PRESIDENT'S MESSAGE

by Steve Weiss

During the early part of September we could see on every newscast, the aftermath of one of the worst natural disasters to impact the United States – Hurricane Katrina. The hurricane eye made landfall near the Louisiana-Mississippi border just east of New Orleans in the early morning of 29 August. The hurricane produced catastrophic destruction along a large coastal area and well inland with its record storm surge, an unusually large region of hurricane and tropical storm force winds, heavy rains and the horrific flooding that covered 80% of New Orleans with up to 20 feet of water after several levees that protect the city were breached. The evacuation and subsequent displacement of approximately 1 million residents of the southeast Louisiana and southern Mississippi region has placed inconceivable stresses on local, state, and national social service and relief agencies. Worse yet were the more than 100,000 people who were unable or chose not to leave the area in advance of the hurricane. The death toll is in the hundreds at the time of this writing and will likely rise, and it is clear that Katrina will be the costliest hurricane to ever strike the U.S. I want you to know that within a few days of landfall, your NWA Council approved the donation of \$10,000 to the Red Cross Katrina relief fund on behalf of all members.

Much of the nation is now very knowledgeable about the geography and geology of the lower Mississippi river area, and the dangers that New Orleans in particular has faced as it has continued to slowly sink farther below sea level over the last several decades. Numerous scholarly studies have examined the potential impact of a major hurricane striking New Orleans over the last decade, and the predicted effects of flooding, destruction of buildings, and the resultant horrific societal impact were well known. It was clear that to prepare for a storm like Katrina would require extensive public and private collaboration and but not limited to, coordination involving, the meteorological community, broadcast media, numerous emergency preparedness agencies at all levels of government, among others.

As we learned in the aftermath of the destructive Palm Sunday tornado outbreak in 1965, the issuance of accurate forecasts for potentially catastrophic weather events is only the beginning of a series of successive actions that must take place in order for what is now called the integrated warning system to work properly. These steps range from communication of the impending threat to the public in advance to give them time to respond appropriately, to the planning, preparation, and mobilization of necessary relief efforts. A successful integrated warning system requires the presence of a well-defined public-private partnership within the meteorological community, where we work together to advance the science of forecasting, to communicate potentially life-threatening weather information to the public, and to work closely with emergency preparedness agencies to ensure the necessary public safety contingency plans are formulated, tested, refined, and kept up-to-date.

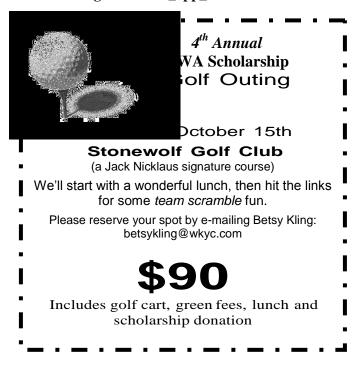
At the NWA Annual Meeting next month in St. Louis, one of the highlights of the meeting will be a Forum and Discussion Monday afternoon, October 17, entitled "Developing Effective Partnerships to Advance Operational Meteorology". We are honored to have George Frederick, a NWA Past President (1986), serve as moderator. The distinguished panel members include Kenneth Crawford, NOAA/NWS and NWA Past President (1988), Bill Massey, Emergency Management Consultant (Retired from FEMA), John McLaughlin, Broadcast Meteorologist and NWA Past President (2002), James Moore, Professor and NWA Past President (1999), Barry Lee Myers of AccuWeather, Inc., and Dennis McCarthy, NOAA/NWS. We anticipate this will be a most enlightening and relevant discussion of issues that are at the forefront of operational meteorology today, and we sincerely hope you will be able to attend this important event.

As keynote speakers for the 30th Anniversary meeting, we are most fortunate to have Brig. Gen. (Ret.) D. L. Johnson, director of the National Weather Service, and Dennis McCarthy, a long-time forecaster and former deputy meteorologist-in-charge of the NWS St. Louis Forecast Office, who is currently head of the NWS Office of Climate, Water, and Weather Services. Gen. Johnson has graciously agreed to provide a vision of public weather services and operations in the coming years and Dennis will provide a historical overview on forecasting and weather support changes over the last 30 years.

Again, the Annual Meeting will be held in St. Louis October 15-20 at the Adam's Mark Hotel adjacent to the Gateway Arch. The complete program is listed on the following pages. See you in St. Louis! - S. Weiss

MEMBERSHIP COMMITTEE NEWS

We are pleased to offer a "Back-to-School" membership special covering the September 2005 -December 2006 period (16 months) at a rate of \$34 for new regular members and \$17 for full-time student members and retirees. Please share this information with your colleagues, and students interested in operational meteorology, who are not yet members of the NWA. Encourage them to become members of the primary serving organization the needs of operational meteorology. More information and an application can be found NWA Website the www.nwas.org/individual app form.html.



E-JOURNAL NEWS

Two new E-Journal articles have been posted on the NWA Web site at: www.nwas.org/ej/index.html. The titles are: An Overview of the Lower Mississippi River Valley Severe Weather and Flash Flood Event of 6-7 April 2003 by Eric E. Carpenter and John P. Gagan of the NOAA/NWS Forecast Office in Jackson, MS; and, South Florida Seabreeze/Outflow Boundary Tornadoes by Russell L. Pfost, Pablo Santos, Jr., and Thomas E. Warner of the NOAA/NWS Forecast Office, Miami, FL

Aware Fall issue is available on Web

The NOAA/NWS *Aware* newsletter for Fall 2005 from the NWS Office of Climate, Water, and Weather Services, is available in PDF version on Web site: weather.gov/os/Aware/pdfs/aware-fall05.pdf. It is to enhance communications within the emergency management community.

NWA ANNUAL MEETING AGENDA

This preliminary agenda (as of 16 September 2005) is provided for members planning to attend and as crossfeed to all readers interested in knowing the variety of studies being done in the public, academic and private sectors. The agenda will be updated periodically on the NWA Web site (www.nwas.org).

The 30th Annual Meeting of the National Weather Association will be held 15-20 October 2005 at the Adam's Mark Hotel at Fourth and Chestnut Streets, Saint Louis, Missouri 63102. Attendees can register at the meeting or preregister by 7 October 2005 using the information/form in the July NWA Newsletter or on the NWA Web site (www.nwas.org). Online preregistration is also available.

To all prospective attendees -- please reserve a room at the Adam's Mark Hotel as soon as possible by calling 1-800-444-2326 and requesting the group rate for National Weather Association. The deadline has passed to be certain of obtaining the reduced rate, but check on space and rate availability. Check in at the NWA Registration and Information desk at the Adam's Mark Hotel as soon as possible after you arrive to obtain nametags and the printed program.

Saturday, 15 October 2005

Fourth Annual Golf Classic: Betsy Kling is organizing the this golf outing for the enjoyment of members and guests and to raise funds for scholarships as she did so successfully the last three years. The Golf Outing with tee times beginning after lunch will be held at the Stonewolf Golf Club (http://www.stonewolfgolf.com/home.htm) in Fairview Heights, Illinois. This is a beautiful course with great opportunities to win and be challenged. Several members have signed up already and Betsy wants to make sure EVERYONE knows they are most welcome to play golf even if not attending the Annual Meeting. Any profits from the event will benefit NWA educational scholarships. Total cost is \$90 for lunch, green fees, golf cart, and prizes*. Reserve your tee time by contacting Betsy at BetsyKling@wkyc.com or contact the NWA Office at (434) 296-9966; NatWeaAsoc@aol.com by the first of October. *Extra prizes will be used for a raffle during the Annual Meeting; prizes will be given away at the Awards Luncheon on Wednesday, 19 October at the Adam's Mark Hotel.

Exhibit booths will setup on Saturday and be open daily Sunday through Tuesday evening for viewing. Exhibit applications and information are available from the NWA office at (434) 296-9966 or NatWeaAsoc@aol.com.

Sunday, 16 October 2005 - Broadcaster Workshop

0730 AMNWA Registration and Information Desk opens at the Adam's Mark Hotel on the 2nd floor in the pre-convene area outside of Promenade Ballrooms D, E and F.

BROADCASTER WORKSHOP – Presentations and workshops as shown below are for the continuing education of Television and Radio Weather Broadcasters and those in related fields, but <u>all</u> individuals interested are most welcome to register, attend and participate.

0830 AMWelcoming Remarks. NWA President Steven J. Weiss, Science and Operations Officer at the NOAA/NWS/ NCEP Storm Prediction Center, Norman, OK and Broadcaster Workshop Program Chair, Bryan Karrick of KCCI-TV, Des Moines, IA (bkarrick@hearst.com)

- **0835 AMOpening Remarks.** NWA Broadcast Meteorology Committee Chair, Rich Apuzzo, WXIX-TV, Cincinnati, OH.
- **0840** AM Educating Elementary School Children Can Change Lightning Safety Worldwide. Michael P. Utley, Struckbylightning.org, West Yarmouth, MA, Mary Ann Cooper, MD.,

University of Illinois at Chicago, Chicago, IL, and Ronald L. Holle, Vaisala Inc., Tucson, AZ.

- **0855 AMEveryone Can Save Lives.** Mary Ann Cooper, MD., University of Illinois at Chicago, Chicago, IL.
- **0910 AMThe Potential of High Performance, Regional Total Lightning Networks in Broadcast Meteorology.** Nicholas W.S. Demetriades, Vaisala Inc., Tucson, AZ and Jean-Yves Lojou, Meyreuil, France.
- **0925** AM I Survived Lightning Video Presentation & Panel Discussion. William P. Roeder, 45th Weather Squadron US Air Force, Patrick Air Force Base, FL
- 1010 AM Coffee Break; Exhibits Open
- **1040 AMSaint Louis Weather.** Cindy Preszler, Chief Meteorologist at KSDK NewsChannel 5, Saint Louis, MO.
- 1055 AM The Presentation of Precipitation Information in Television Broadcasts: What is Typical? Thomas E. Hagen, Justin M. Glisan, Anthony R. Lupo, and Patrick Guinan, Department of Soil, Environmental and Atmospheric Science, University of Missouri-Columbia, Columbia, MO.
- 1110 AMMaking Long Range Winter Forecasts Using The Metonic Lunar Cycle. Joe Rao, News 12 Westchester, Yonkers, NY.
- **1125 AMHurricane Hype and Katrina Lessons.** Alan Sealls, Chief Meteorologist, WKRG-TV, Mobile, AL.
- 1200 NOON Lunch offered in exhibit area.
- **0130 PM Severe Weather Workshop**. Daniel W. McCarthy, (NWA Councilor), NOAA/NWS/NCEP/Storm Prediction Center, Norman, OK.
- **0230 PM The Great One-Inch Diameter Hail Debate.** Daniel W. McCarthy and Joseph T. Schaefer (NWA Past-President '98), NOAA/NWS/NCEP/Storm Prediction Center, Norman, OK.
- **0245 PM Two Incredible Tornadic Supercells: Field Observations** and Analysis Reveals Distinctly Different Tornadic Modes. Ted Keller, KOLR/KSFX-TV, Springfield, MO.
- 0300 PM Refreshment Break; Exhibits Open
- **0330 PM Have Digital Channels Changed the Broadcast Weather Environment?** Kenneth Reeves, Dr. R. Lee Rainey, Jim Candor and Michael Steinberg, AccuWeather, Inc., State College, PA.
- **0345 PM Why Can't We All Get Along? A New Template for Public-Private Cooperation.** John B. McLaughlin, (NWA Past-President '02), Chief Meteorologist, KCCI-TV, Des Moines, IA, Daryl Herzmann, Iowa State University, Ames, IA, and Brad Small, NOAA/NWS Forecast Office, Des Moines, IA.
- **0400 PM** Situational Awareness during the 30 May 2004 Indiana Tornado Outbreak. Sally Pavlow, NOAA/NWSFO Indianapolis, IN and Chris Wright, WTHR Channel 13, Indianapolis, IN.
- **0415 PM Seal Procedures/Recertification Q & A.** Bryan Karrick (NWA Broadcast Seal Recertification Chair), KCCI-TV, Des Moines, IA, and Rich Apuzzo (NWA Broadcast Meteorology Committee Chair), WXIX-TV, Cincinnati, OH.
- **0430 PM** Video and discussion "Tornado Alley: Back Home in Indiana." Ball State University Storm Chase Team, Ball State University, Muncie, IN.
- 0530 PM Dinner on your own; Exhibits close.

- **0700 PM ANNUAL TAPE SWAP 2005** begins. Refreshments will be served after 8:00 PM. [Attendees: please submit your tapes to the NWA Registration and Information Desk volunteers by 5:00 PM & insure your name, address, and Station or University are listed on the tape.]
- 1030 PM NWA Annual Meeting scheduled activities close for the day.

Monday, 17 October 2005 - Annual Meeting General Sessions (Promenade Ballroom D, E, and F; 2nd floor)

- **0730 AM** NWA Registration and Information Desk open in the Adam's Mark Hotel on the 2nd floor in the pre-convene area outside of Promenade Ballroom D.
- **0800** AM Welcoming Remarks. NWA President, Steven J. Weiss, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK; Program Co-Chairs: Dr. James T. Moore (NWA Past-President '99) and Dr. Chuck Graves, Saint Louis University, Saint Louis, MO; and, Kent Ehrhardt, Chief Meteorologist KMOV-TV, Saint Louis, MO.
- **0815** AMKeynote Address. Dennis H. McCarthy, Director, NOAA/NWS Office of Climate, Water, and Weather Services, Silver Spring, MD.
- **0845** AMKeynote Address. Brigadier General USAF (Ret.) David. L. Johnson, NOAA Assistant Administrator for Weather Services and Director, National Weather Service, Silver Spring, MD.

SESSION: WINTER WEATHER

- **Session Chair: Bernard N. Meisner,** NOAA/NWS/Southern Region Headquarters, Fort Worth, TX.
- **0915** AM Forecasting Frontal Precipitation Bands in an Operational Environment. Philip N. Schumacher, NOAA/NWSFO, Sioux Falls, SD.
- 0930 AM The Role of Intense Frontogenetical Forcing and Elevated Convective Instability in Producing the Record 22-23 December 2004 Snowstorm in South-Central Indiana. Theodore Funk, NOAA/NWSFO, Louisville, KY.
- **0945** AM Forecast Methodology for the 22 December 2004 Historical Winter Storm Over the Lower Ohio River Valley. Ryan J. Presley, NOAA/NWSFO, Paducah, KY.
- 1000 AM Coffee Break; Exhibits Open
- 1030 AM Airstream Analysis Conducive to Production of Heavy Banded Snowfall: A Numerical Simulation of the 26-27 November 2001 Snowstorm. Sam Ng, James T. Moore, and Charles E. Graves, Saint Louis University, Saint Louis, MO.
- 1045 AM Improved WSR-88D Detection of Shallow Lake-effect Snowstorms Over Lake Ontario: Simulations of Lowered Elevation Angles. Rodger A. Brown, NOAA/ National Severe Storms Laboratory (NSSL), Thomas A. Niziol, NOAA/NWSFO, Buffalo, NY, and Vincent T. Wood, NOAA/ NSSL, Norman, OK.
- 1100 AM What Idiot is Wasting My Storm-Chasing Time Yapping About a Winter Storm? The New Year's Day 2005 Thundersleet Storm in Central Minnesota. Robert A Weisman, Saint Cloud State University, Saint Cloud, MN, and Amanda E. Brandt, NOAA/NWSFO Duluth, MN.
- 1115 AM A Comparison of the Mesoscale Environments and Reflectivity Structures of Two Winter Weather Events Across the Mid-Mississippi Valley Region. Gary K. Schmocker and Ron W. Przybylinski , NOAA/ NWSFO, Saint Louis, MO.
- 1130 AMLunch on Your Own; Exhibits Open
- 0100 PM <u>FORUM & PANEL DISCUSSION</u> -- Developing Effective Partnerships to Advance Operational Meteorology –
- **Moderator: George L. Frederick Jr.** (NWA past president 1986) Vaisala Inc., Georgetown, TX

Presenters/panelists:

Dr. Kenneth Crawford (NWA past president 1988), NOAA/ NWS, Silver Spring, MD. *Partnerships for a successful NERON (NOAA's Environmental Real-Time Observation Network)*

Bill Massey, Consultant at Dewberry, Atlanta, GA (Retired FEMA). *An Operational User's Perspective: Partnerships, Emergency Management, and Operational Meteorology*

John McLaughlin (NWA past president 2002) chief meteorologist, KCCI-TV, Des Moines, IA. *Why Can't We All Get Along? A New Template for Public-Private Cooperation*

Dr. James T. Moore (NWA past president 1999) Professor, Saint Louis University, Saint Louis, MO. *Effective Partnerships* to Infuse Research into Training for Operational Meteorologists **Barry Lee Myers**, AccuWeather, Inc., State College, PA. The Impact of Legislation on Broadcast Meteorologists

Dennis H. McCarthy, Director, NOAA/NWS Office of Climate, Water, and Weather Services, Silver Spring, MD. *NOAA/NWS public-private partnership policies*

0230 PM Refreshment Break; Exhibits Open

SESSION: SEVERE WEATHER

Session Chair: Ron Przybylinski, NOAA/NWS Forecast Office, Saint Louis, MO

0300 PM *Invited Presentation* - Experience with 36-hour Explicit Convective Forecasts with the WRF-ARW Model. Morris L. Weisman, NCAR Mesoscale and Microscale Meteorology Division, Boulder, CO.

0330 PM A Comparison of Tornado Statistics from Tornado Alley to Dixie Alley. Alan E. Gerard (NWA Councilor), NOAA/NWSFO Jackson, MS, John Gordon, NOAA/NWSFO Louisville, KY, and John Gagan, NOAA/NWSFO Jackson, MS.

0345 PM Comparisons of Different WRF Configurations in a Severe Weather Forecasting Environment: The 2005 SPC/NSSL Spring Program. Steven J. Weiss, NOAA/NWS/ NCEP Storm Prediction Center (SPC), John Kain and Michael Baldwin, CIMMS/NSSL, David Bright and Jason Levit, NOAA/NWS/SPC Norman, OK.

0400 PM Observations and Societal Impacts of the 4 July 2004 Southwest Missouri Derecho. Angela Lese, NOAA/ NWSFO Louisville, KY.

0415 PM A Study of Tornado Environment Parameters in Iowa: What Works, and Which Meso-Analysis Output Can You Trust? Karl Jungbluth, NOAA/NWSFO Des Moines, IA.

0430 PM Damaging Surface Wind Mechanisms and Non-Supercell Tornadoes with the 24 May 2004 Bow Echo Event over Northeast Missouri and West-central Illinois. Ron Przybylinski and Gary Schmocker, NOAA/NWSFO Saint Louis, MO.

0445 PM The 1 June 2004 North Texas-Louisiana Derecho: A Case Study. Ted R. Best, Collin County TX ARES Skywarn, Plano, TX, and Dan Dixon, NOAA/NWSFO, Fort Worth, TX

0500 PM Session ends; Administrative announcements

0515 PM <u>ICE BREAKER and POSTER SESSION I</u> (time to view exhibits and posters, meet other attendees and enjoy refreshments)

POSTERS.

P1.1 The Interannual Variability of Midwestern Temperatures as Related to the ENSO and PDO. Kevin Birk, Blake Smith, Anthony R. Lupo, and Patrick E. Guinan, University of Missouri-Columbia, Columbia, MO.

P1.2 Environmental Conditions Associated with Cool Season Strong and Violent Tornadoes in the Middle Mississippi Valley. Mark F. Britt and Fred H. Glass, NOAA/NWSFO Saint Louis, MO.

P1.3 COHIX: Further Studies of the Heat Island Associated with a Small Midwestern City Using SuomiNet Data. Patrick Buckley,

Patrick S. Market, Anthony R. Lupo, and Neil Fox, University of Missouri-Columbia, Columbia, MO.

P1.4 The Use of LDAR II Total Lightning Data in Thunderstorm Nowcasting in the Dallas-Fort Worth Area. Nicholas W. S. Demetriades and Ronald L. Holle, Vaisala, Inc., Tucson, AZ.

P1.5 Statistical Analysis of Historical Observations in Support of Temperature Forecasts at the NWS Forecast Office in Jackson, MS. John P. Gagan, NOAA/NWSFO Jackson, MS.

P1.6 New Satellite Data Tools For Precipitation Analyses and Forecasts. Sheldon J. Kusselson and Jay Hanna, NOAA/NESDIS, Camp Springs, MD.

P1.7 The Impact of the Missouri Ozarks on MCS Events. Nathan M. McKinnon, David High, and Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO.

P1.8 The South Atlantic Hurricane ("Catarina") of March 2004. Mandi R. Reagan, Ashley D. Franklin, Patrick S. Market, and Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO.

P1.9 The Initiation of Nocturnal Convection over the Eastern Plains. Philip N. Schumacher, NOAA/NWSFO Sioux Falls, SD; Matthew Dux, Saint Cloud State University, MN; Jeffrey A. Chapman, NOAA/NWSFO Sioux Falls, SD, and Robert A. Weisman, Saint Cloud State University, MN.

P1.10 The Bow Echo Severe Wind Event of 6 May 2003 Across Eastern Missouri. James E. Sieveking Jr. and Ron W. Przybylinski, NOAA/NWSFO Saint Louis, MO.

P1.11 Observations of Cool Season QLCS Tornadoes in the Lower Ohio River Valley. Patrick J. Spoden, Christine Wielgos, and Matthew T. Friedlein, NOAA/NWSFO, Paducah, KY.

P1.12 The Pulaski County Tornado Event of 13 January 2005. Daniel Spaeth, NOAA/NWSFO Paducah, KY.

P1.13 Building Your Audience and Revenue with Wireless Technology. Kenneth Reeves, Jim Candor, Douglas Yule and Michael Steinberg, AccuWeather, Inc., State College, PA.

P1.14 The Mississippi Mesonet and NERON Activities in Mississippi. Loren White and Elizabeth Matlack, Jackson State University, Jackson, MS.

P1.15 NOAA's Climate Database Modernization Program. Thomas F. Ross, NOAA/NESDIS/National Climatic Data Center, Asheville, NC and Gary Petti, NOAA/NESDIS, Suitland, MD.

P1.16 National Weather Association 30th Anniversary. Ruth Aiken (NWA Secretary), NOAA/NWS Forecast Office, Raleigh, NC.

0730 PM Icebreaker, Presentation sessions, Exhibits and NWA Registration and Information desk close for the day; Dinner on your own.

A Broadcasters' Dinner will be held after the Icebreaker & Poster Session; Broadcast Meteorology Committee will announce specifics at the meeting.

Tuesday, 18 October 2005 - Annual Meeting General

Sessions (Second floor; Promenade Ballroom D, E, and F)

0730 AM NWA Registration and Information Desk opens in the Adam's Mark Hotel on the 2nd floor in the pre-convene area outside of Promenade Ballroom D.

SESSION: WARM SEASON WEATHER EVENTS

Session Chair: Fred Glass, NOAA/NWS Forecast Office, Saint Louis, MO

0800 AM *Invited Presentation* - Important Physical Processes in Some Recent Flash Floods. Matthew Kelsch, UCAR/COMET, Boulder, CO.

0830 AM Convective Redevelopment Behind the Significant Ohio Valley Derecho of 13 July 2004. Chris Smallcomb and Mark Jarvis, NOAA/NWSFO Louisville, KY.

- **0845** AM Meteorological and Warning Issues Associated with the Kansas Turnpike Flash Flood of 30 August 2003. James T. Moore and Jeffrey D. Vitale, Saint Louis University, Saint Louis, MO, and Matthew Kelsch, UCAR/COMET, Boulder, CO.
- **0900** AM A Case Study of A Surprise Elevated Convection Event Over Eastern Missouri: 24-25 July 2004. Martin A. Baxter, Michelle L. Keast-Nachtrab, and James T. Moore, Saint Louis University, Saint Louis, MO.
- **0915** AM Mini-Supercell Event of 23 October 2004 in the Memphis County Warning Area. Jonathan L. Howell and Jason F. Beaman, NOAA/NWSFO, Memphis, TN.
- **0930 AM Hail of a Spring in the Ark-La-Miss.** Jeffrey P. Craven (NWA Councilor), NOAA/NWSFO, Jackson, MS.
- **0945** AM Development of a Severe Weather Forecast Decision Aid for East-Central Florida. William H. Bauman III, Mark M. Wheeler and David A. Short, ENSCO, Inc., Cocoa Beach, FL
- **1000 AM** *Coffee Break and Poster Session II* (time to view exhibits and posters, meet other attendees and enjoy refreshments)

POSTERS:

- **P2.1** Training Forecasters to Effectively Use Smart Tools in the Digital Forecast Process. Samuel K. Beckman and Kevin L. Polston, NOAA/NWS Training Center, Kansas City, MO.
- P2.2 A 25-Year Climatology of the Supercell Composite Parameter. Greg Carbin, NOAA/NWS Storm Prediction Center, Norman, OK, Bryan Smith, Ball State University, Muncie, IN, Richard Thompson, and John Hart, NOAA/NWS/SPC, Norman, OK.
- P2.3 Preliminary Synoptic Climatology of Cool Season Severe Weather (2000-2005) for the Philadelphia National Weather Service County Warning Area and Vicinity. Paul J. Croft (NWA Past-President '04) and Michael G. Stroz, Kean University, Union, NJ.
- P2.4 An Investigation of Air Quality Index Characteristics and Behaviors for Southern New Jersey During Spring 2004 as a Function of Synoptic Weather Patterns. Paul J. Croft and Belkys V. Melendez, Kean University, Union, NJ.
- P2.5 Fog During the 2004-2005 Winter Season in the Northern Mid-Atlantic States: Spatial Characteristics and Behaviors as a Function of Synoptic Weather Types. Paul J. Croft and Aaron N. Burton, Kean University, Union, NJ.
- **P2.6 Problem Based Learning: Observing The Earth.** Paul J. Croft, Kean University, Union, NJ.
- **P2.7** Problem Based Learning: Meteorological Instrumentation. Paul J. Croft, Kean University, Union, NJ.
- P2.8 Undergraduates Providing Weather Activities for Research and Development of Skills at Kean University (UPWARDS at Kean!). Paul J. Croft, Kean University, Union, NJ.
- **P2.9** Ultrasonic Snow Depth Sensors Can they help us measure snow? Nolan J. Doesken, Colorado State University, and Wendy Brazenec and Steven Fassnacht, Dept. of Forest, Rangeland and Watershed Stewardship, Colorado State University, Fort Collins, CO.
- **P2.10** A Case Study of Supercell Thunderstorm Merger and Tornadogenesis. William Gilmore and Neil I. Fox, University of Missouri Columbia, Columbia, MO.
- **P2.11** The Historic Missouri-Illinois High Precipitation Supercell of 10 April 2001. Fred H. Glass and Mark F. Britt, NOAA/NWSFO Saint Louis, MO.
- **P2.12** The Role of Coupled Jet Streaks in a Midwestern Heavy Snow Event. Chad M. Gravelle, Scott M. Rochette, State University of New York at Brockport, NY, and Thomas A. Niziol, NOAA/NWSFO Buffalo, NY.
- **P2.13** Incorporating Local Climatology into Aviation Forecasts. Gino Izzi, NOAA/NWSFO Springfield, MO.
- **P2.14** Comparing Automated Thunderstorm Potential Index Output to Manual Products. David I. Knapp (NWA President-Elect),

- U.S. Army Research Lab, Las Cruces, NM. Earl Barker, Harris Technical Services Corporation, and Gordon Brooks, AF Weather Agency, Offutt AFB, NE.
- **P2.15 Tornadic High-Precipitation Supercell Cluster of 29 May 2004, Part II.** Greg Koch and Suzanne M. Fortin, NOAA/NWSFO Pleasant Hill, MO and Michael J. Hudson, NOAA/NWSFO Saint Louis, MO.
- **P2.16** The Creation and Utility of Historical Weather Posters. Andrea Lammers, NOAA/NWSFO Louisville (Indiana University), and Sarah Ede, NOAA/NWSFO Louisville (Western Kentucky University).
- **P2.17** Integration of SODAR Technology into Military Aerodrome Operations. David Law, U.S. Air Force, Medical Lake, WA.
- P2.18 Analysis and Forecasts of 300 hPa Divergence Associated with Severe Convection Using ETA-212 and MM5 Model Data. Capt. Scott Lisko, U.S. Air Force, Scott AFB, IL.
- **P2.19** Weather Forecasting: Getting Order Out of Chaos? Anthony R. Lupo, Patrick S. Market and Andy Kunz, University of Missouri-Columbia, Columbia, MO.
- P2.20 The Permian Basin Haboob of 3 June 2003: An Analysis Using Modern Remote Sensing and Photographic Observations. Seth Nagle, Jeffrey Cupo, Todd Lindley, and Pat Vesper, NOAA/NWSFO Midland, TX.
- **P2.21** On the Frequency of Occluded Frontal Occurrence over North America. Zach Paul and Patrick S. Market, University of Missouri-Columbia, Columbia, MO.
- **P2.22 South Florida Seabreeze/Outflow Boundary Tornadoes.** Russell Pfost, Pablo Santos and Thomas Warner, NOAA/NWSFO Miami FL.
- **P2.23** The Effect of a Gravel Base on the Temperature Profile in the Lowest 2 meters of the Atmosphere. Justin D. Pucket and Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO.
- **P2.24** Timmy the Twister. Dan Valle, Jim Belles, Scott Cordero, Jason Beaman and Jonathan Howell, NOAA/NWSFO Memphis, TN.
- **P2.25** The Severe Weather Outbreak of 17-18 December 2002 over Central and Southern Missouri. Benjamin M. Roudenis, Patrick I. Buckley, Neil I. Fox, and Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO.
- P2.26 The National Oceanic and Atmospheric Administration Commitment to Developing Minority Meteorologists and Atmospheric Scientists. John L. Shoemake (Staff), R. Suseela Reddy, (Faculty), Monesa Watts (Staff), Douglas Gavin (Student), and Darnell Newton (Student), Jackson State University, Monticello, MS.
- **P2.27** Decision Support Page NWS Weather Forecast Office, Tulsa, Oklahoma. Raymond Sondag, J. Brad McGavock and James Frederick, NOAA/NWSFO Tulsa, OK.
- **P2.28** A Report on the Multisensor Precipitation Estimator National Operations Team. Gregory J. Story, NOAA/NWS West Gulf River Forecast Center, Fort Worth, TX.
- **P2.29** Verification of the GFS Guidance Ensemble Mean Over a Portion of the Northern Plains. Kyle Weisser, Jeff Chapman, Phil Schumacher, NOAA/NWSFO Sioux Falls, SD.
- P2.30 Mesoanalysis of Straight Line Wind Damage Event 29-30 July 2002: It Beats Coming Up with a Lecture. Robert A. Weisman, Saint Cloud State University, Jeffrey M. Buck, Bradly E. Nelson, DTN, Inc., Todd A. Nelson and Matthew M. Kay, WeatherEye, Inc.
- P2.31 Comparison of Multi-Sensor Precipitation Estimates to Gage Precipitation Estimates for the Midwest Region. Nancy E. Westcott, Midwest Regional Climate Center, Illinois State Water Survey, Champaign, IL.
- **P2.32** Development of a Comprehensive Database of Weather Observing Sites in Mississippi. Loren White, Albert Williams and Elizabeth Matlack, Jackson State University, Jackson, MS.

- P2.33 An Overview of Kodiak Launch Complex Operational Weather Support for the Missile Defense Agency's Integrated Flight Test 13 and 14 Launches. Gregory D. Wilke, Science Applications International Corporation (SAIC), Cape Canaveral, FL.
- **P2.34** WRF Implementation by the Kean University Meteorology **Program.** Shing Yoh, Paul J. Croft and Guillermo Prescott, Kean University, Union, NJ.
- **P2.35** GOES-R Baseline Instruments. James Gurka and Timothy J. Schmit, NOAA/NESDIS, Crofton, MD.
- P2.36 The Creation and Impact of a New En-Route Graphical Weather Forecast for Aviation: Graphical AIRMET. Marc Singer, NOAA/NWS/NCEP Aviation Weather Center, Kansas City, MO
- **P2.37 Enhancements to the Galileo Weather System.** Kenneth Reeves, Ryan Ayres and Michael Steinberg, AccuWeather, Inc., State College, PA
- **P2.38** An Internet Site for Professional Meteorologists. Kenneth Reeves, Jim Candor and Michael Steinberg, AccuWeather, Inc., State College, PA
- 1130 AM Lunch on Your Own; Exhibits and Posters Open

SESSION: PROFESSIONAL DEVELOPMENT

Session Chair: Dr. James T. Moore (NWA Past-President '99), Saint Louis University, Saint Louis, MO.

- **0100 PM** Fifteen Years of the COMET Residence Program: A Look to the Future. Gregory P. Byrd (NWA Councilor) and Wendy Schreiber-Abshire, UCAR/COMET, Boulder, CO.
- **0115 PM** Forensic Meteorology...or Perhaps "CSI Meteorology." Stephen W. Harned (NWA Past-President '92), Atlantic States Weather Inc., Cary, NC.
- 0130 PM Initiating Undergraduate Student Research Projects in Operational Meteorology: Kean University Operational Undergraduate Research in Meteorology and Professional Activities and Collaborative Training (KU-OUR-METPACT).
 Paul J. Croft (NWA Past-President '04), Kean University, Union, NJ.
- **0145 PM** The Advanced Warning Operations Course (AWOC). John Ferree, Elizabeth Quoetone (NWA Commissioner of Committees) and Ed Mahoney, NOAA/NWS/WDTB, Norman, OK.
- **0200 PM** Supporting Professional Development through Continuing Education. Elizabeth Mulvihill Page (NWA Councilor), UCAR/COMET, Boulder, CO.
- **0215 PM** Use of the NWS Weather Event Simulator for Emergency Response Training. Bernard N. Meisner, NOAA/NWS Southern Region Headquarters, Fort Worth, TX.
- **0230 PM** Using the Warning Event Simulator-Displaced Real-Time (WES-DRT). David Reed, NOAA/NWS Lower Mississippi River Forecast Center, Slidell, LA.
- **0245 PM** Refreshment Break; Exhibits Open

SESSION: SOCIETAL IMPACTS OF WEATHER

Session Chair: Suzanne M. Fortin, NOAA/NWS Forecast Office, Pleasant Hill, MO.

- 0315 PM Invited Presentation A Review & Discussion of Significant Weather Events Occurring in 2005 including Hurricane Katrina. Greg Carbin, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK and other contributors..
- **0400 PM** Tornadoes Galore: The Record Year of 2004. Daniel W. McCarthy (NWA Councilor) and Joseph T. Schaefer (NWA Past-President '98), NOAA/NWS/NCEP Storm Prediction Center, Norman, OK.
- **0415 PM** Lightning Responses During a Football Game Compared with Hiking and Mountain Climbing. Ronald L. Holle, Holle Meteorology and Photography, Oro Valley, AZ and E. Philip Krider, University of Arizona, Tucson, AZ.

- 0430 PM Spatial and Temporal Variations in the Number and Intensity of Severe Thunderstorm Reports Across the United States. Joseph T. Schaefer, Daniel W. McCarthy and Jason J. Levit, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK.
- **0445 PM** The Community Collaborative Rain, Hail and Snow Network (CoCoRaHS). Nolan J. Doesken, Henry W. Reges and R. Cifelli, Colorado State University, Fort Collins, CO.
- 0500 PM Tornadic High-precipitation Supercell Cluster of 29 May 2004, Part I: Comparison of Observed Storm Scale to Observational and Theoretical Research of the Spectrum of Supercell Structure and Evolution. Michael P. Seaman and Suzanne M. Fortin, NOAA/NWSFO, Pleasant Hill, MO, and Ron W. Przybylinski, NOAA/NWSFO Saint Louis, MO.
- **0515 PM** Dinner on your own; NWA Registration and Information desk and Exhibits close
- **0600 PM** NWA Council and Committee Chairs Business Meeting

Wednesday, 19 October 2005 - Annual Meeting General Sessions (Second Floor; Promenade Ballroom D, E and F)

0730 AM NWA Registration and Information Desk opens in the Adam's Mark Hotel on the 2nd floor in the pre-convene area outside of Promenade Ballroom D.

SESSION: SUPPORT FOR OPERATIONAL METEOROLOGY

Session Chair: John Gagan, NOAA/NWS Forecast Office, Jackson, MS

- **0800** AM Invited Presentation Military Weather Support from an Operational Weather Squadron. Major Steve Cahanin, US Air Force, Director of Operations, 15th Operational Weather Squadron, Scott Air Force Base, IL. And Integration of Weather into TACC Flight Management for USAF Strategic Airlift. Capt. Brad Schrumpf and Maj. Richard Wagner, USAF, Tanker Airlift Control Center, Scott AFB, IL
- **0830** AM NOAA's National Weather Service Digital Services: Building a Weather Database Together. Andy Horvitz, Glenn Austin, Christine Alex, Douglas Young and Kirsten Gurka, NOAA/NWS Office of Climate, Water, and Weather Services, Silver Spring, MD.
- **0845** AM Review of 2005 Polygon Warning Initiative and One Inch Hail Severe Criteria Experiment in the Pleasant Hill County Warning Area. Lynn P. Maximuk and Michael J. Hudson, NOAA/ NWSFO Pleasant Hill, MO and Bryan T. Busby, KMBC-TV, Kansas City, MO.
- **0900** AM NWS Spaceflight Meteorology Group Support for the Space Shuttle Return-to-Flight. Frank C. Brody, Karl A. Silverman, Richard A. Lafosse and Doris A. Hood, NOAA/NWS Spaceflight Meteorology Group, Johnson Space Center, Houston, TX.
- **0915** AM Advanced Hydrologic Prediction Services at the Lower Mississippi River Forecast Center. David Reed, NOAA/NWS Lower Mississippi River Forecast Center, Slidell, LA.
- **0930** AM Operational Integration and Post-processing Short-range Ensembles Over the Northeast United States. Jeffrey S. Tongue, NOAA/NWSFO, Upton, NY, Brian A. Colle, Matthew S. Jones and Joseph B. Olson, Stony Brook University/ SUNY.
- **0945** AM The Interactive Grid Analysis and Display System (IGrADS) for the U.S. Armed Forecs. R. Bruce Telfeyan, Daniel M. Rozema, and Jennifer C. Roman, HQ Air Force Weather Agency, Offutt AFB, NE.
- 1000 AM Coffee Break

SESSION: CLIMATOLOGICAL PERSPECTIVES

Session Chair: Dr. Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO

1030 AM Local Severe Weather Climatologies for WSR-88D Radar Areas across the United States. John A. Hart, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK.

1045 AM A Baseline Climatology of Precipitation Rates that Induce Flash Flooding in an Urban Environment. Suzanne M. Fortin, NOAA/NWSFO, Pleasant Hill, MO.

1100 AM An Analysis of the Impact of Blocking on North American and Eurasian Summers. Nathan Davis, Justin M. Glisan, John P. Burkhardt, Blake Smith, Thomas E. Hagen, and Anthony R. Lupo, University of Missouri-Columbia, Columbia, MO.

1115 AM Convective Significant Meteorological Advisory (SIGMET) Climatology. Jonathan Slemmer, NOAA/NWS/ NCEP Aviation Weather Center, Kansas City, MO.

1130 AM NWA ANNUAL AWARDS LUNCHEON SESSION: REMOTE SENSING APPLICATIONS

Session Chair: Dr. Charles E. Graves, Saint Louis University, Saint Louis, MO

0200 PM The Status of Hydrological Products Derived from Satellite-based Passive Microwave Sensors. Ralph Ferraro, NOAA/NESDIS and CICS, College Park, MD.

0215 PM Equivalent Potential Temperature and Lightning Data and Their Relationship to Mesoscale Convective System Life Cycles. Rod Scofield (NWA Past-President '00) and Bob Kuligowski, NOAA/NESDIS/Office of Research and Applications, Camp Springs, MD and Shuang Qiu, QSS, Inc.

0230 PM Performance of Satellite Infrared Fog Detection Techniques with Major Fog-Related Highway Accidents. Gary P. Ellrod, NOAA/NESDIS, Camp Springs, MD and Scott Lindstrom, UWisc – Madison, CIMSS, Madison, WI.

0245 PM RWIS and Pavement-Specific Weather Forecasts: Reducing Maintenance Costs, Economic Losses and Improving Safety. Dale E. Bader, Surface Systems, Inc. (SSI), Saint Louis, MO.

0300 PM Refreshment Break

SESSION: LIGHTNING

Session Chair: William P. Roeder, 45th Weather Squadron US Air Force, Patrick AFB, FL

0315 PM Total Lightning Data in Weather Forecasting: The SPORT Experience. Dennis E. Buechler, University of Alabama in Huntsville, Steven J. Goodman, NASA/MSFC, Chris Darden, NOAA/NWSFO, and E.W. McCaul, Jr., USRA, Huntsville, AL

0330 PM Real Time Observations of Total Lightning using the Lightning Mapping Array. William Rison, Paul Krehbiel and Ron Thomas, New Mexico Tech, Socorro, NM, and Don MacGorman and Dave Rust, NOAA/National Severe Storms Laboratory, Norman, OK.

0345 PM Long-Range VLF Lightning over Oceanic Regions for Tropical and Extratropical Applications. Nicholas W.S. Demetriades and Ronald L. Holle, Vaisala, Inc., Tucson, AZ.

0400 PM Global Positioning System Precipitable Water (GPS-PW) in Forecasting Lightning at Kennedy Space Center (KSC) and Cape Canaveral Air Force Station (CCAFS), FL. Kristen Kehrer and Brian Graf, NASA/KSC, and William P. Roeder, 45th Weather Squadron, US Air Force, Patrick AFB, FL.

0415 PM Local Lightning Watches and Warnings: The Experience at Johnson Space Center. Timothy Oram and Richard Lafosse, NOAA/NWS Spaceflight Meteorology Group, Houston, TX.

0430 PM Forecasting Lightning at Kennedy Space Center/ Cape Canaveral Air Force Station. Florida. Winifred Lambert and Mark Wheeler, ENSCO, Inc., Cocoa Beach, FL, and William P. Roeder, 45th Weather Squadron, US Air Force, Patrick AFB, FL.

0445 PM Teaching Lightning Safety. William P. Roeder, 45th Weather Squadron, US Air Force, Patrick AFB, FL.

0500 PM Dinner on your own; NWA Registration and Information desk closes.

0600 PM NWA Council Business Meeting

Thursday, 20 October 2005 – Annual Meeting General Sessions (Second floor; Promenade Ballroom D, E and F)

0730 AM NWA Registration and Information Desk opens in the Adam's Mark Hotel on the 2nd floor in the pre-convene area outside of Promenade Ballroom D.

SESSION: TORNADOES

Session Chair: Chris Buonanno, NOAA/NWS Forecast Office, Little Rock, AR.

0800 AM *Invited Presentation* - Re-analyses of the Severe Thunderstorm Outbreak of 18 March 1925. Robert A. Maddox, Private Consultant, Tucson, AZ, Matthew S. Gilmore, University of Illinois, Charles A. Doswell III, CIMMS/ University of Oklahoma, and Charlie Crisp, NOAA/National Severe Storms Laboratory, Norman, OK.

0830 AM The 1925 Tri-state Tornado: A Re-Examination of the Damage Path and Characteristics of the Associated Convective Storm. Robert H. Johns, Researcher, Norman, OK, Donald Burgess and Charles A. Doswell III, CIMMS/University of Oklahoma, Norman, OK, Matthew Gilmore, University of Illinois, John Hart, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK and Robert Maddox, Private Consultant, Tucson, AZ

0845 AM Synoptic Patterns Associated with Significant Tornadoes in Illinois. Jared L. Guyer and John A. Hart, NOAA/NWS/NCEP Storm Prediction Center, Norman, OK.

0900 AM The 6 April 2005 Mississippi Tornado Outbreak. John P. Gagan, Eric Carpenter, Dan Byrd, Brad Bryant and Lora Mueller, NOAA/NWSFO Jackson, MS.

0915 AM Lessons Learned: The F3 Campbelltown, PA Tornado of 14 July 2004. John R. Scala (NWA Councilor), Center for Disaster Research and Education, Millersville, PA, and David Ondrejik, NOAA/NWSFO State College, PA.

0930 AM An Overview of the 10 May 2003 Tornado Outbreak. Fred H. Glass, NOAA/NWSFO, Saint Louis, MO.

0945 AM Mesoscale Preconditioning Prior to the 21 April 2005 Southeast Kansas Tornadoes. Gino Izzi, NOAA/ NWSFO Springfield, MO.

1000 AM Coffee Break

SESSION: WEATHER IMPACTS ON AVIATION

Session Chair: Capt. Scott Lisko, USAF Scott Air Force Base, IL.

1030 AM The Air Force Reserve Hurricane Hunters Missions and the 2005 Tropical Cyclone Season. Major John Gordon, United States Air Force Reserve Hurricane Hunters, Keesler Air Force Base, MS.

1100 AM Weather Theory for Pilots. Terry Lankford, FAA Retired, Murphys, CA.

1115 AM Aviation Weather-Related Crashes and Deaths in the United States During Calendar Year 2004. John M. Jarboe, FAA Academy, Oklahoma City, OK.

1130 AM Federal Aviation Administration's Director of NAS Weather and the Aviation Weather Technology Transfer Committee. How It Supports the FAA and the Aviation Weather Roadmap. Steve Walden and Christina Eggleston, AvMet Applications International, LLC, Arlington, VA.

1145 AM Lunch on Your Own

SESSION: RADAR TECHNIQUES AND APPLICATIONS

Session Chair: Jonathan Howell, NOAA/NWS Forecast Office, Memphis, TN

0100 PM NSSL Experimental Multiple-radar/sensor Severe Weather Products in AWIPS. Gregory J. Stumpf, CIMMS/NWS/MDL, Matthew Foster, NOAA/NWSFO Norman, OK, Karen Cooper, SAIC/NSSL, and V. Lakshmanan, CIMMS/NSSL, Norman, OK.

0115 PM RIDGE - Radar Integrated Display with Geospatial Elements: The NWS New Radar Webpage. Keith Stellman, Paul Kirkwood and Dennis Cain, NOAA/NWS Southern Region Hqs., Fort Worth, TX, Scott Rae, North Texas Council of Governments, and Ken Pavelle, NOAA/NWS ABRFC, Fort Worth, TX.

0130 PM Storm Duration Forecasts using Radar Storm
Tracking. David Jankowski and Neil I. Fox, University of Missouri –
Columbia, Columbia, MO.

SESSION: COLD SEASON WEATHER

Session Chair: Martin Baxter Saint Louis University, St. Louis, MO 0145 PM Convective Snow Forecasting: Progress in the Winter of 2004-2005. Patrick Market, Brian P. Pettegrew, Chris J. Melick, and Larry L. Smith, University of Missouri-Columbia, Columbia, MO.

0200 PM Pattern Recognition of Significant Snowfall Events in Tallahassee, Florida. Jeffrey D. Fournier and Andrew I. Watson, NOAA/NWSFO, Tallahassee, FL.

0215 PM A Case Study of the Gulf Coast Thundersnow Event of Christmas 2004. Brian P. Pettegrew, Chris J. Melick, Larry L. Smith, Amy Becker, Chris Schultz, Patrick Buckley, Anthony Lupo, and Patrick Market, University of Missouri-Columbia, Columbia, MO.

0230 PM A Conceptual Model Depicting Processes Important for the Generation of Meso-Beta Scale Snow Bands. Charles E. Graves, Michael J. Paddock and James T. Moore, Saint Louis University, Saint Louis, MO.

0245 PM Stability Tendency in Mid-latitude Convective Snow Events As Determined From RUC-20 Output. Larry L. Smith and Patrick Market, University of Missouri-Columbia, Columbia, MO.

0300 PM The Great Lakes Ice Cover-atmosphere Flux (GLICAF) Experiment. Michael L. Spinar, David A.R. Kristovich, and Michael C. Kruk, Illinois State Water Survey; Mathieu R. Gerbush, and Stephen K. Jackman, University of Illinois; and, Neil F. Laird, Hobart and William Smith Colleges.

0315 PM The South Texas Christmas 2004 Snow Event: a Climatological Perspective. Rich Dixon, Texas State University, San Marcos, TX.

0330 PM Closing Remarks: NWA President Steven J. Weiss and NWA President-Elect David I. Knapp

0400 PM NWA 30th Annual Meeting Adjourns

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Contact the NWA Executive Director's office (listed above) with address changes by phone, regular mail or e-mail.

IMPORTANT DATES AND EVENTS

5 October – NWA Newsletter submissions due to nwanewsletter@nwas.org or NWA Office

5-7 October – Ninth Annual High Plains Conference, North Platte, NE

13-15 October – Second Midwest Extreme & Hazardous Weather Regional Conf., Champaign, IL

15-20 October - NWA Annual Meeting, Saint Louis, MO.

28-29 October – Fifth Annual Symposium of the Atmospheric Sciences, Greensburg, PA sponsored by Three Rivers NWA Chapter, California Univ of PA

Please also see **MEETINGS** on pages 5-6 in the July Newsletter.

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

Our sincerest sympathies to the Hurricane Katrina victims and their families.

NATIONAL WEATHER ASSOCIATION

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Supporting and Promoting Excellence in Operational Meteorology and Related Activities for 30 Years