

PRELIMINARY REPORT OF 050330

last update on Wed Mar 30 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 2005-03-29 00:00:00 to 2005-03-30 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	27	45	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	45	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	45	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	45	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	39	41	5	8	1
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	41	5	8	1
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	39	41	5	8	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	41	5	8	1

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	20050328 180515
H	20050329 173338

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

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	-3.351756	0.013580	0.046088
7	P1	-3.105045	0.008095	-0.033078
11	P1	-4.685516	0.030054	0.060294
15	P1	-5.644720	0.037548	0.071093
19	P1	-3.689767	0.003653	-0.020483
22	P1	-4.519289	0.011957	-0.020824
26	P1	-4.939174	0.017572	0.052290
30	P1	-7.197467	0.018355	0.000235
3	P1	-15.887535	0.328917	0.315031
7	P1	-15.531540	0.067111	-0.002158
11	P1	-20.979357	0.450436	-0.044845
15	P1	-11.579372	0.047279	0.010826
19	P1	-14.308591	0.023641	-0.026896
22	P1	-15.648546	0.305404	-0.142788
26	P1	-17.617683	0.199421	-0.078802
30	P1	-17.976532	0.443581	0.013240

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.077509	0.081378	0.050462
7	P2	-22.261316	0.093789	0.062299
11	P2	-14.359662	0.108397	0.244563
15	P2	-7.042959	0.089997	-0.018162
19	P2	-9.632531	0.092854	-0.005173
22	P2	-16.908161	0.092446	0.042197
26	P2	-16.444477	0.091692	0.005608
30	P2	-18.847401	0.082906	0.067183

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.166533	0.004741	0.004676
7	P3	-8.166533	0.004741	0.004676
11	P3	-8.166533	0.004741	0.004676
15	P3	-8.166533	0.004741	0.004676
19	P3	-8.166533	0.004741	0.004676
22	P3	-8.166533	0.004741	0.004676
26	P3	-8.166533	0.004741	0.004676
30	P3	-8.166533	0.004741	0.004676

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	-2.712922	0.026305	0.046873
7	P1	-3.021777	0.048822	0.055029
11	P1	-3.983751	0.026919	0.048052
15	P1	-3.556522	0.034863	0.090992
19	P1	-3.599827	0.013387	-0.025689
22	P1	-5.742245	0.035333	0.056516
26	P1	-7.294497	0.025547	-0.001578
30	P1	-6.236489	0.049093	-0.034458
3	P1	-10.707830	0.177014	0.150251
7	P1	-10.333336	0.176578	0.047950
11	P1	-12.532219	0.136575	0.108129
15	P1	-11.739473	0.103852	0.164713
19	P1	-15.570170	0.045242	-0.024291
22	P1	-24.568869	1.189377	-0.443139

26	P1	-15.490731	0.173410	-0.111321
30	P1	-20.200634	1.188055	-0.022244

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.784044	0.033976	0.063996
7	P2	-22.348434	0.039005	0.075176
11	P2	-10.148149	0.051513	0.146491
15	P2	-4.986180	0.023649	-0.041396
19	P2	-6.833941	0.035383	-0.025710
22	P2	-7.089782	0.031805	0.032794
26	P2	-23.849960	0.029984	-0.002570
30	P2	-21.894491	0.034826	0.010254

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.999408	0.002825	0.004933
7	P3	-7.999512	0.002824	0.004581
11	P3	-7.999384	0.002840	0.004494
15	P3	-7.999487	0.002836	0.004832
19	P3	-7.999439	0.002845	0.004956
22	P3	-7.999448	0.002823	0.004449
26	P3	-7.999393	0.002833	0.004692
30	P3	-7.999324	0.002839	0.004851

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	0.000447039
	stdev	2.31608e-07
MEAN Q	mean	0.000469144
	stdev	2.38282e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127525
	stdev	0.00105530
STDEV Q	mean	0.127776
	stdev	0.00106648



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005032[890]

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_WVS_1PNPDE20050328_214810_000000002035_00501_16086_7806.N1	1	0







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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)


Acsending

<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

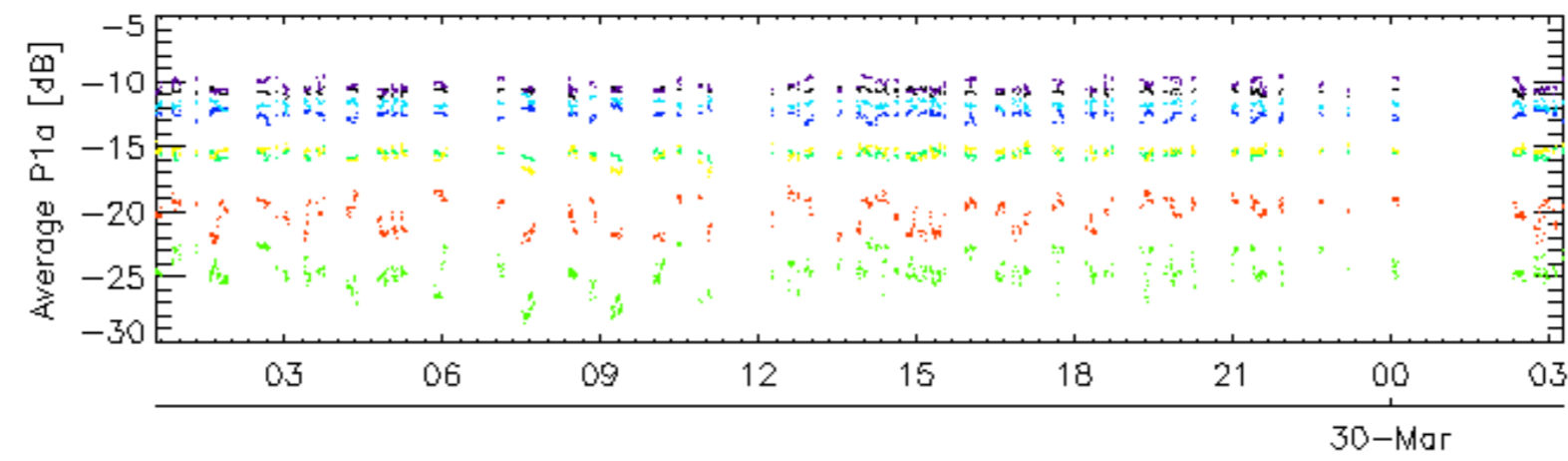
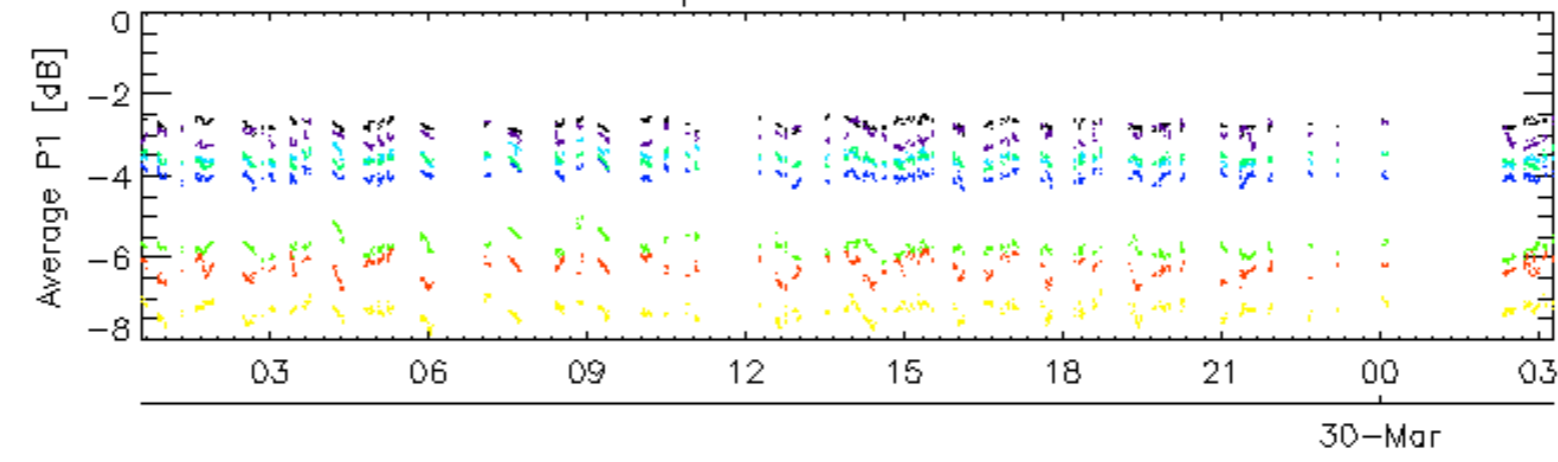
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

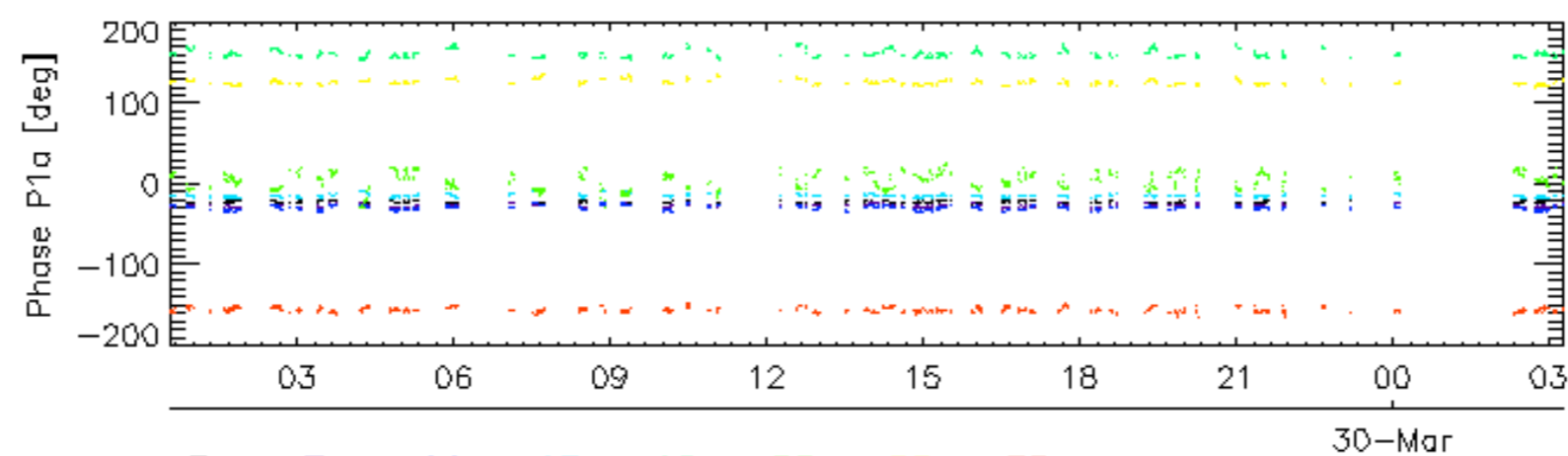
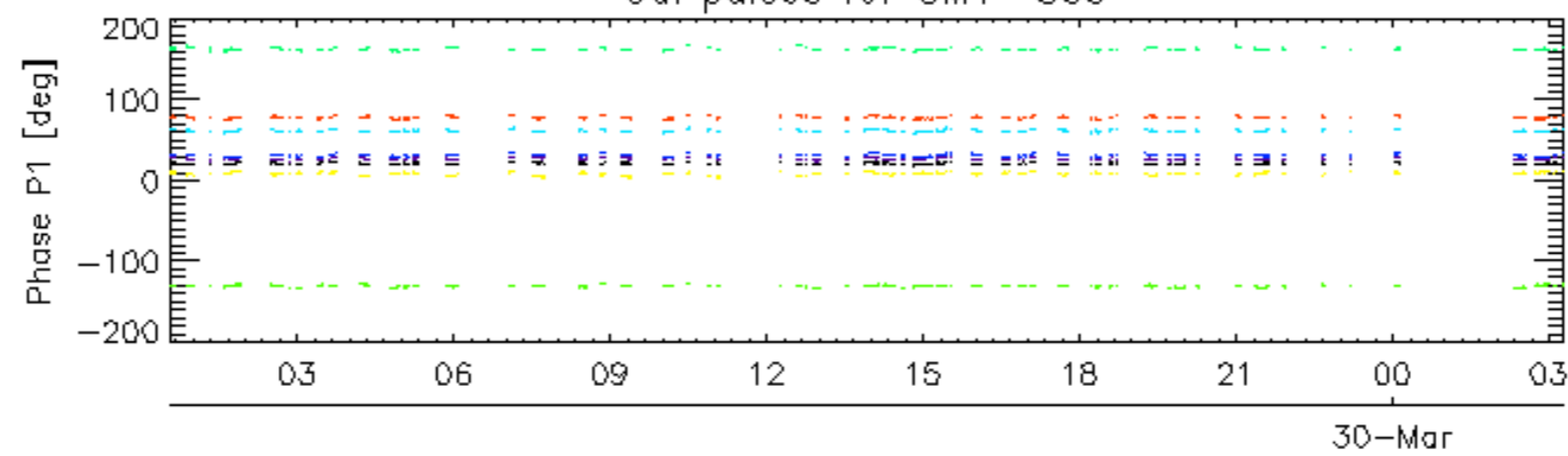
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

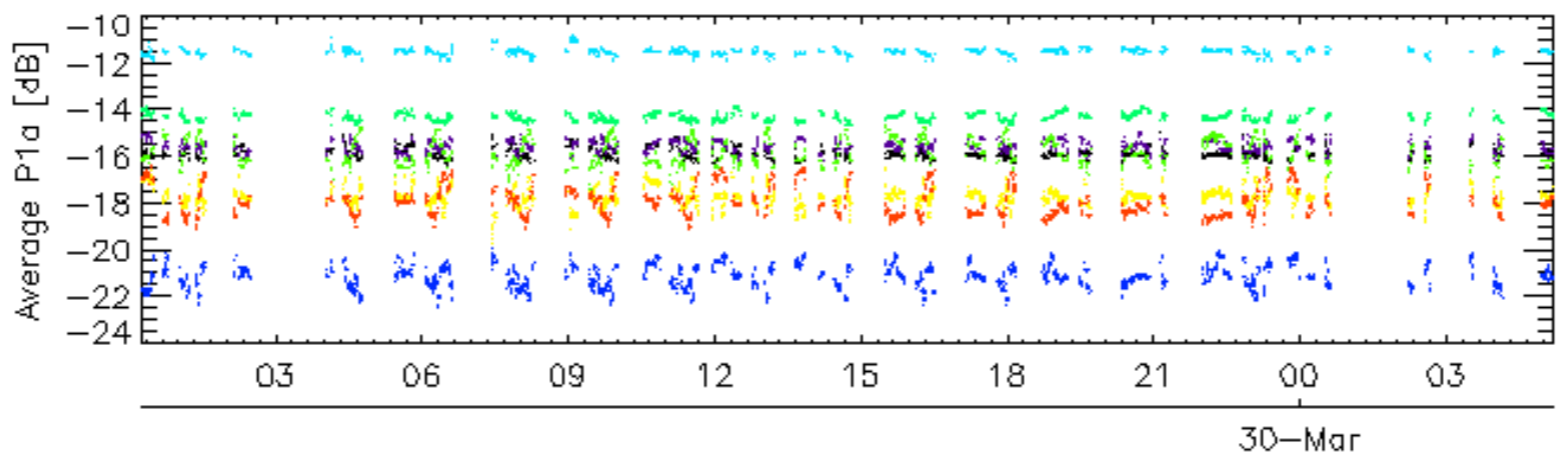
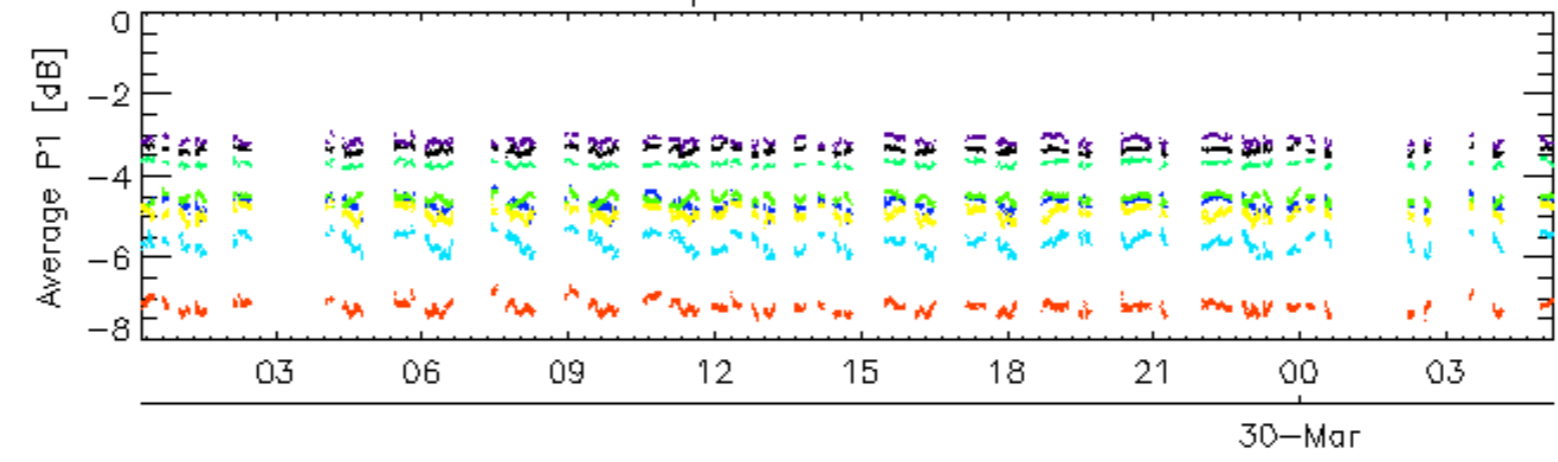


Cal pulses for GM1 SS3

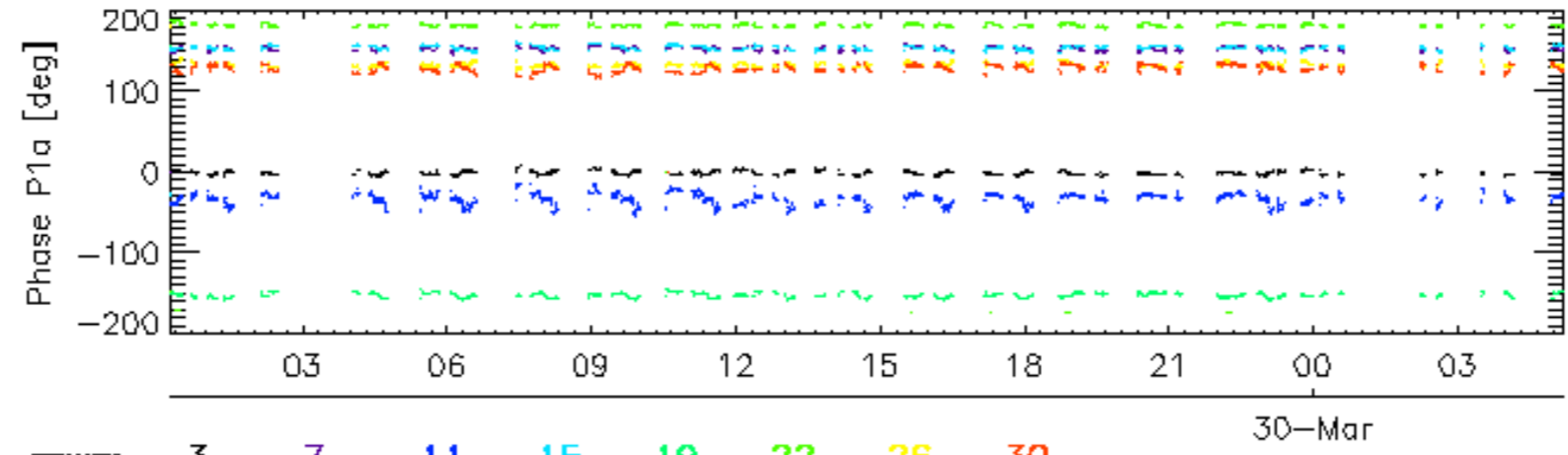
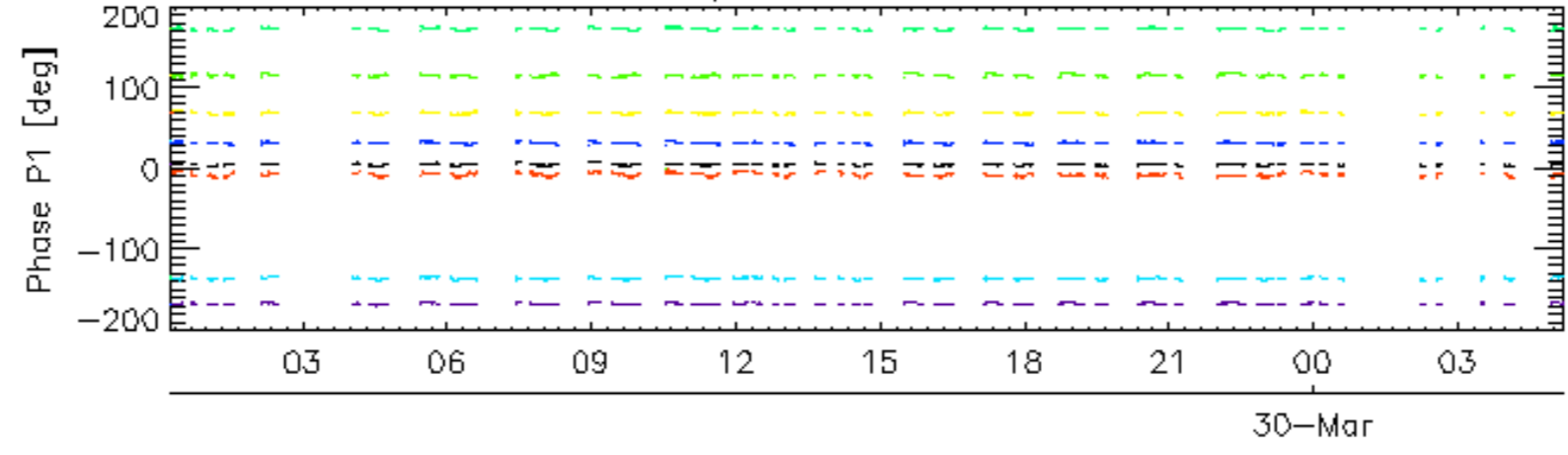


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

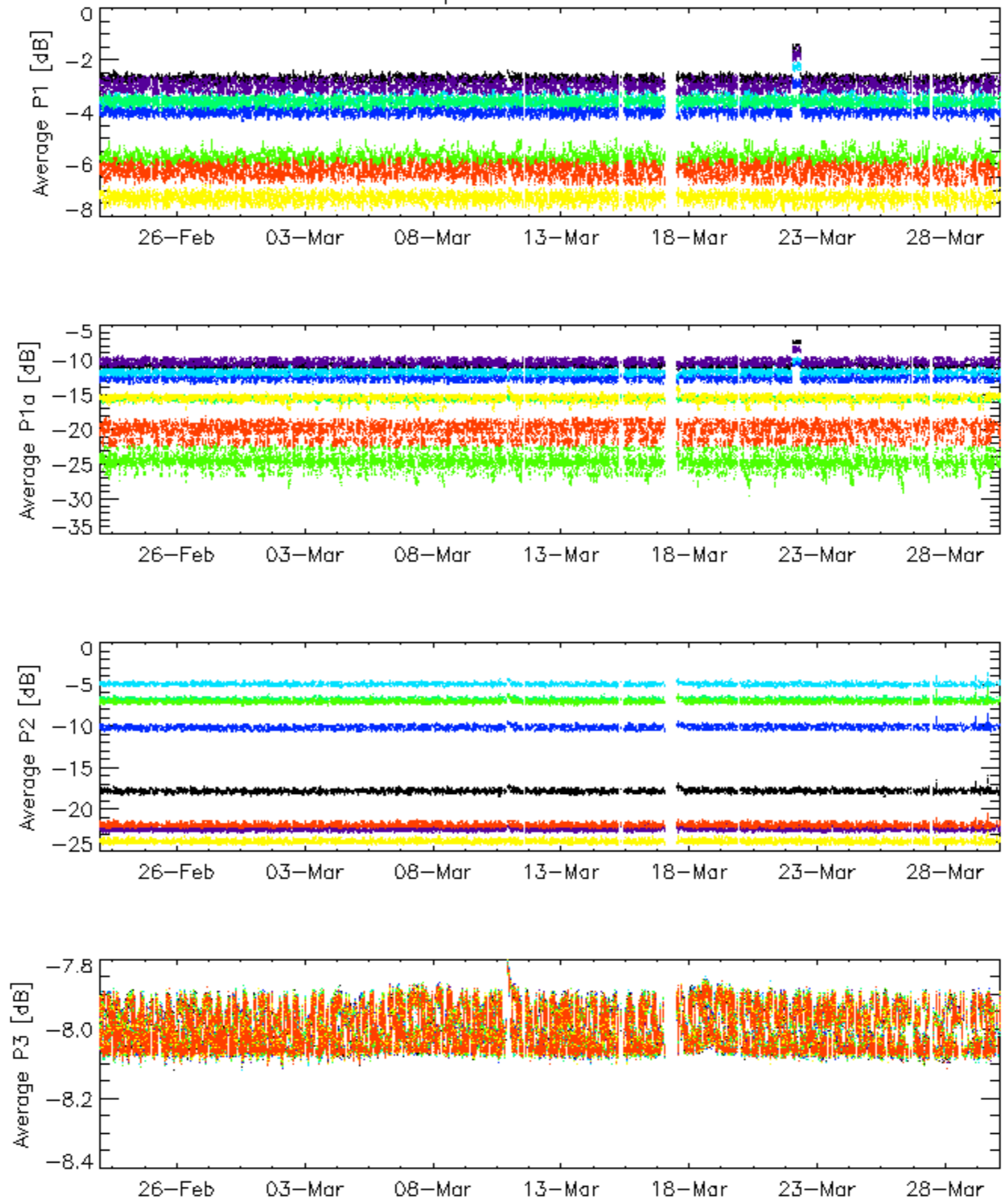


Cal pulses for WVS IS2



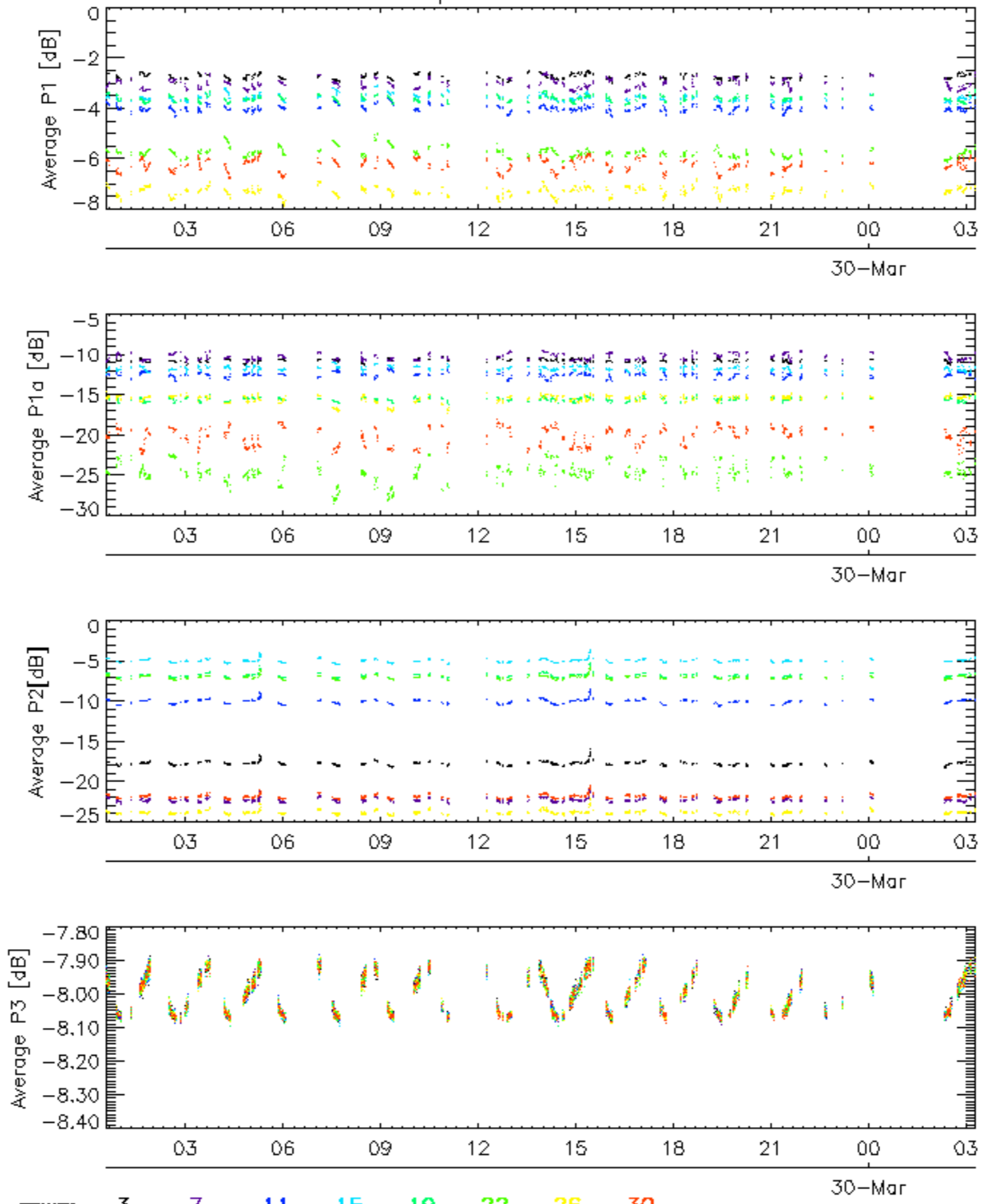
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

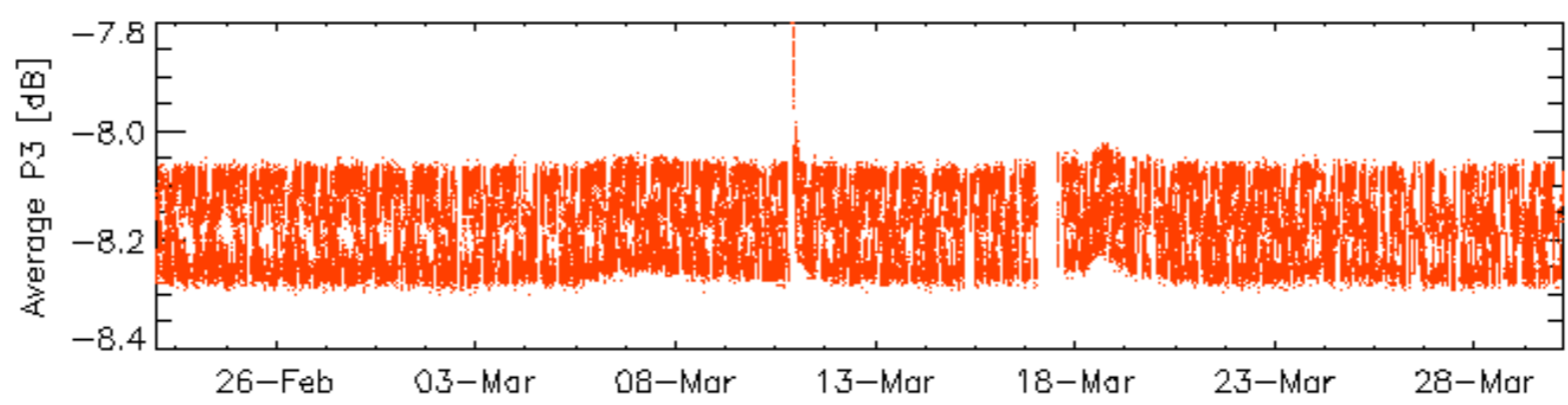
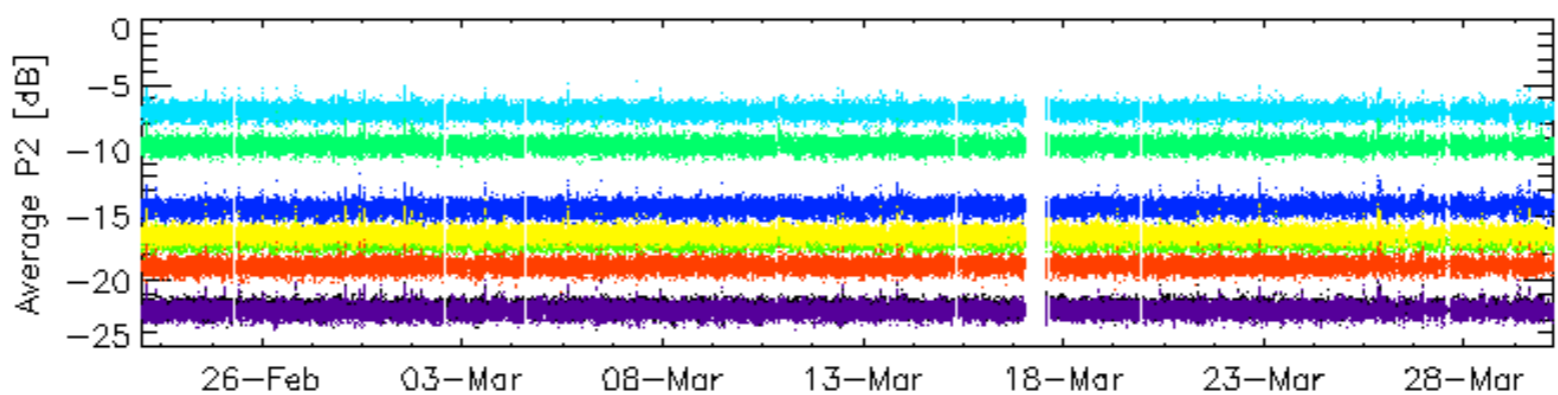
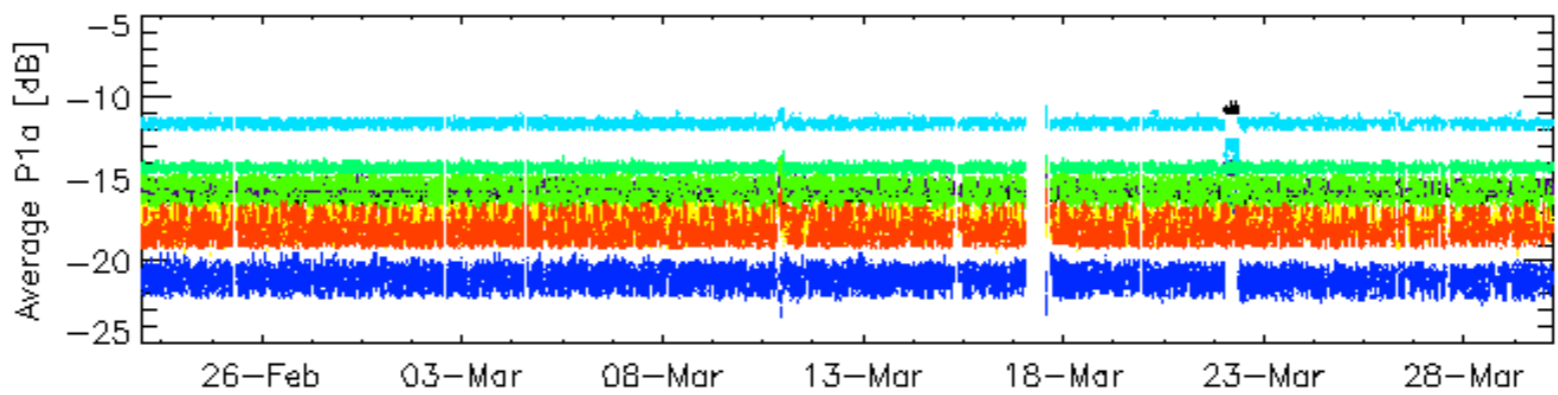
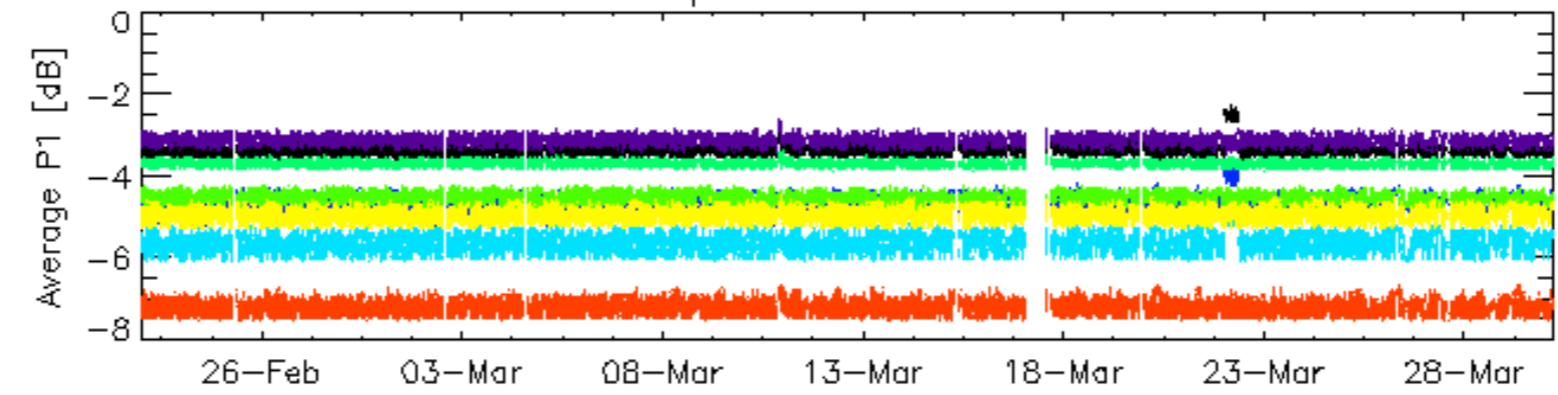


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

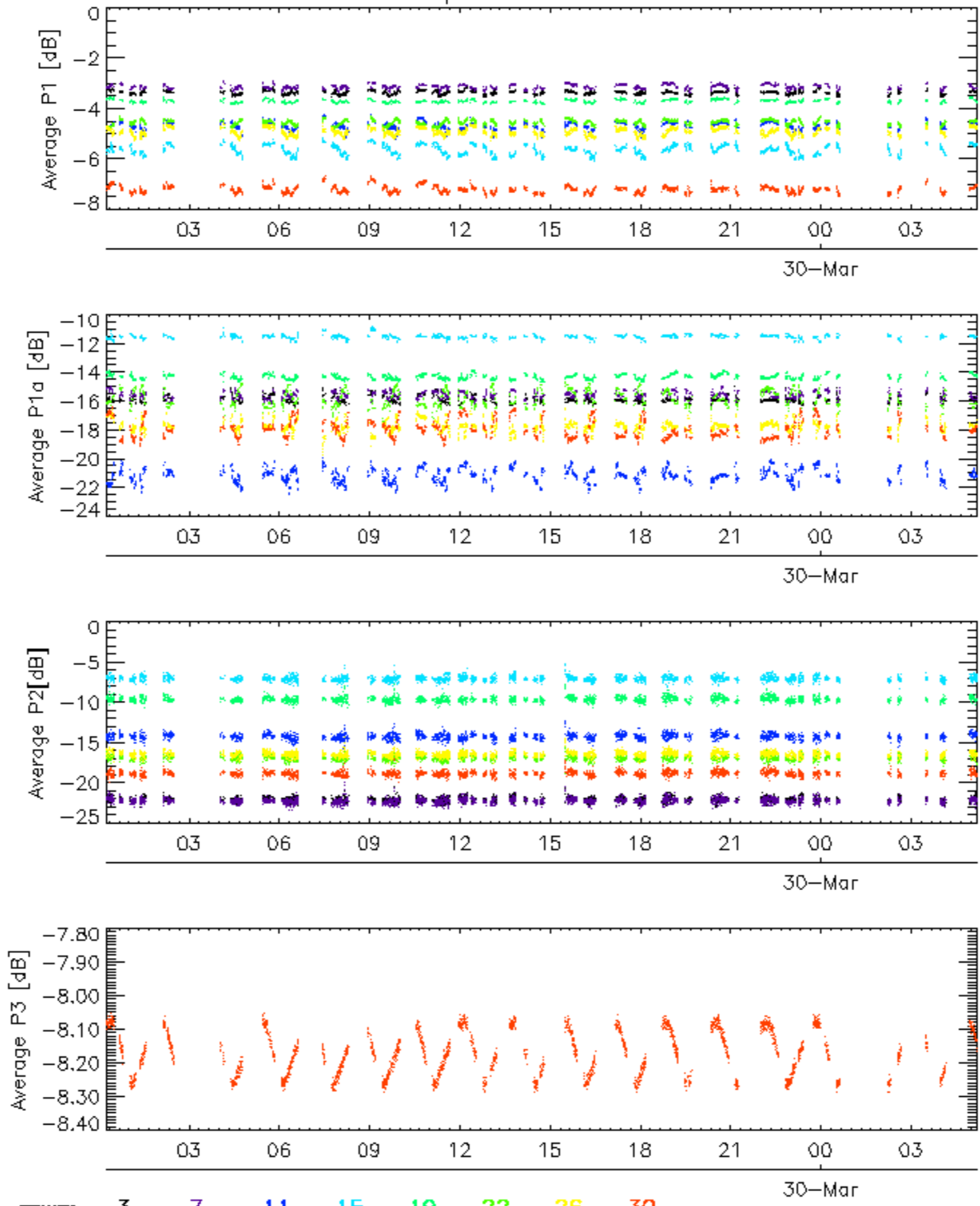


Cal pulses for WVS IS2



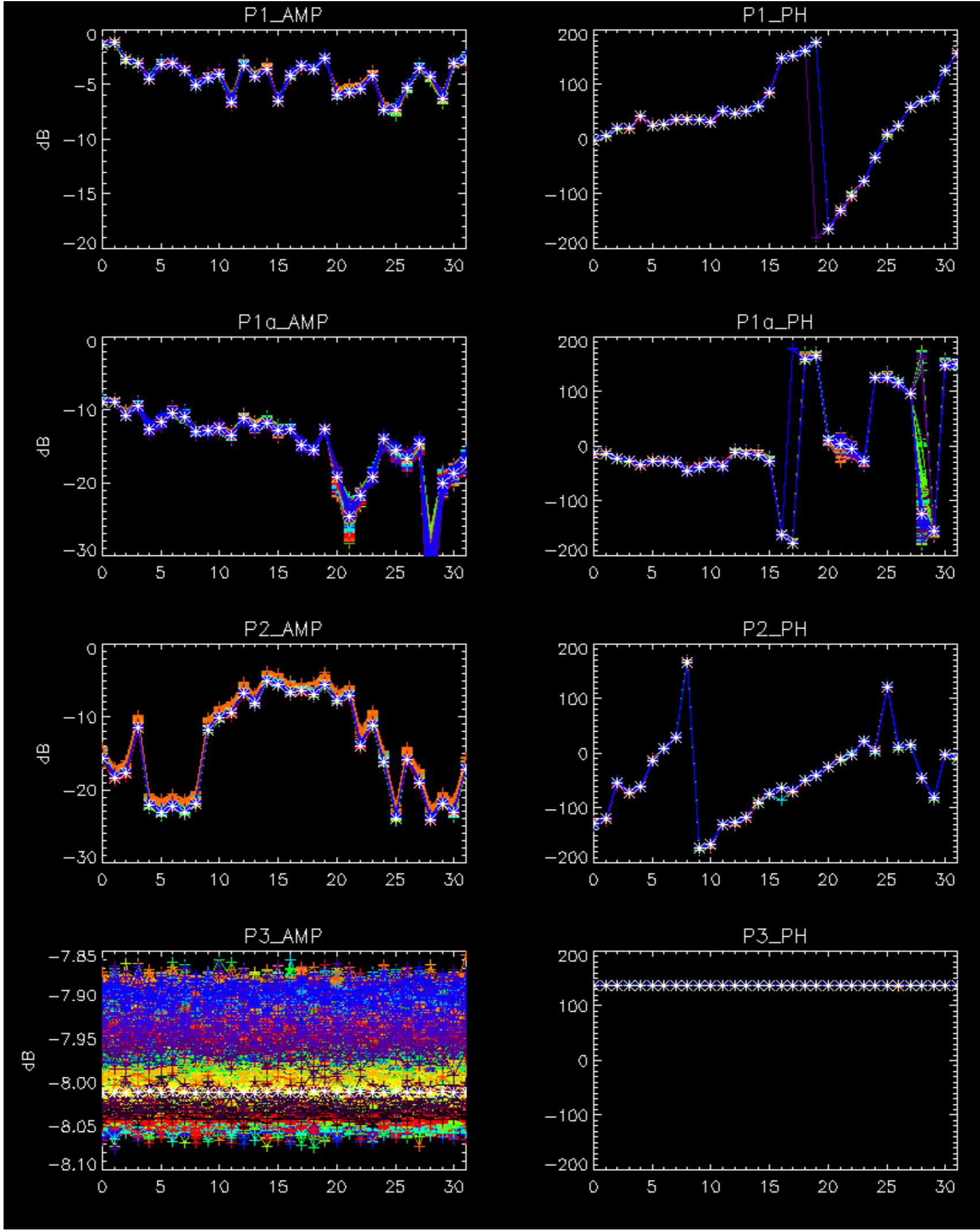
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

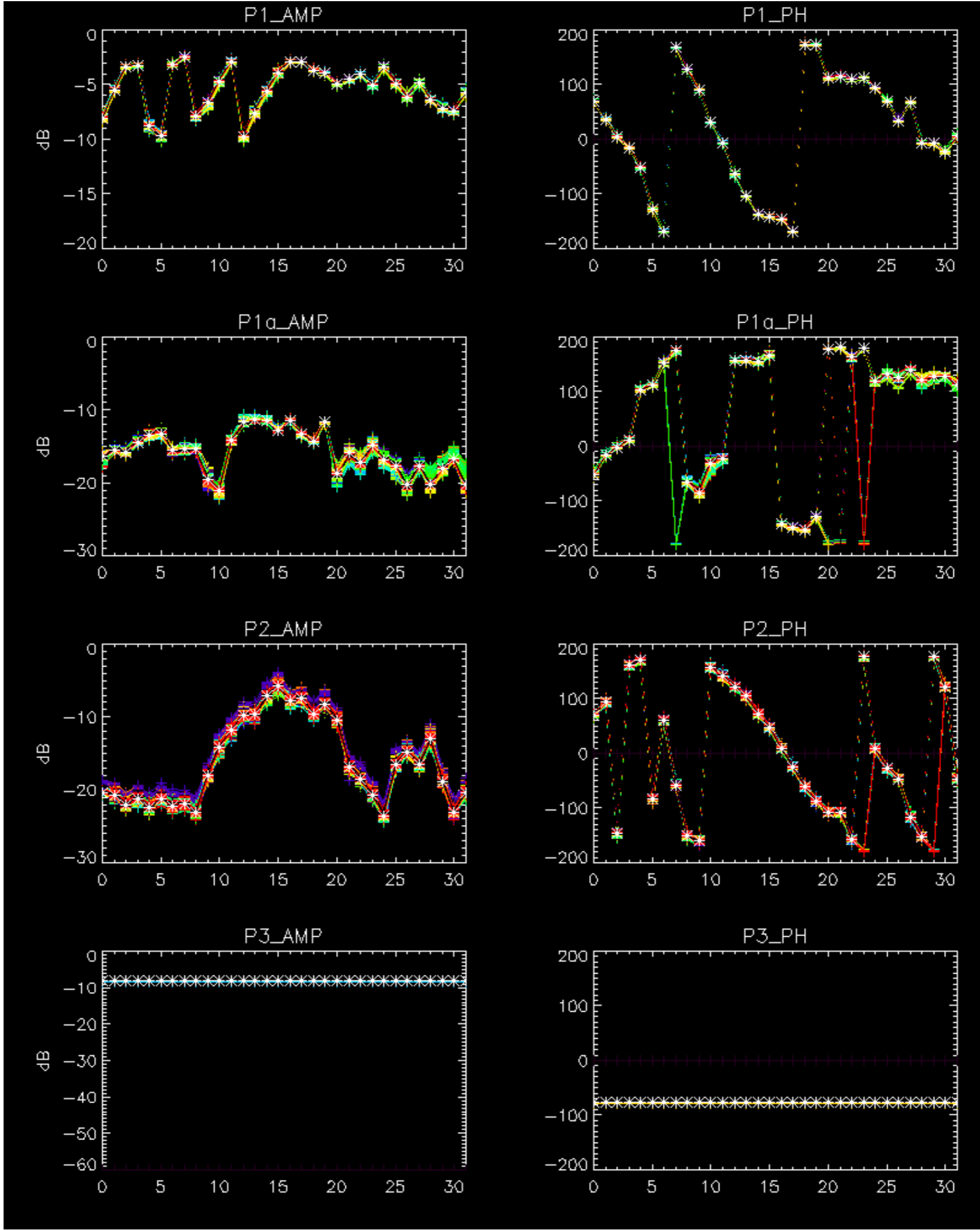
Cal pulses for WVS IS2



No anomalies observed on available browse products

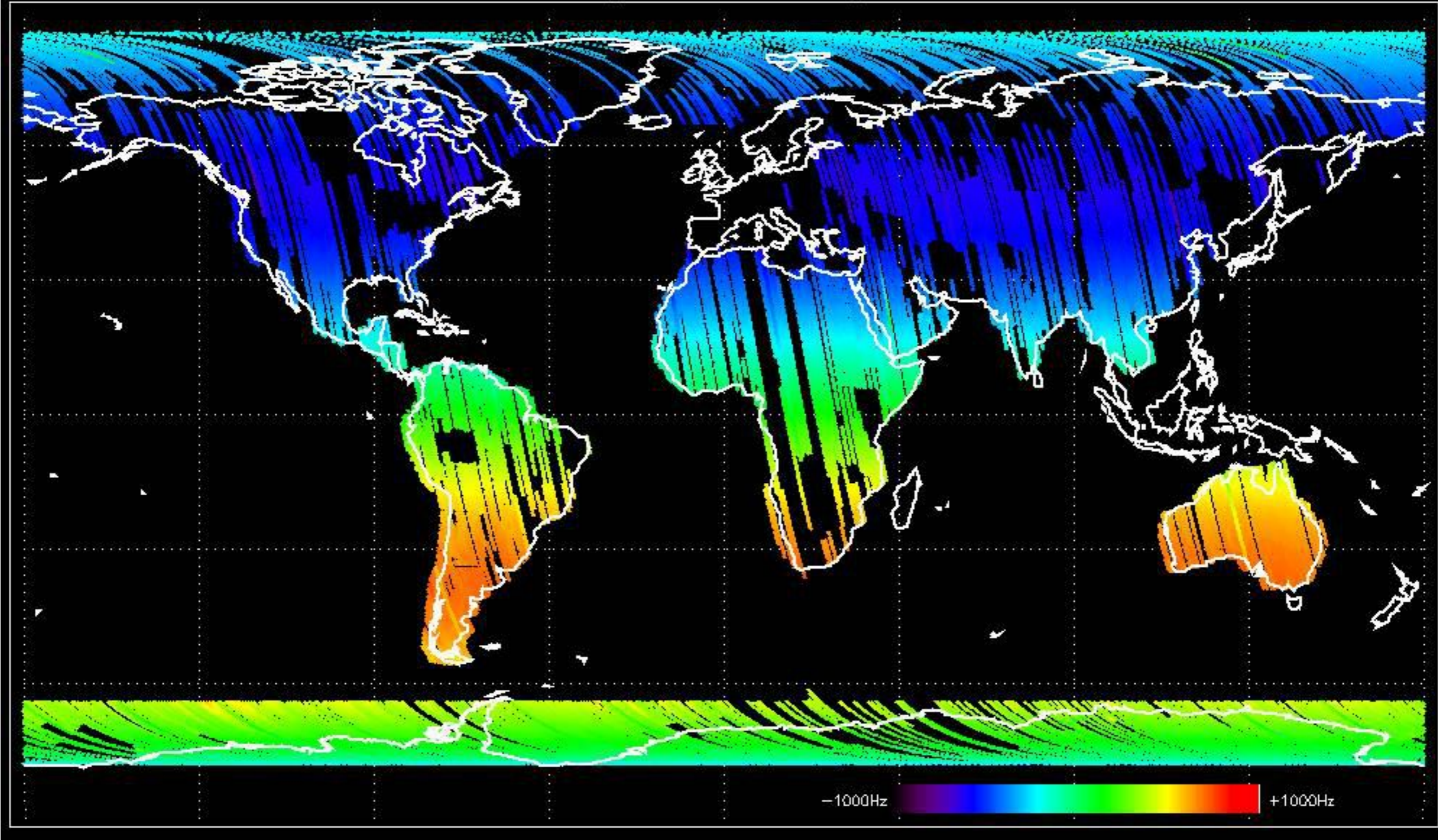
No anomalies observed.



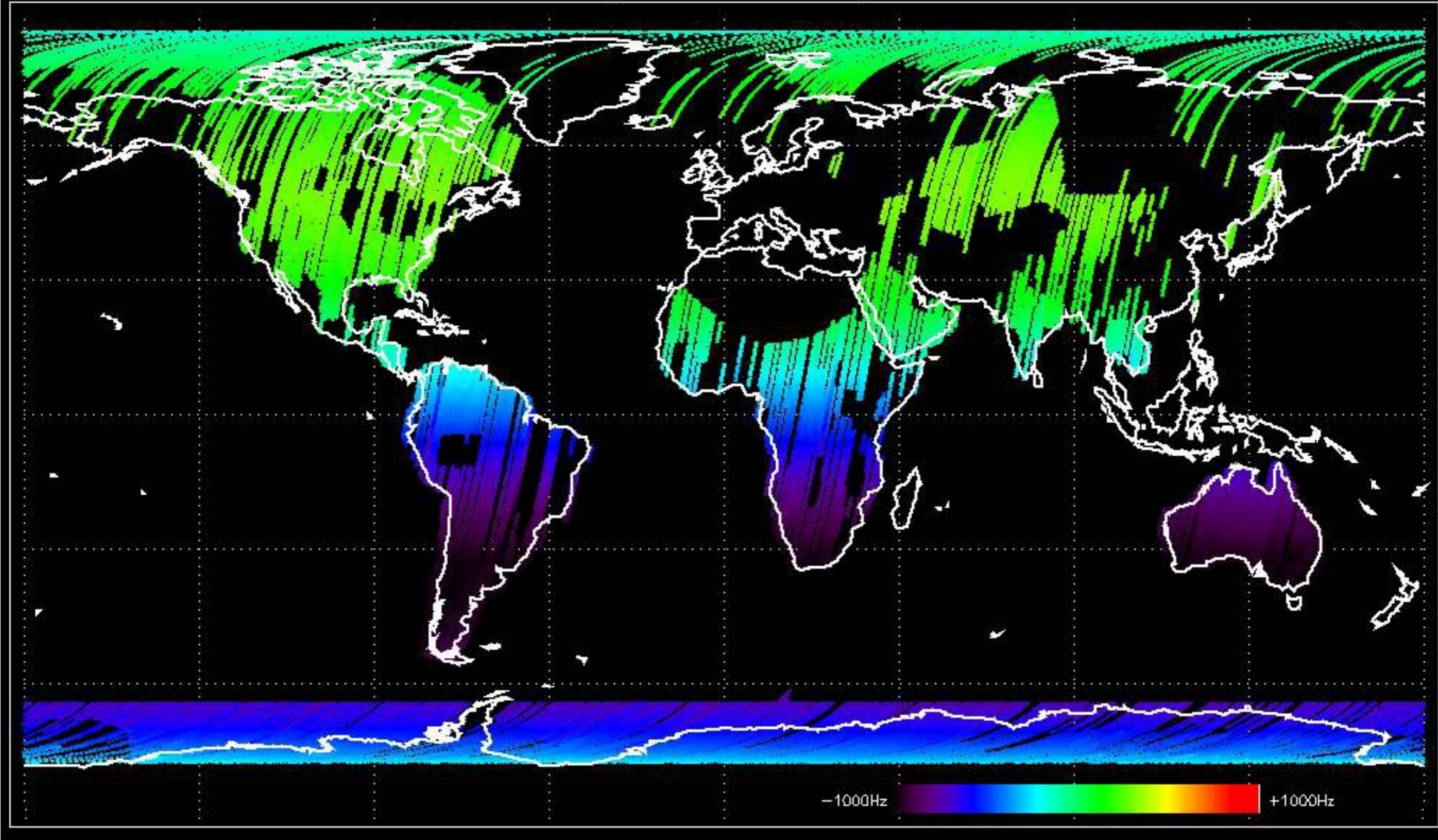


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

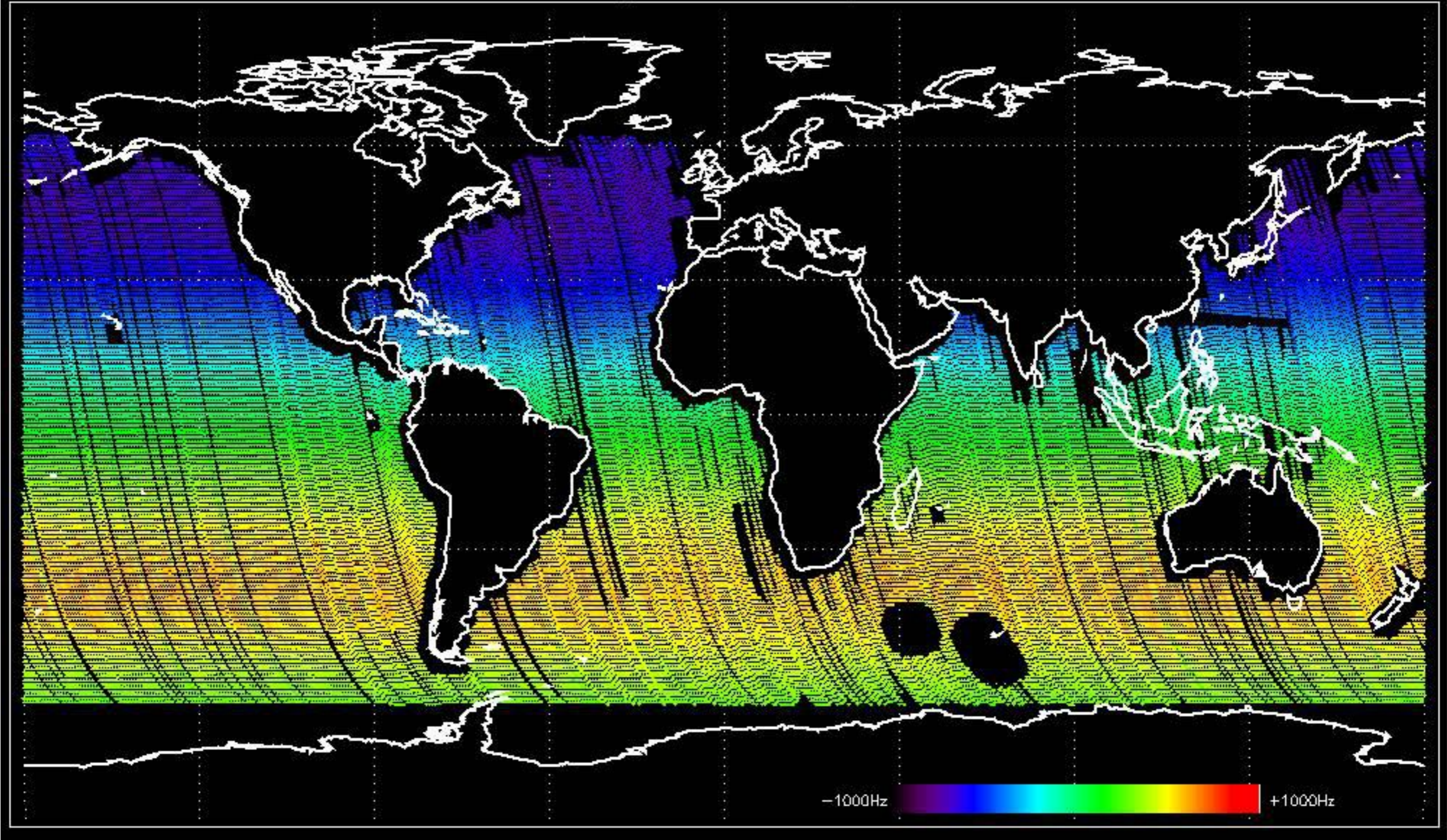
Doppler 'GM1' 'SS1' ascending



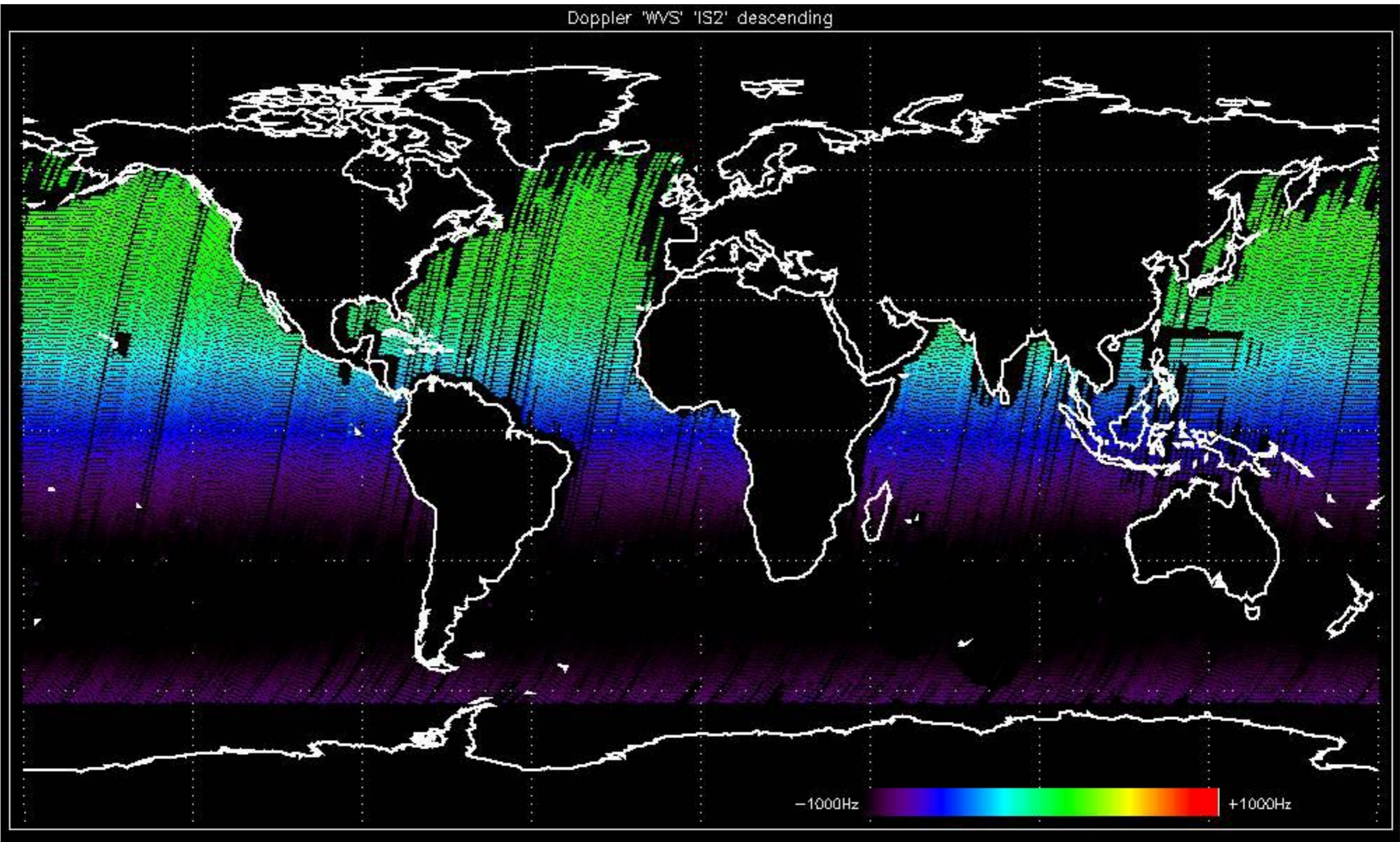
Doppler 'GM1' 'SS1' descending



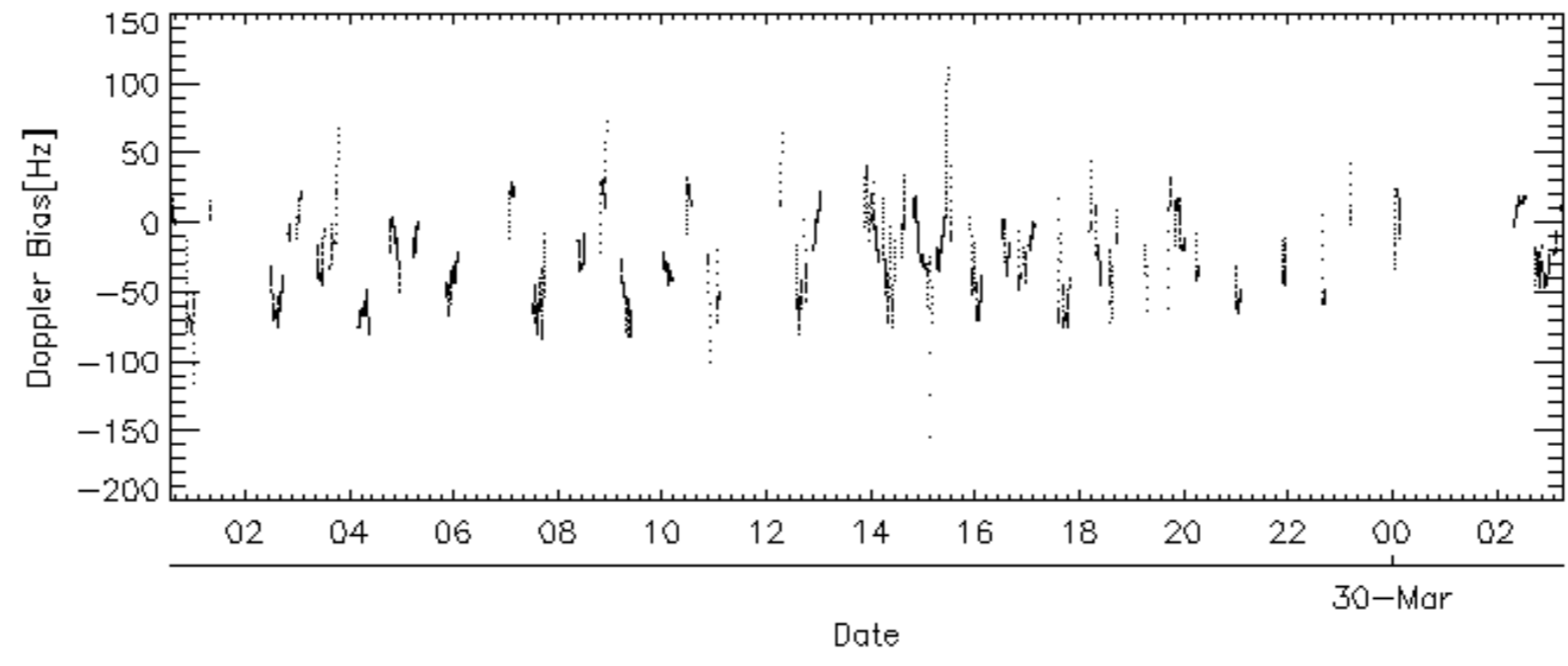
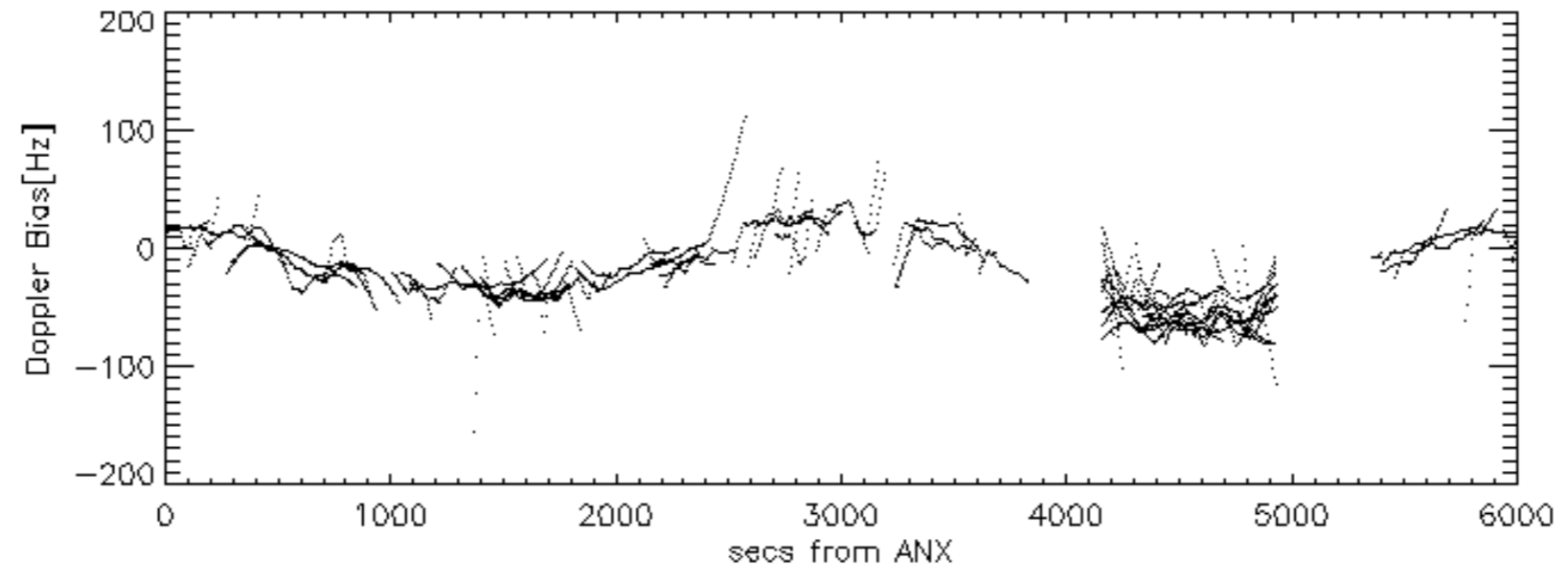
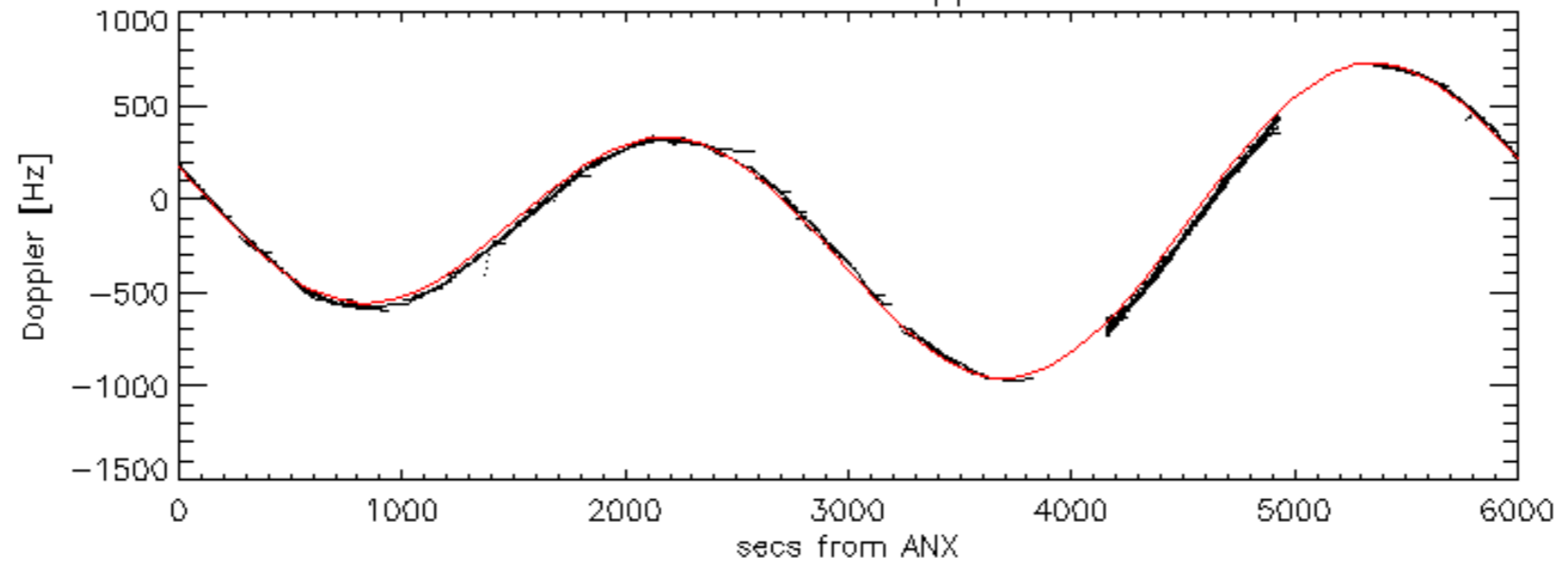
Doppler 'WVS' 'IS2' ascending

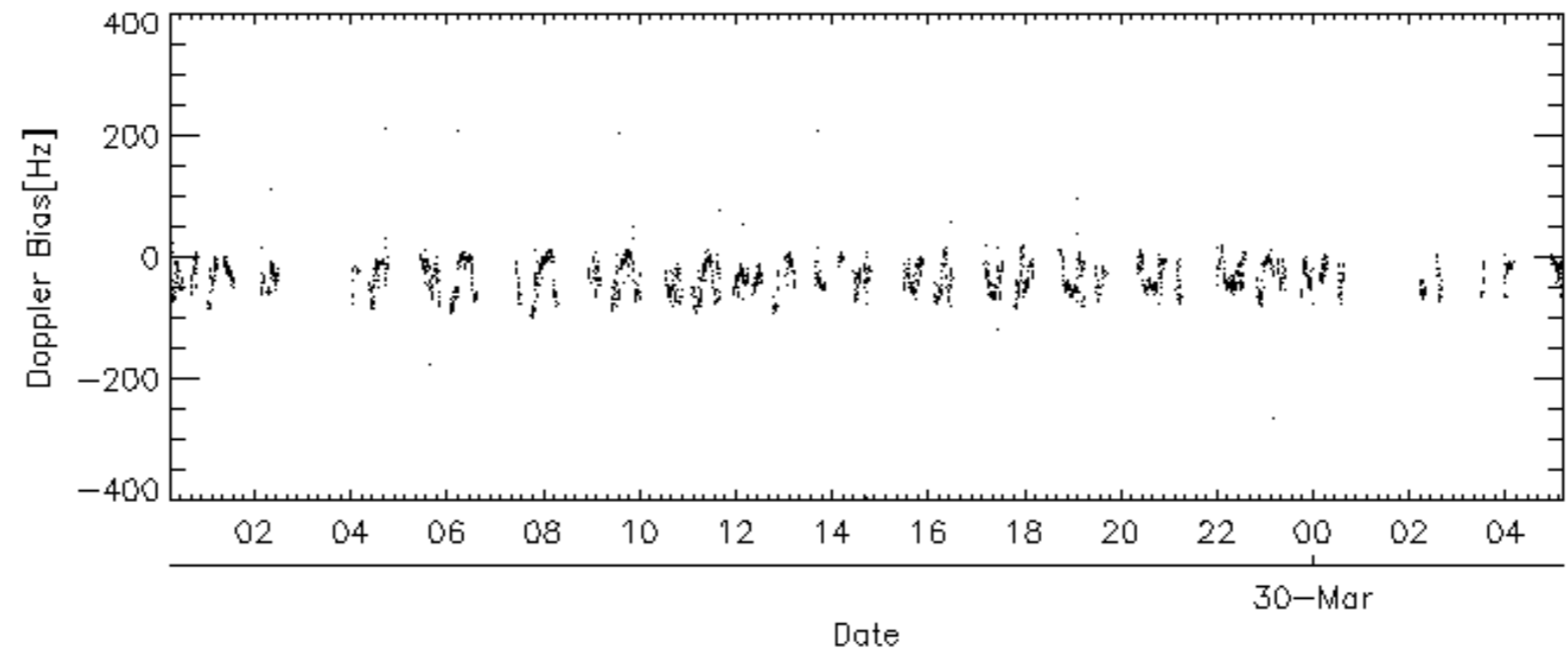
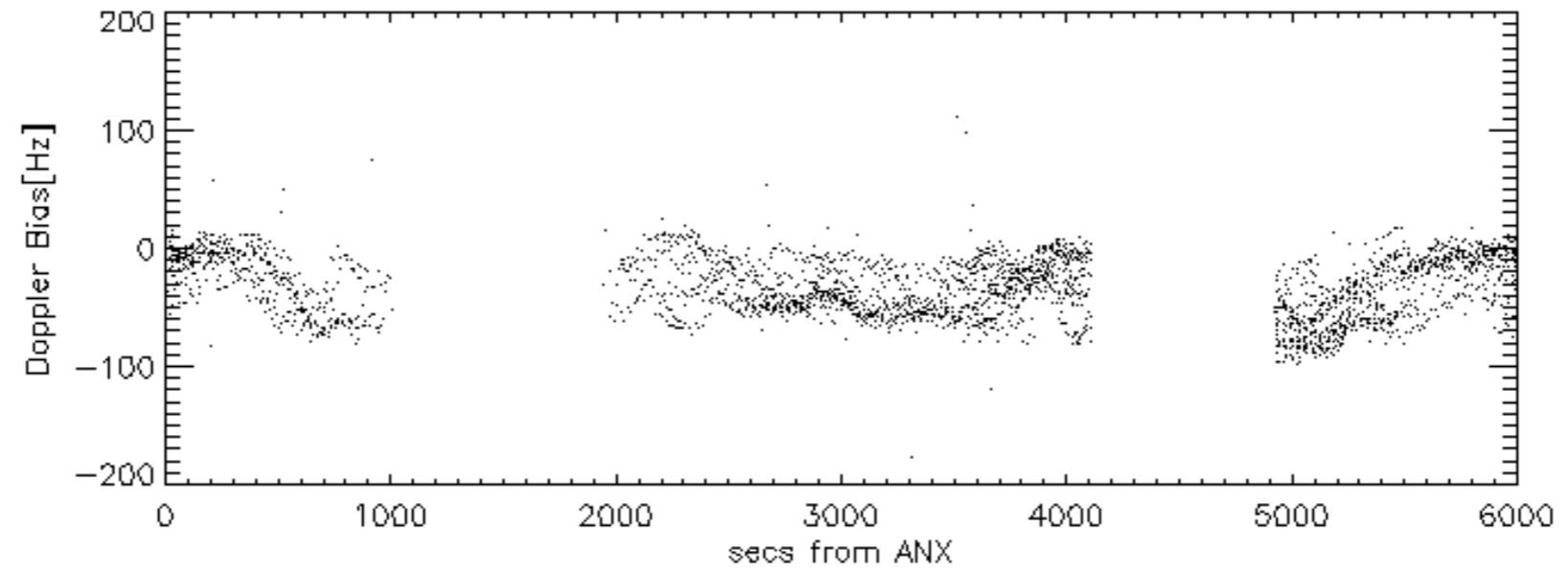
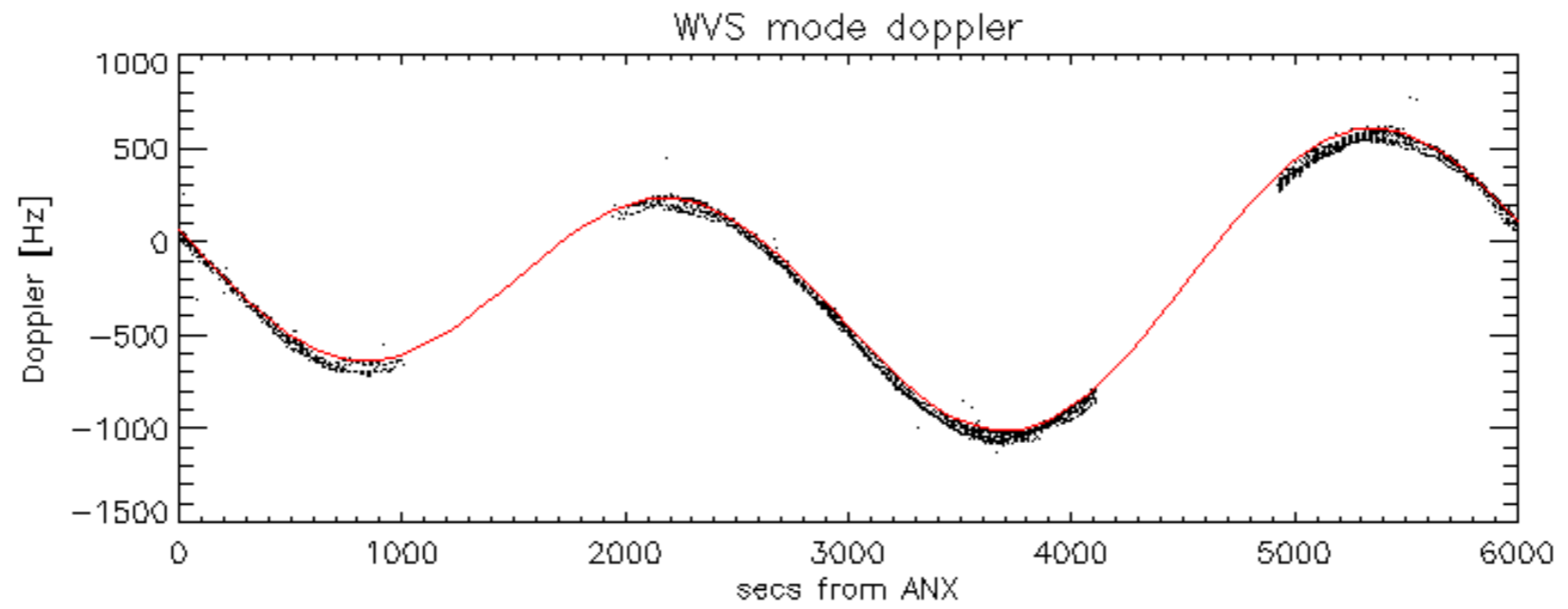


Doppler 'WVS' 'IS2' descending

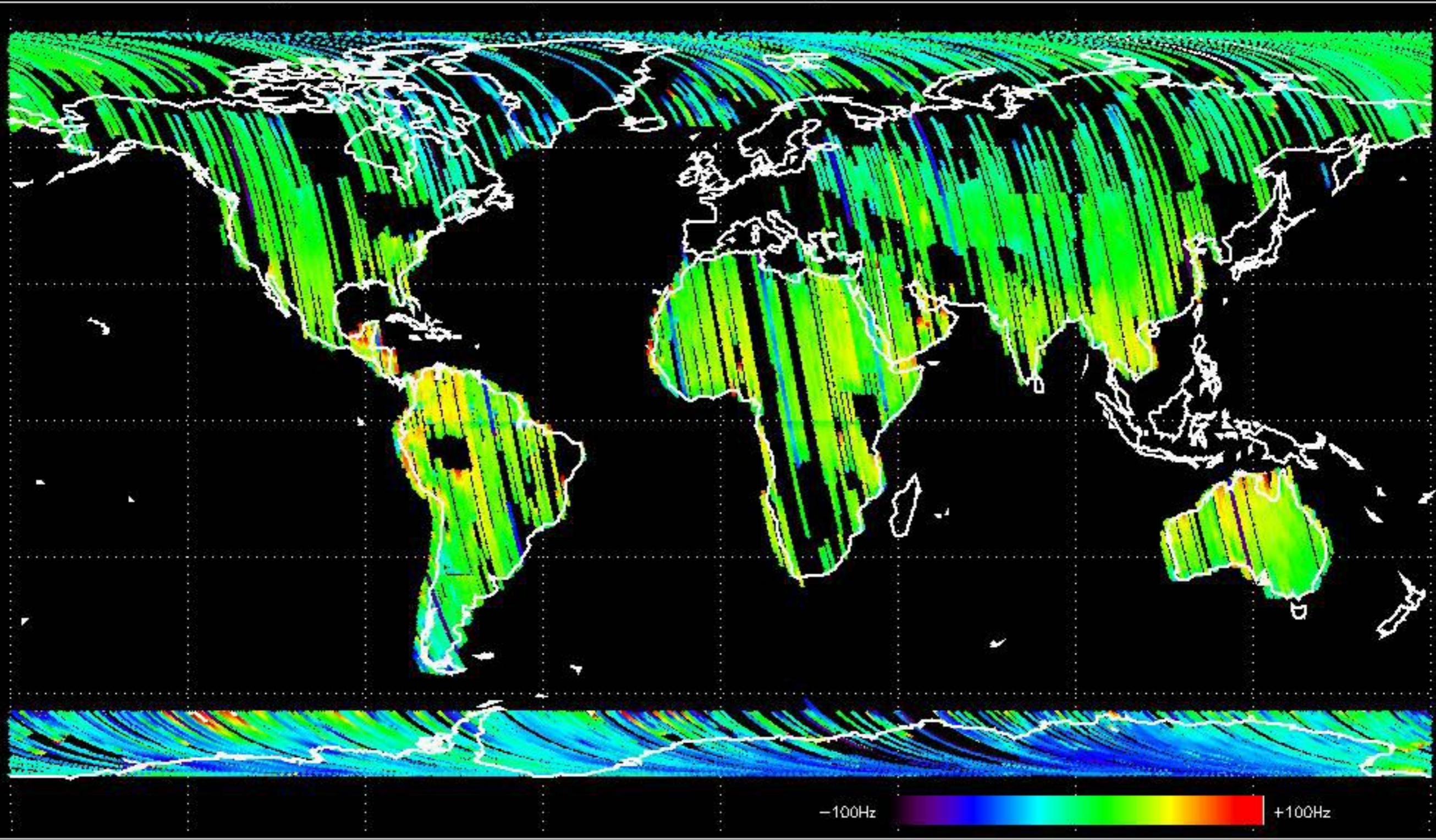


GM1 mode doppler

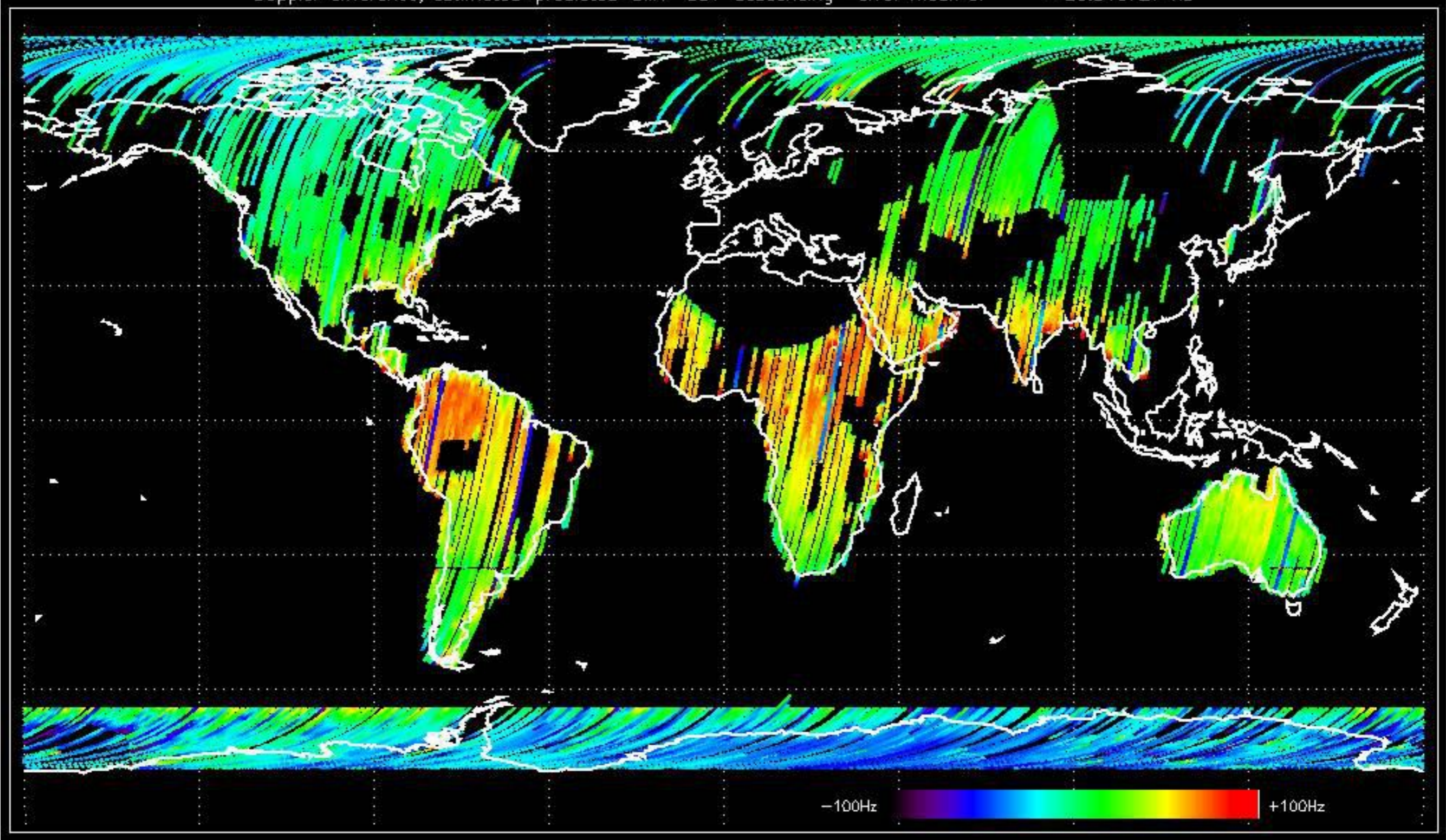




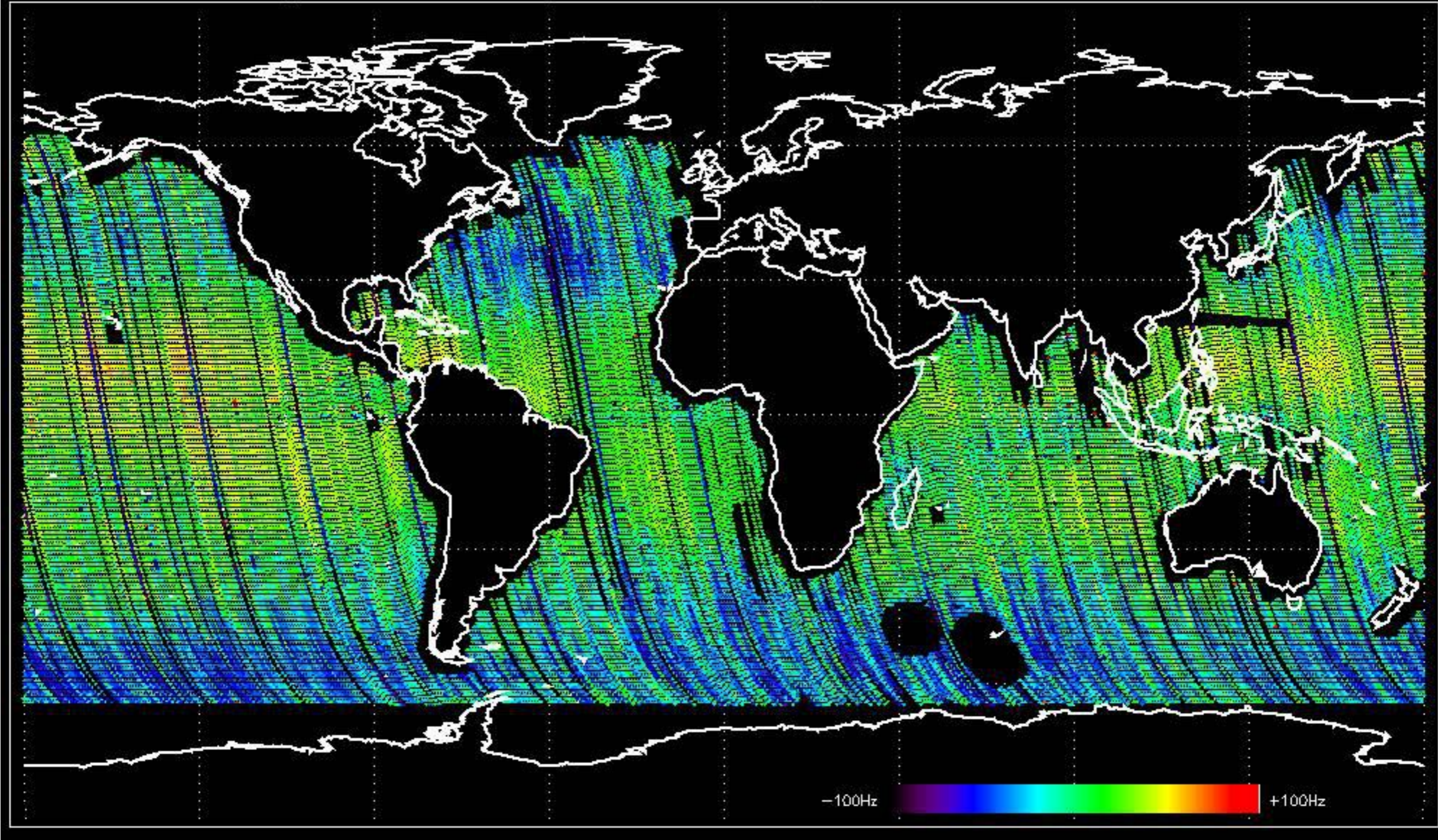
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -33.102683 Hz



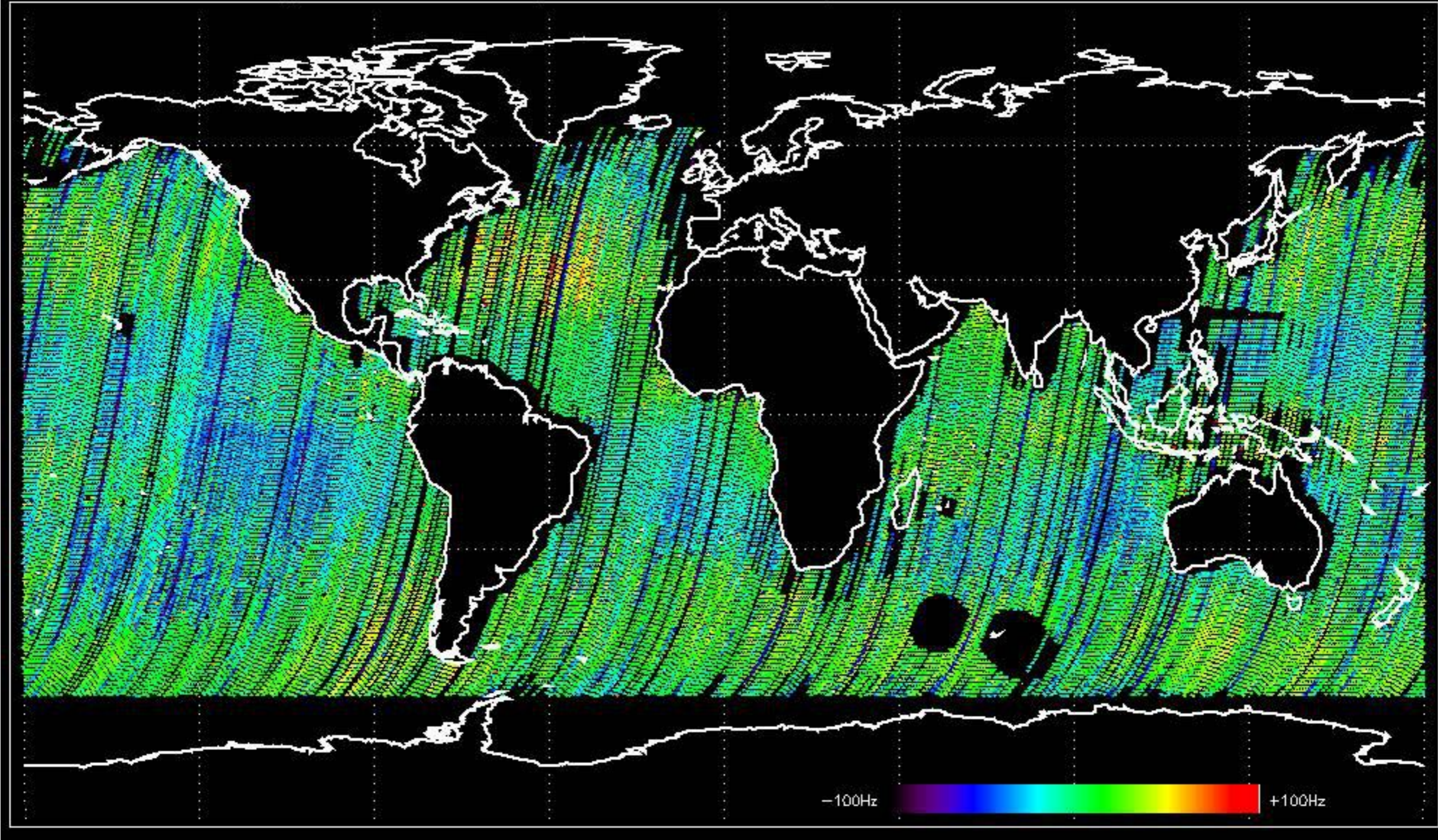
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.916727 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.523468 Hz

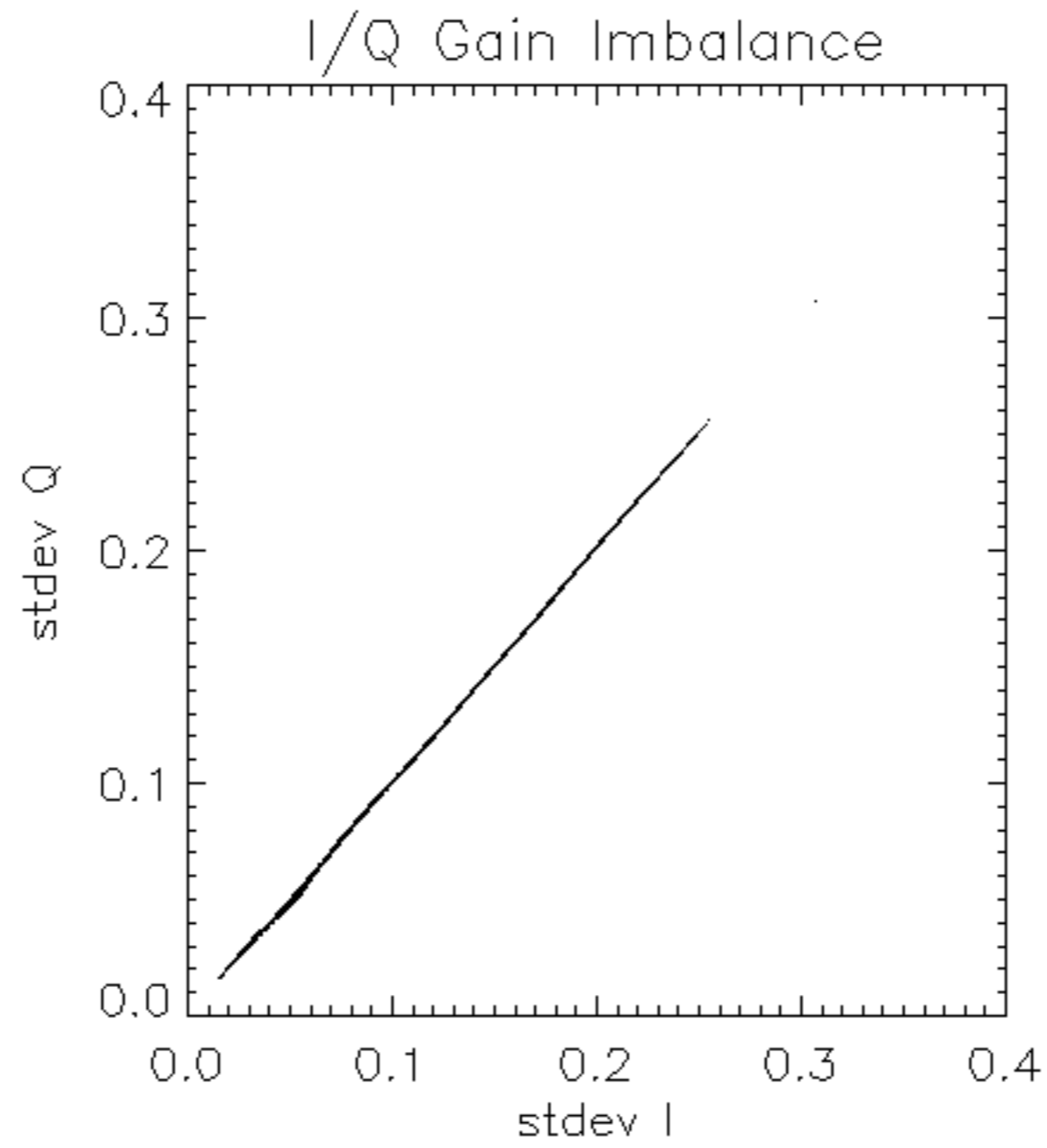


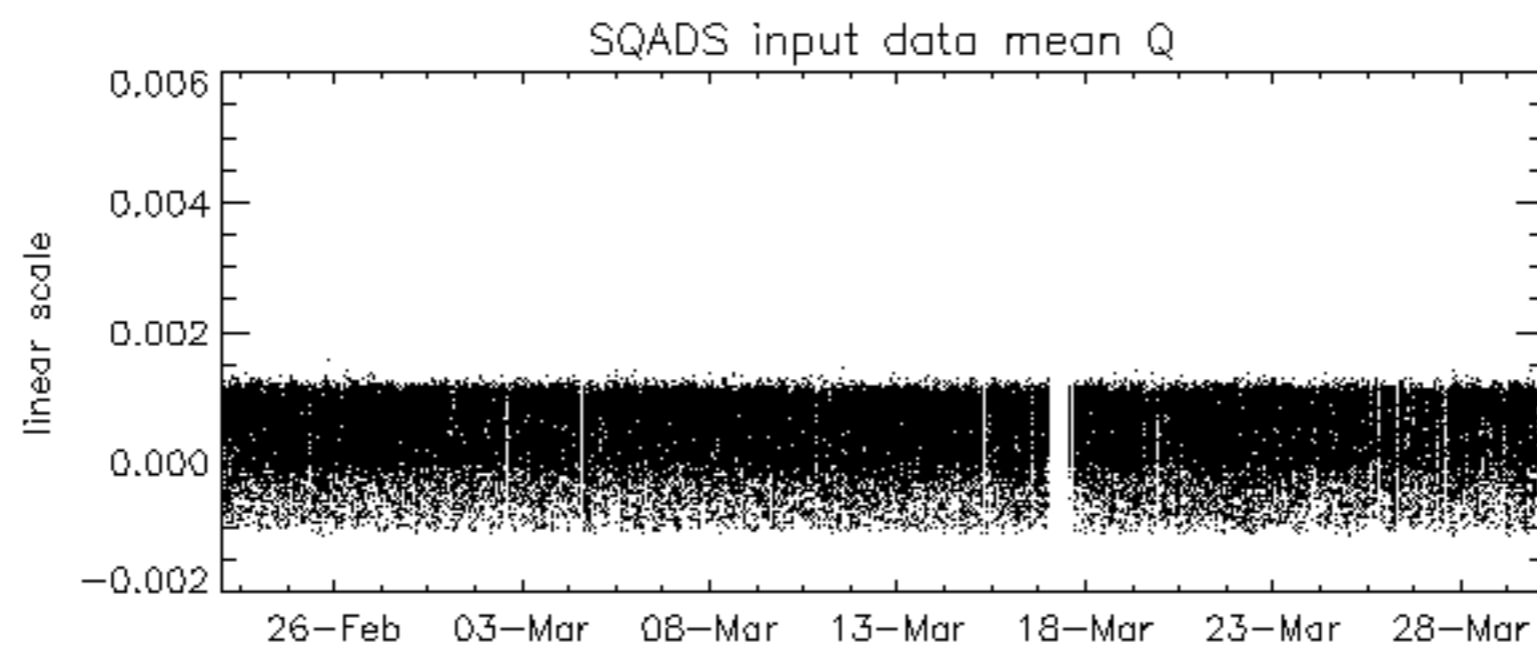
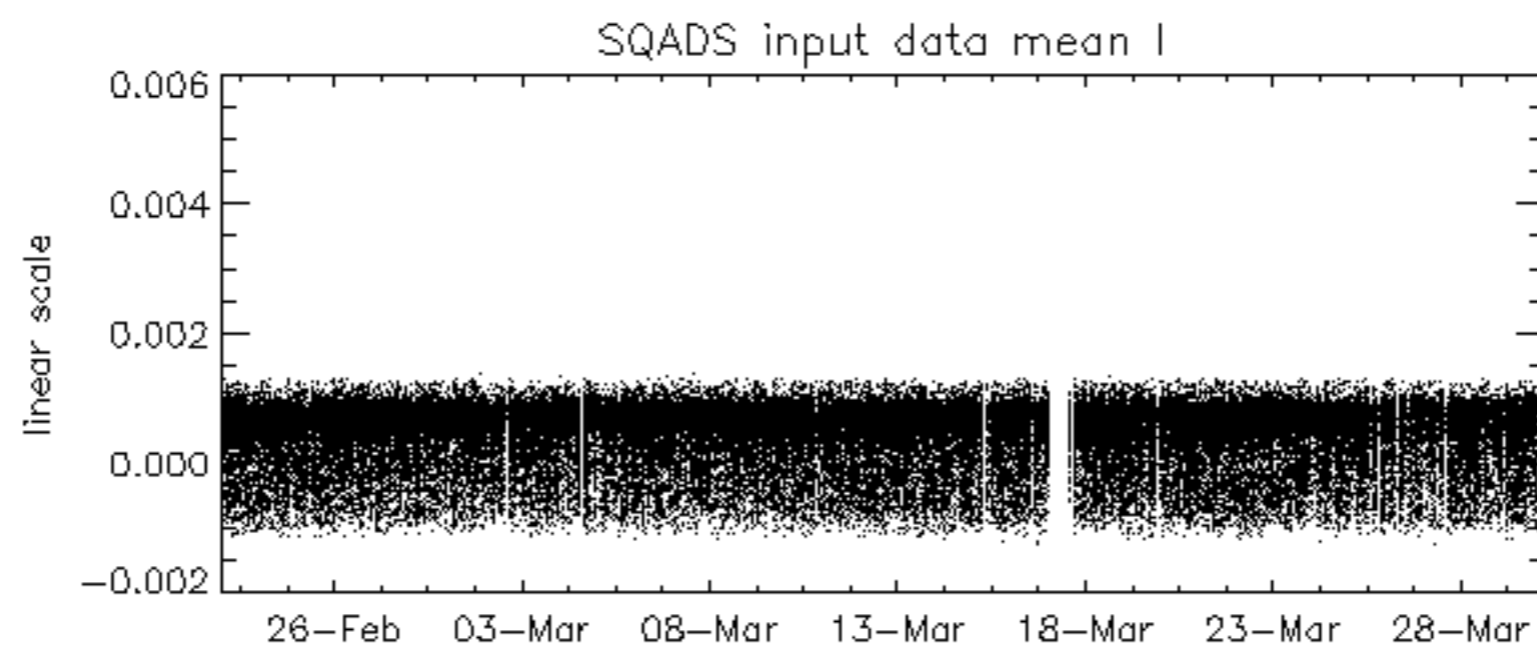
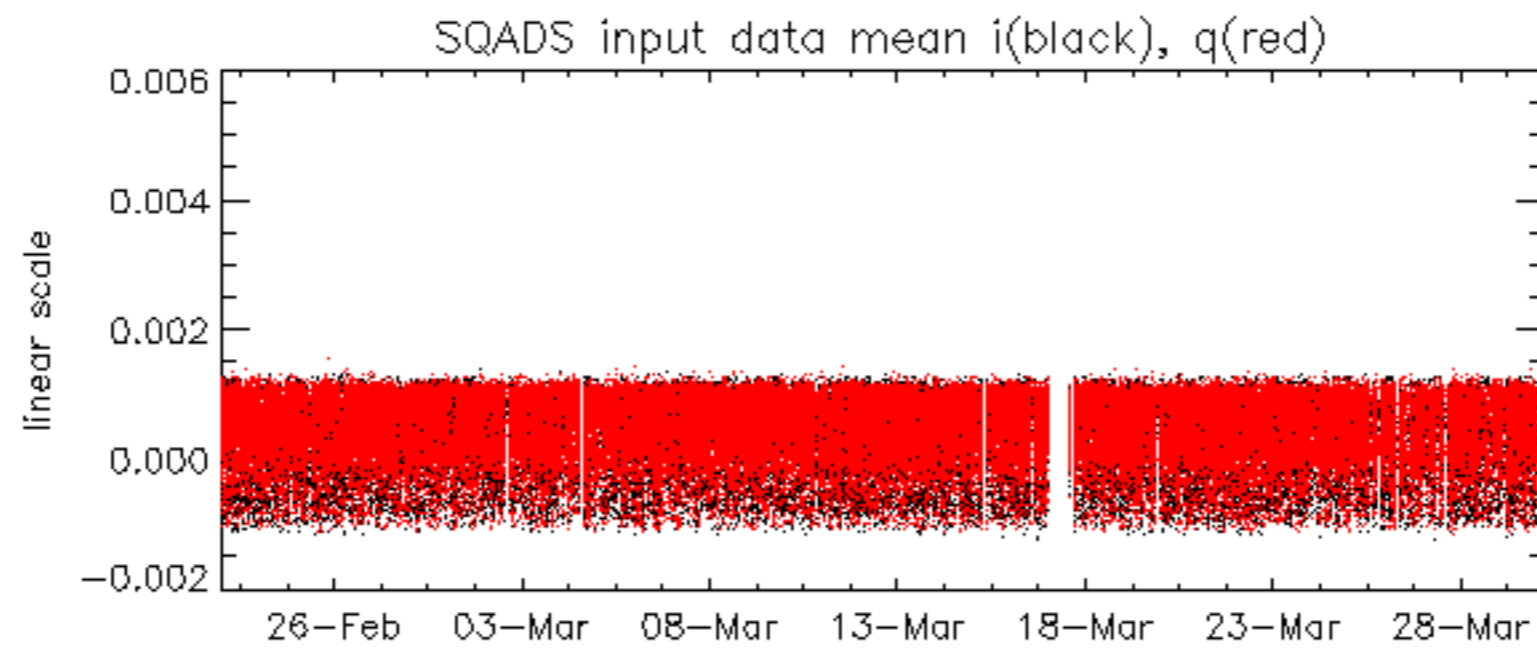
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.572144 Hz

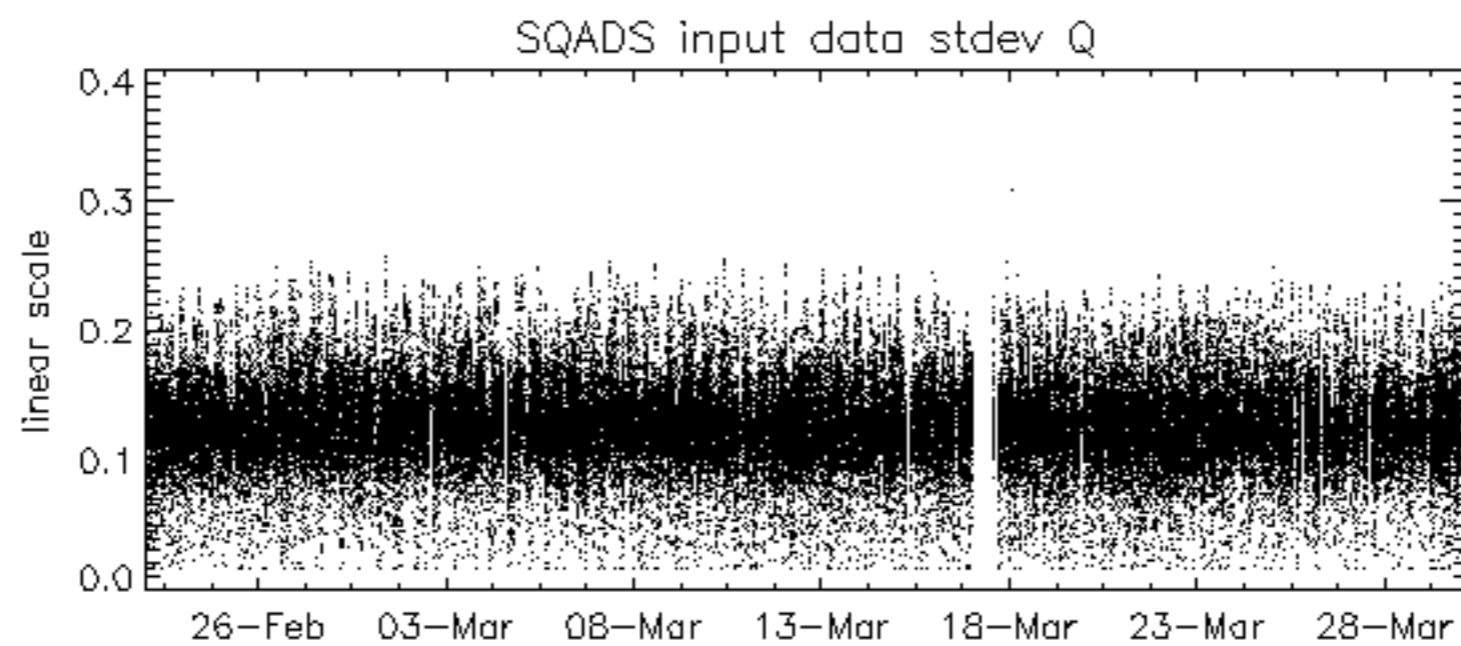
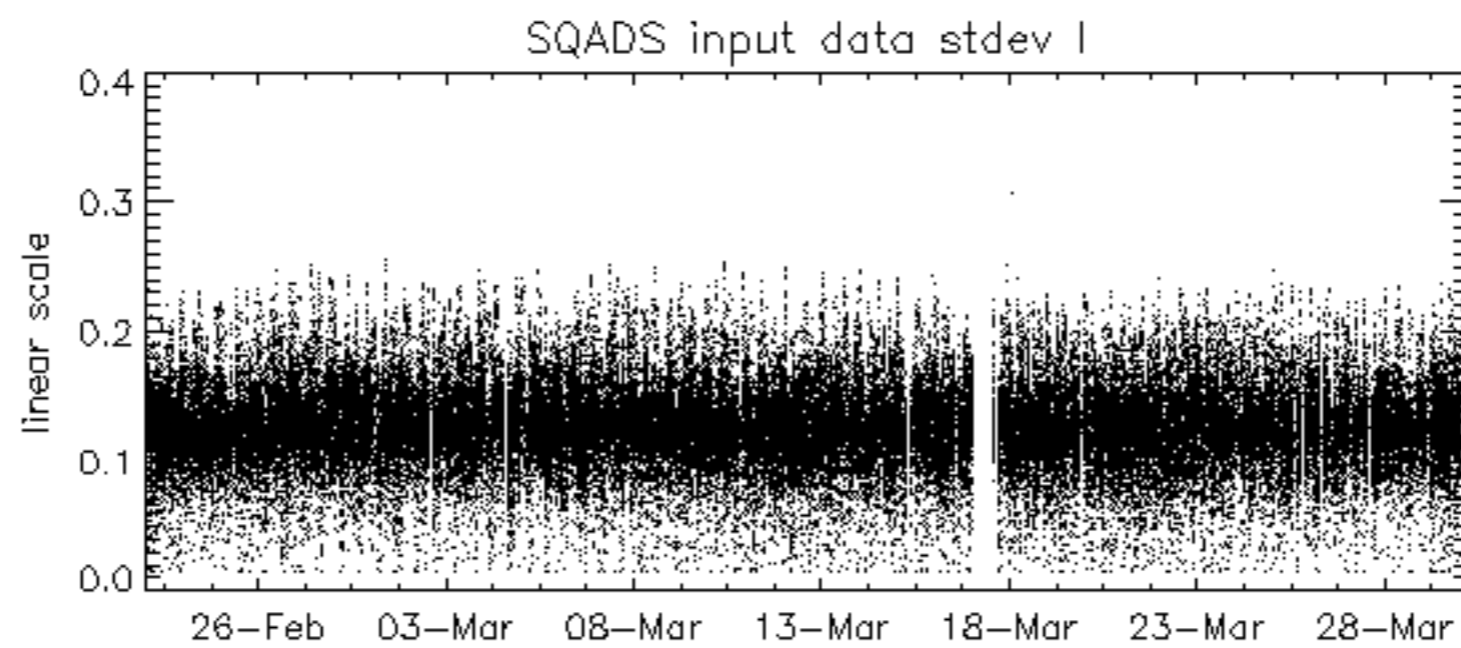
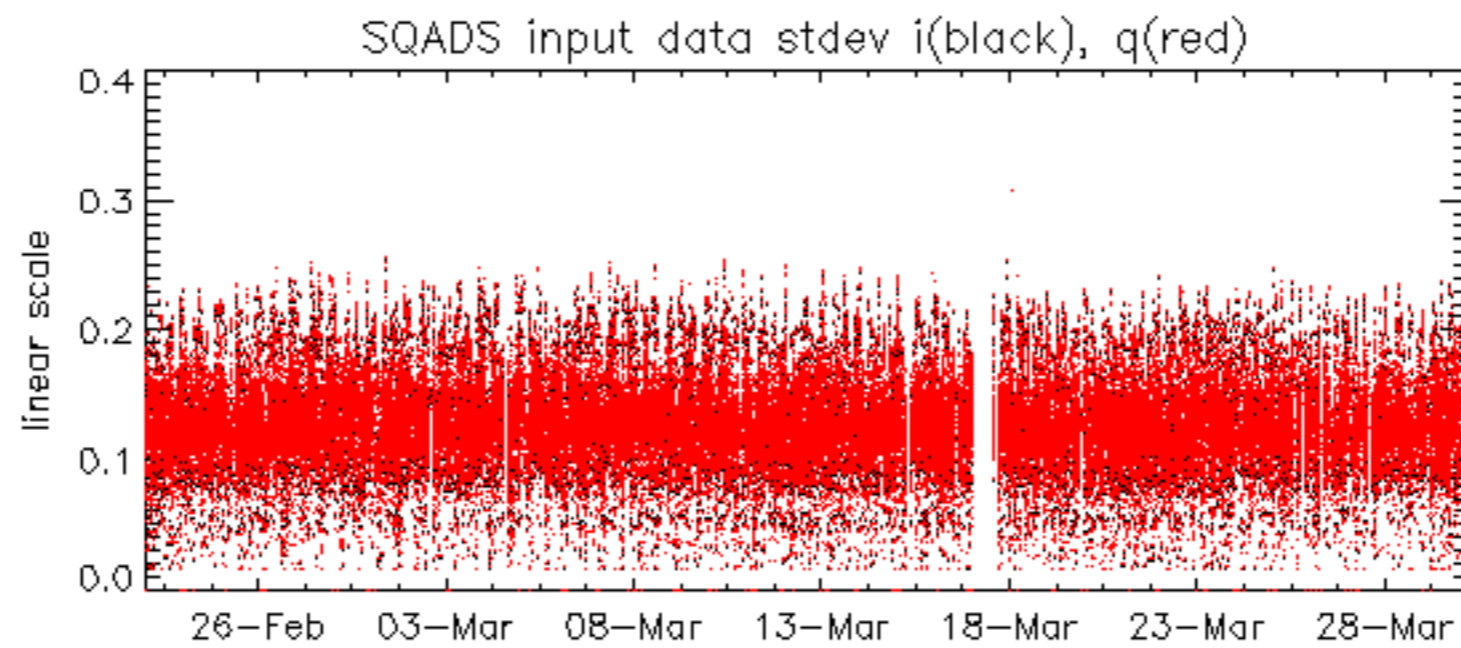


No anomalies observed on available MS products:

No anomalies observed.



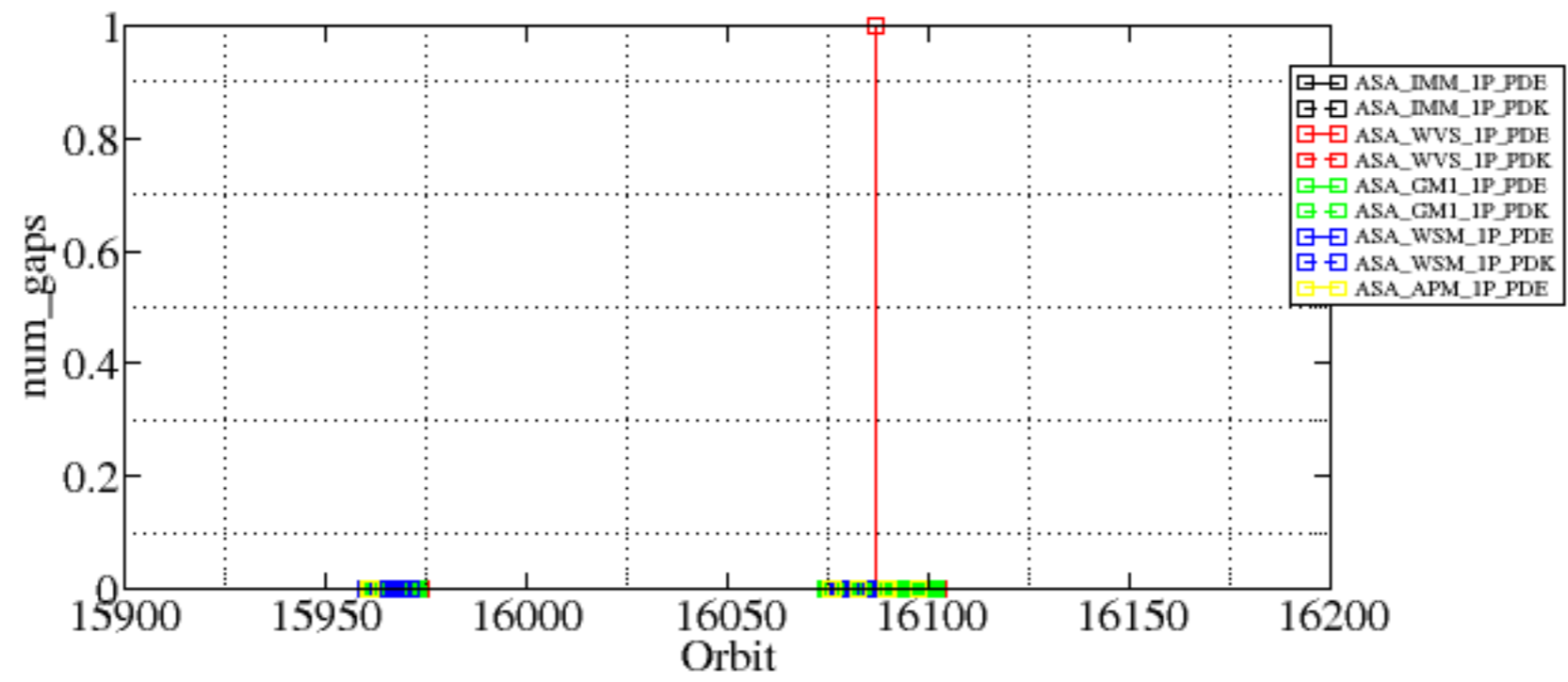


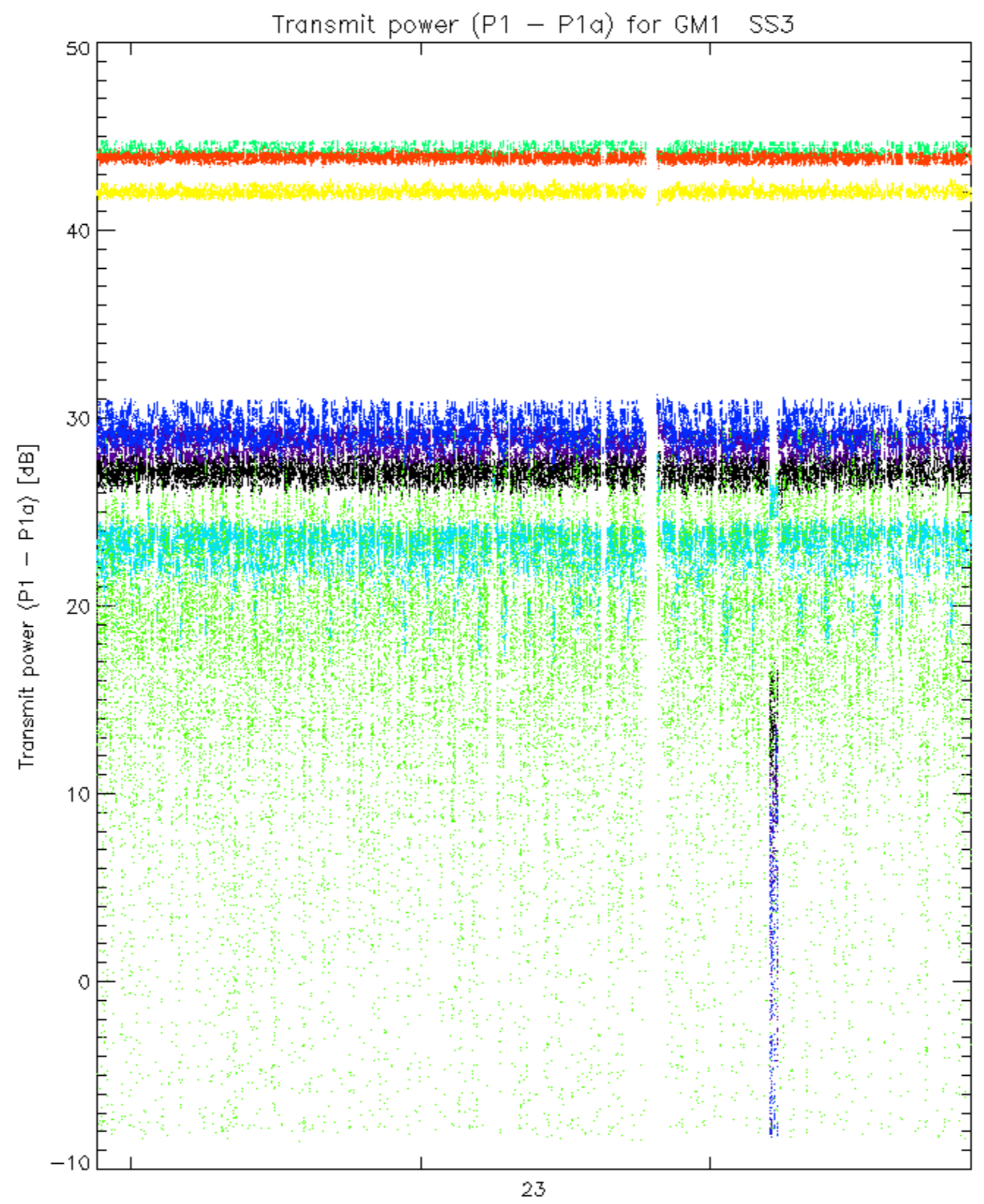


Summary of analysis for the last 3 days 2005032[890]

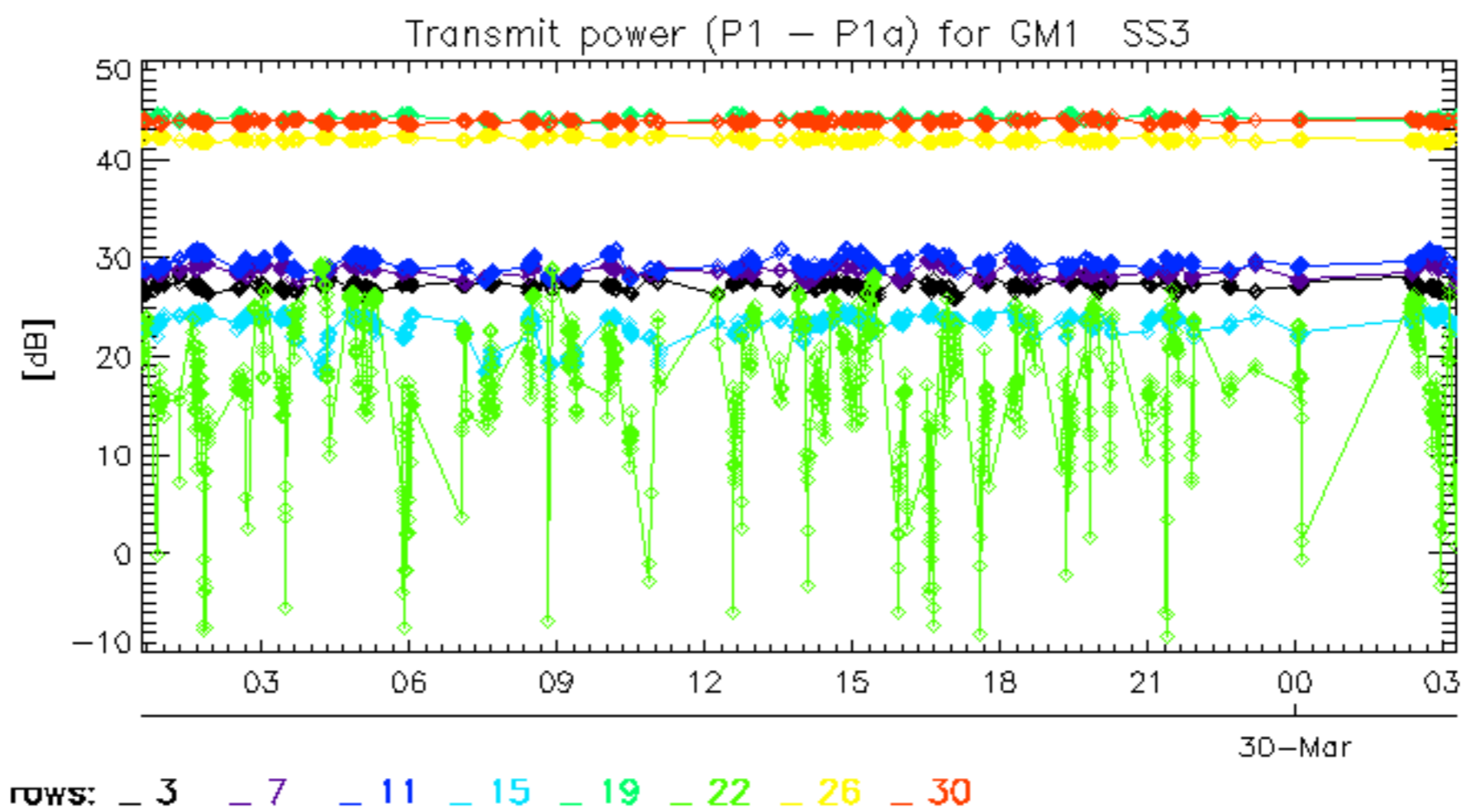
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

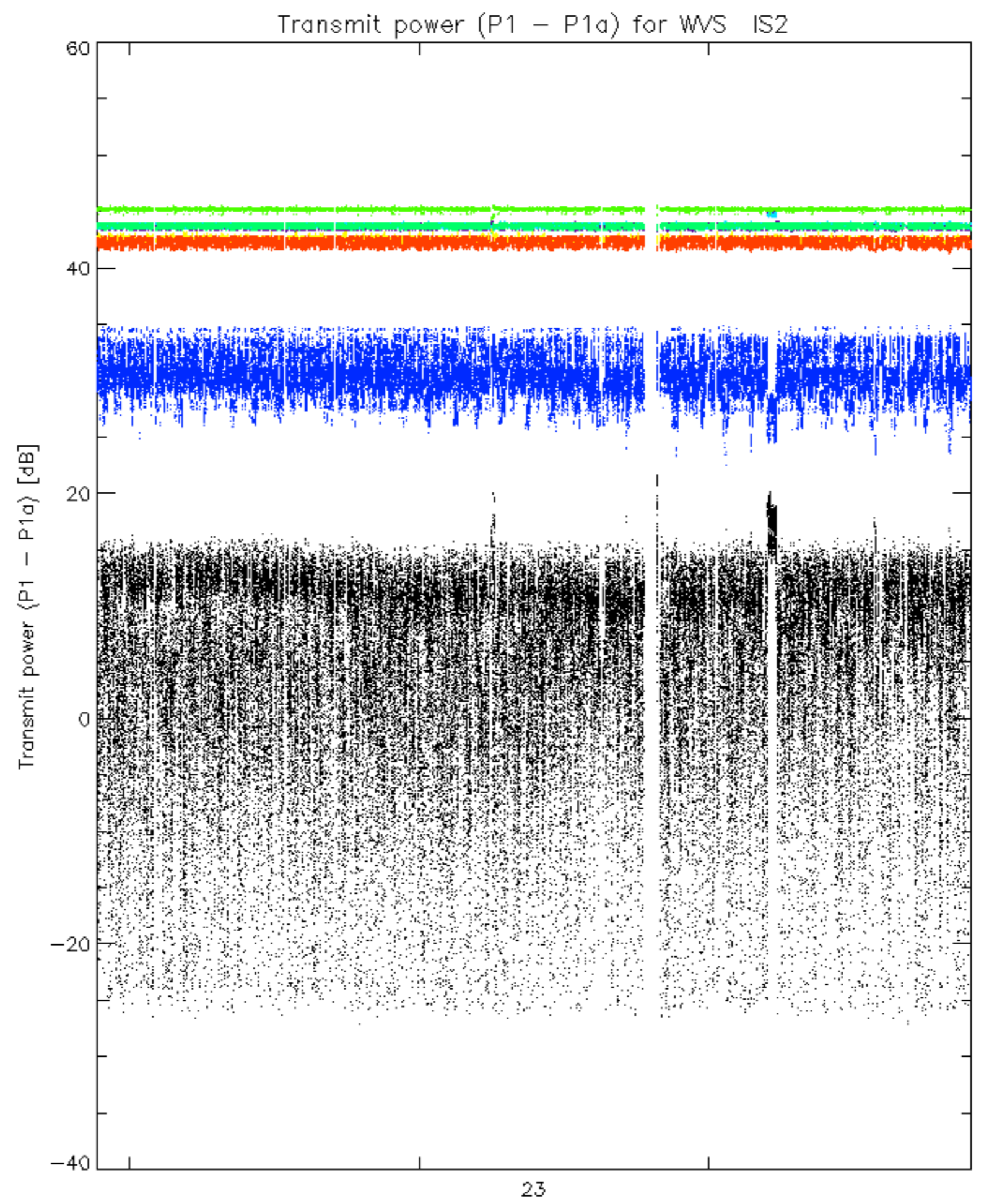
Filename	num_gaps	num_missing_lines
ASA_WVS_1PNPDE20050328_214810_00000002035_00501_16086_7806.N1	1	0



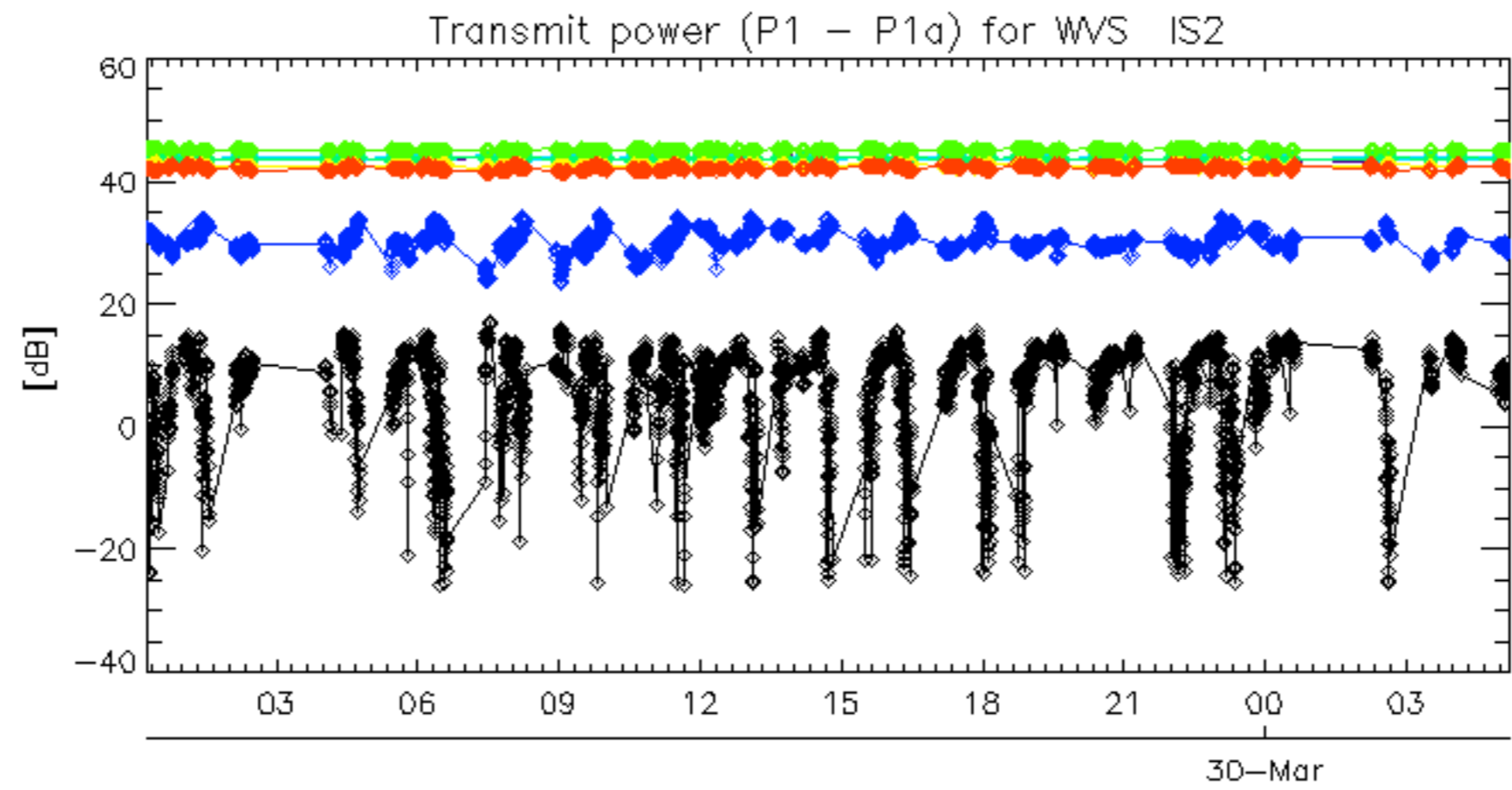


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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



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

No unavailabilities during the reported period.