Radar Scientist

Flight ID 20171006H1 **Storm** TS Nate

Radar Scientist Holbach **Radar Technician** Peak

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

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

J 2. Confirm mission and pattern selection from the LPS.

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

J 4. Complete the appropriate preflight check list.

In-Flight

____ 1. Monitor the Tail Doppler Radar function regularly, using the real-time TA display, to make sure the Doppler radar is scanning and working normally.

____ 2. Once at the IP, request that the tilt be adjusted to remove sea clutter.

____ 3. Request that the LF radar is set to full scan (non-sector mode) for first Figure 4.

____ 4. 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 Belly (LF) scan radar data files to thumb drive.

____ 3. Download all tar'd (TA) radar data files to thumb drive.

____ 4. Brief the LPS on equipment status and turn in completed forms and thumb drives to the LPS.

____ 5. Debrief at the base of operations.

____ 6. Determine the status of future missions and notify HFP Director as to where you can be contacted.

HRD Radar Scientist Check List

Flight ID: 20171006H1

Aircraft Number: NOAA42

Radar Scientist: Holbach

Radar Technician: Peak

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

Radar Computer ↑

Lower Fuselage (LF) Antenna ↑

Tail (TA) Antenna ↑

Radar Post flight Summary

Significant down time:

Radar LF _____

Radar TA _____

Other Problems:

- Initial leg was misaligned w/ center. Turned from 180° to 135° at ~1026Z. Turned back to 180° at ~1038Z

HRD Radar Event Log

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

Time (HHMMSS)	Event
0759	Takeoff
0821	TDR turned on & recording
0958	Beginning descent to IP
1315-1325	Network down
1341-1357	SFMR circles
1357	EP head home
~1430	TDR turned off

Doppler Wind parameters

Flight ID: 20171006H1 | **Doppler flight-leg notes (for use in automatic QC and analysis)** | **Scientist:** Holbach

Leg Start Time	Leg End Time	Storm Motion		Center Fix			Inbound	Outbound	Max Radius (km)	Horz. Res (km)	Sent ?
				Time	Latitude	Longitude					
HHMMSS	HHMMSS	Degrees	Knots	HHMMSS	(Deg/Min)	(Deg/Min)	track	track	Default = 245	Default = 5	(Y/N)
1008Z	1054Z			10:36Z	CPA Estimated 17°37'	84° 36'	180° → 135°	→ 180°			
1127Z	1210Z			11:45Z	CPA Estimated 17°42'	84° 41'	270°	270°			
1232Z	1307Z			12:57Z	18.1°	84.7°	045° → 035°	035°			
1325Z	1337				18.4°	84.7°	315°				
1337											

Barrels