THE AIR FORCE NAVIGATORS OBSERVERS ASSOCIATION NEWSLETTER

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AFNOA REUNION, September 2024. Left, incoming President Bob Certain, (Mather 70-16) receives the traditional sextant from outgoing President Jimmie Hanes (James Connally 66-13). Right, incoming 2d Vice President James Conner (Mather 69-12) and Dottie Conner. (Photos by Jim Faulkner, James Connally 64-04.)

PRESIDENT'S MESSAGE

by Robert (Bob) Certain, Mather 70-16

Our recent reunion was a joy for all of us as we renewed old friendships and made new ones. I am honored to have been chosen as the new president but suspect many of you have little knowledge of who on earth I am. So, a little background...

I graduated from Emory University in 1969 and was commissioned as a 2d lieutenant in the USAF the same day. The next day I loaded my car and drove across country to Mather AFB, CA, to begin my training as a navigator and then as a navigator-bombardier. Upon completing NBT, I was assigned to the B-52G at Blytheville AFB, AR. My first deployment was to D-models at U-Tapao, Thailand where I flew 50 missions before returning to Arkansas. In the next few months our crew flew an ORI, several training missions, and stood alert. *And* I married Robbie Wade of Blytheville. In May 1972, the 97th B(H)W and its 340th B(H)S were deployed to Guam as part of Bullet Shot. On my 50th combat mission from Andersen, Charcoal 1 was shot down over Hanoi, the first of fifteen to be lost during Linebacker II.

Upon repatriation in March 1973, the USAF agreed to send me under AFIT to seminary, and I transitioned into the chaplaincy upon graduation and ordination in 1976. I left active duty in 1977 for the reserves and for parish ministry in the Episcopal Church, retiring from the USAFR as a colonel in 1999. During those years, I served on reserve duty at Kelly, Keesler, Blytheville, Lackland, SAC/HQ, AMC/HQ, the Air War College and the USAF Academy.

Parish ministry has taken me to Georgia, Mississippi, Tennessee, Texas, Arizona and California. In California, I officiated the funeral services of former President Gerald Ford. I retired after 35 years in 2012. In my retirement I have served as executive director of the Military Chaplains Association, on the Defense Health Board, the VA Advisory Committee on Former POWs, the boards of MOAA, the DFC Society, the Purple Heart Society, the Order of Daedalians, and the NAMPOW organization (former POWs in Vietnam). Since moving into Blue Skies of Texas West (Air Force Village II) in San Antonio, I have served as the interim pastor of five different Episcopal Churches.

I look forward to serving **AFNOA** and to getting to know you better.

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If you are currently a member, GR donation to the operating account. member, please consider joining a the organization. (Checks only, ple	If you are not a current and giving a donation to
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BRETT ARNOLD SCHRIEVER, AFNOA 2nd VICE PRESIDENT

March 23, 1939 - July 14, 2024

by Jim Faulkner, James Connally 64-04

It is with great sadness we announce the loss of the **AFNOA** Second Vice President, Brett A. Schriever. Brett served as the 2d VP from September 2021 until his death.

Brett Arnold Schriever, 85, of Enid, Oklahoma, passed away among family on July 14, 2024. His journey began on 23 March 1939 in San Francisco, California, as the first-born child, and only son, of General Bernard A. Schriever and Dora Brett Schriever. As a military dependent, Brett grew up in many different places and was destined to choose a life of service to his country, like his father. Brett began his career by attending Navigator training at Harlingen in classes 61-09 and 61-10.

He then went to Keesler AFB, MS, for Electronic Warfare Officer (EWO) training. Other assignments included Eglin AFB, FL, as an EWO test officer; Hickam AFB, HI, as navigator on the C-130 Nose Cone Recovery program; and Ubon RTAFB, Thailand, flying AC-130 gunships as Stan-Eval Navigator. After further assignment to 7th Air Force Headquarters in Saigon, he returned to the States as an AC-130 instructor at Hurlburt Field, FL, to the Pentagon in Washington, D.C., as a staff officer in the operations directorate and finally to Headquarters NORAD in Colorado Springs, CO, as Chief of the NORAD Systems Center. Brett retired in 1981 as a Lieutenant Colonel.

During his many years of service, he received the Distinguished Flying Cross and many other medals. After retirement, Brett worked for several government contractors as a senior systems engineer and program manager. He later formed his own company to pursue government contracts. Brett was passionate about the charities. He served Austin Bluffs Sertoma Club of Colorado Springs and the Air Force Association as Chapter 214 treasurer and board member, plus was active in many more organizations.

He is survived by his wife Marilyn; son Bernard Schriever II and wife Deborah of Manitou Springs, CO; daughter Bridget Burke and husband Jamie of Shafer, MN; daughter Teresa Schriever and husband Dino of Pittsburgh, PA; son Lt Col Michael Schriever and wife Carrie of Colorado Springs, CO; and son Andrew Schriever and wife Amber of Longdale, OK; plus many grandchildren and great grandchildren.



FROM THE TREASURER'S DESK: LATEST DONATIONS

by Leonard Melcher (Mather 74-17) DONATIONS: AFNOA greatly appreciates donations to the operating fund from the following members: James Martin (James Connally 61-03) - \$1145 Anthony Sharon (Mather 75-16) - \$300 Gary Faulkner (Mather 69-17) - \$265 Ray Bowman (Harlingen 61-03) - \$200 William Duvall (Harlingen 54-12) - \$100 Joseph Bejsovec (Harlingen 59-12) - \$75 John Norvell (Mather 73-02) - \$50 Tyler Wake (Pensacola 13-05) - \$50 Murray Gandy (Mather 72-19) - \$25 Richard Spencer (James Connally 63-02) - \$20 David Campbell (James Connally 66-03) - \$15 Stanley Keil (James Connally 64-18) - \$5 ********

TREASURER'S NOTE:

When you send a check for dues, donations or any other purpose, you will receive a response from the treasurer via email. Lately there have been some issues with the mail delivery and I am not sure that I have received everything that has been sent. If you have not received a response/confirmation after 2-3 weeks, please call me.

Leonard Melcher, Treasurer

512-296-5209



RETURN TO WACO - AFNOA REUNION 2024

by James Faulkner, James Connally 64-04

The AFNOA biennial reunion was held from 17-19 September 2024 at the Hilton Hotel, in downtown Waco, Texas. For this reunion, we used the Reunion BRAT Planners to make the hotel, meal and tour arrangements. President Jim Hanes set the theme of the reunion as "Return to WACO," where many trained in the 50s and 60s at the former James Connally AFB.

We had a nice reunion turnout; more than 90 people attended. There were about 37 class members from James Connally (JC), 15 from Harlingen (HA), and 11 from Mather (MA). There are several things we will remember about this reunion. They are, first, JC Class 64-18 had the best turn out with 13 (including one guest) attending. Second, the "war stories" at the reunion expressed this thought, "The older we get the BETTER we used to fly!" Third, President Jim Hanes (JC 66-13) managed to get all the meetings done in a timely manner - again. Fourth, Richard Bartholomew represented the most senior class in attendance, HA class 57-01.

The reunion officially started on Tuesday afternoon when many people gathered in the hospitality area to reunite and talk about their days as a navigator. There was some sadness expressed as several who attended in 2022 had made their LAST FLIGHT. Tuesday evening there was a buffet in the hotel and 64 attended. On Wednesday, 18 September 2024, Board and Membership Meetings were called to order by President Jim Hanes (JC 66-13) at 0730 and 0930 respectively. More than 50 people attended the membership meeting and listened to reports from the Secretary, Treasurer, and Membership Chair, plus the DR Ahead Editor and Distributor. The attendees made some suggestions for the board to consider on ways to support other organizations and to improve the web site. The membership report showed the current membership is 1,192, a decrease from the 2022 reunion. The Treasurer's report from Leonard Melcher (MA 74-17) indicated that we have enough money to last for 4 years if NO dues or donations are received. Jim Hanes suggested each person at the meeting contact classmates and tell them about AFNOA. If you need updated rosters or help finding classmates, contact Jim Faulkner. Errol Hoberman (HA 60-09) gave a report on DR Ahead distribution. It was noted that one of his suggestions has helped AF-NOA reduce expenses on returned DR Ahead issues. The board and membership approved San Antonio, Texas, for the next reunion site in September 2026. The reunion planning committee will consist of Bob Certain (MA 70-16), Jim Faulkner (JC 64-04) and Leonard Melcher (MA 74-17).

The new board members approved for 2024 -2026 are: President Robert Certain (MA 70-16), First Vice President James Faulkner (JC 64-04), Second Vice President James Conner (MA 69-12), Secretary Larry Saunders (MA 68-09) and Treasurer Leonard Melcher (MA 74-17). See the rear cover of *DR Ahead* for a complete listing of **AFNOA** board members.

After the meeting, some attendees went to the hospitality room for conversation, snacks and beverages provided by the Reunion BRAT. Others went on tours or shopping in the Waco area.

On Wednesday evening, 87 attended the social and dinner banquet. President Jimmie Hanes (JC 66-13) opened the meeting with a pledge to the flag and a prayer was given by Chaplain Bob Certain (MA 70-16). A toast was made to the President, those missing in action and to the navigators who have made their LAST FLIGHTS. Jim Hanes recognized James Connally Class 64-18 for having the best class turnout. He then introduced our guest speaker, Texas State Senator Brian Birdwell, who spoke to the attendees about his experiences on September 11, 2001, when he was assigned to the Pentagon with the U.S. Army. Senator Birdwell served as the military aide to the Deputy Assistant Chief of Staff for Installation Management. So people could visualize the impact area, he also showed some pictures of the building he worked in. When the Pentagon was attacked on 9/11, the senator (then Lt Col, USA) had left his office to go to the latrine when the aircraft crashed into his wing of the Pentagon. There were no survivors in his office area. Senator Birdwell was in a hallway on his way back to his office when he sustained life-threatening burns over 60 percent of his body after the aircraft struck the Pentagon. The flames were intense and he described the actions he took to survive after being exposed to excessive heat, fuel fumes and fire. He also talked about things others did to rescue him. Today, following 39 operations, months of hospitalization and numerous skin grafts, he has made a miraculous recovery. Despite physical limitations, he testifies not only to his physical healing, but the ultimate miracle of grace through Christ. He was awarded the Purple Heart for wounds received that day. Senator Birdwell attributes his recovery and healing since 9/11 to his Christian faith. Jim Hanes thanked Senator Birdwell for his motivational talk and for taking the time to come to the AFNOA Reunion to be our guest speaker.

On Thursday, 19 September 2024, over 60 attendees toured L-3 Harris, formerly L-3 Communications, and the Challenger Learning Center, plus had lunch at the Culinary Arts Department at Texas State Technical College in Waco, all of which are located on the former James Connally AFB. We received many favorable comments on the reunion. An additional article on the reunion can be found in the *Waco Tribune-Herald* e-edition dated September 20, 2024. The article is en-

titled "Navigators Find Way Back to Former Training Grounds." The article described how former navigators converged on Waco this week, recalling how Connally AFB launched their careers before its closure in 1968.

The link to the article is at https://wacotrib.com/eedition/page-a1/page_ccc8cf14-16c6-5455-b941e86998004b08.html. Note: You will need a subscription to read it. You may contact Jim Hanes and he can email you the article. Note 2: Because of space limits, some Reunion photos are not in this issue of **DR Ahead.** and are posted at www.james-connally.org under (GALLERY-REUNION PHOTOS-REUNION 2024 AFNOA.)

AFNOA REUNION 2024: Photos by Jim Faulkner



Jim Alexander (JC 65-18), Karen Cooney, Vince Cooney (JC 61-09), Don Wadkins (JC 64-10).



Dennie and Jim Pocsik (HA 63-21).



Gene & Sami Jensen (JC 64-18) plus Vivian & Bob Long (JC 64-18).



Doug Jackson (MA 74-19) and Joe Lee (JC 64-08).



John Hefferman (MA 68-07), Hal Biestek (JC 63-02), & George Carpenter (HA 62-13).



George Carpenter, (HA 62-13).



Chuck Gearhart, (JC 64-18).



Skip Foster, (JC 64-06).



Connie & Don Wadkins, (JC 64-10).



Bob & Vivian Long, (HA 64-18).

REFLECTING ON AMERICAN ISOLATIONISM

by Murray Siegel, Ph.D., James Connally 65-03

Those who have served in the armed forces understand the importance of military preparedness; proper training, sufficient personnel and adequate supply of weapons needed. Experience tells us that a complete focus on domestic issues and avoiding foreign involvements through isolationism has a derogatory effect on military preparedness. Currently, an increasing number of Americans are seeking to isolate our nation from foreign affairs. It is said that failure to study history leads to a repetition of past errors, so it would be useful to reflect on American isolationism of the 1930s and how it affected our military preparedness.

In 1931, Japan invaded and annexed Manchuria, a Chinese province, and the U.S. government refused to get involved. In 1937, Japanese forces attacked the U.S. Navy gunboat Panay, which Japan said was a mistake and they paid reparations for the Americans killed and the damage to the ship. We knew that the attack was ordered since we had broken the Japanese code, but said nothing since we did not want Japan to know that we could decode their messages.

When Japanese soldiers conducted a six-week massacre and rape of civilians in the Chinese capital of Nanjing, America did not react. In 1938, Britain



Phil Barber JC (64-04), past AFNOA President; Bob Certain (MA 70-16), incoming AFNOA President; Jim Hanes (JC 66-13), outgoing AFNOA President.

and France acceded to Hitler's demand for the Czech territory of Sudetenland, and the U.S. avoided any involvement. It has been estimated that 90% of Americans favored isolationism on December 6, 1941. How did American isolationism affect our readiness when the Japanese attacked Pearl Harbor, initiating our entry into World War II?

On December 7, 1941, American military personnel were at inadequate levels, we had an insufficient supply of weapons, and those we did have tended to be inferior to those in the arsenals of Japan and Germany. Americans rushed to enlist; many were issued broomsticks since there were not enough rifles. Trucks with signs reading "TANK" were utilized in training since we did not have sufficient tanks. We were unable to assist U.S. forces on Guam, Wake Island and the Philippines. Fortunately, American industry met the demand for modern weapons in large numbers, so after weak results in early 1942, we were able to outproduce and defeat the Axis enemy.

It appears that events in Ukraine and the Middle East mirror the events of the 1930s. If we turn inward, will our nation be ready for an attack? Should not those of us with military experience raise our voices?

IP INBOUND: THE FINAL MINUTES OF CHARCOAL 1

by Robert G. Certain, Mather 70-16

Charcoal 1 was B-52G 58-0201 and was manned by S-18, a select crew out of Blytheville AFB, Arkansas, on 18 December 1972, the beginning day of Linebacker II. This account of the bomb run is from *Unchained Eagle* written by the crew navigator, Robert G. Certain.

As we made our final turn toward the target, we entered the 90-knot jet stream, boosting our groundspeed to 560 knots. At least our time in the area was being reduced by a few minutes, and our groundspeed might make it more difficult for the SAM crews to hit us, at least until we made our steep, long post-target turn to the west to exit the area. That turn, which would blank out our SAM jammers for nearly two minutes and then reduce our groundspeed to about 400 knots, was another insane feature of the worsening tactical situation.

The EW, Capt Tom Simpson, reported 100-millimeter anti-aircraft artillery (AAA) radar was locked on, but would be ineffective at our altitude. What we didn't know was that our ALT-22 Modulated ECM Transmitters could be countered by the SAM crews. The D models and some Gs had ALT-6B Unmodulated Transmitters that were more effective.

With our outside radios still off and the crew maintaining only checklist and bombing instructions on the intercom, the Radar and I were able to concentrate on this critical offensive phase of the mission. By this time, I was aware of no emotion other than dogged determination, no words other than checklist items, and few thoughts other than prayers. Thirty seconds before bombs away, Dick opened the doors, and twenty seconds later I was to restart my stopwatch as a backup to the drop should anything go wrong. Just short of ten seconds to go, time seemed to stand still and speed ahead, all at the same time.

At 1313 GMT, the radar screens went blank and other instruments lost power and the aircraft shuddered and yawed slightly left. My first thought was that the copilot had accidentally knocked the generators offline. Before I could speak, though, he was shouting over the intercom, "They've got the Pilot! They've got the Pilot!" I thought, *Who has the pilot*?

The EW was also shouting, "Is anybody there? Gunner, gunner!" His cockpit had gone black, his equipment had major electrical shorts and explosions, and the gunner was covered in blood and slumped in his seat. Tom had also lost his earphones but not his microphone. We could hear him, but he couldn't hear us. Dick and I had intermittent intercom.

My internal voice was saying, *This can't be me. We haven't been hit; or have we?* Then the voice silently whispered, *Yes, this is for real.* Then, that last internal "still, small voice" took over, and everything went into

slow motion. From that point forward, I was truly on autopilot, reacting in the way I had been trained. That training was for the worst-case scenario, and now all of a sudden, we were cashing in the "training-chit" with every last ounce of our energy! We are performing and reacting on autopilot. Thank God it worked!

I pulled out my small Sanyo flashlight to check the altimeter and noted we were in a 400-500 feet per minute descent. I then laid it on my desk to check my personal equipment; Dick picked it up and aimed it upstairs toward Tom. Tom's voice could be heard briefly, "Is anyone alive up front?" It was then very quiet, and I suspected we had lost the four port engines, and maybe more.

The first SAM had exploded to the left front of the aircraft, scattering hot shrapnel like a shotgun blast at a velocity of 8000 feet per second. The plane flew at 490 knots true airspeed through the burst, and thousands of pieces of hot metal shards ripped through the plane, wounding the pilot and killing the gunner. Some of it was sucked into jet engines (which destroyed them and the engine-driven generators), and others cut hydraulic lines and set the oil on fire. We probably had ruptured fuel tanks on fire, but there would be no major explosion unless the JP-4 lit off in an intact tank. That might come in a few seconds.

Over the Gulf of Tonkin, my brother, Capt John Neal Certain, the pilot of a Stratotanker in the refueling orbit, saw the SAM hit the B-52 and the explosions and flames as it began its death spiral toward the ground. He knew I was to have returned home that morning, but a sick sensation in his abdomen told him that I was probably in the middle of that conflagration.

I looked over my left shoulder and saw a fire in the forward wheel well through the porthole in the bulkhead door behind the offense cockpit. First, I thought of the twenty-seven 750-pound bombs in the bomb bay right behind the fire, and turned to the Radar, "Drop those bombs!" He safetied them (we didn't know where they would land, so we did not want them armed since we were under orders to avoid POW camps and civilian areas) and hit the release switch. They all seemed to drop away from our now-crippled BUFF. Oddly, though the indicator lights went out, I felt no shudder or lurch as they left. My next thought was that the fire was also directly below the main mid-body fuel tank, loaded with 10,000 pounds of JP-4.

"The pilot's still alive," Don's voice came weakly over the intercom.

"Co, Nav, escape heading is 290." The Tonkin Gulf 60 miles to the east would have been a better place to go for bailout; but there were too many SAM sites and MiG airfields in that direction.

"EW's leaving!" In a controlled ejection, the navigator went first (to make a hole for manual bailouts if any other seats failed), then the Defense Team, the copilot, the Radar, and finally the pilot. In an uncontrolled escape, it was every man for himself. This was definitely an uncontrolled event!

With that, about ten seconds after the first of two SAMs hit the plane, the first crewmember ejected. I heard the explosion of his hatch and seat as it rocketed up and out but felt no decompression. We had been at combat pressurization (17,000 feet), but the holes in the airplane had caused that to rise to over 30,000 feet by the time we ejected. I looked at the Radar. Our eyes met, and we both started preparing for ejection. I threw my flight case as far to the rear of the cockpit as I could, cleared my table, tossing pens, dividers, and charts to the back (I didn't want any of that stuff being drawn out the hatch when I ejected, possibly causing injuries), stowed my table, pulled down my visor, cinched up the oxygen mask, pulled the "green apple" to activate the flow of O₂, kicked back into the leg restraints. I discovered the restraints had already tripped; so, I had to bend down and reset them before kicking back again. I grabbed the ejection handle between my knees-incorrectly, with palms facing me. Instantly, I remembered that my elbows would extend past the hatch opening if my hands were placed that way, reversed my grip, looked at the Radar again, turned to face forward, saw the ejection light come on as the pilot ejected, and pulled. I thought the seat had failed. The ballistic activators were supposed to blow the hatch below my seat and fire me in the seat out the bottom of the plane, all in three-tenths of a second. But fear gripped me, and expletives filled my mind as the panels in front of me seemed to move up exceptionally slowly. Was this thing jammed on the rails? I'll be beaten to death by the wind! It was an illusion brought on by the state of shock induced by the extreme danger of being in a burning and likely to explode bomber directly over the enemy capital. Everything from the first call from the copilot to ejection had appeared in exaggerated slow motion, like a movie depiction of an automobile crash. In actuality, it was probably about 10 seconds.

The next thing I knew, I was in the cold air of the troposphere. At 31,000 feet, the temperature was –55° centigrade. As I tumbled around all three axes, I thought, *That was a dumb thing to do. I'll bet the plane was still flyable. Where is it? Perhaps I could crawl back in.* Dumb thoughts from a lingering sense of invulnerability, I suppose. *Now what do I do? OK, God, it's you and me.* My prayers for the next few minutes would remain blunt and somewhat profane.

Next, I checked to make sure the 350-pound seat had separated from me. It had. One second after clearing the hatch, more ballistic activators had blown seat belts and shoulder harnesses loose and activated the man-seat separator, a strap on an inertial reel running behind and below me. When it tightened, I

was pushed out and away from the seat, arming the parachute for automatic deployment passing 15,000 feet. I carefully checked to feel my parachute harness. Had I remembered to connect all the clips? I had only checked it about two dozen times on the way in. It was there. Then I concentrated on stabilizing my fall. My oxygen mask was being forced up over my eyes. I pulled it down to my mouth, tightened the connections, repositioned my visor and tightened the lock nut. But still, the force of the tumble kept pushing it up. My mind was racing through checklists and training manuals and all those boring safety lectures I had sat through for the last four years. I was amazed and calmed that I seemed to be remembering so much.

I tried to get into the sky diving position to stabilize in a facedown fall, but that only made matters worse. I doubt that I tried that for more than a few seconds, though it seemed longer. Grabbing my mask, I held it in place with both hands, pulled my legs together, bent my knees, and bent over slightly. Right away, the tumbling stopped as my personal center of gravity was shifted to my lower body, and I was falling feet first toward the earth, now about 20,000 feet below. I began to look around for signs of Charcoal 1. Above me I could see a long trail of smoke—wide, thick, and dense—turning slightly west, then looping around and descending before disappearing into the clouds below.

I could feel the effects of the wind, but I had no sensation of falling. I slipped two fingers of my right hand into the T-handle to manually activate the chute should I enter any clouds (briefed to be solid at 2,000 feet). Just wait. A high-altitude opening shock could damage the canopy and injure the jumper. After ejection I was traveling initially at the airspeed of the plane. As I free-fell I slowed to terminal velocity (when the wind resistance is equal to the force of gravity, about 120 knots). In a moment, I felt the parachute opening as I passed through 15,000 feet and fully deploy a few hundred feet below. I felt each fold, one at my shoulders, one at my buttocks, as it began its deployment out of the pack. So far, all my emergency equipment was working properly.

With the opening shock I was swinging like a pendulum in a wide arc below the canopy. First, I checked for a good and complete chute, then reached up and pulled the red daisy-chained line on my right riser to release four lines and create a small spillway. That accomplished, the chute stabilized, and the undulations ceased. Finally, I looked down for the first time. There, between my boots, I saw the inferno that made up the three targets that had been struck over the last twenty minutes. As I watched, I saw a series of explosions walk though the target—the twenty-seven bombs from Ebony Three had found paydirt. The time was 1315:50 when Ebony Three's bombs started exploding. I had been

falling for two minutes and forty seconds.

Was that the last of the bombs, or were there others falling all around me? Am I really going to land in the target and be burned alive? Grabbing two fists full of right risers, I pulled them down to my ankle, tilting the military canopy and steering it to the west. My heart was racing as fast as my mind. Somewhere around 10,000 feet, the wind shifted out of the east, aiding in moving me west and away from the target area. This nightmare was going exceptionally well.

The solid undercast turned out to be broken to scattered clouds. The moon was full, and I could see the ground clearly all around. Panic was beginning to replace concern. White panels in the canopy, and a white helmet were not going to be assets as I slowly descended into enemy territory no more than ten kilometers northwest of Hanoi. I was going to have to find a wooded area to land in if I was to have any chance of evasion. I looked around the sky above and below for other chutes but spotted none. Somewhere out there were Tom and Don for sure, and I hoped Dick, Bobby and Fergie were somewhere above me.

As I was beginning to feel relief drifting about thirty degrees west-northwest away from the target, in my right peripheral vision I caught another series of explosionsright in line with my drift. Oh, God, now what? There shouldn't be another target over there; that was our escape route. As I looked down through a break in the clouds and drifted past this new blaze (and through the mushroom cloud of smoke), I realized that this fire was shaped like an arrow—Charcoal 1 had plowed in flames into a field below at approximately 21.07N, 105.52E. My watch showed 1317 GMT. Ejection hadn't been such a bad idea after all. Look Lord, it's you and me. If I'm gonna die down there, just go ahead and let me die right now. I'm ready to go. I would just as soon not have those people down there get me and kill me. I don't care if they capture me. But if they're gonna kill me, you take me now.

The situation was becoming clearly hopeless. We had been told back on Guam that search and rescue would not be available. The apparently populated farm country below me offered no place to hide. I had heard horror stories of how wounded aircrew had been killed or left to die, with medical care being offered only if they lived for three days. Being captured with a major injury was not a pleasant thought. I needed to make my fall a good one.

I had some static ground training in the harness, a few dozen parachute landing falls from a platform, and two parasailing rides behind a pickup truck. The cable was about 300 feet long, so we were towed up about 200 feet, cut loose and drifted to the ground. The theory is that falling the first 30,000 feet doesn't hurt hitting the ground does the damage. The big thing to learn is to land properly. I hoped I had learned it well.

I opened the 60-pound seat kit to string out all the survival equipment it contained on a tether below, and to decrease my chance of injury on landing. Then I faced forward keeping my eyes on the horizon, grabbed my risers, put my legs together with my knees slightly bent, and waited. When my toes began to touch the earth, I executed a parachute-landing fall (PLF), rolling to the right into a dry ditch. The point of touchdown was approximately 21.07N, 105.50E. To the east side was a plowed field, to the west side a railroad. My injuries to this point consisted of a few bumps, bruises, and abrasions from the ejection, fall, and landing. The PLF had gone perfectly. Everything continued to work according to the book. But there was no time to relish in this small success. It was time to evade.

ACTIVE AIR DEFENSE

by Joseph Ray Sanchez, Harlingen 56-02

Detect, Intercept, Identify, and Destroy (DIID). This was the maxim of the Air Defense Command informing operational missions during the Cold War years. In 1962, I was assigned to the 551st AEW&C Wing (Airborne Early Warning and Control) as a navigator. This assignment completed the third leg of my air defense "trifecta," after having previously served as a RIO (Radar Intercept Officer) in the F-94C and F-89J and as an AC&W (Aircraft Control and Warning) Intercept Weapons Director (IWD) in the Air Defense Command.



551st AEW&C Wing

At the end of WW II, the Soviet Union emerged with a pernicious relationship with the West, particularly the United States. The Soviet Union sponsored the communist invasion of South Korea in 1950. This made clear to the United States the aggressiveness of communism and particularly the motives of the Soviet Union. After the Soviet Union developed its own nuclear weapon in 1949, and long-range air attack capability with the TU-95 (Bear) turboprop bomber, the Soviets became an existential threat to the security of the United States. Out of concern for our relatively unguarded borders, US government policymakers embarked on building a defensive infrastructure for the country based on the premise that early detection of invading aircraft would give defending forces time to intercept and engage hostile intruders. The genesis of the detection mode of the continental defense system was the establishment of ADIZ (Air Defense Identification Zone) airspaces enveloping the continental United States, Hawaii, and parts of Canada. The ADIZ' purpose was to ensure the ready identification of all non-US military aircraft operating within its controlled airspaces.

In 1950, the development of the air defense command and control function was structured around the operations and management of the five contiguous ADIZ airspaces which were the functions of AEW&C radar squadrons, commonly called GCI (Ground Control Intercept). These sites were installed and located along the US coasts contiguously, overlapping, and enveloping the country. Their mission was to track and identify unknown aircraft operating within the 200-mile range of the AN/FPS-20 search radar system. This mission was the nucleus of the air defense system of the United States as its task was to identify all non-US military aircraft penetrations and scramble all-weather fighter-interceptors that were on 5-minute alert.

The fighter-interceptors would intercept to identify and if necessary, engage the intruder. The ready all-weather interceptors were armed and on an "Active Air Defense" mission (theoretically combat status) once they were activated. The key figure in this operation was the Intercept Weapons Director, also called GCI Director, who commanded a crew on watch and was responsible for declaring an unknown target and initiating an active air defense mission by scrambling the fighter-interceptors. This officer, highly trained in the geometry of the intercept sortie, with the use of radar tracking displays and information, directed the intercept to the range where the airborne radar on the interceptor could acquire the target and complete the intercept. The result of the intercept was relayed to the IWD who would coordinate with higher authority for action to be taken if necessary.

After the intercept was completed, the intercept director would navigate the interceptors to the recovery base keeping them advised on weather conditions. The IWD had working knowledge of the performance characteristics (range, etc.) of the fighter-interceptors of the times (F-94, F-89, F-102, F-101, F-86, F-106). The Air Defense Command in its wisdom rotated some pilots and RIOs to IWD duties for professional enrichment. I was assigned a three-year directed duty assignment to this duty after my F-94C unit was demobilized and the area coverage was assigned to an F-102 unit. My three-year assignment as a GCI controller was an enriching time for a navigator junior officer. My experiences in leadership and management as a key member of organizations, in the support role of air operations, were invaluable to my professional development as an officer.

The urgent need for defensive reaction time called for seaward extension of the early detection warn-

ing system. Radar picket aircraft operating beyond the maximum range of ADIZ was the solution to the need for earlier detection of potential threats. Enter the EC-121D "Warning Star" which was built around the successful civilian airliner Lockheed L-1059, which was already employed by the US Navy for fleet defense. The US Air Force established the 552nd AEW&C Wing at Mc-Clellan AFB, CA, for defense of the western seaboard, and the 551st AEW&C Wing at Otis AFB, MA, for defense of the eastern seaboard. The EC-121D "Warning Star" featured a ventral and a dorsal radome that housed the search and high finder radomes which gave the EC-121D its unique and recognizable appearance. These aircraft were equipped with over 6 tons of radar and communications equipment. The EC-121D was operated by a flight crew of two pilots, two navigators, two flight engineers, and 12 assorted communications and radar aircrew members.

The mission aircraft took off at maximum takeoff gross weight with fuel for a 12-hour "Active Air Defense" surveillance patrol mission at 15,000 feet. The "D" model was replaced in 1966 by the EC-121H with an inertial platform and data link (ALRI) capability with the ground stations. The 551st AEW&C Wing with three squadrons and its fleet of Super Constellations provided surveillance coverage of the Atlantic seaboard by manning five stations 300 miles out to sea 24 hours a day regardless of the weather. The stations consisted of a racetrack pattern 100 miles long which kept the navigator busy keeping accurate LORAN navigation, in order for the traffic data that was transmitted to the SAGE (Semi-Automatic Ground Environment) station to be accurate.

The 551st had flown early warning surveillance missions for ten years without any loss of life. However, on July 11, 1965, one of the EC-121H Super Connies ditched in the North Atlantic after two engines failed. Sixteen crew members lost their lives and three survived. Then on November 11, 1966, another Warning Star ditched in the North Atlantic under unexplained circumstances, resulting in the loss of all crew members. In addition to the previous two incidents, on April 25, 1967, another Super Connie ditched in the North Atlantic near Nantucket Island, again under unexplained circumstances. Fifteen of the crew members lost their lives, but one survived. Fifty aircrew members died in those three crashes between July 1965 and April 1967. They perished serving their country's first line of defense.

Attending the inter-faith memorial service on July 17, 1965, for the 16 dead airmen and officers of the July 11 crash was one of the most sorrowful events of my life. The ceremony was held in the big hangar and attended by high brass, numerous clergy, and the grieving families of the fallen aircrew members. It was painful to hear families, children, and friends weeping openly for their lost flyers. The conclusion of the services was capped by a flight of five Warning Stars flying the "missing airman formation" as "Taps" was being bugled. Sadly, these somber exercises were to be performed again in November of 1966, and then again in April of 1967.

During my three-and-a-half-year tour at Otis AFB, I experienced several engine shutdowns without a mishap. However, one was a two-engine shutdown where the second engine shut down within 15 minutes after the first engine was shut down. Luckily, we were only 120 miles from Otis AFB. With outstanding pilot skills, my friend Travis T. McAfee (RIP) nursed the airplane home to Otis AFB, narrowly averting yet another tragedy. Travis and I had arrived at the squadron together from our tours in the Far East. After training and checkout, this was our first flight together. Travis, a senior pilot and black fellow Texan was awarded the Air Medal for his superb airmanship.

The causes of these accidents remain as subjects of conjecture. The incidents seem to indicate that the causes were aircraft failures rather than human error. Was it a maintenance issue, a design flaw, or were the aircraft tired and engines overworked? On December 31,1969, the 551st AEW&C Wing with its three squadrons was deactivated and Otis AFB was renamed Otis Air National Guard (ANG) Base. The development of an intercontinental missile arsenal by the Soviet Union supplanted the manned bomber threat, making the need for airborne early warning operations obsolete.

These tragic events are covered in detail in the April 2005 issue of the *Air Force Magazine* and in an engrossing book by A. J. Northrup, *Fifty Fallen Stars.* SMSgt A. J. Northrup flew with the 551st for three years during these tragedies.



NOTAM: DEATHS and CHANGES OF PERSONAL INFORMATION

Report address, cell or land line number, and e-mail changes to: **AFNOA**, 4109 Timberlane, Enid, OK 73703-2825; or to jfaulkner39@suddenlink.net; or call 580-242-0526.

To Editor, DR Ahead,

LETTERS

21 July 2024

A great Electronic Warfare Officer (EWO) passed away on July 7, 2024, in Greenville, TX. Lieutenant Colonel Barry A. Kibbe, (USAF, Ret.) was possibly the most intelligent and productive EWO that I've ever met. He entered the Air Force Aviation Cadet Program in 1958 and graduated as 2d Lt with a Navigator Rating, attended EWO training at Keesler AFB, MS, and received Special B-52 Training at Castle AFB, CA, and Roswell AFB, NM. He served as EW on a B-52 Combat Ready Crew and flew 48 B-52 Arc Light Combat Missions in Southeast Asia from Andersen AFB, Guam. In April 1968, he was assigned to the 82d SRS, Kadena AB, Okinawa, as RC-135M/D EW where he flew 120 Combat Apple Reconnaissance Missions in direct support of Southeast Asia.

In November of 1970 he was assigned as RC-135C/S (Big Team and Combat Sent) QRC Sensor Operator, 343rd SRS, Offutt AFB, NE. He flew numerous Global Reconnaissance missions from Offutt and other strategic locations. He was additionally involved in the test and development of new generation ELINT sensors for these aircraft. As a result of these activities, in 1972 he becamethe lead technical member of a team that designed the original Rivet Joint (RJ) concept and aircraft. As a member of the primary RJ 1 flight test crew, he flew the initial operational missions throughout the world.

In July of 1974, he was assigned to the 55th SRW, Offutt AFB, NE, as Evaluator/Instructor Raven for the RC-135V RJ, and the Headquarters SAC project officer for the RJ Program. As such, he was the SAC primary lead on the Automatic ELINT Emitter Location System (AEELS) and the Tactical Data Link subsystem. In August of 1976, he was assigned to the 544th IES Wing (SAC), Offutt AFB, as Chief of the Operational ELINT Exploitation Branch involved with the processing, analysis, evaluation and reporting of Signal Intelligence Data collected by the RJ platform and other classified sources.

In May of 1977, Lt Col Kibbe was assigned to Detachment 2, 2762nd Logistics Squadron (Special) Air Force Logistics Command, Greenville, TX, as the Chief of Engineering Branch. Here he began a long association with the Big Safari Program. Big Safari is a USAF program that serves as a "rapid procurement force" which tests the fielding of new weapons systems, sensors, and platforms and is responsible for the acquisition, modification, maintenance and life cycle support of selected high priority special purpose systems and aircraft. Events and processes are tailored to meet the user's operational and schedule needs.

He was subsequently the Project Engineer involved in the development and fielding of the first-generation Real Time Optical System (RTOS) for the Cobra

Ball (CB) aircraft and flew the first operational mission with the RTOS from Shemya Island, in December 1983. He provided technical support to the SR-71 ELINT Improvement Program (EIP) and U-2 Automatic ELINT sensors, redesigned the AEELS UHF (line of sight) Tactical Data Link to an untethered Satellite Data and Voice Link and later worked on several classified programs.

Lt Col Kibbe retired from the USAF with 30 years of service in July 1988 as a Master Navigator with over 8,000 flying hours, including 2,700 combat hours. Upon retirement, he accepted an engineering position with Chrysler Technologies Airborne Systems (CTAS) in Waco, Texas in August of 1988. Under public law, in force at the time, he was not allowed to be associated with any previous AF efforts. He worked on other classified projects until CTAS was put up for sale in early 1990.

In January of 1991, he accepted a Project Engineer/Program Manager with E-Systems on various Big Safari Programs in direct support of RC-135 aircraft and other classified Big Safari initiatives. He was the Project Engineer/Program Manager for contracting, design, procurement, fabrication, testing and delivery of Rivet Joints 15 and 16. He then led a technical team in the new RC-135 Glass cockpit program known as Rivet Glass. He retired from E-Systems/L-3 Communications in September of 2005, retaining all of his security clearances through the company and was under an Air Force-funded contract to provide consultant services on various Big Safari programs.

His awards included the Distinguished Flying Cross, Meritorious Service Medal, Air Medal with 12 Oak Leaf Clusters, and numerous other decorations. He is survived by his wife, Joyce Kibbe; son, Barry A. Kibbe, Jr. and wife, Beverly; and grandson, Brandon A. Kibbe.

Errol Hoberman, Harlingen 60-09



Email to Jim Faulkner

13 July 2024

Jim, it was interesting reading your article about Dick Rutan in the last issue of *DR Ahead*. Dick may have been the first to fly around the world without refueling. But it took him 9 days, 3 minutes and 44 seconds. This reminded me of a mission I flew out of Eielson AFB refueling RB-66s over the Arctic Ocean in the winter of 1965. On returning to Eielson after the refueling, I told the pilot to make an immediate 360 turn. Upon completion of the turn, I announced to the crew over the intercom that we just went around the world in 4 minutes! I guess you know where we were.

Edward H. Abbott, James Connally 65-01

To Editor, *DR Ahead*,

14 August 2024

As a life member of AFNOA, I have enjoyed perusing through the many editions of DR Ahead throughout the years. Each of the many stories bring back many memories of our colleagues in their accomplishments of aerial feats and bring back many a memory of days long past. Each one of us has many stories to pass on in which we have participated. I have put pen to paper on a few occasions and related stories. I am very proud of my contributions to the USAF which spanned 28 years and 12,000 hours, and I had the privilege of flying the president, four different vice presidents, literally hundreds of important dignitaries like: Henry Kissinger, Neil Armstrong, John Glenn and diplomatic missions to Moscow, Warsaw, Peking, and the Berlin corridors during Soviet occupation to name a few. But, my main purpose in sending this for possible publication is to single out and honor one of its own: Jim Faulkner. I am sure all of us have experienced those elegant and meaningful words in John Magee's classic "High Flight," while taking a moment to reflect on the beauty and majesty that we all have experienced in flight.

But as we all have observed a significant part of each DR Ahead is dedicated to a listing of all Navigators and Observers who have passed. There is a Final Salute and Good-bye which has been the job of Jim Faulkner, First Vice President of AFNOA and a major contributor to DR Ahead. There are very few publications which list not only the names of our departed colleagues, but also list the home state, the base at which they received their "Wings," and also the class to which they belonged. Just think for a moment what a gigantic task the accumulation of all that information must be. I am sure Jim has a certain amount of people who forward him names, but I am sure the greater amount of data is laboriously obtained by him. Perhaps a little-known fact is that Jim was previously a nay, but went on to pilot training, perhaps for career progression. Jim would probably be the first to tell you that the camaraderie which he experienced as a nav may be the sole reason that he has taken on the gargantuan task and performed it with superlative results.

The future of navigators in the USAF may be in the twilight. A once proud and essential skill in navigating the world's oceans and our predecessors who guided piston aircraft and put contrails above the earth are slowly fading into history. But remembering our fellow aviators as they pass on into eternity is a most noble task and one that deserves mention for a job well done. Thanks, Jim, for all that you have done and the efforts of collecting the appropriate data in giving our honored veterans a proper 'Last Flight' Salute.

Ed Cotter, James Connally 63-02

LAST FLIGHTS

by Jim Faulkner, James Connally 64-04 People reporting three or more Last Flights this quarter were:

- Jim Alexander, James Connally (JC) 65-18
- Gene Cartee, Harlingen (HA) 62-15
- Bob Certain, Mather 70-16
- John Fradella, JC 66-17
- Errol Hoberman, HA 60-09.

Please advise AFNOA membership, Jim Faulkner, 580-242-0526, or email (jfaulkner39@suddenlink.net) when a navigator/observer/bombardier/EWO or combat system officer has made their last flight. As always, keep the LAST FLIGHT families in your prayers during this time of transition. Below are the last flights reported this quarter.

ELLINGTON

Baker, Harry F.	Gainesville	FL	41-00	Hu
Clinton, James W.	Puyallup	WA	52-01	La
Alexander, Sigmund	San Antonio	ТΧ	52-05	Da
Baker, William W.	Winchester	VA	52-08	Sta
Smith, Niles F.	Lake Hills	ТΧ	52-10	Pill
Mollnow, Marevin A.	Green Core Sprin	54-00	Gr	
HARLINGEN				De
Conner, Hendsley R.	Bainbridge	OH	53-11	Gu
Pegueros, Raul	Fremont	CA	53-11	Lo
Waxman, Martin M.	New York	NY	53-11	Sc
White Jr., Marcus D.	Loma Linda	CA	53-11	Ed
Goch, Peter	Gaithersburg	MD	54-02	Se
Bosworth, Conrad B.	Seattle	WA	54-13	Ro
Bouchard, Donald E.	Granite Bay	CA	54-13	Po
Boultinghouse, Gene	Bakersfield	CA	54-13	Hil
Boyle, Edward J.	Savannah	GA	54-13	Bo
Burroff, Joseph R.	Bossier Coty	LA	54-13	Mi
Cerreta, Anthony J.	Dayton	ОН	54-13	Pre
Cucco, Joseph D.	La Marque	ΤX	54-13	Qu
Curtis, Donald R.	Palmdale	CA	54-13	Sc
Hamlington Jr., James	Nashville	TN	54-13	Ho
Howard, Franklin D.	Glendale	AZ	54-13	Kir
Howell, Jack D.	Atwater	CA	54-13	An
Longmire, Don K.	Natchez	MS	54-13	Ge
Lum, William C.	Port Hadlock	WA	54-13	Hu
McGraw Jr., Donald C.	Goldsboro	NC	54-13	Ka

Meeks, Harold G.	Raleigh	NC	54-13
Owens, Marvin R.	Orlando	FL	54-13
Seale, Tommie J.	Amarillo	TX	54-13
Sinclair Jr., Stuart H.	Columbus	OH	54-13
Terry, John W.	Summerville	SC	54-13
Wheeler, Richard H.	Portland	OR	54-13
Willis, Harold L.	Leavenworth	KS	54-13
Barr, Richard G.	Buffalo Grove	IL	54-15
Jones, Gerald A.	Carlsbad	CA	54-18
Walsh, Venice L.	Havana	FL	54-18
McCamey, Charles D.	Dayton	ОН	55-02
Desgranges Jr., Andrew	-	CA	55-04
Faulkner, Frederick H.	Silverdale	WA	55-08
Boyd, Billie F.	Cocoa Beach	FL	55-18
Murphy Jr., Joseph A.	Ft Walton Beach	ו FL	55-18
Cates, Joseph E.	Pflugerville	ТΧ	56-10
Huston, Donald R.	Dover	DE	56-10
Laffey, Thomas P.	Middleburg	FL	56-10
Dahl, Arne M.	Siloam Springs	AR	56-11
Stano, Joseph G.	Highlands	NJ	56-13
Pillsbury, Fred T.	Hughson	CA	57-05
Green, James H.	Harlingen	ТΧ	57-09
DeVargas, Joaquin A.	Albuquerque	NM	57-11
Gurney, Donald G.	Carson City	NV	57-11
Lougeman, John M.	Sun City Center	FL	57-11
Schwartz, William R.	Roswell	NM	57-13
Edgell, Robert E.	Columbus	IN	57-18
Sentman, Lyle A.	Fresno	CA	57-18
Rogers, John A.	Midlothian	ТΧ	57-19
Powell, David H.	Boerne	ТΧ	58-05C
Hillard, Lee A.	Sierra Vista	AZ	58-08C
Bortz, John E.	Acton	MA	58-13
Mitchell, Bruce K.	Keene	NY	58-13
Preston Jr., Raymond C	. Merritt Island	FL	58-13
Quinn, Cornelius P.	Littleton	CO	58-13
Schwartz, William T.	Philadelphia	PA	58-14
Howard III, Russell G.	Port Charlotte	FL	59-13
Kirkpatrick, Robert W. L	ittle River Acade	emy TX	59-13
Andrews, Ralph E.	Berlin	NJ	59-14
Gerdes, Virgil L.	Tucson	AZ	59-14
Hutchins, Bruce C.	Washington	MO	59-14
Kasten, Alfred B. Col	orado Springs	CO	59-14

Kehoe Jr., Charles J.	Plymouth	MI	59-14	Greene Jr., William C.	Dixon	CA	61-04
Logan, James E.	Fallbrook	CA	59-14	McClain, Roy E.	Milan	TN	61-04
McDonough, Francis R.		PA	59-14	McCormick, Richard E.		ОН	61-04
Pullins, Delmar G.	Long Bottom	ОН	59-14	Meyer, Lawrence R.	Orovolle	CA	61-04
Rogers, Robert J.	Sudbury	MA	59-14	Olsen, Carl J.	Puyallup	WA	61-04
Terhune, Gerald K.	Arlington	ТΧ	59-14	Preble, Donald W.	Penryn	CA	61-04
Webb, William S.	Hubbardson	MA	59-14	Withers, James R.	Summerville	SC	61-04
Beck, Douglas D.	Surprise	AZ	59-15	Gardner, Felix B.	Spring Hill	FL	61-09
Carson, George A.	Odin	IL	59-18	Steinheider, Robb	Crossville	ΤN	61-09
Grove, Wayne L.	Chandler	AZ	59-18	Masters, Richard L.	Austin	ТΧ	61-10
Kendrick, Peter S.	Kennesaw	GA	59-18	Schriever, Brett A.	Enid	OK	61-10
Kibbe, Barry A.	Greenville	ТΧ	59-18	Elsasser, Robert L.	Omaha	NE	61-11
MacDonald, Archibald A	A. Highland Spri	ng IN	59-18	Rammell, James D.	Lummi Island	WA	61-11
Butler, Kenneth D.	Lakeway	TX	60-06	Seidel, Kelly G.	Las Vegas	NV	61-11
Chitwood, Edward C.	Austin	ΤХ	60-06	Waldo, George D.	East Lansing	MI	61-11
Ferguson, Jack E.	Albuquerque	NM	60-06	Wheeler, Richard H. H	ighlands Ranch	СО	61-11
Greene, Douglas C.	Vancouver	WA	60-06	Kline, Marshall P.	Los Angeles	CA	61-12
Hinchberger, Lawrence	J. Folsom	CA	60-06	Greer, John A.	Kenton	ΤN	61-13
Kosovac, Don E.	Richmond	CA	60-06	Manning, John K.	Wyoming	MN	61-14
Lee, Hubbard W.	Abington	MA	60-06	JAMES CONNALLY			
Lynch, John E.	Hartselle	AL	60-06	Young, Herbert E.	Portland	OR	52-04
Michael, Alan S.	Yuba City	CA	60-06	Cottrell, William F.	Seattle	WA	52-06
Randazzo Jr., James V.	Phoenix	AZ	60-06	Lyons, Lewis M.	Riverside	CA	52-08
Suk, Edward L. Sha	ker Township	PA	60-06	Huffhines, Marvin Clark	Farmington	NM	52-21
Vitalini, Benjamin S.	Buffalo	NY	60-06	lwanoski, Joseph E.	Hamet	CA	53-06
Brandt, Robert J.	Freeport	ТΧ	60-09	Fisher, Donald G.	Hazleton	PA	54-13
Chace, Henry V.	Papillion	NE	60-09	Hines, Roscoe D.	East Palatka	FL	54-RI
Kardell, Martin K.	Havre	MT	60-09	Howard, James F.	Abilene	ТΧ	54-RI
Orsulak, Joseph P.	Bossier City	LA	60-11	Kelley, Albion L.	Millinocket	ME	59-12
Zarpaylic, John T. V	Voodland Park	CO	60-14	Klotzbach, George O.	Sarasota	FL	59-13
Childs, Henry D.	The Villages	FL	60-16	Martin, John D.	Abilene	ТΧ	60-06
Shawler, Donald A.	San Marcos	CA	60-16	Weaver, Robert W.	Rochester	IN	60-06
Boone, Leo D. So	uth Burlington	VT	60-18	Cohen, William A.	Pasadena	CA	60-09
Morris, Richard G.	Monterey	CA	60-19	Byrnes Jr., Eugene B.	Benbrook	ТΧ	60-16
Hughes, James E.	Scottsdale	AZ	60-20	Wagner, Eugene P.	Cape Coral	FL	60-16
Meyer, Charles M.	Stanton	NE	60-21	Groce Jr., William M.	Sacramento	CA	60-18
Demel, James R.	Sun City	AZ	61-01	Urevich, Ralph J. Col	orado Springs	CO	60-19
Dietsch, Frederick J.	Fayetteville	PA	61-01	Baddley, Benny H.	Oakton	VA	61-07
Hair, William H. Hun	tington Beach	CA	61-01	Peterson, Charles T.	Georgetown	MA	61-09
Barton, Robert J.	Melbourne	FL	61-03	Griffith Jr., Dayton R.	Holly Hill	FL	61-10
Coble, John E.	Mapleton	GA	61-04	Hawkins, Douglas W.	Parsonsfield	ME	61-15
Connelly, Joseph R.	Pittsburgh	PA	61-04	Nagai, Yasumi	Olympia	WA	62-17

Cello, Gregory J.	Atlantis	FL	63-02	Peters III, Roy F.	Palo Cedro	CA	65-09
Lariviere, John J.	Fairhaven	MA	63-02	Cooper, Thomas M.	Madison	MS	65-15
Trentlage, Russell E.	Centralia	WA	63-02	Scola, Robert M.	Mendham	NJ	66-02
Koontz, Wendell P.	Indialantic	FL	63-04	Waddle, Robert H.	Gurley	AL	66-02
James, John T.	Lancaster	PA	63-06	Arbuckle, James H.	Bellevue	NE	66-08
Svoboda, Ludvik Z.	Arvard	CO	63-06	Cowlishaw, Robert J.	Fort Myers	FL	66-08
Williams, Donald R.	Billings	MT	63-06	Claxon, Lynn R.	Las Vegas	NV	66-12
Smedley, Leroy J.	Warrington	PA	63-07	Clark, David D.	Alpha	IL	66-14
VanCleave, Richard M.	Louisville	KY	63-07	Deal, Jessie M.	Charlotte	NC	66-14
Zabel, Albert R.	Emporia	KS	63-07	Reimer, Donald R.	Boulder	СО	66-14
Carver II, James I.	Columbia	MD	63-08	Searcy, Joe P.	New Braunfels	ТΧ	66-14
Knowles, Barry A.	South Harwick	MA	63-08	Schlegel, Philip H.	Winter Haven	FL	66-17
Maldonado, Dennis R.	Union City	TN	63-08	MATHER			
Perella, Francis J.	Tampa	FL	63-08	Ahearn, John E.	Timonium	MD	52-14
Steele, Phillip A.	Sumter	SC	63-09	Goddard, William W.	Riverside	CA	66-00
Bates, Julian F.	Burlington	WI	63-18	Slater Jr., Marshall T.	Haymarket	VA	69-00
Bak, Edmund J. Nort	h Myrtle Beach	SC	63-19	Goodart II, James W.	Niceville	FL	70-00
Perkins, Ernest R.	Layton	UT	63-19	Holte, Charles W. Co	lorado Springs	СО	74-00
Rayburn, Robert J.	Lakewood	WA	63-19	Morrow, Scott F.	Monument	СО	77-00
Byrne, Robert J.	Oklahoma City	OK	63-20	Olds, Don I.	Brandon	FL	86-00
Craig, Gary L.	Belleville	WA	63-20	Lambert, Burl N.	Petersburg	TN	87-00
Crozier, Joseph A.	Huntsville	AL	63-21	SCHOOL UNKNOWN			
Miller, Peter N. S.	Fort Collins	CO	63-21	Allegra, John D.	Melbourne	FL 194	6-USN
Morrow Jr., James B.	Clarkston	MI	63-21	Cline Jr., Earl L.	Chattanoga	TN	44-00
Schamberger, Randall L	. Niceville	FL	63-21	West, Rufus H.	Boise	ID	50-00
Hofmann, Lewis A.	Yardley	PA	64-02	Benziger, Alfred S.	Edgewater	FL	52-14
Sellers, Joe L.	Tyler	ТХ	64-04	Carbaugh, Philip C.	Lakewood	WA	53-05
Bartley, Robert W.	Apollo Beach	FL	64-11	Wakin, Malham M. Co	lorado Springs	СО	54-18
Albrecht, Charles F.	Montauk	NY	64-12	Grant, Thomas A.	San Antonio	ТХ	55-05
Edwards, Willson O. La	akewood Ranch	FL	64-12	Loukota, Robert D.	Shalimar	FL	56-04
Glick, Robert A.	Hewitt	ТХ	64-12	Miller, Paul B.	Seattle	WA	56-07
Ravenel, John M.	Tacoma	WA	64-12	Edwards, John R.	Starkville	MS	59-00
Andersen, Ernest F.	Scio	OR	64-13	Dahl, Arnold C.	Tulsa	OK	62-00
Boyer, Winfred R.	Valparaiso	FL	64-13				
Henrich, Norman J.	Green Valley	AZ	64-13		****		
Kamer, Bruce S.	Clinton	IA	64-14		*****		
Simms III, Orion O.	Dover	NH	64-14			(h)	
Wolfe, John D. Ft	Walton Beach	FL	64-15			T	
Reimann Jr., Rene C	verland Park	KS	64-16		X A	- c.s	
Brown, Billy B.	Austin	ТΧ	65-05	BAR MORT	1.		
Tucker, David G. Sair	nt Clair Shores	MI	65-05				
Stanley, Norman L.	Albuquerque	NM	65-08				

THE AIR FORCE NAVIGATORS OBSERVERS ASSOCIATION 4109 Timberlane Enid, OK 73703-2825

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