Mission Summary Georges

980918h Aircraft N42RF

Scientific Crew

Lead Project Scientist: Sim Aberson
Dropwindsonde Scientists: Sim Aberson
Workstation Scientist: Paul Leighton

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Mission Briefing:

Hurricane George beginning to rapidly intensity east of the Leeward Islands, moving westward at about 18 kt (Fig. 1). The subtropical ridge extends east to west across the entire basin between 20N and 30N, suggesting a continuing westerly motion for the storm. A weakness in the ridge near 55W could allow Georges to slow, or turn more northward and miss the islands. The upper-level cold low located near Puerto Rico could also allow a more northward turn. The large cyclonic circulation over the Gulf of Mexico was soon to become Tropical Storm Hermine. Due to the rapid motion, George was expected to impact the U. S. Virgin Islands within 48 h, so the G-IV was quickly tasked to fly a mission during its scheduled ferry flight to St. Croix.

Ensemble perturbations (Fig. 2) suggest that the main areas of uncertainty in this forecast coincide with Georges itself, with the subtropical ridge axis to the north of Georges, and with the cold low near Puerto Rico. A short mission for N43RF was called to sample the area near the cold low which N49RF could not reach during its mission(Fig. 3).

Mission synopsis:

The most exciting part of the flight was the strong convection near the Bahamas. Vertical velocity couplets of 6 ms-1 up and down were experienced twice in this area. Another bit of excitement was the thought that an AFRES plane was experiencing difficulties south of Puerto Rico. This turned out to be two Customs planes which collided over the Caribbean while evacuating Puerto Rico in front of Georges, killing one of the pilots.

Of the three expected dropwindsonde launches, the first had a late launch detect and was replaced. The data soon came in, so four drops were made, and the mission was completed.





