

Lead Project Scientist

Storm or Project Bill 2

Experiment name IFex

Flight ID 090818I

Mission ID wx03A Bill 2

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 Hurricane Bill Experiment name Dex
 Flight ID 070818 I Mission ID WY03A Bill

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Ciore</u>	Flight Director	<u>Parish</u>
Radar/Workstation		Pilots	
	<u>Garnade</u>	Navigator	
Cloud Physics		Systems Engineer	
Photographer/Observer /Guests	<u>Amann</u>	Data Technician	
Dropwindsonde		Electronics Technician	
AXBT/AXCP		Other	

B. Take-off and Landing Times and Locations:

Take-Off: 19 UTC Location: Barbados
 Landing: _____ UTC Location: _____
 Number of Eye Penetrations: 3

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing:



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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	up			
Cloud Physics	up			
Data System	up			
GPS sondes				
AXBT/AXCP	O			
Ozone instrument	O			
Workstation	up			
Cameras	up			

REMARKS:

All systems look good prior to takeoff
Note to use xchat on MacBook on 43
open xll then type

(source /sw/bin/init.sh

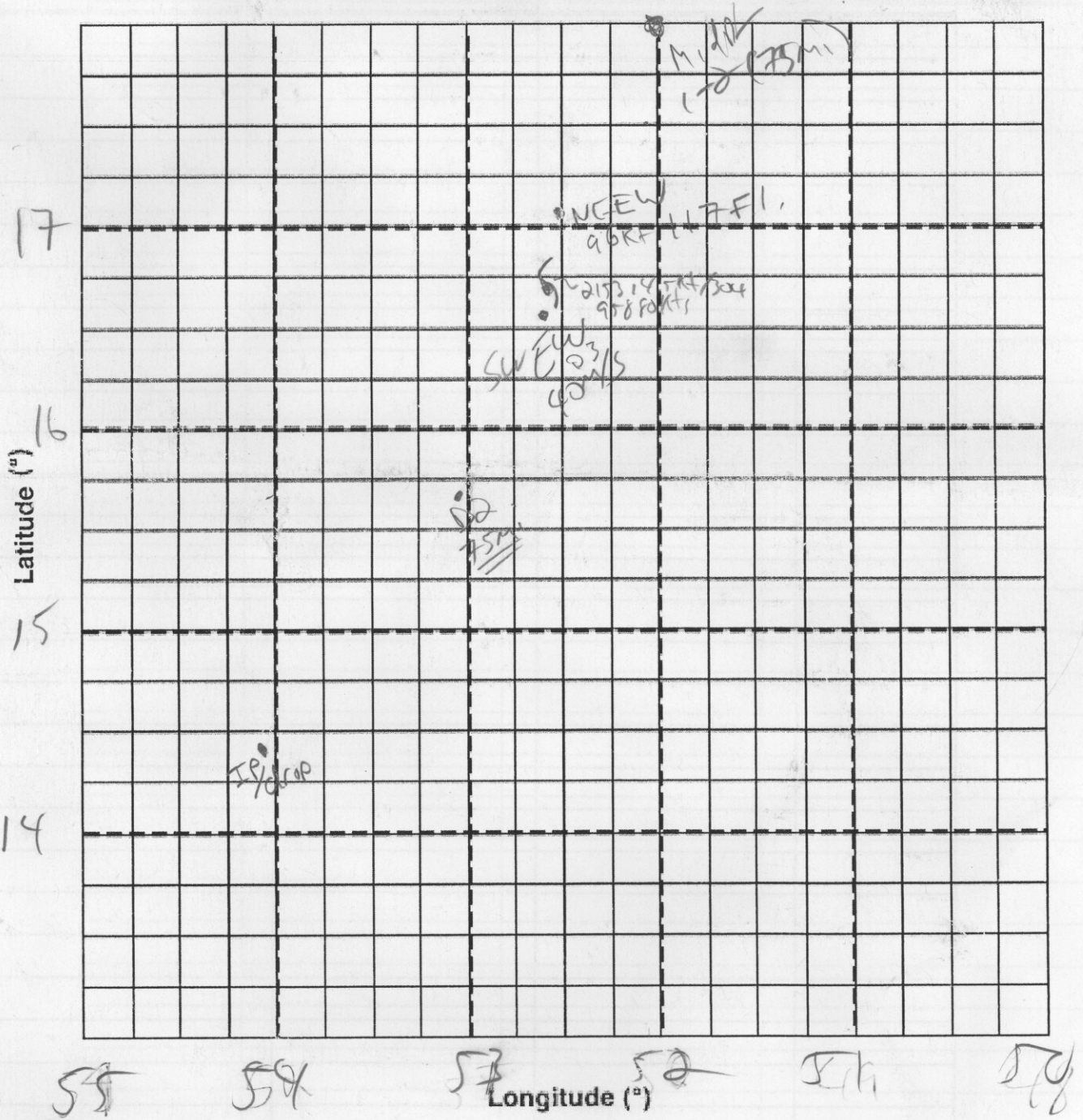
then
Type
xchat
to get name ...
/nick cione(enter)

Observer's Flight Track Worksheet

Date _____

Flight _____

Observer _____



Lead Project Scientist Event Log

Date 8/18/09 Flight ID 090818I LPS-Cione

20kts
@ 2k

20kts
19m/s (55kts)

Time	Event	Position	Comments
19:59:00	Takeoff	13.08N/59.48W	
21:17:15	IP / Drop 1	14.44N 53.88W	Drops 150m / 75/E wall
21:36:07	" "	15.63 53.10W	75m (log 1-2)
21:50:00	Eye wall	16.58 52.59	Open eye wall to S.
21:53	Center fix	16.74 52.59	Center fix
22:30:07	Eye/eye wall module Center +		958 mbar @ 14.50N / 120E
22:39:00	Eye wall	17.04 52.5	NE eye wall
22:54	75m NE Cor	17.95 51.95W	Mid Pt log 1-2
23:09	150m NE "	18.09 51.53	NE end pt
23:58:40	75m N eye	18.07 53.71	Mid Pt NW SE
00:18:00	eye wall	17.24 53.21	eye wall NW
00:24:00	" "	16.65 52.91	" SE
00:38:00	75m SE	15.53 52.22	Mid Pt
00:56:30	150m SE	14.82 51.81	end NW-SE
01:26:00	150m E	17.02 50.74	end Pt E-W
01:44:50	75m E	17.12 52.22	Mid Pt
01:57:23	E-eye wall	17.7 53.09	125kt 42m/s
02:03:00	Center fix	17.13 53.97	E-W center fix
02:07	Eye wall	17.18 53.85	85kt SE
02:20	75m	17.18 54.74	mid E-W
02:37	Center drop	17.17 56.13	150m W of str

117kts
10m/s
96kts

Mission Summary

Storm name

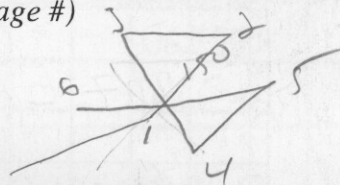
YYMMDDA# Aircraft 4 RF

WX03A Bill 2 // 090818I

Scientific Crew (4 RF)

Lead Project Scientist Cione
Radar Scientist Gomache
Cloud Physics Scientist -
Dropwindsonde Scientist Amare
Boundary-Layer Scientist -
Workstation Scientist Amare
Observers -

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



Mission Synopsis: (include plot of actual flight track)

Butterfly pattern
w/ eyewall mixy
module (if possible)

Cat 2 storm (90 Kts)
MSLP 962mb

FL = 12K drop to 10K near eye

Mixy module 10K → 2.5K
~ 20-25 GPS sondes
[perid-mid-max v-
+ 2 in eye + 5 Mix
module]

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

adjust to eyewall module. Pass 1 vs 2
also 5Kft vs 2.5Kft (at first)

Problems: (list all problems)

None

Expendables used in mission:

GPS sondes: Planes 20-25

AXBTs: -

Sonobuoys: -

Flight went well. In a nutshell
storm is a 90Kt ± 5Kt storm
with an open eyewall (to south) that
has battles of rain even in the eye