

050715I

M. Black

Lead Project Scientist

EPAC Pre-genesis

### 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 IFEX/TCSP Experiment name \_\_\_\_\_  
 Date 7/15/09 Aircraft 43 Flight ID 050715I

#### A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>M. Black</u>	Flight Director	<u>Marty Mayeaux</u>
Radar	<u>P. Dodge</u>	Pilots	<u>Randy Tabbert</u> <u>Mark Nelson</u>
Workstation	<u>P. Dodge</u>	Navigator	<u>Devin</u>
Cloud Physics	<u>Aaron Pansamer</u>	Systems Engineer	<u>Dewee Floyd</u>
Photographer/Observer	<u>Ed Zipser</u>	Data Technician	<u>Jim Barr</u>
/Guests			
Dropwindsonde	<u>Krystal Valde</u>	Electronics Technician	<u>Mark Rogers</u>
AXBT/AXCP	<u>Brandon</u>	Other	<u>Ed's student</u>

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

Take-Off: 0455 UTC Location: San Jose

Landing: 303 UTC Location: San Jose

Number of Eye Penetrations: Big Zero

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

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

#### D. Mission Briefing:

14,000 ft survey pattern  
between Costa Rica + Acapulco, identical  
pattern to N#2 flight 12 hours earlier  
See attached map. ~20 sondes, 7 AXBTs  
maybe a convective module

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:



①

# Lead Project Scientist Event Log

Date 7/15/05 Flight 050715L LPS M. Black

20 kts

NE winds  
then  
west  
winds  
3 kts

Time	Event	Position	Comments
0455	Tkcd RP		
0552	North of rain bands with TCZ blow up		
0555	Descend to 94 Kft		15m mld
055940	AXBT 1 + Drop 1	10° 89' W	CH 14 28.8°
060759	Directing ER2 to Rly band 100 m south of RP		
	ER2 should fly right over top of band		
061319	Drop 2	10° 90° W	N wind 5 kts
062115	Drop 3	10° 91.0 W	Near conv. cell, 320° 8 kts
064100	Drop 4	10° 92° W	No Launch Detect
0642	Drop 5	10° 92.12	Backup
			AXBT #2 28.6° 15m mld
065840	Drop 5	10° 93	Now in c
065729	Drop 5A	10° 93.15	Backup NW winds 6 kts
0701	Radar Frozen		
0704	Radar Up		
070658	Drop 6	10° 94 02	
0724	Drop 7	10° 95° WNW	at 10 kts 15 kts SFC
073615	Drop 8	10° 96° WNW	5 kts
0737	Large Area of convection to north		100-150 m
0750310	AXBT #3 Drop 9	10° 97.02	W 12 kts
	Changed Track to go straight N		
	to 12, 97 for W & run thru band		
	AXBT 29.3°C		25 m mld
080104	Radar Frozen		
080240	11° 97° W Drop 11		
080430	Radar Up		



# Lead Project Scientist Event Log

Date 7/15/05 Flight 050715I LPS M. R. R. R.

Time	Event	Position	Comments
	<del>AXBT #3</del>		
081504	Drop #12	11.96 96.97	near western extent of convective band
0816	AXBT 29.5	MLD ~ 25m	
0819	ER2	right behind	will meet at middle stacked W-E run through band
082820	Drop #13	12, 96	middle of band W 2 kts
0835	In large stratiform region		
0837	12 95	Winds switched from WNW to S south on SSW	
084127	Drop #14	12, 95	east end of band NW winds weak
0848	Winds NW-NE on far east side of band		
0848	Radar Data		
0849	Radar Data		
085409	Drop #15	AXBT 12, 94	PT3 29.0C 15m MLD
09115	Drop #16		
093827	Drop #17	13, 97	
095806	Drop #18	AXBT 14, 96	D NE at 8 kts
095900	30°C ~ 35m MLD		
	Large convective band to north along coast		
010000	ER2	just behind	and will pass through line of convection
101241	Drop #19		
102615	Drop #20	14, 94	
1031	convection near coast		

## Lead Project Scientist Event Log

Date 7/15/05 Flight 0071541 LPS M. B. K.

[illegible]



050715I EPAC/HEX  
T/O from MRDC FLT #2

ILPS: M. Blade SNDS: K Valde  
P. Dodge / physics: Aaron?  
IBS: ED ZIPSER, BRANDON —

0456 T/O

558 10° 89° 03' SND#1

0613 10° 90° 06' 4227W  
SND#2

62715 9° 58' yet 91° 01' SND#3  
*very many cells*

no more echo now but shallow

64113 SND NLD

64239 Backup 9059/ 9287/

655 10° 93° SND  
NO WIND

0507I (2)

65734 10° 93° 11' /  
Backup Sonde

703 - 705 radar  
070855 10° 94° 01' SND  
GA 4224W

71241 10° 01' 95° 02' SND

73607 10° 96° 01' Sonde

74917 turn to head N  
along 97° W line

7503S SONDE BT  
10° 07' 97° 01' /

0757 swapping radar altimeter

0801 - 801  
radar froze

80242 11° 97° SND

③ 050715I

814 FIAT off as we <sup>up</sup> <sup>trough</sup> <sup>NF</sup>

SND/BT 11°57' 96°57'

FIAT OFF for ER2 overpass

828 11°58' 95°58' SND

841 SND 12° 94°57'

846 <sup>850</sup> ~~100~~ 000 ↓

854 SND/BT 11°59' 94°  
BT 28°50'

918 12°32' 95°34'  
SND

95759 SND/BT 14° 96°

101239 SND <sup>30°</sup> 13°58' 94°57'

102619 SND 14° 93°57'

④ 050715I

1039 SND 13°59' 92°59'

1053 SND/BT 13°59'  
29°20' 91°59'

and then to head SG

1112 SND 12°58' 91°

1113: 12 8005  
SND

1145025 10°55' 88°58'  
LAST SND

LAND at MROC: 1302 Z  
at 7 am local