

19870922HI-RADAR

E.5 Radar/Airborne Doppler Radar Scientist (On-board)

The on-board Radar Scientist (RS) is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and checklists 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 HRD/RS and the on-board LPS.
- ☒ 4. Complete the appropriate preflight calibrations and checklists 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 Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO/Flight Director or Aircraft Commander.

E.5.3 Postflight

- ☒ 1. Complete the summary checklists and all other appropriate checklists 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 OAO/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.

Form E-5
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Radar Scientist Checklist

Flight ID 880922H
Aircraft # NOAA 42
Operators BURPEE/WILLOUGHBY
Radar Tech GOLDSTEIN

Number of digital magnetic tapes on-board _____

Number of tape labels on-board _____

Component systems up and checked:

RDSC ✓

DSC1 ✓

Computer ✓

DSC2 ✓

DMTRL ✓

DMTR2 ✓

LF _____ R/T# SN-102M

TA _____ R/T# SN-104

Time correction between radar time and digital time NONE

Radar Postflight Summary

Number of digital tapes used DMTR 1 8
DMTR 2 8

Significant recorder downtime:

DMTR 1 1544-1644Z Radar LF _____

DMTR 2 1655-1706Z Radar TA _____

Other problems:

clock problem from 2000 - 2007 the 2 in the hour
was recorded as a zero-bit problem
corrected by Al Goldstein

HRD RADAR TAPE LOG

EMILY

FLIGHT 880922H

AIRCRAFT NBAA42

OPERATOR BURPEE
WILLOUGHBY

SHEET 1 OF 1

Tape #	Time On	Time Off	Source Radar		Comments
			TA	LF	
1/1	1519	1544			radar program crashed 1544
2/1	1644 1644	1731			restarted 1644 - 1 hour lost
					radar stopped recording
					165501
					restarted 1706
				17102	decide to leave radar
					program on tape drive #1
					because radar data system
					is crashing with every big
					bump - 17102
					1728 - decided to use both
					tape drives again
1/2	1731	1755 1755			
2/2	1755	1821			
3/1	1821	1846			
3/2	1846	1911			
4/1	1911	1937			started spiral pattern 1913
4/2	1937	2002			resumed level flight 1952
5/1	2002	2027			radar clock problem add 20 to hour
5/2	2027	2052			
6/1	2052	2117			2103 even downwind end of eye is very turbulent
6/2	2117	2142			
7/1	2142	2207			southeast side of eye 2200 only half the eyewall remains
7/2	2207	2233			

corrected
about 2007

2252 eyewall better formed 3/4 of eye
open SSE

last 8/2 2258 2323

OPERATOR BURPEE
SHEET 1 OF 1

HRD RADAR LOG

RADAR DOWN-TIME LOG

<u>ITEM</u>	<u>TIME DOWN</u>	<u>TIME UP</u>	<u>PROBLEM</u>
radar data system	1544	1644	program bombed when aircraft encountered significant turbulence
radar data system	1655	1706	same problem as above
clock error	2000	2007	bit was stuck off-hour recorded as "00" rather than "20"

ITEM LIST: VTR, DMTRI, DMTR2, COMP, ROSC, LF, NO, TA, DSCI, DSC2