American Meteorological Society
89th Annual Meeting

5th Annual Symposium
Future National Operational Environmental Satellite Systems

NPOESS and GOES-R

January 13-14, 2009
Phoenix, Arizona

89th AMS Annual Meeting – Phoenix, AZ
11-15 January 2009

"Fifth Annual Symposium on Future National Operational Environmental Satellite Systems - NPOESS and GOES-R“

13 – 14 January 2009: Co-Chairs -

G. McWilliams, R. Ohlemacher – NPOESS Co-Chairs
J. Gurka, T. Schmit – GOES-R Co-Chairs
M. Jamilkowski – Co-Chair: Speaker Liaison
K. Boyd – Co-Chair: AMS Liaison

2-day symposium on how NPOESS and GOES-R will enhance our nation’s ability to: understand and predict weather; detect severe weather events and other hazards that impact urban communities; and monitor climate.

Address expected performance of NPOESS and GOES-R sensors and algorithms, environmental data products, end user applications, and benefits of NPOESS and GOES-R to the international user community and society.

Highlight ongoing training and education that is preparing forecasters to use NPOESS and GOES-R data and products as soon as the new systems launch.

The NPOESS and GOES-R symposium will be held jointly with the 16th Conference on Satellite Meteorology and Oceanography and the 18th Symposium on Education.

2009 Call for Papers

5th Annual Symposium
"Future National Operational Environmental Satellite Systems - NPOESS and GOES-R"

American Meteorological Society 89th Annual Meeting
Phoenix, Arizona
Tuesday/Wednesday - January 13-14, 2009

The 5th Annual Symposium on Future National Operational Environmental Satellite Systems-National Polar-orbiting Operational Environmental Satellite System (NPOESS) and the Geostationary Operational Environmental Satellite R-Series (GOES-R) is sponsored by the American Meteorological Society and organized by the NPOESS and GOES-R Symposium Committee. This two-day symposium during the 89th AMS Annual Meeting will consist of invited oral and poster presentations with emphasis on how NPOESS and GOES-R will enhance our nation's ability to: understand and predict weather; detect severe weather events and other hazards that impact urban communities; and monitor climate. The symposium will address expected performance of NPOESS and GOES-R sensors and algorithms, environmental data products, end user applications, and benefits of NPOESS and GOES-R to the international user community and society. Sessions will focus on use of NPOESS and GOES-R data to improve: numerical weather prediction and short-term nowcasting and forecasting; applications for natural hazards detection; and climate monitoring. The symposium will highlight ongoing training and education that is preparing forecasters to use NPOESS and GOES-R data and products as soon as the new systems launch. The NPOESS and GOES-R symposium will be held jointly with the 16th Conference on Satellite Meteorology and Oceanography and the 18th Symposium on Education.

2009 Symposium Agenda

Tuesday, January 13

8:30	Symposium Introduction	Gary McWilliams / **Jim Gurka**
8:32	Symposium Welcome	Mary Kicza
8:35	**Symposium Keynote Address**	Mary Glackin

"Meeting National Needs: Transition Issues for Earth Observations, Climate, and Weather"

Session 1: NPOESS/MetOp Overview and Status (Joint with 16th Conference on Satellite Meteorology and Oceanography)

Session Chairs: Mike Haas, Doug May

8:55	Session Introduction and Overview	Mike Haas
9:00	NPOESS Architecture	Ed Philips
9:15	NPOESS Program Status	Ed Phillips
9:30	MetOp-A Status and Recent Achievements	Johannes Schmetz
9:45	***Formal Poster Viewing with Coffee Break***	

Session 2: GOES - R Overview and Status (Joint with 16th Conference on Satellite Meteorology and Oceanography)

Session Chairs: Gary Davis, Jim Gurka

11:00	Session Introduction and Overview	Gary Davis
11:05	GOES-R Program Overview	Greg Mandt
11:30	GOES-R Instrument Operations	Tim Walsh
11:45	GOES-R Ground System Status	Vanessa Griffin
12:00	***Lunch Break***	

2009 Joint Session Tue PM

Tuesday, January 13

Session 3: Satellite Education and Public Outreach for NPOESS, GOES-R, and MSG/MetOp (Joint with16th Conference on Satellite Meteorology and Oceanography and 18th Symposium on Education)

Session Chairs: Thomas Lee, Volker Gaertner

1:30	GOES-R Proving Ground Program	Jim Gurka
1:45	Contributions from CIRA to the GOES-R Satellite Proving Ground	Steve Miller
2:00	Satellite Training Activities at CIMSS: Helping to Prepare Forecasters for the GOES-R and NPOESS Era	Scott Bachmeier
2:15	After more than 10-years of e-Learning, what have we learned?	Steve Ackerman
2:30	Satellite Proving Ground for the GOES-R Geostationary Lightning Mapper (GLM)	Steve Goodman
2:45	International Training Events and Educational Seminars on Satellite Remote Sensing	Paul Menzel
3:00	***Coffee Break in Exhibit Hall***	

Session 4: Satellite Forecaster Training (Joint with16th Conference on Satellite Meteorology and Oceanography and 18th Symposium on Education)

Session Chairs: Tony Mostek, Steve Ackerman

3:30	NOAA Satellite Training	Tony Mostek
3:45	Training optimisation with web based training methodologies for satellite meteorology and related application areas	Volker Gaertner
4:00	A new environmental satellite resource center on the web	Wendy Abshire
4:15	Transitioning NPOESS data to weather offices: The SPoRT paradigm with EOS data	Gary Jedlovec
4:30	Collaborative training efforts at the NESDIS Cooperative Institutes	Ingrid Guch
4:45	Navigating the hurricane highway: Understanding hurricanes with Google Earth	Joe Turk
5:00	Applications of the NPOESS Imagers	Tom Lee
5:15	The NPOESS Data Exploitation Project	Jim Yoe
5:30	Closing	

2009 Joint Session Wed AM

Wednesday, January 14

Session 5: Climate Monitoring and Studies (Joint with 16th Conference on Satellite Meteorology and Oceanography)

Session Chairs: Deborah Smith, Mitch Goldberg

8:30	GOES-R Improvements for Climate Monitoring	Mitch Goldberg
8:45	NOAA's approach to providing Climate Data Records (CDRs) within a new interagency initiative	Jeff Privette
9:00	Spatial and temporal inter-relationships between anomalies and trends of temperature, moisture, cloud cover, and OLR as observed by AIRS/AMSU on Aqua	Joel Susskind
9:15	Assessing Uncertainties and Variability in Global and Regional Radiative Fluxes from the NASA/GEWEX Surface Radiation Budget (SRB) Release-3.0 Dataset	Paul Stackhouse, Jr.
9:30	Regional and Seasonal Variations in Marine Boundary Layer Cloud Properties from MODIS and GOES observations	Michael Jensen
9:45	Application of an optically thin model to limb scatter data for retrievals of aerosol extinction profiles	D. E. Flittner
10:00	***Coffee Break in Meeting Room Foyer***	

Session 6: Improvements to Numerical Weather Prediction and Short-term Forecasting (Joint with 16th Conference on Satellite Meteorology and Oceanography)

Session Chairs: Nancy Baker, Lars Peter Riishojgaard

10:30	Data assimilation experiments using quality controlled AIRS Version 5 temperature soundings	Joel Susskind
10:45	Winter QPF Sensitivities to Snow Parameterizations and Comparisons to NASA CloudSat Observations	Andrew Molthan
11:00	The importance of numerical weather prediction and data assimilation systems in the calibration and validation of current and future satellite sensor measurements sensitive to atmospheric temperature and humidity	Nancy Baker
11:15	The benefits of increased use of the information content of hyperspectral observations in numerical weather prediction	John Le Marshall
11:30	Use of satellite derived cloud products in a generalized cloud analysis package utilized within two regional assimilation systems, the Rapid Update Cycle and the Rapid Refresh	Stephen Weygandt
11:45	Impact of satellite radiance data in the Rapid Refresh system and problems of regional satellite radiance assimilation	Dezso Devenyi

Luncheon Panel

12:00 Panel Discussion - Meeting Future Urban Weather and Climate Information Needs from Space

2009 Joint Session Wed PM

Wednesday, January 14

Session 7: Advances in Natural Hazards Monitoring (Joint with16th Conference on Satellite Meteorology and Oceanography)

Session Chairs: Wayne Feltz, Brian Hughes

1:30	New automated methods for detecting volcanic ash and retrieving its properties from infrared radiances	Michael Pavolonis
1:45	Toward an end-to-end satellite-based convection nowcasting system	Kristopher Bedka
2:00	Early prediction of malaria in forest hills of Bangladesh using AVHRR based satellite data	Mohammad Nizamuddin
2:15	Geostationary detection of fires and the global and long-term datasets of the WF_ABBA	Christopher C. Schmidt

2:30 ***Formal Poster Viewing with Coffee Break***

Session 8: Operational Products and the Transition from Research to Operations (Joint with16th Conference on Satellite Meteorology and Meteorology)

Session Chairs: Chris Velden, Jeff Hawkins

4:00	Assessment of the Utility of ASCAT Ocean Surface Vector Wind (OSVW) Retrievals at NOAA OPC	Khalil Ahmad
4:15	ATOVS Derived Soundings Using Noaa PROduct Validation System (NPROVS) Datasets for Computing First Guess and Sensor Bias Adjustments Independent of NWP	Anthony Reale
4:30	Monitoring the Saharan Air Layer with satellite-derived AOD algorithms	Arunas Kuciauskas
4:45	Transitioning Satellite Products to National Weather Service Operations, and Future Directions for the GOES-R Era	Jordan Gerth
5:00	Validation of the Ensemble Tropical Rainfall Potential (e-TRaP) for land-falling tropical cyclones	A.E. Salemi
5:15	Symposium Closing Remarks	**G. McWilliams /** J. Gurka

2009 Symposium – Lunch Panel

Meeting Future Urban Weather and Climate Information Needs from Space

Wednesday, 14 January 2009: 12:00 PM-1:30 PM

Co-Chairs: Gary McWilliams, Michael L. Jamilkowski, Rick Ohlemacher, James J. Gurka, Tim Schmit, Philip E. Ardanuy, Wayne Feltz

Moderator: Dr. William H. Hooke, Director of AMS Policy Program

Panel Members:

- Dr. Gary J. Jedlovec - NASA/Global Hydrology and Climate Center/Short-term Prediction Research and Transition Center (SPoRT)
- Dr. Thomas R. Karl, Director, NOAA/NESDIS/National Climatic Data Center, President-Elect AMS
- Dr. J. Marshall Shepard, Associate Professor, Department of Geography, University of Georgia
- Mr. Don Berchoff, Director, NOAA/NWS/Office of Science and Technology

Description:

A panel of distinguished experts from government, academia, and the private sector will speak to the needs for data and information from current and future satellite observing systems, including NPOESS and GOES-R, to address the impacts of weather and climate on an increasingly vulnerable urban society. Space-based remote sensing significantly contributes to understanding and predicting weather, detecting high-impact/severe weather events and other hazards that affect urban communities, and monitoring climate. In this context, high-impact weather is considered broadly and includes severe weather (e.g., hurricanes, tornadoes), precipitation, floods, lightning, and poor visibility. Panel members will highlight key issues and critical capabilities of the new systems that will be developed over the next few years and flown during the next two decades. Each panel member will speak to the topic for five minutes. A moderated discussion with the audience will follow the presentations by the panel members.