

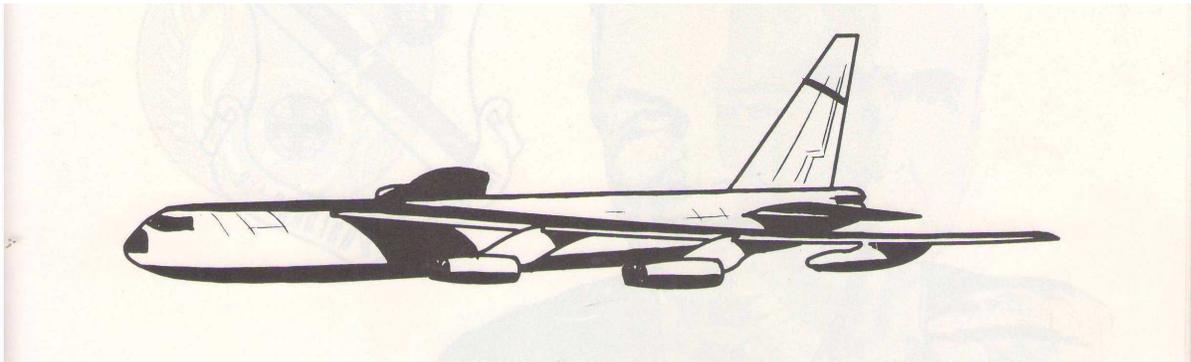
This booklet certifies that

**William David Clarke III**

**Lt. Colonel, United States Air Force**

Has been honored to serve in

**FIVE  
STRATEGIC AIR  
COMMAND  
ASSIGNMENTS**



Or

# THE SACIFICATION\* OF BILLY CLARKE



**Important terms:**

**SACIFICATION.** This is the process of being SACIFIED, that is becoming a fighting member of SAC. For aircrew members, this occurs when one successfully completes the first check-ride in a SAC aircraft. This is particularly significant for combat aircraft, both bomber and tanker.

**SACUMCISION.** In various Air Force-related publications you may see the term SACumcision. The suffix *-cision* means removal or cutting out. Thus, this term relates to the separation of an Air Force officer from SAC after being assigned to another Major Air Command (majcom), separation from the Air Force, or retiring.

**SAC TRAINED KILLER.** This term is reserved for bomber crews. Such crews have a wartime nuclear bombing mission (e.g., Soviet Union or China) or perhaps a conventional bombing mission (e.g., Vietnam or the Middle East).

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## Prologue

I first became fascinated by military bombardment when as a child I saw the movie *Thirty Seconds over Tokyo*, the story of the Doolittle Raiders and Lt. Colonel James Doolittle's fleet of Army Air Force B-25 medium bombers. Unfortunately,



no one told me that movies were often made from books. Thus, I did not know about the book *Thirty Seconds over Tokyo*, until years later. The book was written in 1953 by Ted W.

Lawson, the pilot who lost a leg after crash landing—the part played by Van Johnson in the movie. This mission, planned by the already famed Jimmy Doolittle, took off from the carrier

Hornet and dropped their bomb loads directly on Tokyo and other select Japanese cities on April 18, 1942. I think what is absolutely amazing about this mission is that it took place a mere four months after the Japs' surprise attack on Pearl Harbor. Four months! Doolittle was immensely successful, was promoted to brigadier general (skipping full colonel), and was awarded the Medal of Honor, the nation's highest award for bravery in the face of an armed enemy. The movie, made while World War II was still going on, starred Spencer Tracy as Colonel Doolittle and Van Johnson as Captain Lawson. Johnson was one of the aircraft commanders featured prominently throughout the movie. Tracy graciously allowed Johnson a prominent role because he believed Johnson was going places as an actor. As a small boy I fell in love with the B-25, especially the sound of the engines upon startup. I never forgot that sound, and still love the sound of a B-25 starting and the movie itself to this day.

My next big Air Force thrill was living in close proximity to MacDill AFB in Tampa, Florida, and watching all the aircraft activity overhead. It was around 1950 when I was in the 9<sup>th</sup> grade, and Strategic Air Command (SAC, pronounced as one word) B-47s from MacDill AFB continually flew right over my house. This brand



new SAC bomber, a stunningly beautiful jet with six gleaming engines, slung under the swept wings, was just about more beauty than I could take. The photo shows what I saw every time I looked up as one flew over my house. I said to myself, “That is so beautiful; I’ve got to be in one of those.” For the record, my house sold and was torn down to make room for the new Westshore Mall. Specifically is under the J. C. Penney store.

Next, Jimmy Stewart came to Tampa to make an Air Force movie. I drove around his hotel in my cut-down Model A Ford on several different days hoping to see Jimmy. I was fully prepared to offer him a ride in my ultra-cute “skeeter”. The movie happened to be right down my alley, for the movie was titled, *Strategic Air Command*. So here was Jimmy in town, staying at The Bayshore Royal Hotel, on Bayshore Blvd, driving straight down the boulevard to MacDill AFB. This movie showed Jimmy flying a B-36 (a massive propeller driven SAC bomber) then transitioning into the B-47 jet. The movie had wonderful airborne shots of the B-36 and absolutely gorgeous and irresistible shots of B-47s in flight. So I kept saying, “I’ve got to be in one of those.”

So during my second year at the University of Tampa at age 19, I went to the Air Force recruiter downtown and signed up for aviation cadets. I took all my tests at MacDill, appropriately for me, a SAC base. I was sworn into the Air Force on June 18, 1956, and graduated on September 7, 1957, as a second lieutenant with the silver wings of a navigator. When operational and advanced navigator post-graduate assignments came down for us cadets, I chose electronic warfare because our navigator instructors told us that this school provides a foundation in electronics, a topic I dearly wanted to understand.

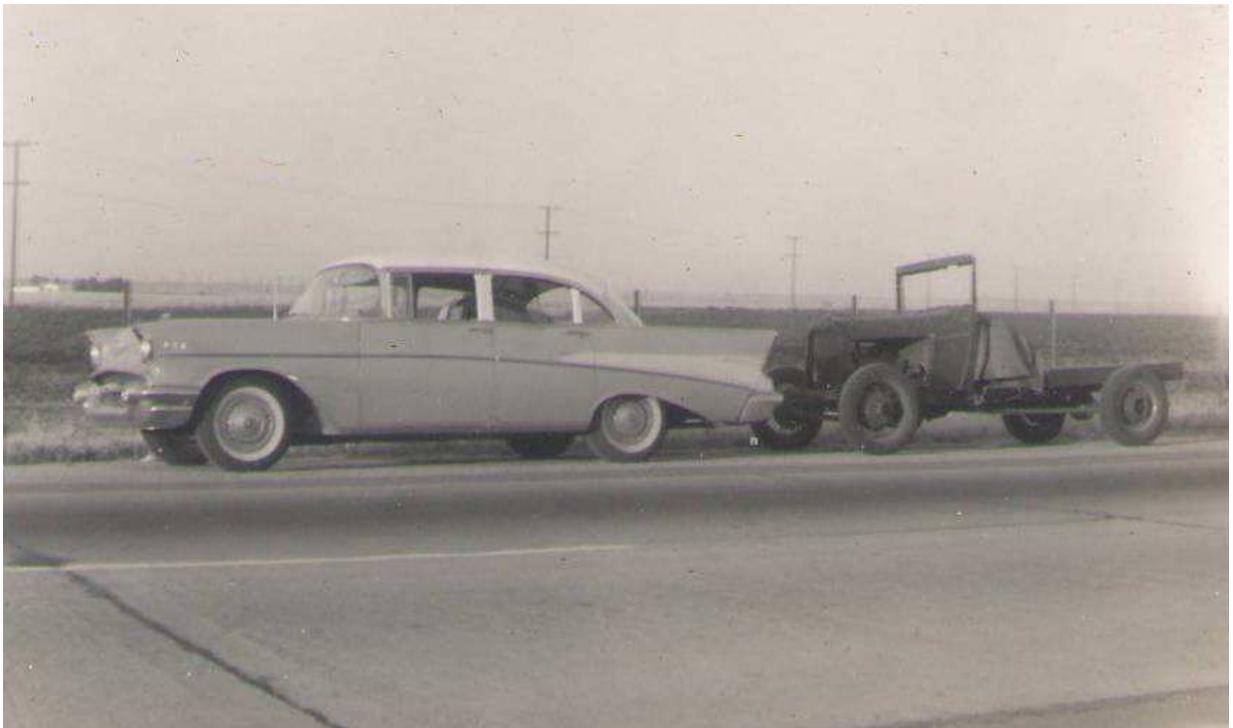
After graduation in September 1957, I signed in at Keesler AFB at Biloxi, Mississippi. I started my electronics fundamental course and loved it. The following spring at Biloxi, I saw my next SAC movie. This was *Bombers B-52*, with Efrem Zimblast, Jr., Natalie Wood, and Carl Malden. This was filmed at Castle AFB, a SAC base near Merced, California; the film described the transition from B-47 medium jet bombers to the replacement B-52 heavy jet bombers. Castle was the *first* base to receive B-52s, and parenthetically, the first base to receive the KC-135 aerial jet tanker. This movie cemented my desire for SAC, but awakened me to the much larger and more dramatic follow-on to the B-47. Thus, I decided that the B-52 was for me and that the electronic warfare ejection seat would be my place. Further, I recognized that Castle was the best B-52 base in the country and thus, the preferred base. Every other base was in the desert or somewhere up north. Castle was in central California, near San Francisco, and near the Sierra Nevada mountain range with its *fourteener* peaks and three national parks. I thought this would be a wonderful opportunity for an assignment. As the top fellow in my electronic warfare class, I got first choice of my next assignment from those offered to the class. Very fortunately, my class had a Castle assignment, and I promptly snagged it. Simply stated, my first choice and all the trappings came true.

Three days after graduation, on April 18, 1958, I drove back to Tampa and married Marianna Johnston, whom I first met in my mother's sixth grade class at Roosevelt Elementary. Please note that this was a special day—the 14<sup>th</sup> anniversary of the Doolittle Raiders on April 18, 1942. Soon we were off to California!

# Chapter 1

## **B-52 Electronic Warfare combat crew member and instructor 93<sup>rd</sup> Bombardment Wing, Castle Air Force Base, California**

A recent navigator graduate, fresh out of electronic warfare school, and just married, I drove my '57 Chevy out to California. This was a solo trip—new bride Marianna was still in Tallahassee finishing her freshman year at FSU. How I made it all the way without incident—alone—on two-lane roads—with my Model A Ford in tow—I don't know. I picked up gas station maps for each state all along the way.<sup>1</sup> Marianna was to follow by commercial aircraft after finishing her freshman year.



<sup>2nd</sup> Lt. Billy Clarke California-bound with '57 Chevy and '29 Model A Ford "Skeeter" in tow. This picture was taken by the author on US 99 a few miles south of Merced on May 6, 1958.

I'd like to set the time frame—when I arrived at Castle, World War II had been over a mere 13 years. I was a child during the war and only 9 years of age on VE

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<sup>1</sup> As a nutty collector of oil company maps, I wish I had saved the ones I used crossing the country.

Day and VJ Day. The officers with whom I would be flying in the brand new B-52 in many cases were WWII veterans. I was the junior of juniors but loving it. I came to Castle to fly, and my aircraft was the magnificent B-52. This beauty was a brand new heavy bomber and had been rolling off the assembly line only three years when I arrived at Castle. It was the last military aircraft to be designed without the benefit of high-speed digital computers. The B-52 was a near-Mach 1 jet with massive swept wings, J57 engines of 10,000 pounds thrust each, a bomb bay suitable for two nuclear weapons, and a tail 50 ft. high. The six-man crew sat in ejection seats (save the gunner) on two levels: navigator and radar navigator (bombardier) downstairs with downward ejection; pilot, copilot, and ECM upstairs with upward ejection. A metal stair connected the two levels. A sextant seat was on the second deck right below the sextant port. The tail gunner sat in a tiny tail compartment with no ejection seat. There was room for a maximum of four additional crewmembers—instructors, crew chief, or dead-heads. The aircraft sat on four sets of double-wheel relatively narrow trucks in a tandem arrangement.<sup>2</sup>



B-52D at open-house a few days after the author's arrival at Castle AFB, California

Two sets were forward of the bomb bay, and two sets were aft of the bomb bay making the tandem arrangement. The center of gravity was somewhere in the

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<sup>2</sup> There are three ways to mount landing gear on an aircraft: First, conventional with two main wheels more-or-less at the center of gravity (cg) and a swiveling tail wheel (e.g., C-47, B-17, Piper Cub, and all early planes); Second, tricycle with two main wheels and a steerable nose wheel (e.g., Piper TriPacer, B-29, modern fighters and transports); Third, tandem with one wheel (or set of wheels) ahead of the cg and one wheel (or set) aft of the cg. A tandem arrangement requires support under the wings to keep them from tipping and dragging a wing tip (e.g., U-2, B-47, B-52).

between the forward and aft sets, that is, in the bomb bay. Takeoff of the B-52 was like no other aircraft, (but there were distinct similarities to the B-47). A typical aircraft with either conventional landing gear (tail wheel) or tricycle landing gear (nose wheel) takes off by raising the elevator surface, thereby lowering the tail. The aircraft then rotates about the main landing gear (always close to the cg), thereby raising the nose and inducing an angle of attack of the wing. A wing with positive angle of attack will fly. Thus, the aircraft leaves the ground. The pilot often calculates his *rotation* speed and *rotation* distance.

Now if a tandem-wheel aircraft is traveling down the runway, and the elevator surface is raised, the aircraft will not rotate about the rear trucks because the cg is far forward of the rear trucks. The elevator would be attempting to lift a considerable portion of the aircraft's weight rather than merely rotating the fuselage. The angle of attack will not change, and the aircraft will not fly. The B-52 overcame this problem by affixing the wing at a substantial angle of attack, that is, an induced angle of attack. This is very obvious by looking at a B-52. Not only is it not possible to rotate the aircraft, it is not necessary. The induced angle of

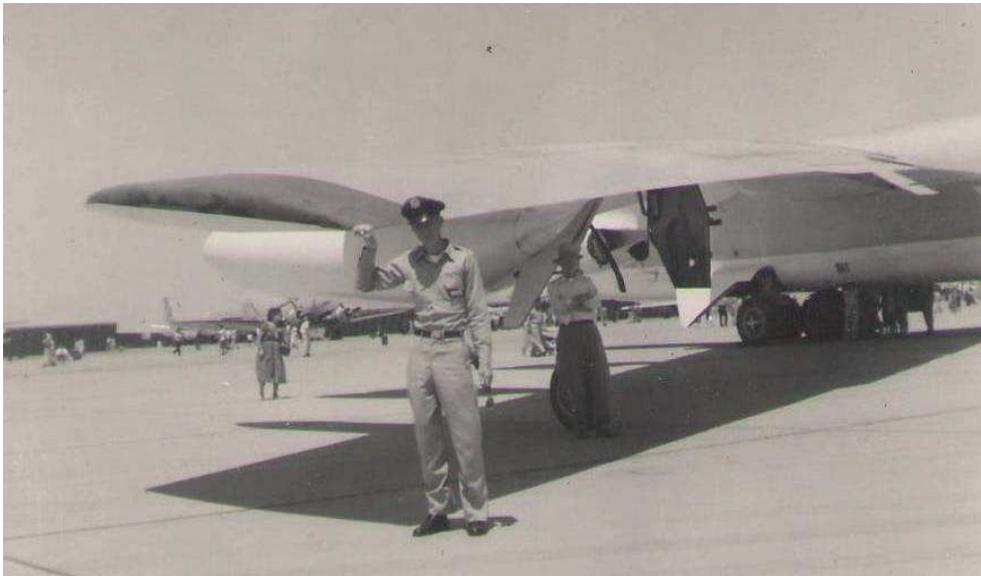


2<sup>nd</sup> Lt. Billy Clarke standing under the nose of a Boeing B-52 with a KC-97 in the background

attack has essentially already rotated the positioning of the wing. During mission planning the pilots would have calculated takeoff speed and distance, but for a tandem aircraft, these are called *unstuck* speed and *unstuck* distance, respectively. This means that at this speed, the airplane will merely start flying with no change of control surfaces. We might simply say that the aircraft is unstuck from the ground. Parenthetically, the B-47 induced an angle of attack for the wing by having a high landing gear truck in the front and a low one in back.

Castle was the first base to receive the B-52, replacing its B-47s. Runways had been widened, lengthened, and made stronger (thicker). New hangars had been built. This was the nature of the base to which I was assigned for my first operational tour of duty. The 93<sup>rd</sup> Bomb wing was home to three bomb squadrons, the 328<sup>th</sup>, 329<sup>th</sup>, and 330<sup>th</sup> and one aerial refueling squadron. Each bomb squadron had 15 aircraft. I was assigned to the 328<sup>th</sup>.

The first weekend I was at Castle in May 1958 we had an open house for families and for the community. I had my simple little Kodak Brownie Hawkeye camera and I got someone to take my picture standing under the nose of a B-52 and another picture of me standing under the wingtip.



Also in May 1958, with no in-flight instructor and no ground school, I was put on a B-52 for my first flight. 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. I was so ill-equipped for this flight that I had to borrow some combat boots. Thus, I was “on my own” just to sit in the ejection seat for eight hours, report my oxygen regulator status every 30 minutes, and do nothing of importance with the admonition, “Do not make any

safety infractions.” I was able to get out of the seat a couple of times and look out the windows and wander up toward the two pilots and study the eight throttles and eight sets of engine instruments. So it was a wonderful experience but also somewhat frightening.



2<sup>nd</sup> Lt. Billy Clarke before takeoff on his first flight in the B-52

The 93rd Bomb Wing had a really good policy—new flight crew members, even second lieutenants, were invited to meet with the wing commander, Brigadier General William Eubank. This was a one-on-one meeting in his beautiful office, undivided attention as he asked me about my background and aspirations. Never to be forgotten! Within two months General Eubank was transferred out, so I felt very fortunate to meet him and spend time with him. Not all wings were commanded by a general—by far most commanders were colonels. We not only had a general, but the next commander was also a brigadier general, John Reynolds. And not only that, within a year he was promoted to *two* stars. We really felt special, and we were indeed special—we were the first base with the B-52; we were the only B-52 training base; and we pulled no alert. Furthermore, we got a B-52 on a U.S. postage stamp. Look through your stamps collections and see how many military aircraft you can find. You’ll be looking a long, long time. The occasion for this stamp was the Fiftieth Anniversary of military flight, at first with military aircraft in the Army, then with a series of name changes such as Army Air Corps and later Army Air Forces, and finally the United States Air Force as a separate branch in 1948. The stamp contains the Air Force shield and shows a B-52 along with an F-104 fighter. I like to think the stamp was issued in partial tribute to the

magnificence of the B-52. I was a stamp collector; this stamp in a block of four complete with the plate number on the corner of the sheet is one of my favorites.



United States Post Office 6c air mail stamp with B-52 honoring fifty years of military aviation.

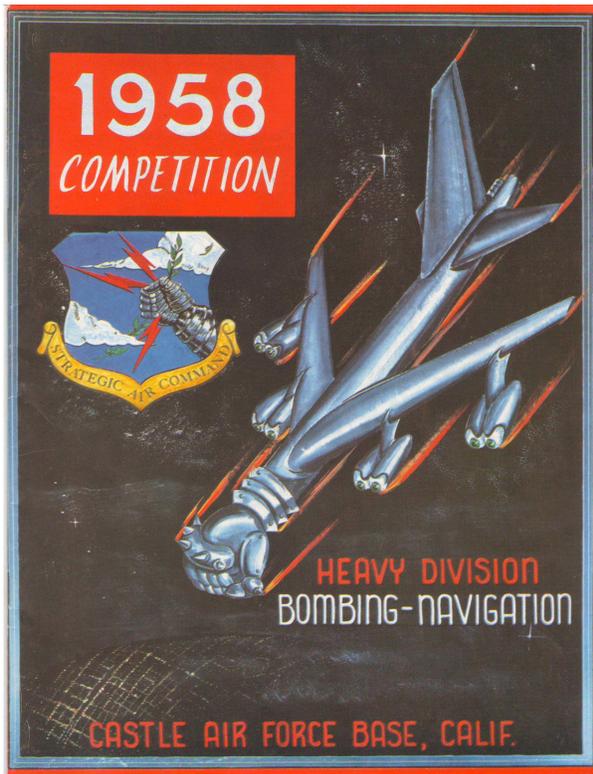
And let me say one more thing about this highly desirable Air Force base and the 93rd Bomb Wing. That very year, 1958, the 93<sup>rd</sup> won the Air Force MacKay Trophy, an award to the organization that had the most significant flight of the previous year. This was for three B-52s who made around-the-world flight in January 1957 in 45 hours. The crew members included friends I was to fly with. This flight rated many other honors including an extensive article in the January 28, 1957, *Life* magazine. This issue of *Life* magazine is part of my collection.

Almost immediately after my meeting with General Eubank, the squadron decided to send me to survival school at Stead AFB in nearby Reno, Nevada. 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 with lots of photos, a week-long series in the newspaper, and later, copies mailed each of us.

Between 13 and 18 October 1958, the annual bombing competition for the heavy bomber class was held at Castle AFB. (The smaller B-47 competitors 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 a junior officer host for the crew members.



Cover of Life Magazine for January 28, 1957. Seven-page article documents the flight from takeoff at Castle AFB, California, to landing and celebration. General Curtiss LeMay, commander-in-chief of Strategic Air Command, presented each crew-member with a Distinguished Flying Cross upon landing at March AFB, California.



*The Host's Castle*

At midnight on December 7, 1941, when embittered survivors were still counting dead and missing at Pearl Harbor, 34 Vulture Vibrators (BT-13's) landed on the brand new runways of Merced's Air Corps Flying School.

Today, some 17 years later, Castle Air Force Base—the Home of the B-52 and the KC-135—is once again in the training business. This time however the mission has gone from the fledgling flyers of WW II days to the action trained professionals that make up the combat crews of the Strategic Air Command.

Castle is located five miles north of the city of Merced and enjoys the distinction of being a community—part of fabulous Merced County. Castle was taken into the community from the start. The first 940 acres that made up the original field were sold to the government for only \$1.00. Castle has enjoyed its position in this fine community and has benefited greatly from the cooperation and understanding of its civilian neighbors.

In 1945 the need for pilots dwindled and because of Merced Field's location, it became a processing center for Air Corps personnel moving to combat zones. After the war it reversed the flow and processed overseas returnees. Caretaker status hit Castle with the post-war de-emphasis on military needs. Then a bomb group needed a home.

THE 93D BOMB GROUP—then recently returned from a successful European Campaign—moved into Castle and set up shop, although for the most part it was reduced to a paper organization. B-29's, the queen of the Strategic Air weapons of the era, arrived in June of 1947. It didn't take long to bring the 93d to combat readiness.



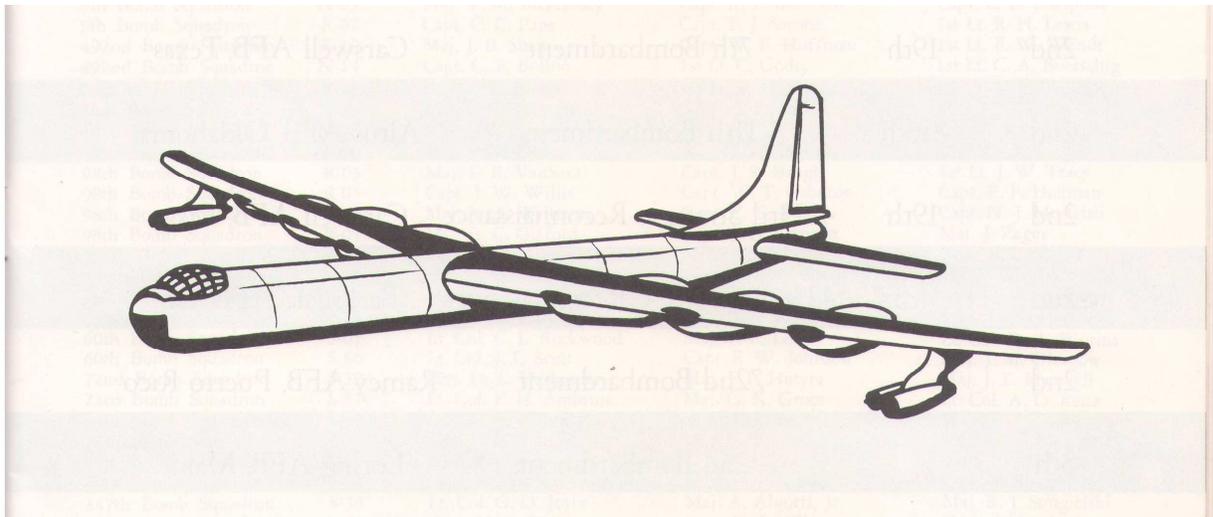
In 1949 B-50's made their appearance in the San Joaquin Valley and in 1954 the 93d received their first jet bomber, the Boeing B-47. A year after the now 93d Bomb Wing was converted to the 47's, another dual conversion became necessary—converting to the present B-52's and changing their primary mission from combat readiness to training all the B-52 crews for SAC.

In 1957 another project hit the 93d—converting from the KC-97 to the jet Stratotanker—the KC-135 and also setting up a training program for it.

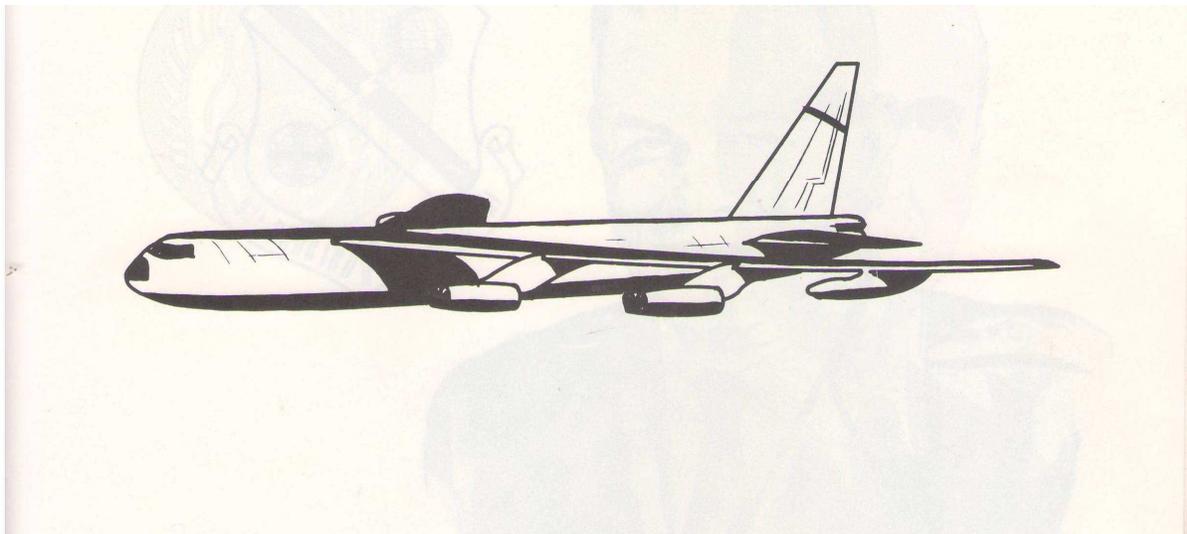
In recent years the 93d has made aviation history—first by making the first jet round the world flight with three B-52's in record time and then by making the longest distance unrefueled jet flight in history from Tokyo to Lajes with the KC-135. This Wing was recently presented the MacKay Trophy for the round the world flight.

Merced Army Air Field changed its name to Castle Air Force Base in 1946. It was named in honor of Brig. Gen. Frederick W. Castle who was killed during a 2,000-plane raid over Germany on Christmas Eve, 1944.

Bombing Competition brochure. 2<sup>nd</sup> Lt. Clarke participated as a junior officer host. Castle AFB was privileged to have the B-36 heavy bomber visit the base as one of its last hurrahs as a major factor in Strategic Air Command's nuclear deterrent. At the time I was unaware of this brochure, but many years later I was graciously given as copy by the Castle Museum in Merced.



Convair B-36 Peacemaker competing at Castle for bombing excellence (this sketch is from the bombing comp brochure)



Boeing B-52B Strato Fortress competing at Castle for bombing excellence (this sketch is also from the brochure)

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! I discovered that for the bombing competition each year, SAC creates a handsome 40-page souvenir brochure with the program printed specially for the occasion. This brochure is included among my references at the end.

My wife Marianna and I enjoyed driving on the country roads at either end of the runway to watch takeoffs or landings. Prevailing winds were northerly, so aircraft took off in that direction. We loved the B-52s in particular, also the KC-135s. Watching a B-52 landing overhead—so close it seemed like we could touch it—was a big thing for a young airplane lover and his devoted wife. During the bombing competition, we had a special treat of also watching massive B-36s. These were about the same size as the B-52s, but they were very different. The fuselage was long and perfectly cylindrical. A long internal tube connected the various crew compartments. The B-36 had six of the largest reciprocating engines in the inventory, the R-4360 with four radial rows with a total of 28 cylinders, and 4360 cubic inch displacement. Massive! Also the B-36 had four jet engines at the wing tips in pods similar to those of the B-47. In fact, these jet engines were J47 engines as used on the B-47. Thus, the crew commanded 10 engines. The huge crew of 15 was more than twice that of the B-52 and included a flight engineer,

and gunners among others. The B-36's streamlining was suitable for slow flight, and it looked bulky. The wing roots were thick enough for a man to stand in.



Convair B-36 Peacemaker taking off from Castle Air Force Base during Bombing Competition

Castle had two colonels who were to move up to great heights. Deputy Commander (later renamed *Vice* Commander) Paul K Carlton was promoted up the line to General (four stars) and became commander of Military Airlift Command. Director of Maintenance David Jones was also promoted up the line to General and became Chief of Staff of the Air Force and four years later Chairman of the Joint Chiefs of Staff, the ultimate military position. His rank was four stars but was called *Chief of Staff General*. I may have flown with then Colonel Jones, but much later I was to meet him at an Air Force symposium. I was introduced by Lt. General James T. Stewart, commander of Aeronautical Systems Division of Systems Command at Wright-Patterson AFB. In a very friendly conversation we talked about Castle, his job there as director of maintenance, B-52s, and so forth.

It took about 10 months 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 years old when placed on nuclear crew duty and was

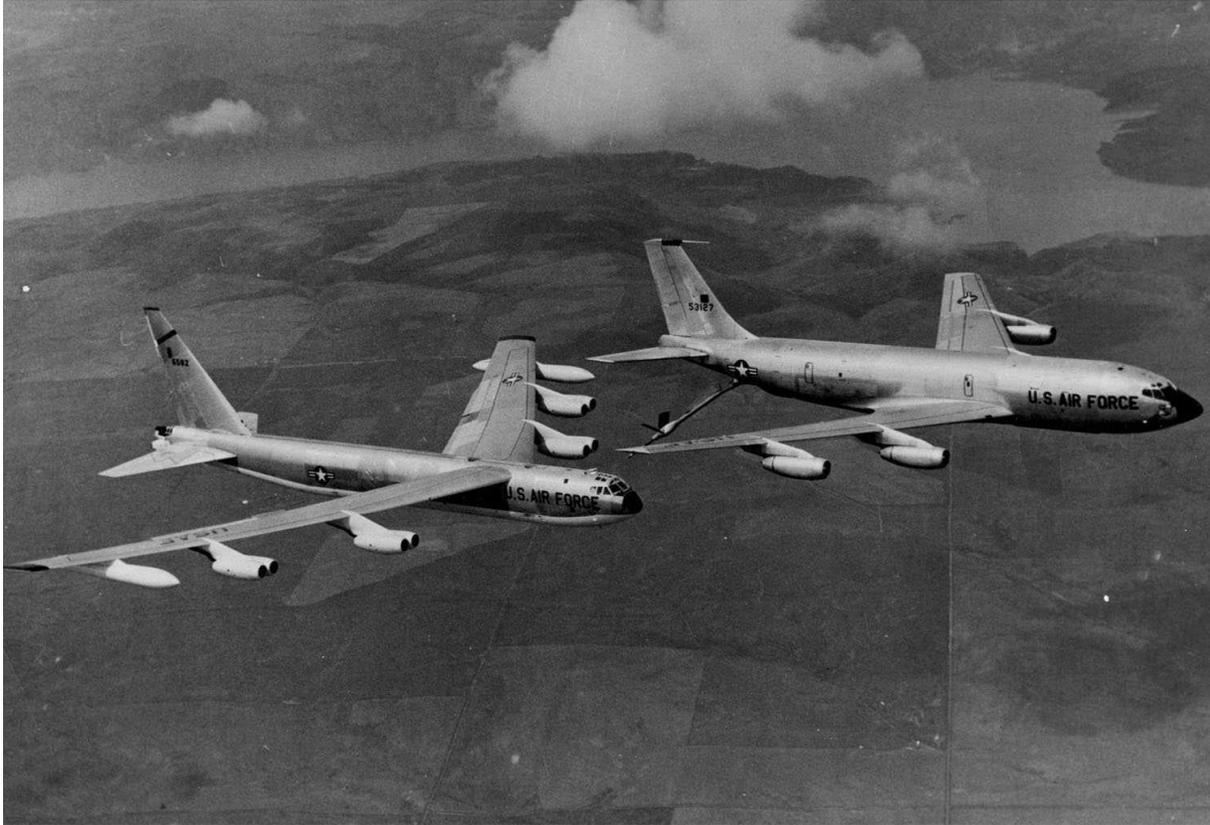
still a second lieutenant. The “reward” for any second lieutenant’s being chosen for a lead or select crew was an automatic and instant (spot) promotion to first lieutenant. Thus, I was again sitting on top of the world with a spot promotion, a



Three beautiful B-52 B models on the flight line. Mountains of California are in the background.

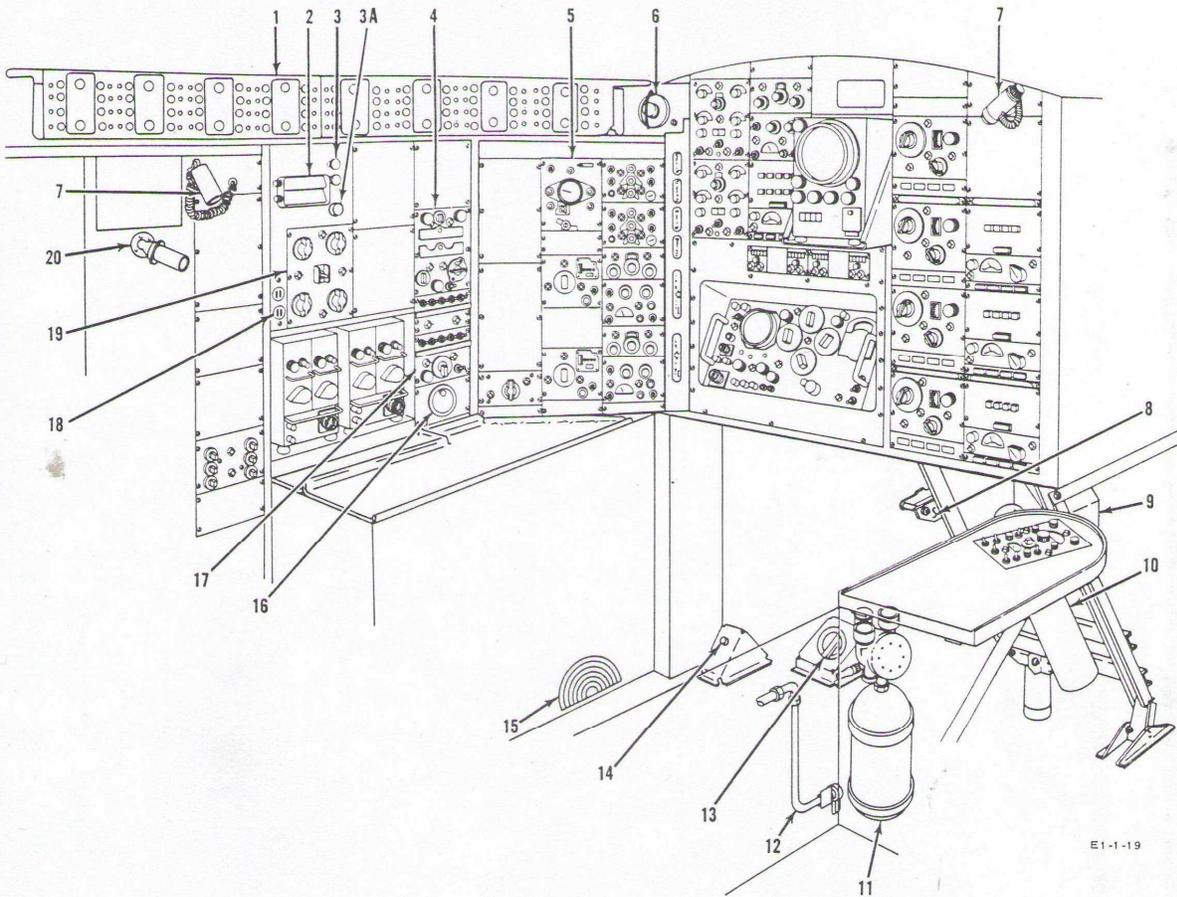
fabulous aircraft to fly in, a fabulous combat crew position, and soon-to be instructor position. There were no other B-52 crew members younger than me. I also had a lovely bride and an evangelical church where we were being groomed for leadership positions.

Every combat crew flight in the B-52 (i.e., not with students) was a training mission, because the sole purpose of SAC bombers was to go to war, and we needed to be trained and ready for that mission. We also had test flights after certain heavy maintenance, some special missions from time to time, and maybe a rare pickup of a new aircraft at the factory. (We were still receiving brand new aircraft.) Each crew member had responsibilities: for the two pilots, takeoff and landing of course, and aerial refueling; for the bombardier (usually called *radar nav*) several ground-scored simulated bomb runs; for the navigator a celestial leg or two (day or night); and for the EWO radar jamming sessions of two types.



Boeing B-52D refueled by Boeing KC-135A Strato Tanker (The B-52 is a larger aircraft but this is lost in the perspective.)

One type of EWO radar jamming session was always simultaneous with the radar navigator's bomb runs. The other type was against a long-range radar scattered all over the United States. When appropriate, the EWO shot the elevation and azimuth of the sun or stars with the sextant. The sextant port was in the roof on the upper deck just ahead of my EW console and ejection seat. I obviously had to leave the ejection seat and had a little swivel stool to use while taking my reading.



B-52 Electronic Warfare Officer's station with receivers and numerous radar jammers.

Before I was assigned a student, one day the ops officer came to me and said he needed me to go on a *search and rescue* mission in a Cessna twin-engine U-3 (i.e., the search portion only—of course, we could not *rescue* anyone with a U-3). A pilot had bailed out of an F-104, and the U-3 pilot and I went to look for him.



Cessna U-3 flanked by two T-37 trainers (Cessna photo)

We were not successful, and I don't know if he was later rescued. The U-3 was one of several aircraft at Castle for non-combat-crew members to get their required flight hours. Castle also had a C-47 and a B-25. This was 1958, and World War II had been over for only 13 years and only 16 years since the Doolittle raid on Tokyo. Thus, even though we were surrounded by the monstrous and beautiful jet-powered B-52s, the little antique twin-engine B-25 was technically not really that old. I thought how great it would be to fly in it and actually log time in it. As I said in the Prolog, the movie *Thirty Seconds Over Tokyo* was an extreme childhood favorite of mine. I must have been delirious with joy among the B-52s, so I delayed asking about a flight in the B-25. Eventually this jewel of a plane was shipped out and probably retired. My chance to fly on it and log navigator time was gone forever. Alas, what a serious oversight on my part!

Most of our pilots, bombardiers, navigators, EWOs, and gunners in the squadron were World War II types—"old-timers" in their late thirties. The officers were mostly captains—many had separated after the war, were recalled during Korea, and stayed on. A few were majors or lieutenant colonels. They had not separated and thus build up their longevity without breaks. They had flown B-25, B-26, B-24- B-17, or B-29 missions in the war. I talked very little to them about it. Again, my pathetic youth and inhibitions negated my asking about their experiences. One bombardier told me how his B-29 had been shot down and how he was blown clear—sailing through the sky with his parachute. When he came to, he popped the chute, descended, and was later rescued. I did not have the forethought to quiz him on details.

One pilot was very special to me—Captain John Doolittle, son of Jimmy Doolittle and the spitting image of his dad. John was an ordinary B-52 pilot, but to me he was really someone special. I think I was too intimidated to ask what it was like to be a Doolittle! John was old enough to have been in World War II but foolishly I never asked him about it.

Here is pretty much what I did the day before and on a combat training mission: Along with all the crews scheduled to fly the next day, we did our mission planning, attended the mission briefing, and went home, planning to meet the next day three hours before takeoff. We met at the squadron, checked out our classified documents, hopped on a bus, went to weather briefing, and finally arrived at the aircraft. We lined up for a flight refresher briefing, with pilot out front, then the other five in a row facing the pilot. We then climbed on board, took out respective seats and ran our preflight checklists.

Our flight plan was to make a practice electronic countermeasures attack on an operational US NORAD long-range radar site. The purpose of the sites, more or less ringing the continental US (and Alaska and Canada, for that matter), was to spot any Soviet aircraft that might be attacking. I would make the radio call for permission and would authenticate our aircraft with the Department of Defense code book. The radar site would give me a two-letter code; I would look it up in my book for that date, and respond back. A proper authentication would allow our B-52 to proceed, precluding any conflicting duties at the radar site. I had to search with my receivers for the radar's radiation. Then we would approach from some random (but planned) direction from say 200 miles out (can't remember exactly) and head toward the site at about 40,000 feet at near the speed of sound with my radar jammers blasting away with noise at the appropriate frequency (radar noise, not audible noise). This should incapacitate their radar. After the run was over, the site would give us a score as to how badly we messed up the performance of their radar. As the years passed, for me in particular, the sites obtained more and more anti-countermeasures electronic fixes on the radar. Of course our aircraft were also retrofitted with more sophisticated jammers and faster receivers. Over the years, it was always a contest to see who could stay ahead of whom.

We had another type practice run, and that was on a site set up strictly for bombing accuracy practice. These were all near perceived US targets of the Soviets. After receiving permission with a radio contact and use of the code book, just like mentioned above, our bombardier at the IP (initial point) would take control of the auto pilot and direct the aircraft to the target, keeping wind speed and other factors

in mind to the point where we would drop the make-believe nuclear bomb. We would then turn the aircraft steeply to get away from the make-believe nuclear blast that would come in a few minutes (traveling at the speed of sound, of course). The radar site on the ground would then give us an encoded error score of range and azimuth in comparison to the actual target.

I think it was during mission planning, an all-day affair the day before the flight that I learned the EWO did not have a lot to do. Being the navigator on any plane would have been far more challenging. I ordered the flight lunches and drew the map for me and for the pilots. I drew our maps 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.

After many years, I am still in awe that Strategic Air Command would allow such a young officer as me to be assigned to Castle AFB knowing full well that every crew member would of necessity become an instructor. But here I was teaching other lieutenants and a couple of captains during my tenure at the 328th!

I suppose one should say that each of us in the bomb squadron wore two equally important hats—the crew member and the instructor. In addition to keeping up with my combat crew duties I would now have a duty of instructing students. So after flying additional missions and given a rigorous instructor evaluation, I was allowed to put on my second hat and become part of an instructor team with my first student. He had already received 6-weeks of ground school and was assigned to the 328<sup>th</sup> as part of a six-man student crew. One of my first duties was to take him on a tour of the aircraft—outside, cockpit, various equipment compartments, and location of electronic warfare receivers and jammers. I then went over safety procedures and equipment, especially the ejection seat and hatch. Next I refreshed the student on the use of EW receivers and jammers, sextant, and what happens on a typical training flight. When ready for our first flight, we did our mission planning, and all other duties just like a combat training mission. Crew briefing by the pilot at the aircraft was a little different: Student pilot out front, then a row of five student crewmembers facing him, and then on the second row the three instructors.

Instructor duty in flight had advantages and disadvantages. There were three of us: instructor pilot (IP), instructor nav (IN), and instructor EW (IEW). The IP was always in the pilot or co-pilot seat, and the student P and CP took turns sitting in the IP seat (jump seat) depending on which one was getting instruction from the IP.

Neither the IN nor IEW had an ejection seat. But as IEW I had two windows on the upper deck, and I took advantage of that for sure. I liked to study the geography of Yosemite National Parks with its stunning rock formations and waterfalls, and I took lots of 35mm slides and 8mm movies.



Crews loved to fly over Yosemite National Park. At 10 miles per minute, this gorgeous park was mere minutes from Castle AFB by B-52. El Capitan is on the left; Half Dome is in the middle.

One special flight on the B-52 from Castle was 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 air blasts of their nuclear weapons. We had a special air sampling pod in the bomb bay.



In 1962 a Hollywood movie crew descended on California for another Strategic Air Command film. This time the crew was at Beale AFB a few hours' drive north of Castle to make *A Gathering of Eagles*. The “gathering” referred to was a bunch of full colonels and other B-52 types coming in to make an unexpected test of the wing’s nuclear war-making prowess, known as an Operational Readiness Inspection the dreaded ORI. (See more about this in

Chapter 2.) There was some buzz about this at Castle but none of us went to Beale to see what was going on. I never even saw the movie till many years later.

Also in 1962 the United States experienced a Soviet missile crisis in Cuba, meaning that the USSR was sending ballistic missiles to Cuba by ship. Our spy planes, particularly U-2s, photographed these on the top deck, pretty much in view of anyone nearby. The U.S. made a very serious charge of Soviet imposition into of our Western Hemisphere. President Kennedy stood down the Soviets, and they eventually put them back on the ship and removed them. In the mean time SAC bombers nationwide were put on alert, and the 93<sup>rd</sup> Bomb Wing for the first time put our own B-52s on alert with all the other wings. I was still on crew L-90, so I too pulled some alert for the duration of the missile crisis. While on alert, we had the aircraft preflighted up the point of taxi. All our documents were on board, nuclear weapons were on board and cocked as it were, our quick-donning boots were sitting next to our ejection seats—the airplane was ready to go. We did not have to stay at the aircraft; we could drive around in our six-passenger station wagon, could go to the BX, officer’s club, quarters, and so on—anywhere there was a klaxon horn.

Also in 1962 the 93<sup>rd</sup> Bomb Wing shuffled many B-52 crew members in all three bomb squadrons. Many officers stayed in the 328<sup>th</sup> and 329<sup>th</sup> squadrons with no change of status or mission. But some officers went to the reorganized 330<sup>th</sup> now a combat squadron with no training mission. And finally, some officers went to the 4017<sup>th</sup> Combat Crew Training Squadron, the outfit that conducted the ground school before assignment to flight training. I was assigned to the 4017<sup>th</sup> and began a tenure there. In 1962 I was promoted to captain.

To add icing to the cake of the good life at Castle, the base was host to the 456<sup>th</sup> Fighter Interceptor Squadron. When I arrived in 1958 they had Convair F-102 Delta Daggers but soon upgraded to the Convair F-106 Delta Dart.



F-102 Delta Dagger



F-106 Delta Dart

Speaking personally, my wife Marianna bore two daughters, Jennifer and Melanie. We were very active in the Atwater Baptist Church, and I was elected deacon. We totally loved California and enjoyed numerous trips to Yosemite, Sequoia, Zion, and Death Valley National Parks and two trips to Disney Land. We explored San Francisco thoroughly and went to concerts with The Kingston Trio, Peggy Lee, Josh White, George Wright at the Fox Theater pipe organ, Jonathan Winters, and Carl Sandburg. We took a wonderful all-day steam train ride up in to the Sierra Nevada foothills. I applied to the Air Force Institute of Technology (AFIT) and was accepted for aeronautical engineering. In 1963, after five years in the B-52, with wife and two daughters, I left SAC and Castle and headed for the University of Pittsburgh. I had logged 1700 flight hours in the bomber.

## Chapter 2

### **B-52 and KC-135 Maintenance Officer 91st Bombardment Wing, Glasgow Air Force Base, Montana**

I got my second Strategic Air Command assignment thanks to my fresh bachelor's degree in aeronautical engineering from the University of Pittsburgh (Pitt). The Air Force thinks that a certain percentage of its maintenance officers should have earned degrees in aeronautical engineering. Actually, I disagreed 100%, for I really wanted to get into R&D at some base like Eglin in Florida or Wright-Patterson in Ohio.

While living in Pittsburgh with memories of Strategic Air Command and my 1700 flight hours in the B-52 still fresh in my mind, a fantastic movie came to town. This was *Dr. Strangelove, or How I Learned to Stop Worrying and Love the Bomb*. Quite a title! This is just about my favorite movie of all time, even though negative publicity tarred it with an anti-war slant. This was a B-52 movie from start to finish. A crazed cigar-smoking SAC one-star general, masterfully played by Sterling Hayden single-handedly launched his B-52 fleet. Peter Sellers was a British exchange officer, the President of the United States, and a very strange German scientist, picked up after World War II, named Dr. Strangelove. Simply stated, this general started World War III. Scenes of the B-52 were magnificent; all the interior shots and crew coordination were done with great skill.



After graduation from Pitt, Marianna, our three girls, and I squeezed into our Chevy II convertible and headed home to Tampa. While there we bought a beautiful, dreamy, roomy '66 Mercury four-door. After the long trip west crossing through eight states, we arrived at Glasgow AFB, Montana, in August 1966. We moved into base housing and I reported to the 91<sup>st</sup> Field Maintenance Squadron, one of four squadrons in the maintenance complex. The overall boss was a colonel, the Deputy Commander for Maintenance, the DCM.



Douglas C-47 that I flew for “proficiency.” I was also a check-ride navigator in this aircraft.

We maintained 15 B-52 D models and 10 KC-135s. We also had a C-47 in which I logged flight time. I typically flew a couple times a month with the courier run to Malmstrom AFB, also in Montana, and Ellsworth AFB, South Dakota. I could have dozed the entire flight, for all we did was fly from radio station to radio station. I loved to navigate (had not done so for five years while serving as an EW officer at Castle AFB), so I filled out my log and made my map, typically on 500,000 to 1 aeronautical charts. I followed the aircraft, took fixes, calculated ground speed, and made my log entries. I was soon appointed standardization-evaluation navigator for several bases in the west. Before their birthdays, navigators would fly in to Glasgow and I would fly with them on their annual check ride. In one case I did this in a T-29 that flew in with its navigator so I could give him a check ride. The T-29 was the aircraft in which I got my navigator training and was far more sophisticated than the C-47. The whole thing was a pretty casual operation; there was no rigor as there had been in combat aircraft such as the B-52.



I also liked to log time with our search and rescue detachment at Glasgow. Shown here is the Kaman HH-43 Huskie serving in that purpose. This is a very unusual helicopter with intermeshing counter-rotating rotors. A anti-torque tail rotor is not required on helicopters with two counter-rotating rotors. The chopper also *felt* unusual, in that it wobbled as if the

crew were shaking their hips. This aircraft was a further example of my seeking out helicopters to log navigator time in. The scenery wasn't all that good, but the flying was great.



We also had jet fighters at Glasgow, the F-101 fighter-interceptor. These beauties graced our flight line and runway daily. They were built by McDonnell who would go on to build the ubiquitous F-4 for both the Navy and Air Force.

Getting back to maintenance, I had no training in maintenance whatsoever but as an aeronautical engineer was expected to be on a par with the others who had spent six months in maintenance officer school. This was a miserable job for me. I suppose all concerned know my assignment was a mismatch, but I soon learned the complex SAC system of maintenance standardization, evaluation, and so on. The 91<sup>st</sup> Bomb Wing was overdue for an Operational Readiness Inspection (the dreaded ORI), and I was told that I would take a written test whenever the ORI team set foot on base. In preparation I took all kinds of sample tests. I hated all of it but did not let it show and kept a positive attitude all along. Our DCM Col. Robert H Gaughan was well aware of my inexperience, but he was the type officer that believed any officer—by definition—should perform any job with excellence. Because I could not do so, he acted like he hated me. I reluctantly use this strong pejorative term because I have an equally strong positive term later on in my Air Force career. Mr. Dutch Hildebrandt, a GS-16 at the Flight Dynamics Lab, loved me and had nothing to say to me or about me but good. Also Colonel Gaughan openly hated our OMS commander, a Lt. Colonel. He yelled at him in front of a huge staff meeting, saying, “Colonel that is the stupidest statement I have ever heard.”

After a while, a staff job opened up so I asked for and was placed in the Logistics Division as the chief, with the abbreviated title of DCML. This was great duty even though I worked directly for Colonel Gaughan. We planned and coordinated all movements of equipment and personnel. My office maintained a flat-bed trailer full of spare parts for nuclear war deployment. 'nuff said. During this time the



B-52D taking off across the wheat fields in north-eastern Montana from Glasgow Air Force Base

Vietnam war was heating up and B-52s were being retrofitted for conventional bombardment. This happened to our bombers, and they were painted a jungle green camouflage. Within a few months the 91<sup>st</sup> Bomb would become involved. For the Vietnam war effort and while at Glasgow I was involved in two very different short-term missions. First, in the summer of 1966, as a logistics officer I became part of a team escorting some F-102 aircraft to South Vietnam. Several of us were picked up at Glasgow and flown off to March AFB, California, for deployment. Our aircraft was a KC-135, both for aerial refueling of the fighters and for transporting members of their team. We went as far as Guam with the fighters, spent the night, then flew back to the states. The F-102s continued on to Vietnam, “laying over” at the Philippines for fuel and crew rest.

During this same summer our two-year-old Lindsay came down with a severe case of the measles. This escalated into unbalanced blood chemistry and she was very ill at the base hospital. As a navigator qualified in the C-47 aircraft, I had been chosen for another short-term duty in support of the Vietnam war. This was to mean about a three week separation from my family at a very bad time for Lindsay. Marianna endured and took care of her without me. Not only this, she took care of our two other girls, went to church, did the shopping, and on and on.

My orders were to fly commercially to McClelland AFB near Sacramento and meet up with a group of pilots, navigators, and mechanics at a certain time and place. We were to be briefed on a very unusual mission.

Marianna took me to the Glasgow airport where I made my first use of an unlimited government *transportation request* (TR). This TR was cut so that I could use any commercial carrier to carry out my mission. I secured a ticket from Glasgow to Sacramento which would involve several change of planes. I really didn't care how complicated it was, because I liked everything about airplanes and airports. I took Frontier Airlines out of Glasgow on a good old DC-3 (equal to our Air Force C-47—in fact the Frontier DC-3s were war surplus C-47s). I then changed planes in Great Falls, Montana, and took a Convair 580 twin-engine turboprop. At Salt Lake City I got on some aircraft—I don't remember—to San Francisco, and there transferred to a brand new United Airlines Boeing 727 backtracking to Sacramento. This was an inaugural flight, very short, and very empty. I was the only passenger—the *only* passenger. I had the run of the plane and the attention of the two or three stewardesses.

I arrived in Sacramento on Saturday but did not have to report for my mission briefing till Monday. I rented a Volkswagen and toured Sacramento. On Sunday I found a Southern Baptist church near the base and went to Sunday School. It turned out that the teacher was unexpectedly absent, and the men were at a loss as to what to do. I had studied the lesson and was totally prepared to teach the lesson. This I did and made some new friends in the process!

Finally, on Monday at our rendezvous briefing station at McClelland, I learned that our crews were to ferry several C-47s together from California to Saigon, South Vietnam, and several flight crews were assembling at our temporary headquarters. These aircraft were to be used in Vietnam as anti-Viet Cong gunships, nick-named Puff the Magic Dragon. Our aircraft were 20-year-old twin-engine antiques destined to cross the entire Pacific ocean. Trans-oceanic flight across the Pacific is anxiety enough, let alone with only two engines. This was the 1960s! We were in modern times, not the 1920s or '30s. Nowadays we want more than two engines for safety. In our C-47 we did not have that luxury.

After our briefing, crew assignment, and mission study, we were released for the day. As for me, I hopped in my Volkswagen and sought out the C-121 squadron. I found some C-121 navigators and asked them to refresh me on over-water navigation using dead reckoning, sunlines, and Loran.



C-121 at McClelland AFB, Sacramento, California. Here I was refreshed on Loran navigation.

Teach me they did, and I felt 100% confident of my ability. There were two types of Loran receivers back then, an ancient one requiring very tricky interpretation of the input signals. Then there was a modern and precise set that was a dream to use. I was afraid that an old, small, twin-engine aircraft would have the old Loran set. I did not know for sure till I climbed into my particular aircraft. Praise God, I had the modern set.

The first leg, of course was the longest leg by far to Hickam AFB, Hawaii, a base shared with Honolulu International. I had two pilots which were to remain with me all the way. There were also two navigators because of the long leg. At Hickam one of us was to return to the mainland and be done with it, but I made sure that it was not this kid. In addition to two navigators, we had two huge gasoline tanks in the fuselage with a narrow squeeze-through aisle down the middle.

On the next leg the two pilots and I along with the crew chief flew a day-flight to Midway Island, a tiny dot of land a few hours west of Hawaii. Everyone who goes to Midway is anxious to see the albatross, nicknamed the *Goney Bird* in its exclusive habitat. The albatross is a graceful and streamlined bird at takeoff and in the air but a riot to watch in landing. Its tumbling hit-and-miss ground contact is hilarious. I had run out of 35mm film at Midway, and I went to the Base Exchange to get some more. In my flight suit I was denied entrance. It seems that officers are deemed so superior that we must be dressed properly. We cannot be seen in public in our work uniform. I could not talk my way inside, so I did without film. I still have no slides to accompany my other documentation of this leg of my flight.

The next day took us farther west to Wake Island. Each time we approached an island, and first picked up a radio beam, the pilot was excited to tell me that we were dead on course. After deplaning, I headed to the base exchange to buy film. Here reason prevailed, so I loaded my camera and toured the tiny island. I found wrecked or burned out personnel carriers complete with clearly-marked Hydra-Matic automatic transmissions. Quite a find for this automatic transmission enthusiast!

From Wake we flew to the Philippines, namely Clark Air Base on the big island of Luzon. The auxiliary tanks were removed, so the crew had a couple days to explore a new country.

With the tanks and piping removed, we finally were able to proceed to our destination, Tan Son Nhut Air Base, South Vietnam. After a thorough debriefing on the joys of a week-long journey across the Pacific in a simple twin-engine aircraft, the crew said our good-byes and we individually began to head back to the states. We were on our own and were to use our TRs to catch any civilian plane in any generally east direction. (We were almost half-way round the world. I suppose we could have used our TRs to proceed westerly and go through Europe.) I don't remember if we tried to catch any planes together. I do remember a rather filthy airport terminal—nasty restrooms, plugged facilities, and so on.

This part of the story, not related to Strategic Air Command, but was an important wartime aircraft activity with which I was deeply involved while assigned to SAC. The best way to describe this C-47 flight is to cite my Memorial Day speech in 2001 to the American Legion in Plant City, Florida. See the appendix for a copy of this speech.

From Saigon I took an Air America DC-4 to Taiwan, and there met Vern and Ann Grey, Air Force friends from my previous assignment at Castle, and I stayed in the fancy hotel room they were vacating.



Pan American Airways that I flew from Japan back to the United States mainland.

I got on a waiting list for a commercial flight to Japan, and toured Taipei. Two days later I was on a Pan American Boeing 707 to Yokota Air Base, Japan. All my flights back to the states were on commercial airlines under contract with the military. With the exception of Taipei and Honolulu we landed at military facilities. Once on Japanese soil I rendezvoused with Vern and Ann and stayed with them in their Japanese style house several days. How I pulled this off in a strange country I have no idea. They must have given me their phone number, and I presume they picked me up at Yokota. I promptly got on another waiting list to get back to the states. While staying with the Greys, their daughter whom I already knew, took me around Japan by train. Zipping around Japan with an escort on trains, subways, and taxis was totally first class. So many wonderful things to see! Mt. Fuji was an especially delightful, just like all the pictures with its magnificent 12,000 ft. elevation and perfect symmetry!

Finally I said goodbye to the Greys and got on another Pan Am 707, a direct 16-hour flight to California skipping Honolulu. I really enjoyed all these flights—from the DC-4 to the 707s. The 707s were almost new and were beautiful. Mealtimes were all mixed up because of the odd hours, but we really got fed right!

Upon arrival in San Francisco I was greeted with a domestic airline strike. Five major airlines were minus 35,000 ground workers in the largest strike in airline history. If I could get to Salt Lake City, I could get on a local airline, Frontier, and eventually end up at home in Glasgow. Enter the train! As a train lover, I was totally delighted to figure out that near San Francisco I could get on the famed California Zephyr and go to Salt Lake City. My TR was perfectly suitable to buy me a roomette on the magnificent train. This train had a world-wide reputation as the most scenic and desirable train in all of America and made one trip daily in each

direction between San Francisco and Chicago. Going east (as I was) it crossed the Sierra Nevada Mountain range through the famous Donner Pass, then as night fell proceeded through the desert in Nevada, crossed the Great Salt Lake, then went through the Rocky Mountains and their scenic grandeur during daylight hours, then to Denver, and into the Midwest during the second night. I needed to go only to Salt Lake City. Naturally I reveled in my private compartment with all the comforts of home, comfortable bed, explored the train, ate the fine meals, enjoyed the dome cars, and of course sat in the observation car and stared at the receding tracks with the beautiful scenery on both sides.



California Zephyr luxury train between San Francisco and Chicago taking me to Salt Lake City. Three railroads provided the locomotives and crew as the train raced across vast open spaces in the West. My portion was an overnigher way out west pulled by Western Pacific diesel model F-7 built by the Electromotive Division of General Motors. In this photo note the dome cars.

CHICAGO • SAN FRANCISCO

CHICAGO • SAN FRANCISCO

THE VISTA-DOME

THE VISTA-DOME

*California Zephyr*

*California Zephyr*



BURLINGTON • RIO GRANDE  
WESTERN PACIFIC

BURLINGTON • RIO GRANDE  
WESTERN PACIFIC

Poster for the California Zephyr. I couldn't resist taking up a full page in my story to feature this wonderful and exceptionally fun train. The serendipitous airline strike put me on this train.

Finally my time came to get off the train, and I reluctantly said Good-bye to the California Zephyr. I thought, “Maybe again some day, and I hope not too far in the future!” I left the Salt Lake City Union Station, took a taxi to the airport, found Frontier, and started planning my next move. I actually had two more legs on the adventure. From Salt Lake to Great Falls I flew on a Convair 580, a turboprop modification of an earlier piston version. This was the first turboprop plane I had flown on, and of course I made mental note of this new experience.



Frontier Airlines Convair 580 that took me from Salt Lake City to Great Falls, Montana. This photo was taken at Great Falls.

I was getting so close to home. This was my next-to-last leg. A change of planes in Great Falls would put me on another Frontier DC-3 and finally—off to Glasgow! (Recall that I started this half-way round-the-world trip on a Frontier Airlines DC-3.) The Frontier DC-3s were actually former Air Force C-47s bought as surplus and put into airline service. This Frontier Airlines route to Glasgow was the same route as my C-47 courier flights. About the only difference between my flying on this DC-3 and the Air Force C-47s was that I could log navigator flying time on the C-47.

When I finally returned home after three weeks, Lindsay was recovering from her serious bout with measles. She was very clingy to Marianna, but I would do in a pinch. Once when Marianna drove into the city of Glasgow to go to our church, the girls and I stayed home. Lindsay became hysterical wanting her mother. There was no way I could satisfy her deep sobs and hysteria, so I figured out that I could tell Lindsay we would go looking for her mother on the bicycle while the older children stayed home. I put Lindsay in the bicycle basket and we pedaled around the base supposedly looking for her mother. She calmed down considerably, and I suggested that we would not be able to locate Marianna. She agreed that we could pedal home. Lindsay became calm and peaceful. Praise the Lord!

Returning to my logistics duty, the *big* job was around the corner. Our wing (along with the 306<sup>th</sup> Bomb Wing at McCoy AFB near Orlando) was scheduled to rotate for six months to the Third Air Division at Andersen AFB, Guam, headed by a two-star general. Our mission was to bomb to smithereens the Viet Cong. My staff of two in the logistics office and I planned all phases of maintenance move. To get started, Col. Gaughan and the 91<sup>st</sup> Bomb Wing commander Col. George Pfeiffer, and I along with some other key 91<sup>st</sup> Bomb Wing officers flew to SAC headquarters for all kinds of briefings, meeting, and coordination. One thing sticks in my mind here—General John Ryan (three-finger Jack, the four-star commander-in-chief) was in the lobby getting ready to get in the elevator. Not just any elevator; he had his own, guarded by some air policemen. When he went up, and the excitement subsided, the rest of us resumed our ascent to our meetings on the third floor.

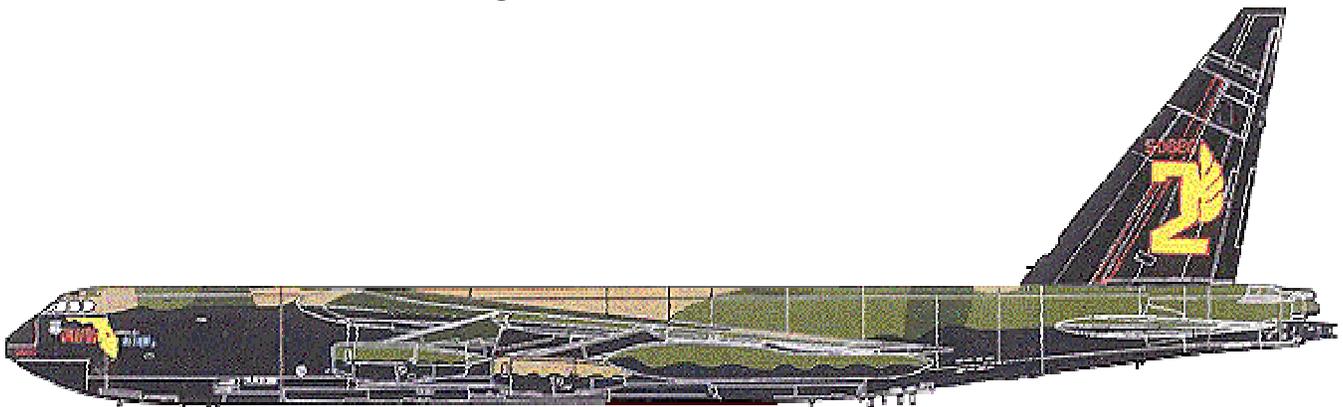
Next, our same group flew on one of our KC-135s to the 306<sup>th</sup> Bomb Wing at McCoy AFB, Florida, to coordinate with them on our respective deployments to Guam. So we did more and more coordination and planning. And so in September 1966 we finally came down to the time of sending flight crews, operations staff, and maintenance personnel to Guam and Okinawa.

As the officers and men prepared for the actual deployment, I did all kinds of now-forgotten coordination with Base Personnel, food service, supply, motor pool, etc. I set up the personnel processing line in our huge DCM building. At this time I was given an additional logistician, Chief Master Sergeant Volden. He was a strong addition to our small office, and I scheduled him to go to Guam. My Staff Sergeant and my Airman First Class clerk did not go. We departed Glasgow during the month of September 1966 on our own KC-135s equipped with horrible bunk beds/seats along both sides of the plane. We had plenty of room for cargo down the middle, little room for people. As a rated navigator, I spent quite a bit of time in

the cockpit rather than in the cargo area, and I logged quite a bit of time on this and other trans-Pacific flights. B-52 flight crews and maintenance personnel went to Guam, and KC-135 flight crews and maintenance personnel went to Kadena Air Base, Okinawa. These were part of the Third Air Division headquartered in Guam.

Even back in the 1960s, the navigator station had a longitude and latitude read-out for present position, based on the navigator's input—that is, it was not automatic, and it was not based on an inertial system, and certainly not GPS at this early date. My point is that it was fun to watch the longitude change from 90° west to 90° east and vice versa as we crossed the international date line.

Here is a drawing of a B-52D bomber with the camouflage markings for jungle warfare. B-52 bombing runs were flown at high altitude but the possibility did exist that low altitude bombing could occur.



B-52D, USAF serial number 56-680, from MacCoy AFB, Florida, 170 "Ds" were produced, more than any other model. In 1966, it was anticipated that the Viet Nam could become protracted. Rather than risk newer planes to anti-aircraft fire, it was decided to use the older B-52D, which was then considered obsolete. Combat modifications included a much larger bomb bay to carry more conventional weapons and a camouflage paint scheme. The D flew most of the combat missions.

The entire wing was on temporary duty (TDY) to Guam and Okinawa for 179 days maximum (any more than that would technically constitute a permanent change of station (PCS)). We all remained members of the 91<sup>st</sup> Bomb Wing, but we all were assigned to the 4133<sup>rd</sup> Bomb Wing at Guam. Thus, all of us—flight crew members, operations staff, and maintenance personnel—were members of two bomb wings simultaneously.

In this chapter, devoted to the 91<sup>st</sup> Bomb Wing at Glasgow, we'll skip my duty at Guam. Chapters 3 and 4 cover my activities at Guam. While skipping that, we know that we will resume the 91<sup>st</sup> Bomb Wing in this chapter. Thus, in this same chapter for the 91<sup>st</sup> Bomb Wing, we will now jump forward seven months to our wing's return to Glasgow.

Upon return to Glasgow from Guam in April 1967, the wing learned that we were getting a second lieutenant logistics officer, specifically trained in that field. I had now served in two positions in the 91<sup>st</sup> Bomb Wing with which I had no training, maintenance and logistics. Now I was assigned back into maintenance (i.e., not logistics), specifically chief of the Analysis Division (DCMA) where I analyzed the maintenance statistics for our fleet. I enjoyed this position even though I was still without any training. I pretty much winged it based on what my sergeants told me about the job. One of my jobs was to write a detailed summary of everything from routine maintenance to serious aircraft maintenance problems. I had two sergeants and a female civilian secretary. I studied up on my division's responsibilities and prepared myself for the expected ORI. Actually, we had several kinds of higher headquarters inspections, for example a Maintenance Standardization Evaluation Test (MSET). As far as maintenance was concerned it was just like an ORI, and we were all prepared to take a written test and prepare the aircraft for simulated nuclear war. One such MSET for us on 17 January 1968 was headed by a Major General Charles Eisenhart, vice commander of our Numbered Air Force Headquarters (15<sup>th</sup> Air Force at March AFB, California). A KC-135 (58-0026) was awaiting take-off from Minot AFB and our Job Control Division was notified. A few minutes later we received word that the aircraft had crashed on takeoff. All were assumed to be killed. Later I learned that the aircraft had over-rotated. This was an extreme nose-high angle-of attack resulting in an aerodynamic stall and catastrophic failure to maintain altitude. I later read in the accident report that the aircraft flew straight up, continued backward and upside down until crashing into the runway. Obviously our inspection was off. I have often wondered about this crash—what would it feel like and what would one think sitting in an aircraft with the nose way up in the air immediately after takeoff, knowing it was going to crash, with only a few seconds to live. I suppose a certain percentage would quickly say the sinner's prayer, asking Jesus Christ into their heart, knowing full well that they had been putting it off for years.

After we recovered from this trauma, we got back into our hectic B-52 training mission and nuclear alert routine. Even though our higher headquarters inspection was cancelled, we were still expecting the dread Operational Readiness Inspection (ORI) from SAC headquarters. Sure enough the ORI came while I was chief of the analysis division. Typically a SAC C-97 or KC-135 on some routine mission would declare an inflight emergency and divert into a given base. All such diversions were assumed to be fake, so as soon as such a request for diversion was received, base ops spread the word that an ORI was probably going to happen. Upon arrival on base, the ORI team leader (a colonel or brigadier general from

SAC headquarters) would proceed to the wing commander's office with official orders regarding the ORI. This always resulted in the activation of the aircraft sitting on alert. This included a simulated launch of the bombers and tankers, preparation of the remaining bombers and tankers on base for the war plan, testing and evaluation of all personnel on base, and inflight examination of the flight crews. Failure of the base to achieve suitable scores would result of dismissal of the wing commander and the ruinment (sic) of his and several other military careers. As for me, I passed all my testing; the aircraft launched with one incident; and the wing passed. The incident was one B-52 engine which failed to start. The crew calculated that the aircraft with its full load could takeoff with seven engines. As of this writing, I don't remember any more details, but it was controversial.

The next *big event* at the 91<sup>st</sup> Bomb Wing was that it was scheduled to be deactivated in 1968 and that Glasgow AFB would be closed. Most people were relieved. Very few liked being stationed at such a remote, cold, and unpleasant place. Many believed that if the earth ever needed an enema, it would be administered at Glasgow, Montana. Meanwhile, we still had work to do. The B-52s kept flying, at least for a while, and we still had B-52s on nuclear alert.

Our relatively new DCM Colonel Robert Gardner discovered a maintenance award, The Daedalian Award for superior maintenance for which we could apply. Because Col. Gardner knew I liked 35mm photography and because he thought I was a good writer, he asked me to prepare the award package, with narratives, statistics, and photographs. Of course it was the statistics that would win the award, but the photography made the project interesting. The *most* interesting was the night shots of B-52s parked on the ramp. Col. Gardner directed the ground crews to bring out the high ramps for him and me to rise high for what turned out to be the grandest of B-52 pictures. We submitted the application with 8x10 pictures (the pictures were pretty much for fluff, of course), but in the process, he and I got all the personal slides we wanted from the base photo lab.

But the Air Force still had surprises for Glasgow! We would rotate to the Pacific again with extremely short notice! Thus, the next *big event* as stated in the preceding paragraph was not in fact accurate. Rotating the entire wing to the Pacific for the second time in two years was the *actual* next *big event*. The wing was somewhat prepared—if reluctantly—for another rotation, only two years after the last one, close to the base closure. This time Guam was out, Kadena was in, so everyone went to Kadena—B-52s and KC-135s. Although I was not the logistics officer (as I had been for the previous rotation), I was called upon to coordinate many aspects of the rotation. Col. Gardner, and I worked closely to pull it off.

Everyone knew pretty much what to do, so the wing departed over the space of a month—just like in 1966, but sans Billy Clarke. I think Col. Gardner knew what a rough time Marianna had had with our two-year-old daughter Lindsay while I had been on a 3-week assignment in the Pacific, so he decided I would not deploy this time but would run the remnants of the maintenance show at Glasgow.

Thus, I was left behind as acting Deputy Commander for Maintenance with a skeletal maintenance crew. How about this: A captain in a colonel's slot! Actually there was very little to do. We had a C-47, and we had transient aircraft, but that was about it.

I was our DCM's right-hand man on the Daedalian Award, and we had to put it on the back burner while the wing was at Kadena. After the wing had been in place a month, our DCM in Kadena called me and asked me to get on over there for a few weeks so we could resume work on the award. This I did, and I left one of the sergeants in charge of wing maintenance. I also left Marianna and our three daughters in base housing. Within days I was on a KC-135 heading west again, and of course crossing the International Date Line again. Lots of work and writing later, From Kadena Col. Gardner and I sent a huge Daedalian application package to SAC Headquarters. This time the wing's deployment was relatively short. We had to get back to Glasgow and deactivate the wing. All of us were expecting our next assignments within a short space of time. Naturally there was lots of excitement about this. A certain group was very busy writing various medals. Someone wrote one on me for the Air Force Commendation Medal. I had no idea that it was being written, but everyone who was to receive one found out soon. One thing bothered me about all this. One of the captains that I considered very sharp and worked in the wing command post had been passed over for major twice. Yet he was written up for a commendation medal. I assume it was approved. How could this be? How could a captain be passed over for major twice and yet be honored with a commendation medal? The left hand did not know what the right hand was doing. Anyway, my Commendation Medal was approved and was presented to me at my next base (see Chapter 5).

The next order of business was to send the aircraft to their next duty station and begin the slow process of sending all the officers and men to their own future duty stations. Soon I was notified of my own assignment and that I was to remain in SAC—this time in a completely different and unknown-to-me field of service. What and where would this be?

As we began shutting down and emptying the maintenance complex, I discovered an SR-71 reception manual in our job control office. This was a very specialized aircraft, and if an SR-71 flew in to Glasgow we would need specialized documentation to know how to service it. The manual was unclassified and was to be pitched. I kept the manual as a souvenir.

All of us at the 91<sup>st</sup> Bomb Wing were looking forward to the details of our next assignments with great anticipation. Finally I was notified exactly what mine would be: the 100<sup>th</sup> Strategic Wing with U-2 high altitude *spy planes*, as people liked to call them, and C-130 transports. *C-130 aircraft is SAC?* Unheard of! Just what is a C-130 doing in SAC? I found out that it was actually a DC-130. What is a DC-130 of all things? Read Chapter 5 to find out how this famous troop and cargo transport is used with a combat mission in Strategic Air Command. You will be surprised!

## Chapter 3

### **Logistics Officer 4133rd Bombardment Wing (Provisional) Andersen Air Force Base, Guam**

Upon arrival at Andersen on board a KC-135, I was met by the resident logistics officer, Lt. Colonel Luther Adair. The plane load of flight crews, operations personnel, and maintenance personnel were taken to their respective quarters, and I was taken to the logistics office. After meeting my cohorts, I was then taken to quarters to catch up on my sleep after the long overwater flight to Guam. As I reported elsewhere the seating and sleeping arrangements on the KC-135 were uncomfortable at best, intolerable at worst.

The logistics division was not a TDY office, that is, not under the control of the 91<sup>st</sup> or 306<sup>th</sup> Bomb Wing DCMs. It was under the control of the resident 3960<sup>th</sup> Strategic Wing. Its working hours were 0730 to 1730 Monday through Saturday, for a total of 60 hours per week. This did not include additional working times when we were meeting an incoming aircraft or seeing one off. Thus, we were on somewhat of a wartime schedule, 50% more than the typical AF office hours of 40 hours per week with overtime as required, but less than a full 7-day wartime schedule. Consequently this 60 hour work week fell short of other officers and men in the maintenance complex who worked 12 hours on, 12 hours off, seven days per week. This was nominally 72 hours of duty, but obviously meal times were taken out of that. Col. Gaughan could not stand it that I was working less than 72 hours like the others. He had a plan: When I left the logistics office at 1730, I reported to the Avionics Squadron for an additional two hours per day. My job was to analyze bombing system malfunctions and deficiencies. I remember absolute zero about how I analyzed or what else I did during this additional duty.

I will say something here about bombing in the B-52. The bombardier and navigator sat side-by-side on the lower deck of the cockpit with downward ejection seats. The 360° radar antenna and system fed identical images to CRTs (radar screens) at each station. The bombardier's CRT is huge—about 12 inches; the navigator's is about 5 inches. During the bomb run, the antenna began a 30° sector scan pointed to the front. The apex of the sector dropped to the bottom on the CRT resulting in an oversize image of the target area.



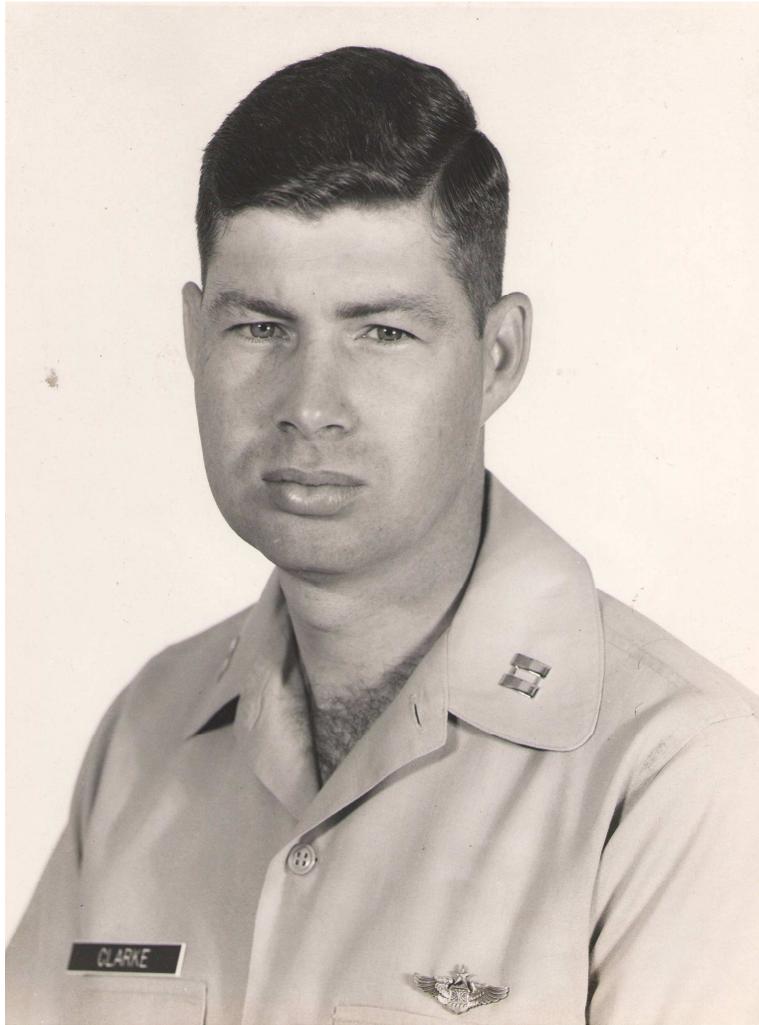
Camouflaged B-52D at Guam. The 91<sup>st</sup> Bomb Wing at Glasgow AFB, Montana, and the 306<sup>th</sup> Bomb Wing at McCoy AFB, Florida, both took their camouflaged B-52 D models to Guam.



B-52D flying from Andersen AFB, Guam, dropping 500-pound on the Viet Cong. The B-52D could carry a 84 internal and 24 external bombs for a total of 108 (54,000 pounds).

At the 4133<sup>rd</sup> BW all operations and maintenance officers who were on flying status, were allowed one combat mission on the B-52 for orientation purposes and to log flight time. Several cells of three aircraft flew six hours to South Vietnam, dropped about 108 500-lb bombs at high altitude, and returned to Guam. This was a quick way for flight crews to build hours, but it was torture to the aircraft.

Actually, I guess this type of flying was less tortuous than shooting touch-and-go landings at Castle at the end of all our 8-hour training missions. I flew on my one combat mission and returned safely. Although none of the B-52s was fired upon by the Viet Cong (B-52s fly much too high), there was danger in formation flying.



Captain Clarke at Guam during 1966-67, missing his family

Col. Gaughan also gave me one other additional duty. I was appointed DCM ombudsman or morale officer, or some such title. I remember absolute zero about this job, but I do have the photo that the base photo lab took of me. A half dozen of these photos were hung on the various walls in the maintenance areas. As you can see I was not very excited about this additional duty.

My primary flying duty during these six months was with the 3960<sup>th</sup> Strategic Wing, however, and this is covered in Chap. 4.

After I left Guam, I read that a flight of three B-52s flying with the 4133<sup>rd</sup> Bomb Wing was changing lead aircraft, and two of them collided. Major General William Crumm, commander of the Third Air Division, and inflight commander of the 12-ship mission, went down with his plane. Of the ten crew members with ejection seats, most ejected over the Pacific Ocean. Others, along for the ride logging flight time, were not so fortunate. This was now the second SAC two-star general with whom I was familiar who was killed in a SAC aircraft.

## Chapter 4

### **Logistics Officer 3960<sup>th</sup> Strategic Wing Andersen Air Force Base, Guam**

It didn't take long for me to figure out that there was no joint logistics office (91<sup>st</sup> and 306<sup>th</sup> Bomb Wings melded into a 4133<sup>rd</sup> Bomb Wing). To repeat, there was no such office. All logistics functions were taken care of by the 3960<sup>th</sup> Strategic Wing. It consisted of this PSC staff: Lt. Col. Luther Adair, a senior master sergeant, a staff sergeant clerk, and a civilian Guamanian secretary. From the 306<sup>th</sup> Bomb Wing at McCoy: a Staff Sergeant Cihocki. From my office at Glasgow: Chief Master Sgt. Volden, and me, a captain. As far as I know we all kept busy. I tried to meet all incoming military aircraft and I took one sergeant with me. We had two pickup trucks and I drove one almost at liberty. Continuing my photography hobby, I took pictures of the heavy laden B-52s in various parking, taxiing, and takeoff positions. We had dozens of commercial jet freight aircraft including Boeing 707s and Douglas DC-8s flying in and out constantly. These were outside our responsibility, so I did not meet these.



SAC Boeing KC-135 Stratotanker bringing B-52 spares and other cargo into Guam

Sgt Cihocki was a loose cannon, and it took a lot of effort on the part of Sgt Volden and me to keep him in line. Once while driving our pickup with me along, he whizzed past a parked aircraft, but drove *under* the tail. I was horrified at his action and additionally horrified that he would do so with an officer on board. I directed that he never do that again.

Most of our logistics work was routine but was a lot of fun. There were no particular interesting events to report here. One minor thing that caused me to chuckle was Col. Adair saying to our Guamanians secretary, “How are those Guamanians?” Her retort was instant: “Restless!”

Col. Adair wrote my Officer Effectiveness Report (OER), and I was listed as a member of the 3960<sup>th</sup> Strategic Wing, not the 4133rd. This did not sit well with Col. Gaughan, but I covered a little of that in Chapter 4.

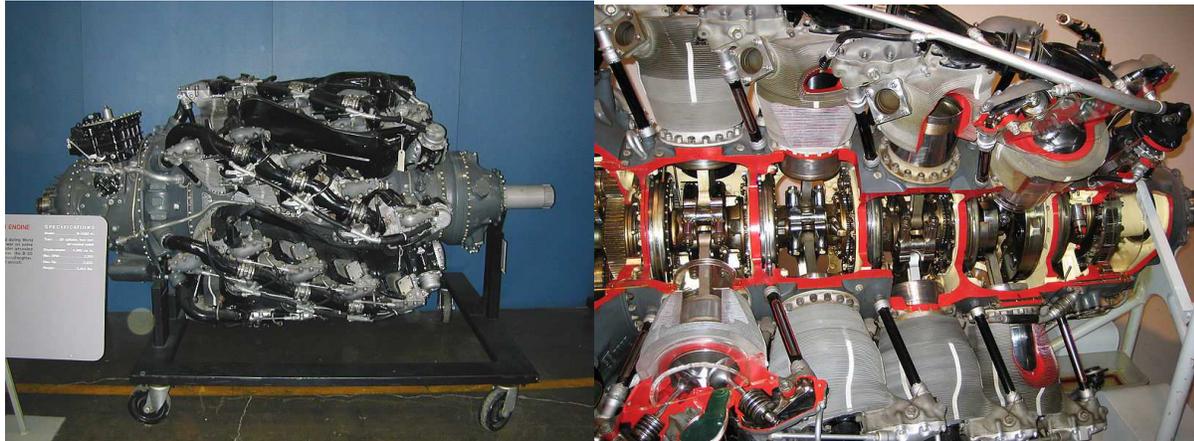
Officers on flight status who were not B-52 crew members were permitted to fly once per month, the minimum requirement to maintain flight status. For five of the six months I was on Guam, I flew on the C-97, a four-engine Boeing transport configured for passengers. The C-97 was often called the Cadillac of the Air Force. It was truly a dream to fly as a crew member or passenger. It was also a dream for me to navigate, with modern electronics, radar, sextant, and other instrumentation. This was major fun, and I was greatly pleased to be part of the C-97 crews.



Boeing C-97 Stratocruiser, similar to the one at Guam

The C-97 was an R&R aircraft. I took a second look at the abbreviation *R&R* and realized it means two things: *remove and replace* as in a defective component on an aircraft; it also meant *rest and recuperation* as in getting away from a combat tour or an isolated base. For this paragraph it means getting away, a privilege that single people and families got once per year. Because Guam was a small island and totally isolated in the middle of the Pacific, Air Force policy allowed officers and enlisted to take their families to Japan or Hong Kong on the C-97 for several days.

I want to take a little space here to show the beautiful R4360 engine used on C-97. It is built by Pratt and Whitney and has four rows of seven radial cylinders for a total of 28. Variations of this engine produced about 3000 HP. This is the same engine used on the B-36, and as I said in Chapter 1, it is the largest reciprocating engine of any aircraft.



Two views of the 28-cylinder P&W R4360, normal view and a sectioned view. The sectioned view clearly shows the four rows.

I was extremely fortunate to be one of few (perhaps the only one) Glasgow officers to take these trips as navigator—once per month. I made four 3-day trips to Yakota AB in Japan and one 4-day trip to Hong Kong International Airport. After our four days, and after checking out of the hotel, boarding the bus to the airport, running through our aircraft checklist, and upon engine startup in Hong Kong we discovered an engine problem, so all of us—crew members and passengers—piled back on the bus and returned to the hotel. I suppose everyone stayed at the same hotel. In some cases I remember many details, and in other cases no memory whatever. I remember no details about the engine problem, how the parts were flown in, how I contacted my office that I was stranded in Hong Kong, or how I was informed about the repair progress. I do remember that we stayed in a very nice traditional style hotel, I think with a beautiful huge wooden porch. I do not remember details about how much the hotel cost or where I ate. I do know that we

stayed an extra three days. While in Hong Kong for “my second visit,” I made maximum use of my time. I went to electronic and camera stores, fabric stores, and tailors. I took tours, rode the incline railway, and went to the Communist Chinese border. After our C-97 broke down, I called the Baptist Seminary and had a wonderful visit with some American missionaries. This is where I was introduced to Oswald Chambers’ book *My Utmost for His Highest*.



Hong Kong Peak Tram. I rode this while on assignment as navigator on the Guam R&R C-97.

In April 1967 I had finished my duties with the logistics office and had finished all my C-97 flying. I was most happy to say good-bye to Guam and return to the US. I got permission to fly to McCoy AFB on a 306<sup>th</sup> Bomb Wing KC-135 instead of one our own to Glasgow. I picked up my family in Tampa (living with Marianna’s parents for six months) and started the long drive back to Montana in the Mercury.

Before we close this chapter, I need to remind readers that this is not only the fourth of my five Strategic Air Command assignments; it is third *simultaneous* SAC assignment. Three SAC wings *at the same time*. Repeat: *simultaneous!* Unheard of! I was the only officer or enlisted man from either Glasgow or McCoy with this privilege.

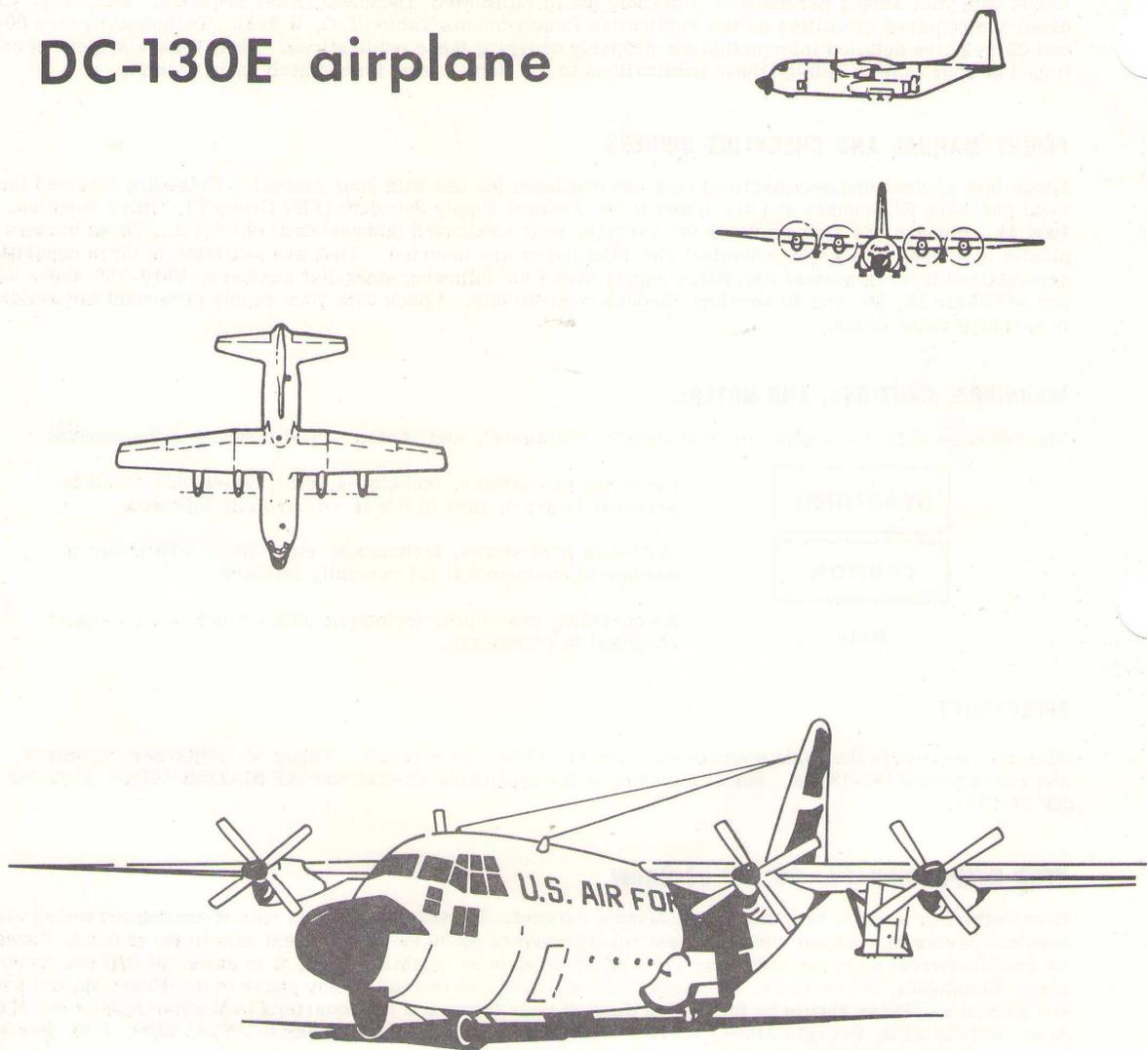
You may return to Chapter 2 and pick up our time in Glasgow, Montana.

## Chapter 5

### **DC-130 Drone Recovery Control Officer (ARCO) Combat Crew Member 100<sup>th</sup> Strategic Reconnaissance Wing, Davis-Monthan Air Force Base, Arizona**

From Glasgow in June 1968 I was transferred to the 350<sup>th</sup> Strategic Reconnaissance Squadron of the 100<sup>th</sup> Strategic Wing, Davis-Monthan Air Force Base, Arizona. The base was essentially integral with the beautiful and historic city of Tucson.

### **DC-130E airplane**



DC-130E drone launching mother ship. Drones are attached between engines 1 and 2 and between engines 3 and 4. The two LCOs sat in the fuselage behind the wing with windows to watch the drones. The ARCO sat in the fuselage to monitor and control the path of the drone.

SAC actually had a squadron of C-130 transport aircraft, quite a surprise for people who think transports belong in some outfit to haul troops or equipment. SAC's C-130s were modified to carry one drone under each wing and were designated DC-130s. These DC-130 SAC aircraft put Davis-Monthan on the map as a very special Air Force base.

Davis-Monthan was famous for two additional reasons: First, the 100<sup>th</sup> SRW at D-M had U-2 high altitude "spy planes" (as most people called it) in its inventory. These had a wartime mission, but most of it was classified.



U-2 *Dragon Lady* spy plane with the 100<sup>th</sup> Strategic Reconnaissance Wing (SAC).

The U-2 had a tandem landing gear (described in Chap. 1). It required wing-tip supports for taxi and take-off, but they dropped off at lift-off. I was able to get on the flight line with the launch crew and observe this unique aircraft at close hand.

Second, D-M was also host to a massive organization, the Military Aircraft Storage & Disposition Center (MASDC, spoken as mas'-dik). This facility was purposefully located in the desert for dry conditions, and it stored hundreds of large and small military aircraft that might someday return to service or might be melted down for the metal.

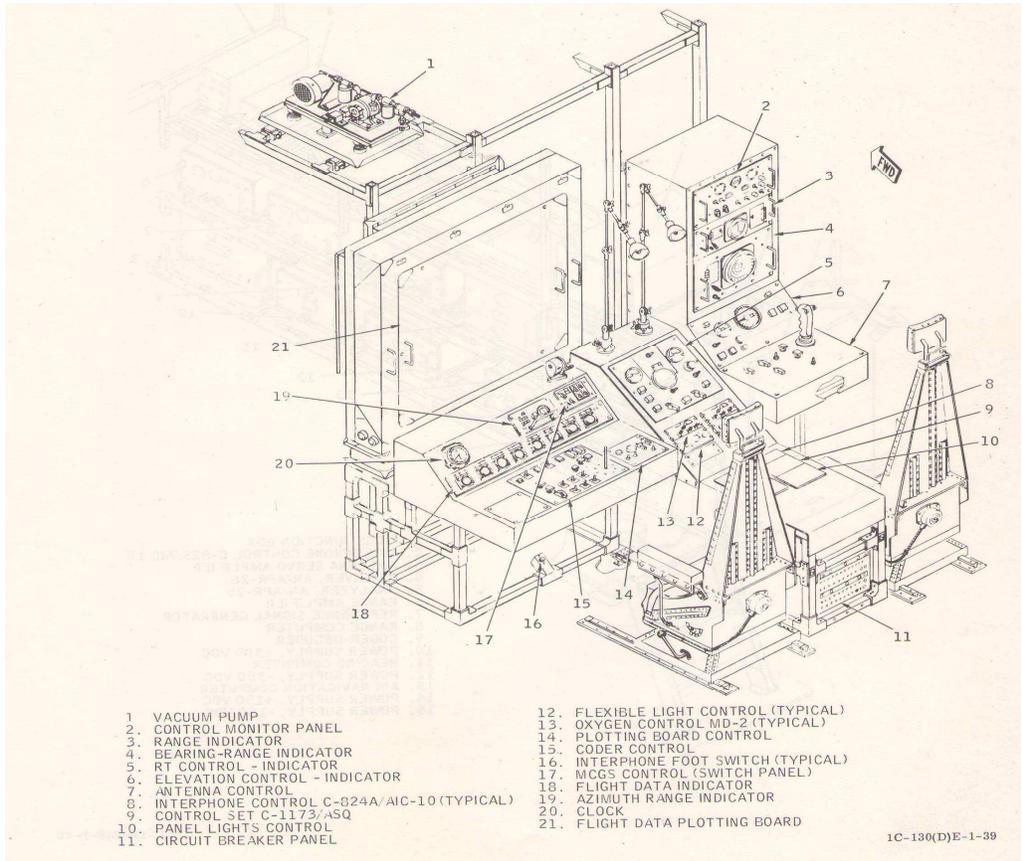
In regard to the DC-130 and the drones, electronic warfare officers, who are said to be unusually versatile, were trained to program the drone's logic system, launch the drone, and direct it to the target. Two EWOs who programmed logic system of the drone's autopilot were called launch control officers (LCOs). They arrived at

the C-130 much earlier than the rest of the crew and programmed the system. The two LCOs sat toward the rear of the fuselage at two windows with clear views of the drones under the wings. In flight, one LCO would run through his lengthy checklist, start the engine, then release the drone when the navigator pin-pointed the launch spot. Often the mission was photo reconnaissance. At the point of release the LCO transferred drone responsibility to another EWO, the airborne recovery control officer (ARCO). He sat near the front of the fuselage, right behind the cockpit bulkhead. Actually the ARCO was assisted by an enlisted crewmember who was in charge of the telemetry and a pencil beam radar. With a large map on a vertical x-y plotting board, the ARCO could follow the path of the drone. If our radar system plotted a deviation from the LCO's planned route, the ARCO could correct the path. To do this the ARCO had flight and engine instrumentation such as airspeed, altitude, bank angle and engine controls, and controls for the autopilot.

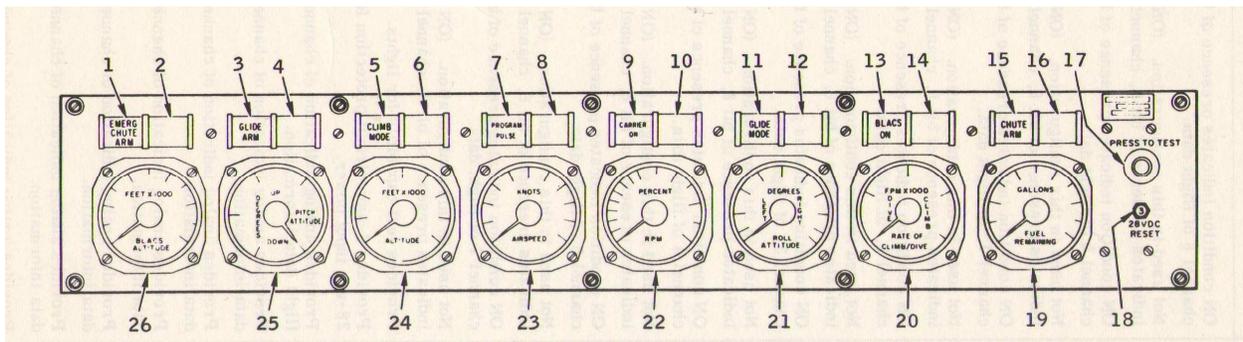


Aerial view of B-52s disabled because of arms reduction treaties and stored at MASDC at Davis-Monthan AFB, Arizona. Most of these will be melted down to recover numerous metals.

The ARCO handed off the drone to the ground control officer (GRCO), a rated pilot, sitting in a little trailer on the ground. The GRCO had his own plotting board, drone instruments, and drone controls, plotting board, and enlisted assistant. The GRCO killed the engine allowing the drone to dive to parachute deployment altitude. The GRCO then popped the parachute, the engine shut down, and a SAC CH-3 helicopter snagged the drone and took it to a staging base where the film was removed and drone hooked back up to the DC-130 for return to home base.



ARCO station (left seat) with plotting board in the fuselage under the wing.



Instrumentation at the ARCO's console in the DC-130. The ARCO monitored these continually.

In my case I was the ARCO, trained in the Arizona desert. I demonstrated a thorough understanding through written evaluations, passed a check ride to demonstrate proficiency in the aircraft and in operating the drone, and became ready for combat. I then joined a combat crew and was ready for a TDY rotation to Bien Hoa Air Base in South Vietnam. Shown below is the model of the Ryan drone that we flew for training. On combat missions we flew a similar model equipped with appropriate reconnaissance equipment. After two 60-day rotations, numerous combat missions over the Gulf of Tonkin with drones flying into North Vietnam, and two Air Medals, my assignment with the 100<sup>th</sup> SRW was over. AFIT had accepted my application for the master's degree. After some pleading with AFIT officers, they agreed to my request for Georgia Tech.

Thus, after 14 months at Tucson, I went back to Georgia (my state of birth). This completed my fifth SAC assignment and I became SAC-umcised (*Excised* from SAC, that is, I served my country for the last time in SAC).



Title page of the flight manual for the BQM-34 of the 100<sup>th</sup> Strategic Reconnaissance Wing. We flew these from the DC-130 for practice in the Arizona desert. We used a similar Ryan drone in Vietnam but fully equipped with reconnaissance equipment.

T.O. 1H-3(C)C-1

# FLIGHT MANUAL

USAF SERIES

# CH-3C, CH-3E, HH-3E helicopters

NOw63-0373



Title page of the flight manual for the CH-3 as used by the 100<sup>th</sup> Strategic Reconnaissance Wing (SAC) and my particular squadron (the 350<sup>th</sup>) at Davis-Monathan AFB and Bien Hoa AB. These helicopters recovered the drone after the mission was complete, the engine shut down, and the parachute deployed

## References

- Dewey, Donald: James Stewart, A Biography. Atlanta: Turner Publishing, 1996, 512 pg.
- DuPre, Flint O., Colonel, USAF, Retired: U.S. Air Force Biographical Dictionary. New York: Franklin Watts, Inc., 1965, 273 pg.
- LeMay, Curtiss E.: Superfortress, the B-29 and American Air Power. New York: McGraw-Hill, 1988, 222 pg.
- LeMay, Curtiss E.: Mission with LeMay. Garden City: Doubleday, 1965, 581 pg.
- Peacock, Lindsay T: Strategic Air Command. London: Arms and Armour Press, 1988, 128 pg.
- Polmar, Norman: Strategic Air Command: People, Aircraft, and Missiles. Annapolis: Nautical and Aviation Publishing Company, 1979, 226 pg.
- Castle AFB, California: 1958 Competition—Heavy Division. Castle AFB, 1958, 40 pg.
- Life Magazine, Jan. 28, 1957, Herbert Brean, SAC's Round-the-World Flight, p. 21-27
- AFA Magazine, March 2013, John T. Correll, Strategic Air Command, p. 74-79
- United States Air Force, Tech Order, B-52B-1-TO (Flight Manual)
- United States Air Force, Tech Order, (D)C-130E-1-TO (Flight Manual)
- United States Air Force, Tech Order, C-47A-1-TO (Flight Manual)
- United States Air Force, Tech Order, (C)H-3A-1-TO (Flight Manual)
- United States Air Force, Tech Order, BQM-34-1-TO (Flight Manual)

## About the Author



Billy Clarke was born in 1936 in Valdosta, Georgia, and grew up in Tampa, Florida. He graduated from H. B. Plant High School in 1954, then attended two years at the University of Tampa pursuing his deep-seated love of engineering. However, after watching B-47 jet bombers from MacDill AFB fly over his house continually, he decided to join the Air Force aviation cadet program. At age 21 he was commissioned a second lieutenant with the aeronautical rating of navigator. His advanced training was electronic warfare, and this put him in good stead for an assignment to B-52s. After marrying the former Marianna Johnston of Tampa, he spent the next five years as a flight instructor in the B-52 at Castle AFB, California. That was his first Strategic Air Command (SAC) assignment. He then applied for and was accepted to the Air Force Institute of Technology (AFIT) with an assignment to the University of Pittsburgh where he completed his degree in aeronautical engineering. Following graduation, he was assigned to Glasgow AFB, Montana, his second SAC assignment, where he was a B-52 and KC-135 maintenance officer. The entire wing spent six months temporary duty in Guam during 1966-67 where he was

actually assigned to *three* SAC wings simultaneously. (Mrs. Clarke and their three daughters spent that time in Tampa with her family.) In 1968, after the wing returned home, the base closed. Billy's next assignment was at Davis-Monthan AFB, Arizona, where he was again in SAC and in the cockpit flying drone aircraft from a C-130 mother ship. He pulled two 60-day rotations to Vietnam flying photo-recon operating the drones. Another AFIT assignment took him to Georgia Tech in Atlanta where he earned a master's degree in Mechanical Engineering. Before he could snag that long-awaited engineering assignment, he spent a full tour in Thailand flying B-66s as an electronic warfare officer jamming Viet Cong and North Vietnam radar. Finally returning to his first love, engineering, he spent his last six years at Wright-Patterson AFB, Ohio, in the Flight Dynamics Laboratory working on a variety of hi-tech projects. He flew 153 combat missions in Southeast Asia, earning the Distinguished Flying Cross, the Air Medal with six oak leaf clusters, and the Vietnam Service Medal with seven battle stars. In addition, he earned the Meritorious Service Award and the Air Force Commendation Medal among others. He retired as a Lt. Colonel in 1978 and took his family back to Florida.

After Air Force retirement, he worked with his family's manufacturers representative company for 11 years, then took early retirement. He gladly reverted to student status at the University of South Florida where he earned a master's degree in experimental psychology and finally Ph.D. also in experimental psychology at age 59. He taught for 11 years in the speech pathology and psychology departments and took another early retirement, thus finally retiring from professional life in 2001.

As of this writing in 2014, he has been married to the same charming lady for 56 years. He and Marianna have 14 grandchildren and 14 great-grandchildren, but growing faster than they can count. He and Marianna are thankful to be Christians and grateful to the Lord for guiding them through life.

This is to certify that

**William David Clarke III**

**First Lieutenant, United States Air Force**

has been designated and hereby is declared a

# **SAC TRAINED KILLER**

by being assigned to a nuclear combat crew, specifically, L-90,

a lead crew on B-2D and B-52F heavy bombardment aircraft

with targets in and around the Soviet Union

as of 6 March 1959

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William J. Eubank, Brig. General, USAF  
Commander, 93<sup>rd</sup> Bombardment Wing

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Tomas S. Power, General, USAF  
Commander-in-Chief, Strategic Air Command



This is to certify that

# William David Clarke III Captain, United States Air Force

has served his country in

## THREE SIMULTANEOUS SAC ASSIGNMENTS

Three Strategic Air Command wing assignments at one time! Now who have you heard of that was ever assigned to three wings at one time, much less SAC wings? Meet Billy. This occurred at Andersen AFB, Guam where he was a logistics officer. In 1966-67 Captain William Clarke was on six-month duty (TDY) from his permanent duty station with the 91<sup>st</sup> Bomb Wing at Glasgow AFB. The operational and maintenance components all went to Guam for six months. They joined like components from the 306<sup>th</sup> Bomb Wing at McCoy AFB in Florida. This massive group of two B-52 squadrons, two KC-135 squadrons, two complements of wing staff, eight maintenance squadrons, and two full complements of maintenance staff were all assigned to the 4133<sup>rd</sup> Bomb Wing (Provisional). But in Captain Clarke's case he was actually working for the resident wing at Andersen, the 3960<sup>th</sup> Strategic Wing logistics office, and this is where his officer effectiveness reports (OERs) were written. But his 91<sup>st</sup> Bomb Wing boss, now in the 4133<sup>rd</sup>, was not about to lose control of this officer. As far as he was concerned, Captain Clarke still worked directly for him. Sometimes the junior officer had to do a little dance to keep both bosses happy. Thus, as it turned out, for slightly more than six months, Captain Clarke was actually assigned to three SAC wings at the same time: The 91<sup>st</sup>, the 4133<sup>rd</sup>, and the 3960<sup>th</sup>. No other officer or enlisted man fell into this remarkable category. His OERs were written by the 3960<sup>th</sup> boss; they showed very high marks, and he predicted them to be an obvious asset in getting that promotion to major.

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George H. Pfeiffer, Colonel, USAF, Commander 91st Bomb Wing

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Earl. Johnson, Colonel, USAF, Commander, 4133rd Bomb Wing

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John R. Keys, Colonel, USAF, Commander 3960th Strategic Wing

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John D Ryan, General, USAF, Commander, Strategic Air Command



## AMERICAN LEGION, MEMORIAL DAY, MAY 28, 2001, PLANT CITY, FLORIDA

Talk by Lt. Colonel William David Clarke III

My life...I've had a good 49 years. The other 15 haven't been so bad either!

God, Country, and our fallen comrades. Do we show our allegiance to God? To Country? Do we show respect for our fallen comrades? Because you are here, I suspect your answer to the last two questions is a resounding "yes." You have lost relatives or friends in the war. I lost one of my friends—a room mate in Biloxi, Mississippi, later shot down by Communists on a reconnaissance B-47 while flying close to the Soviet Union. The communists are still trying to kill our young men and women—consider the P-3 that recently came within inches of crashing. Another friend of mine was shot down in Vietnam and killed. Two friends in Vietnam were both shot down near the end of the war, but they were captured and eventually released. Today, however, I want to concentrate on our World War II losses at certain islands in the Pacific. At the conclusion, I want to remind us of God's great blessing on our Nation and what response we might make to Him.

My history in the military begins while my family was living in the country, west of Tampa at the present site of Westshore Mall. Overhead I watched B-47s, the first swept-wing jet—a Boeing design with six engines. Its beauty was stunning as it flew directly over my house. I knew I had to be in that jet. And I knew how to do it. I would join the aviation cadet program and become a flying officer. Hardly no sooner said than done! In fourteen short months I traded my blue suede shoes and white bucks for silver wings and gold bars. Now about the B-47—numerous friends of mine did go to that plane, but within a year or so B-52s were flying, and my desire switched to the bigger eight-engine Boeing. The movie *Bombers B-52*, filmed in 1957 at Castle AFB in California, convinced me that I should look for that assignment when I completed Electronic Warfare School. That's exactly what I did, and I soon became an instructor in the heart of California, at Castle AFB, right where the movie was made. When I joined the 328<sup>th</sup> Bomb Squadron, WWII had been over only 13 years. I was but a small child in 1945—a fourth grader. Heroes from the big war became my personal friends. One was John Doolittle, a B-52 pilot, son of Jimmy Doolittle. As a 21-year-old second lieutenant, all this put me in complete awe.

But what I want to say today happened to me about six years later, and my visits to several Pacific islands provides me some connection to WWII. I have never told this story. It's *nothing* compared to stories of you WWII vets, but I need to say it out loud for once. I think it means a lot as we think of our fallen comrades in the Pacific Theater. In 1966, while a maintenance officer at Glasgow AFB, Montana, I was asked to join a team ferrying several AC-47s from California to Vietnam. The AC-47 (ours was AC-47D SN 43-15159, built in 1943) is an attack version of the beloved *Gooney Bird*. Now, with Gatling guns extending through the cargo door and windows on the left side, the plane lost its unofficial but affectionate nickname of *Gooney Bird* and took on the name *Puff the Magic Dragon*. The Puff was to become a major threat to the Viet Cong as it flew in steep, tight, left turns with guns blazing away. Incidentally, the official nickname of the C-47 is *Skytrain*, not *Gooney Bird*. *Skytrain* is not nearly so colorful a name, is it?

On paper, I was a perfect choice for this flight because I maintained my navigator proficiency at Glasgow in the C-47—a regular C-47, that is. The venerable Douglas C-47 is a twin-engine transport that many of us here have flown on. Thousands were produced in World War II and it

handled both troops and cargo. Probably some of you left it through the cargo door at 5000 feet as a paratrooper. In 1966 the C-47 was noted, among other things, for being extremely slow, and having no navigational equipment, other than over-land radio sets, a VOR, and a TACAN. I had been flying on mundane courier missions around Montana and South Dakota. My navigating was with the good old technique of map reading augmented with a little bit of radio navigation, as we flew from one radio station to another. As you can imagine I became very familiar with the roads, rivers, towns, and corn fields of the northern Midwest.

With the AC-47, my job was to navigate the slow-moving plane across the Pacific, stopping over at five intermediate islands and deliver it to its new owners—the Seventh Air Force in Saigon. Now compare in your minds for a moment navigating a C-47 among the towns and radio stations of Montana with navigating a C-47 across 9000 miles in the Pacific Ocean. Happily, I had been informed that our AC-47 would be equipped with a sextant and a loran set. These navigational aids would make it easier to track our position over the Pacific and hit the islands we needed. The island stop-overs included places where major battles had been fought. Unspeakable devastation of ships in Pearl Harbor and aircraft at Hickam Field in Hawaii. A turning around of the entire Pacific war at Midway. A major fight to retain and later regain Wake. The same at Guam. And of course so many major battles and other trauma at the Philippines, that it is hard to present in my short time here.

As I was preparing this talk and reconstructing my own flight in my mind, I thought, “Wouldn’t it be nice if I had my navigator logs. They would tell me so much about our slow airspeed, winds, our altitude, the distances, and time in route.” Then I thought, “Why didn’t I save those logs!” I decided a miracle was called for—I *would* find the logs in my Air Force memorabilia. Sure enough, stored safely with my Air Force documents, there were the logs of all six of legs of the mission. They were complete with each flight plan, weather charts, log of running positions, my celestial charts, and my loran maps—everything.

To join my crew and get our AC-47, I had flown from Glasgow, Montana, on Frontier Airlines to Salt Lake City—on a DC-3 no less, the civilian version of the C-47. From Salt Lake City I took another Frontier flight to Sacramento near McClelland AFB. At McClelland I had two or three days on my own, so I visited one of the flying squadrons and boned up on over-water navigational techniques with loran and celestial.

Finally I met my pilot and copilot, and we began to receive briefings. We were one of three planes departing McClelland. We discovered our entire cargo bay filled with two huge range-extending fuel tanks with barely enough room to walk to the cargo doors. On 27 June 1966 we checked out of our quarters and became airborne at 0309. The first and longest leg of our journey was 14:46 lonely hours from California to Hawaii coursing some 2179 nautical miles at the stunning altitude of 4000 feet, later 6000 feet. Air speed averaged 140 knots. This is a very unusual trip for a twin-engine plane—it doesn’t have enough engine redundancy. You may recall that General “Vinegar Joe” Stilwell’s son, himself a one-star general, was lost over the Pacific about this same time in a C-47. My crew was blessed with an uneventful trip. And a navigator—me—that kept us right on course. As we approached Hickam Field, the pilot excitedly hollered, “Hey, nav, look at this needle.” He had just picked up Hickam radio, just as the Japanese did on 7 December 1941, and the needle on our radio compass was pointing straight up. As we disembarked out plane, as you can imagine, we made quite a stir. It’s not every day that a twin-engine plane pulls into Hickam from the mainland.

Finally, let me get to our fallen comrades at Hickam and at Pearl Harbor. The *surprise* attack was really not a complete surprise. Japan had been seriously meddling all over the Pacific and in

China, and many indicators pointed to an imminent air attack on Pearl Harbor. During those infamous waves of Japanese torpedo planes, bombers, and fighters on 7 December, half the military planes—about 140—were destroyed, five of eight battleships were sunk along with 11 other ships. More tragically, 2300 military members gave their lives, 1100 were wounded, and about 100 civilians were killed. Happily all of our carriers were out to sea, and the entire Japanese assault was of limited success. Of course it did awaken a sleeping giant. Oahu is now the site of numerous military memorials around the island. Pearl Harbor is the subject of several movies and numerous TV documentaries. The movie *Pearl Harbor* opened this week. I haven't seen it yet, but I did watch *Tora Tora Tora* yesterday.

After a three day wait, our AC-47 departed Hickam for Midway Island and took us another 1140 nautical miles and 7:29 hours with an airspeed of 148 knots, a slight tail wind, and an average ground speed of about 160 knots. For WWII history at Midway, we need to jump ahead six months from Pearl Harbor. This was the Battle of Midway from June 3<sup>rd</sup> through 6<sup>th</sup>, 1942. If you look at a map of Midway, you will see the runways taking up the whole island. It's amazing that anything else would fit on the island. The Japanese had been planning an invasion of Midway, but American cryptographers intercepted Japanese plans and allowed American air power to preempt the Japanese. Thus, we began an air campaign that sank four of their carriers and one cruiser. The loss of the five Japanese ships so appalled the enemy commander that he called off the invasion entirely. These four days early in the war are considered the turning point of the war, for the Japanese also called off invasions of several other islands because of this defeat. Remarkably, only a few American lives were lost. Midway was never brought under Japanese control during the entire war. Midway is one of the few islands in the world that is home to gooney birds, a type of albatros, namesake of the C-47 *unofficial* nickname.

Next we flew to Wake Island, another 1026 nautical miles and 6:30 hours flying time. Now go back with me to the morning of Pearl Harbor. Within hours Wake was also under attack. After repelling Japanese invading ships for two weeks, Wake's small contingent was eventually invaded and seized on Christmas Day 1941. About 1600 Americans were captured and evacuated to China and Japan. Only two weeks after Pearl Harbor, Wake's fall brought Navy and Marine morale to a new low. Wake was not to be recaptured until the end of the war. When I walked around the island in 1966, I saw much evidence of the war including gun emplacements, wrecked airplanes, and many personnel carriers in ruins. These were American, for I was totally surprised to see HydraMatic transmissions in the abandoned chassis. I had naively thought that only automobiles had HydraMatic.

Next our little plane flew to Guam, another 1296 nautical miles and 8:03 hours. A year later I was to spend six months on Guam as a logistics officer supporting the B-52 bombardment of Vietnam. Guam was much larger than Midway or Wake, and it was a very important target of the Japanese, mainly because it was the only one of the Mariana Islands it did not control. We had a very small military garrison on Guam, only 365 marines, and they were quickly overpowered on 10 December 1941 as the Japanese invaded from four points around the island. Guam was not to be recaptured until 1944, and at that time the US began preparing the runways at Guam and nearby Saipan and Tinian for B-29 and B-50 bombing runs against Japan, including the dropping of the two atomic bombs.

Next we flew to the Philippines to Clark Air Base, about 50 miles NW of Manila. The flight was 1443 nautical miles and 8:40 hours. Here we stayed for three days and had the auxiliary fuel tanks removed. As we stayed here we realized that we were not far from the Bataan Death March in 1942. On this 65-mile tortuous march 20,000 of 76,000 American and Filipinos died of

disease at the direct hands of the Japanese. At the prison camp the survivors were tortured, diseased, and starved for three years until Japan surrendered. Actually, the Philippines had been invaded on 10 December 1941 as the Japanese systematically took Manila and more and more of Luzon, the main island.

Finally on our last day of travel in the C-47, we reached Saigon, Vietnam, another 900 nautical miles and 6:00 hours. We turned the plane over to Seventh Air Force, and our mission was complete. Air Force personnel immediately began to install the Gatling guns, armor, and other equipment. We had spent 10 days on the trip, six flying days, 7984 nautical miles (9163 statute miles), and had logged 51 hours and 28 minutes of flight time. In the Vietnam War from the mid 60s to the sad conclusion in 1973, 55,000 American were killed, 591 were captured in North Vietnam and eventually released, 69 were captured by the Viet Cong and eventually released, and as were heard a few minutes ago, many are still missing.

In conclusion, let me ask again: Do we show respect for our fallen comrades? Do we show our allegiance To Country? To God? Clearly we should express our gratitude to our Heavenly Father, the Holy Spirit, and Jesus Christ the Son.

Possible future addendum:

Getting home—Pan Am Airlines via Taipei, Japan, California, airline strike, railroad, etc...

	Time	Distance
McClelland AFB to Hickam	14:46	2179 NM
Hickam to Midway	7:29	1140
Midway to Wake	6:30	1026
Wake to Guam	8:03	1296
Guam to Philippines	8:40	1443
Philippines to Vietnam	<u>6:00</u>	<u>900</u>
Total	51:28	7984 NM

Converted to statute miles, the distance is 9163 mi.