

PRELIMINARY REPORT OF 061103

last update on Fri Nov 3 16:34:32 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 2006-11-02 00:00:00 to 2006-11-03 16:34:32

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	66	18	11	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	66	18	11	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	66	18	11	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	66	18	11	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	50	62	22	6	45
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	50	62	22	6	45
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	50	62	22	6	45
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	50	62	22	6	45

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	20061103 063528
H	20061102 070705

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
<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

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	-3.951129	0.009689	-0.017455
7	P1	-3.102628	0.017129	-0.105635
11	P1	-4.107224	0.025155	-0.062171
15	P1	-6.234551	0.016032	-0.117392
19	P1	-3.590943	0.068043	-0.101760
22	P1	-4.643422	0.134748	-0.136624
26	P1	-4.001011	0.129903	0.026240
30	P1	-5.885441	0.247225	-0.051663
3	P1	-16.586256	0.215374	0.283794
7	P1	-17.157043	0.170693	-0.221104
11	P1	-17.071667	0.428031	-0.110099
15	P1	-12.917745	0.117744	-0.375282
19	P1	-14.791879	0.377668	-0.369292
22	P1	-15.664181	0.492514	-0.563841
26	P1	-15.074314	0.255351	-0.053910
30	P1	-17.091787	0.691444	-0.737478

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.834743	0.088876	-0.054954
7	P2	-21.750492	0.096013	0.068695
11	P2	-15.699713	0.108091	0.109317
15	P2	-7.082598	0.109100	-0.108737
19	P2	-9.144030	0.102473	-0.120049
22	P2	-18.166788	0.097290	-0.157991
26	P2	-16.459595	0.107956	-0.187191
30	P2	-19.466356	0.092382	-0.033669

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.210050	0.007593	-0.058644
7	P3	-8.210050	0.007593	-0.058644
11	P3	-8.210050	0.007593	-0.058644
15	P3	-8.210050	0.007593	-0.058644
19	P3	-8.210050	0.007593	-0.058644
22	P3	-8.210050	0.007593	-0.058644
26	P3	-8.209937	0.007614	-0.058919
30	P3	-8.209937	0.007614	-0.058919

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	-3.926767	0.206661	0.117758
7	P1	-2.632398	1.310327	0.533807
11	P1	-2.907441	0.159776	0.209302
15	P1	-3.702615	0.144574	0.163528
19	P1	-3.524181	0.167764	-0.144328
22	P1	-5.072381	0.123520	-0.030315
26	P1	-6.002113	0.317975	-0.203473
30	P1	-5.299959	0.207493	-0.204332
3	P1	-11.760111	0.501736	0.293771
7	P1	-10.167782	1.660958	0.668551
11	P1	-10.433458	0.446601	0.531599
15	P1	-10.904123	0.589450	0.709282
19	P1	-15.766954	3.020862	-0.546596
22	P1	-21.108963	1.676576	-0.889789

26	P1	-15.920426	0.468507	-0.605661
30	P1	-18.001770	0.553733	0.383552

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.372196	0.303914	-0.379608
7	P2	-22.016100	1.731383	-0.958680
11	P2	-10.864210	0.264182	-0.322315
15	P2	-4.911608	0.057197	-0.185271
19	P2	-6.892040	0.084852	-0.177937
22	P2	-8.266963	0.526709	0.087083
26	P2	-24.144234	1.323150	-0.765012
30	P2	-21.864735	0.668109	-0.384478

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.066113	0.003198	-0.054935
7	P3	-8.066128	0.003175	-0.055608
11	P3	-8.066033	0.003182	-0.055771
15	P3	-8.066034	0.003176	-0.054920
19	P3	-8.066058	0.003171	-0.055113
22	P3	-8.065924	0.003186	-0.055657
26	P3	-8.065808	0.003165	-0.056598
30	P3	-8.065831	0.003164	-0.056123

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	0.000557793
	stdev	1.69415e-07
MEAN Q	mean	0.000523105
	stdev	2.16425e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137556
	stdev	0.00110499
STDEV Q	mean	0.137924
	stdev	0.00112212



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006110[123]

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_GM1_1PNPDK20061102_203159_000007372052_00343_24445_7869.N1	0	9
ASA_WSM_1PNPDE20061101_003703_000001412052_00317_24419_0001.N1	0	34
ASA_WSM_1PNPDE20061101_060109_000001282052_00320_24422_0001.N1	33	1716
ASA_WSM_1PNPDE20061101_163956_000004282052_00327_24429_0001.N1	0	65
ASA_WSM_1PNPDE20061102_000626_000002022052_00331_24433_0001.N1	0	35



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

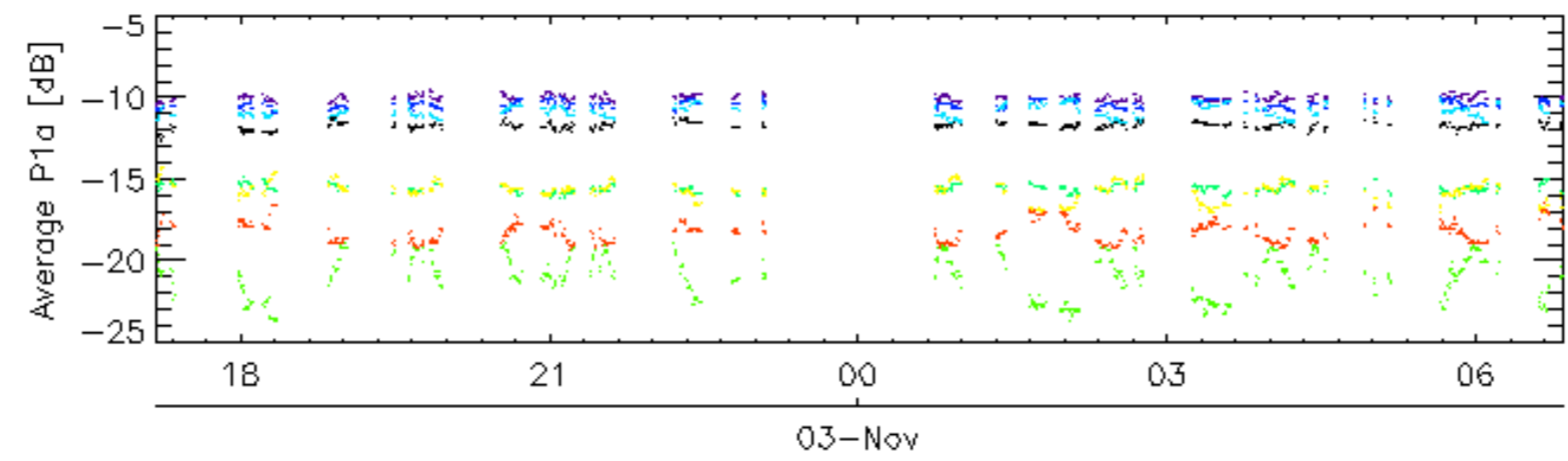
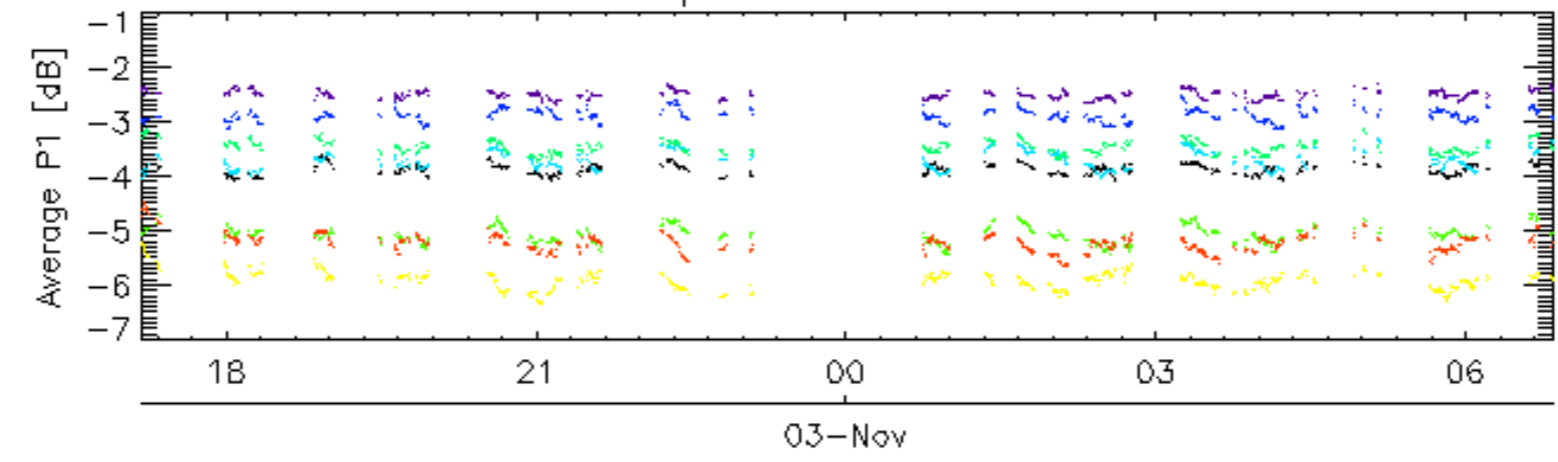
Ascending

Descending

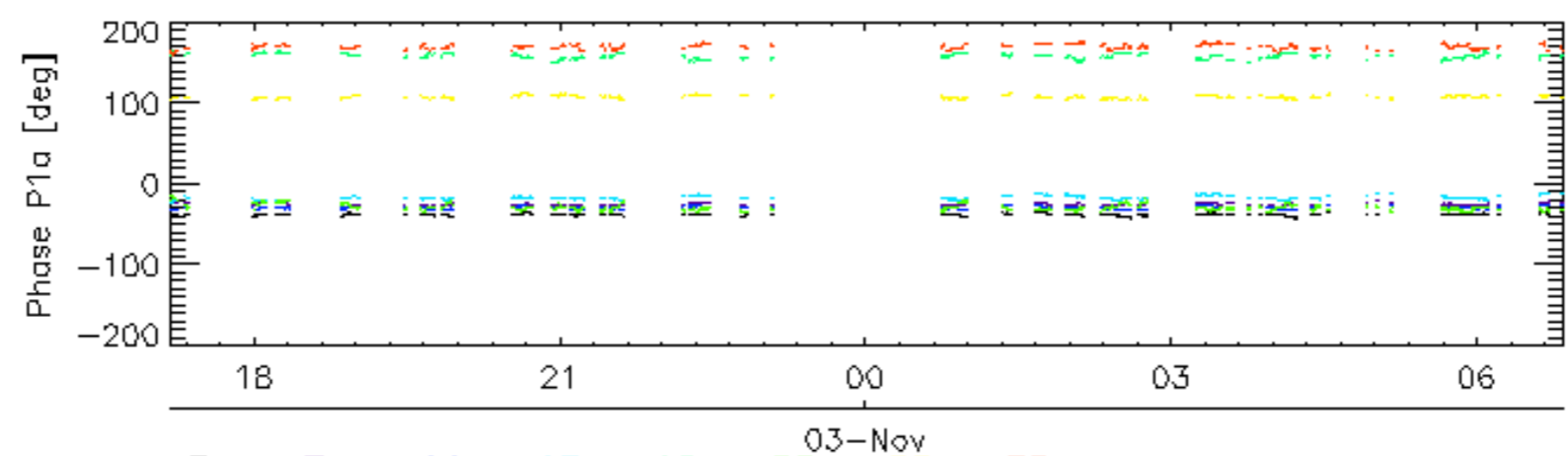
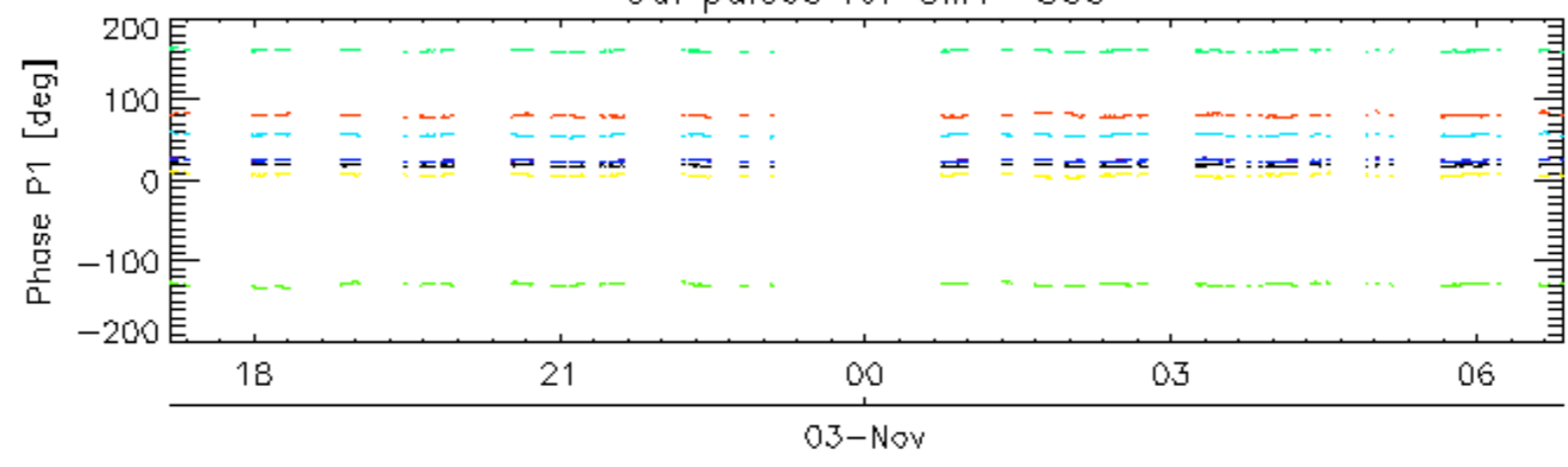
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

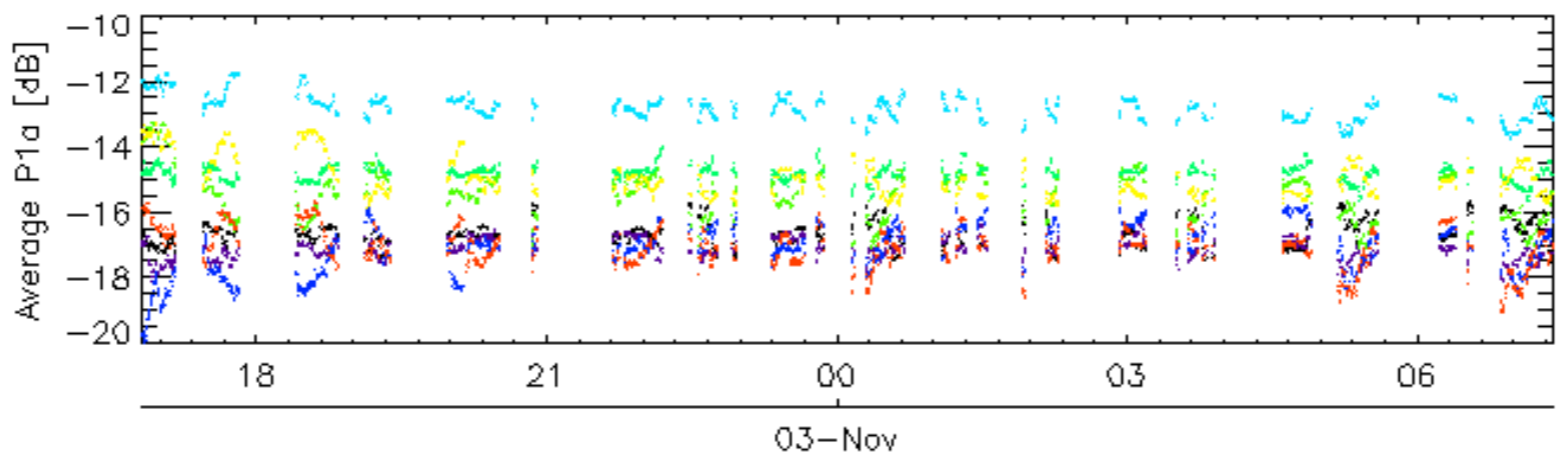
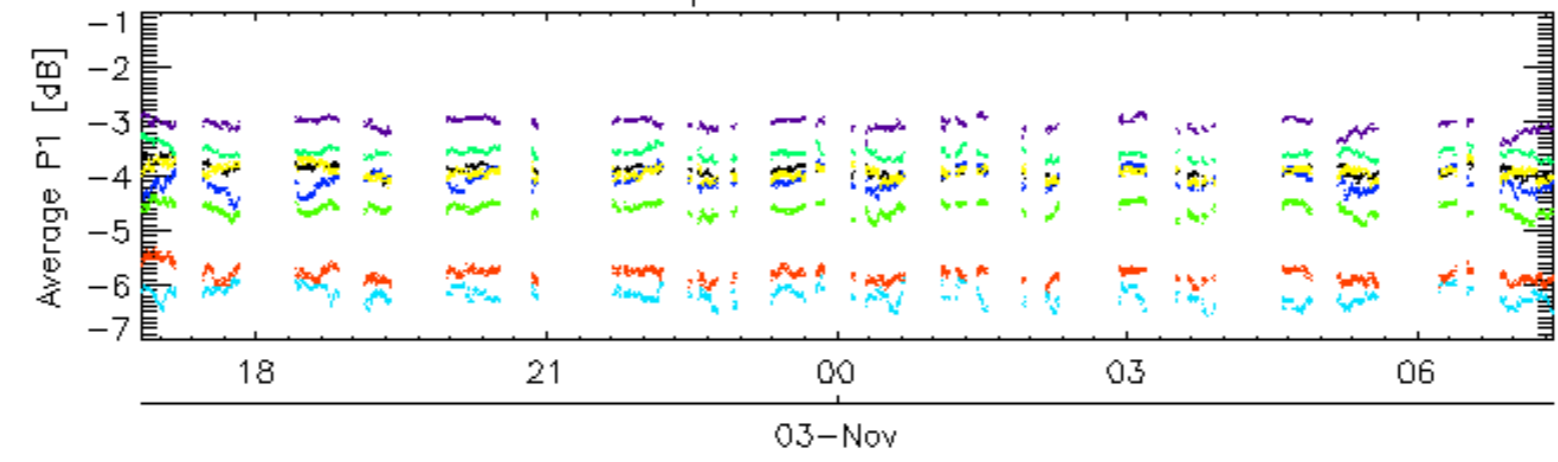


Cal pulses for GM1 SS3

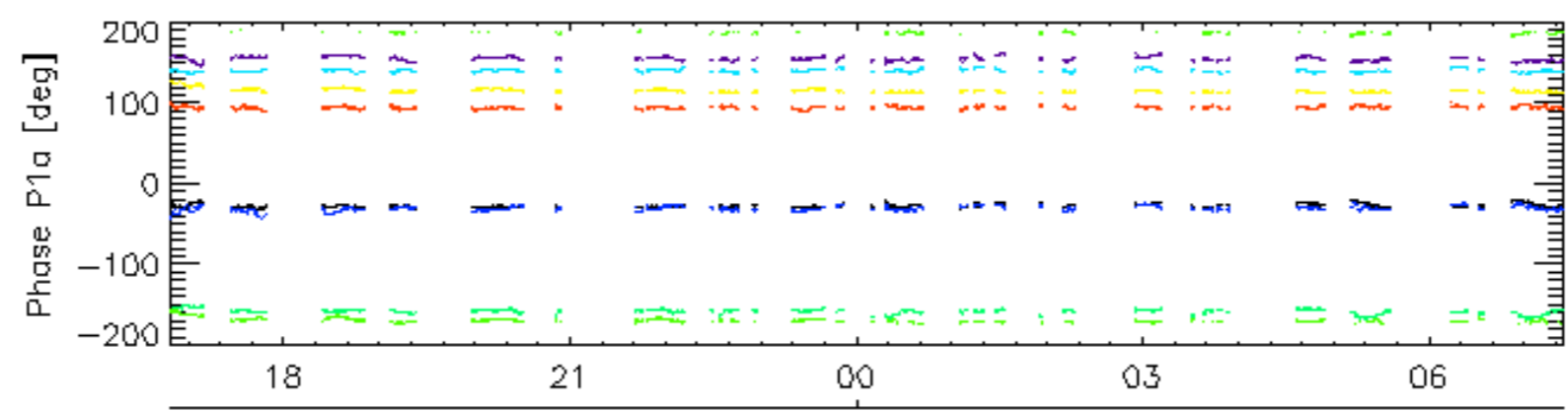
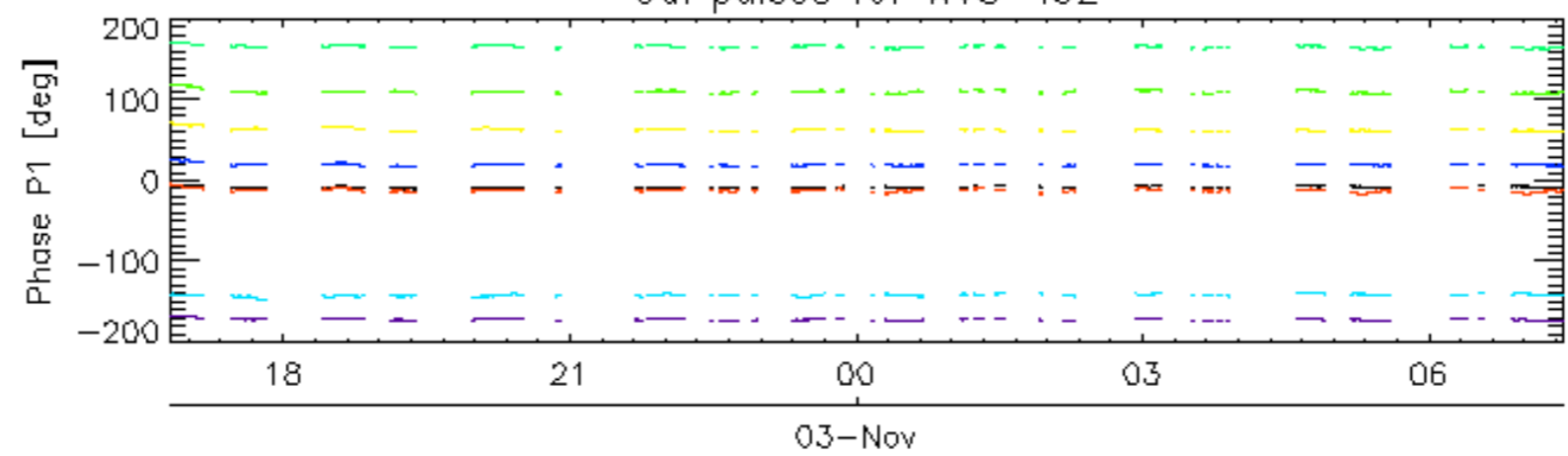


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

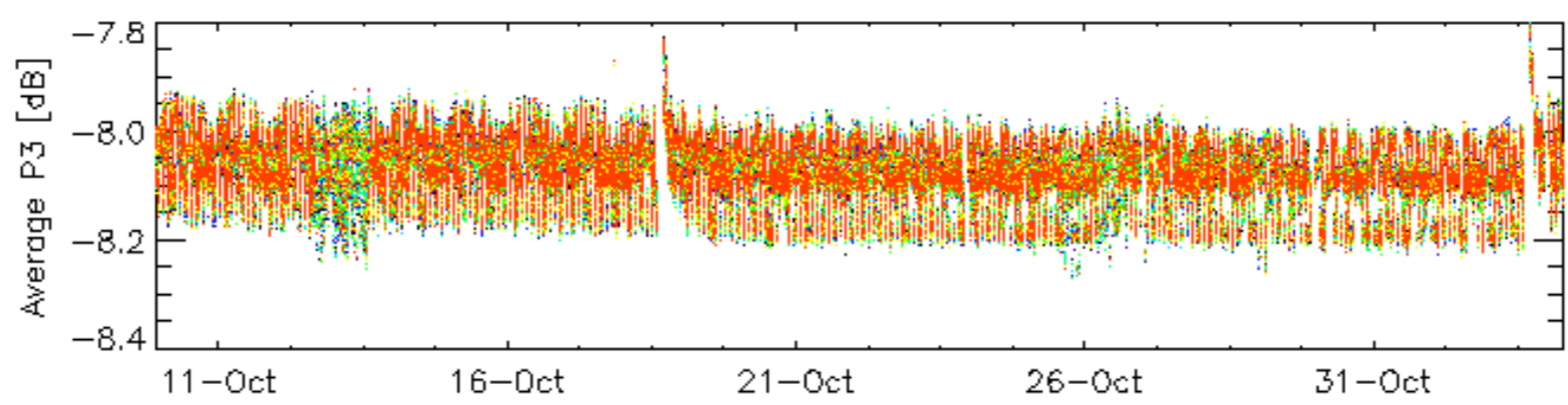
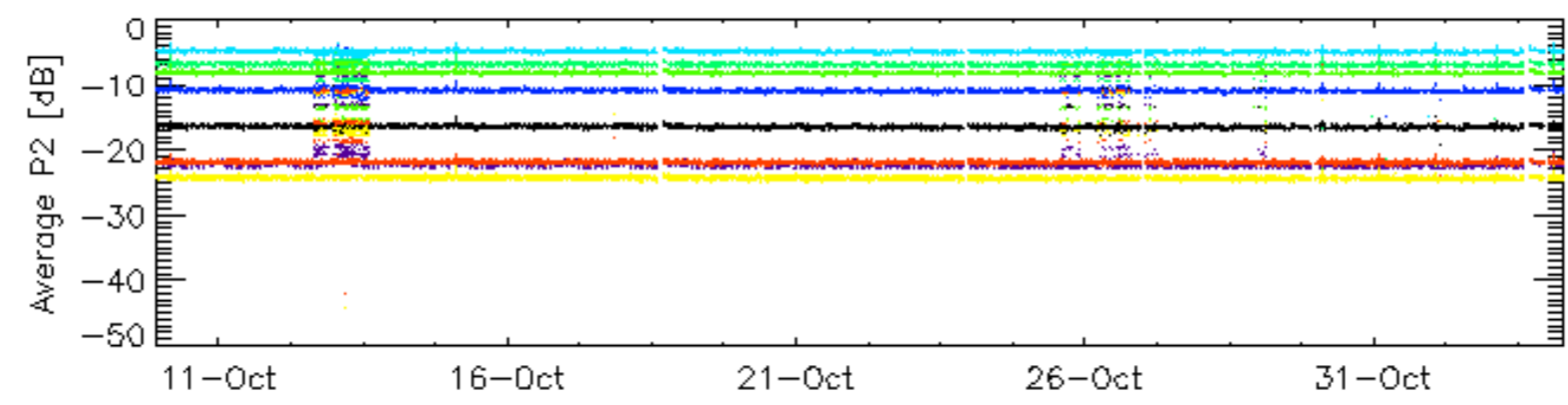
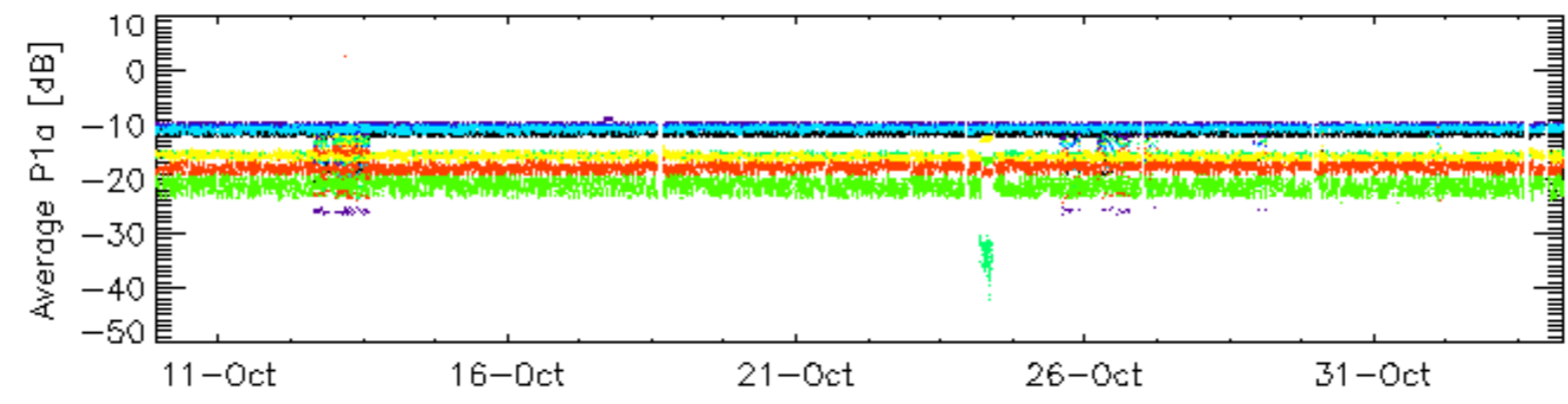
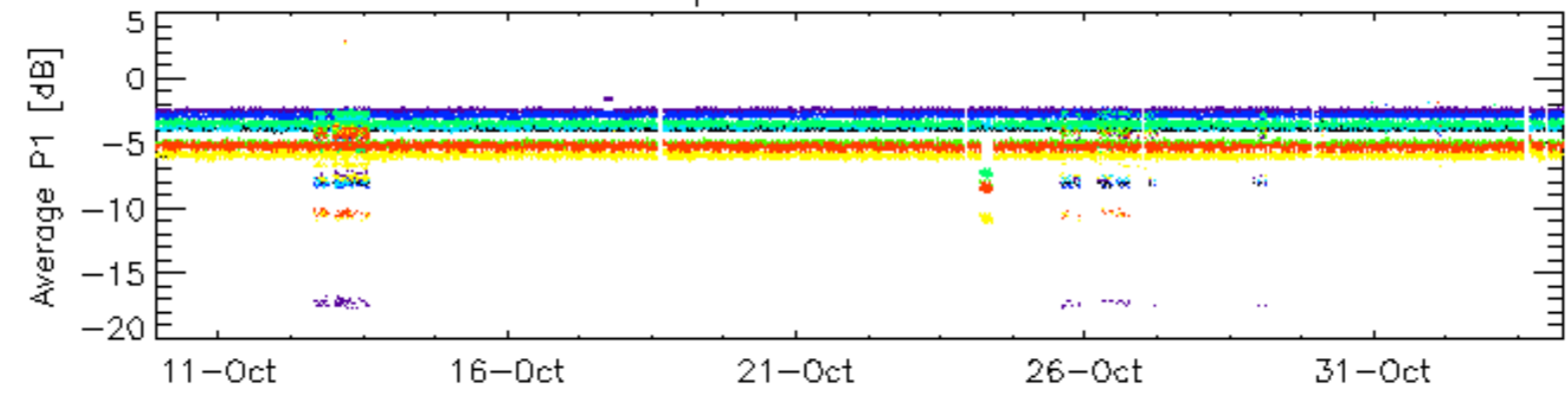


Cal pulses for WVS IS2



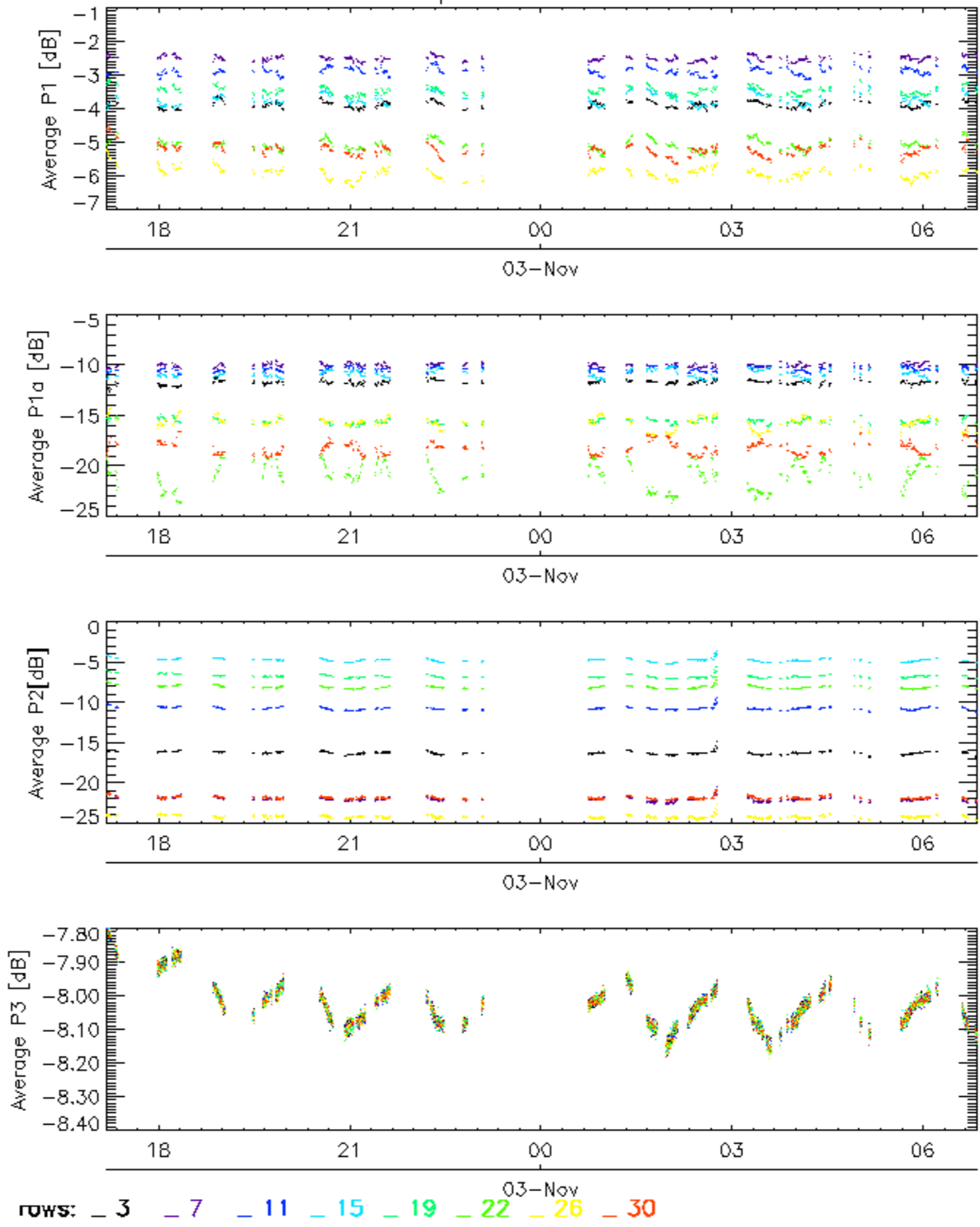
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

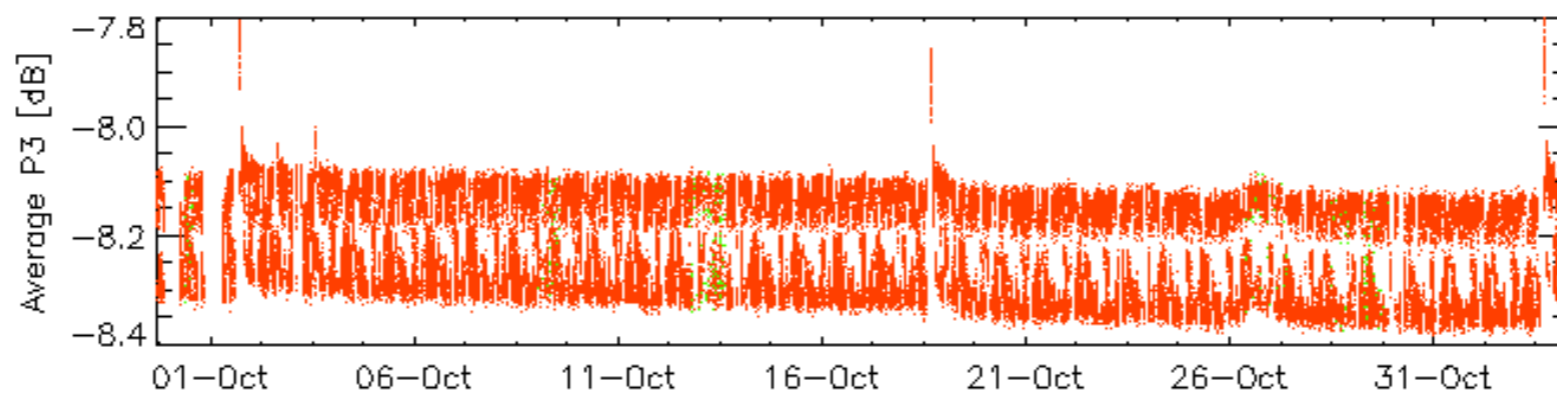
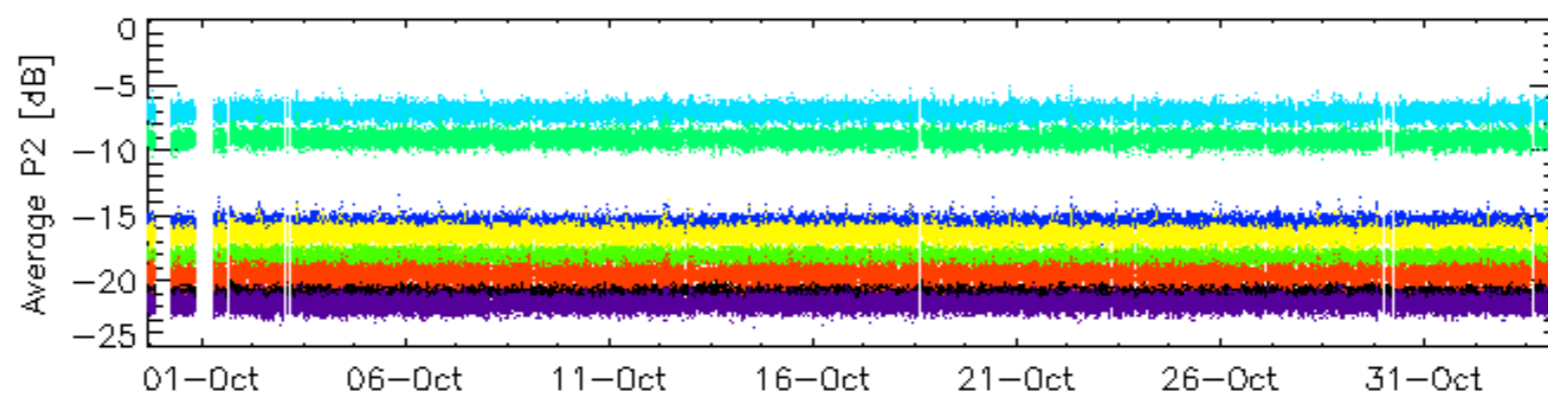
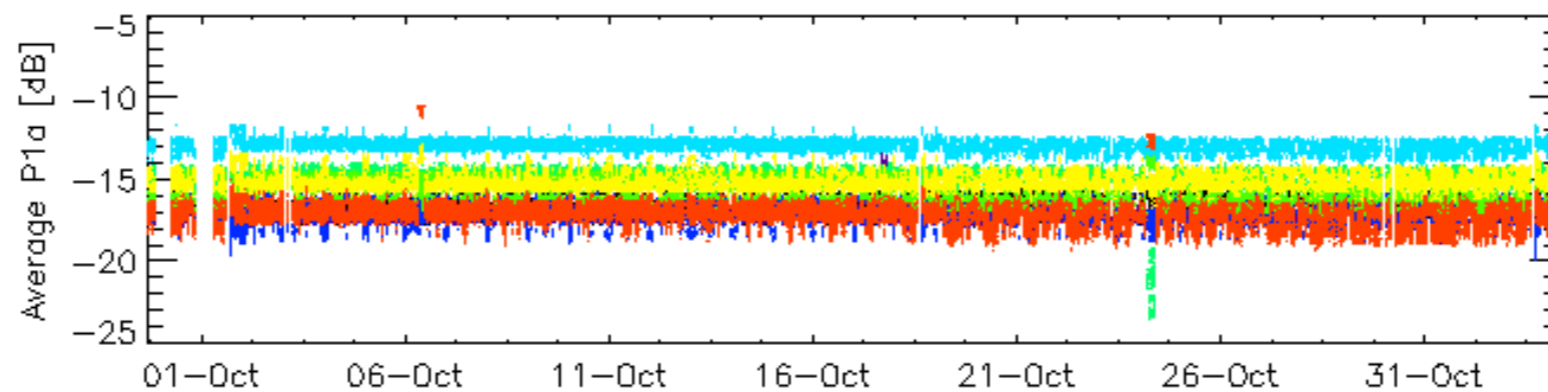
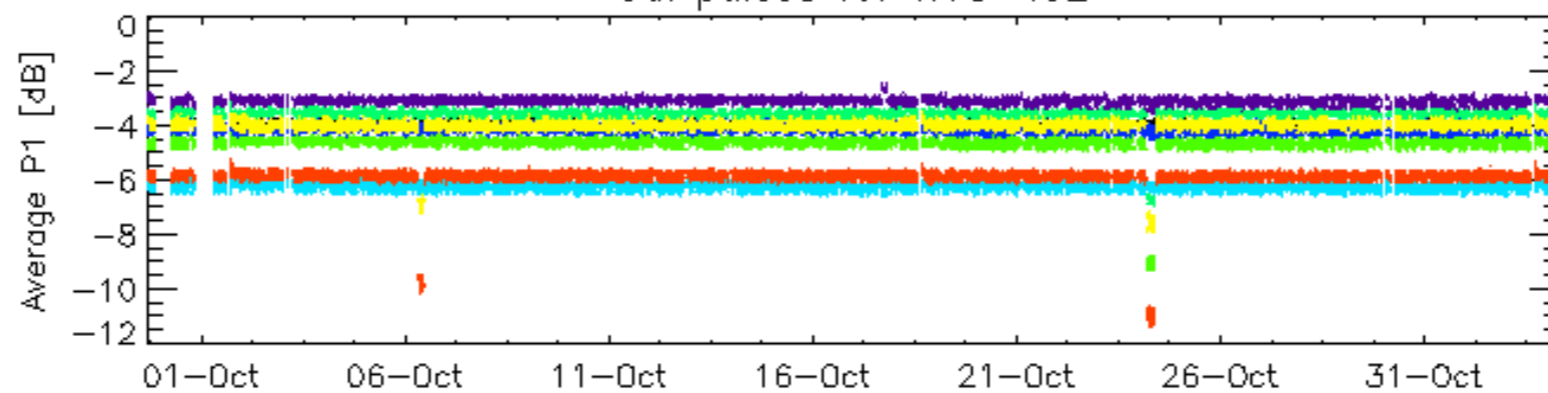


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

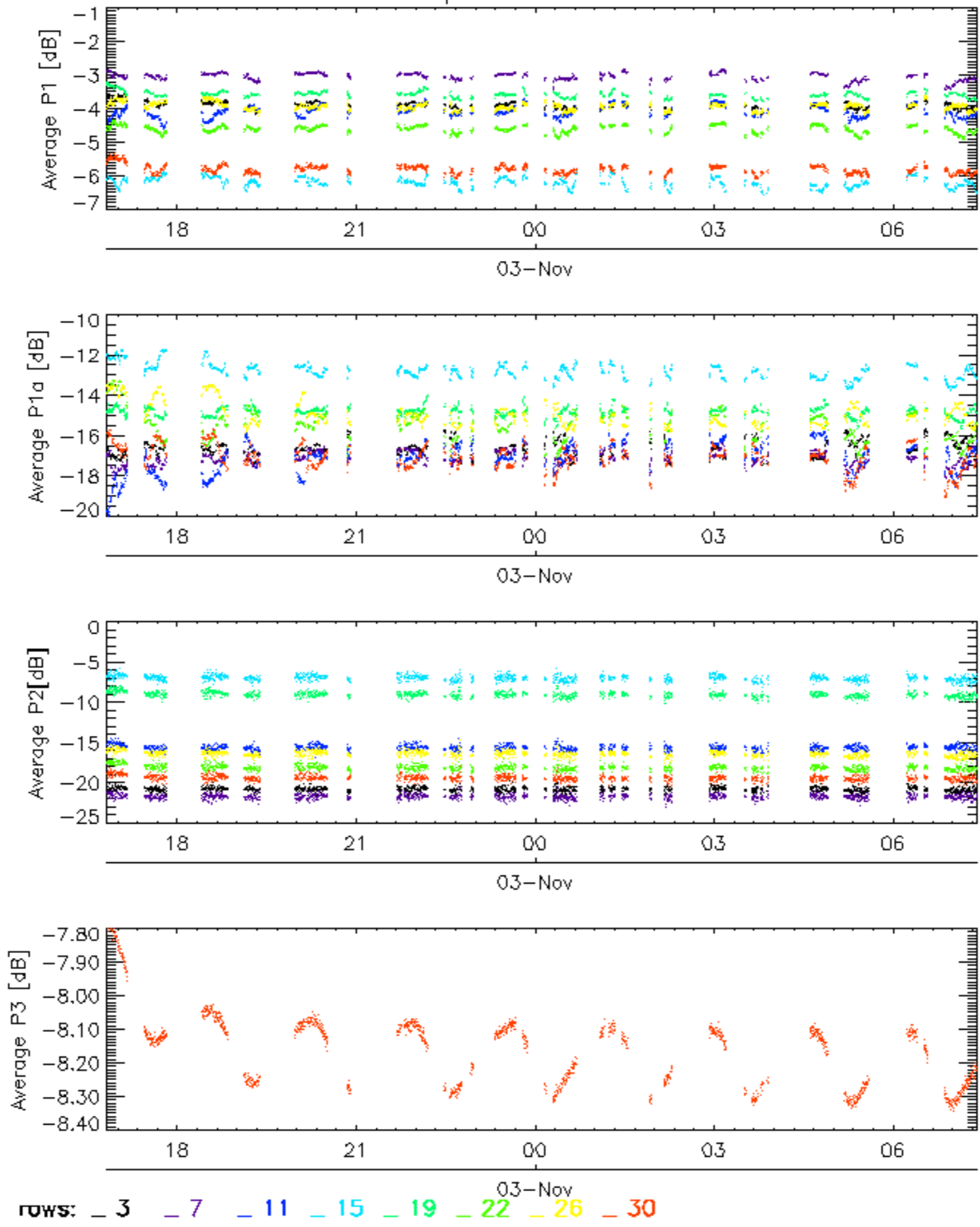


Cal pulses for WVS IS2



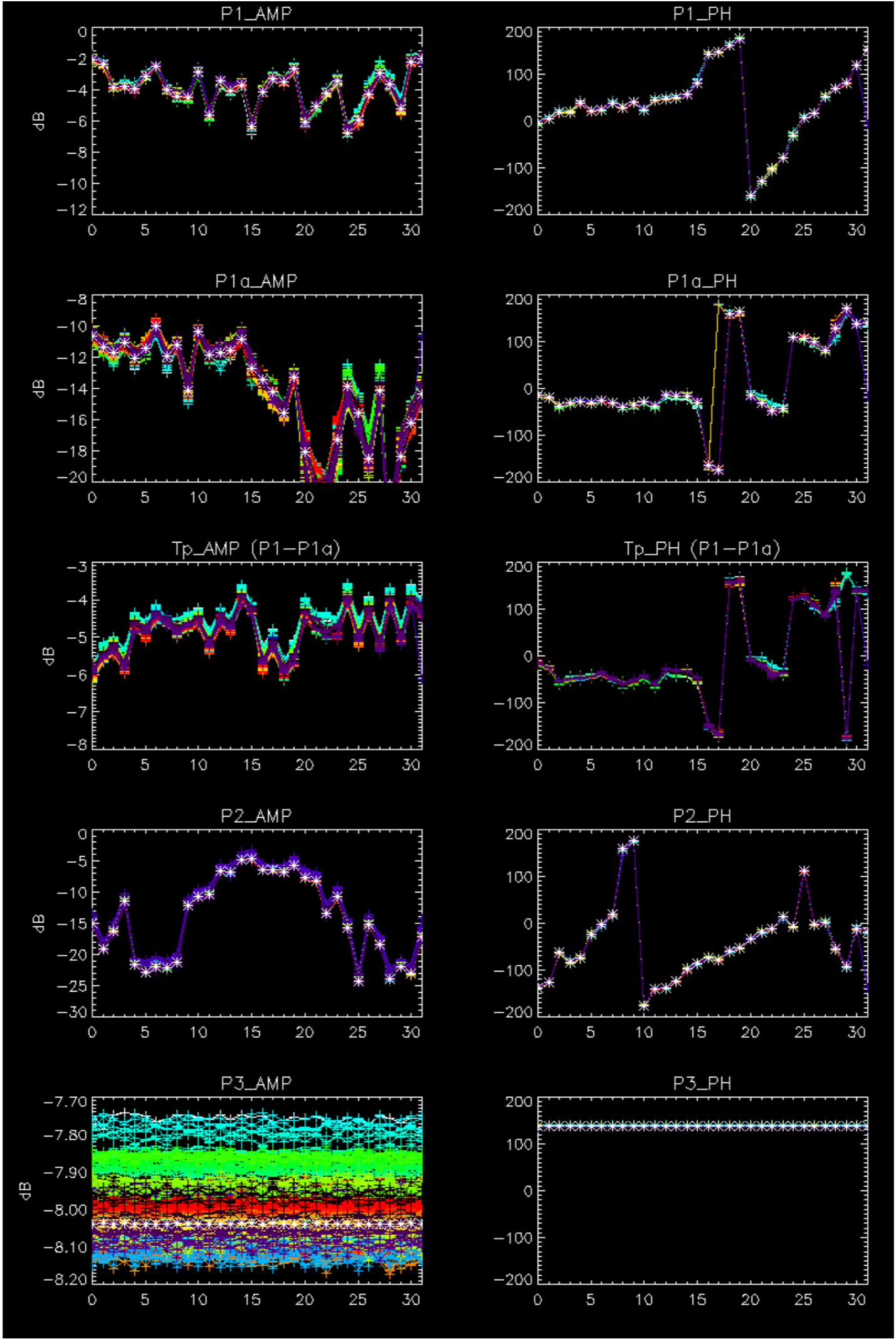
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

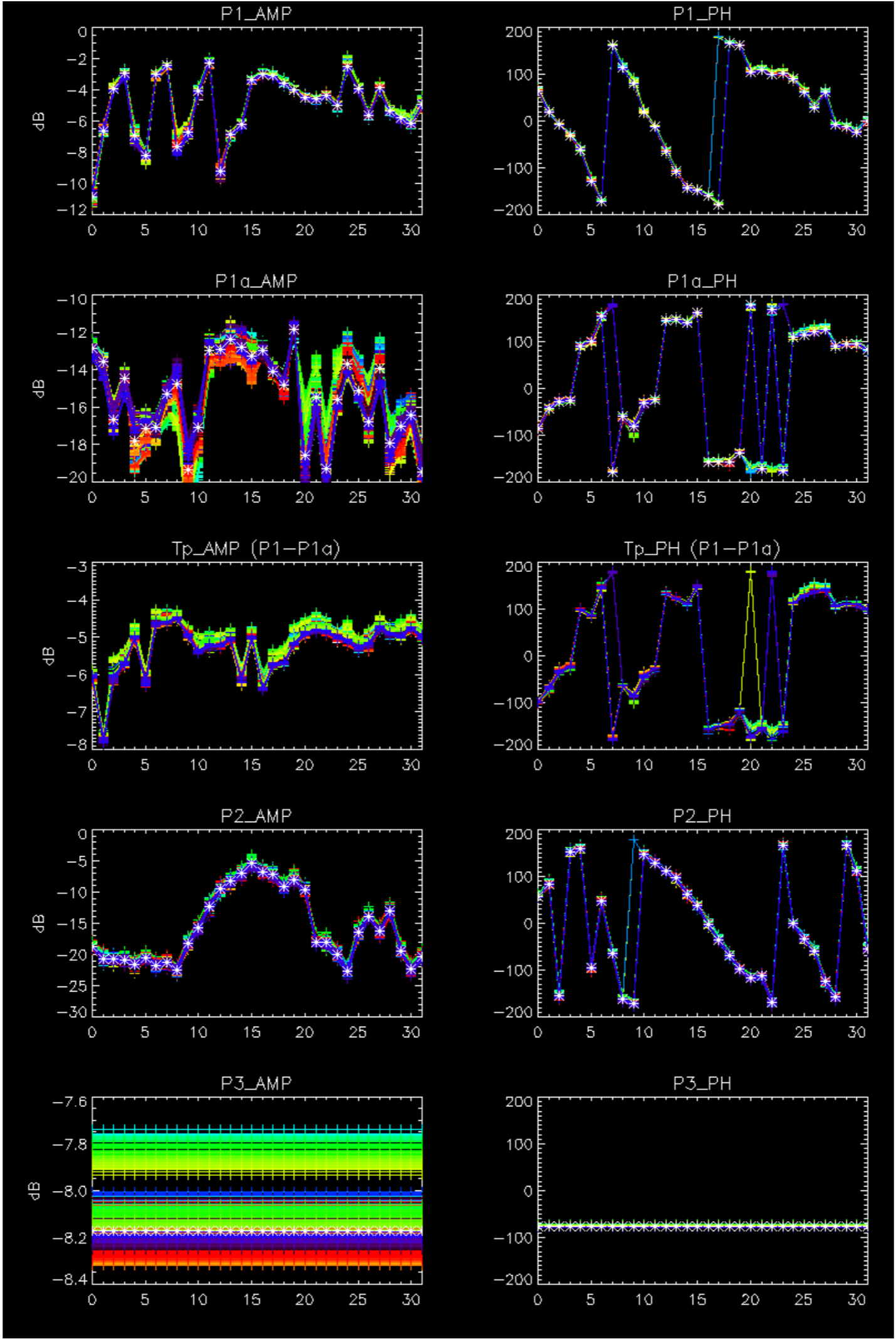
Cal pulses for WVS IS2



No anomalies observed on available browse products

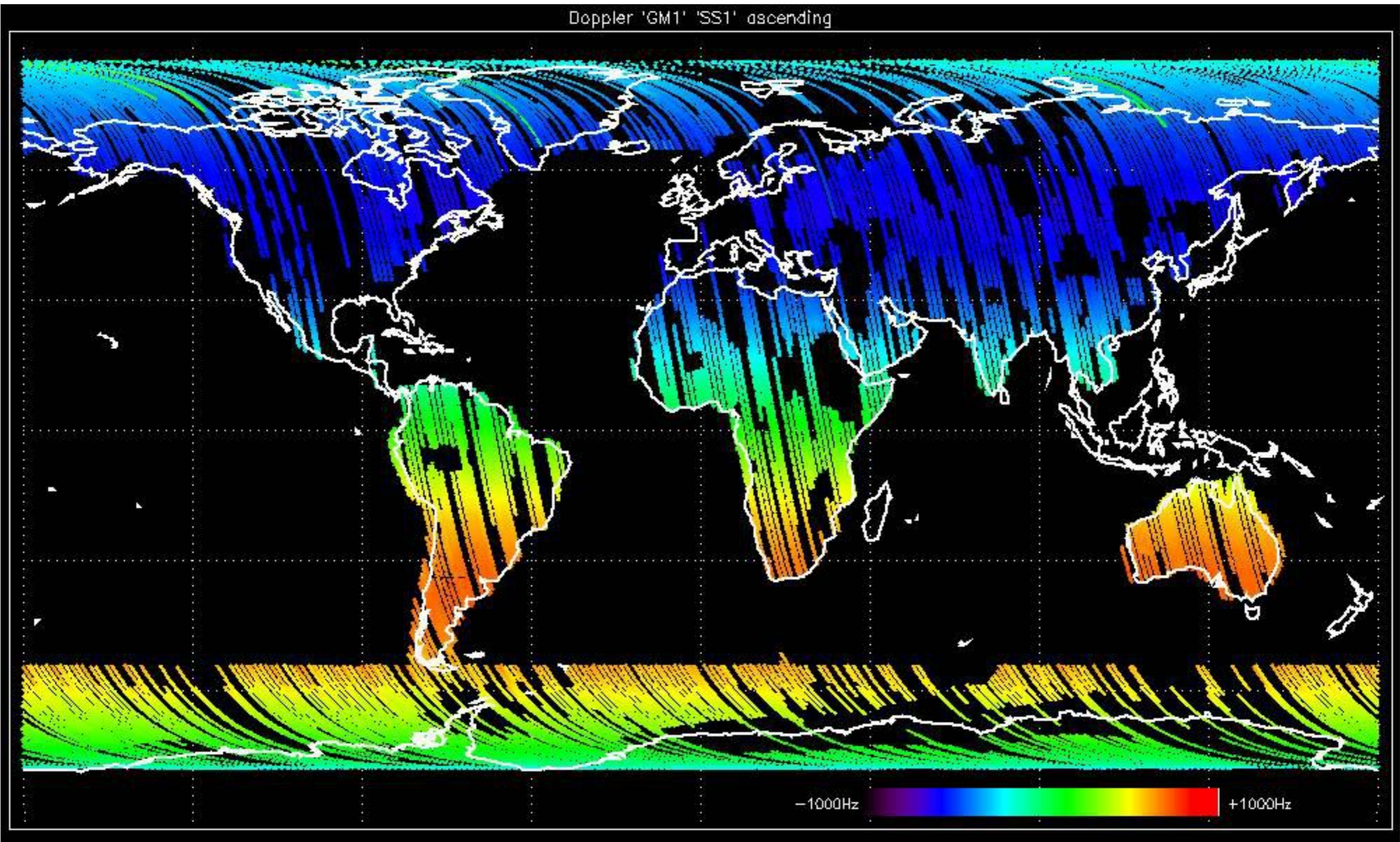
No anomalies observed.



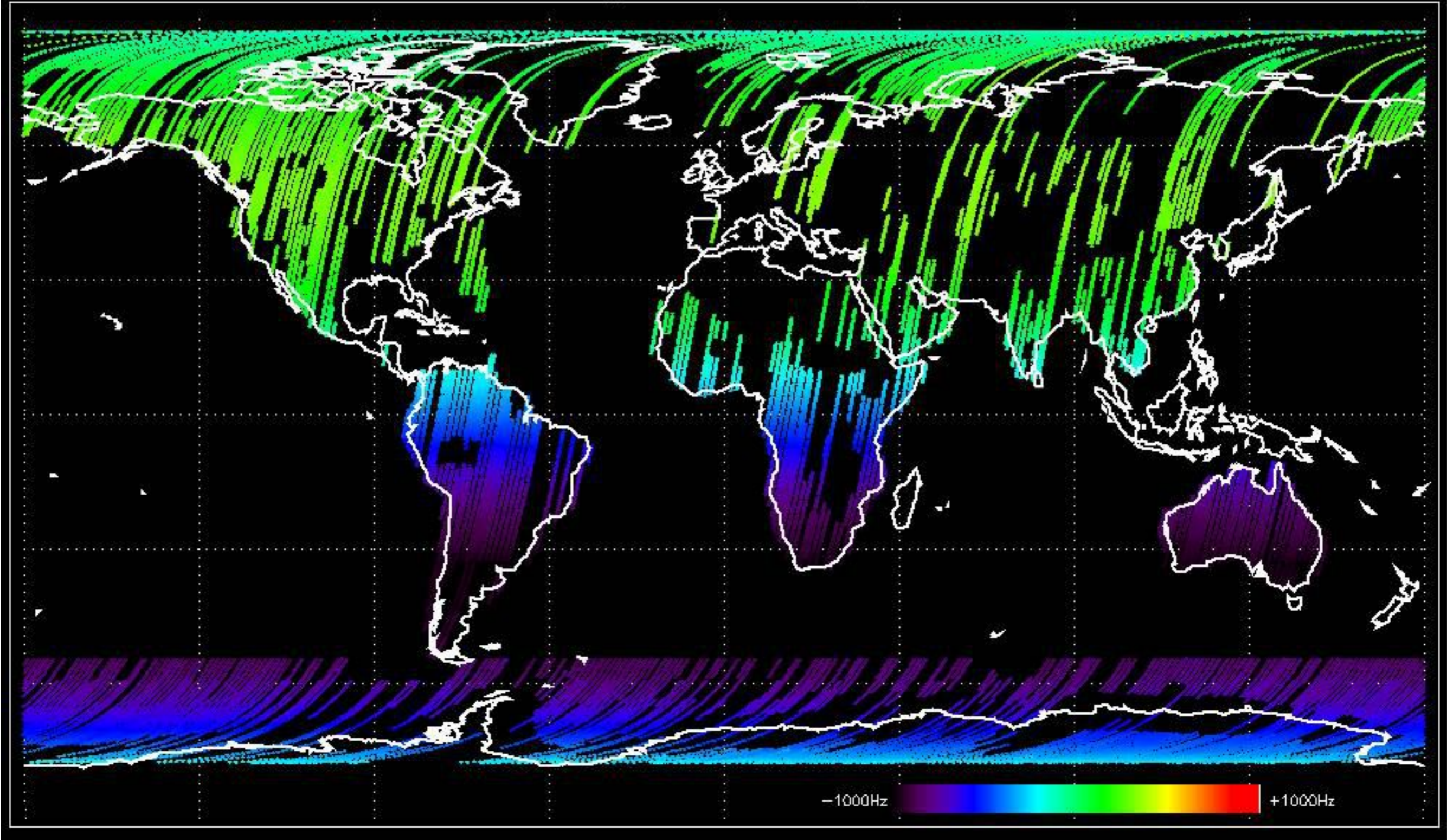


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

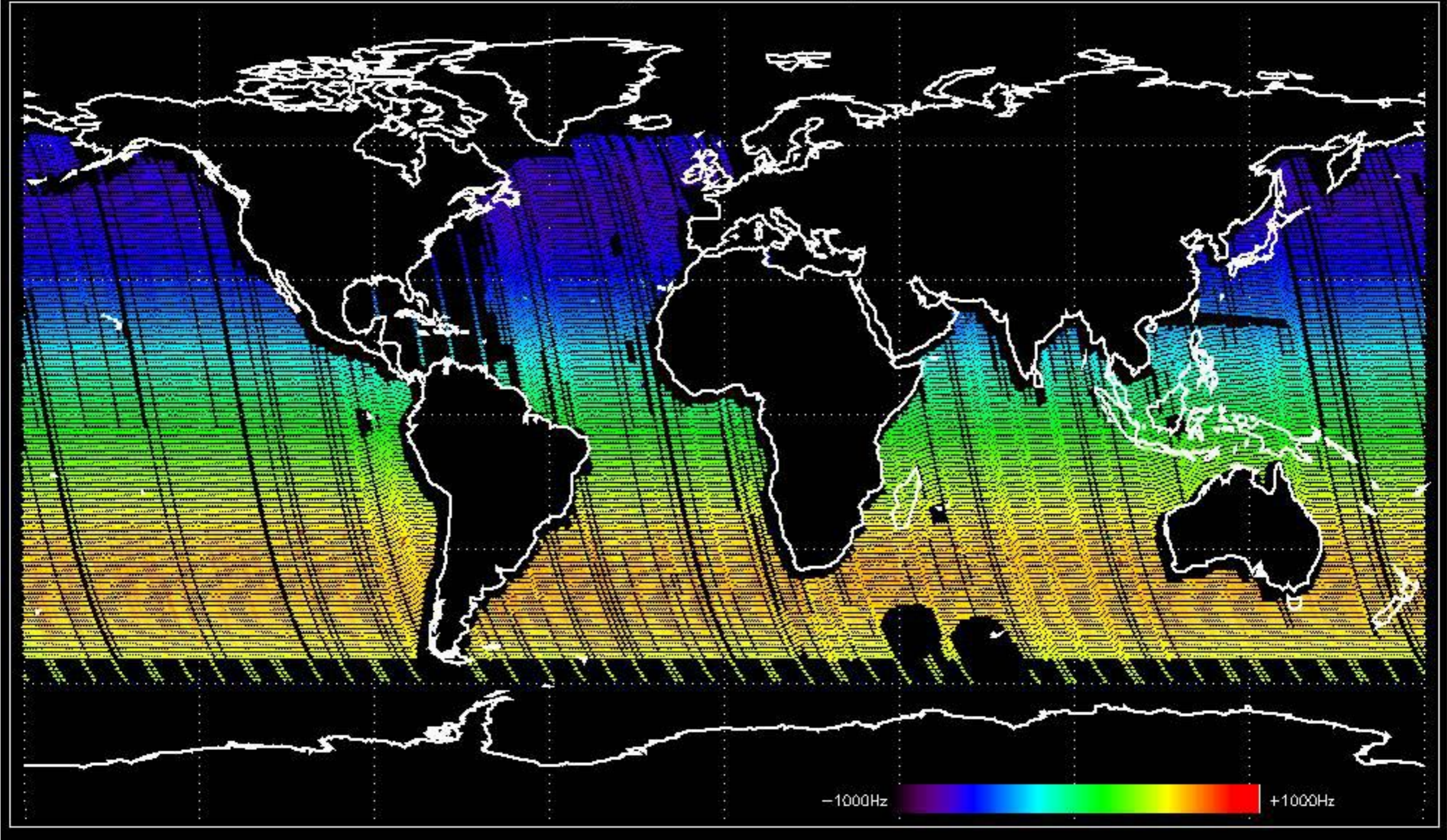
Doppler 'GM1' 'SS1' ascending



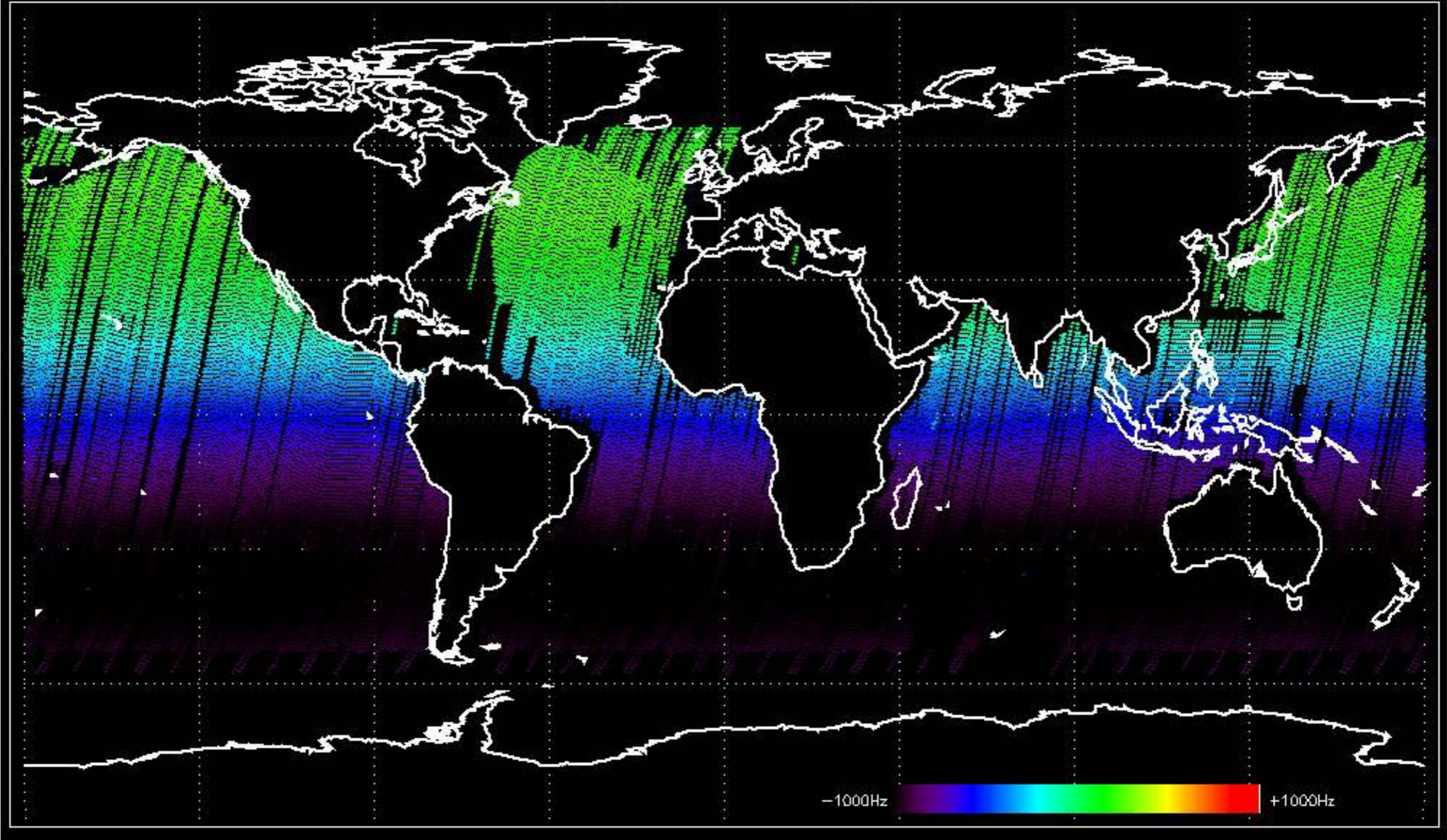
Doppler 'GM1' 'SS1' descending



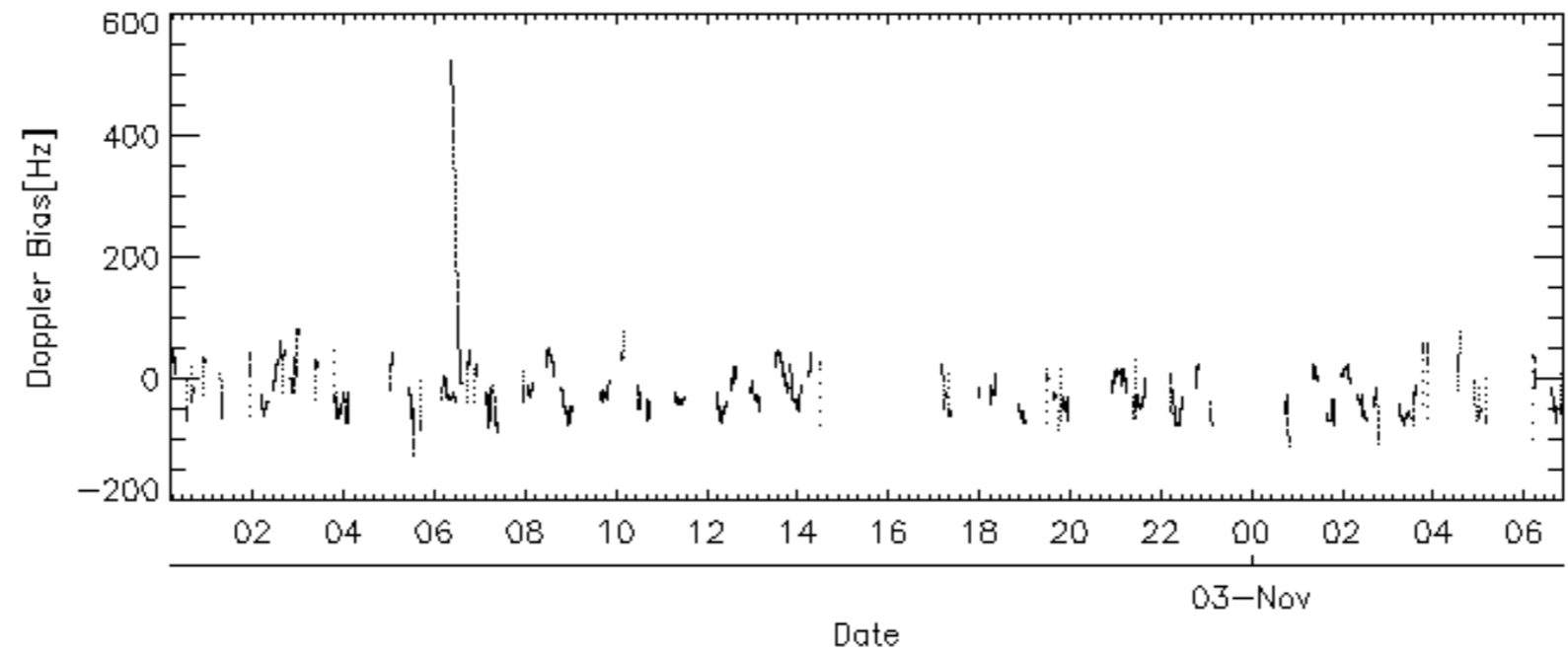
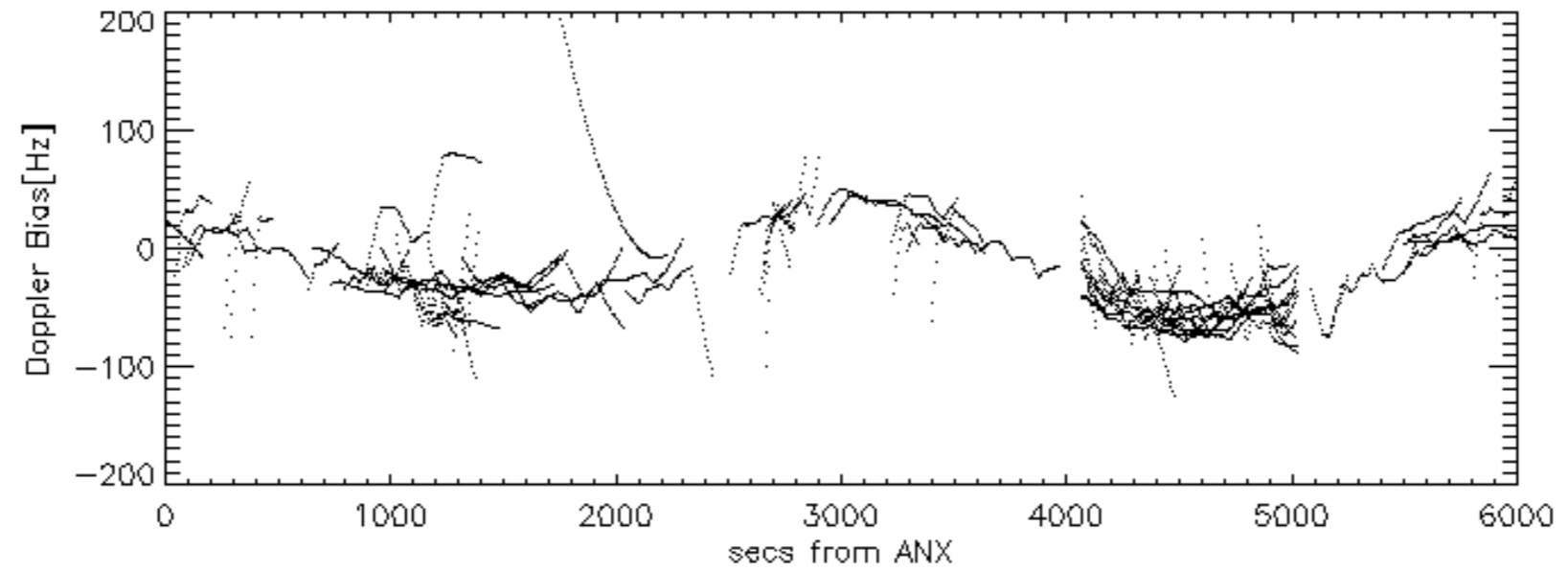
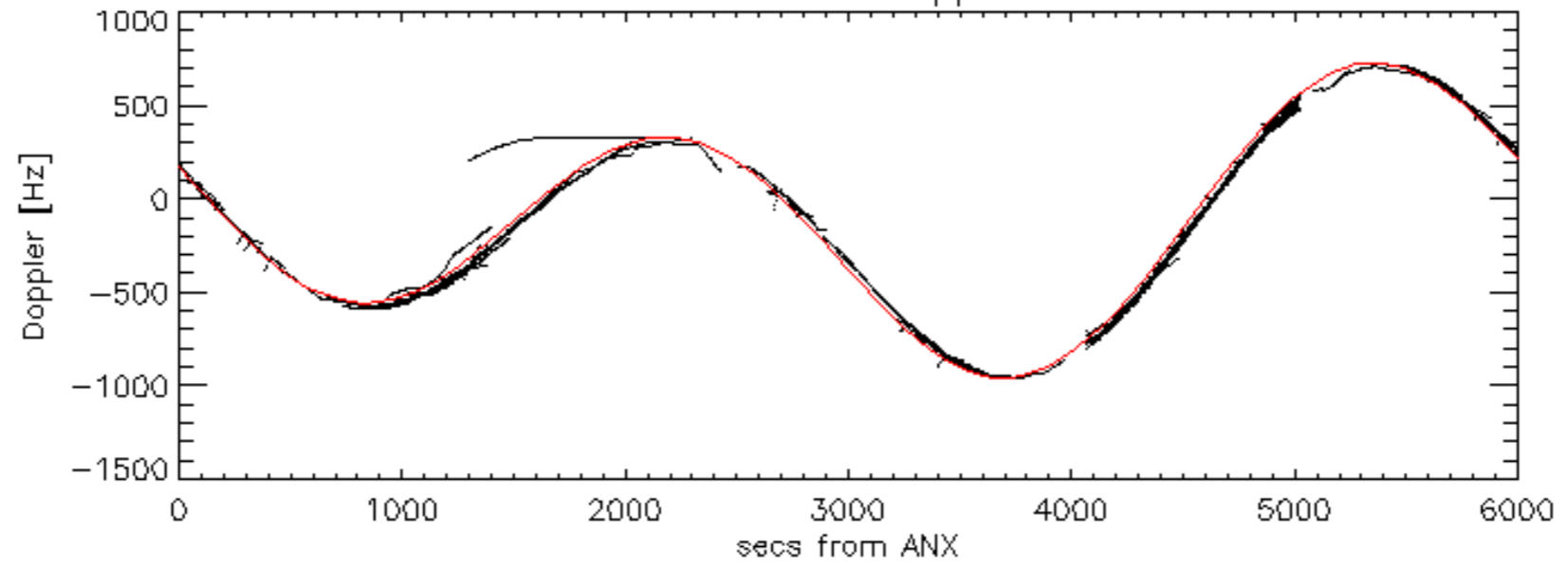
Doppler 'WVS' 'IS2' ascending

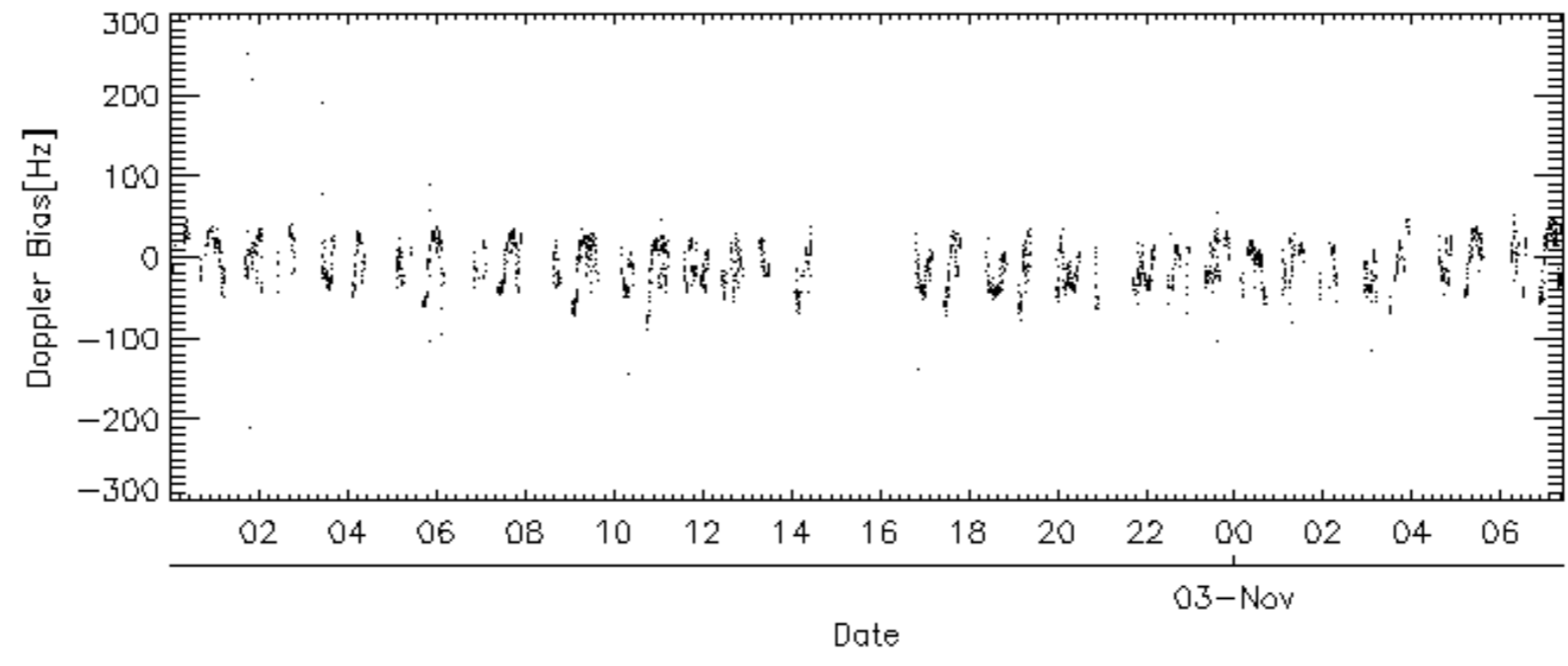
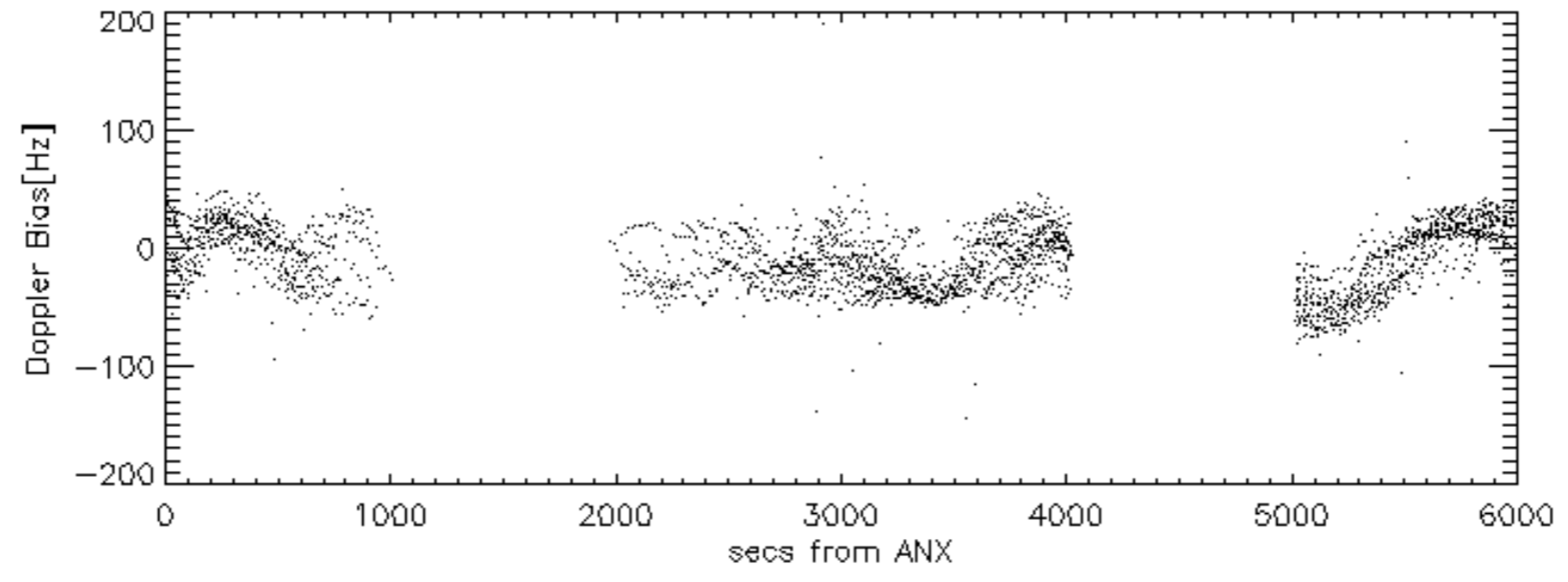
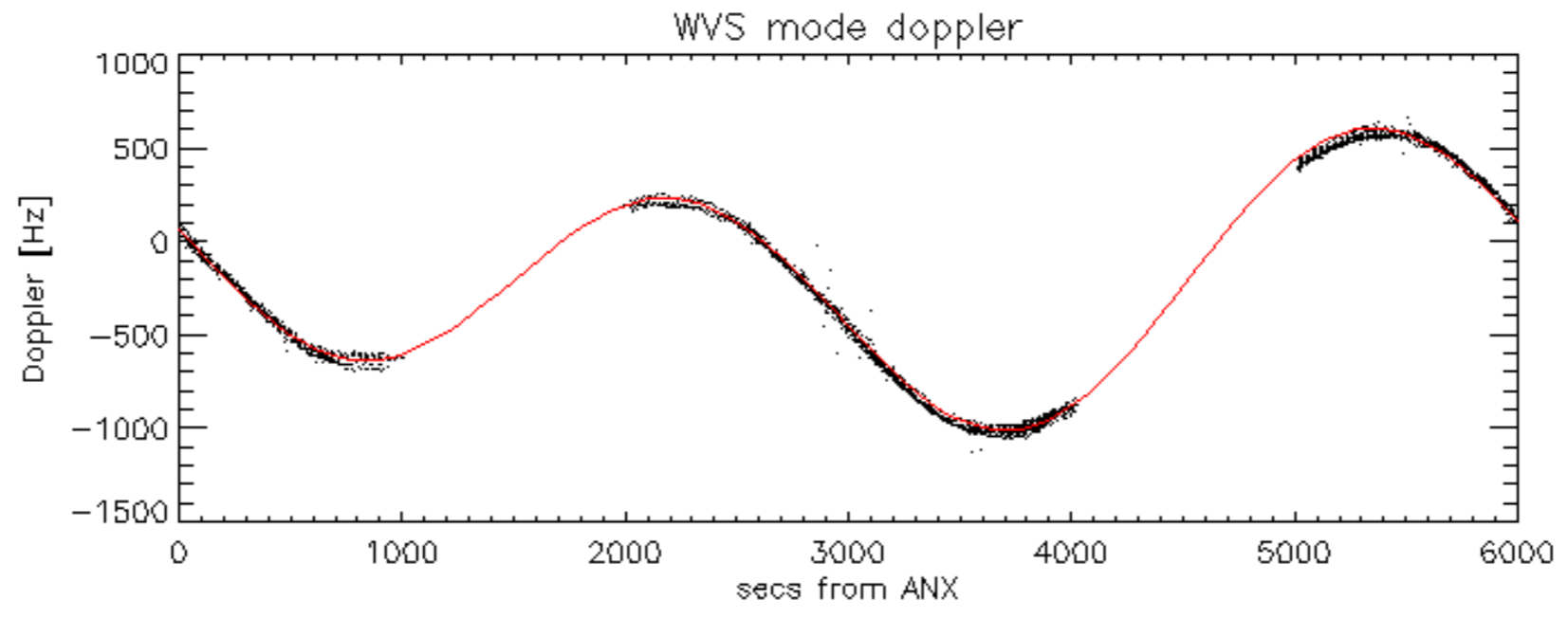


Doppler 'WVS' 'IS2' descending

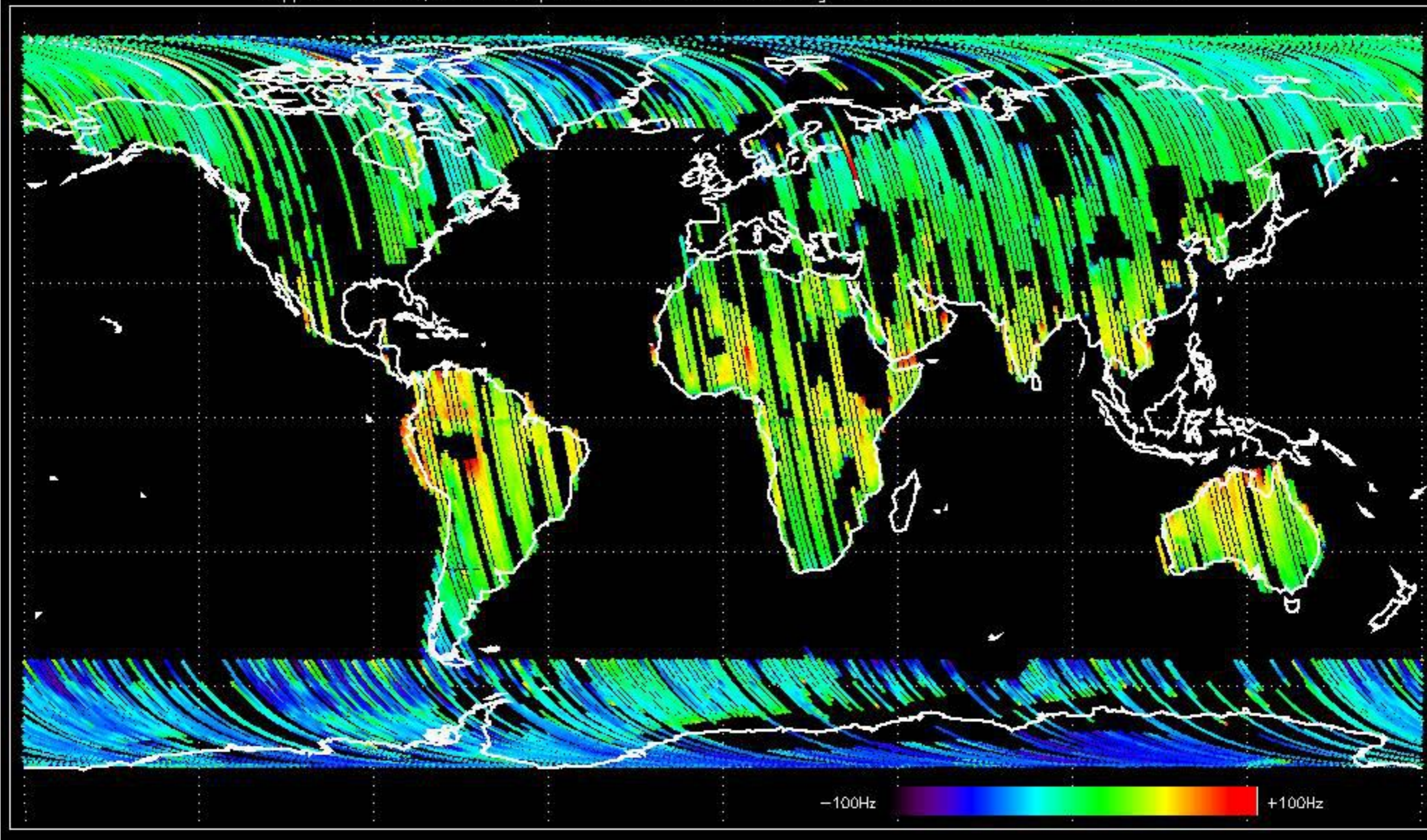


GM1 mode doppler

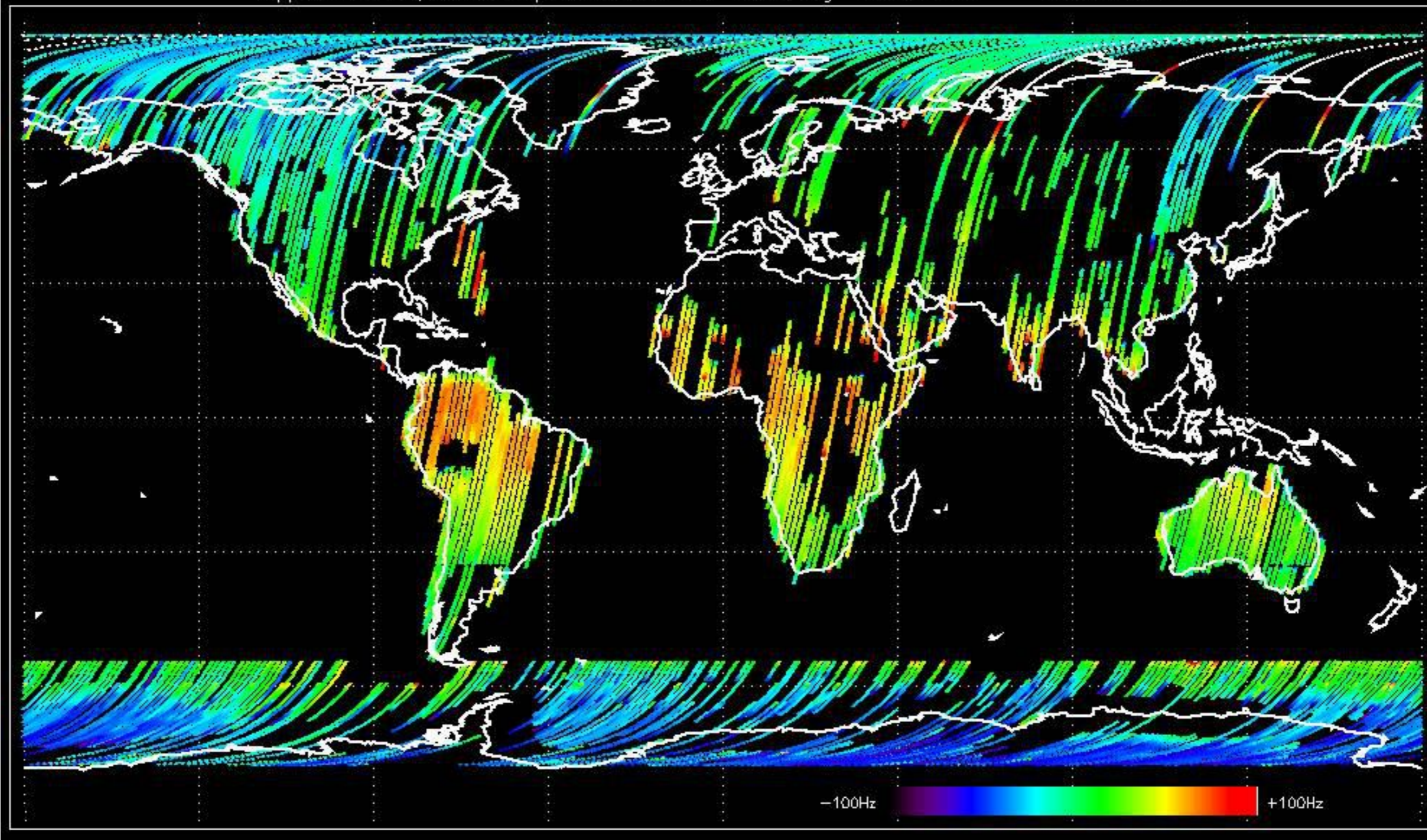




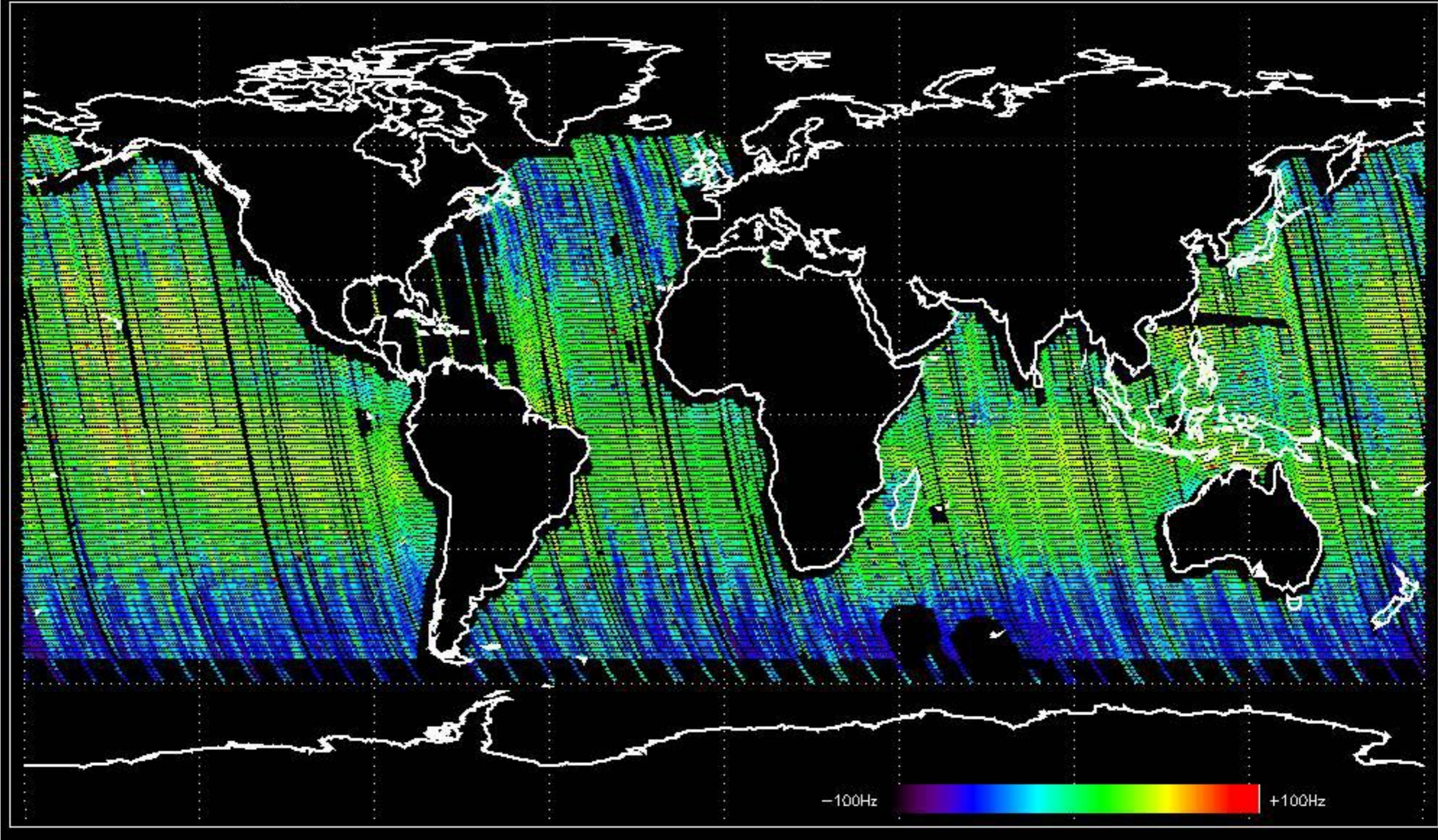
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.704748 Hz



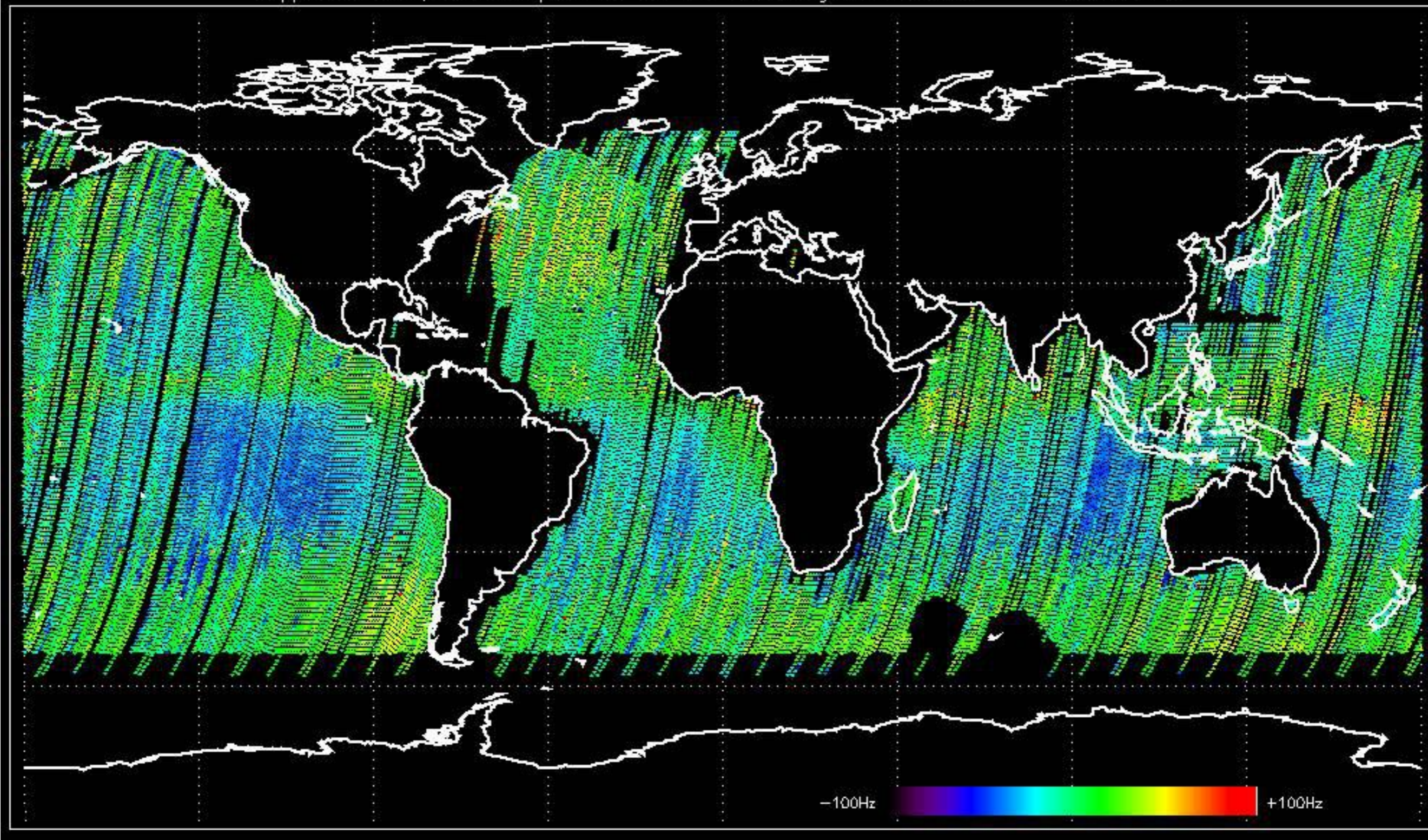
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.534624 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -4.8501551 Hz

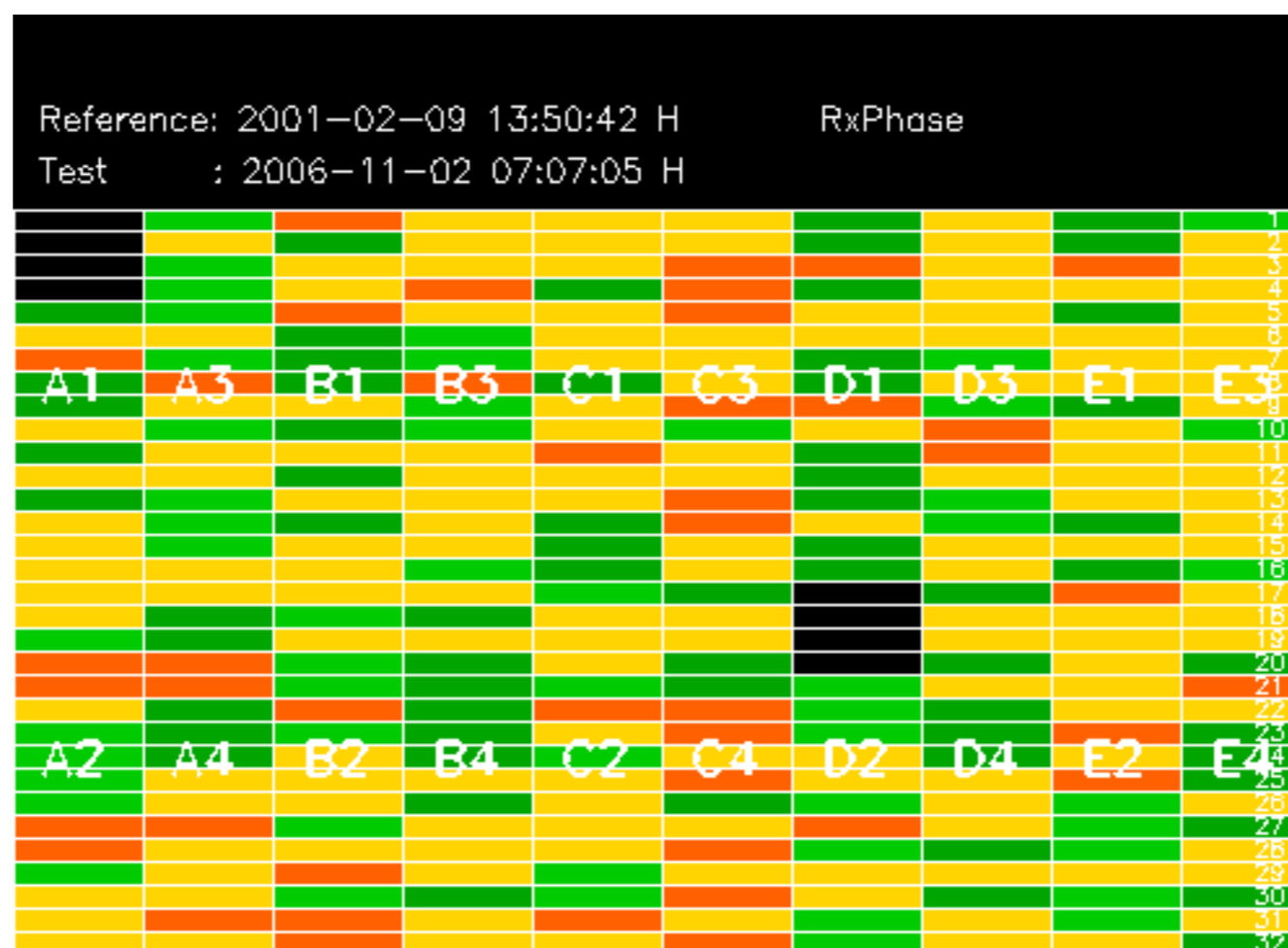


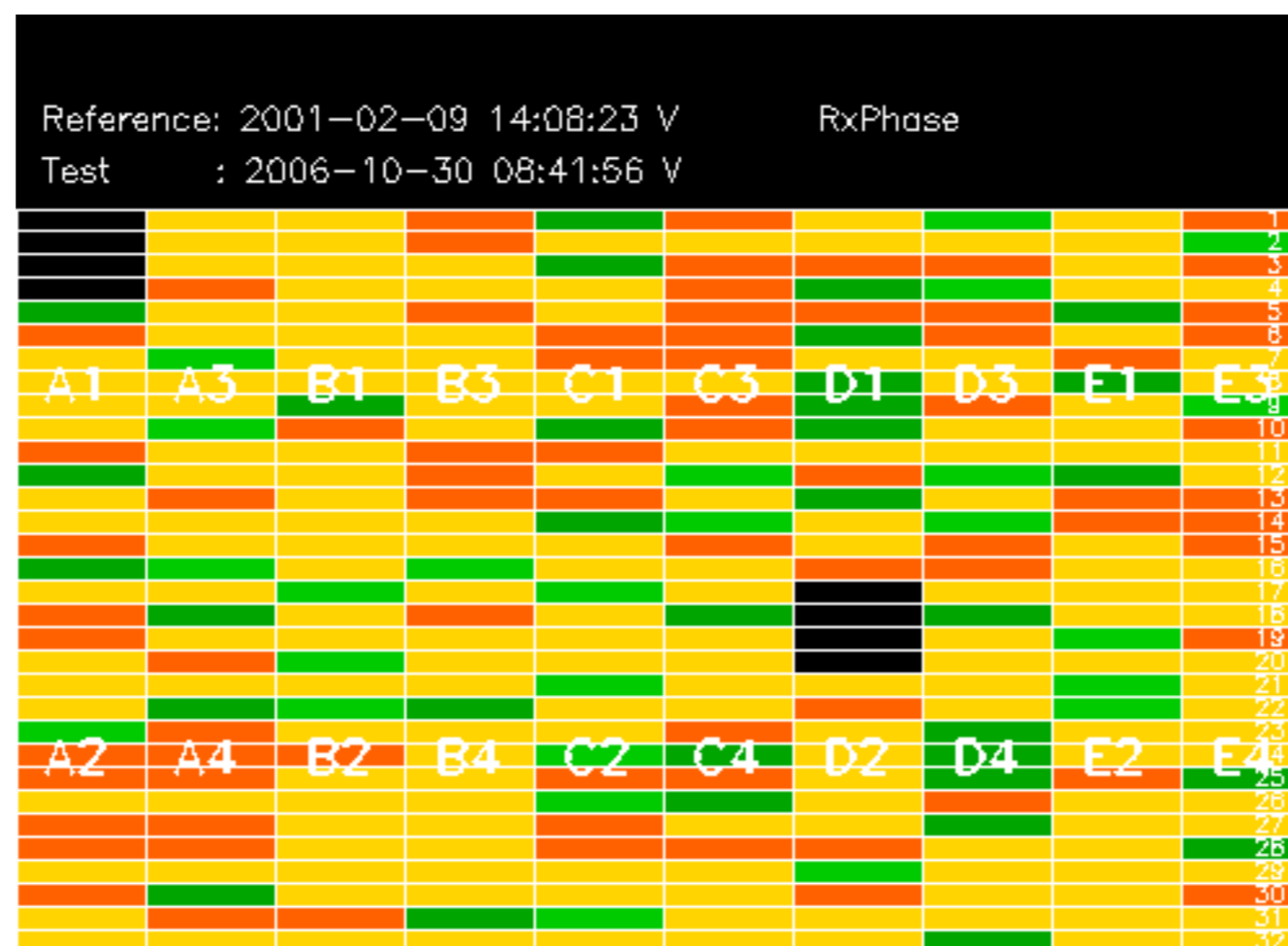
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.390632 Hz

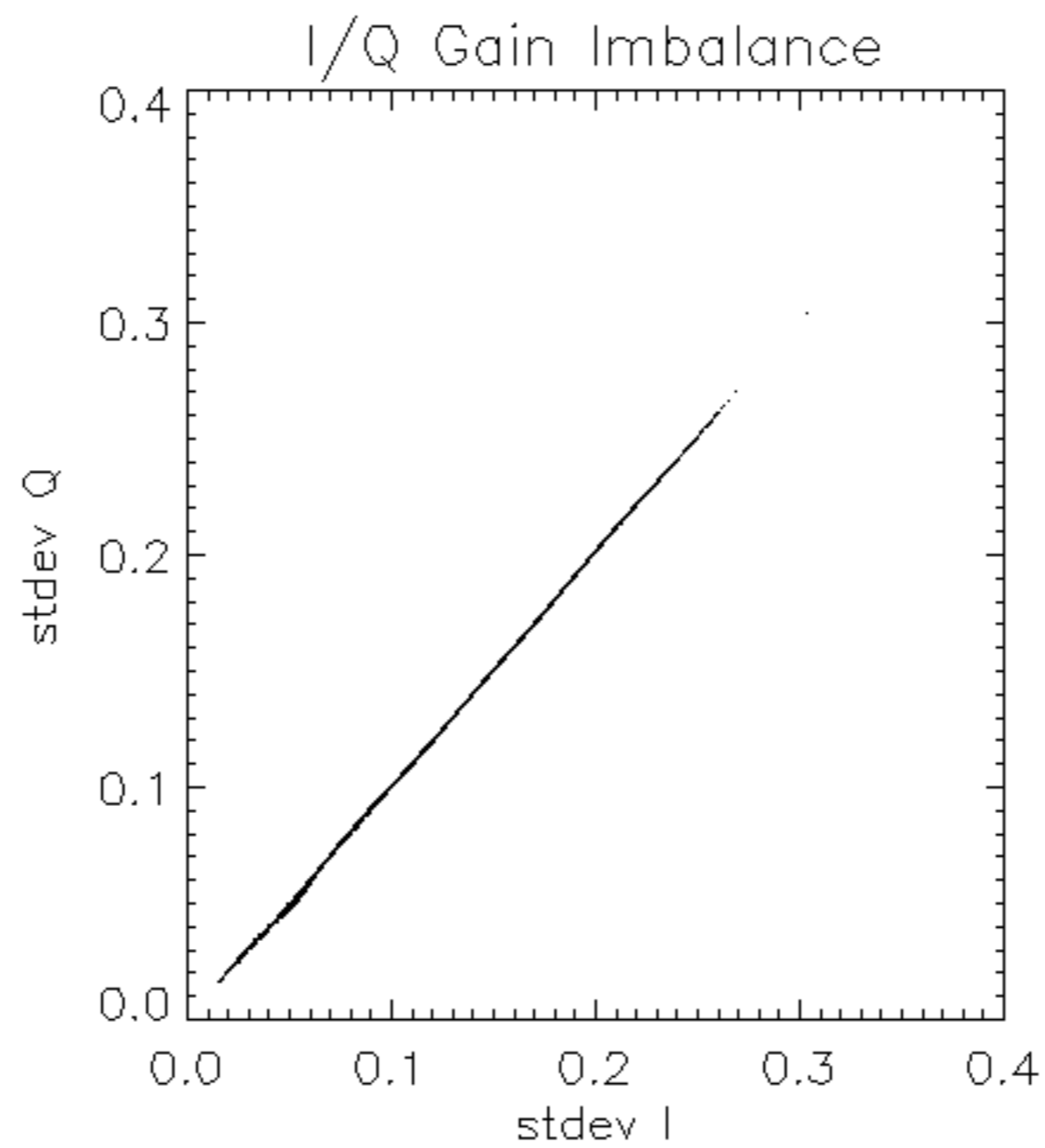


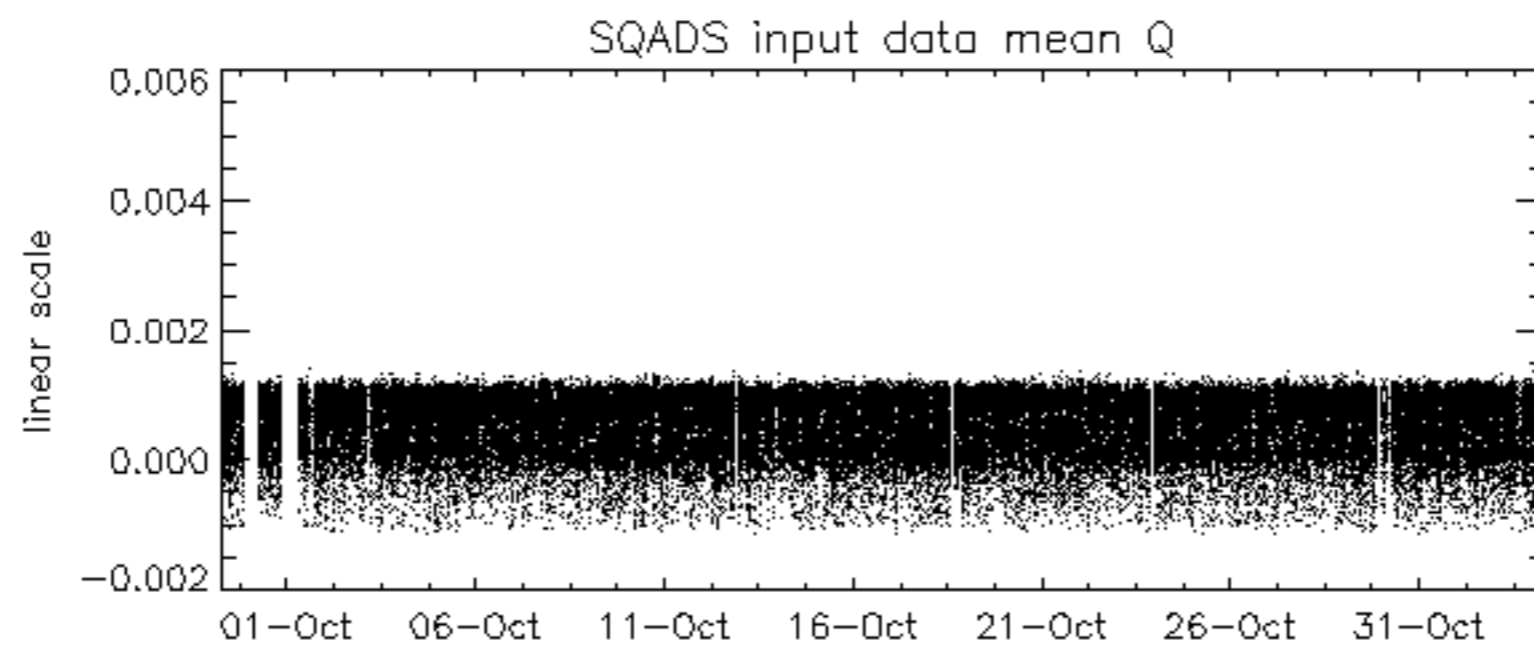
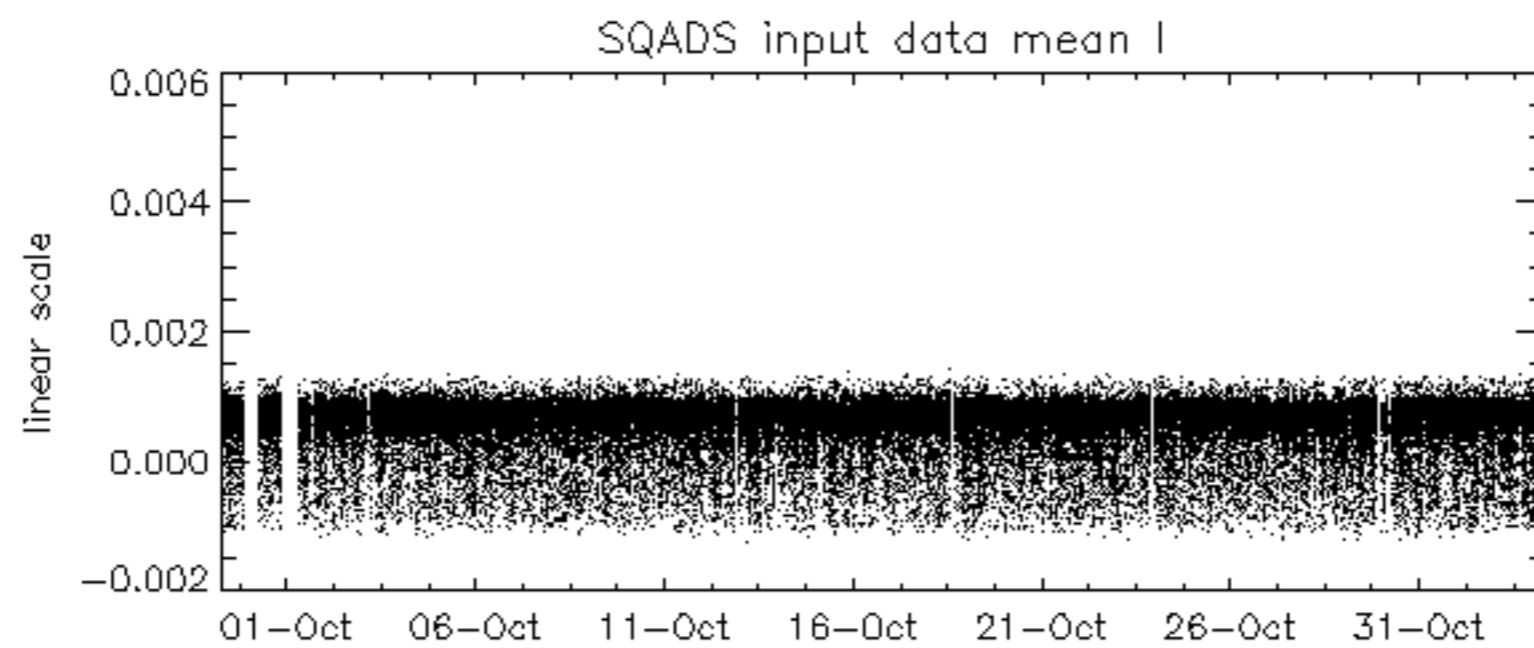
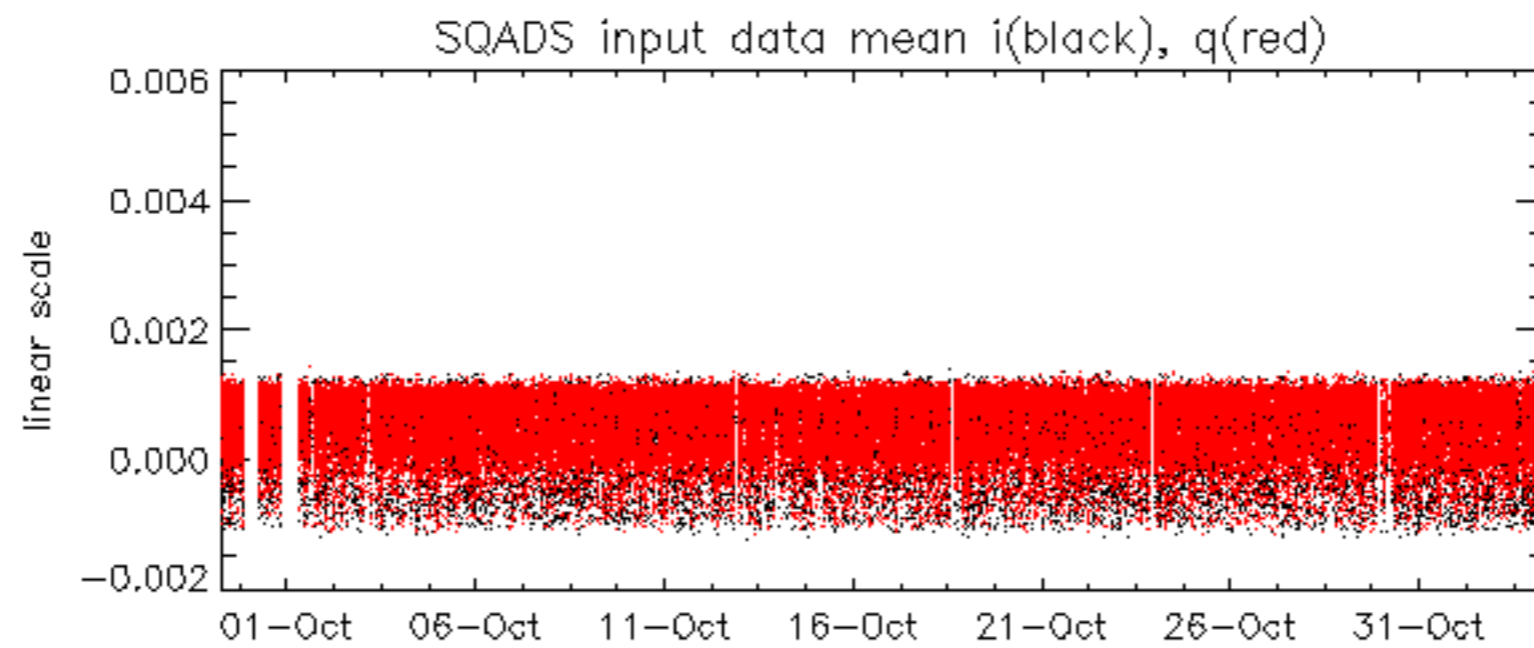
No anomalies observed on available MS products:

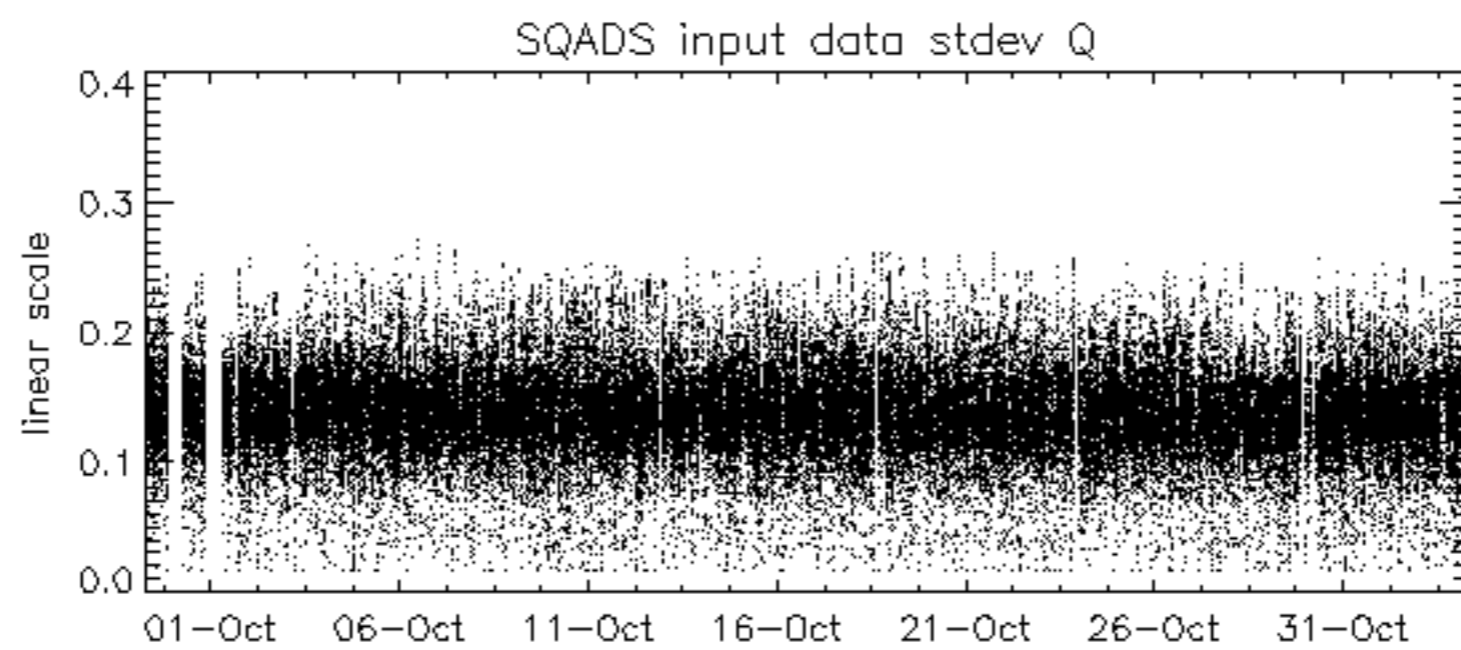
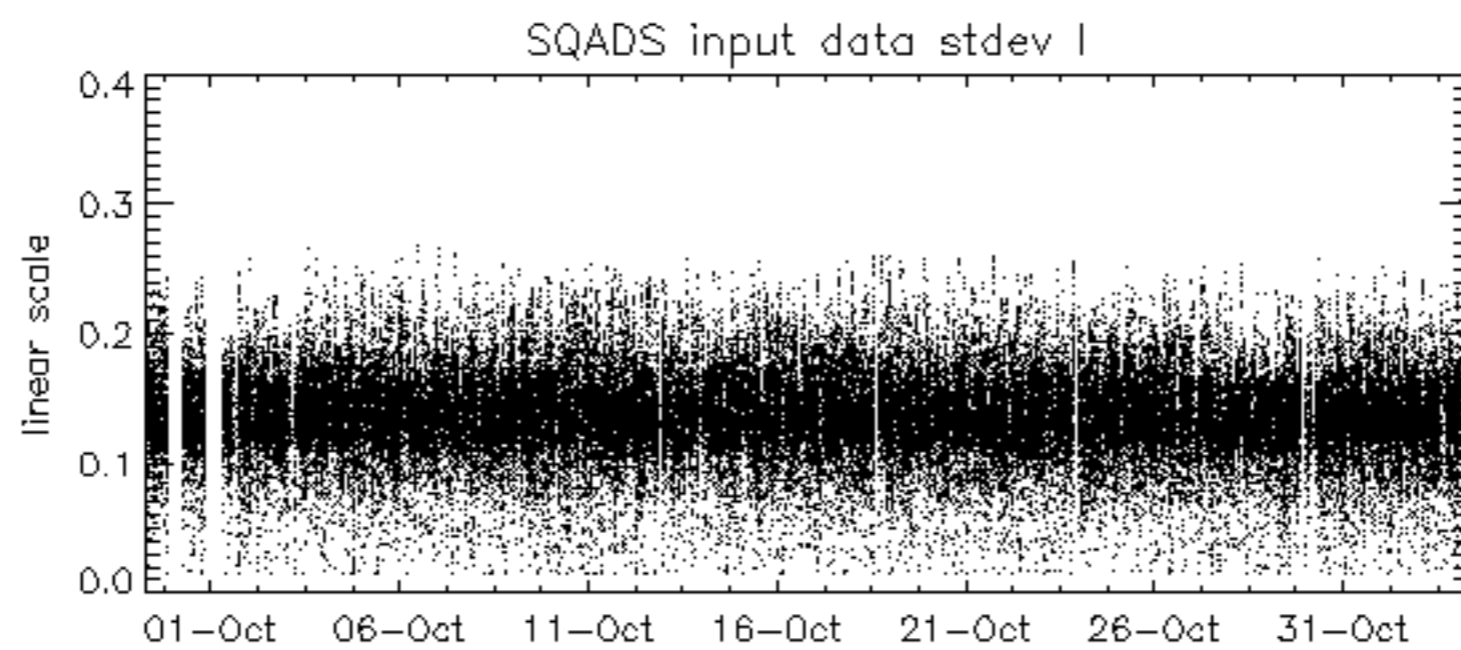
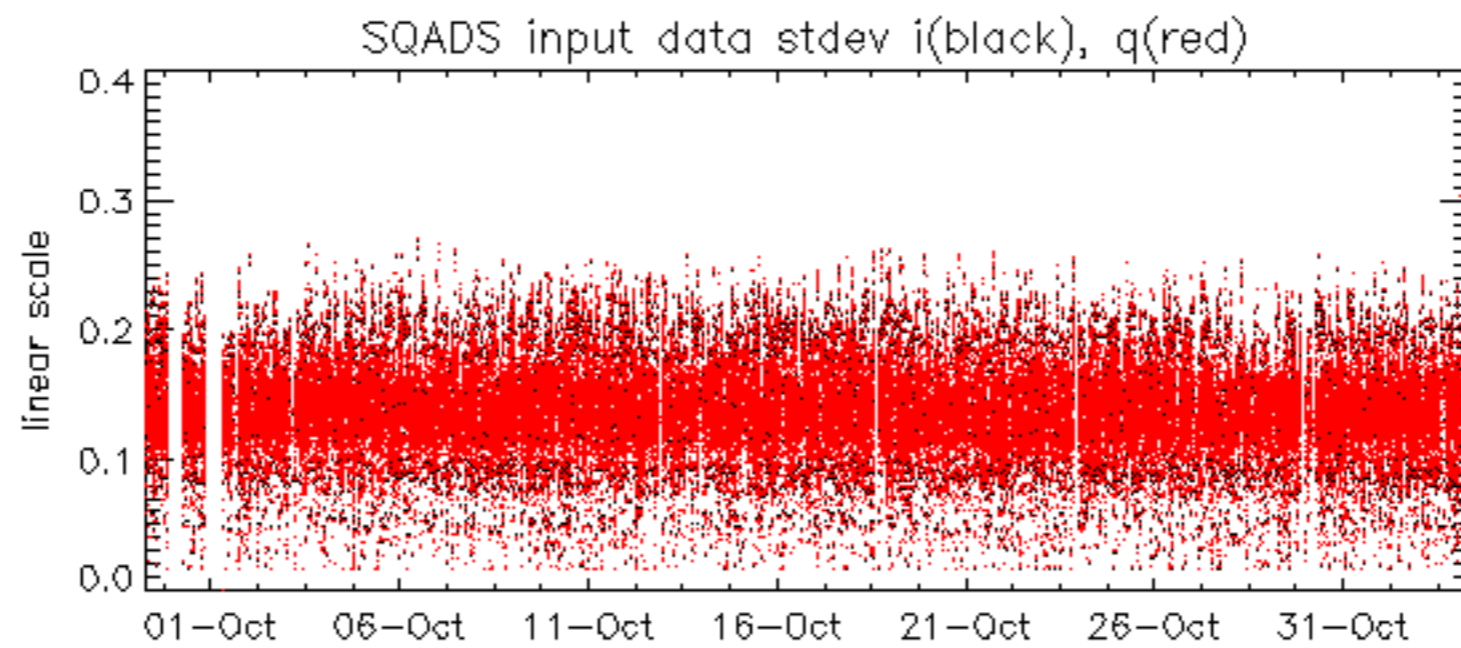
No anomalies observed.

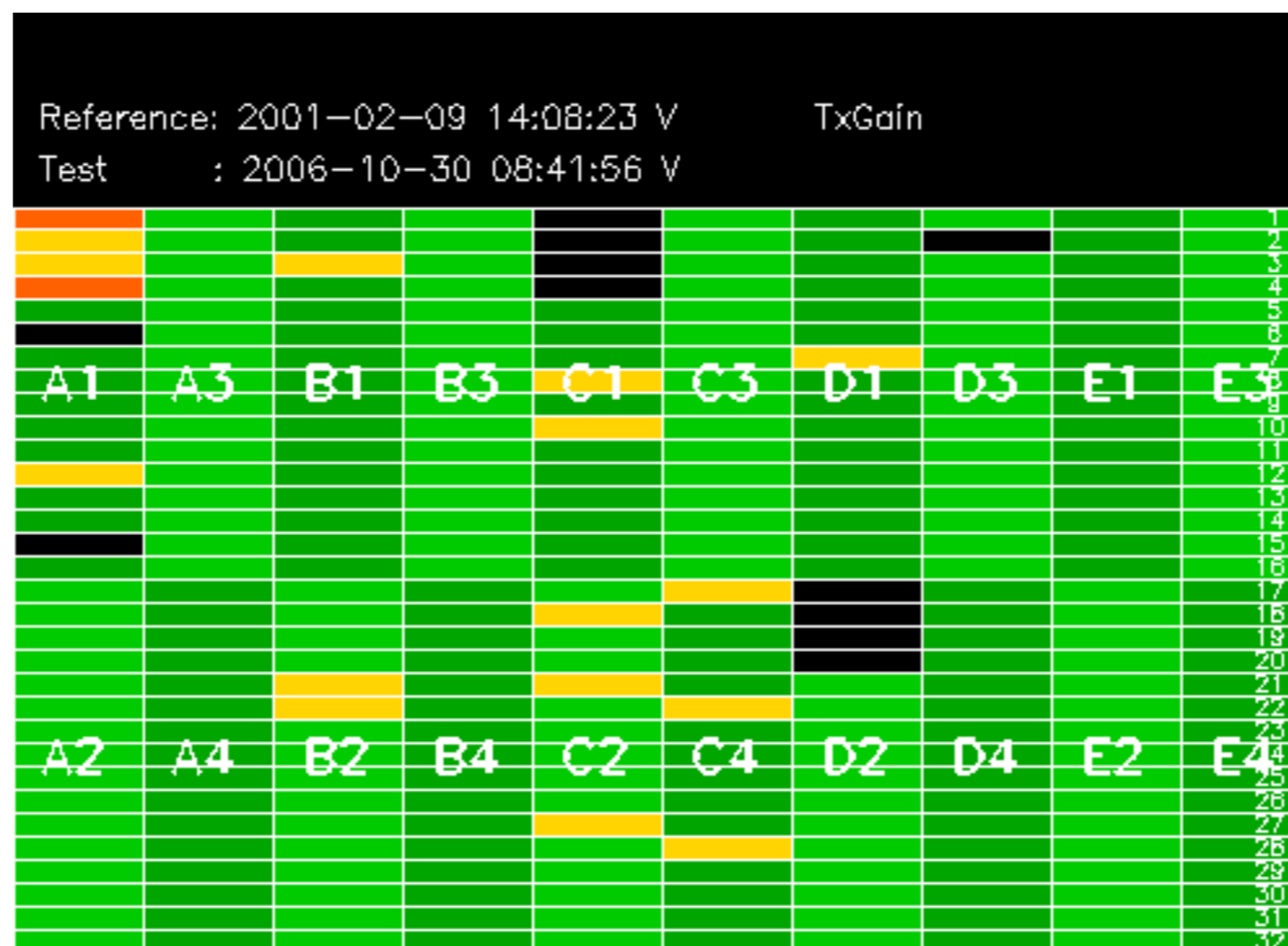








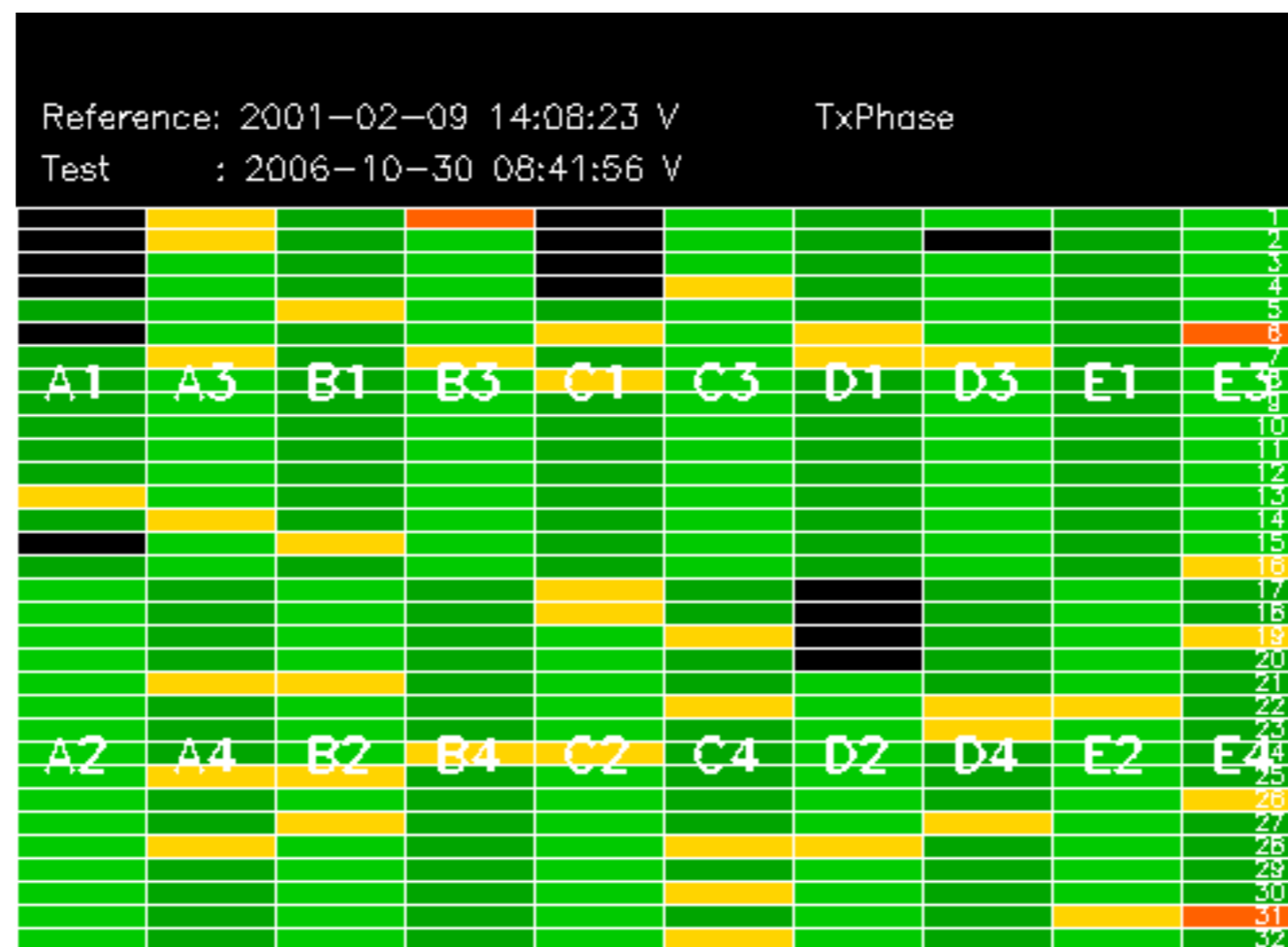


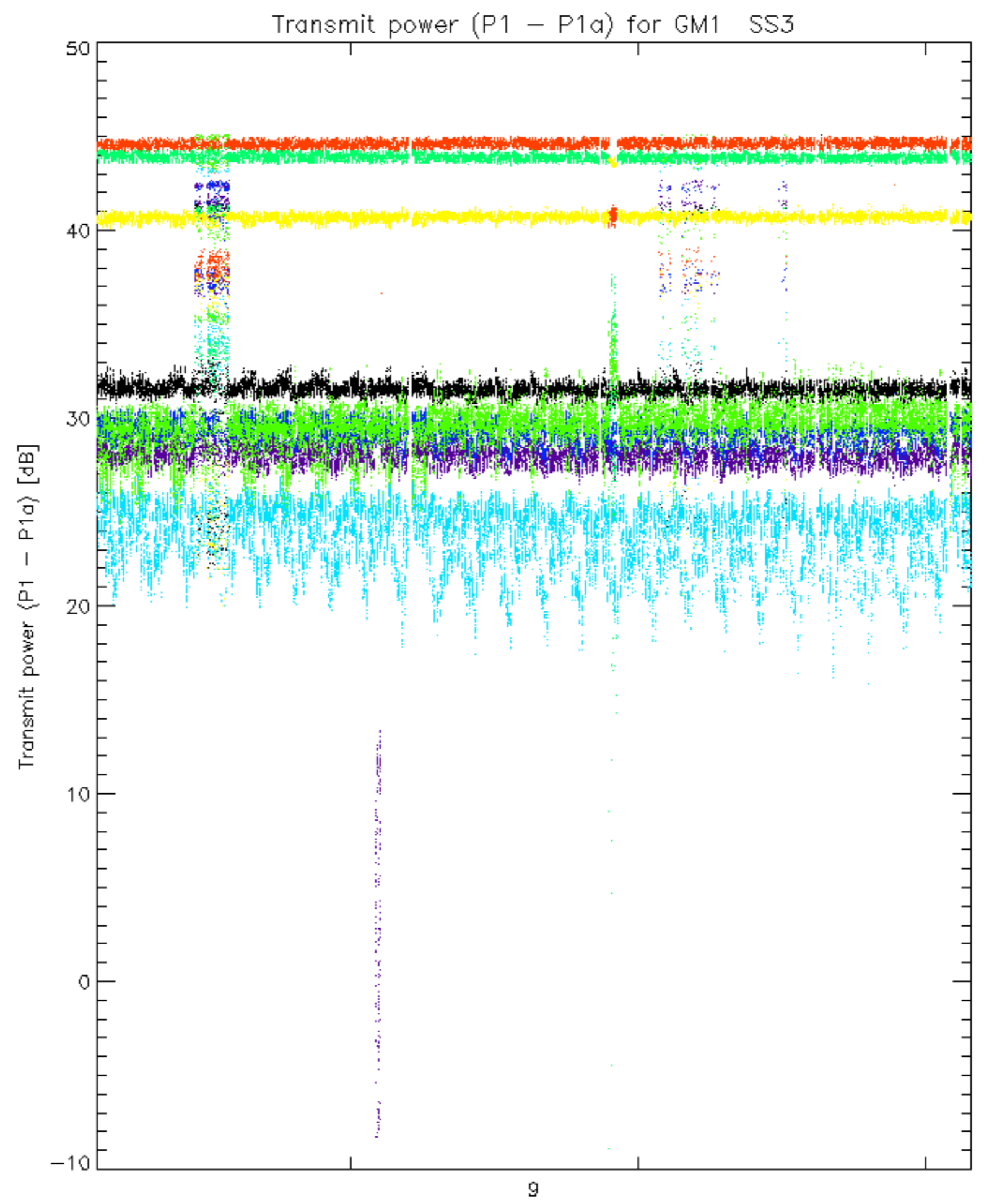


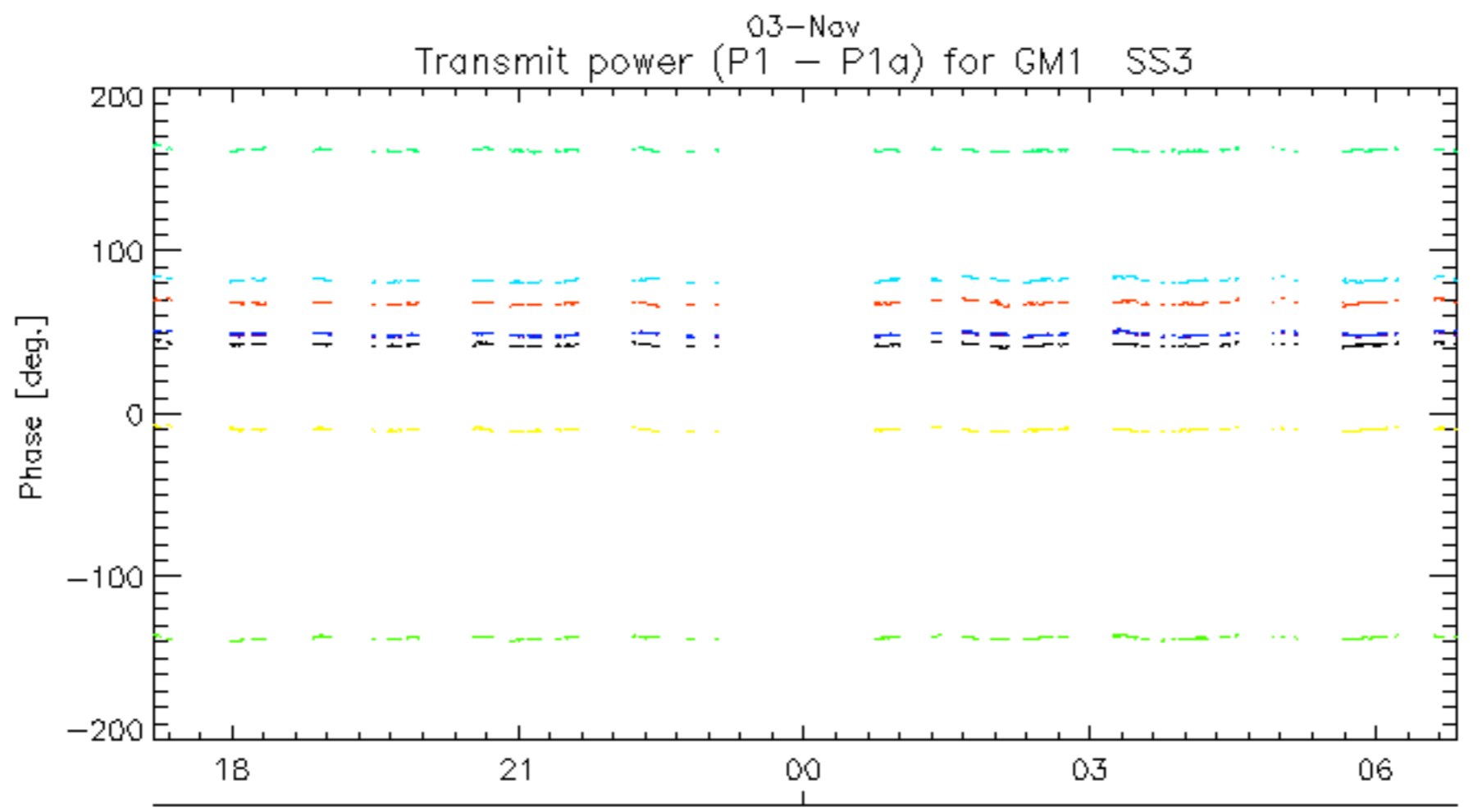
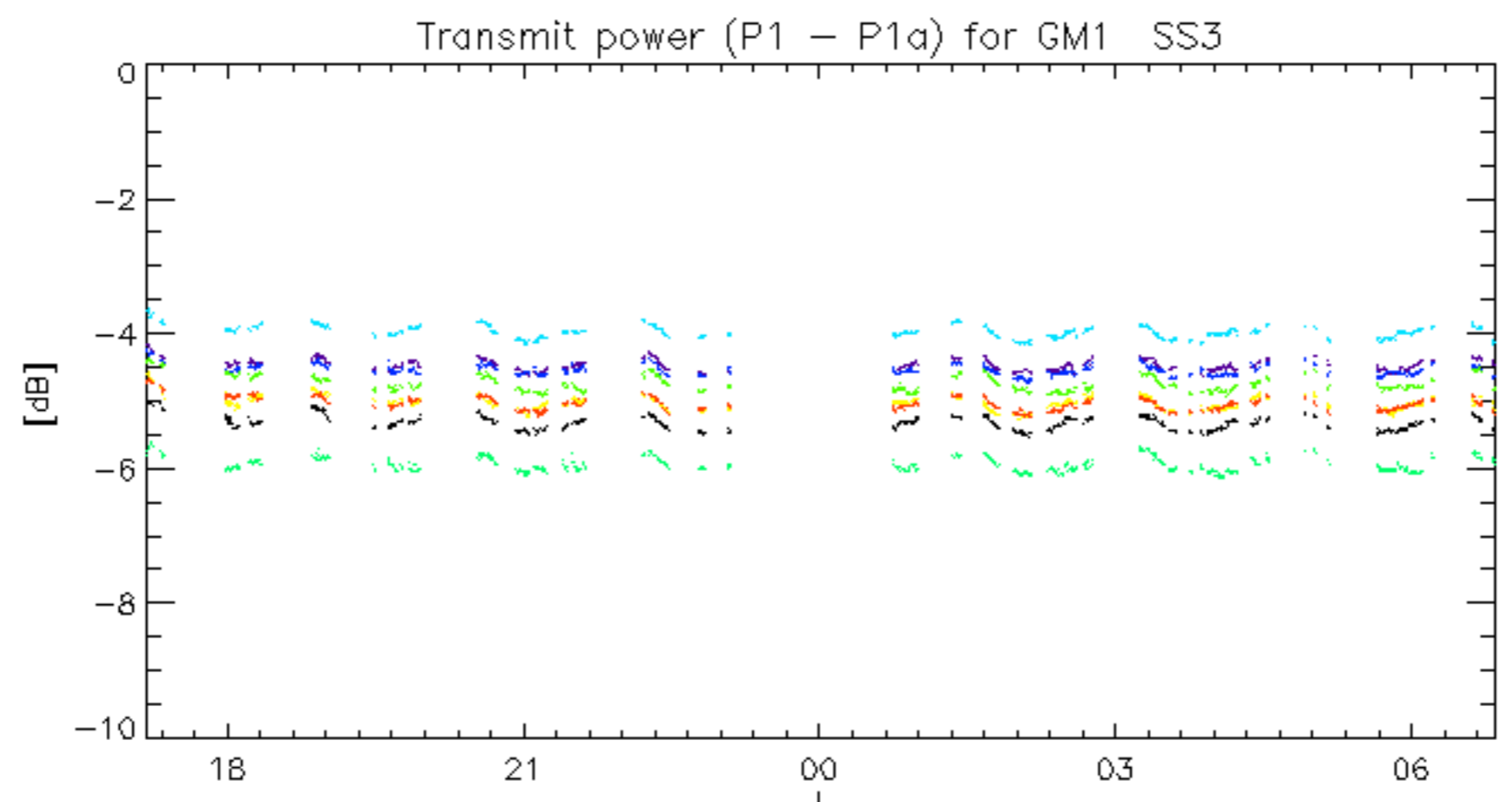
Summary of analysis for the last 3 days 2006110[123]

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

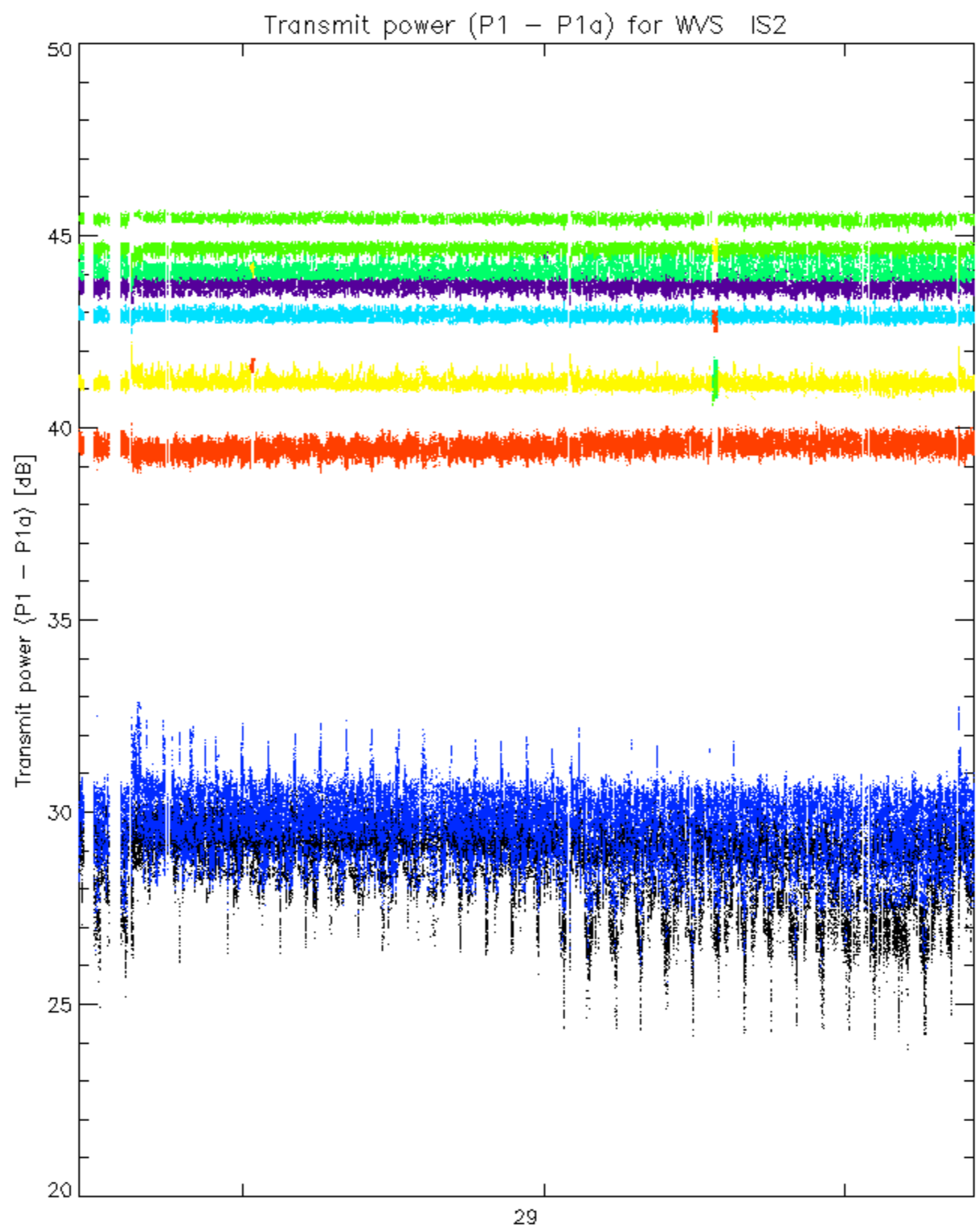
Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20061102_203159_000007372052_00343_24445_7869.N1	0	9
ASA_WSM_1PNPDE20061101_003703_000001412052_00317_24419_0001.N1	0	34
ASA_WSM_1PNPDE20061101_060109_000001282052_00320_24422_0001.N1	33	1716
ASA_WSM_1PNPDE20061101_163956_000004282052_00327_24429_0001.N1	0	65
ASA_WSM_1PNPDE20061102_000626_000002022052_00331_24433_0001.N1	0	35



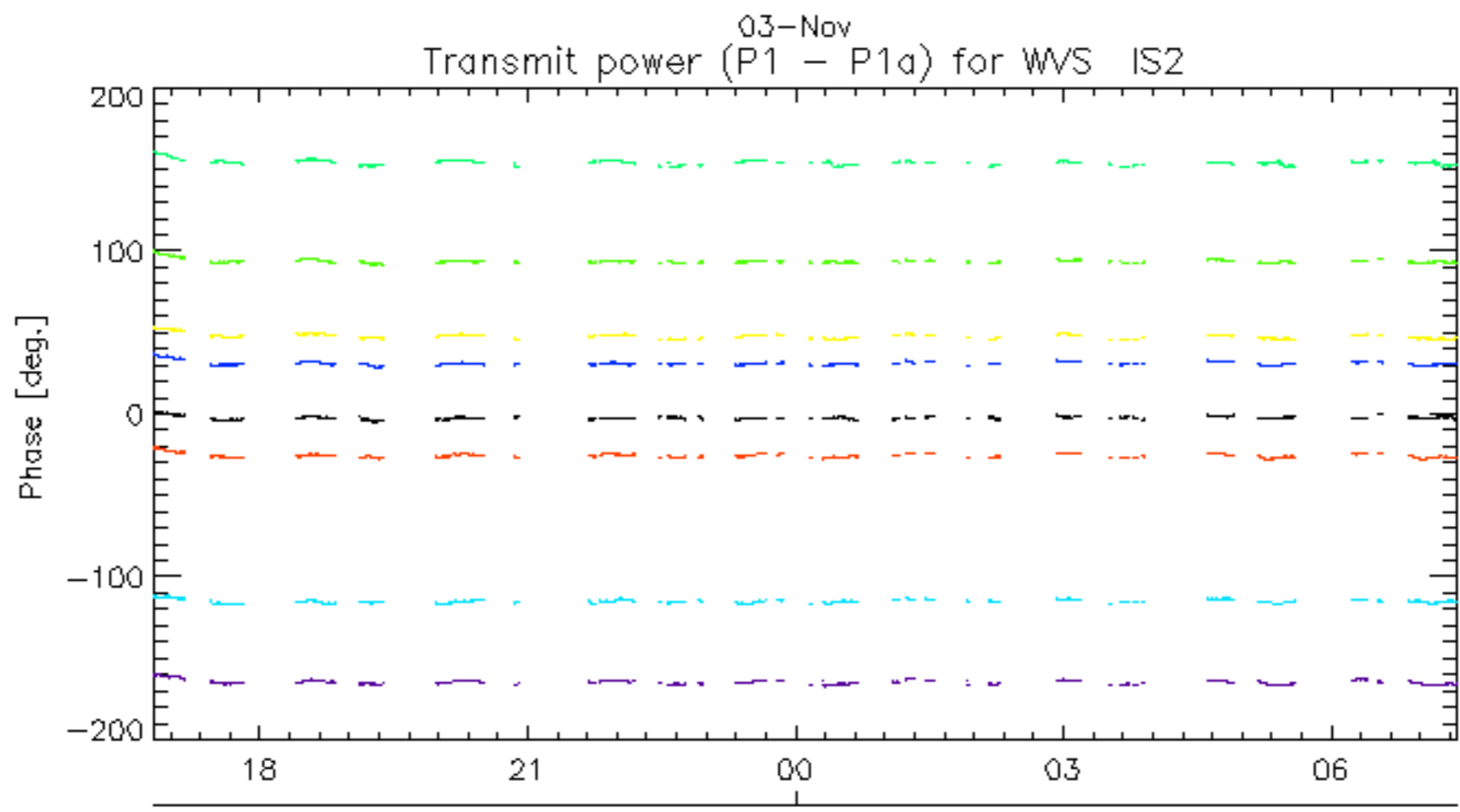
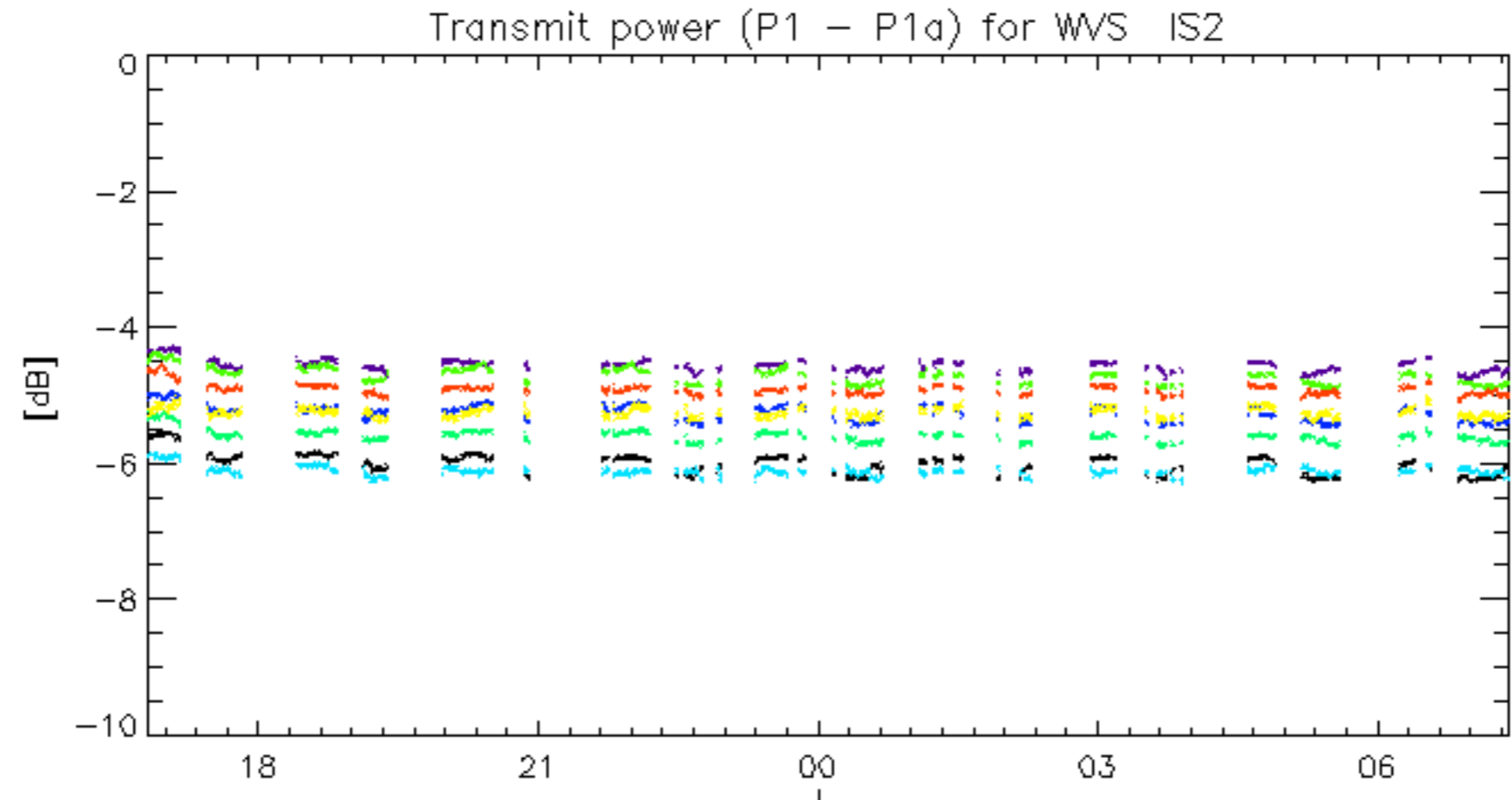




03-Nov
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.