

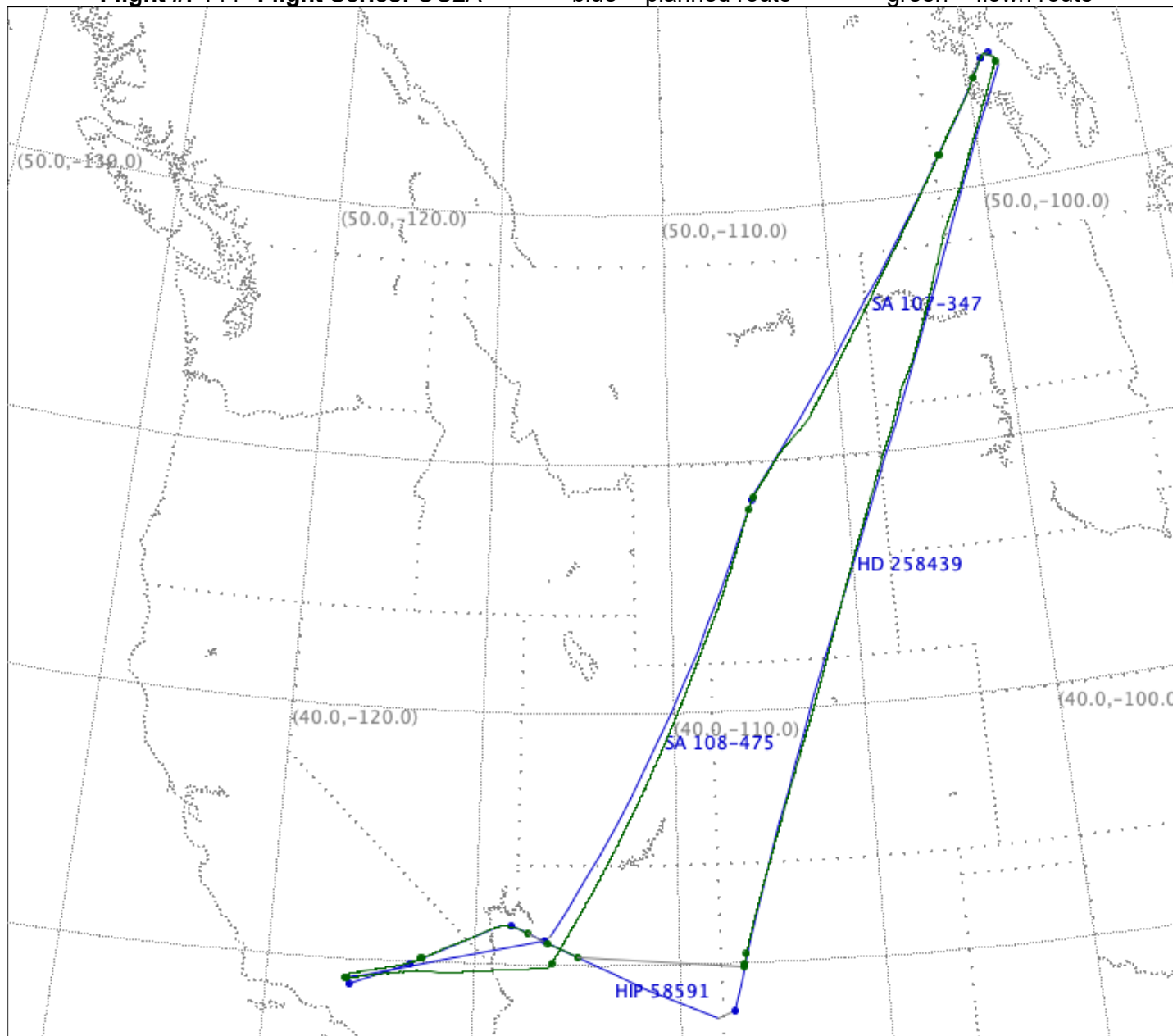
MISSION ID: 2014-02-13_FP_F144

Date: 2014-02-13 UT Instrument: FLITECAM + HIPO

Flight #: 144 Flight Series: OC2A

blue = planned route

green = flown route

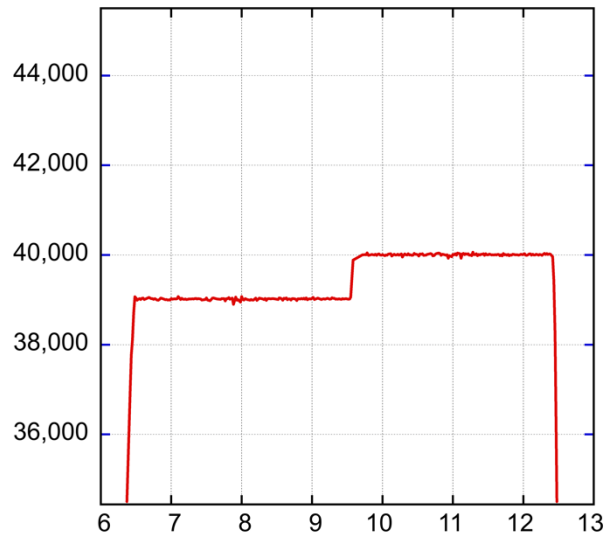


Flight notes:
FLITECAM commissioning flight. Engineering data only.

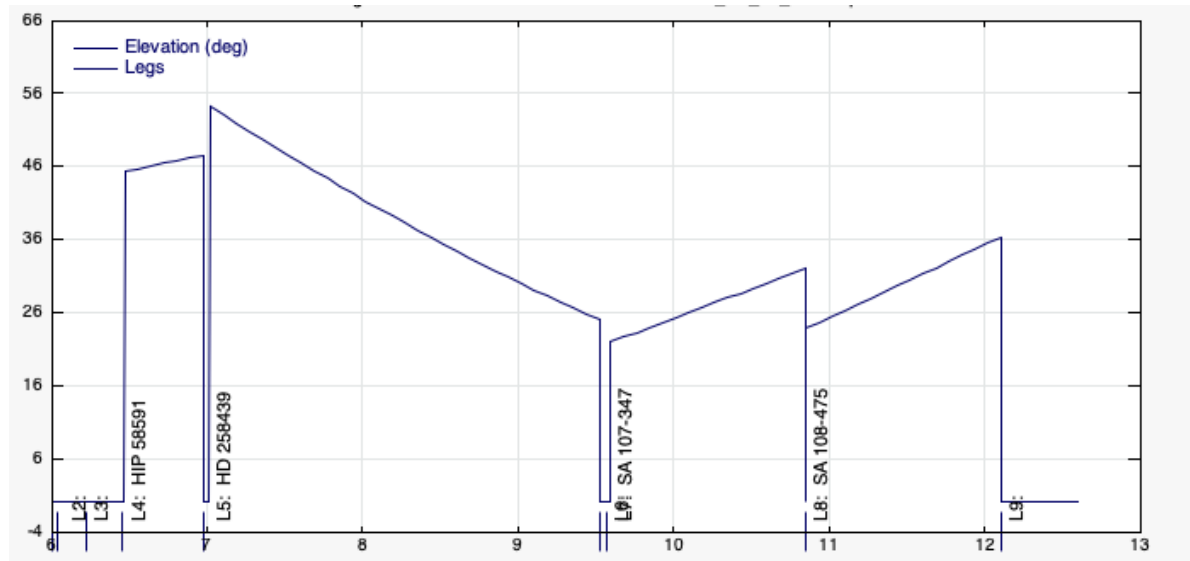
Flight 144 Mission ID 2014-02-15_FP_F144
 Palmdale to Palmdale Take off date UTC: 15-FEB-2014
 Departure UTC: ~06:00 Arrival UTC: ~12:47

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP 58591	12h00m52.70s	70d14m16.0s	6:30	30	
5		Commissioning	HD 258439	06h30m53.80s	29d25m23.6s	7:03	150	Technical issue – little data.
7		Commissioning	SA 107-347	15h38m35.77s	-00d35m57.7s	9:38	75	
8		Commissioning	SA 108-475	16h37m00.60s	-00d34m39.1s	10:53	75	

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



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



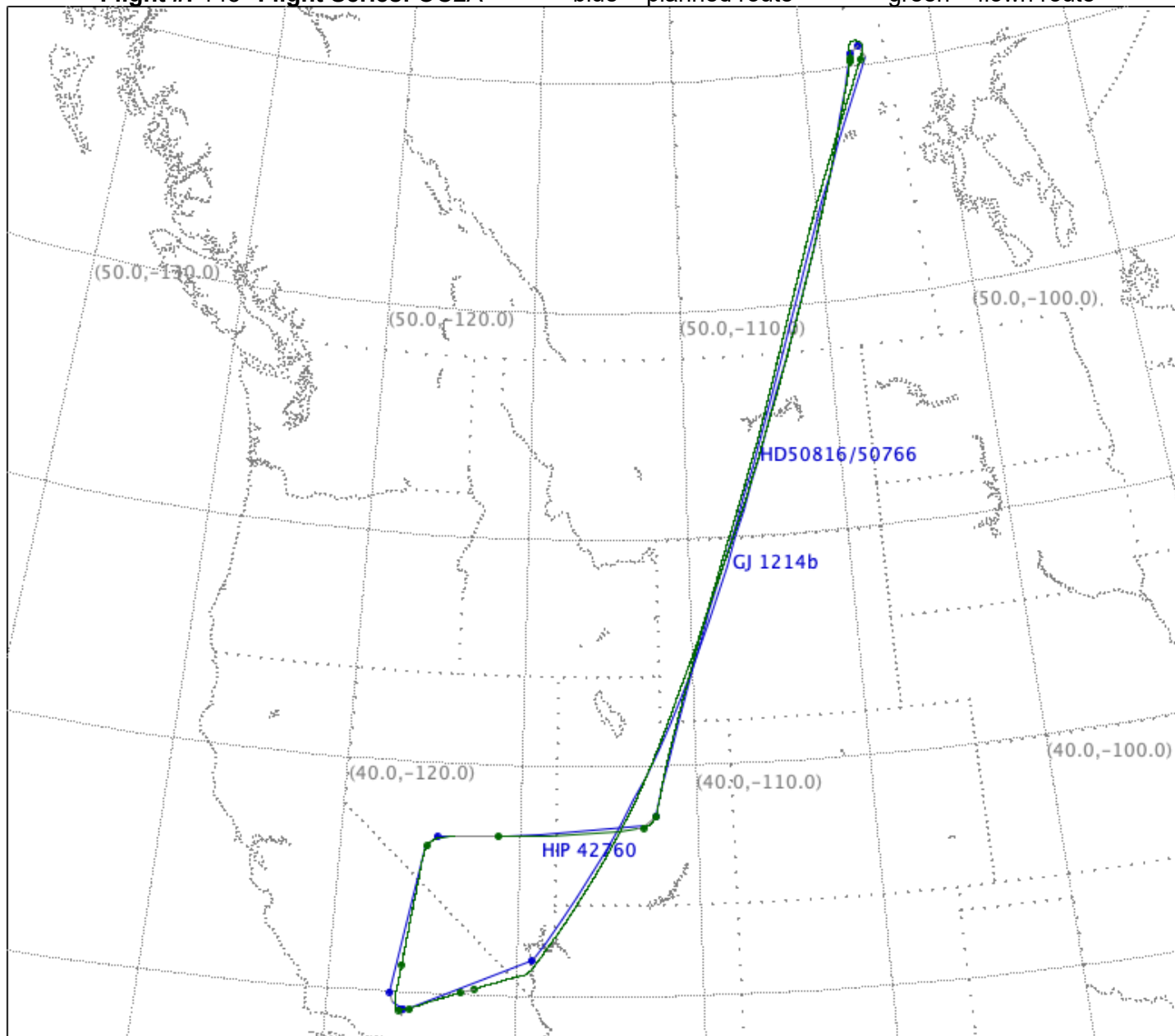
MISSION ID: 2014-02-15_FP_F145

Date: 2014-02-15 UT Instrument: FLITECAM + HIPO

Flight #: 145 Flight Series: OC2A

blue = planned route

green = flown route

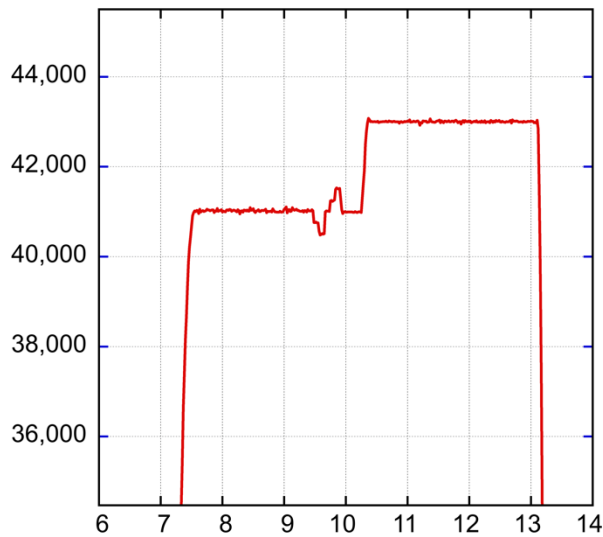


Flight notes:
FLITECAM commissioning flight. Engineering data only.

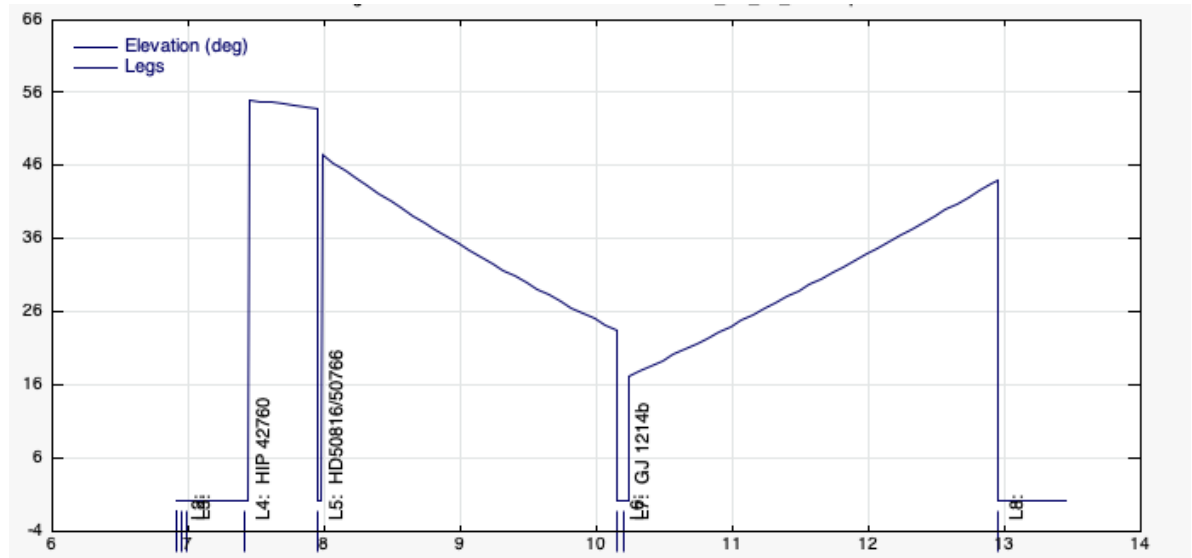
Flight 145 Mission ID 2014-02-15_FP_F145
 Palmdale to Palmdale Take off date UTC: 15-FEB-2014
 Departure UTC: ~06:55 Arrival UTC: ~13:33

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP 42760	08h42m51.30s	73d10m09.0s	7:33	30	
5		Commissioning	HD50816/50766	06h55m52.20s	27d16m04.0s	8:05	130	
7		Commissioning	GJ 1214b	17h15m18.94s	04d57m49.7s	10:20	163	

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



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



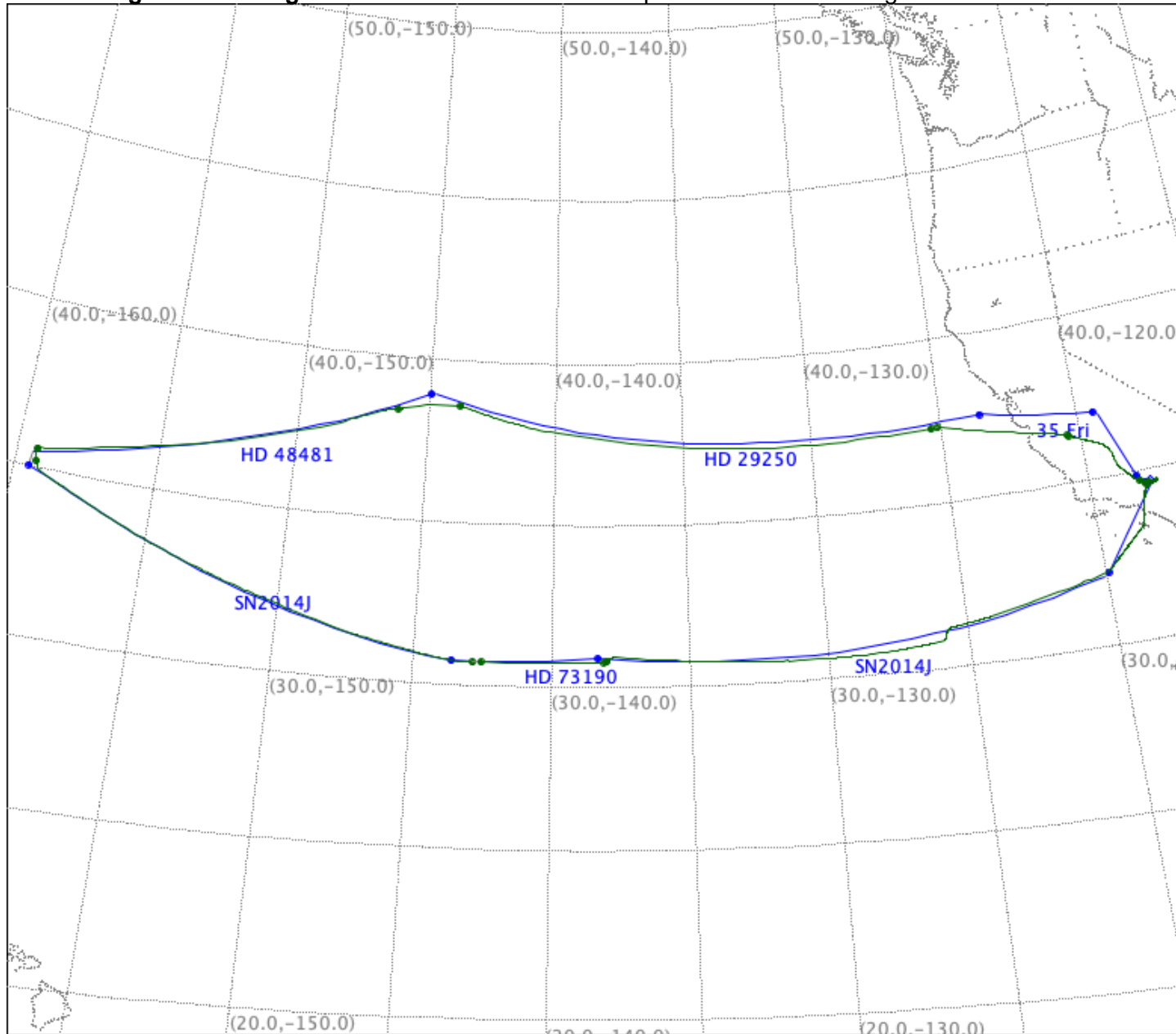
MISSION ID: 2014-02-19_FP_F146

Date: 2014-02-19 UT Instrument: FLITECAM + HIPO

Flight #: 146 Flight Series: OC2A

blue = planned route

green = flown route



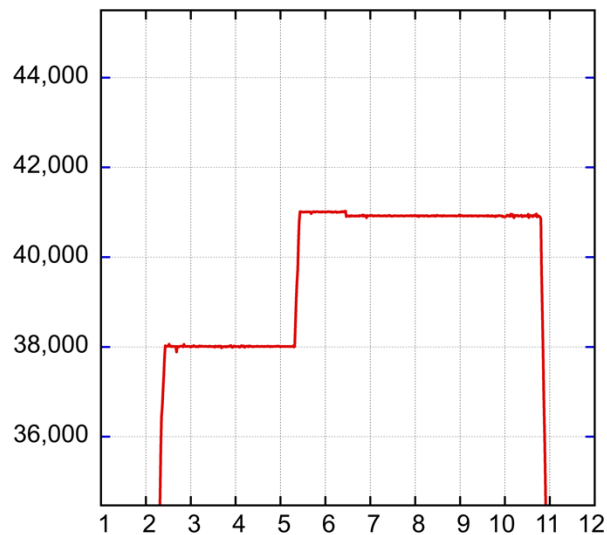
Flight notes:

FLITECAM commissioning flight. Some engineering data and some science data. Slightly late departure.

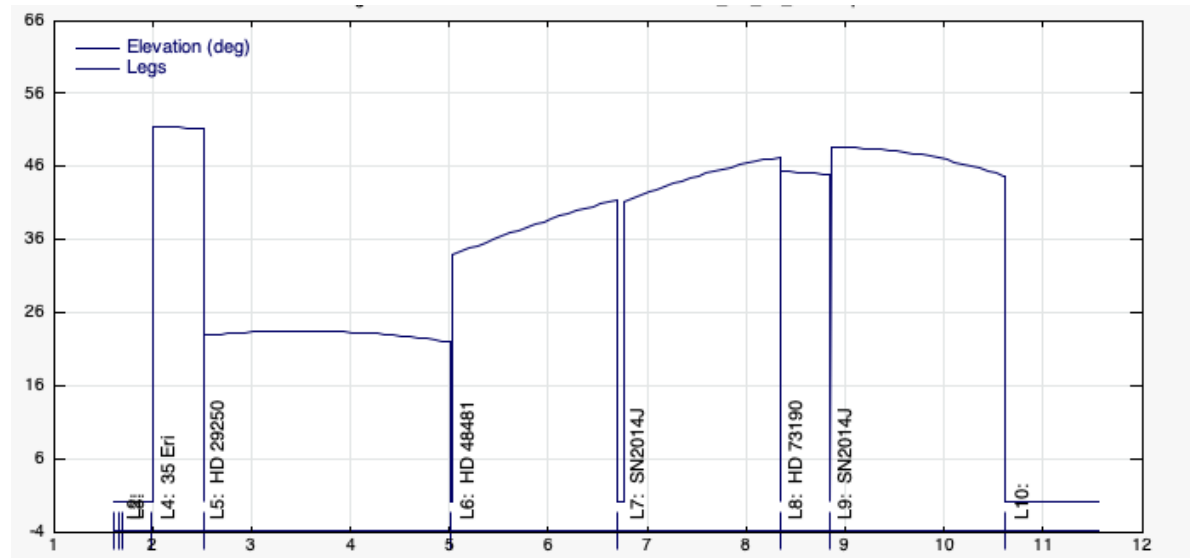
Flight 146 Mission ID 2014-02-19_FP_F146
 Palmdale to Palmdale Take off date UTC: 19-FEB-2014
 Departure UTC: 01:52 Arrival UTC: 11:17

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			35 Eri	04h01m32.05s	-01d32m58.8s	2:06	30	
5		Commissioning	HD 29250	04h35m12.00s	-29d38m10.7s	2:36	150	Technical issue – partial data.
6		Commissioning	HD 48481	06h43m02.27s	-13d41m53.2s	5:07	100	Technical issue – partial data.
7		Discretionary	SN2014J	09h55m42.14s	69d40m26.0s	6:51	95	
8		Commissioning	HD 73190	08h42m51.00s	73d10m09.0s	8:27	30	
9		Discretionary	SN2014J	09h55m42.14s	69d40m26.0s	8:57	106	

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



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



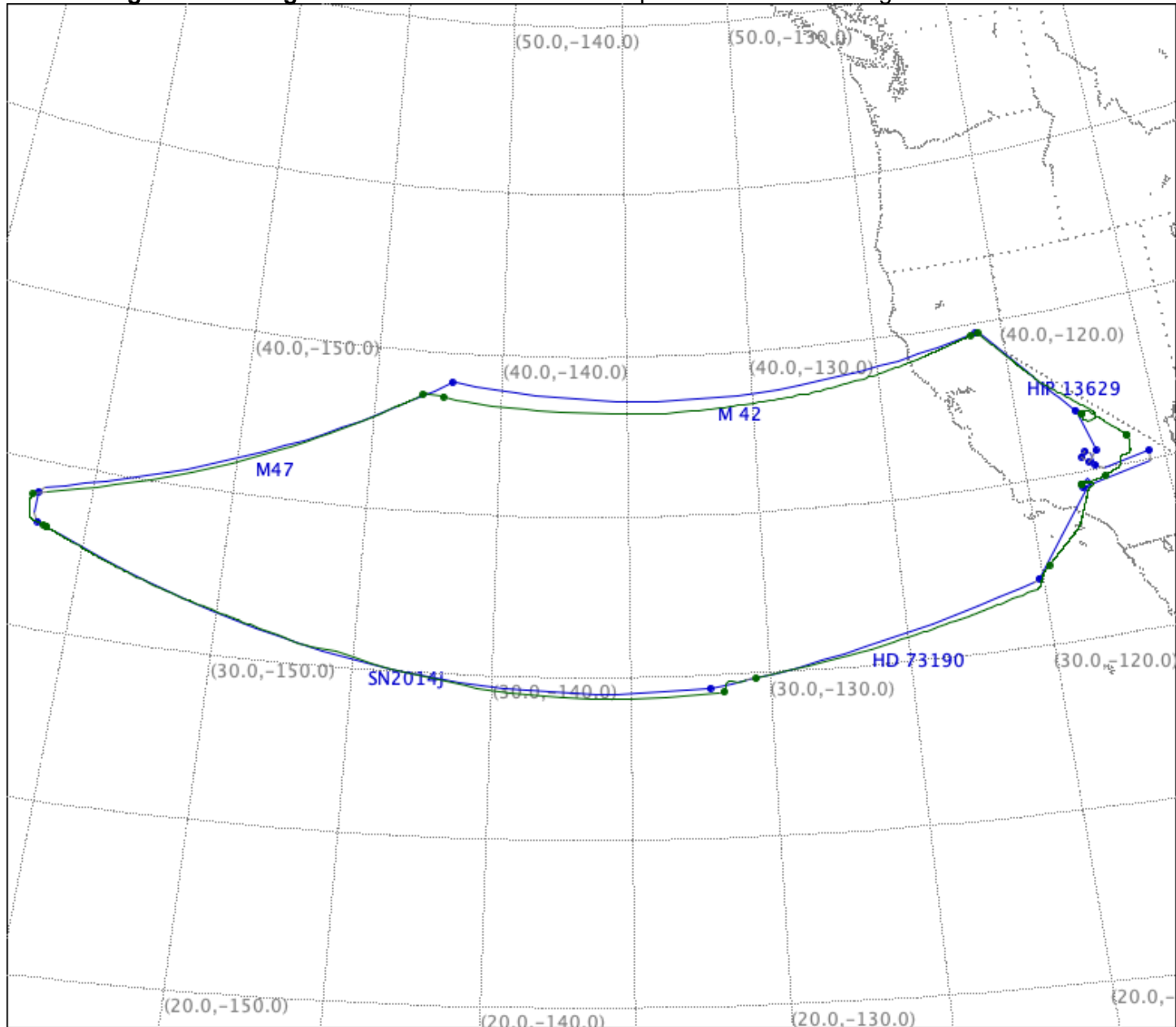
MISSION ID: 2014-02-21_FP_F147

Date: 2014-02-21 UT Instrument: FLITECAM + HIPO

Flight #: 147 Flight Series: OC2A

blue = planned route

green = flown route



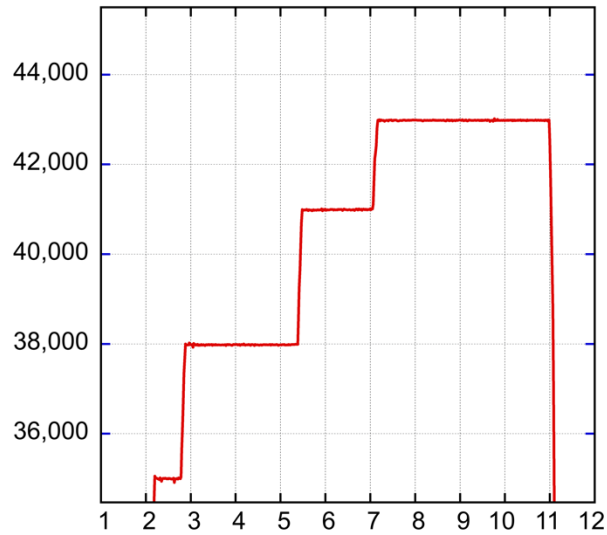
Flight notes:

FLITECAM commissioning flight. Some engineering data and some science data. Slight Air Traffic Control delay on earliest legs.

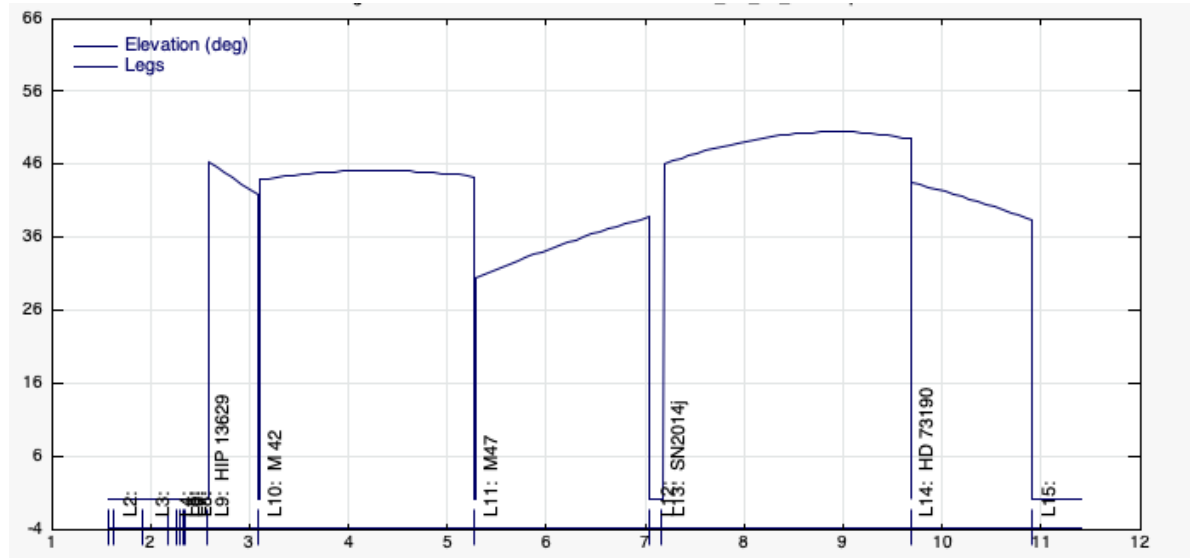
Flight 147 Mission ID 2014-02-21_FP_F147
 Palmdale to Palmdale Take off date UTC: 21-FEB-2014 Departure UTC: ~01:35 Arrival UTC: ~11:28

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
9			HIP 13629	02h55m31.60s	02d01m06.0s	2:35	30	
10			M 42	05h36m57.30s	-05d23m28.0s	3:06	130	
11			M47	07h36m35.10s	-14d27m49.0s	5:17	105	
13		Discretionary	SN2014j	09h55m42.14s	69d40m26.0s	7:11	150	
14		Commissioning	HD 73190	08h42m51.00s	73d10m09.0s	9:41	73	

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



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



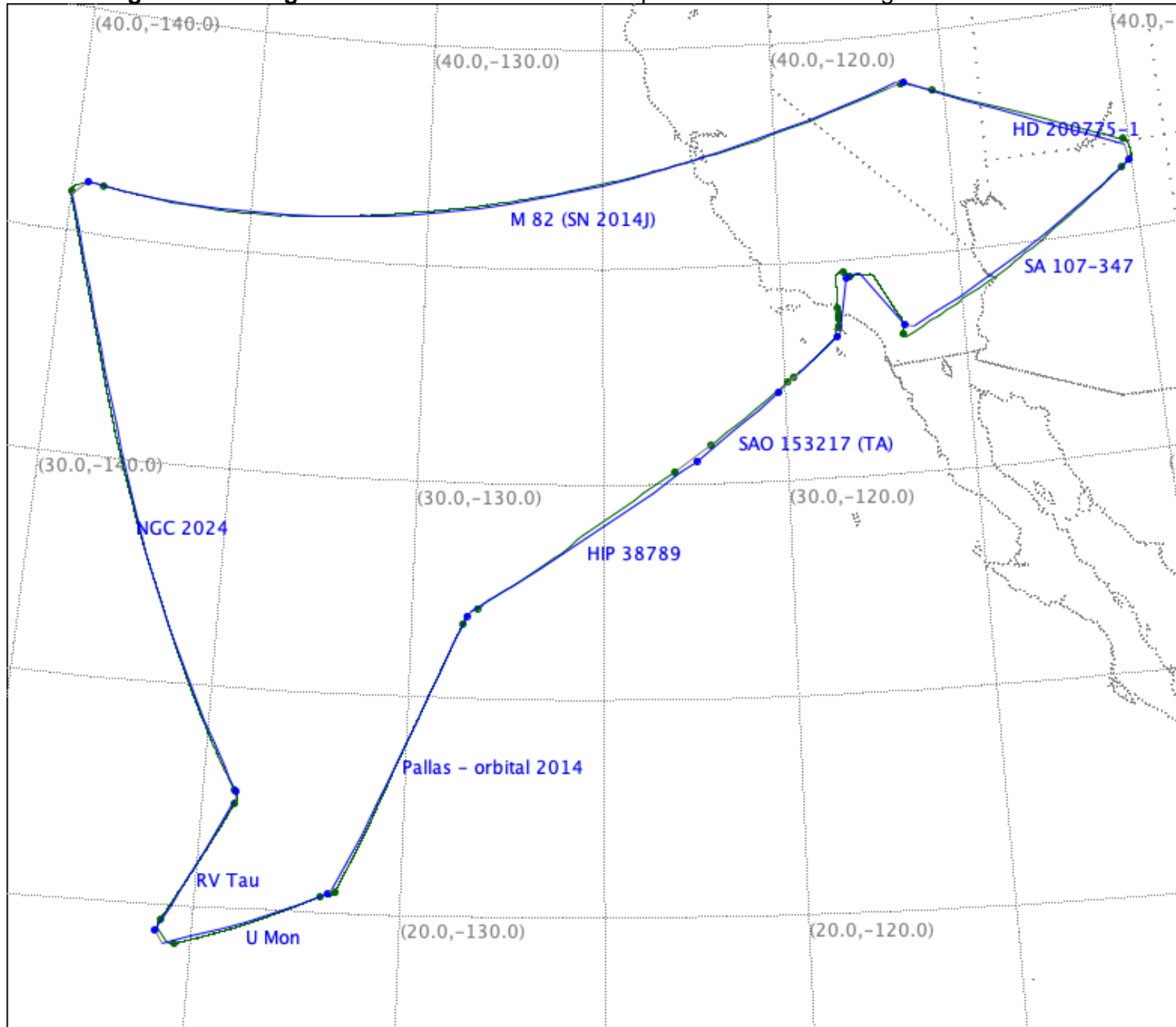
MISSION ID: 2014-02-25_FP_F148

Date: 2014-02-25 UT Instrument: FLITECAM + HIPO

Flight #: 148 Flight Series: OC2A

blue = planned route

green = flown route

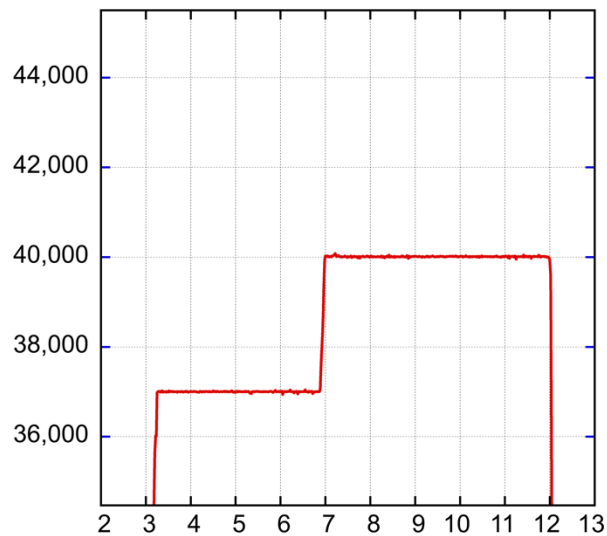


Flight notes: Slightly late departure.

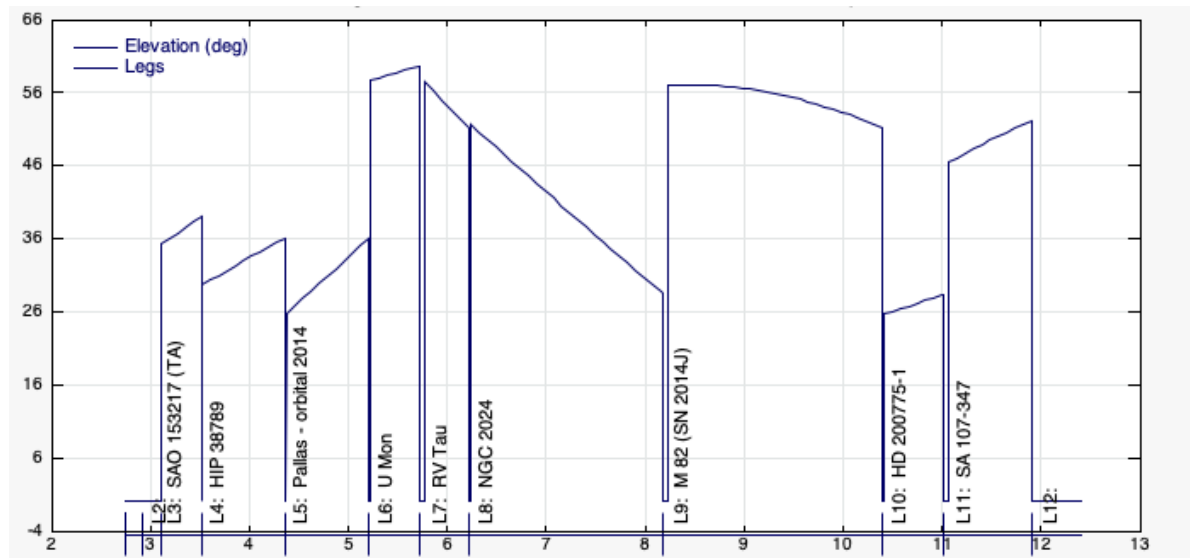
Flight 148 Mission ID 2014-02-25_FP_F148
 Palmdale to Palmdale Take off date UTC: 25-FEB-2014
 Departure UTC: 02:47 Arrival UTC: ~12:31

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			SAO 153217 (TA)	07h40m10.20s	-11d50m44.0s	3:14	25	
4		Calibration	HIP 38789	07h56m21.70s	-20d27m47.8s	3:34	50	
5	94_0066	Testing	Pallas - orbital 2014	09h45m59.73s	-10d46m49.1s	4:25	50	
6	02_0015	Gehrz	U Mon	07h30m47.47s	-09d46m36.8s	5:16	30	
7	02_0015	Gehrz	RV Tau	04h47m06.73s	26d10m45.6s	5:49	26	
8		GTO	NGC 2024	05h41m42.96s	-01d55m01.2s	6:17	116	Partial data – part of leg time used for calibration on HIP 26812.
9		Discretionary	M 82 (SN 2014J)	09h55m42.20s	69d40m26.0s	8:16	130	
10	02_0056	Berne	HD 200775	21h01m36.92s	68d09m47.8s	10:27	36	
11		Calibration	SA 107-347	15h38m35.77s	-00d35m57.7s	11:07	50	

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



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



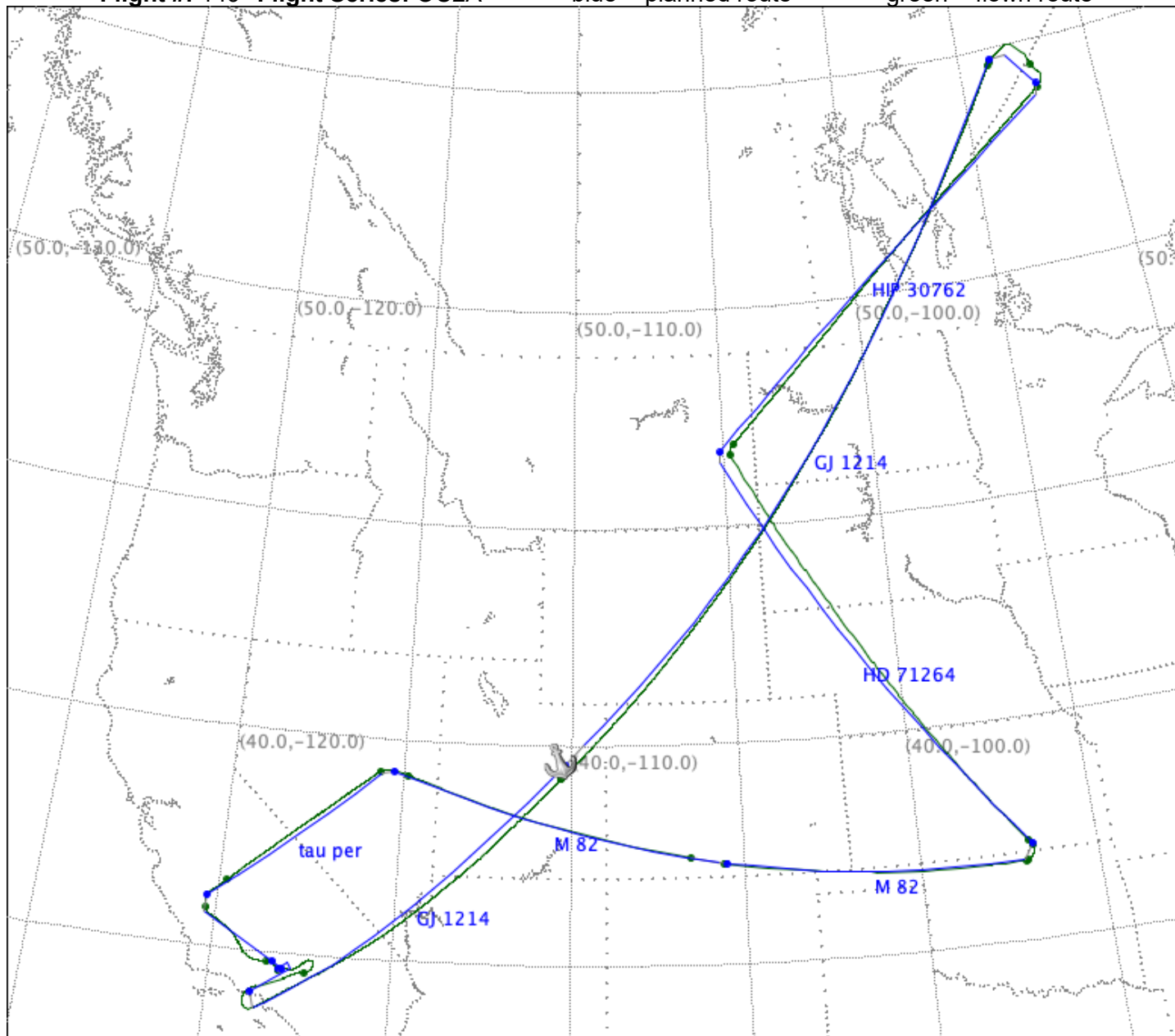
MISSION ID: 2014-02-27_FP_F149

Date: 2014-02-27 UT Instrument: FLITECAM + HIPO

Flight #: 149 Flight Series: OC2A

blue = planned route

green = flown route

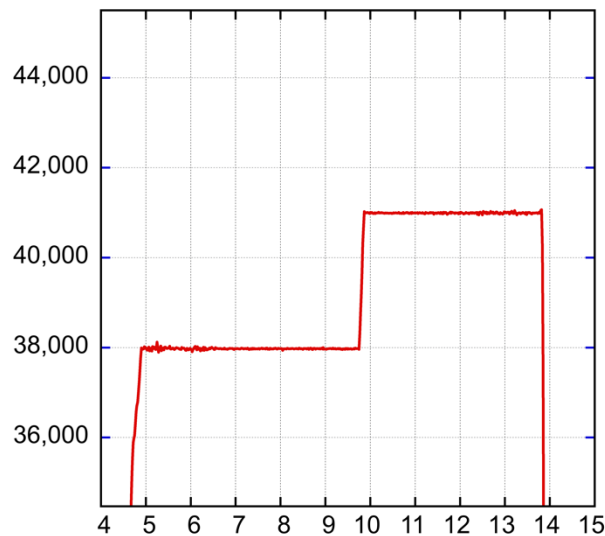


Flight notes: No irregularities.

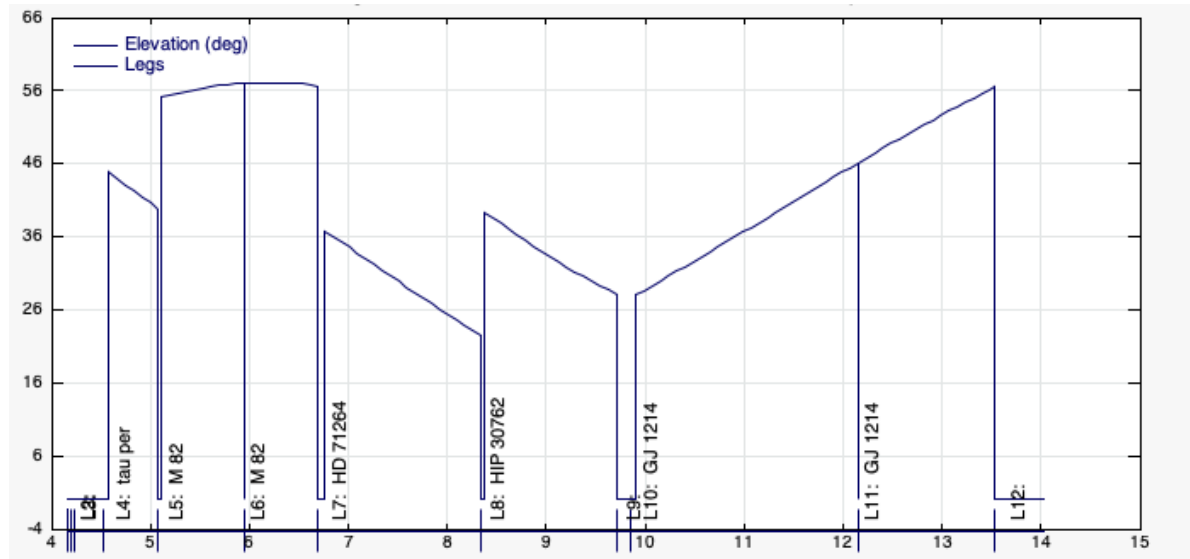
Flight 149 Mission ID 2014-02-27_FP_F149
 Palmdale to Palmdale Take off date UTC: 27-FEB-2014
 Departure UTC: ~04:09 Arrival UTC: ~14:08

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			tau per	02h54m15.50s	52d45m44.9s	4:40	30	
5		Discretionary	M 82 (SN 2014J)	09h55m54.00s	69d40m59.0s	5:12	50	
6		Discretionary	M 82 (SN 2014J)	09h55m54.00s	69d40m59.0s	6:03	45	
7	90_0004	Calibration	HD 71264	08h26m18.15s	-05d51m49.8s	6:50	95	
8		Calibration	HIP 30762	06h27m51.00s	47d24m17.8s	8:27	80	
10	02_0053	Angerhausen	GJ 1214	17h15m18.94s	04d57m49.7s	10:00	135	
11	02_0053	Angerhausen	GJ 1214	17h15m18.94s	04d57m49.7s	12:20	83	

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



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



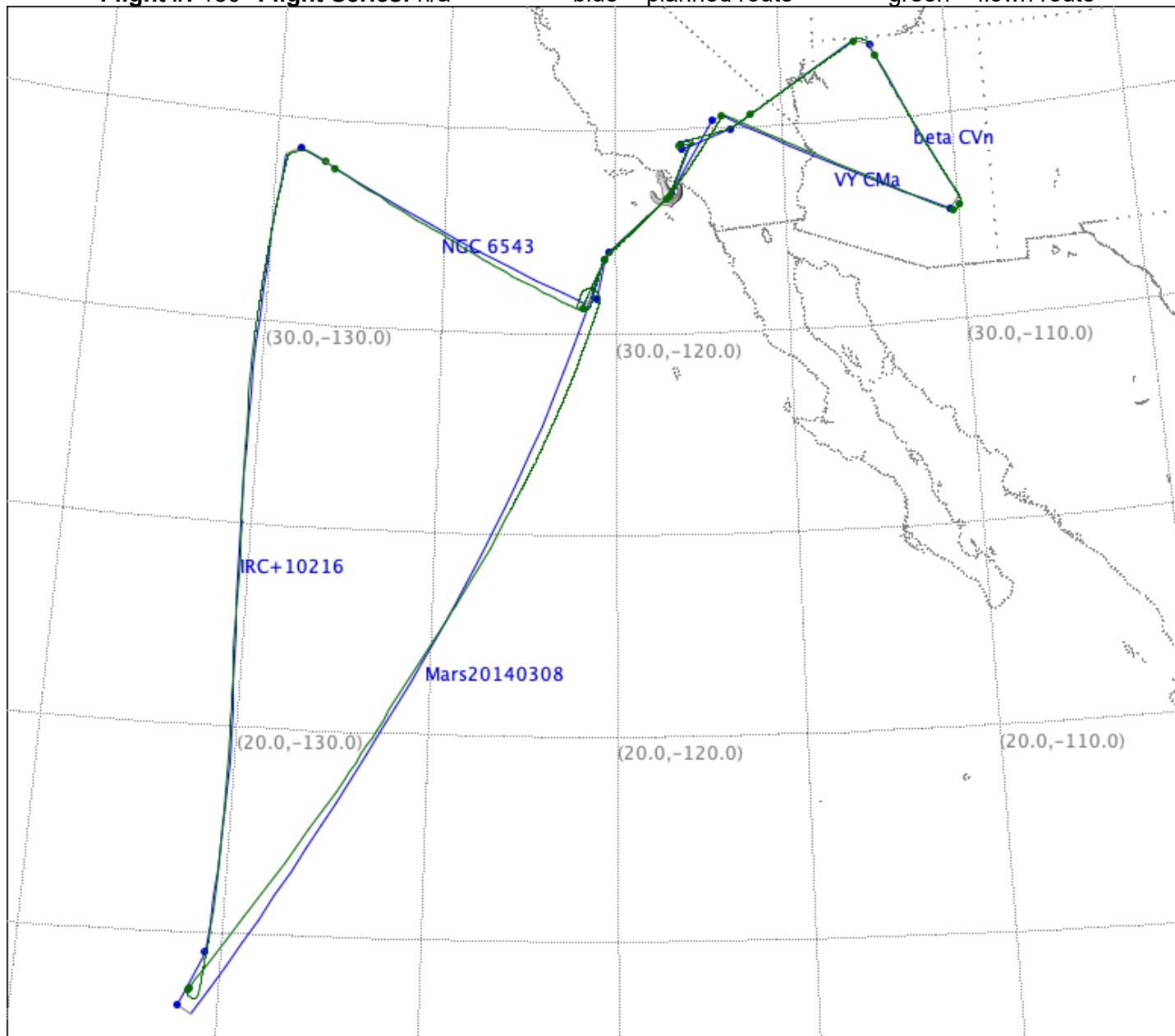
MISSION ID: 2014-03-08_FI_F150

Date: 2014-03-08 UT Instrument: FIFI-LS

Flight #: 150 Flight Series: n/a

blue = planned route

green = flown route



Flight notes:

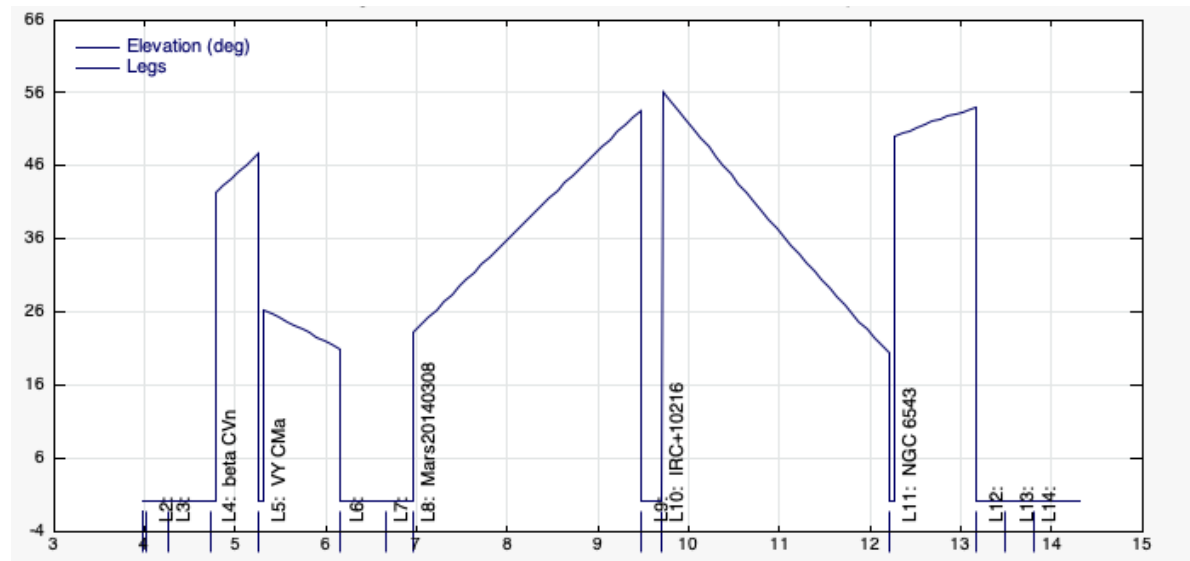
FIFI-LS commissioning flight. Engineering data only. Modest Air Traffic Control deviation.

Flight 150 Mission ID 2014-03-08_FI_F150
 Palmdale to Palmdale Take off date UTC: 08-MAR-2014
 Departure UTC: ~04:00 Arrival UTC: ~13:53

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4		Engineering	beta CVn	12h33m44.54s	41d21m26.9s	4:48	28	
5		Engineering	VY CMa	07h22m58.33s	-25d46m03.2s	5:20	50	
8		Engineering	Mars20140308	13h44m51.50s	-07d47m20.0s	6:43	150	Air Traffic Control deviation at start of leg – partial data.
10		Engineering	IRC+10216	09h47m57.41s	13d16m43.6s	9:29	150	Technical issue – partial data.
11		Engineering	NGC 6543	17h58m33.42s	66d37m59.5s	12:02	54	

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

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



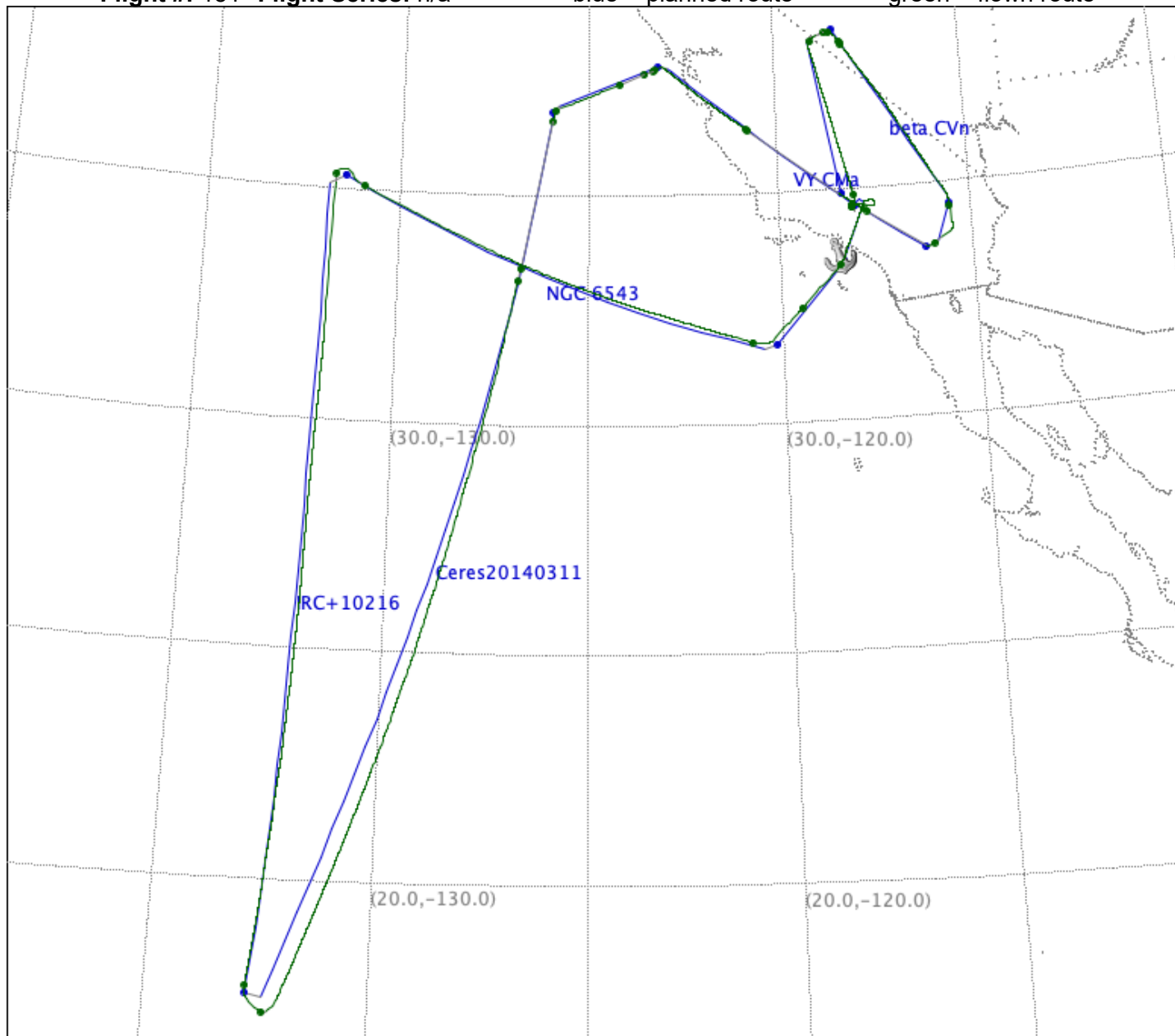
MISSION ID: 2014-03-11_FI_F151

Date: 2014-03-11 UT Instrument: FIFI-LS

Flight #: 151 Flight Series: n/a

blue = planned route

green = flown route

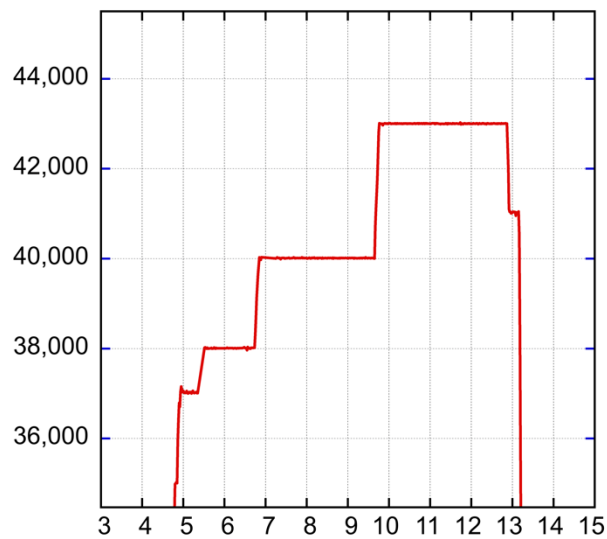


Flight notes: FIFI-LS commissioning flight. Engineering data only.

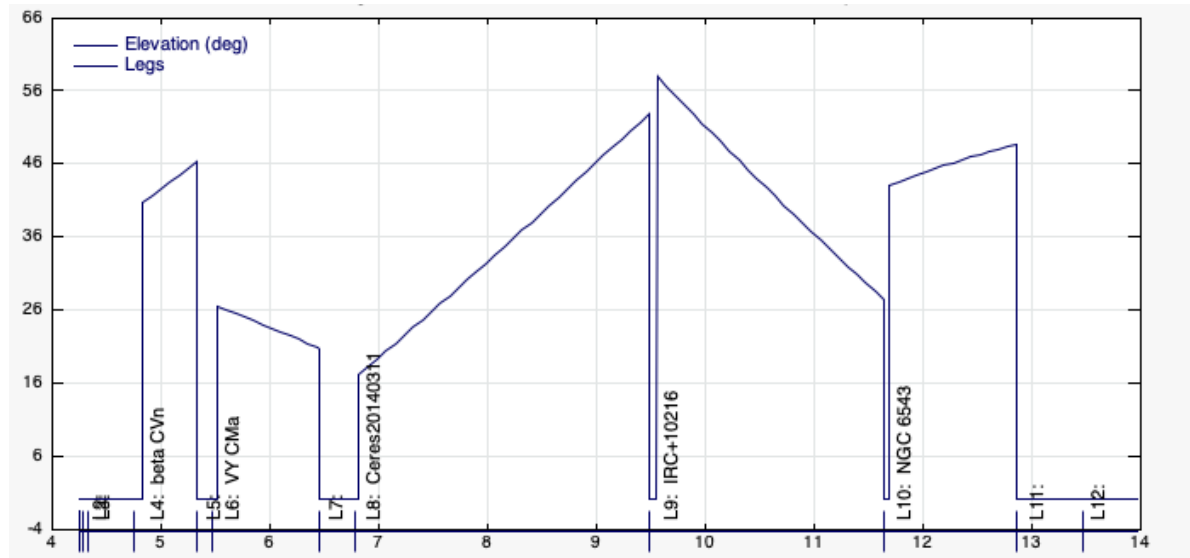
Flight 151 Mission ID 2014-03-11_FI_F151
 Palmdale to Palmdale Take off date UTC: 11-MAR-2014
 Departure UTC: ~04:15 Arrival UTC: ~13:45

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4		Engineering	beta CVn	12h33m44.54s	41d21m26.9s	4:56	30	Technical issue – no data.
6		Engineering	VY CMa	07h22m58.33s	-25d46m03.2s	5:37	56	Technical issue – no data.
8		Engineering	Ceres20140311	14h15m22.00s	01d13m50.0s	6:55	160	Technical issue – partial data.
9		Engineering	IRC+10216	09h47m57.41s	13d16m43.6s	9:39	125	
10		Engineering	NGC 6543	17h58m33.42s	66d37m59.5s	11:47	70	

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



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



MISSION ID: 2014-03-13_FI_F152

Date: 2014-03-13 UT Instrument: FIFI-LS

Flight #: 152 Flight Series: n/a

blue = planned route

green = flown route

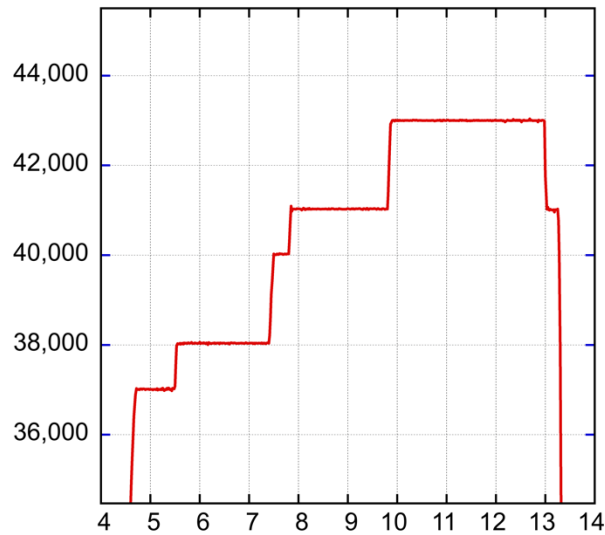


Flight notes: FIFI-LS commissioning flight. Engineering data only.

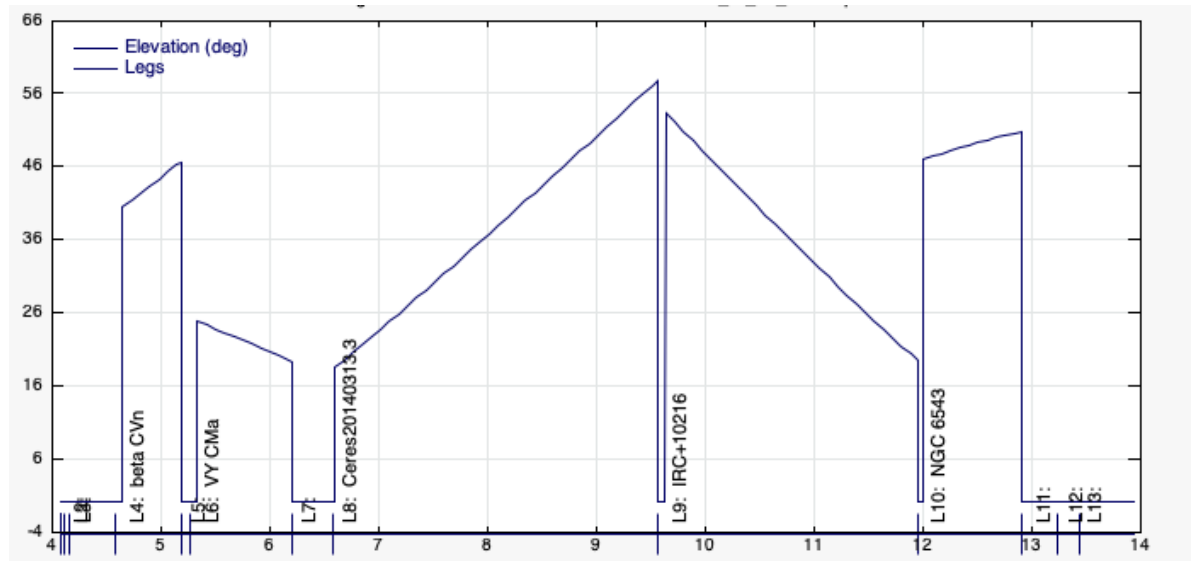
Flight 152 Mission ID 2014-03-13_FI_F152
 Palmdale to Palmdale Take off date UTC: 13-MAR-2014
 Departure UTC: ~04:05 Arrival UTC: ~13:49

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4		Engineering	beta CVn	12h33m44.54s	41d21m26.9s	4:44	32	
6		Engineering	VY CMa	07h22m58.33s	-25d46m03.2s	5:26	52	
8		Engineering	Ceres20140313.3	14h14m48.00s	01d21m39.0s	6:41	178	Technical issues – partial data.
9		Engineering	IRC+10216	09h47m57.41s	13d16m43.6s	9:44	139	
10		Engineering	NGC 6543	17h58m33.42s	66d37m59.5s	12:06	54	

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



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



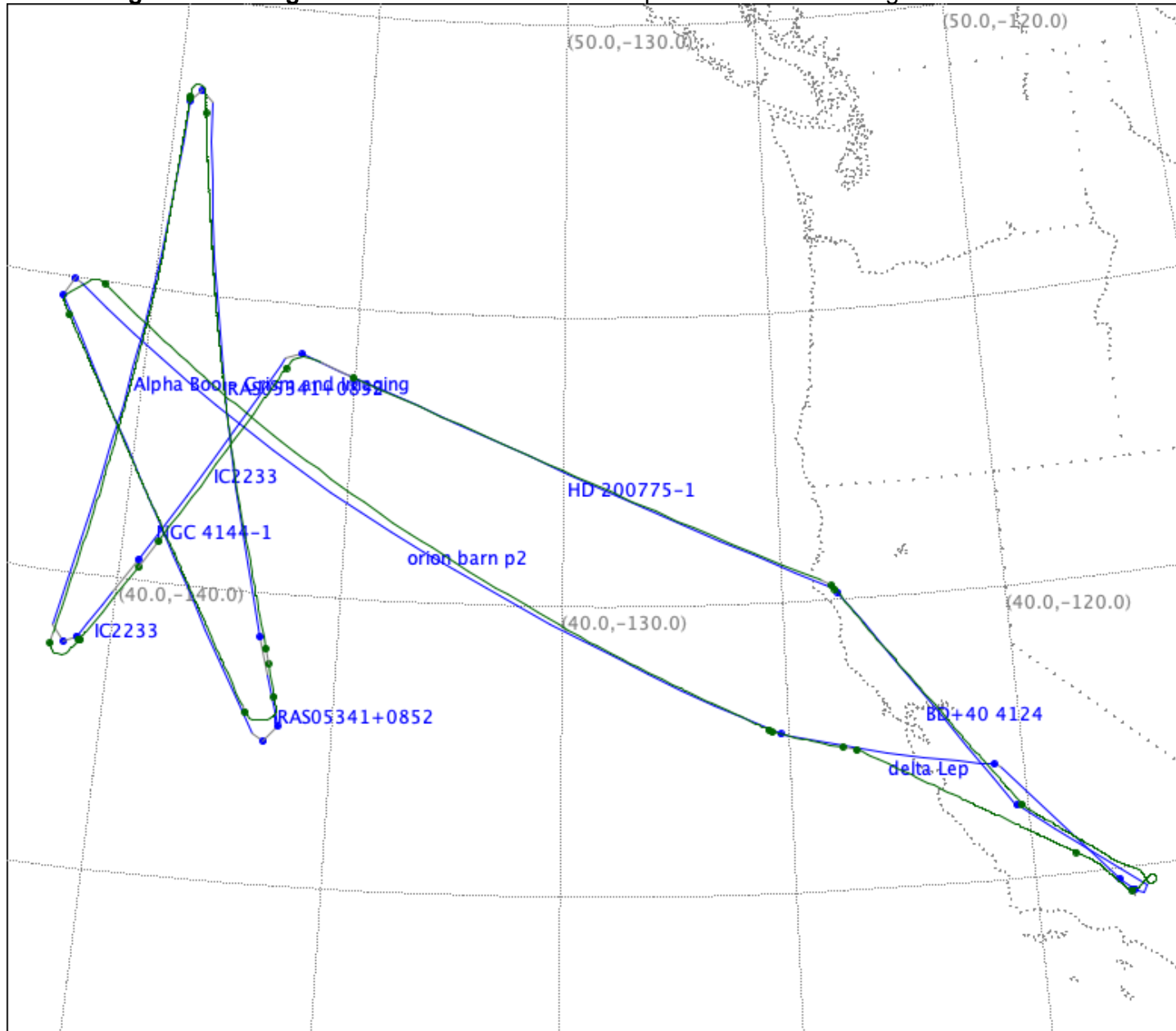
MISSION ID: 2014-03-20_FO_F153

Date: 2014-03-20 UT Instrument: FORCAST

Flight #: 153 Flight Series: OC2B

blue = planned route

green = flown route

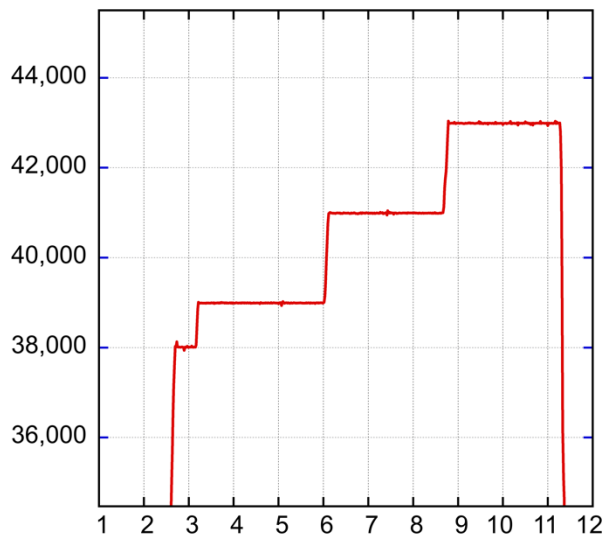


Flight notes: No irregularities.

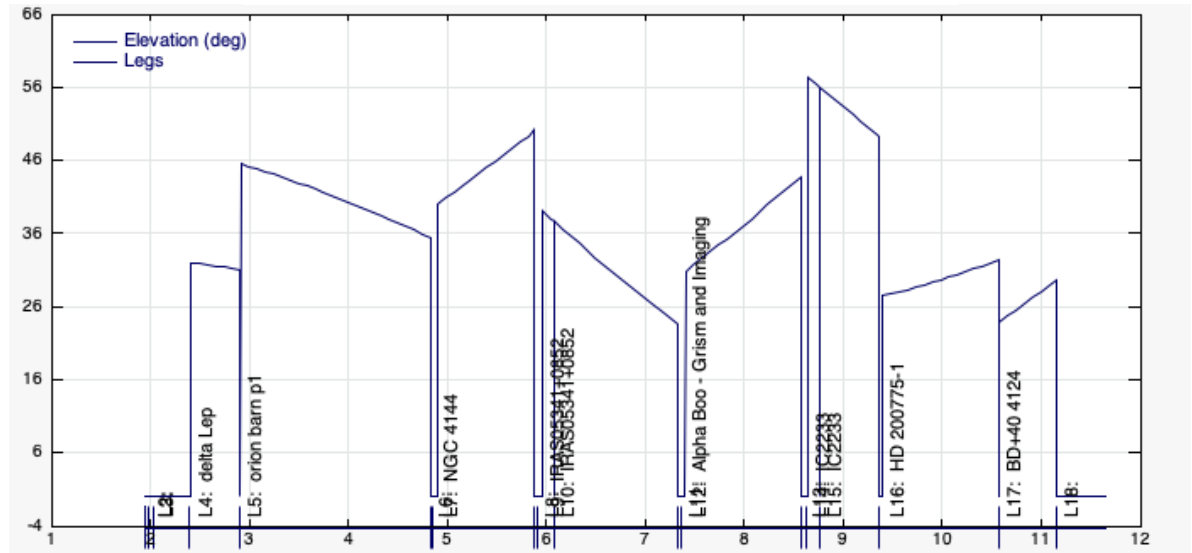
Flight 153 Mission ID 2014-03-20_FO_F153
 Palmdale to Palmdale Take off date UTC: Departure UTC: Arrival UTC:
 20-MAR-2014 ~01:57 11:43

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			delta Lep	05h51m19.70s	-20d52m55.0s	2:30	30	
5	70_0002	GTO	orion barn p1	05h35m24.74s	-05d25m00.4s	3:00	115	Slightly late departure led to loss of first 11min of leg.
7	02_0036	Holwerda	NGC 4244	12h17m21.96s	37d46m57.3s	4:59	59	
9	02_0034	Bregman	IRAS05341+0852	05h36m55.06s	08d54m08.7s	6:03	7	
10	02_0034	Bregman	IRAS05341+0852	05h36m55.06s	08d54m08.7s	6:15	75	
12	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	7:29	70	
14	02_0036	Holwerda	IC2233	08h13m58.77s	45d44m41.9s	8:44	7	
15	02_0036	Holwerda	IC2233	08h13m58.77s	45d44m41.9s	8:56	36	
16	02_0056	Berne	HD 200775	21h01m36.92s	68d09m47.8s	9:29	70	
17	02_0016	Vacca	BD+40 4124	20h20m28.24s	41d21m51.5s	10:40	34	

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



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



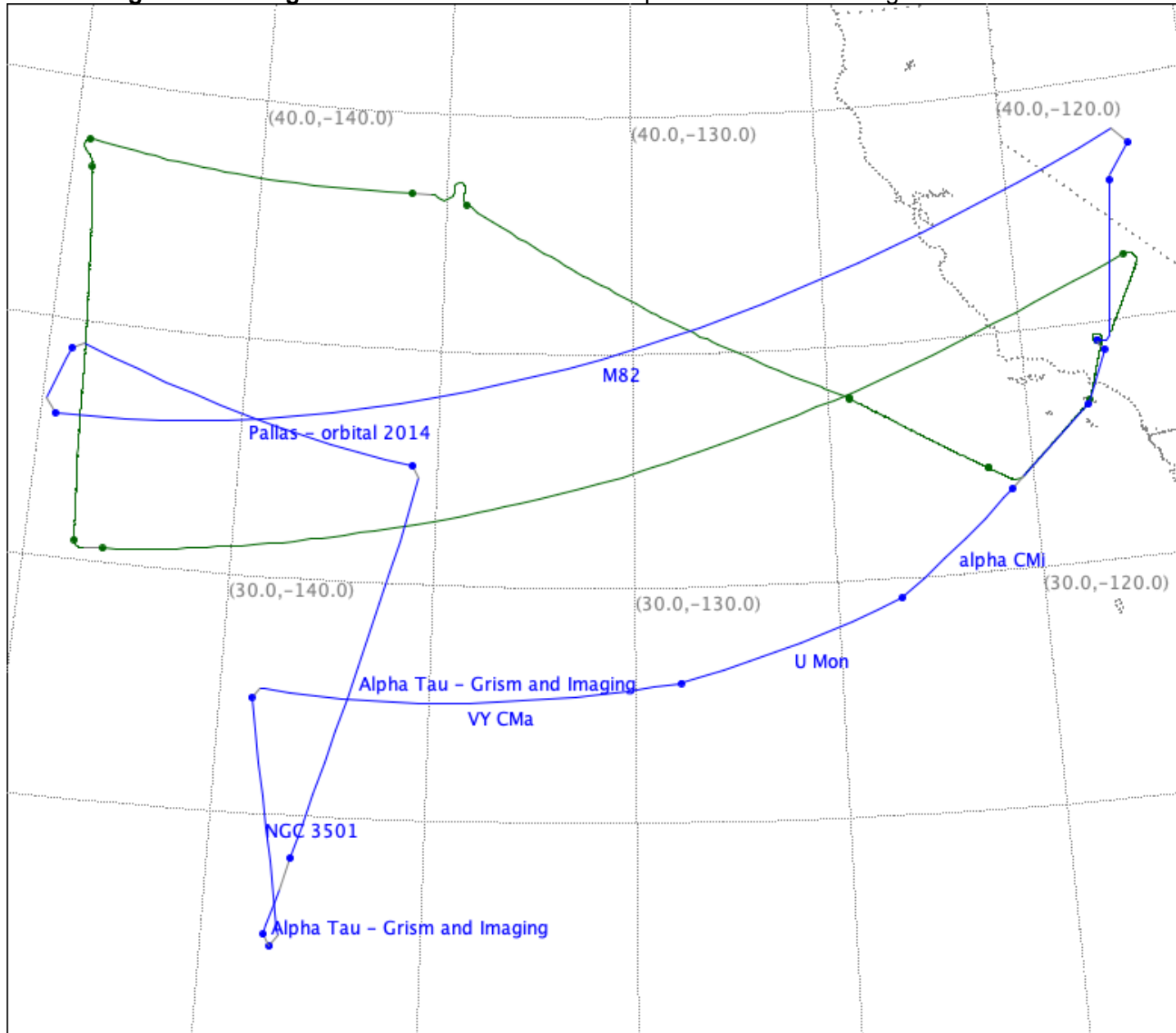
MISSION ID: 2014-03-22_FO_F154

Date: 2014-03-22 UT Instrument: FORCAST

Flight #: 154 Flight Series: OC2B

blue = planned route

green = flown route



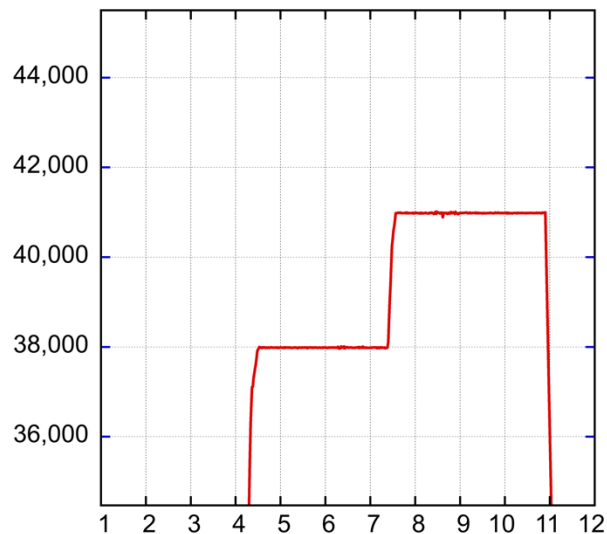
Flight notes:

Late departure led to significant replan of route.

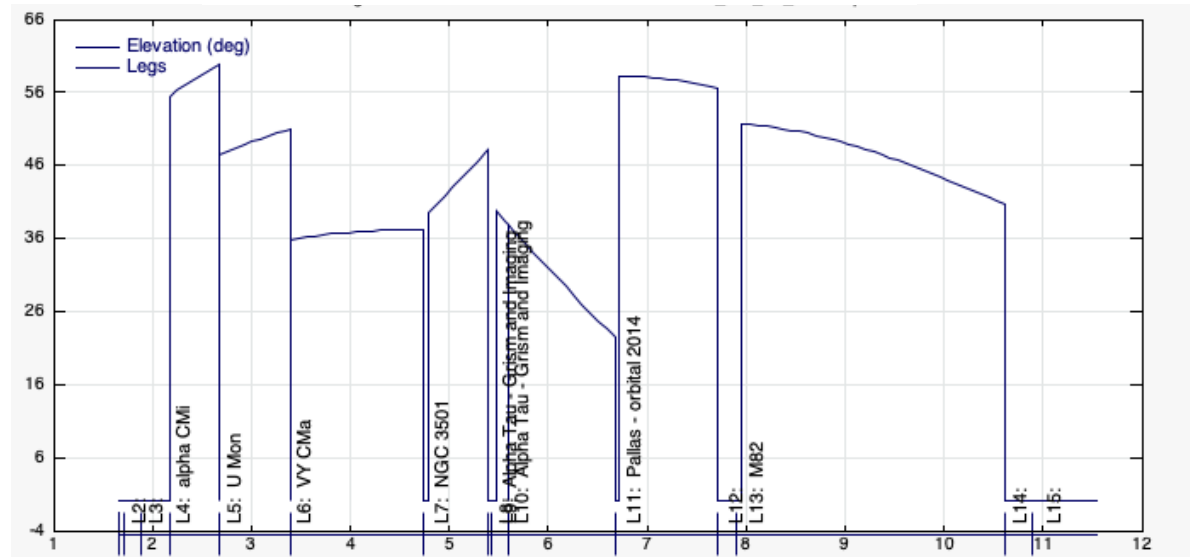
Flight 154 Mission ID 2014-03-22_FO_F154
 Palmdale to Palmdale Take off date UTC: 22-MAR-2014
 Departure UTC: ~04:00 Arrival UTC: ~12:00

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			alpha CMi	07h39m17.90s	05d13m24.0s	2:17	30	
5	02_0015	Gehrz	U Mon	07h30m47.47s	-09d46m36.8s	2:45	43	10min lost to late take-off
6	02_0031	Humphreys	VY CMa	07h22m58.33s	-25d46m03.2s	3:28	81	Problems setting up chop and nod configuration; only 25% complete
7	02_0036	Holwerda	NGC 3501	11h02m47.30s	17d59m22.0s	4:52	36	Leg dropped in replan due to late take-off; no data
9	90_0013	Calibration	Alpha Tau - Grism and Imaging	04h35m55.24s	16d30m33.5s	5:33	7	Late departure – replaced with alpha Boo.
10	90_0013	Calibration	Alpha Tau - Grism and Imaging	04h35m55.24s	16d30m33.5s	5:45	65	Late departure – replaced with alpha Boo.
11	94_0025	Testing	Pallas - orbital 2014	09h35m44.72s	00d06m59.7s	6:47	60	Problems guiding non-sidereally
13	70_0004	GTO	M82 (SN2014J)	09h55m52.43s	69d40m46.9s	8:02	160	

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



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



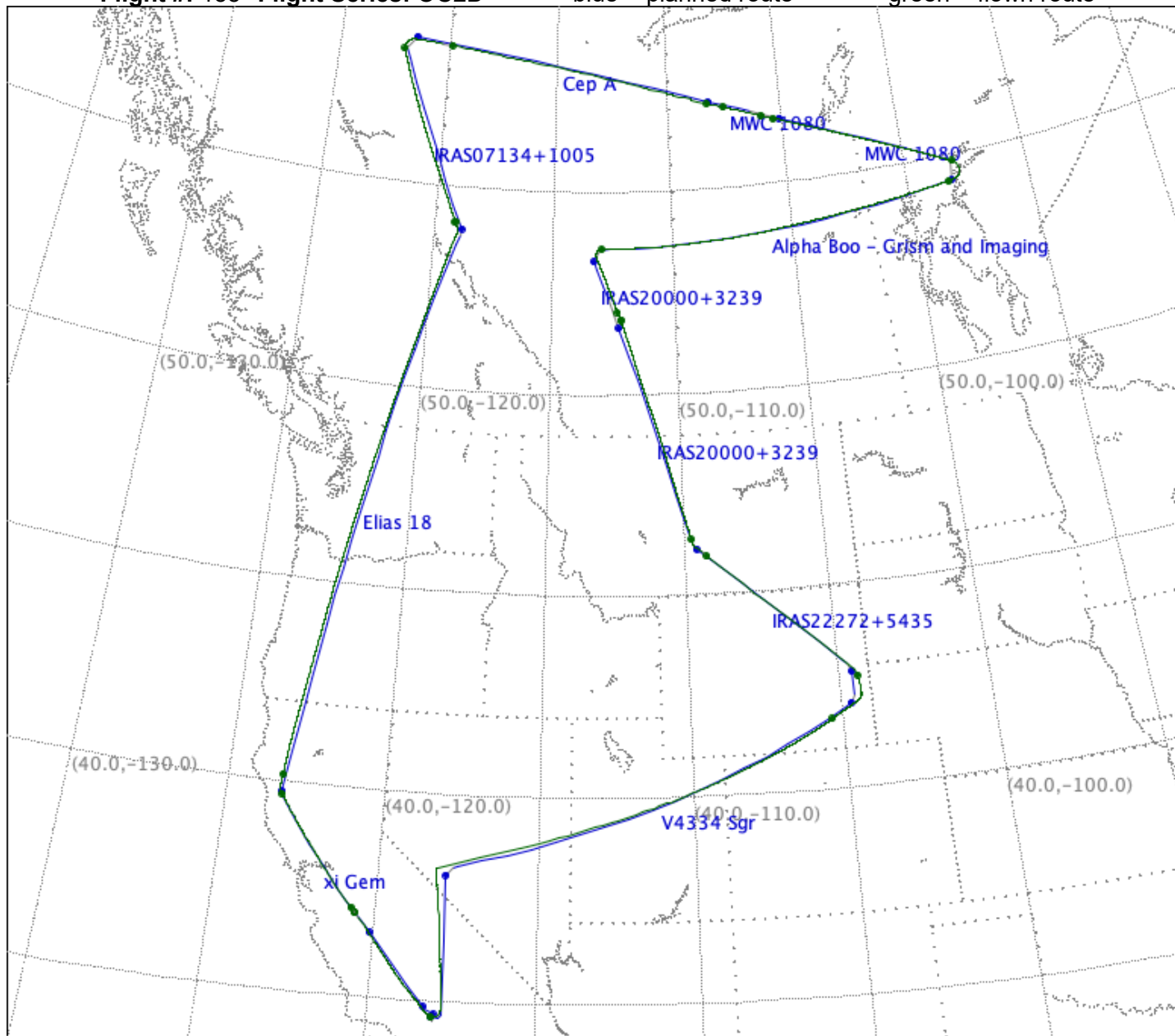
MISSION ID: 2014-03-25_FO_F155

Date: 2014-03-25 UT Instrument: FORCAST

Flight #: 155 Flight Series: OC2B

blue = planned route

green = flown route

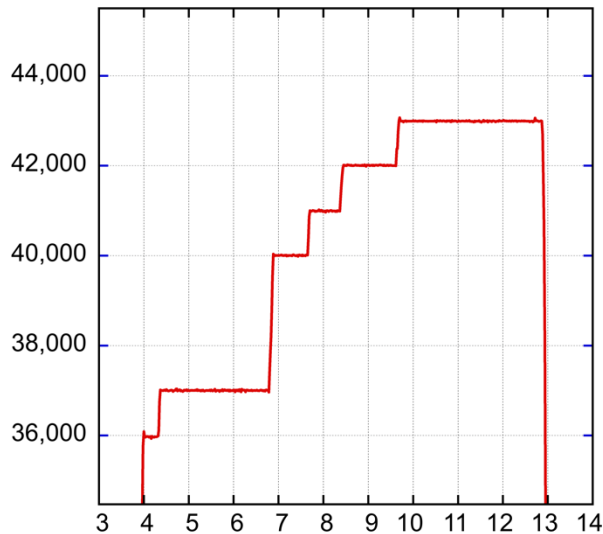


Flight notes: No irregularities.

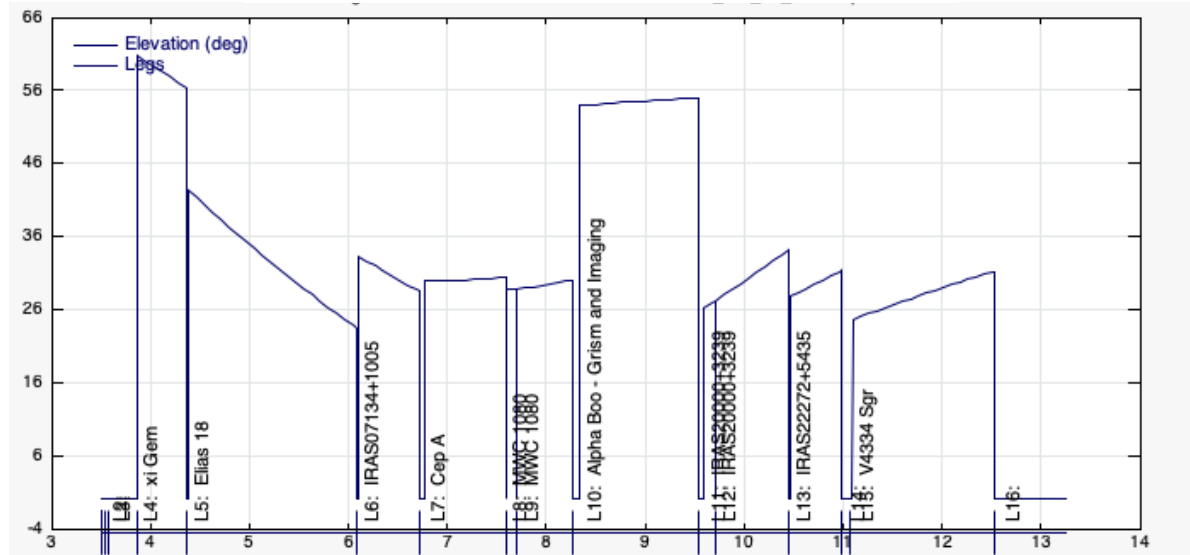
Flight 155 Mission ID 2014-03-25_FO_F155
 Palmdale to Palmdale Take off date UTC: 25-MAR-2014
 Departure UTC: ~03:30 Arrival UTC: ~13:11

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			xi Gem	06h45m17.30s	12d53m41.0s	3:57	30	
5	01_0056	Whittet	Elias 18	04h39m55.75s	25d45m02.0s	4:28	102	Faint target and guide stars made it difficult to acquire and guide. Poor guiding control on FFI so source was not always in spectroscopic slit.
6	02_0034	Bregman	IRAS07134+1005	07h16m10.26s	09d59m48.0s	6:11	37	Troubles establishing instrument pointing alignment; 40% of leg lost
7	02_0074	Tan	Cep A	22h56m17.99s	62d01m49.5s	6:51	49	
8	02_0016	Vacca	MWC 1080	23h17m25.59s	60d50m43.6s	7:41	7	
9	02_0016	Vacca	MWC 1080	23h17m25.59s	60d50m43.6s	7:53	34	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	8:26	72	
11	02_0034	Bregman	IRAS20000+3239	20h01m59.52s	32d47m32.9s	9:41	7	
12	02_0034	Bregman	IRAS20000+3239	20h01m59.52s	32d47m32.9s	9:53	44	
13	02_0034	Bregman	IRAS22272+5435	22h29m10.37s	54d51m06.3s	10:33	31	
15	02_0021	Evans	V4334 Sgr	17h52m32.69s	-17d41m08.0s	11:11	86	

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



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



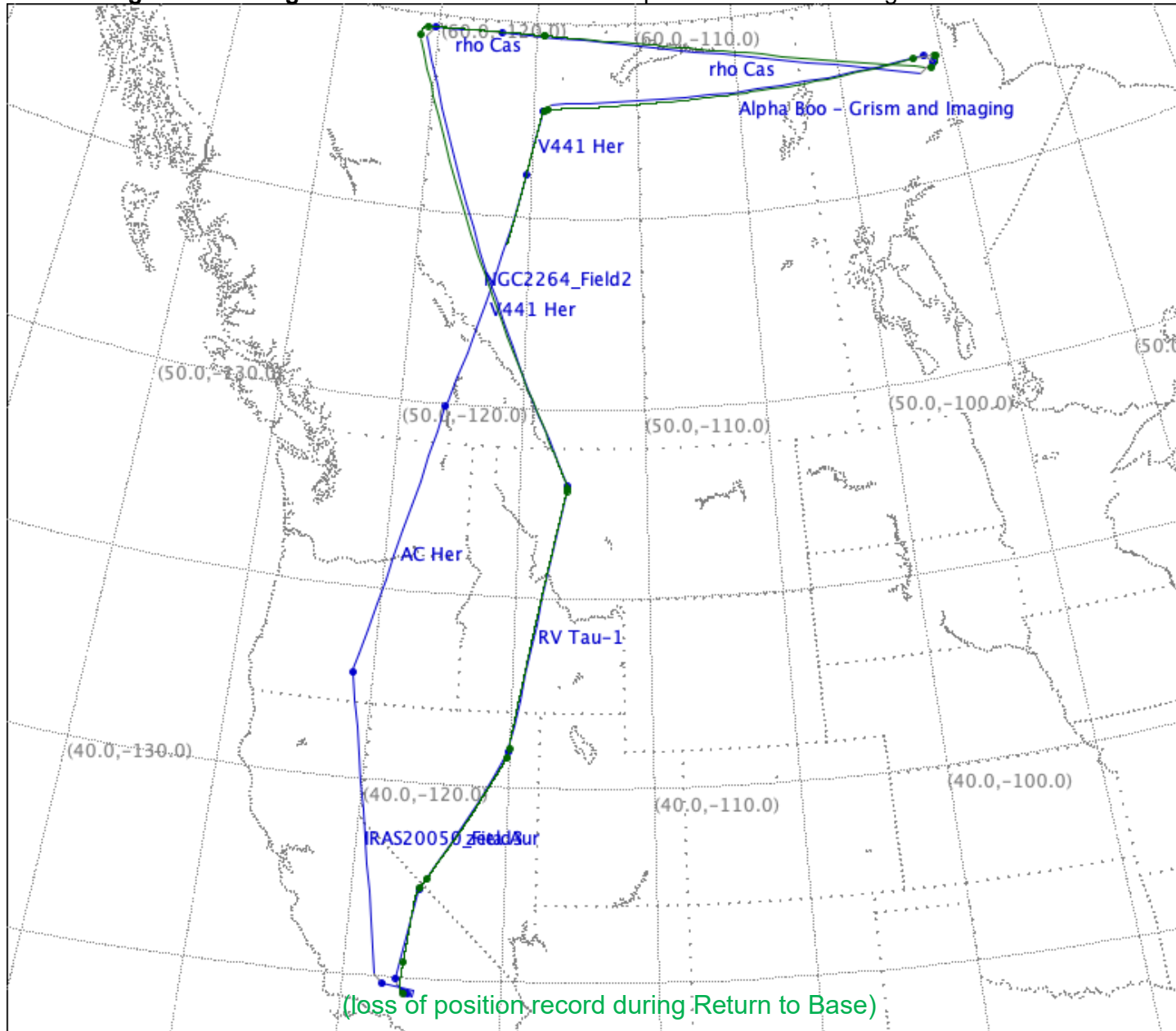
MISSION ID: 2014-03-27_FO_F156

Date: 2014-03-27 UT Instrument: FORCAST

Flight #: 156 Flight Series: OC2B

blue = planned route

green = flown route



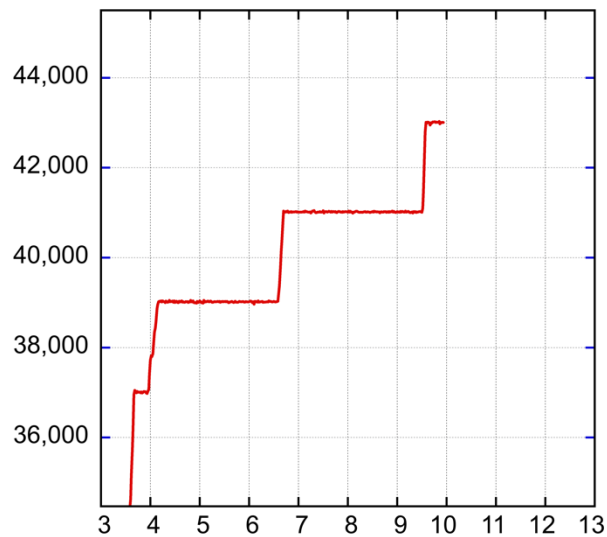
Flight notes:

Return to Palmdale base mid-flight due to power outage on main deck.

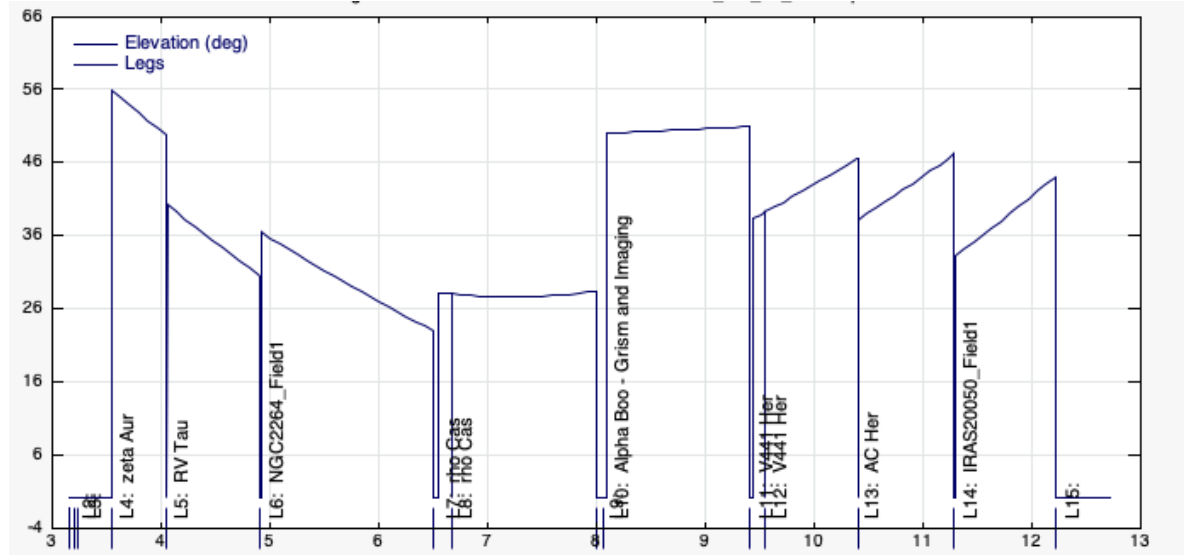
Flight 156 Mission ID 2014-03-27_FO_F156
 Palmdale to Palmdale Take off date UTC: 27-MAR-2014
 Departure UTC: ~03:10 Arrival UTC: ~12:49

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			zeta Aur	05h02m28.70s	41d04m33.0s	3:39	30	
5	02_0015	Gehrz	RV Tau	04h47m06.73s	26d10m45.6s	4:10	51	
6	02_0070	Mundy	NGC2264_Field1	06h41m01.30s	09d36m33.5s	5:02	95	
7	02_0031	Humphreys	rho Cas	23h54m23.03s	57d29m57.8s	6:40	7	
8	02_0031	Humphreys	rho Cas	23h54m23.03s	57d29m57.8s	6:52	80	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	8:12	78	
11	02_0015	Gehrz	V441 Her	17h55m25.19s	26d03m00.0s	9:32	7	
12	02_0015	Gehrz	V441 Her	17h55m25.19s	26d03m00.0s	9:44	51	Power outage on main deck; return to base early
13	02_0015	Gehrz	AC Her	18h30m16.24s	21d52m00.6s	10:30	53	Leg not flown; early return to base
14	02_0070	Mundy	IRAS20050_Field1	20h06m59.76s	27d32m31.1s	11:24	55	Leg not flown; early return to base

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



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



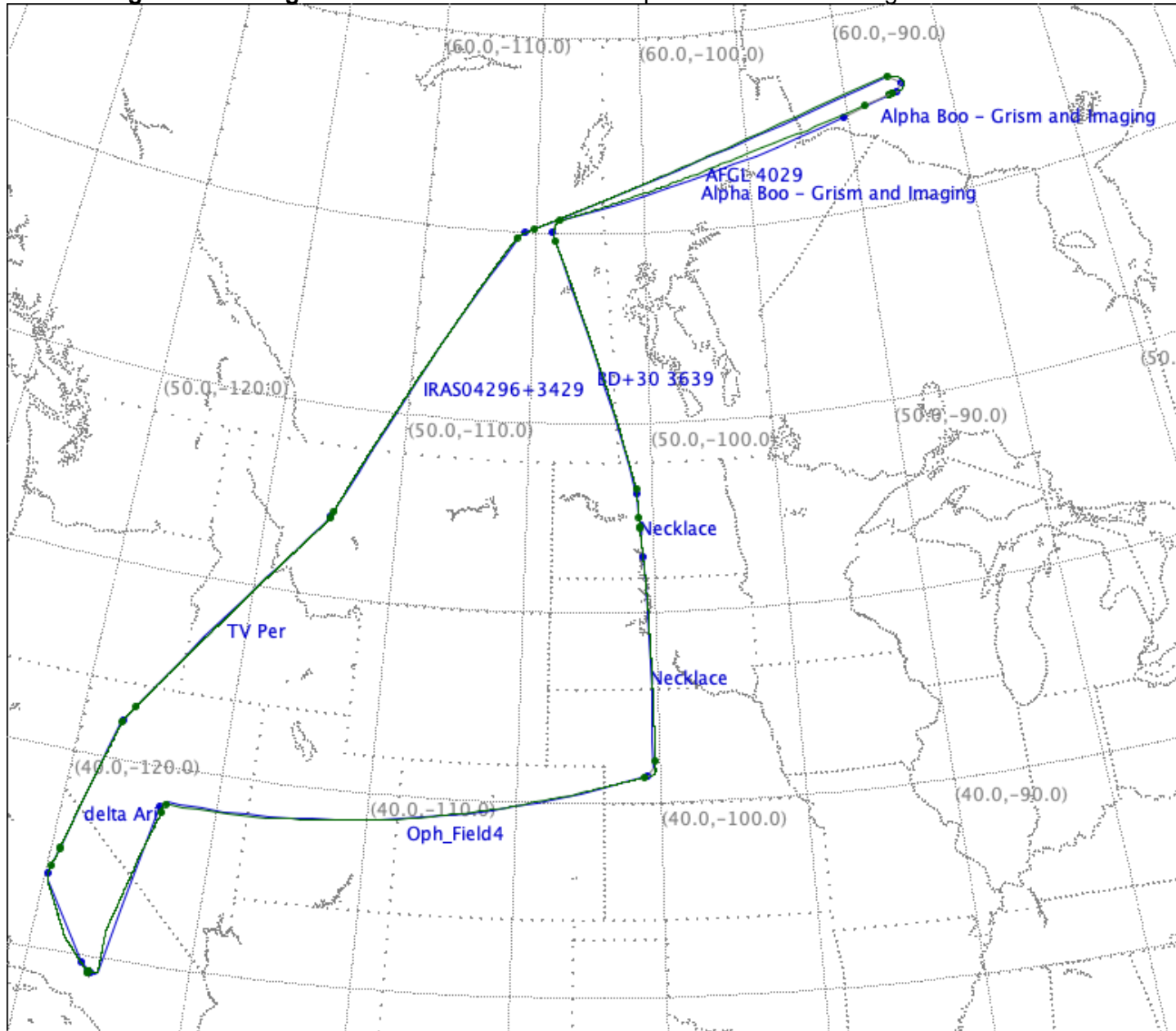
MISSION ID: 2014-03-29_FO_F157

Date: 2014-03-29 UT Instrument: FORCAST

Flight #: 157 Flight Series: OC2B

blue = planned route

green = flown route

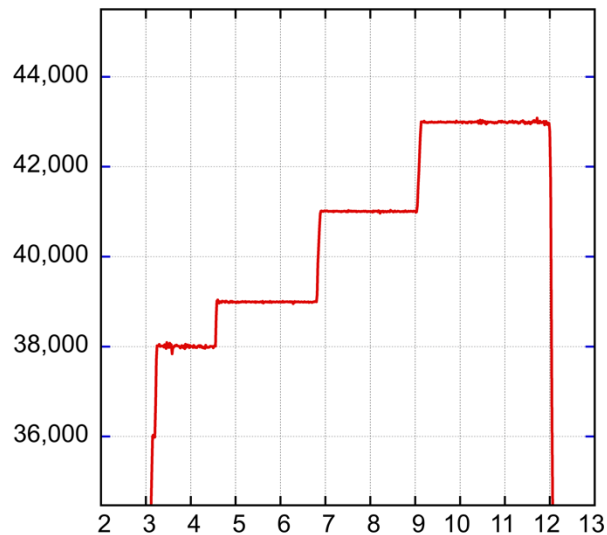


Flight notes: No irregularities.

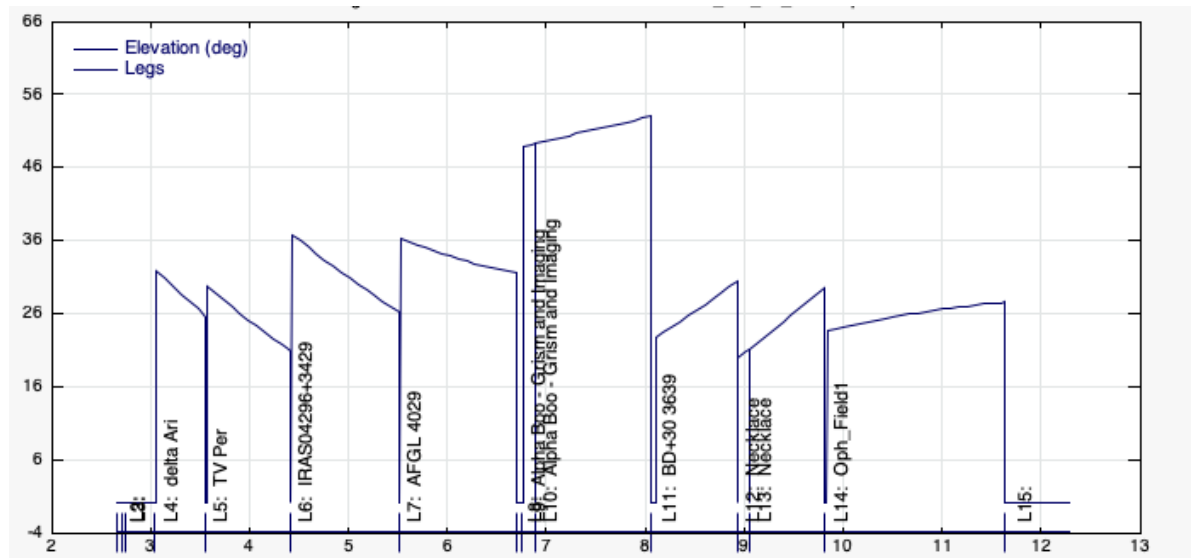
Flight 157 Mission ID 2014-03-29_FO_F157
 Palmdale to Palmdale Take off date UTC: 29-MAR-2014
 Departure UTC: 02:45 Arrival UTC: 12:33

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			delta Ari	03h11m37.90s	19d43m36.0s	3:09	30	
5	02_0015	Gehrz	TV Per	02h43m48.50s	36d15m02.0s	3:40	51	
6	02_0034	Bregman	IRAS04296+3429	04h32m56.97s	34d36m12.4s	4:31	65	Turbulence.
7	02_0074	Tan	AFGL 4029	03h01m31.30s	60d29m12.9s	5:37	70	
9	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	6:52	7	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	7:04	70	
11	02_0085	Guzman-Ramirez	BD+30 3639	19h34m45.23s	30d30m58.9s	8:12	50	
12	02_0085	Guzman-Ramirez	Necklace	19h43m59.50s	17d09m01.0s	9:02	7	
13	02_0085	Guzman-Ramirez	Necklace	19h43m59.50s	17d09m01.0s	9:14	45	
14	02_0070	Mundy	Oph_Field1	16h27m09.66s	-24d19m07.3s	9:56	108	Clouds – partial data.

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



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



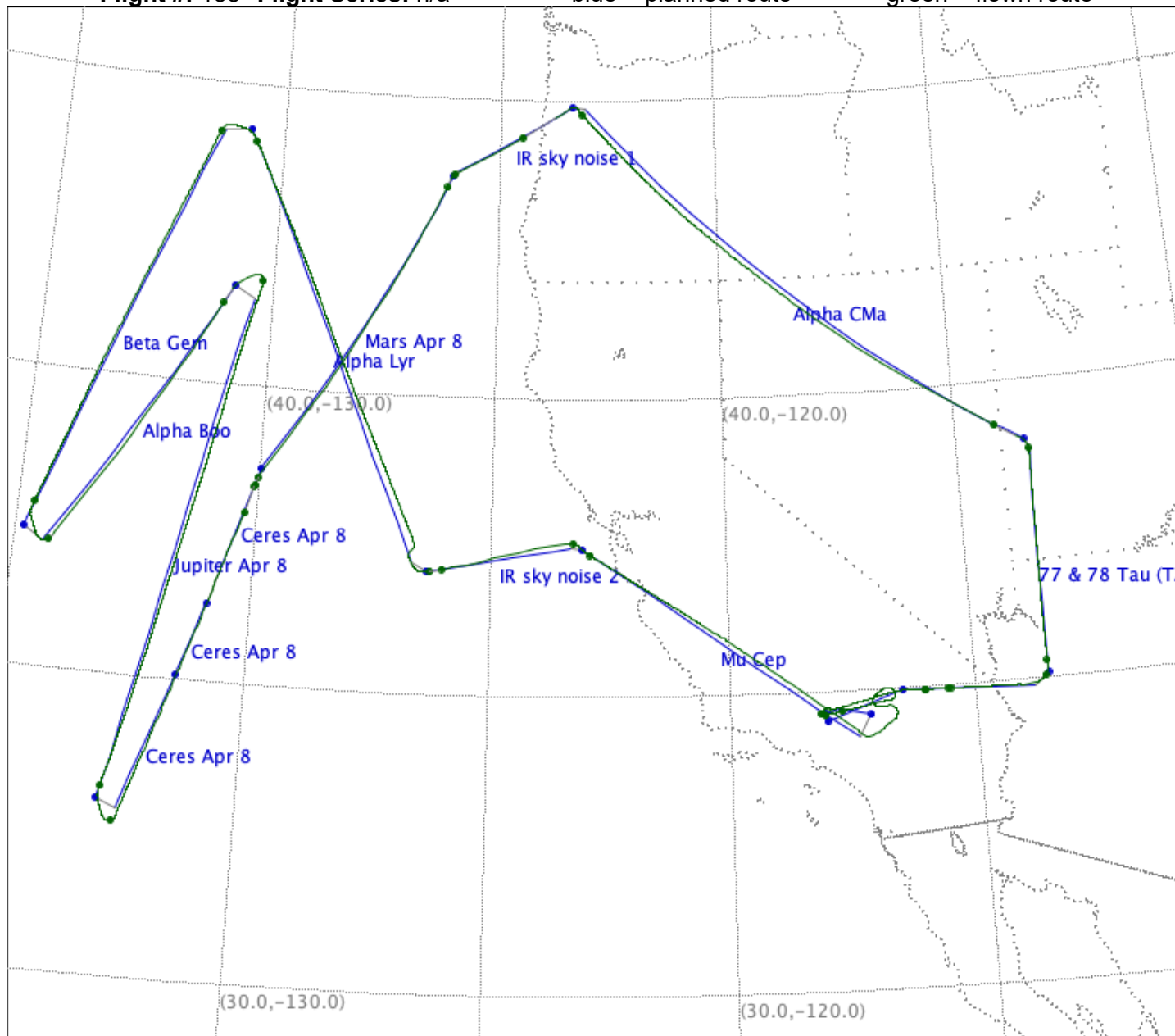
MISSION ID: 2014-04-08_EX_F158

Date: 2014-04-08 UT Instrument: EXES

Flight #: 158 Flight Series: n/a

blue = planned route

green = flown route

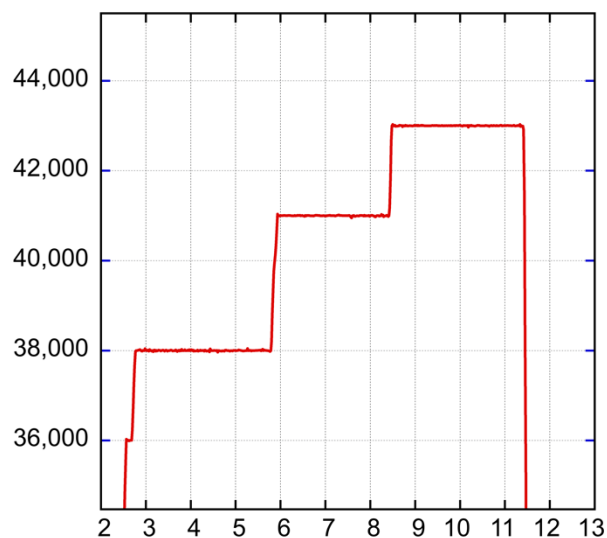


Flight notes: EXES commissioning flight. Engineering data only.

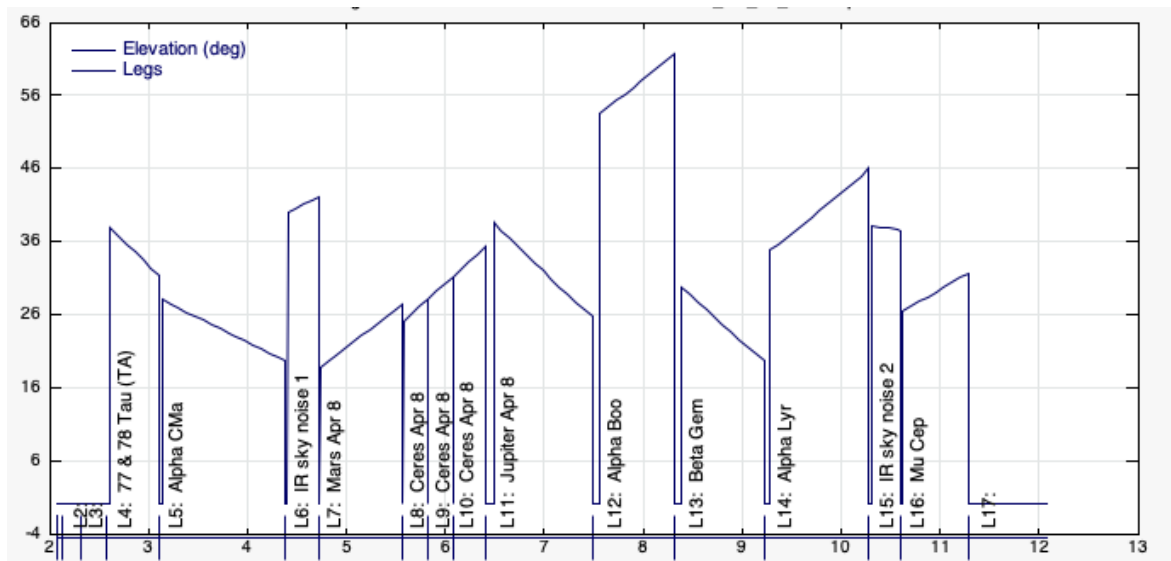
Flight 158 Mission ID 2014-04-08_EX_F158
 Palmdale to Palmdale Take off date UTC: 08-APR-2014
 Departure UTC: ~02:05 Arrival UTC: ~11:50

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4		Engineering	77 & 78 Tau (TA)	04h28m38.00s	15d55m00.0s	2:39	30	
5		Engineering	Alpha CMa	06h45m08.00s	-16d43m00.0s	3:11	74	
6		Engineering	IR sky noise 1	10h59m27.00s	00d53m58.0s	4:27	19	
7		Engineering	Mars Apr 8	13h14m00.00s	-05d08m00.0s	4:47	50	
8		Engineering	Ceres Apr 8	13h59m01.00s	03d05m48.0s	5:37	15	
9		Engineering	Ceres Apr 8	13h59m01.00s	03d05m48.0s	5:57	15	
10		Engineering	Ceres Apr 8	13h59m01.00s	03d05m48.0s	6:08	20	
11		Engineering	Jupiter Apr 8	06h52m03.00s	23d11m00.0s	6:32	60	
12		Engineering	Alpha Boo	14h15m39.00s	19d10m28.0s	7:36	45	
13		Engineering	Beta Gem	07h45m00.00s	28d02m00.0s	8:26	50	
14		Engineering	Alpha Lyr	18h36m57.00s	38d47m00.0s	9:19	60	
15		Engineering	IR sky noise 2	11h32m00.00s	81d00m00.0s	10:22	17	
16		Engineering	Mu Cep	21h43m30.00s	58d46m48.0s	10:40	40	

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



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



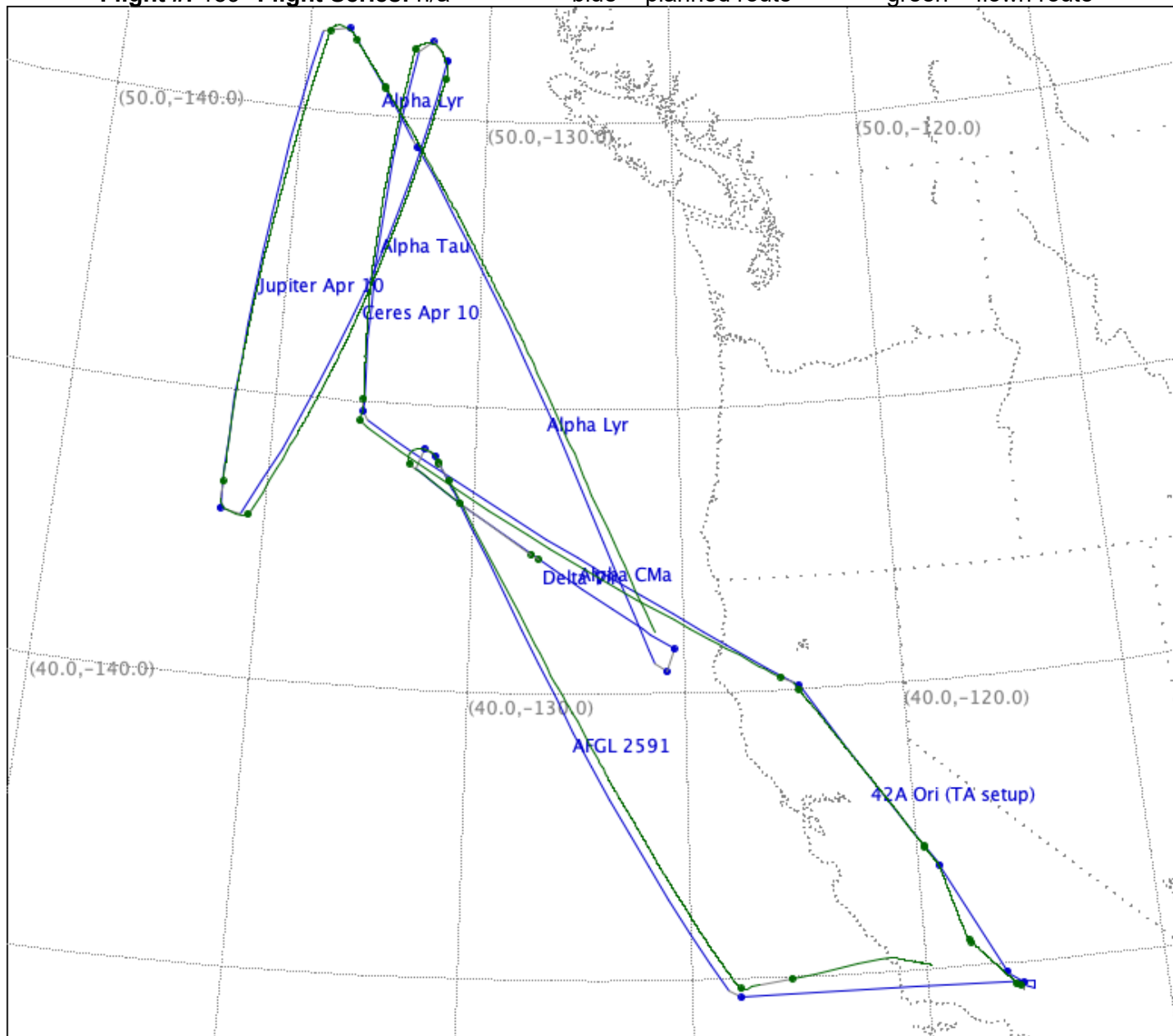
MISSION ID: 2014-04-10_EX_F159

Date: 2014-04-10 UT Instrument: EXES

Flight #: 159 Flight Series: n/a

blue = planned route

green = flown route

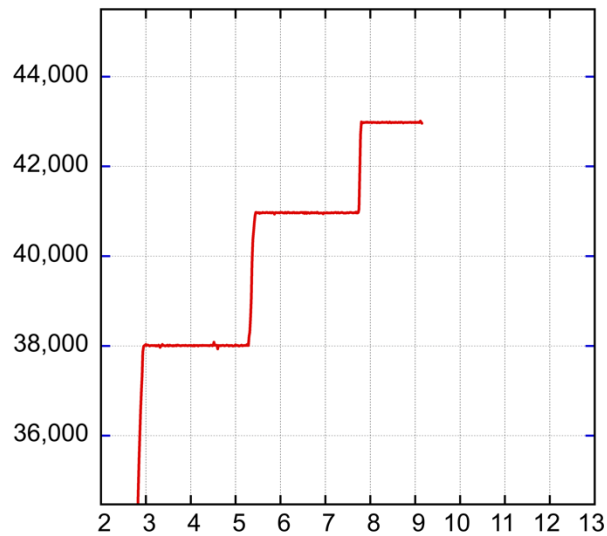


Flight notes: EXES commissioning flight. Engineering data only.

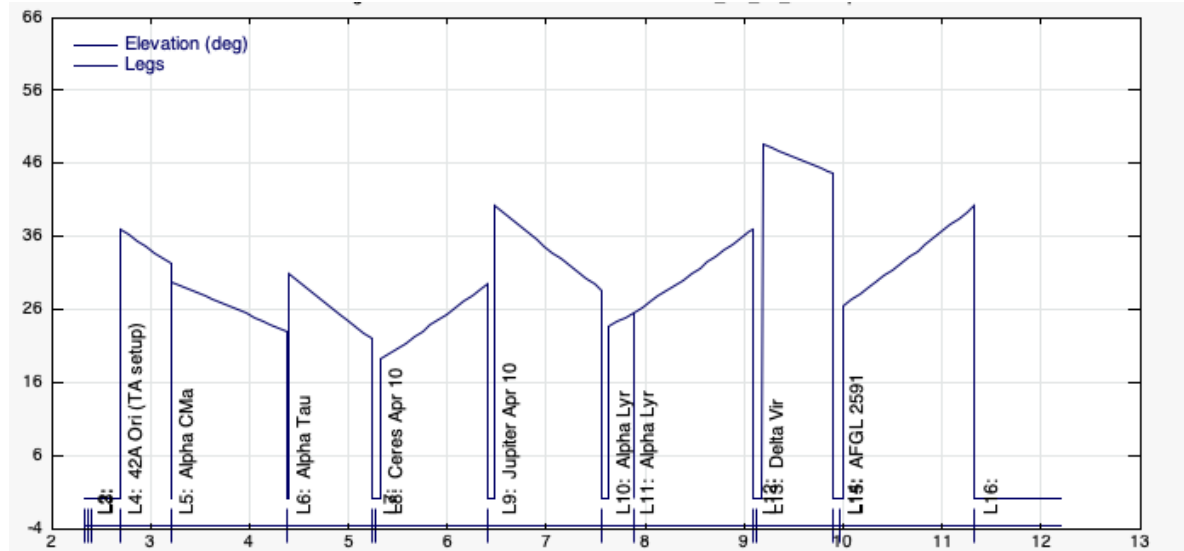
Flight 159 Mission ID 2014-04-10_EX_F159
 Palmdale to Palmdale Take off date UTC: 10-APR-2014
 Departure UTC: 02:24 Arrival UTC: 12:06

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4		Engineering	42A Ori (TA setup)	05h35m23.20s	-04d50m18.0s	2:47	30	
5		Engineering	Alpha CMa	06h45m08.00s	-16d43m00.0s	3:18	70	
6		Engineering	Alpha Tau	04h35m55.00s	16d30m31.0s	4:30	50	Turbulence.
8		Engineering	Ceres Apr 10	13h57m21.00s	03d12m21.0s	5:25	65	
9		Engineering	Jupiter Apr 10	06h52m48.00s	23d09m58.0s	6:34	65	
10		Engineering	Alpha Lyr	18h36m56.00s	38d47m00.0s	7:43	15	
11		Engineering	Alpha Lyr	18h36m56.00s	38d47m00.0s	7:59	72	
13		Engineering	Delta Vir	12h55m36.00s	03d23m51.0s	9:16	43	Technical issue – partial data.
15		Engineering	AFGL 2591	20h29m25.00s	40d11m19.0s	10:05	79	

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



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



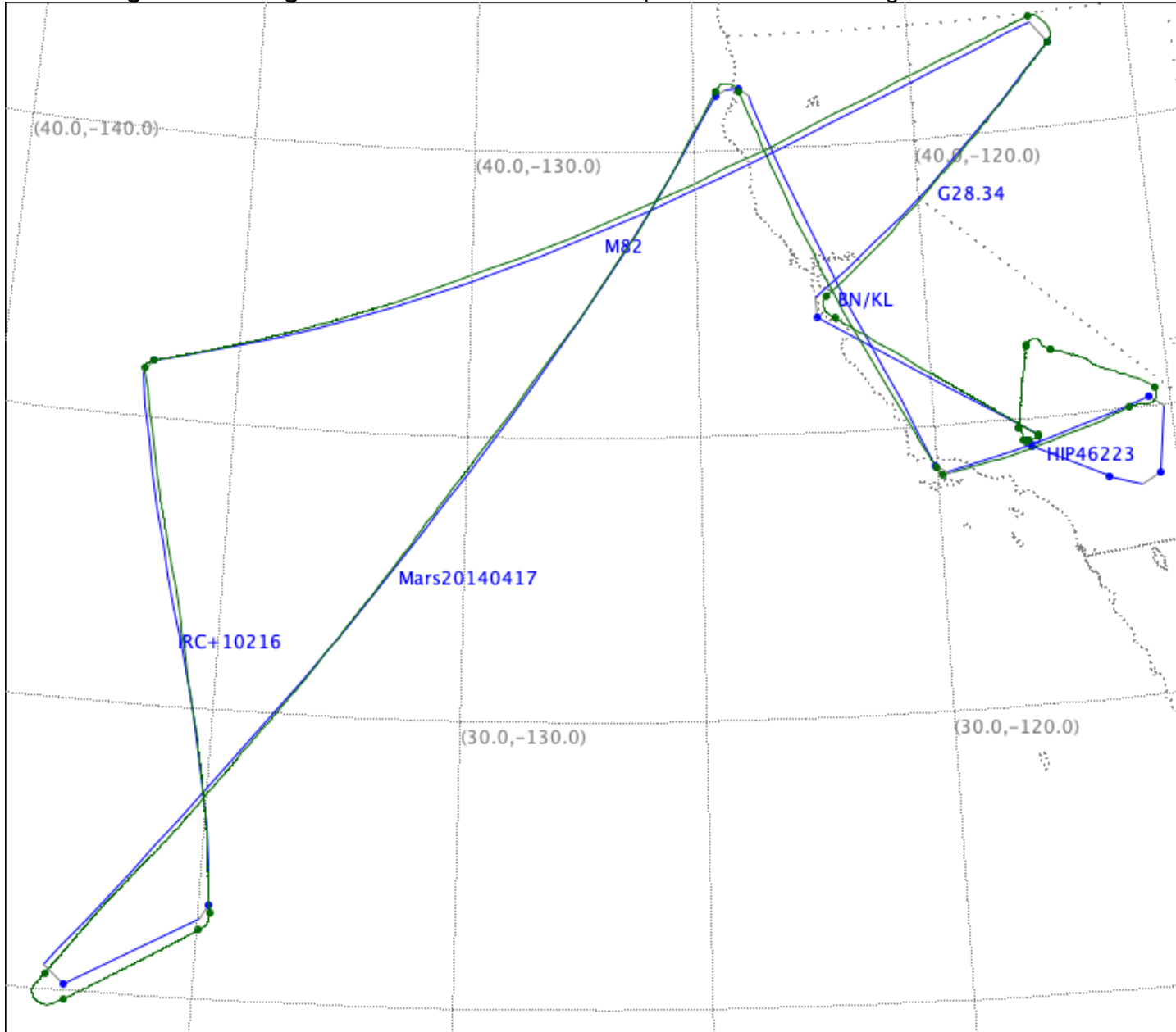
MISSION ID: 2014-04-17_FI_F160

Date: 2014-04-17 UT Instrument: FIFI-LS

Flight #: 160 Flight Series: OC2C

blue = planned route

green = flown route



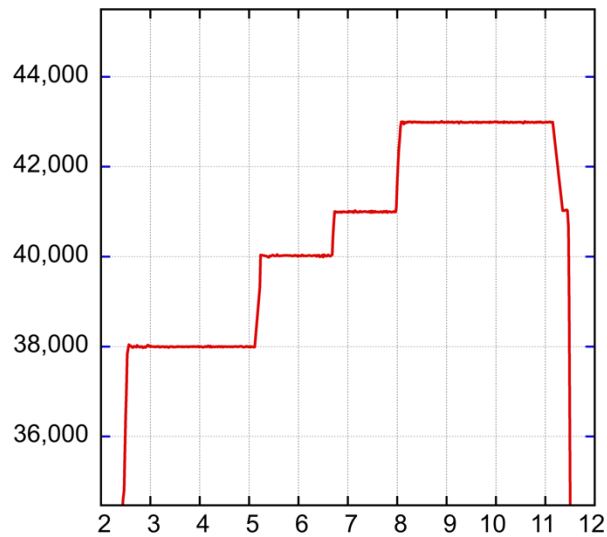
Flight notes:

FIFI-LS commissioning flight. Some engineering data and some science data.

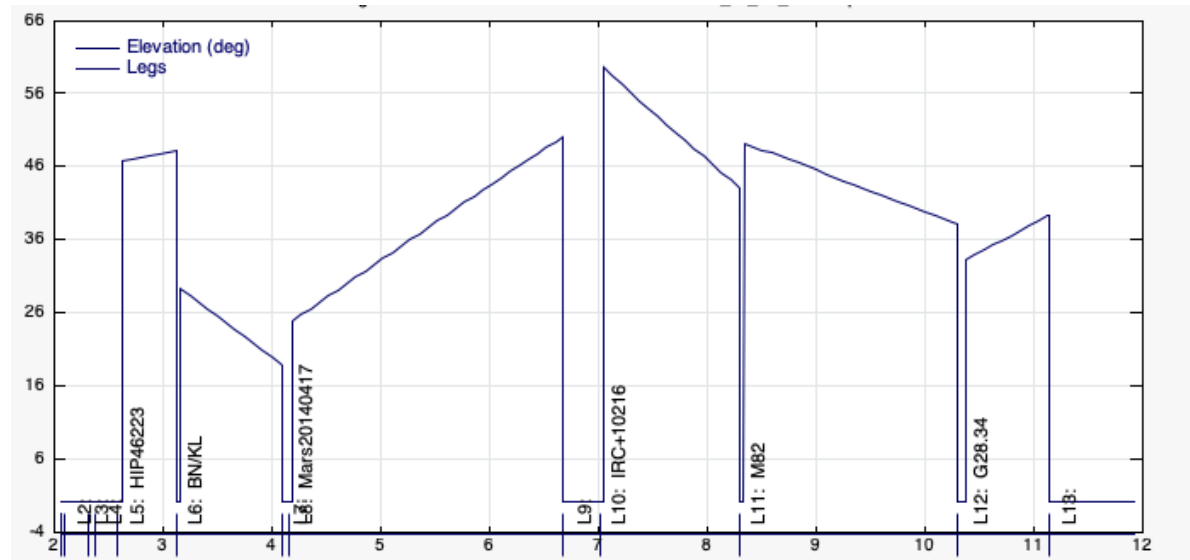
Flight 160 Mission ID 2014-04-17_FI_F160
 Palmdale to Palmdale Take off date UTC: 17-APR-2014
 Departure UTC: 02:04 Arrival UTC: 11:56

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5		Engineering	HIP46223	09h25m27.03s	-06d24m16.3s	2:40	30	
6		GTO	BN/KL	05h35m14.16s	-05d22m21.5s	3:12	56	
8		Engineering	Mars20140417	13h00m42.02s	-04d06m39.9s	4:14	149	
10		Engineering	IRC+10216	09h47m57.41s	13d16m43.6s	7:06	75	
11		GTO	M82	09h55m52.43s	69d40m46.9s	8:23	118	
12		GTO	G28.34	18h42m51.69s	-04d01m56.0s	10:25	46	

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



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



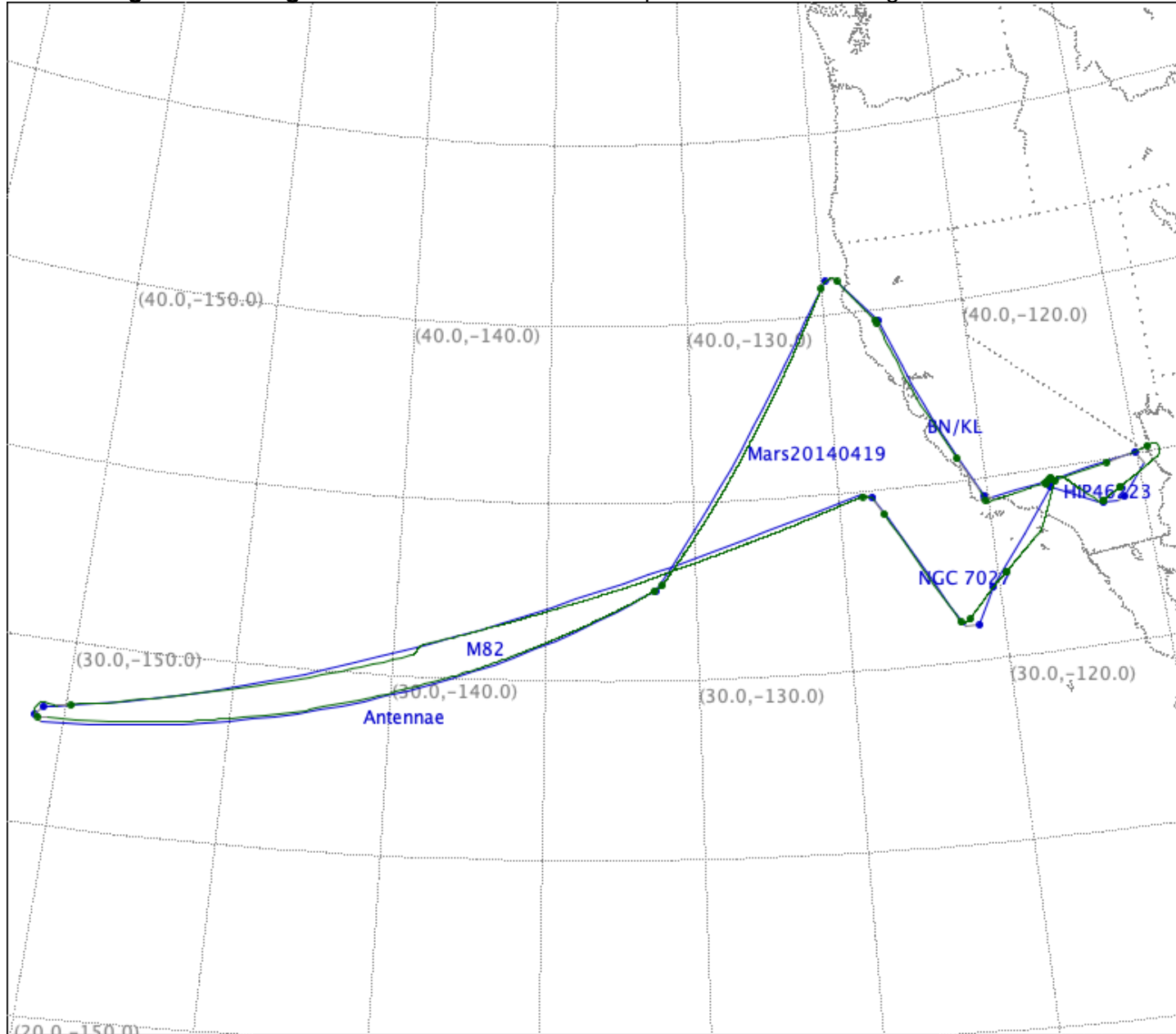
MISSION ID: 2014-04-19_FI_F161

Date: 2014-04-19 UT Instrument: FIFI-LS

Flight #: 161 Flight Series: OC2C

blue = planned route

green = flown route



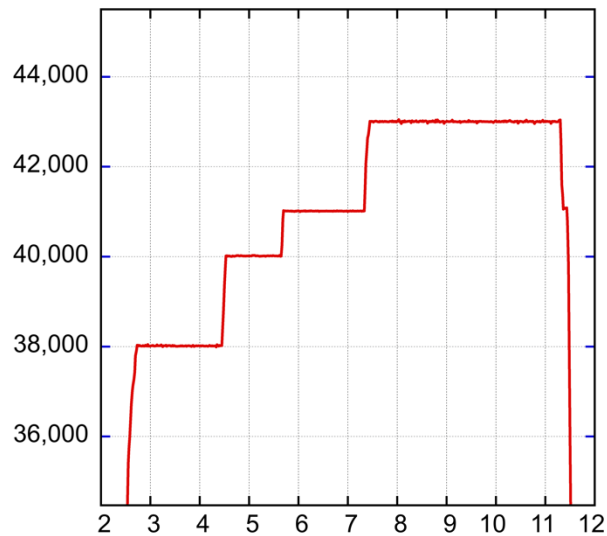
Flight notes:

FIFI-LS commissioning flight. Some engineering data and some science data.

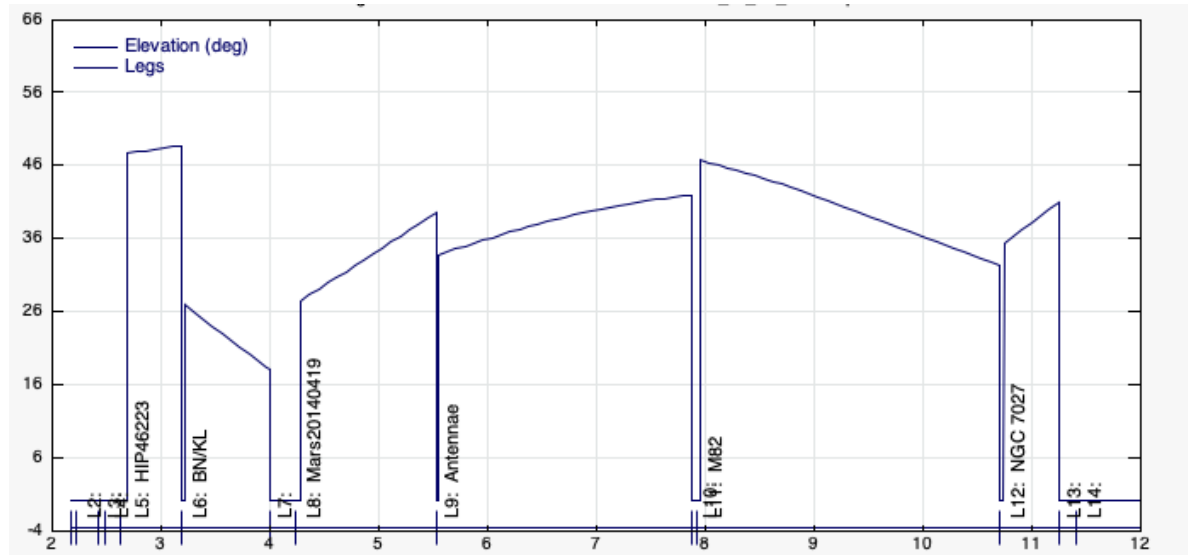
Flight 161 Mission ID 2014-04-19_FI_F161
 Palmdale to Palmdale Take off date UTC: 19-APR-2014
 Departure UTC: 02:04 Arrival UTC: 12:11

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			HIP46223	09h25m27.03s	-06d24m16.3s	2:45	30	
6		GTO	BN/KL	05h35m14.16s	-05d22m21.5s	3:17	46	
8		Calibration	Mars20140419	12h57m53.66s	-03d54m13.1s	4:20	75	
9		GTO	Antennae	12h01m53.17s	-18d52m37.9s	5:36	140	
11		GTO	M82	09h55m52.43s	69d40m46.9s	8:01	165	Turbulence.
12		Calibration	NGC 7027	21h07m01.59s	42d14m10.2s	10:48	30	

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



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



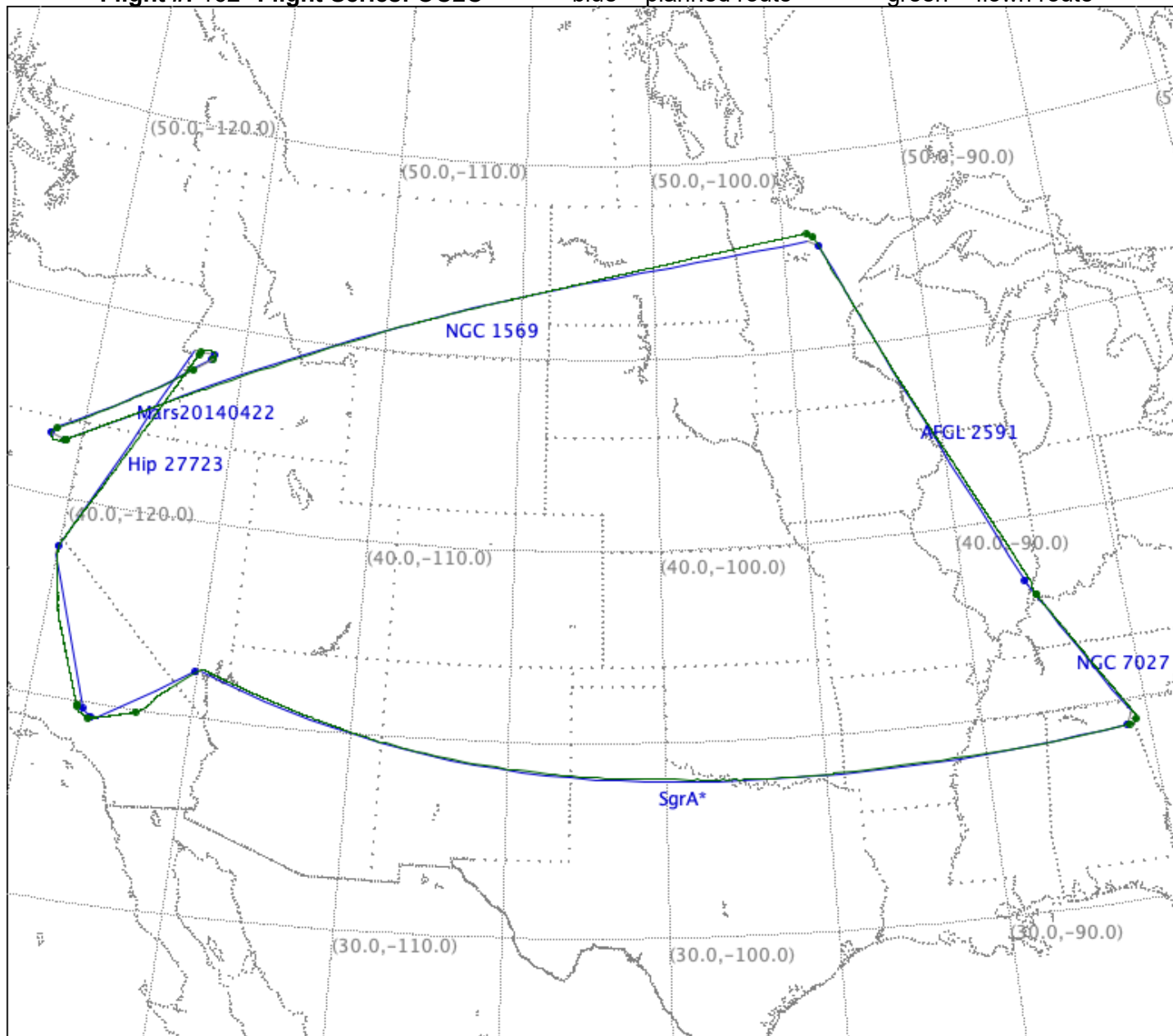
MISSION ID: 2014-04-22_FI_F162

Date: 2014-04-22 UT Instrument: FIFI-LS

Flight #: 162 Flight Series: OC2C

blue = planned route

green = flown route

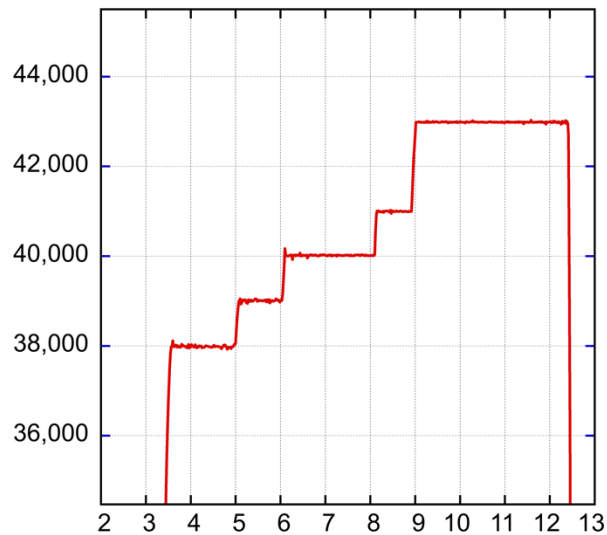


Flight notes: No irregularities.

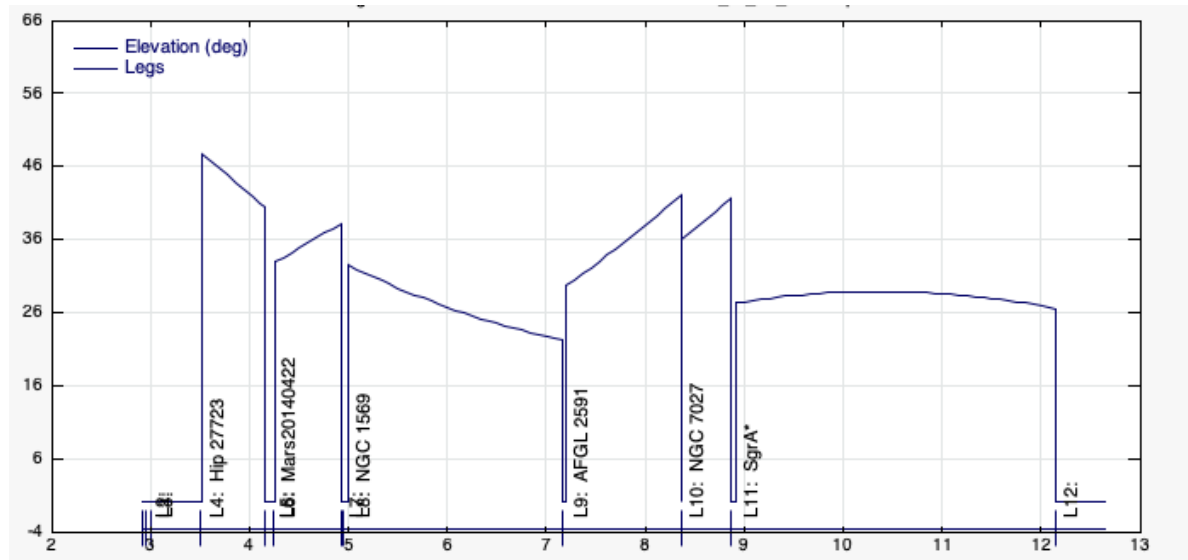
Flight 162 Mission ID 2014-04-22_FI_F162
 Palmdale to Palmdale Take off date UTC: 22-APR-2014
 Departure UTC: 03:01 Arrival UTC: 12:50

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Hip 27723	05h52m13.88s	38d33m36.4s	3:37	38	
6		Calibration	Mars20140422	12h54m00.91s	-03d37m29.7s	4:21	40	
8			NGC 1569	04h30m49.19s	64d50m52.5s	5:06	130	
9			AFGL 2591	20h29m24.93s	40d11m18.9s	7:18	70	
10		Calibration	NGC 7027	21h07m01.59s	42d14m10.2s	8:28	30	
11			SgrA*	17h45m40.04s	-29d00m28.2s	9:01	194	

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



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



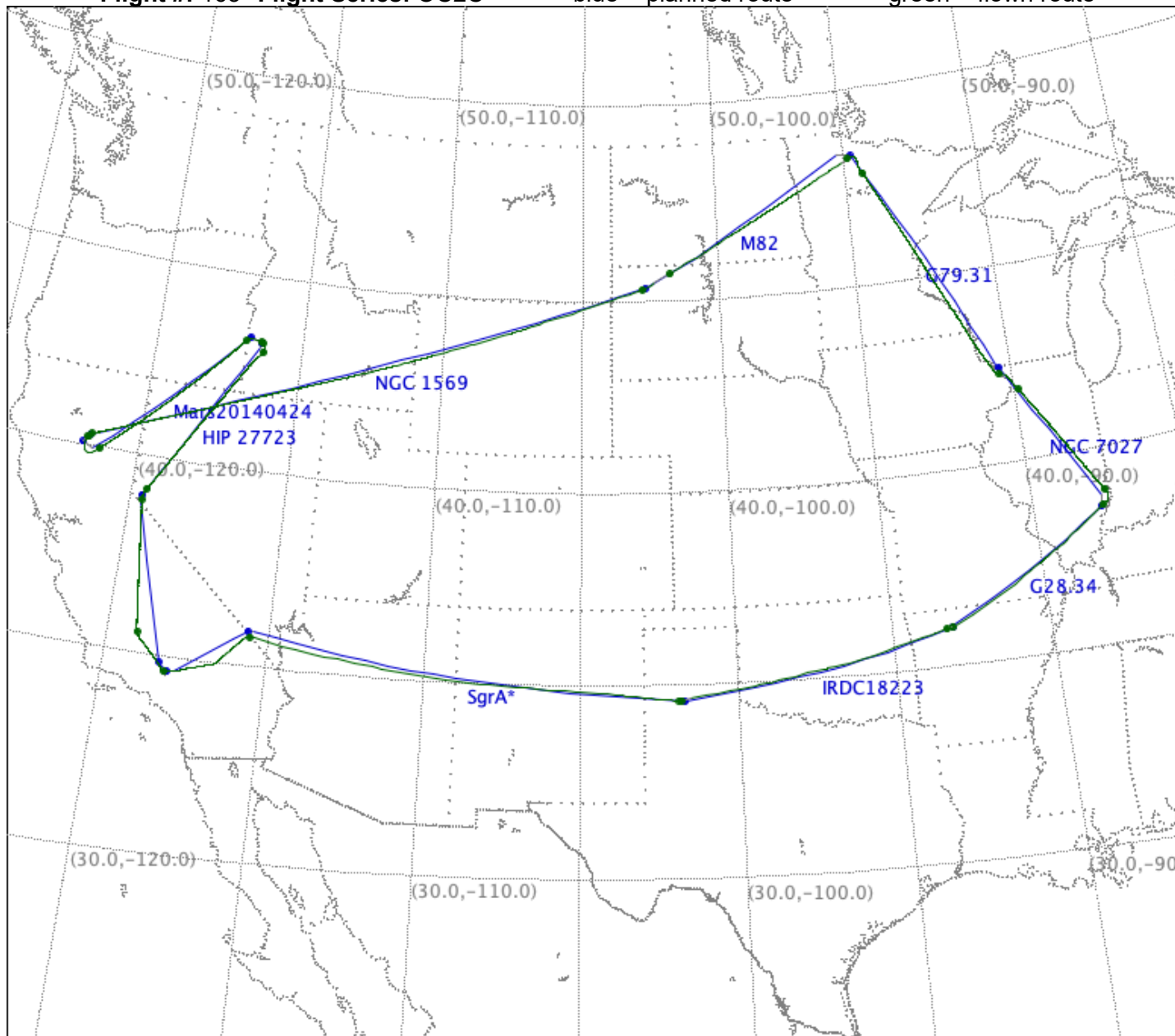
MISSION ID: 2014-04-24_FI_F163

Date: 2014-04-24 UT Instrument: FIFI-LS

Flight #: 163 Flight Series: OC2C

blue = planned route

green = flown route

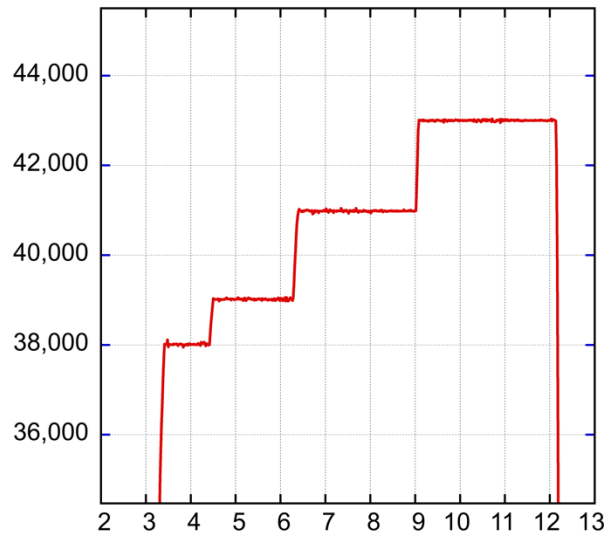


Flight notes: No irregularities.

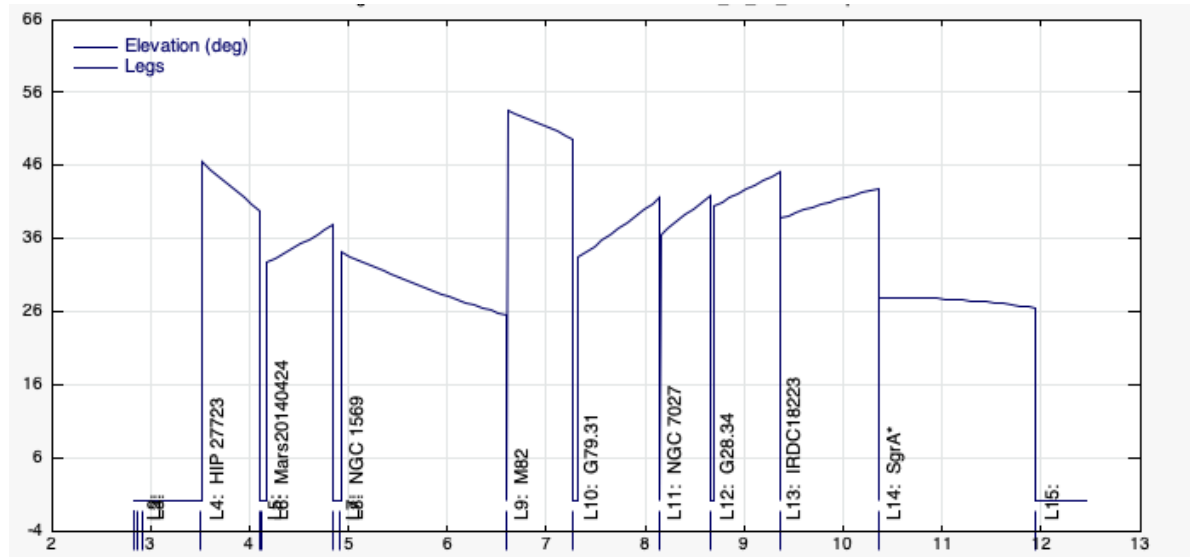
Flight 163 Mission ID 2014-04-24_FI_F163
 Palmdale to Palmdale Take off date UTC: 24-APR-2014
 Departure UTC: 02:55 Arrival UTC: 12:27

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP 27723	05h52m13.88s	38d33m36.4s	3:37	35	
6		Calibration	Mars20140424	12h51m26.99s	-03d26m48.9s	4:16	40	
8			NGC 1569	04h30m49.19s	64d50m52.5s	5:01	100	
9			M82	09h55m52.43s	69d40m46.9s	6:42	40	
10			G79.31	20h31m48.47s	40d18m43.7s	7:24	50	
11		Calibration	NGC 7027	21h07m01.59s	42d14m10.2s	8:14	30	
12			G28.34	18h42m51.69s	-04d01m56.0s	8:47	40	
13			IRDC18223	18h25m08.61s	-12d45m20.7s	9:27	60	
14			SgrA*	17h45m40.04s	-29d00m28.2s	10:27	95	

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



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



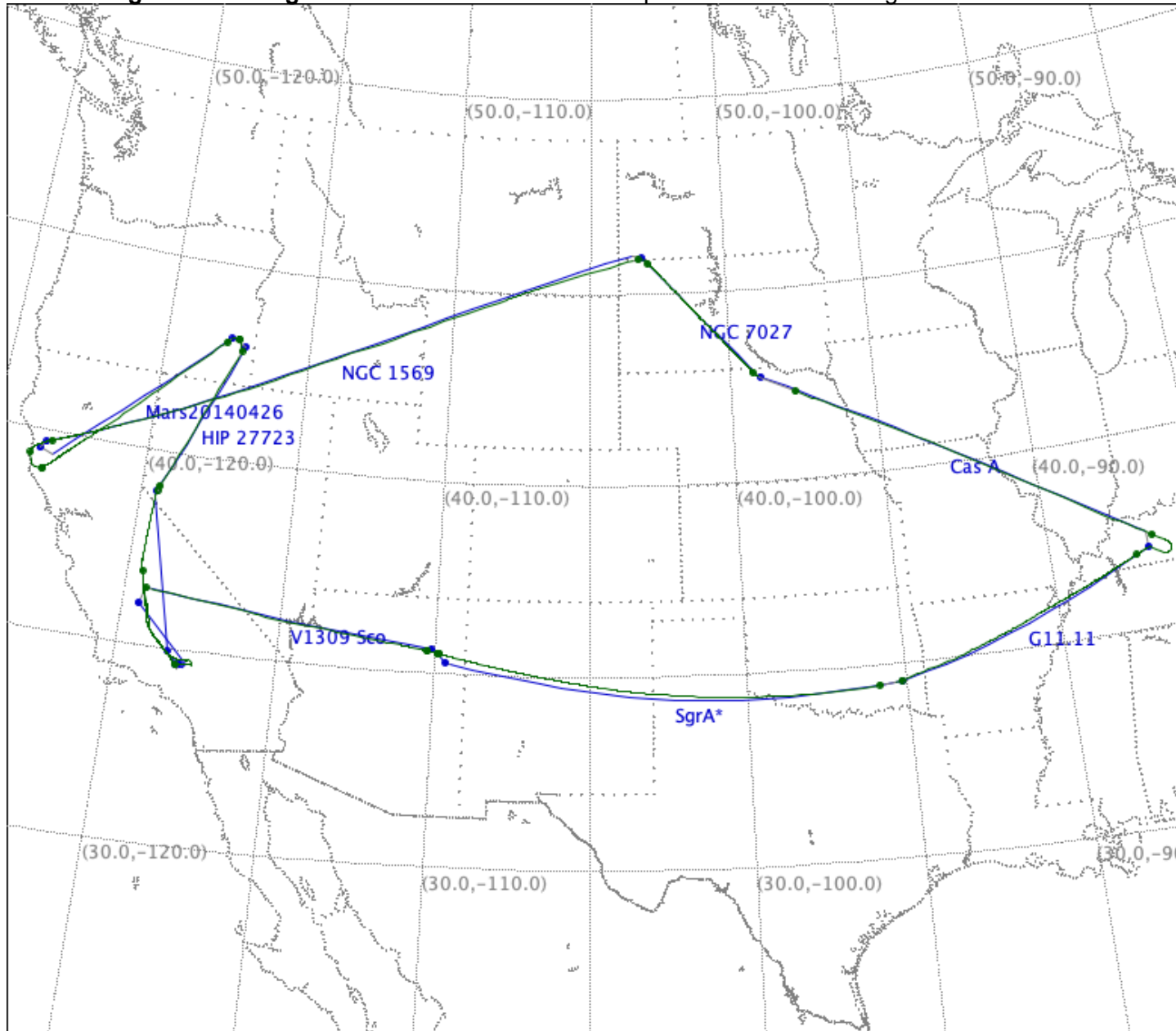
MISSION ID: 2014-04-26_FI_F164

Date: 2014-04-26 UT Instrument: FIFI-LS

Flight #: 164 Flight Series: OC2C

blue = planned route

green = flown route

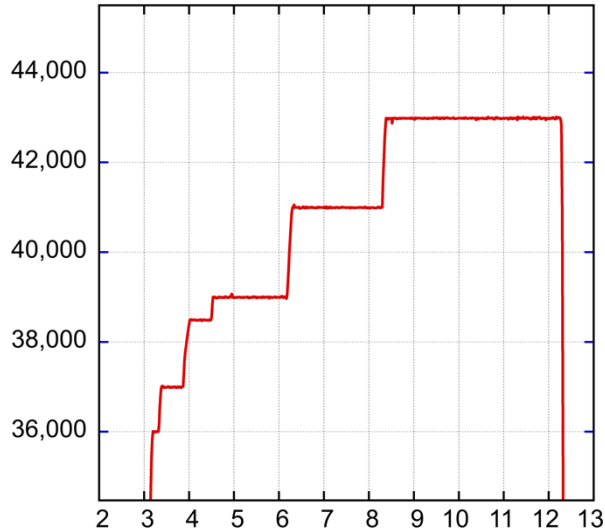


Flight notes: No irregularities.

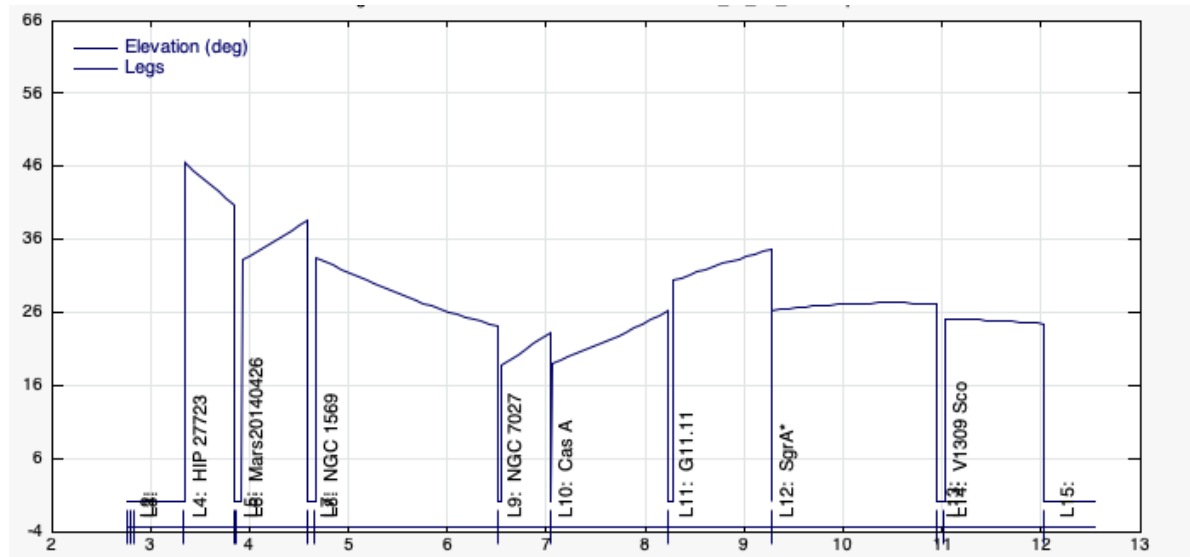
Flight 164 Mission ID 2014-04-26_FI_F164
 Palmdale to Palmdale Take off date UTC: 26-APR-2014
 Departure UTC: 02:45 Arrival UTC: 12:38

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			HIP 27723	05h52m13.88s	38d33m36.4s	3:27	30	
6			Mars20140426	12h49m00.83s	-03d17m01.3s	4:02	40	
8			NGC 1569	04h30m49.19s	64d50m52.5s	4:47	110	
9			NGC 7027	21h07m01.59s	42d14m10.2s	6:39	30	
10			Cas A	23h23m24.90s	58d50m03.3s	7:09	70	Technical issue – partial data.
11			G11.11	18h10m24.90s	-19d23m11.3s	8:23	60	
12			SgrA*	17h45m40.04s	-29d00m28.2s	9:23	100	
14			V1309 Sco	17h57m33.02s	-30d43m10.4s	11:08	60	

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



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



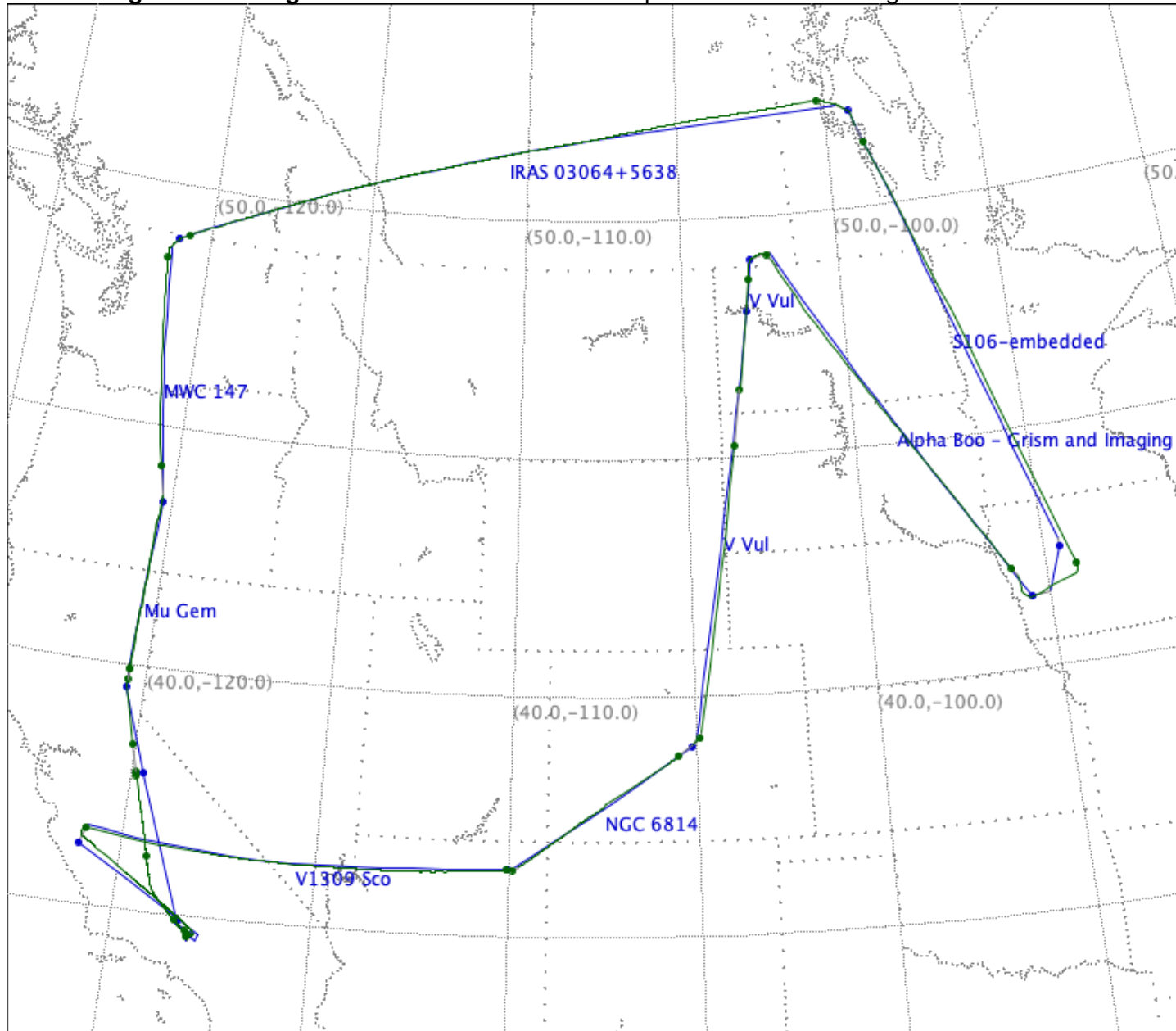
MISSION ID: 2014-05-01_FO_F165

Date: 2014-05-01 UT **Instrument:** FORCAST

Flight #: 165 **Flight Series:** OC2D

blue = planned route

green = flown route

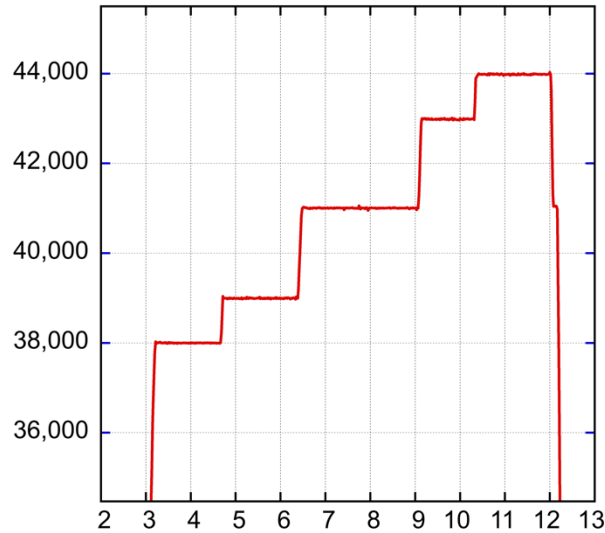


Flight notes: No irregularities.

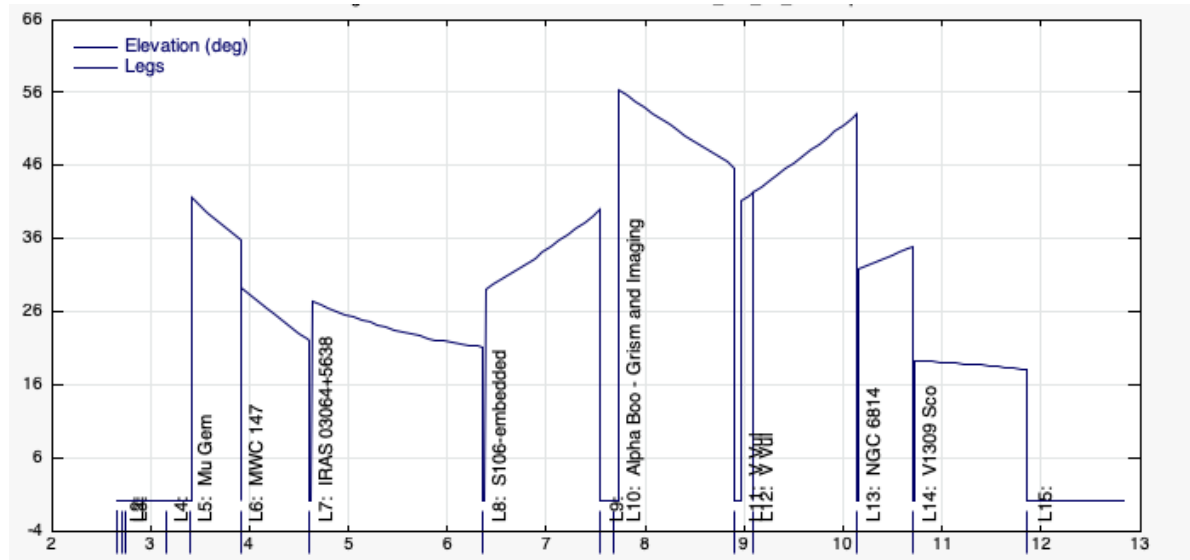
Flight 165 Mission ID 2014-05-01_FO_F165
 Palmdale to Palmdale Take off date UTC: 01-MAY-2014
 Departure UTC: 02:43 Arrival UTC: 12:35

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			Mu Gem	06h22m57.70s	22d30m48.0s	3:30	30	
6	02_0016	Vacca	MWC 147	06h33m05.19s	10d19m20.0s	4:00	41	
7	02_0045	Klein	IRAS 03064+5638	03h10m15.30s	56d50m41.0s	4:43	103	Trouble setting up chop and nod configuration, 10min lost
8	70_0004	GTO	S106-embedded	20h27m50.44s	37d17m59.5s	6:28	70	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	7:50	70	
11	02_0015	Gehrz	V Vul	20h36m32.02s	26d36m14.5s	9:04	7	
12	02_0015	Gehrz	V Vul	20h36m32.02s	26d36m14.5s	9:11	63	
13	02_0035	Lopez-Rodriguez	NGC 6814	19h42m40.58s	-10d19m25.5s	10:15	33	
14	01_0130	McCollum	V1309 Sco	17h57m32.91s	-30d43m08.1s	10:49	68	

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



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



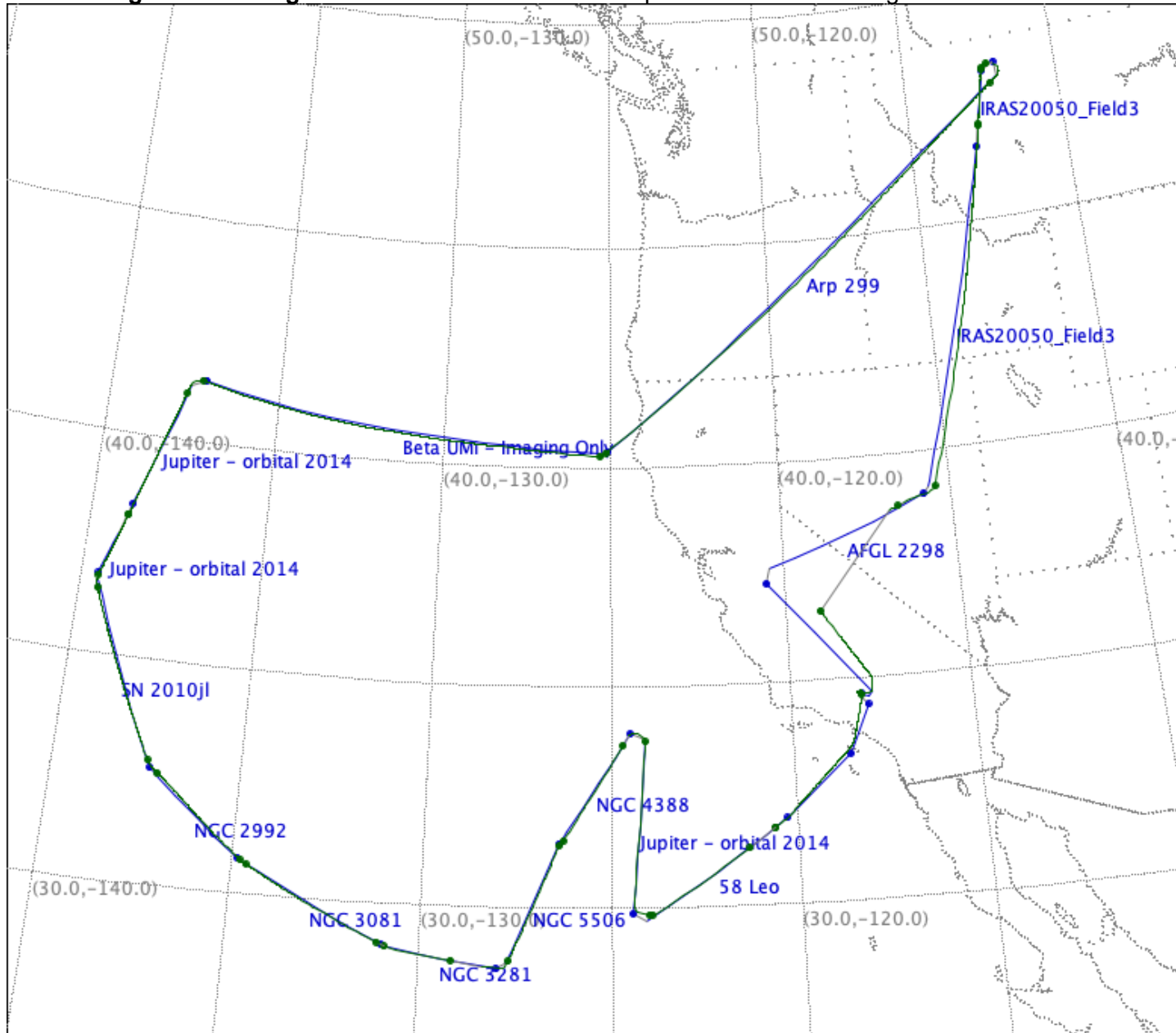
MISSION ID: 2014-05-02_FO_F166

Date: 2014-05-02 UT Instrument: FORCAST

Flight #: 166 Flight Series: OC2D

blue = planned route

green = flown route

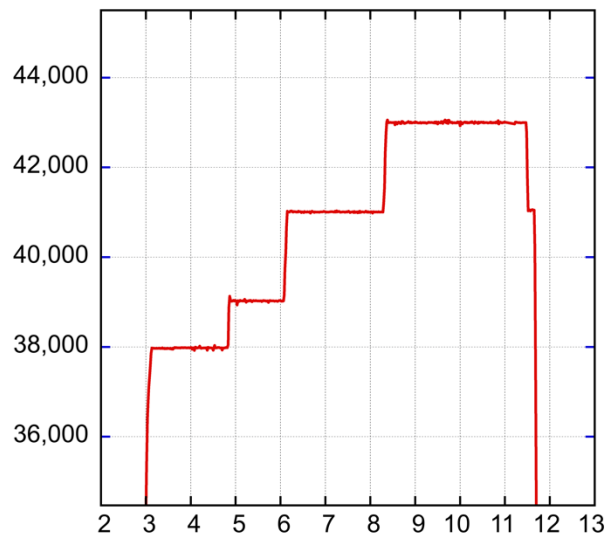


Flight notes: No irregularities.

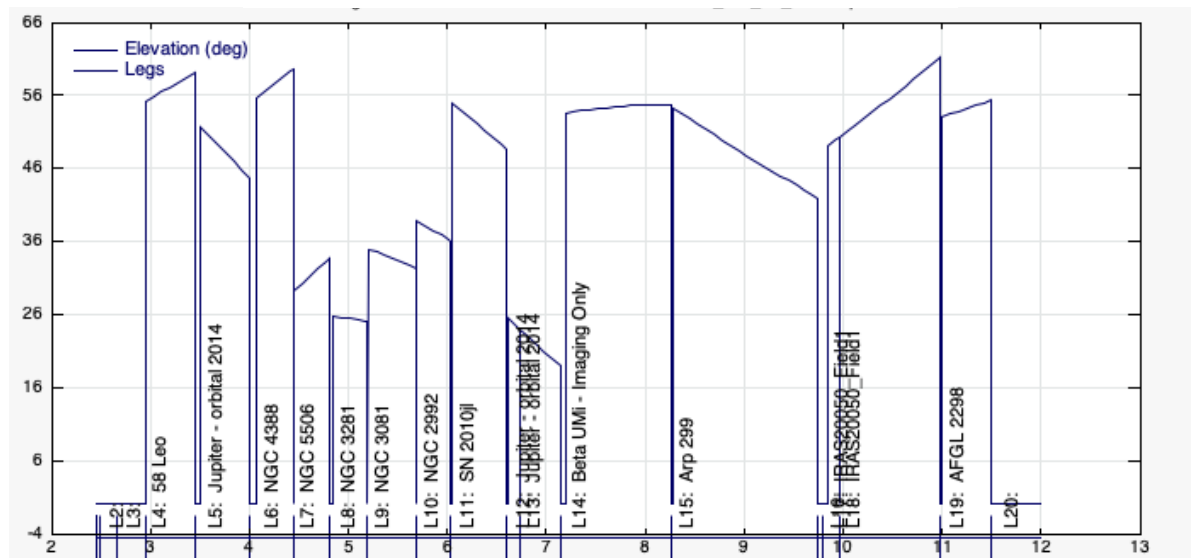
Flight 166 Mission ID 2014-05-02_FO_F166
 Palmdale to Palmdale Take off date UTC: 02-MAY-2014
 Departure UTC: 02:36 Arrival UTC: 12:08

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			58 Leo	11h00m33.70s	03d37m03.0s	3:00	30	
5	94_0012	Testing	Jupiter - orbital 2014	07h05m14.54s	22d53m35.0s	3:33	30	
6	02_0035	Lopez-Rodriguez	NGC 4388	12h25m46.82s	12d39m43.4s	4:07	22	
7	02_0035	Lopez-Rodriguez	NGC 5506	14h13m14.90s	-03d12m27.2s	4:29	22	
8	02_0035	Lopez-Rodriguez	NGC 3281	10h31m52.09s	-34d51m13.4s	4:53	21	
9	02_0035	Lopez-Rodriguez	NGC 3081	09h59m29.53s	-22d49m34.3s	5:15	29	
10	02_0035	Lopez-Rodriguez	NGC 2992	09h45m42.04s	-14d19m34.9s	5:44	21	
11	02_0059	Williams	SN 2010jl	09h42m53.33s	09d29m41.8s	6:06	33	
12	94_0012	Testing	Jupiter - orbital 2014	07h05m19.60s	22d53m27.6s	6:40	7	
13	94_0012	Testing	Jupiter - orbital 2014	07h05m19.79s	22d53m27.3s	6:52	25	
14	90_0013	Calibration	Beta UMi - Imaging Only	14h50m42.33s	74d09m19.8s	7:14	64	
15	70_0004	GTO	Arp 299	11h28m32.80s	58d33m46.0s	8:19	88	
17	02_0070	Mundy	IRAS20050 Field1	20h06m59.76s	27d32m31.1s	9:53	7	
18	02_0070	Mundy	IRAS20050 Field1	20h06m59.76s	27d32m31.1s	10:05	61	Vignetting at end of leg by upper door
19	02_0101	Smith	AFGL 2298	19h00m10.89s	03d45m47.1s	11:03	30	Observatory control software crash; leg lost

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



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



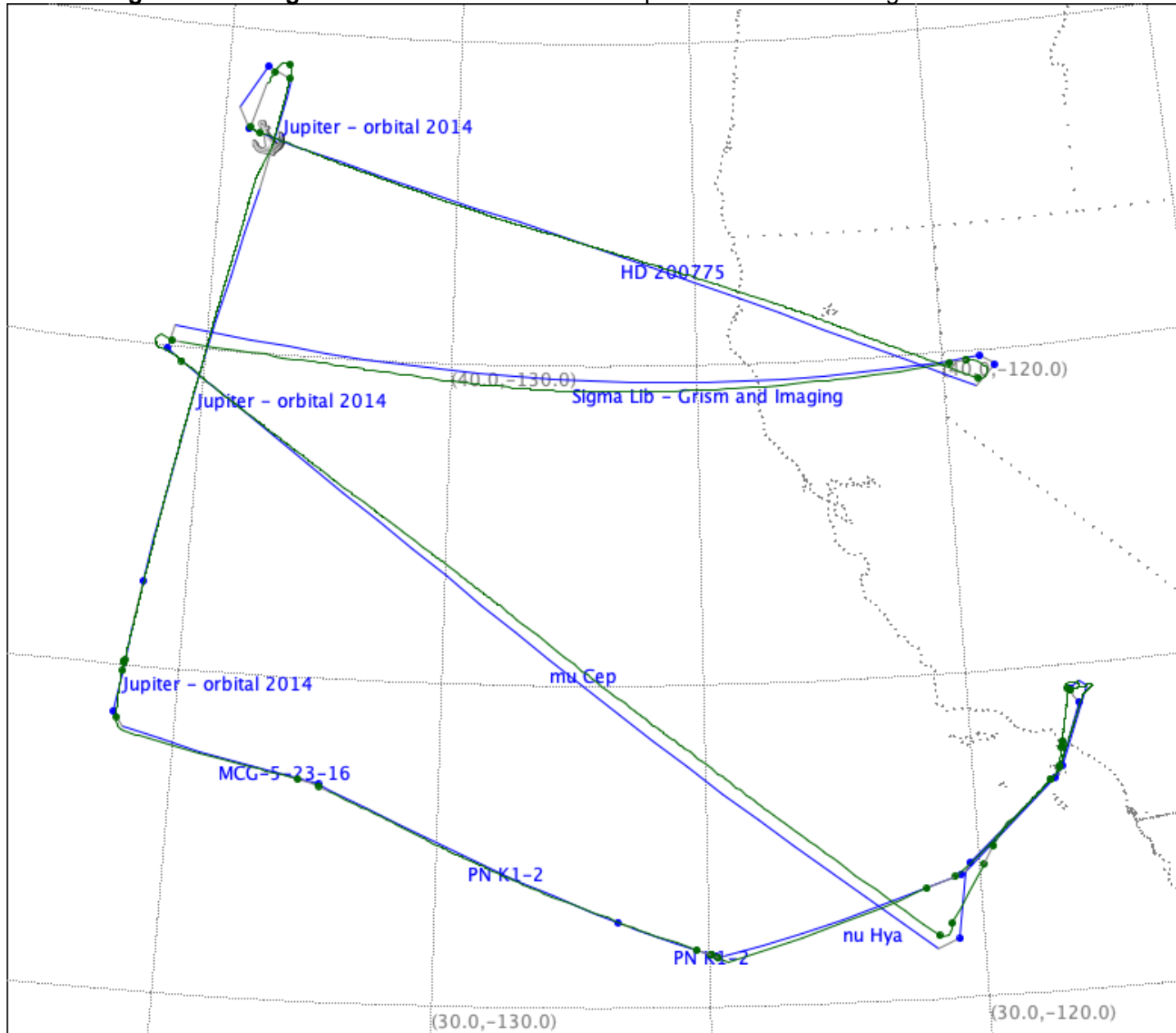
MISSION ID: 2014-05-03_FO_F167

Date: 2014-05-03 UT **Instrument:** FORCAST

Flight #: 167 **Flight Series:** OC2D

blue = planned route

green = flown route

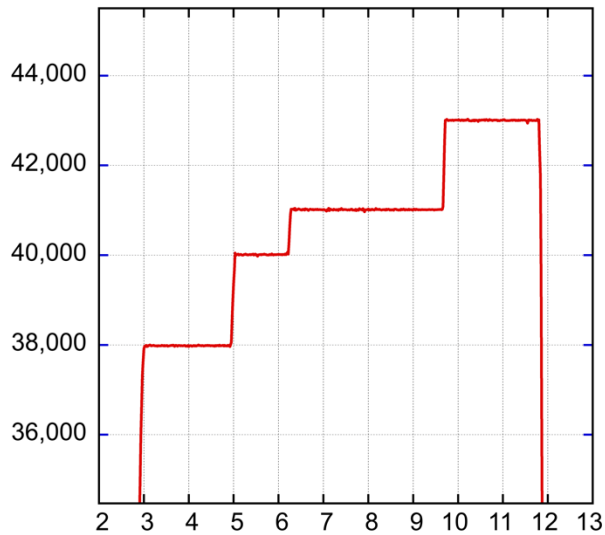


Flight notes: No irregularities.

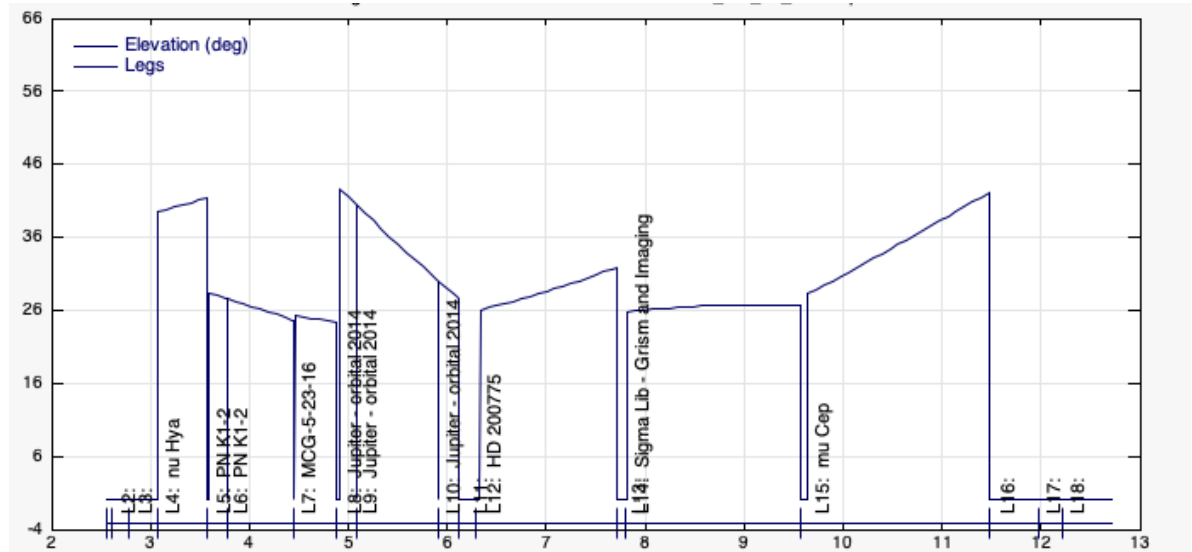
Flight 167 Mission ID 2014-05-03_FO_F167
 Palmdale to Palmdale Take off date UTC: 03-MAY-2014
 Departure UTC: 02:30 Arrival UTC: 12:19

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			nu Hya	10h49m37.60s	-16d11m36.0s	3:07	30	
5	02_0085	Guzman-Ramirez	PN K1	08h57m45.99s	-28d57m36.8s	3:37	11	Clouds.
6	02_0085	Guzman-Ramirez	PN K1	08h57m45.99s	-28d57m36.8s	3:50	41	Clouds.
7	02_0035	Lopez-Rodriguez	MCG-5-23-16	09h47m40.17s	-30d56m55.9s	4:30	25	
8	94_0012	Testing	Jupiter - orbital 2014	07h05m56.10s	22d52m33.6s	4:57	10	Observatory control software crash; most of leg lost
9	94_0012	Testing	Jupiter - orbital 2014	07h05m56.38s	22d52m33.2s	5:12	50	Observatory control software crash; most of leg lost
10	94_0012	Testing	Jupiter - orbital 2014	07h05m57.75s	22d52m31.2s	6:02	12	Observatory control software crash; most of leg lost
12	02_0016	Vacca	HD 200775	21h01m36.92s	68d09m47.8s	6:22	83	
14	90_0013	Calibration	Sigma Lib - Grism and Imaging	15h04m04.22s	-25d16m55.1s	7:52	105	
15	02_0031	Humphreys	mu Cep	21h43m30.46s	58d46m48.2s	9:41	110	

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



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



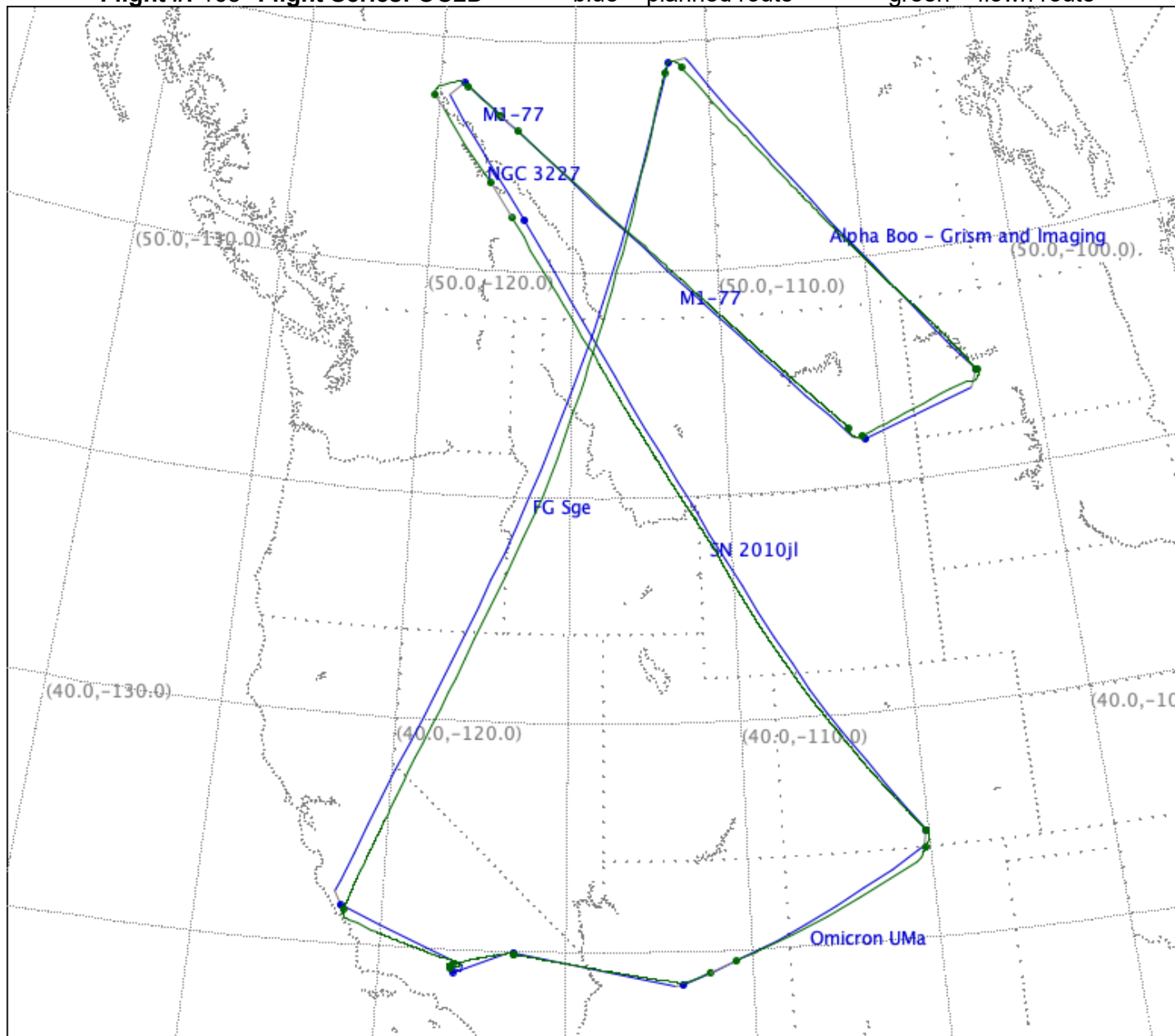
MISSION ID: 2014-05-06_FO_F168

Date: 2014-05-06 UT **Instrument:** FORCAST

Flight #: 168 **Flight Series:** OC2D

blue = planned route

green = flown route

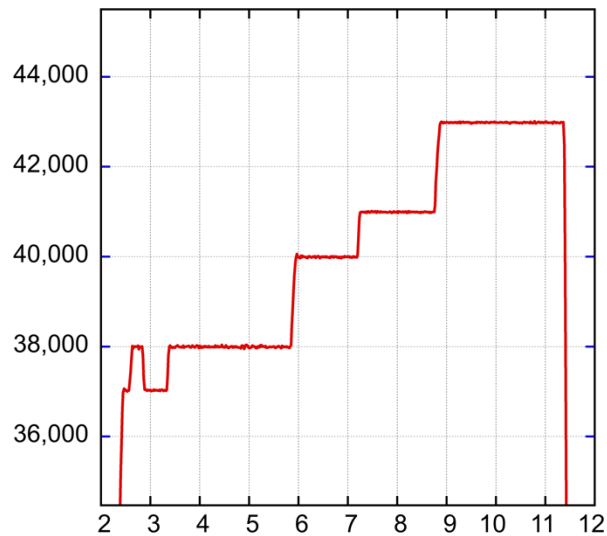


**Flight notes:
No irregularities.**

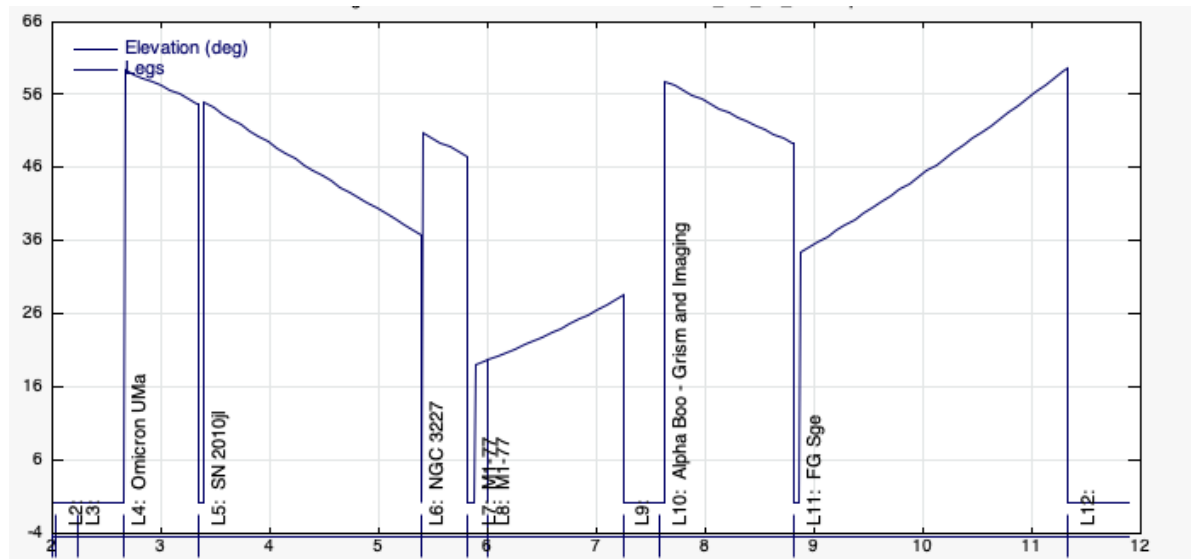
Flight 168 Mission ID 2014-05-06_FO_F168
 Palmdale to Palmdale Take off date UTC: 06-MAY-2014
 Departure UTC: 01:58 Arrival UTC: 11:44

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Omicron UMa	08h30m15.70s	60d43m06.0s	2:42	41	
5	02_0059	Williams	SN 2010jl	09h42m53.33s	09d29m41.8s	3:26	120	Clouds for 15-30min of leg; poor backgrounds in data
6	02_0035	Lopez-Rodriguez	NGC 3227	10h23m30.57s	19d51m54.3s	5:26	25	
7	02_0109	FLAGEY	M1-77	21h19m07.30s	46d18m47.1s	5:56	7	
8	02_0109	FLAGEY	M1-77	21h19m07.30s	46d18m47.1s	6:03	75	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	7:40	71	
11	02_0021	Evans	FG Sge	20h11m56.05s	20d20m04.4s	8:54	147	20min lost acquiring target (incorrect coordinates)

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



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



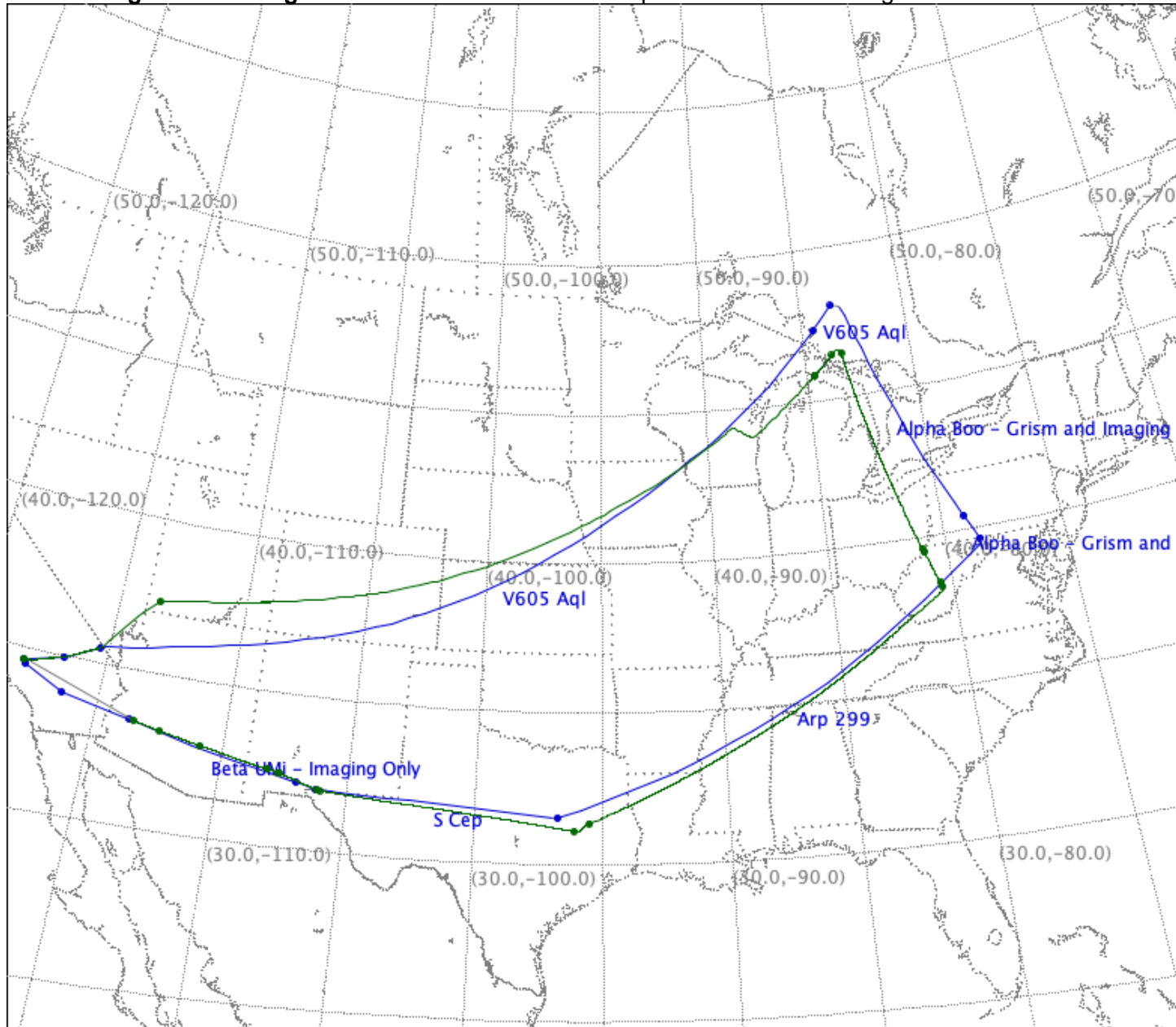
MISSION ID: 2014-05-07_FO_F169

Date: 2014-05-07 UT Instrument: FORCAST

Flight #: 169 Flight Series: OC2D

blue = planned route

green = flown route



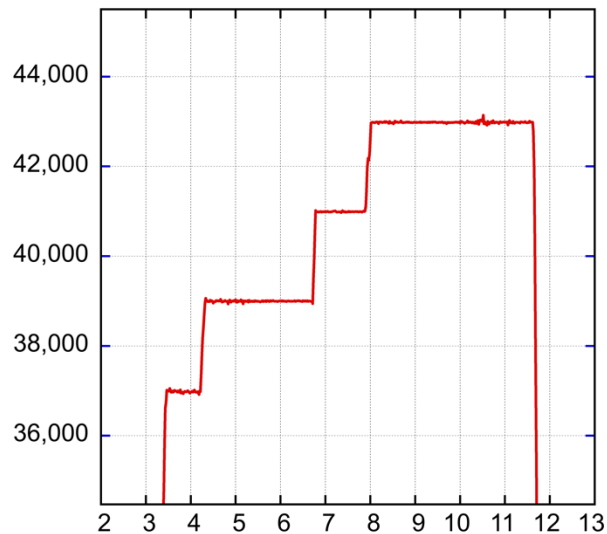
Flight notes:

Late departure led to slight reroute to preserve targets.

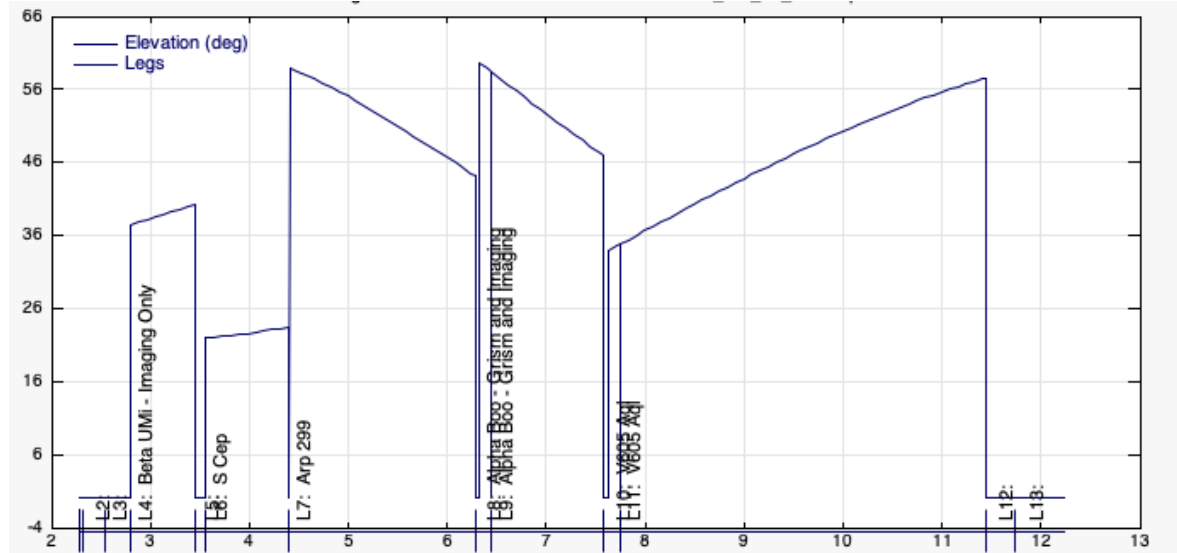
Flight 169 Mission ID 2014-05-07_FO_F169
 Palmdale to Palmdale Take off date UTC: 07-MAY-2014
 Departure UTC: 02:56 Arrival UTC: 12:11

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4	90_0013	Calibration	Beta UMi - Imaging Only	14h50m42.33s	74d09m19.8s	2:50	39	
6	90_0016	Calibration	S Cep	21h35m12.83s	78d37m28.2s	3:33	50	
7	70_0004	GTO	Arp 299	11h28m32.80s	58d33m46.0s	4:24	113	Late take-off led to small loss on leg
8	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	6:19	7	
9	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	6:27	68	
10	02_0021	Evans	V605 Aql	19h18m20.48s	01d46m59.6s	7:37	7	
11	02_0021	Evans	V605 Aql	19h18m20.48s	01d46m59.6s	7:45	222	Deviation for weather (20min loss), significant background variations seen throughout leg.

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



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



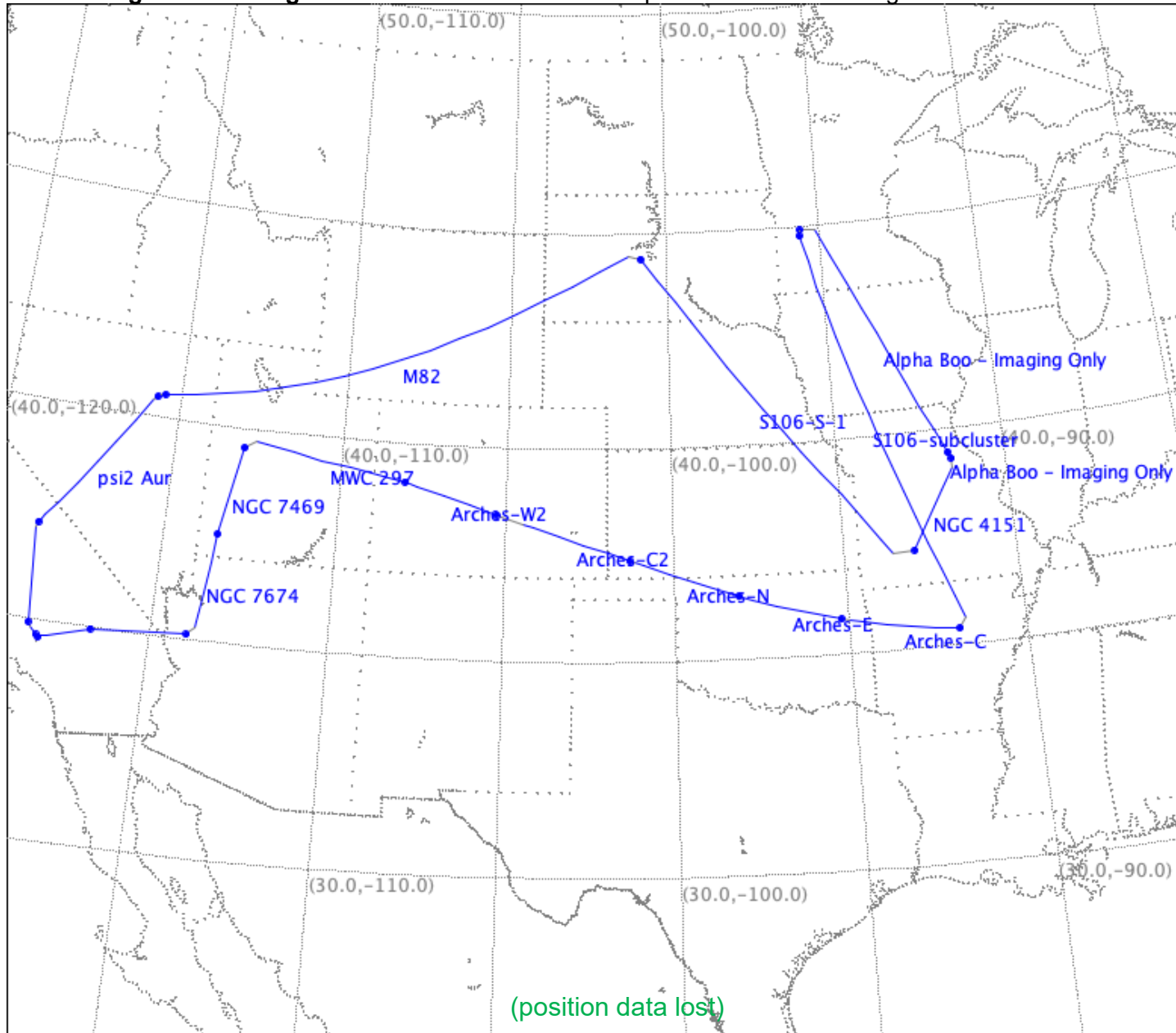
MISSION ID: 2014-05-08_FO_F170

Date: 2014-05-08 UT Instrument: FORCAST

Flight #: 170 Flight Series: OC2D

blue = planned route

green = flown route

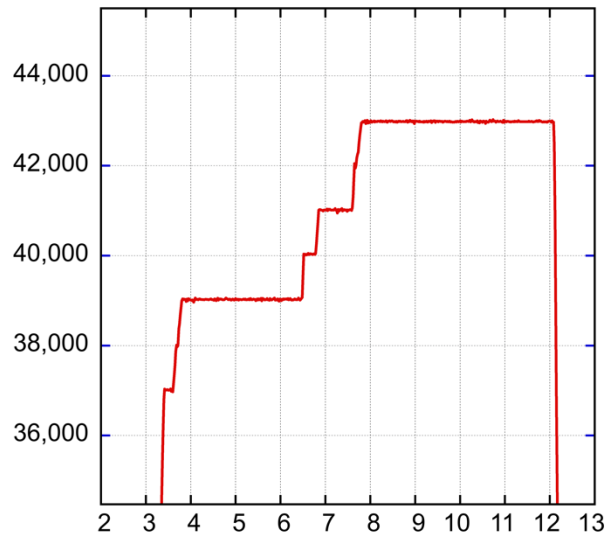


Flight notes: No irregularities.

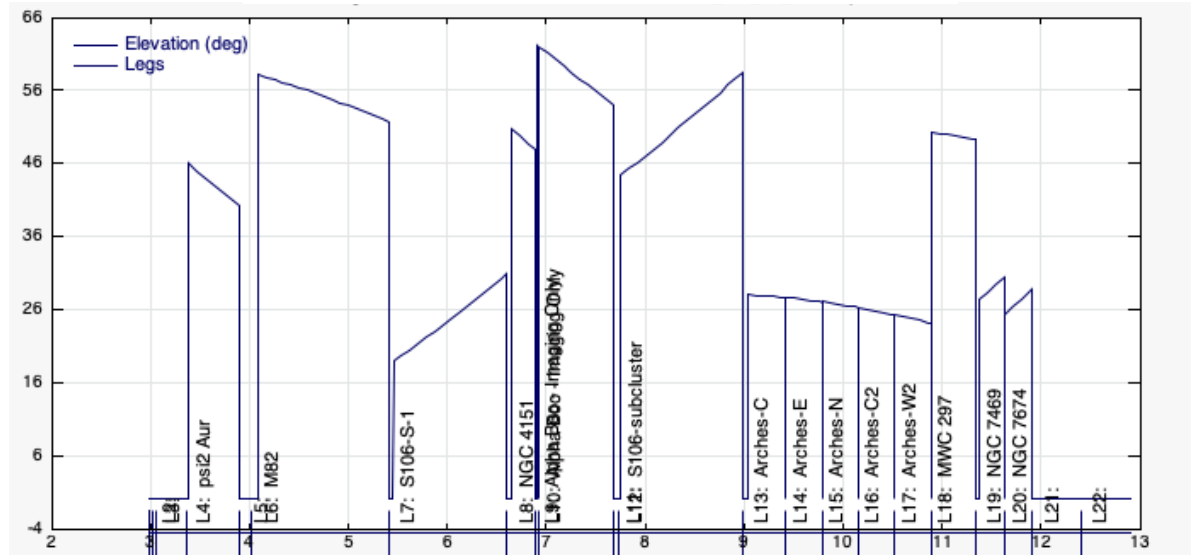
Flight 170 Mission ID 2014-05-08_FO_F170
 Palmdale to Palmdale Take off date UTC: 08-MAY-2014
 Departure UTC: ~02:59 Arrival UTC: 12:35

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			psi2 Aur	06h39m19.80s	42d29m19.0s	3:29	30	
6	70_0004	GTO	M82	09h55m52.43s	69d40m46.9s	4:01	80	Possible vignetting at beginning of leg.
7	70_0004	GTO	S106-S	20h27m23.65s	37d21m54.4s	5:23	68	Possible vignetting at beginning of leg.
8	02_0035	Lopez-Rodriguez	NGC 4151	12h10m32.57s	39d24m20.9s	6:35	14	
9	90_0013	Calibration	Alpha Boo - Imaging Only	14h15m39.67s	19d10m56.7s	6:51	1	Possible vignetting at beginning of leg.
10	90_0013	Calibration	Alpha Boo - Imaging Only	14h15m39.67s	19d10m56.7s	6:52	45	Turbulence.
12	70_0004	GTO	S106-subcluster	20h27m25.29s	37d17m23.0s	7:41	74	Possible vignetting at end of leg.
13	70_0004	GTO	Arches-C	17h45m49.00s	-28d47m51.0s	8:58	23	
14	70_0004	GTO	Arches-E	17h45m53.00s	-28d45m22.0s	9:23	22	
15	70_0004	GTO	Arches-N	17h45m43.00s	-28d44m28.0s	9:44	22	
16	70_0004	GTO	Arches-C2	17h45m34.51s	-28d47m14.4s	10:06	22	
17	70_0004	GTO	Arches-W2	17h45m32.34s	-28d49m56.2s	10:32	22	
18	02_0016	Vacca	MWC 297	18h27m39.53s	-03d49m52.1s	10:49	27	
19	02_0035	Lopez-Rodriguez	NGC 7469	23h03m15.67s	08d52m25.3s	11:19	15	Observatory control software crash; no data taken
20	02_0035	Lopez-Rodriguez	NGC 7674	23h27m56.71s	08d46m44.3s	11:34	16	Observatory control software crash; no data taken

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



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



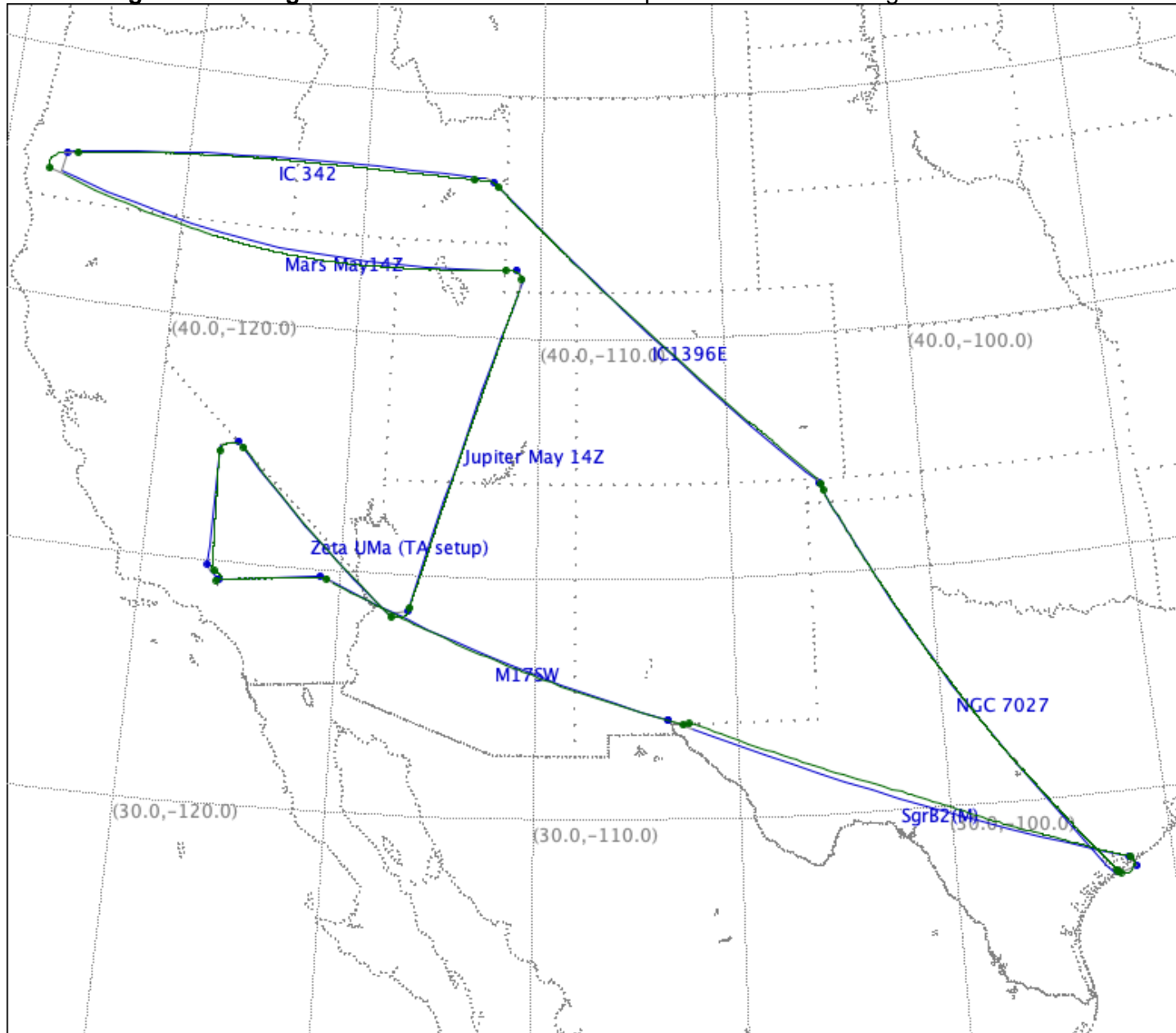
MISSION ID: 2014-05-14_GR_F171

Date: 2014-05-14 UT Instrument: GREAT

Flight #: 171 Flight Series: OC2E

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 171 Mission ID
Palmdale to
Palmdale

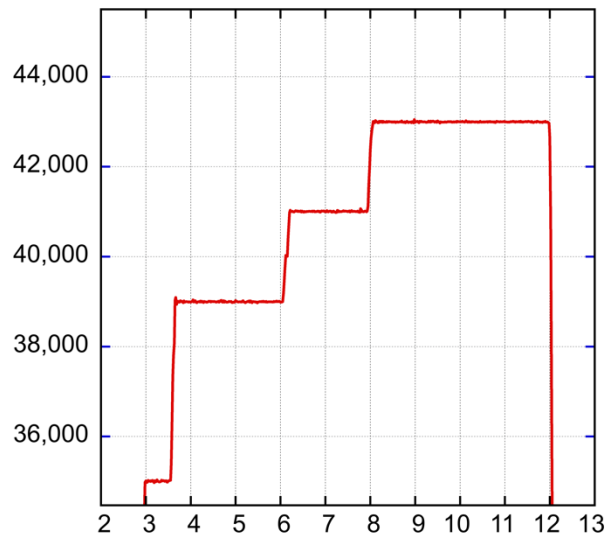
2014-05-14_GR_F171
Take off date UTC:
14-MAY-2014

Departure UTC: ~02:30
Arrival UTC: ~12:28

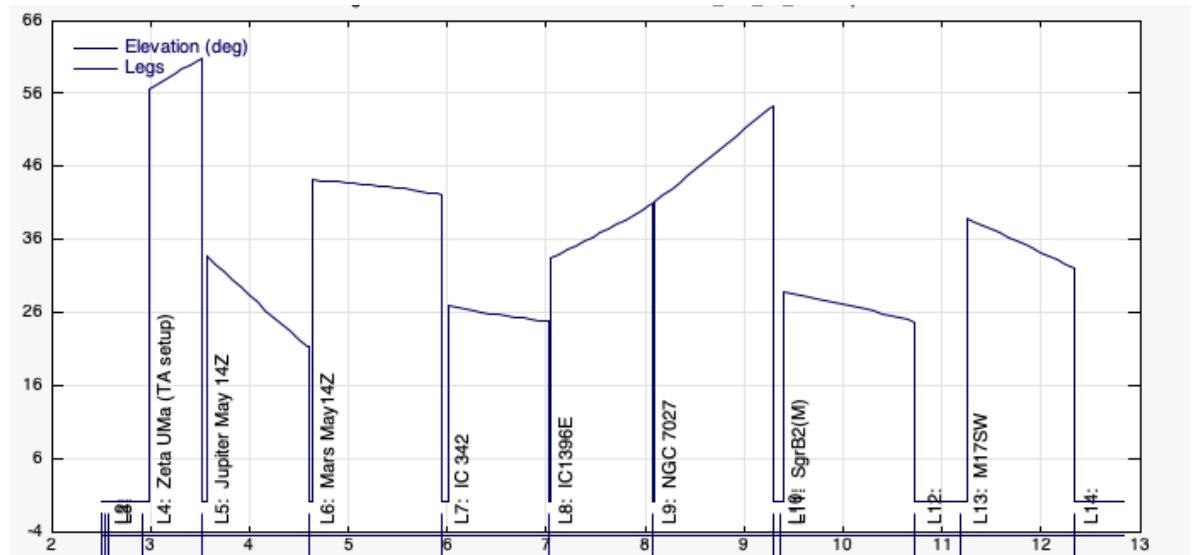
Consortium flight
H-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Zeta UMa (TA setup)	13h23m56.00s	54d55m31.0s	3:05	32	
5			Jupiter May 14Z	07h13m24.50s	22d40m55.0s	3:40	61	
6			Mars May14Z	12h34m51.00s	-02d38m26.0s	4:44	78	
7			IC 342	03h46m48.50s	68d05m47.0s	6:06	61	
8			IC1396E	21h40m39.00s	58d16m48.0s	7:08	62	
9			NGC 7027	21h07m01.58s	42d14m10.2s	8:11	72	
11			SgrB2(M)	17h47m20.40s	-28d23m07.0s	9:29	79	
13			M17SW	18h20m27.60s	-16d12m00.9s	10:53	65	

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



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



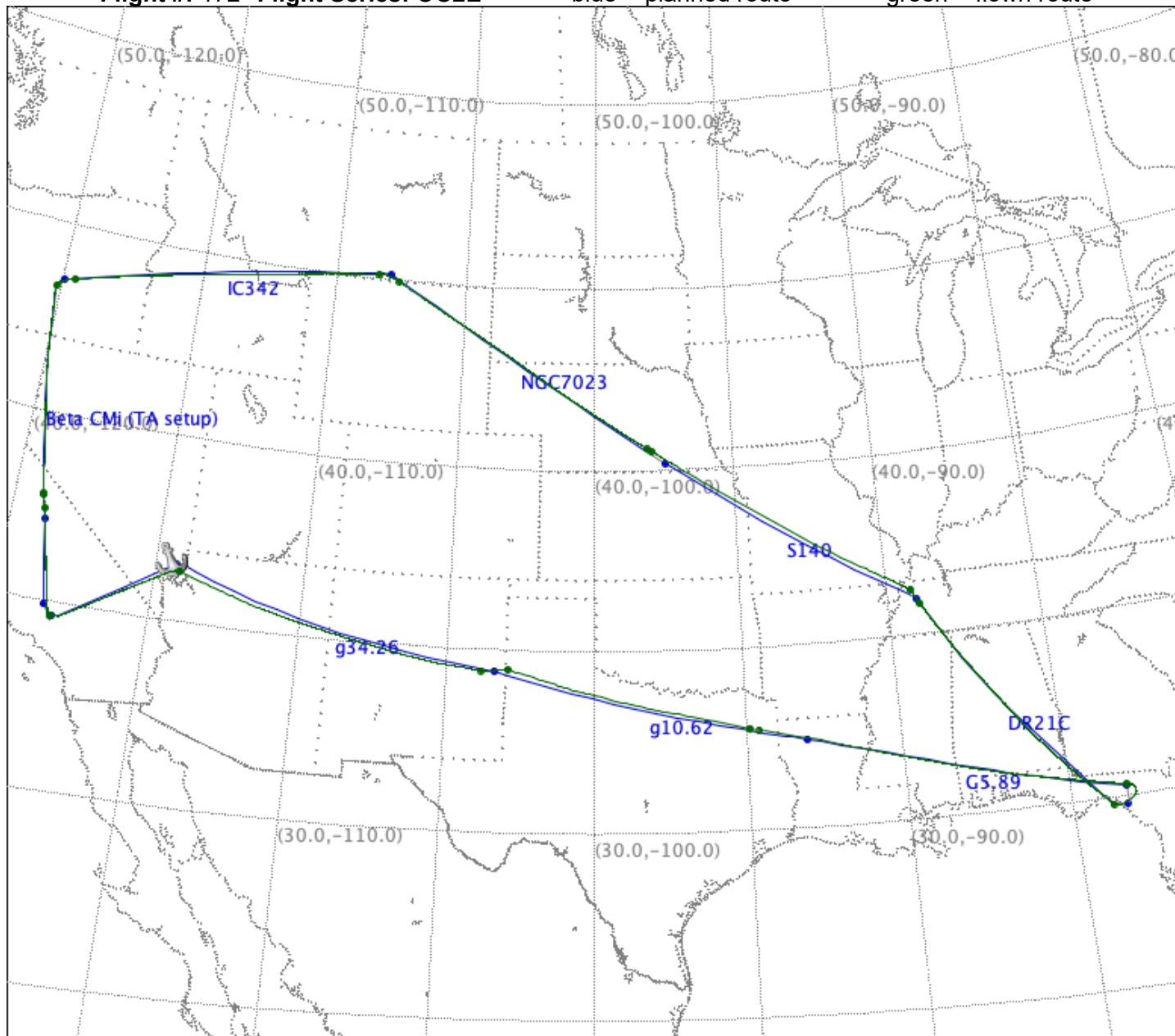
MISSION ID: 2014-05-16_GR_F172

Date: 2014-05-16 UT Instrument: GREAT

Flight #: 172 Flight Series: OC2E

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 172 Mission ID
Palmdale to Palmdale

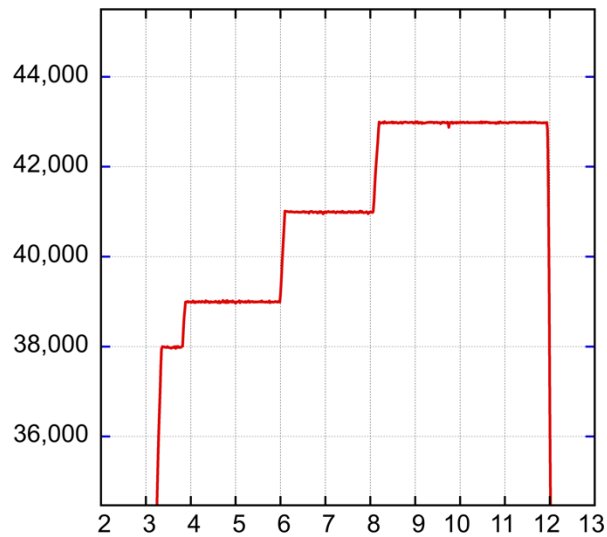
2014-05-16_GR_F172
Take off date UTC:
16-MAY-2014

Departure UTC: 02:50
Arrival UTC: 12:23

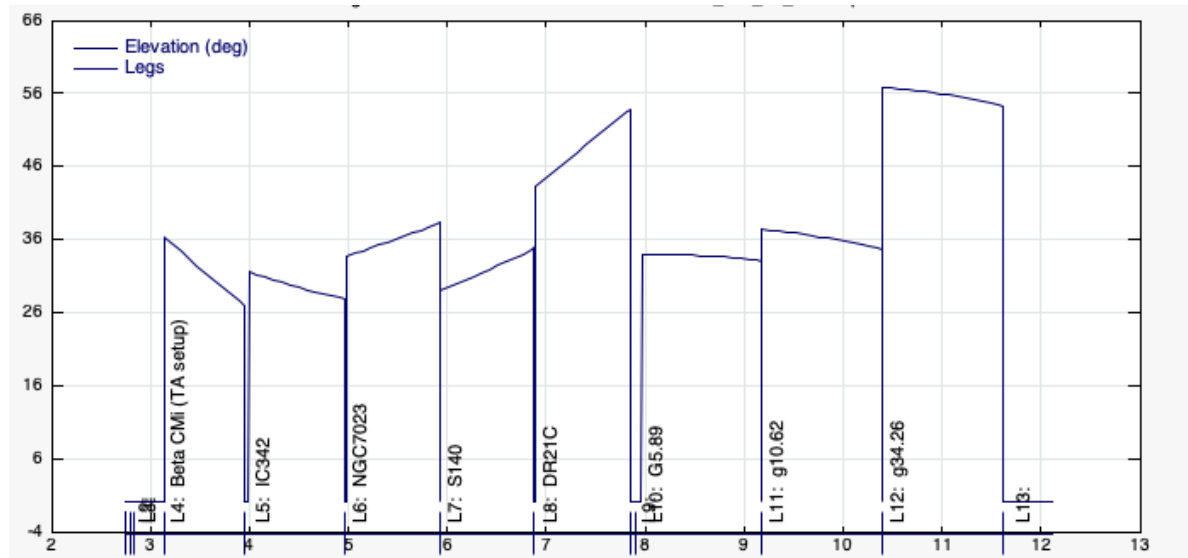
Consortium flight
H-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Beta CMi (TA setup)	07h27m09.00s	08d17m21.0s	3:14	49	Clouds
5			IC342	03h46m48.50s	68d05m47.0s	4:05	58	
6			NGC7023	21h01m32.50s	68d10m22.8s	5:04	57	
7			S140	22h19m18.21s	63d18m46.9s	6:05	57	
8			DR21C	20h39m00.90s	42d19m42.0s	6:59	57	
10			G5.89	18h00m30.40s	-24d04m02.0s	8:03	73	
11			g10.62	18h10m28.60s	-19d55m49.7s	9:16	73	
12			g34.26	18h53m18.60s	01d14m58.0s	10:29	73	

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



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



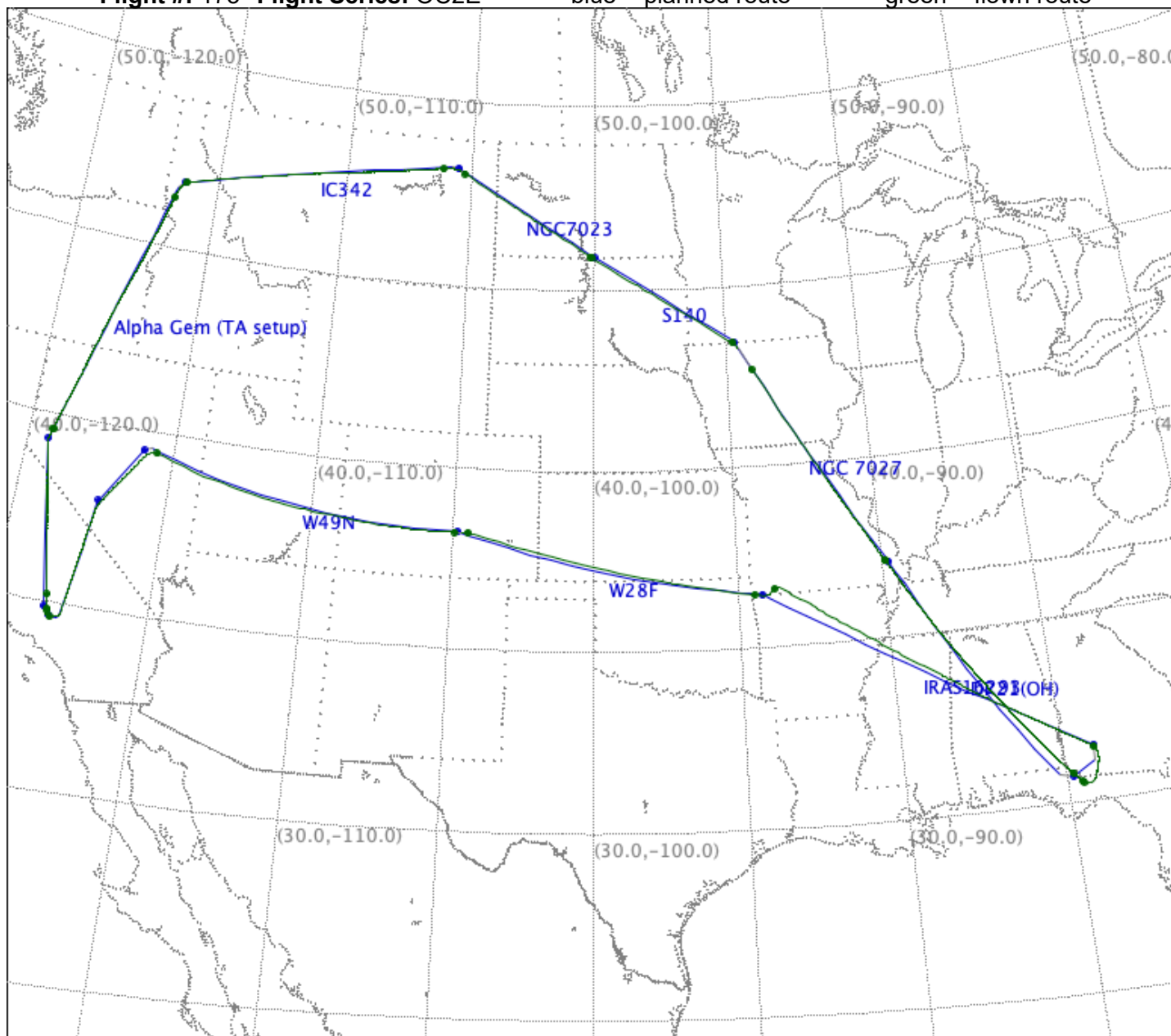
MISSION ID: 2014-05-17_GR_F173

Date: 2014-05-17 UT Instrument: GREAT

Flight #: 173 Flight Series: OC2E

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 173 Mission ID
Palmdale to Palmdale

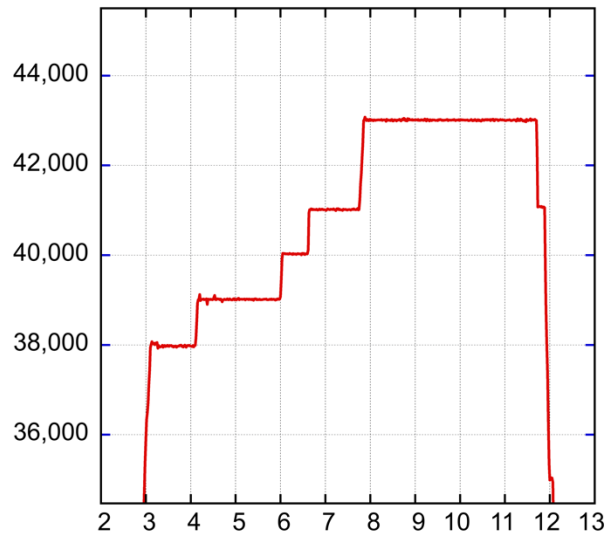
2014-05-17_GR_F173
Take off date UTC:
17-MAY-2014

Departure UTC: 02:31
Arrival UTC: 12:37

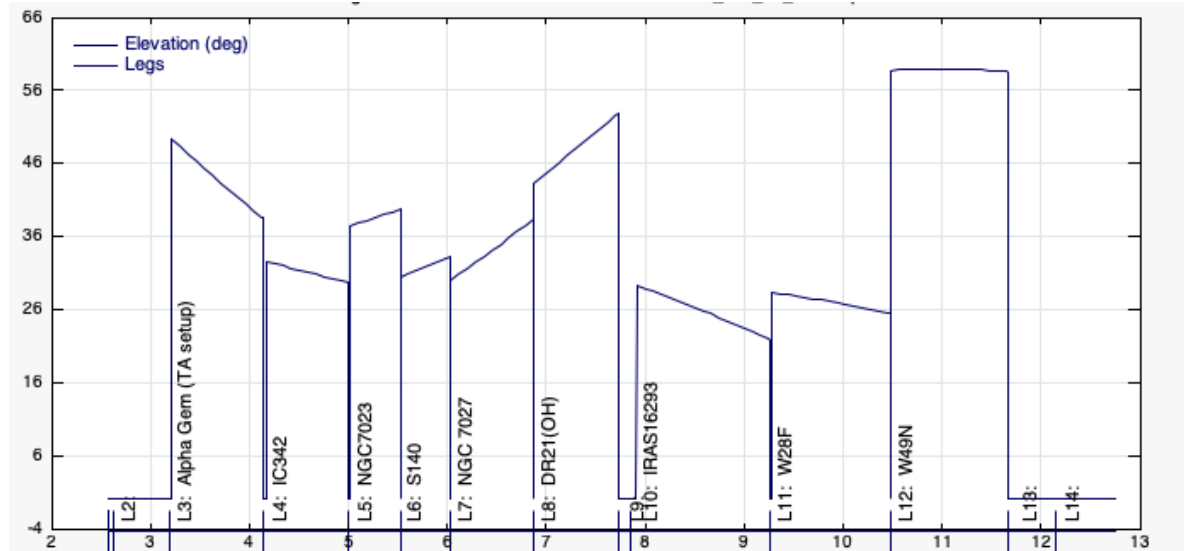
Consortium flight
H-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
3			Alpha Gem (TA setup)	07h34m35.60s	31d53m16.0s	3:13	56	
4			IC342	03h46m48.50s	68d05m47.0s	4:11	50	
5			NGC7023	21h01m32.50s	68d10m22.8s	5:02	30	
6			S140	22h19m18.21s	63d18m46.9s	5:32	30	
7			NGC 7027	21h07m01.58s	42d14m10.2s	6:03	50	
8			DR21(OH)	20h39m00.80s	42d22m48.0s	6:53	52	Sacrificed to extend prior leg – no data.
10			IRAS16293	16h32m22.90s	-24d28m36.3s	7:55	81	
11			W28F	18h01m52.30s	-23d19m25.0s	9:17	72	Full Moon nearby affecting guiding stability.
12			W49N	19h10m13.20s	09d06m12.0s	10:29	71	Possible vignetting.

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



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



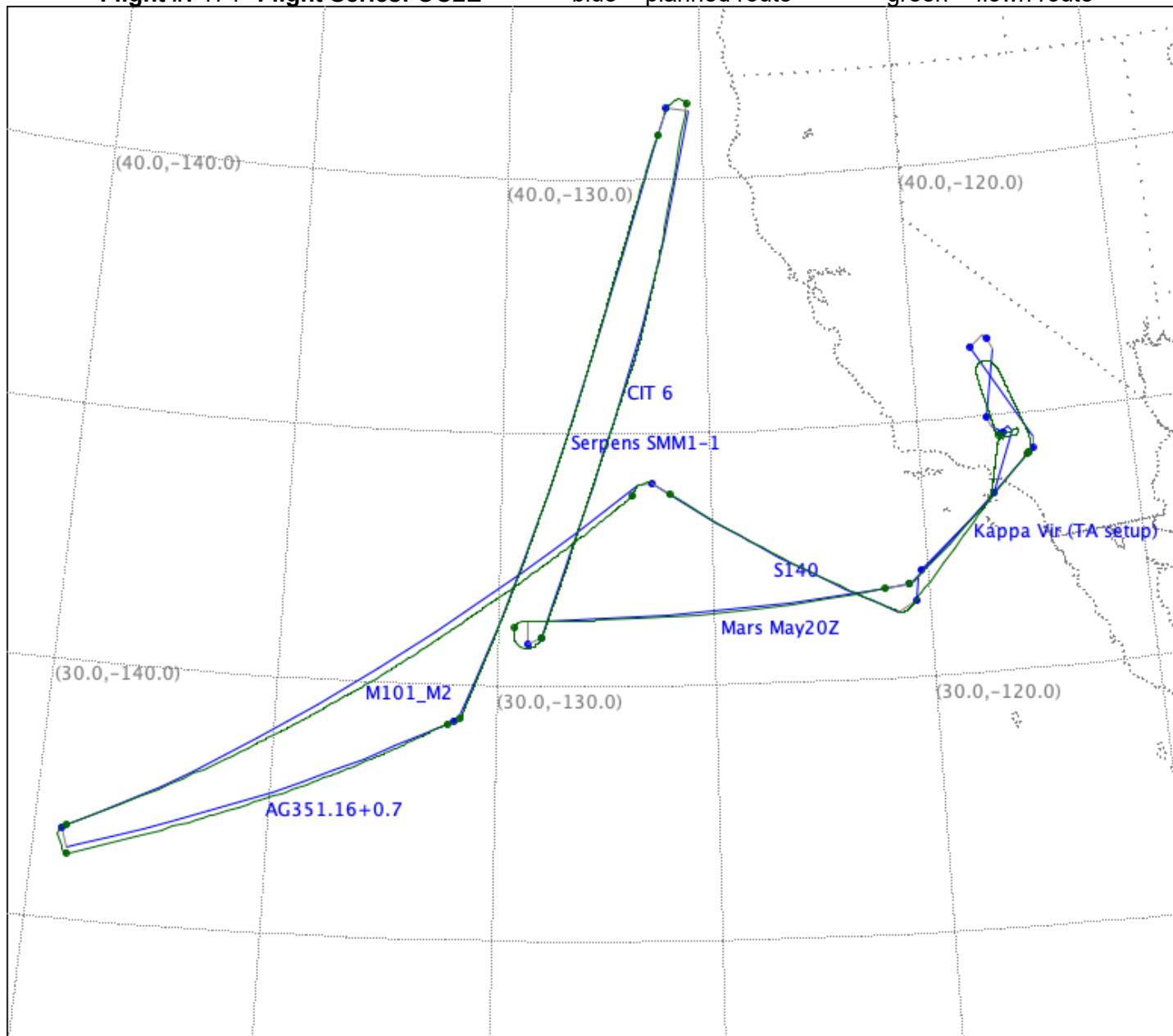
MISSION ID: 2014-05-20_GR_F174

Date: 2014-05-20 UT Instrument: GREAT

Flight #: 174 Flight Series: OC2E

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 174 Mission ID
Palmdale to Palmdale

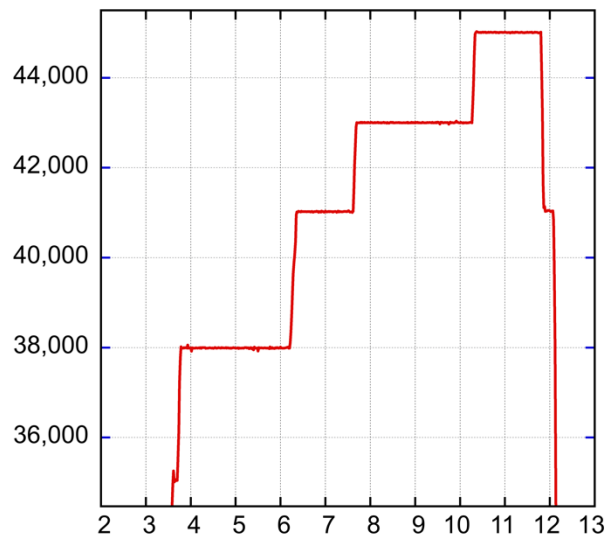
2014-05-20_GR_F174
Take off date UTC:
20-MAY-2014

Departure UTC: 03:13
Arrival UTC: 12:29

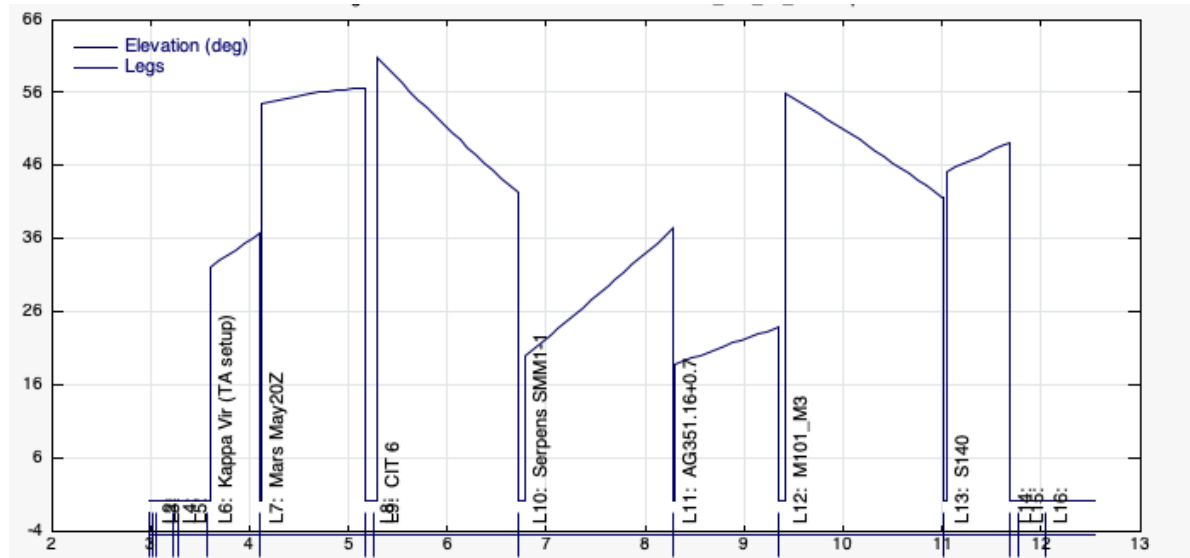
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
6			Kappa Vir (TA setup)	14h12m53.80s	-10d16m23.3s	3:45	30	
7			Mars May20Z	12h33m39.00s	-02d46m32.0s	4:15	63	
9	02_0115	Wiesemeyer	CIT 6	10h16m02.27s	30d34m18.6s	5:26	85	
10	02_0087	Schlemmer	Serpens SMM1	18h29m49.80s	01d15m20.5s	6:55	90	
11	02_0102	Wyrowski	AG351.16+0.7	17h19m56.69s	-35d57m53.0s	8:26	62	
12	02_0098	Herrera-Camus	M101_M3	14h02m55.00s	54d22m20.0s	9:33	96	
13	02_0027	Ossenkopf	S140	22h19m18.21s	63d18m46.9s	11:11	38	

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



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



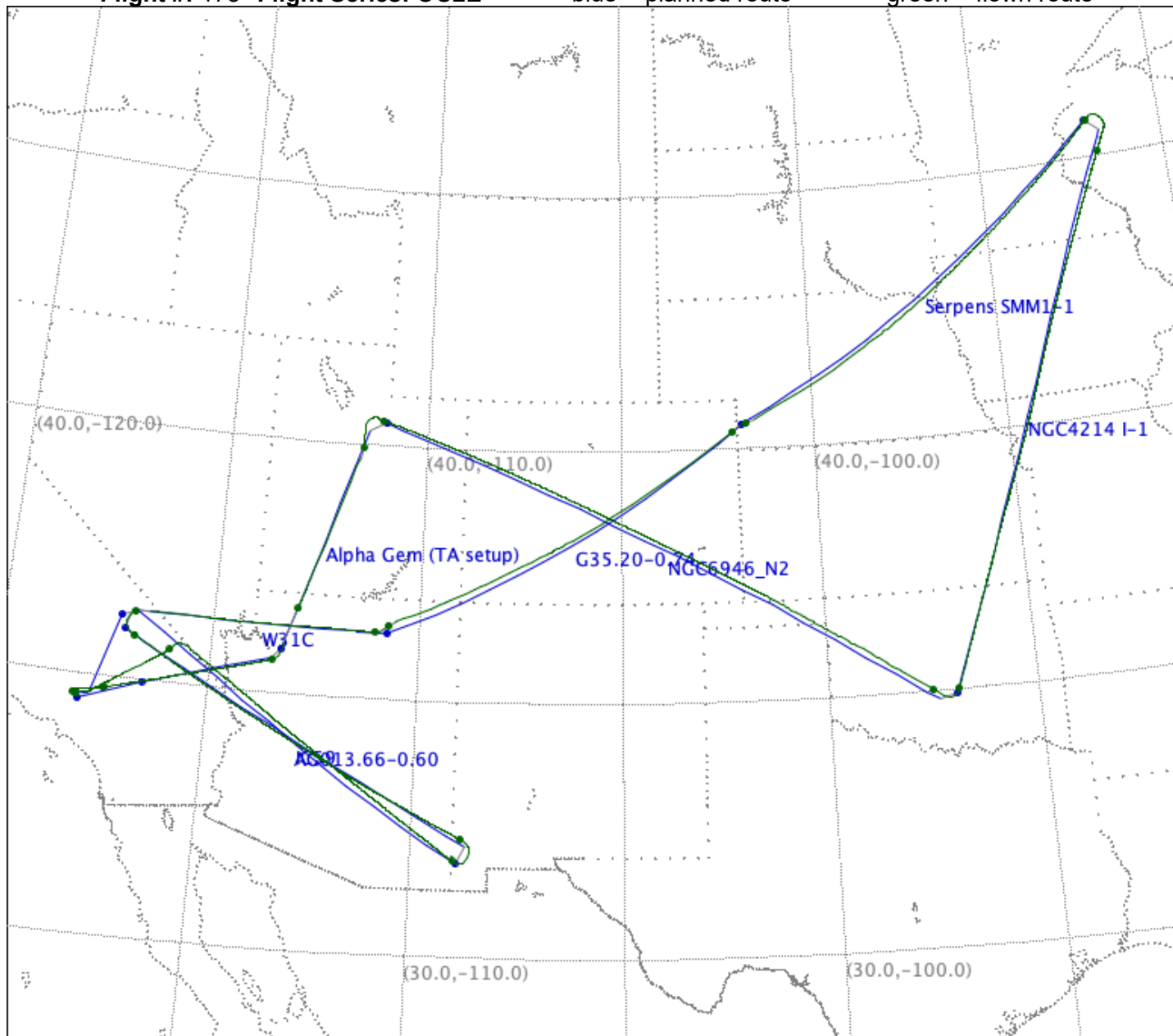
MISSION ID: 2014-05-21_GR_F175

Date: 2014-05-21 UT Instrument: GREAT

Flight #: 175 Flight Series: OC2E

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 175 Mission ID
Palmdale to Palmdale

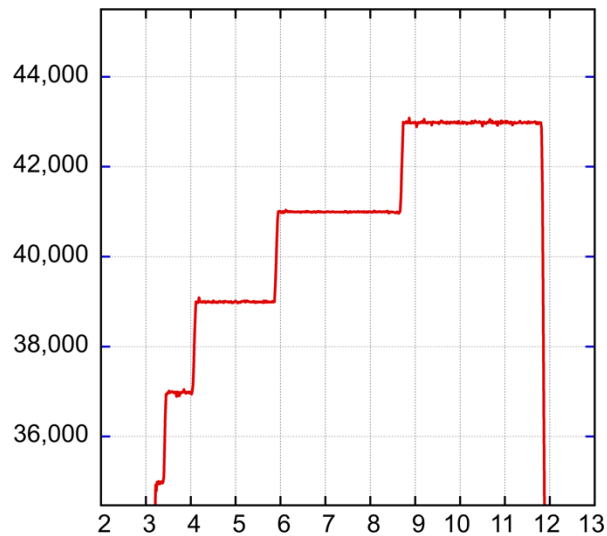
2014-05-21_GR_F175
Take off date UTC:
21-MAY-2014

Departure UTC: 02:43
Arrival UTC: 12:16

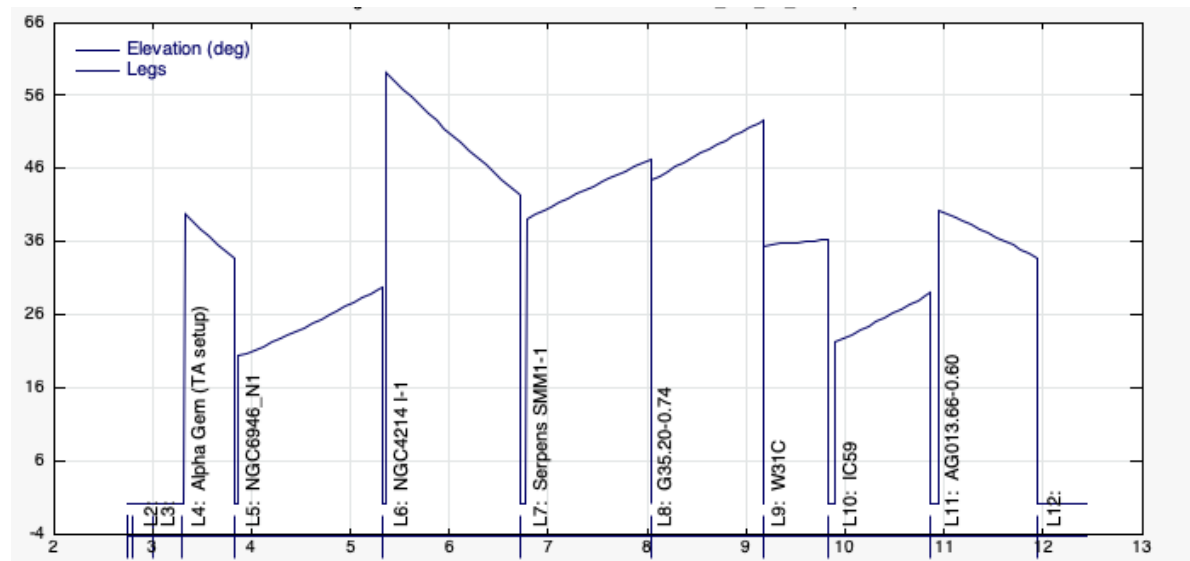
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Alpha Gem (TA setup)	07h34m36.00s	31d53m16.0s	3:19	30	
5	02_0098	Herrera-Camus	NGC6946 N1	20h35m11.00s	60d08m55.0s	3:52	87	
6	02_0063	Cormier	NGC4214 I	12h15m38.48s	36d19m32.4s	5:22	81	
7	02_0087	Schlemmer	Serpens SMM1	18h29m49.80s	01d15m20.5s	6:47	75	
8	02_0038	Sandell	G35.20-0.74	18h58m13.03s	01d40m36.1s	8:02	68	
9	02_0054	Gusdorf	W31C	18h10m28.70s	-19d55m50.0s	9:11	39	
10	02_0090	Peeters	IC59	00h57m34.00s	61d05m16.0s	9:54	58	
11	02_0102	Wyrowski	AG013.66-0.60	18h17m24.10s	-17d22m10.3s	10:57	60	Leg terminated 10min early for sunrise

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



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



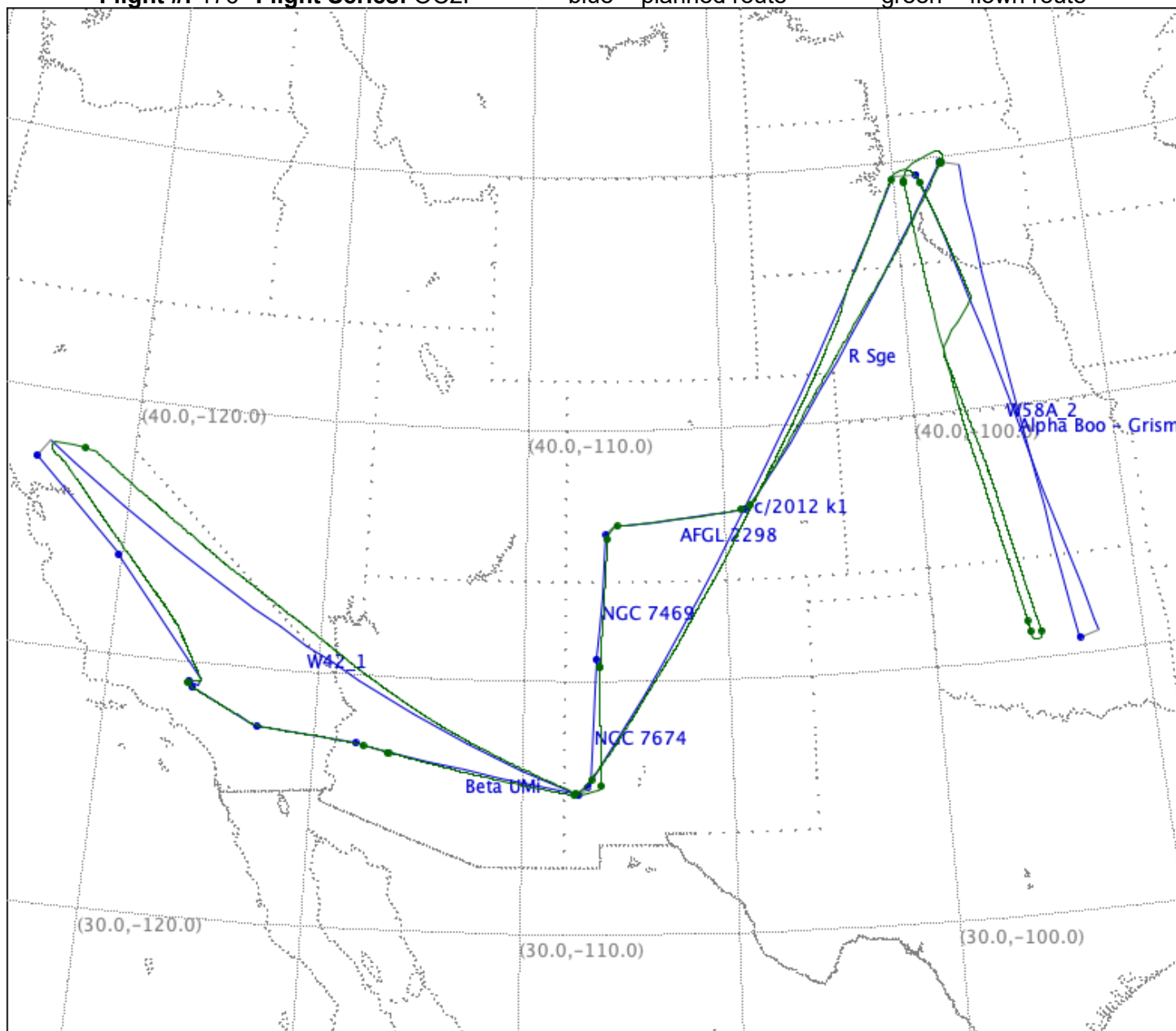
MISSION ID: 2014-06-04_FO_F176

Date: 2014-06-04 UT **Instrument:** FORCAST

Flight #: 176 **Flight Series:** OC2F

blue = planned route

green = flown route

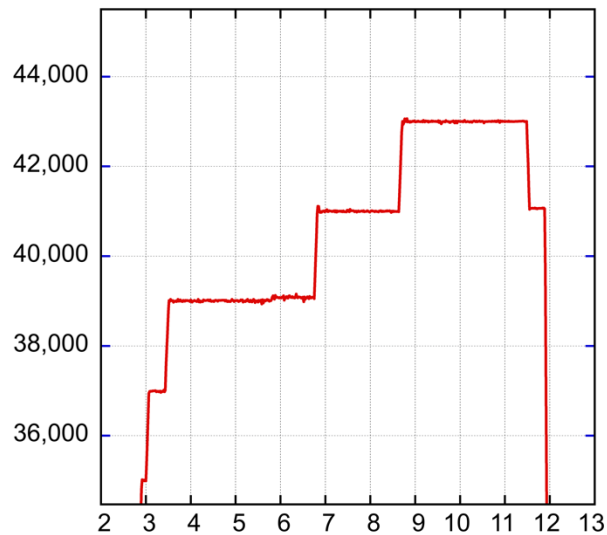


Flight notes: Deviations for weather.

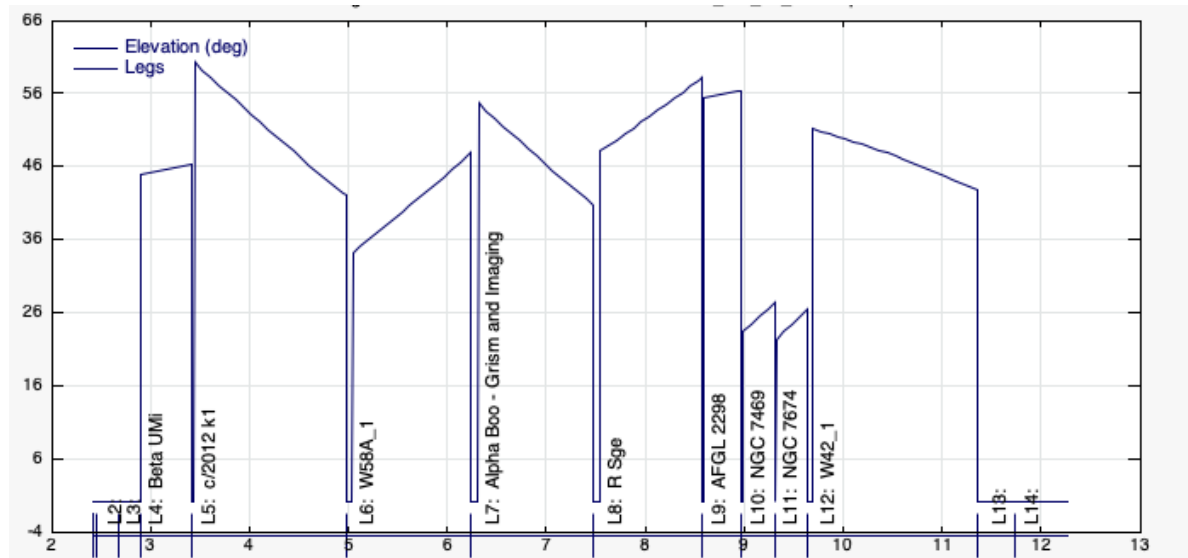
Flight 176 Mission ID 2014-06-04_FO_F176
 Palmdale to Palmdale Take off date UTC: 04-JUN-2014
 Departure UTC: 02:27 Arrival UTC: 12:20

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Beta UMi	14h50m42.33s	74d09m19.8s	2:56	30	
5			c/2012 k1	10h36m50.88s	40d54m09.6s	3:28	92	25% of leg lost to observatory control software crash; turbulence.
6	02_0113	De Buizer	W58A_1	20h01m52.43s	33d33m43.2s	5:04	72	Flight path deviation to avoid storms led to 80% loss of leg.
7	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	6:21	70	
8	02_0015	Gehrz	R Sge	20h14m03.75s	16d43m35.1s	7:34	62	Turbulence led to small loss in data.
9	02_0101	Smith	AFGL 2298	19h00m10.89s	03d45m47.1s	8:37	22	
10	02_0035	Lopez-Rodriguez	NGC 7469	23h03m15.67s	08d52m25.3s	9:01	20	
11	02_0035	Lopez-Rodriguez	NGC 7674	23h27m56.71s	08d46m44.3s	9:21	20	
12	02_0113	De Buizer	W42_1	18h38m10.08s	-06d46m19.8s	9:43	100	Observatory control software crash led to loss of almost half the leg

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



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



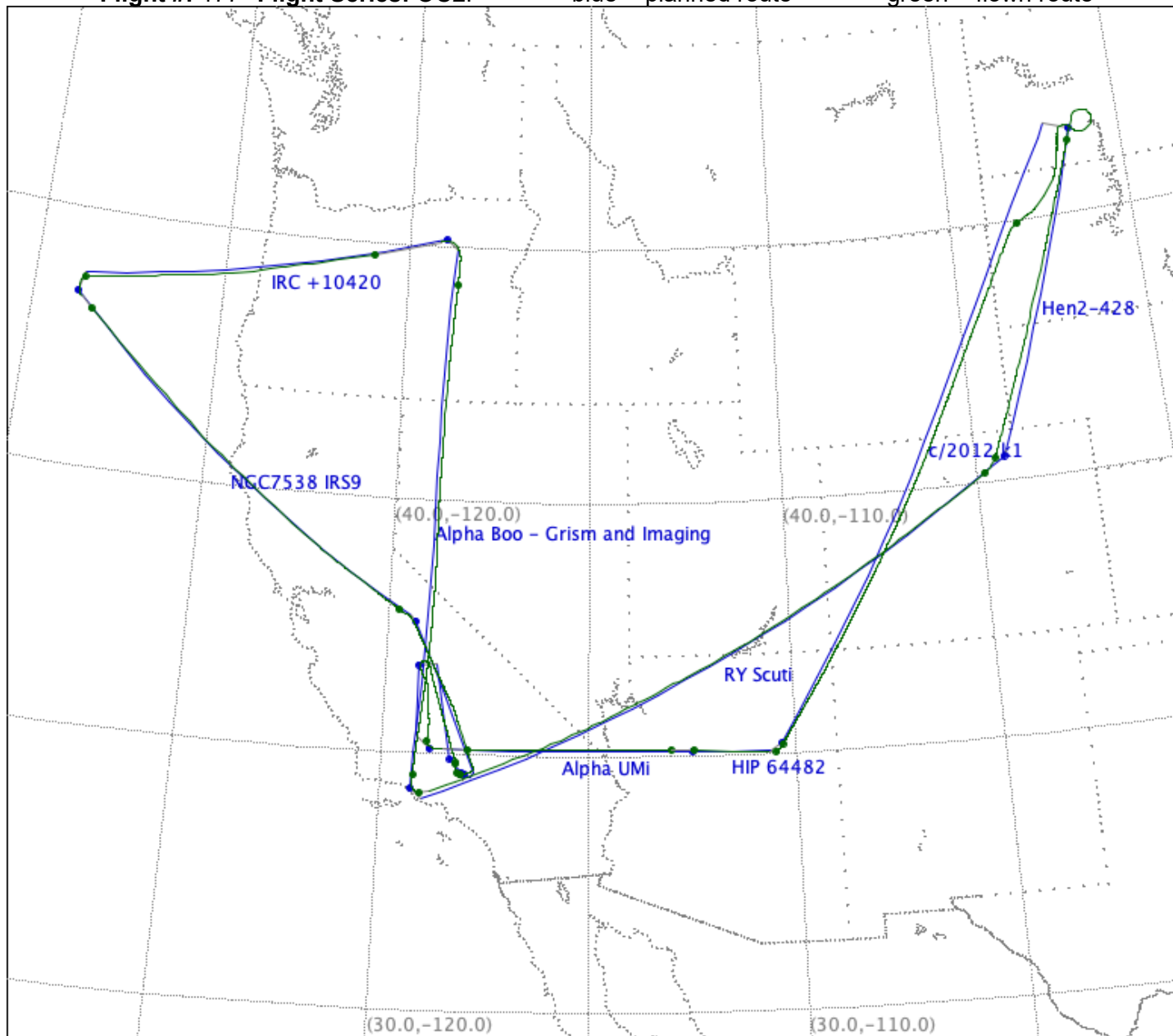
MISSION ID: 2014-06-06_FO_F177

Date: 2014-06-06 UT **Instrument:** FORCAST

Flight #: 177 **Flight Series:** OC2F

blue = planned route

green = flown route

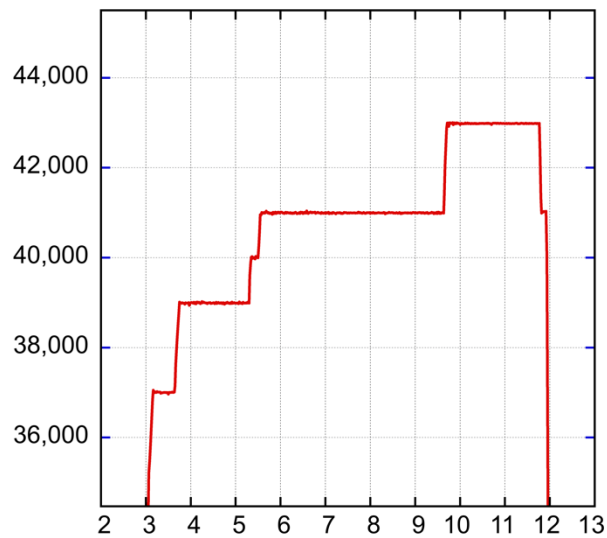


Flight notes: Deviations for storms on leg 7.

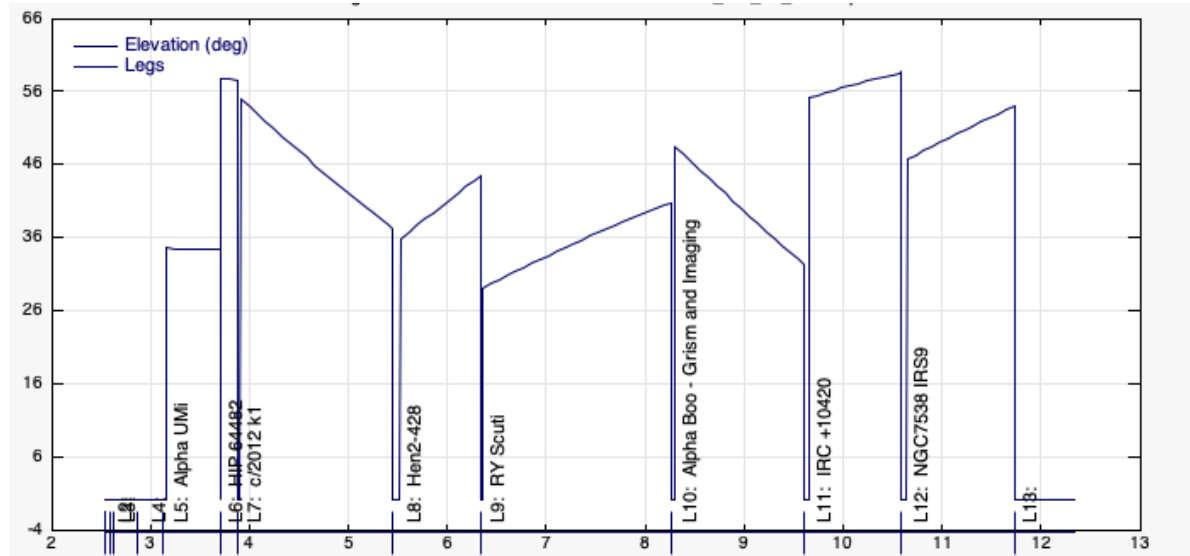
Flight 177 Mission ID 2014-06-06_FO_F177
 Palmdale to Palmdale Take off date UTC: 06-JUN-2014
 Departure UTC: 02:40 Arrival UTC: 12:21

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			Alpha UMi	02h31m49.90s	89d15m51.3s	3:15	33	
6		engineering	HIP 64482	13h12m59.80s	67d18m34.6s	3:48	10	
7			c/2012 k1	10h31m04.66s	39d59m51.9s	4:00	92	Reroute to avoid storms; 16min lost
8	02_0085	Guzman-Ramirez	Hen2-428	19h13m05.24s	15d46m39.8s	5:37	49	
9	02_0101	Smith	RY Scuti	18h25m31.48s	-12d41m24.2s	6:27	114	
10	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	8:24	78	
11	02_0031	Humphreys	IRC +10420	19h26m48.09s	11d21m16.7s	9:45	56	
12	02_0074	Tan	NGC7538 IRS9	23h14m01.72s	61d27m19.5s	10:44	65	

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



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



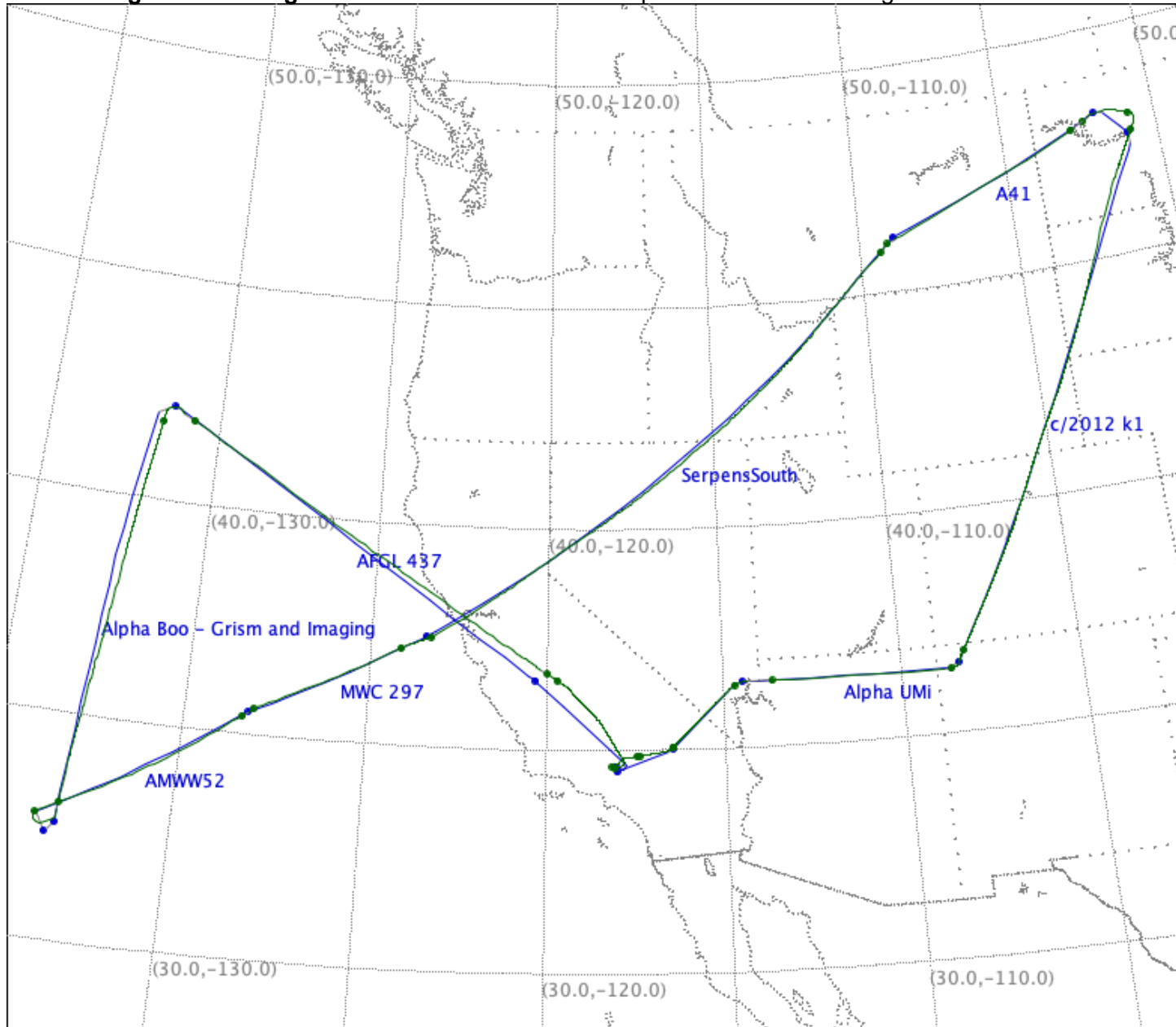
MISSION ID: 2014-06-11_FO_F178

Date: 2014-06-11 UT Instrument: FORCAST

Flight #: 178 Flight Series: OC2F

blue = planned route

green = flown route

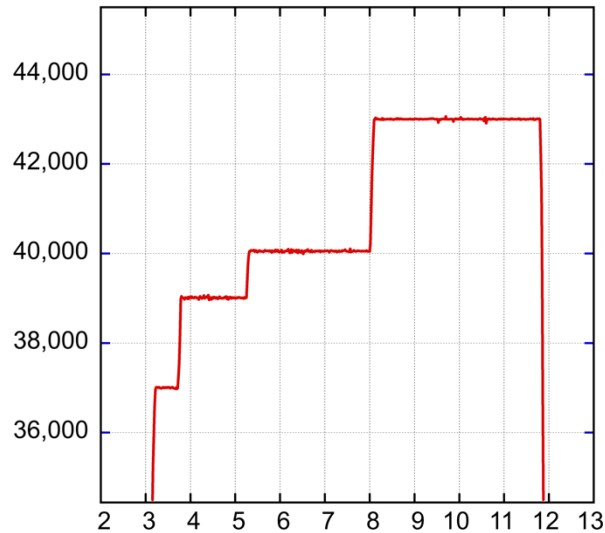


Flight notes: No irregularities.

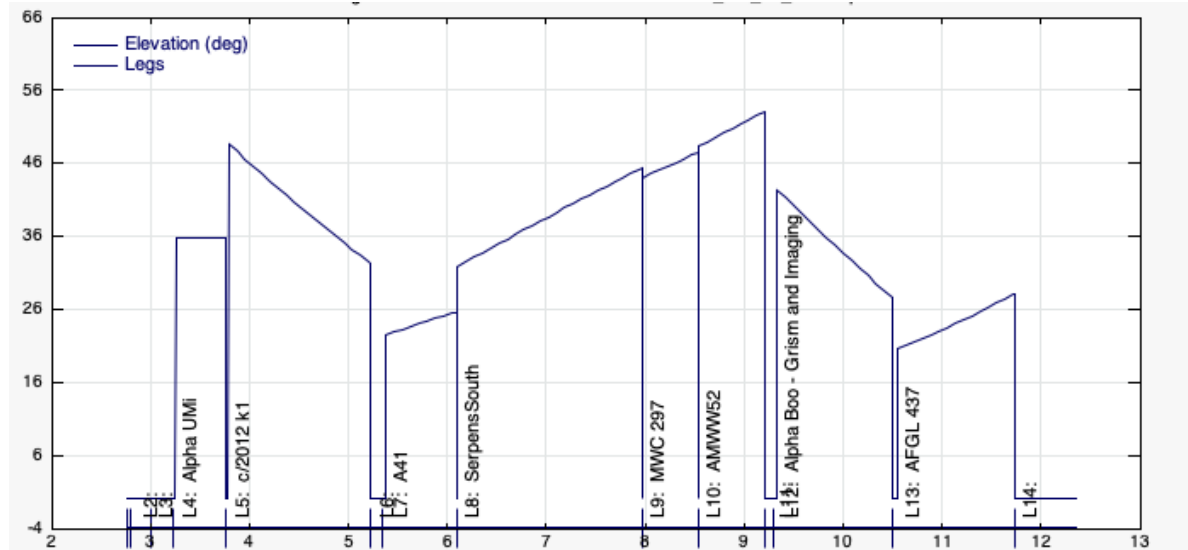
Flight 178 Mission ID 2014-06-11_FO_F178
 Palmdale to Palmdale Take off date UTC: 11-JUN-2014
 Departure UTC: 02:44 Arrival UTC: 12:17

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Alpha UMi	02h31m50.00s	89d15m51.3s	3:17	30	
5			c/2012 k1	10h18m36.56s	37d45m57.1s	3:49	86	Turbulence dropped telescope into standby; modest time lost; highly variable backgrounds in data
7	02_0085	Guzman-Ramirez	A41	17h29m02.00s	-15d13m04.0s	3:49	43	Observatory control software crash; first 15min of leg lost
8	02_0106	Huard	SerpensSouth	18h30m03.32s	-02d02m22.2s	5:24	112	Turbulence dropped telescope into standby; 6min lost
9	02_0016	Vacca	MWC 297	18h27m39.53s	-03d49m52.1s	6:08	34	
10	02_0113	De Buizer	AMWW52	18h50m30.35s	-00d02m08.9s	8:00	40	
12	90_0013	Calibration	Alpha Boo - Grism and Imaging	14h15m39.67s	19d10m56.7s	9:21	70	
13	02_0074	Tan	AFGL 437	03h07m24.60s	58d30m44.4s	10:35	71	

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



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



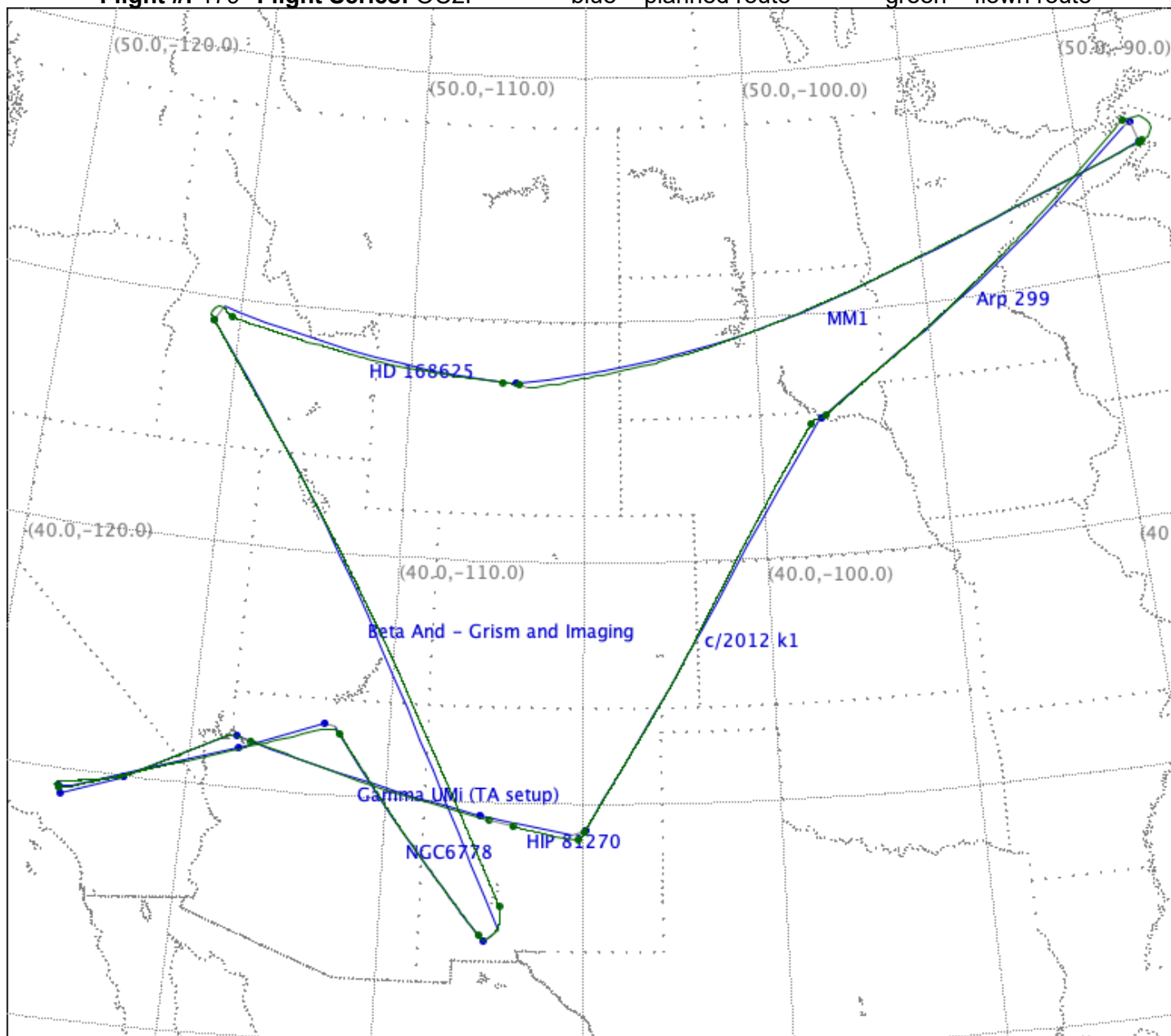
MISSION ID: 2014-06-13_FO_F179

Date: 2014-06-13 UT Instrument: FORCAST

Flight #: 179 Flight Series: OC2F

blue = planned route

green = flown route

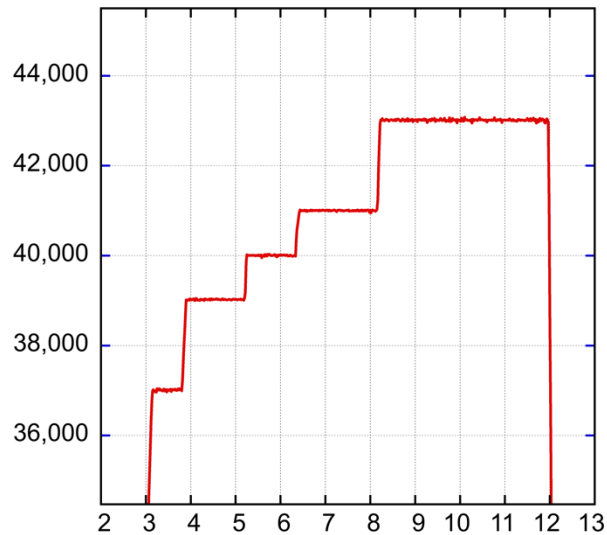


Flight notes: No irregularities.

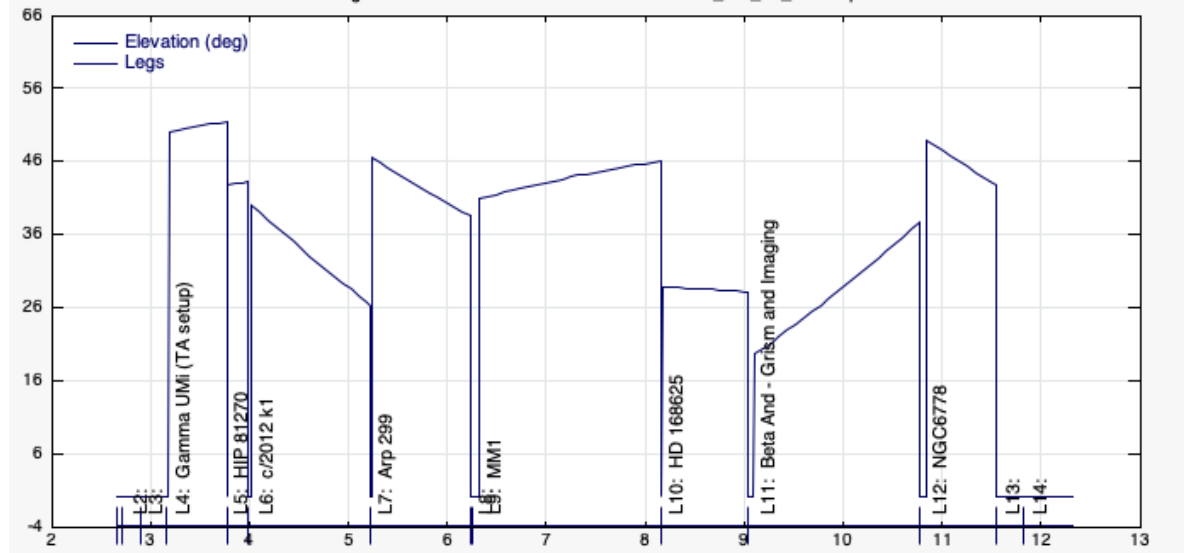
Flight 179 Mission ID 2014-06-13_FO_F179
 Palmdale to Palmdale Take off date UTC: 13-JUN-2014
 Departure UTC: 02:38 Arrival UTC: 12:31

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Gamma UMi (TA setup)	15h20m43.72s	71d50m02.5s	3:12	35	
5			HIP 81270	16h35m56.30s	79d12m16.0s	3:47	13	
6			c/2012 k1	10h14m15.92s	36d53m04.2s	4:02	72	
7	70_0004	GTO	Arp 299	11h28m32.80s	58d33m46.0s	5:15	60	
9	02_0029	Jones	MM1	18h53m18.00s	01d25m24.0s	6:21	110	
10	02_0101	Smith	HD 168625	18h21m19.55s	-16d22m26.1s	8:11	53	
11	90_0013	Calibration	Beta And - Grism and Imaging	01h09m43.92s	35d37m14.0s	9:07	100	
12	02_0085	Guzman-Ramirez	NGC6778	19h18m24.94s	-01d35m47.4s	10:52	42	

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



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



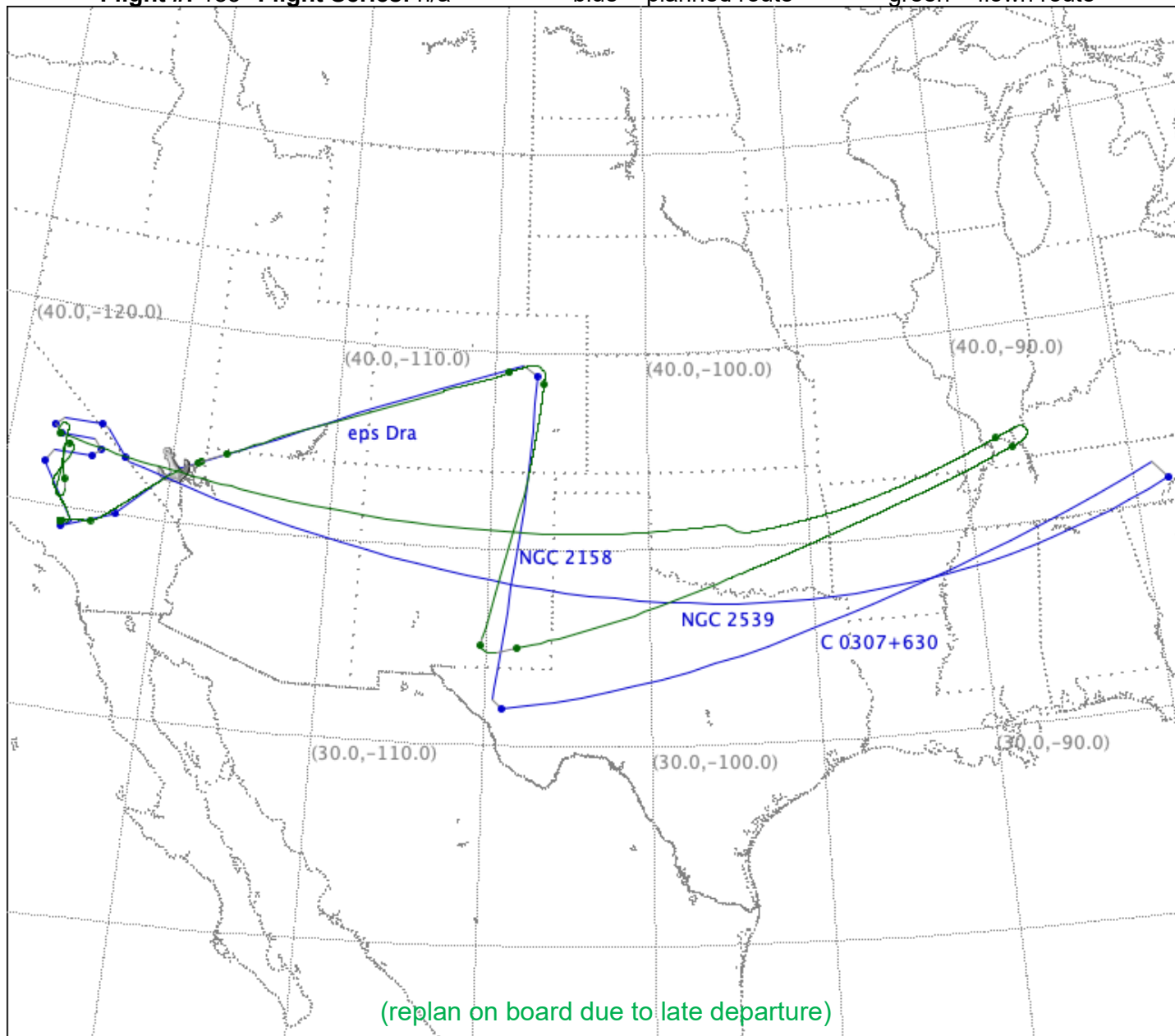
MISSION ID: 2015-01-08_NO_F183

Date: 2015-01-08 UT **Instrument:** n/a

Flight #: 183 Flight Series: n/a

blue = planned route

green = flown route



Flight notes:

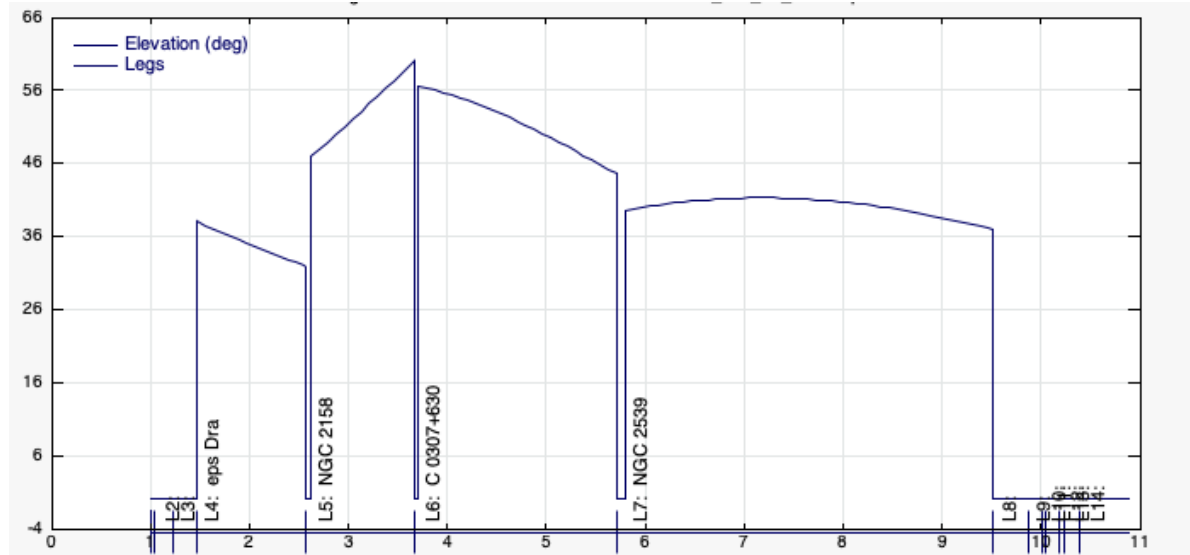
Telescope engineering flight. No science data. Late departure.

Flight 183 Mission ID 2015-01-08_NO_F183
 Palmdale to Palmdale Take off date UTC: 08-JAN-2015
 Departure UTC: 01:47 Arrival UTC: 10:24

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			eps Dra	19h48m10.35s	70d16m04.5s	1:31	66	
5			NGC 2158	06h07m25.00s	24d05m48.0s	2:40	62	
6			C 0307+630	03h11m48.00s	63d15m00.0s	3:45	120	
7			NGC 2539	08h10m37.00s	-12d49m06.0s	5:50	223	

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

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



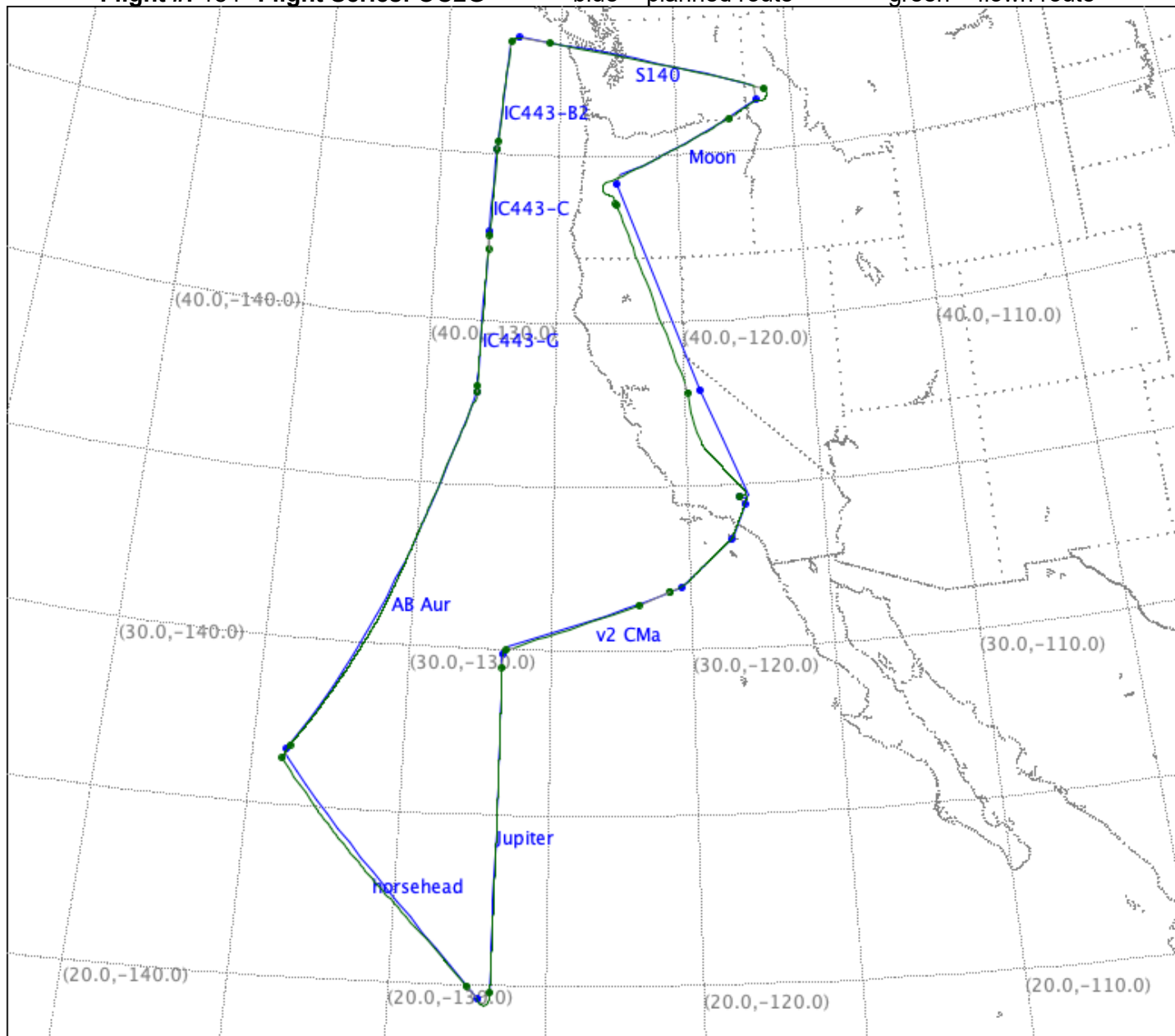
MISSION ID: 2015-01-14_GR_F184

Date: 2015-01-14 UT Instrument: GREAT

Flight #: 184 Flight Series: OC2G

blue = planned route

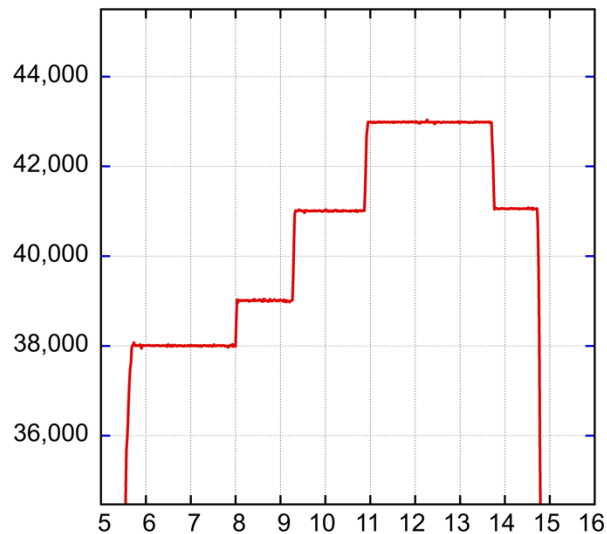
green = flown route



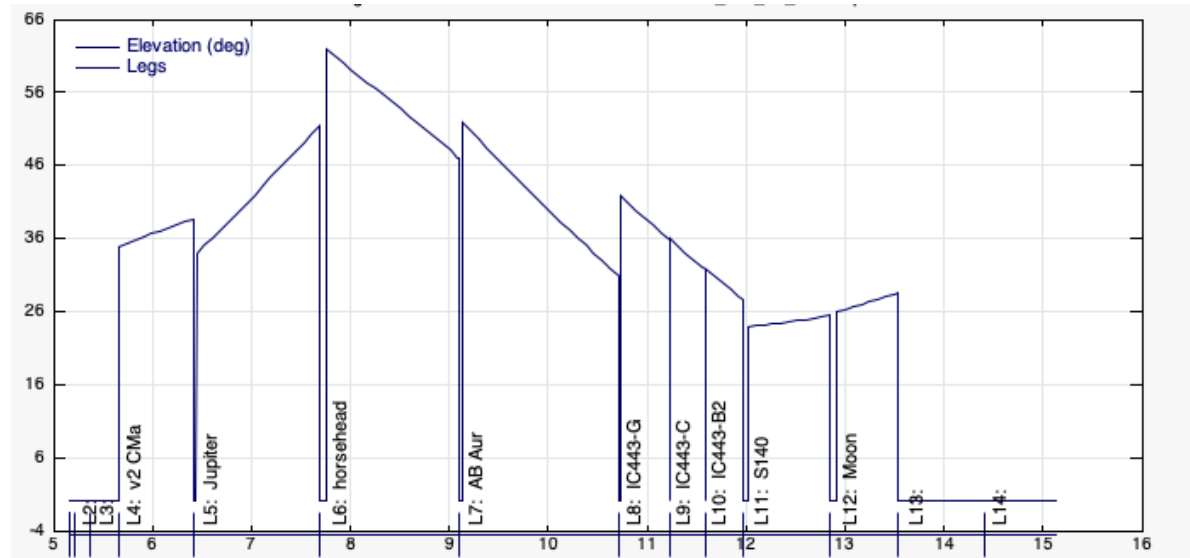
Flight notes: No irregularities.

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
Flight 184 Mission ID 2015-01-14_GR_F184 Palmdale to Palmdale Take off date UTC: 14-JAN-2015 Departure UTC: 05:08 Arrival UTC: 15:08 Consortium flight H1-L2								
4			v2 CMa	06h36m41.10s	-19d15m22.3s	5:44	45	
5			Jupiter	09h32m08.43s	15d33m43.1s	6:31	75	
6			horsehead	05h40m54.27s	-02d28m00.0s	7:49	81	Pointing and guiding issues – partial data.
7			AB Aur	04h55m45.80s	30d33m04.3s	9:12	95	
8			IC443-G	06h16m41.80s	22d31m41.0s	10:47	30	
9			IC443-C	06h17m42.80s	22d21m29.0s	11:22	22	
10			IC443-B2	06h17m15.90s	22d25m11.8s	11:40	23	
11			S140	22h19m18.20s	63d18m46.9s	12:05	50	Software reboot – partial data.
12			Moon	14h22m26.00s	-12d46m00.0s	12:59	37	

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



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



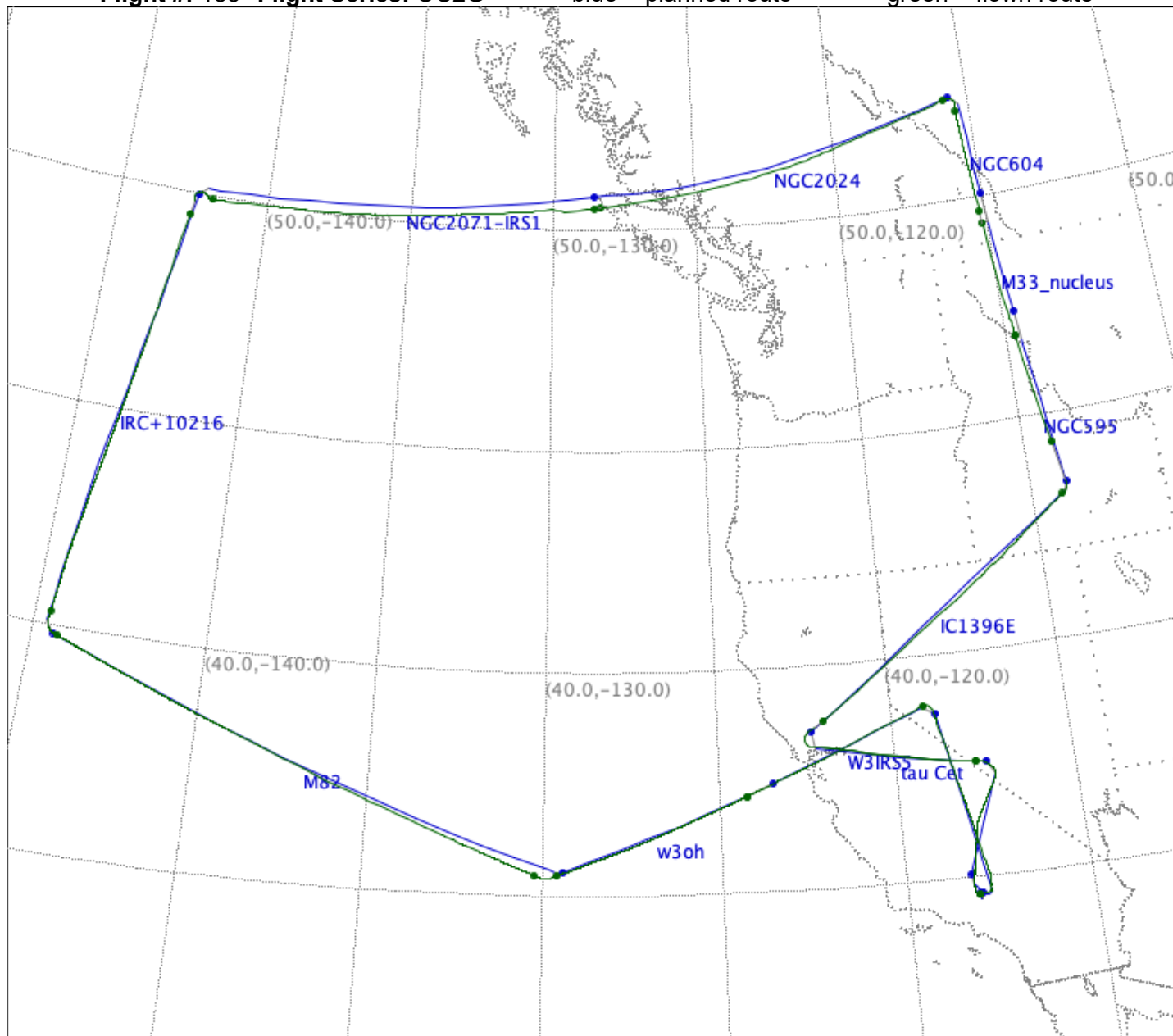
MISSION ID: 2015-01-15_GR_F185

Date: 2015-01-15 UT Instrument: GREAT

Flight #: 185 Flight Series: OC2G

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 185 Mission ID
Palmdale to Palmdale

2015-01-15_GR_F185
Take off date UTC:
15-JAN-2015

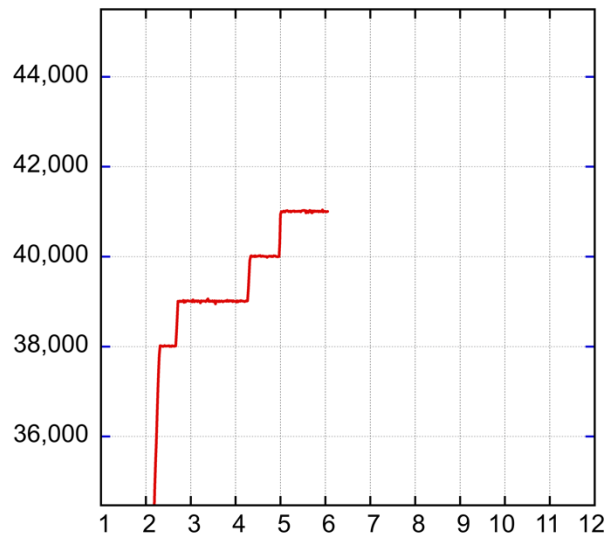
Departure UTC:
01:47

Arrival UTC:
11:41

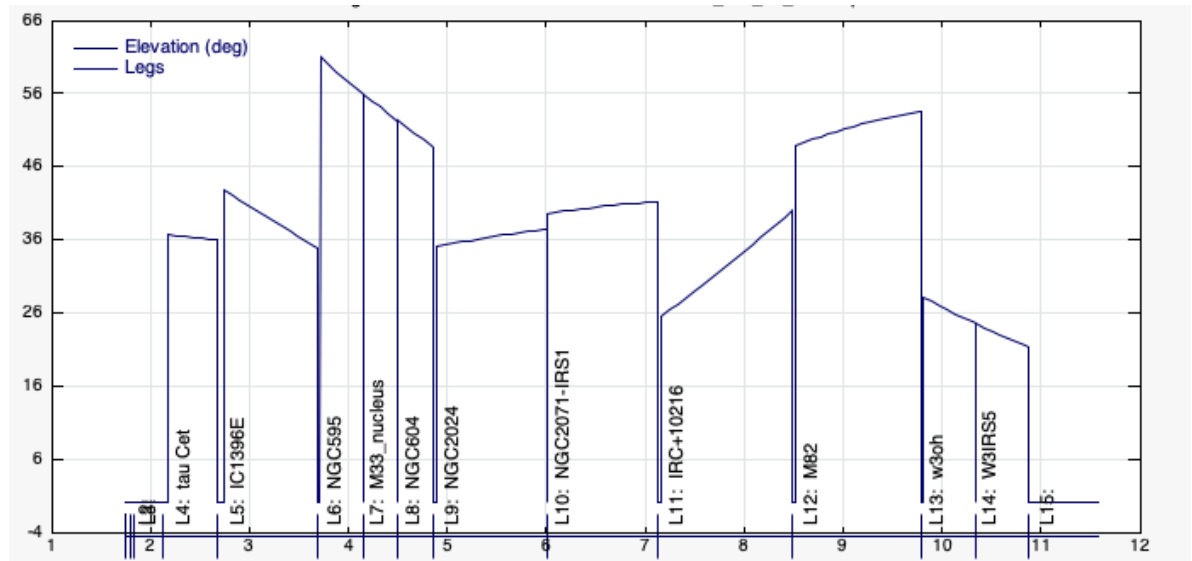
Consortium flight
H1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			tau Cet	01h44m03.00s	-15d56m13.9s	2:16	30	
5			IC1396E	21h40m39.00s	58d16m48.0s	2:50	57	
6			NGC595	01h33m33.81s	30d41m31.4s	3:48	26	
7			M33_nucleus	01h33m52.35s	30d39m20.8s	4:19	21	
8			NGC604	01h34m32.14s	30d46m59.3s	4:40	21	
9			NGC2024	05h41m45.20s	-01d55m45.0s	4:59	67	
10			NGC2071-IRS1	05h47m04.40s	00d21m49.0s	6:06	67	
11			IRC+10216	09h47m57.40s	13d16m43.5s	7:15	79	
12			M82	09h55m52.22s	69d40m46.9s	8:36	76	
13			w3oh	02h27m03.82s	61d52m25.2s	9:53	32	
14			W3IRS5	02h25m40.77s	62d05m52.3s	10:30	32	

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



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



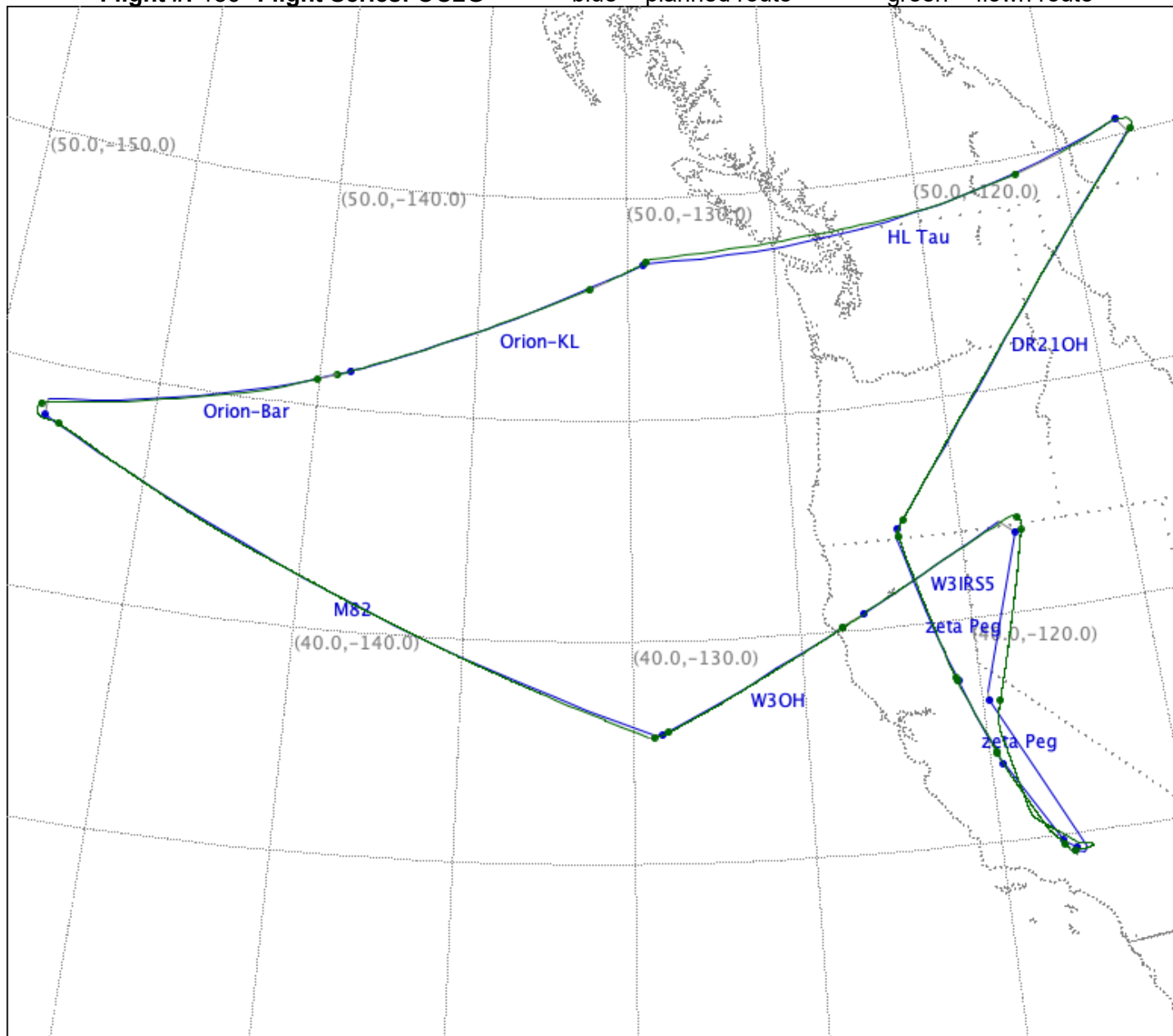
MISSION ID: 2015-01-16_GR_F186

Date: 2015-01-16 UT Instrument: GREAT

Flight #: 186 Flight Series: OC2G

blue = planned route

green = flown route



Flight notes: No irregularities.

Flight 186 Mission ID
Palmdale to Palmdale

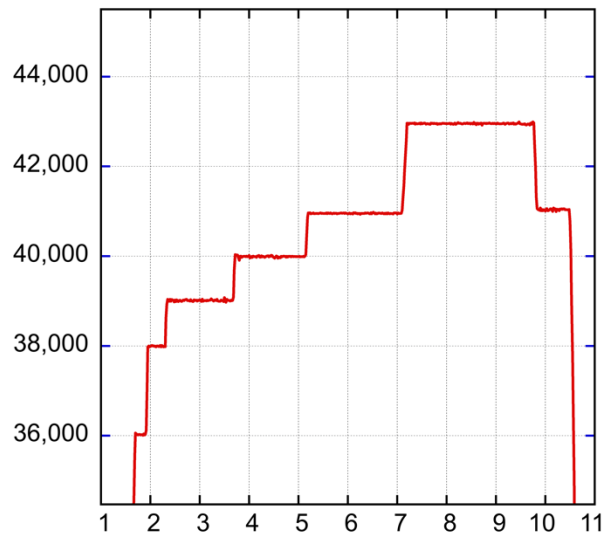
2015-01-16_GR_F186
Take off date UTC:
16-JAN-2015

Departure UTC: 01:14
Arrival UTC: 11:02

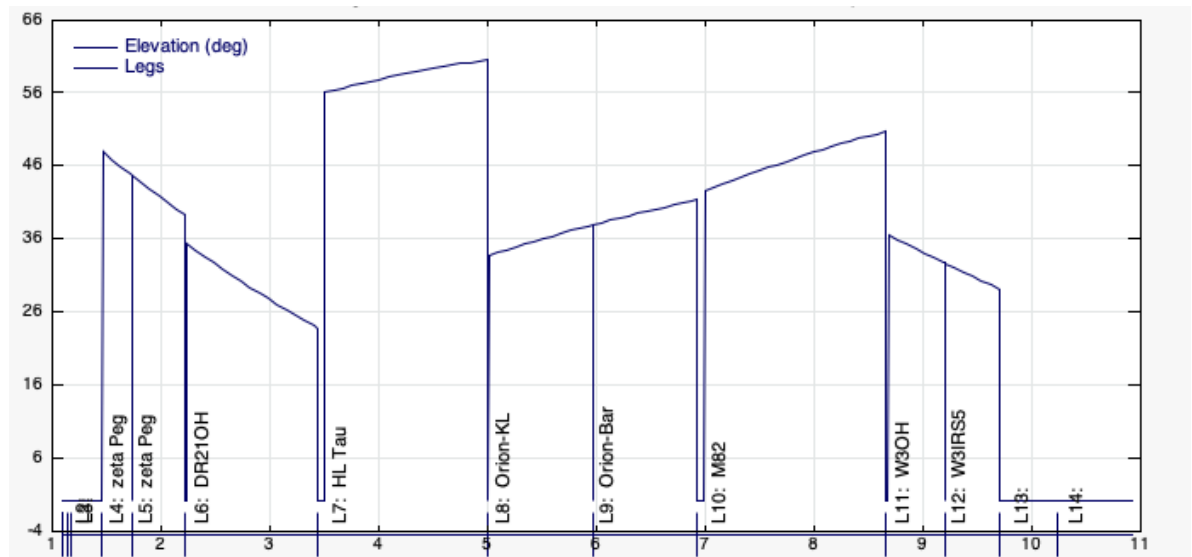
Consortium flight
H1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			zeta Peg	22h41m27.80s	10d49m53.0s	1:34	16	
5			zeta Peg	22h41m27.80s	10d49m53.0s	1:50	29	
6			DR21OH	20h39m00.32s	42d22m43.4s	2:20	72	
7			HL Tau	04h31m38.40s	18d13m57.7s	3:36	90	Turbulence.
8			Orion-KL	05h35m14.30s	-05d22m33.7s	5:06	57	
9			Orion-Bar	05h35m20.80s	-05d25m17.0s	6:04	58	
10			M82	09h55m52.22s	69d40m46.9s	7:05	100	
11			W3OH	02h27m03.82s	61d52m25.2s	8:47	31	
12			W3IRS5	02h25m40.77s	62d05m52.3s	9:23	30	

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



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



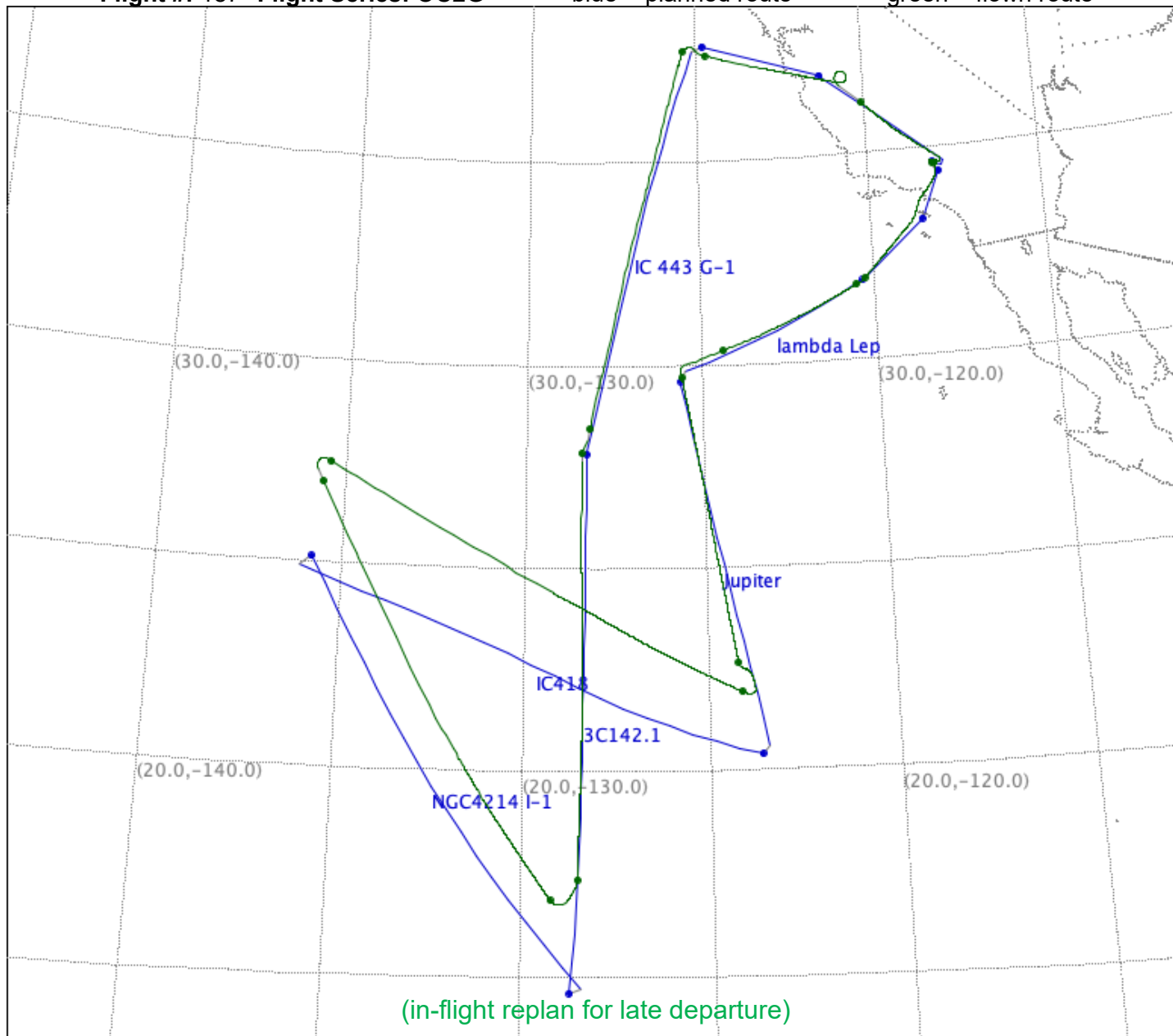
MISSION ID: 2015-01-21_GR_F187

Date: 2015-01-21 UT Instrument: GREAT

Flight #: 187 Flight Series: OC2G

blue = planned route

green = flown route



Flight notes: Late departure.

Flight 187 Mission ID
Palmdale to Palmdale

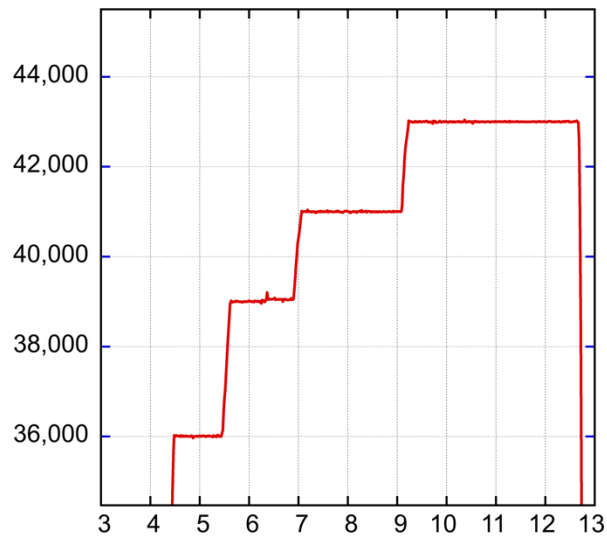
2015-01-21_GR_F187
Take off date UTC:
21-JAN-2015

Departure UTC: 04:02
Arrival UTC: 13:09

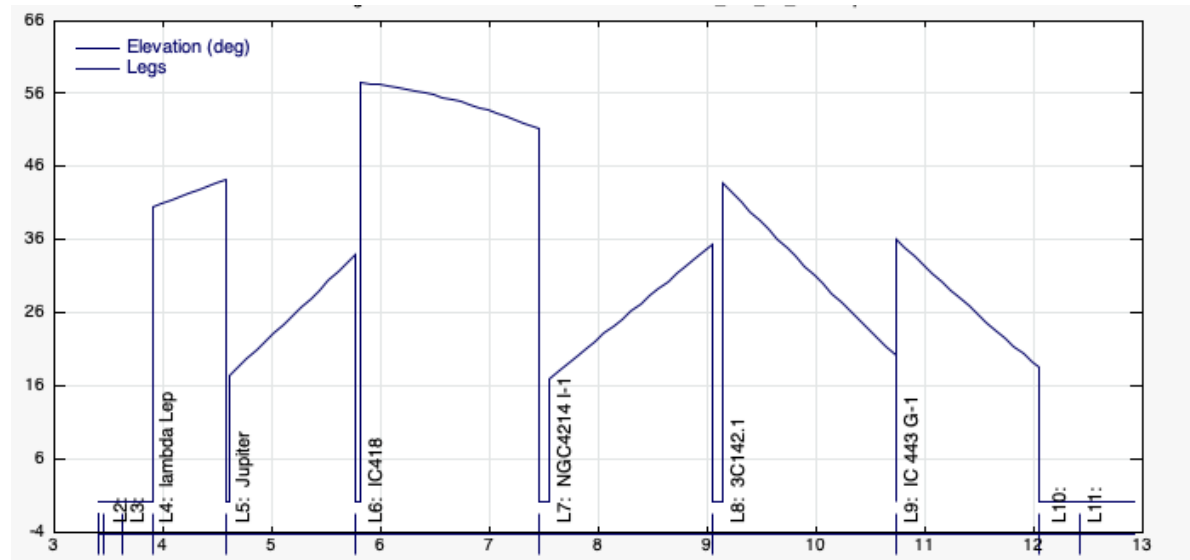
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			lambda Lep	05h19m34.50s	-13d10m36.5s	3:59	40	
5			Jupiter	09h29m02.80s	15d49m57.8s	4:41	70	
6		engineering	IC418	05h27m28.20s	-12d41m50.3s	5:54	98	
7	02_0063	Cormier	NGC4214 I	12h15m38.48s	36d19m32.4s	7:38	90	
8	03_0012	Goldsmith	3C142.1	05h31m29.40s	06d30m25.0s	9:13	95	Partial data.
9	02_0076	Remijan	IC 443 G	06h16m43.00s	22d32m34.0s	10:49	79	

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



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



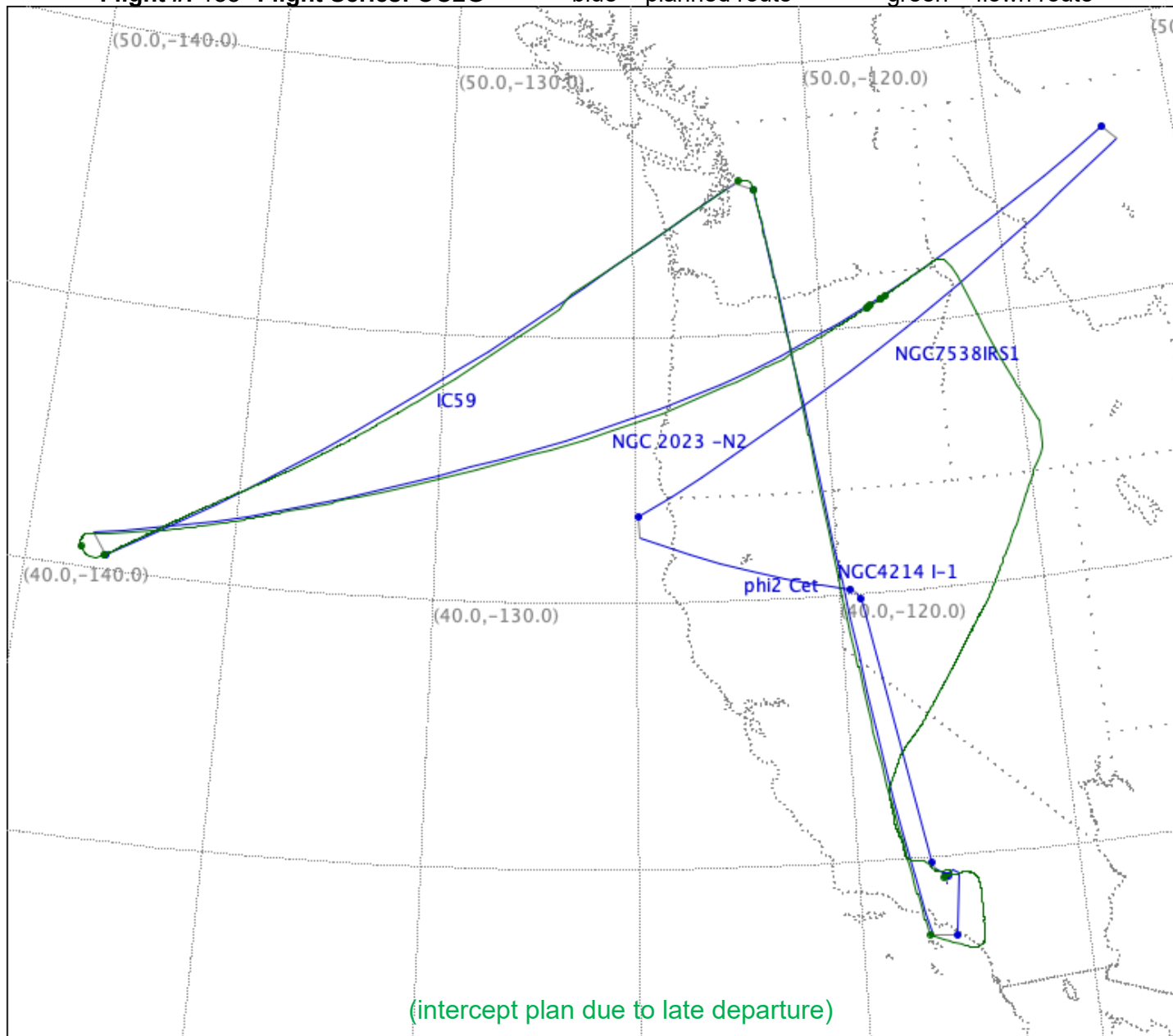
MISSION ID: 2015-01-22_GR_F188

Date: 2015-01-22 UT Instrument: GREAT

Flight #: 188 Flight Series: OC2G

blue = planned route

green = flown route



Flight notes:

Late departure led to loss of leg 6 and part of leg 7.

Flight 188
Palmdale to
Palmdale

Mission ID

2015-01-22_GR_F188

Take off date UTC:

22-JAN-2015

Departure UTC:

02:05

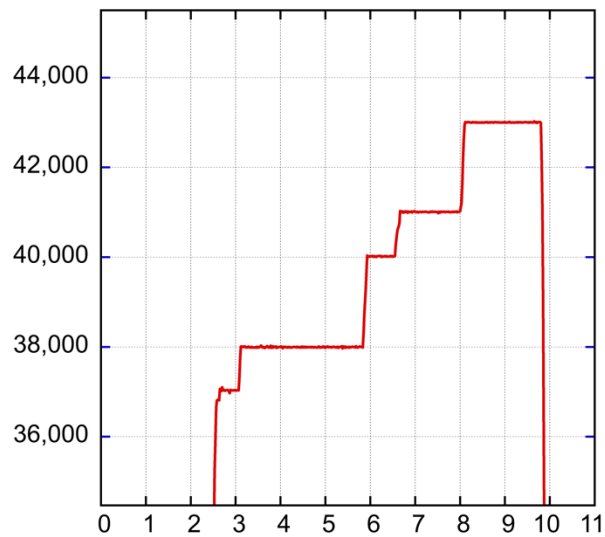
Arrival UTC:

10:14

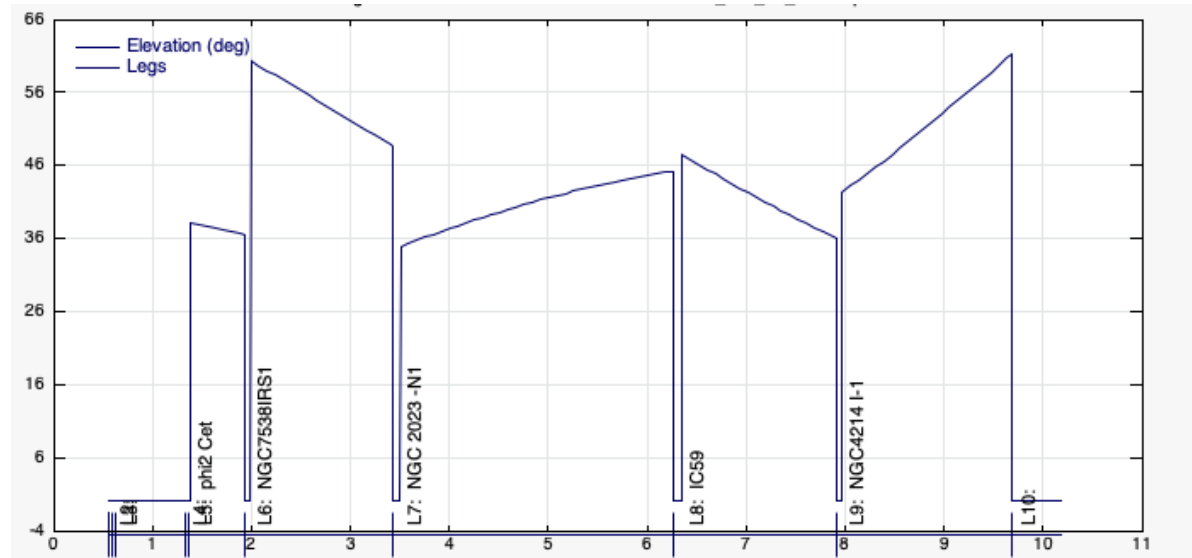
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			phi2 Cet	00h50m07.40s	-10d38m43.3s	1:29	35	
6	02_0038	Sandell	NGC7538IRS1	23h13m45.37s	61d28m10.4s	2:05	85	Late take-off; leg not flown.
7	02_0090	Peeters	NGC 2023 -N1	05h41m38.04s	-02d13m30.1s	3:36	160	Got to leg 29min late due to late take-off.
8	02_0090	Peeters	IC59	00h57m34.00s	61d05m16.0s	6:27	102	
9	02_0063	Cormier	NGC4214 I-1	12h15m38.48s	36d19m32.4s	8:04	88	

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



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



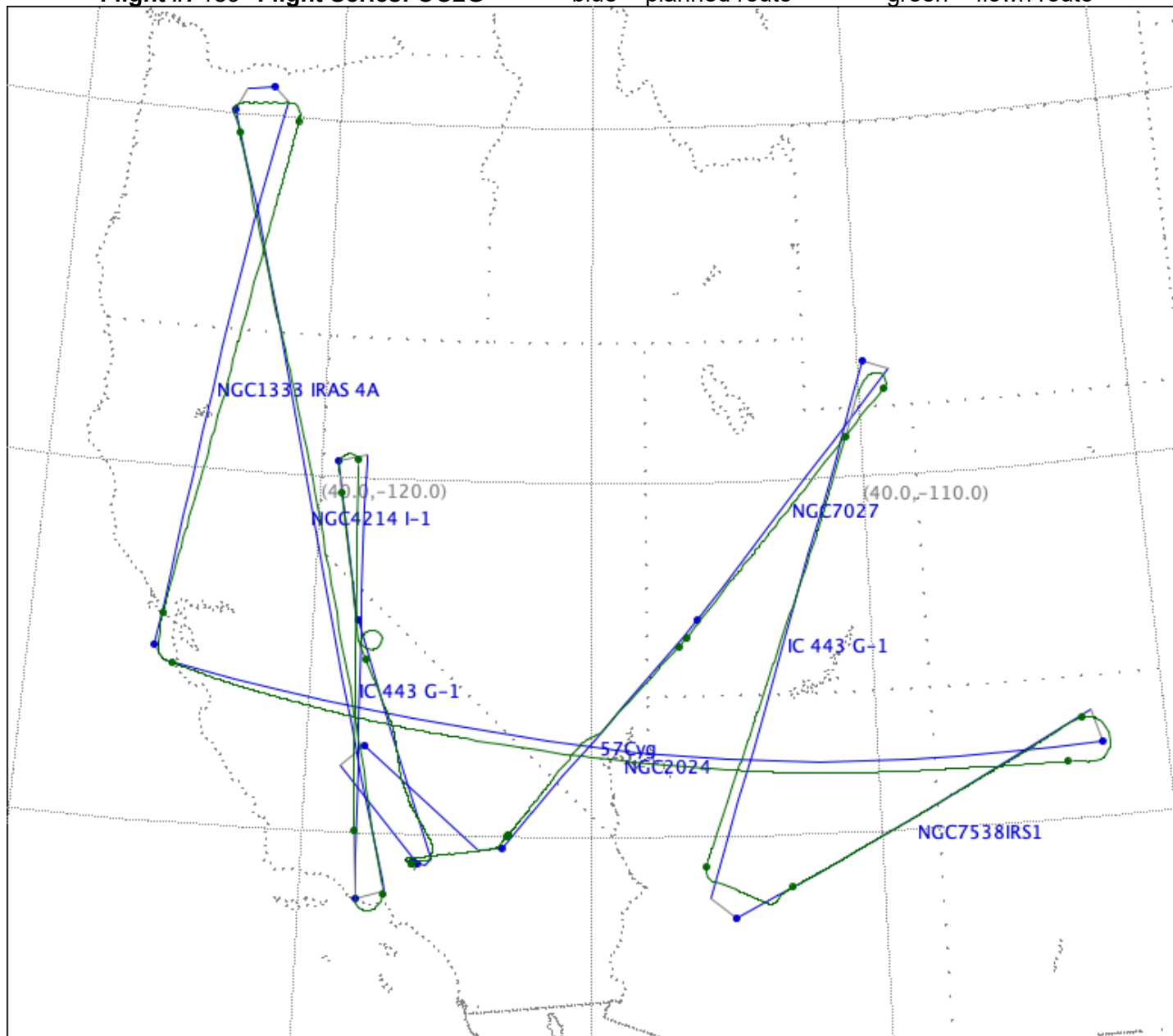
MISSION ID: 2015-01-23_GR_F189

Date: 2015-01-23 UT Instrument: GREAT

Flight #: 189 Flight Series: OC2G

blue = planned route

green = flown route



Flight notes: Late departure.

Flight 189 Mission ID
Palmdale to Palmdale

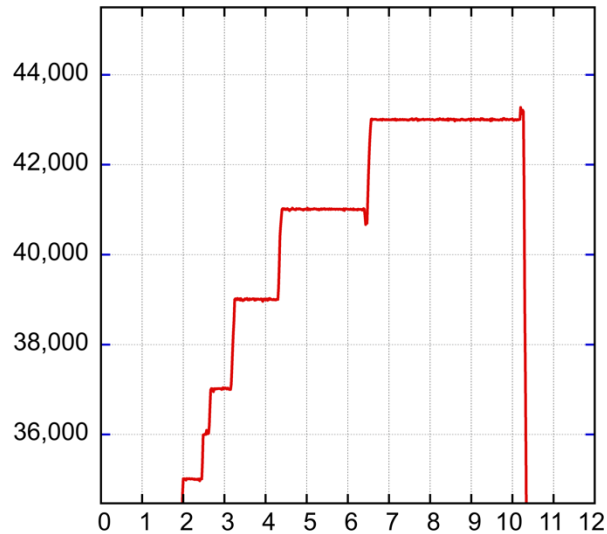
2015-01-23_GR_F189
Take off date UTC:
23-JAN-2015

Departure UTC: 01:34
Arrival UTC: 10:43

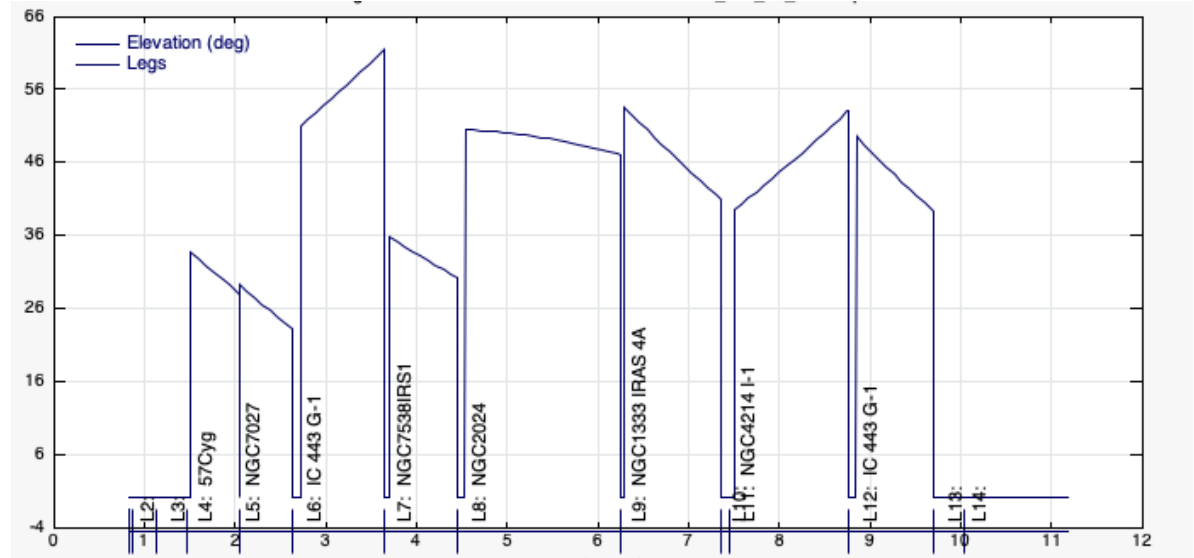
L1-L2

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			57Cyg	20h53m14.80s	44d23m14.1s	1:34	32	
5			NGC7027	21h07m01.59s	42d14m10.2s	2:06	35	
6	02_0076	Remijan	IC 443 G	06h16m43.00s	22d32m34.0s	2:47	55	
7	02_0038	Sandell	NGC7538IRS1	23h13m45.37s	61d28m10.4s	3:46	44	
8	02_0062	Graf	NGC2024	05h41m45.20s	-01d55m45.0s	4:35	103	
9	02_0055	Kristensen	NGC1333 IRAS 4A	03h29m10.50s	31d13m31.0s	6:21	64	
11	02_0063	Cormier	NGC4214 I	12h15m38.48s	36d19m32.4s	7:33	76	
12	02_0076	Remijan	IC 443 G	06h16m43.00s	22d32m34.0s	8:54	51	

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



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



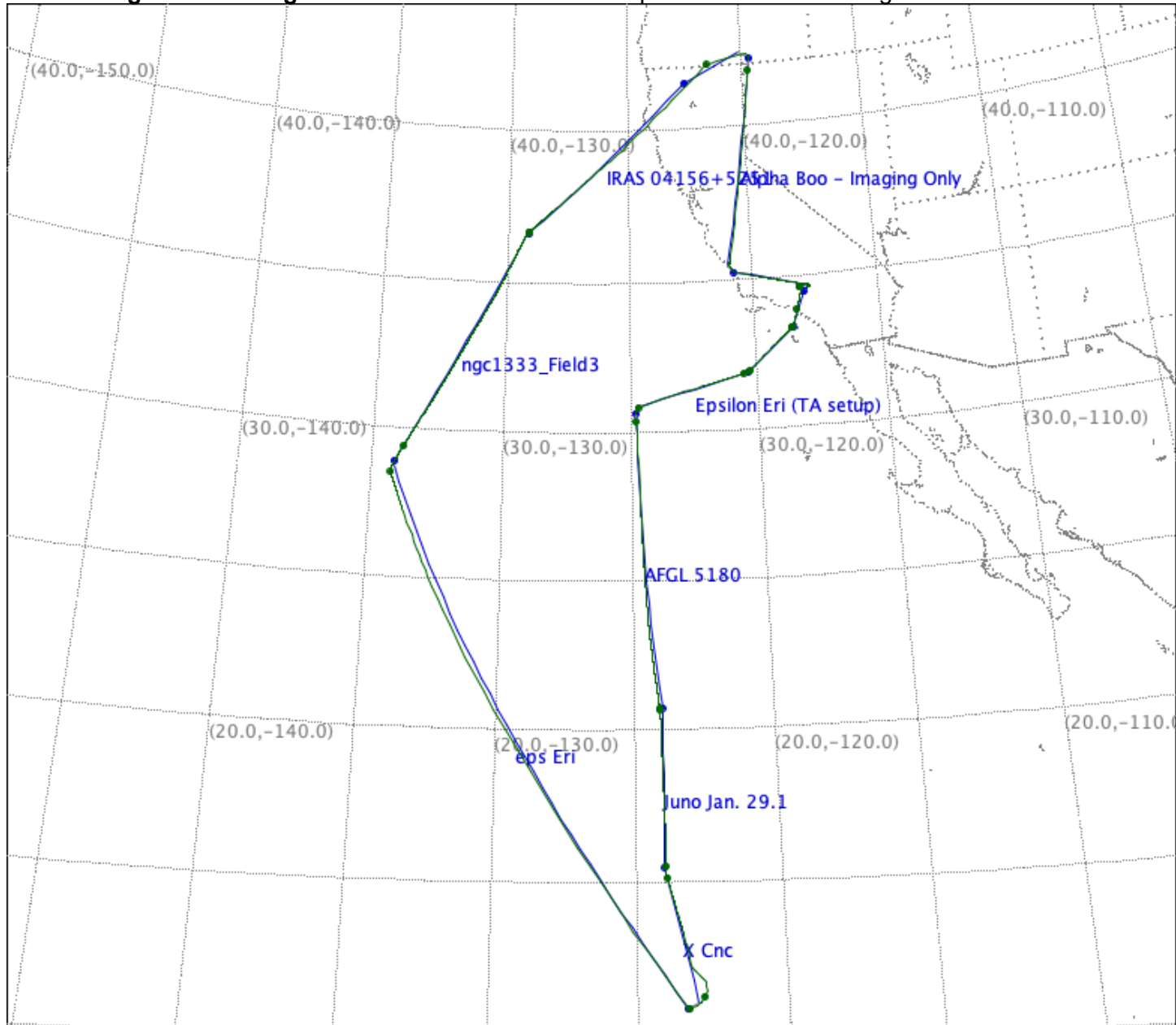
MISSION ID: 2015-01-29_FO_F190

Date: 2015-01-29 UT Instrument: FORCAST

Flight #: 190 Flight Series: OC2H

blue = planned route

green = flown route

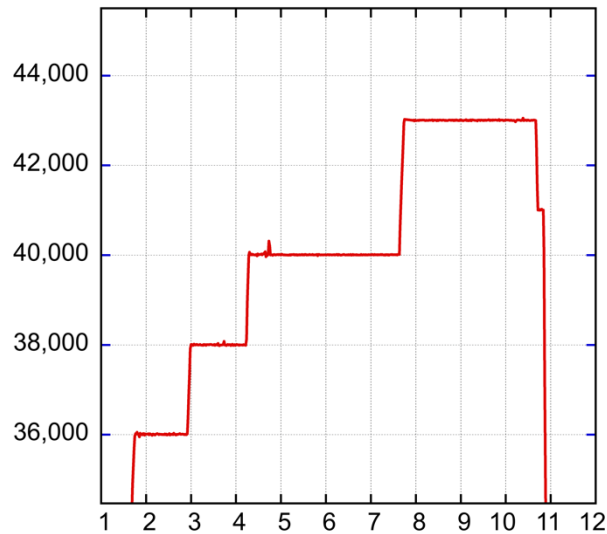


Flight notes: Small weather deviation.

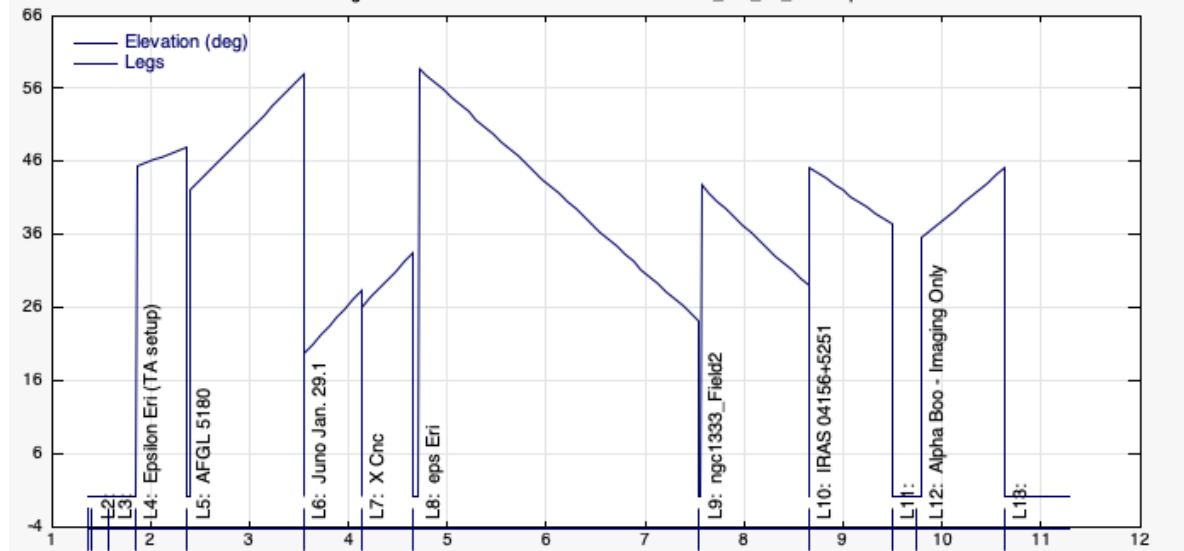
Flight 190 Mission ID 2015-01-29_FO_F190
 Palmdale to Palmdale Take off date UTC: 29-JAN-2015
 Departure UTC: 01:20 Arrival UTC: 11:13

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Epsilon Eri (TA setup)	03h32m55.80s	-09d27m30.0s	1:58	30	Clouds, turbulence.
5	02_0074	Tan	AFGL 5180	06h08m53.30s	21d38m30.5s	2:30	69	
6			Juno Jan. 29.1	08h32m49.90s	03d30m01.1s	3:39	35	
7	01_0041	Sloan	X Cnc	08h55m22.90s	17d13m53.0s	4:15	30	Divert around storms; entire leg lost
8	02_0061	Su	eps Eri	03h32m55.84s	-09d27m29.7s	4:49	170	
9	02_0070	Mundy	ngc1333_Field2	03h28m59.98s	31d21m21.0s	7:41	65	Observatory control software crash at start of leg; 10min lost
10	01_0143	Lundquist	IRAS 04156+5251	04h19m32.92s	52d58m41.6s	8:46	50	
12	90_0013	Calibration	Alpha Boo - Imaging Only	14h15m39.67s	19d10m56.7s	9:54	50	

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



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



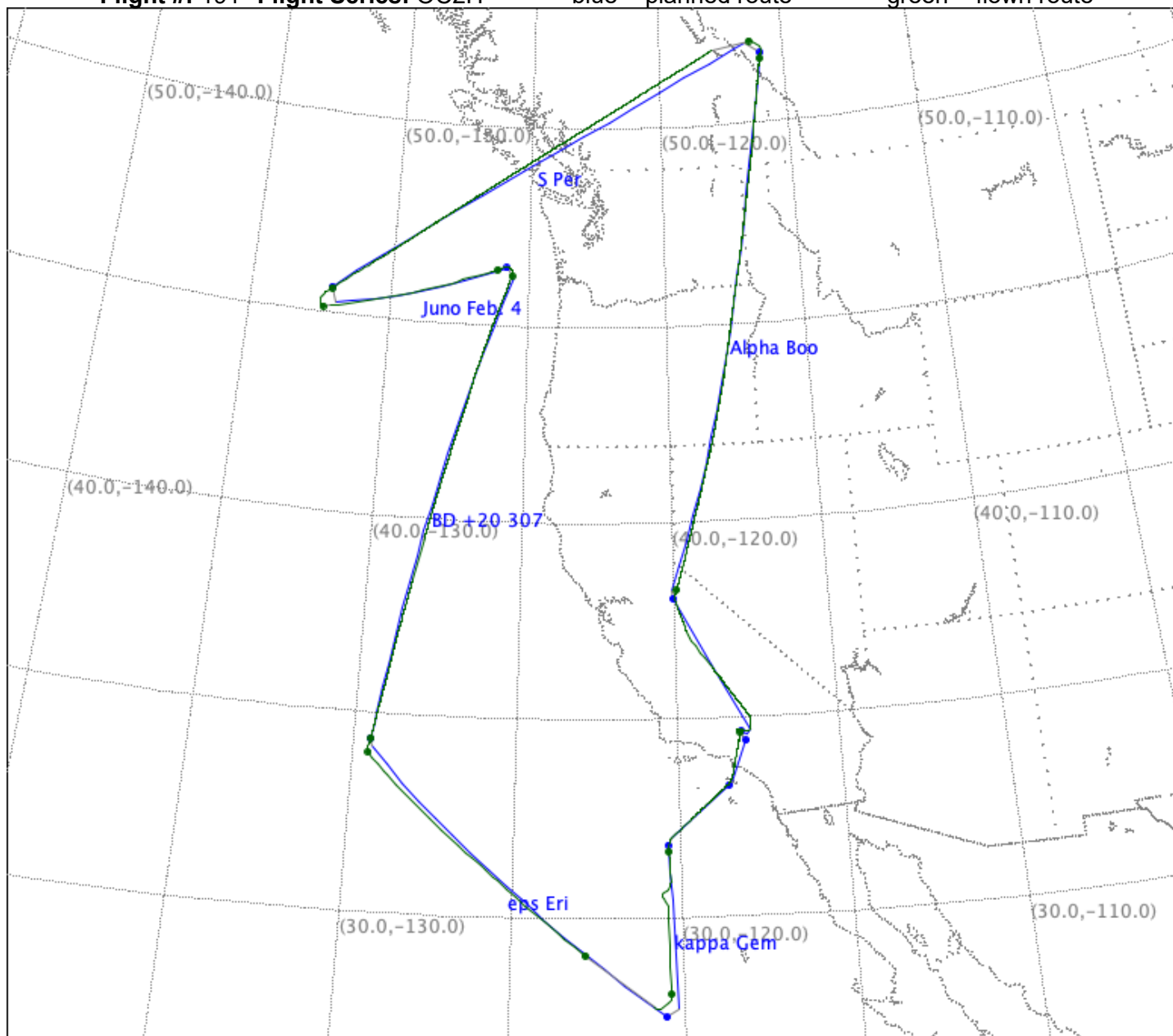
MISSION ID: 2015-02-04_FO_F191

Date: 2015-02-04 UT **Instrument:** FORCAST

Flight #: 191 **Flight Series:** OC2H

blue = planned route

green = flown route

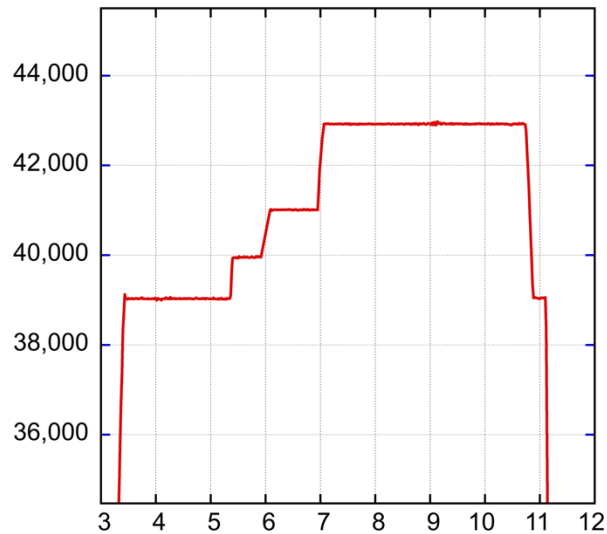


Flight notes: No irregularities.

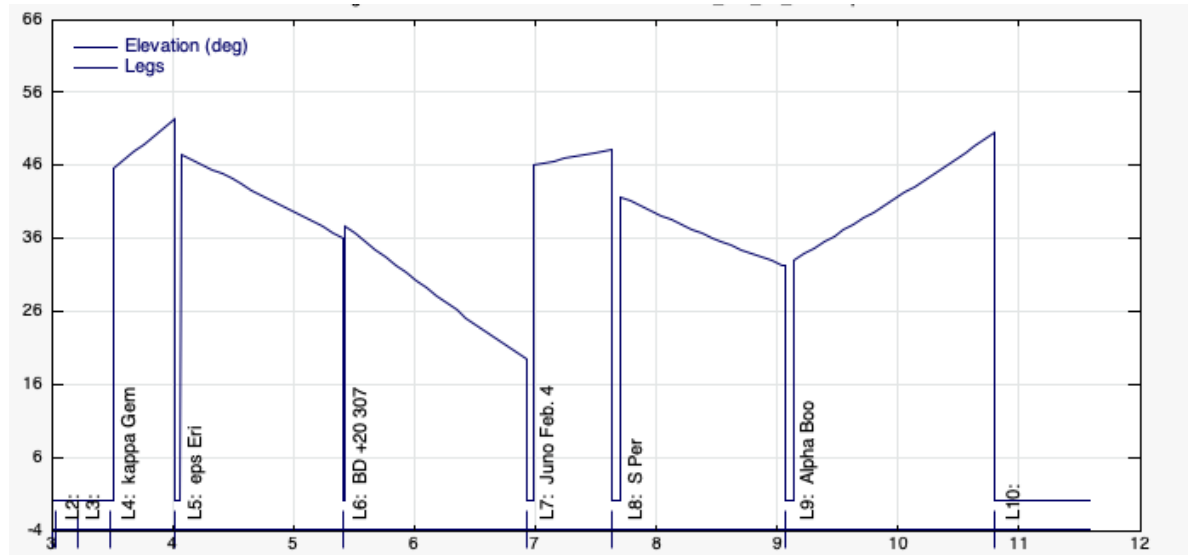
Flight 191 Mission ID 2015-02-04_FO_F191
 Palmdale to Palmdale Take off date UTC: 04-FEB-2015
 Departure UTC: 02:59 Arrival UTC: 11:31

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			kappa Gem	07h44m26.80s	24d23m51.9s	3:34	30	
5	02_0061	Su	eps Eri	03h32m55.84s	-09d27m29.7s	4:07	80	
6	02_0050	Weinberger	BD +20 307	01h54m50.34s	21d18m22.5s	5:29	90	Observatory control software crash at start of leg; 17min lost
7			Juno Feb. 4	08h27m41.00s	04d28m45.0s	7:02	39	
8	03_0082	Humphreys	S Per	02h22m51.71s	58d35m11.4s	7:45	82	
9	90_0019	Calibration	Alpha Boo	14h15m39.67s	19d10m56.7s	9:11	100	

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



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



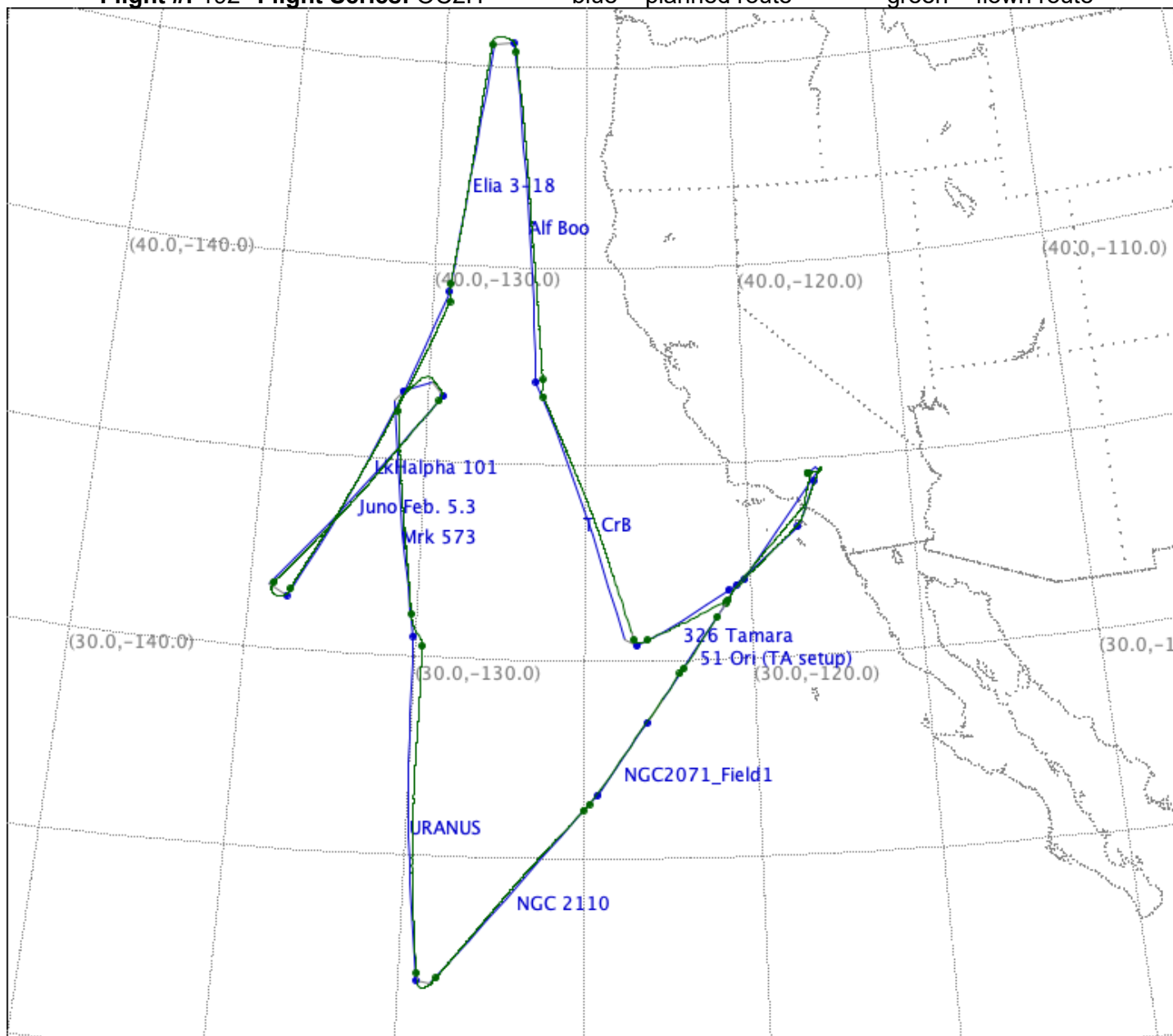
MISSION ID: 2015-02-05_FO_F192

Date: 2015-02-05 UT Instrument: FORCAST

Flight #: 192 Flight Series: OC2H

blue = planned route

green = flown route

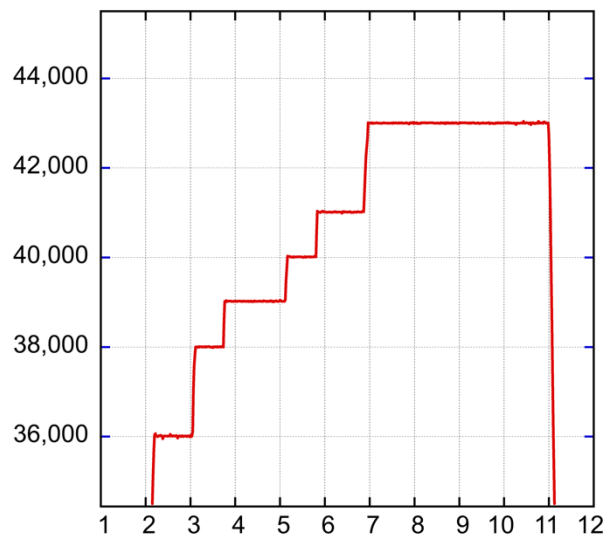


Flight notes: No irregularities.

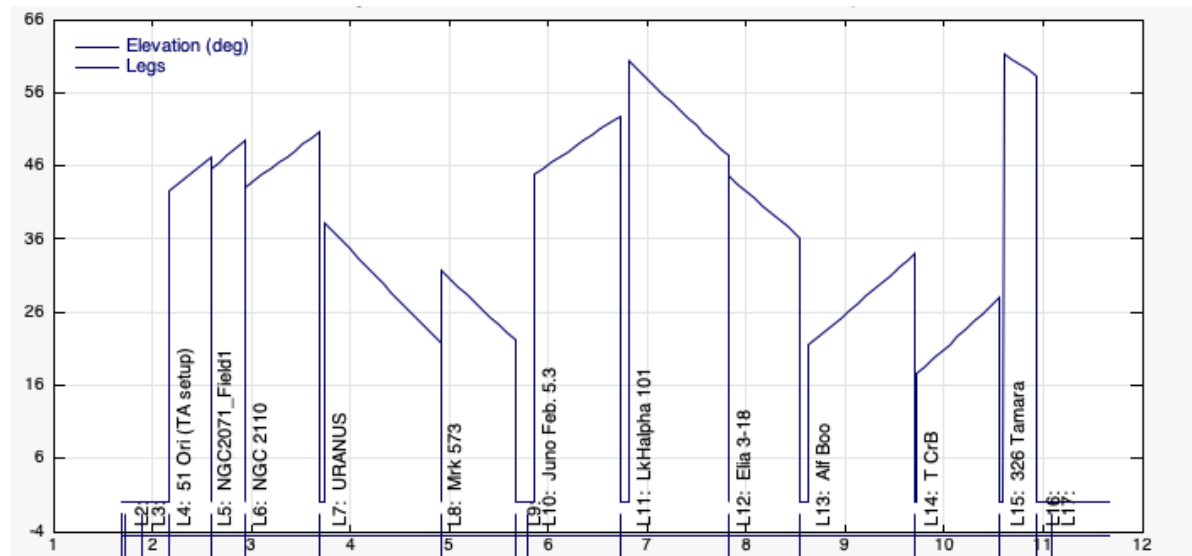
Flight 192 Mission ID 2015-02-05_FO_F192
 Palmdale to Palmdale Take off date UTC: 05-FEB-2015
 Departure UTC: 01:44 Arrival UTC: ~11:37

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			51 Ori (TA setup)	05h42m28.60s	01d28m28.0s	2:14	25	
5	02_0070	Mundy	NGC2071 Field1	05h47m07.33s	00d17m59.7s	2:44	21	Clouds clearly affecting data at beginning of leg
6	02_0035	Lopez-Rodriguez	NGC 2110	05h52m11.40s	-07d27m22.2s	3:00	45	
7	02_0037	Orton	URANUS	00h49m38.22s	04d37m37.9s	3:49	70	Problems getting telescope pointed properly; 47min lost
8	02_0035	Lopez-Rodriguez	Mrk 573	01h43m57.76s	02d20m59.7s	4:59	45	Observatory control software faults; 10min lost
10			Juno Feb. 5.3	08h27m37.10s	04d29m35.0s	5:56	52	
11	02_0016	Vacca	LkHalpha 101	04h30m14.44s	35d16m24.0s	6:53	60	
12	03_0064	Chiar	Elia 3-18	04h39m55.75s	25d45m02.0s	7:54	43	
13	90_0006	Calibration	Alf Boo	14h15m39.67s	19d10m56.7s	8:41	65	
14	02_0052	Rushton	T CrB	15h59m30.16s	25d55m12.6s	9:47	50	
15			326 Tamara	09h36m39.49s	52d54m37.1s	10:40	20	

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



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



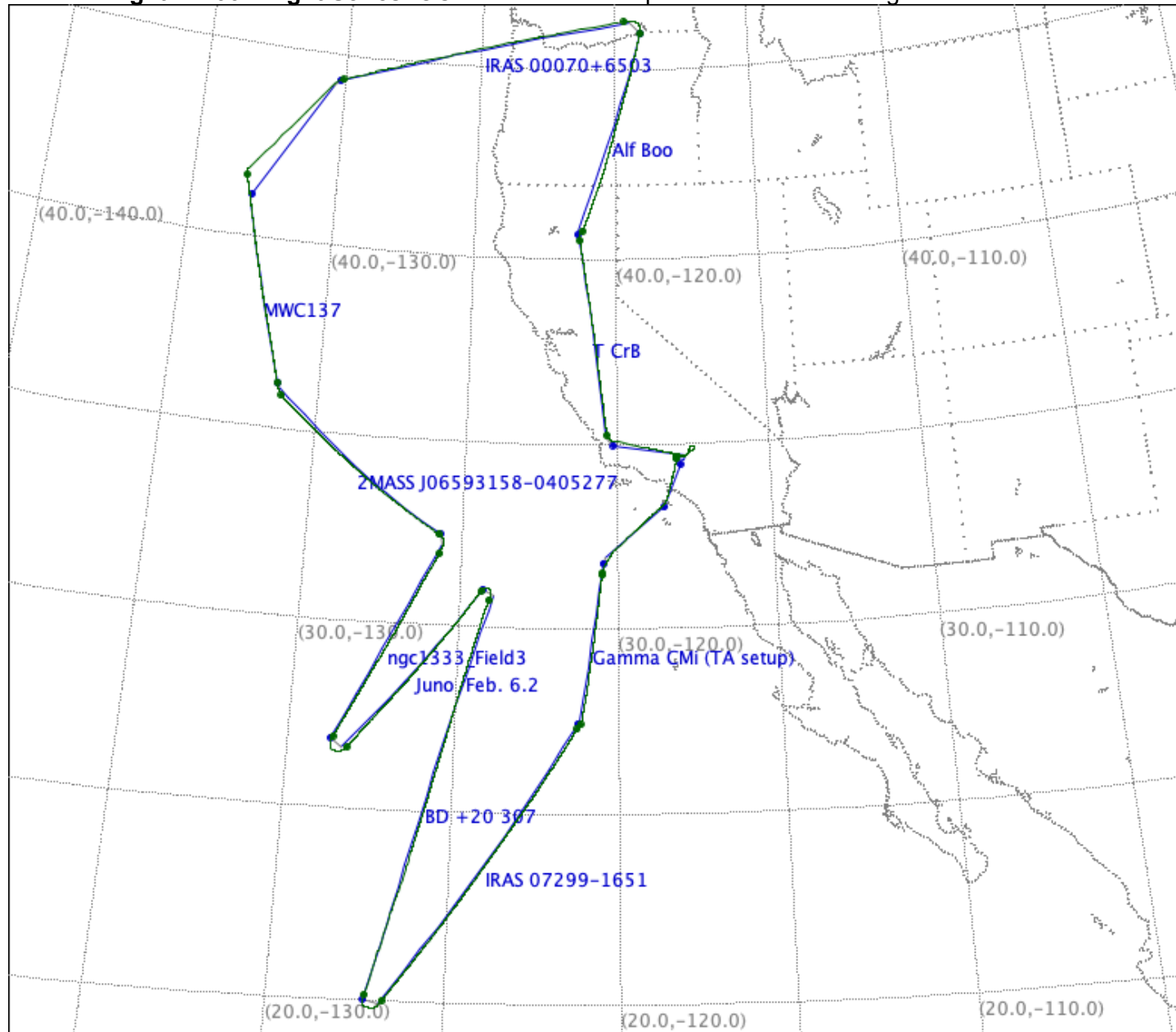
MISSION ID: 2015-02-06_FO_F193

Date: 2015-02-06 UT **Instrument:** FORCAST

Flight #: 193 **Flight Series:** OC2H

blue = planned route

green = flown route

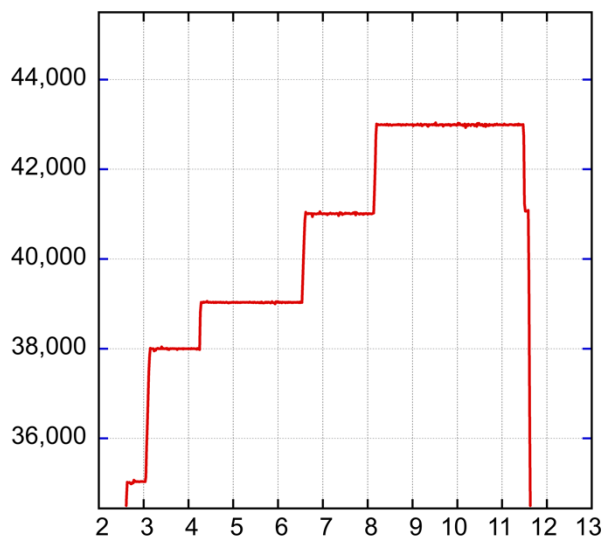


Flight notes: No irregularities.

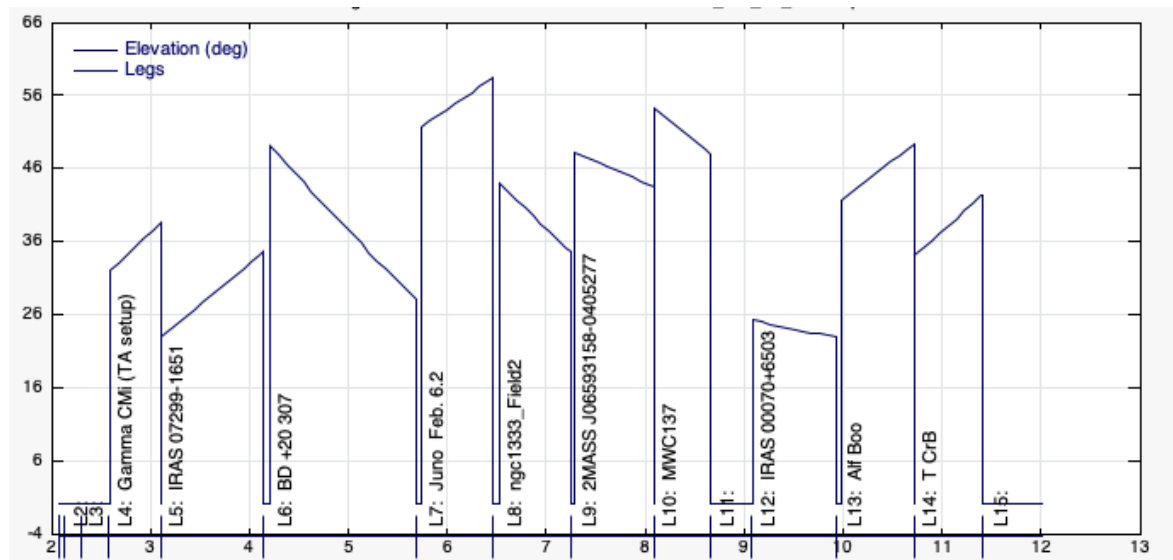
Flight 193 Mission ID 2015-02-06_FO_F193
 Palmdale to Palmdale Take off date UTC: 06-FEB-2015
 Departure UTC: 02:13 Arrival UTC: 12:00

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4			Gamma CMi (TA setup)	07h28m10.00s	08d55m32.0s	2:40	30	
5	02_0074	Tan	IRAS 07299-1651	07h32m09.70s	-16d58m14.0s	3:11	62	
6	02_0050	Weinberger	BD +20 307	01h54m50.34s	21d18m22.5s	4:17	88	
7			Juno Feb. 6.2	08h26m00.00s	04d49m52.0s	5:49	43	
8	02_0070	Mundy	ngc1333_Field2	03h28m59.98s	31d21m21.0s	6:36	43	
9	75_0013	Eisloeffel	2MASS J06593158-0405277	06h59m31.59s	-04d05m27.8s	7:22	48	
10	02_0016	Vacca	MWC137	06h18m45.52s	15d16m52.2s	8:11	34	
12	01_0143	Lundquist	IRAS 00070+6503	00h09m43.70s	65d20m08.9s	9:10	50	
13	90_0006	Calibration	Alf Boo	14h15m39.67s	19d10m56.7s	10:04	44	
14	02_0052	Rushton	T CrB	15h59m30.16s	25d55m12.6s	10:48	41	Strange detector noise on FORCAST; cycled power and reconfigured; 16min lost

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



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



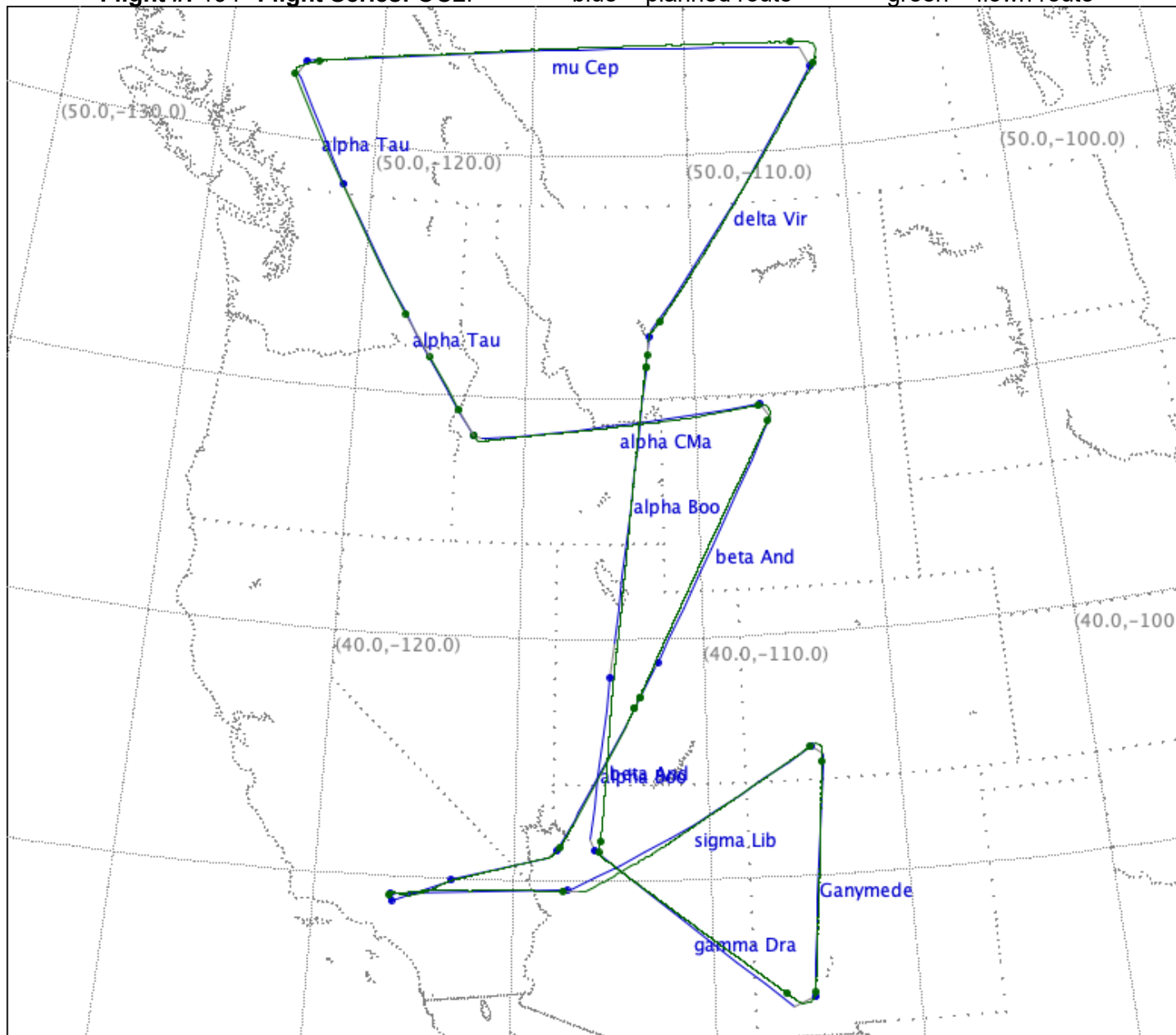
MISSION ID: 2015-02-21_EX_F194

Date: 2015-02-21 UT Instrument: EXES

Flight #: 194 Flight Series: OC2I

blue = planned route

green = flown route

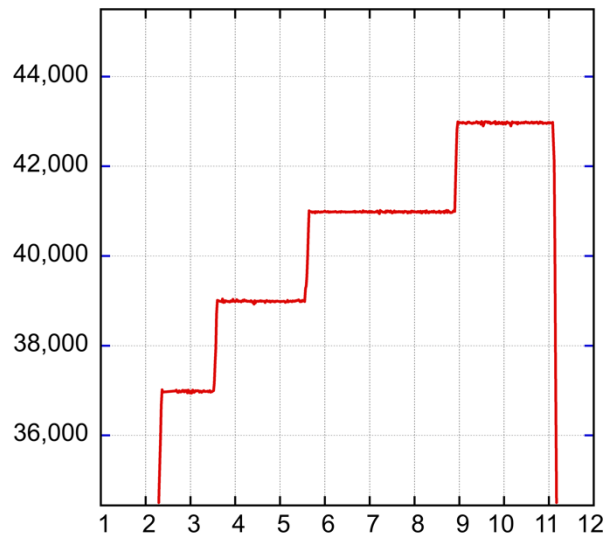


Flight notes: EXES commissioning flight. Engineering data only.

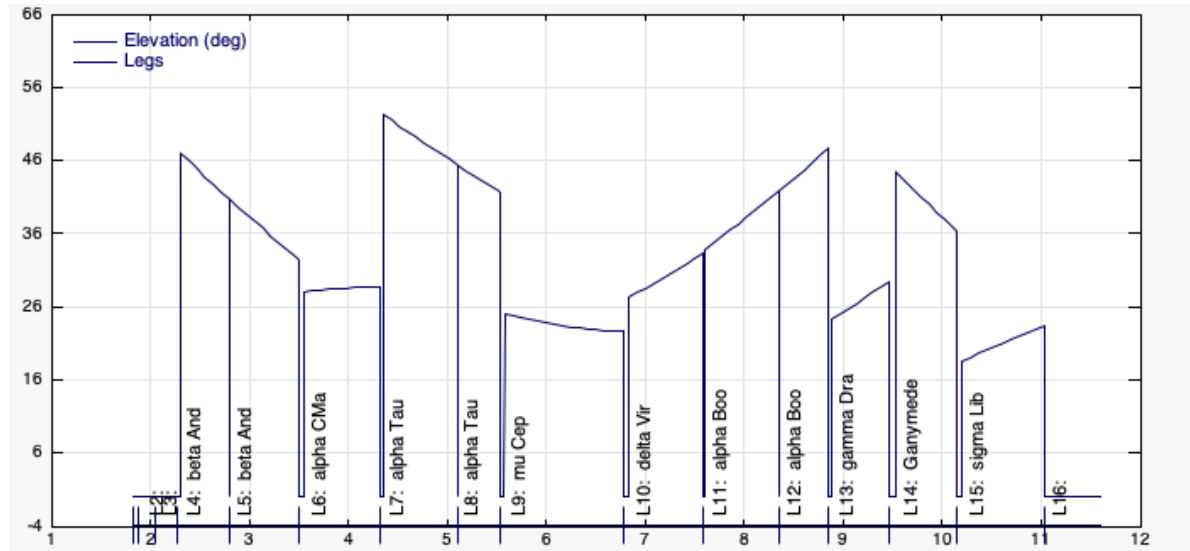
Flight 194 Mission ID 2015-02-21_FO_F194
 Palmdale to Palmdale Take off date UTC: 21-FEB-2015
 Departure UTC: 01:50 Arrival UTC: 11:44

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
4	86_0005	Commissioning	beta And	01h09m43.92s	35d37m14.0s	2:20	30	
5	86_0005	Commissioning	beta And	01h09m43.92s	35d37m14.0s	2:51	42	
6	86_0005	Commissioning	alpha CMa	06h45m08.92s	-16d42m58.0s	3:36	46	
7	86_0005	Commissioning	alpha Tau	04h35m55.24s	16d30m33.5s	4:23	45	
8	86_0005	Commissioning	alpha Tau	04h35m55.24s	16d30m33.5s	5:13	26	
9	86_0005	Commissioning	mu Cep	21h43m30.46s	58d46m48.2s	5:37	72	
10	86_0005	Commissioning	delta Vir	12h55m36.21s	03d23m50.9s	6:53	45	
11	86_0005	Commissioning	alpha Boo	14h15m39.67s	19d10m56.7s	7:38	45	
12	86_0005	Commissioning	alpha Boo	14h15m39.67s	19d10m56.7s	8:28	30	
13	86_0005	Commissioning	gamma Dra	17h56m36.37s	51d29m20.0s	8:55	35	
14	86_0006	Commissioning	Ganymede	09h13m25.89s	17d05m36.6s	9:34	37	
15	86_0005	Commissioning	sigma Lib	15h04m04.22s	-25d16m55.1s	10:14	50	

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



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



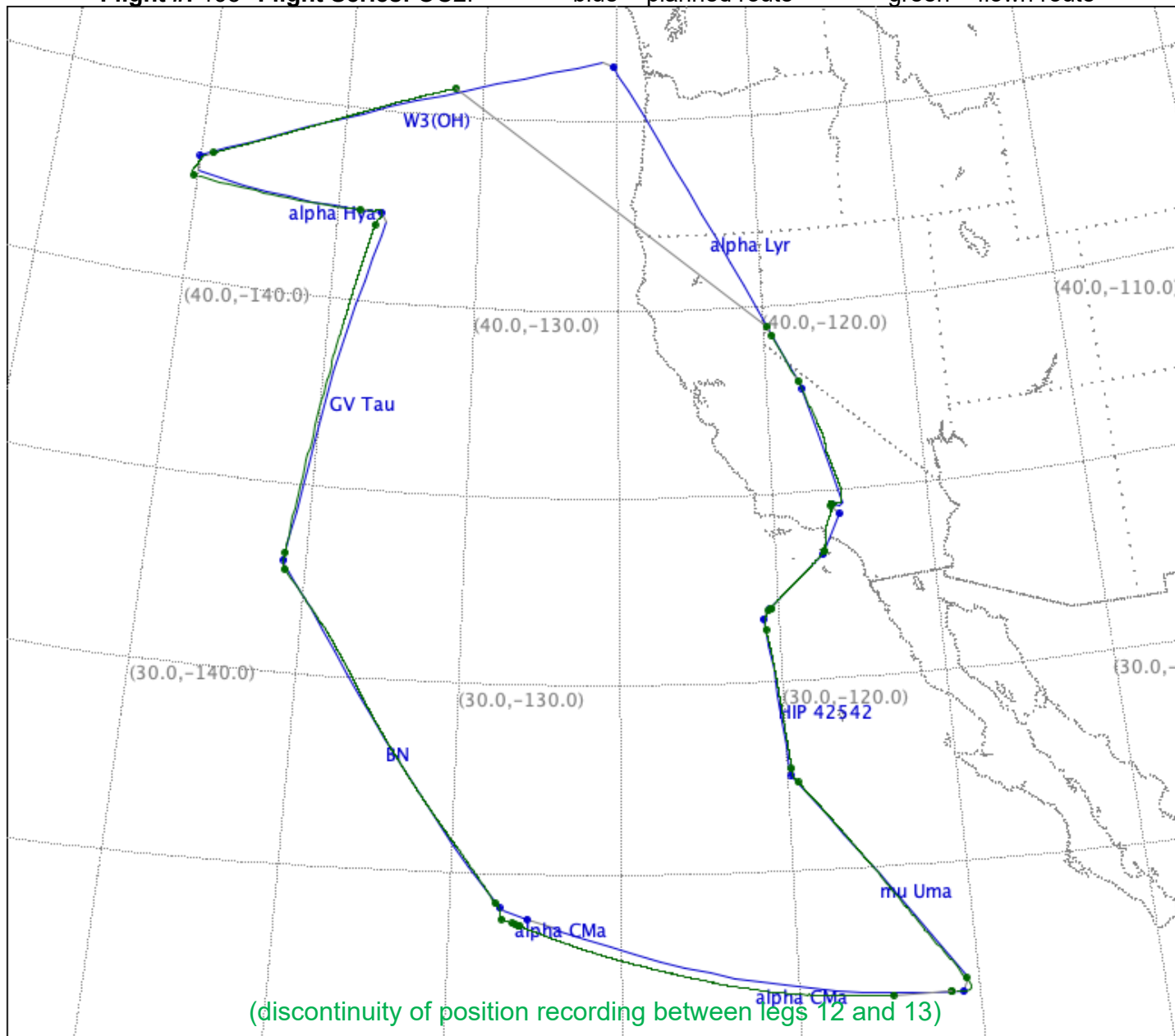
MISSION ID: 2015-02-25_EX_F195

Date: 2015-02-25 UT Instrument: EXES

Flight #: 195 Flight Series: OC2I

blue = planned route

green = flown route



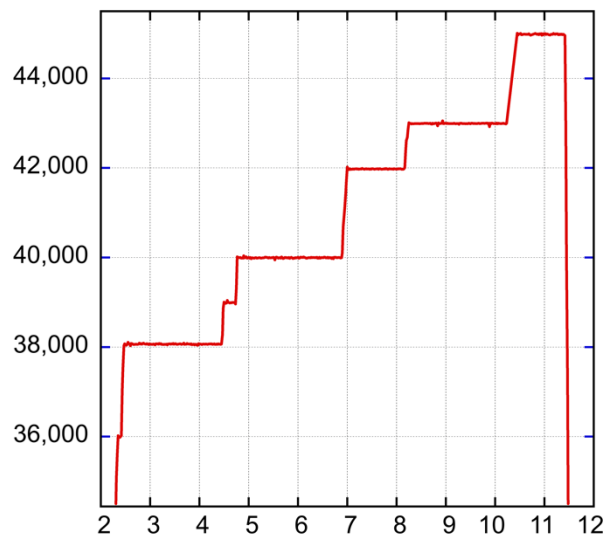
Flight notes:

EXES commissioning flight. Some engineering data and some science data.

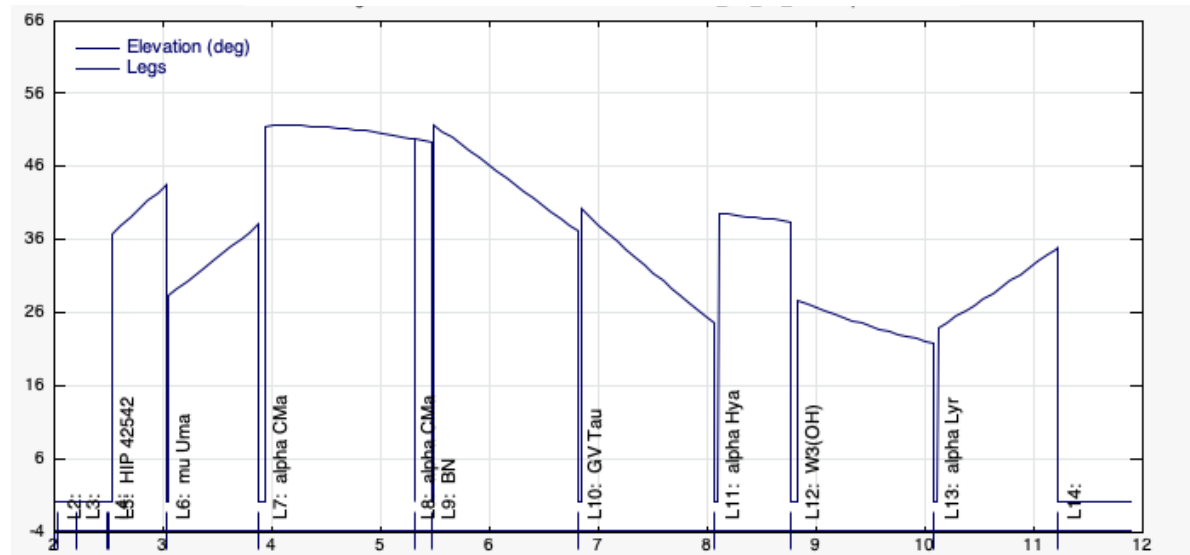
Flight 195 Mission ID 2015-02-25_EX_F195
 Palmdale to Palmdale Take off date UTC: 25-FEB-2015
 Departure UTC: 01:50 Arrival UTC: 11:53

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
5			HIP 42542	08h40m20.10s	19d20m56.1s	2:37	30	
6	86_0005	Commissioning	mu Uma	10h22m19.74s	41d29m58.3s	3:08	50	
7	86_0005	Commissioning	alpha CMa	06h45m08.92s	-16d42m58.0s	4:01	82	
8	86_0005	Commissioning	alpha CMa	06h45m08.92s	-16d42m58.0s	5:28	10	
9	86_0005	Commissioning	BN	05h35m14.11s	-05d22m22.7s	5:34	80	
10	86_0005	Commissioning	GV Tau	04h29m23.73s	24d33m00.3s	6:55	73	
11	86_0005	Commissioning	alpha Hya	09h27m35.24s	-08d39m31.0s	8:11	40	
12	03_0080	Menten	W3(OH)	02h27m03.82s	61d52m25.2s	8:55	75	Observatory control software failure; 20min lost
13			alpha Lyr	18h36m56.34s	38d47m01.3s	10:12	66	

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



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



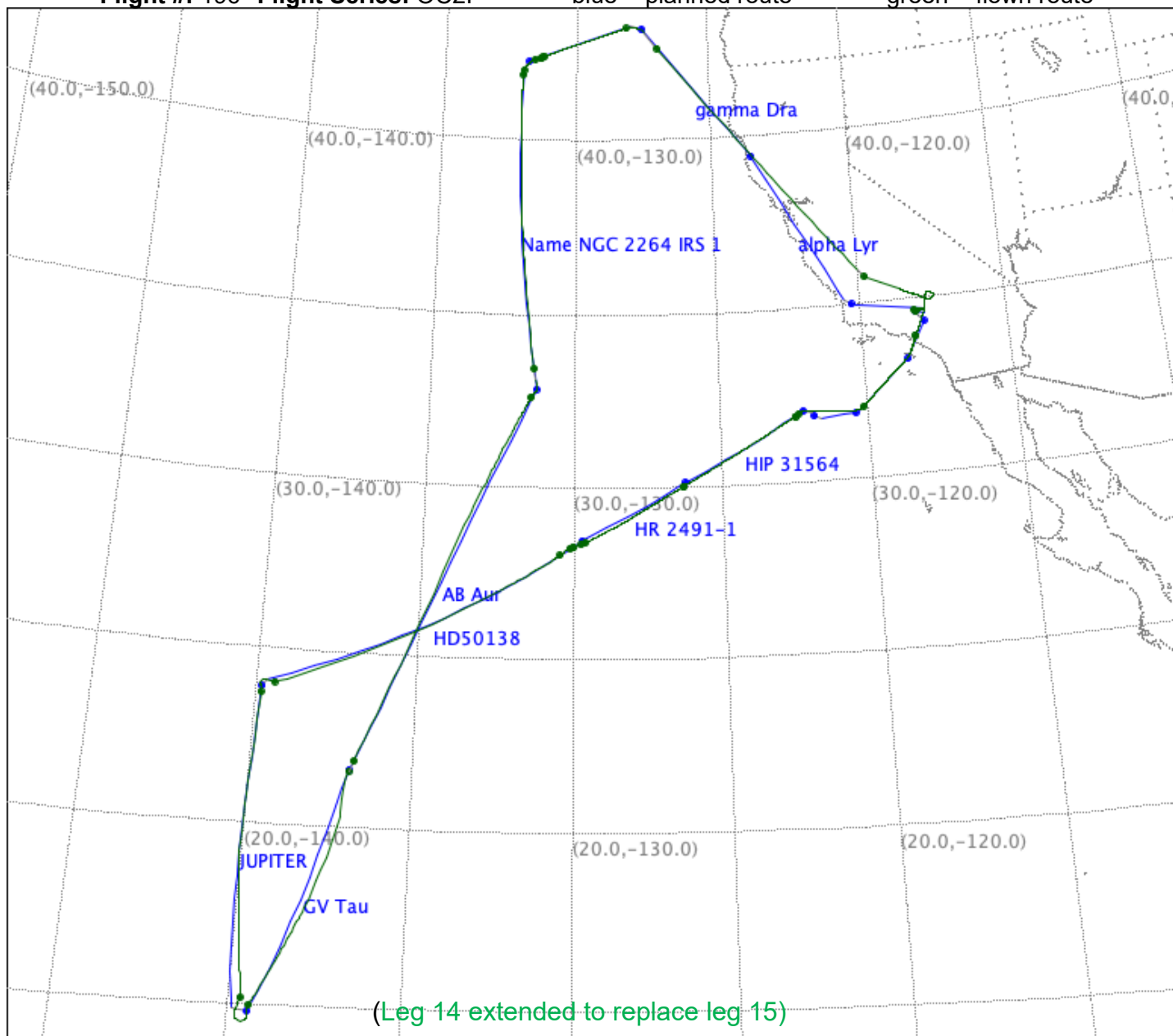
MISSION ID: 2015-02-27_EX_F196

Date: 2015-02-27 UT Instrument: EXES

Flight #: 196 Flight Series: OC2I

blue = planned route

green = flown route



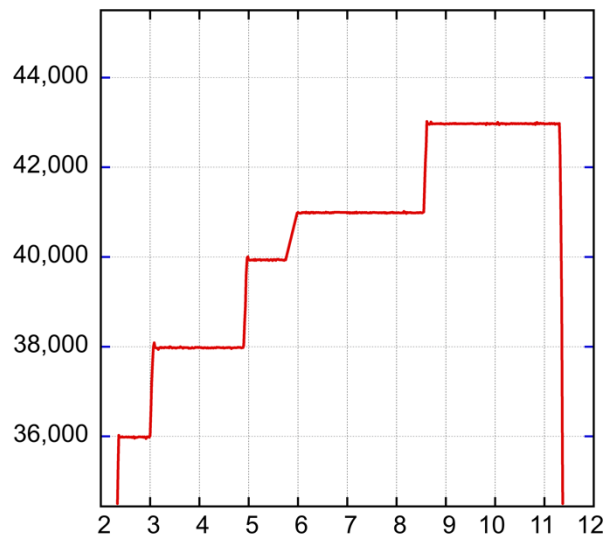
Flight notes:

EXES commissioning flight. Some engineering data and some science data.

Flight 196 Mission ID 2015-02-27_EX_F196
 Palmdale to Palmdale Take off date UTC: 27-FEB-2015
 Departure UTC: 01:57 Arrival UTC: 11:41

Leg	Plan ID	PI Name	Target Name	RA (2000)	Dec (2000)	Start time	Leg time	Leg notes
6			HIP 31564	06h36m22.80s	-18d39m35.4s	2:43	30	
7	03_0067	Goto	HR 2491	06h45m08.92s	-16d42m58.0s	3:13	26	
8	02_0079	Pontoppidan	HD50138	06h51m33.40s	-06d57m59.4s	3:39	75	
9	03_0035	Fouchet	JUPITER	09h10m23.87s	17d19m25.0s	4:56	67	
10	86_0005	Commissioning	GV Tau	04h29m23.73s	24d33m00.3s	6:08	54	Acquisition and guiding problems; 14min lost
11	02_0079	Pontoppidan	AB Aur	04h55m45.85s	30d33m04.3s	7:02	92	
12	03_0067	Goto	Name NGC 2264 IRS 1	06h41m10.06s	09d29m35.8s	8:35	75	
14	86_0005	Commissioning	gamma Dra	17h56m36.37s	51d29m20.0s	10:15	30	Extended into next leg.
15			alpha Lyr	18h36m56.34s	38d47m01.3s	10:45	32	No data.

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



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

