

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.
- ✓ _____ 2. Maintain a written commentary in the radar logbook of tape and event times, such as the start and end times of F/AST legs. Also document any equipment problems or changes in R/T, INE, or signal status.

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 Field Ground 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: 980824I1
Aircraft Number: N43RF
Doppler Radar Operators: GAMACHE
Radar Technician: ROLES, LYNETT, SMITH
Number of digital magnetic tapes on board: ~ 3 or 4 90m, 2 60m

Component Systems Status:

MARS <u>✓</u>	Computer <u>✓</u>
DAT1 <u>✓</u>	DAT2 <u>✓</u>
LF <u>✓</u>	R/T Serial # <u>103</u>
TA <u>✓</u>	R/T Serial # <u>201/201</u>

Time correction between radar time and digital time: _____

Radar Postflight Summary

Number of digital tapes used:	DAT1 _____
	DAT2 _____
Significant down time:	
DAT1 _____	Radar LF _____
DAT2 _____	Radar TA _____

Other Problems:

HRD Radar Tape Log

Flight 980824II Aircraft N43RF Operator GAMACHE Sheet 1 of
LF RPM 2 TA RPM 10

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

[illegible]

26°06' 72°39'

HRD Radar Tape Log

Flight _____ Aircraft _____ Operator _____ Sheet ____ of ____

LF RPM _____ TA RPM _____

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

[illegible]

HRD Radar Tape Log

Flight _____ Aircraft _____ Operator _____ Sheet ____ of ____

LF RPM _____ TA RPM _____

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

[illegible]

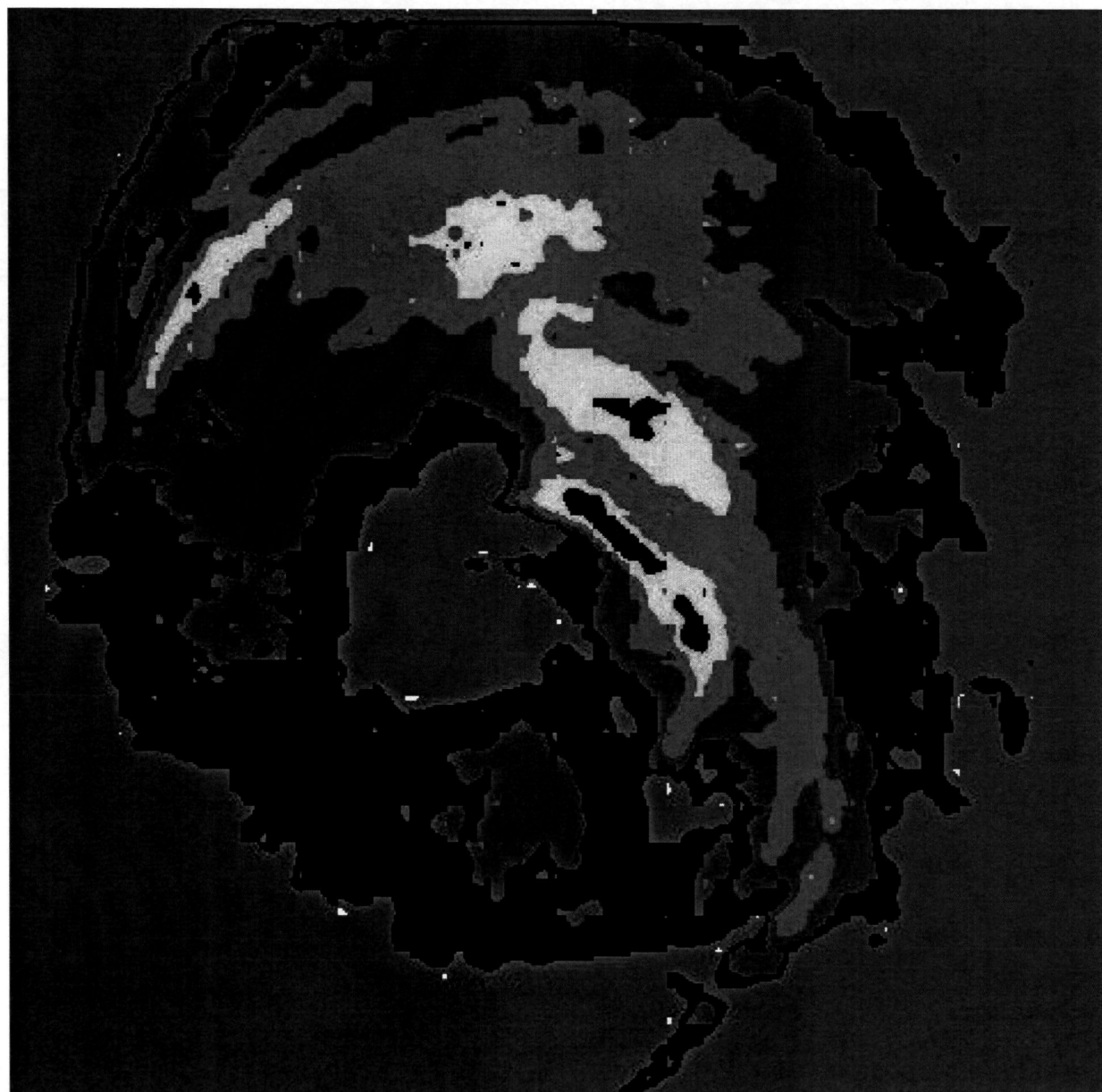
HRD Radar Down-Time Log

Operator _____ Flight ID _____ Sheet _____ of _____

[illegible]

Item List: DAT1, DAT2, COMP, MARS, LF, TA.

Include serial numbers of any new R/Ts.



980824I1

BONNIE #3

252424 Z to
252424 Z

48	
41	
35	
28	
21	
15	Alt 1446 m

dBZ Slat 27.05 N
 Slon 72.87 W

360 X 360 km

produced by
HRD / AOC

HURRICANE FIELD PROGRAM



— 1998 —



Because 9/24/98 Sunday

Fields!

2052 26° 24' 72.55' 962 mb

2110 This entire flight log
from cliff edge. Beginning
at 40 feet and still getting
a lot of sea clutter.

Turn N at 211655

2101 Relatively stable - possibly convection
just to our east. Cloud PRF looks
pretty good.

2135 Heavy duty melting band
45-58 dBZ in band on East side

N 2200 26° 35' 72.55' 962 mb

2215 - 2218 (cloud)

2304 Heading N not much
present on W + S sides

Only band in town beyond just
along this leg.

2320 CPA 26° 13' 72.55'

converted 26° 41' N 72° 55' W 961 mb

new 88 kts
sq

2329 N of convection weak
from 330° - 140°
(NNW + S) side

Center fixed up near N band in
"separated"

2340 M.I.E. after width of cloud
rather narrow

2344 turn to NW (50°)
28017 730°

0148 Reelid, W side and EP
 standing forest to the NW.
 020455 EPD RECONSTRUCT

9 CPA 0016 26°49' 73°0'
 9 26°47' 73°02' W
 0029
 E side top around 14 km. Sea
 a lot of that on the N side