

SPoRT COLLABORATIONS PROVIDE SUPPORT FOR ORION FLIGHT

(email/call: brad.zavodsky@nasa.gov/256-961-7914 or jonathan.case-1@nasa.gov/256-961-7504). The Applied Meteorology Unit (AMU), operated by ENSCO, Inc. at Cape Canaveral Air Force Station, Florida supports Range Weather Operations forecasters who provide weather guidance for expendable vehicle ground processing and launches and the National Weather Service (NWS) Office in Melbourne, Florida. The AMU provided numerical weather model guidance to launch operations leading up to and during the Orion flight activities on December 4-5 using a high resolution weather model which contained unique, high-resolution NASA datasets including a soil moisture and temperature product from the NASA Land Information System (LIS), and sea surface temperature observations from the Moderate Resolution Imaging Spectroradiometer (MODIS) both developed and provided by the Short-term Prediction Research and Transition (SPoRT) project here at Marshall Space Flight Center. These higher spatial resolution NASA datasets provide input to help the model better resolve small-scale weather features, such as winds and precipitation at the launch pad, that can impact the decision to launch or not launch based on weather conditions. Accurate low level wind forecasts were critical to safe and successful Orion launch this week. SPoRT collaborations with the AMU and the Melbourne NWS office over the last few years in regional and local weather modeling and in the use of observational data sets (such as high resolution satellite imagery and ground-based lightning observations) have been key to the use of NASA data in weather operations. More details on this activity can be found on SPoRT's blog at <http://nasasport.wordpress.com/2014/12/05/applied-meteorology-unit-provides-local-weather-model-using-sport-datasets-for-orion-flight-test/>).