19870101I - 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.)

OCT 10 1987

E.5.1 Preflight

NMD 1. Determine the status of equipment and report results to the on-board Lead Project Scientist (LPS).

NMD 2. Confirm mission and pattern selection from the on-board LPS.

NMD 3. Select the operational mode for radar system(s) after consultation with the HRD/RS and the on-board LPS.

NMD 4. Complete the appropriate preflight calibrations and checklists as specified in the radar operator's manual.

E.5.2 In-Flight

NMD 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 Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO/Flight Director or Aircraft Commander.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

NMD 1. Complete the summary checklists and all other appropriate checklists and forms.

NMD 2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.

NMD 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.]

NMD 4. Debrief at the appropriate operations center (FGOC or MGOC).

NMD 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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Radar Scientist Checklist

OCT 10 1987

Flight ID 871010 I1

Aircraft # N43RF

Operators DORST GAMACHE

Radar Tech GOLDSTEIN

Number of digital magnetic tapes on-board BEAU COUP

Number of tape labels on-board SAME

Component systems up and checked:

RDSC ✓ DSC1 ✓ OUT IN FLIGHT

Computer ✓ DSC2 ✓

DMTR1 ✓ DMTR2 ✓

LF ✓ R/T# 101M

TA ✓ R/T# N201

Time correction between radar time and digital time +2 SEC

Radar Postflight Summary

Number of digital tapes used DMTR 1 5

DMTR 2 5

Significant recorder downtime:

DMTR 1 ✓ Radar LF ✓

DMTR 2 ✓ Radar TA ✓

Other problems:

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HRD RADAR TAPE LOG

OCT 10 1987

FLIGHT 871010I AIRCRAFT 43 OPERATOR DORST SHEET 1 OF 1

Tape #	Time On	Time Off	Source Radar TA	Source Radar LF	Comments
D1/T1	185145		✓	✓	LF ONLY 'TIL S OF CUBA
					191234 Radar System down
					191350 up again
		201033	✓	✓	195100 START TAIL
D2/T1	201033	204200	✓	✓	
D1/T2	204200	211200	✓	✓	
D2/T2	2112	2142	✓	✓	
D1/T3	2142	2206	✓	✓	
D2/T3	2206	2236	✓	✓	
D1/T4	2236	2307	✓	✓	
D2/T4	2307	2328	✓	✓	
	2328	0011		✓	LF ONLY
D1/T5	0011	0241		✓	
D2/T5	0241	0315		✓	

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HRD RADAR LOG

OPERATOR DORST

SHEET 1 OF ____

RADAR DOWN-TIME LOG 871010I1

ITEM	TIME DOWN	TIME UP	PROBLEM
	1919Z	1934Z	DSC #1 flaky, system keeps going down. DSC#1 OUT WILL USE DSC#2
	193850Z	1943Z	LF CRAPPED OUT AGAIN BACK ON DSC#1

ITEM LIST: VTR, DMTR1, DMTR2, COMP, ROSC, LF, NO, TA, DSC1, DSC2

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OCT 10 1987

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.

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Doppler Radar Scientist Checklist

OCT 10 1987

OCT 10 1987

Flight ID 87101011

Aircraft # 43RF

Operators GAMACHE

Radar Tech GOLDSTEIN

Number of digital magnetic tapes on-board 30+

Number of tape labels on-board Enough

Component systems up and checked:

RDSC ____ DSC1 ✓

Computer ____ DSC2 ✓

DMTR1 DOPPLER ✓ DMTR2 ____

LF 101M R/T# ____

TA N201 R/T# ____

Time correction between radar time and digital time +2

Radar Postflight Summary

Number of digital tapes used DMTR 1 ____

DMTR 2 ____

Significant recorder downtime:

DMTR 1 ____ Radar LF ____

DMTR 2 ____ Radar TA ____

Other problems:

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HRD DOPPLER RADAR TAPE LOG

OCT 10 1987

FLIGHT 871010I1 AIRCRAFT 43RF OPERATOR GAMACHE SHEET 1 OF 1

TAPE NO.	TIME ON	TIME OFF	SOURCE* V	H	S ✓	COMMENTS**(#pulses,scan rate, range) 32, MAX, 300 m
1	195135	200230			✓	Some parity problems. Loose connectors
2	201400	203000			✓	
3	203530	205230			✓	
4	205430	211100			✓	
5	213935	215825			✓	
6	220925	222035			✓	
7	222245	223415			✓	
8	223620	224505			✓	
9	224705	230100			✓	
10	230305	232010			✓	
~~11~~						

*Vertical, Horizontal, or Full Sweep Scan

** # of pulses averaged (32,64,128,256); scan rate(Min,Max); range resolution(150m, 300m)

HRD RADAR LOG

OPERATOR_____

SHEET____ OF ____

RADAR DOWN-TIME LOG

ITEM	TIME DOWN	TIME UP	PROBLEM

ITEM LIST: VTR, DMTR1, DMTR2, COMP, ROSC, LF, NO, TA, DSC1, DSC2