



Observer

The Magazine for Air Force Weather

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**Weather and
the battlefield**



Observer

The Magazine for Air Force Weather

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What's Inside:

4 It's not just semantics...

Lt. Col. Robert Russell, Director of Weather for the Air Force Special Operations Command, reminds Air Force weather professionals that they are all warriors. They should not judge their value to the operation by their proximity to the battlefield.

8 Training for deployed operations

The Global War On Terror has changed the way the United States fights. Today, it is more common to have Airmen ride in a convoy and, in some instances, run those convoys. Airmen attending the 7th Weather Squadron's Cadre Focus training, operated by Detachment 7 in Grafenwöhr, Germany, now have the training to meet stressful battlefield situations.



10 Teamwork and Communication

Operational Weather Squadrons and Combat Weather Flights work as a team to accomplish the same mission – provide the best possible environmental situational awareness to the warfighter. Their perspectives and roles, however, are significantly different.

14 15th OWS; bringing weather into focus

The 15th Operational Weather Squadron at Scott AFB, Ill., has the daunting responsibility of providing timely and accurate environmental situational awareness to more than 130 military installations and sites across a 22-state region of the northeastern United States. To meet these needs and requirements, the men and women of the 15th OWS must be experts in all facets of the Air Force weather process.



19 Climatologists help “set the scene” for documentary

Dr. Patty Lowe, a professor at the University of Wisconsin-Madison and a producer for Wisconsin public television called the Air Force Combat Climatology Center with an unusual request. “I’m hoping you can give me a sense of the Korean weather conditions just before dawn on Nov. 5, 1950 near the village of Chonhyon, Korea (northwest of the North Korean Capitol, Pyongyang), not too far from the Chinese border.”



20 A tornado that saved a city and defeated an enemy

The summer of 1814 was one of the hottest on record. In late August, the afternoon rains and temperatures of over 100 F made the air humid with beads of moisture and turned the stagnate marshlands surrounding Washington D.C. into disease-carrying mosquito hatcheries. The 8,000 heat-weary townspeople were even more miserable when news came that the invading British Army was marching in from the Chesapeake Bay.

22 Eye on the storm

To fly into a storm is crazy. Wanting to fly into a storm is near insanity. For one Barksdale lieutenant though, it’s been a lifelong dream.



24 Observer magazine closes one chapter; Web site opens another

The November/December 2006 Observer magazine is the final issue capping a 52-year run as the official periodical for Air Force weather professionals. The end of the printed Observer era is not the end of quality news, feature stories and perspectives, it’s the start of a modern, high-speed method of receiving information – the newly revamped Air Force weather Web site.



On the Cover

A maintainer walks to secure an Iraqi Air Force C-130E Hercules at New Al Muthana Air Base, Iraq, May 8, 2006, during a sand storm. The storm engulfed the Baghdad area and caused near-zero visibility. U.S. Air Force photo by Staff Sgt. Jason Serrit.

Editor’s note: This is the last printed issue of the Observer magazine, see page 24 for the full story. For the latest news, features and perspective, visit the new Air Force weather Web site at:

<http://www.afweather.af.mil>

It's not just semantics...

by Lt. Col. Robert Russell
AFSOC, A3W
Hurlburt Field, Fla.

Chances are you're reading this article because you are a member of the Air Force weather community, and as such, you have chosen to participate in our Nation's military weather operations. You have chosen to be part of a noble calling, the profession of arms. Today we remain a nation at war, and each of us are performing duties supporting military operations required for successful accomplishment of the missions assigned to our units and directed by our commanders. Thank you for answering the call, and for all you do.

Air Force Special Operations Command weather technicians and Special Operations Weather Team members are important but minority members of two military communities; Air Force weather and the quiet professionals of United States Special Operations Command. Pride, professionalism and camaraderie are hallmarks of both; yet there are some cultural differences I believe are worth noting.

Many in our weather community perform their daily wartime duties far from the immediate battlefield, and over time it may become difficult to recognize contributions for what they are. In my travels I continue to hear phrases that indicate our weather community might be ready for a reminder of the important roles we have in the conduct of our nation's Global War on Terrorism. I often hear things in the weather community that implies we are in fact different than other members of our military. One example is that we "support the warfighter." The SOF community will remind us that we are all in the profession of arms; therefore, we are the warfighter! Your officer or enlisted oath makes that perfectly clear. If you are a civil servant or a contractor, your tasks are also military in nature.

I have been told, sometimes counseled, that I am a "weatherman" first. I ask you to consider our active duty roles in this manner: we are officers/NCOs first and foremost, operators second, and weathermen third ... now let me explain. We all took an oath of office/enlistment in the profession of arms and that oath applies 24 hours a day, 7 days a week, 365 days a year, if you're doing a weather task or not. You're an operator second which means you are a part of the operation/mission of the command you are serving in, be it a weather unit it not. We must be able to anticipate and understand the big picture of the mission and operations our unit and commanders are conducting in order to ensure their successful execution. Last, but not least, we are specially trained in weather. This is the specialty we bring to



our assigned missions, however, weather products/information, regardless of how accurate, are of little to no use if not provided at the right time, to the right people, containing information relevant to that mission. Competency as an operator AND weatherman go hand in hand.

Another example I often hear is we "support the operator," same song, second verse. Semantics to some perhaps, but to others, this statement also identifies weather as support, and

not operations. Again, our SOF culture points to how our own Air Force defines us, and again I must agree. Our Air Force has support functions which include civil engineering, services, personnelists and others; but not weather. These support functions are each identified by a 3-series Air Force Specialty Code. Weather is an operations function; identified by a 1-series AFSC ... you are an operator, the Air Force has defined that for us and I suggest we proudly embrace that fact.

Using either of these phrases implies we are separate from, rather than included in the very groups we hold in great esteem. It paints a verbal picture that we are, or perceive ourselves to be, separate from rather than included in the ranks of operators and warriors. I know each AFSOC weather warrior takes great pride in being counted as the operators they are, and I would hope all in the weather community adopt this view.

Another example, and my least favorite phrase, is "support the customer." A customer is one who pays for goods or services. In a military weather context, that covers only two groups of people; the American taxpayer, and those on the receiving end of whatever military missions we are conducting ... and both groups deserve our very best. Our customers actually support us in two ways; the American taxpayer provides funding and the enemy provides us many opportunities to execute our missions ... and we should do our level best everyday to ensure we never disappoint them.

In today's resource challenged environment, we make decisions everyday that in some way prioritize our individual or unit actions. In turn, each of these decisions can indeed affect our ability to perform our weather tasks more effectively to defeat our Nation's enemies and improve the conduct of our military operations. Remember, we are all warriors and we cannot judge our value to the operation by our proximity to the battlefield, your action may be the one that determines the outcome of a combat mission you never even knew occurred.

Weather officer accepts O'Malley award during Space Warfare Symposium

by Senior Master Sgt. Ty Foster
21st Space Wing Public Affairs
Peterson AFB, Colo.

The chief of Cheyenne Mountain Operations Center Weather Operations received the General Jerome F. O'Malley Distinguished Space Leadership Award for 2006.

Nearly 400 people rose to their feet to applaud 2nd Lt. Randall S. Claar, 21st Operations Support Squadron, as he accepted the award during an Air Force Association ceremony at the Space Warfare Symposium in Keystone, Colo., June 28. This award recognized his use of space technology in direct support of the warfighter.

During an introductory presentation, Maj. Gen. Thomas Taverney, mobilization assistant to the commander, Air Force Space Command, praised the lieutenant – the youngest recipient of the honor – for his “critical use of space assets during battle.”

“Lieutenant Claar showed us that space really does make a difference,” he said.

The lieutenant, then an Air Force staff sergeant, was attached as the chief of combat weather operations with the 15th Expeditionary Air Support Operations Squadron, 3rd Squadron, 7th U.S. Cavalry, 3rd Infantry Division.

His unit was staged in Kuwait for four months prior to the start of Operation Iraqi Freedom, Lieutenant Claar said. He provided weather information to the Army's cavalry commander and aviation assets in his area of responsibility. In March 2003 when the war began, Lieutenant Claar was the second Air Force member to enter Iraq.

His unit, he said, was a running decoy operation designed to find enemy units.

“Our job, as the cavalry, was to draw fire and continue on,” Lieutenant Claar said. “Then the 3rd ID came in behind us and eliminated the enemy forces.”

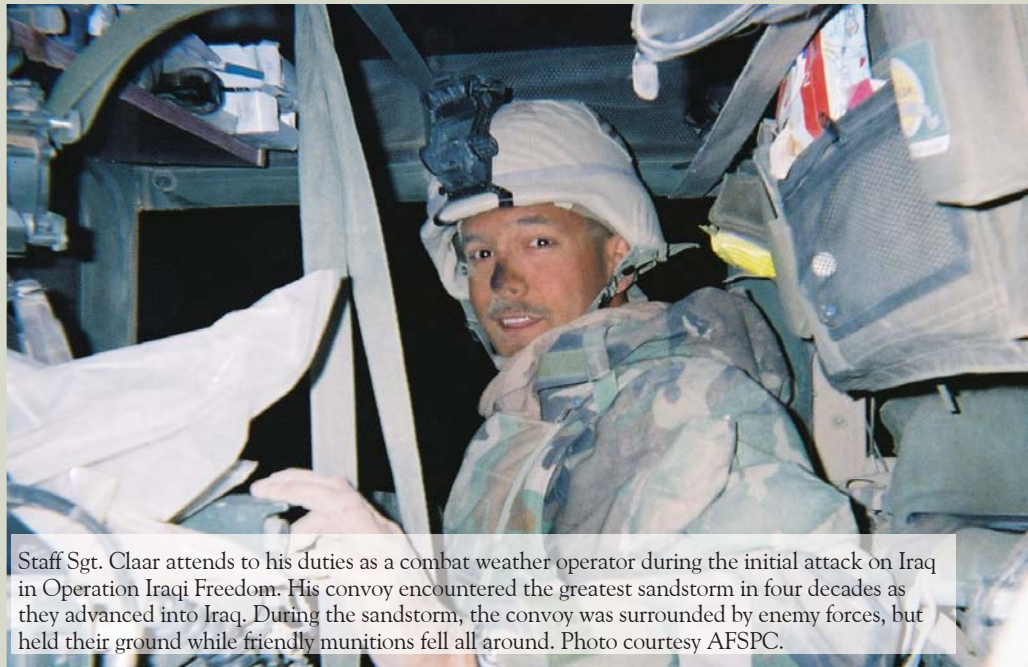
Baghdad was their overall objective, but it took some time to get there, he said. His actions, in March of 2003, earned him the Bronze Star Medal with Valor.

His cavalry commander heralded Lieutenant Claar's actions in the citation for the medal.

“After four days of continuous battle without sleep, Sergeant Claar was exposed to extreme danger from fierce and unrelenting mortar, machine gun and rocket propelled grenade attacks during what would prove to be the decisive battle of the war in the city of As Samawah.”

The lieutenant and his team found themselves under attack and extreme danger, according to the citation. Under a hail of enemy fire, Lieutenant Claar used an Iridium satellite phone to issue a warning for a severe sandstorm in the midst of the battle. This gave Army commanders time to secure the convoy before the largest sandstorm in four decades hit.

“The storm was blinding,” Lieutenant Claar said. “It looked like the surface of Mars when the sun was still up, and when the sun went down, it started to rain mud.”



Staff Sgt. Claar attends to his duties as a combat weather operator during the initial attack on Iraq in Operation Iraqi Freedom. His convoy encountered the greatest sandstorm in four decades as they advanced into Iraq. During the sandstorm, the convoy was surrounded by enemy forces, but held their ground while friendly munitions fell all around. Photo courtesy AFSPC.

The enemy continued to assault the halted convoy during the storm. Using space-based assets, friendly air support dropped munitions within 200 meters of either side of the convoy to repel attackers.

While recovering from the attack, another 2,000 enemy soldiers ambushed the convoy, forcing them to dig in.

The citation recounts Lieutenant Claar's actions: “Braving a barrage of enemy fire and with blatant disregard for his own safety, Sergeant Claar was the first to exit his vehicle and quickly realized the convoy had stopped in a field of thousands of unexploded ordinances.”

“It was a mess,” the lieutenant said. “The only way to get through it was to have someone walk through it.”

That someone was him.

The citation continues: “He ordered the rest of the convoy's personnel to stay in their vehicles while he guided the 23 vehicles to safety on foot amid enemy fire, stepping around unexploded ordinances.”

His experiences in Iraq and actions during those tense days left a lasting impression on both Lieutenant Claar and his Army brothers.

His “Cav” brethren, three of whom have since died while serving in Iraq, inducted him into the Order of the Spur for his decisive actions and seamless integration into the Army unit. Those he led and those who led him, he said, were leaders in the truest sense. They inspired him to become an officer.

During the O'Malley award presentation, the ribbon bedecked officer wore his Cavalry spurs with his Air Force service dress uniform. With tears in his eyes and a crack in his voice, he toasted his Cavalry brothers and sisters.

Everyone in the audience was moved, not only by his actions in March 2003, but for what Lieutenant Claar has come to symbolize – the epitome of the Air Force space warfighter.

(Stefan Bocchino contributed to this article.)

Weather specialists help make mission possible

Deployed weather forecasters help ensure Global War on Terror flight missions are a 'go'

by Staff Sgt. Celena Wilson
379th Expeditionary Wing
Public Affairs
Southwest Asia

How hard is it to tell what the weather is in the desert in the middle of the summer? You can just go outside and say 'Yup. It's hot.'

But the members of the 379th Expeditionary Operations Support Squadron Weather Flight will tell you different – it takes teamwork, communication and lots of equipment to get that weather forecast.

The weather information the flight provides enables weapons to be delivered at a particular place, at a specific time by shaping the aircrew's awareness of any and all adverse weather conditions and enhancing their ability to overcome and exploit these conditions.

From mission planning to execution to recovery, weather conditions dictate the manner in which the mission is accomplished.

"What we bring to the fight is the information of what the atmosphere is doing and what it is going to do, and more importantly, how that will impact the mission to be accomplished," said Capt. J.R. Hanamean, Weather Flight commander.

"Weather is critical to mission success, especially concerning flying operations," said Staff Sgt. Scott Capodice, deployed from Langley AFB, Va. "We brief all flights out of here which are in direct and indirect support of operations Enduring Freedom and Iraqi Freedom and are out there doing a number of different missions.

"Whether it be a fighter, tanker, bomber or cargo aircraft, we brief them all and having the timely and accurate weather is critical to their mission accomplishment," Sergeant Capodice said.

"It may be hot here and doesn't change much, but other factors such as fog, humidity, dust and wind speeds can change very quickly and we have to do everything to keep the pilots safe and the base populace informed," said Tech.

Sgt. Ceaser Webb, deployed from Eglin AFB, Fla.

Above:
Senior Airman Daniel Perry, 379th Expeditionary Operations Support Squadron Weather Flight forecaster, takes a wind speed reading with a Kestrel 4000. Airman Perry, stationed at Robins AFB, Ga., is one of six combat weather forecasters deployed to the flight.

Photo by Staff Sgt. Celena Wilson.



One of the forecasters' jobs is to compile all of the current weather conditions gathered by their weather equipment, such as the tactical meteorological observing system, or T-MOS, and the Mark IVB, a satellite display and analysis system.

The forecasters then forecast what the weather is doing or going to do within the AOR for flights scheduled for that day. This is one of the most important jobs these six forecasters have.

"Without us no aircraft can get off the ground," said Tech. Sgt. Tina Stott, deployed from Elmendorf AFB, Alaska. "Without our weather forecasts, these pilots would be out there flying blind and would never know what was really out there. We try to keep them clear of the various weather hazards, especially the sand storms."

The flight hit the ground running and hasn't missed a step in this high ops-tempo shop.

Considering most of the individuals have not deployed before and are not familiar with combat operations or Southwest Asian weather, having more experienced personnel on each shift gives us an advantage over having an unbalanced or inexperienced flight," said Master Sgt. Kimberly Lester, Weather Flight noncommissioned officer in charge.

"With a more balanced rank structure, the likelihood that some of the more senior members have worked with tactical equipment, have knowledge on how weather impacts this area and have supervisory experience has been very valuable to our ops considering we only get one to two days of training before we are certified to work on our own. In normal weather stations, the training timeline is at least four to six weeks," Sergeant Lester said.

"The folks here are eager to learn and didn't arrive with any preconceived ideas about operations and/or support," she said. "We have a great balance of forecasters in our office who get the job done," she concluded.

Balad combat weather flight ensures safe traveling

by Staff Sgt. Alice Moore
332nd Air Expeditionary Wing Public Affairs
Balad AB, Iraq.

When Staff Sgt. James Brown steps out for the first time during his day here, he scans the sky. He already knows what type of day he'll have at work before he steps into his office because weather is his business. The combat weather forecasters assigned to the 332nd Expeditionary Operations Support Squadron monitor local weather conditions 24/7 to ensure safe flight conditions for the aircraft flying in and out of Balad AB, Iraq.

"Weather support here is provided by a team of forward-deployed and rear-echelon weather support agencies," said Master Sgt. Michael Dannelly, combat weather flight noncommissioned officer in charge, deployed from Hill AFB, Utah. "The 332nd EOSS combat weather team, or weather flight, is the lead weather unit here. We collect local observations, provide flight weather briefings and disseminate weather watches, warnings and advisories."

The combat weather team accomplishes its missions using several electronic tools including visual satellite loops and infrared enhancements that detect incoming dust storms and clouds, and radar displays that detect inclement weather such as thunderstorms. The flight also uses a tool called a metegram, a computer-based program that allows the forecasters to view a forecasted slice of the atmosphere.

However, their resources don't end with electronics, according to Sergeant Brown, also deployed from Hill AFB, Utah.

"We also rely on our observation point to collect basic information such as hourly winds, vis-

ibility, temperature, and cloud heights," he said. "We use (distance) markers to help measure distances."

The distances are used to inform pilots of the visual range of the runway as they approach for landing.

The flight has four forecasters on each shift readily available to provide continuous weather updates to a wide variety of Army, Air Force and Department of Defense civilians here. The flight provides approximately 100 flight weather briefs a day, Sergeant Dannelly said.

He also said one of the toughest challenges of being in a deployed environment comes with bad weather.

"It's not as challenging on nice weather days, but when everybody and their brother starts calling during bad weather, it gets pretty hectic," he said. "Our biggest challenge is definitely the dust and the sand. It's very difficult to predict the intensity and dispersal of the dust storms here."

Although the shop has its challenges, being deployed also comes with its rewards.

"You can definitely see that we have a huge mission impact here. It's good because you're able to see it (bad weather) play out and know you had a hand in keeping people safe," Sergeant Brown said.

"For me being here has been a positive experience because I've gotten to meet and work with different people within my career field," said Staff Sgt. Jason Noel, deployed from Offutt AFB. "I'm definitely about deploying because it gives me a chance to obtain different experiences I wouldn't get otherwise."

Sergeant Dannelly said at the end of the work day, the flight credits its success here to teamwork, which he says is phenomenal.

"Each one of us is unique and we each bring our own ingredient to the team. The different personalities just make it a fun place to work and when you get an aircraft on the ground before a dust storm hits it's a pretty satisfying feeling."

Left: Staff Sgt. Jason Noel provides the most up to date weather conditions for aircrew Oct. 16 at Balad AB, Iraq. Sergeant Noel is a combat weather forecaster assigned to the 332nd Expeditionary Operations Support Squadron and is deployed from Offutt AFB, Neb.

Above: Staff Sgt. James Brown looks at a map for guidance Oct. 16 at Balad AB, Iraq. Sergeant Brown is a combat weather forecaster assigned to the 332nd Expeditionary Operations Support Squadron and is deployed from Hill AFB, Utah.



Photos by Staff Sgt. Alice Moore.

Training for deployed operations

by Staff Sgt. Josh Smith
7th Weather Squadron
Grafenwöhr, Germany



Left, Maj. Jose Harris and, right, Staff Sgt. Josh Smith take a defensive position during convoy training. Photos courtesy of 7th Weather Squadron.

The Global War On Terror has changed the way the United States fights. Today, it is more common to have Airmen ride in a convoy and, in some instances, run those convoys. Battlefield Airmen providing weather support to the Army go where the Army goes, and sometimes, a convoy is all an Airman has to meet the mission.

Imagine traveling in that convoy and a roadblock appears ahead with locals approaching the vehicle. Knowing what to do in this situation can make all the difference. Airmen attending the 7th Weather Squadron's Cadre Focus training, operated by Detachment 7 in Grafenwöhr, Germany, now have the training to meet stressful battlefield situations. Cadre Focus provided five days of training with lessons and practical exercises on ground combat skills, tactical meteorological equipment, and weather operations Airmen use while supporting Army operations during deployments. Teamwork is emphasized since most Airmen attending Cadre Focus will deploy together to either a Joint Operations Center or in support direct of Army units.

The training recently relocated from Heidelberg, Germany, three hours east to Grafenwöhr - home of Det. 7 and the 7th Army Joint Multinational Training

Command. JMTC has pre-established training facilities for training joint/multinational forces in tactical combat skills. Moving the training to Grafenwöhr aligns the 7th WS into the Army training environment and provides access to existing training opportunities available through the Army. Cadre Focus was created to train weather forecasters from the 7th WS who were unable to train with the Army as part of ramp-up exercises for Army customers going downrange. This "gap" in training is caused by the difference between the Army's one year deployment cycle and the Air Force's 120 rotations. This training closes a gap and also is open to all USAFE weather forecasters providing support to the Army warfighter while deployed.

Instructors begin the week refreshing students on the combat skills soldiers use every day, but for which battlefield Airmen may not be as proficient. This training helps ensure that if faced with combat, weather personnel can function as an integral part of the combat team, rather than a liability. Among the combat skills taught, students learn how to recognize and react to improvised explosive devices; convoy operations; Central Command rules of engagement and use of force; self aid and buddy care and some combat life saving skills; map

reading and land navigation; iridium satellite phone operation; enhanced weapons training on the Army's state-of-the-art electronic firing range; and preventive maintenance check and services for tactical vehicles. Most of these classes build on training already received and refresh procedures that may not be used in operations outside the deployed environment.

A highlight of the combat skills phase is the convoy training provided by instructors from the Small Arms Basic Operator Trainers Academy. These instructors are responsible for the Army's Master Gunner course and Convoy Live Fire exercises. Training includes convoy strategies and dismounted/engagement techniques on how and when to engage the enemy. SABOT Academy instructors are well versed in small arms techniques and bring some of the latest lessons learned from Iraq and Afghanistan. Their training can exponentially increase our Airmen's safety.

Along with the convoy skills, students honed their shooting skills at Vilseck's Engagement Skills Trainer, an electronic firing range where Airmen train with weapons in different battle scenarios. This is the same equipment many Army units are using to prepare for downrange fighting.



1st. Lt. Ryan Rickert and Master Sgt. James Myer shoot an azimuth during land navigation training.

Utilizing training from professionals that are already knowledgeable and experienced is paramount. Self aid and buddy care along with map reading and land navigation is provided by Tactical Air Control Party Airmen from the 2nd Air Support Operations Squadron, Vilseck, Germany. Imparting their tactical skills and experiences operating alongside the Army provides valuable insight to Cadre Focus trainees.

In addition to combat skills, students train on supporting combat operations in a Joint Operation Center and in a Battlefield Weather Team. Whether Airmen are providing support directly to the CJTF commander, or supporting a Corps or lower level Combat Brigade, the course includes training for all aspects of the deployed environment. The students undergo a day of simulated JOC and BWT operations. Students brief the CJTF commander, create weather products, react to urgent requests for UH-60 medical evacuation and close air support, produce tactical observations, and troubleshoot tactical meteorological equipment.

A large portion of training also consists of re-familiarization of tactical weather equipment. For this portion of the training, the course employs experts from the Weather Support

System Cadre, Robins AFB, Ga., who spend a few days imparting their vast knowledge of tactical systems and downrange experience. The WSSC conducts briefings on the TMQ-53 with the iridium kit upgrade, T-VSAT and NTFS. Their knowledge of common system failures and troubleshooting techniques is essential to ensuring our battlefield Airmen understand tactical weather systems.

One of the most important aspects of Cadre Focus is teamwork. Students attend with the same personnel with whom they will likely deploy. This produces a great opportunity for forecasters to develop unit cohesion. It also gives members deploying to different locations time to put faces with names. Teamwork is paramount in any unit and this certainly is true downrange. Training as the deployed team helps define roles and develop unit cohesion.

Battlefield weather technicians have a unique mission and not only need to maintain their weather forecasting skills, but also be proficient in combat skills. The 7th Weather Squadron's Cadre Focus provides the opportunity for members to hone both combat and tactical weather skills – giving forecasters a boost of confidence and the tools needed prior to deploying into a combat zone.



Second from the left, Army Sgt. First Class David Gavit and left, Staff Sgt. Derek Dinger review lessons learned from a convoy scenario.

Teamwork and Communication

by Maj. David Runge
9th Operational Weather Squadron
Shaw AFB, S.C.

Operational Weather Squadrons and Weather Flights work as a team to accomplish the same mission – provide the best possible environmental situational awareness to the warfighter. Their perspectives and roles, however, are significantly different.

The OWS forecaster deals more with meteorological parameters and is focused on the Analysis Forecast Process, severe weather checklists, and Terminal Aerodrome Forecast reasoning. Also alert to the latest weather conditions, the WF forecaster is even more “plugged into” planning and execution cycles and utilizes the Mission Execution Forecast Process to perform the role of tailoring MEFs to facilitate execution decisions. Both roles are important for the OWS and WF forecaster to do their jobs effectively, but it is essential both become familiar with the other’s focus and keep communication lines open to optimize weather support for the warfighter. To help accomplish this, the 9th OWS hosted a WF Open House in August with plan for recurring WF visits in the future.

Appropriately, the WF Open House theme was Teamwork and Communication. To facilitate these goals, the 9th OWS provided a tour of their training and operations facilities, briefed topics pertaining to both WF and OWS operations, held open discussions, and hosted an evening social and dinner.

During the meteorological vs. operational focus discussions, participants discussed the roles of both OWS and WF forecasters, and how open communication helps each other accomplish these roles more effectively. Everyone involved agreed

that OWS forecasters need to be in tune with meteorological reasoning, but they also need to remain vigilant of how their products affect operational considerations and ensure the WF forecaster is in-the-loop before a TAF (or warning) is issued. It was also agreed that operations familiarization training would benefit OWS forecasters. Shaw’s WF commander, Capt. Brian Belson, volunteered to provide operations orientation training for 9th OWS forecasters at the Shaw weather station. Maj. Jonathan Kelly, the 9th OWS commander, immediately took him up on the offer and will incorporate this familiarization program into the squadron’s formal training. There was also consensus that all WF leaders should educate their forecasters on the OWS forecaster meteorological bias that is more focused on meeting desired lead times (up to 2 hours) and TAF thresholds based on severe weather potential and meteorological reasoning, not on customer operations (i.e. ORI exercises or key sorties planned for the day).

After the WF Open House, the 9th OWS sent out a seven-member team to visit some of the weather flights across Georgia and Florida.

“The team thoroughly enjoyed the visits that allowed them face-to-face discussions with WF counterparts they’ve been working with over the phone,” said Tech. Sgt. David Humphreys, an OWS forecaster and member of the visiting team. “It was especially encouraging to see misconceptions melt away as they engaged in conversations and became more aware of each other’s perspectives.”

At all visited locations, WF leadership provided briefs on their customers’ missions, which gave OWS forecasters an accurate picture of what it’s like working at a WF – all expressed excitement about the prospect of directly supporting fighter and



Mr. Jeff Gould explains the Mission Execution Forecast verification program at Ft. Benning, Ga. Photos by Maj. David Runge.

Pakistani Weather Officer Liaison Visits 9th OWS

by Maj. David Runge
9th Operational Weather Squadron
Shaw AFB, S.C.

special ops missions. One of the team's highlights was watching the F-22s take off and land at Tyndall AFB, Fla. Visiting team member, Senior Airman Daniel Reichert exclaimed, "After being at a hub for nearly three and a half years, and with my re-enlistment date approaching, visiting weather flights was a great opportunity to see how things operate in the weather career field outside the OWS. It was rewarding to see how our products are used to provide support for the flying customers."

In addition to mission briefings at each location, Mr. Jeff Gould at Fort Benning, Ga., also explained their MEF Verification program that allowed them to evaluate MEF accuracy and MEFP process deficiencies to attain maximum operational focus. After the visits, Mr Gould wrote, "I was glad to see the young forecasters making their rounds and getting a better feel of whom and what they are supporting."

At each location, team members met with operations support squadron commanders and directors of operations to discuss a myriad of issues. The team found growing support as leaders became more familiar with the distinct, but symbiotic roles of the WF and OWS forecasters. In addition, all weather flight leaders were glad to see the OWS forecasters visiting their units to improve teamwork and obtain an operational perspective.

"WF and OWS operations cannot be successful without an awareness of each others' responsibilities to incorporate weather information at the warfighter level to ensure safe operations while at the same time mitigating operational impacts," said Maj. Steve Vilpors, the Tyndall WF commander. Major Vilpors attended the WF Open House and then hosted the 9th OWS team. "Our intent is to continue to host WF Open Houses and conduct WF visits to keep the communication lines humming," he said.

The 9th Operational Weather Squadron had a rare opportunity to further international relations when Maj. Muhammad Rehan Ashraf, a member of the Pakistani Air Force visited the squadron in October. Members of the Squadron were more than pleased to host Major Ashraf, a meteorological officer stationed at the Army Aviation School in Gujranwala, Pakistan.

After his weather squadron commander selection, Major Ashraf was sent to the Weather Officer Course at Keesler AFB, Miss., for some advanced technical training. En route back to Pakistan, he stopped at the 9th OWS to receive familiarization training on OWS and Weather Flight operations. During the visit, he was given a tour of the 9th and 28th OWSs, additional technical training on TAF and warning production, as well as familiarization training on various weather systems. He was also provided many rules-of-thumb applicable for his area of operations. To give him a perspective of the WF's mission to tailor forecasts to operations, Capt. Brian Belson, 20th OSS/OSW commander, hosted a tour of Shaw's CWF facilities. Major Ashraf was thankful for the familiarization training and gleaned helpful information from his visit.

It was also a culturally enriching visit since Major Ashraf's visit coincided with Ramadan - this also posed some unique challenges. He fasted during daylight hours, so he had to eat breakfast before dawn and wait until after sunset before sitting down to dinner. During the visit, squadron members also took Major Ashraf to a Mosque in downtown Columbia, S.C., for Friday prayers. He greatly appreciated all the effort to meet his Muslim requirement to attend Friday prayers if at all possible during Ramadan. Having never been to America before, this additional time in America afforded Major Ashraf a glimpse of what life is like here. He was pleasantly surprised at the warm receptions everyone gave him during his visit.



2nd Lt. Holly Stirtz demonstrates several web-based weather data sources for Maj. Muhammad Rehan Ashraf.

Rain or shine 325th Weather

by Staff Sgt. Stacey Haga
325th Fighter Wing Public Affairs
Tyndall AFB, Fla.

The 325th Operations Support Squadron Weather Flight, in tandem with the 9th Operational Weather Squadron's Bravo Flight from Shaw AFB, S.C., develop weather forecasts for Tyndall AFB, Fla., and its flying operations.

The 9th works with the flight, and a lot of high-tech equipment, to issue weather watches for Tyndall AFB. Throughout the day, the 325th OSS/OSW will monitor the skies for changes in weather and issue weather warnings as needed.

"Most bases have a lightning-within-five-miles warning for the airfield," said Master Sgt. James Tart, 325th OSS weather flight chief. "We also have a five-mile warning for the Silver Flag area and the golf course."

The weather warnings issued by the flight are just a small part of their day-to-day operations.

"On a daily basis we give the wing a forecast for the airfield and the surrounding flying areas over the northern Gulf Coast and Gulf of Mexico," said Sergeant Tart.

The forecasts include takeoff and landing weather, as well as weather for the area the aircraft will be flying in. The forecasts are briefed in-person to the Fighter Squadron Operations Superintendents, supervisor of flight and pilots. The weather flight also provides timely updates to the Maintenance Operations Control Center and briefs Maintenance Group leadership on weather conditions weekly.

"We receive the majority of our weather information from the 9th OWS at Shaw AFB, S.C.," said Sergeant Tart. "We also receive data from the National Weather Service Doppler radar located at Red Bay, Fla., which

HURCON 5: Signals it is currently hurricane season and/or a general state of preparedness (1 Jun–30 Nov).

HURCON 4: 50 knots (kt)/58 miles per hour (mph) winds or higher within 72 hours.


HURCON 3: 50 kt/58 mph winds or higher within 48 hours.

HURCON 2: 50 kt/58 mph winds or higher within 24 hours.

HURCON 1: 50 kt/58 mph winds or higher within 12 hours.

HURCON 1E: Surface winds in excess of 50 kt/58 mph are occurring. All outside activity is prohibited.

HURCON 1R: Surface winds in excess of 50 kt/58 mph are no longer occurring and the storm has passed. Actual winds are 34 – 49 kts. Non-essential functions remain closed unless directed by the commander. All but emergency essential personnel remain in their quarters.



Sept. 15, 2004, Hurricane Ivan stirs the waters off the Florida coast. NASA image.

Flight keeps Tyndall advised

has the capability to see up 248 miles away. It's the primary piece of equipment we use."

Additional weather information is also received from the National Oceanic and Atmospheric Administration, National Hurricane Center, and web sites such as the Joint Air Force Army Weather Information Network.

All of the information enables the flight to predict weather well enough to confidently advise the wing on the best courses of action to ensure the safety of Tyndall's personnel and aircraft and if a hurricane's approaching, when to initiate hurricane evacuations.

"(To prepare for hurricane season,) we have the annual hurricane exercise on base to familiarize ourselves with procedures and the Hurtrak software," said Sergeant Tart. "The software takes the forecast positions and movements and puts it in a geographic plot."

It is what the 9th OWS and 325th OSS/OSW will use to determine the strength of the wind bands, the projected path and even a prediction of the storm surge of the hurricane.

"It (Hurtrak) gives an hourly animation of the hurricane winds as it is forecast to approach us," said Tech. Sgt. William Bennett, 325th OSS/OSW weather forecaster. "It provides us with an idea of when the winds will reach 50 knots. That way the Wing's leadership can determine when the aircraft and/or personnel need to be evacuated."

When hurricane season starts, the flight can become very busy, especially as a hurricane approaches.

"We receive bulletins every six hours when a hurricane is within 400 miles and is projected to come this way," said Staff Sgt. Anthony Fountain, 325th



Tech. Sgt. Publio Castillas, flight NCOIC for mission services, gathers flightline weather observations on Tyndall AFB, Fla. The 325th Fighter Wing operates F-22 Raptors (in the background) and F-15 Eagles. Photo by Master Sgt. James Tart.

OSS/OSW airfield services supervisor. "Our first bulletin has to be posted by 5 a.m. everyday during this time."

When HURCON 4 starts, the Weather Flight starts 24-hour operations to keep Team Tyndall constantly updated on the status of the hurricane.

"In HURCON 3 the crisis action team is meeting and we will brief them," said Sergeant Bennett. "At the same time, the forecasters are publishing bulletins and briefing the pilots as they prepare to evacuate."

More briefings and recommendations follow as the hurricane watch team meets daily to meet the challenge.

"They use what we tell them on the timeline of the hurricane to coordinate with the Wing, 13 associate units, and TDY personnel on the base evacuation," said Sergeant Bennett.

Two members of the Weather Flight are also part of the ride-out team. They will not evacuate with the base, but stay in a bunker until the storm passes. This will enable the flight, as part of the

base recovery element, to quickly start providing weather support, said the sergeant.

Even in austere conditions, they can provide weather support in coordination with the 9th OWS. The Airmen can coordinate the weather information and make assessments on when aircraft can safely return to base.

It gets busy forecasting the weather, but that is actually a good thing for some of the Airmen.

"The weather is constantly changing," said Sergeant Tart. "There is always something different or new happening."

What is the downside?

"It's difficult being held accountable for something you have absolutely no control of," said Sergeant Bennett.

"And when you are wrong everyone lets you know it," said Sergeant Tart laughingly.

The flight holds a track record of approximately 95 percent accurate weather predictions. Listening to them might be a good idea.

15th Operational Weather Squadron

Bringing Weather into

FOCUS

Members of the 15th Operational Weather Squadron, Scott AFB, Ill., operate at a fast pace that could make even a seasoned forecaster's head spin. Photo by Mr. Miles Brown.

by Tech. Sgt. Sabrina Foster
375th Airlift Wing Public Affairs
Scott AFB, Ill.

The 15th Operational Weather Squadron has the daunting responsibility of providing timely and accurate environmental situational awareness to more than 120 military installations and sites across a 22-state region of the northeastern United States. Additionally, the Squadron is one of six training hubs following the initial weather training for Airmen and officers. To meet these needs and requirements, the men and women of the 15th OWS must be experts in all facets of the Air Force weather process.

Communicating the weather

The weather forecast can be of concern for a lot of people. Whether it's planning an outdoor activity or just ensuring they are dressed properly for the day.

However, many people may not be aware of what goes on behind the scenes to ensure the weather is properly forecasted. Enter the 15th OWS's communications department,

known as WXTC.

"The 15th OWS is responsible for weather support at all Army and Air Force installations in the Northeast Region of the United States, which includes Scott Air Force Base," said Capt. Scott Lisko, 15th OWS chief of training and systems. "We provide weather charts, watches, warnings and advisories for 139 locations in our area of responsibility.

"WXTC maintains several different systems to ensure our weather products are created and transmitted properly. We are responsible for 41 servers and 131 workstations valued at approximately \$15 million dollars," said Captain Lisko.

"The main objective of the communications department is to manage weather systems so forecasters have the tools to do their job," said Norman Watts, director of WXTC.

The main weather system used by the 15th OWS, the Leading Environmental Analysis and Display System, is used to create weather maps and hazard charts.

Forecasters use these charts to create forecasts, watches, warnings and advisories, which are transmitted by the Integrated Weather Warning Capability System.

WXTC is on call 24 hours a day, 7 days a week to ensure that these systems are 100 percent operational, and are called



in after hours an average of two to three times per week for computer related problems, said Mr. Watts.

A typical day in the 15th OWS communications department can vary, but some processes are done on a daily basis.

"The first thing we check (when we come in) is the status from the satellite feeds," said Mr. Watts. "Their status will tell us where the data problems are, if any. We also check with the operations manager to find out any problems that have occurred overnight."

After these checks are complete, the rest of the days are spent on routine maintenance and dealing with problems as they occur.

WXTC members check trouble tickets, and depending on the problem the user is having, they are sometimes able to fix the problem on the spot, said Mr. Watts.

WXTC is not only responsible for ensuring the forecasters have all the tools to do their job, but they also ensure all computers in the weather squadron are operational and compatible with current operating systems.

"We are constantly coordinat-

ing with the 375th Communications Squadron and the network operations security center about any patches and upgrades that we need to implement on the computers here," said Mr. Watts.

Another important function of WXTC is the acquisition and testing of new technology, such as the ClearCube blade workstations the squadron recently obtained. These systems consist of computer processors that sit in the squadron's server room racks. A small communications box is present at the desk, which provides a connection from the processor to the monitor, keyboard and mouse. The centralization of the processors in the server room offers both hardware and software benefits.

WXTC personnel can easily manage and repair all the squadron's workstations from one location, while the operations floor benefits from increased workspace and decreased noise and heat generation by removing the processors from the operations area.

Even though the WXTC is tucked away in two small rooms in Building 1521, the communications team is the backbone of the 15th OWS, working behind the scenes to ensure the forecasters have the tools they need to provide the base community and the Northeastern United States all pertinent information about the weather.

Before someone new to the weather career field is ready to forecast properly, they go through an extensive training course.

Training for the weather

"The 15th Operational Weather Squadron has two main

mission areas - forecasting and training," said Capt. Scott Lisko, 15th OWS chief of training and systems. "Here at the 15th OWS, we receive about 20 percent of all Air Force weather accessions, and we're responsible for teaching them how to forecast for the Northeast United States."

After basic training, Airmen in the weather career field attend the Weather Forecaster Apprentice course at Keesler Air Force Base, Miss. This eight-month course teaches the fundamentals of weather forecasting. After the trainees complete their time at Keesler, they move on to their next assignment at one of several weather "hubs" worldwide. The 15th OWS is one of these hubs.

Once the Airmen arrive at Scott, more training awaits. The fundamental course that every forecaster in the weather squadron goes through is called the Sub Region Forecaster course.

"The SRF class teaches the students how to take what they have learned in the Forecaster Apprentice course at Keesler and apply it to forecasting the weather for our specific area of responsibility," said Captain Lisko.

The SRF course lasts 4 months and can hold a maximum of 10 students. The current course has eight students enrolled.

"The training here is geared towards analysis procedures, radar and satellite training and 30 days in live laboratory training," said Larry McCoy, 15th OWS weather systems trainer.

The retired Master Sergeant enjoys his job and has been teaching for a total of 12 years, two of those at Scott.

"The most enjoyment I get from my job is when I actually see the light bulb come on after I have explained a concept to a student," said Mr. McCoy.

Weather is one of the most mentally challenging career fields in the Air Force, and the SRF course can pose difficult problems for the students to grasp. The hardest part of the course for students is probably being able to see things in three dimensions, said Mr. McCoy.

"The students must be able to look at something at one level and relate to how it would look in another part of the atmosphere," he said.

A typical work day for SRF students lasts about 9 hours, and their daily activities depend on the phase of instruction they are in. For the first three months of the course, the days consist mainly of classroom instruction. During the last month of the class, the students move to a "live lab" environment, where they practice forecasting for bases in the 15th OWS area of responsibility based on real-world weather conditions.

Airman 1st Class Eric Poynter, SRF student, is excited to be in the weather training course.

"I enjoy knowing what's going on in the atmosphere and understanding all of the processes associated with forecasting the weather," he said.

However, the Vanceburg, Ky., native's least favorite part of the training course is learning about severe weather, such as hail and high winds. Airman Poynter said the complexity of the forecasting guidelines for severe weather can make these forecasts difficult to understand.

Second Lt. Paul Hayes, SRF student, said he chose weather as a career because of his love for the sky. "My favorite part of the course is everything that goes into forecast preparation," said Lieutenant Hayes. "The skills we are learning here will be used in the real world to help us do our job."

The Gaithersburg, Md., native expects to gain operational knowledge about forecasting weather for the Air Force once he finishes the SRF class.

"Forecasting for the military is different than forecasting in the civilian world, so I hope the knowledge I gain here

will help me better understand the way we forecast in the Air Force,” said Lieutenant Hayes.

The current class will graduate the first week of November. Upon graduation, the students will move to the operations floor, where their newly learned skills will be put to use, issuing forecasts for the 13 bases the 15th OWS is responsible for in the Northeastern United States.

Forecasting the weather

Forecasting the weather can be a daunting job, especially when forecasting the weather for the entire Northeast Region of the United States, which encompasses 12 active-duty bases and 190 Department of Defense units on more than 100 installations across 22 states. On the one hand, there could be a hurricane moving up the East coast bringing flooding and damaging winds to Dover and Andrews AFB's. At the same

and aircrew briefing. You'll find about 20 Airmen manning the operations floor at any given time. A typical day for a forecaster will vary depending on the weather situation that day.

Each day begins with a shift-change briefing at 0630. This briefing consists of a broad overview of everything that's going on weather-wise in the area of responsibility. This briefing focuses on the current and forecasted weather for the next two days and provides a focus for the weather challenge of the day. After the overview briefing, each person receives a specific shift-change briefing from the person they are replacing. Each forecaster is responsible for two bases within the area of responsibility. The rest of the shift is spent analyzing charts, interpreting weather models and satellite data to stay on top of current and forecasted weather conditions.

First Lt. Daniel MacKeen, 15th OWS Lead Forecaster, analyzes all synoptic data for the continental U.S. This includes

surface and upper air and model data. The Lead Forecaster is crucial as this individual the weather model used to produce the day's forecast.

“Surface data comes in hourly and upper air data comes in twice daily, said Lieutenant MacKeen. “This data is transmitted from 100's of observing sites and around 100 weather balloons locations across the U.S. and Canada,” he said. The forecasters then use this data to zoom in on their area of responsibility.

The Lead Forecaster has the responsibility of making sure weather threats are correctly evaluated and is able to shift manpower from benign weather mission area to assist someone with a tough weather challenge. This ensures the 15th provides the best possible support to the warfighter.

Staff Sgt. Michael Theos, 15th OWS forecaster, works in the Northeast Continental United States Warning Cell. The NWC is responsible for resource protection to more than 190 units,

many of these Air Force and Army reserve units that don't have their own local weather team.

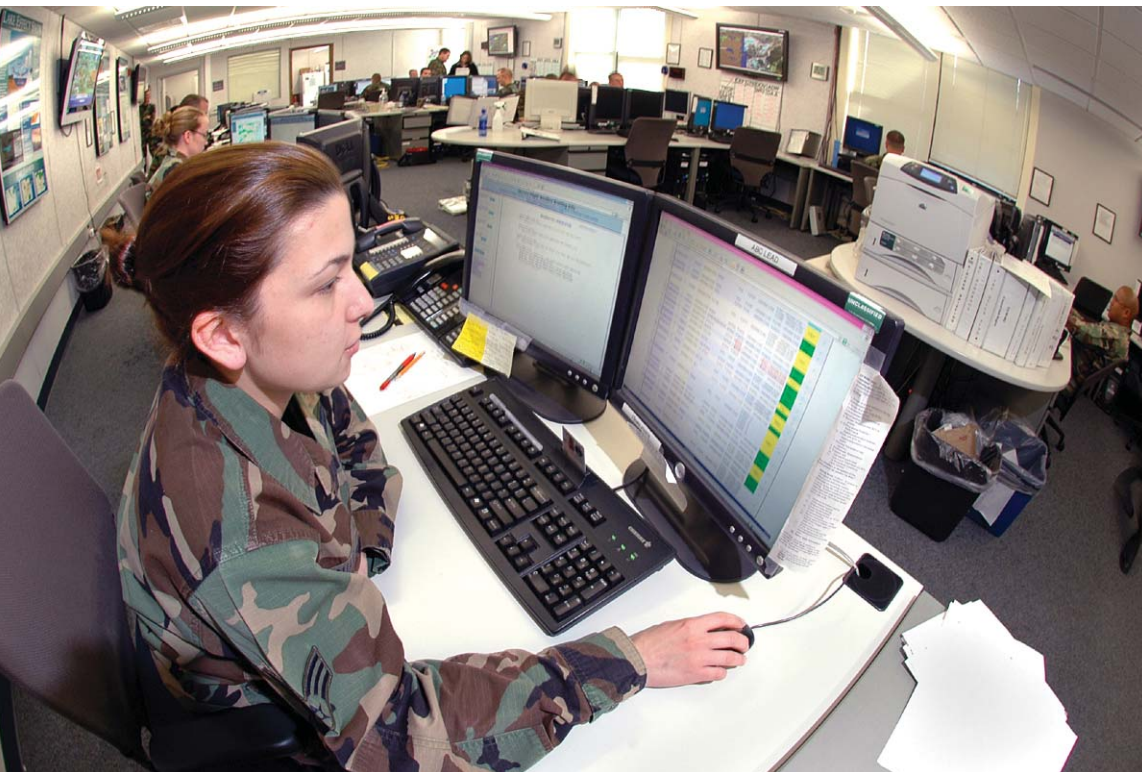
“We cover more than 57 Department of Defense installations and issue eight different warnings – freezing precipitation, heavy snow, heavy rain, general/moderate/severe thunderstorms, winds greater than 35-knots, and winds greater than 50-knots,” said Sergeant Theos.

The Newark, Ohio, native enjoys weather forecasting and because of his advanced weather training, he knows firsthand what the days weather will bring.

“I always know what to expect or how to plan for the weather in advance, and I always know what the weather is like back home in Ohio since it's in our area of responsibility,” he said.

Although Sergeant Theos enjoys his job, there is one thing he wishes he could change – the schedule.

“We work shift work here, so we work all holidays and week-



Weather Forecaster, Senior Airman Bobbi Quast, 15th Operational Weather Squadron, forecasts the weather with her fellow forecasters on the operations floor. Photo by Mr. Marv Lynchard.

time, there could be blizzard conditions at Ellsworth and Minot AFB's. Forecasters at the 15th OWS must be trained and prepared to accurately predict all of these conditions.

Weather forecasting is a small portion of responsibilities for the weather forecasters at the 15th Operational Weather Squadron. Weather is the first step in the operational risk management process used to determine if a particular mission flies that day.

“In addition to forecasting watches, warnings and advisories, we are responsible for providing aircrew briefings as well,” said Capt. Hugh Freestrom, 15th OWS Alpha Flight commander. “We conduct between 70-80 aircrew briefings a day,” he said. These briefings are for flights originating anywhere in the 15th OWS area of responsibility.

The operations floor is a 24-hour, 7 day-a-week operation and is divided into 4 cells: Western, Eastern, watch/warning,

ends. We also change shifts every month,” he added.

“Even though it seems like a lot to get used to, I have adjusted to the shift work, so it’s not too bad,” he said.

Forecasting the weather plays a vital role in overall mission success whether it’s on the ground or in the air. The forecasters in the 15th OWS are working around the clock to ensure the weather is accurately forecasted to ensure mission readiness for their area of responsibility.

“We’re providing the best possible forecast for our pilots so they can get the mission done,” said Lieutenant MacKeen.

Operational Risk Management and weather

The old saying “you can’t fly without supply” has been around for years and definitely holds some truth, but if the “weather is not right, there will be no flying tonight.”

Weather is the first step in the operational risk management process used to determine if a particular mission flies that day.

The forecasters in the aircrew briefing cell at the 15th Operational Weather Squadron are responsible for briefing aircrews in the Northeast Region of the United States, which encompasses 151 flying units across a 22-state area of responsibility.

“The aircrew briefing cell is a 24-hour operation and can have up to 12 people assigned per day, said Master Sgt. Myron Winters, 15th OWS NCOIC of the aircrew briefing cell. We conduct about 2,200 briefings per month,” he said.

The briefings are put on a DD Form 175-1 and faxed or e-mailed to units with all applicable facts pertinent to the weather.

“The briefing covers take-off weather, en-route weather and the landing destination’s weather, said Master Sgt. Larry Groff, 15th OWS superintendent. It basically covers everything about the weather that the pilots need to be aware of before taking off on a mission,” he said.

Just recently the 15th OWS implemented a weather briefing management tool, keeping in line with the AFSSO21 initiatives to streamline Air Force processes.

“The weather briefing tool provides operational risk management to increase flight safety,” said Sergeant Groff.

The tool also shows all missions in the air and the status of them via a color coding system – green, yellow or red. If the status is coded green, the weather is good and the mission can continue as planned. If it is coded yellow, there are some concerns associated with the weather, which could range from winds to moderate thunderstorms. A red-coded mission is high risk and stands a good chance of a weather divert, said Sergeant Winters.

A typical day in the aircrew briefing cell varies depending on the number of flying missions for each day, which begins at about 4 a.m. with a situational awareness briefing. After the



Mr. Norman Watts, a 15th Operational Weather Squadron network/system administrator, checks the squadron's server performance. The squadron uploads more than 120,000 files (10 Gbytes) daily. Photo by Mr. Marv Lynchard.

briefing, the lead briefer distributes the day’s missions within the cell. The rest of the shift is spent preparing and e-mailing or faxing DD Form’s 175-1 to unit’s flying that day.

There is a lot of extensive training that weather Airmen have to go through to reach the high level of responsibility required to do this job. Sometimes it can be frustrating when things don’t work out according to plan.

“When the weather does not turn out the way you forecast, it can be hard to accept not always being right, said Senior Airman Justin Conte, 15th OWS weather forecaster. Weather is not an exact science and sometimes there will be days when the forecast does not turn out exactly like you thought it would. I just learn from my mistakes and move forward,” he said.

The Melbourne, Fla. native is still in upgrade training but already knows the importance of his job.

“We provide the aircrews a heads-up plan as to what the weather will be like for that particular day. They will know of any hazards that may have to be avoided and are able to make any changes to the mission based on the weather briefing,” said Airman Conte.

The responsibility level for Airman to Senior Airman in the aircrew briefing cell is very high. They are sometimes referred to as “domino pushers”, said Sergeant Groff.

“When a briefing is sent to a unit, it can set off a domino effect. The information that they send out may cause the unit to continue with the mission as planned, change routes or cancel the mission,” he said.

The Airmen don’t always see the fruits of their labor, said Sergeant Groff. If the weather is nice and clear, everybody is happy.

“I am very proud of the work that they do out there. I have the utmost trust and confidence in each of them to do their part to keep the missions flying,” he added.

Navy weather students graduate from Air Force forecaster apprentice course



Left: Aerographers Mate Airman Apprentice Nikolas Endicott, left, and Aerographers Mate Airman Leana Casulla study forecasts for current conditions in the Keesler AFB, Miss., area under the guidance of their instructor, Staff Sgt. Jo Allbright, in the weather training complex. Photo by Kemberly Groue.

Below: Navy Airman Ryan Pogue shows Navy Airman Dale Day and Airman 1st Class Philip Woodson the cold front moving across the United States. Photo by Mr. Edward Ring.



by 335th Training Squadron
Staff report
Keesler AFB, Miss.

Navy students in the weather forecaster apprentice course at the Center for Naval Aviation Technical Training Unit are the first Sailors to complete their studies in 147 consecutive days. Two Sailors graduated Oct. 19 after completing the initial skills course in one installment rather than splitting the training over three or four years, according to Mr. Edward Ring, 335th Training Squadron training specialist. The change in Navy weather training is a pilot program designed to develop an Air Force and Navy weather team, and to strengthen the partnership within joint operations, said Cmdr. Dean Sadanaga, CNATTU commander. The 30-week course trains students on the basics of weather forecasting and prepares them to work at operational weather squadrons around the world, according to Mr. Ring. "This is a necessary and valuable partnership with the Air Force. Joint weather operations provides efficiency in the Department of Defense meteorology and oceanography organization," said Commander Sadanaga. "The multi-mission expertise of a Navy and Air Force team will enhance support for military operations in the European theater." The newly graduated Sailors are assigned to the 21st Operational Weather Squadron at Sembach Air

Base, Germany. They provide meteorological and oceanography support for Navy operations in Europe, said Mr. Ring. "We look forward to continuing this joint weather training with more Sailors.

We know they are ready to support the joint operations of the 21st Operational Weather Squadron," said Capt. Barry Hunte, 335th Weather Training Flight commander.

"When offered the chance to go to Germany," said Navy Aerographer's Mate Airman Recruit Ryan Pogue, "I jumped all over it. It is rare for the Navy to go to a place like Europe and be that far inland." Navy Aerographer's Mate Airman Recruit Dale Day said "I was honored to represent my service. The course has been challenging but I feel that my shipmates and I have learned a lot about team work which will help us not only at Sembach but in the fleet as a whole".

The Oct. 19 graduates were Navy Airman Leana Casulla, San Jose, Calif., and Airman Apprentice Nikolas Endicott, Columbus, Ohio. Three more Sailors graduate later this year.

2nd Lt. Nick Plante, Keesler News staff, contributed to this story.

Climatologists help “set the scene” for documentary

by Mr. Mike Hunsucker and
Ms. Melody Higdon
Air Force Combat Climatology Center
Asheville, N.C.

Dr. Patty Lowe, a professor at the University of Wisconsin-Madison and a producer for Wisconsin public television called the Air Force Combat Climatology Center with an unusual request. “I’m hoping you can give me a sense of the Korean weather conditions just before dawn on Nov. 5, 1950 near the village of Chonhyon, Korea (northwest of the North Korean Capitol, Pyongyang), not too far from the Chinese border.”

She explained further. “We are doing a PBS documentary on Native American contributions to the U.S. military and are telling the story of Mitchell Red Cloud. He was a Ho-Chunk, formerly known as the Winnebago, from Black River Falls, Wisconsin who distinguished himself during the Korean conflict. He won the Medal of Honor for his actions that day and we hope to recreate his heroics on videotape.”

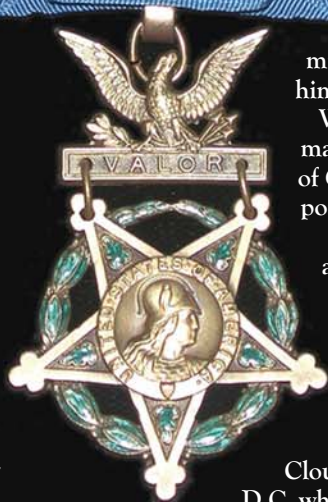
Although this was not a typical request for AFCCC, finding an answer for Dr. Lowe demonstrated the flexibility and resources of the organization. She came to AFCCC because the National Climatic Data Center had no records for that period. Korean observations essentially ceased in early 1950. Dr. Lowe needed general weather conditions but specifically wanted details about precipitation, winds, and temperature.

AFCCC’s lead meteorological researcher in the Air Force Weather Technical Library, Mr. Gary Swanson, tracked down two documents that were crucial to fulfilling Dr. Lowe’s request. One was a synoptic map and the other was a 1956 historical, weather-oriented, document, Weather Effect on Army Operations, Weather in the Korean Conflict. AFCCC resources included assistance from the Modeling and Simulation Division, the Operational Climatology Branch, and the AFWTL.

What was the weather like that morning? The day Mitchell Red Cloud gave his life in the defense of his comrades, the dawn skies were clear, there were light northerly winds, and temperatures were just at freezing.

Cpl. Mitchell Red Cloud, Jr. was born July 2, 1924, in Hatfield, Wis. the year the U.S. Government first conferred citizenship on American Indian people, Red Cloud spent his early years on the family homestead near Hatfield, Wisconsin, a village ten miles from Black River Falls. His great-grandfather, the legendary HoChunk warrior Chief Winneshiek, had fled southern Wisconsin after the Blackhawk War in 1832. He enlisted in the U.S. Marine Corps in 1941 and was honorably discharged in 1945. He enlisted in the U.S. Army in Merrillan, Wis. in 1948 and was sent to Korea in 1950. While in the Army, he achieved the rank of Corporal, with Company E, 19th Infantry Regiment, 24th Infantry Division.

When North Korea invaded the South in June of 1950, the newly emerging United Nations Organization, at the urging of the US Government, intervened on the side of the South. Once again, the young warrior from Wisconsin, along with



millions of other young men and women, found himself at the front line of a global struggle.

While not terribly unique in the experience of many soldiers during this conflict, the final moments of Corporal Red Cloud’s life, the more widely known portion of his epic tale, were certainly heroic.

For his “conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty,” President Truman posthumously awarded Mitchell the Medal of Honor in March 1951, making him the eighth serviceman to be so honored in the context of the Korean Conflict at that point.

In April, Mitchell’s mother Nellie Red Cloud and his brother, Merlin, traveled to Washington D.C. where Omar Bradley presented them with the medal at a Pentagon ceremony.

The citation on his Medal of Honor reads, “Cpl. Red Cloud, Company E, distinguished himself by conspicuous gallantry and intrepidity above and beyond the call of duty in action against the enemy. From his position on the point of a ridge immediately in front of the company command post he was the first to detect the approach of the Chinese Communist forces and give the alarm as the enemy charged from a brush-covered area less than 100 feet from him. Springing up he delivered devastating point-blank automatic rifle fire into the advancing enemy. His accurate and intense fire checked this assault and gained time for the company to consolidate its defense. With utter fearlessness he maintained his firing position until severely wounded by enemy fire. Refusing assistance he pulled himself to his feet and wrapping his arm around a tree continued his deadly fire again, until he was fatally wounded. This heroic act stopped the enemy from overrunning his company’s position and gained time for reorganization and evacuation of the wounded. Cpl. Red Cloud’s dauntless courage and gallant self-sacrifice reflects the highest credit upon himself and upholds the esteemed traditions of the U.S. Army. For conspicuous gallantry and intrepidity in action at the risk of his life above and beyond the call of duty in Chonghyon, Korea, 5 November 1950.”

Additional information obtained from Medal of Honor. com at <http://www.medalof-honor.com/MitchellRedCloud.htm> and from the Black River Falls School District Web Site. at <http://www.brf.org>.



Cpl. Mitchell Red Cloud, Jr. enlisted in the U.S. Marine Corps in 1941 and was honorably discharged in 1945. He enlisted in the U.S. Army in 1948 and was sent to Korea in 1950. The only known photo in uniform is his WWII photo as a Marine. Navy photo.

A TORNADO THAT SAVED A CITY AND DEFEATED AN ENEMY

by Evelyn Dole
Editor, Historical Services
Air Force Reserve Command, Robins AFB, Ga.

The summer of 1814 was one of the hottest on record. In late August, the afternoon rains and temperatures of over 100 F made the air humid with beads of moisture and turned the stagnate marshlands surrounding Washington D.C. into disease-carrying mosquito hatcheries. The 8,000 heat-weary townspeople were even more miserable when news came that the invading British Army was marching in from the Chesapeake Bay.

Although our young country had been at war with the British Empire for over two years, the majority of indeterminate skirmishes had occurred in the Great Lakes region. Now that Wellington had defeated Napoleon at Waterloo, the Empire was ready to turn its full attention to the task of defeating its former colony by sending battle-hardened troops to squash the up-start Americans. Washingtonians along with Dolley Madison, the First Lady, were confident the British Army would attack the strategic thriving port of Baltimore rather their capital city. However, the British General Robert Ross and Rear Admiral George Cockburn did have two specific reasons for an attack on Washington. The British and Canadians were seeking revenge on the United States for the destruction by the American Army of the capital of York in Upper Canada (now Toronto, Canada) and they hoped the destruction of America's new capital city would demoralize the country enough to obtain its surrender.

On Wednesday morning, August 24, 1814 Dolly Madison looked through her spyglass from one of the upper floor windows of The White House. She was watching the surrounding lands, searching for her husband, President Madison. All she saw were weary, hunched-over-with-defeat American troops walking back into the city. By 3 p.m., she received word from her husband, who was with his cabinet and many other government officials who had fled to the mountains of Virginia, to evacuate Washington. She began the task of loading a wagon with portable articles, documents and other items of importance, notably the full-length Gilbert Stuart painting of President George Washington. As the British troops marched down Pennsylvania Avenue toward the Presidential Mansion, she reluctantly left moments before the soldiers entered the building.

Admiral Cockburn ordered all government buildings burned which included the buildings housing the Senate and House of Representatives, (the central rotunda of the Capitol not yet constructed). Also burned were the Library of Congress, the U.S. Treasury building, and many other public buildings. Next Cockburn turned his attention on



In August 1814, British soldiers invaded Washington D.C. They looted the White House and Capitol Building, and set fire to both. Dolley Madison, wife of then-president James Madison, rescued a few items from the White House moments before the soldiers arrived, but everything else was stolen or burned.

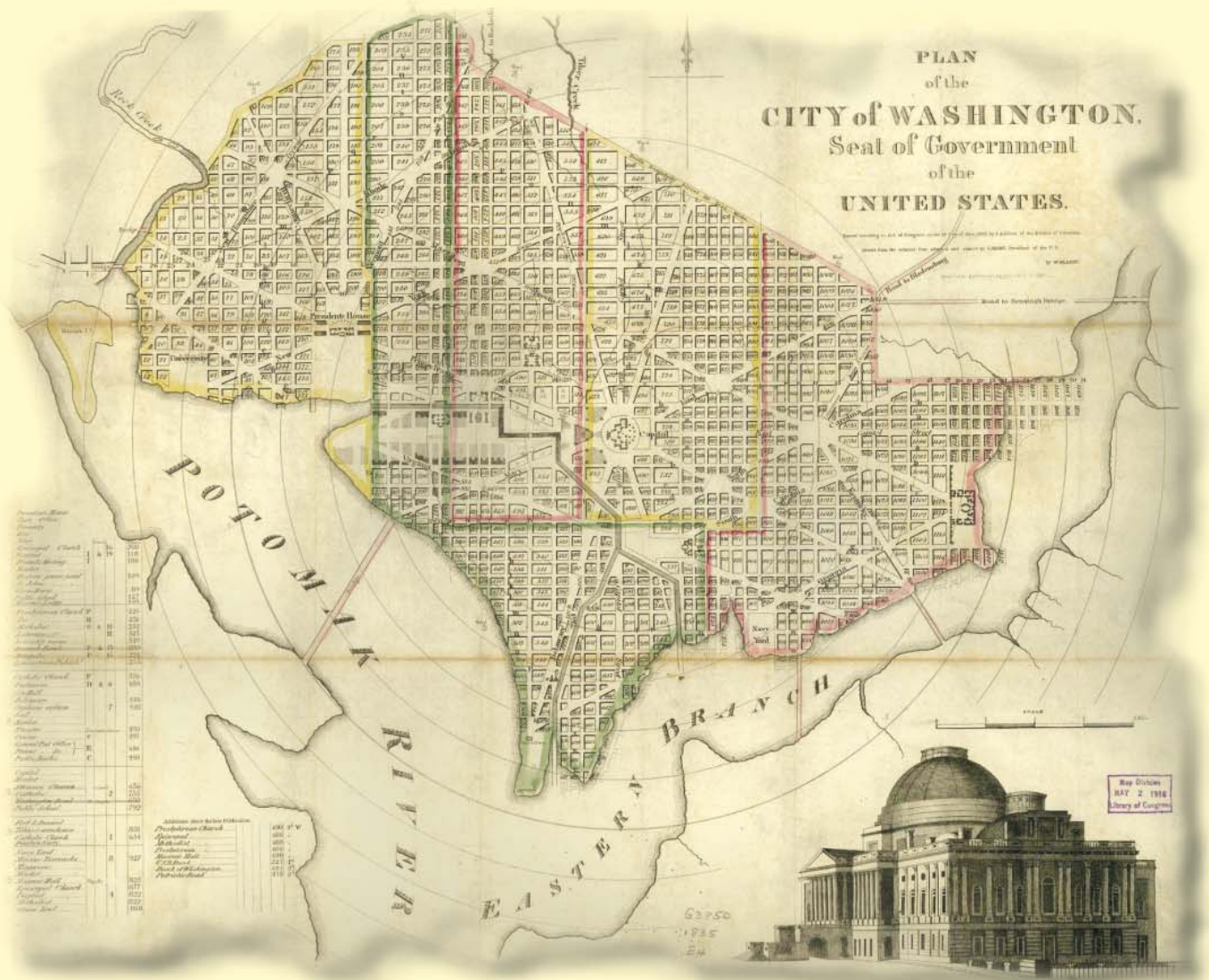
The fleet of ships then attacked Baltimore. That battle inspired the national anthem penned by Francis Scott Key: The Star-Spangled Banner.

The ships then sailed for Halifax, Canada. In a bad storm, the fleet turned in to the shoals near Prospect.

Divers in this area have found items that can be linked to the 19th century White House. Ironically, because of where the ships went down and the fact that they were British Royal Navy ships, the rights of ownership of items is at question. There is dispute that the items may be kept by anyone with a treasure trove license who recovers them. That is challenged because the items were on a British military vessel; and of course these items were also once property of the United States, the White House and the Madison family. Portrait courtesy of the National Archives.

The White House, where the soldiers were dining on food found in the dining hall. After they were finished, they set about destroying the building – finally setting it on fire.

Dawn rose the next morning and the remaining Washingtonians felt the day's warmth not from the sun but from the heat of the fires. While the British soldiers continued to set fires and destroy the stores of ammunition found, they failed to notice the early afternoon sky begin to darken. West-



The capital of the United States, on the Potomac River between Virginia and Maryland was designed by Pierre L'Enfant and became the capital in 1800. In August 1814 during the War of 1812 the British captured and sacked Washington, burning most of the public buildings, including the Capitol and the White House. It is one of the few cities in the world planned expressly as a national capital. Map courtesy of the National Archives.

ward beyond the city, large clouds were forming, beginning to swirl, and soon the sky intensified with lightning and thunder signaling the approach of a thunderstorm. The British soldiers familiar with thunderstorms in England and preoccupied with their orders discounted the Americans watching the sky.

As the storm front neared the city, Washingtonians took cover. The winds dramatically increased and a tornado developed over the city that produced a "frightening roar." The tornado ripped through Washington and headed straight toward the British occupation. Structures were torn off their foundations, other buildings were blown down. Feather mattresses were sucked out of windows, trees were uprooted, fences were blown down, chimneys collapsed, the heavy chain bridge across the Potomac River buckled, and many British cannons were picked up and tossed around. Panic ensued; many British soldiers did not have time to take cover and were killed by collapsing buildings and flying debris.

Finally, the winds quieted but the rain fell in torrents for more than two hours quenching most of the flames and prevented Washington from continuing to burn. The British Army regrouped near Capitol Hill, a bit shaken by the harsh

weather and decided to depart Washington that evening. Downed trees across roads hampered their journey and when they reached their ships, it was discovered two had broken free from their moorings and were washed ashore. The British Commander later reported that more of their soldiers were wounded and killed by this catastrophic disaster than from all the firearms the American troops could muster in their ineffectual defense of Washington.

President James Madison and his cabinet returned to Washington and started the rebuilding of our Capitol. Never again, would a foreign army enter our city and only rarely would Washingtonians see a tornado.

Three tornadoes struck near Washington that day. It was later reported that one landed to the northwest, another in the high country [which is now called Georgetown], and the one that struck the Capitol Hill area. Whether there was a single tornado taking a southeasterly course or a tornado swarm, it will never be known. What can be said for certain is that a powerful tornado with destructive winds did hit downtown Washington at a crucial time; forcing the British out of the city, and saving what was left of our Capitol.

Eye of the Storm

Hurricane fanatic to become hurricane hunter

Story and Photos by Airman 1st Class Brandon Kusek,
2nd Bomb Wing Public Affairs
Barksdale AFB, La.

Second Lt. Doug Gautrau, 26th Operational Weather Squadron, stands in front of an infrared satellite image of Hurricane Katrina in the briefing room of the 26th OWS.

To fly into a storm is crazy. Wanting to fly into a storm is near insanity. For one Barksdale lieutenant though, it's been a lifelong dream.

New Orleans native 2nd Lt. Doug Gautrau, from the 26th Operational Weather Squadron, has wanted to be a member of the 53rd Weather Reconnaissance Squadron since tracking his first hurricane nearly 10 years ago. He's finally getting his chance as he's been accepted to become an aerial reconnaissance weather officer for the 53rd WRS.

"Hurricane Andrew in 1992 was the first hurricane I ever tracked," he said. "Since then, I've been curious about hurricanes and wanted to learn more."

Lieutenant Gautrau's coworker, 1st Lt. Doug Oltmer, lead meteorologist 26th OWS, said almost everyone involved in weather has a story linked to their childhood and Lieutenant Gautrau is no different.

"He's a nut about hurricanes," Lieutenant Oltmer said. "Ever since he tracked his first one he's been 'bit by the bug'."

After graduating from college in 2004, Lieutenant Gautrau tried to sign up for a slot with the hurricane hunters, but there were no full-time reservist positions available. Instead of sulking, he took his degree in atmospheric sciences and became an active duty weather officer.

Jump to three years later and lieutenants like Lieutenant Gautrau are now facing force shaping boards.

"Since I was first not able to sign up for the hurricane hunters I've kept in touch with them," he said. "When I heard there were slots opening for a full-time reservist, I took into consideration upcoming force shaping boards and wasted no time submitting my name."

Growing up in the Gulf Coast region, Lieutenant Gautrau got his fair share of hurricane experience. Last year when Hurricane Katrina rolled through the Mississippi and Louisiana area, his family was hit pretty hard.

"My family is stretched from New Orleans to Bay St. Louis, Miss.," he said. "Some family members only suffered wind damage where some came home to find only slabs of concrete where their houses once stood."

Though he and his family, alongside many others in the same area, have been through a difficult year, his reasons for joining the hurricane hunters remain the same as they did when he became interested in the giant storms more than 10 years ago. Lieutenant Oltmer said during last year's massive hurricane season, everyone in the 26th OWS got a lot of experience.

"We tracked the large storms that hit the gulf coast and had a direct impact on recovery operations before, during and after the storms hit," he said. "Everyone got a lot of experience and next time he (Lieutenant Gautrau) faces something this big he's going to be cool, calm and collected."

One of the benefits the lieutenant looks forward to is helping predict hurricanes and learning new things about the storms through their data collections. He also can't wait to get up close and personal to the storms.

"I've tracked well more than 150 hurricanes," Lieutenant Gautrau said. "The ultimate hurricane job is to fly through it and see its physical structure first hand. I can't wait for that adrenaline rush."



With the help of his father, Lieutenant Gautrau used this map to track his first hurricane, Hurricane Andrew, in 1992.

WEATHER WARRIOR



Staff Sgt. Elizabeth McLain

1st Special Operations Support Squadron, Hurlburt Field, Fla.
Weather Technician

Years In Service: 4

Hometown: Homestead AB, Fla.

Role Model / Why? My Mother. She is a successful, rambunctious woman with an enormous heart and strong morals who continuously does the right thing. Before she retired from the military, she raised my brother and me, completed two master's degrees, and maintained a loving household.

Hobbies: Soccer, running, triathlons, reading

Most Memorable Air Force Weather Experience: My first deployment to Afghanistan. It was there I experienced the importance of weather to flying operations and to the people who support them. I was an integral piece in the completion of the operations puzzle. I had the opportunity to work with many special operations forces, providing them the best possible forecast for a difficult forecasting region. The complex mission in a data sparse area, challenged my forecasting skills; and in the end I gained a new perspective and a greater appreciation for Air Force Weather.

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Observer magazine closes one chapter; Web site opens another

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

The November/December 2006 Observer magazine is the final printed issue, capping a 52-year run as the official periodical for Air Force weather professionals.

The end of the printed Observer era is not the end of quality news, feature stories and perspectives, it's the start of a modern, high-speed method of receiving information – the newly revamped Air Force weather Web site.

In keeping with the times, the Observer will morph into a Web-based news service beginning in February 2007. All the same quality weather stories plus news releases, photos, artwork, and more will be available 24/7 at <http://www.afweather.af.mil>.

Web browsers will now have everything from official bios to organization and unit mission statement at their fingertips. Though many may not immediately embrace the move to the Web, as the Roman poet Ovid once wrote, "all things change; nothing perishes." It is true that readers will no longer have the magazine mailed to them every other month, and they will have to visit the Web site to read the latest and greatest event across the weather community. This does allow for much faster dissemination of information and more efficient in our communication. Efficient operations are directed by Air Force Smart

Operations 21, and Air Force weather is streamlining operations with this move.

The Air Force is moving its news delivery more and more to the World Wide Web. Over the last few months, more than 20 Air Force publications have made the move from printed product to an on-line news process. The public affairs community must adjust to a 25 percent cut in overall manning and an ever-shrinking budget. Moving from an expensive, labor-intensive process like a magazine to a constantly updated Web site for communicating weather information is the logical next-step.

The Observer got its start as a monthly black and white tabloid newspaper back in the mid 1950s. In 1995, it was changed to a full-color monthly magazine. Once again, the winds of change reduced the monthly printing to bimonthly schedule in 2000. One thing has remained constant for more than 50 years – keeping Air Force weather forces, retirees and those interested in Air Force weather news informed. That mission continues today, just in a new format.

The new Web site, <http://www.afweather.af.mil>, will help keep the next generation of Air Force weather professionals at the forefront of weather news and leadership perspectives.



War Trophy Returned To Japanese Family After Twenty Years

FUCHU AK, Japan—A Japanese soldier's flag, lost in battle more than 20 years ago, has found its way home after traveling halfway around the world. It was rediscovered by an American soldier during the battle for Leyte Island, the Philippines, during World War II, and returned just this spring to the family of the original owner by A2C Douglas C. Lova, a weather observer assigned to Detachment 1, 1st Weather Wing, Fortke AS, Japan.

Alvarez Lova obtained the flag from a second cousin, Alex Schaefer, who found it while visiting his Leyte in 1984. Schaefer took the flag home with him when he was sent to his home country about 10 years ago when he volunteered to see duty while clearing a mine. He gave it to his son, who was still in school at the time.

Subsequently, Alvarez Lova enlisted in the Air Force and when he drew his current assignment to Japan, his mother-in-law, who had the flag, realized it to him and requested that he be made the owner or serving family member in hopes of returning it.

With the help of Mitchell Kanda, an acquaintance of Alvarez Lova's, he contacted the 1st Weather Wing and the Pacific command to see if they could help him return the flag to its original owner.

The flag was returned to Alvarez Lova's family in Fuchu, Japan, in late 2005. Alvarez Lova, who was assigned to the 1st Weather Wing, was the only weather observer in the Joint Weather Wing on Okinawa.



The 1966 JIMMERMAN AWARD WINNER, Lt. Col. John T. McClure (left), 11th Weather Squadron, Travis AFB, receives the award plaque from Brig. Gen. Russell R. Piro Jr., AFWA commander. The J. Zimmerman Award is named in honor of Brig. Gen. Zimmerman. It is presented annually to the Air Force weather observer who has made the most significant contribution to the weather community during the year or who developed a device or technique which proved of greatest value in furthering the AFWA's meteorology program.

1966 Hurricane Season Underway For Recon Flyers

Rec'd AFB, Ill., June 1966—For the 1966 hurricane season, which began June 5 with Air Force weathermen's discovery of an early-season Hurricane Alma, just four days after the season's official opening, the Air Weather Service will again fly weather-modified Lockheed WC-130 aircraft into Atlantic storms.



Operating for the second season from Recon Air Force Base in Puerto Rico, flying weather, reconnaissance, and other weather-modified flights, the 1st Weather Wing will provide storm surveillance for the Atlantic coast of Puerto Rico and lower tropical zones off the eastern US coastline from Texas to Mexico, including the Gulf of Mexico.

Weather-modified flights will be 47 Strategic will continue to be used for high-altitude reconnaissance, overflying most 1966 hurricanes.

The USAF Hurricane Reconnaissance Squadron has moved to Offutt AFB, Neb., from the 1966 season, the squadron's WC-130, and H-10V, will be based at Hanes AFB.

This season, as in the past, Air Force and Navy weather aircraft will fly daily and special weather reconnaissance over the Atlantic and a half space miles of ocean and gulf waters adjacent to the U.S.

In Miami, Fla., the National Hurricane Center (NHC), staffed by US Weather Service personnel, is based at work on the 1966 season. However, that unit can be down to learn the state of the big storm, military and civilian weathermen sometimes fly to provide weathering, as early as possible, to civilian positions and military installations in exposed parts of any tropical areas, as their reconnaissance aircraft can be taken.

Part of the military hurricane warning network is the Military Hurricane Reconnaissance Squadron (MHRS). Its job is to follow through from the report of a suspected storm—perhaps from one of America's earliest weather satellites in the case of the season's first hurricane.

MHRS, an Air Force detachment, is responsible for the unit that aerial reconnaissance by both Navy and Air Weather (Continued on Page 8)

New Weather Units Bolster SEA Buildup

A colorful past provides three newly reactivated units of Air Weather Service, Headquarters, 1st Weather Group, and the 1st and 10th Weather Squadrons, were activated last month as part of the SEA buildup.

The reactivation provides for better operations and command weather units within 1st Weather Wing, located in the state of the 20th WWS. By units were under wing command and will serve as a part of the 1st Weather Group.

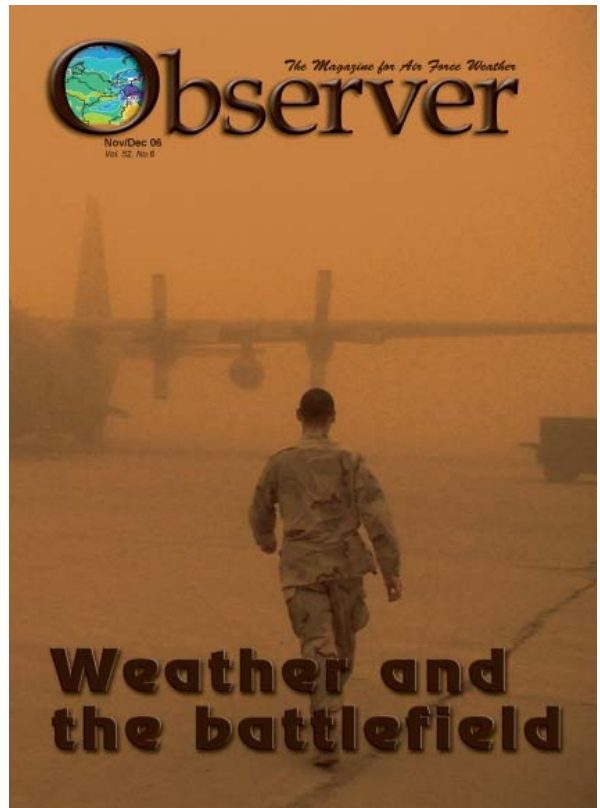
In WWS, as an outgrowth of the December 20th WWS, which, in July of 1963, was authorized 150 people. In July that year the authorized strength had been increased to 230; therefore, with the normal reactivation, the 20th WWS has grown to become 1st WWS, with three squadrons.

The group is commanded by Col. Lewis A. Crawford, Deputy Commander in Col. Robert H. Douglas. This is presently the only weather group in AFWA, 10th Weather Squadron.

The 20th WWS, although inactive for nearly 25 years, had a brief but exciting beginning in November 1941. Heavy bomber squadrons were activated when Japan entered the United States and were serving with the unit in the Philippines.

One of them, Lt. Col. Richard C. Smith, was assigned to the 10th Weather Squadron.

The 10th WWS, inactivated since 1952, served many other units in the Pacific (Continued on Page 7)



(Left) A cover of the tabloid newspaper style Observer from 1966. Most of the written material then, as now, was supplied by Air Force weather professionals in the field. (Right) The latest and last cover for the Observer magazine.

Air Force Weather Web site sports new look

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 Air Force weather, as part of the Joint team, delivers accurate, relevant, and timely environmental information, products, and services anywhere in the world. We directly impact decision superiority by enhancing predictive battlespace awareness and enabling commanders at all levels to anticipate and exploit the battlespace environment, from the mud to the sun.

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Air Force Weather Agency Office of Public Affairs
 100 Peacekeeper Drive, Suite 1N3
 Offutt Air Force Base, NE 68113-4019
 Phone
 Com: (402) 232-8166
 DS: 272-8166

Weather recon still kickin'
 Weather squadron volunteers continue Hurricane Katrina clean-up
 Monsoons in America?
 Two of Thule's Extreme Storms
 It was a dark and stormy night...

Commentary
 U.S. Air Forces in Europe, a command in transformation
 A Hote to the Weather Warriors
 The new face of the Pacific
 Most of you are domino pushers

Air Force Weather Videos

Air Force Weather Videos
 A soldier in a field holding a red balloon.

Latest Videos
 C-17 Simulator
 Simulator prepares pilots for future missions

Web Exclusive
The Interdependent Fight
 "How We Fight" was produced to accompany the SECAF's speech to West Point cadets given on 14 Sept 2006.
 CLICK HERE FOR SPEECH TEXT "AS DELIVERED"

AF Headlines
 Kunsan F-16 fleet prepares for 'Falcon STAR'
 Moment of silence Dec. 1 honors CAP 65th anniversary
 Pace: Military chiefs looking at Iraq options
 Operation Season's Greetings huge smash
 Air and Space Power Journal focuses on leadership
 Tops In Blue needs horn players to complete group
 Stepping out of the blue for Army green
 AFSO 21 special assistant visits Aviano
 GM-3 vehicle deploys aboard C-17 first time
 Shelter construction

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Our new location:
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Locate weather units and organizations around the globe

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Read feature stories on storms and the people who forecast them

Read commentaries and perspectives from Air Force weather leaders

See videos of weather specialist in action

Get the latest news from around the Air Force

Salutes

RETIREMENTS

Lt. Col. Ricky Carter,
HQ AFWA, Offutt AFB, Neb.

Lt. Col. Joseph McCormack,
181st WF, Carswell ARB, Texas

Lt. Col. Mark Miller,
USCENTCOM, MacDill AFB,
Fla.

Maj. Paul Gehred,
Det. 3, AFWA, Wright-Patterson
AFB, Ohio

Maj. Michael Hinson,
15th OWS, Scott AFB, Ill.

Lt. Cdr. Robert Stanton,
HQ AFWA, Offutt AFB, Neb.

Chief Master Sgt. Freddy Proctor,
181st WF, Carswell ARB, Texas

Senior Master Sgt. Lorne McClard,
26th OWS, Barksdale AFB, La.

Senior Master Sgt. Allen Williams,
181st WF, Carswell ARB, Texas

Master Sgt. Shannon Barker,
HQ AFWA, Offutt AFB, Neb.

Master Sgt. Cynthia Farmer,
HQ AFWA, Offutt AFB, Neb.

Master Sgt. Dennis Flanagan
HQ AFWA, Offutt AFB, Neb.

Master Sgt. Mitchell Gilbreath,
26th OWS, Barksdale AFB, La.

Master Sgt. John Gist,
Det. 1, AFWA, Learmonth,
Australia

Master Sgt. John Lindfors,
AFCCC, Asheville, N.C.

Master Sgt. Randy Nelson,
HQ AFWA, Offutt AFB, Neb.

Master Sgt. Tony Sutherland,
15th OWS, Scott AFB, Ill.

Master Sgt. Christopher Yeazell,
18th WS, Fort Eustis, Va.

Tech. Sgt. Roland Gonzalez,
18th WS, Fort Bragg, N.C.

Tech. Sgt. Landon King,
15th OWS, Scott AFB, Ill.

Tech. Sgt. Kyle Mathers,
AFCCC, Asheville, N.C.

Tech. Sgt. Daniel Rawls,
Det. 2, AFWA, Sagamore Hill,
Mass.

Staff Sgt. Timothy Olson,
HQ AFWA, Offutt AFB, Neb.

AWARDS AND DECORATIONS

Bronze Star

Tech. Sgt. Dennis Price,
10th CWS, Ft. Benning, Ga.

Staff Sgt. Pradipan Boonyobhas,
10th CWS, Ft. Benning, Ga.

Defense Meritorious Service Medal

Lt. Col. Mark Miller,
USCENTCOM, MacDill AFB,
Fla.

Meritorious Service Medal

Lt. Col. Michael Dennis,
18th WS, Fort Bragg, N.C.

Lt. Col. Joseph McCormack,
181st WF, Carswell ARB, Texas

Maj. James Everitt,
18th WS, Fort McPherson, Ga.

Maj. Michael Hinson,
15th OWS, Scott AFB, Ill.

Maj. Michael Scott,
18th WS, Fort Rucker, Ala.

Chief Master Sgt. Freddy Proctor,
181st WF, Carswell ARB, Texas

**Chief Master Sgt. Douglas
Stewart,**
181st WF, Carswell ARB, Texas

Senior Master Sgt. Donald Coash,
127th WF, Topeka, Kan.

**Senior Master Sgt. Allen
Williams,**
181st WF, Carswell ARB, Texas

Master Sgt. Frank Klein,
18th WS, Fort McPherson, Ga.

Joint Service Commendation Medal

Lt. Col. Joseph McCormack,
181st WF, Carswell ARB, Texas

1st Lt. Phillip Beda,
181st WF, Carswell ARB, Texas

Tech Sgt. John Hawkins,
181st WF, Carswell ARB, Texas

Tech Sgt. Robert Patterson,
181st WF, Carswell ARB, Texas

Staff Sgt. Pradipan Boonyobhas,
10th CWS, Ft. Benning, Ga.

Senior Airman Zachary Beauford,
181st WF, Carswell ARB, Texas

Air Force Commendation Medal

Capt. Terry Hudgins,
181st WF, Carswell ARB, Texas

Capt. Cassandra Kirk,
26th OWS, Barksdale AFB, La.

Capt. Ryan Maxon,
HQ AFWA, Offutt AFB, Neb.

Capt. Brian Spliethof,
HQ AFWA, Offutt AFB, Neb.

1st Lt. Philip Bedal,
81st WF, Carswell ARB, Texas

1st Lt. Alexia Forbes,
18th WS, Fort Bragg, N.C.

1st Lt. John Murphy,
18th WS, Fort McPherson, Ga.

Chief Master Sgt. Douglas Stewart,
181st WF, Carswell ARB, Texas

Master Sgt. Larry Beck,
181st WF, Carswell ARB, Texas

Master Sgt. Curtis Garner,
181st WF, Carswell ARB, Texas

Master Sgt. Pat Koehler,
181st WF, Carswell ARB, Texas

Tech. Sgt. Kenneth Asbell,
18th WS, Fort Bragg, N.C.

Tech. Sgt. Roland Gonzalez,
18th WS, Fort Bragg, N.C.

Tech. Sgt. Scott Houston,
AFCCC, Asheville, N.C.

Tech. Sgt. Joseph LoCasto,
305th OSS/OSW, McGuire
AFB, N.J.

Tech. Sgt. Robert Patterson,
181st WF, Carswell ARB, Texas

Tech. Sgt. Tommy Teague,
AFCWC, Hurlburt Field, Fla.

Staff Sgt. Samuel Adams,
18th WS, Fort Bragg, N.C.

Staff Sgt. Joshua Bauman,
18th WS, Fort Bragg, N.C.

Staff Sgt. Adam Finley,
HQ AFWA, Offutt AFB, Neb.

Staff Sgt. Nathan Johnson,
181st WF, Carswell ARB, Texas

Staff Sgt. Matthew McClellan,
181st WF, Carswell ARB, Texas

Staff Sgt. Kent McCoy,
HQ AFWA, Offutt AFB, Neb.

Staff Sgt. Jacqueline Miller,
18th WS, Fort Bragg, N.C.

Staff Sgt. Brandy Morris,
18th WS, Fort Bragg, N.C.

Staff Sgt. Fernando Ortega,
HQ AFWA, Offutt AFB, Neb.

Staff Sgt. Jason Rowland,
HQ AFWA, Offutt AFB, Neb.

Staff Sgt. Carlos Tucker,
181st WF, Carswell ARB, Texas

Staff Sgt. Katie Uhl,
18th WS, Fort Bragg, N.C.

Staff Sgt. Clinton Woodford,
181st WF, Carswell ARB, Texas

Staff Sgt. Monica Yoas,
26th OWS, Barksdale AFB, La.

Senior Airman Zachary Beauford,
181st WF, Carswell ARB, Texas

**Senior Airman Douglas
Nickerson,**
181st WF, Carswell ARB, Texas

Senior Airman John Tharp,
181st WF, Carswell ARB, Texas

Army Commendation Medal

Maj. James Robinson,
181st WF, Carswell ARB, Texas

Capt. Terry Hudgins,
181st WF, Carswell ARB, Texas

1st Lt. Philip Beda,
181st WF, Carswell ARB, Texas

Chief Master Sgt. Douglas Stewart,
181st WF, Carswell ARB, Texas

Tech. Sgt. Robert Patterson,
181st WF, Carswell ARB, Texas

Staff Sgt. Robert Curry,
18th WS, Fort Bragg, N.C.

Staff Sgt. Nathan Johnson,
181st WF, Carswell ARB, Texas

Staff Sgt. Trot Misiak,
18th WS, Fort Bragg, N.C.

Staff Sgt. Brian Smith,
18th WS, Fort Eustis, Va.

Joint Service Achievement Medal

Master Sgt. Pat Koehler,
181st WF, Carswell ARB, Texas

Tech. Sgt. John Hawkins,
181st WF, Carswell ARB, Texas

Staff Sgt. John Tharp,
181st WF, Carswell ARB, Texas

Air Force Achievement Medal

1st Lt. Jeremy Dehart,
25th OWS, Davis-Monthan
AFB, Ariz.

1st Lt. Petrit Hasa,
15th OWS, Scott AFB, Ill.

Tech. Sgt. Carla James,
AFCWC, Hurlburt Field, Fla.

Staff Sgt. Charles Anderson,
127th WF, Forbes Field, Kan.

Staff Sgt. Douglas Bunn,
18th WS, Fort Bragg, N.C.

Staff Sgt. Matthew Ordorff,
HQ AFWA, Offutt AFB, Neb.

Senior Airman Jeremy Battles,
15th OWS, Scott AFB, Ill.

Senior Airman Monica Dick,
26th OWS, Barksdale AFB, La.

Senior Airman Jacob Holmes,
25th OWS, Davis-Monthan
AFB, Ariz.

Senior Airman Corey Reimer,
15th OWS, Scott AFB, Ill.

Senior Airman Therese Schmidt,
26th OWS, Barksdale AFB, La.

Army Achievement Medal

Lt. Col. Joseph McCormack,
181st WF, Carswell ARB, Texas

1st Lt. Alexia Forbes,
18th WS, Fort Bragg, N.C.

Staff Sgt. Nicky Brown,
18th WS, Fort Bragg, N.C.

Staff Sgt. Katie Uhl,
18th WS, Fort Bragg, N.C.

EDUCATION

NCO Academy

Tech. Sgt. John Hawkins,
181st WF, Carswell ARB, Texas

Tech. Sgt. Jon Hoagboon,
HQ AFWA, Offutt AFB, Neb.
(Distinguished Graduate)

Tech. Sgt. Jason Miller,
HQ AFWA, Offutt AFB, Neb.

Tech. Sgt. Gregory Parker,
AFCWC, Hurlburt Field, Fla.

Tech. Sgt. Robert Patterson,
181st WF, Carswell ARB, Texas

Tech. Sgt. Brion Rockel,
18th WS, Fort Bragg, N.C.

Tech. Sgt. Scott Williams,
AFCWC, Hurlburt Field, Fla.

Weather Forecaster Apprentice Course

Master Sgt. Aaron Smith,
26th OWS, Barksdale AFB, La.

Tech. Sgt. Peter Buchanan,
26th OWS, Barksdale AFB, La.

Tech. Sgt. Kerry Hardy,
187th WF, Montgomery, Ala.

Tech. Sgt. Timothy Mecalis,
115th WF, Madison, Wis.

Tech. Sgt. Tammy Wallace,
17th OWS, Hickam AFB,
Hawaii

Staff Sgt. Timothy Bobo,
118th Air Lift, Nashville, Tenn.

**Petty Officer 2nd Class Tiffany
Sheltrover,**

USCGC Healy, Seattle, Wash.

Staff Sgt. Roger Stanford,
107th CWF, Selfridge ANG, Mich.

Senior Airman Wayne Horner,
207th CWF, Indianapolis, Ind.

Senior Airman Michelle Payne,
120th FW, Great Falls, Mont.

Airman 1st Class Craig Arsenault,
15th OWS, Scott AFB, Ill.

Airman 1st Class Seth Babin,
15th OWS, Scott AFB, Ill.

Airman 1st Class Michelle Barto,
25th OWS, Davis-Monthan
AFB, Ariz.

**Airman 1st Class Vanessa
Beaulieu,**
177th FW, Atlantic City, N.J.

Airman 1st Class David Davis,
28th OWS, Shaw AFB, S.C.

Airman 1st Class Frederick Geck,
15th OWS, Scott AFB, Ill.

**Airman 1st Class Christopher
Hansen,**
28th OWS, Shaw AFB, S.C.

Airman 1st Class Todd Harris,
28th OWS, Shaw AFB, S.C.

**Airman 1st Class Nicholas
Haskins,**

15th OWS, Scott AFB, Ill.

Airman 1st Class Ryan Karstedt,
28th OWS, Shaw AFB, S.C.

Airman 1st Class Amy Libera,
9th OWS, Shaw AFB, S.C.

Airman 1st Class Kevin Market,
15th OWS, Scott AFB, Ill.

**Airman 1st Class Richard
Melcher,**
102nd FW, Otis AFB, Mass.

**Airman 1st Class Raymond
Mitchell,**
21st OWS, Sembach AB, Germany

**Airman 1st Class Dashaun
Montanez,**
28th OWS, Shaw AFB, S.C.

Airman 1st Class Darlyn Pilling,
28th OWS, Shaw AFB, S.C.

**Airman 1st Class Lindsey
Pleasant,**

15th OWS, Scott AFB, Ill.

Airman 1st Class Dustin Primm,
25th OWS, Davis-Monthan
AFB, Ariz.

Airman 1st Class Adam Ratliff,
9th OWS, Shaw AFB, S.C.

Airman 1st Class Matthew Schart,
15th OWS, Scott AFB, Ill.

Airman 1st Class Bobbie Sotelo,
28th OWS, Shaw AFB, S.C.

Airman 1st Class Tara Stone,
28th OWS, Shaw AFB, S.C.

Airman 1st Class Andrew Watson,
15th OWS, Scott AFB, Ill.

Airman Apprentice Dale Day,
21st OWS, Sembach AB, Germany

Airman Micah Gustafson,
15th OWS, Scott AFB, Ill.

Airman Apprentice David Mullis,
21st OWS, Sembach AB, Germany

Airman Apprentice Ryan Pogue,
21st OWS, Sembach AB, Germany

Airman Jared Powell,
15th OWS, Scott AFB, Ill.

Airman Matthew VanNetten,
15th OWS, Scott AFB, Ill.

15th OWS, Scott AFB, Ill.

Weather Officer Course

2nd Lt. Griffin Casey,
11th OWS, Elmendorf AFB,
Alaska

2nd Lt. Tanya Casey,
21st OWS, Sembach AB, Germany

2nd Lt. Spring Clegg,
25th OWS, Davis-Monthan
AFB, Ariz.

2nd Lt. Joseph Clevenger,
28th OWS, Shaw AFB, S.C.

2nd Lt. William Danyluk,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. David Defillipo,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. Kenneth Fenton,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. Kyle Fitch,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. Phillip Gilbertson,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. William Henning,
26th OWS, Barksdale AFB, La.

2nd Lt. Joshua Hornberger,
15th OWS, Scott AFB, Ill.

2nd Lt. Claire Hruska,
15th OWS, Scott AFB, Ill.

2nd Lt. Jaymes Kenyon,
26th OWS, Barksdale AFB, La.

2nd Lt. Brandy Lumpkins,
17th OWS, Hickam AFB,
Hawaii

2nd Lt. Vi Ly,
25th OWS, Davis-Monthan
AFB, Ariz.

2nd Lt. Christopher Miller,
25th OWS, Davis-Monthan
AFB, Ariz.

2nd Lt. Daniel Muggleberg,
26th OWS, Barksdale AFB, La.

2nd Lt. Michael Nagy,
28th OWS, Shaw AFB, S.C.

2nd Lt. Omar Nava,
15th OWS, Scott AFB, Ill.

2nd Lt. Michael Orcutt,
11th OWS, Elmendorf AFB,
Alaska

2nd Lt. Lindon Steadman,
15th OWS, Scott AFB, Ill.

2nd Lt. Andrew Travis,
25th OWS, Davis-Monthan
AFB, Ariz.

Combat Weather Team Operations Course

1st Lt. Adam Dea,
15th OWS, Scott AFB, Ill.

1st Lt. Petrit Hasa,
15th OWS, Scott AFB, Ill.

1st Lt. Daniel Hussey,
28th OWS, Shaw AFB, S.C.

1st Lt. William Ladson,
15th OWS, Scott AFB, Ill.

1st Lt. Christopher Nixon,
26th OWS, Barksdale AFB, La.

1st Lt. Edward Rozak,
26th OWS, Barksdale AFB, La.

Master Sgt. Chet Kelley,
28th OWS, Shaw AFB, S.C.

Staff Sgt. Ann Barrett,
9th OWS, Shaw AFB, S.C.

Senior Airman Jason Barkey,
15th OWS, Scott AFB, Ill.

Senior Airman Amos Barrows,
89th OSS, Andrews AFB, Md.

Senior Airman Jerry Conley,
89th OSS, Andrews AFB, Md.

Senior Airman Jessica Davis,
21st OWS, Sembach AB, Germany

Senior Airman Elizabeth Gleese,
47th OSS, Laughlin AFB, Texas

Senior Airman John Gleese,
47th OSS, Laughlin AFB, Texas

Senior Airman Joshua Johnson,
15th OWS, Scott AFB, Ill.

Senior Airman Stephen Petche,
26th OWS, Barksdale AFB, La.

**Senior Airman, Christopher
Quimby,**

9th OWS, Shaw AFB, S.C.

Senior Airman Zachariah Viets,
9th OWS, Shaw AFB, S.C.

Airman 1st Class Jerrel Lawson,
43rd OSS, Pope AFB, S.C.

Airman 1st Class Dustin Nivens,
15th OWS, Scott AFB, Ill.

15th OWS, Scott AFB, Ill.

**Tropical
Forecasting Course**

Capt. Terry Hudgins,
181st WF, Carswell ARB, Texas

Staff Sgt. Carissa Ballard,
18th WS, Fort Bragg, N.C.
Staff Sgt. Nathan Johnson,
181st WF, Carswell ARB, Texas
Staff Sgt. Clinton Woodford,
181st WF, Carswell ARB, Texas
Senior Airman Aaron Cull,
18th WS, Fort Bragg, N.C.

Community College of the Air Force Degree

Tech. Sgt. Randy Albert,
AFCWC, Hurlburt Field, Fla.

Staff Sgt. Terry Steimle,
AFCWC, Hurlburt Field, Fla.

Senior Developmental Education School Selection

Lt. Col. Steven Desordi,
Shaw AFB, S.C.

(National War College)

Lt. Col. Frederick Fahlsbusch,
Washington, D.C.

(Army War College)

Lt. Col. Robert Russell,
Hurlburt Field, Fla.

(Air War College)

Lt. Col. Kay Smith,
Colorado Springs, Colo.

(USAFA Group AOC)

Intermediate Development Education School Selection

Maj. Ariel Acebal,
Logan, Utah

(Advanced Academic Degree
Program)

Maj. Michael Holmes,
Washington, D.C.

(Joint Military Intelligence College)

Maj. Jeffrey Jarry,
Offutt AFB, Neb.

(Naval Command and Staff College)

Maj. Stephan Johnson,
MacDill AFB, Fla.

(Joint Advanced Warfighting School)

Maj. Daniel Smith,
Offutt AFB, Neb.

(Air Force Institute of Technology)

Maj. Gerald Sullivan,
Langley AFB, Va.

(Joint Military Intelligence College)

Maj. Frank Tersigni,
Scott AFB, Ill.

(Army Command and General
Staff College)

Mr. Kyriakos Theophanous,
Offutt AFB, Neb.

(Air Force Legislative Fellows)

Maj. Harmen Visser,
Fort Campbell, Ky.

(Naval Postgraduate School)

Maj. David Vollmer,
Raleigh, N.C.

(Advanced Academic Degree
Program)

Maj. Eugene Wall,
Randolph AFB, Texas

(U.S. Marine Corps Command
and Staff College)

