

Observer

The Magazine for Air Force Weather

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The World of Weather





Observer

The Magazine of Our Branch

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What's inside:

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Chief Master Sgt. Jeffrey Fries, HQ Air Force Weather Agency Operations Directorate field operations manager, addresses his most frequently asked question, "How do I get promoted?" While reaching the top of the enlisted tier may not be easy, the chief passes on some simple advice to aspiring Airmen and NCOs. They are ... *Work hard, take care of your people, complete all Professional Military Education, and study, study, study.*

AFWA breaks ground on new building **5**

The Air Force Weather Agency broke ground on a new state-of-the-art 188,000 square foot, three story building, March 24. The facility is expected to be completed in the fall of 2007. This new building will have the most up-to-date technological and environmental equipment, thus improving the capabilities and efficiencies of AFWA personnel. A 257-seat auditorium will be equipped with high-tech audio and video capabilities and with sufficient space to accommodate large gatherings.



Soyanara Japan **6**

The 20th Operational Weather Squadron says goodbye to Japan during an inactivation ceremony, April 25. Now, the 17th OWS at Hickam AFB, Hawaii, will take on the role of providing weather information for the region.

Quake relief made easy **8**

Air Force weather professionals provide timely and accurate weather products to relief forces in support of Pakistani earthquake victims in October 2005. The Special Operations Forces Weather Operations Center, located at the Air Force Weather Agency, Offutt AFB, Neb., generated high-resolution environmental situational awareness relief planning. This support was essential in ensuring critical medical and food supplies were delivered to victims within hours of the earthquake.

Juggling act 12

It is no secret that, like the roads, the skies are busy. Various entities such as the Department of Defense, civilian and private aviation industries continue to vie for safe and adequate airspace. To ensure this safety, the Federal Aviation Administration places special emphasis on how weather affects the safety and capacity of the national airspace system by working together in partnership with Air Force Weather and the U.S. Air Force.



Whatever the weather 13 Unique location; unique forecasting 14

Weather plays a major role in Army and Air Force mission planning. Mission planners and Aviators rely on the expertise, training and experience of Air Force Weather professionals. At Forward Operating Base Speicher, Iraq, Staff Sgt. Lisa Blackwell, a deployed weather craftsman with the 19th Air Support Operations Squadron takes on the challenge of providing the most accurate and timely mission essential weather information to support the 101st Combat Aviation Brigade helicopter unit.

The 401st Air Expeditionary Wing Combat Weather Team forecasters at Camp Bondsteel, Kosovo, are in a unique position. They are responsible for providing weather forecasts to the Kosovo Forces supporting NATO peacekeeping mission in support of the people of Kosovo. One not-so-typical weather day came Jan. 15, when members from the weather team responded to a mudslide on the mountainside in the Kacanik Valley, to analyze mud levels.

2006 Almanac corrections

The ACC Demographic numbers on Pg. 25, are incorrect. The correct numbers are:

Civilians: 17
Officers: 60
Enlisted: 290

Commander: Col. Michael Bedard
Chief, Range Weather Ops: Senior Master Sgt. Ian Bohnen
24-Hour Contact, DSN: 467-8484

The names for the following unit commanders on Pg. 35 were incorrect. The correct information is:

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Chief, Range Weather Operations: Master Sgt. James Moffitt
24-Hour Contact, DSN: 467-8485

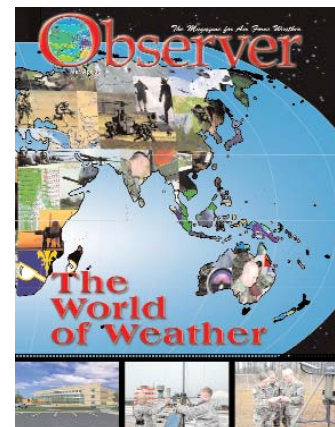
Lightning quick, accurate 17

Weather forecasters from the 379th Expeditionary Operations Support Squadron, Southwest Asia fine-tune thunderstorm forecasting, averting the effects of the harsh desert environment for numerous mission essential aircraft.

On the Cover

Air Force weather continues to provide vital weather support to the warfighter globally. Articles in this issue are sampling of stories about the varied and unique operations Air Force weather professionals provide in support of Department of Defense missions around the World.

Photo illustration by Mrs. Eileen Williamson.



Integrity, Service, Excellence in all we do, Operational Risk Management, Professional Military Education, Hard Work, Taking Care of your people

DELIVERING THE GOODS

by Chief Master Sgt. Jeffrey Fries
 HQ Air Force Weather Agency
 Operations Directorate
 Offutt AFB, Neb.

Over the years, I've received feedback on some of the articles I've written. Mostly they're a polite, "thank you'," but sometimes I'm told "that's nice, but why not write something on how to get promoted?"

I believe this topic has been handled pretty well since the advice provided in a 1980's edition of the *Observer* still holds true today. So, in case you missed it, here's the Cliffs Notes version: *Work hard, take care of your people, accomplish your Professional Military Education, and study.*

If you are a senior NCO, challenge yourself by seeking difficult jobs on top of doing your PME, taking care of your people, working hard, and studying. In spite of the many changes to our Air Force. These basic concepts still prevail.

Training, technology, and organizational structures may have changed, but the nature of being an NCO has not, and for the most part, the day-in and day-out nature of the weather

business has remained largely the same.

The process to develop and deliver a forecast is spruced up every decade or so, but the fun-

damentals remain the same. The tools available to weather Airmen have advanced from teletypes, pencils and paper to computers, cathode ray tubes and algorithms that push pretty much the same suite of forecast products to "customers" around the world. At the heart of the matter, regardless of tools and processes, it is the trained professional Airman that makes it all work; today's weather warriors continue to "deliver the goods," whenever and wherever called upon.

We live in a, "What have you done for me lately?" world so now is not a time to rest upon our laurels. The changing nature of warfare and the rise of information technologies provide an opportunity and a necessity to revolutionize using environmental information in warfare. With such sweeping changes looming on the near horizon, a detailed road map to the future is an absolute necessity. Fortunately, amplified by a series of Enabling Concepts that will be augmented by implementation plans, the Air Force Weather Strategic Plan describes that road ahead.

These concepts and plans spring from an examination of core processes and describe how the weather function will shift the center of gravity from generating and shipping products towards integrating environmental intelligence into decision making.

Transformations of this sort cannot happen overnight, but the rate of change promises to be noticeable. Weather Airmen of every grade will play an active role in turning the strategic vision into reality. Most of you will witness a shift in the center of gravity from product-focused to information-focused activities. We will become familiar with terms such as meteorological

lifecycle training, ensemble predictions, median forecast values, confidence levels, and risk mitigation. Net-centric weather operations depend upon development and fielding a four-dimensional data cube married to robust visualization tools that allow the forecaster to interact with sensed and forecast elements of the data cube.

Risk management processes will dictate when and where human involvement is necessary and beneficial to the mission. Interactive collaboration tools will permit forecasters to work together and provide a cross-domain solution when faced with challenging environmental conditions in the terrestrial, near-space, and space environments.

Forecasters will work at scales ranging from synoptic to battlefield or mission scales. They will employ the same basic processes of information analysis and short-range forecasting to place layers in the data cube for discovery by command-and-control systems used to plan and execute military missions.

Combining the power of technology with the agility of a well-trained human mind is an unbeatable combination that has been the formula for success for many years. Changing tools and ways of doing our functional duties does not change the underlying core principles of integrity, service, and excellence that have made this Air Force what it is today, and what it will be in the future.

I am confident that in a future edition of the *Observer*, other weather chiefs will write perspective articles and that their surefire recipe for success in the new operational structure will be — work hard, take care of your people, challenge yourself by seeking difficult jobs, do your PME, and by all means, study.



risk management,

AFWA breaks ground on new building

by Senior Airman Randall Jennings
HQ Air Force Weather Agency
Public Affairs
Offutt AFB, Neb.

The Air Force Weather Agency marked the beginning of a new era for a new state-of-the-art headquarters building on Offutt AFB, Neb., during a ground-breaking ceremony, March 24. Col. John M. Lanicci, AFWA Commander, presided over the ceremony.

"The new building gives us a blank canvas to create the organization we have only envisioned to this point," Colonel Lanicci said.

The new facility, with expected completion in the fall of 2007, will help transform AFWA's capabilities and organization. It will have 188,000 square feet on three floors, plus an underground level. The plan includes a 257-seat auditorium to accommodate large gatherings with high-tech audio and video capabilities. The new building will house about 740 employees with room for 360 more.

Upon completion, and once the Agency has approval to occupy the building, the moving-in process is expected to take nearly four years.

"This process ensures our warfighters receive continued and uninterrupted service," he said.

The Air Force has had a

major weather center in the Martin Bomber Building since 1965.

"The Martin Bomber Building has served us well, it has been a home to Air Force weather for over 40 years and I am proud we have been a part of its rich history," Colonel Lanicci said.

A new facility was required to meet the challenges of maintaining AFWA's unique production, communication, environmental, and electrical systems needs. Within the current facility, AFWA has located personnel and equipment among the many nooks and crannies of Building D as missions were added and space was available.

The new facility will allow the logical organization of AFWA missions within a modern infrastructure designed with the flexibility to provide weather products, training and technical services for present and future requirements.

"The flexibility of the building's design will allow the Agency to adapt to our ever-evolving mission," Colonel Lanicci said.

The building design and specifications will



Artist rendition of the new state-of-the-art 188,000 square foot, three-story building. Illustration courtesy of Kenneth Hahn Architects.

also meet environmental and energy efficiency considerations to consume fewer resources. This includes reducing water consumption by 20 percent, improving environmental efficiency of heating, ventilation, and air conditioning equipment, improving recycling capabilities, and enacting the latest energy efficiency practices to conserve electricity. The new AFWA complex will also house an expanded lobby and heritage center.

The request for building a new facility was submitted into the military construction process in 1995 and although the Air Force approved the project for fiscal year 2008, a Congressional insert moved the project up to fiscal year 2006.

The U.S. Army Corps of Engineers handled the bid and award process, and the Kiewit Building Group, Inc., was awarded the \$27.1 million contract Feb. 16.

"This will be a world-class facility for a world-class organization," said Col. Lanicci.

A group of seven men standing in a line, each holding a golden shovel. They are dressed in a mix of military uniforms and business suits. They appear to be participating in a ground-breaking ceremony. The background is a plain, light-colored wall.

(Left to right) Representing U.S. Senator Chuck Hagel, Military Advisor, Chief Master Sgt. (retired) Glenn Freeman; Brig. Gen. William Holland, Director of Current Operations and Training, Deputy Chief of Staff for Air, Space and Information Operations, Plans and Requirements, HQ U.S. Air Force; Col. John Lanicci, AFWA Commander; Mr. Kenneth Hahn, Kenneth Hahn Architects, Inc.; Mr. Joe Lempka, Senior Vice President Kiewit Building Group; Maj. Joel Cross, Deputy District Commander, U.S. Army Corps Of Engineers, Omaha District 106; and Airman 1st Class Stephen Castleberry, AFWA's most junior member, participated in the ceremony. Photo by Staff Sgt. Jeremy Henderson.



Soyanara Japan

by Staff Sgt. Karen Tomasik
374th Airlift Wing
Public Affairs
Yokota AB, Japan

The Yokota community gathered to mark the inactivation of the 20th Operational Weather Squadron during a ceremony April 25.

The event drew guests from across the U.S. military, Japanese Self Defense Forces, 20th OWS members, and the Japan Meteorological Agency – the equivalent of U.S. National Weather Service. Lt. Gen. Bruce Wright, U.S. Forces-Japan, Fifth Air Force commander, spoke of the changing Air Force and how the 20th OWS has changed to meet the needs of the Air Force.

“Change is hard. Everyone hates change but we are at war and our ability to pick up and change is what we need to do in order to prevail over our enemies,” General Wright said. “To the members of the 20th OWS, thank you for your service and for continuing the fight.”

The 20th OWS dates back to April 1943, when it was first activated in Egypt. Over the years, the 20th Weather Squadron was based in Indonesia, the Philippines and various locations in Japan, including Tokyo, Nagoya, Fuchu Air Station and finally Yokota AB.

During that time, the unit was inactivated and reactivated multiple times. This ranged from the relocation of the unit, to the divestiture of the Air Weather Service (when control of weather units moved from weather squadrons to local wings) and then re-engineering of the weather career field, that saw most forecasting services centralized within eight theater operational weather squadrons.

For the past six years, the 20th OWS has conducted weather operations for 19 Air Force and Army installations throughout Japan and South Korea. In addition to supporting theater exercises and training missions, the 20th OWS supported several real-world contingencies, including relief missions in Southeast Asia during the aftermath of the devastating tsunami in December 2004.

Throughout the years in Japan, members of the 20th OWS have worked to enhance bilateral cooperation with their Japanese counterparts.

“While we understand the importance of streamlining Air Force operations and operating as efficiently as possible, we will greatly miss our Japanese counterparts,” said Maj. David Andrus, former 20th OWS director of operations. “We’ve forged incredible friendships over our time here that have well-served the U.S. Air Force, Japan Air Self Defense Force, our mutual civilian

weather services, and two countries. Throughout our increased friendships and cooperation, we’ve been able to share greater amounts of weather experience, skill and data. We are truly sad to say good-bye to such outstanding friends and allies.”

While the 20th OWS inactivates, the 17th OWS at Hickam AFB, Hawaii, will take on the role of providing weather support and products for the region.

“The 17th OWS has had the benefit of receiving all our training materials, processes and tools so they can continue the same level of support our units have become accustomed to receiving,” Major Andrus said. Although members of the 20th OWS are sad to see it go away, some look to the day when it might return.

“The most important thing is that our customers will still receive the quality support they require and deserve from the 17th OWS,” said Senior Master Sgt. Stephen Dombek, former 20th OWS superintendent.

“Our unit has been inactivated and reactivated several times since it was formed in 1943, and it wouldn’t surprise me if you see some form of the 20th OWS again,” he said.

Even junior members of weather see the inactivation of the 20th OWS as a path to other areas of their career.



"I've been in weather for two and a half years and I worked as forecaster primarily for Kunsan Air Base, Korea," said Airman 1st Class Derek Krahn, former 20th OWS forecaster.

"I look at it as a welcome change to work at a base combat weather team. Instead of forecasting for a broad area, I can focus on an area where I am directly located."

Lt. Col. Michael Farrar, former 20th OWS commander assumed command two years ago; at that time, he was told the unit would be inactivated and his goal was to prepare and make the transition as smooth as possible while maintaining day-to-day operations.

"The members of the 20th have been instrumental in meeting four goals set when I arrived," said the Colonel.

The four goals of the Colonel were simple and attainable. They were to continue operations while working to hand them [unit resources] over to the 17th OWS; to improve current operations; to build and improve relationships with their Japanese counterparts; and to take care of each other.

"Every member of the 20th should be proud of the work we've done and the relationships we have built here," Colonel Farrar said.

Aloha Hawaii

by Tech. Sgt. Shane Cuomo
15th Airlift Wing Public Affairs
Hickam AFB, Hawaii

Moving forward with the Air Force's Smart Operations 21 initiative, the 20th Operational Weather Squadron from Yokota AB, Japan merged into the 17th Operational Weather Squadron at Hickam AFB, Hawaii.

The 17th OWS assembled into one center, improves forecast capabilities, trains Airmen, and exploits new technology covering its expanded 95-million square mile area of responsibility.

"In the Pacific, we have streamlined our operations," said Lt. Col. Stephen Romolo, 17th OWS commander. "We have consolidated two operational weather squadrons into one; by doing that, we have centralized weather support into the war fighting headquarters."

Beginning in the late 1990's, Air Force Weather started on a journey to reorganize and consolidate resources into eight regional hubs around the world.

This was done to increase efficiency, better utilize manpower, and

reduce the footprint at local installations and in combat zones.

Now, after a year of planning this merger, the Air Force has seven operational weather squadrons.

"We have some incredibly professional Airmen and they made it happen," said Maj.

Christopher Finta, 17th OWS Director of Operations.

According to Colonel Romolo technology also plays a big part when dealing with reach-back capabilities.

"Weather has been on the forefront of utilizing the Internet. Customers use our Web page, and we use 'chat' software to increase back-and-forth collaboration with combat weather team forecasters who are directly supporting our warfighters."

By consolidating the squadrons and streamlining their operation, the 17th OWS has been able to increase the level of support they provide to Pacific Air Forces.

"The consolidation we did in the Pacific has occurred because of a lot of team work by a lot of different organizations. PACAF's Weather Division wrote us a great plan; we executed it; we have eliminated waste and streamlined our operation," Colonel Romolo said.

Now, the goal of this merger, of improved efficiency and utilization of resources, has been realized.

"We have improved the way we do business here in the Pacific," he said.

The 'Lone' forecaster

by Mr. Miles Brown
HQ Air Force Weather
Agency Public Affairs
Offutt AFB, Neb.

The Air Force Weather Agency's detailed weather data assisted with the relief effort following the devastating earthquake in Pakistan in October 2005 — one of the most devastating earthquakes in recent memory.

With more than 140,000 dead or injured, millions were left homeless and facing the long, brutal winter of the Pakistani mountain region. The international community and their air forces were mobilized.

For Air Force Weather professionals, that meant timely and accurate weather products would be essential to ensure critical medical and food supplies reached the victims before the onset of winter.

Within hours of the earthquake, the Special Operations Forces Weather Operations Center located at the Agency's headquarters at Offutt AFB, Neb., started generating high-resolution weather products for relief planning.

The SOFWOC forecasters normally support SOF teams deployed to austere locations around the world. Their unique capabilities and existing communication networks were ideal for distributing timely weather data

and forecasts to the humanitarian relief forces. Tailored snow depth analysis, created at AFWA, for the high mountain passes of Pakistan provided planners with critical decision-making tools that enhanced successful relief efforts.

A disaster response group was formed within days of the quake to provide relief efforts, but initial relief flights to the northern mountains were grounded due to torrential rain and strong winds.

The first weather observations coming out of the region were transmitted to the SOFWOC via satellite phone calls from a deployed weatherman.

"A special tactics weatherman was able to go forward and provide remote observations at the landing zones and drop zones," said Capt. Bill Schroeder, chief of the special support operations branch at AFWA.

"This information was vital for relief flights into this terrain."

These weather observations were loaded into a web-based weather information network, making them available to everyone working the humanitarian relief

efforts. The SOFWOC forecasters also produced forecast model visualizations over the relief areas.

"These fine-scale models enhanced daily forecasts for low-level helicopter operations and palletized cargo drops," Captain Schroeder said.

"We also produced point-and-click weather maps, allowing data retrieval by selecting locations on topography maps. This reduced the time it took weather units within Central Command to retrieve data for mission planning."

These efforts highlight the Air Force's commitment to our nation's global humanitarian missions. The men and women of the Air Force Weather Agency, teamed with AFW technicians around the world, are providing the best space and terrestrial weather information to our forces engaged in military or humanitarian missions anywhere.

Pakistan Quick Facts

Location: Southern Asia, bordering the Arabian Sea, between India on the east and Iran and Afghanistan on the west and China in the north

Area - comparative: Slightly less than twice the size of California

Land boundaries: Total: 6,774 km

Borders: Afghanistan 2,430 km; China 523 km; India 2,912 km; and Iran 909 km

Climate: Mostly hot, dry desert; temperate in northwest; arctic in north

Terrain: Flat Indus plain in east; mountains in north and northwest; Balochistan plateau in west

Lowest point: Indian Ocean 0 m

Highest point: K2 (Mt. Godwin-Austen) 8,611 m

Frequent earthquakes, occasionally severe especially in north and west; flooding along the Indus after heavy rains (July and August)

Population: 165,803,560 (July 2006 est.)

Information courtesy of CIA World Factbook.

by 7th Weather Squadron staff report Heidelberg, Germany

On Oct. 8, 2005, a destructive earthquake ruptured the ground of northern Pakistan and the disputed border region between India and Pakistan called Kashmir. While terror-stricken victims were suffering without supplies, a team of Soldiers and Airmen deployed in Afghanistan were sent to provide humanitarian aid.

Army CH-47 Chinook and UH-60 Black Hawk helicopters from bases in Afghanistan left two days after the earthquake to Qasim AB, Pakistan, located just south of Islamabad to answer the call. The operation center was set up in a matter of hours and relief efforts started within a day.

Providing initial on-site weather support for helicopter relief missions into this earthquake ravaged zone, was Senior Airman Richard Boyd, a battlefield weather forecaster deployed from Detachment 3, 7th Weather Squadron, Illesheim, Germany.

Already, deployed to

Kandahar AB, Afghanistan in support of Operation Enduring Freedom, Airman Boyd stepped up to the challenge.

Within 24-hours, he set up a weather center, took observations, briefed aircrew, and issued forecasts of expected conditions, while providing both mission execution and airfield services to the aviation assets for this joint team.

Thunderstorms halted aviation operations and grounded aircraft for a day. Senior Airman Boyd's keen forecasting abilities and close working relationship with the 28th Operational Weather Squadron at Shaw AFB, S.C., and other weather units in the area of responsibility, were key factors in the safe operations of all aircraft.

What started out as weather support for five U.S. Army CH 47 and three U.S. Army UH-60 helicopters, quickly grew to 13 additional helicopters including four MI-17s from Afghanistan, two U.S. Navy MH-53s, two Seahawks, three helicopters from Japan, and two from Germany.

Senior Airman Boyd created mission execution forecasts to cover the affected operations area

with route-specific forecasts. The mission evolved to more than 80 sorties daily with aircraft from Qasim AB bringing the only airborne humanitarian aid to the deeply entrenched Himalayan people.

As mission requirements grew, so did the need for additional weather support. That's when Staff Sgt. Daniel Mike, a battlefield weather forecaster was sent in. Together they worked as a team and continued to provide critical and timely environmental intelligence for aviation assets.

The dedication of both Airmen did not go unnoticed, and each were given orientation flights.

"Riding on a CH-47, I experienced weather and terrain conditions, and was able to participate in unloading supplies desperately needed by the victims," said Senior Airman Boyd.

Sergeant Mike's orientation flight included helping unload tents, food, and blankets to people in an unreachable area deep in the Himalayan Mountains. These orientation flights

helped the Airmen create better forecasts for the ongoing operations.

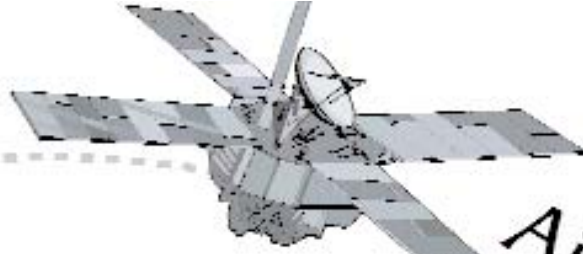
While the mission started as a seven-day relief effort, it transitioned into a very large humanitarian operation. The relief from many nations worldwide poured in, and the coalition helicopters were on-hand to rescue people with severe medical needs.

"It was very important for supplies to get to the people before the on-set of winter and the mountain became covered with snow," said Sergeant Mike.

Senior Airman Boyd and Sergeant Mike said they took the lessons learned and the experiences gained from this operation back to Germany.

"The greatest reward is knowing we made a difference," they said.

Airmen 'Weather' Quake Relief



Forecasters sharpen skills through deployments



said AFWA Commander, Col. John M. Lanicci. Airmen use real-time radar, satellite imagery, sensor readouts, and visual observations to observe and forecast local or deployed weather conditions.

"Weather is more than just a forecast of rain or sun. Our forecasts protect assets, manage operations, ensure necessary equipment is ready, and ensure the safety of our forces," Colonel Lanicci said. This information is essential for military personnel both at stateside and deployed locations.

Staff Sgt. Robert Cook from the Agency is currently deployed to the 376th Expeditionary Operations Support Squadron weather flight at Manas AB, Kyrgyzstan.

Meteorologists in the 376th Weather Flight operate the most sophisticated weather station in their area of responsibility, with nearly a million-dollars' worth of weather-detecting equipment in various locations.

The tower outside their office captures local and regional radar images, while wind vanes, temperature sensors and precipitation-measuring equipment on the flightline measure conditions on the ground.

When big red patches started to grow on radar images April 6, the 376th Expeditionary Operations Support Squadron weather flight knew what it meant, said Sergeant Cook. Lightning and rain was in the forecast. Their weather warnings ensured the aircrew of a KC-135 Stratotanker returned to headquarters, and a group of Airmen left the soccer field in the middle of

a game to seek shelter from lightning.

"The men and women of Air Force weather must be prepared for each mission wherever it takes them. They need the skills to provide accurate forecasts when faced with the challenges of unique terrain and limited data," said Colonel Lanicci.

For example, the Tien Shan Mountains, taller than most American mountain ranges, run east-to-west and catch weather systems at higher altitudes resulting in different reactions.

Many online, computer-generated forecast sources are generally only about 50 percent accurate for this area of Kyrgyzstan because of the lack of current and historical data on weather trends for most of Central Asia, Sergeant Cook said. Historical data is sparse since the collapse of the Soviet Union, and the closest weather station with regular reporting is 200 miles away.

"That site is just a computer, there isn't somebody there looking at the weather and adjusting it [the forecast]," he said.

While dramatic events such as the recent lightning storm are rare, the weather flight makes sure it is prepared with the most accurate weather information possible for its customers - a challenge at this base, Sergeant Cook said.

"Weather information is a force multiplier," Sergeant Cook said.

Military officials use weather to their advantage in planning military operations. "Weather forecasts enable planners to ensure personnel and assets are appropriately prepared because some operations continue regardless of weather conditions," Colonel Lanicci said.

For Sergeant Cook, the weather flight has climbed the steep learning curve

quickly. Even though they have a strong record of accurate forecasting, they learn everything they can from their mistakes.

Once a weather event happens, they review and analyze the data for inconsistencies, thus continuing to improve future forecasts. Staff Sgt. Lara Gale, 376th Air Expeditionary Wing Public Affairs contributed to this article.

Staff Sgt. Robert Cook watches a storm move south across Manas AB, Kyrgyzstan. The weather flight transmits updates every 15 minutes during weather events such as a thunderstorm, based on satellite images and their physical observation of the skies overhead. Photo by Staff Sgt. Lara Gale.

by Mrs. Eileen L. Williamson
HQ Air Force Weather Agency
Public Affairs
Offutt AFB, Neb.

Every day, men and women from the Air Force Weather Agency, headquartered at Offutt AFB, Neb., build the most comprehensive weather database of observation, forecast, climatological data, and space weather products available. Operators in the field are an important source for gathering this information.

"Weather Airmen deploy around the world providing continuous, complete environmental situational awareness,"

Kyrgyzstan Quick Facts

Location: Central Asia, west of China

Population: 5,213,898 (July 2006 est.)

Area - comparative: Slightly smaller than South Dakota

Border countries: China 858 km, Kazakhstan 1,051 km, Tajikistan 870 km, Uzbekistan 1,099 km

Climate: Dry continental to polar in high Tien Shan; subtropical in southwest (Fergana Valley); temperate in northern foothill zone

Terrain: Peaks of Tien Shan and associated valleys and basins encompass entire nation

Lowest point: Kara-Daryya (Karadar'ya) 132 m

Highest point: Jengish Chokusu (Pik Pobedy) 7,439 m
Kyrgyzstan has the world's largest natural growth walnut forest (2005)

Economy - overview: Kyrgyzstan is a poor, mountainous country with a predominantly agricultural economy.

Labor force - by occupation: agriculture 55 percent, industry 15 percent, services 30 percent (2000 est.)

Unemployment rate: 18 percent (2004 est.)

Information courtesy of CIA World Factbook



Airman makes weather history

by Tech. Sgt. Larry Shelvy
Air Force Combat Weather Center
Hurlburt Field, Fla.

Senior Airman Joshua Mace, 16th Operational Support Squadron, Hurlburt Field, Fla., made Air Force Weather history Jan. 5. He was the first to use an automated weather observation capability using fielded fixed-base weather sensors, to manage his shift. Photo courtesy of Air Force Combat Weather Center.

With the click of a mouse, Senior Airman Joshua Mace, a Weather Technician at the 16th Operational Support Squadron, Hurlburt Field, Fla., made weather history. Airman Mace was the first Air Force Weather technician to run his shift with the help of an automated weather observation capability using fielded, fixed-base weather sensors.

On Jan. 5, he sent the first operational, augmented airfield weather observation from the AN/FMQ-19, Automated Meteorological Station using the New Tactical Forecast System.

“I think Air Force Weather has made another step into the 21st Century. It was exciting to be the first to transmit an automated observation,” said Airman Mace.

A force development evaluation was recently conducted between the 16th OSS/OSW at Hurlburt Field and the 28th Operational Weather Squadron at Shaw AFB, S.C. The evaluation team also consisted of members from Headquarters Air Force Weather Agency, Offutt AFB, Neb., and the

Air Force Combat Weather Center, Hurlburt Field, Fla.

“The overall scope of the evaluation was to assess the operational effectiveness and suitability of the interface between these two systems for sensing, displaying, and disseminating automated and augmented surface weather observations at CWTs,” said Master Sgt. Thomas Cardinal, AFCWC Force Development Evaluation manager.

Weather technicians currently take observations manually using either basic or continuous weather watch rules. The AN/FMQ-19 continually senses the atmosphere and has the capability of automatically generating Aviation Routine Weather Report observations. The data is processed by meteorological algorithms and then sent to the N-TFS where it is stored in the local sensor database.

When Aviation Routine Weather Reports and Aviation Selected Special Weather Reports are generated by the AN/FMQ-19, the observation is sent with processed data to N-TFS where it is used to pre-fill the N-TFS observation form. The weather technician

can then give it a sanity check, to make sure the observation is representative of conditions, and transmit it to the HQ AFWA Weather Product Management and Dissemination System.

Automated observations have never been made via standard Air Force Weather equipment from fixed airfields until now.

Automatically generated observations are currently augmented at approximately 20 AFW locations and at most National Weather Service locations by civilian weather counterparts. Within a short time, automatically generated observations at AFW locations will be the norm rather than the exception.

Automated observations are easily recognizable in the body of the observations with “AUTO,” and “AO2,” prominently displayed.

```
KHRT 221155Z
AUTO 09003KT
10SM SCT042 17/17
A3023 RMK AO2
SLP238 70001
T01720169 10172
20149 53003
```

This observation signifies that the creation and dissemination of these observations are all automated. In an augmented observation, the remark “AO2A” is evident and

“AUTO” is removed indicating a certified weather technician either validated or made changes to the observation to reflect items the AN/FMQ-19 is not capable of sensing such as for tornados, hail size, and snow depth.

The following is an example of an augmented, or backed-up observation:

```
KHRT 231155Z
12004KT 7SM
BKN015 OVC030
17/17 A3007 RMK
AO2A SLP185
T01730170 10179
20164 56002
```

During an FDE, the evaluation team compiles comprehensive evaluation data to support a further fielding decision by senior leadership. If a positive fielding decision is made, the interface will be installed at Air Force and Army locations that currently have the AN/FMQ-19 and N-TFS. At some locations, fielding will support retirement of legacy sensors.

For life at a combat weather team, the automation between the AN/FMQ-19 and N-TFS may save those precious minutes, or even seconds in disseminating observations, thus improving efficiencies.

JUGGLING ACT



Military air, civilian air traffic, Air Force Weather, working together for mission success

by Maj. Steven Dickey
DoD FAA Aviation Weather
Policy advisor
Washington D.C.

The U.S. Air Force, Air Force Weather, and the Federal Aviation Administration are working together in partnership to keep the skies safe.

From the early days of aviation, it was clear civil and military aircraft must safely operate together in the skies over our nation and its territories. Because the FAA regulates our National Airspace System and the thousands of Department of Defense-owned aircraft when they are flying in it, there is an obvious need for cooperation. Adding to that need is the expected tripling the demand of the air space over the next 20 years.

The FAA places special emphasis on how weather affects safety and capacity of the NAS. The

Administration works closely with organizations such as Air Force weather, the National Weather Service, the International Civil Aviation Organization, foreign national meteorological authorities, and private industry. They ensure users have what is needed to safely operate in the NAS, as well as along oceanic routes and over U.S. territories.

The FAA owns, collaborates with, or oversees several programs and equipment supporting aviation activities. This includes an extensive network of automated observing systems that provide reports from more than 700 airfields across the NAS, and numerous other flight weather products. They also oversee aviation forecasts produced by the NWS for more than 500 locations.

The Aviation Weather Center, an NWS facility in Kansas City, Mo., produces aviation hazard charts and text bulletins such as a Significant Meteorological Advisories, SIGMETs, and Airman's Meteorological Advisories, AIRMETs. SIGMETs are in-flight advisory warnings of internationally specified weather events of an intensity or extent that concerns pilots and operators of all aircraft. In the lower 48 United States, there are convective (i.e., thunderstorm-related) and nonconvective SIGMETs.

Airman's Meteorological Advisories may be of significance to any pilot or aircraft operator and are issued for all domestic airspace. AIRMETs are advisories of significant weather events but describe conditions at intensities

lower than those which trigger SIGMETs. Both are intended for

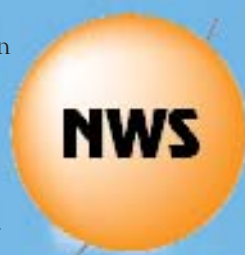
dissemination to all pilots in the en route phase of flight to enhance safety. The AWC functions much like the Air Force Weather Agency or an Operational Weather Squadron and serves as official backup to AFWA (and visa-versa) should either facility become non-operational.

On the world stage, the FAA works closely with the National Oceanic and Atmospheric Administration Volcanic Ash Advisory Centers that provide warnings to aviators of volcanic eruptions and ash clouds, and it is a key player in the world area forecast system that provides weather products to airline operations centers around the globe.

These are only a few examples of services the FAA ensures are available to an aviation community that includes the airlines, general aviation and the DoD. Weather

impacts on the system can be enormous. The Air Force and the FAA are two key players determined to make it work.

Senior Airman Randall Jennings, AFWA Public Affairs contributed to this article.



WHATEVER THE WEATHER

Air Force Weather staff sergeant alerts Army pilots of desert dangers

by Sgt. Ryan Matson
101st Combat Aviation Brigade
Forward Operating Base
Speicher, Iraq

Weather is a major factor in most areas of Air Force mission planning, and few people understand this better than aviators, and Staff Sgt. Lisa Blackwell.

Sergeant Blackwell is an Air Force Weather craftsman. As a forecaster, she is responsible for providing weather forecasts and briefings to pilots assigned to the 101st Combat Aviation Brigade. She briefs pilots on visibility, sky conditions, wind conditions, and other weather-related issues they may face during desert flights.

Pilots departing Al Sahra Airfield from Forward Operating Base Speicher are required to receive a briefing prior to their flight. If the weather is too severe, a flight may have to be cancelled. Winter fog and smoke and summer sandstorms can make flying hazardous. Sergeant Blackwell's ability to provide timely and accurate forecasts can be the determining go/no-go factor for mission planners on large-scale operations.

"It gives me a sense of pride knowing that what we do makes such a difference in so many different aspects," said Sergeant Blackwell.

"Prior to having this job, I never



thought it [weather] had such an impact in so many aspects of the mission – from everything in aviation all the way down to whether or not you can take a picture."

For the past four months, Sergeant Blackwell has served as part of the 19th Air Support Operations Squadron. The 19th ASOS weather team supports the 101st Combat Aviation Brigade, an Army helicopter unit consist-



Staff Sgt. Lisa Blackwell checks current weather conditions with the handheld display of the Tactical Meteorological Observing System Dec. 28 at Forward Operating Base Speicher, Iraq.

ing of Kiowa, Black Hawk, Chinook and Apache helicopters.

According to Sergeant Blackwell the desert environment presents unique challenges for pilots compared to flying stateside. Sparse data also presents unique challenges to forecasters, leaving them to rely heavily on satellite images.

"In the summertime, dust storms are a much bigger factor, but visibility is the main thing because they don't have to worry about ceilings (where clouds cover 5/8 or greater distance of the sky)," she said.

Sergeant Blackwell is no stranger to forecasting in deployed locations. During her 11-year career as a weather craftsman, she has been deployed to Bagram, Afghanistan, twice, in addition to her current deployment to Iraq.

It is clear she has found a job she enjoys, but forecasting the weather was not always on the radar for her future outlook. When she entered Air Force basic training, she entered under an open enlistment, after having filled out a "dream sheet" which included physical therapist and her current occupation. She did well on her placement tests, and was selected to be a forecaster.

"I didn't choose the job, it kind of chose me," she said.



(Main photo) Shows the effects of mudslide on the Kacanik Valley, Kosovo. (Inset) Senior Airman Justin Hallen measures mud levels in slide debris in the Valley. This is just one example of the unique duties the Combat Weather Team at Camp Bondsteel, Kosovo, performs while deployed to this location. Photo courtesy of Lt. Col. William Darling.

Kosovo Quick Facts

Location: Europe

Population: More than 2,000,000 as of the eve of the 1999 crisis.

Area - comparative: Area is 10,877 sq. km. This is about one third the size of Belgium.

Border countries: Kosovo borders Montenegro to the northwest, Serbia proper to the North and East; Macedonia to the south, and Albania to the southwest.

Climate: The climate in Kosovo is continental with warm summers and cold winters with Mediterranean and Alpine influences. Temperature extremes within the country range from +35 C (summer) to -20 C (winter)

Terrain: Kosovo is densely populated with about 175 persons per sq. km.

Information courtesy <http://en.wikipedia.org/wiki/Kosovo#Demographics>

Unique location; unique forecasting

by Detachment 2, 401st Air Expeditionary Wing Combat Weather Team
Staff Report
Camp Bondsteel, Kosovo

Along the war-torn southern border of Kosovo lies the quiet little town of Kacanik in the Kacanik Valley. The valley separates the Dinaric Alps from the Transylvanian Alps. Through this valley run both the Kacanik River

and the main north-south road from Skopje, Macedonia into Kosovo. The road is the primary thoroughfare for commercial traffic between the two countries, and it is NATO's main military travel route.

Suddenly, and without warning on Jan. 15, the mountainside gave way sending an estimated 100,000 metric tons of rock and mud crashing down onto the road and river below. The impact was immediate as all travel along the route came to a standstill. Implications were significant for multinational forces stationed in Kosovo supporting NATO's Kosovo Forces operations.

Engineers from the Army's 36th Infantry Division at Camp Bondsteel were dispatched to assess the damage. One concern was the risk of blocking the river

and flooding the valley. It seemed as fast as the engineers could clear the debris, more of the mountainside collapsed, sending boulders the size of trucks crashing down. The mountains were shrouded in snow, and spring was fast approaching.

Engineers were concerned that sliding would increase as the snow began to melt and spring rains saturated the ground. As their frustration grew, they needed to understand the impacts from melting snow and future rainfall, so they turned to the Air Force's deployed weather team, Task Force Talon, Det. 2, 401st Air Expeditionary Wing, Combat Weather Team at Camp Bondsteel, Kosovo for assistance.

"Along with our regular duties to provide weather forecasting, for routine and special missions of TF Falcon, the 36th Infantry Division, Texas National Guard and helicopter unit of TF Talon, we carry out some specific projects," said Lt. Col. Bill Darling, Combat Weather Team commander.

"They include the possible impact of the weather conditions, such as the development of the landslide near Kacanik and flood risks in Kosovo."

The team coordinated with the 21st Operational Weather Squadron at Sembach AB, Germany to create products that translated data into models depicting water saturation levels in the ground. The team made trips to the mountainside, scaling the hazardous slide area to measure snow pack, and assess ground water saturation levels. Using many of the 21st OWS's forecasting products and tools, they created scenarios of future weather events in preparing impact assessments for both the Army engineers

and the senior staff.

As work on the mountainside continued, the weather team made visual over-flights of the area, and on-site measurements of saturation levels to provide the engineers the information they needed to successfully combat the sliding. The engineers came up with a plan to safely remove the slide and stabilize the mountainside.

This is my first mission overseas and everything about the country and the people is very interesting for me," said Senior Airman Matthew Bowers, member of the Combat Weather Team.

"I remember my first time outside the wire; that was the first time I really realized how much this

place differs from my country."

Staff Sgt. Allen Thill, a Combat Weather Team forecaster for the past five years, recently returned from Operation Palmetto Ghost supporting drug interdiction and combat search and rescue efforts in Columbia, South America said he loves his job.

"This is my second tour to Kosovo. I am a traveler by nature. I have been all around the world with my job. I love the feedback I get from doing my job here as a mission is done successfully and the soldiers consider the impact our forecasts have on their success," he said.

Lt. Maksym Nedria, KFOR Chronicle contributed to this article.



(Left) Staff Sgt. Allen Thill and (right) Senior Airman Jon Aerts, from the 208th Weather Flight, 133rd Airlift Wing, Minnesota Air National Guard is deployed with Task Force Falcon, to Camp Bondsteel, Kosovo. Sergeant Thill and Airman Aerts collect meteorological data about current weather conditions from a tactical meteorological observing system. Photo courtesy KFOR Chronicle.

Weathering down Stereotype

by Staff Sgt. Becky LaRaia
43rd Airlift Wing Public Affairs
Pope AFB, N.C.

Two combat weather Airmen with the 18th Weather Squadron at Pope AFB, N.C., are taking historical steps without even trying.

First Lt. Alexia Forbes and Senior Airman Jackie Miller are not just the only two women in their squadron; they are also two of the few active female parachutists in the Air Force.

Senior Airman Miller ran cross-country at college for three years and studied earth science until she decided she wanted something more exciting in her life. That's when she joined the Air Force. While her first career choice would have been pararescue, her gender made that impossible, therefore she picked the next best thing — combat weather.

Although Airman Miller thought she was ready for jump school straight out of basic training, she had to spend two years learning weather at an operational weather squadron before volunteering for a special duty assignment to Pope AFB.

Lieutenant Forbes graduated from the Air Force Academy and went directly into combat weather. Because a special operations career was not an option for the lieutenant, she thought combat weather would be both mentally and physically challenging.

At the 18th WS, Lieutenant Forbes and Airman Miller help provide weather support for the 82nd Airborne Division. Both Airmen jump into the field with the Army and provide weather support to the units as they move forward. The lieutenant said her biggest challenge when she first arrived was overcoming the stereotype of being a young "butter bar"

straight out of the academy, but she also said that she always felt accepted by the members of the unit.

Regardless, she "jumped right in," and began proving herself.

"I never wanted anyone to feel like they had to carry my weight," she said.

Lieutenant Forbes is planning to deploy and said she is ready to put her training to the test.

Although Airman Miller has not yet deployed, she has supported the Army continuously since she arrived at Pope AFB, in November 2004. She participates in Army exercises at least once a month where they simulate a deployed environment. She is scheduled to deploy in 2007.

Airman Miller said her most memorable experience was a night tactical combat equipment jump with the 82nd Airborne Division. She was tasked with a follow-on mission on her own.

"It wasn't so much the actual mission that was memorable, but it was the fact that they sent me and trusted me," she said.

Lieutenant Forbes said working with the guys on the team is the best part her job.

"I'm not the highest person on the chain, but the best thing I can

do is make the lives of the guys that work for me as good as I can," she said.

Both Airmen agree it is a challenge to win the men over.

"The most challenging thing is selling yourself as a whole person," Airman Miller said.

Neither Airman wants to be viewed as intruders.

According to Airman Miller she wants to only stand out because of the quality of her work and not because she's a female. Airman Miller and Lieutenant Forbes look up to different women within the aviation community. Airman Miller said Patty Wagstaff who is the best acrobatic pilot in America, impresses her.

"Men high in the aviation community refer to her as the best acrobatic flyer in America. They don't refer to her as the best female. She's just the best," Airman Miller said.

The lieutenant said she has always looked up to Christa McAuliffe, the teacher who died in the Challenger accident.

"She was the kind of teacher who everyone would love to have. She never thought of herself as trying to be an extraordinary person or trying to break ground," Lieutenant Forbes said.

Both Airmen are unsure about their futures, but for now, they are thrilled to make the most of each day, working as combat weathermen.



First Lt. Alexia Forbes and Senior Airman Jackie Miller train with fellow combat weathermen at the 18th Air Support Operations Group at Pope Air Force Base, N.C. Photo by Mr. Dave Davenport.

WEATHER TEAM: LIGHTNING QUICK, ACCURATE

by Capt. Scott Avent
379th Air Expeditionary Wing
Southwest Asia

Despite limited experience with weather forecasting in Southwest Asia; forecasters are realizing, that as with anywhere, the weather is always changing.

In early February, Senior Airman Jason Weber, a 379th Expeditionary Operations Support Squadron weather forecaster nailed a fog forecast. He thoroughly researched and predicted its severity and anticipated dissipation. Senior Airman Wes Sheppard passed that data to the supervisor of flying.

Precisely, as forecasted, the visibility cleared to less than three miles from less than one-half mile within 45 minutes. An aeromedical aircraft, minutes from having to divert to another location because of the fog, landed safely and on schedule thanks to the efforts of the 28th Operational Weather Squadron, Shaw AFB, S.C., and the CWT forecasters. The 28th OWS was responsible for producing almost all of the weather products used by the CWT to successfully execute the mission.

With an average annual precipitation of only 3.3 inches, the 1.36 inches of rain that fell on Feb. 23 was a bit unusual. The average rainfall in January and February is 0.8 inches per month.

Thunderstorm activity is at its peak during the winter months a maximum 24-hour rainfall can easily equal the average monthly rainfall.

Staff Sgt. Tania Garza, 379th EOSS weather fore-

caster, predicted the Feb. 23 event three days out, indicating that it would start late Wednesday night and would continue for a majority of the day on Thursday.

One day prior to the storm, Staff Sgt. Sera Shaffer and Senior Airman Amanda Tokarz, both weather forecasters with the 379th EOSS, fine tuned the forecast for the timing of the storm within less than one hour.

One unsung hero was Senior Airman Kyna Davis, 379th EOSS weather forecaster, who took nine special observations, issued five warnings, one weather watch, three advisories and the normal hourly observations and nightly duties. Airman Davis issued mission execution forecasts, takeoff and landing data and a flawless five-day forecast.

"The weather flight nailed this one," said Col. John Norton, 379th Air Expeditionary Wing vice commander. "They forecasted the thunderstorms precisely, and then stayed on top of the situation all night long."

The 379th Combat Weather Team are focused to expertly forecast, observe and disseminate critical weather data information to their customers.

They are always on alert for the next significant weather event; and you thought it didn't rain in the desert!

Air Force honors cadet of the year



by Senior Airman J.G. Buzanowski
Air Force Print News
Washington, D.C.

The Air Force honored its 2005 Cadet of the Year at a ceremony in the Pentagon, Apr. 17.

The honoree, 2nd Lt. Janelle Jenniges, is a graduate of the University of Nebraska - Lincoln's Air Force Reserve Officer Training Corps, Detachment 465.

"She's the top graduate out of all our commissioning sources," said Lt. Gen. Arthur J. Lichte, assistant vice chief of staff. "Every time she gets an opportunity, she moves to the front.

She's the kind of spirited person we want in our Air Force." Lieutenant Jenniges graduated with a cumulative 3.95 grade-point average, graduating in the top three percent of her class, and scored 97.5 out of 100 possible points on the AFROTC physical fitness exam. She earned several other academic awards and served as the Det. 465 operations group commander. She was also selected to attend jump school at the Air Force Academy and earned her jump wings, General Lichte said.

"When I was young, my parents always pushed me to do my best," Lieutenant Jenniges said. "I knew I wouldn't be happy with myself, so I always made sure I was giving my best effort. I'm very much honored by this."

The lieutenant is currently attending technical training school at Keesler AFB, Miss., where she is learning to apply her degree in meteorology and climatology as an Air Force weather forecaster.

"I remember in one of our first meetings, she said she didn't know if she wanted to be a weather officer or a pilot, so she decided she'd do everything she could to qualify for both," said Col. Robert Tovado, Det. 465 commander.

Once her training is complete, she'll head to Sembach AB, Germany, to join the 21st Operational Weather Squadron.

The award's formal name, the British Air Squadron Cadet of the Year Award, was established in 2000 by the private British Air Squadron organization as a tribute to the U.S. military's support of the United Kingdom.

Recipients of the award receive the Millennium Sword, which is kept on permanent display in the Pentagon and serves as a symbol of the enduring British-American friendship.

Lord James Revelstoke, a representative of the British Air Squadron, spoke on behalf of the organization.

Where in the weather world is ...

by Staff Sgt. Nathan Gallahan
92nd Air Refueling Wing Public Affairs
Fairchild AFB, Wash.

He stood talking to himself; passersby may have thought it was a strange scene. But he was just responding to the voices in his head.

"Sure. Will do. OK, now? What was that?" he said as he breathed in deeply. "How does that look? Is that OK? Here we go.

"Well I hope you packed your sunglasses because we'll be having some beautiful weather today," the man said intently as the image of a bright sun floated on a transposed map on a nearby monitor.

He pointed at nothing other than a spot on a blank field of vibrant green. He smiled from ear to ear, not in response to a funny joke – but to hundreds of thousands of people hidden within the glass of an unmanned television camera.

"This is Dave Law, meteorologist on Comcast digital channel 115, here at Weather Plus with new weather updates 24 hours-a-day, seven days-a-week," the retired master sergeant said.

He used to say, "Good morning commanders, there is an upcoming weather front approaching Fairchild ...," but that was over two months ago, before he made some life-changing decisions.

"When you get to that point in your career when it's time to retire, you just know

it," the former Air Force meteorologist said. "You just know it's that time to turn over the organization you've dedicated your life to, to the next generation of Airmen."

He spent 23 years on active duty, the last four at Fairchild AFB as the NCO in charge of the 92nd Operation Support Squadron weather flight. He didn't enlist to be a meteorologist; he signed papers with "open general" stamped on them. He found his path of life printed on a piece of paper handed to him in basic training.

Six assignments later, he landed at Fairchild AFB, managing his own weather flight and briefing wing leadership on upcoming weather activity.

"During those briefings, I found Dave to be extremely professional and his delivery was perfect," said Lt. Col. Joe Hunt, inspector general, 92nd Air Refueling Wing. "I told him then that he would make a great TV

weatherman. He's a perfect marriage of job knowledge and personality."

Mr. Law depended on that experience and personality the first day of auditions.

"I was nervous," the Washington state native said. "It's a lot different talking to a live audience than talking to a television camera and pointing at a green screen."

The audition must have gone well – because he was broadcasting the real deal in less than two weeks.

Mr. Law taped his first broadcast but didn't see it until he was visiting his family in Tacoma, Wash.

"My whole family was tickled to see me on-air, it was a great experience," he said.

Although he has extended family in Tacoma, his only immediate family is his dog, Mojo.

"I leave the television on for him everyday, and I swear when I get home he's a lot calmer and more relaxed now than when I was in the Air Force," he said. "I think it's because he sees me on television and knows I'm around."

The career change has also worked out for Mojo in other ways; Mr. Law is working fewer hours, which means more hours home with him.

"I get to walk him everyday now," he said. "I'm turning into quite the family man."



Retired Master Sgt. Dave Law, broadcast weatherman, KHQ6, uses a "clicker" to switch backgrounds from one image to another during the course of his broadcast Jan. 6. He knows how much time is left by queues from the producer he receives through an earpiece. Dave Law retired from the Air Force in November after serving 23 years as a meteorologist. Photo by Staff Sgt. Nathan Gallahan.

Staff Sgt. Lowell Coxie

Det. 7, 7th WS Grafenwoehr, Germany
Weather Forecaster

Years in Service: 10 years

Hometown: Colonial Heights, Va.

Role Model: My father, my father-in-law,
and Capt. Jean Luc Picard from *Star Trek:
The Next Generation*

Hobbies: Travel, music, reading, history,
snowboarding, collecting Star Trek
books, and hanging out with friends

Reason joined the Air Force: I feel that
each American family owes service in the
military, and I felt that it was my turn to
serve for my family.

Personal Motto: Love your family, help
others, and live a good life and every-
thing will work out as it should.

Most memorable Air Force Weather

Experience: I have had the privilege to participate in
Operations Noble Eagle, Iraqi Freedom, and Enduring
Freedom. I think that all of our forecasts, both in and



out of theater, have made a big difference in each of the
operations and to the thousands of wounded service
members that we helped MEDEVAC crews get to safety.

Weather Warrior



Senior Airman David Weitershausen

43rd OSS/OSW Pope AFB, N.C.

Weather Forecaster

Years In Service: 5 years

Hometown: Indianapolis, Ind.

Role Model/Why? My Dad. He has a very good
work ethic, and he taught me the same. This gave
me the ability to adapt to any situation and make
the best of it.

Hobbies: Restoring muscle cars, building furni-
ture, and spending time with my children

Most Memorable Air Force Weather Experience:

My most memorable experience was my deploy-
ment to Kuwait. I was placed in charge, and I was
finally able to use all the tools the Air Force had
given me over the last five years to accomplish the
mission at hand. More specifically, I worked with
the multinational forces to accomplish a common
goal while overcoming language barriers, and cul-
tural differences. This was very challenging
because we had to work together towards success-
fully accomplishing the mission.

Promotions

Stripes for Exceptional Performers



Two Air Force weather staff sergeants were recently given a surprise promotion to technical sergeant under the Stripes for Exceptional Performers program.

They are **Staff Sgts. Martha Ray** with the 60th Operational Support Squadron, Travis AFB, Calif., and **Daniel Trigo** with the Headquarters Air Force Weather Agency, Offutt AFB, Neb.

The STEP Program, in existence since 1980, provides commanders the opportunity to promote a limited number of airmen with exceptional potential to the grades

of staff sergeant through master sergeant. Each year, the Air Force releases a limited number, usually less than 200, Air Force-wide, slots for a STEP promotion. The slots are usually distributed to the various major commands, who then distribute them to the wings.

There are generally only two or three STEP allocations given to each installation per year. Wing commanders can then use these allocations to promote outstanding individuals to staff sergeant, technical sergeant, and master sergeant.

Congratulations to Tech. Sgts Ray and Trigo on this big step.

To major

Brian Belson, 28th OWS, Shaw AFB, S.C.
James Dedominici, HQ AMC, Scott AFB, Ill.

Travis Doke, 15th OWS, Scott AFB, Ill.
Andrea Hagen, 25th OWS, Davis-Monthan AFB, Ariz.

Carl Johnson, Pentagon, Washington, D.C.

Brian Kabat, USAF Academy, Colo.
Sean Keaveney, HQ AETC, Randolph AFB, Texas

Jonathan Leffler, 17th OWS, Hickam AFB, Hawaii

Danielle Lewis, HQ AFWA, Offutt AFB, Neb.

Michael Lewis, FNMOC, Monterey, Calif.

Mike McAleenan, 45th WS, Patrick AFB, Fla.

Lee Price, 49th OSS, Holloman AFB, N.M.

John Roberts, JSOC, Fort Bragg, N.C.

Darren Sokol, AFCCC, Asheville, N.C.

Matthew Stratton, FNMOC, Monterey, Calif.

James Weaver, HQ AFWA, Offutt AFB, Neb.

To captain

Todd Watson, HQ AFWA, Offutt AFB, Neb.

To senior master sergeant

William Anders, 20th OWS, Yokota AB, Japan

Ian Bohnen, 18th ASOG, Pope AFB, N.C.

Gerald Cordova, HQ AFWA, Offutt AFB, Neb.

Wesley Fillmore, Det. 3, Illesheim, Germany

Terri Grebel, HQ PACAF, Hickam

AFB, Hawaii

Larry Groff, 15th OWS, Scott AFB, Ill.

Paul Hauer, HQ AFWA, Offutt AFB, Neb.

Larry Jones, 20th OSS, Shaw AFB, S.C.

Wesley Mathias, 6th OSS, MacDill AFB, Fla.

Ronald Richards, 25th OSS, Davis-Monthan AFB, Ariz.

Michael Sellers, HQ AFWA, Offutt AFB, Neb.

James Slisik, HQ AFWA, Offutt AFB, Neb.

James Vinson, 2nd WF, Fort McPherson AFB, Ga.

To Senior Airman Below the Zone

John Horton, HQ AFWA, Offutt AFB, Neb.

David Shissler, HQ AFWA, Offutt AFB, Neb.

In Memory of ...



Mr. Ray Townsend, a retired Air Force colonel who worked with the Air Force Weather Agency, Offutt AFB, Neb., in the military and as a civilian contractor, died April 22 in a plane crash in Mississippi. He had been stationed at Offutt AFB twice during his military career, retiring in early 1990s.

Salutes

Retirements

Lt. Col. James Mitchell, HQ AFWA, Offutt AFB, Neb.
Maj. Louis Cantrell, Jr., Det. 3, Wright-Patterson AFB, Ohio
Maj. William Tasso, HQ AMC, Scott AFB, Ill.
Maj. Brian Waranauskas, HQ AFWA, Offutt AFB, Neb.
Senior Master Sgt. Stephen McElroy, HQ AFWA, Offutt AFB, Neb.
Master Sgt. William Courtney, HQ AFWA, Offutt AFB, Neb.
Master Sgt. Tonya Draper, HQ AFWA, Offutt AFB, Neb.
Master Sgt. James Gunderson, HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. Terry Avery, HQ AFWA, Offutt AFB, Neb.

Awards and Decorations

DEFENSE MERITORIOUS MEDAL
Maj. Jonathan Thompson, Det. 1, Wurzberg, Germany

MERITORIOUS SERVICE MEDAL
Col. Michael Kelly, HQ AFWA, Offutt AFB, Neb.
Lt. Col. Daniel Bates, HQ AFWA, Offutt AFB, Neb.
Lt. Col. James Mitchell, HQ AFWA, Offutt AFB, Neb.
Maj. Brian Waranauskas, HQ AFWA, Offutt AFB, Neb.
Maj. Louis Cantrell, Jr., Det. 3, Wright-Patterson AFB, Ohio
Maj. Steven Christy, HQ AFWA, Offutt AFB, Neb.
Maj. David Holt, HQ AFWA, Offutt AFB, Neb.
Maj. Paul Niesen, HQ AMC, Scott AFB, Ill.
Chief Master Sgt. David Scalia, 97th IS, Offutt AFB, Neb.
Senior Master Sgt. Stephen McElroy, HQ AFWA, Offutt AFB, Neb.
Senior Master Sgt. Randy Nelson, HQ AFWA, Offutt AFB, Neb.
Master Sgt. William Courtney, HQ AFWA, Offutt AFB, Neb.
Master Sgt. Tonya Draper, HQ AFWA, Offutt AFB, Neb.
Master Sgt. James Gunderson, HQ AFWA, Offutt AFB, Neb.
Master Sgt. Jeffrey Huston, HQ AFWA, Offutt AFB, Neb.

Tech. Sgt. Terry Avery, HQ AFWA, Offutt AFB, Neb.

JOINT SERVICE COMMENDATION MEDAL
Capt. Aaron Stults, 18th WS, Fort Bragg, N.C.

Senior Master Sgt. David Jenkins, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Ken Asbell, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Claudette Hutchinson, HQ AFWA, Offutt AFB, Neb.
Staff Sgt. Jackie Dalzell, Det. 5, Katterbach, Germany
Staff Sgt. Samuel Adams, 18th WS, Fort Bragg, N.C.
Staff Sgt. Douglas Bunn, 18th WS, Fort Bragg, N.C.

AIR FORCE COMMENDATION MEDAL
Capt. Michael Connelly, 18th WS, Fort Bragg, N.C.

Capt. Meera Daroy-Noe, HQ AFWA, Offutt AFB, Neb.
Capt. Charles Harding, HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. Michael DiCosimo, HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. David Elliott, HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. Cynthia Forsyth, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Fambro Knight, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Gary Spray, HQ AFWA, Offutt AFB, Neb.
Staff Sgt. Douglas Bunn, 18th WS, Fort Bragg, N.C.
Staff Sgt. Eric Cameron, HQ AFWA, Offutt AFB, Neb.
Staff Sgt. William Grissom, 45th WS, Patrick AFB, Fla.
Staff Sgt. Sophia Hess, 607th WS, Camp Humphreys, Korea
Staff Sgt. Andre Lamode, HQ AFWA, Offutt AFB, Neb.
Staff Sgt. Mark Sterling, 18th WS, Fort Bragg, N.C.

ARMY COMMENDATION MEDAL
Capt. Michael Connelly, 18th WS, Fort Bragg, N.C.

Capt. Laura Maddin, Det. 10, Giebelstadt, Germany
Capt. Justin Palmer, 18th WS, Fort Bragg, N.C.
Capt. Michael Scott, 18th WS, Fort Bragg, N.C.
Master Sgt. Randy Elie, Det. 11, Heidleberg, Germany
Tech. Sgt. Jason Nuy, Det. 11,

Heidleberg, Germany
Tech. Sgt. Ralph Parker, 21st ASOS, Fort Polk, La.

Tech. Sgt. Charles Rushing, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Andre Williams, 18th WS, Fort Bragg, N.C.
Staff Sgt. James Ahern, Det. 5, Katterbach, Germany
Staff Sgt. Lisa Blackwell, 18th WS, Fort Bragg, N.C.
Staff Sgt. Benjamin Borden, 18th WS, Fort Bragg, N.C.
Staff Sgt. Kimberly Hawn, Det. 10, Giebelstadt, Germany
Staff Sgt. Daniel Mike, Det. 2, Hanau, Germany
Staff Sgt. Troy Misiak, 18th WS, Fort Bragg, N.C.
Staff Sgt. Christopher Morales, OL-A, Coleman Barracks, Germany
Staff Sgt. Kerri Schmitt, Det. 3, Illesheim, Germany
Staff Sgt. Kevin VanderSys, Det. 5, Katterbach, Germany
Staff Sgt. Edgar Wingo, Det. 5, Katterbach, Germany
Senior Airman Richard Boyd III, Det. 3, Illesheim, Germany
Senior Airman Michelle Brandel, Det. 5, Katterbach, Germany

AIR FORCE ACHIEVEMENT MEDAL

Capt. Scott Miller, HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. Jeffrey Peterson, HQ AFWA, Offutt AFB, Neb.
Staff Sgt. Stephen Lauzon, HQ AFWA, Offutt AFB, Neb.
Senior Airman Tamara Ross, 25th OWS, Davis-Monthan AFB, Ariz.
Senior Airman Carrie Volpe, 45th WS, Patrick AFB, Fla.
Airman 1st Class Jason Geyer, HQ AFWA, Offutt AFB, Neb.

ARMY ACHIEVEMENT MEDAL
Staff Sgt. Carissa Ballard, 18th WS, Fort Bragg, N.C.

Staff Sgt. Joshua Bauman, 18th WS, Fort Bragg, N.C.
Staff Sgt. Mark Bryson, Det. 11, Heidleberg, Germany
Staff Sgt. Daniel Vanmeter, 18th WS, Fort Bragg, N.C.

Education

NCO ACADEMY
Tech. Sgt. Roscoe Moore, (Distinguished

Graduate) HQ AFWA, Offutt AFB, Neb.
Tech. Sgt. Charles Rushing, 18th WS, Fort Bragg, N.C.

AIRMAN LEADERSHIP SCHOOL
Staff Sgt. Sophia Hess, 607th WS, Camp Humphreys, Korea
Staff Sgt. Katie Uhl, 18th WS, Fort Bragg, N.C.

Senior Airman Ronald Buchanan, Det. 2, Hanau, Germany
Senior Airman Tara Hoger, Det. 11, Heidelberg, Germany
Senior Airman Jacqueline Miller, 18th WS, Fort Bragg, N.C.
Senior Airman Travis Rieken, 45th WS, Patrick AFB, Fla.
Senior Airman Carrie Volpe, 45th WS, Patrick AFB, Fla.

WEATHER FORECASTER APPRENTICE

Tech. Sgt. Robert Browder, 28th OWS, Shaw AFB, S.C.
Tech. Sgt. Scott Jennings, 28th OWS, Shaw AFB, S.C.
Tech. Sgt. John McDaniel, 26th OWS, Barksdale AFB, La.
Tech. Sgt. Patrick Thompson, 15th OWS, Scott AFB, Ill.
Staff Sgt. Andrew Narog, 133th OSF, Minneapolis, M.N.
Senior Airman Eric Villafranca, 11th WF Houston, Texas
Senior Airman Stuart Vogt, 121st WF, Andrews AFB, Md.
Airman 1st Class Dale Cain, 15th OWS, Scott AFB, Ill.
Airman 1st Class, Kristina Caigoy, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class Christopher Carter, 28th OWS, Shaw AFB, S.C.
Airman 1st Class, Melissa Emely, 15th OWS, Scott AFB, Ill.
Airman 1st Class Corey Eubanks, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class, Miranda Gilley, 28th OWS, Shaw AFB, S.C.
Airman 1st Class Arthur Gonzalez, 28th OWS, Shaw AFB, S.C.
Airman 1st Class Adam Gradyan, 26th OWS, Barksdale AFB, La.
Airman 1st Class, Jeffrey Guyott, 26th OWS, Barksdale AFB, La.
Airman 1st Class, Jeremy Heins, 15th OWS, Scott AFB, Ill.
Airman 1st Class Magen McClenahan, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class, Lindsey Ryiz, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class Brad Schick, 15th OWS, Scott AFB, Ill.

Airman 1st Class Quinn Simmons, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class Aisha Smith-Pepen, 28th OWS, Shaw AFB, S.C.
Airman 1st Class, Lauren Snyder, 15th OWS, Scott AFB, Ill.
Airman 1st Class Micaela Walling, 25th OWS, Davis-Monthan AFB, Ariz.
Airman 1st Class, Emily Wood, 15th OWS, Scott AFB, Ill.
Airman 1st Class Matthew Yore, 25th OWS, Davis-Monthan AFB, Ariz.
Airman Sara Fishback, 28th OWS, Shaw AFB, S.C.
Airman Michael Gottschalk, 28th OWS, Shaw AFB, S.C.
Airman John Hoagland, 25th OWS, Davis-Monthan AFB, Ariz.
Airman Renee Jackson, 25th OWS, Davis-Monthan AFB, Ariz.
Airman Eric Rocheleau, 25th OWS, Davis-Monthan AFB, Ariz.
Airman Leslie Woodruff, 28th OWS, Shaw AFB, S.C.

COMBAT WEATHER TEAM COURSE

1st Lt. James Caron, 36th OSS, Andersen AFB, Guam
2nd Lt. Daniel Mackeen, 15th OSS, Scott AFB, Ill.
Staff Sgt. Matthew Bohlman, 26th OWS, Barksdale AFB, La.
Staff Sgt. Nathan Chrestensen, 8th OSS, Kunsan, Korea
Staff Sgt. Keven Edwards, 1st OSS, Langley AFB, Va.
Staff Sgt. Spencer Hedine, 3rd WS, Fort Hood, Texas
Staff Sgt. Albert Jackson, 607th WS, Camp Red Cloud, Korea
Staff Sgt. Jay Johnson, 366th OSS, Mountain Home AFB, Idaho
Staff Sgt. Crystal LaRose, 45th WS, Patrick AFB, Fla.
Staff Sgt. Charles Malone, 19th ASOS Fort Campbell, Ky.
Staff Sgt. Robert Mutters, 4th OSS, Seymour-Johnson AFB, N.C.
Senior Airman Blocker Achantee, 1st OSS, Langley AFB, Va.
Senior Airman Shannon Alvis, 3rd WS, Fort Hood, Texas
Senior Airman Laura Benson, 3rd WS, Fort Hood, Texas
Senior Airman Wesley Brinson, 39th OSS, Incirlik AB, Turkey
Senior Airman Jason Chalmers, 15th OWS, Scott AFB, Ill.
Senior Airman Sean Cory, 17th ASOS, Fort Benning, Ga.
Senior Airman Josh Fowler, 19th ASOS Fort Campbell, Ky.
Senior Airman Nathan Fried, 20th OSS, Shaw AFB, S.C.
Senior Airman Joel Harrington, 3rd WS Fort Hood, Texas
Senior Airman Richard Holder, 26th OWS, Barksdale AFB, La.
Senior Airman Chris Lanoie, 607th WS, Camp Humphreys, Korea
Senior Airman Kenneth Malawey, Det. 5, Fort Bragg, N.C.
Senior Airman Chris Manes, 55th

OSS, Offutt AFB, Neb.
Senior Airman Adria Mercader, 86th OSS, Ramstein AB, Germany
Senior Airman Brandon Miller, 1st OSS, Langley AFB, Va.
Senior Airman William Montgomery, 19th ASOS, Fort Campbell, Ky.
Senior Airman Brandon Renko, 347th OSS, Moody AFB, Ga.
Senior Airman Neel Rogers, 3rd WS, Fort Hood, Texas
Senior Airman Trenton Seegmiller, Det. 5, Fort Bragg, N.C.
Senior Airman Jonathan Tucker, 92nd OSS, Fairchild AFB, Wash.
Senior Airman Willis Warren, (distinguished graduate) 71st OSS, Vance AFB, Okla.
Senior Airman James Warrington, 3rd WS, Fort Hood, Texas
Senior Airman Ramel Wyke, 15th OWS, Scott AFB, Ill.
Senior Airman John Zic, 20th ASOS Fort Drum, N.Y.
Airman 1st Class Patricia Mattern, 18th OSS, Kadena AB, Japan
Airman 1st Class James Moats, 97th OSS, Altus AFB, Okla.
Airman 1st Class Cecilia Ybarra, 612th ABS, Soto Cano, Honduras

ARCTIC SURVIVAL SCHOOL

Maj. Robert Coxwell, 18th WS, Fort Bragg, N.C.
Capt. Cory Barack, 18th WS, Fort Bragg, N.C.
1st Lt. Alexia Forbes, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Jason Colon, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Joel Decker, 18th WS, Fort Bragg, N.C.
Tech. Sgt. John Gaona, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Jason Nuy, 18th WS, Fort Bragg, N.C.
Tech. Sgt. John Robbins, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Brion Rockel, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Shane Wagner, 18th WS, Fort Bragg, N.C.
Staff Sgt. Elijah Edwards, 18th WS, Fort Bragg, N.C.
Staff Sgt. Troy Misiak, 18th WS, Fort Bragg, N.C.
Senior Airman Carissa Ballard, 18th WS, Fort Bragg, N.C.
Senior Airman Aaron Cull, 18th WS, Fort Bragg, N.C.
Senior Airman Jon Henderson, 18th WS, Fort Bragg, N.C.
Senior Airman Richard Machina, 18th WS, Fort Bragg, N.C.

ARMY PATHFINDER SCHOOL

Tech. Sgt. Jason Colon, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Shane Wagner, 18th WS, Fort Bragg, N.C.

JUMPMASER SCHOOL

Capt. Justin Palmer, 18th WS, Fort Bragg, N.C.

Tech. Sgt. Joel Decker, 18th WS, Fort Bragg, N.C.

SURVIVAL EVASION RESISTANCE ESCAPE SCHOOL

Tech. Sgt. John Gaona, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Shane Wagner, 18th WS, Fort Bragg, N.C.
Senior Airman Robert Curry, 18th WS, Fort Bragg, N.C.

BATTLEFIELD WEATHER COURSE

1st Lt. Alexia Forbes, 18th WS, Fort Bragg, N.C.
Senior Airman Michelle Schluter, Det. 10, Giebelstadt, Germany

WATER SURVIVAL SCHOOL

Capt. Justin Palmer, 18th WS, Fort Bragg, N.C.
Senior Airman Jacqueline Miller, 18th WS, Fort Bragg, N.C.

TROPICAL FORECASTING SCHOOL

1st Lt. Alexia Forbes, 18th WS, Fort Bragg, N.C.
Staff Sgt. Bralia Mora, 18th WS, Fort Bragg, N.C.

BASIC AIRBORNE COURSE

Capt. Aaron Stults, 18th WS, Fort Bragg, N.C.
1st Lt. Alexia Forbes, 18th WS, Fort Bragg, N.C.
Tech. Sgt. John Gaona, 18th WS, Fort Bragg, N.C.
Tech. Sgt. Jason Nuy, 18th WS, Fort Bragg, N.C.
Staff Sgt. Daniel Vanmeter, 18th WS, Fort Bragg, N.C.
Senior Airman Aaron Cull, 18th WS, Fort Bragg, N.C.
Senior Airman Robert Curry, 18th WS, Fort Bragg, N.C.
Senior Airman Matthew Staton, 18th WS, Fort Bragg, N.C.

2005 ANNUAL AIR FORCE WEATHER AWARDS

BARNEY AWARD

Outstanding Air Force Weather Field Grade Officer
Maj. Steven Cahanin, 15th OWS, Scott AFB, Ill.

GRISHAM AWARD

Outstanding Air Force Weather Company Grade Officer
Capt. Robert Tournay, Det. 1, 607 WS, Camp Red Cloud, Korea

GARDNER AWARD

Outstanding Air Force Weather Senior Noncommissioned Officer
Master Sgt. Paul Richard, Jr., 51st

OSS, Osan AB, Korea

PIERCE AWARD

Outstanding Air Force Weather Noncommissioned Officer
Staff Sgt. Christopher Patterson, 3rd ASOS, Fort Wainwright, Alaska

DODSON AWARD

Outstanding Air Force Weather Airman
Senior Airman John Radovan, 52nd OSS, Spangdahlem AB, Germany

JENNER AWARD

Outstanding Air Force Weather Civilian
Mr. Roddy Nixon, Jr., 78th OSS, Robins AFB, Ga.

BEST AWARD - OFFICER CATEGORY

Outstanding Staff Weather Support
Maj. De Leon Narcisse, Det. 3, Wright-Patterson AFB, Ohio

BEST AWARD - ENLISTED CATEGORY

Outstanding Staff Weather Support
Senior Master Sgt. Shawn Dahl, HQ AFRC/DOVA, Robins AFB, Ga.

BEST AWARD-CIVILIAN CATEGORY

Outstanding Staff Weather Support
Mr. Robert Troastle, HQ ACC, Langley AFB, Va.

MEREWETHER AWARD

Most Significant Technical Contribution To The Air And Space Weather Mission
Acquisitions Staff Meteorology Team - Maj. Fred Meyer, Maj. De Leon Narcisse, Capt. James Bono, Capt. Chad Deal, 1st Lt. Joseph Reich, Ms. Mary Bedrick, Mr. Kurt Lutz
Det. 3, Wright-Patterson AFB, Ohio

ZIMMERMAN AWARD

Best Application of Climatology
25th OWS, Davis-Monthan AFB, Ariz.

SPENGLER AWARD

Most Outstanding Air Force Weather Individual Mobilization Augmentee
Maj. Tracy Scott, AFSPC/A3FW, Peterson AFB, Colo.

UNIT AWARDS

GRIMES-WILLIAMS AWARD

Outstanding Combat Weather Team
75th OSS/OSQ, Hill AFB, Utah

MOORMAN AWARD

Outstanding Specialized Weather Unit
7th WS, Heidelberg, Germany

FAWBUSH-MILLER AWARD

Outstanding Operational Weather Squadron
28th OWS, Shaw AFB, S.C.

COLLENS AWARD

Outstanding Air National Guard Weather Flight
126th WF, Milwaukee, Wis.

