

**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.

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# Doppler Radar Scientist Check List

Flight ID 920924H1  
Aircraft # 42  
Operators Dodge, Burpee  
Radar Tech. Neal R, Jim R

Number of digital magnetic tapes on board sufficient (at least 25)

Number of tape labels on board enough

Component systems up and checked:

MARS ✓  
DMTR1 ✓  
LF ✓  
TA ✓

Computer ✓  
DMTR2 DOWN. BOT sensing module KAPOUT  
R/T# 124 (spare 103)  
R/T# 204 (spare 101)

Time correction between radar time and digital time \_\_\_\_\_

## Radar Postflight Summary

Number of digital tapes used:

DMTR1 10  
DMTR2 0

Significant down time:

DMTR 1 had one mis load only  
DMTR 2 down whole flight.

Radar LF no -  
Radar TA occasional lock up

Other problems:

NOT A PROBLEM: J. Rdes transferred new TA range delay file from 42 to 43 - so 43's TA data should be better this flight also.

Throughout flight Neal & Jim had to readjust TA trans freq so that AFC could follow and we could get coherent doppler data.

16 5750 - switched to INE 2 for 1/2, since that was on reg. data sys (and agreed well with GPS)



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## HRD Radar Tape Log

Flight 92092441 Aircraft 42 Operator Dodge, Burpee Sheet      of     

[illegible]

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## HRD Radar Down-Time Log

Operator Dodge Burpee

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

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
MARS	~2244	2248	1 or Bob tripped circuit breaker (very bottom)

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