

## Lead Project Scientist

Flight ID 080903H

Storm Hanna

LPS Aberson

### Preflight

- \_\_\_\_ 1. Participate in general mission briefing.
- \_\_\_\_ 2. Determine specific mission and flight requirements for assigned aircraft.
- \_\_\_\_ 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.
- \_\_\_\_ 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.
- \_\_\_\_ 5. 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.
- \_\_\_\_ 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).
- \_\_\_\_ 7. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
- \_\_\_\_ 7. Make sure each HRD flight crew members have life vests
- \_\_\_\_ 7. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.
- \_\_\_\_ 8. Collect "mess" fee (\$2.00) from all on-board HRD flight crew members.

### 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. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to MGOC.
- \_\_\_\_ 3. Gather completed forms for mission and turn in at the appropriate operations center. [Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]
- \_\_\_\_ 4. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
- \_\_\_\_ 5. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
- \_\_\_\_ 6. Obtain a copy of the all VHS videos from aircraft cameras (3-4 approx.). Turn in with completed forms.
- \_\_\_\_ 7. Obtain a copy of CD with all flight data. Turn in with completed forms.
- \_\_\_\_ 8. Determine next mission status, if any, and brief crews as necessary.
- \_\_\_\_ 9. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
- \_\_\_\_ 10. Prepare written mission summary using Mission Summary form (due to Field Program Director a week after the flight).

### Lead Project Scientist Check List

Storm or Project Hanna Experiment name Recon  
 Date 20080903 Aircraft N42RF Flight ID 080903H

Mission ID 0808A HANNA

#### A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Abrson</u>	Flight Director	<u>Damiano</u>
Radar	<u>Lorsolo / Annane</u>	Pilots	<u>Grumonte / Choy / Eberdt</u>
Workstation	<u>—</u>	Navigator	<u>Gallagher</u>
Cloud Physics	<u>—</u>	Systems Engineer	<u>Wardle / Bart</u>
Photographer/Observer	<u>—</u>	Data Technician	<u>Roles / Greene</u>
/Guests	<u>—</u>	Electronics Technician	<u>Bosko / Olney</u>
Dropwindsonde	<u>Lorsolo / Annane</u>	Other	<u>Chang / Zelenak / McManus</u>
AXBT/AXCP	<u>—</u>		

#### B. Take-off and Landing Times and Locations:

Take-Off: 032658 UTC Location: MacDill

Landing:        UTC Location: MacDill

Number of Eye Penetrations:       

#### C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing: α-pattern 105-nm legs, no deviation  
dropsondes in the center  
possible sonde during Quikscat overpass  
possible arc cloud modules

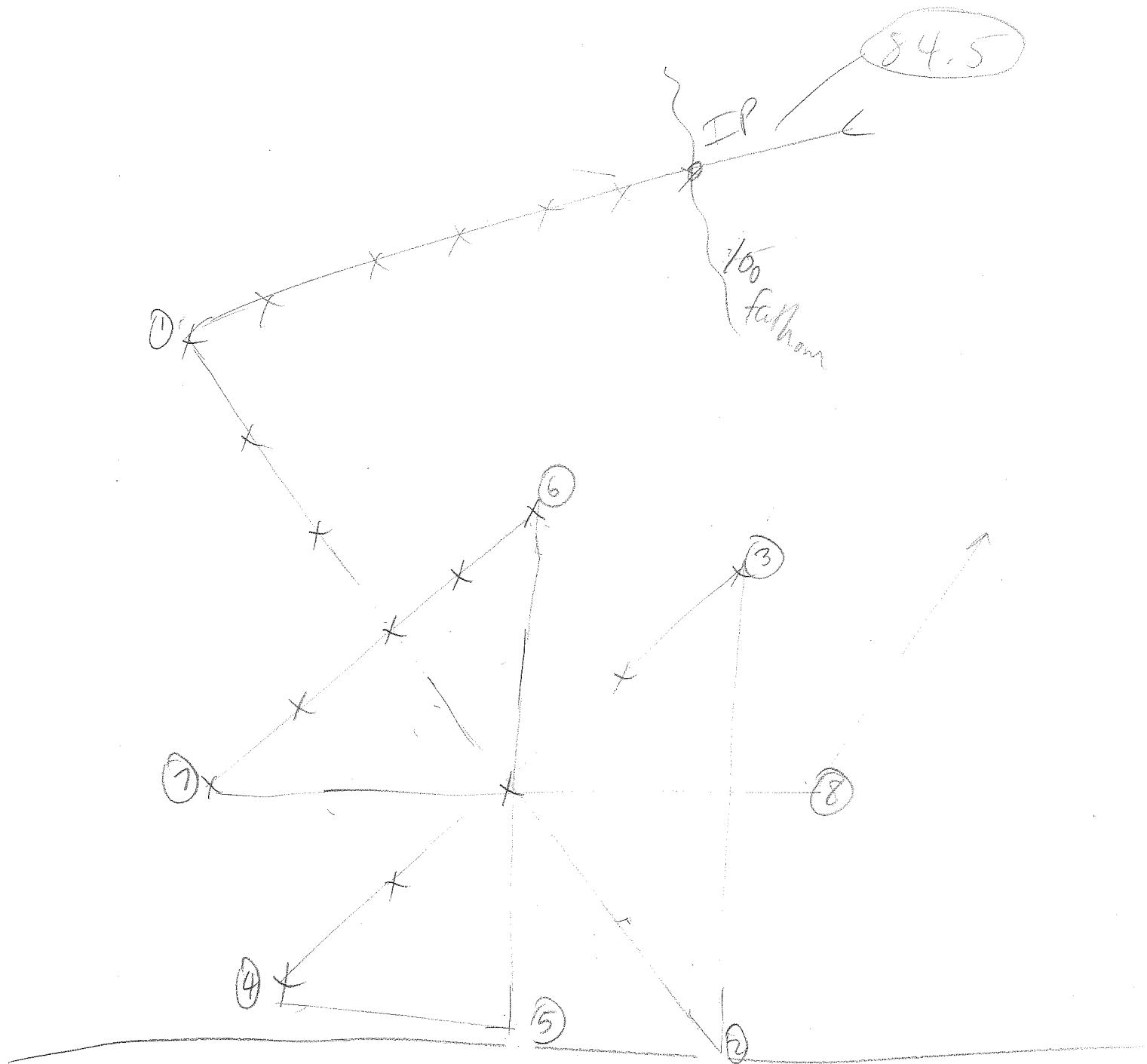


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# Lead Project Scientist Event Log

Date 080903 Flight 080903H LPS Aberson

Time	Event	Position	Comments
032658	MacDill		takeoff
	Computer network down		
	TA radar down		
0400Z	Network up		
0405Z	Replacing tail radar amplifying unit		
0415Z	Thru synchro card		
0500Z	LF alt out		
0500Z	Bumpy!		
0505Z	Sent mail to Aguirre, Yenchui, John E., and Frank met to export data.		
0517	Descending due to weather		
0514	SFMR 52kt max } interesting structure		
0517	FL dip to 32 ft		
0529	ID track 1300		
0604	Center Drop #1	2315	7215 990mb 65kt FL 60kt SR
0631	had to roll vessel below.		
0632	Turn N		
0711	Turn in bound		
0734	center drop #2	2341	7229 990mb 56kt FL 45kt SR
0800	down lift downwind		
0834	Turn in bound		
0903	Center drop #3	2353	7250 988mb down 50kt FL 45kt SR
0928	Turn downwind		
1017	Turn in bound	2402	7300 989 72 45
1033	Center drop #4		
1100	Turn to MacDill and around		



- Dropsondes at turn points ⑧

" " eyewall ⑧

" " eye ④

- 20 AXBTs

20 total

Marks flight log - 2008083111

091035 IP turn track 130  
091900 entering first cells in outer rainband 150 nm NW of center  
092600 110 nm from center in heavy stratiform rain  
093000 hints of secondary ring formation with large outer ring about 60 nm from center  
093900 in moat 50 nm NW of center  
094745 in NW eyewall large updraft >10 m/s with peaks near 15 m/s eyewall drop  
095247 center 24.3,85.1 dropsonde 958 mb surface E wind at 10 kt - suggests eye tilting to NE with height  
095800 not much of a SE eyewall, just virga with some chop at wind max  
100600 dropped sonde in relatively clear area on radar 50 nm SE of center 23.6, -84.4  
101000 crossing very active convective band 80 nm SE of center (Matt Eastin type) will turn just beyond it to go N tracking along this band  
101305 end leg turn TK 000 dropsonde just outside of convective band - storm motion 315/15 kt  
101404 radar data system hungup Terry restarted  
101545 TK 000 5-10 nm outside convective band  
101800 TK 000 in outer edge of convective band - great Doppler  
102600 TK 000 clearing the edge of convective rainband  
104330 turn TK 225 back to center for leg 2 dropsonde/BT after turn  
110000 breaking out of stratiform rain on N end of convective rainband we flew on SE of center, weak NE eyewall 10-15 nm ahead, Eye has pronounced wave #2 E-W orientation  
110810 center 24.5,-85.3 TK 225  
1135 end leg 2 TK E  
115300 turn TK 000 for leg 3  
120700 eye still appears to have wave#2 appearance this time oriented more WNW-ESE  
121055 in S eyewall start high bank angle turn to get off nadir SFMR measurements - will need to get rid for radar analysis first 30 deg, next 45 deg.  
121800 end high bank rolls TK into eye.  
123000 in massive stratiform rain area N of center wave number 2 still present in eye now WSW-ENE  
124100 finally breaking out of massive stratiform area.  
124357 in active convective rainband just to S of turn point. A lot like the one to the SE Matt Eastin should like this one as well with a turn and dropsonde to boot.  
124545 turning SW to W of storm to start leg 4  
125900 picking our way along a gnarly convective rainband 60-75 nm NW of center great downwind leg  
130027 dropsonde in convective band 75 nm NW of center  
131900 end leg TK 090 to center start leg 4  
133030 descend to 10 kft for last fix (in middle of inbound leg 4)  
134400 just outside W eyewall at 10 kft. Eye is better formed still weak on E side, W eyewall very intense  
134845 center eye is still elliptical oriented NNE-SSW this time. Big overhang on W eyewall appeared as if there were two depressed cloud features in eye like in Erin (961 mb from drop) 25, -85.75  
140800 Lots of convective bands still on this side of storm \*(E)  
141500 end leg 4 at 10 kft head for home short ferry.

