

## **ZP11 Weekly notes**

**10/21/2014**

**ZP11 SCIENTIST ELECTED TO AGU FOCUS GROUP PRESIDENT-ELECT (email: [timothy.j.lang@nasa.gov](mailto:timothy.j.lang@nasa.gov) / phone: 256-961-7861)**: Timothy Lang (ZP11) was recently elected as President-elect of the American Geophysical Union (AGU) Atmospheric and Space Electricity (ASE) Focus Group (website: <http://ase.agu.org/>). His term starts in January 2015, and he will serve in this capacity for two years, after which he will become President of the ASE Focus Group for another two-year term. In these roles, he will help and advance the interests of the ASE community and be one of its representatives on the AGU Council. Dr. Lang is currently finishing out his term as Secretary of the ASE Focus Group.

**PARTICIPATION IN 2014 HYSPIRI SCIENCE AND APPLICATIONS WORKSHOP (email to: [dale.quattrochi@nasa.gov](mailto:dale.quattrochi@nasa.gov)/256-961-7887; [jluvall@nasa.gov](mailto:jluvall@nasa.gov)/256-961-7886)**. Drs. Dale Quattrochi and Jeff Luvall participated in the 2014 HypsIRI (Hyperspectral Infrared Imager) Science and Applications Workshop held 14-16 October at the California Institute of Technology in Pasadena, CA. HypsIRI is a Decadal Survey mission and each year, scientists with interests in the HypsIRI mission are convened to learn about the mission's progress and to present findings from research related to the HypsIRI mission and to discuss the Earth science applications that will result from HypsIRI data. Dr. Luvall is the Deputy Program Administrator for HypsIRI Applications and Dr. Quattrochi is a member of the HypsIRI Science Study Team.

**JOURNAL PAPER PUBLISHED (email to: [mohammad.alhamdan@nasa.gov](mailto:mohammad.alhamdan@nasa.gov)/ (256) 961-7465)**: A journal paper coauthored by Drs. Mohammad Al-Hamdan (USRA/STI/ZP11), James Cruise (UAH/ESSC), Doug Rickman (NASA/ZP11), and Dale Quattrochi (NASA/ZP11) has been published in 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.