

**62nd Interdepartmental Hurricane Conference**  
*Theme: Tropical Cyclone Operations and Research: Priorities for the Future*

**AGENDA**

**Monday, March 3, 2008**

9:00 AM Early Registration (9:00 AM-12:30 PM)

**Opening Session**

12:30 PM	Conference Opening	Mr. Samuel P. Williamson Federal Coordinator for Meteorology
12:35 PM	Introduction of Mayor	Mr. Howard Chapman Executive Director, Charleston Area Regional Transportation Authority
12:40 PM	Welcome/Opening Remarks	The Honorable Joseph P. Riley, Jr. Mayor, Charleston, South Carolina
12:55 PM	Introductory Comments	Mr. Samuel P. Williamson Federal Coordinator for Meteorology
1:15 PM	Keynote Address	Ms. Mary M. Glackin Deputy Under Secretary for Oceans and Atmosphere (NOAA)
1:30 PM	Panel Introduction	Mr. Samuel P. Williamson Federal Coordinator for Meteorology
1:35 PM	<p><b>Panel:</b> <i>Priorities for Tropical Cyclone Research: A Senior Leader Perspective</i></p> <p><b>Moderator:</b> Dr. Elbert W. (Joe) Friday, Professor Emeritus, University of Oklahoma</p> <p><b>Panelists:</b></p> <p><b>Dr. Alexander “Sandy” MacDonald</b>, Deputy Assistant Administrator for NOAA Research Laboratories and Cooperative Institutes</p> <p><b>Mr. Robert Winokur</b>, Technical Director, Office of the Oceanographer and Navigator of the Navy</p> <p><b>Dr. Jack Kaye</b>, Associate Director for Research, Earth Science Division, NASA</p> <p><b>Colonel Ralph Stoffler</b>, Air Force Deputy Director of Weather</p> <p><b>RDML David Titley</b>, Commander, Naval Meteorology and Oceanography Command</p> <p><b>Dr. John “Jack” Hayes</b>, Assistant Administrator for Weather Services, NOAA</p>	
3:00 PM	Introduction of Federal Agency Lead Representatives	Mr. Samuel P. Williamson Federal Coordinator for Meteorology

3:15 PM Afternoon Coffee/Soda Break (3:15-3:45 PM)

*Session 1 Coordinator: Mr. Mark Welshinger (OFCM)*

**Session 1: The 2007 Tropical Cyclone Season in Review**

Session Leaders Dr. Edward Rappaport (TPC/NHC) and CAPT John O’Hara (NMFC/JTWC)		
3:45 PM	Overview of the 2007 Atlantic Hurricane Season	Richard D. Knabb (TPC/NHC); and M. Mainelli
4:00 PM	2007 Eastern North Pacific Hurricane Season Summary	Lixion A. Avila (TPC/NHC)
4:15 PM	2007 Atlantic and Eastern North Pacific Forecast Verification	James L. Franklin (TPC/NHC)
4:30 PM	Overview of the 2007 Central North Pacific Tropical Cyclone Season	Raymond Tanabe (CPHC)
4:45 PM	A Review of the Joint Typhoon Warning Center 2007 Tropical Cyclone Season	Lt Col Robert J. Falvey (JTWC)
5:00 PM	53 WRS 2007 Hurricane Season Reconnaissance Summary	Lt Col Rich Harter (53 WRS)
5:15 PM	NOAA Aircraft Operations Center (AOC) 2007 Season Summary and Future Plans	James D. McFadden (NOAA AOC); and J. Parrish

6:30 PM Reception/Icebreaker (6:30-8:00 PM)

**Tuesday, March 4, 2008**

7:00 AM Continental Breakfast

7:50 AM Opening/Administrative Remarks *Dr. Paul Try (OFCM/STC)*

8:00 AM Invited Presentation Mr. X. William (Bill) Proenza  
Director, National Weather Service Southern Region

*Sessions 2 and 3 Coordinator: Dr. Paul Try (OFCM/STC)*

**Session 2: Workshop: Interagency Priorities for Tropical Cyclone Research**

8:15-10:15 AM	<p><b>Moderator:</b> Dr. Alexander “Sandy” MacDonald, Deputy Assistant Administrator for NOAA Research Laboratories and Cooperative Institutes</p> <p><b>Panelists:</b> Dr. Frank Marks, NOAA AOML/HRD Dr. Scott Braun, NASA/GSFC Dr. Simon Chang, Naval Research Laboratory Ms. Pamela Stephens, NSF</p>	
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10:15 AM Morning Coffee Break (10:15-11:00 AM)

**Session 3: Observing the Tropical Cyclone and its Environment, Part 1**

Session Leader Dr. Jim McFadden (NOAA/AOC) and Lt Col Jonathan Talbot (53 <sup>rd</sup> WRS, AFRC)		
11:00 AM	Use of the Operational Air Force Reserve Stepped Frequency Microwave Radiometer during the 2007 Hurricane Season	Lt Col Jonathan Talbot (53d Weather Reconnaissance Squadron)
11:15 AM	The First Year of SFMR Surface Wind Observations from AFRC WC-130J Aircraft: Impact on Operational Hurricane Forecasts and Warnings, and Outlook for Use in WPAC TCS-08 Experiment	Peter G. Black (Naval Research Laboratory and SAIC, Inc.); and J. Talbot, I. Popstefanija, E. Uhlhorn and J. Franklin
11:30 AM	Evaluation of the 2007 Hurricane Season Deployment of Operational SFMR Instruments on the Hurricane Hunter Fleet	Ivan PopStefanija (ProSensing Inc.) and M. Goodberlet
11:45 AM	Radar Sea Level Pressure Remote Sensing for Improvements in Hurricane Predictions	Bing Lin (NASA Langley Research Center); and Q. Min, Y. Hu, S. Harrah, R. Lawrence, and D. Fralick
12:00 PM	Storm Surge Measurement with an Airborne Scanning Radar Altimeter	Edward. J. Walsh (NASA/Goddard Space Flight Center); and C. W. Wright, W. B. Krabill, W. A. Shaffer, S. R. Baig, M. Peng, L. J. Pietrafesa, A. W. Garcia, F. D. Marks, Jr., P. G. Black, J. Sonntag, and B. D. Beckley

12:15 PM Lunch (on your own) (12:15-1:30 PM)

Sessions 4 and 5 Coordinator: Mr. Mike Babcock (OFCM)

**Session 4: Observing the Tropical Cyclone and its Environment, Part 2**

Session Leaders Mr. Chris Velden (UW-CIMSS) and Dr. Paul Chang (NOAA/NESDIS)		
1:30 PM	The Hurricane and Severe Storm Sentinel (HS <sup>3</sup> )	Scott Braun (NASA/GSFC); and M. Craig and P. Newman
1:45 PM	CIMSS Satellite Consensus (SATCON) Tropical Cyclone Intensity Estimation Algorithm	Derrick Herndon (Cooperative Institute for Meteorological Satellite Studies) and C. Velden
2:00 PM	Baseline Instruments for the GOES-R Series: Providing Major Improvements to Hurricane Observations	James J. Gurka (NOAA/NESDIS); and T. Schmit, T. Renkevans, M. DeMaria, and C. Velden

2:15 PM	Will we soon have a Geostationary Microwave Sounder, and what can we do with it?	Bjorn Lambrigtsen (Jet Propulsion Laboratory)
2:30 PM	Initial User Impact Studies of the Next Generation Ocean Surface Vector Wind Scatterometer Mission (XOVWM) in Operational Weather Forecasting and Warning at NOAA	Zorana Jelenak (Center for Satellite Applications and Research) and P. Chang

2:45 PM Afternoon Break (2:45-3:30 PM)

**Session 5: Observing the Tropical Cyclone and its Environment, Part 3**

Session Leaders Ms. Robbie Hood (NASA/MSFC) and Mr. Jeffrey Hawkins (NRL-Monterey)		
3:30 PM	Impact Assessment of Potential Hurricane Imaging Radiometer (HIRAD) Tropical Cyclone Observations from Aircraft and Satellite Platforms	Robbie Hood (NASA Marshall Space Center); and M.C. Bailey, P. Black, S. Chen, C. Hennon, M. James, J. Johnson, L. Jones, T. Miller, C. Ruf, K. Stephens, and E. Uhlhorn
3:45 PM	GPS-Based Tropical Storm Sensing Results for 2003-2007 Storm Seasons	Stephen J. Katzberg (NASA-Langley Research Center); and B. Lin
4:00 PM	Coastal Ocean Observing Systems: Oceanic Current and Wave Response to Hurricane Jeanne Detected by Wellen Radars	Lynn K. Shay (Rosenstiel School of Marine and Atmospheric Science); and J. Martinez-Pedraja, M. Powell, B. Haus, and Jodi Brewster
4:15 PM	Phased Array Radar: Applications to Landfalling Tropical Cyclones	Pam Heinselman (Cooperative Institute for Mesoscale Meteorological Studies); and D. Forsyth
4:30 PM	Hurricane Mesonet Initiative	Jay Titlow (WeatherFlow, Inc.); and B. Rule and K. Gurley

4:45 PM One-Minute Poster Previews  
Coordinator: Lt Col Mark Fitzgerald (Air Force/OFCM)

5:10 PM **OFCM Staff Meeting** (5:10-5:30 PM)

**5:30 PM Poster Session (5:30-7:30 PM) Plus Snacks and Cash Bar**

P01	Comparison of Airborne SFMR, Dvorak Satellite and Best Track Maximum Surface Wind Estimates in Atlantic Tropical Cyclones: 1998-2006	Peter. G. Black (Naval Research Lab and SAIC, Inc.); and S. Mullins, C. S. Velden, M. D. Powell, E. W. Uhlhorn, T. L. Olander and A. Burton
P02	Pacific Islands Land-Ocean Typhoon Experiment (PILOT Experiment) and Typhoon Man-yi at Guam	C. E. Pollock (US Army Engineer R&D Center); and S. J. Boc, A. W. Garcia, J. P. Rhee, and M. A. Merrifield
P03	The Saharan Air Layer and Improved Understanding of Atlantic Hurricane Formation and Intensification: Hope or Hype?	Scott Braun (NASA/GSFC); and C. Shie
P04	Interactive Hurricane Surge Visualization for Charleston, South Carolina	Frank Alsheimer (National Weather Service); and R. Bright, B. Lindner, G. Miller, D. Timmons and J. Johnson
P05	Introducing the new CIMSS Tropical Cyclone Web Site	Christopher Velden (University of Wisconsin-CIMSS)
P06	Chesapeake Inundation Prediction System (CIPS)	Jay Titlow (WeatherFlow, Inc.) and Chesapeake Research Consortium
P07	Status of the NASA High-Altitude Imaging Wind and Rain Airborne Profiler (HIWRAP)	Gerald Heysfield (NASA Goddard Space Flight Center); and L. Li, J. Carswell, D. Schaubert, J. Cretico, and M. Vega
P08	Monitoring Inland Storm Surge and Flooding from Hurricane Rita	Ben McGee (USGS); and B. McCallum, C. Berenbrock, P. Turnipseed, and R. Mason
P09	Monitoring Tropical Cyclone Impacts on Domestic Agriculture at the U.S. Department of Agriculture	Harlan Shannon (U.S. Department of Agriculture)
P10	Transportation Resources that May Be Used to Respond to Weather-Related Incidents	Kimberly C. Vásconez (Emergency Transportation Operations Team); and L. Radow

**Wednesday, March 5, 2008**

7:00 AM Continental Breakfast

7:50 AM Opening/Administrative Remarks *Lt Col Mark Fitzgerald (Air Force/OFCM)*

*Sessions 6 and 7 Coordinator: Lt Col Mark Fitzgerald (Air Force/OFCM)*

### Session 6: Tropical Cyclone Modeling and Prediction, Part 1

Session Leaders Prof Russell Elsberry (NPS) and Dr. Mark DeMaria (NESDIS)		
8:00 AM	Advancement of the HWRF for Next Generation Hurricane Prediction at NCEP's Environmental Modeling Center	Naomi Surgi (NCEP/EMC); and R. Tuleya, Qingfu-Lui, V. Tallapragada, and Y. Kwon
8:15 AM	Improvements to GFDN Planned for Operational Implementation in 2008	Morris A. Bender (Geophysical Fluid Dynamics Laboratory); and I. Ginis, R. Yablonsky, and B. Thomas
8:30 AM	Hurricane Model Transitions to Operations at NCEP/EMC	Robert E. Tuleya (NCEP/EMC); and Y. Kwon, V. Tallapragada, and N. Surgi
8:45 AM	Modeling of Coupled Wind-Wave-Current Processes in Hurricanes	Isaac Ginis (Graduate School of Oceanography, University of Rhode Island); and Y. Fan, T. Hara and B. Thomas
9:00 AM	Evaluation and Improvement of Ocean Model Parameterizations for NCEP Operations	Lynn K. Shay (RSMAS); and G. Halliwell, J. Brewster, W. J. Teague
9:15 AM	Impact of Satellite Observations on Tropical Cyclone Track Forecasts	James S. Goerss (Naval Research Laboratory)

9:30 AM Morning Break (9:30-10:15 AM)

### Session 7: Tropical Cyclone Modeling and Prediction, Part 2

Session Leaders Dr. Naomi Surgi (NCEP) and Dr. Nick Shay (RSMAS/UM)		
10:15 AM	The Impact of Horizontal Resolution on the Structure and Intensity of Hurricane Dennis in HWRF Simulations	Robert Rogers (NOAA/AOML Hurricane Research Division) and S. Gopalakrishnan
10:30 AM	Evaluation and Improvement of Spray-Modified Air-Sea Enthalpy and Momentum Flux Parameterizations for Operational Hurricane Prediction	Jian-Wen Bao (NOAA/Earth System Research Laboratory); and C. Fairall, S. Michelson, and L. Bianco
10:45 AM	Prediction of Consensus TC Track Forecast Error and Correctors to Improve Consensus TC Track Forecasts	James S. Goerss (Naval Research Laboratory)
11:00 AM	An Objective Tool for Identifying Hurricane Secondary Eyewall Formation	James Kossin (Cooperative Institute for Meteorological Satellite Studies) and M. Sitkowski
11:15 AM	The Quality of Pre-Advisory Model Guidance	Mike Fiorino (Techniques Development and Applications Unit, NHC)
11:30 AM	Tropical Cyclone Dressing: Next-Generation Goerss Predicted Consensus Error (GPCE)	Jim Hansen (Naval Research Laboratory)

11:45 AM Lunch (on your own) (11:45 AM-1:00 PM)

Sessions 8 and 9 Coordinator: Mr. Floyd Hauth (OFCM/STC)

**Session 8: Field Experiments and Other Hurricane-related Research/Projects**

Session Leaders Dr. Frank Marks (AOML/HRD) and Mr. Daniel Catlett (DHS/FEMA)		
1:00 PM	An Overview of the THORPEX-Pacific Asian Regional Campaign (T-PARC) during August-September 2008	Patrick Harr (Naval Postgraduate School); and R. Elsberry, D. Parsons and J. Moore
1:15 PM	Tropical Cyclone Structure (TCS08) Field Experiment in the Western North Pacific During 2008	Russell L. Elsberry (Naval Postgraduate School); and R. Ferek, S. Chang, D. Eleuterio, and P. Harr
1:30 PM	A review of the NOAA IFEX hurricane field experiments conducted in 2007	John Gamache (NOAA/AOML Hurricane Research Division)
1:45 PM	Research on Landfalling Hurricanes Utilizing Mobile Research Platforms	Kevin Knupp (University of Alabama in Huntsville); and D. Cecil, W. Petersen, and L. Carey
2:00 PM	A Roadmap for a Seamless Topobathy Surface	Lindy Dingerson (NOAA Coastal Services Center)
2:15 PM	Advanced Hydrologic Prediction Service (AHPS) Flood Inundation Maps	Douglas C. Marcy (NOAA Coastal Services Center); and G. Austin, T. Graziano, and V. Hom

2:30 PM Afternoon Break (2:30-3:00 PM)

**Session 9: Joint Hurricane Testbed: Project Updates and Plans for the Future**

Session Leaders Dr. Chris Landsea (TPC/NHC) and Ms. Shirley Murillo (HRD)		
3:00 PM	The Joint Hurricane Testbed (JHT): 2008 Update	Jiann-Gwo Jiing (Joint Hurricane Testbed); and C. Landsea and S. Murillo
3:15 PM	An Improved Wind Probability Program: A Joint Hurricane Testbed Project Update	Mark DeMaria (NOAA/NESDIS); and S. Kidder, P. Harr, J. Knaff, and C. Lauer
3:30 PM	Operational Use of Near-Real-Time Sea Surface Directional Wave Spectra Generated from NOAA Scanning Radar Altimeter Range Measurements	Edward J. Walsh (NASA/Goddard Space Flight Center)

3:45 PM	Validation and Processing Tools for the Air Force Reserve Command 53rd Weather Reconnaissance Squadron WC-130J Multi-Aircraft SFMR Systems	James Carswell (Remote Sensing Solutions); and P. Black, E. Uhlhorn, and P. Chang
4:00 PM	Web-ATCF, User Requirements, and Intensity Consensus	Charles R. Sampson (Naval Research Laboratory); and A. Schrader, C. Sisko, C. Lauer and A. Krautkramer
4:15 PM	High Wind Drag Coefficient and Sea Surface Roughness in Shallow Water	Mark D. Powell (NOAA/AOML Hurricane Research Division)

5:15 PM **OFCM Staff Meeting** (5:15-5:45 PM)

7:00 PM **Conference Banquet** (Cash Bar at 6:30 PM)

Banquet Address (~7:45 PM): Dr. Steve Lyons, Tropical Weather Expert  
The Weather Channel

Presentation of the Hagemeyer Award

### **Thursday, March 6, 2008**

7:00 AM Continental Breakfast

7:50 AM Opening/Administrative Remarks

*Mr. Floyd Hauth (OFCM/STC)*

*Sessions 10 and 11 Coordinator: Mr. Floyd Hauth (OFCM/STC)*

#### **Session 10: Products and Services**

Session Leaders Mr. Paul Trotter (NWS WFO New Orleans/Baton Rouge) and Mr. Scott Kiser (NOAA/NWS)		
8:00 AM	FEMA's Utilization of Tropical Forecasts and Other Products	Michael Buckley (Mitigation Directorate, FEMA)
8:15 AM	A Preliminary Verification of the National Hurricane Center's Tropical Cyclone Wind Speed Probability Forecast Product	Jaclyn A. Shafer (Florida Institute of Technology); and M. McAleenan, W. Roeder, K. Winters, S. Lazarus, and M. Splitt
8:30 AM	Verification of NHC Forecasts of Extratropical Transition	Jack Beven (National Hurricane Center)
8:45 AM	The NESDIS Tropical Cyclone Formation Probability Product: An Overview of Past Performance and Future Plans	Andrea B. Schumacher (CIRA); and M. DeMaria, J. Knaff, and D. Brown
9:00 AM	New and Updated Operational Tropical Cyclone Wind Products	John A. Knaff (NESDIS/StAR – RAMMB); and A. Krautkramer, M. DeMaria, and A. Schumacher

9:15 AM	The Experimental Graphical Tropical Weather Outlook (GTWO): 2007 Results and Future Plans	Jamie R. Rhome (National Hurricane Center); and D. Brown, J. Franklin, C. Landsea, C. Lauer, and C. Juckins
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9:30 AM Morning Coffee Break (9:30-10:15 AM)

**Session 11: Workshop - Strong Local Partnerships: The Keys to Success**

10:15 AM -12:15 PM	<p><b>Moderator:</b> Dr. Denise Stephenson Hawk, NCAR Associate Director and Director of the SERE Laboratory</p> <p><b>Panelists:</b> Ms. Cathy Haynes, Director, Charleston County Emergency Preparedness Division  Mr. Walt Dickerson, Director, Mobile County Emergency Management Agency  Mr. Michael Emlaw, Meteorologist-in-Charge, NWS Weather Forecast Office, Charleston, SC  Dr. Betty Hearn Morrow, Professor Emeritus Florida International University, Consulting Sociologist  Ms. Naomi Moye, Hazards Communications Consultant  Mr. Ronald Glaser, Sandia National Laboratories, Program Manager, Integrated Public Alert and Warning System</p>
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12:15 PM Lunch (on your own) (12:15-1:30 PM)

1:30 PM Working Group for Hurricane and Winter Storms Operations and Research Meeting  
Dr. Edward Rappaport (TPC/NHC), Chairperson

4:00 PM **OFCM Staff Meeting** (4:00-4:30 PM)

**Friday, March 7, 2008**

7:30 AM Continental Breakfast

*Final Plenary Session Coordinator: Mr. Mark Welshinger (OFCM)*

**Final Plenary Session**

8:15 AM	Opening/Administrative Remarks	Mr. Mark Welshinger (OFCM)
8:20 AM	WG/HWSOR: Action Item Review	Dr. Edward Rappaport (TPC/NHC) Chairperson, WG/HWSOR
8:45 AM	Workshop Wrap-ups  <i>Workshop: Interagency Priorities for Tropical Cyclone Research</i>  <i>Workshop: Strong Local Partnerships: The Keys to Success</i>	Dr. Paul D. Try (OFCM/STC)  Dr. Denise Stephenson Hawk (NCAR Associate Director and Director of the SERE Laboratory)
9:15 AM	Final Wrap-up	Mr. Samuel P. Williamson Federal Coordinator
9:45 AM	Adjourn	