E.2 Lead Project Scientist

E.2.1 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.

___ 8. Collect "mess" fee ($2.00) from all on-board HRD flight crew members.

E.2.2 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. (B. Black not able to change to 2400 as planned)

___ 4. Complete Form E-2.

___ 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).

E.2.3 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 form E-2 p.3 (due to Field Program Director1 week after the flight).

Form E-2

Lead Project Scientist Check List

Date June 30 2004 **Aircraft** NOAA 43 **Flight ID** 040630I

A. —Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Landsea	Flight Director	Mayeaux/Domino
Cloud Physics	B. Black	Pilots	Silah/Choy
Radar	"	Navigator	Gallagher
Workstation	"	Systems Engineer	Lynch
Photographer/Observer	Renta	Data Technician	Tong
Dropwindsonde	Uhlhorn	Electronics Technician	
AXBT/AXCP/Guest	Calderon	Other	CBLAST participants French, Lasswell, Trina

Take-Off: 1505Z Location: Tampa 28' 825°

Landing: 1951Z Location: Tampa

Number of Eye Penetrations: ______

B. —Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
None - Test	Flight			

C. —Mission Briefing:

CBLAST test flight

(1) Circle over AOC for Lasswell instrument calibration;

(2) Head to buoy 42003 (26.01°, 85.91°) Go through light rain/clouds for Lasswell + Trina instruments before buoy.

(3) Begin stair-step descents:
2,400' 1200 900, 600, 400
~~to: [illegible]~~

(4) BT probe calibration maneuvers

320 ✓	320 ✓	320 ✓	305 ✓	210
140 ✓	140 ✓	140 ✓	125 ✓	110

Form E-2
Page 2 of 5

D. —Equipment Status (Up ↑, Down ↓, Not Available —, Not Used **O**)

Equipment	Pre-Flight	In-Flight	Post-Flight	# of DATs or Expendables
Aircraft	✓			
Radar/LF	✓			
Radar/TA (Doppler)	✓			
Cloud Physics	Navp			
Data System	✓			
GPS sondes	✓			
AXBT/AXCP	✓			
Workstation	✓			
Videography	✓			

REMARKS: Delay in takeoff due to light bulb + display malfunction.

? for Pete – TURN Lt or Rt ? – Minor glitch – Start up/down wind? – radar belly down

Lead Project Scientist Event Log

Date June 30, 2004 Flight 040630I LPS Landsea

Time	Event	Position	Comments
15:05	Take off		(An hour late due to panel replacement)
15:07	Begin Roll maneuvers over MacDill		for Rasswell
15:12	Completed, begin ascent		
15:20	Attempting to get belly radar up		(and tail)
15:26	Turn to 180 track for CB for rain		penetration
15:41	Tail radar up / belly out (won't spin)		
15:48	Drop sonobuoy	channel #10	in shower – 900m flight track
15:58	Turned back to original shower		track 270°
15:55	Sonobuoy Channel #11 launched		
1558	Done with rain tests, head to buoy		up to 6,500'
1636	Drop GPS – Reached buoy	42003	25°58' – 85°58'
	Spiral descent begun		to 2400' (Minor mistake by nav – ended up going E any from buoy)
1647	Over buoy turn to 320° track		(with wind)
1648	Launch 2 AXBT #12, #16		begun 2400' leg
1653	End of leg – turn to 140° track		– Rt turn –
1656	Start of leg 2400		against wind 140
1702	End of leg – turn Rt to 320° track		– descend to 1200'
1704	Start of leg 1200'		
1705	AXBT launch – #14		
1710	End of leg – turn Rt to 140° track		
1712	Start of leg – 1200' – 140° track		
1718	End of leg – turn Rt + descend to		900'
1721	Start of leg – 900' 320 track		
1722	AXBT #12, 16 deployed		
1728	End of leg – turn to Rt –		140° track
1730	Start of leg –		900' 140° track
1737	End of leg – turn to Left		track 305 – 600'

110 str wind

begin track

140 Free

Start

3004 42003 26° 01' 85° 55'

20 nmi legs with wind (~10 kt)

IAS 195 with wind – GS 205 3½ miles/min 6 min against wind GS 185 3 nmi/min 7 min

Turn to Rt.

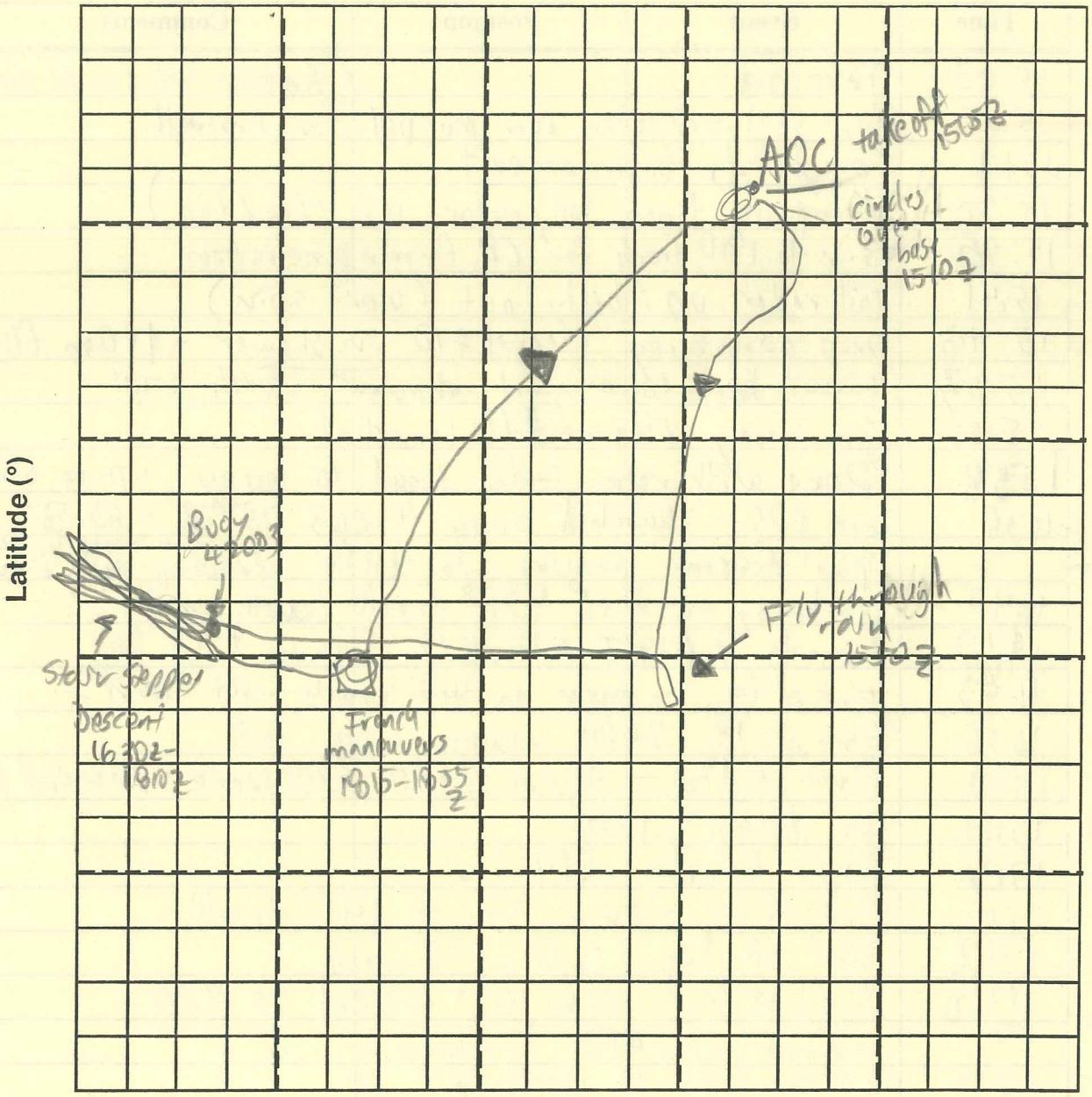
Lead Project Scientist Event Log

Date June 30, 2004 Flight 040630I LPS Land-sea

Time	Event	Position	Comments
1739	Start Leg 600'	305°	
1740	AXBT Drop #14		
1745	End leg turn to 125°		
1747	Start leg 600' 125° track		
1753	End of leg - descending + turn to 290° + 400'		
1756	Start of leg 400' 290° track		
1802	End of leg - turn to 110° track.		
1804	Start of last leg 400' 110° track		
end 1810	End of leg + start stepped maneuvers		
	Ascend to 3000' + begin French's calibration tests.		
1818	Begin Pitch maneuvers - Heading 90°		
1824	Turn back to 270 heading - Yaw maneuvers -		
1830	Turn back to 90° heading		
1832	Begin (final) yaw maneuvers -		
1840	Begin speed up - slow down maneuvers - 170 kt to		
1843	Box Pattern (110°-020°-280°-200°)		
1851	Circle maneuver		
1856	Head to McDill		
1951	Land at McDill		

Observer's Flight Track Worksheet

Date June 30, 2004 Flight 040630I Observer _____



Mission Summary

Storm name

YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)

Lead Project Scientist Landsea
Radar Scientist B. Black
Cloud Physics Scientist
Dropwindsonde Scientist
Boundary-Layer Scientist E. Uhlhorn
Workstation Scientist
Observers Calderon, Renta

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

See page 1 of 5

Mission Synopsis: (include plot of actual flight track)

Actual Track - page 4 of 5

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

Yes, were able to test/calibrate all instruments and complete stair stepped maneuvers as planned. Stair-steps able to go from 2400, 1200, 900, 600 and 400. Excellent interaction with flight director (Marty Mayeaux)

Problems:(list all problems)

1) Belly radar - not working (won't spin)
2) B. Black not able to change data to 2400

Expendables used in mission:

GPS sondes : 1 (all functioned) - 1 GPS transmitted back -
AXBTs : 6 (")
Sonobuoys: 2 (")