

19910819 H1 - RADAR

### E.5 Doppler Radar Scientist (On-Board)

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 Operate the system(s) as specified in the operator's manual and as directed by the HRD/DRS, unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO flight director or aircraft commander.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

Doppler Radar Scientist Check List

Flight ID 940819H1  
Aircraft # 42 RF  
Operators Marlus  
Radar Tech. Roles

Number of digital magnetic tapes on board >20 DATS

Number of tape labels on board —

Component systems up and checked:

MARS	<u>↑</u>	Computer	<u>↑</u>
DMTR1	<u>↑</u>	DMTR2	<u>↑</u>
LF	<u>↑</u>	R/T#	<u>122</u>
TA	<u>↑</u>	R/T#	<u>201</u>

Time correction between radar time and digital time —

Radar Postflight Summary

Number of digital tapes used: DMTR1 1 DAT  
DMTR2 —

Significant recorder down time:

DMTR 1	<u>—</u>	Radar LF	<u>—</u>
DMTR 2	<u>—</u>	Radar TA	<u>—</u>

Other problems:

*We only recorded for ~1h because  
of no back a/c*

Tape #	Time On	Time Off	Comments
1	183350		TA+LF every sweep (spectral wid
			~1835- <sup>1845</sup> over grand Turk
			184847 switch back to even
			Set up Hurr 1 on 42RF
			record: LF TA
			Ref Ref. Vel, Wind
			<del>every other sweep</del> <del>every sweep</del>
			185656 switch to F/AST cont
			$\pm 23^\circ$
			191030 switch to CON
			0°
			~1920 AGC drifted
			~1928 reset AGC
	193903		76

### HRD Radar Down-Time Log

Operator \_\_\_\_\_

Sheet \_\_\_\_ of \_\_\_\_

Item	Time Down	Time Up	Problem

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