E.2 Lead Project Scientist (On-Board)

E.2.1 Preflight

_____ 1. Participate in general mission briefing.

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

_____ 3. Determine from CARCAH or field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist and CARCAH unless briefed otherwise by field program director.

_____ 4. Contact HRD members of crew to:

a. Assure availability for mission.
b. Arrange ground transportation schedule when deployed.
c. Determine equipment status.

_____ 5. Meet with AOC flight crew at least 90 minutes before takeoff, 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 or FGOC at remote recovery location).

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.

E.2.3 Postflight

_____ 1. Debrief scientific crew.

_____ 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, *etc.*) remaining aboard the aircraft to the appropriate HRD operations center (MGOC or FGOC).

_____ 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 the appropriate operations center (FGOC or MGOC) as to where you can be contacted and arrange for any further coordination required.

_____ 7. Prepare written mission summary.

On-Board Lead Project Scientist Check List

Date 9/3/02 Aircraft 43RF Flight ID 020903I

A. Participants: T.S. Edouard

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	P. BLACK	Flight Director	B. DAMIANO
Cloud Physics		Pilots	D. Tennesen / T. Strong
Radar	M. BLACK	Navigator	J.
Workstation	M. BLACK	Systems Engineer	T. Lynch, J. Smith
~~Photographer~~/Observer SRA GPS	E. WALSH	Data Technician	
~~Omegasonde~~	M. BLACK	Electronics Technician	R. Jong
AXBT/~~AXCP~~/~~Guest~~ BAT probe	E. Uhlhorn / S. White	~~Other~~ Flight Engineer	D.

Take-Off: 1706 Location: MACDILL (block 1700)

Landing: _____ Location: _____ Number of Eye Penetrations: _____

B. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
03/1700	30° 01'	78° 57'	1004	30 kt

C. Mission Briefing: 8 AXBT's on 42 show no continuity - they will be brought inside + free fall launched

D. Equipment Status (Up, Down, Not Available, Not Used)

Equipment	Pre-Flight	In-Flight	Post-Flight
Aircraft	✓		
Radar/LF	✓		
Radar/TA (Doppler)	✓		
Cloud Physics	—		
Data System	✓		
~~Omega~~GPS sondes	✓		
AXBT/~~AXCP~~	✓		
Workstation	✓		
Videography	✓		
SRA	✓		
~~B~~BAT	✓		

REMARKS:

LASER ALT —

Digital Video —

Lonobuoy —

30.01 1702

77 51

E. (I) **Proposed Flight Pattern** (sketch or designate by number)

E. (II) **Actual Flight Pattern**

(1)

Lead Project Scientist Event Log

Date 9/3/02 Flight 020903 I LPS P. Black

Time	Event	Position	Comments
173955	start descent to 1,000ft	29°23' 80°42'	
1748 45	start right circle	2940 8045	roll ~ 30°
	G IV will fly over center S→N		} in
	buoy 41012	30.0, 80.5	} clear
1751 40	start left circle	28°	
1755 20	track 085° - start 2 mi box		wind 353@18kt
	cloud base ~ 1800 ft		
175700	cloud above		
175830	track 175		
180033	end leg	29°21' 80°32'	
180150	track 265		
180350	end leg		
180450	track 354		
180700	end leg	2929 8041	head to IP 30.0N, 80.1W
		via center G IV	30.0 079.3 18Z
182027		3002 8005	AX BT #1
	SFMR interference		
182522	very hazy		
1828	cld base ~ 1100 ft		
1829	cld base ~ 900 ft		
183448	~~BT2~~	2956 7904	

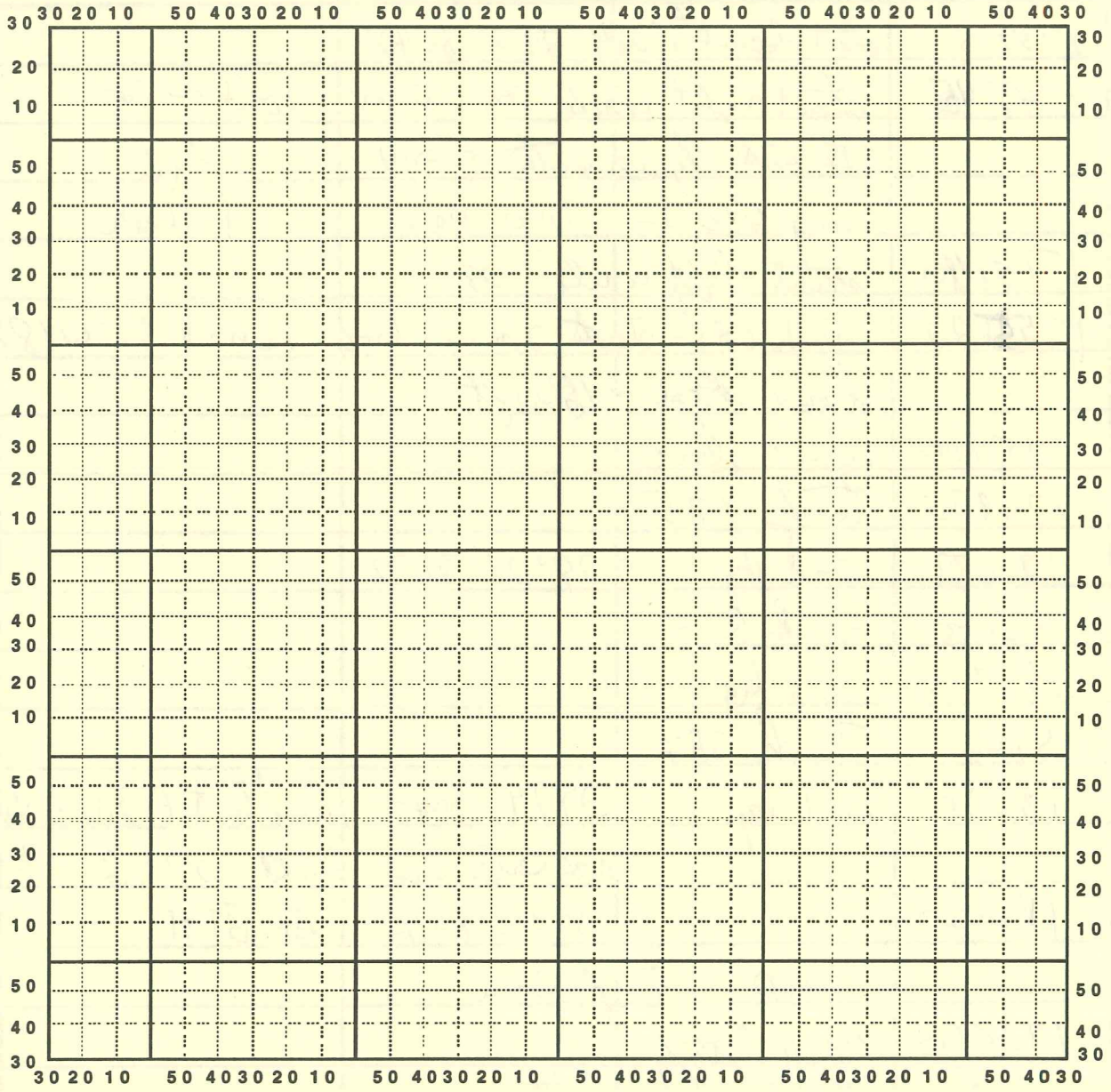
no BT

[illegible]

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

Date _____ Flight ID _____ LPS _____.



Note : Label full degrees according to location of the flight area.

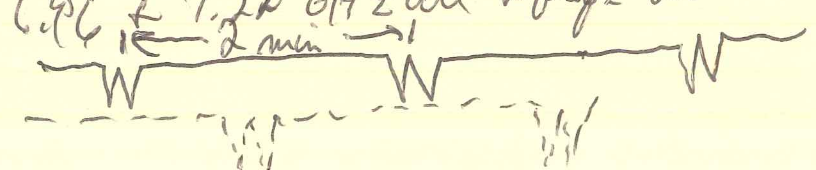
Lead Project Scientist Event Log

Date ____________ Flight 020903I LPS P Black

Time	Event	Position	Comments
~~1839??~~	start climb		
184030	to 5000 ft	2954 7836	
184342	at 4,700 ft	1512 m	
	no SFMR interference after climb		
1850	start drop sequence 42 2 mi behind		
185?21	Jetting		
42 GPS sondes stuck in tube because			
not enough pressure due to AXBT free fall chute; 42 GPS sondes launched after all			
185320	start 4 sonde launch seq		// drops need to be called out from other AC
42	2		
57	3		
5405	4 no winds		
185611	left turn for V pt, SFMR inop		
185740	BT 2	3002 7731	
	after descent noise in SFMR returned		
	FRM shows good RR; AOC algo shows 0 rain		
	but that winds increase		
191841	42 + 43 radars in standby		
	SFMR interference still there		
192302	BT + turn	3106 7908	
	to S; also	42 [SAT off now	

but still have interference

6.96 + 7.27 GHz are ? freqs with interference



(3)

Lead Project Scientist Event Log

Date _____ Flight 020907 LPS R Black

Time	Event	Position	Comments
195500	turn at 5pt -	trk 040	
195643	descend to 600 ft		
195653	BT	28.59 79.04	at 600 ft
	SFMX noise due to TA	radar - turned off	
	new high RF TA transmitters		
200150	turn to trk of 145° (⊥ to wind of 235°)		
		29.18 78.49	
200345	level out on 145° wind	28kt @ 232°	
200430	start leg	42 launched	BT + sonde
	need to throw everything out free fall chute on 42		
	because no pressure in drop chute		
	5.06 SFMX got noisy because of		
	radar altimeter		
201019	start turn to	backtrack	
201200	start return leg trk 325°	wind 22kt @ 223°	
	3d leg	1200 ft	
201755	start climb	+ turn at PBL IP	
202025	level at 3500 ft	trk 056	wind 28kt @ 230deg
202040	start leg downwind		
202710	start turn for	upwind leg	
202930	start upwind	leg trk 235 -	in cloud alot

Sean says purging lines alot in even light rain for BAT

4

Lead Project Scientist Event Log

Date ____________ Flight 020903F LPS P Black

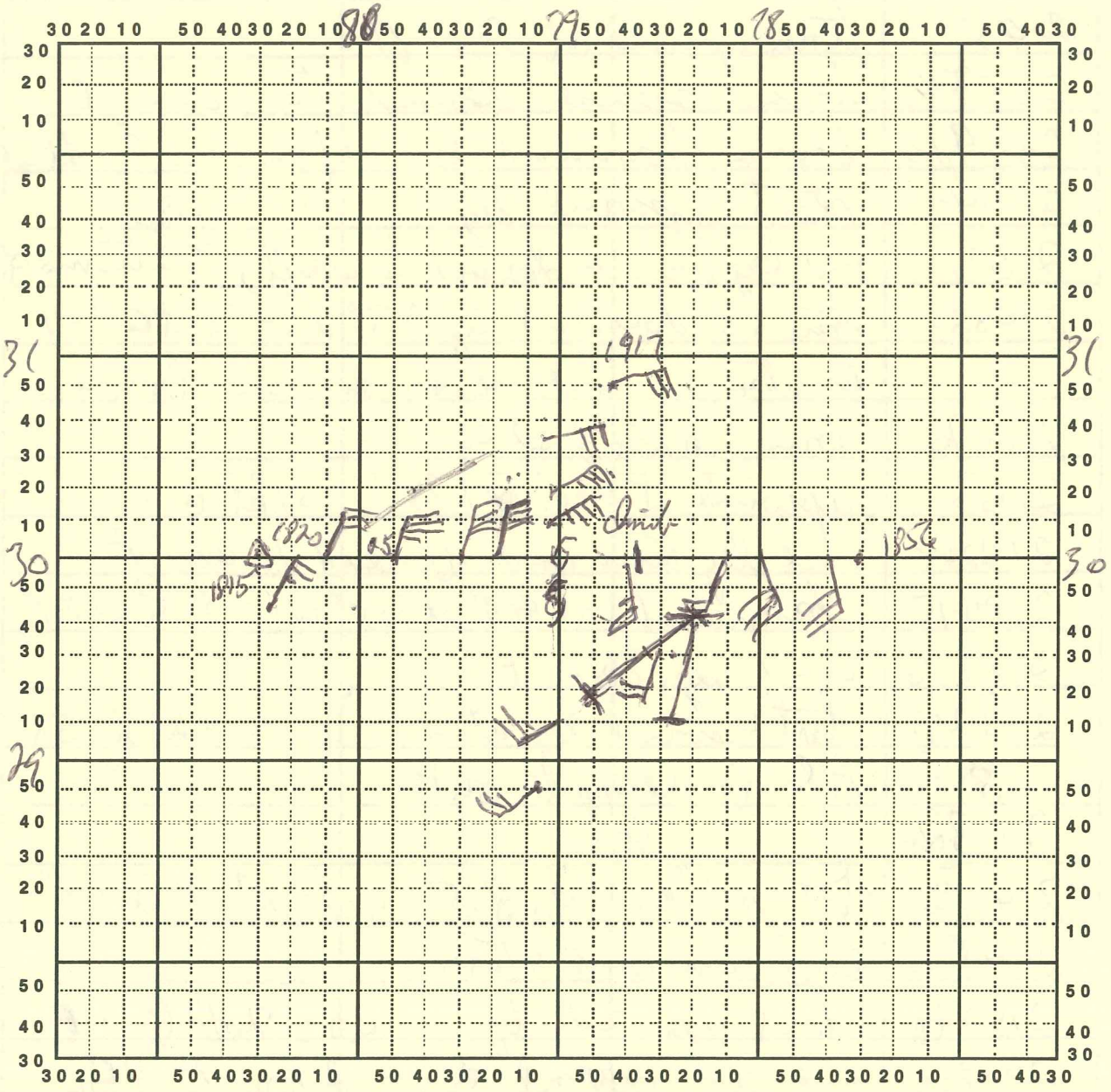
Time	Event	Position	Comments
2045	turn upwind at 2000 ft		
205340	begin spiral descent		to 1,000 ft
205410	begin downwind leg at		1,000 ft 30 kt at 120°
210040	start upwind leg		
210710	end leg turn + descend to 600 ft;		2108 42 turns off TA radar
210850	start 600' downwind leg 355°		WS ~ 30 kt @ 180°
	for strong winds shorten downwind leg to 4 min		
211520	turn upwind at 600'		
211630	upwind at 600' @ 175°		31 kt @ 200°
212245	end leg turn and descend to 400 ft		
212415	downwind at 400' at 355°		WS ~ 33 kt @ 191°
212936	end leg, turn at		
213200	start upwind leg at 400'		WS ~ 20 kt @ 138°
213900	AC in cockpit out		
214220		60m	
214350	start 200' leg hdg 355		WS ~ 27 kt @ 190°
214835	end run, climb + turn		
215240	start upwind leg		WS ~ 20 kt @ 170
215900	end 200' upwind leg – 2 hrs to PBL		
221240	center	7945	module
		7904	

cld base 300m ~ 900 ft

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

Date _____ Flight ID _____ LPS _____.



2910 07855

2830 07880 205/

Note : Label full degrees according to location of the flight area.

3020 7915 220/5

(8)

Lead Project Scientist Event Log

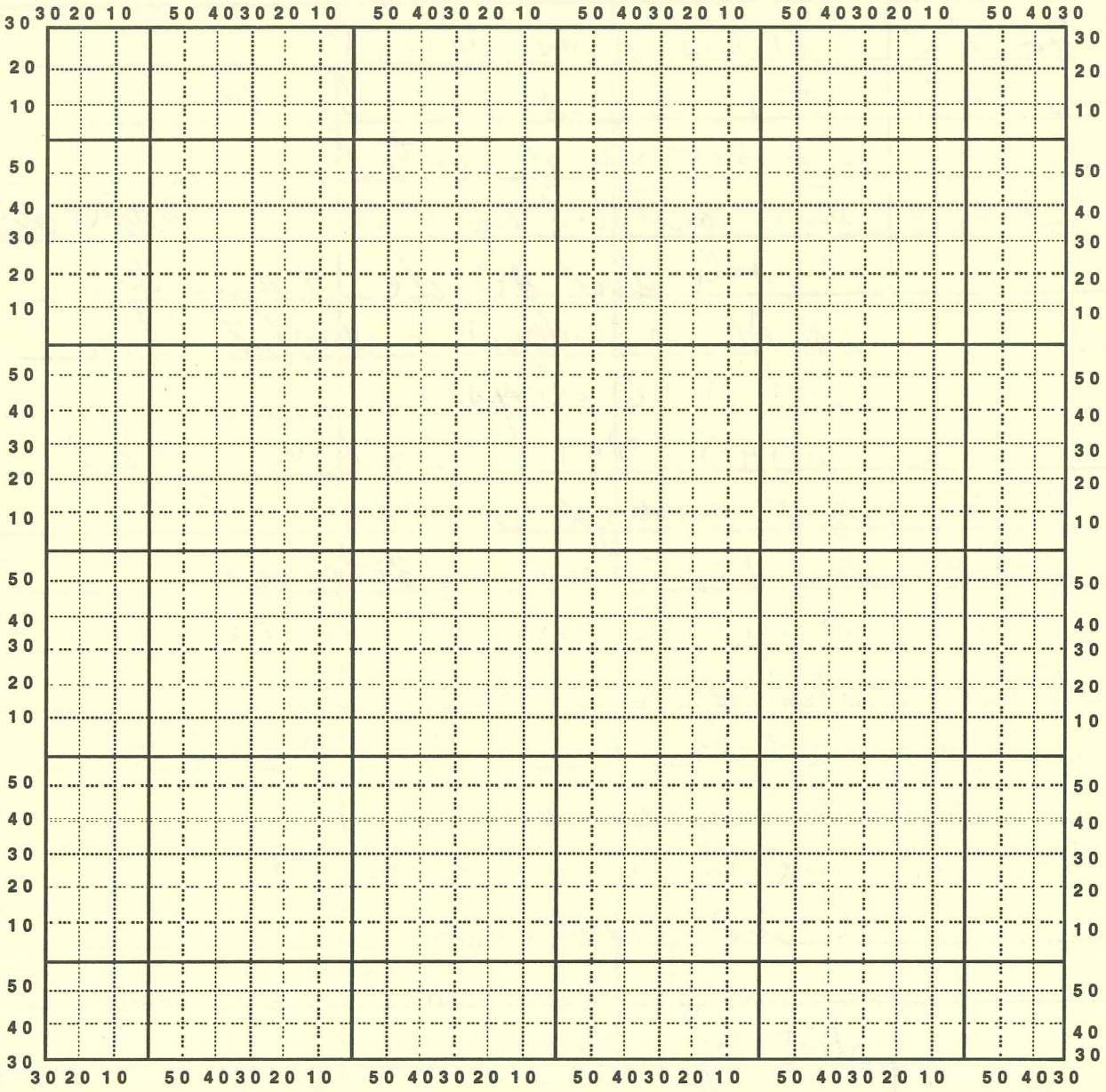
Date _____ Flight 020803I LPS P. BLACK

Time	Event	Position	Comments
221815	old lose now 12.0 ft		
222310	start second PBL leg 600'		
	Leg 345 NW of center		
222540	start outbound leg at 600' WS=30kt@065°		
	42 wide drop Hyde		4 min legs
	no AC in cockpit - very hot - like		
	old DC-6 days		
2212	2943 784 1005 mb 28 kt		
223230	start outbound leg at 600' ~30kt		
223450	end leg climb to 3500 ft		
224055	at 3,500 ft 255° WS=25kt@064°		
224400	start leg at 3500		
224800	end leg	WS=28kt@040°	
225040	start upwind leg		
225545	end leg, descend to 1000 ft		
	AF= just passed overhead		
225850	at 1,000 ft downwind 255° WS=30kt@045		
230010	start leg 1,000 ft		
230430	end leg, turn upwind at 1,000 ft		
230640	start upwind leg	WS=28kt@034°	
231145	end leg, descend to 400 ft		

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

Date _____ Flight ID _____ LPS _____.



Note : Label full degrees according to location of the flight area.

(C)

Lead Project Scientist Event Log

Date ____________ Flight 020903I LPS P. BLACK

Time	Event	Position	Comments
231400	start downwind leg		400' tks 221
			WS = 29 kt @ 039°
231755	end leg, turn upwind		
231950	start upwind leg	TH	040°; WS = 27 kt @ 030°
	tendency to go further downwind than		
	we did back upwind; result was		
	that at end of leg, wind crossing		
	the trk by 30-40 deg		
232456	end leg	descend to	200' alt & head
232710	downwind	at 200' (56 m)	
232740	start leg	WS = 27 kt @ 008	tks 218
	need to make turn in mid leg		
	to maintain downwind orientation		
233510	start upwind leg at 200 ft		
	TEAL 43 is AF aircraft flying above us		
234015	end upwind leg		

Lead Project Scientist Event Log

Date ____________________ Flight ____________________ LPS ____________________

Time	Event	Position	Comments