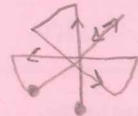# Radar Scientist

Flight ID 110826I1   **Storm Name** Irene

Radar Scientist Reasor   **Radar Technician** Naeher

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 the status of equipment and report results to the 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 calibrations and check lists as specified in the radar operator's manual.

In-Flight

✓ 1.   Remind the AOC data technician to start the radar capture files.

✓ 2.   Operate the system(s) as specified in the operator's manual and as directed by the LPS or as required for aircraft safety as determined by the AOC flight director or aircraft commander.

✓ 3.   Maintain the Radar Scientist's form as well as a written commentary in the radar logbook of tape and event times, such as the start and end times of F/AST legs. Also document any equipment problems or changes in R/T, INE, or signal status.

Post flight

✓ 1.   Complete the summary checklists and all other appropriate forms.

✓ 2.   Obtain from the AOC data technician all radar tapes and give him a thumbnail drive to download the radar capture files.

✓ 3.   Brief the LPS on equipment status and turn in completed forms, the thumbnail drive, and all radar tapes to the LPS. [**Note**: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

✓ 4.   Debrief at the base of operations.

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

HRD Radar Scientist Check List

Flight ID: __110826I1__

Radar Operators: __Reasor__

Radar Technician: __Nacher__

Number of DAT tapes on board: _____

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

Device	Pre-flight	In-flight	Post-flight	R/T Serial #
Radar Computer	↓	↑		
DAT drives	↓	↑		
Lower Fuselage antenna	↓	↑ *		
Tail Antenna	↓	↑ *		

* see problem sheet

Time correction between radar time and digital time: _____

Radar Post flight Summary

Number of DAT tapes used: _____

Significant down time:

Radar Computer _____   Radar LF _____

DAT drives _____   Radar TA _____

Other Problems:

HRD Radar Event Log

Flight ID __110826I1__ Storm Name __Irene__ Sheet ____ of ____

Radar Scientist __Reasor__ Radar Technician __Naeher__

LF RPM _____ TA RPM _____

(Include start and end times of recording as well as times of F/AST legs and any changes of radar equipment status)

Tape #	F/AST On?	Event Time (HHMMSS)	Event
		080700	Takeoff
		081700	Radar recording start
		153800	Landing

HRD Radar Problem Log

Flight ID 110826I1   **Storm Name** Irene   **Sheet** ____ of ____
Radar Scientist Reasor   **Radar Technician** Naeher

(Include times of when recording ended and was restarted)

Tape #	Time (HHMMSS)	Problem
	~124500	LF radar down / restarted
	before eye 5th pass	TA radar down

Doppler Wind parameters

Doppler flight-leg notes (for use in automatic QC and analysis)

FLIGHT ID: 110826J1 **Scientist:** Reasor

	Leg Start Time	Leg End Time	Storm Motion		Center Fix			Max Radius (km)	Horz. Res (km)	Inbound track	Outbound track	ja?	Angle check?	Sent?
					Time	Latitude	Longitude							
	HHMMSS	HHMMSS	Degrees	Knots	HHMMSS	(Deg/Min)	(Deg/Min)	49/98/147/196	1/2/3/4	Azimuth (deg)	Azimuth (deg)	H/TS	(Y/N)	(Y/N)
S-N	090727	095840	355	13	093130	2931	7722	245	5	358	0.34	H	N	Y
DW	100200	101515												
NW-SE	101630	111040	000	7	1044	2945	7719	↓	↓	133	135	↓	↓	Y
DW	11200	113045												
E-W	113813	123100	360	13	120620	3004	7720			270	269			Y
DW	123200	124600			131000	3018	7722							
SW-NE	124700	133525	355	14	131000	3018	7722			43	46			Y
NE-SW	133700													N