

PRELIMINARY REPORT OF 051209

last update on Fri Dec 9 16:49:47 GMT 2005

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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 2005-12-08 00:00:00 to 2005-12-09 16:49:47

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	34	0	19	0	24
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	34	0	19	0	24
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	0	19	0	24
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	34	0	19	0	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	43	46	33	13	47
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	43	46	33	13	47
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	46	33	13	47
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	43	46	33	13	47

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20051208 074716
H	20051209 071539

MSM in V/V 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"/>

MSM in H/H polarisation

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

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒

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	-3.538024	0.151535	0.389125
7	P1	-2.804583	0.108676	0.831988
11	P1	-4.143749	0.017509	-0.018567
15	P1	-5.331172	1.487890	3.401920
19	P1	-3.070103	0.052442	0.584491
22	P1	-4.452038	0.019971	0.202317
26	P1	-4.359521	0.053765	-0.575681
30	P1	-5.676768	0.029455	0.370806
3	P1	-15.241434	1.691216	1.436639
7	P1	-15.572270	2.257700	4.095482
11	P1	-16.379375	0.427750	0.919599
15	P1	-12.973140	0.856094	2.348168
19	P1	-13.497032	0.296931	1.353601
22	P1	-16.138683	0.592133	1.003739
26	P1	-15.298669	1.003342	2.482571
30	P1	-15.840550	2.144019	3.799250

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.877377	0.103569	-0.067581
7	P2	-22.562338	0.102364	0.042877
11	P2	-16.592010	0.115642	-0.115091
15	P2	-7.275729	0.101859	-0.065264
19	P2	-9.223341	0.099384	0.038708
22	P2	-17.865440	0.107115	0.151602
26	P2	-16.321634	0.127957	-0.510748
30	P2	-19.758081	0.113188	-0.386637

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.232964	0.007280	-0.017647
7	P3	-8.232964	0.007280	-0.017647
11	P3	-8.232964	0.007280	-0.017647
15	P3	-8.232964	0.007280	-0.017647
19	P3	-8.232964	0.007280	-0.017647
22	P3	-8.232964	0.007280	-0.017647
26	P3	-8.232964	0.007280	-0.017647
30	P3	-8.232964	0.007280	-0.017647

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-3.691989	0.007899	-0.033555
7	P1	-2.783957	0.010808	0.012521
11	P1	-2.875327	0.013872	-0.015670
15	P1	-3.398088	0.021469	-0.045081
19	P1	-3.378910	0.013408	-0.031415
22	P1	-5.115929	0.019783	-0.040867
26	P1	-5.824099	0.016310	-0.061432
30	P1	-5.267061	0.032593	-0.034613
3	P1	-11.464643	0.041885	-0.040169
7	P1	-9.970633	0.046060	-0.004128
11	P1	-10.049220	0.060920	-0.016015
15	P1	-10.569899	0.084153	-0.045198
19	P1	-15.503150	0.073790	-0.017551
22	P1	-20.917725	0.974440	-0.152043

26	P1	-17.213343	0.307171	0.123199
30	P1	-18.344645	0.319578	0.071904

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.648714	0.030580	0.067337
7	P2	-23.059767	0.062657	0.030991
11	P2	-11.672440	0.022550	0.105585
15	P2	-4.975780	0.021713	-0.040791
19	P2	-6.954768	0.021872	-0.034874
22	P2	-8.173927	0.023995	-0.074846
26	P2	-24.035528	0.031896	-0.058631
30	P2	-22.111855	0.020560	-0.030099

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.072387	0.002475	-0.013273
7	P3	-8.072429	0.002481	-0.013560
11	P3	-8.072357	0.002467	-0.013333
15	P3	-8.072367	0.002477	-0.013155
19	P3	-8.072563	0.002486	-0.013045
22	P3	-8.072436	0.002478	-0.013549
26	P3	-8.072375	0.002465	-0.013573
30	P3	-8.072267	0.002478	-0.013013

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	0.000482855
	stdev	2.11127e-07
MEAN Q	mean	0.000493863
	stdev	2.35490e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.130674
	stdev	0.00110952
STDEV Q	mean	0.130973
	stdev	0.00112287



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005120[789]

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

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051209_014321_000002582043_00146_19739_3553.N1	1	0
ASA_IMM_1PNPDE20051209_042648_000000522043_00147_19740_3577.N1	1	0
ASA_WSM_1PNPDE20051207_011642_000003672043_00117_19710_3119.N1	0	35
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3149.N1	0	18
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3182.N1	0	18

ASA_WSM_1PNPDE20051207_144158_000002082043_00125_19718_3195.N1	0	38
ASA_WSM_1PNPDE20051208_032332_000002442043_00133_19726_3277.N1	0	35
ASA_WSM_1PNPDK20051207_135542_000000982043_00125_19718_1493.N1	0	44



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

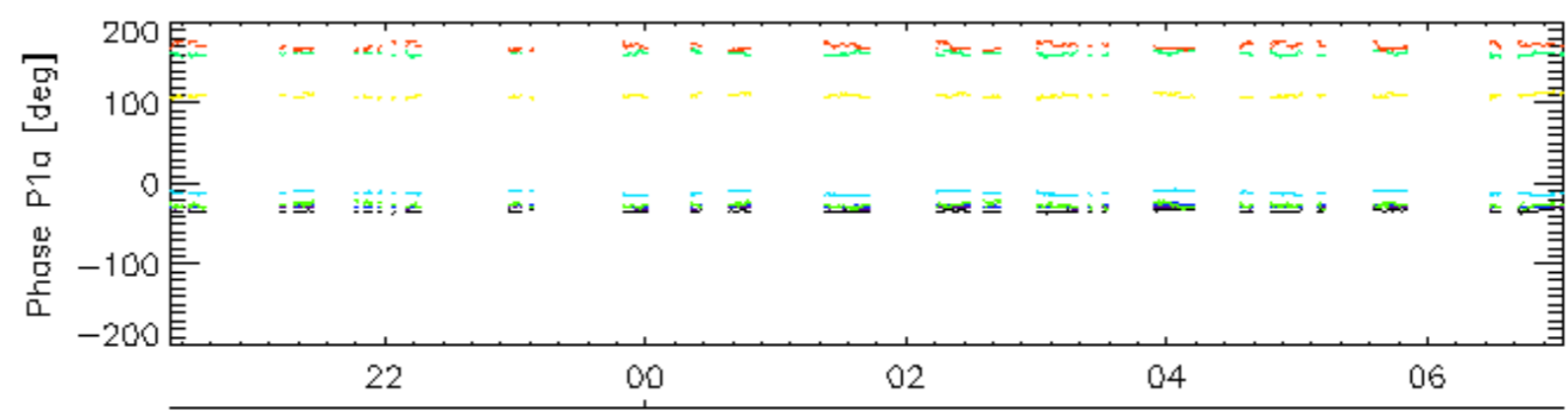
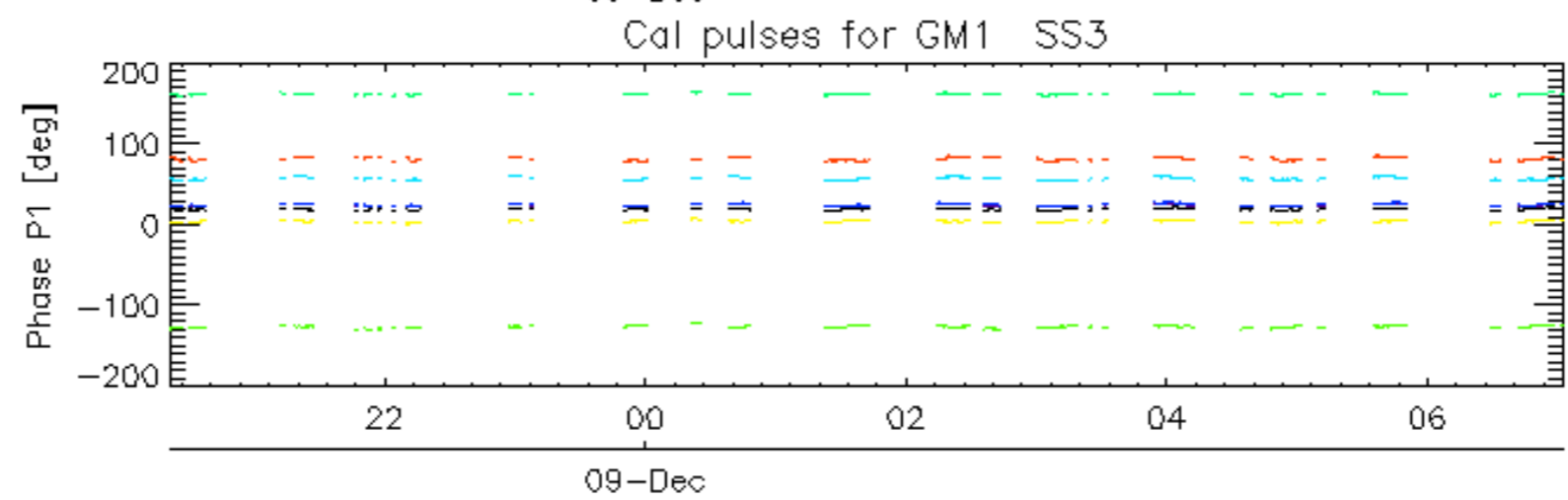
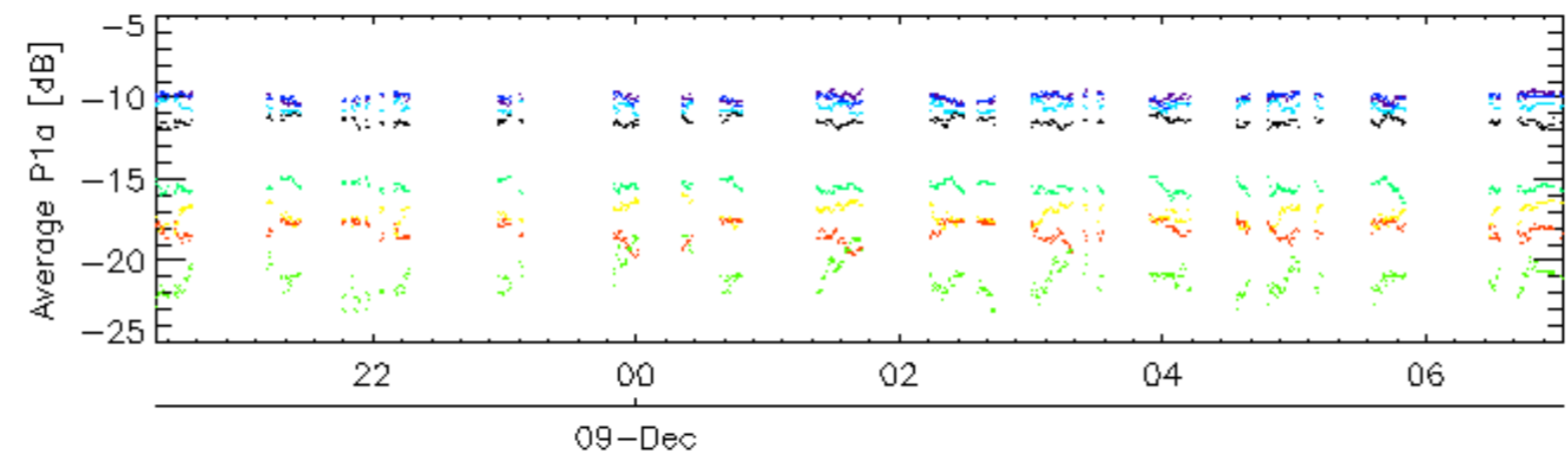
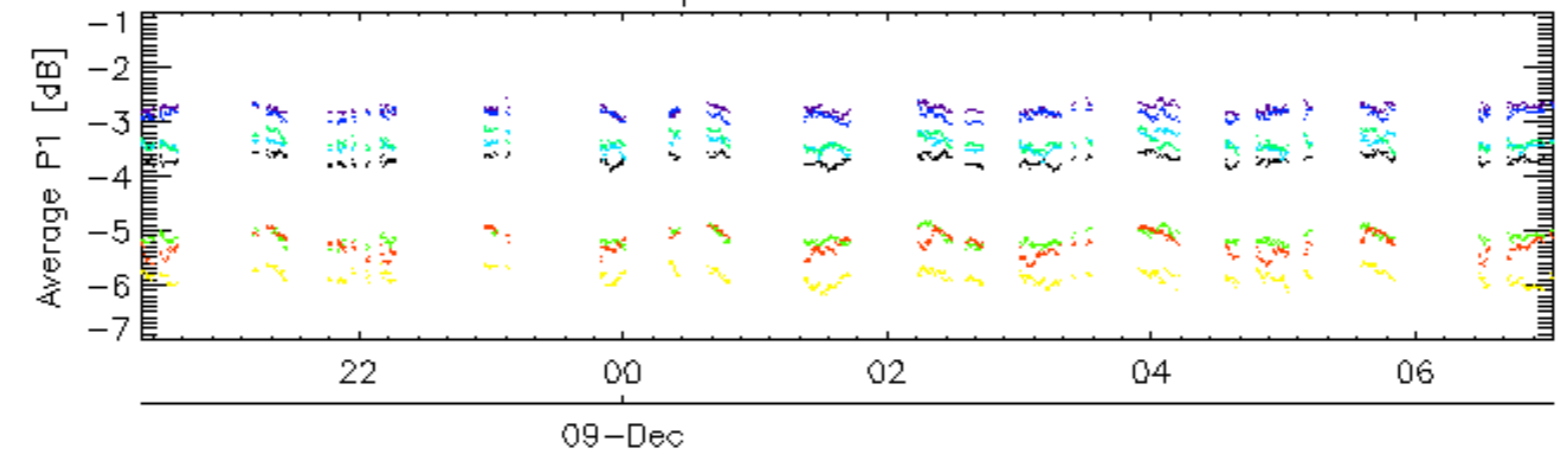
7.5 - Absolute Doppler for GM1

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

7.6 - Doppler evolution versus ANX for GM1

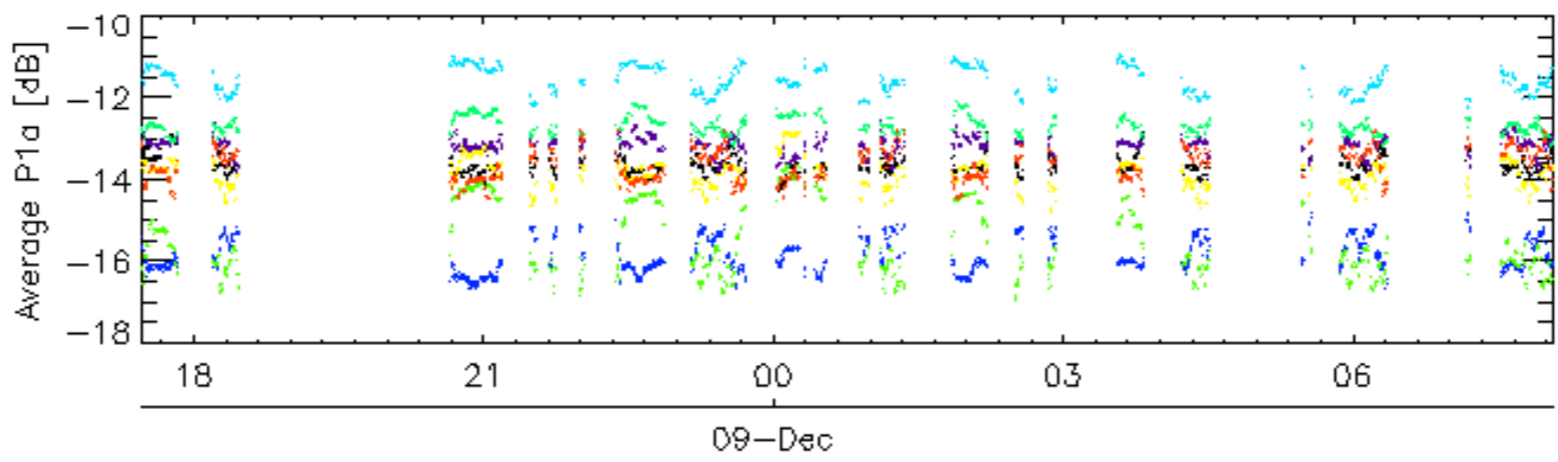
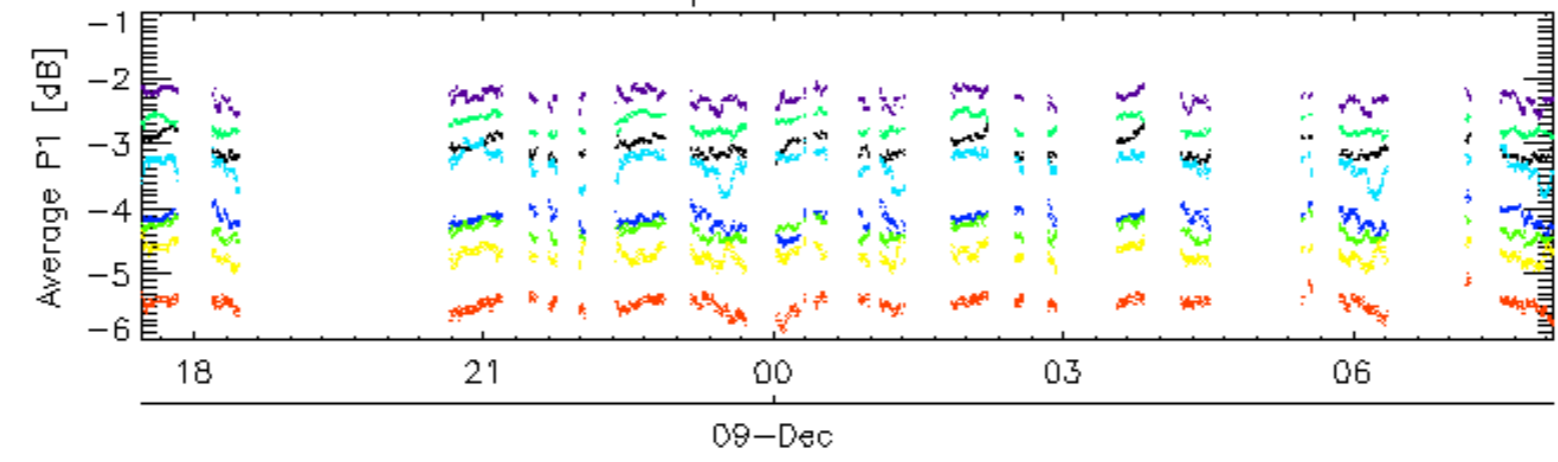
Evolution Doppler error versus ANX	
<input type="checkbox"/>	

Cal pulses for GM1 SS3

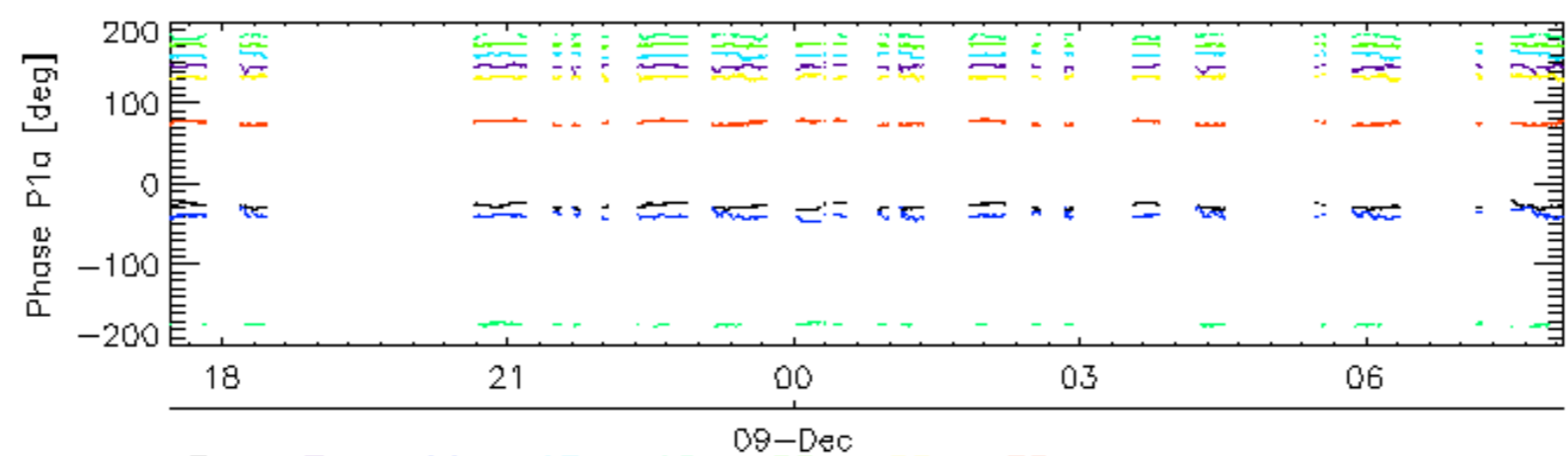
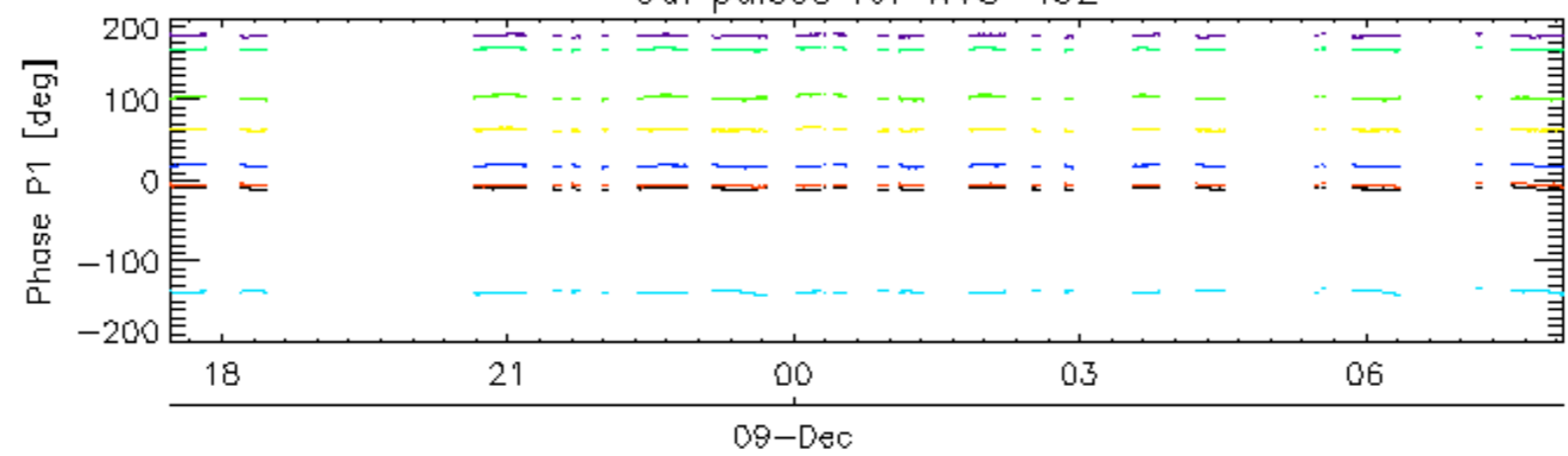


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

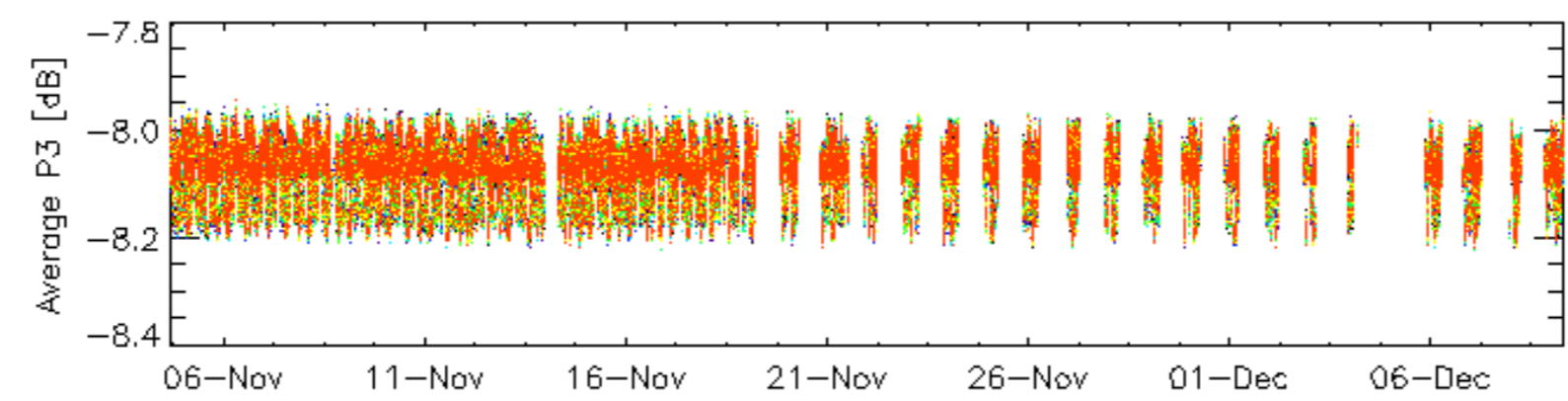
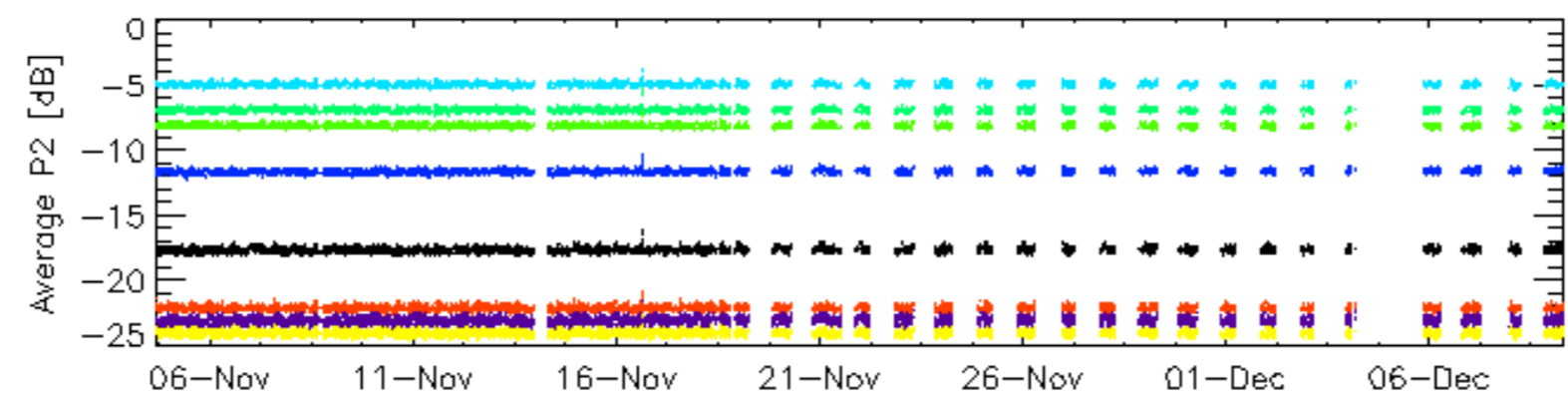
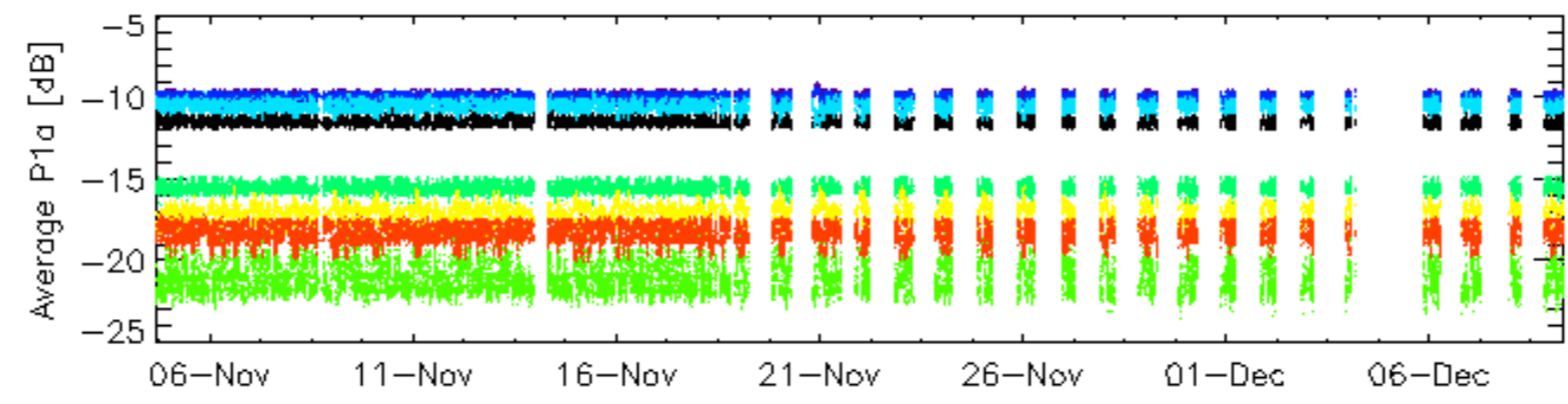
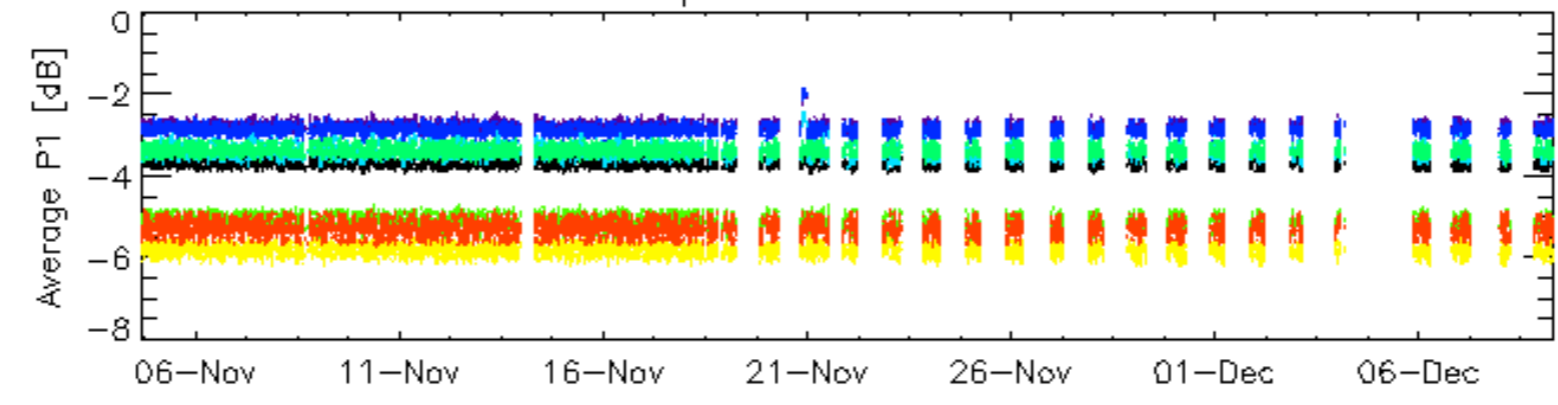


Cal pulses for WVS IS2



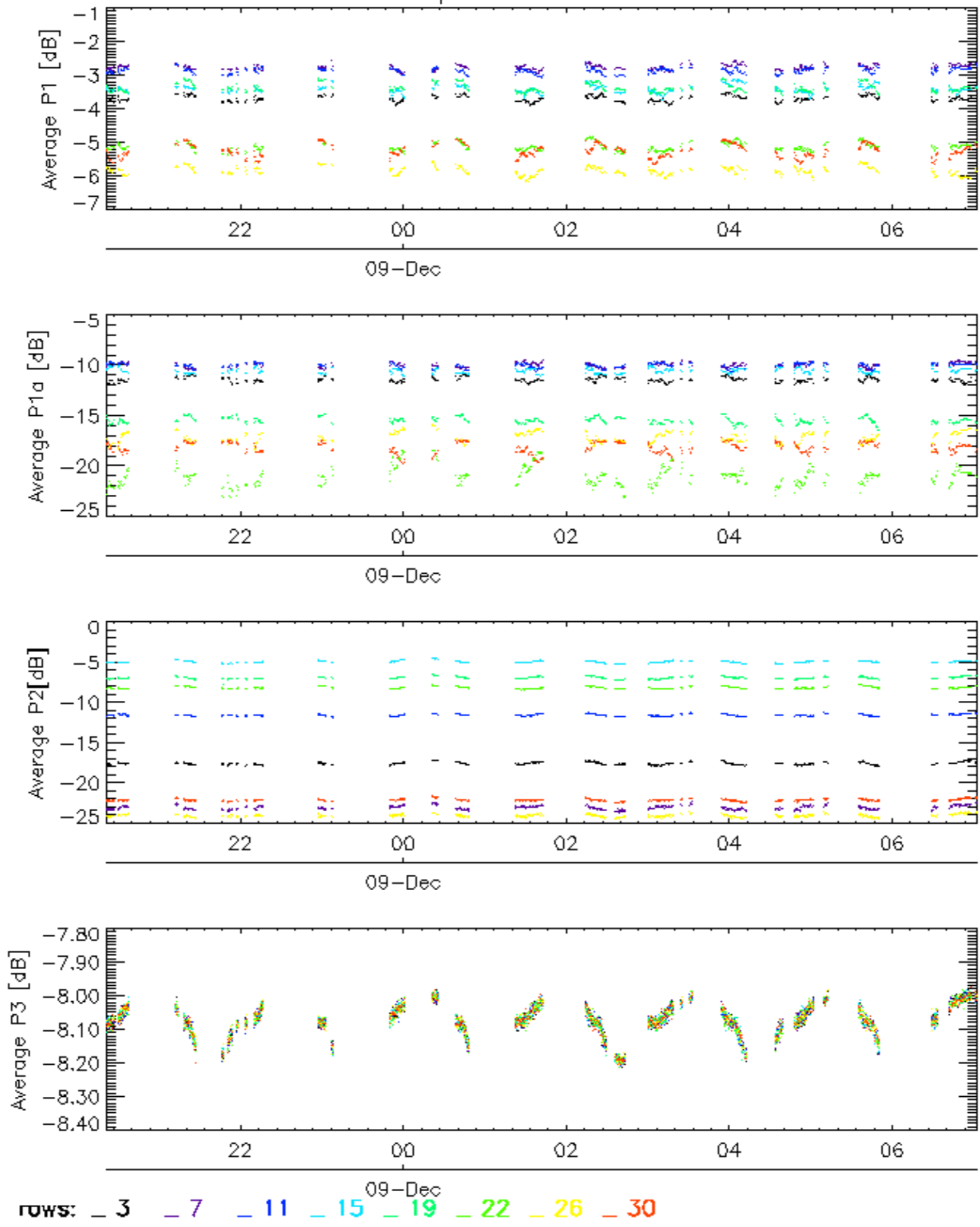
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

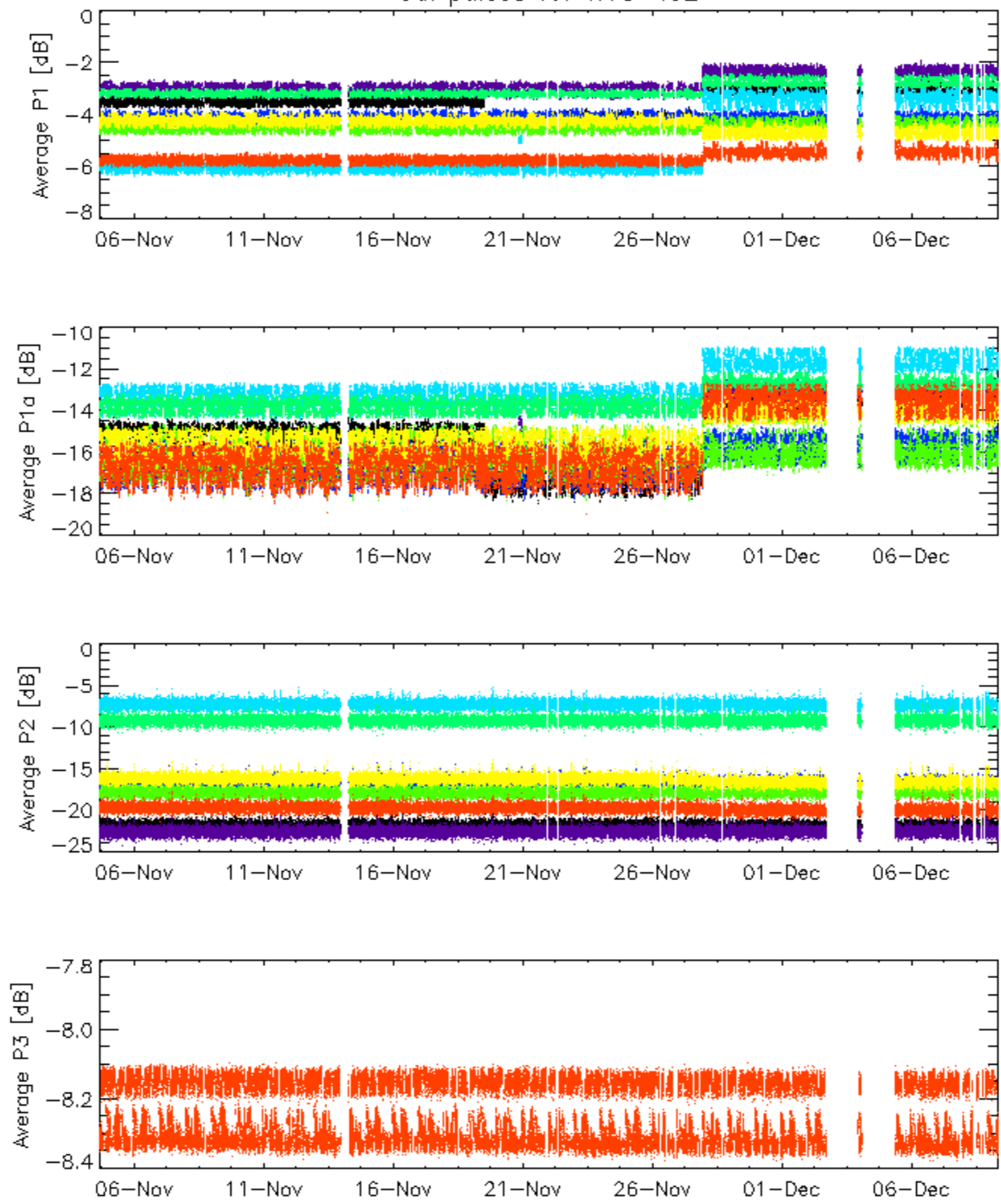


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

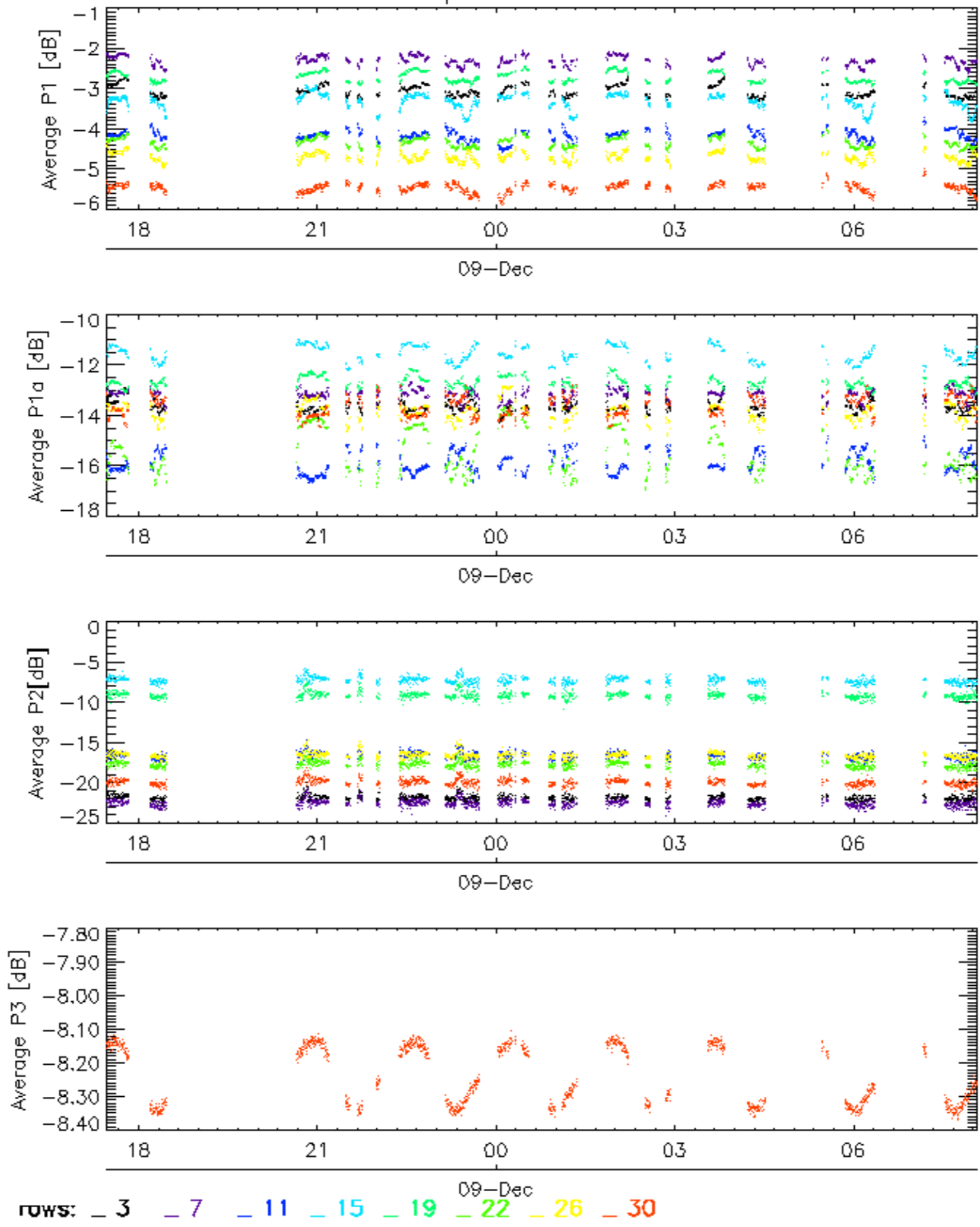


Cal pulses for WVS IS2



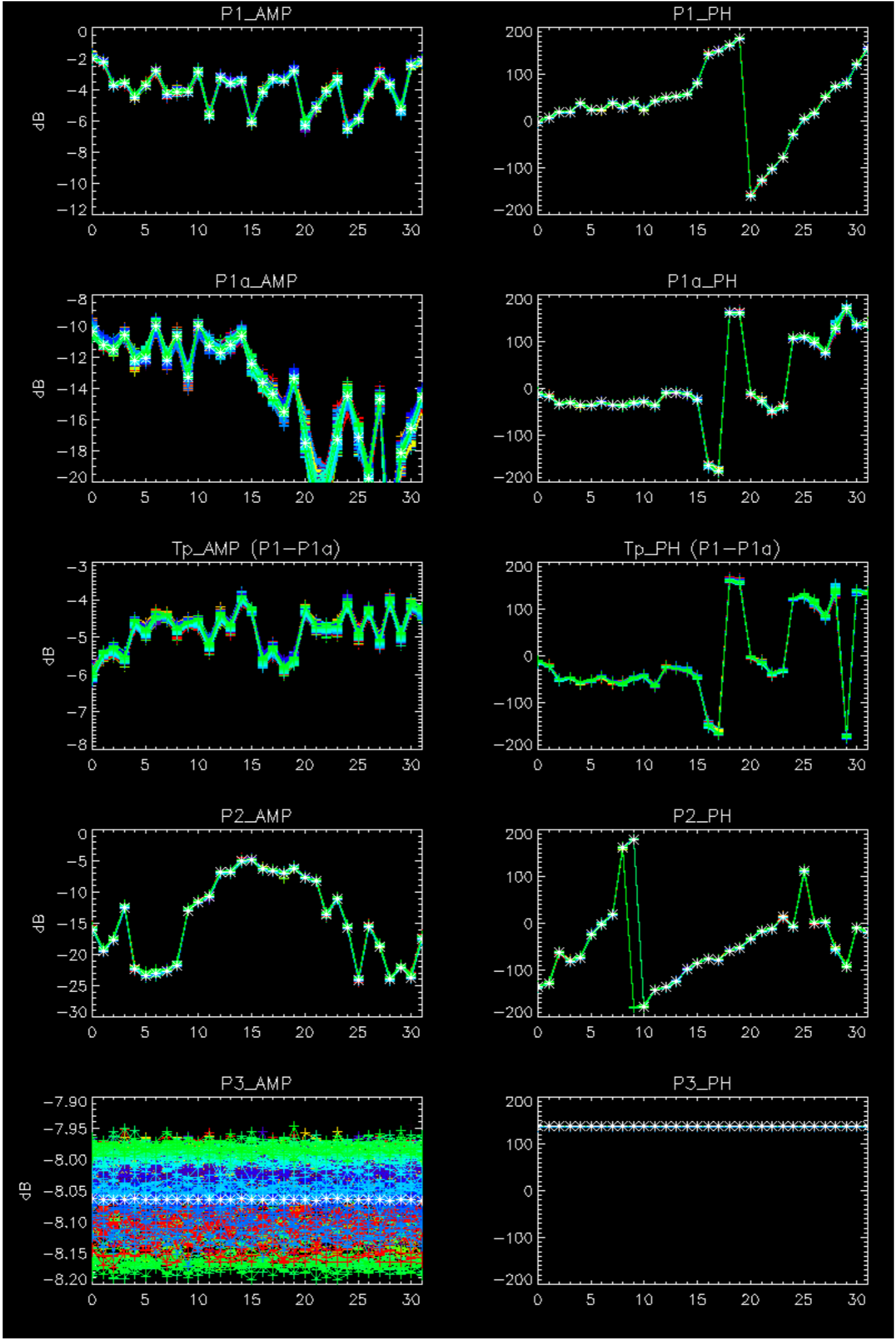
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

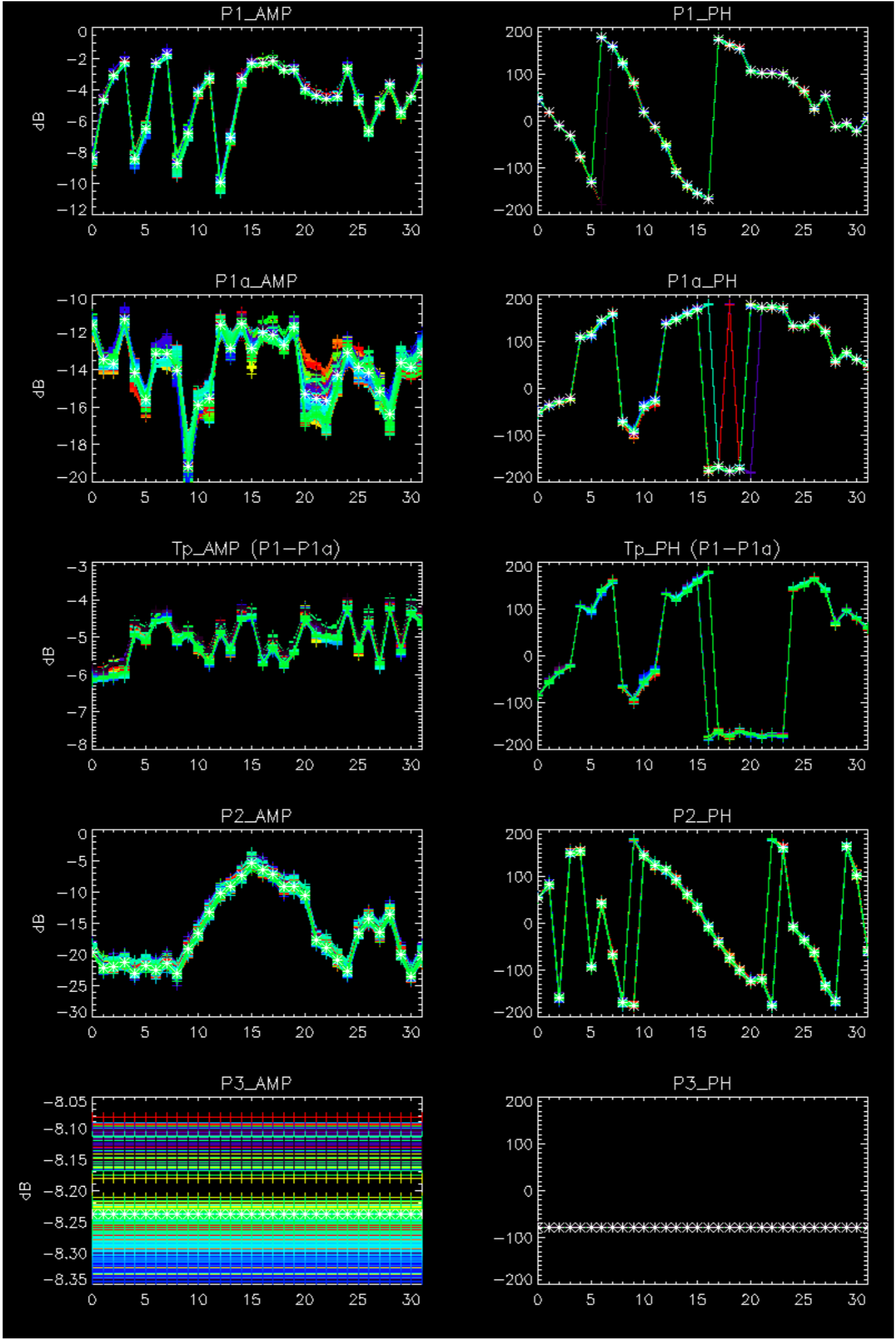
Cal pulses for WVS IS2



No anomalies observed on available browse products

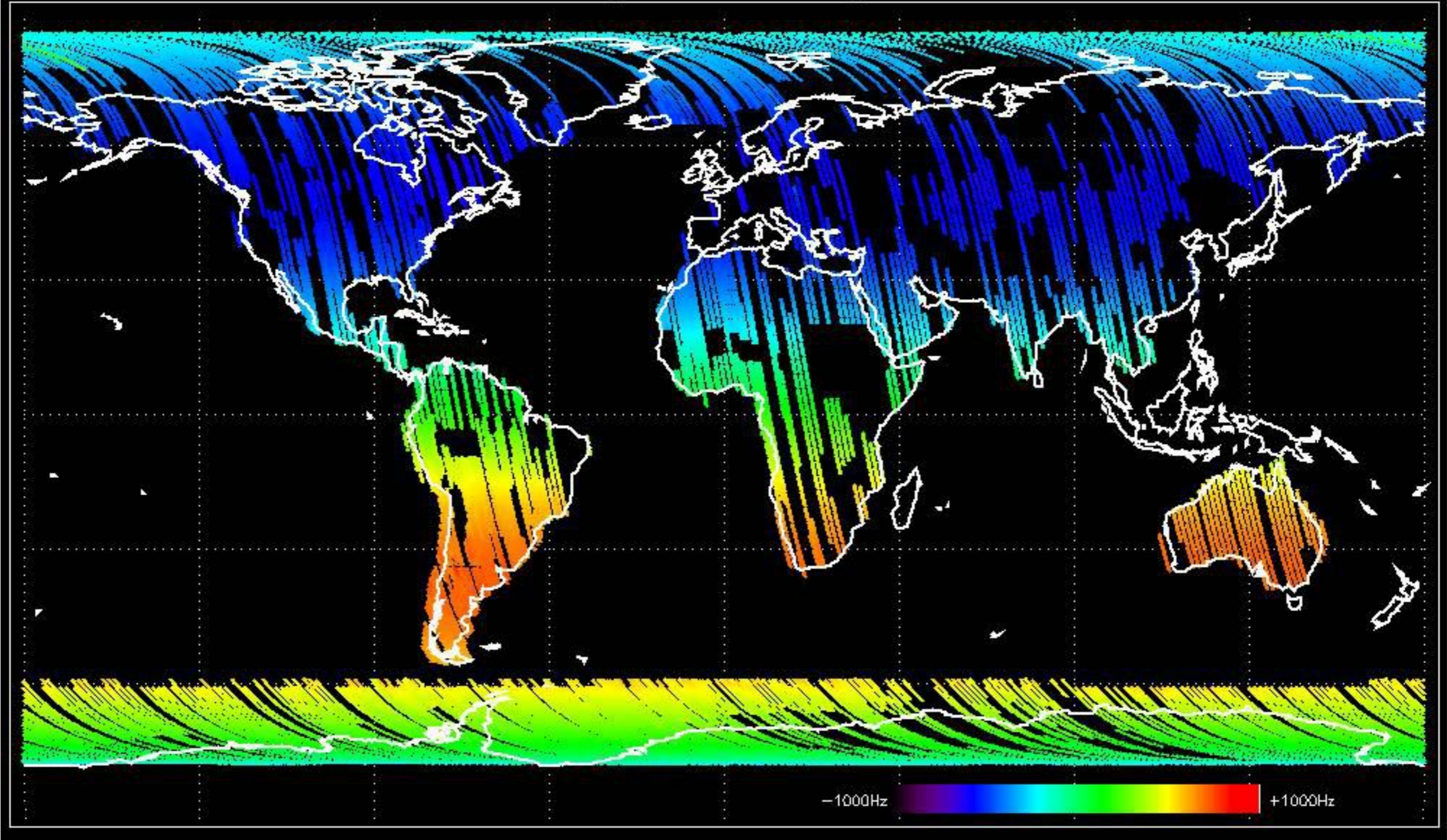
No anomalies observed.



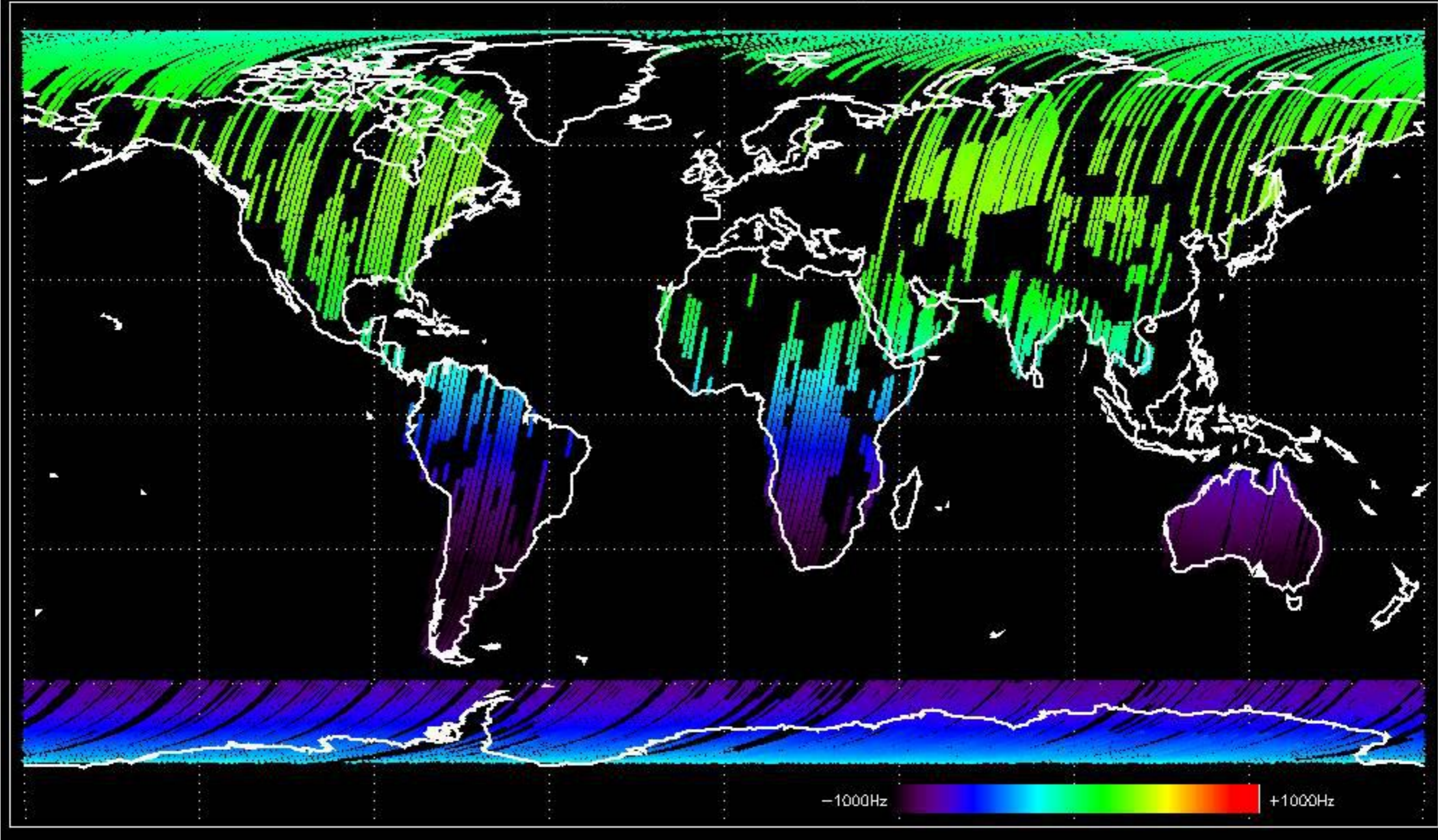


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

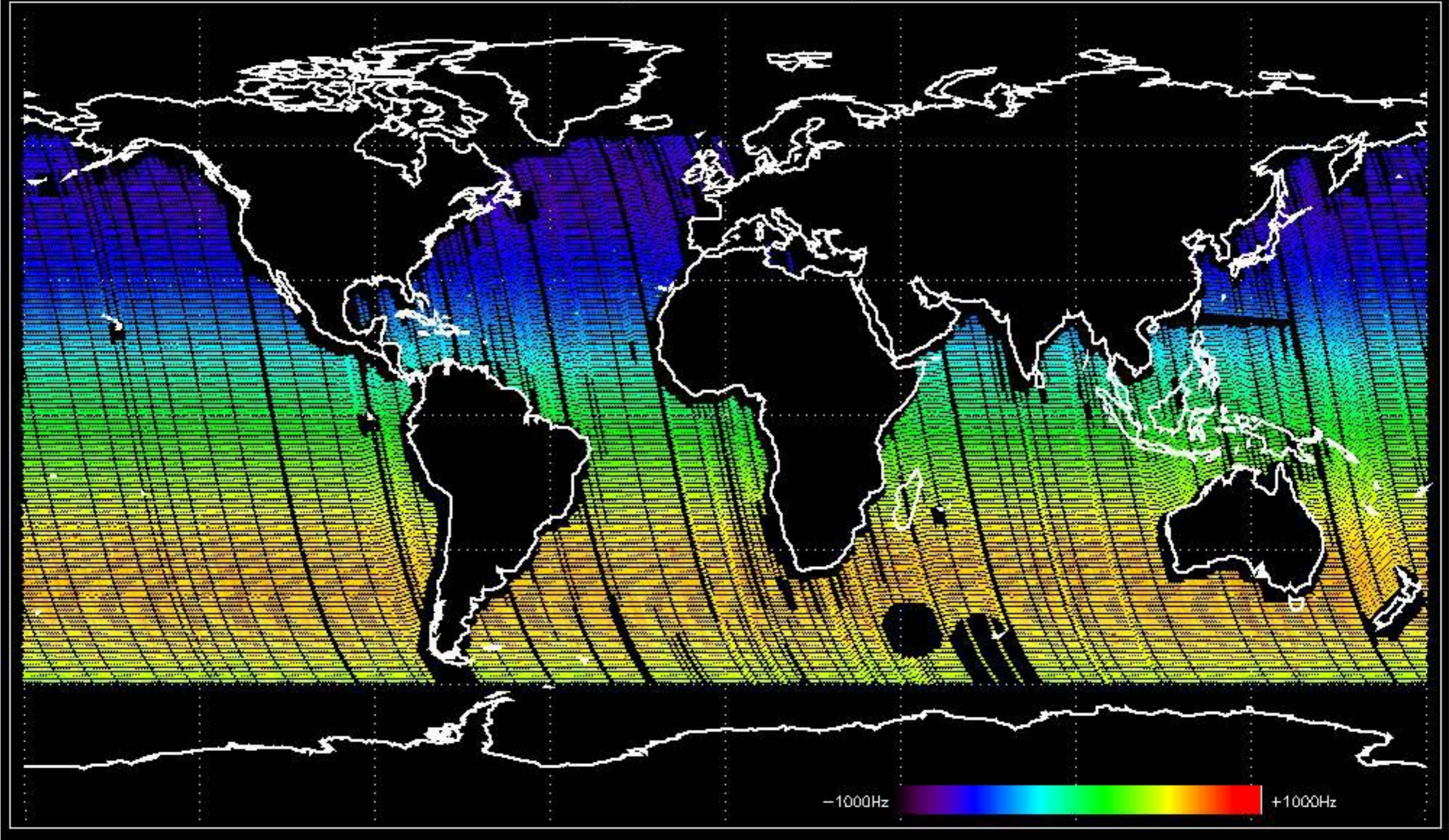
Doppler 'GM1' 'SS1' ascending



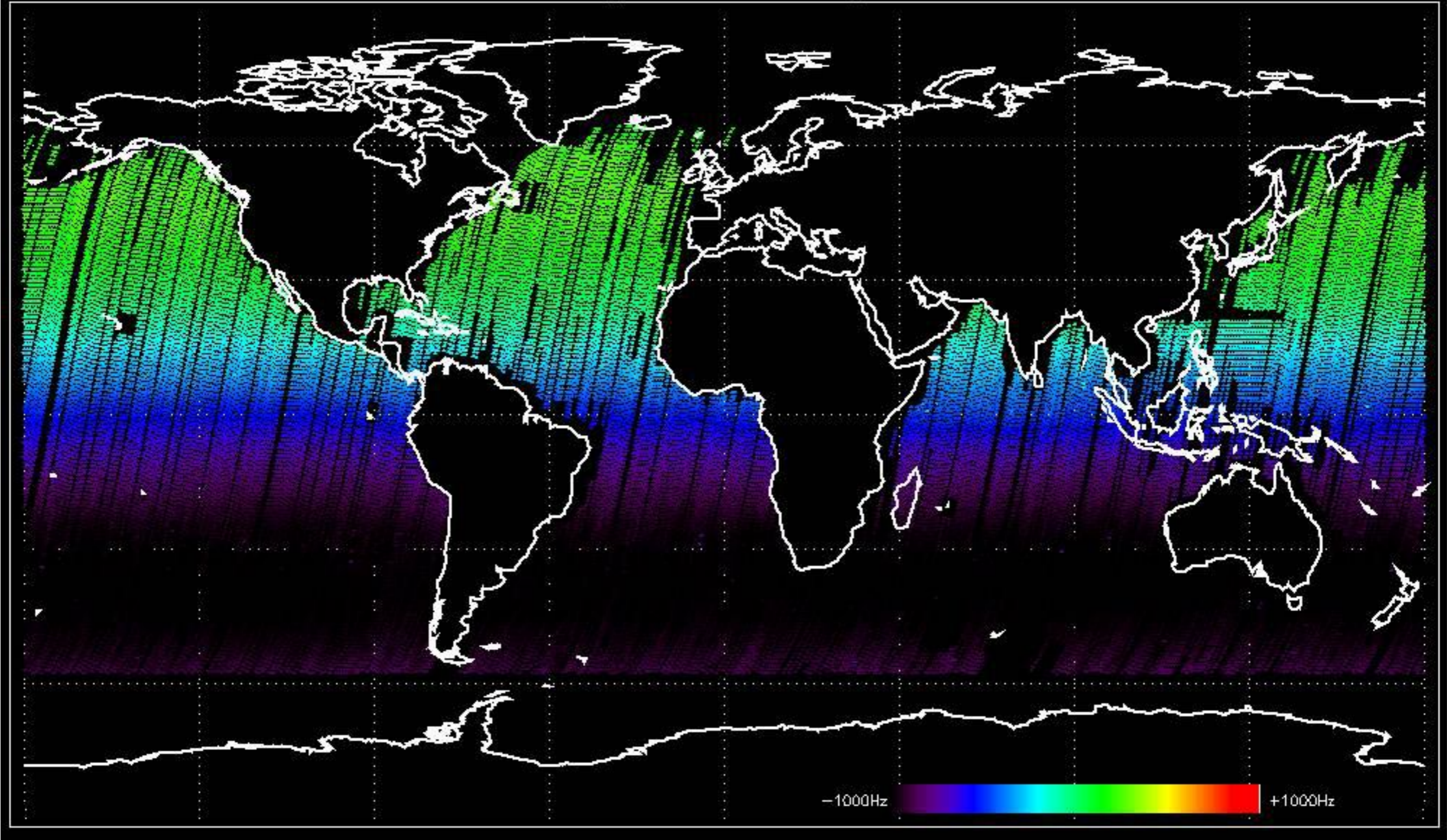
Doppler 'GM1' 'SS1' descending



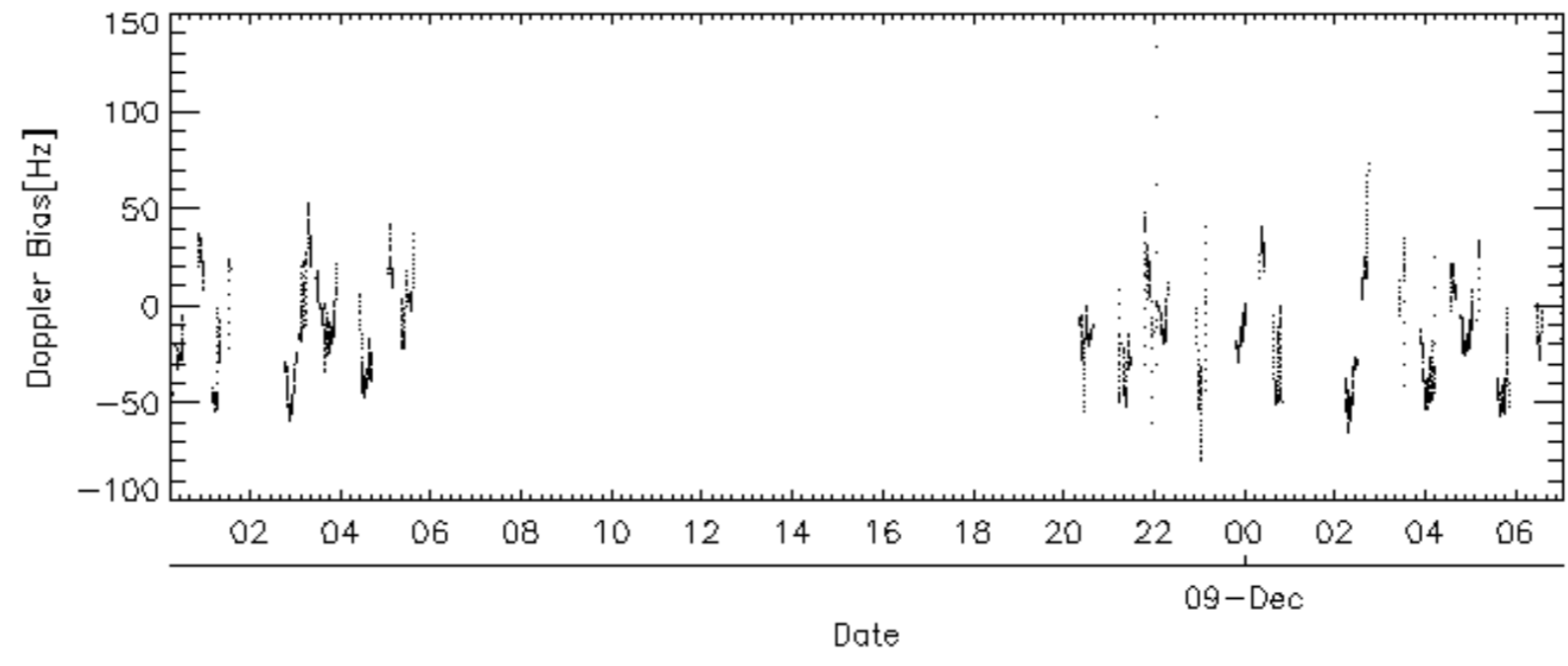
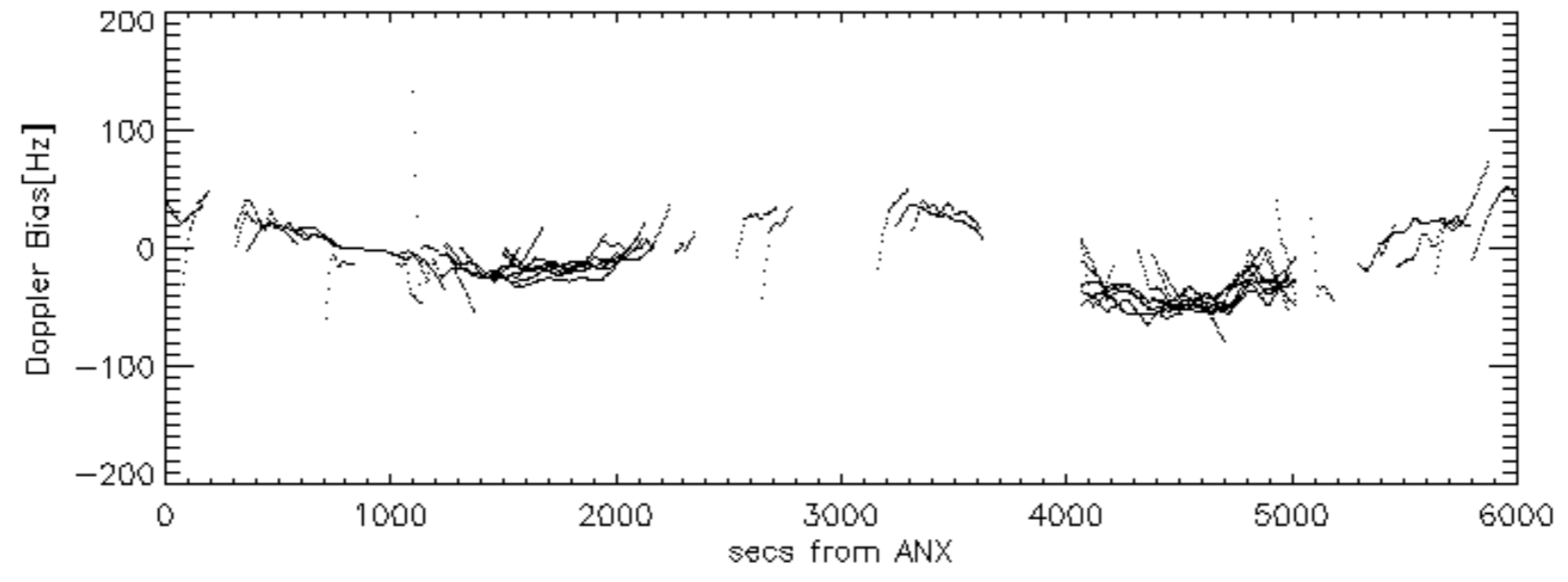
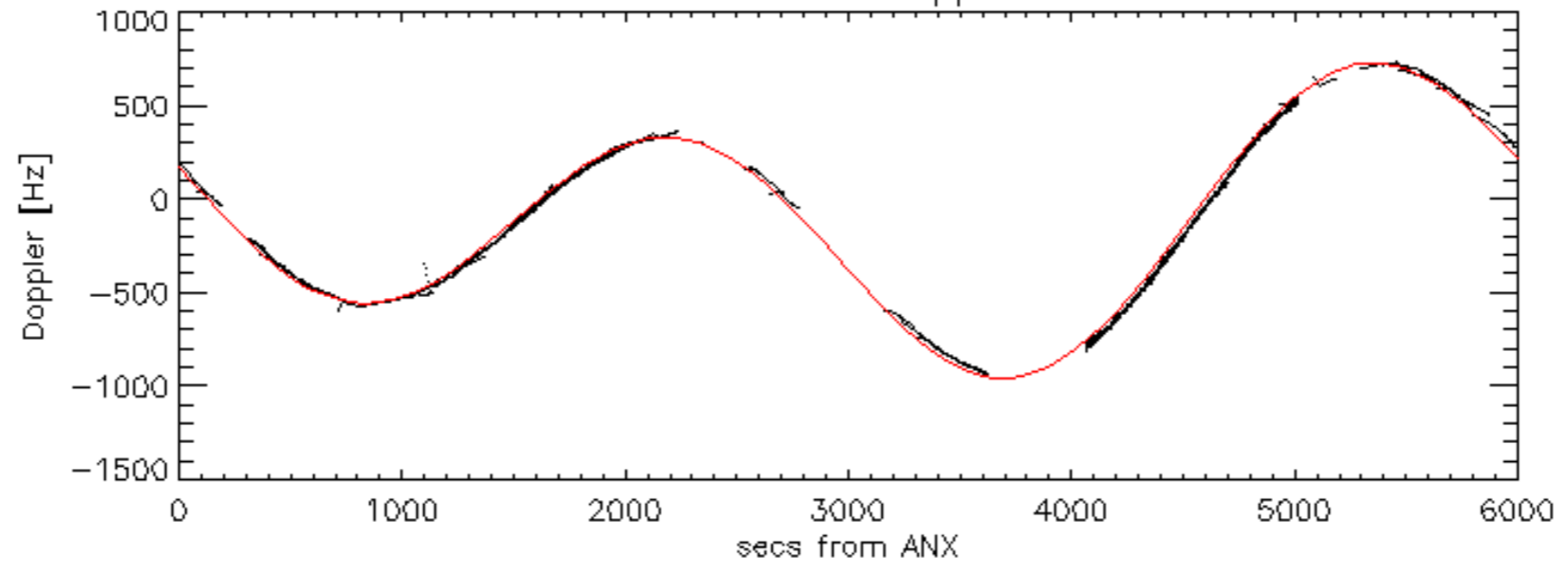
Doppler 'WVS' 'IS2' ascending

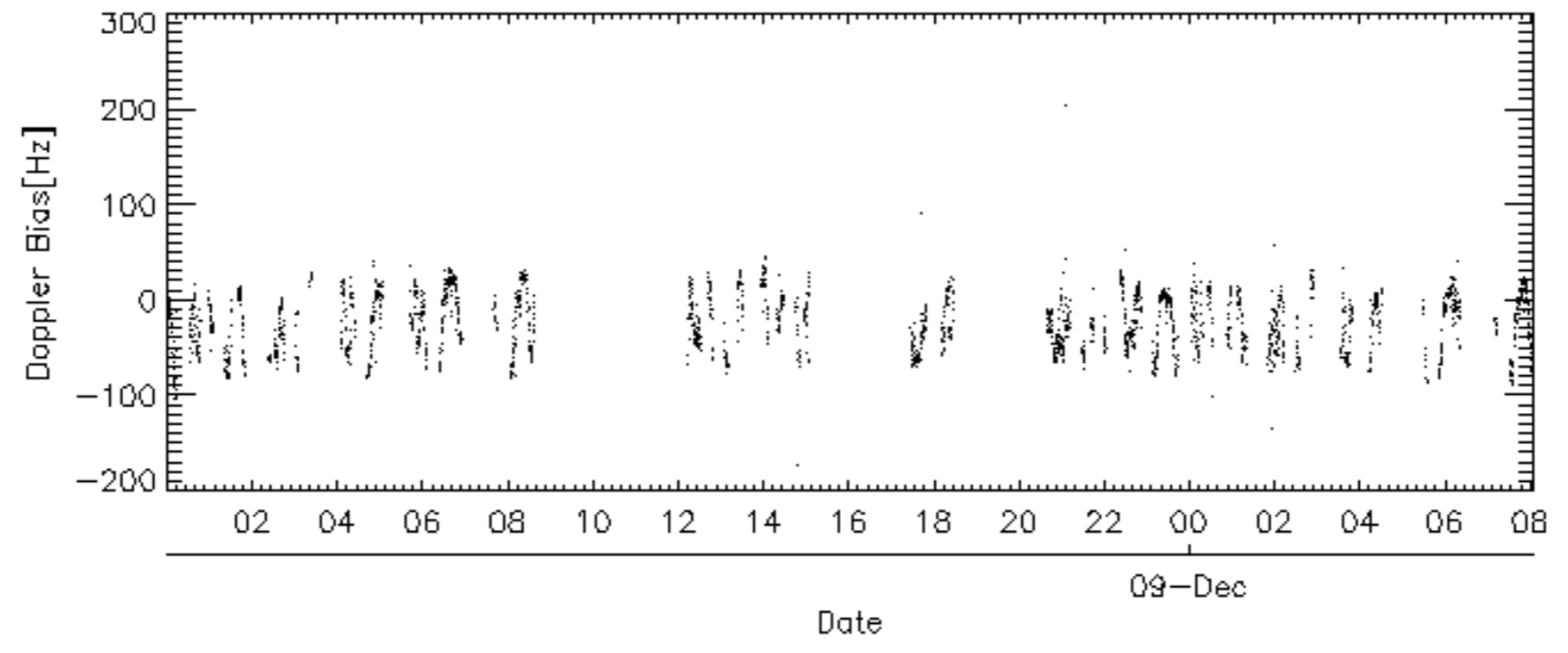
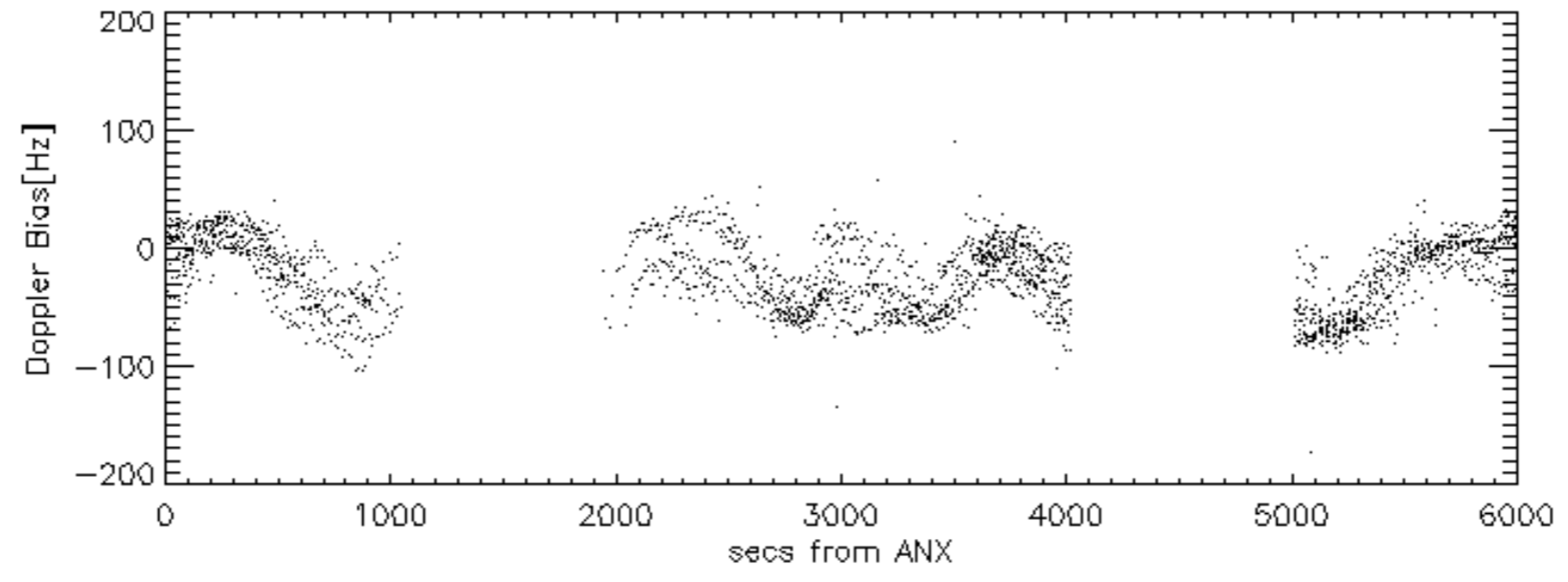
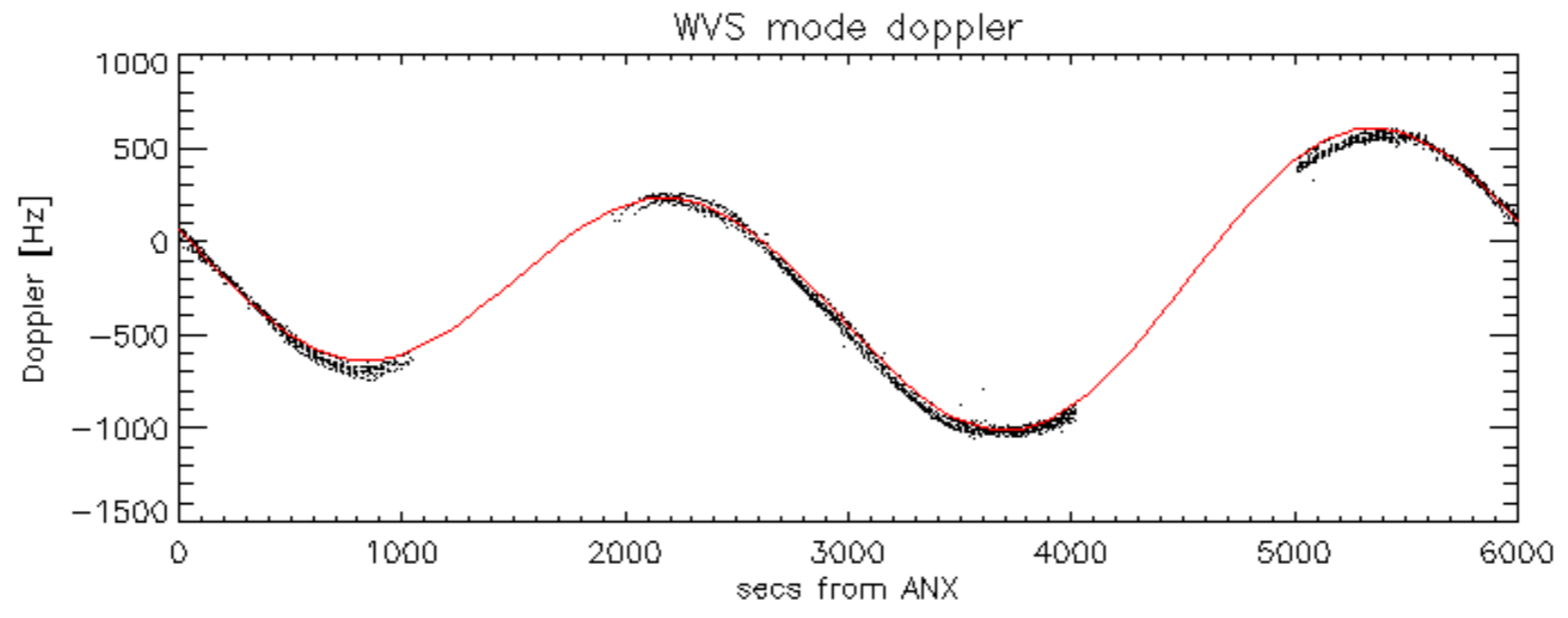


Doppler 'WVS' 'IS2' descending

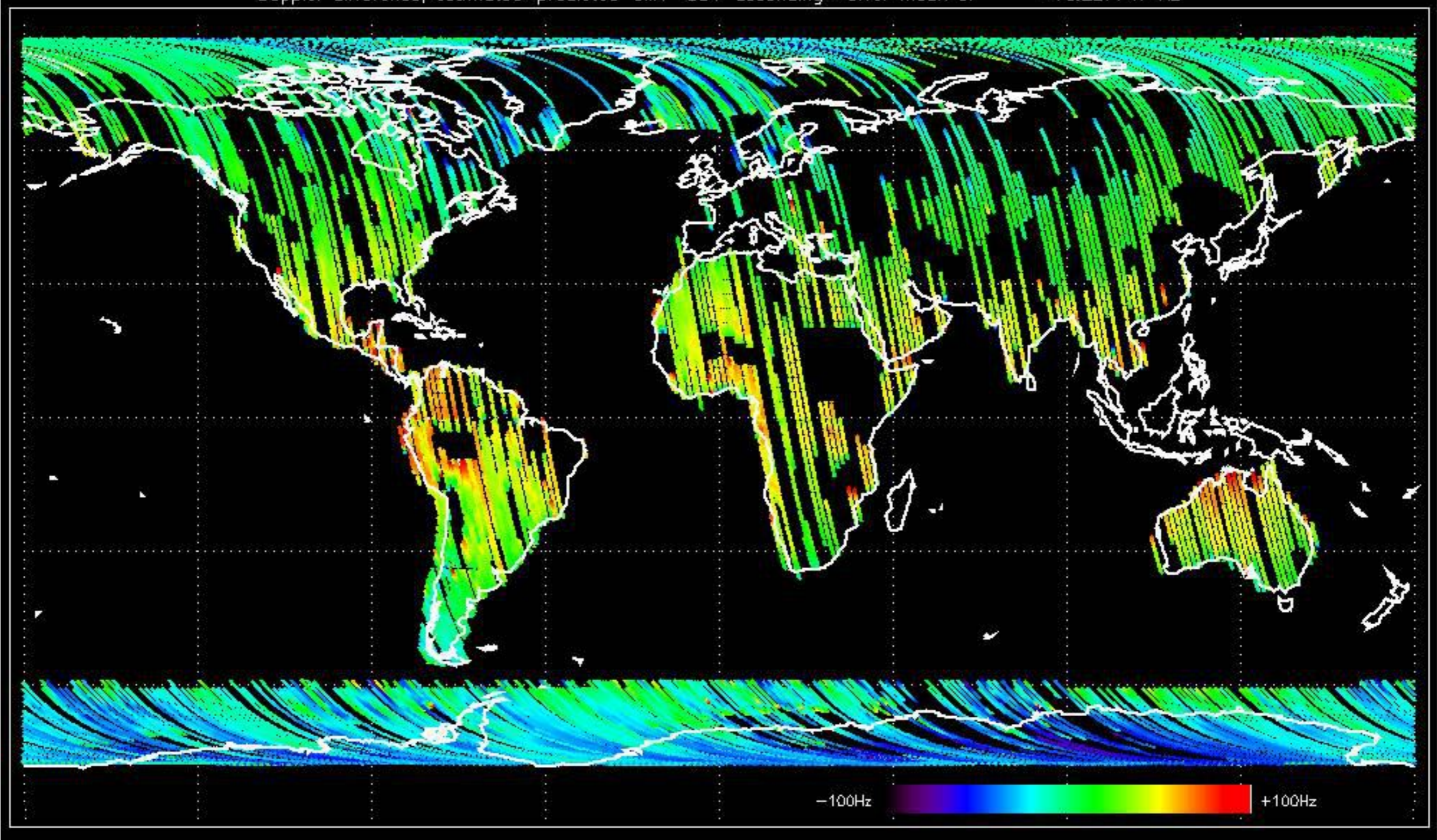


GM1 mode doppler

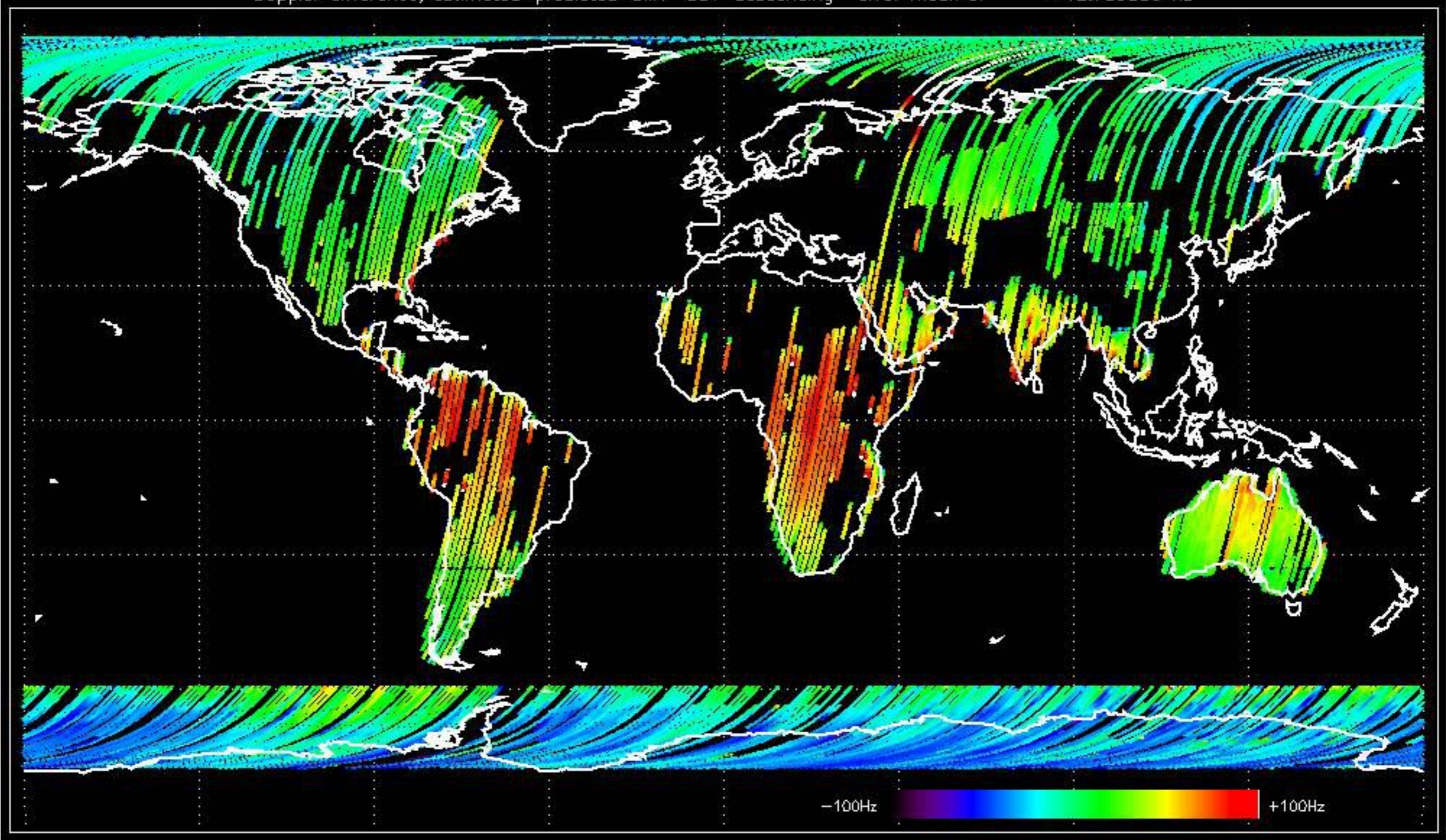




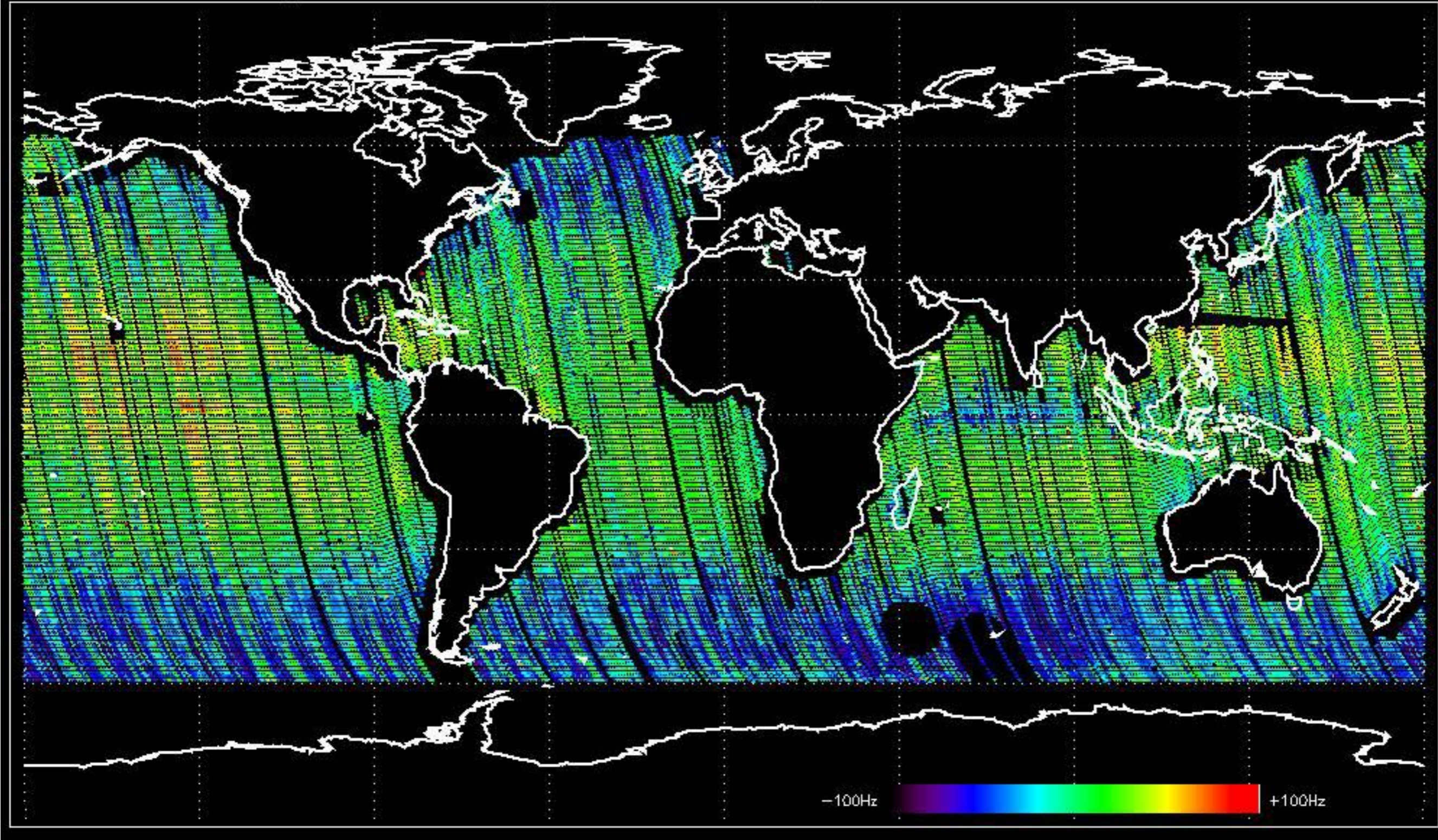
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.227747 Hz



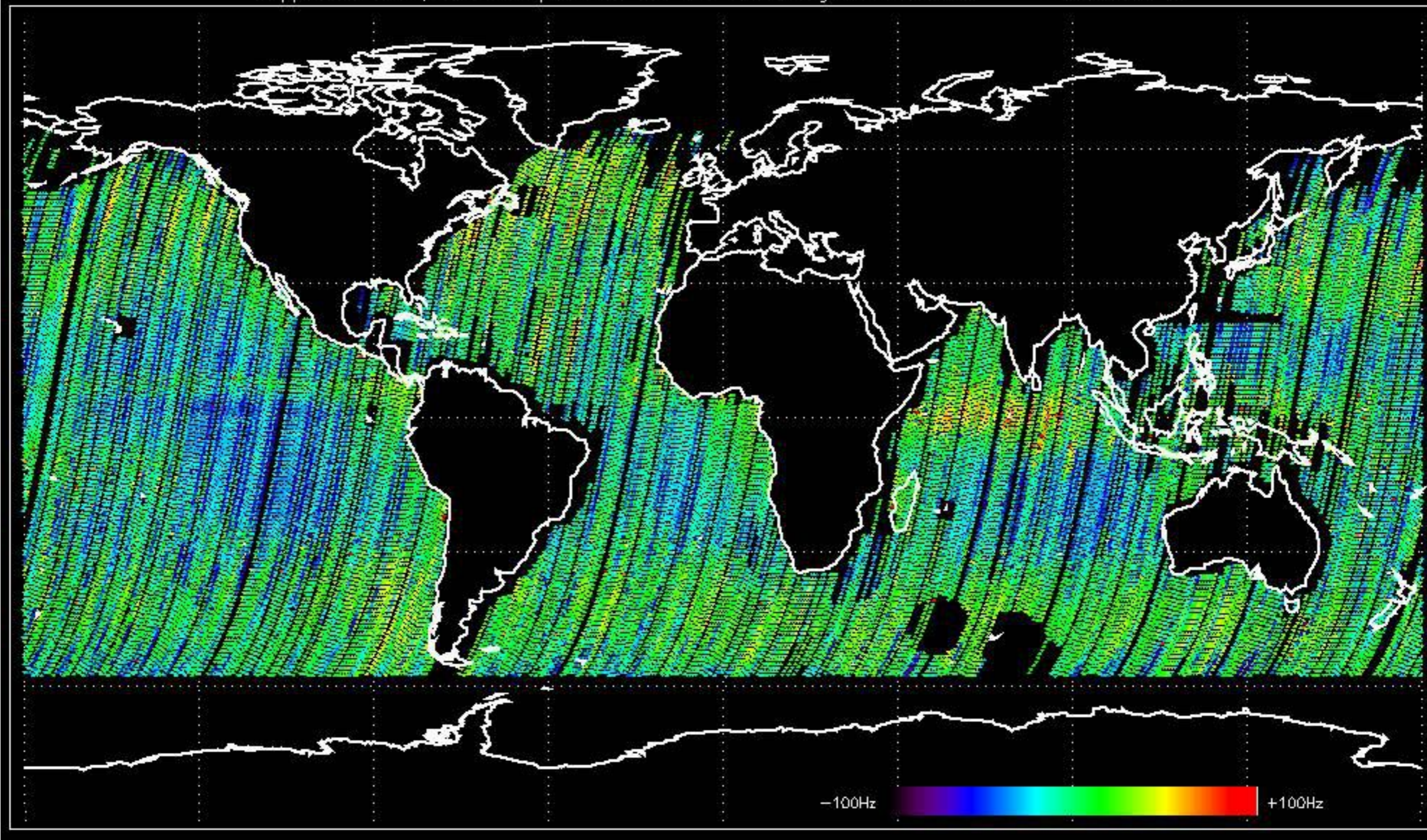
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.739356 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.6952400 Hz

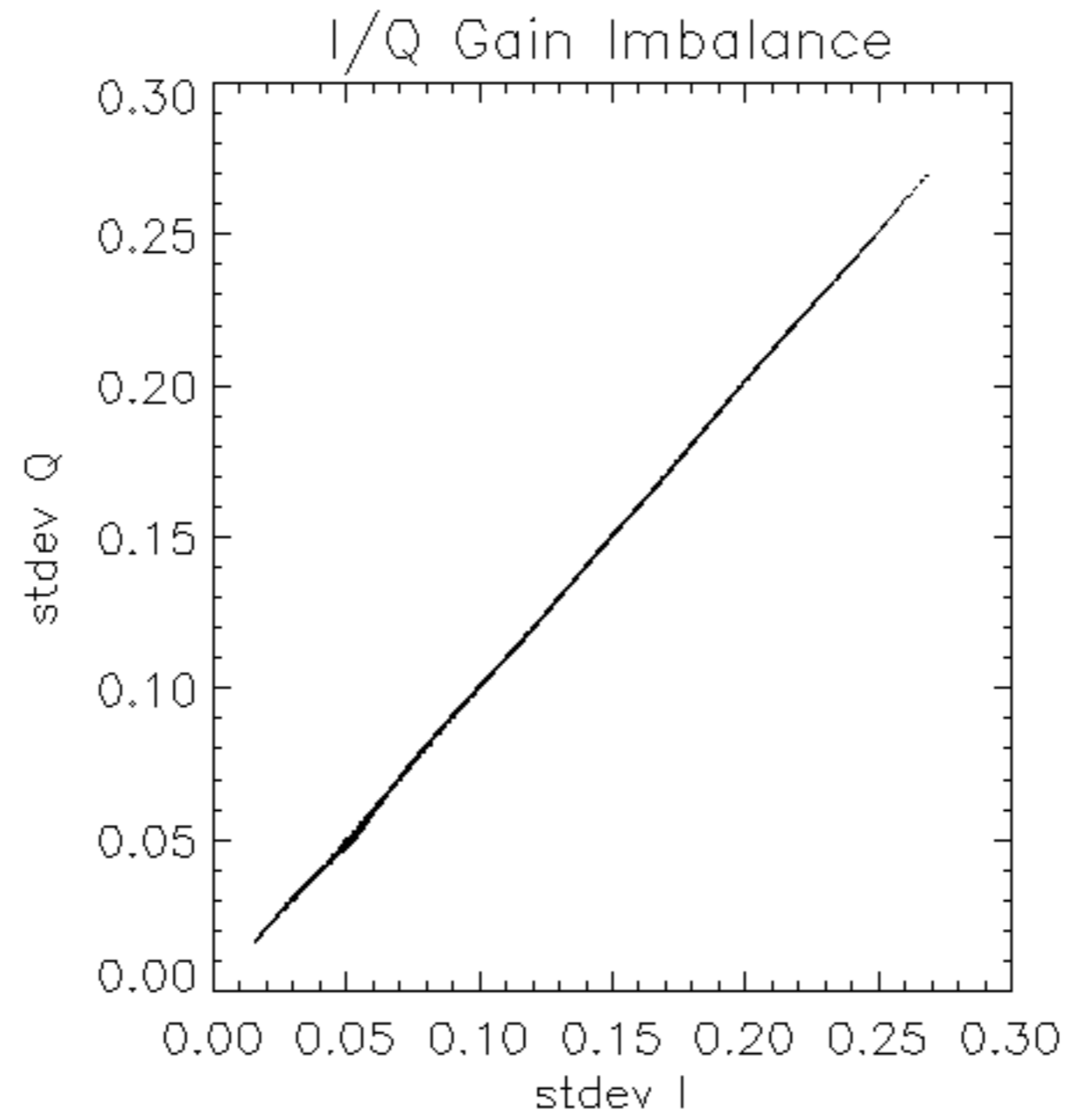


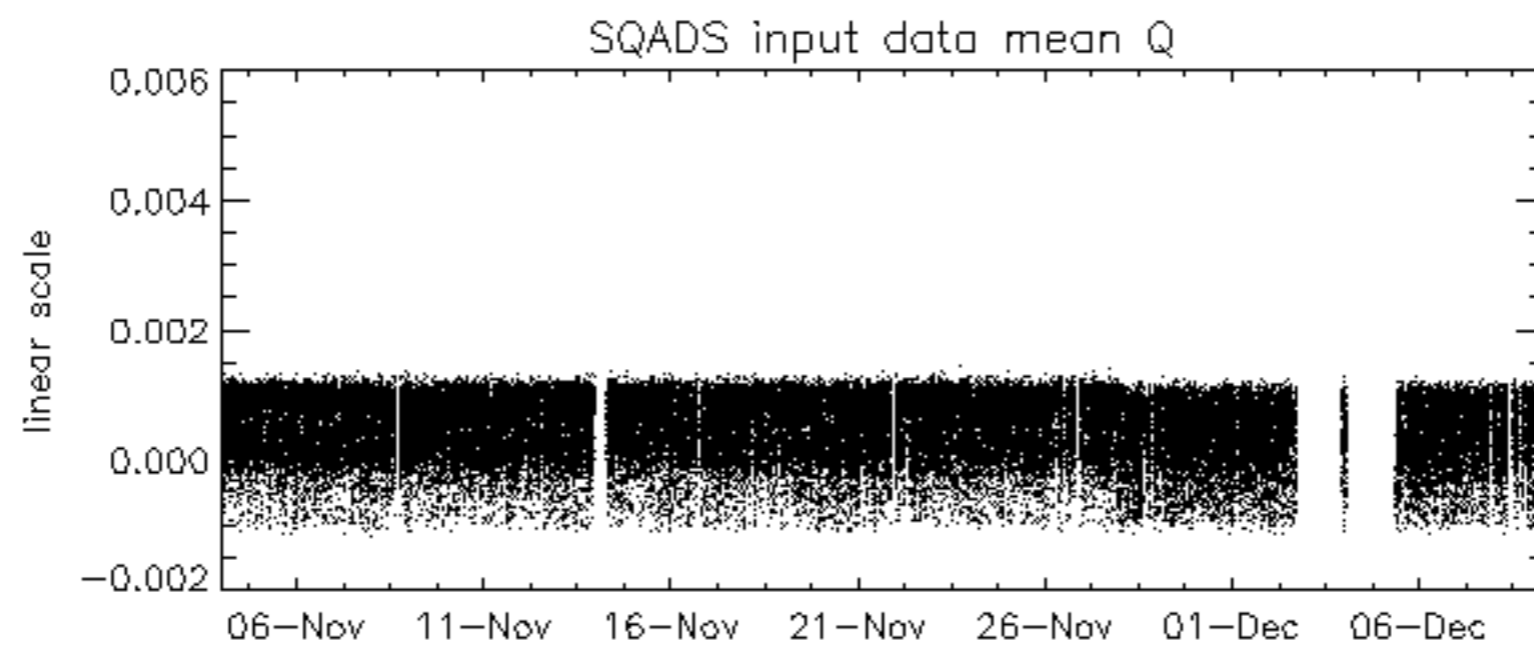
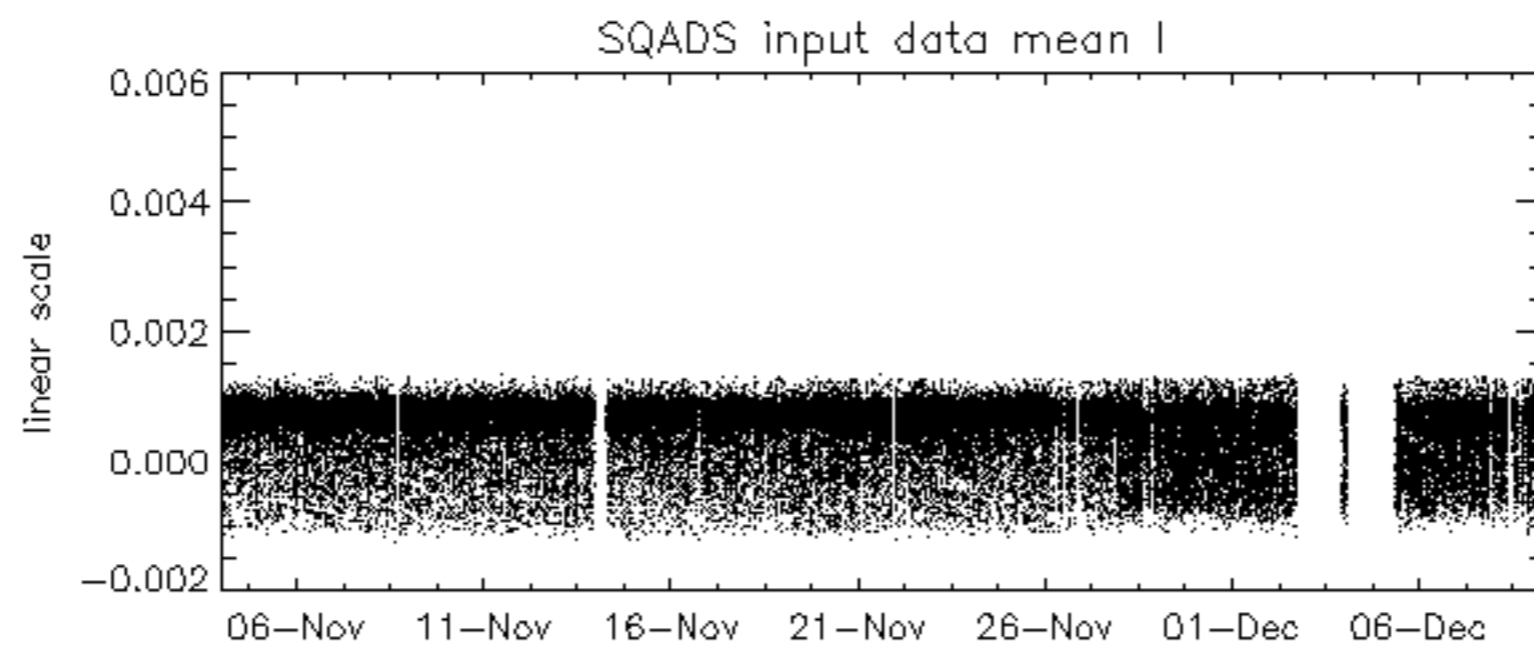
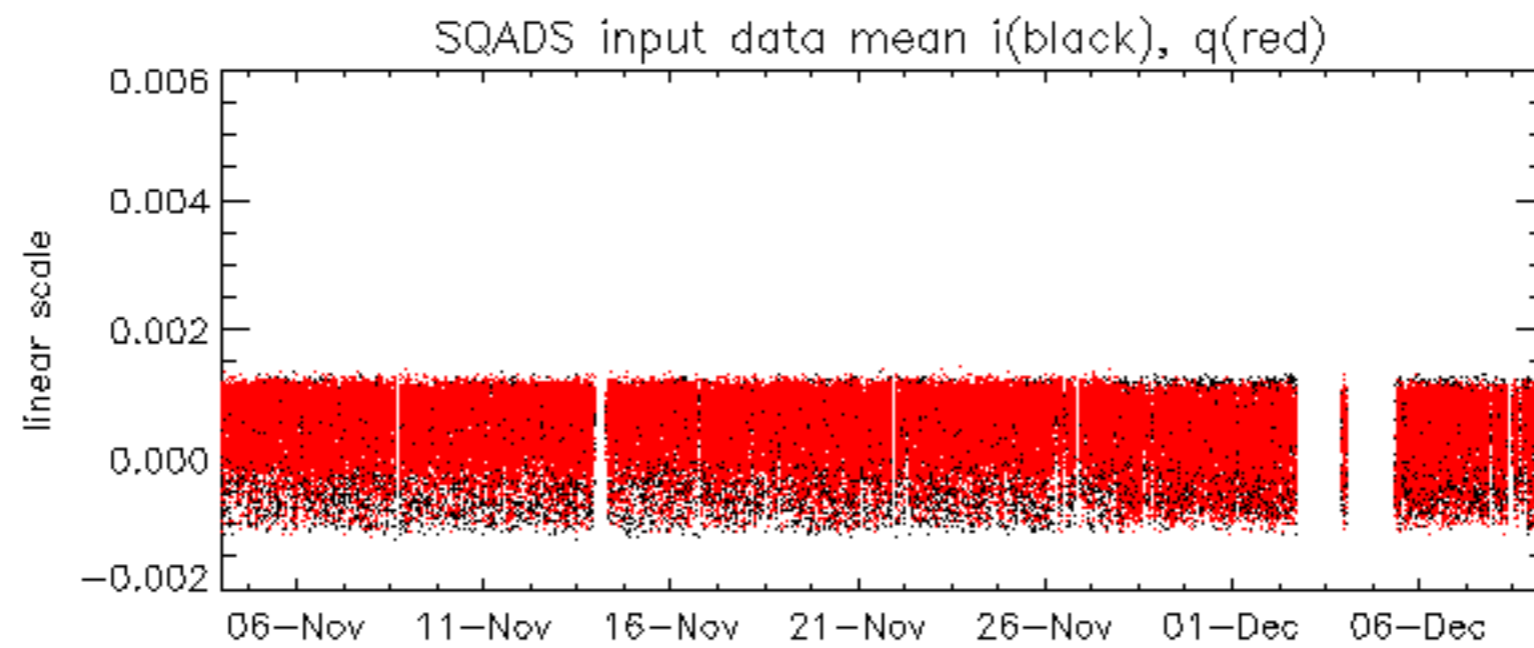
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.964890 Hz

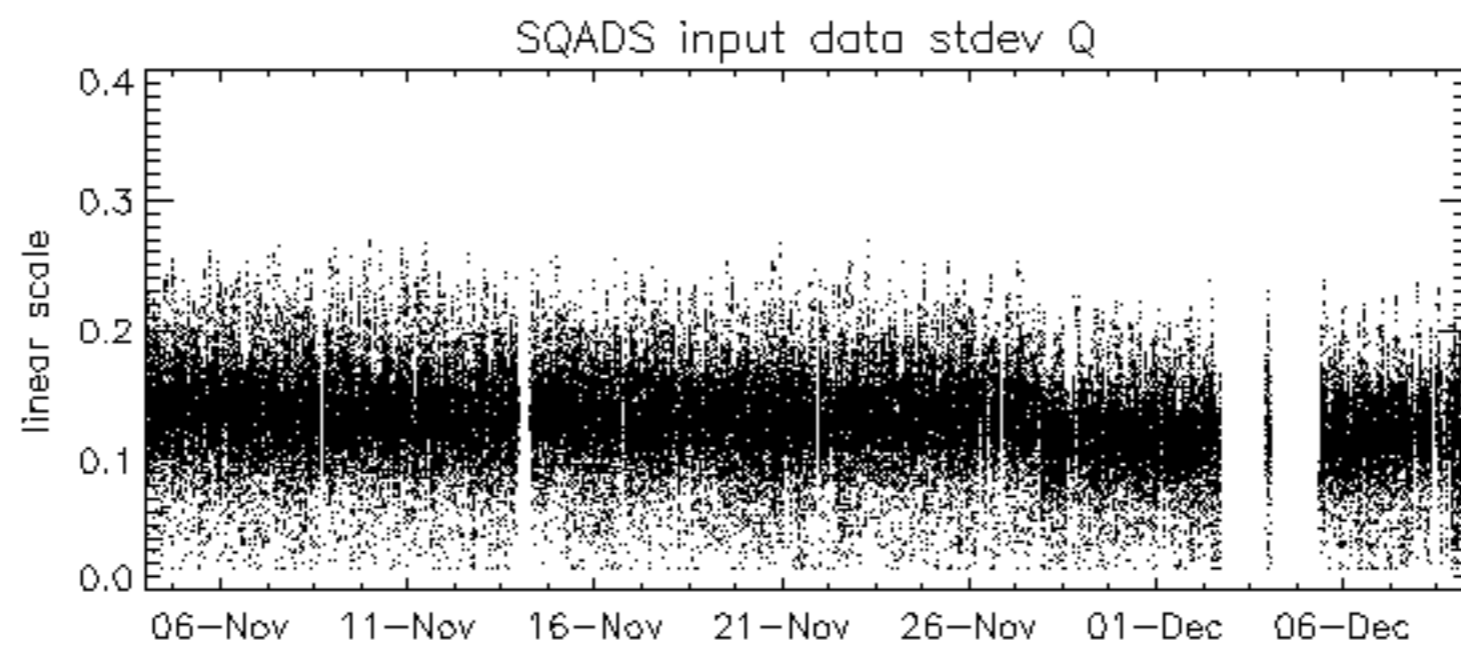
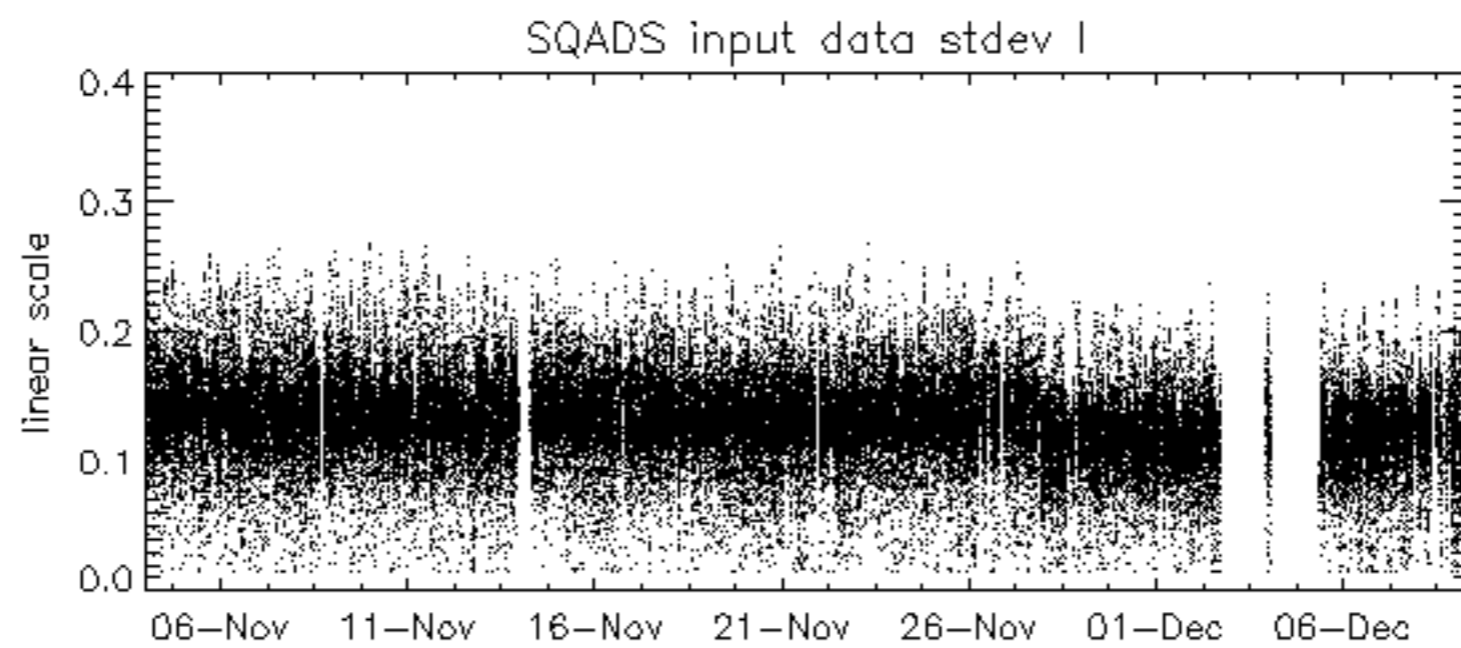
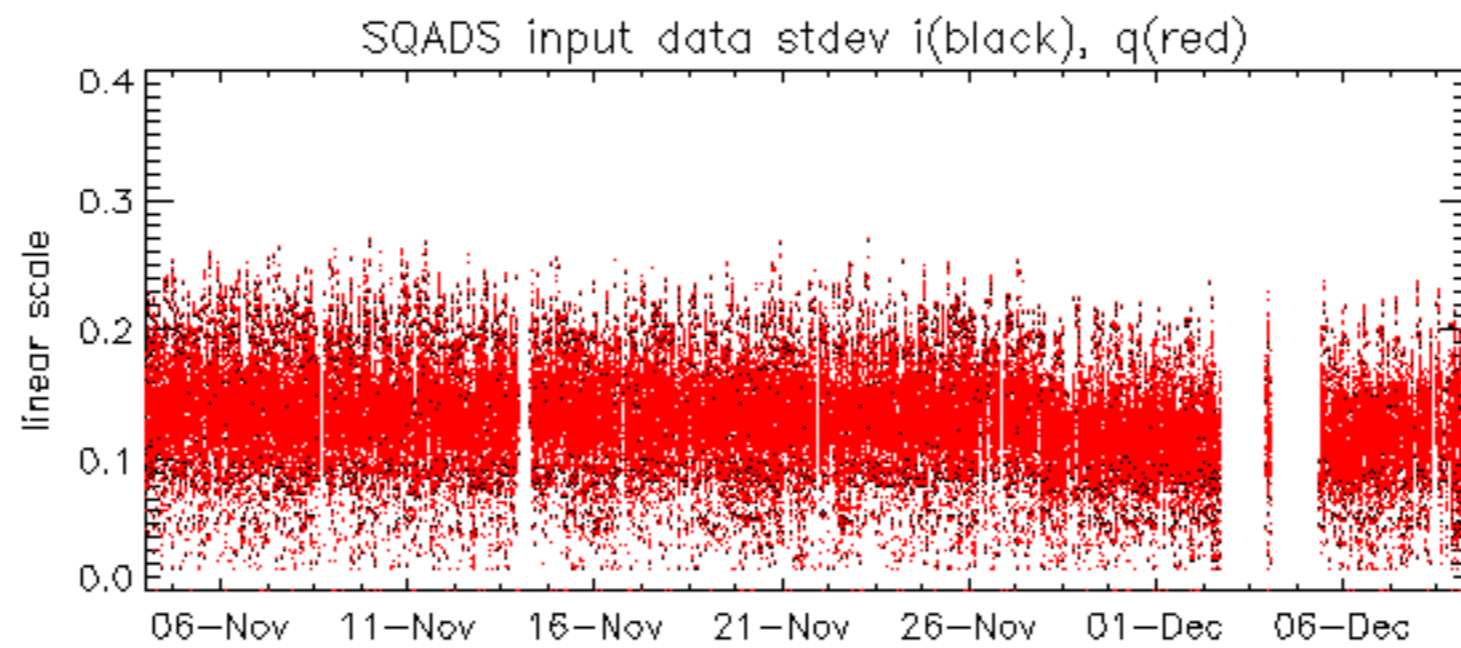


No anomalies observed on available MS products:

No anomalies observed.



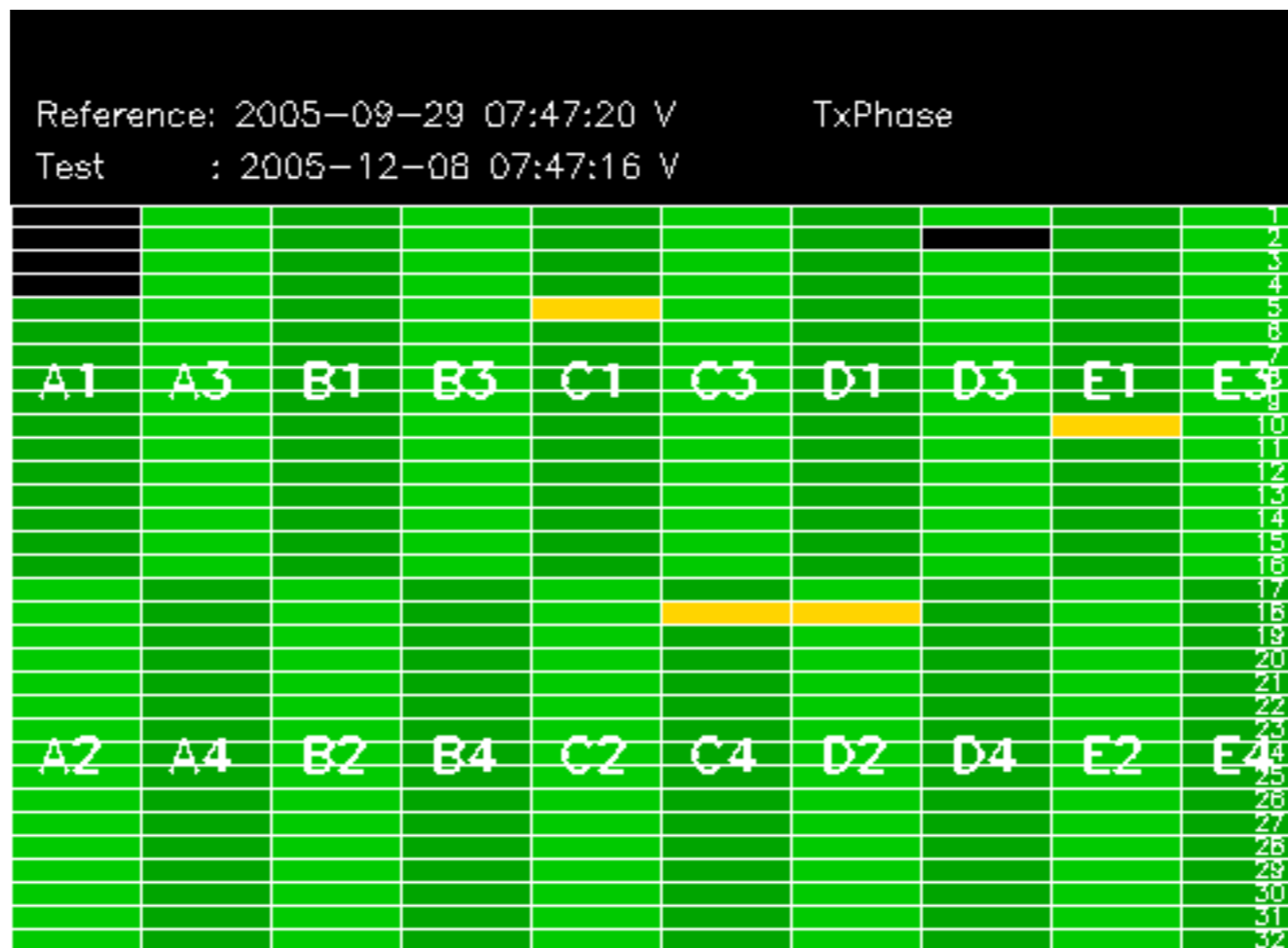


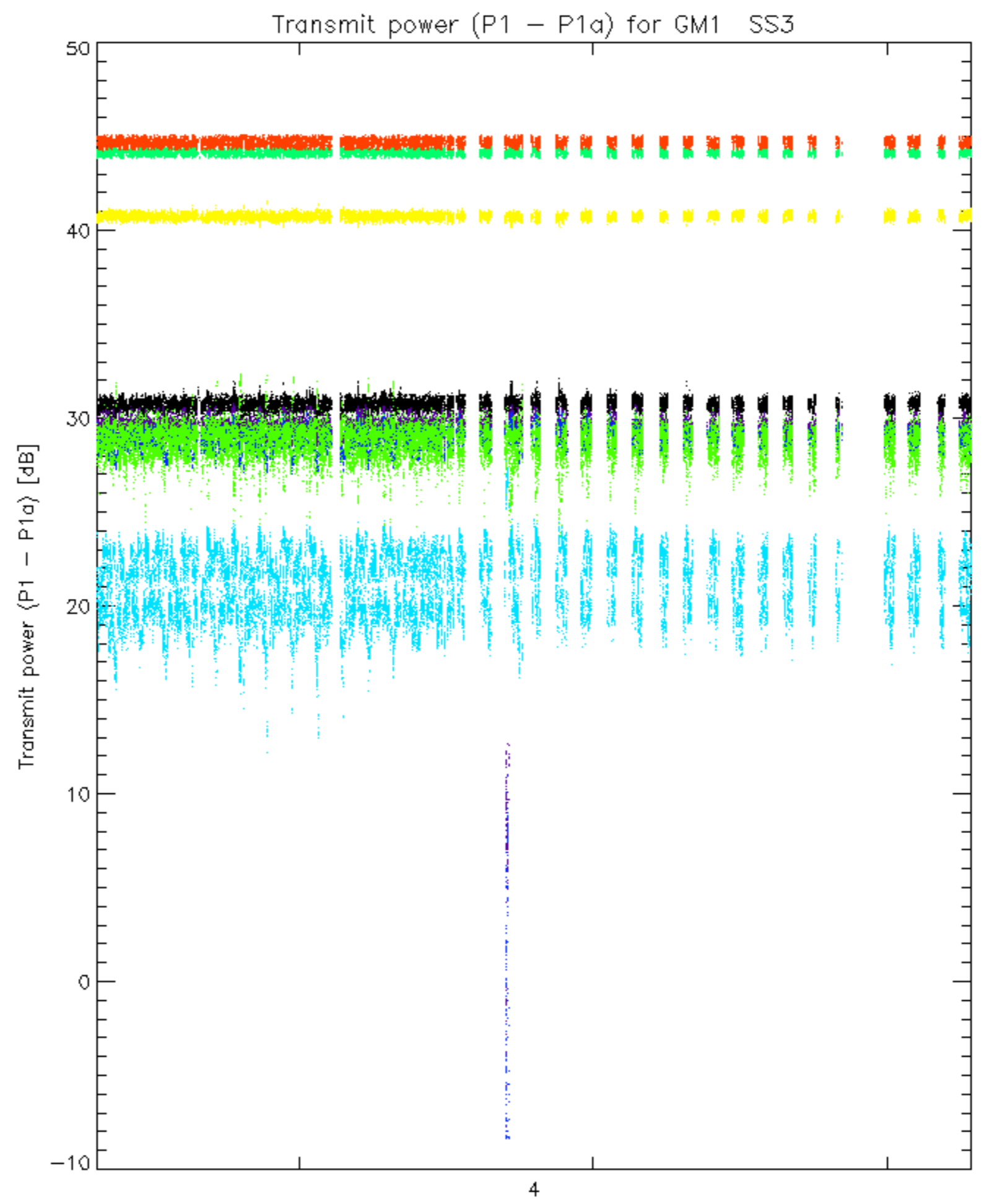


Summary of analysis for the last 3 days 2005120[789]

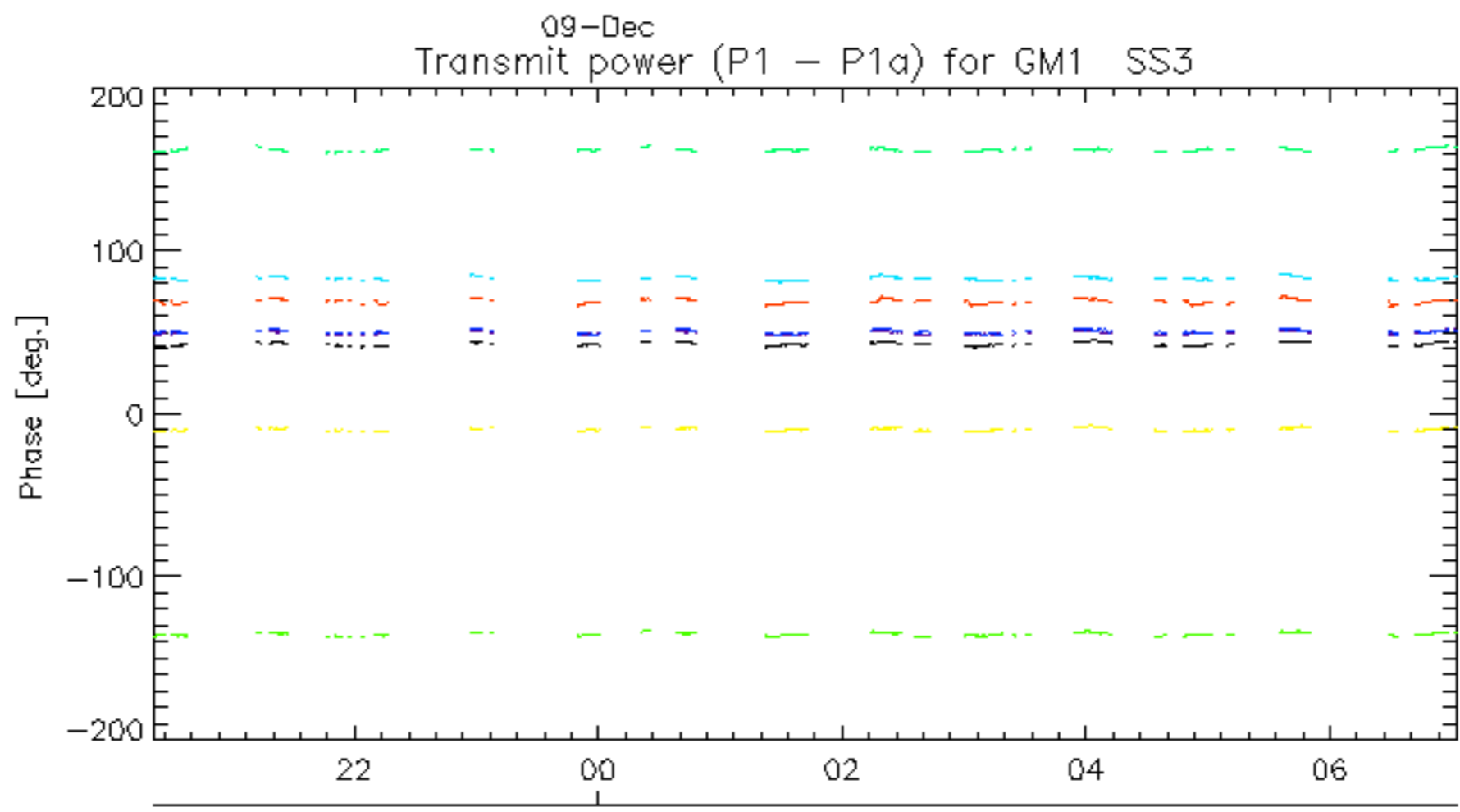
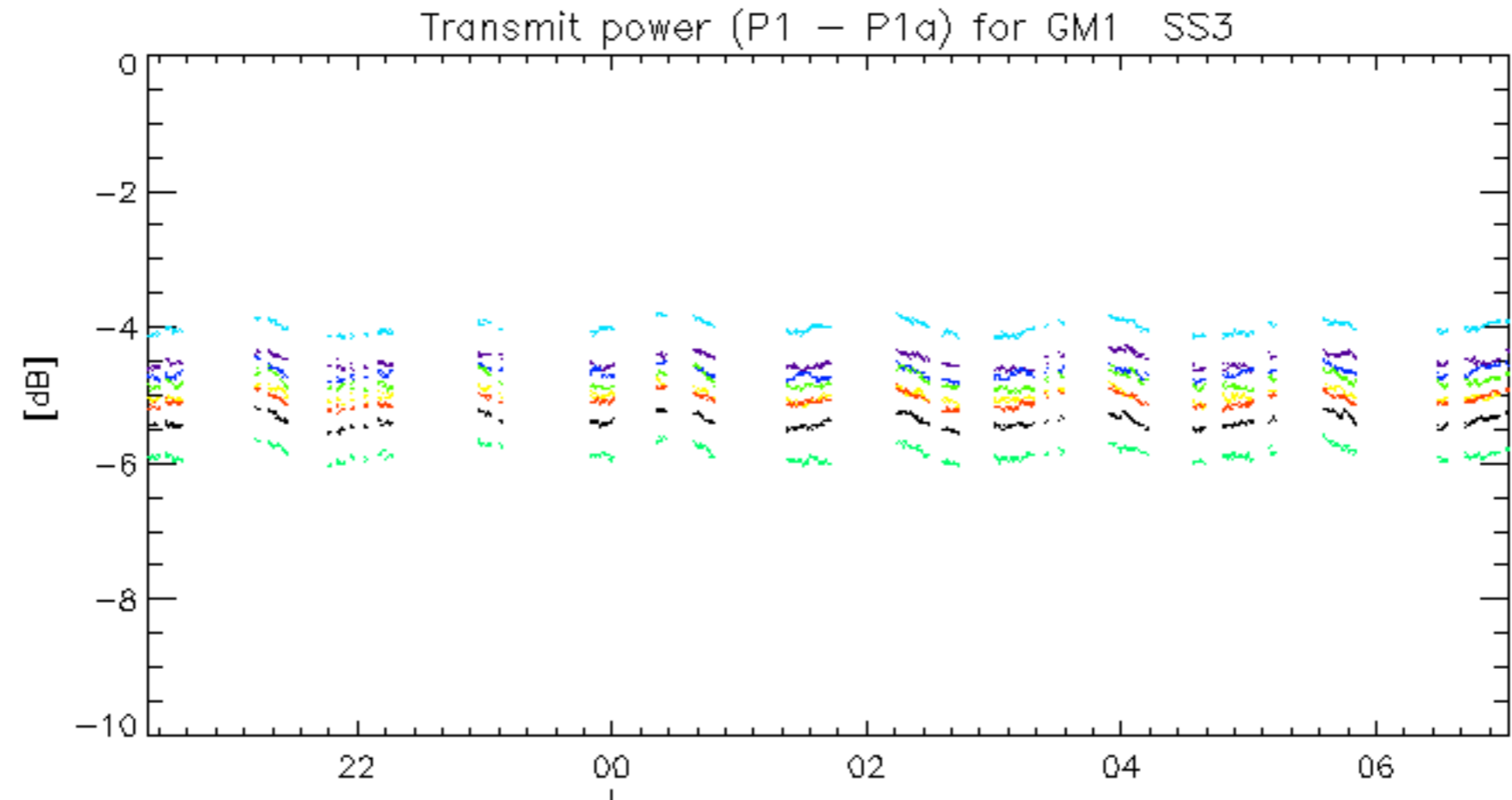
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051209_014321_000002582043_00146_19739_3553.N1	1	0
ASA_IMM_1PNPDE20051209_042648_000000522043_00147_19740_3577.N1	1	0
ASA_WSM_1PNPDE20051207_011642_000003672043_00117_19710_3119.N1	0	35
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3149.N1	0	18
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3182.N1	0	18
ASA_WSM_1PNPDE20051207_144158_000002082043_00125_19718_3195.N1	0	38
ASA_WSM_1PNPDE20051208_032332_000002442043_00133_19726_3277.N1	0	35
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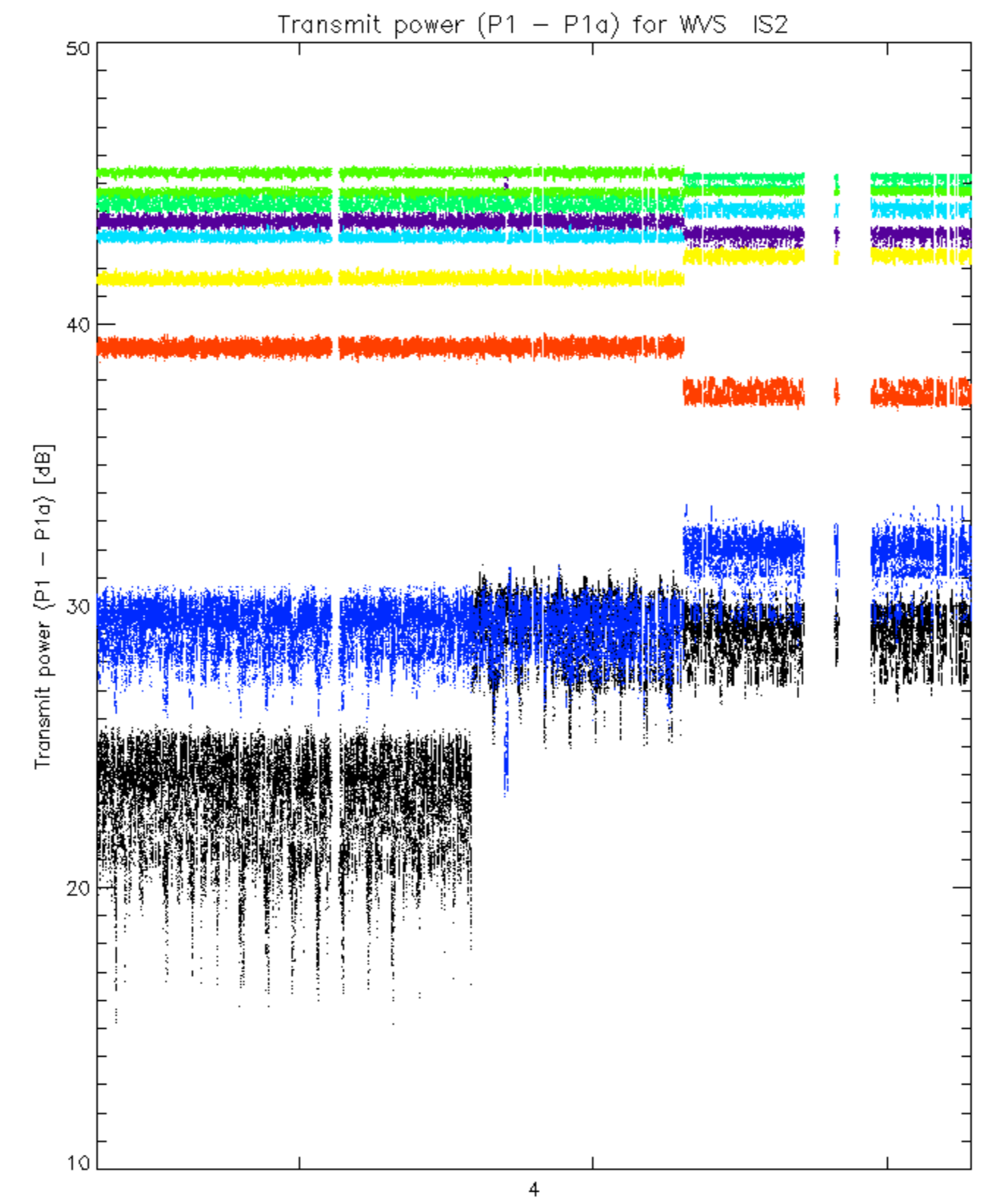




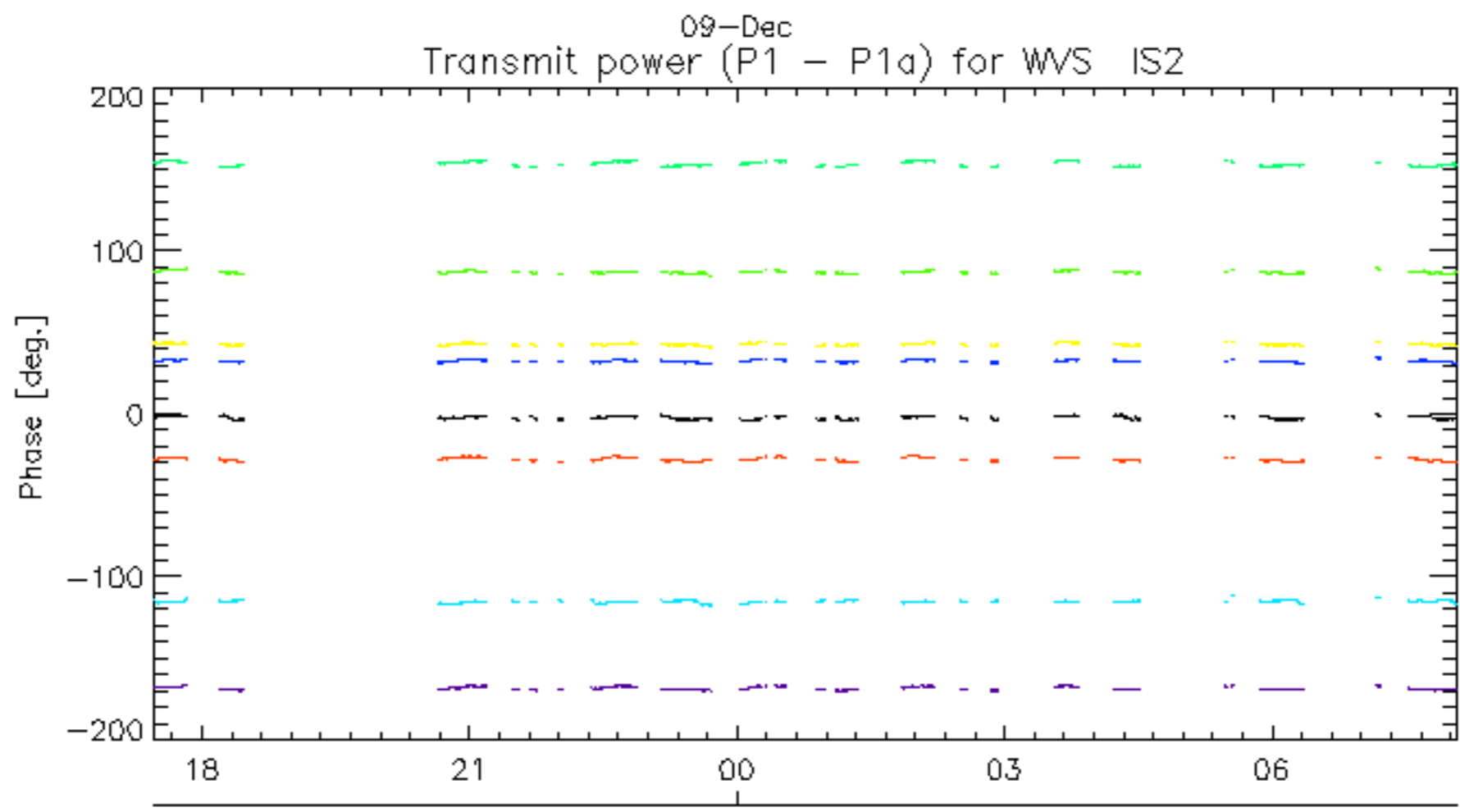
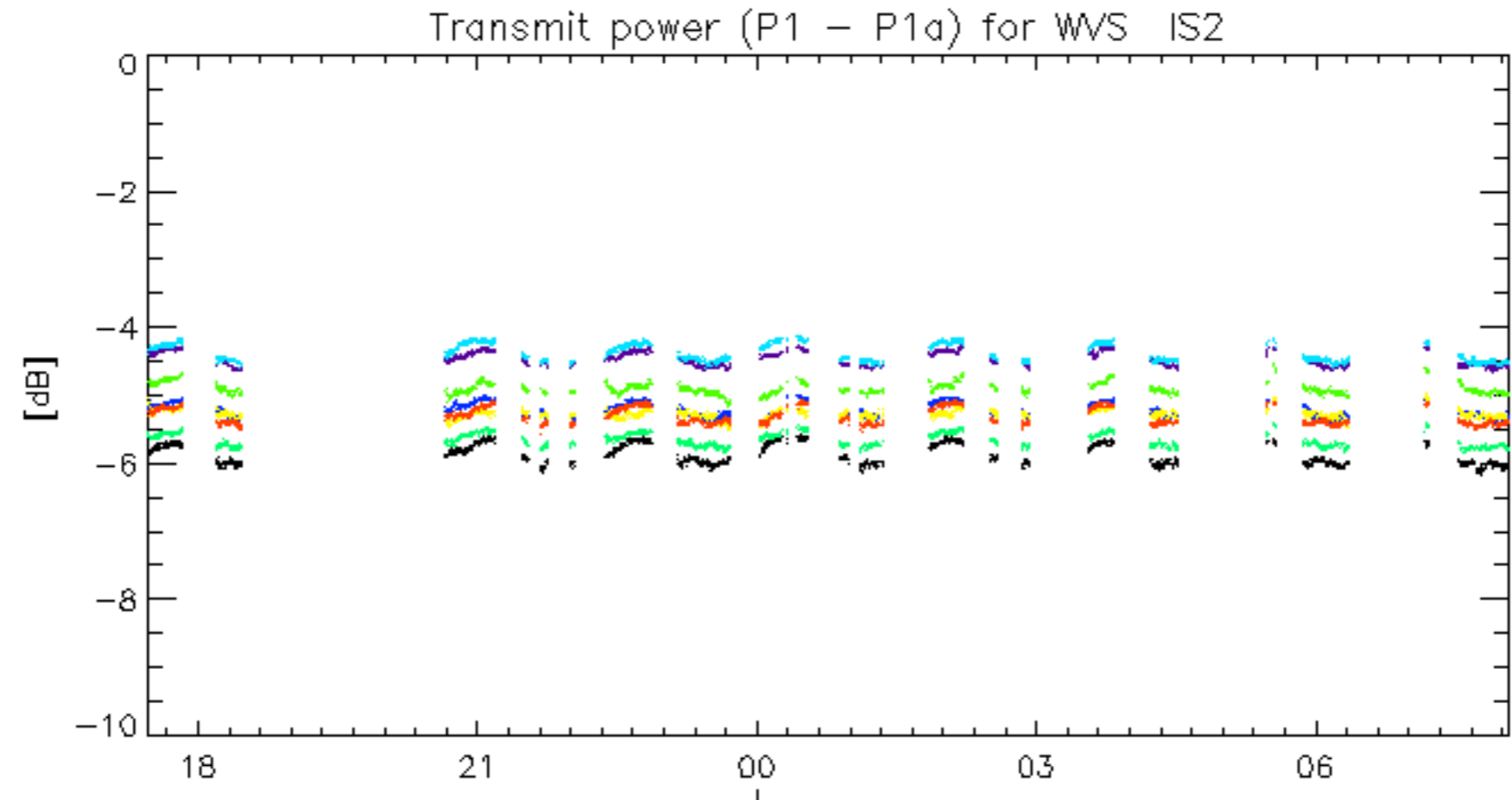
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.