

PRELIMINARY REPORT OF 050320

last update on Sun Mar 20 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 2005-03-19 00:00:00 to 2005-03-20 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	25	41	2	2	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	25	41	2	2	0
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	25	41	2	2	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	25	41	2	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	36	38	8	2	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	36	38	8	2	5
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	36	38	8	2	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	36	38	8	2	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	20050318 063525
H	20050319 060347

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	-3.363288	0.007041	0.023768
7	P1	-3.094819	0.007873	-0.017906
11	P1	-4.694028	0.022640	0.016837
15	P1	-5.655106	0.031215	0.028241
19	P1	-3.681859	0.003684	-0.018387
22	P1	-4.518279	0.012532	0.005985
26	P1	-4.946160	0.016315	0.030160
30	P1	-7.190496	0.017928	-0.008379
3	P1	-15.965440	0.060391	0.083754
7	P1	-15.526090	0.048486	-0.044588
11	P1	-20.972637	0.270914	-0.115398
15	P1	-11.573483	0.023968	0.052504
19	P1	-14.290372	0.023455	-0.055785
22	P1	-15.653503	0.307520	0.090153
26	P1	-17.605000	0.216852	-0.003637
30	P1	-17.965761	0.469503	0.002440

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.092257	0.083125	0.074480
7	P2	-22.281675	0.095430	0.086899
11	P2	-14.422388	0.105950	0.228201
15	P2	-7.045220	0.091729	0.031080
19	P2	-9.636179	0.092759	0.035404
22	P2	-16.922026	0.093072	0.068297
26	P2	-16.445478	0.091833	0.029265
30	P2	-18.863937	0.082308	0.076448

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.165554	0.005068	0.015152
7	P3	-8.165554	0.005068	0.015152
11	P3	-8.165554	0.005068	0.015152
15	P3	-8.165554	0.005068	0.015152
19	P3	-8.165554	0.005068	0.015152
22	P3	-8.165554	0.005068	0.015152
26	P3	-8.165554	0.005068	0.015152
30	P3	-8.165554	0.005068	0.015152

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	-2.728503	0.011135	0.026794
7	P1	-3.027209	0.033400	-0.045557
11	P1	-3.992252	0.014666	-0.015875
15	P1	-3.572133	0.015832	-0.003622
19	P1	-3.591780	0.013177	-0.014832
22	P1	-5.746670	0.035509	0.006429
26	P1	-7.289586	0.024978	0.003374
30	P1	-6.228755	0.043224	-0.003874
3	P1	-10.747955	0.053346	0.024096
7	P1	-10.331288	0.145395	-0.123359
11	P1	-12.561314	0.091153	0.045126
15	P1	-11.763789	0.068082	0.010462
19	P1	-15.565354	0.043064	0.016849
22	P1	-24.488609	1.153450	-0.229314
26	P1	-15.483290	0.166213	0.040102
30	P1	-20.205305	1.137915	0.033182

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.801170	0.033071	0.095175
7	P2	-22.367247	0.037161	0.106224
11	P2	-10.188358	0.048739	0.181715
15	P2	-4.978773	0.020904	0.016756
19	P2	-6.829792	0.031226	0.020463
22	P2	-7.099869	0.030419	0.087219
26	P2	-23.850504	0.026938	0.026064
30	P2	-21.899225	0.032327	0.053735

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.998903	0.002729	0.015760
7	P3	-7.998880	0.002739	0.015630
11	P3	-7.998822	0.002754	0.015519
15	P3	-7.998983	0.002742	0.015917
19	P3	-7.998888	0.002749	0.015466
22	P3	-7.998874	0.002734	0.015341
26	P3	-7.998866	0.002739	0.015728
30	P3	-7.998867	0.002751	0.016203

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	0.000457976
	stdev	2.23645e-07
MEAN Q	mean	0.000493071
	stdev	2.33799e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128405
	stdev	0.00103540
STDEV Q	mean	0.128652
	stdev	0.00104677



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005031[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_1PNPDE20050318_062804_000000002035_00349_15934_7472.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)	
<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

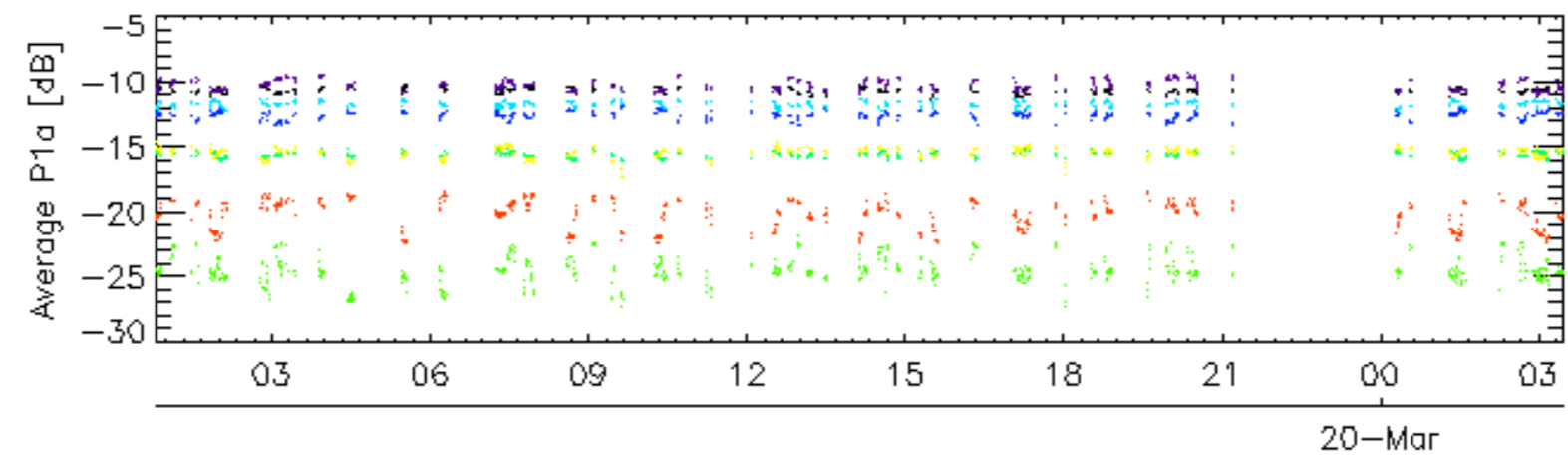
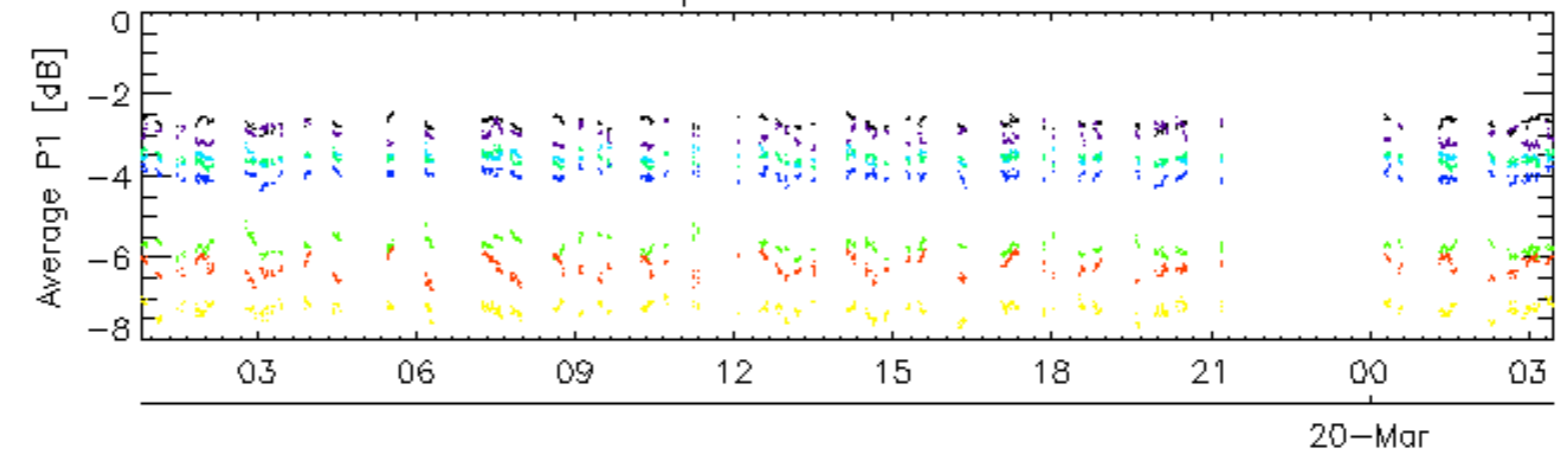
Ascending

Descending

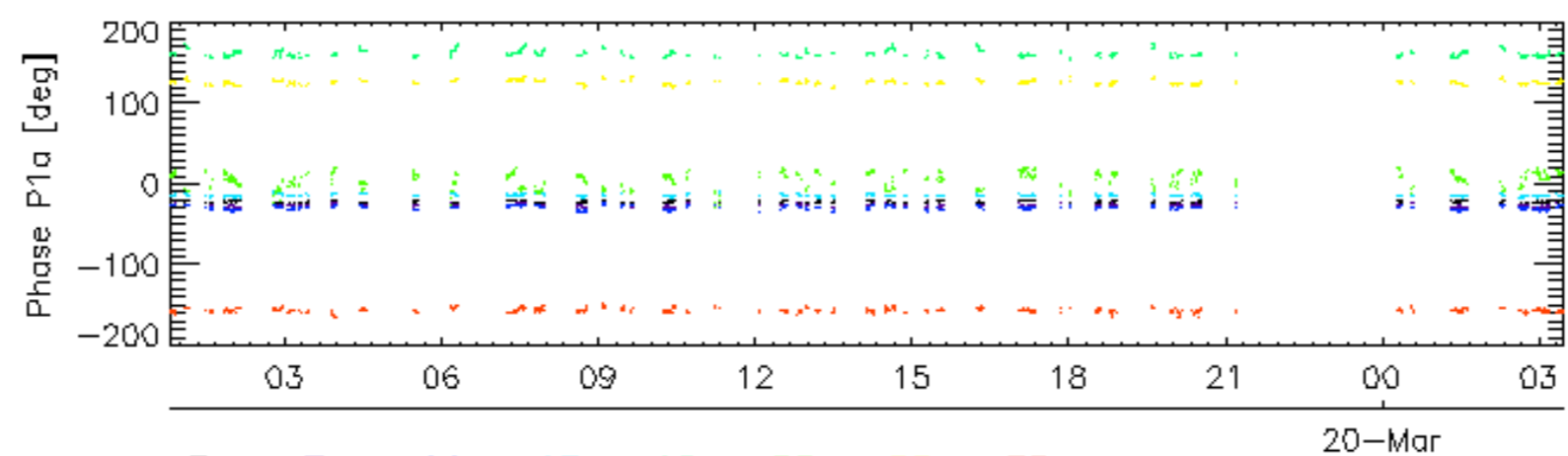
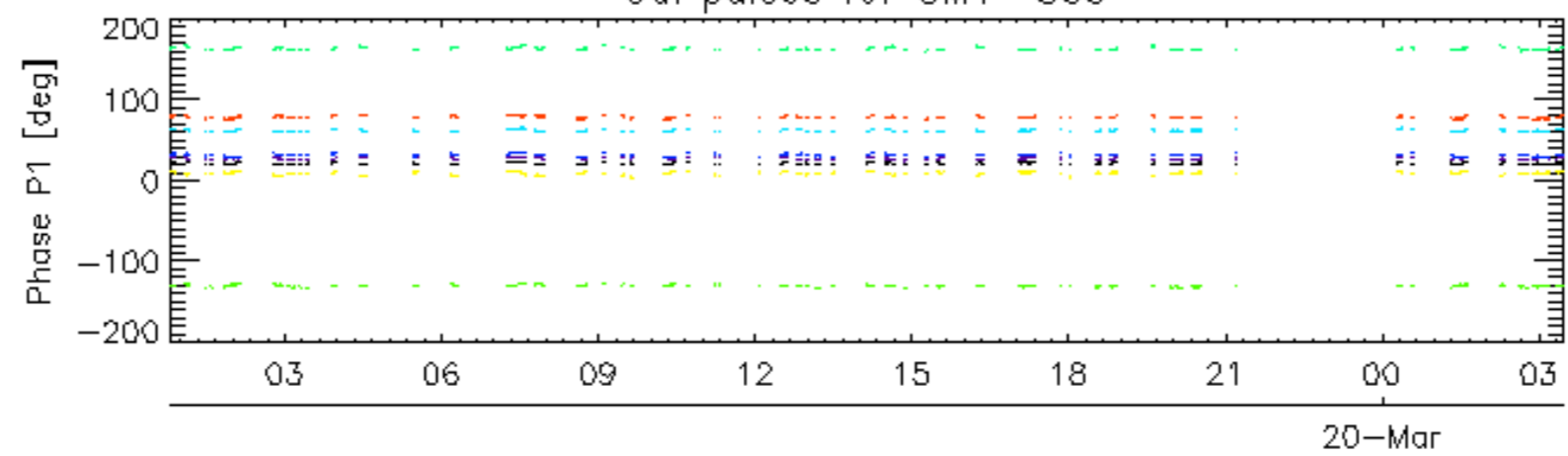
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

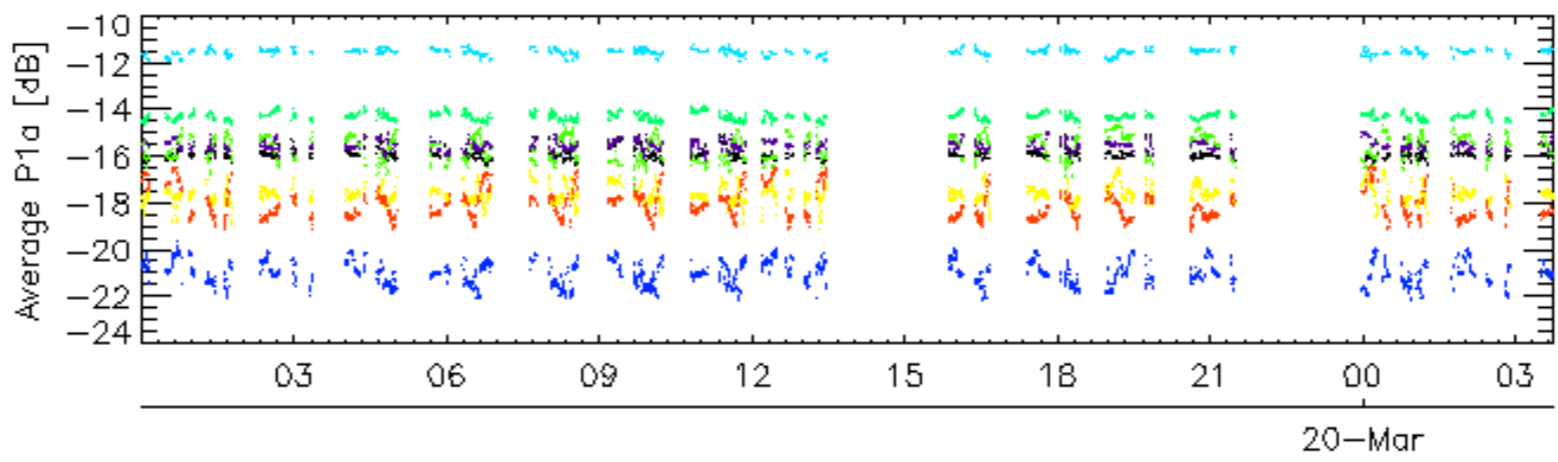
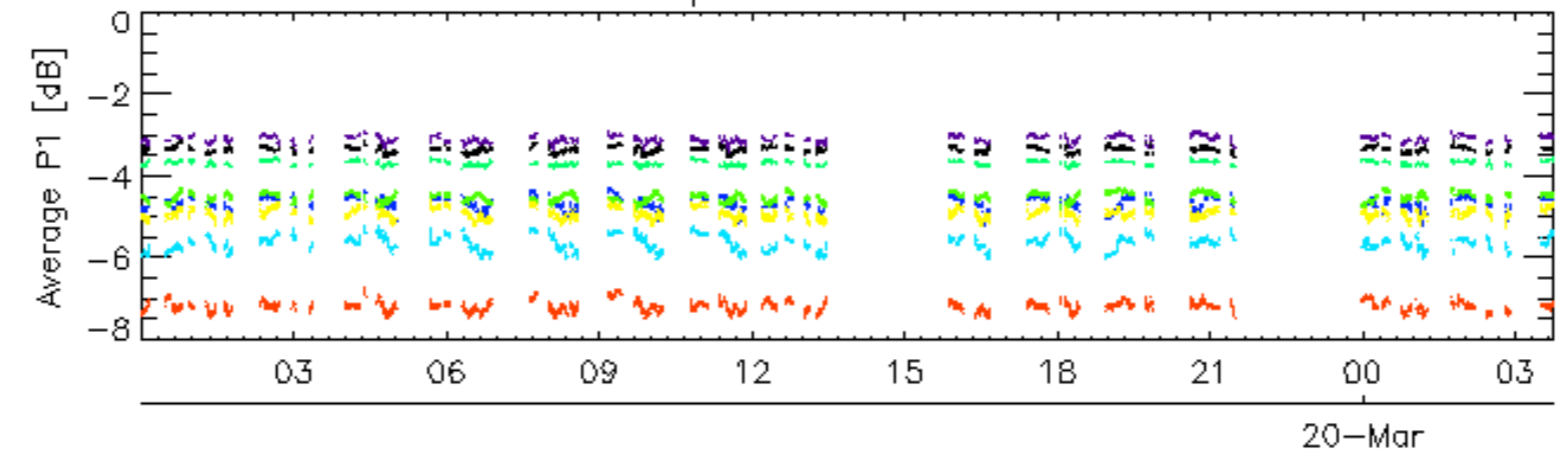


Cal pulses for GM1 SS3

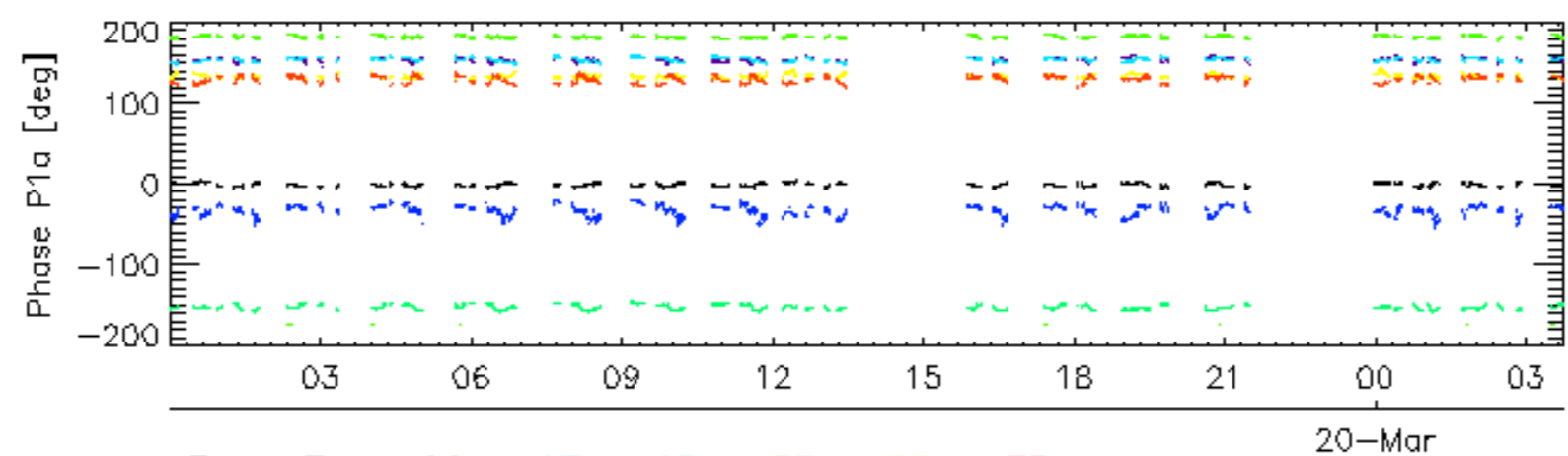
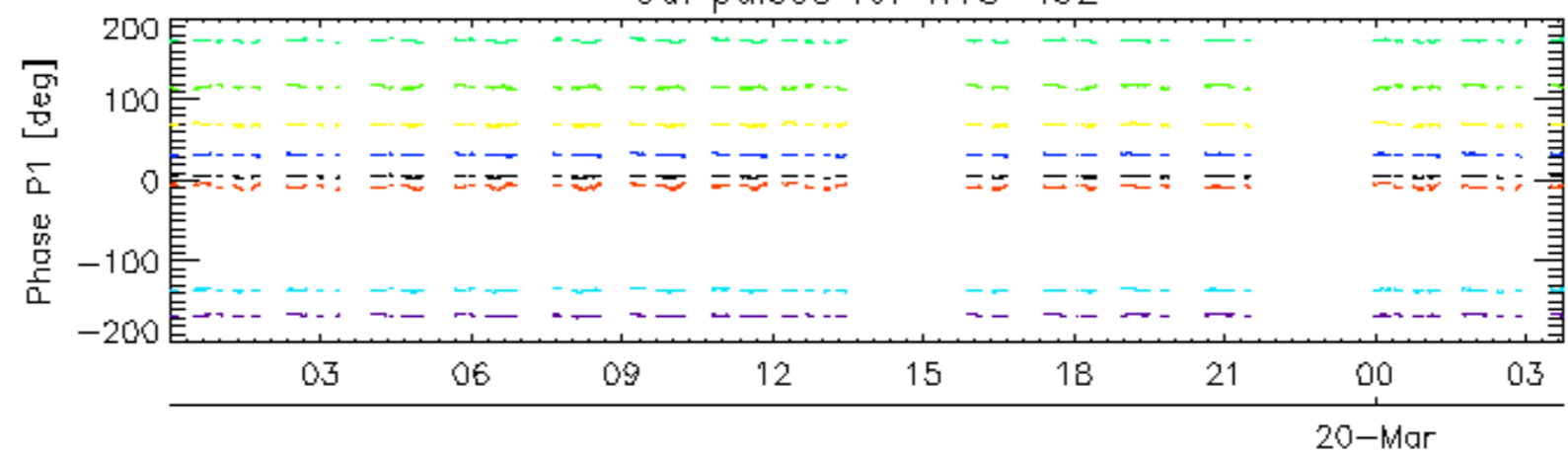


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

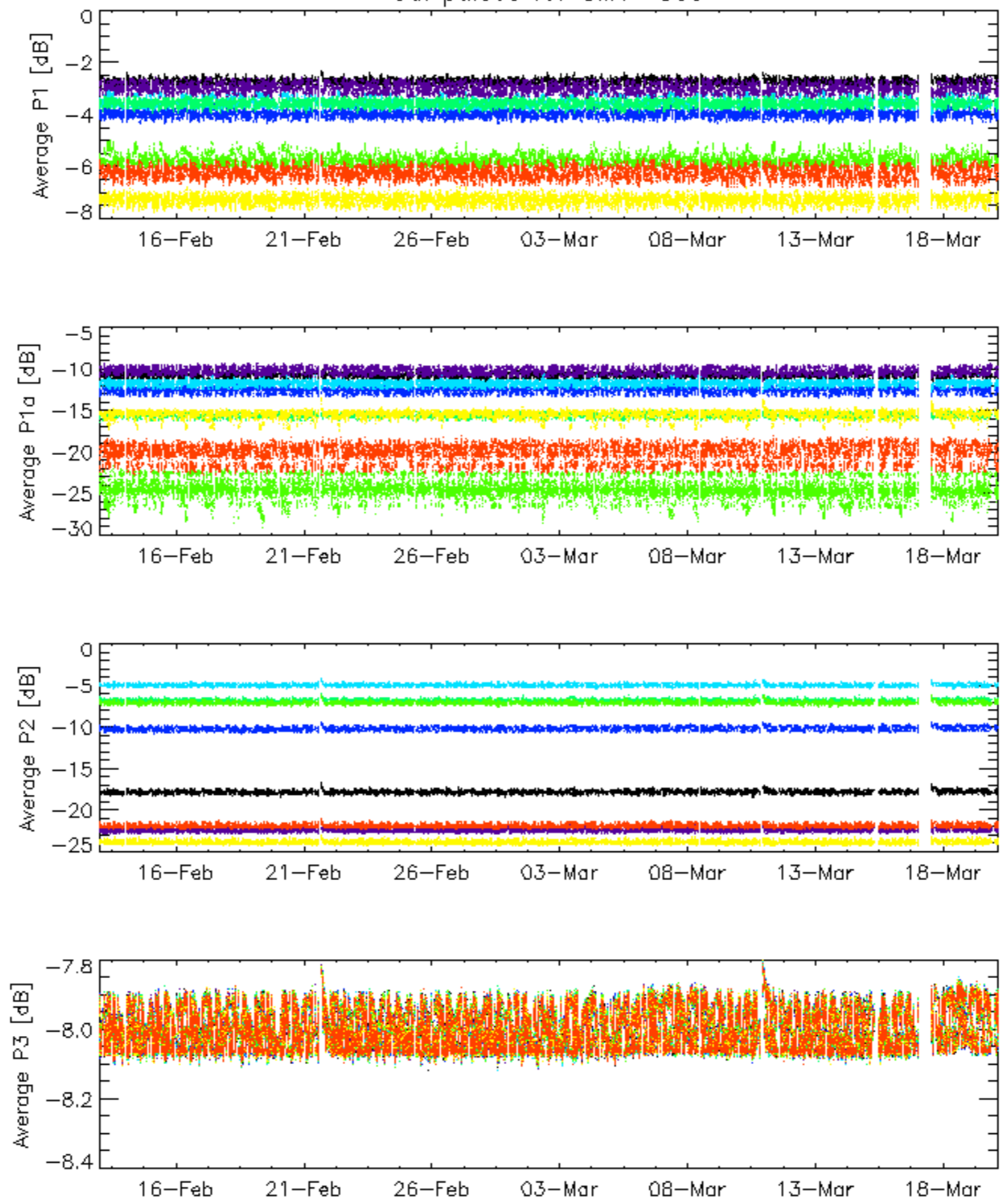


Cal pulses for WVS IS2



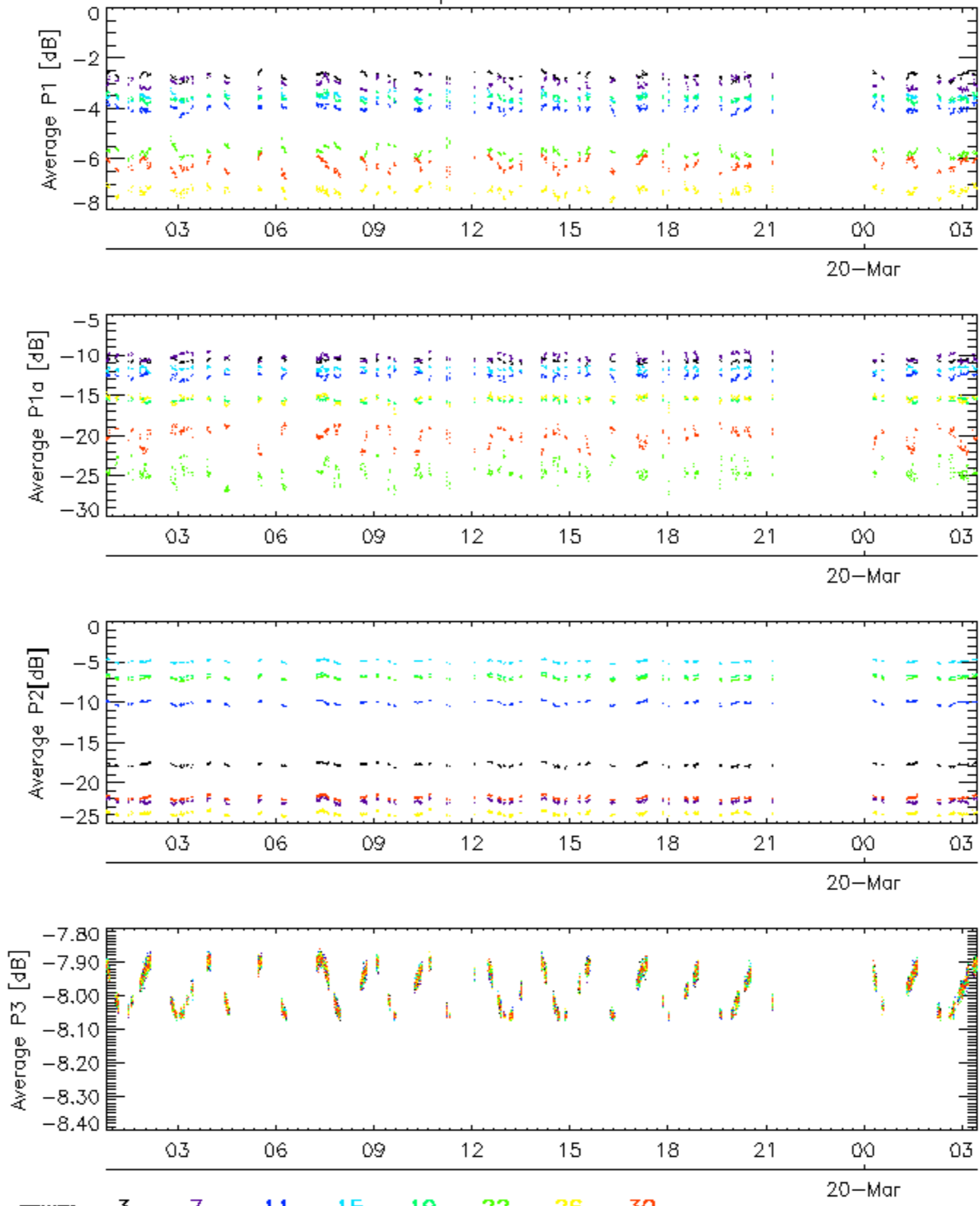
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



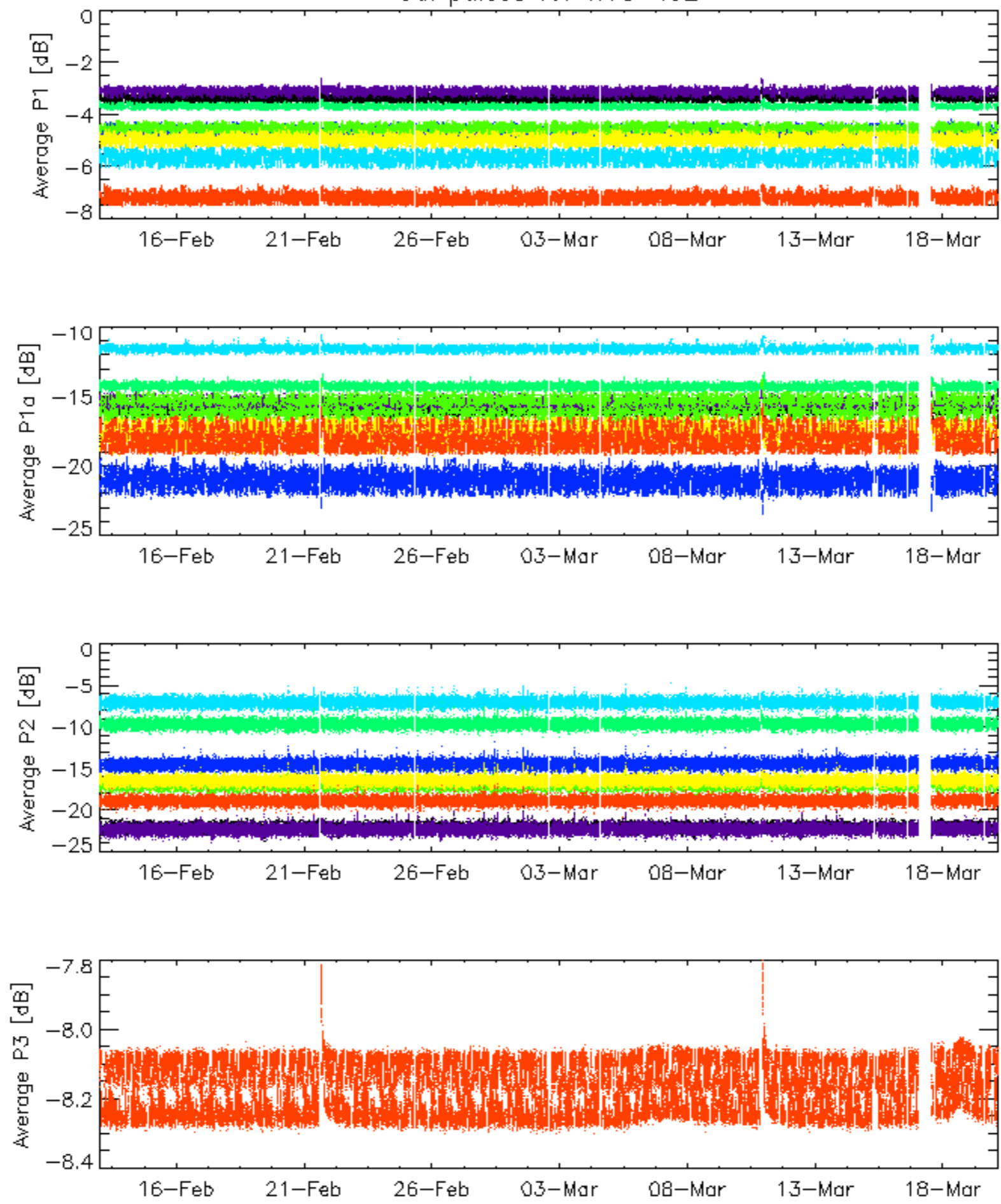
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



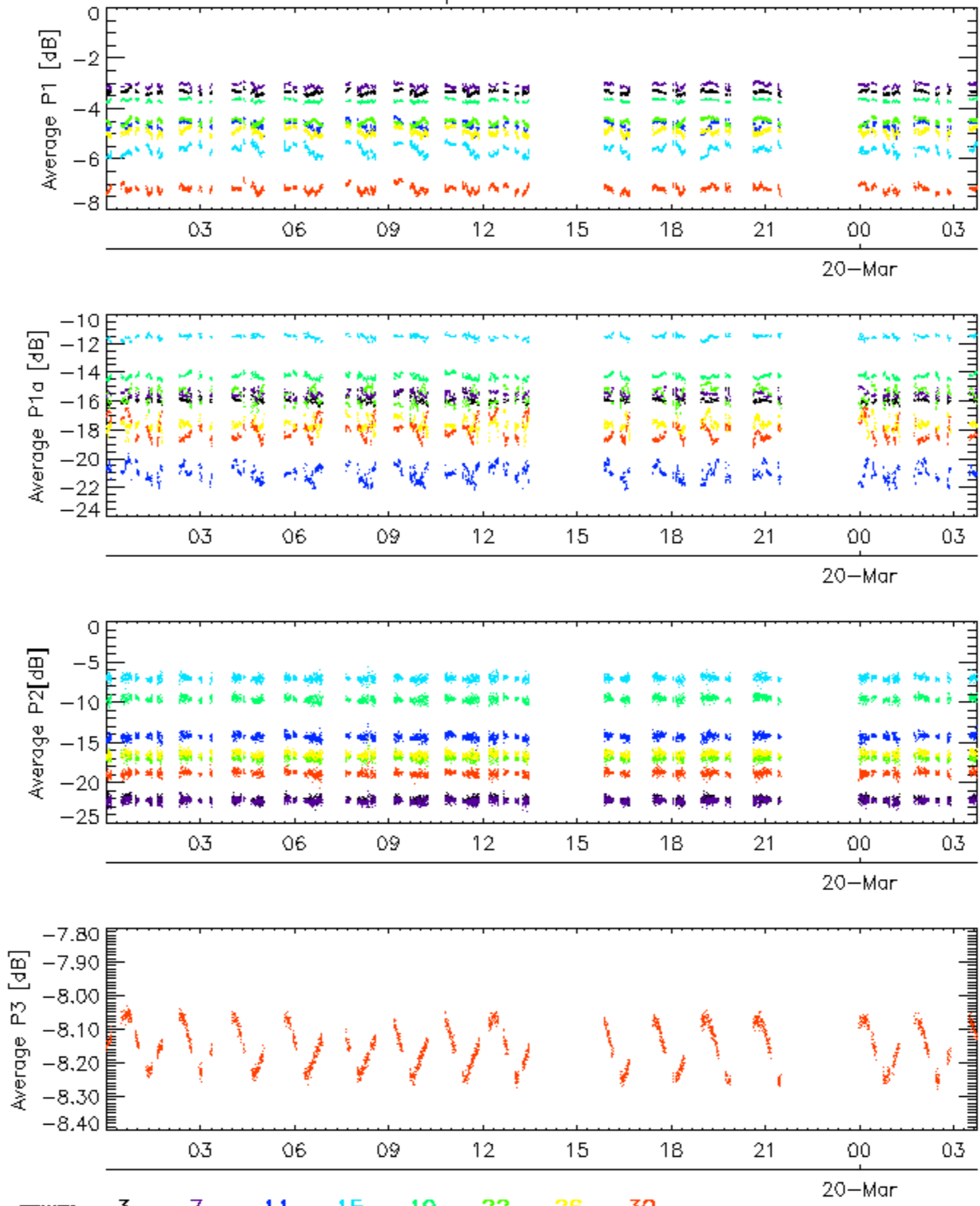
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

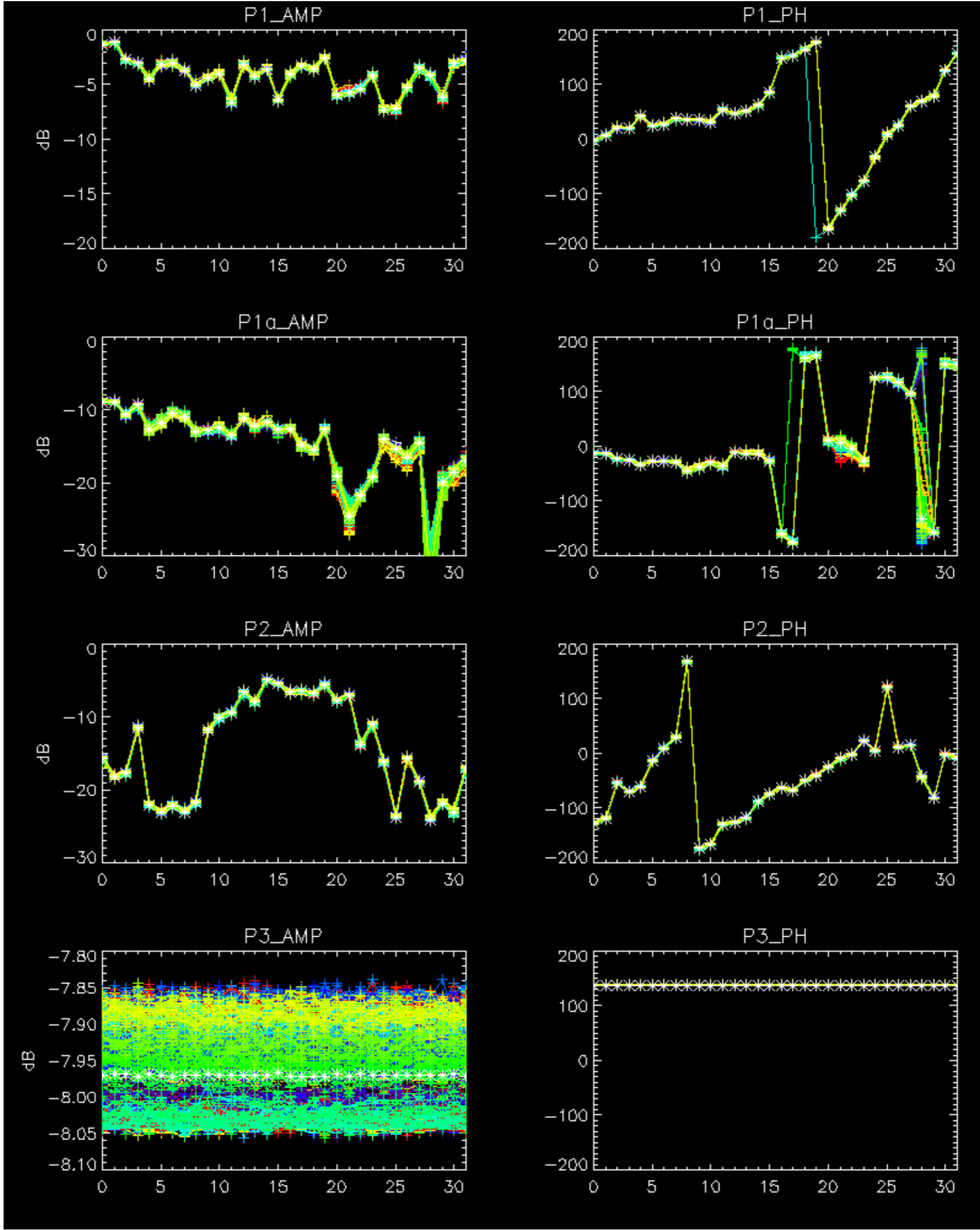


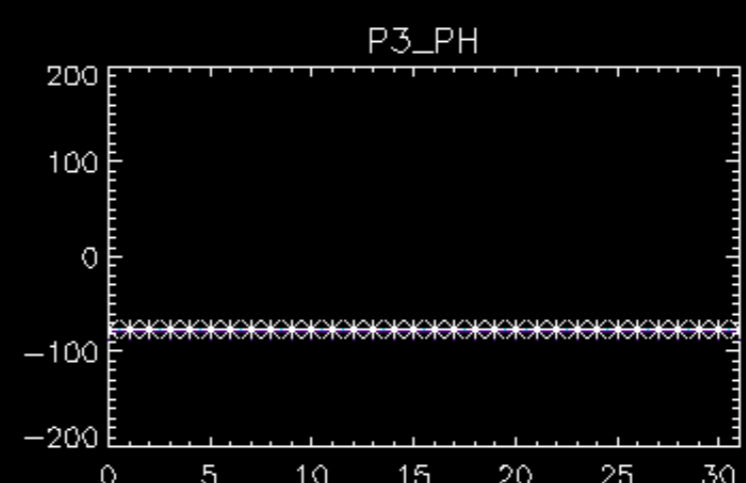
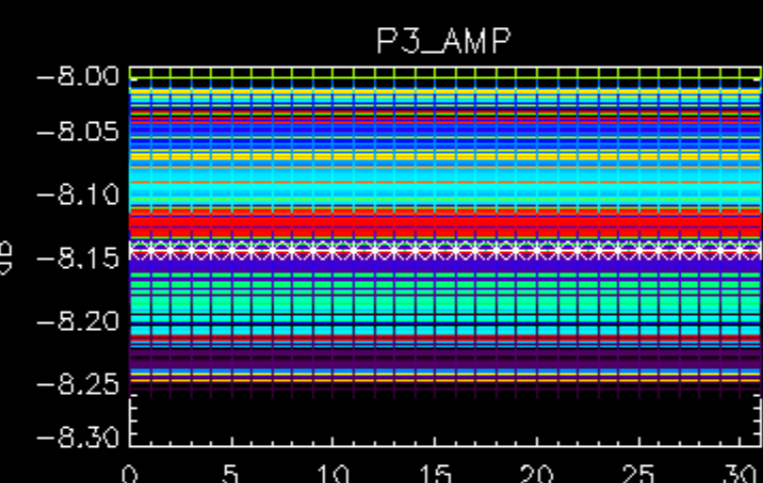
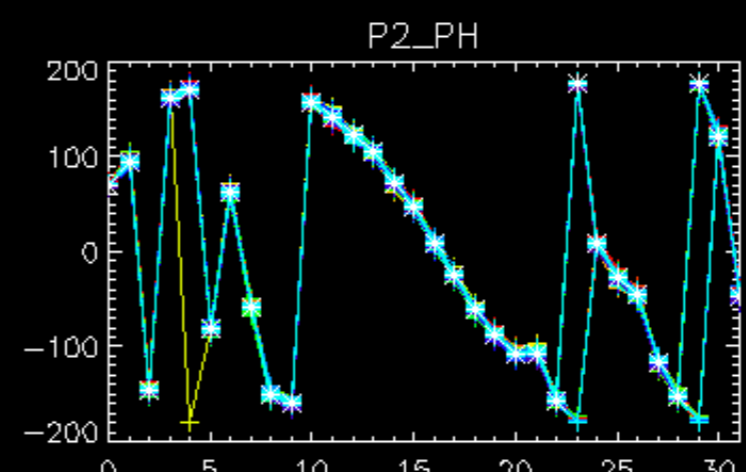
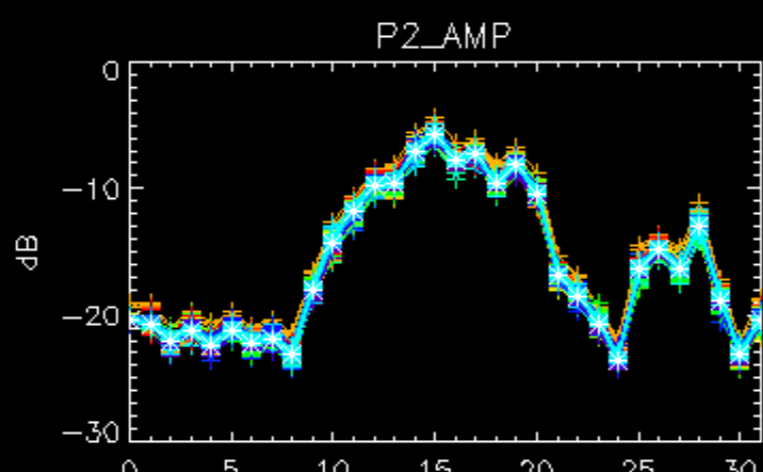
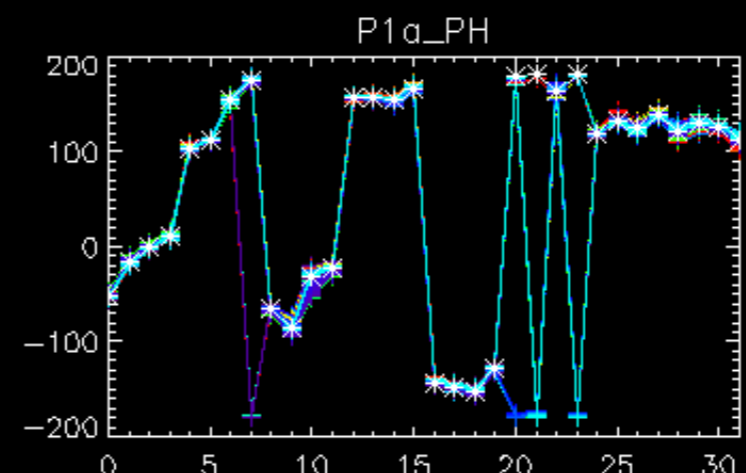
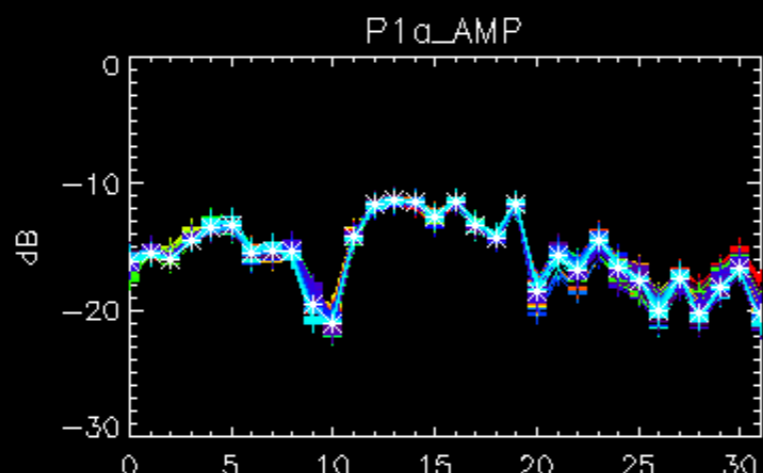
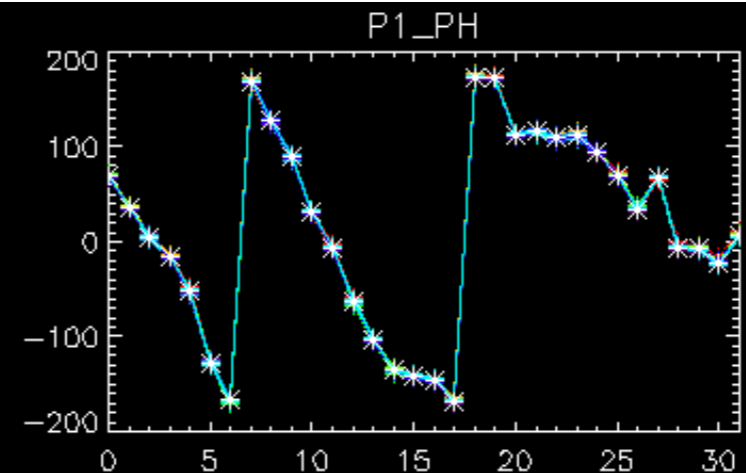
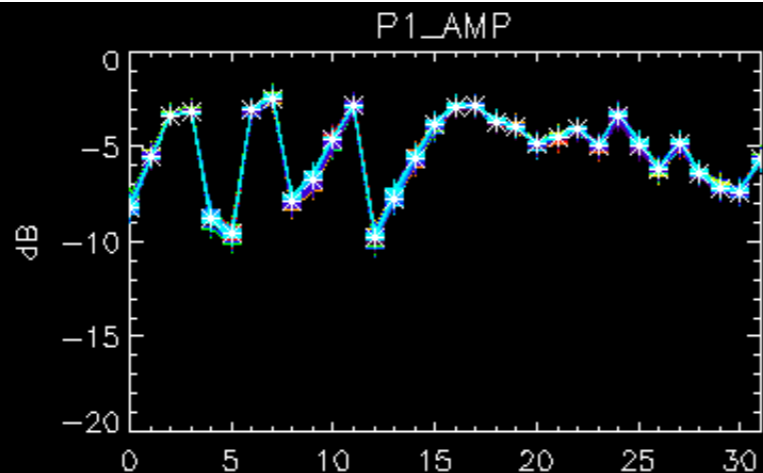
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



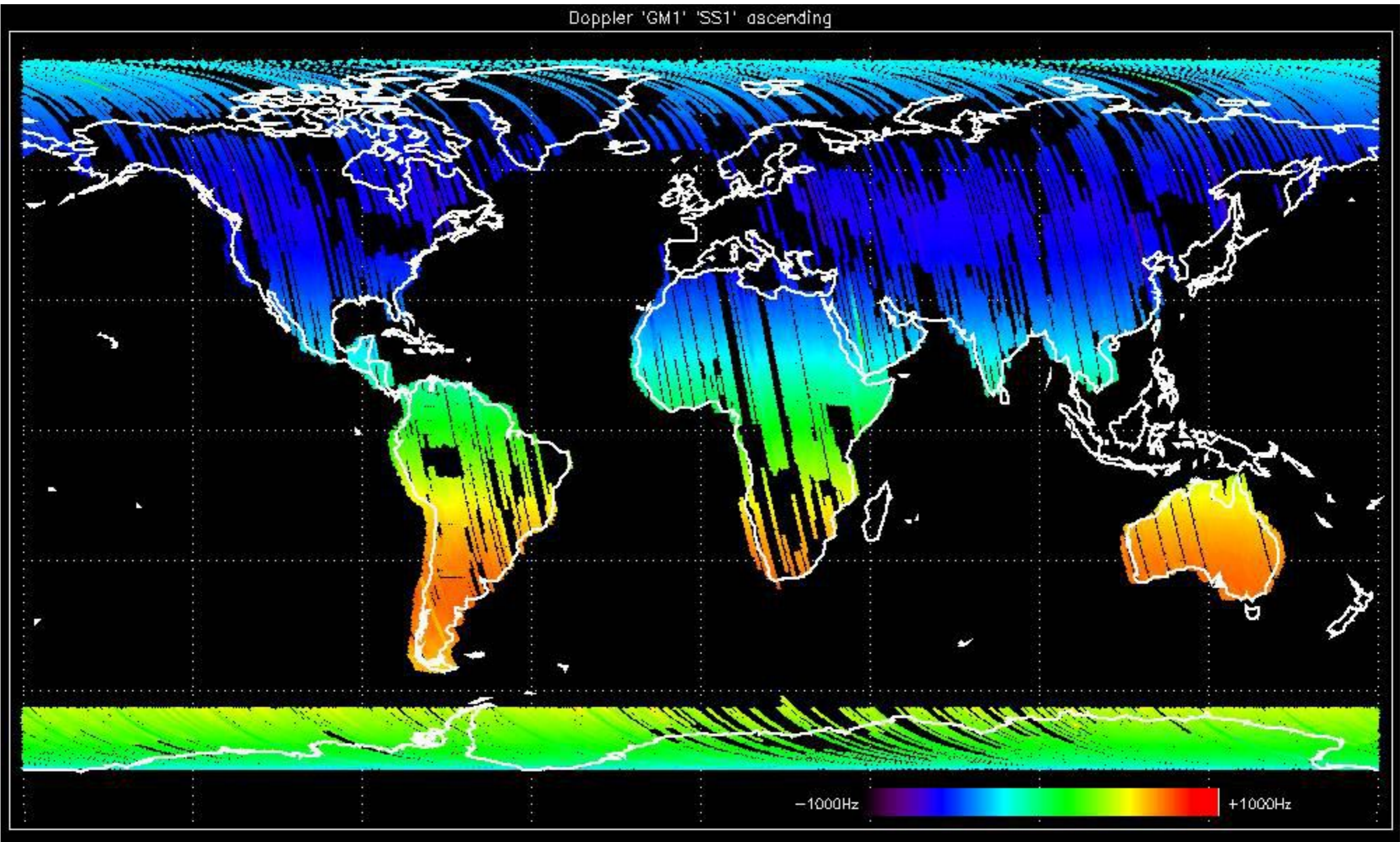
No anomalies observed.



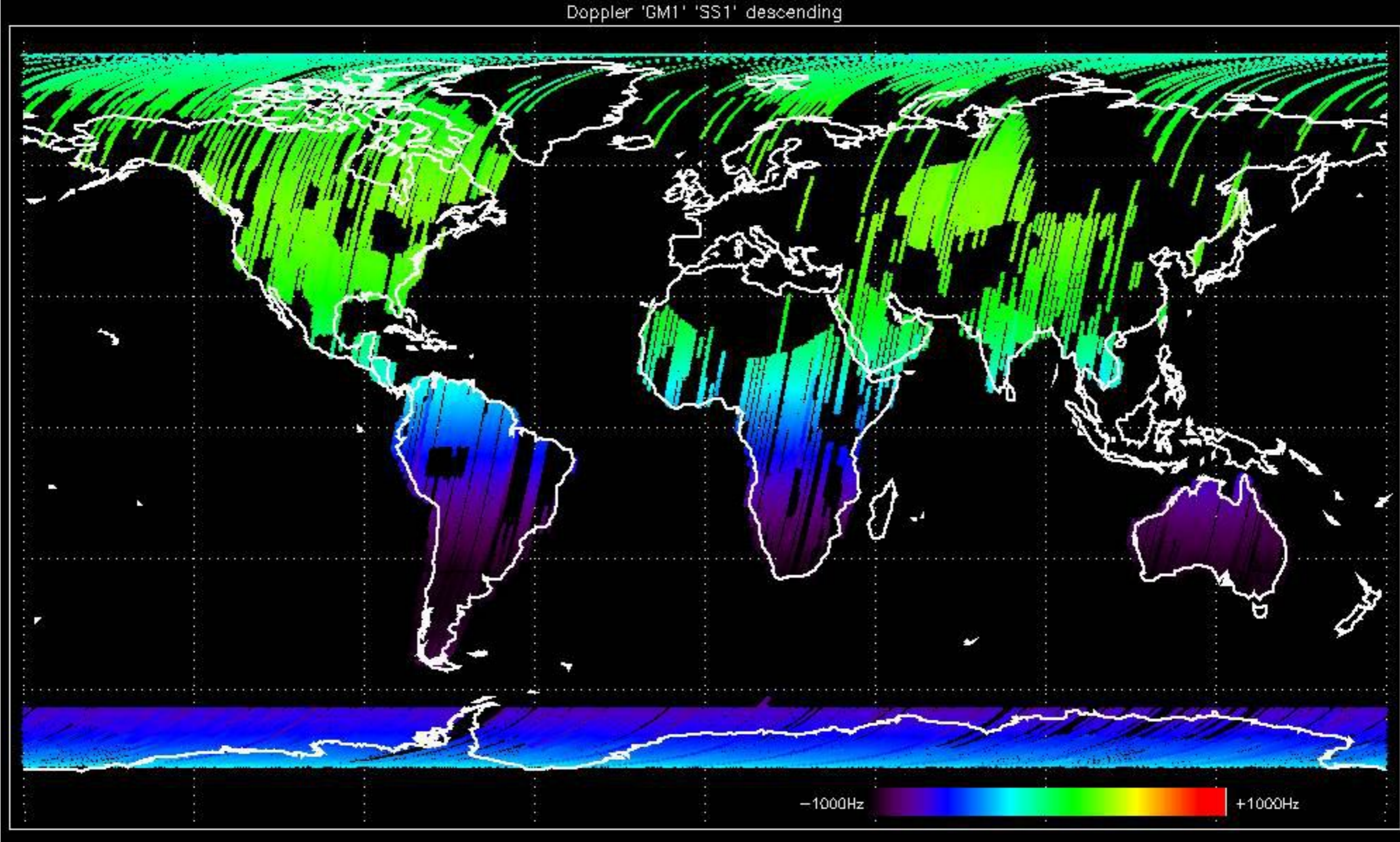


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

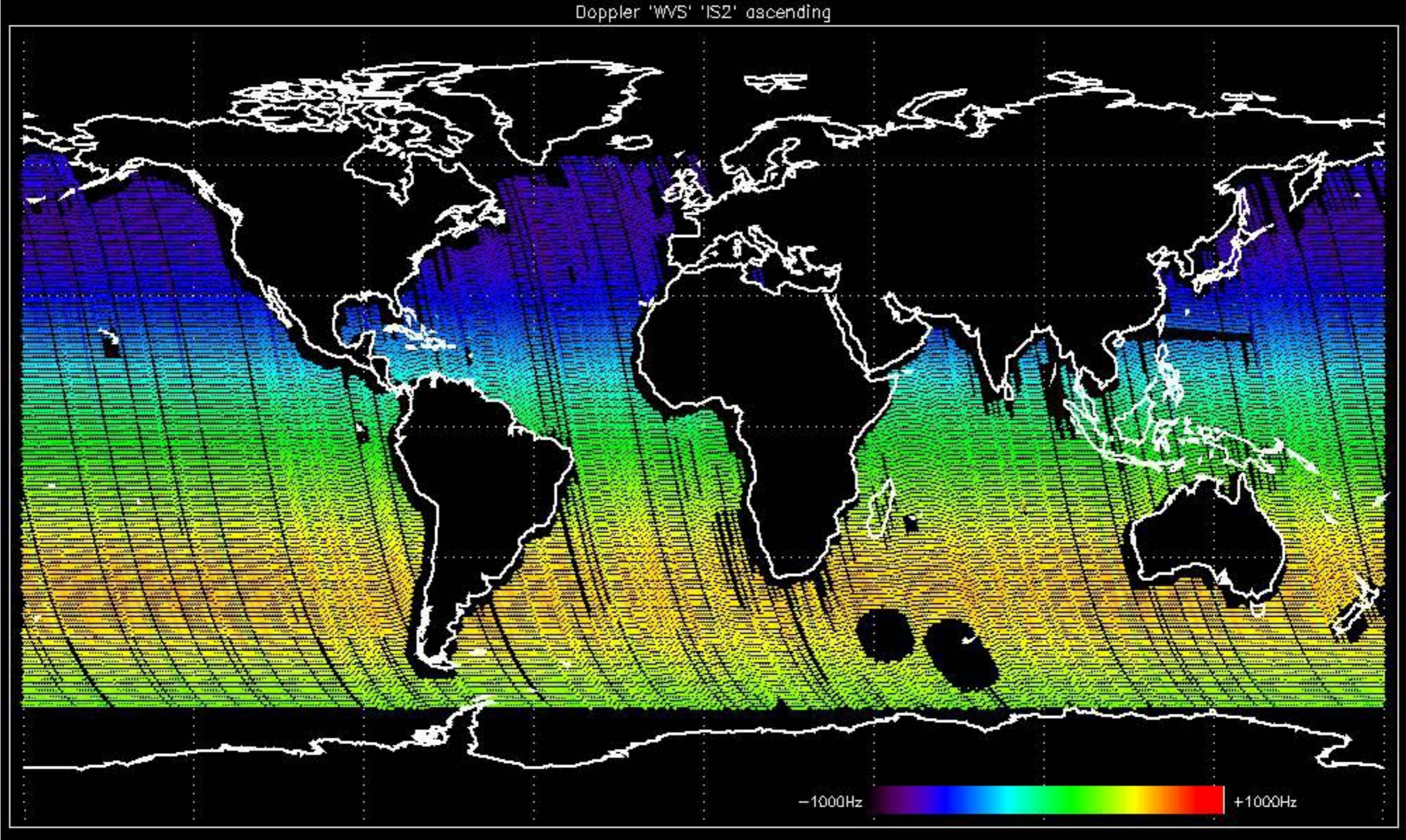
Doppler 'GM1' 'SS1' ascending



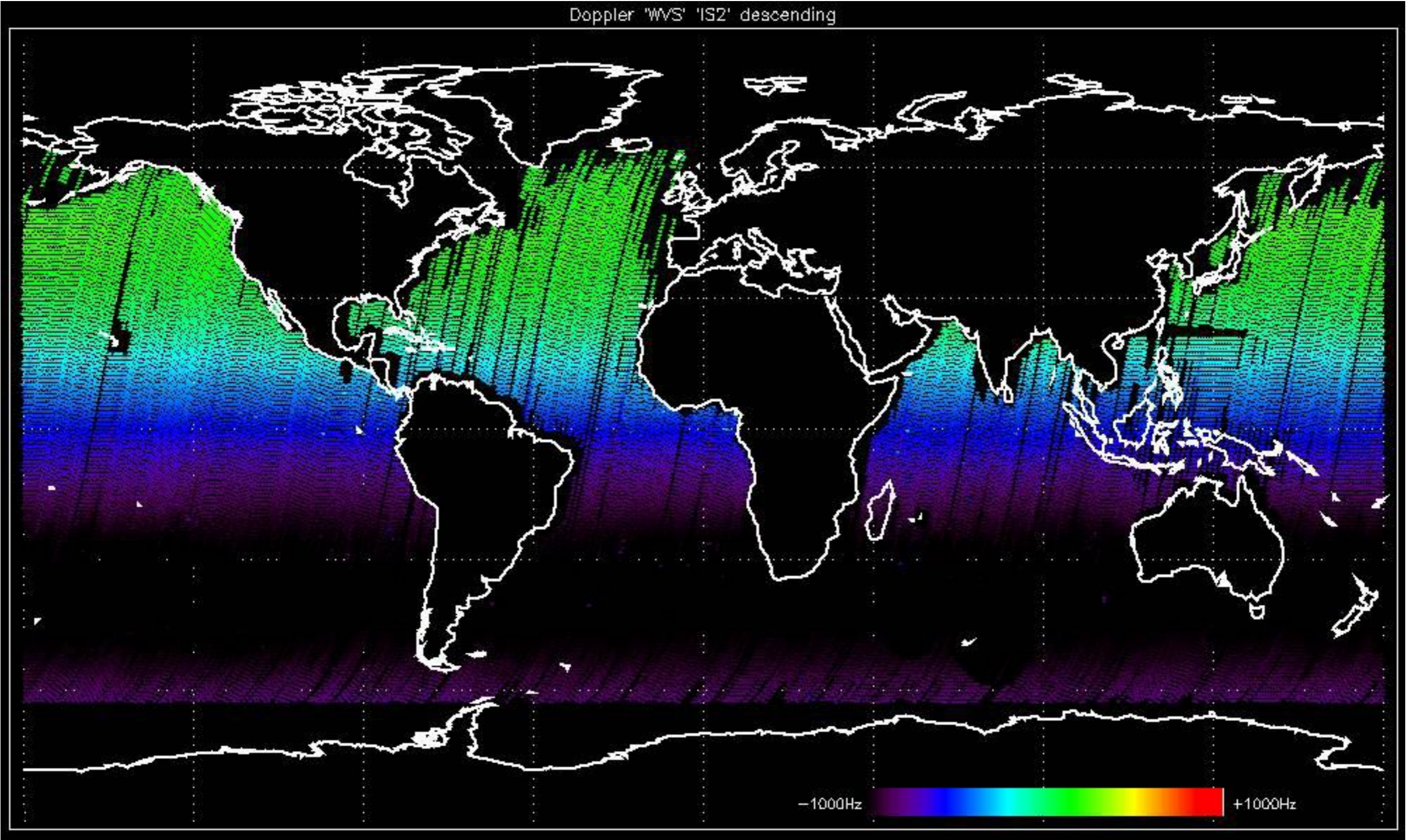
Doppler 'GM1' 'SS1' descending



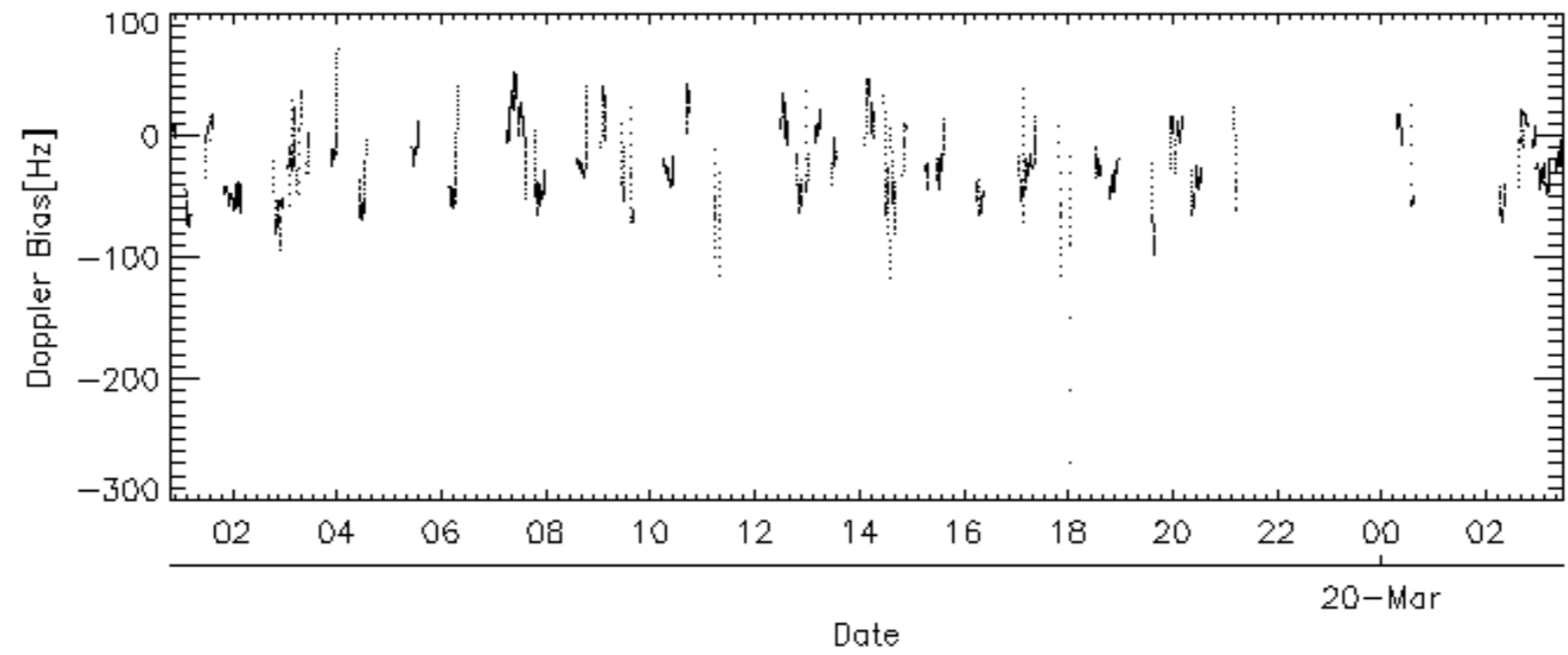
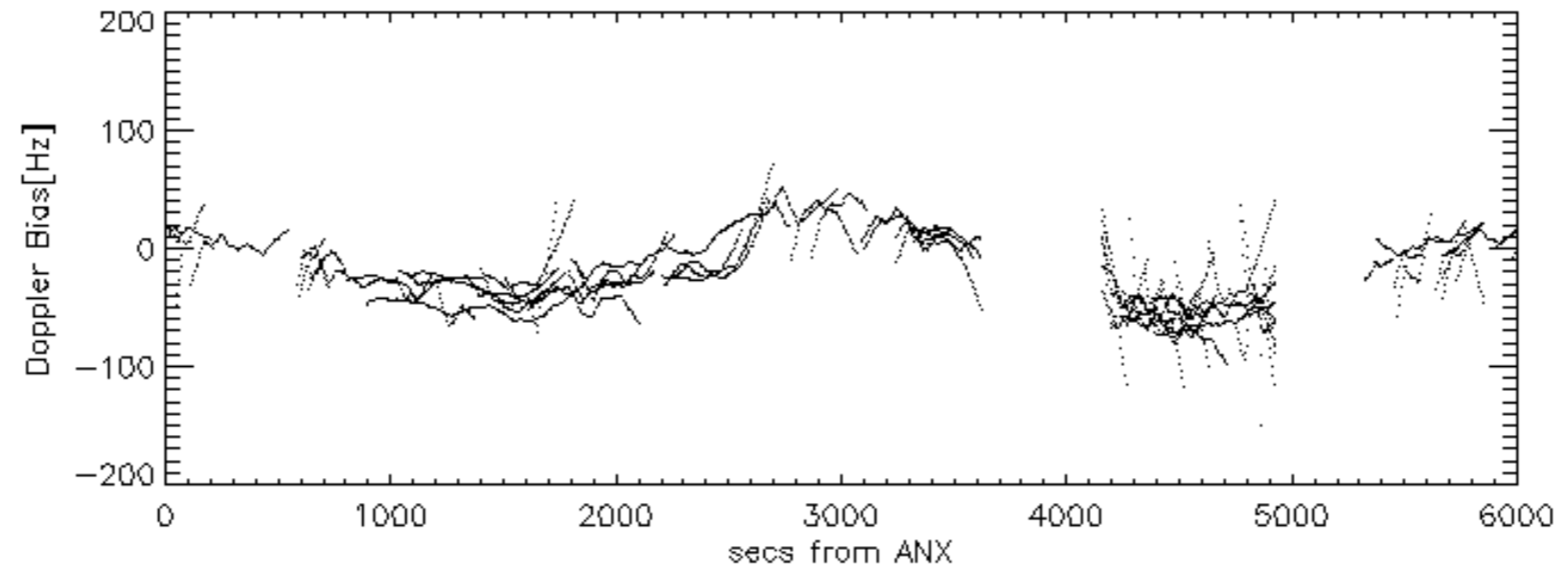
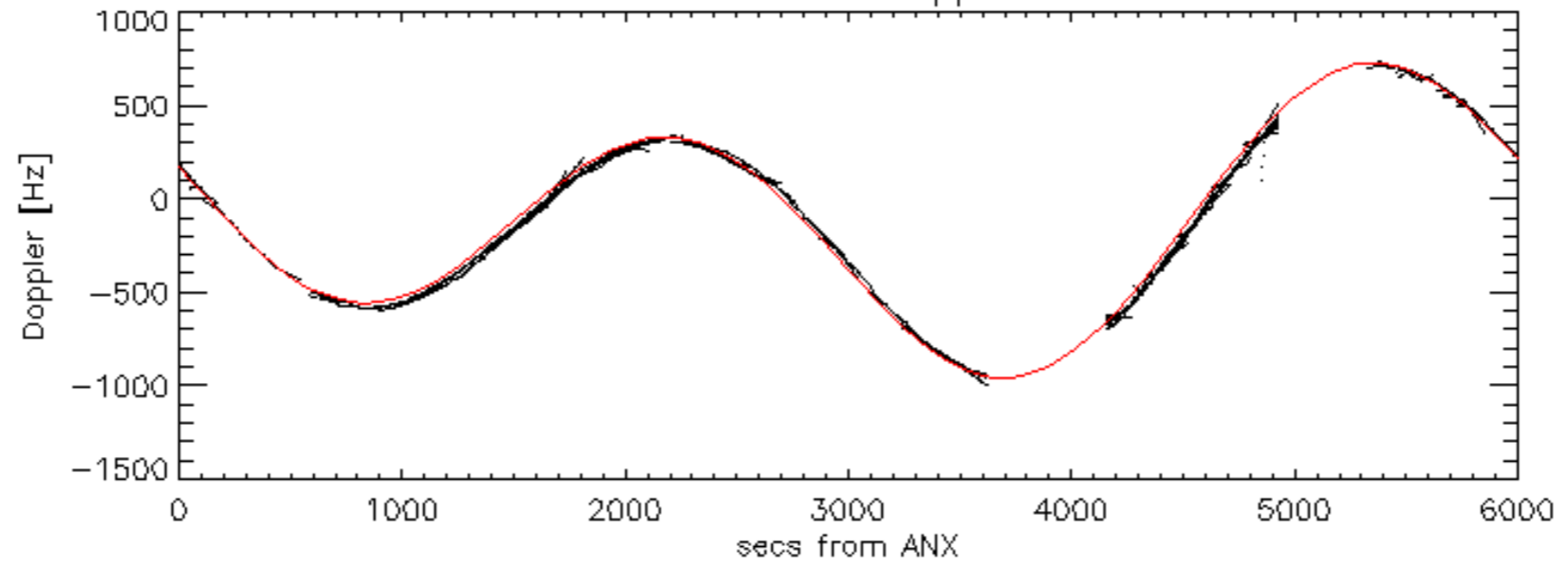
Doppler 'WVS' 'IS2' ascending

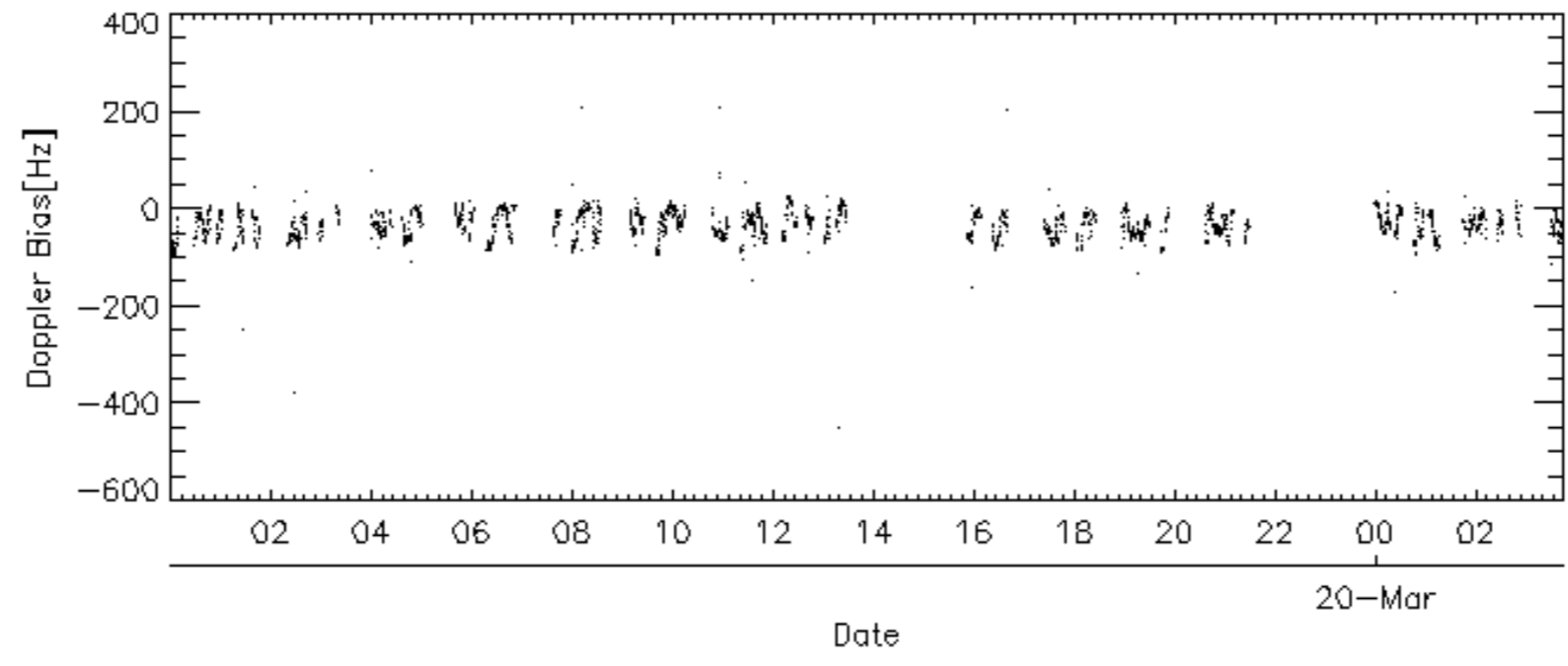
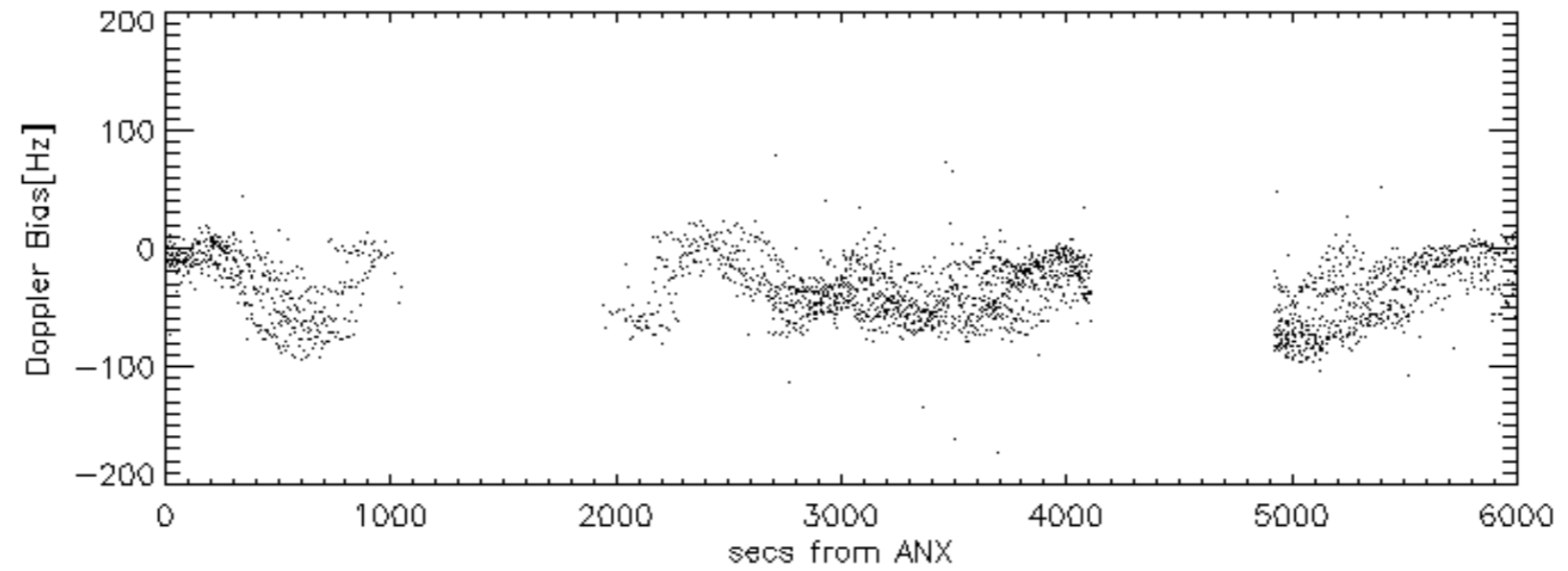
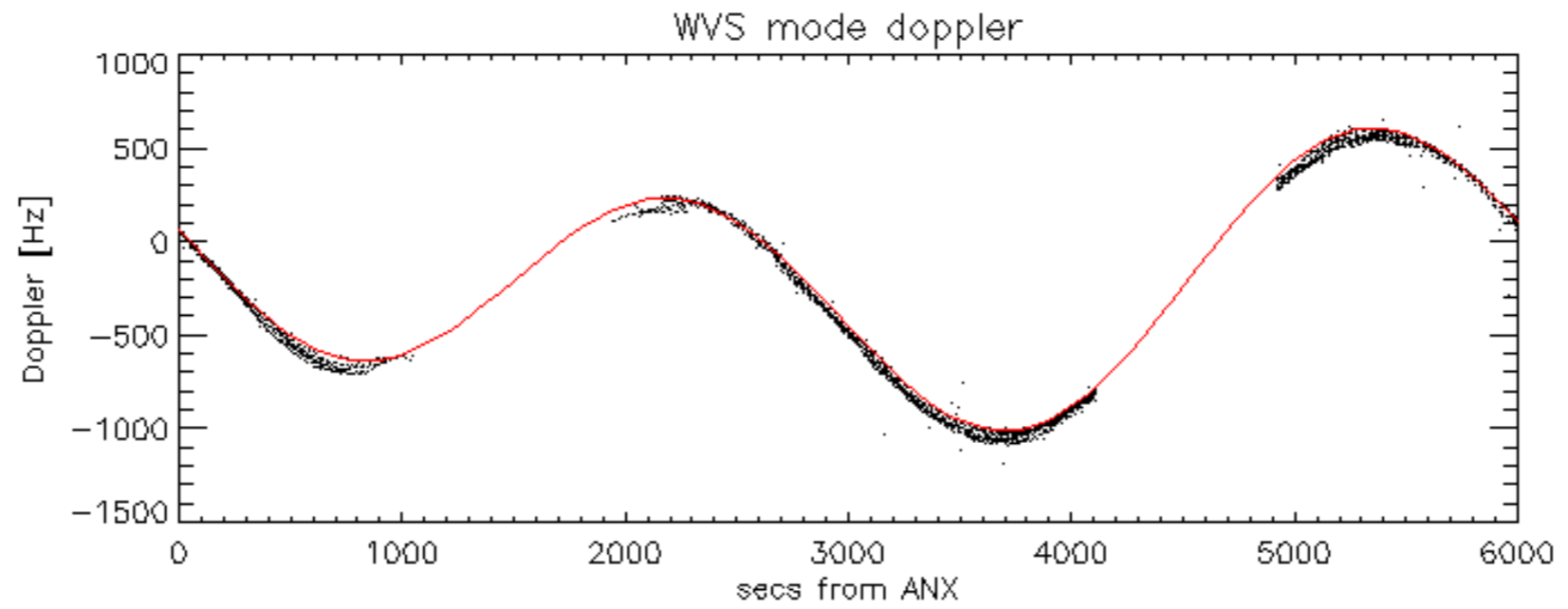


Doppler 'WVS' 'IS2' descending

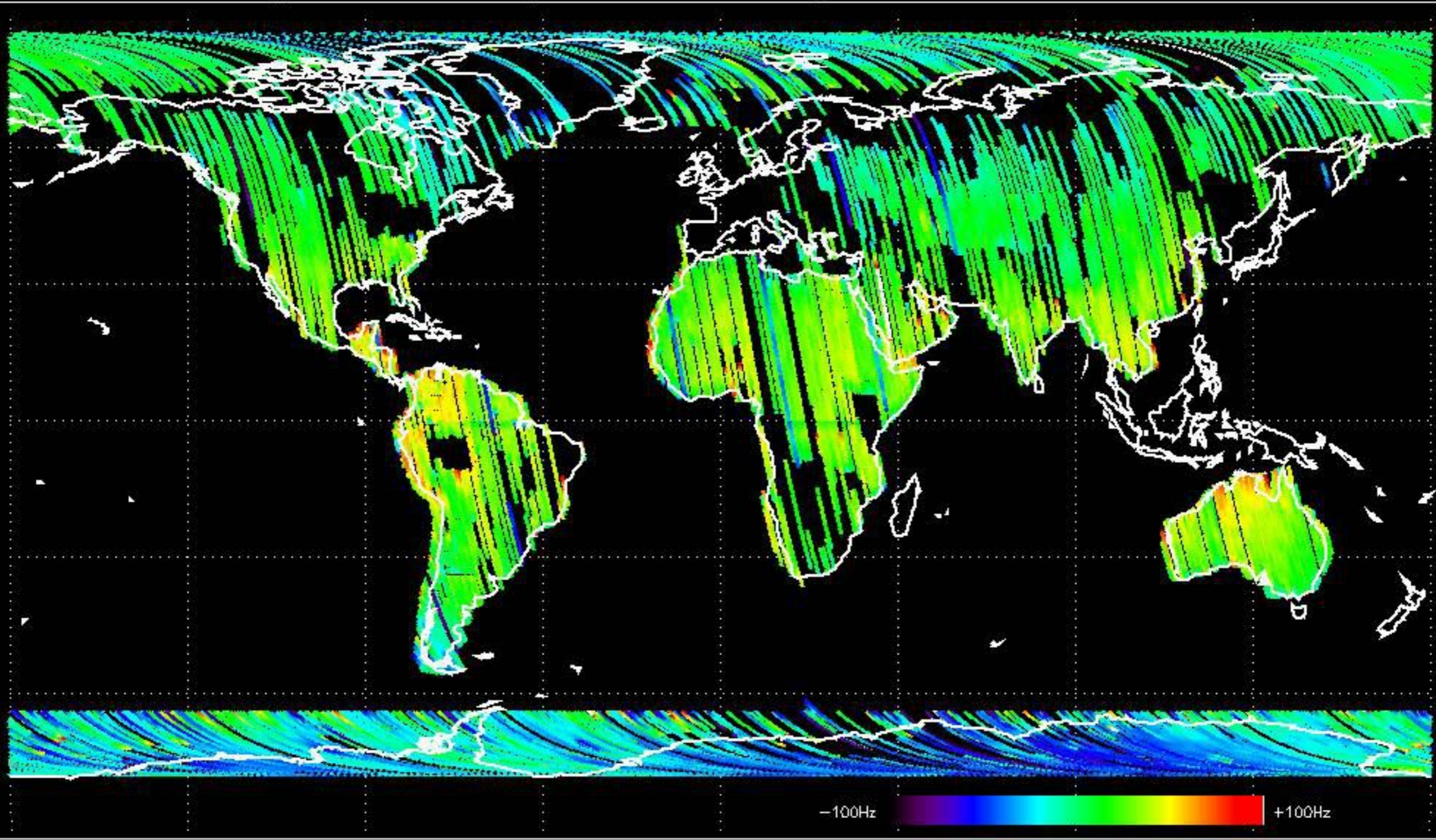


GM1 mode doppler

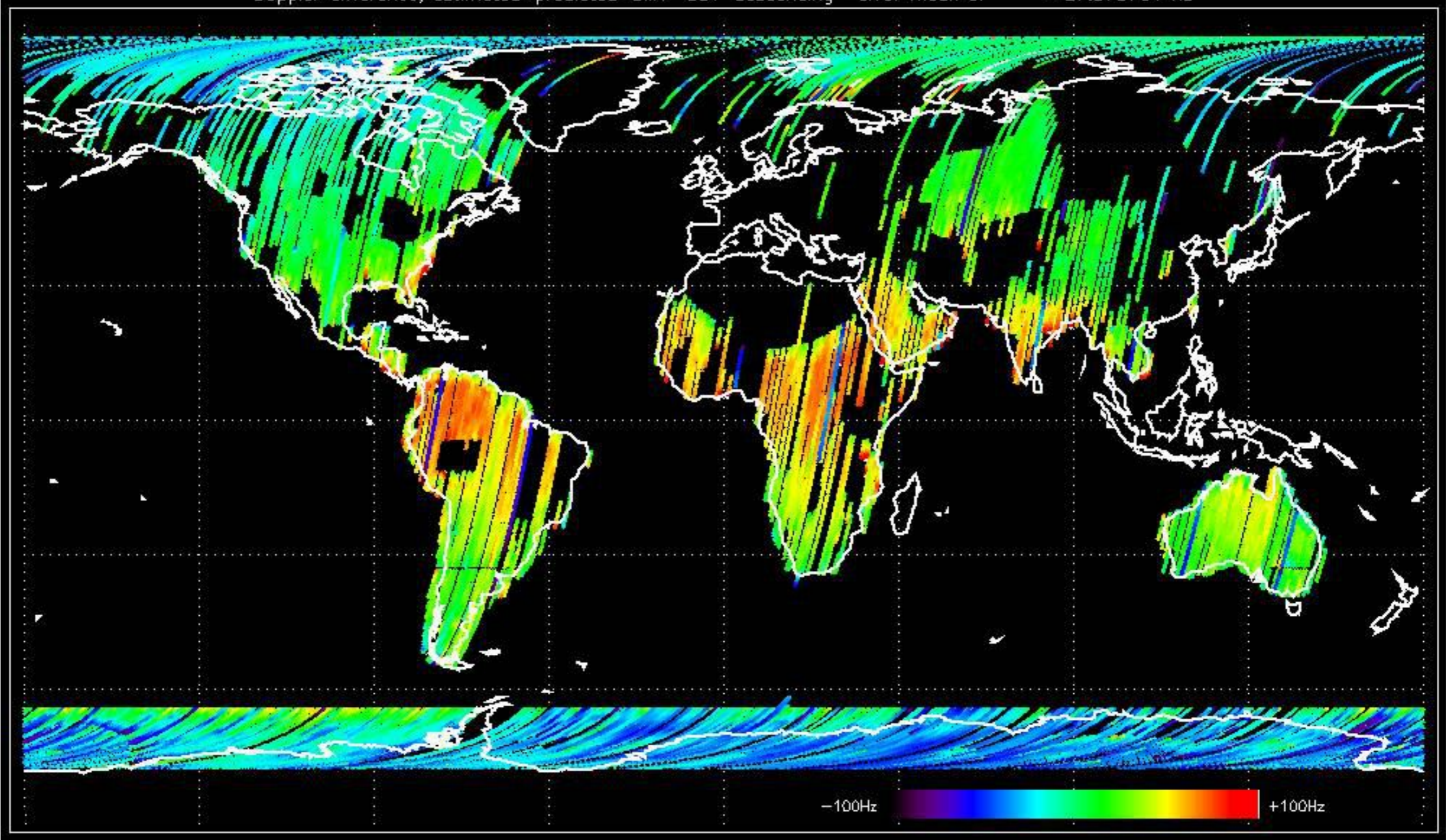




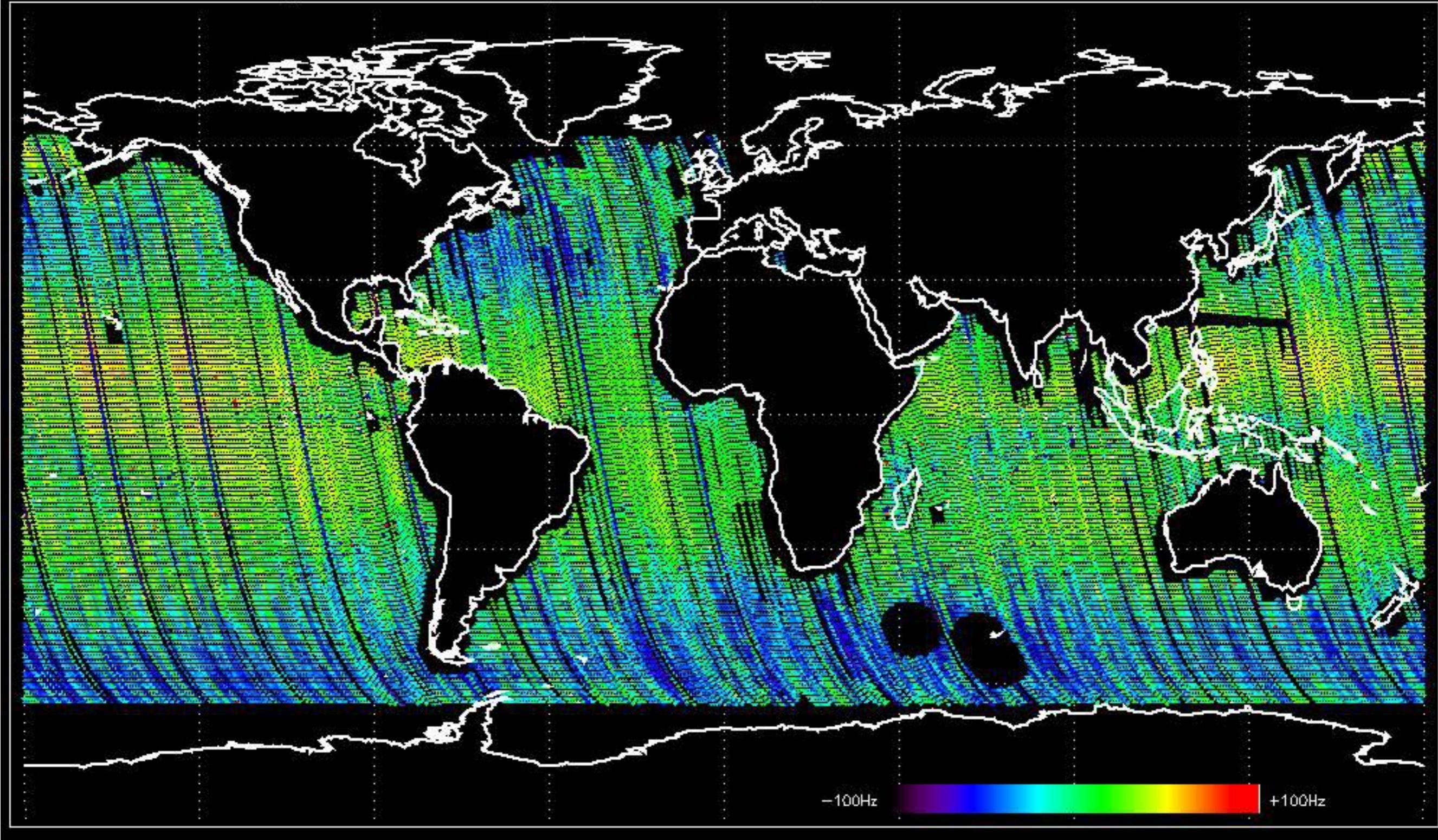
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -32.034873 Hz



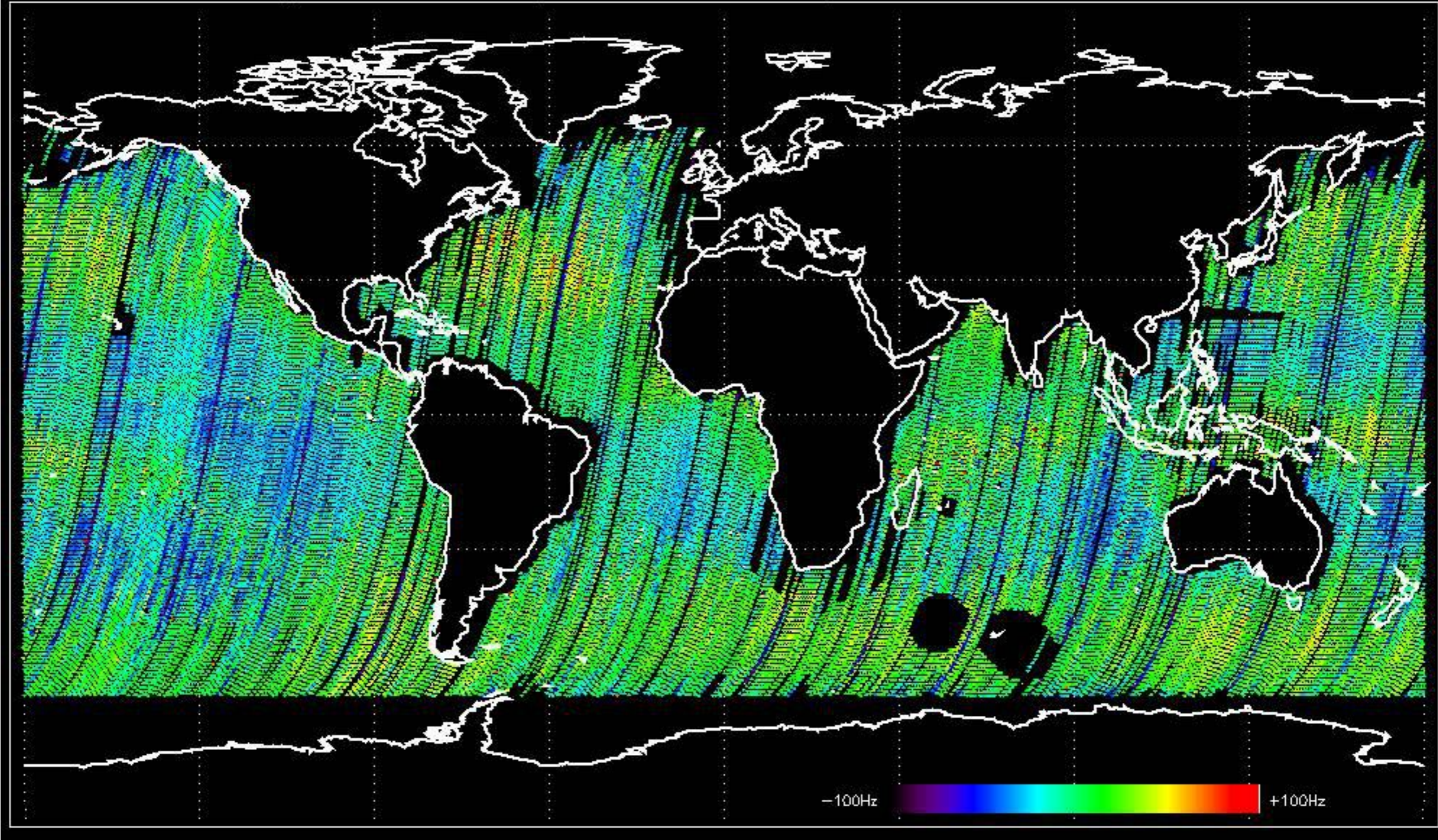
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.975764 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -36.824727 Hz

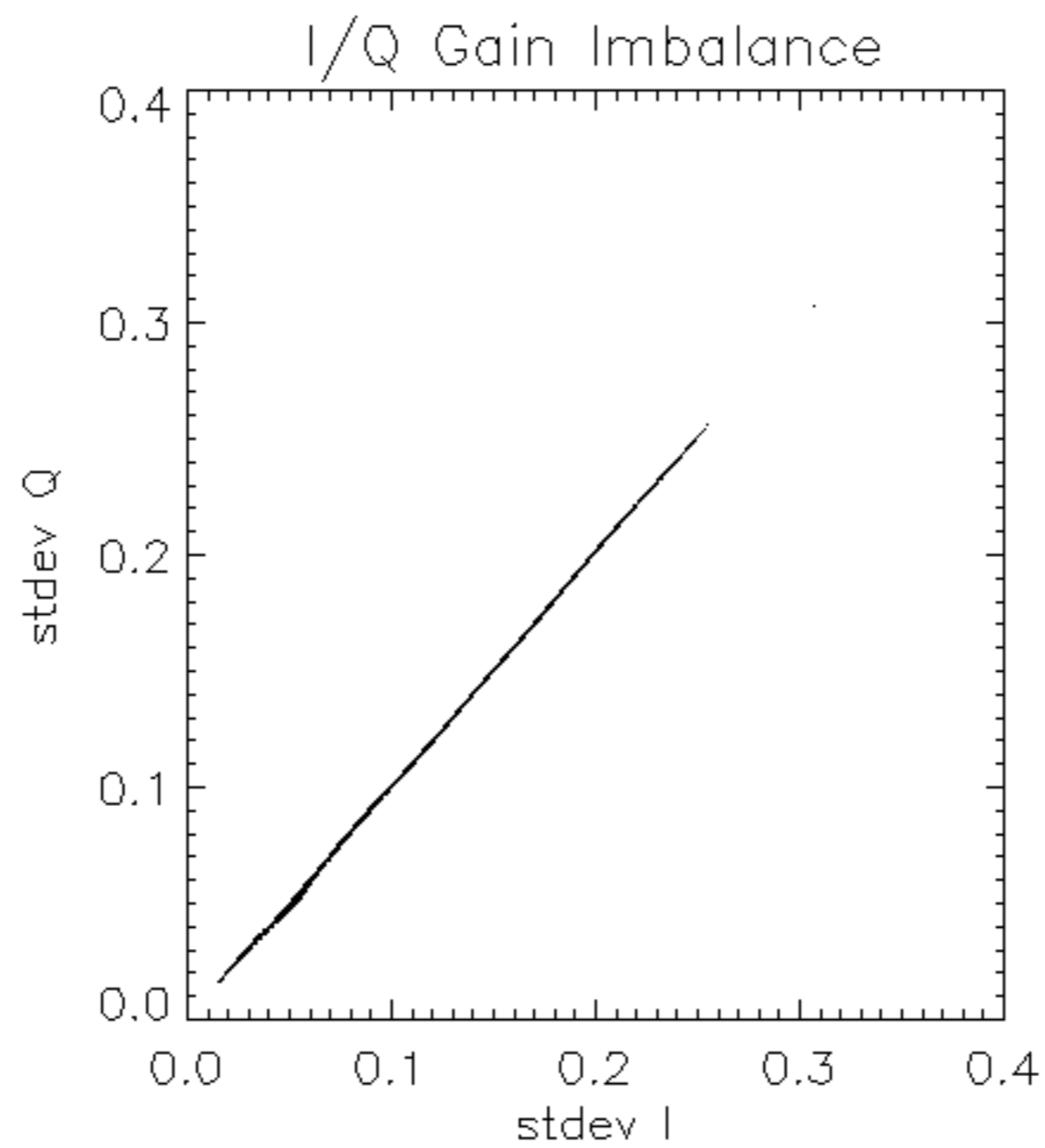


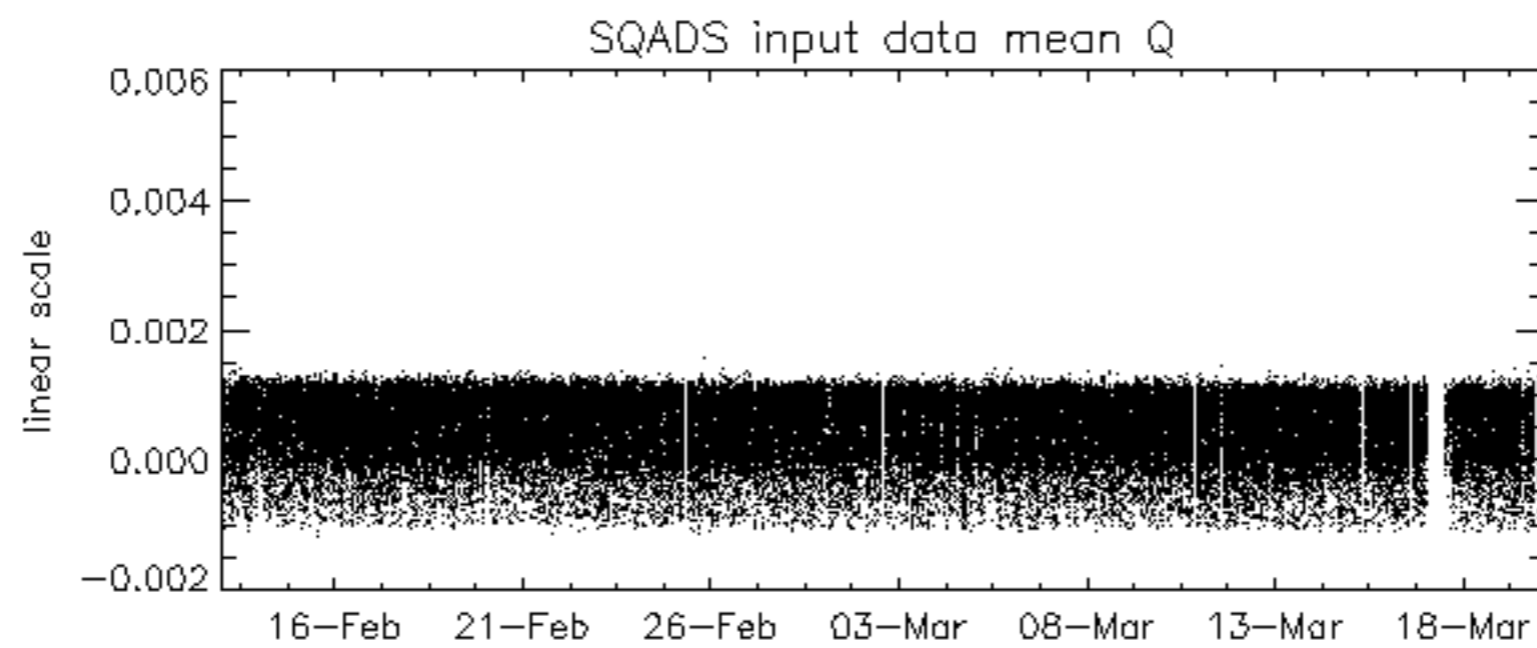
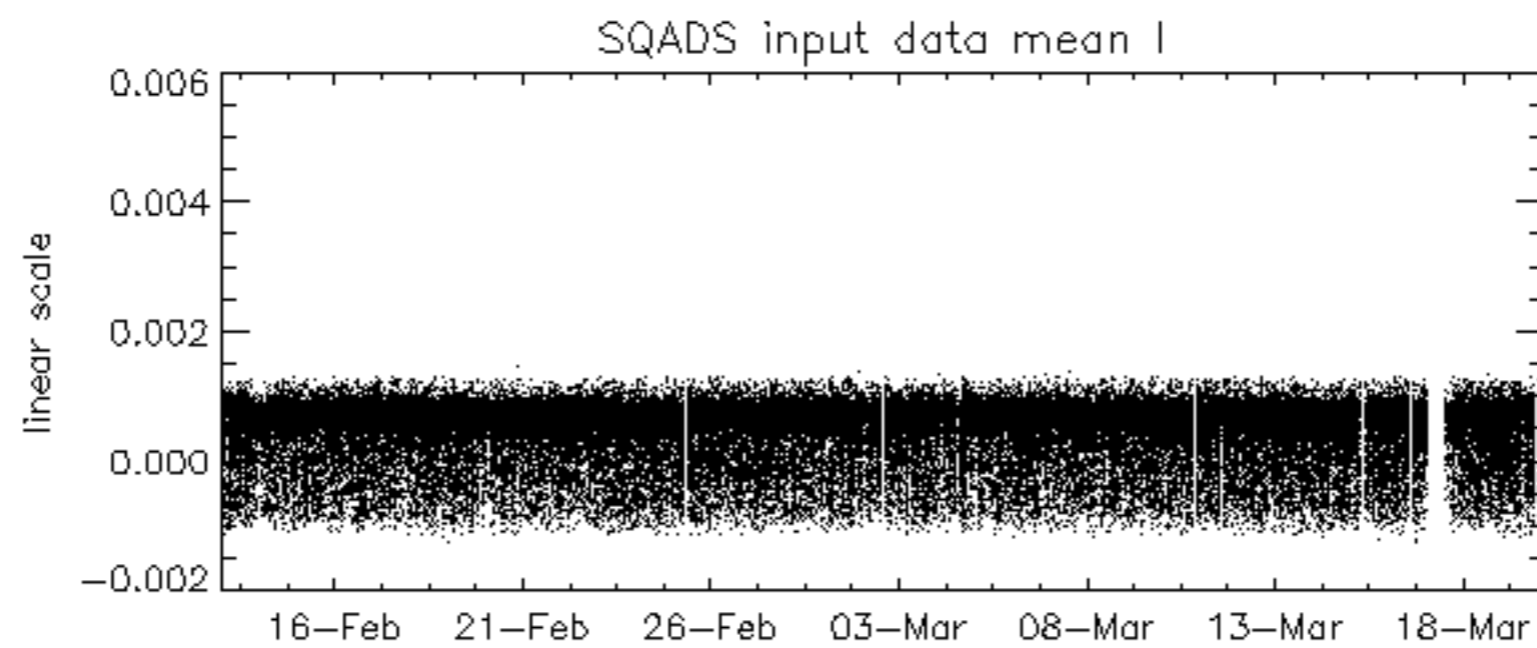
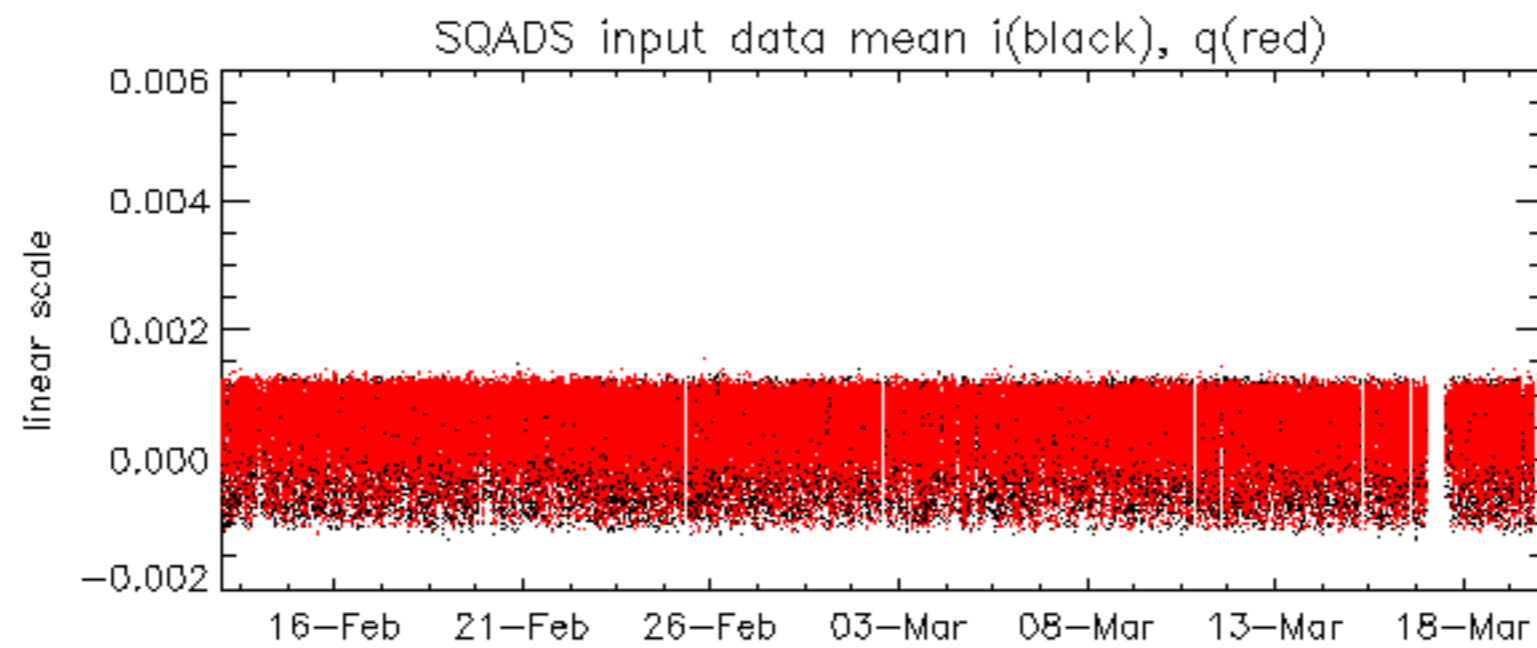
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -35.161668 Hz

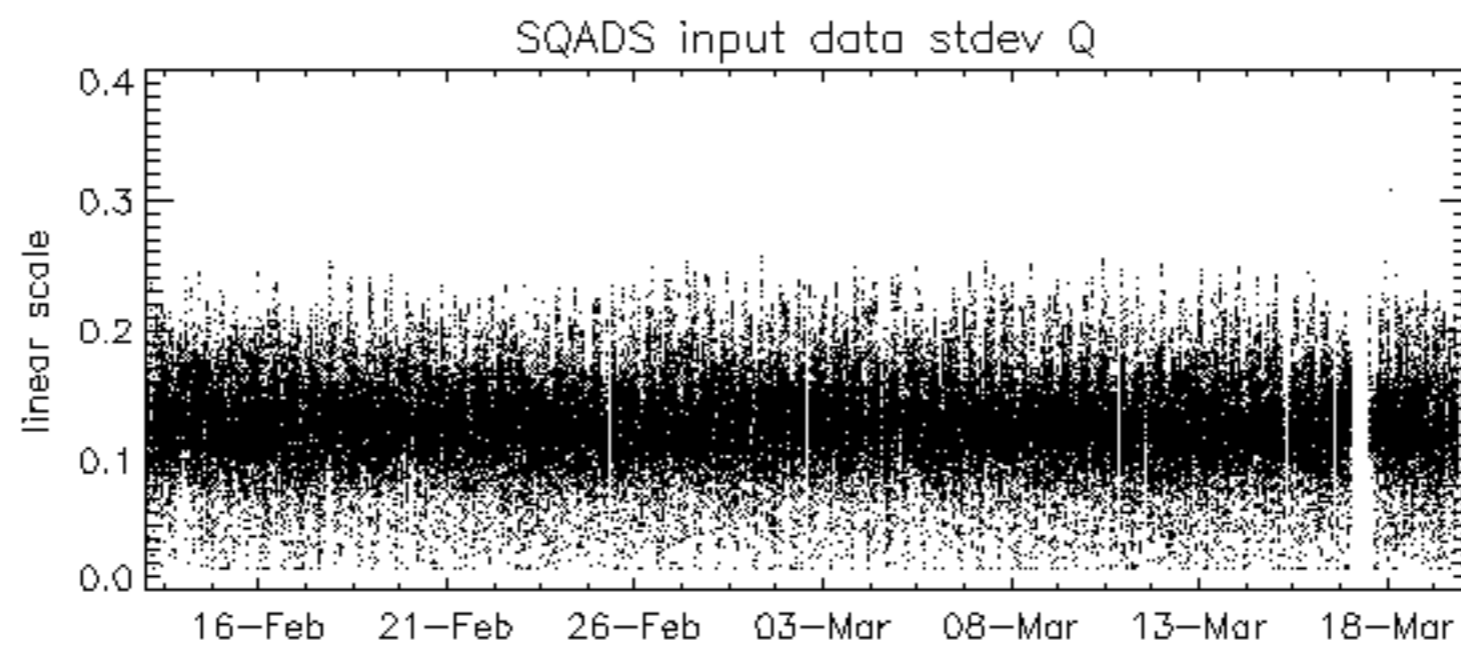
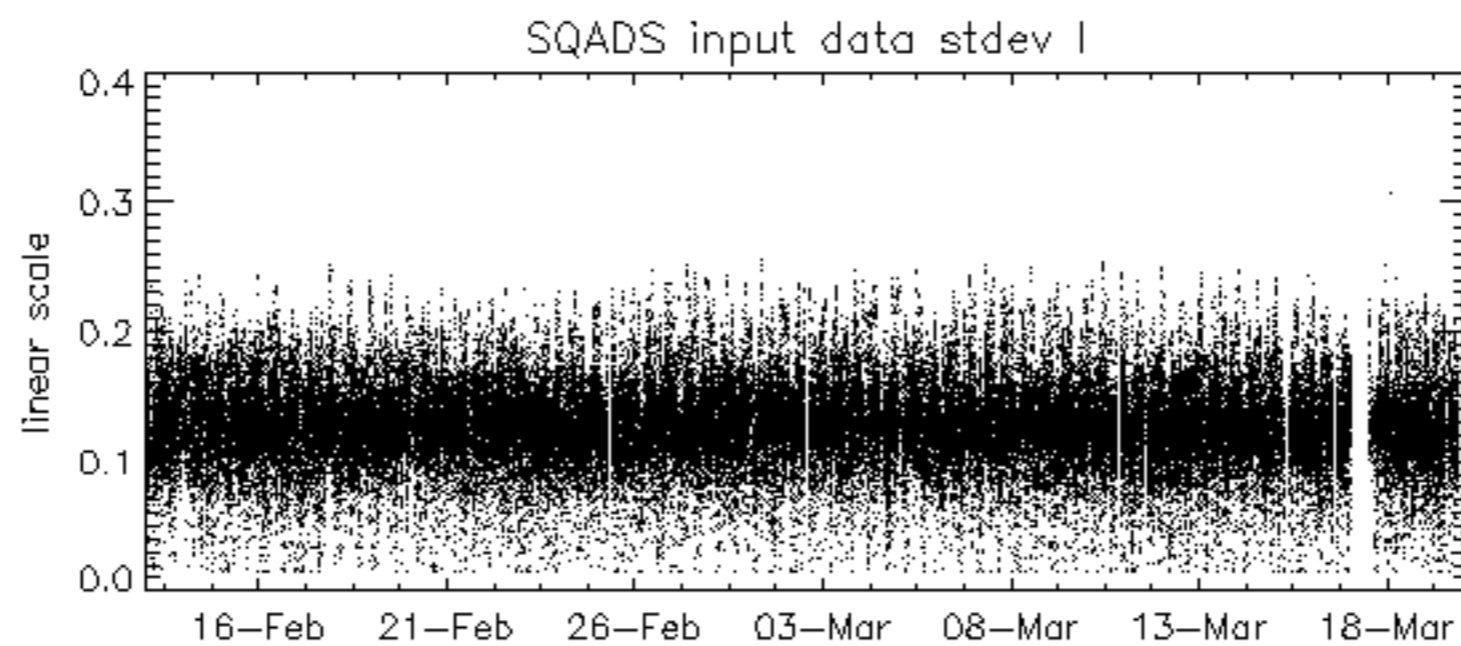
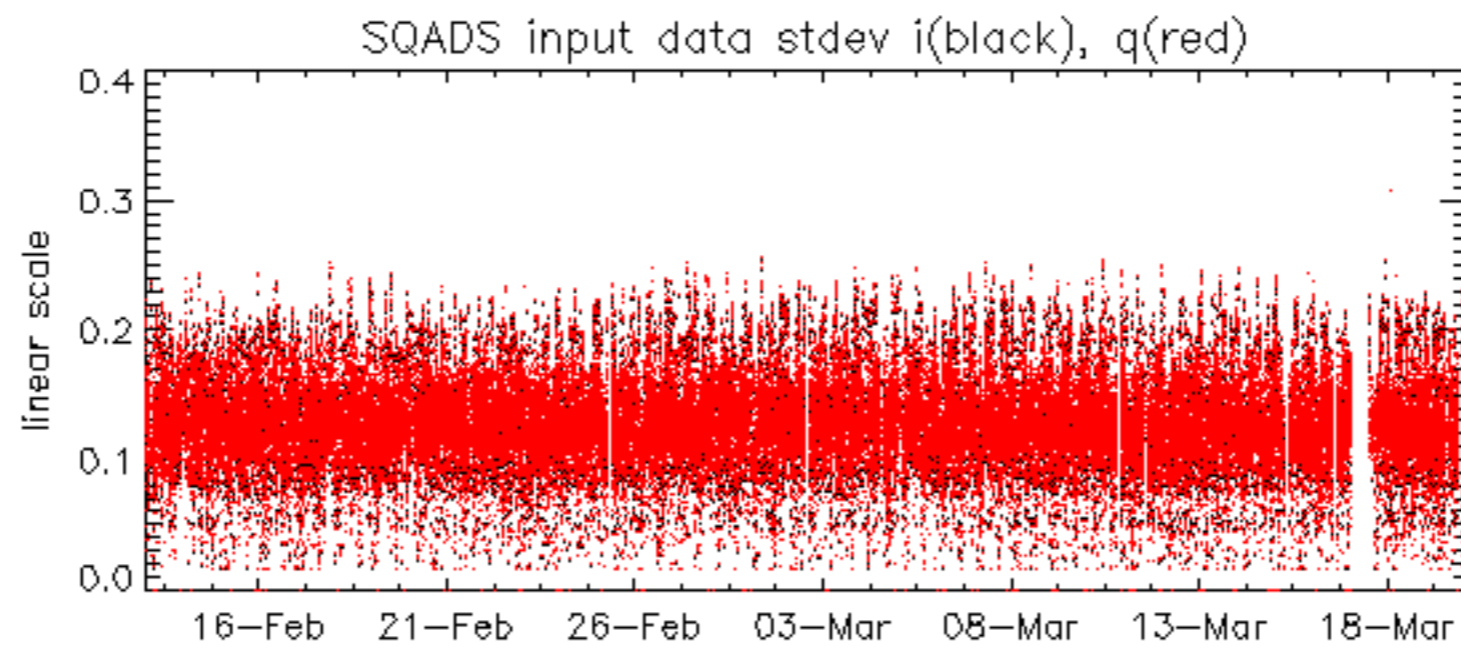


No anomalies observed on available MS products:

No anomalies observed.



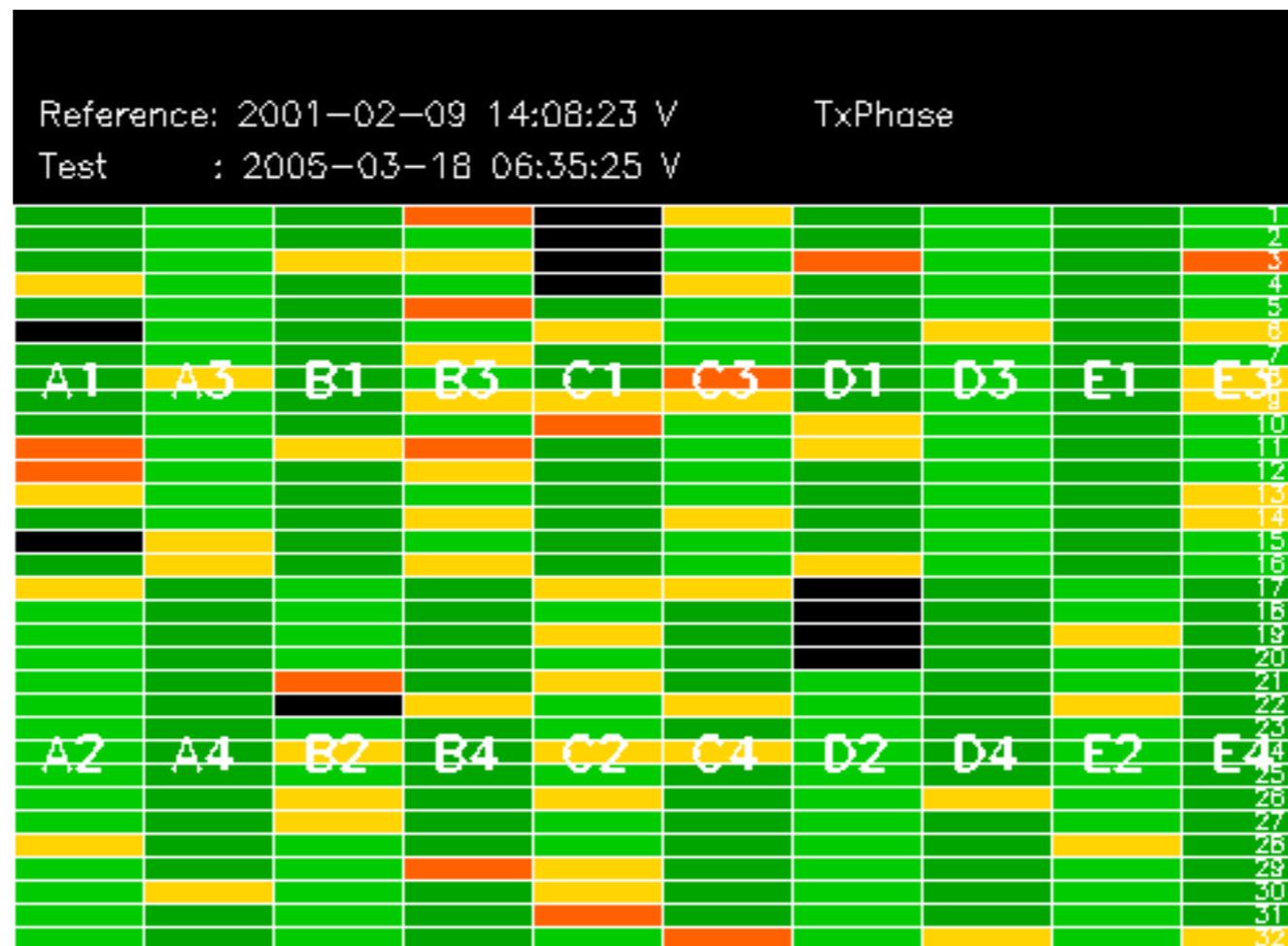


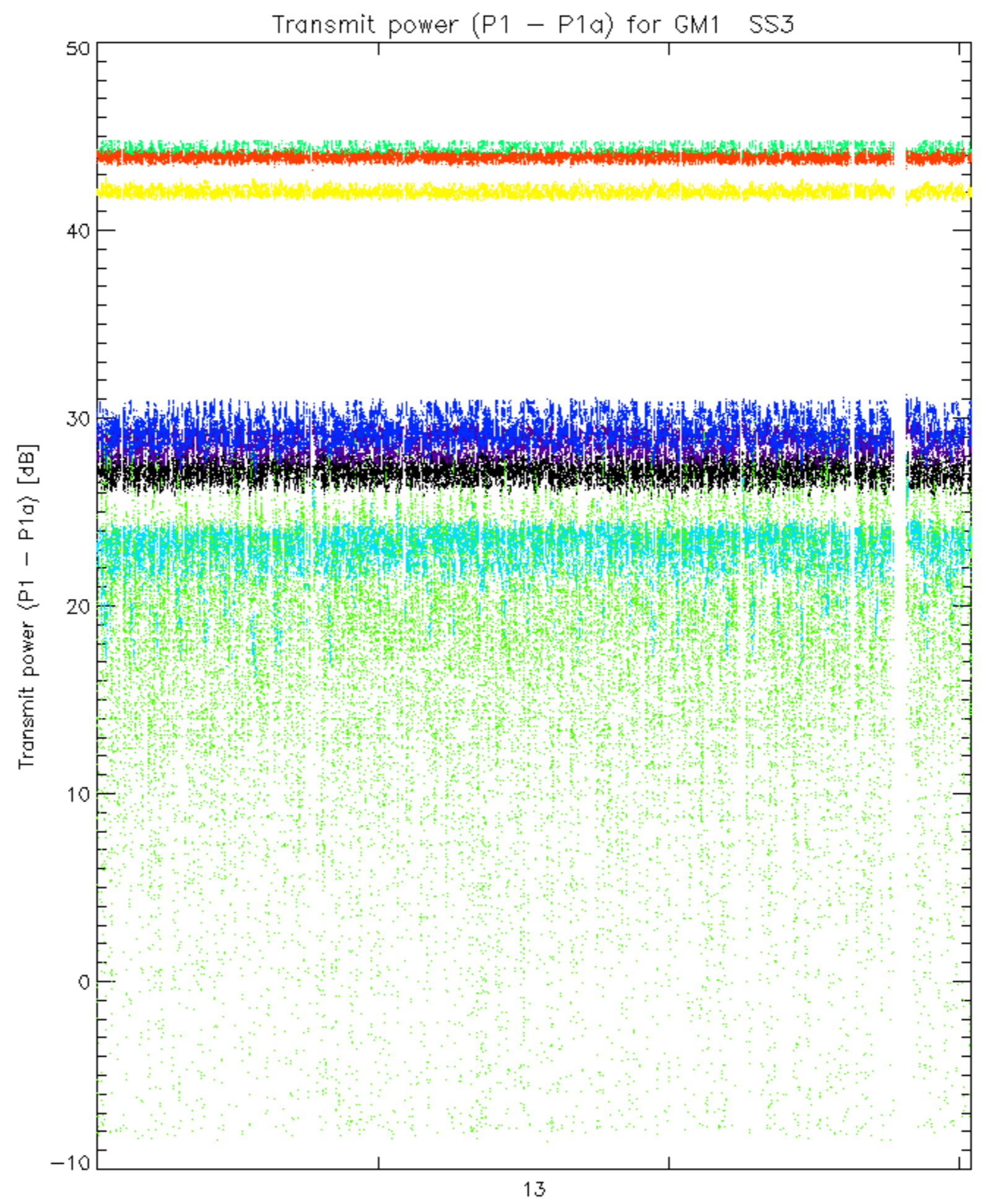


Summary of analysis for the last 3 days 2005031[890]

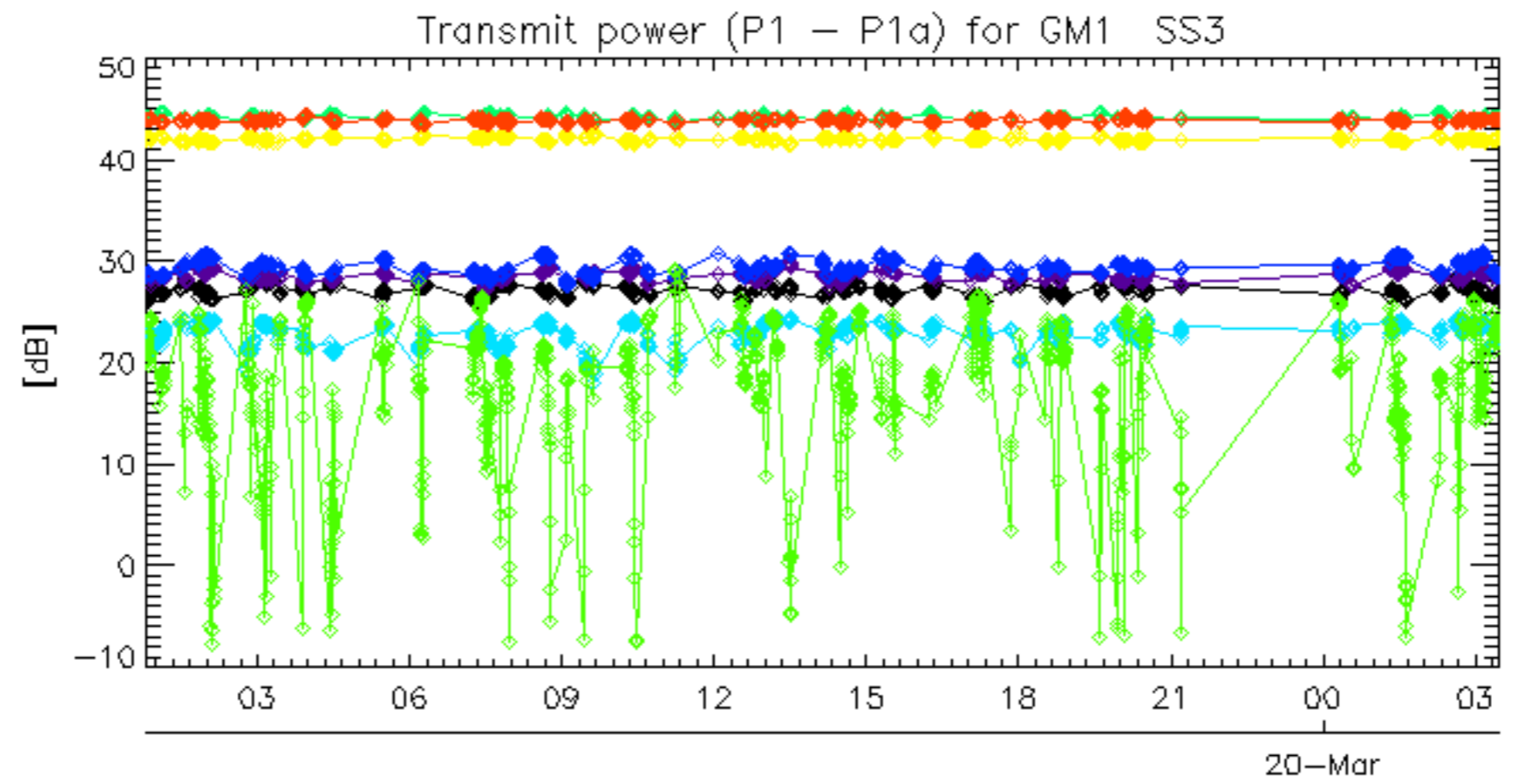
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WVS_1PNPDE20050318_062804_00000002035_00349_15934_7472.N1	1	0

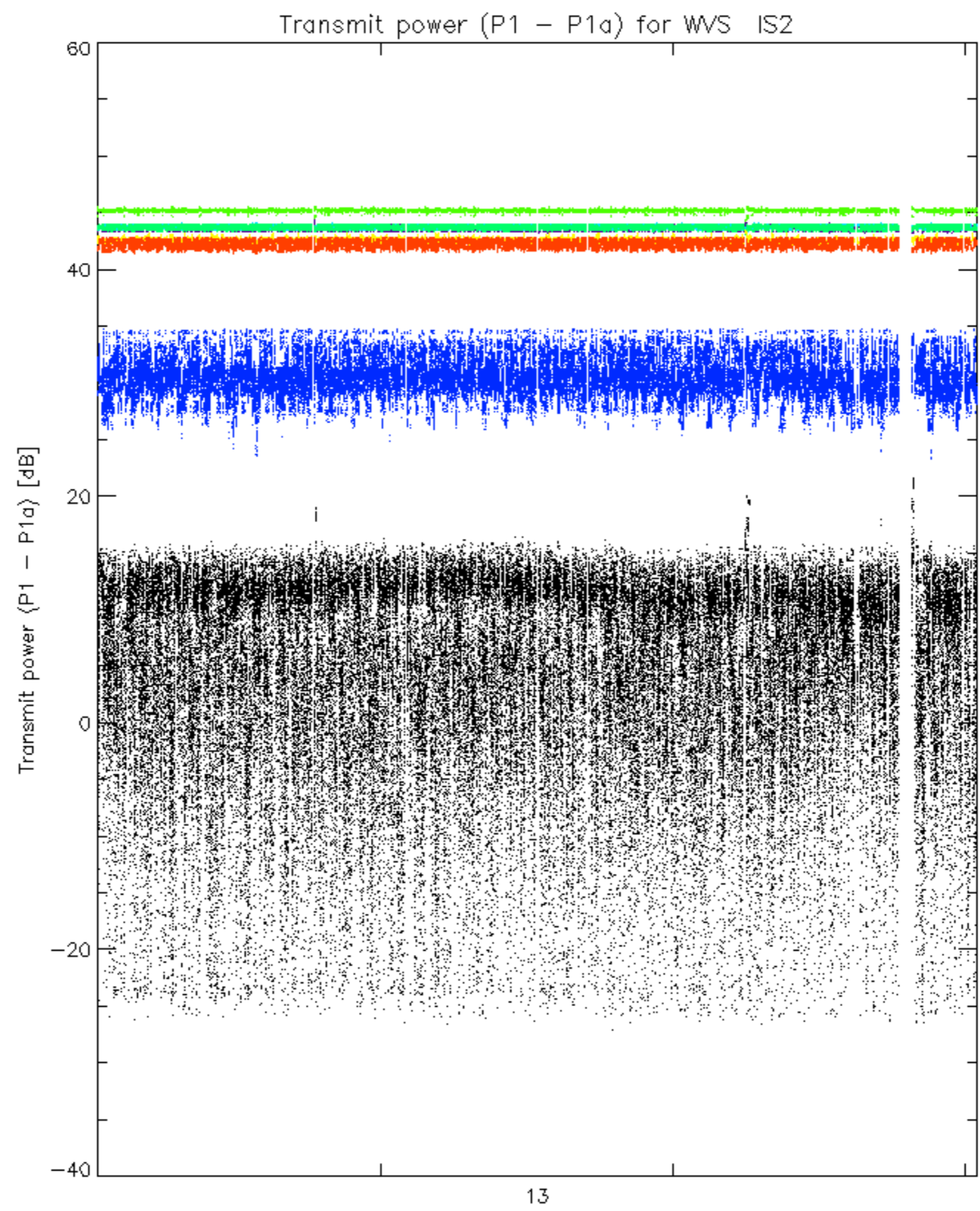




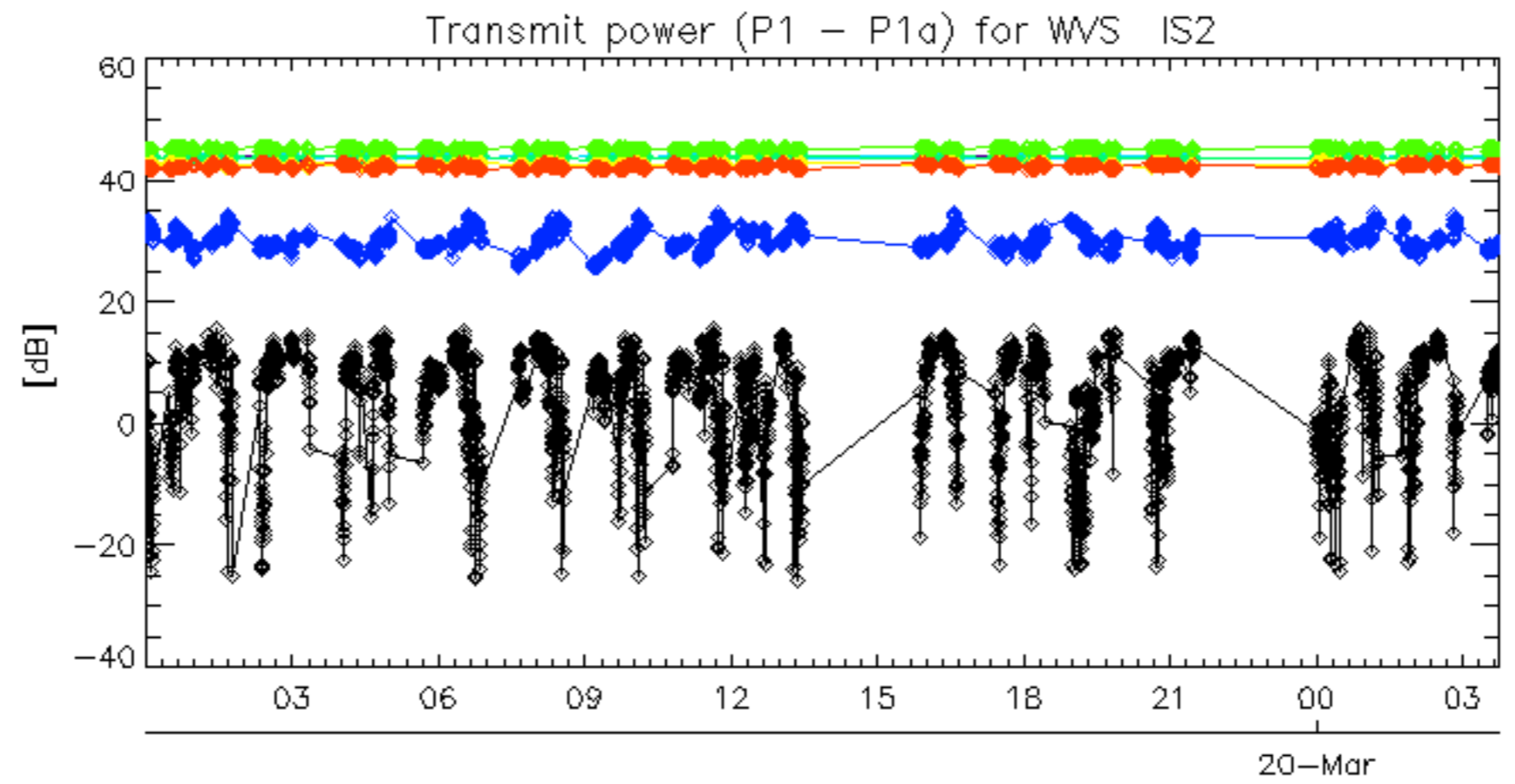
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.