

## PRESIDENT'S MESSAGE

---

*By Les Lemon*

As I write this we are awaiting an open military response to the 11 September 2001 terrorist attacks. Personally I worry about military actions growing to the point of involving other area nations and potentially another world war. We, of course, are also concerned with follow-on terrorist acts anytime, anywhere. These attacks could take one or more of several different forms. At this point, you might ask why I am mentioning these items in this letter. First, as with virtually everyone in the United States, the images of horror are still fresh in our minds. They are in mine, I assure you! Second, a significant number of our members may already be employed as military observers and forecasters to both our overseas missions and to those military activities at home. Additionally, some of those among us who are in the reserves may well have already been called up into active duty. Other reservists among our membership may also be called up soon as well. But even our civilian membership may well be an important line of defense should attacks come once again to the homeland.

For example, following the recent attacks we were contacted by a member, a Meteorologist/HazMat Specialist, who is also a firefighter and had been placed in command of two decontamination stations in New York City. He noted that meteorological instrumentation is important to HazMat operations. He even suggested that many members in our organization could be of assistance in helping small towns and suburbs of large cities obtain instrumentation and NOAA weather radios. He also pointed out that operational meteorologists could voluntarily serve as technical advisors to the local Emergency Management officers and to the firefighters who conduct decontamination activities.

Additionally, the nation's leaders are warning of attacks that could take the form of chemical or

biological terrorism. Either of these could involve airborne threats and these might be sensitive to certain temperature ranges or sunlight. Additionally, precipitation occurrence might either enhance or diminish the threat. And, almost certainly wind speed and direction will be crucial in the severity of the chemical or biological attacks, will likely control where the airborne threats are carried and determine who would be in greatest danger. As we have seen in Oklahoma City and now in New York City, weather conditions and forecasts are of critical importance to rescue efforts and clean up operations.

For these reasons, our membership may be needed as volunteers or called upon to serve their friends and family, community, regional and even national interests. I am confident that all of us, if needed, will gladly help in whatever capacity we can. And, as I asked in last month's letter, I again ask our membership to pray and support in other ways our country, its leadership and citizens, and to be ever vigilant and ready to serve.

### **>> IMPORTANT DATES <<**

1 December 2001 Special Conference on Weather Analysis and Forecasting Issues in the Central US at the University of Missouri-Columbia. See July Newsletter and <http://solberg.snr.missouri.edu/WAFICUS/>

13 – 17 January 2002 Interactive Symposium on AWIPS, at the AMS Annual Meeting at the Convention Center, Orlando, FL. Co-sponsored by NWA. See July Newsletter and <http://ams.confex.com/ams/annual2002/AWIPS/program.htm>

15 – 17 February 2002 1st Southeast Severe Storms Symposium at Mississippi State University hosted by the East Mississippi NWA/AMS Chapter. See page 4.

8 – 10 March 2002 27th Annual Northeastern Storm Conference in Saratoga Springs, NY, hosted by the Lyndon State College AMS/NWA Chapter. See page 4.

21 – 23 March 2002 6th Annual Severe Storms and Doppler Radar Conference in Des Moines, IA, hosted by the Central Iowa NWA Chapter. See page 4.

**19 – 25 October 2002 27th Annual NWA Meeting, Radisson Plaza Hotel, Fort Worth, Texas.**

### *NCEP Model Changes and Upgrades – Fall 2001*

The fall season brings a few major changes to the NCEP model production suite. After a delivery in late August of 32 additional computational nodes (equivalent to 128 processors) to NCEP's IBM SP computer, real-time testing of NCEP's new **Climate Forecasting Suite** began on 6 September 2001. The Climate Forecasting Suite will have exclusive use of these nodes. The NCEP climate model has been running on a routine basis to support the Climate Prediction Center's (CPC) seasonal climate forecasts since April 2000. In April 2001, its horizontal resolution was upgraded to T62, equivalent to approximately 210 km. This implementation will upgrade the running of the model to operational status to ensure the reliability and timely production of the seasonal climate forecast guidance to better support the operational missions of CPC. The climate suite is run each month and consists of a 20-member ensemble producing a 7-month forecast. Also, a 10-member ensemble of retrospective forecasts (hindcasts) for the past 21 years (1979-2001) is produced. The hindcasts are initiated in the same calendar month of each year as the current forecasts. This set of hindcasts is needed to produce a climatology of the model for the given month when the forecasts are initiated, in order to derive anomalies of the model forecasts to be used for CPC product generation. CPC forecasts use the gridded output along with statistical tools to generate the official multi-season climate forecasts. Official operational status is expected to be conferred on the Climate Suite on 7 November.

The other major change expected this fall is the increase in horizontal and vertical resolution of NCEP's Eta model. The horizontal resolution will increase from 22 km to 12 km and the vertical resolution will increase from 50 levels to 60 levels. Other changes to be implemented at the same time include the addition of NOAA-16 satellite radiances to the 3DVAR analysis code, a new gridscale cloud and precipitation scheme and extension of the 0600Z and 1800Z runs to 60 hours (from 48). It's expected that these changes will increase the likelihood that small-scale weather features will be depicted in the model initial conditions leading to better guidance. Model forecasts of surface winds and temperatures will be improved, especially where driven by complex terrain or coastlines (e.g., valley drainage and sea breezes). The new gridscale cloud and precipitation scheme eliminates grid point storms and precipitation fields that have a splotchy appearance. Parallel runs of the 12 km Eta have been running since late August. This implementation has been scheduled for 27 November 2001.

Output from these runs can be viewed at:

<http://www.emc.ncep.noaa.gov/mmb/mmbpll/etapll12/>

Verification scores from these runs can be viewed at:

<http://www.emc.ncep.noaa.gov/mmb/mmbpll/etaxstats/>

- Lauren Morone, NWS / NCEP

**Consider sharing your preliminary studies and new forecasting techniques on the *NWA Electronic Journal of Operational Meteorology*. See the latest entries at <http://www.nwas.org>.**

### *New Forecast Tool Gives Communities Critical "Heads Up" to Potential River Flood Threats*

NOAA's National Weather Service (NWS) has begun testing a new five-day flood outlook that identifies areas at risk of significant river flooding. The outlooks provide emergency managers and the public with a graphical display based on forecasts from regional river forecast centers and National Centers for Environmental Prediction (NCEP) meteorological models. Warnings and forecasts will continue to be issued by the NWS Forecast Offices.

Over the past 50 years, flooding has caused an average of almost \$4 billion in damages and took more than 100 lives per year in the United States – more than any other severe weather-related event.

The NWS will test the new outlook before making it operational by the end of the year. For the test phase that began on 1 October, all 13 river forecast centers covering the lower 48 states and Alaska will provide five-day flood outlooks for their areas of responsibility on their respective Web sites. An additional map showing flood potential for the contiguous 48 states will be available through the NOAA Weather Wire Service, Emergency Managers Weather Information Network, NOAAPORT, the Family of Services and the NOAA Web site.

The 13 river forecast centers throughout the United States enable the NWS to focus locally on unique hydrologic conditions, including the potential impact of future precipitation on river levels. During the winter, the effects of river ice, ice jams, and snowmelt will also be considered.

For more information about the product and links to the new flood outlooks, browse to: [http://www.nws.noaa.gov/oh/hic/Flood\\_Outlook/index.html](http://www.nws.noaa.gov/oh/hic/Flood_Outlook/index.html)

- NWS Public Affairs

### **NCDC Thunderstorm Publication**

---

A new publication is now available from NOAA's National Climatic Data Center entitled "*Thunderstorms across the Nation - An Atlas of Storms, Hail, and Their Damages in the 20th Century*." The Online Store cost for this publication is \$4, a 25% savings off the offline cost. You can place your order or learn more information about this product at Web site: <http://www.ncdc.noaa.gov/tatn.html>

The atlas has 100 pages with 77 graphs and maps and 33 photographs of storms and their damages. It is softbound and printed on glossy 8½ by 11-inch paper. It should be of interest to scientists, and to insurance and government staff who must deal with storm-produced losses. Anyone with an interest in weather will also find the document of great value. The author is noted climatologist Stanley Changnon. Professor Changnon recently celebrated 50 years as an atmospheric scientist and has more than 150 publications on this subject.

- NCDC News

## Autumn is in the air...

by Rich Apuzzo

The kids are back in school and my days are much quieter, which unfortunately gives me more time to think. Summer not only means that the kids are on vacation, but sometimes our on-air performance can take an unintended vacation as well. So, as we head through autumn and toward the all-important November Book, it's time to bring the focus back to improving our daily performance. I'm sure some of you think you're doing just fine and no work is needed in your broadcasts. If so, all you have to do is listen to the best in any profession and you'll learn that the most talented individuals find flaws in their work and know they have to try even harder to stay on top. In television there are a number of elements in our daily workload that might need a little fine-tuning, so in the coming months I'll provide some insights from my 15 years in five different television markets. I also encourage feedback from you with your experiences.

Get Smart(er)! The reason that the National Weather Association requires continuing education for seal recertification is because meteorology is not a science which can be learned in 4, 6 or 8 years at college. With new technology and forecast techniques, the art and science of forecasting and public warning is always moving forward. Not everyone has the opportunity or the finances to attend NWA annual meetings, but then that's not the only place you can learn, though I think it's the best. You might also try spending 3 days in Des Moines, Iowa next March where the folks from the Central Iowa NWA Chapter provide an excellent Severe Weather and Doppler Radar conference. Many other regional conferences are being planned as noted on page 4. If you can't travel, there are other ways to keep up to date including online training courses offered on the NWA Web site, plus hundreds of other weather Web sites that have data on everything from interpreting METAR to Doppler radar case studies of significant severe weather events. Don't have that much time to spend on the Internet? Then read by subscribing to one of the many outstanding weather publications available, whether it's the *National Weather Digest*, *Weatherwise* (which offers discounts to NWA members) or *Weather and Forecasting*, which is one of many journals from the AMS. No matter how you wish to approach it, one of the most important ways to keep up with the science and applications of operational weather is to invest some time in your own education and professional development.

Whether you are a meteorologist by degree, or one of many on-air weather anchors without a science background, you can still learn more and improve your forecasting skills, and that has two benefits. Your viewers get more accurate, reliable and understandable forecasts/warnings, and you help your career by being more weather savvy. It's also one of the things we look for when awarding NWA Seals of Approval.

Keep working to be your best! Send your thoughts to me at [skye@fuse.net](mailto:skye@fuse.net).

Since June 2000, the NWA Web site (<http://www.nwas.org>) has averaged 35,500 pages accessed (hits) per month. This value increased to near an average of 49,000 hits per month during the past six months. The jobs listing has consistently been the most accessed page (<http://www.nwas.org/jobs.html>) on the site, accounting for 20-25% of the total site hits.

During the month of April 2001, the NWA's Aviation Weather Committee produced a free outreach Web-based training course on "Thunderstorms and Flying" for the aviation community and all others interested. The course covered several topics related to thunderstorms and aviation, including basics of thunderstorm meteorology and flight planning tools and strategies. As a result of the course, the NWA Web site saw a dramatic increase in the number of hits during the month, and increases in the months that followed. The following table summarizes both the total site hits and hits to the "Thunderstorms and Flying" course pages at (<http://www.nwas.org/committees/avnwxcourse/index.htm>):

Month	Total Hits	Course Hits
Mar 2001	32,811	0
Apr 2001	69,525	43,860
May 2001	60,916	24,669
Jun 2001	47,710	13,595
Jul 2001	42,862	7,807
Aug 2001	37,574	4,583

Of the 69,525 hits during April, 43,860 were attributed to the course, representing 63% of the total hits for the month. May 2001 also showed an increase in hits, with 41% of the hits from the course (24,699 of the 60,916 hits). The most recent month, August 2001, indicates total hits nearing the average over the past several months. The Aviation Weather Committee intends to add more courses, which should see similar results.

- Steve Listemaa  
Home Page Advisory Committee

## MEMBER NEWS

Spencer Adkins, chief meteorologist of WOWK-TV in Huntington, WV has been awarded the Best Regularly Scheduled Weathercast for large markets by the West Virginia Associated Press Broadcasters Association (APBA) and the Best Regularly Scheduled Weathercast for medium markets by the Ohio APBA. The awards were given out in May and June. Adkins received the NWA Seal of Approval in August 2001.

## LOCAL CHAPTERS SPONSOR REGIONAL MEETINGS

---

**The First Southeast Severe Storms Symposium** sponsored by the East Mississippi Chapters of the NWA and AMS, as well as the Mississippi State University Department of Geosciences, will be held at Mississippi State University, Starkville, MS, 15 - 17 February 2002. This symposium will deal with the current challenges of forecasting all types of severe weather in the Southeastern United States. Registration and general symposium information is at the Web site: <http://www.msstate.edu/org/nwa>. Presentations on all aspects of severe weather in the Southeast, including forecasting, research, storm spotting, and broadcasting coverage are welcome. The deadline for abstracts is 11 January 2002. Abstracts should be submitted to: Southeast Severe Storms Symposium Committee, Department of Geosciences, PO Box 5448, Mississippi State, MS 39762. For further information contact Chapter President, Ryan Wade at 662-325-8417 or e-mail: [cat5hurricane@hotmail.com](mailto:cat5hurricane@hotmail.com); Dr. Michael Brown at 662-325-2906 or e-mail: [mebrown@ra.msstate.edu](mailto:mebrown@ra.msstate.edu); or Dr. Mark Binkley at 662-325-0939 or e-mail: [binkley@geosci.msstate.edu](mailto:binkley@geosci.msstate.edu).

**27th Annual Northeastern Storm Conference** sponsored by the Lyndon State College AMS/NWA Chapter will be held on the weekend of 8-10 March 2002 at the Holiday Inn in historic Saratoga Springs, New York. The deadline for abstracts is 30 December 2001. Be on the lookout for more information about the conference on Web site: <http://apollo.lsc.vsc.edu/ams> or contact Chapter President, Jason Furtado at Fax: 802-626-9770, ATTN: LSC-AMS/NWA or by e-mail at [ams@mail.lsc.vsc.edu](mailto:ams@mail.lsc.vsc.edu) or [furtadoj@mail.lsc.vsc.edu](mailto:furtadoj@mail.lsc.vsc.edu)

**Sixth Annual Severe Storms and Doppler Radar Conference** sponsored by the Central Iowa NWA Chapter will commence at 5:00 PM on Thursday, 21 March 2002, and adjourn Saturday, 23 March at 10:00 PM. This year, the Embassy Suites in downtown Des Moines, Iowa will host the event. All persons wishing to present materials of relevance should send a 200-word abstract by Friday, 18 January 2002 to: Central Iowa Chapter-NWA, P.O. Box 7512, Urbandale, IA 50322. E-mail entries will also be accepted at: [candersn@iastate.edu](mailto:candersn@iastate.edu). For further information see Web site: <http://www.iowa-nwa.com>.

## OFCM SPONSORED WORKSHOPS

---

The Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) is sponsoring a **WORKSHOP ON STRATEGY FOR PROVIDING ATMOSPHERIC INFORMATION: Planning to Exploit our National Investment in Weather Technology (3-5 December 2001)** and a **WORKSHOP ON EFFECTIVE EMERGENCY RESPONSE: Selecting a Suitable Dispersion Model for a Given Application (5-6 December)** at the **Crowne Plaza Washington National Airport Hotel, 1489 Jefferson Davis Highway, Arlington, Virginia**.

As the 21st Century approached, OFCM began an effort to reach out to the federal meteorological community to identify their priorities for the coming century. When that effort was

complete, there was a consensus among the federal agencies that executive-level strategic planning was needed in four major focus areas: environmental services and supporting research; environmental monitoring and prediction; technology innovation; and computing, communications, and information. Subsequently, the National Research Council published *The Atmospheric Sciences Entering the Twenty-First Century*, which assessed the scientific challenges, opportunities, and imperatives facing atmospheric scientists in the new century and served to reinforce the results of the OFCM outreach effort. Among the report's leadership and management recommendations was one calling on OFCM to "*lead a thorough examination of the issues that arise as the national system for providing atmospheric information becomes more distributed...and...develop a strategic plan.*"

Citing two consequences of the current information revolution — the availability of information on global information networks and computer-to-computer communications — the report noted that the US system for providing atmospheric information is undergoing rapid change and highlighted the need for strategic guidance. This Workshop will initiate the process of addressing that need. The Workshop will focus on the issue of how the ever-increasing inventory of atmospheric information (observations and products) can be accessed by those who need it by considering how to: 1) get the information to where it is needed and 2) insure that users can read and understand the information. Panels on the first day of the workshop will address these issues. Breakout groups will then consider the issue from the perspectives of three application areas — climate, urban meteorology, and technological hazards. Consideration of the cross-cutting issues of observation and instrumentation standards, formats, and communications will follow. Finally, a wrap-up session will take reports from the breakout groups and formulate next steps.

**A workshop on Effective Emergency Response will convene following adjournment of the Strategy for Providing Atmospheric Information Workshop.** This follow-on workshop will focus on selecting objective criteria to be used in screening dispersion models for application in likely scenarios and address methodologies for collection and display of model information to facilitate decision making.

Information on registration, hotel accommodations and other details is available on the Workshop Web site at [http://www.dc.net/stc/SAI\\_Workshop/main.htm](http://www.dc.net/stc/SAI_Workshop/main.htm). Please be aware that hotel reservations at the discount rate must be made by **18 November 2001**. Information on the Workshop on Effective Emergency Response: Selecting a Suitable Dispersion Model for a Given Application can be found at <http://www.dc.net/stc/ATDII/main.htm>. If you have any further questions, please contact Colonel Jud Stailey at OFCM by telephone (301) 427-2002 or e-mail [Judson.Stailey@noaa.gov](mailto:Judson.Stailey@noaa.gov).

## DC AMS Chapter Meeting

---

NWA members are invited to attend the District of Columbia Chapter of the AMS presentation "Educational Opportunities in the Atmospheric Sciences," hosted by the University of Maryland's Department of Meteorology on Thursday, 15 November 2001 beginning at 5:30 PM at the University of Maryland Computer and Space Sciences Building 224, room 2400. See Web site: <http://www.dc-ams.org>

## NEW WIND CHILL INDEX

---

Starting 1 November 2001, forecasters will use a new Wind Chill Temperature Index, designed to calculate a more accurate reading of how the cold air feels on the human skin.

Since 1945, the United States and Canada have used an index, which relied on observed winds 33 feet above the ground, and focused on how fast the cold temperatures—combined with winds—made water freeze. The new index accounts for the wind effects at face level, and a better calculation for body heat loss. For example, under the old index system, an air temperature of 20 degrees, with a 15 mph wind, translated into a reading of five degrees below zero. The new index calculation would translate the same conditions to six degrees above zero.

The new index is based on:

- Wind speed calculated at the average height of the human face, about five feet (the human face is most often exposed to the cold).
- An updated heat transfer theory, which factors in heat loss from the body to its surroundings during cold, windy days.
- A consistent standard for skin tissue resistance.
- Clear night sky conditions.
- A lowered calm wind threshold from four miles to three miles.

For the past year, the National Weather Service, acting on behalf of the U.S. Office of the Federal Coordinator for Meteorological Services and Supporting Research, has led a team of international scientists with the goal of creating an international standard wind chill index among the meteorological community. Last spring, the scientists conducted clinical trials and the results helped to verify and improve the accuracy of the new formula.

The new wind chill chart can be viewed at: <http://www.noaanews.noaa.gov/stories/images/windchillchart-2001.pdf>

- NWS Public Affairs

## NOAA Satellites Detect Drought

---

A new satellite-based method for early detection, monitoring and analysis of drought shows that nearly 20 percent of the world's landmass has been stricken by drought over the past two years. NOAA/NESDIS scientists in Camp Springs, Md., used solar radiation detected from an instrument onboard NOAA's polar orbiting satellites, called the Advanced Very High Resolution Radiometer. The solar radiation was observed in three wavelengths of the solar spectrum — visible, near infrared and thermal — to study vegetation health, moisture, and thermal conditions.

NOAA is providing information on drought to customers around the world. Many countries in Africa, Asia and North America experienced the effects of two-year droughts.

Long, intensive spring and summer dryness developed in the southern and western United States (and neighboring regions of Canada) during 2000 and 2001 with Texas experiencing severe droughts.

Satellite data identified large areas in the Northwest that were vulnerable to intensive fire activity. During the two-year period, active fires consumed large areas of forested land.

In the Horn of Africa, early drought signs were recorded in January 2000. Over the next four months, the drought expanded and intensified, creating food shortages and outbreak of disease that affected millions of inhabitants in Ethiopia, Somalia, Kenya and other regions.

In Asia, crop producing regions and rangelands of Afghanistan, Pakistan, Iran, India, Mongolia and China were severely hit by spring and summer dryness during 2000 and 2001. The worst situation was observed in Afghanistan and Pakistan where approximately 60 and 40 percent of these countries, respectively, suffer from intensive drought in 2001. Unusual summer dryness also affected countries in the Caspian Sea region.

The new method of drought detection and monitoring has been recognized by the global scientific and operational community and has been publicized by the NWA, American Meteorological Society, UN-based organizations and international remote sensing publications. NOAA's data are widely distributed to the United States and global institutions provided through the NOAA Web site: <http://orbit-net.nesdis.noaa.gov/crad/sat/surf/vci>. To learn more about NESDIS, please visit <http://www.nesdis.noaa.gov>.

- NOAA / NESDIS Public Affairs

## Summer 2001 is Fifth Warmest

---

The summer of 2001 was the fifth warmest on record in the contiguous United States, according to scientists at NOAA's National Climatic Data Center in Asheville, N.C. Using the world's largest weather database, NCDC scientists calculated conditions for the meteorological summer, June through August. The preliminary nationally averaged temperature was 73.6 F (23.1 C), which was 1.5 F (0.8 C) above the long-term mean. June through August temperatures have been above average in 11 of the past 15 years.

Temperatures were generally above normal nationally, however, cooler temperatures than average were seen in much of the Southeast. The summer's most notable heat wave in late July and early August began in the southern Plains and stretched into the upper Midwest, with higher-than-normal temperatures extending into the northeastern U.S. by the second week of August. Daily high temperatures in the 90s and 100s, combined with high humidity, led to dangerous heat stress levels and numerous heat-related deaths.

August 2001 ranked as the fourth warmest in written records. The preliminary nationally averaged temperature was 74.9 F (23.8 C), which was 2.1 F (1.2 C) above the long-term mean. Coastal California was notably cooler than average with slightly below-average temperatures widespread across parts of the South from Louisiana to Alabama. Much of the nation was warmer than normal, with monthly anomalies greater than 5 F in parts of the Northeast and West.

-- NOAA / NESDIS Public Affairs

NASA scientists have for the first time taken simultaneous high-altitude radar, temperature, and wind measurements that reveal the anatomy of hurricanes and shed light on what makes them intensify. The results could lead to better forecasting in the future. The activities were part of CAMEX-4 (The Convection And Moisture EXperiment), a joint effort between NASA, NOAA and a number of universities, that ended on September 24, 2001. Three flights over Hurricane Humberto in the last three days of the mission yielded the most comprehensive measurements of the structure of the hurricane ever recorded, according to NASA.

As Hurricane Humberto raged over the Atlantic Ocean, NASA's high altitude ER-2 aircraft used a downward-looking radar, called an ER-2 Doppler Radar (EDOP). From the ER-2's vantage of 12 miles (20 km) up, the EDOP uses the Doppler shift of rain and ice particles within clouds to measure rain intensity, air speed and velocity within the storm. NASA's ER-2 aircraft provides a unique perspective over the top of the storm and flies so high the pilot needs to wear a spacesuit. Earlier, on September 10, the ER-2 was used to drop temperature and wind sensors into the eye of Hurricane Erin. The sensors, called dropsondes, were automatically released from the plane by a computer-operated system. As they fell, the dropsondes tallied air temperatures and winds through the storm's eye, from the top of the hurricane to the ocean surface. Taking dropsonde readings at eight different locations in the hurricane helps develop a topographical temperature map of the storm. Hurricane Erin had a classic hurricane structure with a well-defined eye, and the new data will provide excellent baselines for figuring out how these storms intensify.

By using dropsonde measurements of winds, temperature, surface pressure and moisture, and then combining those readings with EDOP data of air motions and precipitation levels in those clouds, the researchers now have necessary data for assessing a hurricane's structure.

NASA Goddard Space Flight Center researchers will now use the new data to create detailed computer simulations of hurricanes. These models may help to better predict future hurricanes. The special dropsonde system was developed by the National Center for Atmospheric Research (NCAR), and installed onto NASA's ER-2 aircraft.

The Convection And Moisture EXperiment (CAMEX) was the fourth in a series of field research investigations sponsored by the Earth Science Enterprise at NASA Headquarters, Washington, DC. The mission united researchers from 10 universities, five NASA centers and NOAA. Based out of the Naval Air Station at Jacksonville, Fla., this year's mission ran from Aug. 16 through Sept. 24 — traditionally the most active part of the hurricane season. For further information on CAMEX-4 browse to Web site: <http://camex.msfc.nasa.gov>

- NASA / Goddard Public Affairs

**It's easy to submit news articles for the NWA monthly Newsletter — just send an e-mail to [NewsletterNWA@aol.com](mailto:NewsletterNWA@aol.com). With your help, we could send the Newsletters out earlier!**

(Ed: The NWA lists job openings free from equal opportunity employers for the benefit of members. See the Job section on the NWA Web site: [www.nwas.org](http://www.nwas.org) for more complete details on the following jobs, short notice listings and job links.)

**Department of Earth Sciences, Millersville University of Pennsylvania** has a position of *Assistant Professor of Meteorology* in the Department of Earth Sciences. Full-time, tenure-track, beginning August 2002. Teach the Synoptic Meteorology Lecture/Lab sequence, share teaching of lower and upper division undergraduate meteorology courses, and engage in research involving undergraduates. Candidate must hold a Ph.D. in Meteorology or Atmospheric Science, have experience in synoptic meteorology, demonstrate effective teaching and communication skills, and complete a successful interview and teaching demonstration. Teaching experience at the university level and a commitment to developing a research program involving undergraduates is preferred.

Millersville is a founding member of the UCAR Academic Affiliate Program and faculty continue to serve the community as members of the UCAR, Unidata, and AMS governing committees. Additional information can be found at Web site: <http://www.atmos.millersville.edu>.

Full consideration will be given to applications received by 25 January 2002. Send a cover letter, statement of teaching and research interests, curriculum vitae, copies of all graduate and undergraduate transcripts, and three current letters of recommendation to: Meteorology Search/UN1001, Department of Earth Sciences, P.O. Box 1002, Millersville University, Millersville, PA 17551-0302. An EO/AA Institution.

**Weather Derivatives** is looking for a *Quantitative Analyst* ("quant") with a minimum of 3 years Derivatives experience. The ideal candidate should be able to build models, program, and build systems. This group is involved in Modeling, Valuation, Risk and Trading of Weather Derivatives. We build our independent models to produce Weather Derivatives. Strong Derivatives experience a must; weather derivatives a plus. The ideal candidate will bring a strong systems background in C++, SQL, Matlab (a plus) and will be very hands on building systems. PhD required. Interested candidates please send Resumes to: Paul Ernst, Vice President, Optimum, 50 Broadway, New York, NY 10004, e-mail: [paul@optimumny.com](mailto:paul@optimumny.com); phone: (212) 472-1049

**North American Weather Consultants, Inc. (NAWC)** has an immediate opening for a *Staff Meteorologist* for its home office in Utah. This is an operations oriented position, with emphasis on forecasting and conduct of operational weather modification programs. The position requires a B.S. (M.S. preferred) in Meteorology or Atmospheric Science and solid computer skills. Prior weather modification experience would be a definite plus. Qualified candidates may submit a letter/resume to: North American Weather Consultants, 9678 South 700 East Suite 101, Sandy, UT 84070; e-mail [nawc@xmission.com](mailto:nawc@xmission.com); FAX: (801) 523-0825.

**Midwest Weather, Inc.** is looking for qualified applicants to fill the position of *Weather Observer* at their contract site in Providence, RI. The qualified applicant will have two years previous experience in taking surface weather observations for the Department of Defense. The ideal candidate will also possess NWS certification and have experience with ASOS. Send Resumes detailing previous experience to: Midwest Weather, Inc., ATTN: Eric Livingston, P.O. Box 1418, Saint Peters, MO 63376; e-mail: mwi@i1.net; FAX: (636) 928-0055.

**Global Weather Services Group of Futures World News (FWN)** has an opening for a *meteorologist*. Futures World News is the leading supplier of news and information to agri-business. Users and customers of Futures World News include producers, merchandisers, traders and government agencies. Meteorologists at FWN monitor and analyze weather and its impact on agri-business throughout the world's crop producing areas. Primary Job Duties include: Read and decode global weather data including Synoptic data, Metar, etc., and insure data are accurately decoded by automated systems. Analyze global weather patterns and automated forecast guidance material; forecast global weather events; and prepare and write stories describing weather events and forecasts for global crop producing regions. Position Requirements include BS in Meteorology or equivalent civilian or military experience; Ability to type; Strong skills using Microsoft Office, including Word and Excel. Hours: Evening shift, Sunday through Thursday (Noon to 8:30 PM). Agri-business experience is a plus. Please send resume to: Vic Cook, Managing Director, Futures Analysis and Research, Futures World News, Overland Park, Kansas at e-mail: vcook@fwn.com.

**Earth Satellite Corporation -- Weather Data Quality Control Scientist in the CROPCAST/Weather Services Department.** Earth Satellite Corporation, named in 2000 to the Maryland Technology's "Fast 50" list of fastest growing technology companies, is an innovative company, which for 30 years has conducted resource programs around the world for private and public clients. EarthSat has performed over 350 studies in the fields of forestry, land use, environmental analysis, change detection, GIS, military applications, mineral exploration and agriculture. EarthSat provides weather and agricultural information to more than 200,000 customers every day. CROPCAST integrates meteorological and high resolution satellite data with crop model simulations and ground inventories to provide continuously updated weather information to commodity traders, importers, exporters and food companies so they can better manage the impact of weather on their businesses. EarthSat Energy Weather clients include major energy conglomerates, utilities, trading houses, investment firms, and oil and gas producers/suppliers. The job description includes: performing quality control of historical weather data sets to ensure proper functionality; maintaining a global historical database; performing product development activities employing the historical database; cultivating working relationships between Earthsat and various domestic and international meteorological weather offices.

The position requires an MS in Meteorology and strong computer skills. Applications programming ability, attention to detail, and excellent writing and oral communication skills

required. The ideal candidate will thrive in a team-oriented, fast-paced environment. A working knowledge of Unix, PERL, FORTRAN, C, and shell scripting is a necessity.

Please send resume to: Earth Satellite Corporation (EarthSat), Attn: HR Department, 6011 Executive Blvd., Suite 400, Rockville, MD 20852; Fax: (301) 231-5020; or e-mail: hrdept@earthsat.com. When applying, please refer to job code: HEI07.

**Universal Weather and Aviation, Inc. -- Graphical Software Developer in the Information Services / Software Development Department.** Position number: E1-91.

This individual will provide a critical role in the development, maintenance and support of meteorological applications including graphing and mapping applications to support Web-based delivery. Emphasis will be on enhancements and customization for GEMPAK and McIDAS meteorological software packages. There will be regular interface with help desk, marketing, and the original designer to analyze bugs, needs, and requirements. Individual will then design and develop procedures, patches, upgrades, or new software as necessary ensuring that there is integration with other Universal services.

Individual must possess at least 6+ years software systems engineering experience including 4+ years UNIX/C/C+ development experience and a strong UNIX (Solaris 8.0) background. Prior experience with GEMPAK and McIDAS meteorological applications and Fortran programming languages is required. Development experience with Perl, TCL and HTML is a plus. Due to the nature of the position, this individual must have the work schedule flexibility to accommodate project and user requirements, which may include extended hours. Because this is a user-interface position, strong communications and interpersonal skills are beneficial. This is also a position requiring self-initiative and the resolve to meet schedules with minimal supervisory intervention. Having a background or general interest in aviation and/or meteorology is desirable!

Please contact: Susan Kennedy; Senior Manager, Human Resources; 8787 Tallyho; Houston, Texas 77061; e-mail: skennedy@univ-wea.com. Web site: <http://www.univ-wea.com>

**NWA Newsletter (ISSN 0271-1044)**

Editors: Frank Brody, Larry Burch and Eli Jacks

Publisher: Kevin Lavin, Executive Director

Published monthly by the National Weather Association (NWA), 1697 Capri Way, Charlottesville, VA 22911-3534  
Tel/FAX: (434) 296-9966; e-mail: NatWeaAsoc@aol.com  
Web site: [www.nwas.org](http://www.nwas.org)

Submit newsletter items directly to: Editor NWA Newsletter, Frank Brody at [NewsletterNWA@aol.com](mailto:NewsletterNWA@aol.com); Eli Jacks at [Elliott.Jacks@noaa.gov](mailto:Elliott.Jacks@noaa.gov); Larry Burch at [Larry.Burch@noaa.gov](mailto:Larry.Burch@noaa.gov) or to the NWA office. Material received by the 5th will be considered for that month's issue.

Members receive the monthly NWA Newsletter and quarterly *National Weather Digest* as part of their regular, student or corporate membership privileges. Contact the NWA office or view the Web site for membership information. Newsletter subscriptions are available at \$18.00 per year plus extra shipping costs outside USA. Single copies are \$1.50. Contact the NWA office with address changes by phone, regular mail or e-mail.



# NWA GUESTBOOK ENTRIES at WWW.NWAS.ORG

The following are sample entries from the NWA website Guestbook from the last few months. Names and e-mail addresses have been deleted.

Looking for weather reports for class. I enjoyed your site.  
Fresno, CA

I am looking for educational summer programs in meteorology or related fields for my 15 year old daughter, Jennifer. She is interested in the sciences especially weather.  
Glendale, AZ

I really like this website. It was very informative. I plan on becoming a member.  
Kewanee, IL

Nice web site! I plan on joining! Director, Bibb County Emergency Management Agency  
Centreville, AL

I would like to say that this is the coolest weather and meteorology website on the Internet.  
Fairmount, GA

Very usable site. This is my first visit. I plan to become a member.  
Fort Collins, CO

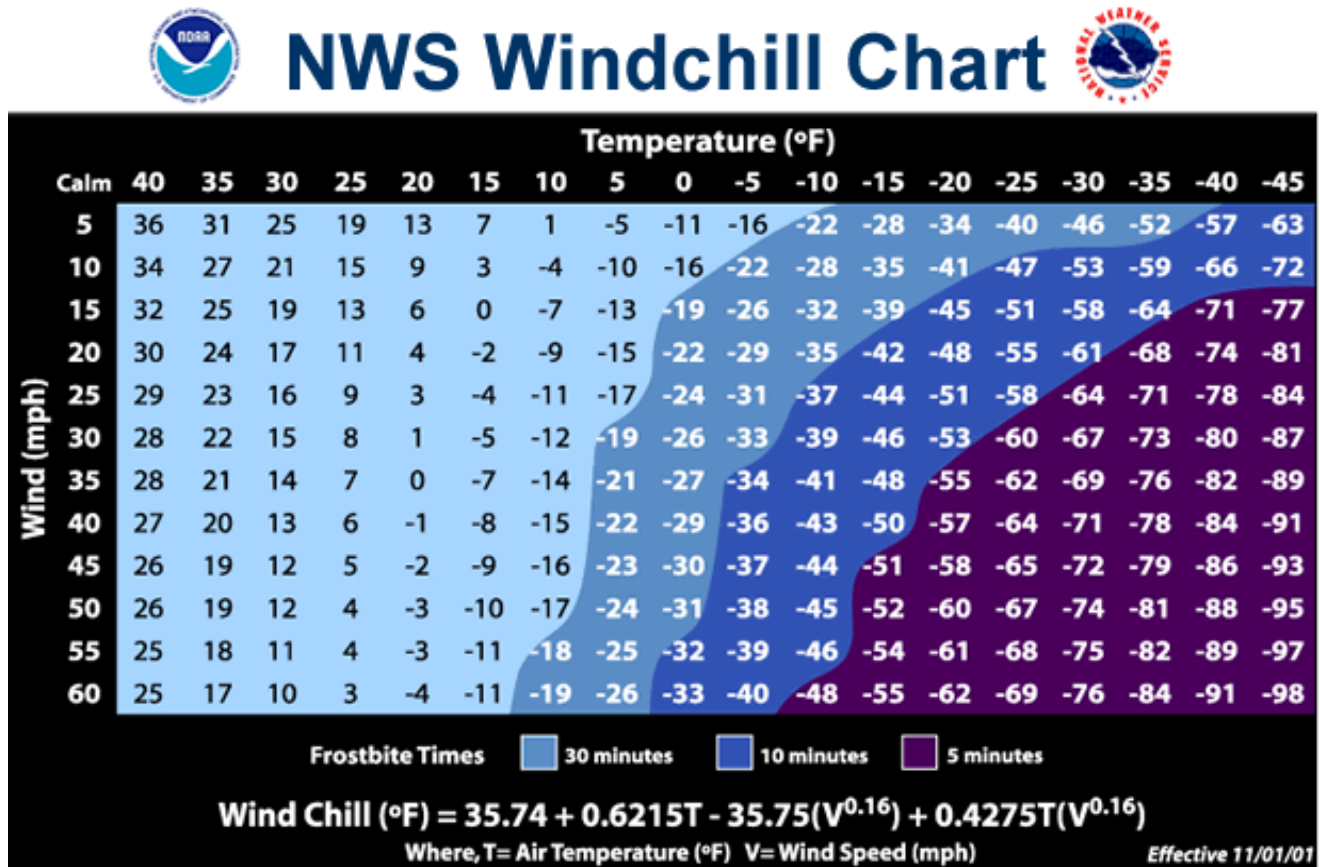
The Thunderstorm and Flying Course has been superb, particularly with the numerous web links. I have been a subscriber to Weatherwise for quite some time and do appreciate your association with them for subscriptions! Looking forward to more Aviation Courses!  
Northville, MI

I'm a Sky-warn spotter in my state, and a weather photographer, (the good and the bad of it) And I just enjoy finding weather sites. This is a particularly good one. I especially like to read Dr. Gray's Hurricane predictions  
Indian Head Ave., MD

Hi! Stumbled across your page via, I believe, Google. Cool Stuff! North Creek, MA

## NEW WIND CHILL CHART

(See article page 5)



NATIONAL WEATHER ASSOCIATION  
1697 CAPRI WAY  
CHARLOTTESVILLE VA 22911-3534