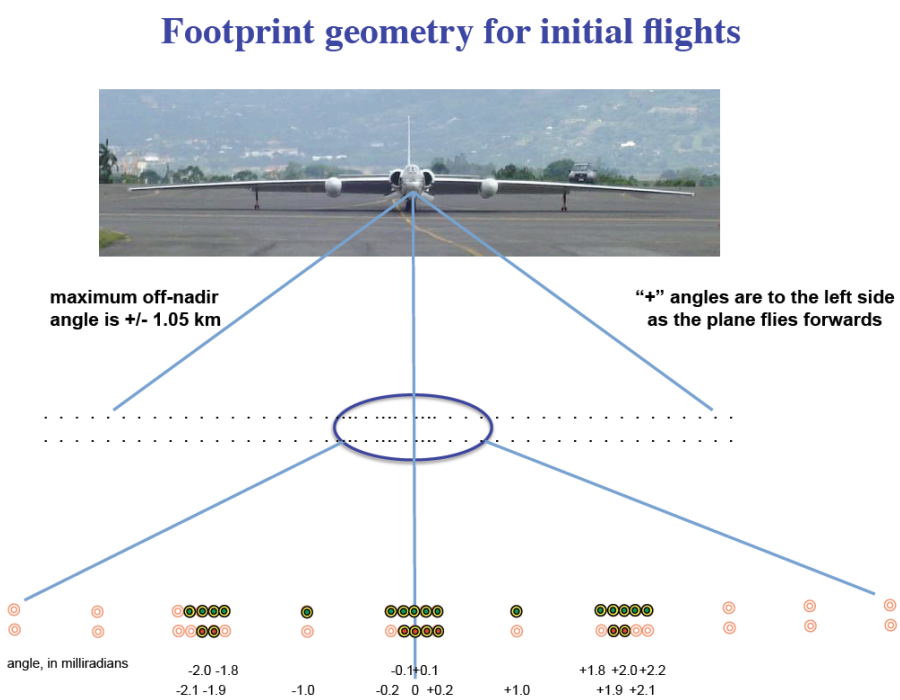
03/29/2011

Mission: 'Sierras'

Weather: High cirrus
Comments: GPS/IMU fails to communicate for most of this trip.

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)



Angle to Channel map:

Fiber	1	2	3	4	5	6	7	8
Connector	6	5	2	1	0	-1	-5	-6
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)	2	1.9	0.2	0.1	0	-0.1	-1.9	-2
Approx offset on ground (m): 65k'	40	38	4	2	0	-2	-38	-40

Fiber	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connector	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
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	0.69	0.49	0.69	0.69	0.69	0.69	0.49	0.69	0.69	0.69	0.69	0.69	0.49	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	3.16	4.94	2.59	3.41	3.81	2.62	3.38	4.31	4.17	3.97	3.80	2.70	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)	-2.1	-2	-1.9	-1.8	-1	-0.2	-0.1	0	0.1	0.2	1	1.8	1.9	2	2.1	2.2
Approx offset on ground (m): 65k'	-42	-40	-38	-36	-20	-4	-2	0	2	4	20	36	38	40	42	44

Points of interest:

Time (UTC)	TOF File	Description
16:04:13	1	Laser status healthy
16:23:14	136	GPS/IMU stop communicating