

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.

SEP 25 1994

950925H1

Form E-5
Page 3 of 3

HRD Radar Down-Time Log

Operator Dodge

Sheet 1 of

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
	NO DOWN TIME!		

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

SEP 25 1994

Doppler Radar Scientist Check List

Flight ID 95092541
Aircraft # 42
Operators Dodge
Radar Tech. Barr/Roles

Number of digital magnetic tapes on board 2 boxes of DATS = 10 DAT tapes

Number of tape labels on board • in DAT boxes

Component systems up and checked:

✓ USE DINE 2!

MARS ✓
DMTR1 ✓
LF ✓
TA ✓

Computer
DMTR2
R/T# 122
R/T# 201/102

RCVR

Time correction between radar time and digital time radar disp ~ 1 s ahead of data display

Radar Postflight Summary

Number of digital tapes used: (1)

DMTR1
DMTR2

Significant down time:

DMTR 1 X
DMTR 2 X

Radar LF none
Radar TA none

Other problems:

NO PROBLEMS.

19° 120.3°

Flight 950925H1 Aircraft 42 Operator Dodge Sheet 1 of

[illegible]

SEP 25 1994

ANOTHER DAY, OF INNER-CORE
IN HURACAN OLIVIA

940925H1

LPS-Garnacke Scott PBlack

Radar-Podger ODW(listen) Barpee

Isotopes J. Lawrence Cloud Phy Roles

T 32.4 (RWAY!) T₀ 23.4

17:32:30 TAKE OFF

T 29.4° at 140m

1856 radars on, look good,
not recording yet

191922 - started recording, to point
island 150 NMI SE of us (Socorro).

192056 - 192535 Sea Surface F/AST

1926 - we're under some stratiform
stuff - but not the CDO

1954 - start descent to 19,000'

1958 - eye ~ 150 nm SW of us,

looks very small, maybe 15-20 nm
diameter

2007 in first RB to NE. Looks
pretty stratiform. 63 KTS

940925H1(2)

194819 F/AST on til we get to IP

2019 Looks we've cut 3 rb's
before

202024 F/AST off IP#1 3 km alt

202720 19°19' 120°7' BT launch

2031 100 KTS outside eyewall

2032 Classical Amphitheater

blue sky above. Bob saw 125 KTS

SP ~ 926 mb

2034 133 KTS S side

2037 18°40' 120°2.5' BT (2)

204545 F/AST ON, TRK 63°

2049 43 will try ODW drop in eyes

205330 F/AST off

2101 - 90 KTS

2102 - 100 KTS in ~~outer~~^{SE} rainband
about 40 km

2104 128 KTS SE eyewall

2106 925.0 (924½)

~~2107~~ 2107 128 KTS NW eyewall

119°2.2' 120°5.6' - 2107 NAV FIX

2119 F/AST ON 19°31' 120°45'

212550 F/AST OFF

2132

see surface looks good
PBlack speculating
on eyewall replacement
cycle...

940925H1 (3)

2137 118 KTS W eyewall

2138 19°7' 120°6'

123 KTS E eyewall

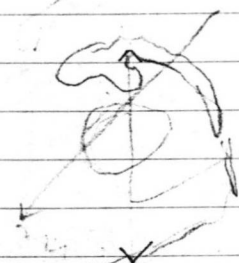
2143 90 KTS E rainband

214630 19°3' 119°27' (BT3)

214950 F/AST ON 19°3' 119°12'

215820 F/AST OFF ~19°30' 119°29'

2202 19°24' 119°46' (BT4)



114 KTS

50 KM

2208 We missed

center this time. Not

2206 sure why

2221 - turn

222155 F/AST on 18°23' 120°4'

2228 43 has 1/2 problem

223049 - F/AST off were orbiting
at 18°13' 120°15'

2238 we're headed back in trk 340°

2243 RB at 18°43' 120°2' 66 KTS

WZ mostly down - 5 m/s.



940925H1 (4)

OK

224920 19°8' 120°3' (BT5)

2352 - little graupel shower

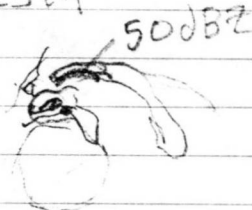
N eyewall 129 KTS briefly

230140 F/AST ON 19°53' 120°37'
TURN ST

230733 F/AST off 19°43' 120°35'

~~2318 4~~

2319 130 KTS



50 dBZ

233030 F/AST ON 18°35' 119°19'

233720 F/AST off 19°9' 119°3'
we're headed # 269° for PASS # 7

~~2343~~

2347 126 KTS

2349 TAIL X-sec shows
elevated dBZ max N eyewall
SP ~ 930 mb

2352 C-Seat down

0000 - Turn for last W-E pass
~19°17' 120°45' (?)

940925H1 (5)

9- This last pass we will find center,
at J Gamache's request.

1 0013 TOPS in N Eyewall ~ 13 km

C 0014 138 KTS E eyewall

1 0018 climbing out 19°20' 119°27'

to 0026 FAST as we climb out -
fr but set tilt to 11, because drift
of 10° so only good fast to right
of track (76°)

d 0045 tape stopped & Rewound.
fr J. Barr copied tape for JG.

21

W

H

Re

E