

## 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

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

## E.5.2 In-Flight

- OK 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 Operate the system(s) as specified in the operator's manual and as directed by the HRD/DRS, unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO flight director or aircraft commander.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.]
- 17/ Radar log 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 940910II  
Aircraft # 43  
Operators M. Black  
Radar Tech. Jim Roke

Number of digital magnetic tapes on board <sup>day</sup> enough

Number of tape labels on board plenty

Component systems up and checked:

MARS	<u>✓</u>	Computer	<u>✓</u>
DMTR1	<u>✓</u>	DMTR2	<u>✓</u>
LF	<u>✓</u>	R/T#	<u>124 (backup is 103)</u>
TA	<u>✓</u>	R/T#	<u>202/201</u>

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

Radar Postflight Summary

Number of digital tapes used: DMTR1 \_\_\_\_\_  
DMTR2 \_\_\_\_\_

Significant recorder down time:

DMTR 1 \_\_\_\_\_ Radar LF \_\_\_\_\_  
DMTR 2 \_\_\_\_\_ Radar TA \_\_\_\_\_

Other problems: 940910 II .RAM

SEP 10 1994

Ram 2110 - 2620



HRD Radar Down-Time Log

Operator M. Black

Sheet 1 of 1

Item	Time Down	Time Up	Problem
	No	Problems	

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

940910I T.S. Debby

Takeoff: 1820 From Opa Locher  
Debby South of Puerto Rico  
Gene's experiment at 500mb  
Figure 4 with 8 drops  
Plan to land in Barbadoes

HRO Crew:

H. Willoughby - LPS  
J. Kaplan - OPW  
J. Griffin - workstation  
M. Black - Radar + Cloud Physics

42 is already at Barbadoes  
and plans to fly Debby at  
700 mb. with:

Pete Black - LPS  
M. Borst - Radar  
D. Willis - Cloud Physics

Satellite images showed  
Debby to have an exposed  
center with heavy convection  
to the east.

Barry <sup>Duniano</sup> - Flight Met.  
Jim Roles - El. Tech

Radar on 1920  
Status OK

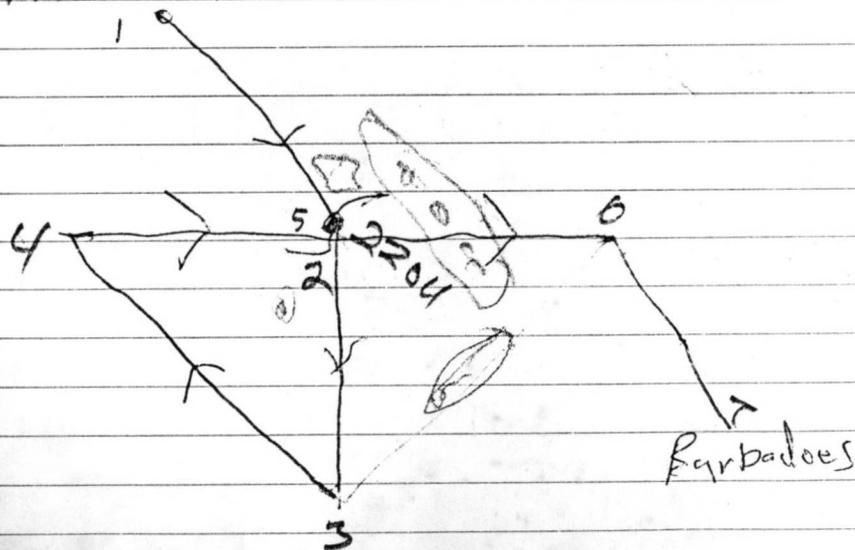
Started recording 203000  
DAT1

In Furks + Caicos  
~ 21 5.0 N 70 33.0 W

211430 IP NNW of 5

Hdg 160° to ✓

214131 OPW #2



1994 1993  
2204 at Center  
right center totally  
exposed only low level  
stratiform cu  
15°28' 3 65°58'

Only convection is to  
east and ~~some~~ some  
north of center

2230 Coast of South America  
Visible

4. 224640 Point 3 south  
of center

235740 West point  
hdg 105, then west

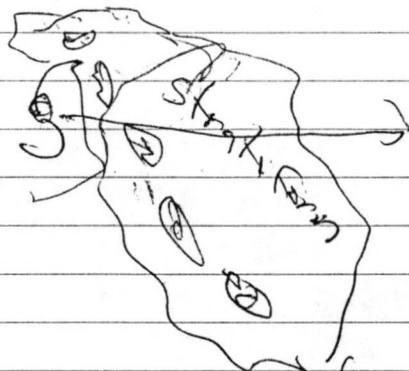
OPW5 235910 499 16  
-4.9 -23.2

OPW6 003326 -  
15°34' 68°58'

005440 - F/AST  
Band east of center

Center at 15°35' ?  
0058 66°52'

Lightning in cells NE of ctr  
0110 - 135 Kts  
Good Tail + Popper



0124 - confirm 400s  
still in stratiform

OPW7 013117

15 30 64 19 5591 5489

OPW8 15°32' 62°37'  
24/19

0225 Turn to South For Barbadoes  
Good Night