

12/10/2010

Mission: 'Sierras'



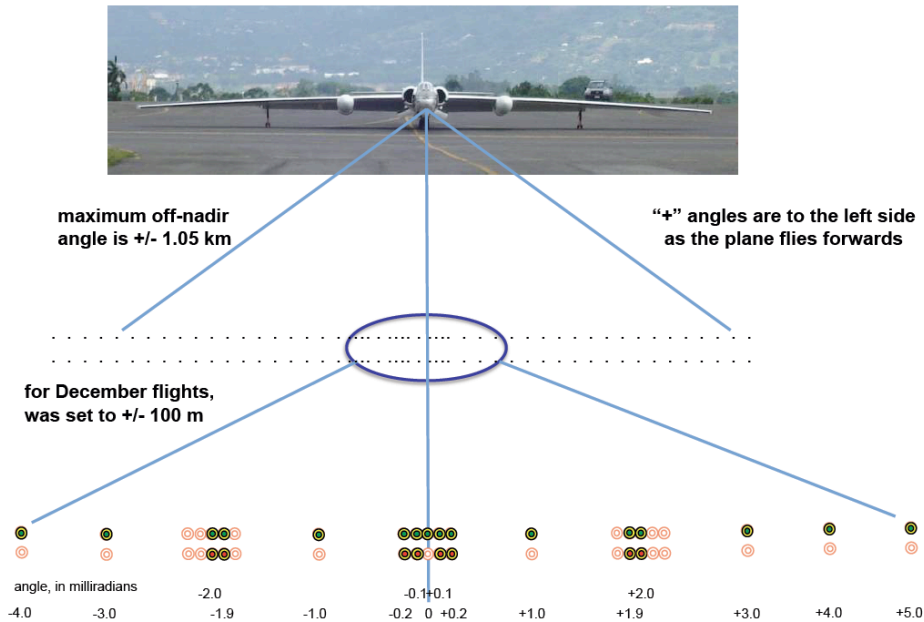
Weather: thin cirrus throughout; CPL, flown concurrently, could see the ground
Comments: There was fresh snow in the Sierras at the time of this flight. Surveying at 65,000 ft, the surface and high-elevation clouds can be confused in 10 kHz data.

Sample rate: **10 kHz**

Energy levels throughout channels: static

FOV: 'spread pattern' (see image below)

Footprint geometry for initial flights



Angle to Channel map:

Fiber	1	2	3	4	5	6	7	8											
Connector	6	5	2	1	-1	-2	-5	-6											
Channel	94	96	98	100	44	46	48	50											
Power (Matt, mW)	26.8	31.5	23	12.6	23	22.4	17.3	23.6											
Filter	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49											
Raw Energy (Matt, uJ)	2.68	3.15	2.3	1.26	2.3	2.24	1.73	2.36											
Filtered Energy (uJ)	1.31	1.54	1.13	0.62	1.13	1.10	0.85	1.16											
Path Lengths (Matt, mm)	0	16	32	48	65	81	97	113											
Angle (mrad)	2	1.9	0.2	0.1	-0.1	-0.2	-1.9	-2											
Approx offset on ground (m): 65k'	40	38	4	2	-2	-4	-38	-40											
Fiber	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Connector	-10	-9	-6	-5	-3	-2	-1	0	1	2	3	5	6	9	10	11			
Channel	3	5	1	7	65	9	63	11	61	13	59	15	57	51	55	53			
Power (Matt, mW)	36.9	35.8	31.6	38.8	23.4	25	29.2	29.7	25.4	31.4	29.6	27.6	28.4	26.8	33.8	34.3			
Filter	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69			
Raw Energy (Matt, uJ)	3.69	3.58	3.16	3.88	2.34	2.5	2.92	2.97	2.54	3.14	2.96	2.76	2.84	2.68	3.38	3.43			
Filtered Energy (uJ)	2.55	2.47	2.18	2.68	1.61	1.73	2.01	2.05	1.75	2.17	2.04	1.90	1.96	1.85	2.33	2.37			
Path Lengths (Matt, mm)	27	43	59	75	92	108	124	140	156	172	188	204	221	237	253	269			
Angle (mrad)	-4	-3	-2	-1.9	-1	-0.2	-0.1	0	0.1	0.2	1	1.9	2	3	4	5			
Approx offset on ground (m): 65k'	-79	-59	-40	-38	-20	-4	-2	0	2	4	20	38	40	59	79	99			

Points of interest:

Time (UTC)	TOF File	Description
00:26:03	0	Laser status healthy
00:24:55	7	start of Sierra run
01:47:52	25	end of Sierra run
01:54:33	27	Laser off