

Lead Project Scientist

Storm or Project Cristobal Experiment name TDR
Flight ID 20140825H1 Mission ID _____

Preflight

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 MGOC in Miami.
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 MGOC.
7. Determine next mission status, if any, and brief crews as necessary.
8. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
9. Prepare written mission summary using **Mission Summary** form.

Lead Project Scientist Check List

Storm or Project Cristobal Experiment name TDK
 Flight ID 20140825HU Mission ID _____

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Jun Zhang</u>	Flight Director	<u>Rick Henning</u>
Radar/Workstation	<u>Rob Rogers</u>	Pilots	<u>Harris Halverson</u>
		Navigator	<u>Chris Gallagher</u>
Cloud Physics	<u>—</u>	Systems Engineer	<u>Terry Lynch</u>
		Data Technician	<u>Richards</u>
Dropwindsonde	<u>Frank Marks</u>	Electronics Technician	<u>Reles</u>
AXBT/AXCP	<u>—</u>	Other	
Photographer/Observer	<u>—</u>		
s/Guests	<u>Johnson, High, Hui Lu</u>		

B. Take-off and Landing Times and Locations:

Take-Off: 0555 UTC Location: McPRU

Landing: _____ UTC Location: _____

Number of Eye Penetrations: _____

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing:

TDK mission, butterfly same as last HCL mission. - Northerly or north-westerly shear midlevel vortex tilted to South from previous flight
 NHC forecasted weak tropical storm intensity 40kt, no way to intensify - due to shear and upper level outflow not organized due to anticyclone flow.

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E. —Equipment Status (Up ↑, Down ↓, 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:

Lead Project Scientist Event Log

Date 8/25/14 Flight ID 20140825H1 LPS Jun zhong

Time	Event	Position	Comments
0555	take off 1	McDAN	
0800	IP 2	2419 7508	drop 1 - TAIL DOOR PROBLEM ^{radar} fixed
0818	mid point	2420 7341	drop 2 ✓
0832	center *	2425 7240	drop 3 - Center 995 208 25
0845	mid point	2425 7136	drop 4 - max wind 47 kt
0900	turn point 3	2425 7031	drop 5 - Extending the log -
0932	downwind end 4	2608 7133	drop 6 -
0950	mid point	2504 7218	drop 7
1001	center *	2431 7240	drop 8 - Center 996 110 21
1017	mid point	2331 7319	drop 9 -
1026	turn point 5	2253 7347	drop 10
1055	downwind log 6	2253 7137	drop 12
1107	mid point	2339 7202	drop 13
1124	center *	2443 7244	drop 15 -
1138	mid point	2530 7365	drop 16
1153	turn point 7	2621 7348	drop 17
	heading home -		
0845	maximum wind ^{sonde}		drop 4 maximum wind ^{1st}
1052	high wind - SFMR	- check if it is real -	30kt SFMR - sonde 11
0826	trying to do the ^{first center fix}		
1112	Sonde not used for finding max wind -		sonde 14
0828	Sonia calling John		
	for information of Radar software		
	Start Raw Copy not working		
0834	Garnache is on X chat - trying to f		
0842	Rob rebooting the Radar computer		- working with Sonia and
0858	Call John hill trying to fix		John to fix the prob trying

(2431 - last fix)

2411 - voice message - 7248 Airforce

Airforce 720
996 pressure

WL 5052/45

trumpy leg

0836 rechecked
about the
maximum -
sonde

Lead Project Scientist Event Log

Date 0825 Flight ID 2040825H1 LPS Juan Zhang

[illegible]

Mission Summary

Storm name

YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)

Lead Project Scientist

Radar Scientist

Cloud Physics Scientist

Dropwindsonde Scientist

Boundary-Layer Scientist

Workstation Scientist

Observers (affiliation)

Jun Zhang

Rob Rogers

Frank Marks

Johnathan Vigh, Hui Lin (NCAR)

Mission Briefing: (include sketch of proposed flight track or page #)

- try to do convective burst mode - downwind leg 5-6

6-7 last leg - no downwind leg

TDR mission

Mission Synopsis: (include plot of actual flight track)

Discussed possible
pattern changes

with Rob,

like BL malala

- thinking about

the storm intensity

type - shorting

leg to make

it working

↓

stopped descent

pattern at

the end of

the flight

TDR Mission - butterfly pattern -

center from previous surface flight moves slightly south so the IP

is shifted to ~2411

- data system not working well - fixed at 0759

- radar not working - fixed at 0800 - not the netman

Evaluation: (did the experiment meet the proposed objectives?)

Yes, mission succeeded. problem solved during the flights

3 radar analyses, 17 sondes - data sent to base

radar data have sweeps but couldn't do radar
analyses

Problems: (list all problems)

data system logging not working well - circling at the IP for 30 min

TDR not recording - fixed at 0800Z - so did the data system

SAT not recording radar data till 1040Z

Expendables used in mission:

GPS sondes: 11

AXBTs: 0

Sonobuoys: 0

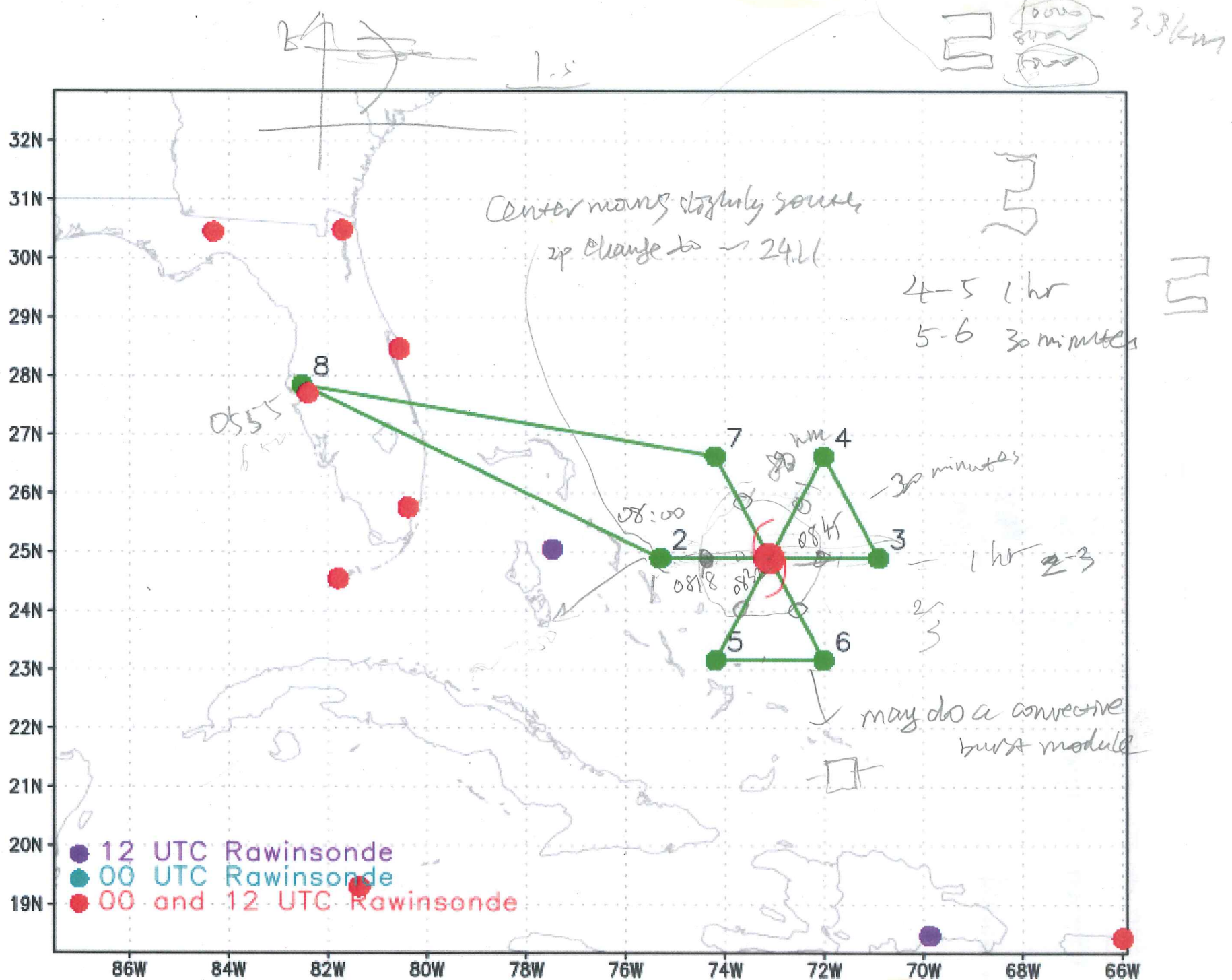
0811
Could we transfer data to the
ground - decided to transfer
pressure wind info through
xchat to Frank

Frank started processing sonde

Netman is down till -

(SatranCopy not working)

working with Sonice -



0955 - about 7 minutes for center drop

Storm motion - 300, 3kt

HMC Discussion Archive - 0805 - 11PM

0804

11PM

↓

For reference

5 AM

8 AM