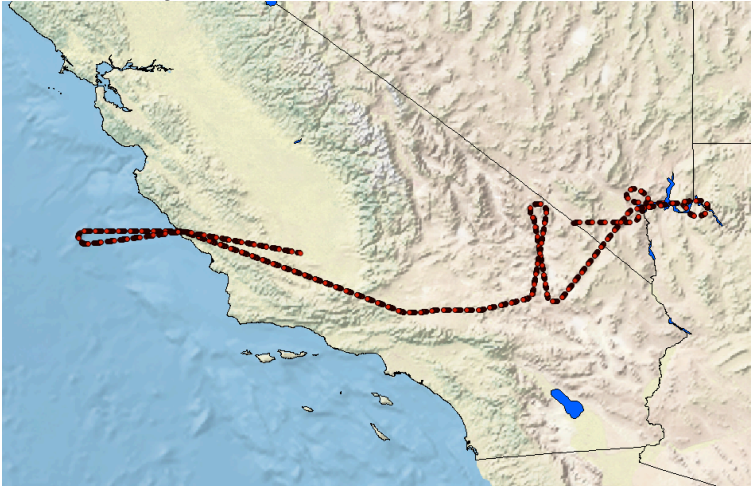


12/08/2010

Mission: 'Dryden'



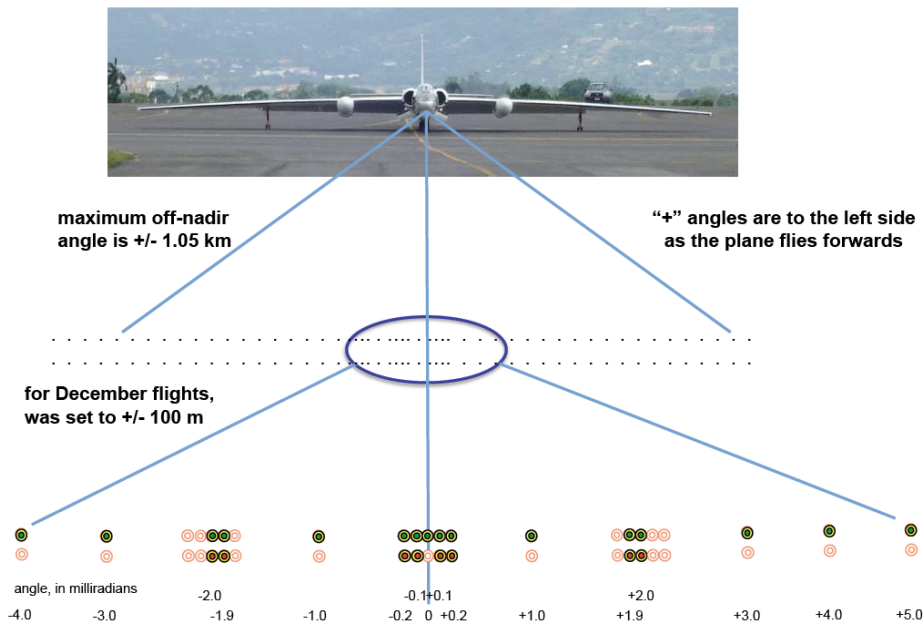
Weather: clear inland (over Las Vegas) and cloudy over the ocean
Comments: This was the second MABEL flight; MABEL continuously power-cycled due to thermal thresholds. This issue was rectified for the next mission. This flight path is intended to mimic the initialization flight path of IceBridge.

Sample rate: 5 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)	32	33.6	25	17.2	25.2	25	20	23.8											
Filter	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49											
Raw Energy (Matt, uJ)	6.4	6.72	5	3.44	5.1	5	4	4.76											
Filtered Energy (uJ)	3.14	3.29	2.45	1.69	2.50	2.45	1.96	2.33											
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)	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	0.69	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)	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	5.24	4.44	4.94	2.59	3.41	3.81	3.68	3.38	4.31	4.17	3.97	3.80	3.81	4.31	4.33			
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
23:28:49	0	Laser status healthy
23:35:12	11	start first leg over Lk Meade
23:37:42	15	end first leg over Lk Meade
23:42:55	22	start second leg over Lk Meade
23:46:39	26	end second leg over Lk Meade
23:55:12	40	start third leg over Lk Meade
23:59:14	44	end third leg over Lk Meade
01:22:29	62	stat leg over ocean
01:43:8	63	end leg over ocean
01:55:50	64	Laser off