

19950829 H1. RADAR

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.

24.05 65.00

1

Flight ID	950829/HI IRIS
Aircraft #	42
Operators	M. Black
Radar Tech.	Jim Roles

Number of digital magnetic tapes on board Last two being used

Number of tape labels on board _____

Component systems up and checked:

MARS	☒	Computer	☒
DMTR1	☒	DMTR2	☒
LF	☒	R/T# LF	124
TA	☒	R/T# TA	101/201

Time correction between radar time and digital time _____

Radar Postflight Summary

Number of digital tapes used: DMTR1 1
DMTR2

Significant down time:

DMTR 1 _____ Radar LF _____

DMTR 2 _____ Radar TA _____

Other problems:

HRD Radar Tape Log

IRIS

Flight 95082914 Aircraft 42 Operator M. Black Sheet of

Tape #	Time On (HHMMSS)	Time Off (HHMMSS)	Comments
0111	2132	0518	Hdg North to IP west of center 2244 at IP
			2311 at point 2, 2320-5
			2331 at point 3, 2340-5
			FAST-2034, 2043 continuous - Pt 4
			2352-5 90 kts, 23:20 6120 W
			969 W, 0001 - Pt 5 FAST
			0006 - Pt 6 - continuous
			0016-5 - 0028 - Pt 7 - FAST
			0042 - Pt 8 continuous - 0053-5
			0105 - Pt 9 FAST - 0120 - circle - continuous
			0106 - Pt 10
			0138-5 0148 Pt 11 FAST
			0158 - Pt 12 continuous
			0206-5 0215 - Pt 13 - FAST
			0221 - 14 continuous
			0230-5 0240 - Pt 15 FAST
F/A - level			data (INE) has spikes
			0251 - Pt 16 - continuous
			0302-5 0312 - Pt 17 FAST
			0326 - going past Pt 14 to wait for other plane
			0346 - Pt 18 - continuous
			0357-5 0406 - Pt 19 FAST
			0418 circles at Pt 20
			0425 - Pt 20 - continuous
			0433-5 0443 - Pt 21
			hdg back to St. Croix

HRD Radar Down-Time Log

Operator M. Black

Sheet 1 of 1

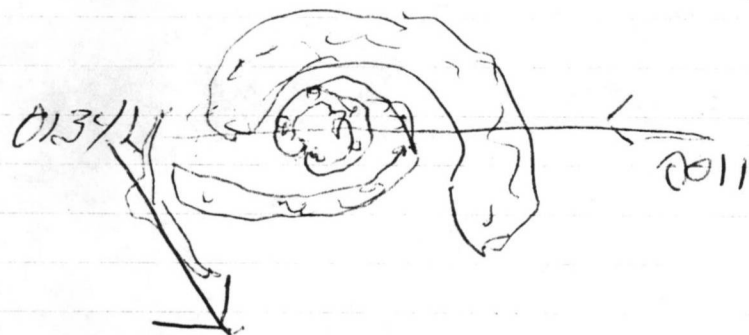
[illegible]

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

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

Vertex Motion + Evolution Exp
(VME)

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

LPS - J. Gamache
U-SCAT - Pete Black
Radar - Mike Black

~~0137~~

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

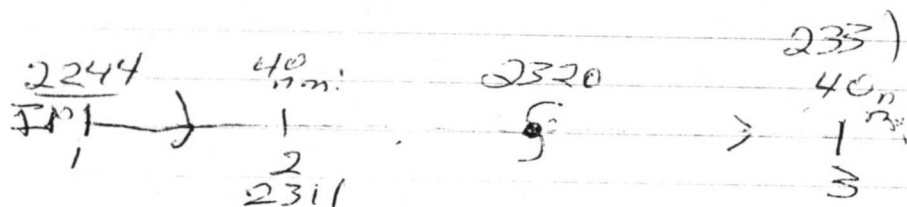
Takeoff: 2120Z

Started recording 2132Z

7P 24.00 6454

8- 24.0 6424

Plan to return to St. Croix ~2AM



2220 storm appears about
60 mi further south than
forecast

2244 at IP

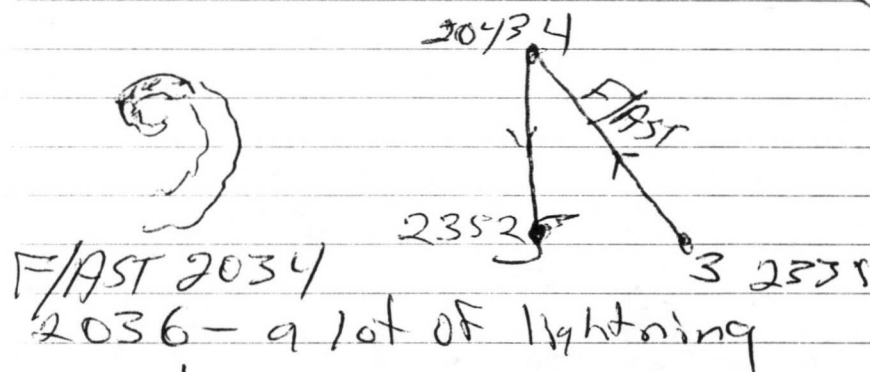
2256 Adg due East

2300 in outer band



at range, eye appeared
to be 50 mi wide,
closer in we see a small
10-15 mi wide eye.

2311 at point 2
2320 at center

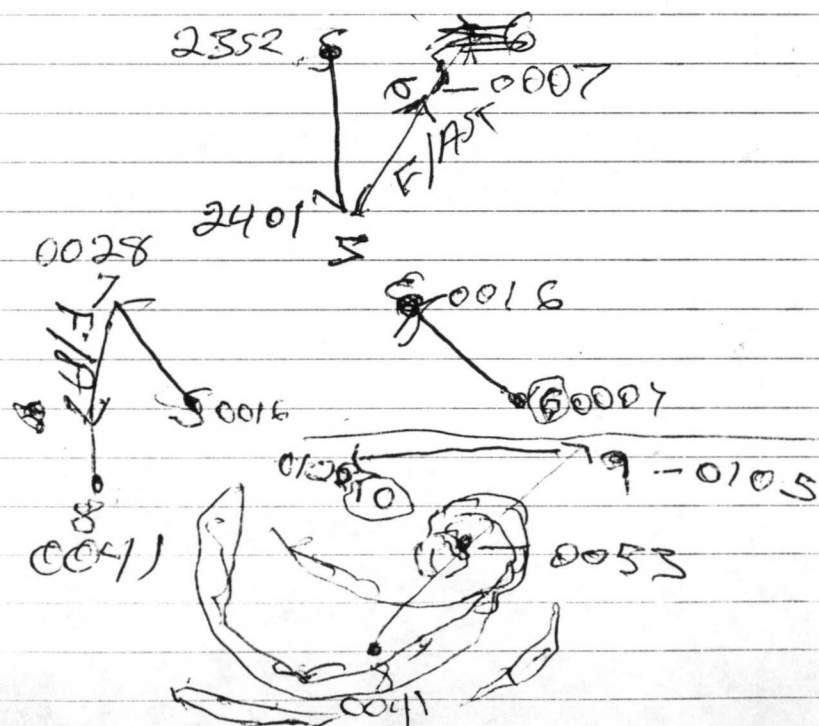


F/AST 2034

2036 - a lot of lightning

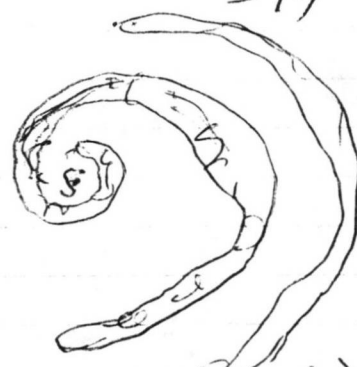
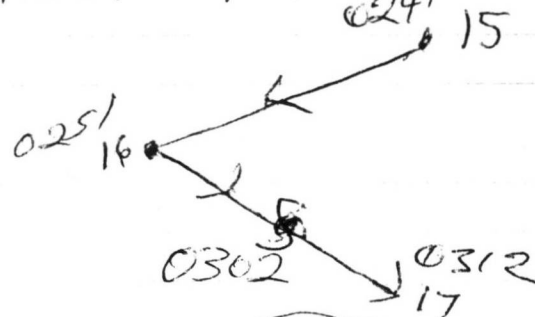


90-95 kt north eyewall
strong updrafts 969 mb

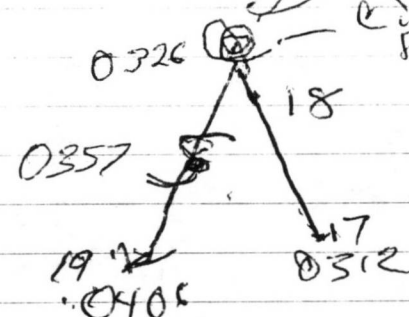




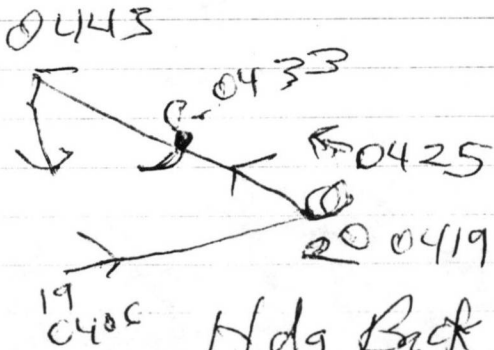
Bob Black! A lot of noise on
the cloud phys probe, especially
precip



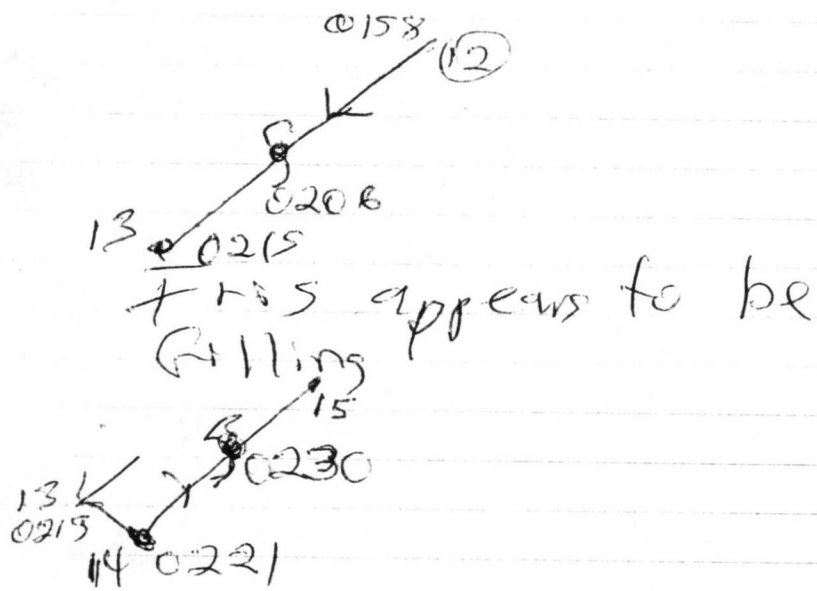
circles waiting
for 43



0433
impressive
ext external
on tail



Hdg Back to st. Croix!
Down Day!!



his appears to be
gilling

Flight-level data may
be noisy - spikes on
the IVE data and
SFC pressure data
RA?