ZP11 Weekly Notes
11/3/15

PRESENTATION AT THE NASA CYGNSS SCIENCE TEAM MEETING (email to: timothy.j.lang@nasa.gov/256-961-7861): Dr. Timothy Lang (ZP11) presented a talk and chaired a session at the Cyclone Global Navigation Satellite System (CYGNSS) Science Team Meeting, which occurred during 21-22 October at the University of Michigan in Ann Arbor. The presentation was on the ability of CYGNSS to measure characteristics of the Madden-Julian Oscillation (MJO), a global-scale atmospheric pattern. CYGNSS, though primarily focused on measuring strong winds in the inner core of tropical cyclones, also will provide near-surface wind measurements in a variety of tropical convection scenarios associated with the MJO and other phenomena. CYGNSS is planned for launch in October 2016.

PAPER ACCEPTED IN JOURNAL OF GEOPHYSICAL RESEARCH (email to: timothy.j.lang@nasa.gov/256-961-7861): Dr. Timothy Lang (ZP11), Dr. William Koshak (ZP11), and Dr. Rich Blakeslee (ZP11) are co-authors on a paper that was recently accepted for publication in the Journal of Geophysical Research - Atmospheres. The study, which was led by Themis Chronis of the University of Alabama in Huntsville (UAH), is titled "Diurnal Characteristics of Lightning Flashes Detected over the São Paulo Lightning Mapping Array." One of the principal results of the study is that lightning flash size decreases and flash altitude increases during the active afternoon period (when flash rates are highest). Meanwhile, the opposite happens during the early morning hours. These results are consistent with the expected diurnal evolution of thunderstorms, and demonstrate the added value of NASA Lightning Mapping Arrays in providing lightning information above and beyond the standard flash counts provided by more traditional lightning networks.

OPEN SOURCE SOFTWARE DEVELOPED AT MARSHALL POWERING NEAR-REALTIME TURBULENCE PRODUCTS FOR OLYMPEX (email to: timothy.j.lang@nasa.gov/256-961-7861): Open source weather radar software developed at NASA Marshall by Dr. Timothy Lang (ZP11) is powering the production of near-realtime in-cloud turbulence products that are now available on the NASA Mission Tools Suite (MTS) for the Olympic Mountain Experiment (OLYMPEX), which officially starts next week. These products will serve as an additional planning tool available to OLYMPEX scientists during flight operations.