aid, it was Paul who did so. (It's quite possible neither of them heard my call on the intercom. Almost certainly they both removed their headsets and crawled through the tunnel from the nose to the navigator's compartment immediately after we were hit.) Paul sprinkled sulfa powder on my arm. At first they couldn't find the first aid kit, so Paul removed his web belt and twisted it around my arm to use as a tourniquet. Although my arm was hurting fiercely, the flesh being pinched by the twisted belt hurt even more. Believing in the necessity for the tourniquet, I didn't complain. Above the tourniquet he gave me a shot of morphine. Because the morphine didn't seem to affect me in the least, for years I wondered, "Did he actually give me the shot?" When I talked with Nick years later I asked if I had received the morphine. Nick said they ended up giving me two shots (two tubes of morphine), thinking they would knock me out; but he said they didn't seem to affect me at all.

At one point Jerry called my attention to the right prop pitch control. He moved it full back and full forward, and there was no change in the rpm. This meant we couldn't get full power on the remaining engine. The throttle still worked, so we could increase manifold pressure some, but we might not be able to hold altitude, and we almost certainly could not go around if something didn't work out right on the landing approach. And, if we increased manifold pressure too much we could lose that engine's power.

It was probably at a time when I was not concentrating on anything in particular. The pain was intense! I began turning my head right and left, fully each way, back and forth. Soon either Paul or Nick took hold of my head and held it against his chest. I don't know how long he held me, but I don't believe I repeated that head turning after he released me. As I recall, not a word was said; but, remember, verbal communication was exceedingly difficult in a B-25 in flight.

One time, when Jerry reached down between us, probably to make adjustment to the rudder trim, his elbow bumped my arm in the wounded area above the shattered elbow. If my seat belt had not been fastened, I expect I would have demonstrated an ejection seat before they were invented.

As we approached Corsica, before the island came in sight, I began to become concerned about a different matter. As far as I knew Paul was not navigating, because he had been giving me first aid. We were above the clouds that had been there when we were climbing out. Corsica's mountains reach about 8,500 feet. I was concerned that we might let down between the clouds and right into the mountains. Soon, however, we broke out below the clouds and could see the northern tip of the island still ahead of us.

On Corsica the northernmost fields were fighter fields; their runways were shorter than ours, and we wanted everything possible that would be to our advantage. Additionally, these fields were either French or British controlled, and we preferred to land at an American field. Furthermore, we knew there was an Army hospital not far from the 340th base, and that base was about 30 miles closer than ours. Everything considered, the 340th was the best place for us to land.

Jerry called the 340th's tower, told them we had wounded aboard and obtained permission for a straight-in approach. When we were close enough to lower the gear for landing (in such circumstances you don't lower the gear until you are confident you can reach the field, for the added drag reduces how far you can fly and increases your rate of descent or prevents you from holding altitude, if you were able to hold it otherwise), Jerry put the gear controls to the "down" position, and I turned toward Paul in the navigator's compartment and signaled him to pump the gear down. In the earlier models of the B-25 a mechanical means was used to lower the gear when the hydraulic system isn't working. In the J, a hydraulic system is used in emergencies. Paul released the safety loop. The lever should have required quite an expenditure of muscle power to operate it. Paul could move it fully forward and back with his fingertips. The emergency gear system, like the main system, was useless to us.

At this time we were too low for anyone to bail out. With reduced power on the remaining engine, there was no assurance we could climb for altitude for bailout of any crewmember who might prefer that option. (Ordinarily, when a crash-landing is expected, crewmembers are given the option of bailing out.) Compounding the danger of this crash landing was 100-octane gasoline flooding the floor of the navigator's compartment. When I would look back into that compartment, I would look into a fog of gasoline fumes. A spark from a radio could set off an explosion. What would a gear-up landing on the gravel runway produce in the way of sparks? Or what about raw gas spilling onto the hot right engine?

When Paul was aware we were about to land with the gear up, he jettisoned the top hatch. (A crash landing could so twist the fuselage that escape hatches would be jammed, trapping crew-members, perhaps in a burning ship.) Ordinarily one enters and leaves a B-25 through hatches in the bottom of the fuselage. Landing, gear up, would leave the plane resting on the bottom of the fuselage.

One of my crewmembers located a very thick (about three inches thick) large yellow cushion. He placed it vertically on my lap. I tried leaning forward with it, and it appeared it might rise up adequately to protect my face, head and chest from smashing into the control yoke or instrument panel.

Perhaps Paul didn't know that Jerry had told the tower we had wounded on board. Even if he had known it, he might have done the next thing anyway. At any rate, he reached up through the escape hatch opening and, with a very pistol, fired a red flare. This would indicate to a watching meat-wagon (ambulance) crew that there were wounded on board. (I'm confident he held the pistol well into the slipstream, for the firing didn't set off the gas vapor.)

When we were in training in the States, it was always the practice to have a crewmember call off the airspeed to the pilot during the landing approach. This made it possible for the pilot to look at the runway, without interruption, throughout the latter part of the approach. In combat we had gotten away from that practice. Without prompting, Paul stooped and put his left hand on the back of my seat and his right hand on the back of Jerry's and, over my right shoulder, called off the airspeed. He should have been braced with his back against something, such as one of our seats, to prepare for the rapid deceleration that was expected. Our seats were sturdy, but how would his two arms hold him securely, like seat belts? (We didn't have shoulder harnesses.)

I do not recall precisely when I placed my left hand and feet onto the controls. (Later Jerry told me he was relieved when he felt my moving of the rudder. By that time he was conscious of the fact that his left leg was weakening.) I felt very alert, was able to see readily through my side of the windshield, was conscious Jerry couldn't see very well through his side of the windshield, and I still considered myself as being in command.

Before Paul started calling off airspeed, the last IAS I saw was 150 mph. We were then quite low and only a few feet short of the runway. I let go of the yoke long enough to use my left hand to reduce the manifold pressure, the first I recall that the manifold pressure was reduced since we were hit. (It's entirely possible Jerry had reduced it earlier without my being aware of it.)

As we flared out over the gravel runway, I was quite conscious that, because we had no landing gear extended underneath us, we would be lower when we contacted the runway. In the flare I felt Jerry holding back pressure on the elevator, keeping us higher than I wanted us to be. I was holding forward pressure, and I could see, all too clearly, the boulders that were at the far end of the runway, and they were approaching very rapidly. (Yes, I know, we were approaching them, but the former is the way they appeared to me.) It was not my practice to yell at my crewmembers, but I wanted to be sure I was heard this time, and I yelled to Jerry, "Let's get this thing down!" (The last airspeed Paul called off was 135. With no flaps and the single-engine configuration, we were probably not far from our stalling speed, the speed at which lift is lost to the extent that the plane drops.) Jerry relaxed the back pressure somewhat, and our tail touched down so smoothly that none of us remembered any jolt - none whatsoever.

The possibility of our catching fire or exploding was very great. (Nick later related to me the fact that his trousers were wet with gasoline from their bottom to over his knees. The gas wasn't that deep, but it was deep enough that, as fuel does with the wick in a lantern or lamp, the gas had wicked up past his knees.) And, sometimes in a crash-landing, fuel lines break, gas spills on the hot engine, and a fire results. Our crew was conscious of these facts.

Once we touched down there was no way we could control the direction of our travel any further. Contacting the ground with our wings level we had an advantage in the B-25, the bottoms of the two engine nacelles were even with the bottom of the fuselage. The nacelles served as outriggers. We were flying straight down the runway when we touched down, and we slid straight ahead. As we were sliding, I reached with my left hand to turn off the master switch and the magneto switch to the right engine, and I got my hand stepped upon. Paul had not been thrown forward, his hands had held him in place, but now he was on his way out through the top hatch, and the control pedestal was a good step to enable exiting over the windshield. (It may have been when I was talking with Paul in 1987 that I asked him, "Were we still sliding when you got onto the nose?" He replied that we may have been.) My crew had not had the reputation of being fast actors, but they did move quickly getting out of the plane. Jerry was an exception; he was the last to get out.

As we were aware that we were going to make a crash landing, I had prepared by removing or releasing equipment as much as possible. Over enemy territory we would wear a steel helmet and a flak vest. Since much of our flying was over water, we wore Mae Wests (a type of life jacket). For all flying we wore parachutes. For communication we wore headsets. Pilots wore throat microphones. I thought I had removed or released everything I could before landing, wanting to get out as soon as possible. After landing, I released my seat belt (we didn't have shoulder harnesses). I stood up, holding my right hand with my left. Then I realized I wasn't as well prepared as I had thought, my right parachute leg strap was still fastened. To fasten or unfasten the hardware of these parachutes required the use of two hands. Pilots sat on seat packs (a particular parachute configuration). They were fine for seating, but they were very difficult with which to move around. I was in an awkward situation, standing, not wanting to let go of my right hand, but, with the parachute hanging on my right leg, unable to get up on the control pedestal to step over the windshield. But Jerry was still with me. He unfastened the leg strap, and, as I was getting up on the pedestal and stepping over the windshield, he boosted me upward.

As Jerry and I were dealing with the parachute strap I heard one of our crewmembers call out to someone, "Get out of here with that cigarette!" Although they were smokers, this was one time they drew the line quite forcibly. How ironic it would have been for us to have survived up to that point and then have the plane explode and burn because of someone coming to us with a lighted cigarette!

After I stepped over the windshield, I sat down on the nose. It was my intention to slide straight ahead onto the ground, still holding my right hand with my left. Before I could do so, ambulance personnel, who already were beside the nose, told me to stay where I was until they could come alongside with a stretcher. Being anxious to distance myself from the possible explosion or fire, I didn't want to wait, I wanted to slide down as I had intended; but I did wait. Although I wasn't aware of being weak from the loss of blood, it's quite possible that I would have fallen flat on my face if I had slid off the nose. As it was, I didn't think there was any need for a stretcher; I was confident I could walk to the ambulance. However I did wait and lay down on the stretcher when they brought it alongside

It was a surprise to me when Jerry got into the ambulance with me. I had not known that he had been wounded. He didn't realize he had been wounded until he saw the blood staining his trousers. He did not feel any pain until the next day, numbness in his entire left leg, but no pain until the next day. He had 16 flesh wounds, three of them so deep that doctors made no attempt to remove the metal that had caused them. In 1992 he wrote, "They always create conversation when I have x-rays for my physicals."

In the hospital as they were preparing me for surgery, I told the doctor several things. A number of times on our way back I moved the fingers of my right hand (at the time I wasn't aware that I could move them only one way). I wanted the doctor to be aware that I had been able to move them. I told him that a tourniquet had been applied and that it had been released briefly about every 15 minutes. I told him I had received morphine. I asked him a question, "Do you think you can save my right hand?" He said, "I think maybe we can." I didn't believe him. I thought he was saying this to bolster me psychologically prior to undergoing surgery. (An official report in the records of the 340$^{th}$ where we crash-landed says I lost my arm. My crewmembers reported the same thing to others back at our base.)

As they were preparing me for surgery they were cutting and removing my clothing. There was at least one nurse in the team. I said something about the impropriety of my being unclothed in the presence of a woman. The doctor replied that she, or they, if there were more than one, was a necessary member of the team. Truthfully I told him, "I was only kidding." He responded, "Oh, you

guys!" I interpreted that as a comment about our maintaining our sense of humor during exceedingly trying circumstances.

Ether is not a pleasant thing to breathe, but I welcomed it when the mask was placed over my nose and mouth and I was instructed to count to ten, or whatever it was they asked. Hours later I was awakened by someone moaning. It was me I heard. Lying flat on my back I looked up at a straight cast suspended vertically. At the upper end of the cast I could see fingers, and I could move those fingers, one way.

It was probably within the first hours after I regained consciousness following the surgery that the following occurred: I made a vow to God. It was obvious to me that, though I still had my right hand, there was a real possibility that infection might occur, and the amputation that I had assumed would be completed by a doctor, if we made it back to a doctor, would be done when it became evident there was no hope of saving my lower arm and hand. I promised the Lord that if he saved my hand, I would serve Him in whatever way He wanted me to. Although I was not specific about it, in the back of my mind I meant that I would even serve Him as a minister, if that was what He wanted.

(The moment I was hit over Leghorn I thought, "I should have become a minister." I don't look at that as indicating a special revelation from God. It's simply that, if I had been preparing for the ministry, I wouldn't have been over Italy at that time.)

For some time after I made the vow I thought, "I shouldn't have done that. Everyone always should be willing to do what God wants them to do. God is all wise and absolutely good. We should want to do His will." Years later I realized that there are times when it is appropriate to make a vow. In a sense we are doubly responsible when we vow. We're never to promise to do something wrong. We always are to do what we ought. If we vow to do something we ought, we are more or less saying, "If I don't do this, condemn me to hell." In our marriage vows we are only vowing to do what we ought, and if we fail we are worthy of double condemnation. We didn't do what we ought to do, and we didn't do what we promised to do. True, mine was a conditional promise. I promised to do something, conditioned upon my receiving something. If God gave me what I asked, I'd better do what I had promised!

# 13
# 35th Station Hospital

Grady Paul came to visit me on the 23rd. He brought the five-page letter to Carmen that I had not finished on the 22nd. I thought Carmen might be frightened unduly if I had someone else finish it for me, so, with my left hand I finished and signed it. Somehow Paul held the paper, with something stiff behind it, so I could write. Lying flat on my back, not having written with my left hand for about ten years, and being weak and shaky, my writing was poor! We still have the letter. As I look at it I think it must have frightened Carmen to read it. She got it before she received the telegram from the War Department. The telegram was dated July 8th and stated that I had been "severely wounded in action Twenty two June in Italy." Carmen says that my finishing the letter assured her that it really was I who had completed it, and at least my mind was functioning normally.

The next three days Nick wrote as I dictated letters to Carmen. Nick or Paul wrote for me until I was able to sit up and write with my left hand. July 7th was the first that I sat up in bed, and I resumed writing to Carmen. On the 8th it took me an hour to write four paragraphs. Writing was more like drawing. It was not pretty or neat, but it remains legible to this day. I asked Carmen to tell others I wouldn't be writing to them for awhile.

In my first letters I complained about having to lie flat on my back, indicating that my back pains were greater than the pain in my arm. The day after I was wounded I wanted to get up and walk. I felt that I would be better off if I could get the exercise of walking.

Two weeks after I was wounded, I was permitted to tell what had happened on June 22nd. Almost certainly I would have said more if my writing were not so tedious. As it was, I was able to give most of the major details.

Friends attempted to encourage me, saying that there had been such advances in medical knowledge, equipment and technique that probably, with an artificial elbow, I would regain almost normal usage of my arm. When I asked the doctor what I might expect, he answered something like this, "There are other things you can do as your life's work other than to be a pilot."

More than the pain, more than the inconvenience of being set aside for a time, what hurt me most was the fact that I could not become an airline pilot. One moment I was on top of the world. No, I didn't know that I would survive and reach my goal eventually, but things had been going very well for me! Without my having done anything to advance myself above others, at the age of 20 I had been so recognized as a good pilot that I was made captain of a combat crew, an element leader, a flight leader, then given the responsibility to lead half the group on five missions and the entire group on four missions. One moment I was on top of the world, the next moment it was all over!

Christian friends visiting me in the hospital said my having a permanent physical disability shouldn't keep me from being a minister. One of them indicated that at least I should be able to point my right forefinger at the congregation while preaching.

From what various ones said about my behavior and attitude, evidently none of them recognized how deeply hurt I felt. I still believed what Paul wrote in Romans 8:28, "And we know that all things work together for good to them that love God, to them who are the called according to His purpose." How God would work this out for my good - I hadn't the slightest idea.

A few days after I was moved from the equivalent of Intensive Care to a ward, I found myself scratching the outside of my right leg, about half way between my hip and my knee. (By the way, up until I was permitted to get out of bed and into a wheelchair I wore nothing, a sheet was my only covering. Economy? Pajama shortage? I never knew, and I never asked.) My scratching removed a small scab from my leg. A small piece of metal had entered my leg at that point. (I still have the trousers I was wearing on that mission, and the hole in the trousers pinpoints the entry point.) About 25 years later I removed that piece of metal from my leg. It had worked itself to such a position that

it was protruding from the skin at the right side of my *knee*, about 9 inches from its entry point! Evidently it was a piece of the airplane, for I tested it and it was not attracted by a magnet.

Lt. W. B. Helgeson, the copilot on Quitta's plane, who had broken his leg as he bailed out after the wing came off, was in a bed not far from me after I was moved into the ward. He said that we all were hit when we flew into a barrage. I didn't believe him, but I didn't have any other explanation for all six planes suffering so much damage. Although my attention had been focused on the instrument panel throughout the bomb run, I was looking outside immediately after hearing "Bombs away." I can't imagine my not seeing a barrage unless every bit of it was below my field of vision over the nose.

In about 1948 in Denver we were visited by H. I. Collins. He was copilot of the plane on my right wing on that mission. He said that the following was later theorized as to the explanation for us all being hit so seriously in the same moment: A bomb, or a string of bombs, had fallen far enough to be armed. (Theoretically this type of bomb could not be exploded by a blow until it was armed.) Then flak hit and exploded a bomb, or exploded the whole string of eight 500-pound bombs, and that was the source of damaging all six planes.[1]

As I have thought about it since then I have recalled seeing one bomb, in a string of bombs, tumbling end over end. As I watched, I was surprised that the tumbling bomb didn't hit another bomb and explode them both. Surprisingly the tumbling bomb stayed in its place in the string. I saw that phenomenon more than once.

A problem with the theory concerning our bombs has to do with how far the bombs would drop before they were armed. One would expect that it was known how far a bomb must be away to avoid damage to the plane from which it was dropped, and the arming would be timed in such a way to assure that distance, at a minimum, would be reached before arming took place.

One day the 340th's engineering officer brought me three pictures of my plane. One showed it on the runway with men preparing to drag it off the runway via a kletrack (spelling?). A second picture was taken, probably the next day, after it had been jacked up and the gear placed down and locked. The third was a close-up of the underside. In that picture, besides seeing the somewhat crumpled belly, one apparently can see where fuel leaked from the fuselage following the landing. The engineering officer said that they had damaged our plane more dragging it off the runway than it had been damaged by our landing. He said that the plane would have been repairable if they could have jacked it up where it was and put the gear under it, but, because of other emergency landings, they had to drag it off over some boulders.

Reports from various ones who had observed our landing were that that was the smoothest landing they had ever seen. Some time later Arthur Clarke said that a friend of his had seen our landing, and the friend said the same thing about it.

After being in bed for just under three weeks, on July 12th I was gotten up and onto a wheelchair. Prior to getting up, my legs had felt fine, quite normal. But with my feet on the floor and trying to stand up I found that my legs were so weak I could hardly stand. I had not realized how quickly muscles deteriorate if they are not used.

Four pillows were placed under my right arm so as to keep it level, as had been done when I was sitting up on the bed. I was wheeled and left outside for a while. It was great to be outside.

On July 17th Jerry Gerg returned to the squadron. He returned to flying status, but he did not fly any more missions. For a time he chauffeured (flew) a general around, but before long he was returned to the States.

Although sometimes we might receive a letter in a week's time, sometimes it was much longer. On Carmen's birthday, July 25th, I received the letter she had written me on May 2nd.

[1] See addendum at end of this chapter, on Page 72.

After I had gotten into the habit of sitting up all day, not sleeping any during the day, I was able to sleep fairly well at night. The pain, of course, hindered my sleep somewhat, but there also was something else that hindered my sleep. There was a kind of tickling that took place in the area of the wound. Because of the cast I couldn't scratch it. The tickling became enough of a nuisance that I spoke to the doctor about it. He said that sometimes in the past doctors introduced fly eggs into such an area, and the resulting maggots proved useful in eating the pus. He said that if I was bothered too much by it I should let him know, and they would remove the cast, clean things up and put on a new cast. (He never indicated whether or not he had introduced the maggots.) After a time I asked for a change, and they did it. The tickling did not resume.

Sitting in a wheelchair outside became a daily routine. We had been warned that Corsica's summers were unbearably hot and mosquito-plagued. Perhaps it was in part because I was so inactive physically, but I did not find the heat excessive. And, though I was sitting outside shirtless, I don't recall being bitten even once.

One time while sitting outside I visited with Renée, who also was hospitalized. He was a French Spitfire pilot. In France he had flown against the Germans until they had conquered France. Then, with the Vichy French, he flew against the Allies. I don't know at what point the change took place, but he had been flying with us as a part of our escort. I believe he had never been wounded, but he was injured in a Jeep accident. He and one of his buddies had been drinking and had been injured when they turned the Jeep over. (Unrelated to the accident, he told me he had a wife in France, and he also had a wife in North Africa.)

It had taken quite awhile for the fact to sink in, but I began to realize that my combat flying was over. For a time I assumed that, after the expected rebuilding of my arm was complete, I would resume flying combat missions. I came to realize that the next step was that I would be returned to the States for surgeries, and those surgeries might not restore full use of my arm. (If you had seen my arm at the time I was wounded you probably would wonder that I ever thought it might be returned to normal usage.)

When I realized that return to the States was next on my schedule, I somewhat hoped I would return on a hospital ship. German submarines were still a threat, but it was believed they were careful not to attack hospital ships. I wanted to have the experience of a sea voyage, and I understood they had good food, including ice cream, on hospital ships. As far as I was concerned, the negative thing about returning that way was the time. I wanted to get back as quickly as possible, but certainly hospital ships didn't leave port each day, and their travel time was far greater than was air time.

Major Hill visited me not long before I left Corsica. He apologized for my not being promoted to Captain. He indicated that I had not been a First Lieutenant long enough and that I had been transferred from the squadron to the hospital. I indicated that was no problem as far as I was concerned. The truth was that I would have been pleased to have had the promotion. I had shouldered the greater responsibilities; it would have been nice to have the greater privileges. Also I soon would have about a 25% reduction in pay. Flight pay was one half of base pay and I would lose that soon. As soon as I returned to the States I would lose the 10% of base pay that officers received while overseas. (Enlisted men received an additional 20% of base pay while overseas.)

Although I had been kidded about my age, and I looked younger than I was, in time my beard grew enough to be noticed. A German POW came into the ward to shave me. Having been in combat against the German army, I wasn't real comfortable with the idea of being shaved by a German POW, especially when it was a straight edged razor that he was using! There was no guard watching him. Everybody seemed to be taking the whole thing very casually, except for me, and I don't believe anyone watching me would have known that I wasn't taking it casually. Everything went very well. My shaver, the POW, didn't nick me, not even once

*Addendum: All six planes in my flight were damaged, and evidently all the damage occurred at the same moment.

The greatest damage was done to the three 380th planes in the lower element. Element leader Lt. J. V. Quitta was the pilot of the burning plane I saw off to my left. Lt. Peterson's plane likewise went down with its right engine on fire, but it went down vertically over the target. Although possibly one from his crew got out and opened his parachute, it's also possible whoever reported that, was actually reporting seeing one of the two who parachuted from Quitta's plane. Lt. B. H. Adams piloted the only 380th plane that returned to our base. The wings of his plane had to be replaced before it was airworthy again. The 380th's operation officer told me the wings were weeping like a sieve.

Following is a quotation from our squadron's records: "All three 381st a/c flying on this mission were hit by flak. Lts. Black and Gerg were severely wounded by flak, yet brought their acft to a successful crash landing at the 321st (not correct, it was the 340th) Airdrome. Lt. Prasse returned to base on one engine. His plane will not fly again. S/Sgt H. W. Campbell was slightly wounded by flak, while S/Sgt G. B. Underwood was injured in the landing." (From the quotation it is evident that whoever wrote it assumed, as most of us did at first, that we were hit by anti-aircraft fire.) I thought it was Prasse's plane on which they couldn't get the nosewheel down and locked, but perhaps that was on Lt. Mangum's plane.

As the flight leader I had seven men on my crew. Each of the other five planes had a crew of six, for a total of thirty-seven. Of these, at least five were wounded or injured. At least eleven died.

On June 22, 1944 the 310th Bomb Group suffered more casualties than on any other day. On 57 sorties 38 aircraft were damaged. Three were shot down and three others were so badly damaged that they were considered a total loss. Besides the deaths of crewmembers in downed planes, two were dead in planes that returned.

# 14
# Naples

If it weren't for having the letters I had written to Carmen, I would not know that on July 27th I was airlifted to the 2628 Station Hospital in Naples, Italy. I wrote her from Corsica on the 26th and from Italy on the 28th. Because I have such a vivid memory of so many details of that time, why don't I remember anything about that transfer? Evidently I was moved to Italy five weeks from the day I was wounded, and I still was not walking.

The U.S. Army hospital in Naples was in a hospital building that had been around many decades longer than I had. I am only guessing when I say there may have been about 75 bed-patients in the ward. Most of them were army enlisted men.

Not all patients were in the hospital because of combat wounds. One soldier had one leg amputated almost at the hip. He had been on guard duty on a Naples dock. A drunken friend took the guard's rifle from him and was spinning it around with a finger in the trigger guard. The rifle went off and the bullet hit the guard very high on the leg.

Another soldier was enclosed almost entirely in casts. I can recall seeing only his eyes and mouth. He had been swimming. It was not uncommon for men to use hand grenades to obtain fish. A hand grenade exploded in water near fish would kill the fish, and they would float to the surface for easy picking. On this occasion a soldier, who had been drinking, thought he would do better than that. He attached a hand grenade to a land mine and threw it into the water, too close to where the other was swimming. I wonder how long the injured soldier was hospitalized, how many surgeries did he have, what therapies did he undergo, and whether he was handicapped permanently and to what extent.

Our ward had a very high ceiling. I think there were windows on all four walls. The windows were narrow and very high. My guess is that they were about ten feet tall. If the windowsill was three feet above the floor, the top would have been thirteen feet above the floor. (Remember, most of the time I saw the windows while lying on my bed. My perspective might have been distorted.) A most memorable feature of the windows was that they had no glass, we had a well-ventilated ward!

More than one night we experienced air raids. When they occurred, the nurses would close the shutters of each window. The shutters were two-piece. They were hinged vertically on the right and left. The two sides met in the middle when they were closed. Lights would be extinguished, nurses, and any other medical personnel, would leave the ward, and silence reigned throughout the ward.

Apparently a 90 mm. anti-aircraft gun was located near the hospital. Probably most of the explosions we heard were from AA guns, but I couldn't tell for sure which sounds were made by them and which may have been made by bombs. If any of them were from bombs they were not near enough for us to feel the blasts.

Probably there were more prayers being offered up by patients during air raids than was common on quieter nights. There was one night I remember especially well. Evidently the air raid was over. There were no more explosions. It was deathly quiet. Medical personnel had not returned. Lights were still off. I heard nothing from any of the patients, not even their breathing. I had prayed during the raid. I don't remember if this occurred while I was thanking God for his preservation: the dark room seemed to glow, and I was aware of God's presence and comfort as never before nor since. It was indescribably wonderful!

On July 30th, 38 days after I was wounded, after four "dual" walks I walked alone. I must have looked strange. My cast was straight, and I was to keep my arm level. I had to support my right

rm with my left hand. That didn't give me many options or flexibility. Opening or closing doors was impractical. Apparently that didn't matter at the time, for I believe there were no closed doors where I walked. I did get around our ward and talked with some of the patients. Needless to say, I was weak.

Shortly after I became aware that I would never again have full use of my arm I thought, "I am going to pilot a plane again, even if it is only a Piper J-3 Cub." I figured it should be possible to mount a throttle control on the joystick so as to be able to fly it with one hand. That was a positive thought.

More than once a movie was shown in such a way that we could watch from our beds. In a movie one night Deanna Durbin was riding a bicycle. At the time I thought, "I'll never be able to ride a bike again." That was a negative thought. Did I think I was going to spend the rest of my life with my right arm held level, perhaps supported by my left hand?

From Naples my letters focused on my returning to the States. I assumed I would be sent to Fitzsimmons General Hospital, just east of Denver. Carmen and Roger could continue to live with her mother, and they could ride the streetcar to visit me. Dad and the members of our church and other friends also could visit.

Being able to walk alone to and from the latrine was progress and a distinct advantage. August 1st I walked down some stairs and spent some time outside. Pajamas were the only "uniform" required while in the ward, but we were also to wear a robe when leaving the ward on our own. Walking daily restored strength noticeably. It was great when I would sleep better at night because I was physically tired.

August 5th I got my last overseas haircut. Nationals who had cut my hair overseas were Yugoslavian, French, Egyptian and Italian.

August 8th it appeared definite that I would leave for the States the next day. That night a nurse saying goodnight and believing that I would leave before she was on duty the next day, said, "Maybe by the next time you get into the army you'll be old enough to vote." (It was true, at that time I was too young to vote.)

# 15
# Transition

Nine months from the day I left the States to go overseas, I left Italy to return to the U.S. It took 40 hours to get to Long Island, N.Y. I think the first hop was from Naples to Oran via a C-47. My uniform was G.I. pajamas, and my "seat" was a stretcher, occupied supinely. A C-54, the same four-engine type that had taken me from South America to Africa, provided my transportation from Africa to New York. We had two refueling stops enroute, one at the Azores and the other at Newfoundland. We were on that plane for 21 hours. I got about four hours sleep in 48.

The hospital at Mitchell Field on Long Island became my hotel for the next few days. I have been very sorry I didn't attempt to contact Bill Callery's parents while I was there. They lived on Long Island. At the time I thought it would not be kind to his parents to remind them of his death, which had occurred only six months ago. Since then I have realized they might have been helped by talking with one who was an eyewitness of his death. Also I don't know for sure that they had been informed that he had been KIA, killed in action. It is possible they had been informed that he was MIA, missing in action, for no one who had survived had definitely seen him die or had seen his body. Seeing what happened when they hit the water, I had no doubt that he died then, if he had not died before they hit the water. Bill had called his parents and had me talk with them before we left the States. I believe they had wanted to talk with the pilot of the crew for which he had volunteered. I doubt that they were impressed favorably with the idea of their son trusting his life to a nineteen-year-old pilot. Also I had wondered how shocked they might be if they heard from me. They might have thought that Bill was flying with me when he was killed, and, hearing from me might give them, at least for a few moments, thoughts that perhaps their son also was still alive.

It's impossible adequately to convey in words how wonderful it was to be back in the States. One element not common to most people's experience was the comfort and confidence that I had in the men who carried my litter. When I was carried up or down the stairs in the hospital in Naples, I did not have much confidence in the men who carried me. They may have been quite competent, but I couldn't understand what they said to one another, and I couldn't communicate with them, had I wanted to.

Making long-distance telephone calls in 1944 was not as simple as it has been in later years. My efforts to call Carmen August 10th were unsuccessful, but I was able to get through to her the next morning. How great it was to hear my wife's sweet voice again! We had a poor connection, but I could tell it was her, and talking was such an improvement over letter writing!

Even though I was still far from home and from my loved ones, it was great to be back in the States. Looking out of the hospital I could see clean, shiny cars driving by. As I observed pedestrians I didn't think, "I wonder if they speak English?" Our meals included things I hadn't had for months, fresh vegetables (including one of my favorites, corn on the cob), watermelon and ice cream (more of my favorites).

August 12th I had a unique experience. I watched the St. Louis Browns defeat the New York Yankees in baseball. A number of us patients were bussed to the stadium and seated in front rows directly behind the catcher. To Carmen I wrote, "Special Services furnished us all the pop, hot dogs, and ice cream we wanted. I felt a little conspicuous and peculiar, what with wearing pajamas on the streets, etc."

Four Full Years

# 16
# Reparations
## (Being Repaired)

August 14th, via C-47, I was flown to Hill Field at Ogden, Utah. A number of stops were made along the way to leave patients who were being transferred to various hospitals. The day before I learned that I was to be transferred to Bushnell General Hospital in Utah, but I didn't know where Bushnell was located in Utah. The "where" turned out to be Brigham City. Although I had been raised in Colorado, I don't recall of having heard of Brigham City.

The national speed limit was 35 mph. The ambulance that took me from Hill Field to Bushnell was typical of civilian ambulances of that day. It was very much like today's hearses. Perhaps the young driver was taking advantage of the fact he was carrying a patient to the hospital, as if it were urgent that I get there quickly, that he drove at a very high speed. I felt that my life was being endangered on that drive more than had been true in all my flights from Italy to Hill Field. I thought, how ironic it would be to be killed in that short drive, after all the hazards I had faced that had left me alive to that point.

Although it was a disappointment that I did not get transferred to Fitzsimmons in Denver, I was pleased to be only something between four and five hundred miles from home and family. When I talked with Carmen on the phone, even the connection was better than it had been in New York. She sounded as if she were very close.

August 16th they removed my cast. They bent my arm, the first time in eight weeks. It felt strange. (Remember, there was no bone connection between the upper and the lower arm.) They put my arm in a sling, with a dressing around the wound. I was told that the first step was to cover the wound via a split-thickness skin graft. After a few weeks I might go to Fitzsimmons for a month or so, then possibly to California, then back to Bushnell. This would be done because of the specialists working in the various hospitals.

Artificial elbow joints had not been very successful, I was told. (While I was at Bushnell, I constructed an artificial elbow out of Plexiglas. It really was a simple hinge. Doctors were not impressed!)

### The First Repair Job

August 19th the skin-grafting was done. Based on measuring the scar at this time, an area of about six by three inches of skin was removed from my left upper leg and stitched into place on my right arm. The layer of skin was almost paper-thin. Prior to this operation Dr. Meyers indicated I should have a later, full-thickness skin graft, taken from the area above the waist. My arm would be held in place with one edge of the skin flap left attached to my body until that which had been attached to my arm was adhering adequately to my arm, then the connection to my body would be severed.

A relatively new anesthetic, sodium pentothal, was used for the August 19th surgery. I liked it, but evidently it almost killed me. It was injected intravenously. One moment I was wide awake, the next I was out like a light. I was "out" for five hours. When they were seeking to awaken me, I didn't want to wake up. I was very comfortable. My blood pressure was very low. I was given black coffee and oxygen in the efforts to arouse me. Whether it was true, I don't know, but other patients in the ward said they were considering taking up an offering for flowers for my funeral. I understand that now when sodium pentothal is used, it is used briefly to put one to sleep, then something else will be used to keep the patient unconscious. It wasn't until noon the next day that I could focus my eyes. One distinct advantage of this anesthetic was that there was no nausea following its use.

Carmen and Roger came into my room a few days after the surgery. Anticipating seeing Roger for the first time, three and a half months after he was born, I was looking for a sleeping infant dressed in a white lace dress. What arrived was a half-grown blue eyed, blond boy dressed in overalls crawling on my bed! Already he was very much a "person."

They stayed in Brigham City for only a few days before returning to Denver, but in that short time Roger became a favorite of nurses and patients alike. When Carmen and Roger visited, it wasn't long before a nurse or a patient would take Roger for a tour of the ward. Patients in wheelchairs or on gurneys provided him with a new experience on wheels. (Amputees constituted a high percentage of Bushnell's patients.)

All too soon Carmen returned to Denver, but I expected to be able to join her for a leave as soon as my condition permitted it. The skin graft took very well. Before long, something between two and three months after it occurred, the wound was sealed. When the skin graft could accept it, my right arm was bent, and I was fitted with a sling. That gave me much better mobility. I could go home for a while. September 24th I was granted a 30-day sick leave.

As soon as I could arrange it, I went to Hill Field, hoping to obtain a flight to Lowry Field in Denver. Late that night I got a ride on a C-47 bound for Denver. It was a cargo flight but there was space available in the bucket seats along the side. When I arrived I was quite tired, but I was glad to be home! Carmen and Roger had been living with her mother, so 543 Delaware became home again (it had been home during the delay en route between Roswell and Greenville).

During that leave I obtained a new Colorado driver's license, using my left hand alone. This was in our '36 Chevrolet coupe. Of course it had "stick" shift. I had to steer and shift with my left hand. Following the driving test a restriction was either made or suggested - that I have a knob attached to the steering wheel. I obtained a heavy wooden tractor knob, which handled the job nicely.

There was no question but that we wanted Carmen and Roger to live near whatever hospital I would be in. Brigham City was small, and hospital staff and patients' families occupied virtually everything available for rental. The solution we decided upon was a mobile home, a trailer. We found a used 26 foot (I think that was the length, it might have been less) trailer for a little less than $1,000.00. In addition to the trailer hitch and wiring, we obtained coil springs that rested on top of the axle of our little coupe. The regular suspension wouldn't be adequate for this trailer's weight.

Carmen and I remember well the trip from Denver to Brigham City, towing that heavy trailer with the low-powered car riding on recapped tires. Almost without exception, new tires were unavailable. The highways were two-lane, and they were not as smooth as highways commonly are today. Although the coil springs kept us from "bottoming-out," the pitching of the trailer was placing alternating heavy weights and normal or less weights on the car's rear recapped tires. I don't remember how early the first blowout occurred, but we had three blowouts, all on the rear wheels.

Changing a tire on the rear when pulling a trailer requires a bit more effort than when there is no tongue weight with which to deal. Then there is the fact that my right arm was in a sling and of no use in the tire changing process. Carmen had enough to do, just taking care of five month old Roger, so the tire changing was up to me. The left hand combined with the right foot took care of the lug wrench-handling problem.

From Laramie, Wyoming to Salt Lake City in 1944 there weren't many service stations, and there wasn't much vehicular traffic. We were able to get the tire "repaired," if that means getting it to hold air. A "boot" had been inserted, and that tire was stored as the spare.

The speed limit, remember, was 35 mph, but that was fast enough with this little car pulling a heavy trailer. Some of the time Carmen would, on cue, shift for me. She did a good job, so usually we would do it without grinding the gears. Most of the shifting was required for the climbing of hills or slopes, but some of it was for braking on down-slopes. It was on the down-slopes that some fancy

two feet and left-hand activity came into play, and especially when Carmen wasn't shifting for me. Picture our descending on a curving slope and needing to decelerate. A lever had been mounted on the steering column for operating the trailer's electric brake. When I shifted, I had to let go of the steering wheel and reach the floor gearshift lever well to the right of the steering wheel. And any use of the trailer brake required my left hand to be off the steering wheel for that time. Steering, shifting and braking, all with one busy hand. How wonderful is one good hand!

If that boot was indeed put in after the first blowout, the following occurred after the second blowout. There was no choice, we had to use the tire with the boot. The booted tire was not well rounded! With every revolution of the wheel the car would rise when the boot was at the bottom of its revolution. As I recall it, 15 mph was too fast! The pitching could be tolerated if the speed was kept slow enough.

That trip of about 450 miles took us three days. If I remember correctly, we did manage to find and buy one new tire. Most cars at that time, as was true of ours, used one tire size, 6.00-16. That was to our advantage when a new tire was found.

All three of our blowouts were caused by the trailer's pitching adding uncommonly high weights to older tires with weak sidewalls.

In Brigham City there was one "trailer park." A vacant lot back of a motel, or motel-like apartments, back of the grocery store, constituted the "trailer park." An electric hook-up was the only hook-up available. A separate toilet, sink and shower were provided, one for men and one for women. These were part of the motel building and were located twenty or thirty feet from our trailer. The store, motel and trailer park were owned by one family.

**Dad's Accident**

Back at the hospital it was soon decided that I should have an exploratory surgery. My median nerve had been untouched, my ulnar nerve had been nicked but should regenerate without outside help, but my radial nerve was severed fairly high in the wound. The surgery was to determine whether or not there was any channel left through which the radial nerve could grow. The date for the surgery was set for about the middle of November.

November 11th Dad was injured seriously. Early in the morning he had been driving his bread truck north on Federal Boulevard in a dense fog. He ran into a large truck that either was stopped or was moving very slowly. I obtained an emergency leave and obtained an airline flight to Denver. During the war there were few airlines, and often it was difficult to obtain a flight, so I didn't even try to obtain a seat for Carmen. We made arrangements for her to come to Denver with Roger by train the next day. It turned out that my late night DC-3 flight had empty seats, so Carmen could have come with me.

Dad's condition was such that all they did was try to make him as comfortable as possible. Many bones were broken. Although I am confident he knew who I was, he was unable to communicate normally. Evidently when ambulance personnel were extricating him from the wreckage, he implored them to pull his legs out of the street, evidently feeling that his legs were buried in the street as one may have his legs buried in the sand at a beach.

Twila also obtained an emergency furlough and was in Denver. Waldo was either in Canada or Alaska. He had been working as a diesel mechanic. During the war his work was on the equipment being used to build the Alcan Highway and to build runways for the Army Air Force on Aleutian islands. He made arrangements to return to Denver, but it took him much longer to accomplish it. He didn't arrive until after Dad's death. Dad died a week after the accident.

Dad, whose 64th birthday was just 4 days before his accident, had been active physically all his life. When delivering bread in apartment houses, he would run up the stairs. To me it appeared,

because of the extent of his injuries, that he might be bedridden or wheelchair-confined for the rest of his life, if he survived. I didn't want to lose him, but I believed he would have been a very frustrated person for the rest of his life if he survived. I was present at the moment of his death, and, as I write this, I feel anew the sharp pain I felt at that moment, but that pain was for my loss, not his.

To the Philippians the Apostle Paul wrote: "For to me, to live is Christ and to die is gain….I am torn between the two; I desire to depart and be with Christ, which is far better." (Phil. 1:21,22.) Because my earthly father not only professed faith in Christ, but also demonstrated his love for God and for those made in God's image (other human beings), I was confident that when his spirit departed from his pain-wracked body he entered into the presence of his Savior. Dad's love was the proof of his faith. That confidence, that he was now in the presence of his Lord, didn't erase my pain, but certainly it eased it!

"The man who once has found abode within the secret place of God, shall with Almighty God abide, and in His shadow safely hide" are words in a metrical version of Psalm 91. They were sung to the tune commonly used with the hymn "Just As I Am." Dad had chosen that Psalm to be sung at mother's funeral. Twila and I chose to have it sung at dad's services in Denver and Kansas. We took the train to Clay Center, Kansas. The service was held in Hebron Covenanter Church, the church in which I was baptized 20 years earlier. The service was conducted by the Rev. Johannas Vos, a son of Geerhardus Vos. A small cemetery is adjacent to the church building. Dad's body was laid to rest by the graves of his beloved wife and daughter. Probably the body of my brother Wendell also was buried there. Wendell was born in July 1918 and lived only a few days, I believe.

Aunt Amelda provided hospitality for us. I don't remember whether or not her son, Howard, had wired their house for electricity by that time or if it was after the war he did it. I do remember vividly being in their home in 1933 when it was lighted via kerosene lamps.

The country roads were not paved, and there had been rain. "Modern" cars didn't do very well in the rutted roads. Howard provided our necessary transportation in a Model A Ford which he handled expertly, we were never stuck.

On the train, whether it was going to or from the funeral in Kansas I don't remember, someone got the idea I had lost my right arm. Following the skin graft I was fitted with a brace. "Brace" may not be the best way to identify it, but I can't think of a better word. One of the actions the radial nerve controls is the extension of the fingers. With the radial nerve gone, I could go from making a fist to getting my fingers about 75 degrees short of being straight. The brace was made to enable me to have my fingers straight. It was made up of a leather cuff, which encircled my lower arm and extended over the back of my hand. Over the back of my hand was a miniature football goal post with a roller as the horizontal crossbar. Four rubber tubes extended from the part of the brace nearest the elbow area to my four fingers. The four tubes were attached to leather cups. If you would think of the cups as being what you would have if you would cut off the fingertips of a glove about an inch and a half from the tips, it would give you a pretty good picture of the cups. With my finger-tips in the cups I could close my hand into a fist; then to raise my fingers to a straight position all I had to do was relax, and the rubber tubes would straighten my fingers. Obviously it was a strange sight sticking out of the sling, but it was not an artificial hand.

**Twila's Flying**

Once, while I was in pilot training, Twila said something like this, "Don't forget this while you are flying, there are thousands of others who would like to do what you are doing." She was one of them, and she did what she could to become a pilot.

When I began my attempt to enter pilot training, Twila decided she would make a major change, also. She obtained a job as a secretary for the OPA (Office of Price Administration) in

Washington D.C. and went there in February 1942. A friend she met there began taking flying lessons, and Twila considered doing the same. While there, she did read a book on learning how to fly. However, she learned of possibilities of transfer to other offices, and for much of her life she had a great desire to travel. Alaska was one of the possible places, but, although she tried, that didn't work out for her. Later she applied to transfer to Hawaii, and that did work out. It must have been difficult for Dad to give his approval of her going to Hawaii. Twila was very special to him. I'm sure it had been hard when she went to Washington, but now it was to go much farther away to an island that had been attacked by the Japanese only a few months earlier. The war in the Pacific had been going from bad to worse, with the only encouraging incident being Doolittle's 16 B-25's bombing of Japan.

Twila's first ride in an airplane was on DC-3's from Washington to San Francisco. She loved it! She expected to fly to Hawaii on a Clipper, but she ended up with her first sea voyage, arriving in Honolulu in mid-June.

Although there were many reasons she was pleased to be in Hawaii, very soon she was dissatisfied. The primary dissatisfaction was her job. She felt that she was causing a burden to taxpayers but she wasn't accomplishing very much for the country. Also the weather was too hot and humid, as far as she was concerned. She had no energy, and she felt that the people around her had no enthusiasm for life. Early in October she was seriously considering returning to the mainland. Under the circumstances, the government would not pay for her transportation, but on certain ships women could travel free, if they would serve as nurses' aides throughout the voyage. November 13th she was back in San Francisco. She visited me at Gardner Field at Taft, California, then returned to Denver.

In Denver she worked for the CAA (Civil Aeronautics Administration) and took flying lessons. On a solo cross-country flight, she stopped at Ft. Morgan and visited Aunt Rose. Before she completed her training, she made another change, and she never obtained a pilot's license - she became a WAC (a member of the Women's Army Corps). After completing basic training, she was sent to Muroc Army Air Base and became a Link Trainer instructor. After a time she heard that the Women's Air Service Pilots were accepting some unlicensed women and training them to be pilots. Twila went to her C.O. and requested to be released as a WAC in order to become a WASP, but her C.O. refused to release her, so she finished out the war as a Link Trainer instructor.

## Therapy

After returning to the hospital, I wrote Twila saying, "The doctors believe I'm getting something on the radial nerve and are going to wait till they can tell how it's getting along." I began a daily routine of whirlpool treatment, olive oil massages and physical-therapeutic exercises. I underwent electric tests to determine the extent of the nerve damage.

December 15, 1944 I met Helen Keller. The following are quotes from a letter to Twila. "I shook hands with her (Helen Keller) and talked with her through the woman who was with her. She always puts her fingers on this woman's lips and understands perfectly that way. … She felt my wings and ribbons and said the wings were a great symbol and that America must look to wings in the future. When she found out I had been in the Italian campaign she said it was a rough theater. She called me a liberator; felt my hair and said she liked it; felt my head down to my shoulders and said I was good-looking, and the other woman said that all American boys are good-looking; and Colonel Meyers had to put his two cents worth in and told her I was a sweet boy, too. … Since Miss Keller is both blind and deaf she has a hard time talking. The other woman can understand her all the time, but one not used to her speech cannot. She is, of course, unable to put any tone or inflections into her speech which makes understanding her more difficult. I was sure glad to have the

opportunity to meet her." I was embarrassed and felt rather strange when she placed her fingers on my lips as I answered her questions. I could understand some of what she said, but I think Annie (if that was the name of the other woman) always repeated what Miss Keller had said, so there would be assurance that communication was taking place.

During the time I was talking with Miss Keller, someone took a picture using a camera with a flash attachment. The photographer was near the opposite end of the ward, perhaps as much as 50 feet away. Miss Keller was startled when the flash went off. How could that be when she was totally blind? I believe it was because the flash bulbs used at that time were very different from the ones commonly used today. At that time, a flash bulb was good for only one shot, burning itself out in a moment and giving off a lot of heat. You would not remove a used bulb at once, or you would burn your fingers. Evidently Miss Keller's heat sensitivity was much greater than is common for sighted persons. She jumped the moment the flash went off. Evidently she was used to having her picture taken, for she continued as if nothing had taken place.

Bushnell General Hospital, which I'm confident was built during the war, had a beautiful indoor (probably an olympic-size) swimming pool. It didn't take me long to discover that I could swim with one arm. I would hook my right thumb under my trunks at my waist so that my right arm wouldn't simply drift behind me. My best stroke was a left side stroke. I could also do a back stroke, but of course it was more difficult to have a fairly straight path, using just my left arm. I expect I compensated somewhat by using my legs differently from what one does when using two good arms. I got so that I could swim across the pool underwater without coming up for air till I touched the other side.

Although there seemed to be no indication of radial nerve growth there was increase in strength of muscles activated by the median and ulnar nerves. Beginning with my lower arm hanging straight down I would tense my biceps and triceps. My hand and lower arm would rise until it was somewhat solidly up against my upper arm. Continued tightening of my biceps would cause my arm to bend almost as if I still had an elbow joint. After a time I could raise it to approximately 90 degrees. Holding it at that angle I could raise my upper arm forward and up until my upper arm was approximately horizontal. At that point my forearm would be vertical. When it was in that attitude I could keep my hand from falling to the right, for I had the flesh and muscles of the underside (left side) of my arm that could keep it there; but if my hand started to fall to the left I could not keep it from falling, for the flesh and muscles of the upperside (right side) of my arm had been blown away with my elbow bone.

With growth of the strength of unwounded parts of my arm I was able to do more things with my right hand. One of them was to push and pull the throttle of a side-by-side light airplane. February 26, 1945, with instructor U. F. Wood (Woody) at my right side, I got 20 minutes of dual in a Taylorcraft. All my right hand had to do was push (straight ahead) or pull (straight back) the throttle and the carburetor heat control. After two more twenty minute dual flights I soloed the T-Craft on March 29th. May 17th, following an hour of dual in which we did stalls, steep turns, spins and spirals, Woody signed me off for a flight test. The next day at Ogden I flew with a CAA inspector and obtained a private pilot's certificate limited to aircraft with a right hand throttle. That was my last flight until August.

**Tendon Transplant**

By this time the doctors were convinced that there was no way for the radial nerve to regenerate. (When a channel still exists, a nerve can grow back at about an inch per month; but a nerve cannot generate a new channel.) Without the use of the radial nerve one has a "drop wrist." Hold your forearm in a horizontal position, palm down, then relax your hand completely; you are

demonstrating a “drop wrist” condition. Now reach to operate a dial on your radio or reach up to open your medicine cabinet.

The absence of a functioning radial nerve leaves you with a couple of other inabilities. You can’t extend (straighten) your fingers or separate your thumb from your fingers. Try picking up a pencil, or a sheet of paper, with your thumb against your forefinger. I wouldn’t be surprised if you have been taking that ability for granted for a long time.

Colonel Myers offered two corrective alternatives. One was to fuse my hand in a fully extended position. That would be with the back of the hand about 35 degrees up from horizontal. Certainly that would improve the hand’s usability. The other was to do three tendon transplants. If they worked, I would again be able to extend my hand, fingers and thumb. I would be using muscles and tendons that used to do other jobs. My nerves and brain would have to be reprogrammed to operate the new arrangement.

Successful tendon transplants obviously offered more use of my hand, so I chose to go that route. Having learned the danger of overuse of sodium pentathol, the doctors used ether for that operation, so I experienced the usual vomiting. A few days after the surgery I experienced terrible itching all over my body. The moment Col. Meyers saw me, he said, “Sulfa!” From the day I was wounded until some time after my skin graft, I had been swallowing two very large sulfa tablets (I called them “horse pills”) together with five sodium bicarbonate tablets, every four hours. An abundance of water throughout the day accompanied the pills. That practice had been renewed for the tendon transplant surgery. Evidently my body now was crying, “Enough!” Now, instead of the sulfa, I was to have a penicillin shot every three hours, day and night.

Penicillin did a great job, but its delivery wasn’t something one would ask for as a favor. It seemed during the night I would just get to sleep after a shot, when a nurse would come with another “favor.” And, since I’ve never been a person with an abundance of skin surface, it seemed we soon ran out of areas that had not already been punctured. Two nights in a row one nurse, out of compassion, I believe, bent the needle she was using to give me the shot. Not wanting to hurt her patient, I think, she would gently push the needle instead of “pitching” it, as one would throw a dart. The latter happens to be a much better way!

Presently I don’t recall how long it was after the tendon transplant surgery that the reeducation was begun. Perhaps it wasn’t until after the cast and the stitches were removed. The procedure was the same for each of the transplants. With my left hand I was to lift my right thumb while I was activating a muscle that previously had been used to move my right hand toward the left and down (while my upper arm was remaining stationary). To extend my hand I was to use my left hand to extend the right hand and use a tendon and muscle combination that previously had been used to pronate the hand (to rotate it toward the middle of the body). To extend my fingers, I was to raise them with my left hand while I was trying to move my hand to the right and downward.

Two-thirds of that surgery were successful, but I was never able to extend my fingers. As I understand it, a single tendon had been stretched from the right underside of my arm, around my arm to the backside of my hand and attached, to activate all four fingers. For awhile I thought I was having success with my fingers, but doctors and therapists said I was accomplishing that little bit of movement because of other muscles I was tensing. One laughed, saying it was the first they ever saw anyone trying to extend their fingers via their biceps. For over twenty years I tried to get those fingers to do what was intended by that surgery. Every night after I got into bed, I would lie on my back, raise my right fingers with my left hand, and try to get the tendon-muscle combination working, but I was unsuccessful.

The two-thirds that did work remain a marvel to me. The movements do not equal the range or strength of my original right arm, but my hand can do so much more than it could prior to the surgery. The wonder is that, after a time, I no longer had to think one thing to do another. All I had

to do was think, “Raise your right thumb,” and it would rise. “Extend your hand,” and it would extend.

## Christian Friends

From the time I was ambulatory at Bushnell, I attended worship services at the hospital’s chapel. The chief chaplain was an Episcopalian with the rank of colonel or lieutenant colonel; I think it was the latter. Once, before I was ambulatory, when he was visiting me, I addressed him as “Colonel.” He appeared offended! Evidently he was angry! He said, “I am a chaplain!”

Chaplain Hubert C. Hahn was a captain. He was a Methodist. The colonel’s services were very formal, and I don’t remember anything about his messages. Chaplain Hahn, an evangelical, preached from the Bible. He also conducted Wednesday evening Bible studies.

After we had returned to Brigham City with our car and trailer, sometimes we would attend the Sunday worship services at the Presbyterian church in Brigham City. That was the only Protestant church in Brigham City. Mormons had more than one choice of worship places within the city.

The Presbyterian minister divided his services between Brigham City and Malad City in Idaho. He was the poorest excuse for a minister I have ever known. He and his wife were nice, likable persons. They hosted parties for service families. Sunday’s “sermons,” however, consisted mainly in reading poems and quotations from various “worthy” authors.

On one special occasion at the Presbyterian church, a large male Mormon choir presented an excellent program. The local florist, a member of the choir, presented a gospel message that would have been acceptable in virtually any evangelical Arminian church. By far it was the best message we heard in that church building!

At chapel services we became acquainted with a number of Christians. Wally and Esther Loewen, a Mennonite Brethren couple, became our friends for life. We had, and continue to have, our theological differences, but we consider them to be a dear brother and sister in the Lord! For some inexplicable reason we always enjoyed our time with them more than was common in our relationships with others.

As a conscientious objector Wally was in the army, but serving in the hospital. This was one case in which the army had a man assigned to duty for which he was already well qualified. He was very capable of working with his hands and of devising something to meet a particular need. He was involved in custom making of such things as the brace that was made for me to substitute temporarily for the radial nerve. Later he made another one, the only purpose of which was to protect my arm from the bumps that were bound to come when in public places.

## Sharing Flying

Wally, too, had an interest in flying. He made a beautiful balsa wood glider while in Brigham City. August 2, 1945 I took Carmen, Wally and Esther up for local flights, the first for Wally and Esther. I had become a member of the local flying club which had an Aeronca Chief, a side-by-side two place airplane, so it took three separate flights to take up each of the three.

Over the hospital with Wally, wanting to give him a good view of the buildings, I made a fairly steep bank to the right. Looking out the window beside him he could have a very good look at a number of buildings with which he was familiar - too good a view, it turned out! I don’t believe I had been aware of it before, but it turned out that he was one who readily had motion sickness when riding in the back seat of a car. He let me know promptly that he was having a problem, so I leveled out and proceeded as smoothly as I could. Being aware that concentrating on something interesting

outside of oneself may overcome one's queasiness, I flew west to get away from the city and dropped lower so he could see things in detail more easily. That seemed to do the trick. Soon he seemed to feel fine. But how forgetful I was! To turn back toward the airport and get back to traffic pattern altitude, I did a chandelle. A definition of a chandelle is: a maximum performance climbing 180-degree turn. That did it! Wally lost whatever of his last meal had remained in his stomach.

After the war Wally became a pilot. When we visited them in California in 1952, he took me up for my first glider flight in his glider. Soon after take off he turned the controls over to me, and I flew it through the towplane release and for awhile afterwards. Soon, however, he said, "You'd better let me have it, I'm beginning to get sick." He could get along very well while he was doing the flying, but he continued to experience motion sickness otherwise.

August 11th, when he was 15 months old, Roger had his first flight, sitting on his mother's lap. One time before we left Brigham City, I took Roger up by himself. Strapped in the right seat he was too small to see the ground outside except during turns, but throughout the flight he was happily jabbering. The plane's noise was such that I couldn't hear him, but that didn't seem to interfere with his exuberance.

From that time onward I took a number of people up for short flights. For many of them it was their first time off the ground. A number of them were also patients, and I think a couple of them were nurses.

In September and October of '45 I was home in Denver for a medical leave between surgeries. I checked out in an Ercoupe and a Luscombe and, besides taking Carmen, took Waldo and Mary up for their first flights. Mary was pleased that I could only take one person at a time. She said she was afraid Waldo would push her out of the plane while in flight. To me the idea was absolutely ridiculous; but, from what I learned later, evidently she was serious.

Upon take off with Mary, the moment we left the ground she put her head down, put her left hand on my right knee, and said, "Land this thing." I told her there wasn't enough runway left for me to land at that time, but that I would circle around and land. Then I directed her attention to objects on the ground as we followed a normal traffic pattern. As we were approaching to land, she said, "This isn't so bad. Let's go ahead and fly for awhile." We did, and the rest of the flight was uneventful.

## A New Connection

For nearly a year and a half my right arm had been without any connection between the bone in my upper arm with the bones in my lower arm. I was told I could go through the rest of my life that way - others had done so. The alternative was to fuse the bones, leaving the lower arm in a fixed, immovable position. If that were to be done, there were two alternatives. Fused at a certain angle, something less than 90 degrees, I might be able to feed myself, comb my hair, etc., with my right hand; but I wouldn't be able to do a number of things requiring reaching out, away from my body. On the other hand, with an angle of about 120 degrees I wouldn't be able to reach my head, but I would be able to do many things requiring movement away from my body. I suggested they put my arm in a cast for a couple of weeks, using the 120 degree angle, and let me see what I might be able to do with it. Colonel Meyers agreed to that, so it was done.

The first test I made was at the airport. I sat in the back seat of a Piper J-3 Cub (solo flight in a J-3 was made in the back seat). Could I operate the joystick through its full range with my arm in that position? Evidently it would be no problem operating the ailerons right and left. Probably I could get the stick fully forward if I would lean forward. The greatest question was, could I get the stick all the way back for a three-point landing? Perhaps I could if I would raise my right shoulder high enough.

Probably I tried a number of things, such as using tools, operating the car's gear shift lever, etc., but the only test I remember for sure was that in the J-3. In time I was convinced that fusing at that angle was what would be the best arrangement available.

For the fusing, bone was taken from my left iliac crest. Three screws were used. One secured the humerus (upper arm) to the ulna (a bone in the lower arm). As I discussed plans with Colonel Meyers I suggested that the radius be left unattached; that, if it worked, would allow pronation and supination (rotation of the hand clockwise and counter-clockwise). Dr. Meyers said it might be worth the try.

Bone taken from my hip was placed like a brace, with a screw through one end of that piece fastening it to the humerus. The third screw fastened the other end to the ulna. Bone chips were filled into the triangle made by this brace.

When I regained consciousness following the surgery, I realized immediately that an error had occurred. In relation to my upper arm, my hand should have been a few degrees more to the right (clockwise). When Col. Meyers came to see me I told him of this. As soon as he looked at it he agreed that it was not as it should have been. However, he said that if this bone graft healed well, I should let this error remain. There had been so many intractable cases of osteomyelitis (infection of bone and marrow) that he considered that it would be much safer not to redo the surgery for the sake of that correction.

My cast this time extended from well below my waist, up and over my shoulder and down to my hand. As far as my upper body was concerned, only my left arm and shoulder were unencumbered. I don't remember how long that cast was left on, but when it was removed, my right arm alone was placed in another cast for a number of weeks. Whether or not it was while that cast was still on, I cannot say, but on March 5, 1946 John Weir checked me out for solo flight in NC23105, a J-3 Cub. Because of the restriction to planes with a right hand throttle, I couldn't take up passengers in the J-3, but following the check-out it was legal for me to fly it solo.

Between March 5th and May 24th in addition to doing stalls, steep turns, spirals and pylon 8's in J-3's, I took various passengers up in Aeroncas and Taylorcrafts. On April 25th I had a brief flight in a Cessna 140, a brand new airplane Cessna had just begun producing. Having an electrical system, and thus a starter, it seemed like a great advance over the others I had been flying.

**Winding Down**

With the war ending in August 1945, there were no new combat casualties coming into the hospital, and surgeries and therapeutic activities had been diminishing. There was some talk of sending me to Letterman General Hospital in the San Francisco Bay area for further work, but finally it was concluded that there really wasn't anything more they could do for me. With the exception of regaining the extension of my fingers via the tendon transplant, every other surgery and therapy had accomplished its purpose.

By this time we had another need for the hospital's services, Carmen was expecting our second child. John Thomas was born May 7th. We have told him he was the reason they closed the hospital. (We understand he was the next to the last to be born there.)

If I had not been wounded, I might have attempted to remain in the Army Air Force. I had no love for military life, but I liked flying military planes! Now there was no way that I would be able to fly for airlines. I would have been willing to remain in the army if I could have been on flying status, even if it was only to fly L-4's, army's version of the J-3 Cub. What I heard relative to the army's way of dealing with such as I was, did not encourage me to attempt to pursue that course.

It was assumed that I would accept disability retirement, as did all the other officer patients (whose disability was rated at 75% or more) whom I had known in the hospital. That was the way of least resistance. I took it also.

**Retirement**

Under certain conditions an officer could, upon retirement, be promoted one rank. As I considered my qualifications I found that I met every condition but one. Evidently every month, although it might have been some other time element, one's commanding officer rated his personnel. To be promoted at retirement, each rating had to be "Superior." It turned out that the first rating I received in the 381st Squadron was only "Excellent." This was very disappointing to me. I believed I had earned the rank of captain as a flight leader who had led group missions also. It was evident to me that others within our squadron, including our C.O., believed the same thing. I was determined to try to do something about it.

After I learned to whom I should write, I sent a letter in which I acknowledged there was the one report that left me unqualified for the promotion. I explained that report had been made when I was new to the squadron, and the C.O., or whoever was making the report, had not had much time to observe me and my performance. I may have said something about my behavior and performance in that first reporting period was no different from that in all the following periods in which the rating was "Superior." Also I included the facts relating to flying all my missions as a first pilot, and I may have presented the data as to how many missions I had flown as an element leader, flight leader and group leader. I may have included the fact that, on one of the missions on which I was leading the group, we had 100% accuracy and 100% efficiency (every bomb from every airplane was released and fell into the target area). At that time it was claimed that was the first time our squadron, and perhaps our group, had achieved 100% accuracy and efficiency on a mission. I'm confident I also included what my C.O. had said about why he couldn't promote me at that time. Whoever received my letter or dealt with it did not respond to me, but when I received information concerning my retirement I learned that I would be retiring as a captain.

It was a surprise to me when I learned what the army concluded concerning the degree of my disability. It was 80%. Some time later the Veterans Administration made its rating. It also was 80%. I'm confident there never has been another arm that became what mine had become, but the disability was considered to be equivalent to losing the arm above the elbow. Even though often I cannot place my hand where I would like or where I would have to in order to accomplish something with it, there are things I can do because I have a hand, that I could not do with a hook, a prosthesis. But there are things an amputee can do with his hook that I cannot do with my hand, because he can place it, in relation to his body, where I cannot.

Prior to the fusing of my arm I had amputees tell me, why don't you have it amputated? It was when I was at the swimming pool. It was interesting to me, also, that other patients would caution others, "Be careful about his arm!" That occurred when we would be playing "Keep-away" with a ball, for example. Mine is a sad looking arm now, but I think it was more so before it was fused. I don't believe the other amputees spoke of having mine cut off because they wanted me to join in their limitations and frustrations. I believe they really thought I would be better off if I had it done.

It is probable I would have suffered less these last nearly 60 years, if I had heeded their advice. From about 7:30 p.m. June 22, 1944 to the present I have been in pain. The first hour or so was the worst. The constant pain now is nothing as compared with that. Now it is a low-keyed type of pain. Sometimes I liken it to a discomfort rather than a pain. No other pain I have experienced is quite like that at my "elbow" joint. That which I feel from below the wounded area to the beginning

of my fingers at the back of my hand resembles the feeling I have had in a lower normal arm for some time after a hard bump of a "crazy bone." Much of the time I'm not aware of the pain, but when I bump the "elbow" area I sometimes become almost sick to my stomach.

**Full Circle, We Return to Denver**

In spite of now having two children, our move from Brigham City to Denver was a relatively easy one from the standpoint of moving our possessions. Wally and Esther had been living in a house owned by the Sycamores (if that is the proper name). The house had been converted into two apartments. When the other apartment had been vacated, the Loewens suggested we move into it. We did and, after a time, sold our trailer. We really enjoyed having the ease of frequent contact with them.

When Tom was born we named him John Thomas. (We had considered naming him Jonathan Thomas.) John Loewen, the Loewens' firstborn, was about Roger's age. Perhaps it was to avoid confusion, we started calling our new son, Tommy.

With the hospital closing down, one after another our friends returned to their prewar homes. We were especially sorry to see Wally and Esther leave. We would have liked them to move to Denver. They said we should move to California.

We could have left Brigham City a little earlier than we did, but the move might have triggered Tom's birth somewhere between Brigham City and Denver. As it was, we made that move very soon after Tom was born (Carmen thinks it was only eight days - I thought it was about three weeks).

By now we had sold our Chevrolet coupe and had purchased a 1940 Plymouth two-door sedan, believing that the back seat of a two-door was safer for small children. For moving we bought a luggage trailer. Using the car and trailer we were able to move all our worldly possessions. The trip was so uneventful that neither of us remembers anything about it other than the fact that it occurred so soon after Tom's birth.

# Four Full Years

## Conclusion

For millions, the years 1939-1945 were full of experiences unlike any others of one's lifetime. Places and people unaffected by World War II were rare. For me, as well as for countless others, the war was a focal point in life. It probably is more true for me, because of my wound, than it is for those who do not have daily reminders.

Those years were full of uncertainty, fear, loss, suffering, pain and death. But for me there were many positive things within them – travel, training, learning, maturing, etc. Often people wonder how they will behave under fire, whether literal or figurative. I had the opportunity to find out.

Among the things on the positive side, friendships developed. Some lasted briefly (because the time of contact was brief). Others have lasted for the rest of this life.

Yes, for me it was a <u>full</u> four years!

With this I conclude this portion of my autobiography. If the Lord wills, I will continue writing up what followed these four full years and eventually will assemble two additional books. One will cover the years from my birth to December 7, 1941 and the other from May 1946 to a time unknown at the present. This portion covers only a little more than four years. At the time that I am completing this writing in 2003 A.D., this portion covers only about one twentieth of my life; but I expect that the length of each of the other two books will be somewhat like the length of "Four Full Years."