

May 10 Mission Science Report

Submitted by wpetersen on Tue, 05/10/2011 - 19:17

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Today we flew an afternoon stratiform precipitation mission with the UND Citation. After a minor glitch with the data system power up (rapidly fixed), take off occurred at 2150 UTC with the initial pattern assigned as a spiral descent starting from FL300, located roughly 109° azimuth 41 km from NPOL. NPOL was placed into the Scan-3 mode (6 RHI scans centered on spiral point). The Citation worked into the spiral at approximately 2217 UTC and descended, however by this time the precip had rapidly moved northeast and the Citation was also held at FL240 by ATC. Hence, we took the opportunity to shift the point well to the north (azimuth 57° and range 79.5 km from NPOL; and RHI's were moved to this point), deeper into the stratiform shield (see Power Point attached). The Citation commenced the spiral at FL 240 and passed FL220 at approximately 2245 UTC. He completed the spiral at approximately 2320 UTC and then climbed to just above the melting level at the same point ("Echo-1"). We then had him complete a 173 km straight leg through stratiform precip (all light) to just north of OKC (point "Echo-2") while porpoising the melting level (1000 ft above and 1000 ft below roughly between FL120 and FL140). NPOL was placed into a Scan-1 sector from 57° to 193°. The Citation completed this leg at 2350 UTC and headed back to base.

Other notes: APU network solar panels were covered as a preventive measure in anticipation of possible hail tomorrow. C-SAPR is down with an elevation drive problem (still being worked on). OUPrime still down for foreseeable future (encoder problem).

Still planning 1500 UTC takeoff for ER-2 tomorrow morning (Citation nominal TO 1600 UTC). Will meet at 0930 UTC to discussion plan and then call ER-2 Mission Manager at 1000 UTC to confirm.

Walt P/ Larry C.

Attachment	Size
ops.pptx	343.34 KB