Radar Scientist

Flight ID 201600711  Storm Matthew
Radar Scientist Evan Kalina  Radar Technician Dana Naehler

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

____ 1. Determine status of equipment and report results to lead project scientist (LPS).
____ 2. Confirm mission and pattern selection from the LPS.
____ 3. Select the operational mode for radar system(s) after consultation with the LPS.
____ 4. Complete the appropriate preflight check list.

In-Flight

____ 1. Monitor the Tail Doppler Radar function regularly, using the real-time TA display, to make sure the Doppler radar is scanning and working normally.
____ 2. Once at the IP, request that the tilt be adjusted to remove sea clutter.
____ 3. Request that the LF radar is set to full scan (non-sector mode) for first Figure 4.
____ 4. Maintain the Doppler Wind Parameter form as well as a written commentary in the Radar Event Log of event times, such as ending and restarting of radar recording. Also document any equipment problems or changes in R/T, INE, or signal status.

Post flight

____ 1. Complete the summary checklist and all other appropriate forms.
____ 2. Download all Belly (LF) scan radar data files to thumb drive.
____ 3. Download all tar'd (TA) radar data files to thumb drive.
____ 4. Brief the LPS on equipment status and turn in completed forms and thumb drives to the LPS.
____ 5. Debrief at the base of operations.
____ 6. Determine the status of future missions and notify HFP Director as to where you can be contacted.
HRD Radar Scientist Check List

Flight ID: 20160100711
Aircraft Number: N43BF
Radar Scientist: Evan Kaling
Radar Technician: Dana Noeher

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

- Radar Computer ↑
- Lower Fuselage (LF) Antenna ↑
- Tail (TA) Antenna ¼↑ ¾↓

Radar Post flight Summary

Significant down time:

- Radar LF none
- Radar TA 200347 - onward

Other Problems:

TDR motor burnout at 200347 UTC
<table>
<thead>
<tr>
<th>Time (HHMMSS)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>193800</td>
<td>TDR motor burned out. Some files until 200347, but antenna was struggling to complete scans.</td>
</tr>
<tr>
<td>191400</td>
<td>N43RF deviated on both the inbound &amp; outbound legs due to convection. As a result no radar cross sections will be generated for these legs.</td>
</tr>
<tr>
<td>Flight ID: 20160071</td>
<td></td>
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<tr>
<td>---------------------</td>
<td></td>
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<table>
<thead>
<tr>
<th>Leg Start Time</th>
<th>Leg End Time</th>
<th>Storm Motion</th>
<th>Center Fix</th>
<th>Inbound</th>
<th>Outbound</th>
<th>Max Radius (km)</th>
<th>Horz. Res (km)</th>
<th>Sent</th>
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<tbody>
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<td>HHMMSS</td>
<td>Degrees</td>
<td>(Deg/Min)</td>
<td>Longitude</td>
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<td>Default = 5</td>
<td>(Y/N)</td>
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<tr>
<td>193400</td>
<td>191400</td>
<td>345</td>
<td>10</td>
<td>184100</td>
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<td>80°44'</td>
<td>45</td>
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