

PRELIMINARY REPORT OF 061211

last update on Mon Dec 11 17:00:23 GMT 2006

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-12-10 00:00:00 to 2006-12-11 17:00:23

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	44	45	40	8	23
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	44	45	40	8	23
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	45	40	8	23
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	45	40	8	23

2.3 - Browse Visual Inspection

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20061210 053213
H	20061211 050036

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
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☒	
☒	
☒	
☒	

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.962617	0.008188	-0.003924
7	P1	-3.154890	0.024415	0.004649
11	P1	-4.130534	0.025368	0.011441
15	P1	-6.311075	0.015055	-0.047481
19	P1	-3.628669	0.006317	-0.071523
22	P1	-4.652597	0.013200	-0.014779
26	P1	-3.951906	0.010306	-0.023907
30	P1	-5.879621	0.009406	-0.048405
3	P1	-16.525219	0.241938	-0.023004
7	P1	-17.297302	0.183390	-0.039719
11	P1	-17.200235	0.457562	-0.004115
15	P1	-13.070191	0.135536	-0.005999
19	P1	-14.950891	0.092486	-0.126095
22	P1	-15.851214	0.532773	0.030006
26	P1	-15.056186	0.194017	-0.099306
30	P1	-17.512178	0.475162	-0.080524

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.828474	0.094286	0.056799
7	P2	-21.733406	0.096287	-0.008723
11	P2	-15.625369	0.104776	0.117447
15	P2	-7.123160	0.108783	0.000202
19	P2	-9.193120	0.107510	-0.007885
22	P2	-18.239468	0.099495	-0.010929
26	P2	-16.570681	0.114832	-0.064247
30	P2	-19.469891	0.090028	0.026274

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.246031	0.008694	-0.010481
7	P3	-8.246031	0.008694	-0.010481
11	P3	-8.246031	0.008694	-0.010481

15	P3	-8.246031	0.008694	-0.010481
19	P3	-8.246031	0.008694	-0.010481
22	P3	-8.246031	0.008694	-0.010481
26	P3	-8.246061	0.008697	-0.010415
30	P3	-8.246061	0.008697	-0.010415

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.912115	0.016200	-0.028671
7	P1	-2.488914	0.030507	0.029696
11	P1	-2.851909	0.016763	-0.008463
15	P1	-3.682266	0.032855	-0.005598
19	P1	-3.533402	0.016953	-0.048744
22	P1	-5.031810	0.022162	0.016218
26	P1	-6.014932	0.025862	-0.064986
30	P1	-5.333003	0.037478	-0.071086
3	P1	-11.731474	0.080827	-0.062397
7	P1	-10.051912	0.095520	-0.040090
11	P1	-10.327072	0.127827	-0.031002
15	P1	-10.721297	0.127921	0.070105
19	P1	-15.711422	0.104905	-0.088216
22	P1	-21.534166	1.414316	-0.303821
26	P1	-16.064135	0.320817	-0.098715
30	P1	-17.894121	0.369816	0.067892

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.469543	0.105714	-0.032694
7	P2	-22.236307	0.230652	-0.033747
11	P2	-10.926541	0.128007	0.079248
15	P2	-4.980325	0.227798	-0.069781
19	P2	-6.958457	0.221292	-0.054523
22	P2	-8.256046	0.136275	-0.019520
26	P2	-24.327917	0.175478	0.014607
30	P2	-21.954498	0.148316	-0.012122

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091420	0.003937	-0.018041
7	P3	-8.091414	0.003937	-0.017996
11	P3	-8.091460	0.003939	-0.017818
15	P3	-8.091315	0.003933	-0.017819
19	P3	-8.091471	0.003934	-0.017618
22	P3	-8.091383	0.003929	-0.018092
26	P3	-8.091380	0.003935	-0.017704
30	P3	-8.091252	0.003940	-0.017653

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel stat DSS-B

MEAN I	mean	0.000548595
	stdev	1.76244e-07
MEAN Q	mean	0.000512246
	stdev	2.18591e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137639
	stdev	0.00117247
STDEV Q	mean	0.138016
	stdev	0.00119161



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006121[901]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
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7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

✘
Ascending
✘
Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

✘
Ascending
✘
Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

✘

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

✘
Ascending
✘
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

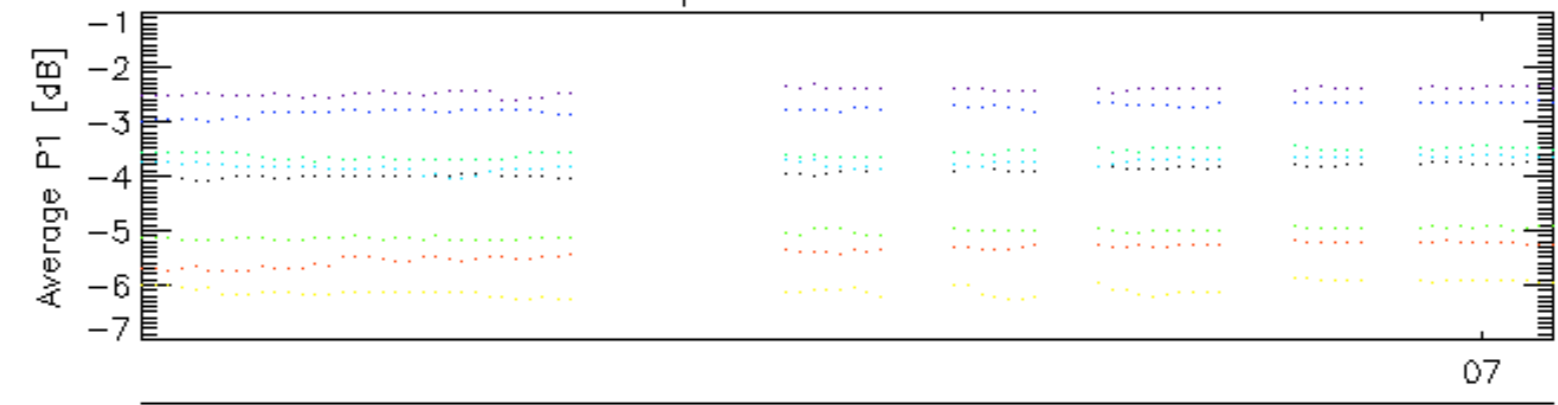
Ascending

Descending

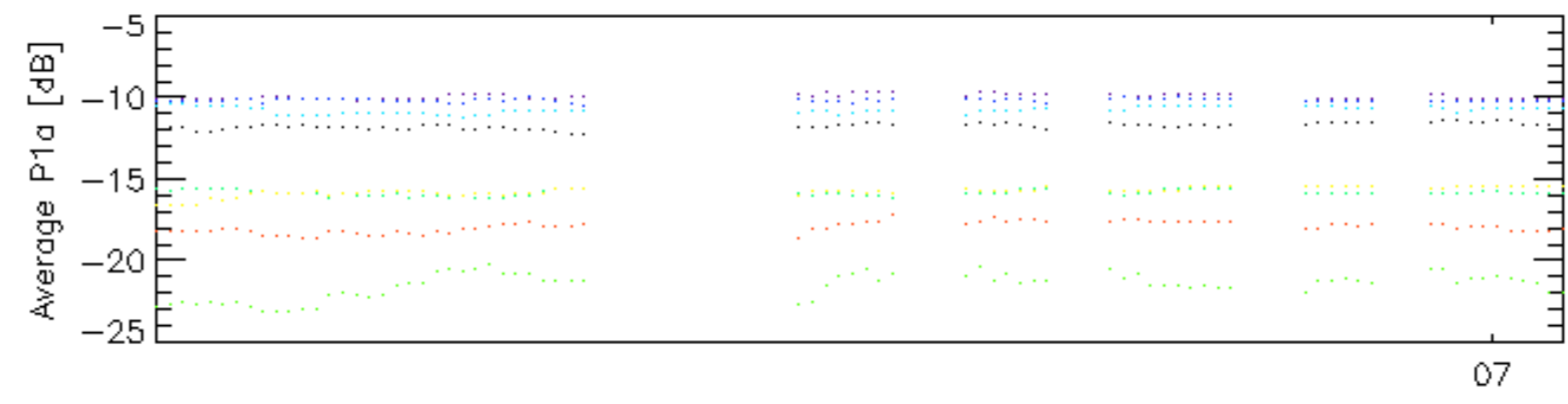
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

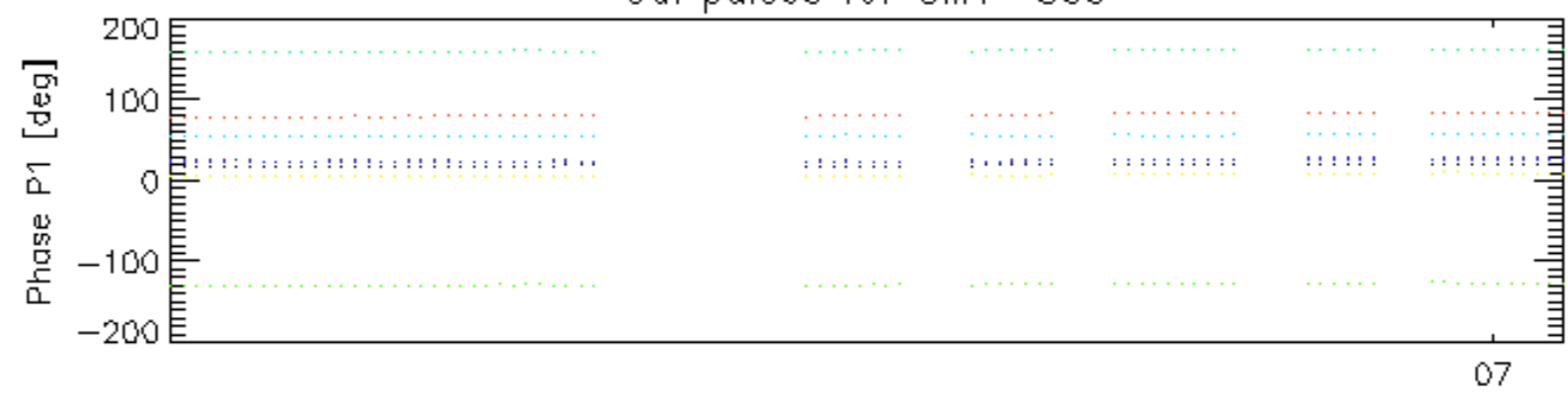


10-Dec

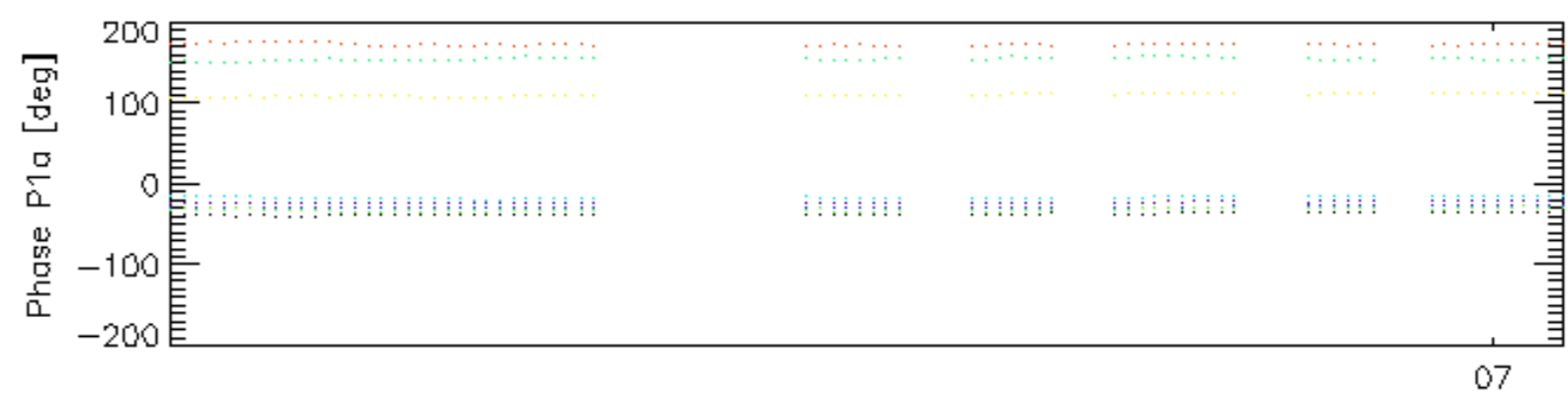


10-Dec

Cal pulses for GM1 SS3

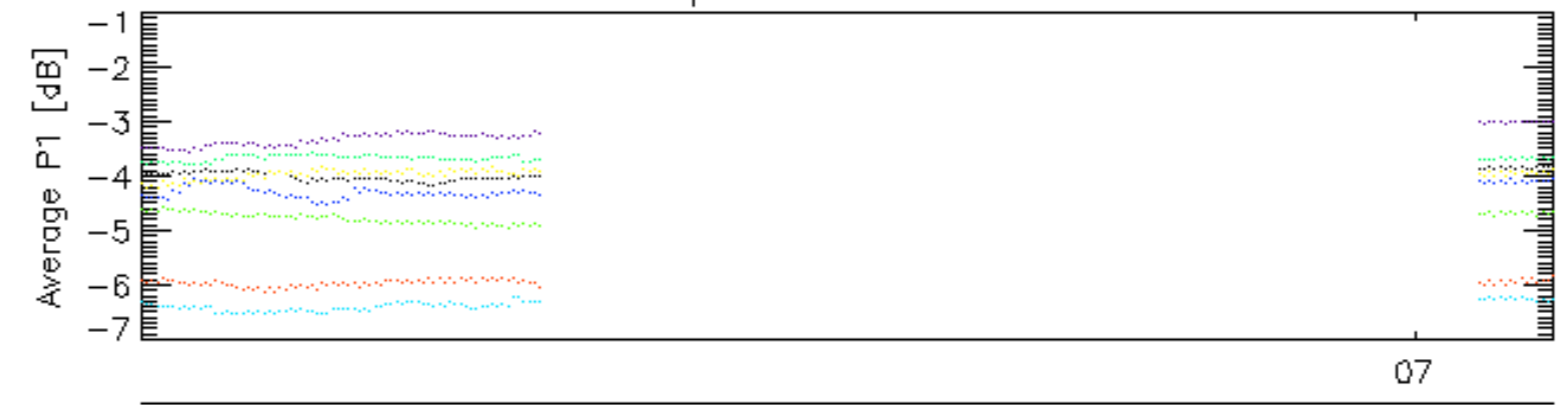


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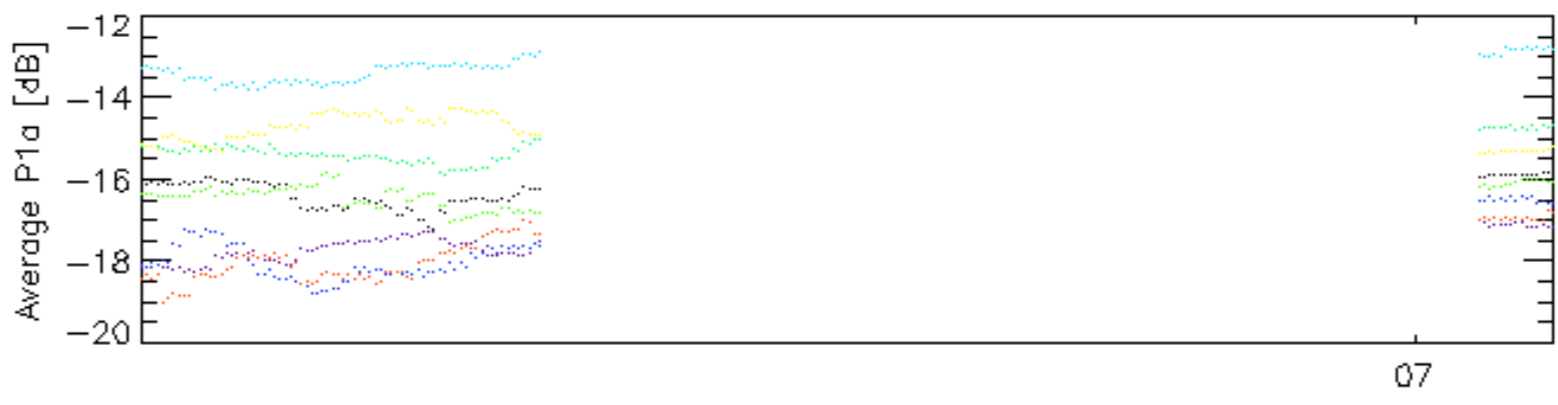


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{10-Dec} _ 26 _ 30

Cal pulses for WVS IS2

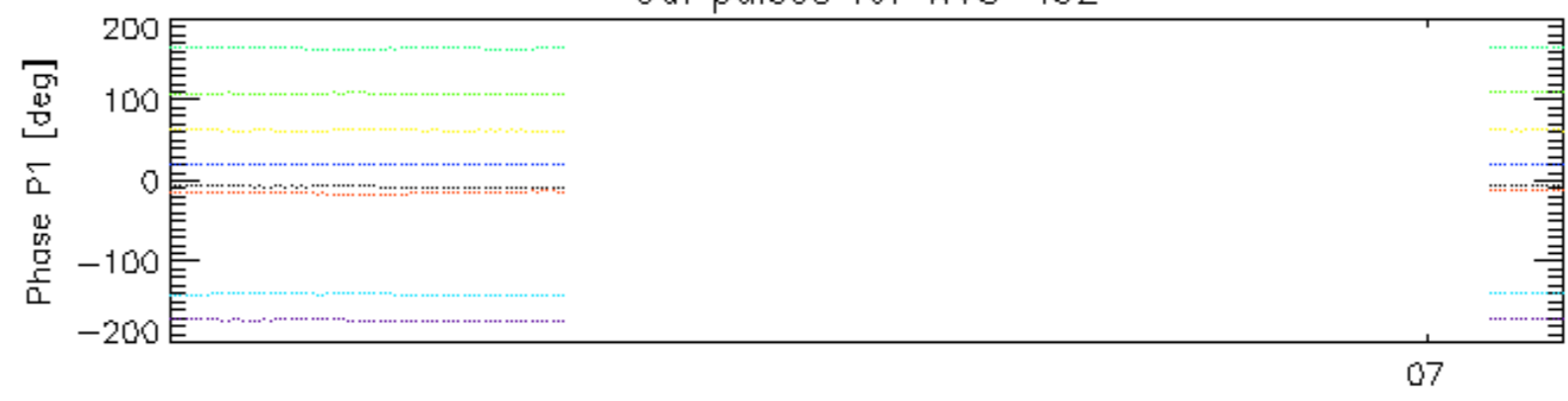


10-Dec

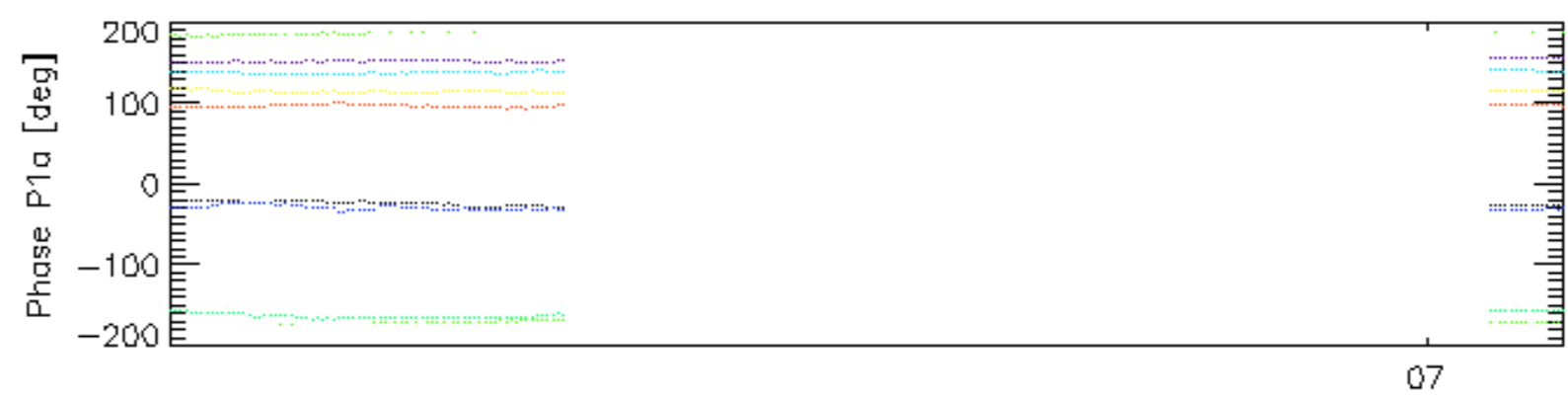


10-Dec

Cal pulses for WVS IS2

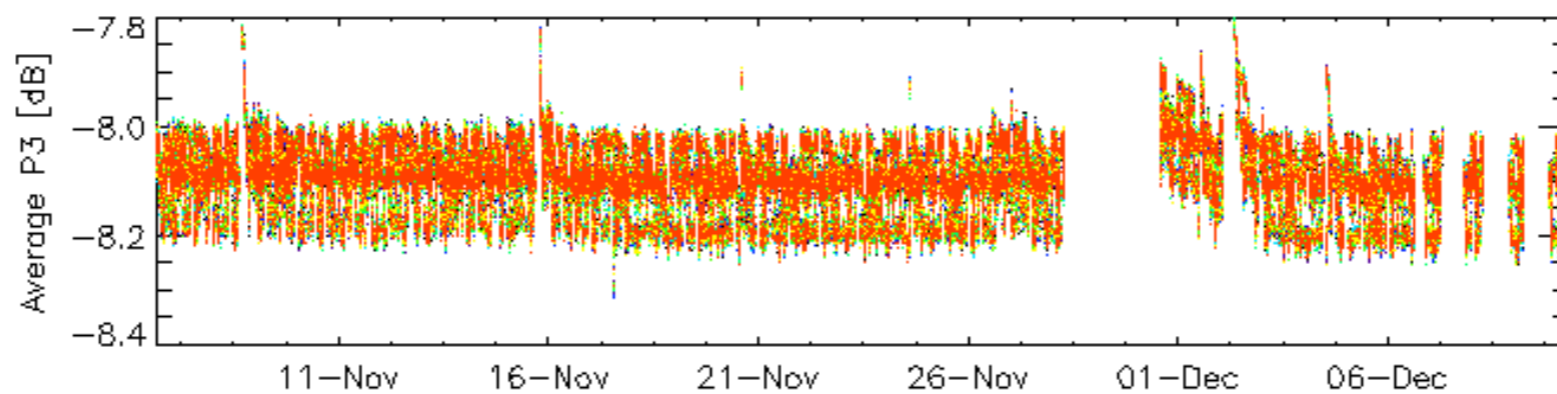
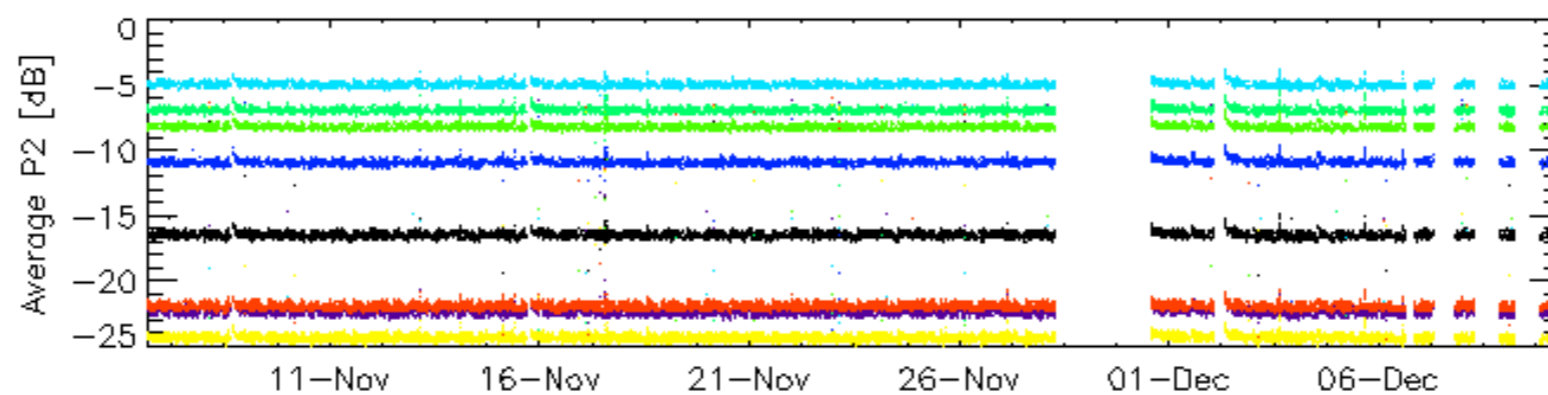
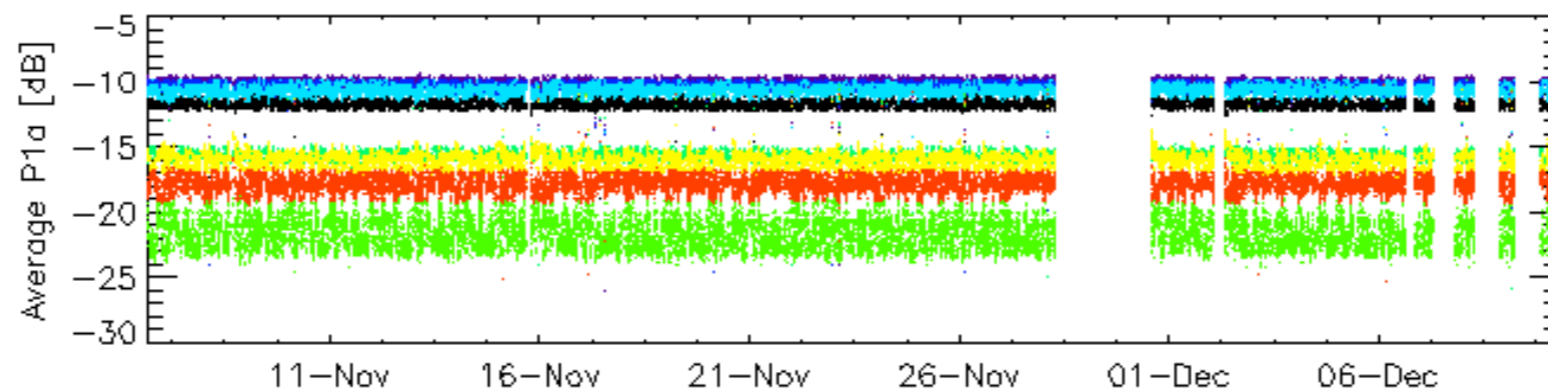
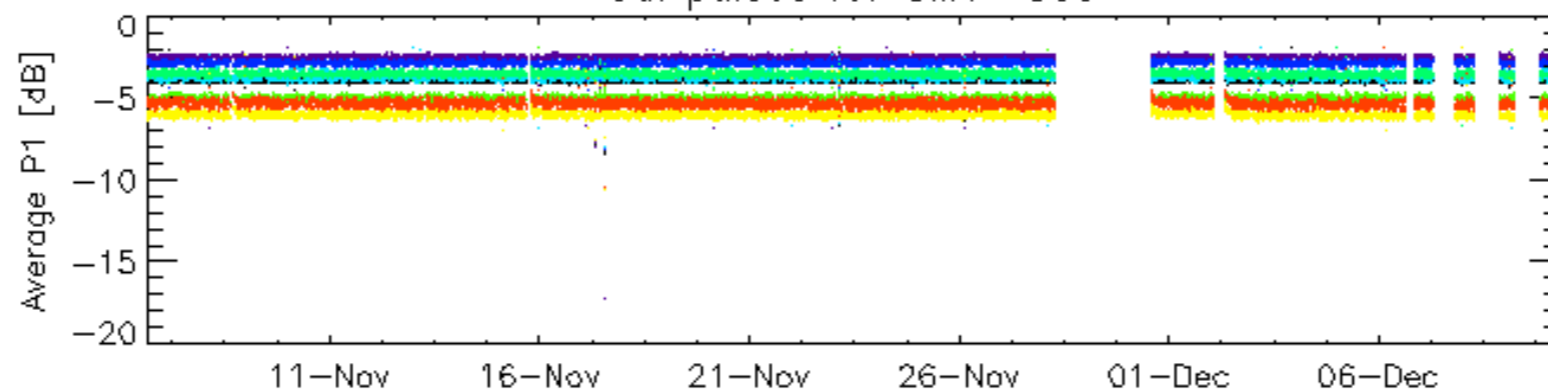


10-Dec



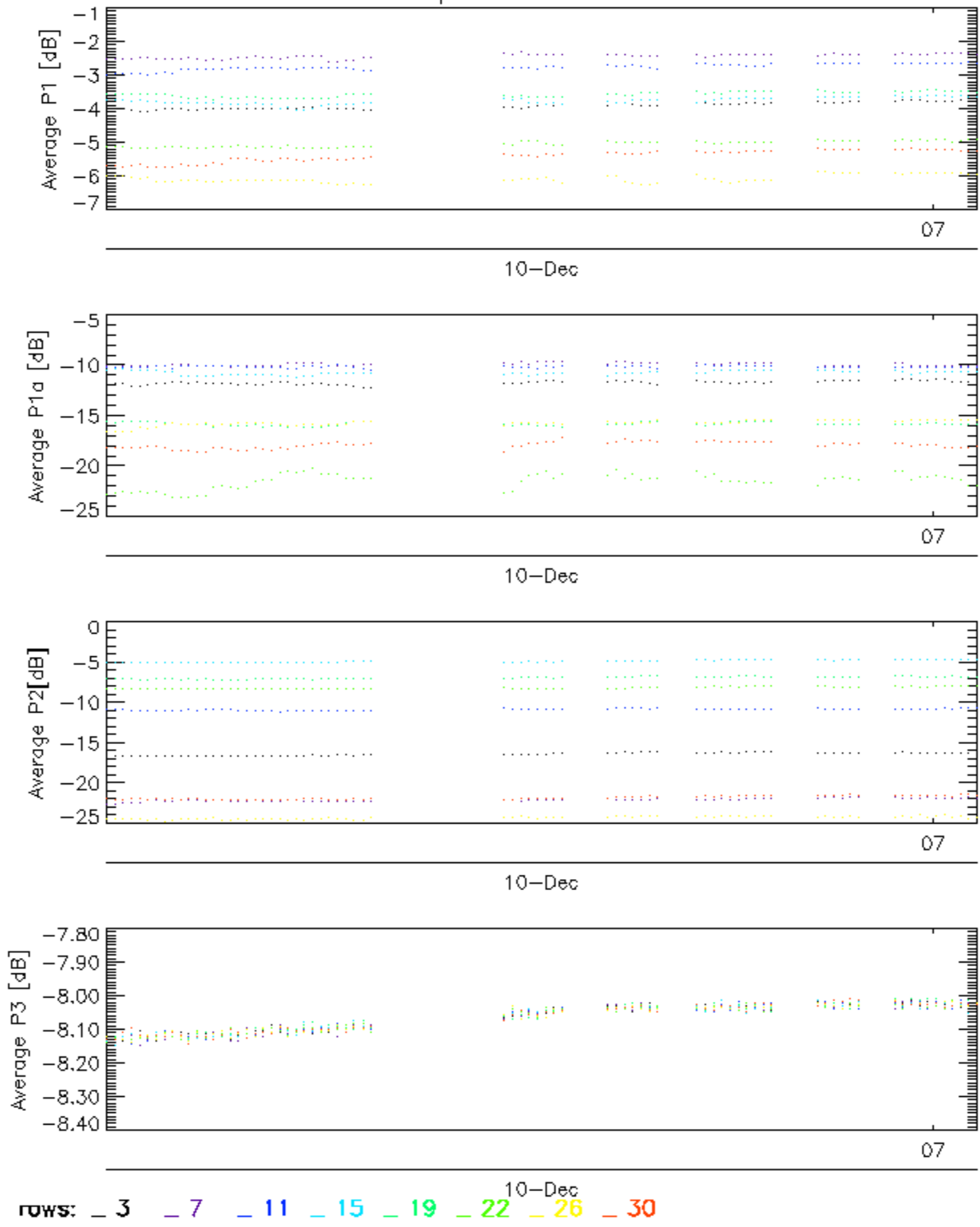
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{10-Dec} _ 26 _ 30

Cal pulses for GM1 SS3

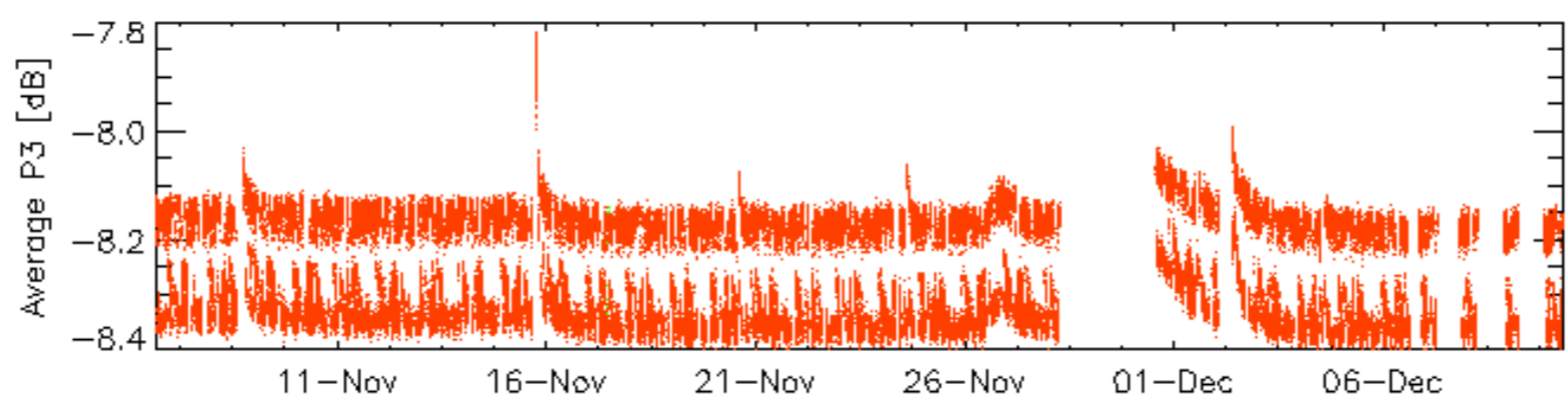
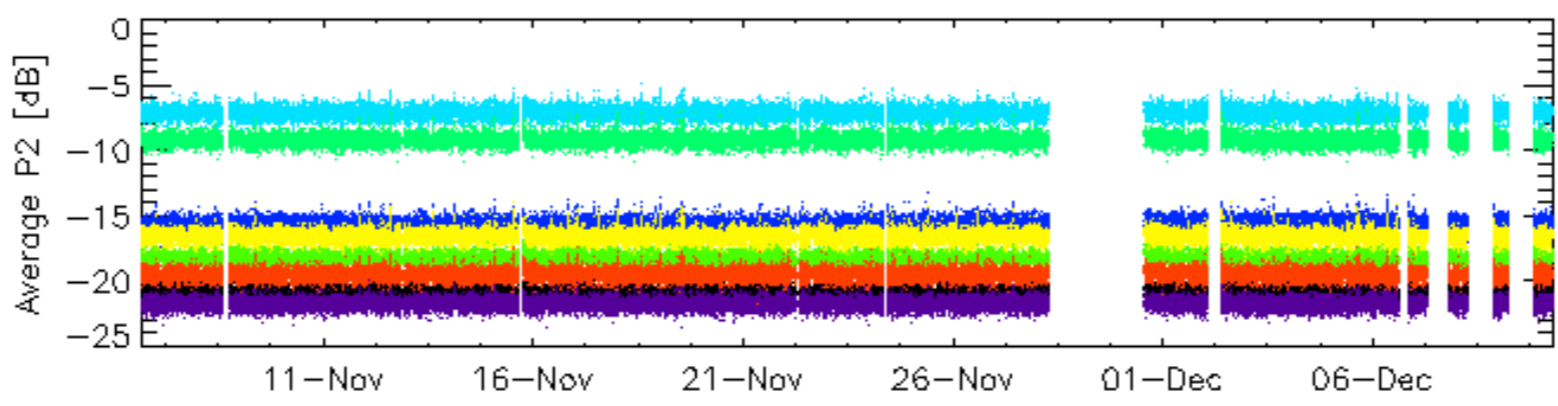
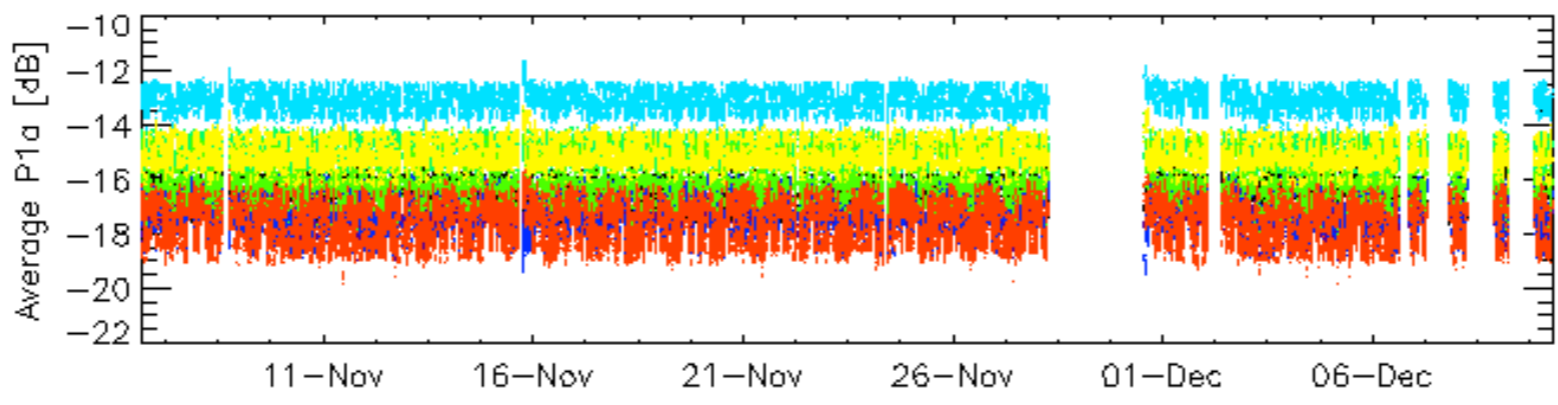
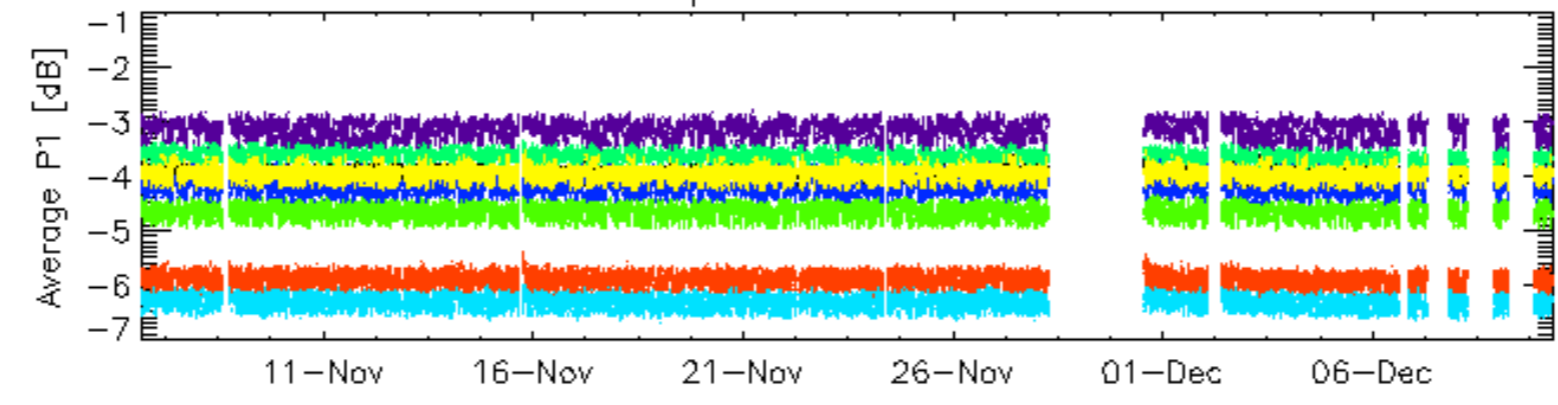


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

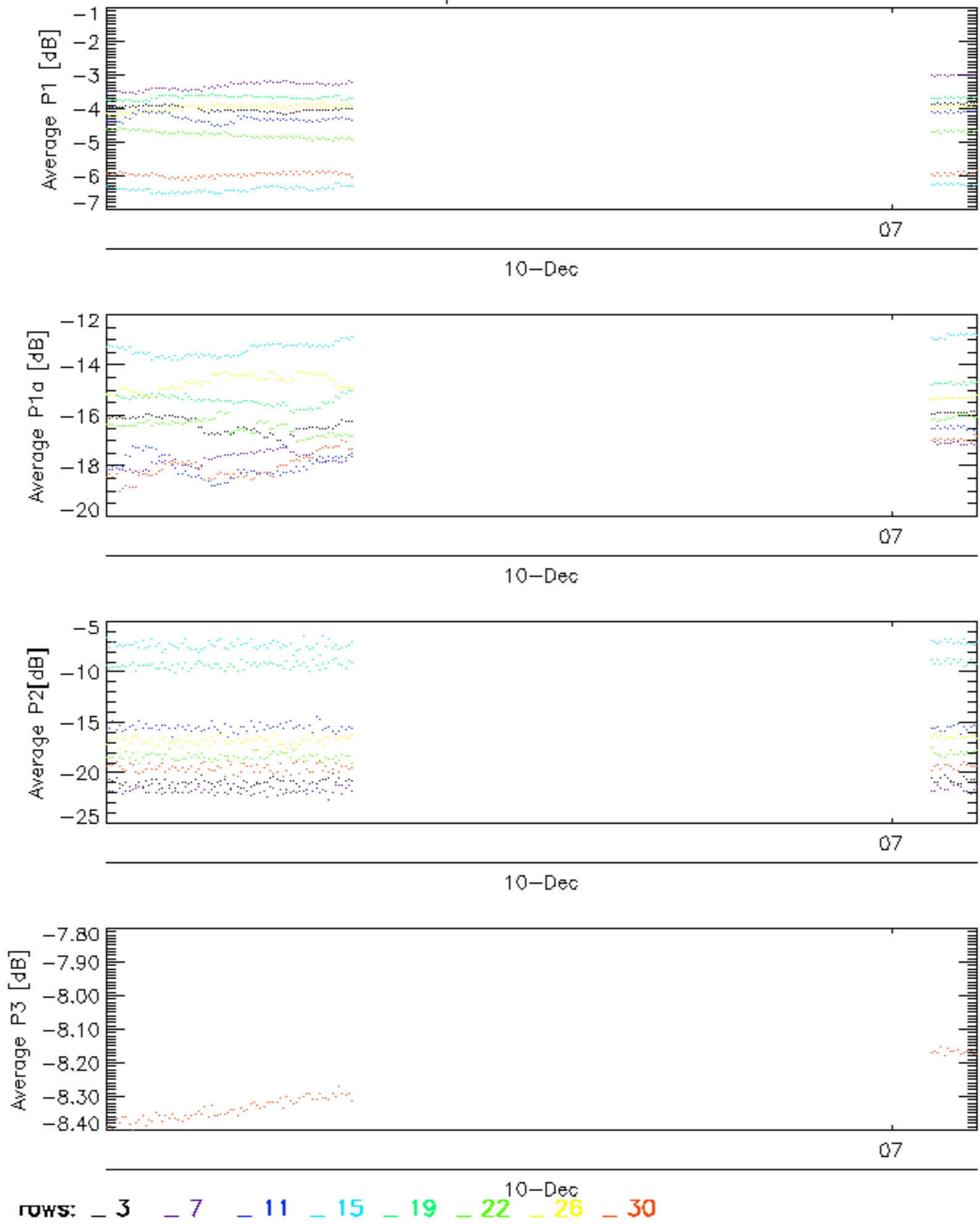


Cal pulses for WVS IS2

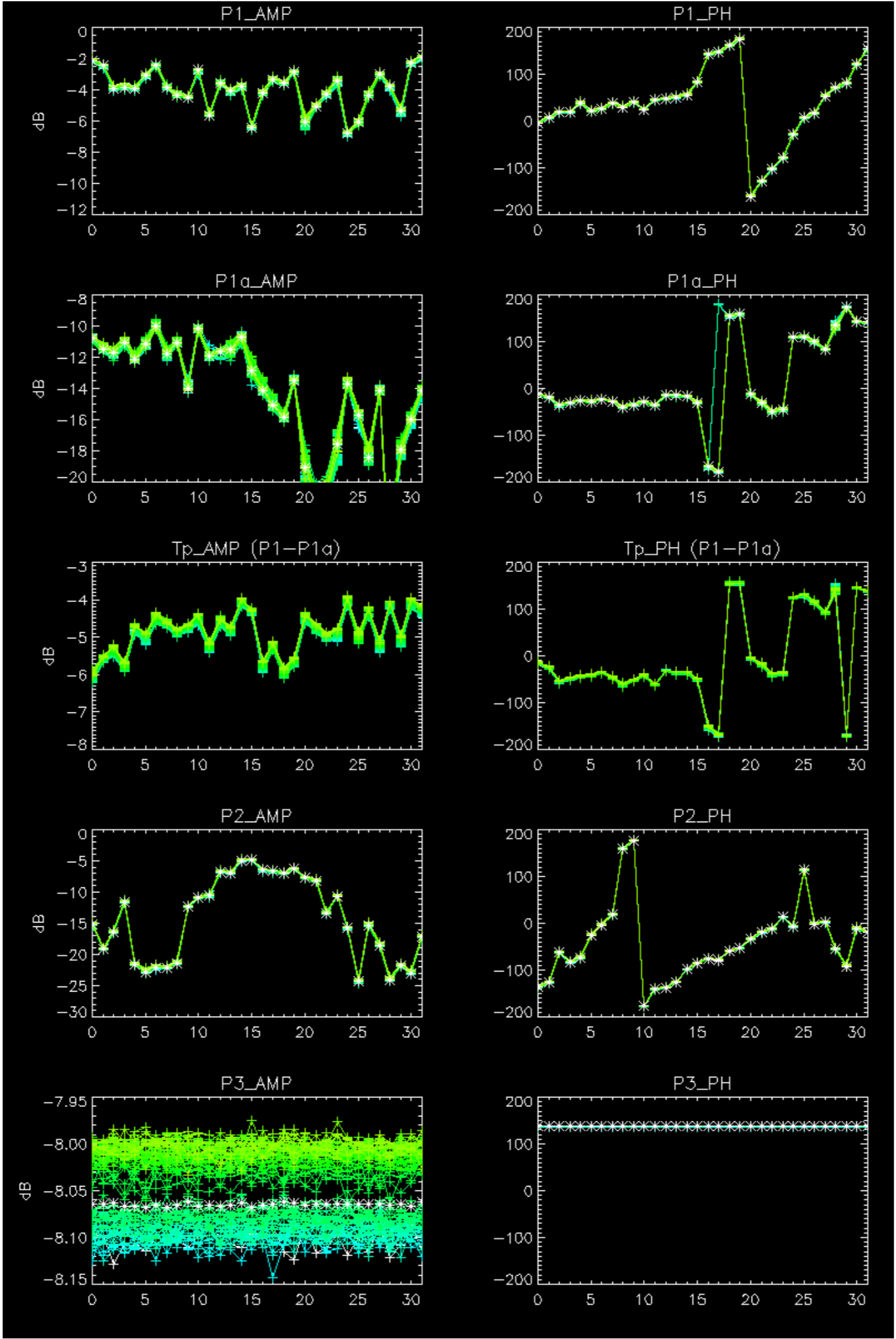


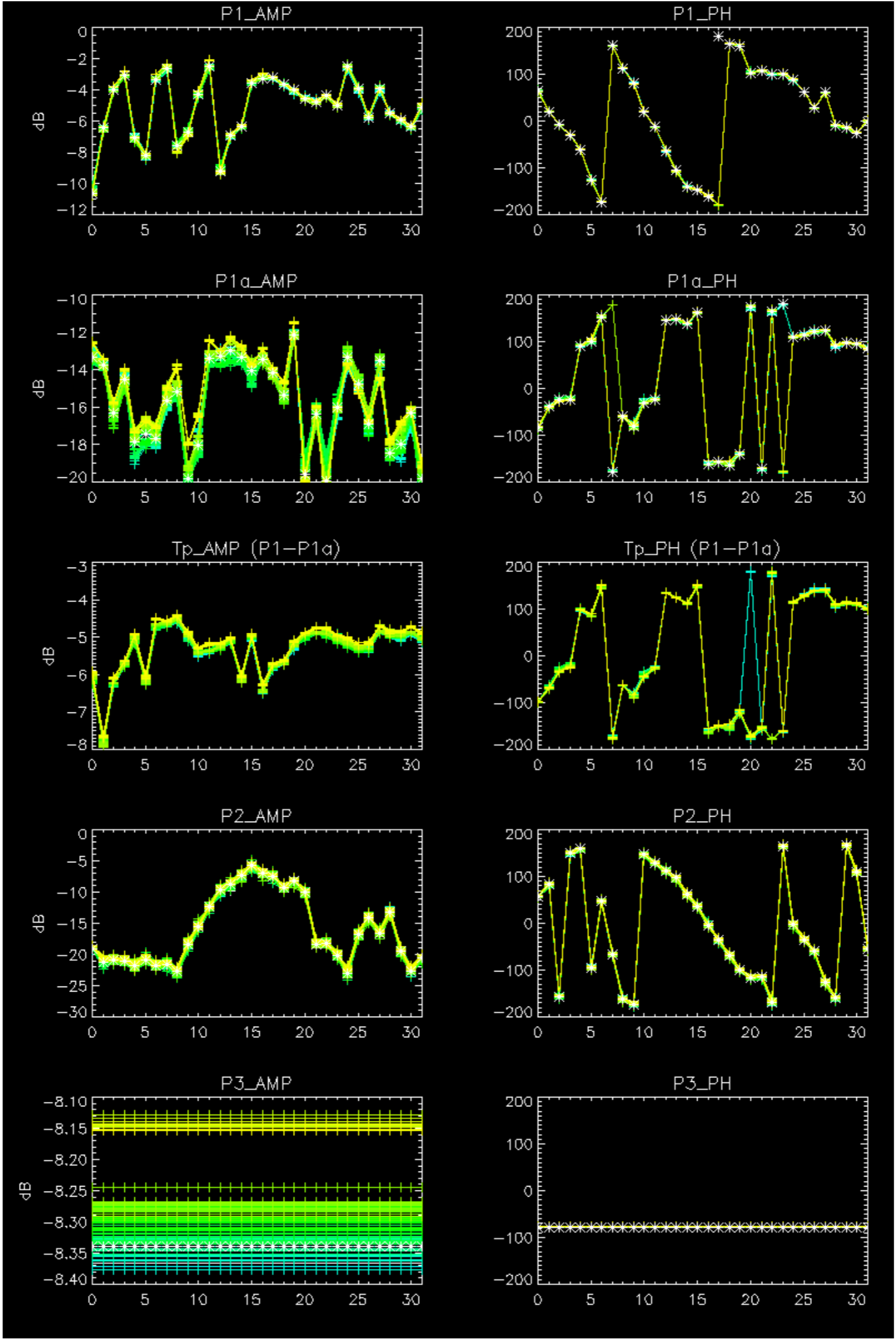
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



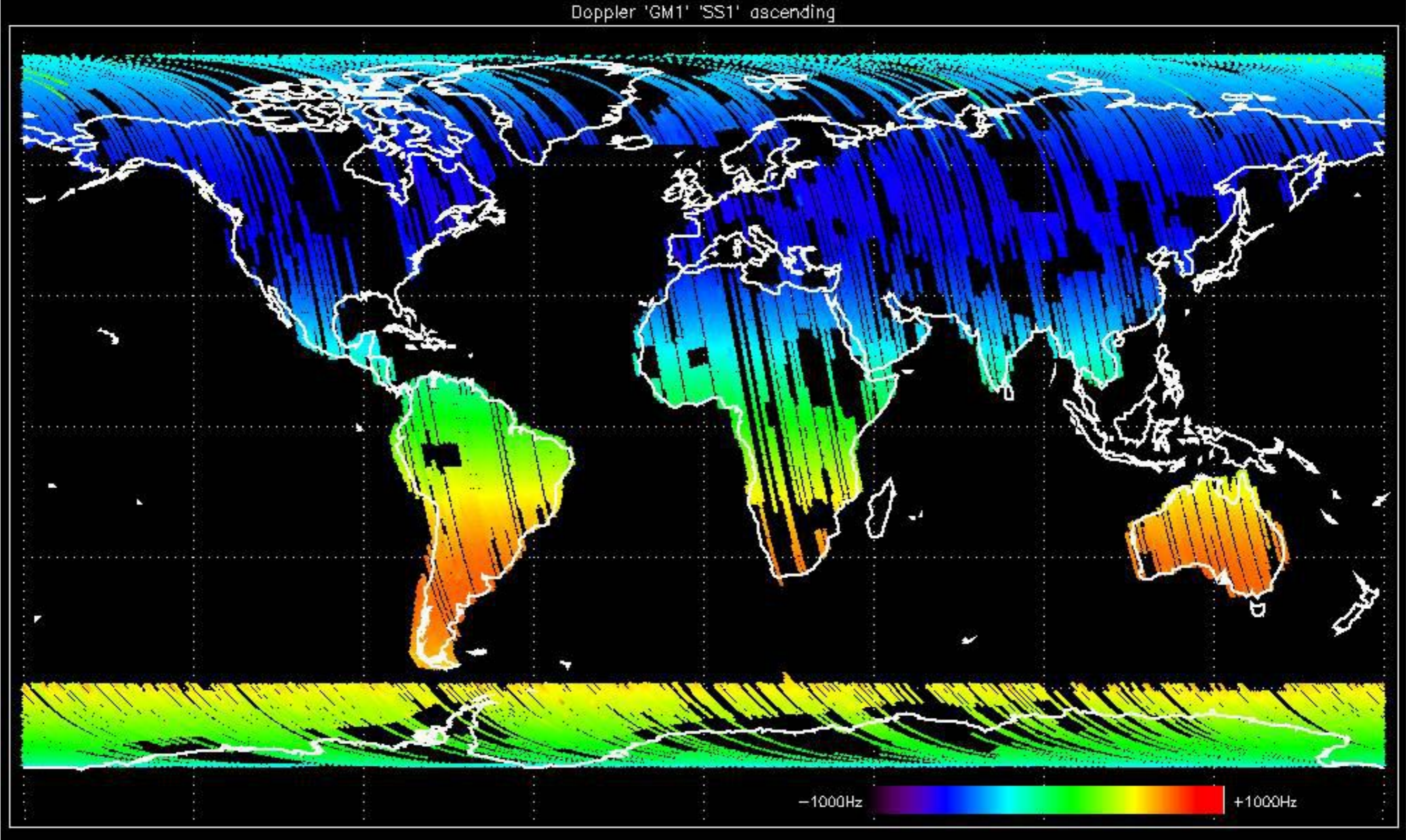
No anomalies observed.



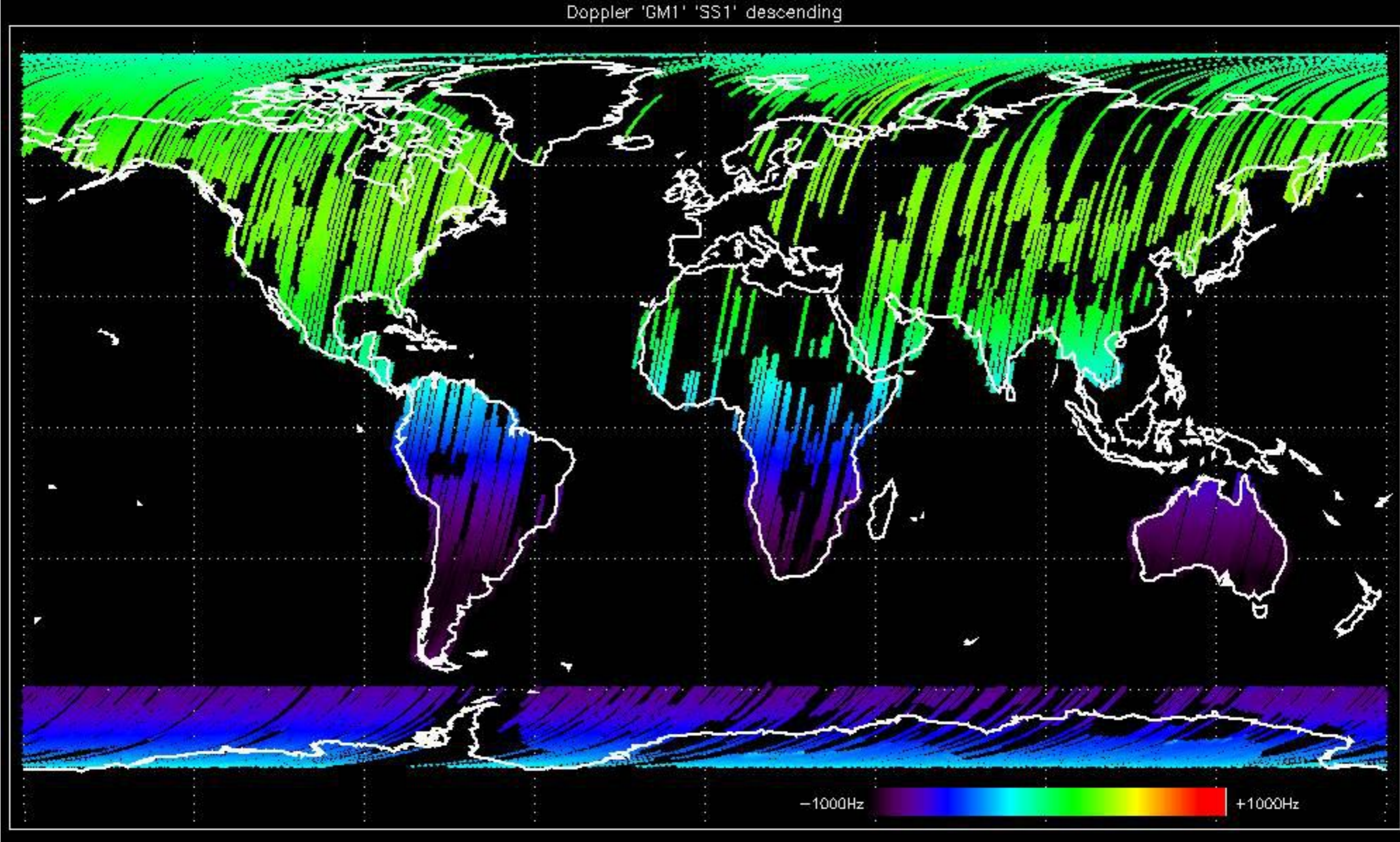


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

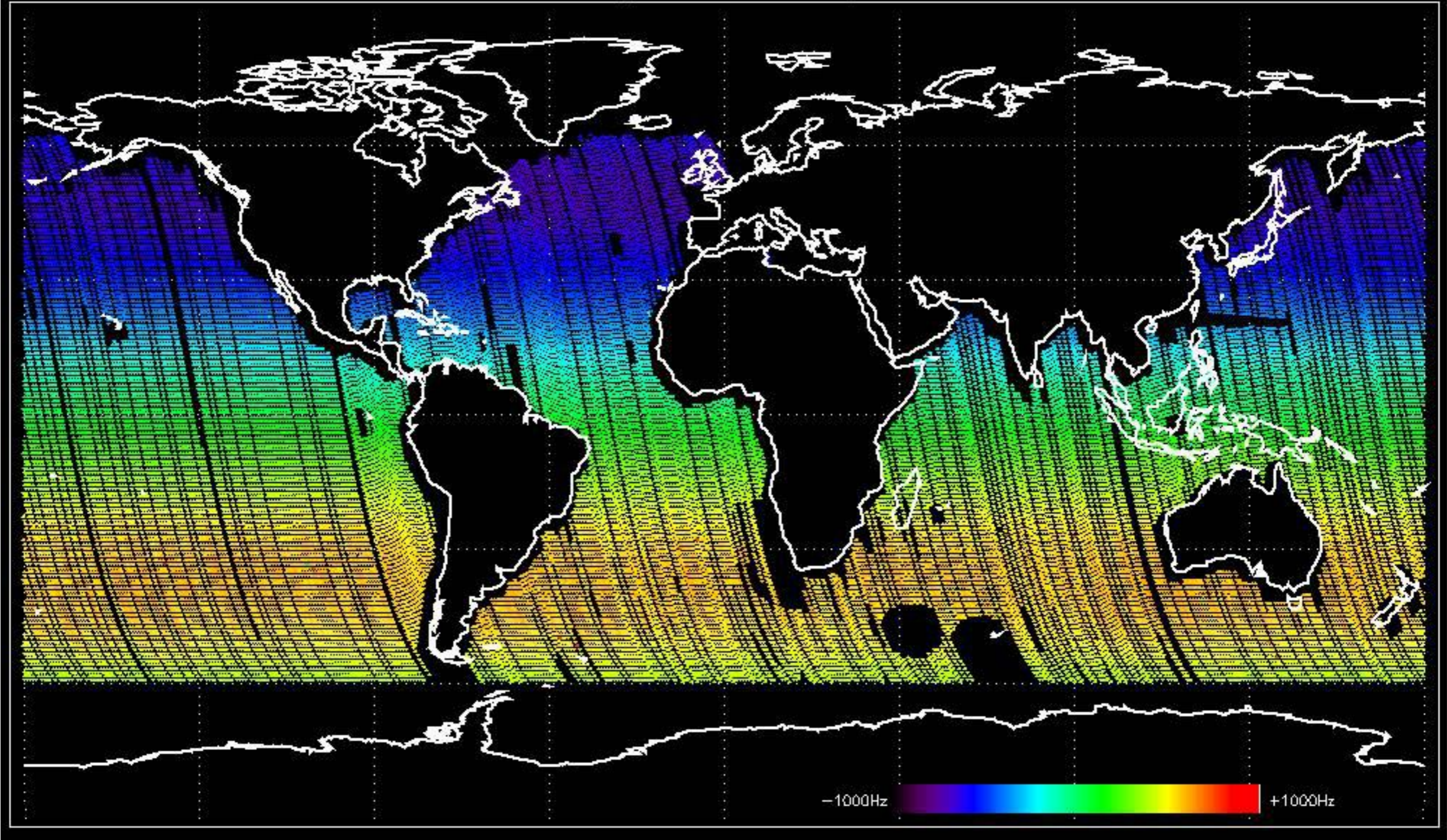
Doppler 'GM1' 'SS1' ascending



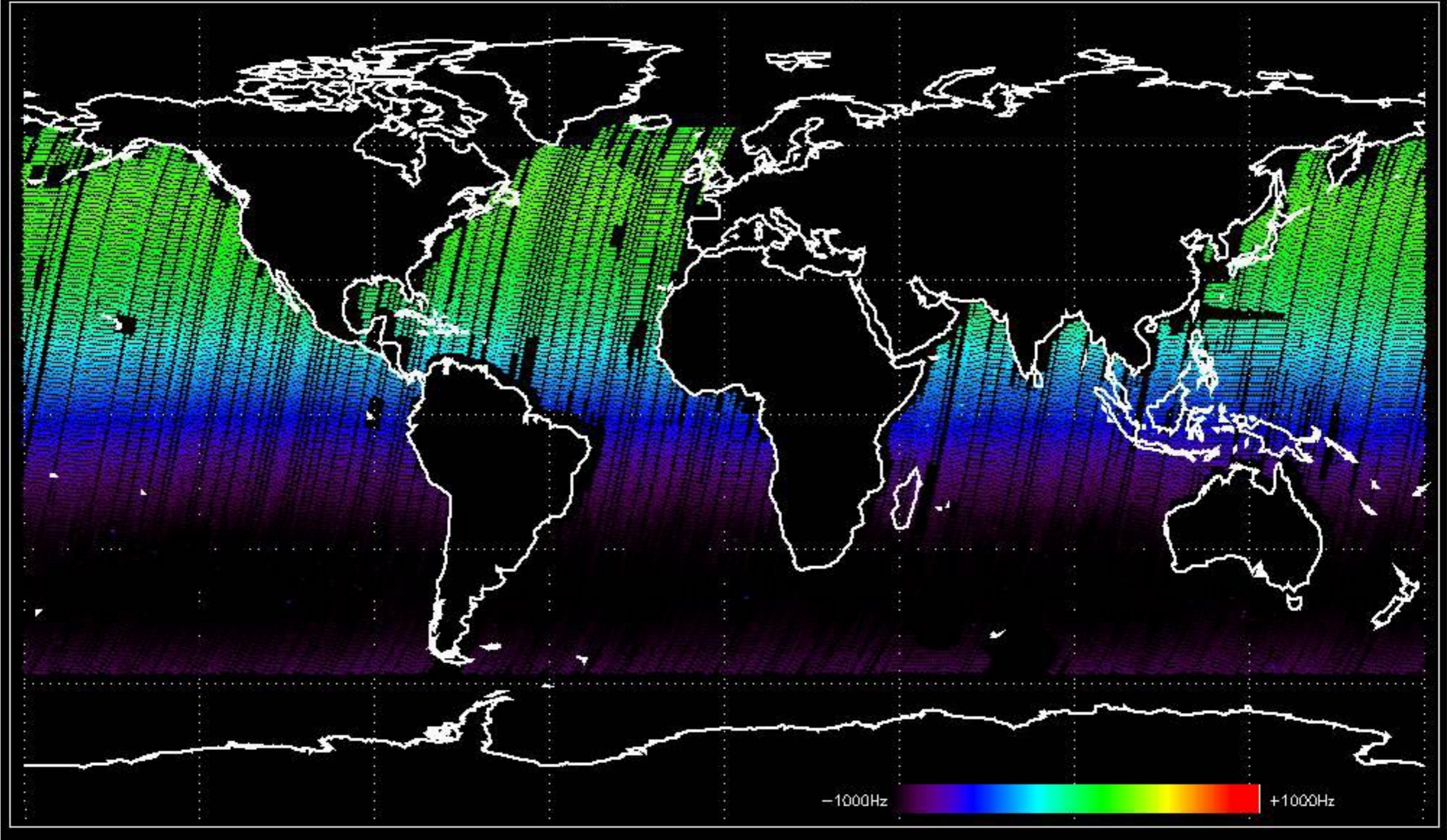
Doppler 'GM1' 'SS1' descending



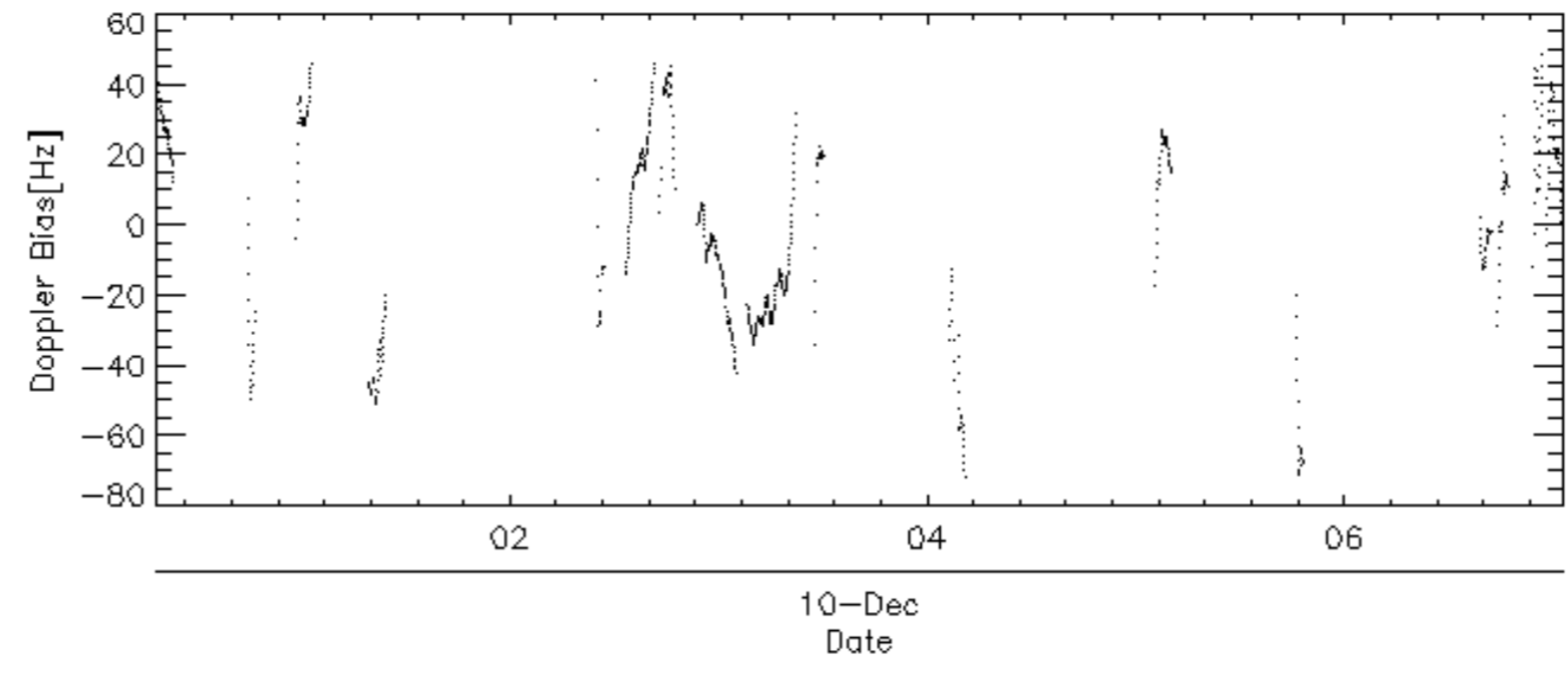
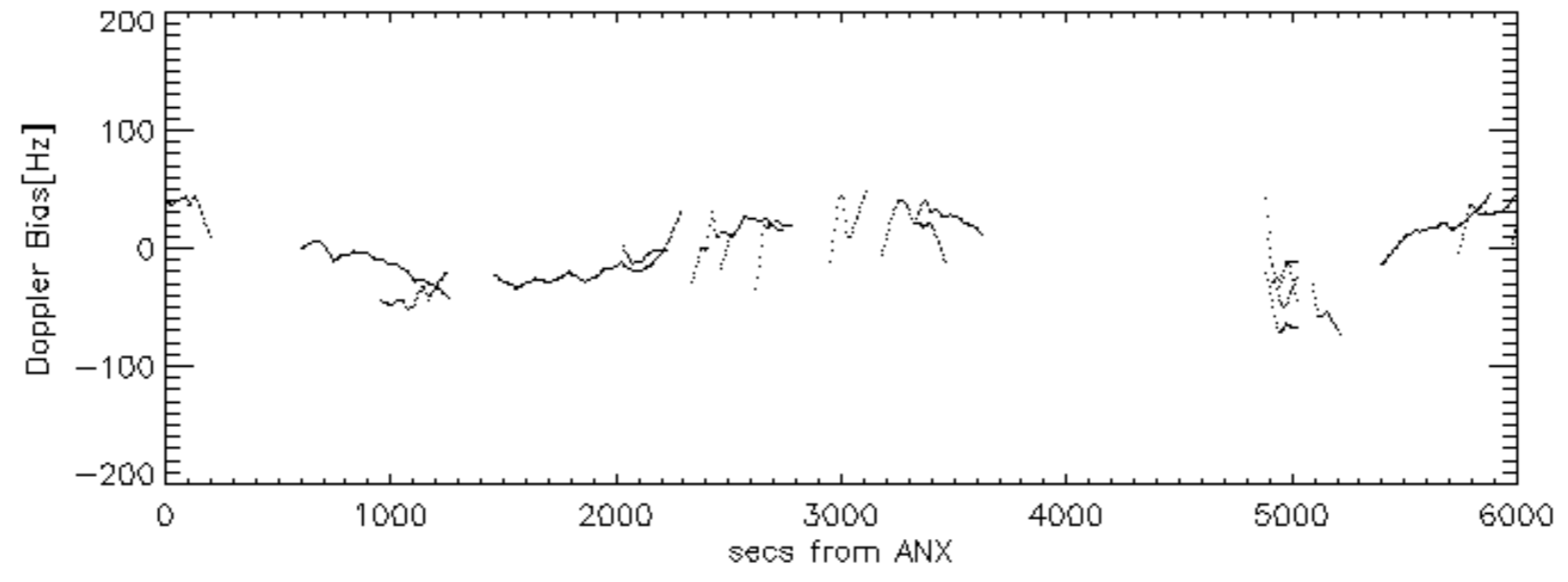
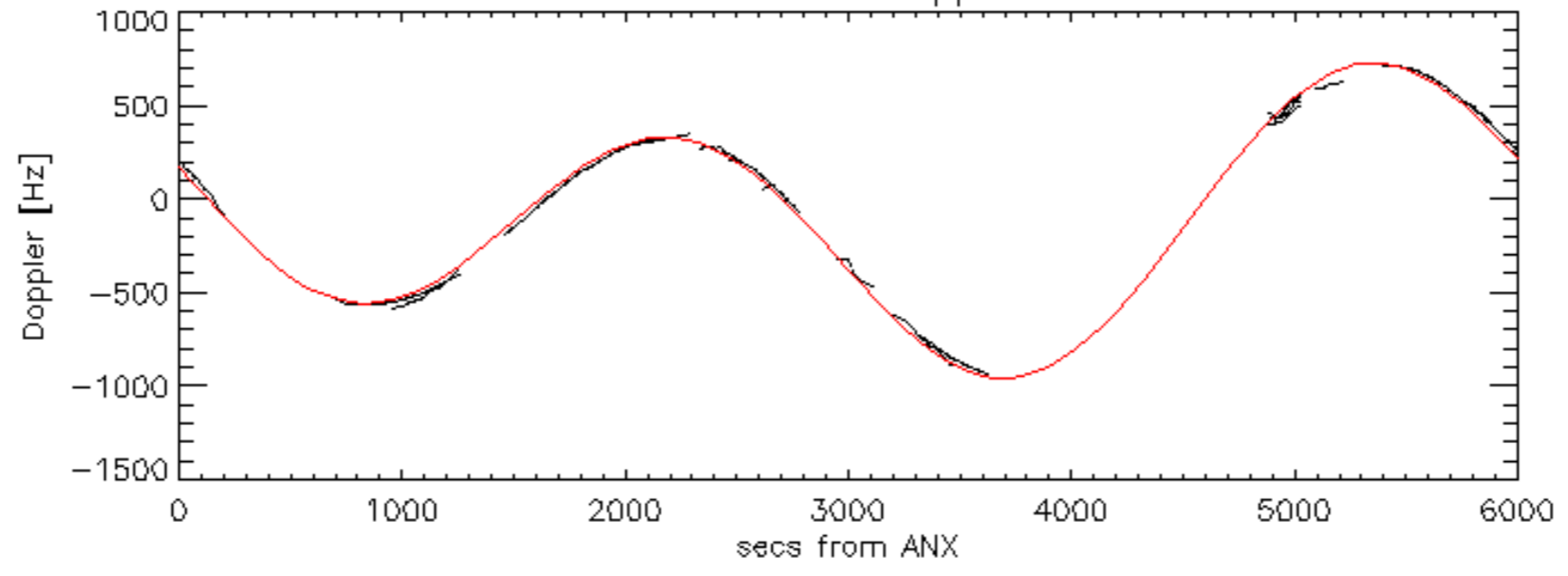
Doppler 'WVS' 'IS2' ascending

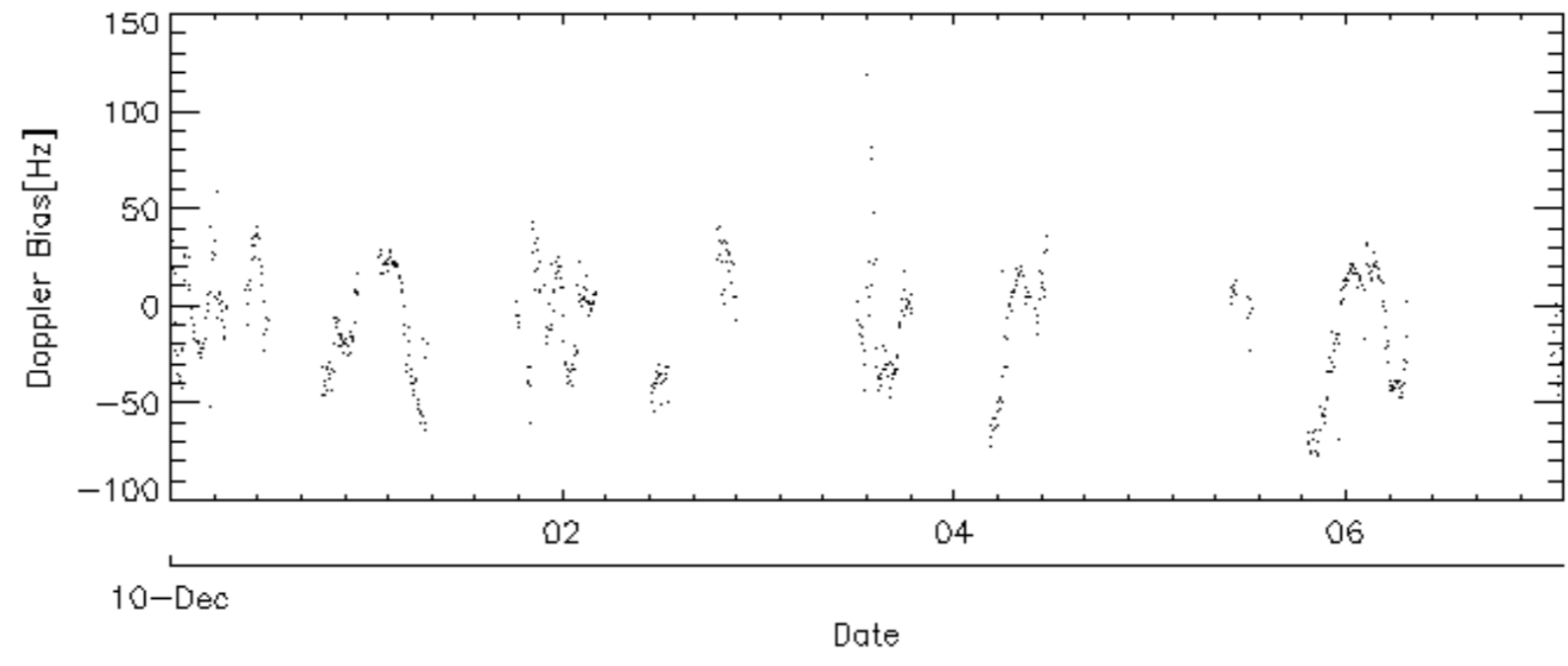
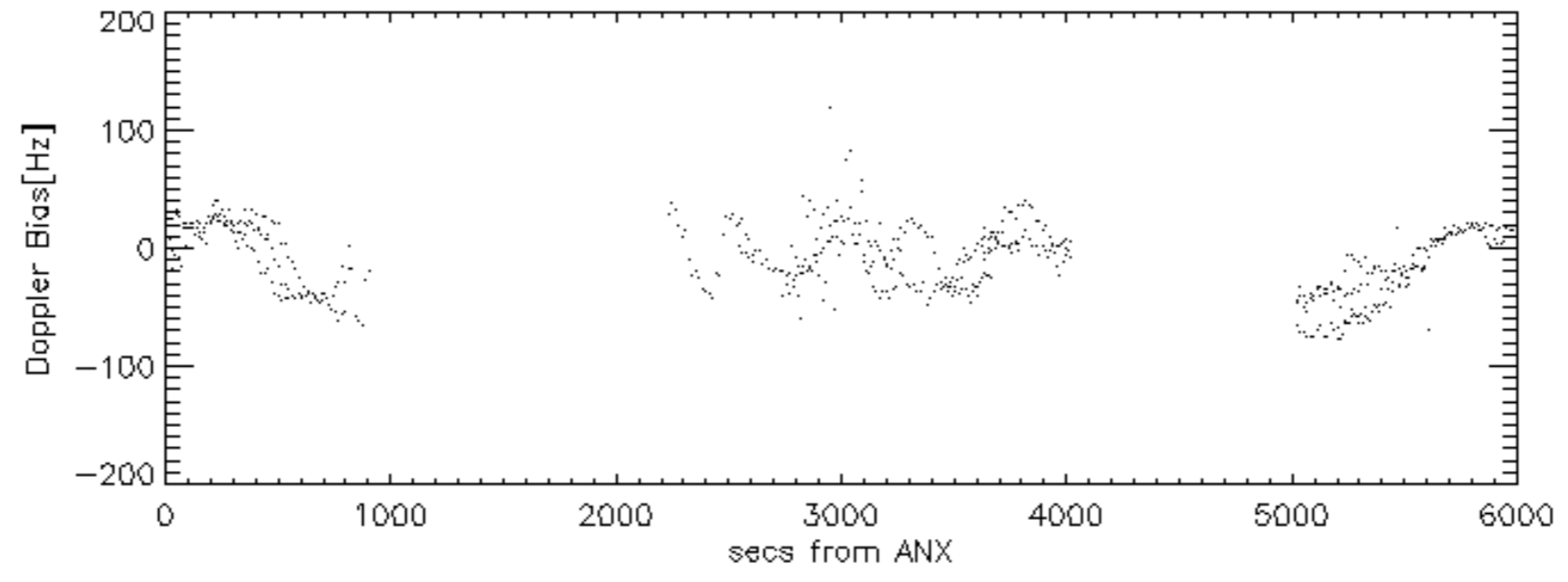
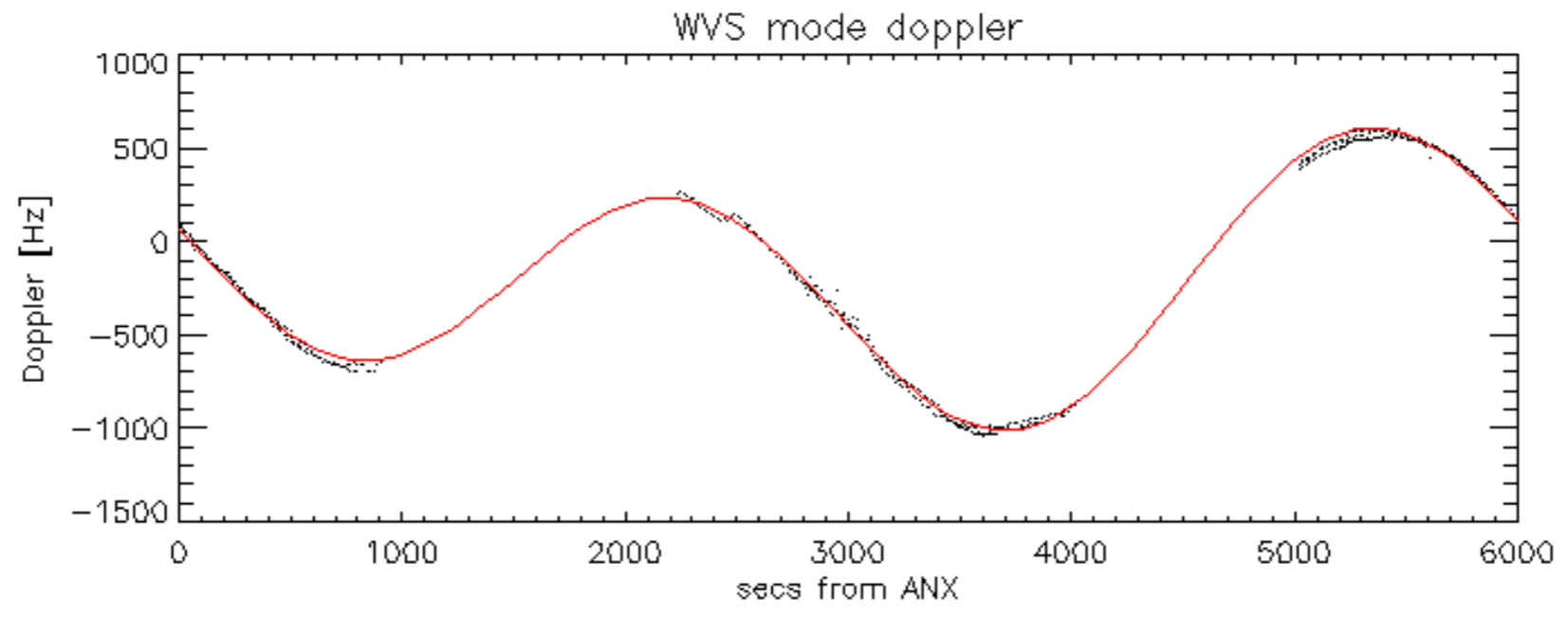


Doppler 'WVS' 'IS2' descending

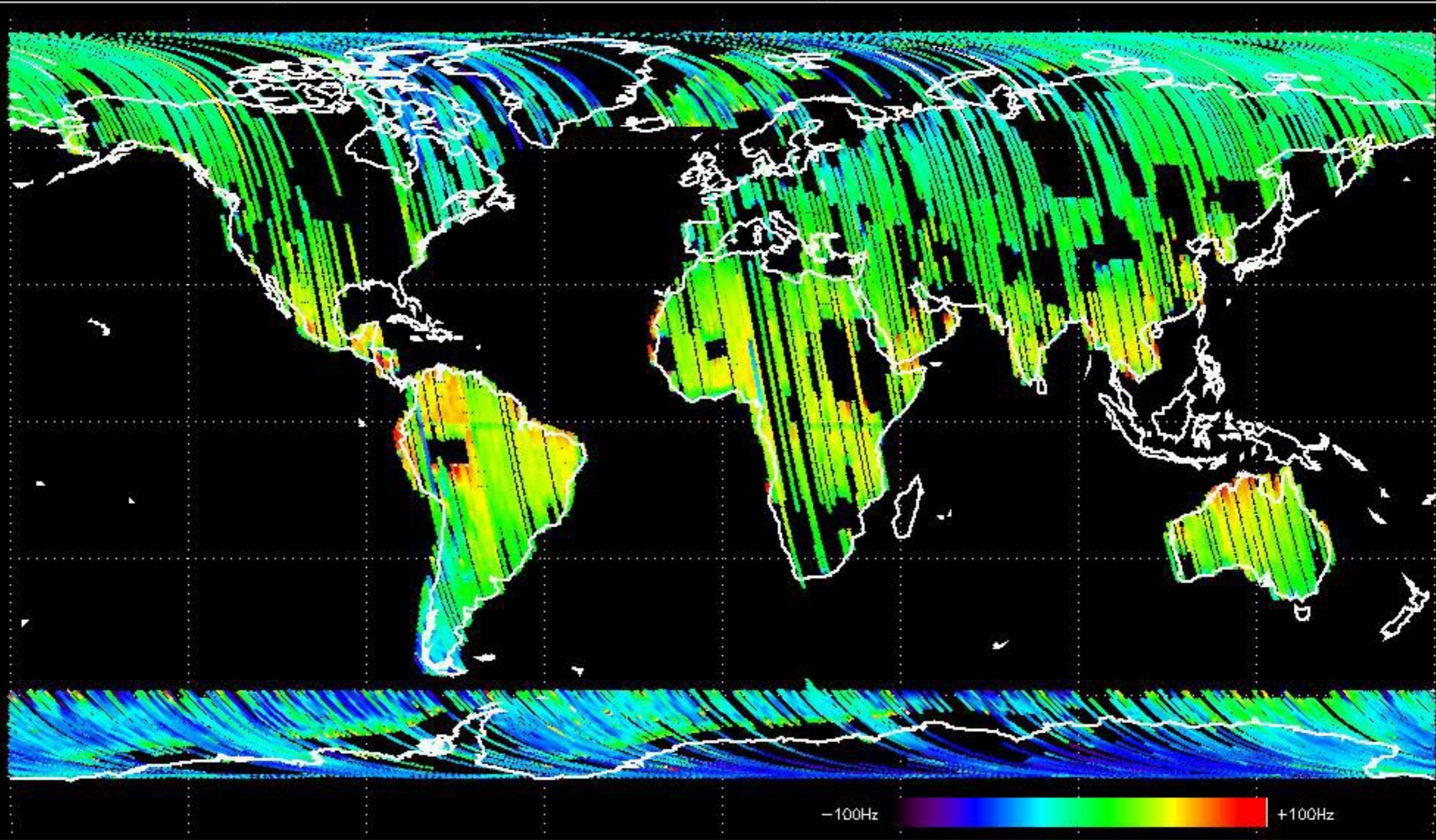


GM1 mode doppler

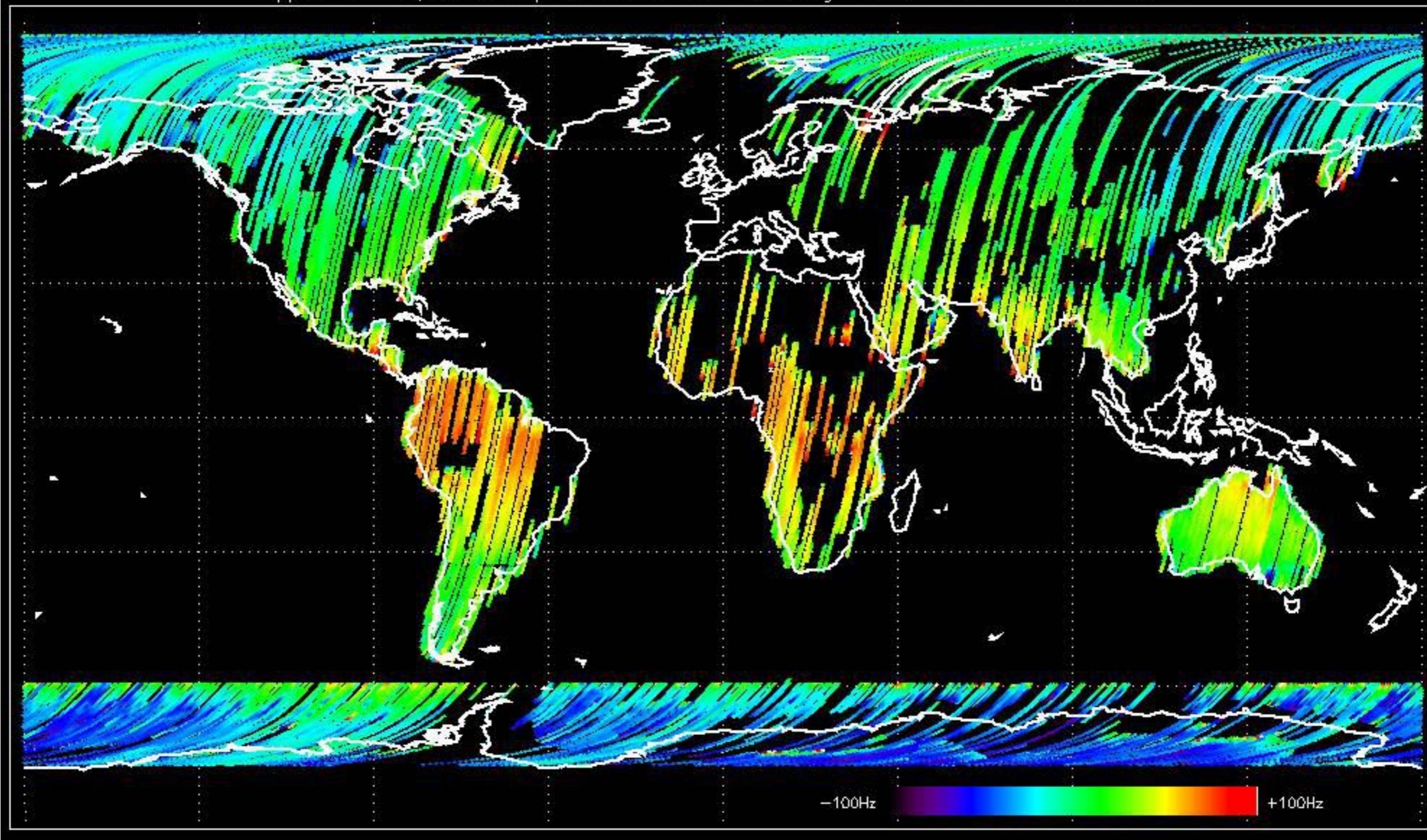




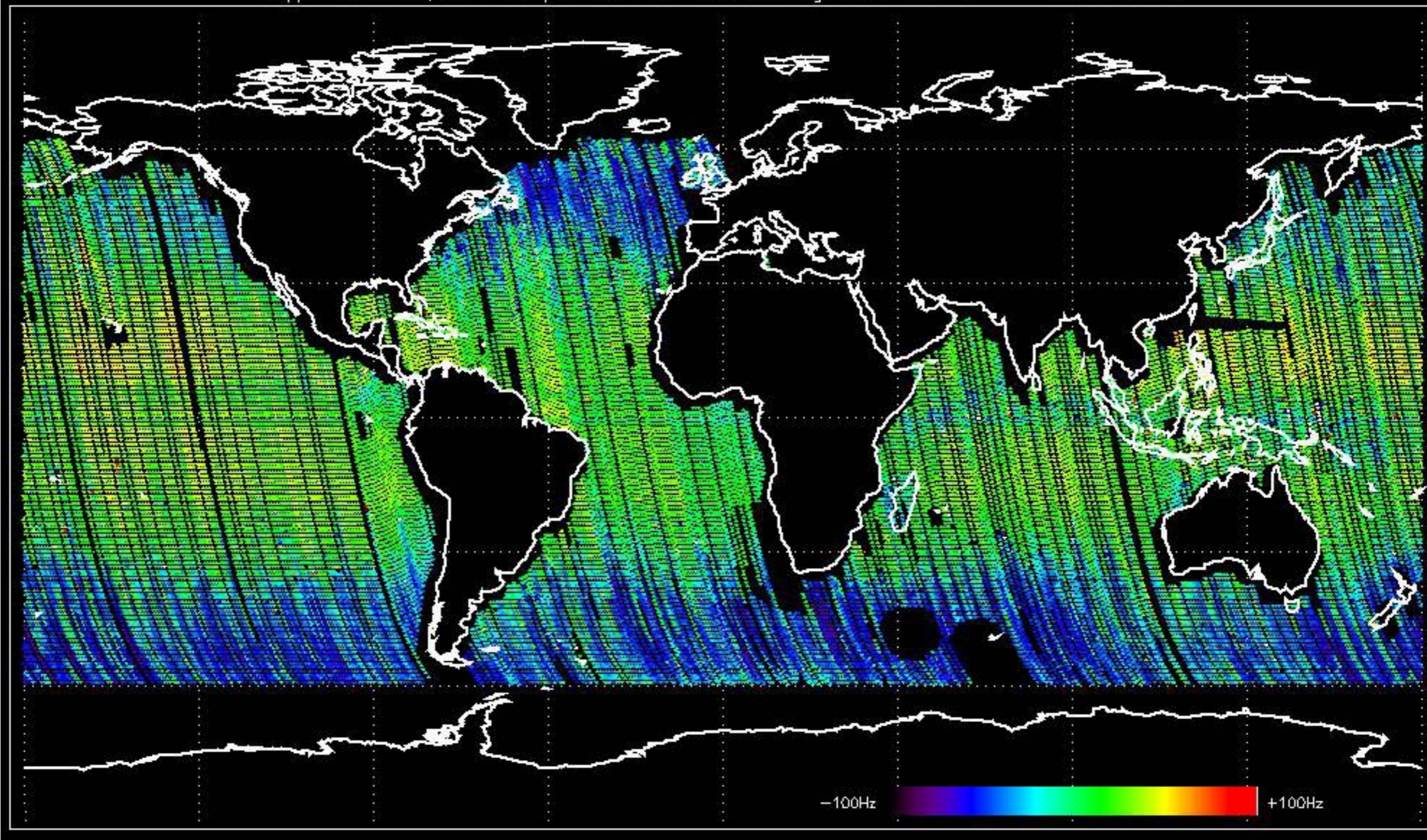
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.734097 Hz



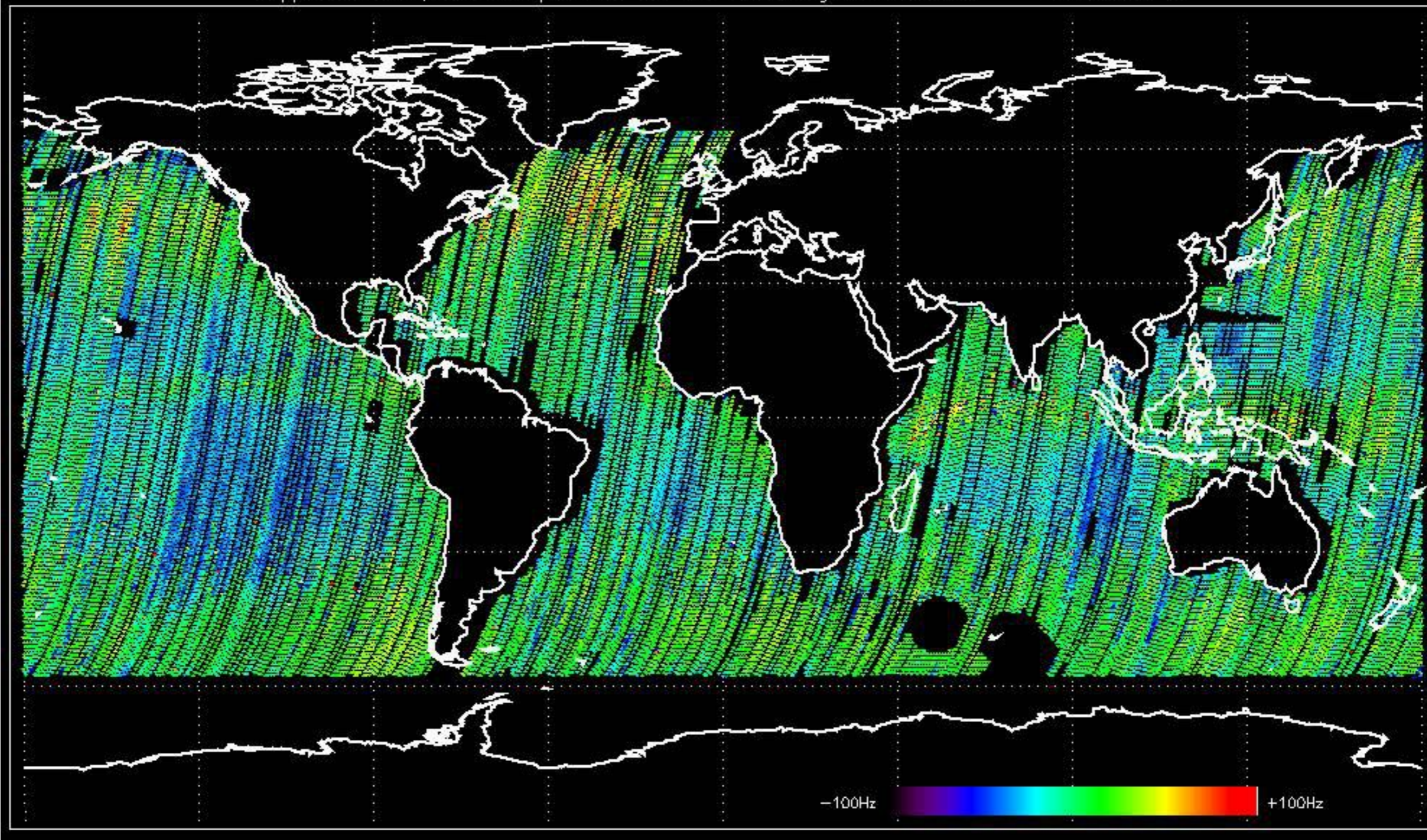
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.374890 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.3066790 Hz

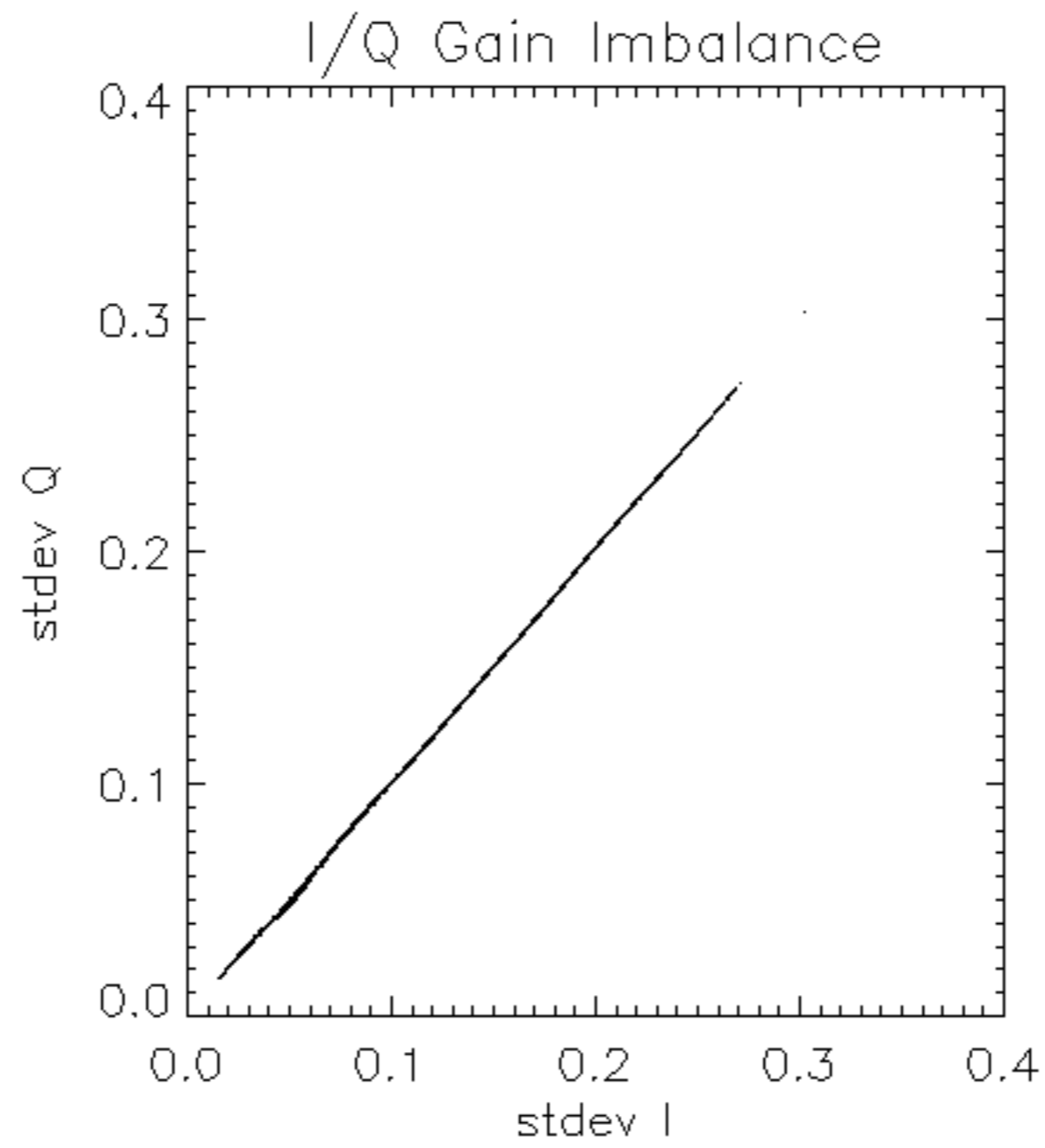


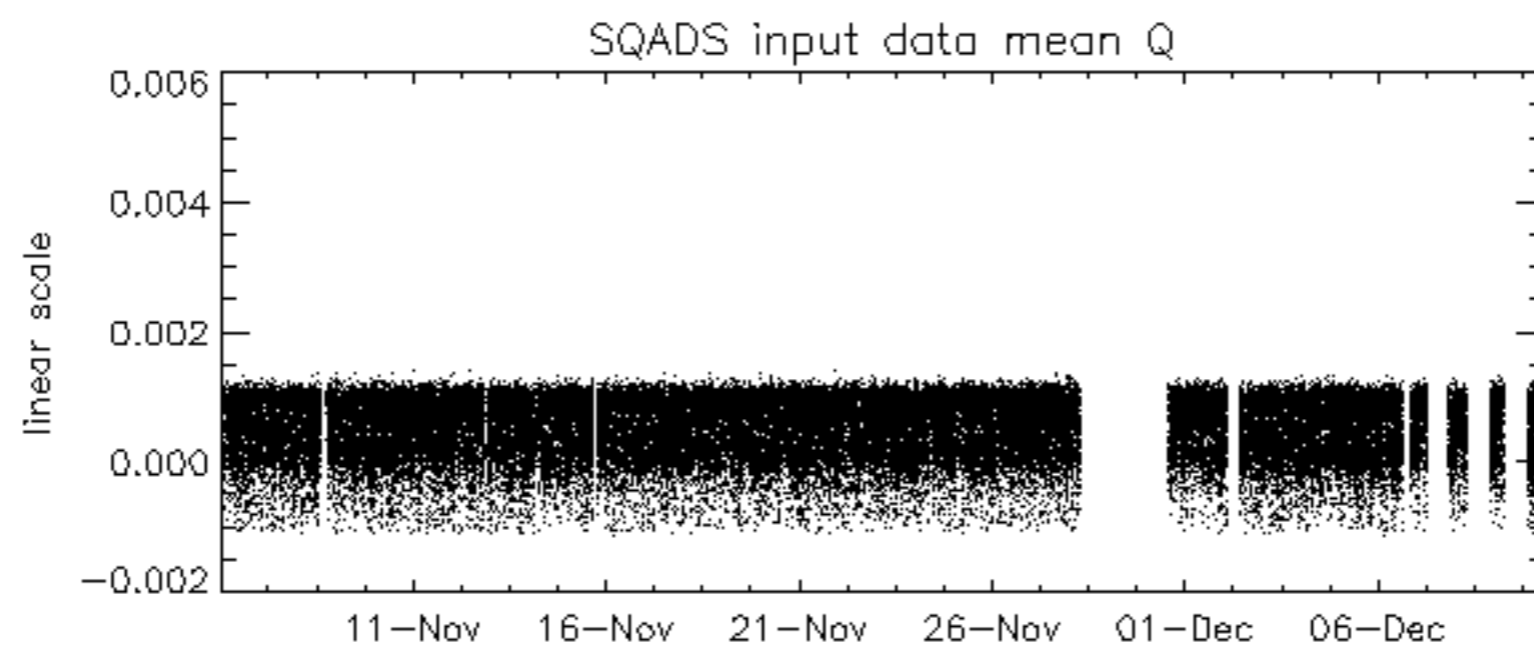
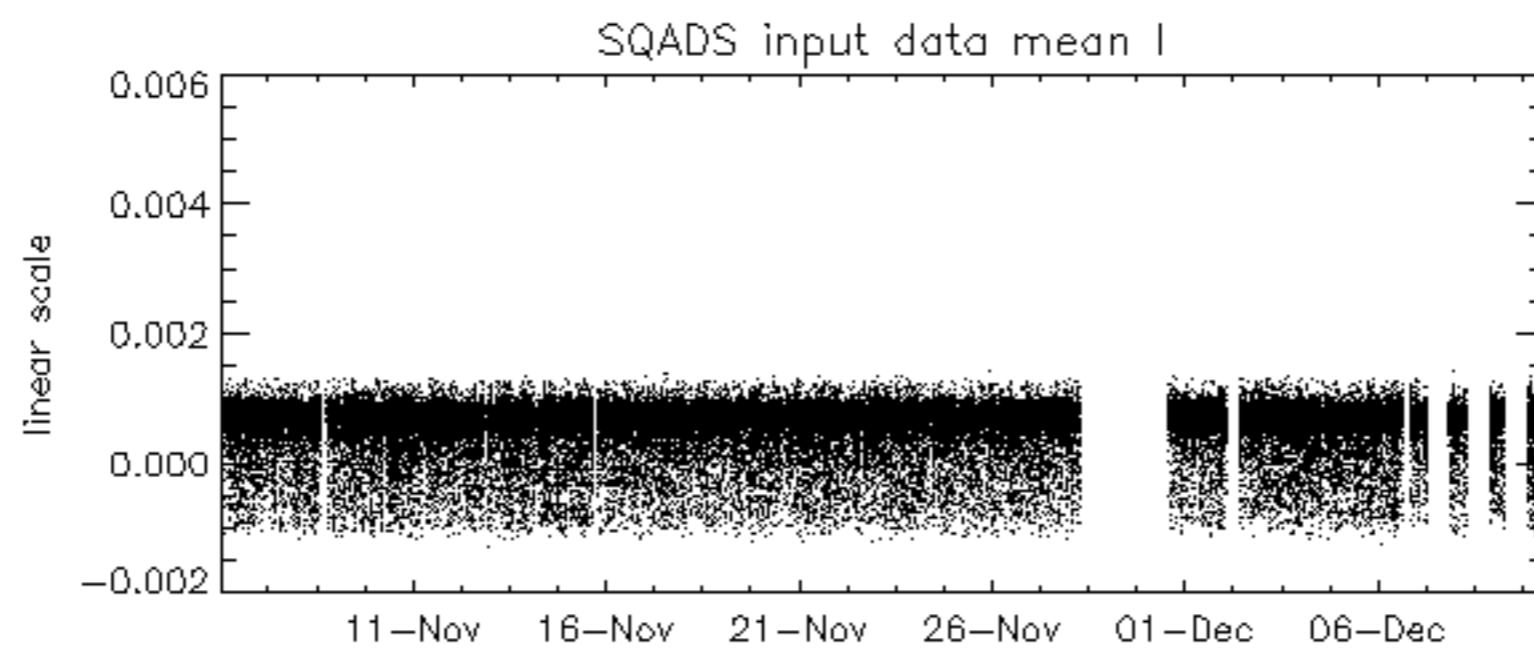
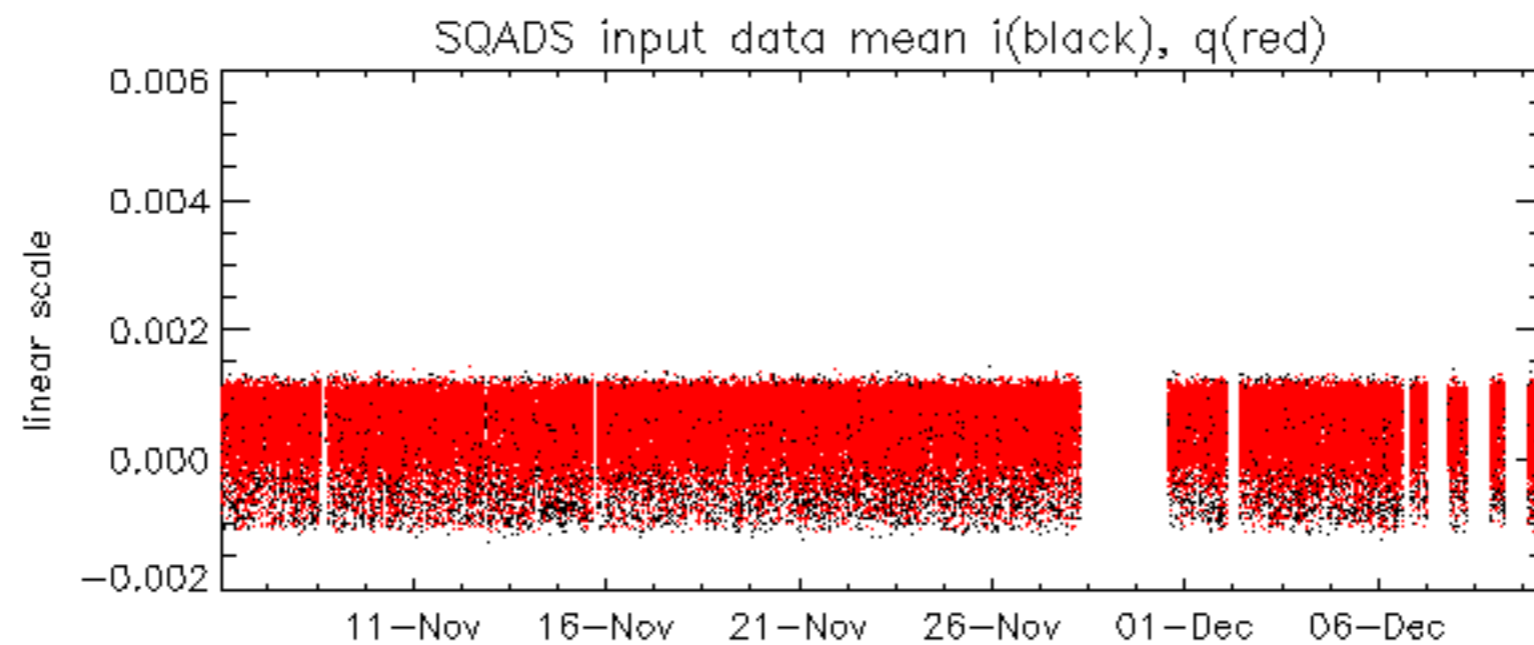
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.2967430 Hz

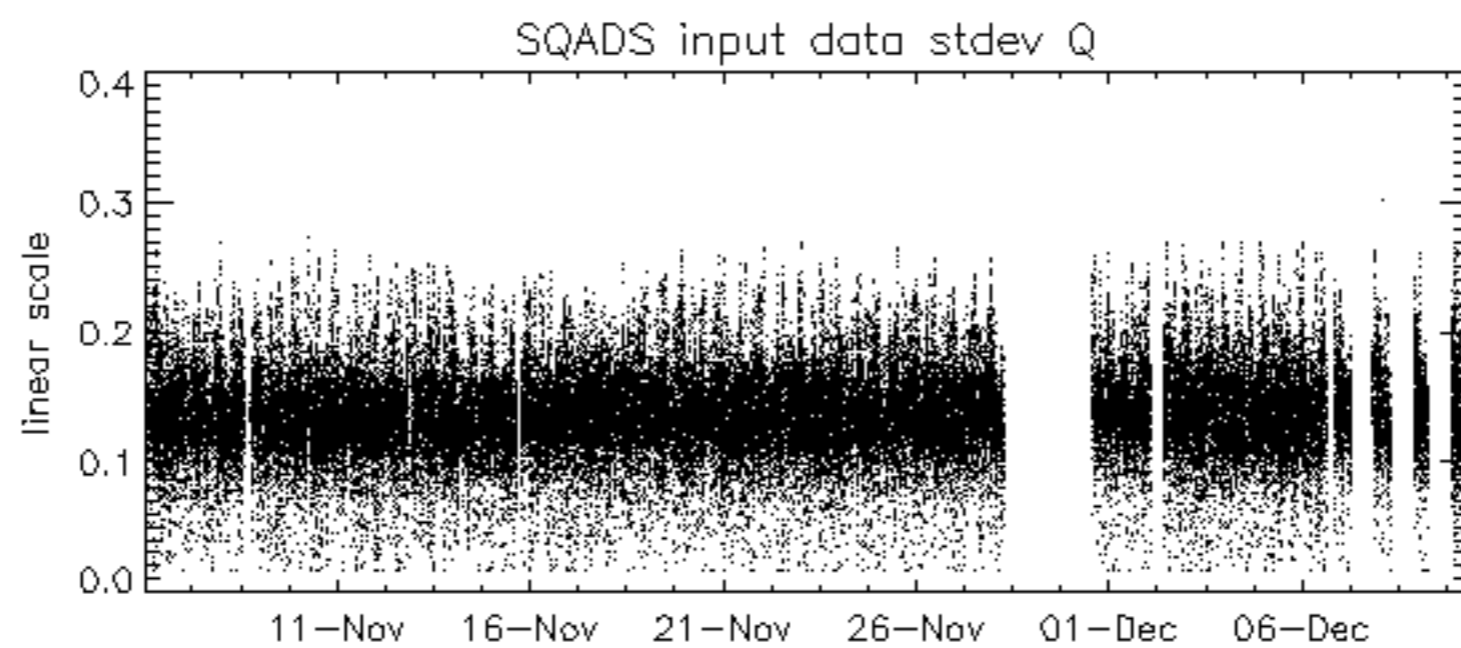
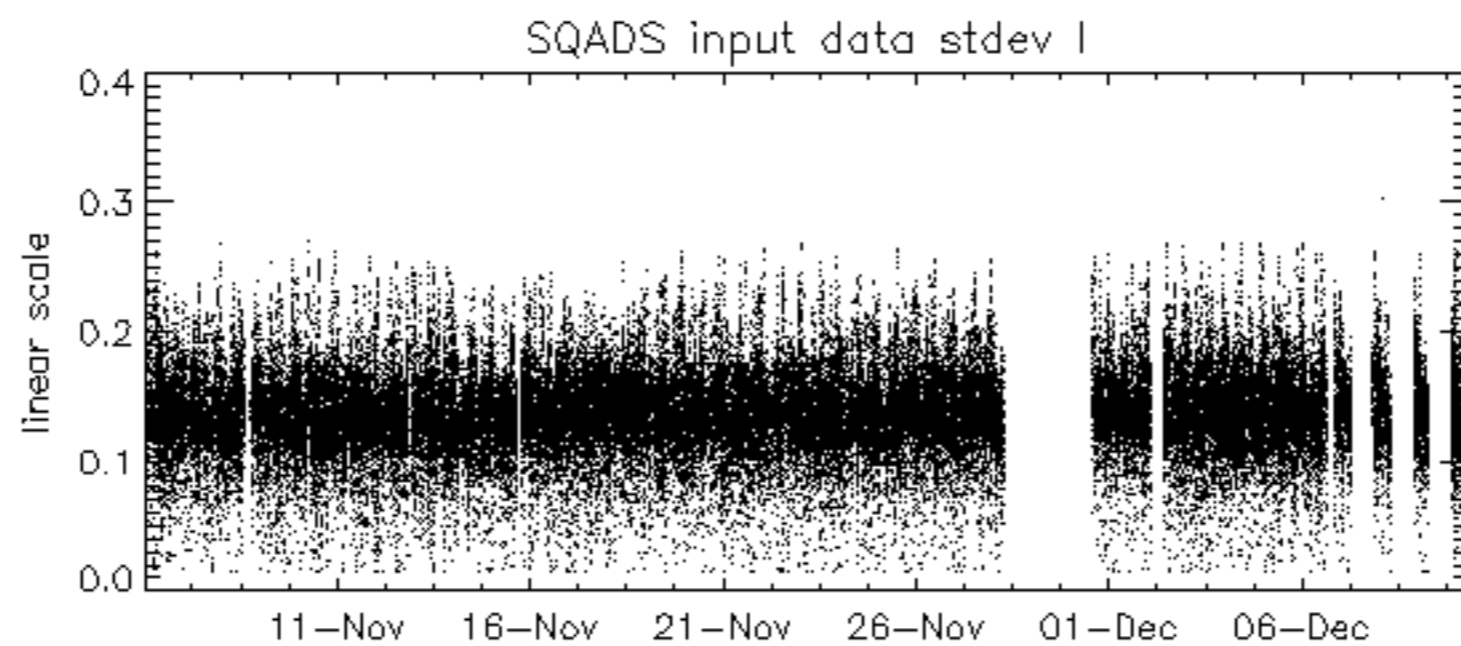
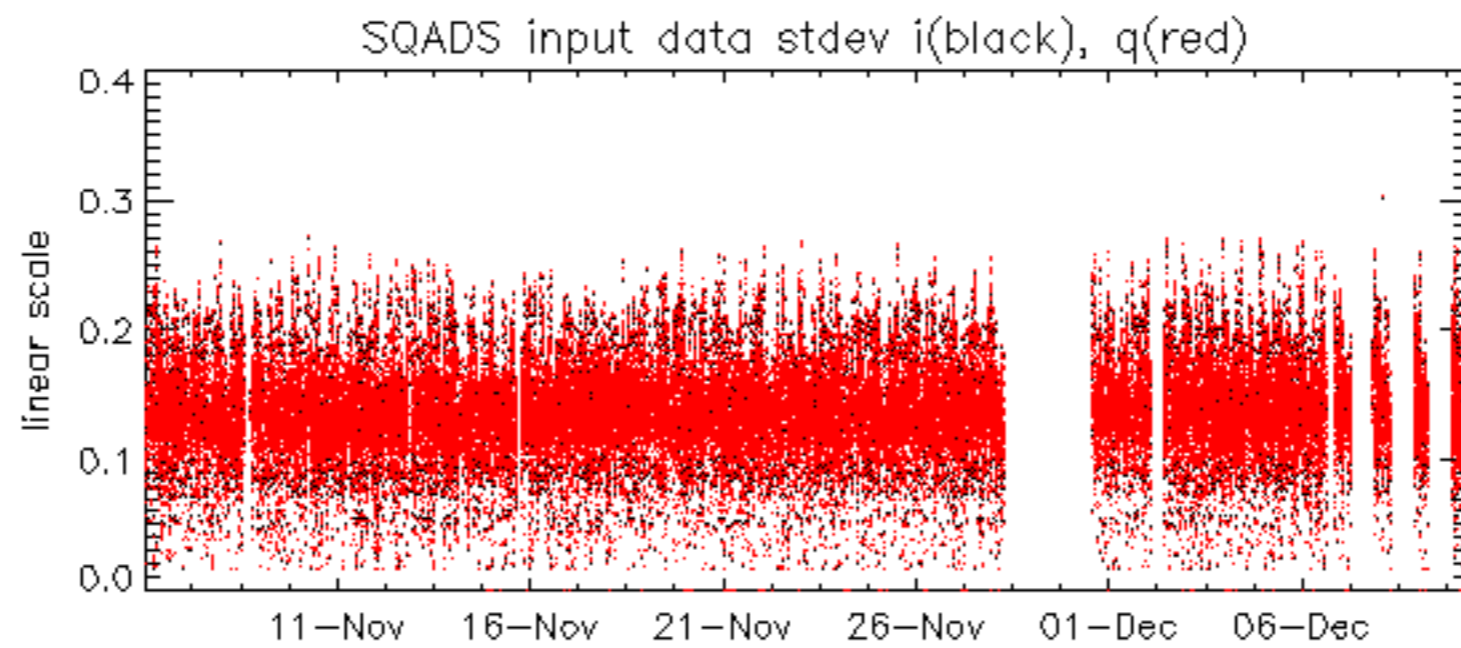


No anomalies observed on available MS products:

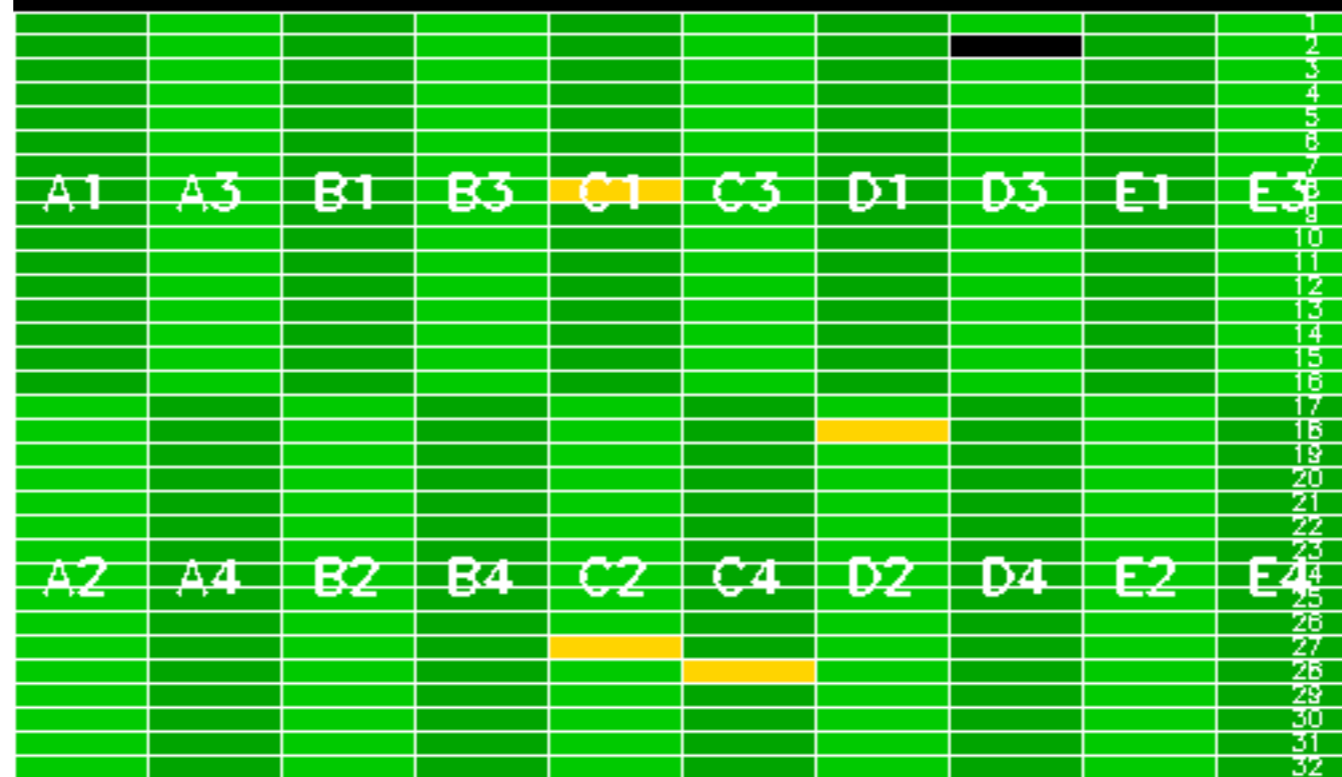
No anomalies observed.







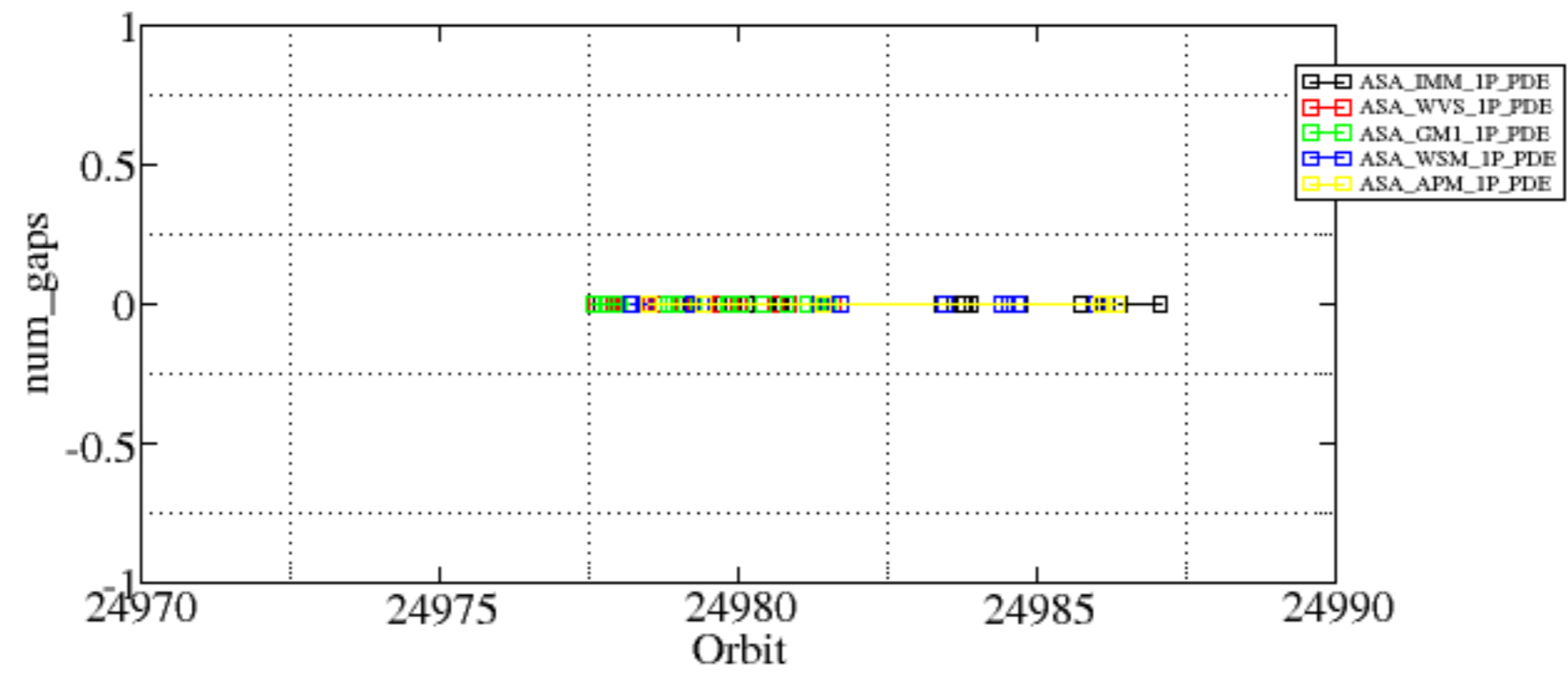
Reference: 2005-09-23 05:55:14 V TxGain
 Test : 2006-12-10 05:32:13 V

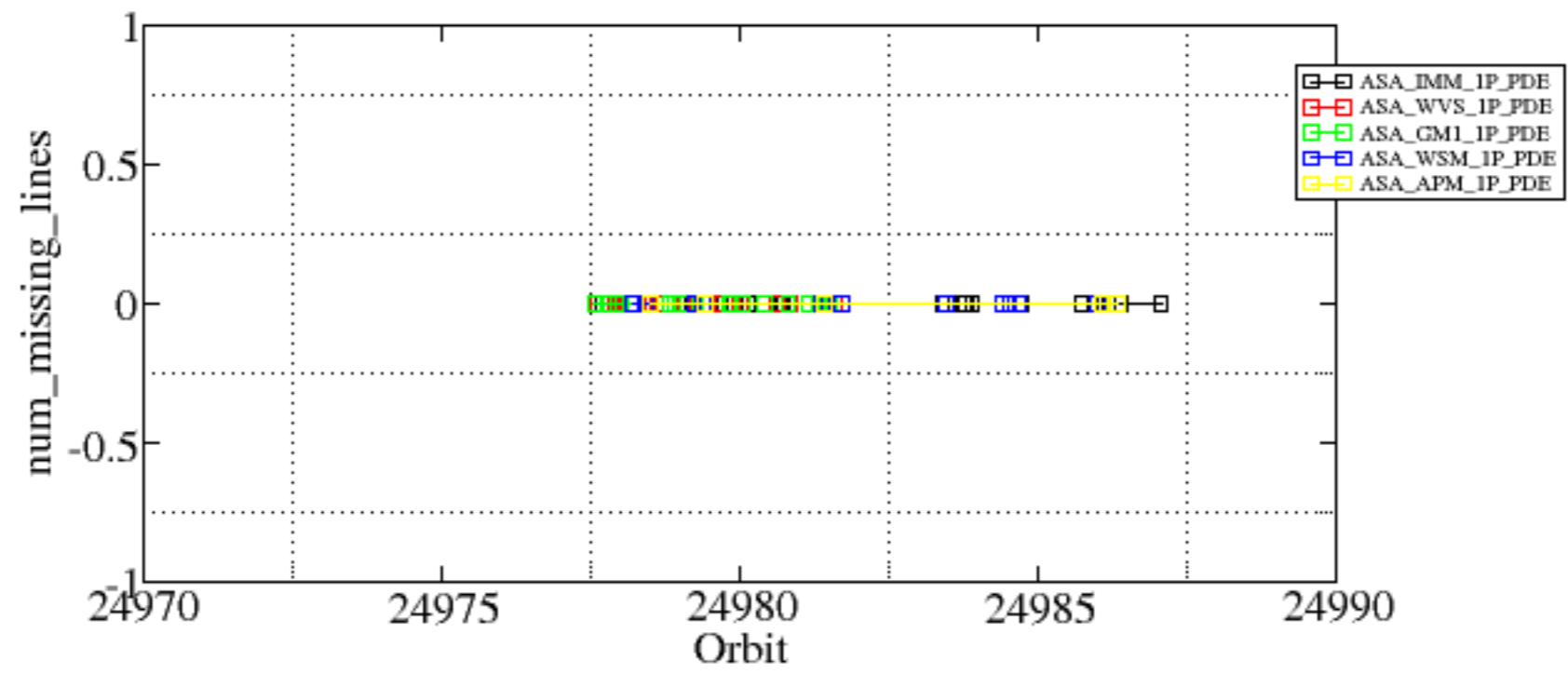


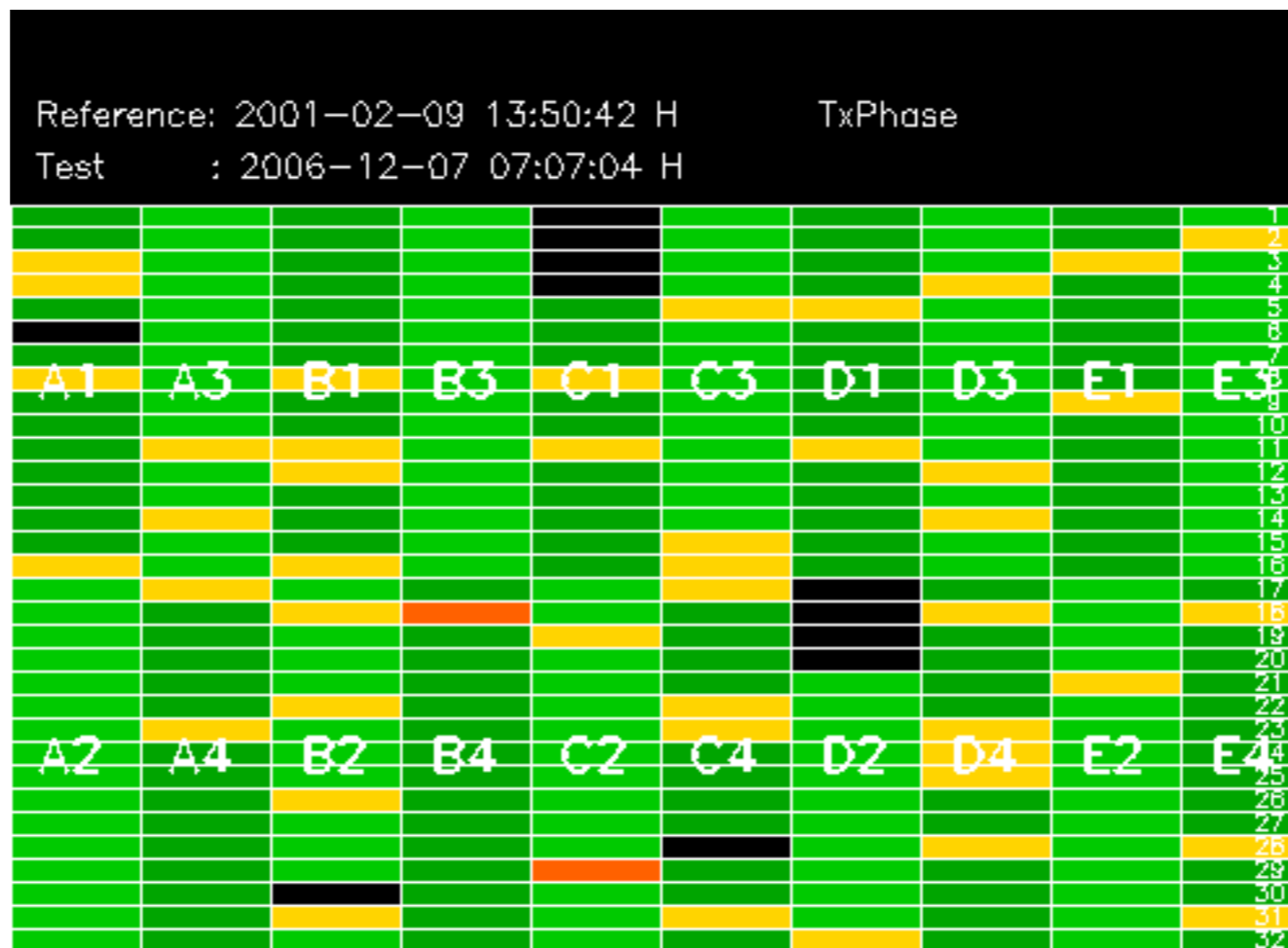
Summary of analysis for the last 3 days 2006121[901]

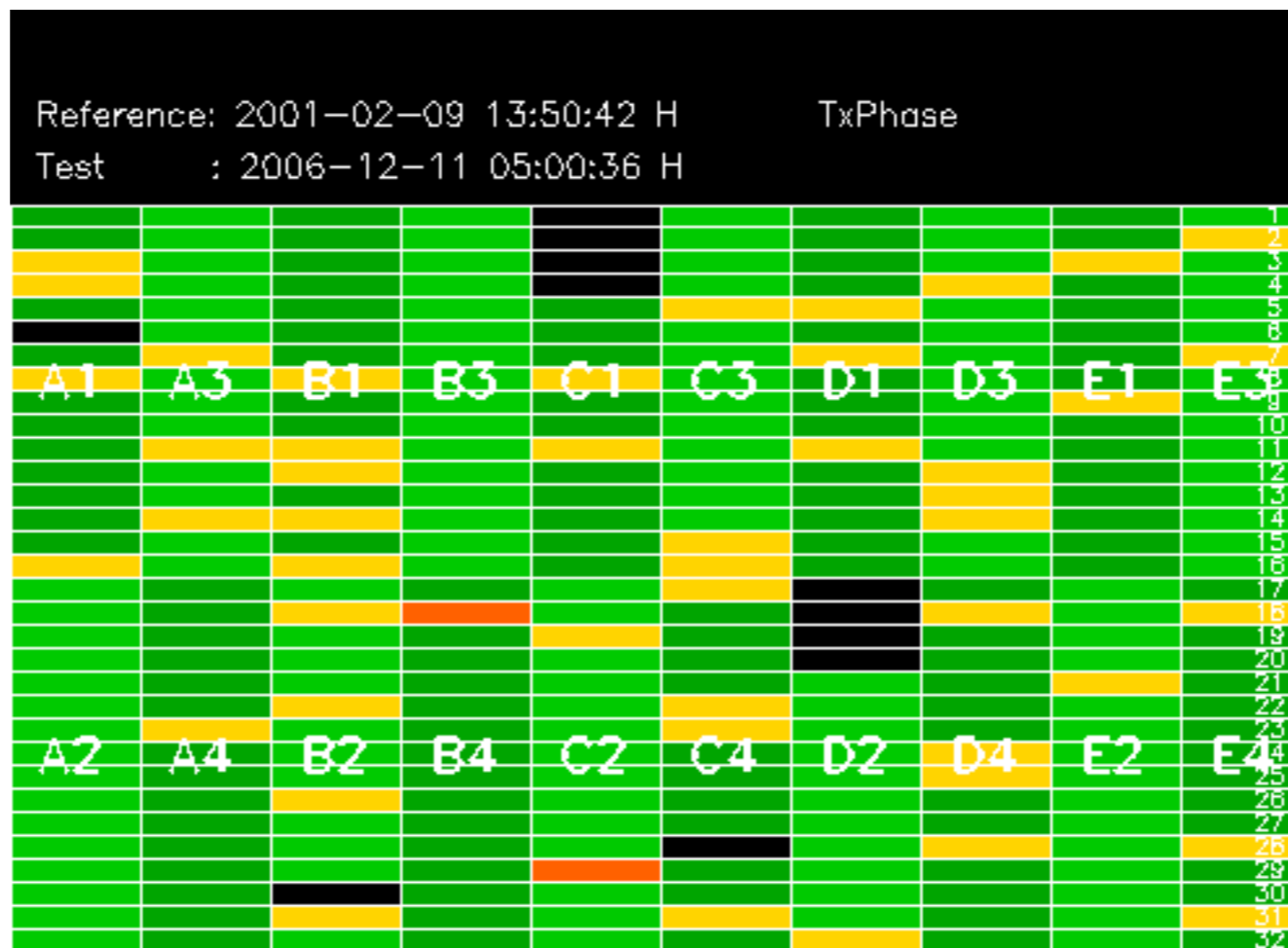
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

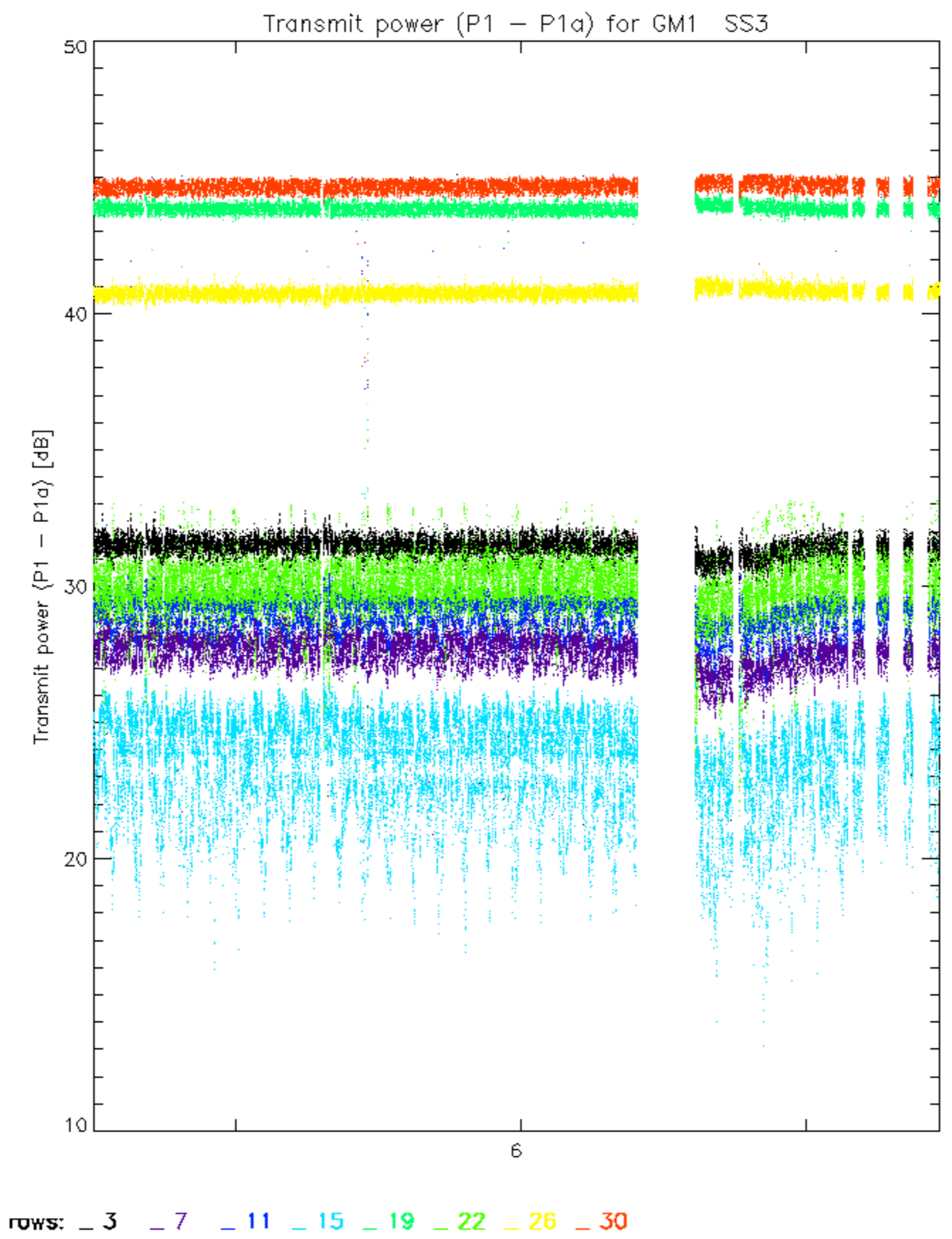
Filename	num_gaps	num_missing_lines

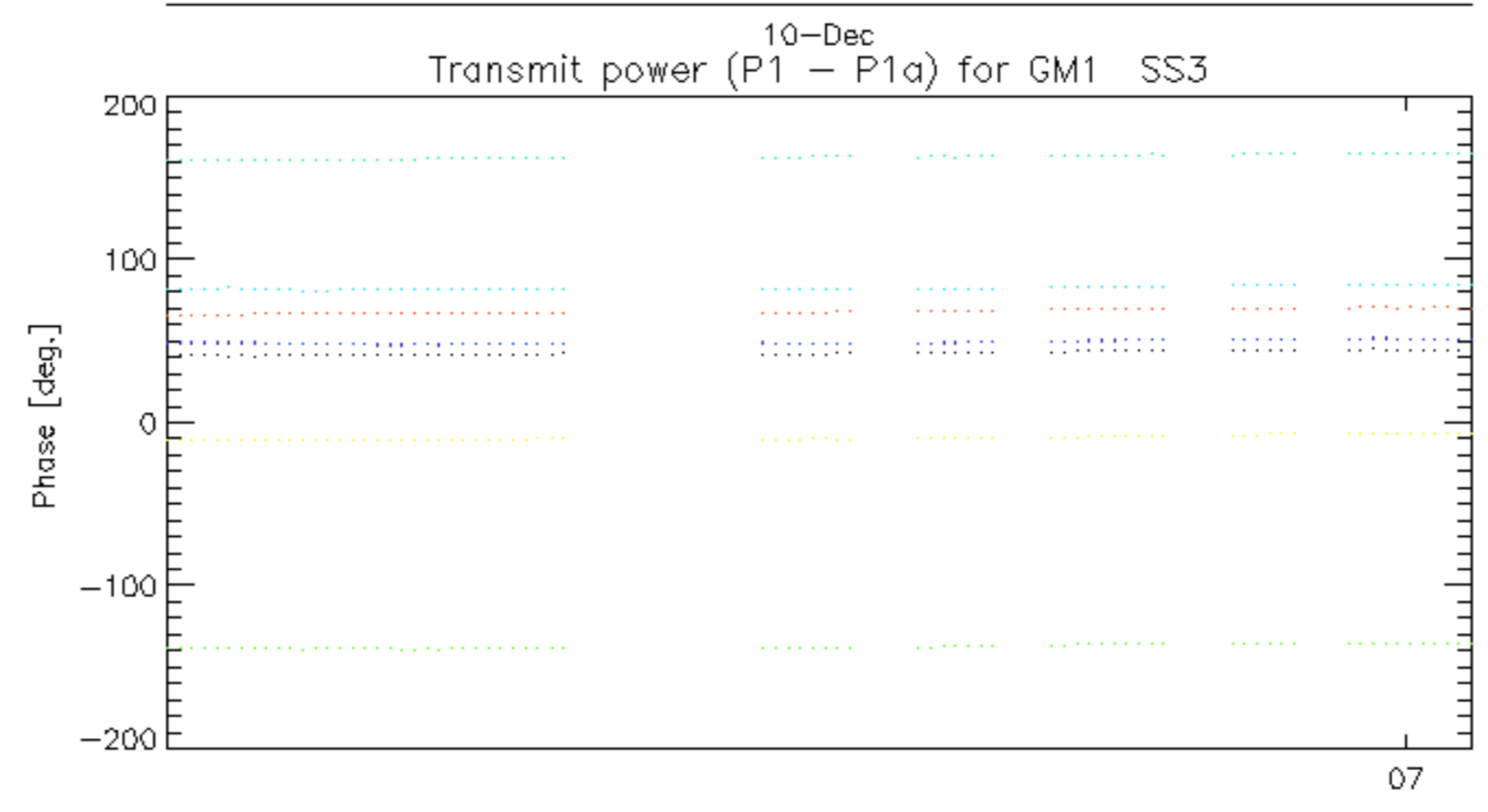
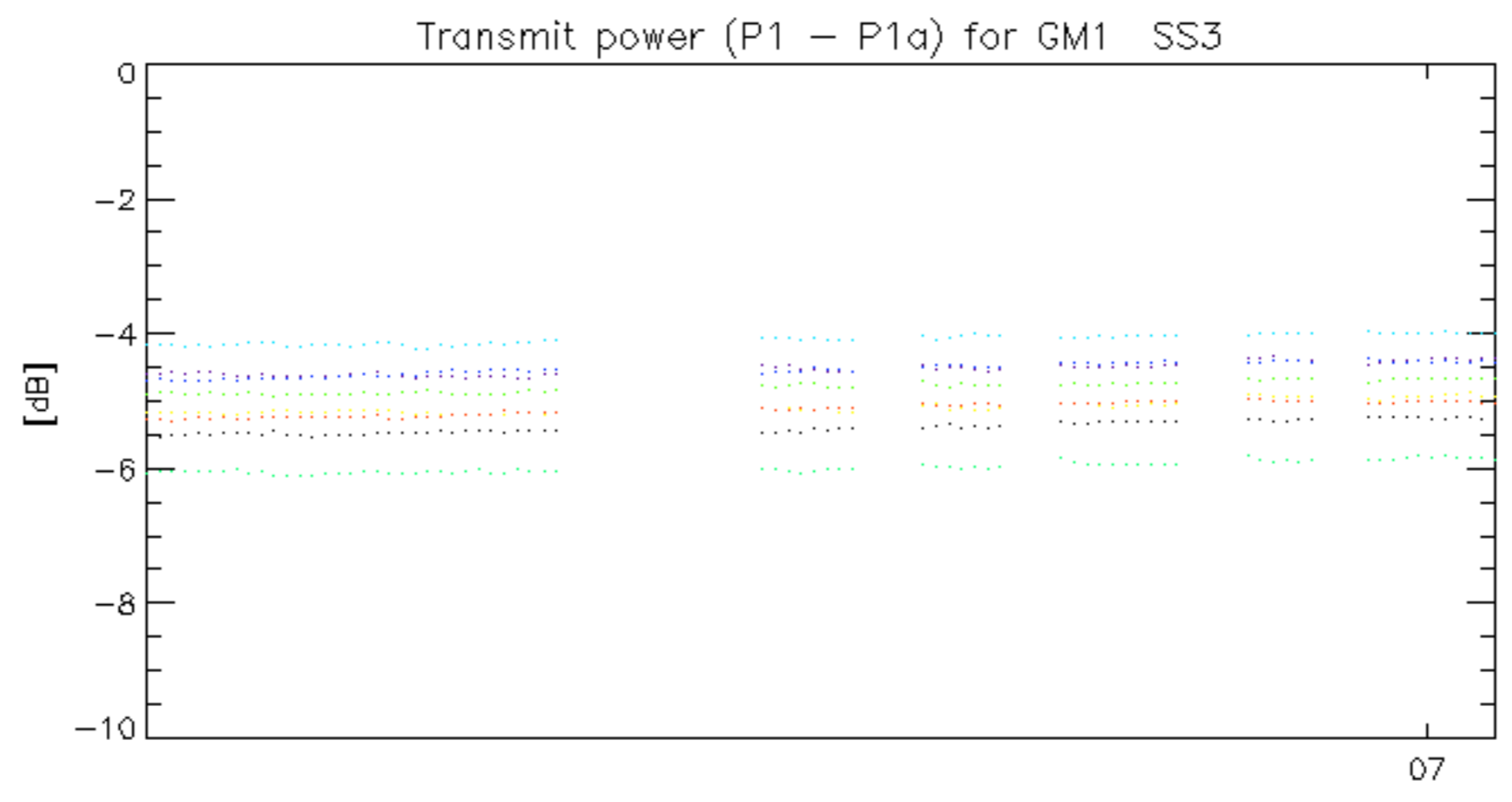




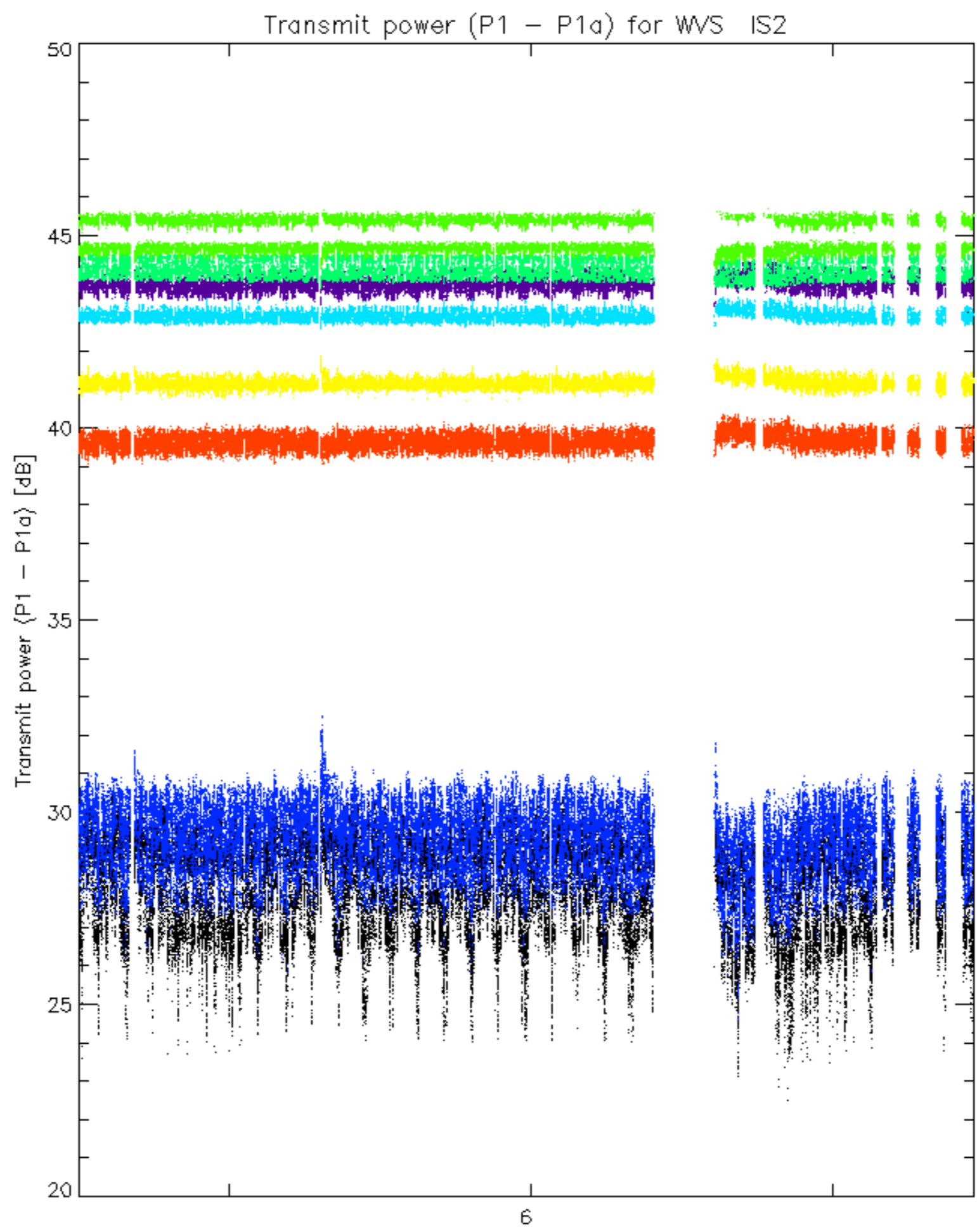


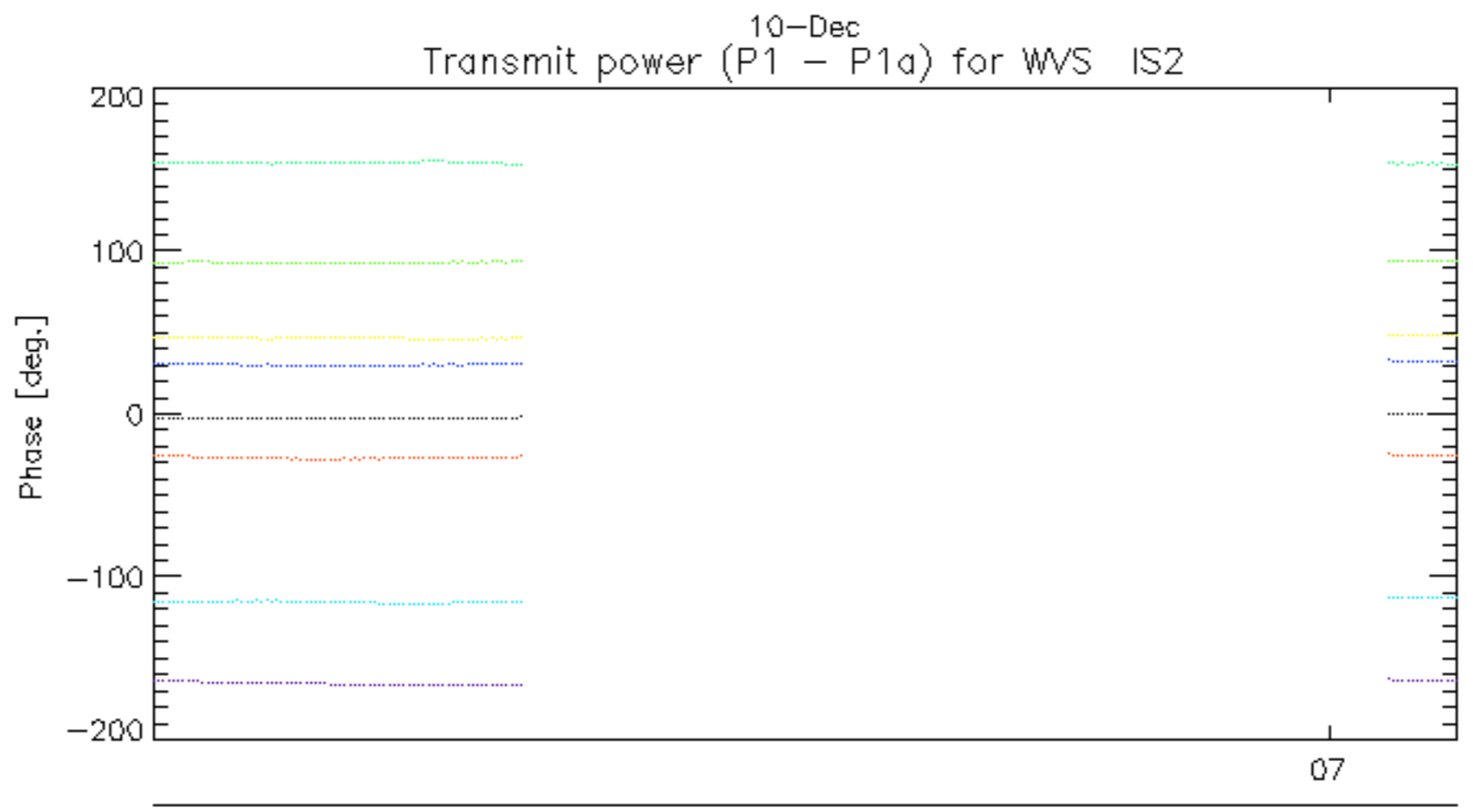
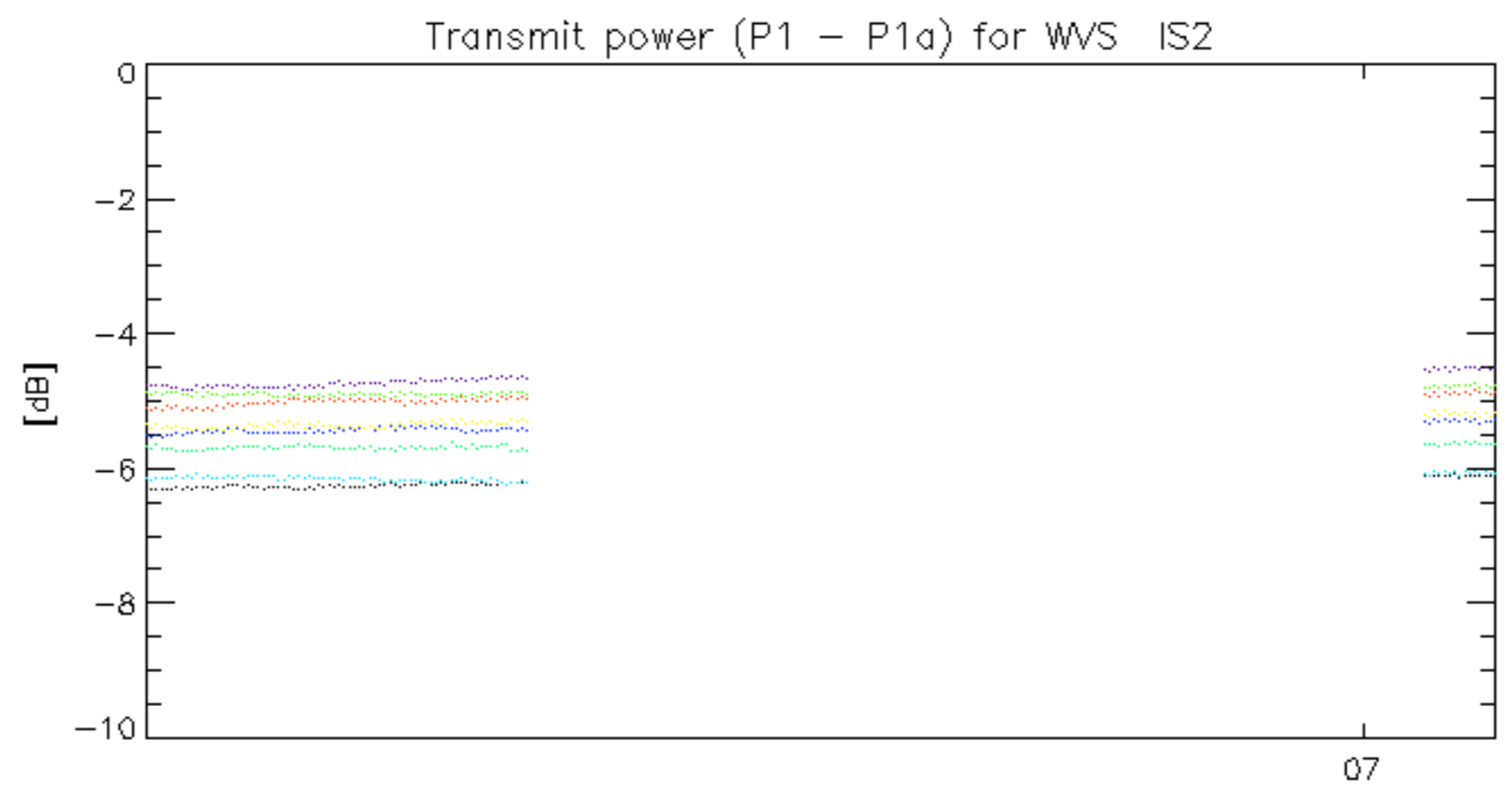






rows: 3 7 11 15 19 22 26 30





10-Dec
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.