

Table 2. Summary of HS3 flights. AV=Air Vehicle. TS=Tropical Storm. TD=Tropical Depression. ET=Extratropical. NPP=NPOES Preparatory Project. MDR=Main Development Region.

Date	GH	Storm/Event	Description/comments
2011			
8-9 Sep	AV-6	Pacific atmos. river	North-south cross section from 50° to 10°N along 154°W for intercomparison of AVAPS, S-HIS, and HAMSRS.
13-14 Sep	AV-6	No storm	Intercomparison of AVAPS and NOAA G-IV dropsondes in warning area off Tampa, FL.
2012			
6-7 Sep	AV-6	Hurr. Leslie	Outflow structure of Leslie during transit to WFF.
11-12 Sep	AV-6	TS Nadine	Nadine became a TS with SAL air along northern side. AVAPS failed mid-way through flight. Reduced CPL sensitivity due to cold instrument temperature.
14-15 Sep	AV-6	Hurr. Nadine	Nadine became a hurricane in high-shear conditions, SAL air wrapped partly around northern side. Reduced CPL sensitivity due to cold instrument temperature.
19-20 Sep	AV-6	TS Nadine	Nadine weakened to TS strength near the Azores. CPL issue resolved.
22-23 Sep	AV-6	TS Nadine	Nadine became a TS again after 1 day post-tropical.
26-27 Sep	AV-6	TS Nadine	Nadine moved southward, convection intensified 2 days prior to re-intensification to hurricane strength.
6 Oct	AV-6	No storm	Underflew both NPP and Aqua, no dropsondes available.
5-6 Nov	AV-1	ET Cyclone	Test flight of AV-1 in an extratropical cyclone in the Pacific.
2013			
20-21 Aug	AV-6	Ex-Erin/SAL	Environmental sampling of shallow former TS Erin and SAL air mass. AVAPS released only 15 of 44 planned drops after it lost power from the aircraft.
24-25 Aug	AV-6	SAL	SAL flight in weak African wave disturbance.
29-30 Aug	AV-6	Pre-Gabrielle	Pre-Gabrielle African wave with SAL air.
3-4 Sep	AV-1	Pre-Gabrielle	Measurement of convective structure of Pre-Gabrielle and adjacent convective disturbance.
4-5 Sep	AV-6	TS Gabrielle	Environmental sampling of TS Gabrielle and adjacent convective disturbance.
7-8 Sep	AV-6	Ex-Gabrielle	Potential redevelopment of former TS Gabrielle.
15-16 Sep	AV-1	Hurr. Ingrid	Precipitation/wind measurements in Hurr. Ingrid. Flight cut short due to cold fuel temperatures.
16-17 Sep	AV-6	TS Humberto	Redevelopment of TS Humberto. Hybrid low-level warm-core/upper-level cold-core structure observed.

19-20 Sep	AV-6	Invest A95L	Environmental measurements of Invest A95L that, despite a good low-level circulation and moisture, failed to develop into a tropical depression.
25 Sep	AV-1	ET cyclone	Precipitation system sampling in coordination with NOAA43 for HIWRAP/IWRAP intercomparison.
2014			
26-27 Aug	AV-6	Hurr. Cristobal	AV-6 transit and science flight over Hurricane Cristobal.
28-29 Aug	AV-6	Hurr. Cristobal	Hurricane Cristobal extratropical transition.
2-3 Sep	AV-6	TS Dolly	TS Dolly just prior to landfall along Mexican coast.
5-6 Sep	AV-6	SAL A90L	Invest A90L and its interaction with the SAL.
11-12 Sep	AV-6	TD6/TS Edouard	TS stage with possible nascent eye. CPL data loss due to disk failure.
14-15 Sep	AV-6	Hurr. Edouard	Four overflights near the center, rapid intensification.
16-17 Sep	AV-6	Hurr. Edouard	Mature stage, beginning of secondary eyewall replacement.
18-19 Sep	AV-6	Hurr./TS Edouard	Rapid weakening just west of the Azores.
22-23 Sep	AV-6	MDR Survey	Box from 60° to 21.5°W, eastbound at 19°N, westbound at 14°N.
28-29 Sep	AV-6	MDR Survey	Zig-zag pattern between 55°-27°W, 13-18°N.
30 Sep	AV-6	No storm	Intercomparison of AVAPS and G-IV dropsondes and flight-level winds during GH transit to AFRC.
15 Oct.	WB- 57	Hurr. Gonzalo	Two overpasses of Cat 3 intensity storm.
16 Oct.	WB- 57	Hurr. Gonzalo	Three overpasses of Cat 4 intensity storm.
17 Oct.	WB- 57	Hurr. Gonzalo	Two overpasses of Cat 3-4 intensity storm.