

HURRICANE IMAGING RADIOMETER (HIRAD) FEATURED ON WAAY-31 NEWS

(email to: daniel.j.cecil@nasa.gov/256-961-7549): Television station WAAY-31 in Huntsville aired a short feature on MSFC's HIRAD during its 10 PM newscast on February 8, 2016. Dan Cecil (ZP11) described HIRAD's purpose of mapping the surface wind speeds in hurricanes, and hopes that in the future such an instrument on aircraft or satellite could contribute to improved hurricane warnings. The video showed some of the data collected by HIRAD in Hurricane Patricia (October 2015), interspersed with file footage of hurricanes and NASA's WB-57 aircraft that carried HIRAD. The HIRAD feature begins around the 8-minute mark in following video link <http://67.214.100.182/Player?ClipId=,S,201602,9B559E8A-0FEF-433D-B9F0-D403615BDE36&ReqServer=NDS5&QueryName=NASA%20Marshall%20Space%20Flight%20Center%20->

SPoRT RESEARCH TO OPERATIONS SUCCESS DOCUMENTED IN ACCEPTED PUBLICATION (email to: andrew.molthan@nasa.gov/256-961-7474):

Members of the Short-term Prediction Research and Transition (SPoRT) Center team, including Kevin Fuell (UAH) and Andrew Molthan (ZP11), were coauthors on a publication recently accepted for final release by the National Weather Association Journal of Operational Meteorology, titled "Next Generation Satellite RGB (Red-Green-Blue) Dust Imagery Leads to Operational Changes at NWS (National Weather Service) Albuquerque". As the title suggests, the article demonstrates how SPoRT's "research to operations" paradigm successfully demonstrated the use of multispectral NASA Moderate Resolution Imaging Spectroradiometer (MODIS) and NASA/National Oceanic and Atmospheric Administration Visible Infrared Imaging Radiometer Suite (VIIRS) data to improve the detection and prediction of blowing dust events in the desert southwest, which produce a number of public health and travel hazards across the region. These demonstration activities prepare forecasters for real-time products to be made available from the upcoming Geostationary Operational Environmental Satellite (GOES)-R Series planned for launch in October 2016 and use of the Joint Polar Satellite System VIIRS instruments that begin to launch in 2017. The article included coauthorship by two National Weather Service meteorologists, Brian Guyer and Deirdre Kann, who are stationed at the NWS Weather Forecast Office in Albuquerque, New Mexico, and have served as strong advocates for the SPoRT project's "research to operations" efforts regarding other products made available to their office for evaluation, assessment, and potential adoption.

MARSHALL EARTH SCIENTISTS RECEIVE INTERAGENCY PARTNERSHIP

AWARD (email to: brad.zavodsky@nasa.gov/256-961-7914) Dr. Clay Blankenship (USRA), Jonathan Case (ENSCO, Inc.), and Bradley Zavodsky (ZP11) were part of a multi-agency team that was awarded the 2016 Federal Laboratory Consortium (FLC) Interagency Partnership Award for their work with the Soil Moisture Active Passive (SMAP) Early Adopter Program. The mission of the FLC is to promote and strengthen technology transfer nationwide by providing tools, services, and educational resources that reflect the latest in science and technology. As part of their work within the Short-term Prediction Research and Transition (SPoRT) project, Dr. Blankenship, Mr. Case, and Mr. Zavodsky have worked to demonstrate the value of SMAP through assimilation of soil moisture observation into a real-time, high-resolution land surface model that is used by partners in the National Weather Service for

drought and flood applications. The award announcement can be viewed at <http://www.federallabs.org/flc/awards/>.

MSFC DEVELOP STUDENT PROJECTS PUBLISHED IN THE EARTH OBSERVER

(email to: jluvall@nasa.gov/256 961-7886): Leigh Sinclair (UAH), Padraic Conner (Alabama A&M), Tyler Finley (UAH) and Jeanne Roux (UAH), members of the MSFC Summer 2015 DEVELOP student project, published an article “DEVELOP Project Uses NASA Data to Assess Landslide Characteristics in Rwanda and Uganda” in *The Earth Observer Jan-Feb 2016 vol 28:1* (<http://eosps.nasa.gov/earth-observer-archive/>). This article describes a project conducted by NASA’s DEVELOP program, using recently released data of higher resolution than had previously been available from Shuttle Radar Topography Mission version 2 (SRTM-v2) digital elevation models (DEM). Data from both resolutions were combined with road, soil, topography, and population density data to determine areas susceptible to landslides and to show where populations are at risk of being affected by a landslide and to see what effect using the higher-resolution data might have on the overall utility of the respective datasets. The resulting maps provide end-users concrete locations to apply appropriate policies and mitigation efforts rather than sometimes naïve reliance on anecdotal evidence. Dr. Jeffrey Luvall (ZP11) is the MSFC DEVELOP Science Mentor and Dr. Robert Griffin (UAH) also provides science mentor support. This project relied on the collaboration and support provided by NASA SERVIR Coordination Office at MSFC (Partner/Boundary Organization, POC: Eric Anderson), SERVIR Applied Sciences Team at NASA GSFC (Partner, POC: Dr. Dalia Kirshbaum), the Ministry of Home Affairs in Rwanda, and the Regional Centre for Mapping of Resources for Development in Kenya (Partner/End-User, POC: Denis Macharia, SERVIR-Eastern & Southern Africa Disaster Lead). The NASA DEVELOP National Program fosters an interdisciplinary research environment where applied science research projects are conducted under the guidance of NASA and other partner science advisors. The program began in 1999 and originally was called the Digital Earth Virtual Environment Learning Outreach Project (DEVELOP). However, the acronym was dropped after the first year.