

YOUR MAGAZINE FOR AIR FORCE WEATHER

# OBSERVER

Mar/Apr 02

A man in a desert military uniform is adjusting a weather instrument mounted on a tripod in a desert setting. The instrument has a white, ribbed top section. The man is wearing sunglasses and has a patch on his sleeve. The background is a clear blue sky and a sandy desert landscape.

The Shifting  
Sands of  
**Desert  
Weather**

## What's Inside:

ANG receives first VSAT **3**



Dust  
Up!

**7**

OS-21 Fixed Base System **9**

UAV weather solutions **10**

Gray Beret on TV **12**

Combat Weatherman receives Purple Heart **13**

AFW "Opens Public Window" **15**

Prince Sultan's Prophets of Weather **16**

Weathering the Storm **18**



AFWA unveils  
new JAAWIN  
interface **20**

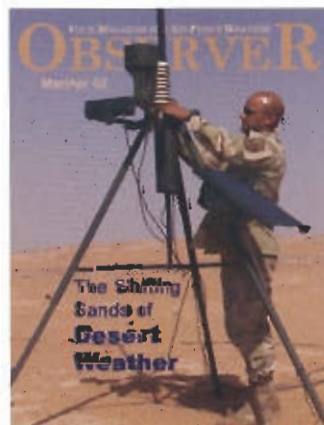
AFW's Annual Weather Award Winners **26**

Weather Warriors **33**

Salutes **34**

## On the Cover:

Master Sgt. Dido Moran, 363rd Expeditionary Operation Support Squadron Weather Flight superintendent, checks connections on a Tactical Automated Observing System. Moran is currently deployed to Prince Sultan Air Base, Kingdom of Saudi Arabia, from the 437th OSS/OSW, Charleston AFB, S.C., in support of Operation Southern Watch. (Photo by Staff Sergeant Timothy Cook)



# OBSERVER

**AIR FORCE DIRECTOR OF WEATHER**  
Brig. Gen. David L. Johnson

**AIR FORCE WEATHER  
AGENCY COMMANDER**  
Col. Bob Allen

**PUBLIC AFFAIRS DIRECTOR**  
Paige Rowland

**PUBLIC AFFAIRS DEPUTY DIRECTOR**  
Jodie Grigsby

**OBSERVER EDITOR**  
Tech. Sgt. Miles Brown

This funded Air Force Weather magazine is an authorized publication for members of the U.S. military services. Contents of the OBSERVER are not necessarily the official view of, or endorsed by, the United States Government, the Department of Defense or the Department of the Air Force. Editorial content edited, prepared and provided by the public affairs office of the Headquarters, Air Force Weather Agency, Offutt AFB, Neb. All photographs are Air Force photographs unless otherwise indicated. All written material and photos to be considered for publication must arrive at HQ AFWA/PA by the first week of the month prior to the month being published. Photos must be mailed to:

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"

# First Air Guard unit receives new VSAT

By Lt. Col. Phyllis Phipps-Barnes  
D.C. ANG Public Affairs

WASHINGTON, D.C. – The 121st Weather Flight, District of Columbia Air National Guard, Andrews AFB, Md., is the first Air Guard unit to receive the Tactical Very Small Aperture Terminal, or T-VSAT, System. Thirty-two other Air National Guard weather flights will also receive T-VSAT systems.

The T-VSAT turnover was officiated by Brig. Gen. David L. Johnson, Director of Weather, deputy Chief of Staff for Air and Space Operations, Headquarters U.S. Air Force, to Maj. Timothy Schott, 121st WF Commander, Feb. 6.

"It's been a team effort on your part, making due with some pretty deplorable equipment," said General Johnson. "You're now up to speed with everybody else, and that's the way it should have been all along," he said.

Master Sgt. Darryl Guilford, 121st WF, gave a demonstration of the T-VSAT's capabilities. He had completed the T-VSAT Train-the-Trainer course at Camp Blanding, Fla., earlier in the month, and will go on to train members of the 121<sup>st</sup> to support the active duty customers.

"If the local area network goes down, the system is always operational as a backup. To really understand weather, you have to understand computers," said Guilford. "Also, weather plays a major role in war strategy. Weather always wins a war and we need to have a continuous source of meteorological data for mission planning and execution."

The T-VSAT system is a "single-user," small, light-weight, rapidly deployable, receive-only, computer-based, digital satellite reception system. This system serves as the "catcher's mitt" for satellite products delivered from VSAT satellite teleports located at the Air Force Weather Agency, a strategic weather center; and the operational weather squadrons, the theater weather centers.

This equipment provides a remote, bare-base communications system for users to receive critical weather information quickly. VSAT can combine with other communi-



Master Sgt. Darryl Guilford, 121st Weather Flight, adjusts the T-VSAT receiver.

cations and mobile satellite systems, and high-frequency radios, to improve weather product availability and timely distribution to end users. It's an economical and reliable means to disseminate large volumes of weather data to multiple, geographically distributed users.

Guard forecasters will also have weather communications for supporting state missions, such as weather support to minimize the effects of weapons of mass destruction, wildfires, hurricanes, tornadoes and winter storm or flood disaster recovery.

Col. Fred Johnson, Air National Guard Assistant to Director of Air Force Weather, commented on technology and theater level Operational Weather Squadrons replacing the base weather briefing counter.

"Today, most Guard weather forecasters deploy forward with their war-fighting customers; therefore, we need to train on the same system we will use during real contingencies. Receiving the T-VSAT systems proves ANG Weather is a vital element in the reengineered AFW," said Colonel Johnson.

# Weather Warrior Perspective: Winning War Means Going to War

By Lt. Col. Ray Clark  
Deputy Chief, ACC Weather  
Operations Division

*"You Don't Win Wars Sitting at Home..."*

*...but you sure can lose them there."*

There I was, trapped in the passenger's side seat with my detachment commander behind the wheel on a long drive home from the station after returning from my very first deployment with the US Army. Tired, dirty, frustrated, and calculating just how many more days actually remained in the 30 months I had left on my original service commitment, I didn't grasp the profound reality of what the major was saying. But he kept hammering it home for the next year and a half. And now, 20-plus years later, I know exactly what the commander was talking about.

Think about that first part: *"You don't win wars sitting at home,"* a simple statement with very deep implications. Break it down again. *"You don't"* implies something that can't be done, or shouldn't be tried. *"Win wars,"* that's what we are called to do, our reason for wearing this uniform. Those wars can be described like volcanoes: they're sometimes dormant, sometimes hot, but always there. *"Sitting at home,"* this prepositional phrase (or something like it, I never did well in English

class) has a negative connotation to it. *"Sitting at home,"* like what? Well, perhaps in the meaning that one might be unaware or unprepared...or both.

So what was the major saying? The major was telling me that if I wanted to succeed in my chosen profession, I had to be ready to get out there and do my job, on time, on target. And for us, in early 1981, that meant mobility...the capability to pack up, move around the world, unpack, and operate in a very short amount of time. He wanted me out of my warm office, and out there doing my job. His desired end state was a weather detachment that could move to Europe in a very short period of time, to help fight and win the war.

The major was right. We have yet to fight and win a war without departing home. In fact, quite a number of us will have to go a long distance to do our wartime job. But that's the price we pay to ensure our own homeland is safe.

*"...but you sure can lose them there."* I slunk lower in the seat of that yellow Honda. We were cruising down that highway fast enough for a pricey speeding ticket, yet not near fast enough for my preference at the time. Then the major quit talking to let it sink in. The only audible sound in that car was the scream of 56 caged squirrels under the hood beggin' for the boss to take his foot off the accelerator.

The message was sinking in. What did he mean? Break it down again. *"You sure can,"* meaning I was capable of doing something, either by action or inaction on my own part. *"Lose,"* failure, the unthinkable, could happen to me. And even worse, it could happen to the people in my charge because of my own action or inaction. *"Them,"* a pronoun referring back to the war in the first part of the phrase. *"There,"* a place, this time referring to home and my warm, comfortable office.

There's the message. My boss was telling me that carrying the war to the enemy was a necessary step to victory. Furthermore, he was passing on to me

that lack of preparation and training at home guarantees failure on the battlefield where it matters most.

That simple yet profound statement was made at the height of the Cold War. Leonid Brezhnev was still the Communist Party Chairman in Moscow. The Berlin wall still had almost a decade to go before it fell. Grenada, the KAL 007 shoot down, Noriega, DESERT STORM, bin Laden, ALLIED FORCE...names, places, and events that mark our ever changing world had not yet happened or even become known.

Every day is an opportunity to train and prepare to carry out your role in fighting the war. Every mobility exercise is an opportunity to ensure you're ready to move anywhere quickly to execute the mission. Every training opportunity is a chance to make sure your equipment works and you and your people know how to operate it. Each mission execution forecast is an opportunity to prepare and test for the time when it's the real thing.

Our world changed forever in September. We're fighting a war most of us didn't see on September 10, 2001. In the span of two hours, the time for exercises and training was over. On September 12, it was show time. No intelligence buildup and no special "spin-up" exercises for this all-too-real scenario. Time to stand and deliver.

AFW has done well in Operation ENDURING FREEDOM. Sure, all large operations have some bumps and grinds, and this one has been no exception. But as operations continue, we need to stop and ask ourselves questions about how we train and prepare. Did we do everything we could to get ready? Did we train as hard as we could? Did we make every day count?

The "Old Man" knew what he was talking about that blustery March day in 1981. "You don't win wars sitting at home, but you sure can lose them there." The philosophy is still as pertinent today at the beginning of a new millennium as it was fighting a war long finished...and won.

# Chief's Mentoring: Ingredients for Success

**By Chief Master Sgt. Ronald Mueller**  
7th WS, Heidelberg, Germany

I've been asked many times, especially as a Chief Master Sergeant, what it takes to succeed in today's Air Force, including how to succeed in a reengineered Air Force Weather environment. This is an interesting question, especially with regard to the AFW perspective, and one that is not easily answered by an established, agreed-upon set of standard actions. In my opinion, one thing is certain – to be successful, an individual **must** start early in their military career and establish a consistent pattern and record over the years of service.

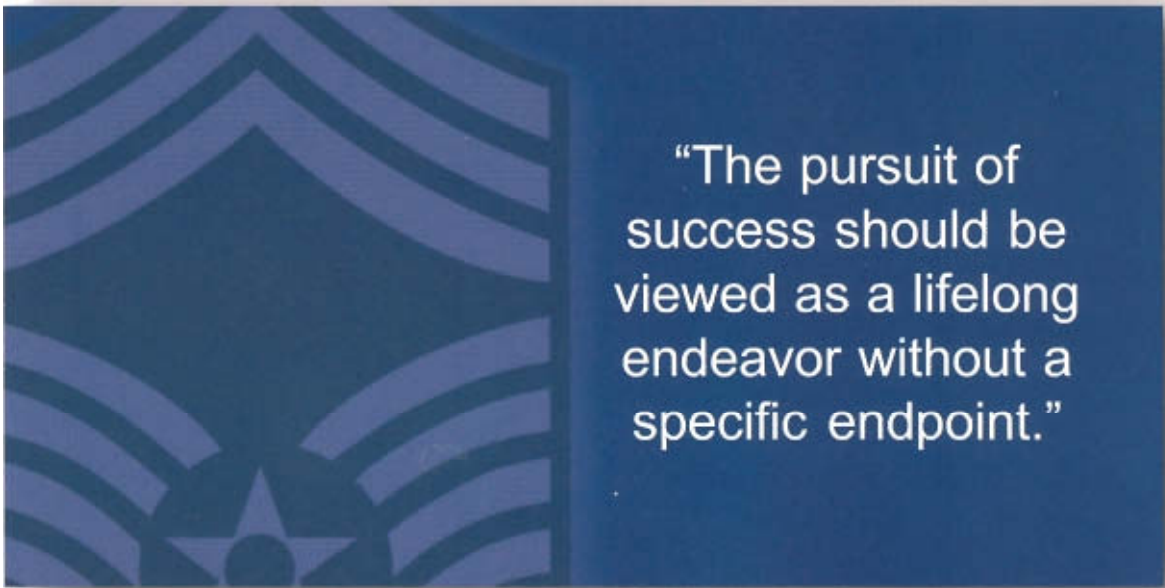
First, the path to Senior and Chief Master Sergeant begins for most folks at Staff Sergeant (and perhaps even SrA). Second, the individual's record must reflect a consistent history of achievements such as community involvement, organizational involvement and leadership, awards (ideally annual) and distinctive performance in education and professional military education. Finally, an individual must be committed to the pursuit of excellence and success; success certainly does not happen by chance.

There is **no** checklist to follow that ensures promotion to our two highest enlisted grades. In fact, there is no objective set of criteria or a checklist used by members of the Senior NCO promotion boards. Much of the assessment process for selecting Seniors and Chiefs is subjective. In fact, promotion board members are asked to review a 10-year record of achievements for every competing individual and arrive at a conclusion that answers the question "is this individual ready to be an E-8 or E-9 in the Air Force?" This assessment is somewhat different for every board member since each board member has a

unique history of service, background, and perspective they bring to the promotion board process.

That said, there are several expectations an individual must fulfill to be a viable candidate for promotion to the senior enlisted grades. These include completion of the SNCOA, a CCAF degree in their occupational specialty and senior rater indorsements, when time-in-grade eligible, on their performance reports. Also, folks must understand the SNCO promotion process is a "whole-person" assessment. Therefore, it is important to be a well-rounded, balanced individual who willingly gets involved in activities within their organization and within the military and/or civilian community.

The following is a list of items that every individual should consider/review as a roadmap for success. That roadmap for success, in and of itself, is **not** unique to the military environment. Hence, I believe if one addresses



"The pursuit of success should be viewed as a lifelong endeavor without a specific endpoint."

each of these items, they will enhance their chances of achieving success in life as well as within the military environment. The pursuit of success should be viewed as a lifelong endeavor without a specific endpoint. These items are **not** necessarily listed in any specific order of importance or priority.

## Keys for Success

Consider living every single day of your life to its fullest. Life is too short to waste time and effort. Dedicate yourself to the concept of lifelong learning. Having that philosophy will make it easier to follow the other tips below. Don't leave anything in your life or career to chance. Overcome procrastination if you suffer from the tendency to put things off. All procrastination will do is prevent or delay success. Progress and procrastination are opposites.

See **Success**, Page 28

# USAFE weather operations: Everywhere EUCOM forces Go

**Col. Richard Clayton**  
Chief, USAFE Weather Operations Division

**USAFE Weather:** an integrated team providing world class operational support to the Europe Unified Command at every level of command – super professionals making Air Force Weather reengineering work in a challenging environment! This is not just a phrase, but a fact!

Our team goes far beyond USAFE weather personnel and communicators (including our valuable contractors); it includes many other Air Force (and Navy) personnel (Active Duty, National Guard, and Reservists) who deploy and team with us at our numerous contingency locations in support of real world US and NATO operations and exercises. We are assisted by the Air Force Weather Agency and its various centers that make our job easier. **The result:** One mission-focused team, making a positive difference for Army, Air Force, and Special Operations warfighters. This was the case before 9-11, and has become even more so with the advent of Operation Enduring Freedom.

The EUCOM theater is a very busy place. It is no longer focused on the former inter-German border and communist monolith to the east. Instead, EUCOM is conducting operations, exercises, and humanitarian relief efforts throughout the theater – from the Horn of Africa, to the Sahara; from Scandinavia across

Eastern Europe to the Balkans; and into Southwest Asia. Everywhere EUCOM forces go they rely upon USAFE weather personnel to either deploy with them and/or support via reachback. What makes it all possible is the positive, “can do” attitude of our 18 Combat Weather Teams, HQ 7th Weather Squadron, two expeditionary weather squadrons – 401st Expeditionary Weather Squadron and 7th EWS, and the USAFE Operational Weather Squadron. Let me mention just a few recent accomplishments:

**USAFE OWS, Sembach AB, Germany:** A dynamic, ops-focused theater center – Lt. Col. Carolyn Vadnais and Lt. Col. John Coulter are leading this stellar unit to new heights. Both a “world class” production center and “schoolhouse,” the USAFE OWS has several on-going initiatives to assist our CWTs including: a new Africa Weather Orientation Course, a “condensed” Weather Apprentice Course for USAFE CWT 3-levels, standup of a Contingency Flight, led by Capt. Derek West, and standup of the first-ever theater-wide pilot to metro service network. In addition, the OWS training flight, led by Capt. Steve Gruber, Senior Master Sgt. John Galliano, and several top-notch “BDU-suit” and SAIC instructors, graduated ninety 3-level forecasters and teamed with Det. 6, 7th WS at Wiesbaden, Germany, to provide CWT orientations for all new OWS 3-level course graduates. Our young forecasters now gain a first-hand appreciation of their customers and the impact of weather on military operations.

**39th OSS/OSW, Incirlik AB, Turkey:** Maj. Dan Edwards’ small 11-person CWT superbly supported the vital NATO contingency mission, Operation Northern Watch – this past year, 4500 sorties without a weather-related incident. The team also supported “around the clock” OEF operations from this vital base. In every case, the support provided was first class and enhanced safe, efficient combat and humanitarian operations.

**401st EWS, Tuzla AB, Bosnia-Herzegovina, and 7th EWS, Camp Bondsteel, Kosovo, and Camp Able Sentry, FYROM:** These expeditionary units in the Balkans are “in harms’ way” every day. Combat and humanitarian air and ground missions never cease, but the challenging Balkans’ weather (record Tuzla rainfall in July, 2001, and ice/snow this past winter)

See **USAFE**, Page 32



**Американска  
Коледа  
край Бургас**

Метеорологката Сюзане Крийбс се радва на възможността да украси в US Бургас на летище Сарафово край Бургас.

Photo courtesy of Burgas

## Santa's Helper

1st Lt. Suzanne Cribb's, 100th OSS/OSW, Mildenhall, U.K., picture appeared in the Burgas, Bulgaria newspaper while deployed in support of Operation ENDURING FREEDOM tanker operations.



Image courtesy of the SeaWiFS Project, NASA/Goddard Space Flight Center.

# Dust Up!

Major dust storms are a frequent occurrence over northwest Africa and the Sahara Desert. This image of a massive dust storm was acquired on Feb. 11, 2001, by the Sea-viewing Wide Field-of-view Sensor (SeaWiFS). SeaWiFS has seen similar storms every year since its launch in August, 1997.

**By Melody Higdon**  
Technical Writer, AFCCC

Forecasting dust storms is critical for our forces deployed to dry, arid regions, and involves more than just wind speeds.

Dust storms can occur anywhere there is loose soil, little to no vegetation and strong winds. This combination is mostly found in the world's deserts. In the Sahara, for example, sand dunes dominate and strong winds occur often. Without vegetation to hold it in place, sand and dust lift easily in the wind.

Another region with severe sand or dust storms is Central and Southwest Asia. There, soil is sand or sandy loess (in this case, fine, wind-blown clay). The desert plateaus of Afghanistan are major dust sources for the region. The surface soil, endlessly blown around by unrelenting winds, has been ground into a fine dust. This dust lifts easily and remains suspended in the air for a long time. Sand also lifts in the strong winds, but its effect is largely limited to the first 10-20 feet (3-6 meters) above the

ground and the worst effects are limited to the first 2-3 feet (1 meter or less).

Dust storms occur in strong storms with well-defined cold fronts, particularly dry storms. These storms have strong winds that create the problems. Dust and sand lift ahead of cold fronts as winds increase in tightening gradient. Oddly, the finest particles are not the first to lift; small sand particles of the "favored" size are moved on the surface first in a process called saltation. Behind cold fronts, even more dust and sand lifts as winds tend to be stronger behind the front than ahead of it.

There must be more going on than straight-line winds. First, the ground must be dry. Besides surface winds strong enough to move particles, there must also be upward vertical motion. Upward vertical speed is roughly one fifth of the surface speed. The vertical speed determines how much particulate matter lifts. The larger the

See Dust, Page 23

# Global Atmospheric upgrades National Lightning Detection Network

## More sensors and new technology improves performance and adds cloud lightning data

Global Atmospheric has commenced work on the single largest upgrade to the U.S. National Lightning Detection Network in six years. Upon completion of this comprehensive upgrade, the NLDN will debut uniform cloud lightning data across the continental United States, and will deliver improved cloud-to-ground lightning reporting to weather forecasting operations and weather-sensitive organizations across the country.

The upgrade is valued at more than \$9.6 million and fundamentally replaces the existing NLDN.

The 2002 NLDN upgrade focuses on three objectives:

- \* Adding cloud lightning detection capability
- \* Increasing the network's lightning detection efficiency
- \* Improving cloud-to-ground lightning location accuracy – primarily in coastal areas and in areas near the U.S./Mexico border.

### Cloud lightning information enables early detection of developing thunderstorms

Since cloud lightning is a typical precursor to cloud-to-ground lightning, cloud lightning is a valuable weather element used by aviation professionals, meteorologists, and others to issue thunderstorm warnings faster and more accurately by identifying thunderstorms during early development. Advances in Global Atmospheric's detection technology, combined with demand for early severe weather warnings needed to keep increasingly complex operations running safely and efficiently, make the 2002 NLDN upgrade both necessary and possible.

### User confidence in the NLDN will reach new levels with all new IMPACT ESP sensors

NLDN customers demand the highest levels of lightning information quality and integrity. Users include premier weather forecasting operations such as Air Force Weather, the National Weather Service, FAA, NASA, and broadcast media as well as a cross-section of weather-sensitive industries, such as telecommunications and power companies, airports, mission critical operations, insurance companies, and golf facilities across the country. To uphold user confidence and to raise NLDN capabilities to new levels, the existing network sensors will be replaced by Global Atmospheric's latest generation cloud and cloud-to-ground lightning detection sensor, the IMPACT ESP. The new IMPACT ESP sensors will both anchor and extend the network's proven performance and workhorse reliability that users trust to assess storm severity and to investigate lightning damage.

### More sensors for increased coverage

Seven locations will be added to the existing 107 ground-based lightning detection sensor sites. In addition, several sensors will be relocated. Adding and relocating sensors optimizes network geometry, improving the detection efficiency and location accuracy – making the network even better than before. When the upgrade is completed, each strike will be reported by an average of more than five sensors, ensuring high levels of accuracy and built-in system redundancy.

Project work began in November 2001, with most new sensor installation and site relocation work occurring during spring and summer 2002. All sensors are scheduled to be fully operational by late summer 2002. Delivery of the cloud data and improved cloud-to-ground data will be available after the upgraded system is rigorously tested during the summer thunderstorm season. During the transition, AFW and all other NLDN customers can expect the same quality data they have received in the past. The current, real-time lightning data may be accessed on the Joint Air Force Army Weather Information Network through the current radar page.

When the project is complete, the NLDN will deliver real-time, national-scale cloud and cloud-to-ground lightning information with unprecedented reliability, bringing new insights into lightning science and advancing the world's understanding to manage lightning risk. *(Article and image courtesy of Global Atmospheric)*



How NLDN communications work: 1) Sensors detect lightning and transmit the data to a satellite; 2) The satellite relays the lightning information to earth stations; 3) The data is transmitted to the Network Control Center via landlines; 4) NCC processes the data; 5) The processed data is relayed back to the satellite; 6) The lightning data appears on the users' displays across the country within seconds of occurrence.



# OS-21 Fixed Base System coming to your base soon

By Capt. Chris Finnigsmier  
AFWA, Observations Systems Chief

The much-anticipated OS-21 Fixed Base System program is shifting into high gear and is picking up momentum. After given the go-ahead by the General Accounting Office last November to award the contract to Coastal Environmental, HQ Air Force Weather Agency, Offutt AFB, Neb., has taken many steps to ensure the system will successfully fulfill Air Force Weather's needs.

The OS-21 FBS is a Commercial-Off-the-Shelf acquisition. System performance to meet Technical Requirements Document specifications will be tested during qualification testing in the factory, and will be verified by the Electronic Systems Center, Hanscom AFB, Mass. After that, ESC/ACW will provide systems to AFWA to conduct the Force Deployment Evaluation at McChord AFB, Wash., Spangdahlem AB, Germany, and Hurlburt Field, Fla. The purpose of FDE is to ensure the system meets AFWA's operational requirements; essentially to provide a properly formatted automated surface observation.

Maintenance and logistics of the system is a priority. A system technical expert from the depot at Ogden, Utah, and a system affiliate at Randolph AFB, Texas, were appointed. They are the maintenance experts that support AFWA in carrying out lead command responsibilities. Both have been actively involved in the acquisition process, which includes reviewing final factory test results and technical manuals. Maintainability and supportability is also being addressed during the FDE. Both the system technical expert and the system affiliate are participating in the test plan development and will be part of the test team.

The Field Program, Collection Branch of AFWA has received questions from the field regarding the procedures to purchase an OS-21 FBS using individual Air Force or Army unit funds. Ordinarily, these requirements occur because the Air Force does not have a specific requirement

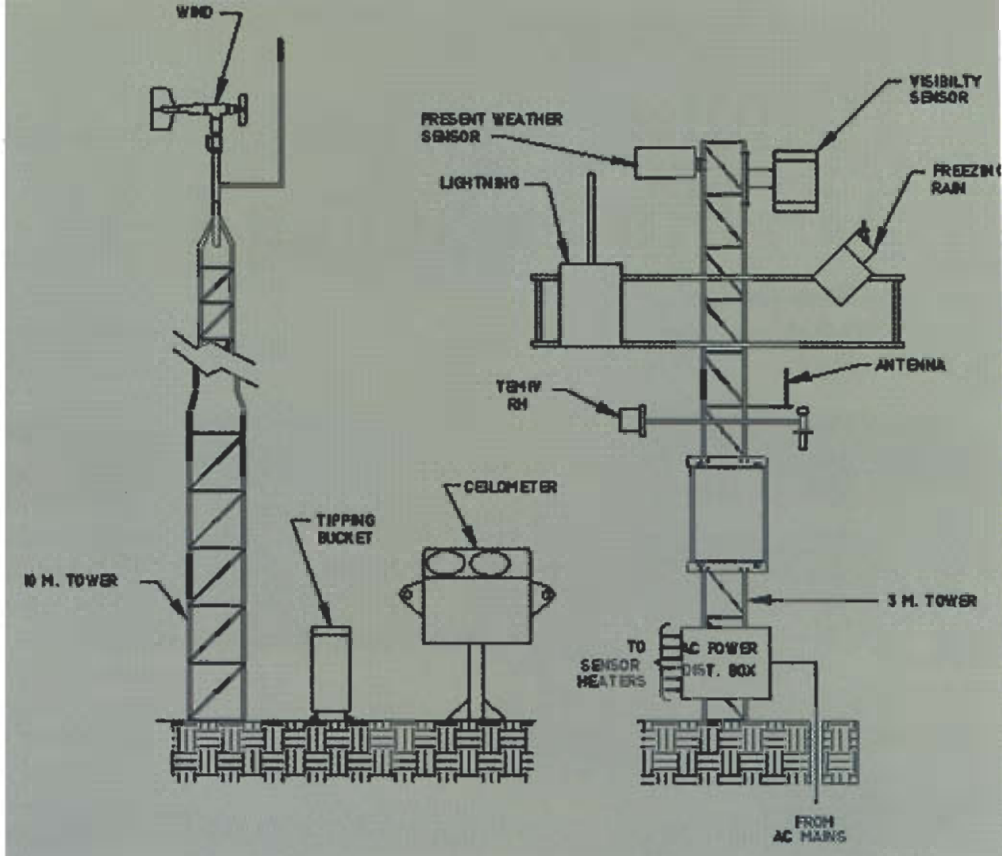


Image courtesy of Coastal Environmental

Typical configuration for the new Fixed Base automated observing system. The systems, built by Coastal Environmental, are scheduled for force deployment evaluations at three bases beginning later this year.

to provide standard weather support for a location but the customer desires an automated observing capability.

Units may procure an OS-21 from Coastal through the ESC contract. Each system costs between \$275,000 and \$300,000. This cost includes the system, installation, checkout, calibration, acceptance testing, test equipment, and spares. However, all funds must be in the form of acquisition dollars – 3080 budget appropriations.

The system requires up to eight dedicated telephone lines (determined during the site survey), and 120V, 40 Amp power within 500 feet of the proposed site. Additionally, units must pay for maintenance and operator training. The specific maintenance cost for each system is dependent on the method by which the unit intends to provide support. If no organic "bluesuit/greensuit" military maintenance is available, contractor maintenance would be required.

Despite funding the system, each unit must still submit a request through their respective MAJCOM to HQ AFWA/Requirements Division. This is necessary to get on the OS-21 FBS installation list. Typically, HQ AFWA/XPFC would attempt to install the new system concurrently with other systems in the particular Operational Weather Squadron area. This is an economy of scope effort to reduce costs for AFWA and the unit. Once XPFC coordinates the purchase of the OS-21 FBS, the only action required by the unit is to transfer the 3080 acquisition dollars to ESC/ACW.

*If you have any questions regarding this system, please call (618) 256-9736, DSN 576-9736, or FAX (618) 256-6300.*

# Predicting Best “War Weather”: Air Force Seeks UAV Solutions

By Sue Baker

ASC Public Affairs

Weather! We're at its mercy, 24 hours a day, 365 days a year, no matter what we do. Even with the most sophisticated online and TV weathercasts, we're powerless in the face of Mother Nature. Or are we?

Steve Weaver, a staff meteorologist, 88th Weather Squadron, Aeronautical Systems Center, Wright-Patterson AFB, Ohio, thinks not. He's hard at work on a task others might think impossible – accurately predicting weather in a war zone half a world away.

“Imagine trying to forecast future atmospheric conditions for a remote area like Afghanistan,” Weaver said. “It's chaotic, even without bad weather. Missiles whizzing by, tanks exploding, paratroopers billowing down, and fighter/bomber aircraft roaring overhead – all obscured by huge dust clouds, churning ten thousand feet high, barreling from the desert to the sea.”

Speaking Oct. 25, 2001, at a local Association of Unmanned Aerial Vehicle Systems International meeting, Weaver told attendees that he and fellow meteorologist John Polander were building on an idea born at the Unmanned Aerial Vehicle Battle Lab at Eglin Air Force Base, Fla. – putting a weather sensor on the Predator UAV, to collect and transmit vital battlespace information to U.S. warfighters.

“We're not only talking about weather conditions – but also detecting nuclear, chemical and biological threats, determining wind profiles for paratroop drops, and checking visibility to help mission planners use the right, precision-guided munitions to hit targets the first time, every time,” Weaver said.

Under an Advanced Concept Technology Demonstration called Battlespace Environmental Intelligence, the duo is designing a sensor package for mounting onboard the Predator or other UAVs to collect flight-level information at altitude.

“This package will also dispense a dropsonde, a molded-plastic canister about the size of a soda-bottle, that will ‘feed’ wind, temperature, and humidity data back to a combat weather station linked to all battlespace forces,” Weaver explained.

Using this cost-effective, simple approach will close a “weather information gap” that has existed for years in certain areas of the world, especially in the Middle East, according to Weaver. “For Afghanistan, there's been no data available since 1983 – they've been too busy fighting to survive, so it's not high on their list of priorities, or likely to change any time in the near future.”

With no current U.S. agreement to exchange weather

information with nearby Iran or Iraq, the whole region is “data-denied” to the U.S. and its allies at this time, Weaver said.

“Yet we have mission planners constantly asking for vertical wind profiles because they're dropping cargo, or Meals-Ready-to-Eat, or paratroops – for whom the right winds are absolutely critical to mission success.”

The situation overseas is in marked contrast to weather prediction in the U.S., where forecast records have been maintained and updated for more than a century, Weaver admitted.

“Those long-term, statistical averages are pretty good, so that you can predict weather six hours or three days from now with reasonable certainty. But in Afghanistan, where weather records have been kept for less than 20 years, there are big holes in the database. It's almost impossible to predict tomorrow's weather with no records from yesterday.”

Until the Predator or other UAVs are armed with weather sensors, Weaver and other service forecasters are doing the best they can with existing weather satellites and radar.

“Sand and dust blowing off the desert create clouds between 3,000 to 6,000 feet high on average, but sometimes as high as 10,000 feet. This kind of weather does terrible things to aircraft and sensor systems, creating surfaces and cutting chances for hitting any targets. And it will sand-blast – or worse – any paratroopers inadvertently dropped into that zone,” notes Weaver.

Weaver affirms that the project focuses on more than just predicting the weather in the battlespace – it's committed to the larger goal of supporting multiple warfighter needs.

“Remotely-controlled intelligence, surveillance and reconnaissance drones have been used to gather wartime information since the 1960s,” Weaver said. “We're just trying to put a weather sensor package on whatever's already there, operating in the battlespace. As a UAV performs its primary mission, it also could release a dropsonde to collect near-real-time weather information. This information, in turn, can be sent to mission planners who might be directing joint, standoff weapons dropping bomblets sure to be affected by winds blowing below the aircraft.”

Out of the same dispenser, additional sensors could be released, via explosive charge, to collect visibility profiles, critical to pilots using precision-guided munitions, and nuclear/chemical/biological detectors, before cargo planes drop ground troops into combat, Weaver said.

“While the technology for putting all these

sensors into one dispenser isn't quite there yet, several companies are closing fast on a likely solution."

In January or February 2002, Weaver and Polander's team will fly a sample weather sensor pod on a Hunter UAV from Fort Huachuca, Ariz. (See story below)

"We'll be using a 10-slot dropsonde dispenser, so we can release different sondes, mixing and matching sensors to meet mission requirements," Weaver said. "Each sonde, approximately 2 inches in diameter by 8 inches long, will be used for a specific purpose — determining wind, visibility, or nuclear/biological/chemical agents."

Even though some of the sondes may get lost or misdirected once dropped over a battle zone, camouflaging

them to prevent enemy sabotage isn't something Weaver or his teammates are worried about.

"These things are really small, compared to the enormity of the battlespace," he said. "We've dropped sondes from about 2,000 feet, and in motion, they're extremely hard to spot."

Although not yet formally funded, the BENVINT ACTD may be folded into future DoD counter-terrorism efforts for fiscal year 2003, Weaver said. "Our sister service, the U.S. Navy, with carrier operations worldwide, also supports this ACTD. So we're facing the future with great optimism."

## First operational test proves successful

**By Tech. Sgt. Miles Brown**  
AFWA Public Affairs

A team from the 88th Weather Squadron, Wright-Patterson AFB, Ohio, took to the Southwest deserts to test the Hunter's weather data gathering potential.

This flight test was the culmination of the Joint UAV Battlelab's and the Navy Space and Warfare Center's effort to expand all UAV's capabilities and roles. The late February tests, held at the TRW Test Flight Facility at Chocise College outside of Douglas, Ariz., used satellite communications to dispense weather dropsondes and retrieve the data from the falling dropsondes. The test flights were successful.

Over the four-day tests, several Hunter flights dropped the sondes and the data was relayed back to the airfield via satcom.



Though a future goal, this test may be the start of a process capable of delivering accurate and timely weather data from a "hot" battlefield without endangering the weather specialists.



Photos courtesy of Steven Weaver

# Gray beret predicts weather for Florida panhandle

By Tech. Sgt. Ginger Schreitmueller  
AFSOC Public Affairs

With more than 10 years experience as a combat weatherman, Master Sgt. John Farris has done weather operations from mountain passes to jungle trenches to desert ravines, all for U.S. Army Special Operations Forces units.

Now, the "gray beret" has provided vital weather forecasting to a different new group of decision makers – people living and working along Florida's panhandle.

Farris was the guest weather forecaster for a local television station in Pensacola, Fla., Nov. 30. He is the noncommissioned officer in charge of

combat weather training with the 720th Special Tactics Group, Hurlburt Field, Fla.

As an Air Force Special Operations Command combat weatherman, Farris is a FAA/National Weather Service certified meteorologist.

"It was a great opportunity to give the community an idea of who and what combat weather is all about," Farris said.

WEAR-TV 3, an ABC affiliate, is celebrating Military Appreciation Month and brought the combat weathermen in to the station to do the Friday night weekend weather report.

"I always thought of meteorology and weather broadcasting synonymously," said Allen Strum, the station's weatherman. "Now I have a greater appreciation for its usefulness in special operations. Our viewers have benefited from hearing Sergeant Farris talk about combat weather, especially in the midst of current world events."

People may not realize how much of an impact weather has on military operations, Farris said. Air Force combat weathermen provide vital weather data to battlefield commanders for use in planning and executing a mission.

"Combat weather teams do more

than predict rain," he said. "The Army uses our weather data to decide what they're going to do as far as weapons and tactics," Farris said. "Our missions turn into direct action. Napoleon and Hitler lost major battles due to the Russian winter. Weather data helped the Allies determine when to invade France, turning the tide of World War II."

Forecasting the weekend weather does not have as great of an impact in Florida as it does in Afghanistan, but the parallels may help people better understand the role of combat weathermen, Farris said.

"People at home watched the weather Friday night to get a glimpse on the weekend forecast," Farris said. "Almost everyone's weekend plans revolve around – and are affected by – the weather."

Wearing the gray beret, combat weathermen are part of the AFSOC Special Tactics Team along with combat controllers and pararescuemen. They are unique within the Air Force and the Department of Defense.

Combat weathermen are part of the AFSOC team actively supporting Operation Enduring Freedom.

"Combat weathermen not only provide valuable weather data for

See Grey Beret, Next Page

Master Sgt. John Farris, 720th Special Tactics Group, Hurlburt Field, Fla., joins the WEAR-TV 3 news team on the set. He was a guest weather forecaster as part of the station's recognition of Military Appreciation Month.



Photo by 2nd Lt. Gabe Johnson

# Combat weatherman receives Purple Heart

**By Tech. Sgt. Ginger Schreitmueller**  
AFSOC Public Affairs

An Air Force combat weatherman was recently presented the Purple Heart for injuries he received in Operation Enduring Freedom combat.

Staff Sgt. Craig Musselman, assigned to the 5th Special Forces Group at Fort Campbell, Ky., was among 20 U.S. Special Operators injured during combat actions in Afghanistan, Dec. 5. Three Special Forces members were killed in the incident. Combat weathermen are part of the 10th Combat Weather Squadron, 720th Special Tactics Group, Hurlburt Field, but are assigned with U.S. Army Special Forces units.

Sergeant Musselman sustained a ruptured eardrum, eye injuries including a cut over his right eye that required 25 stitches, and shrapnel wounds to his right bicep and right calf, when a U.S. bomb struck near his position.

Despite his injuries, the sergeant remains positive.

"I'm recovering well, and I'm happy to say I haven't lost my sense of humor," said the Texas native.

Though specific details of how the incident happened are under investigation, the sergeant said he was part of a joint Special Operations team sent on an infiltration mission 150 miles behind enemy lines in Afghanistan to assist anti-Taliban fighters.

"He will likely tell you, as he told me, he was just doing his job. That says a lot about him," said Maj. Bob Russell, 10th CWS commander. "There is a pretty small number of Special Tactics Combat Weathermen in the Air Force who are doing the kind of things Craig was doing while deployed to Afghanistan.

"I know the entire SOF community is proud of Craig and glad he is being recognized for his contributions to that mission. The men and families of (the Combat Weather detachment) who were still at Fort Campbell really deserve a special thanks for pulling together and making sure Craig's family was taken care while he was getting patched up and brought back stateside. They took great care of their own and were well supported by our Special Forces teammates," said the major.

Gen. Charles Holland, commander in chief of U.S. Special Operations Command, presented the combat



Photo by Tech. Sgt. Vic Owens

Gen. Charles Holland, commander in chief of U.S. Special Operations Command, thanks Staff Sgt. Craig Musselman after presenting the sergeant a Purple Heart for injuries sustained in support of Operation Enduring Freedom.

Air Force Special Operations Command combat weathermen are weather forecasters with forward ground combat capabilities. They gather and interpret weather data and provide intelligence from deployed locations while working primarily with Army Special Operations Forces.

weatherman the Purple Heart during the award ceremony at Fort Campbell, Ky.

The sergeant continues his recovery, but is anxious to get cleared to return to action.

"I know Craig is itching to get back and finish what he went over to do," said Russell. "But, he will have to wait awhile. Our guys still over there continue doing a spectacular job in a tough mission and I am just as proud of them as I am of Craig. They too will tell you they are just doing their job."

---

## Grey Beret, continued

---

battlefield commanders, they are qualified in a variety of special operations tactics — from parachut-

ing and survival skills, to small arms and language proficiency," said Maj. Bob Russell, 10th Combat Weather Squadron commander. "Combat weathermen are often the only source

of weather information in a region. He has to provide the products to the Special Forces team he's sitting with and relay it back to the other decision-makers."

# To Rename, or not to Rename

**By Tech. Sgt. Miles Brown**  
AFWA Public Affairs

Your career field magazine, the *Observer*, is looking for a new name – something that reflects the weather mission today and the future.

With the reorganization of AFW, the weather career field has undergone tremendous changes. Because of reengineering and the fact that we all forecast from the start of our careers, some people in the field have suggested renaming the *Observer* Magazine to better reflect this new and improved career field.

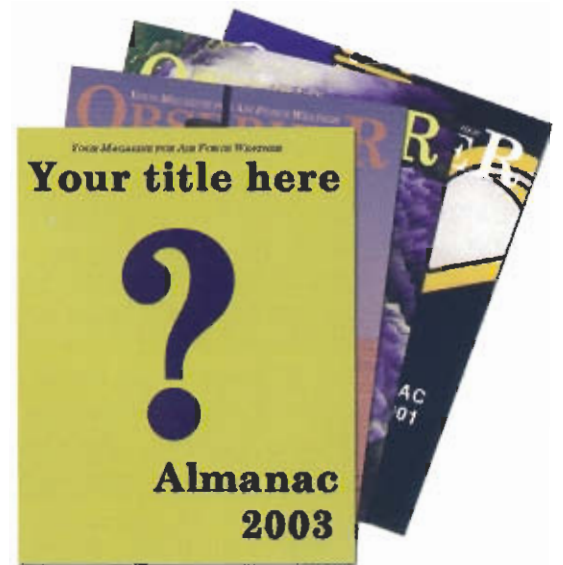
To generate a wide range of inputs and to solicit submissions from the entire career field, a renaming contest starts now and will run through the end of July.

Each AFW unit may submit a (1) new magazine title. The method your unit chooses to select that name is left up to each unit. All submissions must be sent via e-mail, to AFW/PA, by

your unit commander/chief. If your unit would like the *Observer* to retain its name, please submit that suggestion. The guidelines for submissions are as follows:

- \* All submissions will have an Air Force Weather tie, represent the current reorganized state of AFW, and be able to stand the test of time
- \* All submissions will have 1-3 sentences to explain the new title and support selection
- \* All submissions must be e-mailed to [observer@afwa.af.mil](mailto:observer@afwa.af.mil) by July 31
- \* Submissions must be submitted by the unit commander/chief
- \* Title all e-mails "Observer Rename"

A panel of senior weather professionals and a public affairs representative will review all submissions and select the top five for final selection by Brig. Gen. David L. Johnson, Air



Force Director of Weather. The new look, if the majority select renaming, for your Air Force Weather Magazine will debut with the Jan/Feb 2003 Almanac. Thanks in advance for your continued support of the *Observer*.



## Picture Perfect

Retired Lt. Gen. W. Oscar Senter (91), the first commander of the Army Air Corps Weather Wing, stands beside a portrait of himself which was unveiled as part of a ceremony saluting AFWA's 59 years of service. The weather professionals of General Senter's day met the difficult challenges of World War II, the Berlin Airlift, the Korean War and the evolution of an independent Air Force. Today, AFWA's professionals continue to meet the challenges of a modern air and space force.

Photo by Staff Sgt. Tiffany Page



# Air Force Weather

## "Opens Public Window"

**By Jodie Grigsby**  
AFWA Public Affairs

Air Force Weather announces the new Air Force Weather public website, providing public access to weather products, news stories, images, and the latest Observer issue.

Visitors to the new public site can learn more about the mission and history of AFW, career opportunities, and special events. Links to other Air Force and weather sites are also available.

Visitors can click on any weather

product at the top of the page and see up-to-date meteorological products. An additional click on the "About" button provides background information on the weather product and how it is used.

The latest weather related news stories can be found on the news link. Additionally, your AFW magazine, the Observer, is also on-line, allowing visitors to review current and past Observer issues. Downloadable weather photos and images can also be found under the information link, allowing visitors to view the newest

meteorological equipment and AFW's stellar airman in action. The site also informs the visitor on the happenings in AFW – around the world.

The site is continuously updated to highlight and reflect the unique and diverse weather mission. To submit your weather related news stories, images, events, or information – click on the **AFWA Feedback** button on the bottom of the Homepage.

Ensure the information you submit is publicly releasable and provide as much information as possible.

<https://afweather.afwa.af.mil>

### First CWTOC Graduates forge new path

The 335th Training Squadron, Keesler AFB, Miss., graduated their first Combat Weather Team Operations Course Jan. 17. The class size was only two, but they are the beginning of many airmen and officers that will complete the course, and in-turn, fill the Combat Weather Teams worldwide. Airmen who graduate from the Initial Skills Course, and officers who graduate the Weather Officer Course, will attend the CWTOC if they have been assigned to a CWT by the Air Force Personnel Center.

Lt. Col. Mark Cobin, commander of the 335th TRS, presented graduation certificates to Staff Sgt. Sean Goldstein and Senior Airman Jasmine Yamauchi, both from the 25th Operational Weather Squadron, Davis-

Monthan AFB, Ariz. Chief Master Sgt. Penny Braverman, AFW Chief Enlisted Manager, presented both graduates the **AFW Chief Coin of Excellence** for their hard work and starting the flow of certified 5-level airmen to help the field. Both Goldstein and Yamauchi are now assigned to CWTs in Korea.





Photos by Staff Sgt. Timothy Cook

Senior Airman Debra Chaves, 363rd EOSS weather technician, verifies current wind speed using an anemometer. Chaves is currently deployed to PSAB from the 47th OSS/OSW, Laughlin AFB, Texas, in support of OSW.

# Weather Flight



# Prince Sultan's Prophets of Weather

**By 1st Lt. Jeff Roberts**  
363rd AEW Public Affairs

As Mark Twain once said, "Everyone talks about the weather, but no one does anything about it."

Here at Prince Sultan AB, Saudi Arabia, we still can't do anything about the weather, but knowing how weather works and accurately forecasting and observing current weather and weather trends keeps aircraft and their crews safe from Mother Nature's bad side.

This is where the men and women of the 363rd Expeditionary Operation Support Squadron's Weather Flight demonstrate their unique capabilities.

"We support the aircraft here with both forecasting for future missions and observing current weather," said Master Sgt. Dido Moran, 363rd OSS Weather Flight superintendent. "An air crew needs to know that they can accomplish their mission, get there and, most importantly, get back without weather becoming a problem."

The 363rd OSS Weather Flight forecasts weather for all aircraft at PSAB including coalition forces.

"We provide a tool that helps aircraft fly successfully while giving them information on one of the variables that may affect the performance of their aircraft, said Moran. "We don't tell them where to go, only what they may encounter along the way."

Being the weatherperson may mean being the scapegoat or the hero.

"I always like to remind people that as weathermen, we are in marketing, not production," laughed Moran.

Of course predicting weather is also serious business.

Each day, aircraft commanders listen as Moran and his team give them information to consider while flying missions to enforce the no-fly, no-drive zones over Iraq.

"I have had commanders cancel missions based on the weather information we gave them," said Moran. "It's nice to know the crews have confidence in your reports. No one likes to cancel a mission but, if it happens, you sure hope what you said would happen, happens."

Just last week the AOR experienced a classic "Haboob" scenario which involves strong winds and sand storms caused by collapsing thunderstorms. PSAB experienced winds in excess of 55 mph and reduced visibility to less than a half a mile. The weather teams were instrumental in two weather cancellations, possibly saving human lives as well as expensive and sensitive aircraft and equipment.

"Weather teams provide information that affects our game plan," said Maj. Mike Rouse, 363rd Expeditionary Operation Support Squadron chief of weapons and tactics and F-15C pilot. "Bad weather puts us at a disadvantage in

protecting ourselves and aircraft against attack as well as how we can employ our weapons against a target."

Being proactive in their spot-on forecasts is a great feat, and if the weather didn't change, forecasting weather would be enough. But as everyone knows, weather does frequently change here in the AOR.

That's where the importance of Remote Observation Stations and the people who serve in them comes into play.

Far from the Coalition Complex pool or even the busy Ops and Maintenance areas, is a small shed where a single airman spends 12 hours a day watching for anything that may affect aircraft already in flight.

"I watch current weather conditions, pass updated weather information to the control tower and issue any necessary advisories for aircraft leaving, coming home, or flying near our area," said Senior Airman Debra Chaves, 363rd OSS weather technician.

Both Chaves and Moran give credit to the Air Force's weather technical school at Keesler AFB, Miss., for the ability to do their best in a job that is next-to-impossible to perfect.

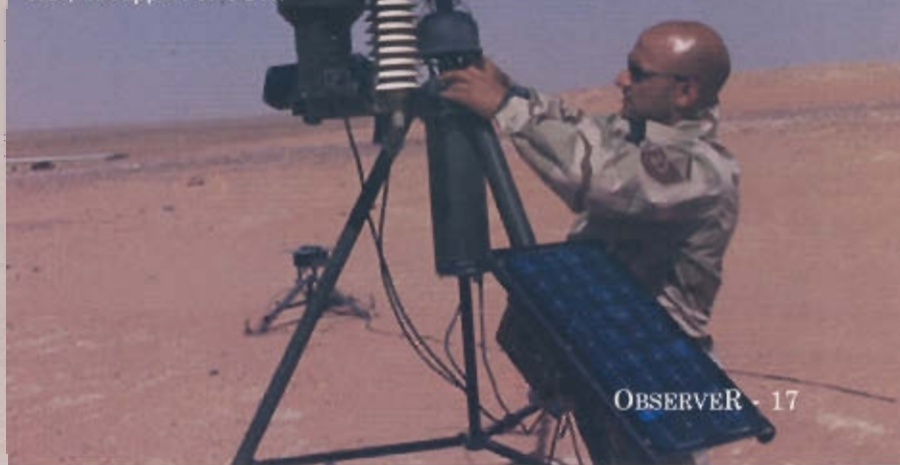
"This job is a lot of responsibility, said Chavez. "But the technical school and on-the-job training make me feel confident that I provide the information needed to the aircraft we support."

They also said that the unknown nature and constant challenge of weather is why they wanted to be part of the weather career field.

"Weather is constantly changing and definitely not a desk job, said Chavez. "You get to experience so many different things and it makes you feel good when you hit a forecast and have that positive impact on a mission."

"We will never be able to completely get our arms around nature, said Moran. "But when you get it right, you have saved the government money in fuel, equipment that could have been damaged, and may ultimately have saved human lives."

Master Sgt. Dido Moran, 363rd EOSS Weather Flight Superintendent, checks connections on a Tactical Automated Observing System. Moran is currently deployed to PSAB from the 437th OSS/OSW, Charleston AFB, S.C., in support of OSW.



# WEATHERING THE STORM

## Looking Back at

## Operation DESERT STORM

**By Al Moyers**  
Air Force Weather Historian

"This was the worst weather in 14 years," Chief of Staff of the Air Force Gen. Merrill McPeak briefed the Pentagon press corps on March 15, 1991, following the conclusion of Operation DESERT STORM. "It may have been the poorest weather in 100 years, but we only have records [of the area] for 14 years," McPeak explained.

If there had been any lingering doubts, Operation DESERT STORM solidified the value of Air Force Weather in combat operations. The campaign proved the worth of dedicated, on-scene weather support integrated into mission planning and execution. This became most evident to air war planners and combat commanders as the number of sorties lost to poor weather decreased, despite the recurring periods of poor weather throughout the operation. It soon became clear that weather support was a force multiplier, particularly useful in redirecting combat missions to successful targets.

Despite its overall success, AFW leaders learned from the experience that there were areas that they needed to reassess and improve. Operation DESERT STORM tested AFW's abilities to field an integrated weather support force in many ways. Eventually, close to 500 AFW personnel deployed to more than 70 locations in support of the war effort. Weather teams supported every Joint, Army, and Air Force command echelon involved in the prosecution of the war – from the headquarters of U.S. Central Command, to flying squadron ready rooms, to field

elements of the Army maneuver brigades.

One of the earliest problems was what many in AFW later termed "the persistence of a peacetime mentality." It seemed, at least to some senior leaders, that there was often no sense of urgency to infuse a complete complement of combat AFW resources into the theater. Many planners and participants clearly expected weather would not be a significant factor in the prosecution of an air campaign over Southwest Asia. The exceptional flying weather during the buildup phase no doubt influenced this belief.

Col. William S. Koenemann, commander of the 5th Weather Wing during Operation DESERT STORM, highlighted this problem in an interview with the Air Weather Service historian in June of 1991.

"As the effort went from DESERT SHIELD to DESERT STORM," the colonel reported, "weather then became an important player. During our buildup time period, in the August-September-October time period, very little weather was occurring. The customer got pretty accustomed to a typical weather pattern day after day."

"That hurt us," Koenemann continued, "in the fact that some of the wing commanders that deployed over there said, 'Oh, I don't need a lot of weather people here because I have some civilian weather agencies and they provide some information that I need to take off and land.'" Koenemann explained that when commanders

perceived "there wasn't any weather happening," they presumed "they didn't need a lot of weather forces." Because of this perception, the priorities to flow weather equipment into the theater remained low.

The weather, however, quickly proved to be a significant factor in the execution of the air campaign. In the words of the deployed 33rd Fighter Wing weather officer in his report following the third day of the air campaign, "Overall, the weather has had a significant impact on Operation DESERT STORM so far. Commanders have had to work around the weather conditions in order to make optimum use of their resources while at the same time,



Col. James Goldey, commander of the 1690th Weather Group Provisional, Riyadh, Saudi Arabia, discusses tactical weather equipment with an Army weather troop (early 1991).



Photos courtesy of Air Force Weather History Office

completing missions in an effective manner.”

The amount of cloud cover defined “bad” target area weather. During January 1991, the number of days of cloud coverage that prevented engaging targets in the area around Baghdad was twice that was predicted by planners using the 14 years of nephelometry – blended satellite imagery, surface, and upper air observation. Overall, target area weather hindered successful operations 33 percent of the time.

Col. Kocemann observed, “[We] talk about an all-weather type force and capability to do night and day time operations, [but] there are still things in the environment that impact whatever that weapon system is. A smart

operator can utilize weather inputs to better maximize how he utilizes the weapon system. That was of value during DESERT STORM / DESERT SHIELD. No matter where we are in technology, there is always something in the environment that impacts that weapons system. If you have a good weather guy that understands what the weapon system can do and the operator understands what the weather guy can do, they can make a good marriage and produce a more productive force.”

Brig. Gen. John J. Kelly, Jr., Air Force Director of Weather, 1991-1994, clearly summarized the AFW’s role in a February 1992 interview; “We are there to provide information to the shooter, so the shooter can optimize

his tactics.” He reported he had spoken with the leaders of other national and military weather services and that each had confided that their organizations could not have accomplished what Air Force Weather had. The general concluded that in spite of the many complications and the numerous lessons learned, in the final analysis, Air Force “weather people went out and did a very fine job.”

AFW delivered high-quality products that permitted Operation DESERT STORM planners and executors at all echelons of command to minimize the impact of the poor weather and effectively conduct the air war. As General Kelly termed it, Operation DESERT STORM was a “shining moment” for Air Force Weather.



# Welcome to the Redesigned JAAWIN

## AFWA unveils a new Joint Air Force and Army Weather Information Network user interface that provides easier navigation and new products and capabilities

**By Ken Smith**

AFWA Operational Weather Requirements Manager

The Air Force Weather Agency, Offutt AFB, Neb., unveiled a new user interface for the Joint Air Force and Army Weather Information Network March 20. The redesign, the first comprehensive overhaul to the JAAWIN since it was introduced in 1995, provides much easier navigation to find products and services, plus the addition of new products and capabilities.

The main home page contains a clickable world map for accessing regional products, a "Welcome to JAAWIN" banner that appears on all pages, and links to the Operational Weather Squadron's home pages. The JAAWIN banner also serves as the "home" button – one click returns the user to the main home page. In addition, a "Hot News" scroller contains updated information about JAAWIN.

When users mouse over the world map, the applicable theater is highlighted in yellow. Clicking on the map brings up the standardized theater product menu. A similar concept applies for accessing OWS products. As users mouse over the OWS emblems, the world map updates to reflect the OWS' area of responsibility. Clicking the OWS emblem takes users directly to the OWS' home page.

Directly below the JAAWIN banner are "Services" buttons, regional "Theater" buttons, and a "Hemispheric" button. These buttons appear on all JAAWIN pages, for quick access. The "Services" category includes a mixture of operational and administrative services, such as: applying for a password, submitting a Support Assistance Request, uploading alphanumeric data into the AWN, contacting AFWA, and subscribing to Point and Space weather warnings. The "Theater" buttons are broken down into various product categories. The "Hemispheric" button provides access to – you guessed it – hemispheric products.

The vast majority of JAAWIN's products are accessed via each theater's (Alaska, CONUS, South America, etc.) standardized product menus. These menus are further subdivided into the following categories: Alphanumeric, Surface Analyses, Upper Air Analyses, Numerical Models, Meteograms, Metsat, Forecaster-in-the-Loop, Space, and Radar/Lightning.

Unlike the previous version of JAAWIN, the new version includes more clickable maps to access products. The Alphanumeric category includes a map of the applicable theater. This map is further sub-divided into several regions. Clicking on a region provides a zoomed up map for greater detail. Then, clicking on the desired station brings up the latest observations and TAF. This new version also has hundreds of thumbnails for easier navigation. For example, users can go into the Numerical Models section to display geographic thumbnails that provide the domains for the MM5, MRF, and AVN products. Users don't have to employ a trial and error process to determine if a given country is included in the model output. JAAWIN also has a clickable map for accessing meteograms – gone are the long lists of meteogram sites that took forever to load into memory.

The Space Weather and MetSat thumbnails are "live" – very small images of the most current product. Clicking on the thumbnail accesses the full-resolution product. Similar to the concept behind the models' thumbnails, JAAWIN users can quickly scan the available MetSat thumbnails to access desired products,



Welcome

Services

Alaska

Tropical





CONUS	S. America	Europe	Asia	SW Asia	Africa	Australia	Oceans	Hemisphere
Climatology	Space	Environment Events	Special Support	Maps	Unique Weather Events			



once again, without the trial and error process to determine the coverage of each product.

There are several product categories that aren't included in each theater's product menu. These are: Tropical – includes AFWA's products and links to the primary warning centers; Climatology – primarily links to the Air Force Combat Climatology Center; Space; Environmental Events – includes volcano and dust event products; Special Support; Maps – links to the CIA's World Factbook 2001; and Unique Weather Events – similar to a "picture of the week."

JAAWIN's product line is expanded, especially the display of surface and upper air observational data. Surface plots are broken down into regional views that cover the entire world. A suite of analyzed surface and upper air products, again worldwide, was also created. More Java-based MetSat loops were added, Space Weather pages were enhanced, and CONUS radar and

lightning capabilities were improved. The links to external sites are also streamlined – no links to dot-com sites are included.

JAAWIN's interactive capabilities have also been expanded. The Interactive GRADS application builds meteograms, Skew-Ts, vertical cross-sections, and forecast maps from a variety of weather models. There's also a similar tool that builds surface plots from real-time observational data. Users can configure the geographic size, location, and types of data for display, and the surface application will build the product on the fly.

JAAWIN has come a long way in a short time, thanks to the hard work of many blue-suit and support and services contractor personnel. We're proud of our accomplishments and hope JAAWIN will enhance the support to your customers! The "new" JAAWIN can be reached at <https://weather.afwa.af.mil/>

# 28th OWS – Busy as Can Be

It's been a challenging and exciting several months for the 28th Operational Weather Squadron at Shaw AFB, S.C. They've executed every possible element of their mission, and then some.

Prior to the September 11 attacks, the squadron was already operating at full throttle supporting 90 Air Force, Army, Guard, and Reserve units operating in the southeastern United States and dozens of units operating in 25 countries within the U.S. Central Command area of responsibility. Unit forecasters were directly supporting air strikes and reconnaissance missions over Iraq under Operation SOUTHERN WATCH. Then came Operations ENDURING FREEDOM and NOBLE EAGLE.

To say the least, Sep. 11 marked a huge spike in the squadron's ops tempo. Forecasters in the USCENTAF Operations Flight immediately began providing senior military officials, national agencies, and special operations forces forecasts and climatology products for undisclosed areas and staging bases. The squadron turned to the Air Force Combat Climatology Center, Asheville, N.C., for additional products. The center responded quickly, providing critical data for the 28th OWS SIPRNET web page.

Additionally, the unit began producing terminal forecasts and 5-day horizontal weather depictions and terminal outlooks for locations throughout the region, quadrupling its product suite over the area extending from Kazakhstan to Kenya. Satellite imagery became doubly important for this data-sparse region, and the Air Force Weather Agency, Offutt AFB, Neb., responded lightning fast to the squadron's requests for specially tailored and enhanced imagery.

The OWS's CONUS forecasters also took on new responsibilities,

primarily in support of homeland defense. At first, their effort focused on flight weather briefings for National Guard units flying combat air patrol missions over the eastern United States. Likewise, the number of flight weather briefings increased for the tanker aircrews providing air-to-air refueling for the fighters.

CONUS forecasters also handled requests for site forecasts in addition to the 21 Air Force and Army airfields for which they were already issuing terminal aerodrome forecasts. These forecasts supported units responsible for securing strategic, high-value assets and units trained to respond to disasters such as chemical attacks. The taskings grew under Operation NOBLE EAGLE, and HQ 1st Air Force, the unit coordinating the air portion of homeland defense, became a key customer.

The 28 OWS expanded its support to the Combined Air Operations Center in Saudi Arabia, to include deploying four squadron members to the CAOC. The CAOC weather team was charged with ensuring weather information was smartly integrated into Operation ENDURING FREEDOM. The team's primary objective was to make sure that every decision was made with a full knowledge of how weather conditions might impact a mission. The team also helped synchronize the theater reach-back support from the hub at Shaw.

The team's products and forecasts were an integral part of the Combined Force Air Component Commander's exploitation of current and future weather conditions. Mission controllers and planners frequently changed weapons loads



and/or target areas based on weather forecasts of blowing sand or cloud cover. After accurately predicting a major storm in the early days of the air campaign, the CFACC told deployed 28 OWS members, "you just gained instant credibility!"

CAOC planners also used weather analyses and forecasts to estimate fuel loads, choose air refueling and orbit tracks, and adjust takeoff and landing times at staging bases. Reconnaissance mission planners used cloud-free forecasts to select tracks or collection platforms that were likely to yield the most intelligence information.

Meanwhile, USCENTAF forecasters at Shaw performed their part of the reach-back mission by providing the CAOC a variety of weather products and issuing drop-zone forecasts for high and low-level humanitarian aid drops, air refueling track forecasts, airborne early-warning orbit forecasts, and cloud-free forecasts. Also, the squadron began issuing several terminal aerodrome forecasts for deployed locations being established for air and ground operations. Once communication was established with deployed units, the OWS and combat weather teams coordinated to define severe weather

watch, warning, and advisory criteria.

Finally, as part of the USCENTAF staff, the 28 OWS has also been responsible for contingency/war planning and for the Time Phased Force Deployment Document (TPFDD) for all USCENTAF weather forces that have deployed in support of OEF.

The large number of deployed locations and different types of airframes involved kept the 28th OWS "TPFDDers" extremely busy, but they received a lot of help from the weather division at Headquarters Air Combat Command.

"We simply could not have enjoyed the success we had supporting Enduring Freedom, Southern Watch,

and Noble Eagle if it weren't for the efforts of the ACC/DOW staff", said Lt. Col. Tom Frooninckx, 28th OWS commander. He added that the staff kept things on track in many ways, such as coordinating people and equipment moving to and from the theater. "They took great initiative in getting augmentees [into theater] to sustain the extreme operations tempo of our ops centers."

To help the 28th meet these challenges, Reserve and Guard augmentees contributed in all parts of the squadron's mission.

"These folks have made incredible contributions to our mission," said Frooninckx. "Considering the short-notice disruptions to their lives, they

have truly demonstrated the *Service Before Self* core value."

It looks like there's little rest ahead. Spring and summer bring widespread severe weather to the southeastern CONUS, while the on-going overseas mission remains front and center. In the meantime, the squadron is planning to move into a new 15,000 sq. foot facility in July. This facility will house the squadron's two weather operations centers.

Considering all that the 28 OWS has been involved with, and all that is planned ahead, it's hard to find a more challenging and rewarding assignment.

*(Article was written by members of the 28 OWS)*

---

## Dust, continued from Page 7

---

particles, the stronger the required wind. Below is a breakdown of wind speeds required to lift particles:

Fine to medium sand in dune-covered areas: 10-15 mph  
( 8.7-13 knots)

Sandy Areas with poorly developed desert pavement: 20 mph  
(17.4 knots)

Fine material, desert flats: 20-25 mph (17.4-21.7 knots)

Alluvial fans and crusted sabkhas: 30-35 mph (26.1-30.4 knots)

Well developed desert pavement: 40 mph (36.8 knots)

### Rules of thumb for forecasting dust storms:

1. The average height of a dust storm is 3,000-6,000 feet and stronger storms have dust to 8,000-10,000 feet. Haze and dust with extreme storms have been documented as high as 35,000-40,000 feet.

2. Dust storms persist for days with stalled or cut-off lows to the southwest or northwest. Southwest storms are the more frequent of the two. Parent storms generally move northeastward but a few move east-southeastward before recurving northeastward.

3. Blowing dust occurs in a zone of maximum winds in the lower atmosphere with converging jet streams at 200-250 mb. Often, the polar and subtropical jets merge as a storm moves in from the west. The converged jets are typically in the southeastern or southern quadrants of the storm. The convergent area stacks vertically into the cooler air (generally northeastward) and the strongest winds and the most dust will occur there. Once a dust storm starts, it can maintain the same intensity even when wind speeds

slow to below initiation levels. This is because the bond between the dust particles and the surface is broken and saltation allows dust to lift.

4. Summer dust storms have greater vertical motion over a larger area due to high temperatures and resultant convective currents. Additionally, frontal inversions that cap dust storms tend to be higher in summer.

5. Because the air is so dry in deserts, there is a wide diurnal temperature difference. The rapid heat loss at night lowers the inversion and settles the dust. Dust storms generally subside soon after sunset. Western Afghanistan is a major source of dust in Southwest and Central Asia, and these regions can be monitored via satellite images.

7. Visibility forecasting is difficult; restrictions depend on many variables. On the edges of blowing dust and within 150 NM downstream, visibility is 1/2-3 miles (800-4,800 meters). Beyond that, visibility quickly returns to 2-5 miles (3,200-8,000 meters). Visibility will remain at 4-6 miles (5,000-9,000 meters) in dust haze for days after a dust storm. Intense dust storms reduce visibility to near zero in and near source regions with visibility improving away from the source. Dust settles when winds drop below the speed necessary to carry the particles, but some level of dust haze persists nearly constantly in the summer.

8. Small particles restrict visibility more than large particles. In general, however, the worst visibility occurs within 20 feet (6 meters) of the surface. Above that, particles settle out into layers (by particle size) of progressively better visibility conditions. The largest particles are closest to the ground and settle out first. Slant range visibility is typically worse than straight-line visibility, and distortions, halos and coronas may also occur.

# AFIT students strike gold at AFW Technical Library

**By John Gray**  
Director, AFW Technical Library

Air Force Weather personnel are aware of the resources available through the AFW Technical Library, however, many do not know how critical this support is to the success of AFW graduate students and staff meteorologists supporting DoD weapon system research.

Four Air Force Institute of Technology students discovered the true value of the library on a recent trip to the Air Force Combat Climatology Center in Asheville, N.C.

During their primary thesis quarter at AFIT, the students made the trip at the expense of the Air Force agencies sponsoring their research. Capt. Dean Carter and 1st Lt. Hugh Freestrom commented "we made more progress on our research in that one week than would have been remotely possible from any other location."

The students met with data providers at AFCCC and virtually "camped out" in the library for a week researching their topics. While the Graduate School of Engineering and Management at AFIT has an excellent and extensive campus library, according to Lt. Col. Ron Lowther, AFIT Assistant Professor, Atmospheric Physics, Wright-Patterson AFB, Ohio, "the vast meteorological holdings of

the AFWTL are unmatched by any facility in the world".

"I hit the jackpot on my research topic," said Capt. Bill Courtemanche whose thesis, sponsored by the Air Force Weather Agency, covers MM5 polar research. Capt. Robb Randall, an AFIT student exploring long-range weather prediction for AFCCC, stated the trip to the library was like "living in a gold mine for a week."

AFIT's resident program offers AFW officers an 18-month Master's of Science degree, which qualifies them for multiple academic specialty areas after graduation. According to Lowther, most students have a tendency to jump feet first into data processing or numerical modeling without proper research beforehand.

"Success often depends on researching previous work and educating students on similar approaches to the problem, some students find previous researchers have already solved solutions to their topics, thus ensuring vital AFW research efforts are not wasted," said Lowther.

Don't think AFWTL support is only available to students who visit the library. These four students used AFCCC and AFWTL services remotely throughout their first year of graduate school. AFIT students at all universities take advantage of AFWTL's services and data holdings.

As one of the largest repositories of atmospheric science research material in the world, the AFWTL has more than 300,000 books and technical reports about the weather. Additionally, the library subscribes to 74 geophysical and seven computer science periodicals. The easiest way to search the vast technical holding of the library is at the site, by making use of library personnel and by browsing the material, as did the AFIT students.

However, for the vast majority of patrons, books and technical reports are electronically cataloged on the AFWTL web site, available at [www.afcc.af.mil](http://www.afcc.af.mil).

Once on the site, click on the "AFWX Library" button, then the "On-Line Card Catalog" button. The library catalog is available from both .mil-connected computers and home computers, and is designed to assist AFIT students and other scientists with research.

Technical material in books and reports available in the library is searchable by author, title, subject, or series in much the same fashion as library paper card catalogs used in the past. If you find a book or report you need, the library can loan it out for a month. Use the "Article, Bibliography, Book Request" button on the AFWTL home page to make the request. The staff will also supply copies of weather software to weather units. The software is listed and accessed with the "Software, CD-ROM, Technical Information Request" button.

While the individual periodical titles are also available on the electronic card catalog, which lists the magazine volumes maintained by the AFWTL, the individual periodical articles are not cataloged. However, the library has technical specialists and meteorologists on staff who can access technical catalog companies.

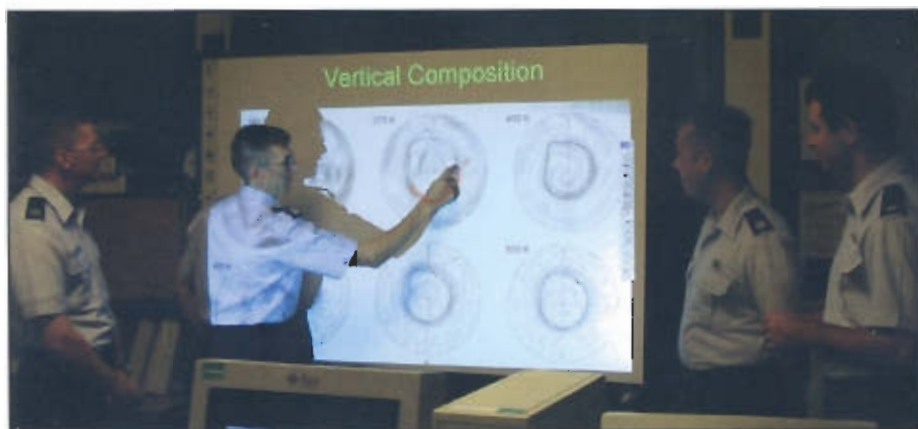


Photo by Lt. Col. Ron Lowther

AFIT students review an interactive presentation.



These companies catalog every article in almost all technical journals produced in the world. Using these companies, the library personnel can produce a bibliography about a meteorological topic for any DoD requestor. A bibliography will list relevant periodical articles about the requested subject, with the listing broken down into articles available from the AFWTL and articles in periodicals not available in the library.

To request a bibliography, or other AFCCC and AFWTL services, you must either be on a .mil connected

computer or apply for a password for access from "other domains." (To request a password, select the "New Users" button on the AFCCC home page when you accessed the site.)

Once on the AFCCC home page, select the "AF Weather Library" and then click on "Article, Bibliography, Book Request." Complete the form and send it back to the library.

To get a copy of articles listed on a bibliography, just complete the form sent with the bibliography requesting individual articles listed. If the articles are available in the library, a copy can

be made for the customer. If the article is not available in our library, the staff can request it from more than 35,000 libraries around the world via an inter-library loan.

The Air Force Weather Technical Library is chartered to serve operational customers, scientists, education personnel, and students. Assisting students with research has long term benefits for both the Department of Defense and the individual student. The library enthusiastically supports our role in the education and research of future scientists.



Photo courtesy of Tech. Sgt. Cary Fitzsimmons

## Posting the Colors, NFL style

Members of the Air Force Combat Climatology Center Color Guard present the Colors at an NFL game in Charlotte, N.C. From left to right is Airman 1st Class Matthew Miles, Capt. Brian Griffith, Capt. Jeffrey Budai, Tech. Sgt. John Kovachich, Staff Sgt. Timothy Legg, and Airman 1st Class Friedichsen.

The team performs numerous Color Guard functions in the local Asheville area including basketball games for the Asheville Altitude,

a new NBA developmental league team, Excellence in Public Service Awards, and posting the Colors at the Asheville Veterans Affairs' hospital and for Veterans day, military retirements, promotions and change of commands. The members of the color guard also act as judges for the local high school ROTC drill meets and competitions, and perform at local schools.

# 2001 Air Force Weather Award Winners



**"Success hinges on a  
passion for excellence."**

*—John F. Kennedy*

## **Capt. Ronnie King**

28th OWS, Shaw AFB, S.C. (ACC)

Grisham Award – Outstanding Air Force Weather  
Company Grade Officer of the Year

Also nominated:

Capt Richard Butler (AMC)

Capt Kenneth Browning  
(AETC)

Capt Timothy Dreifke (AFSOC)

Capt Chris Finnigsmier

(AFWA)

Capt Gregory Fox (AFSPC)

Capt Mike McAleenan  
(USAFE)

1st Lt Brent Levi (PACAF)

1st Lt Samuel Moore (AFMC)

## **Senior Master Sgt. Ronald Hoover**

25th OWS, Davis-Monthan AFB, Ariz. (ACC)

Gardner Award – Outstanding Air Force Weather Senior  
Noncommissioned Officer of the Year

Also nominated:

SMSgt James Wiemann

(USSOCOM)

MSgt Shawn Dahl (AFSPC)

MSgt Geoff Gatz (AFMC)

MSgt Jeffrey Koch (AMC)

MSgt Gary Mercer (AFWA)

MSgt Jerry Scholl (USAFE)

MSgt Bradley Wasson

(AETC)

MSgt Brian Wynn (PACAF)

## **Staff Sgt. William Wilson**

80th OSS/OSW, Sheppard AFB, Texas (AETC)

Pierce Award – Outstanding Air Force Weather  
Noncommissioned Officer of the Year

Also nominated:

TSgt Thomas Cardinal (AFWA)

TSgt Wesley Fillmore (ACC)

TSgt Terri Grebel (USAFE)

TSgt Michael Pietrzak (AMC)

TSgt James Williams, Jr.  
(AFMC)

SSgt James Jones (AFSPC)

SSgt Adam Christian

(AFSOC)

SSgt Christopher DeCorte

(USSOCOM)

SSgt Shane Wagner  
(PACAF)

## **Senior Airman Matthew Insko**

HQ AFWA, Offutt AFB, Neb. (AFWA)

Dodson Award – Outstanding Air Force Weather  
Airman of the Year

Also nominated:

SrA Bobby Baum (USAFE)

SrA Robert Davis (AFSOC)

SrA Jason Hawley (AETC)

SrA Kristy Morris (AFMC)

SrA Matthew Mitchell (AFSPC)

SrA Kenneth Powers (AMC)

SrA Thomas Richards (ACC)

A1C Robert Branham (ACC)

A1C John Kah (PACAF)

### **Robert Monroe**

HQ AFWA, Offutt AFB, Neb. (AFWA)

Jenner Award – Outstanding Air Force Weather  
Civilian of the Year

Also nominated:

Dr. Christy Crosiar (AFSPC)

Roger Graffa (AETC)

Richard Hyatt (ACC)

Stacey Hall (AMC)

Michael Mauro, Jr. (AFMC)

Randall Sartain (PACAF)

### **Maj. Ricardo Davila**

HQ USAFE, Ramstein AB, Germany (USAFE)

Best Award – Excellence in Weather Staff  
Support, Officer Category

Also nominated:

Maj Steven DeSordi (ACC)

Maj Gary Huffines (AETC)

Maj Jimmie Trigg (AMC)

Capt Eric Barela (AFSPC)

Capt Scott Hausman (AFWA)

Capt Tamara Parsons

(PACAF)

### **Philip Harvey**

412th OSS/OSW, Edwards AFB, Calif. (AFMC)

Best Award – Excellence in Weather Staff Support,  
Civilian Category

Also nominated:

Michael Boettcher (AFWA)

James Fuller (AETC)

Alan Gibbs (AFSPC)

Robert Miller (AMC)

John Shaughnessy (ACC)

### **24th Special Tactics Squadron**

Pope AFB, N.C. (AFSOC)

Grimes Award – Outstanding Weather Flight  
Supporting Special Operations

Also nominated:

1st WS (ACC)

3rd ASOS/WE (PACAF)

Det. 11, 7th WS (USAFE)

HQ AFWA (AFWA)

### **28th Operational Weather Squadron**

Shaw AFB, S.C. (ACC)

Fawbush-Miller Award – Outstanding Air Force  
Operational Weather Squadron of the Year

Also nominated:

15th OWS (AMC)

607th WS (PACAF)

USAFE OWS (USAFE)

### **NAVPACMETOCGEN/JTWC**

Pearl Harbor, Hawaii (PACAF)

Merewether Award – Most Significant  
Technical Contribution

Also nominated:

Capt Krogh/Capt Kerr (AFMC)

MSgt Lee Benson (ACC)

15th OWS Training Flt (AMC)

45 WS (AFSPC)

Dept. of Atmospheric Physics

(AFIT) (AETC)

Fine Scale Models Team

(AFWA)

USAFE OWS Training

Directorate (USAFE)

### **Lt. Col. Beth McNulty**

HQ AFWA, Offutt AFB, Neb. (AFWA)

Spengler Award – Outstanding Air Force Weather  
Individual Mobilization Augmentee

Also nominated:

Maj Scott Jacobs (AFSPC)

Capt David Pasqualini, Jr.

(ACC)

### **Senior Master Sgt. Christopher Rambali**

HQ ACC, Langley AFB, Va. (ACC)

Best Award – Excellence in Weather Staff Support,  
Enlisted Category

Also nominated:

SMSgt Alfredo Dominguez III

(AFWA)

SMSgt Lloyd Johnson, Jr.

(PACAF)

SMSgt Jacob Lee, Jr.

(USAFE)

MSgt Keith Johnson (AETC)

### **Capt. Jeffrey Budai, 1st Lt. Edward Amrhein, Michael Squires**

AFCCC, Asheville N.C. (AFWA)

Zimmerman Award – Best Application of  
Climatology in Support of Aerospace Weather

Also nominated:

Capt Randall, Capt

Schroeder, 1st Lt

Freestrom (AETC)

45th WS (AFSPC)

AFOG Wx Ops Div/OL-A

AFOG (HQ USAF)

### **16th Operational Support Squadron/DOW**

Hurlburt Field, Fla. (AFSOC)

Williams Award – Outstanding Air Force Weather  
Flight of the Year

Also nominated:

2nd OSS/OSW (ACC)

18th OSS/OSW (PACAF)

21st OSS/OSW (AFSPC)

39th OSS/CWT (USAFE)

75th OSS/OSW (AFMC)

80th OSS/DOW (AETC)

319th OSS/OSW (AMC)

452nd OSS/OSAW (AFRC)

### **45th Weather Squadron**

Patrick AFB, Fla. (AFSPC)

Moorman Award – Outstanding Weather Unit  
Providing Specialized Support

Also nominated:

88th WS, Staff Meteorology

Flt. (AFMC)

335th TRS/UOA (AETC)

AVTEG (USSOCOM)

Det. 7, AFWA (AFWA)

JTWC - 17th OWS (PACAF)

### **146 Weather Flight**

Coraopolis, Pa. (ANG)

Collens Award – Outstanding Air National Guard  
Weather Unit

**Goals:**

Establish a list of short-range (one year) and long-range (3-5 years) goals. Ideally, your goals, at least some of them, will mesh with organizational goals. Make sure your supervisor knows what your goals are and your progress toward attainment of the goals. Review your goals at least every year and revise as necessary. Having goals on a piece of paper is not enough though; an individual must be serious about the pursuit and attainment of those goals. These goals should not only relate to the military but also to civilian activities. Education should be a goal both for the military and civilian environments.

**Performance:**

It should go without saying, but an individual must strive for excellence in everything they do. Give 110 percent everyday and in every endeavor starting from the day you arrive at your first duty assignment. Establish a reputation of excellence. Be viewed by others as the "go to guy or gal." Set high but attainable standards for yourself. Keep track of significant activities to include the result(s) and impact(s) of those contributions. Yes, your supervisor is supposed to be doing this and hopefully they will exercise active supervision. However, take the approach that you control your own destiny and future. I recommend individuals keep a small tablet with them at all times so they can record significant activities while fresh in the mind. Finally, ensure you provide input during performance feedback sessions and prior to the submission of every EPR. As a supervisor, I always insist my rateses/ subordinates play an active role in the feedback sessions (it is a two-way exchange of information) and provide me a list of achievements they believe should be reflected in a performance report.

**Education and Training (Self-Improvement):**

Aggressively seek out every opportunity for education and training. Do NOT turn down any opportunity to develop your knowledge and skills. Subscribe to the notion of lifelong learning. A day should never go by where you have not learned something new.

Enroll in Community College of the Air Force soon after arrival at your first duty location. Schedule an initial meeting with an education services counselor and develop a roadmap/timeline toward attainment of your Associate in Applied Science degree, while also pursuing credits in a baccalaureate program. Regular follow-up meetings are a good idea to review your progress and also determine new opportunities. NOTE: Most CMSgts and Colonels who participate in the SNCO promotion boards believe a MSgt should have taken the initiative to obtain at least a CCAF degree in their specialty as a prerequisite to SMSgt.

Seek every opportunity to make yourself a better, more informed airman and NCO. Education and training make you a more valuable asset to any organization. Give 100 percent to all courses/classes you participate in. The goal

should be maximizing the learning process as opposed to attaining a certain grade. Giving a course your best effort usually translates to high grades. Work to strengthen your study habits and note taking and communication skills. There are countless opportunities for pursuing higher education...on-base college courses, distance-learning courses through countless credible sources, computer based training and seminars. Don't forget to seriously consider CLEP and DANTES tests for college credit. A little bit of preparation and study time can go a long way. Finally, the Air Force has made available hundreds of computer-related courses through their contract with Smart Force. This is a great opportunity to strengthen computer skills. All you have to do is determine which courses you wish to complete and provide the time and effort to do so.

Finally, maximize every training opportunity. Demand the best training from your trainers and supervisors. Give your very best effort to upgrade and qualification training requirements. Strive for excellence in any career development courses. Devote time to CDC completion. Establish and stick to a schedule, which includes preparation for course exams. Demand a pre-assessment from your supervisor. Approach training from the standpoint of a continual, lifelong pursuit of learning. Pursue professional development after completion of formal training requirements. Learn as much as you can about your profession, both the Air Force and occupational specialty. Seek to learn every detail and facet about your "job" and role in the military or civilian company. Last, but not least...Read, Read, Read. Never go anywhere without something to read. Reading, in and of itself, makes us better informed and equipped people.

**Professional Military Education:**

Strive to learn as much as PME courses have to offer. Don't view these opportunities as "checkmarks" that must be fulfilled. Instead, view PME courses (Airman Leadership School, NCO Academy and Senior NCO Academy) as prime opportunities to develop your skills as a leader, supervisor, manager and communicator. Focus on doing the very best that you can.

Recognition such as being a Distinguished Graduate or capturing one of the prestigious awards (Levitow, Academic, Leadership, etc.) does make a difference when competing for Senior and Chief. These honors become discriminators in a very tough promotion process. Keep in mind only three percent of the enlisted force can occupy the top two enlisted ranks at any given time, and promotion rates to Senior are typically less than 20 percent. Second, Master Sergeants must complete the SNCO Academy to have any credible shot at Senior. However, the real goal of completing the SNCOA should be the educational and self-improvement value of doing so. I also view this course as an inherent part of promotion to Master and the Senior NCO ranks; it's an expectation that should be fulfilled.

### **Additional Duties:**

**Do not** hide from additional duties or responsibilities beyond your primary responsibilities. Instead, seek out opportunities to take a leading role in other activities, especially some of the more significant additional duties (training, security, safety, satellite coordinator, etc.). These are opportunities to grow professionally, prepare for positions of greater responsibility in the future, stand out from one's peers and contribute to the greater needs of an organization. Also, these additional duties can provide achievements that strengthen qualifications on a civilian resume or even open some additional doors. From a promotion or recognition standpoint, additional duties often provide another way to discriminate between people. Willingness to take on additional responsibilities always conveys a positive signal. Finally, taking on additional duties throughout a career gives one a better perspective of the overall functioning of an organization.

### **Involvement:**

Get involved early and stay involved. That applies to both the organization(s) you work in and external organizations on the base or in the local community. Seek out opportunities to volunteer time and effort in activities you enjoy and those that benefit your organization and community. Some of the countless activities are: playing intramural and coaching youth sports; Boy/Girl Scouting leaders; assisting a scout with merit badges; Top 3; Air Force Sergeants Association; local school activities; fundraising events; community beautification projects; NCO advisory councils; and church activities to name a few. The key for E-8/E-9 promotion boards is a consistent history/trend of "whole person" activities.

### **Demand Meaningful Feedback:**

You are entitled to, and must demand, meaningful, routine and honest feedback on your performance. In my life, I've yet to encounter anyone who did not have weaknesses. We all have shortcomings and weaknesses as well as strengths. We need feedback and honest discussion to identify those areas and a way to strengthen those aspects of our performance. A fundamental part of supervision is providing feedback to our subordinates. Don't accept any feedback that falls short of expectations.

### **Be a Team Player:**

Effective teamwork breeds success. Remember the saying "two heads are better than one." Most organizations I'm familiar with including the Air Force thrive on teamwork. Being a team player and a leader at times can produce some incredible results...more than any one individual could possibly do. Contribute your fullest level of effort to the teams that you belong to.

### **Motivation and Initiative:**

Being motivated and displaying initiative goes hand in hand with many of the other considerations. You must be motivated and have initiative if you are to accomplish any real success in life, whether it is from a performance perspective, getting involved outside the immediate work

setting or pursuing a true program of self-improvement. A person definitely has to be motivated to work 9-10 hours a day or longer and then go to school part time 2-4 days every week. However, nothing in life comes free. You must be willing to "pay a price" and sacrifice if you really want to achieve any level of success. Initiative is perhaps one of the more sought after traits in people.

### **Loyalty:**

You must be loyal to your organization, to your superiors and to your team members. You'll require the support of your superiors and supervisors if you are to achieve some of your goals. Failing to be loyal to them and to the organization will surely derail even the best of your efforts toward goal accomplishment. Be true to your values and those of your organization.

### **Accountability:**

You must be willing to accept accountability when you have responsibility. You must also hold yourself accountable for your own actions and the actions of those you are charged to lead/supervise.

### **Be creative and innovative – Think "out of the box":**

Don't avoid challenges. Instead, always be on the lookout for challenges and problems that you can get involved in. Don't look for the easy solutions or answers. Look for better ways to do things in the organization and work center. Avoid looking for the obvious and instead develop a creative mindset. Constantly look for things that can be improved. Anticipate problems and consider alternative solutions. Try to solve problems within your span of control rather than taking them to your boss.

### **Anticipate Opportunities:**

Be proactive rather than reactive. Look for opportunities to make yourself a better person, help others improve and improve your organization and its relationships. Don't wait for opportunity to come knocking...you could be waiting a long time. As stated earlier, don't leave anything to chance. You have to have an attitude and willingness to make things happen. Don't be afraid to take risks; just make sure you have evaluated the situation and possible actions carefully.

### **Balance Yourself and Have Fun:**

Living and breathing work is a surefire path to burnout failure. You must strive to maintain a healthy balance between your professional/work life and other aspects of life. Learn to have fun while working and going to school. There's nothing quite like being able to view work and school as enjoyable activities.

These are some of the key considerations to achieving success. Many other words come to mind such as being honest, trusting the system, not taking things for granted, disciplining yourself, and setting a positive example. While these all contribute to success the key factors in my mind are establishing/pursuing goals and giving 110 percent in everything you do. Always remember, success only comes to those willing to work hard and sacrifice for the greater good.

# GWC Steps-up, Backs-up

**By Senior Master Sgt. Ricky Keil**  
GWC Production Branch Superintendent

Many of you use Airman's Meteorological Advisories and Significant Meteorological Advisories issued by the National Weather Service's Aviation Weather Center, located in Kansas City. Did you know that the Jan. 9 products were produced at the Air Force Weather Agency?

Global Weather Center Production Branch forecasters are trained to provide back-up support for the AWC, a mission they've performed for several years. On this particular day, AFWA was expected to perform a two-hour backup, issuing no products while the AWC did some upgrades. During the scheduled backup, AFWA was informed that there were additional problems and they would have to issue the next set of AIRMETS. Tech. Sgt. Dana Becker, Strategic Forecast Operations NCOIC,

recalled two forecasters, Senior Airmen Jennifer McCaulley and Marie Green, to work the extended backup. Since AFWA treats these back-ups as a no notice mission, McCaulley and Green reported immediately. Senior Airman Renee Fuson was taken out of Military Weather Advisory training and Doug Behne was pulled off of hemispheric products to lead the AWC team.

The two-hour backup eventually turned into a 17-hour effort requiring additional personnel to be shuffled. Gregg Liedke, Tech. Sgt. Steve Humphrey, and Staff Sgt. Chris Hahn took part in the successful backup as well. A total of 49 AIRMETS and 13 SIGMETS were issued over the course of the day.

"It was a bit overwhelming at first," commented Green. "Then you start taking calls from all the airports to coordinate the forecasts, and you realize that you're forecasting for the entire nation's civil aviation fleet and how much they rely on our forecasts."

It's important to note that each AIRMET and SIGMET must be encoded 100 percent correctly or they are rejected by the system. This is especially challenging because the NWS uses different abbreviations and terminology in their encoding than Air Force Weather.

AFWA performs quarterly tests for the backup and continuously trains on all aspects of forecasting and issuing AIRMETS and SIGMETS. This support is a vital part of the national air transportation system.

"The Aviation Weather Center could not ask for a better partner to ensure continuous operational production of critical advisory information to the U.S. air fleet and air traffic control operations," said Jack May, director, National Weather Service, Aviation Weather Center.



Photo by Paige Rowland

Doug Behne, standing foreground, Gregg Liedke, and Senior Airman Renee Fuson review a set of AIRMETS to be transmitted.

## QTP disks shipped to field

The Air Force Weather Agency's Training Division recently released the four core Qualification Training Packages to the field. XOW chartered the QTP project, in February 2001, to standardize and baseline training for the weather career field. All Initial Skills Course graduates complete this training during their first assignment according to AFI 15-129. The goal of standardized training is to ensure, regardless of the unit or tasks assigned to airman and officers during their first assignment, all weather personnel possess the same background and standard skill sets needed to support the warfighter.

The QTPs cover four areas of weather operations including analysis, METWATCH, forecasting, and briefings. Their design, linked to Career Field Education and Training Plan line items, presents task-based instructions and hands-on exercises to develop forecaster proficiency on tasks. The FYI #47 product, available on the DNT web site, explains the QTP parts and how to train with them. CDs with the four QTPs have been sent to each Operational Weather Squadron and the QTPs are available for download on the DNT web site. Due to the size of the modules, DNT is also sending the QTP CDs to each Major Command for distribution to their Combat Weather Teams.

# CWT Support: Building Blocks to Success

**By Chief Master Sgt. Penny Braverman**  
AFW Chief Enlisted Manager

As we close the Air Force Weather reengineering effort and continue to operate Operational Weather Squadron and Combat Weather Team units worldwide, we need to crossfeed the ways we support our customers – and not just the flight crews.

In this “Year of the CWT,” we went looking for good ideas and practices to share with the career field.

These are just a few examples on how the CWTs are tailoring their support to the local bases and doing more than “briefing aircrews.” As CWTs expand their capabilities, we are finding our products have a larger affect on other areas on the base – like security and maintenance. Most of us can relate to the snow removal, child care, and base pools, but people who are planning to dig holes, climb telephone poles, or prune trees, also need environmental situational awareness.

CWTs are gathering more information and getting more involved with the local command briefings by listening, asking questions, and interjecting weather intelligence at key times, to provide the local customers information to make critical decisions. As the CWTs continue to grow and develop, we look forward to continued similar successes.

The OWSs experienced growing pains as they stood up. We expect the CWTs to have similar growing pains. Patience, crossfeeding ideas, keeping an open mind, and a willingness to try new things will help CWTs get through the transition periods. As new airmen flow in to the field and become the NCO leadership of the future, the trust and confidence in hub products will grow because the airmen have been at the hubs. They know the potential for support and will plan to use the products more efficiently and effectively. Today's CWT supervisors must break the old paradigms and thinking if the CWT is to succeed – is your CWT up to the challenge?

At the 15th OWS, Scott AFB, Ill., they ping the integrated flight managers to ensure deicing equipment is ready at both APOE and staged locations to avoid mission delays. They worked closely with the CWT at Andersen AFB, Guam, when they realized the forecasts included winds out of tolerance for outside maintenance activities. The weather flight notified the MOC to ensure high priority Air Mobility Command missions received maintenance ahead of lower priority missions and before the onset of the winds.

86th OSW, Ramstein AB, Germany, developed a convoy brief for the 1st Combat Communication Squadron because they frequently travel throughout the European theater and weather is critical to their success. The CWT developed a product that shows where significant weather could impact convoys. The communication squadron then uses the product to schedule stops and give drivers warning of potential trouble spots.

At the 1st OSS/OSW, Langley AFB, Va., they provide a one-inch snow advisory for the 10th Intelligence Squadron, because excess snow accumulation can damage their satellite dishes. They also provide a 1/8-mile visibility advisory for the security forces. The security forces must double their patrols when visibility is limited.

Wright-Patterson AFB, Ohio, provides upper air soundings in support of OPEN SKIES treaty verification missions and uses the Vaisala automated GPS rawinsonde system to provide data needed for OPEN SKIES camera calibration. The CWT also works very closely with snow removal teams to gauge when to bring in crews, how much equipment they will need, and what type of melting materials are used on the road. The AFMC Command Post uses their wind and rain forecast for disposition of the flags for the day, and the Air Force Museum uses the daily forecasts to decide what to do for their outside activities.

At Spangdahlem AB, Germany, part of the non-flying support is for snow control. The weather team proactively lets customers know of any chance of snow accumulation or even if a hard freeze may occur. When the CWT is closed, the joint effort with the OWS keeps the runway/taxiways clear and base roads safer. Because of this teaming, the base has won snow removal awards for the past 11 years.

F.E. Warren and Malmstrom weather units provide support to units transporting missile stages via semi-tractor trailers. These big trucks have crosswind limitations that affect missile movements. Also, when maintenance crews drop a missile into a silo, the equipment they use has strict wind limitations.

Kunsan CWT, Korea, provides input to the Security Forces to aid in their perimeter defense – the base has a sensor system around the perimeter. The local CWT learned how the weather affected the false alarm rate for that system. When the CWT expects high wind, they call the Security Forces to keep them informed. The Security Forces were then able to adjust their sensors for the wind affects and lower false alarm rates to near zero.

make our weather deployers the center of attention for mission planning and execution. Of note, they've gone another year without any weather-related mishaps – a tremendous tribute to the deploying weather professionals and the supporting USAFE OWS! Of significant importance, this past Fall, the 886th Communications Squadron "WSSC" team replaced all seven non-standard, high-maintenance Portable Automated Observing Systems located in country with the new AFW-standard TMQ-

53s. In addition, we obtained contingency funding to hire and train nine Bosnian local nationals to handle the weather-observing mission. This, along with other 401st EWS consolidations, will allow us to eliminate nine AEF weather contingency positions in the coming year. Many thanks to all those AFW professionals who have deployed and spent time "in the Balkan box" serving our nation.

There are many other outstanding USAFE weather people who have accomplished much over the past year. Those accomplishments include in part: the 52nd Fighter Wing's first-ever deployment to Bulgaria; the

100th Air Reconnaissance Wing's OEF deployments to Turkey, Sicily, and Bulgaria; the V Corps CWTs' VICTORY STRIKE deployment to Poland; and the first ever Air Force recipient of the USARFUR/CG's Partnership Award – presented to Capt. John Roberts representing Det. 12, 7th WS, Vicenza, Italy.

I'll end now with apologies to the many others I've not specifically mentioned – I'm proud to say USAFE weather operators continue to "lead the way!" Bottom line: For those interested in a challenge; **USAFE Weather**, it just doesn't get any better than this!

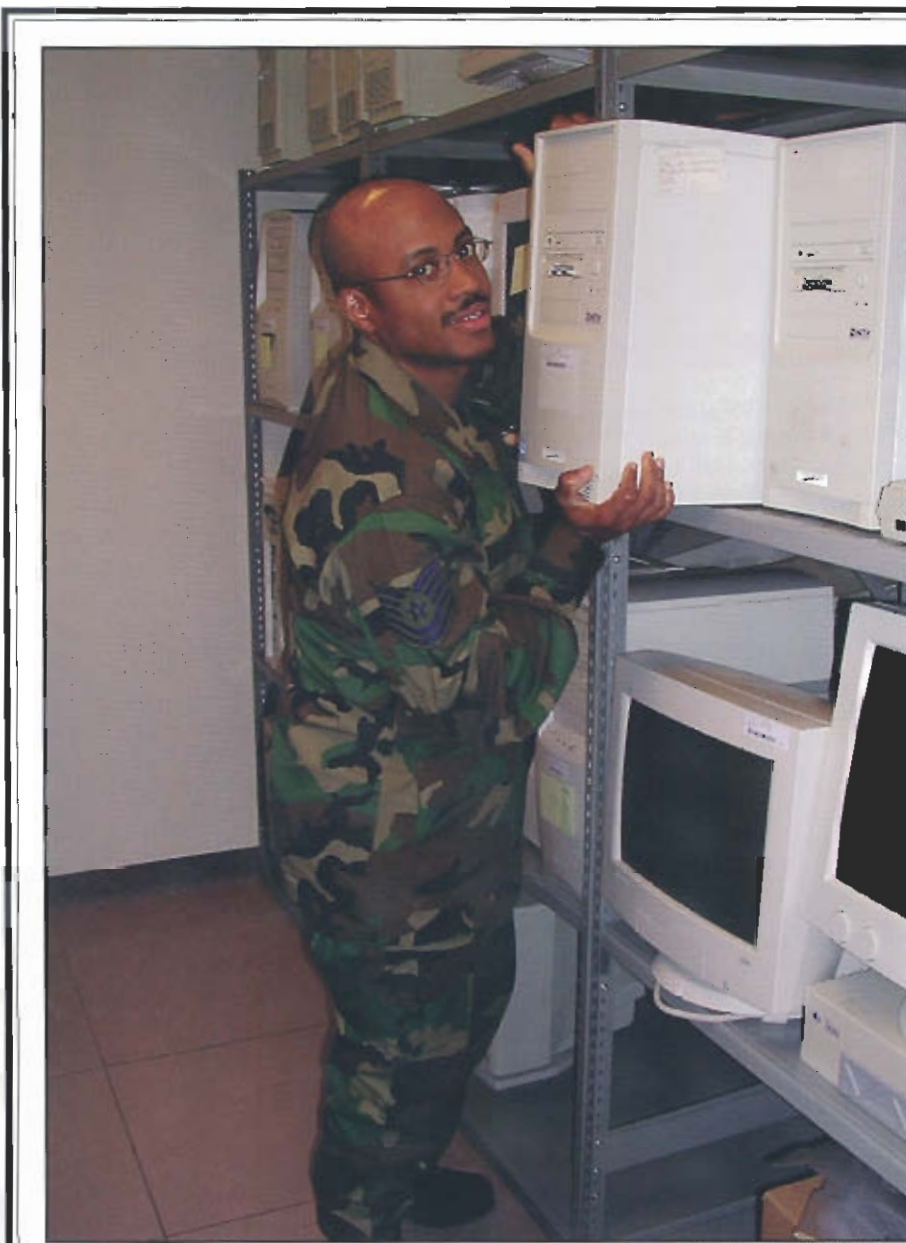


Photo courtesy of AFCCG

## Making the grade

The Air Force Combat Climatology Center, Asheville, N.C., donated 13 Pentium II computers to Haywood County, N.C., schools in December, 2001. The computers will be used in various classrooms for Internet access and will improve available resources within the classrooms. Additionally, the computers will provide e-mail capabilities among the high school teachers. AFCCC has donated nearly 60 computers and accessories throughout western North Carolina school systems since November 1998.

With community involvement like this and much more, AFCCC received the Land-of-Sky Regional Council's 2001 Citizenship Award during a ceremony Feb. 27.

For the past 35 years, the council annually recognizes individuals, groups, and organizations in the four-county region around Asheville for providing outstanding leadership and service to the community. The unit's nomination package reflected the numerous charitable, humanitarian, and educational endeavors tackled by AFCCC people during the past year.





### **Airman 1st Class Stephanie Miller**

USAFE OWS, Sembach AB, Germany

Contingency Forecaster

Years in service: 2.5

Hometown: Pierpont, Ohio

Role Model / Why? My mother and father both worked sixteen to eighteen hour swing shifts to make sure that my siblings and I had everything we needed or ever wanted. They are the most understanding and supportive force that has or ever will exist in my life.

Hobbies: Gardening, reading, painting, cooking, hiking and camping.

Reason joined the Air Force: Educational opportunities.

Most memorable AFW experience: Finally graduating from tech school.

# WEATHER WARRIORS

### **Staff Sgt. Paul Rogers**

31st CCS, Weather Systems Support

Cadre-West, Tinker AFB, Okla.

SSC Team Leader

Years in service: 11

Hometown: Belleville, Ill.

Role Model / Why? I never really had one role model. I always took the best qualities from my teachers, scouting leaders, church leaders and strived to be more like them.

Hobbies: Playing with children, basketball, and singing in church choir.

Most memorable AFW experience: Being part of the WSSC. I've seen so many places and people that it will stay with me forever. If I had to pick just one it would be the two weeks I spent on the road teaching AMIS 2.0. I drove from F.E.

Warren, WY to Holloman AFB, NM. In one of the classes I told them not to send the observations while we were teaching on the live system. The next minute the tower called to questions why the altimeter had shot up from 29.14 to 30.10. One of the officers in the class had sent out the observation by mistake. It really illustrates how important our job is and how we overall affect flight safety.



# SALUTES

## Retirements

**Capt. Jonathan Kelly**, 25th OWS, Davis-Monthan AFB, Ariz.  
**Master Sgt. Kim Danielson**, 25th OWS, Davis-Monthan AFB, Ariz.  
**Master Sgt. Kenneth A. Phelps**, 25th OWS, Davis-Monthan AFB, Ariz.  
**Master Sgt. Ronald Troutt**, 48th OSS/OSW, RAF Lakenheath, England  
**Tech. Sgt. William McMurtry**, AFCWC, Hurlburt Field, Fla.  
**Tech. Sgt. Billy Taylor**, 27th OSS/OSW, Cannon AFB, N.M.

## Awards and Decorations

### MERITORIOUS SERVICE MEDAL

**Lt. Col. Michael Buell**, HQ AFWA, Offutt AFB, Neb.  
**Lt. Col. Michael Hemler**, AFCWC, Hurlburt Field, Fla. (3rd OLC)  
**Lt. Col. G. Anderson White**, OL-K, AFWA, Norman, Okla.  
**Lt. Col. Steve Williams**, HQ AFWA, Offutt AFB, Neb.  
**Maj. David Bacot**, AFCWC, Hurlburt Field, Fla. (1st OLC)  
**Maj. John Knowles**, HQ AMC, Scott AFB, Ill. (2nd OLC)  
**Maj. Mark Sellers**, HQ AFWA, Offutt AFB, Neb.  
**Capt. Robert Swanson**, HQ AFWA, Offutt AFB, Neb.  
**Senior Master Sgt. Jeremy Samuel**, AFCWC, Hurlburt Field, Fla. (3rd OLC)  
**Master Sgt. Michael Clark**, 57th OSS/OSW, Nellis AFB, Nev.  
**Master Sgt. Alan Free**, OL-K, AFWA, Norman, Okla.  
**Master Sgt. John Johnson**, AFCCC, Asheville, N.C.  
**Master Sgt. Scotty Price**, HQ AFWA, Offutt AFB, Neb.

**Master Sgt. Joe Raab**, HQ AFWA, Offutt AFB, Neb.  
**Master Sgt. Kenneth Thomas**, HQ AFWA, Offutt AFB, Neb.  
**Master Sgt. Ronald Troutt**, 48th OSS/OSW, RAF Lakenheath, England  
**Tech. Sgt. Larry Groff**, Det. 7, AFWA, Tinker AFB, Okla.  
**Tech. Sgt. Robert Love**, 97th OSS/OSW, Altus AFB, Okla.  
**Tech. Sgt. Matthew Mead**, AFRL/VSBE, Hanscom AFB, Mass.  
**Tech. Sgt. John Ring**, HQ AFWA, Offutt AFB, Neb.

### AIR FORCE COMMENDATION MEDAL

**Capt. Christopher Cox**, HQ AFWA, Offutt AFB, Neb.  
**Capt. Ginger Hayden**, 60th OSS/OSW, Travis AFB, Calif.  
**Capt. Mark Miller**, Det. 7, AFWA, Tinker AFB, Okla.  
**Capt. Neil Sanger**, AFCCC, Asheville, N.C.  
**Tech. Sgt. Craig Lacy**, Det. 7, AFWA, Tinker AFB, Okla.  
**Tech. Sgt. Jeffery Norrod**, AFCCC, Asheville, N.C.  
**Tech. Sgt. Scott Rikard**, HQ AFWA, Offutt AFB, Neb.  
**Tech. Sgt. Richard Shaw**, HQ AFWA, Offutt AFB, Neb.  
**Tech. Sgt. Kevin West**, Det. 3, 55th SWXS, Ramey, Puerto Rico  
**Staff Sgt. Estefpany Allen-Allen**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Bryan Carlson**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Michael Dean**, 55th SWXS, Schriever AFB, Colo.  
**Staff Sgt. Aaron Diaz**, 97th OSS/OSW, Altus AFB, Okla.  
**Staff Sgt. Charles Hoffman**, AFRL/VSBE, Hanscom AFB, Mass.  
**Staff Sgt. Lisa Jones**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Donna Nowalski**, HQ AFWA, Offutt AFB, Neb.

**Staff Sgt. Todd Parkin**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Robert Parks**, Det. 1, 55th SWXS,  
Learmonth, Australia  
**Staff Sgt. Brent Persinger**, HQ AFWA, Offutt AFB,  
Neb.  
**Staff Sgt. Shaun Reith**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Robert Ross**, HQ AFWA, Offutt AFB, Neb.  
**Staff Sgt. Tonya Stewart**, HQ AFWA, Offutt AFB,  
Neb.

#### AIR FORCE ACHIEVEMENT MEDAL

**1st Lt. Gary Mears**, HQ AFWA, Offutt AFB, Neb.  
**Tech. Sgt. John Kovachich**, AFCCC, Asheville, N.C.  
**Tech. Sgt. William McMurtry**, AFCWC, Hurlburt  
Field, Fla.  
**Staff Sgt. Arthur Apple**, HQ AFWA, Offutt AFB,  
Neb.  
**Staff Sgt. Marc Gahagan**, OL-A, 321st STS, Stuttgart,  
Germany  
**Senior Airman Jenifer Alfaro**, HQ AFWA, Offutt  
AFB, Neb.  
**Senior Airman Stephanie Brown**, Det. 4, 55th SWXS,  
Holloman AFB, N.M.  
**Senior Airman Traci Gaines**, HQ AFWA, Offutt AFB,  
Neb.  
**Senior Airman Matthew Insko**, HQ AFWA, Offutt  
AFB, Neb.  
**Senior Airman Myron Johnson**, 55th SWXS, Schriever  
AFB, Colo.  
**Senior Airman Jarvis Jones**, HQ AFWA, Offutt AFB,  
Neb.  
**Senior Airman Eric Rice**, HQ AFWA, Offutt AFB,  
Neb.  
**Senior Airman Ursula Smith**, HQ AFWA, Offutt  
AFB, Neb.  
**Airman 1st Class Jeremy Friedrichsen**, AFCCC,  
Asheville, N.C.

#### ARMY ACHIEVEMENT MEDAL

**Staff Sgt. David Gray**, Det. 11, 7th WS, Heidelberg  
AIN, Germany  
**Staff Sgt. Sean Hansen**, Det. 1, 7th WS, Wurzburg  
AIN, Germany  
**Staff Sgt. Paul Walker**, 355th OSS/OSW, Davis-  
Monthan AFB, Ariz.  
**Senior Airman Sherri Ayala**, Det. 5, 7th WS,  
Katterbach AIN, Germany  
**Senior Airman Jason Bazin**, Det. 7, 7th WS,  
Grafenwoehr AIN, Germany

**OUTSTANDING UNIT AWARD**  
**25th OWS**, Davis-Monthan AFB, Ariz.

#### MILITARY OUTSTANDING VOLUNTEER SERVICE MEDAL

**Tech. Sgt. Tina Stott**, 25th OWS, Davis-Monthan  
AFB, Ariz.

#### NATO MEDAL

**Staff Sgt. Bart Hopkins**, Det. 3, 7th WS, Illesheim,  
Germany

## Education

#### WEATHER OFFICER COURSE

**Maj. Peter Szabo**, Hungarian Air Force  
**2nd Lt. Mark Barbire**, 11th OWS, Elmendorf AFB,  
Alaska  
**2nd Lt. Rebecca Clarke**, 25th OWS, Davis-Monthan  
AFB, Ariz.  
**2nd Lt. Donald Dumont**, 49th OSS/OSW, Holloman  
AFB, N.M.

## “How Goes It?”

Perhaps the single most important challenge for Air Force Weather is keeping quality people in the “Weather family.” Without the best people, we can’t continue to provide the best support to the warfighters. Although serving one’s country is immensely satisfying, for some it can also be stressful for them and their families. I need to hear directly from the AFW work force – I need to know what’s on their mind, which processes are working, and what still needs to be done.

I’ve set up an online survey on the XOW home page at:

[http://www.hafdash1.hq.af.mil/  
url\\_frames.cfm?url=http://www.xo.hq.af.mil/](http://www.hafdash1.hq.af.mil/url_frames.cfm?url=http://www.xo.hq.af.mil/)

The survey is geared to company grade officers and airmen through technical sergeants. I encourage you to take a few minutes and complete this survey and shape your future. As always, your time and efforts are appreciated.

Brig Gen David L. Johnson,  
Air Force Director of Weather

2nd Lt. Patrick Gioia, 19th ASOS, Fort Campbell, Ky.  
2nd Lt. Jeffrey Gipson, 26th OWS, Barksdale AFB, La.  
2nd Lt. Lowell Marinas, 28th OWS, Shaw AFB, S.C.  
2nd Lt. Jason Noren, 17th OWS, Hickam AFB, Hawaii  
2nd Lt. Matthew Stanley, 75th OSS/OSW, Hill AFB,  
Utah  
2nd Lt. Matthew Welche, 28th OSS/OSW, Ellsworth  
AFB, S.D.  
2nd Lt. Tad Woolfe, 305th OSS/OSW, McGuire AFB,  
N.J.

#### WEATHER CRAFTMAN'S COURSE

Senior Master Sgt. Scott McMillin, 120th WF,  
Buckley AFB, Colo.  
Staff Sgt. Matthew Albertson, 125th WF, Tulsa, Okla.  
Staff Sgt. Jason Bowry, USAFE OWS, Sembach AB,  
Germany  
Staff Sgt. Carl Garcia, 55th OSS, Offutt AFB, Neb.  
Staff Sgt. Jason Clemens, 45th WS, Patrick AFB, Fla.  
Staff Sgt. Kevin Coleman, 21st ASOS, Ft Polk AIN,  
La.  
Staff Sgt. Tia Derr, 92nd OSS, Fairchild AFB, Wash.  
Staff Sgt. Rosswald Guevarra, 14th OSS/OSW,  
Columbus AFB, Miss.  
Staff Sgt. Christina Guiles, 305th OSS, McGuire AFB  
N.J.  
Staff Sgt. Rick Guzman, 21st OSS, Peterson AFB,  
Colo.  
Staff Sgt. Raphael Kaup, 305th OSS, McGuire AFB,  
N.J.  
Staff Sgt. Fred King III, 341st OSS, Malmstrom AFB,  
Mont.  
Staff Sgt. Stephen Krieger, 26th OWS, Barksdale  
AFB, La.  
Staff Sgt. Michelle Lammers, USAFE OWS,  
Sembach AB, Germany  
Staff Sgt. Robert Martinez, 60th OSS/OSW, Travis  
AFB, Calif.  
Staff Sgt. Joseph Plante, 193th SOW, Ft Indiantown  
Gap, Pa.  
Staff Sgt. Anthony Smith, 305th OSS, McGuire AFB,  
N.J.  
Staff Sgt. John Sosa Jr., 24th STS, Pope AFB, N.C.

Staff Sgt. Jeremiah Thunberg, 24th STS, Pope AFB,  
N.C.  
Staff Sgt. Jerrod Webb, 26th OWS, Barksdale AFB, La.  
Senior Airman Maria Ansley, 72nd OSS, Tinker AFB,  
Okla.  
Senior Airman Jessie Gomez, 1st WS, Fort Lewis,  
Wash.  
Senior Airman Jimmy Henningsen, 72nd OSS,  
Tinker AFB, Okla.  
Senior Airman Braulia Quarles, 18th WS, Fort Bragg,  
N.C.

#### FORECASTER COURSE

Capt. Seung Hun (KAF), Ahn Suwon, Korea  
Staff Sgt. Mark Bargado, 30th WS, Vandenberg AFB,  
Calif.  
Staff Sgt. Tamika Lopez, 45th WS, Patrick AFB, Fla.  
Staff Sgt. Rodman Soucek, 55th OSS, Offutt AFB,  
Neb.  
Senior Airman Michael Anderson, 27th OSS/OSW,  
Cannon AFB, N.M.  
Senior Airman Jody Ball, Det. 3, 10th CWT, Fort  
Carson, Colo.  
Senior Airman Daniel Bigley, 20th ASOS, Ft. Drum,  
N.Y.  
Senior Airman Michael Bunting, 62nd OSS/OSW,  
McChord AFB, Wash.  
Senior Airman Everett Carson, Det. 5, 10th CWS,  
Ft. Bragg, N.C.  
Senior Airman Stephen Dabkowski, 55th OSS, Offutt  
AFB, Neb.  
Senior Airman Casey Dawley, 55th OSS, Offutt AFB,  
Neb.  
Senior Airman Derrick Gildner, Det. 3, 10th CWT,  
Fort Carson, Colo.  
Senior Airman Kelly Henderson, Det. 5, 10th CWS,  
Ft. Bragg, N.C.  
Senior Airman Timothy Henry, 78th OSS/OSW,  
Robins AFB, Ga.  
Senior Airman Brian Hudgins, 341st OSS,  
Malmstrom AFB, Mont.  
Senior Airman Patricia Hurdle-Aguilera, 27th OSS/  
OSW, Cannon AFB, N.M.

**Senior Airman Alden Lang**, 1st ASOG, Fort Lewis, Wash.

**Senior Airman Roseberg Ortiz**, Det. 5, 10th CWS, Ft. Bragg, N.C.

**Senior Airman Joshua Rosenberg**, 20th ASOS, Ft. Drum, N.Y.

**Senior Airman Mark Sterling**, 18th WS, Ft. Bragg, N.C.

#### WEATHER FORECASTER APPRENTICE COURSE

**Staff Sgt. Kurt Foy**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Joshua Demenge**, 208th WF, St. Paul, Minn.

**Senior Airman Brian Fox**, 110th WF, Bridgeton, Mo.

**Senior Airman Kimberly Wilcox**, 25th OWS, Davis-Monthan AFB, Ariz.

**MST3 Edward Silman (USCG)**, 335th TRS, Keesler AFB, Miss.

**Airman 1st Class Rebecca Boone**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Thomas Cook**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Tshara Crouch**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman 1st Class Adam D'Anthony**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Derek Dinger**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman 1st Class Cody Hansen**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Christy Howe**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman 1st Class Michael Jackson**, 20th OWS, Yokota AB, Japan

**Airman 1st Class Clarissa Kaup**, 28th OWS, Shaw AFB, S.C.

**Airman 1st Class Michael Lazare**, 120th WF, Buckley AFB, Colo.

**Airman 1st Class Qiana Morris**, 28th OWS, Shaw AFB, S.C.

**Airman 1st Class Kenneth Pryor**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman 1st Class Chantrice Rachal**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Robert Stacy**, 26th OWS Barksdale AFB, La.

**Airman 1st Class Desirae Strybos**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman 1st Class Wendy Taylor**, 127th WF, Forbes Field, Kan.

**Airman 1st Class Allen Thill**, 208th WF, St. Paul, Minn.

**Airman 1st Class Edgar Wingo**, 26th OWS, Barksdale AFB, La.

**Airman 1st Class Christopher Wise**, 26th OWS, Barksdale AFB, La.

**Airman Adrion Au**, 111th WF, Ellington Field, Texas

**Airman Erin Cannan**, 26th OWS, Barksdale AFB, La.

**Airman Bessie Kredell**, USAFE OWS, Sembach AB, Germany

**Airman Sandra Ranstead**, 25th OWS, Davis-Monthan AFB, Ariz.

**Airman Anthony Taylor**, 60th OSS/OSW, Travis AFB, Calif.

**Airman Robert Wittrock**, 28th OWS, Shaw AFB, S.C.

**Airman Heath King**, 28th OWS, Shaw AFB, S.C.

**Airman Shera Randall**, 26th OWS Barksdale AFB, La.

**Airman Jason Sjoberg**, 26th OWS Barksdale AFB, La.

#### NCO ACADEMY

**Master Sgt. John Kramer**, HQ AFWA, Offutt AFB, Neb. (Distinguished Graduate)

**Tech. Sgt. Gregory Spurck**, HQ AFWA, Offutt AFB, Neb.

**Tech. Sgt. Richard Edwards**, HQ AFWA, Offutt AFB, Neb.

**Tech. Sgt. Terry Avery**, Det. 7, AFWA, Tinker AFB, Okla.

**Tech. Sgt. Don Chambers**, 55th SWXS, Schriever AFB, Colo.

**Tech. Sgt. Paul Reeves**, HQ AFWA, Offutt AFB, Neb.

**Tech. Sgt. Michael Richardson**, HQ AFWA, Offutt AFB, Neb.

**Tech. Sgt. Thomas Walker**, HQ AFWA, Offutt AFB, Neb.

#### AIRMAN LEADERSHIP SCHOOL

**Staff Sgt. Heather Durio**, 57th OSS/OSW, Nellis AFB, Nev.

**Staff Sgt. LaToya Lee**, 20th OWS, Yokota AB, Japan (John L. Levitow Recipient)

**Staff Sgt. Michael Lee**, 20th OWS, Yokota AB, Japan (John L. Levitow and Leadership Award Recipient)

**Staff Sgt. Shaun Wallace**, 97th OSS/OSW, Altus AFB, Okla.

**Staff Sgt. Vernee White**, 27th OSS/OSW, Cannon AFB, N.M.

**Senior Airman Eric Bailey**, HQ AFWA, Offutt AFB, Neb. (Distinguished Graduate)

**Senior Airman Donica Betts**, 355th OSS/OSW, Davis-Monthan AFB, Ariz.

**Senior Airman Amy Brannon**, HQ AFWA, Offutt AFB, Neb.

**Senior Airman Juan Burciaga**, HQ AFWA, Offutt AFB, Neb. (Leadership Award)

**Senior Airman Lowell Coxie**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Kenneth Dewey**, HQ AFWA, Offutt AFB, Neb.

**Senior Airman Matthew Insko**, HQ AFWA, Offutt AFB, Neb. (John L. Levitow and Academic Achievement)

**Senior Airman Andrew Krotzer**, HQ AFWA, Offutt AFB, Neb. (Distinguished Graduate)

**Senior Airman Michael Miller**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Matthew Myers**, HQ AFWA, Offutt AFB, Neb.

**Senior Airman Steven Myers**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Thomas Quates**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Annette Reed**, 25th OWS, Davis-Monthan AFB, Ariz.

**Senior Airman Sang Scott**, HQ AFWA, Offutt AFB, Neb.

**Senior Airman Camece West**, HQ AFWA, Offutt AFB, Neb.

**Senior Airman Nathan Willems**, 25th OWS, Davis-Monthan AFB, Ariz.

## Promotions

Promotion to Colonel:

**Ray Clark**, HQ ACC/DOW, Langley AFB, Va.

**Robert Hamilton**, HQ USAF/XOW, Washington, DC

**Mark Weadon**, 88th WS, Wright-Patterson AFB, Ohio

Promotion to Lieutenant Colonel:

**Robert Black**, HQ USAFE/AOS, Ramstein AB, Germany

**Peter Broll**, OL-B, HQ AFWA, Washington, DC

**Ricardo Davila**, USAFE OWS, Ramstein AB, Germany

**Frederick Fahlbusch**, 28th OWS, Shaw AFB, S.C.

**Robert Falvey**, OL-B, HQ AFWA, Washington, DC

**Michael Farrar**, HQ USAF/XOW, Washington, DC

**Terence Given**, HQ USAF/XOW, Washington, DC

**Robert Hardwick**, HQ USEUCOM, Stuttgart, Germany

**Scott Heckman**, 20th OWS, Yokota AB, Japan

**Benny Holbrook**, AFELM SAF, Washington, DC

**John Knowles**, HQ AMC/DOW, Scott AFB, Ill.

**Lucy Lee**, 412th OSS/OSW, Edwards AFB, Calif.

**Jeffery Linskens**, 39th Wing, Incirlik AB, Turkey

**Patrick Ludford**, 25th OWS, Davis-Monthan AFB, N.M.

**David Miller**, National Defense University, Vandenberg AFB, Calif.

**Mark Miller**, 7th WS, Heidelberg, Germany

**James Mitchell**, HQ AFWA, Offutt AFB, Neb.

**Charles Pappas**, TACC, Scott AFB, Ill.

**Amanda Preble**, HQ USAF/XOW, Washington, DC

**Vincent Ries**, 30th WS, Vandenberg AFB, Calif.

**Robert Russell Jr.**, 10th CWS, Hurlburt Field, Fla.

**John Shattuck**, 607th WS, Yongsan AB, Korea

**Curtis Winstead**, HQ USAF/XOW, Washington, DC

Promotion to Major:

**Jonathan Kelly**, 25th OWS, Davis-Monthan AFB, Ariz.

Promotion to Chief Master Sergeant:

**Mark Anderson**, AFCWC/AFWA, Hurlburt Field, Fla.

**Robert Fuller**, Det. 9, 7th WS, Hohenfels, Germany

**Marty Kaczmarek**, 45th WS, Patrick AFB, Fla.

**Salinda Larabee**, HQ USAF/XOW, Washington, DC

**Paul Rano**, 15th OWS, Scott AFB, Ill.

**Phil Roseberry**, 25th OWS, Davis-Monthan AFB, Ariz.

**Charles Vinson**, 88th WS, Wright-Patterson AFB, Ohio

**Lee Wisecup**, HQ AFWA, Offutt AFB, Neb.

STEP Promotion to Technical Sergeant:

**Andre Lewis**, AFCWC, Hurlburt Field, Fla.



**Master Sgt. Chuck Lake, ANG WRTC, Camp Blanding, Fla.,** received his coin for his instrumental work developing and implementing the ANG Follow-on Training Program. This program returns trainees to their units with mission-ready capability.



**Staff Sgt. Derek Foster, 20th OWS, Yokota AB, Japan,** received his coin for his instrumental role in the two-phased installation of the OPS2 system. He completed a smooth installation, received invaluable training, and ensured mission success.



**Brig. Gen. David L. Johnson, Air Force director of weather,** presents his coin for superior performance to outstanding weather professionals across Air Force Weather.

**Staff Sgt. Ninfa Ramirez-Conroy, 35th OSS/OSW, Misawa AB, Japan,** earned her coin for quick thinking and decisive action. She calmed a volatile situation when an aircraft was diverted due to an oversight during their initial weather brief. She evaluated the briefing and identified that strong winds were indicated. She then called the shift supervisor at the hub and worked a solution.



**Master Sgt. Robert Steenburgh, 20th OWS, Yokota AB, Japan,** earned a coin for his work to development a squadron training program for both new and experienced forecasters. He helped create 360+ hours of classroom, laboratory instruction; assured complete task certification and secured \$3500 in reference books and over \$600 in journal subscriptions.

## General and Chief's Coin Corner

**Tech. Sgt. Christopher Fitts, AFCWC, OL-A, Hurlburt Field, Fla.,** received his coin for acquisition of nearly \$350,000 worth of SINCGARS radios, Global Positioning Systems, and mounting kits for the WRTC's HMMWVs. All at no cost to the unit. He actions improved training in the tactical communications, land navigation, and tactical driving courses and increased safety for the students and instructor during tactical situations/scenarios.



**Senior Airman Manuelle Rios, 18th OSS/OSW, Kadena AB, Japan,** recorded/transmitted 1,700+ observations with 98% accuracy – 3% above unit standard. While deployed for 90 days to Prince Sultan Air Base, Saudi Arabia, in support of Operation SOUTHERN WATCH, he spearheaded the remote observing station relocation effort and coordinated placement and calibration of tactical meteorological equipment.

**Chief Master Sgt. Penny Braverman, AFW Chief Enlisted Manager,** presents her coin for superior performance to outstanding enlisted weather professionals across AFW.



**Tech. Sgt. Amber Martinez, ANG WRTC, Camp Blanding, Fla.,** earned a coin for her instrumental role in developing and implementing the observing portion of the ANG Follow-On-Training Program. She ensured all trainees are qualified observers prior to returning to home units.



**Master Sgt. James Yackey, ANG WRTC, Camp Blanding, Fla.,** earned a chief coin for his instrumental role in developing and implementing the observing portion of the ANG Follow-On-Training Program. He ensured all trainees are qualified observers prior to returning to home units.





A large dust storm blankets Prince Sultan AB, Saudi Arabia, March 16. (Photo by 1st Lt. Glen Weaver)