Geophysical Research Abstracts
Vol. 12, EGU2010-6093, 2010
EGU General Assembly 2010
© Author(s) 2010

NASA Goddard Giovanni Support for YOTC

Dana Ostrenga (1), Gregory Leptoukh (2), and Duane Waliser (3)

(1) Adnet / NASA, Code 610.2, GSFC, Greenbelt, United States (dana.m.ostrenga@nasa.gov), (2) NASA, Code 610.2, GSFC, Greenbelt, United States (gregory.leptoukh@nasa.gov), (3) NASA, Jet Propulsion Laboratory, Pasadena, United States (duane.waliser@jpl.nasa.gov)

GIOVANNI is the NASA Goddard Interactive Online Visualization ANd aNalysis Infrastructure tool for efficient access and manipulation of very large, global datasets. The current GIOVANNI analytical and statistical tools have been expanded to support the Year of Tropical Convection (YOTC) Program. YOTC provides a unique and comprehensive multi-sensor satellite and model data set that is designed to facilitate the study and model improvement of "tropical convection" and its multi-scale organization. The data target period, May 01, 2008–April 30, 2010, is long enough to encompass a number of scientifically challenging cases of tropical convection with significant human impact. This includes mesoscale and synoptic variability, easterly waves and hurricanes, convectively coupled waves, the MJO and the culmination of these in terms of the monsoon, their interactions with the extra-tropics, and mean characteristics such as tropical-to-subtropical transitions. The YOTC time period and length are driven in part by the following: 1) keeping the multi-sensor/multi-platform and model-analyses data sets and associated infrastructure manageable, 2) facilitating a focused effort by the research and operational communities on a specific scientific problem, and 3) capitalizing on the recent key additions to the armada of satellites (e.g., CloudSat and CALIPSO). It is worth noting that in regards to item 3), the NASA EOS constellation of research satellites is at its peak maturity level with respect to satellite observations of tropical convection. Giovanni has been developed and maintained by the GES-DISC, the NASA Goddard Earth Sciences Data and Information Services Center.