PRESIDENT’S MESSAGE

It is hard to believe that we are already four months into 2007, and that spring is making its presence felt around the country. The passage of time is a reminder that our 2007 Annual Meeting is now only about six months away, and the NWA staff, Council, and many committee members are already hard at work making plans and developing a program that will lead to yet another outstanding event.

Our theme for the 2007 Annual Meeting is “Building the Bridge from Best Forecast to Best Response.” My previous President’s Message related to this theme. When weather forecasts and warnings are accurate, but public response is not and lives are lost, what can be done to improve the entire system? How can we improve the entire system when people know what to do, but the forecast is not accurate or does not reach them in time? Better forecasts, communications, education, and partnerships are needed, and we are hoping that many members and guests can present papers on these subjects at the Annual Meeting. This year’s Program Committee chair is Randy Graham, the Science and Operations Officer of the NWS Weather Forecast Office in Salt Lake City. He is being assisted by Bryan Karrick, Greg Carbin, Tom Hultquist, Chris Smallcomb, NWA committees and other volunteers. Local arrangements for the Annual Meeting activities, and other planned events such as the annual golf outing and special outreach meetings, are being handled by NWA committees and the NWA staff with assistance from a number of volunteers. These volunteers include our Membership and Marketing Committee Chair (and resident golf expert) Betsy Kling. All of these individuals, along with Council members including Vice-President Lans Rothfusz, who serves as the Council liaison to the annual meeting program committee, will be working together to get us ready for a very informative and entertaining conference.

As president, it is my privilege to invite to the Annual Meeting keynote speakers as well as speakers on special topics. I will be working with the Council on this in the coming months, and this item will be on the agenda at the upcoming midyear Council meeting in Raleigh in May. Special topics that we will be investigating for presentations at the Reno meeting include climate change, remote sensing, and many others. I would certainly like to hear from the membership about particular areas of interest you would like to hear about at the meeting. If you have any suggestions, please drop me a note at president@nwas.org. The deadline for abstracts of 1 June is already approaching. Now is the time to make your plans to present your work at the premier event in operational meteorology. See page 7 for more information.

Other exciting developments continue in the organization, including improvements to our publications and Web site. As I mentioned, your Council will be meeting in Raleigh during the middle part of May to get the latest information on all initiatives and to set our agenda for the rest of 2007. We always welcome input from the members on what you would like to see from your National Weather Association. It is your organization, and the staff and Council are here to serve you. Whenever you have thoughts or suggestions regarding the association, please feel free to write me a note at the e-mail address listed below, or contact any Council or staff member. All of our contact information can be found on the NWA Web site (www.nwas.org) in the “How the NWA Works” section.

- Alan Gerard, president@nwas.org

In This Issue

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 NWA Annual Awards</td>
<td>3</td>
</tr>
<tr>
<td>Fog &amp; Low Cloud Product</td>
<td>4</td>
</tr>
<tr>
<td>News from the Aviation Committee</td>
<td>4</td>
</tr>
<tr>
<td>Graphical Marine Forecasts</td>
<td>5</td>
</tr>
</tbody>
</table>
Meteorology Publishing Milestone

Colleagues, friends, and family of Don Ahrens gathered in Modesto, CA, on February 24 to celebrate the 25th anniversary of publication of the first edition of "Meteorology Today.” The highly popular introductory meteorology college textbook was first published in February 1982. Its success resulted in follow-up editions, with the eighth edition being published this year.

Along the way, another book, “Essentials of Meteorology” was developed by Ahrens, now Professor Emeritus at Modesto Junior College in California. The fifth edition of the Essentials book was also published in early 2007.

Pictured is Don Ahrens (left) and book illustrator Charles Preppernau.  - Bob Robinson, Clearwest, Inc.

CALL FOR PAPERS –
THE NWA METEOROLOGICAL SATELLITE APPLICATIONS AWARD

The Meteorological Satellite Applications Award was established by the National Weather Association (NWA) in 1999 to stimulate interest and foster the study and use of satellite remote sensing data in weather analysis and forecasting. Undergraduate students are invited to write an original paper on meteorological satellite applications. Themes of the papers may include original research, case studies, development of a technique or algorithm or a survey of applications. The recipient of the award will receive a Grant of $500, and free registration and travel support will be provided for the award winner to present their paper at the NWA Annual Meeting. The student must be enrolled as an undergraduate at the time the paper is written and be in good academic standing at the college or university attending. The student must be a U.S. citizen or hold permanent resident status.

Submission of Papers: Student papers should not exceed ten (10) pages including figures, photographs and appendices.

Candidate authors should submit:

- an original and three copies of their paper
- a letter of application with the paper title, university affiliation, and contact information including mailing address, phone, fax, and e-mail address if available
- a letter from their Department Head or other faculty member that confirms the student author was an undergraduate when the paper was written and that the student is in good academic standing at the college or university attending. Additionally this letter should highlight the original research or contributions the student has made to this paper.

Submissions should be sent by 15 June 2007 to:
National Weather Association
Attn: MetSat Applications Award
3794 Cluny Point
PO Box 342B
Lakeville, NY 14480-0911

A formal announcement of the recipient of the award will be made in October 2007 at the Annual Meeting (and earlier to the individual).

We Need Your Help!

The end of the school year is nearing for those in grades K-12.

Please inform K-12 teachers in your area that $500 grants are available from the NWA.

Applications for the Sol Hirsch Education Fund Grants are due by 1 August 2007.

Applications are located at www.nwas.org/solhirsch.html.
Call for Nominations for the 2007 NWA Annual Awards

The National Weather Association (NWA) began its annual awards program in 1977 to provide deserved recognition to those individuals involved in operational activities. The NWA Annual Awards Program recognizes the professional as well as the volunteer. The emphasis is on the people who perform the day-to-day tasks of providing meteorological information and weather support services to the public.

Please review the award categories carefully and use the category most appropriate for the nomination being submitted.

Award Categories are:

Operational Achievement Individual Award: This award is presented to a NWA member who has made a significant contribution to operational meteorology. This could be for an accurate and timely forecast for one or more significant weather events or for long-period achievement in operational weather support or related activities.

Operational Achievement Group Award: This award is presented to a group of two or more individuals for a significant contribution to operational meteorology. At a minimum, a majority of the group (greater than 50%) must be NWA members.

Member of the Year Award: This award is presented to a NWA member who has made significant contributions to the organization over a period of time.

T. Theodore Fujita Research Achievement Award: This award is presented to a NWA member whose research has made a significant contribution to operational meteorology.

Broadcaster of the Year Award: This award is presented to a NWA member Radio or Television weathercaster, or other member of the broadcast media, whose activities have significantly contributed to the development and presentation of quality and timely weather information to the public service. Radio and Television weathercaster candidates must be current NWA Seal of Approval holders and have had the NWA Seal of Approval for at least one year prior to being nominated for this award.

The Larry R. Johnson Special Award: This award is presented to an individual or group to recognize unique events or extraordinary accomplishments, which significantly contributed to operational meteorology.

Walter J. Bennett Public Service Award: This award is presented to an individual or organization directly assisting the meteorological community in providing weather-related information to the public. Individuals and organizations in the meteorological profession are ineligible for this award.

Public Education Award: This award is presented to an individual or organization providing significant contributions to increase the public's weather awareness.

Local Chapter Award: This award is presented to a Local Chapter of the NWA whose activities have significantly increased awareness of the weather and of the NWA in their local area.

Aviation Meteorology Award: This award is presented to an individual or group to recognize significant contributions to aviation meteorology, such as impact of operational forecasts on aviation operations or advances in aviation meteorology including research in detection and forecasting of aviation hazards.

Other Special Achievement Awards are detailed on the NWA Web site at: www.nwas.org/award.html. Names of previous annual award winners and additional award information are also available on that Web site.

Submitting Nominations: Please use the award cover sheet that can be copied from the NWA Web site at: www.nwas.org/award.html or sent via Fax from the NWA office (call: 919-845-1546), attach a narrative nomination (up to two pages in length) with no more than three supporting letters of endorsement. Nominations should be mailed by 1 July 2007 to:

NWA Awards Committee
Daniel McCarty, Chairperson
228 West Millbrook Road
Raleigh, NC 27609-4304

Although there is no rigid time requirement for the awards, it is preferred that the accomplishment, if not on a continuing basis, occur within 18 months prior to the nominations. Self nominations will not be accepted. If the nomination is not selected as the winner, it will remain a valid nomination for two additional years unless the nominee(s) are no longer in positions applicable to the award. The nomination may be updated by the submitter in each of those additional two years. Presentation of the annual awards for 2007 will be made at the NWA Annual Meeting, Awards Luncheon, 17 October 2007, at the Circus Circus Reno in Reno, Nevada.

Chapter News

The Three Rivers Chapter of the NWA welcomed Neil Barton, California University of Pennsylvania alum and current Ph.D. candidate at the University of Delaware, to be the second spring Colloquium Speaker on March 2, 2007. His presentation titled The Winter North Pacific Jet Stream, Teleconnections, and Precipitation along the United States West Coast, related to his Master's thesis research at Arizona State University. Mr. Barton also discussed various graduate programs with prospective graduate students, and answered questions proposed by faculty and students alike.

On March 23, the Chapter traveled to Buffalo, New York, to visit Robert Hamilton at the Buffalo National Weather Service. Chapter Advisor Dr. Kaufman and ten students toured the office and gained insight into the life of a NWS Forecaster. Highlighting the trip, Mr. Hamilton presented the office's research pertaining to thunder snow events in Buffalo. Chapter members were also briefed on the forecast applications of the AWIPS system during their visit. The hands-on experience allowed chapter members to relate in-class knowledge to a real world environment.

- Michael J. Allen, Secretary
Satellite Remote Sensing of Fog and Low Clouds

Fog and low ceilings are a major cause of airline delays, as well as aviation accidents and fatalities, especially for general aviation. Fog also has a significant impact on both land and maritime transportation. For example, in 2001 there were more than 670 highway fatalities in the United States due to accidents caused by dense fog (with visibilities of ¼ mile or less). Satellite remote sensing is an important tool in the detection and short range forecasting of fog and stratus, since the METAR network is often not sufficiently dense to show the true extent of the hazard or in some cases, to even detect its presence. This article will briefly describe the current methods used in satellite detection of fog, and provide a glimpse of improvements expected with future spacecraft.

Since fog over land develops primarily during the late-night and pre-dawn hours, infrared (IR) techniques are critical in observing fog formation, while visible imagery helps to monitor the extent and dissipation of fog after sunrise. Pattern recognition using single channel IR images was replaced by superior two-band methods following the launch of the advanced GOES I satellite in 1994. The temperature difference between 11mm and 4mm IR bands forms the basis for the technique, which is very effective for a wide range of temperature and surface conditions, provided the fog is sufficiently thick and extensive enough to be observed by the 4 km IR resolution GOES. Fog in narrow mountain valleys is often not observed by GOES for this reason. Higher-based stratus clouds appear similar to fog or low stratus, and thus require some user experience for proper interpretation. Similar IR channels from the Advanced Very High Resolution Radiometer (AVHRR) on the NOAA polar-orbiting satellites provide superior quality images for fog detection due to their high spatial resolution (1 km). However, due to infrequent sampling (6-hourly at mid-latitudes), the AVHRR products are normally used to supplement the 15-minute interval GOES data over CONUS.

Prediction of fog clearing time is an important forecast problem that can be aided by pre-dawn estimates of fog thickness based on IR data. After sunrise, the brightness difference between the fog and surrounding cloud-free areas can also help estimate dissipation time. Since fog usually dissipates from the outer edges inward, the location of an airport relative to the fog edge helps determine approximate burnout time.

The GOES two-channel IR fog image is available on the Advanced Weather Interactive Product System (AWIPS) at NWS offices. It can be identified as “11u – 4u” on the satellite image menu. An impending improvement to the AWIPS fog product will show areas where ceilings below 1,000 feet (and often fog) are likely.

Both of these images are also available on several Web sites. A satellite-based tool for detecting both marine and continental fog, known as the “Fog Monitor,” has been available on AWIPS since 2005. It provides the likelihood of fog at any location within a WFO warning area both day and night.

Looking into the future, the GOES-R Advanced Baseline Imager will provide the capability for markedly improved fog detection due to increased resolution in the IR (2 km) and Visible (0.5 km) channels, and routine 5-minute coverage over CONUS. The figure below compares a simulated GOES-R fog image derived from NASA EOS Terra data, with GOES-10 for dense fog in the Salt Lake Basin at 0515 UTC, 20 December 2004.

For a longer version of this article with links to resources, including links to current fog and low cloud images, please go to the Remote Sensing Committee’s training and education Web page: http://www.nwas.org/committees/rs/train.html.

-Gary Ellrod – NWA Remote Sensing Committee

Aviation Meteorology Committee

The Aviation Meteorology Committee is continuing its work on Weather Theory for Pilots, a project to help General Aviation pilots better understand and apply weather theory and forecasts to their flying activities. Committee members Terry Lankford, Tim Oram, Jeff Tongue and Jonathan Slemmer are working on this program. NWA members interested in reviewing the program are invited to contact Terry at t.t.lankford@comcast.net.

The Committee is organizing an Aviation Weather Safety Seminar for pilots to coincide with the Annual Meeting in Reno. Tentatively, this 6-hour program will be held on October 13 or 14. Anyone interested in making a presentation should contact Terry.

The Committee has openings for additional members. If you have an interest in Operational Aviation Meteorology, please contact Terry or a Committee member.

-Terry Lankford, Chair Aviation Meteorology Committee

Editor’s note: Terry Lankford was recently named the Chair of the Aviation Meteorology Committee. Congratulations Terry!

Learn more about NWA Committees at nwas.org/committees/committees.html
Graphical Marine Forecasts – New Tools and a New View

Over the past several years, the NWS has developed the Interactive Forecast Preparation System (IFPS), which allows the forecaster to prepare a forecast using gridded information. It provides a new way to present and develop better marine forecasts at the Weather Forecast Office (WFO).

Using IFPS has changed the way forecasters are doing marine forecasts. Before IFPS, forecasters would typically examine the models, develop their forecast and then translate the wind and seas forecast into a worded product. With IFPS, the forecast process has become more detailed and methodical. The first step usually begins with populating an objective wind analysis into the gridded database, and then incorporating model forecast output. Second, one or more numerical gridded fields are loaded into the database and a weighting smart tool is often used to produce a model consensus, or to put more emphasis on one model over another. The third step involves populating wave model output from the NOAA WaveWatch III model into the wave grids. Forecasters then use the Graphics Format Editor (GFE) associated with the IFPS to improve on model output. Other forecaster derived grids can search for wind and sea values that meet hazard criteria helping forecasters pinpoint when and where watches, warnings or advisories are necessary over the forecast domain.

On many occasions in the Northeast Florida and Southeast Georgia coastal waters, the Global Forecast System (GFS) model does not accurately reflect nocturnal southwest flow events, which are usually between 15 to 25 knots during the summer months. Therefore, adjustments in the wave grids are usually needed because the GFS is the primary wind input to the Western North Atlantic Wave model (WNA). This WNA wave model is one of the subsets of the general NOAA wave model. The gridded guidance has helped forecasters identify these model biases and make improvements to the forecasts. Wave models also suffer some skill in the nearshore waters where shoaling and wave dissipation are difficult to model. The forecaster can now apply this knowledge with a gridded database to develop improved forecasts that benefit the marine community.

The implementation of IFPS has resulted in significant changes in the Great Lakes marine forecasting process and its end products. Unlike in the past when a forecaster subjectively determined the best wind forecast over the Near Marine Zone (NMZ), IFPS allows the forecaster to graphically display the winds at all points over the entire NMZ. Winds are a very important component of wave forecasting on the Great Lakes where each WFO has use of the GLERL (NOAA Great Lakes Environmental Research Laboratory) wave model. Using IFPS and this wave model, with detailed forecaster derived wind and stability fields as input, has resulted in significant improvement in wave forecasts on the Great Lakes. On the West Coast of the United States, IFPS has revolutionized the way marine forecasts are created as well as the way these forecasts can be used by marine customers. Up to seven different sets of grids are used to describe the sea state in the NWS Western Region. These parameters are wind (direction and speed), wind wave height, swell, swell period and combined sea height. Also, during mixed swell episodes, a secondary swell train may be described using the swell2 and period2 grids. With all these different parameters available in gridded format, a very detailed depiction of the sea state can be communicated to the educated marine customer. The increased amount of information available to the mariner is superior to what was conveyed via text forecasts prior to IFPS.

Various “smart tools” are available to forecasters with the GFE for manipulating marine grids. For example, the “pencil tool” allows the forecaster to edit gridded data with a high degree of precision. Also, the “model/forecast blend” tool works well in allowing the forecaster to blend the current forecast grids with newer model runs. Thus, this blend tool is serving as a highly effective technique for adjusting the current forecast towards the latest model guidance. The “Text Formatters” are used to generate the text forecasts from the gridded database. Editing of the automatically generated text is sometimes necessary in order to highlight varying conditions in certain portion of a marine zone, for example, higher conditions near a particular point or cape. The use of “local effects” tools in the formatters establishes areas of persistent localized conditions that vary from the predominant conditions.

Nearshore wave models are also under testing on the west coast that can incorporate wind grids from forecasters to produce detailed winds wave and swell forecasts. The nearshore models are being nested in order to provide bar forecasts for the often treacherous harbor crossings.

These IFPS forecasts are becoming more important given the proliferation of Internet access by mariners at home, at the marina (via Wifi and marine weather kiosks), and while on the near shore waters via air cards. The grids are also displayed as “snapshot images” on the Web. These images show a more detailed depiction of the forecast conditions than the single range of values given in the traditional worded Coast Waters Forecast. The grids can also be displayed as meteograms, and IFPS output can help with specific forecasts for ports and marinas with a high concentration of commercial/recreational marine traffic. Overall, the use of IFPS has created a new way of presenting and developing better marine forecasts at the WFO level. The IFPS national marine graphical forecasts can be viewed at the Web site listed below, and more links can be found at www.nwas.org/committees/smos/.

www.nws.noaa.gov/forecasts/graphical/sectors/conus
MarineWeek.php
- Specialized Operational Services Committee, Marine Section
In Memoriam

David L. Covney (1918 – 2007), a charter member of the NWA, passed away on March 5, 2007 at his home in North Valley Stream, NY, from complications of a stroke. Mr. Covney began his meteorological career when he enlisted in the Army Air Forces in 1942 after studying chemistry at Boston College and the University of Chicago. In 1950, Mr. Covney and his wife Rose moved to Long Island where he began working for the U.S. Weather Bureau, now the National Weather Service, at Kennedy airport, which then held the name of Idlewild Airport. From 1972 to his retirement in 1979, he served as the chief of weather service operations for the NWS Eastern Region.

Mr. Covney was the first person to use satellite images to guide trans-Atlantic flights away from bad weather, and in 1968 was awarded the Department of Commerce’s Silver Medal for reproducing weather satellite images for commercial pilots headed for Europe. In a citation, the department called the breakthrough an “outstanding achievement” that saved countless flights from encountering unpredictable, potentially fatal storms over the Atlantic.

A devout Catholic and former copyboy for The Boston Globe, he took over editing the monthly newsletter for the St. Boniface Parish in Elmont, NY and turned it into a 16-page must-read for parishioners, said Msgr. Peter Ryan.

Mr. Covney is survived by daughters Elizabeth Covney of Seattle, WA; Rosemary Hillengas of East Greenbush, NY; Kathleen Bertuglia of Babylon, NY; and Carolyn Covney of Jamesville, NY; his son David L. Covney, Jr., of Niskayuna, NY; six grandchildren and his sister Mary McSharry of Rockland, MA. Memorial donations may be made to the Helen Keller Services for the Blind, 1 Helen Keller Way, Hempstead, NY 11550.

Information for Mr. Covney’s in memoriam was taken from an article published in Newsday March 7, 2007 and written by Michael Amon. Thanks to Fred Zuckerberg for bringing this to our attention.

Harry S. Hassel (1938-2007), former director of the National Weather Service (NWS) Southern Region Headquarters, passed away on March 19, 2007. Mr. Hassel graduated from the University of Utah in 1964 with a Bachelor of Science degree. During his 36-year career with the NWS, Mr. Hassel served in many positions including deputy director of the Western Region, and director of both the Eastern and Alaska Regions before becoming director of the Southern Region in 1990. Mr. Hassel retired in January 1998.

He is survived by his wife Jutta, his son, Jeff Hassel & wife Kathleen, daughter Andrea Eastham & husband Lyle, son Toby Hassel & wife Val, six grandchildren and brother Daniel Hassel. A memorial service was held on Thursday, March 22 in Houston, Texas.

Professional Development Opportunities

- The 2007 NOAA Stakeholder Forum will be held 23 May 2007 at the Hyatt Regency Crystal City at Reagan National Airport, 2799 Jefferson Davis Highway, Arlington, Virginia. Please join us to discuss some of the nation’s most urgent environmental challenges, network with colleagues and NOAA executive leadership, get the inside information on NOAA’s current strategic direction, and help shape NOAA’s strategic priorities. At this event, NOAA will be interested in understanding your organization’s views on NOAA’s response and contribution towards: Societal demands for climate information services; Research and technological challenges to improving extreme weather forecasting and prediction; Decision support services for hazard resilient communities, commerce, and transportation; and Ecosystem-based management in an era of increasing pressure on ocean and coastal resources. NOAA uses your input to identify and understand external trends and determine how to best respond through NOAA’s premier environmental science, technology, and information services. The deadline to register for the forum is 1 May. To register, or to learn more about special room rates, go to http://noaregistration.fedworx.org, or contact Rose Dyson at 301-713-3318, rose.dyson@noaa.gov.


- The 11th High Plains Conference will be held 16-17 August 2007 at the Wilson Center on the campus of Hastings College in Hastings, Nebraska. This conference is sponsored by the High Plains Chapter of the NWA/AMS. Please monitor the chapter Web site www.highplains-amsnwa.org/ for information regarding the conference.

- The 32nd NWA Annual Meeting will be held 13-18 October 2007 at Circus Circus Reno in Reno, Nevada. Abstracts are due by 1 June 2007. See the NWA Web site at www.nwas.org and page 7 of this Newsletter for further information.

2007 Awareness Events

Hurricane Preparedness Week
May 20-26
www.nhc.noaa.gov/HAW2/english/intro.shtml

Rip Current Awareness Week
June 3-9
www.ripcurrents.noaa.gov/

Lightning Safety Week
June 24-30
www.nwas.org/links/lightning.html
32nd NWA ANNUAL MEETING
PLAN NOW TO ATTEND!

Call for Abstracts

The National Weather Association's 32nd Annual Meeting will be held at CIRCUS CIRCUS RENO, in the heart of downtown Reno, Nevada, from 13-18 OCTOBER 2007.

THEME: Building the Bridge from Best Forecast to Best Response.

The Annual Meeting Program Committee Chair is Randy Graham, the Science and Operations Officer at the NOAA/NWS Forecast Office, 2242 West North Temple, Salt Lake City, Utah 84116; (801) 524-5141; annualmeeting@nwas.org.

The Broadcaster Workshop Program Chair is Bryan Karrick, NWA Councilor and KCCI-TV meteorologist, 888 Ninth Street, Des Moines, Iowa 50309; bkarrick@hearst.com. Contact them with your suggestions and to volunteer to help with the program.

Professional Development Opportunities will include:

13 October, Saturday: On-site registration will begin, training may be offered by corporate members, exhibits will set up, and the sixth annual golf outing in support of scholarships will occur, weather permitting.

14 October, Sunday: WEATHER BROADCASTER WORKSHOPS will include special presentations, exhibits and hands-on workshops appropriate to continuing education for weathercasters, but open to all interested. The annual TAPE SWAP will be on Sunday evening.

15 - 18 October, Monday - Thursday: ANNUAL MEETING GENERAL SESSIONS will include a mix of formal presentations, poster sessions, training workshops, exhibits and panel discussions on a wide variety of topics relating to OPERATIONAL meteorology, hydrology, weather broadcasting, new research applications, user concerns and the main theme. A session is also being considered on societal impacts regarding changes in day-to-day weather and water resources due to climate change.

Student presentations will be reviewed by the NWA Weather Analysis and Forecasting Committee members and monetary awards will be presented to the best in undergraduate and graduate student categories.

The NWA Annual Awards Luncheon will be at Circus Circus Reno on Wednesday, 17 October 2007.

Abstract Submissions: The deadline for submission of abstracts is 1 June 2007. Abstracts should be sent via the online form on the NWA Web site at: www.nwas.org/2007abstracts.html. Please fill out the form in its entirety (you may cut-and-paste your abstract from your word processing program into the form), and click on the Submit button at the bottom of the form. Abstracts will be published in the Meeting Agenda as submitted, so please make sure that they have been carefully reviewed and edited before they are sent in.

If you are unable to submit your abstract via the online form, please contact the NWA office at Tel/Fax: (919) 845-1546 or e-mail: exdir@nwas.org.

Presenters will be notified regarding the disposition of their abstracts by 15 August 2007. Prior to the meeting, an FTP site will be established for authors to upload their audio/visual presentations. This will facilitate a smooth transition from one speaker to the next during the Annual Meeting presentation sessions.

Annual Meeting Hotel Information:

Circus Circus Reno is at 500 North Sierra Street, Reno, Nevada 89503. It is a full-service resort hotel, convention center and casino. Complimentary airport shuttles to/from the Reno/Tahoe International Airport are available for all Circus Circus Reno guests. More hotel information can be viewed at Web site: www.circusreno.com.

NWA discount room rates are for North Tower Standard rooms:

- Friday and Saturday -- $89.00 per day plus tax for a single or double room,
- Sunday through Thursday -- $55.00 per day plus tax for a single or double room.

If more than two persons occupy a room, an additional $10.00 per person, per night, plus tax will be added to the room rate. Guestrooms must be occupied and registered to at least one adult who is 21 years of age or older.

To reserve a room for the Annual Meeting, please call the Circus Circus Reno Room Reservation Department at 1-800-648-5010 and request the NWA 2007 group rate. Reservation clerks will inform you of the deposit due date at time of call. A credit card used for deposit purposes will be charged for one night immediately after the transaction has been made. Advance deposits will be refunded if reservations are canceled 24 hours prior to expected arrival.

Please reserve your hotel room NO LATER THAN 12 September 2007 to be able to obtain the NWA discount rates.

Additional Plans: Thanks to Betsy Kling, the Sixth Annual Golf Outing is being scheduled for Saturday, 13 October to benefit the NWA Scholarship Fund.

The preliminary agenda is expected to be published in August in the Newsletter and on the NWA Web site (www.nwas.org). Registration information and forms will be available on the Web site and the Newsletter by June.

For more information on exhibits, special accommodations, registration and the overall meeting program, please see the Web site (www.nwas.org) updates or contact the NWA office at Tel/Fax: (919) 845-1546 or e-mail: exdir@nwas.org.

See you in Reno!
A cold outbreak the weekend of April 7-8, 2007, resulted in many new record low temperatures, record low maximums and record snowfall reports. Here are just a few of the new record events taken from NOAA/NWS preliminary record reports and local storm reports.

- South Bend, IN, recorded their coldest maximum temperature for April 7 with 28 degrees. The old record was set in 1982. The high of 28 was also the coldest high temperature so late in the spring. Previously, April 3, 1954 was the latest date with a high of 28 or lower.
- The temperature at the Savannah, GA airport dropped to 28 degrees on April 8 breaking the old record low of 35 set in 1950. This also broke the all time record low for April, which was 32 set in 1962 and 1987.
- Asheville, NC broke four records on April 7. The low of 20 degrees set a record low for the date and the all-time record low for the month of April. A new record low maximum of 38 shattered the old record of 48 set in 1973, and 1.3 inches of snow fell at the Asheville Regional Airport breaking the old record of 1 inch set in 1989.
- Lafayette, LA recorded a Trace of snow on April 7 to set a new record. Snow fell throughout central Louisiana into central Texas where Waco, TX recorded a new record snowfall for April 7 with 3.4 inches. Snow had never fallen in Waco on April 7.
- Preliminary reports from a University of Georgia county agricultural agent indicate that freezing temperatures in Appling County, GA may have resulted in the loss of 80% of the blueberry crop. Alma, in Appling County, dropped to 30 degrees on April 8.
- Not all records set during April 7-8 weekend were the result of cold weather. A record high temperature of 79 degrees was set at the Dworshak National Fish Hatchery in Idaho on April 7. The old record was 78 set in 1996.

Also, check the Web site: www.nwas.org/meetings/meetings.html