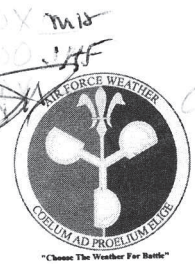




AIR WEATHER ASSOCIATION

Serving the Present – Remembering the Past – Air Force Weather

NEWSLETTER



Vol. 11, No. 1

July 1997

REENGINEERING AIR FORCE WEATHER

by Brig. Gen. Fred P. Lewis
Air Force Director of Weather



What a great time to be in Air Force Weather! During the past few years, we have seen significant advances in technology which have led to many improvements in the art and science of meteorology. New sensors, both ground and space-based, allow us to describe the state of the atmosphere with

ever-increasing detail while new, fine-scale weather modeling techniques are exploiting that data to dramatically increase forecast accuracy. This move forward in technology presents us with an opportunity to seize the initiative and truly allow our operators to "own the weather," and move from what we call "cope and avoid" with the weather to an era when operators can "anticipate and exploit" the weather.

To fully realize these improvements in technology while resources shrink as they have over the past few years, we initiated a Total Force, wall-to-wall Air Force Weather reengineering effort. Our goal in this effort is clearly expressed in our Air Force Weather Vision: We want to be "The Warfighter's Choice for Battlespace Weather Information on Demand for Global Engagement; Providing the Knowledge Needed to Own the Weather," and are well on the way to realize this vision through our reengineering effort. Since last fall, AF Weather people from across the Air Force—officer, enlisted, active duty, reserve component, and civilian alike—have come together in a total team effort to chart out what must happen for us to reach our shared vision. Many of you have been involved—some formally, some informally, and for your inputs, I'd like to pass on a hearty thank you.

We still have a lot to do. As we travel around the world talking with operators and warfighters in the Air Force and Army, we continually receive positive comments concerning our efforts to improve operational weather support and to ensure their needs are met. They also remind me of one valuable point: we must not forget the lessons of past efforts to improve our business. And we will certainly not do that as we press forward to improve Air Force Weather.

By belonging to the AWA, you've stood up to keep your ties to AF Weather active. You have made your valuable contributions to AF Weather over the years, and many of you continue to do so. Thanks for your participation in AWA, because through you and the AWA, we can make sure that we couple our past experience with new operational concepts and technological innovations to provide the best possible weather support to America's warfighters. As our weather warriors in Korea say: "Weather on Target!" Please keep in touch.

(Brig. Gen. Fred P. Lewis became the AF Director of Weather on 8 July 1996. He replaced Brig. Gen. Thomas J. Lennon who held that position since May 1994. Gen. Lennon retired from the USAF and resides in the Washington DC area.)

1998 AWA REUNION IN SAINT LOUIS

Most members heard from expressed interest in a reunion in the central U.S. Don Farrington, our reunion organizer, and other AWA Board members scouted many locations and found Saint Louis, Missouri offering the best value. To all AWA members, spouses and guests, Don says, "**Meet me in Saint Louie from 24–28 June 1998 for the next and greatest AWA reunion.**" See page 3 for details.

NOTABLE ANNIVERSARIES in 1997

- AF Weather celebrates 60th; July '37 transferred from Army Signal Corps to Army Air Corps.
- USAF celebrates 50th as separate service.
- AWA celebrates 10th; founded in 1987 by John Collens, Maj Gen, USAF (Retired).

CHANGES IN STRUCTURE OF AWS CONTINUE — NOW A NEW NAME?

WASHINGTON (AFNS) -- Air Force officials have announced changes in force structures affecting the location of people, aircraft and organizations in Illinois and Nebraska. These changes are the result of changes in the mission, adjustments for efficiency and to meet congressional directives. The actions outlined below are projected to take place in fiscal year 1998.

ILLINOIS: At Scott Air Force Base, as a result of the previously announced Air Force initiative to streamline air mobility forces by realigning C-130 aircraft based in the continental United States under Air Mobility Command, Scott will gain an additional 66 military and 20 civilian personnel authorizations.

Also, the Air Force will combine the Air Weather Service Headquarters and the Air Force Global Weather Center to form the Air Force Weather Agency (AFWA) at Offutt Air Force Base, Nebraska. This restructuring will reduce management overhead, improve efficiencies and increase the effectiveness of combat weather support.

This action complements the on-going move of the Air Force Combat Climatology Center (formerly USAFETAC) to Asheville, N.C., to consolidate with the operating location already there and to collocate with the National Climatic Data Center.

The move to Offutt will result in a decrease of 132 military and 57 civilian personnel authorizations at Scott. Economies and efficiencies associated with implementing the Federal Workforce Restructure Act of 1994 will result in a reduction of 87 civilian personnel authorizations at Scott. The total impact at Scott is a decrease of 66 military and 124 civilian personnel authorizations.

NEBRASKA: At Offutt, the first of two RC-135W Rivet Joint aircraft will be delivered to the base. This action results in an increase of 77 military personnel authorizations.

***Also, the Air Force will combine the Air Weather Service Headquarters and the Air Force Global Weather Center to form the Air Force Weather Agency at Offutt. As a result of this action, Offutt will gain 120 military and 48 civilian personnel authorizations.* □**

IF YOU HAVEN'T ALREADY, PLEASE TAKE THE TIME NOW TO ✓ YOUR PERSONAL DATA IN THE APRIL 1997 ROSTER. If any changes are required, even if it is just an area code or ZIP code change, please send them as soon as possible to Freeman Smith, the AWA locator. His snail mail and e-mail addresses are on the Roster's front cover. In addition, if you plan on moving before February 1998, make a note to notify Freeman or you will miss the next issue of the AWA Roster and Newsletter. Yes, they will be mailed out in February 1998 to provide the registration details in time for the next AWA reunion. Thanks in advance for your help in keeping our locator file current. □

SOMEONE MISSING? — HELP YOUR AWA GROW

When you check the new AWA Roster and note someone is not listed, you can help your Association grow by sending the enclosed membership application to that person. Many individuals do not yet know the AWA exists. With your urging they may join and attend the June 1998 reunion.

Copy the new application if you can and provide it to others. Keep copies on file for the right occasions.

Have you considered giving a gift membership in the Association? It makes a great "I'm thinking of you" present. It also makes an inexpensive award that lasts a lifetime.

For more applications or membership information write to the AWA Secretary-Treasurer, Cliff Kern, 1879 Cole Road, Aromas CA 95004-9681 or e-mail Cliff at: CKern@CompuServe.COM

AWA Newsletter

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Subscription rates: Free to Air Weather Association members as part of their lifetime membership and complimentary to AF Weather units. For membership applications write to: AWA (Sec-Treas), 1879 Cole Road, Aromas CA 95004 -9681.

Submit newsletter items directly to the Editor for publication in the next edition and/or for the AWA Home Page: <http://www6.infi.net/~cwt/awa.html>

THE 1998 AWA REUNION

PLAN NOW to join other members, spouses and guests for a great time at the next reunion to be held in **Saint Louis, Missouri from 24-28 June 1998**. The reunion headquarters will be at the **HENRY VIII HOTEL**, 4690 North Lindbergh, Saint Louis, Missouri 63044. It is located near Lambert-Saint Louis International Airport, just off of I-70 and 20 minutes by rail or car from downtown Saint Louis.

The hotel has over 380 rooms of which 189 are two room suites with separate bedrooms and parlors. The hotel has two restaurants — the Henry VIII Restaurant is open for breakfast and lunch and Duffys Pub and Restaurant is open for dinner. There are indoor and outdoor swimming pools, a sauna and fitness equipment room, a jogging track/nature walk, video room, and two outdoor lighted tennis courts. It also has enough ballroom space to accommodate our banquet and hospitality room needs.

The AWA discount rate for a standard room will be \$59 and including all taxes, the rate will be \$67.66 per night for a single/double/triple/quad (s/d/t/q) room. The discount rate for the two room suites will be \$64 and including all taxes, the rate will be \$73.32 per night for the (s/d/t/q) suites.

Reserve a room or suite NOW by calling Henry VIII reservations at 1-800-325-1588 and identify yourself as an Air Weather Association member attending the Air Weather Association 1998 Reunion.

All reservations must be guaranteed with a credit card or a deposit of one night's room and tax.

The reunion program will be similar to the last ones in Hampton, Virginia and Tucson, Arizona with golf on Wednesday, 24 June; tours on Thursday through Saturday; squadron banquets on Thursday evening, an informal banquet on Friday night and the main dinner-dance on Saturday evening; finishing up with brunch on Sunday morning, the 28th.

What will we be doing while in Saint Louis? Some of the attractions your Board of Directors and reunion committee have been looking at include: tours of Anheuser-Busch Brewery; Grants Farm; Old Courthouse; Old Cathedral; New Cathedral; Saint Louis Arch and Western Museum; Union Station; boat rides on the Mississippi River; attractions in

Forest Park such as the Saint Louis Zoo, Science Center, Art Museum, Jefferson History Museum, and Golf Course; Missouri Botanical Garden; visits to the numerous gambling casino riverboats in Saint Louis and Saint Charles; tour of old Saint Charles (first Capital of Missouri); tour of the Prologue Room at McDonnell Douglas (NOT the factory where they are building the F-18 now); attend a baseball game at Busch Stadium with the Cardinals (if they are in town); and a tour of Scott Air Force Base just across the Mississippi in Belleville, Illinois. For families, there is also Six Flags Over Mid-America. **If you have any suggestions on the reunion agenda, please send them to Don Farrington, our reunion organizer at:**

4149 Silver Hill Court

Lithonia, Georgia 30058-6978

Tel: (770) 985-2240 (between 6 PM and 10 PM Eastern Time please)

e-mail: Cdfcsf@aol.com

The agenda will be firmed up by December and will be published in the 1998 AWA Newsletter which should be mailed out in February 1998.

Ed Boselly in Saint Louis and Wayne McCollom in O'Fallon, IL have graciously volunteered to head up the local committees.

TOUR BRANSON, MISSOURI — after the AWA 1998 REUNION

Thanks to John Collens, a tour to Branson, Missouri after the AWA reunion has been arranged for the first 144 people interested. This is a "you cannot beat this offer" 4-day, 3-night tour to see the best shows and excursions that Branson offers. If you are already planning a trip to Branson — HOLD OFF!! The AWA tour from 28 June — 1 July 1998 will save you the extra expense of a separate trip to Missouri and provides a better group rate. First-class hotel, meals, entertainment, transportation — the AWA package has it all.

YOU CAN MAKE YOUR RESERVATION NOW WITHOUT ANY DEPOSIT. A token \$50 per person deposit will be charged to your credit card (or you can send a check) on 15 January 1998. Full payment isn't due until 14 June 1998. There is a liberal cancellation policy in event of unforeseen circumstances.

See page 4 for more details →

(Continued from page 3)

TOUR BRANSON, MISSOURI — after the AWA 1998 REUNION

The Schedule. Deluxe, air-conditioned, rest room equipped motorcoaches will depart the AWA reunion Henry VIII Hotel at 11:00 AM, Sunday, 28 June 1998 — right after the reunion brunch. You will arrive at the Branson Park Inn at 4:00 PM where your escort joins the group and a welcome reception follows. Settle into your hotel room, then this program follows:

- 5:30 PM dinner at the Cowboy Cafe restaurant.
- 8:00 PM Mel Tillis show (possibly with Brenda Lee)

Monday, 29 June:

- 8:00 AM breakfast at Apple Mill restaurant.
- 9:30 AM scenic tour of Table Rock reservoir in amphibious Ducks.
- 11:00 AM shopping time at Engler Block & Mountain Man shops.
- 3:00 PM the highly rated Shoji Tabuchi show.
- 6:00 PM dinner in Upstairs Restaurant at Jim Stafford theatre.
- 8:00 PM Jim Stafford and Friends show.

Tuesday, 30 June:

- 8:30 AM buffet breakfast at Roy's Loft in Roy Clark Theatre.
- 9:30 AM Doug Gabriel show at Roy Clark Theatre.
- 2:00 PM big band Glenn Miller Orchestra and Bobby Vinton show.
- 5:00 PM family style dinner at Dinnerbell restaurant.
- 7:00 PM the Andy Williams show.

Wednesday, 1 July:

- 8:00 AM check out of hotel.
- 8:30 AM sit-down breakfast at Bob Evans Family restaurant.
- 9:30 AM depart to Saint Louis (or elsewhere if driving on own).
- 2:00 PM arrive airport (Saint Louis) drop-off if flying out that day or back to the Henry VIII Hotel.

Touring Branson is family-fun entertainment. Bring your kids, grandchildren and friends. Space is limited to the first 144 who make their "do it now" reservations.

The Costs. The price per person, double occupancy, all breakfasts, dinners, shows, local Branson transportation to all events, escorted, welcome reception, luggage handling, gratuities (lunches are on your own):

- round-trip motorcoach from Saint Louis - \$440
(single \$530; triple \$410; quad \$395)
- drive your car to Branson and all the above - \$400
(single \$490; triple \$370; quad \$355).

Space will be limited, so make your reservation NOW. Call 1-800-221-5692 (Branson Vacation Reservations) and identify yourself with "Air Weather Association". It is that simple and without cost until 15 January 1998 when a \$50 deposit by check or credit card is required. The final payment is due on 14 June 1998.

For more information on Branson see the Internet Home Page: <http://www.bransonvacation.com>

WHAT'S NEW ON-LINE?


Many AWA members have the capability at home or at the office to use personal computers for electronic mailing, browsing the World Wide Web and developing home pages.

Considering suggestions from many members, we added e-mail addresses to the AWA Roster last year and continued it for 1997. You will find them at the back of the April 1997 roster. To add your address to the file or make changes, mail a note to AirWeaAssn@aol.com or to Freeman Smith at 75611.1013@compuserve.com. Your AWA locator will try to maintain the list and make it available to AWA members who request it, but not for commercial purposes.

C. W. "Bill" Tazewell of Virginia Beach has continued to voluntarily build and maintain the AWA Home Page on the Internet World Wide Web now at:

<http://www6.infi.net/~cwt/awa.html>

Look for up to date reunion information on the home page as well as links to many other weather and Air Force related home pages.

Special request - to all AWA members. We need a volunteer Webmaster to assist Bill (the Patriarch of the Internet) and eventually become the primary Webmaster for the AWA home page. If you can help, please contact the AWA Chairman, Kevin Lavin, at (334) 271-3246 or through e-mail at AirWeaAssn@aol.com 



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METEOROLOGY TAKES A FRONT SEAT AT THE AIR FORCE ACADEMY

by Maj. Gen. Tom Aldrich
USAF, Retired

During my recent, semi-annual trip to the United States Air Force Academy to attend the Falcon Foundation Board Meeting, I took one afternoon to have a look at the Academy's education program in meteorology for the cadets. It was a pleasant surprise to see the expanded weather program plus the enthusiasm for it shown by the faculty and cadets.

An improved program in meteorology was initiated in late 1993 with addition of highly qualified faculty members and up-to-date laboratory equipment (see Oct. 95 AF Weather *Observer*). The Class of '95 saw the first graduations with degrees in geography with an emphasis in meteorology. The major news now is that the curriculum has been further improved to a level where a Bachelor of Science Degree in Meteorology will be offered starting with the Class of '98, when 11 cadets are expected to receive this degree. Interest has grown substantially among the cadets through the inclusion of substantial basic weather instruction in a core second year course in geography required for most students. The department expects to have at least 25 cadets annually seeking a degree in meteorology within the next few years.

All of us can be vastly proud of this high quality Academy academic program. The high quality equipment, faculty, and students should be the envy of any university offering a similar degree. In addition to six related courses required in math, physics, and geography, a total of ten wide ranging courses in meteorology are necessary for a BS in this major.

Future plans include added laboratory courses (in the Thomas S. Moorman Lab), a senior seminar course, and an independent study program. The cadets now have full access to both military and civilian weather data on the Internet with the latest Pentium equipped PC's in the lab or in their own rooms!

The Air Force Academy is to be congratulated on its wisdom and foresight in creating this important addition to the curriculum. □

Sixty Years Ago... 1 July 1937, War Department transferred responsibility for weather support of Army air arm from Signal Corps to Army Air Corps and 1WS, 2WS and 3WS activated at March, Langley and Barksdale respectively.

THE WAY IT WAS

Weather Forecasts and Stories from The Past

by SSgt Steve Elliott
Editor, *Observer* Magazine and recently reassigned to Korea

Members of the Air Combat Command Directorate of Weather got together and took the time to talk about the most memorable weather stories they had experienced in their careers. No set structure was used here, just a narrative of an event that still stood out in that person's memory to this day.

Some of the stories sent along to the *Observer* were so amusing and interesting, that the idea came up to publish a few of them in the hope of getting some more feedback from the troops in the field.

So here it goes—send YOUR most interesting or amusing or unique weather story to the *Observer* Editor. Keep it short—no more than one or two medium-length paragraphs. Names need not be used, although a specific or general geographic location would be appreciated. Also, give us the year when this event happened. You may remain anonymous or have your name printed.

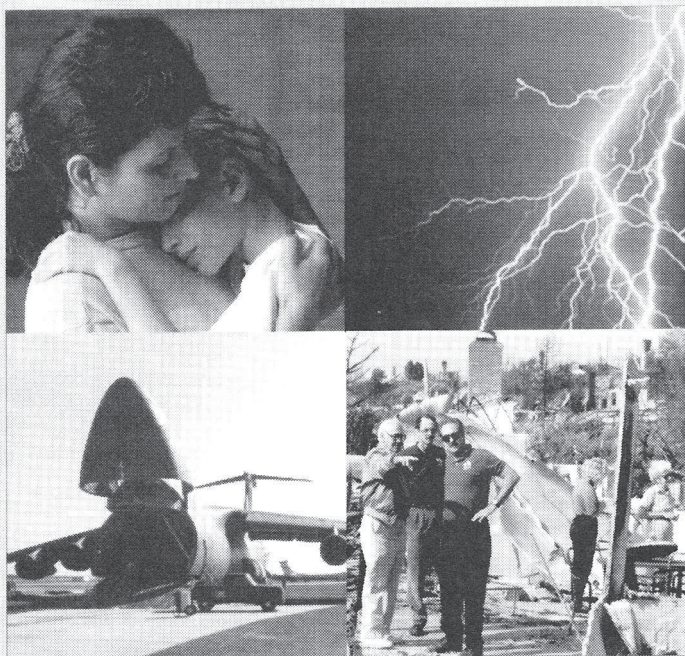
Naturally, keep your story within the realms of good taste—no off-color or risqué stories, please! **Send your stories to schmidtd@hqaws.safb.af.mil or FAX them to DSN 576-5401. If you don't have the modern conveniences of a computer or a FAX machine, mail them to HQ AWS/RMA, 102 W. Losey St., Rm. 105, Scott AFB IL 62225-5206.**

We cannot guarantee your story will be used, and if it is, we reserve the right to edit it to conform to Air Force public affairs standards for punctuation, grammar and spelling. So, have fun, dig out all those old memories, and send us a line! Meanwhile, enjoy these two stories ...

A. "It was late spring of 1980 and I was a young, eager E-4 working a swing shift at Reese AFB, Texas. I had been forecaster certified for about six months. The person I relieved briefed me that there was a change of command for the base commander later that afternoon—but not to worry! Only isolated thunderstorms in the vicinity—nothing severe (famous last words!).

Moderate CU/TCU were developing southwest of the base, and appeared to be moving in a northerly direction—my trusty FPS-77 confirmed that. I thought I was in pretty good shape and began to accomplish other duties in the weather station. However, when I checked the radar again after 10-15 minutes, I was surprised to find a 60,000-footer about eight miles west! It was still moving northward and I'm still thinking the base is out of danger. Then I thought, 'I've never seen a CB that high! Boy, would I like to see that!' So I went outside to take a look.

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in an uncertain world,
we'll both be needed.



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The USAA family of companies offers insurance to commissioned and warrant officers of the U.S. military, and their ex-dependents. USAA also offers insurance to active duty enlisted personnel in Germany, as well as those with PCS orders to Germany. Coverage is also available to enlisted personnel (active duty, National Guard and Selected Reserve) in the following states – Alabama, Alaska, Colorado, Delaware, Illinois, Kentucky, Louisiana, Nevada, New Mexico, North Dakota, Ohio, South Dakota, Tennessee and Utah. Coverage to enlisted personnel in other states will be extended gradually on a location-by-location basis. In addition, cadets and midshipmen in all pre-commissioning programs are eligible.

The Way It Was (continued from page 6)

Well, my friends, it was HUGE and I was fairly impressed. After about 30 seconds, I noticed something beneath the base of the storm ... 'It's a tornado! It's a swarm of bees!'

No, it's the red dirt of Texas ... and what was kicking up all this dirt? You guessed it — a gust front! So I dashed back into the weather station to issue a weather warning. But, while I was doing that, the base got a gust to 65 knots with no lead-time. Keep in mind, this event took place DURING the change of command ceremony ... which was taking place outside. To say the least, neither the base commander nor my flight commander was very happy. For me, it was a day I will never forget."

B. "A few short years ago, I was a young staff sergeant forecaster at Carswell AFB, Texas. I was at the end of a particularly busy mid-shift and was briefing my fourth B-52 crew, with three other crews waiting in the hallway between the weather section and the flight planning room.

It was late November and take-off temperatures below 44 degrees Fahrenheit impacted aircraft takeoff calculations. It had been an evening with temperatures dropping into the mid-30s, but temperatures were now rising. All was forecast to be well with the morning crews and all mankind.

As I was briefing my fourth crew, I announced that the takeoff temperature would be 44 degrees.

Just then, a young captain from the back of the pack piped in, 'Say, Sarge, as I was driving to the base this morning, I noted the temperature reading on the top of the CNBB Building downtown registered 33 degrees!'

Without thinking twice or hesitating, I responded, 'Well, sir, are you taking off from the top of that building or from my airfield?'

I knew I had made a friend for life!" □

VISITING DEPLOYED UNITS

by CMSgt. Jim Hoy
AF Weather Senior Enlisted Advisor

Last year I wrote about the places Air Force Weather forces were serving around the world. A year later I'd like to tell you that General Lewis and I have been to many of those places, talking to the officers, NCOs, and airmen deployed to foreign bases, bare bases, and austere locations. Our weather people are working hard, proud of the job they're doing for their country, and doing it well.

We've visited forward deployed Air National Guard airman and NCOs working with the Army Corps of Engineers building roads, clinics, and schools. We've visited active duty and ANG weather people scattered across South America taking observations and making forecasts. We've visited Italy, Germany, Hungary, and Bosnia-Herzegovina, where they were supporting Army and Air Force operations as part of the NATO operations.

Many of you would be amazed at the similarities in living conditions to places where you deployed many years ago. The field kitchens still serve the best "chow," and plenty of hot coffee. If you happen to eat at the dining facility at Tuzla, you get fresh loaves of bread, soft on the inside and crusty on the outside — never mind the ever-present reminders of war, like mine fields.

Those of you who served in Vietnam will remember that you could usually tell where the weather units were because of the air conditioner cooling the radar. Well, not a lot has changed. The equipment is the computer instead of a radar but the tent we visited in South America had the only air conditioner on the post, sticking out of the tent flap.

What do they do after the long shifts? There's still cards, but you'll notice TV satellite receivers adorning the tent tops today. And, in many places, deployed and in-garrison on foreign bases, Armed Forces Network Radio is still the link to home. It is a wonder how "Ma Bell" and the other telephone companies have "stretched cable" to the outposts around the world so that the troops can keep in touch. While morale calls are still with us using the new AUTOVON called the Digital Switching Network (DSN), we're publishing policies using the Internet to "keep in touch."

Things change and they don't. We still want to keep in contact and we've used technology to help, we jealously guard our tradition of great food in the field, and take pride in our ability as weather people to directly affect America's ability to preserve and defend freedom.

Thanks for your support to our AF Weather troops in the numerous ways you show it, and "see you in St. Louis" next summer. □

— Video for sale —

FORECAST FOR VICTORY

In this video developed by The Weather Channel for the 50th Anniversary of the end of WW II, discover the intriguing role the forces of nature played for each side and how changing weather impacted the outcome of the Second World War.

The AWA purchased 100 of these from The Weather Channel to provide to members at a discount price of \$16.00 (includes mailing within USA). AWA members desiring a copy send a check for \$16.00 payable to "AWA" and mail to: AWA, 6704 Wolke Court, Montgomery AL 36116-2134.

Feature Article

AWS MOVES INTO TOKYO AUGUST 1945

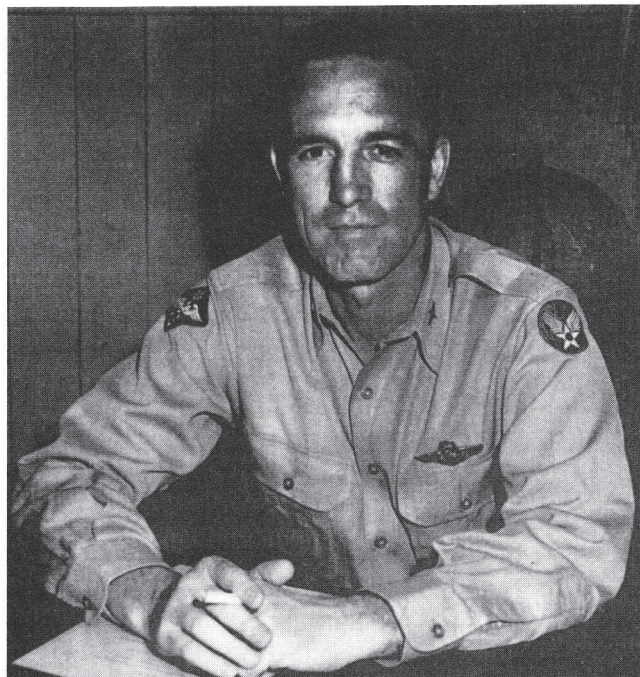
Lt. Gen. William Oscar Senter
USAF, Retired

In the summer of 1945, the Far East Air Force (FEAF) Weather Group, serving the Southwest Pacific Theater of Operations, had moved from the Philippine Island of Leyte to Fort McKinley, near Manila. In addition to providing weather service with its 15th and 20th Weather Squadrons from Australia to the Philippines, three major projects were underway: 1) a basic training school in meteorology for young Philippine students; 2) a weather and communications complex including not only the FEAF Weather Central, but also the 7th Fleet Weather Central and the necessary communications personnel and equipment (some 224 specialists); and, 3) planning, organizing and training the units that would be required for the invasion of Japan (the 27th and 28th Mobile Weather Squadrons).¹

After the "BOMBS" were dropped on August 6 and 9 and the knowledge of what had happened became fact instead of fiction, it became extremely difficult for me and the staff to concentrate on the aforementioned tasks. Finally, on August 18, I was ordered to proceed to Okinawa with a small group of weather personnel and await orders.

The Fifth Air Force was in command of the operational move into Japan, and its Commander, General Ennis Whitehead, decided not to include weather and Army Airways Communications personnel on the first flights on August 26 (delayed until August 28 because of Typhoons "Ruth" and

¹ Many individuals deserve mention, but I will name only three: Lt. Col. Theodore R. Gillenwaters, who served the AWS with distinction in the States, organized the school for the Philippine youth, and supervised the construction of the large Weather Central; Lt. Col. Henry T. Harrison, with a well-established reputation as former Chief Meteorologist for United Airlines, had manned, organized and started operating the Central; and, Lt. Col. Nicholas H. Chavasse, a pilot and meteorologist, with his 55th Weather Reconnaissance Squadron on Guam was providing valuable weather information, especially in locating typhoons (two of which delayed our move into Japan).



Col. Senter at his desk as Commander, FEAF Weather Group and Staff Weather Officer of FEAF, Fort McKinley, Philippines, 1945.

"Susan").² However, Major Ralph Suggs³, the staff weather officer of the Fifth Air Force, discovered that Flight Controller, Lt. Robert D. Miller, a graduate of the Weather Officer Training Course at New York University, was to be aboard the very first flight of C-47's scheduled to land at Atsugi (near Yokohama). He was directed by Major Suggs to make "Savannah" (visual) type weather reports to Okinawa, and to relay to air crews departing Atsugi the forecasts received from Okinawa.

My party and I arrived at Atsugi airport in Japan about ten in the morning (local time) on August 30,

² When the first of the typhoons appeared we named it "Ruth," after my wife. When the second one appeared, I asked that it be named "Suellen" after my daughter, but history records it as "Susan."

³ It was one of Major Suggs' briefing officers that presented General MacArthur with the so-called "perfect forecast." This young meteorologist was giving the daily weather briefing to Generals MacArthur and Kenny and their staffs and gave the exact longitude and latitude of a typhoon in the next days forecast, repeating the forecasted location as "exact." General MacArthur responded as expected, reminding the young man that Meteorology was not by any means an exact science. The young briefer replied: "But Sir, I called the Navy and that is where Admiral Halsey and his Fleet will be at that time." General MacArthur wanted to promote the briefer on the spot.

1945 and Lt. Miller⁴ met and introduced us to Professor (Doctor) Fujiwhara, Director of the Japanese Meteorological and Seismological Department, along with several of his sectional chiefs.⁵ The Director had received orders from his government, as contained in the Manila Surrender Documents, "to make available to the occupying forces all the resources of the Japanese Meteorological Services." A volume about one inch thick, annotated in English, described their organization. Over 375 stations were identified (equal to our US network at that time). Unfortunately, no reports were being received from outside the Japanese main islands. An offer was made to deliver synoptic maps to Atsugi from Tokyo, but delivery by train and bicycle some twenty five miles in distance was too much of a delay.

The conference broke up when it was announced that General MacArthur was arriving. We watched the landing and joined his motorcade to Yokohama⁶, staying that night at the Grand Hotel in Yokohama.

By evening, Gillenwaters and I had acquired a Jeep and found a Japanese-American enlisted man from Hawaii to serve as our interpreter. The next morning we received the necessary orders to proceed through the clearing station in order to legally enter Tokyo. We passed through the ruins of Yokohama and Tokyo, on streets that were barely usable, until we reached a three-story building one block East of the Emperor's Palace. This was the Japanese

Meteorological headquarters, the former University Club of Tokyo. We took possession of the building after relocating Dr. Fujiwhara's operation. The building became our headquarters, utilizing the offices, kitchen, dining room, and its ten or more bedrooms for our few assigned personnel and transients. Later, FEAF moved us into the Meiji Building where its headquarters was located, and the University Club became the FEAF Officers Club.

Several months passed and the FEAF Weather Group became the 43rd Weather Wing (later the 2143rd Weather Wing), absorbing the squadrons and stations from the former Central Pacific Theater, along with the 55th Weather Reconnaissance Squadron (B-29s) on Guam.

It was a Godsend that we had complete control over the Japanese and South Korean weather services and had started training programs throughout the Theater. The AWS personnel had returned to the US in large numbers, leaving only a skeleton of the former organization. The Japanese were already well-trained and with good educational backgrounds, some of them from the Royal family. In addition to being staff weather officer for FEAF and for General MacArthur, as the 43rd Weather Wing Commander I issued all directives to the Japanese and Korean Weather Services, and represented Japan at the World Meteorological Conference in Paris in 1947. □

About the Author

General Senter is a native of Abilene, Texas where he attended Hardin-Simmons University before entering the US Military Academy at West Point in 1929. After graduation, he earned additional degrees in meteorology at MIT and aeronautical engineering at the University of Oklahoma. He retired from the military on July 1, 1966 as a Lieutenant General. Among his awards were the Distinguished Service Medal and Legion of Merit with one Oak Leaf Cluster. He was rated a Command Pilot and Technical Observer.

Throughout World War II, he was assigned to the Air Weather Service: first, as a Regional Commander, then on the staff in the Directorate of Weather in Washington, Commander of the AAF Weather Wing in Asheville, NC, and finally as the Commander of the FEAF Weather Group in the Southwest Pacific. After the War, he commanded the Air Force and Army Meteorological Services in the Pacific and Far West, with the additional duty of reestablishing the Japanese and South Korean civilian weather services. Returning to Washington, DC, he headed the Air Weather Service from 1950 until 1954.

His career in logistics began with the command of a large depot, followed by assuming responsibility for all Air Force weapons procurement at Wright Field, Ohio; to the Pentagon as the Assistant Deputy Chief of Staff for Logistics;

⁴ Lt. Miller is now a retired Cornell University Professor, and has written a book of his experiences as a flight controller in the SW Pacific Theater: "DESCENT FROM NAITAKA". At his request I have reviewed this interesting manuscript, and hope that it is published soon. I am extremely grateful for his valuable assistance to the FEAF Weather Group at Atsugi airport in August 1945.

⁵ In a letter to Professor Miller, dated 3-4-88, Dr. Kiyoo Waditi, one of the section chiefs present when I arrived at Atsugi, insists that the meeting took place on August 27. The first aircraft from the advanced Fifth Air Force (ADVONV) did not arrive until August 28, and I arrived the same day as General MacArthur, and History records that as August 30, 1945.

⁶ Japanese soldiers were at "attention," shoulder to shoulder, on both sides of the road and facing outward, from Atsugi to Yokohama.



then Assistant to the Secretary of Defense for Petroleum Logistic Policy with the additional responsibility for the procurement of all petroleum products for the DoD.

After retiring from the Military in 1966, General Senter organized and directed the

Natural Gas Supply Association, formed to work for the continued adequate supply of natural gas. He retired from that position in 1974 and moved with his wife, Carolyn, to Florida. After eighteen years in Tequesta, Florida, they now reside in Palm City, Florida. □

JOIN AWA MEMBERS ON THE NEXT CRUISE IN THE MEDITERRANEAN

John and Barbara Collens have negotiated for a group cruise in the Mediterranean aboard one of Princess' best ships. GREAT NEWS!! You will be on the newest, largest cruise ship in the world—the *Grand Princess* now under construction. Keep reading, it gets even better. The Collens' are paying their own way, no free cabin. If the block of cabins is sold, we earn the dollar value of free cabins and every passenger in our group will receive shipboard credit. John also anticipates being able to have a drawing and award more dollars to a lucky person.

The 2600-passenger, 15-story-high *Grand Princess* will have three show rooms (take your choice of shows), three separate dining rooms, and many other features too numerous to fit the space allotted for this article. Our block of cabins (whoa there—these are roomy staterooms) includes some with private balcony. Its maiden sailing is in May 1998. This August–September 1998 sailing will be its final Med cruise before heading to the Caribbean for the winter. But, you better hurry and PUT YOUR BID IN NOW. You'll be disappointed if you wait until later this year. Some earlybirds signed on when John first started negotiations with no particular ship designated. One-third of the staterooms have already been reserved.

Here is the 12-day cruise itinerary. August 29-30 fly to Istanbul, overnight aboard the *Grand Princess*, sailing August 31st after a day in that port, then

all day in these ports-of-call: Kusadasi (port for Ephesus, Turkey), Athens, Venice, Naples, Livorno (port for Pisa/Florence, Italy), Monte Carlo, Barcelona (overnight aboard), debark on September 11 for your flight home. Additional days and sightseeing at Istanbul and Barcelona can be arranged.

The per person fares, including port and departure taxes, depending on the stateroom you select, range from \$2374 (inside stateroom) to \$3943 (suite with balcony). Princess add-on airfare is available from most cities.

Cruise ships, the popular and newest ones, are usually sold out a year in advance of their sailing. Want to be on this one? Contact THE CRUISE PEOPLE, 10191 W. SAMPLE RD., SUITE 215, CORAL SPRINGS FL 33065. Questions? Talk to the owner, Karen, toll-free at 1-800-642-2469. A \$600 per person deposit will be due when you make your cabin selection.

RECENT CRUISE HIGHLIGHTS

An AWA group of 12 headed by John And Barbara Collens sailed from New Zealand aboard the Sky Princess on 9 February to Australia visiting a number of ports in New Zealand, Tasmania and Australia. At Sydney they had a land package of two days and three at Cairns in the tropics (rain forest and great barrier reef). The total elapsed days were 23 which included 2 days of flying and a one-day pre-cruise overnight in Auckland to erase the jet lag.



AWA Cruise of New Zealand & Australia. L to R: John & Barbara Collens, Barbara & Dave Smart, Mary & Bob Chamberlain, Pat & H.P. Bilyeu, Fran & Frank Schmidt and Clair & Wayne Bogard

What's New in Centralized Support -

AIR FORCE GLOBAL WEATHER CENTER

Supporting the Warfighter...At the Heart of AF Weather

by Col. John L. Hayes, AFGWC Commander

Tensions are high. A flotilla of US naval vessels deploys from Florida toward Cuba for an open-water memorial after four individuals were killed when their aircraft was shot down by Cuban MiGs. On the other side of the world, relations are strained as Communist China conducted missile tests and a large-scale military exercise in the Taiwan Strait. Meanwhile, the spring thaw in Bosnia raises fears melting snow will create flooding problems with the Sava River, and expose land mines.

In each situation, the Air Force Global Weather Center (AFGWC) at Offutt AFB, Nebraska actively supports the US military response with state-of-the-art numerical weather prediction (NWP) model output, tailored graphical and alphanumeric weather forecasts, and high resolution weather satellite imagery. As the heart of AF Weather, AFGWC is involved in all phases of military operations, from initial planning to redeployment of the last airman or soldier. AFGWC anchors the team of weather warriors that gives our civilian and military leaders, battlefield commanders, front-line soldiers and airmen the knowledge they need to exploit the weather for victory.

Over the past year, AFGWC reengineered its analysis and forecast production process to improve responsiveness for regional operations and to provide higher resolution products and services. The forecast production section is broken down into five theater teams aligned to support unified commands: ACOM (Atlantic Command), EUCOM (European Command), CENTCOM (Central Command), PACOM (Pacific Command), and SOCOM (Special Operations Command). The theater teams are organized into three regions: Eastern, Pacific, and the Americas.

To increase the precision of its products and services, and in cooperation with the Navy's Fleet Numerical Meteorology and Oceanography Center (FNMOC), AFGWC replaced its Global Spectral Model (GSM) with the Navy Operational Global Atmospheric Prediction System (NOGAPS) model. NOGAPS is superior to the GSM and is used by

AFGWC's production forecasters to generate tailored forecast products for military customers. NOGAPS also initializes theater-scale NWP models and supplies gridded fields to a variety of customers via the Automated Weather Distribution System (AWDS). The GSM served the Air Force well during the past decade and will be maintained as the backup model.

The Relocatable Window Model (RWM) is AFGWC's primary theater-scale model and presently covers six geographic regions. The resolution ranges from approximately 30-50 nautical miles. The RWM is flexible and can be quickly repositioned over a geographic hot spot, with model output directed to AFGWC's forecasters and tailored visualizations routed to warfighter customers worldwide.

AFGWC is actively acquiring a very high-resolution mesoscale NWP model. In cooperation with the Argonne National Laboratory and the National Oceanic and Atmospheric Administration (NOAA) Forecast Systems Laboratory (FSL), AFGWC will prototype products using the Penn State University MM-5 model. The prototype will run at 10-kilometer grid spacing and will include high-resolution terrain. The output from the mesoscale model will be visualized using FSL's WFO-Advanced Visualization platform.

AFGWC is working closely with the NWS Storm Prediction Center at Norman, OK, and Aviation Weather Center at Kansas City, MO, to maintain and enhance a robust capability at AFGWC to back-up severe weather forecasting responsibilities for these two centers during planned outages or emergencies. The Storm Prediction Center issues outlooks for severe weather potential and weather watches when necessary. The Aviation Weather Center issues aviation hazards forecasts and SIGMETs and AIRMETS. During March 1997, forecasters in the AFGWC CONUS Severe forecast section conducted a "live" backup drill during which they issued the outlook products and two watch boxes for operational use in the National Weather Service. AFGWC also works with these centers to share data and technical information and explore additional opportunities to work together. The cooperation between the national laboratories and NWS National Centers for Environmental Prediction (NCEP) is one way AF Weather is leveraging national assets to provide their operational customers the best products available today, while minimizing development costs.

By early 1998, the Satellite Data Handling System Upgrade (SDHS-U) will replace AFGWC's current 1970's forecaster consoles and communications infrastructure. This \$35 million upgrade will provide a 12-fold increase in processing speed while simultaneously allowing ingest of new data types; e.g., GOES Next, Meteosat, etc. The SDHS-U will allow quicker production and dissemination of time-sensitive weather products.

AFGWC's newest communication system is the Air Force Weather Information Network (AFWIN) which provides easy point-and-click product retrieval capability to most of AFGWC's products via the Internet. The Uniform Resource Locator, or URL, is <http://afwin.offutt.af.mil:443>. Presently, access to weather products is restricted to DoD and selected government personnel who have an operational need for these products.

For communication between major governmental weather centers within the United States, AFGWC acquired state-of-the-art Asynchronous Transfer Mode (ATM) connections with FNMOC and NOAA. These connections allow AFGWC to leverage the best these agencies have to offer for AF Weather operations (within seconds as opposed to hours using standard communication systems). The ATM connections may open up additional relationships with NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) and the NWS NCEP's Storm Prediction Center and Aviation Weather Center. Leveraging the National Weather Service is a win-win situation for both the civil and defense sectors of the government.

AFGWC is building the Military Aircrew Information Service (MAIS) to provide tailored weather and Notice to Airmen (NOTAM) information to Air Force and Army Reserve and Guard aircrews. MAIS will feature a client-server system which users can access weather information through the worldwide web or dial-up directly via 1-800 service. Product servers at AFGWC will host military and commercial weather products. We're working with pilots who have experience with all types of aircraft to help us design the MAIS graphic-user interface and define the product suite. MAIS will be on-line by the end of June 1997 for CONUS users, and eventually, MAIS will expand to worldwide coverage.

On 28 August 1996, AFGWC rededicated its Heritage Hall to Art Gulliver, a retired assistant director of operations at the center, who spent more

than 38 years in weather operations. After two and a half years of planning and designing, construction began in January 1996. This Heritage Hall will be where we showcase our people and our accomplishments—to match the quality of the people we have in the organization now and those who went before us.

In summary, AFGWC is charging ahead in an atmosphere of cooperation within the weather community, leveraging existing and developing new product capabilities to support the warfighter, and improving the accuracy, precision, timeliness, and accessibility of its products. □

Leveraging and our Future with NOAA

by Col. Daniel J. McMorrow, AF Deputy to NOAA

Air Force Weather has always supported working with other agencies to improve our warfighter capabilities and provide value-added support to national efforts. NEXRAD, ASOS, Weather Reconnaissance are a small sampling of our interagency programs. Interagency efforts bring an opportunity to tap into programs that the AF could not mount on its own. Reductions in budgets and AF billets particularly in technology transition areas have launched us into a new era of cooperation, especially with NOAA.

In the winter of 1995 the problem was how to improve the forecast accuracy for our troops deploying into Bosnia. You may recall during the initial deployments, transport aircraft from Germany had to return to their bases because of low ceilings and visibility at Tuzla, Bosnia. In an effort to improve our capabilities, we turned to NOAA's Forecast System Lab (FSL) in Boulder, CO. NOAA/FSL, the Computer Group from the Argonne National Lab of the Department of Energy and AFGWC went to work to develop a state-of-the-art mesoscale model and displays for our deployed forces. Within six months this team had products flowing from AFGWC to our European forecast centers and on to our deployed troops in Bosnia.

The second phase of this innovative interagency leveraging is continuing today. NOAA/FSL and Argonne are now adapting the Bosnia mesoscale model to work over definable window regions around the globe including one window for the U.S. to assist the AF in meeting its need to issue point weather warnings focused on DoD resource protection. This application and the decision maker tools being

developed by the AF Research Lab (formerly known as Phillips Lab) will enable DoD leaders to take steps to avoid damage to resources critical to our national security. In addition, this approach will enable our forecasters and customers to routinely use the same products they will have when deployed to trouble spots overseas.

It is important to note that the Bosnia demonstration project did not start from scratch. FSL leveraged its long heritage in developing the National Weather Service (NWS) Weather Forecast Office (WFO) Advanced system to meet the AF needs. A version of the WFO Advanced, similar to what we are using operationally in the AF, will become part of the baseline for the new National Weather Service (NWS) Advanced Weather Interactive Processing System (AWIPS) system.

The synergy story does not end with forecast modeling. The AF and NWS have complementary missions in providing support to the civil and military aviation communities across the U.S. and around the world. The NWS Aviation Weather Center provides tailored products to civilian aviators over the U.S. and adjacent waters. The AF is responsible for similar forecast products for CONUS-based units and for AF/Army forces deployed overseas. We are now exploring the possibility of using NWS products for missions over the U.S., allowing us to better focus AF resources on overseas missions. In this scenario, AF and Army customers would access a standard worldwide product suite. This standardization would enhance the ability of USAF forecasters to backup the NWS AWC, providing a more robust national forecasting network.

We are developing a similar backup arrangement between the NWS Storm Prediction Center (SPC) and the AFGWC Severe Weather Cell. This linkage could become extremely important as severe thunderstorms and tornadoes routinely create havoc for DoD and civilian resources alike.

We are hopeful the improved forecasts accuracy of the NEXRAD systems for severe storms coupled with improved mesoscale forecasting resolution, new satellite ingest techniques, and rapid update cycles for model runs will provide significant improvements in forecasting accuracy for military and civilian customers. AF Weather is committed to working with NOAA and pooling our limited resources to make real improvements in our ability to support natural disaster prediction and assessment worldwide.

Leveraging also extends into the domain of space weather. The NWS Space Environment Center (SEC) and the AF 55th Space Weather Squadron work together to provide observations and forecast of the space environment and its effects on customer systems. This cooperation extends to sharing observations from the AF Solar Electro-Optical Network (SEON), to flying jointly developed instrumentation on DoD DMSP and NOAA GOES satellites. Cost sharing and working together has been a hallmark in our space forecasting efforts for many years.

The pace of our interagency leveraging is, if anything, increasing. We are now working with the Air National Guard (ANG) to explore the feasibility of flying NOAA remote sensing equipment on ANG aircraft to measure the liquid water content of snowpack and improve forecasts of river runoff. We are exploring flying NOAA atmospheric sensors on military cargo aircraft to measure changes in atmospheric constituents and provide a new data source to help answer the difficult question of global warming. We are also working together to develop and test hyperspectral imaging systems from space to formulate new techniques to remotely measure the atmosphere and surface features around the globe, even in the most remote areas. Convergence of the AF-managed DMSP and the NOAA-managed Polar-orbiting satellite program (under the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program) has the potential of saving over \$1.5 billion in life-cycle costs.

Today, with an increased deployment schedule and reduced manning, Air Force Weather is finding it challenging to meet its operational commitments and simultaneously exploit new technologies without help from agencies like NOAA. We have learned that cooperative programs can succeed and provide benefits to both organizations. These lessons will become even more important as we move toward declining budgets in the years ahead. □

Fifty Years ago... 16 July 1947, Joint Weather Bureau-Air Force-Navy (WBAN) weather analysis center established in Washington, D.C.

Forty Years ago... Global Weather Central began using SAC's IBM 704 computer. On 11 Dec 1957, USAF Weather Central at Suitland closed; functions & resources combined with Global Weather Central at Offutt AFB, Nebraska.

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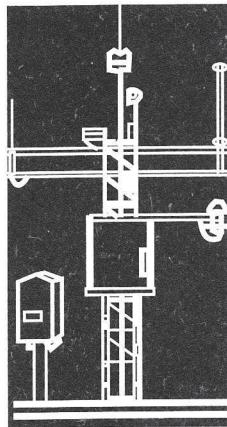
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— In Memoriam —

(Ed. Please see the 1997 AWA Roster for a listing of deceased members we have been notified about since the 1996 Roster. These individuals should be remembered by all of us for their great contributions to our Association, Air Force Weather and indeed—our nation. Our deepest sympathy goes out to their remaining spouses and other family members. Time and space unfortunately limits us to printing a small number of obituaries. The following were submitted by members.)

Col. **ARTHUR F. MEREWETHER** (1902-1997) **SECOND AWS "COMMANDER"** a long-time resident of Bayside, New York passed away at his home on 2 February 1997. He was 94-years old.

In a long military (1929-46) and professional (1946-66) career, Colonel Merewether received numerous honors and awards. These included the Legion of Merit, Honorary Commander of the Order of the British Empire, the Gorrell Award of the Air Transport Association, and the presidency of the American Meteorological Society (1954-55). He was also a Fellow or Associate Fellow in the AMS, New York Academy of Sciences, the American Association for the Advancement of Science, and the American Institute of Aeronautics and Astronautics.

Col. Merewether was born in Providence, Rhode Island in 1902 and graduated from Brown University in 1922 with a degree in chemistry. He later received an MS in chemistry from MIT where he captained the baseball team in 1925. He spent two years teaching/coaching at Phillips Andover Academy and then worked as a chemist in industry before entering the Army Air Corps.

He joined the military in 1929 and became a pilot. In 1933, he returned to MIT and completed its meteorology courses under Carl-Gustav Rossby. He was then detailed to Barksdale Field, LA to create a weather station and forecasting service. It is generally acknowledged that Air Weather Service came into being on 1 July 1937 when the U.S. Army's weather support function was transferred from the Signal Corps to the Army Air Corps. First Lieutenant Arthur F. Merewether replaced Captain Robert M. Losey as the second Chief, Weather Section, Hqs Army Air Corps, on 18 January 1940. Events of World War II quickly established the need for an expanded weather organization. The Weather Section was handed the additional responsibility for managing the embryonic Army Air Corps Weather Service. Major Merewether served as its Chief until 8 January 1942. Promoted to Colonel on 1 March 1942, he

became the 8th Weather Group commander before retiring from the Army Air Forces in August 1946.

After retiring from the Air Force, he became superintendent of weather services for American Airlines (1946-66).

In 1943, Col. Merewether was Commander of the 8th Weather Region covering the North Atlantic. On a routine flight over Labrador one day in August he noticed a round lake. Realizing that the shape of the lake indicated it had been formed by a meteor, a rare and important geological find, he photographed it. But he was more concerned about the war and whether his plane had enough fuel to return to base after a mission than pursuing his discovery, and he forgot about the lake. Forty-six years later, Merewether, retired and living in Bayside, New York, was notified by the Energy, Mines and Resources of Canada, Geographical Names Department, that the lake now bears his name. Merewether told a *Bayside Times* reporter that he "got a kick out of" the recognition. There are only about 110 craters on Earth known to have been created by meteors.

The discovery of Merewether Lake is only one story Merewether told his grandchildren. A member (in the 1st elected group) of the Brown University Athletic Hall of Fame, he played baseball briefly with the Pittsburgh Pirates in 1922. "That was in the days when the players wore short pants!" And in the 1930s he toured Europe by car with a friend. They visited many capitals and took the Orient Express to Istanbul. In Berlin for the 1936 Olympics, Merewether recalls, "We practically had to go to the Baltic Sea to find a hotel room."

Significant events during his tenure as the defacto AWS commander were: establishment of the Weather School at Chanute AFB; initiation of the first aviation meteorology cadet training program; and the Air Corps' first long-range (30-day) weather forecast and verification effort.

In 1956, the Merewether Award was established to present to AF Weather individuals who made the most significant technical contributions to military meteorology/aerospace environmental support

He is survived by his wife of 59 years, Genevieve Evans, and children Diana, Catherine Guilmet, Francis and James, and six grandchildren.

He may be remembered with contributions to the Arthur F. Merewether Scholarship Fund, American Meteorological Society, 45 Beacon Street, Boston, MA 02108.

- Editor

Necrologies continued –

Col. **Wesley E. Robb**, USAF (Retired) died in southern California in September 1996 after a long battle with cancer. We were all so glad to see Berna and Wes at the Hampton, Virginia AWA reunion, even though at that time he showed the dramatic effects of his treatment. We all hoped and prayed for his recovery. Now, this kind, considerate, talented man is gone from us at a time when our society needs more people like him.

Wes was born in Escondido, California. In many conversations we had regarding retirement, it was very clear that he and Berna wanted nothing but to return to that area when that time came. He entered the Air Force in 1955, and served in a variety of assignments until he completed meteorology training at St. Louis University in 1959. His duty forecaster and chief forecaster assignments served him well because he never forgot the people who work where "the rubber meets the road." He obtained his Master's Degree in Meteorology at Oklahoma University; this led to a DETCO job at Travis AFB. After completing Air Command and Staff College in 1969, he served as Assistant Chief of Operations at the Southeast Asian Weather Center in Vietnam.

Vietnam was followed by key jobs at the 1st Weather Wing at Hickam AFB, Hawaii. After graduating from the Air War College, he was the Director of Operations at 5th Weather Wing, Langley AFB, Virginia. We began our close professional relationship when Wes commanded the 11th Weather Squadron in Alaska, while I had the 3rd Weather Wing at Offutt AFB, Nebraska. With my move to HQ AWS at Scott, I asked Wes to be our Deputy Chief of Staff, Operations, where he served outstandingly until 1983, when he assumed the duties of Chief of Staff, AWS. He retired from that job in 1985 and returned to the San Diego area where he taught mathematics in the public school system.

While our paths crossed only occasionally in the early years of our service, I knew of the reputation Wes had established in Air Weather Service. I reflect very fondly on the closeness which developed in our relationship in the late 1970's and early 1980's. Wes was a man of quiet, but outstanding competence, filled with an inner confidence rooted in integrity. He had a deep conviction to family values, and an abiding concern for his fellow man, particularly those whom he thought he could help. I held a tremendous respect

for this outstanding leader; I sought his counsel and guidance on many occasions; I would gladly have worked for him had the situation presented itself.

Sharing dinner at the Hampton, Virginia reunion with Berna and Wes reminded Melly and I of so many other happy social occasions when we enjoyed good fun and friendship. We'll always cherish those memories. Dealing with Wes being gone is difficult. But we take special comfort in having known this man of impeccable character, inner strength, and a work ethic which served as a great model for others. While we honor his life for his many deeds, we applaud his life as a leader, husband and father.

Berna Robb continues to reside in Ramona, California. Though Wes is gone, we hope she will continue to stay in touch with the Air Weather family. Wes and Berna were, and are, special people.

- Al Kaehn, Brig Gen, USAF (Retired)

V.S. HARDIN—ARCHITECT OF AWS' FUTURE

When I joined the HQ AWS Plans staff in 1958, V.S. Hardin was assigned to the Aerospace Science directorate (or whatever it was called then). He was retired from active duty as a Lt Col, and employed as a civil servant. Why this article? Well, some may not know of his contribution to the modernization of AWS nor of his death on 24 March 1997. In 1958, AWS operated without the benefit of today's electronic devices and AFGWC did not own a computer system. These were the grease pencil, acetate overlay, sling psychrometer, visual observation, pibal ceiling measurement, draw your own maps and charts, manual effort days. Providing weather services was labor intensive and every detachment did its own thing without much help from centralized Weather Bureau (now NWS) and AWS sources. The teletype and rotating-drum facsimile machines were our only link with "automation". Our radar was the barely adequate APQ-13, a cast off from the B-29 aircraft.

It was peacetime—no conflicts to bolster the manpower base of AWS. Things had to change so that AWS could get out of the WW II mode of operation and supply the technological advancements needed by Air Force, Army and other agencies. A system labeled 433L was on the drawing boards to provide the hardware to serve those needs. Like the forerunner of today's AWDS, it would deliver data in a more timely manner and get AWS on the road to →

modernization. V.S. Hardin was HQ AWS' point man in that effort—the architect of its future. But, even more, he was my mentor in that modernization effort. I accompanied him to the 433L working group meetings at ARDC's Hanscom AFB as part of the learning cycle. Separately, he and I were building the case to provide AFGWC with its first computer (it was using SAC's system part-time when available).

Those on active duty today are the benefactors of V.S. Hardin's foresight. He and others who followed helped bring AWS out of the scientific dark ages. The U.S. Air Force has its visionaries. Air Weather Service had one of its own—V.S. Hardin. History must record his contributions.

- John Collens, Maj Gen, USAF (Retired)

Dr. Irving P. Krick, a pioneer in the fields of long-range weather forecasting, commercial weather services and weather modification (cloud seeding), and a principal participant in the preparation of the D-Day invasion forecast, died at his home in Pasadena, California on June 20, 1996 at the age of 89. The cause was heart failure.

He was born on December 20, 1906 in San Francisco. He was a child prodigy concert pianist, and by the age of 16 was performing concerts throughout the Bay area. He received a BS in Physics at the University of California at Berkeley in 1928. He developed an avid interest in weather while working for an airline, Western Air Express, and studied at the California Institute of Technology receiving an MS in 1933 and the Ph.D. in 1934. With the encouragement of Dr. Millikan, President of CalTech, and Krick's mentor Dr. Theodore von Karman, he established a Meteorology Department and became one of its first professors. In 1936, he also founded one of the first private meteorological consulting firms, with the Motion Picture Producers Association being one of his first clients. The burning of Atlanta for the classic *Gone With the Wind* was one of his early forecast challenges. He later came to the attention of General H.H. (Hap) Arnold, Chief of the Army Air Forces. Dr. Krick was asked by Arnold to establish a training program at CalTech for the Army Air Force meteorologists and to assist in setting up a US Army Air Force weather directorate in Great Britain utilizing his long-range weather forecasting ideas such as weather typing. Among his early pupils were Donald Yates (eventually became an AWS

Commander) and Col. B.G. Holzman. In May 1944, Dr. Krick and Col Holzman became part of an Allied team of meteorologists to help determine the best date for the invasion of France. D-Day had been set for June 5th, but Krick and Holzman recommended a postponement to June 6 while others recommended a two-week postponement. The Krick and Holzman opinion was accepted by General Eisenhower. A year later, after the Allied victory in Europe, Dr. Krick's forecasts for August 6-10, 1945 provided the weather backup for dropping the first A-bomb on Japan.

After the war, Dr. Krick returned to CalTech until 1948 when the Meteorology Department was eliminated. He left CalTech with virtually the entire meteorology staff (he even bought the library) and expanded his private firm and moved it to Denver in the early 1950s. He furthered the development of his long-range forecasting techniques, being one of the first to use computers. At the same time, he began commercial cloud seeding operations over the U.S., Canada and Western Europe. Krick also continued to work closely with his friend Walt Disney on several film projects. In the U.S., Dr. Krick predicted weather for almost all the Presidential Inaugurals from Eisenhower to Clinton. For Kennedy's Inaugural he predicted a snowfall for the evening before (and urged the inaugural committee to have the snow plows ready) followed by a clear day for the parade. He was correct on both counts.

In 1966, the company offices were relocated to Palm Springs, California. In 1990, Krick sold his company, Irving P. Krick Associates, Inc. to Strategic Weather Services of Palm Springs and Wayne, PA and Dr. Krick became Chairman Emeritus.

His wife, Marie, died in July 1996 a couple of weeks after Dr. Krick. They are survived by a daughter Marilyn Lunde of Palo Alto, and a son, Irving P. II of Battle Creek, Michigan.

- prepared with the help of Freeman R. Smith, Frank Kingston and Lee Edson.

Cathy Cummins, wife of Col. Bill Cummins, died suddenly on 1 January 1997. She and Bill had been fighting cancer, but attendees at the AWA May 1996, Hampton, VA reunion could hardly tell. Bill and Cathy were remarkable local hosts with 24-hour smiles. Ernie Dash, a leader of the local hosts, said, "A wonderful wife and now a Guardian Angel for a super guy." Our sympathy and prayers go to Bill. □

UNIT & ASSOCIATION REUNIONS —

6th Weather Squadron (Mobile) Alumni Association just held a reunion from 4–8 June 1997 at the Meridian Plaza Hotel in Oklahoma City, Oklahoma. The next reunion is being planned for 1999. For further information, contact Don Garbutt at: 204 W Ercoupe Drive, Midwest City OK 73110; (405) 737-3285.

Air Weather Reconnaissance Association held a reunion 26–29 September 1996 at the Ramada Inn, Fort Walton Beach, Florida. Their next reunion will be held at the Broadwater Beach Resort, Biloxi, MS from 8–12 October 1997. For details contact Hank and Nancy Turk, 129 Watersedge Drive, Ocean Springs, MS 39564; (601) 875-1196. The AWRA Membership Chairman is Glen E. Sharp, 306 Sunset Lane, Belton, MO 64012; (816) 331-2039.

15th & 20th Weather Squadrons Association reunion will be held with the AWA reunion, 24–28 June 1998 in Saint Louis, MO. They held a reunion this year in conjunction with the AFA 50th in Las Vegas from 22–26 April. For questions regarding the 15th and 20th Weather Squadrons Association contact: Bill Becker, 7714 Signal Hill Road, Manassas, VA 22111-2516; (703) 368-3919.

17th Weather Squadron Weather Merchants will have their next reunion with the AWA reunion, 24–28 June 1998 in Saint Louis, MO. For information contact, Jim Van Dyne, 725 N. Hawkins Ave, Akron, OH 44313; (330) 867-3754.

18th Weather Squadron will hold a reunion with the 8th Air Force Historical Society in Saint Paul, MN 9–15 September 1997. They will also have a reunion with the AWA at the Henry VIII Hotel in Saint Louis, MO from 24–28 June 1998. Contact Art Gulliver, 5119 South 81st Street, Omaha NE 68127 for details.

21st Weather Squadron, 40th Mobile Comm Squadron, AAF, WW II will hold a reunion at the Cape Point Hotel, West Yarmouth MA on Cape Cod, 26–27 September 1997. For details, contact: I. Kirch, 34 Hoss Road, Indianapolis, IN 46217; (317) 786-6858; e-mail: IRV8@juno.com

Space Coast – Central Florida region AWA will have their 12th Annual Space Coast and Central Florida Holiday Social and Dinner on 21 December 1997 at the Indian River Colony Club, Melbourne, FL. Details will be mailed to local area members after Thanksgiving. You don't have to live in the area to attend. If interested, write to or call: Hyko Gayikian, 510 South River Oaks Drive, Indialantic FL 32903-4615; (407) 723-4777. Give him extra time to answer—he is busy as the St. John's Episcopal Church centennial celebration chairman.

3349th Technical Training Squadron, Dept. of Weather Training, (Chanute Instructors) held their last reunion from 27-30 May 1996. Forty members participated in the reunion held at the El Dorado hotel in Reno, Nevada. This group is made up of weather forecasting and basic weather observer instructors and support personnel assigned to Chanute from the period of the mid-40s through the mid-50s. They intend to hold their next reunion with the AWA in Saint Louis from 24–28 June 1998. For further info and/or to be added to their mailing list, write to: Paul W. Schlotterbeck, 3349th TTS Reunion Coordinator, 1130 Ashley Way, Susanville CA 96130-6013; (916) 251-2462.

The Washington, D.C. area retired weather officers (**ROWF—Retired Old Weather Friends**) are still holding bi-monthly meetings at the Fort Myer Officers' Club—a tradition that has continued for several years now. The gathering normally begins at about 5:30 PM on the second Thursday of odd numbered months. For more information contact Dave Pace (703) 490-6894, John Lasley (410) 667-7039 or Larry Johnson (703) 883-8645.

Weather Parachutist's Association 1997 reunion will be held in conjunction with the Air Commando Association's reunion 9–12 October at Fort Walton Beach, Florida. The WPA is an informal group of veteran/active duty paratroopers who are/were assigned to USAF/USAAF airborne and special operations weather units. There are no dues, but the members maintain an e-mail list and have had annual reunions since 1989. Contacts are: Johnny Reid, P.O. Box 56803, North Pole, AK 99705; (907) 488-7734; e-mail: jreid@akeil.af.mil or John Farris at e-mail: patssun@aol.com □

New Book –

Flying the WEATHER — The Story of Air Weather Reconnaissance by Otha C. Spencer.

After three years of research, writing and editing, *Flying the WEATHER* has been published. AWA member, Otha Spencer began his recon experience in 1944 as a pilot with the 2nd Weather Reconnaissance Squadron, flying B-25Ds on route reconnaissance over the North Atlantic. The book details the history of weather reconnaissance from his experiences, his passion for the mission and from the many personal stories, interviews and correspondence he received. He thanks the many members of the Air Weather Reconnaissance Association, Air Weather Association and the Pacific Air Trackers for their help. At the 1994 AWA reunion in Tucson, he received so much research material, he had to buy an extra large flight bag to carry it home.

The soft-cover books are available from the author at \$14.95 plus \$3 for shipping/handling for a total of \$17.95 (Texas residents add \$1.01 for sales tax.) On request, the book will be autographed by the author. Please write clearly the person to whom the autograph should be addressed to.

To order copies send a request to: Otha C. Spencer, Route 2 Box 54, Campbell TX 75422, include a check or money order for the total payment and provide a clearly printed or typed mailing address. ☒

WANTED – Personal Stories

As Otha Spencer noted above, AWA members have great stories to share. The AF Weather *Observer* magazine can use them and they are also appreciated for this annual AWA newsletter. Send them in to the Editor at anytime. We would especially like to hear of deployment problems and how they were solved. AF Weather personnel have been extremely innovative in getting the job done and no doubt, today's airmen are just as ingenious.

Ed Calvert reported that "In Europe, many a time, our requirements were that of using our deuce & Half, Expando-van. Didn't matter what weather was there. Within this behemoth, we had to have tty's, radios, faxes, plotting tables, galley and briefing area. Togetherness, or what? Tactical?? Think not—was good only at a DTOC or Main.

For communications we had to wait until the Army set the DTOC, Main, etc..., then they would set out a couple of lines for us. We had a certain period of time to get all set up and on-line. Forget it!! Most of the time, all we got on the communication lines was static or others talking.

Our fax and teletype machines were our most valuable assets—however, mostly down. That is, until one of our forecaster technicians (Mark Mullenex) got the idea to go into the PX and check out a certain radio on sale there. It had short-wave capabilities and hookups on the back. WOW!!! Between him and Dan Porter, we ended up the envy of all the other CWTs in Northern Bavaria! Our 'clients' could never get over the fact that we had fax capability plus contact with places that supplied us with hourly observations for plotting. YESSS!!!" ☐

REVIEW OF 1996 AWA REUNION

Another great reunion was enjoyed by over 650 AWA members, spouses and guests. A cold front came through with thunderstorms on Tuesday, 30 April, cleaning the streets of Hampton, Virginia and dropping the pollen count. When we started the reunion activities on Wednesday, 1 May 1996, with the golf and tennis tournaments it was sunny/mild with clear, dry air. The rest of the week was delightful for the tours to Colonial Williamsburg, Langley AFB, Virginia Air and Space Center, Harbor tour on the Miss Hampton II, Mariners Museum, Casemate Museum, War Memorial Museum of Virginia and downtown Hampton.

Thanks to local AWA members Lt Col Tom Schott and Bill Cummins and the personnel of the Langley AFB Eaglewood Golf Course, a great tournament and awards dinner was held on Wednesday, 1 May. Our members appreciated the yeoman efforts of the club house staff when the transformer blew and the power failed. Tennis enthusiasts appreciated the hospitality of Bill Shivar at his Centre Court Racquet Club.

Thanks to the USAF Air Combat Command, Command Section, Public Affairs Office, Col Ed Eadon and SMSgt Floyd Parton of the Directorate of Weather and many others, the guided tour of Langley AFB couldn't have been better. We were treated to an F-16 air show and static displays of the B-1, B-2, F-15, C-130, WC-130 from the 53WRS and tactical weather equipment field displays set up by the 18th

Weather Squadron from Ft Bragg. A great lunch at the Langley Officers' Club was awaiting us as that Friday morning tour ended.

The many formal and informal tours available gave all attendees great opportunities to renew acquaintances with old friends, meet new ones and see the many grand sights of the Hampton Roads area.

Our largest gathering was the Saturday night banquet—646, and we all fit in the ballroom. The Langley AFB Band was also there with a great combo for listening and dancing.

Thanks to Brig Gen Tom Lennon, we were able to visit with many active duty Colonels and Chiefs. He held his annual AF Weather planning meeting in conjunction with the reunion. He was also able to bring in the 5 outstanding AF Weather airman of the year for 1995 so we could present their USAF and AWA awards at the Saturday night banquet.

The annual John and Barbara Collens AWA Awards consisting of a check for \$100.00 and a congratulatory letter were presented by John Collens, Maj Gen (Retired) to these 1995 "best of the best":

- Outstanding AF Weather Company Grade Officer of the Year: Capt Timothy A. Rollins, 45 WS/DOT, Patrick AFB, FL.
- Outstanding AF Weather Senior Noncommissioned Officer of the Year: MSgt Gerald C. Claycomb, 92 OSS/OSW, Fairchild AFB, WA.
- Outstanding AF Weather Noncommissioned Officer of the Year: SSgt Chad S. Deal, 30 WS/DOS, Vandenberg AFB, CA.
- Outstanding AF Weather Airman of the Year: SrA Timothy K. Schwader, 71 OSS/OSW, Vance AFB, OK.
- Outstanding AF Weather Civilian of the Year: Mr. George N. Coleman, III, HQ AWS/SYD, Scott AFB, IL.

Near the end of the reunion we passed out a critique sheet and Don Farrington reports: "I looked through all (79, all I found so far) of the survey forms and they were Extremely Favorable (Superb, Great, Outstanding, Wonderful, Excellent, Super, Terrific, Well Organized, None Better, Best Ever, Fantastic, One Hell of a Reunion, etc.). They didn't even complain about the fire alarm going off at 3:30 AM

Friday. [An air conditioner in one room of the hotel started smoking — so we all were out in the parking lots from 3:30 to 4:30 AM in various states of undress. Some brought their cameras and took photos with the fire chief — it appeared that every piece of fire equipment in the Hampton VA area was surrounding the Holiday Inn.]"

Don Farrington, our AWA reunion organizer, did a fantastic job on this, his 1st reunion. He and the other AWA Board members thank John Collens for mentoring us through the planning stage. Thanks also to Sallye Grant-DiVenuti and Sandy Green of the Hampton Conventions and Tourism office.

The AWA reunions could not be successful without the help of the AWA Board members and their families and many local members. Special thanks to local host leaders Ernie & Lynn Dash, Bill and Phyllis Koenemann, and Bill and Cathy Cummins and to the numerous local AWA members and spouses who assisted them.

Don says, "Thanks again for attending and helping out — See you in Saint Louis, 24-28 June 1998!"



Joe Saccone and John Reames had a great reunion — see the proclamation and more photos on the next two pages.

City of Hampton
Virginia
Proclamation

PROCLAIMING MAY 1 - 5, 1996

AS

AIR WEATHER ASSOCIATION DAYS

IN THE CITY OF HAMPTON, VIRGINIA

WHEREAS, the Air Weather Association will hold their biennial reunion in Hampton, Virginia, May 1 - 5 of this year; and

WHEREAS, the attendees of this reunion are men and women whose armed forces careers were with Air Force weather units, either on active duty, in the Air National Guard, Air Force Reserve, or veterans of service with a USAF/USAF Weather unit; and

WHEREAS, these men and women are members of a group which was chartered in 1987, and have gathered together to honor their comrades; and

WHEREAS, this weather service organization is dedicated to those who serve or served in a ground or aerial reconnaissance weather unit or weather training function; and

WHEREAS, this proud and noble group's motto, "Take Care of Our Own," rang true when the Air Weather Association sponsored, and contributed generously to, a Memorial Fund for the surviving families of those weathermen who perished en route to the Gulf War in 1990;

NOW, THEREFORE, I, James L. Eason, Mayor of the City of Hampton, Virginia, do hereby proclaim May 1 - 5, 1996, as

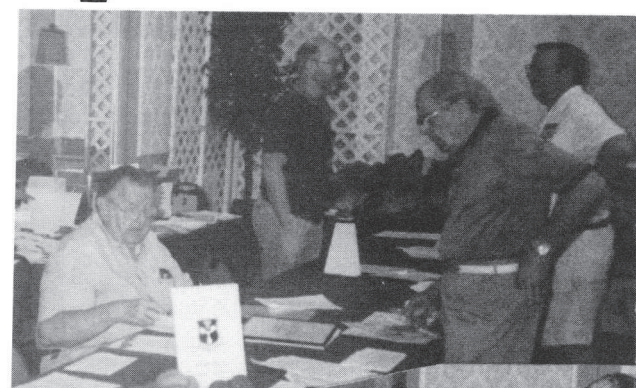
AIR WEATHER ASSOCIATION DAYS

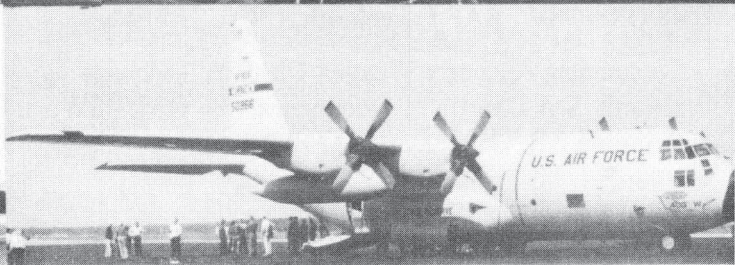
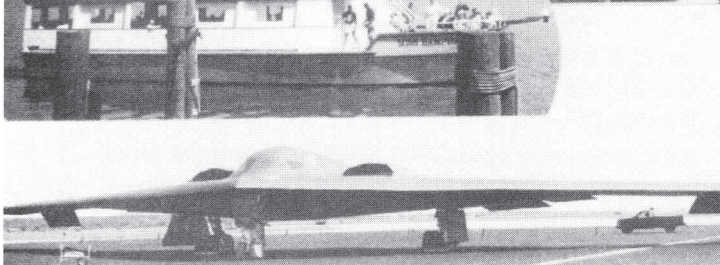
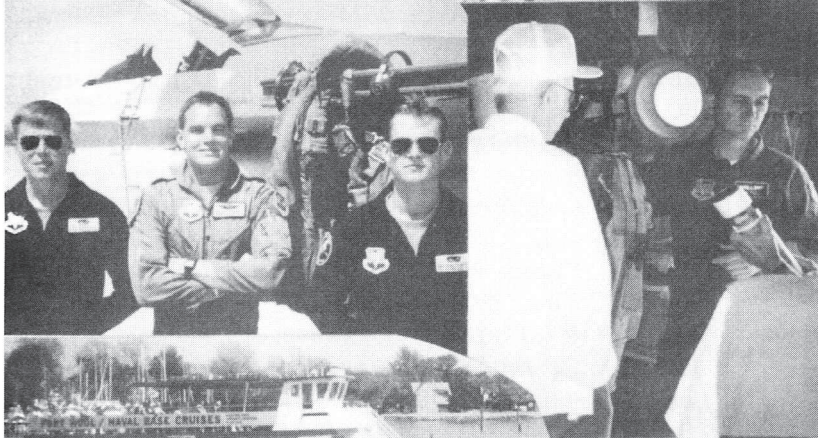
In the City of Hampton and extend a very warm and cordial welcome to the veterans, their families and friends and wish you a successful, enjoyable, and memorable reunion.



IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Hampton, Virginia, to be affixed this sixteenth day of April, Nineteen Hundred and Ninety-six.

James L. Eason
James L. Eason, Mayor





JOHN and BARBARA COLLENS AWA AWARDS PRESENTED

In April 1997, on behalf of all members, the AWA Board Chairman sent a check for \$100.00 and a congratulatory letter to each of the five Outstanding Air Force Weather personnel of 1996 soon after they were announced by the Air Force Director of Weather. This is an annual activity of the AWA, and the third year they were presented as "The John and Barbara Collens AWA Awards." The awardees were:

- Outstanding AF Weather Company Grade Officer of the Year: Capt Donald G. Shannon, 353 OSS/WX, Kadena AB, Japan (AFSOC)
- Outstanding AF Weather Senior Noncommissioned Officer of the Year: SMSgt Jeffrey A. Fluegge, 25 ASOS/DOW, Wheeler AAF, Hawaii (PACAF)
- Outstanding AF Weather Noncommissioned Officer of the Year: TSgt Tony B. Southerland, 100 OSS/DOW, RAF Mildenhall, UK (USAFE)
- Outstanding AF Weather Airman of the Year: SrA Brian P. Hakey, 52 OSS/WEF, Spangdahlem AB, Germany (USAFE)
- Outstanding AF Weather Civilian of the Year: Dr. Christy L. Crosiar, 30 WS/SY, Vandenberg AFB, California (AFSPC)

AWA sends Congratulations and Best Wishes for continued success to the 1996 Air Force Weather Technical and Unit Award winners —

- Outstanding Staff Support – Best Award, Officer Category: Major Ralph O. Stoffler, HQ USAFE/DOW, Ramstein AB, Germany (USAFE)
- Outstanding Staff Support – Best Award, Enlisted Category: SMSgt Michael A. Zimmer, HQ AFGWC/DOW, Offutt AFB, Nebraska (AWS)
- Outstanding Staff Support – Best Award, Civilian Category: Mr. Stanley W. Tkach, HQ ACC/DOW, Langley AFB, Virginia (ACC)
- Outstanding Air Force Weather Forecaster – Pierce Award: TSgt Gary L. Stevenson, 48 OSS/OSW, RAF Lakenheath, UK (USAFE)
- Outstanding Air Force Weather Observer – Dobson Award: SrA Carmen A. Dominguez, 86 OSS/OSW, Ramstein AB, Germany (USAFE)

- Most Significant Technical Contribution – Merewether Award: Capt Mark D. Conner, HQ AFGWC/DON, Offutt AFB, Nebraska (AWS)
- Best Application of Climatology – Zimmerman Award: Michael F. Squires, Capt Steven T. Fiorino, SrA Kenneth J. Kreidell Jr., AFCCC, Scott AFB, Illinois (AWS) and Chris E. Leak, 88 WF, Wright-Patterson AFB, Ohio (AFMC)
- Outstanding Base/Post Weather Station – Williams Award: 62 OSS/OSW, McChord AFB, WA (AMC)
- Outstanding Specialized Weather Unit – Moorman Award: 24 WS/WSS, Howard AB, Panama (ACC)
- Outstanding Tactical Weather Unit – Grimes Award: 7 WS, Heidelberg AIN, Germany (USAFE)

April 1997 AWA Roster Additions & Changes

(data received through early July 1997)

New Members (data not complete):

Richard B. Agee, PSC 107 Box R-2100, APO AE 09841
Edward L. Barger, 21420 130th Avenue SE, Kent WA 98031
Gerald Barth, 7715 King Memorial Road, Mentor OH 44060
William L. Craig, PO Box 51225, Lafayette LA 70505-1225
Darwin L. Jaenicke, 1232 S. Wilson Avenue, Kankakee IL 60901-4664
Lorraine D. Jones, 1322 Julia, Ft Walton Beach FL 32547-1118
Frank J. Kysela, Jr., 9625 Riggs St, Overland Park KS 66212
Joe H. Machetta, Rt 3, Box 731, Henryetta OK 74437
Rob R. Robertson, 13 Fiddlers Trace, Fripp Island SC 29920
Clarence M. Sakamoto, 1108 La Rail Dr, Columbia MO 65203
Vernon E. Shepherd, 7935 East County Road 200N, Plainfield IN 46168-8558

Address Changes:

Thomas C. & Jolyn Adang, 6031 Keble Drive, Alexandria VA 22315-2665; (703) 922-6290.
Robert H. & Debbie Allen, 2614 Dow Dr., Omaha NE 68123; (402) 294-5749
Thomas J. & Ida Mae Arbogast, 2143 Euclid Cir E, Clearwater FL 33764-6812; (813) 535-1106
John P. Boggs, PO Box 252, Concrete WA 98237-0252; (360) 853-8347
Elizabeth B. & Ben Borelli, 5327 Millwood Dr, Montgomery AL 36109-4911
Donald R. Capron, PO Box 417, Elizabeth CO 80107-0417
Billy C. Collins, 4200 Wedgemont Cir S, Fort Worth TX 76133-2704; (817) 263-6378; aav6fvmars@juno.com
George E. Connett, 12511 El Camino Real Unit A, San Diego CA 92130-4017; (619) 794-9255
Thomas W. Lane, 4917 Ravenswood Dr #206, San Antonio TX 78227-4352
David & Katy Valler, 2471 Cheim Blvd, Marysville CA 95901; vallerd@otn.net

Deceased Members:

Imogene Lane, 23 Dec 1996, wife of Thomas W. Lane,