

19910802HI-RADAR

E.5 Doppler Radar Scientist (On-Board)

AUG 02 1991

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 910802H1
Aircraft # N 42 RF
Operators GAMACHE / DORST
Radar Tech. LEYVA

Number of digital magnetic tapes on board 26

Number of tape labels on board 13

Component systems up and checked:

MARS ✓

Computer ✓

AUG 02 1991

DMTR1 ✓

DMTR2 ✓

LF ✓

R/T# SAME

TA ✓

R/T# SAME

Time correction between radar time and digital time +1 sec

Radar Postflight Summary

Number of digital tapes used:

DMTR1 5

DMTR2 5

Significant down time:

DMTR 1

Radar LF

DMTR 2

Radar TA

Other problems:

AUG 02 1991

Form E-5
Page 3 of 3

HRD Radar Down-Time Log

Operator CAMACHE / JIRST

Sheet 1 of 1

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
LF R/T	231500	074200	Intermittent drop outs

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

AUG 02 1991

HRD Radar Tape Log

Flight 910802+11 Aircraft N 42RF Operator GAMACHE
DORST Sheet 1 of 1

[illegible]

910802H1 - 10PS/1 into

T Wave #26 - LPS-DR KEMMANUEL, P. BLACK
Radar - J Camache, N Dorst

T/O ACA 23:01 Z, LAND ACA 08:10 Z

23:18 - Radar system up & running,
but LF R/T dropping off occasionally.

23:48:00 - Recording started

Silim Laya reports the LF R/T is

flaky w/ intermittent radicals dropping out. He will replace R/T's if it becomes a problem.

23:56 - begin our descent to 700mb

24:01 - at 700mb IP

03:07 - It's been one long, dull flight & it's not 1/2 over! John G. characterizes the radar return as "dog food" as it's sorta mushy all over, not any organization, had a few bumps but no major turbulence.

04:07 - Thru a gust front w/ some shaking. Most organization we've seen

04:12 - descend to ~1000' 04:20 - down in PBL at 300m

04:38Z - back thru the "squall" line.

06:10Z - begin climb to ~500mb

06:23Z - at 500mb, crossing center of circulation

06:40Z - DrPB claims were seeing spiral bands on LF radar.

06:54Z - Turn for ACA.

07:42Z - Stopped recording, then the system goes belly up (?)