

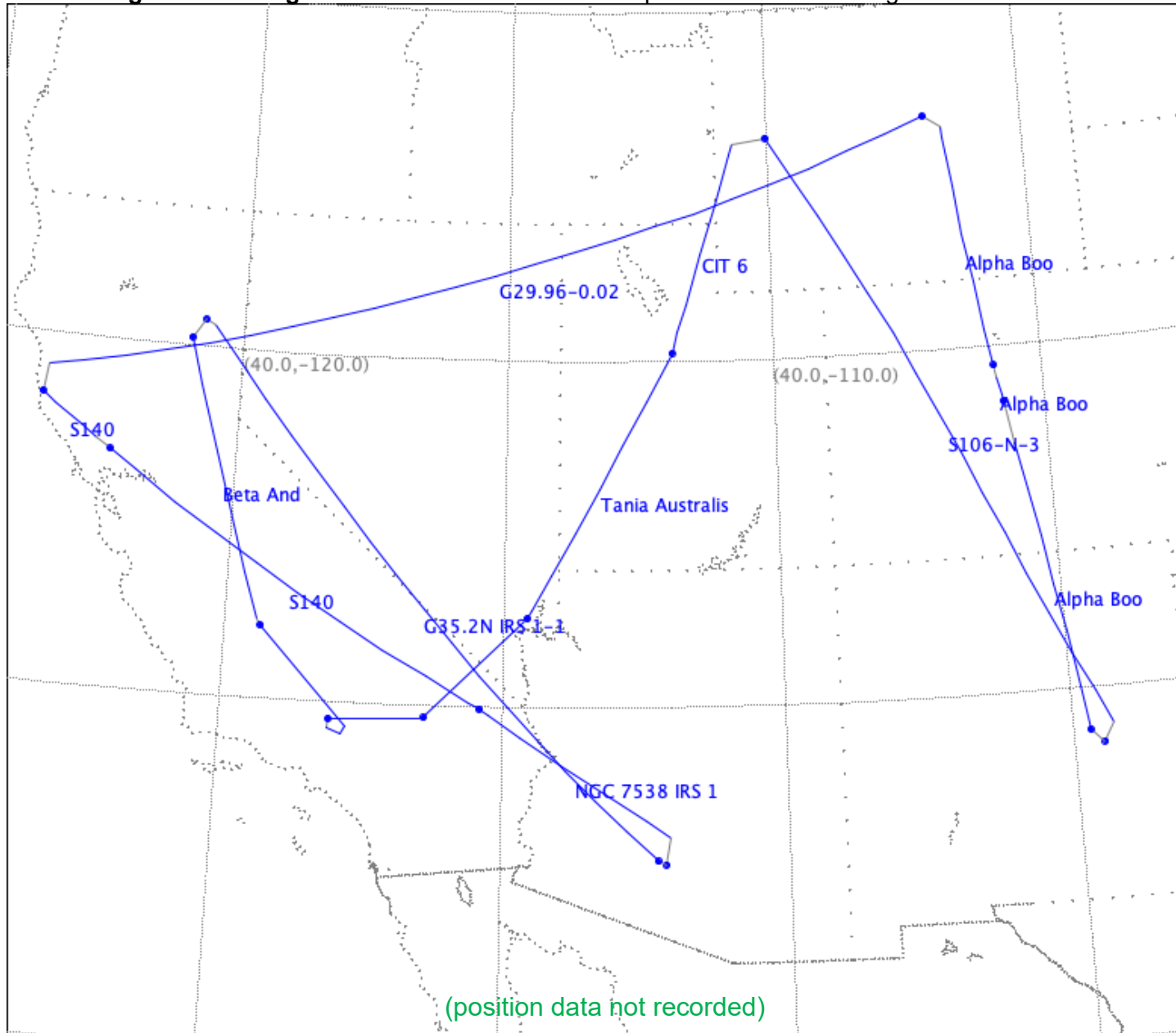
**MISSION ID:** 2013-06-20\_FO\_F108

**Date:** 2013-06-20 UT **Instrument:** FORCAST

**Flight #:** 108 **Flight Series:** OC1B

blue = planned route

green = flown route

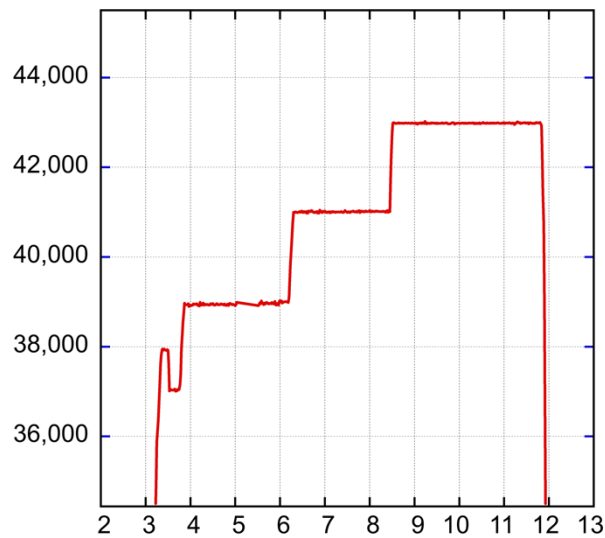


## Flight notes: No irregularities.

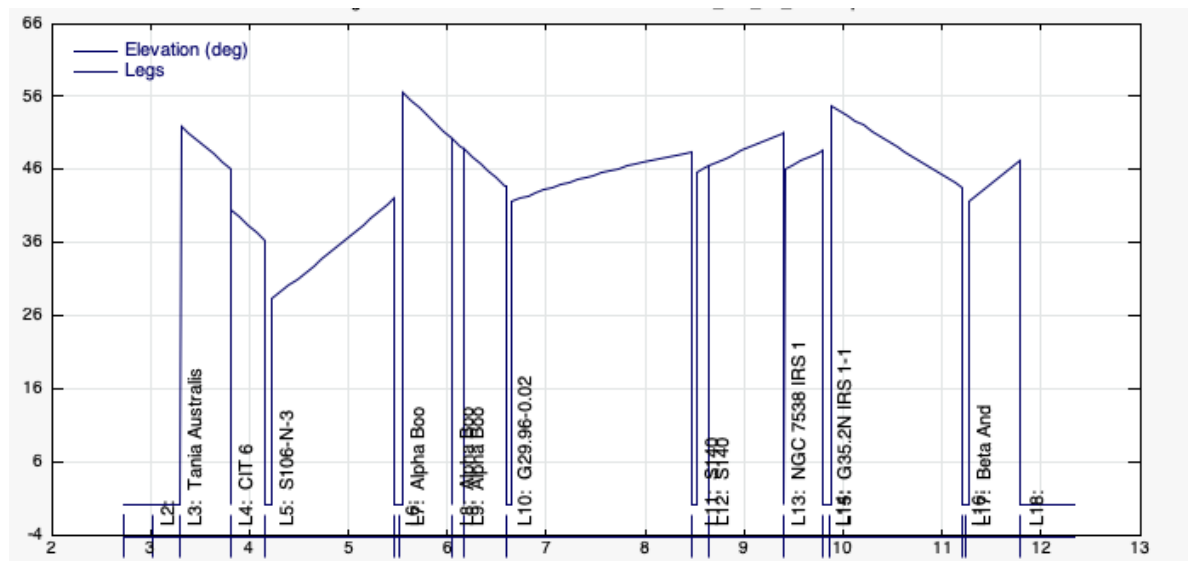
Flight 108 Mission ID 2013-06-20\_FO\_F108  
 Palmdale to Palmdale Take off date UTC: 20-JUN-2013  
 Departure UTC: 02:56 Arrival UTC: ~12:19

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			Tania Australis	10h22m19.70s	41d29m59.0s	3:19	30	
4	01_0041	Sloan	CIT 6	10h16m02.30s	30d34m19.0s	3:49	21	Acquisition troubles; 15min lost.
5	70_0001	GTO	S106-N-3	20h27m24.80s	37d24m07.0s	4:14	74	Observatory control software failure; 20min lost
7	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	5:33	30	
8	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	6:08	7	
9	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	6:11	26	
10	01_0034	Tielens	G29.96-0.02	18h46m04.00s	-02d39m20.5s	6:39	109	
11	01_0085	Mundy	S140	22h19m22.92s	63d19m02.0s	8:32	7	
12	01_0085	Mundy	S140	22h19m22.92s	63d19m02.0s	8:41	46	Observatory control software failure; 20min lost
13	01_0034	Tielens	NGC 7538 IRS 1	23h13m45.60s	61d28m18.0s	9:25	23	Trouble setting up chop-nod configuration; no data taken.
15	01_0165	Caratti o Garatti	G35.2N IRS 1	18h58m13.07s	01d40m37.6s	9:53	80	
17	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	11:17	30	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



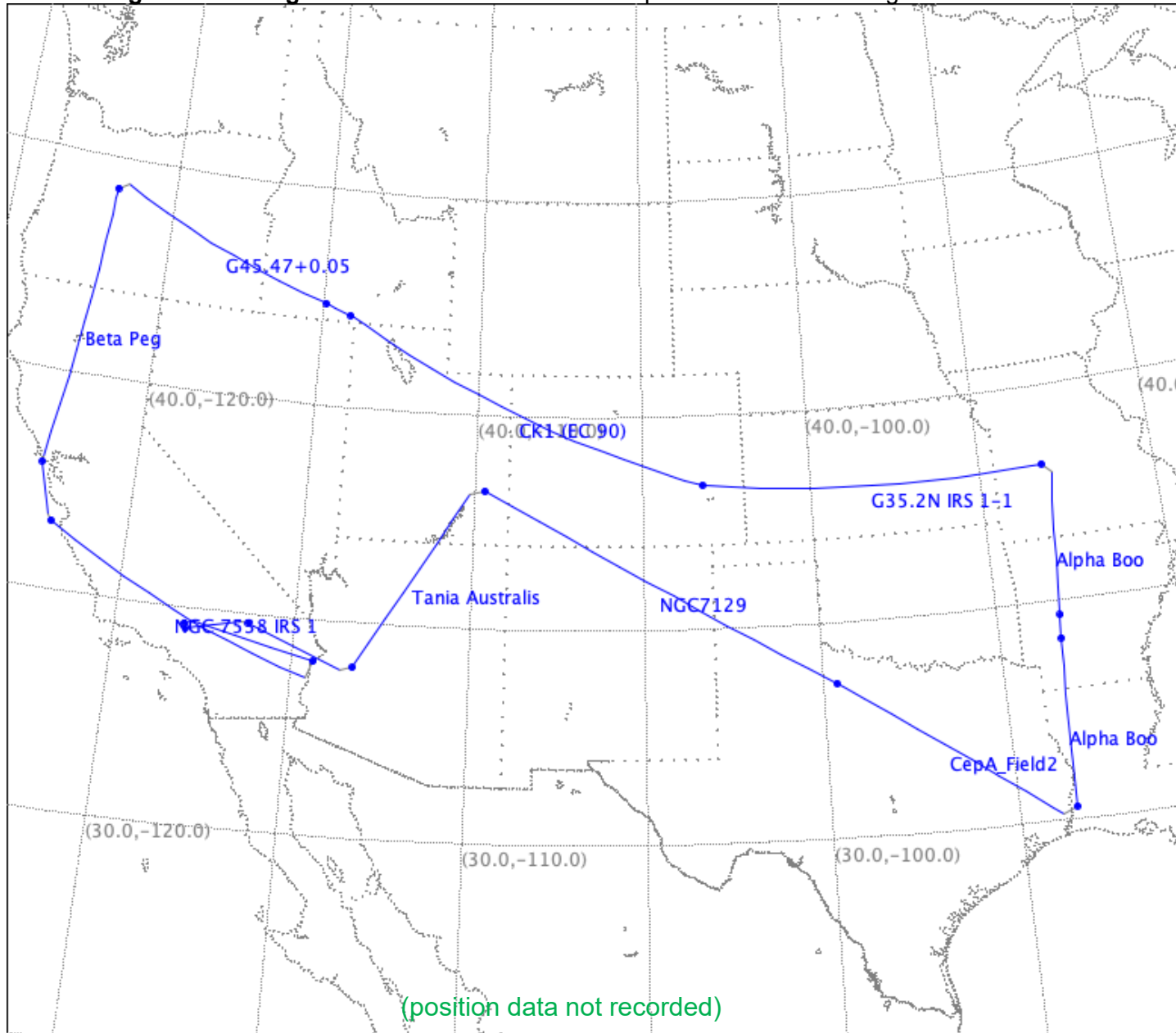
MISSION ID: 2013-06-26\_FO\_F109

Date: 2013-06-26 UT Instrument: FORCAST

Flight #: 109 Flight Series: OC1B

blue = planned route

green = flown route

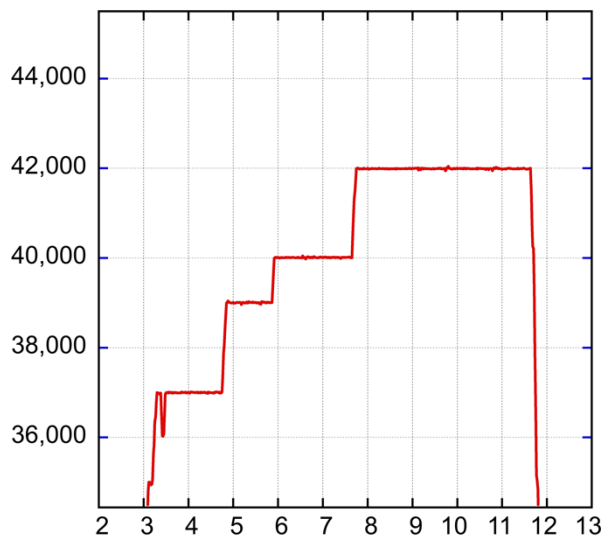


## Flight notes: No irregularities.

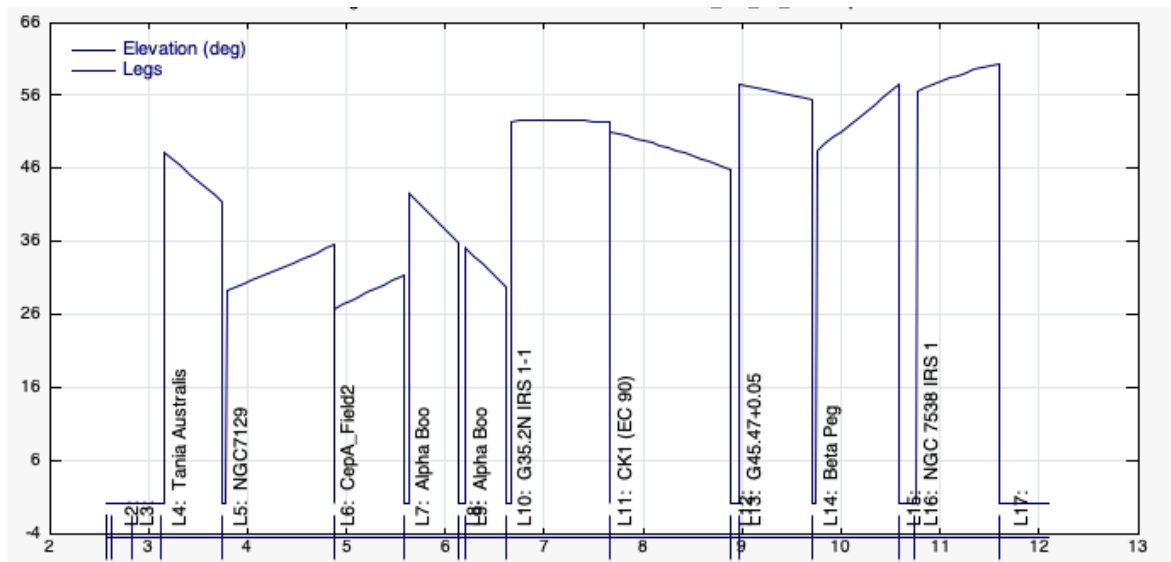
Flight 109 Mission ID 2013-06-26\_FO\_F109  
 Palmdale to Palmdale Take off date UTC: 26-JUN-2013  
 Departure UTC: 02:33 Arrival UTC: ~12:11

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Tania Australis	10h22m19.70s	41d29m59.0s	3:12	35	
5	01_0085	Mundy	NGC7129	21h43m00.07s	66d06m38.0s	3:49	65	
6	01_0085	Mundy	CepA_Field2	22h56m20.35s	62d01m39.5s	4:54	42	Lost control of chopping secondary; 15min lost
7	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	5:40	30	
9	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	6:14	25	Turbulence.
10	01_0165	Caratti o Garatti	G35.2N IRS 1	18h58m13.07s	01d40m37.6s	6:41	60	
11	01_0056	Whittet	CK1 (EC 90)	18h29m57.74s	01d14m05.7s	7:42	73	
13	01_0045	Tan	G45.47+0.05	19h14m25.74s	11d09m25.9s	9:00	44	
14	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	9:47	50	
16	01_0034	Tielens	NGC 7538 IRS 1	23h13m45.60s	61d28m18.0s	10:48	50	Strange variable background structure on images; possibly due to vignetting with the telescope upper door.

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



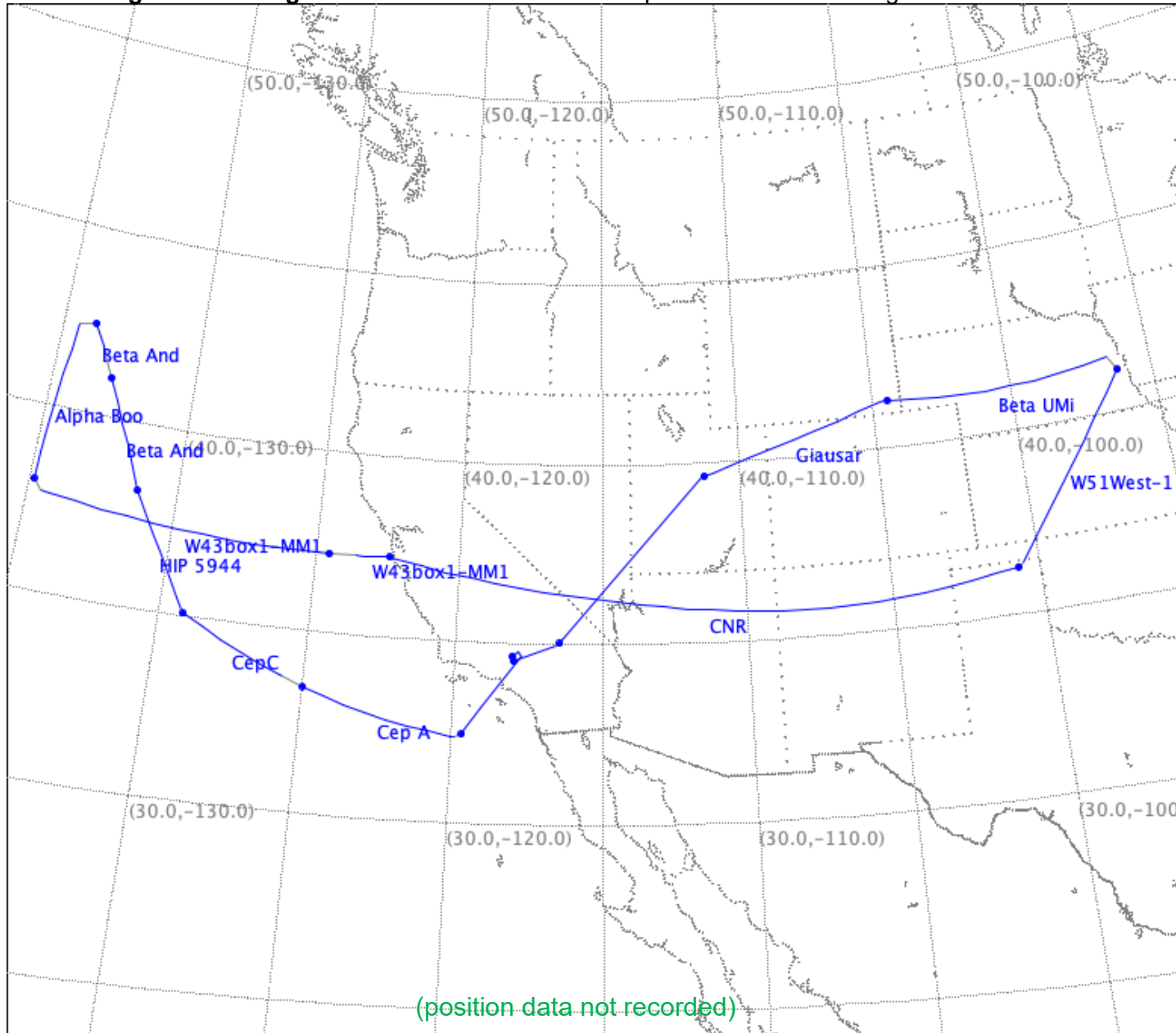
MISSION ID: 2013-07-02\_FO\_F110

Date: 2013-07-02 UT Instrument: FORCAST

Flight #: 110 Flight Series: OC1B

blue = planned route

green = flown route



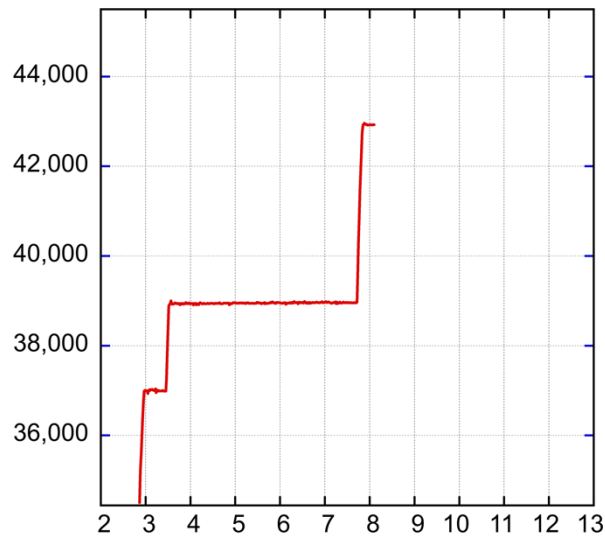
## Flight notes:

**No observing logs could be found for this flight.**

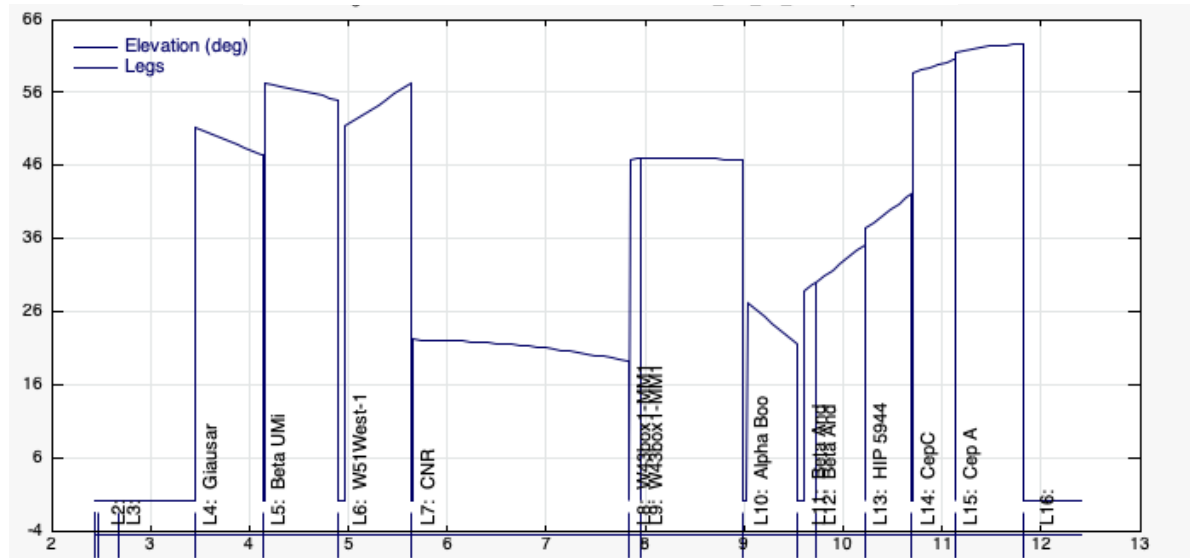
Flight 110 Mission ID 2013-07-02\_FO\_F110  
 Palmdale to Palmdale Take off date UTC: Departure UTC: Arrival UTC:  
 02-JUL-2013 ~02:26 ~12:21

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Giausar	11h31m24.10s	69d19m52.0s	3:29	41	
5	90_0013	Calibration	Beta UMi	14h50m42.33s	74d09m19.8s	4:11	45	
6	01_0007	De Buizer	W51West	19h23m13.20s	14d27m15.0s	5:00	40	
7	70_0001	GTO	CNR	17h45m40.04s	-29d00m28.1s	5:41	131	
8	01_0054	Bally	W43box1-MM1	18h47m47.80s	-01d55m18.2s	7:53	7	
9	01_0054	Bally	W43box1-MM1	18h47m47.80s	-01d55m18.2s	8:05	62	
10	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	9:04	30	
11	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	9:38	7	
12	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	9:50	30	
13	01_0102	Trilling	HIP 5944	01h16m29.20s	42d56m21.9s	10:16	28	
14	01_0085	Mundy	CepC	23h05m42.27s	62d29m52.6s	10:44	26	
15	01_0045	Tan	Cep A	22h56m17.97s	62d01m49.9s	11:15	41	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



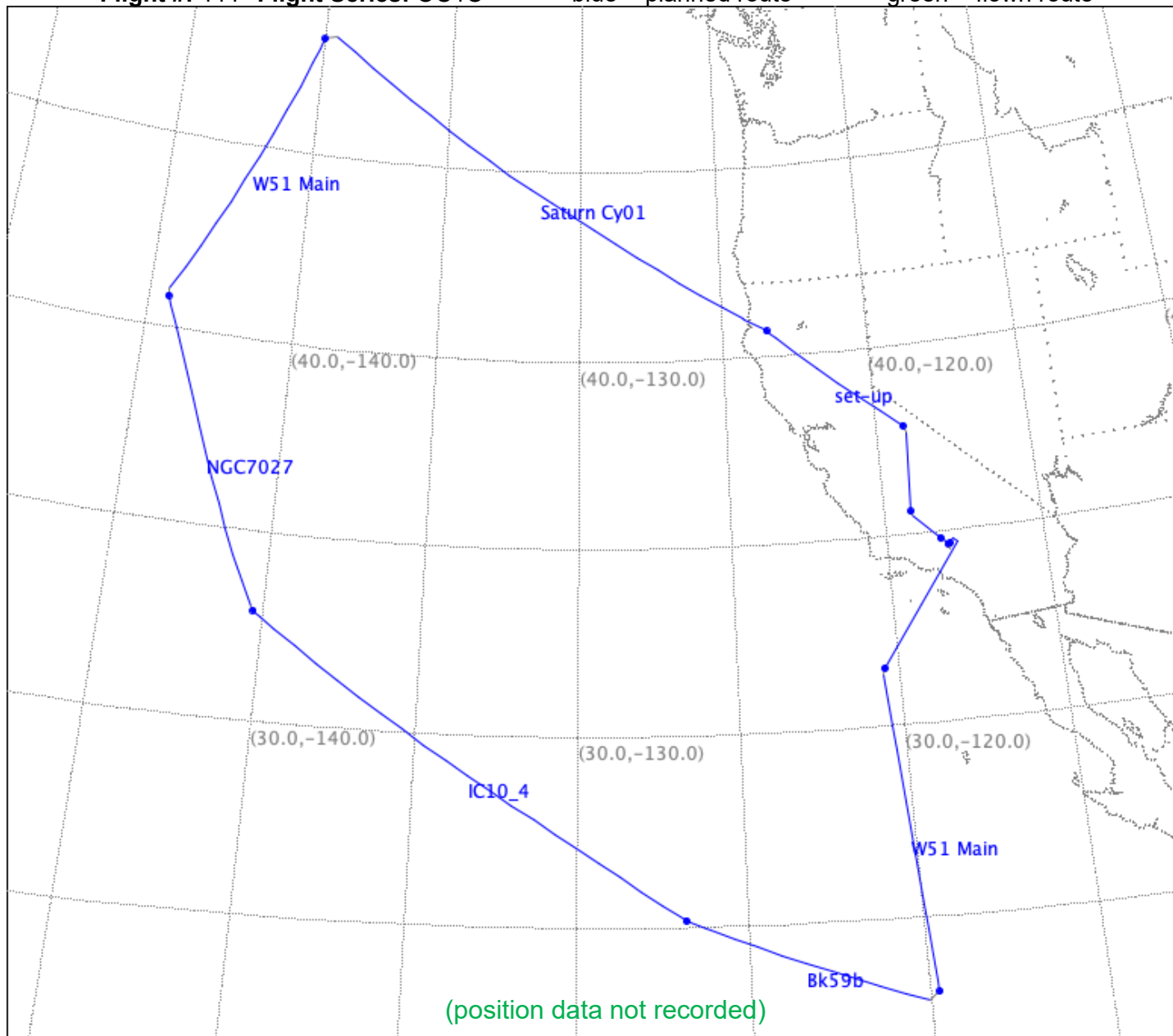
**MISSION ID: 2013-07-09\_GR\_F111**

**Date: 2013-07-09 UT Instrument: GREAT**

**Flight #: 111 Flight Series: OC1C**

blue = planned route

green = flown route

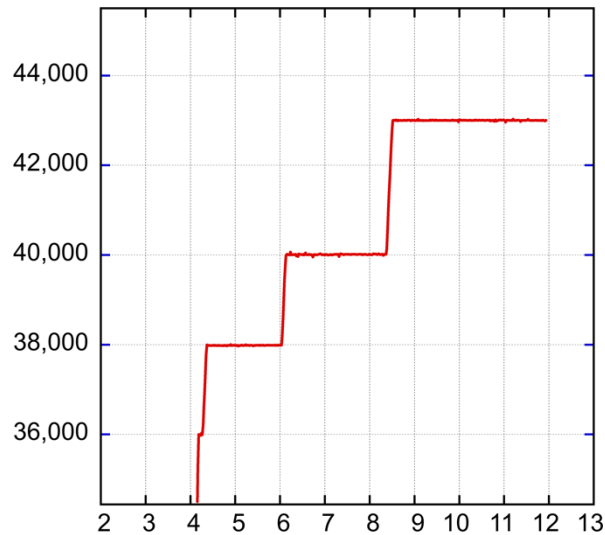


## Flight notes: Some engineering data and some science data.

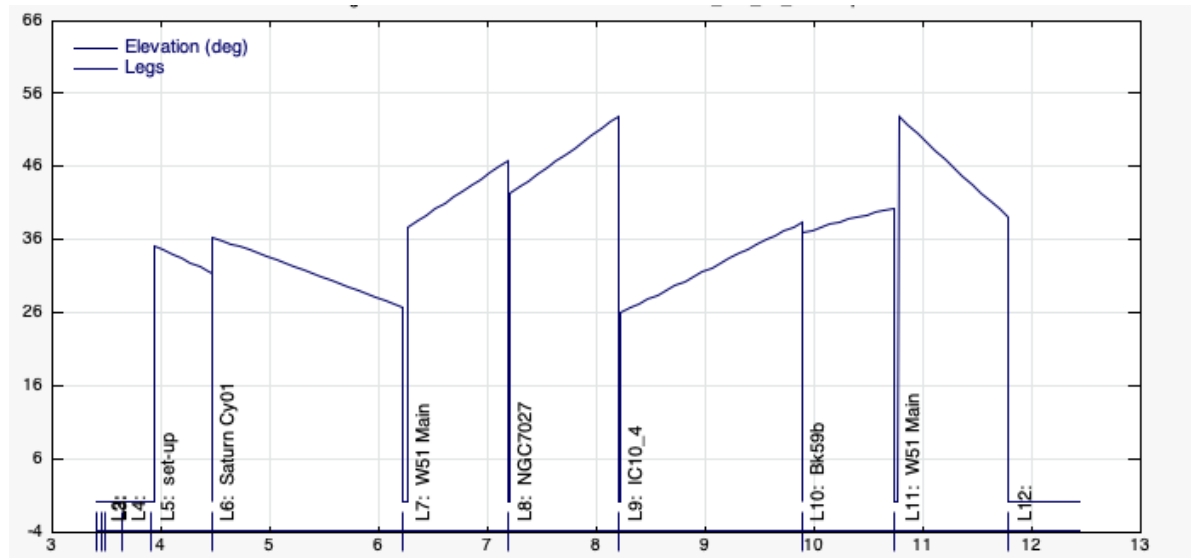
Flight 111 Mission ID 2013-07-09\_GR\_F111  
 Palmdale to Palmdale Take off date UTC: 09-JUL-2013  
 Departure UTC: ~03:25 Arrival UTC: ~12:31  
 L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			set-up	13h30m00.00s	-11d53m00.0s	4:02	32	
6	90_0008	Calibration	Saturn Cy01	14h11m48.58s	-10d38m43.3s	4:34	105	
7	01_0172	Csengeri	W51 Main	19h23m40.82s	14d30m37.1s	6:22	55	
8	90_0011	Calibration	NGC7027	21h07m01.59s	42d14m10.2s	7:18	60	
9	01_0125	Jameson	IC10_4	00h20m10.30s	59d21m26.2s	8:19	100	
10	01_0064	Koenig	Bk59b	00h00m41.58s	68d39m20.9s	9:59	50	
11	01_0172	Csengeri	W51 Main	19h23m40.82s	14d30m37.1s	10:52	60	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



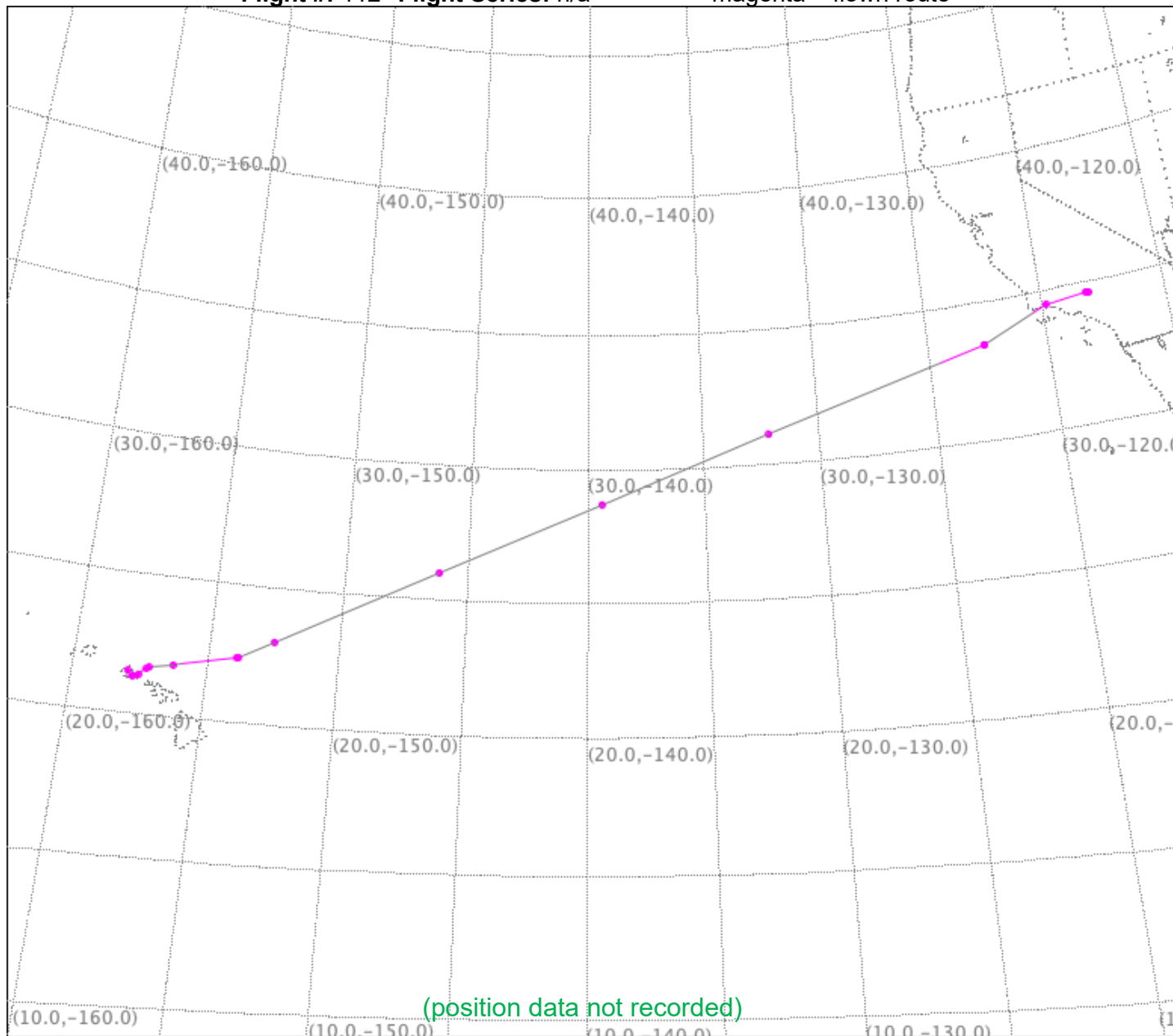


# MISSION ID: 2013-07-13\_NO\_F112

Date: 2013-07-13 UT Instrument: n/a

Flight #: 112 Flight Series: n/a

magenta = flown route



**Flight notes:**

**Ferry flight from Palmdale, CA to Honolulu, HI. No science planned.**

Flight 112  
Palmdale to  
Honolulu

Mission ID 2013-07-13\_NO\_F112  
Take off date UTC:  
13-JUL-2013

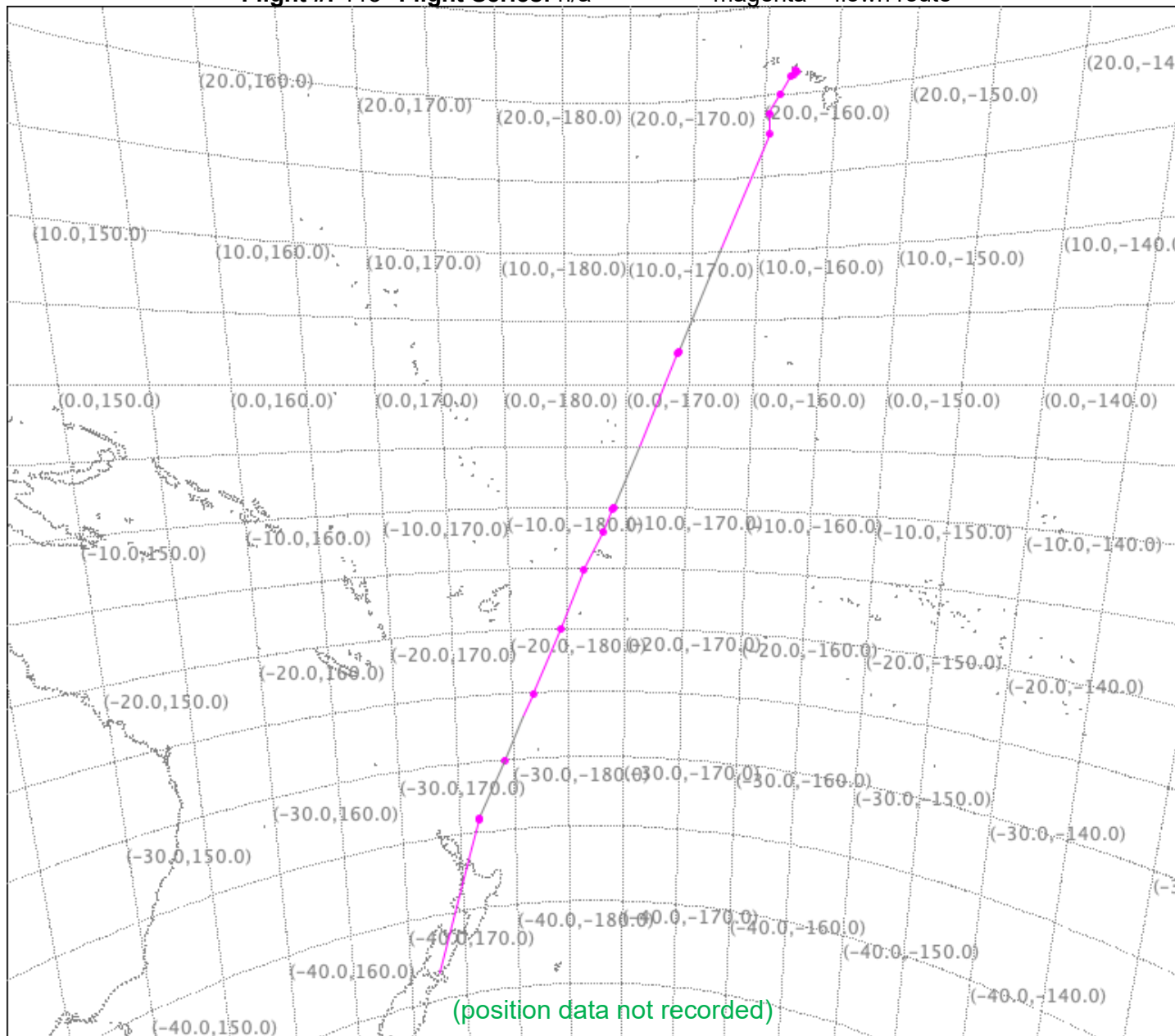
Departure UTC: Arrival UTC:  
~~04:00      ~~09:14

# MISSION ID: 2013-07-13\_NO\_F113

Date: 2013-07-13 UT Instrument: n/a

Flight #: 113 Flight Series: n/a

magenta = flown route



**Flight notes:**

**Ferry flight from Honolulu, HI to Christchurch, New Zealand. Stopped in Auckland to refuel. No science planned.**

Flight 113

Mission ID 2013-07-13\_NO\_F113

Honolulu to  
Christchurch

Take off date UTC:  
13-JUL-2013

Departure UTC:  
~~15:53

Arrival UTC:  
~~01:42  
+1day

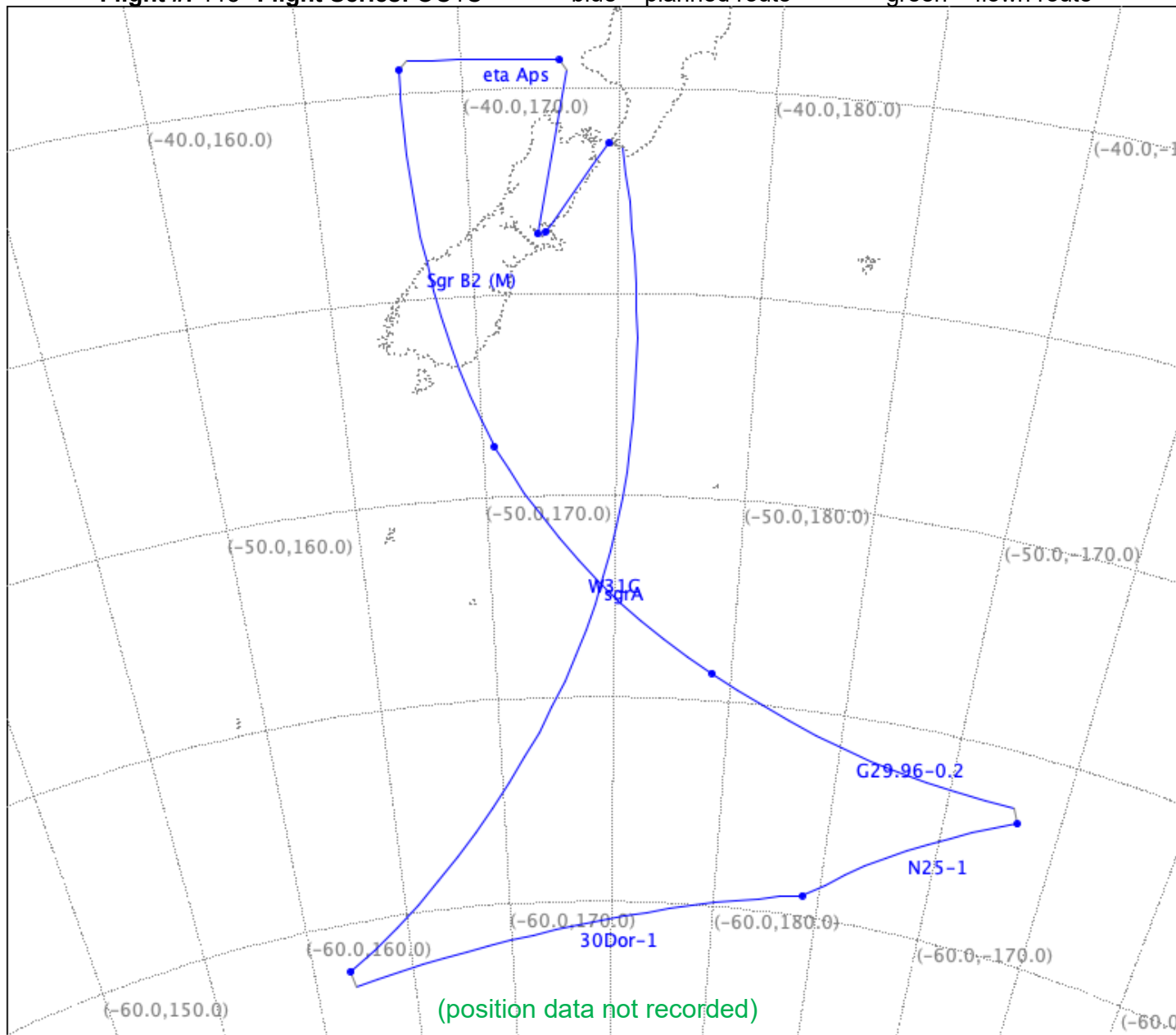
# MISSION ID: 2013-07-18\_GR\_F115

Date: 2013-07-18 UT Instrument: GREAT

Flight #: 115 Flight Series: OC1C

blue = planned route

green = flown route



**Flight notes:**  
**No irregularities.**

Flight 115 Mission ID  
 Christchurch-Christchurch

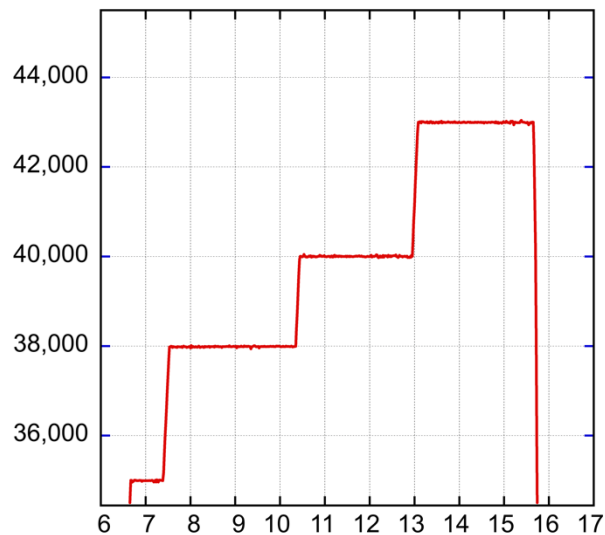
2013-07-18\_GR\_F115  
 Take off date UTC:  
 18-JUL-2013

Departure UTC: ~06:05  
 Arrival UTC: ~16:03

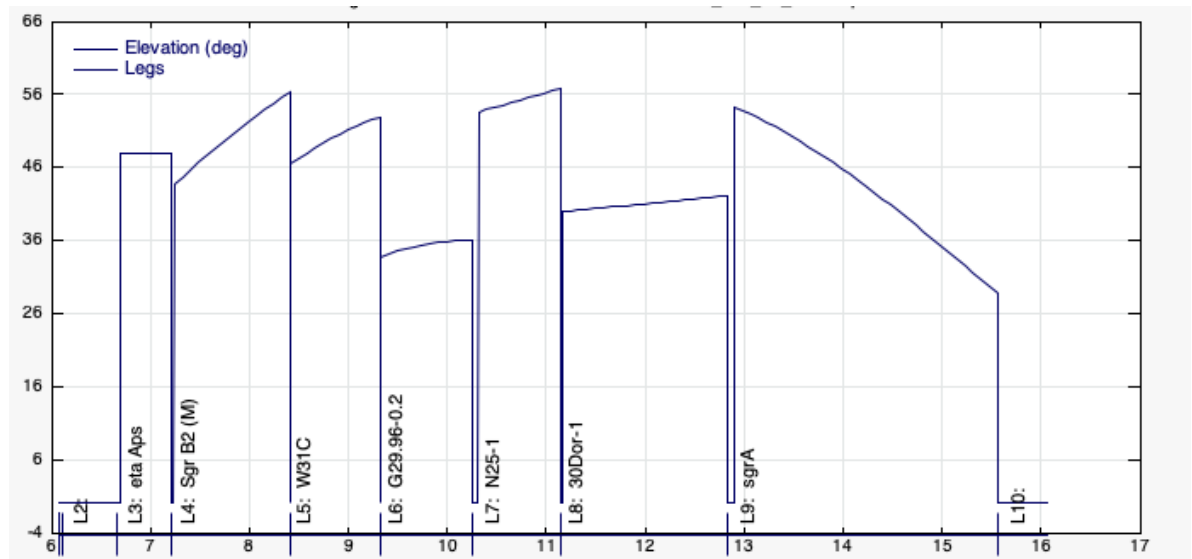
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			eta Aps	14h18m13.79s	-81d00m28.8s	6:42	30	
4	01_0039	Neufeld	Sgr B2 (M)	17h47m20.35s	-28d23m03.0s	7:14	70	
5	01_0039	Neufeld	W31C	18h10m28.70s	-19d55m50.0s	8:24	55	
6	01_0039	Neufeld	G29.96-0.2	18h46m03.80s	-02d39m22.0s	9:19	55	
7	01_0072	Israel	N25	00h48m07.90s	-73d14m48.6s	10:18	50	
8	01_0166	Okada	30Dor	05h38m42.00s	-69d05m15.0s	11:09	100	
9	01_0160	Requena Torres	sgrA	17h45m39.90s	-29d00m28.1s	12:53	160	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



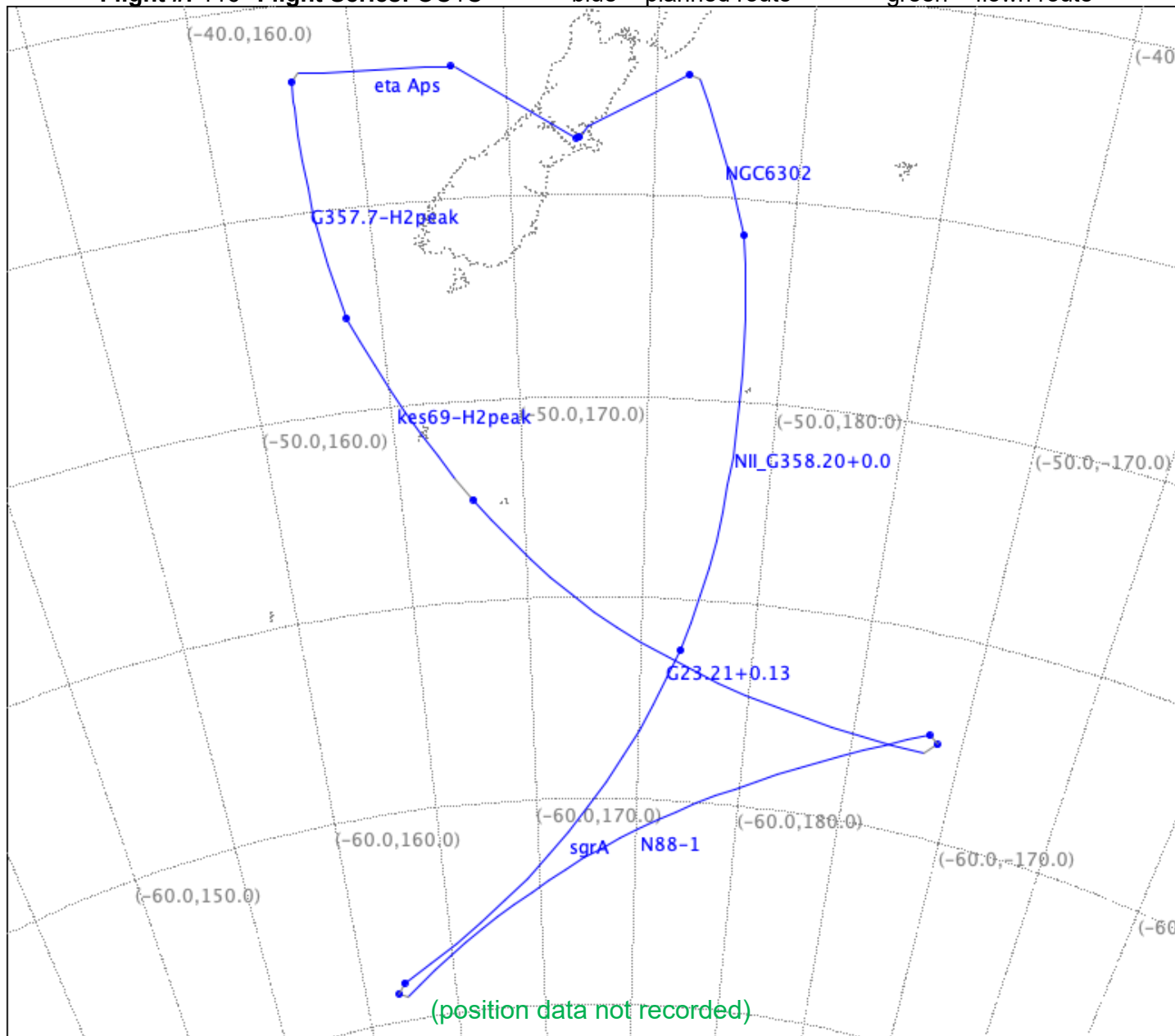
**MISSION ID: 2013-07-19\_GR\_F116**

**Date: 2013-07-19 UT Instrument: GREAT**

**Flight #: 116 Flight Series: OC1C**

blue = planned route

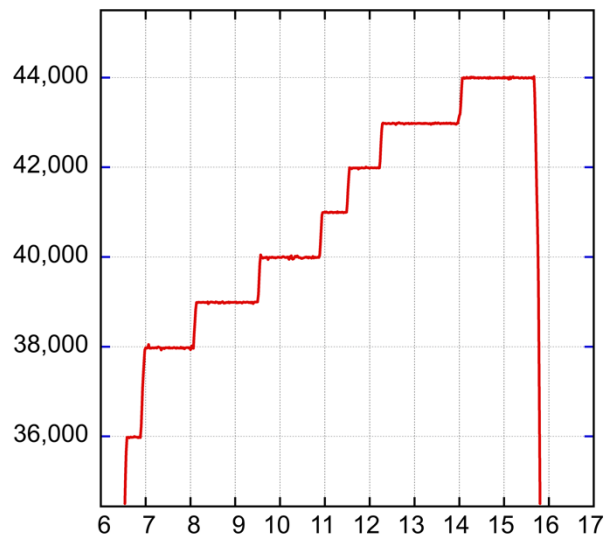
green = flown route



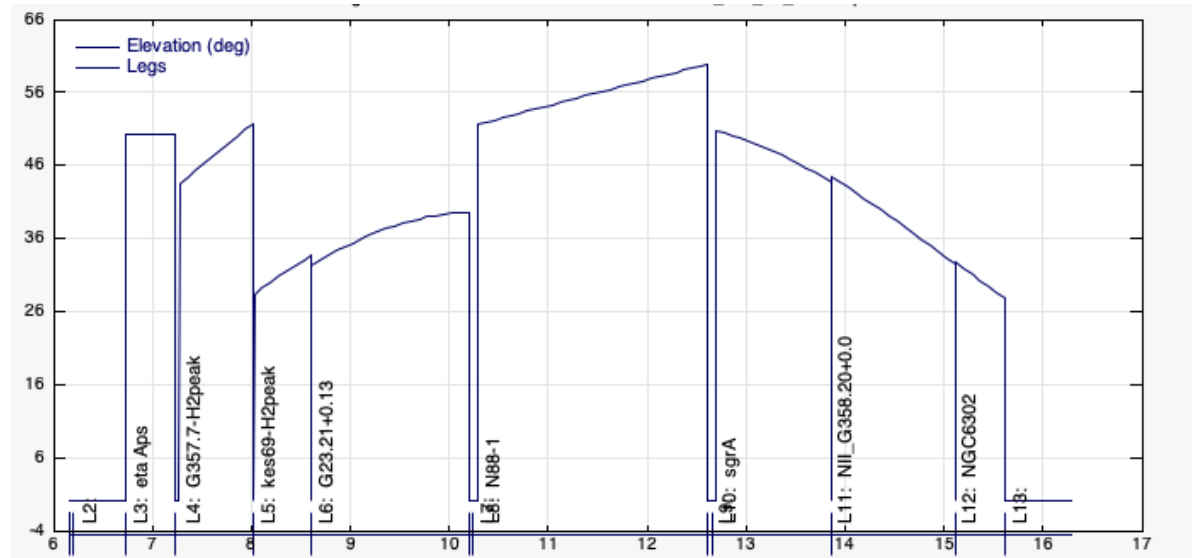
## Flight notes: No irregularities.

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			eta Aps	14h18m13.79s	-81d00m28.8s	6:44	30	
4	01_0059	Hewitt	G357.7-H2peak	17h38m27.25s	-30d34m06.4s	7:16	45	
5	01_0059	Hewitt	kes69-H2peak	18h33m01.63s	-10d13m44.0s	8:01	35	
6	01_0174	Wyrowski	G23.21+0.13	18h34m54.91s	-08d49m19.2s	8:41	95	
8	01_0072	Israel	N88	01h24m08.48s	-73d08m53.2s	10:17	139	Observatory control software failure; significant time lost
10	01_0160	Requena Torres	sgrA	17h45m39.90s	-29d00m28.1s	12:41	70	
11	01_0053	Langer	NII_G358.20+0.0	17h41m16.08s	-30d28m05.4s	13:51	75	
12	90_0011	Calibration	NGC6302	17h13m44.21s	-37d06m15.9s	15:06	30	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)





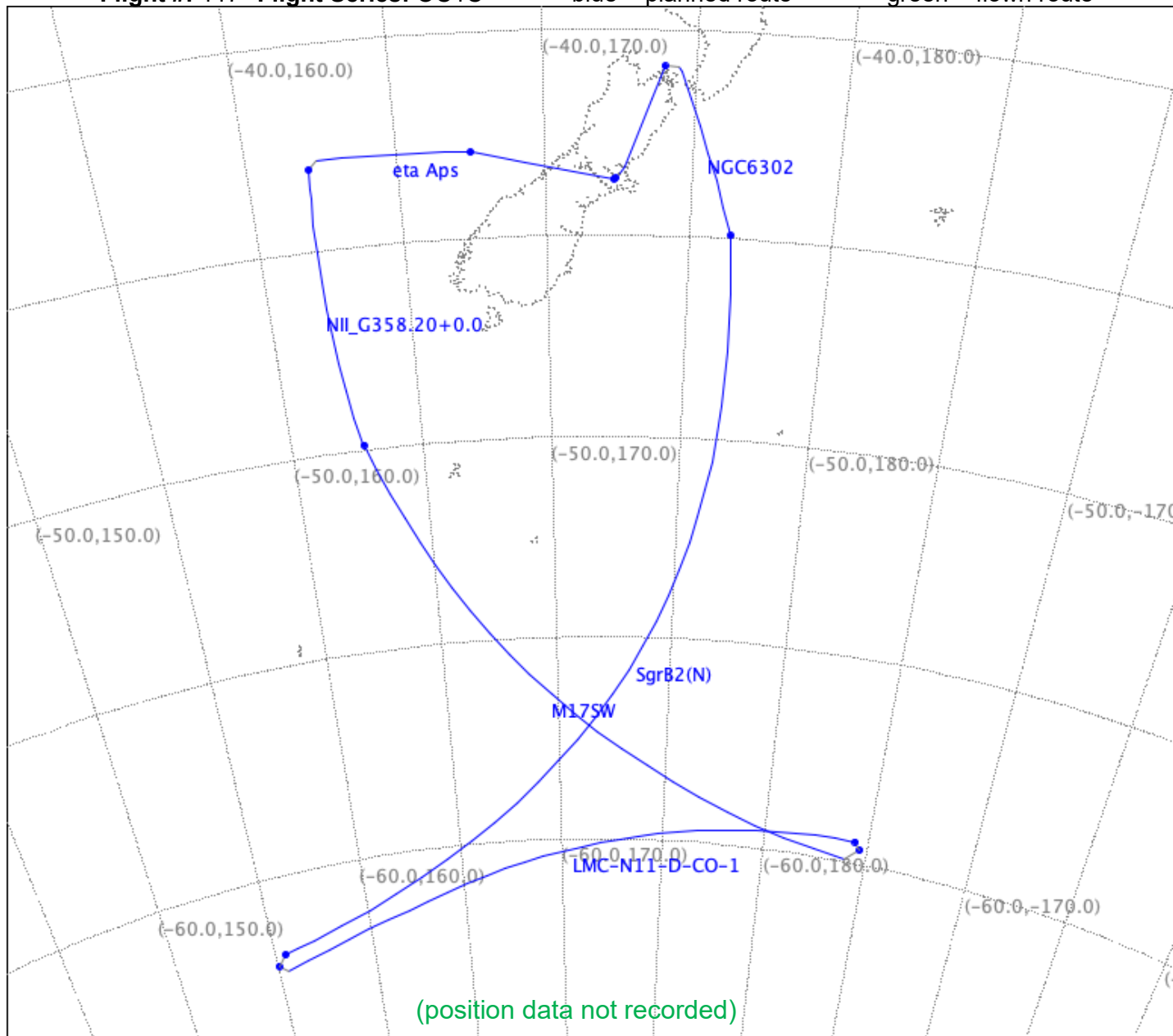
# MISSION ID: 2013-07-20\_GR\_F117

Date: 2013-07-20 UT Instrument: GREAT

Flight #: 117 Flight Series: OC1C

blue = planned route

green = flown route



## Flight notes: No irregularities.

Flight 117 Mission ID  
Christchurch-  
Christchurch

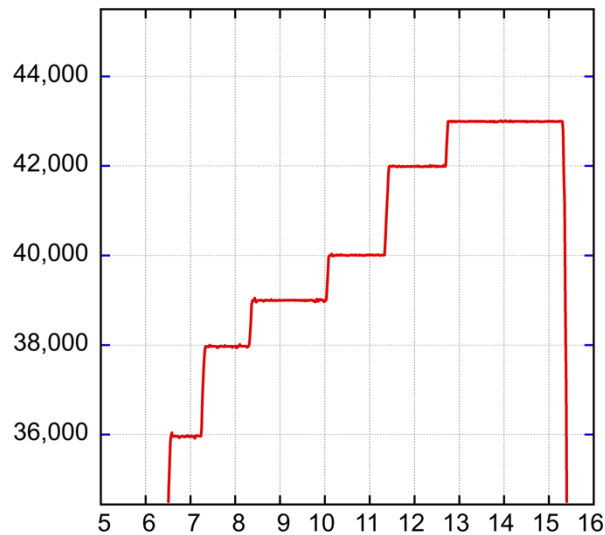
2013-07-20\_GR\_F117  
Take off date UTC:  
20-JUL-2013

Departure UTC: ~06:00  
Arrival UTC: ~15:57

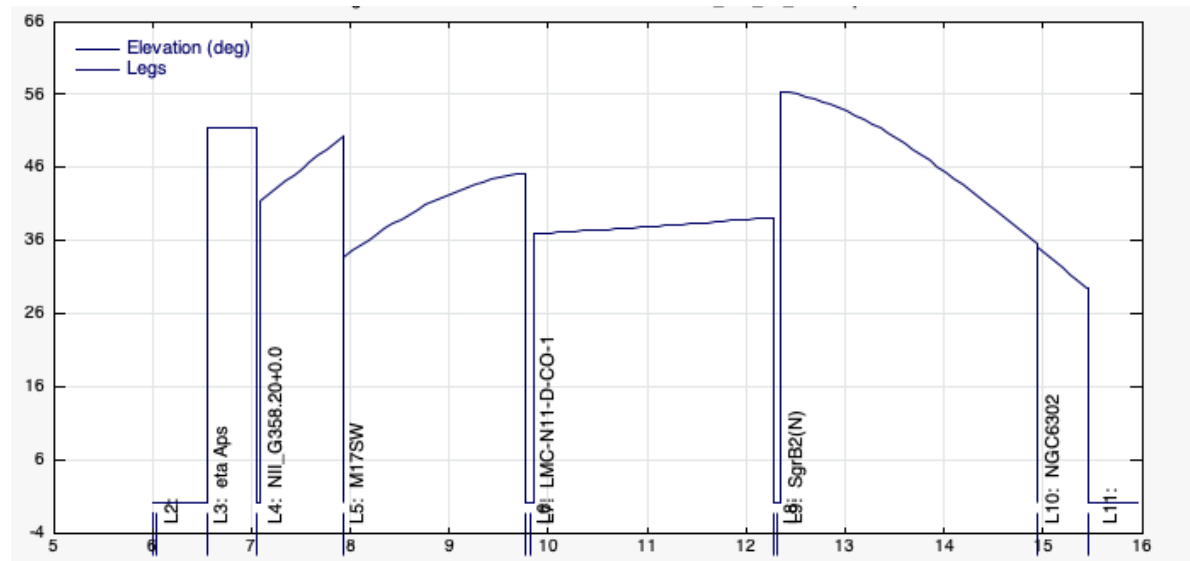
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			eta Aps	14h18m13.79s	-81d00m28.8s	6:33	30	
4	01_0053	Langer	NII_G358.20+0.0	17h41m16.08s	-30d28m05.4s	7:05	50	
5	01_0168	Perez-Beaupuits	M17SW	18h20m27.61s	-16d12m00.9s	7:55	110	
7	01_0030	Lebouteiller	LMC-N11-D-CO	04h57m50.60s	-66d29m09.0s	9:51	145	
9	01_0175	Giesen	SgrB2(N)	17h47m19.88s	-28d22m18.4s	12:20	155	
10	90_0011	Calibration	NGC6302	17h13m44.21s	-37d06m15.9s	14:56	31	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



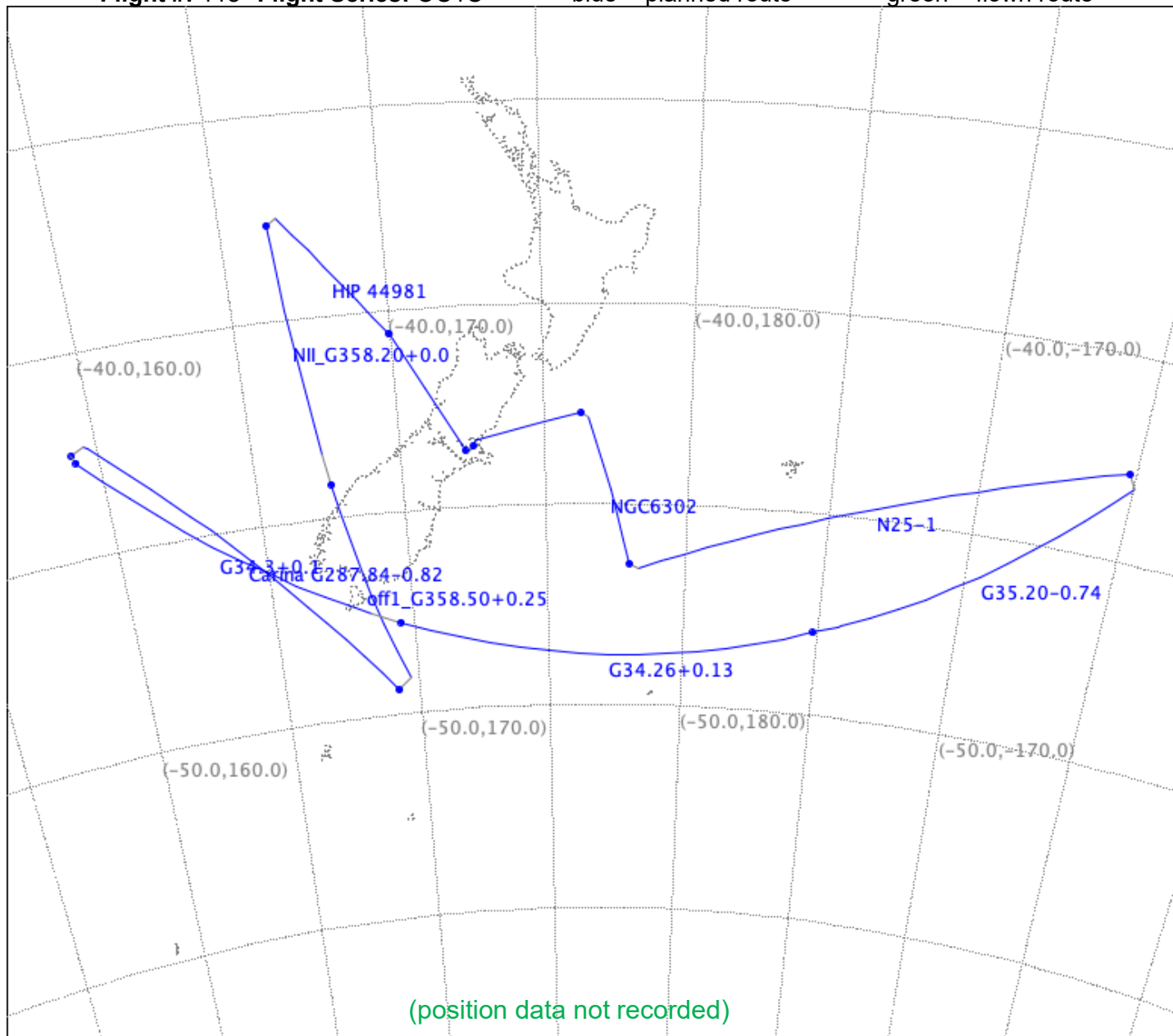
**MISSION ID: 2013-07-23\_GR\_F118**

**Date: 2013-07-23 UT Instrument: GREAT**

**Flight #: 118 Flight Series: OC1C**

blue = planned route

green = flown route



# Flight notes: No irregularities.

Flight 118 Mission ID  
Christchurch-  
Christchurch

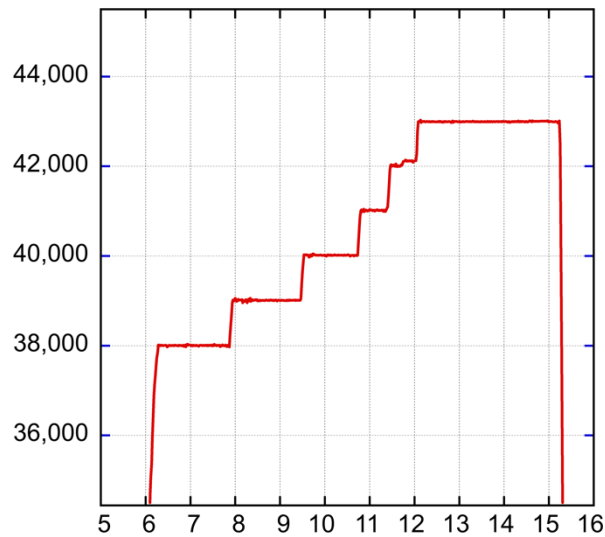
2013-07-23\_GR\_F118  
Take off date UTC:  
23-JUL-2013

Departure UTC: ~05:40  
Arrival UTC: ~15:38

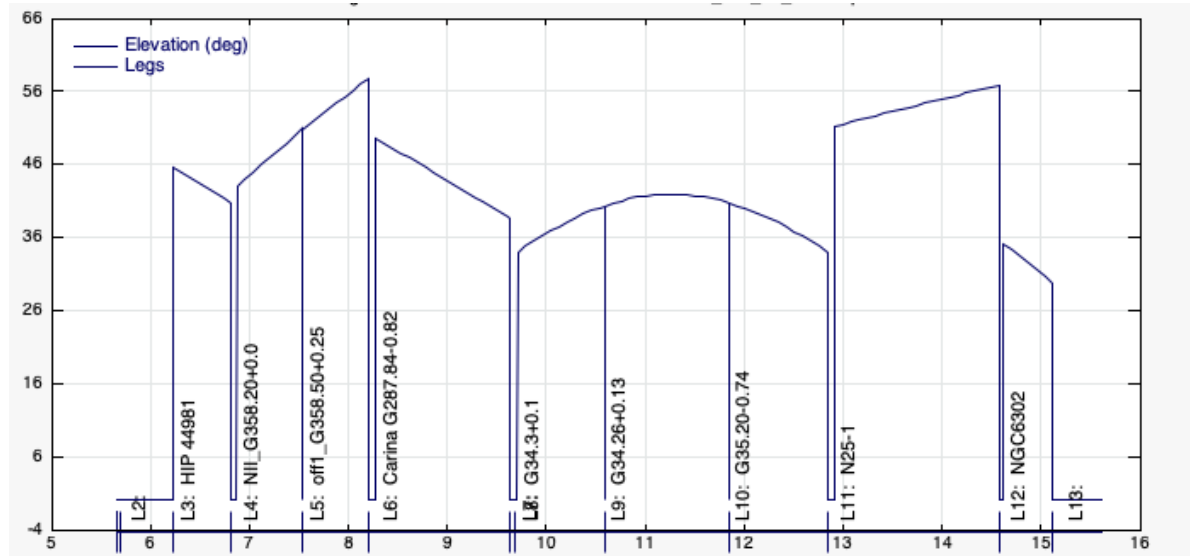
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			HIP 44981	09h09m45.25s	-60d29m54.7s	6:14	35	
4	01_0053	Langer	NII G358.20+0.0	17h41m16.08s	-30d28m05.4s	6:52	40	
5	01_0053	Langer	off1_G358.50+0.25	17h41m01.26s	-30d04m52.7s	7:37	40	
6	01_0064	Koenig	Carina G287.84-0.82	10h45m55.05s	-59d57m16.7s	8:17	81	Telescope slewed to a hard limit and went into standby; 8min lost
8	01_0039	Neufeld	G34.3+0.1	18h53m18.70s	01d14m58.0s	9:42	53	
9	01_0174	Wyrowski	G34.26+0.13	18h53m18.50s	01d14m58.7s	10:40	75	
10	01_0174	Wyrowski	G35.20-0.74	18h58m12.94s	01d40m40.6s	11:50	60	
11	01_0072	Israel	N25	00h48m07.90s	-73d14m48.6s	12:54	100	Observatory control software crash; 10min lost
12	90_0011	Calibration	NGC6302	17h13m44.21s	-37d06m15.9s	14:37	30	Observatory control software crash; entire leg lost

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



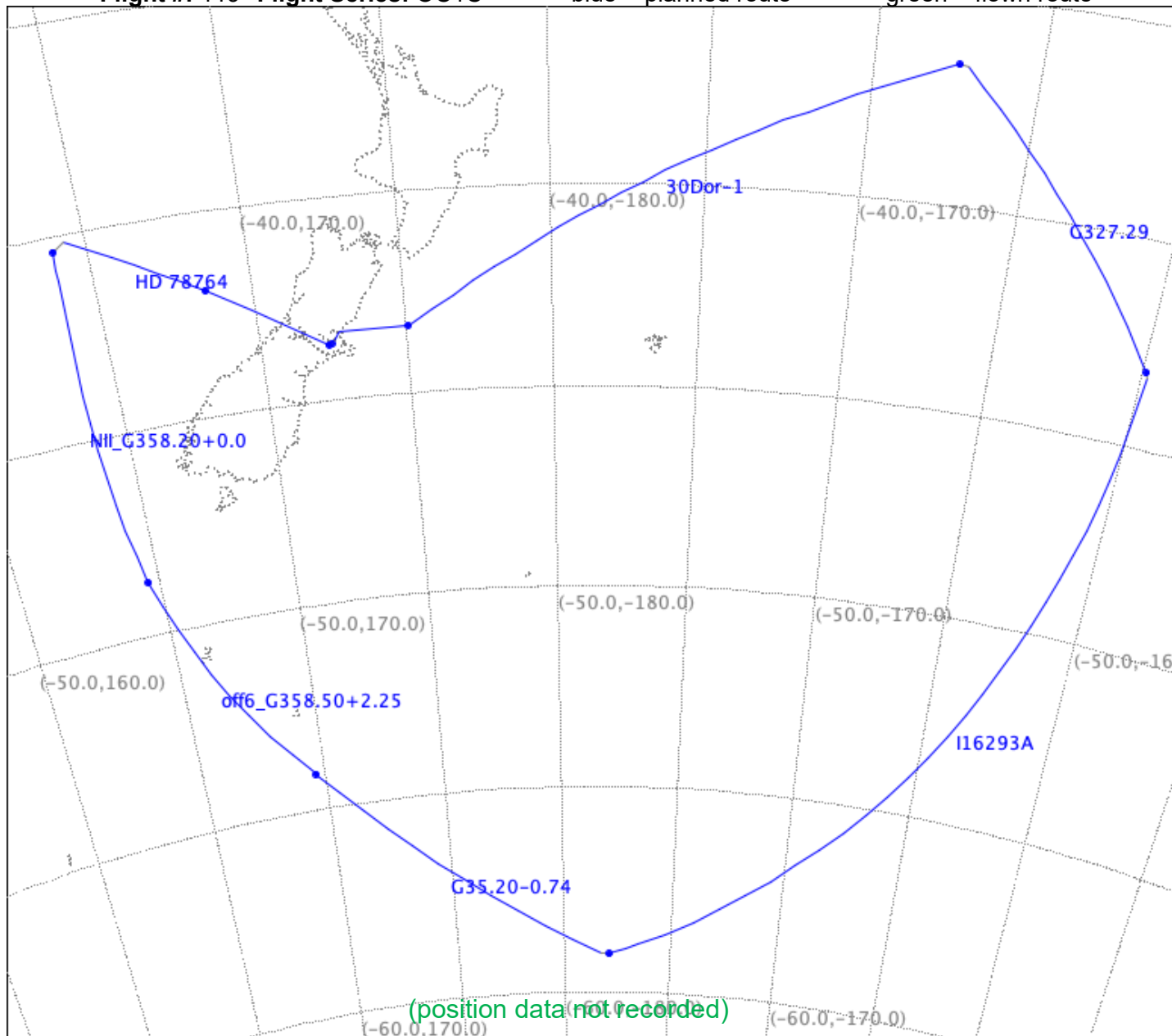
**MISSION ID: 2013-07-24\_GR\_F119**

**Date: 2013-07-24 UT Instrument: GREAT**

**Flight #: 119 Flight Series: OC1C**

blue = planned route

green = flown route



# Flight notes: No irregularities.

Flight 119 Mission ID  
Christchurch-  
Christchurch

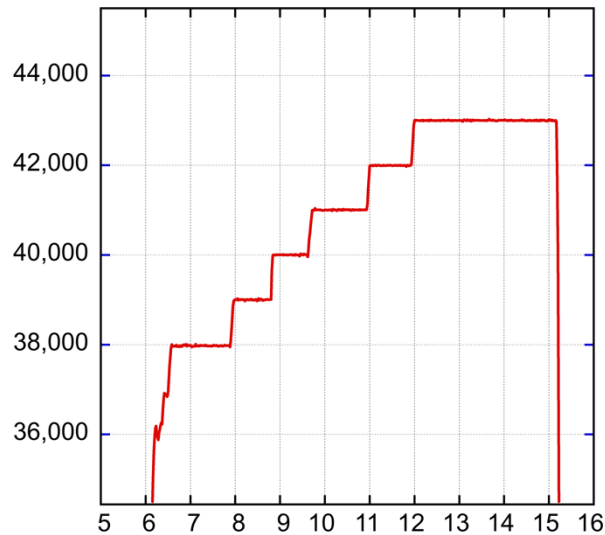
2013-07-24\_GR\_F119  
Take off date UTC:  
24-JUL-2013

Departure UTC: ~05:40  
Arrival UTC: ~15:36

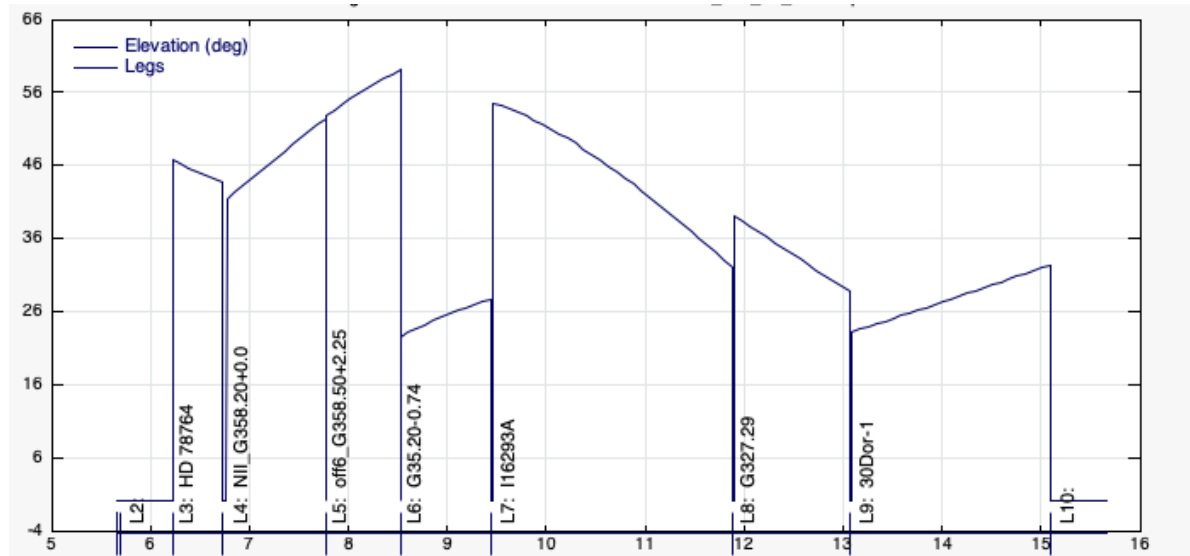
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			HD 78764	09h05m38.36s	-70d32m18.5s	6:13	30	
4	01_0053	Langer	NII G358.20+0.0	17h41m16.08s	-30d28m05.4s	6:46	60	
5	01_0053	Langer	off6_G358.50+2.25	17h33m15.66s	-29d00m29.1s	7:46	45	
6	01_0174	Wyrowski	G35.20-0.74	18h58m12.94s	01d40m40.6s	8:31	55	
7	01_0184	Schlemmer	I16293A	16h32m22.78s	-24d28m38.7s	9:27	145	Guiding stability and pointing issues
8	01_0185	Wiesemeyer	G327.29	15h53m08.55s	-54d37m05.1s	11:53	70	
9	01_0166	Okada	30Dor	05h38m42.00s	-69d05m15.0s	13:05	120	Observatory control software crash; 14min lost

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



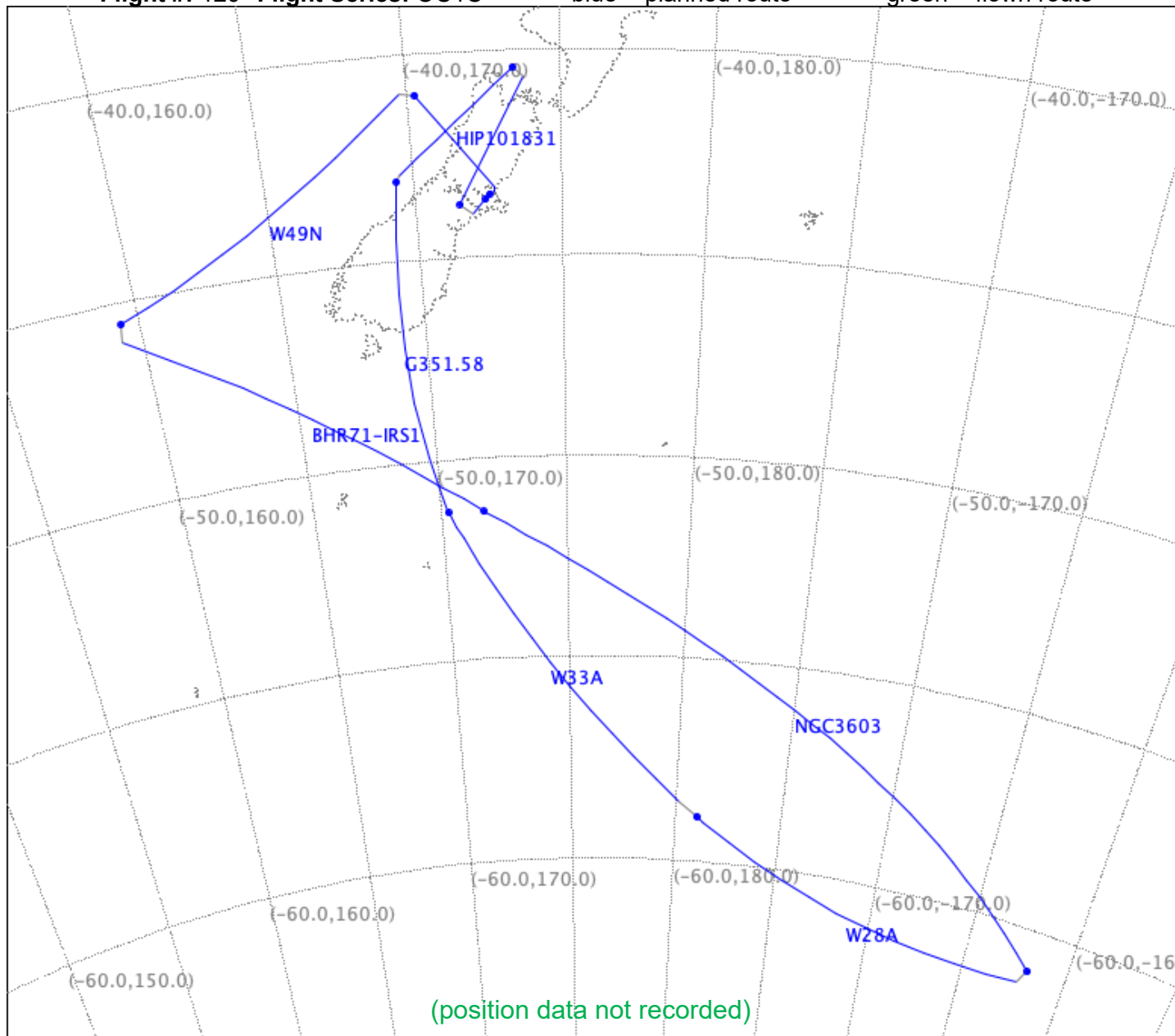
**MISSION ID: 2013-07-25\_GR\_F120**

**Date: 2013-07-25 UT Instrument: GREAT**

**Flight #: 120 Flight Series: OC1C**

blue = planned route

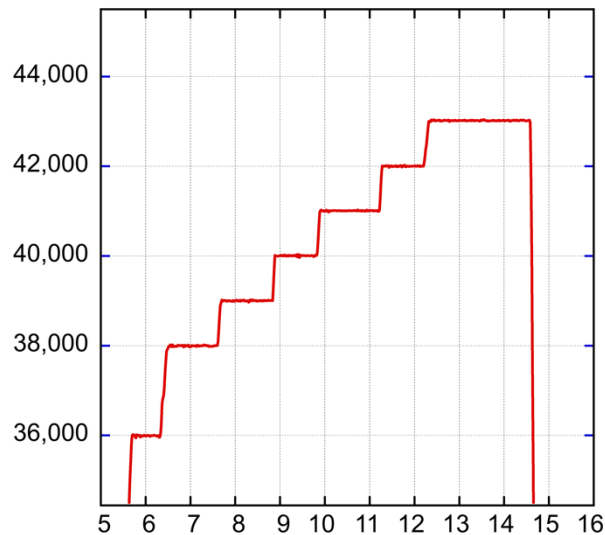
green = flown route



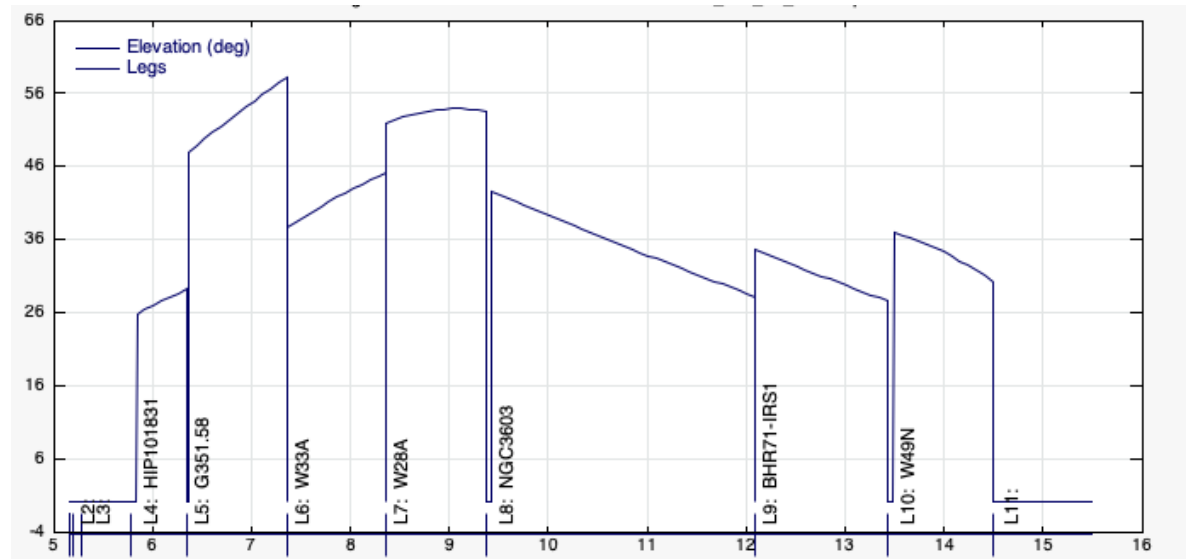
## Flight notes: No irregularities.

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP101831	20h38m10.16s	-58d19m57.8s	5:50	30	
5	83_0004	GREAT Consortium	G351.58	17h25m25.42s	-36d12m45.3s	6:22	60	
6	83_0004	GREAT Consortium	W33A	18h14m39.10s	-17d52m07.0s	7:22	60	
7	83_0004	GREAT Consortium	W28A	18h00m30.40s	-24d04m00.0s	8:25	60	
8	83_0004	GREAT Consortium	NGC3603	11h15m15.15s	-61d17m35.1s	9:25	160	20min lost acquiring
9	83_0004	GREAT Consortium	BHR71-IRS1	12h01m36.70s	-65d08m48.5s	12:05	80	Last leg extended at the expense of this leg; 10min less time for BHR71-IRS1
10	83_0004	GREAT Consortium	W49N	19h10m13.20s	09d06m12.0s	13:29	60	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)





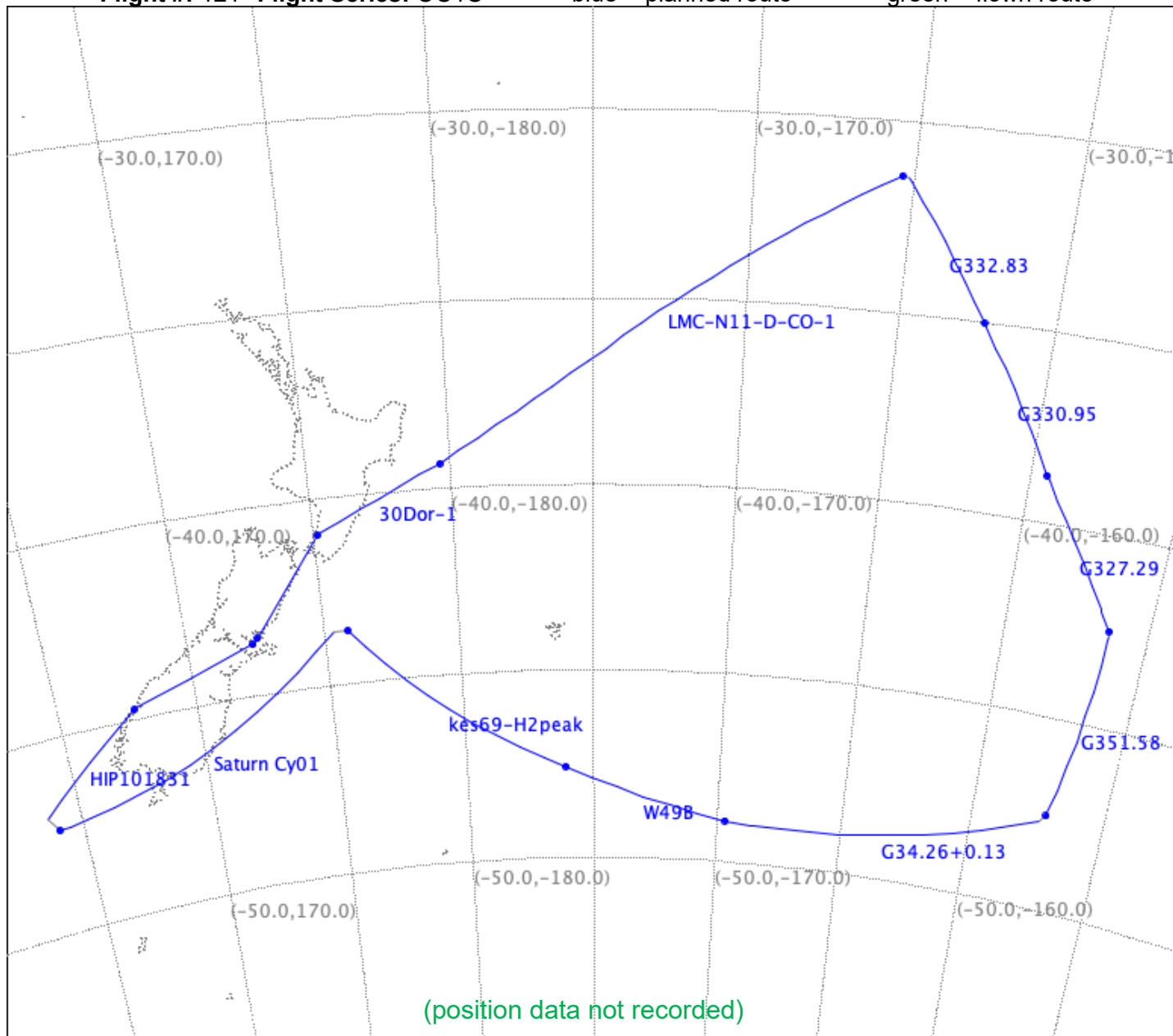
**MISSION ID: 2013-07-29\_GR\_F121**

**Date: 2013-07-29 UT Instrument: GREAT**

**Flight #: 121 Flight Series: OC1C**

blue = planned route

green = flown route

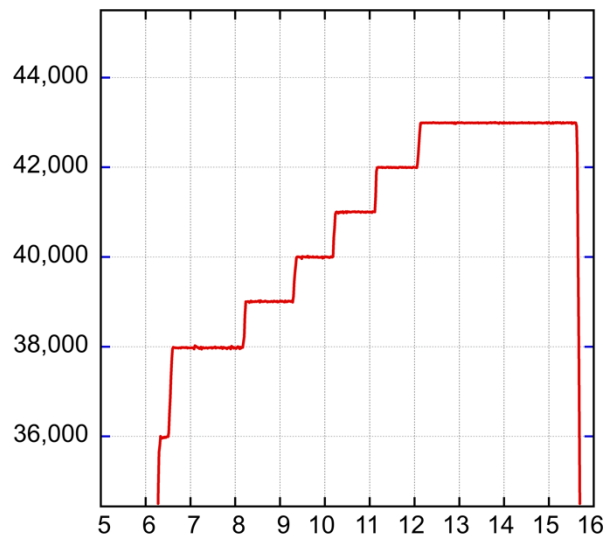


# Flight notes: No irregularities.

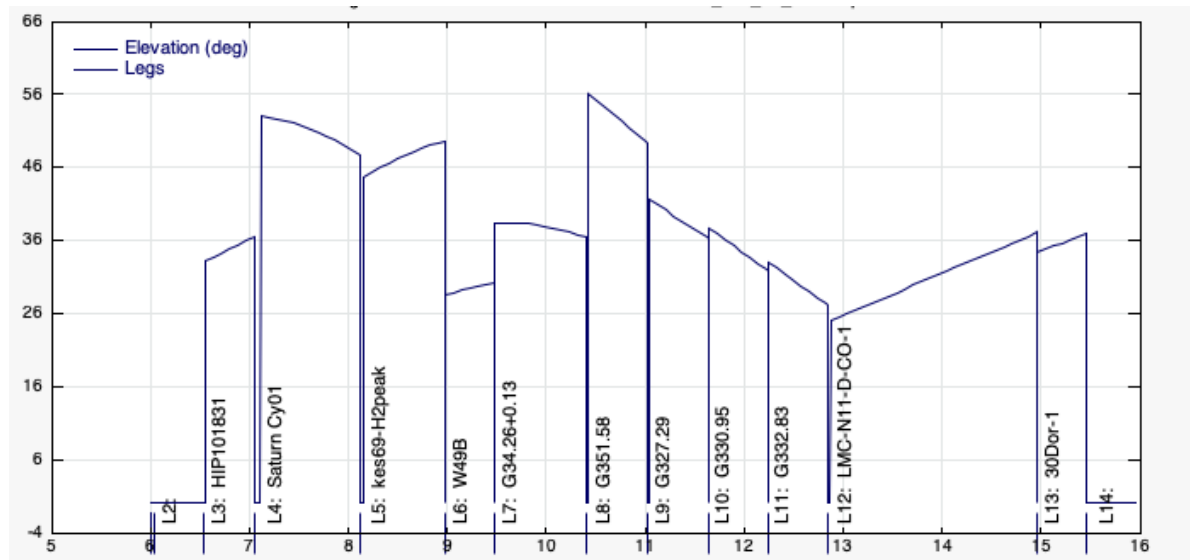
Flight 121 Mission ID 2013-07-29\_GR\_F121  
 Christchurch-Christchurch Take off date UTC: 29-JUL-2013  
 Departure UTC: ~06:00 Arrival UTC: ~15:58  
 M-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			HIP101831	20h38m10.16s	-58d19m57.8s	6:33	30	
4	90_0008	Calibration	Saturn Cy01	14h12m55.10s	-10d49m56.9s	7:07	60	
5	01_0059	Hewitt	kes69-H2peak	18h33m01.63s	-10d13m44.0s	8:09	49	Difficulties acquiring and setting up guiding; small loss in time on leg
6	01_0059	Hewitt	W49B	19h10m59.93s	09d05m05.5s	8:59	30	
7	01_0185	Wiesemeyer	G34.26+0.13	18h53m18.70s	01d14m58.0s	9:29	55	
8	01_0185	Wiesemeyer	G351.58	17h25m25.04s	-36d12m45.3s	10:25	36	
9	01_0185	Wiesemeyer	G327.29	15h53m08.55s	-54d37m05.1s	11:02	36	
10	01_0185	Wiesemeyer	G330.95	16h09m53.01s	-51d54m55.0s	11:38	36	
11	01_0185	Wiesemeyer	G332.83	16h20m10.65s	-50d53m17.6s	12:14	36	
12	01_0030	Lebouteiller	LMC-N11-D-CO	04h57m50.60s	-66d29m09.0s	12:52	125	
13	01_0166	Okada	30Dor	05h38m42.00s	-69d05m15.0s	14:57	30	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



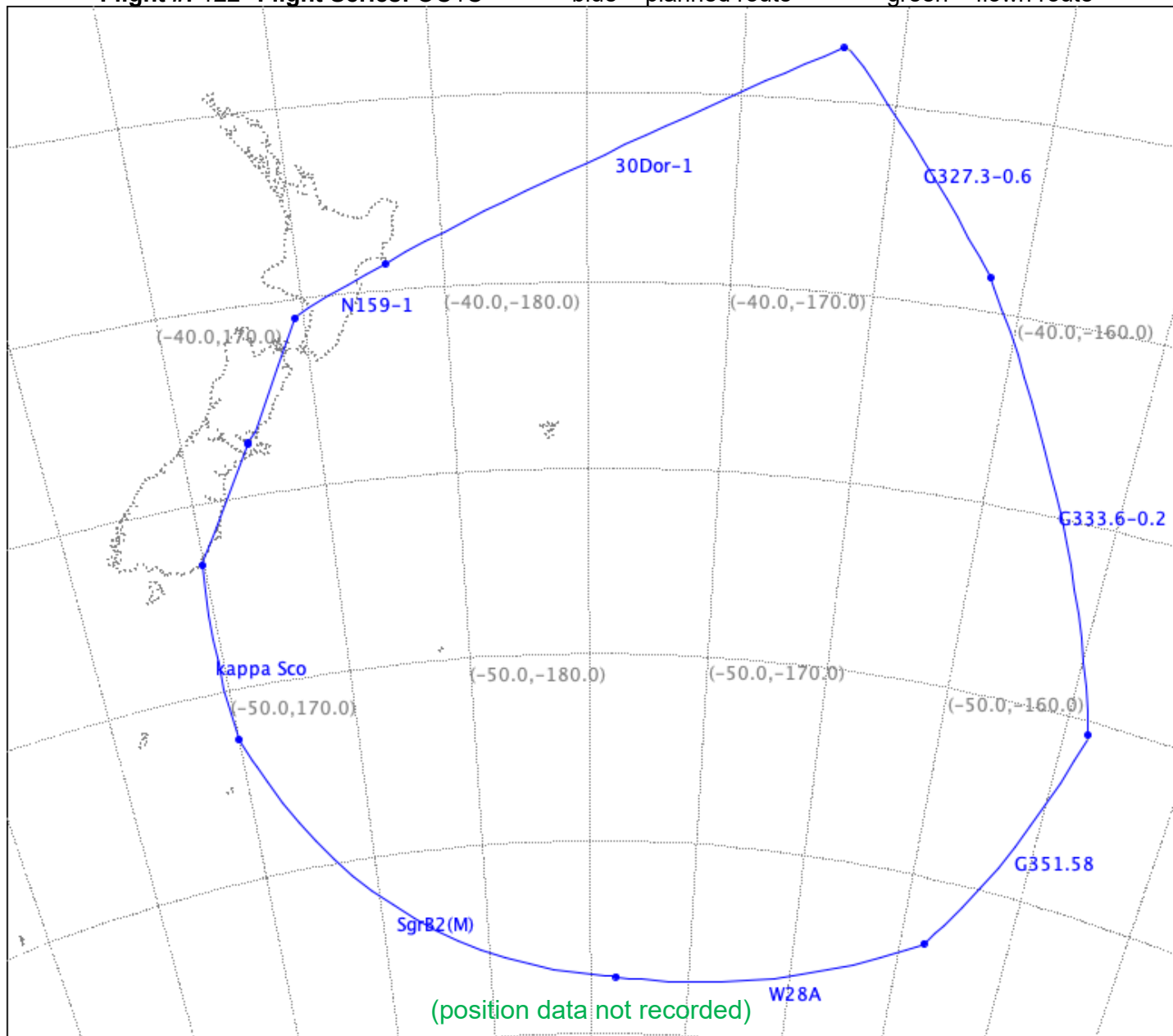
**MISSION ID: 2013-07-30\_GR\_F122**

**Date: 2013-07-30 UT Instrument: GREAT**

**Flight #: 122 Flight Series: OC1C**

blue = planned route

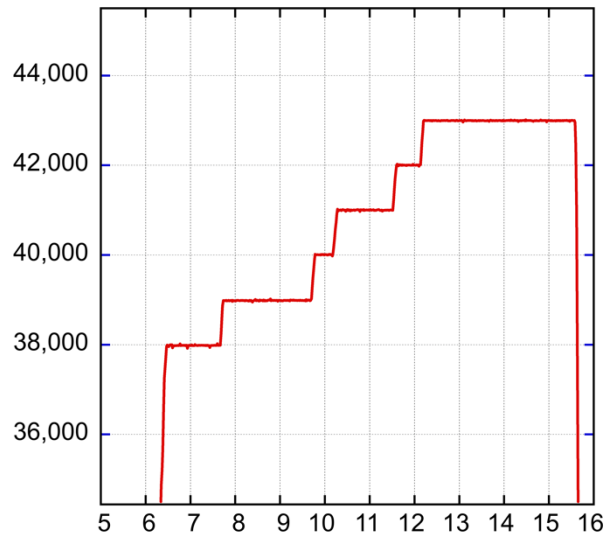
green = flown route



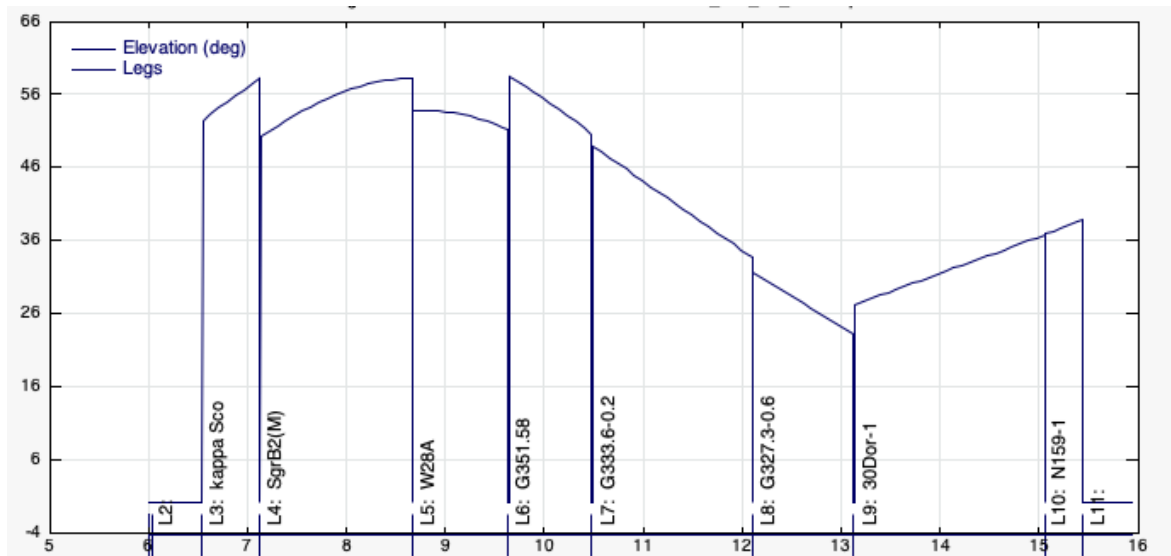
## Flight notes: No irregularities.

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			kappa Sco	17h42m29.26s	-39d01m48.3s	6:33	35	
4	83_0004	GREAT Consortium	SgrB2(M)	17h47m20.40s	-28d23m07.0s	7:08	92	Guide camera failure; 20min lost
5	83_0004	GREAT Consortium	W28A	18h00m30.40s	-24d04m00.0s	8:40	58	
6	83_0004	GREAT Consortium	G351.58	17h25m25.42s	-36d12m45.3s	9:39	50	
7	83_0004	GREAT Consortium	G333.6-0.2	16h22m09.00s	-50d06m15.0s	10:29	97	
8	83_0004	GREAT Consortium	G327.3-0.6	15h53m07.80s	-54d37m06.4s	12:07	60	
9	01_0166	Okada	30Dor	05h38m42.00s	-69d05m15.0s	13:08	115	Extended leg.
10	01_0166	Okada	N159	05h39m51.10s	-69d45m12.9s	15:04	23	Sacrificed for prior leg – no data.

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



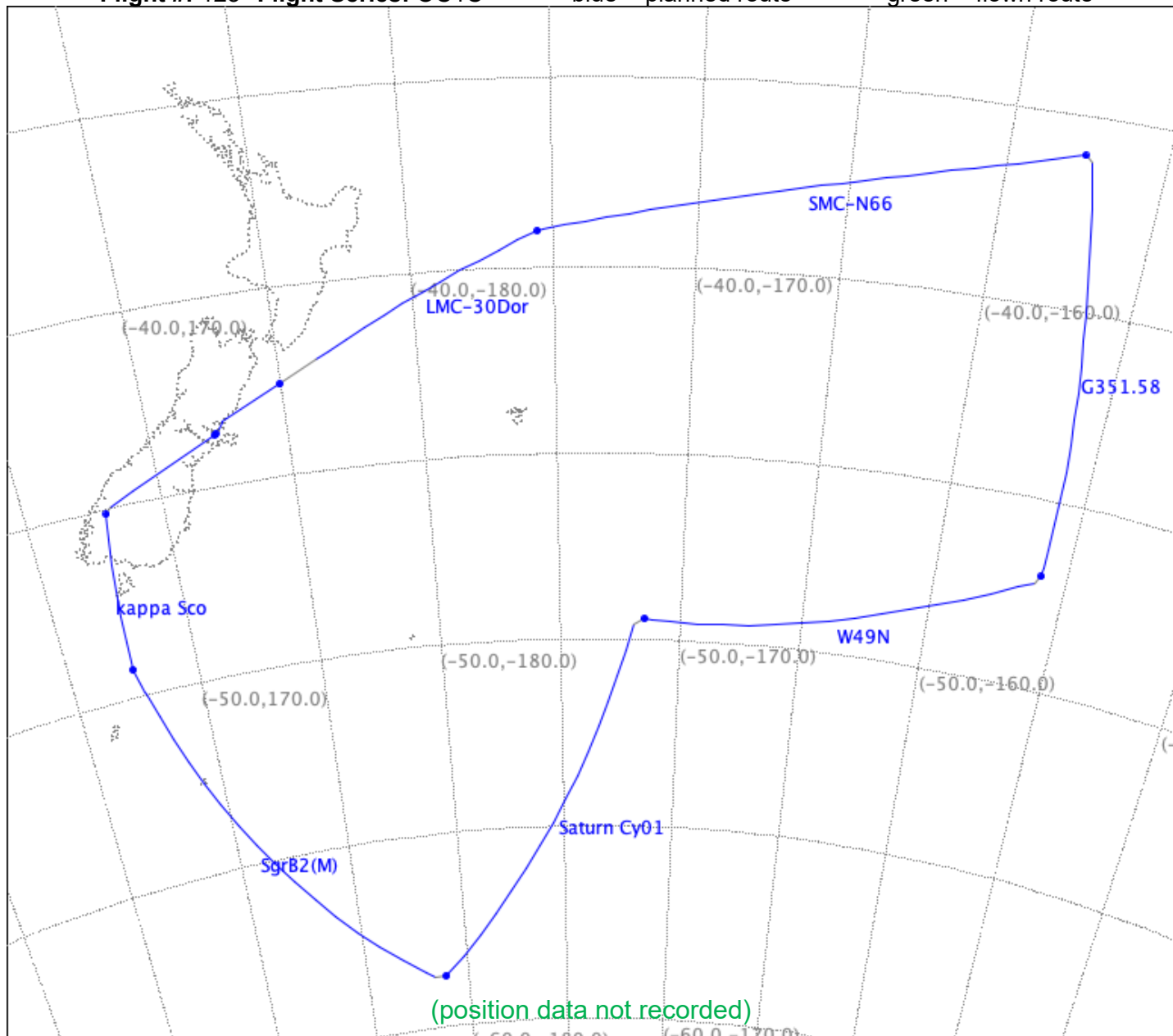
**MISSION ID: 2013-07-31\_GR\_F123**

**Date: 2013-07-31 UT Instrument: GREAT**

**Flight #: 123 Flight Series: OC1C**

blue = planned route

green = flown route

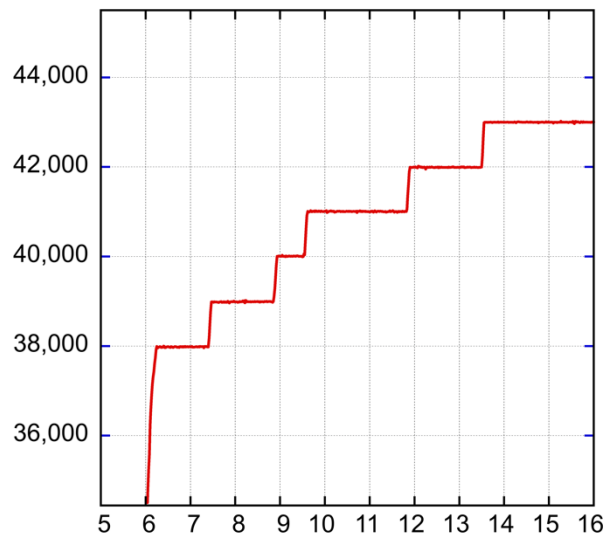


## Flight notes:

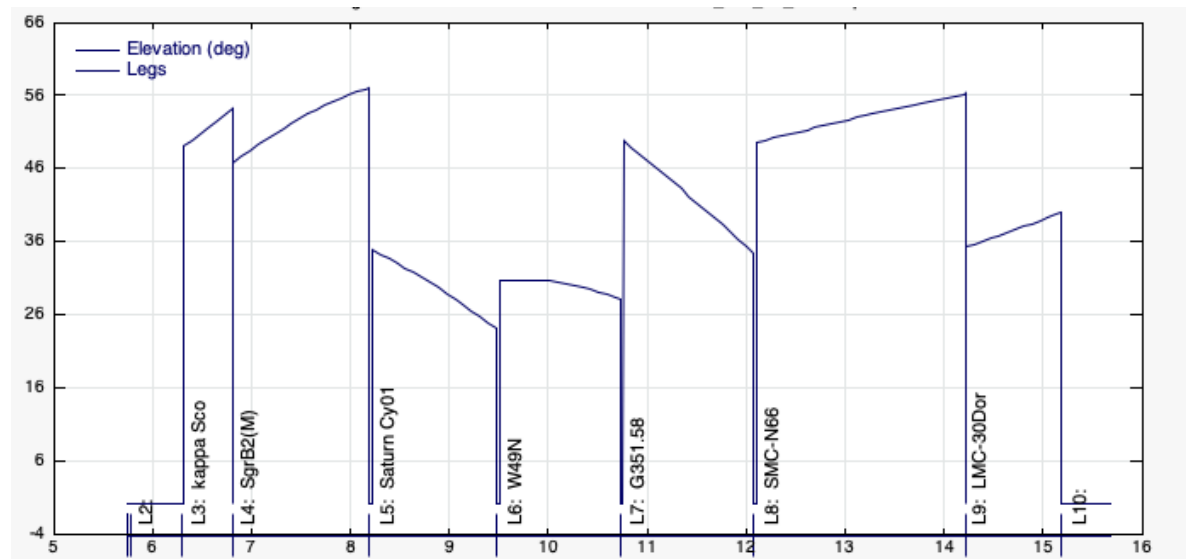
**Fog at Christchurch base at landing time – diverted to Auckland.**

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			kappa Sco	17h42m29.26s	-39d01m48.3s	6:19	30	
4	83_0004	GREAT Consortium	SgrB2(M)	17h47m20.40s	-28d23m07.0s	6:49	82	
5	90_0008	Calibration	Saturn Cy01	14h13m10.24s	-10d51m49.8s	8:13	75	
6	83_0004	GREAT Consortium	W49N	19h10m13.20s	09d06m12.0s	9:31	73	
7	83_0004	GREAT Consortium	G351.58	17h25m25.42s	-36d12m45.3s	10:45	79	
8	83_0004	GREAT Consortium	SMC-N66	00h59m20.00s	-72d09m00.0s	12:07	126	
9	83_0004	GREAT Consortium	LMC-30Dor	05h38m42.00s	-69d05m15.0s	14:13	58	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)

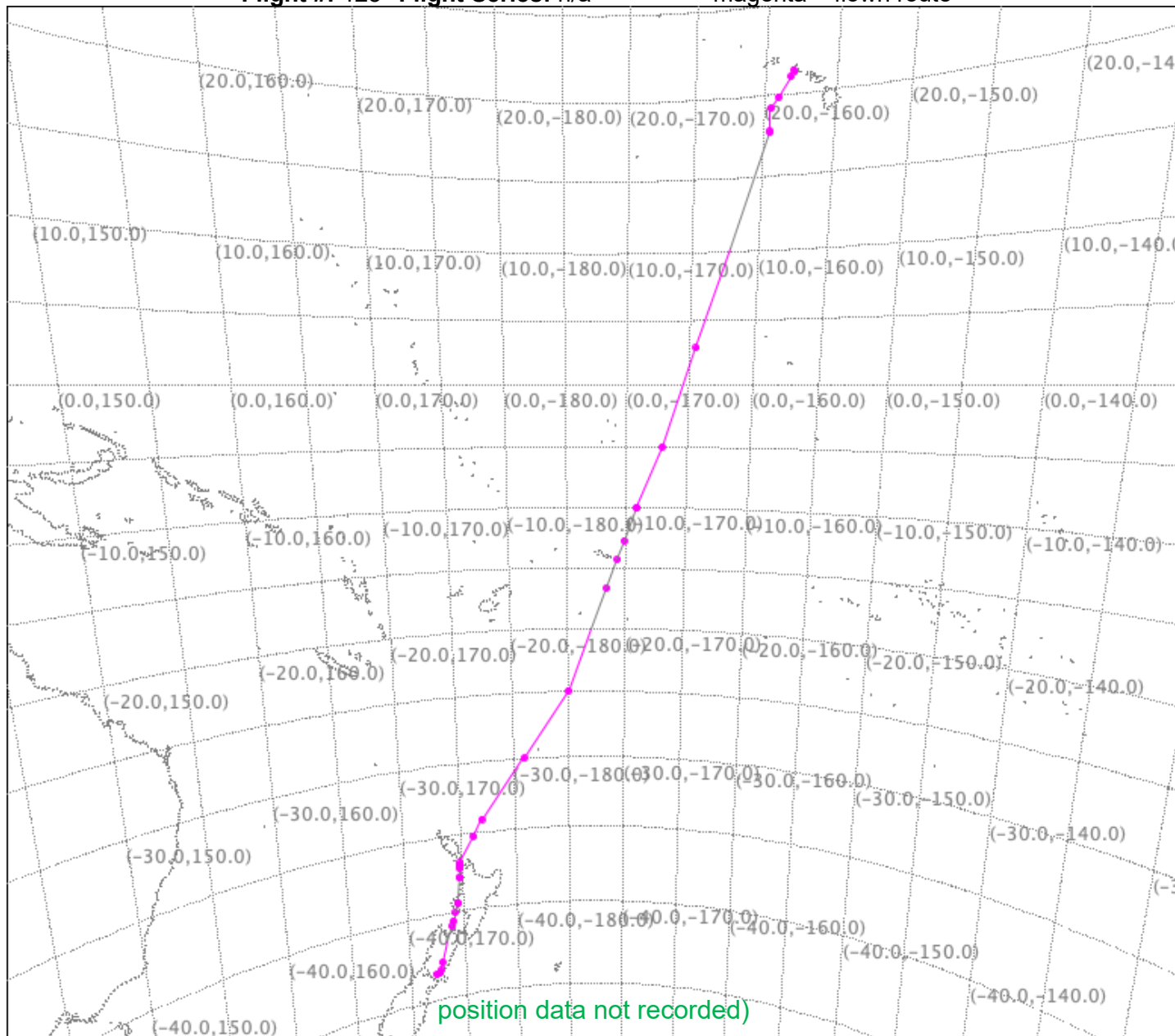


# MISSION ID: 2013-08-01\_NO\_F125

Date: 2013-08-01 UT Instrument: n/a

Flight #: 125 Flight Series: n/a

magenta = flown route



**Flight notes:**

**Ferry flight from Christchurch, New Zealand to Honolulu, HI. No science planned.**

Flight 125

Mission ID 2013-08-01\_NO\_F125

Christchurch  
to Honolulu

Take off date UTC:  
01-AUG-2013

Departure UTC:  
~~21:00

Arrival UTC:  
~~06:14  
+1day

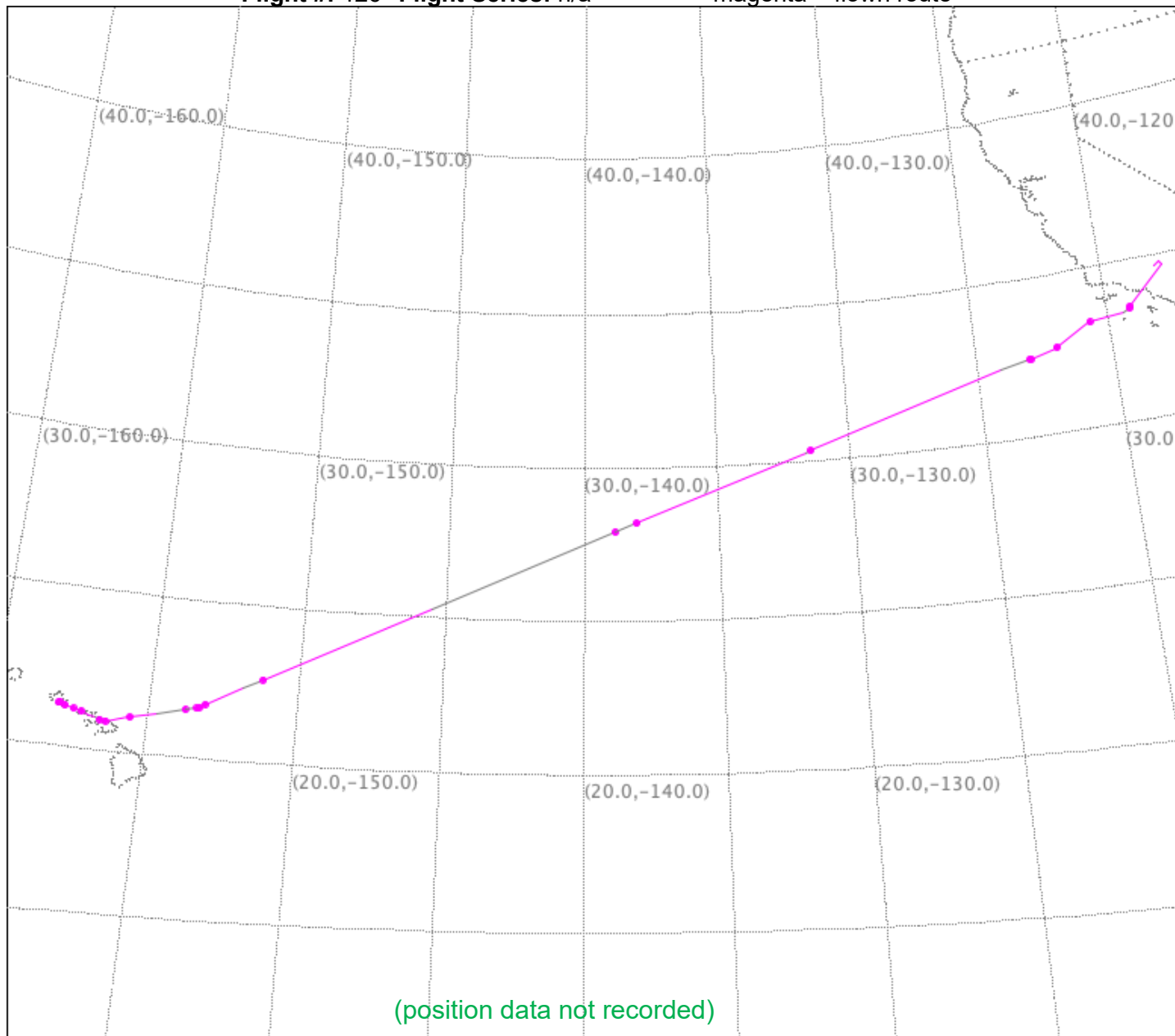


**MISSION ID: 2013-08-01\_NO\_F126**

**Date:** 2013-08-01 UT **Instrument:** n/a

**Flight #:** 126 **Flight Series:** n/a

magenta = flown route



**Flight notes:**

**Ferry flight from Honolulu, HI to Palmdale, CA. No science planned.**

Flight 126

Mission ID 2013-08-01\_NO\_F126

Honolulu to  
Palmdale

Take off date UTC:  
01-AUG-2013

Departure UTC:	Arrival UTC:
~~10:00	~~14:58
+1 day	+1 day

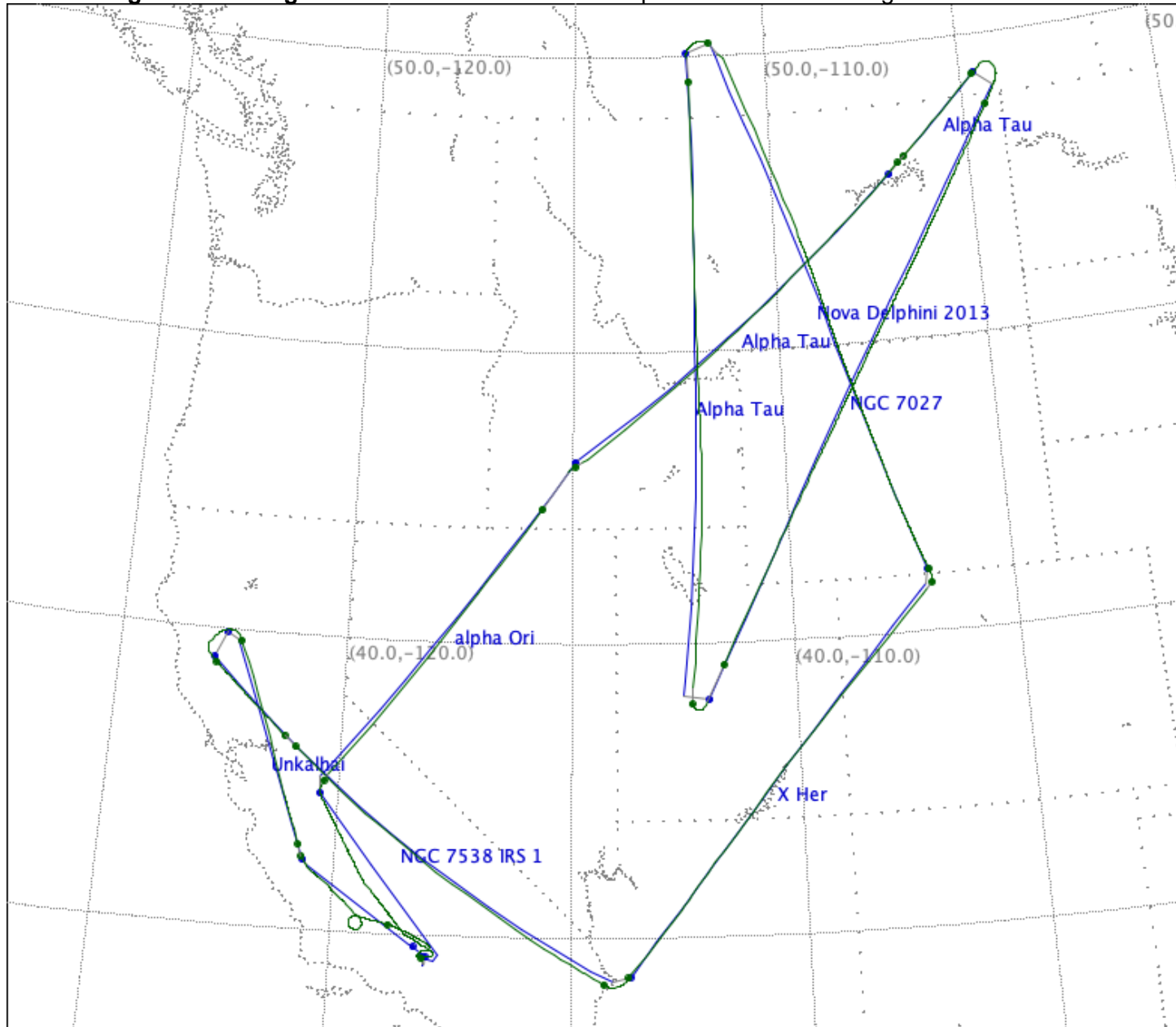
**MISSION ID:** 2013-09-10\_FO\_F128

**Date:** 2013-09-10 UT **Instrument:** FORCAST

**Flight #:** 128 **Flight Series:** OC1D

blue = planned route

green = flown route

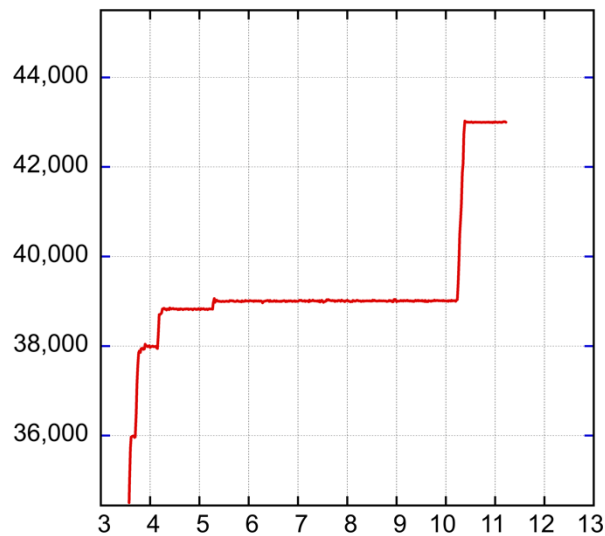


## Flight notes: No irregularities.

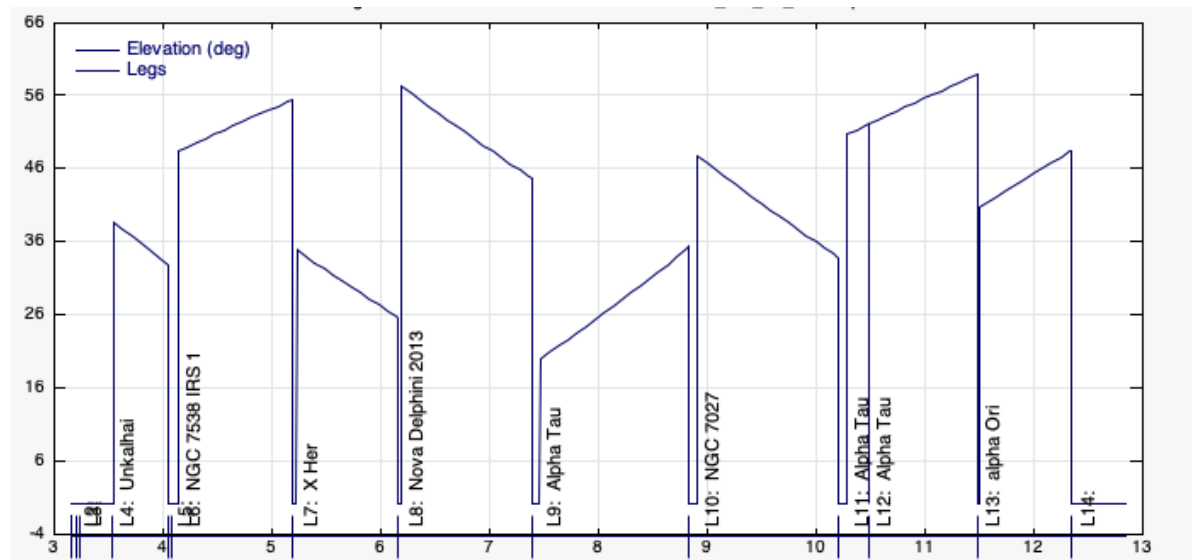
Flight 128 Mission ID 2013-09-10\_FO\_F128  
 Palmdale to Palmdale Take off date UTC: 10-SEP-2013  
 Departure UTC: ~03:10 Arrival UTC: ~12:59

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Unkaihai	15h44m16.10s	06d25m32.0s	3:38	30	
6	01_0034	Tielens	NGC 7538 IRS 1	23h13m45.60s	61d28m18.0s	4:13	63	
7	90_0016	Calibration	X Her	16h02m39.17s	47d14m25.3s	5:19	56	
8	01_0017	Gehrz	Nova Delphini 2013	20h23m30.73s	20d46m04.1s	6:17	72	Observatory control software crash; 35min lost
9	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	7:33	82	
10	90_0015	Calibration	NGC 7027	21h07m01.59s	42d14m10.2s	9:00	78	
11	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	10:22	12	
12	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	10:39	60	
13	90_0016	Calibration	alpha Ori	05h55m10.30s	07d24m25.4s	11:35	51	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



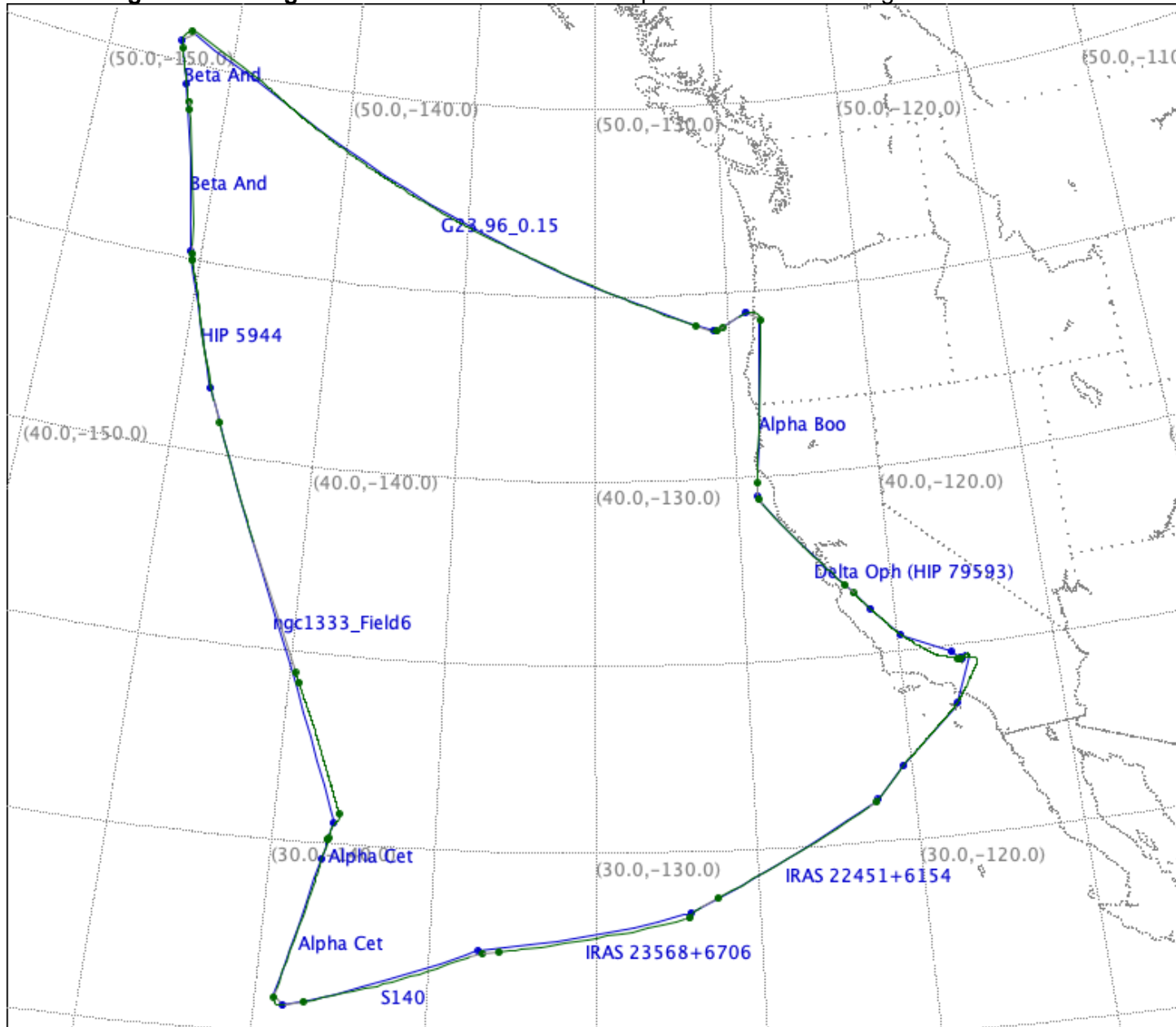
**MISSION ID:** 2013-09-12\_FO\_F129

**Date:** 2013-09-12 UT **Instrument:** FORCAST

**Flight #:** 129 **Flight Series:** OC1D

blue = planned route

green = flown route

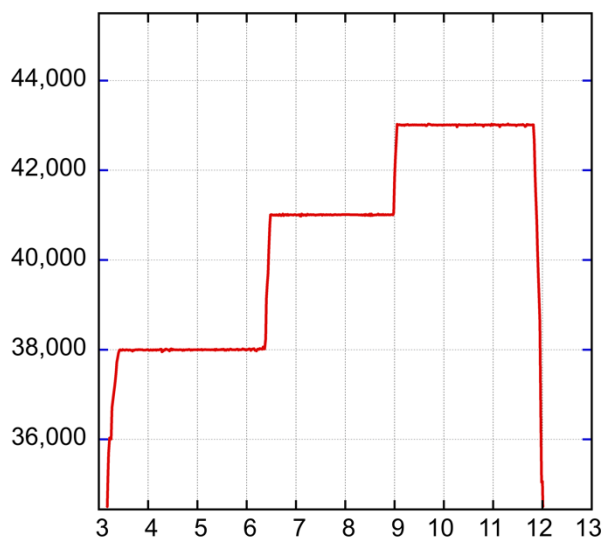


# Flight notes: No irregularities.

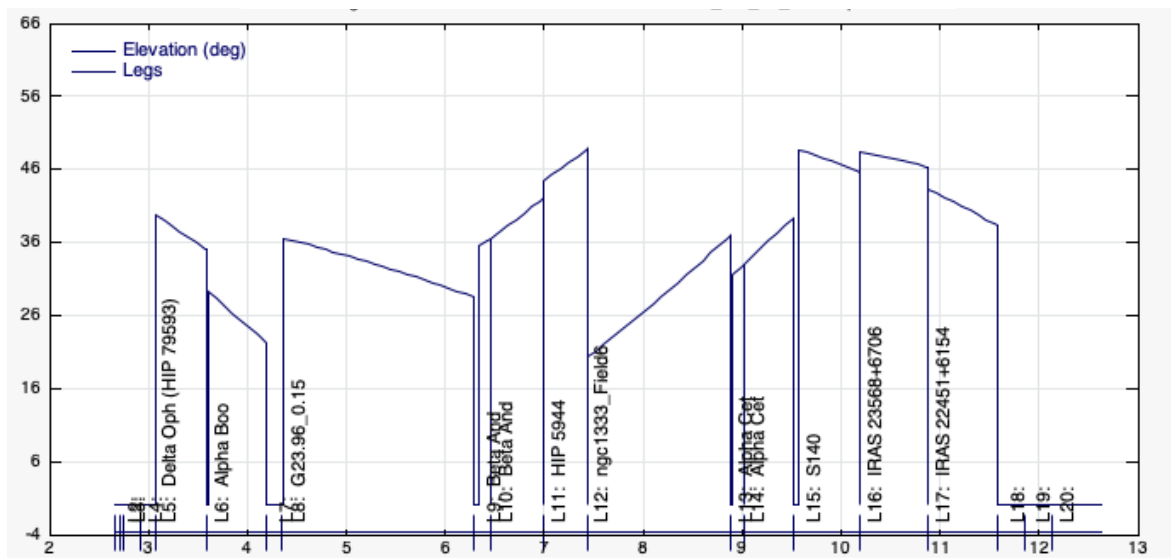
Flight 129 Mission ID 2013-09-12\_FO\_F129  
 Palmdale to Palmdale Take off date UTC: 12-SEP-2013  
 Departure UTC: ~02:40 Arrival UTC: ~12:35

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			Delta Oph (HIP 79593)	16h14m16.10s	-03d28m26.0s	3:08	31	
6	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	3:41	35	
8	01_0034	Tielens	G23.96_0.15	18h34m24.90s	-07d54m47.9s	4:27	115	Turbulence.
9	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	6:25	7	
10	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	6:33	32	
11	01_0102	Trilling	HIP 5944	01h16m29.20s	42d56m21.9s	7:05	26	
12	01_0085	Mundy	ngc1333_Field6	03h29m00.55s	31d17m36.6s	7:31	87	Vignetting at beginning of leg by telescope lower door; Observatory control software crash; significant time lost
13	90_0013	Calibration	Alpha Cet	03h02m16.77s	04d05m23.1s	8:59	7	
14	90_0013	Calibration	Alpha Cet	03h02m16.77s	04d05m23.1s	9:06	30	
15	01_0085	Mundy	S140	22h19m22.92s	63d19m02.0s	9:39	37	
16	01_0143	Lundquist	IRAS 23568+6706	23h59m25.80s	67d23m39.1s	10:16	41	
17	01_0143	Lundquist	IRAS 22451+6154	22h47m02.11s	62d10m10.9s	10:58	42	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



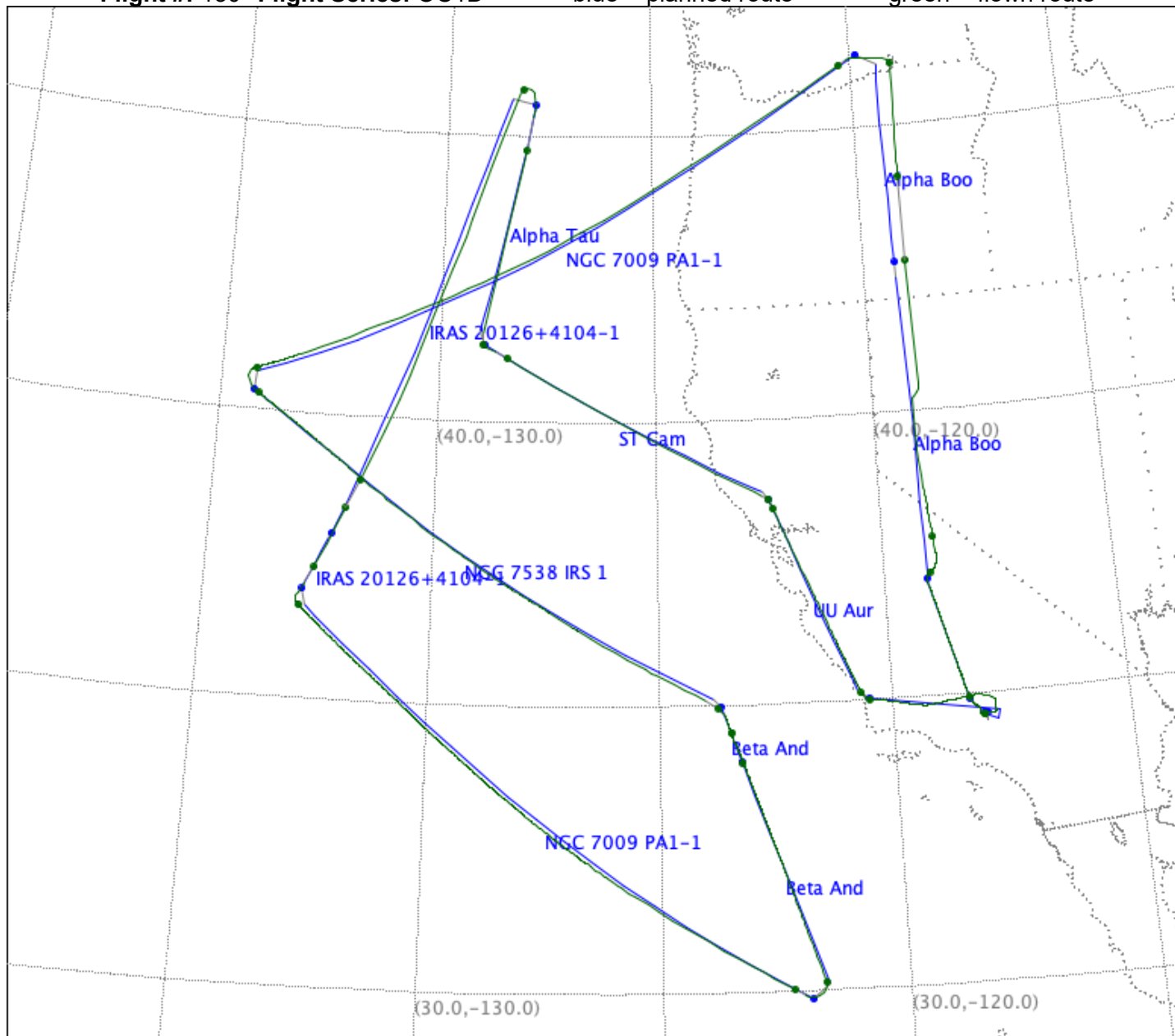
**MISSION ID:** 2013-09-13\_FO\_F130

**Date:** 2013-09-13 UT **Instrument:** FORCAST

**Flight #:** 130 **Flight Series:** OC1D

blue = planned route

green = flown route



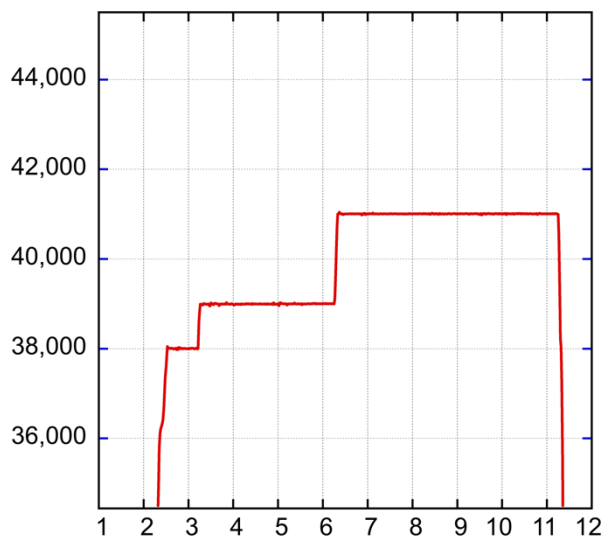
## Flight notes:

**No observing logs could be found for this flight.**

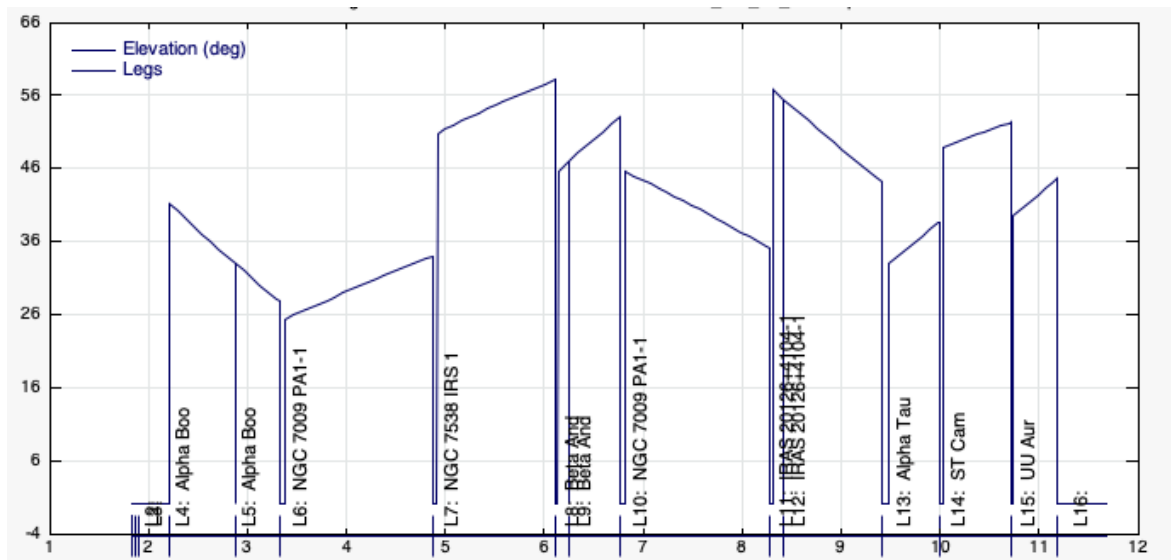
Flight 130 Mission ID 2013-09-13\_FO\_F130  
 Palmdale to Palmdale Take off date UTC: 13-SEP-2013  
 Departure UTC: ~01:50 Arrival UTC: ~11:48

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	2:18	40	
5	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	3:00	27	
6	01_0042	Sankrit	NGC 7009 PA1	21h04m11.00s	-11d21m48.0s	3:29	89	
7	01_0034	Tielens	NGC 7538 IRS 1	23h13m45.60s	61d28m18.0s	5:01	72	
8	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	6:14	7	
9	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	6:21	30	
10	01_0042	Sankrit	NGC 7009 PA1	21h04m11.00s	-11d21m48.0s	6:55	87	
11	01_0045	Tan	IRAS 20126+4104	20h14m26.03s	41d13m32.6s	8:24	7	
12	01_0045	Tan	IRAS 20126+4104	20h14m26.03s	41d13m32.6s	8:31	59	
13	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	9:35	31	
14	01_0041	Sloan	ST Cam	04h51m13.30s	68d10m08.0s	10:08	41	
15	01_0041	Sloan	UU Aur	06h36m32.80s	38d26m44.0s	10:50	27	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)





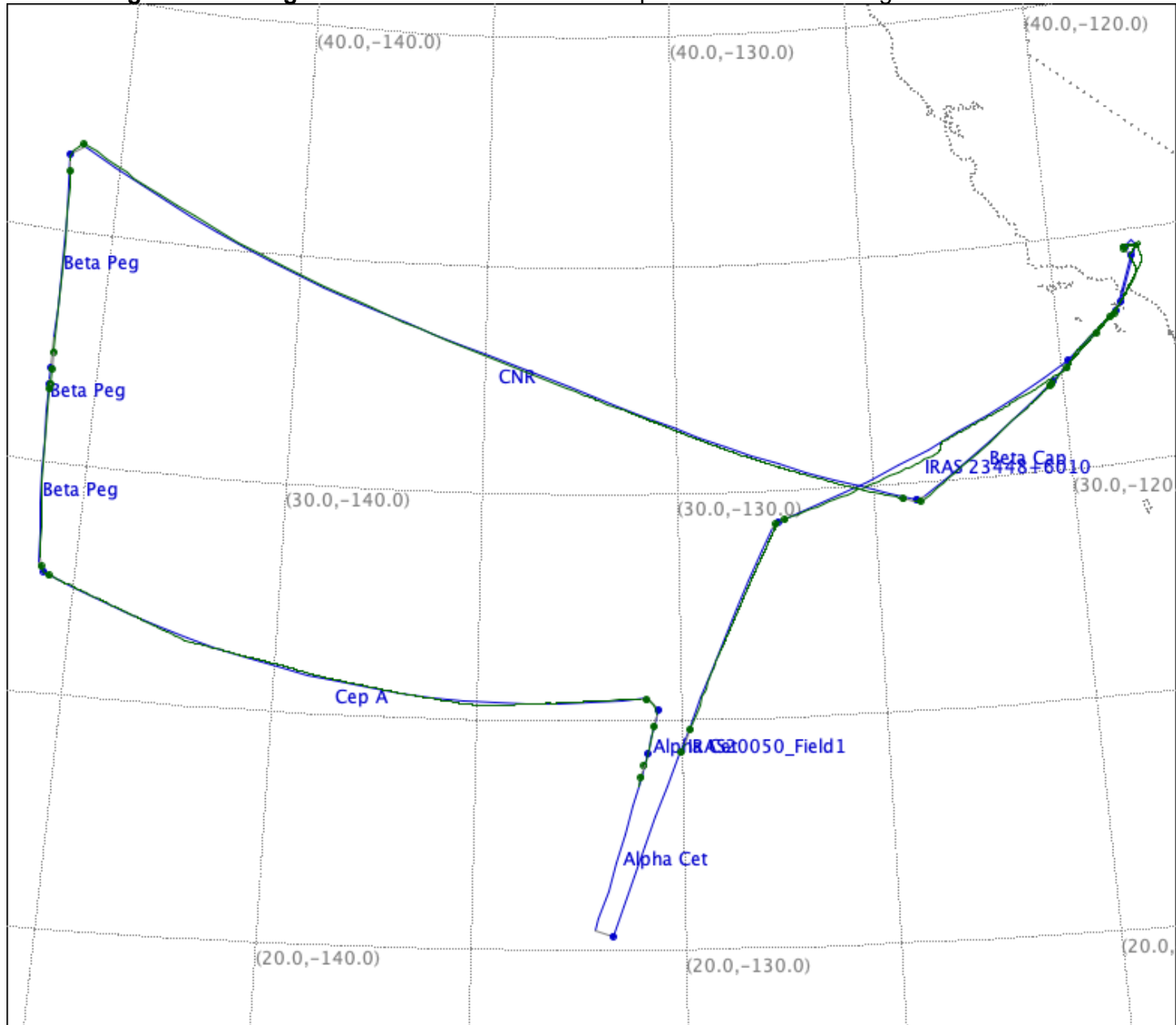
**MISSION ID:** 2013-09-17\_FO\_F131

**Date:** 2013-09-17 UT **Instrument:** FORCAST

**Flight #:** 131 **Flight Series:** OC1D

blue = planned route

green = flown route

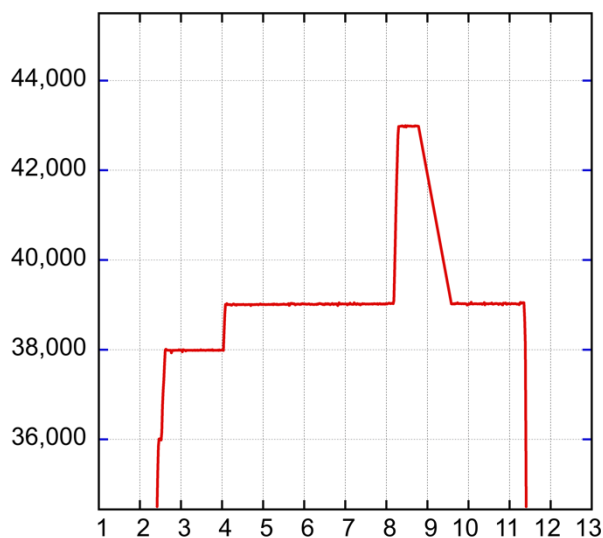


## Flight notes: No irregularities.

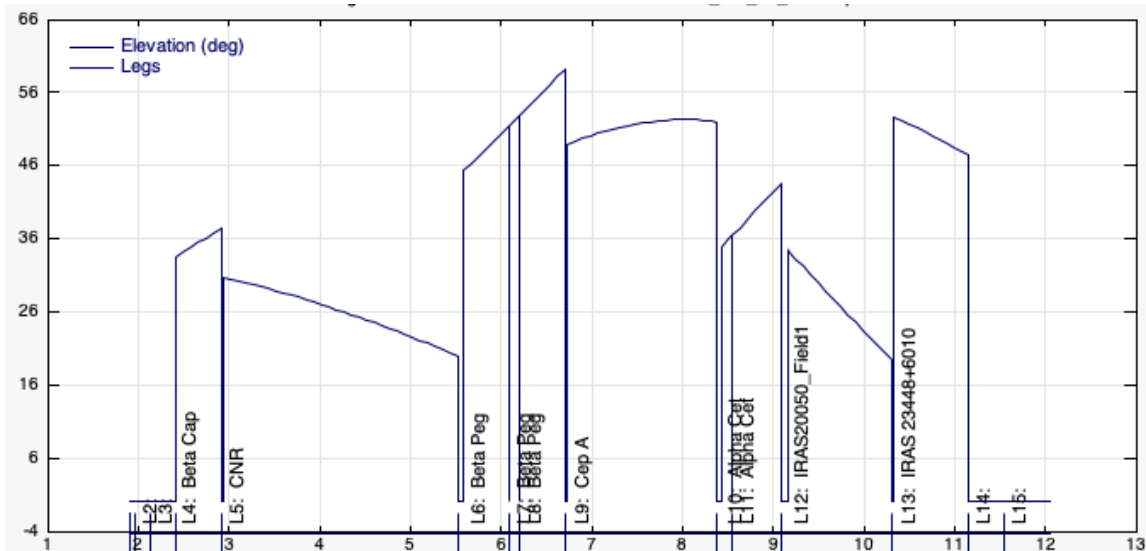
Flight 131 Mission ID 2013-09-17\_FO\_F131  
 Palmdale to Palmdale Take off date UTC: 17-SEP-2013  
 Departure UTC: ~01:54 Arrival UTC: ~11:53

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Beta Cap	20h20m46.60s	-14d47m06.0s	2:29	30	
5	70_0001	GTO	CNR	17h45m40.04s	-29d00m28.1s	3:00	156	67m lost to FORCAST hardware/software issues; trouble connecting to observatory control software
6	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	5:40	30	
7	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	6:15	7	
8	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	6:17	30	
9	01_0045	Tan	Cep A	22h56m17.97s	62d01m49.9s	6:48	99	Observatory control software crash before start of leg; entire leg lost
10	90_0013	Calibration	Alpha Cet	03h02m16.77s	04d05m23.1s	8:30	7	Entire leg lost recovering from observatory control software crash
11	90_0013	Calibration	Alpha Cet	03h02m16.77s	04d05m23.1s	8:38	32	Entire leg lost recovering from observatory control software crash.
12	01_0085	Mundy	IRAS20050_Field1	20h06m59.76s	27d32m31.1s	9:14	69	First 9min of leg lost recovering from observatory control software crash
13	01_0143	Lundquist	IRAS 23448+6010	23h47m20.09s	60d27m20.9s	10:24	49	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



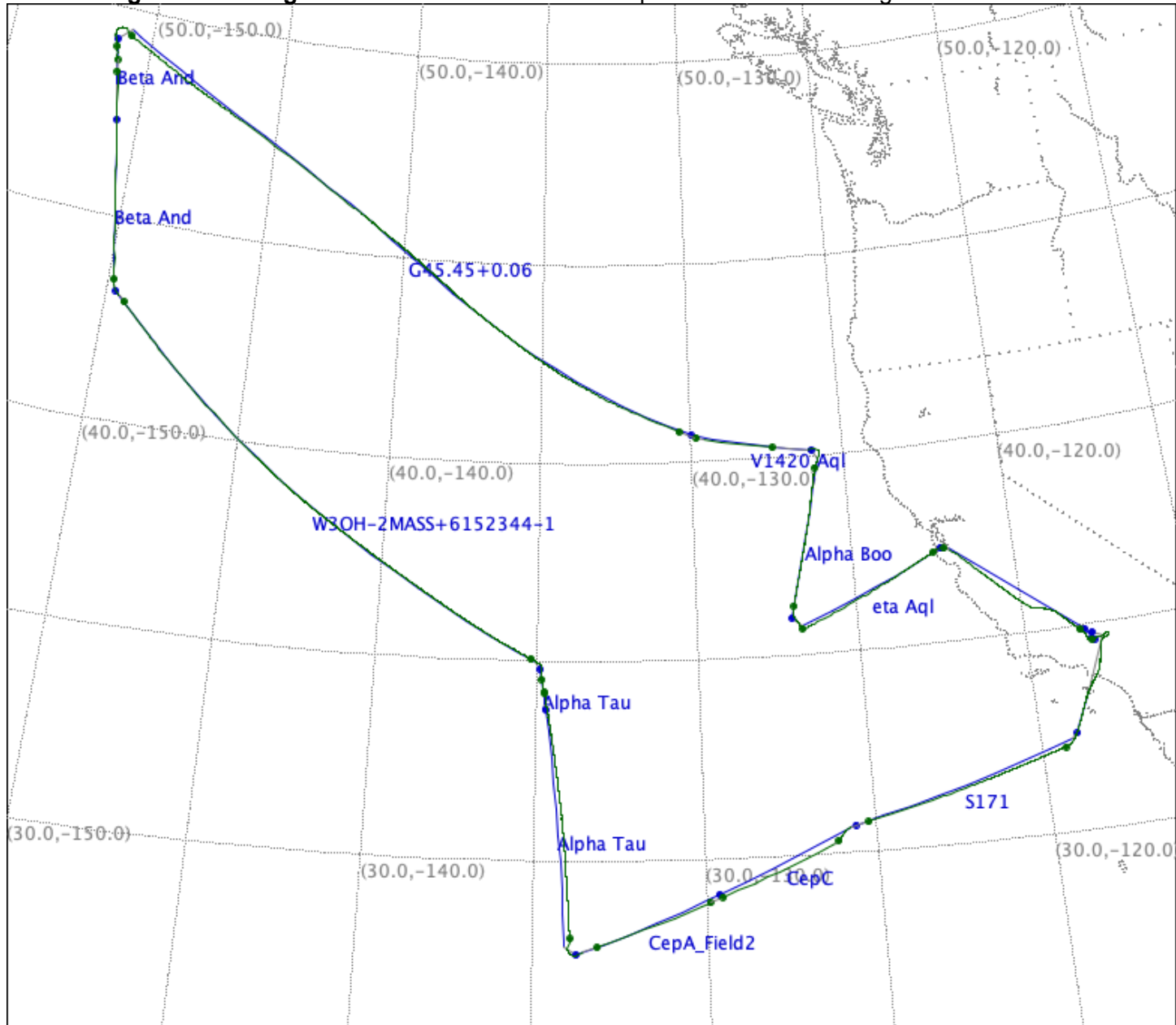
**MISSION ID: 2013-09-19\_FO\_F132**

**Date: 2013-09-19 UT Instrument: FORCAST**

**Flight #: 132 Flight Series: OC1D**

blue = planned route

green = flown route

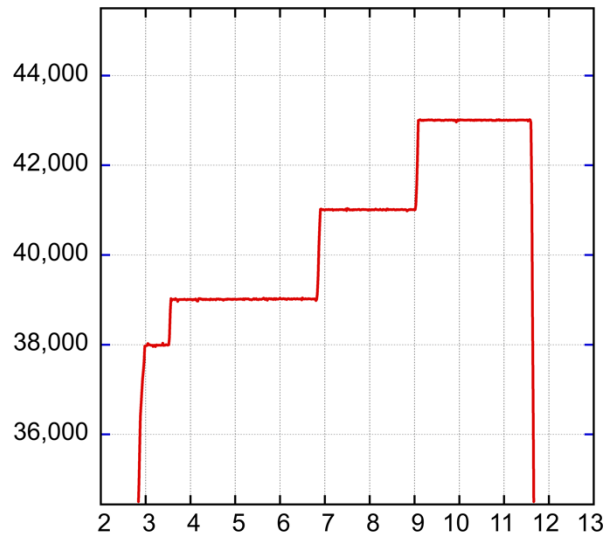


## Flight notes: No irregularities.

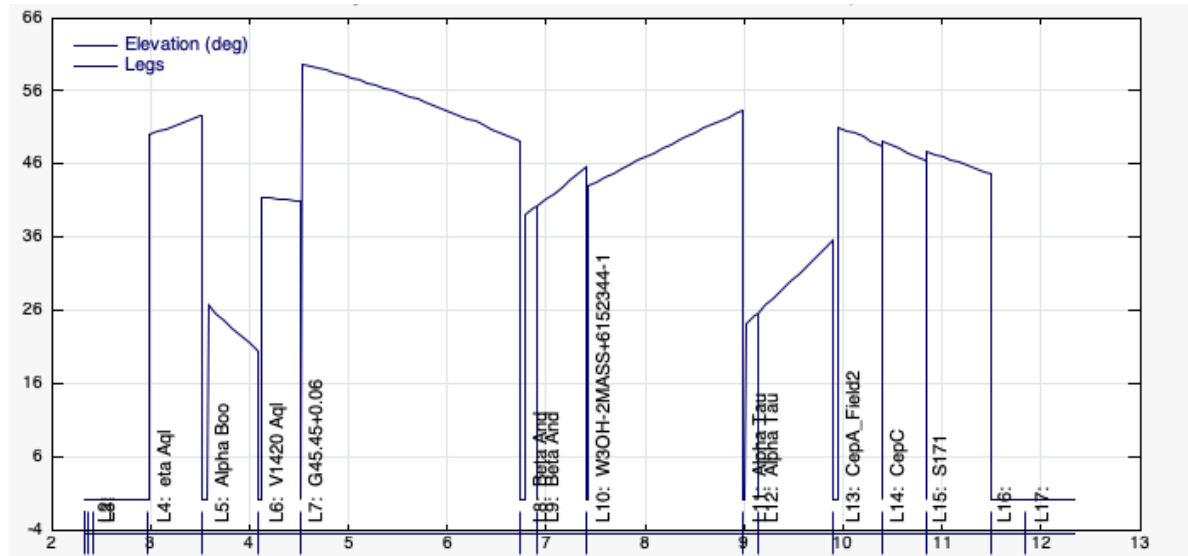
Flight 132 Mission ID 2013-09-19\_FO\_F132  
 Palmdale to Palmdale Take off date UTC: 19-SEP-2103  
 Departure UTC: ~02:20 Arrival UTC: ~12:07

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			eta Aql	19h52m28.40s	01d00m20.0s	3:04	32	
5	90_0013	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	3:39	30	
6	01_0041	Sloan	V1420 Aql	19h20m18.00s	-08d02m11.0s	4:11	24	
7	01_0034	Tielens	G45.45+0.06	19h14m21.00s	11d09m04.0s	4:36	132	
8	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	6:51	7	
9	90_0013	Calibration	Beta And	01h09m43.92s	35d37m14.0s	7:03	30	
10	70_0002	GTO	W3OH-2MASS+6152344	02h27m08.87s	61d52m34.4s	7:30	94	
11	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	9:05	7	
12	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	9:13	46	
13	01_0085	Mundy	CepA_Field2	22h56m20.35s	62d01m39.5s	10:01	27	
14	01_0085	Mundy	CepC	23h05m42.27s	62d29m52.6s	10:28	26	
15	01_0085	Mundy	S171	00h04m02.74s	68d34m18.3s	10:54	39	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



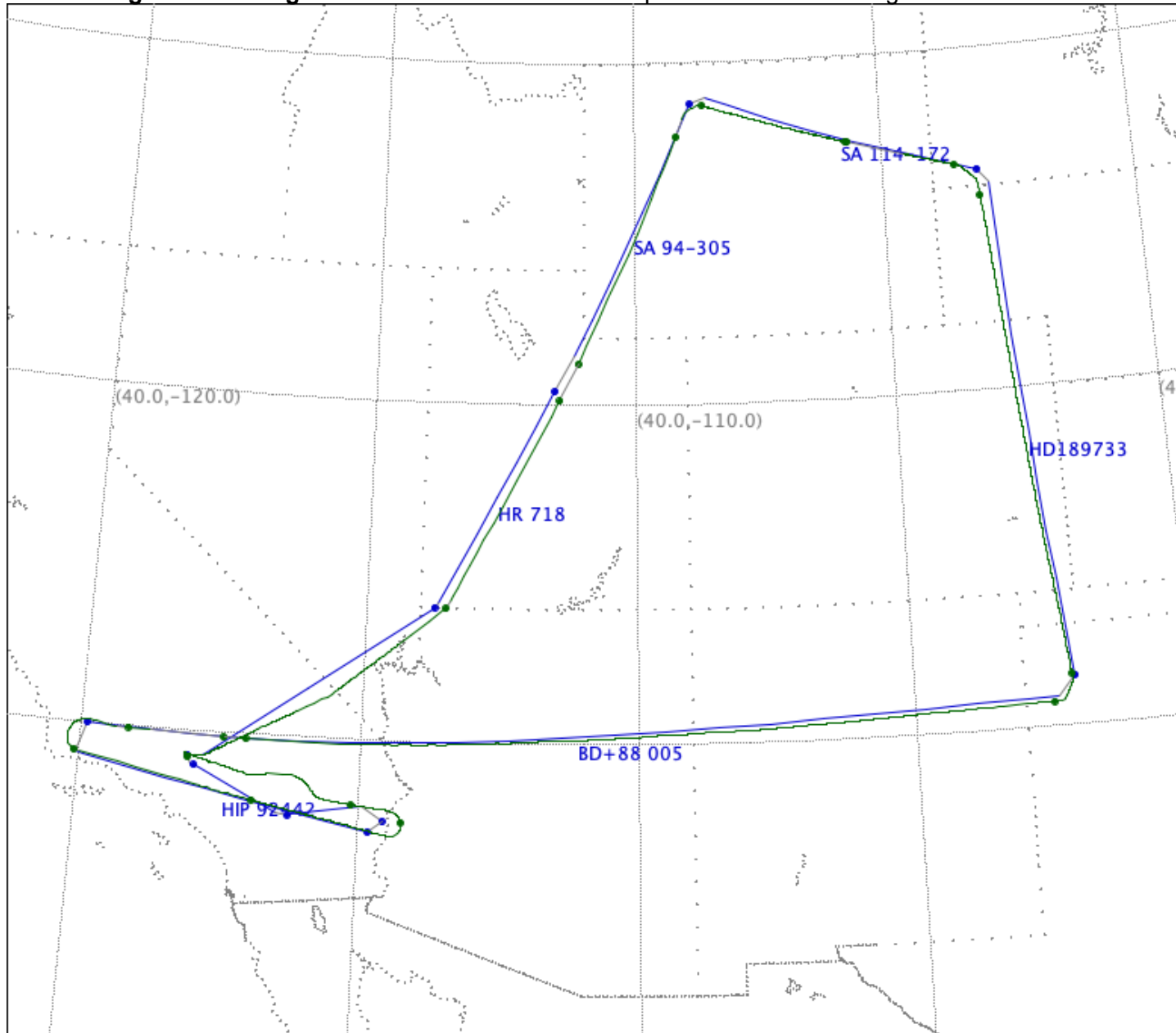
**MISSION ID: 2013-09-27\_FP\_F133**

**Date: 2013-09-27 UT Instrument: FLITECAM + HIPO**

**Flight #: 133 Flight Series: n/a**

blue = planned route

green = flown route

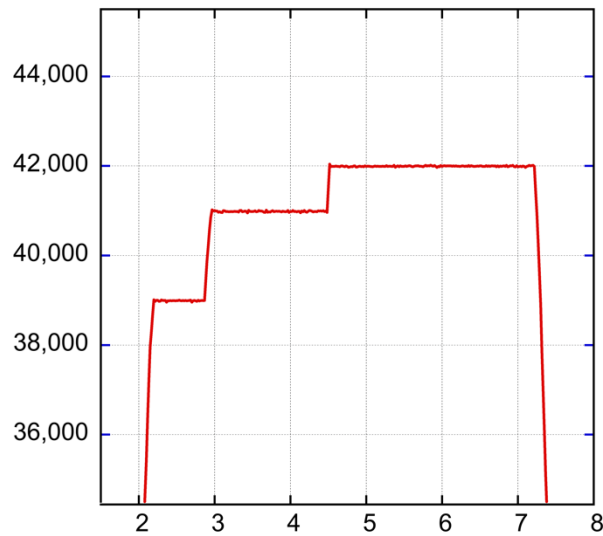


**Flight notes:**  
**FLIPO commissioning flight. Mostly engineering data.**

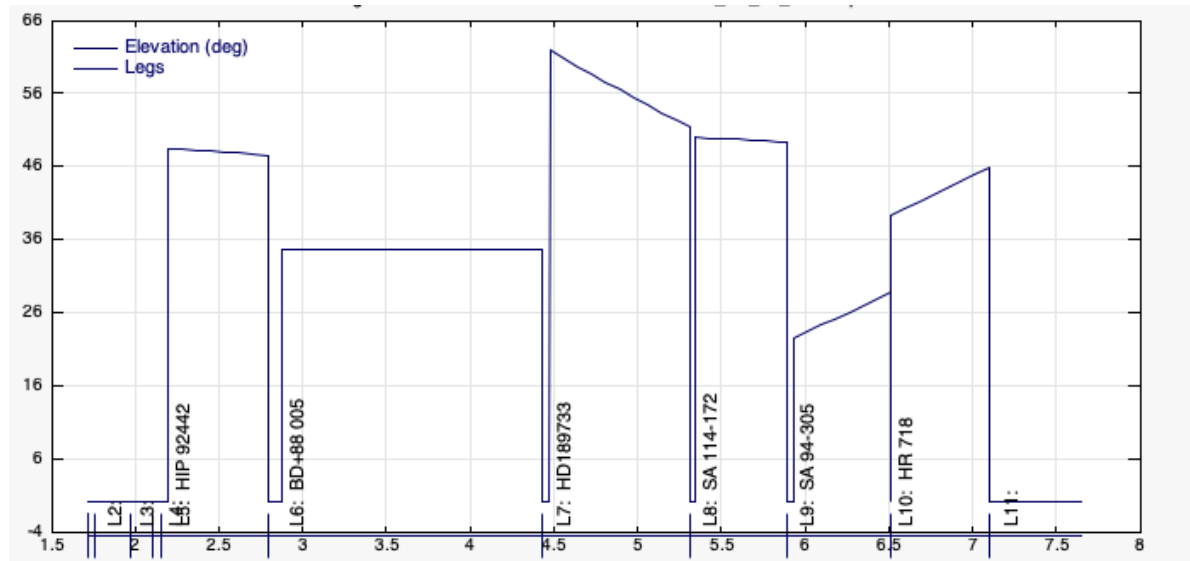
Flight 133 Mission ID 2013-09-27\_FP\_F133  
 Palmdale to Palmdale Take off date UTC: 27-SEP-2013  
 Departure UTC: 01:42 Arrival UTC: 07:51

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5		Commissioning	HIP 92442	18h50m20.10s	-07d54m27.0s	2:13	36	
6		Commissioning	BD+88 005	01h38m20.87s	88d58m49.7s	2:54	93	
7	01_0099	Mandell	HD189733	20h00m44.00s	22d42m39.0s	4:30	50	
8		Commissioning	SA 114-172	22h42m49.20s	01d13m54.6s	5:22	33	Turbulence.
9		Commissioning	SA 94-305	02h55m56.30s	00d30m57.7s	5:57	35	
10		Commissioning	HR 718	02h28m10.00s	08d27m36.0s	6:37	35	

**Flown altitude (ft.) vs. time (UTC hrs.)**



**Planned target elevation (deg.) vs. time (UTC hrs.)**



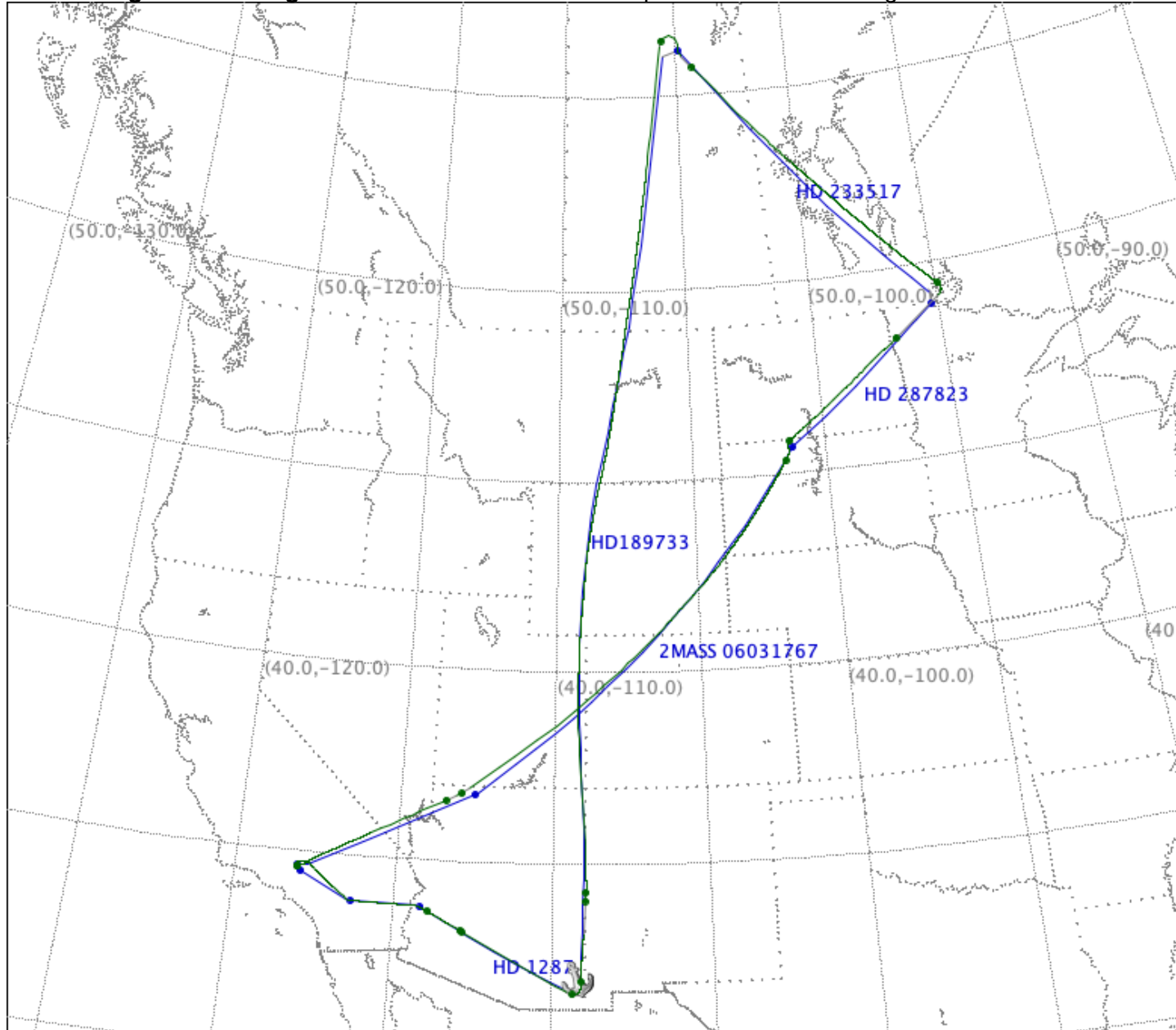
**MISSION ID: 2013-10-01\_FP\_F134**

**Date: 2013-10-01 UT Instrument: FLITECAM + HIPO**

**Flight #: 134 Flight Series: n/a**

**blue = planned route**

**green = flown route**



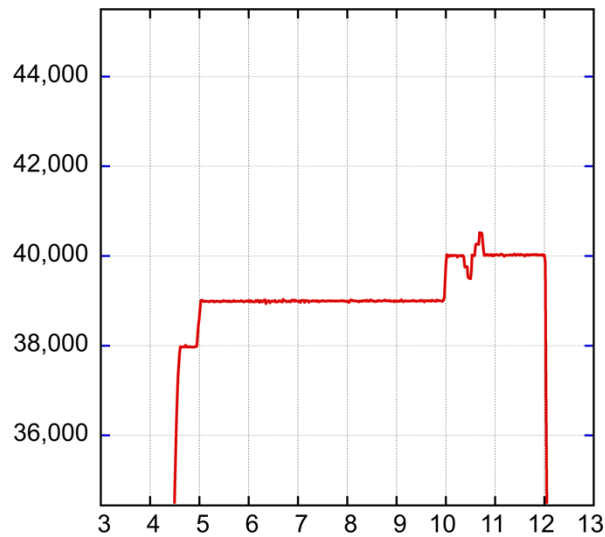
## Flight notes:

**FLIPO commissioning flight. Some engineering data and some science data. FPI nonfunctional entire flight.**

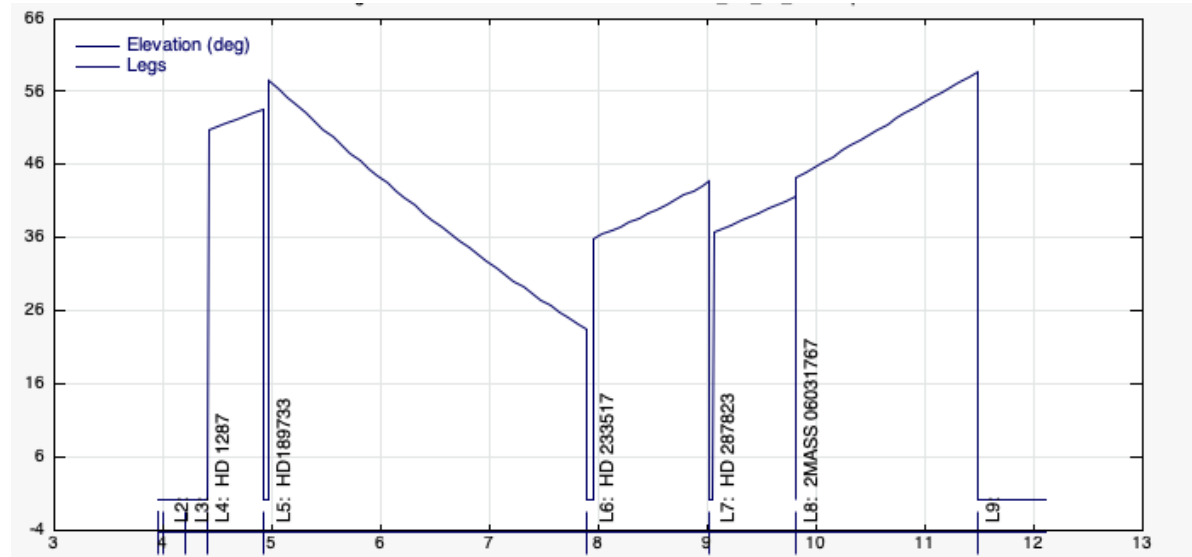
Flight 134 Mission ID 2013-10-01\_FP\_F134  
 Palmdale to Palmdale Take off date UTC: 01-OCT-2013 Departure UTC: ~03:57 Arrival UTC: ~12:15

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HD 1287	00h17m18.70s	62d49m33.0s	4:27	30	
5	01_0099	Mandell	HD189733	20h00m44.00s	22d42m39.0s	5:01	175	
6	01_0124	Peeters	HD 233517	08h22m46.71s	53d04m49.2s	7:59	64	Sky flats taken for prior leg – no data for this target.
7		Commissioning	HD 287823	05h24m08.00s	02d27m46.9s	9:06	45	
8		Commissioning	2MASS 06031767	06h03m17.70s	11d08m10.0s	9:51	100	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)





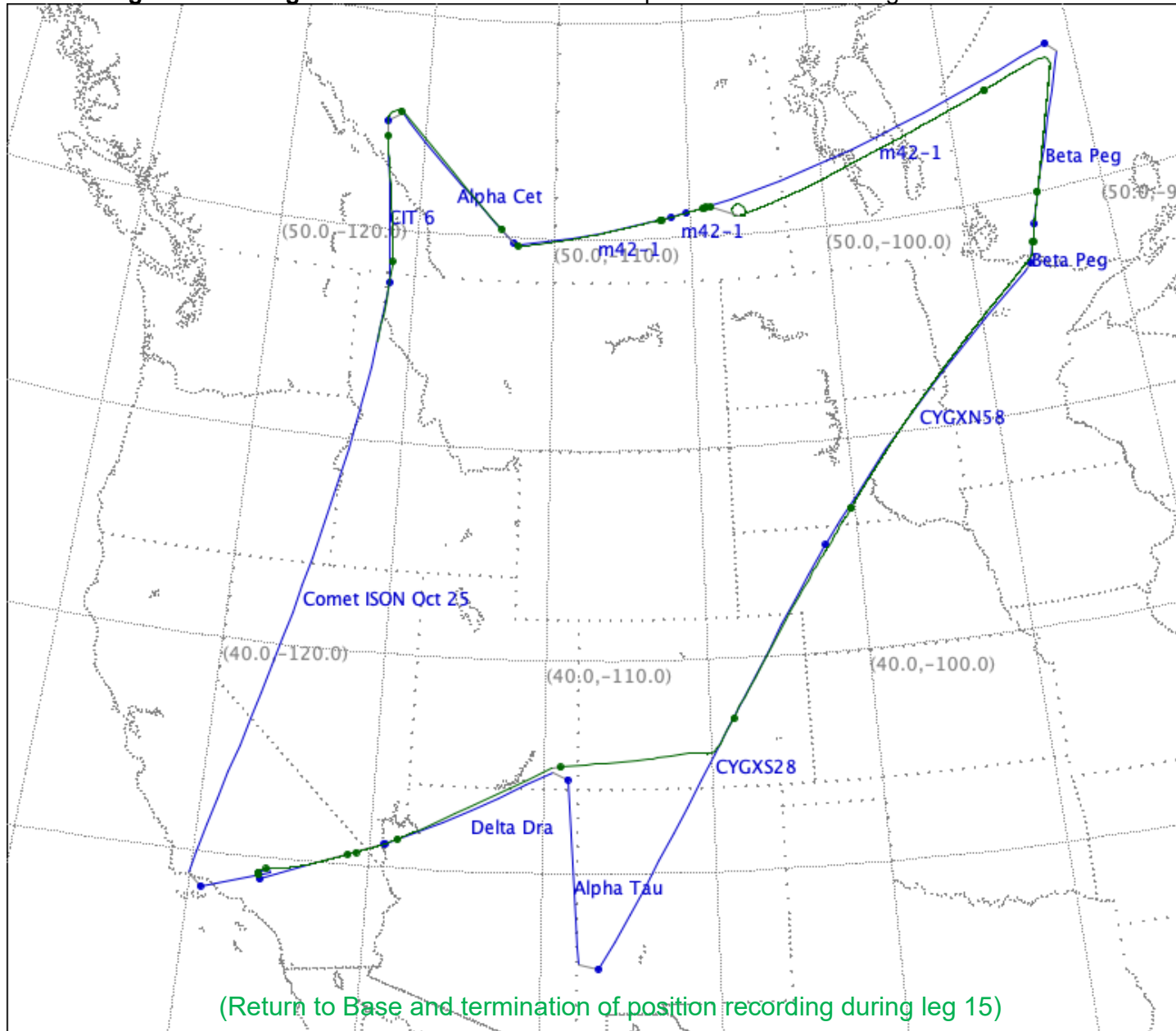
**MISSION ID: 2013-10-25\_FO\_F135**

**Date: 2013-10-25 UT Instrument: FORCAST**

**Flight #: 135 Flight Series: OC1F**

blue = planned route

green = flown route



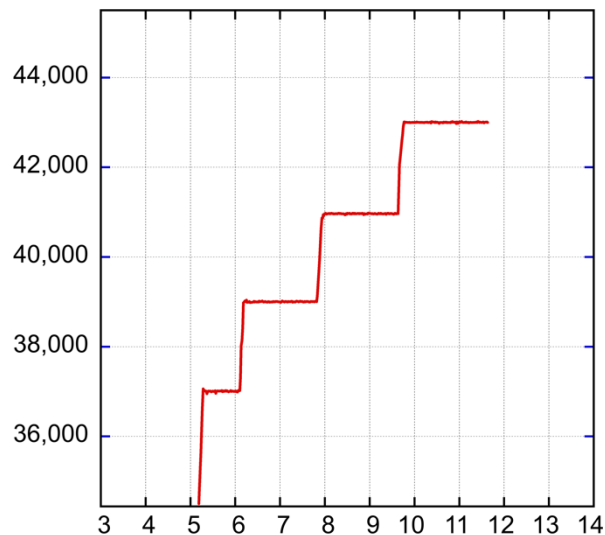
## Flight notes:

**Late departure. FPI nonfunctional entire flight. Early return to Palmdale base during leg 15.**

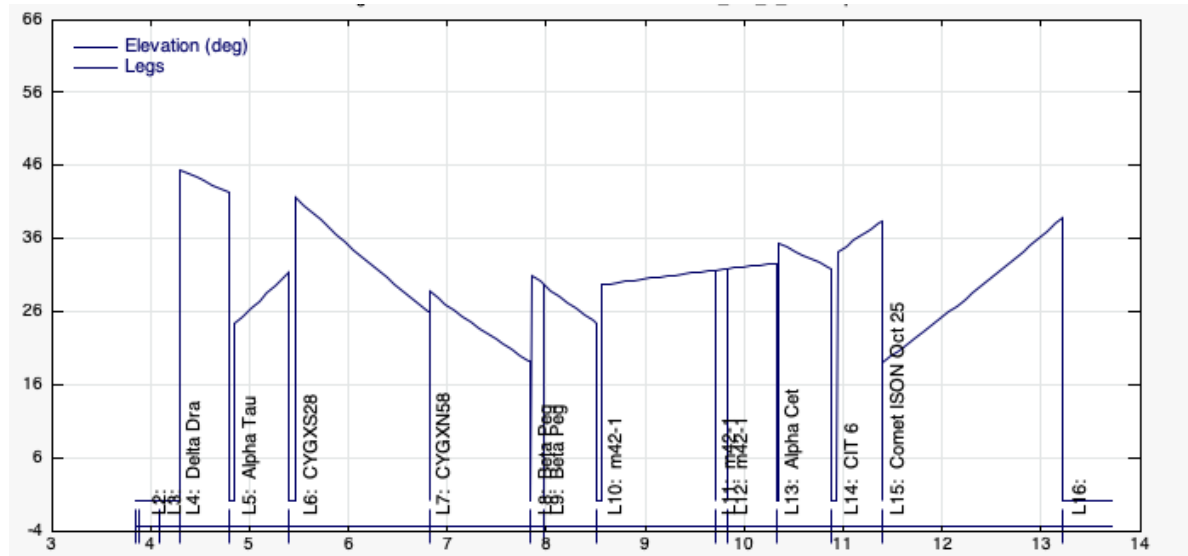
Flight 135 Mission ID 2013-10-25\_FO\_F135  
 Palmdale to Palmdale Take off date UTC: 25-OCT-2013  
 Departure UTC: 04:44 Arrival UTC: HH:MM

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Delta Dra	19h12m33.60s	67d32m42.0s	4:19	30	
5	90_0013	Calibration	Alpha Tau	04h35m55.24s	16d30m33.5s	4:52	33	Late departure – no data.
6	01_0035	Hora	CYGXS28	20h29m36.70s	39d01m21.0s	5:29	81	
7	01_0035	Hora	CYGXN58	20h39m25.88s	41d20m01.8s	6:50	61	
8	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	7:52	7	
9	90_0013	Calibration	Beta Peg	23h03m46.46s	28d04m58.0s	8:00	32	
10	70_0002	GTO	m42	05h35m20.70s	-05d24m58.0s	8:35	69	
11	70_0002	GTO	m42	05h35m20.70s	-05d24m58.0s	9:49	7	
12	70_0002	GTO	m42	05h35m20.70s	-05d24m58.0s	9:52	30	
13	90_0013	Calibration	Alpha Cet	03h02m16.77s	04d05m23.1s	10:22	32	
14	01_0041	Sloan	CIT 6	10h16m02.30s	30d34m19.0s	10:58	27	
15			Comet ISON Oct 25	10h43m35.41s	10d00m11.3s	11:25	109	Irrecoverable observatory control software crash; limited data before early return to base.

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



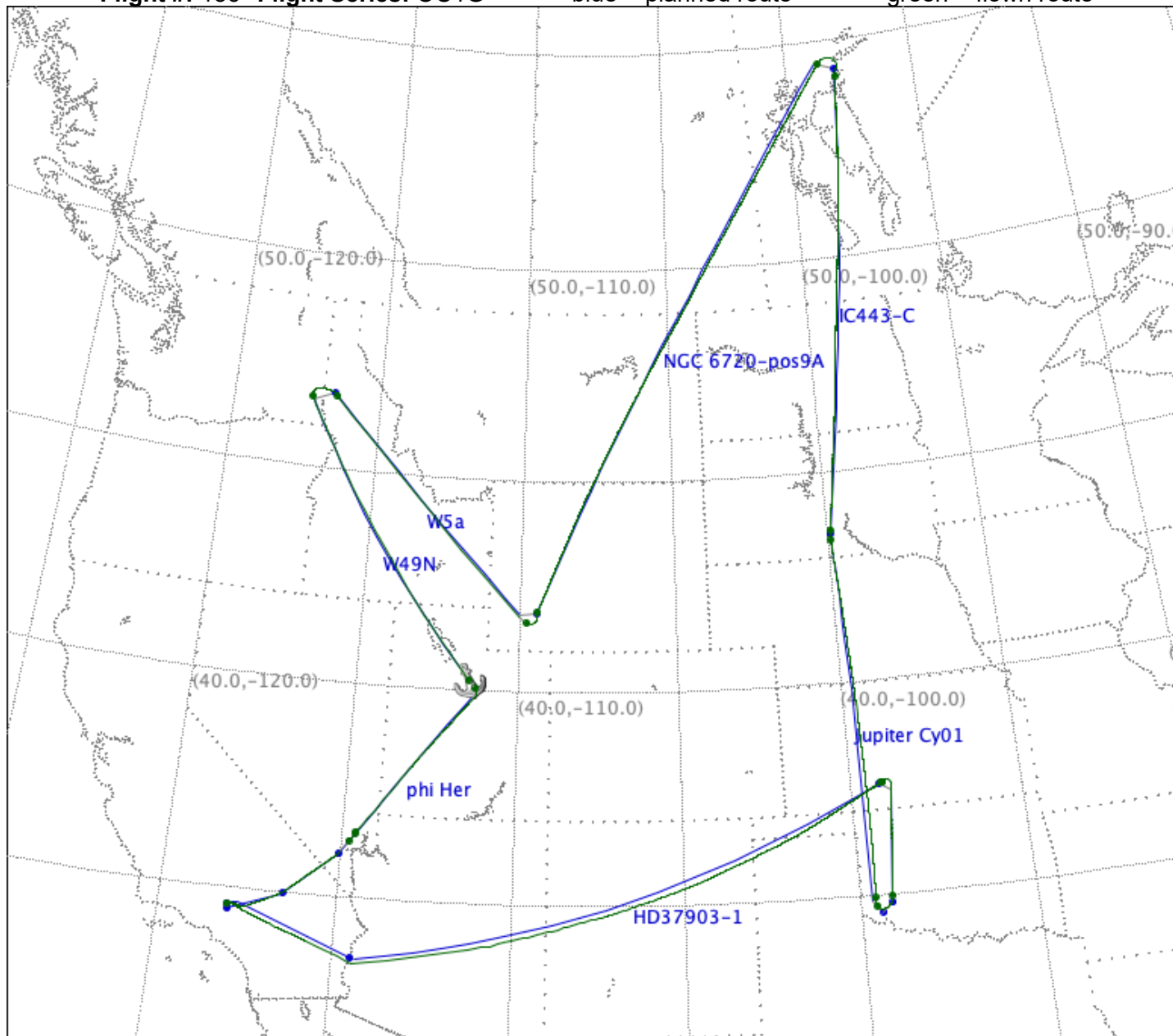
**MISSION ID: 2013-11-01\_GR\_F136**

**Date: 2013-11-01 UT Instrument: GREAT**

**Flight #: 136 Flight Series: OC1G**

blue = planned route

green = flown route



**Flight notes:  
No irregularities.**

Flight 136 Mission ID  
Palmdale to Palmdale

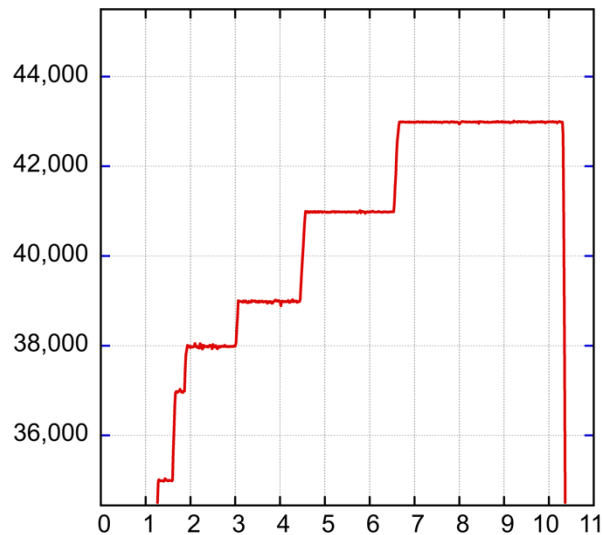
2013-11-01\_GR\_F136  
Take off date UTC:  
01-NOV-2013

Departure UTC: ~00:45  
Arrival UTC: ~10:41

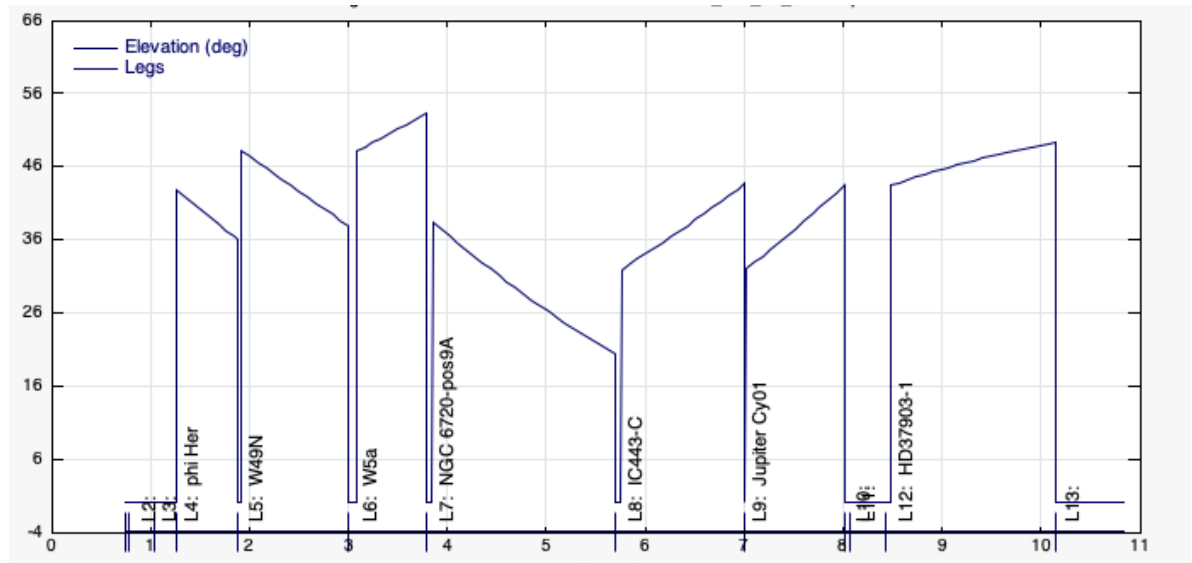
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			phi Her	16h08m46.18s	44d56m05.7s	1:16	37	
5		Calibration	W49N	19h10m13.20s	09d06m12.0s	1:55	65	
6	01_0064	Koenig	W5a	02h52m18.23s	60d02m41.2s	3:05	43	
7	01_0138	Sahai	NGC 6720-pos9A	18h53m37.36s	33d01m01.0s	3:52	110	Troubles acquiring and setting up guiding.
8	01_0156	Guesten	IC443-C	06h17m42.80s	22d21m29.0s	5:46	75	
9	90_0008	Calibration	Jupiter Cy01	07h26m54.44s	21d55m04.0s	7:01	60	
12	01_0051	Sandell	HD37903	05h41m38.39s	-02d15m32.5s	8:30	100	

**Flown altitude (ft.) vs. time (UTC hrs.)**



**Planned target elevation (deg.) vs. time (UTC hrs.)**



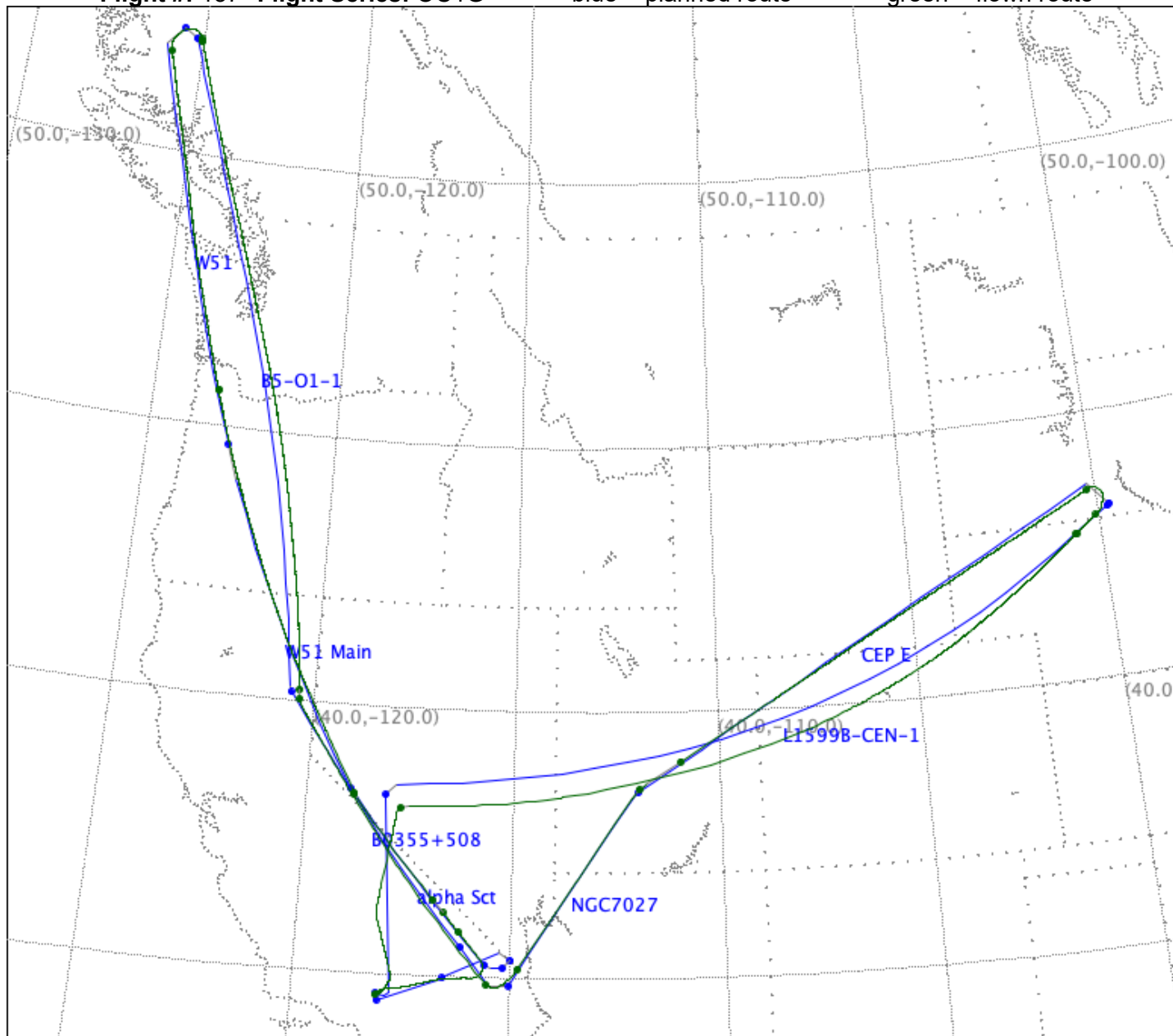
**MISSION ID: 2013-11-02\_GR\_F137**

**Date: 2013-11-02 UT Instrument: GREAT**

**Flight #: 137 Flight Series: OC1G**

blue = planned route

green = flown route



**Flight notes:  
No irregularities.**

Flight 137 Mission ID  
Palmdale to  
Palmdale

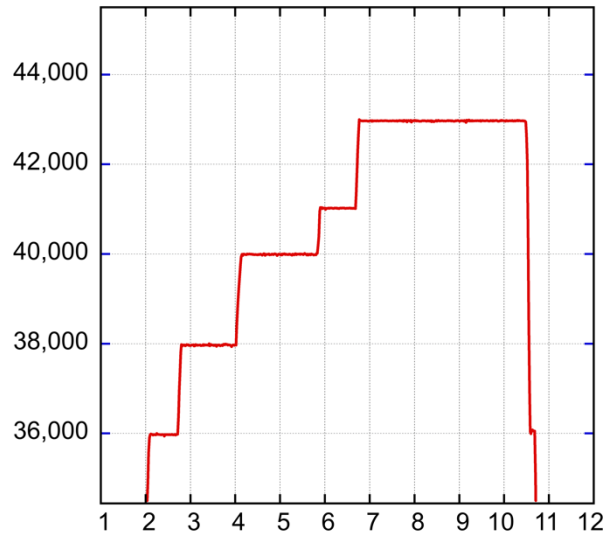
2013-11-02\_GR\_F137  
Take off date UTC:  
02-NOV-2013

Departure UTC: ~01:23  
Arrival UTC: ~11:12

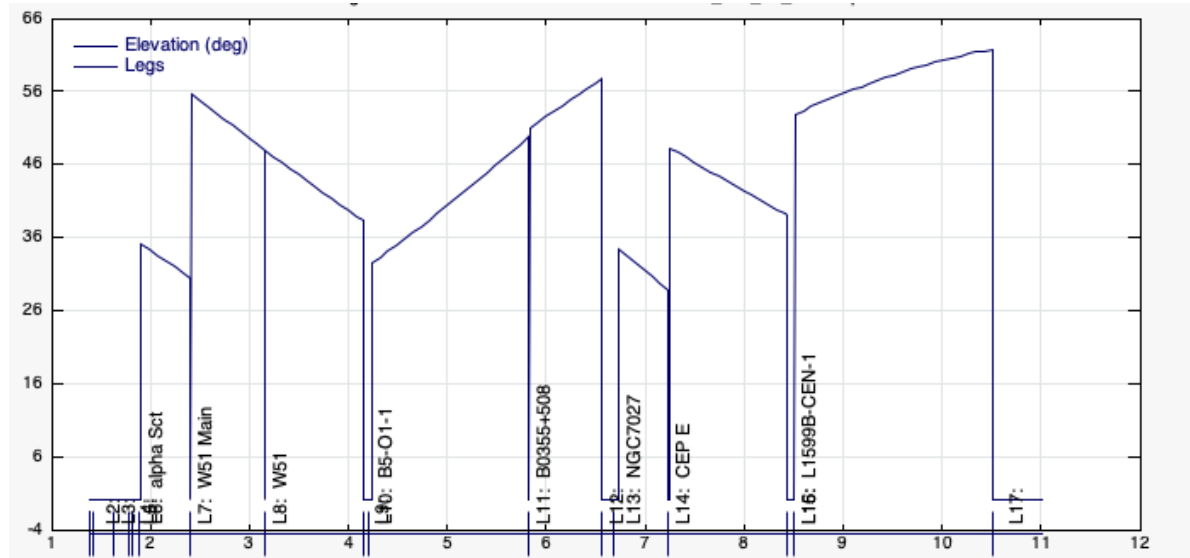
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
6			alpha Sct	18h35m12.43s	-08d14m38.6s	1:56	30	
7	01_0172	Csengeri	W51 Main	19h23m40.82s	14d30m37.1s	2:26	45	
8	01_0039	Neufeld	W51	19h23m43.90s	14d30m30.5s	3:16	59	
10	01_0040	Goldsmith	B5-O1	03h47m19.92s	33d03m00.0s	4:16	95	
11	01_0183	Glueck	B0355+508	03h59m29.00s	50d57m50.0s	5:52	44	Possible vignetting at end of leg.
13	90_0011	Calibration	NGC7027	21h07m01.59s	42d14m10.2s	6:46	30	
14	01_0113	GUSDORF	CEP E	23h03m14.20s	61d42m21.0s	7:16	71	
16	01_0040	Goldsmith	L1599B-CEN	05h49m27.40s	07d22m07.0s	8:33	120	Vignetting at end of leg possible.

**Flown altitude (ft.) vs. time (UTC hrs.)**



**Planned target elevation (deg.) vs. time (UTC hrs.)**



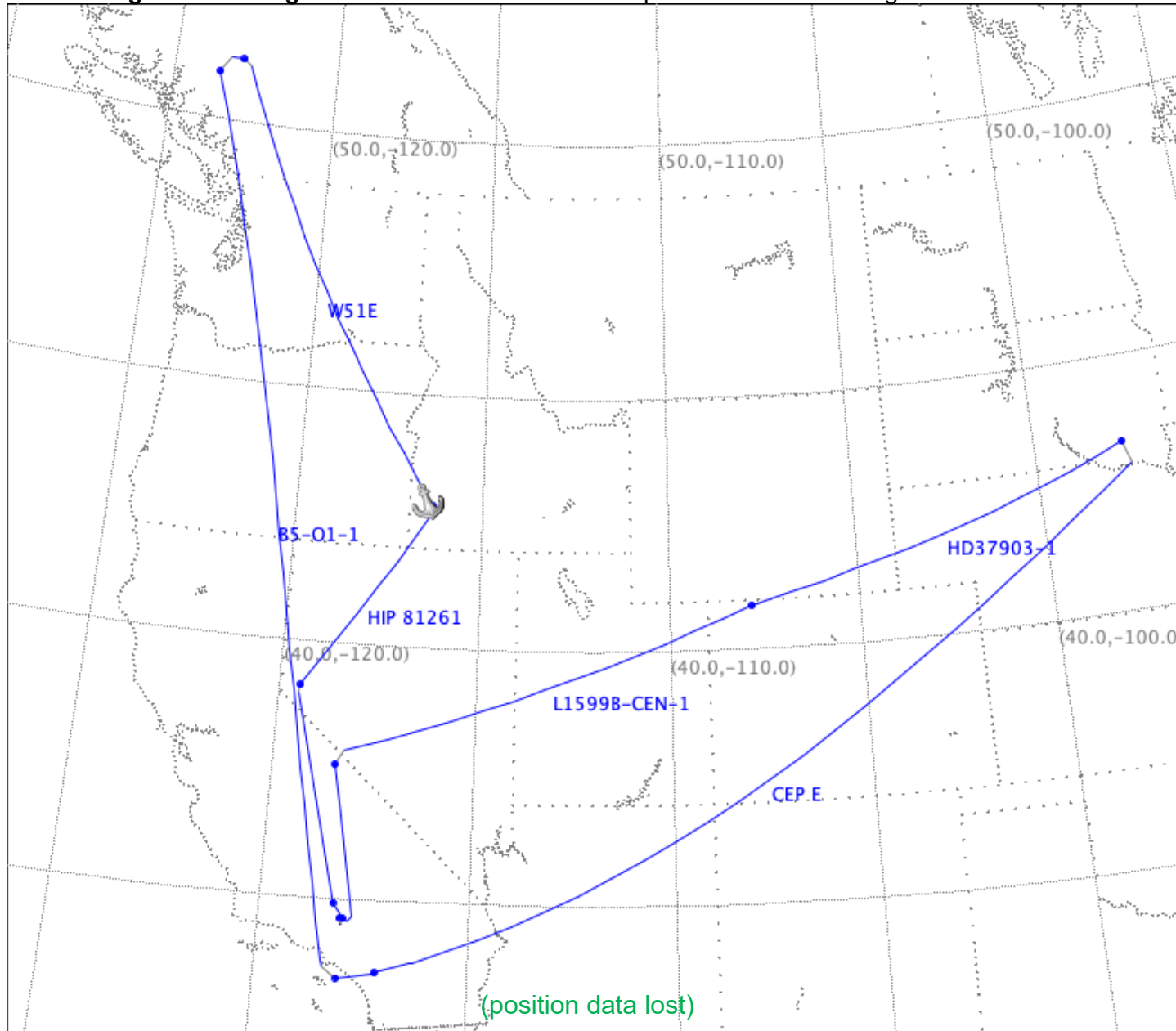
**MISSION ID: 2013-11-05\_GR\_F138**

**Date: 2013-11-05 UT Instrument: GREAT**

**Flight #: 138 Flight Series: OC1G**

**blue = planned route**

**green = flown route**



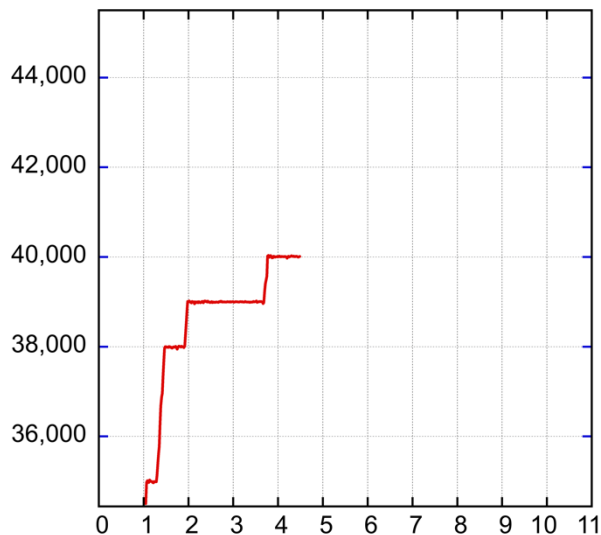
## Flight notes:

**Main deck power failure led to early return to Palmdale base during leg 7.**

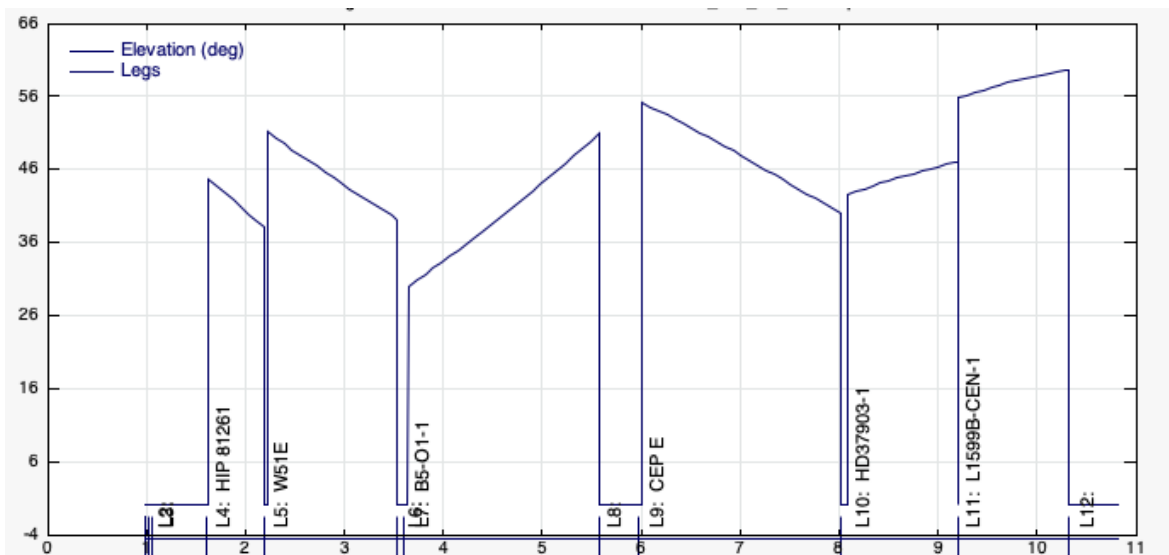
Flight 138 Mission ID 2013-11-05\_GR\_F138  
 Palmdale to Palmdale Take off date UTC: 05-NOV-2013  
 Departure UTC: ~00:59 Arrival UTC: HH:MM L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP 81261	16h35m49.94s	40d53m17.2s	1:47	34	
5	01_0174	Wyrowski	W51E	19h23m43.70s	14d30m32.0s	2:22	79	
7	01_0040	Goldsmith	B5-O1	03h47m19.92s	33d03m00.0s	3:48	116	Halfway through leg there was an irrecoverable mission systems power failure; early return to base
9	01_0113	GUSDORF	CEP E	23h03m14.20s	61d42m21.0s	5:52	120	Leg not flown; early return to base
10	01_0051	Sandell	HD37903	05h41m38.39s	-02d15m32.5s	7:57	67	Leg not flown; early return to base
11	01_0040	Goldsmith	L1599B-CEN	05h49m27.40s	07d22m07.0s	9:04	67	Leg not flown; early return to base

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)





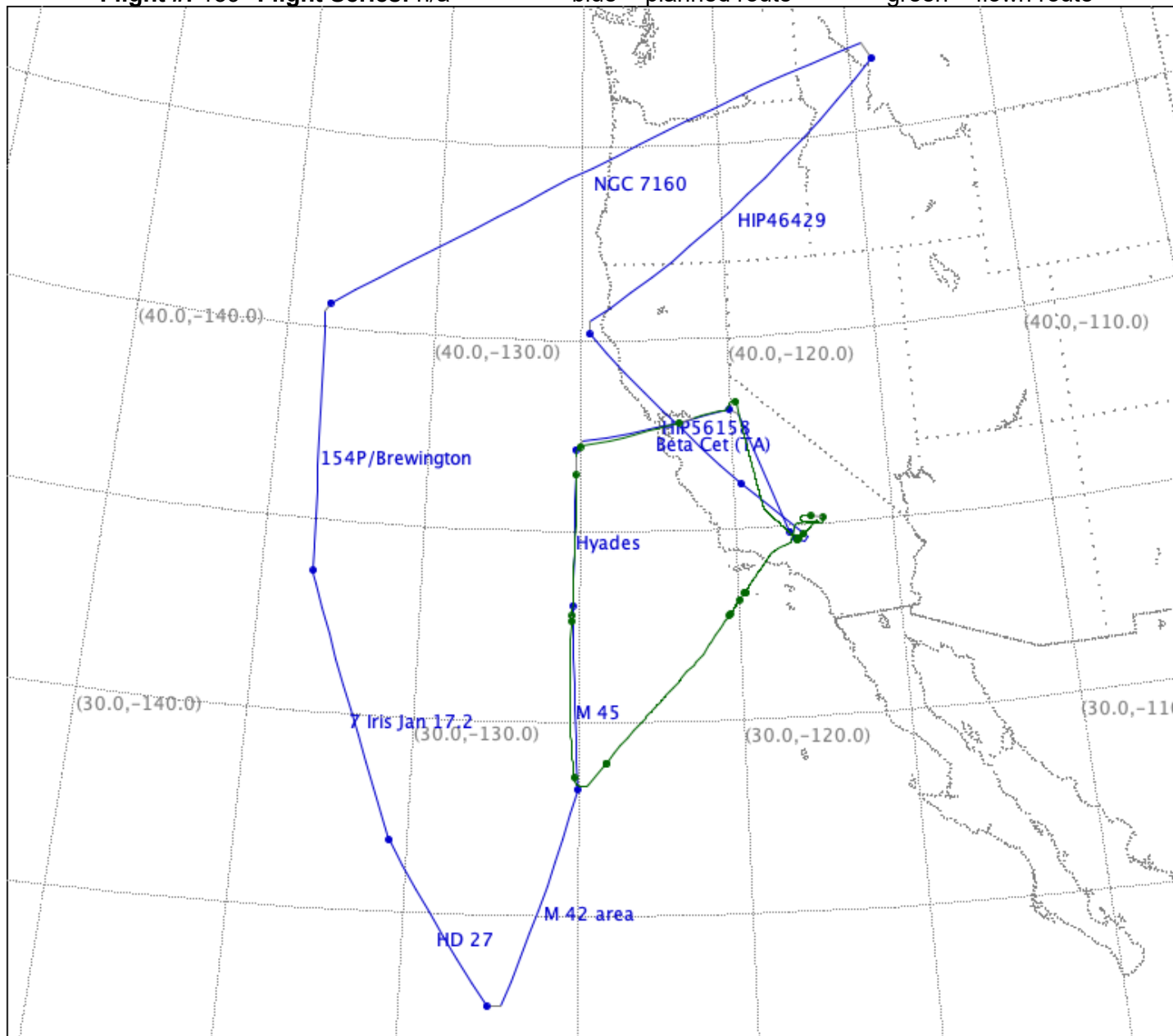
# MISSION ID: 2014-01-16\_NO\_F139

Date: 2014-01-16 UT Instrument: n/a

Flight #: 139 Flight Series: n/a

blue = planned route

green = flown route



## Flight notes:

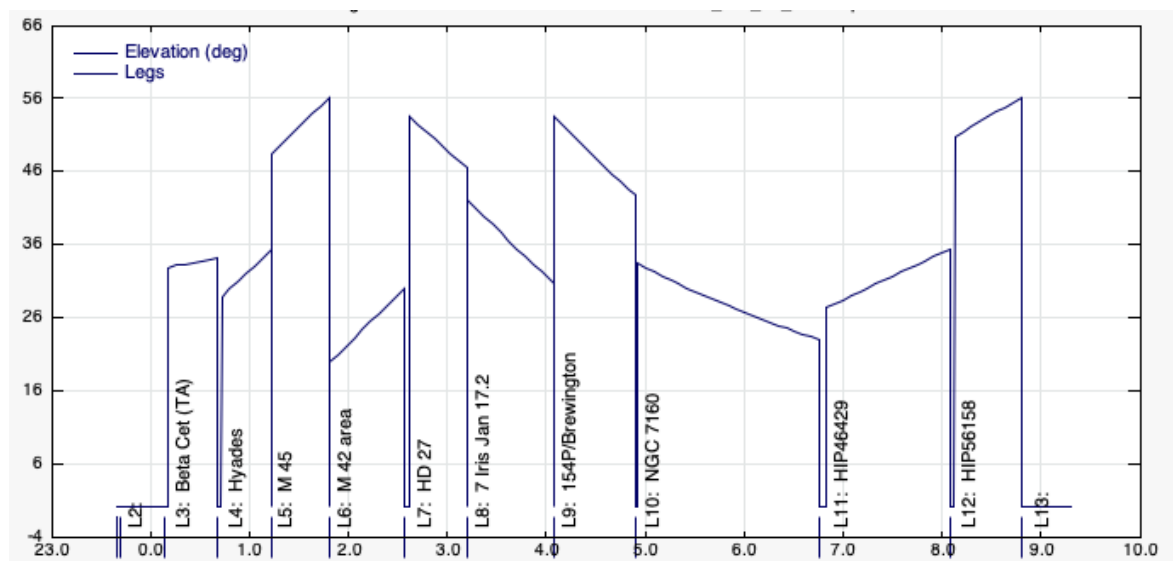
**Near end of leg 5 pilots were contacted by ground crew that they found an aircraft configuration control problem that required immediate return to base.**

Flight 139 Mission ID 2014-01-16\_NO\_F139  
 Palmdale to Palmdale Take off date UTC: 16-JAN-2014  
 Departure UTC: ~23:40 Arrival UTC: HH:MM

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			Beta Cet (TA)	00h43m36.00s	-17d59m11.0s	0:11	30	
4		engineering	Hyades	04h32m30.00s	16d24m00.0s	0:43	30	
5		engineering	M 45	03h47m29.00s	24d46m18.0s	1:14	35	
6		engineering	M 42 area	05h35m00.00s	-04d52m00.0s	1:49	45	Near end of leg the pilots were contacted by ground crew that they found an aircraft configuration control problem that required immediate return to base.
7		engineering	HD 27	00h05m18.52s	-01d47m38.5s	2:37	35	Leg not flown; early return to base
8		engineering	7 Iris Jan 17.2	23h33m01.00s	01d27m22.0s	3:13	52	Leg not flown; early return to base
9		engineering	154P/Brewington	00h28m24.00s	23d09m00.0s	4:05	49	Leg not flown; early return to base
10		engineering	NGC 7160	21h53m40.20s	62d36m12.0s	4:56	110	Leg not flown; early return to base
11		engineering	HIP46429	09h28m06.23s	-10d01m28.6s	6:50	75	Leg not flown; early return to base
12		engineering	HIP56158	11h30m42.78s	56d44m47.0s	8:08	40	Leg not flown; early return to base

Flown altitude (ft.) vs. time (UTC hrs.)

Planned target elevation (deg.) vs. time (UTC hrs.)



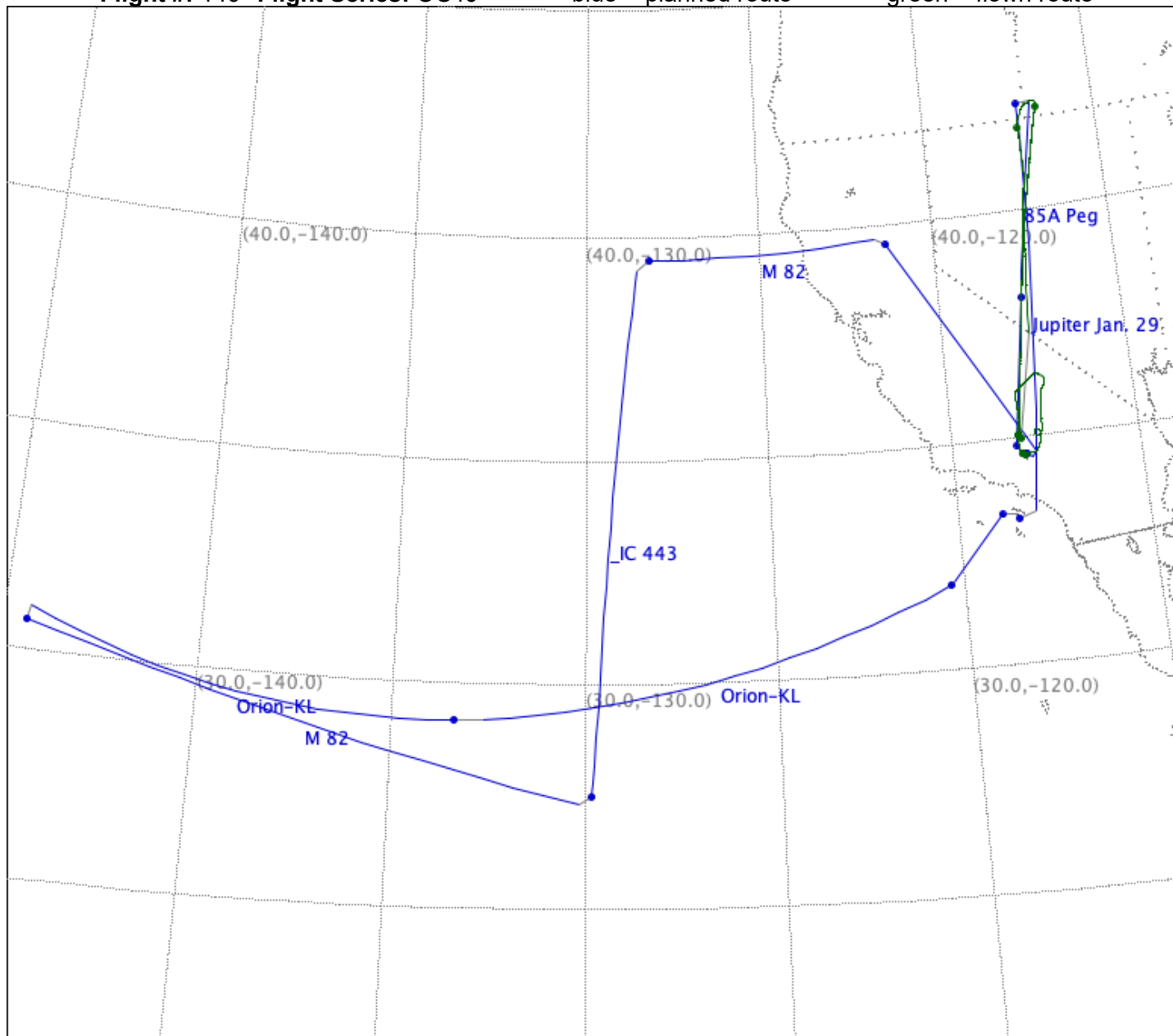
**MISSION ID: 2014-01-29\_GR\_F140**

**Date: 2014-01-29 UT Instrument: GREAT**

**Flight #: 140 Flight Series: OC1J**

blue = planned route

green = flown route

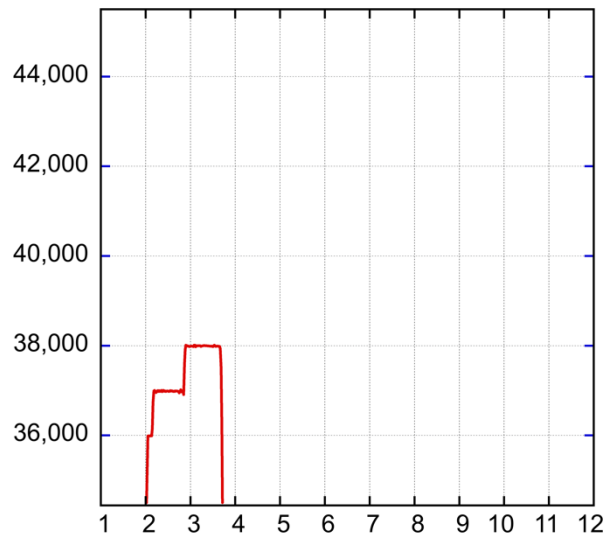


## Flight notes:

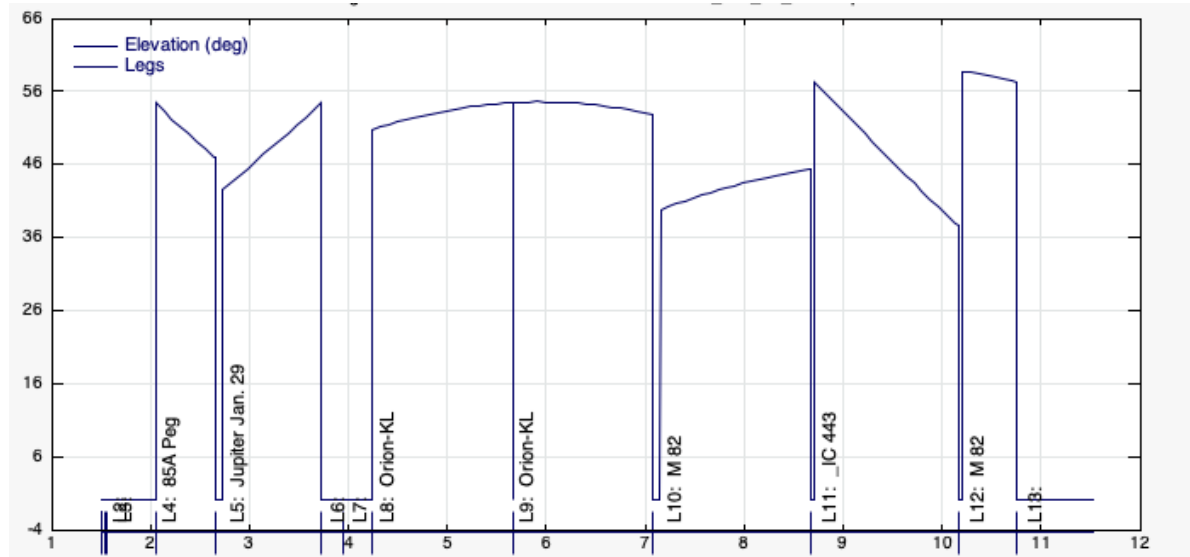
**Irrecoverable equipment failure led to early return to Palmdale base.**

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			85A Peg	00h02m11.10s	27d04m43.0s	2:07	36	
5			Jupiter Jan. 29	06h53m39.00s	23d03m03.0s	2:48	60	At start of leg there was an irrecoverable equipment failure related to the telescope; early return to base.
8			Orion-KL	05h35m20.60s	-05d25m14.0s	4:10	85	Leg not flown; early return to base
9			Orion-KL	05h35m20.60s	-05d25m14.0s	5:40	85	Leg not flown; early return to base
10			M 82	09h55m52.20s	69d40m46.9s	7:04	91	Leg not flown; early return to base
11			_IC 443	06h16m42.00s	22d31m41.0s	8:38	87	Leg not flown; early return to base
12			M 82	09h55m52.20s	69d40m46.9s	10:07	33	Leg not flown; early return to base

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)



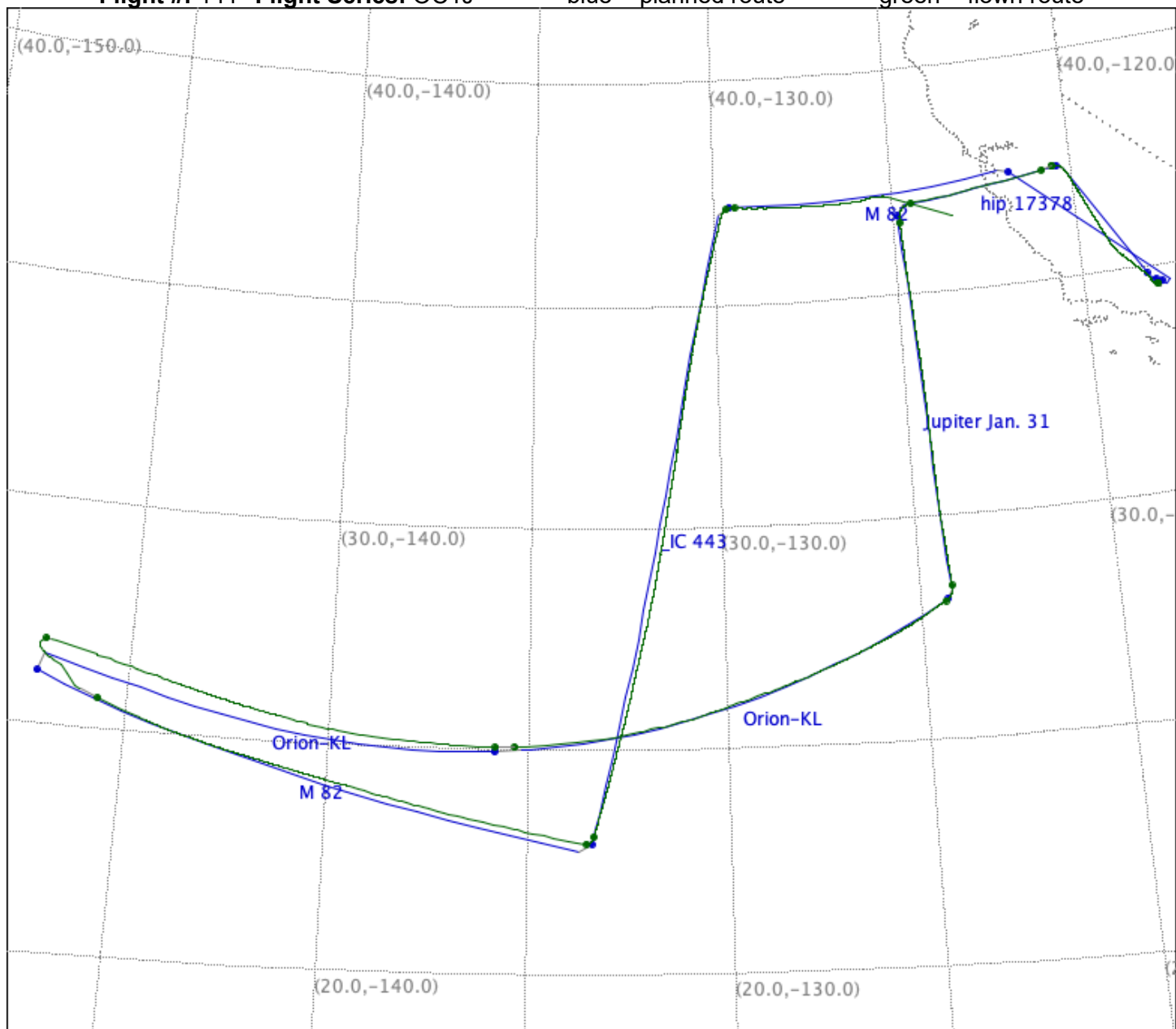
**MISSION ID: 2014-01-31\_GR\_F141**

**Date: 2014-01-31 UT Instrument: GREAT**

**Flight #: 141 Flight Series: OC1J**

blue = planned route

green = flown route



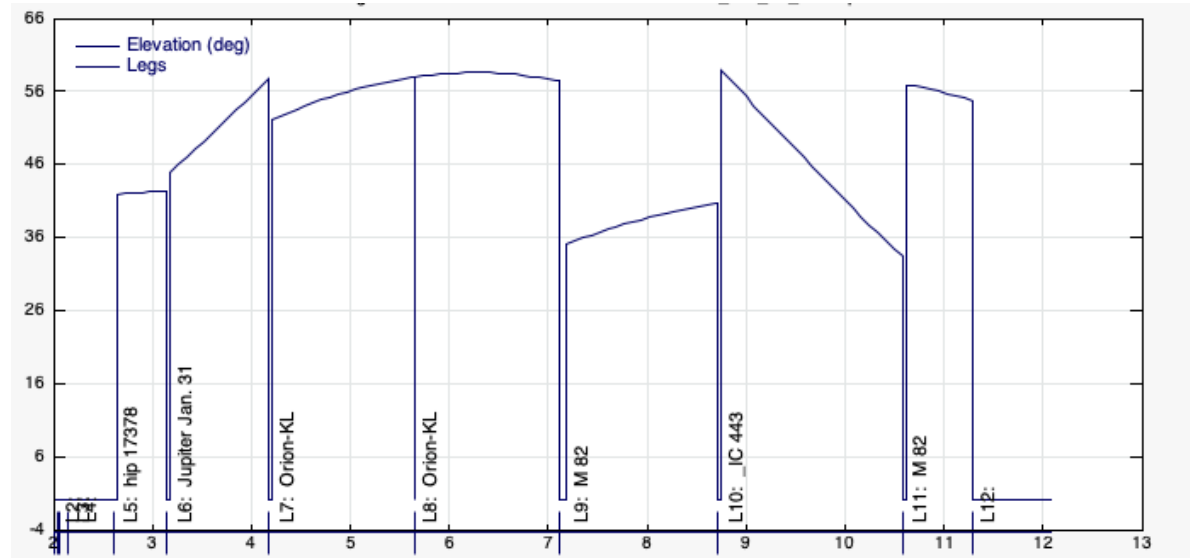
## Flight notes:

**Slightly late departure. GREAT L2 channel local oscillator non-operational after leg 6.**

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			hip 17378	03h43m14.80s	-09d45m37.6s	2:36	30	
6			Jupiter Jan. 31	06h52m47.68s	23d04m20.4s	3:09	60	
7			Orion-KL	05h35m20.60s	-05d25m14.0s	4:10	87	L2 channel local oscillator failed during leg
8			Orion-KL	05h35m20.60s	-05d25m14.0s	5:42	87	
9			M 82	09h55m52.20s	69d40m46.9s	7:09	91	
10			_IC 443	06h16m42.00s	22d31m41.0s	8:43	110	
11			M 82	09h55m52.20s	69d40m46.9s	10:35	40	Engineering for part of leg, then direct home early.

Flown altitude (ft.) vs. time (UTC hrs.)

Planned target elevation (deg.) vs. time (UTC hrs.)



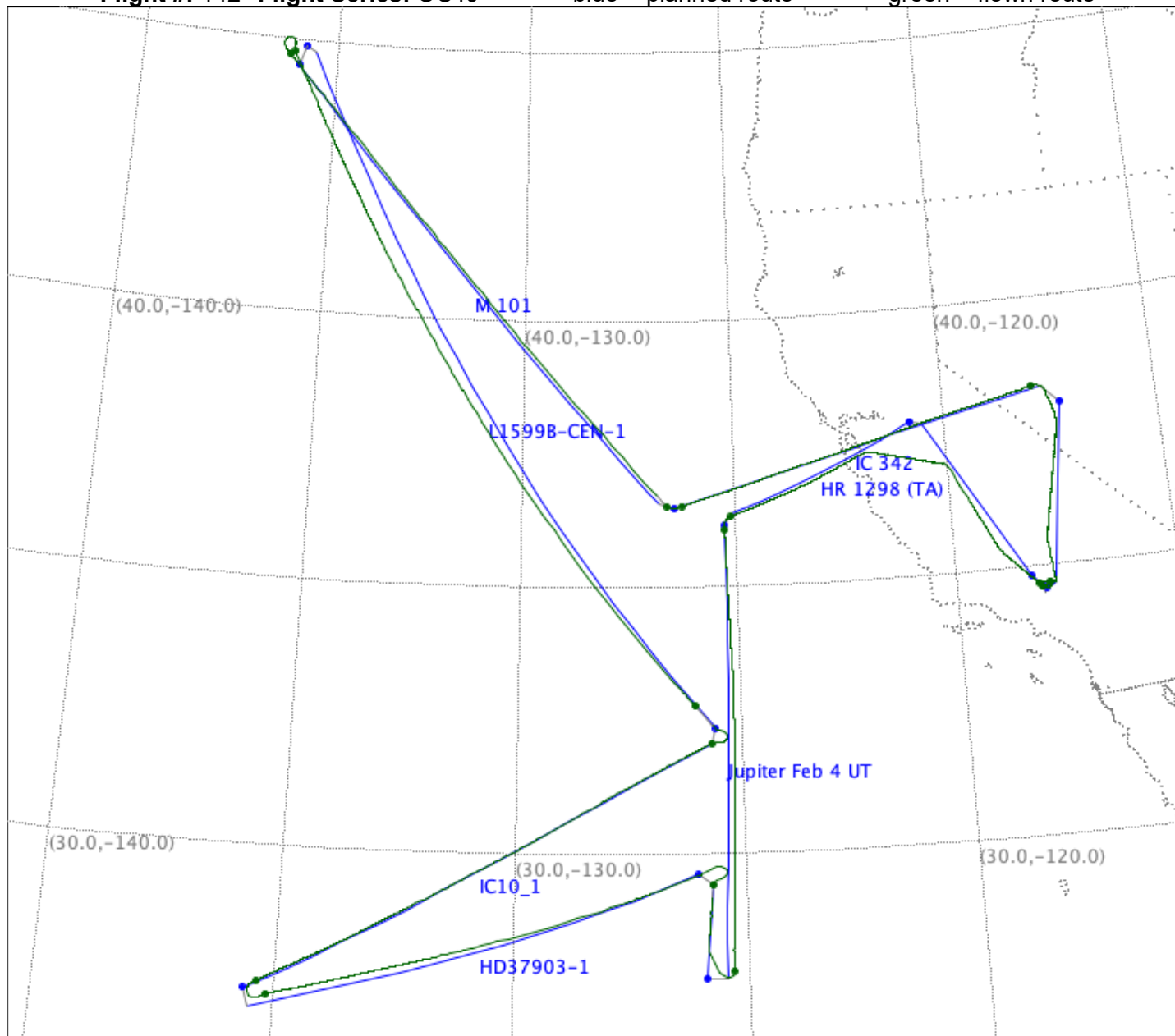
**MISSION ID: 2014-02-04\_GR\_F142**

**Date: 2014-02-04 UT Instrument: GREAT**

**Flight #: 142 Flight Series: OC1J**

blue = planned route

green = flown route



**Flight notes:  
Slightly late departure.**

Flight 142 Mission ID  
Palmdale to Palmdale

2014-02-04\_GR\_F142  
Take off date UTC:  
04-FEB-2014

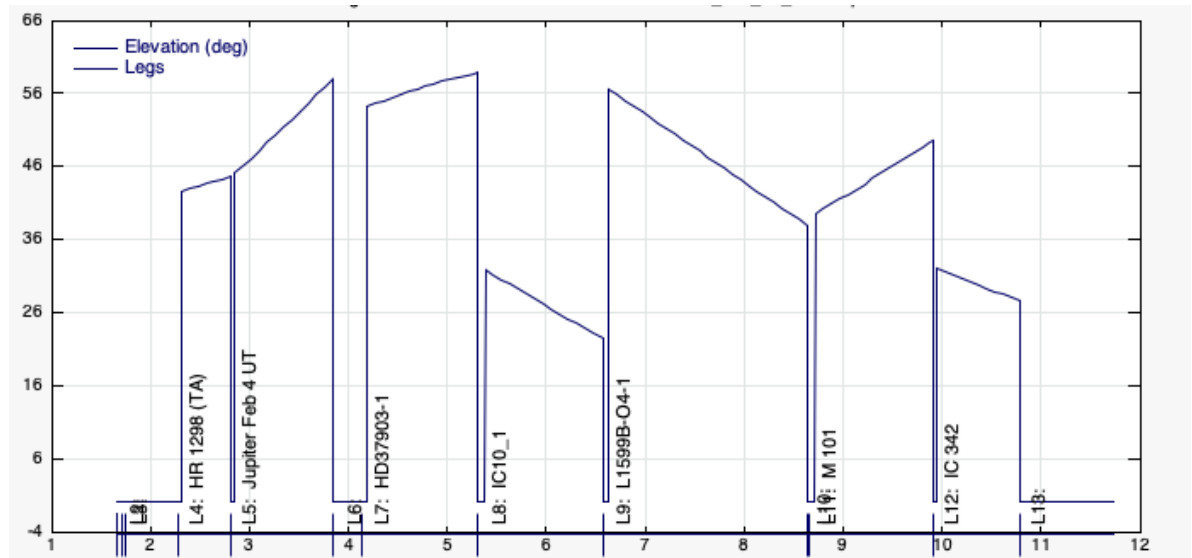
Departure UTC: ~01:40  
Arrival UTC: ~11:30

L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HR 1298 (TA)	04h11m52.00s	-06d50m14.0s	2:25	30	
5			Jupiter Feb 4 UT	06h44m40.00s	23d16m54.0s	2:57	60	
7	01_0051	Sandell	HD37903	05h41m38.39s	-02d15m32.5s	4:17	67	
8	01_0125	Jameson	IC10_1	00h20m01.30s	59d16m42.3s	5:28	72	
9	01_0040	Goldsmith	L1599B-O4	05h50m34.51s	07d04m24.7s	6:43	120	
11			M 101	14h03m53.00s	54d22m04.0s	8:48	72	
12	01_0161	Roellig	IC 342	03h46m48.50s	68d05m47.0s	10:02	50	

Flown altitude (ft.) vs. time (UTC hrs.)

Planned target elevation (deg.) vs. time (UTC hrs.)





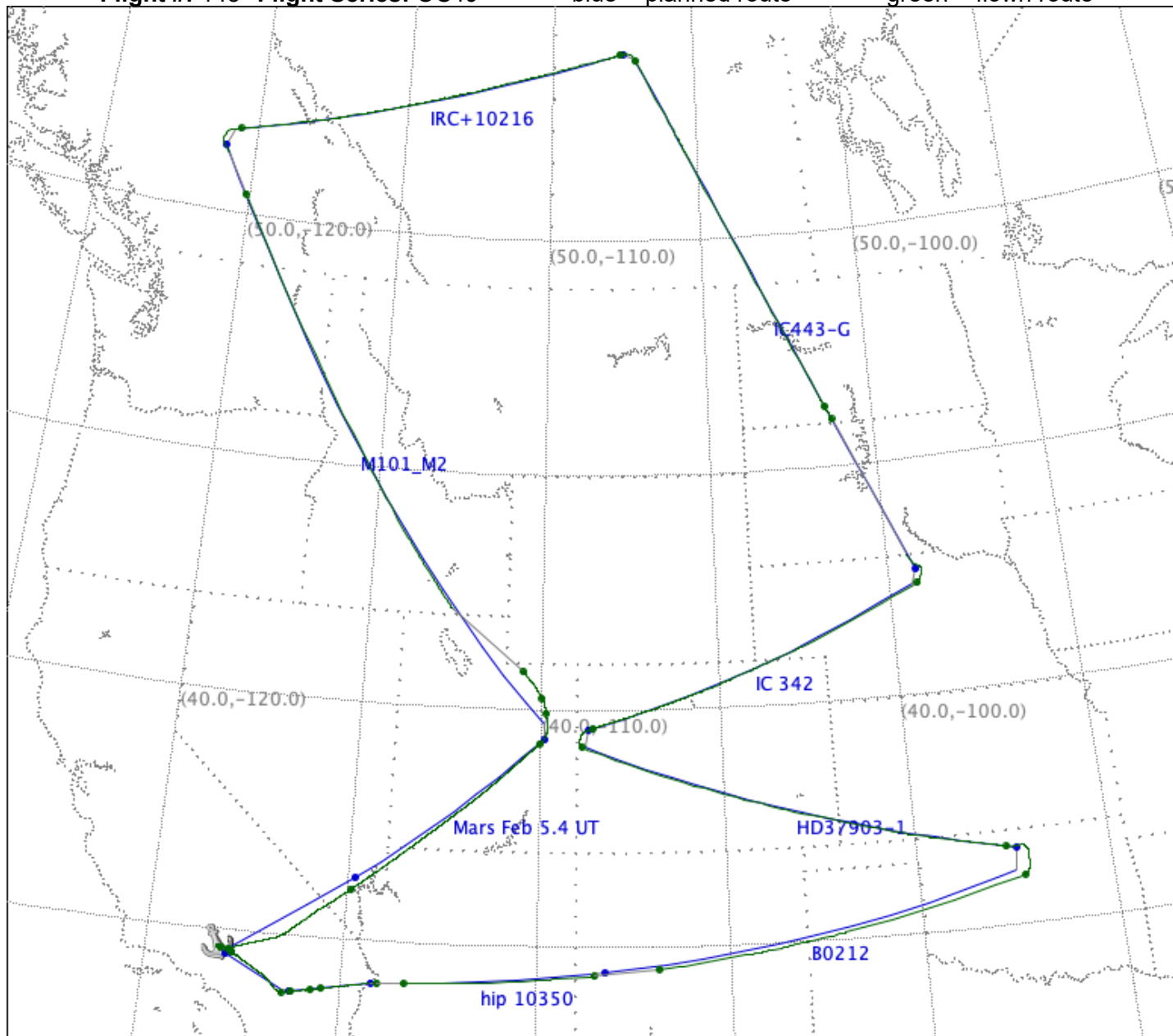
# MISSION ID: 2014-02-05\_GR\_F143

Date: 2014-02-05 UT Instrument: GREAT

Flight #: 143 Flight Series: OC1J

blue = planned route

green = flown route



## Flight notes:

### GREAT L2 channel local oscillator non-operational after leg 8.

Flight 143  
Palmdale to  
Palmdale

Mission ID

2014-02-05\_GR\_F143

Take off date UTC:

05-FEB-2014

Departure UTC:

01:16

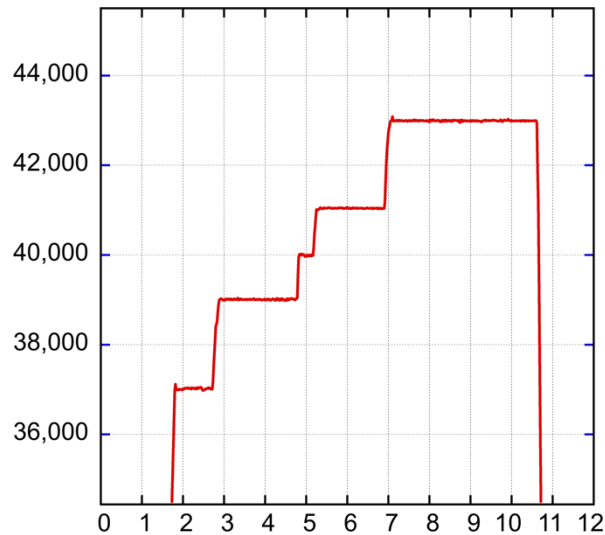
Arrival UTC:

~11:06

L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			hip 10350	02h13m21.30s	74d01m39.2s	1:49	30	
5			B0212	02h17m30.80s	73d49m32.6s	2:21	57	
6	01_0051	Sandell	HD37903	05h41m38.39s	-02d15m32.5s	3:21	82	
7	01_0161	Roellig	IC 342	03h46m48.50s	68d05m47.0s	4:47	50	
8	01_0156	Guesten	IC443-G	06h16m41.80s	22d31m41.0s	5:39	95	
9	02_0115	Wiesemeyer	IRC+10216	09h47m57.41s	13d16m43.6s	7:16	60	L2 channel local oscillator failed during leg; some time lost
10	02_0098	Herrera-Camus	M101_M3	14h02m55.00s	54d22m20.0s	8:19	94	Spontaneous telescope shutdown followed by an observatory control software crash; significant time lost
11			Mars Feb 5.4 UT	13h33m10.00s	-06d56m56.0s	9:56	40	

Flown altitude (ft.) vs. time (UTC hrs.)



Planned target elevation (deg.) vs. time (UTC hrs.)

