

It is with ambivalent feelings that I realized recently that all of those marvelous aircraft I flew in World War II now reside in museums! Where has the time gone? I recall that in 1941 when I first realized my lifelong ambition to fly, the primary bombers of the United States Army Air Corps were the Martin B-10 and the Douglas B-18. The lone pursuit plane at our field in Lubbock was a Seversky P-35. Now man goes into the outer reaches of Space and has even set foot on the Moon. A new meaning of F.O.F. pops into mind. Instead of Faithful Old ---- I think of myself as a Father of Flight.

Certain events stand out in my mind. How did I get to achieve my objective - to fly? How did I spend my career in the Army Air Corps and later in the Air Force?

As a pre-teen I collected airplane cards that came with the cereal boxes of the day. I saved clippings from newspapers and magazines covering the exploits of the famous pilots of the day. Jim and Amy Mollison, the Cleveland Air Races, the Schneider Cup Races, Jimmy Doolittle, Howard Hughes, and of course Charles Lindberg. We had a battery powered radio set - batteries in each end of the case and a wrapped wire antenna, that we turned to tune in the stations, set on top. I stood glued to that set in 1927 listening for reports on Lindy's progress from Floyd Bennett Field, across Newfoundland and over the Ocean. Then silence. Finally the announcement that he had landed safely in France. Remarkable, unbelievable, fantastic!

My first flight was in a Stinson Reliant. I think I paid three dollars for about five minutes. Then I had a ride in a Pitcairn Autogyro from Pitcairn Field at Horsham. I took another flight from the old Flying Dutchman Field near Bensalem but I don't recall what plane it was, probably a Luscombe Phantom.

We watched the dirigibles as they flew near our home in Ambler. They always had a very distinctive sound with their multiple engines. Whenever we heard that sound we'd rush out of the house and watch as long as they were in view. In those days Lakehurst was the base for these airships and my father would occasionally take us there to see the mooring masts and the giant hangars, housing the Los Angeles and the Shenandoah.

My goal became that of a Commercial Pilot. The grand aircraft of those days were the Douglas DC-3s and Pan American's giant flying boats that were spanning the Pacific. I imagined flying in the Thompson Trophy Races and the Trans-continental races. I deplored the failure of the Army Air Corps pilots to successfully carry the U.S. Mail.

The most acceptable way of becoming a Commercial Pilot in those days was via the military. To become a military pilot one required two years of college to be accepted into the Army or Navy flying training programs.

Mother and Dad were travelling to Florida each winter in the late 30s and early 40s. On one trip they stopped at the Pensacola Navy Flight Center. There they talked with several of the cadets or officers, one or more of whom recommended that Virginia Military Institute was an excellent college at which to obtain the two required years. Apparently the strenuous ROTC training at VMI made the transition to Pensacola easier. In any event Mother and Dad suggested that I apply at VMI, little knowing what they were getting their little boy in for. Mother was also delighted with the selection of VMI because she had been raised in Covington and Staunton, Virginia and felt close to the people there. It also afforded her the opportunity to visit with the Uncles and Aunts in Staunton while visiting with me at VMI.

I matriculated at VMI in 1937 and was immediately introduced to the "Rat Line". I never even got my luggage out of Jackson Arch for nearly a week, due to the hazing in those days. The "Rat Line" was, and still is, a system designed to create equality for all Cadets and to instill in them honesty, humility and obedience to orders. The basic tenets of the Institute stand the graduates in good stead for the rest of their lives: You shall not lie, steal or cheat and you are honor bound to report those who do. This is the famous Honor Code of VMI that could well be emulated by all individuals and schools in the country. The world would be a better place for such a code.

Anyway, as soon as I stepped into the Jackson Arch at VMI I was immediately assaulted by the third classmen who were responsible for my indoctrination. All Rats had to walk along a specified trail on the stoops, run up and down the steps between the stoops and, in addition, were constantly called upon to run errands for the upper classmen. I was assigned to "dyke" a first classman, whose name I no longer recall. This involved helping him dress for parades by polishing his brass and helping him adjust his cross belts or sash. In return for this service your "dyke" was supposed to afford the Rat some protection from the third classmen and advice.

One of the "niceties" the Rats had to perform was known as the shirt tail parade. These were set up by the upper classes if they were particularly upset about some unfairness (in their minds) or peeved at some Sub (Sub Tactical Officer). Immediately after the last note of Taps had sounded, on a signal from the third class - "Step off you Rats" - all the Rats ran out of

their rooms on the fourth stoop with brooms and Jet Oil (liquid shoe polish). The brooms were used to break out the light bulbs on the stoops, leaving the barracks in darkness, while the jet oil was used to write certain things on the barracks walls. None of these writings seemed to be complimentary and had to be removed by the hired help the next morning. Other little refinements included igniting the end of a toilet paper roll and throwing it into the courtyard where it would unravel and flame as it sailed through the air. Also, we'd fill the wastebaskets with water and dump them off the stoop. Finally things would settle down and there would be demerits galore awarded the culprits who were foolish enough to be caught.

The traditional bomb-throwing was another sacred duty. Bombs were made from a rubber beach ball (plastic was unheard of in those days), filled with three pounds of black powder. The fuse had to burn for three minutes to give anyone in the courtyard a chance to get away. The ball was then wrapped with about an inch thick layer of tire tape.

Each class was supposed to throw the same number of bombs that corresponded with the last digit of their Class; for example 1941 would throw one bomb, whereas 1943 would throw three. Of course one was never enough and the classes that ended in zero just had to throw something, but it was a guide. The technique of "throwing a bomb" involved a Brother Rat who would roll it out on the grass from the area of the lower showers. Someone else would yell, "Bomb in the Courtyard". Everyone would clear the area and of course all the Cadets would line the stoops to see the thing blow. The sentry would abandon his post by the guardhouse, for which he would later be boned (given demerits). In most cases the bomb was a resounding success, resulting in a cheer for the class and a large hole in the courtyard. We had one that refused to explode, so while everyone was waiting one of the brothers, with face hidden and ignoring the commands of the sentry to halt, scooped up the bomb and returned it to its maker. Later that night, with a new fuse, the cry was again heard and this time there was a satisfactory explosion.

Having been raised on the strict principles of the day such as no card playing on Sunday, I was not introduced to the wonders of alcohol until my Third Class year. The exotic drink was known as "Panther Piss" and was a mixture of gin and grapefruit juice. The mixing bowl was a reasonably clean waste basket. The stuff was potent! I remember being chased along the stoop in order to be subdued to keep the disturbance down to a minimum. I was finally caught and put to bed but the cot was unstable and I soon became seasick. Whereupon I arose and threw up my cookies in the room lavatory. It was NOT a pleasant night.

Although I received a fair number of demerits over my career at VMI I can truthfully say I never had to walk penalty tours. I disliked "drill" and was fortunate enough to become Commandant's Clerk my senior year. Not only did it pay ten dollars a month but I was excused from drill and parade the whole year so that I could type up the demerit sheets for the bad boys of the Corps. One demerit I will always remember had to do with swallows that invaded the courtyard, swooping about the sentry box from their nests near the power plant. One day some of the Cadets were trying to knock down some of the swallows with their brooms. When the sentry caught them I had the following comment to make on the demerit sheet that was posted in the Arch for all to review: "Cadet John Doe (i.e.) - 4 demerits for beating bird in Courtyard".

Another goodie that I inherited my Second and First Class years was the column in the "Cadet" entitled "Platter Chatter". Three record companies: Decca, Columbia and Victor would send me their new releases each month and I would review them and write them up for the paper. I accumulated quite a number of records that way and the Brother Rats would come by the room to hear them. Unfortunately, when Bobbe divorced me I lost my whole collection.

"Running the Block" was the thing to do. This entailed waiting until the room was checked after taps, then sneaking out of barracks and, by taxi, going to visit some of the fair sex someplace. In my case I went with Jack Oglesby to Charlottesville to see some girls he knew. Details escape me except that we were stuck for a ride back to the barracks. I remember it was Monday morning about two or three a.m. and we were desperate to return in time for breakfast formation. I finally called Uncle Fred in Staunton and explained the dilemma. He came for us in his Packard and got us back to the Institute just as the hays (bed rolls) were being hung on the stoop railings for airing. We sneaked in behind these mattresses, changed to our uniforms quickly and made the breakfast formation. I never did that again, and will always be grateful for Uncle Fred's sacrifice.

Having somehow survived these character molding experiences, I managed to achieve passing grades on my studies and was graduated on June 13, 1941 with a degree in Civil Engineering and a Commission in the horse Cavalry.

Horses and I never really got along. They knew I didn't like them and I knew they didn't care for me. Since the dislike was mutual and my first objective in life had always

been to be a Pilot, I had applied for a change in my assignment from the Cavalry to the Army Air Corps. Since the war in Europe was warming up and the United States finally realized that they should increase the size of their military forces, particularly the Air Corps because of the success the Germans were having with their Luftwaffe, it was easy to make the transfer. Consequently, instead of accepting orders to report to the Third Cavalry at Fort Myer, Virginia I was assigned as an Aviation Cadet reporting to Muskogee, Oklahoma on July 13, 1941.

But back to the horses. As Rats we were trained to ride by Sgt. Sipolski (sp.?), a former Polish Cavalryman. We learned that the beasties took in a bellyfull of air when the girth was tightened while saddling them. So you always let them relax and then took up another notch or two. Otherwise the saddle would slide around and you'd find yourself walking. Some horses were biters. When they were being cleaned, as was done after each ride, they would snap you in the butt. To the inexperienced it resembled sitting in a steel trap. Some were ticklish and if you scratched them on their rear they would dance around or buck. This was fun to do to the rider adjacent to you. On one occasion I was thrown in the corral and nearly kicked in the head by the horse in front. I was also thrown on a "drag hunt" when the horse slipped on a wet hillside and was almost dragged away when he stood up. Fortunately I had a flat English saddle so was able to snap the stirrup loose. One time on a ride from the Institute I was last in the troop. When we turned around to go back to the corral the damned horse sat down like a big dog and refused to get up. I got off and, by booting him in the rear, got him to stand. Then he wouldn't let me remount. As I tried to mount he would side step and leave me standing there. Finally someone in the troop who noticed that I was having some difficulty and that the horse was not communicating rationally, returned and held the brute while I remounted and we rejoined the troop for the ride back.

Our Cavalry Summer Camp, between our Second and First Class year was at Fort Belvoir, Virginia. This was six weeks of camping and maneuvering with the horses. I recall the one time it had been raining when we encamped. The horses were always our first priority and we had to clean and feed them before taking care of our own needs. Well, I cleaned the horse and tied it to the picket line. It promptly lay down in the mud and rolled. At this point I let the damned thing stay muddy until the next morning.

We had to fire the Colt .45 pistol at a full gallop at ten bobber targets along a wooded trail, changing clips on the run. Somehow I was able to qualify as Expert in that maneuver.

Each trooper carried a shelter-half behind his saddle along with his personal gear. Rifles were slung in scabbards on the right side of the horse. Forty-five caliber pistols were worn at the belt. When the troop arrived in Camp two troopers would tent together. Each shelter half was buttoned to your partners, making a pup tent. Unfortunately these tents were too short for a six foot four trooper. My feet stuck out. On one particular trip it was muddy and the field where we tented was furrowed crosswise to the tents. It rained - the tent leaked - my feet were out - the horse was muddy - the furrows made it impossible to get comfortable. In short, "War", Cavalry style, was hell!!

On that same trip we had to let the horses drink in a creek nearby. We didn't bother to saddle up, but rode bareback with only the halter to guide the horse. The whole troop mounted up except Bill McCauley. He was overweight and chubby. He kept jumping at the side of the horse but was unable to mount. Finally the Colonel, in desperation, dismounted and made a cradle of his hands. Mac put his foot in the cradle and was boosted onto the horse. Unfortunately he was boosted a little too hard and went clear over the horse and onto the ground on the other side. The next try was successful and the troop rode to the creek. There we just rode in and let the horses drink. Unfortunately McCauley's horse decided to cool off and lay down in the water. As the horse went down, McCauley came up until he was standing on the horses side as the nag lay in the water.

One evening, after supper, a few of us decided to go to a movie in nearby Alexandria. We hadn't bathed for several days and the horse scent was strong on our uniforms. We arrived in the theater in the middle of the show and seated ourselves in the middle of the crowd. However, when the lights came on at the end of the show we found ourselves alone. The people within smelling distance of us had all moved away.

On another day we had a full scale troop maneuver with three platoons of Cavalrymen. The plan was that the troop, in file, would sneak through the woods, then in platoon front, charge across the open field. I was in the third platoon. We turned from file to platoon front and began the charge at a full gallop. My horse was "Frankenstein". My first assigned horse, "Helen Lee", a gentle mare had developed a sore fetlock and was pulled out of the troop. Frankenstein was the only replacement available, probably because no one wanted to ride him. He had been in a railroad accident that must have rattled his brain. He was barrel chested and mean looking. As we began the charge Franky took the bit in his teeth and imagined himself a race horse. We left the third platoon, galloped through the second platoon, passed the first platoon and the Colonel leading the troop who was mouthing obscenities as we passed. I finally got the s.o.b under control and returned to my place in the third platoon. Following this incident I applied for the Air Corps.

Graduation day at VMI was June 13, 1941 and my orders called for me to be in Muskogee, Oklahoma on July 13. Muskogee was a Primary Training Field, operated by the Spartan Air College. It was a grass field with barracks on one side and an operations building in the center. Our aircraft were the Ryan PT19A, a two cockpit, low wing craft with an in-line engine. The engine was started by turning an inertial crank on the left side of the airplane. When the flywheel attained enough speed the engine was engaged by pulling a cable to make the physical connection between engine and flywheel. Usually the engine would start promptly. I vividly recall those early mornings, with the dew still on the grass, standing on the wing and starting up the engine.

The instructors those days were civilian pilots with years of experience. Check rides were taken by military pilots assigned to the base. Each instructor had five or six students. Mine was an older gentleman named "Pappy Yokum". It was his job to determine whether we would be able to solo and eventually move on to attain our silver wings - or wash us out. I was fortunate to be one of only two of Pappy's students to make it to Basic Training.

A few noteworthy incidents, some humorous, some not so funny, come to mind. At Spartan, Muskogee, we learned the rudiments of flight in the air and in ground school. Pappy was a hard task-master. When I'd fail to keep tabs on my air speed he'd yell into the gosports, "That's right, stall the son of a bitch". Gosports, for the uninitiated, consisted of rubber tubing from a funnel in the rear cockpit to each earpiece of the helmet of the fledgling pilot in the front. When Pappy was particularly upset with me he'd stick the funnel out into the slipstream. This would cause my helmet to balloon from the air pressure. We practiced take-offs and landings, lazy eights, eights on pylons, 360 degree turns and forced landings. In the latter he'd pull back the throttle and shout, "Forced Landing". My job was to quickly locate a field where I might be able to land, check the wind direction and make an acceptable approach. If I did OK he'd pour the coal to it and we'd go off to do other things. Otherwise I'd get chewed out and my sins would be pointed out to me.

At Muskogee we were supposed to be in the sack at taps but some of the guys were attracted to the fairer sex, which meant that they would sneak out after taps. One cadet in particular always came in in the wee hours and in the darkened barracks would leap into his lower bunk. One night, after he'd gone out, we disconnected all the springs that held up the mattress and substituted string. We were all awake

awaiting the return of our Casanova. He arrived, undressed and leaped into the sack. The whole thing dropped to the floor amid much cursing, to the amusement of his fellow cadets.

We were taught the standard pattern for landing. We entered at 45 degrees to the downwind leg, turned on the base leg and then on to final, at which time we'd drop our flaps. One time I was confused and entered the pattern backwards. I soon learned of my mistake when I saw another plane coming directly at me in the opposite direction.

The PT19s had no radio and only a minimum of instruments. They had fixed landing gear and manual flaps. Of course the cockpits were open and we had to wear helmets and goggles. Pappy introduced me to loops and split S's but we weren't really expected to do any aerobatics ourselves.

It was the custom of the time that when a cadet soloed he was thrown into the showers with his flight suit on. Of course we were so happy to have soloed that the wet suit didn't dampen our spirits.

After 60 hours of flight training, I graduated and was assigned to Randolph Field for Basic Training. Randolph is located in the vicinity of San Antonio and was called the West Point of the Air. When we were there the field was all grass and the planes were North American BT-14s and Vultee BT-13s and 15s. I was lucky enough to be assigned a Squadron equipped with the BT-14. This was a single engine, fixed gear, low wing, canopied cockpit plane with considerably more sophistication than the PT-19. At Randolph we were introduced to instrument flying, formation and night flying and fine-tuned our proficiency as pilots. One of my recollections is that we had the best food there that I encountered during my entire Service career.

A few memories of training there stand out. One day on a solo flight there was a cloud deck above us and I decided to go through and above it. I went on instruments and penetrated the layer, soon pulling out on top. I looked around and found I was all alone up there - miles of nothing above the beautiful white cloud deck. Nothing! For the first time I knew how insignificant we humans were. I was but a tiny speck, alone, above the clouds. It is a feeling that I shall never forget.

We were taught night landings. The procedure consisted of flying directly over the field at 1000 feet and releasing a parachute flare. Then we circled back and made our approach and landing in the light of our own flare. It was an interesting procedure but we never used it again. It was that same night that my instructor asked me if I would be interested in

becoming a flight instructor. I said that I'd like that and promptly forgot about it until after graduation from Advanced School when I was assigned as an instructor pilot.

In those days there were no restrictions on what or where we could fly. If there were, we ignored them. One cadet flew down the main street of San Antonio between the buildings in a vertical bank.

The most significant occurrence at Randolph was the declaration of war against Japan on December 7, 1941 after their bombing of our fleet at Pearl Harbor. Immediately our training took on a new importance.

When we graduated from VMI we not only received our degree but also were commissioned in one of the three Army services available at that time - Cavalry, Infantry or Field Artillery. I graduated as a Civil Engineer with a commission in the Cavalry Reserve. My first orders were to proceed to Fort Myer, Virginia for duty with the Third Cavalry. These orders were never implemented because I had successfully applied for transfer to the Army Air Corps where I wouldn't have to sleep in pup tents in the mud and put up with the temperamental horses.

At that time there was no procedure for transferring a commission from one service to another. As a result those of us who held commissions were assigned as Aviation Cadets and our commissions held in reserve.

I was at Randolph Field when the powers that be decided to reactivate our commissions. So it was in December, 1941 that a group of us were able to don our "pinks and greens" and become Officers and Gentlemen. Immediately we were housed in different quarters and treated as officers.

We received our proficiency checks with the military pilots and, having accrued 72 hours of Basic time, I was assigned to Twin Engine Advanced School at Ellington Field, near Houston, Texas.

I arrived at Ellington only to find that the only training aircraft there were AT-6s made by North American. We received all of our training there in that venerable aircraft, accumulating almost 74 additional hours. Here we concentrated on instruments, formation, cross country and night flying. While still at Ellington some Curtiss AT-9s began to arrive. These were twin engine, all metal, low wing craft, shaped like a tadpole and with doors on each side of the cockpit.

I'll always remember my first night solo cross country in an AT-6. We were to fly from Houston to Beaumont and return, using the "light-line" for navigation. In those days day navigation was by dead reckoning (when you could see distinctive features on the ground) or by flying the radio beacons. At night the only navigation aid that was available was the radio beacon light-line. This was so called because each beacon was

equipped with a flashing light that was coded with a unique Morse Code signal that could be read from the air.

I took off from Ellington in the clear night skies with my charts marked with my route and all of the light line signals noted. Arriving at my cruising altitude of about 3000 feet I saw, not one light line to the East, but several. I had to sort these out quickly. Turning on my cockpit light I consulted the chart. Suddenly I noticed a change in the noise of my engine. It was speeding up, indicating to me that I was in some kind of unusual position. I switched off the light and attempted to determine my attitude. From the lights on the ground I was nearly inverted. In making my recovery I must have split-essed through because when I got the plane straight and level again I was so close to the ground that I found myself flying between the flares from the oil wells in the neighborhood. I climbed again to my altitude and promptly flew into a cloud. The AT-6 has a red light on the wing. Of course this lit the cloud with a red glow. Fortunately I pulled out of the cloud and saw another plane flying in the direction I wished to go so I trailed him for awhile until I settled down and was able to read the correct Morse symbols telling me that I was once again on the right course to Beaumont.

I reached Beaumont without further trouble and returned to Ellington. By that time the weather had taken a turn for the worse and visibility was very poor. Despite that, all of our airplanes returned safely.

Ellington was the first field where we flew from paved runways and it made landing orientation much easier.

But back to navigation. The radio beacons were divided into four quadrants identified by a Morse A or N signal. The A provided a dot dash while the N provided a dash dot. When you were on course on any of the four legs the signals merged to give a solid signal. This beam led to the juncture of the legs or the cone of silence. Once you hit the cone you then followed the course to the nearest field (if any).

It was at Ellington that I received the coveted silver wings that signified my qualification as a pilot. Following the graduation exercises I was placed on orders to become an instructor pilot at the Lubbock, Texas Advanced Flying School. I arrived at Lubbock on February 24, 1942 and began instructing in AT-6s although Lubbock was designated a twin engine school. Twin engine planes were just coming off the production lines and it wasn't long before we got AT-9s, and later AT-17s, AT-7s, AT-10s and AT-11s.

Each class of students ranged from six to fourteen because the Air Corps needed many pilots for the war in Europe. We normally flew with our students for half a day since they had

ground school for the other half. However, when night flying was scheduled we had both the day stint and the night. We were very busy until we had all of our students soloed, then we'd send them out alone and sweat them out until they returned.

The radial AT-6 engine had an exhaust collector ring that vented the gasses near the left wing root. At night this showed as a blue flame. One night a cadet, not thinking clearly, saw this flame and, assuming the plane was on fire, bailed out.

At Lubbock the Pilot Instructors received students from the Basic Schools. It was our job to train and evaluate them so that they could qualify for their silver wings and be rated as pilots.

After orientation in the AT-6s we shot landings to be sure the students could get the aircraft up and down safely. Then we trained them on instrument flying, formation, night flying, cross-country navigation and low level navigation. Of course everyone loved that last phase because it permitted them to fly just off the ground even though they were supposed to remain 200 feet above the turf. This was rarely done, however, since it was more fun to fly down the railroad tracks to read the Station names for orientation, for example. In West Texas the highways are long and straight and it was fun to drop the wheels of the AT-6 and bounce them on top of the cab of some unfortunate farmer's pick-up as he drove along the road.

It has been said of Texas that there are more rivers and less water, more cows and less milk and you can look farther and see less than any place in the world. That's certainly true.

A few of my experiences at Lubbock might be of interest, probably embellished by the ravages of time. However-----. It was at Lubbock that I lost one of my VMI roommates, Tom Thrasher. He was also an instructor pilot there. One night while instructing night flying he plowed into the ground, killing himself and the student. In those days, although Lubbock was designated a twin engine advance field we still flew the AT-6s. It was in that aircraft that Tom met his untimely end. I remember seeing the wreckage in the hanger. It was unbelievable that a plane could be reduced to such a tangled mess.

There was a hotel in Levelland, Texas that had a red light on a mast on its roof. The hotel consisted of four or five stories. At night we'd love to buzz that light as a pylon before returning to Lubbock. We'd also put the prop into high pitch to enhance the noise. We could never get away with anything like that today.

Another instructor pilot with the last name, Rogers, of course got called Buck. Buck loved to find an instructor and student on instruments. He would dive on the unsuspecting plane from behind, pass under it and roar out and up in front of it. This was traumatic if you didn't see him coming. I spotted him one day and as he dove on me I dove for the ground to force him between my plane and the shrubbery. However, the more I thought about it the more I felt we'd both crash so I pulled up and let him pass underneath.

In the golden age of flight, when a new plane was delivered we'd read the instruction manual, then two instructors would alternate at the controls learning to fly it. Such was the case when we received the Curtiss AT-9s. We were shooting touch and go landings at an auxiliary field west of Lubbock. I had flown from the left seat and then shifted to the right so that the other instructor could get pilot time. Those were the days before a visual signal for raising the landing gear was used. Anyway, we were taking off and had bounced once or twice. I figured that the pilot was going to climb out of the field but he wanted one more bounce. Meanwhile I had pulled the gear retracting handle so the gear was on its way up when he brought the plane down for that bounce. Of course, with no wheels under us we didn't bounce. Rather, we plowed a neat furrow in the field with our props and air scoops. After that the procedure was that the pilot would shout, "Wheels Up" to be repeated by the co-pilot. Then the pilot would give the thumbs up visual signal which the co-pilot would repeat. Only then would the co-pilot raise the gear.

On the ground we would brush up on our instrument flying in the Link Trainer. We'd also shoot skeet to help us in the event we had to fire the aircraft weaponry. Skeet taught us to lead the target which was necessary if we were to be good pursuit pilots.

Once we had gotten all our students to solo and were confident they were safe by themselves we'd send them out alone and then wait for their return in the ready room. There we would play cards, read, tell stories, fill out student progress forms and generally amuse ourselves. We would catch the unwary, either reading a newspaper or napping. In the former case we'd ignite the paper and yell, "Hot News". When someone was napping we'd give him the "hot foot", which would awaken him rather rapidly to much swearing and claiming he'd get even.

I was in Lubbock during the dust storms of 1942-43. These were interesting. At times we'd wear our gas masks, although we weren't supposed to, but it made breathing much easier. The dust would rise to about 10,000 feet and completely restrict horizontal vision. It was possible, however, to see the ground straight down. Instrument flying became a necessity. On the ground the dust would filter up through the window sash and pile up on the inside ledge. It damaged much of the mechanical equipment and the aircraft engines.

In April, 1942 we began to get the AT-9s and phased out the venerable AT-6s. This twin engine plane was shaped like a tadpole, with doors on each side. If it were ever necessary to bail out of the plane whoever opened his door first made it. The suction generated by the open door made it impossible for the other door to be opened. The plane took off, flew and landed at about the same speed - 120 miles per hour. It had an all metal fuselage and wings. It was an unforgiveable little trainer, designed to provide the feel of multi-engine combat aircraft.

One day I was shooting landings at the Lubbock auxiliary field with a student in the left seat. He made his approach all right but failed to flare for his landing. As a result we hit the ground pretty hard on the left wheel. I grabbed the controls and poured the power to the ship immediately. When we reached altitude I assessed the damage. The right wheel would extend and retract but the left wheel would do neither. I could tell it was not locked in the extended position by the panel indicators and the fact that the locking pin on the nacelle did not extend. Also it would not fully retract. I dove the plane and horsed back on the wheel, hoping that gravity would cause the left wheel to lock, but to no avail. I called the tower and told them of the problem. They requested that I buzz the tower so they could check out the position of the wheel. They also suggested that I fly around to use up my fuel before attempting to land.

So we flew around, trying everything that might lock the wheel down. Finally the tower said to try landing wheels up on the grass. Since the left wheel wouldn't retract I didn't like that idea. They then sent out the fire trucks and ambulances to the grass area of the field and said for me to land there. The right wheel was down and locked, the left wheel down but not locked. I made a careful approach and set the plane down on the right wheel very gently, then let the left wheel touch. It held! When we rolled to a stop I started to go under the wing to look at the wheel. The crew chief said, "Don't go under there, Sir, it's not locked".

One night I was leading my flight of AT-9 students on a night navigation mission to Amarillo, Texas. The terrain is as flat as a pancake in North Texas until you get to the Canyon country. Being pitch black except for an occasional small town I was navigating by the light-line. One particular time as I looked out of my side window I could see the lights of a town that appeared to be way up on the side of a hill. Knowing that the land was flat I suspected that something was very wrong. It was. I was in a steep bank to the left with my formation hanging right in there with me. I immediately

went on instruments and stayed on them for the rest of the flight. This proved to me how easy it was to become disoriented.

At Lubbock we also had the AT-17s, also known as the UC-78s (we called them the Useless 78s). These planes were made by Cessna and were fabric covered on fuselage and wings. Only the nacelles were metal covered. The first ones we got at Lubbock also had wooden props, making them slow to get airborne. They also had a toggle switch with which to raise the landing gear. As long as the weight of the plane was on the gear the toggle could be in the up position and the gear would remain down. However, when the weight lifted the gear would come up if the toggle were up. This caused an amusing incident one time when the student raised the toggle while the plane was on its take-off roll. As soon as the weight lightened the gear started up. The wooden propellers were both filed off by the madacam runways as neatly as if they had been machined. Both lost about four or five inches from each tip. Of course the plane was more sluggish than usual but it made it around the pattern to a safe landing. We soon began to get controllable pitch metal props which increased the performance of these planes. The toggles were covered with a red plastic shield to prevent unplanned raising. When we had the wooden props we called the AT-17s the "butter paddle bombers".

In January, 1943 we began to get the Beechcraft AT-10s. These were nice little twin engine trainers but had weak brakes at times that could be partially restored by pumping the pedals. My student was landing at Lubbock one afternoon and on his landing roll he ground-looped the plane. When I inquired what had caused it he said, "The brakes went out". I felt them and, sure enough, they were gone. I said, "Let me take it". I pumped up the brakes and got the plane off the runway and onto the ramp. Then I carefully maneuvered the plane between two rows of four parked aircraft to an empty slot. As I turned into the slot the brakes failed again. There was no time to pump them up so my wing rode over the wing of the adjacent aircraft, damaging both slightly. I wasn't as smart as I thought I was.

Lubbock was a dry town (liquorwise) and our Commanding Officer was a stickler in that regard. The only liquor to be had was at the Officer's Club or by prescription at a downtown pharmacy. In both cases it was expensive and the amounts restricted. When some of my students asked if I could get them some bottled goods from a "wet" County I said, "Sure, make a list of what you want and I'll fly to Amarillo and get it for you." I thought they'd only want a bottle or two apiece for each of my six students. What I didn't know was that they got orders from the whole Cadet Class. I was appalled at the amount on the list but a promise was a promise so, taking two students, I flew to Amarillo. We rented a taxi and virtually cleaned out the first Liquor Store we came to on the way into town. At the second, we finished the list, loaded the stuff in the taxi and returned to the airport. There we loaded the loot on the UC-78 and were airborne. While I was flying, the students were taking the bottles out of the cartons and storing them in para-

chute bags. The cardboard was thrown out of the plane. All was stored in the bags when we landed at Lubbock but I just knew that at any moment we would be surrounded by Air Police. Nothing happened, however, and we got away with it. I recall each of us on the flight made a profit and got free booze out of the deal because we simply charged a flat rate of five dollars a bottle regardless of what was ordered. Thus I was able to live with the guilt.

One day, after my students had checked out in the AT-17 I sent two of them out on a low altitude navigation mission to the San Antonio area while I worked with some of my other students. When they returned there were dead ducks in the nacelles, in the wind screen and in the wing leading edges. Of course I asked them where the ducks had come from. They said that they were flying at 2000 feet when a flock appeared ahead of them. Despite evasive action they were unable to avoid hitting them. I wasn't born yesterday so I had to accept their story even though I knew the ducks must have had another version. I waited until we were having the party for the Class graduation and the guys were pretty happy about getting their wings. I came up to the two culprits who had collected the ducks and asked them, "O.K., guys, where did you get those ducks?" "Well, Sir," they replied, "We were flying up the San Antonio River." I said, "What do you mean, 'up the San Antonio River?" They said, "You know, just above the water, between the trees." I said, "I've got the picture, then what?" "Well, we came around a bend in the river and there in front of us, was a dam. We horsed back on the wheel to clear the dam and just as we came over the top we saw this flock of ducks sitting on the water. They flew straight up and we ran into them". I said, "I knew darn well you didn't get them at 2000 feet. Ducks are too smart for that."

Actually the guys were lucky because fabric covered wings, if perforated, can tear away the wing covering and the plane will spin in. In fact we had at least one accident that way.

In March, 1943 I was transferred from Lubbock to Altus, Oklahoma to instruct in the AT-17s there. Within a month of my arrival I learned that the Air Corps was seeking pilots for the Martin Marauder. Their losses, both in combat and in training, were such that the planes were considered dangerous. In fact Harry Truman, when he was in Congress, headed a committee to investigate the numerous accidents and, if necessary, abandon B-26 production. It was pointed out by the committee that the aircraft was unstable. Someone countered that the bumblebee was also unstable but since he didn't know any better he flew anyway.

The plane had picked up a few pet names such as: "One a day in Tampa Bay" for those at McDill, or "The Baltimore Whore" because it had no visible means of support (this because of the short wing spread). I don't know what they called the 26s at Dodge City, Kansas but they lost one every Saturday for quite some time. We were up there one Saturday and they were

celebrating at the Club that none had been lost that day. While we were there night flying commenced and, sure enough, they burned one on the end of the field.

Since this seemed like a challenge to me I applied for transfer to the B-26 program and in April, 1943 was transferred to Laughlin Field, Del Rio, Texas.

My instructor at Del Rio was Frank Schafer, a fearless pilot who seemed to think the 26 was a pursuit plane. In fact he loved to tangle with the P-40s from Eagle Pass and would often dog fight with them. Actually in straight and level flight the B-26 (straight) and the B-26A could outrun the P-40. Unfortunately, Frank met his demise in a 26. While at Del Rio I had the opportunity to fly every model from the straight B-26 to the much modified model C-45 and finally the slower F series. Most of our ships were in the B-10 and B-20 series. It didn't take too long to realize that the problem was that some of the pilots were afraid of the plane. It did make its approach at nearly 150 miles per hour but it could fly on one engine and it was one rugged aircraft.

I became an instructor at Laughlin, which was known as a transition school. The pilots we got already had their wings and when they left us it was to pick up a crew and go to a combat zone.

One of the things that was of utmost importance was single engine operation, so we practised it with each student until he had the procedure down pat. On one such flight I had a student, who was in the left seat at the time, make a bank to the left. While he was looking into his turn I pulled the right mixture control. The procedure he should have followed was to trim up the ship, feather the dead engine, apply power to the good engine and fly on that basis. It didn't work out that way. The student pulled the mixture control on the left engine. Fortunately we were at 10,000 feet so I had room to play. I waited for him to do something as a bead of sweat dropped from his right brow. All that could be heard was the flow of air past the plane. I said, "It's quiet up here, isn't it?" I made sure the air speed didn't fall below 150 and waited. He turned to me and asked, "What should I do, Sir?" I said, "I'd suggest you start the son of a bitch." At which point I advanced the mixture controls and we proceeded to practice some more.

The training ships were very light. They had the top turrets removed, the guns and gun pods were eliminated and much of the internal surplus equipment was taken out. From the outside the 26 looked heavy and formidable. I was on a flight one time to Scott Field at East Saint Louis and lost an engine. In those days the mention that a Marauder was approaching a field was enough to bring out much of the population of the local plants and hangers. So it was no surprise that, as I approached the field there was quite an audience, complete with fire trucks

and ambulances. Of course there was no problem and the landing was routine. We were stranded at Scott until a replacement engine could be obtained, installed and tested. In due course we were ready to depart. The same crowd of onlookers gathered at the edges of the field to watch the take-off. I decided that they should see what the 26 could do so I held the brakes and applied full throttle. Using half flaps I released the brakes and horsed back on the wheel. We were airborne in a few hundred yards and hanging on the props. I pulled up the gear and we were on our way home.

We flew the standard pattern at Del Rio. In the early days we didn't check the flaps until we were on the approach. The procedure was changed after an unfortunate fatality. On his approach Gordon Wicks put his flap lever down. The flaps descended on one side but not on the other. As a result the plane rolled on approach and augered in at the end of the runway. Since then we began to drop one eighth flaps on the downwind leg. Most of our safety procedures came about through such experiences.

Living on the border with Mexico was interesting with the bull fights and cheap booze. Apparently the Germans had stashed quantities of American money in every denomination except two dollar bills and silver dollars. Whenever we went to Villa Acuna, Mexico, across the bridge, we would have to change our money into those two denominations. We were issued gasoline stamps as well as the civilians but we learned that Gulf delivered gasoline to Mexico in unlimited and unstamped quantities. We'd simply follow the delivery truck across the bridge, fill our tanks and return, thus saving our stamps for stateside travel.

One evening when I was not scheduled to fly I was sitting on the steps of my quarters on base watching the night flying and throwing caliche at the tarantulas. A B-26 entered the pattern with gear down and the right engine feathered. The pilot misjudged his approach and saw he was going to land too far down the runway to stop in time so he elected to go around. He did not retract his gear and he turned into the dead engine. We recognized that he was in real trouble and watched to see what he would do. He continued to lose altitude and turn into the dead engine until he was in a vertical bank. He just missed the water tower and crashed in one of the streets on the base, wiping out a car with his lower wing and spewing oil all over the quarters area. Three or four died in that accident.

On another night we saw a plane enter the downwind leg with flame streaking from one of his engines. The pilot opted to set the plane down in the mesquite East of the field. As soon as we saw his intentions we jumped into my car and headed out the gate to see if we could help. Arriving at the fire we

didn't expect to see any survivors, but hearing voices we called out. Soon the entire crew came toward us from the wreck. All were O.K., having gotten out of the top hatch to run down the wing before the plane exploded. We took the crew back to Base and were going in the gate just as the ambulance was going out.

We frequently had high winds, rain and hail, sometimes the size of golf balls. The control surfaces were fabric-covered and susceptible to damage from the hail. In one storm the hail grounded every aircraft on the ramp until the control surfaces could be replaced. The only flyable aircraft the next day were those that had been in the maintenance hangar. The wind was so strong that it could move the planes if the brakes weren't locked tightly. On one occasion I was sitting in one plane on the ramp to keep it from moving. We did this because there were four planes to a row and the rows were fairly close together. If a plane drifted into another it could cause damage to both, or maybe even cause a fire with worse consequences. In one case a pilot sitting in one plane thought his plane was moving, whereas it was really the one next to him. He applied the foot brakes but thought he was still moving, He pulled the handbrake but still thought he was moving so he pulled the air bottle. Then he discovered that it wasn't his plane at all but the one adjacent to his that was moving backward.

As a result of our high accident rate we learned that Randolph was sending a Colonel to investigate. We all knew when he was arriving from his filed flight plan, so watched him as he approached in an AT-6. We couldn't believe it when he landed wheels up right in front of the tower! Of course there wasn't much he could say about our accident rate so we put him on board a Marauder and flew him back to Headquarters at Randolph.

A hurricane was approaching the Gulf Coast and Weather felt we might be hit at Del Rio. It was decided that it would be best to take our aircraft and fly them to safer locations out of the storm's path. I led a group of about seven B-26s to Phoenix, where we waited out the storm. When all was clear back at our base I gathered the group in formation and started back home. I noticed that we were fairly close to the Grand Canyon and having never seen it decided to take a short detour. Over the Canyon I put the flight in trail and dove into the Canyon. We flew in the Canyon from about its mid-point to the Painted Desert. Then we returned to altitude and proceeded to Del Rio.

Some of our aircraft were equipped with a drag antenna. This was a long cable with a heavy weight on the end. When extended about 150 feet it was supposed to bring in radio signals much better than the built-in antennas. Unfortunately, once in awhile a pilot would forget to retract the antenna when he returned to the field. This would leave the cable and its weight wrapped around the fence at the approach to the runway.

There must have been quite a collection of wire at this location from these ripped-off antennas.

Late in the development of the Marauder the pilots gained the proper respect for that marvelous craft. We even developed a pursuit approach to landing when we returned from a formation flight. We would fly toward the field and request permission from the tower for a pursuit approach. Then we would put the flight in trail and dive down on the runway, probably approaching at better than 250 miles per hour. We would pass so close to the wind tee that we'd turn it with our prop wash. Then we'd cut the throttles and zoom up to pattern altitude. This put us on the downwind leg at just the right speed to drop the gear and ready our plane for landing. It really looked spectacular from the ground and was fun to fly.

Occasionally something happens and you wonder if the hand of God was on your shoulder. Such was the case on a trip I made from Del Rio to Washington, D.C.

The Commanding Officer of Laughlin Air Base was called to Washington for a meeting and needed a ride. I volunteered and we took off in a Marauder with the C.O. in the right seat, the aircraft engineer and two navigators in the navigators compartment. Our first leg was to Knoxville, Tennessee, where we refueled and reviewed our flight plan. I had wanted to go VFR all the way but the reports were that the weather was marginal and I'd have to file an IFR flight plan. Since the weather was expected to improve I opted to wait awhile. Finally I received my VFR clearance and we took off.

As we approached the area of western Virginia the clouds lowered until we were flying just below them. To maintain VFR I'd have to let down but the Virginia mountains stuck up nearly to 4000 feet. If I climbed higher I was not able to determine the thickness of the cloud deck, besides we had no deicer boots and I was afraid we might ice up. So I held my altitude of approximately 5000 feet and proceeded on instruments.

The radio equipment those days was not UHF so I lost contact with that navigational aid. My radio compass continued to rotate and I could not raise anyone on the voice channels to request position because of the static. The radio beacon signals could not be heard clearly.

I called the navigators up and asked that they determine my position. They consulted for awhile and returned to tell me they thought I should fly out to the ocean and return on the deck. I told them to go back and sit down. I continued on course and watched my ETA. Then the miracle! I came into a hole in the clouds and looking down, saw the

City of Washington just below me. I called the tower, now that I was in the clear, and requested landing instructions. They said, "Hold". I made a procedure turn-around and came back to the hole. I called the tower again and got the same instruction. I had made several procedure turn-arounds when they cleared me to 2000 feet. Then they held me there while I made a couple more turn-arounds. Finally they cleared me to land so I chopped the throttles, dropped the landing gear and flaps and dove onto the approach leg. The landing at Bolling Field presented no problem and I rolled to a stop as directed. I didn't realize how up-tight I was until I applied the parking brakes. Then my feet actually bounced up and down on the pedals.

I had visited Austin, Texas on several occasions and discovered a unique thing about that city. They had erected tall towers throughout the city on which they had installed blue lights. Being a college town they seemed to want to foster romance among the students so they turned on the lights whenever there was no moonlight, thus creating artificial moonlight.

On a return night flight from Philadelphia to Del Rio one time I had to cross through a line of thunder storms. Once through I knew that the wind direction had shifted as it always did after a front had passed. I knew that I didn't have enough fuel to get back to Del Rio and didn't know exactly where I was. One thing I remembered was that highways led to cities and cities sometimes had airports. So when I saw a highway illuminated by the headlights of cars I turned and began to follow the road. In a very short time I saw the lights of a city and was pleasantly surprised to see artificial moonlight. It could only be Austin and at that city was an airbase - Bergstrom Field. I landed there and refueled for the remainder of the trip back to Laughlin.

Low altitude flying always had an immense attraction for the pilot and none of us was unaware of its appeal. I recall planes coming back with mesquite in their nacelles or with the radio compass torn off. The local inhabitants didn't care much for these antics, however. On one such flight we came upon a large flock of sheep. After passing a few feet over their heads I looked back and saw that they had all piled up in a fenced-in corner of the field.

On another low altitude flight I had six or seven ships in formation with me. We came upon a rancher plowing his tract with a team of four horses. All the furrows were neat and straight until we passed over him. Then the horses took off across the field in a diagonal direction. We were far gone before he must have gotten them back under control.

On another such sortie my flight passed just to the side of a house. As we did so I saw a woman carrying a large basket of clothes around the corner of the house. My last sight of her was as she dove for the ground, pulling the clothes basket over her head.

All was not fun and games in the training command, however. One night while I was on OD I had a chance to review the fatality records at Laughlin during the short time that it was in operation as a Transition Training School. I discovered that we had had 75 fatalities - pilots and crew during that time.

In December, 1943 I was assigned to the Instrument Training School at Bryan, Texas. There we flew the AT-6s for our hood time and received many hours in the Link Trainers. I returned to Del Rio in mid January, 1944 and found that the B-26s had been redesignated AT23Bs. I couldn't believe that this remarkable aircraft had been relegated to the status of an advanced trainer, but in a way it was a compliment because, through our instruction, we had made it a safe aircraft. In December, 1944 we began to receive the new Douglas A-26B10s. This was a fine airplane to fly and it behaved admirably on single engine. It used to be fun to come up behind a B-26 on an instrument flight, feather one prop and fly formation with him.

One time we had a ferry pilot lose an engine on a P-38 near our base. He brought it in and the engine was changed. Then, since no one came to pick it up, we began to take turns flying it. I was scheduled to fly the Lightning right after lunch one day. The Operations Officer was to take it up just before lunch. On his takeoff something happened and the plane rolled to the left, then to the right and he augered in at the edge of the field.

In August, 1945 I checked out in a B-25. It was like a toy compared with the Marauder, but fun to fly nevertheless. In October, 1945 I was transferred from Laughlin because the field was closing down. I went to Bryan, Texas once again. This time as a test pilot in the AT-6s. We were clearing them for transfer to other bases. We would fly one or two planes in the morning and then spend the rest of the day playing Bridge. After Bryan I was transferred as an instructor pilot to Enid, Oklahoma, where I instructed in the B-25 and the A-26 for a short time.

The War was winding down and the need for pilot instructors had vanished so in February, 1946 I was assigned to the 575th AAF Base Unit at Coraopolis, Pennsylvania. Our duties there were to operate the Military Airways Control Center

which monitored all military flights through the area. There were seven officers, one female secretary, a staff car and an AT-6 with a belly tank. The people of Pittsburgh used to come to the Allegheny County Airport in large numbers on weekends to watch the planes and we'd request permission to buzz the field. This must have given them a thrill because the plane looked so much like a Japanese aircraft with its belly tank.

I was on duty one Sunday when we had a request that the Secretary of Agriculture wished a ride to Washington. I couldn't imagine why he would want a ride in the AT-6 but I put him in the rear cockpit, showed him how to fasten his seat belt and how to talk with me on the intercom. We took off and had a nice flight. As we neared the District Secretary Anderson pointed his home out to me. After we had landed I tried to convince the tower that I had a VIP on board but they couldn't be convinced so I had to unload the Secretary in front of the military hangar.

Things were dull at Pittsburgh so I applied for the Aeronautical Engineering School at Wright Patterson and was accepted. However, on arrival there I discovered that the School had been temporarily closed. I was then assigned to the 4000th Base Unit, Headquarters Air Material Command, with duties in the wind tunnel branch. We made flying models of various aircraft. We worked with radio controlled drones, experimented with miniature ram jet engines and built a B-17 model to scale, controlled by U-Line, to explore ditching procedures. There I flew C-45s and B-25s. I recall one Sunday morning when I was assigned a B-25. At the end of the active runway was a high Cyclone fence, behind which was a family with two children. I thought they might like the thrill of seeing a B-25 close up, so after takeoff I held the plane on the deck with wheels and flaps retracted and headed straight for the fence at the end of the runway. The last thing I saw was the parents dragging their children rapidly out of the way of the oncoming plane as I zoomed over their heads.

In June, 1946 I was assigned to go overseas by way of Kearns, Utah. Guam was my destination. Upon arrival at Hickam Field in Hawaii I found I had been reassigned to Wheeler Field on duty with the 7th Air Force, my primary MOS being that of Engineer. Our jobs there were many but light, so I had time to fly the AT-11, C-45, L-5, AT-6, A-26 and checked out in the C-46. In the course of my duties I was able to fly to all the islands where there were bases. I'll never forget a night flight from Oahu to Hawaii. I had to fly on instruments because the sea was black and the sky just

as black, so there was no horizon. Suddenly, to the East came a bright light at the horizon. It took a few minutes to realize that I was seeing the full moon rise out of the Pacific. It was a fantastic sight that will never be forgotten.

A C-45 from Wheeler had a runaway prop and was waiting at Hilo to be flown back after being repaired. I went over in a C-47 and was dropped off. After checking the plane everything seemed to be functioning properly. As we were ready for takeoff it began to rain, as it does so often along the coast. Knowing it would be clear when we reached the coast I took off. We were hardly airborne when the left prop ran away. We cleared the rain and I throttled back on the left engine and levelled out. After a few minutes the right engine began to lose power. Now I was in trouble.

On our approach to Hawaii in the C-47 I had noticed a small Navy strip at Upolu Point so I headed for that. I got the plane down safely and called Wheeler requesting to be picked up. After waiting two days and enjoying a rest courtesy of the Navy, I was finally picked up and returned to Wheeler.

I was discharged from active duty in February, 1947 and tried to remain active through correspondence courses offered by the Reserves. This didn't work out so I joined the Pennsylvania Air National Guard, flying out of Philadelphia, in October, 1949. I was assigned to the 117th Bomb Squadron. There I flew the AT-6, the C-47 and finally the A-26. The A-26 had been redesignated as B-26 by that time, which has been a source of confusion to many people ever since.

In April, 1951 our unit was called to active duty in connection with the Korean conflict. I took my squadron to Langley Field, Virginia where we flew the A-26 (now being called the B-26B and C). We were training for night intruder work. The idea was that we would fly down the valleys in Korea at night with a million candlepower light under the plane to locate the North Korean convoys. When we spotted one we would drop a flare and the fighters would come in and bomb it.

Fortunately I was transferred out before the unit was to go to Korea because of over-staffing. I went to the Headquarters, Northeast Air Command (NEAC) at Pepperrell Air Force Base near Saint Johns, Newfoundland. I arrived there in August, 1951 and brought the family up in January, 1952. At NEAC my job was to help rehabilitate the Air Bases in Newfoundland, Labrador and Greenland. I had stopped flying and was using my Engineering MOS once again. I finally left the Service for good in March, 1953.

AFTER THOUGHTS

As I was flying the B-26 I often wondered whether I'd bail out of one in case of emergency or try to fly it in to some reasonably acceptable landing. Of course the answer would depend on conditions. Was the plane on fire? Was it spinning? Were we in mountainous terrain? Could the crew get out safely?

I didn't really like the idea of bailing out because to exit the plane the landing gear had to be lowered. This was necessary because the sliding door for entrance or egress was directly over the nosewheel when the wheel was retracted. Then the thought of diving out of that small exit into the slipstream did not make me feel comfortable. Under most circumstances I guess I'd have ridden the plane down. Perhaps a better idea would have been to exit through the bomb bay if time permitted. Fortunately I never had to put this to a test.

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When an instructor has confidence in his students he might become overconfident. Such was the case on a cross country flight from Del Rio (Altitude 3000 feet above sea level) to El Paso. I had placed the two students in the cockpit and took my seat in the navigator's compartment. I said, "Climb to 5000 feet and head for El Paso". I settled down and was reading something when I noticed that we were skimming the treetops. I rushed up to the cockpit and said, "I told you 5000 feet". All the students did was to point to the altimeter. It was right on 5000 feet. I'd forgotten that the mountains in West Texas rose to more than 8000 feet.

Embarrassed, I said, "What were you planning to do when the mountains went higher?" "Pull it up and let's go to 8000 feet".

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One of the things we taught students in formation flying was how to join up quickly. In one class I had twin brothers who were cracker-jack pilots. I'd hardly be making my first gradual turn and they'd be right on my wings - one on the right and one on the left. To keep them from getting too cocky I started to make their join-ups more difficult. As I saw them coming in I'd drop some flaps. They'd quickly correct and hang in there. Then as they'd come in on other occasions I'd either advance or retard the throttles. It was very rare that I could get them to overshoot. They'd come fish-tailing in and then tuck their planes in perfect formation. It was always a pleasure to have such students.

AFTER THOUGHTS (Continued)

This was not always the case. I had one student in the AT-6 at Lubbock who should remain unnamed. At Lubbock we had an Auxiliary field West of the Base. It was a mile long and a mile wide.

On one occasion I was leading a formation of six AT-6s and was practicing landings and takeoffs at the Auxiliary field. I landed first and taxied around the edge of the field watching each student bring his plane in. My unnamed pilot came in very high on his approach but instead of pouring on the power and going around for another try, he set the plane down well past the center of the field. Of course he couldn't stop in time and he took out the fence at the end of this mile long field.

In the early 1940s we couldn't wash out Advanced students because the need for pilots in the Air Corps was so great. My unnamed pilot was graduated but I often wondered what had become of him.