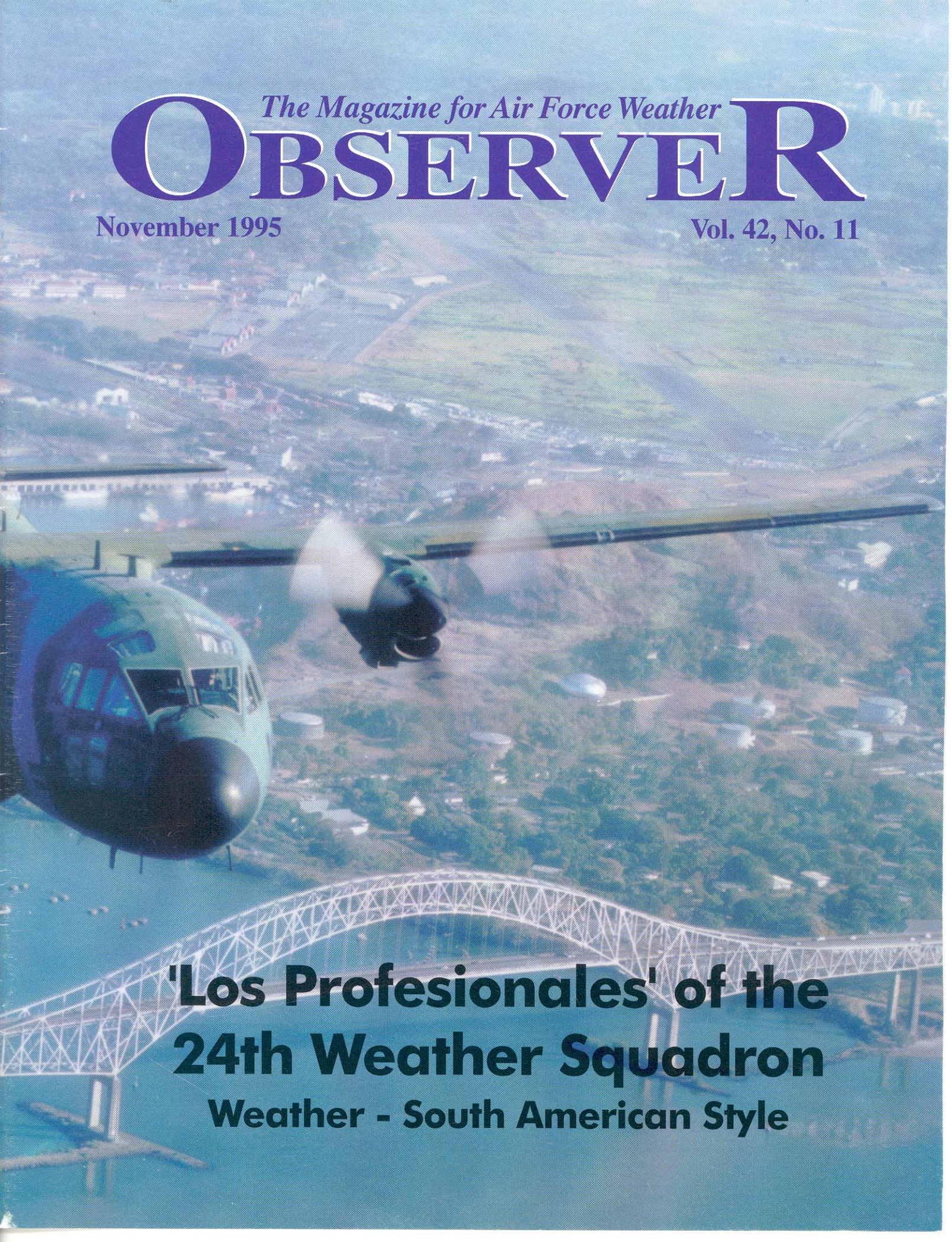
The Magazine for Air Force Weather

OBSERVER

November 1995

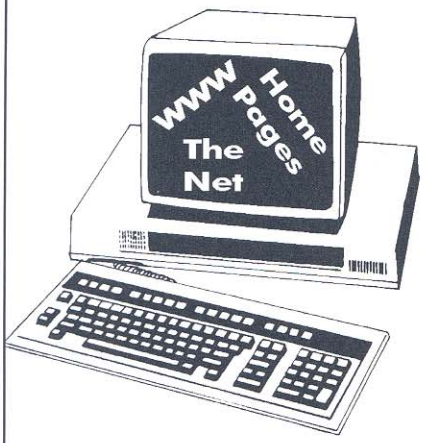
Vol. 42, No. 11

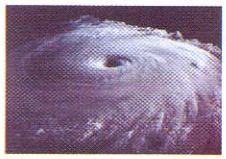


'Los Profesionales' of the 24th Weather Squadron

Weather - South American Style

What's Inside for November 1995





BENJAMIN FRANKLIN

Headquarters
Air Weather Service

OBSERVER
Editorial Staff

Brig. Gen. Thomas J. Lennon
Air Force Director of Weather

Col. Joseph D. Dushan
Commander

Col. Gerald F. Riley, Jr.
Vice Commander
Headquarters Consultant

Staff Sgt. Steve Elliott
NCOIC, Public Affairs
Editor
Capt. Vicki Michetti
Maj. John Pino
Capt. Rick Davila
1st Lt. Sarah Terison
1st Lt. Jahna Schadt
Senior Master Sgt. Mike Spaulding
Headquarters Consultants

This funded Air Force Weather magazine is an authorized publication for members of the U.S. military services. Contents of the *OBSERVER* are not necessarily the official view of, or endorsed by, the U.S. Government, the Department of Defense or the Department of the Air Force. Editorial content is edited, prepared and provided by the public affairs office of Headquarters Air Weather Service, Scott AFB, Ill. All photographs are Air Force photographs unless otherwise indicated. All written material to be considered for publication must arrive at AWS/PA by the first week of the month prior to the month being published. Photos must be mailed to: HQ AWS/PA
102 W. Losey St., Rm. 105
Scott AFB, IL 62225-5206
Please call (618) 256-3350 ext. 334, or DSN 576-3350, ext 334, for more information about this publication. Electronic mail should be addressed to:
"elliotts@hqaws.safb.af.mil"
Send faxes to: DSN 576-2417/1736 or CMCL (618) 256-2417/1736
Distribution is one copy for every four people assigned to Air Force Weather.

Q&A with the XOW

General Lennon interview, Part II

(Editor's Note: This article is the second and final part of an interview conducted by the Observer editorial staff recently.)

What do you feel the future holds for the new officer or enlisted person coming out of school and into AFW?

I think the future of AFW is going to be incredible for a number of reasons. First, if you look at how technology is advancing, AFW is right in the middle. There will always be a requirement for the weather person in the U.S. military because of the criticality of the operations and the requirement to operate in all types of weather.

In the future, I think we will need to change from the environment we are in today — which is "cope and avoid" -- to the environment of "anticipating and exploiting" the weather. I find that very exciting as it truly takes weather to the next dimension as a force multiplier. Therefore, it's going to require the quality people we have today . Weather will provide a very challenging career for anyone who wants to come in the Air Force.

The single schoolhouse doesn't seem to be the answer to training weather people, as it's splitting back into two courses again. Will that solve some of the attrition problems we've had?

Let's talk about that. When we went to the single schoolhouse, I think the concept was right and the desired end product was right.

We just bit off too much to handle at one time. What we've done now, in essence, is to still aim for the single career ladder. We've just divided it into two segments. Fifty to 60 percent of our young people coming into the military are going to leave after their first term, which is normal. We'll make the appropriate investment in their training, bringing them to a level where they can operate at the level we require of them. This way, we can invest those critical training resources in those people who decide to reenlist in the Air Force and go back to gain extra expertise so they can progress in the career field.

As a taxpayer, I think it's a smart thing to do. From a human standpoint, its a smart thing to do. We were forcing a lot of people into a position where the washback rates and the dropout rates far exceeded that which was reasonable.

The course was 42-1/2 weeks long, and if there was a washback, we were looking at 52 weeks, added to the 10-plus weeks of basic training. After that, the opportunity to work for the Air Force when you get to your first station was probably something less than 2-1/2 years before leaving the Air Force ... that doesn't make sense.

This puts it all back in balance. It allows us to focus on the critical tasks the weather apprentice needs to perform versus trying to cover issues and tasks that are really required of a 5- or 7-level.

With the downsizing of the Air Force, NCOs are being asked to take on more and more responsibility. What can be done to ensure that they are not being overwhelmed by what they are tasked to do?

First of all, I think it's everyone's responsibility to ensure there is a proper distribution of the workload and we are asking what is reasonable of our people.

Second, everyone in the base weather station has to carry that load to accomplish the mission — providing quality weather for the warfighters and their customers. We have a quality enlisted force. They're in the top five percent out of school, testing-wise. We do ask a lot of them, but they are capable of a lot. We need to be very careful on how we handle that and never sell our enlisted people short by saying they are not capable of doing this or that, because they are capable.

It's going to take good leadership throughout the system to make sure we don't overwhelm our enlisted force. That's one of the reasons we've tried to institute a senior enlisted infrastructure throughout the weather career field, so that we can monitor those very activities and make sure we're doing what is right.

What are some of the future goals you see for AFW?

We've been working with the AWS leadership on what needs to be done. Basically, we need to reinvent weather, much like what's going on in the federal government. As I've studied AFW history, some of our capabilities as individual forecasters and as a community have eroded away.

Our goal is to reinvigorate the system. One way to do that is to bring the meteorologist — the scientist —

See Q&A, continued on Page 23

The Next Frontier

Making The Roadmap A Reality

by Col. Joseph D. Dushan
Commander, Air Weather Service

In my column several months ago, I promised when our vision for the future had coalesced and major commands had helped to refine the direction and focus, it would be appropriate to share roadmap particulars with the people responsible for executing the vision ... namely, you, the Air Force Weather (AFW) professionals.

Thanks to the leadership of Air Force Director of Weather Brig. Gen. Thomas J. Lennon, the hard work by staffs at XOW and Air Weather Service, and strong support from Air Force leaders in Washington D.C., and at the MAJCOMs, the future course of AFW is finally taking shape.

It is comprehensive, challenging, and exciting. You've heard about parts of the roadmap from various sources. This article ties together some of the major elements.

Each element of the roadmap fits into one of five major categories: People, Training, Infrastructure, Standardization, or Technology. In turn, comprehensive programs are underway or in the works for each category. For example, an initiative to establish an AWS/SC directorate and gain responsibility (and control) for end-to-end weather communications issues is moving forward in the People category. Another is a proposal to gain greater influence over weather billets.

Training initiatives are particularly exciting. The technical training curriculuum at Keesler AFB, Miss., has been redesigned and refocused. A Combat Skills course, furnishing a solid introduction to tactical operations, is being taught in partnership with the Combat Weather Facility at Hurlburt Field, Fla..

Another terrific initiative familiarizes newly commissioned meteorologists and helps prepare them for their initial assignments to base weather stations. The first Initial Skills Course for new weather officers graduates this month. These two first-ever courses are simply superb and will pay huge dividends in producing a trained and ready force.

Programs under the Infrastructure umbrella include bringing the Combat Weather Facility to full mission capability. The organization is barely eight months old and is already doing great work for AFW. We intend to make it even better. We also intend to test a regional concept for AFGWC, refocusing from a strategic to a theater viewpoint. New products, internal reorganizations, hardware, software, and communications challenges make this part of our future roadmap one to watch.

Another in this category is the Military Aircrew Information System (MAIS). This initiative will build a one-stop weather source for Air Force and Army Guard and Reserve aviators to receive top quality aircrew flight briefings from the newly restructured AFGWC using modern communications and weather products.

Standardization is perhaps the best known element, thanks to recent publicity and discussion about the AWS StanEval function. The first two visits to Ellsworth and Altus AFBs went very smoothly and produced many lessons learned. Watch for an upcoming article on this topic. In addition, we're working standardization issues related to data processing, communications protocols, and visualization products. A number of additional projects wait in the wings for more staff work, funding, or manpower.

Finally, the Technology category incorporates an initiative to migrate to the Navy NOGAPS numerical weather prediction model at AFGWC and to examine possibilities for other models as well. Another initiative is the Back to Basics or Officer Meteorologist initiative. In a nutshell, this redefines roles in the base and post weather stations. Officers will perform ***technical*** and ***scientific*** functions as primary responsibilities. For many years we assigned technical leadership responsibilities to our enlisted station chiefs. They performed superbly, but as a community we didn't take full advantage of the education furnished to our weather officers. Back to Basics corrects that and sets out a new focus for both commissioned and enlisted base weather station warriors. The more we study this initiative, the more we are convinced this is an overdue win-win solution.

As you study each of these initiatives on their own, it is easy to become enmeshed in the myriad details of each separate project. Each one is challenging enough, considering our finite resources and the many competing demands for time and attention.

If you can stay at the broad view, however, you'll understand that each of the initiatives, in each major category, is linked together and forms part of a major directional shift in

See ROADMAP, Continued on Page 23

Opportunities abound

For jumpers, station chiefs and forecasters

by CMSgt. Tom Klumb
Chief, Air Force Weather
Enlisted Assignments

Weather Jumpers Needed Now!

By now, you've been inundated by columns and articles in the *OBSERVER* about becoming a weather jumper.

With enlisted jumper manning at 65 percent, I need volunteers to become Air Force Weather jumpers. Thanks to some positive recruiting at the Keesler schoolhouse we are projected to increase our jumper manning to 73 percent by January.

Unfortunately, while these volunteers are eager, they have no jump experience and only very limited technical experience. Air Force Weather desperately needs technically qualified volunteers, especially staff and technical sergeants.

Here at the Air Force Personnel Center, we've had to stop PCSing jumpers out of jump positions, but would prefer to have enough jumpers to allow people the choice to move in and out of jump duty.

When I attend major command conferences, I keep hearing talk about promotability, job satisfaction, and where the action is. Whenever I was stationed overseas, my dad would ask what I was doing, and I would say I couldn't talk about it, but if he would read the newspaper, he'd have a pretty good idea.

Have you read a paper lately? Everyone can't be a jumper, but what a discriminator for those who can. If you think you've got the spirit, call me!

Station Chiefs

A couple of thoughts on station chiefs. Air Force Director of Weather Brig. Gen. Lennon told my boss, Maj. Gen. William Davitte, that station chiefs were the weather career field's most crucial enlisted position.

While the enlisted force does not have a fixed career path like officers, there appears to be a very high correlation between having been a station chief and being selected for promotion to senior master sergeant!

In addition, less than half of the master sergeant authorizations in the weather career field are for station chief positions. With the significance placed on these positions and the limited availability of opportunities, how do master sergeants (and master selects) get station chief assignments?

Volunteer to be a station chief (not just for station chief locations) and act like you already are one. I advertise station chief vacancies on the EQUAL-Plus system.

Assignment selections are based on the most eligible, qualified individual. Eligibility is based on overseas returnees having priority over CONUS "must-moves" (base closure people are one example of CONUS must-moves) who have priority over other CONUS volunteers.

While most master sergeants are qualified (qualification is based on EPRs and commander's recommendation), many only volunteer for certain locations. If you truly want to be a station chief, volunteer for the jobs (not just a location) and set yourself above the norm by the job you do now.

Need forecasters?

Is your station short handed? Wouldn't it be nice to have a couple of extra senior airman forecasters?

Did you know E-4 non"A"s are 141 percent manned and E-4 "A" are only 65 percent manned?

Did you know we get 200 forecaster school quotas a year and can't fill them? If you are, or someone you know, is a volunteer for forecasting school, tell your supervisor, station chief, or commander!

Overseas returnees going directly to forecasting school get the same preference for assignments out of school as if they were returning from overseas.

Overseas returnees wishing to go to forecast school but who have not entered their Career Job Reservation window during their EQUAL assignment cycle (usually four to six months before DEROS) should contact their military personnel flights and Weather Squadron, or major command functional manager. We can usually delay the three year commitment until they have entered their CJR window.

Superintendent of Weather Chief Master Sgt. Jim Hoy's column returns in the December edition. Contact Chief Hoy at DSN 224-7410 or by electronic mail at "jhoy@pafosu3.hq.af.mil"

Cruising the World Wide Web for Weather

The Internet and World Wide Web have become meccas for more and more weather people, now that access to this global electronic highway has become easier.

Here are some of the sites which can help you find some amazing information:

Air Weather Service Home Page http://infosphere.safb.af.mil/~aws

The Air Weather Service Home Page came into existence Oct. 2, 1995, and has basic information about AWS such as command structure and mission, as well as technical advice prepared by the Technology, Plans, and Programs Directorate. In the future, Air Force Weather publications, such as the OBSERVER, Ops Digest, and others will be placed on-line.

The home page is currently administered by the AWS Local Area Network administrator, Carolyn Hopke, and AWS NCO-in-charge of Public Affairs, SSgt. Steve Elliott. An informal committee of representatives from the AWS directorates also provides information and guidance.

SITE	URL (Uniform Resource Locator)
Air Force Global Weather Central Home Page	http://afgwctst1.offutt.af.mil/
Air Force Combat Climatology Home Page	http://thunder.safb.af.mil/html/AFCCChomepage.html
The Air Force Home Page -- AIRFORCELINK	http://www.dtic.dla.mil:80/airforcelink
Pacific Air Forces Command Center Weather	http://www.cidss.af.mil/html/weather.html
Fleet Numerical Meteorology and Oceanography Center	http://metoc.fnoc.navy.mil/fnmoc.html
WEATHERNET	http://cirrus.sprl.umich.edu/wxnet/
Hurricane Bulletin	http://www.nhc.noaa.gov/----.html
GOES Satellite Home Page	http://climat.gsfc.nasa.gov/~chesters/goesproject.html
NASA Earth System Science Division	http://wwwghcc.msfc.nasa.gov:5678/
NASA Global Change Master Directory	http://gcmd.gsfc.nasa.gov/
National Center for Atmospheric Research	http://www.ucar.edu
National Hurricane Center	http://nhc-hp3.nhc.noaa.gov/index.html
National Severe Storms Laboratory	http://www.nssl.uoknor.edu/
National Weather Service Home Page	http://www.nws.noaa.gov/
NCAR Information Server	http://http.icar.edu/
NCDC - National Climatic Data Center	http://www.ncdc.noaa.gov/ncdc.html
NEXRAD Home Page	http://asp1.sbs.ohio-state.edu/
NOAA Defense Meteorological Satellite Program Data	http://www.ngdc.noaa.gov/dmsp/dmsp.html/
NOAA Home Page	http://www.noaa.gov/
Ohio State University Weather Server	http://asp1.sbs.ohio-state.edu/
Purdue WXP Weather	http://thunder.atms.purdue.edu/
Texas A&M Weather Data Home Page	http://coriolis.tamu.edu/
Tropical Cyclone Center	http://server.uwindsor.ca:8000/~fung6/tcc.html
UCAR Real-Time Weather page	http://rap.ucar.edu/staff/gthompsn/cur_wx/wx_index.html
UNIDATA Information Server	http://unidata.ucar.edu/
University of Illinois -- The Daily Planet	http://www.atmos.uiuc.edu/
The Weather Channel	http://www.infi.net/weather/

The Weather Information Super Highway	http://thunder.met.fsu.edu:80/nws/public_html.wxhwy.html
Weather FAQ -- Hypertext Version	http://www.cis.ohio-state.edu/hypertext/faq/usenet/weather/top.html
WeatherWatch Magazine	http://nortshore.shore.net/~wxcentrl/
World Wide Web Virtual Library - Meteorology	http://www.met.fu-berlin.de/DataSources/MetIndex.html
WSI Intellicast Home Page	http://www.intellicast.com

Online Sources for Satellite Imagery

SOURCE	*WHAT'S AVAILABLE*	*WWW ADDRESS*
University of Okla.	GOES-8 visible, IR, water vapor	http://wwwcaps.uoknor.edu/Weather.html
Storm Chasers	GOES-8/7 visible, IR, water vapor, large scale, regional sectors	http://taiga.GEOG.NIU.EDU/CHASER/CHASEWX.HTML
Purdue University	GOES visible, IR, Vis/IR composites	http://thunder.atms.purdue.edu/
University of Illinois	" " " "	http://www.atmos.uiuc.edu/wxworld/html/satimg.html
Ohio State University	" " " "	http://www.asp1.bs.ohio-state.eduwximage.html
Michigan State Univ.	GOES Visible and IR/North America	http://rs560.cl.msu.edu/weather/
University of Miami	SST off East Coast from NOAA AVHRR	http://www.rsmas.miami.edu/images.html
University of Minnesota	Visible and IR over North America	gopher://ashpool.micro.umn.edu/11/Weather/Maps/
University of Michigan	IR and visible .gif images over U.S.	gopher://downwind.sprl.umich.edu/11/Weather_Images
North Carolina State	Latest GOES-8 IR/visible of North America	http://meawx1.nrrc.ncsu.edu/
University of Hawaii	Latest GOES-7, GMS full disk	http://lumahai.soest.hawaii.edu/
WSI Corporation	Latest national, regional GOES remapped IR	http://www.intellicast.com/weather/usa/wxusa.html
University of Maryland	Latest GOES-8/7, cloud cover, snow cover	http://metolab3.umd.edu/EARTHCAST/BUTTONS2/buttons2.html
University of Wyoming	GOES visible, IR of North America	gopher://grizzly.uwyo.edu/
National Geophysical Data Center	DMSP OLS, SSM/I microwave	http://www.ngdc.noaa.gov/ngdc.html
Satellite Active Archive	NOAA AVHRR (visible/IR)	http://www.saa.noaa.gov/
NESDIS	Satellite operational information	http://psbsg1.fb4.noaa.gov:8080/MOSDEV.html
NESDIS Office of Research	Tutorials on remore sensing, GOES Sounder	http://orbit-net.nesdis.noaa.gov/

FAQ AND OTHER MYSTERIES OF THE INTERNET

* Frequently Asked Questions

Don't know a bit from a byte? An HTTP from a hiccup? Here's a glossary of acronyms frequently encountered when dealing with things 'Net-related.

ASCII -- American Standard Code for Information Interchange.

Byte -- One character of information, eight bits wide.

Bit -- Binary Digit; the smallest amount of information that can be stored in a computer.

BPS -- Bits Per Second; the amount of data that can be transmitted over a communications modem.

FAQ -- Frequently Asked Questions; lists of frequently asked questions and their answers are usually posted in newsgroups to help newcomers get grounded.

FTP -- File Transfer Protocol; a standard for transferring files from one computer to another.

GIF -- Graphic Interchange Format; A graphic file format. Most images on the World Wide Web are in GIF format. It was developed by CompuServe using compression technology from UNISYS.

HTML - HyperText Markup Language; the coding method used to format documents for the WWW. Web browsers display text, graphics, and links on a Web page by translating the HTML tags inserted into a plain-text file.

HTTP -- HyperText Transport Protocol; the protocol used by the World Wide Web.

JPEG -- Joint Photographic Experts Group; an algorithm for compressing still images. Motion-JPEG, a variation of JPEG, is used to compress moving images.

MPEG -- Motion Picture Experts Group; an algorithm for compressing audio and video. Not to be confused with Motion-JPEG.

SMTP -- Simple Mail Transfer Protocol; the standard protocol on the Internet for transferring electronic mail messages from one computer to another.

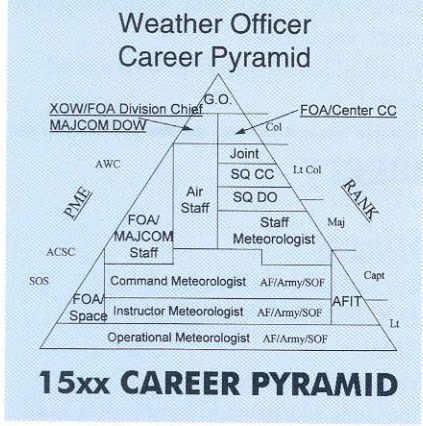
TCP/IP -- Transmission Control Protocol/Internet Protocol; the suite of application and transfer protocols that run over the Internet, including FTP, Telnet, and SMTP.

Telnet -- The protocol for remote terminal connection service. Telnet lets someone at one site interact with a remote computer as if the user's terminal were directly connected to the remote site.

URL -- Uniform Resource Locator; describes the location and access method of a resource on the Internet. All Web sites have URLs.

Review Your Records

It makes a difference in your advancement



by Maj. John D. Murphy
Air Weather Service
Chief of Personnel

Watch out for "Number One", "Nobody cares as much about you as you do."

These catchy little phrases are probably the most important bits of advice anyone could give you.

It doesn't imply, however, that others don't care about your welfare. Quite the contrary, we at Air Weather Service care about what's best for you and the U.S. Air Force.

We recently conducted a Squadron Officer School Eligibility Board for officers assigned to the Field Operating Agency (FOA), which includes Air Force Global Weather Central, Air Force Combat Climatology Center, and the Combat Weather Facility. We found some very disturbing things.

"It's impossible for anyone else to ensure your records accurately reflect your military career."

Of the 18 officers' records considered, eight had information missing or even worse, had incorrect information. It's impossible for anyone else to ensure your records accurately reflect your military career. Updates don't always make it into your records, so you should periodically review your records; especially before your records meet a board.

Our job is to provide you with the essential information you need in order for you to understand and actively participate in the Officer Assignment System (OAS). Your job is to:

- "Bloom where you are planted" (i.e., work your current job to the best of your ability).
- Take responsibility for your career path.
- Discuss career path and assignment opportunities with your commander or supervisor.
- Review the "WANTADS" on the Electronic Bulletin Board (EBB).
- Contact the POCs for positions you are interested in.
- Review your vulnerability for involuntary assignment.
- Volunteer for assignments through the Air Force Personnel Center after discussing with your commander.
- Monitor your record.

Reviewing your record does not stop with going to the Military Personnel Flight (MPF). Check with your unit orderly room and have them run an "Active Officer SURF" from their Headquarters Air Force access to PC-III. This will show you what the "system" thinks your career history looks like.

After seeing the records and SURFs used in the SOS Board, I can't overstate how important it is for you to do a hands-on review of your records and SURF.

The other significant item of interest uncovered during the board was the inconsistency of the "augment" and "send to SOS" statements used in some officers' performance reports.

There should be some form of either statement used in blocks VI and VII of the OPR by the time you're a senior lieutenant (or a captain at the very latest).

If these phrases aren't there, question your supervisor during feedback sessions to find out what the problem is.

In addition, it's very damaging to have the statements suddenly withheld from your report (i.e., used in one or two reports and suddenly one or both phrases are missing) — this sends a negative message to the board. If you see this happen, question it right away to find out what the problem is — even it is "just a training report."

This column is written specifically to meet your needs and concerns. If you have career questions, or issues which you need addressed, contact me and I'll either answer them in future columns or call you back.

Is there a topic you want covered here? Contact Maj. John Murphy, HQ Air Weather Service, Chief of Personnel (AWS/RMP), 102 West Losey St., Rm. 105, Scott AFB, Ill., 62225-5206 or DSN 576-4895, ext. 344. Questions via electronic mail should be sent to the following address:
"murphyj@hqaws.safb.af.mil".

Did You Know ...

Interest in weather spans the centuries

by Lil Wilbur
Air Weather Service Historian

Throughout time, prominent citizens from diverse backgrounds have shown an interest in weather.

The Chief Justice of Massachusetts, the honorable Paul Dudley, kept regular records of the weather in Boston back in 1729.

Benjamin Franklin deduced the movement of a hurricane moving up from the West Indies in 1743.

Thomas Jefferson and James Madison kept "contemporaneous observations showing that the climate conditions harmonized completely."

James Tilton, Army Surgeon General circa 1814, charged his hospital surgeons with recording the weather.

In 1842, Congress appointed a "Meteorologist to the US Government" and assigned that position to the Surgeon General's Office.

On Feb. 9, 1870, Congress created the first weather service when it authorized the Secretary of War to "provide for taking meteorological observations at military stations" and other locations in "the interior of the continent."

The weather folks were directed to give notice of the approach and force of storms to people in the northern lakes and seaboard regions. This action led to the establishment of a meteorology school at Fort Whipple and the subsequent growth of the Signal Corps' weather service. (as reported by the Chief Signal Officer, 1870)

The U.S. Weather Bureau was born in 1890 by an act of Congress and effective July 1, 1891 "buildings, telegraph lines, stations ... apparatus, and personnel were turned over to the Department of Agriculture."

A Meteorological Section was established within the Army's Science and Research Department of the Signal Corps in late 1917.

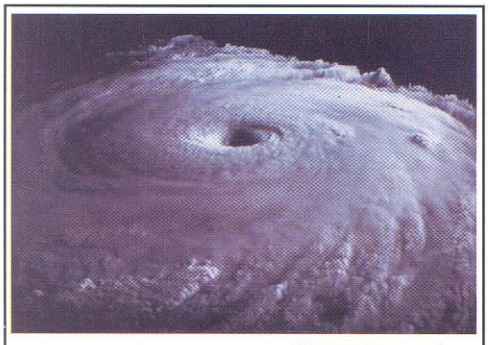
1918 saw the first special school for training meteorologists open for business at Fort McArthur in Waco, Texas. One month later the school moved to the College Station, Texas, campus of Texas A&M University. Upon completion of training, 300 of the 500 weathermen trained were sent overseas.

In May 1918, the first American weather station in France was established. It was located at the flying field of the First Corps Observation Group at Ourches.

By the time World War I ended, the American Expeditionary Force had 22 weather stations, and one of those was a forecast center.

The Signal Corps weather service was transferred to the Air Corps on July 1, 1937. It was determined that the Air Corps had more weather officers and utilized more of the available services than the Signal Corps.

Thomas Jefferson (left) and James Madison (right) were early weather observers.



BENJAMIN FRANKLIN

Benjamin Franklin deduced the movement of a hurricane moving up from the West Indies in 1743.

"Did You Know" is brought to you by your friendly Air Weather Service History Office If you have any stories, artifacts, photos, etc...contact LilWilbur at e-mail wilburl@hqaws.safb.af.mil or call 618-256-5654 x258 or DSN 576-5654 x258.

Philip G. Yavorsky, HQ AFGWC, Offutt AFB, Neb.

David F. Zehr, HQ AFGWC, Offutt AFB, Neb.

AIR FORCE MERITORIOUS SERVICE MEDAL

Master Sgt. Michael P. Gilbert, 355th Operations Support Squadron/OSW, Davis-Monthan AFB, Ariz.
Lt. Col. Gary L. Sickler, Combat Weather Facility, Hurlburt Field, Fla. (3rd Oak Leaf Cluster)
Master Sgt. Michael D. Thompson, CWF, Hurlburt Field, Fla. (1st OLC)
Staff Sgt. Charles W. Lindstrom, Det. 1, 335th Training Sqn., Combat Weather Training, Hurlburt Field, Fla.
Master Sgt. Eric G. Fjetland, Headquarters Air Force Global Weather Central, Offutt AFB, Neb.
Master Sgt. John C. Spaller, HQ AFGWC, Offutt AFB, Neb.
Col. Gerard D. Wittman, HQ Air Force Space Command, Peterson AFB, Colo. (4th OLC)
Maj. Lynette M. Franchi, HQ AFSPC, Peterson AFB, Colo. (1st OLC)
Chief Master Sgt. John Hahn, HQ Air Education and Training Command/XOSW, Randolph AFB, Texas (6th OLC)

J.J. Golemboski, 57th OSS/OSW, Nellis AFB, Nev.
Lee A. Byerle, 46th WF, Eglin AFB, Fla.

Michael A. Zimmer, HQ AFGWC, Offutt AFB, Neb.

AIR FORCE COMMENDATION MEDAL

Tech. Sgt. Adrian Roper, CWF, Hurlburt Field, Fla. (1st OLC)
Tech. Sgt. Ralph F. Ley, CWF, Hurlburt Field, Fla. (4th OLC)
Staff Sgt. Joseph L. Nichols, Jr., Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.
Staff Sgt. Jeffrey S. White, Det. 2, 50th WS, Falcon AFB, Colo. (1st OLC)
Tech. Sgt. Donna L. Lacourse, 12th OSS/DOW, Randolph AFB, Texas (1st OLC)
Staff Sgt. James D. Gunderson, HQ AFGWC, Offutt AFB, Neb.

Pete S. Ormandy, HQ AFGWC, Offutt AFB, Neb.
Steven R. Adams, 15th ASOS/ASW, Hunter Army Air Field, Ga.
Jane H. Warriner, 46th WF, Eglin AFB, Fla.

ARMY COMMENDATION MEDAL

Tech. Sgt. Matthew D. Mead, Det. 2, 50th WS, Falcon AFB, Colo.

Geri Swanson, Weather Training Flight, Keesler AFB, Miss.
Charlie Walker, Weather Training Flight, Keesler AFB, Miss.
Jim Sullivan, Weather Training Flight, Keesler AFB, Miss.
John Kay, Weather Training Flight, Keesler AFB, Miss.
Garry Hagins, Weather Training Flight, Keesler AFB, Miss.
Ronald Burkhalter, Weather Training Flight, Keesler AFB, Miss.
Paul A. Hay, 46th WF, Eglin AFB, Fla.
John R. Michael, 46th WF, Eglin AFB, Fla.

AIR FORCE ACHIEVEMENT MEDAL

Staff Sgt. Claude G. Tranter, Det. 1, 335th TRS/CWT, Hurlburt Field, Fla. (3rd OLC)
Airman 1st Class Danielle L. Snyder, HQ AFGWC, Offutt AFB, Neb.
Staff Sgt. Kevin D. Caris, 47th OSS/OSW, Laughlin AFB, Texas (1st OLC)
Senior Airman Johnnie L. Church, 47th OSS/OSW, Laughlin AFB, Texas (1st OLC)
Capt. Doug Clark, HQ AETC/XOSW, Randolph AFB, Texas (1st OLC)

Jose A. Cortez, 57th OSS/OSW, Nellis AFB, Nev.
Roland J. Wilson, 57th OSS/OSW, Nellis AFB, Nev.

AIR FORCE GOOD CONDUCT MEDAL

Tech. Sgt. Dennis P. Davis, CWF, Hurlburt Field, Fla. (5th OLC)
Tech. Sgt. Daniel F. McCabe, CWF, Hurlburt Field, Fla. (5th OLC)
Master Sgt. Amos Walker, Jr., CWF, Hurlburt Field, Fla. (7th OLC)
Tech. Sgt. Donna L. Lacourse, 12th OSS/DOW, Randolph AFB, Texas (4th OLC)
Master Sgt. Richard W. Downing, 12th OSS/DOW, Randolph AFB, Texas (4th OLC)
Master Sgt. Christopher Boczek, HQ AFGWC, Offutt AFB, Neb.
Master Sgt. Donald D. Gunning, HQ AFGWC, Offutt AFB, Neb.
Master Sgt. Dennis J. Natali, HQ AFGWC, Offutt AFB, Neb.
Tech. Sgt. Michael R. Daniels, HQ AFGWC, Offutt AFB, Neb.
Staff Sgt. Michal M. Cave, HQ AFGWC, Offutt AFB, Neb.
Staff Sgt. William Tevebaugh, HQ AFGWC, Offutt AFB, Neb.
Senior Airman Sean P. Carlisle, HQ AFGWC, Offutt AFB, Neb.
Senior Airman Dale J. Higgins, Jr., HQ AFGWC, Offutt AFB, Neb.
Senior Airman Shane S. Smith, HQ AFGWC, Offutt AFB, Neb.
Senior Airman Martin A. Vargas, HQ AFGWC, Offutt AFB, Neb.

Sydni Hamilton, 21st ASOS/ASW, Ft. Polk, La.

Jeana Tate, 21st ASOS/ASW, Ft. Polk, La.

HAILS AND FAREWELLS

Eugene S. Barnes, GS-13 -- to CWF, Hurlburt Field, Fla., from Army Research Lab, White Sands Missile Range, N.M.

Tech. Sgt. Donald G. Carson -- to CWF, Hurlburt Field, Fla., from AFGWC, Offutt AFB. Neb.

Tech. Sgt. Joshua P. Debord -- to CWF, Hurlburt Field, Fla., from OL-B, 617th WS, Sturttgart, Germany

Capt. Robert W. Mahood -- to CWF, Hurlburt Field, Fla., from Det. 5, 617th WS, Katterbach, Germany

Staff Sgt. Colin W. McCoy -- to CWF, Hurlburt Field, Fla., from 16th OSS/OSW, Hurlburt Field, Fla.

Master Sgt. Bruce W. Perkins -- to CWF, Hurlburt Field, Fla., from Det. 9, 617th WS, Hohenfels, Germany

Tech. Sgt. Adrian Roper -- to CWF, Hurlburt Field, Fla., from 24th WS, Howard AFB, Panama

Tech. Sgt. Raymond Seccession -- to CWF, Hurlburt Field, Fla., from Det. 5, HQ AWS, Keesler AFB, Miss.

Master Sgt. Michael D. Thompson -- to CWF, Hurlburt Field, Fla., from HQ AWS, Scott AFB, Ill.

Master Sgt. Amos Walker, Jr. -- to CWF, Hurlburt Field, Fla., from 305th OSS/OSW, McGuire AFB, N.J.

Tech. Sgt. David C. Dickinson -- to Det. 1, 335th TRS/CWT, Hurlburt Field, Fla., from AFGWC, Offutt AFB, Neb.

Tech. Sgt. Ralph F. Ley -- to Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.,, from AFGWC, Offutt AFB, Neb.

Staff Sgt. Joseph L. Nichols, Jr. -- to Det. 1, 335th TRS/CWT, Hurlburt Field, Fla., from 437th OSS/OSW, Charleston AFB, S.C.

Staff Sgt. Claude G. Tranter -- to Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.,, from 436th OSS, Dover AFB, Md.

Staff Sgt. John R. Raczkowski -- to Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.,, from 46th WF, Eglin AFB, Fla.

Airman Tamika Shipman -- to 21st ASOS/ASW, Ft. Polk, La., from Keesler AFB, Miss.

Airman Liza Reddon -- to 21st ASOS/ASW, Ft. Polk, La., from Keesler AFB, Miss.

Master Sgt. Donald Gunning -- to Offutt AFB, Neb., from 319th OSS/OSW, Grand Forks AFB, N.D.

Staff Sgt. Myron Winters -- to 319th OSS/OSW, Grand Forks AFB, N.D., from K.I. Sawyer AFB, Mich.

Airman 1st Class Jonathon Lewis -- to 319th OSS/OSW, Grand Forks AFB, N.D., from Keesler AFB, Miss.

Senior Airman Samuel Smith -- to Keesler AFB, Miss., from 12th OSS/DOW, Randolph AFB, Texas

Senior Airman Pamela D. Peyton -- to 15th ASOS/ASW, Hunter Army Air Field, Ga., from Camp Stanly, Korea

Senior Airman Dean P. Matuzewski -- to 15th ASOS/ASW, Hunter Army Air Field, Ga., from K.I. Sawyer AFB, Mich.

Airman 1st Class Wanda Nichols -- to 15th ASOS/ASW, Hunter Army Air Field, Ga., from Keesler AFB, Miss.

Airman 1st Class Robert Dean -- to 15th ASOS/ASW, Hunter Army Air Field, Ga., from Keesler AFB, Miss.

Capt. Bryan D. Logie -- to Air Force Combat Climatology Center, Scott AFB, Ill., from N.C. Sate U., Raleigh, N.C.

Maj. Darrel D. Gebert -- to AFCCC, Scott AFB, Ill., from USAF/XOW, Pentagon, Washington, D.C.

Capt. Bruce A. Lambert, Jr. -- to AFCCC, Scott AFB, Ill., from Penn State University, State College, Pa.

Airman Brian J. Deane -- to 47th OSS/OSW, Laughlin AFB, Texas, from Keesler AFB, Miss.

Airman Carol L. Glenn -- to 47th OSS/OSW, Laughlin AFB, Texas, from Keesler AFB, Miss.

Lt. Col. Michael J. Stanley -- to HQ AWS, Scott AFB, Ill., from 18th WS, Ft. Bragg, N.C.

Maj. Linda L. McMillan -- to HQ AWS, Scott AFB, Ill., from Edwards AFB, Calif.

Capt. Luke D. Whitney -- to HQ AWS, Scott AFB, Ill.

Capt. Frederick S. Meyer -- to HQ AWS, Scott AFB, Ill.

Lt. Col. Susan S. Robbins -- to HQ AWS, Scott AFB, Ill., from USAF/XOW, Pentagon, Washington, D.C.

Col. Clifford R. Matsumoto -- to HQ AWS, Scott AFB, Ill., from HQ PACAF/DOW, Hawaii

Maj. James R. Schaefer -- to HQ AWS, Scott AFB, Ill.

Maj. Eugene W. Dobry -- to HQ AWS, Scott AFB, Ill., from Air Command and Staff College, Maxwell AFB, Ala.

Maj. Frederick C. Wirsing -- to HQ AWS, Scott AFB, Ill., from Edwards AFB, Calif.

Capt. Bruce A. Lambert -- to HQ AWS, Scott AFB, Ill.

Maj. Jeffrey D. Lentz -- to HQ AWS, Scott AFB, Ill., from HQ AFGWC, Offutt AFB, Neb.

Lt. Col. Jenny Dillon -- to AFCCC, Scott AFB, Ill., from HQ USAF/XOW, Washington, D.C.

1st Lt. Julia Borowiak -- to 45th Weather Squadron, Patrick AFB, Fla., from Kadena AB, Japan

Tech. Sgt. Klaus Lammers -- to 45th WS, Patrick AFB, Fla., from Hanau AIN, Hanau, Germany

Airman 1st Class William Ferguson -- to 45th WS, Patrick AFB, Fla., from Keesler AFB, Miss.

Airman James Brown -- to 45th WS, Patrick AFB, Fla., from Keesler AFB, Miss.

Staff Sgt. Kenny Brooks -- to 21st ASOS/ASW, Ft. Polk, La., from Aviano AB, Italy

Re-enlistments

Senior Airman Daniel Golden, 319th OSS/OSW, Grand Forks AFB, N.D.
Senior Airman Roger Finley, 319th OSS/OSW, Grand Forks AFB, N.D.
Senior Airman Ashley Ringo, 319th OSS/OSW, Grand Forks AFB, N.D.

Separations

Airman William Gray, 319th OSS/OSW, Grand Forks AFB, N.D.
Senior Airman Shawn M. Byrne, 57th OSS/OSW, Nellis AFB, Nev.

Changes of Command

Lt. Col. Rick Taylor -- from Commander, 334th Training Squadron, to Deputy Commander, 81st Support Group, Keesler AFB, Miss.
Lt. Col. (select) Tom Strange -- from Commander, Weather Training Flight, to Commander, 334th Training Sqaudron, Keesler AFB, Miss.
Maj. Micheal Babcock -- from Commander, Det. 10, 617th WS, Giebelstadt AAF, Germany, to Commander, Weather Training Flight, Keesler AFB.

EDUCATION

Basic Instructor Course

Tech. Sgt. David C. Dickinson, Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.
Tech. Sgt. Ralph F. Ley, Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.
Staff Sgt. Joseph L. Nichols, Jr., Det. 1, 335th TRS/CWT, Hurlburt Field, Fla.
Staff Sgt. Claude G. Tranter, Det. 1, 335th TRS/CWT, Hurlburt Field, Fla. (Distinguished Graduate)

Weather Satellite and Interpretation Course

Senior Airman Brian Hearn, 21st ASOS/ASW, Ft. Polk, La.

WSR-88D PUP Operator/Manager Course

Staff Sgt. Iwana Burleson, 21st ASOS/ASW, Ft. Polk, La.
Senior Airman Daniel Godin, 319th OSS/OSW, Grand Forks AFB, N.D.

AWDS Managers Course

Staff Sgt. Brent Giles, 319th OSS/OSW, Grand Forks AFB, N.D.
Senior Airman Dean Harpster, 45th WS, Patrick AFB, Fla.
Senior Airman Scott Gallian, 21st ASOS/ASW, Ft. Polk, La.

NCO Academy

Tech. Sgt. Robert C. St. John, 42nd OS/OSFW, Maxwell AFB, Ala.

Air Assault School

Airman 1st Class Jeremiah Thundberg, 15th ASOS/ASW, Hunter Army Air Field, Ga.

Master of Science Degree in Meteorology

Capt. Bryan D. Logie, Air Force Combat Climatology Center, Scott AFB, Ill. (N.C. State)
Capt. Bruce A. Lambert, Jr., AFCCC, Scott AFB, Ill. (Penn State)

Current Weather Techniques Course, Keesler AFB, Miss.

Tech. Sgt. Steven R. Grimes, 57th OSS/OSW, Nellis AFB, Nev.

Bachelor of Science Degree -- Management/Human Resources

Master Sgt. Robert F. DuFrane, 47th OSS/OSW, Laughlin AFB, Texas (Park College)

Airman Leadership School

Senior Airman Kevin D. Hennessy, 47th OSS/OSW, Laughlin AFB, Texas

Combat Lightning

2nd Lt. Dan Pawlak, 21st ASOS/ASW, Ft. Polk, La.

Goldwing Course

Tech Sgt. Michael King, 21st ASOS/ASW, Ft. Polk, La.

AWARDS

12th Operational Support Squadron Senior NCO of the Quarter

Master Sgt. Richard W. Downing, 12th OSS/DOW, Randolph AFB, Texas

12th OSS Company Grade Officer of the Quarter

Capt. Patrick P. Ludford, 12th OSS/DOW, Randolph AFB, Texas

15th ASOS NCO of the Quarter (July-September 1995)

Staff Sgt. Susan B. Bowers, 15th ASOS/ASW, Hunter Army Air Field, Ga.

Weather Training Flight, Keesler AFB, Miss., NCO of the Quarter

Tech. Sgt. Michael Dore, Weather Training Flight, Keesler AFB, Miss.

Weather Training Flight, Keesler AFB, Miss., Junior Enlisted Instructor of the Quarter

Staff Sgt. Garth McCulloch, Weather Training Flight, Keesler AFB, Miss.

Weather Training Flight, Keesler AFB, Miss., Senior NCO of the Quarter

Master Sgt. Ken Kleeshulte, Weather Training Flight, Keesler AFB, Miss.

47th OSS Senior NCO of the Quarter

Master Sgt. Robert F. DuFrane, 47th OSS/OSW, Laughlin AFB, Texas

47th OSS NCO of the Quarter

Staff Sgt. Warren W. Weyer, 47th OSS/OSW, Laughlin AFB, Texas

HQ AETC Plans and Operations Company Grade Officer of the Quarter

Capt. Doug Clark, HQ AETC/XOSW, Randolph AFB, Texas

45th Weather Squadron Company Grade Officer of the Quarter

Capt. Sabrina Taijeron, 45th WS, Patrick AFB, Fla.

45th WS Senior NCO of the Quarter

Master Sgt. Rodney Rabenneck, 45th WS, Patrick AFB, Fla.

45th WS NCO of the Quarter

Tech. Sgt. Richard Osteen, 45th WS, Patrick AFB, Fla.

45th WS Airman of the Quarter

Senior Airman Julie Williams, 45th WS, Patrick AFB, Fla.

45th WS Civilian of the Quarter

Ed Priselac, 45th WS, Patrick AFB, Fla.

21st ASOS NCO of the Quarter

Staff Sgt. Iwana Burleson, 21st ASOS/ASW, Ft. Pok, La.

BIRTHS

Austin James Harrell, born to **Senior Airman Tim Harrell** and **Wendy Harrell**, 45th WS, Patrick AFB, Fla.

Weather South American style

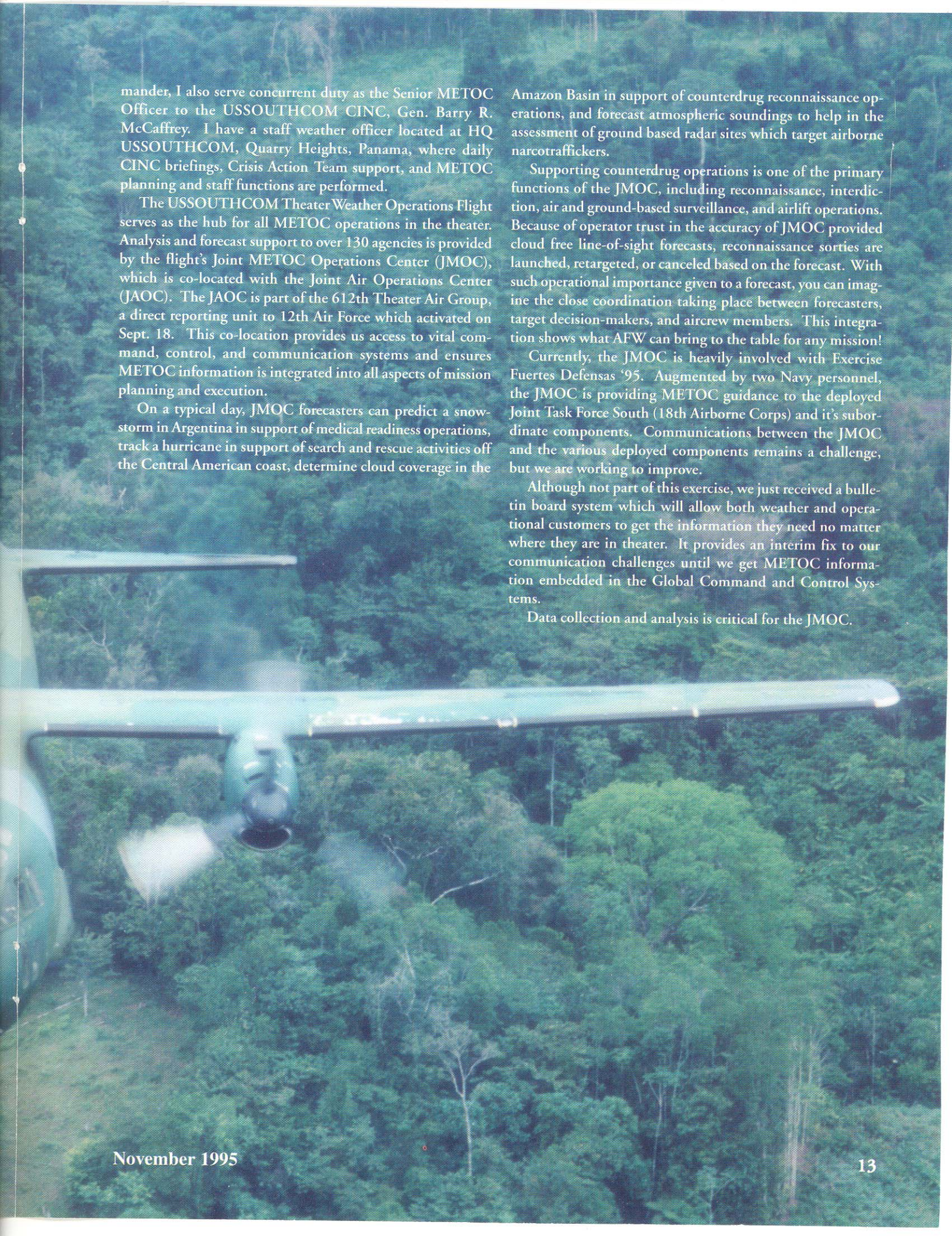
'Los Profesionales' of the 24th Weather Squadron, Howard AFB, Panama

by Maj. Kevin Johnston
Commander, 24th Weather Squadron

"Los Profesionales" is the motto for the 24th Wing, Air Combat Command (ACC), Howard AFB, Panama. In English this motto means "The Professionals" — one that operational customers associate with the 24th Weather Squadron (24 WS) when it comes to tropical and southern hemispheric Meteorological and Oceanographic (METOC) operations.

Our mission is to provide METOC information to the United States Southern Command (USSOUTHCOM) and its component commands: U.S. Southern Air Forces Forward, U.S. Army South, U.S. Atlantic Fleet Detachment South, and Special Operations Command South. The 24th WS also supports the U.S. Customs Service, U.S. Embassy Military Groups, and other U.S. government agencies. The squadron has responsibility for the entire theater, which extends from Mexico's southern border to the southern tip of Chile.

To enhance theater operations, the squadron is organized into a command section and three flights. As Squadron Com-



mander, I also serve concurrent duty as the Senior METOC Officer to the USSOUTHCOM CINC, Gen. Barry R. McCaffrey. I have a staff weather officer located at HQ USSOUTHCOM, Quarry Heights, Panama, where daily CINC briefings, Crisis Action Team support, and METOC planning and staff functions are performed.

The USSOUTHCOM Theater Weather Operations Flight serves as the hub for all METOC operations in the theater. Analysis and forecast support to over 130 agencies is provided by the flight's Joint METOC Operations Center (JMOC), which is co-located with the Joint Air Operations Center (JAOC). The JAOC is part of the 612th Theater Air Group, a direct reporting unit to 12th Air Force which activated on Sept. 18. This co-location provides us access to vital command, control, and communication systems and ensures METOC information is integrated into all aspects of mission planning and execution.

On a typical day, JMOC forecasters can predict a snowstorm in Argentina in support of medical readiness operations, track a hurricane in support of search and rescue activities off the Central American coast, determine cloud coverage in the Amazon Basin in support of counterdrug reconnaissance operations, and forecast atmospheric soundings to help in the assessment of ground based radar sites which target airborne narcotraffickers.

Supporting counterdrug operations is one of the primary functions of the JMOC, including reconnaissance, interdiction, air and ground-based surveillance, and airlift operations. Because of operator trust in the accuracy of JMOC provided cloud free line-of-sight forecasts, reconnaissance sorties are launched, retargeted, or canceled based on the forecast. With such operational importance given to a forecast, you can imagine the close coordination taking place between forecasters, target decision-makers, and aircrew members. This integration shows what AFW can bring to the table for any mission!

Currently, the JMOC is heavily involved with Exercise Fuertes Defensas '95. Augmented by two Navy personnel, the JMOC is providing METOC guidance to the deployed Joint Task Force South (18th Airborne Corps) and it's subordinate components. Communications between the JMOC and the various deployed components remains a challenge, but we are working to improve.

Although not part of this exercise, we just received a bulletin board system which will allow both weather and operational customers to get the information they need no matter where they are in theater. It provides an interim fix to our communication challenges until we get METOC information embedded in the Global Command and Control Systems.

Data collection and analysis is critical for the JMOC.

The 24th WS Area of Responsibility

- **Large in Size and Latitudinal Extent**
- **Geographically and Climatically Diverse**
  - "Roaring 40's and 50's" south
  - Equatorial rainforests
  - Caribbean tropical storms north
  - World's second-highest mountain range
- **Economically underdeveloped with vast areas of remote, nearly inaccessible jungle and mountains**
  - Sparse weather reporting
  - Unreliable or nonexistent indigenous weather services

Unlike most theaters that have ongoing military operations where weather data is more readily available, the USSOUTHCOM theater is largely devoid of reliable weather services.

To ensure the best tools are available in making these high-profile forecasts, we have procured and fielded atmospheric sensing equipment to increase data availability.

The 24th WS operates a high-resolution, direct downlink satellite system which provides real-time GOES-8 imagery. Coupled with DMSP and NOAA imagery available from a MARK IV van operated by the 24th Communications Squadron, the 24th WS has some of the highest resolution and timely satellite data available.

Because surface data is largely unavailable, particularly in regions of counterdrug operations, the squadron also acquired and installed remote automated weather observation systems. These systems provide hourly observations to include cloud cover, visibility, precipitation, wind, lightning detection, temperature, and pressure in remote regions of Colombia, Ecuador, Peru, and Panama.

Never having enough observations and realizing the importance of this information to our operation and the 24th Wing's overall mission, the wing just spent $40,000 to procure another remote system to be installed in Yurimaguas, Peru.

Another squadron initiative involves the procurement of computer hardware and software to operate a regional forecast model. We'll be integrating these forward observations with global fields and terrain features which should provide a finer resolution output to enhance our operations.

The Army Weather Flight located at Fort Clayton supports U.S. Army South (USARSO) and JTF Panama. Members deploy throughout the theater to support USARSO aviation exercises and real-world operations.

Currently, two forecasters are deployed along the Ecuador-Peruvian border supporting multinational aviation forces that are observing activities within a conflict zone.

Other recent operations supported by the Army Weather Flight include earthquake relief in Colombia and exercises in Panama, Belize, Honduras, and Puerto Rico. Deployed teams operate with standard TACMET, but the squadron has also acquired state-of-art hardware such as INMARSAT, laser range-finders, and a satellite receiving system which processes GOES and polar-orbiting imagery.

The Howard Base Weather Flight supports one of the most diverse flightlines in the Air Force, and also provides resource protection for six military installations in Panama.

The flight supports the only squadron of C-27s in the Air Force which roughly resembles a smaller, two-engined C-130 designed to provide intra-theater airlift to remote jungle airstrips. The flight also provides daily support to C-130, E-3, KC-135, DHC-7, F-16, T-43, C-21, C-12, C-141, C-5, P-3, Cessna Citations, CH-47, and UH-60 aircraft.

Since Howard AFB is the hub for all U.S. air operations in and out of Latin America, the airfield can be very busy. The flight also launches rawinsondes twice daily using a MARWIN system from nearby Albrook AFS.

SOUTHCOM frequently hosts VIPs on a continuous basis, and they typically stop at the 24th WS. During their visits, they have provided only high praise and recognition. After seeing the JMOC's high-resolution METSAT capabilities, Secretary of Defense William Perry directed the European Command to acquire similar capabilities.

The 24th WS is recognized as a 'Benchmark' for Quality Performance Measures (QPMs).

Chairman of the Joint Chiefs of Staff Gen. John Shalikashvili said the mission of the 24th WS was "awesome", and Air Force Chief of Staff General Ronald Fogleman said "the squadron is accomplishing a lot with relatively few resources."

The 24th WS received the ACC "Best" Award for 1994 and earned several laudatory comments during a Quality Air Force Assessment earlier this year. In fact, the 24th WS is recognized as a "Benchmark" for Quality Performance Measures (QPMs).

Simply put, the squadron evaluates what is important to the customer — sortie effectiveness.

You have heard a lot of "good stuff" about the 24 WS, but there are challenges at hand and there is always lots to do. We are looking at ways to improve our support to Special Operations.

Fuertes Defensas '95 proved we have some holes with regard to planning and executing SOF missions. We are in the process of developing a METOC concept of operations for USSOUTHCOMs move to Miami.

This could be interesting now that the U.S. and Panama have agreed to look at maintaining a forward presence here beyond the year 2000.

We are boosting our capability to deploy with the C-27 anywhere in theater and we are in the middle of establishing a program to provide radar and communication propagation assessments for the AOR. Perhaps our biggest area for improvement is the need to work more closely with AWS and AFGWC concerning the strengths and weaknesses of model output and products they have for this area.

Also, after attending the Inter-American Commitee of Air Force Meteorologists, it is clear that we could work more closely with other Central and South American countries and could take the lead in the promotion of new capabilities.

If your're looking for a challenging assignment where METOC capabilities are exploited by forces performing real-world operations, the 24th WS will meet your needs.

You can issue go/no-go launch decision forecasts, manage weather data collection systems, brief a unified command commander in chief, plan a multinational exercise, support more than 15 types of aircraft during one shift, deploy to the field with state-of-the art tactical equipment, and learn about tropical and southern-hemispheric weather patterns.

The fishing is pretty good, too.

U.S. Air Force Photo

One of the 24th Weather Squadron's remote observation sensor platforms. The one pictured here is a fly-away, solar-powered system.

AFDIS Updates

How They Will Help The Weather Warrior

by Capt. Bryan Adams
Contingency Branch

A new version of the Air Force Remote User System (AFRUS) for use with the AF Dial-In System (AFDIS) is on its way, and it promises to be the best yet.

AFRUS Version 3.2.1 is the seventh software iteration since Version 1.0 hit the streets in 1992. The latest version corrects bugs which were found in version 3.2, provides the newest version of Paint Shop Pro, and gives the user added communications capability by allowing connectivity via Pro Comm Plus for Windows. ProCom Plus for Windows will let users connect to AFDIS using File Transfer Protocol.

One of the biggest problems users reported in the old version was the lack of communications flexibility. With Version 3.2.1, there is another connectivity option for you: the Defense Data Network (DDN) or Air Force Internet (AFIN). With this latest version, this access could be the easiest depending on your situation.

Air Weather Service is also working to get connectivity through the upcoming Very Small Aperture Terminal (VSAT). VSAT will be the primary communications link to base weather stations for the Automated Weather Distribution System (AWDS).

The plan is to link AFDIS into this communication structure, which could allow worldwide access to AFDIS via tactical satellite receivers. What does this mean to you? It means no more phone lines, Local Area Networks, or AFINs' will be needed to 'reach back' to AFGWC!

Another future source of many products currently available through AFDIS will be available on Air Force Global Weather Central's (AFGWC) new home page on the World Wide Web.

The homepage, which is in a demonstration mode now, will be available early next year.

At the AWS Technology, Plans and Programs Directorate, we are working to acquire additional funding for the following customer identified AFDIS improvements:

- Restructure AFRUS software to maximize performance.

- Allow users to download AFRUS software upgrades directly from the AFDIS server.

Courtesy Photo

An example of a Very Small Aperture Terminal satellite receiver. VSAT is one method AWS is using to improve weather communications.

- Develop capability for users to create macros to perform routine data requests.

- Provide users capability to send observations and forecasts to the Automated Weather Network.

- Improve speed of vector graphic screen display.

- Provide access to Skew-T reports and ability to export to SHARP or Skew-T Pro

- Provide capability to request products by WMO block, lat/long, bulletin, and state/country.

- Provide capability to loop gridded data.

- Provide on-line users manual, help, and tutorial.

- Provide capability to simultaneously receive and display data.

- Provide labels for displayed and printed maps.

- Provide capability to request data from the Raw Satellite Data Base (RSDB).

- Provide capability to manually edit weather graphics.

- Allow users to control the password process.

We need your ideas and requirements in order to keep AFDIS as your dial-in system of choice. Send questions and other comments to the phone numbers or electronic mail addresses below.

Questions or comments? Please contact Master Sgt. Pete Copesky or Maj. Dan Vial at DSN 576-4110, ext. 237, or 225 respecfully, or by electronic mail at "copeskep@hqaws.safb.af.mil" or "vialD@hqaws.safb.af.mil".

The Time Is Now!

Multimedia Training System Upgrade Hits The Streets

by Capt. Kay Muñoz
Systems and Communications Directorate
C⁴ Systems Support Branch

Remember when 8-track tapes were "in," televisions only had "knobs," and the latest in-house training system was the Caramate projector?

Since then, 8-tracks gave way to cassettes and compact discs (CDs), televisions went to remote controls, and "interactive training," first using laser discs, made the scene.

Technology has moved so fast that it's hard to find a computer today that can read those already antiquated analog laser disks.

In keeping pace with technology, we asked our Multimedia Training System (MTS) courseware supplier to make the leap to "high-tech" (for now) digital CDs for all future training modules. To fully exploit this new technology, we also recognized a need, and took on the task, to upgrade the MTS.

We immediately faced two challenges. We didn't want to simply trash the perfectly good modules you now use, and the current MTS was too slow and underpowered to really handle this leap.

Solution? Our MTS expert, Ken Hill (of HQ AWS/XOT), first found a way to make the MTS a true "multimedia" system.

By interfacing the present DVA board, which speaks analog, with a new "MPEG" card that speaks digital, he found the MTS can handle both the "old" analog disks and "new" digital CDs. Technical solution in hand, Mr. Hill went on to fight for, and win, the dollars needed to bring this added capability to you — along with a major MTS upgrade!

After developing and testing a prototype upgraded system, we contracted Data Systems and Technology, Inc. (DSTI) to upgrade all 262 fielded MTSs over the next two years, starting late this month. The MTS upgrade will include: a new, faster 75 MHz Pentium-based CPU, increased 16MB RAM memory ; a larger 1-gigabyte hard drive, new quad-speed CD-ROM, faster 14.4K baud fax/modem, the new DVA-MPEG interface, and the latest version of system operating software, which uses more simplified menus.

We think you'll be impressed.

Even better, all this great hardware and software costs you nothing! Headquarters Air Weather Service centrally funded this effort. However, to cut costs, expedite, and make the upgrade "doable", we're counting on you to play a key supporting role.

When we schedule your MTS upgrade, DSTI will mail you detailed instructions and packing materials. These instructions will tell you how to remove the present DVA board and cable harnesses from your MTS' central processing unit (CPU). After removing these parts, you'll simply package and mail them back to DSTI. (You can even keep the "old" 80386 CPU! Oh, by the way, don't forget to first save your student training records to a floppy.) DSTI will then do their magic in about two weeks time, and return your "new" MTS Upgrade components to you along with initial hookup and operating instructions.

Yes, some assembly is required. But to help, DSTI will also set up a new toll-free hotline for technical support during and after the upgrade. The number will be included in the instruction package. Your local small computer shop can also help.

Please note the old MTS hotline died Sept. 30, 1995: For technical support on current "un-upgraded" systems now, contact Mr. Hill at DSN 576-4721, ext. 241, or commercially at (618) 256-4721, ext. 241; or E-mail to "hillk@hqaws.safb.usaf.mil".

Our HQ AWS team accepts our charge to provide you, our Air Force Weather community, the advanced training tools needed to help make weather a force multiplier! We encourage, welcome, and appreciate your support.

Contact Captain Munoz at HQ AWS/SYA, DSN 576-4741, ext. 402; or send elecronic mail to this address: "munozk@hqaws.safb.af.mil"

Sneak Preview of Future Comet Training Modules

1996	1997
Numerical Weather Prediction, Supplement	Convective, Vol. 2, Potential for Convection
Satellite Meteorology, Vol. 1, Introduction to GOES	Convective, Vol. 3, Detecting and Forecasting Tornadoes
Satellite Meteorology, Vol. 2, Advanced Imagery Techniques.	Aviation, Vol. 1, Forecasting Fog and Stratus
	Quantitative Precipitation Forecasting

OBSERVATIONS

Weather Officer Course begins at Keesler AFB

by Ed Ring
Weather Training Flight

The inaugural class of the Weather Officer course (WOC) started August 22, 1995 with seven students. These students will be in the course for almost three months, with a graduation date of November 16.

The mission of the WOC is to train new weather officers in the practical skills and knowledge needed to make them well-versed in weather operations and able to apply their technical forecasting skills to assist the operational decision maker.

The course was designed for new weather officers to attend within their first six months of active duty. The WOC provides an introduction to the variety of missions encountered as a weather officer, in a much shorter time than in an operational environment.

In six blocks of instruction, the new second lieutenants are taught the weather support system, wartime weather support including topics such as mobility concepts, electro-optical systems, tactical meteorological and communications equipment, high frequency communications and intelligence preparation of the battlefield.

They also study the Automated Weather Distribution System, the Next Generation WSR-88D Doppler radar, space environment, satellite imagery, weather station operations, aircraft hazards, tropical meteorology, and oceanography.

The last portion of the course is a forecast laboratory, where the students produce and brief terminal aerodrome forecasts, warnings and advisories, electro-optical and limited data forecasts.

"Our development team put tremendous effort into the officer course and our weather community will reap the benefits for years to come," said Maj Michael R. Babcock, Weather Training Flight Commander. "It's the right thing to do for weather officers and the right thing for our weather stations."

The WOC Element Chief, Capt. Ben Holbrook puts it, "I would have loved this course at the beginning of my career, and I'm sure my first unit would have appreciated it as well. After this course, the new weather officer is able to arrive as an immediately productive member of the forecast team."

The first class of students appreciate the need for the course as well. 2nd Lt. Craig Larrabee said, "I came to this school from my first duty location. Questions that couldn't be answered there were quickly answered by the WOC staff."

"After this course, I won't have to rely on hearsay; I'll have the knowledge I need," said 2nd Lt. Tom Renwick."

"We look forward to these officers reaching the field and making a difference." Major Babcock said. "We certainly want to hear from their units so we can continue to assess and refine the course to make it the best we can."

Sixty-six students are expected to take the course next year. The next scheduled class will begin January 8, 1996.

U.S. Air Force Photo

The first Weather Officer Course members

(From left to right) 2nd Lt. Tom Renwick, Master Sgt. Ray Reynolds, 2nd Lt. Craig Larrabee, 2nd Lt. Brian Schroeder, 2nd Lt. Deeann Emery, 2nd Lt. Tagg Timm, 2nd Lt. Mel Grove, 2nd Lt. Ray McLeod, Capt. Ben Holbrook, Master Sgt. Jim Fuller. Sergeants Fuller and Reynolds and Captain Holbrook are members of the developmental/instructor staff.

Fort Polk, Campbell Weather Units Participate In Multi-National Exercise

by 2nd Lt. Patricia Vollmer
21st ASOS/ASW, Ft. Polk, La.

This past summer, weather flights from Fort Polk, La., and Fort Campbell, Ky., participated in a historic peacekeeping exercise, COOPERATIVE NUGGET '95, held at the Joint Readiness Training Center (JRTC) at Ft. Polk.

More than 4,000 U.S. and foreign troops took part in the NATO "Partnership for Peace" exercise, the sixth of its kind, and the first on U.S. soil..

The JRTC is a U.S. Army training facility designed specifically to train light infantry and special operations forces. This exercise scenario was to provide peacekeeping support for a ficticious Third World-type nation.

FROM THE FIELD

A unit at Fort Polk was tasked as the opposing force, designed to keep the visitors alert for the type of encounters seen in Haiti, and the Baltic states. The 21st ASOS weather flight supported the JRTC mission by providing weather forecasts for the exercises from the central JRTC center.

Until this exercise, the visiting units have been mostly American and NATO forces. This past August, along with the NATO participants (U.S., U.K., Canada) 14 Eastern European nations took part: Albania, Bulgaria, Czechoslovakia, Estonia, Hungary, Kyrgystan, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia, the Ukraine, and Uzbekistan.

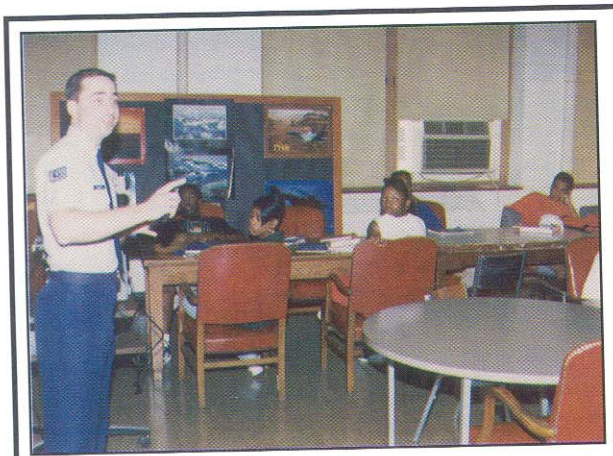
The training included various peacekeeping skills, such as patrols, convoy escorts, occupying checkpoints, clearing minefields, and humanitarian relief.

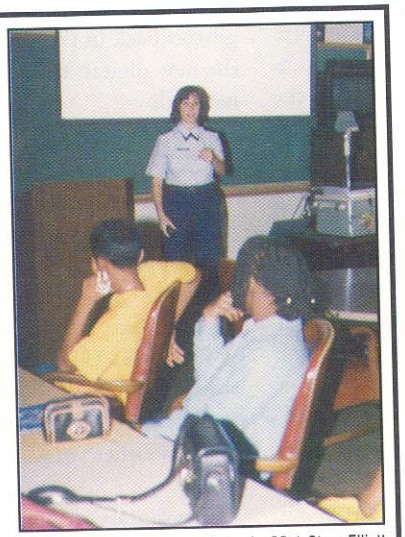
In this exercise, members of the 19th ASOS weather flight, Ft. Campbell, Ky., accompanied the 7th Battalion of the 101st Airborne, and 1st Battalion of the 21st Infantry Division, which represented the U.S. forces.

Using various coordination techniques, such as Mobile Subscriber Equipment (MSE) lines, 2nd Lts. Neil Sanger and Patricia Vollmer (21st ASOS), the JRTC staff weather officers were able to maintain communication with MSgt. Robert Fuller and A1C Jeffrey Truitt from the 19th ASOS WX team in the field.

With this coordination, accurate weather information was disseminated, helping maintain the safety of the 4,000 soldiers in the training area, which is about the size of the state of Connecticut.

Overall, Cooperative Nugget '95 was a success, and the weather support for the training exercise was just as successful. The 19th ASOS weather team learned about the coordination efforts necessary during a multinational peacekeeping effort, while the 21st ASOS forecasters continued their support for a one of a kind mission.





Photos by SSgt. Steve Elliott

AWS members talk to St. Louis high school Junior ROTC class

TSgt. Mike McAleenan (above) and Capt. Margo Bjorkman (right) recently were guest speakers at a class of Junior Reserve Officer Training Corps cadets at University City High School in St. Louis, Mo.

The JROTC program was created this semester at the Missouri high school, and Sergeant McAleenan and Captain Bjorkman were the first military guest speakers to talk to the cadets. In their presentation, they talked about different weather phenomena, weather equipment, and career opportunities for officers and enlisted.

Weather Flight Plays Major Role In 20th Fighter Wing's Mission

by Mark Anthony Songer
SHAW SPIRIT correspondent
Shaw AFB, S.C.

Time was, people used to find out the weather by looking out the window. Back in the old days, you got a forecast from old men sitting on the porch in their rocking chairs, complaining about their rheumatism and how their corns acted up if it was going to snow.

These days, thanks to weather satellites, the Doppler radar, and other systems, we can predict the weather with much greater accuracy. It is this type of accuracy that helps the 20th Operations Support Squadron weather flight determine activities on base -- or on the battlefield.

"Most people don't realize whenever battle plans are being drawn, the intelligence officer is on one side of the commander the weather officer is on the other side," said Capt. James Nicol, 20th OSS/OSW commander. "Weather has always played a major role in battles dating back to the Spanish

See OBSERVATIONS, Continued on Page 23

Comm NCOs tackling new horizons

Quick thinking. fast action improves long-haul communications

by Col. George Yurchak, Jr.
Director, Automated
Communications Systems
Headquarters Standard Systems
Group, Operating Location B
Tinker AFB, Okla.

Major force reductions throughout the military means we have to do more with less. Resources in manpower and money are decreasing, yet the workload steadily increases.

As a result, our NCOs are being asked to take on added responsibilities to fill the gaps created by these reductions.

Recently, when these situations involved long-haul communications for weather programs, the eight NCOs of Headquarters Standard Systems Group, Operating Location B, Weather Management Branch (SDFM), (formerly HQ 38EIW/SDFM), have stepped up to answer the call.

HQ SSG OL-B/SDFM is the program manager for a host of weather communications programs, including the Automated Weather Distribution System (AWDS) long-haul communications.

SDFM assumed responsibility for AWDS long-haul communications throughout the world in September 1994.

By taking ownership of these communications and establishing constant contact with their customers, these NCO program managers discovered a higher-than-normal instance of data outages in the European and Pacific theaters. When the trend in outages was identified, they acted quickly to solve the problem.

Master Sgt. John Taylor took the initiative to combat the problem in Europe. A team of communications engineers from the Air Force Command, Control, Communications and Computers Agency at Scott AFB, Ill., was dispatched throughout Europe to evaluate the suspected problems.

The engineers discovered that the analog technology in use allowed noise to infiltrate and disrupt AWDS data communications throughout the theater.

The engineering team's solution? Replace the analog communications network with a digital network utilizing existing Integrated Digital Network Exchange (IDNX) nodes. It now fell upon Taylor to make it all happen.

The first issue to resolve was one of money - - there was none readily available to fix the problem. Taylor had to sell the idea up the chain to get this unfunded project rolling.

This was quickly accomplished, as upper management realized the devastating impact this comm problem presented to the warfighter in Europe.

Getting the green light, Taylor procured the equipment, co-ordinated circuit re-routes with DISA-Europe, and soon had the engineers back in theater to install and test the new digital AWDS communications network.

Taylor's proactive response to resolve the "communications" problem with AWDS resulted in program sites recovering 45 to 75 percent more mission data for European operations — a significant improvement!

Tech. Sgt. Steve Covey, also assigned to HQ SSG OL-B/SDFM, uncovered similar AWDS problems in the Pacific theater while on temporary duty to the 607th Weather Squadron, Yongsan AIN, Korea.

Having assisted with the European AWDS fix, Covey knew what had to be done. He and the AFC4A team performed a site survey in Korea and determined the analog bridges at Yongsan and Osan needed to be replaced with digital bridges.

Covey orchestrated the full scope of program management efforts required to validate, engineer, procure, and install the new digital bridging system. The result, like Europe, is a complete success.

Although considered to be a complete success, we recently became aware of a sporadic problem involving flawed AWDS products to various European AWDS sites.

Taylor immediately organized a team of experts to investigate the specific problem. The test team soon followed for a 10-day visit to Germany. A six-hour product delivery test was conducted Sept. 7 at Heidelberg Army Air Field; one flawed product was received, but not recorded.

Several other sites were visited and no flawed products were received. To improve long-haul communications support, HQ SSG OL-B/SDFM has issued a purchase order to procure protocol analyzers for the AWDS IDNX tech control locations, enabling them to assist in troubleshooting AWDS product delivery and outages. Once fielded and procedures are in place, extended communications outages should decrease significantly.

In addition to AWDS long-haul communications, the eight SDFM NCO program managers are responsible for 14 major weather communications programs with a projected budget of over fourteen million dollars. All are also heavily involved with the development of a new world wide weather communications architecture expected to be operational by the year 2002.

The willingness of these NCOs to accept a tremendous amount of responsibility ensures the dissemination of weather data and support for the war-fighter.

Contact Colonel Yurchak and the HQ SSG OL-B at DSN 884-5421.

OBTW
Oh, By The Way

DOD Intelligence Meteorological Conference

The National Air Intelligence Center (NAIC) is sponsoring a Department of Defense-wide Intelligence Meteorological (IntelMet) Conference Feb. 6-8 at Wright-Patterson AFB, Ohio.

The conference has two themes. The first is to foster a crossflow of information between the intelligence and meteorological communities, as well as those who have a vested interest in this information.

"Since so many of our systems sense through or in the atmosphere, the quality, availability, and timeliness of the weather products and codes available to the customer are critical," said Col. Gary D. Payton, NAIC commander. "It is our intention to provide information about the gamut of such products and codes, as well as their specific applications to the intelligence community. We hope to use this meeting as a springboard for defining how weather and intelligence can work together in support of information operators for the year 2005 and beyond."

Presentations are being called for at this time, said conference organizers. The presentations should be a total of 20 minutes, including a five-minute question-and-answer period. The suggested topics of discussion are: information warfare, systems, modeling and simulation, environmental task force, communications and products, and tools and analyses.

Those people giving presentations should contact NAIC/TATW by Dec. 8, 1995. Briefing acceptance will be sent out Jan. 5, 1996. Other attendees should notify NAIC by Jan. 12, 1996. A conference agenda will be available by Jan. 5, 1996.

For registration and other information, call Capt. Fred Fahlbusch at DSN 787-7071, fax to DSN 787-9888, or E-mail to "flflll@naic.wpafb.af.mil.". These number are also for unclassified abstracts. Classified abstracts should be faxed to DSN 787-2183

Air Weather Service BBS, Pubs available

The Air Weather Service Technology, Plans and Programs Directorate has published FYI Number 30, "Air Force Weather Bulletin Board." If you haven't received your copy, please call HQ AWS/XOT at DSN 576-4721, Ext. 447, and we'll mail one to you immediately.

Echoes Number 15, "Clutter Suppression," should be in the mail in early November, and Echoes Number 16, "Operational Use of VIL," should be ready soon after.

-- For more information on upcoming FYI's, Echoes, and T-TWO's, contact Arthur Nelson, HQ AWS/XOTT, DSN 576-4721 or (618) 256-4721 Ext 245 or E-Mail: "nelsona@hqaws.safb.af.mil".

Volcanic Ash Data Available

Air Force Global Weather Central now has the ability to provide Volcanic Ash Forecast Transport and Dispersion (VAFTAD) data to the field upon request.

How do you take advantage of this valuable information. It's easy! Just contact the AFGWC Global Duty Officer with the following information close at hand:

- Latitude/longitude of the volcano.
- Name of volcano.
- Eruption date and time. (If there were multiple eruptions, provide individual run times for model output. For example, volcano eruptions at 0300Z, 0800Z, and 1400Z, then request model runs for 0300Z, 0800Z, and 1400Z).
- Height of volcano summit (if known).
- Duration of eruption (if known, or best possible guess).
- Top of the ash cloud (again, best possible estimate).

Each time you need a VAFTAD model run, contact the GDO with this information, If you need a model run at 1200Z, contact the GDO at least one hour before the information is needed.

The model output will be sent to the requester through the Air Force Dial-In System (AFDIS). The file name will be provided by the GDO to the requester each time a model run is requested.

-- submitted by Capt. Bryan Adams, HQ AWS/XOO; DSN 576-4110, ext. 207; e-mail: "adamsb@hqaws.safb.af.mil"

Freezing Drizzle With Only Below Freezing Temperatures?

Here's what happens: if low clouds have temperatures of 0 to -15°C they normally contain supercooled water drops (which creates freezing drizzle and icing). Look for at least **5,000 feet of dry air** (dew point depression >10 C°) above this supercooled cloud layer.

If this dry area is absent, ice crystals from higher levels can cause the supercooled water drops to evaporate and add to the ice crystal population. Only very weak mixing/vertical motion can occur. Look for these conditions with a very **cold shallow airmass** with weak upslope flow or with **mature cyclones**.

-- Does moist layer stop before the -15°C level (**yes** = freezing drizzle / **no** = snow).

-- Is dry area above low clouds at least 5,000' thick (**yes** = freezing drizzle / **no** = snow).

-- Is there only very weak mixing / vertical motion (**yes** = freezing drizzle / **no** = snow).

--submitted by Capt. Margo Bjorkman, HQ AWS/XOTT, DSN 576-4721, ext. 445; Electronic mail at "bjorkmam @hqaws.safb.af.mil".

Editorial

Calling Retirees By Their Ranks

A Matter Of Respect

by Gen. Ronald R. Fogleman
Air Force Chief of Staff

Our nation's Air Force is composed of active-duty members, retirees, reservists, guardsmen and civilians. All are valued members of the broader Air Force team that defends our nation with ready air and space forces.

Each member of our professional team deserves to be treated with respect and courtesy.

More than 620,000 Air Force retirees are still active and valuable contributors to our Air Force. Some now work for the Air Force in civilian positions. Others support education programs and provide forums for the exchange of ideas that further the goal of airpower.

More than one million retirees volunteer in our medical facilities, libraries, child development centers and community activity centers.

The retired officers and noncommissioned officers of all services earned their ranks through hard work and determination. They suffered hardships, made sacrifices and often risked their lives in serving their country.

Our Air Force retirees laid the foundation for the world's premier air and space force. And they remain eligible for recall to active duty in times of national crisis.

In fact, during Desert Shield and Desert Storm, many volunteered to reenter active duty to meet Air Force needs, and they served admirably.

We owe these dedicated professionals, who have given so much to our nation, the courtesy of using the rank they earned. So, it is appropriate to use rank when addressing retired officers or NCOs who introduce themselves by rank when coming into the clinic for medical care or calling the military personnel flight for assistance.

As a course of habit, I encourage it because it accurately reflects the esteem with which we hold our retirees.

While some may consider this a small thing, it is an important concern for retired Air Force members, and it is important to me.

Our retirees believe they earned their rank for life and should be addressed accordingly -- and I agree with them.

So, I urge all Air Force people to realize that military retirees from every service deserve to be called by their military rank. It is rightfully theirs because they earned it.

In Memoriam

Lt. Col. Dennis Kerrigan

Lt. Col. Dennis M. Kerrigan died Oct. 9, 1995, after a lengthy battle with cancer. He was Commander of the Combat Weather Facility, Hurlburt Field, Fla., from August 1992-April 1995.

Colonel Kerrigan entered military service in the U.S. Army April 22, 1972. His assignments included duty with the Old Guard, Ft. Meyer, Va.

The Old Guard is the U.S. Army's ceremonial unit and Presidential Honor Guard. Kerrigan was selected to be a sentinel at the Tomb of the Unknown Soldier in Arlington National Cemetery, one of only 21 selected. He separated from the Army in June 1975 in the rank of sergeant and went back to college.

Colonel Kerrigan entered the Air Force in January 1979 from the Reserve Officer Training Corps at the University of Northern Colorado. His tours included Air Force Global Weather Central, Offutt AFB, Neb.; Operating Location A, 30th Weather Squadron, Camp Red Cloud Korea; Headquarters Air Weather Service, Scott AFB, Ill.; Det. 58, 5th Weather Sq., Butts Army Air Field, Ft. Carson, Colo; and the Air Force Space Forecast Center, Falcon AFB, Colo.

He assumed command of Det. 4, HQ AWS, Hurlburt Field, Fla., in April 1992. He was the last Det. 4 commander and became the first commander of the newly-designated Combat Weather Facility Jan. 19, 1995.

Colonel Kerrigan was born in Philadelphia, Pa., Jan. 28, 1951. He is survived by his wife, the former Cathy Parlapiano of Pueblo, Colo., and his two sons, Brian and Michael.

Services were held at the Mountain View Funeral Home in Colorado Springs, Colo., and he was laid to rest in Pueblo, Colo., Friday, Oct. 13.

Tech. Sgt. Stephen R. Bressie

Tech. Sgt. Stephen R. Bressie, 43, died Sept. 7, 1995, in Biloxi, Miss. Bressie was an instructor in the Weather Technician Course at Keesler AFB, Miss., and a resident of the Biloxi community since 1993.

Bressie enlisted in the Air Force as a weather observer in April 1977. He was assigned to Ft. Hood, Texas, and RAF Upper Heyford, England as an observer, then attended Forecaster School at Chanute AFB, Ill..

His assignments as a forecaster included Reese AFB, Texas; Ft. Rucker, Ga.; and RAF Greenham Common, England. Bressie then went back to Chanute to become an instructor, and moved with the weather school to Keesler AFB.

Bressie is survived by his wife, Sheena; a daughter, Morgan; two sisters, Barbara Mathis of St Louis, Mo.; and Carol Muenks of Clearwater, Fla.; two brothers, Thomas Bressie of St. Louis, Mo.; and Michael Bressie of Mobile, Ala.; and his parents, Robert and Gerda Bressie of St. Louis, Mo. The Funeral Mass was held at the Nativity of the Blessed Virgin Mary Cathedral in Biloxi, Sept. 11, 1995, and the burial service with full military honors was held at the Pinecrest Cemetery in Mobile, Ala.

U.S. Air Force Environmental Technical Applications Center officially becomes Air Force Combat Climatology Center

In an effort to better reflect the mission of the weather center, the U.S. Air Force Environmental Technical Applications Center officially became the Air Force Combat Climatology Center Oct. 1.

The name "Environmental Technical Applications Center" was first applied to the organization in 1964, before which it was called the "Climatic Center". The ETAC name implied the fact that the center's work encompassed more than climatology, but didn't suggest in any way that the bulk of the center's products are related to that discipline.

The new name highlights the center's primary function -- climatology -- and emphasizes that products are focused on enhancing combat capability.

Photo by SSgt. Steve Elliott

(Above) AWS Commander Col. Joseph D. Dushan passes the new AFCCC command guidon to Colonel Routhier. (Right) The new, as yet unapproved, AFCCC logo.

ROADMAP, Continued from Page 4

the way we perform AFW responsibilities.

These initiatives and others already in progress or in final planning stages will alter the way weather services are built and delivered to warfighting users at every echelon. Changes envisioned in this roadmap will touch every level of the weather business. The changes will be *evolutionary*, for the most part, and will mature over the next decade.

Your ideas, your skills and dedication, and your focus on producing the best quality weather services will be essential. Exciting and challenging? You bet! Embarking on the roadmap toward the AFW future is truly the next frontier. I am absolutely confident the AFW team will succeed brilliantly.

OBSERVATIONS, Continued from Page 19

Armada -- which lost most of its fleet in 1588 to violent storms -- to Desert Storm, where the Iraqis fired their Scud missiles only during cloudy weather."

In peacetime, weather also controls how and when pilots fly missions, where exercises will be held, and what type of gear will be needed.

"Pilots can't fly without weather briefings," said SSgt. Michael Bocchicchia, a forecaster with the 20th OSS weather flight. "Our job is to make sure all aircrews have weather information. The forecaster puts out a flying package that goes out to all the flying squadrons, letting them know about current conditions."

The weather flight also informs the base of severe weather in the area. When lightning is within three nautical miles, the word goes out to take any necessary precautions. There's also an ongoing watch for thunderstorms, tornadoes and hurricanes.

The tactical half of the weather flight uses much of the same equipment, only in a smaller, more mobile form.

Back home, with forecasts made every few hours, the base weather flight helps make decisions on whether the civil engineering squadron pours concrete, aircraft missions are flown or bombs hit their target – but you won't find any rocking chairs in this high-tech office.

"The wing's precision-guided munitions are highly weather-dependent. That's why 'electro-optic tactical decision aids' are one of our most important products," Nicol said. "Pilots using heat-sensitive and television weapon systems need to know what they and their weapon systems will detect when they arrive over a target. Fog, clouds, precipitation, and solar heating can have significant impact on the weapon's performance. You can't hit them if you can't see them!

"The bottom line is to ensure pilots get their bombs on target, on time."

Have a story to tell about your weather unit? Send it to: HQ AWS/RMA, 102 W. Losey St., Rm. 105, Scott AFB, IL 62225. Submissions can also be faxed to DSN 576-2417 or (618) 256-2417, or sent by electronic mail as a Word 6.0 document attachment to this address: "elliotts@hqaws.safb.af.mil".

Q&A, Continued from Page 3

back to the base weather station. Right now, we're just not using the meteorologists coming out of school to their maximum potential.

On the enlisted side, we're committed to the single career field. This is where we have a weather specialist progress from performing rudimentary weather tasks to perform the most complex as they progress in rank and skill level.

We're also looking at how AFW is moving towards the 21st century. One of the major paths we need to follow is through visualization of weather.

I see visualization as an opportunity for us to revolutionize the way we do business, not only in what we provide to the customer and to the rest of the warfighting community, but how we practice meteorology.

A picture is worth a thousand words. If we can use value-added graphics, we can reduce the time needed to accomplish different tasks.

Have a question for General Lennon? Write to: HQ USAF/XOW, 1490 Air Force Pentagon, Washington, D.C. 20330-1490.