

02/21/2012

Mission: 'Dryden 1'



Weather: High cirrus local to Dryden  
Comments: Also included: CATS, CPL, DCS;  
5 degree pitch and roll maneuvers.

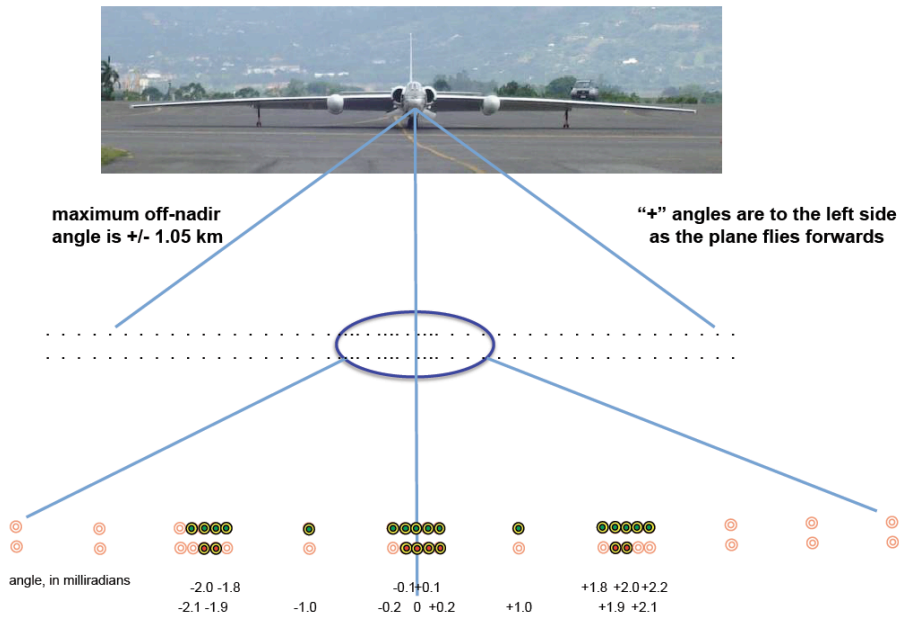
NO Etalon; Twilight flights

Sample rate: 5 kHz

Energy levels throughout channels: variable: some beams were filtered to simulate ICESat-2 'weak' beams (see **colored** channels below).

FOV: 'Cluster FOV' (see image below)

### Footprint geometry for initial flights



### Angle to Channel map:

Fiber	1	2	3	4	5	6	7	8												
Connector	-6	-5	-1	0	1	2	5	6												
Channel	43	44	45	46	47	48	49	50												
Power (Matt, mW)	0	0	0	0	0	0	0	0												
Filter	0.25	0.25	0.25	0.69	0.69	0.69	0.69	0.69												
Raw Energy (Matt, uJ)	0	0	0	0	0	0	0	0												
Filtered Energy (uJ)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
Relative path difference (Matt, mm)	0	16	32	48	65	81	97	113												
Angle (mrad)	-2	-1.9	-0.1	0	0.1	0.2	1.9	2												
Approx offset on ground (m): 65k'	-40	-38	-2	0	2	4	38	40												
Elevaton (mrad)	1.5	2.0	1.0	1.5	2.0	2.5	1.0	1.5												
Approx offset on ground (m): 65k'	30	40	20	30	40	50	20	30												
Fiber	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Connector	-7	5	2	3	6	-2	99	4	-5	7	1	-4	-6	0	-3	8				
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Power (Matt, mW)	3.48	12.03	13.48	13.04	11.01	13.77	11.30	12.61	9.86	10.43	16.52	12.17	10.87	16.96	13.01	0.00				
Filter	0.69	0.69	0.69	0.69	0.25	0.69	0.37	0.69	0.37	0.69	0.69	0.69	0.69	0.69	0.69	0.69				
Raw Energy (Matt, uJ)	0.7	2.41	2.7	2.61	2.2	2.75	2.26	2.52	1.97	2.09	3.3	2.43	2.17	3.39	2.61	0				
Filtered Energy (uJ)	0.48	1.66	1.86	1.80	0.55	1.90	0.84	1.74	0.73	1.44	2.28	1.68	1.50	2.34	1.80	0.00				
Relative path difference (Matt, mm)	27	43	59	75	92	108	124	140	156	172	188	204	221	237	253	269				
Angle (mrad)	-2.1	1.9	0.2	1	2	-0.2	0	1.8	-1.9	2.1	0.1	-1.8	-2	0	-1	2.2				
Approx offset on ground (m): 65k'	-42	38	4	20	40	-4	0	36	-38	42	2	-36	-40	0	-20	44				
Elevaton (mrad)	-2.0	-2.0	-0.5	-1.5	-1.5	-2.5	0.0	-2.5	-1.0	-1.0	-1.0	-0.5	-1.5	-1.5	-1.5	-0.5				
Approx offset on ground (m): 65k'	-40	-40	-10	-30	-30	-50	0	-50	-20	-20	-20	-10	-30	-30	-30	-10				

### Points of interest:

Time (UTC)	Description
1:0:13	Laser status healthy; over open ocean
1:22:3	End of open ocean
2:6:57	Start Lake Mead
2:21:49	End Lake Mead
2:46:36	Laser off