

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.

Doppler Radar Scientist Check List

Flight ID 950828H1
Aircraft # N42RF
Operators ~~Rob~~ Gamache / Black
Radar Tech. Roles / Borr

Number of digital magnetic tapes on board 8

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>Same as 950827H1</u>
TA	<u>/</u>	R/T#	<u></u>

Time correction between radar time and digital time

Radar = Datasys + 1sec
Radar 1sec ahead.

Radar Postflight Summary

Number of digital tapes used:

DMTR1 1
DMTR2 0

Significant down time:

DMTR 1 Full
DMTR 2 NA

Radar LF None
Radar TA 1 min during DSC problem

Other problems:

HRD Radar Tape Log

IRIS

Flight 950828 H1 Aircraft 42 Operator M. Black Sheet of

[illegible]

HRD Radar Down-Time Log

Operator Gonache

Sheet 1 of 1

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
	0100	0101	DSC2 Failed - Lost
			Probably Inuif
			TA data

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

Aug 28, 1995 T.S. IRIS

Radar Operators Gormabe / M. Black

LPS - W. Houghby Exp XCDC
C-SCAT - P. Black
Radar/ACC - Rules, Barr

Visitor - Roger Smith
Met - Parrish
Nav - Buzz
Pilots - McKinn, O'Mara

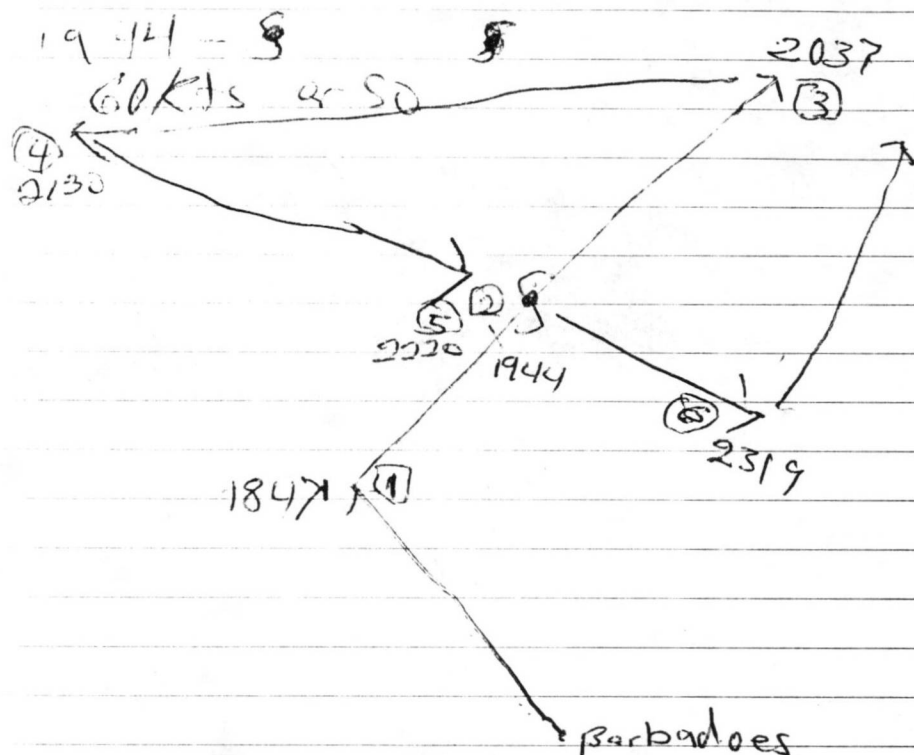
T/O 1717 Z Barbados
will fly XCDC and land
at St. Croix

1727 Radar Program Started
1728 LF up
TA still warning

173850 Start Reentry
200 FAS
will adjust as necessary

1848 Turning to begin leg

Figure 4

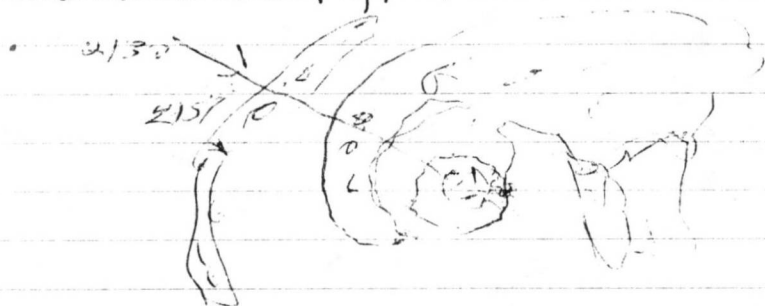


eye open
SE

Flying 600 mb near base
of melting level

2130 Turn to SE (150°)

2157 In outer rainband
convection tilting downwind
with height



Extensive rain shield
north of center

222046 169 4.6 Drop
5

4206
9.3
7.8

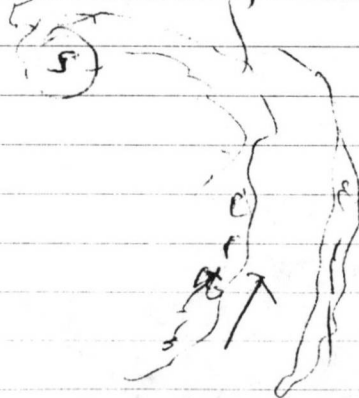
974 mb

max winds 30 m/s NW
27 m/s SE

2246 High calculation of
hydrostatic agreed
with splash at 982 mb,
at most 4-5 m/s
wind was found.

2319 turn to NE 17° 30' 60° 12'
(030°)

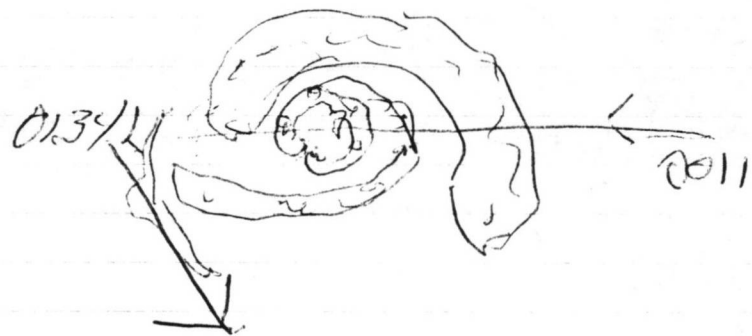
2335 Flying 30° Hdg
along very active conv-
ective line
tops ~16 km
high reflectivity cores
Lightning abundant!



0011

21 58
turn to 275°

0108 - 5 65-70 kts
eye has contracted



0134 - hdg SE to
St. Croix

BSYR

950829H IRIS day 4

Vortex Motion + Evolution Exp
(VME)

We are the low (7000 ft)
inner aircraft and will
fly rotating figure 4's
with 40 nm! radial legs

LPS - J. Gamache
i-SCAT - Pete Black
Radar - Mike Black
~~9132~~

CDW - H. Willoughby
Observer - Roger Smith
El Tah - Jim Roles

Takeoff: 2120Z

Started recording 2132Z

7P 24.00 6454

S- 24.0 6424

Plan to return to St. Croix ~2AM