

## **E.5 Radar Scientist**

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.
- \_\_\_\_\_ 2. Maintain a written commentary in the radar logbook of tape and event times, such as the start and end times of F/AST legs. Also document any equipment problems or changes in R/T, INE, or signal status.

### **E.5.3 Post flight**

- \_\_\_\_\_ 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 LPS.
  - 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 MGOC or the hotel during a deployment.
- \_\_\_\_\_ 5. Determine the status of future missions and notify MGOC as to where you can be contacted.

### HRD Radar Scientist Check List

Flight ID: 020925H

Aircraft Number: 42

Doppler Radar Operators: \_\_\_\_\_

Radar Technician: \_\_\_\_\_

Number of digital magnetic tapes on board: \_\_\_\_\_

#### Component Systems Status:

MARS \_\_\_\_\_

Computer \_\_\_\_\_

DAT1 \_\_\_\_\_

DAT2 \_\_\_\_\_

LF \_\_\_\_\_

R/T Serial # \_\_\_\_\_

TA \_\_\_\_\_

R/T Serial # \_\_\_\_\_

Time correction between radar time and digital time: \_\_\_\_\_

#### Radar Post flight Summary

Number of digital tapes used: DAT1 \_\_\_\_\_

DAT2 \_\_\_\_\_

#### Significant down time:

DAT1 \_\_\_\_\_

Radar LF \_\_\_\_\_

DAT2 \_\_\_\_\_

Radar TA \_\_\_\_\_

#### Other Problems:

2910A 151DORC

151DORC0923-KPAC

Flight 020925H Aircraft 42 Operator M. BLACH Sheet 1 of     

HRD Radar Tape Log

LF RPM                      TA RPM                     

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

| Tape # | F/AST On? | Event Time (HHMMSS) | Event                                                  |
|--------|-----------|---------------------|--------------------------------------------------------|
|        |           | 0402Z               | Take off                                               |
|        |           | 0420Z               | Radar problems —                                       |
|        |           | 0431Z               | Radar up                                               |
|        |           | 0433Z               | Start Radar began                                      |
|        |           | 0443Z               | Savek pac started                                      |
|        |           | 0447Z               | Strong band — all down draft for 2 minutes — Drop AXBT |
|        |           | 0453Z               | Spoke on Lower fuselage                                |
|        |           | 0514Z               | Another band, 50kt Altitude level SRM 240kt            |
|        |           |                     | Drop + AXBT                                            |
|        |           | 0529Z               | Drop                                                   |
|        |           | 0530Z               | LF down for awhile                                     |
|        |           | 0541Z               | Drop + AXBT                                            |
|        |           | 0608Z               | Center 24°15' 89°40' 990 ms                            |
|        |           | 0600Z               | Lost some radar data — disk filled                     |
|        |           | 0613Z               | Disk space created (removed old files)                 |
|        |           | 0614Z               | re-run Savek pac — (not work)                          |
|        |           | 0617Z               | Reran — start radar + 0619Z                            |
|        |           | 0621Z               | LF froze up. — backup ~ 0630Z                          |
|        |           | 0635Z               | — still not collecting radar data —                    |
|        |           | 0637Z               | Turn from WSW to E                                     |
|        |           | 0644Z               | Logged out / Log in again —                            |
|        |           | 0650Z               | Still not recording — Shift workstation down           |
|        |           | 0702Z               | Finally backup + recording —                           |
|        |           | 0710Z               | Stopped Savek pac                                      |

0714Z Sonde / AXBT  
0715Z Turn to NW  
0716Z ~~AXBT~~ Sonde

SPARE OF  
1244

45 kt - 50 kt

sample  
sonde

300  
224  
445

Form E-5  
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# HRD Radar Down-Time Log

Flight \_\_\_\_\_ Aircraft \_\_\_\_\_ Operator \_\_\_\_\_ Sheet \_\_\_\_\_ of \_\_\_\_\_

| Item  | Time Down (HHMMSS) | Time Up (HHMMSS) | Problem                                                 |
|-------|--------------------|------------------|---------------------------------------------------------|
| 07352 |                    |                  | Couldnt Run Chuser - rebooted -                         |
| 07502 |                    | 24.57 90.03      | Drop - Center -                                         |
| 08002 |                    |                  | workstation problems still - complete reboot            |
| 08162 |                    |                  | Drop / AXBT combo - 28.7 SST - Drop unable to process - |
| 0818  |                    |                  | Turn to East                                            |
| 0843  |                    |                  | Drop / AXBT combo - 28.7 SST                            |
| 0908  |                    |                  | Drop / AXBT combo (missed seeing AXBT)                  |
| ~0910 |                    |                  | Turn to South                                           |
| 0925  |                    |                  | Drop - No Launch Detect                                 |
| 0926  |                    |                  | Backup Drop - 40 kt at sfc                              |
| 0954  |                    |                  | Drop - 52 kt sfc, 45 SFMR (Paul Chay drop)              |
| 0958  |                    |                  | Drop / AXBT Combo 24.9 (!) SSTs 40m MLD                 |
| ~1000 |                    |                  | Turn to W                                               |
| ~1030 |                    |                  | Turn to N                                               |
| 1111  |                    | 25.36 90.31      | Drop in Center                                          |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |
|       |                    |                  |                                                         |

Item List: DAT1, DAT2, COMP, MARS, LF, TA.

Include serial numbers of any new R/Ts.

06092  
24.2 89.7

07502  
24.6 90.0

1112  
25.4 90.3

12

5/72 5/36

10432 fired one last time,  
but chuser not working