

An Air Force Career as Seen Through Superlatives

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Introduction

As I approached my fiftieth year anniversary as a commissioned officer, it occurred to me that I should write some kind of story for my descendants. Several of my grandchildren are serving in various military capacities, and they, especially, may enjoy such a treatise. It further occurred to me that the standard narrative or biography is much too ordinary. Various thoughts about many writing styles raced through my mind, and then something clicked that I should use superlatives to describe the *most* (my first of many different superlatives herein) unusual experiences during my career both on duty and with my family. Thus, we have the *biggest, best, fastest, highest, mostest*, and so forth of things I did or experienced. You will find several airplane movies that I particularly like. You will find several things that have nothing to do with my military assignments but through some twisted logic of mine seem to fit. This document follows roughly in a chronological sequence. Much of this centers around my first flying assignment in the B-52, my most exciting aircraft, and our lives in California, our most interesting state. I hope you find this to be a different approach to a career and find it somewhat interesting.

Early Days

Most Exciting Air Force Movie I Ever Saw

Thirty Seconds Over Tokyo, the story of Lt. Colonel Jimmy Doolittle's raid over Tokyo on April 18, 1942. I saw this as an 8-year-old boy in 1944 when it was made and instantly fell in love with the B-25. I have seen the movie several times since and now own it.

Best Commercial Airplane Movie I Ever Saw

Strategic Air Command filmed in 1955 with Jimmy Stewart as a B-36 pilot at Carswell AFB, Texas, and later as a B-47 pilot at MacDill AFB in Tampa, Florida, my home town. The B-36 was a heavy bomber with six R-4360 recip engines with pusher props and later versions with four additional J47 jet engines. The Boeing B-47 was an incredibly sleek jet medium bomber with six J47 turbo-jet engines, new and in the inventory as the movie goes, with Jimmy transitioning into it from the B-36. Also starring were June Allison as his wife, and Frank Lovejoy as General Hawks (i.e., a cigar smoking replica of four-star General Curtis Lemay) Many exterior, interior and Arial views of dozens of B-36s, dozens of B-47s, and numerous other planes. When the film crew came to Tampa, they stayed at the Bayshore Royal Hotel which I passed by several times a month. My fondest dream was to pull up in my Model A Ford and bump into Jimmy. This was one year before I joined the Air Force, hoping to be in a B-47. Jimmy Stewart, a Brigadier General in the Air Force Reserve was the sole impetus behind the making of this movie.

Best View of Aircraft over My House

When I was a teen-ager in Tampa, Florida, several years before joining the Air Force, Boeing B-47 *Stratojets* from MacDill constantly flew directly over our house during take-off and landing. This was the first jet bomber (six jet engines) of Strategic Air Command, and its swept wing design was a new and rare sight to behold. I walked around our house exclaiming, “I need to be in one of those!” (Actually, in my 22 years in the Air Force I never flew in one.)

First Air Force Assignment

Aviation Cadet at Pre-Flight, Lackland AFB, Texas, June 18, 1956. I joined the Air Force while a sophomore in pre-engineering at the University of Tampa. The Air Force sent me by commercial airlines from Tampa to Houston, then via *Trans Texas* Airlines in a vintage DC-3 to San Antonio. I spent three months as a cadet in pre-flight, then was transferred to Harlingen AFB, Texas, for navigator flight training.

Lowest Salary in the Air Force

As an aviation cadet I made one-half of the pay of a second lieutenant. Thus, my gross for the first three months during Pre-Flight was \$111.15 per month (a second lieutenant drew \$222.30). When I started flying three months later, I drew an additional \$50 flight pay, again half the pay of an entry level commissioned officer’s flight pay.

Best Aviation Cadet Marching Song

We marched everywhere, had a rotating squad leader, and sang often. If an upperclassman or an officer saw us marching and not singing, he would stop us and tell us to sing. The best song was:

The Air Force Song:

Off we go into the wild blue yonder,
Climbing high into the sun.
Here they come zooming to meet our thunder,
At 'em boys, Give 'er the gun! Give 'er the gun, Hey!
Etcetera (see Google for all the words)

An alternate song without title was:

Into the air, junior birdmen
Into the air, upside down
Etcetera—I don’t remember the rest

Worst Aviation Cadet Marching Song

This one was sung only in preflight, where pilot and navigator cadets were mixed randomly. This song was sung by only the pilot cadets (sung to the tune of *Stars and Stripes Forever*). It referred to the fact that 20-20 vision was required for pilot candidates, but navigator candidates could have correction to 20-20. Navigator candidates were not impressed with the pilots’ musical ability.

Be kind to your nearsighted friend,
For he may be a radar observer.

He sits in the middle of the plane,
Where the bullets fall like rain.
Well, you may think that he will be killed—
Well, he will! (Poetic license on the tune of the last line.)

Best Pilot Joke

Cartoon of a smart-alec officer wearing oversized pilot wings, saying,
“Six months ago, I couldn’t even spell pylut; now I are one!”

Best Visit I Had While at a Military Base

In August 1956 while a preflight cadet at Lackland AFB, Texas, when I had been in the Air Force only eight weeks, my fiancé, Marianna Johnston happened by on her way to Glorietta, New Mexico, the Western Baptist assembly ground. She was traveling by car with three other girls. The other cadets and I happened to be on break at the very time she drove up, so I walked her to my barracks and made all the other cadets—especially the lower class—“gaze” as we walked together on the sidewalks. “Gaze, gentlemen, gaze!” All the cadets heard me. Air Force cadets are never told to *look* at an airplane or something, but are told to *gaze*. I will never know how we worked out the logistics of the rendezvous and without cell phones to boot.

Strangest Cadence Count I Ever Heard

I suppose everyone is familiar with the marching cadence count, “Hup, two, three, four, hup, two, three, four..., i.e., left, right, left, etc.” When I finished at Lackland and moved to Harlingen AFB down by the Texas-Mexico border in September 1956, our new cadence count skipped the “hup” (or “one” as it were for the left foot) and started with “two” on the right foot. Thus I heard, “Two, [space], four, two, three, four, hup, two, [space], four, two, three, four.” As I recall the “two” was pronounced “toop” with an unreleased “p.” To this day, 51 years later, I still find myself occasionally counting my steps with this strange cadence.

First Air Force Flight

T-29 in September 1956, right around my 20th birthday after entering navigator training. This is twin engine version of the famous Convair 440, a commercial aircraft used for medium distance commercial flights. The Air Force version was equipped with 14 desks made up as navigator stations. Four were radar stations up front, and 10 were in the back. The aircraft was also equipped with sextant domes, drift meters, absolute (radar) altimeters, antiquated loran sets, and all the usual flight instruments.

Most Thrilling Day in the Air Force

September 6, 1957. My commissioning as a Second Lieutenant with the pinning on of my gold bars by my mother and the pinning on of my Navigator wings by my fiancée Marianna Johnston at the base theater, Free at last from the rigors of cadet life, and now the opportunity for a career as a commissioned officer.

First Family Car

1957 Chevrolet Bel Aire four-door sedan, bought one-year-old in Biloxi. I bought it before I got married and traded in a 56 Ford hardtop that I hated, obviously still pretty new. The Chevy was a wonderful car! With a 283 V-8 and Powerglide. I kept this car five years.

First Flight in a Large Air Force Aircraft

Douglas C-54 Skymaster at Keesler AFB, Mississippi from September 18, 1957, to April 15, 1958. The C-54 is the military version of the DC-4 (DC = Douglas Commercial) introduced in the Air Force and with the airlines. I was at Keesler for six months of so-called advanced navigator training, but in reality electronic countermeasures (ECM, but later changed to Electronic Warfare, or simply EW). The C-54 is really not all that large, but for the Air Force and civilian airlines, this four-engine tricycle landing gear ship was a huge jump from the two-engine, tail dragging ubiquitous C-47/DC-3.

Best Commercial Airplane Movie about an Airplane I Would be in

Bombers B-52 filmed in 1958 at Castle AFB, California. I was becoming familiar with the B-52 an eight-jet heavy bomber also built by Boeing as a replacement of both the B-36 and B-47. I had heard about this movie and went to see it on its first day in Biloxi, Mississippi, while I was a second lieutenant in electronic warfare school. By now I was abandoning my dream of being in the B-47 and had expanded my horizon to the B-52 hoping to get such an assignment upon graduation. (This did happen, obviously, but only because I had the highest academic standing in my class and got first choice of the available assignments. Everyone in my class wanted the Castle billet.) The story opened with the lengthening of the Castle AFB runway to accommodate the B-52 which was replacing the B-47 at Castle, which was the first base to get the B-52. The rest of the movie was quite silly and implausible, but the aircraft subject matter and photography were stunning.

Proudest Time I Ever Wore My Uniform

April 18, 1958, the day I was wed to my cherished fiancée, Marianna Johnston whom I had known since she was 10 years of age when my mother was her 6th grade teacher. I wore the Class-A uniform with the then-available formal upgrade consisting of a white shirt and a black bow tie. My only adornment other than my gold bars was a set of navigator wings.

First Operational Assignment

Best Air Force Assignment

Upon completion of ECM school at Keesler, I found myself at the head of my class. Assignments were by class rank. All my class wanted the 93rd Bomb Wing at Castle AFB in central California. The 93rd Bomb Wing was world famous with a rich history in World War II, and of course was the first Strategic Air Command wing to receive the B-52 heavy jet bombers. The 93rd Bomb Wing further distinguished itself by being chosen as one and only outfit to train B-52 crew members. Thus, as head of the class, I chose the *best* assignment.

Best Air Force Base

Castle AFB, California. This was my first assignment after my Air Force schools. It was a nice long tour of duty of five years, involved a great airplane, 'twas right after getting married, was the birthplace of our first two children, was near San Francisco and Yosemite National Park, and was where we found our first church in which we became grounded in our faith. Coming in second on this dimension would be our *last* assignment, Wright-Patterson AFB, Ohio, where we stayed six years.

First General I Ever Met

Brigadier General William E. Eubank, commander of the 93rd Bomb Wing (Heavy) at Castle AFB, California in May 1958. All officers, even fresh, new second lieutenants get to meet the commander, who in my case was a one-star general. I was surprisingly relaxed, probably because of his calm, reassuring manner. Anyway, this was a real pleasure. At the time, I knew there were many jobs and titles in this great country of ours, but being a *general* had to be about the best. Even 50 years later, I am still in awe of generals, one-two-three-stars. I have met and talked to numerous generals including several four-stars. I stare at them, I hope unobtrusively!

Best Survival Training I Went Through

While still a second lieutenant, while waiting for my B-52 ground school at Castle to start, I was sent to Stead AFB, Nevada, for Air Force Survival School. Here I spent about a week in the foothills of the Sierra-Nevada mountain range with an instructor, several other officers, and as a special bonus, a journalist from the Reno Daily News. This fellow documented everything we did on the trek, lots of photos, published a series in the newspaper, and later mailed each of us copies of the articles. Also at Sea Survival at Homestead AFB, Florida, I went into the middle of Biscayne Bay via a large Air Force training boat. Strapped into a parachute harness with an emergency radio and a tiny life boat, the kind carried by all crew members who are strapped into an ejection seat, I was unceremoniously dropped into the bay. Later I was picked up by an Air Force helicopter. Also in the Philippines, I had Jungle Survival just before arriving in Thailand. Among other things we were picked up from the jungle floor, one at a time, with an old Army Boeing Vertol H-21 "banana" helicopter.

First Flight in the Boeing B-52

May 1958 with no in-flight instructor and no ground school. Any crewmember for his first flight in a complex bomber should have an instructor on board. Such was not the case for me for some reason, but an instructor had given me informal tours of the airplane and explained the ejection seat, the escape hatch, and other safety equipment. Thus I was "on my own" just to sit in the ejection seat for eight hours and do nothing of importance with the admonition, "Do not make any safety infractions." So it was a wonderful experience but also somewhat frightening.

Most Thrilling Flight Experience

My first flight in a B-52 in May 1958 from Castle AFB, California (see above). This heavy bomber was built by Boeing in Seattle and Wichita and was named *Stratofortress*. This was also my first flight in a jet-powered aircraft.

Best New Aircraft at an Air Force Base Affecting Me

The B-52 was a brand new aircraft and had been rolling off the assembly line only three years when I arrived at Castle. Castle was the first base to receive this magnificent aircraft. Runways had been widened, lengthened, and made stronger (thicker). New hangers had been built. This was the nature of the base to which I was assigned for my first operational tour of duty.

Most Number of Jet Engines

The B-52 is the obvious answer, as this paper will allude later on. Eight engines is clearly the record number of jet engines in any American aircraft. These were J57 axial compressor turbojet engines with a huge quantity of thrust—some 10,750 pounds. This, of course, pales in comparison to the thrust of high-bypass turbofans introduced around 1970 on aircraft like the C-5, Boeing 747, Douglas DC-10, and Lockheed L-1011, all with around 40,000 pounds. From my vantage point in the B-52 cockpit, I must say that I thoroughly enjoyed the view of eight throttles on the center console along with eight of each engine gauge. These gauges, including RPM, EPR (engine pressure ratio), exhaust gas temperature, oil pressure, made a magnificent display in the middle of the instrument panel.

Most Flexible Wings

B-52. On the ground the wings looked droopy hanging way down. They would touch the ground if the aircraft were taxiing around a turn were it not for tip gear (little retractable wheels at the tips of the wings). When laden with fuel, the drooping was severe. A plane returning from a mission and close to empty would have its wing tips way up in the air. While in flight the aerodynamic lift of the wings curved them upward in a graceful arc. This made for an extremely beautiful sight.

Largest Bomber I Flew

B-52. As explained elsewhere, this aircraft had eight jet engines, ten wheels, and weighted in the neighborhood of 450,000 pounds at takeoff. It was the heaviest bomber in the history of the US Air Force. Also see the “Smallest Bomber I Flew.”

Best One-time Additional Duty

Between 13 and 18 October 1958, B-36 and B-52 bombing competition was held at Castle AFB. (The smaller B-47s operated out of March AFB, California, during the competition.) Castle was host to enough B-36s and B-52s to fill up every parking space. As a second lieutenant still in my lengthy B-52 training, I was selected to be an officer-host for the crew members. Our headquarters was a huge hanger large enough for several B-52s. I do not remember any of my duties, but I did enjoy rubbing shoulders with several generals and many colonels. I spent some good time in and around some B-36s but with the competition going on; obviously I could not fly on one. Boy, that would have been a great flight! Many years later I discovered a handsome brochure printed specially for the occasion. Someday through Ebay I’ll come across a copy.

Youngest Officer with Crew-member and Instructor Status

It took a full year of B-52 ground school, survival training, B-52 flight training, and nuclear war preparation, but eventually I was combat ready. I was assigned to crew number L-90, a “lead” crew. Crews were designated N for non-ready, R for ready, L for lead, and S for select. My aircraft commander was Major Hannah. I was barely 22-1/2 when placed on nuclear crew duty and was still a second lieutenant. The “reward” for any second lieutenant’s being on a lead or

select crew was an automatic and instant (spot) promotion to first lieutenant. Thus, I was again sitting on top of the world. There were no other B-52 crew members younger than I. I am still shocked that Strategic Air Command would allow such young officers to be assigned to Castle AFB knowing full well that every crew member would of necessity become an instructor. But here I was!

Hottest Preflight of any Aircraft in My Career

B-52 in the San Joaquin Valley in the summer. This was truly hot! We really suffered with the sun beating down on the cockpit. I think after a year or two of my being there, the Air Force employed cart-born air conditioning units with a huge flexible hose poked through the entry hatch at the bottom of the plane. Although some crewmembers sweated profusely, I did not have much of a problem. Once, a captain student of mine pouring sweat, who resented having a junior officer as an instructor, barked at me, “Why aren’t you perspiring?!”

Longest Flight

B-52 from Castle AFB, California, 24 hours. My crew flew from Castle, due north (i.e., on one line of longitude) to the North Pole, made a u-turn, and came back (not exactly a u-turn—because of the large turning radius, we made a 270 degree turn to the right, then a 90 degree turn to the left to get back on the same line of longitude.) It took 12 hours to get to the North Pole and 12 hours to get back home. Purpose of mission was to sample the air because of Soviet nuclear air blasts of nuclear weapons. We had a special air sampling pod in the bomb bay.

Shortest Turning Radius—Turning a B-52 on a Dime

We drew our maps for B-52 flights on JN charts (jet navigation) with a scale of 1:1,000,000. When we drew a B-52 turn on the map we literally used a dime. Early in the days of jet bombers, a dime proved to be the perfect turning radius on a JN chart, about 12 miles.

First Child

Jennifer Marie Clarke, born January 19, 1960. The light of our life, beautiful beyond description. Everyone stopped us to look at her.

Best Contrails to Watch

From above. Contrails spewing out of high-altitude jet engines are fun to watch, but there’s nothing like looking at them from *above*. This I did from time to time in the B-52 when above 40,000 ft.

Best Lightning to Watch

From above. Lightning is fun to watch, but there’s nothing like looking at these bursts from *above*. This I did from time to time in the B-52 when above 40,000 ft.

Funniest Part of any Aircraft Checklist

The “Hatch-not-locked Light” was part of the checklist before takeoff. This light, at the copilot station, was lit if any crewmember’s escape hatch was not properly closed and locked. The hatch was designed to blow off during an ejection or could be manually released in case of a crash landing; and it needed to be locked before takeoff. The pilot would read the checklist and the

copilot would respond with the appropriate action. The pilot would always say, “Hatch-not-locked Light,” as fast as possible, and the copilot would respond, “Out.” If it happened to be on, each crewmember would actuate the locking mechanism to see which hatch was causing the problem and see if we could get the light out. Sometimes we had to call maintenance on board. To this day, when I have a warning light in my car for “door ajar” or “trunk ajar,” I say rapidly, “We have a Hatch-not-locked Light.”

Most Unique Take-off Attitude of an Aircraft

B-52. Its wheels were totally non conventional. For the first half of the century most aircraft had *conventional* landing gear (tail wheel) with the main wheels just forward of the center of gravity. Later, in the 1940s, *tricycle* landing gear was introduced (steerable nose wheel) with the main wheels just aft of the CG. To take off a conventional-gear aircraft, one gets her going down the runway, the tail end begins to fly, so the ship is level, then at *take-off* speed, the pilot pulls back on the stick, the aircraft rotates about the wheels (wheels stay on runway, nose comes up, tail goes down) to introduce a positive angle of attack to the wing, and she becomes airborne. With a tricycle-gear aircraft, it is already level as she gains speed on the runway, and at *take-off* speed (also called *rotation speed*), the pilot pulls back on the stick (or control column) to introduce a positive angle of attack, the ship rotates, and she flies and climbs out. The B-52 had *tandem* wheels—two sets of wheels (two each) were way in front; two sets were way in back. The CG was right in the middle of these two sets. To introduce a positive angle of attack by rotating would mean that the ship had to rotate about the rear sets of wheels. This is impossible, for the CG would have to rise. There is no aerodynamic force that could cause the CG to rise. Takeoff would be impossible. So the B-52 wings are attached with a relatively high angle of incidence, meaning that the ship traveling level down the runway already has a built-in angle of attack. Rotation is unnecessary. The aircraft merely became airborne at *unstuck speed*. At this point I need to be fair and state that Boeing had actually designed something similar into the tandem-gear B-47. But in that case, the whole aircraft sat with the nose high and the wings did not have a high angle of incidence. Boeing accomplished this by merely having short landing gear on the rear and much longer landing gear on the front. Anyway, I’m stating that the B-52, of which I was a crew member and instructor, had the most unique takeoff stance of any aircraft. Whew! Thanks for bearing with me! (Yes, I am aware that there are no degrees of *uniqueness*. Sorry!)

Most Flying Time in any One Aircraft

B-52, 1700 flying hours over a five-year period mostly as instructor or as combat crew member.

Best In-flight 8mm Movies That I Took

From B-52, movies of KC-135 aerial refueler above. Also from the KC-135 boom operator's compartment, movies of the B-52 below, of B-66s below, and various fighters below.

Best 8mm Movies That I Took from the Ground

B-52, KC-135, B-36 with a silent Super-8mm camera. Marianna and I would stand at either end of the runway watching these magnificent planes landing and taking off. The B-36s came for a one-time visit during a bombing competition in October 1958 (which see).

Newest Aircraft I Consistently Flew in

Various B-52s at Castle. We had B-52B and B-52D models, and began to receive brand new B-52F models early in the five years I was there. These planes smelled new, just like a new car, only this was a distinctly pleasant military aircraft smell. All of the planes I flew in were relatively new or brand new. After the Fs arrived, I remember flying in a B model with 1000 flight hours. I thought, “What an old airplane—too bad for it!” How naïve! As I write this almost 50 years later, these B-52s have acquired tens of thousands of flight hours.

The Only Aircraft Accident That I Witnessed

While on the flight line with a student in 1960, I saw smoke at the end of the runway. A B-52 had run off the end, lost its landing gear in a ditch, and burned. Every one got out. This accident happened because the flaps were left up for takeoff. It turns out that the crew had put the flaps down according to the checklist, but maintenance was required, and the crew got out. Part of the maintenance involved retracting the flaps. When the crew returned to their stations, no one thought about the flaps—after all, they had already extended them. A B-52 simply will not take off without flaps!

Floppiest Aircraft Wings I Ever Saw

B-52 in rough weather. The wings flexed with a fascinating rhythm, and the pairs of engines hanging in their nacelles were wobbling all over the place. They did not fall off!

Most Exciting Promotion (Other than My Commissioning)

To first lieutenant after 18 months as a second lieutenant at Castle. No longer being at the bottom of the officer chain (although certainly far from the bottom of the entire rank structure).

Best Ariel views

Yosemite National Park, California, from the B-52. During every flight we flew over the park and saw El Capitan, Half Dome, and Bridal Veil Falls as part of our returning flight pattern.

Best Search Mission I Went on

Cessna U-3 out of Castle AFB, California. An F-104 went down in the Sierra Nevada mountain range east of Castle and just South of Yosemite, and a U-3 pilot and navigator were requested. This is a nice little twin, Model 310. We flew close to the mountain tops (6000 to 10,000 ft) looking and listening to our emergency frequencies. Never saw the pilot but saw lots of spectacular mountains well above and below the tree line. Came back empty-handed.

Most Frightening Briefing I Ever Gave

Major General Reynolds commander of the 93rd Bomb Wing. All nuclear combat crew members had to brief their war mission to the commander once per year. When I was placed on a combat crew, our commander had changed from a one-star general to a two-star. This said a lot about the 93rd Bomb Wing, for all other bomb wings were commanded by colonels. Anyway, going before a two-star general and telling every detail of my every duty on a potential nuclear combat mission was a frightening task. Parenthetically, years later as a lieutenant colonel, I had no reservation whatever about briefing a four-star general about an engineering project I was heading up.

Strangest Pilot's Pre-flight Briefing

Before any flight, there is planning, crew coordination, checking of the weather, pre-flighting the aircraft, and so on. For the B-52, before boarding the ship, the six primary crewmembers lined up under the wing, and the pilot (aircraft commander) moved to the front to review the flight and remind us of safety issues. One particular pilot was describing how to heat the little cans of soup in our flight lunch. He said to put the can in a hot water heater, get it hot, then open it with the tiny can opener provided. He said, “When you first puncture the top, soup may spew out [pause] so be sure to [pause] point it at somebody else.”

Best Private Collection of Military Flight Manuals

While at Base Ops one day at Castle, I noticed that they were throwing away a couple dozen flight manuals. These were all minus Section 3, emergency procedures, which were saved and might come in handy if one of those planes had an in-flight emergency within radio contact of Castle. I scarfed up these manuals and added them to my never-ending quest for paper things. This batch included WWII planes such as the B-17 and P-51 plus modern fighters and everything in between.

Most Famous Officer I Met

John Prescott Doolittle, son of Jimmy Doolittle, was a major (and later a lt. colonel) and a pilot in the B-52. I had many interactions with him and flew with him some, but I never asked him how it was to grow up with such a famous father and what the war stories were like. Jimmy was famous before the Tokyo raid in B-25s in 1942 (just a few months after Pearl Harbor, by the way on what was to later become my wedding anniversary, April 18), for he had performed many aviation feats as early as 1922 when he set a cross-country speed record. I now wish I had talked to John more about his famous father.

Highest Altitude I Ever Flew

B-52 from Castle AFB, California, 48,000 feet over the Pacific Ocean during a simulated penetration of the coastal defenses. My job was to find the frequencies of all radars and jam them with my electronic equipment. A total of four B-52s participated.

Lowest Altitude

Actually, not in an airplane but at Death Valley National Monument (now a national park). We drove *down* to Badwater Basin salt pan, 282 feet below sea level in our '57 Chevy in April 1963 with our two babies. It was not yet hot in April, for we could not go there during the summer, especially without air conditioning (in the summer AC would probably put enough strain on the system to overheat the engine, anyway).

Most Interesting Non-Airplane Concept I Learned While in the Air Force

This is an agriculture concept—knocking almonds. Yes, I said knocking almonds off the tree during harvest time in August and September. Castle AFB was in the middle of the San Joaquin Valley, a major agricultural area. Three principal crops were grapes, peaches, and almonds. Now it so happens that almonds are in the same family as peaches—the trees look very similar, but the blossoms are different color. In late summer the flesh falls off the peach-like fruit, and the seed is hanging on the tree. Knocking them with a stick brings them to the ground and a waiting tarp. Next time you have a peach, break open the seed and find the “almond” inside. Second most

interesting agricultural concept was that Ohioans have a different name for bell peppers. They call them—mangoes.

Most Unusual Purchase I Made on an Air Force Base

In the 1950s, first-class postage was 4 cents per ounce. It has been raised from 3 cents only a few years before, while I was in high school. There were various fractional values of stamps also, for example for third class- the first two ounces were 1-1/2 cents, and each additional ounce was also 1-1/2 cents. One could actually buy such a stamp, and other unusual denominations were also available, viz, 2-1/2c, 4-1/2c, and even 1-1/4c for non profit organizations. I found that I could make 4c on a letter with a 1-1/2 and a 2-1/2. I thought this was clever, so when I did not use a commemorative, this is the combination I used. Once, at the Castle AFB post office, I bought a handful of each, and the clerk looked at me a little funny. Then when I paid with a two-dollar bill, she exclaimed, “My, you *are* unusual!” That, of course, made my day.

Best Vintage Steam Train Trip

In 1962, while living at Castle, as a brand new Air Force captain, Marianna and I rode a narrow gauge excursion from Oakdale, California, to its roundhouse in Jamestown. This world-famous engine, Sierra RR No. 3, a 4-6-0, has been in more movies and TV series (e.g., Petticoat Junction) than any other engine. In May 2007, my granddaughter Patience and I took an 11-day vacation to California solely to ride historic trains and streetcars. We spent half a day at the Jamestown Roundhouse.

Best Car We Ever Owned While in the Air Force

'57 Chevy. We brought two of our girls home from the hospital in that car (in 1960 and 1962). 'Twas a Bel Aire four-door with a 283 cu-in V-8 engine and Powerglide. Went all over the state of California, up and down the hills of San Francisco, went to Death Valley, went to Yosemite National Park often (only a hop and a skip from our house), other national parks and monuments, and so on. Drove it to Squadron Officer School (SOS) in Alabama and on to Tampa and back to California. We did have to overhaul the Power Glide transmission—twice, once on our wedding day and later in California. Also I had to work on the brakes more than once on the SOS cross-country trip, taking off a drum and repositioning the shoes while parked at our motel.

Hottest Cross-Country Trip

In 1961 the Air Force sent us TDY to Maxwell AFB, Alabama for Squadron Officer School. This school for first lieutenants and captains was to teach us Air Force history, anti-communism principles, leadership, and management. My class was in the dead of summer, and we drove the '57 Chevy from California to Alabama. Returning it was horribly hot going through Texas, New Mexico, and Arizona. With one daughter, we three were so hot that we either decided to drive at night or kept lots of motel ice in the car to suck on.

First New Car We Bought

1963 Chevy II Nova convertible. We traded in the '57 Chevy in Merced, California, and ordered this car with the only two options we wanted—radio and air conditioning. We wanted air conditioning even with a drop-top and at this early stage of air conditioning availability because we were tired of being hot in the summertime. I also had a strange rebellion against powerful V-8

engines and automatic transmissions. Therefore we got a six-cylinder with stick shift. We put the top down and drove all around in Yosemite National Park looking up most of the time. We loved it. But this did not turn out to be a smart car for our next assignment—Pittsburgh with very steep streets. Using the clutch and shifting gears with an underpowered six was a challenge. On the hill near our house, Potomac Avenue, we would turn off the air conditioning and carefully slip the transmission if low gear to get up.

Broadest Time Span between Photographs of the Same Subject

In May 1958, upon arrival at Castle, I discovered that they were having an open house on the flight line with pictures allowed. Someone took my picture in my second lieutenant uniform under the nose of a B-52. I hope to repeat the photo exactly fifty years later in May 2008 in my retirement uniform (as an O-5) at the Robbins AFB museum in Georgia. See last page.

My Career in the 1960s

Funniest Airplane Movie I Ever Saw

Actually there are several, such as *Airplane* (spoof on *Airport*) and *Hot Shots* (spoof on *Top Gun*). But far and away my favorite is *Dr. Strangelove*. This movie, made in the 60s as a protest to our nuclear capability, features a one-star SAC wing commander who's had enough of the commies harassment of the entire world and decides to nuke them (literally). With a highly and horribly unworkable scheme, he gets a nuclear equipped B-52 headed toward the USSR. Recall turns out to be impossible, so on we go to the target. Careful and precise photography does a beautiful job of the crew reading the B-52 checklist in preparation for the drop. Chill Wills is great as the aircraft commander who ends up dislodging a stuck bomb in the B-52 bomb bay and riding the bomb down hooping and hollering. Sterling Hayden is superb as the one-star, and George C. Scott split my sides as the four-star advisor to the President of the United States. Peter Sellers plays not only the president, and Dr. Strangelove, a German scientist also advising the president (brought to the United States after WWII as part of the *Paper Clip* program), and finally a British exchange officer working for the one-star and trying to convince him to call the whole thing off. Although one of my favorites, I did not appreciate the anti-war stance of this movie, and as a B-52 combat crew member, I was highly annoyed (yea, incensed) by serious flaws and impossibilities in this movie. See separate article on the flaws.

Best Factory Magazine Subscription

While attending the University of Pittsburgh under the Air Force Institute of Technology program, I discovered some wonderful document in the aeronautical library. Best was *Lockheed Horizons*, a non-periodical (i.e., random publishing dates) about Lockheed's pushing the envelope on technology. These journals featured the Lockheed rigid rotor concepts and lots of info about Lockheed's proposal for a US Supersonic Transport. Neither of these advanced concepts ever went into production.

Shakiest Aircraft Flight

While assigned to the University of Pittsburgh for two years in 1963-65, I got my flying time at a reserve outfit at Greater Pittsburgh Airport. I flew on the somewhat boring C-47 to log navigator time. To add a little excitement, several navigators and I flew on a Douglas C-124 Globemaster to Puerto Rico. This aircraft is a huge transport with mammoth clamshell doors under the cockpit. Its four engines are the R-4360 radial engine, the largest in the Air Force. The aircraft is affectionately known as *Old Shaky*.

Worst Trouble Regarding a Flight I was on

While flying out of Greater Pittsburgh Airport, a friend took me up in a T-33 jet trainer, and he buzzed his hometown airport. He was reported and eventually faced trial for “reckless operation of an aircraft.” Bosh! I went to his home town in my uniform and testified in his behalf. His lawyer wanted me to be sure and say I was a *senior* navigator and make sure my star on my wings showed. My friend was acquitted. See Highest Aeronautical Rating near the end.

Nicest New Car We Bought

In Tampa between Pittsburgh and our next assignment, Glasgow AFB, we traded in the Chevy II after a short three years. We looked at ‘65 and ‘66 full-sized Buicks and Mercurys. That is all. I cannot figure out why I did not look at the Buick Skylarks, a used ‘64, for example, a car that I later considered the most beautiful of any car. We ended up with a ‘66 Mercury Montclair four-door, gold in color. It was beautiful, smooth, and comfortable. We put 75,000 miles on it but had trouble in Glasgow with a coolant leak in the winter with horrible trouble trying to keep coolant in it without freezing up while on the long, lonely road between town and the base. Bad story! Later one or more valves was burned, and I had the annoying miss for our duration in the car.

Longest Mission

About 10 to 12 days round trip. I flew on four commercial airlines and from Glasgow AFB, Montana, to Sacramento. This was a ferry mission in 1966 to take a C-47 from McClellan AFB, California, to Tan Son Nhut, Vietnam, that is, across the entire Pacific Ocean. Landed at every island in the Pacific to spend at least one night and refuel this *non-ocean-crossing* twin-engine antique airplane. Hawaii for three nights, Midway Island, Wake Island, Guam, Philippines for three days to have aux fuel tanks removed, and finally to Vietnam. The C-47 is the military version of the twin-engine DC-3 which first flew in 1935. At each military installation on each island I walked around to find the abundant evidence of the heavy fighting with the Japanese in World War II. The purpose of this particular airplane in Vietnam was to serve as a gun ship, affectionately known as *Puff the Magic Dragon*. C-47 gunships had Gatling guns mounted to point out the left side and could shoot down while in a steep turn. C-47s were later replaced with much larger AC-130 gunships. My return trip was by *Southern Air Transport* from Vietnam to Taipei, Taiwan, stay there three days, then on to Japan also in a DC-6 on the same airline, stay another three days, and finally *Pan American Airlines* to San Francisco. Next came the train—the *California Zephyr* to Salt Lake City. I then changed to *Frontier Airlines* to eventually get back to my home base at Glasgow. While I was having the time of my life, my poor wife struggled to keep three little girls healthy and fed and take them to church and Sunday School. To make matters worse, our youngest daughter Lindsay spent several days in the Glasgow base hospital and almost died from complications of measles.

Exact Itinerary to Glasgow-Saigon-Glasgow, 1966

Glasgow to Great Falls, Montana	Frontier Airlines	22 Jun	Douglas DC-3
Great Falls to Salt Lake City	Frontier Airlines	22 Jun	Convair 580
Salt Lake City to San Francisco	United Airlines	22 Jun	Boeing 720
San Francisco to Sacramento	United Airlines	23 Jun	Boeing 727-100
McClelland AFB to Hawaii	US Air Force	27 Jun	Douglas C-47
Hawaii to Midway Island	US Air Force	30 Jun	Douglas C-47
Midway Island to Wake Island	US Air Force	02 Jul	Douglas C-47
Wake Island to Guam	US Air Force	03 Jul	Douglas C-47
Guam to Clark AB, Philippines	US Air Force	05 Jul	Douglas C-47
Clark AB, Philippines to Saigon	US Air Force	07 Jul	Douglas C-47
Saigon to Taipei, Taiwan	Southern Air Transport	09 Jul	Douglas DC-6
Taipei, Taiwan-Tachikawa AB, Japan	Southern Air Transport	11 Jul	Douglas DC-6
Tachikawa AB to Yokota AB, Japan	US Air Force	16 Jul	Air Force bus
Yakota AB, Japan to Travis AFB, CA	Pan American Airlines	16 Jul	Boeing 707-320
Travis AFB to Suisun, California	US Air Force	16 Jul	Air Force car
Suisun, CA to Salt Lake City, Utah	Western Pacific Railroad	17 Jul	California Zephyr
Salt Lake City to Great Falls, Montana	Frontier Airlines	17 Jul	Convair 580
Great Falls to Glasgow, Montana	Frontier Airlines	17 Jul	Douglas DC-3

Most Unusual Sunday School Lesson I Ever Taught

While waiting for the AC-47 to be ready and waiting for the complete flight crew to assemble, the weekend came about. I rented a Volkswagen Beetle for \$3 per day and found a Southern Baptist Church in Sacramento. The men's class I attended was missing their teacher. I felt totally prepared, so I volunteered. All went well, and they were appreciative.

Best Commercial Airline I Flew on

Pan American—no doubt about it. This is the flag ship of the United States. A wonderful airline that is not allowed to fly domestic routes. If one wants to fly on *Pan Am*, one must go over seas. *Pan Am* was the first airline to order and fly the huge, double-deck Boeing 747. The *Pan Am* building in New York City could be seen throughout half the city. Fortunately I had several flights with this magnificent airline, all in support of the Vietnam War, one way or the other. In a volatile airline environment, even *Pan Am* eventually succumbed to overwhelming financial pressure and went out of business. To me this was a very sad day. I keep thinking that if given domestic routes it would still be here today. After all, domestic airlines like *TWA*, *Delta*, *Continental*, and *Braniff* could fly overseas and compete with *Pan Am*, so why could not *Pan Am* compete with them domestically.

Best Train Trip out West While on Official Air Force Duty

When I returned from Saigon to the United States on July 16, 1966, I needed to get from California to Salt Lake City to take the airline that flew to Glasgow. The *trunk* carriers (as the big airlines were called in those days) were on strike, but our regional carrier was not. This was Frontier Airlines, a *local* airline, and the one that flew into Glasgow. It turned out that I could board the *California Zephyr* on Western Pacific Railroad right near Travis AFB at Suisun, California. This overnight world-class train took me to Salt Lake City in Pullman luxury. I had

my own room with all the amenities, complete meals, and stunning scenery as we crossed the Sierra Nevada mountain range in northern California. At SLC I transferred to the airport and boarded a Frontier Airlines Convair 580 to go home.

Best Train Trip While Going East on Official Air Force Duty

In 1967 I had to go from Glasgow AFB to Wright-Patterson AFB, Ohio, for a maintenance seminar—refresher for everyone else in the room, but new stuff for me, the only mal-assigned aeronautical engineer in the crowd. I caught the Great Northern Railway *Empire Builder* train in Glasgow on 9 September and headed for Minneapolis, arriving the next morning at 6am. Like the *California Zephyr*, the *Empire Builder* resides high on the list of first class historic trains. Then changed to an airliner. Finally arrived at Wright-Patt. I'm sorry to say I remember nothing about this train trip, but I have brochures from the internet showing my room, among other things. I do remember a fellow Glasgow officer happened to be on the train with me, Lt. Colonel Hedland. I had known him back in California. While at Wright-Patt for my seminar I went to the Air Force Museum, and on Wednesday night walked to the First Baptist Church of Fairborn. I had knowledge of the church and wanted to go. It happened to rain cats and dogs on the way there, and during the mile or two walk my suit and all clothing were soaked. I have tried to remember over the years how I ever dried out enough to retain my composure while in church. After three weeks, I reversed course in the air and on the *Empire Builder*.

Most Mundane Navigation

While assigned to Glasgow AFB, Montana, as a B-52 and KC-135 maintenance officer, my proficiency aircraft was the C-47. While this was a world-respected cargo plane and beyond state-of-the-art in the 1930s, it was considerably dated in the jet age of the 60s. It had an absolute dearth of navigation equipment. So I flew roundtrip to Ellsworth AFB, South Dakota, on scheduled courier runs. I dutifully got the winds and filled out a navigator's log at preflight. In flight I used map reading to track our position, ground speed, and winds. Sometimes in the sparsely populated Midwest, all the roads begin to look alike. But I managed to track our course. Meanwhile, the pilots were not interested in my work—they had various forms of radio aids such as VOR and tacan. I was appointed instructor navigator (IN) in case they needed such a person, and later I was appointed evaluator. All flight crew members need an annual checkup, and my duty was to fly with other navigators assigned to the C-47 and certify their credentials. One navigator from another base needed an annual checkup but his base had no evaluator. So he came to Glasgow for me to fly with him. Because he was from a larger base, he brought his own plane, so to speak. It was a Convair C-131, the cargo version of the T-29 described elsewhere in this paper. Navigation equipment was essentially the same as that in the C-47. I wish I could remember what I required of him for his check-ride.

Most Difficult Work on a Temporary Assignment

KC-135 Advon with a squadron F-102s being ferried to South Vietnam in 1966. While at Glasgow as the logistics officer, I was chosen for this one-week duty. I went along as the logistics officer. I set things up for several nights in Guam for the F-102 pilots, among other tiring duties. During flight the F-102s were off our right wing flying close formation, as century series pilots are wont to do. This was a beautiful sight and a subject of my slides and movies. We flew from

March AFB, California, to Guam with an overnight stop at Hickam AFB, Hawaii. At Guam we were finished, and flew back to March AFB. I don't remember what the F-102s did.

Most Enjoyable Navigation for Both Duty and Pure Pleasure

While at Guam in 1966-67, I was assigned the 3960th Strategic Wing (SAC) Base Ops for maintaining navigator proficiency. Specifically, I was assigned to the C-97, a beautiful passenger plane known in airline parlance as the Boeing 377 (Boeing's last airliner before the 707 jetliner). The Air Force C-97 was a large recip-engine aircraft with R-4360 engines, the largest of all military or civilian engines. This plane took military members and their families from Guam to Japan or Hong Kong for R&R. My job was to get my monthly flying time (minimum of 4 hours) in this machine by navigating to either of these two R&R destinations. Each trip was three or four days. Obviously, this was many hours of Pacific Ocean navigation each way. I made three trips to Yokota AB, Japan (about six hours each way) and one trip to Hong Kong between 3 and 9 February 1967 (about 8-1/2 hours each way). With such a classy and comfortable aircraft with a spacious cockpit and first class navigation equipment, this was a dream aircraft all around, and navigating it was pure pleasure. I can't say enough, but I'd better cut it off here. I really liked it better than its modern and dreamy replacement, the KC-135 (similar to the Boeing 707).

Longest Assignment away from Home

Andersen AFB, Guam, September 1966 to April 1967. Temporary Duty with the 91st Bomb Wing at Glasgow AFB, Montana, in support of the Strategic Air Command *Arc Light* mission to bomb the Viet Cong with the B-52. I went as a logistics officer while serving under the Deputy Commander for Maintenance. While at Guam I flew once a month—on the C-97 (four flights) and on a B-52 bombing mission (six hours each way to Vietnam).

Most Simultaneous Assignments to Strategic Air Command Wings

Three. Repeat: Three wing assignments at one time! Now who have you heard of that was ever assigned to three wings at one time? Meet Billy. This occurred at Andersen AFB, Guam. In 1966-67 I was on temporary duty (TDY) from my permanent duty station with the 91st Bomb Wing at Glasgow. Ostensibly, I was assigned to the 4133rd Bomb Wing (Provisional) along with all the other Glasgow personnel. But in my case I was really working for the 3960th Strategic Wing logistics office, and this is where my officer effectiveness reports (OERs) were written. But as I have said elsewhere, my 91st Bomb Wing boss, now in the 4133rd, was not about to lose control of me. As far as he was concerned, I still worked directly for him. Sometimes I had to do a little dance to keep both bosses happy. Thus, as it turned out, for slightly more than six months, I was assigned to three SAC wings. My OER was written by my 3960th boss, Lt. Colonel Luther Adair, and it showed very high marks and was an obvious help in getting my promotion to major.

Scariest General I Ever Met

Upon return from Guam at Glasgow AFB in 1967 I was appointed Chief of the Maintenance Analysis Branch. During an Operational Readiness Inspection (the feared ORI), I was confronted by the commander of Fifteenth Air Force, a three-star general and his entourage. With his three large stars shining on each shoulder, he burst into my office demanding to know the history of

engine starter failures on B-52s on alert (there were two such failures a little earlier). We had no such history, because there had been no such failures. I was at a loss for words. All I could say was, "I'll do a study on that, sir." Pitiful.

Saddest General Story I Know

Again at Glasgow AFB, at another time, we were having an imminent inspection conducted by the vice commander of Fifteenth Air Force, Major General Eisenstat. We were waiting on his KC-135 to take off from Ellsworth AFB, South Dakota, and fly to Glasgow. He never made it. As a bunch of us were standing in job control, we got a call on our long line from Ellsworth that the aircraft had "crashed on takeoff." All on board were lost. It was reported later that the pilot, Major Mercer whom I had known at Castle, had over-rotated. This was unheard of in the safe, safe KC-135. So sad.

Second Saddest General Story I Know

Again, this involves a major general, this time General William Crumm, commander of Third Air Force at Guam. All the B-52 missions to Vietnam (12 aircraft, four flights of three) had a colonel or general at mission commander. With General Crumm as mission commander one day in 1968, all three aircraft in one of the flights were preparing to change lead. Obviously, they are flying in relatively close formation (not nearly as close as fighters do, of course). As they jockeyed around for the new lead to assume position, two of the B-52s experienced a full-blown midair collision over the South China Sea. Several crew members were able to eject and were eventually rescued. I have always assumed that General Crumm was in the instructor-pilot seat between the two pilots and slightly behind. It was not an ejection seat. General Crumm must have been thrown about violently and thus be unable to manually bail out. This happened after I left Guam.

Worst Air Force Assignment

Glasgow AFB, Montana. Isolated, ugly, harsh winters, bad job. When an enema to the earth is required, it is said to be administered at Glasgow. See below.

Worst Job in the Air Force

Maintenance officer with the 91st Bomb Wing (Heavy) at Glasgow AFB, Montana. For some strange reason, the Air Force decided a certain percentage of maintenance officers should have bachelor's degrees in aeronautical engineering. Thus, I left the University of Pittsburgh fresh with education to work in an exciting military research lab only to find myself in a job with which I had no interest and felt 100% unqualified for. All other maintenance officers at Glasgow had six months of maintenance schooling. This was six months I was to do without and yet I was expected to perform at the same level of performance as those around me. No one really knew (or cared) that my schooling was non-existent. It's a wonder I ever got promoted to major.

Biggest Discrepancy between My Rank and the Billet

While a captain (O3) at Glasgow AFB, within the Deputy Commander for Maintenance, I was assigned to the position of Maintenance Control Officer, a lieutenant colonel slot (O5), i.e., two grades higher than the grade I held. The MCO was in charge of Materiel Control (getting parts for

the B-52 and KC-135) and Job Control (assigning technicians and mechanics for repair of these planes).

Worst Acronyms

DIFM—Due in for Maintenance. The status of a piece of equipment due for routine or preventive maintenance. An acronym that has become folklore and part of the military vocabulary is SOS—slop on a shingle. Pejorative title of creamed beef on toast, a breakfast staple at US military mess halls throughout the known world. Also another pejorative title is BUF—big ugly fellow, nickname for the Boeing B-52. Ugly? Humph! Not as beautiful and graceful (spelled *aerodynamic*) like the Boeing B-47, but mean looking like it knew what its job was. Personally I thought the B-52 was—and is—beautiful.

Silliest Correction I Ever Received

While at Guam, one of my logistics jobs was to keep track of all maintenance personnel assigned to various squadron, branches, etc. I had some kind of matrix with numbers of personnel going across and going down. I found it very difficult and extremely tedious to make the long columns jibe in both the x- and y- directions. Lt. Colonel Hitchcock, who also worked for Col. Gaughan and was as scared of him as I was added my numbers in both directions and found a discrepancy. He had to tell me about this and asked me to fix it. All I could think of was, “Colonel, is this all you’ve got to do with your time during war-time conditions?” I held my tongue.

Commander Who Hated Me the Most

Colonel Robert H. Gaughan, Deputy Commander for Maintenance at Glasgow 1965-66. My aeronautical engineering background did not suit him. He wanted maintenance-trained officers from whose lips the maintenance jargon rolled. He also resented my working for the 3960th Strategic Wing instead of working for him while at Guam. As I said in another part of this paper, it’s a wonder I ever got promoted to major. Later, Col. Gardner (Col. Gaughan’s replacement) wrote me an effectiveness report that was sure to get me that promotion.

Most Severe and Embarrassing Tongue-Lashing of a High-Ranking Officer

This same Colonel Gaughan did not hate only me. Once during a staff meeting with 30 or so officers and enlisted men, a bad report came up about a power cart running in front of a B-52 with no ground crew nearby. Col. Gaughan described this situation to all of us, and began to upbraid the commander of the Organizational Maintenance Squadron, a lieutenant colonel. The LC then asked Col. Gaughan did the manuals specifically state that a maintenance man had to accompany a running power cart. In other words, did his squadron really violate any written rule. Col Gaughan exploded with, “Colonel, that is the stupidest statement I have ever heard!” The tongue lashing continued. That’s the only sentence I can quote. After 40 years it still rings in my ears.

Best Nighttime Photographs

B-52 on the flight ramp at Glasgow AFB, Montana. In preparation for our entry in the Order of the Daedalions, a competitions among maintenance organizations, I participated in some photo shootings at night. Col. Robert Gardner, Deputy Commander for Maintenance at Glasgow from 1967 through base closure in 1958, invited me, a known amateur photographer, to go up with him on a 60-ft cherry picker and take a series of shots. We included these photos with our entry documentation, and our maintenance complex did indeed win.

Desert to Jungle

Shortest PCS Assignment

100th Strategic Wing at Davis-Monthan AFB, Arizona. This assignment lasted only 14 months. We were a unit of Strategic Air Command. Few people are aware that SAC actually owned C-130 aircraft, but indeed we did. This base is in the middle of the Sonoran Desert at Tucson. I was sent here when Glasgow AFB was closed by the Air Force, and this was my third Strategic Air Command assignment. I left here when transferred to Georgia Tech in Atlanta under the Air Force Institute of Technology program, and I had no more SAC assignments.

Hottest Place We Lived

Tucson, Arizona. We could not touch our car's door handle without using a folded handkerchief. Along with most people in Tucson, we left the windows down when going to church or the store. We opened the doors and let additional air flow through before we could get in and drive. Before leaving the car, we always put a towel over the steering wheel so we could touch it when ready to drive.

Most Unusual Flight Duties Stateside

Lockheed C-130, a workhorse four-turboprop cargo plane. Ours were designated DC-130. The "D" stood for drone-carrying capability. At Davis-Monthan AFB in Arizona in 1968-69, we had A models with three-bladed props and more powerful B models with four blades. We carried one pilotless aircraft suspended under each wing for the purpose of aerial photography over enemy territory. We called the DC-130 the *Mother Ship*. My job was Airborne Recovery Control Officer (ARCO), and I had telemetering equipment in the DC-130 along with a huge map above my console. The Launch Control Officer (LCO) had programmed the drone on its route, but I could correct it if it got off course. I trained over the Sonoran Desert near Tucson, flying the little drone around. But first I had to get training at the drone factory in San Diego.

Best Flights in Civilian Jet Aircraft

A brand new Boeing 737 and equally new Boeing 727 that belonged to Lufthansa Airlines in 1968. Pilots were not trained in Germany; they were trained at the Tucson Airport. When I found out about this, I also found out that they enjoyed taking military flight-rated officers along. I could do this during down time while assigned to the C-130. This was considerable fun for me.

Most Interesting Official Duty at an Aircraft Factory

For the drone launching and flying assignment in the DC-130, in 1968 I was sent in to Ryan Aircraft Company, the maker of the drones, in San Diego. Here I underwent simulator training for my duties with the drone and my duties in the mother ship. All my training was done in the middle of the night. During the day I was either off duty or sleeping. Ryan, by the way, is the manufacturer that Charles Lindbergh chose to build his single engine plane for his historic trans-Atlantic flight.

Best Water Landings and Take-offs

While undergoing night-time training at San Diego, I hitched a ride with the Coast Guard in the Grumman HU-16 Albatross (formerly called the SA-16 for unknown reasons). This is a high-wing twin-engine aircraft equipped for over-water search and rescue. The purpose of this flight was to train pilots in water take-offs and landings in San Diego Bay. As a result, I experienced lots of exciting water activity.

Most Out-of-the-Ordinary Flight

The Sikorsky CH-3 helicopter belonging to our reconnaissance squadron at Davis-Monthan in which we snagged a drone. Our squadron also had CH-3s in DaNang, Vietnam to snag the drones used in combat. I was usually in the DC-130 mother ship, of course, but I requested an orientation flight in the helicopter. Over the desert on my orientation flight, I was in the helicopter at snag time with my Super-8 camera. I think I was the only DC-130 crew member to be interested in how our helicopters colleagues flew their missions. This was only one of many unusual flights that I took (and logged navigator time).

Most Unusual Flight Duties in a Combat Zone

From Davis-Monthan AFB, I was deployed twice to Bien Hoa Air Base in Vietnam in 1969 for the purpose of putting our drones over enemy areas of interest. My job was to direct the drone with telemetry equipment, pencil-beam radar, and complete flight controls at my console on the mother ship. After the mission, I directed the drone toward DaNang where I punched the button for the parachute. The engine stopped, the parachute deployed, and the drone plunged to a waiting CH-3 helicopter stationed in DaNang but belonging to our squadron. The helicopter snagged the drone's lanyard connecting it to the parachute and brought the drone back to DaNang. We did this with both drones, one at a time—making a very long mission for us in the mother ship. After the second drone, we landed at DaNang while the film was recovered and the drone reconfigured for mounting back under our wing. We then flew back to Bien Hoa with both drones and the film which was rushed to headquarters at Tan Son Nhut. Sometimes a drone was shot down or crashed into a mountain (e.g., *Clarke's Cliff*). In this case we returned with a lopsided mother ship. Crews

Smallest Aircraft I Flew in

O-1 Bien Hoa Air Base in Vietnam in 1969. The smallest of all observation planes, the military version of the Cessna 140. While in the DC-130 at Bien Hoa, each crew would fly every third day. One day was for mission planning, and one day was off. On off-days, I would sometimes try to fly on other aircraft. Thus, I went on an anti-Viet Cong leaflet dropping mission in the O-1

just for the experience of a type of aircraft other than my own (Strategic Air Command C-130). At one time, we turned into our own leaflet drop and I thought they we Viet Cong bullets.

Most Fun Flight

OV-10 from Tan Son Nhut, Vietnam. I actually took an Army Bell UH-1 Huey from Bien Hoa to Tan Son Nhut. This is a twin turboprop observation aircraft with tandem seating, dual controls, ejection seats, and a huge canopy perfect for looking straight down. We were armed with rockets suitable to mark targets for fighter bombing. I went on a normal patrol as a guest of the forward air control (FAC) squadron. In the back seat I was given the task of diving as close as possible, marking a target with one rocket, and pulling up rapidly to safety. My pilot got a little carried away on the way back to the base and screamed down one of the canals in Saigon at about 100 ft. making an aileron roll as he pulled up.

Riskiest Aircraft Ride I Never Did Take

C-123, defoliation aircraft. C-123 crews dropped Agent Orange to defoliate the jungle where Viet Cong was known to hide. These planes took hits and they also gave future chemical problems to the crew members. The flight I arranged for myself was cancelled because of weather.

Most Interesting Factory Tours

DC-10 and L-1011 wide-body commercial aircraft tours in Southern California. In 1969, after acceptance into Georgia Tech both by Tech and by the Air Force, I wrote several aircraft companies asking if I could visit their factories. They were very happy to accommodate an Air Force officer. Thus, between Davis-Monthan AFB and Georgia Tech, I made a diversion to visit these aircraft companies and factories. I got a VIP tour of the jumbo trijet DC-10 mock-ups (DC = Douglas Commercial) and factory, a tour of the North American factory during T-39 production, and a VIP tour of the Lockheed L-1011 jumbo trijet mock-ups and factory. Parenthetically, the “DC” in DC-130 and the “DC” in the DC-10 (or DC-3 or any other Douglas DC) are based on totally different codes and have nothing to do with each other.

Most Interesting Ride in a Helicopter Still Owned by the Factory

As an extension of the L-1011 tour, the Lockheed people took me to the flight line at the factory and put me in an experimental XH-51 turbo-powered helicopter, a ship with rotor blades that did not hinge at the hub. I was very familiar with Lockheed’s rigid rotor and the experimental XH-51, because I had been receiving the *Lockheed* Horizons journal. I felt overwhelmed that I was not only given a ride in an experimental aircraft, but was also permitted to fly it. With many tricky and difficult design concepts, Lockheed enabled the rigid blades to provide an amazingly stable platform. The pilot took me from one Lockheed plant to another and handed off the aircraft to me. I reminded him that I was a navigator and not trained on the stick. This was by far the easiest helicopter I ever flown and hovered. Interestingly, the only other aircraft I flew in that was still owned by the factory was also a Lockheed plane, the C-5 at Lockheed-Georgia near Atlanta (which see).

Return to the Deep South

Best Deal in the Air Force

Earning a master's degree in college while on active duty full pay. As I stated in regard to my University of Pittsburgh earlier, the Air Force has trouble keeping engineers. Thus, they are willing to pay for their career offices to get such degrees. That is why I went to Georgia Tech in Atlanta. This resulted in my two very short duty stations—only 14 months in Tucson and now 15 months (five quarters) at Georgia Tech.

Most Beautiful New Car

1970 Ford Torino four-door hardtop, dark green. Before moving to Atlanta, we sold the Mercury outright, and all of us flew to Atlanta. I quickly bought a used '65 Opel and spotted 1970 Fords at the factory in Atlanta before introductory date. I said that was the most beautiful new car I had ever seen. I checked several dealers and ordered one.

Stupidest Home Purchase

Before leaving Tucson, we called Marianna's childhood neighbor who now lived in an Atlanta suburb. She told us she would help us find a house to buy. Why we didn't instantly consider renting (for only 15 months) I'll never know. Anyway, told us that finding a house in Atlanta was just about impossible, but she would try. She really pumped us up about how hard this was going to be. She called back a few days later and told us she had the perfect house, although somewhat small. We fell for it and sent a deposit. When we got to Atlanta we were horrified that it was so small. This blunder cost us several hundred dollars to get out of the contract. The realtor said, "Major Clarke, don't *ever* buy a house sight unseen." I should have said, "Mr. Realtor, don't ever *sell* a house to someone sight unseen."

Largest Military Aircraft I Flew in

C-5, in 1970 at the Lockheed factory in Marietta, Georgia. While attending Georgia Tech I got my required four hours of flying time in numerous interesting aircraft. My primary aircraft was the C-47, but I searched out helicopters and anything unusual. I always logged official flying time as a navigator. The largest of anything was the C-5 built across the runway from my primary flying base, Dobbins AFB near Atlanta. This was an acceptance flight by an Air Force test flight crew. The aircraft was still owned by Lockheed. We flew out over the Atlantic Ocean among several international Boeing 707s and Douglas DC-8s. One commercial pilot saw us in the air and said on the radio, "Wow, what a big bird you are." Our pilot responded, "Yep, we've got a lot of aluminum." By the way, when a C-5 flew over our house in Atlanta, the distinctive buzzing sound of the high-bypass TF39 turbofans was my signal to run out in the yard and gaze.

Largest Commercial Aircraft I Flew in

Boeing 747 owned by Delta Airlines. The military C-5 and the commercial 747 first flew in 1969. Both were said to be *wide-body*. I flew on both of them within a year. I flew on the 747 from Atlanta to Los Angeles in coach class. In the days of easy access to airports and wearing my uniform, I found a Delta 747 at a gate with no passengers around. I asked permission to go on board and went to the cockpit on the second level via a helical staircase. I ended up talking to a Boeing instructor pilot checking out Delta pilots in the aircraft. The Boeing IP happened to be

someone I casually knew at Castle AFB. Years later, on Air Force business I flew eastbound from Los Angeles to Atlanta with a change of planes to return to Dayton. A standard military TR gets a day coach ticket. For an all-night flight, the ticket is up-graded to first class. Thus I flew on the 747 up front in the two level region with access to either level via the helical staircase. Mighty good flying. Later Delta released its 747s in favor of the smaller wide-body Lockheed L1011.

Vietnam and Thailand

Most Challenging Flight

After I graduated with a master's degree in mechanical engineering at Georgia Tech, I received an assignment to Korat Air Base in Thailand. I was to be back in the cockpit—in a B-66 equipped for electronic jamming and reconnaissance. While in ground school at Shaw AFB, South Carolina, a two hour drive from our home in Atlanta, I continued to look for opportunities to fly on different aircraft. There was a squadron of Cessna O-2 observations planes and I got invited to go flying with them. Three O-2s ended up in close formation. We were number 3 and our job was to keep our eyes on number 2. My pilot suggested I take the stick and try my hand at formation flying. I reminded him that I was a navigator, not trained in the art of the stick. That did not bother him, so I did indeed take up the challenge to keep our aircraft a very close, but safe distance from aircraft number 2.

Best Sea Survival School

Before getting on a commercial airplane to Thailand, I needed to go to sea survival school at Homestead AFB near Miami. I actually drove directly from Shaw AFB, South Carolina, to Florida. On the way to Sea Survival, I stopped at Cape Canaveral for a space launch. Nice! Now in South Florida, numerous officers were taken out in Biscayne Bay in a large boat and dropped far down to the water with a lifeboat. We were scattered widely on the bay, and sometime later a helicopter was dispatched to pick us up, I had my movie camera and a boat crew member took movies as I was dropped into the water. (Yes, he did return my camera as prearranged.)

Best Jungle Survival School

This took place in the Philippine Islands near Clark Air Base. Several officers went jungle-happy with an instructor and our good humor. Seriously, we learned many techniques on how to survive if we had to eject over the jungle. Some of us would indeed later need this training, and of course, we did not know who this would be. After this was all done, we went back to Clark and later reboarded a commercial airliner to Bangkok, Thailand.

Smallest Bomber I Flew

B-66. This was a two-engine “medium” bomber but was really about the smallest jet bomber we had. The B-57 was an equally small twin-jet bomber. The B-66 had a crew of three, pilot, navigator, and electronic warfare officer. I could have flown in either of the latter two capacities. As we flew them, the mission of the B-66 was to electronically jam enemy radar during fighter strikes in Vietnam. The jamming person was I. Thus, it was the responsibility of the pilot and

navigator to get me and my equipment to the target area and loiter before, during, and after the strike. The bomb bay was not full of lethal bombs but had many electronic jammer units each connected to its own antenna and each separately tunable to an appropriate frequency. It was my job to use my receivers wisely, find the radar signals, jam them, and render them useless.

Most Combat Flight Time in One Aircraft

B-66 in Korat Air Base in Thailand. I was in Thailand in 1970 for eight months and flew several hundred hours over Vietnam and Laos in the EB-66E on radar jamming missions. We also had the EB-66C electronic reconnaissance version. Here, instead of bombs or jammers in the bomb bay, we had a capsule with four electronic warfare officers listening for and locating any enemy radar including missile tracking radar.

Number of Wartime Flight Missions

153, in several different aircraft, some of which I was assigned for a full tour, some of which I was assigned on temporary duty, and some I tagged along for fun or by special invitation.

Best Round-the World Trip(s)

Well, I took two such trips. Now let me say how I did these. When I was transferred to Thailand, the Air Force sent me to B-66 School at Sumter AFB, South Carolina, then to Sea Survival School at Homestead AFB, Florida, then back home to Atlanta. From Atlanta to Thailand, I flew to west San Francisco on a commercial airliner, then changed to Pan Am farther west all the way to Thailand with one or two stops. This put me halfway around the world (12 hours between time zones). After being in Thailand six months, I earned enough leave to fly home for a week. I bought a round-trip ticket on *Scandinavian Airline System (SAS)* and flew west toward Europe, specifically, New Delhi, India; Tehran, Iran; Beirut, Lebanon, Rome, Italy, London, England, and finally back to the USA where I eventually wound up in Atlanta. Thus, I completed one round-the-world flight. On the return to Thailand, I flew a similar route in an easterly direction until arriving in Thailand, half-way around the world the third time. When I completed my eight-month tour of duty in Thailand, the Air Force sent me home via the Pacific. When I arrived in Atlanta, this was the fourth trip half-way around the earth and the second full round-the-world trip.

Most Interesting Mode of Transportation Near a Military Base

At Korat, Thailand, the town near my base, I loved to watch the pedicabs, large tricycles with a passenger compartment behind the driver. The Thai people called it a *samlar* (literally, “three-wheel”). One could go almost anywhere in town for one baht (5c). I decided I had to have one, so through a friend of a friend, I had one constructed for me. It cost \$200, a sum that in 2007 I now consider outrageous. I rode it around the base and had the only one on base. Nighttime lights were unique and made great patterns. I still have it.

Most Interesting Mode of Transportation from the Base to Town

From Korat Air Base to the city of Korat, I traveled by municipal bus. Korat used old, highly beat-up Mercedes buses. They were painted in crazy but consistent schemes and were lots of noisy fun. They cost one baht per ride (5c).

Funniest Mode of Transportation from the Base to Town

Jeepney used in the Philippines. This was a stretched jeep with two rows of seats back to back facing outward. These were painted in outrageous schemes. I saw them in 1966 when I spent three days when the fuel tanks were removed from the cargo compartment of the C-47 I ferried across the Pacific. Also saw them when I went to Jungle Survival School in 1970.

Highest Combat Medal

Distinguished Flying Cross. Awarded in 1972 for a combat mission in the B-66 in which we came under attack of a surface-to-air missile (SAM). With my electronic radar jamming equipment, I warded off the radar and we went on our mission routinely.

Oldest Biggest Transport I Flew on

This would be the Lockheed-California C-121, the military version of the Super Constellation. TWA ordered the first Constellations (i.e., not *Super*) in 1942 and made it famous. It was arguably the most beautiful multi-engine transport plane ever designed. TWA called it the *Queen of the Skies*. Interestingly (in my opinion), the C-121 was officially named Constellation by the Air Force, not *Super* Constellation like its civilian sisters. I flew on a 12-hour mission at Korat AB, Thailand along with a bunch of other navigators and electronic warfare officers. We were merely getting our minimum four hours of flight time for our first month at Korat—before we started flying combat missions in the B-66. The missions of the C-121 were to electronically track Viet Cong going up and down the Ho Chi Minh Trail. Then the fighters could be called in. This was a nighttime mission, and I was fascinated by the glowing exhaust of the R-3350s spewing out and following the aerodynamic contour of the upper surface of the wing. Come to think about it, my flight on the Douglas C-124 *Globemaster* from Pittsburgh to Puerto Rico might compare. This airplane was dubbed *Old Shaky* and carried cargo all over the world. It had R-4360 engines like the B-36 (see *Shakiest Aircraft Flight*)

Best Train Trips for Pleasure

Clearly this would be in Thailand in 1970, but I did ride some of the fast trains in Japan. In Thailand I got myself a train schedule—printed in Thai and in English—and studied it for the purpose of taking a short ride north, then getting off in time to take another south back to Korat, and vice versa. I did this several times and rode first class, second class, and third class. Perhaps you can imagine the latter from stories you’ve read or movies you have seen, that is, lots of chickens, pigs, farm products, and so forth. I absolutely loved it all. Then for the piece de resistance, when Marianna flew to Thailand for a several-day visit, we took the train to Chang Mai, a Thai “resort city” in the northern part of the country. On the way up we booked second-class and had upper and lower berths. You should have seen us both trying to fit in the lower with the curtain closed! On the way back we were in a first-class room, just like the one on the California Zephyr when I went from Sacramento to Salt Lake City in 1966. The Thai train rides were wonderful! I’d love to do it again!

Most Friends Who Were Shot Down Over Vietnam

Four were shot down over Laos or North Vietnam. Lt. Colonel Gene Hambleton, a navigator colleague of mine at Korat was shot down over Laos after I rotated home. He was the only one who survived and subsequently evaded capture and was rescued by friendly natives. The commercial movie *Bat 21* told his story. Lt. Colonel John Connelly, my first boss at Korat, went on to B-52s and was part of *Linebacker* very close to truce time. He ejected successfully and was captured in North Vietnam. Because of the timing, he was treated well in prison. My next boss, also a Lt. Colonel was shot down after I rotated. He was killed. Another friend, Major Hank Sirens, was shot down after I rotated. His wife had come to Thailand to visit him (and all the rest of us). It was sad for me to have met her only a few months before her husband was killed.

My Last Assignment, 1970s

Best Job in the Air Force

Aeronautical engineer with the Air Force Flight Dynamics Lab at Wright Field, Ohio. I moved around in the lab as I gained experience and rank. Upon arrival in 1972 as a major, my rank was too high to be a so-called line engineer, so I was given some programs to watch over, was made a branch chief, was promoted to Lt. Colonel, and ended up in the commander's office as the deputy director for plans and programs. (See *last assignment* at the end of this section)

Fastest Aircraft I Flew in

McDonnell F-4 at Wright-Patterson AFB, Ohio in 1972, a test flight. Well over Mach 1 (speed of sound). This is one of the fastest jets in the Air Force and at the time I flew in it, it was the Air Force standard of heavy supersonic jet fighters.

Stupidest Missed Opportunity of a Train Trip While on Official Air Force Duty

In 1974 I was in the Boston area visiting a manufacturer regarding a cryogenic cooler of infrared sensors for Air Force aircraft. I was asked to go to an infrared seminar in Manhattan to speak to the engineers about my cryogenic cooler project at the Flight Dynamics Lab. I could have taken the train and could have selected the United Aircraft turbine driven streamliner and probably could have ridden in the locomotive where a certain number of passenger seats were located. Over-conscientious me decided it would be in the best interest of the Air Force if I wasted little time getting there, so I took a commercial plane. This train was *not to be missed*, but I missed it, and quite on purpose. I have regretted this irrational decision all these 30-some-odd years.

Most Fun in a Pure Jet Aircraft

T-37 from the Flight Test Wing at Wright-Patterson AFB, Ohio, over Wright-Patt's exclusive restricted area. I was being familiarized with the fighter and training jets to log time and to have some sense of relevance of my engineering job to flight testing. This connection never really materialized because I was involuntarily placed on inactive flight status because of my seniority. The T-37 is a small twin jet trainer with side-by-side ejection seats. It is the smallest jet in the inventory and has complete aerobatic capability. I went on several proficiency flights in this aircraft, meaning that the pilot needs to fly so many hours per month merely to be proficient, whether he accomplishes anything else or not. On one flight we had beautiful cumulus clouds in our area, and we attacked the clouds. Just like diving into a mountain, but perfectly harmless, of course. One of the pilots I flew with taught me to land this aircraft.

Most Unusual Flights

C-135 (same as Boeing 707) with the Flight Test Wing at Wright-Patt. I flew on two zero-gravity missions. The purpose of these flights at Patterson Field was to train astronauts and evaluate equipment to be used in space under zero-g conditions. At high altitude, we dove down at a steep angle, then pulled up at a steep angle. Finally, the pilot pushed the control column forward to fly in a ballistic path resulting in zero gravity. As we went over the top of the arc (a geometric curve of a parabola), we then dove down and pulled back up. We repeated the cycle over and over resulting in about 30 seconds of zero gravity followed by 30 seconds of 2-g forces, for an average of one g (as we all experience every day). The pilot determined zero-g with a ping pong ball suspended on a string. When the ball floated in the cockpit, he knew we were at zero-g. Of course, I floated, spun around in a tight ball, and did all the other fun things that zero-g people do. The plane was full of engineers and female nurses, the subjects of the flight. The females were on the first flight to become oriented to zero-g conditions. They were on the second flight to sit on a specially rigged potty and urinate while data were collected. Data collecting included strategically located movie cameras to catch all the gory details of zero-g female urination. The first flight contained an anatomically correct female manikin from the waist down sitting on an open potty with fully functioning plumbing during the zero-g portions of the flight. The second flight with real nurses on the potty was designed with a little more taste, i.e., an enclosure around the bathroom. The girls had been given plenty of water to drink in hopes of lots of flow. When success was achieved with any one nurse, she exited and another popped in. Oh the tasks of male Air Force engineers! P.S. There is one way to experience zero-g that we should be careful to avoid, and that is to fall, as off of a roof. That is sure enough zero-g, but there's that sudden stop!

Scariest Take-off

F-100 fighter jet in New York State but assigned to the Flight Test Wing at Patterson Field. With pouring rain, from the back seat, I could see none of the runway or anything else for that matter. The F-100 (and all the century series jet fighters) lifts off at a very high speed and uses considerable runway. Finally we were airborne and I could release my grip on the ejection seat handles.

Strangest Name for a Vegetable I Discovered at Wright-Patt

On roadside fruit and vege stands in the countryside near Bellbrook, Ohio, bell peppers were called *mangoes*. I was so curious after I had seen the signs several times. I knew they weren't selling the tropical fruit. What a local name!

Most Famous Small Town We Lived in

Bellbrook, Ohio, made famous by Jonathan Winters, who as Elwood P. Suggins, claimed to be from Bellbrook, Ohio. Elwood waxed eloquently his country Ohio accent. We lived there for a few months in 1972.

Worst Tornado

In April 1973 while driving home in Xenia, Ohio, from Wright-Patt, I saw horrible storm clouds ahead and heard bad weather reports on the radio. A massive tornado was heading directly

toward downtown Xenia. It practically wiped out the town, left hundreds homeless, destroyed a huge furniture factory, and killed 31 people. It did not get near our house.

Biggest Auto Repair I Ever Made

While living in Xenia, Ohio, our 1970 For Torino developed a rough engine. After appropriate consultation, I determined that a one or more valves were burned. After finding the machine chop to replace the valves and seats, early on a Saturday morning I lifted the hood and stared at the engine. It was really hard to work up the courage to loosen the first bolt. Finally I started taking the engine apart—first laying the air conditioning components to the side so as not to release the freon. Then removing the air cleaner, carburetor, and intake manifolds. Then loosening the exhaust manifold, and finally removing both heads. This was highly traumatic for a non-mechanic and someone who had not worked on engines since teen years.

Best Assignment I Had but Never Had

Bitburg, Germany. Please re-read the title—the best assignment I had but *never* had. This was to have been in the Wild Weasel anti-missile missile program, in which I fly in a McDonnell F-4 in enemy territory waiting for a surface-to-air missile radar to lock on us. When it does, we go into a severe dive toward the site and release a Standard ARM missile to destroy the site. At Korat Thailand, there was a Wild Weasel squadron but they had the older Republic F-105s. At the time, my squadron ate all our meals in the officer's club at a table right next to the Wild Weasels. I held them in high regard, flying a dangerous mission with an extremely good cause. After I had been at the Flight Dynamics lab three years, I received orders (an actual set of orders) to Germany to fly in these. I was to report to Stead AFB, Nevada, for six weeks training. I called a friend of mine, Major David Lamb, whom I had known at Korat and who was now at Hq AF Personnel, and asked if he could get me delayed 12 months. I simply had not been an “engineer” long enough. He got me cancelled but never got me reinstated. It seems that the war in Vietnam had wound down, and all those F-4 crew members had to go somewhere—and that would be Bitburg, Germany, among other places. Good bye Wild Weasel and good bye my only European assignment.

Highest Military Rank (Grade) Attained

Lieutenant Colonel, grade O-5. Two more promotions to general. Me as a general? Not hardly! That's why I retired as a Lt. Colonel—so that no promotion board would accidentally promote me any further.

Most Satisfying Briefing I Ever Gave

General (four stars) Hudson. Andrews AFB, Maryland. I had been placed in charge of getting a certain unique device past the R&D stage and out into the field to begin saving lots of money on repair. The commander of the Fight Dynamics Lab chose my program to go before the general. My presentation was well received, and we soon had the money for advanced development of this device.

Highest Level Briefing I Gave

While vacationing in Florida, my boss at the Flight Dynamics Lab called me and said I had to go to the Pentagon and brief some officials on my cryogenic cooler program. The briefing would be

to the Assistant Secretary of the Air Force for Research and Development. My family was duly impressed, and they put me on a plane for Washington, D.C. My briefing was well received. It was curious to notice that the time keeper for the Secretary was a full colonel. When a talker's time was up, the colonel stopped things pronto.

Most Exciting General I Ever Met

In 1975 I met General David Jones, Chief of Staff of the Air Force, a four-star general, but with an additional adjective in his rank, viz., "Chief of Staff General," sometimes referred to as "CS/Gen." I've always wondered why such generals are not five-star generals. During the 1970s, he came to Dayton for a certain Air Force awards ceremony at the convention center. I happened to be wandering through a museum, and so was General Jones. Within a few feet of each other, and with me in civilian clothes I approached our local three-star general, Lt. General Stewart, who was in General Jones' party, and asked him if I could speak to General Jones for a moment. General Stewart warmly greeted me and said, "Hey Chief, Colonel Clarke would like to talk to you!" I asked the general if he was the same David Jones who was Director of Materiel at Castle AFB in the 1950s when I was there. He said he indeed was one in the same, which I knew, of course, because his face had not changed a bit. We exchanged small talk about the B-52, other colonels at Castle who had been promoted to general, and other things. He was extremely personable and gracious. That was that, and we each went on our way.

Commander Who Loved Me the Most

Dutch Hildebrandt, chief of the Vehicle Equipment Division of the Flight Dynamics Lab. He was a civilian rated as a GS-16 with pay grade equal to a one-star general. Everything I did under his authority was perfect, and he continually said so. He was capable of hating and ridiculing, though—he made life miserable for one of the group leaders.

Longest Name of an Air Force Base to which I was Assigned

Wright-Patterson Air Force Base, Ohio often known as Wright-Patt or WPAFB. Two sections of the base were separated by a major highway, so it was really two bases, known by their World War II names as Wright Field and Patterson Field. But there was only one commander, one hospital, one active flight line, one commissary, etc. This base name Wright-Patterson is quite unique in that it was not named after one person or even two (as the name implies), but three—Orville Wright, Wilbur Wright, and Frank Stuart Patterson. Patterson was the son and nephew of the co-founders of National Cash Register, who was killed on June 19, 1918, in a crash at Wright Field. Wright Field is home to the Air Force Museum (which see).

Most Interesting Aircraft Factory Inspection by an Air Force Team

Boeing Airplane Company, Seattle, Washington. I was part of a Flight Dynamics Lab inspection team evaluating Boeing's use of *Independent Research and Development (IR&D)* money provided by the Air Force.

Most Interesting University Inspection by an Air Force Team

AF Academy astronautics program. Several engineers from the Flight Dynamics lab were invited to hear presentations on the academy treatment of this engineering field. Having now spent five years in the lab, I was chosen because of my experience.

Most Interesting Sea-based Opportunity

I spent one night and day on an aircraft carrier, the US Lexington from Panama City. I was given VIP treatment for an overnight visit on board, for I was the second-highest ranking officer on board. I arranged this visit while an engineer at the Flight Dynamics Lab. I thought it would enhance my career and give me an appreciation for a sister service. Besides, I knew it would be loads of fun. The Lexington was a training ship for new Navy pilots leaning to land on a carrier. I actually witnessed a crash in which the ground crew was trying to wave the trainer off, but he came in anyway and broke off the nose gear.

Quickest Take-off and Landing

Navy C-1 *Trader* small twin-engine passenger (cargo) built by Grumman. Take-off and landing on the US Lexington. My flight was from Pensacola NAS, and we landed with the use of a tail hook for incredibly fast deceleration. Takeoff the next day was with a steam catapult, and it was the fastest acceleration I ever experienced.

Best Air Force Museum

Air Force Museum, Wright Field, Ohio. I visited this museum many times and spent many hours here during my six years in the lab at Wright Field. I took numerous relatives and other out-of-town visitors. This is by far the biggest air museum in the world, including the Smithsonian. I have visited other great museums including the museum at Robbins AFB, Georgia. The smallest military museum I ever visited was near Asheboro, North Carolina.

Best International Air Show

Transpo 72, held at Dulles International Airport in 1972. While filling engineering duties at The Flight Dynamics Lab at Wright Field, Ohio, I managed to get on the official Air Force C-131 taking other engineers and managers to see a rare international aircraft exposition in the United States. Here I saw many foreign aircraft and many European cars built by General Motors. As a collector of automobile sales literature, I scarfed up a nice grouping of brochures and still have them. The C-131 is the plane I normally logged navigator time on, and so I did this day.

The Worst Entity

Word Processing. I about 1977, the Flight Dynamics Lab commander asked me, the deputy director for plans and programs, to go check out some weird computer monster that had nothing to do with the dynamics of flight or any other relation with an airplane for that matter. The monstrosity was an IBM *word processing* unit. I can't find the right nouns—this was like a small room with table and desk. Built into the desk was a large computer (much much larger than the desktops we now have). This reminded me of after-birth (they threw away the baby). The idea was that one secretary would man it, and all requests for typing throughout a given region in the lab would be sent to this person in the form of hand-written drafts. The team I led to see this thing at the IBM office in Dayton was aghast. The word “aghost” was too mild for my assessment. To me this was the biggest waste of taxpayer money and most non-user friendly way to get typing done. Of course, at that time, no one had ever heard of a PC, but we did have IBM typewriters with some type of memory capability. We never bought the monstrosity, and I hope no one else did. I don't know what IBM did with it. 'Twould make a good fish sanctuary.

Longest Assignment at One Base

Wright Field (part of Wright-Patterson AFB), Ohio. January 1, 1972 to June 30, 1978.

Last Air Force Assignment

Deputy Director of Plans and Programs, Air Force Flight Dynamics Lab, Wright Field, Ohio.
Retired June 30, 1978 after 22 years, five promotions, and eight major duty stations.

Final Remarks and Miscellaneous Thoughts

Most Assignments to Strategic Air Command Wings

Five. During my first 10 years in the Air Force, I was assigned to (1) 93rd Bomb Wing, (2) 91st Bomb Wing, (3) 4133rd Bomb Wing, (4) 3960th Strategic Wing, and (5) 100th Strategic Reconnaissance Wing. Who else can say they were in five SAC outfits?

Best Acronyms

SAC—Strategic Air Command (not founded by General Curtiss Lemay as many believe, but by General George Kenney). Home of medium bombers (Martin B-45, Boeing B-50, and Boeing B-47) and heavy bombers (Convair B-36 and Boeing B-52). Also ARDC—Air Research and Development Command. The name speaks for itself. Its most famous commander was General Bernard Shriver who made a name not only for himself, but also for ARDC and the Air Force itself. Unfortunately some committee no doubt renamed this honored command Air Force Systems Command—AFSC, a tacky name and a tacky acronym

Worst Missed Opportunities for Flight (not in chronological order)

a. I wrangled many flights in interesting military airplanes. I missed the following airplanes, mostly fighters, I guess merely because I did not have enough fight in me to push my luck. At Castle AFB, California, in 1958 the bomb wing still had a beautiful North American B-25. I had fallen in love with this plane while a child as I watched the movie, *Thirty Seconds over Tokyo*, the story of Lt. Colonel Jimmy Doolittle and his raid over Tokyo. This brave pilot thought he was going to be court martialed because the mission was not a complete success and some crew members died or were captured. Instead he was awarded the *Medal of Honor*, the highest military award for bravery. Anyway, I watched these planes flying around Castle. When I finally realized I should hitch a ride in 1959, they had been retired. Missed it!

b. Also at Castle were Convair delta-wing F-102 interceptors, the third in the *Century Series*. These belonged to a resident fighter squadron. To this day I think it would have been possible, if not easy, to hitch a ride in the side-by-side seat of a TF-102 on a test-flight. Missed it!

c. This same fighter unit converted to F-106 interceptors, also delta-wing and also built by Convair. I should have flown in the back seat of this fighter, but did not. Missed it!

d. In Pittsburgh the Air National Guard had F-102s. This was my second opportunity to fly on the F-102, this time with a fellow engineering student (a captain). Did not do so. Missed it!

e. On the island of Guam I could have asked to fly on a B-47 weather reconnaissance flight.

f. At Korat AB, Thailand, while I was in the Douglas B-66, I watched Republic F-105 *Wild Weasel*, the famous and fearful destroyers of SAM missile sites. These two-place fighters would get a missile lock-on, then turn and head straight for the site, fire a *Standard Arm*, and Bingo. I had hoped to be assigned as the Electronic Warfare Officer in the back of a Wild Weasel, but got the B-66 instead. I never asked to fly on a test flight. Why, I'll never know.

g. At Glasgow AFB, Montana, I flew on the antique C-47 for flying proficiency. The resident fighter squadron had McDonnell F-101 interceptors, the second of the century series. Again, with some persistence, I could have talked them into letting me get some back-seat navigator time. Did not do so. Missed it!

(1) But let me hasten to say that at Glasgow I did indeed fly on the Kaman HH-43 *Huskie* rescue helicopter (in the pilot seat of course). This was an awkward-looking chopper with side by side seating and controls along with side-by-side counter-rotating blades. Consequently there was no tail rotor. We flew around the base in the desolate terrain of North-eastern Montana.

(2) Also while at Glasgow and flying on the C-47 courier to Ellsworth AFB, South Dakota, I managed to use my down time at Ellsworth productively. I got a ride (again, in the pilot seat of course) in the UH-1, a utility helicopter that took crews to the Minutemen missile sites for their combat shifts.

(3) At Shaw AFB while in B-66 training, I called up the O-2 squadron and hitched a ride with a flight of three. The pilot let me fly formation for a while.

Funniest Aircraft Discrepancies and Their Corrective Actions

1. Problem: Number three engine missing.
Correction: After a brief search number three engine found on right wing.
2. Problem: Left inboard tire almost needs replacing.
Correction: Almost replaced left inboard tire.
3. Problem: Auto-land system resulted in very rough landing.
Correction: Auto-land not installed on this aircraft.
4. Problem: Evidence of leak on right main landing gear.
Correction: Evidence removed.
5. Problem: Autopilot produces a 200 feet per minute descent.
Correction: Cannot duplicate problem on ground.
6. Problem: Friction lock causes throttles to stick.
Correction: That's what they're there for.
7. Problem: Target radar hums.
Correction: Reprogrammed target radar with lyrics.

These have been around for many years. I found these on a Qantas Airline website.

Best and Worst of the Century Series Fighters for Me

I did fly on some but missed out on most. Here is a summary, all of which is explained in other parts of this paper (directly above, for example). Some numbers are missing, i.e., they were cancelled after the number was assigned or they never went into production (e.g., the F-107 was a hideous redesign of the F-100 with the air intake above and behind the canopy).

- a. F-100. I flew on this fighter at Wright Patt AFB.
- b. F-101. Missed out.

- c. F-102. Missed out.
- d. F-104. I was never assigned anywhere near these sleek interceptors (“missile with a man”).
- e. F-105. Missed out.
- f. F-106. Missed out.
- g. F-110. I flew in the redesignated F-4 at Wright Patt AFB (see next entry).
- h. F-111. I was never assigned anywhere near this fighter-bomber.

Highest Aeronautical Rating

After 15 years of rated service and 3000 flying hours, a navigator can apply for the rating of master navigator. This is mostly symbolic and is indicated by a wreath on the wings. Master navigator is the third of three level, the first being just plain navigator. The second level after seven years and 2000 flying hours is indicated by a star affixed above the wings. The aforementioned wreath surrounded the senior navigator star. Pilots have a similar hierarchy or levels, namely pilot, senior pilot, and command pilot. See Worst Trouble...on page 13.

Stupidest Change Forced upon Military Members

On September 18, 1962, Secretary of Defense McNamara initiated his standardization push (e.g., the Army had to switch from brown shoes to black—thank you Mr. Secretary). Military aircraft nomenclature was redesignated starting with the number *one*. For example, any new helicopter would be H-1; any new fighter would be F-1. The most famous of all these would be the C-5, the largest plane in the world. We still kept the old higher numbers, for example the C-130 and C-141 are still flying after 40-some years. Helicopters did not really start over with H-1, for we have *new* rotary-wing aircraft such as the H-58, H-60, H-63, etc. All this happened while what we know as the McDonnell F-4 was being developed and named. The Navy called it the F4U (meaning the fourth fighter designed and built by McDonnell with code letter “U.” The air Force called it the F-110, and the so-called century series continued. This is what McNamara hated. So during the shuffle, perfectly timed for the F4U and F-110, both Navy and Air Force version became known as the F-4. Of course there were prefixes (e.g., RF-4 for reconnaissance versions) and suffixes (e.g., F-4A, F-4B, etc.) So the F-110 disappeared, but the Convair F-111, the famous swing-wing fighter retained its century designation. No one knows why. Likewise, many years later, when the stealth fighter was introduced among lots of secrecy simultaneously with lots of hoopla, it was called the F-117. Why, Mr. McNamara, why? (There is massive data on the web regarding these redesignations.)

Best Documentation of Military Aircraft Designations

Some time in the 1960s or 70s I got my hands on a Department of Defense document Publication 4120.15, the official list of aircraft, missile, and drone designations. Studying this is one of the ways I learned about the inventory. Every few years, I would order a new one—and save the old ones, of course. I have quite a collection, including numerous ones since retirement. Hmm, come to think of it, it’s time to order the latest one.

Longest Lifetime of any U.S. Military Aircraft

B-52, first brought into combat-ready status in 1955, is projected in 2007 to remain operational through 2040. That is 85 years! Check this out on various B-52 and military websites.

Oldest Biggest Helicopters I Flew on

This would be a toss-up between two choppers the Sikorsky H-34 and the Boeing Vertol H-21. The former was a lumbering single-recip-powered chopper with a monstrous funny-looking engine in the nose. This was a Marine helicopter. I flew on this just for fun and to log flight time while attending Georgia Tech. The Air Force H-21 picked me up from a jungle floor in the Philippines during survival school.

Our Best Church in the United States

Hard to say, but our first church in California soon after we were married must be my choice. Although it was an American Baptist Church (i.e., not Southern), it was wonderful and the conscientious young pastor solidified our faith in Jesus Christ as our personal Savior. We learned a lot from “Pastor Stan” (Stanley A. Maple). At the tender age of 22 I was actually elected a deacon in this church. (Just like being a B-52 instructor at the tender age of 22.) We later realized that we had little confidence in the American Baptist Convention and went back to Southern Baptists.

My Best Church Overseas

Southern Baptist Church in the city of Agana on the Island of Guam. I was unaccompanied on all my overseas assignments. On the island of Guam I was assigned to the logistics office of the 3960th Strategic Wing and worked six 12-hour days. But on Sundays the 3960th let its people off. My colleagues at the 4133rd had to work 12 hours on Sunday like any other day. How my DCM (who belonged to the 4133rd, of course) let me get away with a day off I’ll never know. He was very possessive. Anyway, I got to go to church almost every Sunday—unless an aircraft full of people or logistical material was due in. I also went to church on rare occasions in Bangkok while stationed at Korat AB, Thailand, but I was seldom in Bangkok on a Sunday. I also went to base chapel at Korat.

Best Job After Retirement from the Air Force

Visiting Professor (non-competitive and non-tenured) of Speech Science and Experimental Psychology in the Speech Pathology and Psychology Departments, respectively. Upon completion of 11 years with my part-ownership of a family business, I sold out and became a 52-year-old graduate student. With a brand new Ph.D., I taught speech science, hearing science, language development, electronics of hearing aids, research procedures, and phonetics within the speech pathology department. After the department hired several permanent faculty, I moved to psych and taught courses such as statistics, general psych, cognition, and perception. In 2005 I taught my last course and sailed into the sunset.

College Degree Most Related to Airplanes and the Air Force

Bachelor of Science in Aeronautical Engineering (BSAE), University of Pittsburgh, 1965. Second most is my Master of Science in Mechanical Engineering (MSME), Georgia Tech, 1970. It was this master’s degree that put me into the Flight Dynamics Lab at Wright Field, Ohio.

College Degree Least Related to Airplanes and the Air Force

My two degrees in experimental psychology from the University of South Florida, 1993 (MA) and 1996 (PhD) respectively.

Fastest Master's Degree

MS in Mechanical Engineering at Georgia Tech, five quarters, only 15 months, and I was out of there.

Slowest Master's Degree

MS in Experimental Psychology, USF, Tampa, three full years including summers. Disgraceful!

Funniest Military Sketch by a Comedian

Jonathan Winters doing Marine Lt. Matthews giving his men a pep talk before a dangerous mission. "I'm Lieutenant Matthews—*First* Lieutenant Matthews. Don't ever forget it. I didn't spend 10 years in college for nothing! Cost my family plenty! I'd like to be able to go with you, but they *need me here*. I will be watching with heavy lenses, however." Several of us family members love Jonathan Winters, have most of his LPs, and memorized much of his stuff.

Greatest City We Lived in

Hmm, would this be Pittsburgh or Atlanta. It's a toss-up. Both were fabulous big cities with wonderful attractions. In Pittsburgh, one night, Marianna and I and the girls got into our convertible and drove all over downtown Pittsburgh. We rode the trolleys all over town (especially from our house in Dormant to Pitt), rode three inclines up and down the hill overlooking the three rivers and downtown, toured steel mills, toured Pittsburgh Plate Glass, went to the Pittsburgh Symphony with William Steinberg conducting, and on and on. In Atlanta we visited Stone Mountain often, saw Homer and Jethro, went to Six Flags Over Georgia, visited Cyclorama, and on and on.

Greatest City We Visited

Clearly that would be San Francisco. We went there many times in the 50s-60s during our five years at Castle. We stayed at military reservations, ate at the officer's club overlooking San Francisco Bay, went up and down the steep hills, tried to get into *The Purple Onion* to see the Kingston Trio (but Marianna was too young), went to the Palace of Fine Arts ruins, saw *Ben Hur*, saw the *real* Cinerama (unusually large curved screen with three projectors). Also in auditoriums, we saw Jonathan Winters, Peggy Lee, Carl Sandburg, Josh White, and yes indeed, we did get to see the Kingston Trio—from the first row.

Greatest Man-made Park That We Visited While in the Air Force

What else but Disneyland. We went with our two little girls only a few years after it opened. Great place—if you like concrete hippos that wiggle their mechanical ears.

Greatest National Park That We Visited While in the Air Force

Yosemite National Park, just east of Castle AFB, California. We drove up there in our '57 Chevy many times from 1958 to 1963, either with a church group or just our family. We did not ski or do anything fancy or expensive. We drove around and looked at the spectacular scenery—sheer cliffs, water-falls, deep valleys, peaceful lakes, twisted trees at the timber line, and so forth. Later, toward the end of our five years in California, we drove to Yosemite in our new '63 Chevy II convertible. We had the top down once, with Jennie between us and baby Melanie on the floor at

the heater in her bassinet. We also drove to nearby Kings Canyon National Park and Sequoia National Park for their own style of stunning high-Sierra scenery. We saw Mt. Whitney, the highest mountain in the 48 states.

Greatest State We Lived in

This has to be California. Such a vast variety, from the lowest, hottest spot, Death Valley (which see), to the frigid mountain tops of the Sierra Nevada Mountain Range; from Disney World to several National Parks. Also while in California we too an excursion steam train to Jamestown, location of many western movies that involve trains.

Best National Radio Program in my Early Air Force Days

Monitor on NBC. This week-end variety show was fabulous and ran all afternoon on Saturdays. From the quirky tones played at the beginning each hour to the short sketches by Bob and Ray (Bob Elliot and Ray Goulding), it was tops all the way. While still in Tampa (i.e., before the Air Force), I heard it on WFLA. In California Marianna and I listened together and heard it on KNBC from San Francisco. I recorded almost every Bob and Ray piece from KNBC. If I wasn't in the room, Marianna would call me and tell me they would be on in a moment. I always went flying into the room, not wanting to miss any of them. Once, Marianna called me frantically with a false alarm just to watch me try to trip on everything and kill myself. We laugh about that to this day. In the 21st Century there are now web sites with massive *Monitor* stuff on them.

Best Local Radio Program While I was in the Air Force

Rege Cordic on KDKA Pittsburgh. KDKA is world famous as the first commercial radio station in the world. Rege was a disc jockey, but one that is rare to find. He had a couple actors who would put together and record the craziest skits with Rege always taking the lead or straight spot. He did one per half-hour and was the talk of Pittsburgh. I once visited the station in my uniform (captain at the time) thinking it would help get me in. Sure enough, I was ushered in to meet Rege and asked if I could come back sometime while he was on the air to watch him juggle his chit-chat, records (after all, he was *only* a DJ). He said yes and said to be sure to wear the uniform to get past the guard. I indeed did visit him during air time, but sadly, I don't remember a single detail of how he did it. I recorded hours of Rege from KDKA-FM. Among my favorites are a train being "diverted" right through the studio, Rege's own brand of "Cordoko Blackball" gasoline, and a crazy product inspired by "Better things for better liveage through chicanery." (Do you recall DuPont's slogan "Better things for better *living* through *chemistry*?") Rege's archived stuff can still be heard on the web. I suppose Doug Pledger on KNBC in San Francisco would come in as a distant second.

Best Armed Forces Radio Program I Listened to While in the Air Force

Adventures in Good Music with Karl Hass. This was (and is) a one-hour music program with Karl featuring a different segment of classical music each day. He might cover a composer on his birthday, or violin concertos, Easter, a mystery composer once per month, pre-baroque music, or architecture in music. Every program was fresh and fascinating. Karl's programs continued until his death in 2004. They have continued to be rebroadcast since then also. Actually, toward the

end, I wonder how many of his “new” programs were really rebroadcast from years earlier. Karl came to the University of South Florida where I taught for several years. He would visit WUSF which carried his program and then have a concert at which he played the piano and talked for a couple hours. I met Karl at one of these sessions and told him I had originally heard him on Armed Forces Radio in Thailand. I asked him if he had a doctorate in music, and he said, “I have *many* degrees.” Whoa! There is a lot on the web by and about Karl Haas.

Craziest Armed Forces Radio Program I Listened to While in the Air Force

Wolfman Jack. He was the craziest disc jockey ever to have lived I think. I once visited WOR while in uniform (I was presenting a paper at a military engineering conference) in New York from which he broadcast, but I did not get to meet him. Normally the uniform and a statement that I had listened to him from an overseas military base would get me in, but he had left the station early (so they said). Like Karl Haas, he has also died but has tons of material on several web sites.

Best Magazine Author I Ever Read

Before I joined the Air Force, I loved a magazine called *HiFi Review*. This journal wrote about high fidelity audio equipment and about music. One particularly outstanding article was “The Basic Repertory” by Martin Bookspan. This article reviewed several long-playing 33-1/3 RPM recordings (LPs) of an important piece of classical music, hence the name—basic repertory. The music in question was Tchaikovsky’s Piano Concerto No. 1. It turned out that this was merely the first article of a series that ran every month for almost 20 years. The concept of this series really caught my attention, and I saved every issue. By the way, when stereo became common, the magazine changed its name to *HiFi Stereo Review*. Still later the name was changed again to simply *Stereo Review*. Thus, many people today do not know what “hi-fi” means and do not even know what “high fidelity” means. I especially was crazy about Martin Bookspan and thought his writeups were the *best*. I liked the pictures of him they put in the articles. He was a neat looking fellow! Anyway, I continued clipping and saving these for the entire run of the series. After I retired I looked up Martin in New York City and showed him my collection of his articles. He was impressed and signed the first one for me with a nice personal inscription. Also see the next paragraph.

Best National Radio Program Late in my Air Force Career

About the time Martin Bookspan’s column was winding down, I discovered Martin on National Public Radio announcing the New York Philharmonic Orchestra. I discovered years later that Martin preferred to broadcast on *commercial* radio. After I retired from the Air Force, Marianna and I went to New York and a New York Philharmonic concert. We heard the same concerto mentioned above (Tchaikovsky’s Piano Concerto No. 1) at a rehearsal, then an actual concert. At the rehearsal, it was so funny to see the pianist playing in his huge snow boots. I later tape recorded the very same concert with Martin’s commentary, as broadcast locally in Tampa.

Most Number of University Degrees by an Ordinary Person Such as Me

I earned four degrees. I dare say that people I rub shoulders with do not have four degrees. Certainly three degrees among my professor colleagues (bachelor’s, master’s, and doctorate). I have a bachelor of science in aeronautical engineering (University of Pittsburgh), a master of

science in mechanical engineering (Georgia Institute of Technology), a master of arts in experimental psychology (University of South Florida), and a Ph.D. also in experimental psychology (and also University of South Florida). Actually I can think of one other person with four degrees—Janet Stack, my friend and fellow graduate of USF.

Total Number of Flight Hours

3700 hours in many different aircraft. On each flight I would log my time in the 781 form, and it would go to flight records on base. If I were visiting another military unit, I would fill out a duplicate, have the pilot sign it, and take it back to my base. Upon retirement, the Air Force gave me my big book of flights, containing dates, flight time, type aircraft, location, and so forth.

Total Number of Aircraft

I have flown on and logged time in 37 different Air Force, Army, Navy, Marines, and Coast Guard aircraft. I have flown in bombers (B), fighters (F), transports (C), trainers (T), helicopters (H), short-take-off-and land (V), experimental (X) recip powered, turbo-prop powered, and jet-powered aircraft. I have flown these at various military bases in the US, from islands, on the water, on an aircraft carrier, at the factory in brand new aircraft, and in the war zone in Vietnam. I have flown in the slowest military planes and in the fastest (supersonic) I have written a separate article describing these aircraft and the circumstances under which I flew in them.

Best Traveling Military Aircraft Show

Thunderbirds with distinctive red, white, and blue paint schemes over the years with F-100, F-4, T-38, and F-16. During the fuel crisis of the 1970s the gas-eating twin-engine F-4s were replaced with the more fuel-friendly (but supersonic capability) twin-engine T-38 trainer.

Best Regional Military Aircraft Show

Sun-n-Fun, Linder Field, Lakeland, Florida. Every April. Many World War II Army Air Force and Navy planes fly in and fly every afternoon in huge formations. As many as 30 WWII fighters and trainers will be in the air at any one time.

Most 100th Anniversary Festivals Attended in One Year

Three anniversaries in one year. In 2003 Marianna and I attended the Centennial of Flight at Wright Brothers Museum at Carillon Park in Dayton, Ohio. The whole city was celebrating 100 years of flight and we were there for part of the festivities. In 2003 we also attended the Centennials for both Ford Motor Company (Dearborn, Michigan) and Buick Division of General Motors (Flint, Michigan). The respective manufactures contributed heavily to the Early Ford V8 Club and the Buick Club of America annual show and festivities.

Best Bi-Centennial

1976. The United States celebrated 200 years since the signing of the Declaration of Independence. Marianna and I celebrated while assigned to Wright-Patterson AFB by attending an annual meeting of the Electric Railroader's Association in Chicago. We rode subways and commuters all over town for three days and got to tour the "Bicentennial Train," as it was called. It was a Chicago rapid transit train (the L) of several cars painted in red, white, and blue stripes.

My Greatest Thanks to the Air Force

Thank you Air Force for providing the opportunity for an extremely exhilarating career. Also thank you for my retirement pay and Tri-care for Life health care.

My Greatest Thanks to the Tax Payer

Thank you Mr. and Mrs. Tax Payer for providing my salary, my two engineering degrees, travel expenses, health care for me and my family, an adequate retirement check, and continued health care even in retirement.

My Greatest Thanks to My Family

Thank you Marianna, Jennie, Melanie, and Lindsay for putting up with a goal-oriented husband and father. Also thank you, girls, for making sure each of your family members knew Jesus and were in church all during their growing years (and still are, praise the Lord).

My Greatest Thanks to God Almighty

Thank you God for allowing me and my family to be called Children of God and for allowing us to be part of your family. Thank you for sending your only Son to die on the cross for our sins and rise again to allow us to have eternal life through Him.

Conclusion

This concludes my Fifty Year report on the bestest, mostest, worst, fastest, highest, biggest, smallest, longest, strangest, first, and last events, issues, and equipment during my Air Force career. On this day, September 6, 2007, I commemorate my fiftieth year as a commissioned officer.

Addenda for Additional Fiftieth Anniversary Issues

After the whole document was completed in celebration of my fiftieth anniversary as a commissioned officer, and as the spring of 2008 came upon us, it occurred to me that two things need to be added, shown below.

Addendum 1

The first fiftieth anniversary to be added is that of my wedding with Marianna Johnston Clarke, on April 18, 2008. This anniversary occurred in three phases. On Valentines Day every year in our retirement community in Plant City, the committee on celebrations sponsors a community-wide dance featuring all couples who have a fiftieth during the year. Here with two other couples we were interviewed and a brief bio sketch was read. The three couples plus any others were invited to the arbor to repeat our vows. Numerous couple came up front with us including several close relatives. We then cut the wedding cake, and the three couples either danced or pretended to dance. The floor was then opened for the masses and the regular Valentines dance proceeded.

The second phase was our actual anniversary on April 18. We spent the morning with our regular chiropractor visit in our gym clothes. The chiropractor took our picture with us standing in the same pose as we did on our wedding day. Later that day we went to the Harbor Island Hotel for dinner at the edge of the Hillsborough River. The waiter took our picture in the same pose, but this time we were dressed more appropriately for the occasion.

The third phase of the anniversary celebration is a one-week trip on the St Johns River on the east coast of Florida. We had a houseboat with four separate bedrooms plus everything else one would want on a boat for eight, reserved, coordinated, and paid for by our three daughters,

Addendum 2

In May 1958 (one month after our wedding) I was assigned to Castle AFB, California (already described herein). Immediately upon my arrival on my first Saturday the base had an open house for the entire community. Someone took my picture in uniform standing under the nose of a B-52. In May 2008, exactly 50 years later, Marianna took my picture again under a museum B-52 nose. Marianna had the original photo in one hand and the digital camera in the other. She coached me exactly where and how to stand. This photograph turned out beautifully, and now we display the two together.

Other Papers by Lt. Col. William D. Clarke III , Ph.D.

My Five Assignments to Strategic Air Command

My Five Years as a B-52 Instructor

B-52 Electronic Countermeasures (ECM) Runs

My Vietnam Service

Thailand Reports

Guam Reports

American Legion Speech

My 1950 and 2000 Buicks (bought at the same time; sold at the same time)

Buicks in the Movies (first co-author, publ. in Buick Club of America club magazine)

Where Do You Park Your Buick?

Where Do You Park Your Oldsmobile? (publ. in Olds club magazine)

Where Do You Park Your Ford V-8?

Where Do You Park Your Model A?

Sixty Years of Automobile Sales Literature Collecting (publ. in Olds club magazine)

Ford V-8 Trucks in the Strawberry Fields (publ. in local Ford Early V-8 newsletter)

Three Car Shows in One Day

My Interest in Old Cars

Seventh Grade Living in Downtown Tampa

Eighth Grade Living in Hyde Park Tampa

My Days at the University of Tampa Radio Station, WTUN

Serious Flaws in the Movie *Dr. Strangelove*

Serious Flaws in the Movie *North by Northwest*

Two data-gathering research papers for the non-thesis option master's degree at Georgia Tech

Master's thesis, University of South Florida, *Vowel perception in silent-center syllables*

Doctor's dissertation, University of S Florida, *Comparison of two ways to teach vowel production*

B-52 high angle of incidence similar to WWII British Armstrong Whitley bomber with high angle and typical nose-down flying attitude