

19910908II - 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 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 on-board LPS or as required for aircraft safety as determined by the AOC 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 AOC 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.

T/O 1557

Doppler Radar Scientist Check List

Flight ID 910908II
Aircraft # N43RF
Operators Roux, Gamache
Radar Tech. Sullivan

Number of digital magnetic tapes on board At least 25

Number of tape labels on board Enough

Component systems up and checked:

MARS ✓
DMTR1 ✓
LF ✓
TA ✓

Computer ✓
DMTR2 ✓
R/T# 121
R/T# 102 & 202

Time correction between radar time and digital time Radar time 1 sec ahead

Radar Postflight Summary

Number of digital tapes used:

DMTR1 7
DMTR2 6

Significant down time:

DMTR1 NONE
DMTR2 NONE

Radar LF Sometime during first 1 1/2 hr in order to correct 7 A probs
Radar TA First 1 1/2 hours of flight.

Other problems:

We encounter one major problem, particularly early in the flight: the scans were only sparsely populated with radials. After a data-system power failure it never happened again. Problem appeared to be associated with

Form E-5

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[illegible]

HRD Radar Down-Time Log

Operator Gamache

Sheet 1 of 1

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
MARS TA TA	1610		MARS TA radar is displaying probably about 10% of the radars. It is continually very blocky.

Item List: DMTR1, DMTR2, COMP, MARS, LF, TA.