PRESIDENT’S MESSAGE

by Paul Croft

The heart of the summer season has arrived and the headlines across the country make it clear that we are simultaneously experiencing forest fires, dust storms, drought, heat waves, heavy rainfall and flooding, and even cold (or at least cool) conditions in some locations. This seemingly inconsistent venting of weather and climate elements and phenomena often leads the public to question us – What is wrong with the atmosphere? Is this an unusual summer? Is this some harbinger of a rapid and/or disastrous climate change like in the movies? Perhaps this simply illustrates that we are more prone to disruption by natural forces?

Perhaps even more simply than that, our membership might ask – Is this an indication of our need to better educate those we serve? If we know what climatology “tells” us to expect each summer season, or during the course of a decade or more of summers, why are these events taken by the public to be never-before-seen (or scene) disasters? Climate is dynamic, it varies across multiple time scales, and is fairly difficult to assess when also considering regional and local scale variations. That means that our job operationally is complicated in time and space, let alone public understanding – and that helps us see why climate monitoring is so critical to deciphering what the climate is and how it is varying. It also helps us make connections between weather and climate in operations.

In other words, the same basic limitations that impact our ability to model and predict the short-term weather events also create difficulties (some the same, many different) for us in the observation, assessment, understanding, and prediction of climate and its variations. In fact, observation and assessment of climate alone quickly illuminate the disparities in methods used for operational forecasting of the weather versus operational climate signal identification and prediction. While these kinds of issues have been discussed over the years, it appears now they will be confronted head-on by initiatives such as the National Weather Service’s Cooperative Observing Modernization Effort (see Member News about Ken Crawford in the June issue of the NWA Newsletter; Ken will also brief on this subject at the Annual Meeting).

One of the major intents of this endeavor is to ensure that we have a collective observational framework that is able to monitor (in real-time) multiple time and space scales while serving operational and research interests for both meteorology and climatology. Clearly other applications can be made with such an observational network, and these may be used by many clients as well as providers. I am personally and professionally looking forward to a thoughtful consideration of these and related issues at this year’s Annual Meeting in Portland where we hope to have a cadre of climatologists to enliven and encourage our interaction and participation in the process.

Speaking of our Annual Meeting, the program committee has developed a preliminary agenda from the over 100 abstracts submitted. The agenda should be online before you receive this newsletter and will be published in the next newsletter before the end of August. My personal thanks to all those that submitted abstracts, volunteers who will be leading workshops and chairing sessions, invited speakers and of course the members of the program committee who have been working enthusiastically to ensure the Annual Meeting will be a great success — and a great learning experience for all who attend. See page 7 and preregister early!

NWA committees and the great work they do were discussed at the midyear meeting of the NWA Council in late June. It was clear that NWA standing and ad hoc committees continue to be significant forces within the organization and I thank the committee chairs and all committee members for voluntarily taking on responsibilities and new initiatives and carrying through.

Of course volunteers do not simply appear overnight; they require a calling and active on-going encouragement by our membership. I have always believed it to be one of my most significant obligations to inform and encourage students to not only do well in their courses, but also to begin developing their careers by joining and becoming active members of a professional association – such as the NWA. As these students continue to learn and mature, we can encourage their interests further by providing direct contacts through the NWA publications, Web site, and – whenever possible – by inviting them to the Annual Meeting. It has always been thrilling for me to see students speak (often one-on-one) with professionals who they have heard or read about, and to participate in discussions and networking at the Annual Meetings.
While I know our local NWA Chapters have done much to support and encourage students in this regard, I challenge the academic and all of our communities within NWA to make a renewed commitment to share in the professional development of students. We can put the NWA publications in their hands, encourage them to “surf” our committee Web sites and we can provide important career counseling. Only in this manner will they truly develop the professional foundation necessary for the future of operational meteorology that will support them in their career. Only in these ways will they see the connections between us and other disciplines, connections that are critical to working the job, doing it well, and getting it accomplished in the best and most pragmatic way.

- Yours in Service – Paul Croft

BROADCAST COMMITTEE NEWS

The Graphic Ingredients for a Great Weathercast…

In the past three newsletters I have discussed the formula for creating a solid on-air weathercast. This month I will stress graphics and share some thoughts on developing a strong on-air weather presentation. There are just a small number of major corporations providing weather graphic’s systems to the broadcast industry. Most, if not all, are NWA corporate members and we enjoy seeing them exhibit their newest systems at the NWA Annual Meetings. Whatever system or combination of systems you have, you need to be an expert on it. If you’re new to a station, spend as many off hours as possible working with the graphics computer. Try to get your station to pay for additional training from your weather graphics vendor. A few hours with an expert can go a long way. You should also attend seminars from the weather vendors at the NWA Annual Meeting and other weather conferences held during the year.

Good-looking, easy to read, well-designed on-air graphics are vital to a great weathercast, and play an important role for those trying to earn the NWA and AMS Seals. Keep the base maps fairly straightforward. Don’t emphasize terrain features too much or go nuts with colors for varying elevations. These are just the backgrounds for our satellite, radar, and surface weather maps, and should not be a distraction.

Use standard colors for standard features — cold fronts and high-pressure centers should be blue, warm fronts and low-pressure centers are red, occluded fronts purple (red and blue) and troughs (for those who plot them) are generally brown or black. Also, I don’t care for big, wide fronts and barbs. I think they take away from the message of the graphic, and there is no need for oversized fronts anyway. Precipitation areas are usually green or blue, with white for snow. Other colors are used for mixed precipitation, but don’t go overboard. It can be overwhelming to the viewers.

Make sure your chart labels are clearly seen, and try to use black or dark gray drop shadows and borders as often as possible. It prevents the colors from bleeding into your weather map and becoming hard to read at home. Speaking of home — tape some of your shows at home to really see how your viewers see you and your graphics.

Also make sure to use a clean font style and avoid varying font types on your graphics. Varying sizes and colors are fine, but using a combination of Arial, Helvetica and Courier fonts (for example) looks sloppy and reduces the effectiveness of your presentation. Make sure to label every map in some way…Satellite, Radar, Surface Features, Current Weather, etc. It’s amazing how many tapes I have seen with graphic elements that have no labels. I am an expert and can figure out what you’re showing, but the average viewer needs your help. Using time stamps is also important on many displays.

Okay, I am a little long here, so next month I will talk more about satellite and radar imagery and the most effective way to organize your show.

Send your thoughts to me at rapuzzo@fuse.net.

- Rich Apuzzo, Broadcast Meteorology Committee Chair

COMMITTEE CORNER

I would like to take a few moments of your time to introduce you to the Weather Analysis and Forecasting Committee. Our mission is: To promote the development and implementation of improved analysis and forecasting techniques and methodologies to benefit operational hydrometeorology.

Some of our recent and upcoming activities include updating the Weather Analysis and Forecasting Committee Web page, and adding a page containing sources for real-time weather data.

The committee will have an active role with this year’s Annual Meeting in Portland. The members have been asked to review the program and the preprint draft. We are also helping coordinate several interactive forecast workshops that will take place at the meetings. These workshops will include a special focus on severe weather in the western United States.

I would like to take this opportunity to call your attention to the NWA Electronic Journal of Operational Meteorology. The goal of the journal is to provide a Web-based venue for the speedy publication of operational forecast studies, with an emphasis on forms of media that are best shown via the Web. This includes image loops, detailed color images, and 3D illustrations. Check out the articles published for 2004 already on Web page: www.nwas.org/ej/e-j.html. For additional information, contact Jeffrey Craven (jeffrey.craven@noaa.gov) or me at: christopher.buonanno@noaa.gov.

If you have any comments or suggestions for our committee, please let me know.

- Chris Buonanno, Weather Analysis and Forecasting Committee Chair
**MEMBER NEWS**

**Chip Guard**, Warning Coordination Meteorologist for the NWS Forecast Office in Guam, and charter member of the NWA, has been honored as NOAA Employee of the Month for July. He has the primary responsibility of providing outreach and training for Guam, the Commonwealth of the Northern Mariana Islands, The Republic of the Marshall Islands, The Federated States of Micronesia, and The Republic of Palau. Chip is a consummate professional, always striving for mission success. He possesses a special talent that enables him to communicate clearly and concisely to the many cultures throughout Micronesia and the tenacity to ensure he reaches everyone possible. His true value was recently demonstrated in Yap, as Typhoon Sudal ravaged the island.

During September 2003, Mr. Guard conducted a 2-day disaster management workshop on Yap as part of an annual preparedness for all of Micronesia. On 8-9 April 2004 Typhoon Sudal struck Yap Island, the capital island within Yap State, Federated States of Micronesia (FSM) with winds in excess of 124 mph. Yap was under sustained tropical storm winds (winds up to 73 mph) for 24 hours. Throughout the days leading up to the arrival of the storm and until communications were lost, Chip remained in continuous communications with emergency managers providing advice, urging caution and reinforcing the need to take precautions. The eye of Sudal passed over the southern most section of Yap Island, as the island experienced sustained typhoon force winds (winds in excess of 73 mph) for six hours. Sudal was the worst storm to impact the island in over 50 years. Over 90% of the homes and buildings were damaged, and about 10% of those were destroyed. But, the people of Yap and Government and Disaster Management personnel had paid attention to their training and heeded Chip’s training, caution and warnings. When Sudal departed Yap, it left with 80% of the population in shelters without water or electricity, but there was not one death or serious injury attributed to the typhoon.

As seen in many natural disasters, the best warnings and alerts can be ineffective if the population, government officials and emergency managers have not been properly prepared to react quickly and decisively. The professional and dedicated efforts of Chip assured that Yap was prepared, knew what to do, and did it. His ability to develop a message and deliver it, and his personal attention in conveying real-time information, are typical of how he approaches his job. He is a superb example of the value that NOAA and NOAA’s National Weather Service provide to their customers. He is fully deserving of recognition as the NOAA Employee of the Month. Congratulations Chip!
- NOAA Public Affairs

**Joshua Fitzpatrick** is now working at WOAY-TV in the Beckley/Oak Hill, WV market. He is the meteorologist for the morning and midday weather broadcasts. Joshua was previously a meteorology intern at WOWK-TV, which is in the Huntington/Charleston, WV market. He is continuing his meteorology education through Mississippi State University.

**AccuWeather SCHOLARSHIP AWARDED**

The First annual AccuWeather, Inc., sponsored NWA Undergraduate Scholarship in Meteorology is awarded to Ashley Marie Hayes of New Orleans, Louisiana. This $1,000 scholarship will assist Ms. Hayes as she enters her junior year later this summer at Jackson State University in Jackson, Mississippi.

Ms. Hayes has had an avid interest in meteorology since she was a young child, and in high school confirmed her career path. She is a top academic student on the Dean's List and has excelled in the Meteorology Student Undergraduate Research/Work Program at JSU.

She has accomplished internships at National Weather Service offices in Slidell, Louisiana and Jackson, Mississippi under a NOAA grant, "Initiating a New Partnership for the 21st Century: NOAA/NWS and JSU promoting Diversity in Atmospheric Science through Research, Application and Partnership." For her outstanding efforts she was selected by the JSU faculty to present research at the 2003 NWA Annual Meeting in Jacksonville, Florida and the 2003 Expanding Opportunities in Atmospheric and Oceanic Sciences Conference in Tallahassee, Florida. Her Professors attest to her abilities as an outstanding student, able researcher and promising young meteorologist.

The NWA Education Committee received 24 applications for the AccuWeather Undergraduate Scholarship from students at 11 colleges/universities and the competition was tough. Thanks and Best Wishes for the future to all individuals that applied. Congratulations again to Ashley Marie Hayes!

Applications for the annual $1,000 AccuWeather NWA Undergraduate Scholarship in Meteorology are due to the NWA Education Committee by 15 May each year.

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**Third Annual NWA Golf Outing**
Saturday, October 16, 2004
Heron Lakes Great Blue Golf Course
Portland, Oregon
$85
Includes greens fees, cart, driving range, lunch, prizes and great camaraderie

All proceeds benefit NWA Scholarships
Please contact Betsy Kling to reserve your tee time
BKLING@wkyc.gannett.com
Colonel (Ret.) Joseph D. Saccone (1929-2004), a charter member of the NWA, died Monday morning, 28 June, at his home in Walpole, Massachusetts. Joe was born in Boston on 5 October 1929. He earned a Bachelor of Arts degree in Mathematics and Philosophy from Boston College in 1951. He received a direct commission in the Air Force Reserve while instructing at the Airborne Radar Maintenance Officers Course at Keesler Air Force Base, Mississippi, in 1952, and was called to active duty Jan. 2, 1953. Based on his education in math and sciences, the Air Force sent him to The Pennsylvania State University where he received a BS in Meteorology and began his distinguished career as an operational meteorologist.

He served as an Air Force weather officer and on weather squadron operations staffs at Chateauroux Air Base, France, 1954-1957; Fort Snelling Air Force Station, Minn., 1957-1959; Truax Field, Wis., 1960-1962 (supporting Air Defense Command/North American Air Defense Command); and at Ramstein Air Base, Germany, 1964-1965. In 1963, he was on special assignment in the Congo (now Zaire). He was reassigned to the United States in July 1965 and received a Master of Science degree in Management from the University of Southern California. He then moved to Scott Air Force Base, Illinois and served on the Air Weather Service Inspector General staff. From mid-1970 to mid-1971, he served as commander of the 30th Weather Squadron, Tan Son Nhu Air Base, Vietnam. He commanded the 9th Weather Squadron, March Air Force Base, Calif., supporting Strategic Air Forces until 1973 and then commanded the 15th Weather Squadron, Scott Air Force Base, Ill., supporting military airlift. Colonel Saccone was reassigned in July 1975 to Langley Air Force Base, Va., as vice commander of the 5th Weather Wing. In 1976, he moved up to command the 5th Weather Wing supporting Tactical Air Forces. In July 1978, Colonel Saccone was transferred to the Air Weather Service Headquarters at Scott Air Force Base, Illinois becoming the Director of Operations. In July 1981, he moved up to Chief of Staff and retired after 30 years of military service in 1983.

He moved back to Massachusetts and did consulting work, and continued to mentor many military meteorologists. As member, Al Kaehn (Brig. Gen., Ret.) wrote, “We will miss this kind, gentle man, who served his country with distinction, and who knew our weather business inside and out. His influence as a husband, father, leader and manager sets an example for us all.”

Joe was a great supporter of professional associations and served the NWA as vice president in 1978, a Councilor from 1982-83, and on many committees.

Colonel Saccone leaves his wife, Madelyn, their five children and ten grandchildren. Madelyn and the family send heartfelt thanks to Joe’s many good friends for their thoughts, prayers and communications during Joe’s illness.

2003 NATURAL HAZARDS STATISTICS

In 2003, there were 438 weather-related fatalities, a significant decrease from 542 in 2002, and moderately below the 10-year average (1994-2003) of 521. In a departure from the previous 5 years, extreme heat ranked as one of least dangerous weather-related killers. In 2003, flooding took the most lives, claiming 86 weather-related victims. The next biggest killer in 2003 was tornadoes with 54 fatalities, followed by lightning with 43 deaths and rip currents with 41.

Weather-related injuries dropped in 2003 to 2,924 from 3,089 in 2002. Tornadoes were by far the largest source of injuries with 1,087 (37%). Coming a distant second, third, and fourth for weather related injuries, with 8% each were lightning, tropical storms/hurricanes and thunderstorm winds.

In 2003, severe weather caused $11.4 billion in damages, up from $5.7 billion in 2002. Weather contributing to wildfires was the most costly severe weather, accounting for an estimated $2.330 billion in losses and displacing tropical storms/hurricanes as the most expensive weather in 2002. Flooding was the next most expensive weather, accounting for $2.142 billion in damages. California suffered the highest weather-related property and crop damages totaling $2.351 billion in losses, mostly due to wildfires and flooding.

Of the 438 weather-related fatalities, males accounted for about twice as many deaths as females. As in the past, males were affected more by weather in all categories except cold and tornadoes. Cold and heat most heavily impacts the elderly and tornadoes were hazardous to even those in permanent homes. Deaths spanned the age ranges, hitting those under 20 most lightly.

May was the deadliest month with 68 fatalities, 38 of which were from tornado events occurring on 4 May in Kansas, Tennessee, and Missouri. In 2003, California and Florida were hardest hit by weather, losing 56 and 51 citizens, respectively. California was hit heavily by wildfires with additional losses to floods and heat. Florida, as in the past, is impacted heavily by rip currents and lightning.

For more details on statistics for 2003 and other years, go to Web site: www.nws.noaa.gov/om/hazstats.shtml - National Weather Service

MEMBERSHIP STATUS

Final renewal notices went out to all members who had not renewed their individual membership for 2004 by 1 July. As bylaws indicate, the mailing list will be purged shortly. This will be the last newsletter for those members not renewing for 2004. Members who have the NWA Seal of Approval will also have their Seal revoked due to nonpayment of dues or not completing recertification every three years.
LOCAL CHAPTER NEWS

The Wichita, Kansas chapter will host AIRMASS 2005 (Air Capital's Mid-America Storm Symposium) in downtown Wichita on 14-15 April 2005. This science-sharing conference is aimed at fostering the sharing of new tools, techniques, technologies related to forecasting and warning of, and response to, hazardous weather conditions affecting the central (and eastern) United States. Such conditions include severe thunderstorms and tornadoes, winter storms, floods, and aviation hazards. It is hoped that this conference will bring public and private sector meteorologists, research meteorologists, educators, and even general weather enthusiasts together to share new ideas and techniques. While we will have guest speakers and oral presentations, our focus will be on breakout sessions and exhibit sessions, where small-group interaction can take place. Participants will leave the conference with a CD filled with the new ideas and techniques presented. A big highlight of AIRMASS 2005 will be the evening banquet dinner at the world-renowned Kansas Cosmosphere and Space Center in Hutchinson. The after dinner guest speaker, from NASA's Marshall Space Flight Center in Alabama, will give a presentation on lightning research from space. Another highlight will be the recognition of the 50th anniversary of the killer Udall KS tornado (the last tornado on record with a death toll of 80 or more), a memorable event that led to the development of spotter programs in Kansas and elsewhere. For more information go to Web site: www.wichita-amsnwa.org/.

- Peter Wolf

The North Texas Chapter has elected officers for the 2004-2005 year. They are President Greg Story, Vice President Krista Villarreal, Secretary Dan Dixon, Treasurer Skip Ely, and Webmaster Bernard Meisner.

- Greg Story

The University of Missouri-Columbia Chapter has elected officers for 2004-2005. They are President Chris Schultz, Vice President Justin Glisan, Secretary Christina Crowe, Treasurer Willie Gilmore, Activities Chair Branna Still, and the representatives to the University of Missouri college councils are Neville Miller, and Emily Sutton.

- Chris Schultz

The Central Iowa Chapter Web site has information about their 2005 Severe Storms and Doppler Radar Conference. It will be held 31 March –2 April at the West Des Moines Marriott. If you have an idea for an invited speaker, or would like to present at the conference, please e-mail the chapter President Mitch Keegan at mjkeegan@myway.com. More conference information can be found at Web site: www.iowa-nwa.com/.

See the NWA Web site www.nwas.org for information on local chapters and links to chapter Web sites.

STATEMENT OF NWA INCOME AND EXPENSES FOR 2003

INCOME FOR 2003

Membership Dues............................................... $ 70,346.50
Donations:
  Sol Hirsch NWA Education Fund............................ 4,841.50
  General Fund Donations...................................... 5,026.00
Subscriptions ......................................................... 4,914.00
Publication Page Fees ........................................... 4,695.00
Reprints................................................................. 322.00
Radio-TV Certification........................................... 14,950.00
Publications Sales................................................. 506.99
Advertising Sales................................................. 400.00
Annual Meeting................................................... 43,659.85
Postage Reimbursement........................................... 99.00
Interest................................................................. 5,695.50
Dividends.............................................................. 2,431.13
NWA logo items..................................................... 1,085.00
  .................................................................
Total Income ........................................................ $158,972.47

EXPENSES FOR 2003

Digest Printing....................................................... $ 9,901.00
Digest Layout........................................................ 4,602.78
Newsletter Printing............................................... 6,115.46
Reprints................................................................. 825.00
NWA Seal of Approval certificates .............................. 368.50
Other Printing........................................................ 2,502.84
Personnel Salaries................................................... 33,000.00
Temporary Help Fees .............................................. 8,369.00
Taxes and Soc. Sec/Medicare..................................... 3,919.40
Payroll Management Fees ....................................... 631.73
Postage and Shipping.............................................. 21,838.09
Annual Meeting..................................................... 28,459.34
Communications..................................................... 2,659.93
Equipment and Maintenance..................................... 1,257.89
Office Supplies....................................................... 3,883.00
Awards................................................................. 998.55
Scholarships & Grants............................................. 2,000.00
Education Fund Grants.......................................... 2,500.00
Travel ................................................................. 3,896.65
Refunds ................................................................. 309.00
NWA logo items..................................................... 2,530.82
Insurance............................................................... 884.00
Miscellaneous......................................................... 1,001.50
  .................................................................
Total Expenses....................................................... $142,454.48

INCOME over EXPENSES ...................................... $ 16,517.99

This is a summary of the NWA's IRS Form 990 submitted in mid-May for nonprofit organizations exempt from federal income tax. Net fund balances at the end of 2003 were $324,132.81. THANKS to the many volunteers and contributors who helped make this happen. Reserve funds are growing as planned to be able to fund more scholarships/grants and a larger paid staff in the future as well as to support more initiatives.  

- Exec. Dir.
MEETINGS OF INTEREST

• The Eighth Annual Great Divide Workshop will be held 8-10 September 2004 in Billings, Montana. The NWS Office in Billings is sponsoring this workshop focused on the exchange of weather and hydrologic forecasting information unique to the Northern Rockies and High Plains. The workshop will take place at the Sheraton Hotel in Billings. Abstracts or topics for additional presentations may be submitted by e-mail to: Byz.Great.Divide.Workshop@noaa.gov. More information can be obtained by calling (406) 652-0851 or see Web site: www.wrh.noaa.gov/Billings/GreatDivide.shtml.

• Challenges in Urban Meteorology: A Forum for Users and Providers will be held at the Doubletree Hotel & Executive Meeting Center in Rockville, Maryland, 21-23 September 2004. It is sponsored by the Office of the Federal Coordinator for Meteorology (OCFM) in partnership with the Department of Homeland Security, Science & Technology Directorate. Details to include the agenda and registration information are shown on Web site: www.ofcm.gov.

• The Eighth Annual High Plains Conference will be held in Goodland, Kansas, 13 - 14 October 2004. It is sponsored by the High Plains Chapter of the AMS & NWA. The conference will be held in the Murray Center of Northwest Kansas Technical College in Goodland. Abstracts are due 10 September 2004 and may be e-mailed to Bruce.Entwistle@noaa.gov. See Web site: www.highplains-amsnwa.org/8HPC.html for more information.

• The NWA 29th Annual Meeting will be held in Portland, Oregon, 16-21 October 2004. See page 7.

• The Fifth Annual Southern New England Weather Conference will be held on Saturday, 6 November 2004 (8:30 AM – 7:45 PM) in the Clay Center for Science and Technology, Dexter/Southfield School, 20 Newton Street, Brookline, Massachusetts. The conference is sponsored by the National Weather Service Forecast Office-Taunton, MA; the Blue Hill Observatory Science Center; the Boston Chapter of the American Meteorological Society; the University of Massachusetts-Lowell; and the Southern New England NWA Chapter. All weather enthusiasts are invited to attend. The conference will feature a wide variety of topics, with special guest speakers from across the country. For the agenda and registration information, please see Web site: www.erh.noaa.gov/box/announcement/2004SNEWxConf.html.

• The 30th Northeastern Storm Conference will be held on 18 - 20 March 2005 in Burlington, Vermont. It is sponsored by the Lyndon State College AMS & NWA Chapter. Watch the conference Web site for updates. It is located at: http://apollo.lsc.vsc.edu/ams/NESC.html.

• The 2005 Severe Storms and Doppler Radar Conference will be held on 31 March – 2 April 2005 in West Des Moines, Iowa. See page 4 for more information.

• AIRMpASS 2005 Mid-America Storm Symposium will be held 14 –15 April 2005 in Wichita, Kansas. See page 4 for more information.

• The NWA 30th Annual Meeting will be held at the Adam’s Mark Hotel in Saint Louis, Missouri, 15-20 October 2005.

SOUTH CENTRAL STATES – JUNE RAINFALL REVIEW

June was an abnormally wet month for the South Central United States. Preliminary data from the NWS indicates that several sites in Arkansas, Louisiana, and Texas had their second to fifth wettest June ever.

A nearly stationary, upper-level low over Texas, combined with a moisture rich atmosphere, led to the repeated storms. What’s the old rule of thumb regarding upper-level cold lows? “Expect the unexpected!”

Of course southeastern Texas had a head start – locations there have recorded above normal rainfall since October 2003. Houston’s total rainfall from 1 January to 30 June was 44.94 inches, which resulted in the wettest first six months of a year on record. Mean rainfall for that period is 24.12 inches. The previous record of the wettest first six months of a year was 37.23 inches in 1968. In Houston, June was the second wettest on record with 18.33 inches falling.

Further west in Texas, other monthly records were nearly broken. It was the third wettest June at San Antonio International Airport with 9.47 inches of rain and the second wettest June at the Dallas Fort Worth Airport (DFW) with 10.49 inches. At DFW, rain fell on 18 days during the month breaking the record of days with rain in June. Flash flooding closed the Fort Worth Zoo for one day and Six Flags over Texas in Arlington, TX, had to close one day due to flash flooding. According to the Southern Region Climate Center in Baton Rouge, LA, the average rainfall for Texas was 6.23 inches, which was a half-inch behind the 1899 record.

In Louisiana, the cities of Shreveport and Monroe reported their fourth and third wettest Junes respectively.

Severe storms raked north Texas at the first of June leaving a record 500,000 home power outages in the Fort Worth and Dallas areas due to high winds. Torrential rains with the storms resulted in 30 high-water rescues. Just as power was being returned to the last few homes, five days later, more severe storms raced across the Metroplex resulting in more damaging flash flooding.

In other severe weather news, a very large hailstone fell in Meadville, Missouri. The hailstone measured six inches in diameter and had a circumference of 16.5 inches. For pictures of this hailstone, browse to Web site: www.erh.noaa.gov/cax/.

-J. Bunting

Looking For A New Job?
Want To See What The NWA Committees Are Working On?
Do You Have A Paper To Submit To the NWA Digest or E-J?
Check www.nwas.org Frequently!
HISTORICAL HURRICANE TRACKS

Meteorologists, emergency planners and people living and working near the coast can now find out how tropical storms could affect their area, using a recently updated NOAA Web database of tropical cyclones.

Found at www.csc.noaa.gov/hurricane_tracks, the “Historical Hurricane Tracks” Web site allows users to find out how many tropical storms and hurricanes have hit a given area on the U.S. Atlantic and Gulf Coasts in the last 150 years and on the Pacific Coast in the last 50 years, as well as the paths those storms took. The recently added Pacific data now makes the history of hurricane activity on all U.S. coasts accessible to hurricane researchers and the general public.

Originally developed for the 2002 hurricane season by NOAA’s Coastal Services Center in partnership with the NOAA Tropical Prediction Center, the site allows users to search for storms using such criteria as storm name, ZIP code, state, county or parish, or latitude and longitude. The information is then displayed on a map of the area, showing the track of the storms, where they made landfall, and their changing intensity.

The site also couples this hurricane strike information with coastal population data, making it the first NOAA site to provide both types of information side by side. Viewing this information together can help users determine how hurricanes might affect populations along the coast and to what extent emergency planners need to educate residents about preparing for hurricanes.

- NOAA Public Affairs
The National Weather Association’s 29th Annual Meeting will be held at the DoubleTree Hotel & Executive Meeting Center Portland - Lloyd Center, 1000 NE Multnomah, Portland, Oregon, from 16-21 October 2004.

- **17 October: BROADCAST METEOROLOGY WORKSHOPS** will include special presentations, and hands-on workshops appropriate to continuing education for weathercasters, but open to all interested. **Tape Swap Sunday evening** – bring a vhs tape of one recent weathercast for discussion. Depending on the number of tapes submitted, a tape swap may also be held on Saturday night. Broadcasters will also meet for a no host dinner Monday evening after the Icebreaker. [On Saturday, 16 October, the annual Golf Outing will occur (see page 3).]

- **18-21 October: ANNUAL MEETING GENERAL SESSIONS** from Monday morning through Thursday afternoon will include a wide variety of topics relating to OPERATIONAL meteorology, climatology, hydrology, weather broadcasting, fire weather, new research applications, and related activities. An **Icebreaker** will be held in the exhibit area on Monday from 5:30-7:30 PM. The Annual Awards Luncheon will be on Wednesday, 20 October.

The Annual Meeting Program Committee Co-Chairs are: Michael Vescio, Meteorologist In Charge, National Weather Service Forecast Office, 2001 NW 56 Drive, Pendleton, OR 97801; michael.vescio@noaa.gov, and **Steve Todd**, Meteorologist In Charge, National Weather Service Forecast Office, 5241 NE 122nd Ave, Portland, OR 97230; steve.todd@noaa.gov. **Broadcaster Workshop Program Chair is Bryan C. Karrick**, KCCI-TV, 888 Ninth Street, Des Moines, IA 50309-1288; bkarrick@hearst.com. Contact them with your suggestions and to volunteer to help with the program. For information on exhibits, accommodations, registration and the overall meeting program, please contact the NWA office at Tel/FAX: (434) 296-9966 or e-mail: NatWeaAsoc@aol.com.

**HOTEL INFORMATION:** The DoubleTree Hotel Portland - Lloyd Center is at 1000 NE Multnomah, Portland, Oregon 97232. It is a full-service hotel in the "Center of the City". The NWA discount room rates are $91 for a single or double room; each additional person will be $15. To reserve a room, please call the DoubleTree Hotel Portland - Lloyd Center at 503-281-6111 (reservations department) or their toll-free number 1-800-996-0510 and request the group rate for National Weather Association. Please reserve rooms by 15 September 2004 to be able to obtain the discount rate.

**ANNUAL MEETING PREREGISTRATION:** The NWA Annual Meeting preregistration fee includes a preprint volume with program and abstracts. For the period of days registered for, it also includes: admission to all presentation, workshop and exhibit sessions, coffee/refreshment breaks and the Monday evening icebreaker.

**THE PREREGISTRATION FEES payable to the NWA by 8 OCTOBER 2004 are based on the days you attend:**

- **For 17 October, Broadcast Meteorology Workshops:** $60 for NWA members and presenters (student and retired members $35); $75 for non-members (student and retired non-members $45).

- **For 18-21 October, meeting sessions/activities:** $140 for NWA members and presenters (student and retired members $80); $170 for non-members (student and retired non-members $100). This fee includes the Awards Luncheon on Wednesday.

Special one-day rates for each day during the period 18-21 October (for those that cannot attend the entire conference) are: $50 for NWA members and presenters (student and retired members $35); $70 for non-members (student and retired non-members $45). Day rates do not include the Wednesday Annual Awards Luncheon. **Extra Award Luncheon tickets** are available at $25 each.

To preregister, please copy this form and mail it with full payment of fees by 8 October 2004 to: NWA Meeting, 1697 Capri Way, Charlotteville VA 22911-3534 USA. Make payment to “NWA” in US funds by US bank check, money order or government/institution purchase order.

Name (for nametag): ____________________________

Street Address: ________________________________

City/State/Zip Code: ____________________________

Employer, School or other Affiliation: _____________________________________________________________________________

Telephone and e-mail address: ____________________________________________________________________________________

Arrival Date at meeting: __________________________ Departure Date from meeting: _________________________________

Preregistration fees: $ __________________________ Golf Outing fee ($85): $ __________________________ Your check number: __________________________

Number of extra Awards Luncheon tickets ($25 each): __________ Total Amount Enclosed: $ __________________________

Circle all applicable remarks: NWA member NWA local chapter member non-member Student Retired

Session Chair Presenter Program committee member Local Arrangements committee member

I will be bringing a tape for the Tape Swap I’ll be available for Tape Swap on Saturday I’ll be available for Tape Swap on Sunday

FOR INDIVIDUALS REGISTERING AFTER 8 OCTOBER 2004 OR AT THE ANNUAL MEETING, fees will be increased by 10 to 20 percent. The fees will be posted at the meeting and on the NWA Web site (www.nwas.org).