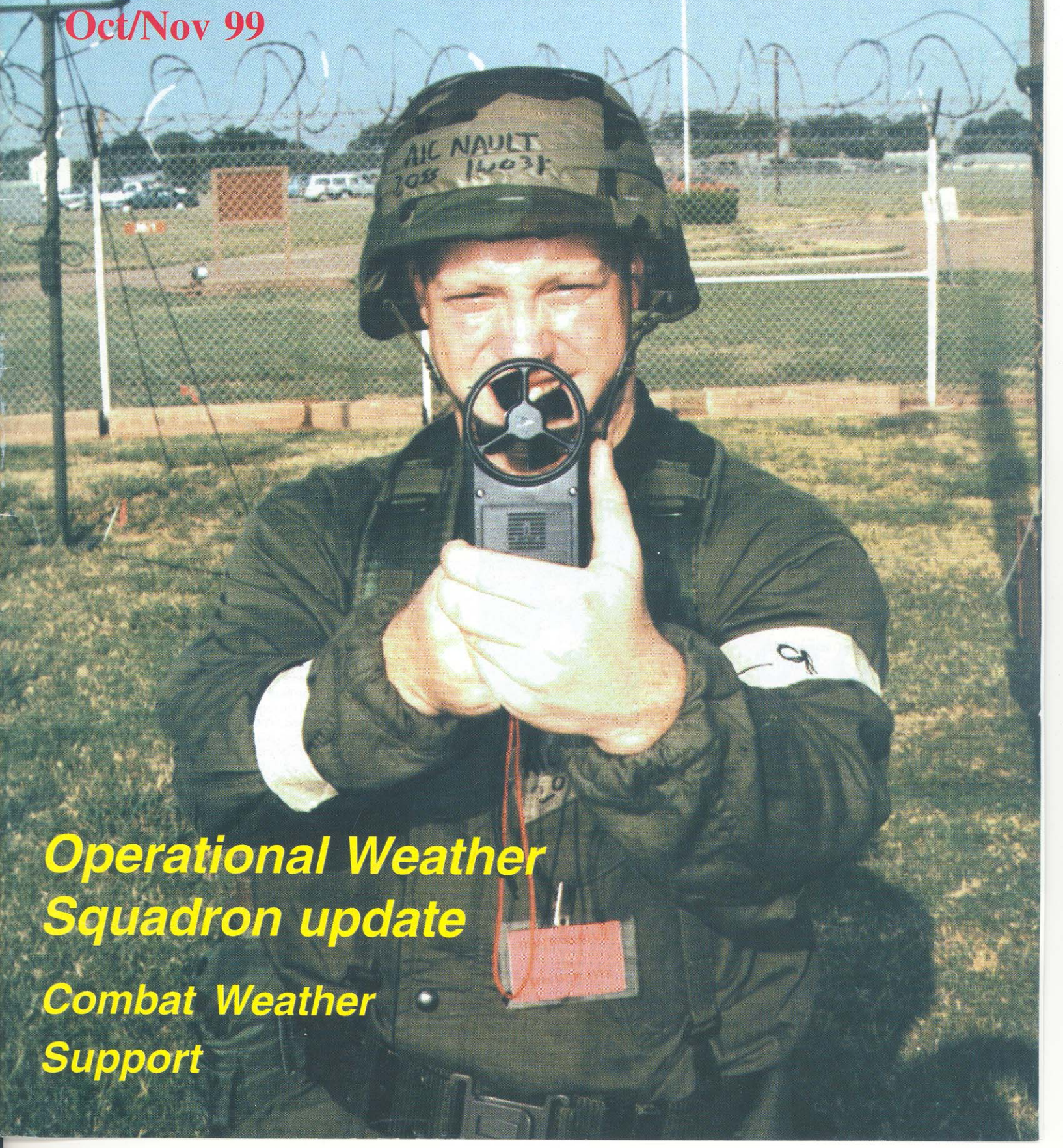


# *Your Magazine for Air Force Weather* **OBSERVER**

**Oct/Nov 99**



***Operational Weather  
Squadron update***

***Combat Weather  
Support***

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## OBSERVER

**AIR FORCE DIRECTOR OF WEATHER**  
Brig. Gen. Fred P. Lewis

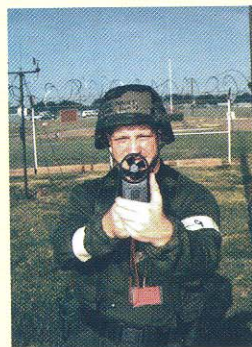
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# OCT/NOV COVER PHOTO



Airman First Class Jeremy Nault, a forecaster with the 2<sup>nd</sup> Operations Support Squadron's Weather Flight, Barksdale Air Force Base, uses a WS 271 Turbometer to get accurate readings on air speed and wind direction during a recent inspection. Members of the 2<sup>nd</sup> OSS WF worked operational weather issues as part of their participation in phase two of the base's Conventional Operational Readiness Inspection.

**Cover photo courtesy of Staff Sgt. Chris A. McCormick, 2nd OSS, Barksdale AFB - Congratulations for winning the cover spot in this months photo contest. For information on entering the contest see page 25.**

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HQ AFWA/PA  
106 Peacekeeper Dr., Ste. 2N3  
Offutt AFB, NE 68113-4039  
Please call (402) 294-3115, or DSN: 271-3115, for more information about this publication. Electronic mail should be addressed to:

"Observer@afwa.af.mil"

The OBSERVER is printed by Western Press Inc., 79 Progress Parkway, Maryland Heights, Mo. Mailing list inquiries should be directed to (314) 878-5700, faxed to (314) 878-5769 or sent by E-Mail:  
"western@westernpress.com"

# Roadmap for the Future

By Brig. Gen. Fred P. Lewis

Air Force Director of Weather

Over three years ago we began our reengineering efforts to redefine our products, processes, and organization to prepare Air Force Weather to improve support to Air Force and Army warfighters, operators, and trainers. During this period, some tough challenges occurred, including air operations in Southwest Asia and the recent air war in the Balkans.

We have also seen the rapid development of the Expeditionary Aerospace Force concept and the increased emphasis on weather support to the modernized Army. Hard work, teamwork, and a solid concept of operations for weather support have helped provide the roadmap for the successes we have already realized.

The AFW CONOPS, which was updated on the AFW Today homepage in early October 1999 (<http://afwtoday.tinker.af.mil>), provides the guidelines for the reengineered processes and products we are developing and implementing today. We have used this document as part of the foundation to help stand up six of our Operational Weather Squadrons.

Throughout the Air Force, our talented and dedicated (read outstanding) weather people, at every level (Active, Guard, Reserve, Civilian), translated the CONOPS into actual weather support to our customers — YOU have made our vision a reality! This CONOPS was tested in conflicts in the Balkans and Southwest Asia, and it passed with flying colors. Likewise, it was tested in the everyday peacetime missions of training and exercising our forces in Alaska, Korea, the SOUTHCOM AOR, and throughout Europe.

Your feedback confirmed that the concept works and it is sound. More importantly, as part of our reengineering CONOPS, people are working together as one team to provide the high-quality weather support our customers need to accomplish their missions.

The AFW CONOPS is also our roadmap for the future. We have learned a lot of valuable lessons from our support of air and ground operations during the past few years. Our people — Active, Guard, Reserve, and

Civilian — have invented new processes and procedures and have developed and implemented a wide variety of timely, accurate, and relevant weather products. As a result, we will continue updating the CONOPS document to reflect the lessons learned and our “new ways” of conducting weather operations and improving weather support.

As we published the revised CONOPS document early this Fall, we have made it available through many communications channels in addition to the AFW Today homepage. Also, we are using this revised CONOPS to help us update the 15-series Air Force Weather Instructions and Manuals. This will keep us all on the “same sheet of music” —thereby providing consistent guidance to all weather units and, most importantly, consistent support to our customers.

As we prepare to support the Air Force and Army into the next century, there will continue to be new challenges. But we are sensing the confidence growing out there. Our people, who have experienced working in units that have been reengineered, generally like what they are seeing. And it is clear to many of us that we will continue to succeed and get even better.

We will succeed not only because we have an on-target CONOPS but also because we have such outstanding people translating the CONOPS into timely, accurate, and relevant weather support for the EAF and the Army. You all need to be very proud of what YOU have done — I am! Please take a little time to read the series of CONOPS articles on the following pages.

They’ll give you some more details on several of the basic tenets of Air Force Weather reengineering and help you get a better picture of where we’re heading in the future. Again, thanks for all the outstanding work you’re doing out there! You are all great weather warriors who make us all proud!



# Coming Together to Take Care of "One of Our Own"

*On June 16, 1999, I received the following e-mail from Chief Steve Rosemier, HQ AFSOC/DOW, Functional Manager for weather*

Chiefs,

*Sending this note to inform you all of the circumstances surrounding the severe injuries sustained by Senior Airman Jason Morgan and to plea for your help.*

*Morgan is an airborne qualified weather forecaster assigned to OL-A, 10<sup>th</sup> CWS, Hunter AAF, Ga. He was deployed on a real-world mission in Ecuador supporting the 160th SOAR. While deployed he was involved in a line of duty accident.*

*Two US Army soldiers and Morgan were riding in a vehicle that overturned and seriously injured all three. Morgan was face down in a contaminated ditch for an unspecified period of time and was diagnosed as a "near drowning victim." He ingested a lot of contaminated water into his lungs that only compounded the problem.*

*One of the soldiers and Morgan also sustained severe back injuries. Those two were medevac'd to Wilford Hall where they are being treated. Short-term prognosis for Morgan is better — he is no longer fighting*

*for his life. Long term is not so good — permanent paralysis from the chest down. The Air Force intends to medically retire Jason in the grade of Senior Airman.*

*Morgan has a wife and three very young children (3 years old, 1 ½ years old, and 6 months old). All are currently at Wilford Hall at Jason's bedside. As you can imagine, this family is in for an extremely difficult financial bind for the rest of their life. Their short-term needs are many and their long-term needs are too great to even think about.*

*The 10<sup>th</sup> WS has set up a fund for the Morgans and they've begun to take any and all donations. Chief's, this is one of our own, in a time of critical need. I'm coming to you with all my heart to ask that you give this email widest dissemination and to ask you for your support. Again, any and all donations will be accepted and greatly appreciated.*

*Please call me if you want to discuss. Thanks in advance for your help and please keep the Morgans in your prayers.*

**Stephen L. Rosemier, CMSgt, USAF  
HQ AFSOC/DOW**

**By Chief Master Sgt. Tony Ramirez**

Chief, Enlisted Matters  
Air Force Director of  
Weather

The word got out — then spread like wildfire. Jason Morgan—One of Our Own—was severely injured in the line of duty. He and his young family needed help: our prayers, our moral support, and more...



In the days and weeks to follow, weather people: active duty, ANG/RESERVE, civilians and retired, from around the world, responded. After all, in many similar ways, many among us are now or have been down the same sort of "perilous roads" Morgan was patrolling in Ecuador that day. And, in our line of work, many among us will be called upon to do it again.

The following is an e-mail message I recently sent to the XOW staff here at the Pentagon:

*"Just to let you all know, we sent our AF/XOW contribution to the Jason Morgan fund today. Our total contribution came to \$655 dollars. We also sent a card expressing our best wishes — containing as many personal notes and signatures as would fit on the card.*

According to the folks at the 10<sup>th</sup> CWS, total contributions to date have exceeded \$18,000 dollars! Although the Jason Morgan story is a sad and painful one, his ordeal has prompted an overwhelming response from Air Force Weather people everywhere who want to help.

This “coming together” for a common cause has been an inspiring testament to the strength of our extended Air Force Weather family — active duty and retired. Along with an engraved AFW coin, I also sent a personal note to Jason to let him know the profound impact his ordeal has had on us. I’d like to share some of these words with you...”

**Jason,**

“I cannot express to you in words the pain we all felt when we learned about your injuries. But you need to know this: Your courage has instilled a lot of pride in us. You have brought our Air Force Weather family together unlike anything I’ve seen before. The courageous example you have set by your devotion to duty has had a profound impact on us and your example will be a lasting part of our Air Force Weather legacy for years to come.

Please accept this engraved Air Force Weather coin as a small token of our highest regard for you - “one of our own.” Thanks for your commitment. Thanks for your “service before self” leadership. Thanks for being one of us.



*Courtesy photo Senior Airman Jason Morgan, 10<sup>th</sup> Combat Weather Squadron weather forecaster and Brig. Gen. Fred Lewis, director of Air Force Weather, pause briefly before heading out on patrol at Camp Mackall, N.C. The two participated in Detachment 5’s bimonthly training exercise earlier this year. This exercise focused on special weather reconnaissance and small unit tactics.*

*On behalf of Brig. Gen. Lewis, Air Force Weather Chiefs, and all enlisted men and women serving our great Nation worldwide, I want to thank you all for your very generous contributions to Jason Morgan and his family. It is exactly at times like these that I am extremely proud—yet humbled—to be one of you.*



*Thanks to the outpouring of emotional and financial support from fellow weather professionals Senior Airman Jason Morgan, 10<sup>th</sup> Combat Weather Squadron weather forecaster, has made significant progress since the accident earlier this year.*

**By Col. Richard St. Pierre**  
Air Combat Command  
Director of Weather ACC/XOW

We have made tremendous progress towards implementing the Air Force Weather reengineering plan in Air Combat Command. In January 1998, we began the site activation process for the 28<sup>th</sup> Operational Weather Squadron at Shaw AFB and then followed with the same process to activate the 25<sup>th</sup> OWS at Davis-Monthan and the 26<sup>th</sup> OWS at Barksdale.

This process ensures we build the infrastructure required for the OWS—facilities, personnel, budgets, communications and weather

SWA capabilities, they also started CONUS reengineering efforts for Robins and Maxwell AFBs and for Forts Knox, Benning, and Rucker. This is a large challenge and they are succeeding. Again, teamwork is making this a success.

Their temporary facility consists of three doublewide trailers (14,000 square feet) which will do the job until FY02—when a new, \$3.8 million permanent facility will take its place. Meanwhile, a \$1.93 million permanent renovation project was completed for the 25<sup>th</sup> OWS. This past April, they assumed SOUTHCOM forecast operations that the 24<sup>th</sup> WS at Howard AB has done so well over the years. They

on the staff and in the field successfully maintained an extremely high ops tempo—one that saw an average of 70 folks deployed forward during any given month. In addition, we had the best results ever forecasting the occurrence of severe weather while nearly doubling the lead-time.

The ACC commander commended results “as vital to minimizing injury or loss of life” in a message to field commanders. Let me personally say “thank-you” for such a tremendous, well done performance!

We participated in the development of the Expeditionary Air Force Concept of Operations. As the EAF CONOPS solidified, it became clear to senior AF leadership and to the weather community that the AFW reengineering plan was a perfect match. The idea of an “operational level” day-to-day forecast operation tied to theater operations that will allow a leaner, more focused, tactical-level weather force to rapidly move with tasked weapon systems has been well received.

All these accomplishments could not have been done without a team effort. The team was made up of folks from the Air Staff, AFWA, ESC, ACC functionals, Reserve weather forces and many of our people in field units. The team effort must continue for AFW reengineering to succeed.

In our reengineered end state supporting an EAF, our OWSs will have a forecast process that defines the occurrence of weather param-

*In our reengineered end state ... our OWSs will have a forecast process that defines the occurrence of weather parameters critical to military operations within a geographic area.*

systems. This was a total team effort with AF/XOW, AFWA, ESC, HQ ACC personnel and NAF personnel. By September 1998, Shaw reached initial operations capability with its Southwest Asia forecast operation and by June of this year they took over site forecasting responsibilities. While the initial folks there continue to grow

are preparing to begin CONUS operations in the second quarter of Fiscal Year 2000. Also, renovation projects totaling \$1 million are underway for the 26<sup>th</sup> OWS, which should be complete this November. This will allow them to get going with their CONUS operations in 2FY00.

We accomplished everything stated above while our ACC folks

**By Spc. Jon Creese**  
U.S. Army Special Operations  
Command Public Affairs Office

**FORT BRAGG, N.C.** — It was one of the costliest natural disasters North Carolina residents had ever experienced.

Weeks after Hurricane Floyd passed through the eastern part of the state leaving behind a region saturated with floodwaters, littered with debris and filled with broken hearts and homes, many residents were still in need of basic items such as food, water and shelter.

Hope was not lost.

Airmen from Detachment 5, 10<sup>th</sup> Combat Weather Squadron, attached to various Army Special

Forces Command (Airborne) units here, joined the Red Cross Sept. 22, in a hurricane relief effort.

Working out of a parking lot in Fayetteville, 10<sup>th</sup> Combat Weather specialists joined in a community effort to collect and deliver supplies to neighbors in distress. "There has been a much bigger response than I had expected. It's been awesome," said Tech. Sgt. Larry Emmett, weather forecaster for the 10<sup>th</sup> CWS, attached to 3rd Battalion, 7<sup>th</sup> Special Forces Group (Airborne). Emmett used his own trailer to deliver supplies.

Cars and trucks toting food, water, blankets, toys, soda, toiletries, stuffed animals, shovels and brooms, garbage bags and just

about everything else imaginable streamed onto the lot from all directions. Volunteers stayed busy loading and unloading supplies, and broke only momentarily when a community member dropped off lunch.

"I've been with the Red Cross for 37 years and this is one of the worst disasters I have ever seen," said Red Cross volunteer, Joyce Warren. "The military guys are doing a great job."

After a short break, the Combat Weather team went back to work as more cars entered the lot and more supplies were loaded onto trucks, so that more hurricane victims had relief on the way in their time of need.

## New test program offers eyeglass wearers a choice

**By Master Sgt. Brian M. Hibbard**  
52<sup>nd</sup> Fighter Wing Public Affairs

SPANGDAHLEM AIR BASE, Germany (AFPN) — Active-duty members who wear eyeglasses now have a choice between several styles of frames thanks to a new Air Force program being tested here. Currently in its pilot phase here and at 23 other installations listed below, Air Force optometry officials hope the Frame of Choice Program will get people to start wearing their glasses more often and save them money, too.

The program targets people like Staff Sgt. Ron Kellar, 52<sup>nd</sup> Fighter Wing awards and decorations manager, who bought glasses with \$150 of his own money because he refuses to wear the standard frames the Air Force issued him. "I don't wear them because they give me a headache," he said. "They're big and cumbersome. After wearing them for a day, my head hurts."

With airmen able to choose which frames they'll wear, like their Navy counterparts, Capt. Michael Stevens, 39<sup>th</sup> AMS Optometry Flight chief agreed that it

will help build morale among the eyeglass-wearing community.

"Up till now, we've supplied the standard military frames for them, but many folks won't wear them because they're ugly," he added. "With the new frames, they have a great option—frames that look good, give them good vision and are free of charge." If the program is successful, he feels that the Air Force is going to expand the program to other bases within the next fiscal year.

Other Air Force installations participating in the program are: Andrews Air Force Base; Aviano AB, Italy; Bolling AFB, D.C.; Brooks AFB, Texas; Columbus AFB, Miss.; Eielson AFB, Alaska; Elmendorf AFB, Alaska; Keesler AFB, Miss.; Kelly AFB, Texas; Lackland AFB, Texas; Lajes Field, Azores; Royal Air Force Lakenheath, England; Maxwell AFB, Ala.; McGuire AFB, N.J.; Moody AFB, Ga.; Pentagon, D.C.; Pope AFB, N.C.; Ramstein AB, Germany; Randolph AFB, Texas; Robins AFB, Ga.; Sheppard AFB, Texas and Whiteman AFB, Mo. (Courtesy of U.S. Air Forces in Europe News Service)

# AIR FORCE

## WEATHER WARRIOR



**NAME/RANK:** Robert D. Ellis, TSgt.  
**UNIT:** 48 OSS, Combat Weather Team, RAF Lakenheath, UK  
**JOB TITLE:** CWT Forecaster  
**YEARS IN SERVICE:** 11years, 6 mths  
**HOMETOWN:** Yuma, Arizona  
**FAMILY STATUS:** Married  
**HOBBIES:** 4WD racing and suspension machines, building computers and being with my family  
**REASON JOINED THE AIR FORCE:** To serve my country for the honor of my family name  
**PERSONAL MOTTO:** Work every day as if God was your supervisor, and give thanks for the work you have done  
**MOST MEMORABLE AIR FORCE WEATHER EXPERIENCE:**  
When operating at a forward divert base during Desert Storm, we had an armed 2,000lb bomb fall off a bomb loader 20 feet from where I was standing. For about 3/10<sup>th</sup>'s of a second the world stopped, then began again. I will never forget the dull thud of the bomb hitting the ground.



## PHOTO CONTEST

**The public affairs office is soliciting photos from readers who are closet shutterbugs. Please forward photos of mission/human interest prints.**

**Photos selected will be used as front/back covers of the magazine. Photographers will receive recognition in the SPOTLIGHT section of page 2. Please call DSN 271-3115 with questions/idea submissions. Email photos in .tif format to [observer@afwa.af.mil](mailto:observer@afwa.af.mil)**



## **Did You Know?**

*By Ms. Lillian Nolan*

AFWA Historian

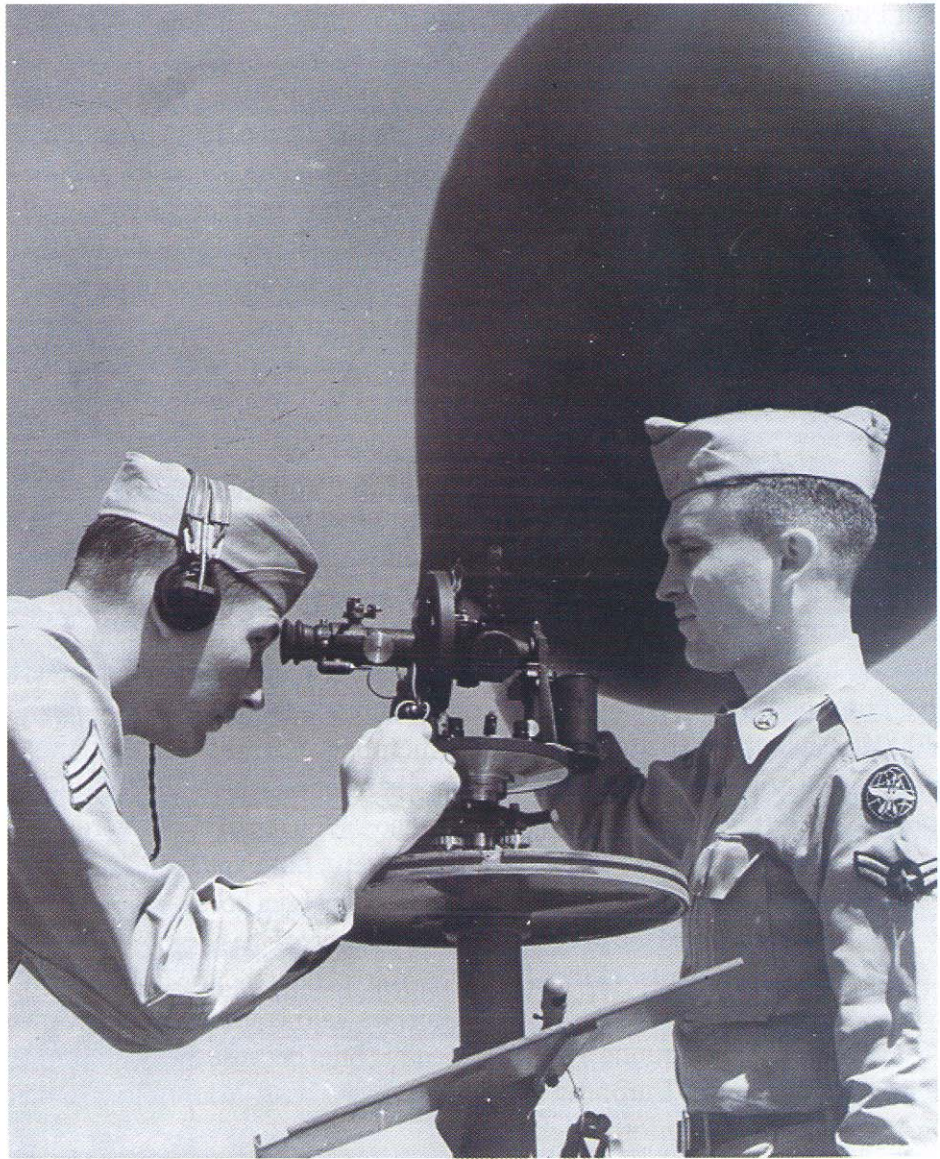
In my last article, in the June/July Issue, I mentioned that the need for weather personnel grew rapidly with the onset of World War I. But, Did You Know the civilian vacancies created by bringing those personnel back into the military environment were filled by their wives? That's right, the wives of the enlisted observers were asked to come and work in the positions previously held by their husbands.

In my previous article I mentioned the shortage of qualified weather personnel within the Signal Corps. The shortage was partially relieved by providing 200 soldiers with eight to 10 weeks of training at Weather Bureau stations, and by the influx of 145 professional meteorologists into the organization from the Weather Bureau.

Another development that assisted in increasing the number of qualified personnel was the establishment of the Signal Corps Weather School at Camp MacArthur, Texas, in April of 1918. Just one month later the school moved to Texas A&M in College Station, Texas.

In the spring of 1918, American troops supporting the war effort received their initial weather support from the Allied weather service. That continued until May when the American Expeditionary Force established the first American meteorological station in Ourches, France. Within six months, as the number of American troops grew, so did the number of weather stations.

By the end of World War I, there were 22 weather stations, one of which was a forecast center. These stations were located within a



few miles of the front lines where they could provide early warnings of gas attacks, as well as information relevant to American aerial and artillery warfare. However, that put weather personnel in harms way.

By the fall of 1918 long-range balloons were in use. These balloons which drifted across the ocean to land in Europe, were developed into the long-range propaganda balloon. During this time, the theodolite and pilot balloon method was being used to determine wind direction and velocity at various levels in the atmosphere. The theodolite was commonly used as late as the 1980's and in some

cases, such as in hot air ballooning, you may still see a few of them in use today.

The "fleur-de-lis" in our emblem was included as a testament to the sacrifices made by our weather personnel during World War I. The actual wording reads, "First participation in combat by a US Army Weather Service took place in France during World War I and is commemorated in the Air Weather Service emblem by the golden yellow fleur-de-lis."

**Note:** This was added to the emblem significance in 1963 for further clarification.

Air Force side, had to rely on active duty base and garrison weather stations to get flight weather briefs.

That process frequently involved great difficulty for a variety of reasons, both good and bad. By providing MAIS, we've given those units a realistic alternative for their flight weather briefing requirements. In fact, the system has worked so well, we've expanded the coverage and are now ready to make some great leaps forward.

Right now, MAIS is an approved flight weather briefing method for all Army and Air National Guard units and can also be used by active duty aircrews, both Air Force and Army. There are 4000 registered MAIS users, and on a typical drill weekend approximately 500 different users access the system. The U.S. Army is the latest group to jump on the MAIS bandwagon. They approved the use of MAIS through an August 11 message.

We've laid the groundwork to expand MAIS to the European and Pacific theaters. This effort is significant not merely because it expands the geographical boundaries of MAIS, but because it also marks a shift in how Air Force Weather Agency works with operational weather squadrons in theaters.

Our ultimate intention is to make all of the OWS's original products available to aircrews via MAIS, ensuring we have good continuity of products to every aircrew who receives a weather brief — whether that brief was presented in person or via the World Wide Web. There is a beta version of MAIS Worldwide available right now at <http://maisr.afwa.af.mil>. Your feedback is appreciated. We're still working out many of the details for the overseas expansion of MAIS,

but it is coming...and sooner, rather than later.

Another feature of MAIS is the integration of the 15<sup>th</sup> Operational Weather Squadron Scheduler with the MAIS. This combined AFWA and 15<sup>th</sup> OWS integration initiative has the potential to automate the flight briefing setup process.

The end result will be an automated "175-1 like" weather briefing form (or equivalent) and supporting products making it to the weather briefer's hands for review and fine-tuning and then briefing to the aircrew. Ideally, this will be done with no prior intervention on the briefer's part.

So...what's the payoff for you and the aircrew? Every one of you can remember mornings in the base weather station which were pictures of chaos. You recall those mornings when you couldn't put together a decent weather brief because the phones were ringing off the hook.

You recount the frustration from aircrews who couldn't get a decent weather brief because the phone lines were always busy. You felt constantly

overwhelmed because you simply had too many briefs to do. You felt like you were in a death spiral — REMEMBER?

Our intention with MAIS is to make those events a thing of the past...and make excellent weather briefings a lot more commonplace, even if the weather itself is down the tubes.

*(Note: As this article was being written, AFWA was in the process of complying with the July 99 AFCERT directing new passwords for all users of Air Force computer systems. The MAIS is included in that directive. If you previously had an account and password, but failed to change that password by the 30 Aug 99 deadline, your account was deleted. AFWA had no control over the deletion requirements. If you or any of your customers were deleted from the system, you will need to go in to the front page of MAIS to set up a new account.)*

## USEFUL WEBSITES

**ACC Weather Systems Support Cadre (WSSC), Robins AFB:**

<http://wssc.robins.af.mil/>

**FORSCOM SWO, Ft. McPherson:**

<http://www.forscom.army.mil/weathr/2wfno.html>

**HQ AFWA, Offutt AFB:**

<http://www2offutt.af.mil/afwa/AFWAMAIN.html>

**US NOTAM Office:** <http://www.notams.jcs.mil>

**28OWS, Shaw AFB:**

<http://131.46.188.13/shawows/index.htm>

**15OWS, Scott AFB:** <http://15ows.scott.af.mil>

**USAFE OWS, Sembach AB:** <http://ows.sembach.af.mil/>

**OPERATION Joint Forge, Tuzla, Bosnia:**

<http://134.235.17.30/>

**OPERATION Southern Watch/Eskan Village KSA:**

<http://wwwmil.eskan.swablack.af.mil/>

**OPERATION Northern Watch, Incirlik AB, Turkey**

<http://www.incirlik.af.mil/onw/>

# *Military Aircrew Information System*

# M



# A

**By Lt. Col. Ray Clark**  
AFWA Deputy Director of Plans & Programs

*Promises  
improvements  
in the  
delivery of  
weather  
data to  
aviators  
worldwide*

# I

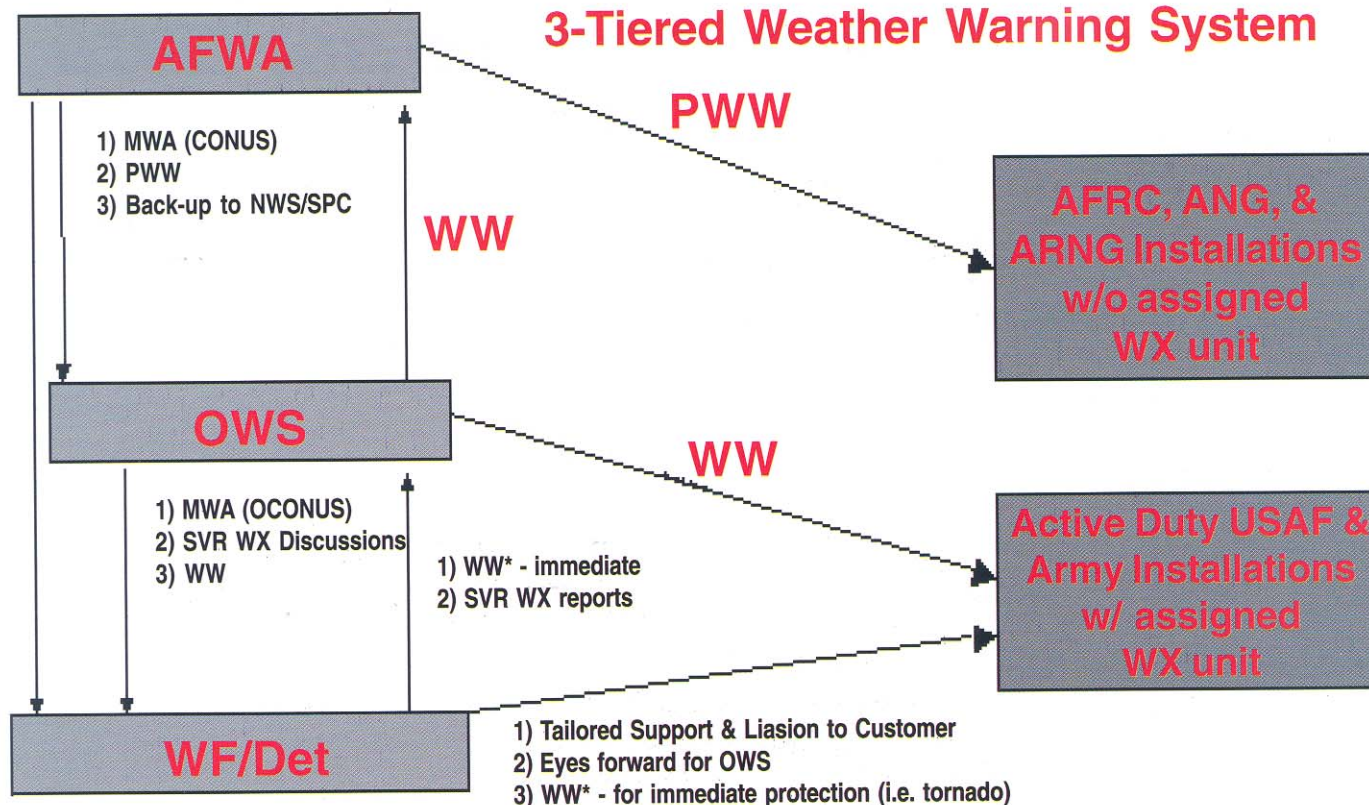
# S

By now, almost all of you have at least heard of Military Aircrew Information System and many of you have seen it in action through the website at <http://www.mais.af.mil>. Indeed, you probably already have an account and password for the system so you can check it out for yourself.

We're constantly updating MAIS to make it even more useful to the military flying community with initiatives to expand coverage, provide more detailed products, and enhance the aircrew interface to ensure this system is as complete as possible. With that in mind, you need to know where MAIS is today, and where we're going with the system in the very near future.

MAIS was initially developed to provide weather briefing capability to National Guard and Reserve units located away from active bases, a long-neglected portion of the military aviation community. These units, on both the Army and

## 3-Tiered Weather Warning System



weather flight and detachment level. These forecasters make up the severe weather team. They take weather observations, interrogate the WSR-88 PUP for severe signatures (including severe weather reports from NWS and local authorities), report significant weather features to the OWS (“eyes forward”) and interface with base customers.

Updating and explaining the severe threat to their customers will continue to be primary tasks for the se-

vere weather team. In rapidly developing storms, the severe weather team at the WF/DET may detect a tornado or other severe weather features that require issuing an immediate weather warning. In these situations the WF/DET immediately issues the weather warning to the local customer and then “back-briefs” their OWS.

Resource protection of military installations, equipment, and people will be one of our most critical responsibilities. If people are hurt, we lose

our most precious resource. If severe weather damages or destroys a weapons system, that system is not available to do its mission.

Timely warnings provided by this three-tiered warning system are sure to protect our people and resources as it has already proven repeatedly over the last few years – and teamwork in the three-tiered weather warning system is the key to its success.

## DoD realigns space forecasting responsibilities

The Air Force Weather Agency assumed ownership of the 55<sup>th</sup> Space Weather Squadron and solar sites on Oct. 1, 1999 during a unit redesignation and change-of-command ceremony at Schriever AFB, Colorado.

During the redesignation, Col. Charles French, AFWA commander, assumed command ownership of the squadron from Col. Robert Worley, 50<sup>th</sup> Operations Group Commander. As a result of the redesignation, AFWA is now responsible for providing space weather analyses and forecasts for all Department of Defense agen-

cies.

During the change of command ceremony, Lt. Col. Jeff Carson assumed command of the squadron from Lt. Col. William Keller.

Within the framework of Air Force Weather reengineering, AFWA now serves as the strategic center for both terrestrial (tropospheric) and space weather services.

Planning is now underway to move the production of space weather analyses, forecasts, and other products from Schriever AFB to HQ AFWA, Offutt AFB, Nebraska.

The “forecast funnel” is not a new piece of equipment or weather model. It is a concept that describes the different levels of forecasts, relates those levels to levels of military operations, and defines where the different weather units fit into the overall forecast process.

The concept is referred to as a “funnel” because the size and lifetime of the weather features decreases as you move down the funnel. A critical characteristic

of the funnel concept acknowledges that the coverage, detail, and the valid time for weather forecasts and products change through the funnel.

Weather units at the top of the “funnel” focus their forecasting and weather products on global or hemispheric-scale weather features. These features (pressure centers, fronts and tropical cyclones) are generally thousands of kilometers in length and can span from days to weeks. Products from strategic weather centers cover large areas and are valid for long periods of time.

Charts covering the entire Northern Hemisphere for 12 to 24 hour periods would be examples of strategic weather center products. Strategic center products are useful in supporting strategic level operations such as Global Attack (e.g. B-2 missions) and Global Reach (e.g. Air Mobility Com-

mand airlift) missions over oceanic regions.

The next level down the “funnel” is at the operational weather squadron. The OWS forecast process combines strategic level products and mesoscale numerical model output. Also included is detailed knowledge of the region, analysis of observed weather data to develop products at the synoptic and mesoscale scales for specific theaters of operation.

OWS products cover a smaller area and provide increased detail in the weather forecast. These products are critical for providing CINCs, MAJCOM staffs, operators, and weather teams the forecasts and products needed for their unique operations.

The final level in the “funnel” is at the weather flight, detachment, or weather unit acting as a combat

weather team - whether at the Special Support Operation Branch, an OWS flight briefing or contingency cell, or deployed team with the customer. At this level weather personnel use the Mission Execution Forecast Process.

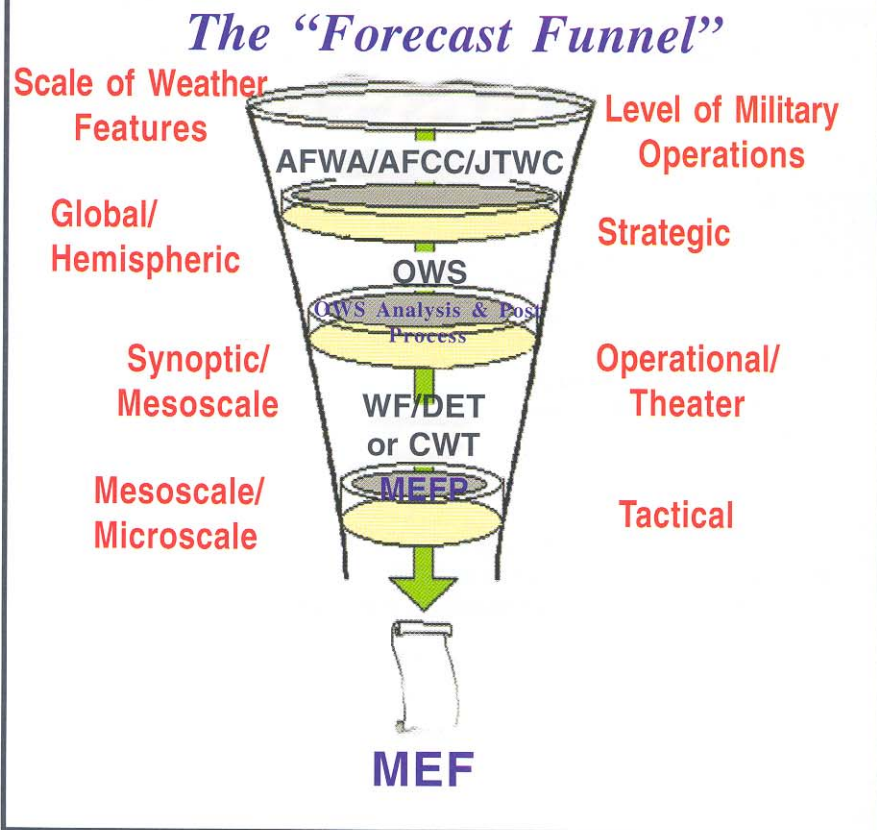
The weather forecaster combines OWS analysis and forecast products with real-time weather data (surface, upper air, radar, METSAT, pilot reports, space environment observations and other

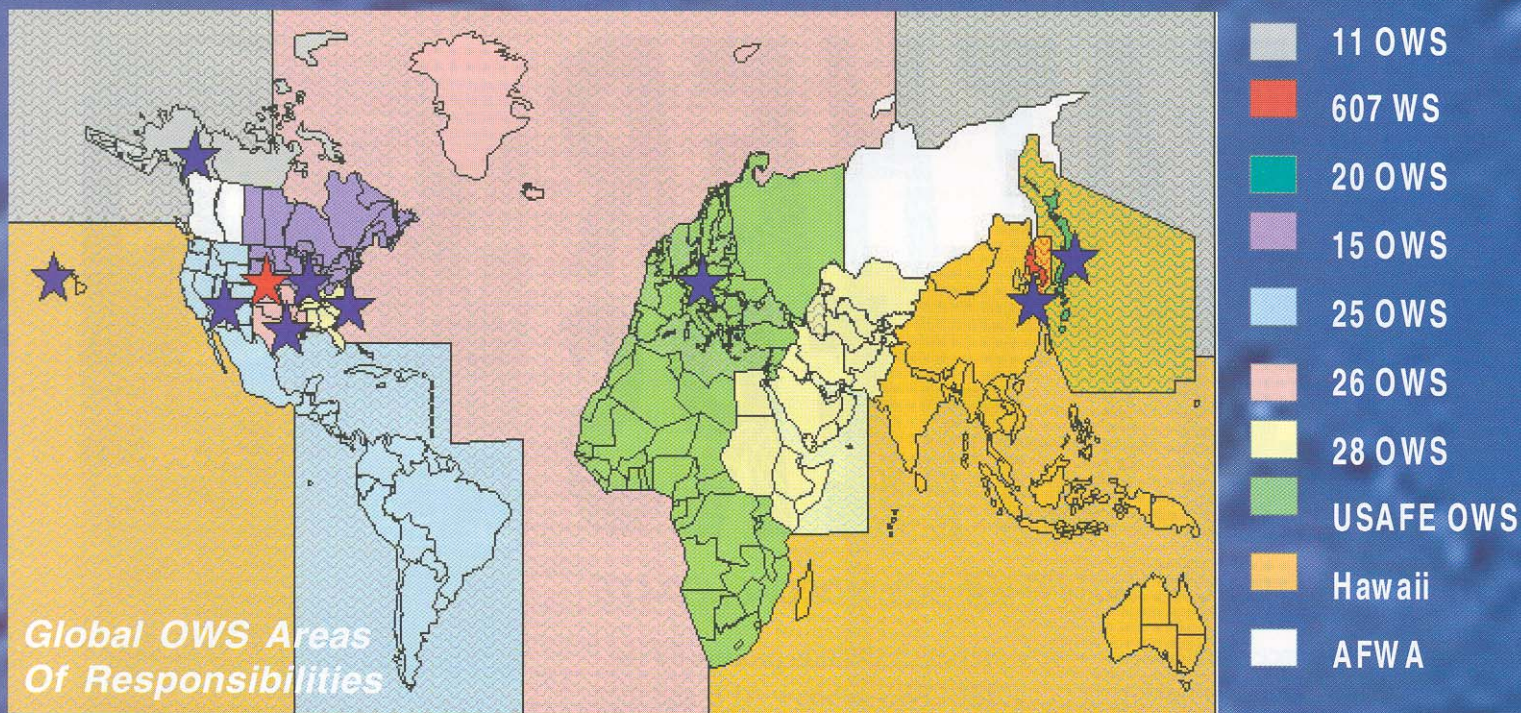
sources) and output from tactical decision aids to produce a mission execution forecast.

These forecasts are created to meet specific mission requirements. The MEF is the product that goes to the customer at the tactical level where the mission is executed.

Air Force Weather’s five core competencies (collect, analyze, predict, tailor, and disseminate) serve as the foundation for the forecast process and appear as the most common characteristic throughout the “forecast funnel”. No one level is more important than another; products and forecasts from one level are used at other levels.

The “funnel” defines the scale and coverage on which a weather unit focuses. This eliminates both duplication and the need for one level trying to forecast across all levels.





**Air Force Weather has its**

# *Eyes on the World*

**By Lt. Col. Tim Springer**  
AF/XOWP

There was a saying that “The sun never sets on the British Empire” – in this manner of speaking, the same can be said about Air Force Weather’s web of strategic, operational, and tactical weather units. In fact, Air Force Weather personnel never take their “eyes” off the sun if you consider the

constant monitoring of the sun by the 55<sup>th</sup> Space Weather Squadron and their five solar observatories.

Air Force Weather reengineering has changed the way we look at the world. We now see the world in terms of distinct global regions or areas of responsibility. Most of the AORs are aligned to encompass a commander-in-chief’s geographic AOR. Air Force Weather Agency assists in these operations by assuming responsibility for areas not covered by an OWS.

Some OWSs are physically separated from their AORs. An example of this situation is Central Command’s AOR. Although in Southwest Asia, responsibility for this AOR is assigned to the 28<sup>th</sup> OWS at Shaw Air Force Base, S.C.

Nine OWSs will provide weather products and forecasts to support all Air Force, Army, Joint, and Allied operations throughout different AORs. The above graphic illustrates weather support AORs. OWS personnel will be experts in the weather regimes and forecasting challenges for their theater. An OWS’s mission is to focus on the weather conditions in its theater of responsibility.

This focus allows OWSs to produce mesoscale weather products in support of specific mission requirements. Some OWSs, located in places like Hawaii and the 26<sup>th</sup> OWS at Barksdale Air Force Base in Louisiana, have large areas of ocean in their AOR. These OWSs will not routinely produce mesoscale products over these vast areas. Instead, the AFWA will produce hemispheric products for these and other areas within an AOR that have few US military operations. If world events change, OWSs can shift their operational focus and start producing mesoscale products and forecasts for oceanic and remote areas.

One of our main challenges will be to maintain horizontal consistency of weather features as weather passes through AORs of different OWSs. This is especially true in the CONUS, where at least three locations have converging AORs. Special weather discussions between OWSs will need to take place to help clear up responsibilities as current and planned OWSs are activated. Teamwork will be the key to successfully meet this challenge.

# WEATHER WATCHERS

## OPERATIONAL WEATHER SQUADRON UPDATE

The Air Force Weather reengineering train continues to speed ahead, garnering praise from the highest levels of the Air Force. Recently, Gen. Michael Ryan, the Air Force Chief of Staff, declared, "I think you all have this thing right. Press ahead!" His comments were in response to a briefing Brig. Gen. Fred Lewis and several members of the AF/XOW staff presented him on July 20, 1999.

The briefing was prompted by General Ryan's request regarding what could be done to accelerate reengineering. As a result of the briefing, General Ryan directed AF/XOW to accelerate AFW's reengineering.

However, phenomenal progress has already been made, as highlighted by the US Air Forces Europe Operational Weather Squadron's outstanding performance during Operation ALLIED FORCE, and the great results from the OWSs in Alaska, Shaw AFB, Scott AFB, Davis-Monthan AFB, Korea, and Barksdale AFB.

### *Air Combat Command*

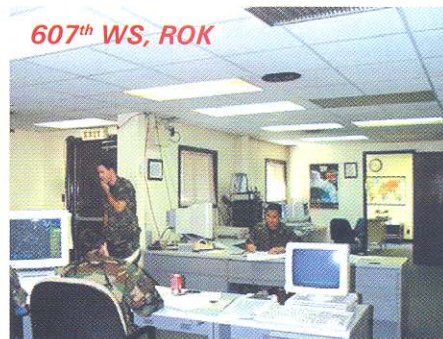
ACC has made tremendous progress towards implementing the Air Force Weather reengineering plan. In January 1998, they began

the site activation process for the 28<sup>th</sup> OWS at Shaw AFB and then followed up with the same process to activate the 25<sup>th</sup> OWS at Davis-Monthan and the 26<sup>th</sup> OWS at Barksdale. By September 1998, Shaw reached Initial Operational Capability with its Southwest Asia forecast operation.

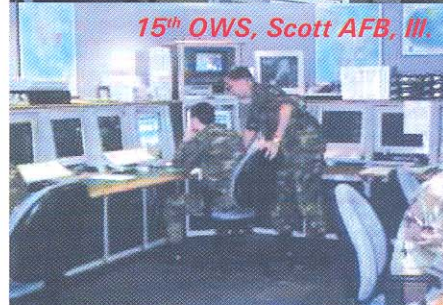
By June 1999, they took over SWA site forecasting responsibilities. While the initial cadre continues to grow SWA capabilities, they also began assuming forecasting duties for Robins and Maxwell AFB's and for Forts Knox, Benning, and Rucker. The 28<sup>th</sup> OWS's temporary facility consists of three doublewide trailers (14,000 square feet) that will be replaced in fiscal year 2002 with a new, \$3.8 million permanent facility.

This past April, the 25<sup>th</sup> OWS, at Davis-Monthan AFB, assumed SOUTHCOM forecast operations previously performed by the 24<sup>th</sup> WS at Howard AB in Panama. The 25<sup>th</sup> OWS will begin CONUS operations in February of FY00.

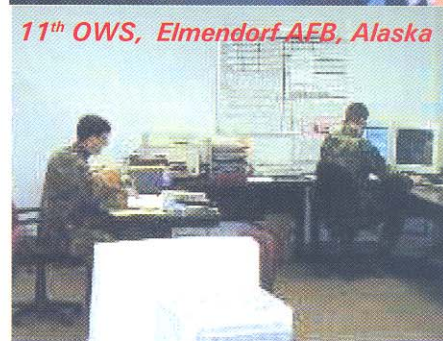
The ribbon cutting at the 25<sup>th</sup> OWS also marked its move into a beautiful, completely renovated facility that will be staffed by approximately 140 personnel. Mean-



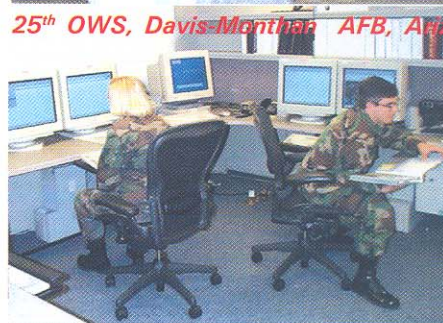
607<sup>th</sup> WS, ROK



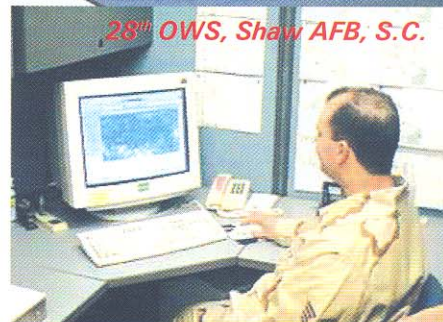
15<sup>th</sup> OWS, Scott AFB, Ill.



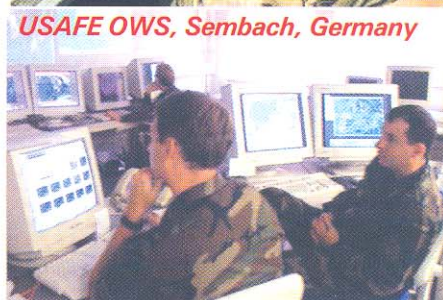
11<sup>th</sup> OWS, Elmendorf AFB, Alaska



25<sup>th</sup> OWS, Davis-Monthan AFB, ARZ



28<sup>th</sup> OWS, Shaw AFB, S.C.



USAFE OWS, Sembach, Germany



while, renovation projects totaling \$1 million are underway for the 26<sup>th</sup> OWS at Barksdale AFB. This should be completed in November 1999, allowing the 26<sup>th</sup> to begin its CONUS operations in 2FY00.

As the OWSs mature to support the Expeditionary Air Force, they will use a forecast process that concentrates on the occurrence of weather parameters critical to military operations within a geographic area. In addition to some visual products seen in the past from AFWA, such as hazards and sensible weather, the OWSs will generate new visual products based on critical *GO/NO-GO* thresholds

for military missions.

All of this is in line with AFW reengineering's goal of improved mission focus and support to the warfighters, operators, and trainers. Examples include visibility forecasts for air refueling operations, low-level wind and cloud forecasts for airdrop and low level operations, and predictions of cloud free-line-of sight conditions for reconnaissance operations, just to name a few.

There will also be other new products that will address such things as atmospheric refractivity and transmissivity conditions that are critical to radar and electro-optical systems. These products will be

standardized across all OWSs and distributed routinely, which helps ensure a seamless transition from peace to war and from one AOR to another.

### *Alaska (11<sup>th</sup> OWS)*

Small in size but large in scope, the 11<sup>th</sup> OWS continues to be a microcosm of the reengineering model in its structure, challenges, and solutions.

In late June, Combat Weather Team personnel visited the OWS to discuss various issues including supervisor of flying procedures, additional specification criteria, amendment procedures, exercise



support, and theater area forecasts structure. The 11<sup>th</sup> OWS will be expanding its roles and responsibilities under 11<sup>th</sup> Air Force Instruction 15-1 to provide standardization and theater documentation in these areas as well as encompass base weather support plans and any memoranda of understanding /letters of agreement.

Technology continues to be the lynchpin of operations. The 11<sup>th</sup> OWS web page is receiving more than a half-million "hits" each month. The page is constantly evolving as the number of users increases and new applications come online. At the same time, other prediction and satellite imagery systems have provided great capability. Automated observing system implementation is scheduled and highly desired, as theater metwatch continues to be challenged by temporally coarse resolution observation data.

Space environment support has been a growth area. During a conference with 55<sup>th</sup> Space Weather Squadron, Alaskan Command, intelligence, and communications users, attendees developed requirements for new products. Customers benefited greatly from the expertise provided by 55<sup>th</sup> SWXS participation. A few new products are on line, direct from 55<sup>th</sup> SWXS to our customers via SIPRNET, or hyper-linked on our NIPRNET web page, as security procedures allow.

On Aug. 2, 1999 the 11<sup>th</sup> OWS acquired an additional 3,160 square feet of office space that is projected to house its training function. The new facility includes a large classroom area, training personnel offices, and a conference room.

The 11<sup>th</sup> OWS attained full operational capability at the end of August, with all chartered forecasts,

warnings, advisories, and Guard flight weather briefings in production.

### **607<sup>th</sup> WS (Korea)**

The 607<sup>th</sup> Weather Squadron team is leading the charge to implement reengineered weather operations within the Republic of Korea. Exploiting indigenous data and products has been a key focus area for enhancing reengineered capability and "on target" weather support to warfighters and operators in Korea.

Earlier this summer, the Korean Meteorological Administration and the 607<sup>th</sup> WS began a new partnership with the signing of a Memorandum of Understanding for weather data sharing. This MOU allows Korean and USAF weather forecasters to be electronically linked and to freely share weather data and products.

Newly acquired weather information such as hourly surface observations, sea states, and precipitation totals immediately paid large dividends for the 607<sup>th</sup> WS. Access to these observations helped forecasters accurately predict and monitor the onset and duration of the *Changma* (Korean monsoon) and fine-tune resource protection support to United States Forces Korea installations. This new agreement also allows for access to more than 400 surface weather observations from automated sensors across the ROK, plots of lightning strikes as they occur, and access to Korean weather forecasting models.

To enhance reengineered weather support across the ROK, the 607<sup>th</sup> WS created a new suite of graphical forecast products and exploited the use of computer/homepage technology. This new suite of products, coupled with state-of-the-art equipment and a

newly-renovated operations production section, set the stage for the key milestone of assuming forecast and warning responsibility for Kunsan AB. The 607<sup>th</sup> WS met this milestone on July 1, 1999 and will continue to assume forecast responsibility for peninsula Air Force bases, Army posts, and Air Force co-located operating bases in the coming months.

### **United States Air Forces Europe OWS**

On July 30, 1998, the USAFE Operational Weather Squadron assumed primary forecast responsibility for all USAFE combat weather teams. Today, the USAFE OWS takes care of theater area forecasts, metwatch, and five-day forecasts for US installations in Europe as well as other installations of interest.

Additional services include providing range forecasts for both Grafenwoehr and Hohenfels, more than 2,000 flight weather briefings to USAF and Army aircraft, as well as numerous special support requirements. While there is still work ahead, USAFE/DOW has declared FOC of reengineering in Europe, slightly ahead of schedule.

The USAFE OWS proved its value as the buildup against Serbia began in the fall of 1998. The OWS supported increased operations at numerous locations across the theater, including several deployed locations.

The OWS provided a forecast, under extremely challenging weather conditions, for Ambassador Holbrooke's key diplomatic mission that successfully bought time for the allies and secured a relatively safe winter for the Kosovars. The pilot of the C-21 carrying Holbrooke said the OWS's forecast was "perfect in

a poor-weather situation.”

Challenges continued with the start of Operation ALLIED FORCE. The OWS's support began Feb. 12, 1999, a full month and a half before the air war started, with a five-day detailed Joint Operations Area Forecast for several areas near Serbia, with accompanying slides depicting weather effects on operations.

During the course of the air war, the number of beddown bases grew to 37. Air refueling tracks and combat air patrol forecasts doubled. The OWS provided theater area forecasts and resource protection for all allied operating and staging bases. OWS forecasters also provided all flight weather briefings supporting Operation Shining Hope — 513 humanitarian airlift flights in all.

ALLIED FORCE showed the value of one-stop shopping and common operational picture forecasts never before available. Deploying Combat Weather Teams only had one number to call when they touched down in theater. Instead of deploying eight forecasters, observers, and officers to setup all their own equipment and create every forecast from scratch, more typical was a three-person CWT. The Weather Systems Support Cadre deployed to set up the equipment and OWS forecasters provided all the forecasts to make the CWT immediately effective. Kudos for OWS support came from all quarters: CJCS, CIA, CINC, CFACC, COMUSAFE, and the US Navy, just to name a few.

Visit the USAFE OWS Web site at <http://131.54.133.238/> to see the absolute latest information on products and available services.

## ***Air Mobility Command OWS***

The 15th Operational Weather Squadron was formally activated on Feb. 13, 1999 at Scott AFB, Illinois, as a subordinate unit of the Tanker Airlift Control Center. The 15<sup>th</sup> OWS has two main areas of responsibility. The Global Mobility Flight provides products and services in direct support of the TACC in its operational and tactical control of Total Force assets to accomplish air mobility tasking by United States Transportation Command.

Three NE CONUS production flights are responsible for theater area forecasts and weather warnings, regional bulletins and graphics, and mission support services to combat units in a 22-state area of responsibility. There are 44 people currently assigned.

Since March, the 15<sup>th</sup> OWS assumed mission support responsibility for more than 70 Air National Guard, National Guard, and AF Reserve flying units in the NE CONUS, providing rapid relief to active weather flights across the entire area of responsibility.

Unit-tailored web pages, standardized regional graphic flimsies, and a flight briefing, scheduling, and dissemination system are the centerpieces of totally re-engineered mission support operations. These operations produce more than 2200 flight briefings and 720 flimsy graphic products monthly. Go to <http://15ows.scott.af.mil/briefings/units.htm> to see unit-tailored pages.

The 15<sup>th</sup> OWS is presently engaged in designing production processes, products, and a forecaster web site for a regime-based regional forecast funnel. This funnel is designed to facilitate the documentation and transfer of meteoro-

logical reasoning both within the OWS and between the OWS and Combat Weather Teams. This new design allows the forecaster to look into and enter the forecast funnel at any desired level, from global through local scale. At the regional scale and below, the central feature of the forecast funnel will be regional analysis, regional forecast, and TAF reasoning discussion bulletins posted on our web site.

These innovative bulletins will contain hyperlinks to forecaster-analyzed and -annotated products relevant to the meteorological reasoning presented in the bulletins. The discussion bulletins, and the products and work charts linked to them, will form a dynamic “virtual regional forecast worksheet.”

Regime identification, a prominent feature of 15<sup>th</sup> OWS discussion bulletins, offers powerful advantages to both OWSs and CWTs. The regime checklists will be available on the web site and will hyperlink to the raw or annotated product or training reference needed to evaluate the checklist item.

All this allows every forecaster, trainer, and trainee in the region to “pick up the same sheet of music” and quickly and effectively communicate. The 15<sup>th</sup> OWS began bulletin production in September 1999. Check out <http://15ows.scott.af.mil/utoc/utoc> to see prototypes of the bulletins and checklists.

In January 2000, 15<sup>th</sup> OWS plans to begin the next phase of OWS operations, TAF/WW production for bases in our west sub-region: Minot, Grand Forks, Ellsworth, and Offutt AFBs. Visit <http://15ows.scott.af.mil/> for more information and the latest developments.

# COMBAT WEATHER SUPPORT FOR MARITIME OPERATIONS

By 2<sup>nd</sup> Lt. Erik G. Clark

Det 5, 10<sup>th</sup> Combat Weather Squadron  
(AFSOC), Fort Bragg, North Carolina

*“Get in the water! Get wet!” yells a man wearing a deep tan, sunglasses, and short, beige swimming trunks. Twelve sweating figures in battle dress uniforms immediately start sprinting across the beach for the water’s edge. The water will mean relief from the heat. Beachgoers in the distance look on curiously.*

*Each uniformed man scrambles over the short breakers and into neck-deep water only to hear, “Get out of the water! Lay down in the sand!” The sodden figures trudge out of the ocean onto the beach and lie down beside each other quickly. “Roll left! Roll right! Roll left! Roll right! Now, charge your masks with seawater!” There is a slight resemblance between the 12 men and giant sugar cookies by this time.*

*With their dive masks full of seawater, the men splutter and choke, looking out on the world through water and glass. “All right. Everybody back in the water, wash the sand off and go get your boats.” After another dunking in the ocean, they are relatively sand-free and draped in sopping wet BDUs. They struggle out of the water that alternately tries to push them onshore and pull them back out to sea. Five Combat Rubber Raiding Craft, or Zodiacs, wait just above the high tide line. Each four-man team wrestles one of the heavy boats into the surf until the water is waist-deep, then clambers aboard.*

*An instructor in the rear of the Zodiac ensures everyone is safely aboard. He cranks up the engine and steers as the boat pulls away from shore, bouncing over waves and whatever lurks beneath.*



# Knowing Your Customer

This is neither a description of a typical day in Navy SEAL training nor the Army's Combat Dive school. Rather, it is the type of training that some Air Force combat weather personnel are undergoing these days. The purpose is to familiarize combat weathermen with the environmental sensitivities of a particular mission, and enhance combat weather's operational capability. For members assigned to AFSOC weather units, a crucial part of knowing how to support Army Special Operations Forces operations is understanding first-hand the customer's needs and possible obstacles encountered in carrying out their mission.

This maritime operation and exercise took place from July 19-25, 1999 at an Air National Guard recreation facility near Fort Fisher, N.C. Special operations weather professionals from AFSOC's 10<sup>th</sup> Combat Weather Squadron (Detachment 5) organized the training schedules; members from Detachment 2 and the 24<sup>th</sup> Special Tactics Squadron also participated. A combat dive team from the Army's 7<sup>th</sup> Special Forces Group (Airborne) provided instruction of the highest quality to the Air Force personnel and a group of U.S. Marines from Camp Lejeune, N.C.

Coast Guard helicopters were also planned for purposes of helocasting, but search and rescue efforts following the crash of JFK, Jr.'s aircraft prohibited them from joining the training. As part of the METOC training, a Navy officer from the Naval Atlantic Meteorology and Oceanography Center in Norfolk, Va. provided an afternoon of oceanographic instruction. In addition, detachment members provided seminars in such diverse subjects as forecasting seabreezes, land-seabreeze interaction, coastal upwelling, and conducted training in tactical observing, mean effective winds, and beach reporting.

With military operations becoming increasingly joint in nature, there is a great need for Air Force weather personnel to participate in inter-service training. These special operations weathermen have demonstrated that training can take place even on a small-unit scale if you have the motivation. As the exercise itself shows, the role of special weather operators in the field is also increasing. When it becomes necessary to ruck, reconnoiter, low-crawl, swim or jump out of airplanes alongside their customer, these men will be able to do so while providing the best mission-tailored combat weather operations possible.

## 10<sup>th</sup> Combat Weather Squadron Assessment & Selection

HOOAH! If you're looking for a challenge, a chance to enjoy a rewarding mission—here's your opportunity. The 10<sup>th</sup> Combat Weather Squadron will hold its second SOF Weather Leader's assessment at Fort Bragg, NC, 15-19 Nov 1999.

It will test you physically and mentally, but rewards await those who make the grade. The assessment will be used to select tomorrow's SOF weather leaders providing combat weather operations for Army Rangers, Special Forces, and Special Operations Aviators—those selected get to take the next step, the 1,250 foot step from the door of C-130 or C-141 over Fryar Drop Zone. If interested, call Lt. Col. Scott Funk at DSN 579-6352 or Master Sgt. Bruce Perkins at DSN 579-6366.

**AIRBORNE!**

# R eengineered

by Maj. Jeff Kapolka  
AFWA Chief, Standardization  
and Evaluation Division

Headquarters Air Force Weather Agency Standardization and Evaluation Division will be the office of primary responsibility for the Air Force Weather Standardization and Evaluation Program's Air Force Instructions and checklists. All major command weather functionals will have the opportunity to provide inputs and the option of supplementing the AFI and checklists with Major Command-unique requirements.

HQ AFWA/XOV will be the lead element in AFWSEP evaluations for strategic centers and the operational weather squadrons. XOV is drafting new AFWSEP checklists for reengineered strategic centers and OWSs. No firm date has been identified for their release; however, evaluations are slated to begin approximately six months after the checklist's publication. We're focusing our efforts on helping units by performing assistance visits prior to scheduling actual Stan-Eval visits.

Timelines for adherence to the new standards will be phased in to ensure units have sufficient time to adjust their operational procedures. This gradual approach gives the unit a clear picture of how they are conforming to the new standards and suggests possible changes.

Designated MAJCOM representatives will lead evaluations of weather units within their command. Part of the reengineering focus seeks to create a "team approach" to the standardization and evaluation process. AFWA/XOV will augment MAJCOM Stan-Eval teams to help ensure standardized evaluation procedures are established. Generally, one senior noncommissioned officer with previous station chief experience will provide specialized expertise to help fashion procedures that actually improve a unit's operational effectiveness. These reengineering efforts are aimed at producing more efficient weather teams capable of providing swifter product turnaround for our customers. MAJCOMs will schedule visits taking into account such factors as other

# S tandardization

MAJCOM evaluation visits, exercises, training and contingencies. Please check with your MAJCOM Stan-Eval representative for the specifics.

An additional reengineering modification involves the elimination of the proficiency test as part of the Stan-Eval score. Proficiency tests are solely training functions of each AFW unit and will be accomplished by every AFW unit member as required. The AFW proficiency upgrade program will be evaluated during AFWSEP visits to ensure compliance; however, actual proficiency tests will not be given during AFWSEP evaluations.

A process review will replace the proficiency test. The intent is to evaluate how effectively the unit's leadership has infused meteorology and technical quality into day-to-day weather operations, established concrete procedures and agreements to meet their customer's needs, and complied with established manuals, instructions, and concepts pertaining to weather operations. In essence, the process review is the unit leadership's checkride—it provides a comprehensive review of the leadership's value added to the whole team.

Because some units will not be reengineered in the immediate future, completing scheduled evaluations will require diligence, patience and flexibility as we transition to the more comprehensive standards. Although the current AFI 15-180, *Air Force Weather Standardization and Evaluation Program* gives us our charter, it is undergoing major revision to reflect changes spurred by reengineering, and will be published as soon as it's available. AFMAN 15-125, *Weather Station Operations*, is still our bible throughout the weather career field. But just like AFI 15-180, it does not reflect changes of the reengineered AFW, so a new AFMAN is in the works. This new publication is being drafted by MAJCOM, HQ AFWA, and AF/XOWP personnel and will be published as soon as it's finished. This publication will describe stan-

# Evaluation

# Program

standardized guidance for implementation by all reengineered Air Force weather units. What all of this boils down to is, if your unit is not reengineered you will be evaluated using AFMAN 15-125. If you are reengineered, then you will be evaluated by the new guidance.

Other than the changes mentioned above, the rest will remain the same. AFWSEP teams should visit all units on an approximately 24-month cycle. Visits to weather flights and detachments should last four or five days depending on the size of the unit. However, visits to strategic centers and OWSs will last longer due to the size of the unit. The main focus is still on the technical areas, but now that MAJCOMS are involved as lead agency for weather flights and detachments, specialized areas such as space, solar, army deployed support, and special operations deployed support may be evaluated. We will not look at functional areas pertaining to information management, security, safety, et cetera.

The evaluation is broken down into two main parts; process review and the operations, with each section accounting for a percentage of the unit's overall score. The process review section accounts for 30 percent of the score while 70 percent of the final score is assigned to the operations section. AFWSEP team members issue checkrides to individual unit members in the operations sections. During these checkrides evaluators use checklists derived from published guidance. Team members basically watch individuals during the performance of their duties. Evaluators may ask questions during the checkride to gauge the capabilities of the person being evaluated. Direct questioning helps those being evaluated explain how they arrived at a particular conclusion. Our goal is to issue checkrides to approximately 30 – 50 percent of assigned personnel,

depending on the size of the AFW unit. Evaluating this percentage of personnel helps provide an adequate assessment of the entire unit's operational efficiency. The most important thing to remember is we're looking for sound meteorological reasoning from forecasters.

The current scoring system will remain unchanged. Every unit will start out as fully qualified or Q1. In order to earn an Exceptionally Qualified rating, the unit will have to perform at or above that level. Up to 20 total areas will be evaluated during the visit. Each area starts out with four points and goes up or down from there depending on how many discrepancy items are noted in the checklists. An area can be rated with values ranging from 0-5 points. If a section completes an evaluation without any discrepancy items noted it does not necessarily equate to a "5". Remember, everyone starts out with four points. Additionally, some checklist items are weighted more heavily.

A report is written and handed to the group commander or equivalent prior to the outbrief. Throughout the process the operations support, weather squadron commander or equivalent is kept informed of the evaluation so there are no surprises. The report, as well as the outbrief, will key in on discrepancy areas instead of individual items and we will make recommendations if areas need improvement. We will also point out positive observations and exceptional performers as well.

If you have any questions please contact your MAJCOM weather functionals or the AFWA/XOV staff at DSN 271-5326/9982, FAX - DSN 271-9599, or email at [afwa.xov@afwa.af.mil](mailto:afwa.xov@afwa.af.mil). Also visit our Web page at: <http://wwwmil.offutt.af.mil/afwa/ORG/xo/xov/web%20page%20html.htm>.

# *Military Aircrew Information System*

**M**



**A**

*By Lt. Col. Ray Clark*  
AFWA Deputy Director of Plans & Programs

*Promises  
improvements  
in the  
delivery of  
weather  
data to  
aviators  
worldwide*

**I**

**S**

By now, almost all of you have at least heard of Military Aircrew Information System and many of you have seen it in action through the website at <http://www.mais.af.mil>. Indeed, you probably already have an account and password for the system so you can check it out for yourself.

We're constantly updating MAIS to make it even more useful to the military flying community with initiatives to expand coverage, provide more detailed products, and enhance the aircrew interface to ensure this system is as complete as possible. With that in mind, you need to know where MAIS is today, and where we're going with the system in the very near future.

MAIS was initially developed to provide weather briefing capability to National Guard and Reserve units located away from active bases, a long-neglected portion of the military aviation community. These units, on both the Army and

Air Force side, had to rely on active duty base and garrison weather stations to get flight weather briefs.

That process frequently involved great difficulty for a variety of reasons, both good and bad. By providing MAIS, we've given those units a realistic alternative for their flight weather briefing requirements. In fact, the system has worked so well, we've expanded the coverage and are now ready to make some great leaps forward.

Right now, MAIS is an approved flight weather briefing method for all Army and Air National Guard units and can also be used by active duty aircrews, both Air Force and Army. There are 4000 registered MAIS users, and on a typical drill weekend approximately 500 different users access the system. The U.S. Army is the latest group to jump on the MAIS bandwagon. They approved the use of MAIS through an August 11 message.

We've laid the groundwork to expand MAIS to the European and Pacific theaters. This effort is significant not merely because it expands the geographical boundaries of MAIS, but because it also marks a shift in how Air Force Weather Agency works with operational weather squadrons in theaters.

Our ultimate intention is to make all of the OWS's original products available to aircrews via MAIS, ensuring we have good continuity of products to every aircrew who receives a weather brief — whether that brief was presented in person or via the World Wide Web. There is a beta version of MAIS Worldwide available right now at <http://maisr.afwa.af.mil>. Your feedback is appreciated. We're still working out many of the details for the overseas expansion of MAIS,

but it is coming...and sooner, rather than later.

Another feature of MAIS is the integration of the 15<sup>th</sup> Operational Weather Squadron Scheduler with the MAIS. This combined AFWA and 15<sup>th</sup> OWS integration initiative has the potential to automate the flight briefing setup process.

The end result will be an automated "175-1 like" weather briefing form (or equivalent) and supporting products making it to the weather briefer's hands for review and fine-tuning and then briefing to the aircrew. Ideally, this will be done with no prior intervention on the briefer's part.

So...what's the payoff for you and the aircrew? Every one of you can remember mornings in the base weather station which were pictures of chaos. You recall those mornings when you couldn't put together a decent weather brief because the phones were ringing off the hook.

You recount the frustration from aircrews who couldn't get a decent weather brief because the phone lines were always busy. You felt constantly

overwhelmed because you simply had too many briefs to do. You felt like you were in a death spiral — REMEMBER?

Our intention with MAIS is to make those events a thing of the past...and make excellent weather briefings a lot more commonplace, even if the weather itself is down the tubes.

*(Note: As this article was being written, AFWA was in the process of complying with the July 99 AFCERT directing new passwords for all users of Air Force computer systems. The MAIS is included in that directive. If you previously had an account and password, but failed to change that password by the 30 Aug 99 deadline, your account was deleted. AFWA had no control over the deletion requirements. If you or any of your customers were deleted from the system, you will need to go in to the front page of MAIS to set up a new account.)*

### USEFUL WEBSITES

**ACC Weather Systems Support Cadre (WSSC), Robins AFB:**

<http://wssc.robins.af.mil/>

**FORSCOM SWO, Ft. McPherson:**

<http://www.forscom.army.mil/weathr/2wfno.html>

**HQ AFWA, Offutt AFB:**

<http://www2offutt.af.mil/afwa/AFWAMAIN.html>

**US NOTAM Office:** <http://www.notams.jcs.mil>

**28OWS, Shaw AFB:**

<http://131.46.188.13/shawows/index.htm>

**15OWS, Scott AFB:** <http://15ows.scott.af.mil>

**USAFE OWS, Sembach AB:** <http://ows.sembach.af.mil/>

**OPERATION Joint Forge, Tuzla, Bosnia:**

<http://134.235.17.30/>

**OPERATION Southern Watch/Eskan Village KSA:**

<http://www.mil.eskan.swaback.af.mil/>

**OPERATION Northern Watch, Incirlik AB, Turkey**

<http://www.incirlik.af.mil/onw/>



## Did You Know?

By Ms. Lillian Nolan

AFWA Historian

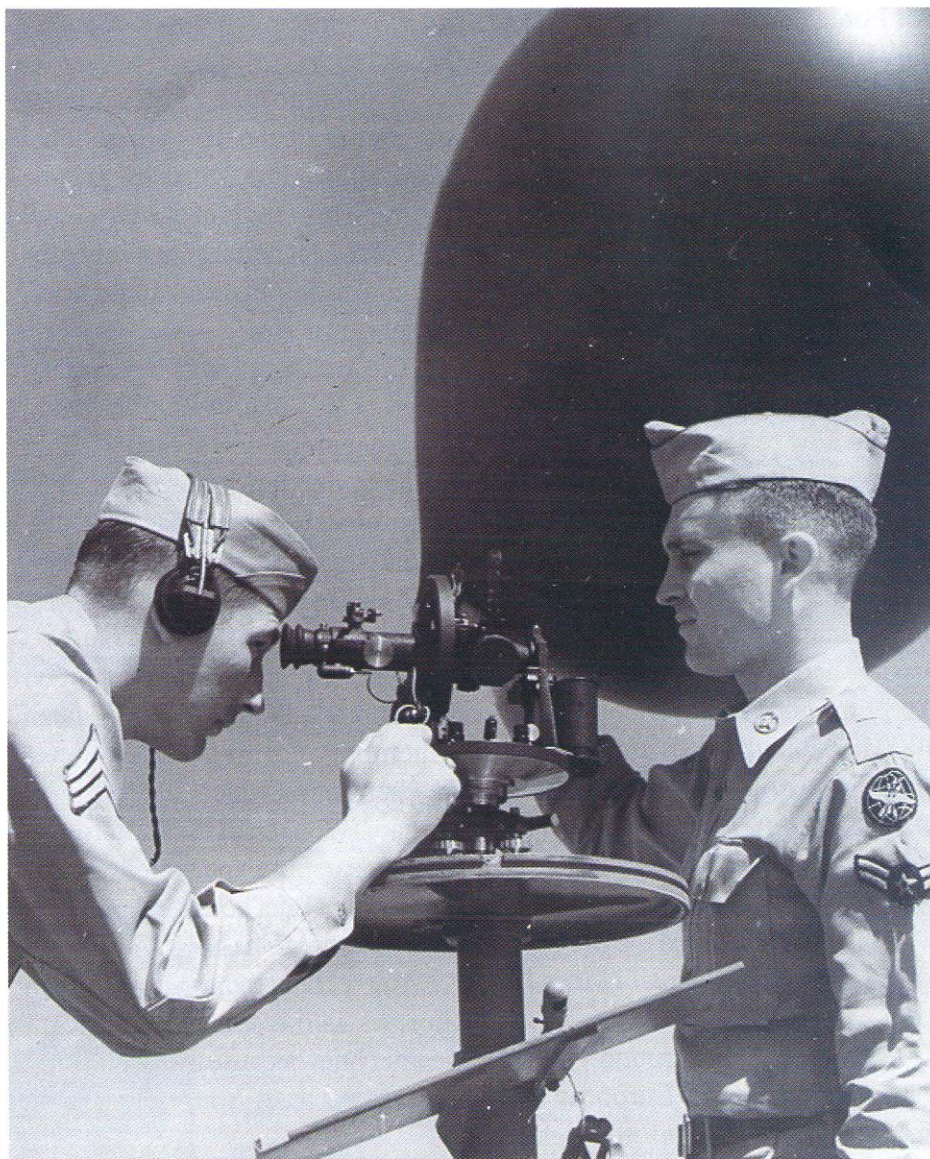
In my last article, in the June/July Issue, I mentioned that the need for weather personnel grew rapidly with the onset of World War I. But, Did You Know the civilian vacancies created by bringing those personnel back into the military environment were filled by their wives? That's right, the wives of the enlisted observers were asked to come and work in the positions previously held by their husbands.

In my previous article I mentioned the shortage of qualified weather personnel within the Signal Corps. The shortage was partially relieved by providing 200 soldiers with eight to 10 weeks of training at Weather Bureau stations, and by the influx of 145 professional meteorologists into the organization from the Weather Bureau.

Another development that assisted in increasing the number of qualified personnel was the establishment of the Signal Corps Weather School at Camp MacArthur, Texas, in April of 1918. Just one month later the school moved to Texas A&M in College Station, Texas.

In the spring of 1918, American troops supporting the war effort received their initial weather support from the Allied weather service. That continued until May when the American Expeditionary Force established the first American meteorological station in Ourches, France. Within six months, as the number of American troops grew, so did the number of weather stations.

By the end of World War I, there were 22 weather stations, one of which was a forecast center. These stations were located within a



few miles of the front lines where they could provide early warnings of gas attacks, as well as information relevant to American aerial and artillery warfare. However, that put weather personnel in harms way.

By the fall of 1918 long-range balloons were in use. These balloons which drifted across the ocean to land in Europe, were developed into the long-range propaganda balloon. During this time, the theodolite and pilot balloon method was being used to determine wind direction and velocity at various levels in the atmosphere. The theodolite was commonly used as late as the 1980's and in some

cases, such as in hot air ballooning, you may still see a few of them in use today.

The "fleur-de-lis" in our emblem was included as a testament to the sacrifices made by our weather personnel during World War I. The actual wording reads, "First participation in combat by a US Army Weather Service took place in France during World War I and is commemorated in the Air Weather Service emblem by the golden yellow fleur-de-lis."

**Note: This was added to the emblem significance in 1963 for further clarification.**

# AIR FORCE

## WEATHER WARRIOR



**NAME/RANK:** Robert D. Ellis, TSgt.  
**UNIT:** 48 OSS, Combat Weather Team, RAF Lakenheath, UK  
**JOB TITLE:** CWT Forecaster  
**YEARS IN SERVICE:** 11years, 6 mths  
**HOMETOWN:** Yuma, Arizona  
**FAMILY STATUS:** Married  
**HOBBIES:** 4WD racing and suspension machines, building computers and being with my family  
**REASON JOINED THE AIR FORCE:** To serve my country for the honor of my family name  
**PERSONAL MOTTO:** Work every day as if God was your supervisor, and give thanks for the work you have done  
**MOST MEMORABLE AIR FORCE WEATHER EXPERIENCE:**  
**When operating at a forward divert base during Desert Storm, we had an armed 2,000lb bomb fall off a bomb loader 20 feet from where I was standing. For about 3/10<sup>th</sup>'s of a second the world stopped, then began again. I will never forget the dull thud of the bomb hitting the ground.**



## PHOTO CONTEST

**The public affairs office is soliciting photos from readers who are closet shutterbugs. Please forward photos of mission/human interest prints.**

**Photos selected will be used as front/back covers of the magazine. Photographers will receive recognition in the SPOTLIGHT section of page 2. Please call DSN 271-3115 with questions/idea submissions. Email photos in .tif format to [observer@afwa.af.mil](mailto:observer@afwa.af.mil)**

# Combat Weather Team helps with hurricane relief efforts

**By Spc. Jon Creese**

U.S. Army Special Operations Command Public Affairs Office

Forces Command (Airborne) units here, joined the Red Cross Sept. 22, in a hurricane relief effort.

Working out of a parking lot in Fayetteville, 10<sup>th</sup> Combat Weather specialists joined in a community effort to collect and deliver supplies to neighbors in distress. "There has been a much bigger response than I had expected. It's been awesome," said Tech. Sgt. Larry Emmett, weather forecaster for the 10<sup>th</sup> CWS, attached to 3rd Battalion, 7<sup>th</sup> Special Forces Group (Airborne). Emmett used his own trailer to deliver supplies.

Cars and trucks toting food, water, blankets, toys, soda, toiletries, stuffed animals, shovels and brooms, garbage bags and just

about everything else imaginable streamed onto the lot from all directions. Volunteers stayed busy loading and unloading supplies, and broke only momentarily when a community member dropped off lunch.

"I've been with the Red Cross for 37 years and this is one of the worst disasters I have ever seen," said Red Cross volunteer, Joyce Warren. "The military guys are doing a great job."

After a short break, the Combat Weather team went back to work as more cars entered the lot and more supplies were loaded onto trucks, so that more hurricane victims had relief on the way in their time of need.

**FORT BRAGG, N.C.** – It was one of the costliest natural disasters North Carolina residents had ever experienced.

Weeks after Hurricane Floyd passed through the eastern part of the state leaving behind a region saturated with floodwaters, littered with debris and filled with broken hearts and homes, many residents were still in need of basic items such as food, water and shelter.

Hope was not lost.

Airmen from Detachment 5, 10<sup>th</sup> Combat Weather Squadron, attached to various Army Special

## New test program offers eyeglass wearers a choice

**By Master Sgt. Brian M. Hibbard**

52<sup>nd</sup> Fighter Wing Public Affairs

SPANGDAHLEM AIR BASE, Germany (AFPN) — Active-duty members who wear eyeglasses now have a choice between several styles of frames thanks to a new Air Force program being tested here. Currently in its pilot phase here and at 23 other installations listed below, Air Force optometry officials hope the Frame of Choice Program will get people to start wearing their glasses more often and save them money, too.

The program targets people like Staff Sgt. Ron Kellar, 52<sup>nd</sup> Fighter Wing awards and decorations manager, who bought glasses with \$150 of his own money because he refuses to wear the standard frames the Air Force issued him. "I don't wear them because they give me a headache," he said. "They're big and cumbersome. After wearing them for a day, my head hurts."

With airmen able to choose which frames they'll wear, like their Navy counterparts, Capt. Michael Stevens, 39<sup>th</sup> AMS Optometry Flight chief agreed that it

will help build morale among the eyeglass-wearing community.

"Up till now, we've supplied the standard military frames for them, but many folks won't wear them because they're ugly," he added. "With the new frames, they have a great option—frames that look good, give them good vision and are free of charge." If the program is successful, he feels that the Air Force is going to expand the program to other bases within the next fiscal year.

Other Air Force installations participating in the program are: Andrews Air Force Base; Aviano AB, Italy; Bolling AFB, D.C.; Brooks AFB, Texas; Columbus AFB, Miss.; Eielson AFB, Alaska; Elmendorf AFB, Alaska; Keesler AFB, Miss.; Kelly AFB, Texas; Lackland AFB, Texas; Lajes Field, Azores; Royal Air Force Lakenheath, England; Maxwell AFB, Ala.; McGuire AFB, N.J.; Moody AFB, Ga.; Pentagon, D.C.; Pope AFB, N.C.; Ramstein AB, Germany; Randolph AFB, Texas; Robins AFB, Ga.; Sheppard AFB, Texas and Whiteman AFB, Mo. (Courtesy of U.S. Air Forces in Europe News Service)

**MEDALS****AIRMAN'S MEDAL**

Staff Sgt. Christopher O'Brien, 78<sup>th</sup> OSS/OSW, Robins AFB, Ga.

**MERITORIOUS SERVICE MEDAL**

Maj. Steven Wilderotter, AFWA, Offutt AFB, Neb.  
 Maj. Matthew R. Williams, 46<sup>th</sup> WS, Eglin AFB, Fla.  
 Capt. Randall G. Bass, AFWA, Offutt AFB, Neb.  
 Capt. Frederick D. Williams, (1 OLC), 81<sup>st</sup> Training Group, Keesler AFB, Miss.  
 Capt. Jessica A. Woelbling, AFWA, Offutt AFB, Neb.  
 Senior Master Sgt. Nancy J. O'Connell, AFWA, Offutt AFB, Neb.  
 Master Sgt. Paul Armitage, 46<sup>th</sup> WS, Eglin AFB, Fla.  
 Master Sgt. Edward C. Czopkiewicz, AFWA, Offutt AFB, Neb.  
 Master Sgt. Thomas Herb, 6<sup>th</sup> WF, Fort Rucker, Ala.  
 Master Sgt. David Martin, 6<sup>th</sup> WF, Fort Rucker, Ala.  
 Master Sgt. Larry A. Pitsenbarger, AFWA, Offutt AFB, Neb.

**AIR FORCE COMMENDATION MEDAL**

1<sup>st</sup> Lt. Sean T. Campbell, 8<sup>th</sup> FW, Kunsan AB, Korea  
 Master Sgt. Robert Murders, 8<sup>th</sup> FW, Kunsan AB, Korea  
 Technical Sgt. Robert E. Baker, AFWA, Offutt AFB, Neb.  
 Technical Sgt. John S. Distler, AFWA, Offutt AFB, Neb.  
 (1OLC) Technical Sergeant Paul F. DuFresne Jr., OL-A, 18<sup>th</sup> WS, Fort Belvoir, Va.  
 Technical Sgt. James E. McMullen, Jr., 8<sup>th</sup> FW, Kunsan AB, Korea  
 Technical Sgt. Mark A. Strohl, AFWA, Offutt AFB, Neb.  
 Technical Sgt. Timothy W. Tedder, AFWA, Offutt AFB, Neb.  
 Technical Sgt. Richard A. Webb, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Technical Sgt. Kelly A. Williams, (2 OLC), Air Force Combat Weather Center, Hurlburt Field, Fla.  
 Staff Sgt. Shawn R. Hamby, AFWA, Offutt AFB, Neb.  
 Staff Sgt. Christopher E. Hanhn, AFWA, Offutt AFB, Neb.  
 Staff Sgt. Robert Martinez, 8<sup>th</sup> FW, Kunsan AB, Korea  
 Staff Sgt. Steven Rutherford, 8<sup>th</sup> FW, Kunsan AB, Korea  
 Staff Sgt. Franklin L. Thompson, AFWA, Offutt AFB, Neb.

Staff Sgt. Daniel R. Triplett, AFWA, Offutt AFB, Neb.  
 Senior Airman Steven O. Babe, 22<sup>nd</sup> OSS/OWS, McConnell AFB, Kan.  
 Senior Airman Robert Martinez, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas

**JOINT SERVICE COMMENDATION MEDAL**

Staff Sgt. Melissa J. Engle, Air Force Combat Weather Center, Hurlburt Field, Fla.

**ARMY COMMENDATION MEDAL**

Maj. Christopher Strager, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Capt. David C. Runge, 22<sup>nd</sup> OSS/OWS, McConnell AFB, Kan.  
 Master Sgt. Michael D. Gardner, 146<sup>th</sup> WF, Pittsburgh, Pa.

**PENNSYLVANIA COMMENDATION MEDAL**

Maj. Christopher Strager, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Technical Sgt. John C. Tunney, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Technical Sgt. Robert F. Warren, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Staff Sgt. Robert W. Beveridge, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Staff Sgt. Robert G. Branham, 146<sup>th</sup> WF, Pittsburgh, Pa.  
 Staff Sgt. Clayton R. Eyler, 146<sup>th</sup> WF, Pittsburgh, Pa.

**AIR FORCE ACHIEVEMENT MEDAL**

Maj. Robert Black, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
 Capt. David C. Runge, 22<sup>nd</sup> OSS/OWS, McConnell AFB, Kan.  
 Master Sgt. Douglas A. Rishel, AFWA, Offutt AFB, Neb.  
 Technical Sgt. Louis G. Straw, AFWA, Offutt AFB, Neb.  
 Staff Sgt. Mike Compton, 57<sup>th</sup> OSS/OSW, Nellis AFB, Nev.  
 Staff Sgt. Amy Gill, 57<sup>th</sup> OSS/OSW, Nellis AFB, Nev.  
 Senior Airman Pamela S. Brown, AFWA, Offutt AFB, Neb.  
 Senior Airman Jeremy Chambers, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas  
 Senior Airman Tasha Fisher, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas  
 Senior Airman Charlotte L. Hansen, 8<sup>th</sup> FW, Kunsan AB, Korea  
 Senior Airman Melody A. Jensen, AFWA, Offutt AFB, Neb.

Senior Airman Bradley Jorgenson, 8<sup>th</sup> FW, Kunsan AB, Korea

Senior Airman Miguel Rosado, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas

Airman First Class Jennifer Huston, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas

#### **JOINT SERVICE ACHIEVEMENT MEDAL**

Technical Sgt. Rudy B. Tingelhoff, 2D WF, Fort McPherson, Ga.

#### **ARMY ACHIEVEMENT MEDAL**

Master Sgt. Michael D. Gardner, 146<sup>th</sup> WF, Pittsburgh, Pa.

Master Sgt. James S. Malia, 146<sup>th</sup> WF, Pittsburgh, Pa.

Master Sgt. David L. Tucker, 146<sup>th</sup> WF, Pittsburgh, Pa.

Staff Sgt. Clayton R. Eyler, 146<sup>th</sup> WF, Pittsburgh, Pa.

Staff Sgt. Timothy Fields, 6<sup>th</sup> WF, Fort Rucker, Ala.

#### **ARMED FORCES EXPEDITIONARY MEDAL**

1<sup>st</sup> Lt. Samuel Shearer, 7<sup>th</sup> WS Katterbach, Germany

Senior Airman Dawn McGuire, 7<sup>th</sup> WS Katterbach, Germany

Senior Airman Eric McGuire, 7<sup>th</sup> WS Katterbach, Germany

#### **AIR FORCE OUTSTANDING UNIT AWARD**

Maj. Robert Black, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

2<sup>nd</sup> Lt. Dan Wunder, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Senior Master Sgt. Phil Roseberry, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Master Sgt. Dan Jones, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Master Sgt. Brian Siciliano, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Staff Sgt. Edgar Black, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Staff Sgt. Reuben Kast, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Staff Sgt. Richard Koch, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Staff Sgt. Scott Monroe, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Senior Airman Matt Ellis, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Senior Airman Craig Gaillardet, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Senior Airman Warren LaBare, 49<sup>th</sup> OSS/OSW,

Holloman AFB, N.M.

Airman First Class Jamie Davis, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Airman First Class Jeremy Henderson, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Airman First Class Crystal Hobbs, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Airman First Class Angel Rivera, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

#### **ARMED FORCES SERVICE MEDAL**

Technical Sgt. John C. Tunney, 146<sup>th</sup> WF, Pittsburgh, Pa.

#### **NATO MEDAL**

1<sup>st</sup> Lt. Sean R. Keaveney, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Senior Airman Daniel John Clark, 6<sup>th</sup> WF, Fort Rucker, Ala.

#### **AIR FORCE GOOD CONDUCT MEDAL**

Master Sergeant Gary C. Smith, OL-A, 18<sup>th</sup> WS, Fort Belvoir, Va.

Senior Airman Shakera Crawley, 22<sup>nd</sup> OSS/OWS, McConnell AFB, Kan.

Senior Airman James Fischer, 8<sup>th</sup> FW, Kunsan AB, Korea

Senior Airman Karie A. Johnson, 22<sup>nd</sup> OSS/OWS, McConnell AFB, Kan.

Senior Airman Bradley Jorgenson, 8<sup>th</sup> FW, Kunsan AB, Korea

Senior Airman Michael McCreanor, 80<sup>th</sup> OSS/DOW, Sheppard AFB, Texas

#### **EXEMPLARY CIVILIAN SERVICE AWARD**

Mr. Roger Graffa, 76<sup>th</sup> OSS, Kelly AFB, Texas

#### **PROMOTIONS**

##### **TO MAJOR**

Eugene D. Layeski, AFWA, Offutt AFB, Neb.

##### **TO 1<sup>ST</sup> LIEUTENANT**

Christopher R. Cherry, AFWA, Offutt AFB, Neb.

Kevin Cousin, AFWA, Offutt AFB, Neb.

Sean R. Keaveney, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

Robert Moelter, 122<sup>nd</sup> WF, Hammond, La.

##### **TO SENIOR MASTER SERGEANT**

Salinda Larabee, 122<sup>nd</sup> WF, Hammond, La.

**TO MASTER SERGEANT**

Michael Jacobs, 46<sup>th</sup> WS, Eglin AFB, Fla.  
Joseph R. Kost, AFWA, Offutt AFB, Neb.  
Marvin Million, 7<sup>th</sup> WS Katterbach, Germany  
Jose A. Nunez, 195<sup>th</sup> WF, Channel Islands Calif.  
Brian Siciliano, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

**TO TECHNICAL SERGEANT**

Charles E. Bibb Jr., 154<sup>th</sup> WF, Little Rock AFB, Ark.  
Edward A. Brokhoff, 204<sup>th</sup> WF, McGuire AFB, N.J.  
Gordon K. Chapman, AFWA, Offutt AFB, Neb.  
Samuel G. Dolinger, AFWA, Offutt AFB, Neb.  
Bob Hayes, DET 5, 10<sup>th</sup> CWS  
Todd J. Herman, AFWA, Offutt AFB, Neb.  
Michael Lundstrom, DET 5, 10<sup>th</sup> CWS  
James McMullen, 8<sup>th</sup> FW, Kunsan AB, Korea  
Daniel J. Powell, 8<sup>th</sup> FW, Kunsan AB, Korea  
Russell T. Smith, AFWA, Offutt AFB, Neb.  
Owen Somers, DET 5, 10<sup>th</sup> CWS

**TO STAFF SERGEANT**

Steven L. Atkinson, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Edgar Black, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
Richard Bollinger, DET 5, 10<sup>th</sup> CWS  
Sharon M. Burnett, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Nick Ditondo, 6<sup>th</sup> WF, Fort Rucker, Ala.  
Charles J. Drey, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Jeremy E. Elliot, 6<sup>th</sup> WF, Fort Rucker, Ala.  
Reuben Kast, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
Richard Koch, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
Robert Martinez, 8<sup>th</sup> FW, Kunsan AB, Korea  
David McKinney, DET 5, 10<sup>th</sup> CWS  
Stephen F. Meunier, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Jennifer Nazworth, 105<sup>th</sup> WF, Nashville, Tenn.  
Christopher O'Brien, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Michael D. Palmer, 15<sup>th</sup> OWS, Scott AFB, Ill.  
Daniel J. Porter, 15<sup>th</sup> OWS, Scott AFB, Ill.

**TO SENIOR AIRMAN**

Andrew M. Appleby, AFWA, Offutt AFB, Neb.  
Phillip Beta, 6<sup>th</sup> WF, Fort Rucker, Ala.

Jessica Boyle, 122<sup>nd</sup> WF, Hammond, La.  
Anastasia L. Brenan, 46<sup>th</sup> WS/DOR, Eglin AFB, Fla.  
Gery B. Cook, AFWA, Offutt AFB, Neb.  
Joshua D. Duplin, AFWA, Offutt AFB, Neb.  
Christopher L. Eakin, AFWA, Offutt AFB, Neb.  
Matt Ellis, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
Traci R. Gaines, AFWA, Offutt AFB, Neb.  
William F. Gausman, Jr., AFWA, Offutt AFB, Neb.  
Amy E. Harmon, AFWA, Offutt AFB, Neb.  
Bradley Jorgenson, 8<sup>th</sup> FW, Kunsan AB, Korea  
Bradley McCullough, 105<sup>th</sup> WF, Nashville, Tenn.  
Michelle Mosher, 122<sup>nd</sup> WF, Hammond, La.  
Allyn Noradki, AFWA, Offutt AFB, Neb.  
Jason L. Rance, AFWA, Offutt AFB, Neb.  
Anthony Smith, 122<sup>nd</sup> WF, Hammond, La.  
Tim Sullivan, 39<sup>th</sup> OSS/OSW, Incirlik AB, Turkey  
Antje Vanderharst, 6<sup>th</sup> WF, Fort Rucker, Ala.  
Lori Williams 39<sup>th</sup> OSS/OSW, Incirlik AB, Turkey

**TO AIRMAN**

Charlie A. Campbell, 122<sup>nd</sup> WF, Hammond, La.  
Shaun E. Gustafson, AFWA, Offutt AFB, Neb.  
Crystal Hobbs, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.

**TO AIRMAN BASIC**

Latrail O. Green, AFWA, Offutt AFB, Neb.

**REENLISTMENTS**

Master Sgt. Joshua P. DeBord, Air Force Combat Weather Center, Hurlburt Field, Fla.  
Master Sgt. Marvin Million, 7<sup>th</sup> WS Katterbach, Germany  
Master Sgt. Brian Siciliano, 49<sup>th</sup> OSS/OSW, Holloman AFB, N.M.  
Technical Sgt. Jonathan Morris, 7<sup>th</sup> WS Katterbach, Germany  
Senior Airman Bryan Carnes, 7<sup>th</sup> WS Katterbach, Germany  
Senior Airman Brian S. Fjeld, OL-A, 18<sup>th</sup> WS, Fort Belvoir, Va.

**Editor's Note**

*In order to ensure everyone in Air Force Weather selected for promotion receives recognition, the Observer Magazine is using a new format for the Salutes section. A complete listing of all promotees during a particular cycle will be published in the Salutes sections. Please limit future submissions to Medals, Awards, Reenlistments and Retirements*

# ***Air Force Weather's newest commissioned officers***



ALLEN, ROBERT C. JR., Ramstein AB, GE  
BERCHOFF, DONALD H., Scott AFB, Ill.  
BJORNSON, BRIAN M., Maxwell AFB, Ala.  
BONADONNA, MICHAEL F., Pentagon  
BROOKS, CHRISTOPHER K., Pentagon  
CORPMAN, CHARLES D., Pentagon  
DUNIC, RONALD L., Pentagon  
HAASE, ROBERT L. JR., Washington D.C.  
HARTMAN, RICHARD W., Wright-Patterson AFB,  
Ohio  
HEMLER, MICHAEL G., Langley AFB, Va.  
KIBURIS, KENNETH V., Tinker AFB, Okla.

LEFEVRE, RANDY J., Shaw AFB, S.C.  
LEVSKY, MARK W., Pentagon  
LOWTHER, RONALD P., Asheville, N.C.  
MAHOOD, ROBERT W., Pentagon  
PINO, JOHN P., Pentagon  
REESE, KENNETH W., Washington, D.C.  
RIZZA, ROBERT J., Tempe, Ariz.  
SMITH, THOMAS J., Alexandria, Va.  
THOMAS, DENNIS R., Peterson AFB, Colo.  
VAN BLARCUM, SCOTT C., Heidelberg  
ZEHR, DAVID F., Osan AB, ROK  
ZETTLEMOYER, MARK D., Norfolk, Va.



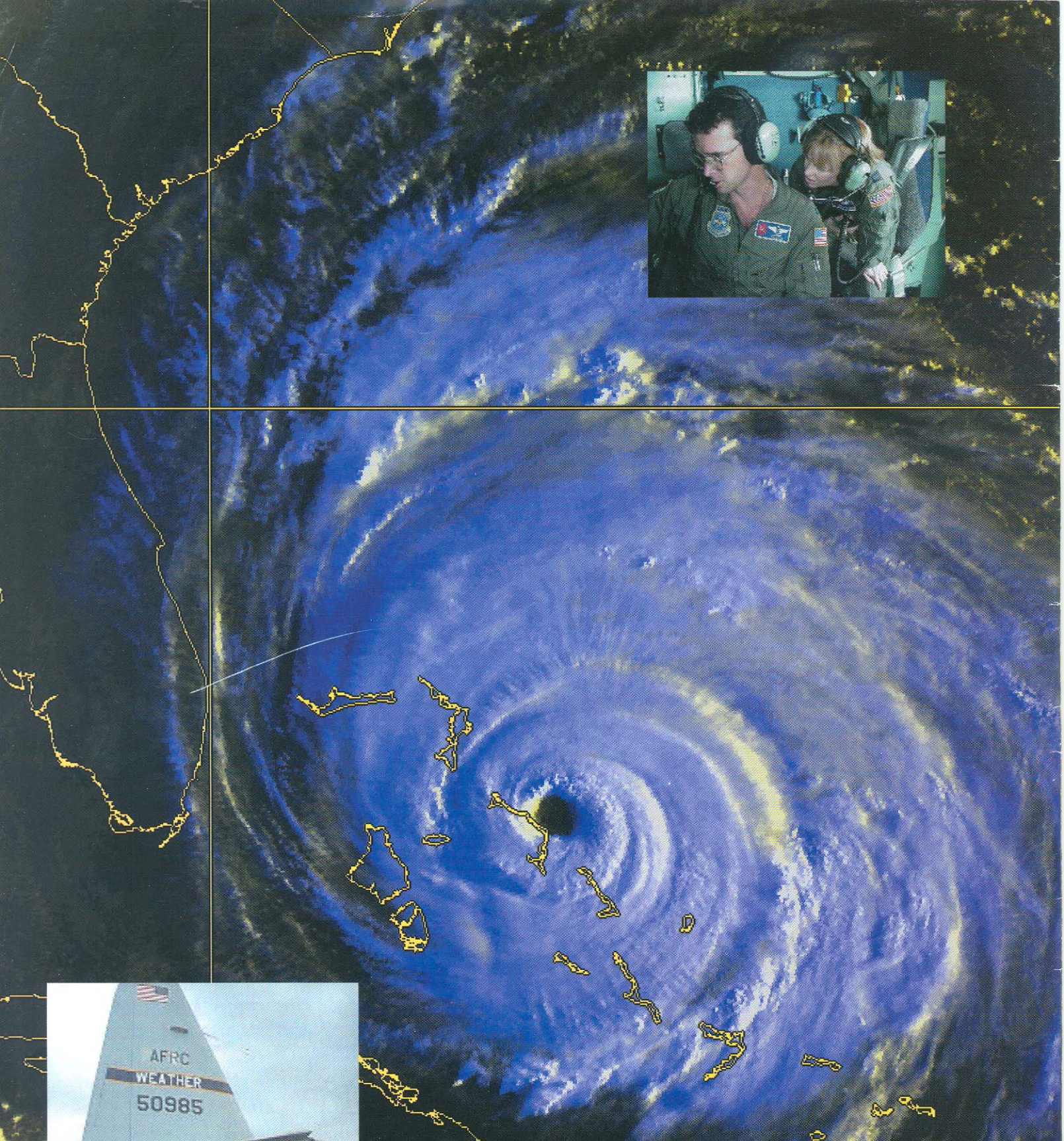
# ***Air Force Weather's newest noncommissioned officers***

ALBERTSON MATTHEW, Hulburt Fld, Fla.  
ANDREWS MICHELE, Offutt AFB, Neb.  
ARFA JACOB T., Charleston, S.C.  
ATKINS ISABELLE D, Elmendorf AFB, AK  
ATKINSON STEVEN L., Scott AFB, Ill.  
BALDINGER STEVEN M., Pearl Harbor Hawaii  
BALL GREGORY W., Andrews AFB, Md.  
BASONIC TIMOTHY A., Offutt AFB, Neb.  
BAUMAN JAMES P., Keesler AFB, Miss.  
BIANCHI GREGORY M., Andersen AFB, Guam  
BISHOP RONALD G JR., Fort Campbell, Ky.  
BLACK EDGAR A., Holloman AFB, N.M.  
BLACKERBY LISA M., Eglin AFB, Fla.  
BLANKENSHIP DAVID, Torii AB, Japan  
BOLING BRUCE A., Ellsworth S.D.  
BOLLINGER RICHARD, Fort Bragg, N.C.  
BORN JON D., Charleston AFB, S.C.  
BRONSON CHARLES W., Dover AFB, Del.  
BROTHERS ELLIOTT H., Offutt AFB, Neb.  
BROWN JAMES D., Patrick AFB, Fla.  
BROWN LOLINE M., McGuire AFB, N.J.  
BRUGGEMAN MARK A., Fairchild AFB, Wash.  
BURDICK CHARLES A., Yokota AB, Japan  
BURNETT SHARON M., Scott AFB, Ill.  
BURTON MICHAEL V., Fort Campbell, Ky.  
CARPENTER JOHN M., Hulburt Fld, Fla.

CHAPA WILLIAM G., Cannon AFB, N.M.  
CLARK THOMAS W., Little Rock AFB, Ark.  
CLARK VANCE C., Presido, Mont., Calif.  
COLEMAN STACIN., Langley AFB, Va.  
COLLINS JEREMIE L., Offutt AFB, Neb.  
COMBS RONALD J., Wright Patterson AFB, Ohio  
DAVIS RICKIE D. Jr., Camp Hunphreys, Korea  
DECKER JOEL C., Keesler AFB, Miss.  
DECORTE CHRISTOPHER, Fort Carson, Colo.  
DISHION THOMAS J. Jr., Fort Carson, Colo.  
DITONDO NICHOLAS A., Fort Rucker, Ala.  
DRENNAN BRIAN L., Fort Wainwright, Alaska  
DREY CHARLES J., Scott AFB, Ill.  
DRYSDALE GREGORY A., Asheville, N.C.  
DURIO JAMES J., Sheppard AFB, Texas  
ELLIOTT JEREMY E., Fort Rucker, Ala.  
FISCHER DAVID M., Ellsworth AFB, S.D.  
FJELD BRIAN S., Fort Belvoir, Va.  
FLIEGER DAVID E., Offutt AFB, Neb.  
FORTON ROBERT J., Mildenhall AB, UK  
FREDERICK ARLO D., Offutt AFB, Neb.  
GAONA JOHN J., Dyess AFB, Texas  
GARCIA CARL R., Macdill AFB, Fla.  
GARTON BRYAN P., Kirtland AFB, N.M.  
GASTON MICHAEL T., Malmstrom AFB, Mont.  
GIBSON JAMES E., Mountain Home, AFB, Idaho

GIESE STEVEN B., Kadena AB, Japan  
 GODWIN BRADFORD N., Columbus AFB, Miss.  
 GOVE ERWIN A., Langley AFB, Va.  
 GRAY DAVID S., Offutt AFB, Neb.  
 GRAY LISA M., Offutt AFB, Neb.  
 GUEVARRA ROSSWALD, Columbus AFB, Miss.  
 GUZMAN RICKY G., Dyess AFB, Texas  
 HAND JAMES M., Tinker AFB, Okla.  
 HARDIN HOWARD D., Patrick AFB, Fla.  
 HARMON STEVEN W. Jr., Keesler AFB, Miss.  
 HAROLD TERRY L. Jr., Offutt AFB, Neb.  
 HARRINGTON TRAVIS, Shaw AFB, S.C.  
 HARTWICK LAURIE A., Shaw AFB, S.C.  
 HEATH SONIA L., Fort Hood, Texas  
 HEIDBRINK JANEL P., Keesler AFB, Miss.  
 HENIGIN DUANE F., Tinker AFB, Okla.  
 HILL PATRICK S., Dyess AFB, Texas  
 HOAGBOON JON E., Patrick AFB, Fla.  
 HOPKINS BART J., Columbus AFB, Miss.  
 HOWARD JAMES A., Yongsan AB, Korea  
 KAUP RAFAEL A., Keesler AFB, Miss.  
 KELLY CECIL F., Offutt AFB, Neb.  
 KENNEDY KIMBERLY A., Offutt AFB, Neb.  
 KOCH RICHARD E., Holloman AFB, N.M.  
 KOCH SHAWN T., Kadena AB, Japan  
 KRAMER JAMES M., Camp Humphreys, Korea  
 KRIEGER STEPHEN M., Fort Polk, La.  
 LAM GARY M., Fort Wainwright, Alaska  
 LANKFORD DERRELL D., Illesheim AB, Germany  
 LAWLESSFOSTER KELLY, Offutt AFB, Neb.  
 LEE JOHN D., Fort Carson, Colo.  
 LEWIS LETONIA M., McChord AFB, Wash.  
 LOPEZ DANNY P., Fort Bragg, N.C.  
 LORINCZ SCOTT E., Shaw AFB, S.C.  
 LOSENICKY SCOTT A., Minot AFB, N.D.  
 MACDONALD RYAN S., McConnell AFB, Kan.  
 MACK DAVID L., Keesler AFB, Miss.  
 MADISON DAMION S., Laughlin AFB, Texas  
 MARTINEZ ROBERT H., Kunsan AB, Korea  
 MAZINGO AMY M., Robins AFB, Ga.  
 MILLER JASON D., Yongsan AB, Korea  
 MILLER TRENT S., Hohenfels, Germany  
 MORETTO JULIE B., Hunter AFB, Ga.  
 MORGAN JASON M., Hunter AFB, Ga.  
 NELSON HJAL, Offutt AFB, Neb.  
 NICHOLLS WANDA A., Fort Drum N.Y.  
 NUY JASON J., Tinker AFB, Okla.  
 OBAR STEPHEN T., Eglin AFB, Fla.  
 ORR BRANDON D., Offutt AFB, Neb.  
 PALMER MICHAEL D., Scott AFB, Ill.  
 PALMER WILL A., Enrique, Honduras  
 PARKER MELINDA G., Vance AFB, Okla.  
 PARKER RALPH A., Pearl Harbor, Hawaii  
 PARRY RENEE S., Offutt AFB, Neb.  
 PEDERSEN ANGELA M., Whiteman AFB, Mo.  
 PERSINGER BRENT A., Offutt AFB, Neb.  
 POOLE DEMETRIUS L., Yongsan AB, Korea  
 PORTER DANIEL J., Scott AFB, Ill.  
 PREIMESBERGER TODD, Little Rock AFB, Ark.  
 PRESLEY CLINTON W., Robins AFB, Ga.  
 PRESSLEY ANTONIO, Shaw AFB, S.C.  
 PUTTBRESE EDWARD J., Keesler AFB, Miss.  
 RAY JAMES L., Fort Bragg, N.C.  
 REGAN JEFFREY S., Offutt AFB, Neb.  
 REYES GILBERT A., Sembach AB, Germany  
 REYNOLDS JEREMY M., Keesler AFB, Miss.  
 RICE CLARENCE H. II., Mountain Home AFB, Idaho  
 RICHBERG DENZOR R., McChord AFB, Wash.  
 RIDPATH JAMIE S., Elmendorf AFB, Alaska  
 ROBERTS AMBER L., Misawa AB, Japan  
 ROGERS JOHN P., Keesler AFB, Miss.  
 ROSARIO JOHN R., Camp Stanley, Korea  
 ROSS DAWN M., Sembach AB, Germany  
 SADLER EMILI A., Hill AFB, Utah  
 SCHULMAN MATTHEW J., Offutt AFB, Neb.  
 SHIELDS JENNIFER J., Eglin AFB, Fla.  
 SOSA JOHN C. JR., Fort Benning, Ga.  
 SPENCE JONI A., Columbus AFB, Miss.  
 SPICZKA BRADY L., McConnell AFB, Kan.  
 STORY JEREMIAH E., Pope AFB, N.C.  
 STRINGFIELD DAVID, Fort Hood, Texas  
 STRONG GREGORY J., Fort Drum, N.Y.  
 SUTTON KENNETH R., Elmendorf AFB, Alaska  
 SWEATT CAROL L., Offutt AFB, Neb.  
 THUNBERG JEREMIAH., Fort Carson, Colo.  
 TIMMERMANN CHRISTINA., Fort Hood, Texas  
 TONER LENA M., Malmstrom AFB, Mont.  
 TRIMBLE ANDREW J., Heidelberg AB, Germany  
 WALKER PATRICK J., Offutt AFB, Neb.  
 WARD WILLIAM A., Offutt AFB, Neb.  
 WARLICK RONALD J., Offutt AFB, Neb.  
 WEBB JERROD B., Barksdale AFB, La.  
 WHITEHEAD JOHNNY E., Minot AFB, N.D.  
 WILLIS MUSETTE M., Andersen AB, Guam  
 WINSKI TONYA A., McConnell AFB, Kan.  
 WOLF CRAIG J., Offutt AFB, Neb.  
 YANCEY ROBERT E., Aviano AB, Italy  
 ZITO TONI L., Sheppard AFB, Texas





## TRACKING HURRICANE FLOYD

A satellite image of September's Hurricane Floyd before it hit the East Coast. Members from the 53rd Weather Reconnaissance Squadron - known as the Hurricane Hunters - engaged in storm tracking activities and continually monitored the hurricane's strength (inlayed photos). The enhanced DMSP image is courtesy of Air Force Weather Agency's METSAT branch and the Hurricane Hunter photos are courtesy of their home page.