A Graphical Web Catalog for TCS-08 Radar, In Situ and Dropsonde Data

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Abstract

A catalog of P3 and C-130 flight data from TCS-08 is presented in website form for the purpose of browsing available data options associated with environmental conditions within the project domain. The site is organized according to observation time, and is subdivided by month, day, quarter day and monotime. For each project month (August-October), a gallery of FNL (NCEP’s final analysis) wind/vorticity images is available showing plots every 6h (00Z, 06Z, 12Z, 18Z). Plots with associated TCS-08 flight missions include markers showing dropsonde positions and flight tracks. Links to mesoscale analyses of radar data are provided at the respective FNL plot whenever they are available. Overlays of numbered markers indicating P3 and C-130 dropsonde positions and regular time intervals can be dynamically rendered on each radar plot. Corresponding listings of all marker positions and times are linked from the radar plot to provide association of marker time/position with the respective flight time interval and dropsonde number. Times are given in monotime format, which is $ks$ past midnight of the UTC day of mission takeoff in order to avoid the complicating issue arising with missions that cross midnight. Flight tracks and dropsonde positions are plotted with respect to the rotating planet's frame on the FNL images, and with respect to the moving storm's frame in the radar images to match the corresponding radar analyses. The relevant storm position and velocity are indicated on each radar plot. A demonstration of this utility will be presented.