

Radarscientist Form

(Updated 31 May 2019)

ground LPS
Lisa Bucci

Flight ID 20210812H1 Storm Fred

HRD Radar Scientist (Aircraft/Ground) Marks/Reason/Fischer

AOC Radar Operator T. Richards

The aircraft radar scientist is responsible for data collection from all radar systems on his/her assigned aircraft, working with the ground radar scientist to ensure successful transmission of all radar products from the aircraft in a timely manner, and contributing to mission science by communicating real-time radar products to the LPS. Specific responsibilities are detailed in the *Aircraft Radar Support Guide* located on the radar workstation desktop and in the flight bag.

§ Pre-flight Notes.

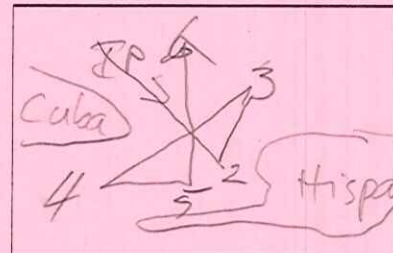
Indicate below any existing radar instrumentation issues, pre-flight radar repairs or other instrumentation issues (e.g., GPS swapout) that might impact radar data collection or analyses. If none, then simply write NONE below.

None

§ Pre-flight Setup with Ground Radar Scientist.

Preferably before the planeside briefing, establish Xchat communication with the ground radar scientist on #radar. Check off the following tasks.

- Communicate any pre-flight issues noted above.
- Confirm latest flight pattern. Sketch to the right.
Indicate legs constituting proposed analyses.
- Go through Steps 1-3 of Aircraft Radar Support Guide.



drops: 14/14 drop/sent
TDR: 3 analyses / 3 sent
CRC: operational

⌀ In-flight Setup with Ground Radar Scientist.

After radar recording has begun, reestablish Xchat communication with the ground radar scientist on #radar. Check off the following tasks.

- Go through Steps 4-7 of Aircraft Radar Support Guide.

0506A Fred

Indicate below any issues identified during Steps 4-7, in particular any radar instrumentation issues evident in the radar displays. If none, then simply write NONE below.

Everything was good until I accidentally locked the TDR workstation and had to reboot at the IP (I wasn't too much on TDR) Fully recovered as we started getting in convection

⌀ In-pattern Radar and Weather Event Log.

Indicate below any radar down times or significant weather observations that might be helpful for interpreting radar analyses (e.g., flight through sparse shallow convection).

| Time (HHMMSS) | Event (Radar or Weather) |
|---------------|---|
| 1023 | Start TDR processing for isolated showers |
| 1033 | end leg #1 turn TK040 to Pt 3 |
| 1050 | end downwind leg |
| 1052 | Start leg #2 TK 240 |
| | scattered cells at beginning of leg |
| 1144 | end leg #2 |
| 1214 | end "downwind" leg turn TK 360 |
| 1258 | end pattern climbs to ferry to LAL |
| 1315 | TDR shutdown |
| | |
| | |
| | |

at mid point in bound

(13)
 Pilot:
 Abitbol
 Shaw
 Stalder
 Nav:
 Utama
 B. Richards
 ED:
 Nikki Hathaway
 Ashley Lundy
 Data:
 T. Richards
 Prop:
 warneke
 Flight eng's 'head':
 Sanchez
 Stokes
 Science:
 Marks radar
 Wadler drops

§ End-of-Flight Shutdown with Ground Radar Scientist.

Once the aircraft exits the system, reestablish Xchat communication with the ground radar scientist on #radar. Check off the following tasks.

- Go through "NEAR END OF FLIGHT" Steps 1-5 of Aircraft Radar Support Guide.

If you recorded 'N' for Analysis Sent at any point during the flight, please detail the situation below. If there are any other *mission-critical* issues pertaining to the radar systems not documented above, please note them here. If none, then simply write NONE below.

This was a tricky mission with Fred downgraded to a depression, land interactions, and truncated legs. Completed 3 analyses without much information on center position. Pattern was flown off of estimated position. Data was xmitted anyway to help the model initialization even though low coverage.

* Put data onto N43RF hard drive even though this is a N42RF mission

3 Analyses done and xmitted

Dropsonde Scientist

Flight ID 2012 08/24/11 Storm Fred Mission ID 0506A Fred

Dropsonde Scientists Wadler

AVAPS Operators Warneke

The Lead Project Scientist (LPS) on the P3 is responsible for determining the distribution patterns for dropwindsonde releases. Predetermined desired data collection patterns are illustrated on the flight patterns. However, these patterns are often altered because of clearance problems, etc. Operational procedures are contained in the operator's manual. On the G-IV the sole HRD person is designated the LPS. The following list contains more general supplementary procedures to be followed. (Check off or initial.)

Preflight

- 1. Determine the status of the AVAPS and workstation. Report results to the LPS.
- 2. Confirm the mission and pattern selection with the LPS and assure that enough dropsondes are on board the aircraft.
- 3. Modify the flight pattern or drop locations if requested by AOC to accommodate changes in storm location or closeness to land.
- 4. Complete the appropriate preflight set-up and checklists.

In-Flight

- 1. Operate the system as specified in the operator's manual.
- 2. Ensure the AOC flight director is aware of upcoming drops.
- 3. Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal. Recommend if a backup dropsonde should be launched in case of failure.
- 4. Report the transmission of each drop and fill in the Dropwindsonde Scientist Log.

Post flight

- 1. Complete Dropwindsonde Scientist Log.
- 2. Download all raw and processed AVAPS files to thumbdrive
- 3. Brief the LPS on equipment status and turn in completed forms and thumbdrive.
- 4. Debrief at the base of operations.
- 5. Determine the status of future missions and notify Field Program Director as to where you can be contacted.

NOAA P-3 GPS Dropwindsonde Scientist Log (MS Word version 2020)

Storm FRED Flight ID 202108/241 Dropsonde Scientist Wadler AVAPS Operator Wagner PO I
 Mission ID 0506A FRED (ex. 0101A) Take Off 0805Z Landing _____

| Drop # | Sonde ID | Time UTC | Lat (°N/S) | Lon (°E/W) | Sfc Pressure (mb) | Lowest Wind Dir/Spd (deg/kt) | Lowest Wind Hgt (m) | SST (°C) | Eye, Eyewall, Rainband, etc. | Ob # |
|---|-----------|----------|------------|------------|-------------------|------------------------------|---------------------|----------|------------------------------|------|
| 1 | 203240046 | 1002 | 21.3765 | 74.9060 | 1013.4 | 065/15 | 10 | — | Inbound IP | |
| Comments cut off last 1/4 sec, eliminated some questionable lat/lon at top, also equilibration on RH sensor @ top | | | | | | | | | | |
| 2 | 202640031 | 1015 | 20.8213 | 74.1535 | 1011.8 | 050/09 | 10 | — | Inbound MP | |
| Comments not end to 301.50, | | | | | | | | | | |
| 3 | 202640088 | 1027 | 20.3432 | 73.5122 | 1012.0 | 150/16 | 10 | — | \$. Center | |
| Comments good sonde ↳ no MP | | | | | | | | | | |
| 4 | 203350223 | 1033 | 20.0698 | 73.1488 | 1011.7 | 150/22 | 10 | — | outbound EP | |
| Comments Removed questionable RH and wind direction in upper 20 sec (possible equilibration) | | | | | | | | | | |
| 5 | 202640032 | 1052 | 20.8290 | 72.4395 | 1014.1 | 135/19 | 10 | — | IP leg 2 | |
| Comments removed 3 rd 6 sec of lat/lon, 21 sec of RH | | | | | | | | | | |
| 6 | 203810235 | 1110 | 20.1439 | 73.7015 | 1013.4 | 160/04 | 10 | — | MP leg 2 | |
| Comments cut off 1st 1/4 sec, cut off 2 nd 9 sec of lat/lon | | | | | | | | | | |
| 7 | 203810250 | 1117 | 19.8545 | 74.2263 | 1012.5 | 025/06 | 10 | — | Center | |
| Comments cut off 3 rd 12 sec of lat/lon, 6 sec of RH | | | | | | | | | | |
| 8 | 203350257 | 1133 | 19.2655 | 75.2745 | 1012.7 | 030/06 | 10 | — | MP out | |
| Comments removed 2 nd 6 sec of lat/lon, good sonde | | | | | | | | | | |
| 9 | 203810238 | 1143 | 18.8619 | 75.9903 | 1013.3 | 070/16 | 12 | — | EP leg 2 | |
| Comments cut off 1/2 sec of bottom, 7 sec of lat/lon | | | | | | | | | | |
| 10 | 202640036 | 1214 | 18.9242 | 73.9465 | 1012.8 | 135/15 | 10 | — | IP leg 3 | |
| Comments not end to 354.25, removed 8.5 sec of lat/lon at top | | | | | | | | | | |

