

#### THE AIR FORCE NAVIGATORS OBSERVERS ASSOCIATION NEWSLETTER

VOL 40, NUMBER 2

NAVARRE, FLORIDA

**APRIL 2024** 



USAF Academy cadets in flight in the Cirrus T-53A, April 2012. USAF photo by Mike Kaplan, Wikimedia Commons.

#### PRESIDENT'S MESSAGE

# SAVE THE DATE(S) September 17-18-19, 2024 "Return to Waco"

by Jimmie W. Hanes, Jr., James Connally 66-13

After hours of negotiating, Trish, at The Reunion Brat, has booked the Hilton Hotel here in Waco. So, let's take a quick look at what is in store, although there could be changes by September. We will arrive in Waco on the afternoon of Tuesday, September 17th, and there will be a hospitality room established before and after a Texas BBQ buffet dinner. On Wednesday, the 18th, a buffet breakfast will be available, and an Executive Board Meeting will start at 0730. Our General Membership Meeting will start at 0930. After the General Meeting you are free to visit Waco. You will see that there are things to do and places to go: a major change since we trained here. Your Reunion Flyer will highlight some of the places you might like to visit. The city offers bus services around town. A Banquet at the hotel will close the evening.

As a reminder, if you are planning to stay an extra night at the hotel book it early. Thursday morning, September 19th, a breakfast buffet will be available before we board a bus to the James Connally Aerospace Center at Texas State Technical College (nee James Connally Air Force Base). At the college we will tour the campus, visit the Challenger Leaming Center and explore the operations of L3Harris, located on the far side of the base. When the tours are over, we will have a "Farewell Luncheon" at Connally Aerospace Center. This lunch will be prepared by the TSTC Culinary Department. After lunch, we will return to the hotel, depart for our homes, reminisce over the memories we have rekindled, and say goodbye to Waco and James Connally.

Note: The AFNOA Reunion Registration Form is on Page 7. If you receive the digital issue via email, the registration form is "fillable." This means that you can fill out the form directly on your computer, then print the single page to mail in with your payment to the address provided.

#### **TABLE OF CONTENTS**

**Total Amount Enclosed** 

President's Message, by Jimmie W. Hanes, Jr
MEMBERSHIP APPLICATION AIR FORCE NAVIGATORS OBSERVERS ASSOCIATION Name Spouse's Name
Address
City
State / 9-digit ZIP
Home Phone
Work Phone
Cell Phone
E-Mail Address
Base Name/Class Number
Make check payable to <b>AFNOA</b> and mail to: Leonard T. Melcher, AFNOA Treasurer 103 Steel Valley Drive Boerne, TX 78006-7019 Telephone: 512-296-5209 e-mail: c5nav@hotmail.com
Note: <b>AFNOA</b> is an IRS 501(c)(19) non-profit organization.  Annual Membership — \$15.00 under age 79 \$50.00 for 4-year membership  Age 80 and over — \$35.00 for life
If you are currently a member, GREAT! Please consider a donation to the operating account. If you are not a current member, please consider joining and giving a donation to the organization. (Checks only, please.) Thank you.
Membership \$
Donation to Operating Account \$

\$

Homecoming Flight, by Robert H. Sokol 9
Ocean Stations: An Aid to Navigation? by Ed Cotter10
Beat The Devil: A Deadly Incident, by Richard Myers . 11
A Tribute to Bob Hope, by Richard Bartholomew11
Rockin' & Rollin', by Dike D. Artley
Technical Note to Sextant Owners, by Leonard Melcher . 13
Letters13
Last Flights, by Jim Faulkner13
The <b>AFNOA</b> Board & Operating Committees16

**DR Ahead** is the official publication of the Air Force Navigators Observers Association, Inc. (**AFNOA** Inc.); a non-profit, non-political organization dedicated to maintaining the peace and security of the United States of America and a spirit of comradeship among all Aerial or Surface Navigators, Observers and Bombardiers who are serving or have served in the U.S. Air Force or its predecessors, the United States Marine Corps, the United States Navy, the United States Army, the United States Coast Guard, or any of the predecessor organizations of these service organizations, or persons closely affiliated with navigation in any capacity on a case-by-case basis. TENOA, the forerunner of **AFNOA**, was organized by Clarke Lampard, Ellington Class 50-D, in 1985.

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**CHANGE OF ADDRESS:** Please report changes of address to: **AFNOA**, Inc., 4109 Timberlane, Enid, OK 73703-2825; jfaulkner39@suddenlink.net; 580-242-0526.

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#### **HISTORIAN'S REPORT**

by Ronald P. Barrett, AFNOA Historian James Connally 63-06

The Air Mobility Command Museum at Dover AFB has asked for Curtiss C-46 aircraft navigator station information. If you have any technical data, manuals, and or photos please contact them:

Additionally: If anyone has information of any type about the B-36, please let me know. The crew by all measures was large and normally 15 flyers. I'm especially looking for information like a good photo of the crew's latrine or toilets. Guess there were some, but where were they located and what were they like? I heard a rumor they had a cooking pot! True? Thanks to all ahead of time. Please email me at ronaldpbarrett@yahoo.com.



Convair B-36 Peacemaker in flight. Photo provided by Ron Barrett.

# 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 Alexander (James Connally 65-18) - \$1000

Craig Hinton (Harlingen 53-12) - \$200

John Moore (Harlingen 56-14) - \$100

Edward Moran (James Connally 63-11) - \$100

Raphael Bowman (Harlingen 61-03) - \$65

William Kauffman (James Connally 63-14) - \$50

Robert Seigel (Mather 53-12) - \$15

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# FROM THE TREASURER'S DESK: 2023 DONATIONS

by Leonard Melcher, Mather 74-17

DONATIONS: As promised, here is the 2023 list of donations to the operating fund from the following members:

#### Master Navigator Level (\$250 or more)

Frank Gawell (Harlingen 60-19) - \$750

Leonard Melcher (Mather 74-17) - \$250

David Belden (Harlingen 56-09) - \$250

#### Senior Navigator Level (\$150 to \$249)

Vincent Cerisano (Harlingen 57-09) - \$200

Doyle Balentine (James Connally 60-22) - \$200

Joseph Sanchez (Harlingen 56-02) \$200

Ronnie Gill (Mather 72-02) - \$150

#### Navigator Level (\$0 to \$149)

Ronald Roland (James Connally 57-07) - \$100

William Duvall (Harlingen 54-12) - \$100

Carl Schrader (James Connally 63-17) - \$100

Dale Robinson, Jr. (James Connally 63-21) - \$100

Dike Artley (Harlingen 61-06) - \$100

Jefferson Steerman (Harlingen 57-03) - \$65

Richard Ahrens (Ellington 54-16) - \$63

Martin Davis (James Connally 65-18) - \$50

John De Groot, Jr. (James Connally 62-14) - \$35

Ronald Baker (James Connally 64-11) - \$35

Martin Godfrey (James Connally 64-18) - \$25

Cecil Brinega (Harlingen 60-22) \$30

Thomas Mangan (Mather 67-05) - \$15

Ralph Wyatt (James Connally 63-15) - \$15

Thomas Degen (James Connally 63-12) - \$15

Leonard Jones (Harlingen 59-16) - \$15

Charles Traylor (James Connally 66-12) - \$15

Wayne Freeman (Harlingen 56-12) - \$15



#### NOTAM: NEW FLASH DRIVE

**AFNOA** has created a new offer to our members. We have created an updated flash drive containing all of the instructional material from navigator training, articles from *The Navigator* magazine, and additional other materials from the original **AFNOA** flash drive. We will also include digital copies (PDF) of the **DR Ahead** newsletter going back to the beginning when it was just a single letter in 1984, to the latest copy when you order. Your suggested donation of \$35 will cover all expenses including shipping. Just place your order with Leonard Melcher (Treasurer), contact info on page 16 of this publication. The flash drive will also be available at the next reunion.

#### **HOW COLD IS IT?**

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

Anyone who served on a SAC flying crew during the Cold War had a reasonable chance of being stationed at a base in the northern tier of our nation. Many of these bases were thought to have two seasons— winter and July the 4th. I had the experience of serving three years (three long winters) at Griffiss AFB in Rome, NY, where the usual annual snow accumulation was ten feet. The winter temperatures were typically below freezing and often below zero.

During my service at Griffiss, there were two events that demonstrated the power of the winter season. The first took place in February 1966, when a blizzard hit the base. Five feet of snow fell and gusting winds kept the runways covered with snow, despite major efforts by snow plows and blowers. In fact, the snow on the runways was so bad that the wing's alert status was downgraded. If the Soviets had attacked, the Griffiss B-52s would not have been launched.

I did not participate in this event since I was walking on snowshoes in five feet of snow up in the Sierra Nevada mountains— I was experiencing the Trek at the Stead AFB survival school. When I returned home, the snow was still piled up; the ten-foot drifts were now topping off at 15 feet as snow plows pushed aside the snow to clear streets. That snow stayed around for weeks.

About a year later I had a chance to experience Artic cold in Rome, NY. I was on alert when the temperature dropped to 40 degrees below zero and winds gusted to 50 knots. Only the flight crews and cooks were allowed to stay at the alert facility. All others were sent home. We were permitted to leave the alert facility only once a day, to check our aircraft, except for alerts. I wore an Arctic parka, two sets of insulated underwear and mittens with multiple layers, yet I froze when we went out to the airplane in the morning.

It is said that a SAC crewmember was retiring at Loring AFB in Maine. Neighbors were curious about the snow shovel he hung from the back of the family vehicle. When asked to explain, he said that they were traveling south and when somebody asked what was that device hanging from his car, they would stop and live there. I should mention that the furthest north we have lived since 1972 is Greenville, SC.

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## 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.

#### **BURNING WATER**

by Robert G. Certain, Mather 70-16

We probably all remember the huge amount of black smoke billowing from the engines of B-52s (A through G models) and KC-135As as we roared down the runway for takeoff. Minimum Interval Takeoffs (MI-TOs) were even more exciting, since following aircraft could barely make out the runway and then had to climb through the turbulence of the leaders. Water injection into the jets added about 30% more thrust for the takeoff roll and initial climb, but it was also responsible for the black smoke.

At Andersen AFB on Guam, the B-52D needed all the thrust it could get to overcome the dip and rise in the runway, and still had to descend below the top of the cliff in order to gain enough airspeed to begin the climb to cruise altitude. When Bullet Shot brought B-52G aircraft in large numbers to Guam in the spring and summer of 1972, my crew (Blytheville S-18) was among the participants. All went well until one day in the autumn. We were a cell lead (fortunately) as we took the active, fully loaded aircraft to a gross takeoff weight of 488,000 pounds. Our roll began in the near overrun and proceeded on the downslope until I called S-1 and we began the upslope toward the other end. Two seconds later, we were committed to the takeoff - but we then lost water on all eight engines! We no longer had enough runway to stop and enough power to reach unstick. The pilot, a former D-model pilot, called out, "Hold on gunner" and then, over the radio, told the other two planes in the cell to delay their roll.

While the four crew members on the upper deck could theoretically eject and survive, the RN and I (the Nav) could not. The pilots roared into the far overrun and five knots below unstick managed to jerk the aircraft off the ground, suck up the gear, miss the landing lights, and commence the old D-model practice of descending below the cliff to gain enough speed to be able to begin our climb to join the cell for the long flight to southeast Asia and the target.

The maintenance troops at Andersen did not make many mistakes, but someone failed that time to "red X" the aircraft when the water tanks were not filled properly. I was grateful we were in a G and that our aircraft commander had many flights from Guam in Ds before that fateful day.

#### NOTAM: DR AHEAD BY INTERNET

Still getting a hard copy of *DR Ahead*? Join the over three hundred members who have elected to receive *DR Ahead* via the internet, thereby helping to ensure the longevity of our association by saving **AFNOA** the postage and printing. Please e-mail to Jim Faulkner at jfaulkner39@suddenlink.net to switch.



# 2024 AIR FORCE NAVIGATORS OBSERVERS REUNION



SEPTEMBER 17-19, 2024 WACO, TEXAS

To be held at the Hilton Waco which is located at 113 S. University Parks Dr. Waco, Texas 76701. Room rates are \$149 per night, plus tax. Breakfast is included in the room rate. Self parking at the hotel is complementary. The full registration fee is \$196 per person and includes the following:

Welcoming Package with Name Badge, Itinerary and List of Attendees Hospitality Room Stocked with Snacks, Beverages & Cocktails both Days Welcome Dinner Banquet Dinner

Call the Hilton Waco at 254-754-8484 no later than August 16, 2024, to make your hotel reservations. Be sure to mention you are with the Air Force Navigators Observers Reunion to receive the group room rate. The group rate is also available 3 days before and after the reunion dates based on room availability at the hotel.

#### Tuesday September 17th

2:00pm ~ Registration and Hospitality Room Opens 5:30pm - 6:30pm ~ No Host Cocktails 6:30pm - 9:00pm ~ Dinner Buffet 9:00pm -11:00pm ~ Hospitality Open

#### Wednesday September 18th

7:30am-9:30am ~ Board Meeting 9:30am-11:30am ~ Membership Meeting 10:00am-3:30pm ~ Hospitality Room Open 4:30pm-5:30pm ~ No Host Cocktails 5:30pm-10:00pm ~ Banquet Dinner & Program Thursday September 19<sup>th</sup>

8:30am-12:30pm ~ Optional Tour ~ James Connally Aerospace Center

#### **Optional Tour**

#### Thursday September 19th ~ 8:30am-12:30pm ~ James Connally ~ Cost \$46

We will visit James Connally Aerospace Center at Texas State Technical College (James Connally Air Force Base). At the college we will tour the campus, visit the Challenger Learning Center and explore the operations of L3Harris, located on the far side of the base. When the tours are over, we will have a "Farewell Luncheon" at Connally Aerospace Center. This lunch will be prepared by the TSTC Culinary Department. After lunch, we will return to the hotel. If you plan on staying Thursday night at the hotel, please make your hotel reservations early so you can ensure you get a room. This tour will require a minimum of 30 people; if tour should be cancelled for lack of participation, the tour price will be refunded.

Jimmie Hanes 254-405-4765 jhanes@hot.rr.com The Reunion BRAT 360-663-2521 thereunionbrat@hotmail.com

#### COME JOIN US AS WE SHARE OLD MEMORIES AND MAKE NEW ONES!

Confirmation of registration and schedule will be sent out by August 26, 2024.

#### **CANCELLATION POLICY**

- By sending in your registration form, you are agreeing to the cancellation policy.
- A \$20 per person cancellation fee will apply to all cancellations received within 30 days of the event.
- Cancellations received within 15 days of the event will be non-refundable.
- Cancellations can ONLY be requested over the phone at 360-663-2521. You will receive a cancellation number; no
  refund will be issued without this number. Please make sure to keep this number for verification of your
  cancellation.

#### Attendees Can Schedule/Plan Tours On Their Own. Below Are A Few Options

#### Homestead Craft Village

Homestead Craft Village, located 5 miles northwest of Waco, offers shopping, dining, and self-guided tours. The 18-acre complex includes a 200-year old barn, the Potter's House, a woodworking shop, a restored 1760 gristmill, fiber arts, herb garden, and more. Guided tours are available by appointment. Try the new Apple Cider Mill and Tea Room in the Gristmill. Brazos Valley Cheese and a BBQ shop are also near the location. This traditional crafts village offers demonstrations of woodworking, pottery making, fabric crafts, cheese making, barn building, basket weaving, iron work, and more. Be sure to shop for hand crafted items in the Gift Barn and enjoy lunch or a decadent dessert at Café Homestead. 608 Dry Creek Rd, Waco, TX 76705 (254) 754-9600 http://www.homesteadcraftvillage.com/

#### Magnolia Market at the Silos

The popular TV stars, Chip and Joanna Gaines, own several businesses in Waco including the Magnolia Market at the Silos, Magnolia Table, Magnolia Press, Silos Baking Co., The Little Shop on Bosque, and Magnolia Realty. In addition, they have product lines for furniture, furnishings, paint, and home decor line at Target. They have several best-selling books. Due to their popularity, the Magnolia Silos became an instant attraction as soon as their doors opened in October 2015. Thousands of visitors make the trek to the Silos each week hoping to catch a glimpse of Chip and Joanna or find some of the great decorative items featured on the show. In addition to the Magnolia Market, visitors can play games on the lawn, grab a bite to eat in the food truck park, have a tasty cupcake at Silos Baking Co., or take a stroll through the garden and shop at Magnolia Seed & Supply. Magnolia Silos Expansion - Not all of 2020 was bad news. The Silos expansion added the Old Church, Shops at the Silos, Magnolia Home, Katy Ballpark, Maggie's, and Magnolia Table at Concessions. Watch Breaking Ground on Magnolia Network to see it come to life. (254) 235-0603 601 Webster Ave. (corner of 6<sup>th</sup> and Webster) https://magnolia.com/visit/shop/magnolia-market/

#### **Doris Miller Memorial**

World War II hero Doris Miller. Miller was a Cook Third Class that the United States Navy noted for his bravery during the attack on Pearl Harbor on December 7, 1941. He was the first African American to be awarded the Navy Cross, the third highest honor awarded by the US Navy at the time, after the Medal of Honor and the Navy Distinguished Service Medal. Admiral Nimitz personally presented the award to Miller. The Navy Cross now precedes the Navy Distinguished Service Medal. Miller's acts were heavily publicized in the press, making him an iconic emblem of the war for black Americans. Nearly two years after Pearl Harbor, he was killed in action when his ship Liscome Bay was sunk by a Japanese submarine during the Battle of Makin. On January 19, 2020, the United States Navy announced that aircraft carrier CVN-81 would be named after him. The ship is scheduled to be laid down in 2023 and launched in 2028. 136 N M.L.K. Jr Blvd, Waco, TX 76704 https://dorismillermemorial.org/

#### Texas Ranger Hall of Fame & Museum

Founded in 1968, the museum is the official hall of fame, museum, and archives for the Texas Rangers, the oldest law enforcement agency in the United States and a symbol of the American West. The museum also is the headquarters for Ranger Company F. 100 Texas Ranger Trail, Waco, TX 76706

(254) 750-8631 https://www.texasranger.org/

#### Waco Suspension Bridge & Cattle Drive Sculptures

Waco's Historic Suspension Bridge was the longest single-span suspension bridge west of the Mississippi when it was completed in 1870. The bridge was built with cable supplied by the John Roebling Co., who built the Brooklyn Bridge in New York City. Crucial to traders and travelers for well over a century, the bridge stands as an icon of Waco history and is the centerpiece of many community festivals and events including the 4th on the Brazos celebration and Brazos Nights concerts. The bridge is flanked by two great Waco parks — Indian Spring Park on the west side, and Martin Luther King, Jr. park on the east side.

101 N University Parks Dr, Waco, TX 76701

(254) 750-8080 http://www.waco-texas.com/cms-parksandrecreation/page.aspx?id=50

#### Dr Pepper Museum

The Dr Pepper Museum opened to the public in May 1991 and has hosted over 2.5 million visitors. It is located in Waco, Texas and is the home of the Nation's oldest major soft drink. The Museum is housed in the 1906 Artesian Manufacturing and Bottling Company building. The 100-year-old building is listed in the National Register of Historic Places as the "Home of Dr Pepper." Where better to preserve the history of Dr Pepper than in Waco, the city where it was first served all the way back in 1885? At the Dr Pepper Museum, you'll learn the complete story behind the oldest soft drink brand in America, in addition to 7UP, Big Red, and others, through the incredible exhibits housed in the original factory. 300 S 5th St, Waco, TX 76701 (254) 757-1024 https://drpeppermuseum.com/



#### 2024 AIR FORCE **NAVIGATORS OBSERVERS** REUNION



**SEPTEMBER 17-19, 2024** WACO, TEXAS

NAME	PREFERRED NAME ON BADGE
BASE/SCHOOL	CLASS
CURRENT ADDRESS_	
PHONE	CELL PHONEEMAIL
NAME OF YOUR GUES	TSPREFERRED NAME ON BADGE
PLEASE LIST ANY SPE	CIAL NEEDS:
	ICY NOTIFY:
	REGISTRATION FEES
	FULL REGISTRATION PER PERSON ~ NUMBER ATTENDING X \$196=
BANQUET MEAL SEI	LECTION: BEEF CHICKEN VEGETARIAN
PARTIAL REGIS	TRATION (IF YOU CAN ONLY ATTEND ONE DAY PLEASE SELECT BELOW)
TUE	SDAY SEPTEMBER 17 <sup>TH</sup> ~ NUMBER OF PERSONS ATTENDING X \$98 =
WEDNE	SDAY SEPTEMBER 18 <sup>TH</sup> ~ NUMBER OF PERSONS ATTENDING X \$98 =
WEDNESDAY BANQU	TET MEAL SELECTION: BEEF CHICKEN VEGETARIAN
	OPTIONAL TOUR
	JAMES CONNALLY X \$46 =
	TOTAL ENCLOSED
<del>/</del>	PAYMENT IS DUE NO LATER THAN AUGUST 16, 2024

BY SENDING IN YOUR REGISTRATION FORM, YOU ARE AGREEING TO THE CANCELLATION POLICY.

PLEASE SEND PAYMENTS TO THE FOLLOWING ADDRESS AND MADE PAYABLE TO:

THE REUNION BRAT 16817 MOUNTAINSIDE DRIVE EAST **GREENWATER, WA 98022** 360-663-2521

#### CANCELLATION POLICY

- By sending in your registration form, you are agreeing to the cancellation policy.
- A \$20 per person cancellation fee will apply to all cancellations received within 30 days of the event.
- Cancellations received within 15 days of the event will be non-refundable.
- Cancellations can ONLY be requested over the phone at 360-663-2521. You will receive a cancellation number; no refund will be issued without this number. Please make sure to keep this number for verification of your cancellation.

#### **CREW PHOTOS**

Crew Photos from Craig Hinton, Harlingen 53-12C



Harlingen AFB, 1953. Nav Cadet Class 53-12C.



Amarillo AFB, TX, c. 1960, 461st Bomb Wing, 764th Bomb Squadron. B-52D Crew L-26, L to R: Maj Emory Kestler, Aircraft Commander; 1Lt William Piper, Co-Pilot; Capt Vern Rood, Radar Nav; Capt Craig Hinton, Nav; Capt Rodney Swanson, ECM; SSgt Eldra Dixon, Gunner.

Crew Photo from Chuck Bristol, James Connally 64-16





Johnson AB, Japan, c. 1954, 3rd Bomb Wing, 8th Bomb Squadron. Douglas B-26 Invader Crew, L to R: 1Lt Robert Keith, Pilot; 1Lt Craig Hinton, Nav/bomb; A3C J. Kiernan, Gunner; A1C C. Wilson, Flight Mechanic. (Note: today's crews have much nicer flight suits!)



Grenier Field, New Hampshire, c. 1966, Project "Phyllis Ann." Aircraft EC-47 Ferry Crew #5, L to R: Maj Ivel Freeman, Pilot; Maj Leroy Bohrer, Pilot; Maj John Ayala, Aircraft Commander; Maj Craig Hinton, Navigator; Capt Richard Kunz, Navigator; TSgt Bill Pigg, Flight Mechanic (not pictured).

Route of EC-47N, Tail #166: New Hampshire-Topeka-Los Angeles-McClellan AFB-McChord AFB-Elmendorf AFB-Adak Isl-Midway Isl-Wake Isl-Guam-Mactan Isl-Clark AB-Saigon.

97 hours, 22 days.

Left: Crew picture of Carswell E57 taken on Guam (Anderson AFB) in January 1973, standing by a B52D aircraft.

This was just after Linebacker 2 that brought North Vietnam back to the bargaining table and ended our involvement there. We flew three missions out of Guam during the 11-day period of Linebacker 2.

The crew names from left to right are: Capt Chuck Bristol, Radar Nav; Capt Bud Hughes, Electronic Warfare; Capt Bill Beavers (wearing helmet),Nav; Maj Craig Mizner, Aircraft Commander; Capt Don Craig, Co-pilot; and Tsgt Ron Ragan, Tail Gunner.

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#### **HOMECOMING FLIGHT**

by Robert H. Sokol, Harlingen 59-11

Flying all around the world as a Military Airlift Command (MAC) C-141 navigator can leave a person with lots of vague memories as the past blurs and the Kadena AB, Okinawa to Hickam AFB, HI, runs or Torrejon AB, Spain, to Incirlik AB, Turkey, flights become mostly indistinguishable. However, one flight will always stand out as the most memorable because of its personal importance and because it couldn't have been more screwed up.

My crew arrived at Hickam AFB with a perfectly good flying C-141 after a long trip shuttling from Clark AB to airbases in Thailand, and was looking forward to getting home to Norton AFB, CA. The command post duty officer told us that he was taking our airplane from us and putting us into the crew stage. That was something akin to blowing your nose on Superman's cape—just not done. After a very vocal outburst from our crew, he calmed us down saying that he meant the Homecoming Air Evac stage because our crew was highly qualified in all crew positions, and they had been watching us knowing that this important flight was coming up.

Air evac means aeromedical evacuation and Operation Homecoming was the return of the former Viet Nam prisoners of war. Needless to say, we were thrilled at the opportunity, so thrilled that we washed and even ironed our flight suits.

We were alerted at the scheduled time and picked up our paperwork at the command post, including a computer flight plan which showed a nice tail wind to Andrews AFB as usual. However, the weather briefer indicated that the actual winds were about 20 knots on the nose. Not a big deal, navigators know how to recalculate the time and the extra fuel required to reach the destination safely.

On 17 March 1975, we preflighted the aircraft, loaded our 20 VIPs, their support people and the medical crew; then we started the engines and taxied to the runway. As we broke ground, a voice came over the VHF radio announcing what our arrival time at Andrews AFB would be based on the tailwind time en route. We could add enough extra power along the way and possibly make up some of the time—remembering, however, that the C-141 was not the sleekest airplane in the inventory.

We proceeded toward the west coast without making up any of the time necessary to arrive at our assigned time. As we approached the coast, we were told to contact the MAC Command Post at Scott AFB, IL, for some information. About this time McClellen Airways handed us off to Oakland Center and 22d Air Force and the Travis AFB Command Post got into the act. Everyone on the flight deck had a radio so someone could actually fly the airplane. About this time, we got word

from the back of the airplane that the returnees wanted to see the west coast shoreline. This was undoubtedly the most reasonable request of the day because it may have been eight years since some of them had seen the mainland USA. The fact that there was a solid layer of clouds below us did present a small problem.

We asked Oakland if there had been any pilot reports of holes in the clouds. An airline pilot came up and said that there was a hole about 150 miles south of San Francisco so we requested permission to divert south. What the heck, we would never make our arrival time anyway. Oakland came back and told us that we could go anywhere we wanted and he would clear us of other traffic. Other commercial pilots called and asked us our position so they could point us out to their passengers. The head flight surgeon determined that it was nap time for our VIPs as we were approaching the possible hole in the clouds—a nap versus a glimpse of the west coast was no contest.

The one thing that went right was the coast being visible so we made a few 360s so that everyone could get up on the flight deck (no passenger windows in a C-141) and see the waves rolling in against the coast-line.

All of the radio talk resulted in a decision that we were being diverted to Scott AFB because the crosswinds at Andrews were too high for a C-141 to land. This meant that we were no longer late for our arrival time. We asked for a clearance direct to Scott and Oakland Center again said okay. A helpful commercial gave us a heading to fly, only to call back later and say that they had miscalculated the heading. My aircraft commander endeared himself to me forever when he responded for everyone on frequency to hear that his navigator had recognized the error immediately.

A new arrival time was needed so I took everything into consideration and added five minutes to my guess because it is easier to lose time than make up time. A couple of hundred miles out of Scott, we started talking about the descent and approach and how long it would take because it looked like we needed to lose the five-minute cushion. At that point the aircraft commander told me that he had added 10 minutes to my time so now we are 15 minutes early. By starting the descent right away, flying the approach slowly, and taxiing at a snail's pace we might not be too far off. The tower cleared us for a straight-in approach with the landing roll ending right at the apron—no slow flying and no slow taxiing and a C-141 is too large to hide.

Our professional egos were severely bruised, but we figured the important people on the airplane really didn't care if we were early or by how much. On that dusky late afternoon when we arrived at our parking place there was a band, a red carpet and 200 or more people who had gotten the word that 20 VIPs were arriving.

As a footnote to a wild but wonderful day, we arrived at the transit crew quarters only to find out that it was shift change time and it would be 30 minutes before we could check in. A phone call to the Base Commander reduced the time to a matter of seconds.

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#### **OCEAN STATIONS: AN AID TO NAVIGATION?**

by Ed Cotter, James Connally 63-02

Back in the late fifties to the late sixties there were various ocean station ships primarily in the Atlantic ("Juliet," "Kilo" and "Bravo"), and one in the middle of the leg from California to Hawaii ("November"). They were primarily staffed by coast guard personnel or maritime personnel of European countries. Their primary duty when originated was to provide an area for propeller planes to ditch. They had radar and were more than willing to give positions to aircraft, but of course it was all based on their knowing where they were in the first place and that was always a "WAG" (wild a\*\* quess).

On my hundreds of passages across the Atlantic and Pacific Oceans, I used to ask the operators of those vessels if they had any messages to their wives, girlfriends or whomever. Their tours of duty were a minimum of six weeks, so they usually were always anxious for a crew member to relay their love and greetings to folks back home. Interestingly enough, for every ten or so postcards that I filled out and mailed to those respective addresses I probably received at least six back to me, thanking me for relaying those messages.

A couple of humorous stories come to my memory. In one, a young navigator checking into Dover who was assigned to "Old Shaky" (C-124), was hanging out at the bar a few days before his departure when he overheard a few of the senior navs talking about ocean stations. He quietly soaked all of this wisdom in and when that day came, he was ready to communicate with Ocean Station Kilo when he got within range.

There was a sheet of paper where the nav would relay the last position, next position and flight altitude to the ocean station; then if he wanted, he would request a radar fix from them. Being in the clouds all of the time, they rarely knew where they were, so any assistance was always welcomed. The golden bar lieutenant anxiously awaited the time when he was in radio contact with the ocean station. So when that time came, he transmitted to the ocean station on "interphone," as he had no idea what a VHF position on his radio dial meant. The instructor nav and pilots immediately were awakened from their fetal position and decided to answer the student nav on the interphone. The pilot replied, "Ya, wait till vee turn up the scope and vee will try to find you." Several moments passed while the young nav was anxiously awaiting the reply from the ocean station. All of a sudden, there came a reply, "Hey dere mats,

help, vee have had und explosion in der boiler room, vee are taking on wasser und sinking, can you help us?" Hearing this, the student nav got out of his seat and started jumping and yelling that those poor bastards were sinking. To his wonderment everyone was laughing and he eventually figured out that he had been had.

The second story took place at Ocean Station November, which was positioned at 140 west longitude, approximately halfway to Hawaii. It was staffed by US Coast Guard personnel. Charleston AFB used to operate around-the-world flights and part of the itinerary was from Hickam to Travis and then on to Charleston. It was primarily a state department cargo and passenger run. On a particular flight out of Hickam, one of the passengers was a very distinguished and proper lady in her late fifties. So, the crew asked her if she would like to sit up in the cockpit area where it was a bit more comfortable. She appreciated that act of kindness and I engaged her in conversation. I was surprised to find out that she was an aeronautical engineer and had designed the bubble dome on the RAF Lancaster bomber during WWII. She had an engaging personality and was all dressed up with two or three flower leis that friends had given her on departure. I told her about the ocean station and asked if she would like to give the position report which she readily agreed to.

As we approached November, she switched over the VHF on the radio switch and proudly, in her cockney accent, spoke the words of the position report text. The folks in the radio room were quite attentive to the British accent and promptly replied it was such a pleasure to hear such a distinctive accent and that they were going to flash the lights of the ship in hopes that she might see it from the plane. To which, she promptly replied that she was casting her flower lei through the porthole (which incidentally did not exist) and she was hoping that it would float to the ship with her love. The operators on the boat said they would be shining their searchlights in hopes that they might find it. Then the lovely British lady returned the switch on the radio and announced to the aircrew, "Those poor chaps would probably like a different kind of a "lei," but at 55 years of age, I am not too accommodating." The aircrew erupted in total laughter at that comment.

Sadly, the ocean stations of the world were all taken out of commission a few years later and yet another chapter of aids to navigation were lost in the history books.

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### NOTAM: NEED HELP locating and relocating other navigators:

Requirements: Must have a computer plus access to the internet. If you are interested in helping, please contact Jim Faulkner at jfaulkner39@suddenlink.net for details.

#### **BEAT THE DEVIL: A DEADLY INCIDENT**

by Richard Myers, James Connally 52-02

I submit this "short" in memory of close friends lost although all of us fliers were young and vital, and totally convinced that we would live long lives. This one is a lesson on "How to Fall Asleep Aloft at 24,000 Feet," and took place during the Korean War while assigned to the 68th Fighter-Interceptor Squadron. Billy met a charming lady in Japan, then learned she was single and living with her father, who was stationed at Komaki Air Base on the Japanese island Honshu. Billy desperately wanted to see her—we took a fighter to Komaki Air Base, got a cheap hotel room off base, and went to the Officers' Club. I got a table and Billy got the lady.

We had drinks, good food, pleasant conversation, and a second round of drinks. She was well-spoken, with good manners—but when we mentioned studies, she said she had "difficulty with plane geometry." Billy immediately asked her grade. She said, "I'm in tenth grade." Billy confiscated her second drink, and—as soon as possible—ended our evening. He and I went to the hotel, could not sleep that warm summer night, and went on to ops, but were not yet refueled. I climbed onto a wing and found it cool. Billy took the other wing.

The fueling crew waked us and refueled us. We taxied, rolled, lifted off, and climbed to 24,000 feet. I suddenly woke up and looked around—ocean everywhere, no land in sight! And—we were descending in a wide spiral; Billy's jet helmet was tilted to left, almost on his shoulder. I yelled on the intercom—no response. So, I began banging on metal with my flashlight. Eventually he woke, righted us, and, tuning to Miho beacon, head-

ed west, back to Honshu. On track, we sang, yelled, told jokes, argued, recited checklists, and repeated all that over and over until we landed at Itazuke. A hard lesson.

#### A TRIBUTE TO BOB HOPE

by Richard Bartholomew, Harlingen 57-01

Over the nine years that I was an active Master Navigator in the refueling of SAC B-47s, B-58s and B-52s, by happenchance I got to see Bob Hope and his entourage several times. First it was in Ben Guerir, Morocco, in Africa, but this story takes place at 30,000 feet over the Atlantic Ocean with Bob Hope returning to the States. It's 1971 (I think?) and Bob is shooting his mouth off on HF radio with one joke after another to all the 80 or so GCI sites on the east coast. Now mind you, these guys at the Ground Control Interceptor (GCI) sites had been isolated for months at a time and had been only handling USAF traffic. We used to bring them in now and then to Goose Bay for a Rest & Relaxation, yes, an R&R in Goose Bay, Labrador! After Hope had done his machinations for some ten minutes on HF radio, a voice came up from one of the GCI sites and asked Hope to put Joey Heatherton, the sexy Hollywood star in the entourage, on the radio.

Hope was non-plussed and asked, "What are you going to ask Joey Heatherton to do? Remember, guys, we're at 30,000 feet over the Atlantic Ocean." Up out of the dark and stillness of the night came the reply... "Breathe." None of the guys at the GCI sites had heard a female voice in months. It was the only time I ever saw Bob Hope without a comeback!

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# Navigator Tales Richard W. Ahrens and Susan M. Curran

#### **NAVIGATOR TALES**

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#### "ROCKIN' & ROLLIN'"

by Dike D. Artley, Harlingen 61-06

In 1964, our Charleston AFB 41st Squadron was assigned the task of delivering humanitarian supplies to the famine-stricken regions of Ethiopia, in the Horn of Africa. It was on August 27th of that year that our crew departed from Wheelus AFB in Tripoli, Libya, for the 7-hour and 30-minute flight to Addis Ababa (the capital and largest city in Ethiopia) with our load of relief supplies consisting of food, water, and medical supplies.

When the next crew following us arrived at Wheelus AFB, we were informed that their radar had become inoperative while en route, and without an operative radar, they were restricted from making any further flights until it was repaired. With the rugged mass of the Ethiopian Highlands mountains topping out at nearly 15,000 feet, radar was an absolute necessity. Because we had just completed our relief missions, and we were scheduled to leave the next morning for Torrejon AB in Madrid, Spain, the decision was made to cannibalize the parts from our own radar unit to repair theirs—leaving us with no radar.

Early the next morning, we were briefed by the Wheelus AFB Flight Operations Chief Meteorologist that our flight across the Mediterranean to Madrid would be totally free of any Cumulonimbus (Cb) clouds. He concluded his briefing by saying, "You guys have an enjoyable flight." Had we only known that his statement was about to take on a totally different meaning!

It should be noted that the turbulence inside a Cb cloud can be disastrous. They are powerful, dense, towering vertical clouds associated with extreme weather such as hail pellets, lightning, and strong updrafts and downdrafts resulting in wind shear and severe turbulence. There have been documented cases where the turbulence can be extreme enough to rip an aircraft into pieces.

The master radar scope on the C-130E was located at my navigator's station in the cockpit. It was my responsibility to navigate our plane around any and all thunderstorms. We had been instructed in nav training to avoid all thunderstorms by a minimum of 20 nautical miles, and never attempt to fly over Cb clouds, for they can range up to altitudes greater than 50,000 feet. After taking off from Wheelus at 0555 GMT for our 4-hour flight to Madrid, we climbed to our assigned cruising altitude of 27,000 feet while admiring below us the beautiful, blue, sparkling waters of the Mediterranean Sea. Approximately an hour into our flight, we encountered a layer of thin, wispy, feathery-shaped cirrus clouds. These clouds, as viewed from our cockpit, didn't appear to be that ominous, so we continued on our flight path believing that flying through them would not be an issue. We couldn't have been more wrong.

In a matter of minutes, all hell broke loose. What we didn't know was that embedded within these cirrus clouds were a few Cb clouds and we suddenly found ourselves inside of one. Our C-130 became uncontrollable!

We literally dropped out of the sky—losing thousands of feet of altitude in a matter of seconds. The sound of the hail pellets hitting our cockpit windows was deafening. At times, our aircraft was in a nose-down attitude. Items in the cockpit, ranging from our flight bags along with navigational charts and other related items on my navigator's desk, were flying around us. Lt. Don Adams was pilot in command, and along with co-pilot Lt. Dave Bertram, attempted to keep the aircraft level so that it wouldn't roll over and go into a spin. It was unnerving, to say the very least. While all of this turmoil was happening, I felt helpless, for without our radar being operative, I couldn't help our situation at all. I remember staring helplessly into my radar scope and hoping and praying that somehow that it would become miraculously operable again. It was wishful thinking on my part however.

Terrifying minutes passed, which seemed like an eternity, and as we eventually escaped the clutches of the most violent thunderstorm one could ever imagine, all of a sudden, the skies over the Mediterranean became crystal clear once again and we continued the balance of our flight to Madrid.

As we taxied our C-130E to the parking spot at Torrejon AB, the air traffic controller asked us what had happened to our airplane. When we asked, "Why?", he replied, "Because most of the radome is missing from the nose of your aircraft."

Needless to say, the margaritas were exceptionally tasty that night at the Officers' Club as the three of us relived our terrifying experience. This may not be the best analogy in the world, but flying through that Cb that day was akin to my beloved English Pointer, Tulip, shaking one of my daughter's stuffed animals in a death maneuver. Uncontrolled mayhem! I still have in my possession a piece of the damaged radome from that airplane as a memento of my "Rockin' & Rollin' " flight on that eventful day in August of 1964.

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#### NOTAM: DR Ahead Distribution

AFNOA members who are current on dues should receive the e-mail copy of *DR Ahead* by the 7th of the published month (January, April, July or October) or the paper copy via USPS by the 25th of the published month. IF NOT RECEIVED, contact Jim Faulkner (jfaulkner39@suddenlink.net) or Errol Hoberman (afnoa.distributor@yahoo.com). Note that e-mail copies may sometimes go into the "spam" or "junk mail" folders so please check them before contacting **AFNOA** representatives.

#### A TECHNICAL NOTE TO SEXTANT OWNERS

by Leonard Melcher, Mather 74-17

I have heard that a lot of navigators who have obtained a periscope sextant found later that the bubble (leveling) was gone. I found this article on line at the following URL:

(https://sextantbook.com/category/aircraft-bubble-sextants/).

The title of the article is "Refilling a Kollsman Bubble Chamber - a guest post by Arthur Leung." Please call if you have questions. 512.296.5209.

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#### **LETTERS**

Sent to Jim Faulkner 25 Jan 2024 Jim.

I just had the pleasure to read the Jan 2024 issue of DR Ahead. I want you and the others responsible for its continued publication to know it is really appreciated by those of us who had the privilege to serve as navs in the past.

I was a Harlingen grad back in 55-13 followed by time at McChord, Hickam and back to McChord, active and reserve, all in Strategic Airlift for nearly thirty years. Last week I turned 91 and got to thinking that perhaps some of your readers would have known two of my nav school classmates for the following reason: these two entered pilot training a few years after our August 1955 graduation as navigators. They both had very impressive assignments following pilot training in their careers as they eventually each attained the rank of Lt General. These two were: Charles "Chuck" Cunnigham and Dave Nichols.

I just explored the internet briefly searching for details of their careers and was pleased to locate some information for each. I noted that Cunnigham had died in 2022, age 90, and Nichols had died in 1997, age 63. I'd certainly enjoy hearing from any of your readers who may have known either of these men through the military or otherwise. I still live in Olympia, Washington and can be reached via email: navlawcfm@comcast.net, phone 360-357-8633 or snail mail 3049 Edgewood Dr SE, Olympia, Washington 98501. Thanks for sharing my outreach if able.

Charlie Murphy, Harlingen 55-13

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#### NOTAM: EMERGENCY LIST

One of our members has told us that if something should happen to him... he has left a listing of people to be contacted. Great planning! Suggest we all consider putting AFNOA on that listing.

#### LAST FLIGHTS

by Jim Faulkner, James Connally 64-04

Please advise AFNOA membership when a navigator/observer/bombardier/EWO or combat system officer has made the flight WEST. Thanks for several Last Flights inputs from Jim Alexander, (James Connally 65-18); Bob Evers, (Harlingen 56-09); John Fradella, (James Connally 66-17); Tom Spangler, (Harlingen 62-22); Kent Walton, (James Connally 63-17); and several others who provided names. Please keep their families in your prayers. The Last Flights reported this quarter are listed below:

#### **ELLINGTON**

Spencer, John W.	Lawton	OK	44-12
Dewey, Edward C.	Benbrook	TX	50-D
Smith, Broadus L.	Griffin	GA	54-15
Blaufuss, Philipp R.	Shreveport	LA	56-05
Solien, Robert E.	Cocoa	FL	56-10
HARLINGEN			
Kato, Akira E.	Honolulu	HI	53-11
Marsh, Charles C.	Albuquerque	NM	53-11
Riley Jr., Frederick J.	Colma	CA	53-11
Silverman, Bernard L.	Smyrna	TN	53-11
Tharp, Henry E.	Kansas City	MO	53-11
Corti, Robert J.	East Hampton	NY	53-19
Crook, Harold L.	Houston	TX	53-19
Duncan, Jack A.	Apple Valley	CA	53-19
Foster, Bobby N.	Enid	OK	53-19
Olsson, George A.	Montgomery	AL	53-19
Romans, Robert P.	Tallahassee	FL	53-19
Shull, Jerold L.	Carmichael	CA	53-19
Wiskus Jr., Henry P.	Tipton	IA	53-19
Cunningham, Martin J.	San Antonio	TX	54-01
Duke, Richard B.	Tempe	AZ	54-01
Emery, Frederick R.	Chagrin Falls	ОН	54-01
Fischer, Frederick K.	Louisa	VA	54-01
Poore, Robert V.	Orrville	ОН	54-01
Ramsey, Allen M.	Hermitage	TN	54-01
Rutherford, Alan K.	Panama City	FL	54-01
Sorrells, John T.	Asheville	NC	54-01
Spence, Neil H.	Westerville	ОН	54-01
Wilson, Roger F.	Tempe	AZ	54-01
Gardner Jr., Harvey S.	Little Rock	AR	54-03
Vought, Edward L.	Olathe	KS	54-03
Rosanswank Jr., Joseph	CA	54-13	
Monarch, Robert D.	Santa Ana	CA	54-18

Benner, Robert T.	Woodbine	NJ	54-19	Wilhite Jr., Stephen A.	Seguin	TX	60-12
Blinn Jr., Robert H.	Washington	DC	54-19	Yates, Thomas H.	O'Fallon	IL	60-12
Burger, William H.	Savannah	GA	54-19	Zahornacky, Andrew C.		CT	60-13
Henery, Gerald T.	Moscow	TN	54-19	Kniffin, Andrew E.	Belleville	IL	60-14
Sanders, John R.	Hamilton	TX	54-19	Fulks, James E.	Veneta	OR	60-15
Setliff, Jasper A.	Boerne	TX	54-19	Prince, Conna A.	North Pole	AK	60-15
Snook, John M.	Ellsworth	KS	54-19	Pattillo Jr., Albert D.	San Antonio	TX	61-02
Hilbun III, William H.	Mission Viejo	CA	55-04	Boothe, Jerry G.	Glen Ellyn	IL	61-04
Hall, William G.	Ypsilanti	MI	55-19	Burt, James E.	Bossier City	LA	61-04
Cassell, Jack R.	Grove City	ОН	56-10	Campbell Jr., William T.	,	FL	61-04
	ns Crossroads	AL	57-02	Daniels, Thomas F.	Coral Gables	FL	61-04
Eken, Joseph R.	Brookings	SD	57-03	Kramer, Lloyd R.	Mosier	OR	61-04
Evans, Donald F.	Banning	CA	57-03	Paul, Earl L.	Dayton	ОН	61-04
Fecteau, Paul J.	Glendora	CA	57-03	Perry, William G.	Honolulu	HI	61-04
Flanagan, Joseph J.	Bowie	MD	57-03	Wakefield Jr., Laverne B		NE	61-04
Goree, Charles E.	Winter Park	FL	57-03	Blount, Harris R.	Tulsa	OK	61-05
Haslam, Russell T.	Gardendale	AL	57-03	Burke, Harry E.	Fair Oaks	CA	61-05
Hoyle, Richard A.	Anderson	SC	57-03	Conant Jr., Thornton F.	Portland	ME	61-05
Kaminski, Thaddeus E.		PA	57-03	Connell, Thomas W.	Provincetown	MA	61-05
Leisner Jr., Joseph M.	Seattle	WA	57-03	Day, Victor R.	Clearwater	FL	61-05
Long Jr., David J.	Kansas City	MO	57-03	Gastner, Robert R.	Oakton	VA	61-05
McCoy, Douglas A.	Newport News	VA	57-03	Gordon, Carroll P.	Gretna	LA	61-05
McMillian III, James C.	•	NV	57-03	Hopper, Thomas L.	Norman	OK	61-05
McPhie, Charles S.	Biloxi	MS	57-03	Humphrey, Roger L.	Orange	FL	61-05
Morelle, Fredric T.	Schenectady	NY	57-03	Launder, John E.	Montgomery	AL	61-05
Opitz, Stephen J.	Hampton	VA	57-03	McDonnell, Paul J.	Sparta	NJ	61-05
Redd Jr., Oliver F.	Virginia Beach	VA	57-03	McKittrick Jr., Luke W.	Chico	TX	61-05
Seeger, Carl E.	Tucson	AZ	57-03	Millikan, Richard L.	Napa	CA	61-05
Sessa, Patrick C.	Washington	DC	57-03	Newton, Charles A.	Napa	CA	61-05
Stapleton, Daniel J.	Midlothan	VA	57-03	Ramirez, Richard M.	Loveland	CO	61-05
Wiezorek, William R.	Dallas	TX	57-03	Roney, Frederick D.	Kelly	NC	61-05
Wyatt, Robert E.	Fort Wayne	IN	57-03	Tapp, Ronnie L.	Quincy	FL	61-05
Sale, Sam S.	Greenville	FL	57-04	Gardner, Felix B.	Spring Hill	FL .	61-09
Weiser Jr., William A.	Fresno	CA	57-04	Hood, Joseph L.	La Fayette	GA	61-10
Wilks, Carlton O.	Panama City	FL	57-07	Yarber, Nathan L.	Lancaster	CA	61-11
Kenefick, Loren L.	Moneno Valley		57-10	Schroeder, Thomas D.	North Port	FL	61-13
Isenberg Jr., Henry L.	College Grove	TN	57-19	Hastey, Eugene W.	Rogersville	AL	62-17
Hoo, Calvin B. T.	Honolulu	HI	58-01N	JAMES CONNALLY	rtegererme	,	02
Wallace Jr., Jerry L.	Las Vegas	NV	58-03	Blatt, Rowan W.	Dallas	TX	52-02
Brooks, Frank B.	Payson	AZ	58-09N	Ebertshauser Jr., Henry		CA	52-02
Hesterman Jr., John W.	-	FL	59-19	Conerly, Lewis A.	Tylertown	MS	52-05
Kashynski, John A. Fo			60-12	Cowan Jr., Robert W.	Centennial	CO	52-05
McAlpin, Lewis L.	Leesville	LA	60-12	Goodwin, Robert T.	Tulsa	OK	52-05
	_00071110		00 12	Cocamin, Robott 1.	. 4.04		02 00

Lee, Denton R.	Stanwood	WA	52-05	Becker, Kenneth M.	Boise	ID	60-12
Bascom, Eugene G.	Broken Arrow	OK	52-06	Koehring, James C.	Camden	DE	60-12
Batten III, John E.	Nichols	SC	52-06	Karpis, Nikolai	Milburn	OK	60-15
Cook Jr., Oliver J.	Lenexa	KS	52-06	Friesen, Herbert L.	El Paso	TX	60-19
Boesch, Donald E.	Cary	NC	52-07	Savage, George D.	Las Vegas	NV	60-19
Palmer, David G.	Bayse	VA	52-07	Fewlass, Jere B.	Westland	MI	61-05
Garvey, Michael O.	Indianapolis	IN	52-09	McClure, Robert D.	Sarasota	FL	61-05
Mark Jr., George S.	East Berlin	PA	52-09	Box, Jerry W.	Dallas	TX	63-03
Merrell, Thomas S.	Houston	TX	52-09	Szachara, Walter S.	Madison	AL	63-09
Brennan, Joseph T.	Dover	DE	52-19	Berry, James S. Ma	nhattan Beach	CA	63-10
Cohn, Donald R.	Holloman AFB	NM	52-19	Seibe Jr., Julius W.	Miami	FL	63-10
Farrow, Billy G.	San Antonio	TX	52-19	Wilson, James A. S.	Hixson	TN	63-10
Hilton Jr., Raymond D.	Vero Beach	FL	52-19	Rumzek, Harold A.	Yellville	AR	63-13
Preston, Frank B. Hil	ton Head Island	SC	52-19	Shinol, Henry E.	Springfield	VA	63-20
Kostoff, Morris R.	Round Rock	TX	54-09	Sule, Robert J.	Linwood	NJ	63-20
Rosenthal, Saul A.	Barstow	CA	54-09	Richards, James C.	Copper Hill	VA	64-02
Walters, Donald E.	Yukon	OK	54-09	McClinton, Johnnie W.	Coolidge	TX	64-05
Zobel Jr., James A.	Clayton	GA	54-09	Gibb, Garry D.	League City	TX	64-07
Ames, Arnold W.	Sherman Oaks	CA	54-19	Saterbak, Allen J.	Green Valley	AZ	64-07
Bishop Jr., George P.	Flat Rock	NC	54-19	Urban, Frank R.	Pubelo	CO	64-07
Bowman, Peter R. Fo	rt Walton Beach	FL	54-19	VerHoef, Robert W.	Spokane	WA	64-08
Brophy, James J. P.	Sioux City	IA	54-19	Hart, Don A.	Elk Grove	CA	65-01
Dean, Thomas D.	Waco	TX	54-19	Raymond, Donald M.	Fair Oaks Ranch	TX	65-01
Fast, Richard L.	Shoreview	MN	54-19	Griffin Jr., Paul M.	Baton Rouge	LA	65-02
Garrett, Melvin G.	Popular Bluff	МО	54-19	Freewald, Robert C.	West Point	MS	65-05
Greene, Richard F.	Wilford	MA	54-19	Wentz, Robert W.	Spanish Fork	UT	65-14
Hicks Jr., Jack A. Co	rpus Christi	TX	54-19	Davidson, James F. N	lorth Little Rock	AR	65-15
Hooper, Albert E.	Cedar Rapids	IA	54-19	Soupene, George L.	Freedom	OK	66-01
Jamison, Bruce N.	Norwich	NY	54-19	Hays, Philip V.	The Villages	FL	66-17
Kirby, George R.	Medway	ОН	54-19	Tusha, Lynn H.	Carlsbad	NM	66-17
Little Jr., Alfred S.	Grand Junction	CO	54-19	MATHER			
Murray Jr., William H.	Dayton	ОН	54-19	McKean, Joel M.	Richmond	VA	54-00
Nolan, John F.	Roanoke	VA	54-19	Redmon, Donald L.	Omaha	NE	68-00
Owens, Donald R.	Roca	NE	54-19	Ray, Philip M.	Laurel	MS	73-00
Rogers, Ralph O.	Hanover	IN	54-19	SELMAN			
Ross, Norman A.	Tucson	ΑZ	54-19	McAllister, Lloyd G.	Salisbury	MD	44-12
Strunk, James J.	Keizer	OR	54-19	SAN MARCOS	•		
Thompson, Evan G.	Carson City	NV	54-19	Goldstein, Stanley P.	Kingston	NY	43-11
Turley, William E.	Dayton	ОН	54-19	SCHOOL UNKNOWN	3		
Witzenburg, Richard L.	•	TN	54-19	Sale, Sam	Los Angeles	CA	43-00
Watson, Gerald S.	Spring	TX	55-CN	Chabbott, George H.	Dover	DE	51-00
Mackrell, Roy J.	San Antonio	TX	56-09	Monarch, Robert M.	Hardinsburg	KY	59-00
Caldwell, Jimmie D.	Dayton	ОН	60-03	Upright, James	Boerne	TX	59-00
			22 00	- Ig, Gaille			22 00

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

Change service requested

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