19900831H1-RADAR

AUG 31 1990

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 20030831H1

Aircraft # NOAA 42RF

Operators M. Black

Radar Tech. Jim Roles

Number of digital magnetic tapes on board 16

Number of tape labels on board ~70

Component systems up and checked:

MARS	✓	Computer	✓
DMTR1	✓	DMTR2	✓
LF	✓	R/T#	121
TA	✓	R/T#	None, 9023 on handle

Time correction between radar time and digital time _____

Radar Postflight Summary

Number of digital tapes used:

DMTR1 @ 4 2400'

DMTR2 4 2400', 6 1200'

Significant down time:

DMTR 1 2043 - end

DMTR 2 _____

Radar LF _____

Radar TA 2043 - 2101 system hung up because of Tape #1

Other problems: Radar became blocky again (like yesterday) ~ 1846, then ok, antenna seemed to be in partial fast mode but said cont. RCU says ±15° even though display looks normal, BASE tapes from 43 causes tape drive to display check a lot. Will use remaining tapes from 42, then 1200'

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HRD Radar Down-Time Log

Operator M. Black Sheet 1 of 1

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
System	2043	2101	Drive 1 jammed up, hung system up
DMTR1	2043 –	end	can't write to it

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

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HRD Radar Tape Log

Energetics

Flight 90083141 Aircraft 42 Operator MBlack Sheet 1 of 1

Tape #	Time On (HHMMSS)	Time Off (HHMMSS)	10000ft Comments
D1T1	162245	165900	Hdg to IP1, eye at 1650, Ldg south
D2T1	165900	1735	south to #2, east to #3, north to 4
D1T2	1735	1817	west to eye, 1752 in eye, North of eye
D2T2	1817	1854	downward leg
D1T3	1854	1925	took radar down in eye ~1928 (see problems)
D2T3	1934	1957	in eye, hdg east to pt 4 Ldg W to pt 5
D1T4	1957	2012	north of eye - took type off
D2T4	2012	2042	in eye 2030
D2T5	2101	211200	5000 ft sw of eye toward eye
D2T6	211428	213055	Prive 1 down, eye 2120
D2T7	213320	214715	Fast - good band
D2T8	214920	220650	hdg for eye, in eye 2200
D2T9	220845	222252	climb to 20,000 ft
D2T10	222602	2240	last eye

1200'