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: 0309141
Aircraft Number: 42
Doppler Radar Operators: Mike Black / Jim Aberson
Radar Technician: Terry Lynch
Number of digital magnetic tapes on board: 40

Component Systems Status:

MARS ✓ Computer ___________________________
DAT1 ✓ DAT2 ___________________________
LF ✓ R/T Serial # ___________________________
TA ✓ R/T Serial # ___________________________

Tail Elev. Guns are all over the place

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:
### Error Messages

TA ANT ELEV POS
LF ANT AZIM POS

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**Form E-5**
Page 2 of 3

**HRD Radar Tape Log**

**Flight** 020  
**Aircraft** 743  
**Operator** G. Ackroyd  
**Sheet** of __ of __

**LF RPM**  
**TA RPM**

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

<table>
<thead>
<tr>
<th>Tape</th>
<th>F/AST On?</th>
<th>Event Time (HHMMSS)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLF</td>
<td>NO</td>
<td>1510</td>
<td>Start TApe - Ferry from Sh. Cuyahoga</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1511</td>
<td>TAIL Elevation angle -91</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1513</td>
<td>Descend to 3000' for BAT</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>151707</td>
<td>Smart Box pattern</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>151949</td>
<td>Turn cross wind box pattern</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>152005</td>
<td>Cross wind - 3000 ft</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1540</td>
<td>End BAT Cast</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1545</td>
<td>Ring on radar 150m out</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1552</td>
<td>Near Calls - NO F/AST</td>
</tr>
<tr>
<td>2</td>
<td>NO</td>
<td>1616</td>
<td>Switched to Continuous - F/AST not working</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1626</td>
<td>OUTER COMM. PARRIL</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>1631</td>
<td>~50 MILES SOUTH</td>
</tr>
<tr>
<td>Item</td>
<td>Time Down (HHMMSS)</td>
<td>Time Up (HHMMSS)</td>
<td>Problem</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td>TA</td>
<td>whole flight</td>
<td>0000</td>
<td>elev angles</td>
</tr>
</tbody>
</table>

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

Include serial numbers of any new R/Ts.