

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: 981027 I 1
Aircraft Number: N43RF
Doppler Radar Operators: GAMACHE
Radar Technician: TERRY LYNCH
Number of digital magnetic tapes on board: 8

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 981027I1 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)

Tape #	F/AST On?	Event Time (HHMMSS)	Event
		1849 1820	T/O
		191000	
1	YES	1913	1600/1066 PRF FAST
2	YES	204220	1600/1066
		211710	SINGLE 1600 PRF
	OFF	211905	VTD LEG 211920
			VTD END 214500
		215152	RADAR DOWN
		215640	VTD LEG BEGINS
	YES	222030	221950 VTD LEG ENDS
		222159	DOWN
		222700	BACK ON
	NO		LEG 3 VTD 222900-225040
	YES	2251-2258	END DOWNWIND LEG
	NO	225800	BEGIN LEG 4 VTD
	YES	2319	END VTD LEG
	YES	232040	DOWNWIND LEG
	NO	232855	BEGIN VTD LEG 5
		2350	END OF VTD LEG 5
	YES	2358	FORGOT TO PUT BACK IN

FAST

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 GAMACHE Flight ID 981027 I I Sheet 1 of

[illegible]

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

Include serial numbers of any new R/Ts.

981027 IJ

Sing along with H. Mitch (Miller)

Was cat 5, now apparently cat 4.

202330 GPS 21°59' 85°30'
DROP

TEAL 6

202403 RECORDING DOWN

2042 RADAR UP AFTER MANY
COMPUTER RESETS.

TEAL 6
2048 927m 16°45' 85°35'

212858 Eyrwell drop 16°54' 85°46'

1641 85°35' CPA 2133 drop (eye)

1642' 85°36'

213635 16°31' 85°24' ~~213635~~ Eyrwell drop GPS

213915 16°24' 85°17' Eyrwell GPS

215156 RADAR DOWN
ON INBOUND PASS

215640 RECORDING VTD LEG

6 est. 16°38' 85°35'

221450 END VTD LEG 1

222758 BT REL
16°12' 86°16'

TRY 222900 FOR VTD LEG 3
LOTS OF MANEUVERING

BT REL. 224030 16°39' 85°34'

6 v 224040 16°38' 85°35'

225040 END VTD LEG 3

225800 BEGIN VTD LEG 4
(N-S)

2305 N. BT drop showed 26.5°C
out line in Caribbean

N-S Pass showed very turbulent
1-2 km on N side to center.

232855 BEGIN VTD LEG 5

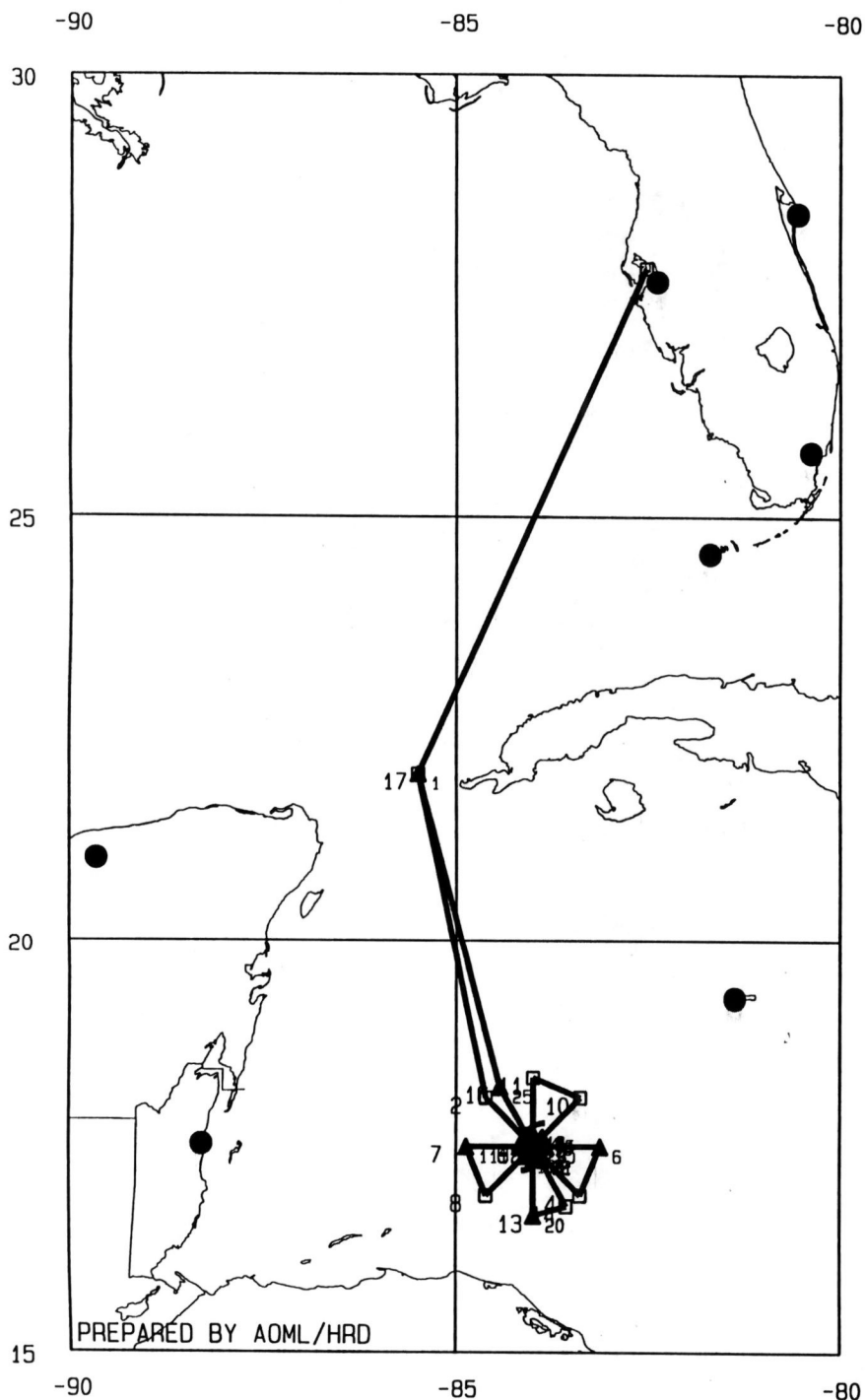
9 $16^{\circ}34'$ $85^{\circ}35'$ (2340 070)

2349 ON NW side

That reported pos was a
whisper.

N 2350 end of VTD leg 5

0016 $16^{\circ}32'$ $85^{\circ}38'$



30 FLIGHT TRACKS
MITCH
NOAA 43
— 981027i.f tk

Teal 27
leaving to NW ~ 21Z

RAWINSONDES 9809

- Regular
- 12Z only
- 00Z only
- Infrequent
- Infrequent - 00Z
- Infrequent - 12Z

▲ DROP LOCATIONS