

PRELIMINARY REPORT OF 050331

last update on Thu Mar 31 10:50:01 GMT 2005

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2005-03-30 00:00:00 to 2005-03-31 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	32	19	4	2	2
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	32	19	4	2	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	32	19	4	2	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	32	19	4	2	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	33	44	0	7	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	33	44	0	7	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	33	44	0	7	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	33	44	0	7	4

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	20050330 170201
H	20050331 062649

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
<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	-3.351304	0.013737	0.045725
7	P1	-3.105572	0.008140	-0.034682
11	P1	-4.684630	0.030320	0.062404
15	P1	-5.643143	0.037795	0.072157
19	P1	-3.690254	0.003649	-0.020772
22	P1	-4.519609	0.011894	-0.024526
26	P1	-4.937865	0.017642	0.053377
30	P1	-7.197560	0.018422	0.002857
3	P1	-15.883408	0.334928	0.316811
7	P1	-15.531912	0.067757	-0.005988
11	P1	-20.981741	0.454425	-0.045474
15	P1	-11.577804	0.047878	0.009197
19	P1	-14.309041	0.023814	-0.024020
22	P1	-15.650647	0.305706	-0.166299
26	P1	-17.619349	0.198125	-0.076194
30	P1	-17.977146	0.439352	0.017404

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.076242	0.081035	0.052099
7	P2	-22.260170	0.093732	0.066564
11	P2	-14.355404	0.108712	0.251579
15	P2	-7.043174	0.089847	-0.019265
19	P2	-9.632748	0.092986	-0.007280
22	P2	-16.907610	0.092415	0.046274
26	P2	-16.444082	0.091709	0.005537
30	P2	-18.845797	0.082999	0.067900

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.166571	0.004726	0.003905
7	P3	-8.166571	0.004726	0.003905
11	P3	-8.166571	0.004726	0.003905
15	P3	-8.166571	0.004726	0.003905
19	P3	-8.166571	0.004726	0.003905
22	P3	-8.166571	0.004726	0.003905
26	P3	-8.166571	0.004726	0.003905
30	P3	-8.166571	0.004726	0.003905

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	-2.713257	0.026598	0.044692
7	P1	-3.021510	0.049195	0.056636
11	P1	-3.983724	0.027296	0.048515
15	P1	-3.555904	0.035421	0.093467
19	P1	-3.600639	0.013426	-0.025984
22	P1	-5.740639	0.035686	0.059324
26	P1	-7.294817	0.025432	0.005764
30	P1	-6.237779	0.049431	-0.034742
3	P1	-10.708012	0.179356	0.146094
7	P1	-10.333838	0.177409	0.050978
11	P1	-12.531882	0.138308	0.098625
15	P1	-11.738220	0.104764	0.163532
19	P1	-15.571211	0.045596	-0.027660
22	P1	-24.577065	1.209536	-0.480534
26	P1	-15.492780	0.177066	-0.122129
30	P1	-20.198820	1.187135	-0.010647

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.783234	0.034144	0.063923
7	P2	-22.347395	0.039107	0.077062
11	P2	-10.146110	0.051976	0.148220
15	P2	-4.987117	0.023853	-0.041515
19	P2	-6.835266	0.035744	-0.024705
22	P2	-7.089031	0.031941	0.031239
26	P2	-23.850609	0.030132	-0.001823
30	P2	-21.894411	0.034989	0.011180

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.999281	0.002842	0.004271
7	P3	-7.999381	0.002840	0.003847
11	P3	-7.999252	0.002854	0.003780
15	P3	-7.999358	0.002852	0.004178
19	P3	-7.999321	0.002861	0.004290
22	P3	-7.999350	0.002837	0.003893
26	P3	-7.999299	0.002849	0.003996
30	P3	-7.999204	0.002853	0.004110

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	0.000447942
	stdev	2.30627e-07
MEAN Q	mean	0.000468722
	stdev	2.37566e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127657
	stdev	0.00105607
STDEV Q	mean	0.127908
	stdev	0.00106736



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005033[901]

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_1PNPDK20050330_124602_000000692036_00024_16110_1566.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

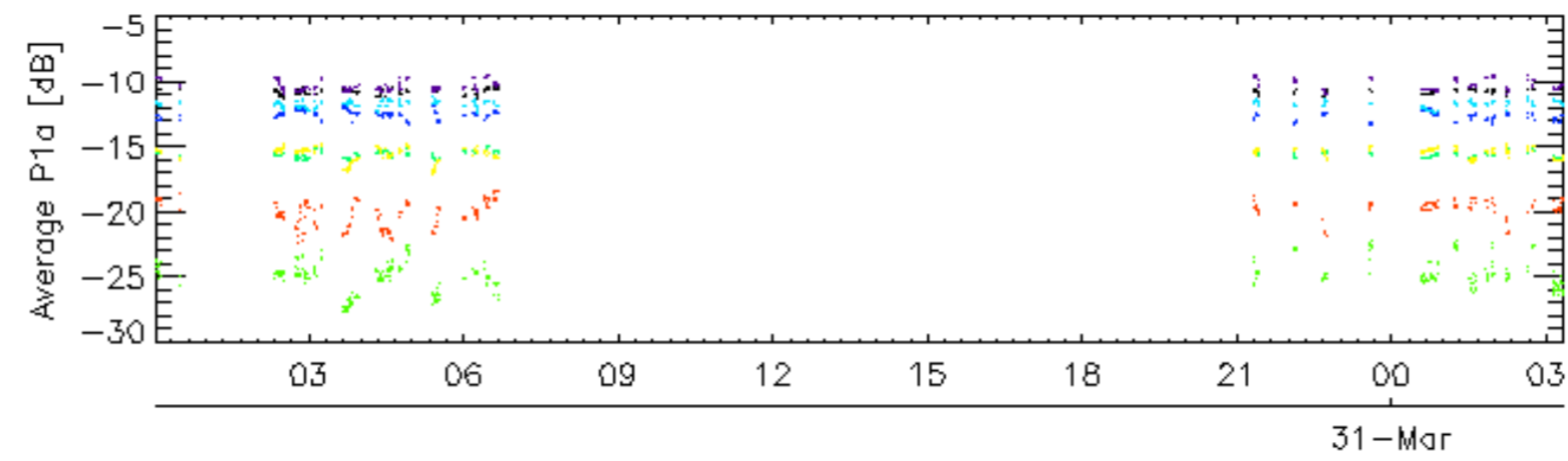
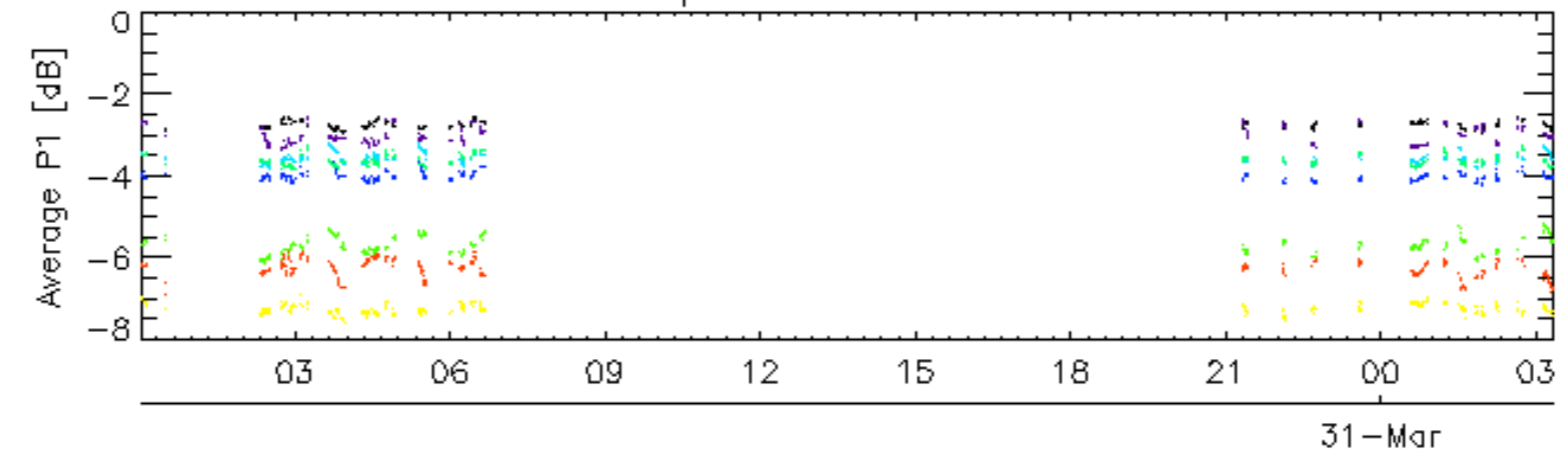
Ascending

Descending

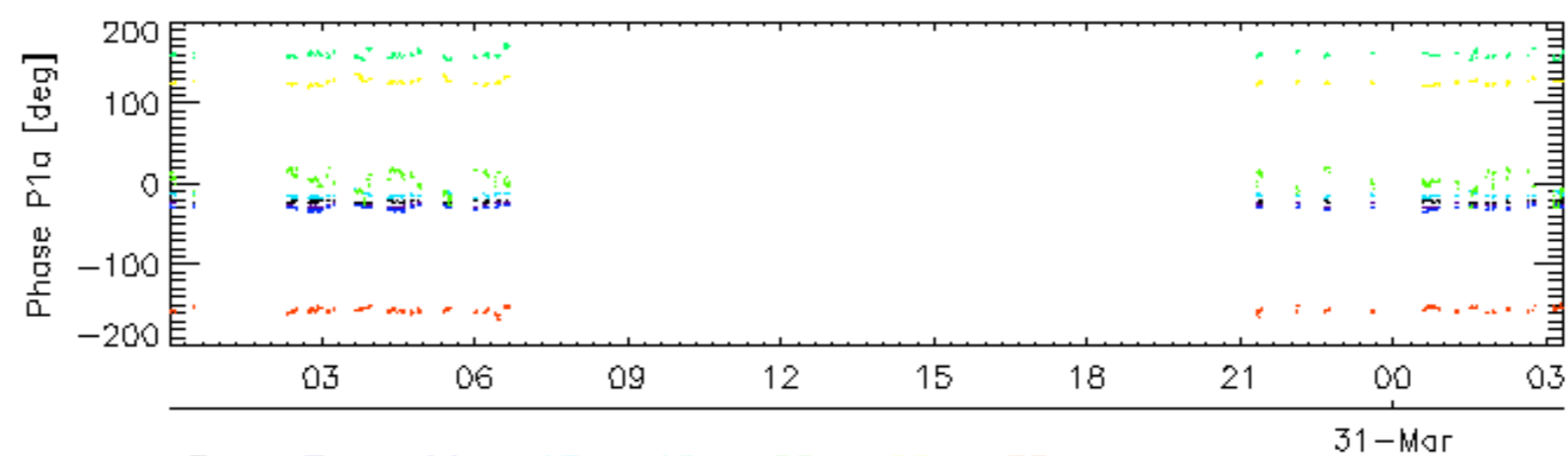
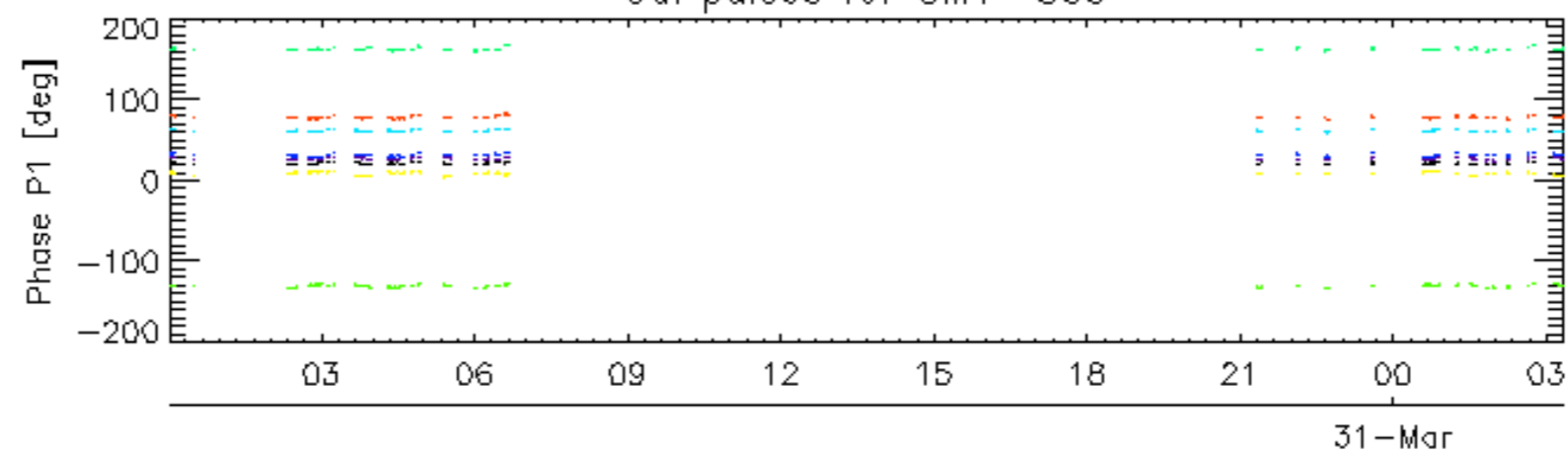
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

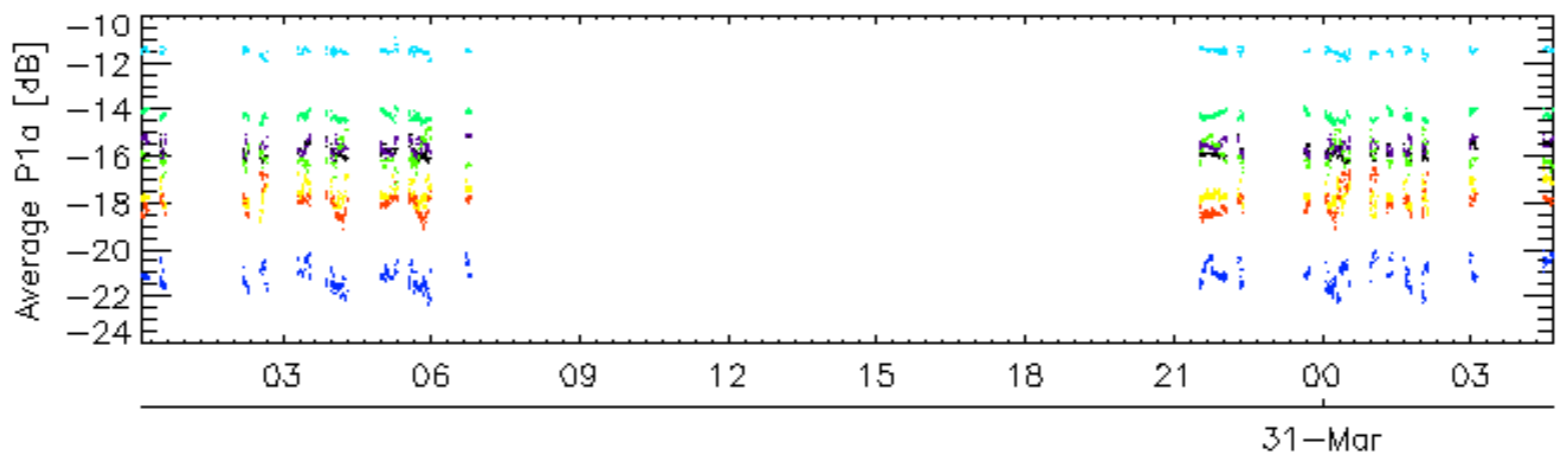
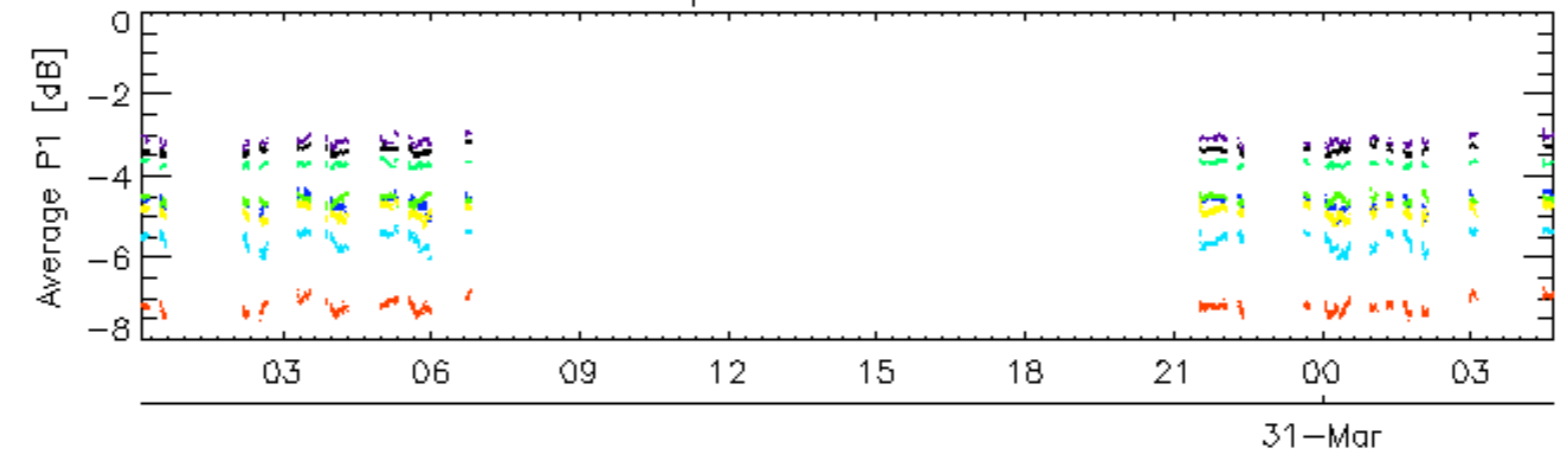


Cal pulses for GM1 SS3

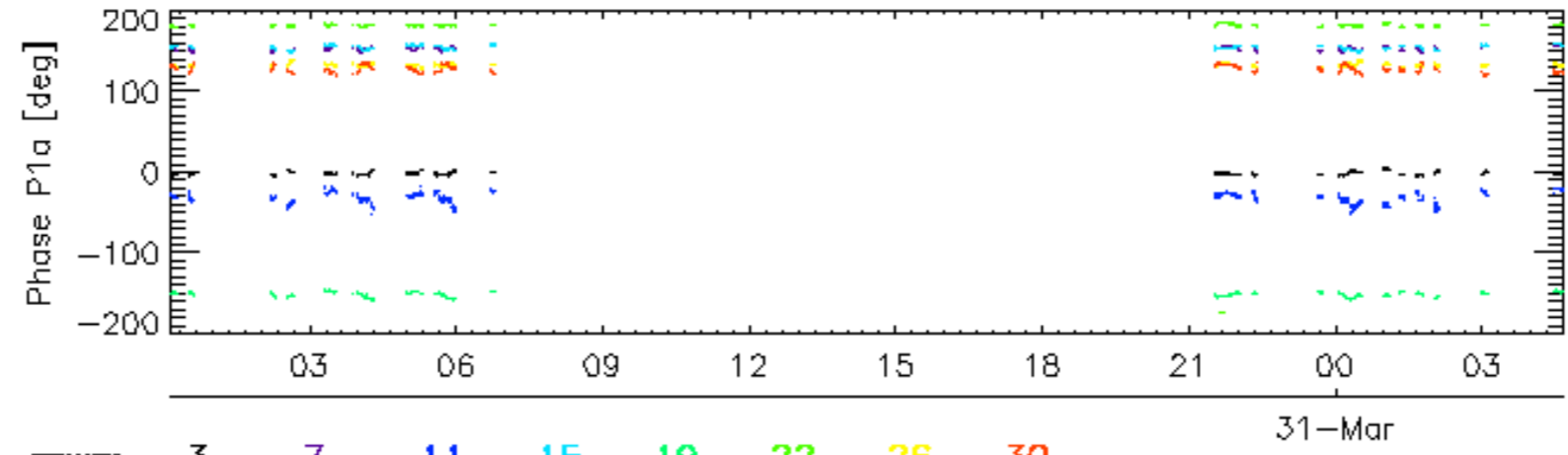
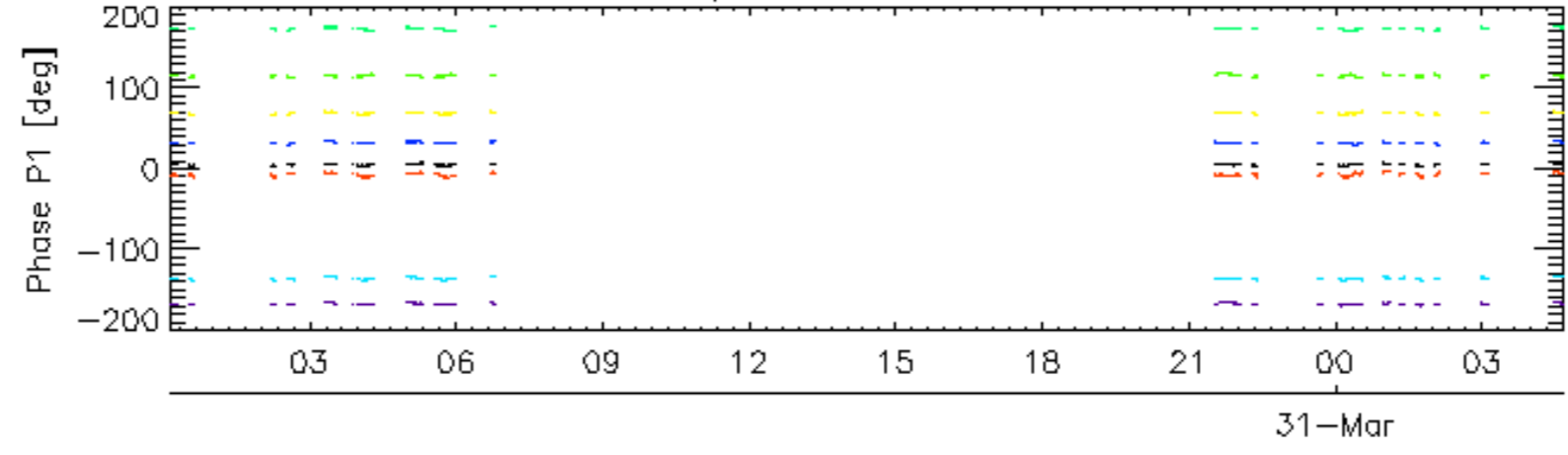


rows: **- 3** **- 7** **- 11** **- 15** **- 19** **- 22** **- 26** **- 30**

Cal pulses for WVS IS2

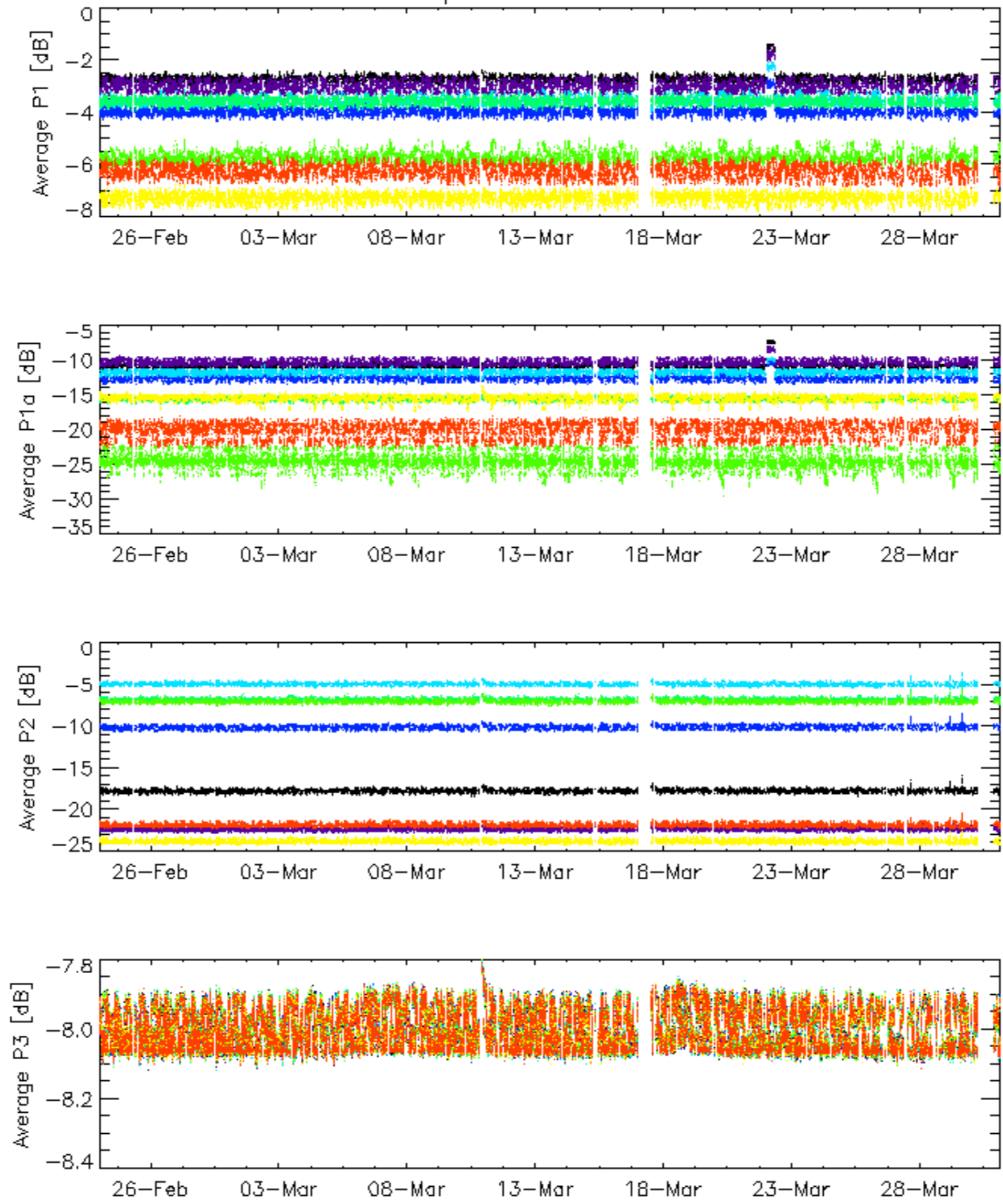


Cal pulses for WVS IS2



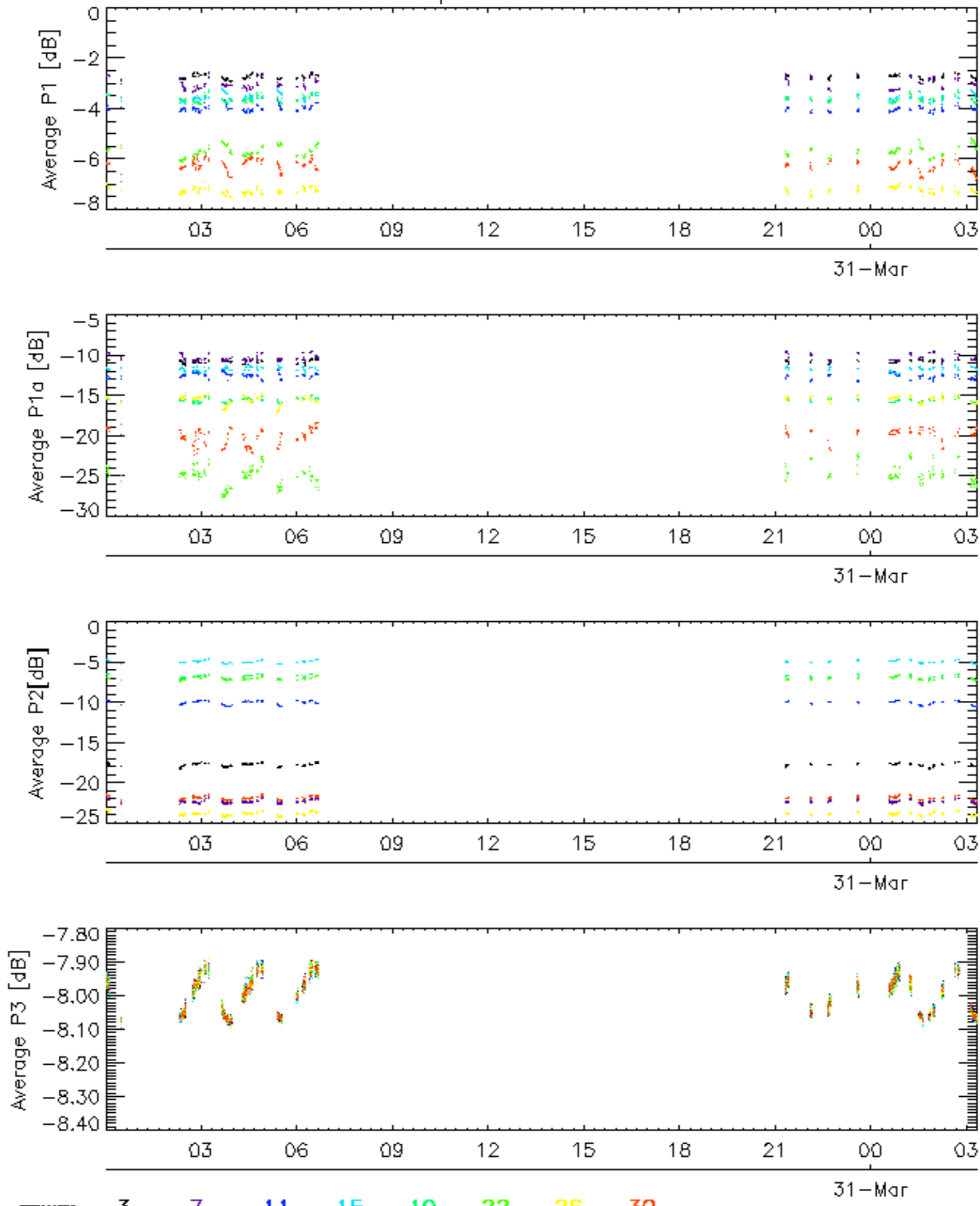
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

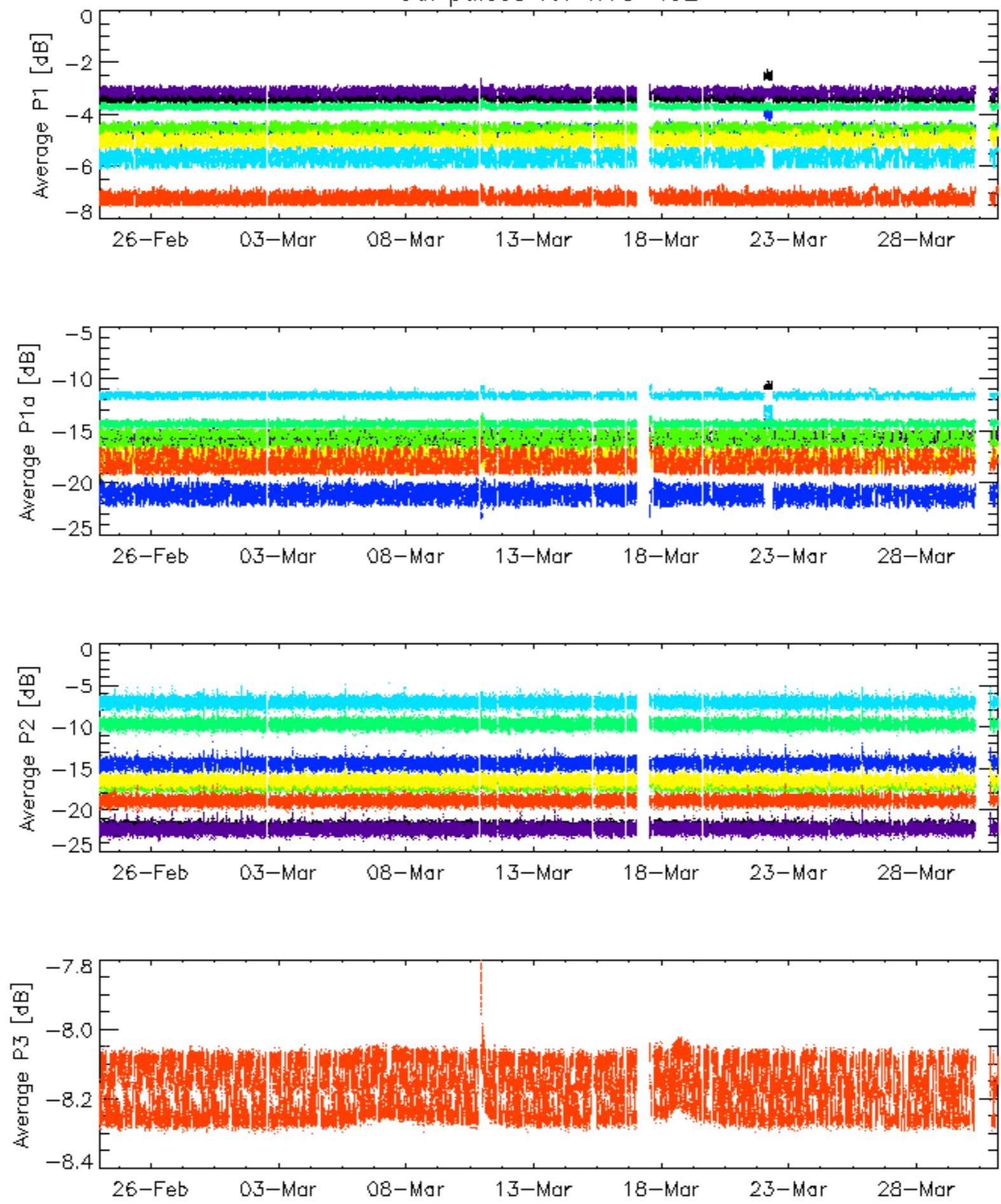


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

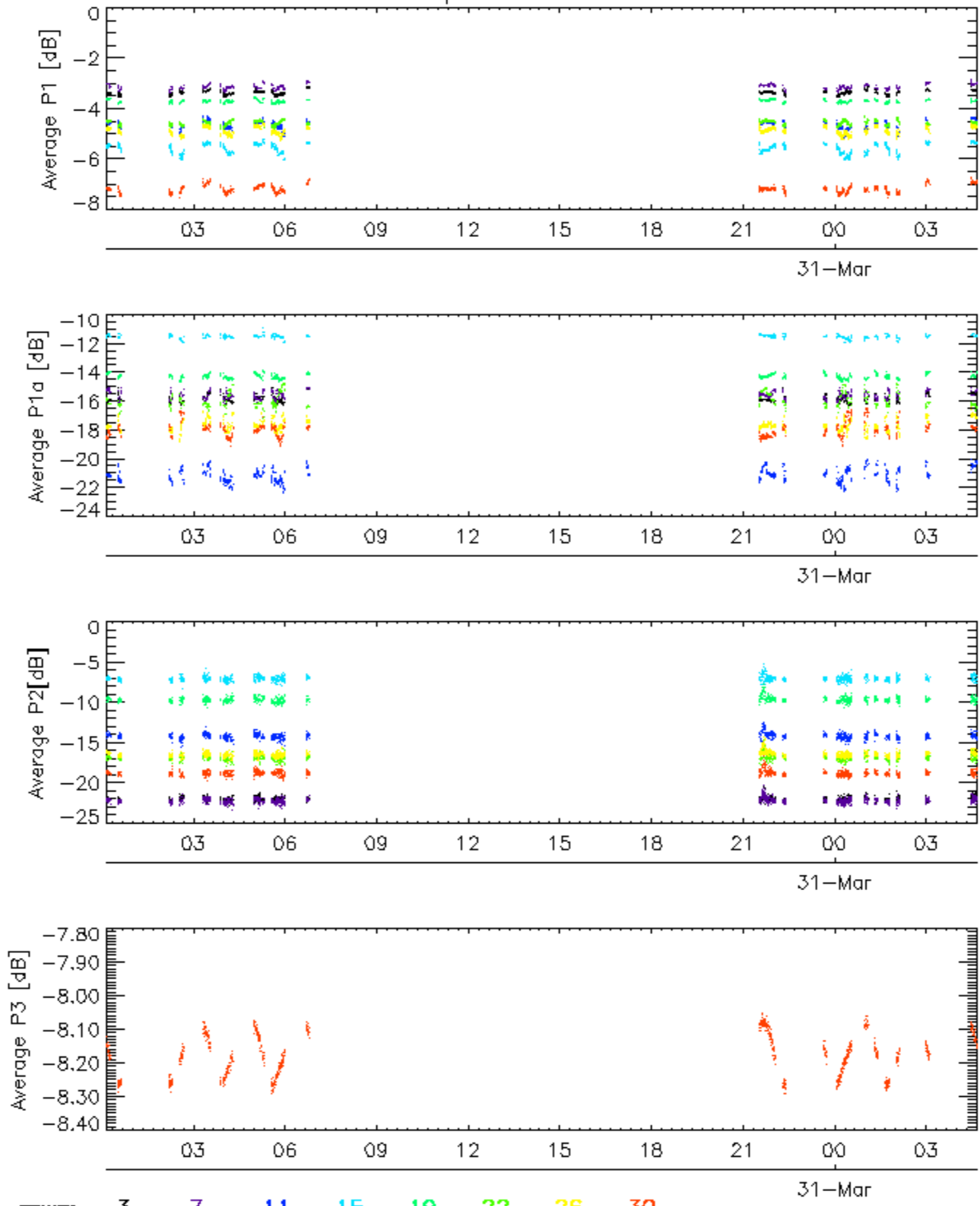


Cal pulses for WVS IS2

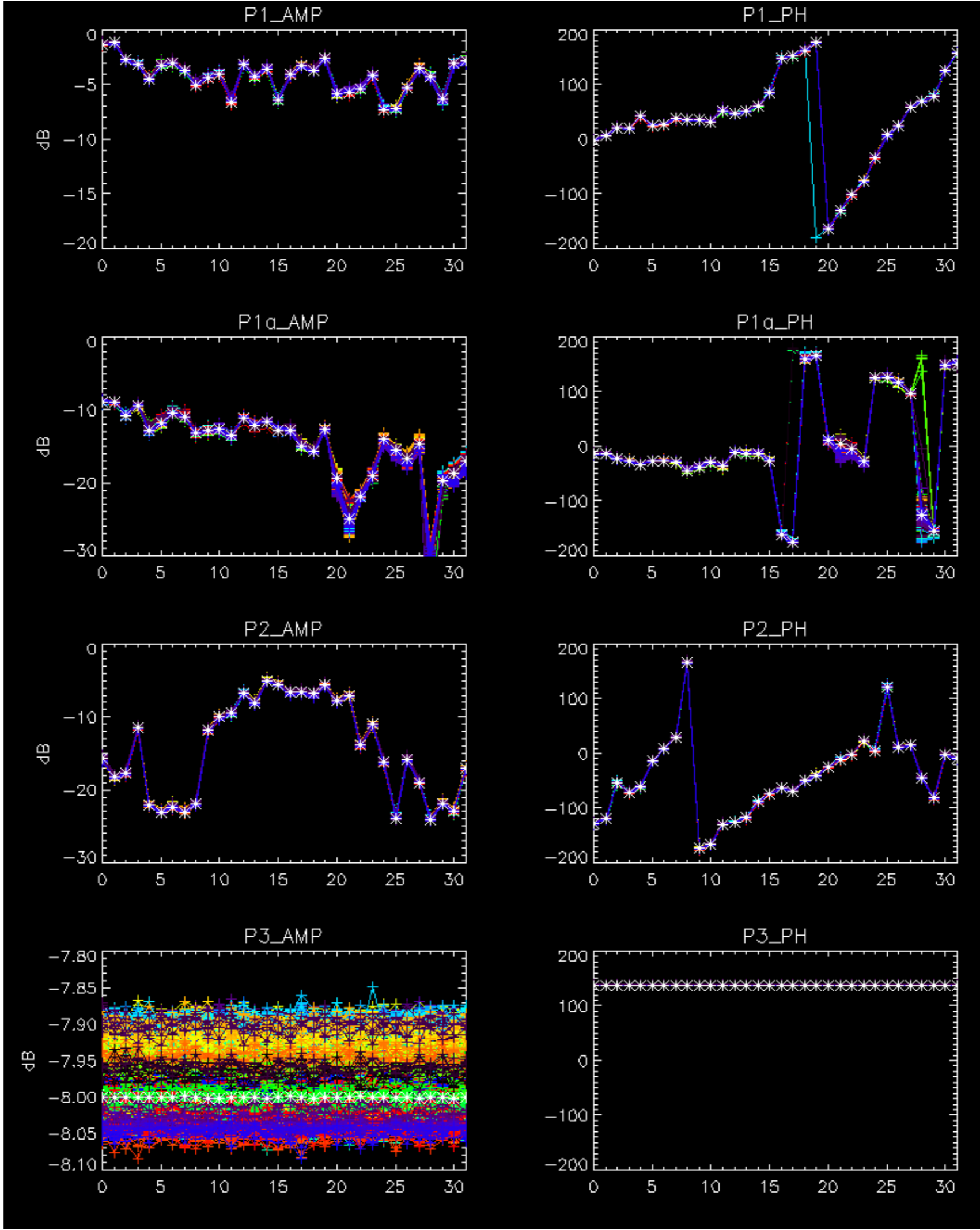


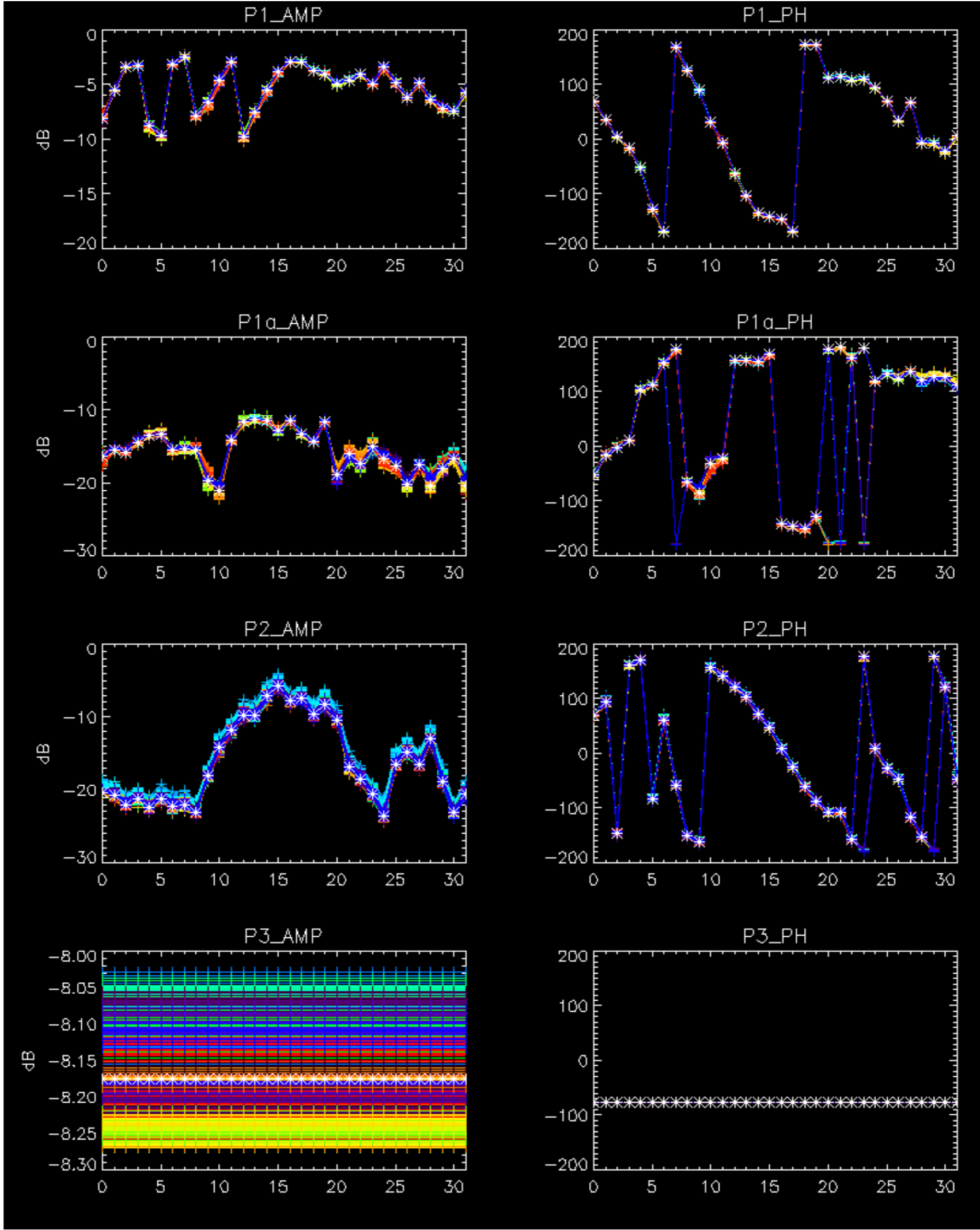
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



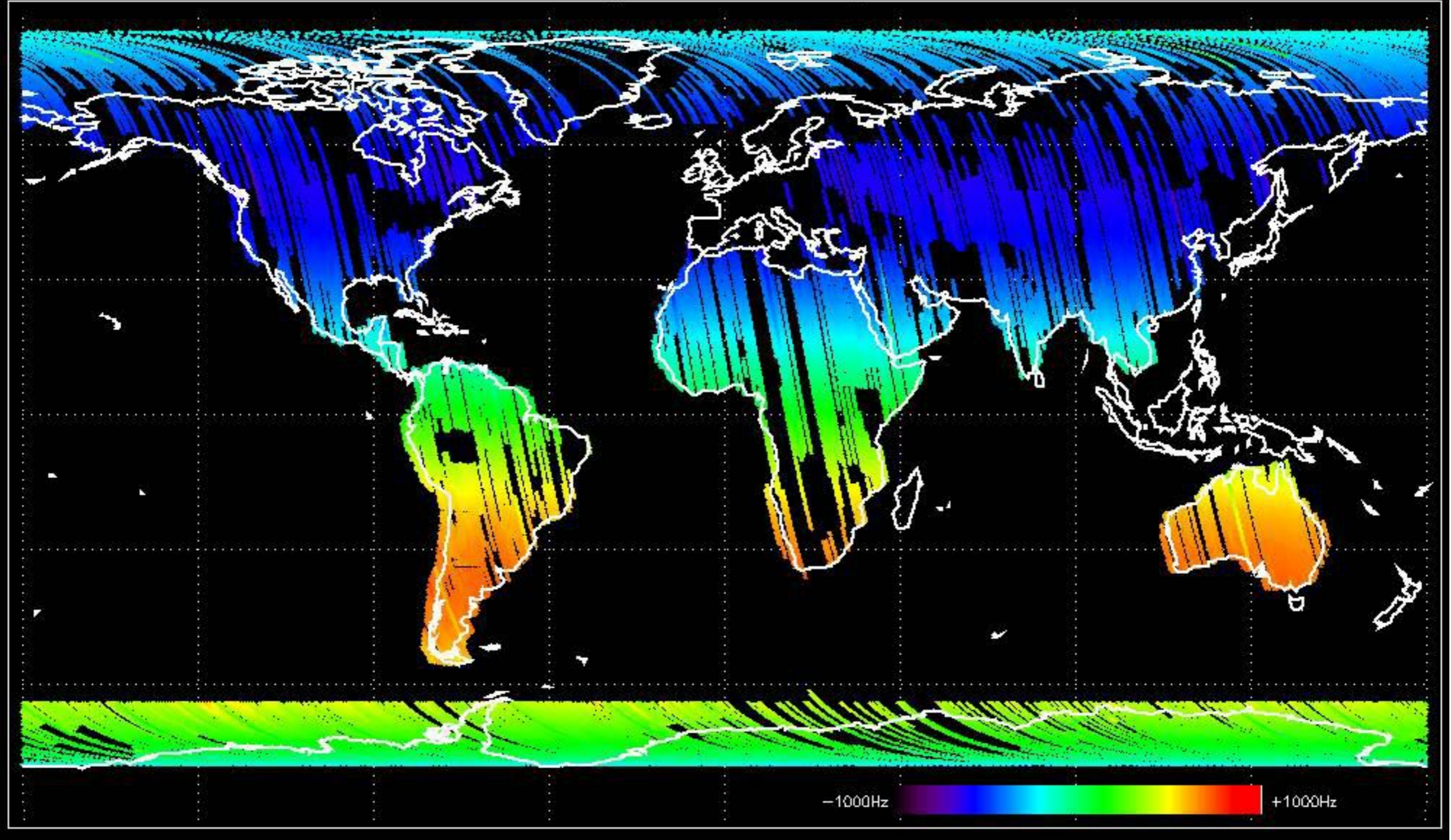
No anomalies observed.



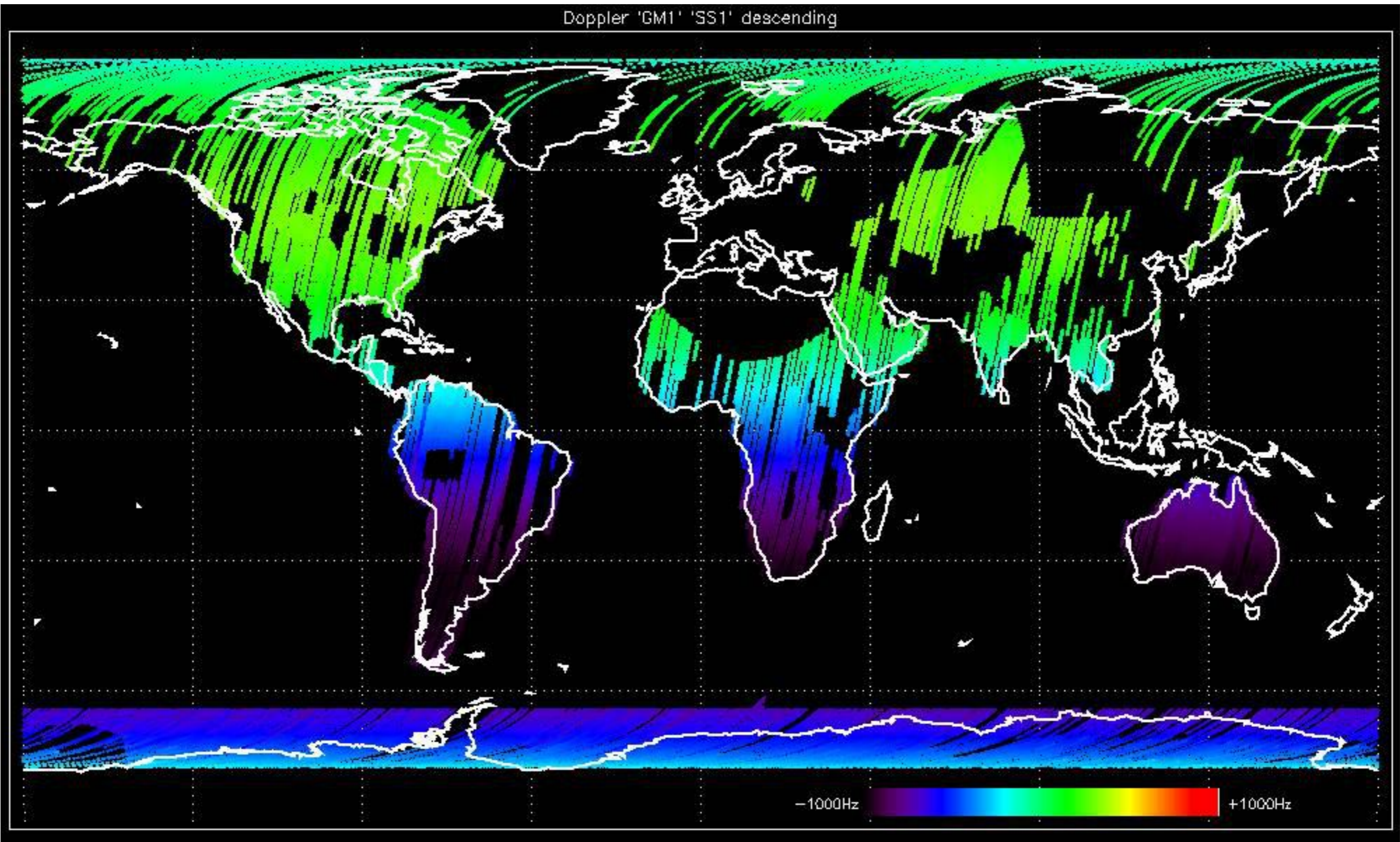


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

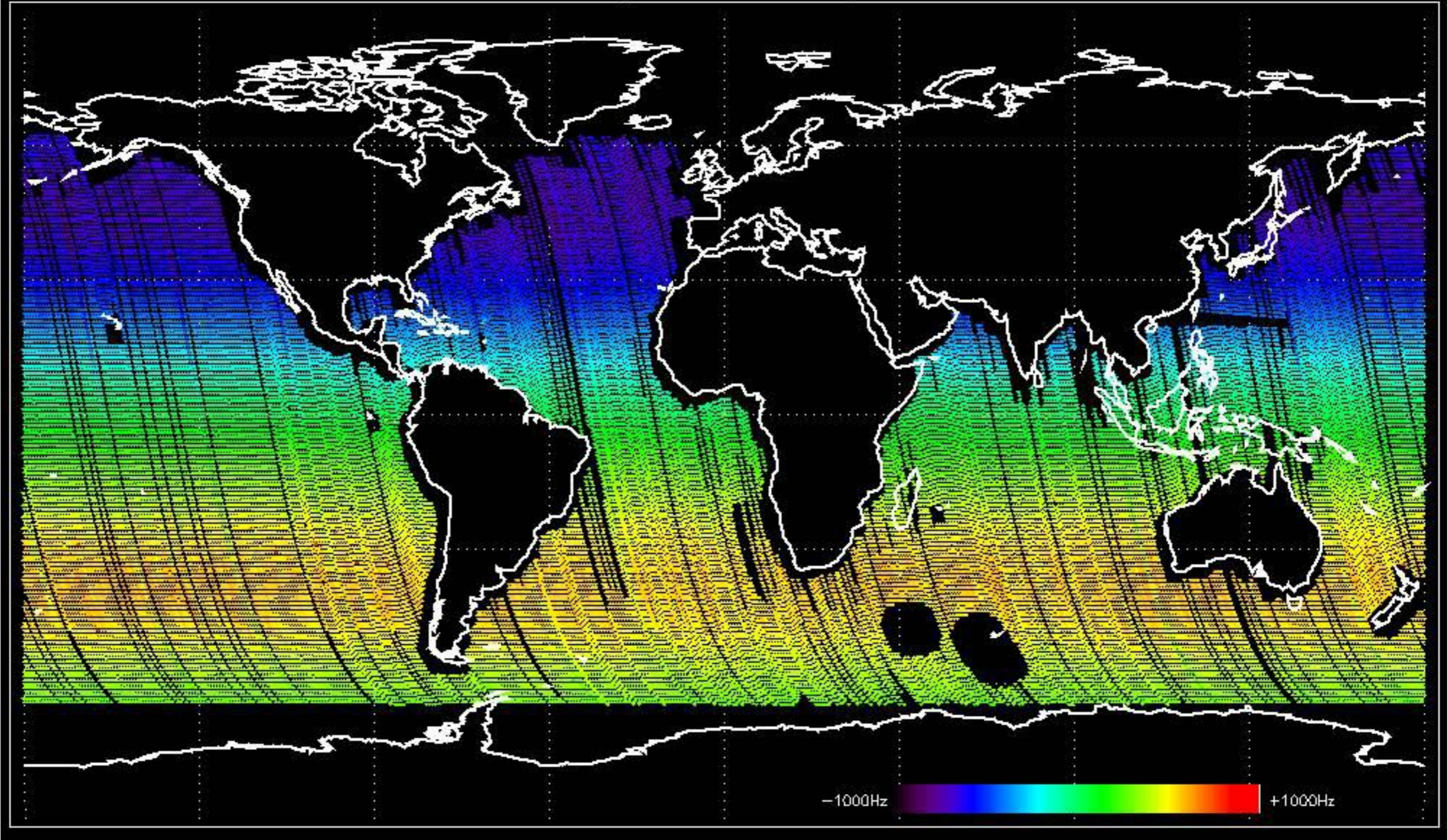
Doppler 'GM1' 'SS1' ascending



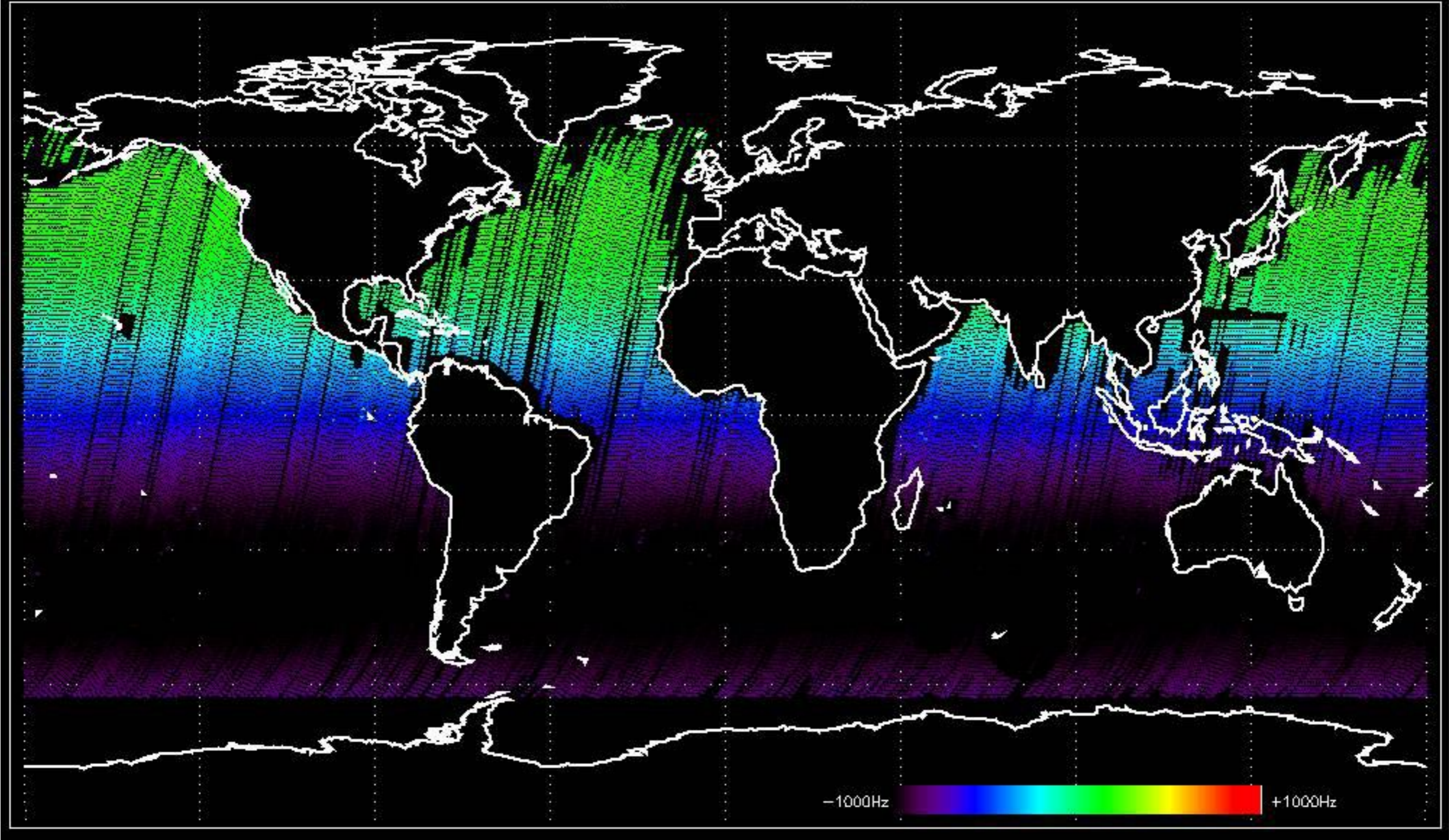
Doppler 'GM1' 'SS1' descending



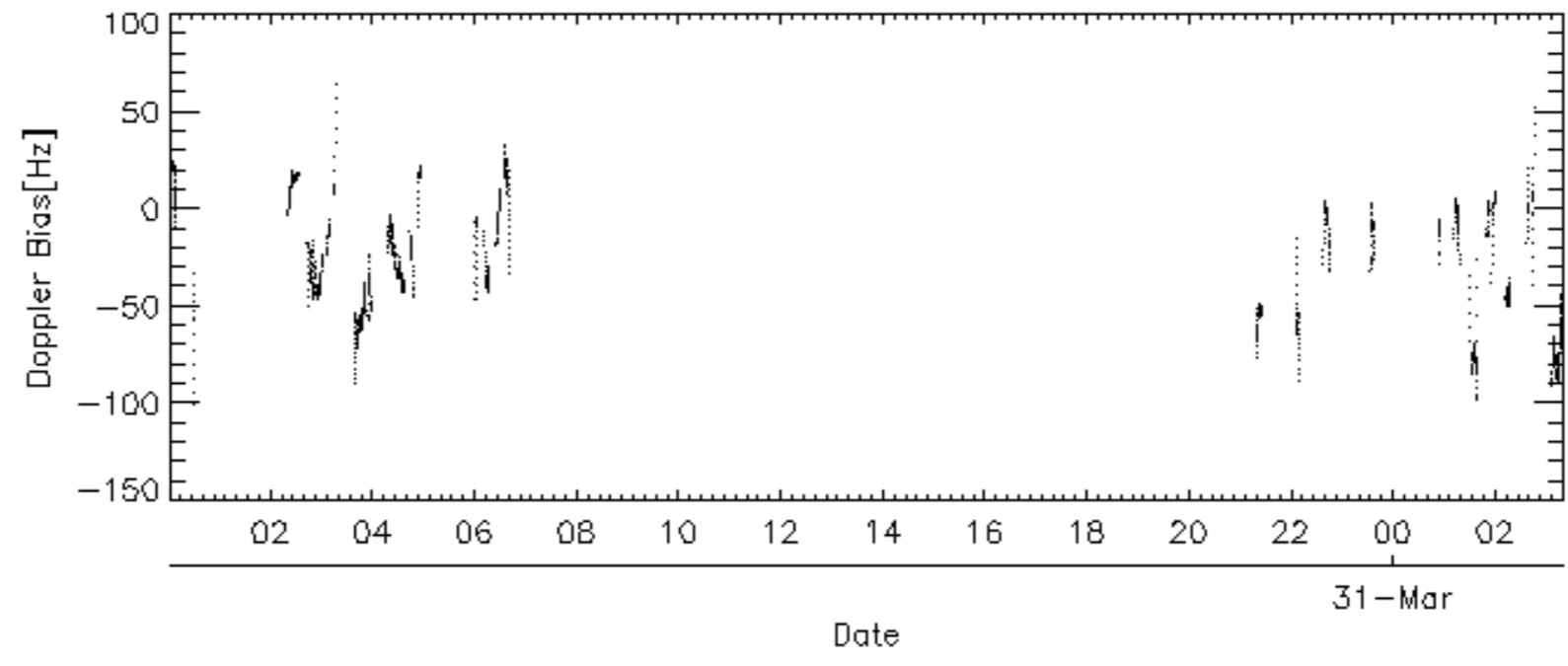
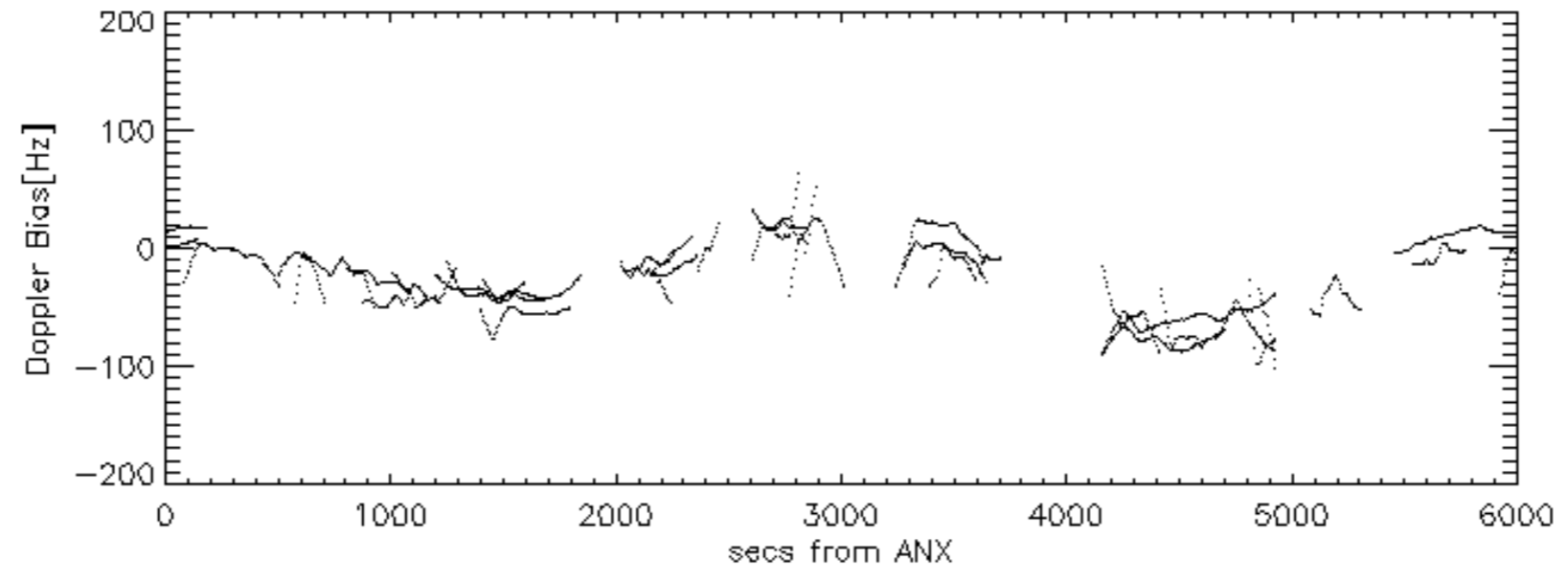
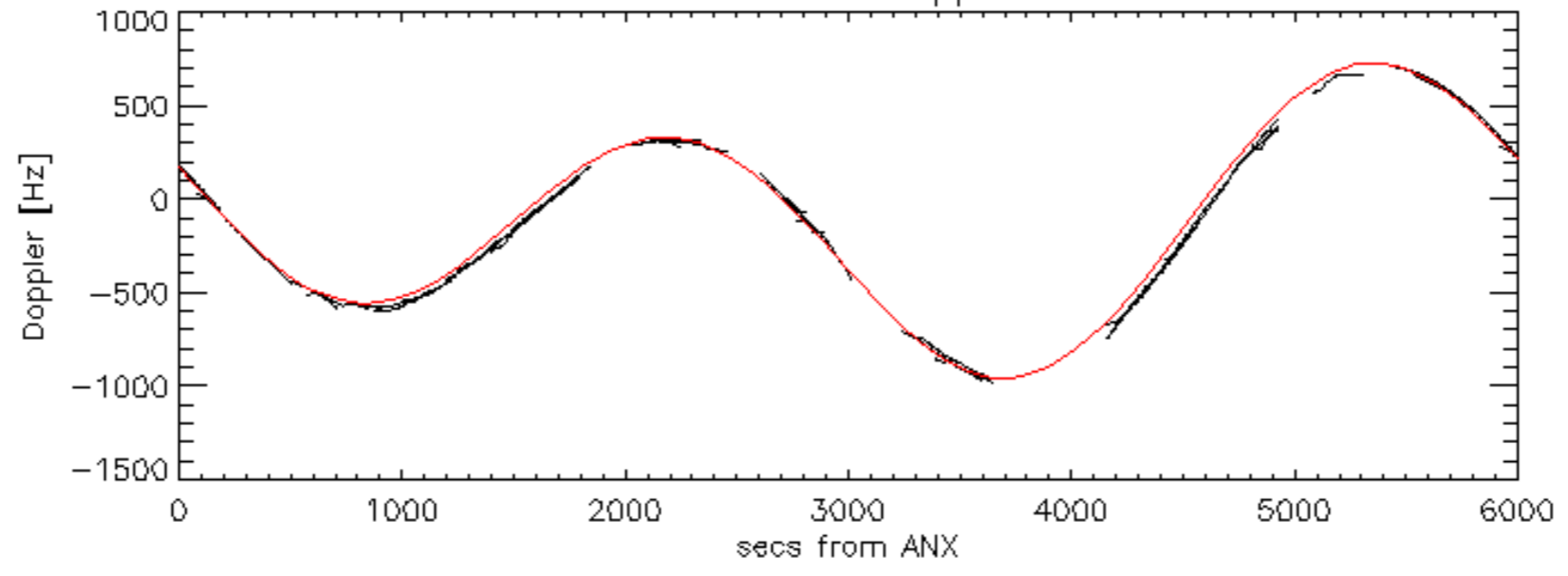
Doppler 'WVS' 'IS2' ascending

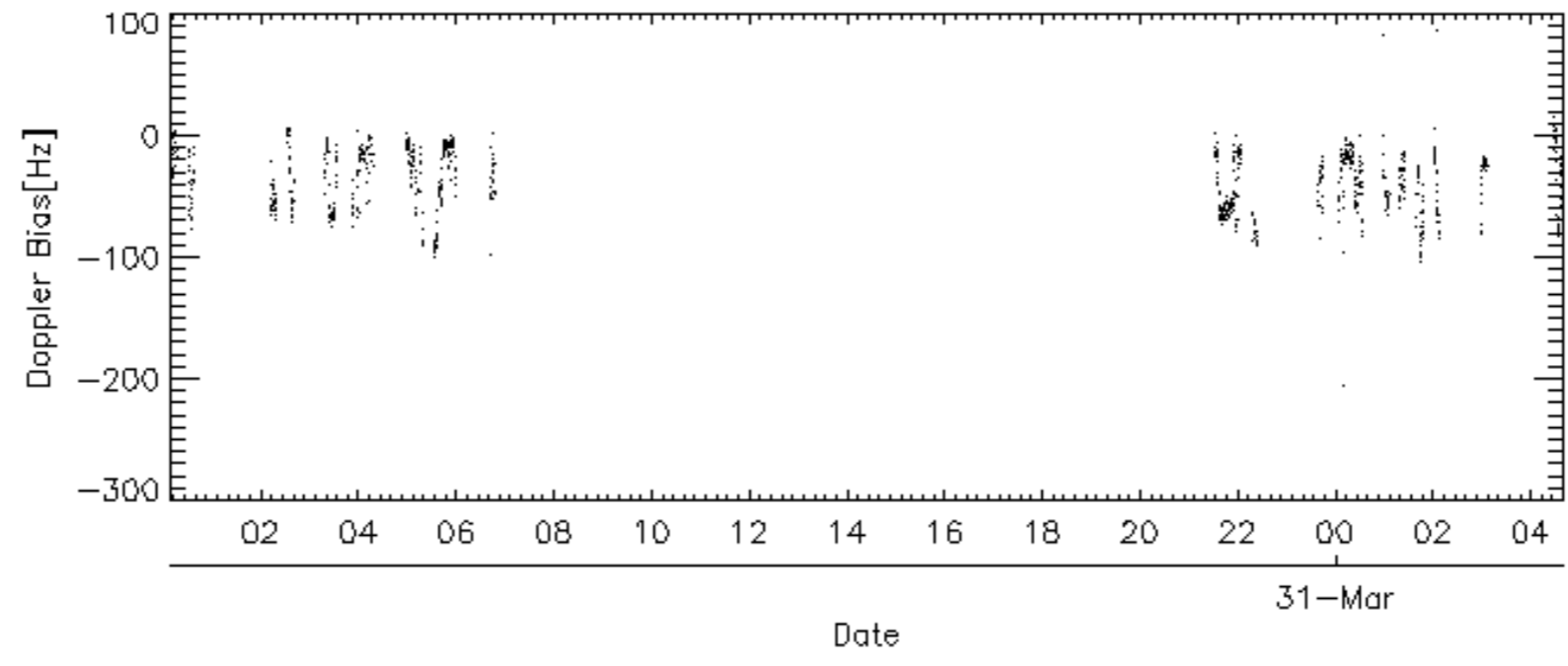
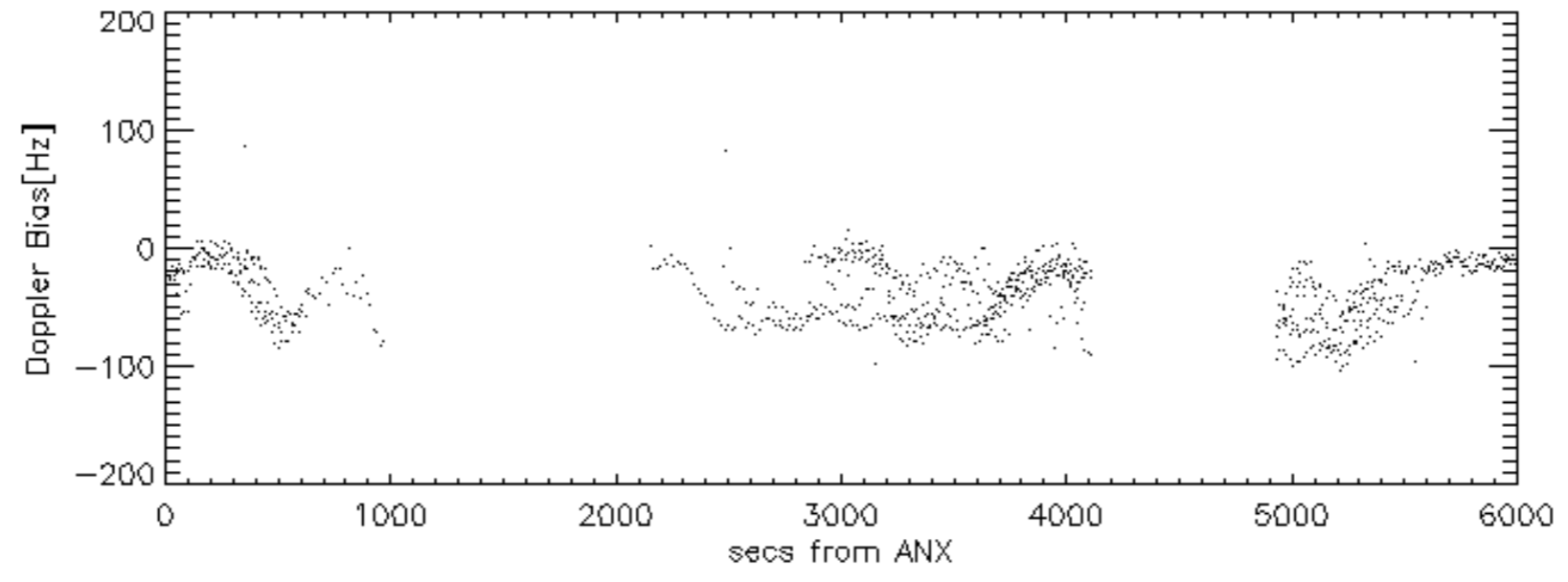
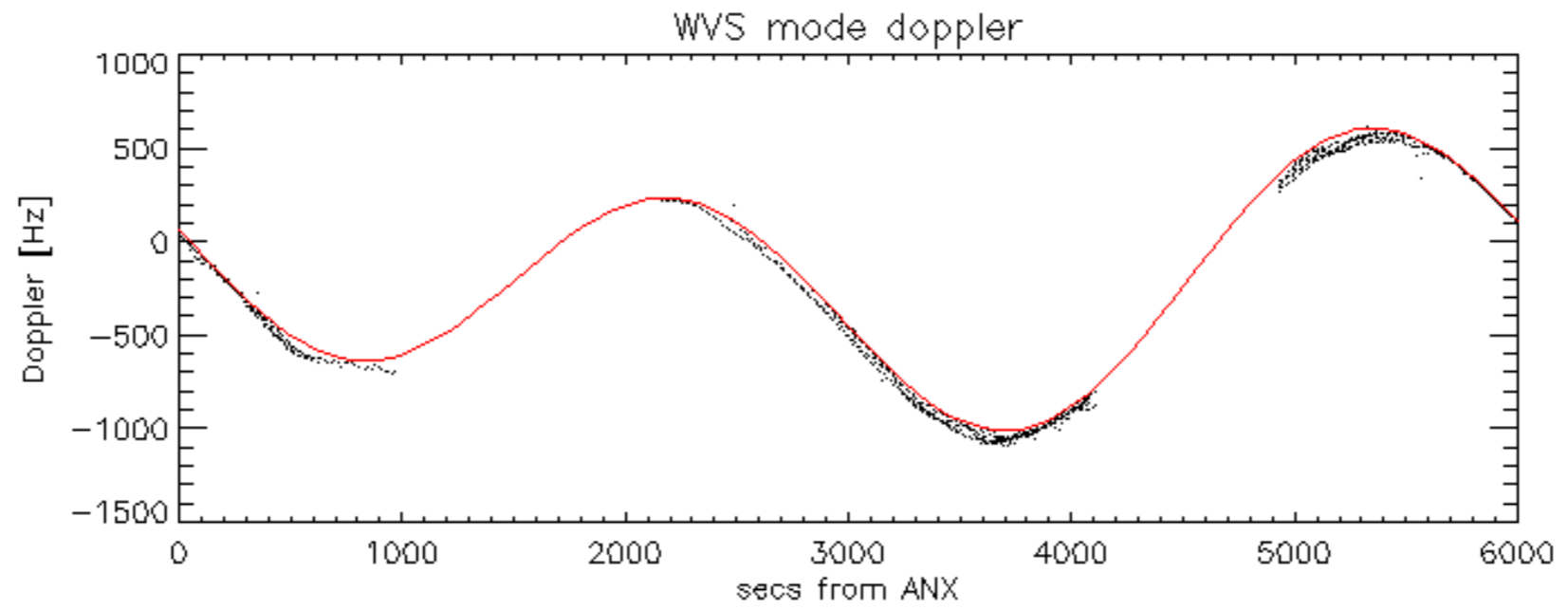


Doppler 'WVS' 'IS2' descending

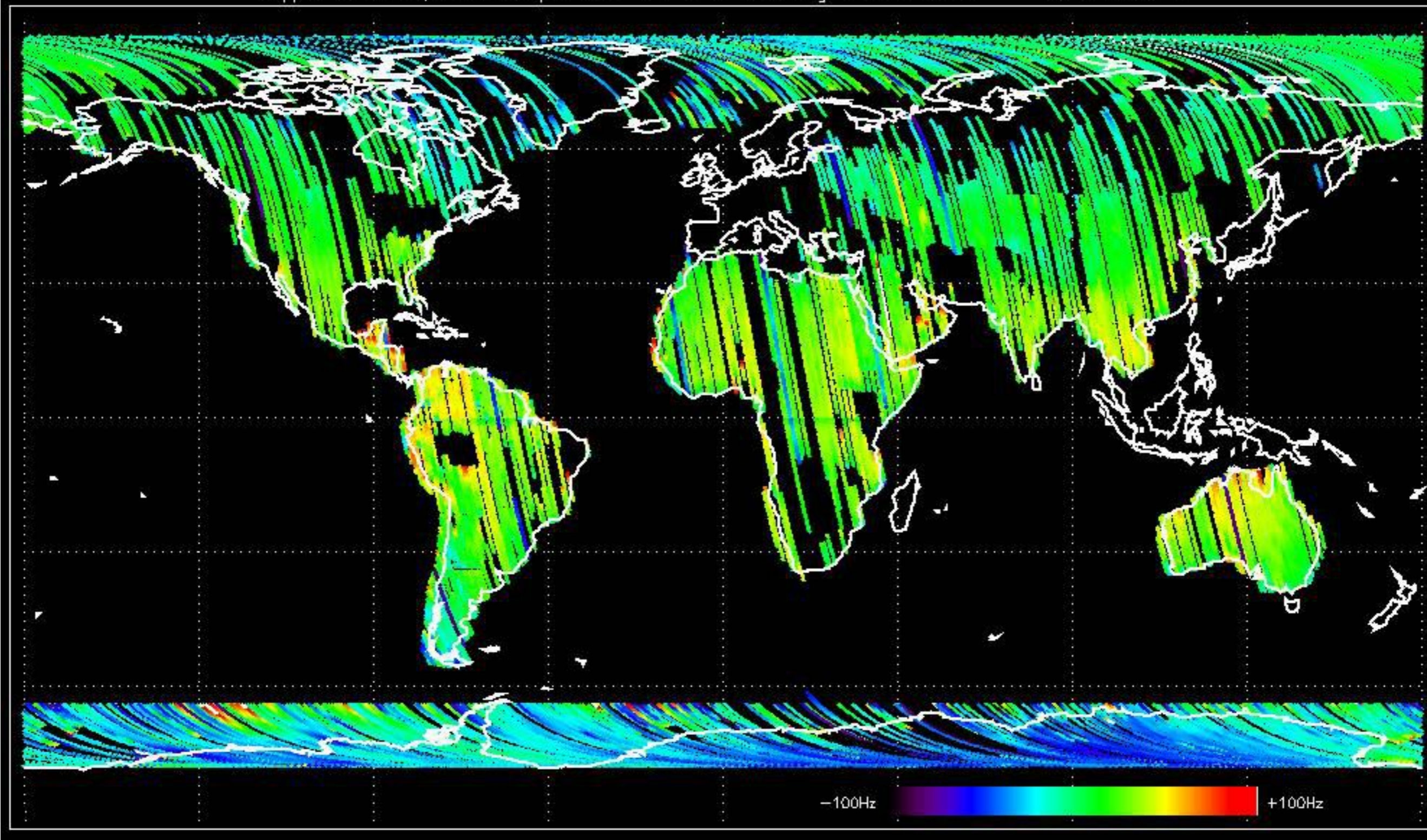


GM1 mode doppler

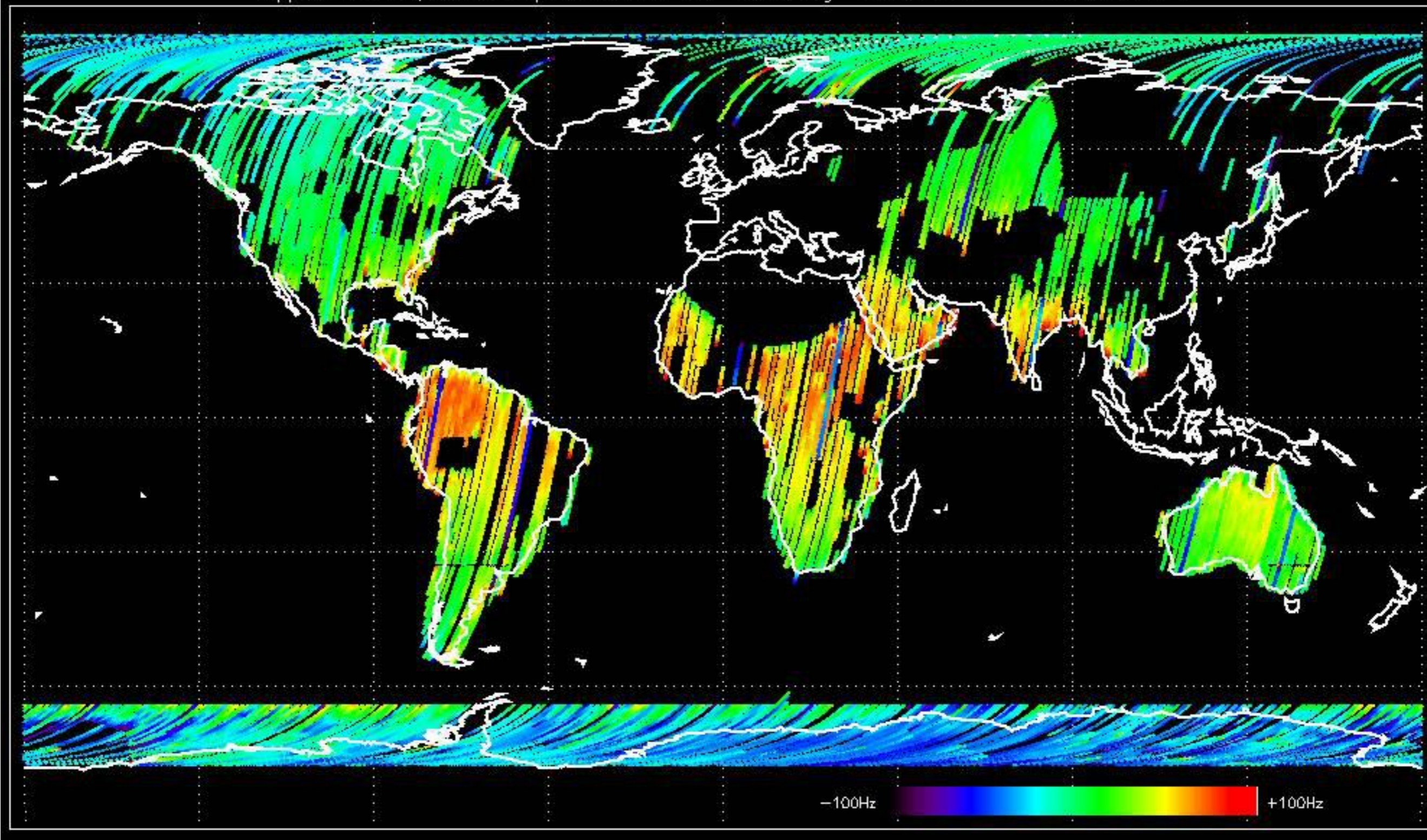




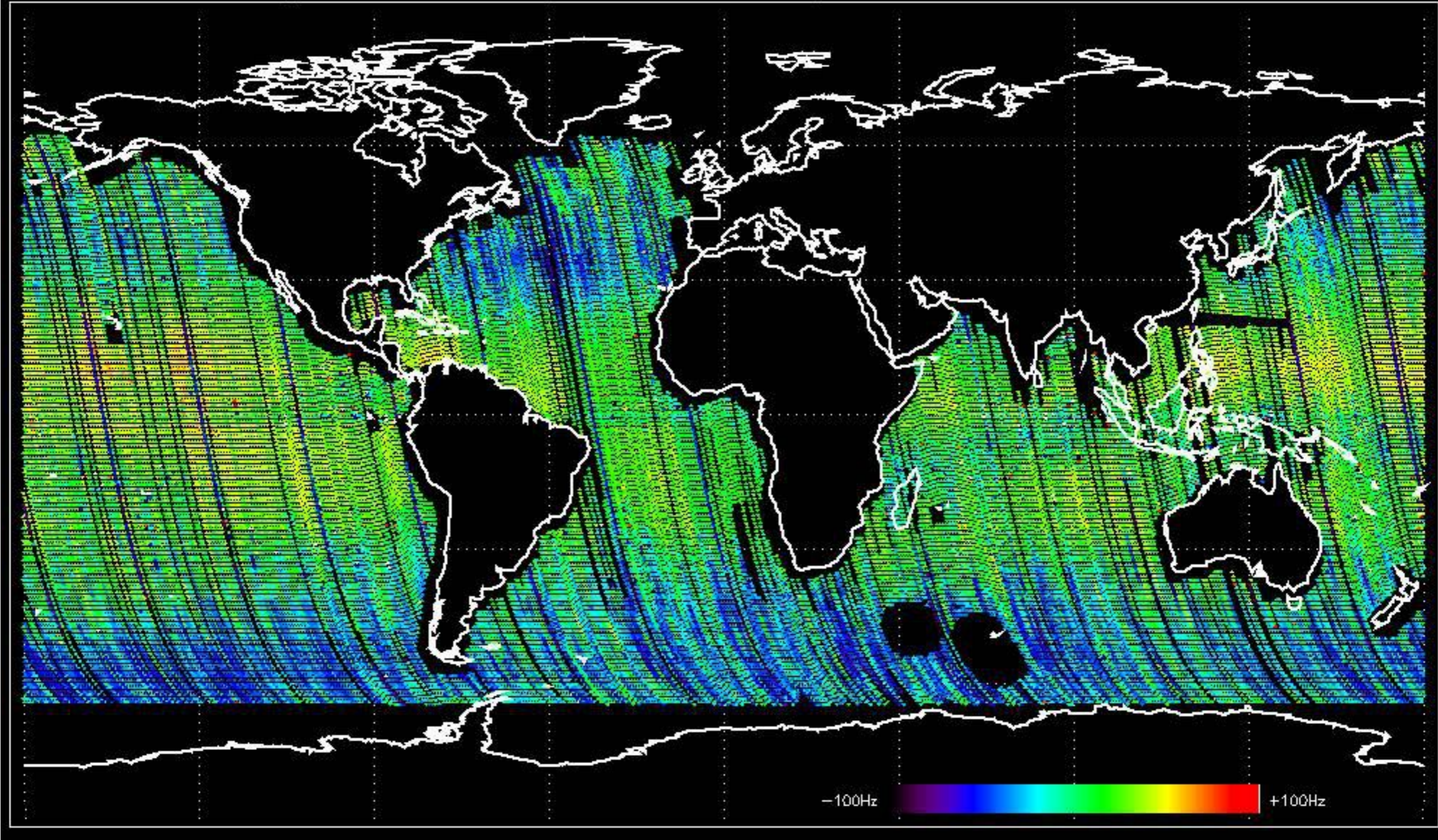
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -33.089049 Hz



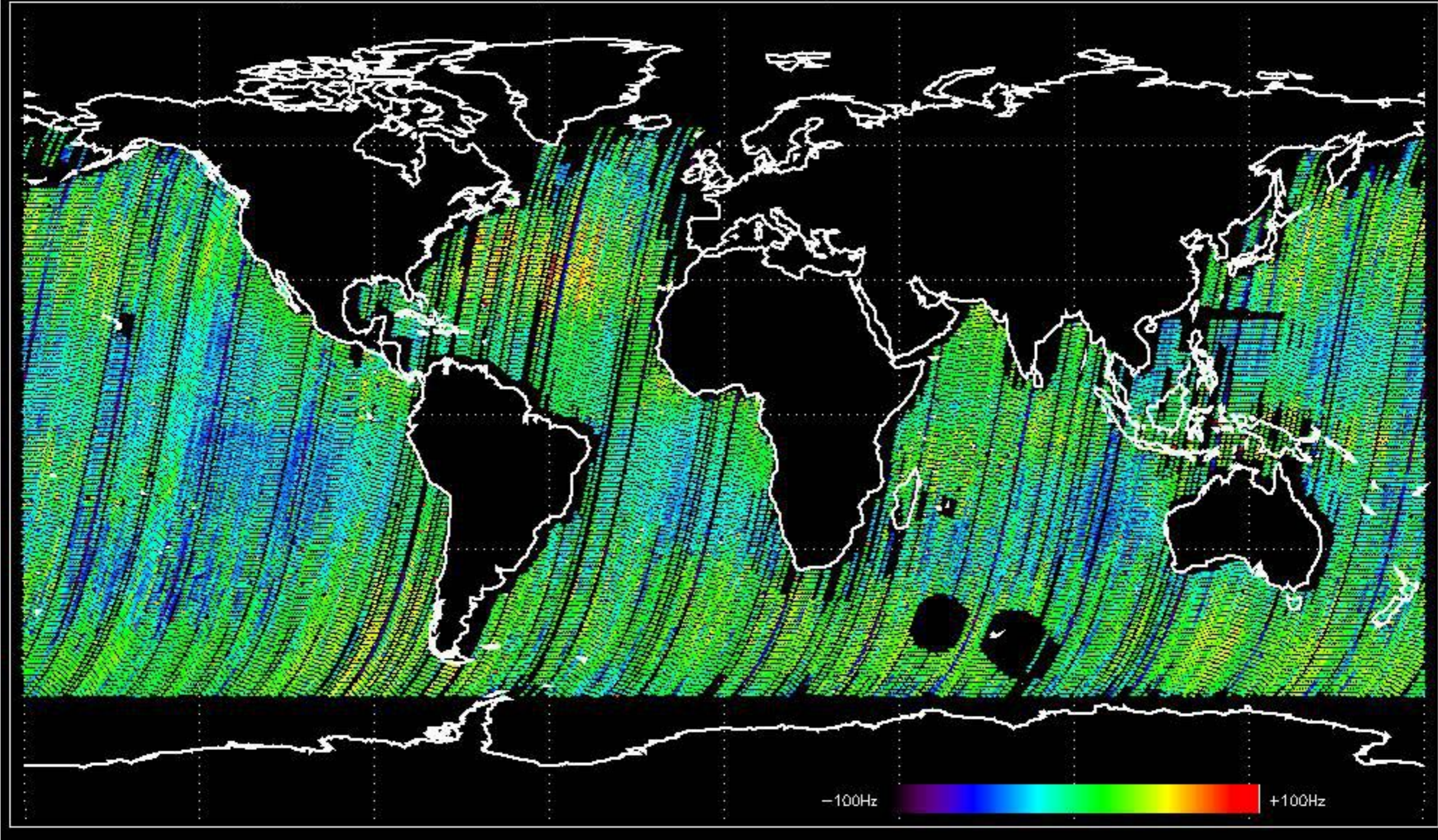
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.998723 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.582799 Hz

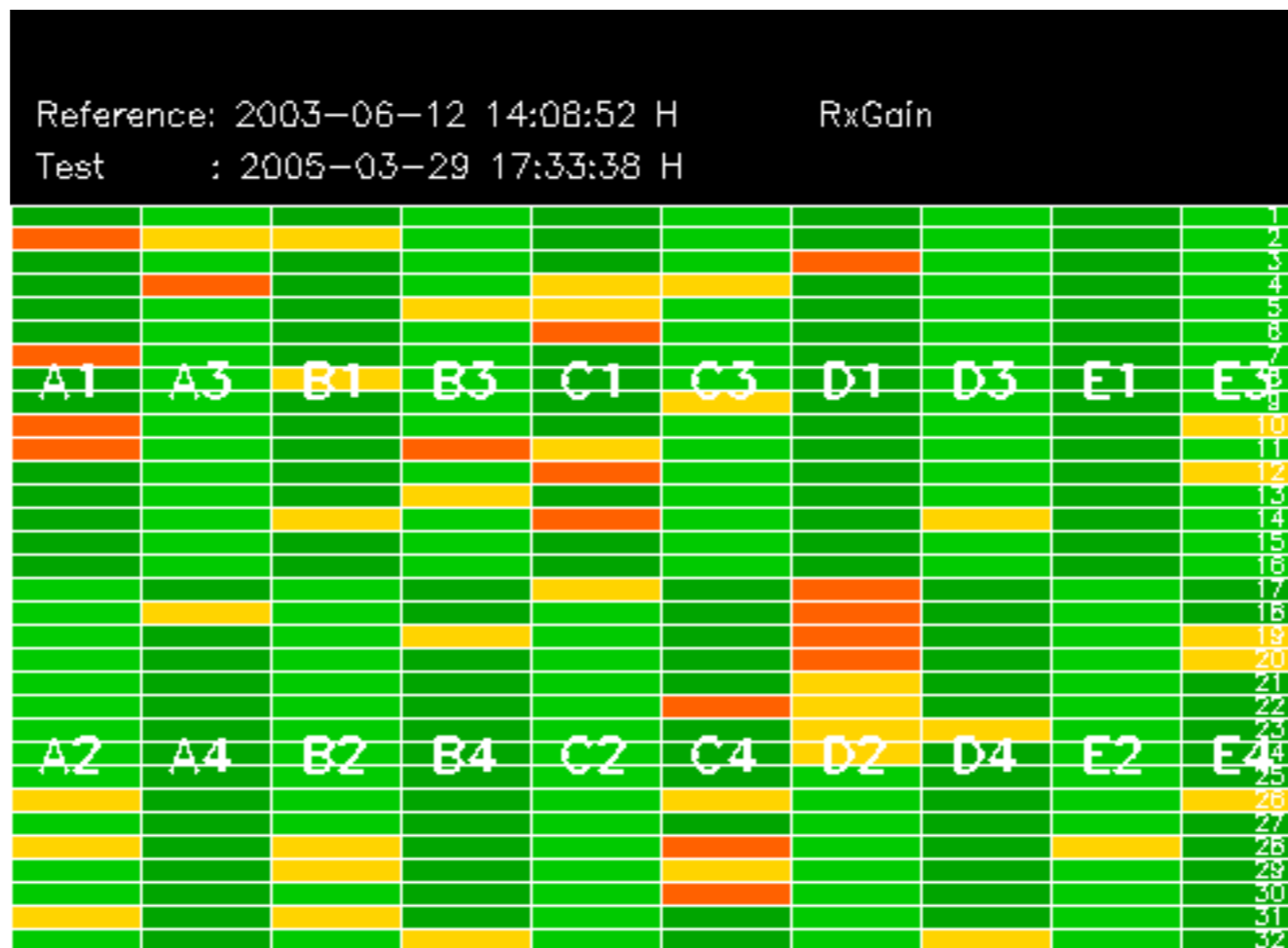


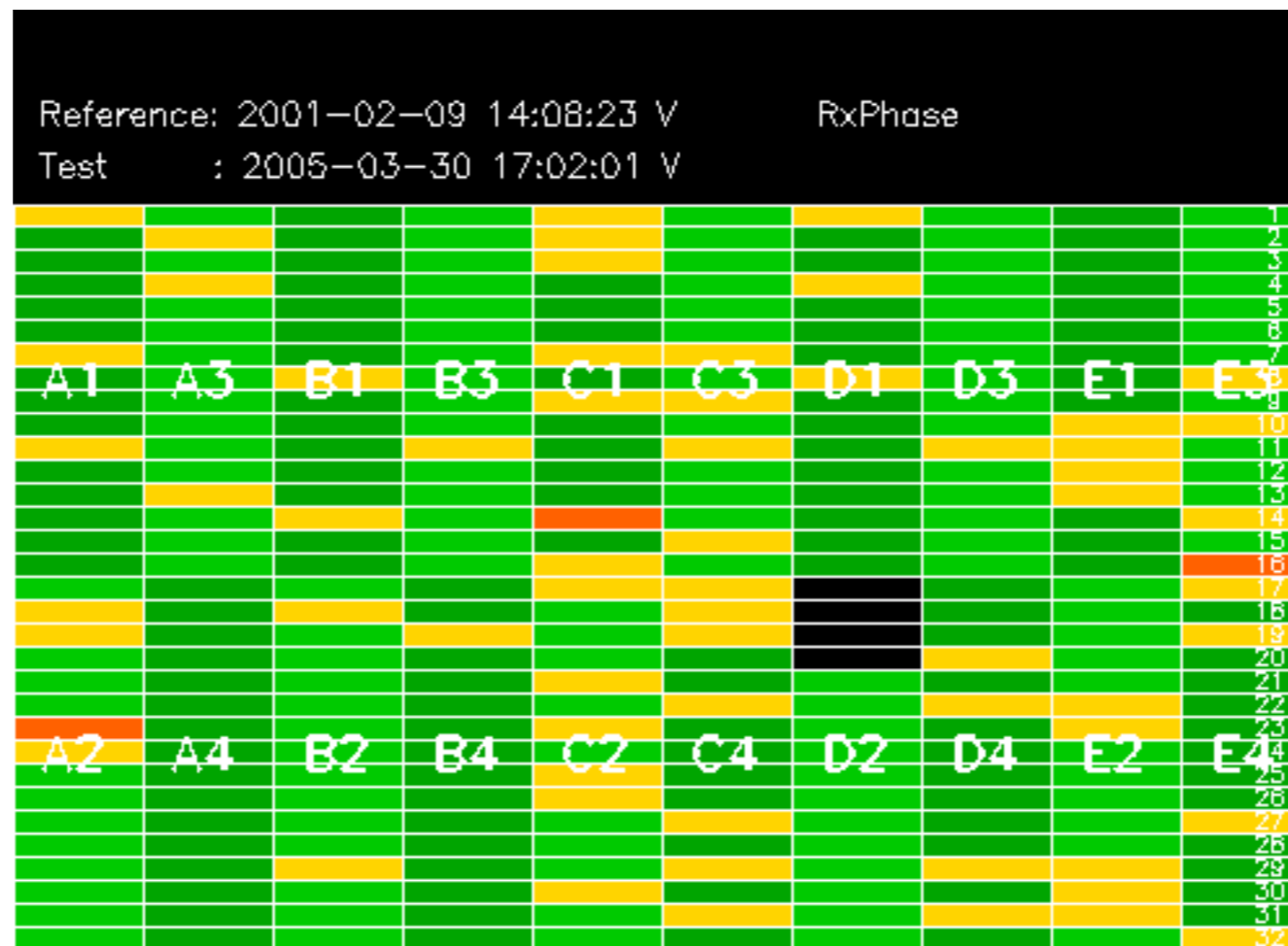
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.562868 Hz

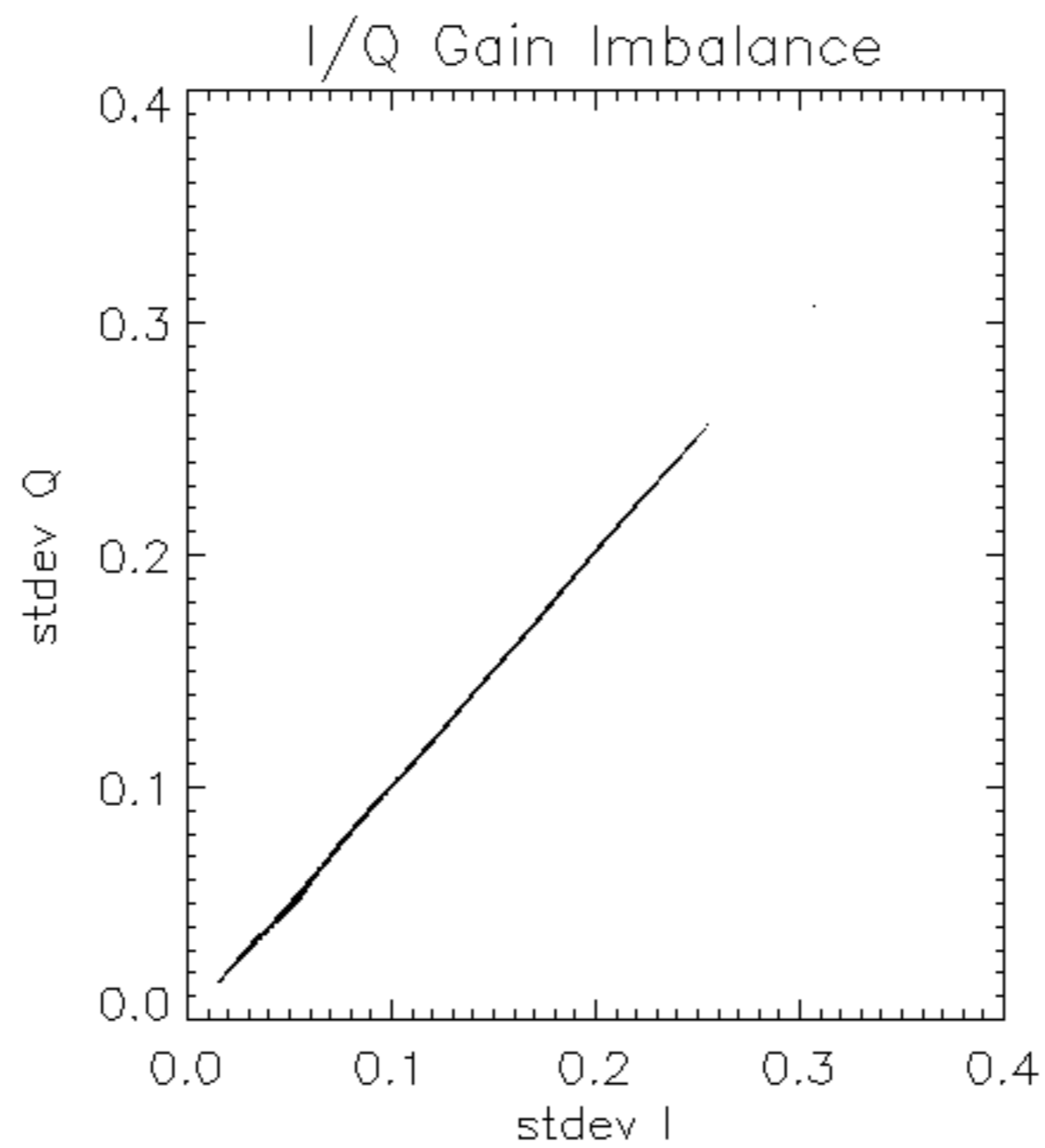


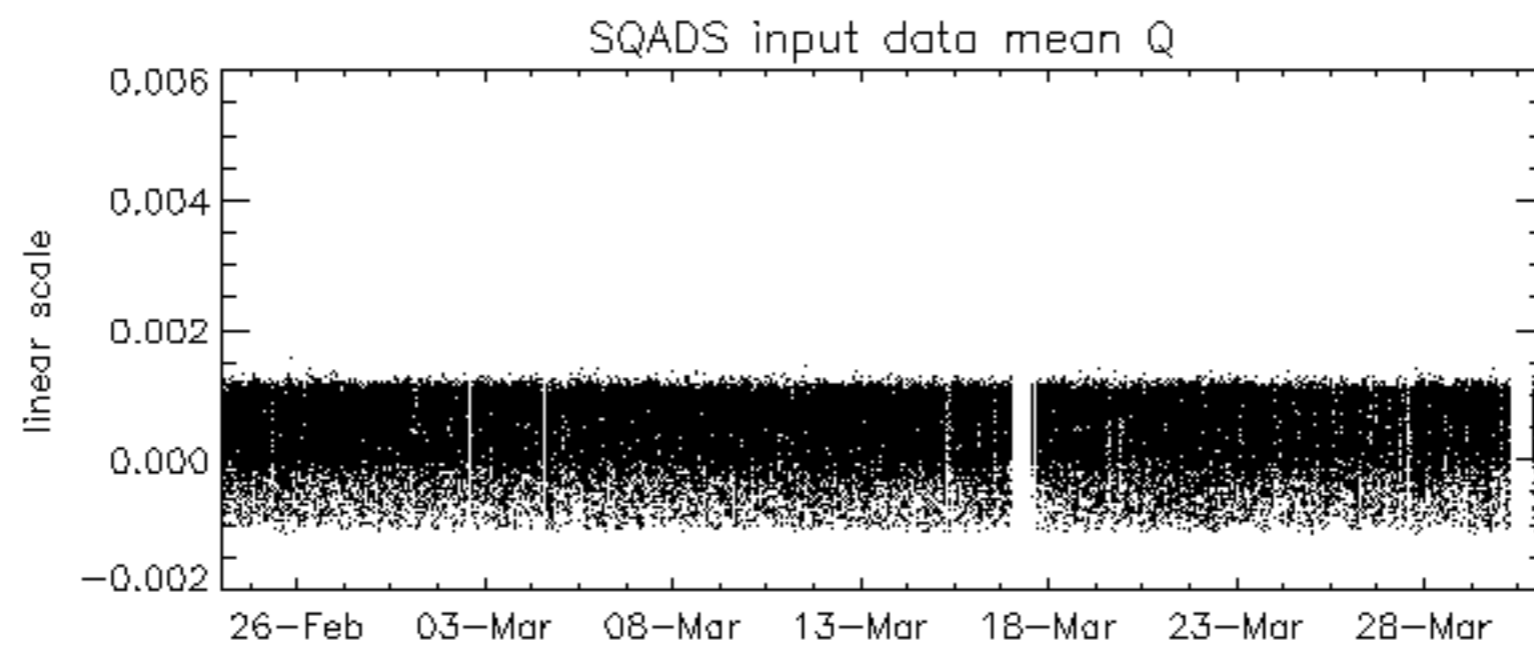
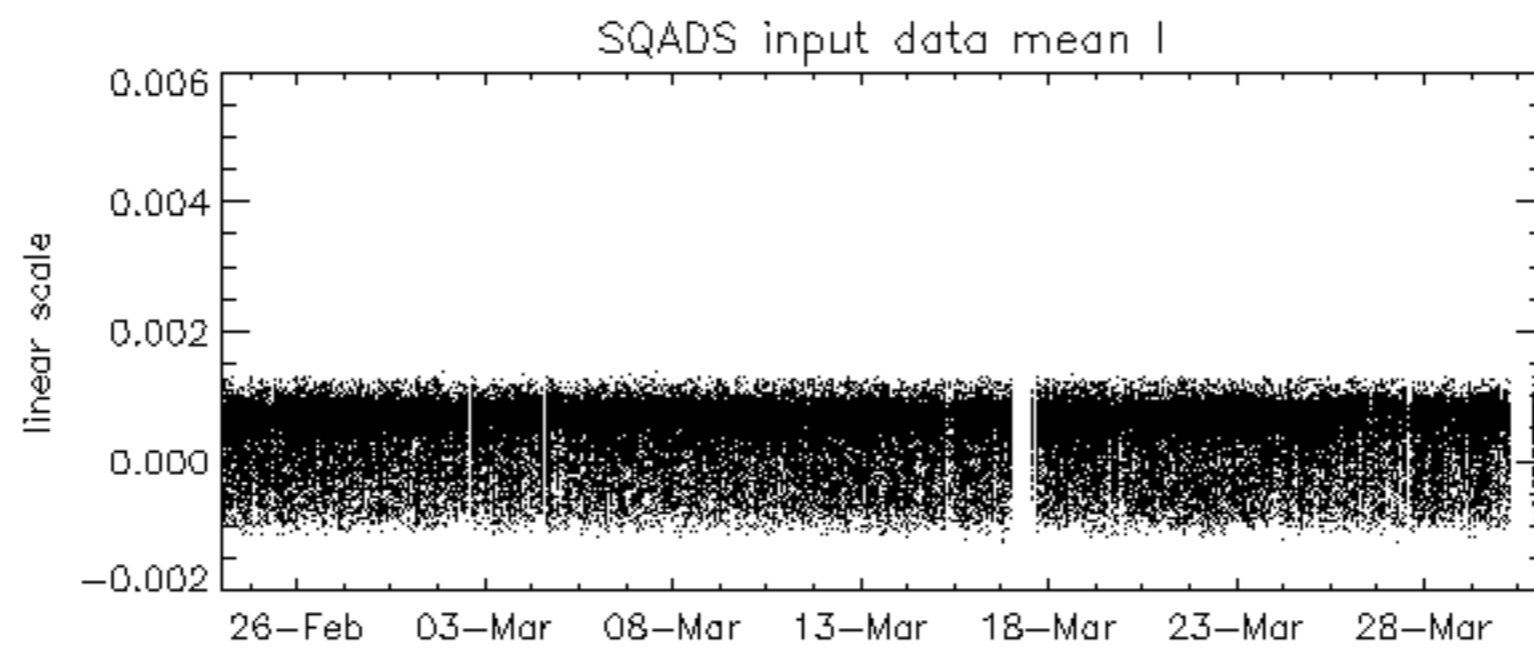
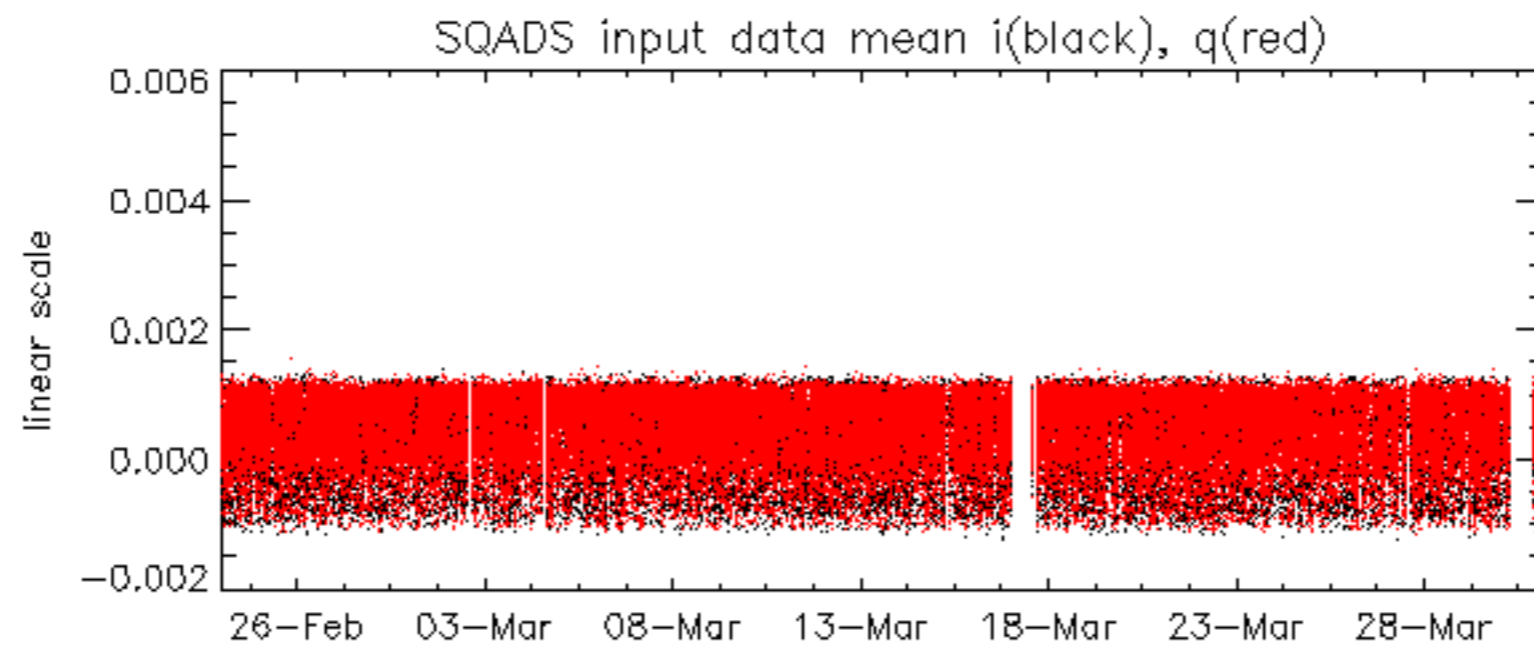
No anomalies observed on available MS products:

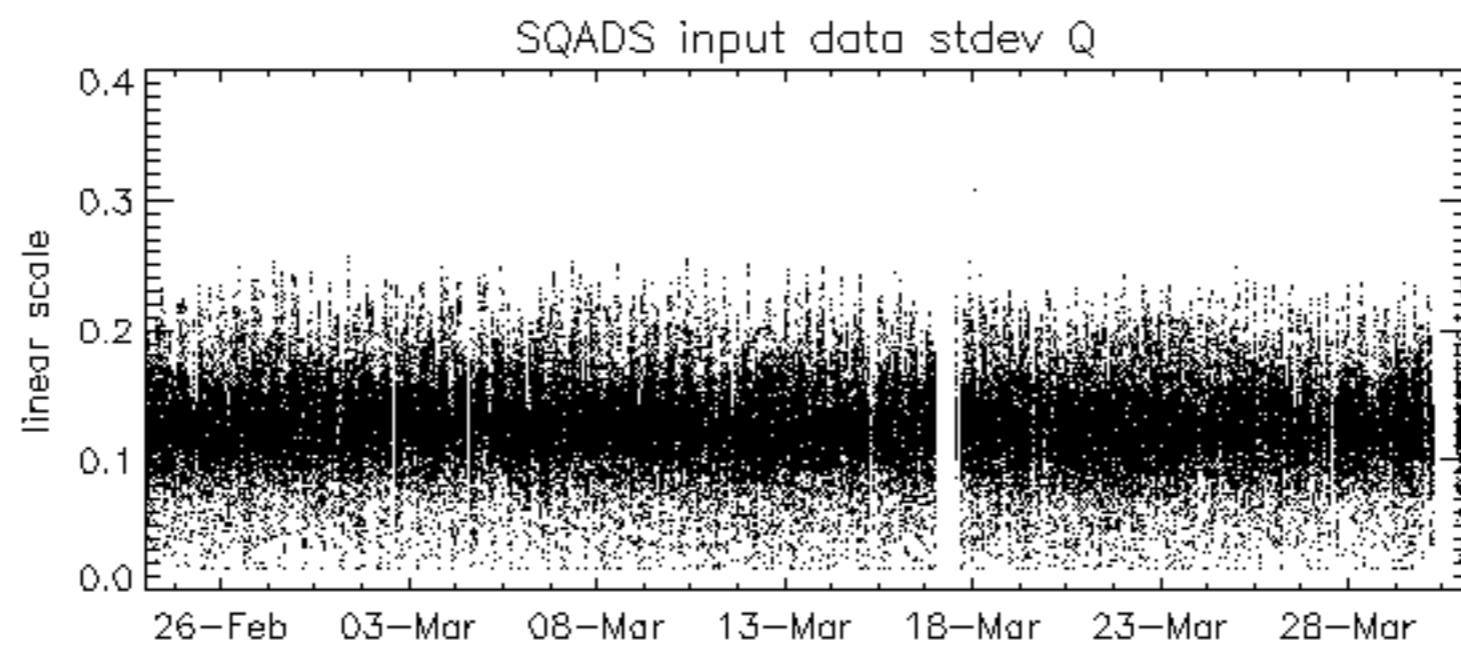
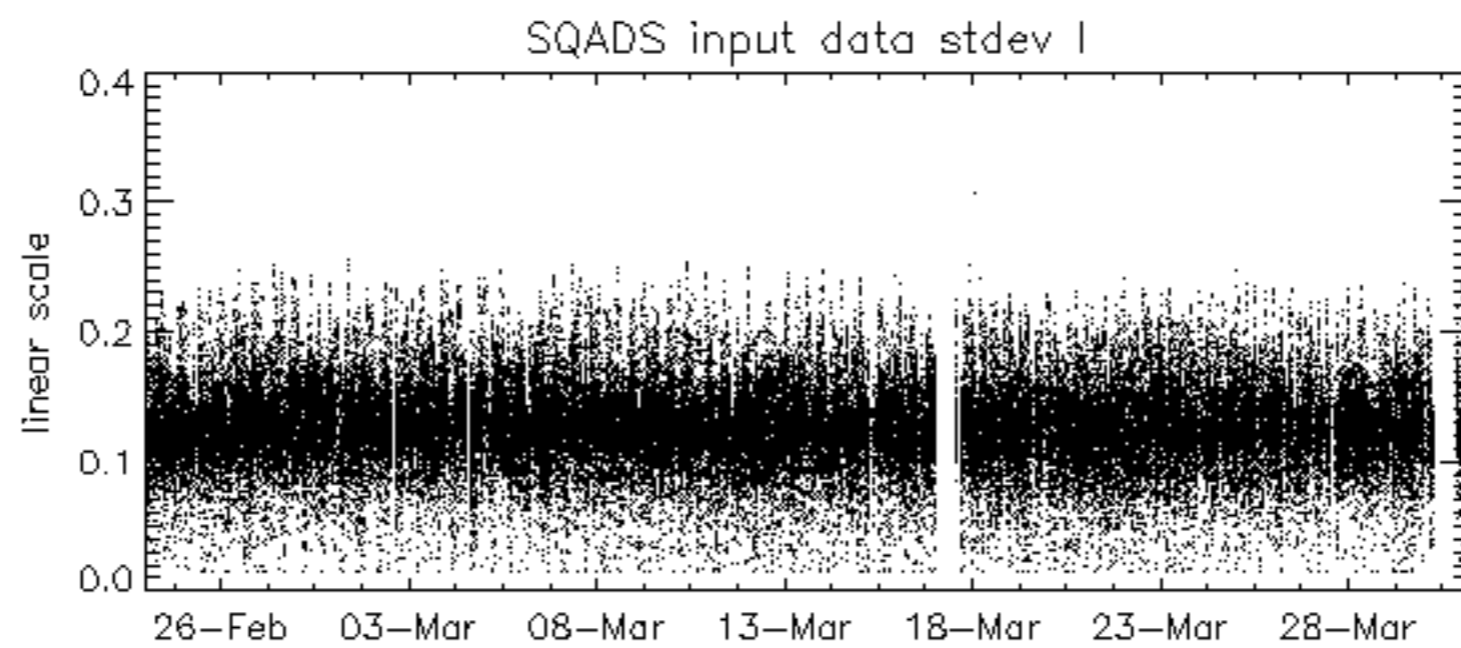
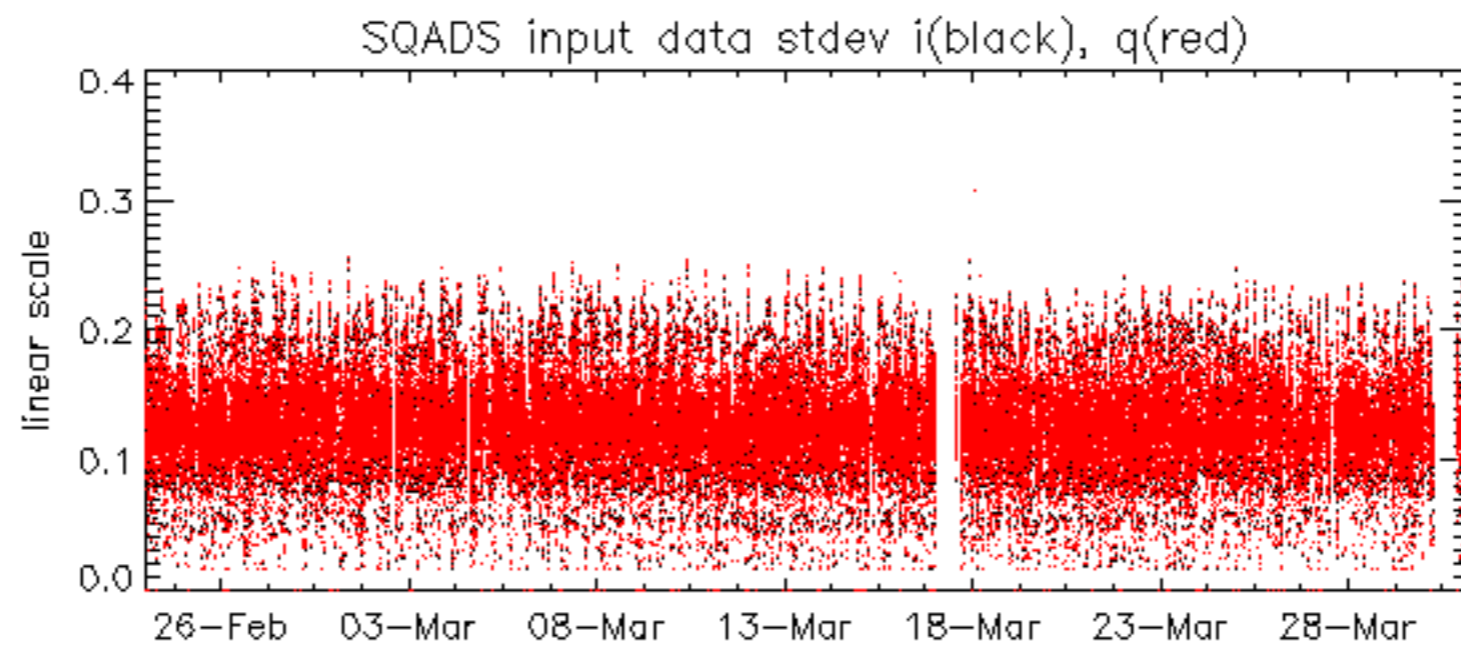
No anomalies observed.







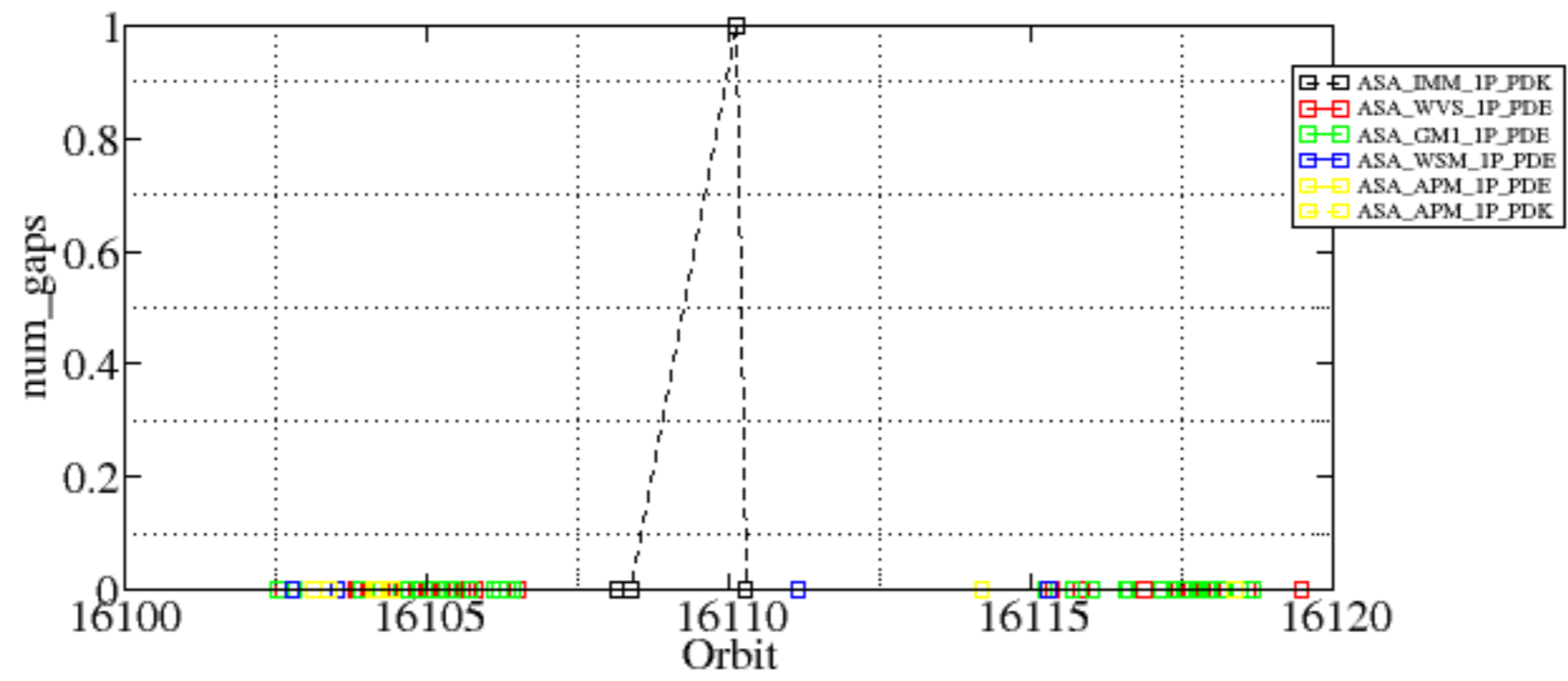


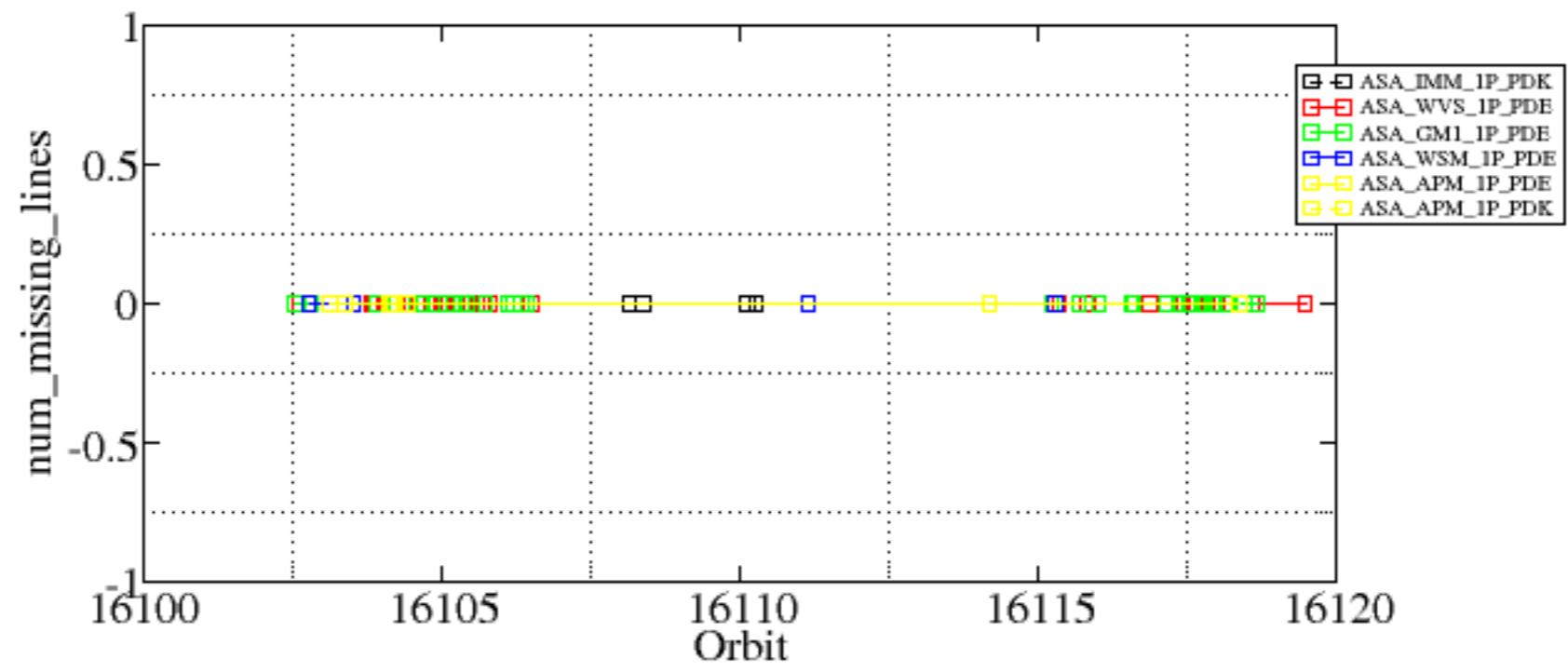


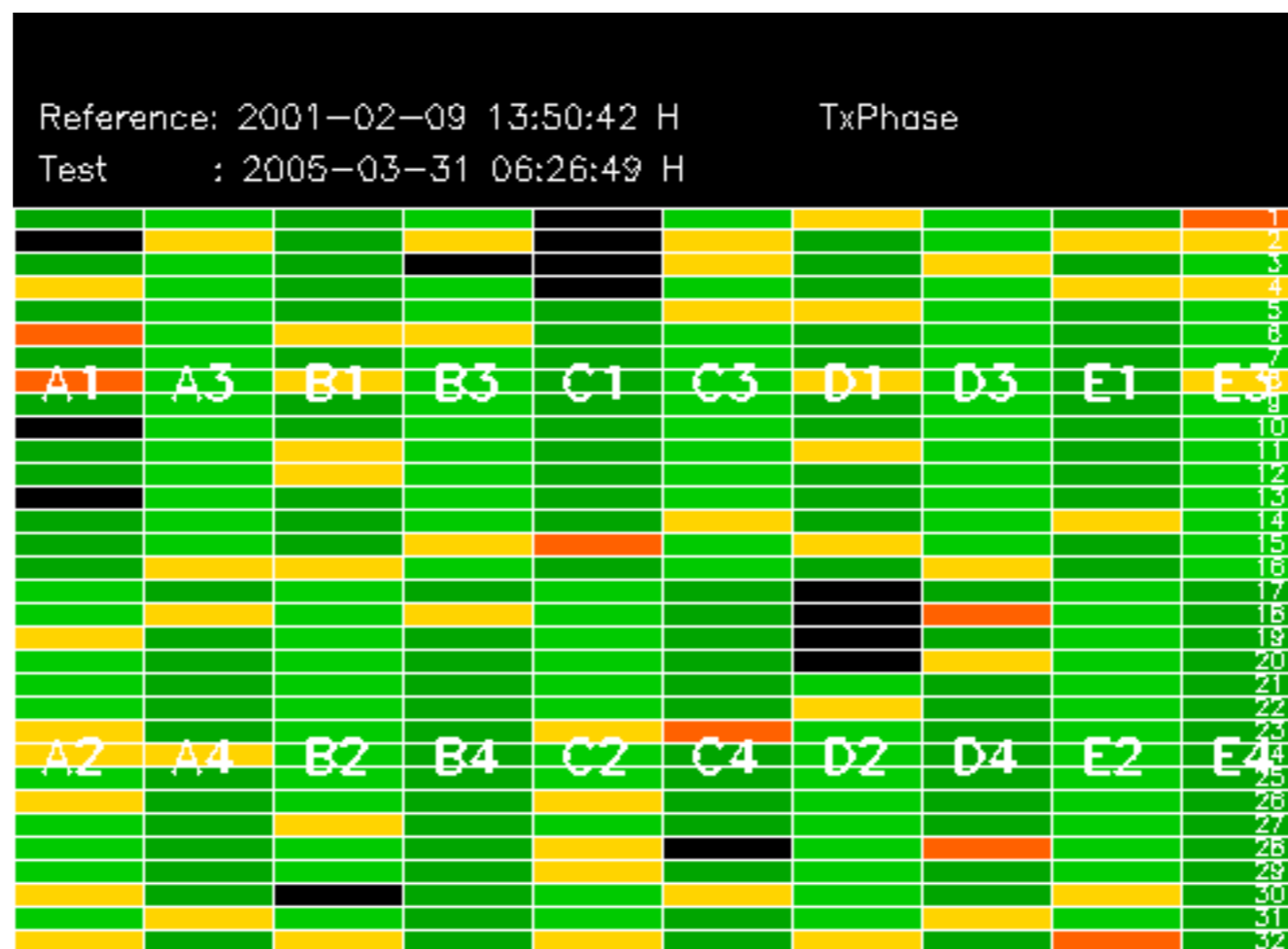
Summary of analysis for the last 3 days 2005033[901]

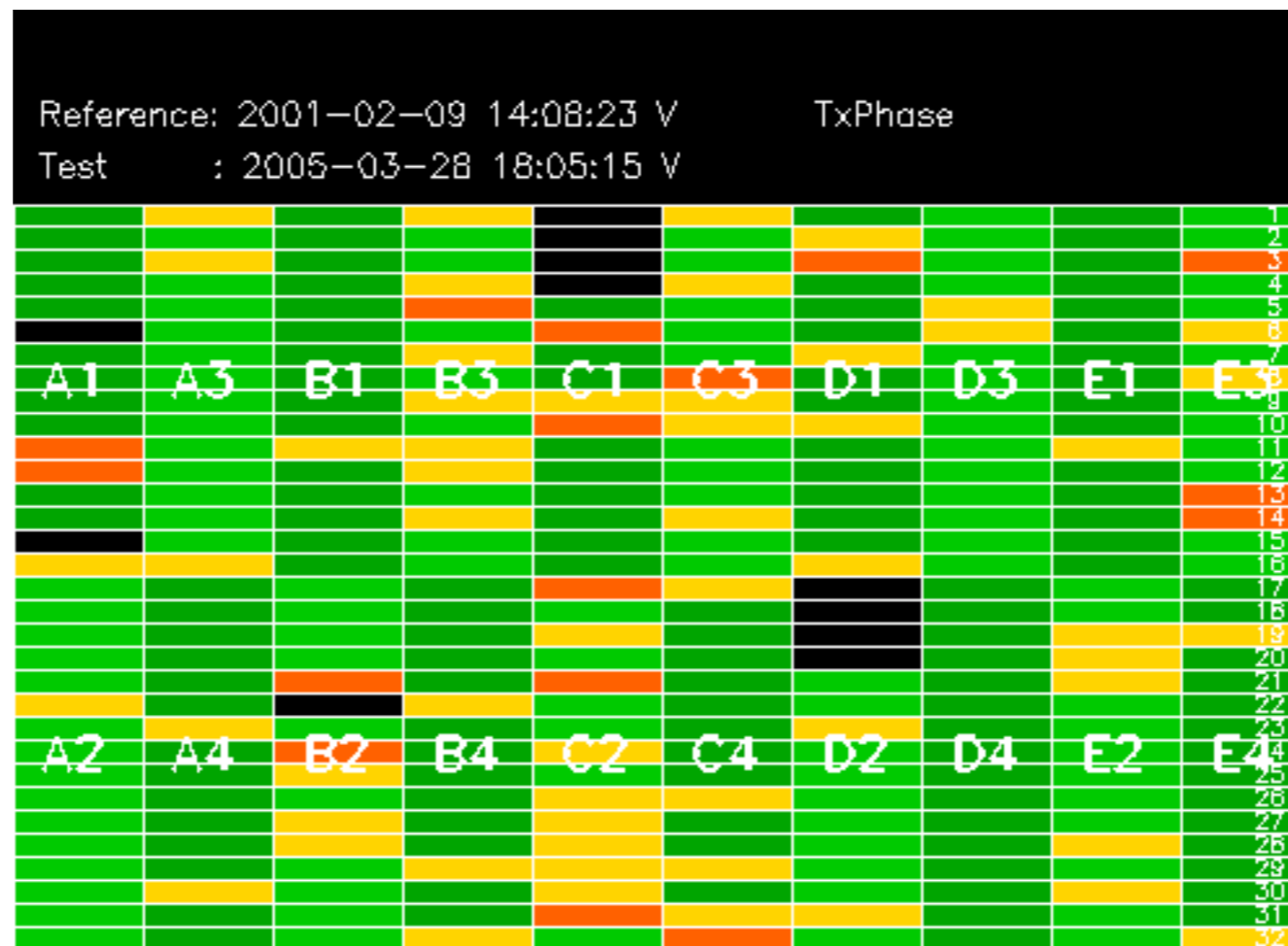
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

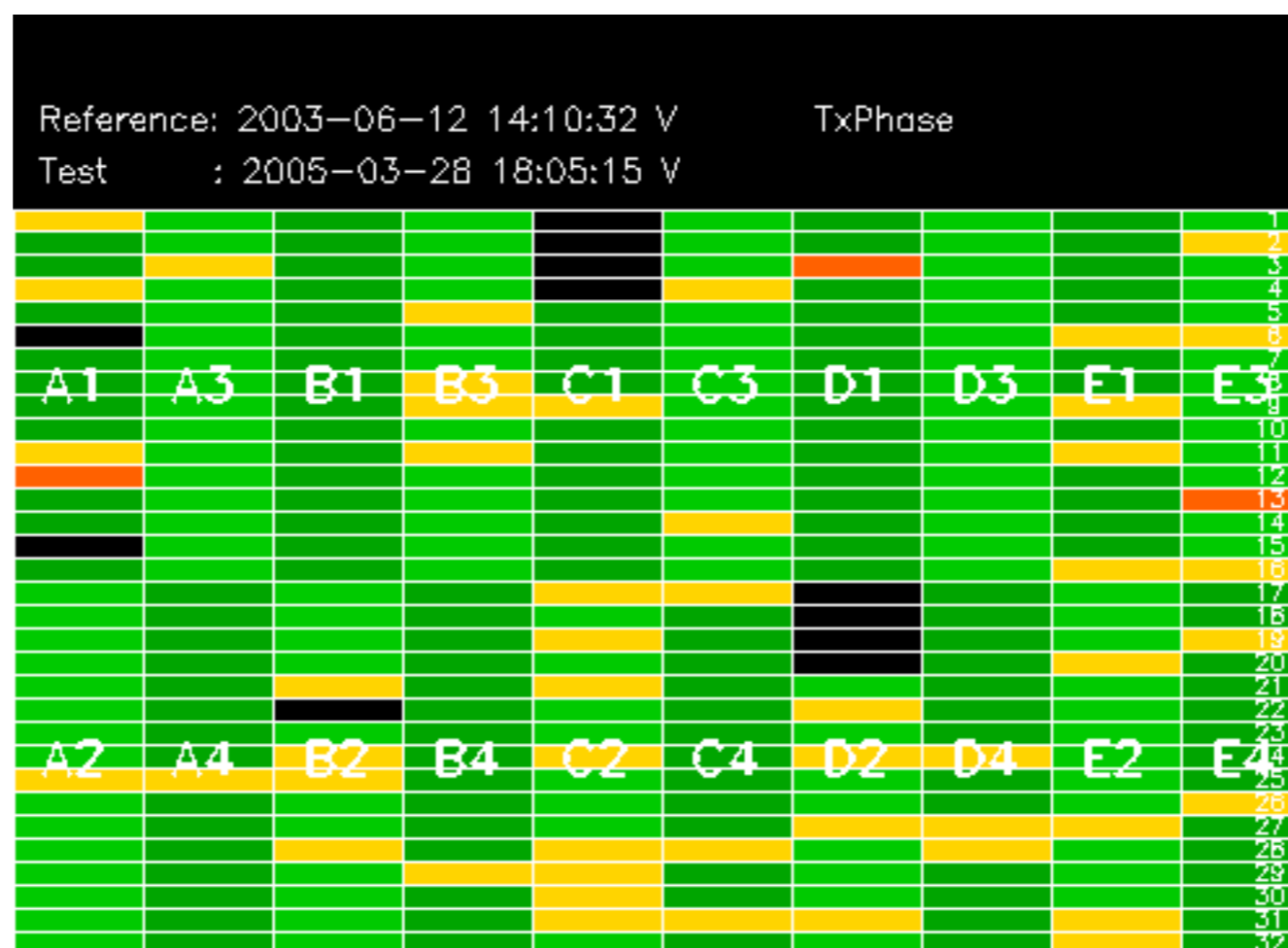
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050330_124602_00000692036_00024_16110_1566.N1	1	0

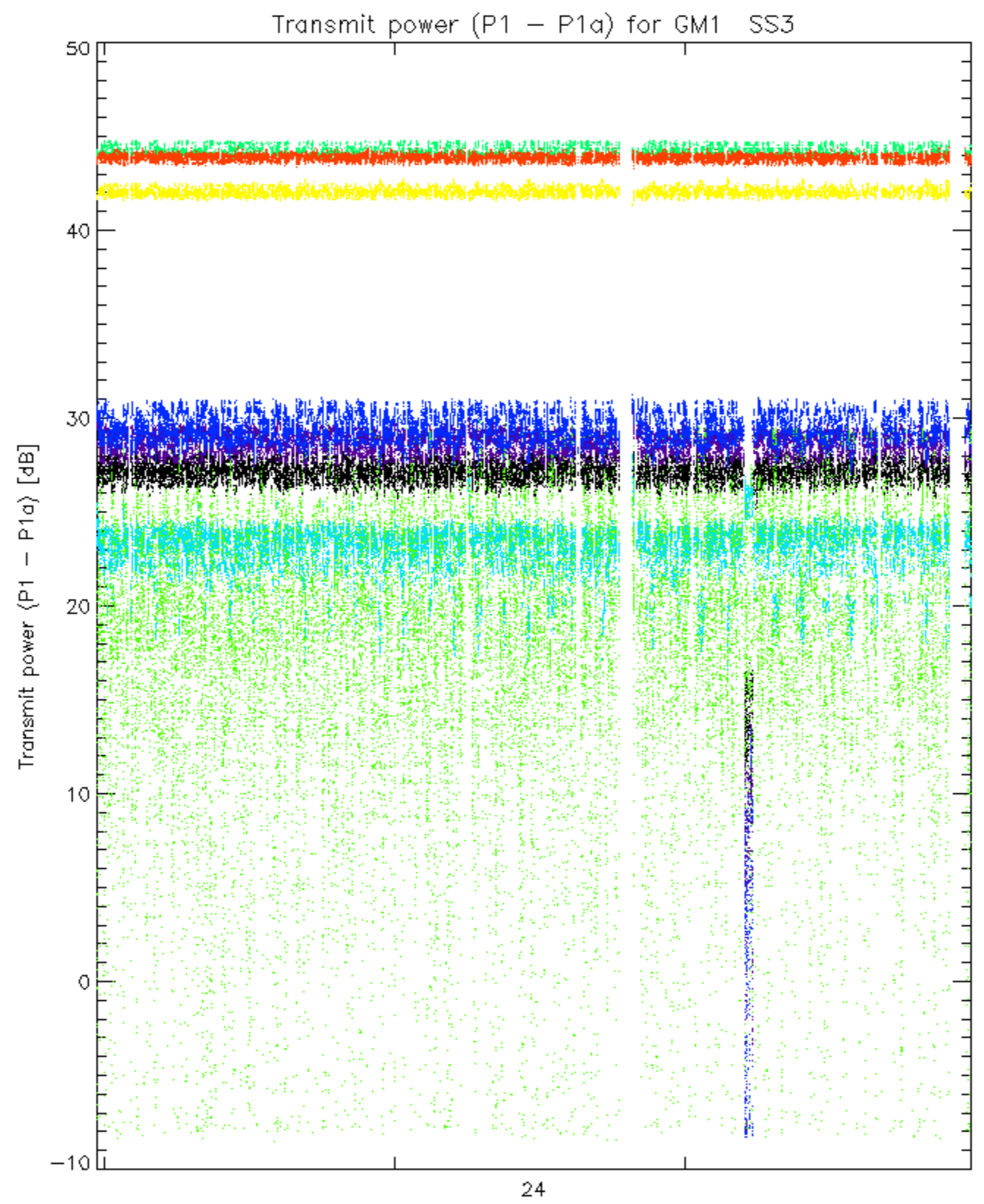




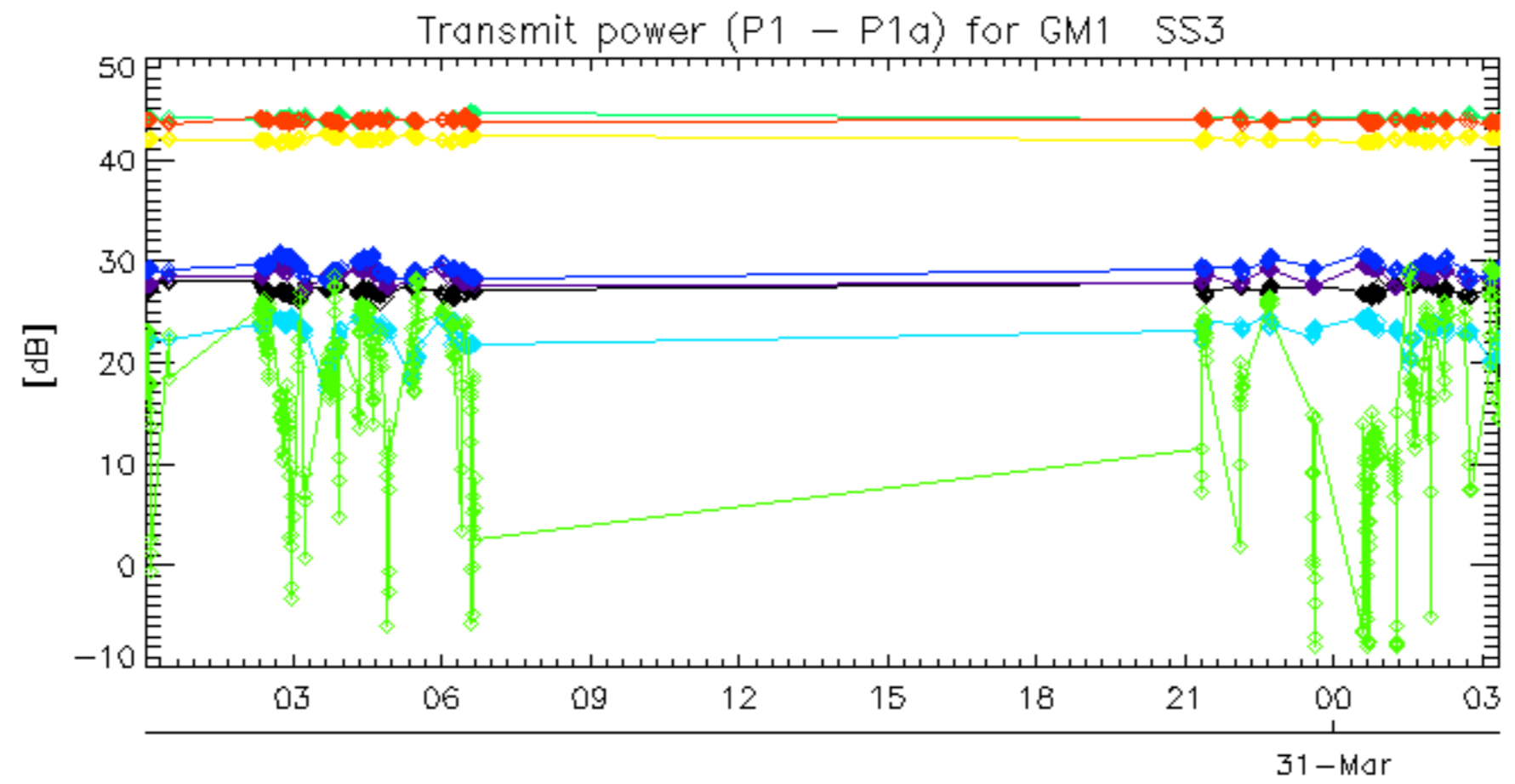




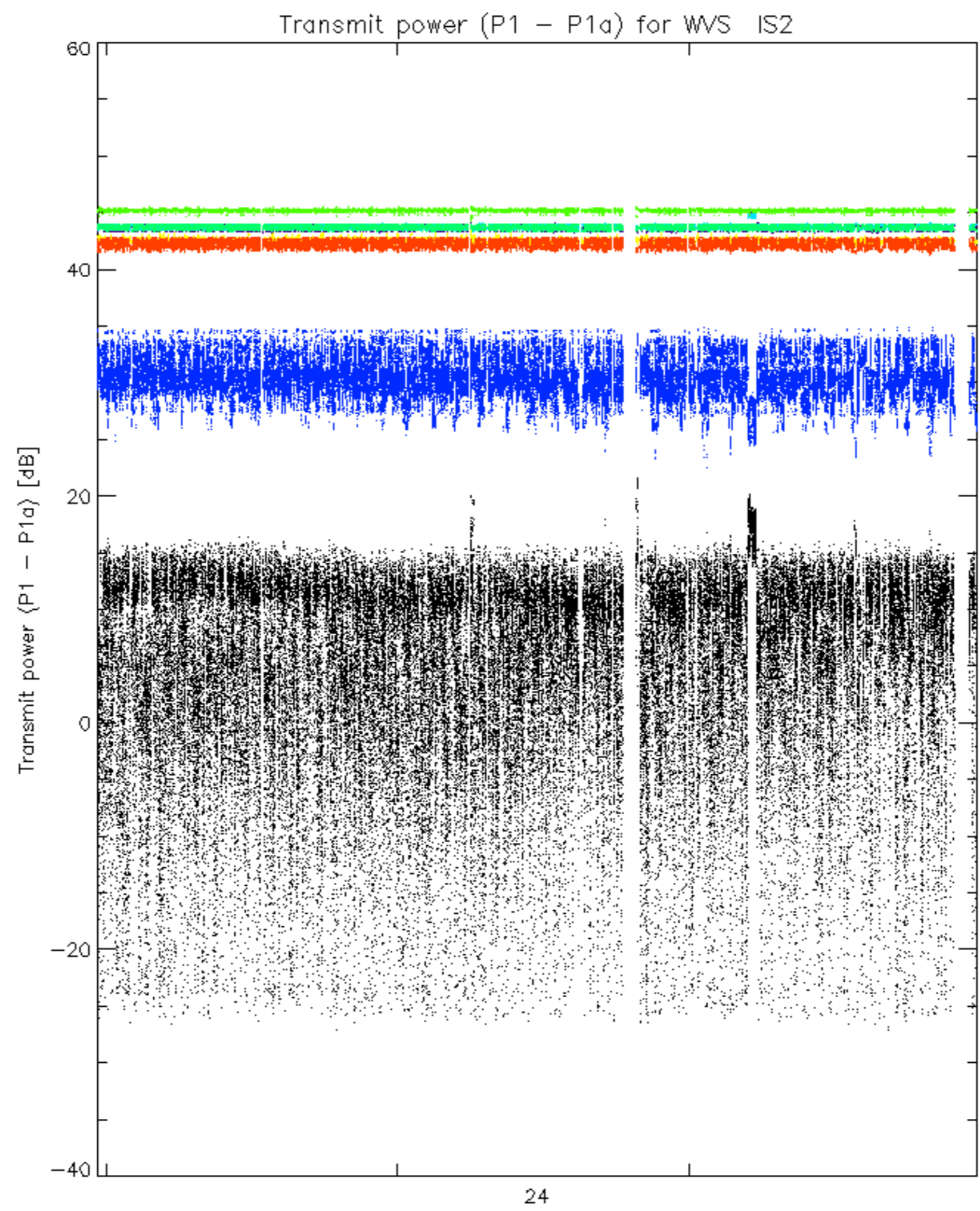




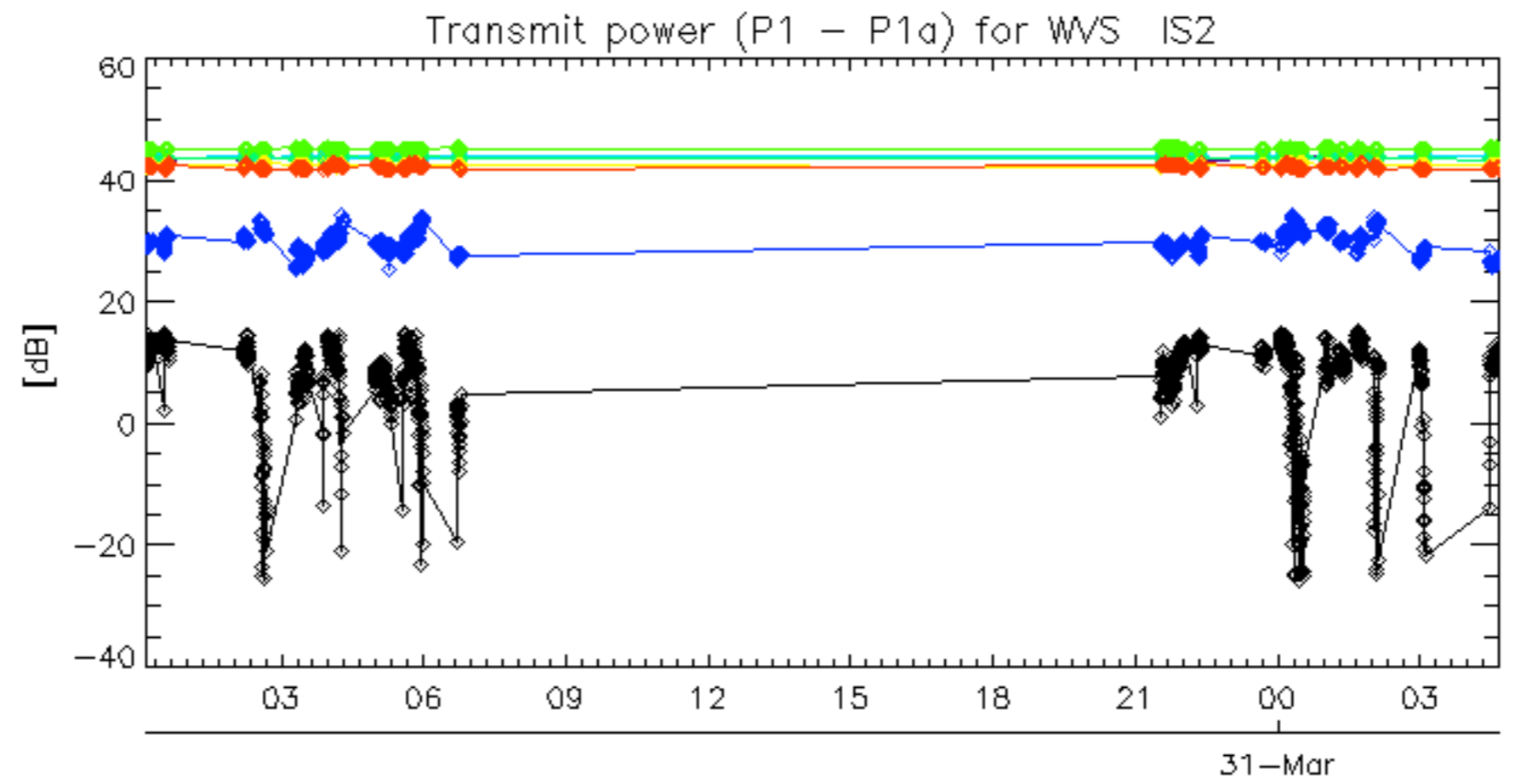
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.