1999092411-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

- Determine the status of equipment and report results to the onboard Lead Project Scientist (LPS).
- 2. Confirm mission and pattern selection from the on-board LPS.
- Select the operational mode for radar system(s) after consultation with the HRD/RS and the on-board LPS.
- V
- Complete the appropriate preflight calibrations and checklists as specified in the radar operator's manual.

E.5.2 In-Flight

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- Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO/Flight Director or Aircraft Commander.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

- V
- 1. Complete the summary checklists and all other appropriate checklists and forms.
- V
- Brief the on-board LPS on equipment status and turn in completed forms to the LPS.
- V
- 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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Radar Scientist Checklist

Flight ID $B70924I$ Trafficial flow Civily Aircraft # NOAA43 Operators $Burgee$ Radar Tech Berles Number of digital magnetic tapes on-board Component systems up and checked: RDSC DSC1 Computer DSC2 DMTR1 H DMTR2 LF R/T# SN-10/M TA R/T# SN-20/ Time correction between radar time and digital time Computer Systems used DMTR 1 Radar Postflight Summary Number of digital tapes used DMTR 1 Radar IF DMTR 2 Significant recorder downtime: DMTR 1 PMTR 2 Radar TA Coher problems: System To Sold the tapes on the tape drives with plastic were elips working on it but could not refair it - he eventually deviced a system To Sold the tapes on the tape drives with plastic were elips TTE: Tail reflectivity and Septer data were recorded with: 60-77 He Contel boundary - otherwist only lawer fusilage radar is to work of the tapes on the time and during the first crossing the frontal boundary - otherwist only lawer fusilage radar is to work of the tapes on the time and during the first crossing the frontal boundary - otherwist only lawer fusilage radar is to work of the tapes of the tape drives on the first crossing the frontal boundary - otherwist only lawer fusilage radar is to work of the tapes of the tape on the tape drives with fusilage radar is to work of the tapes of the tape on the tape only lawer fusilage radar is to work of the tapes of the tape on the tape of the tapes of the tape of the tape of the tapes o						R.
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	stal uppo	Derorded.		V		

HRD RADAR TAPE LOG Form E-5 Page 2 of 4 OPERATOR BUCDEC SHEET / OF / FLIGHT 870924II AIRCRAFT NOAA43 Source Radar Comments Time Off TA LF Time On Tape # seemoted recording LF only when X 194000 204050 ~ - 0.5 ° tilt ck 0.0 at 2015: back to ~- 0.5 at 2025; see moteo started recording tail at 2025 means 2 11 204050 Emily the center Decording tail 2157 220050 224845 2 motel 2219 started recording TA mean V 12 ? eprecordina. B. TA \checkmark 2/2 224845 2348 0106 1 2348 2 V 0224 0106 2 3 stapped recording LF after last DDW dropped 0256 V 0224 4

Form E-5 Page 3 of 4 OPERATOR HRD RADAR LOG SHEET OF _ RADAR DOWN-TIME LOG ITEM TIME DOWN PROBLEM TIME UP

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

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

E.5.2 In-Flight

 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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Radar Scientist Checklist

Flight ID SA0924 I						
Aircraft # MOAA 43						
Operators BLACK/ HANDEL (120 PLOR)						
Radar Tech						
Number of digital magnetic tapes on-board 65 137						
Number of tape labels on-board						
Component systems up and checked:						
RDSC DSC1						
Computer DSC2						
DMTR1 DMTR2						
LFR/T#						
TAR/T#						
Time correction between radar time and digital time						
Radar Postflight Summary						
Number of digital tapes used DMTR 1						
DMTR 2						
Significant recorder downtime:						
Radar LF						
DMTR 2 Radar TA						
Other problems:						

Form E-5 Page 4 of 4	HRD	DOPPL	ER	R	ADAR TAPE LOG
FLIGHT 8	70924	I AIRCRA	4ft_ <u>4</u>	13R	POPERATOR P. Blass SHEET OF
TAPE NO.	TIME ON	TIME OFF	SOUF V F	RCE*	COMMENTS**(#pulses,scan rate, range) 32/871/15 KM
	195945	201019			HEADED FOR EVE. TAPESTALTED
3	2058	2/10			DOWNWINDLEG, NW QUAD
	21:15:10	2/34	+	+	TURN @ 2129 ALONG AFRONT
6	22-37/0				Tape TOUROFF IN READ MODE REWEND
	224/12	2259			+ RESTART OK
			+		

*Vertical, Horizontal, or Full Sweep Scan

** # of pulses averaged (32,64,128,256); scan rate(Min,Max); range resolution(150m, 300m) Form E-5 Page 3 of 4

HRD RADAR LOG

OPERATOR______

RADAR DOWN-TIME LOG

ITEM	TIME DOWN	TIME UP	PROBLEM

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