

2509A IKE
Flight ID 080912i Lead Project Scientist
Preflight Storm IKE LPS J. Dunion

- ☒ 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 IKE Experiment name TDR
 Date 11-Sep-2008 Aircraft N43 Flight ID 080911i

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>J. Dunbar</u>	Flight Director	<u>Mayeaux</u>
Radar	<u>M. Black</u>	Pilots	<u>Ebhardt/Choy</u>
Workstation	<u>M. Black</u>	Navigator	<u>Bishop/Kidder</u>
Cloud Physics		Systems Engineer	<u>Klippe</u>
Photographer/Observer		Data Technician	<u>Lynch</u>
/Guests		Electronics Technician	<u>J. Smith / D. Naehar</u>
Dropwindsonde	<u>Dorset / X. Zhang</u>	Other	
AXBT/AXCP	<u>Benjamin James</u>		

B. Take-off and Landing Times and Locations:

Take-Off: 0810 UTC Location: MacDill

Landing: 1655 UTC Location: MacDill

Number of Eye Penetrations: 5

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
<u>11 Sep 02</u>	<u>25.2N</u>	<u>87.6W</u>	<u>946mb</u>	<u>85 kt</u>
<u>1118Z</u>	<u>25'21" (25.35)</u>	<u>87'55" (87.92)</u>		

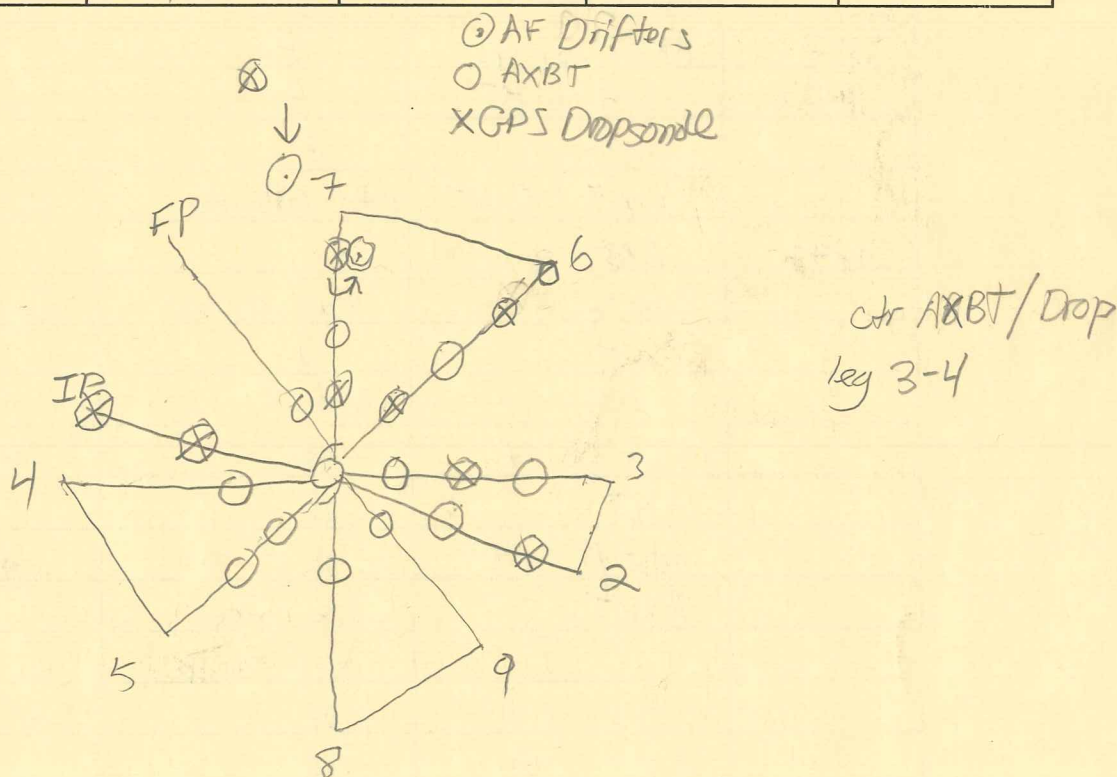
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D. Mission Briefing:

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:



- IP = 112 Sep 00Z POS
- IP + following AXBT/drop for Joe Cione's inner storm cooling study
- HRD sondes to support Nick Shay's/Dahlhorn's AXBT study

Lead Project Scientist Event Log

Date 11 Sep 2008 Flight 080911i LPS Junion

Time	Event	Position	Comments
0943	Drop 1 / AXBT	IP (NW)	(HRD) sonde
	Drop 2 / AXBT	NW	(HRD)
0917Z ~944mb	1st penetration	NW-SE	exewall open west semicircle secondary exewall ~20nm outside
	AXBT only	SE	
	Drop 3 / AXBT	SE	(HRD)
1057Z	AXBT only	E	
1102Z	Drop 4 / AXBT	E	(HRD)
	AXBT only	E	
	Drop 5 / AXBT	Ctr 945.1mb	NWS
1124Z	AXBT only	W	
	Drop 6	SW corner	NWS (no scatterer)
	AXBT	SW	
		center	
	AXBT / Drop 7	NE	(HRD)
	AXBT	NE	
	AXBT / Drop 8	NE	(HRD) BAD AXBT
	AXBT	NE corner	BAD AXBT
		NW corner	
	AXBT / Drop 9	N	(HRD) → Coord. w/ NOAA drifting buoy
	AXBT only	N	BAD AXBT
	AXBT / Drop 10	N	(HRD)
1340	AXBT only	S	
	AXBT only	SE	
	Drop 11	Center 946.7	NWS

AXBT only

NW

FAILED CAD LAUNCH

AXBT / Drop 12

NE

Coord w/ NOAA drifting buoy (HRD)

AX

NW

Lead Project Scientist Event Log

Date _____ Flight _____ LPS _____

Time	Event	Position	Comments
0917Z	1st penetration	NW-SE	eyewall open w semicircle secondary eyewall ~20nm outside
	IP-2 leg SE	SE	leg cut short ~5nm to avoid con
	leg 5-6	center	outer eyewall beginning to wrap around the S + SW inner + outer eyewalls still ~20k apart
0845Z	near end of 5-6 leg		~100kt FL, only ~5558 sfc
1315	7-8 leg	N	bowed out flight track to 26.66N 88.04W to overfly NOAA drifter (~9nm E of track)
1334Z	center	945mb	open eyewall (west) secondary eyewall persists
1355	7-8 leg	end of leg	turned a bit early to NE to avoid cells
	9-10 leg	center	center and eyewalls very much similar to previous passes (open to W + N)
	10- drifting buoy		drifting buoy overflight
	NHC 11am Disc		NOAA 103kt FL (~750mb) → SFMR + sondes only 65kt ↳ mid-levels + sfc seem decoupled



Mission Summary

Storm name

YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)

Lead Project Scientist JASON DUNNAN

Radar Scientist M. Black

Cloud Physics Scientist _____

Dropwindsonde Scientist Dorst / x. Zhang

Boundary-Layer Scientist _____

Workstation Scientist Black / Dorst

Observers _____

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

Mission Synopsis: (include plot of actual flight track)

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

Problems: (list all problems)

Expendables used in mission:

GPS sondes : _____

AXBTs : _____

Sonobuoys: _____