

03/22/2011

Mission: 'Dryden'



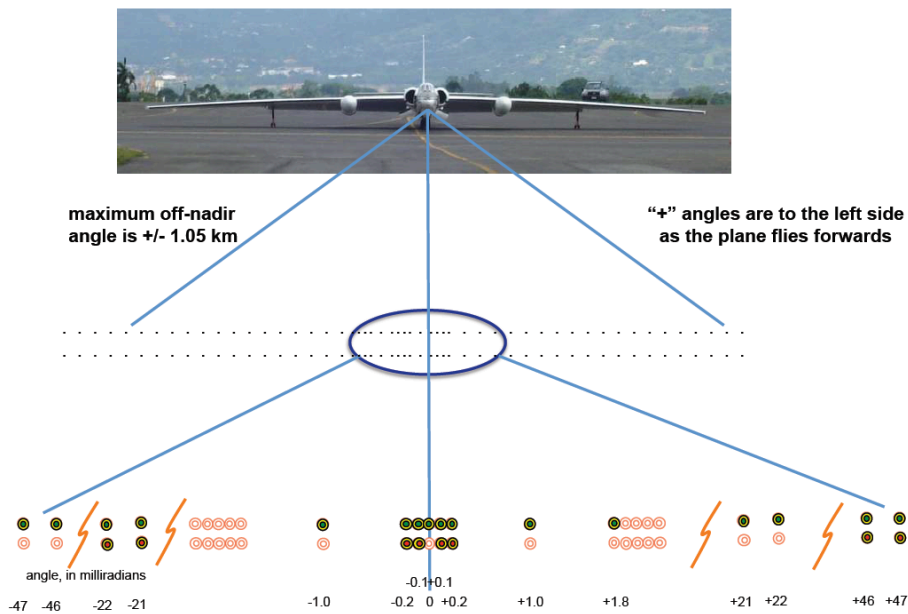
Weather: partly cloudy throughout; cloudy over ocean  
Comments: First flight with 'variable energy' settings (see comment below). This flight path is intended to mimic the initialization flight path of IceBridge.

Sample rate: 5 kHz

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

FOV: 'Wide FOV' (see image below)

### Footprint geometry for initial flights



### Angle to Channel map:

Fiber	1	2	3	4	5	6	7	8												
Connector	53	52	2	1	-1	-2	-27	-28												
Channel	47	48	49	50	46	45	44	43												
Power (Matt, mW)	32	33.6	25	17.2	25.2	25	20	23.8												
Filter	0.49	0.15	0.49	0.15	0.49	0.15	0.49	0.15												
Raw Energy (Matt, uJ)	6.4	6.72	5	3.44	5.1	5	4	4.76												
Filtered Energy (uJ)	3.14	1.01	2.45	0.52	2.50	0.75	1.96	0.71												
Path Lengths (Matt, mm)	0	16	32	48	65	81	97	113												
Angle (mrad)	47	46	0.2	0.1	-0.1	-0.2	-21	-22												
Approx offset on ground (m): 65k'	932	912	4	2	-2	-4	-416	-436												
Fiber	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Connector	-53	-52	-28	-27	-3	-2	-1	0	1	2	3	4	27	28	52	53				
Channel	2	3	1	4	16	5	15	6	14	7	13	8	12	9	11	10				
Power (Matt, mW)	34.4	38	32.2	35.8	18.8	24.7	27.6	26.7	24.5	31.2	30.2	28.8	27.5	27.6	31.2	31.4				
Filter	0.69	0.49	0.69	0.49	0.69	0.49	0.69	0.49	0.69	0.49	0.69	0.49	0.69	0.49	0.69	0.49				
Raw Energy (Matt, uJ)	6.88	7.6	6.44	7.16	3.76	4.94	5.52	5.34	4.9	6.24	6.04	5.76	5.5	5.52	6.24	6.28				
Filtered Energy (uJ)	4.75	3.72	4.44	3.51	2.59	2.42	3.81	2.62	3.38	3.06	4.17	2.82	3.80	2.70	4.31	3.08				
Path Lengths (Matt, mm)	27	43	59	75	92	108	124	140	156	172	188	204	221	237	253	269				
Angle (mrad)	-47	-46	-22	-21	-1	-0.2	-0.1	0	0.1	0.2	1	1.8	21	22	46	47				
Approx offset on ground (m): 65k'	-932	-912	-436	-416	-20	-4	-2	0	2	4	20	36	416	436	912	932				

### Points of Interest:

Time (UTC)	TOF File	Description
16:34:27	2	Laser status healthy
16:49:43	87	start first leg over Lk Meade
16:54:07	115	end first leg over Lk Meade
16:58:30	137	start second leg over Lk Meade
17:02:29	159	end second leg over Lk Meade
18:06:14	576	stat leg over ocean
18:33:28	631	end leg over ocean
18:38:26	672	Laser off