

PRELIMINARY REPORT OF 050328

last update on Mon Mar 28 10:50:01 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 2005-03-27 00:00:00 to 2005-03-28 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	22	26	0	1	5
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	22	26	0	1	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	22	26	0	1	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	22	26	0	1	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	39	38	5	5	5
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	38	5	5	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	39	38	5	5	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	38	5	5	5

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	20050326 204905
H	20050325 143818

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
☒	☒
☒	☒
☒	☒
☒	☒

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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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	-3.352395	0.013658	0.053896
7	P1	-3.101808	0.008259	-0.032293
11	P1	-4.685862	0.029831	0.064630
15	P1	-5.644358	0.037180	0.070428
19	P1	-3.687423	0.003730	-0.022907
22	P1	-4.517430	0.012057	-0.016452
26	P1	-4.940923	0.017358	0.051379
30	P1	-7.195729	0.018341	-0.004231
3	P1	-15.894723	0.328545	0.356297
7	P1	-15.526840	0.066393	0.007515
11	P1	-20.973322	0.449408	0.015728
15	P1	-11.579657	0.047768	-0.009991
19	P1	-14.304452	0.023809	-0.036725
22	P1	-15.641134	0.305258	-0.112749
26	P1	-17.610222	0.202737	-0.079433
30	P1	-17.982233	0.448100	0.015278

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.080698	0.081969	0.051743
7	P2	-22.264484	0.093897	0.057085
11	P2	-14.369781	0.107533	0.234458
15	P2	-7.041689	0.090648	-0.013237
19	P2	-9.631327	0.093479	-0.003846
22	P2	-16.909994	0.092932	0.041236
26	P2	-16.443071	0.092022	0.007075
30	P2	-18.849094	0.083117	0.069635

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.165727	0.004873	0.002937
7	P3	-8.165727	0.004873	0.002937
11	P3	-8.165727	0.004873	0.002937
15	P3	-8.165727	0.004873	0.002937
19	P3	-8.165727	0.004873	0.002937
22	P3	-8.165727	0.004873	0.002937
26	P3	-8.165727	0.004873	0.002937
30	P3	-8.165727	0.004873	0.002937

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	-2.713312	0.026254	0.059671
7	P1	-3.020454	0.048590	0.054648
11	P1	-3.983613	0.026800	0.055455
15	P1	-3.556704	0.034665	0.105751
19	P1	-3.598015	0.013403	-0.025945
22	P1	-5.742496	0.035314	0.060091
26	P1	-7.293983	0.025354	-0.001880
30	P1	-6.234124	0.047892	-0.024266
3	P1	-10.709846	0.176326	0.184180
7	P1	-10.330682	0.176026	0.037077
11	P1	-12.535411	0.137052	0.119393
15	P1	-11.741612	0.103475	0.189355
19	P1	-15.568435	0.044859	-0.020501
22	P1	-24.556387	1.188525	-0.487491
26	P1	-15.486906	0.172844	-0.114456
30	P1	-20.200281	1.177559	-0.071474

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.786633	0.033876	0.062930
7	P2	-22.351599	0.038451	0.075669
11	P2	-10.154572	0.050825	0.150114
15	P2	-4.984485	0.022973	-0.042555
19	P2	-6.832362	0.034310	-0.022345
22	P2	-7.091525	0.031589	0.033295
26	P2	-23.850006	0.028887	-0.000470
30	P2	-21.895470	0.034089	0.008921

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.998941	0.002858	0.004057
7	P3	-7.999051	0.002859	0.003742
11	P3	-7.998894	0.002878	0.003808
15	P3	-7.999012	0.002871	0.004258
19	P3	-7.998963	0.002879	0.004035
22	P3	-7.998960	0.002862	0.003743
26	P3	-7.998919	0.002871	0.003924
30	P3	-7.998867	0.002875	0.004182

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	0.000450704
	stdev	2.29542e-07
MEAN Q	mean	0.000474804
	stdev	2.38139e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127675
	stdev	0.00105330
STDEV Q	mean	0.127925
	stdev	0.00106458



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005032[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
ASA_WSM_1PNPDE20050327_012931_000003672035_00475_16060_3322.N1	0	55



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

7.2 - Absolute Doppler for WVS

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

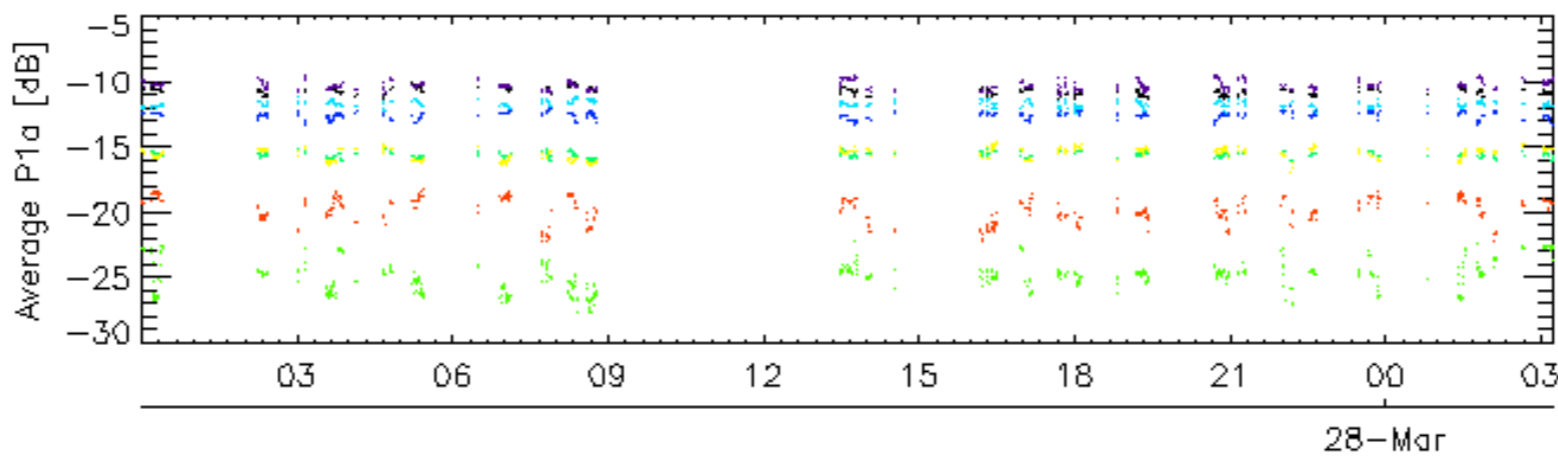
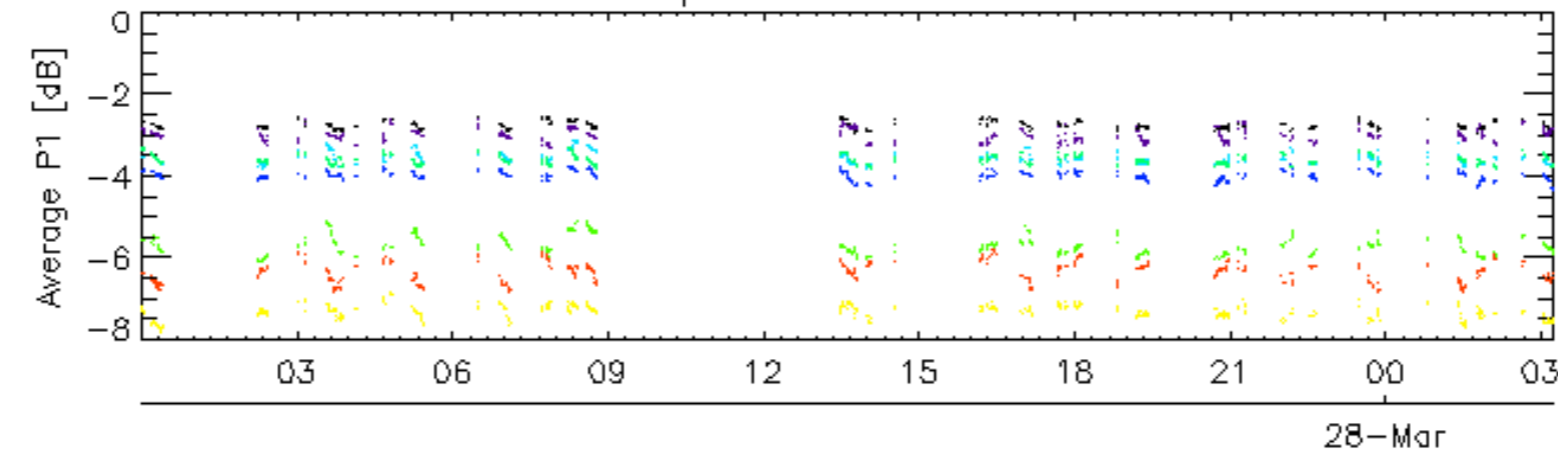
Ascending

Descending

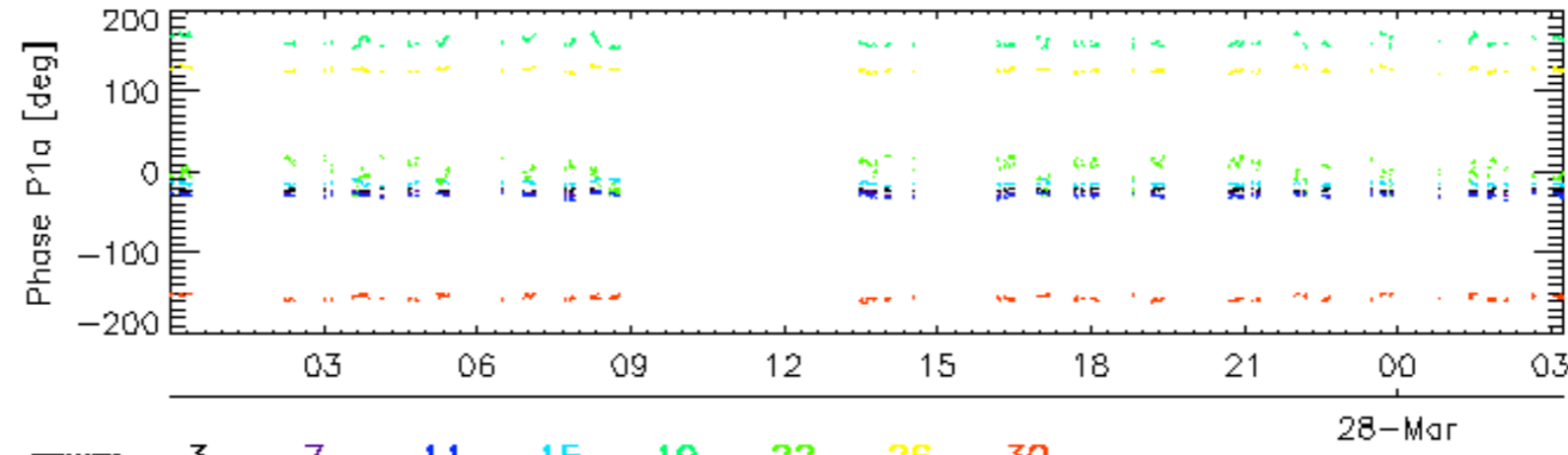
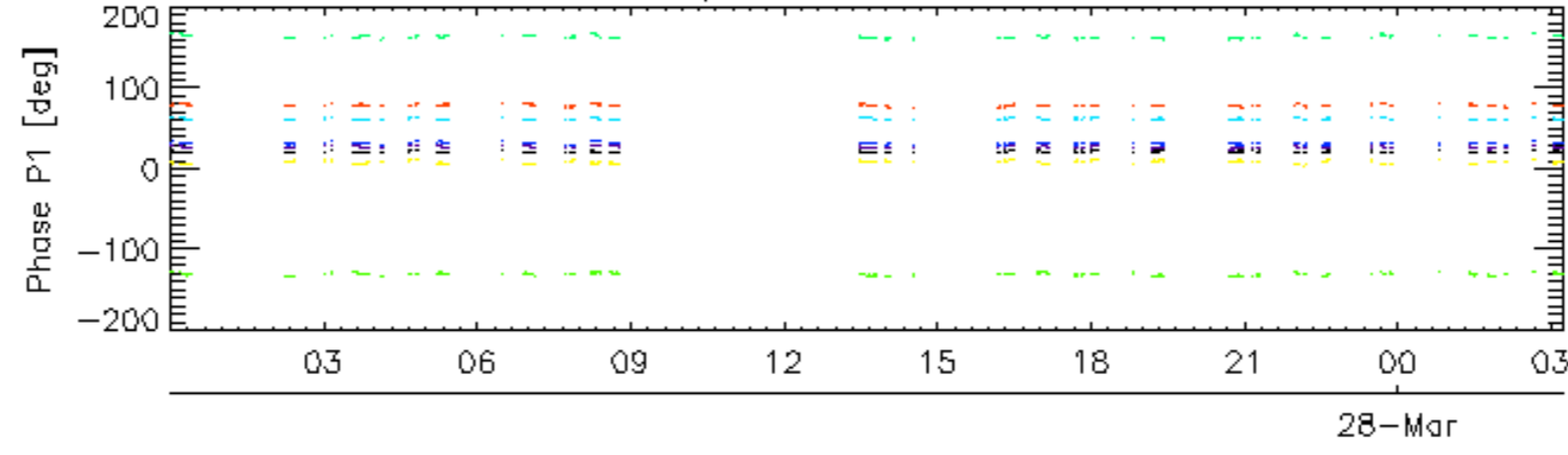
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

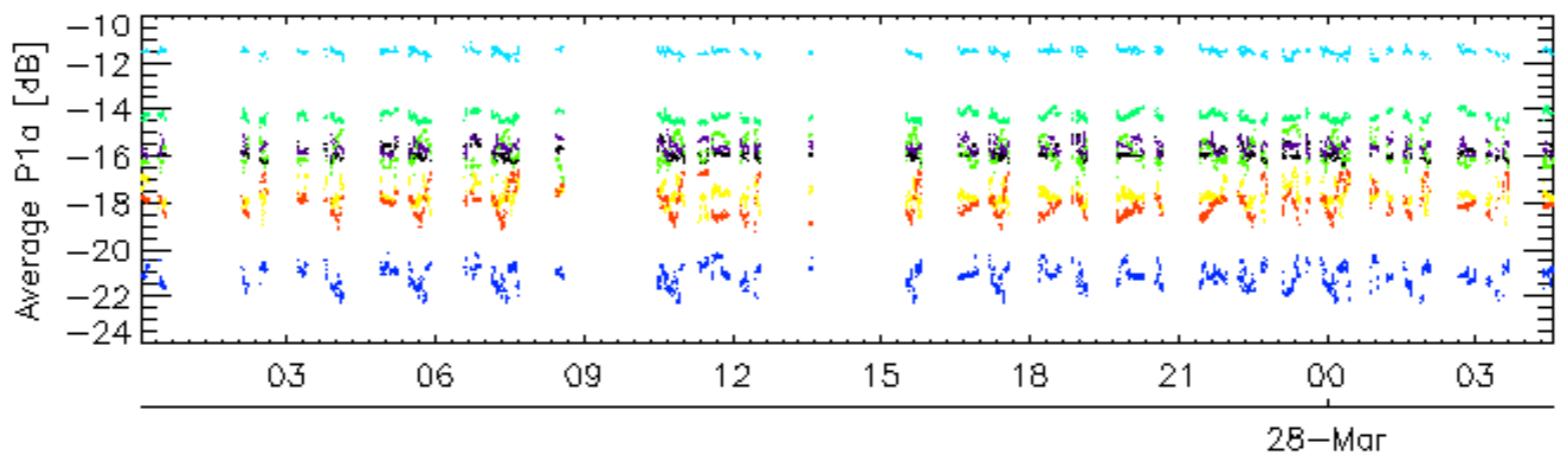
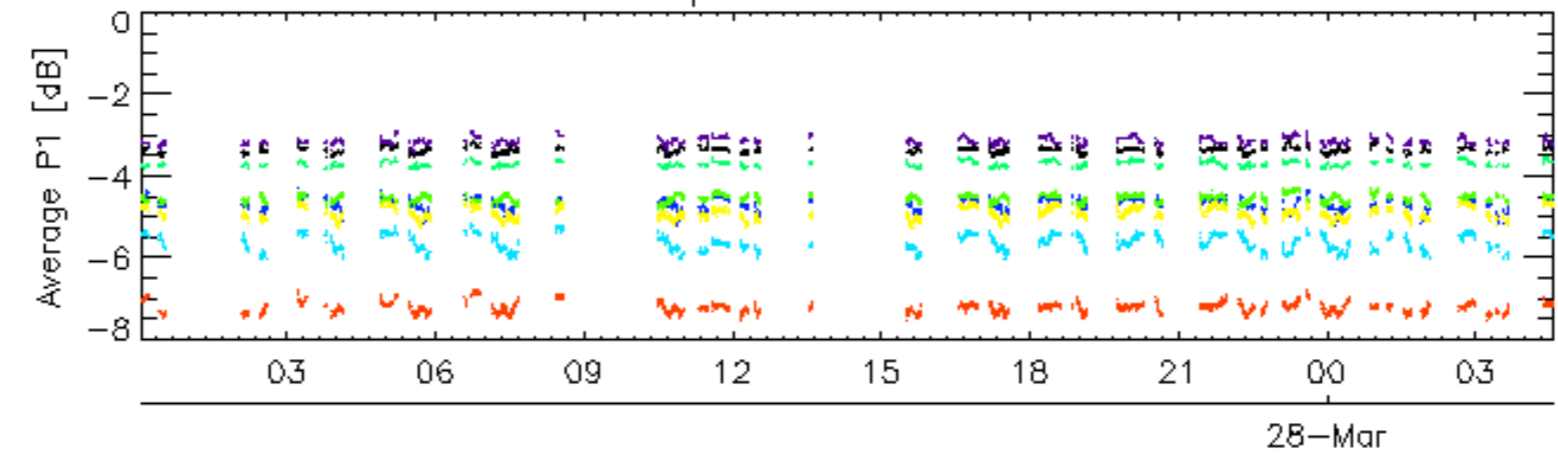


Cal pulses for GM1 SS3

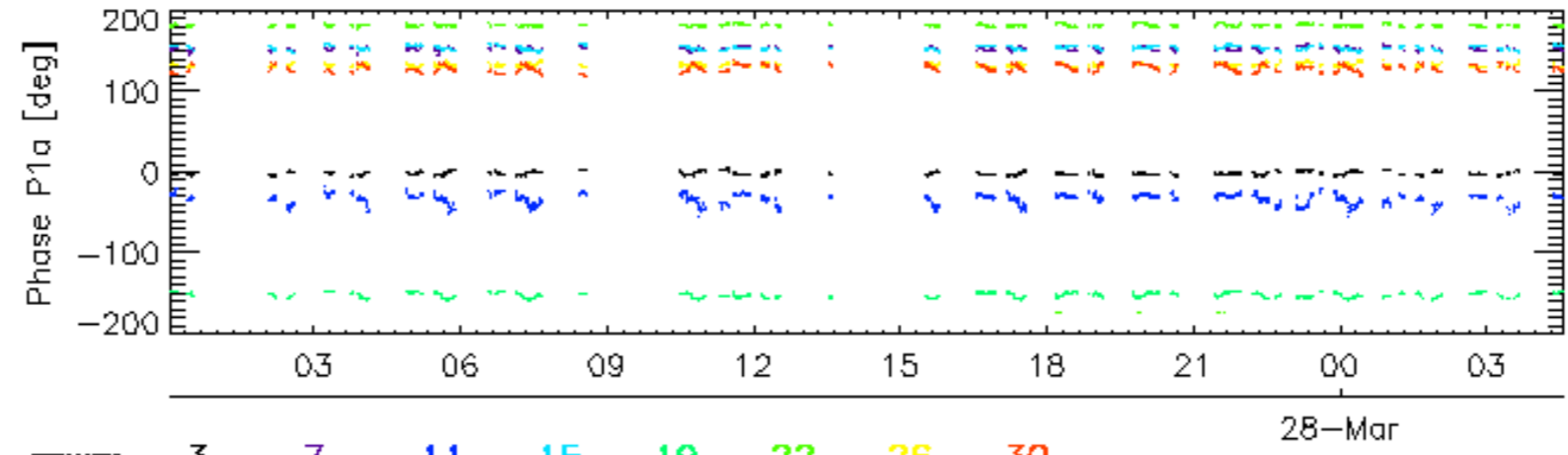
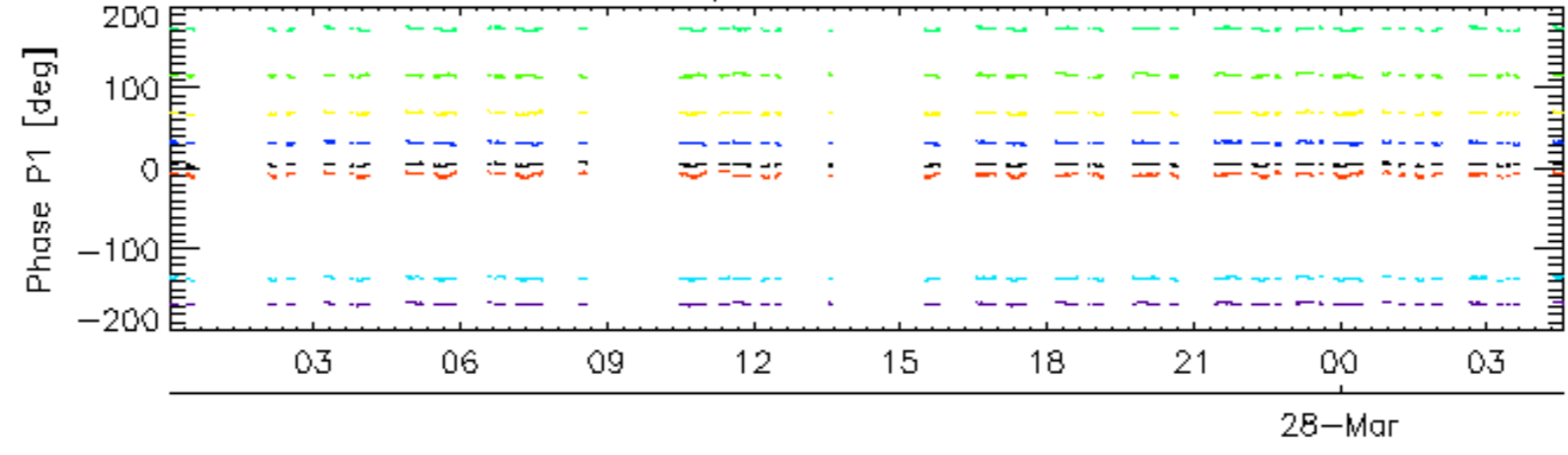


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

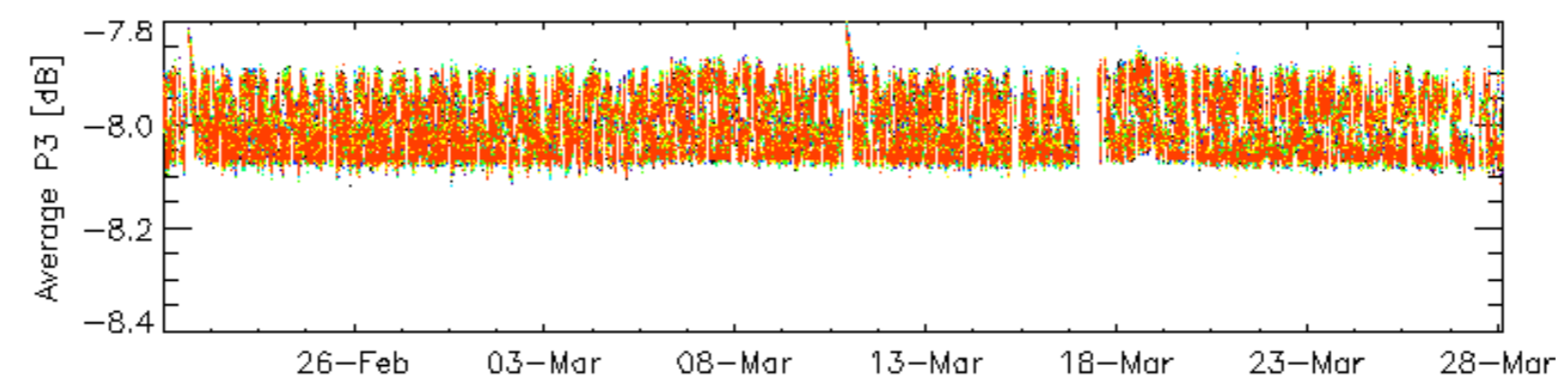
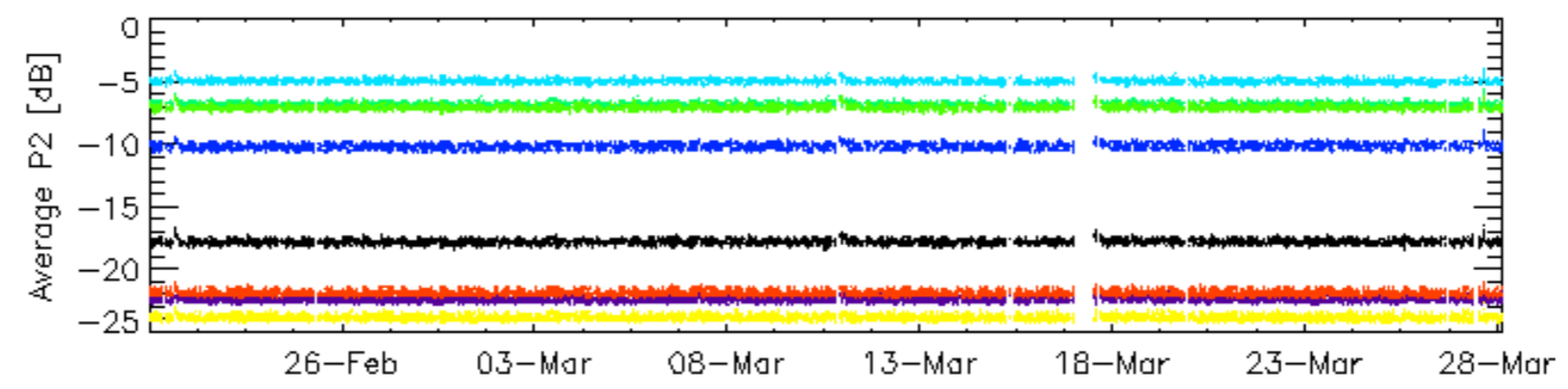
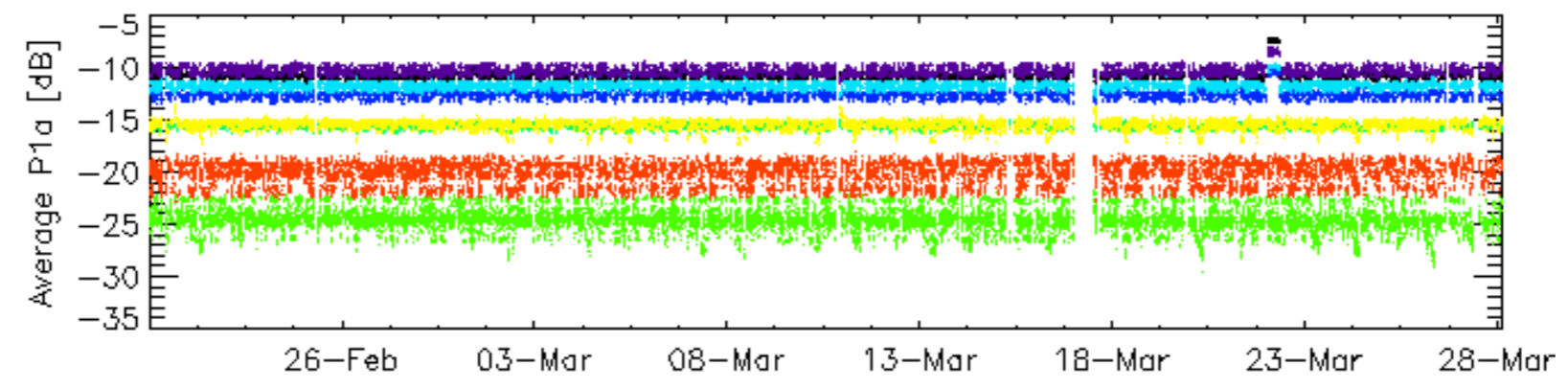
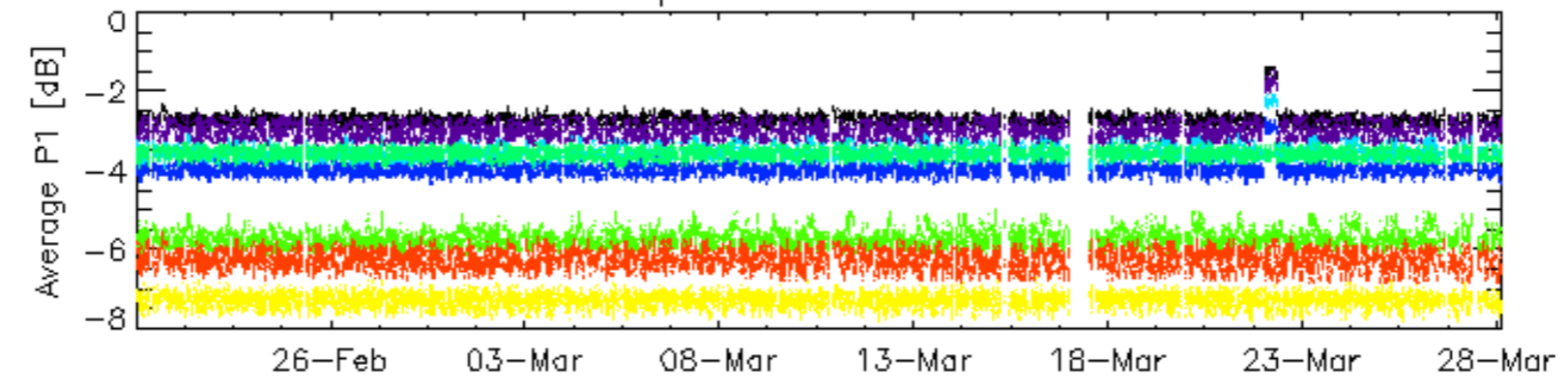


Cal pulses for WVS IS2



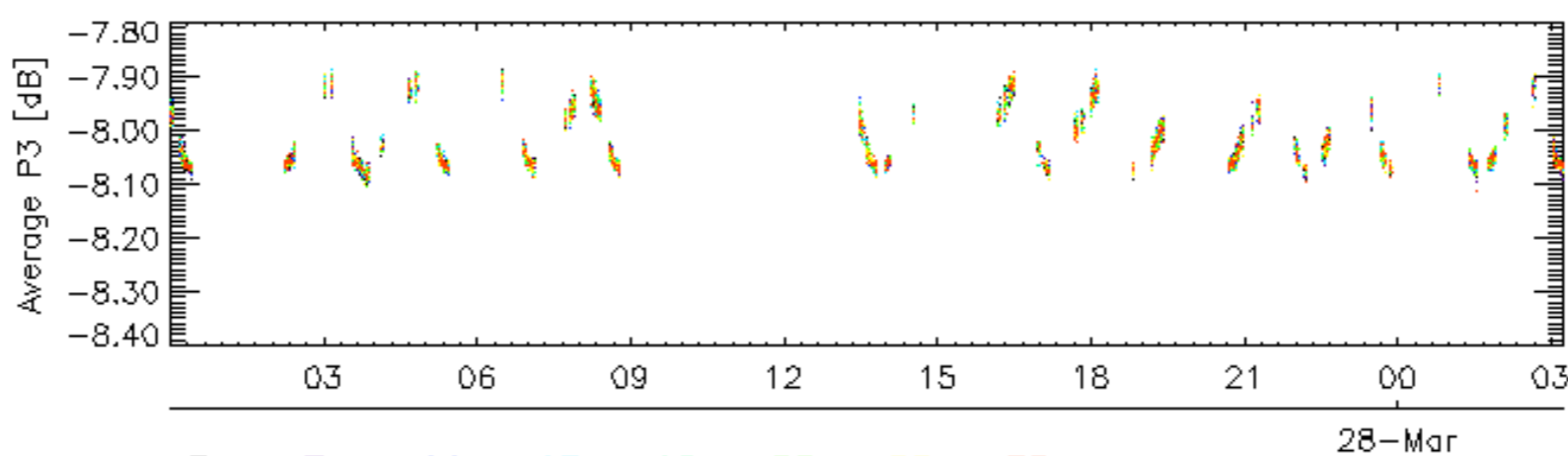
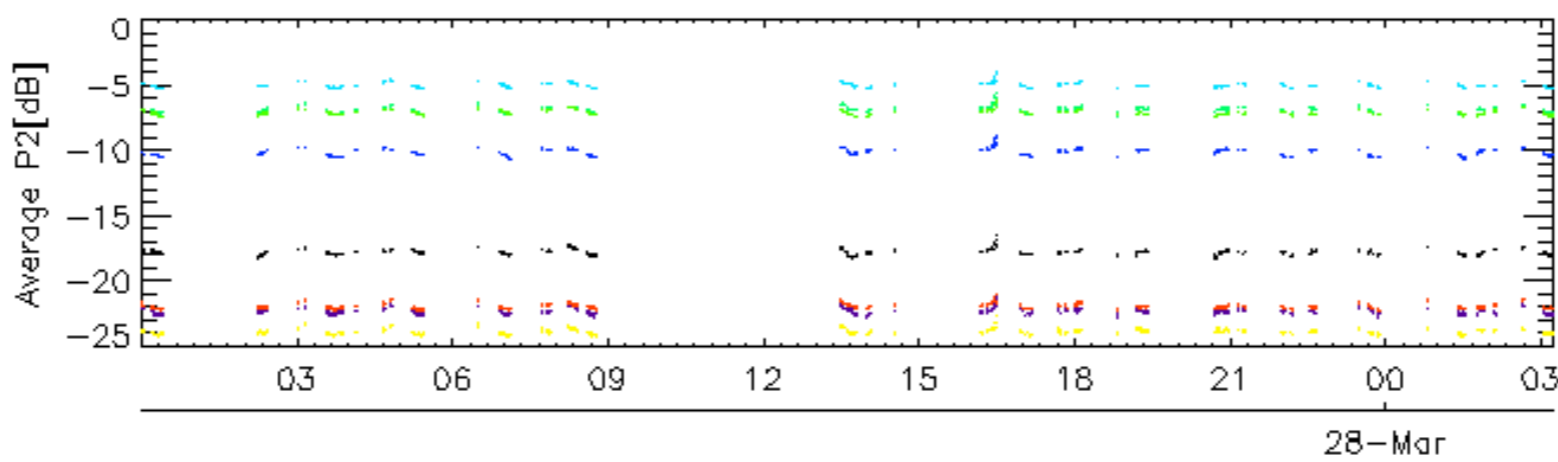
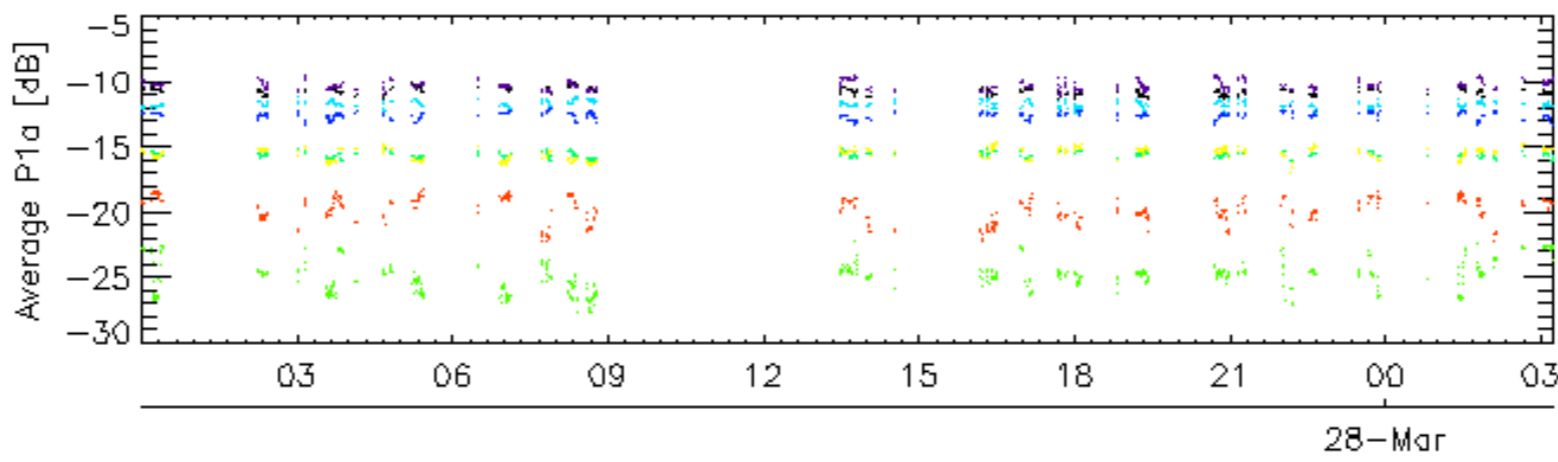
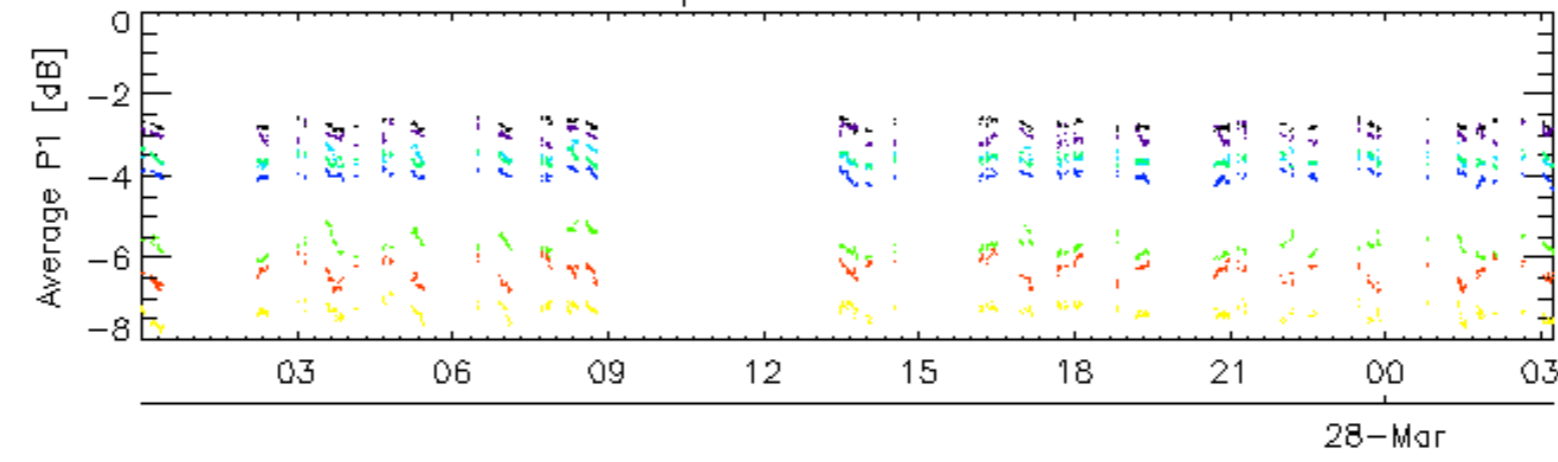
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



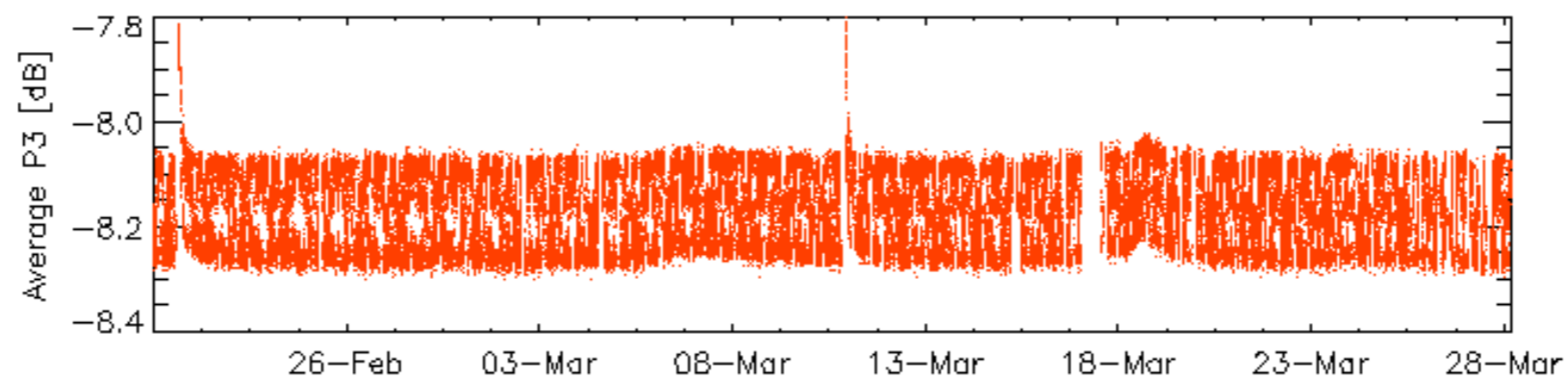
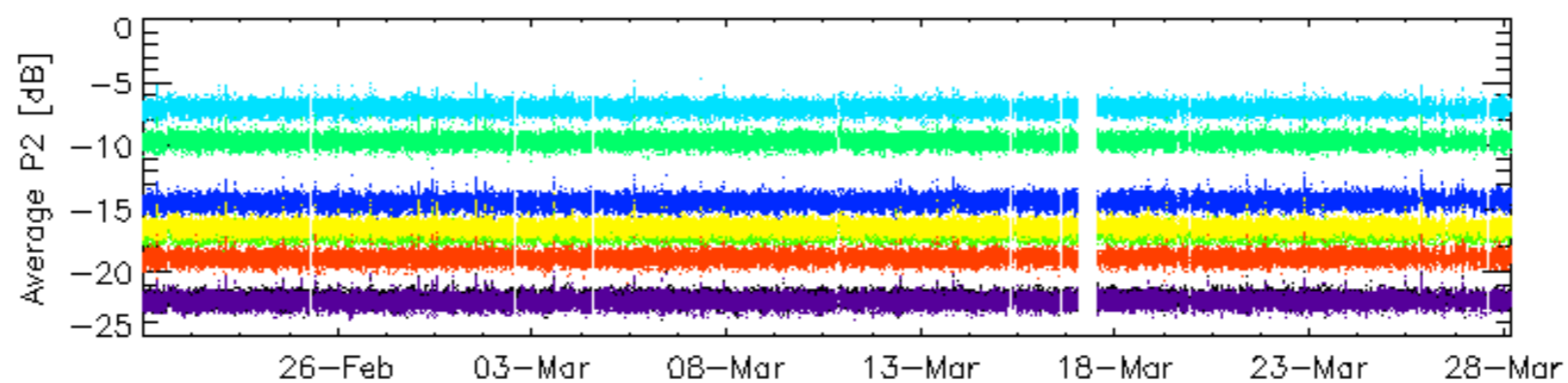
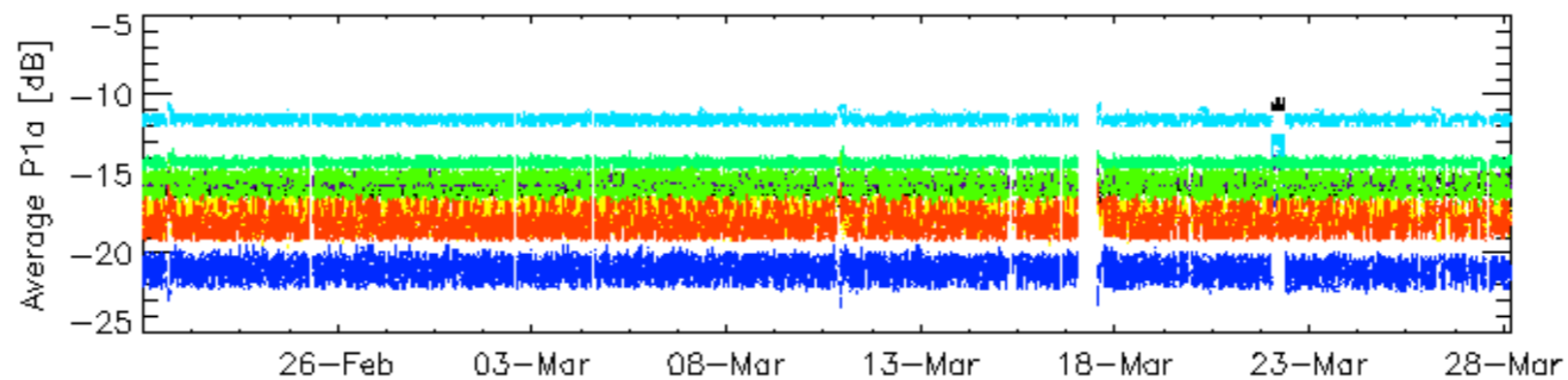
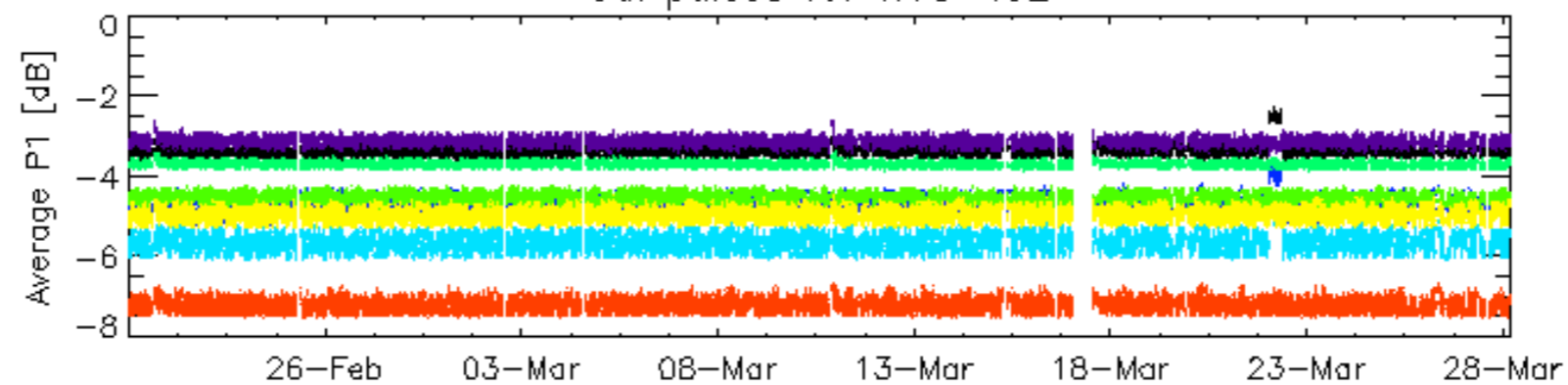
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



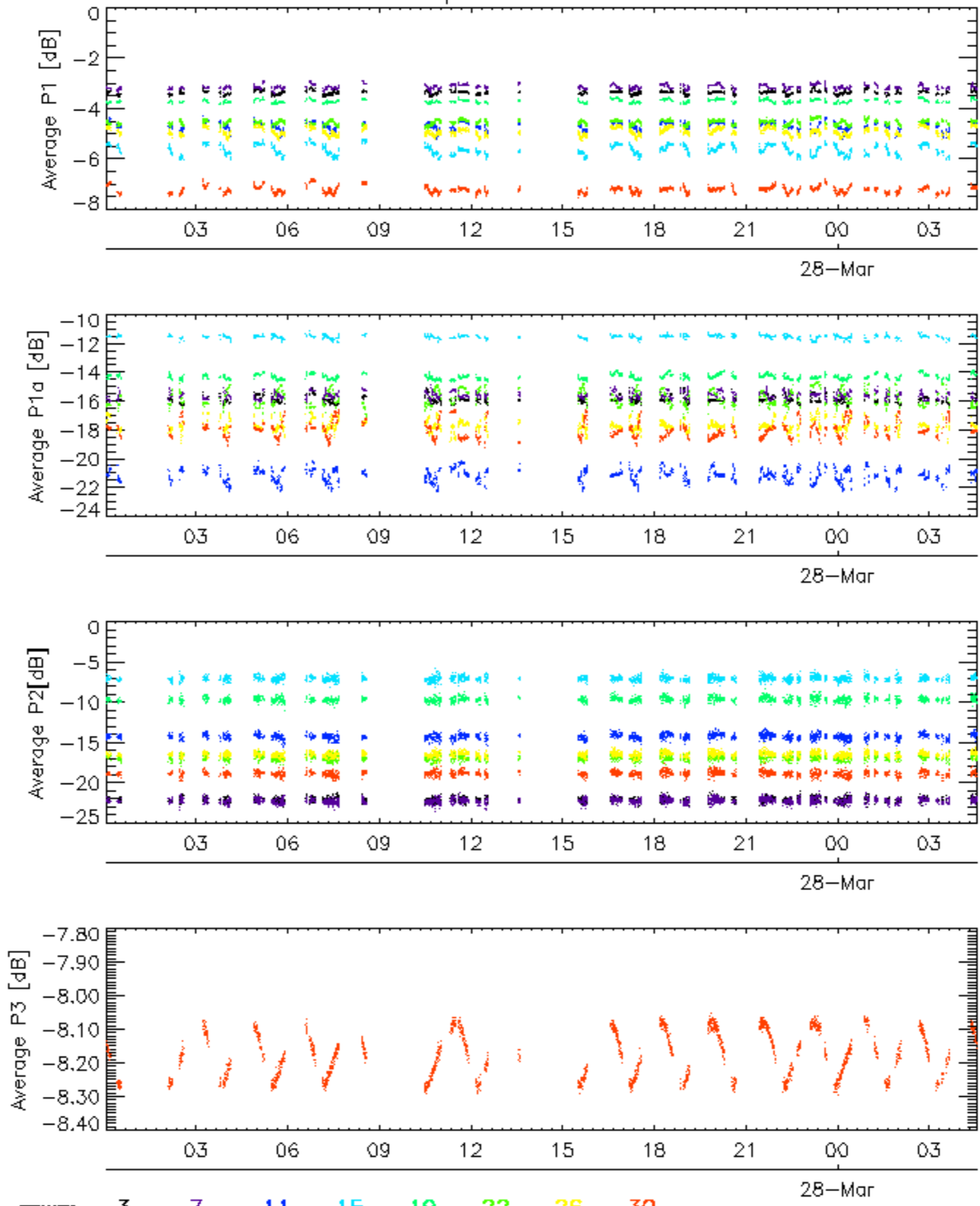
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



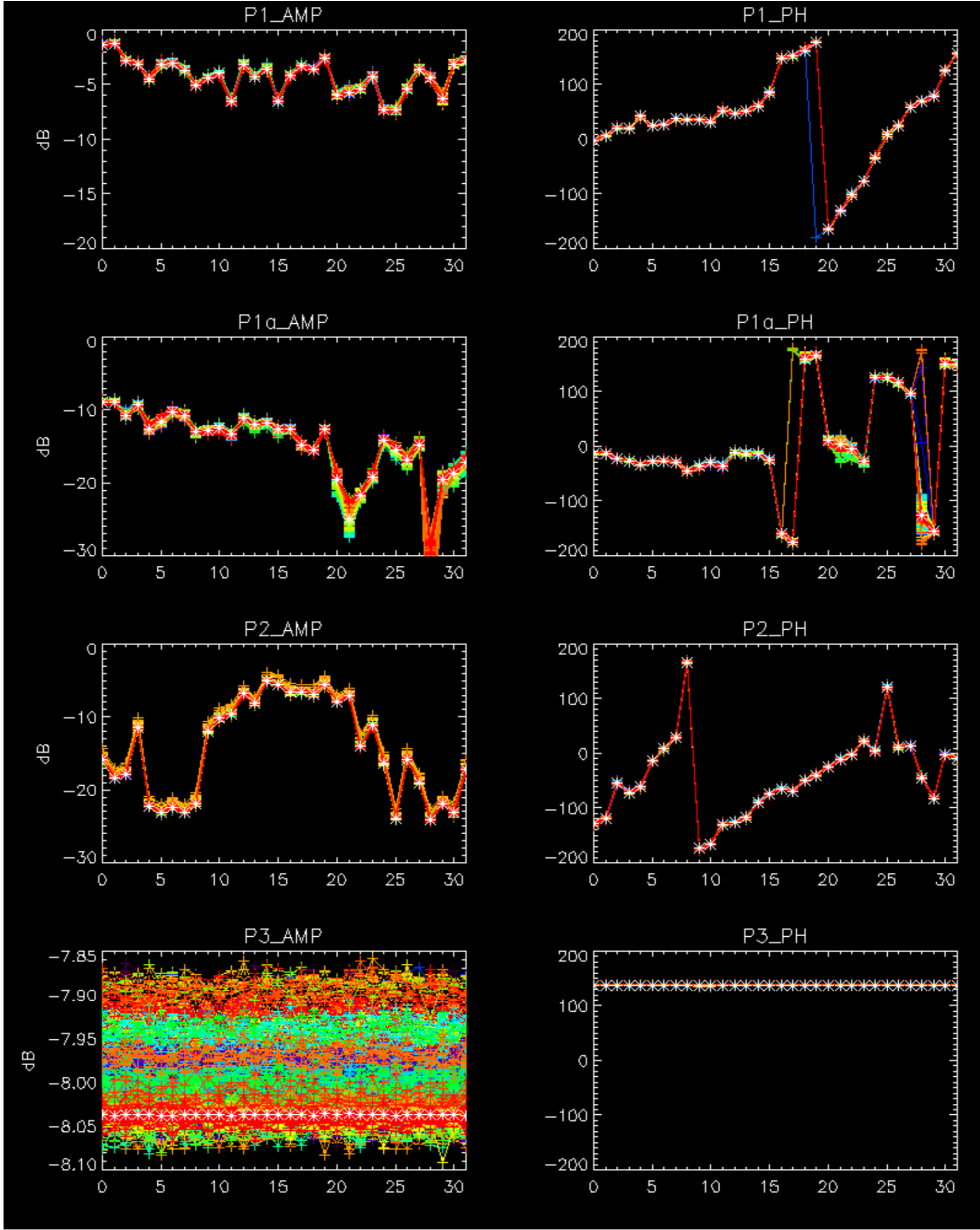
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

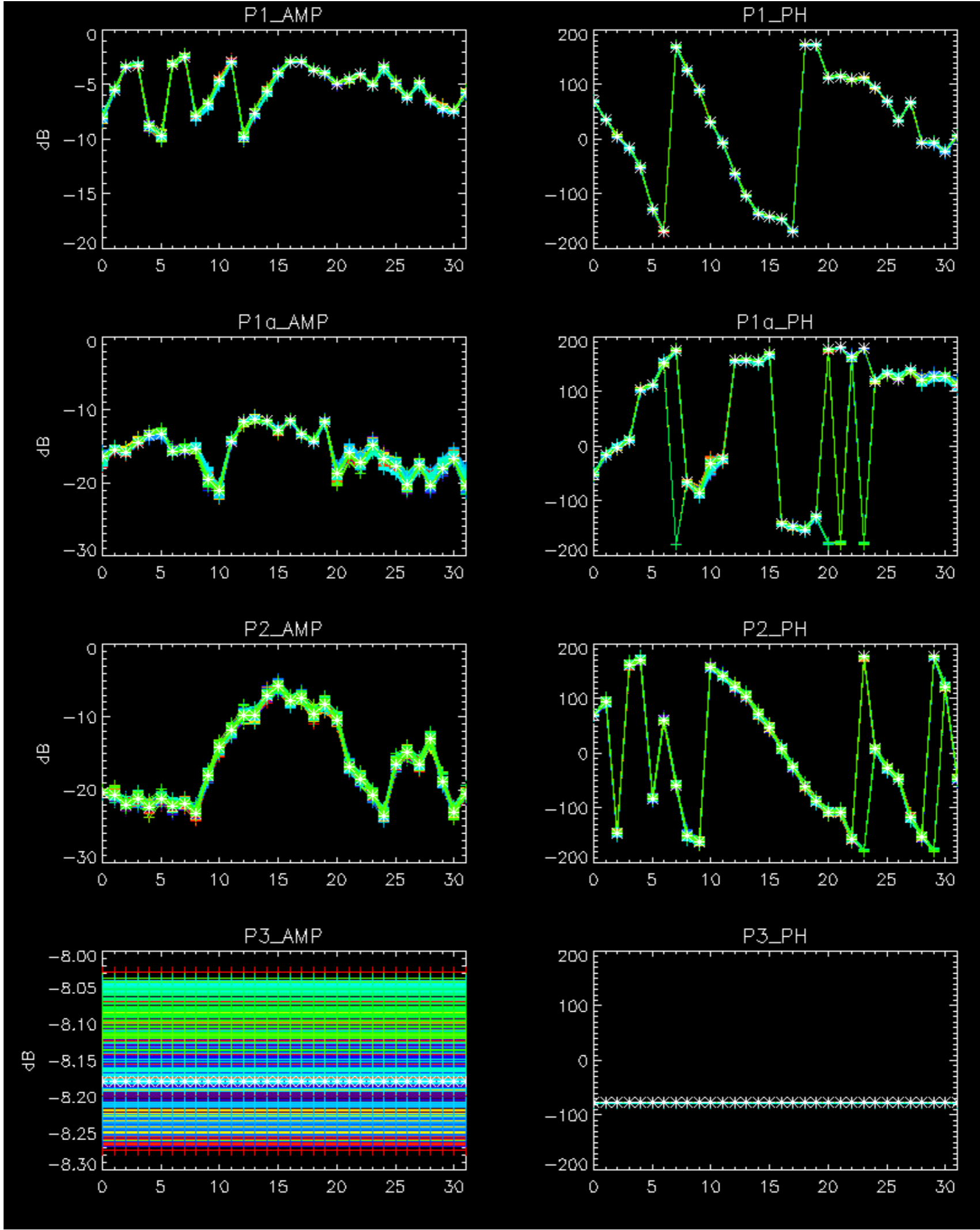
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

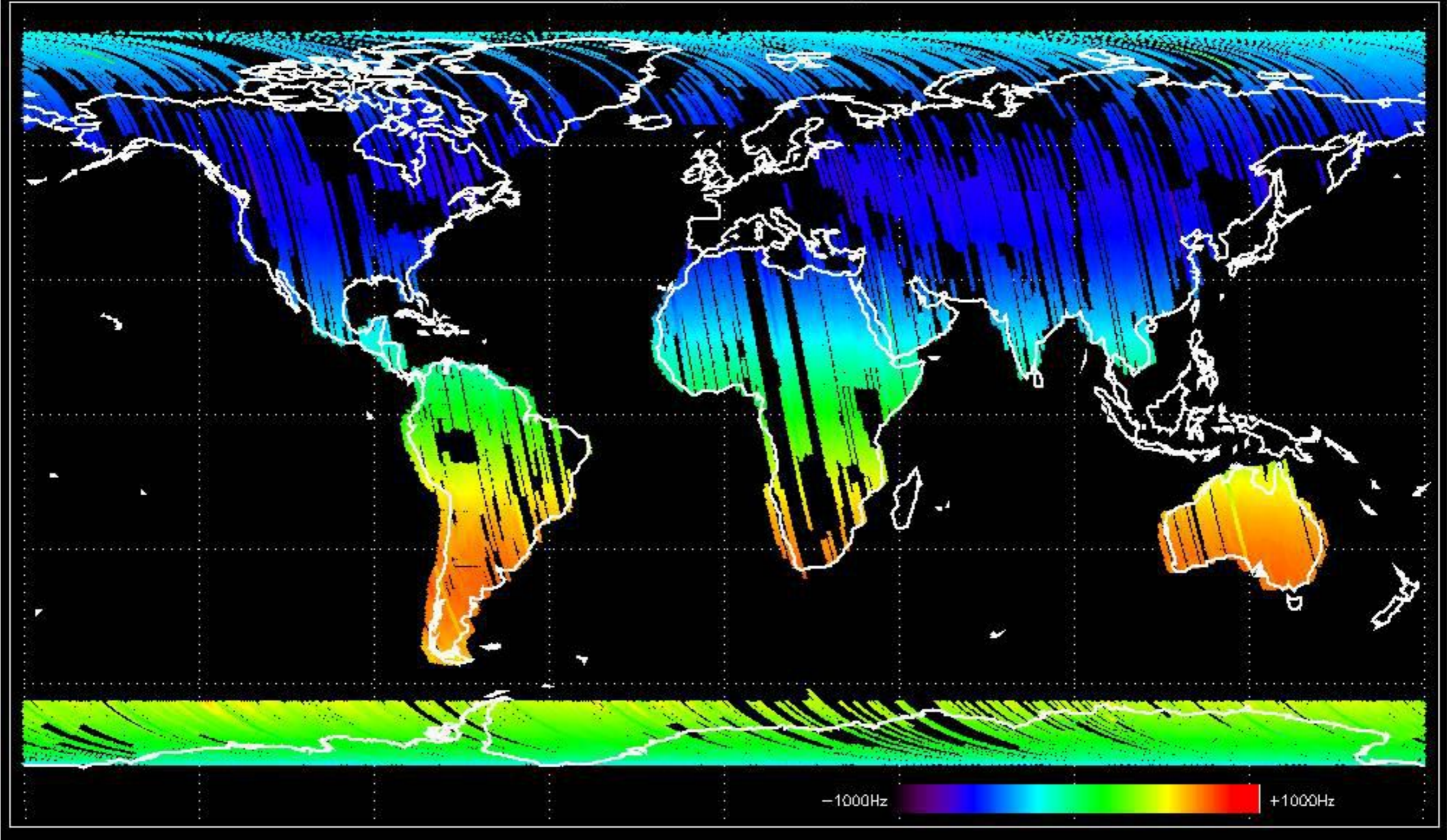
No anomalies observed.



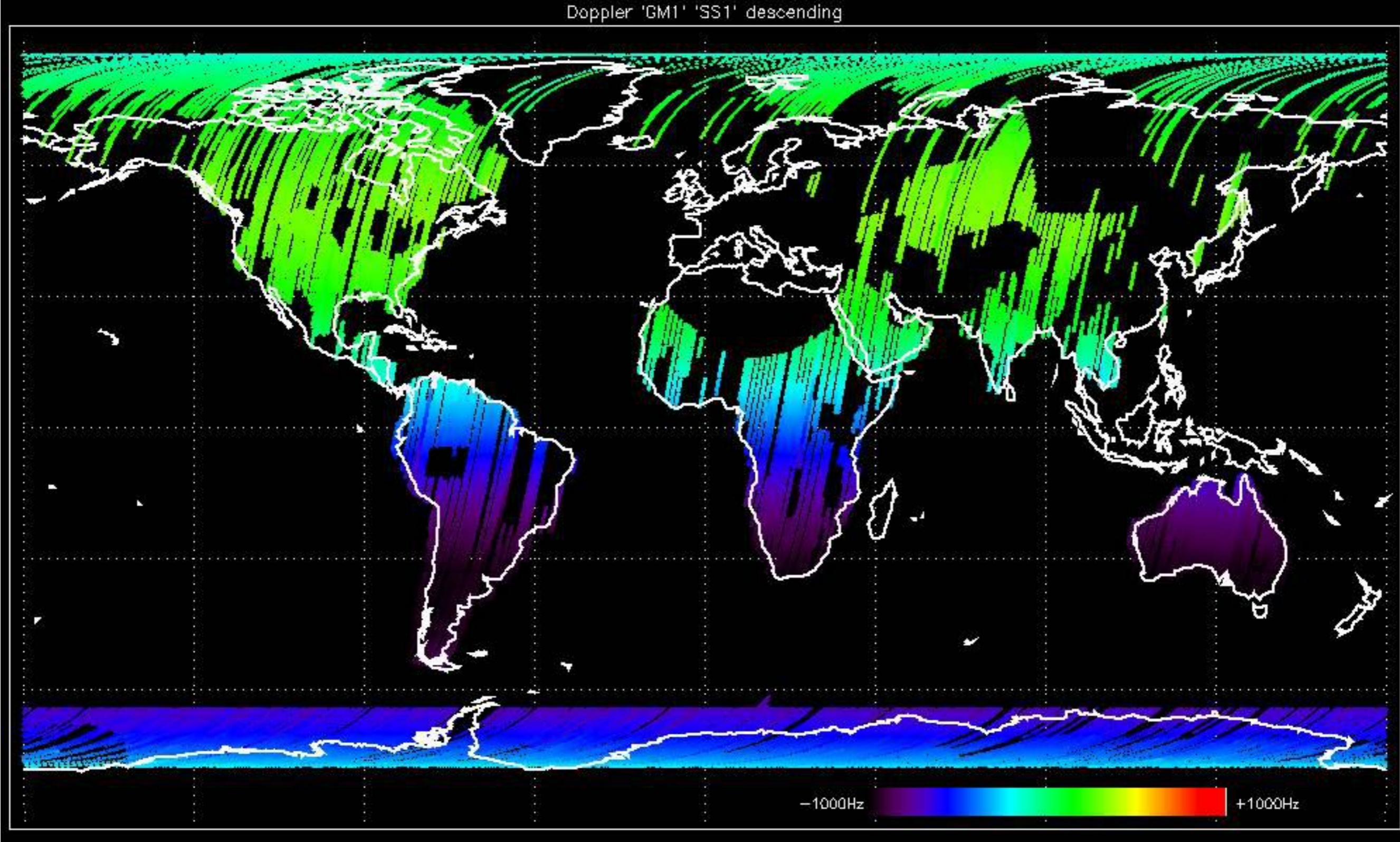


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

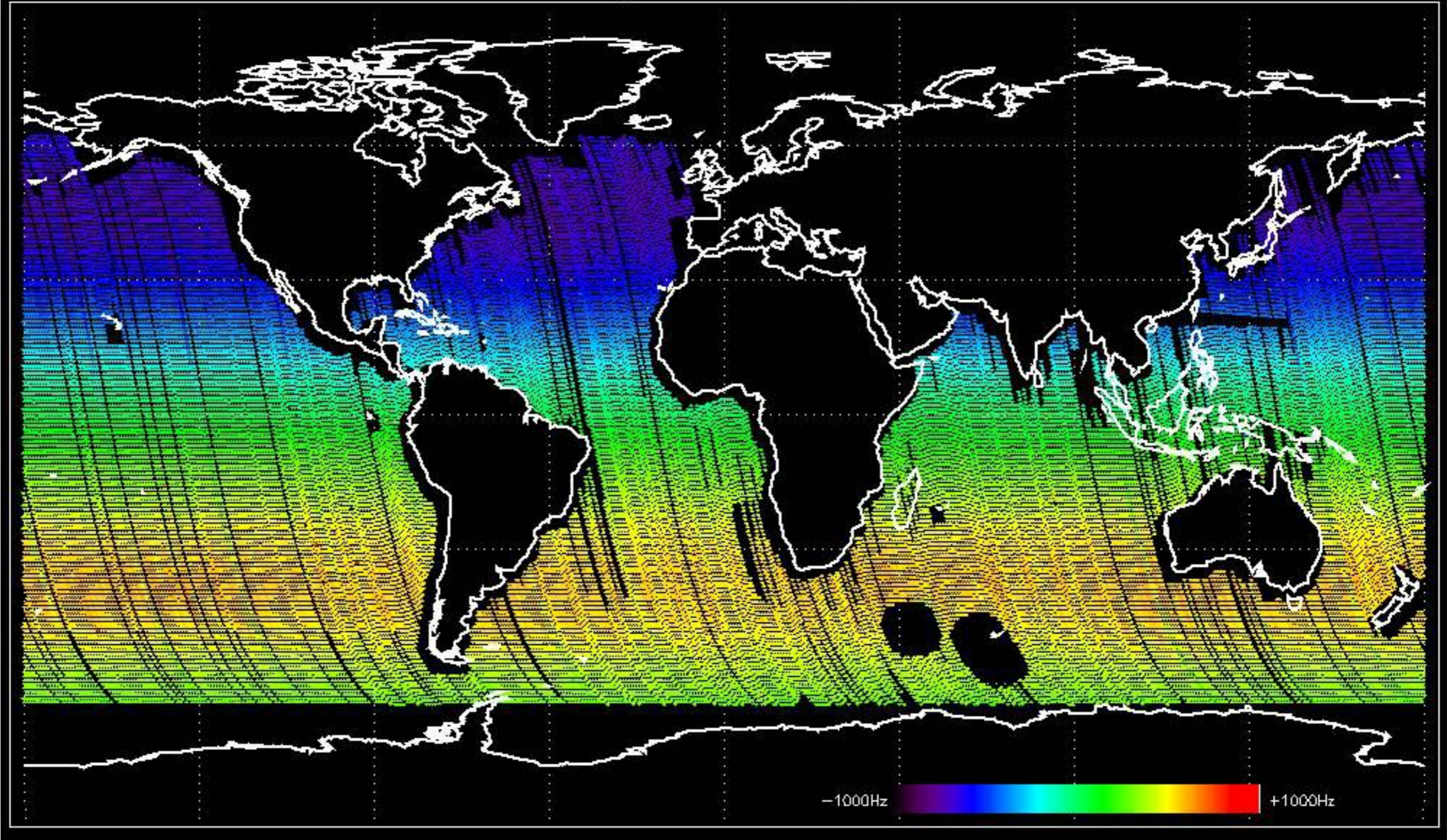
Doppler 'GM1' 'SS1' ascending



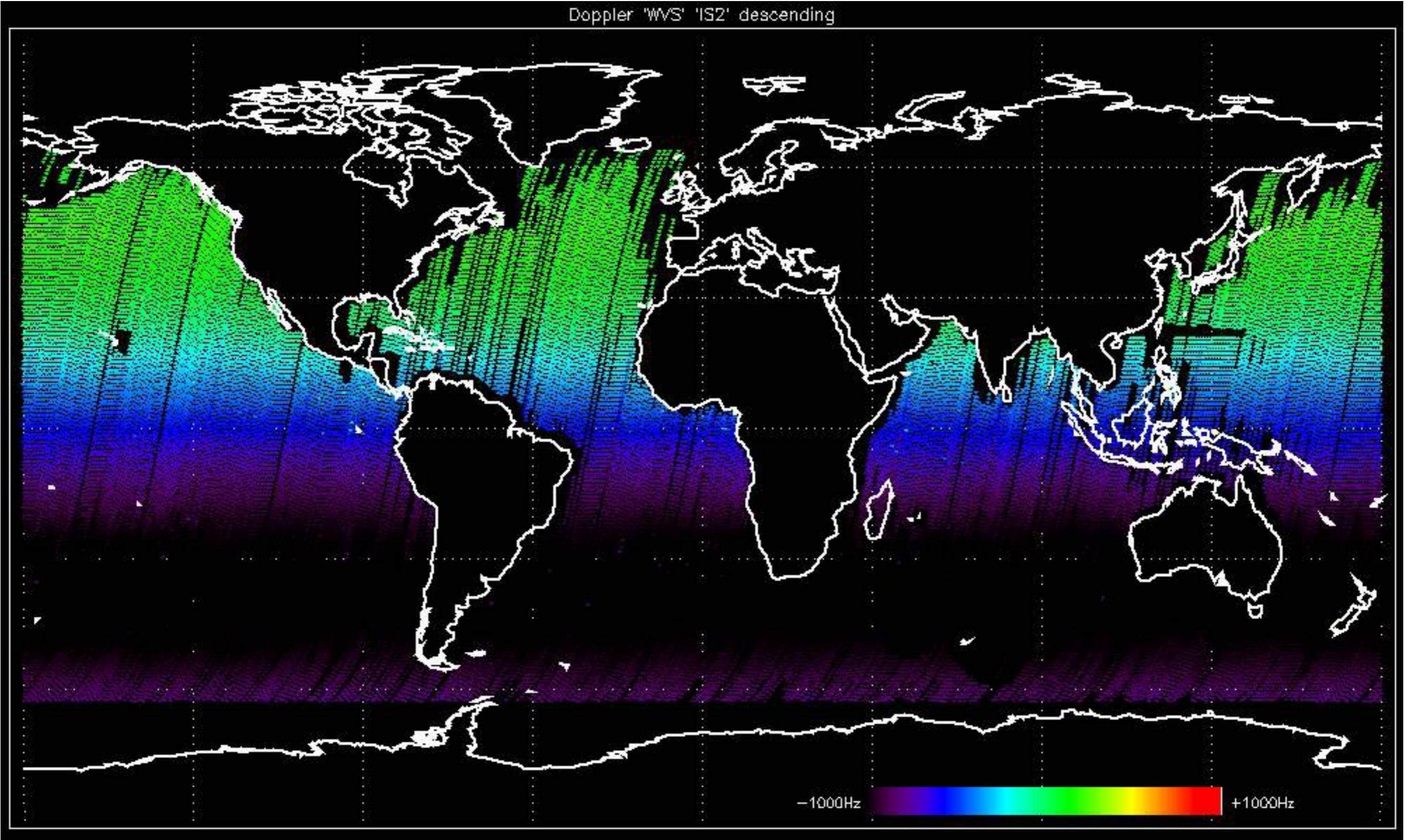
Doppler 'GM1' 'SS1' descending



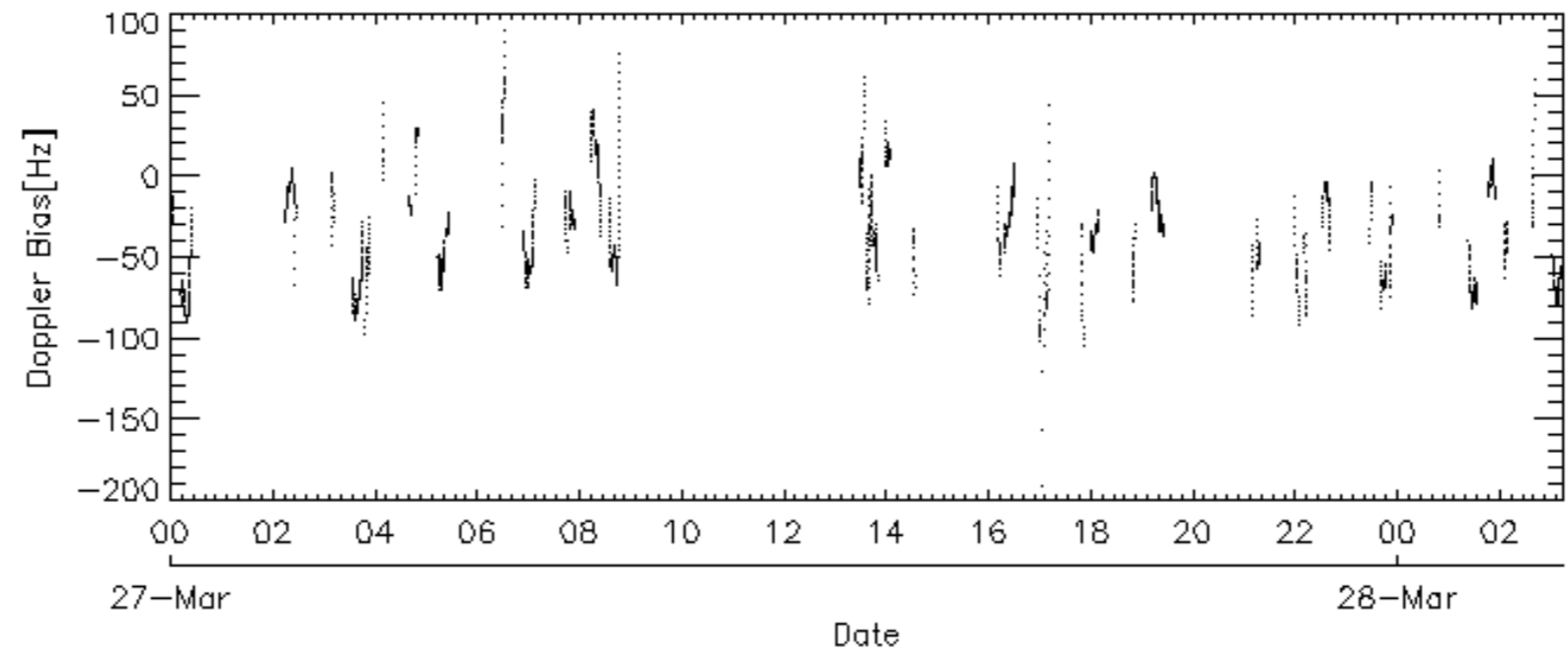
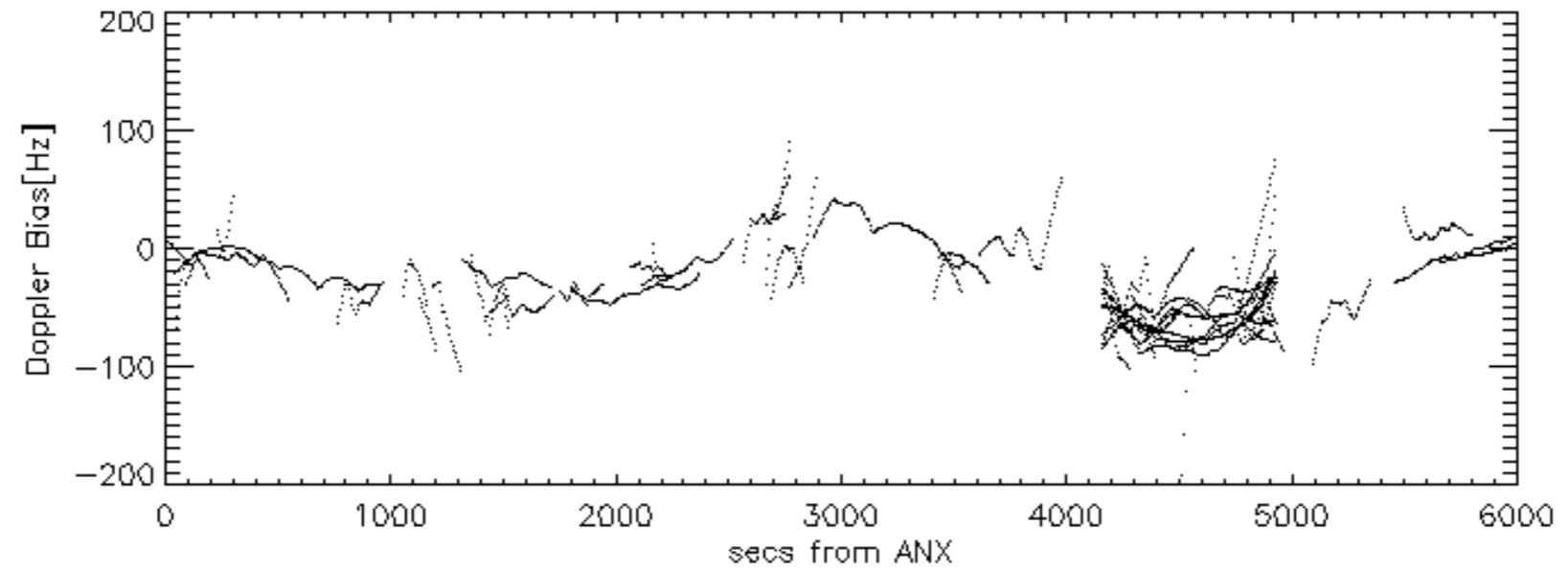
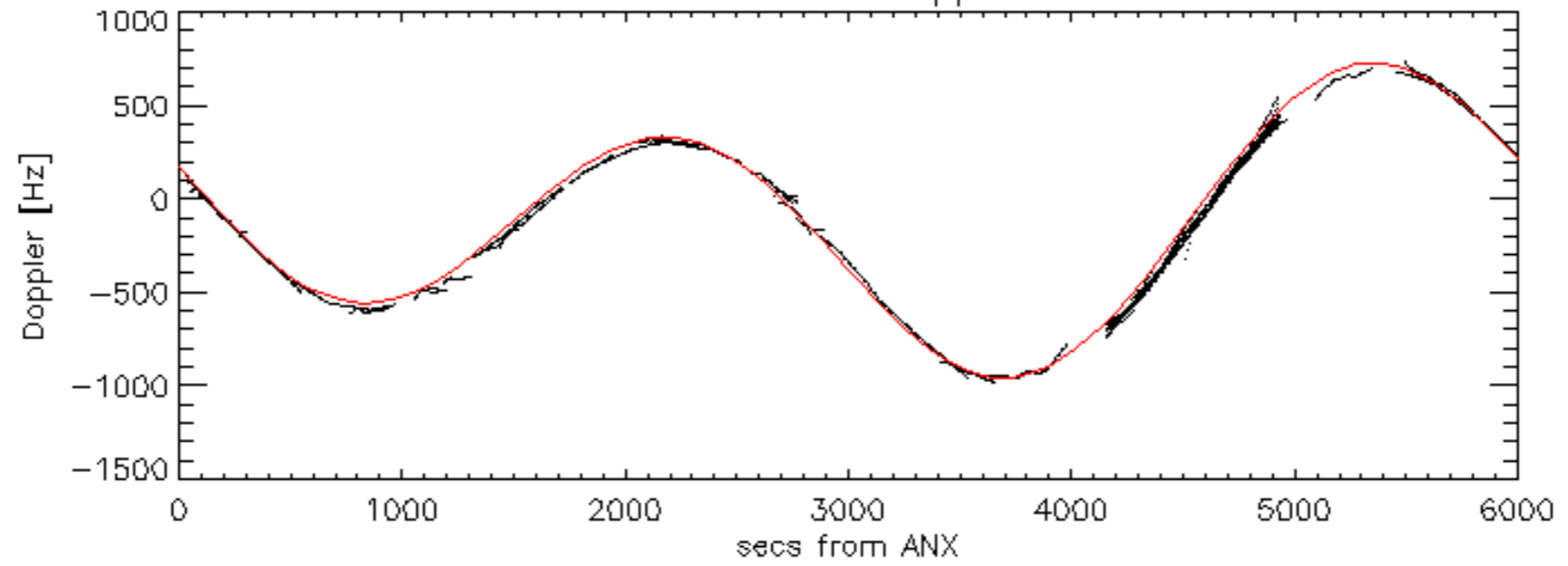
Doppler 'WVS' 'IS2' ascending

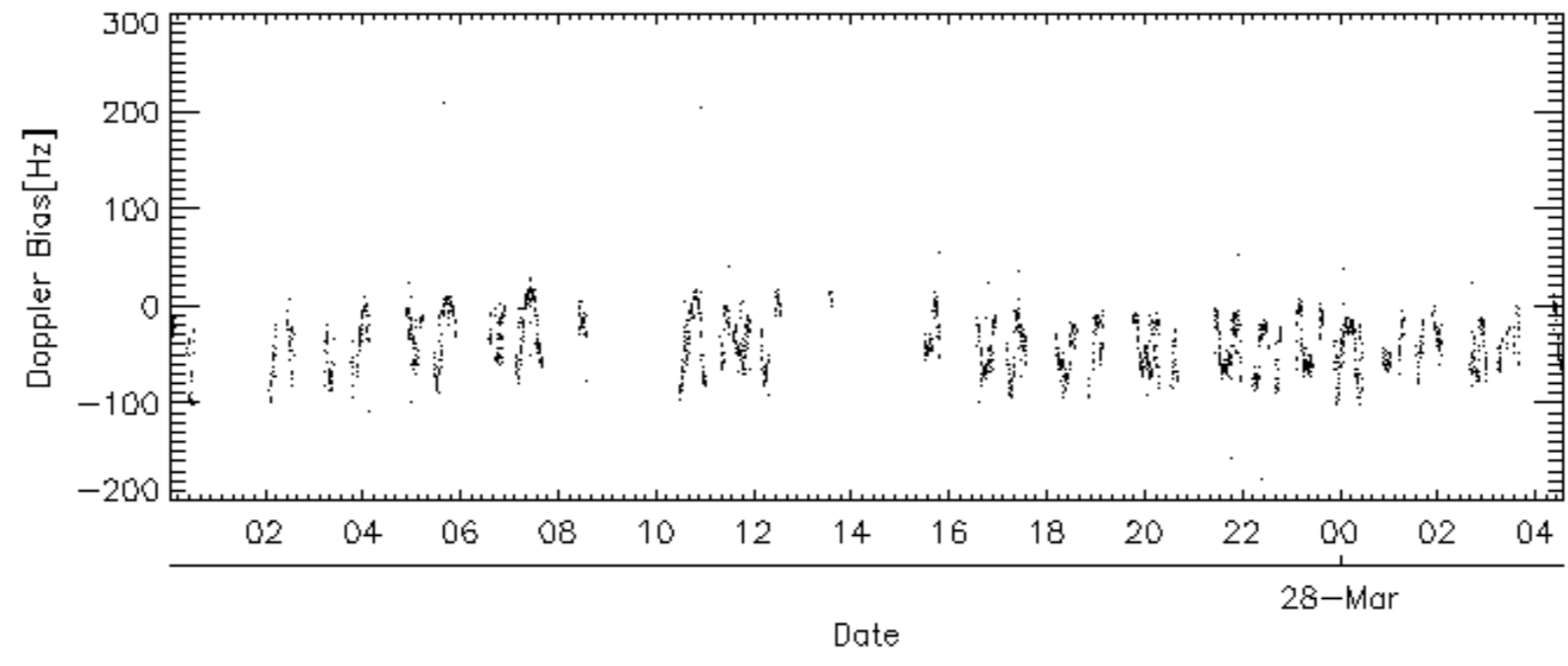
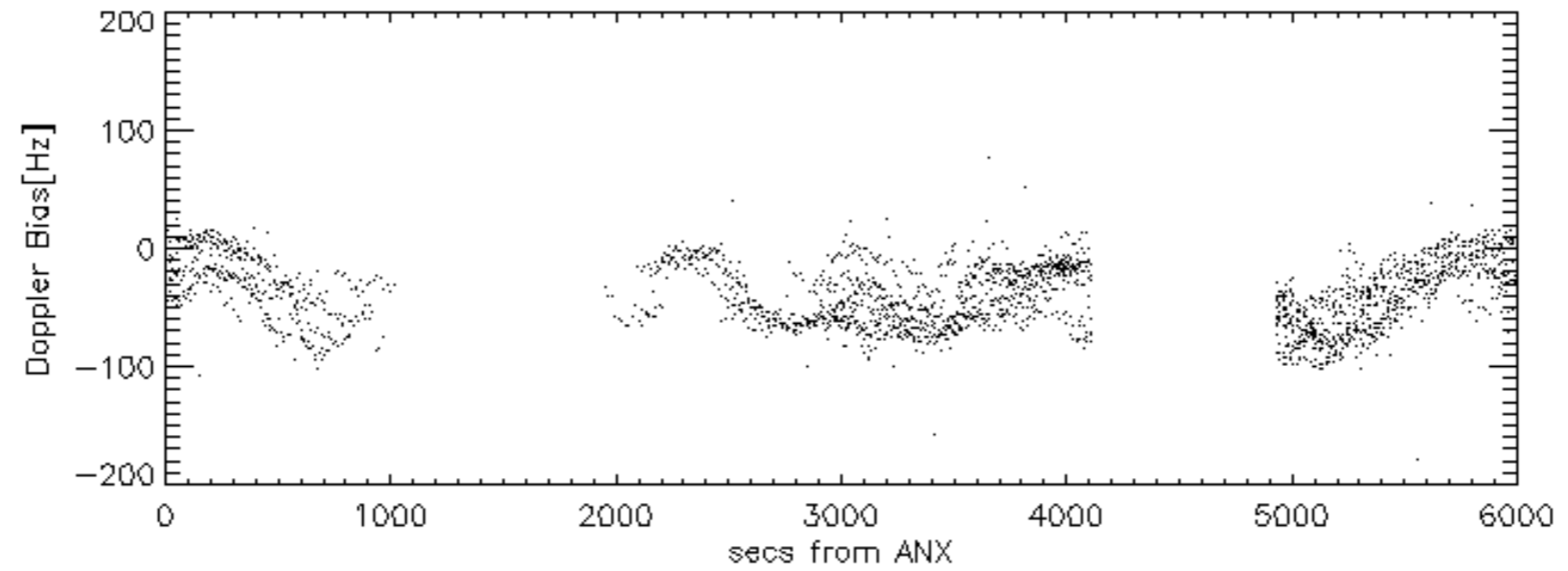
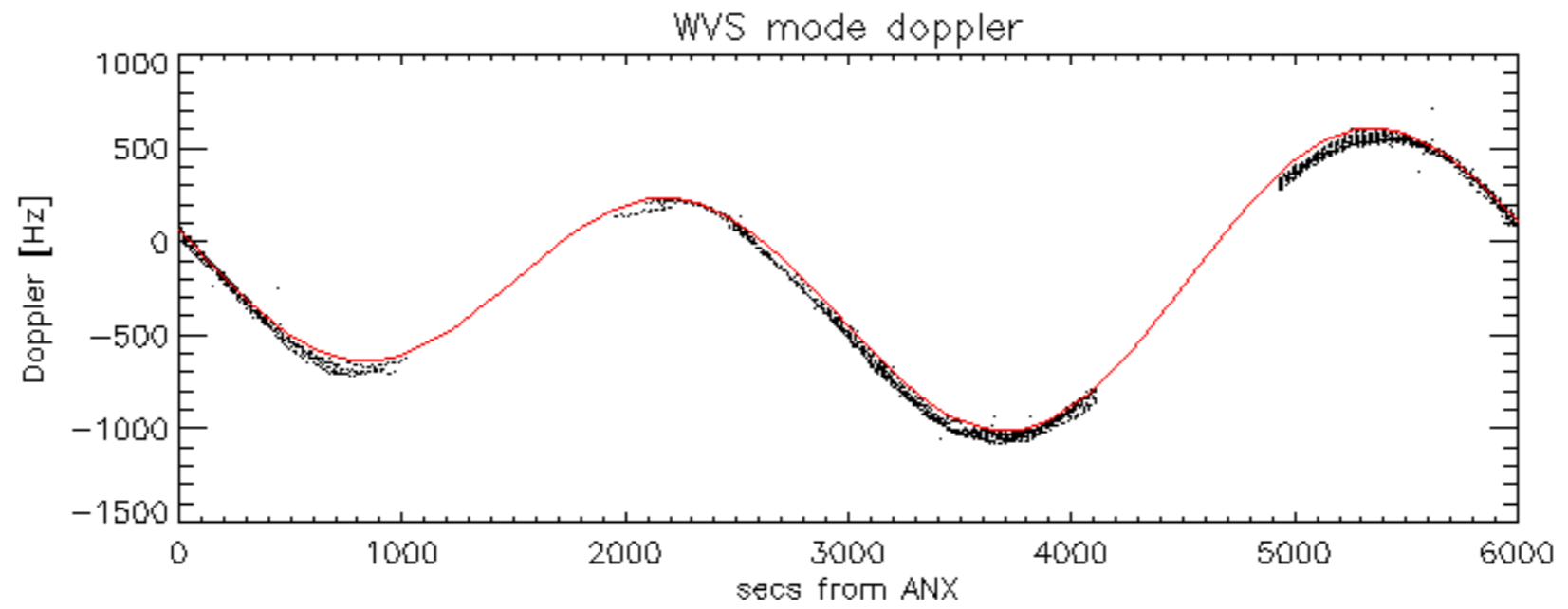


Doppler 'WVS' 'IS2' descending

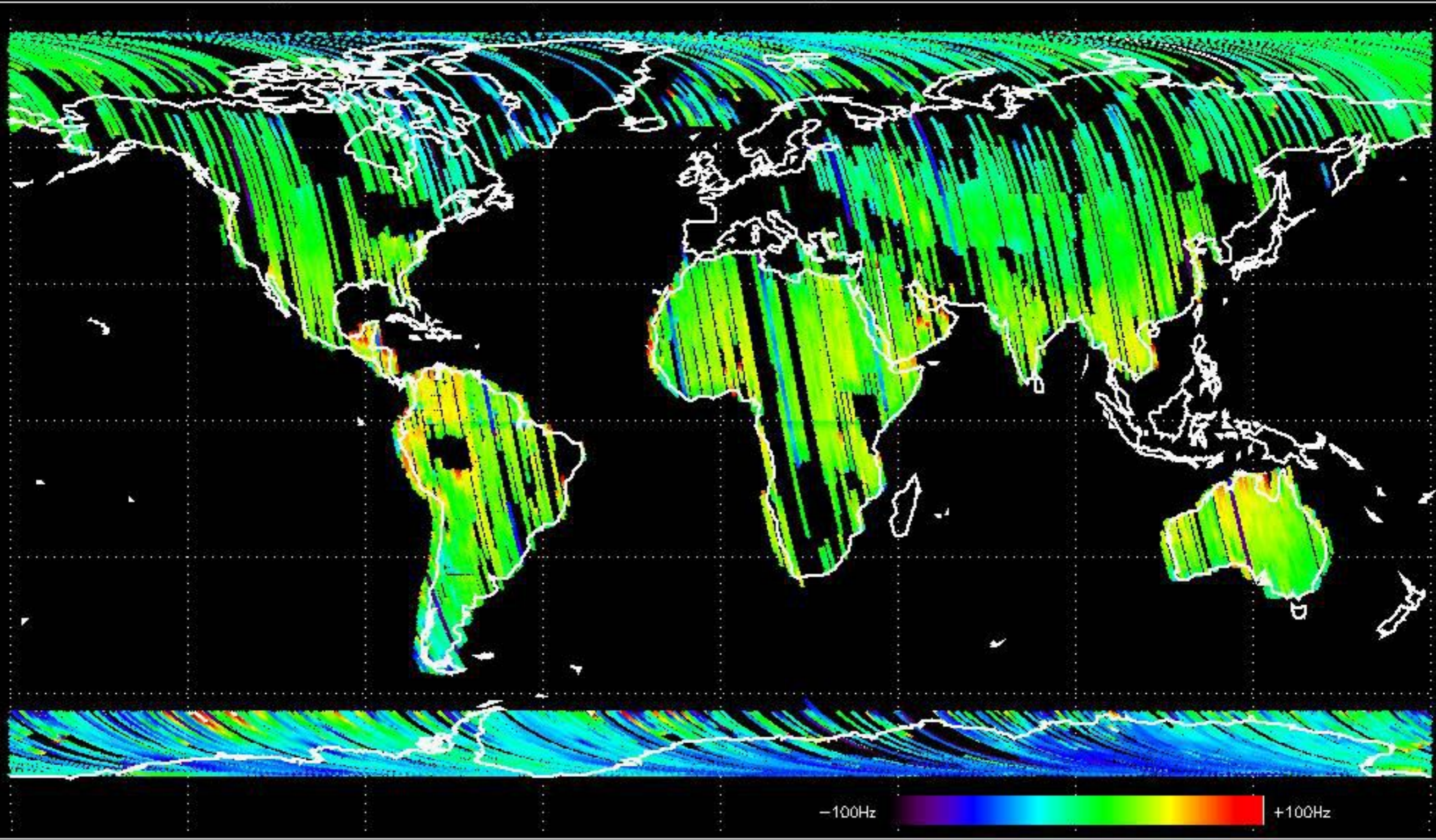


GM1 mode doppler

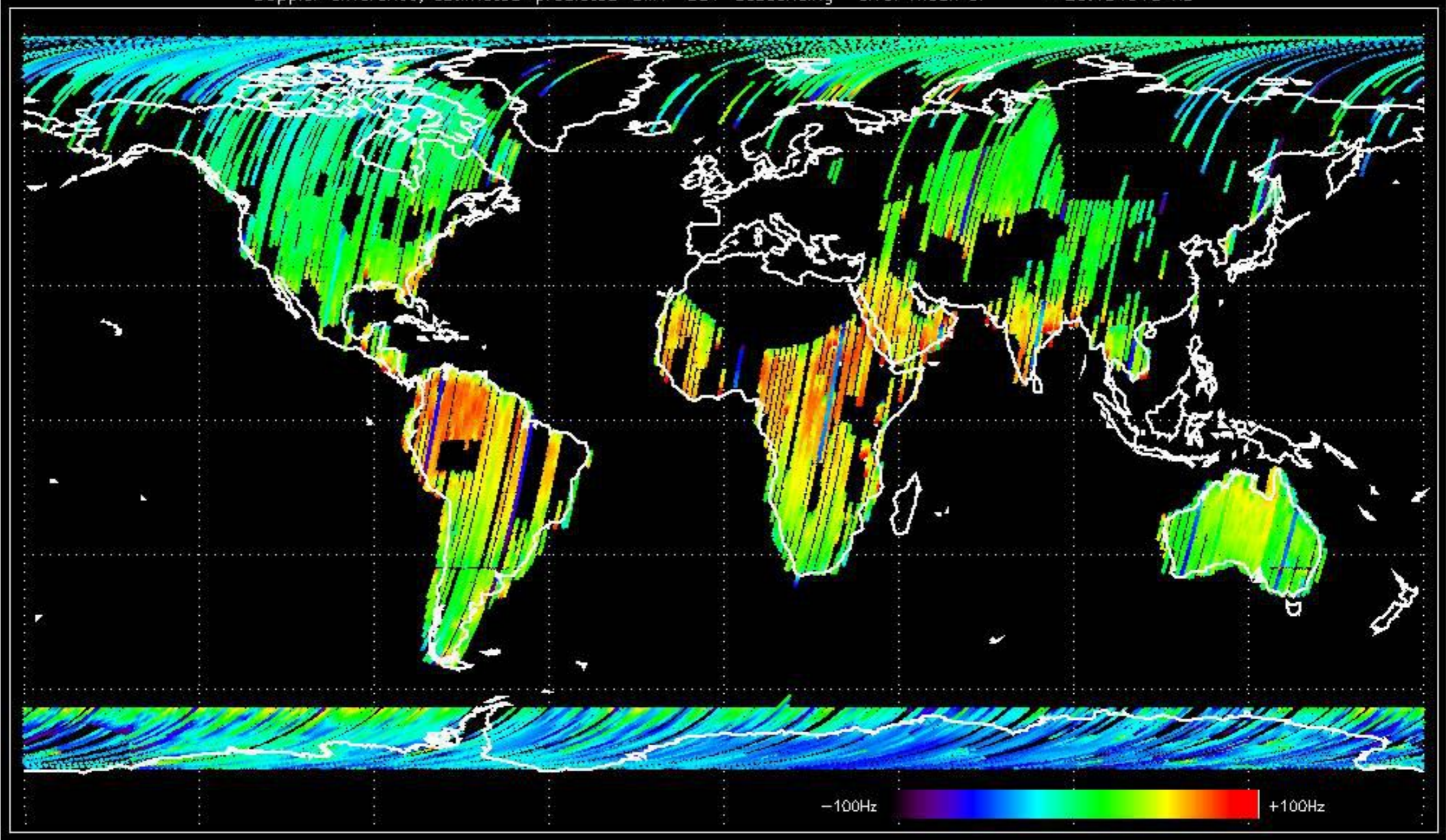




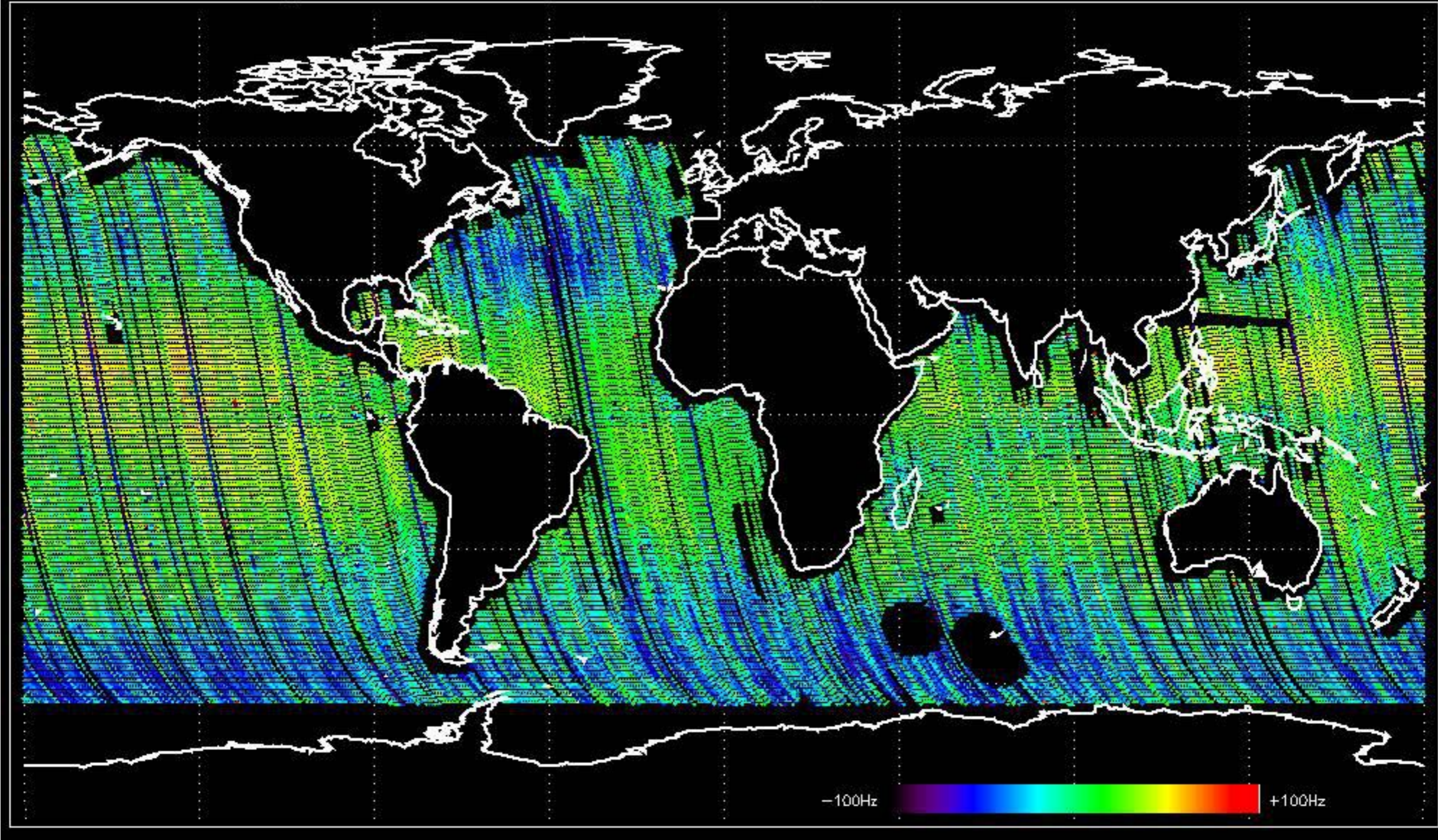
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -32.974204 Hz



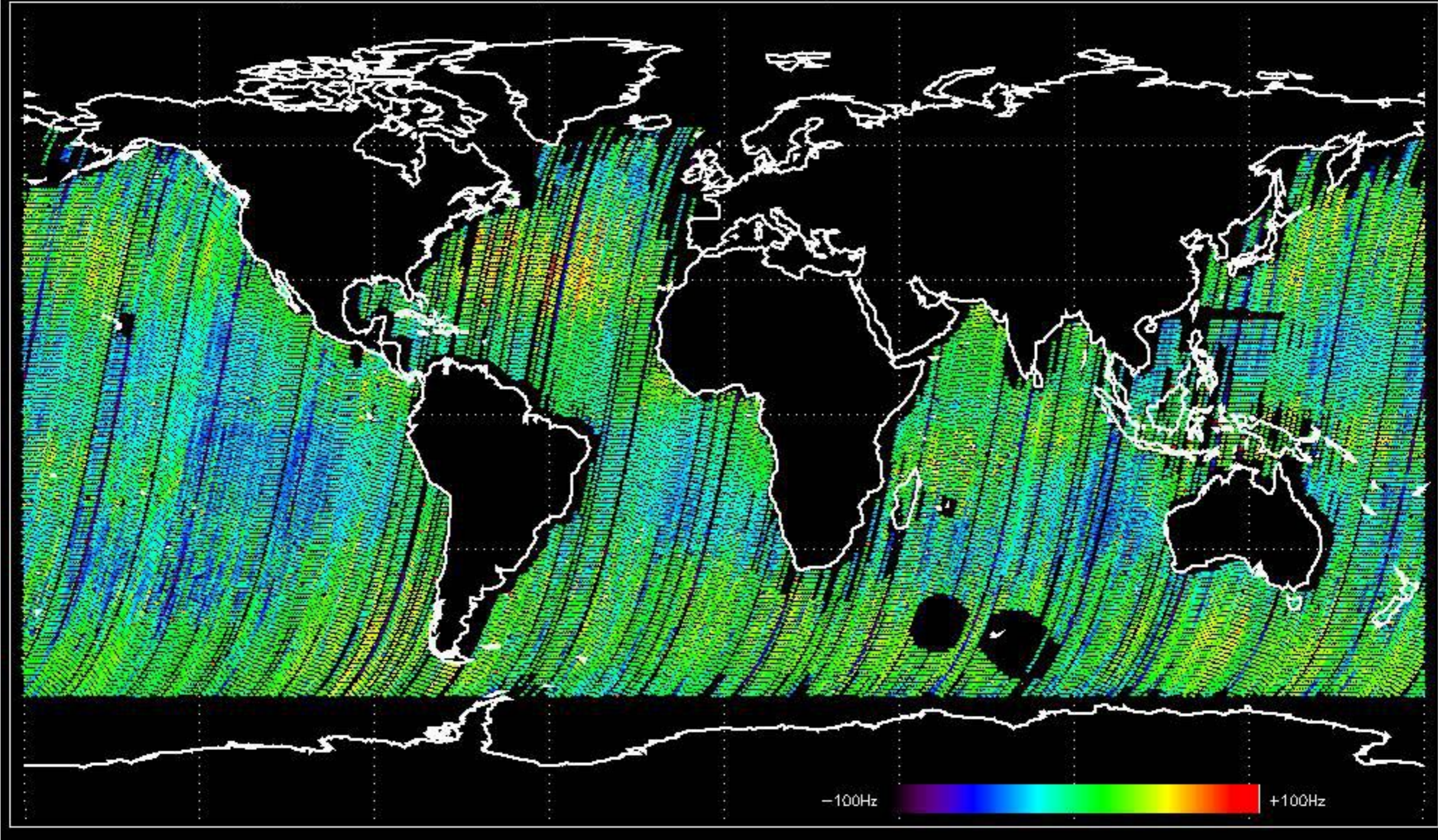
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -29.131918 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.362832 Hz

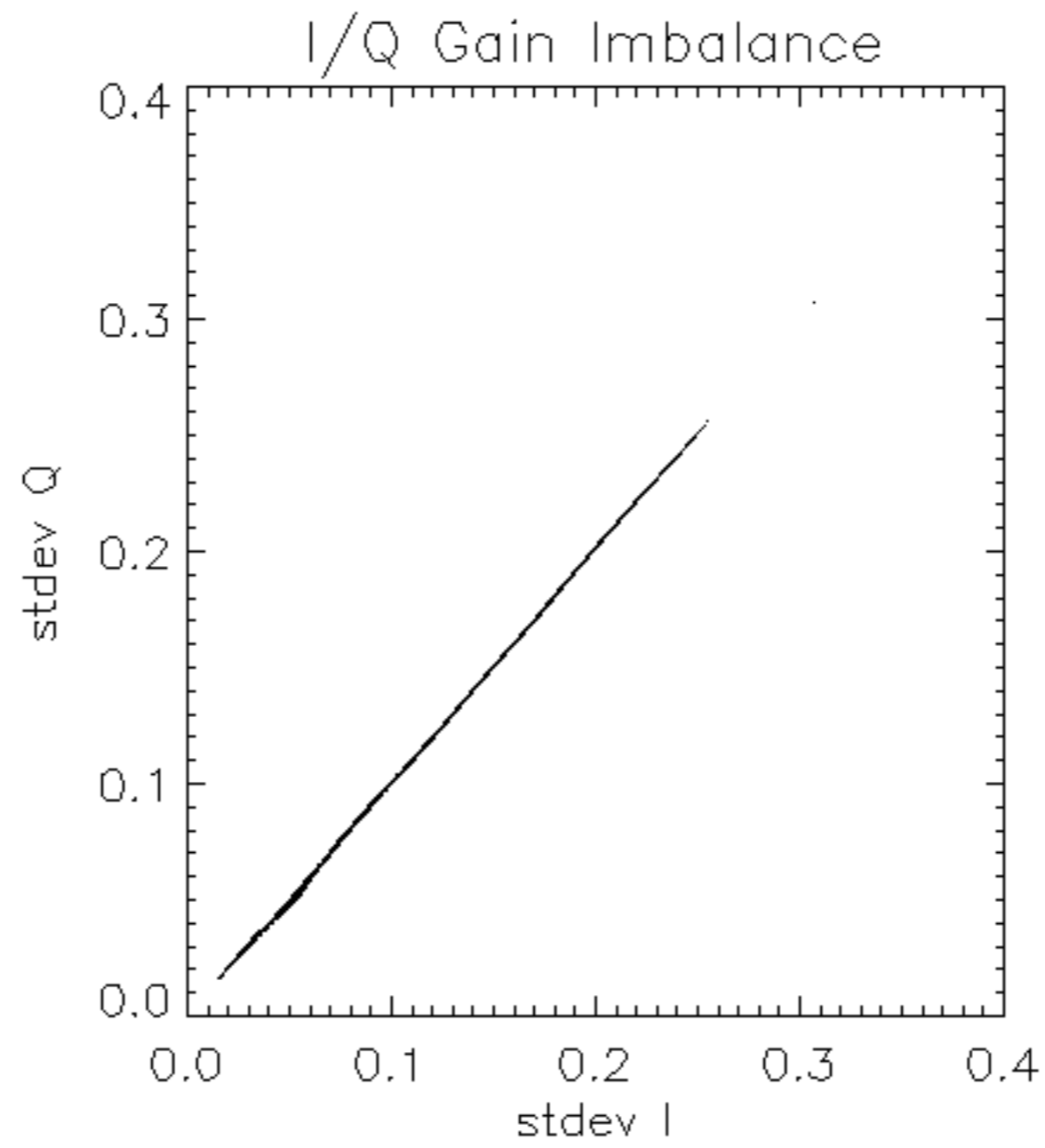


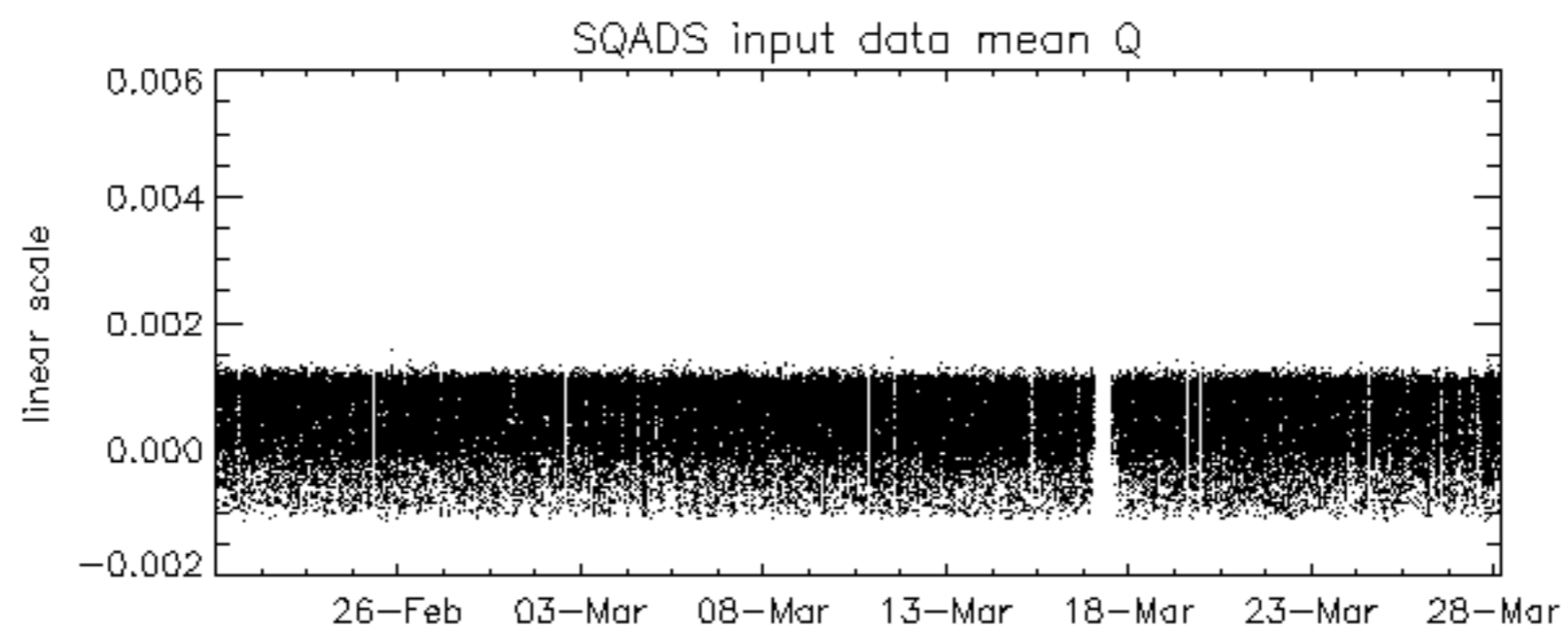
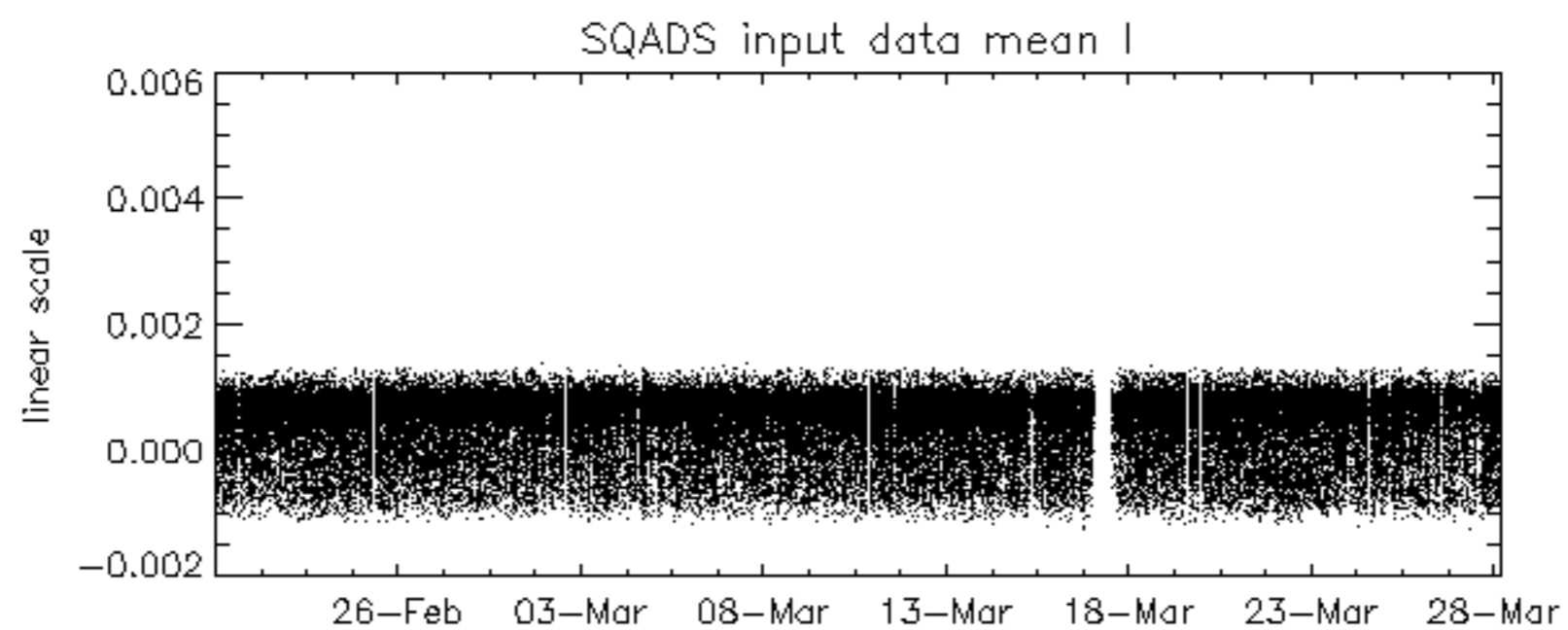
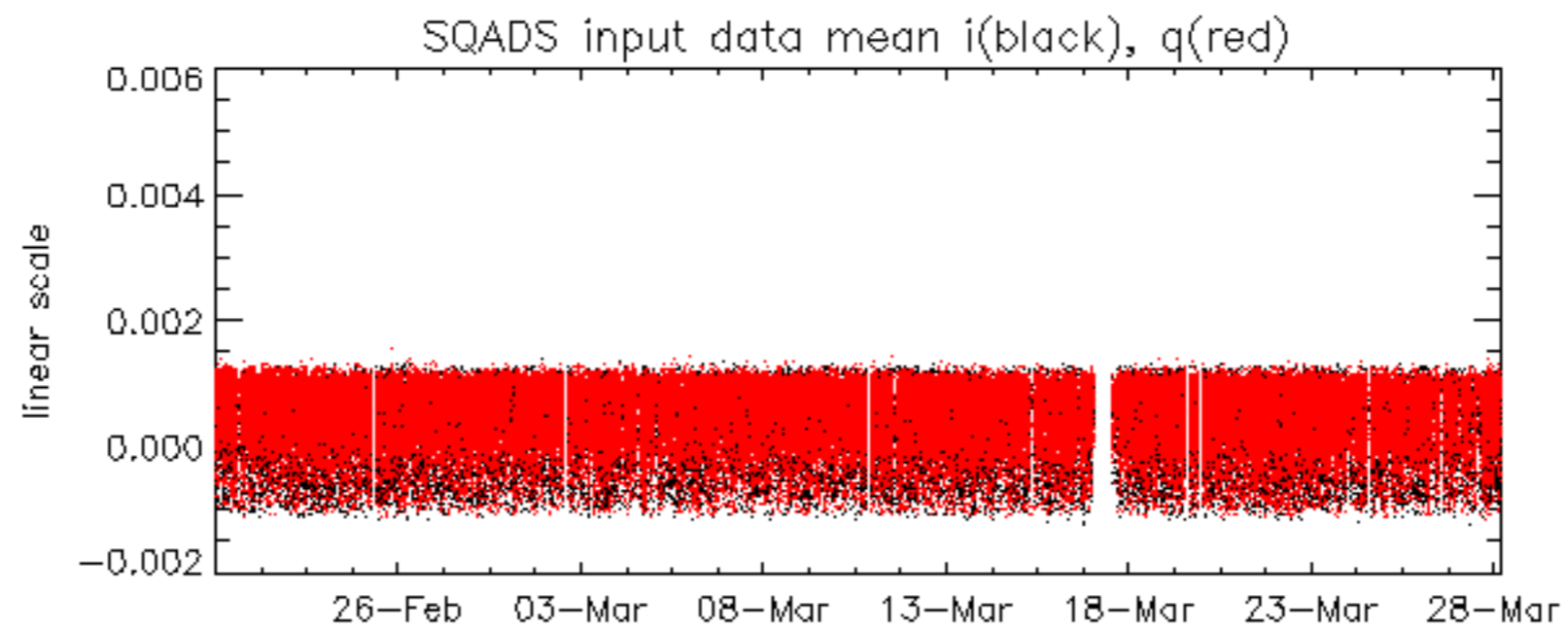
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.340347 Hz

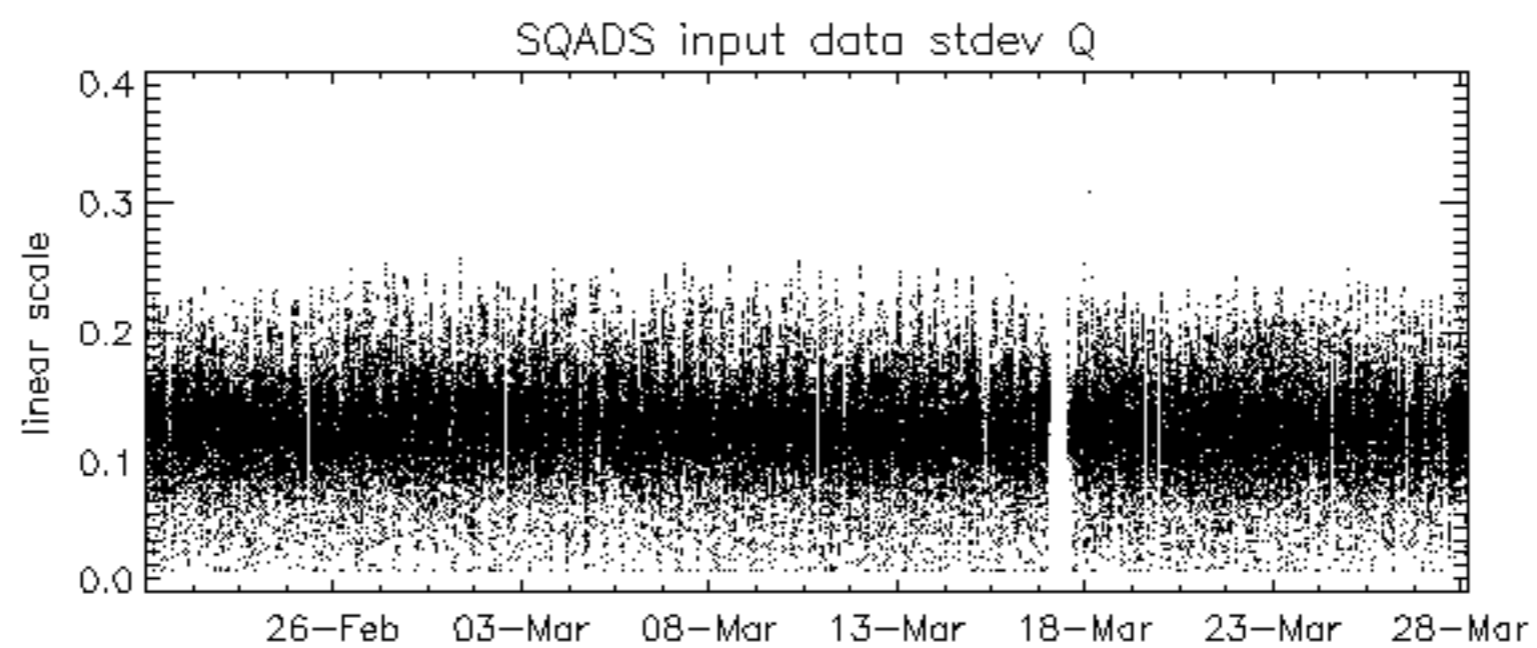
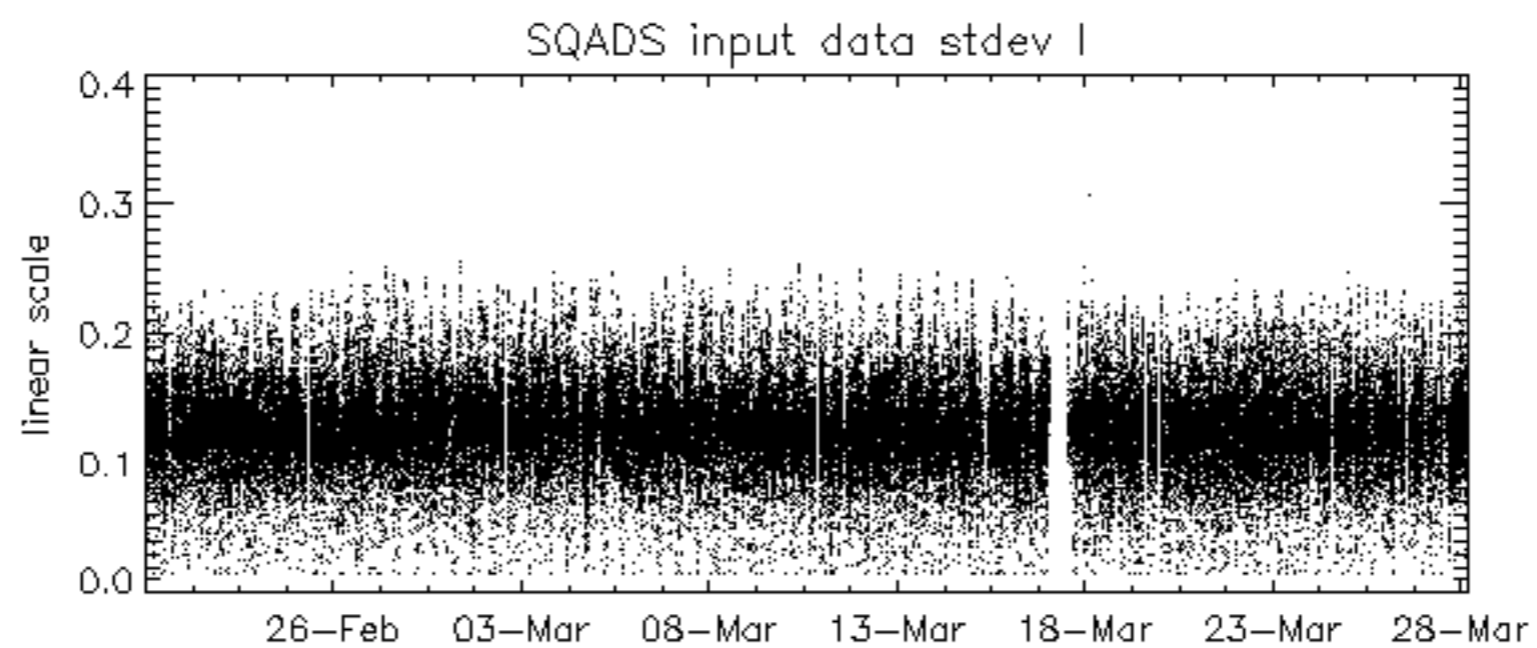
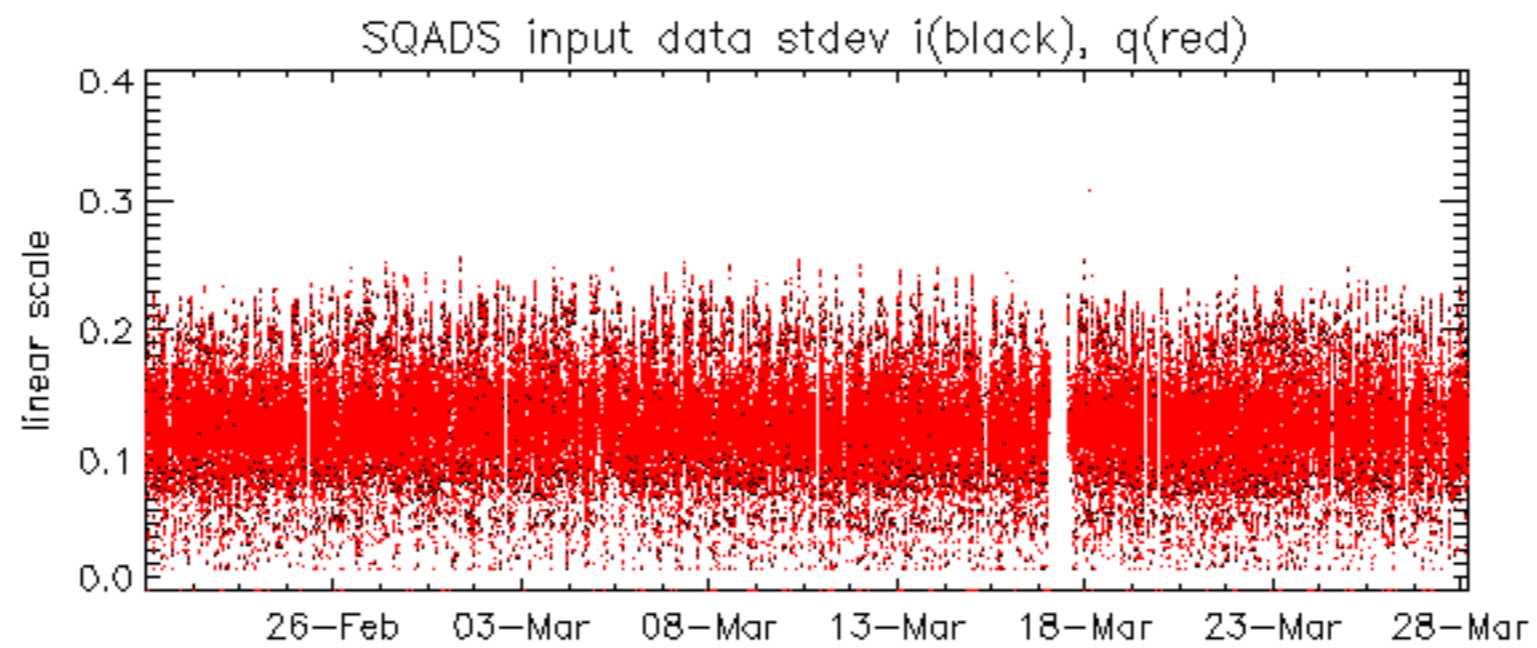


No anomalies observed on available MS products:

No anomalies observed.



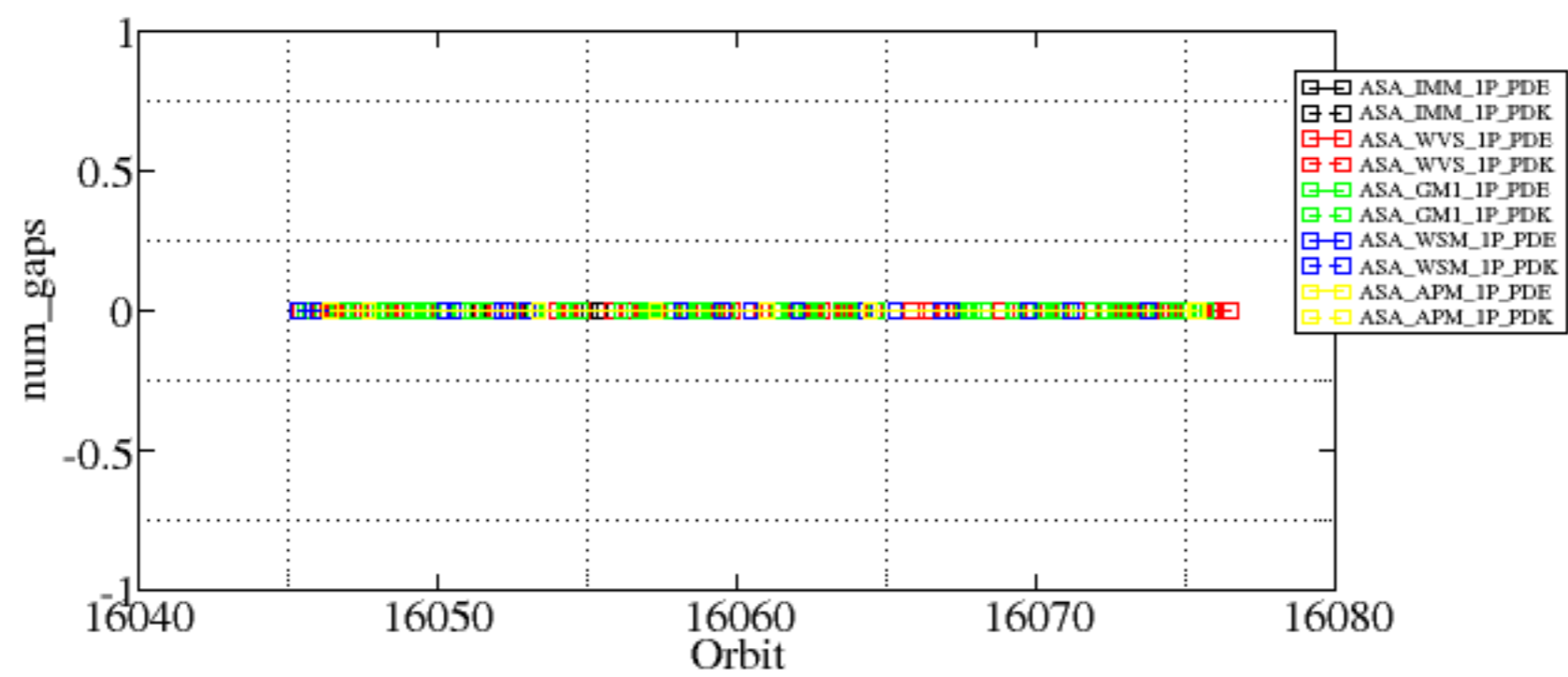


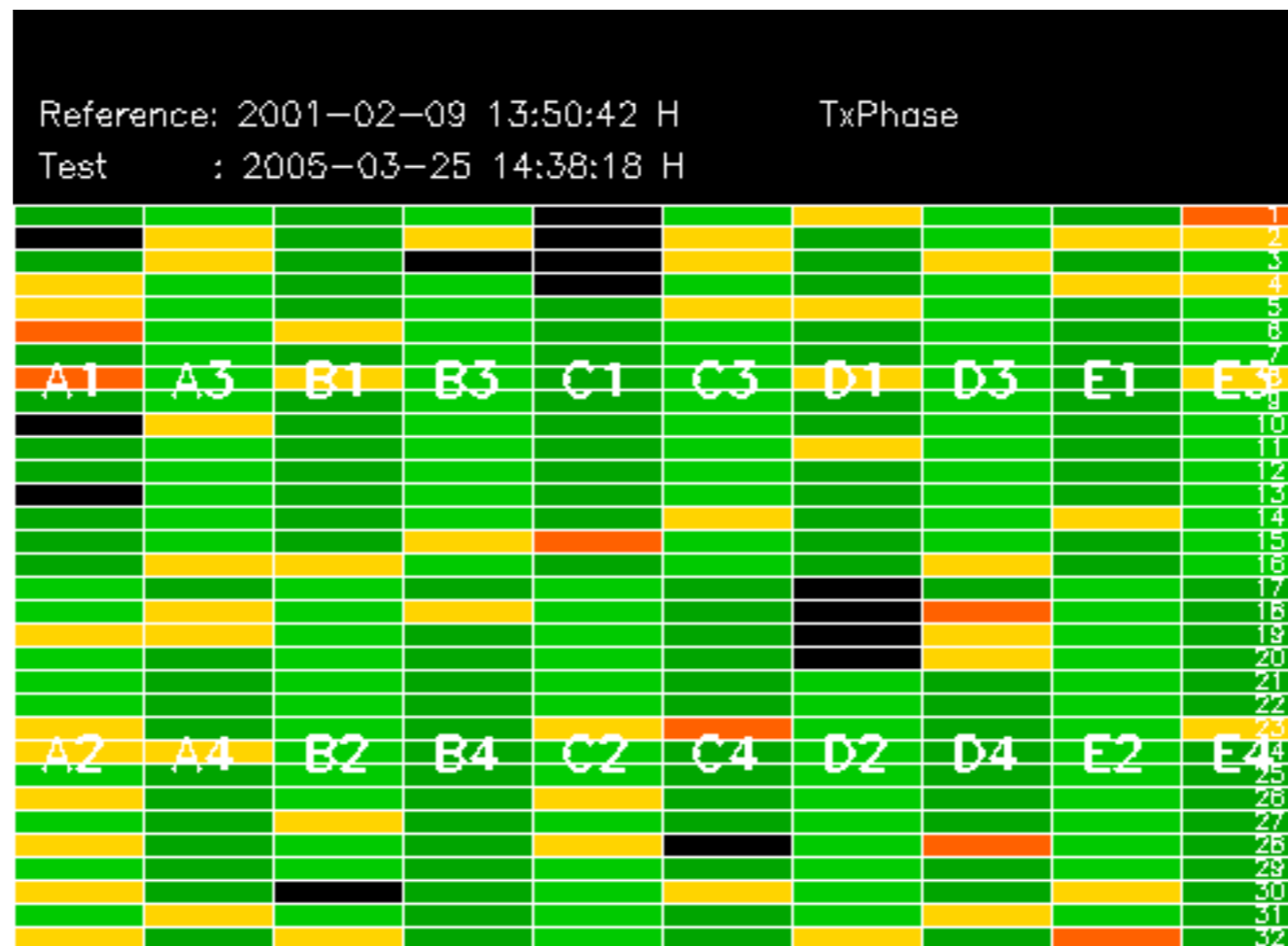


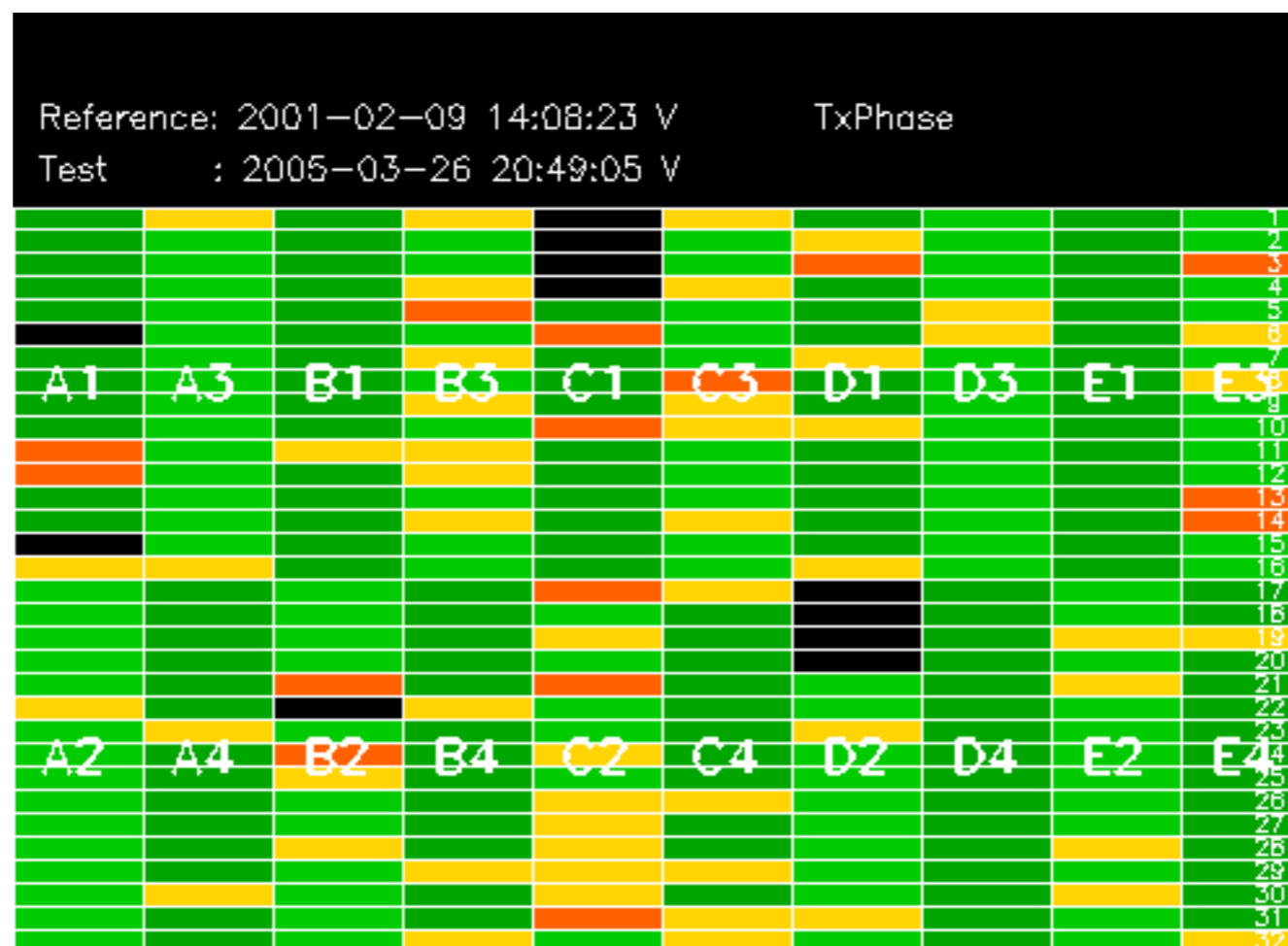
Summary of analysis for the last 3 days 2005032[678]

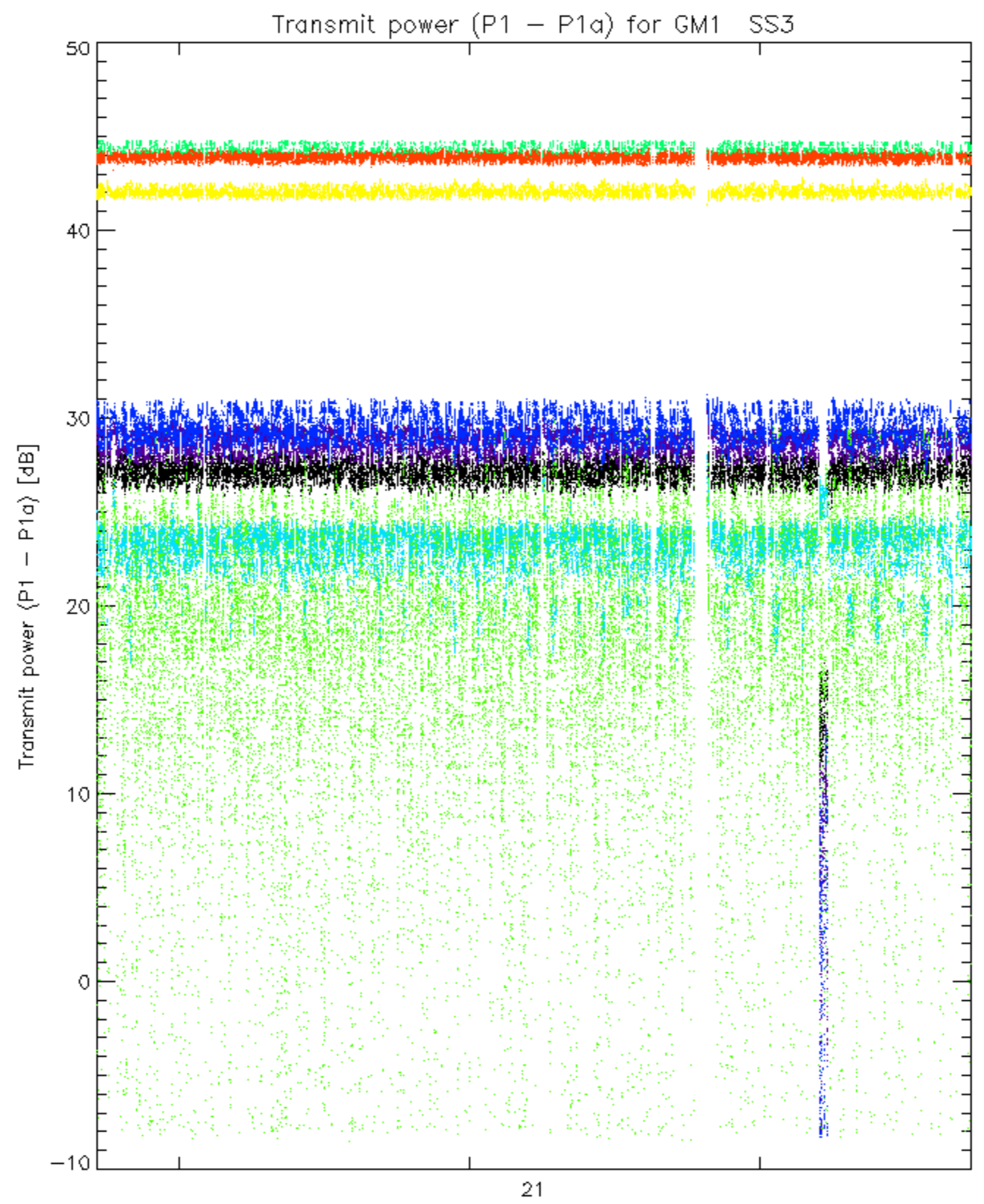
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050327_012931_000003672035_00475_16060_3322.N1	0	55

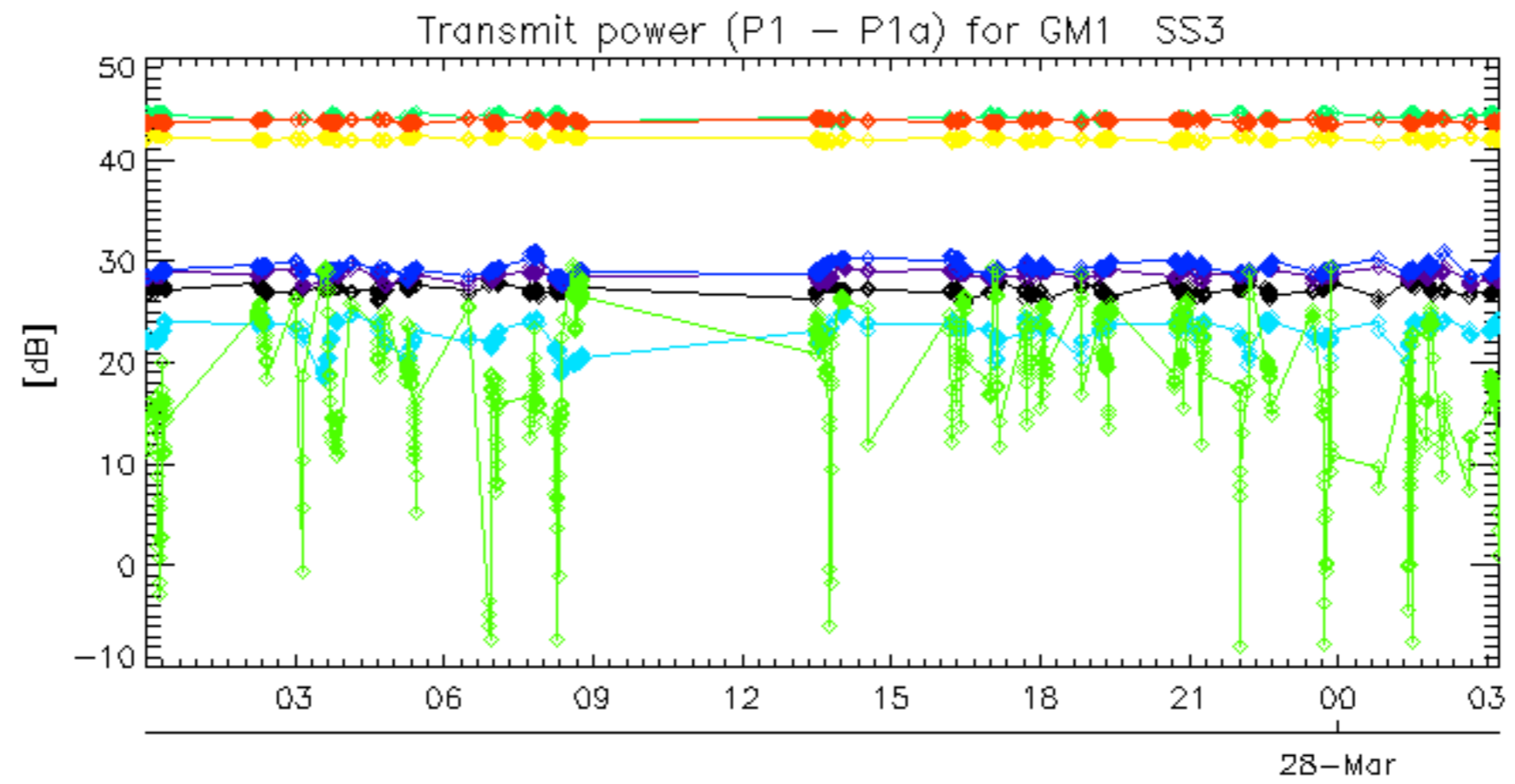




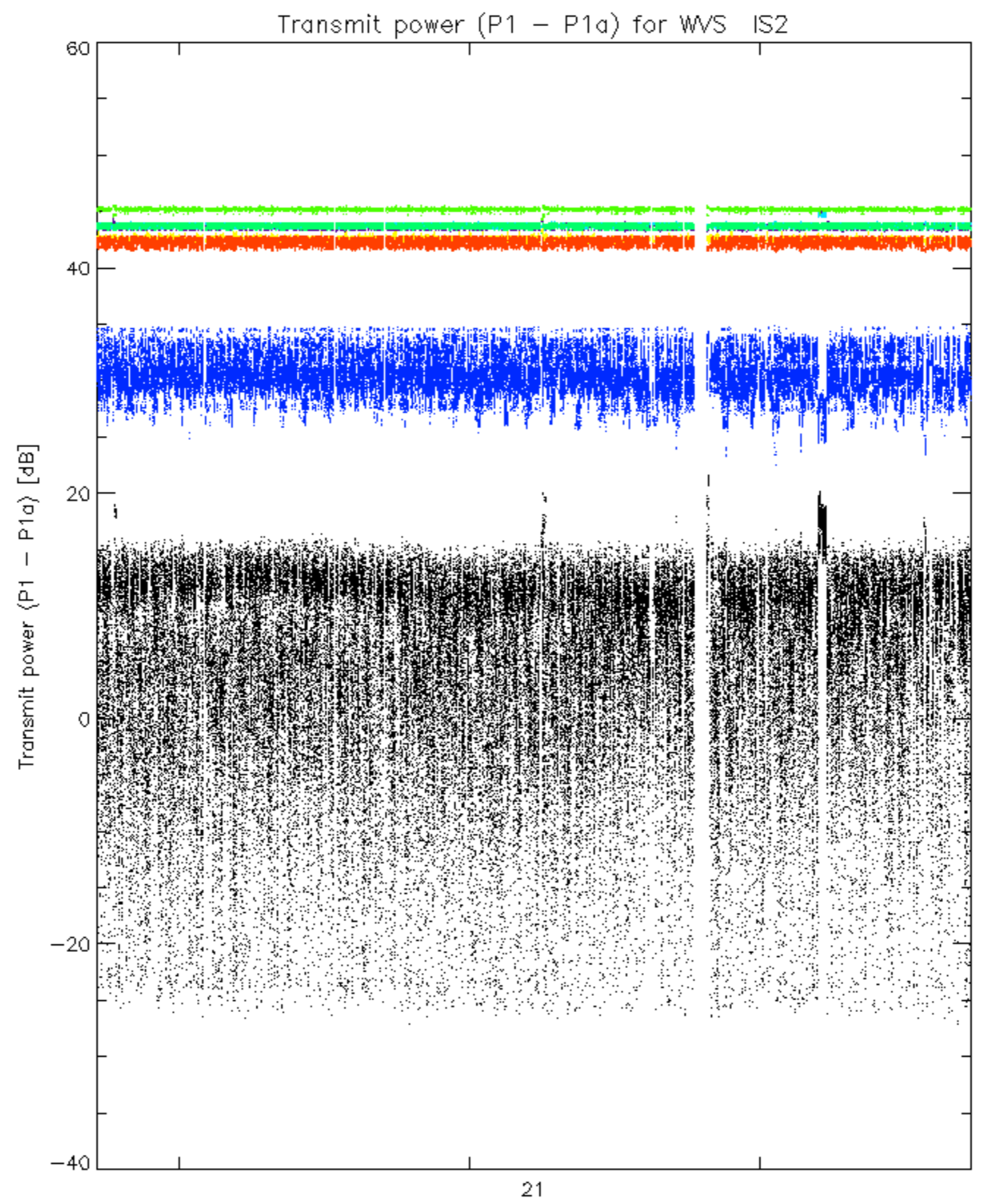




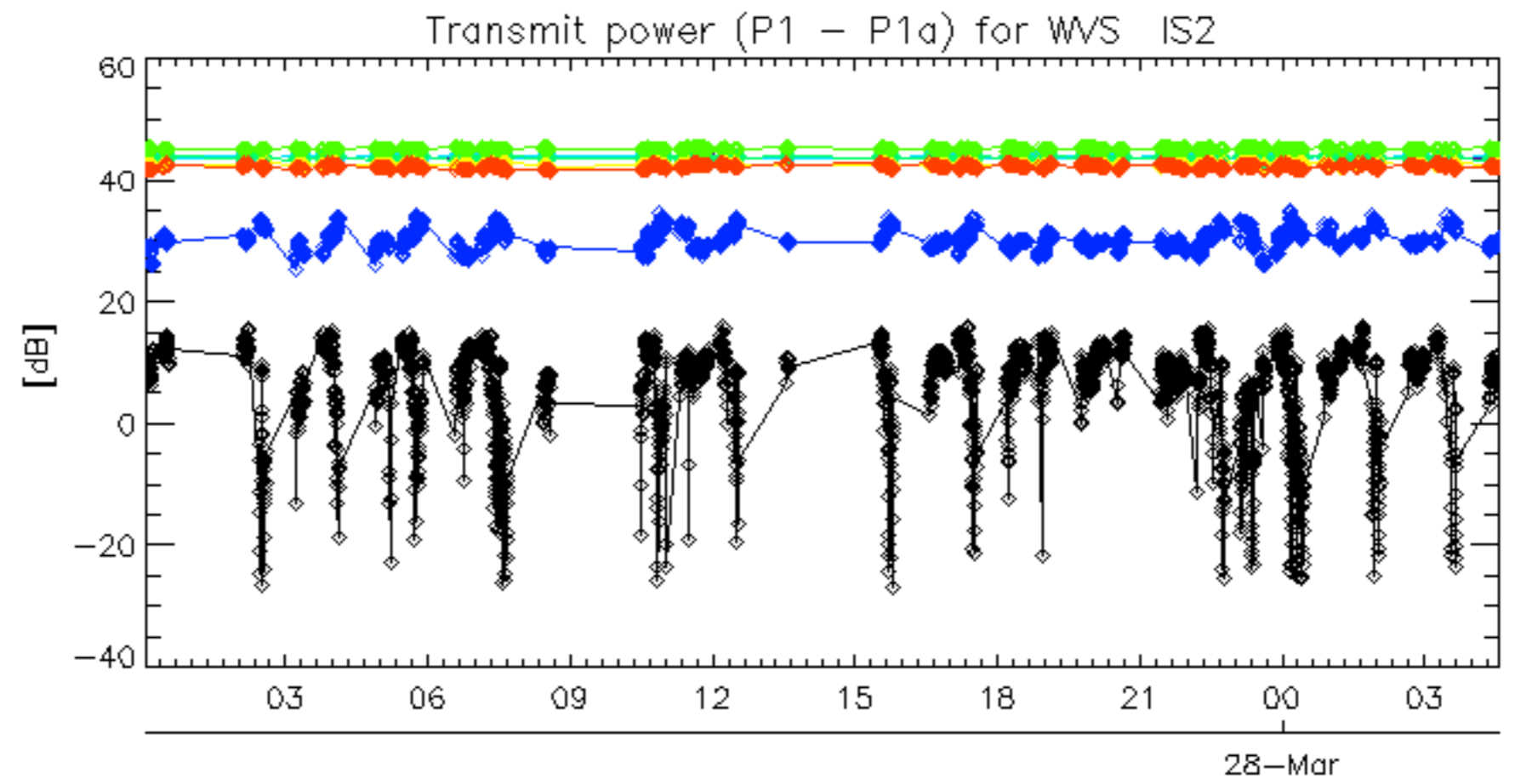
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.