M. Black

030819I CBLAST Test flight

E.2 Lead Project Scientist

E.2.1 Preflight

MMB 1. Participate in general mission briefing.

MMB 2. Determine specific mission and flight requirements for assigned aircraft.

MMB 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. NO

MMB 4. Contact HRD members of crew to:
   a. Assure availability for mission.
   b. Review filed program safety checklist
   c. Arrange ground transportation schedule when deployed.
   d. Determine equipment status.

MMB 5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.

MMB 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.

MMB 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).

MMB 7. *Before take-off,* brief the on-board GPS dropsonde operator on times and positions of drop times.

✓ MMB 8. Perform a radio check with headsets. Make sure everyone's headsets is work properly.

____ 9. Collect "mess" fee ($2.00) from all on-board HRD flight crew members – NO food today

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.

____ 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. Determine next mission status, if any, and brief crews as necessary.

____ 6. Notify MGOC as to where you can be contacted and arrange for any further coordination required.

____ 7. Prepare written mission summary using form E-2 p.3 (due to Field Program Director1 week after the flight).

Form E-2
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Lead Project Scientist Check List

Date 8/19/03 **Aircraft** 43 **Flight ID** 030819I

A. —Participants: CBLAST Test flight

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	M. Black	Flight Director	Barry Damiano
Cloud Physics	— None	Pilots	Tennesson, ~~Peterson~~ Tepert
Radar	Rob Rogers	Navigator	~~Carl Newman~~, ~~Adler~~ Adler
Workstation	None	Systems Engineer	Dewey
Photographer/Observer	None	Data Technician	Jeff Smith
Dropwindsonde	Eric Uhlhorn	Electronics Technician	Terry Lynch
AXBT/AXCP/Guest	Rob Rogers	Other	

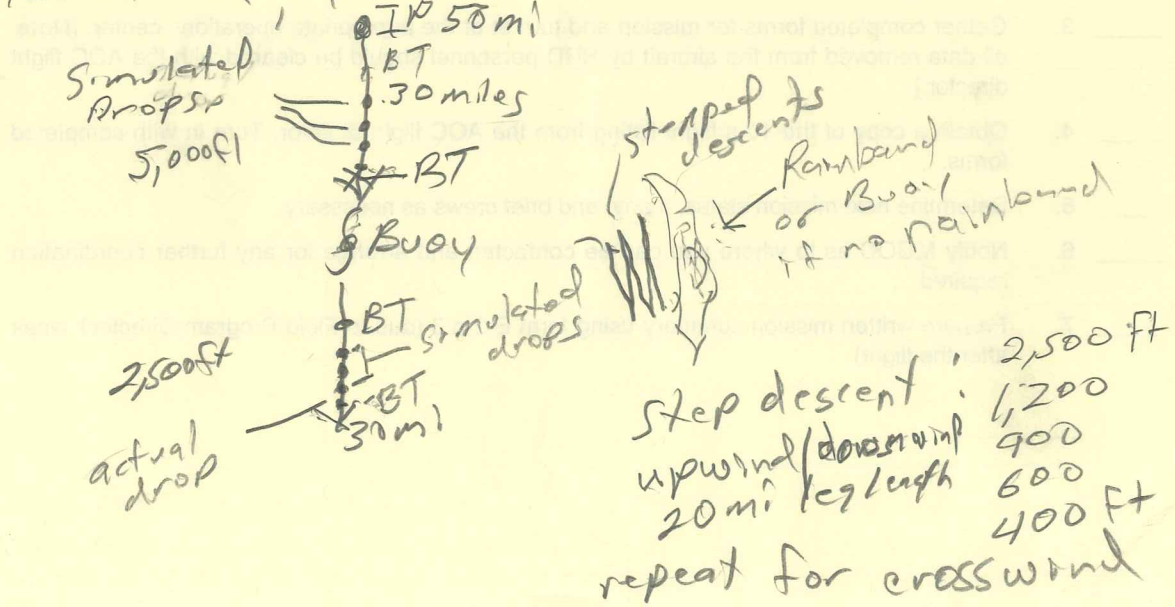
Take-Off: 1509 Location: McDill Landing: 2020 Location: McDill

Number of Eye Penetrations: _____

B. —Past and Forecast Storm Locations: None, Buoy 43003

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

C. —Mission Briefing: Coordinated pass through Buoy location



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

Equipment	Pre-Flight	In-Flight	Post-Flight	# of DATs or Expendables
Aircraft	✓	✓		
Radar/LF	✓ start 15/8 > Reflectivities ~15 dBZ low			
Radar/TA (Doppler)	✓			
Cloud Physics	—			
Data System	✓			
GPS sondes	✓			
AXBT/AXCP	✓			
Workstation	NO			
Videography	✓			

REMARKS:

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Times before 1626 – AXBT Ch 42 reversed

Form E-2
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Lead Project Scientist Event Log

Date 8/19/03 Flight #030819I LPS M. Black

Time	Event	Position	Comments
155500	Descend to IP		
155700	right turn to IP – Coordinating w/ 42		
160530	IP 50mi N	26.97 85.94	5,000 ft
161048	AXBT	26.47 85.93	
161056	Sim. Sonde	" "	
161130	Sim Sonde		
161157	Sim Sonde		
161238	Real Sonde	– late out	WS 5-7 kts 270° – flt level
161309	AXBT #16		
161812	at Buoy	25.89 85.92	– 42 2½ minutes behind
162030	Begin circling in eye		
163051	at Buoy – begin southbound leg		
163333	180° Track southbound		
163523	AXBT	25.70 85.91°	
163553	Sonde	25.67 85.91°	6/2554
163620	Sim Sonde	25.64 85.91	Seq – SFC
163649	Sim Sonde	25.61 85.91	
163722	AXBT	2558 85.91	– r
164900	Pictures	Cloud – eastern	
165659	descend to 2500', 25.6 85.07'		
170054	turn to left – downwind parallel band		
170130	downwind leg 25.8 84.88 – 2500'		
170320	Just above Cu cloud base – 42 ½ mile behind		
170758	right turn descend to 1200'		
170957	level at 1200' below cloud base		
171223	Track 150° to avoid cell		
171453	Right turn descend to 900'		

1639 end of S. leg →

42 ahead ! → no good

25.45 84.5 W

IP inside of small rainband for stepped descent.

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Lead Project Scientist Event Log

Date 08/19/03 Flight 030819I LPS M. Black

Time	Event	Position	Comments
171625	900 ft downwind	25.78 84.91	level, slight chop
172136	end of leg - turn left		descend to 600'
172400	600' Run	140° hdg	WD 330° 2-3 kts
172900	right turn, descend to	400'	
173100	600' level	25.69 85.05	downwind
17345	New IP for	X-wind 125°40'	85.15W
rainband	changed orientation - adjusting		
173640	right turn		
1737	descend to 200 ft		
173900	begin leg	at 200 ft -	WD 330° 2-3 kts
174413	Ascend -	slight chop	
	to 2500'		
174518	Turn to 270° to IP		#2 - crosswind
1748	2500' towards IP	WD 140°-190° 2-3 kts	
1749	right turn		
175321	42 right of	above us - track 040 - IP #2	
175510	2500' x-wind	25°79' 85.19	- 42 method
180250	end 1st x-wind,	descend 1,200 ft, 220°	outbound
180500	1200 ft run	26.15 84.88	
180955	End 1200,	descend to 900' - 42	back to
181200	begin 900'	run - slight chop	
181700	end 900'	run - left turn,	descend to 600 ft
181900	begin 600'	run, TRK	140° WD 50°-70° 6 kts
182350	Left turn to 400	25.86 85.14	040° TRK
182550	400' leg		
183000	right turn	descend	to 200'
183320	200 ft leg	26.11 84.91	-

X-wind

WD - 110-120 4-5 kts

25° 45 85.00 - IP for Cross Wind

3/

Form E-2
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Lead Project Scientist Event Log

Date 8/19/03 **Flight** 030819I **LPS** M. Black

end cross wind

Time	Event	Position	Comments
183820	End 200'	25.85 85	15° climb to 3,000
184004	track	0'	
185840	Ascend to	climb out	to Tampa
could not find enough clear air for BAT			
maneuvers			
191650	Turn + descend to 3,000 ft - found some		
clear air for BAT probe		~40 mi SE of MCD	
192000	3000 ft beginning of BAT-cal		
192250	Yaw maneuvers		
193237	left to ~~200~~ 210 reverse - shorter YAW		
193513	Yaw maneuvers		
1942	Variable speed		
19475	Box pat		
1958	End of RF		
2002	Circles		
2007	level toward MCD		
2008	Pitch maneuvers - only 1 set		
2010	Approach to MCD		
2015	End Rad		