

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.

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Doppler Radar Scientist Check List

Flight ID 910706 H1
Aircraft # ~~47~~ 42
Operators DODGE
Radar Tech. SELIM LEYVA

Number of digital magnetic tapes on board ~ 22

Number of tape labels on board enough

Component systems up and checked:

MARS

Computer

DMTR1

DMTR2

LF ✓

R/T# 124 then 102

TA ✓

R/T# no ser #

NOAA PROP
42671

Time correction between radar time and digital time

Radar Postflight Summary

Number of digital tapes used:

DMTR1 2

DMTR2 2

Significant down time:

DMTR 1 ✓

Radar LF ✓

DMTR 2 ✓

Radar TA

Other problems:

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Operator Dodge

Sheet 1 of 1

[illegible]

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

Form E-5
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Flight 910706HI Aircraft 42 Operator Dodge Sheet of

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FIRST TEXMEX IOP

910706H1 K. Emanuel, B. Gall,
Jorge Sanchez, M. Bister, Nilton
M. Powell, R. Burpee, P. Dodge.

RADAR TECHS: SELIM LEYVA y GEORGE

1808 - Take off ~~FIXED~~ TIME

1902 started recording after
trouble with Tapedrive (PROGRAM
didn't see them on line) then R/T 124
crapped out. Selim swapped in #102.
It is working but every now and then
fails for a few pulses.

1930: Peter "Paint the Ocean Tilt &
Boil" Dodge had tilt set pretty
low until now. We're at 3 km so
set to +1'0"

1931 turning 1933 ODW #1 out

11°51' 97°30' 93° 9kts P 699mb

(RUNNING FAST

2012 ODW#2 stuck in chute then sent

2031 set TA tilt to 0° for 2nd EW leg to
get vertical incidence

2034 set TA to 10 RPM, IF to 200 RPM

(were 8 & 4 respectively. I forgot
to do at beginning)

10.7 cm for radar display diameter

2105 FAST again $\pm 18^\circ$

2118: PRETTY BORING. We're coming up on
the supposed center, center of our pattern at
least... There is a line of showers ~
200 km N that should give some thrills...
there are lots of scatterers though.

ODW#3 2124 ^{LAT} 13°27' ^{Lon} 98°29' 153° 6 KTS
T 8.9° T_a 5.9° 700.1 MD

2153 - we're moving around

2159 - back to 0° for vertical Incidence

2320 turning N. Gear was lowered to burn off
fuel.

NOTE: These data were thresholded with
reflectivity, not SQT

2336 sounding at 16°2', 102°4'

Left radar on fast

2348 climb out again

0010 should be good FAST data
here as we fly 22° with cloud
line to our left with precipitating
anvil. Flying all day and finally
something of interest.

As we headed N winds shifted from
211° to 178°, 14 KTS

00:14 turned to track 54°