E.5 Radar/Airborne Doppler Radar Scientist (On-Board)

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

E.5.1 Preflight

1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).
2. Confirm mission and pattern selection from the on-board LPS.
3. Select the operational mode for radar system(s) after consultation with the HRD/RS and the on-board LPS.
4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

E.5.2 In-Flight

1. Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS, unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO flight director or aircraft commander.

E.5.3 Postflight

1. Complete the summary check lists and all other appropriate check lists and forms.
2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.
3. Hand-carry all radar tapes and arrange delivery as follows:

   a. Outside of Miami - to the HRD operations center (FGOC).
   b. In Miami - to MGOC or to AOML/HRD. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO flight director.]

4. Debrief at the appropriate operations center (FGOC or MGOC).
5. Determine the status of future missions and notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted.

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Radar Scientist Check List

Flight ID 880826IZ

Aircraft # N43RF

Operators Aberson & Gamache

Radar Tech. DuGranrut

Number of digital magnetic tapes on board Enough

Number of tape labels on board Plenty

Component systems up and checked:

RDSC	✓	DSC1	✓
Computer	✓	DSC2	✓
DMTR1	✓	DMTR2	✓
LF	✓	R/T#	101 M
TA	✓	R/T#	104

Time correction between radar time and digital time Radar is later

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Radar Postflight Summary

Number of digital tapes used: 6

DMTR 1 3

DMTR 2 3

Significant recorder down time: 0446 – 0450

DMTR 1 _____ Radar LF _____

DMTR 2 _____ Radar TA _____

Other problems:

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HRD Doppler Radar Tape Log

Flight 880826I2 Aircraft N43RF Operator Aberson Sheet 1 of 1

Tape Number	Time On	Time Off	Source* V	Source* H	Source* S	Comments** (#pulses, scan rate, range)
D1-T1	2320	c. 0058	✓			
D2-T1	c. 0058	0330			✓	0109 standby, some noise removed.
D1-T2	0330	0421			✓	
D2-T2	0421	0446			✓	446 Turned off by mistake, tape ended possibly no EOT
D1-T3	0450	0520			✓	Restarted 0450
D2-T3	0520	0611			✓	0515 problems with LF AFC

*Vertical, horizontal, or full sweep scan.

**Number of pulses averaged (32, 64, 128, 256); scan rate (min, max); range resolution (150 m, 300 m).

HRD Radar Down-Time Log

Operator _____ Sheet ____ of ____

Item	Time Down	Time Up	Problem

Item List: DMTR1, DMTR2, COMP, RDSC, LF, TA, DSC1, DSC2.

880826 I2

Atherson + Gonsalves

Recording begins c. 2320

2335 Forgot to note it we were so interested in the radar system.

2341 Not much cloudiness here

Trying to find the center.

Near Cuba 22° 3' N 77° 2' W

1212Z

Wind sustained 215° 1 kt. Wow!

No convection within 100 km

Ctr at 22.0N 76.8W

Peak wind reported 36 kt 130 km NE of center

1302Z

22.9N 76.6W possible center

T maximum 26°

T_d minimum 22°

P_s minimum 1007.5 mb