Radar Scientist

Flight ID _20140826H1_ **Storm** _Cristobal_ **Radar Scientist** _Marks_

    The on-board radar scientist is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and checklists are contained in the operator's manual. General supplementary procedures follow. (Check off or initial.)

Preflight

_✓_ 1.   Determine status of equipment and report results to lead project scientist (LPS).

_✓_ 2.   Confirm mission and pattern selection from the LPS.

_✓_ 3.   Select the operational mode for radar system(s) after consultation with the LPS.

_✓_ 4.   Complete the appropriate preflight check list.

In-Flight

_✓_ 1.   Monitor the Tail Doppler Radar function regularly, using the realtime TDR display, to make sure the Doppler radar is scanning and working normally.

_✓_ 2.   Maintain the Doppler Wind Parameter form as well as a written commentary in the Radar Event Log of event times, such as ending and restarting of radar recording. Also document any equipment problems or changes in R/T, INE, or signal status.

Post flight

_✓_ 1.   Complete the summary checklist and all other appropriate forms.

_✓_ 2.   Download all Tail (TA) radar data files to thumb drive.

_✓_ 3.   Brief the LPS on equipment status and turn in completed forms and thumb drives to the LPS.

_✓_ 4.   Debrief at the base of operations.

_✓_ 5.   Determine the status of future missions and notify HFP Director as to where you can be contacted.

HRD Radar Scientist Check List

Flight ID: _20140826H1_

Aircraft Number _N42RF_

Radar Scientist: _Marks_

Radar Technician: _Lynch/Bosko_

Component Systems Status (Up ↑, Down ↓, Not Available **N/A**, Not Used **O**):

Radar Computer __✓__

Lower Fuselage (LF) Antenna __✓__

Tail (TA) Antenna __✓__

Time correction between LF radar time and digital time: __·__

TA Radar Parameters:

(Single/Dual) PRF _2180_   F/AST (Y/N)   Rotation Rate _10_ RPM

Sweeps/File _____   Record 2ⁿᵈ Trip (Y/N) (Circle appropriate status)

Radar Post flight Summary

Significant down time:

Radar LF _____

Radar TA _____

Other Problems:
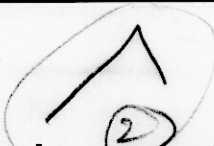
HRD Radar Event Log

Flight ID 20140826H1 Aircraft N42RF
Radar Scientist Marks Radar Technician Lynch/Bosco

(Include down time and times of when recording ended and was restarted)

Time (HHMMSS)	Event
0808-0810	display dropped out (stopped updating) twice as we went through eyewall not sure if data was lost
0816-	large area of stratiform rain East of Eye

Doppler Wind parameters

| Flight ID: 20140826H1 | | Doppler flight-leg notes (for use in automatic QC and analysis) | | | | | | Scientist: Marks | | |

Leg Start Time	Leg End Time	Storm Motion		Center Fix			Inbound track	Outbound track	Max Radius Default = 245	Horz. Res Default = 5	Sent ?
				Time	Latitude	Longitude					
HHMMSS	HHMMSS	Degrees	Knots	HHMMSS	(Deg/Min)	(Deg/Min)	Degrees	Degrees	(km)	(km)	(Y/N)
0731	0829	010	06	080054	26/04	71/53	090	090	294	6	Y
0829	0855										
0855	0956	010	06	0926	26/13	71/57	210	210	294	6	Y
0956											
1034	1128	010	06	1101	26/33	72/00	330	330	294	6	

hurricane downwind

downwind

glitch at 1016 in data caused 3rd analysis to fail so we redid it starting at 1034 - so no downwind leg on 3rd analysis