

SPoRT Quarterly
January – March 2008

The SPoRT REPORT

Short-term Prediction Research and Transition (SPoRT) Center
NASA Marshall Space Flight Center (MSFC), Huntsville, AL
<http://weather.msfc.nasa.gov/sport/>

The SPoRT Center is a NASA-funded project to transition unique observations and research capabilities to the operational community to improve short-term weather forecasts on a regional scale. While the direct beneficiaries of these activities are selected Weather Forecast Offices (WFOs) in the Southern Region, the research leading to the transitional activities benefits the broader scientific community.

Quarterly Highlights

SPoRT 5 Year Anniversary

Improving weather forecasts, one storm – and one partner – at a time

Thanks to an innovative collaboration, NASA earth science satellite measurements are helping the National Weather Service improve short-term weather predictions.

The Short-term Prediction Research and Transition (SPoRT) Center, located at the National Space Science Technology Center in Huntsville, taps into streams of research information available from NASA instruments and develops specialized tools which help forecasters improve the accuracy of weather predictions. Forecasters using SPoRT products in forecasting systems have seen improvements in understanding how certain weather systems will evolve.

To commemorate five years of fruitful collaboration, the SPoRT team hosted a celebration workshop on March 3 which included remarks by NASA and Marshall

Center and National Weather Service leadership along with a science-sharing training session for forecasters in the Huntsville National Weather Service Forecast Office. It is the only one in the country co-located with NASA researchers.

“The SPoRT approach is based on establishing a close working relationship with the end user of the data, matching NASA data and research capabilities to forecast problems, and involving the user in all aspects of the development,” said Gary Jedlovec, SPoRT principal investigator.

The key to the success of the SPoRT program lies in its commitment to customer service and collaboration. SPoRT works with local forecasters to understand forecast issues and develops techniques



Dr. Tsengdar Lee reviews new NASA data in AWIPS with SPoRT data liaison Dr. Geoffrey Stano.

that directly meet their needs. Potential solutions are refined at the SPoRT Center and then validated before transitioning the process to the front-line forecasters.

Over the past five years, SPoRT has grown into a nationally recognized program with strong advocates within NASA, the National Weather Service and the larger weather community. Dr. Tsengdar Lee, manager of the scientific computing portfolio and the SPoRT program at NASA Headquarters in Washington, spoke at the anniversary celebration, noting, “Transitioning research to operations is hard, and people think it just happens. This is very difficult work. We are encouraged by what you have accomplished and are fully committed to continuing SPoRT.”

The SPoRT team currently provides real-time data and products to seven weather forecast offices, but will expand to work with a dozen offices this year. NASA information is processed in such a way it can be directly accessed within the modeling and forecast systems local forecasters use each day. In this way, the forecasters have access to the unique NASA products directly in their decision support systems like any other data stream.

Because the National Weather Service is responsible for issuing all public weather forecasts in the United States, it is committed to working with research partners to improve its ability to forecast the weather. Mike Coyne, meteorologist-in-charge at the Huntsville National Weather Service, attributes the success of the program to a NASA’s commitment to working with local forecasters, understanding the day-to-day problems they tackle, and designing customized solutions.

“We are really indebted to SPoRT. The program not only helps us improve our forecasts, but it helps us when it helps the most — meeting our mission to provide quality information and warnings that hopefully save life and property,” said Coyne.



Rusty Billingsley of NWS Southern Region congratulates SPoRT team on their accomplishments.

One of the most dramatic results of this local collaboration has been an increased understanding of the relationship between lightning activity and severe thunderstorms.

The majority of lightning during a storm flashes within clouds and doesn’t strike the ground. A NASA Lightning Mapping Array in northern Alabama captures detailed information about lightning rates through a series of ground-based sensors, including the frequency of in-cloud lightning flashes. By looking at the in-cloud flash rates, NASA researchers discovered an increase in total lightning activity often indicates the development of strong storms. By incorporating flash rates along side Doppler radar and other indicators, local forecasters have been able to issue severe weather warnings to communities in a storm’s path an average of three minutes earlier.

“This doesn’t seem like a lot, but if you’re at home watching TV and hear a warning, it’s enough time to get your family into

an interior room or basement,” said Chris Darden, science operations officer for the Huntsville National Weather Service office. “We’d like to think it helps save lives and it definitely helps improve our ability to get better information to our customers.”

Going forward, SPoRT aims to help partners prepare for the next generation of weather satellites which will be launched by NASA and National Oceanic and Atmospheric Administration over the next 10 years. They will carry advanced sensors capable of producing higher-resolution images containing more information about the atmosphere and ground than today’s satellites can provide.

“What we’re doing now with SPoRT is good training, preparation and validation for how future measurements will be used nationally,” said Jedlovec. “In a few years, the research we’re doing here will have far reaching impacts across the country and even globally.”

Article written by Jennifer Morcone, NASA Science Writer

Recent Accomplishments

Web-based Training

SPoRT has begun using the Articulate Presenter software to convert Power Point presentations into enhanced e-learning training modules. These modules include audio narration as well as flash movies and can be viewed using any web-browser that has the free flash plug-in. Work has begun on an LMA Primer to describe the applications of total lightning data in operations. In addition, Kevin Fuell is converting recent science sharing presentations on MODIS imagery and the GOES aviation products into 15-minute web-based modules in order to provide training to all of the SPoRT partners who will be using this data. Future science sharing sessions and other expert presentations will be converted in a similar manner to create a library of training modules for SPoRT collaborators.

Evaluation of MODIS False-Color Imagery

SPoRT is collaborating with the NWS office in Great Falls, MT to evaluate the use of the MODIS false-color imagery in monitoring snow/ice cover. The service hydrologist has been using the imagery for several winter/spring seasons to monitor snow melt and potential flooding over MT and the surrounding states. SPoRT recently provided a tailored feedback form that can be used to log the use of the product over a span of several days to weeks in order to capture the use of this imagery over the course of an event. The initial feedback indicates the false color product is quite useful to monitor snow melt and potential flooding. This and other specific surveys used for product evaluation are posted to a revised assessment page on the SPoRT website: http://weather.msfc.nasa.gov/sport/sport_transition_assessment.html

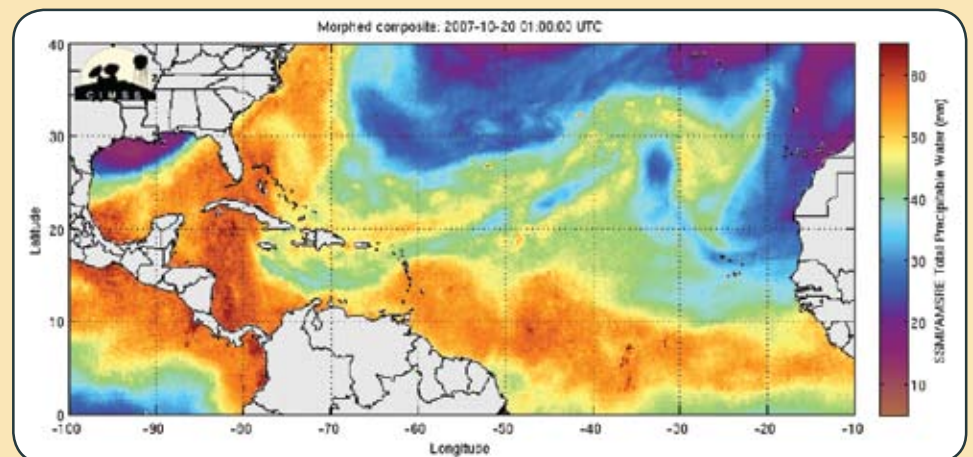
Product Transition

New SPoRT products are on the way to additional WFOs in the region. After identifying specific office forecast problems,

AMSR-E Data Used for Tropical Weather Coverage

One of the more popular segments on The Weather Channel (TWC) is its regular coverage of tropical storms and hurricanes, as they develop in the Atlantic and approach the mainland of the United States during the summer and fall seasons. Through collaborations with the University of Wisconsin, SPoRT is now providing the TWC with a new tropical weather product that contains moisture information retrieved from the AMSR-E instrument on NASA's Aqua satellite. The Morphed Integrated Microwave Imagery at CIMSS (MIMIC) — Total Precipitable Water (TPW) product is produced by the Cooperative Institute for Meteorological Satellite Studies (CIMSS) at the University of Wisconsin with support from the Naval Research Lab (NRL). SPoRT repackages the data product into a more generic form and makes it available to the user community on its public web sites. TWC ingests the data and brings it into their computer systems for on-air presentation in a similar way to the other satellite data provided by SPoRT. The MIMIC-TPW is produced with a data-blending technique that combines swaths of microwave observations from polar orbiting satellites to create near-seamless images of total water vapor data (Wimmers and Velden, 2007). Currently, real-time data from the SSM/I sensor on the DMSP-13/14 satellites and the AMSR-E sensor on the Aqua satellite are combined to generate the product. An hourly product is desired for animation, so the TPW is treated as a purely conservative tracer advected by a lower-tropospheric mean layer wind using fields from the GFS global model for times several hours away from the retrieval time. The MIMIC-TPW product shows variations in atmospheric moisture in and around developing tropical weather systems. When a time sequence of the imagery is animated, changes in the moisture variations can be used to explain future storm movement and development. The data will be used on-air beginning in May for TWC's tropical weather coverage.

Wimmers, A. J. and C. S. Velden, 2007: MIMIC: A new approach to visualizing satellite microwave imagery of tropical cyclones. Bull. Amer. Meteor. Soc., 88, 1187-1196.



the GOES aviation (icing, icing and cloud top height, fog depth, and low cloud base) and CIRA (total precipitable water and total precipitable water anomaly) products are in the final phase of transition. This has been a multi-partner effort with input provided by several offices and by Jason Burks (ITO Huntsville). Currently, Huntsville, Knoxville, Melbourne, Miami and Tallahassee are fully ingesting these products. Corpus Christi and Mobile are testing the new instructions for final release. Once these products are transitioned, SPoRT's focus will shift to the larger task of transitioning the MODIS suite of products. Additionally, the Lightning Mapping Array has sparked WFO Knoxville's interest and Knoxville is in the process of becoming the fourth office to receive the source density data.

With the increase in data provided to SPoRT partners, organization is important. The SPoRT web page has received several updates to reflect these changes. The first is the all new Product Distribution page brought to life by Erik Reimers. The site serves as a central location for all information regarding the products being transitioned to the SPoRT partners. The Assessment page has received a new look and preparations to upload several new web surveys for the recently transitioned products are underway. Finally, a Request Support form is now available to our partners to provide another way to give SPoRT a heads-up to any product problems.

Communications and Assessment

Communication is vital to maintaining a healthy collaboration. SPoRT has kicked off the monthly SPoRT/National Weather Service coordination call bringing together all of our Southern Region partners and the Southern Region Headquarters staff. This monthly call is designed to improve communication and feedback between SPoRT and the WFOs. These calls will evolve into science sharing opportunities where every

office has the opportunity to share ideas and insights into the operational uses of SPoRT products.

Our partners from Great Falls, MT have begun an evaluation phase of the MODIS False Color product. With a chillier winter climate than Huntsville, Great Falls has several unique forecast issues. The office is assessing the False Color's utility in the determination of clouds versus snow. However, the service hydrologist, Gina Loss, is putting the product through its paces by looking at other, interesting applications such as river ice, snowfall and flooding potential, and temperature forecasts based on the boundary of snow covered and snow free ground.

From icy rivers to sandy beaches, Pablo Santos (SOO Miami) is very excited about the CIRA products. The transition into the AWIPS environment has been a good improvement, showcasing one of SPoRT's strengths. He is currently working with SPoRT liaisons Geoffrey Stano and Kevin Fuell to provide in-depth feedback about these data, with the goal of creating a web based training product.

Total Lightning Data and the Huntsville LMA

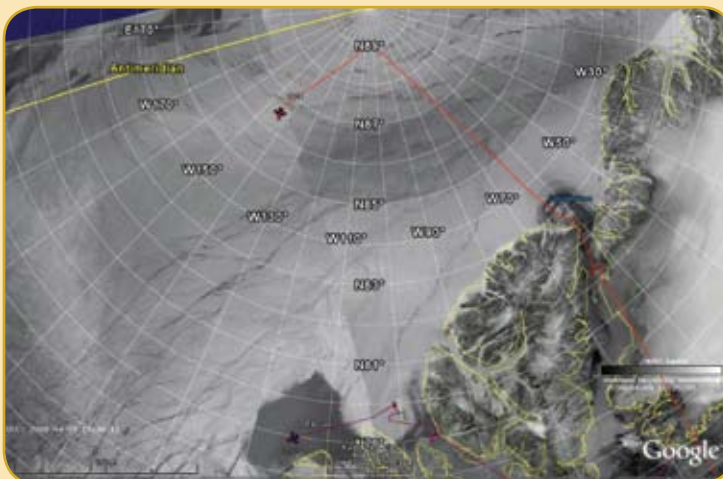
Dennis Buechler and Geoffrey Stano joined with Chris Darden (SOO Huntsville) to discuss the uses of total lightning data and the GOES Lightning Mapper to several Western Region WFOs in the Intermountain Workshop. Dr. Henry Fuelberg from the Florida State University

visited the SPoRT Center in late February to discuss lightning forecasts with both SPoRT and the Weather Service. The visit developed out of an interest in the lightning probability forecast technique developed for Florida Power and Light Corporation. The main topic discussed the effectiveness of the scheme in the Huntsville region, which is not dominated by the sea breeze like the Florida peninsula. The visit has increased discussion between SPoRT and the Huntsville weather service office in how to better address their lightning forecast needs.

Upcoming Activities

MODIS Data in RTMM for ARCTAS

The SPoRT project is providing near real-time MODIS data and products over the polar and high latitude regions of North America to support the Arctic Research of the Composition of the Troposphere from Aircraft and Satellites (ARCTAS) field campaign <<http://cloud1.arc.nasa.gov/arctas/>>. The NASA Real Time Mission Monitor (RTMM) is a situational awareness tool that integrates satellite, airborne and surface data sets; weather information; model and forecast outputs; and vehicle state data (e.g., aircraft navigation, satellite tracks and instrument field-of-views) for field experiment management. RTMM optimizes science and logistic decision-making during field experiments by presenting timely data



The DC8 (near North Pole) and P3 (northern Canada) observe and sample the Arctic atmospheric composition on 9 April 2008 during return flights to Fairbanks from Thule, Greenland. MODIS infrared composite images help guide aircraft over the Arctic Ocean.

and graphics to the users to improve real time situational awareness of the experiment's assets. MODIS data is obtained by SPoRT from the NOAA bent-pipe server, reformatted into RTMM compatible fields and staged on a local server for use by the RTMM. Currently, several high resolution visible and infrared channel images and derived composite image products are produced and made available to the RTMM. MODIS data are not only available in a RTMM display on the ground, but also to the RTMM users on-board the DC8 aircraft. The field program will take place as two 3-week aircraft deployments, in spring 2008 (April 1–22) based in Fairbanks, Alaska and summer 2008 (June 26–July 14) based in Cold Lake, Alberta. Spring flights include two round trips from Fairbanks to Thule, Greenland. Aircraft involved in ARCTAS include the NASA DC8, NASA P3 Orion and the NASA B200 as in situ platforms for making detailed measurements of the atmospheric composition.

SPC/NSSL Spring Program

SPoRT staff members Brad Zavodsky and Andrew Molthan will participate in the SPC/NSSL Spring Experiment, hosted by the NOAA Hazardous Weather Testbed (HWT). The primary focus of this year's experiment will be an evaluation of output from convection-permitting model forecasts as guidance for the prediction of severe convective weather. The guidance products will be derived from a suite of forecast systems based on WRF-model forecasts using no convective parameterization, 2–4 km grid spacing, and forecast domains covering the eastern two-thirds of the U.S. In addition to the high resolution ensemble concept, emerging technologies such as radar data assimilation and the new WRF 3DVAR will be utilized in selected experimental model forecasts this spring. The SPoRT staff members will help with model forecast evaluation. The primary scientific objectives of the experiment are 1) to identify strengths and weaknesses of various configurations of the WRF

model, 2) to evaluate the performance of the new WRF-3DVAR package and the OU-CAPS radar-data assimilation system, 3) to develop useful strategies to convey information regarding uncertainty and the range of possible solutions using high-resolution ensemble output, 4) to inspire new research initiatives that will have direct relevance to the operational forecasting community. The Experiment is scheduled to run Monday-Friday from April 21 through June 6 in the HWT facility adjacent to the SPC and WFO Norman operational forecast areas.

AWIPS II Development

With the arrival of the new NWES 2 machine, the latest build of the AWIPS II Development Environment will soon be installed. Once installed, efforts will develop the techniques necessary to display all current SPoRT products in the National Weather Service's next generation workstation and keep SPoRT advancing with new Weather Service technology.

Related Activities

Convective Weather Products for TRACON Advanced Weather Forecasting (FAA)

SPoRT is beginning a collaborative activity with the FAA to provide guidance on the use of advanced weather products to support terminal radar approach control weather decisions for the New York area. Convective weather events account for 60-70% of air traffic delays in the summer season over the United States. The current convective product used by the FAA for short-term (0-8h) planning in the Terminal Radar Approach Control (TRACON) area is the Collaborative Convective Forecast Product (CCFP). This product provides convective weather forecast information for all regions of the United States. The FAA TRACONs need well-defined and timely convective forecast products that will enhance their ability to safely track and maneuver

aircraft into controlled facilities. Currently, their use of the CCFP is limited; as it may not meet specific mesoscale convection forecast needs of each TRACON. The SPoRT — FAA collaborative activity will use advanced regional weather forecast models, satellite observations, and convective initiation nowcast products as supplemental guidance in local weather forecast preparation. These products have shown improved skill in identifying and forecasting mesoscale to regional areas of convection and can provide supplemental information to the large-scale CCFP for use in FAA TRACON planning activities. SPoRT has included its collaborative partner ENSCO to provide scientific expertise in mesoscale meteorological forecasting, weather analysis, and regional modeling capabilities. The 10 month effort will focus on 1) evaluating FAA needs for a convective forecast product, 2) developing an enhanced forecast product and methodology including met(eorologist)-in-the-loop support, 3) implementing prototype capabilities during the summer 2008 convective season, and 4) product and support assessment.

Daily Chlorophyll composites for coastal applications

SPoRT has partnered with WorldWinds, Inc to develop a daily chlorophyll composite product from MODIS data. The data set will provide high-resolution, spatially continuous data to the scientific community, operational marine users, coastal WFOs, and the general public. The composites will be generated with a modification of techniques used to generate the MODIS SST composites for coastal and weather forecasting applications (Haines et al., 2007). The composites will aid in application of chlorophyll-a by measuring changes in the spatial variability of chlorophyll, changes in chlorophyll distribution due to river outflow and interaction with ocean currents, and field campaigns where sampling of specific productivity conditions are desired. High resolution data combined with compositing will allow scientists to determine where localized productivity phenomena may be

Recent Publications and Presentations

Papers/publications

Peer-reviewed

- LaCasse, K. M., M. E. Splitt, S. M. Lazarus, and W. M. Lapenta, 2007: The Impact of High Resolution Sea Surface Temperatures on the Simulated Nocturnal Florida Marine Boundary Layer, *Mon Wea. Rev.*, (in press)
- Jedlovec, G., S. L. Haines, and F. LaFontaine, 2008: Spatial and Temporal Varying Thresholds for Cloud Detection in GOES Imagery. *Trans. Geos. and Rem. Sens.*, 46, 6, (June)

Under review

- Case, J. L., W. L. Crosson, S. V. Kumar, W. M. Lapenta, and C. D. Peters-Lidard, 2008: Impacts of high-resolution land surface initialization on regional sensible weather forecasts from the WRF model. (*J. Hydrometeor.*, In Review).
- McCaul, E. W., Jr., S. J. Goodman, K. M. LaCasse, and D. J. Cecil, 2008: Forecasting lightning threat using cloud-resolving model simulations. *Wea. Forecasting*, in review.

present. This will allow end user decisions to be based on chlorophyll-a concentrations on a daily basis. The processing will obtain chlorophyll-a data at least once daily from the University of South Florida broadcast station. The data will be inspected and metadata compiled, most importantly describing the data's date of collection. An existing algorithm used to composite SST data will be modified to produce a cloud-free 1-km composite chlorophyll-a image by blending data from multiple satellite orbits. The validation process will utilize the SeaBASS searchable database of in situ bio-optical measurements for data product validation purposes. The resulting data files will be produced in a GIS friendly format and a web server will be established at NASA SPoRT for data retrieval by the public at large. This project will show the feasibility to generate the product and potential value to the WFOs, operational marine weather users, and NASA's Applied Science program.

Haines, S. L., G. J. Jedlovec, and S. M. Lazarus, 2007: A MODIS Sea Surface Temperature Composite for Regional Applications. Trans. Geosci. Rem. Sens., 45, No. 9, IEEE, 2919-2927.

Enhanced Composite SST Product

SPoRT has partnered with Dr. Jorge Vazquez (JPL) and the physical

oceanography group at JPL to develop an enhanced high-resolution sea surface temperature composite for regional and local weather applications. This project is developing an enhanced sea surface temperature (SST) product for coastal U.S. applications and will make the product available to the Earth science community. The product will combine infrared and passive microwave measurements to produce a comprehensive and spatially consistent high resolution SST product, based on the various observational uncertainties in the data. Enhanced composites will be developed for several case study periods later this year to test and validate the algorithm. Real-time implementation and dissemination will occur in 2009.

Convective Initiation and Growth

This new collaborative activity with Principal Investigator Dr. John Mecikalski (UAH) is focused on transitioning a convective initiation (CI) 0-1 hr nowcasting algorithm, as improved by NASA satellite assets for various convective regimes, into FAA decision support system (DSS). The goal is to enhance predictability of the timing, location and growth rate of CI by more succinctly defining the general characteristics of convective cloud development as observed by satellite, thus improving aviation weather decisions.

SPoRT will assist in the integration of MODIS and other satellite data into the CI product. The improved CI algorithm will be incorporated into the Corridor Integrated Weather System (CIWS) DSS, which provides automated convective weather forecasts in real-time for FAA decision makers.

NASA Products to Enhance Energy Utility Load Forecasting

A new collaboration has begun with Battelle and Ventyx (formerly NewEnergy Associates) which focuses on the application of high-resolution NASA observations and regional weather model data for short-term energy load forecasting by energy utilities. Utility companies rely on various decision support tools (DSTs) to balance supply and load on the electric grid or dispatch natural gas. Most of these DSTs rely on a limited amount of weather data to influence the decision process. This activity will test the application of NASA Earth science data (surface temperature, relative humidity, and winds) from a variety of sensors and model outputs at providing additional information to the decision process. The project is lead by Dr. Jill Engle-Cox of Battelle with Co-investigators, NASA Langley Research Center, Ventyx, and collaborations with Avista Utilities, and National Fuel.

Conference papers/presentations

AMS Annual Meeting January 21-25, 2008, New Orleans, LA

Bateman, M., D. Mach, E. W. McCaul, Jr., J. Bailey, and H. Christian, 2008: A comparison of lightning flashes as observed by the Lightning Imaging Sensor and the North Alabama Lightning Mapping Array.

Buechler, D. E., R. J. Blakeslee, J. Hall, and E. W. McCaul, Jr., 2008: Tennessee Valley total and cloud-to-ground lightning climatology comparison.

Case, J. L., S. Lazarus, M. Splitt, W. L. Crosson, W. M. Lapenta, G. J. Jedlovec, and C. Peters-Lidard, 2008: High-Resolution Specification of the Land and Ocean Surface for Improving Regional Mesoscale Model Predictions.

Case, J. L., P. Santos, S. Lazarus, M. Splitt, S.L. Haines, S. R. Dembek, and W. M. Lapenta, 2008: A multiseason study of the effects of MODIS sea-surface temperatures on operational WRF forecasts at NWS Miami, FL.

Chronis, T., J. L. Case, A. Papadopoulos, E. N. Anagnostou, J. R. Mecikalski, and S. L. Haines, 2008: Towards improved forecasts of atmospheric and oceanic circulations over the complex terrain of the eastern Mediterranean.

Darden, C.B., J. Burks, D.E. Buechler, J. Hall, and S.J. Goodman, 2008: The utility of total lightning tools and technologies - Four years of operational case studies.

Demetriades, N.W.S., D.E. Buechler, C.B. Darden, G.R.Patrick, and A. Makela, 2008: VHF total lightning mapping data use for thunderstorm nowcasting at weather forecast offices.

Gatlin, P. N. and S. J. Goodman, 2008: Severe weather precursors in the lightning activity of Tennessee Valley thunderstorms.

Goodman, S.J., R.J. Blakeslee, W. Koshak, W. Petersen, D.E. Buechler, P.R. Krehbiel, P. Gatlin, and S. Zubrick, 2008: Pre-launch algorithms and risk reduction in support of the geostationary lightning mapper for GOES-R and beyond.

Jedlovec, G. J., and J. Burks, 2008: Dissemination and Use of NPOESS Data in AWIPS II.

Jedlovec, G. J., 2008: Effect of GOES-R Image Navigation and Registration Errors on Atmospheric Motion Vectors.

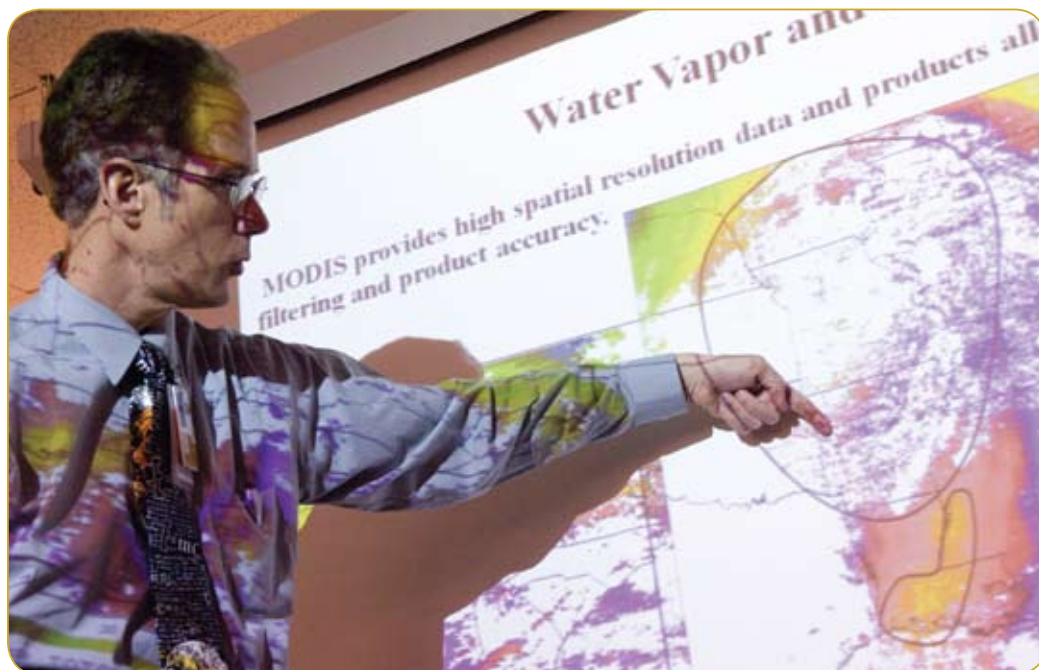
McCaul, E. W., Jr., K. LaCasse, S. J. Goodman, and D. Cecil, 2008: Use of high-resolution WRF simulations to forecast lightning threat.

Miller, T. L., R. Atlas, P. G. Black, J. L. Case, S. S. Chen, R. E. Hood, J. W. Johnson, L. Jones, C. S. Ruff, and E. W. Uhlhorn, 2008: Simulation of the impact of new aircraft and satellite-based ocean surface wind measurements on H*Wind analyses.

Molthan, A. W. M. Lapenta, and G. J. Jedlovec, 2008: Application of NASA A-train to evaluate clouds simulated by the WRF model.

Presentations

- Total Lightning Tools: Four Years of Case Studies (Chris Darden) - 2008 AMS Conference
- Presentation and panelists at the 2008 GOES-R User's Forum - 2008 AMS Conference (Darden)
- The Jackson County EF-4 Tornado: A Radar Operator's Perspective (Jason Elliott) - some LMA trends covered in the presentation: presented at SECAPS in Mobile
- A Review of the North Alabama Violent Tornado Outbreak on 6 February 2008 (Brian Carcione and David Nadler) - some ARMOR data and possible LMA trends: presented this weekend at SE Severe Storms Symposium in Starkville



Gary Jedlovec explains value of MODIS data during recent Science Sharing Session.

Proposals submitted/funded

Accepted

- In response to the Research Opportunities in Space and Earth Sciences (ROSES) 2007 announcement for ideas on “Accelerating Operational Use of Research Data”, Dr. Gary Jedlovec and the Short-term Prediction Research and Transition (SPoRT) project partnered with Dr. Jorge Vazquez of the Jet Propulsion Lab (JPL) last fall to develop proposal concepts. The resulting proposal “Development of SST High Resolution Composite Data Sets for the SPoRT Activity” was recently selected for funding. The new project will develop an enhanced sea surface temperature (SST) product for coastal U.S. applications and make those products available to the Earth science community. The product will combine infrared and passive microwave measurements to produce a comprehensive and spatially consistent high resolution SST product based on the various observational uncertainties in the data.

Visitors

- Elizabeth Valenti and Ben Jelley (WorldWinds) – RPC planning with SPoRT
- Tsengdar Lee (NASA HQs), to attend the SPoRT EOS 5th Anniversary Celebration
- Rusty Billingsley and (NWS Southern Region), to attend the SPoRT EOS 5th Anniversary Celebration
- Bill Marx, Bruce Peters, and Jeff Mullins (Schafer) – discuss collaborations with SPoRT
- Henry Fuelberg (FSU) – discuss lightning collaborations with SPoRT and FSU’s statistical lightning forecast techniques and how they may be applied to the Weather Service
- Steve Goodman (NESDIS/STAR) – discuss lightning collaborations with SPoRT
- Volker Gartner (EUMETSAT) – Learn more about NWS and SPoRT

External meetings attended

- AMS Annual Meeting – January 21–25, 2008 – New Orleans
- AWIPS II TO8 Demo – February 7, 2008, Silver Springs, Maryland
- FAA TRACON Advanced Weather Forecasting Meeting, February 21–22, Westbury, NY
- Satellite Algorithm Test Bed Workshop – February 26–27, Suitland, Maryland.

Calendar of Upcoming Events

- Visit to Atlantic Oceanographic and Meteorological Laboratories (AOML), April 8, Miami, FL
- AIRS Science Team Meeting, April 15–17, Pasadena, CA
- 20th International Lightning Detection Conference April 21–23 and the 2nd International Lightning Meteorology Conference April 24–25 in Tucson, AZ
- Enhanced SST Composite Program planning meeting, April 18, JPL, Pasadena, CA
- ARCTAS Experiment, April 1–21, Alaska
- Southern Region WFO Coordination Calls, April 17, May 15, and Jun 19.
- NPOESS and GOES-R Training Development Workshop, May 13–16, Boulder, CO
- 2008 SPC/NSSL Spring Experiment in Norman, OK on May–Jun.

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