

PRELIMINARY REPORT OF 061118

last update on Sat Nov 18 16:40:26 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 2006-11-17 00:00:00 to 2006-11-18 16:40:26

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	50	84	8	2	17
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	50	84	8	2	17
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	50	84	8	2	17
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	50	84	8	2	17

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	40	56	32	16	66
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	40	56	32	16	66
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	56	32	16	66
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	56	32	16	66

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	20061117 055512
H	20061118 084447

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
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

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	-3.955768	0.008928	0.000820
7	P1	-3.138851	0.022841	-0.074085
11	P1	-4.128464	0.023953	-0.038216
15	P1	-6.275589	0.014339	-0.079791
19	P1	-3.611165	0.065439	0.000187
22	P1	-4.666053	0.131830	0.037977
26	P1	-3.974643	0.088915	0.085932
30	P1	-5.884041	0.170661	0.050150
3	P1	-16.506344	0.232671	0.067422
7	P1	-17.240303	0.205865	-0.231316
11	P1	-17.138359	0.441660	-0.190948
15	P1	-13.032495	0.127319	-0.172413
19	P1	-14.891335	0.378696	-0.104773
22	P1	-15.844736	0.507438	-0.245571
26	P1	-15.068358	0.210785	0.109539
30	P1	-17.361254	0.597651	-0.528463

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.846758	0.088839	-0.003119
7	P2	-21.732603	0.092821	0.018042
11	P2	-15.665265	0.103160	0.061157
15	P2	-7.114311	0.106023	-0.036968
19	P2	-9.180823	0.102316	-0.057964
22	P2	-18.216858	0.094982	-0.074649
26	P2	-16.523731	0.108741	-0.122128
30	P2	-19.472702	0.088353	-0.003434

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.229894	0.008166	-0.036365
7	P3	-8.229894	0.008166	-0.036365
11	P3	-8.229894	0.008166	-0.036365
15	P3	-8.229894	0.008166	-0.036365
19	P3	-8.229894	0.008166	-0.036365
22	P3	-8.229894	0.008166	-0.036365
26	P3	-8.229840	0.008176	-0.036389
30	P3	-8.229840	0.008176	-0.036389

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	-3.904565	0.054522	-0.024087
7	P1	-2.525732	0.324826	0.018978
11	P1	-2.869931	0.049626	0.031070
15	P1	-3.680412	0.057627	-0.005651
19	P1	-3.532262	0.110764	0.010662
22	P1	-5.068190	0.086413	0.082039
26	P1	-6.007505	0.183955	-0.010687
30	P1	-5.313919	0.109752	-0.026955
3	P1	-11.708652	0.131632	-0.034611
7	P1	-10.051699	0.413600	-0.058777
11	P1	-10.346280	0.139010	0.041837
15	P1	-10.785941	0.219331	0.104901
19	P1	-15.771188	2.098282	0.183904
22	P1	-21.277676	1.520352	-0.477509
26	P1	-16.003834	0.396479	-0.151796
30	P1	-17.948891	0.417430	0.151568

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.439278	0.111994	-0.081284
7	P2	-22.188025	0.429745	-0.101291
11	P2	-10.922128	0.101079	-0.064855
15	P2	-4.940799	0.093302	-0.093739
19	P2	-6.923872	0.158535	-0.110476
22	P2	-8.244184	0.175389	-0.074121
26	P2	-24.289244	0.301028	-0.111550
30	P2	-21.942413	0.173740	-0.038490

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.076367	0.003232	-0.030817
7	P3	-8.076316	0.003208	-0.031027
11	P3	-8.076346	0.003213	-0.031503
15	P3	-8.076288	0.003211	-0.031049
19	P3	-8.076402	0.003219	-0.031219
22	P3	-8.076295	0.003223	-0.031275
26	P3	-8.076210	0.003210	-0.030663
30	P3	-8.076256	0.003218	-0.030946

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	0.000544467
	stdev	1.77947e-07
MEAN Q	mean	0.000519256
	stdev	2.20305e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136111
	stdev	0.001111177
STDEV Q	mean	0.136468
	stdev	0.00112854



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006111[678]

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)	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
<input type="checkbox"/>	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

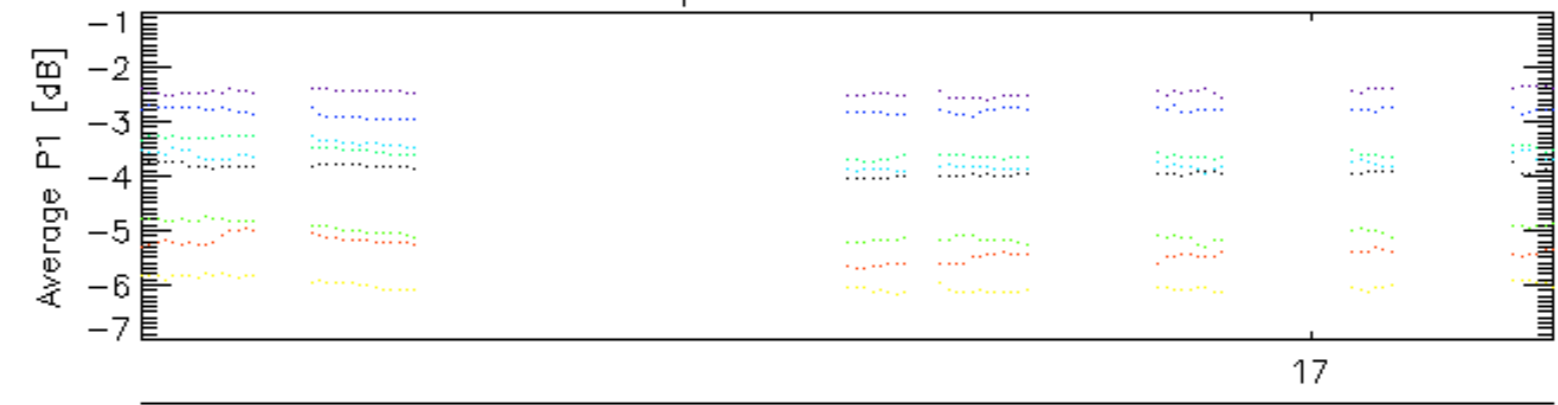
Ascending

Descending

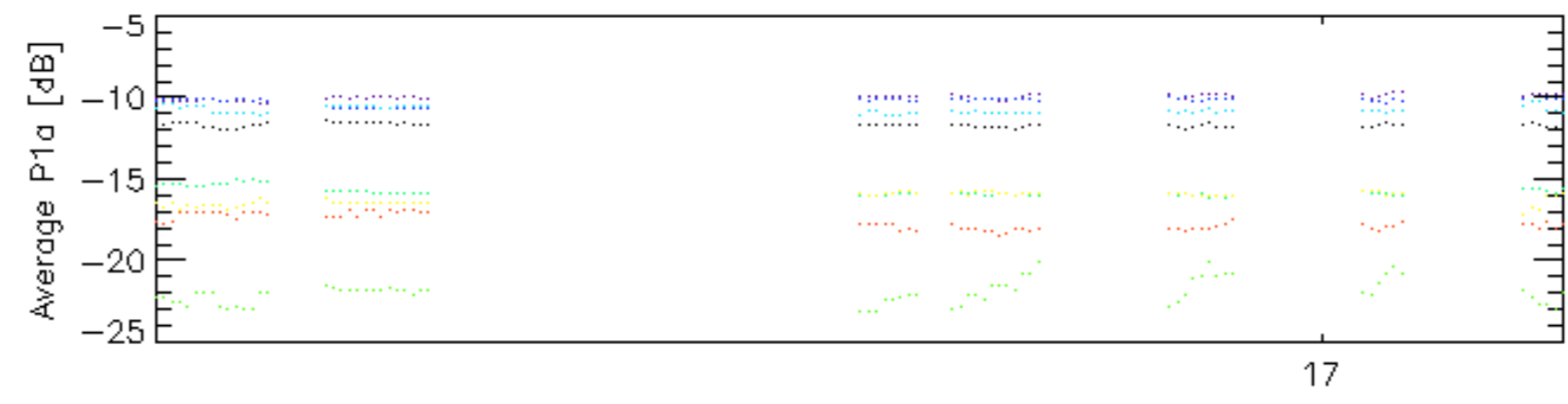
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

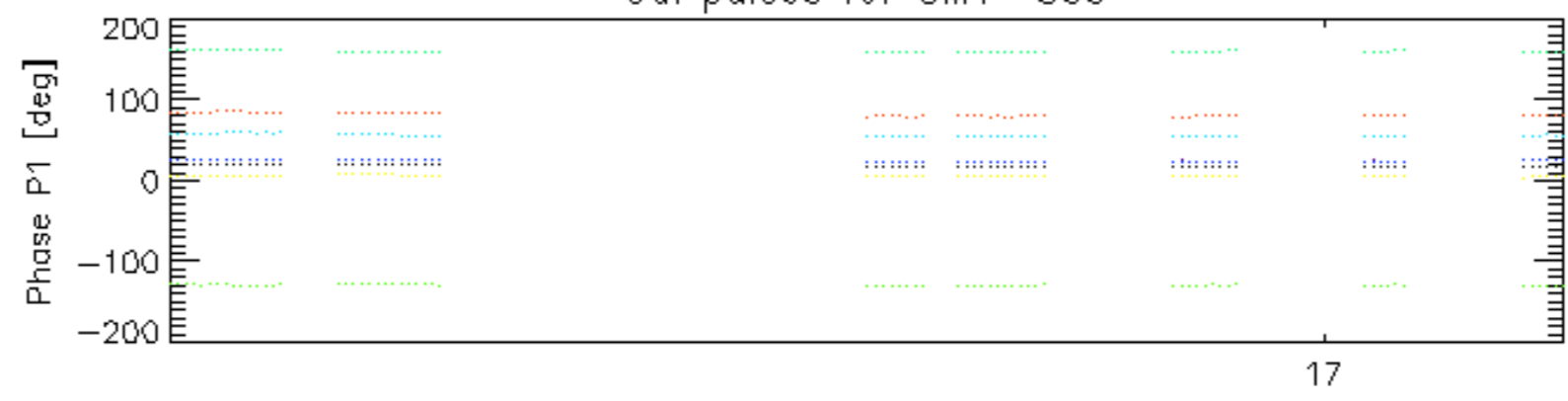


17-Nov

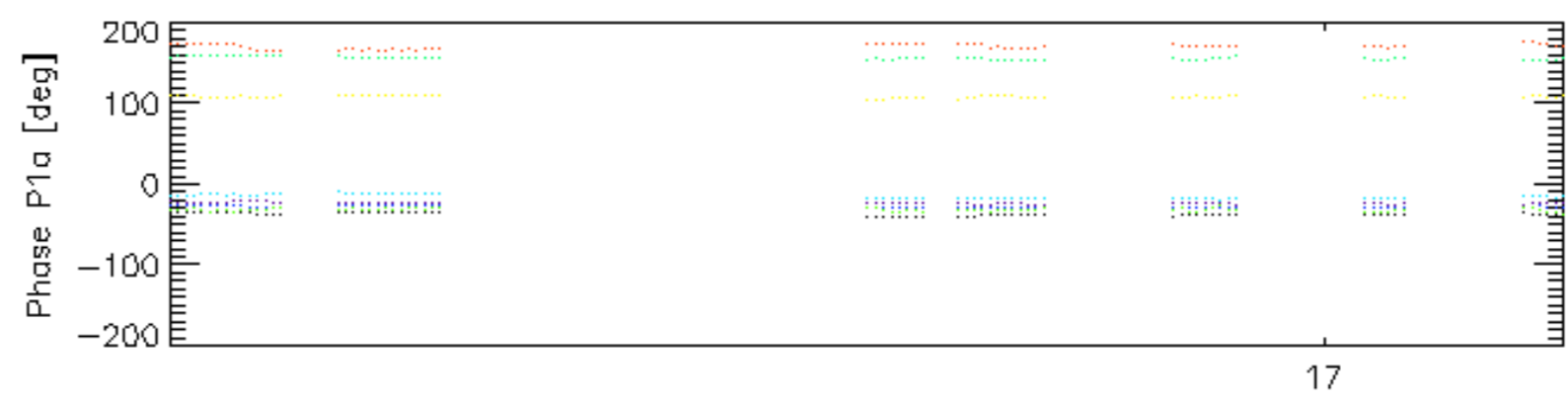


17-Nov

Cal pulses for GM1 SS3

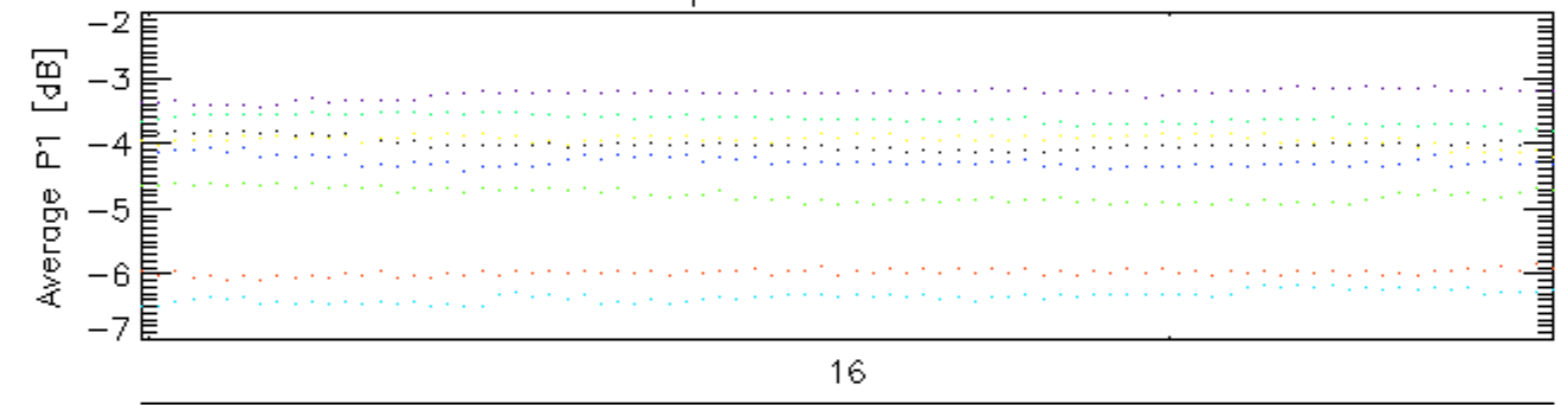


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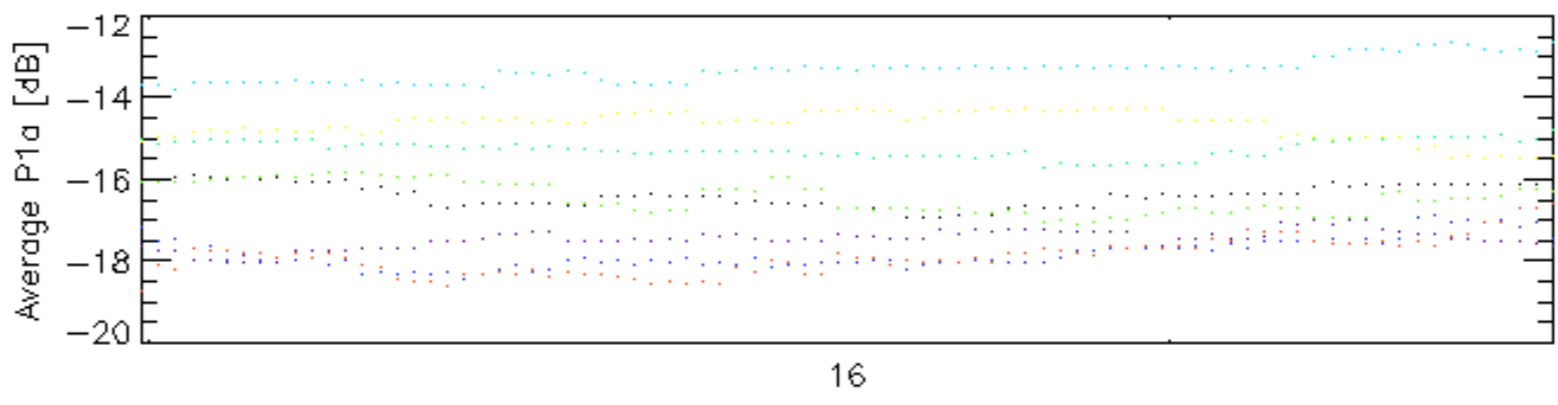


rows: **3** **7** **11** **15** **19** **22** **26** **30** 17-Nov

Cal pulses for WVS IS2

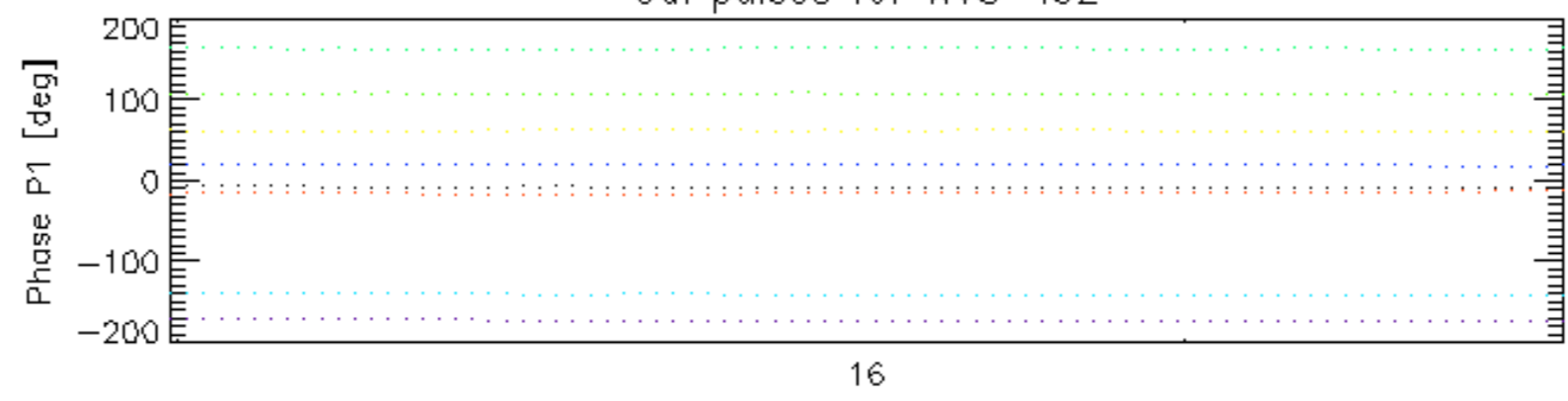


17-Nov

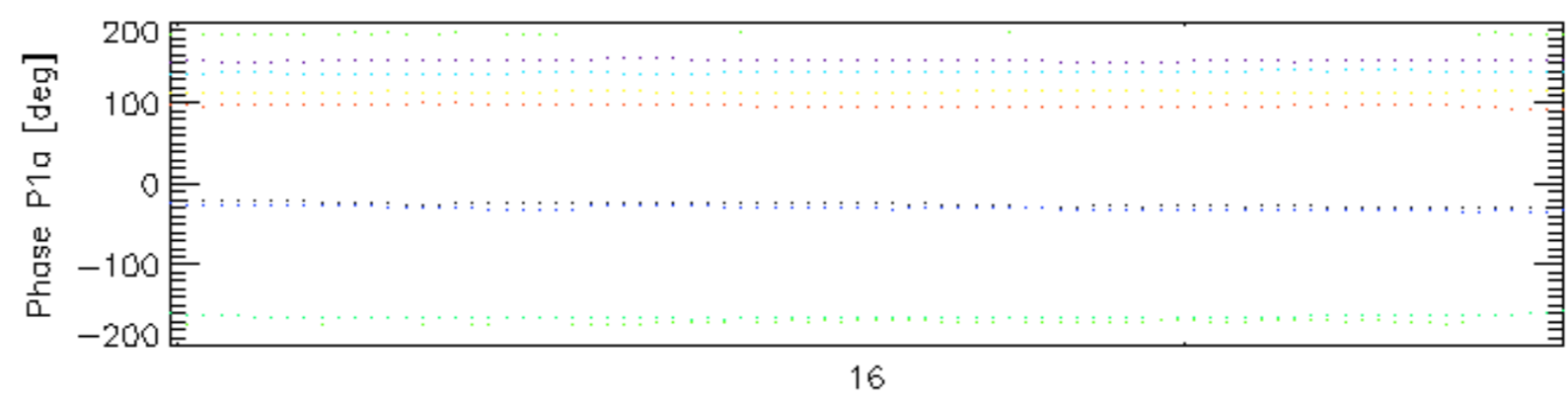


17-Nov

Cal pulses for WVS IS2

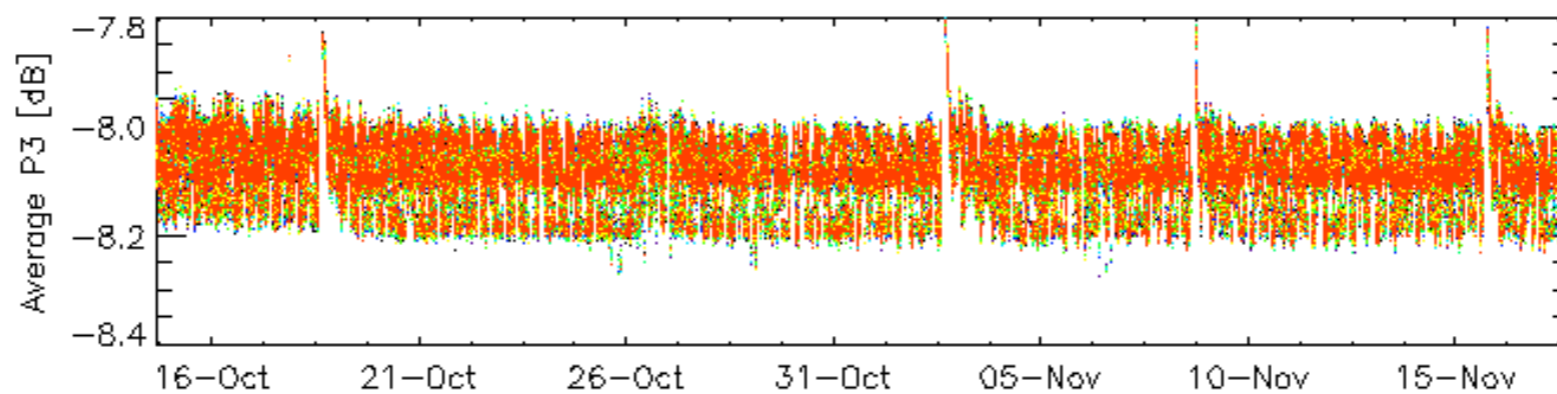
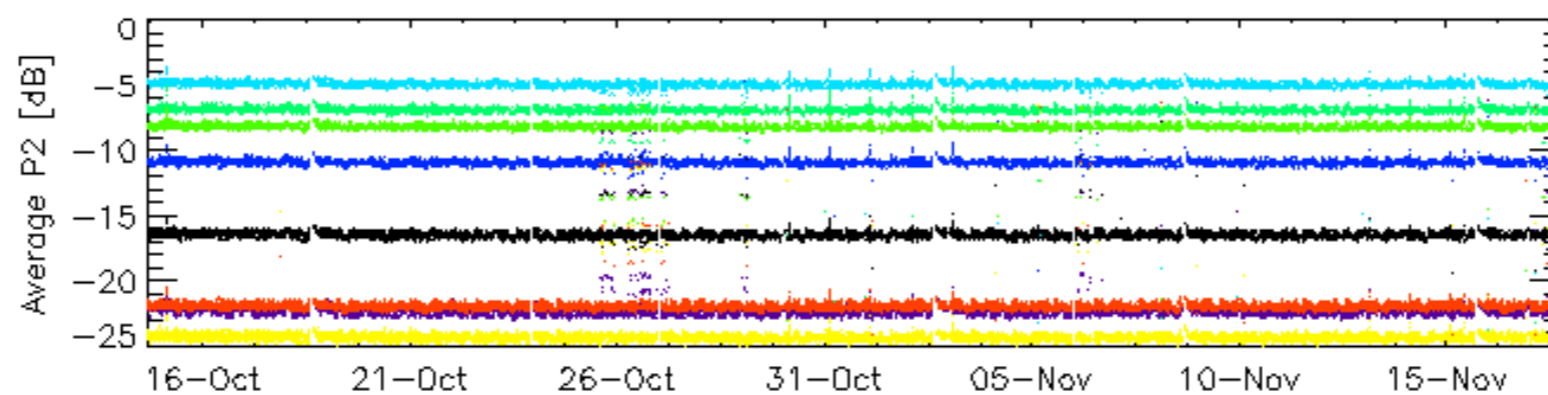
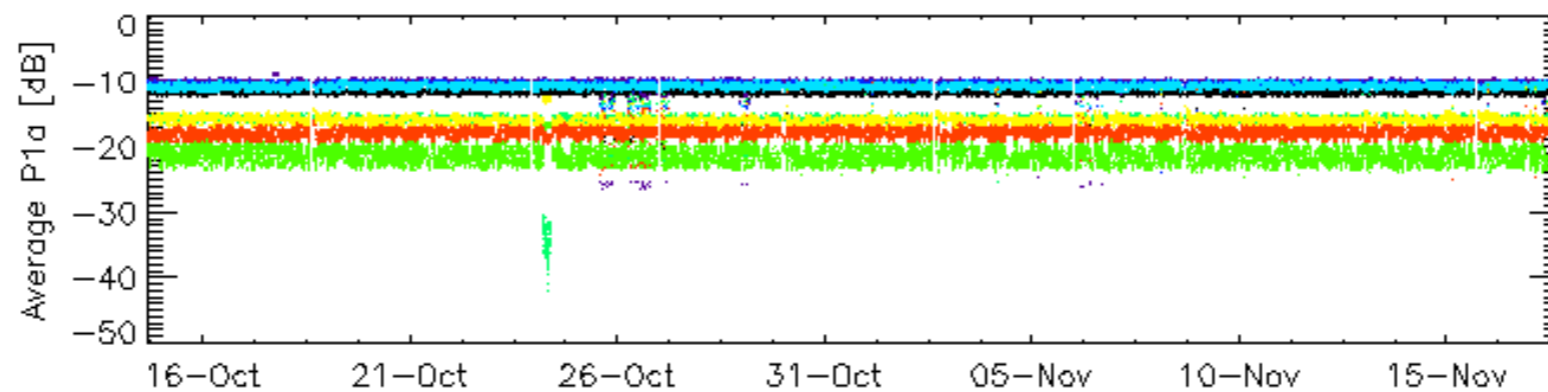
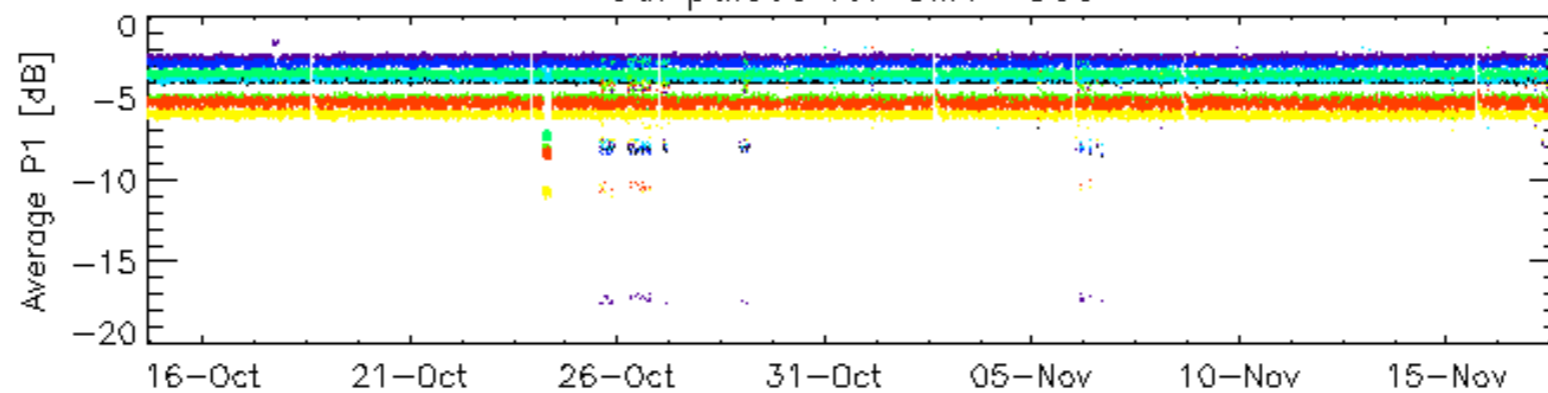


17-Nov



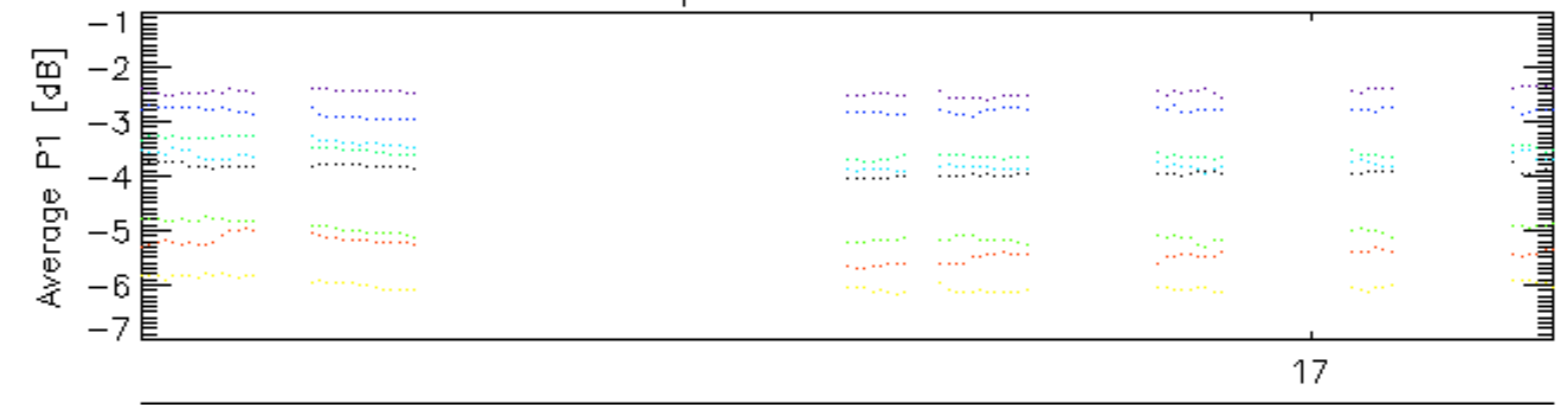
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{17-Nov} _ 26 _ 30

Cal pulses for GM1 SS3

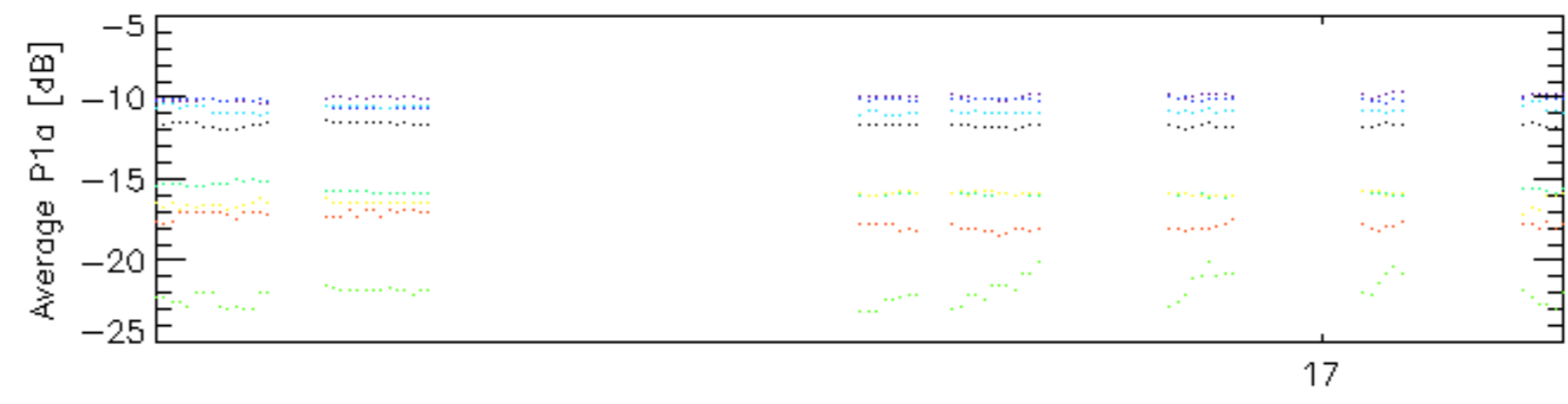


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



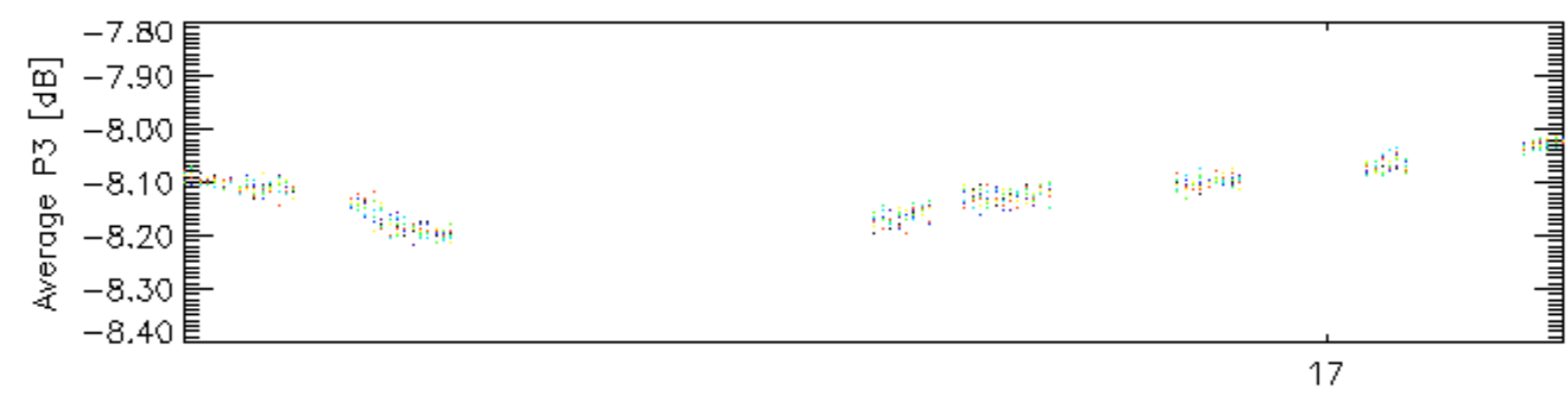
17-Nov



17-Nov

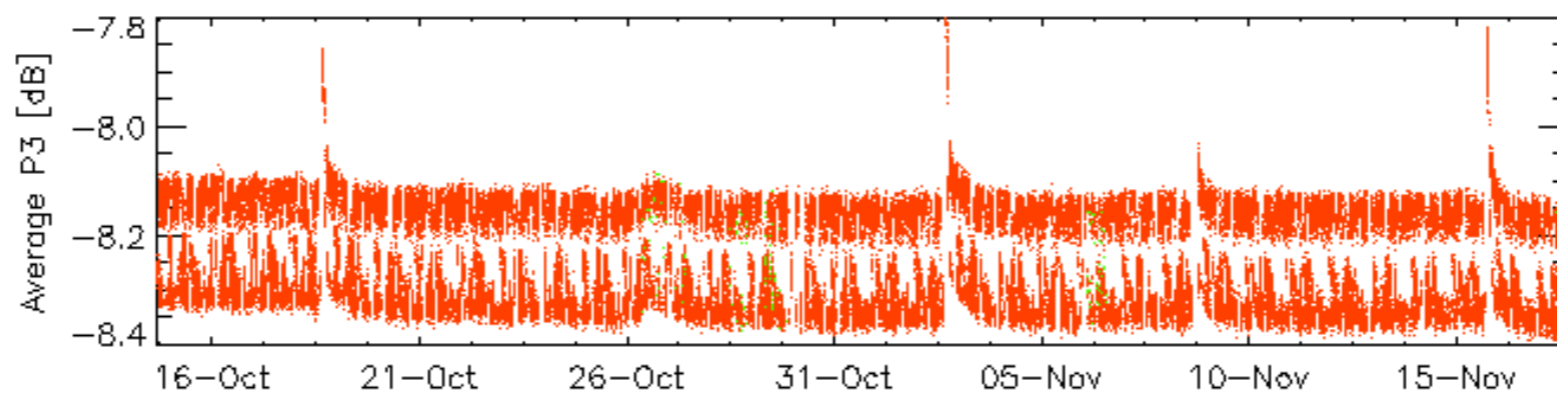
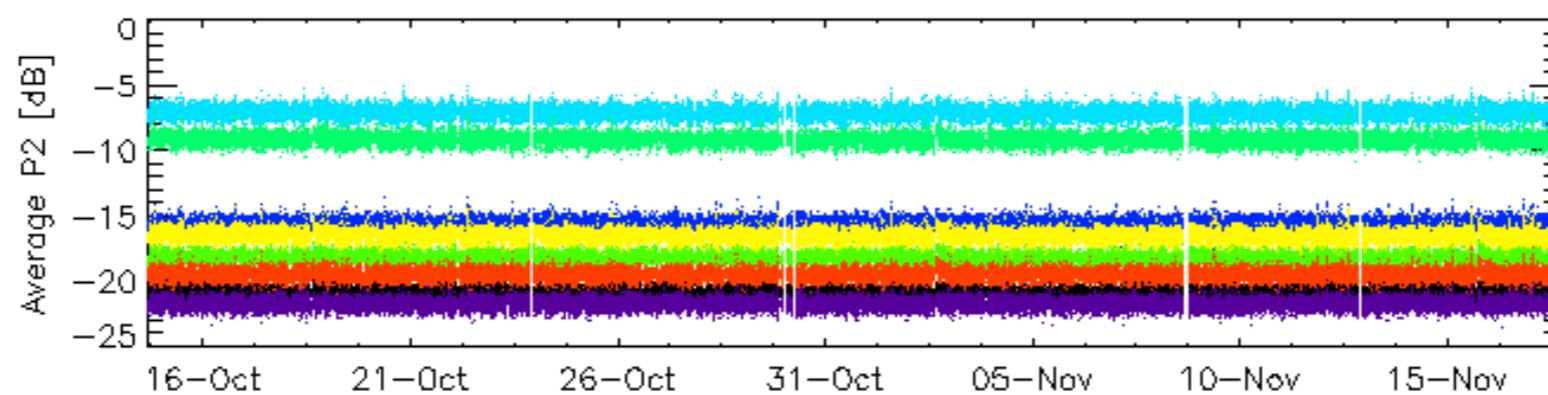
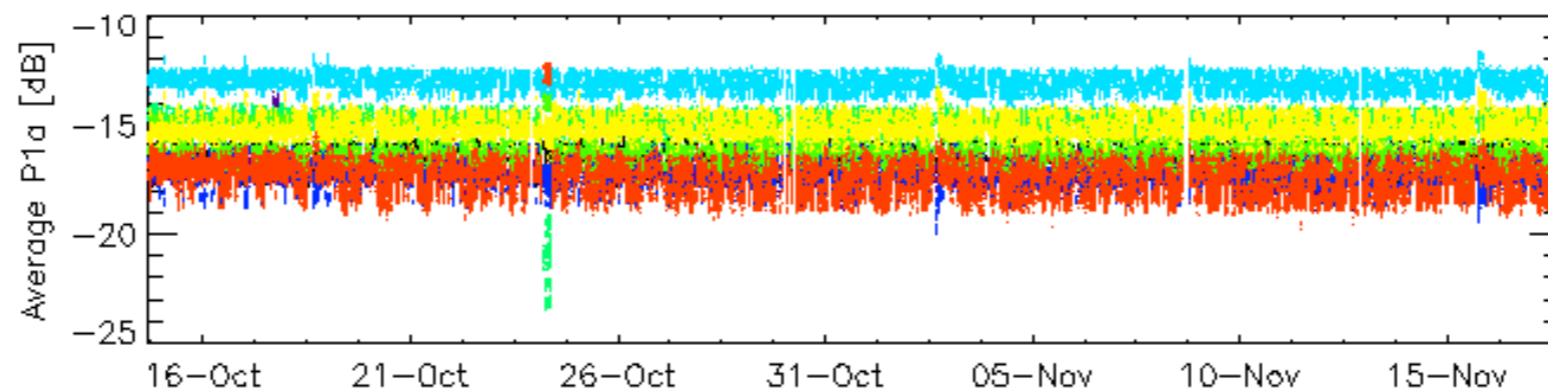
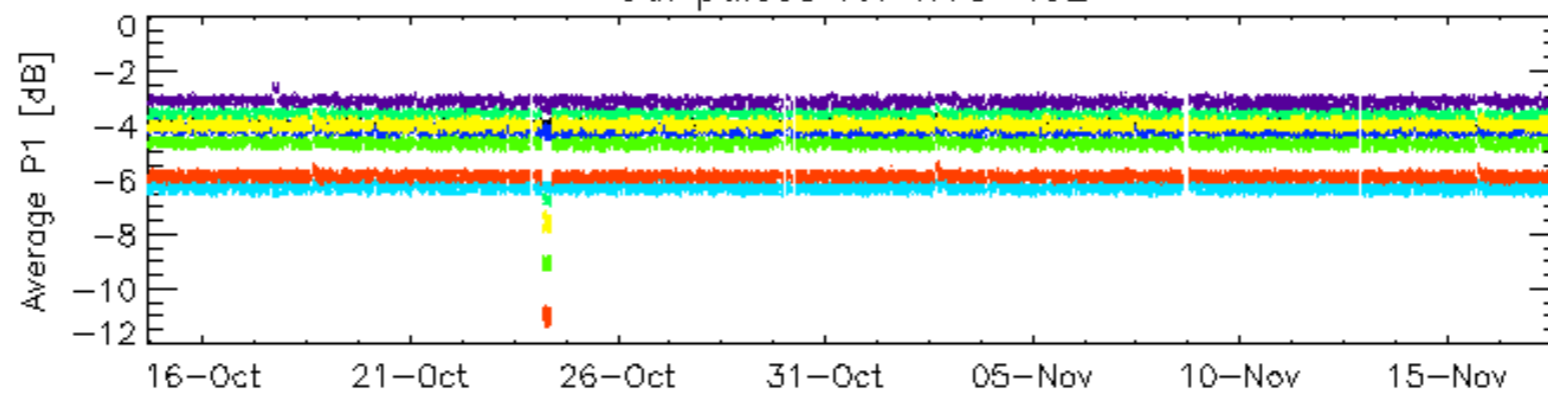


17-Nov



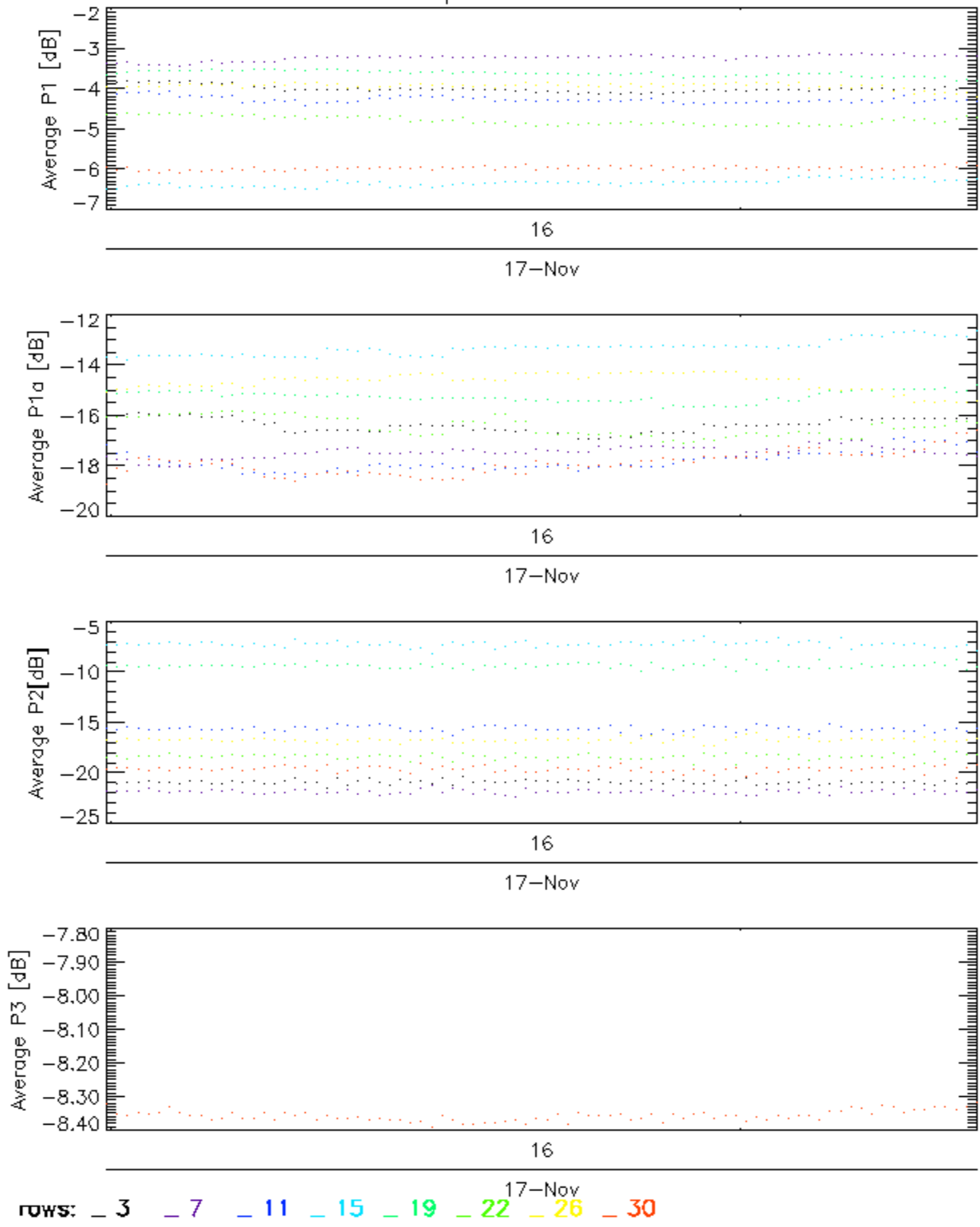
rows: **3** **7** **11** **15** **19** **22** **26** **30** 17-Nov

Cal pulses for WVS IS2

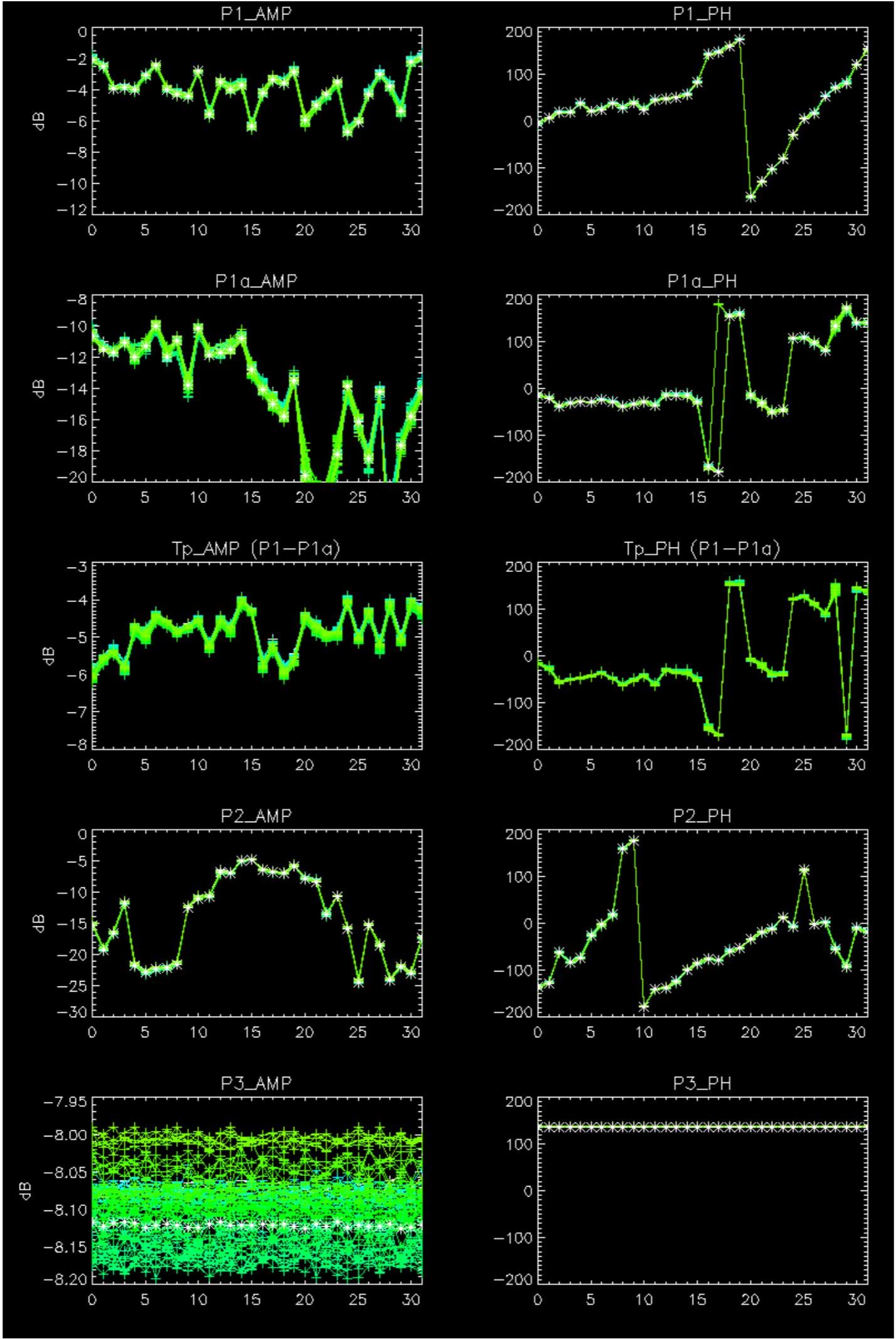


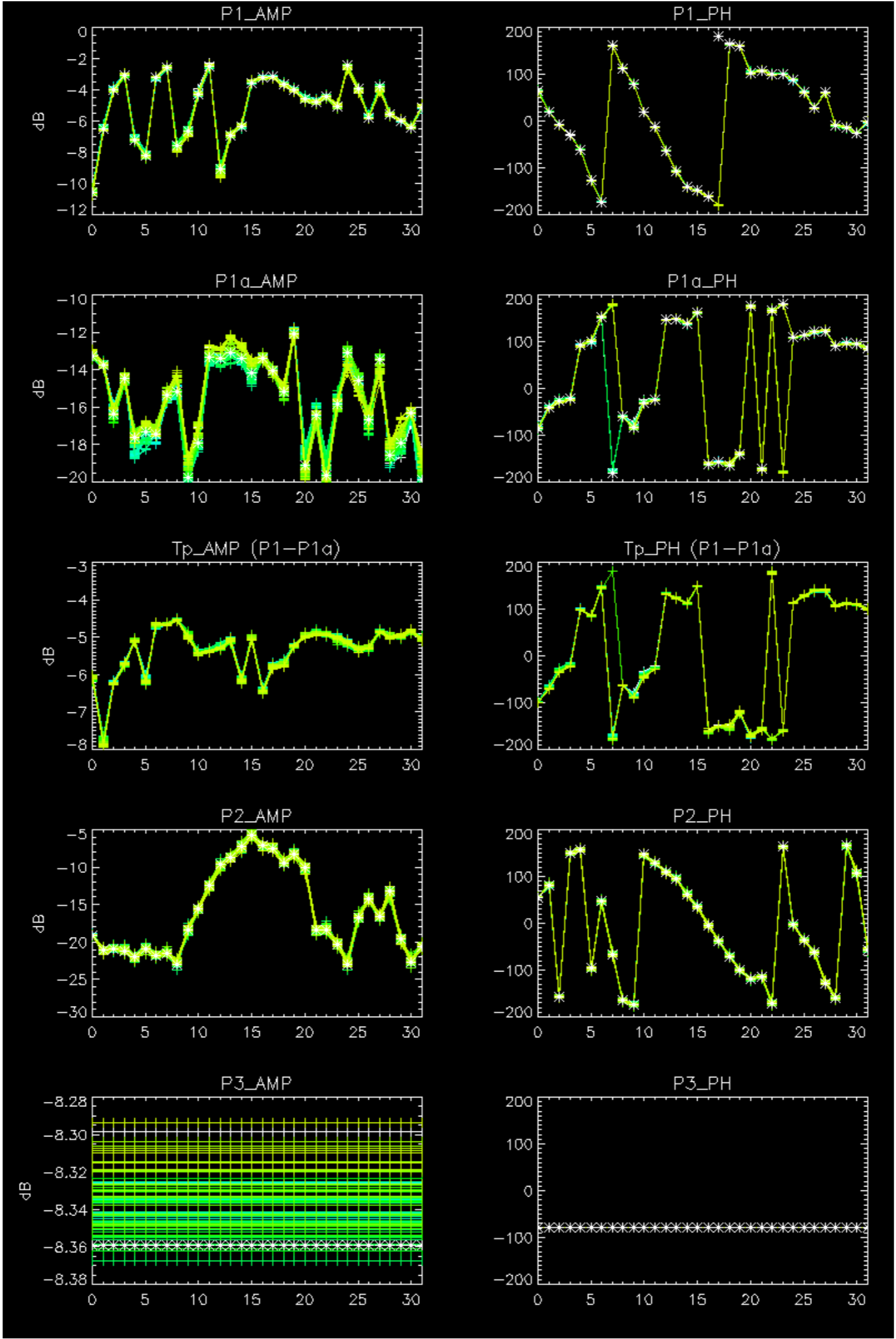
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



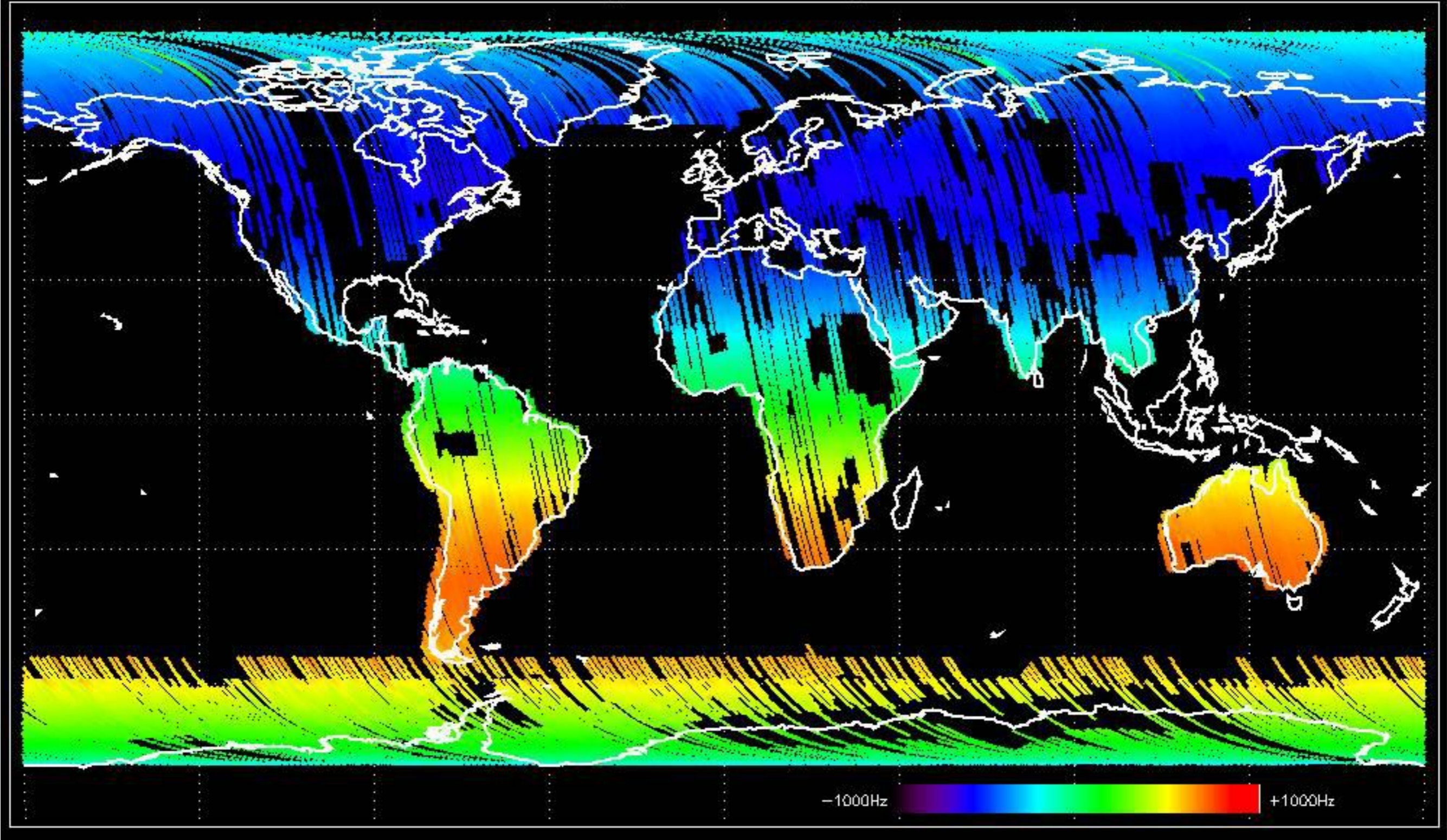
No anomalies observed.



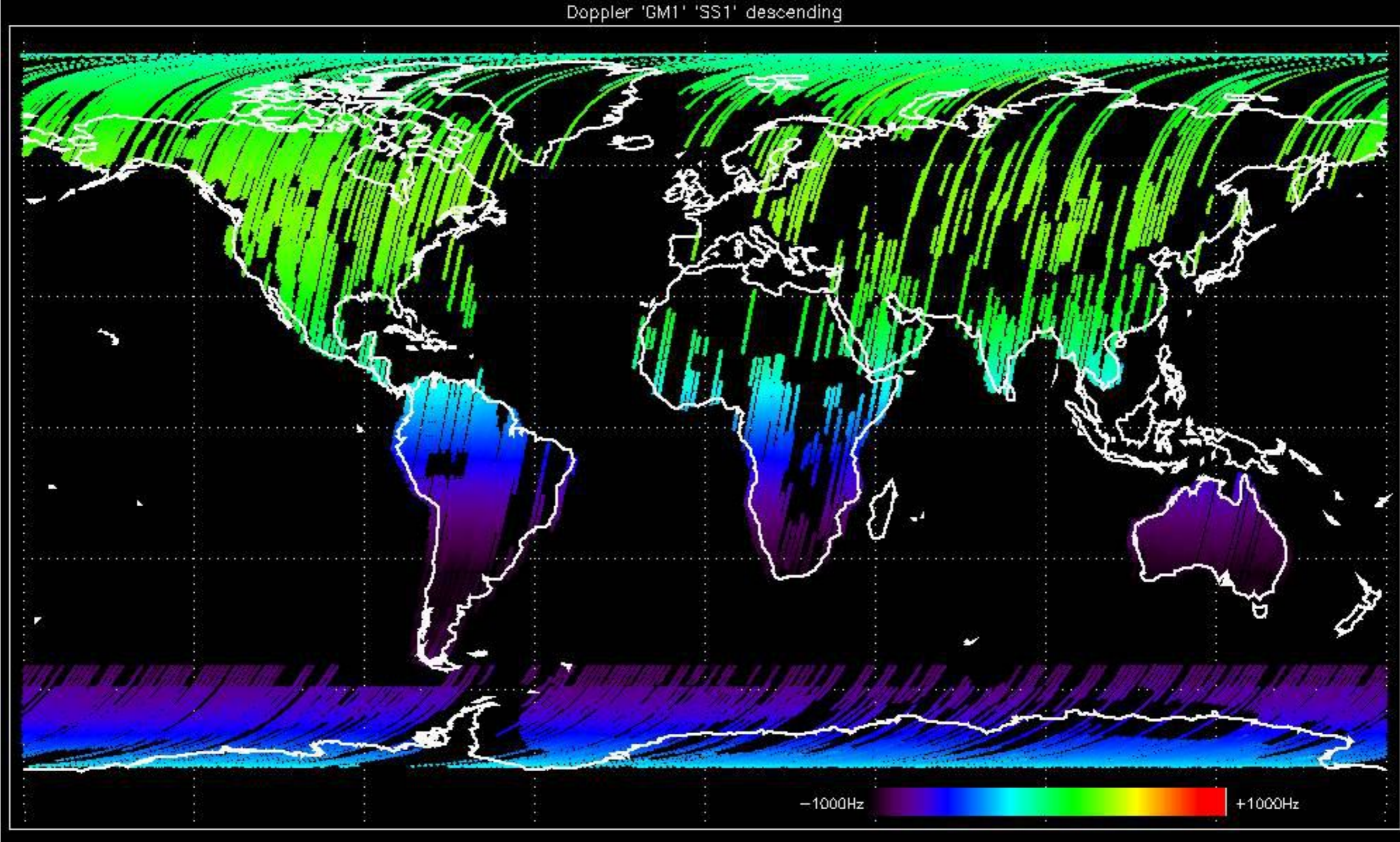


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

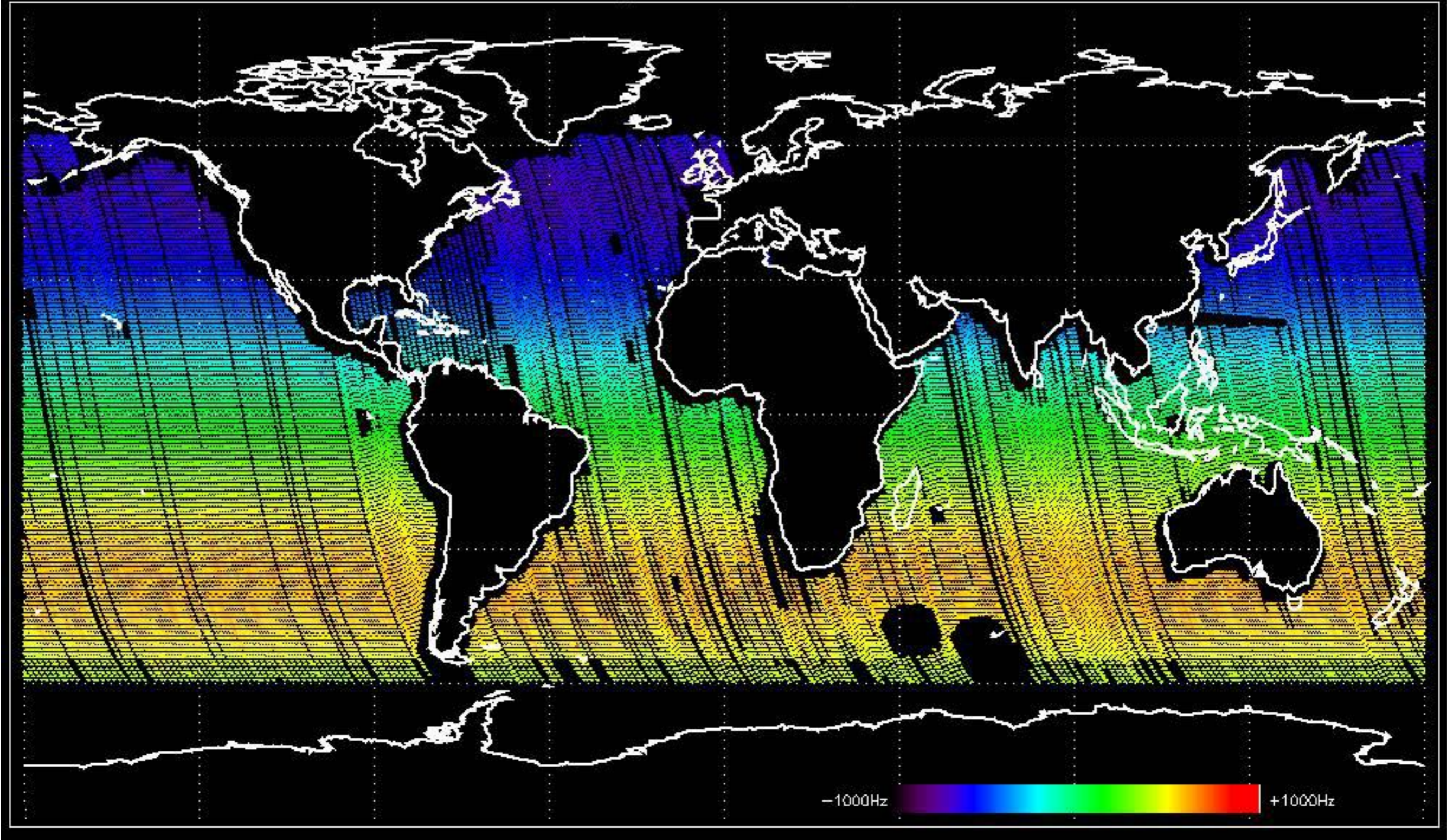
Doppler 'GM1' 'SS1' ascending



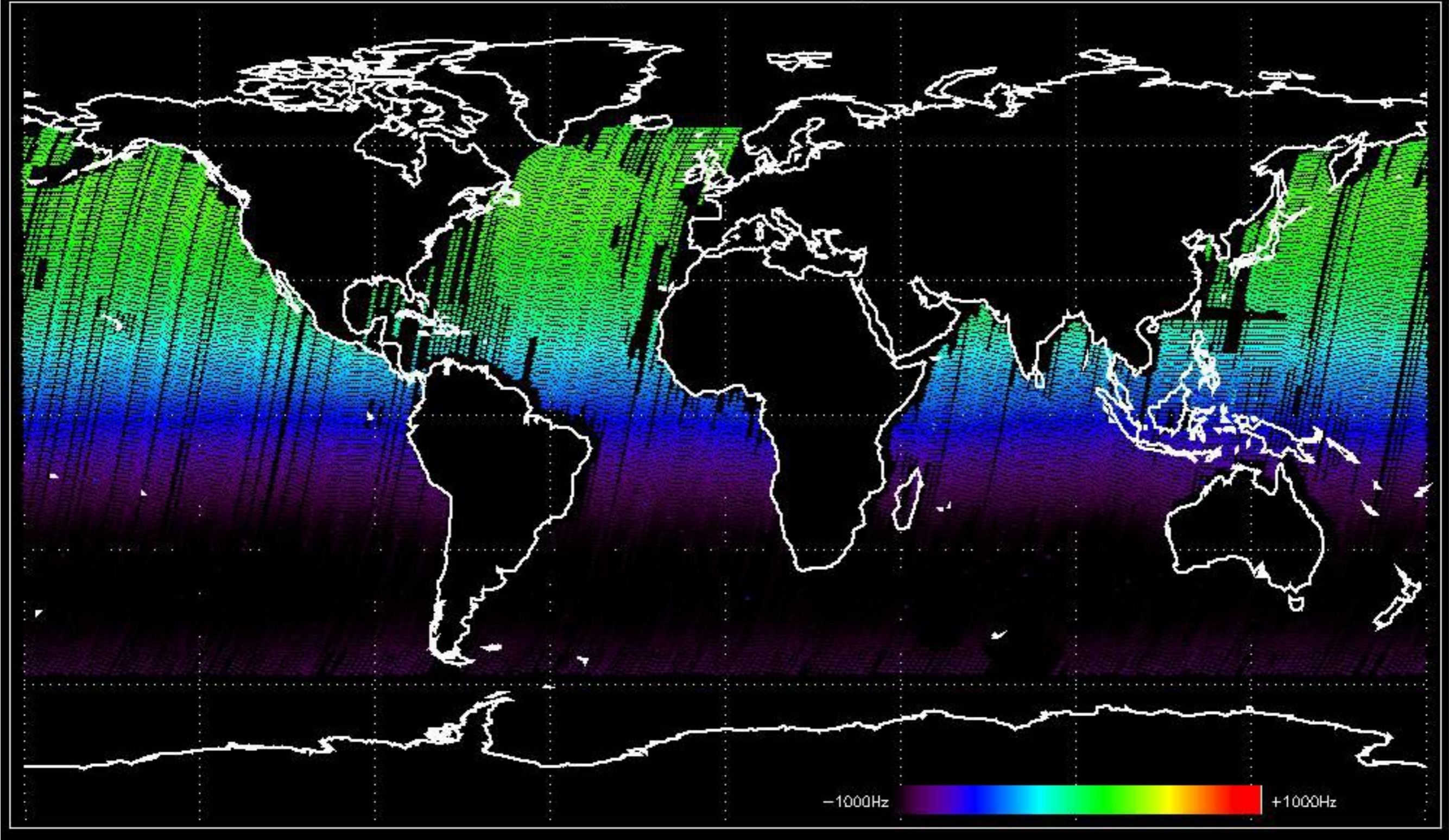
Doppler 'GM1' 'SS1' descending



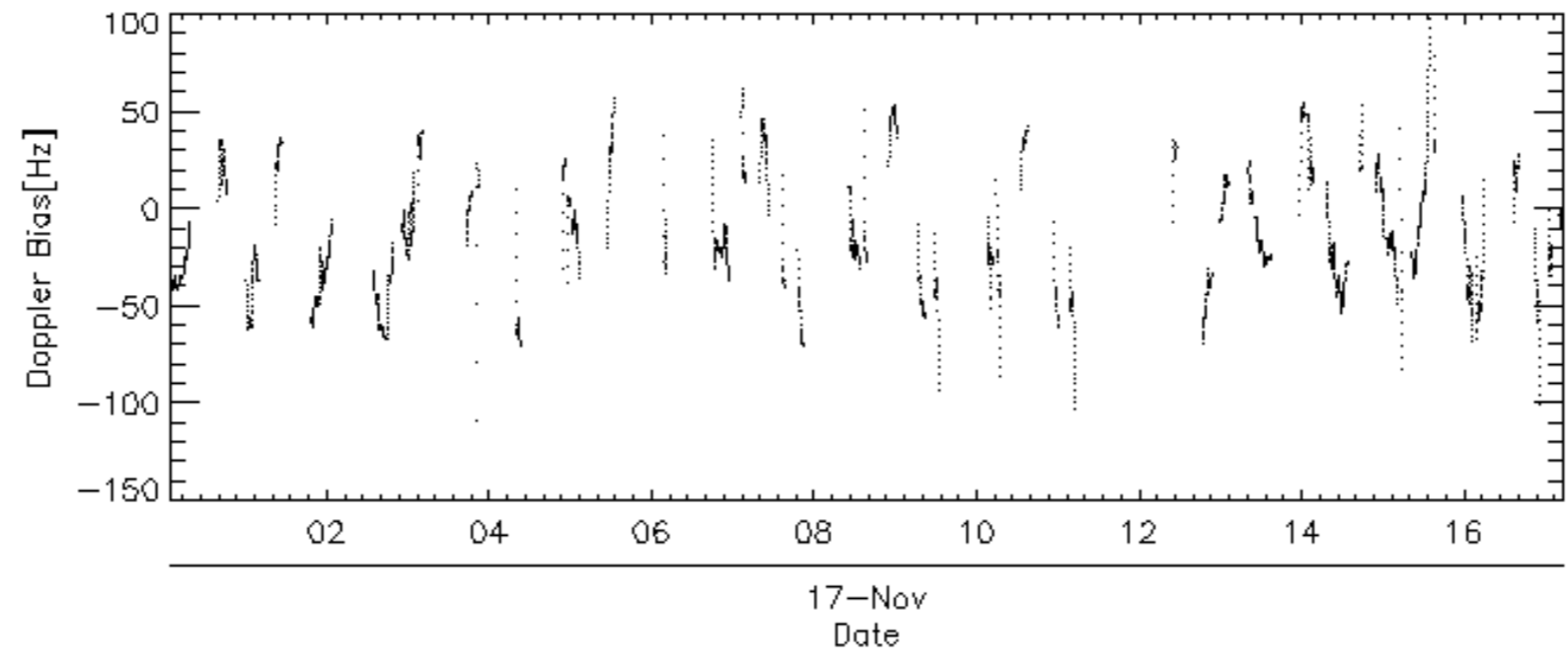
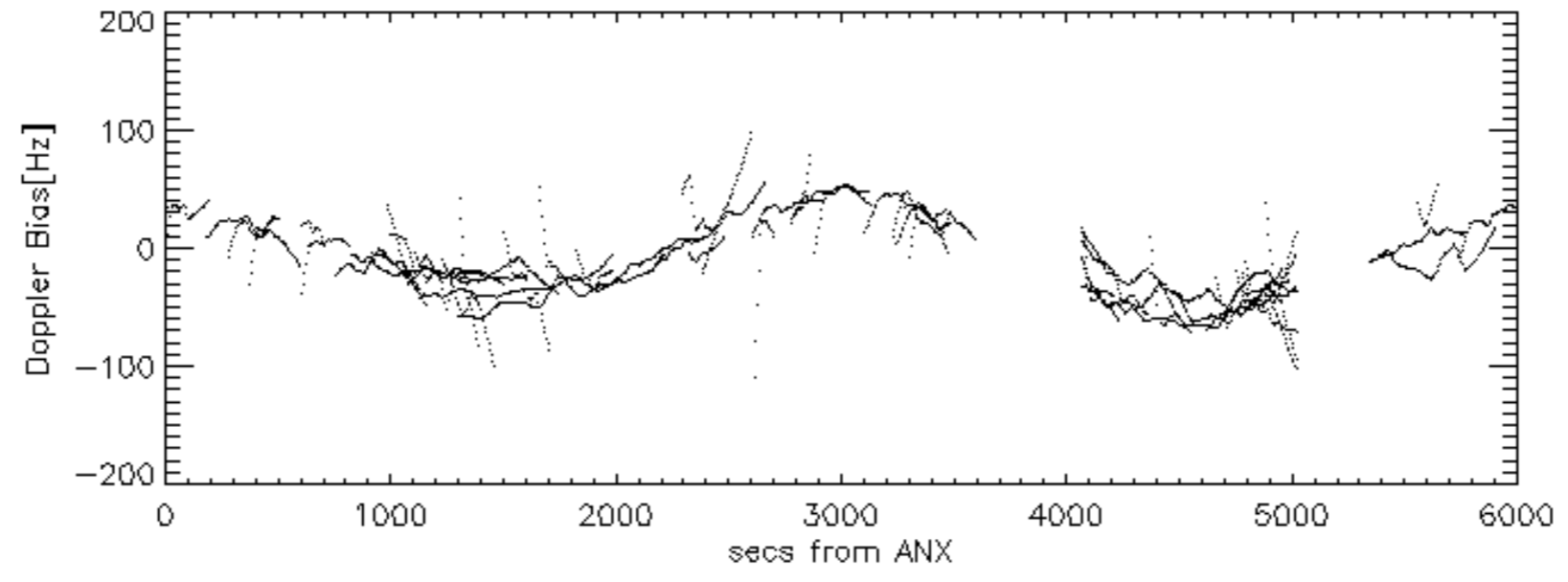
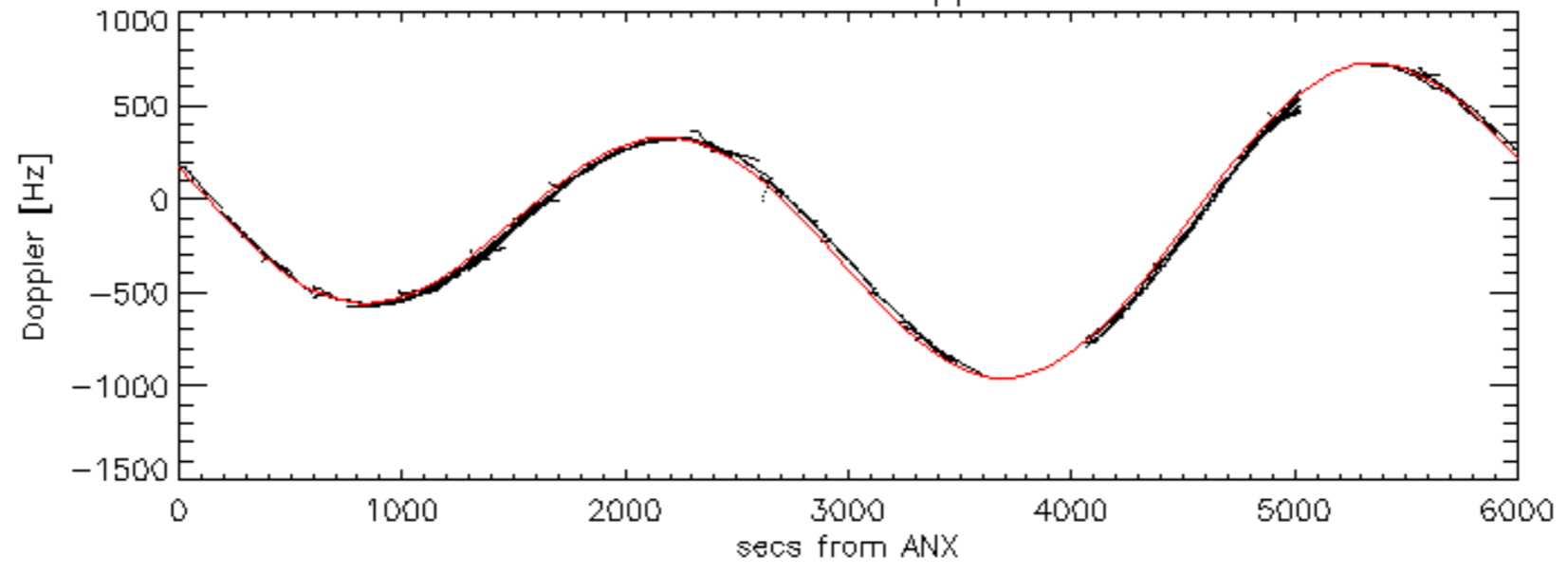
Doppler 'WVS' 'IS2' ascending

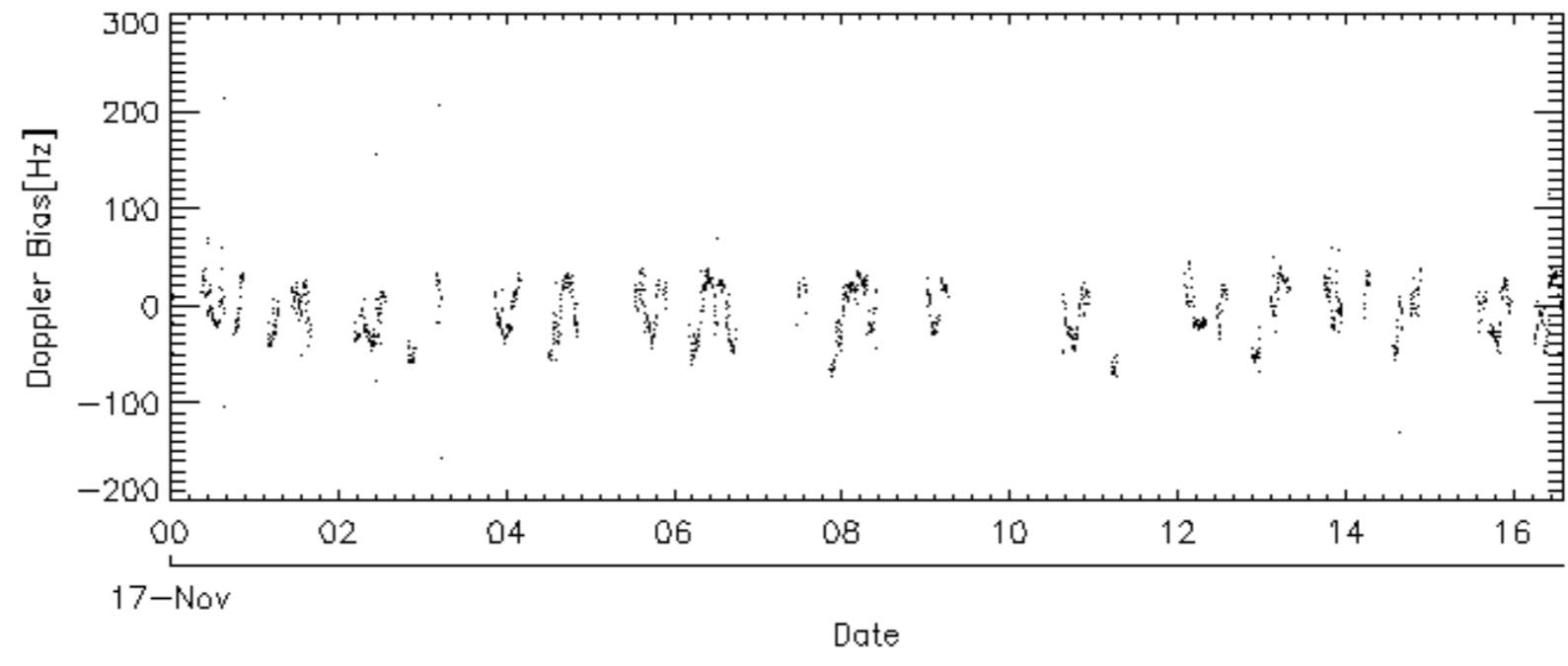
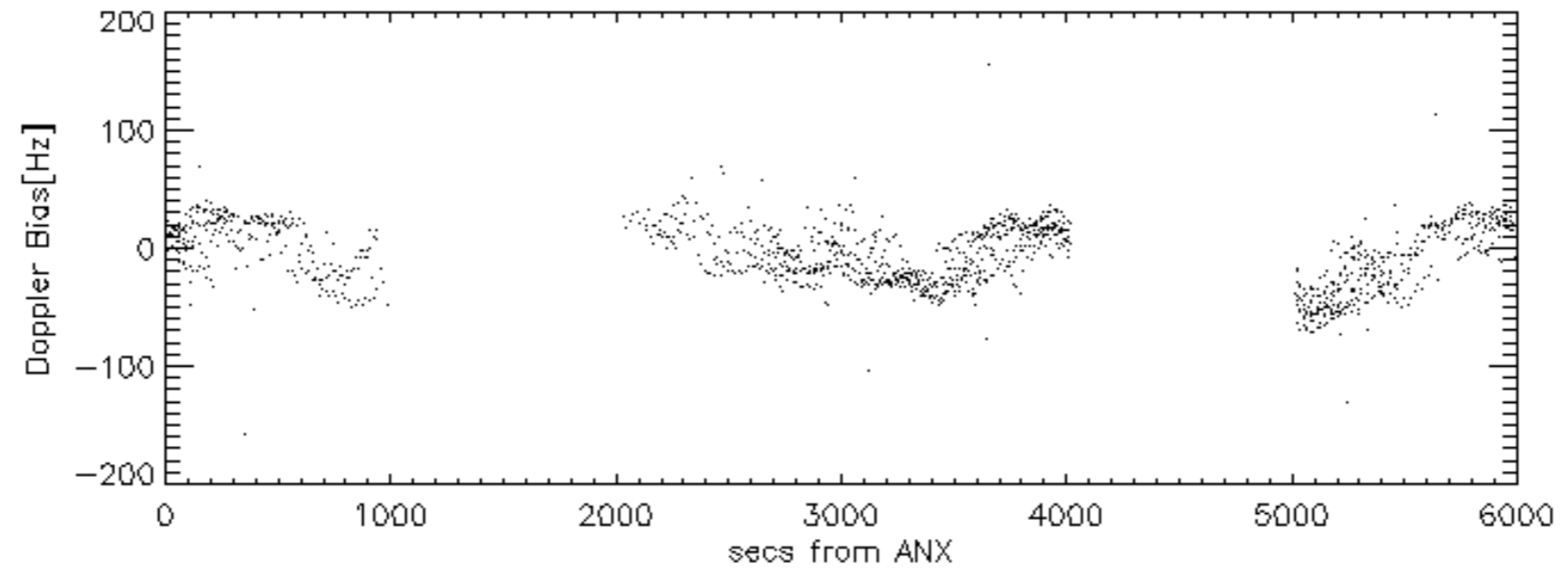
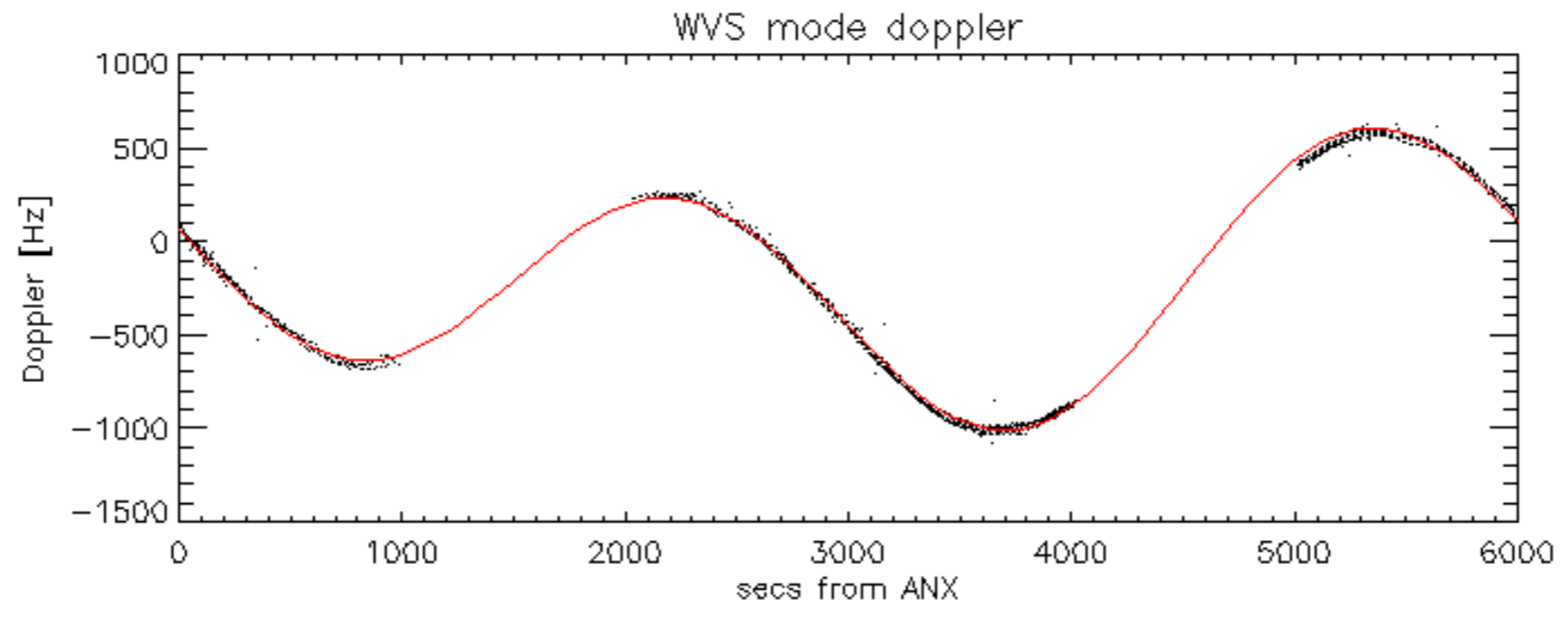


Doppler 'WVS' 'IS2' descending

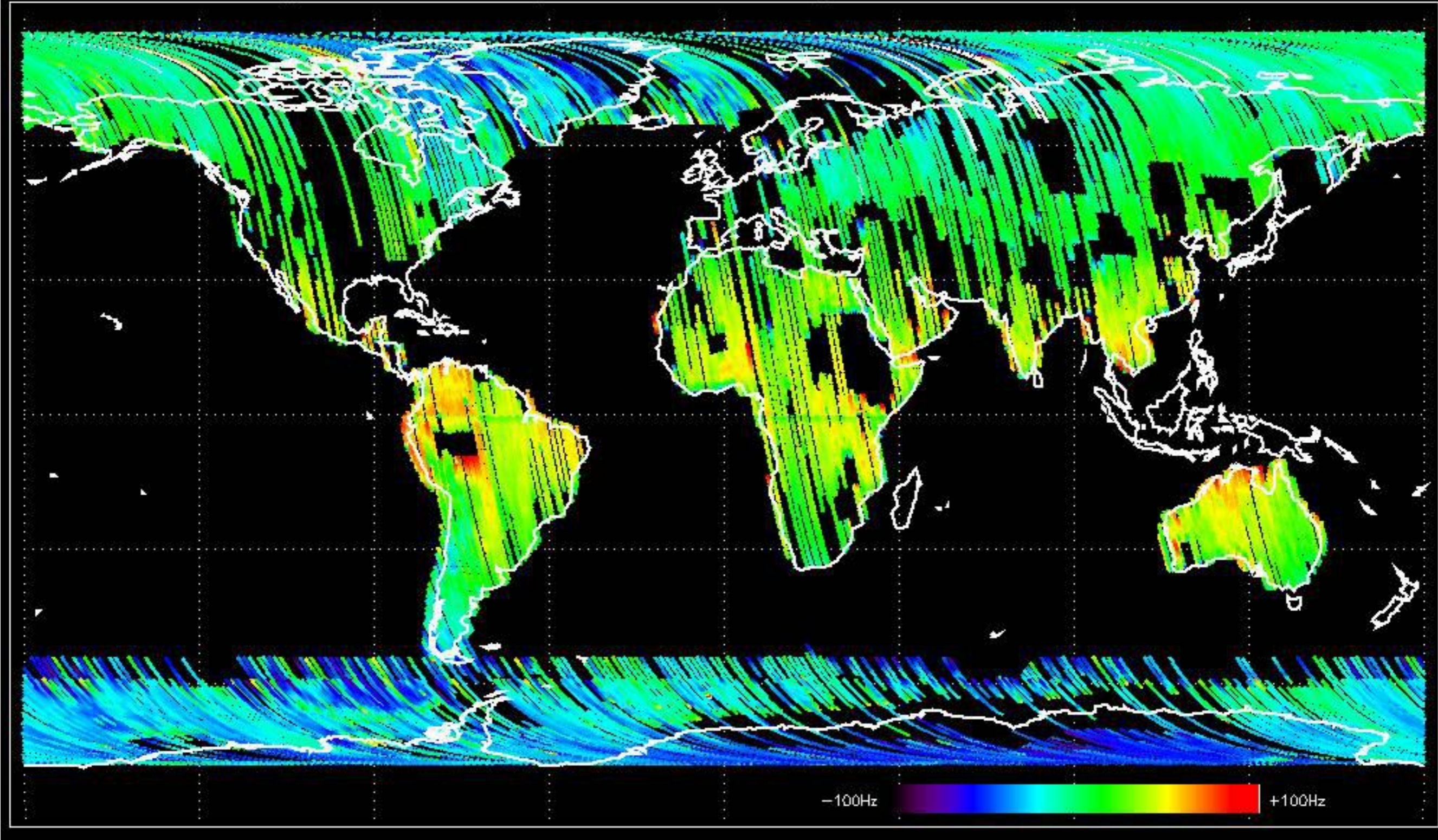


GM1 mode doppler

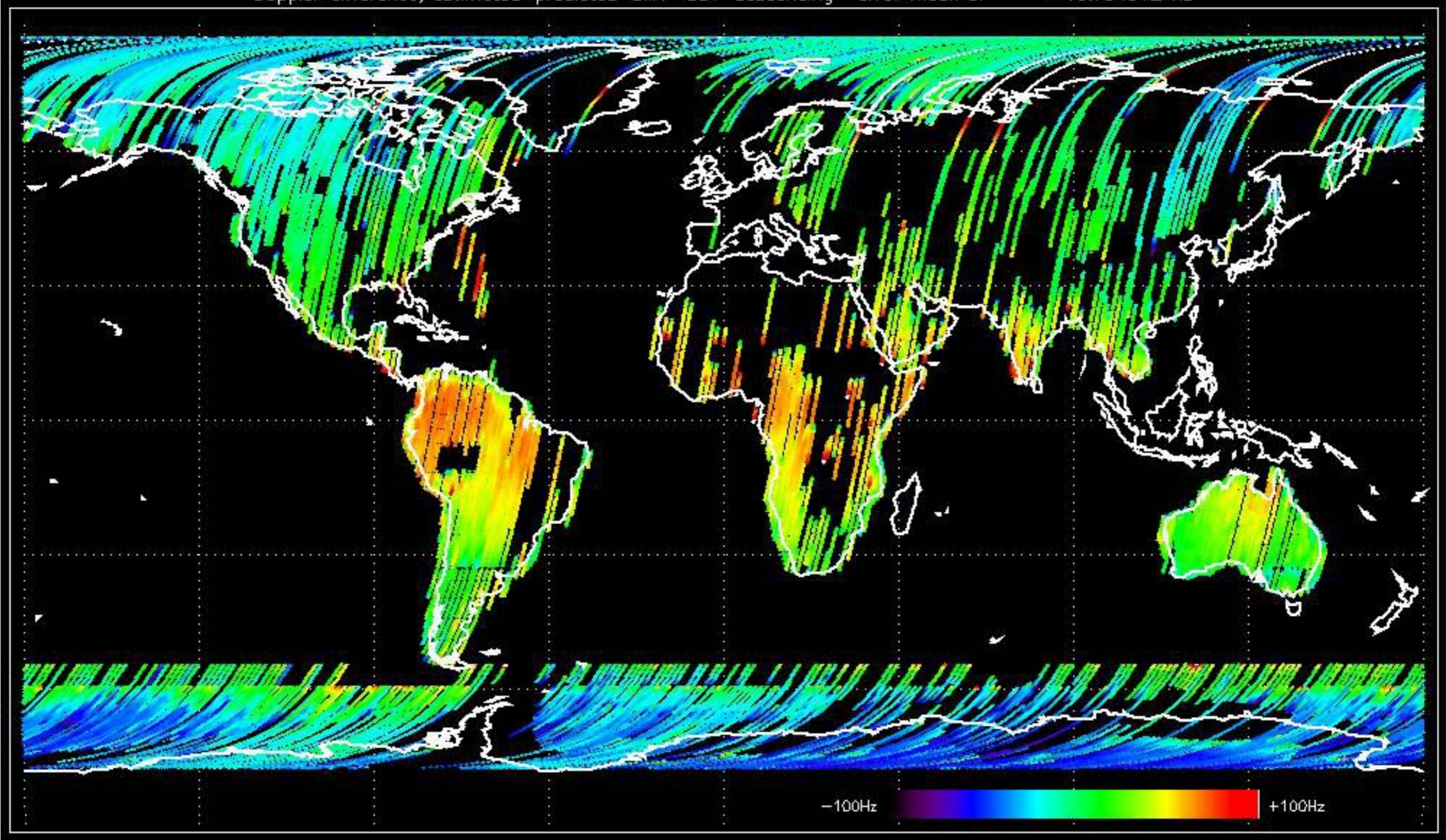




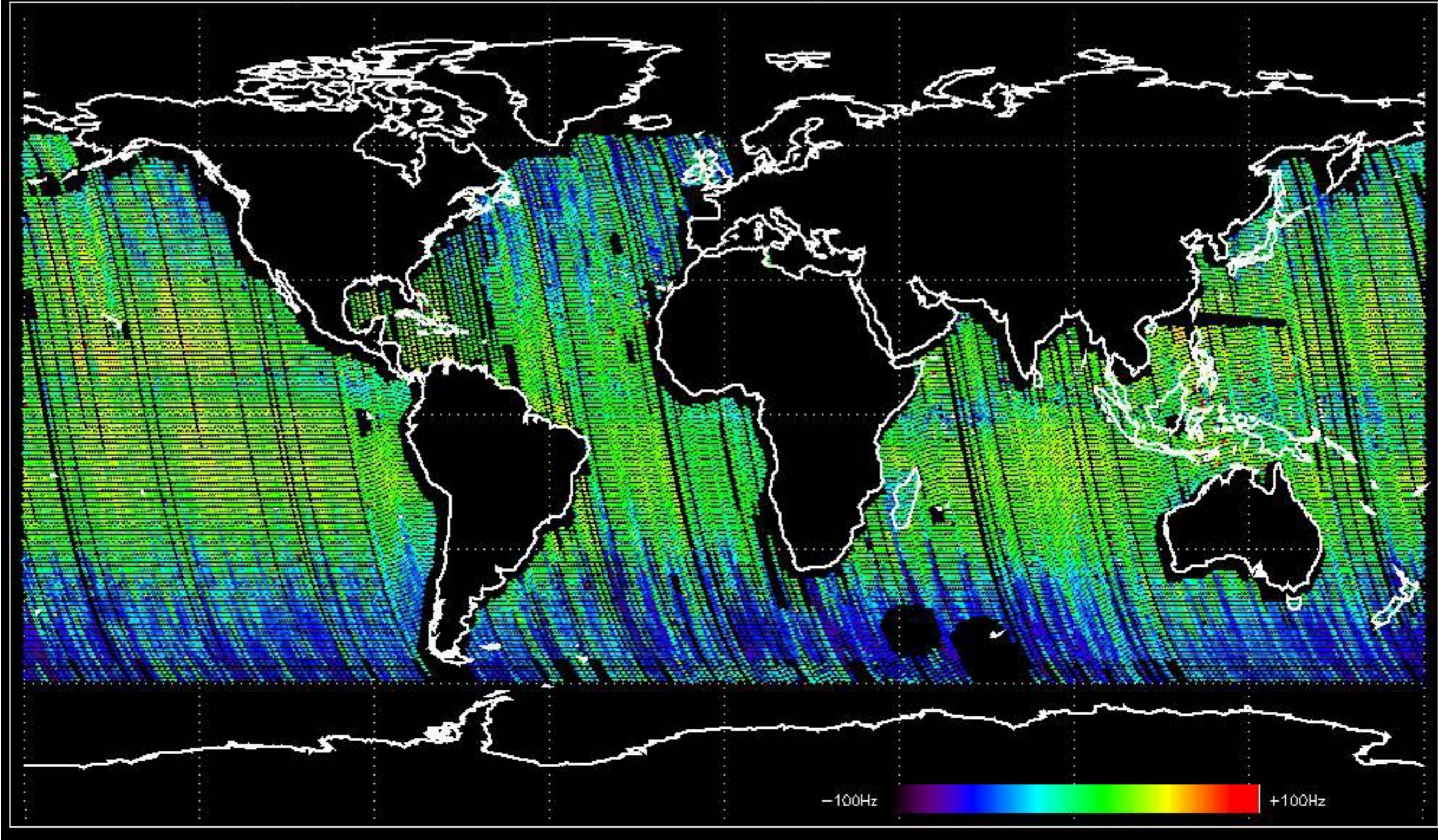
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.669619 Hz



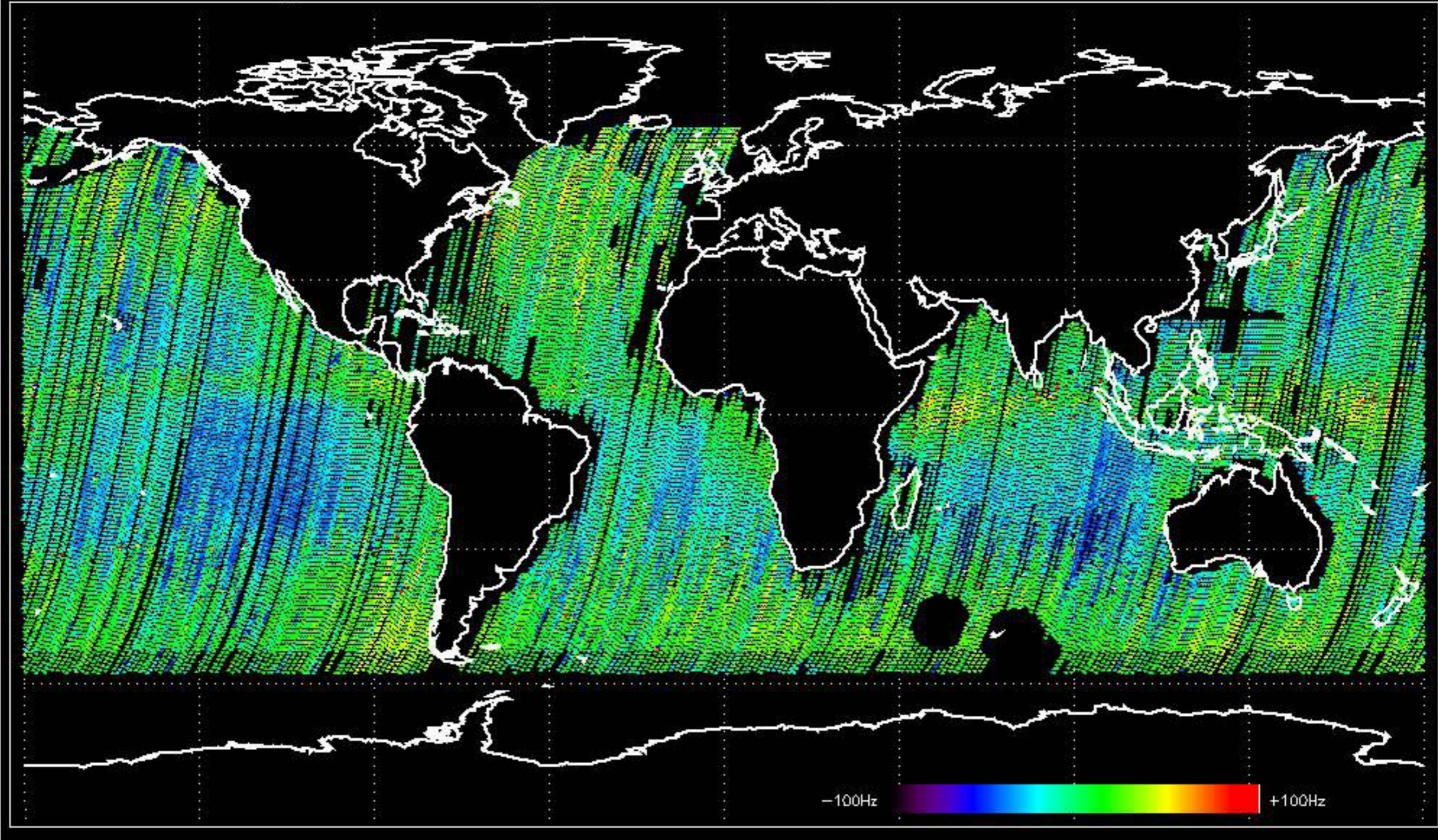
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.794912 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.6571457 Hz

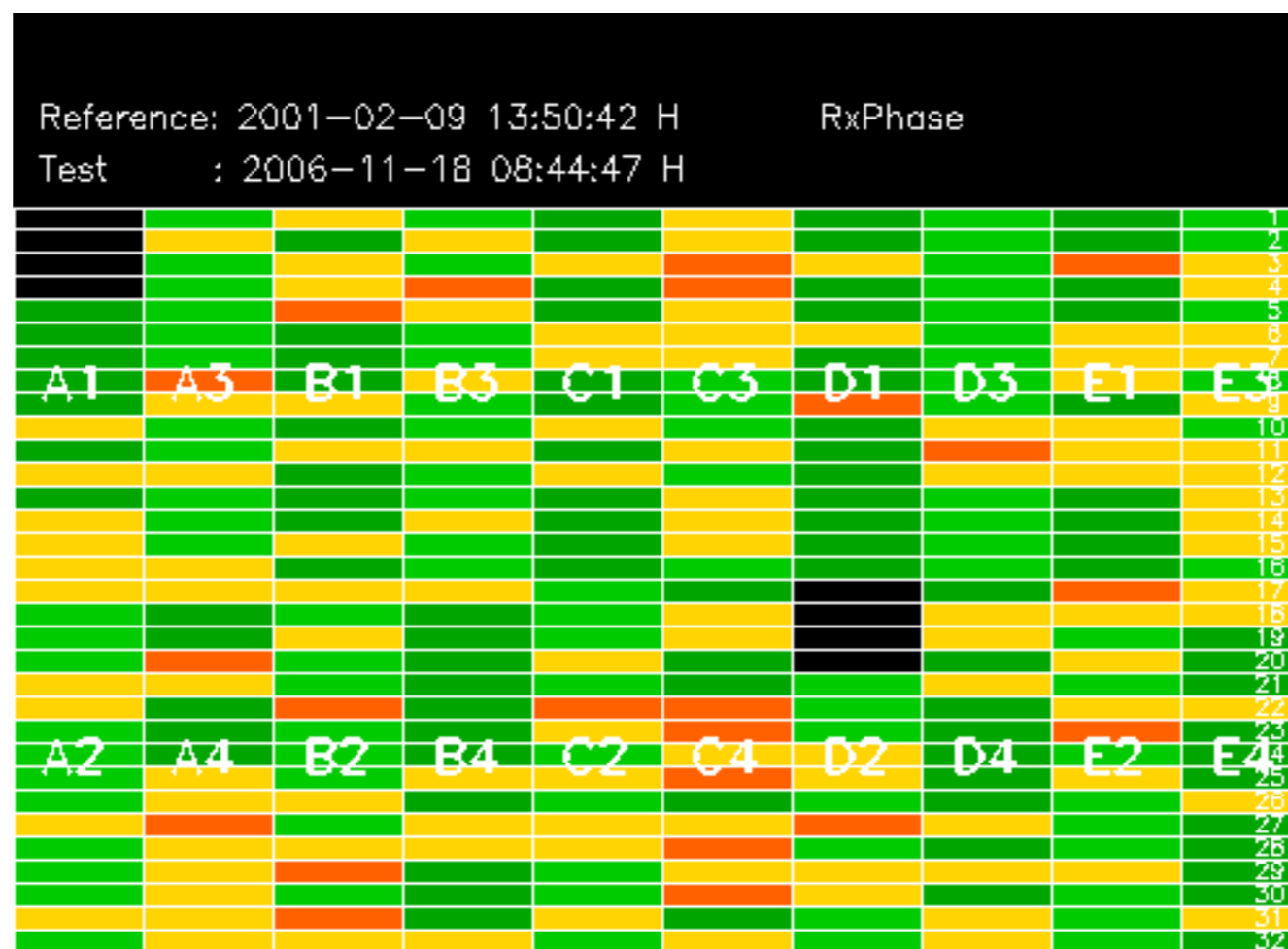


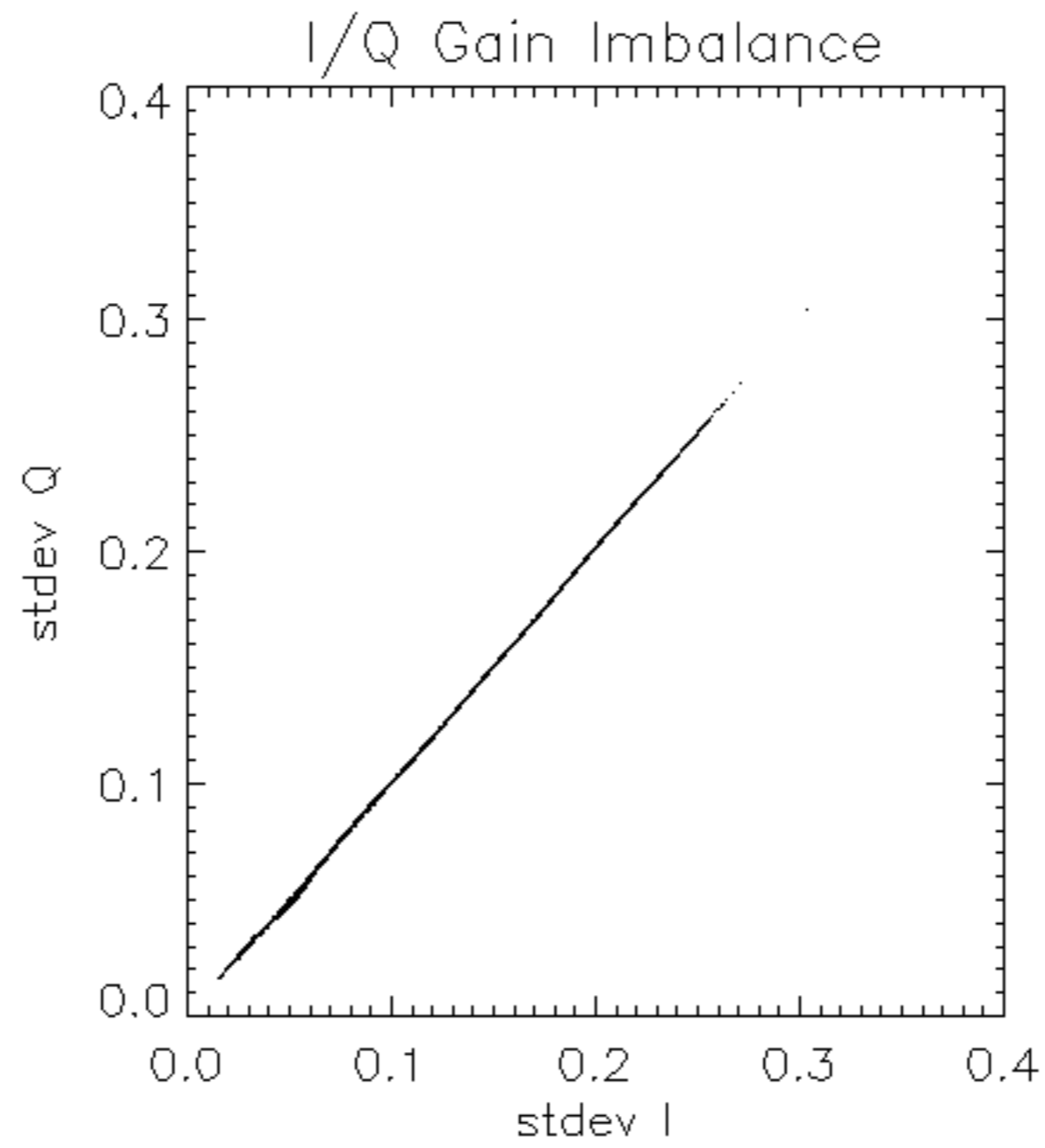
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6799883 Hz

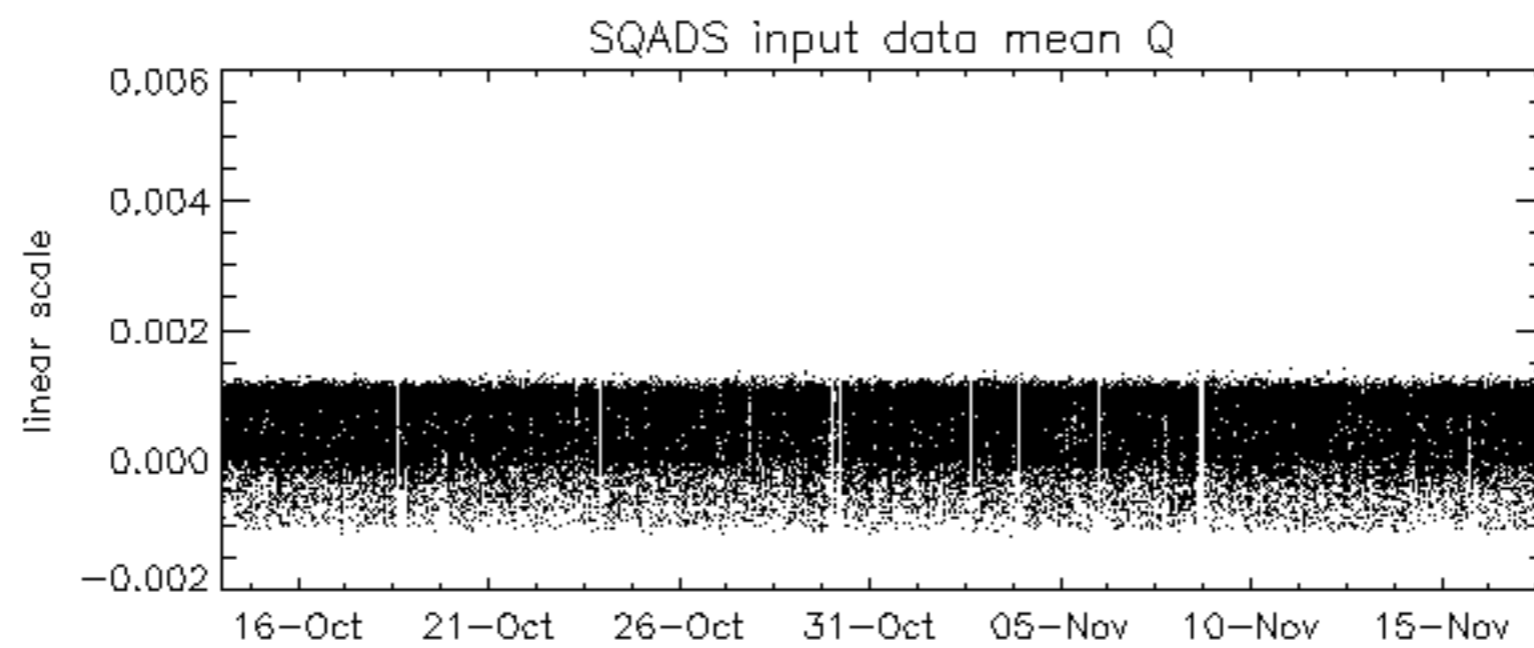
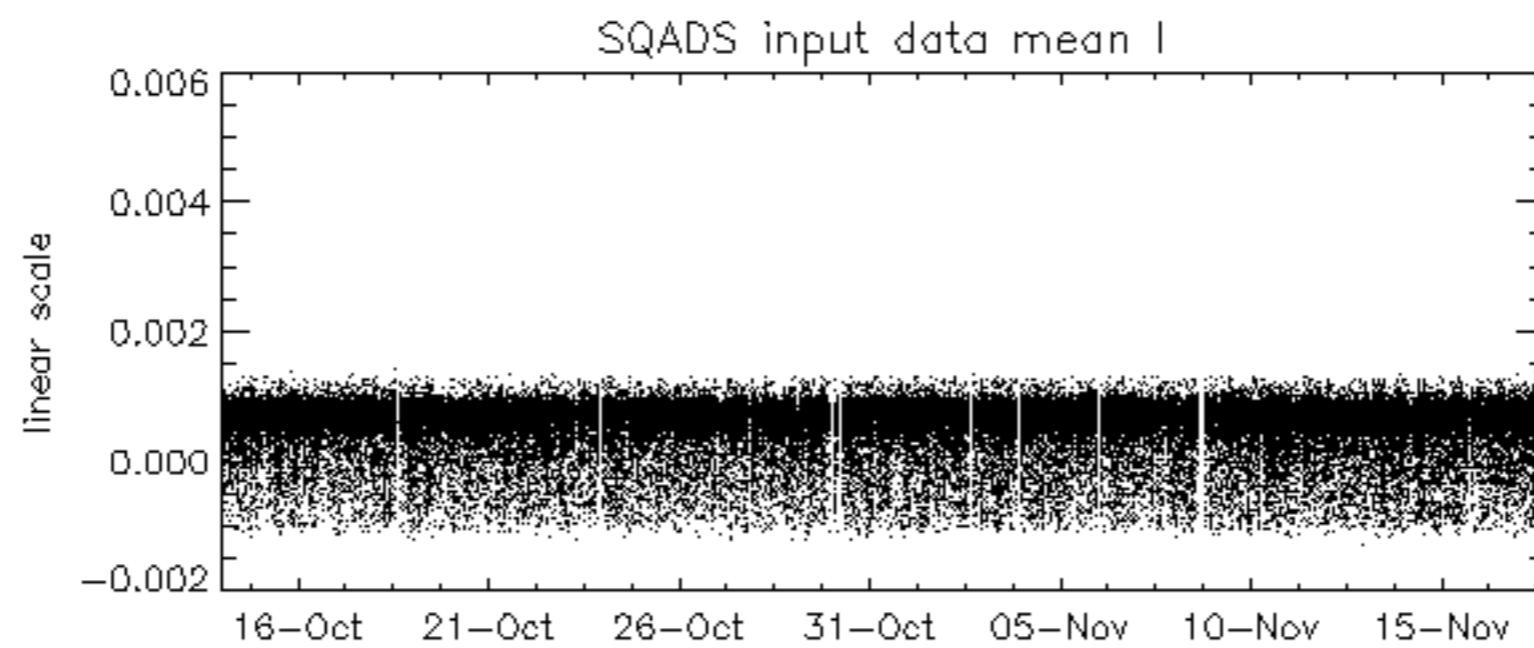
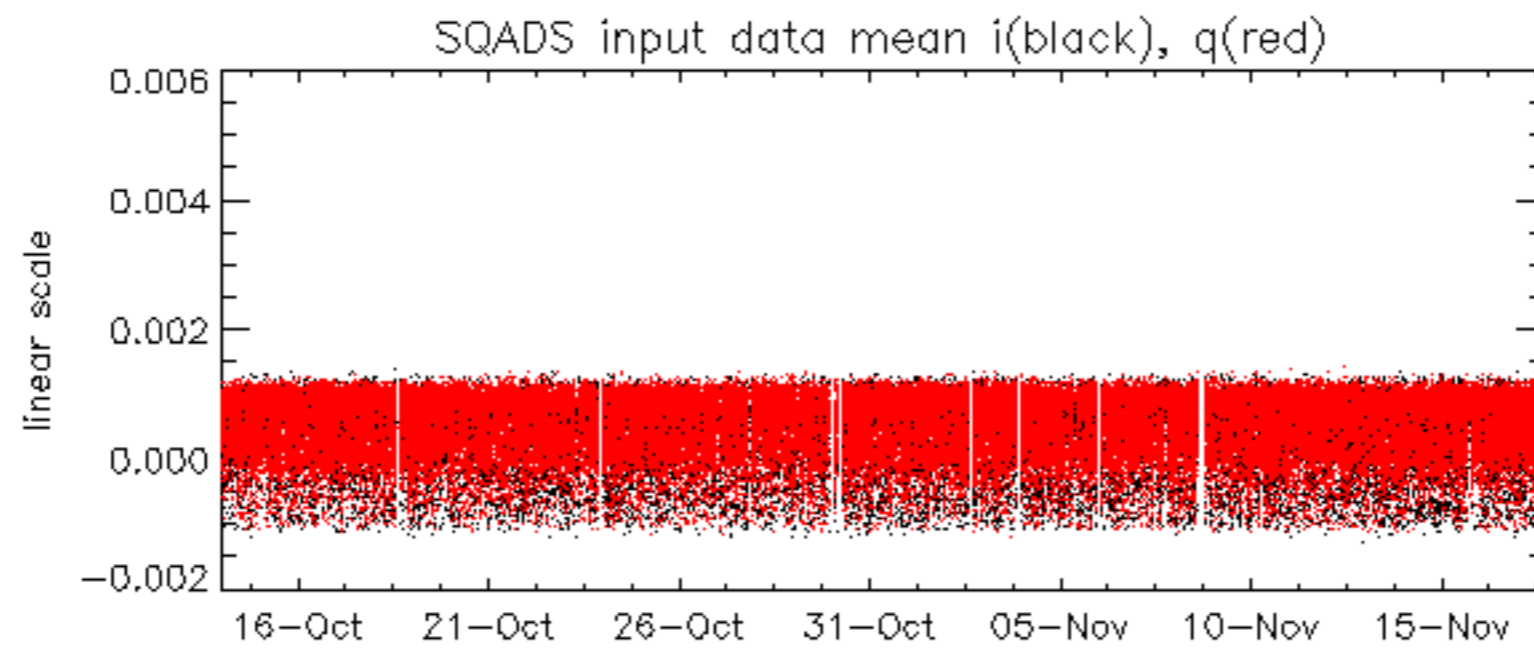


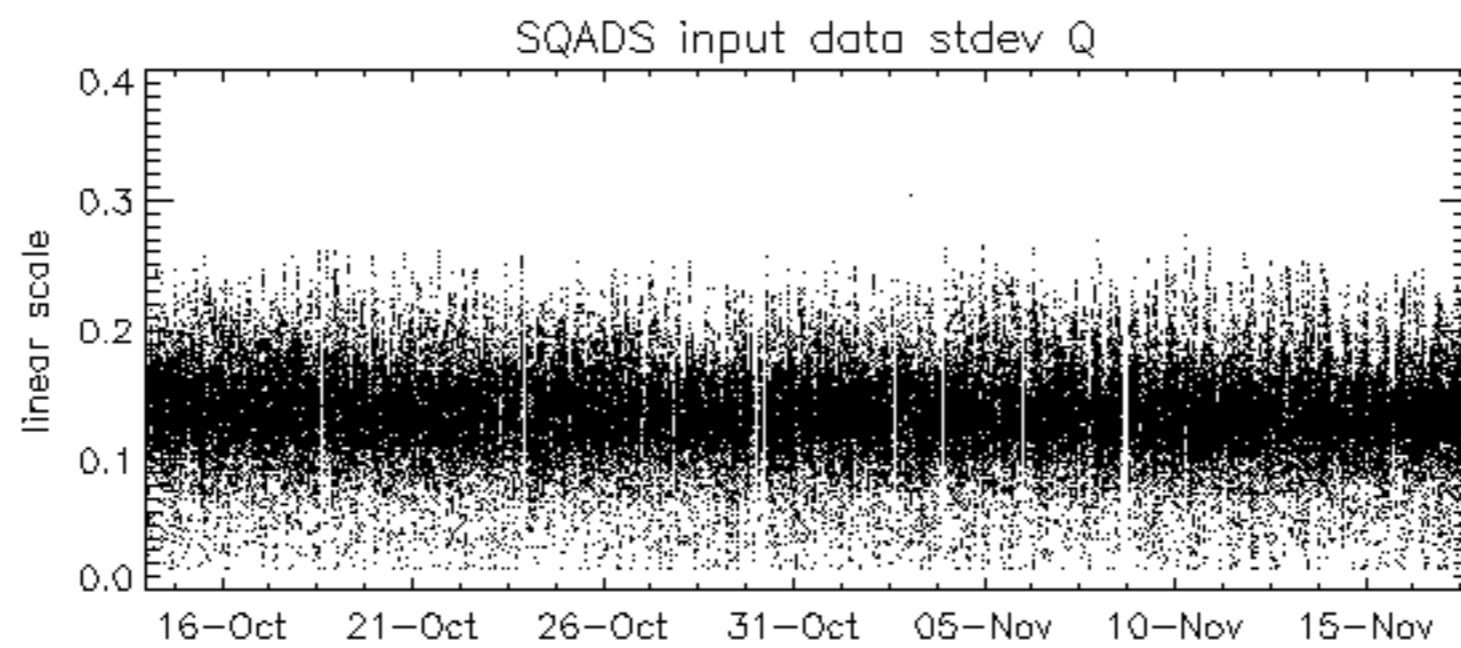
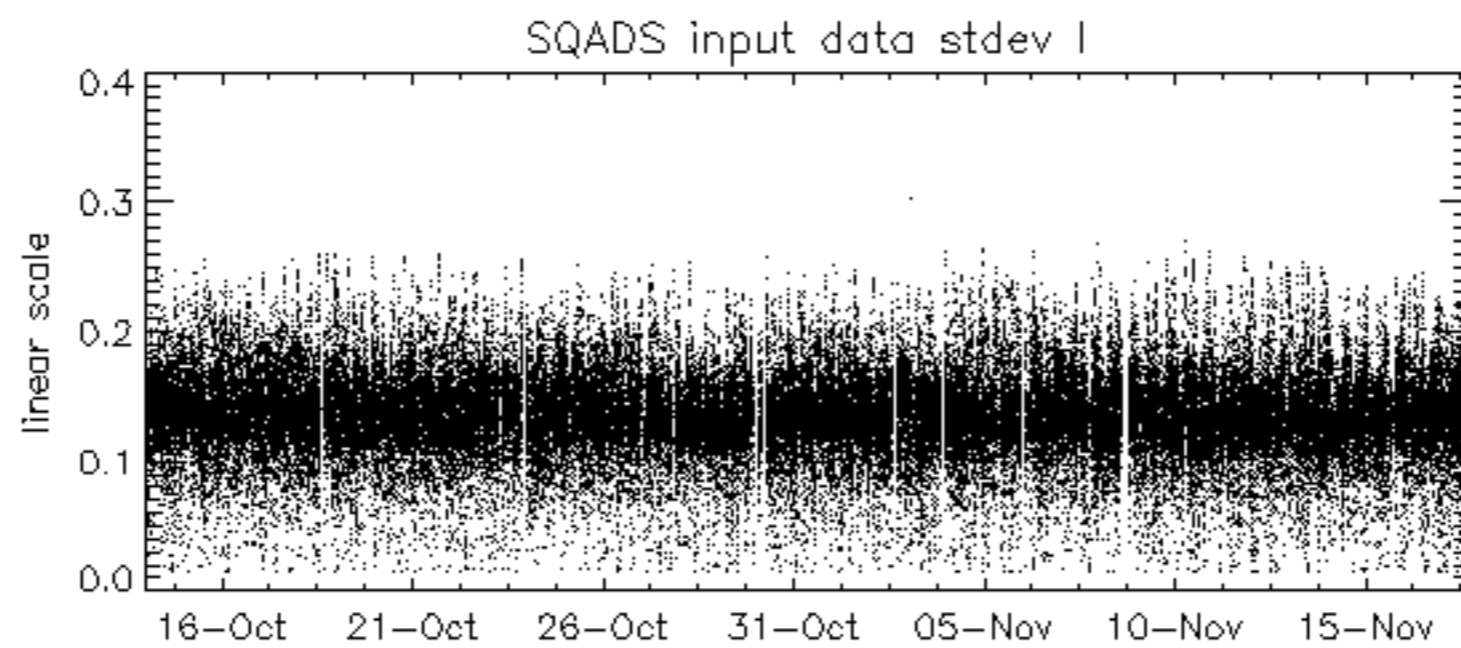
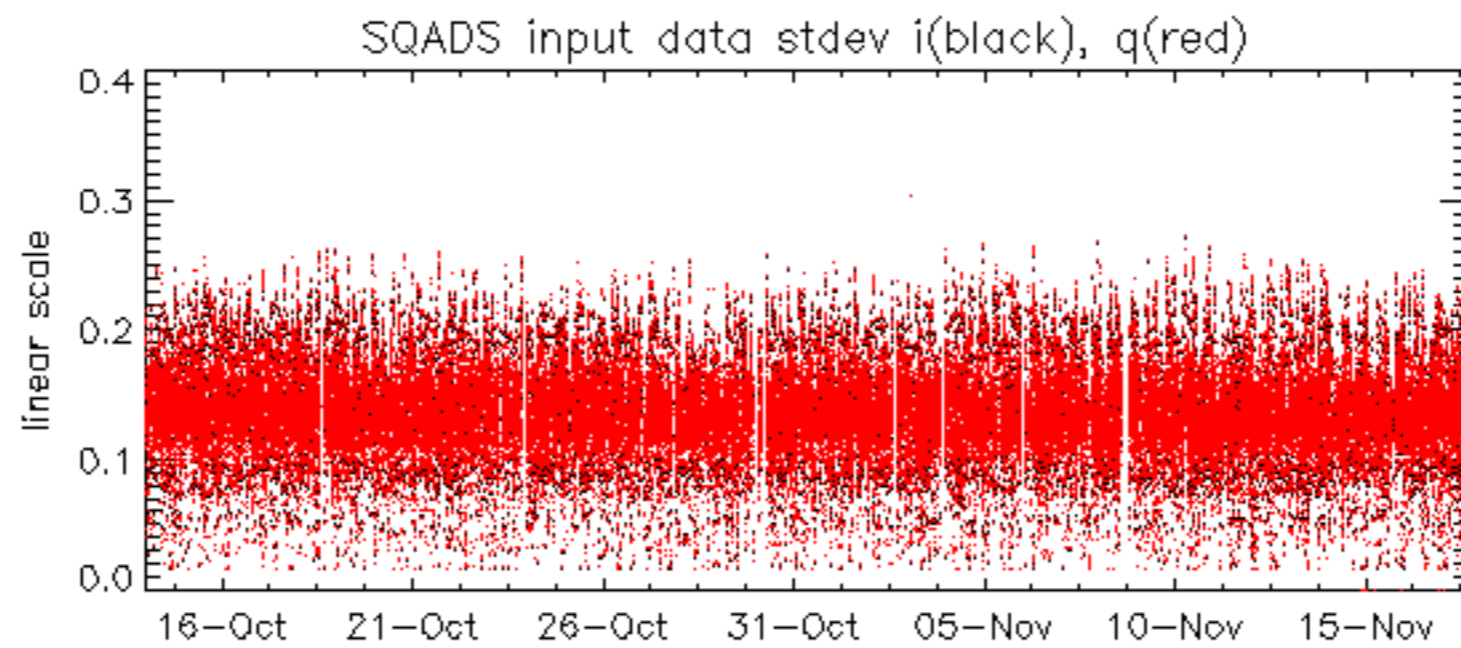
No anomalies observed on available MS products:

No anomalies observed.





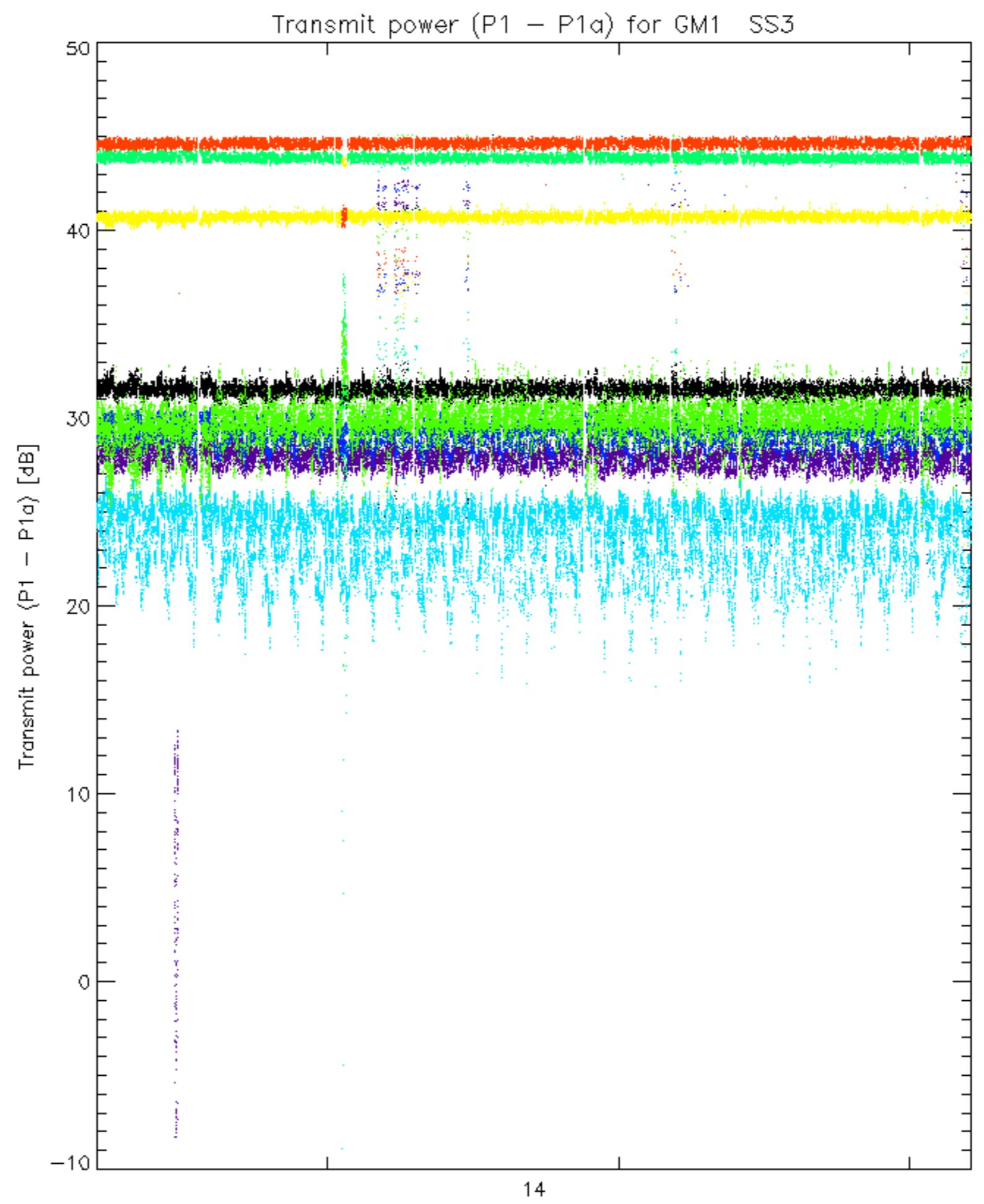




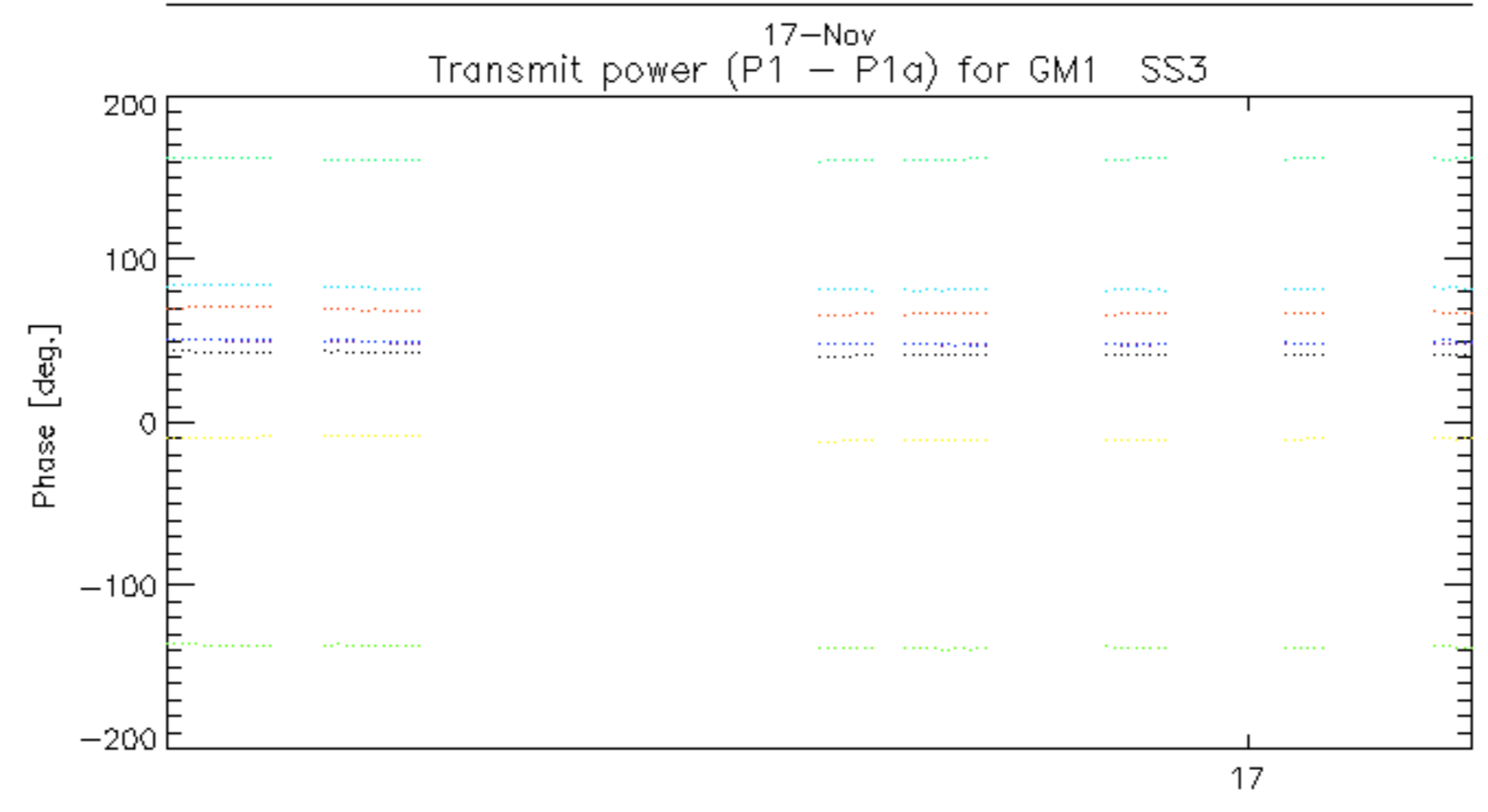
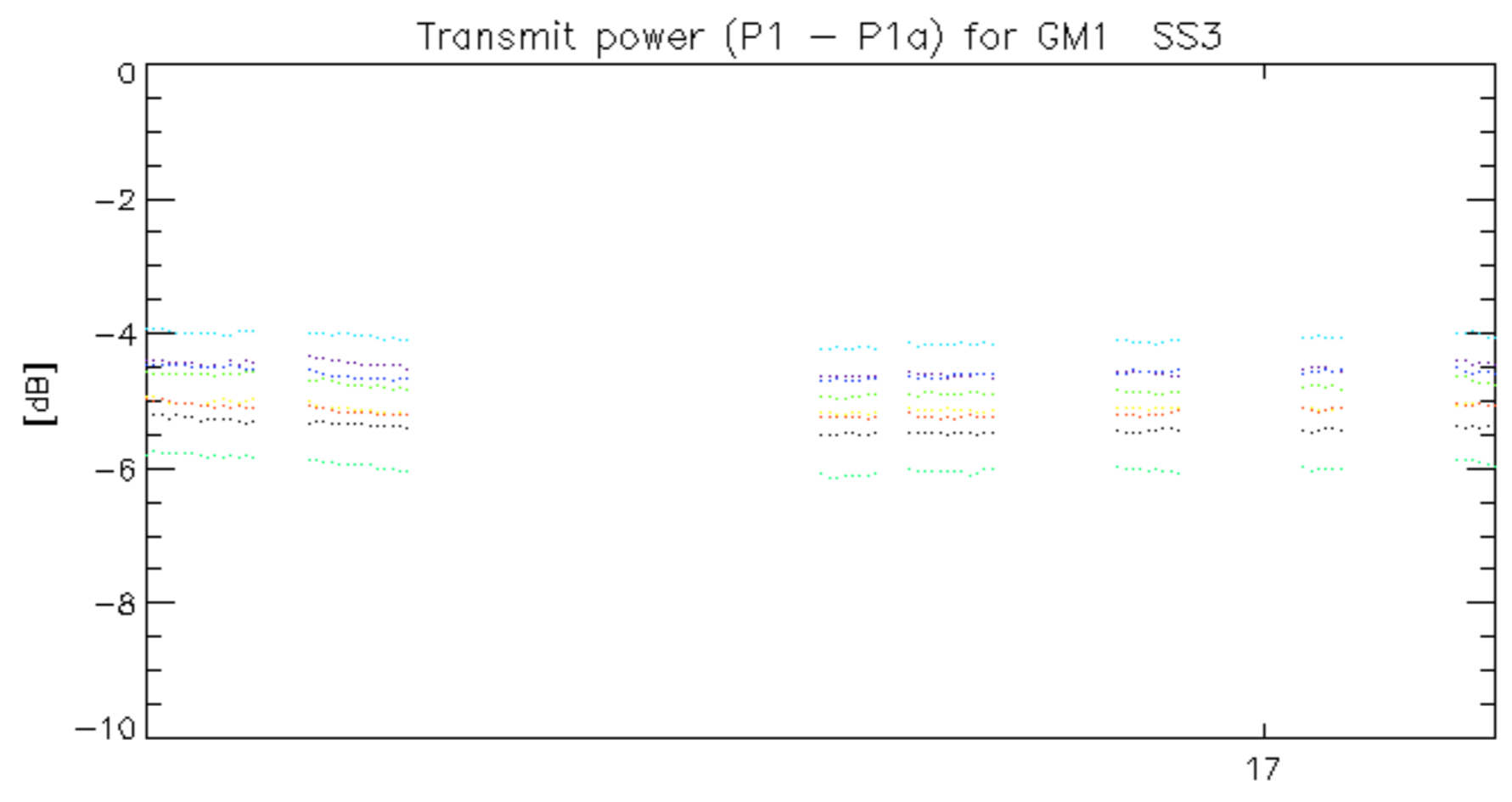
Summary of analysis for the last 3 days 2006111[678]

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

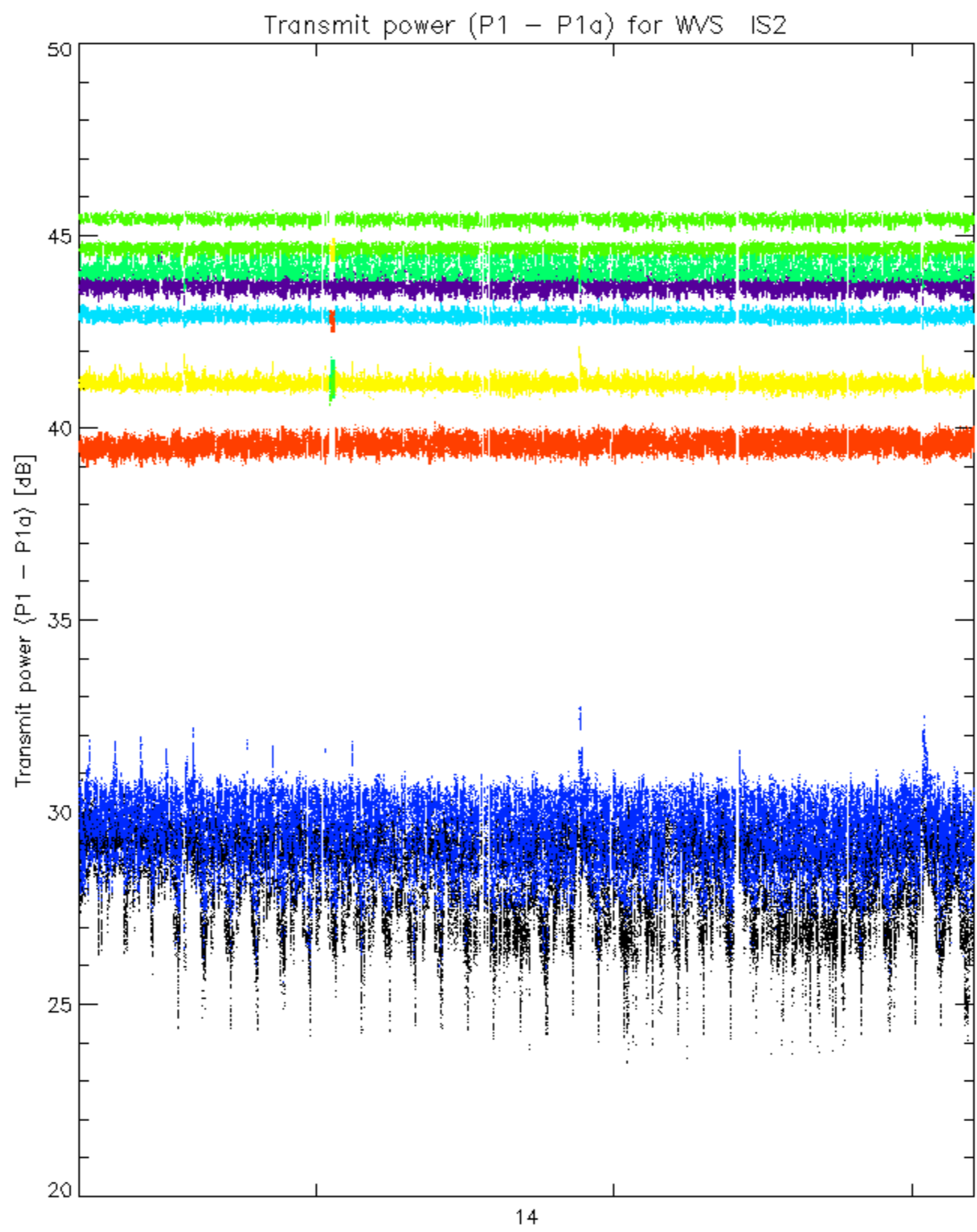
Filename	num_gaps	num_missing_lines



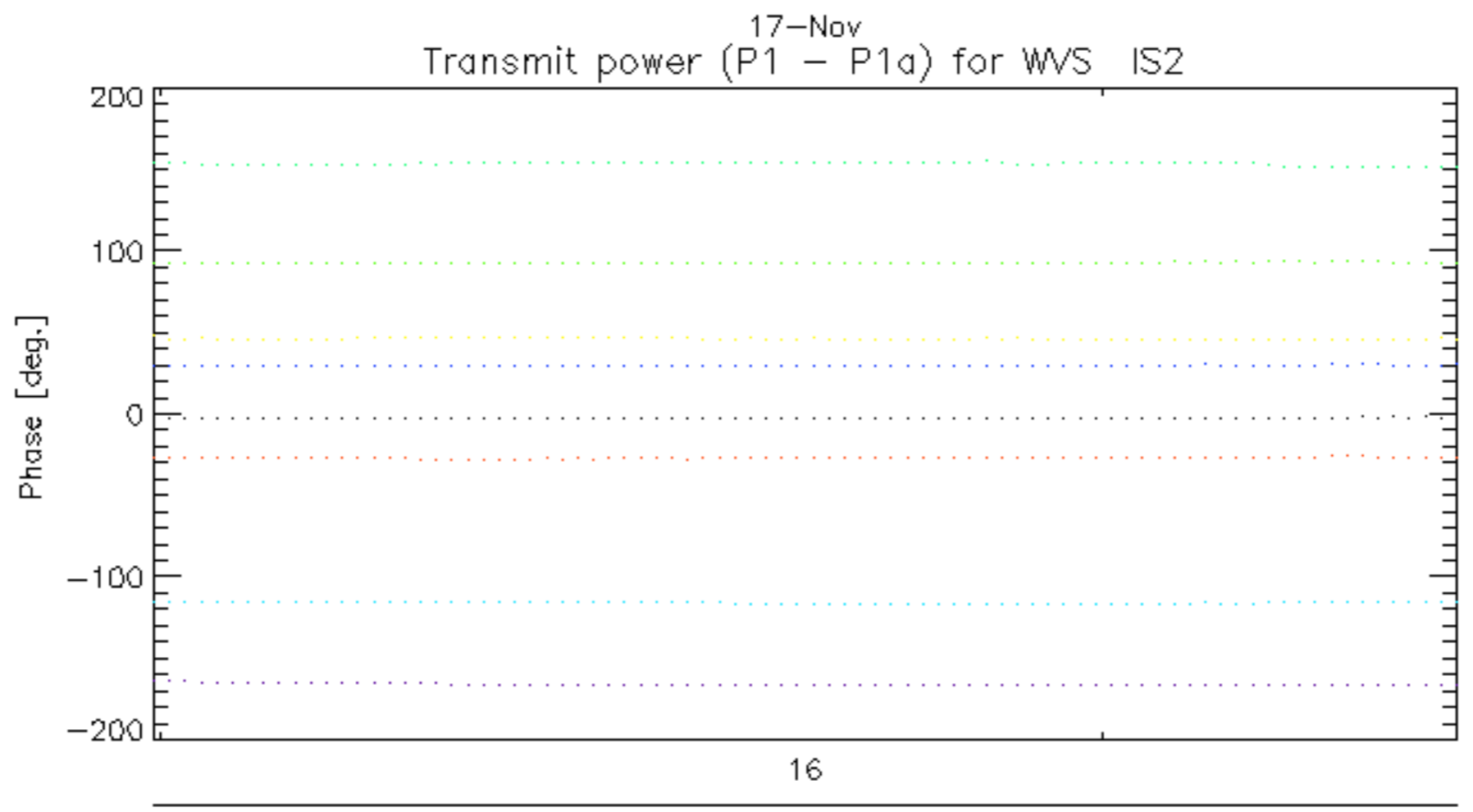
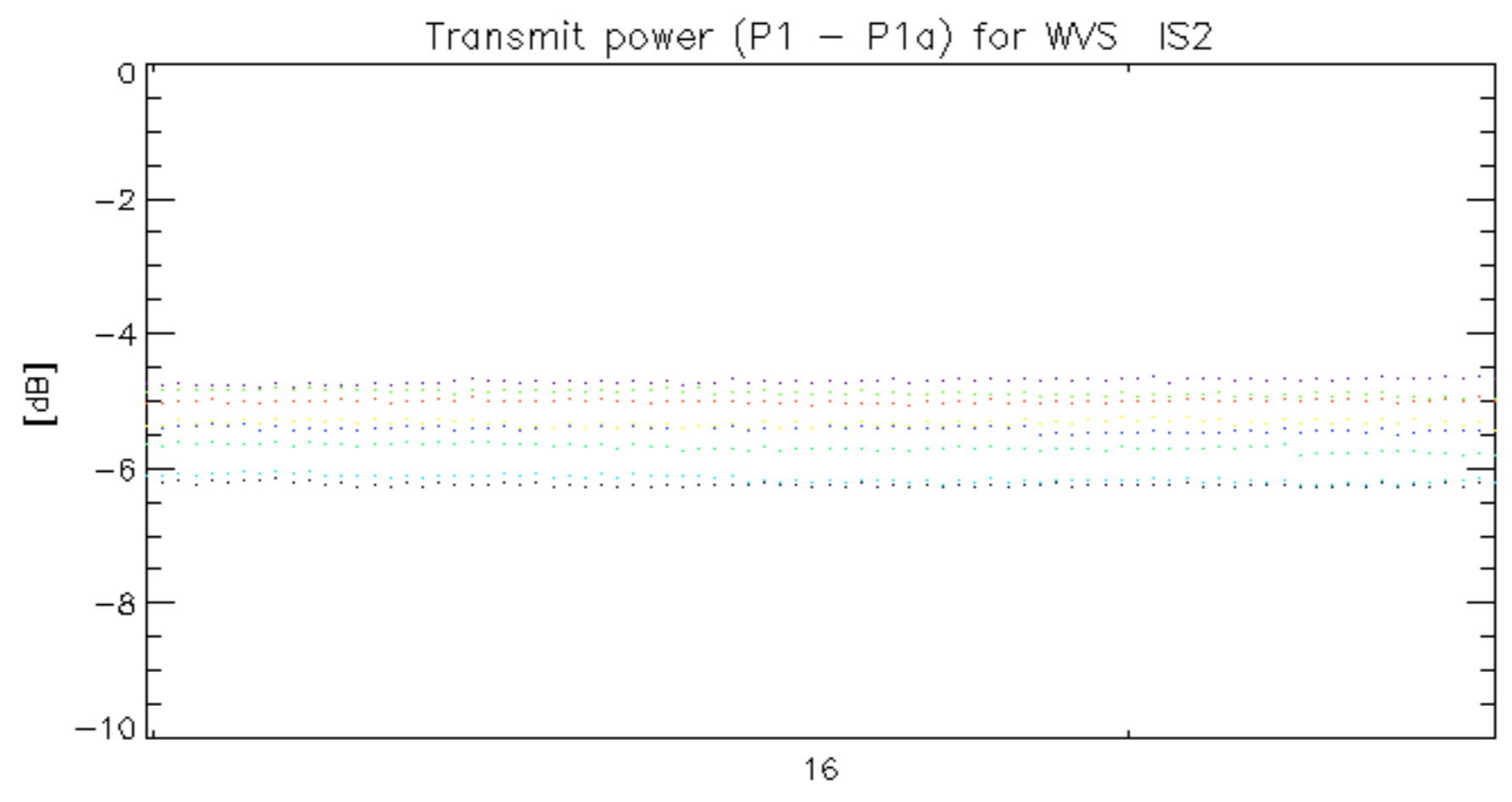
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: 3 7 11 15 19 22 26 30



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



17-Nov
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.