ZP11/Jim Smoot/Weekly Notes
9/30/14

SPORT VISITS METEOSUISSE DURING EUROPEAN SATELLITE CONFERENCE (mail to: gary.jedlovec@nasa.gov/ (256) 961-7966): Dr. Gary Jedlovec (ZP11) and Mr. Kevin Fuell (UAH) presented research results on SPoRT's use of red-green-blue (RGB) composite satellite imagery from NASA's Earth Observing Satellites (EOS) at the Annual European Satellite Conference in Geneva, Switzerland last week. The presentations were well received and provoked some post-presentation discussion with their European colleagues. Afterwards, they were invited to visit a MeteoSuisse weather office (the equivalent to a National Weather Service's weather forecast office) located in the World Meteorological Organization (WMO) facility in Geneva to learn about how the Swiss have been using RGB composite imagery from their satellites to address critical forecast problems for the last 10 years. The Europeans have pioneered the use of RGB image composites from the Meteosat Second Generation (MSG) sensors to address critical weather issues in Europe and Africa. The discussion with Swiss forecasters confirmed the validity of the approach SPoRT is taking with its use of RGB imagery with NASA satellite data.

JOURNAL PAPER ACCEPTED (mail to: mohammad.alhamdan@nasa.gov/ (256) 961-7465): A journal paper coauthored by Drs. Mohammad Al-Hamdan (USRA/ZP11), James Cruise (UAH/ESSC), Doug Rickman (NASA/ZP11), and Dale Quattrochi (NASA/ZP11) has been accepted for publication at the *Remote Sensing Journal*. The title of the paper is "Forest Stand Size-Species Models Using Spatial Analyses of Remotely Sensed Data". In this study, models were developed to predict stand size classes (sawtimber and saplings) and categories of species (hardwood and softwood) from spatial analytical indices (Fractal Dimension (FD) and Moran's I) using Landsat Thematic Mapper (TM) data. Three study areas (Oakmulgee National Forest, Bankhead National Forest, and Talladega National Forest) were randomly selected and used to develop the prediction models; while one study area, Chattahoochee National Forest, was used for validation. This study has shown that these spatial analytical indices (FD and Moran's I) can distinguish between different forest trunk size classes, which are needed to estimate flow resistance coefficients in forested flood plain areas, as well as different categories of species using Landsat TM data.

JOURNAL PAPER ACCEPTED (email to: doug.rickman@nasa.gov/(256) 961-7889) A paper titled "Anorthite Sputtering by H+ and Arq+ (q=1-9) at Solar Wind Velocities" has been accepted for publication in the Journal of Geophysical Research - Space Physics. The paper reports experimental values obtained from the dominant lunar mineral, Anorthite. Five of the authors are from Oak Ridge National Labs, and two from MSFC, A. F. Barghouty (ZP12) and D. Rickman (ZP11).