

Lead Project Scientist

Date 10/2/20

Flight ID 2020007II

Storm or Project Delta
Mission ID

Experiment name TDR

Pre-flight

1. Participate in general mission briefing.
2. Determine specific mission and flight requirements for assigned aircraft.
3. Determine from AOC flight director/meteorologist whether aircraft has operational fix responsibility and the mission designation.
4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Review field program safety checklist
 - c. Arrange ground transportation schedule when deployed.
 - d. Determine equipment status.
5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.
6. Meet with AOC flight crew at least 2 hours before take-off for crew briefing. Provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.
7. Report status of aircraft, systems, necessary on-board supplies and crews to Field Program Director.
8. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
9. Make sure each HRD flight crew member has a life vest.
10. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.

In-Flight

1. Confirm from AOC flight director that satellite data link is operative (information).
2. Confirm camera mode of operation.
3. Confirm data recording rate.
4. Complete Lead Project Scientist Form.
5. Check in with the flight director to make sure the mission is going as planned (i.e. turns are made when they are supposed to be made).

Post-flight

1. Debrief scientific crew.
2. Gather completed forms for mission and turn in to data manager at HRD.
3. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
4. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
5. Obtain a copy of serial flight data on thumb drive. Turn in with completed forms.

[Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

6. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to Field Program Director
7. Determine next mission status, if any, and brief crews as necessary.
8. Notify Field Program Director as to where you can be contacted and arrange for any further coordination required.
9. Prepare written mission summary using **Mission Summary** form.

Storm or Project _____ Experiment name

~~Flight ID~~ _____ Mission ID

E. — Equipment Status (Up U, Down D, Not Available N/A, Not Used O)

| Equipment | Pre-Flight | In-Flight | Post-Flight | # DATs / CDs /Expendables/ Printouts |
|------------------|------------|-----------|-------------|--|
| Radar/LF | | | | |
| Doppler Radar/TA | | | | |
| Cloud Physics | | | | |
| Data System | | | | |
| GPS sondes | | | | |
| AXBT/AXCP | | | | |
| Ozone instrument | | | | |
| Workstation | | | | |
| Cameras | | | | |

REMARKS:

Fly rotated Proj. 2, 1P on NW side. Leg lengths 75 nm. Drop sondes at end pts, mid pts, 1st and 4th center pass. Drop 2 BTs rapid fire on Eagle mid pt, safety permitting. Drop EMW sondes on N, E, W, S. ~~to~~ sides. Fly 8 kft unless for bumps, then try 12 kft. Though ground may be an issue.

Lead Project Scientist Event

Date 10/7/20

Flight ID 2020100721 LPS Rogers, Durio

| Time | Event | Position | Comments |
|------|---------|----------------|--|
| 2144 | takeoff | KLAL | |
| 2321 | obs | approaching IP | IR sat animation shows cold cloud shield rapidly expanding looks to be initiating N of center and wrapping around storm → could be indication of S shear? |
| 0022 | obs | outbound SE | eye looks nearly closed. Perhaps a little spiral feature. Weaker looking presentation is on east side |
| 0211 | pattern | inbound on ENE | major problems with data system, netman, GPS. Took over an hour to repair. Had to modify pattern to a butterfly, 75 in legs. start new inbound leg on 75 radial, then out 255, downwind to 195, out to 015, home. PMW drops for TCR1 on inbound for both legs |
| 0453 | obs | ferry home | Despite challenges with data system, netman, and GPS, managed to get a pretty good butterfly pattern and TDE coverage. All sondes worked, and both BTs worked. Delta is slowly getting better organized. Convection continues to develop on the N side and wrap around. Profile on NW side showed 775 m/s updrafts above 12 km associated w/ convective burst. Overall structure indicative of light to moderate southerly shear. Storm center displaced about 10 nm N of 2 km center. Strongest FC winds were ~95 kt on N side; highly asymmetric w/ broad, weaker winds in S eyewall. Profiles of radial flow also showed a pattern consistent with southerly shear. |



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