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

HIRAD MOVING FROM GLOBAL HAWK TO WB-57 FOR REMAINDER OF HS3 (email to: Daniel.J.Cecil@nasa.gov / 256-961-7549): The Hurricane Imaging Radiometer (HIRAD) is being moved from the NASA Global Hawk AV-1 aircraft to a NASA WB-57 aircraft based at Johnson Space Center (JSC) / Ellington Field for the remainder of the Hurricane and Severe Storm Sentinel (HS3) field campaign, with a continuation into October. Electrical problems with AV-1 have prevented it from leaving Armstrong Flight Research Center (AFRC) for the third year of HS3 flights. The WB-57 is available because of flights funded by the Office of Naval Research to test a new dropsonde system, in conjunction with HS3. The team is acting quickly to take advantage of this flight opportunity, salvaging a chance to fly over hurricanes this season. HIRAD from MSFC and High-Altitude Imaging Wind and Rain Airborne Profiler (HIWRAP) from GSFC are being de-integrated from AV-1, shipped to JSC, and integrated onto the WB-57 during mid-September.

JOURNAL ARTICLE ACCEPTED FOR PUBLICATION (email to: william.koshak@nasa.gov 256-961-7963): A journal article titled, "A Method for Retrieving the Ground Flash Fraction and Flash Type from Satellite Lightning Mapper Observations", authors William Koshak (NASA/MSFC/ZP11) and Richard Solakiewicz (Chicago State University), has been accepted for publication in the American Meteorological Society (AMS) Journal of Atmospheric and Oceanic Technology. The article introduces an Analytic Perturbation Method (APM) for retrieving the ground flash fraction in a large set of lightning flashes observed with a satellite-based lightning mapper [e.g., the Lightning Imaging Sensor (LIS), or the future Geostationary Lightning Mapper (GLM)]. The APM method also subsequently provides the probability that each flash is a ground flash; i.e., flash-typing is performed. The APM has many applications such as: severe weather studies, improving calculations of lightning nitrogen oxides production for air quality and global chemistry climate modeling, investigation of lightning-convection relationships, global electric circuit studies, and cross-sensor validation.

PEER REVIEW PANEL SERVICE (email to: doug.rickman@nasa.gov **256-961-7889**): Doug Rickman/ZP11 served as peer on the review panel for the Public Health and Air Quality element of the Applied Science Program. Sixty six proposals were reviewed. The emphasis of the call was providing decision makers with NASA satellite-based products to improve the quality of the decisions made. Sue Estes/UAH, as associate for the program element, assisted in organizing and chairing the meeting.

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