

# 19930828HI-RADAR

SEP 28 1993

## 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

- Vertex Interaction*
- ☒ 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:
  - ~~Outside of Miami - to the HRD operations center (FGOC).~~
  - Mr. Black* 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.

SEP 28 1993

Form E-5  
Page 1 of 3

### Doppler Radar Scientist Check List

Flight ID 930828H1  
Aircraft # N42RF  
Operators M. Black  
Radar Tech. Jim Roles

Number of digital magnetic tapes on board Several Boxes

Number of tape labels on board Enough

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>102</u>

Time correction between radar time and digital time         

### Radar Postflight Summary

Number of digital tapes used:

DMTR1

4-1 bad

DMTR2

4-1 bad

Significant down time:

DMTR1 ~10 min

Radar LF         

DMTR2         

Radar TA 1845-2107

Other problems:

Drive 1 misloaded twice  
after winding ~5 min  
TA reflectivity 5-10 dBZ low

MB. pictures ~~2~~ - 205857 50 Kts  
2-11 - 2154 75 Kts

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



Vortex Interaction

900828H1 Emily II

Depart Bermuda ~18Z  
Tail radar working  
Storm ~400 km away  
Near IP ~~@ 1845~~  
@ 1915

Radar (Tail) down 1845  
Here we go again

This mission probably a  
total bust

Tail radar up 2045  
43 is having ODUW problems  
Will do a coordinated  
Figure 4 with 43 then  
head home (MIA)

Drive 1 off line by itself  
Emily 90Kts 980 mb  
Tracing NW @ 9Kts

Charleston?

Heavy rainbands on north  
side of storm - almost  
nothing south