Mission ID WX07A Earl14

## Radar Scientist

**Flight ID** 100903I1 **Storm Name** Earl

**Radar Scientist** S. Murillo **Radar Technician** Dana Naeher

The on-board radar scientist 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. General supplementary procedures follow. (Check off or initial.)

### Preflight

SM 1. Determine the status of equipment and report results to the lead project scientist (LPS).

SM 2. Confirm mission and pattern selection from the LPS.

SM 3. Select the operational mode for radar system(s) after consultation with the LPS.

SM 4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

### In-Flight

SM 1. Remind the AOC data technician to start the radar capture files.

SM 2. Operate the system(s) as specified in the operator's manual and as directed by the LPS or as required for aircraft safety as determined by the AOC flight director or aircraft commander.

SM 3. Maintain the Radar Scientist's form as well as 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.

### Post flight

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

SM 2. Obtain from the AOC data technician all radar tapes and give him a thumbnail drive to download the radar capture files.

SM 3. Brief the LPS on equipment status and turn in completed forms, the thumbnail drive, and all radar tapes to the LPS. [**Note**: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

SM 4. Debrief at the base of operations.

SM 5. Determine the status of future missions and notify MGOC as to where you can be contacted.

**HRD Radar Scientist Check List**

Flight ID: 100903I

Radar Operators: S. Murillo

Radar Technician: Dana Naeher

Number of DAT tapes on board: _____

Component Systems Status(Up ↑, Down ↓, Not Available **N/A**, Not Used **O**):

| Device | Pre-flight | In-flight | Post-flight | R/T Serial # |
|---|---|---|---|---|
| Radar Computer | ↓ | ↑ | ↓ | |
| DAT drives | ↓ | ↑ | ↓ | |
| Lower Fuselage antenna | ↓ | ↑ | ↓ | |
| Tail Antenna | ↓ | ↑ | ↓ | |

Time correction between radar time and digital time: _____

**Radar Post flight Summary**

Number of DAT tapes used: 1

Significant down time:

Radar Computer _____ Radar LF _____

DAT drives _____ Radar TA _____

**Other Problems:**

Sector mode for ocean winds

## HRD Radar Event Log

**Flight ID** 100903I1 **Storm Name** Earl Sheet 1 of ____
**Radar Scientist** S. Murillo **Radar Technician** Dana Naeher

LF RPM _____ TA RPM _____

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

| Tape # | F/AST On? | Event Time (HHMMSS) | Event |
|---|---|---|---|
| | | 200031 | take off from Richmond, VA |
| | | 200918 | start radar |
| | | 211310 | @ IP |
| | | 212733 | eyewall (SE) |
| | | 213052 | center |
| | | 213455 | eyewall (NW) |
| | | 215457 | turning |
| | | 222313 | turning |
| | | 224522 | eyewall (SW) |
| | | 2248 | center |
| | | 225210 | eyewall (NE) |
| | | 231244 | turning |
| | | 231902 | radar froze |
| | | 232815 | turning, down to 7k, sector mode |
| | | 234419 | "eyewall" (N) |
| | | 2353 | center |
| | | 000136 | "eyewall" (S) |
| | | 000750 | turning |
| | | 001151 | radar froze |
| | | 003748 | turning |
| | | 004016 | radar back up |
| | | 005751 | "eyewall" (E) |
| | | 010140 | center 34° 7' 70°27' |
| | | 0109 | "eyewall" (W) |
| | | 012431 | turning (back to the E) P. changes flight |
| | | 023910 | stopped recording |
| | | 032904 | landed in Richmond |

# Doppler Wind parameters

## Doppler flight-leg notes (for use in automatic QC and analysis)

**FLIGHT ID:** 100903I1 **Scientist:** S. Murillo

| Leg Start Time | Leg End Time | Storm Motion | | Center Fix | | | Max Radius (km) | Horz. Res (km) | Inbound track | Outbound track | ja? | Angle check? | Sent? | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Time | Latitude | Longitude | | | | | | | | |
| HHMMSS | HHMMSS | Degrees | Knots | HHMMSS | (Deg/Min) | (Deg/Min) | 49/98/147/196 | 1/2/3/4 | Azimuth (deg) | Azimuth (deg) | H/TS | (Y/N) | (Y/N) | |
| 211340 | 215503 | 35° | 18 | 213052 | 38°20'N | 71°31(') | 245 | 5 | 316° | 315° | H | N | Y | |
| 215610 | 221449 | | | | | | | | 160° | | | | | |
| 222459 | 231222 | 39° | 21 | 224834 | 38°42"N | 71°11" | 245 | 5 | 48° | 45° | | | Y | |
| 231230 | 231830 | | | | | | | | 334° | | | | | |
| 232810 | 00075 (2407) | 37° | 19 | 2353 | 38°53"N | 70°52" | 245 | 5 | 183° | 180° | H | N | Y | |
| 000930 (2409) | 002838 (2428) | | | | | | | | 56° | 59° | | | | |
| 004016 (2440) | 012431 (2524) | 45° | 22 | (2502) 0102 | 39°08N | 70°27"W | | | 269° | | H | N | Y | old school |
| | | | | | | | | | | | | | | |
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