Lead Project Scientist

Flight ID 081107I **Storm** Paloma **LPS** M. Black

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 2 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 form 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 _____ **Experiment name** HFIP/RI
Date 11/7/08 **Aircraft** 43 **Flight ID** 08110ZI 2

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	M. Black	Flight Director	Barry Damiano
Radar	Silvie Lorsolo	Pilots	AL Giramonte Carl Newman
Workstation	P. Leighton	Navigator	Kidder, Bishop
Cloud Physics	/	Systems Engineer	K Hoppel
Photographer/Observer /Guests	Joe/History Ch.	Data Technician	Bobby Peek
Dropwindsonde	P. Leighton	Electronics Technician	Jeff Smith
AXBT/AXCP	M. Black	Other	

B. Take-off and Landing Times and Locations:

Take-Off: 1402 UTC Location: MacDill
Landing: 2218 UTC Location: MacDoll

Number of Eye Penetrations: 5

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
07/15Z	18.3	81.6	982	75kt
08/00Z	19.1	81.3		90kt
08/12Z	19.9	80.5		100kt
09/00Z	20.8	79.4		75kt

D. Mission Briefing: Storm south of Cuba, 80kt, 982mb IP 75 nmi N. South thru eye, rotate 450 downwind legs, 5 penetrations. 18 AXBTs ~25 Sondes. Drops at endpoints, RMW Drops also at mid point on 1 cardinal legs. 2 eye drops. AXBTs at endpoints, RMW and eye.

E. —Equipment Status (Up ↑, Down ↓, Not Available —, 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	?			
Videography	✓			

REMARKS:

Lead Project Scientist Event Log

Date 11/07/08 **Flight** 080711 **LPS** M. Black

	Time	Event	Position	Comments
	1402	Takeoff	MacDill	
	~1530	Western tip of	Cuba - will	ferry
	around	but overfly	on way back	
	1624	Storm visible	on radar	
	1627	SFMR - 30	kts at SFC	
	1638	first good	view on eye	on LF
	1641	Noisy TA	Doppler - reset	45m
① SFMR 35 kt	164516	IP, AXBT#1,	Sonde#1	28°C MLD
	1644	At IP -	still at 14 Kft	- 0°C
	1646	Descend	to 12 Kft	
	1654	50 nmi N of eye -	heaviest precip	north
②	165355	37 nmi N of eye	- AXBT#2,	Sonde #2
③	170047	N eyewall,	AXBT, Sonde#3	- 65 kt SFMR
	~20	nmi diameter	eye - BT3	Bad
④	170847	Eye BT#4,	Sonde#4	
		18.3 81.4	N 976.4	mb
	square	eye,	discreet element	in w eyewall
		28°C		
⑤	171337	AXBT#5, Sonde#5	S eyewall	80 kt
		FL Wind - 62	kt SFMR	27.5°C
		17.9 81	.4	
⑥	171733	17.7 81.4	AXBT#6 Sonde#3	- mid point south eye
⑦	172643	AXBT#7	Sonde#7	South pt 75 nmi - 17.1 81.5
⑧	173829	AXBT#8 17.6	80.5	Sonde #8 75 nmi W
⑨	175056	AXBT#9	Sonde#9 SE	eyewall
		18.20 81	.2° 80 kt	SFC
	175455	18.38° 81	.42° eye	

AF in eye right below us

(2)

2218

Landsea

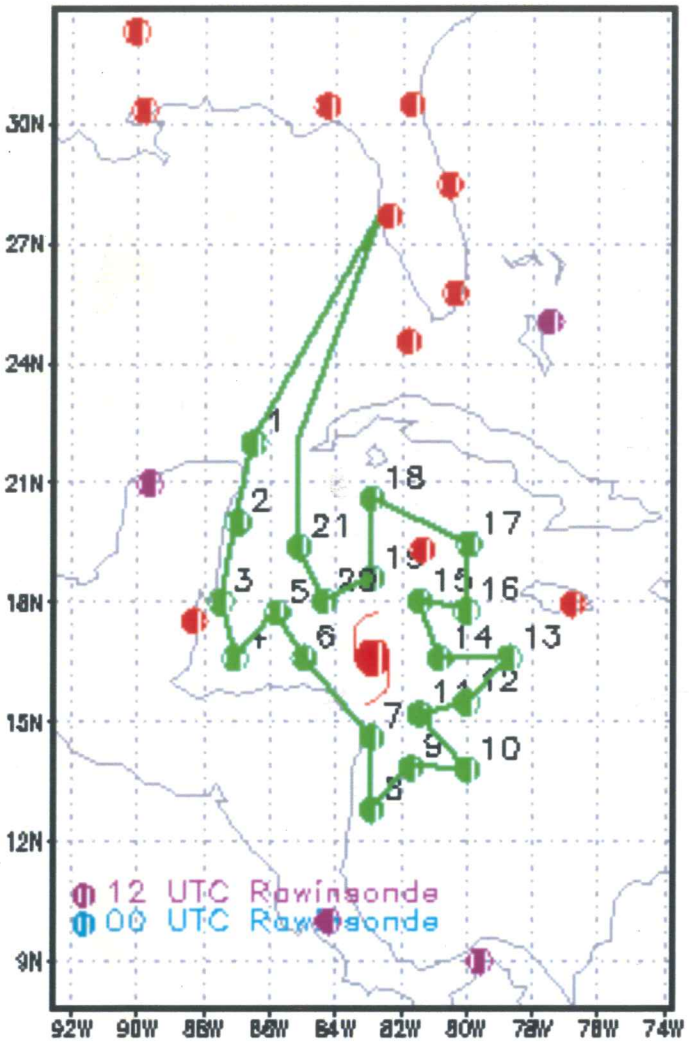
Lead Project Scientist Event Log

Date 11/7/08 **Flight** 080711I2 **LPS** M. Black

	Time	Event	Position	Comments
(10)	175900	18.6 82.7	NW eyewall	Sonde #10
11	181246	19.16 82.4	NW point	Sonde #11 BT #10 27.7°C
12	182300	18.45 82.57	Sonde #12, BT #11	NW point 28°C
13	183035	18.45 81.96	mid-point west	Sonde #13, BT #12 28.1°C
14	183434	Sonde 14	BT 13	W eyewall 18.45 81.64
	1838	Eye –	No sonde	18.
15	184400	East eyewall	Sonde #15	BT 14
1836	eye	18°29'	81°23'	18.18°
16	184730	18.50 80.67	Sonde 16	BT 15 mid point E 27°C
17	185630	Sonde 17	BT 16	end point E 28.2°C
18	190743	Sonde #18	BT #17	NW point 19.33 80.55
19	192050	NW eyewall	Sonde #19	18.69 81.23
	192480	eye – becoming cleaner		18.60
20	193730	SW eyewall	18.3	81.5 Sonde 81.3
~~21~~ 21	194354	Sonde BT #18	SW point	17.5 82.2 clear
22	1955	South point	turn to N – no sonde	
	2013	eye	18°7'	18°8' W°
	201615			

202345 try last BT – in tube } – none

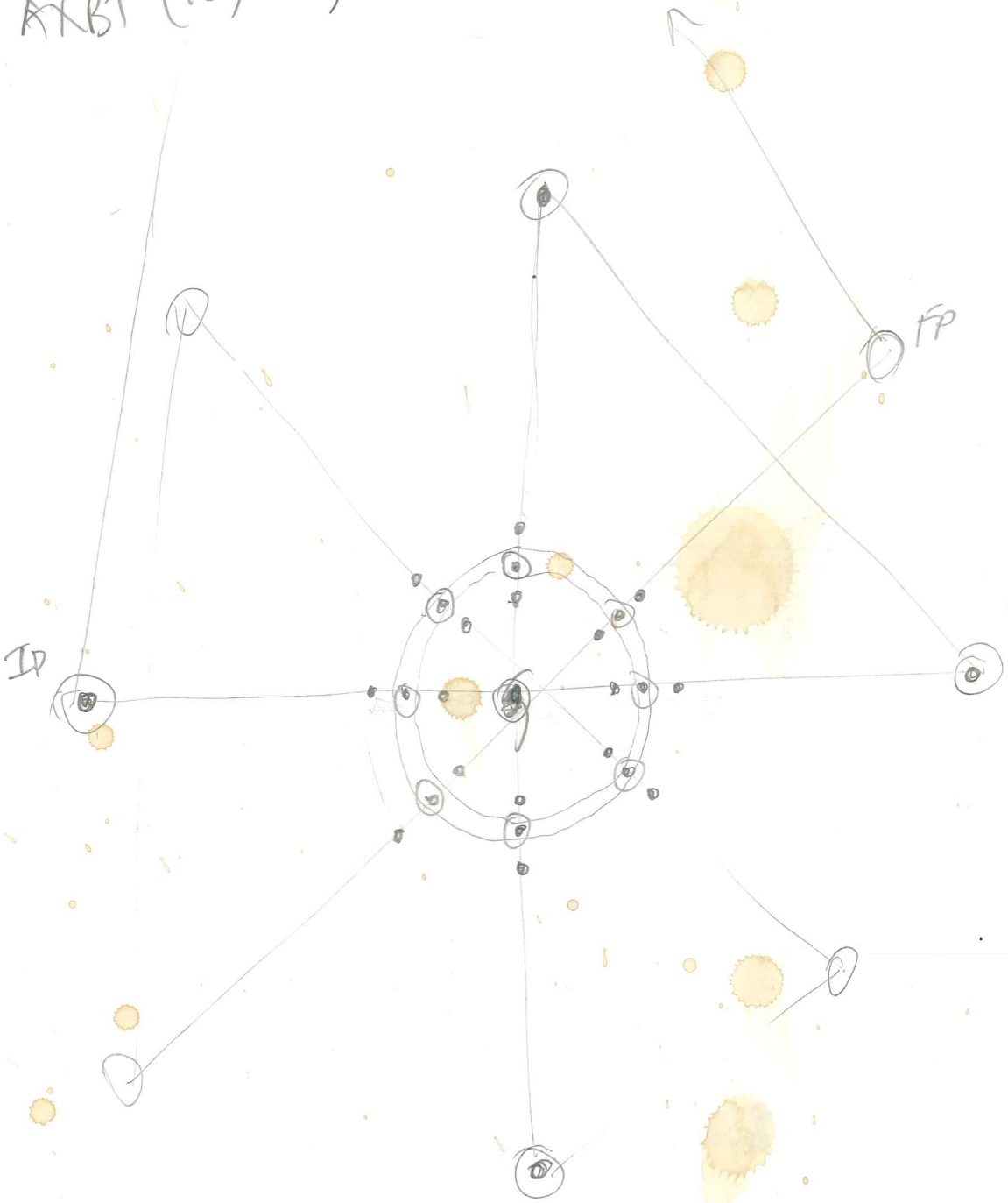
2026 North of ctr – Ferry over Cuba – home



GrADS: COLA/IGES

2008-11-08-11:03

● = GPS (39) ✓
○ = AXBT (18)
} 12 combo ①



16:20:56 Z - Turn to 270° for leg #3

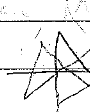
1634 Z - MEOW! Clear Air Turbulence

1658 Z - Ended leg #3 a little early so we could [illegible] a find [illegible] to Kyle the Asymmetric Subtropical Storm

20081107I1 H. Paloma [illegible] fix
LPS - [illegible] Chiltern
Drops - N. Dorst
Radar - S. Murillo - FD - P. Flaherty
- Data - T. Lynch
Pilots A. Ebhart, B. Choy & M. Sweeny

TO MacDill AFB Tampa FL 02:46:10 Z
Land MacDill AFB Tampa FL 11:32:54 Z

"RI" mission - to sample the onset of weakening/intensification of H. Paloma. The plan is to do figure four (alpha pattern).

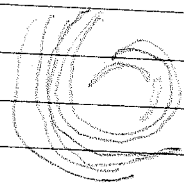


Problems w/ dropsonde station. Can't find spare part to repair it. May not have any dropsondes for this mission.

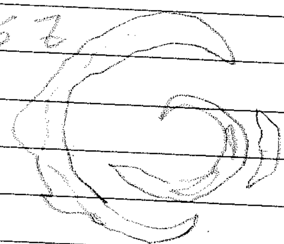
04:50 Z Sonde station repaired we are back on mission!
Eyewall (?) visible 200 n mi SE of us. Tiny eye seen on satellite IR

IP - 05:22:40 Z
05:41 Z 50 nm due west of [illegible] Tight eye visible USAF reports @ 18

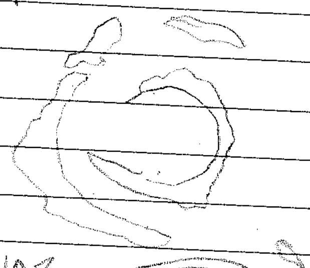
05:47Z



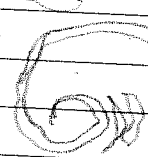
06:55Z



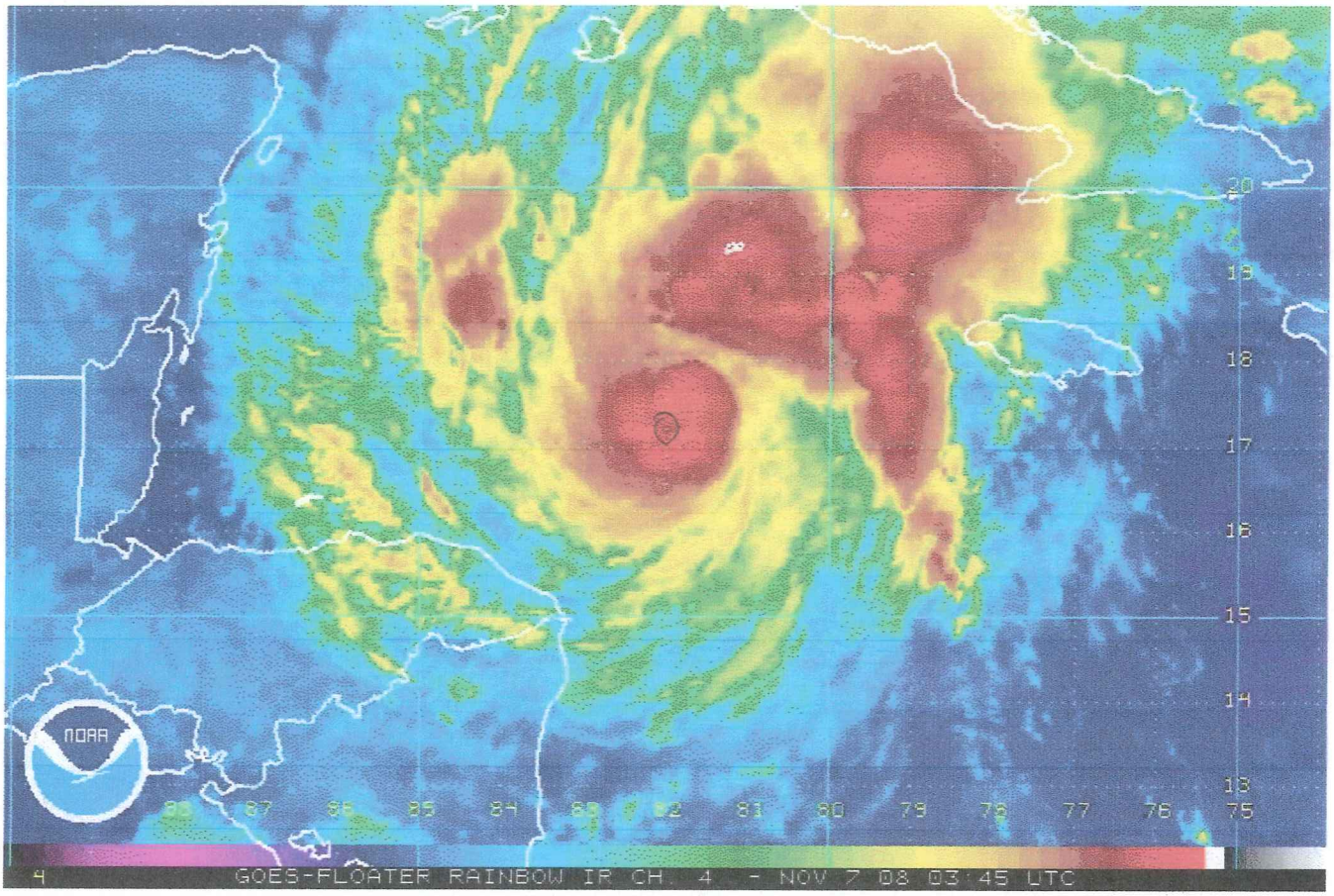
07:41Z



08:40Z



EDITSONDE WOULD NOT PUT EYEWALL SW or NE message on dropsonde messages late in flight (no problem w/ earlier such messages). Edited by hand before sent.


NOAA
GOES-FLOATER RAINBOW IR CH. 4 - NOV 7 08 03:45 UTC

Nov. 6 2008 Deployment for H. Paloma

Hurricane Field Program Deployment Safety Checklist

The Field Program Director is responsible for making sure safety is enforced and ensuring necessary materials are in place and/or any actions have been completed before the start of the HFP. The Lead Project Scientist is responsible for completing this checklist, though all field program participants should be cognizant of the checklist as well.

Before leaving AOML

✓ 1. Contact MGOC personnel to notify departure time.
✓ 2. Things to take
   a. Flight bag (s)
   b. Cell phone
   c. List of HFP important numbers
   d. HRD Field program plan
   e. Flight suit

Ground transportation

✓ 1. Arrange for ground transportation
✓ 2. Visual inspection of government vehicle
   a. Make sure tires do not appear to be flat
   b. Check for any cracked/broken lights, windshield and mirrors
   c. Check for any major dents around the vehicle
✓ 3. Inspection inside the government vehicle
   a. Check all lights work properly (head and tail lights, dome lights, dashboard and turn signal lights)
   b. Make sure the engine, oil, or temperature light does not flash. *If so, contact facilities management.*
   c. **Note** the gas and mileage
✓ 4. Contents inside the government vehicle
   a. Make sure there is first aid kit and fire extinguisher
   b. Proper jack and lug wrench
   c. Spare tire
   d. Basic auto repair kit (i.e. road hazard reflector or flares)
   e. *Consider carrying a flashlight*
✓ 5. Return vehicle with full tank
✓ 6. **Note** mileage on AOML log when returning keys

2008110711 Hurricane Paloma (AL17)
LPS - Eric Uhlhorn
Radar - Shirley Murillo
GPS sondes - Neal Dorst
G-IV - John Kaplan