

PRELIMINARY REPORT OF 050524

last update on Tue May 24 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 2005-05-23 00:00:00 to 2005-05-24 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	23	42	13	2	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	23	42	13	2	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	23	42	13	2	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	23	42	13	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	48	57	33	6	2
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	48	57	33	6	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	48	57	33	6	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	48	57	33	6	2

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	20050523 084200
H	20050523 015937

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	-3.346930	0.006881	0.008331
7	P1	-3.111948	0.014670	-0.021513
11	P1	-4.652422	0.028589	0.055083
15	P1	-5.532612	0.045613	0.084706
19	P1	-3.724601	0.003973	-0.012545
22	P1	-4.590307	0.013849	0.007055
26	P1	-4.875934	0.018532	0.027924
30	P1	-7.142285	0.028331	-0.000443
3	P1	-15.693877	0.085159	0.130226
7	P1	-15.505717	0.101934	-0.068201
11	P1	-21.286734	0.234954	-0.046695
15	P1	-11.403255	0.037775	0.170554
19	P1	-14.351530	0.033517	-0.069063
22	P1	-15.950989	0.334952	-0.069441
26	P1	-17.657110	0.201215	-0.143907
30	P1	-17.862226	0.243002	0.055792

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.051464	0.077828	0.009844
7	P2	-22.229286	0.100983	0.039300
11	P2	-14.099180	0.100015	0.128291
15	P2	-7.106713	0.085814	-0.041883
19	P2	-9.643170	0.090103	0.032300
22	P2	-16.889988	0.088846	-0.002370
26	P2	-16.491526	0.091304	-0.022436
30	P2	-18.817602	0.079024	0.015019

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.167736	0.003161	0.007776
7	P3	-8.167736	0.003161	0.007776
11	P3	-8.167736	0.003161	0.007776
15	P3	-8.167736	0.003161	0.007776
19	P3	-8.167736	0.003161	0.007776
22	P3	-8.167736	0.003161	0.007776
26	P3	-8.167736	0.003161	0.007776
30	P3	-8.167736	0.003161	0.007776

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	-2.774508	0.012349	-0.042457
7	P1	-2.984958	0.030595	0.064515
11	P1	-3.961257	0.017753	0.028122
15	P1	-3.523674	0.023325	0.011834
19	P1	-3.629814	0.015237	-0.009101
22	P1	-5.653191	0.049818	0.038124
26	P1	-7.316071	0.023762	0.009085
30	P1	-6.275284	0.056264	-0.029655
3	P1	-10.792235	0.044942	-0.063656
7	P1	-10.417188	0.156919	0.046410
11	P1	-12.543016	0.102636	0.037493
15	P1	-11.627913	0.072949	0.058736
19	P1	-15.620422	0.064825	-0.027647
22	P1	-25.548414	2.434365	-0.871347
26	P1	-15.670641	0.329881	-0.032951
30	P1	-20.249979	1.205958	-0.042818

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.774921	0.038546	-0.029379
7	P2	-22.244209	0.046684	0.137993
11	P2	-10.015270	0.053300	0.077589
15	P2	-5.091079	0.040259	-0.056250
19	P2	-6.903853	0.053682	-0.034992
22	P2	-7.105598	0.036243	-0.009355
26	P2	-23.925884	0.037152	-0.074774
30	P2	-21.944855	0.039715	-0.024106

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.002184	0.003640	0.005434
7	P3	-8.002108	0.003638	0.006093
11	P3	-8.002066	0.003641	0.005815
15	P3	-8.002177	0.003632	0.005936
19	P3	-8.002154	0.003647	0.005743
22	P3	-8.002192	0.003632	0.005970
26	P3	-8.002044	0.003647	0.006035
30	P3	-8.002166	0.003662	0.005644

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	0.000434167
	stdev	2.33820e-07
MEAN Q	mean	0.000463162
	stdev	2.43693e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125321
	stdev	0.00104422
STDEV Q	mean	0.125561
	stdev	0.00105397



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005052[234]

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_IMM_1PNPDE20050523_155735_00000802037_00298_16885_2380.N1	1	0
ASA_IMM_1PNPDK20050522_082106_00000532037_00279_16866_4889.N1	0	5
ASA_IMM_1PNPDK20050522_083702_000004282037_00279_16866_4898.N1	0	15
ASA_IMM_1PNPDK20050522_115824_000001212037_00281_16868_4901.N1	0	3
ASA_IMM_1PNPDK20050522_132153_000000932037_00282_16869_4904.N1	0	6
ASA_IMM_1PNPDK20050522_151439_000002202037_00283_16870_4909.N1	0	1
ASA_IMM_1PNPDK20050523_075014_000000682037_00293_16880_4980.N1	0	6
ASA_IMM_1PNPDK20050523_080440_000003682037_00293_16880_4977.N1	0	7
ASA_IMM_1PNPDK20050523_095107_000001162037_00294_16881_4983.N1	0	2

ASA_IMM_1PNPDK20050523_124850_000000872037_00296_16883_4986.N1	1	1
ASA_IMM_1PNPDK20050523_175207_000004032037_00299_16886_4999.N1	0	2
ASA_IMM_1PNPDK20050523_193131_000002772037_00300_16887_5005.N1	0	4
ASA_GM1_1PNPDK20050522_105419_000009242037_00280_16867_1428.N1	0	9
ASA_GM1_1PNPDK20050522_132945_000007062037_00282_16869_1453.N1	0	8
ASA_APM_1PNPDK20050522_132037_000000432037_00282_16869_2099.N1	0	1
ASA_APM_1PNPDK20050523_075127_000000432037_00293_16880_2104.N1	0	1
ASA_APM_1PNPDK20050523_082039_000000712037_00293_16880_2107.N1	0	2



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"/>

Acsending

<input type="checkbox"/>

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

<input type="checkbox"/>

Acsending

<input type="checkbox"/>

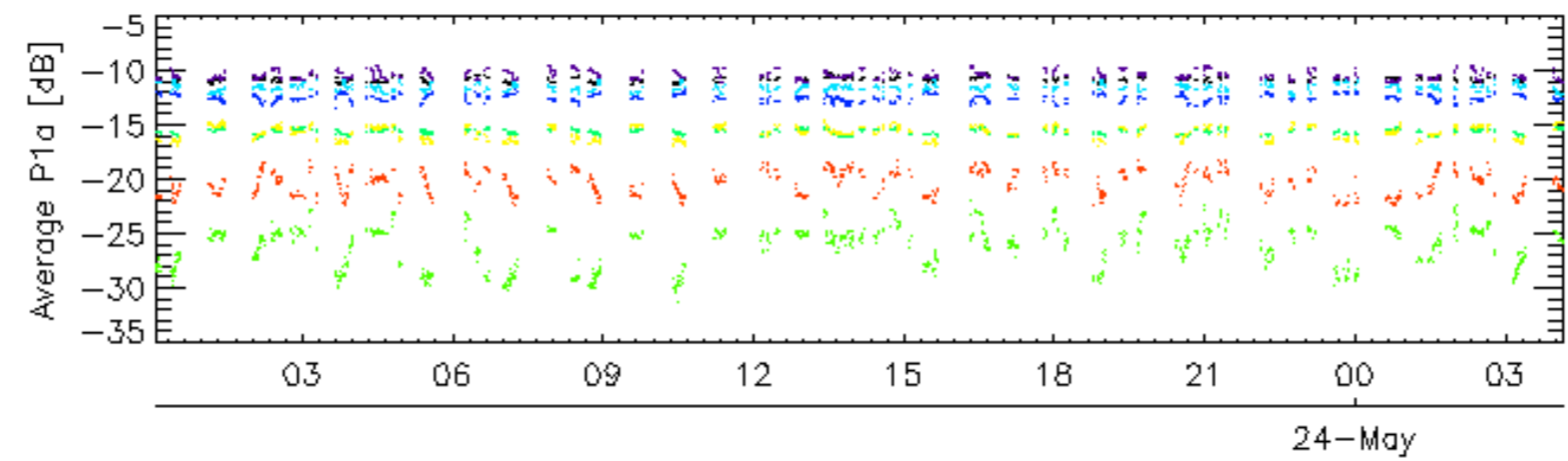
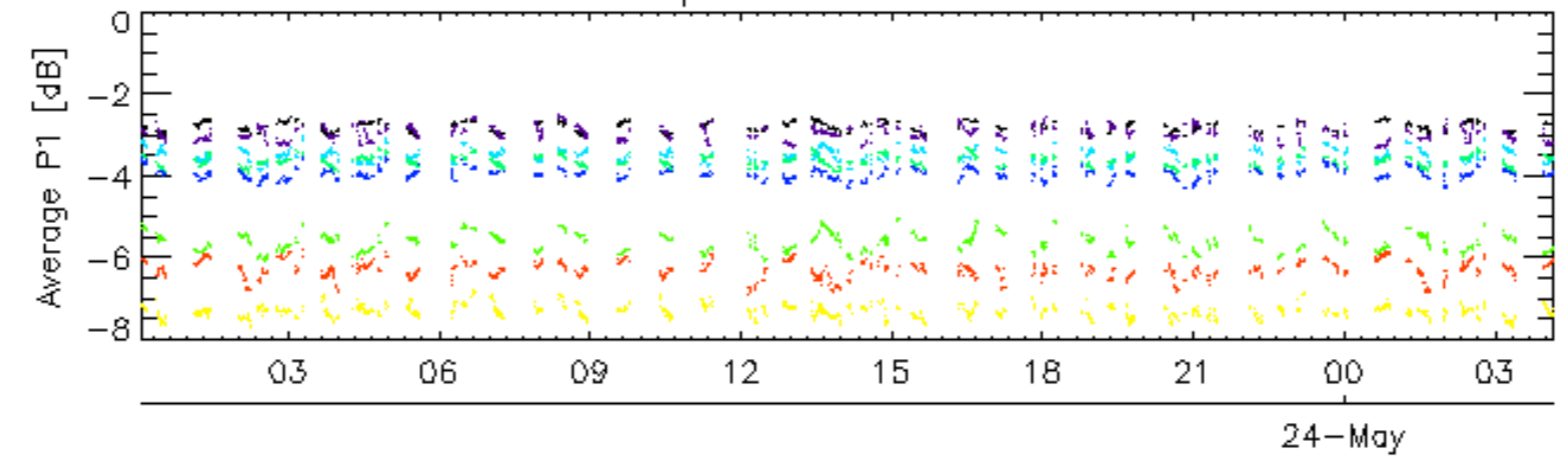
Descending

7.6 - Doppler evolution versus ANX for GM1

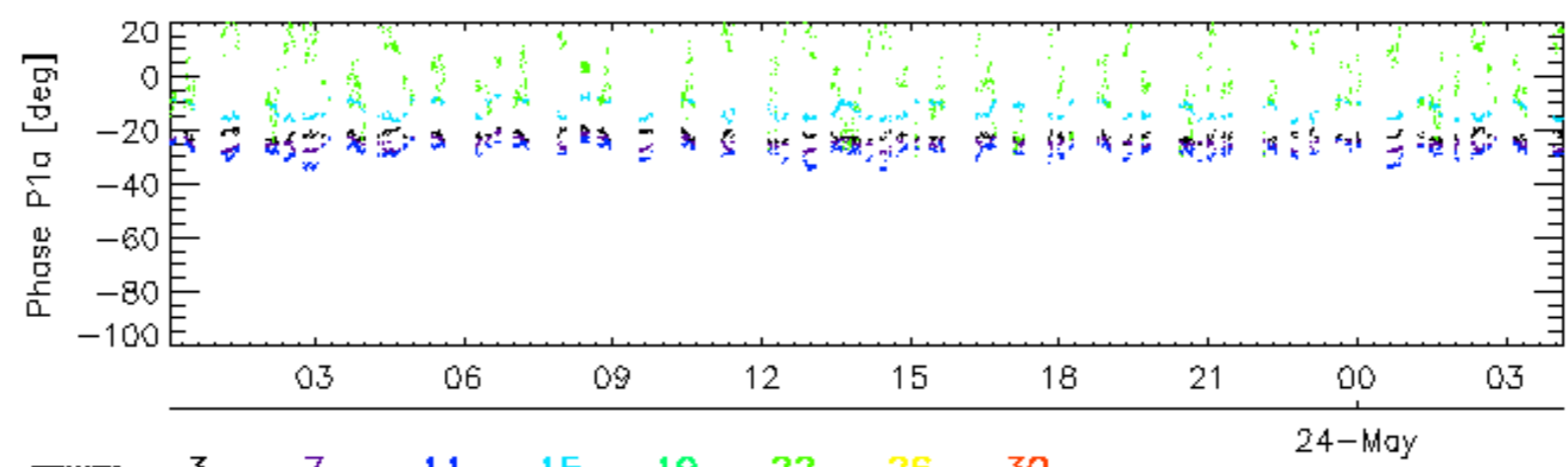
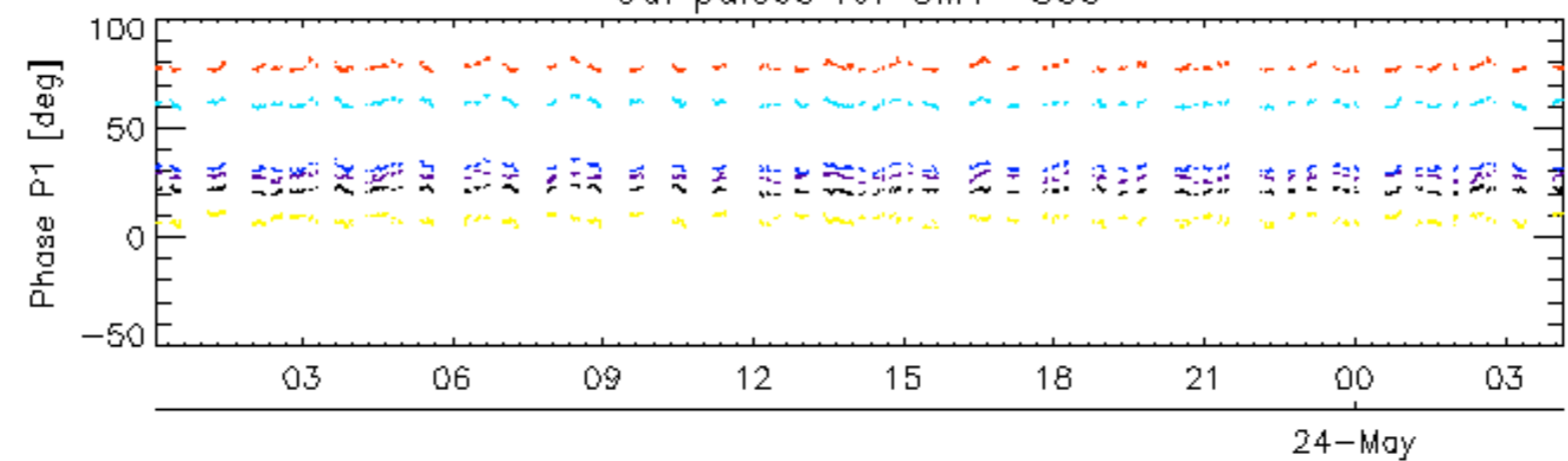
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

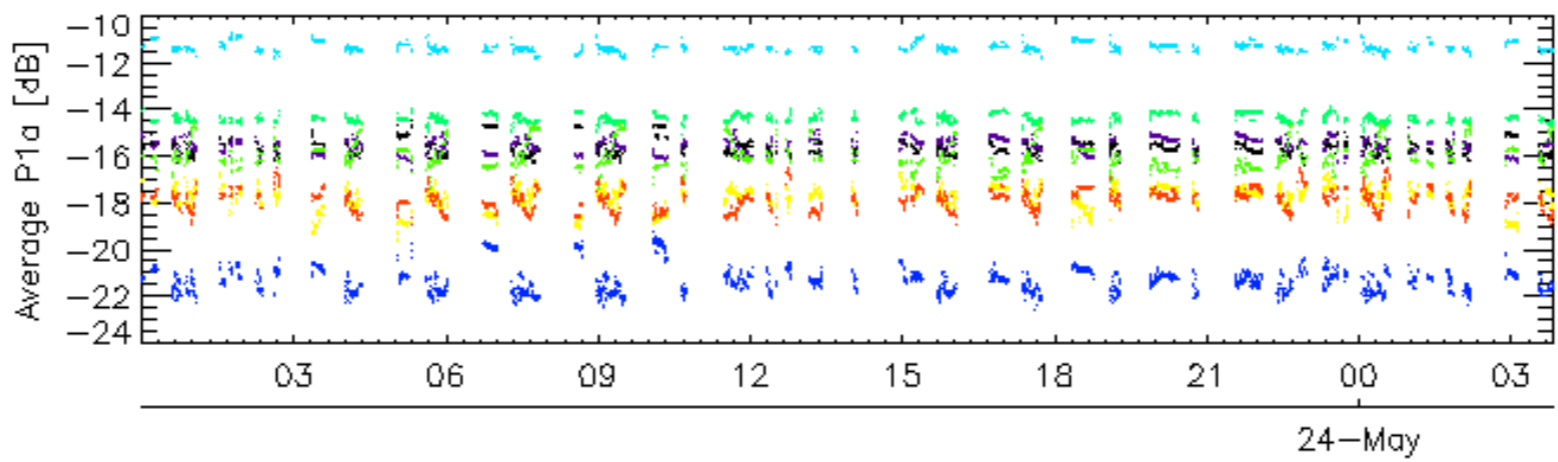
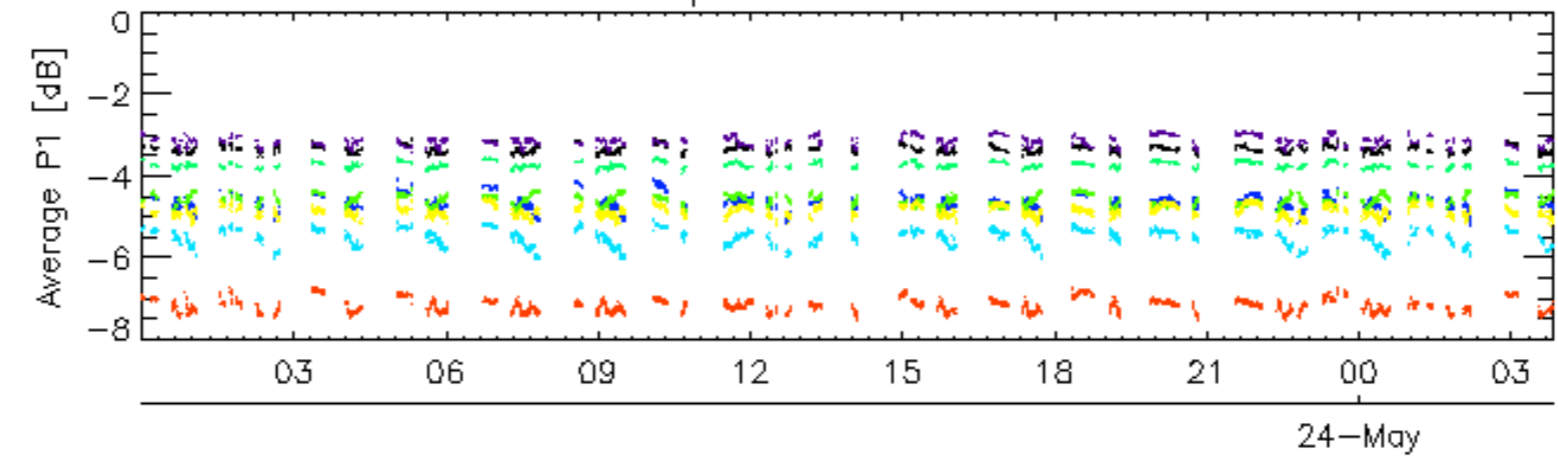


Cal pulses for GM1 SS3

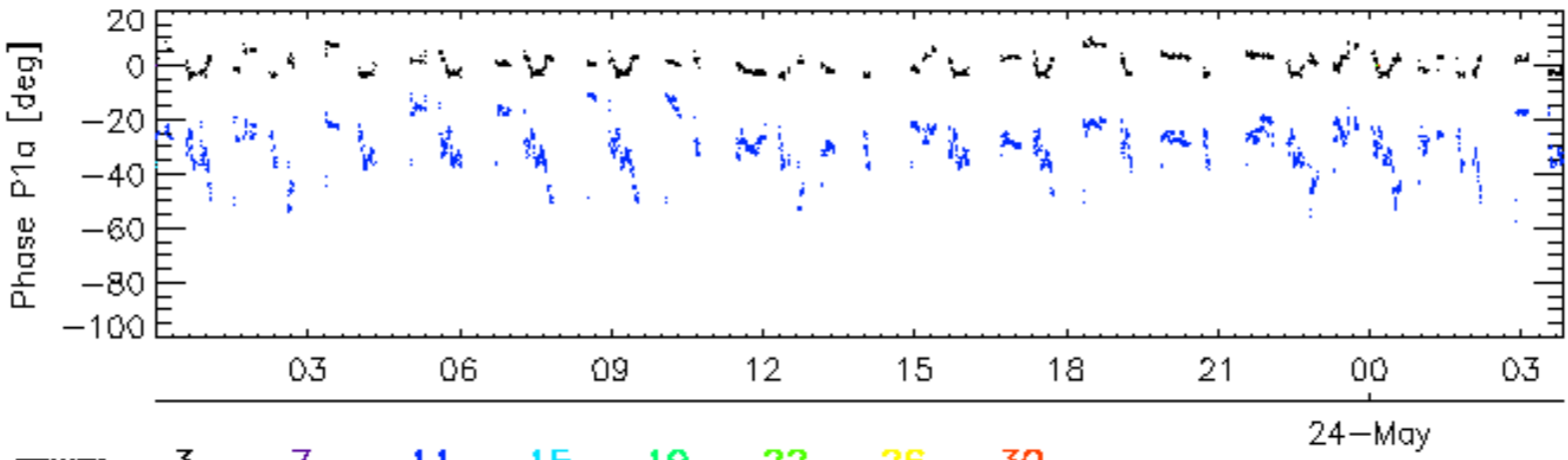
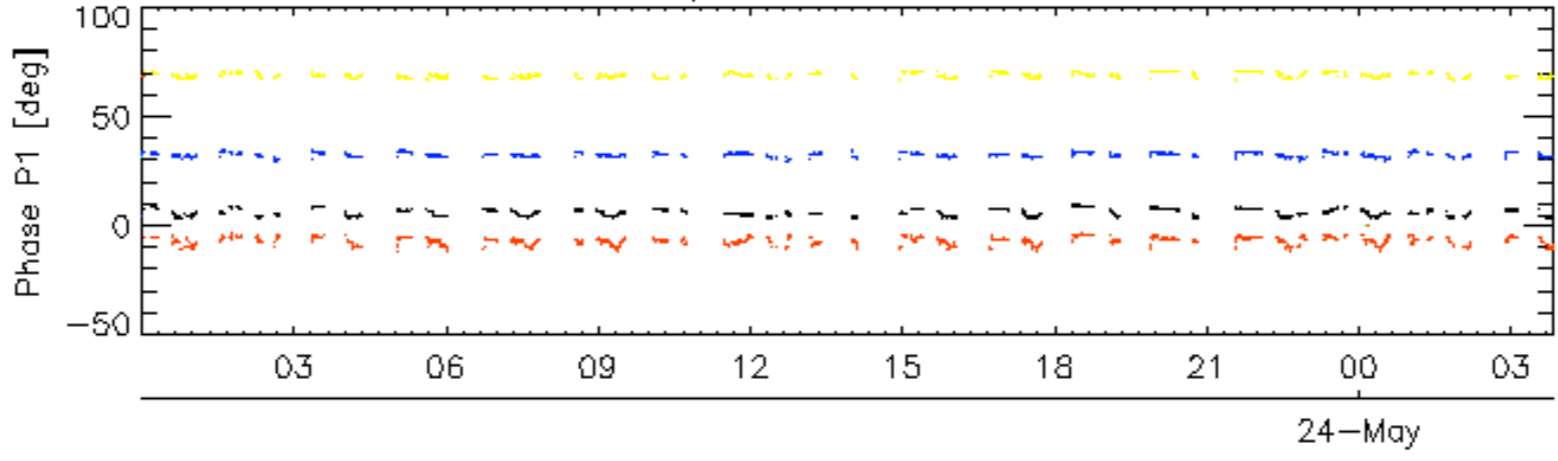


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

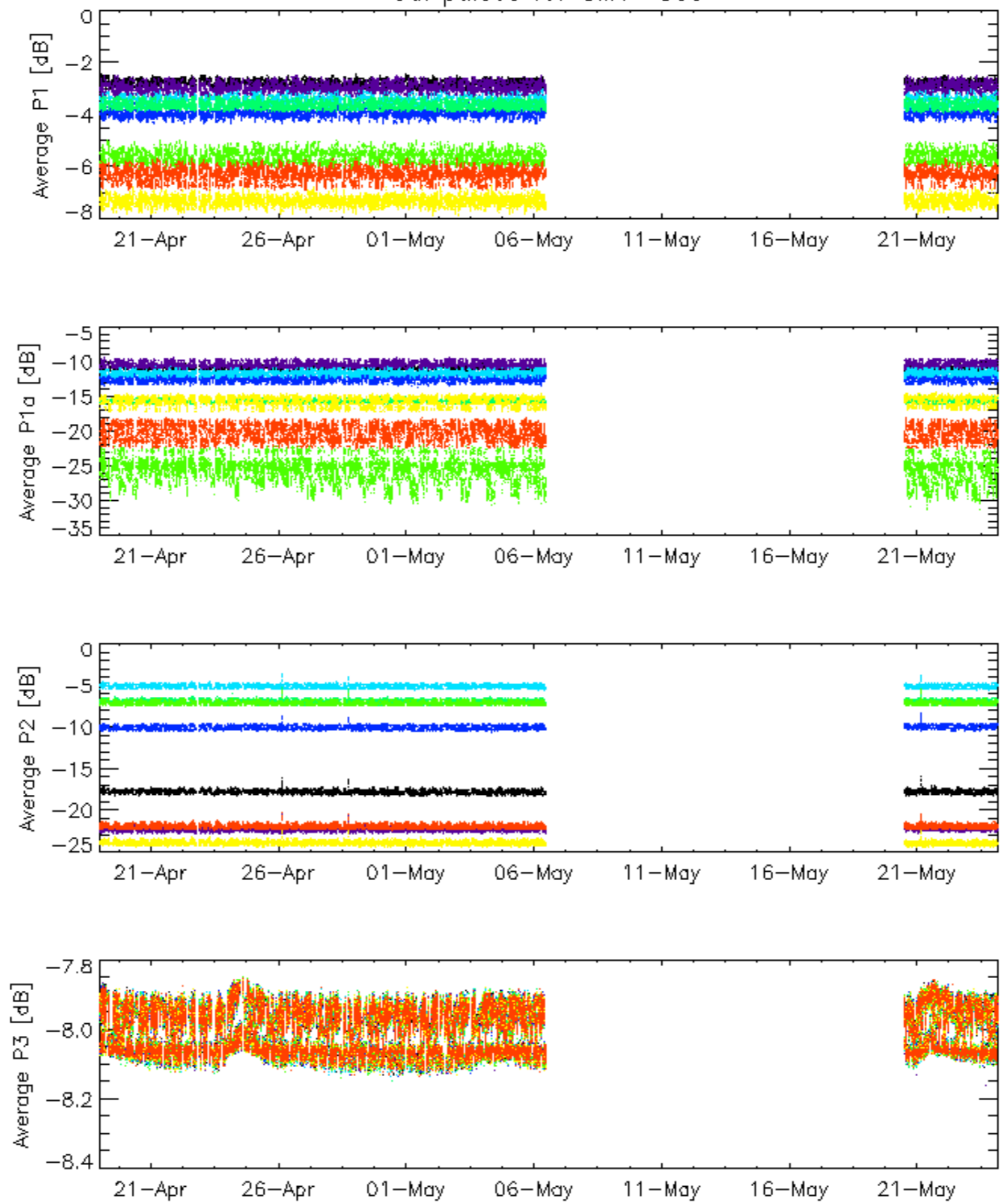


Cal pulses for WVS IS2



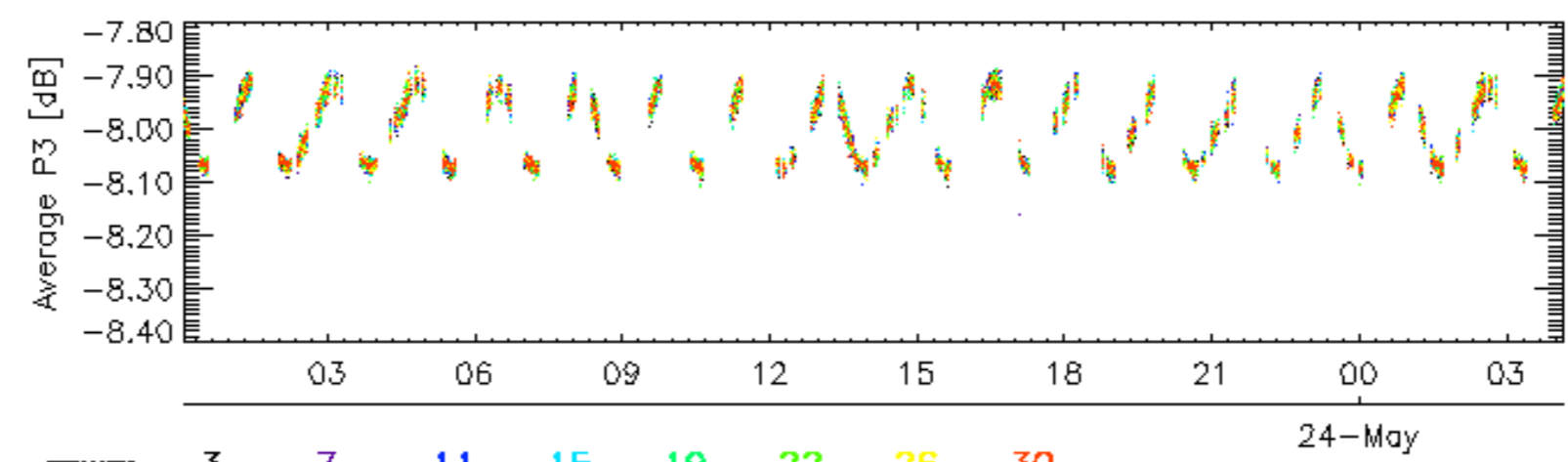
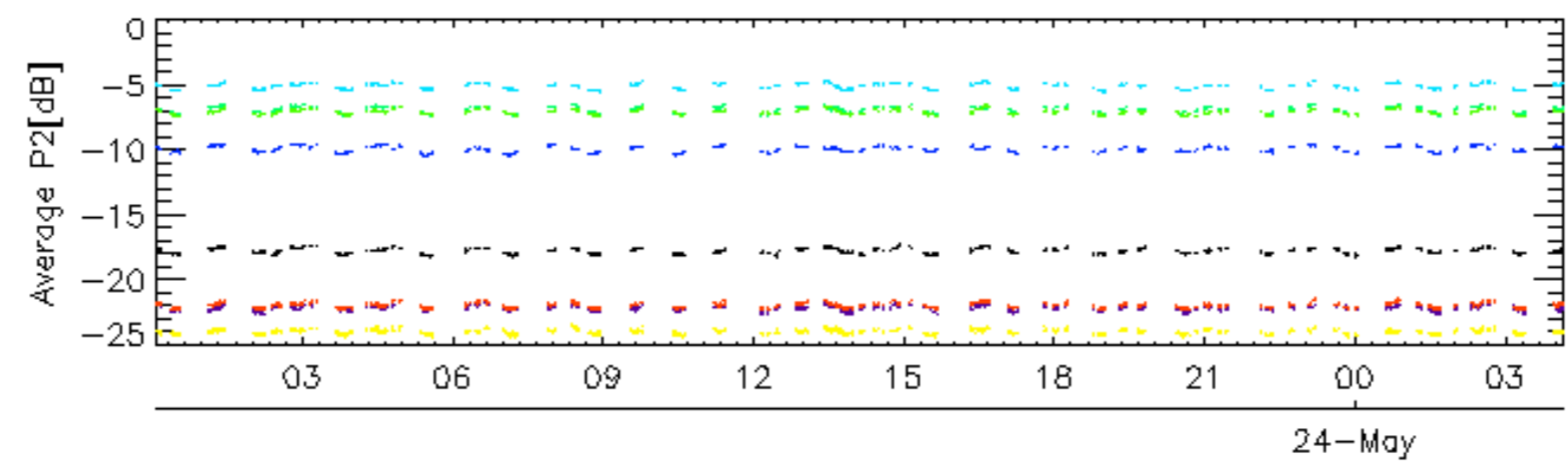
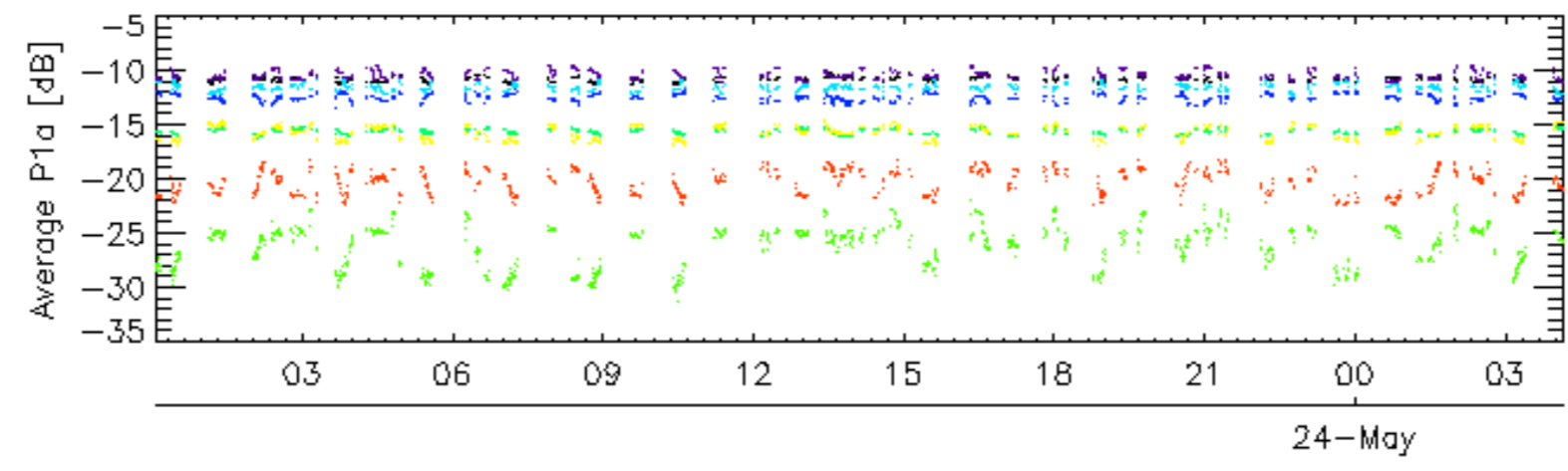
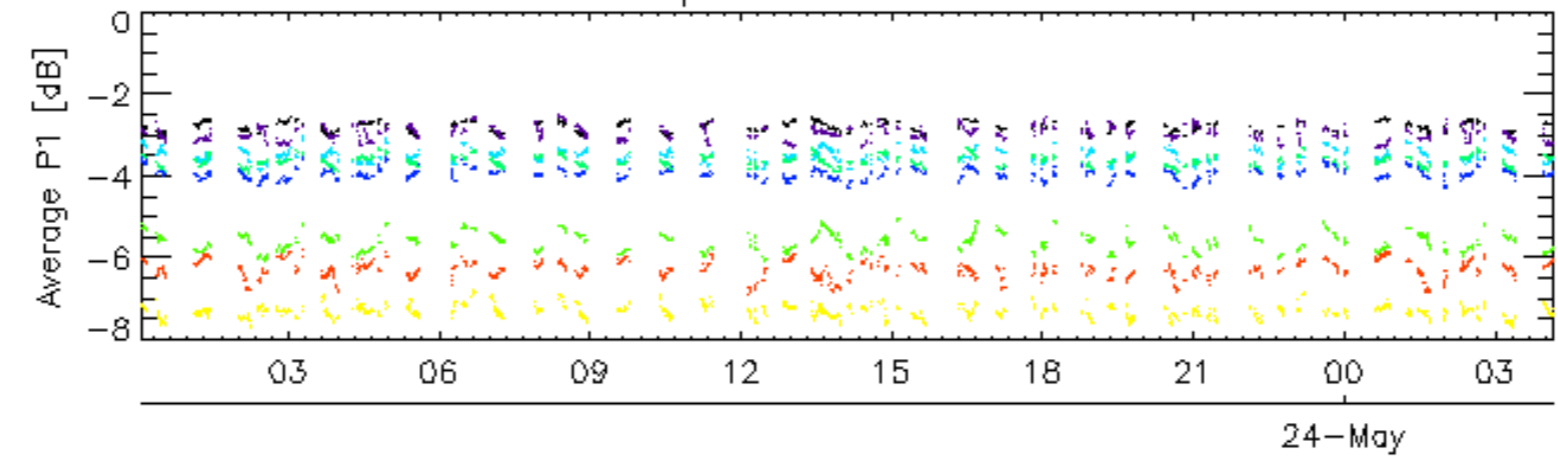
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



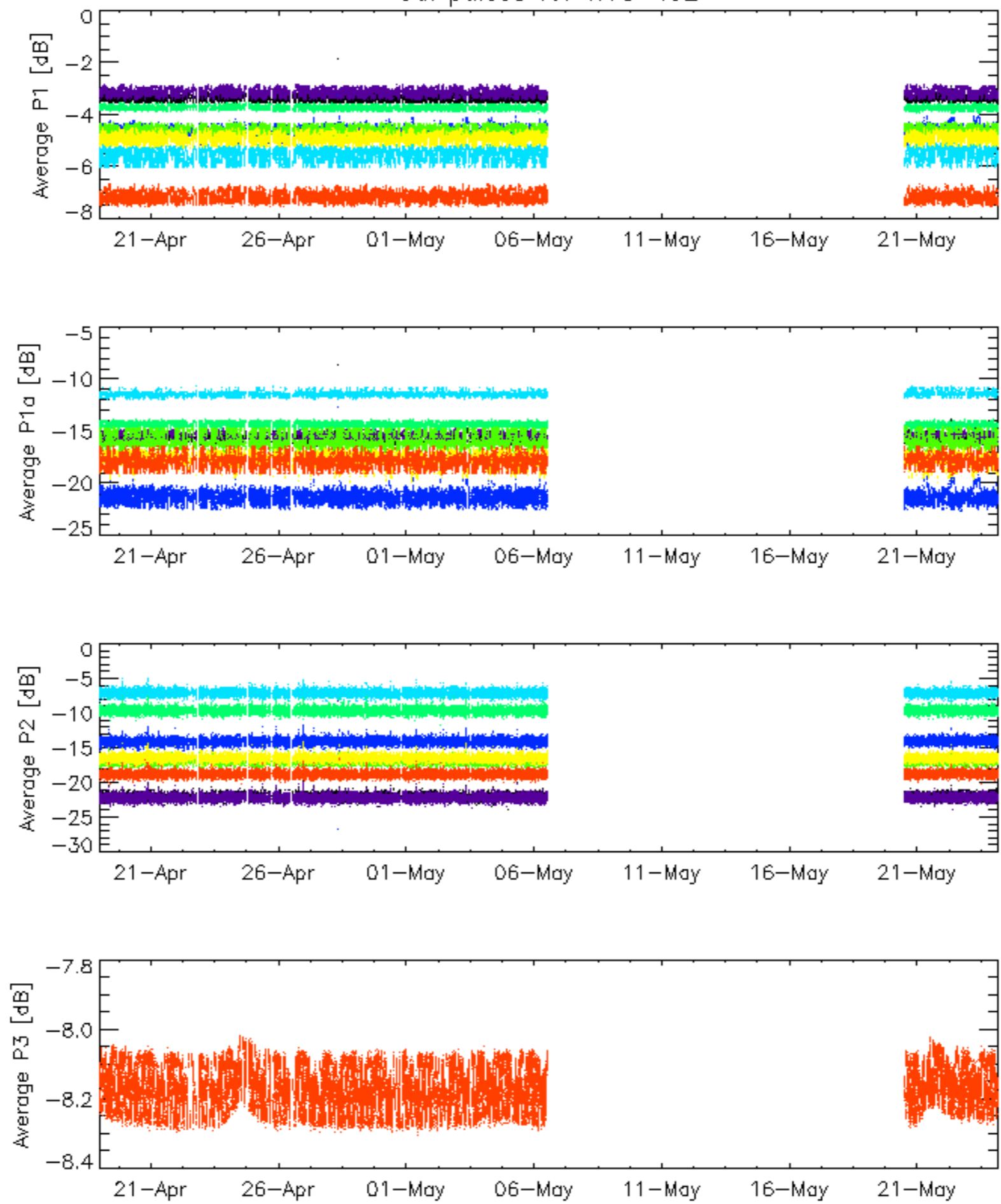
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



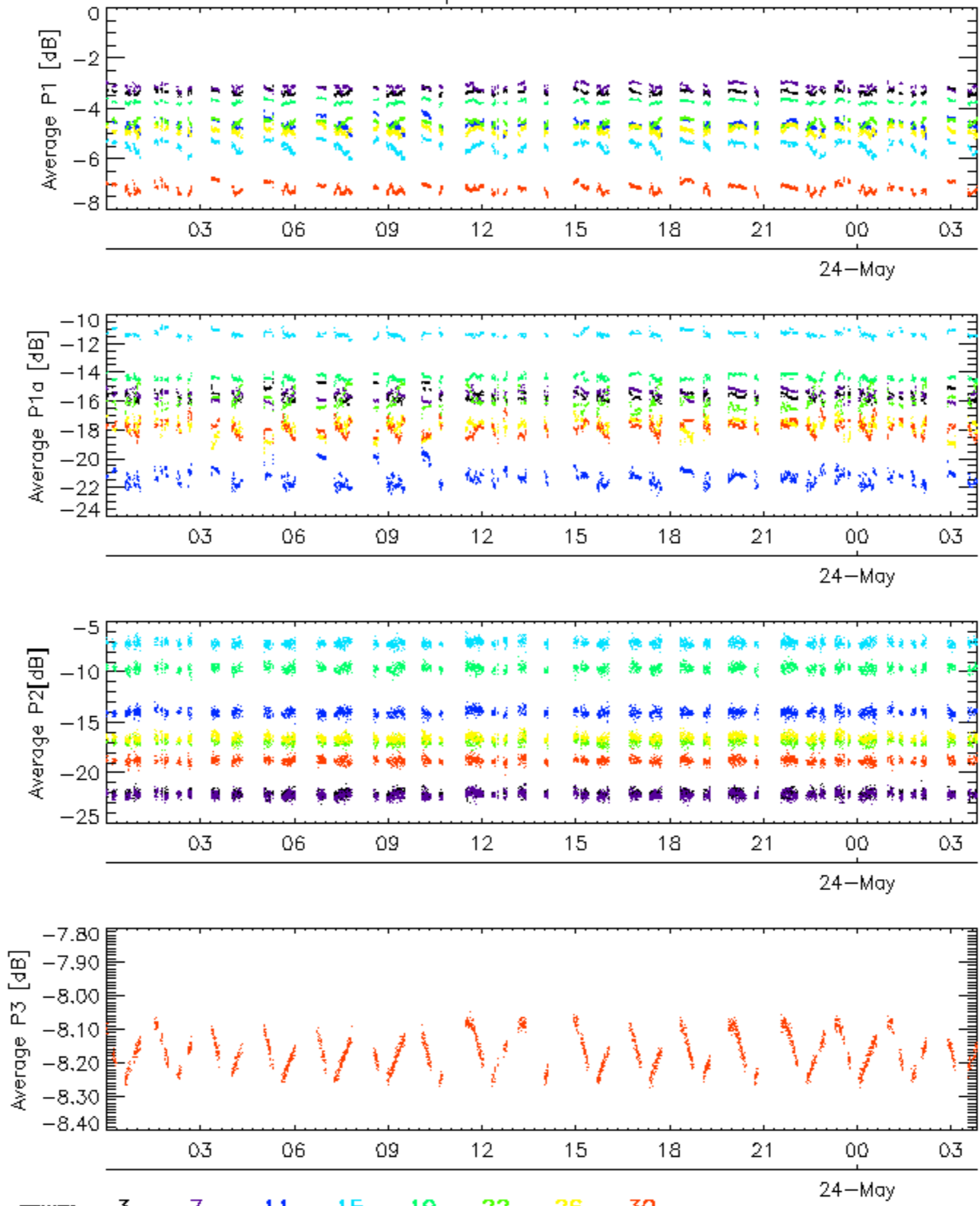
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



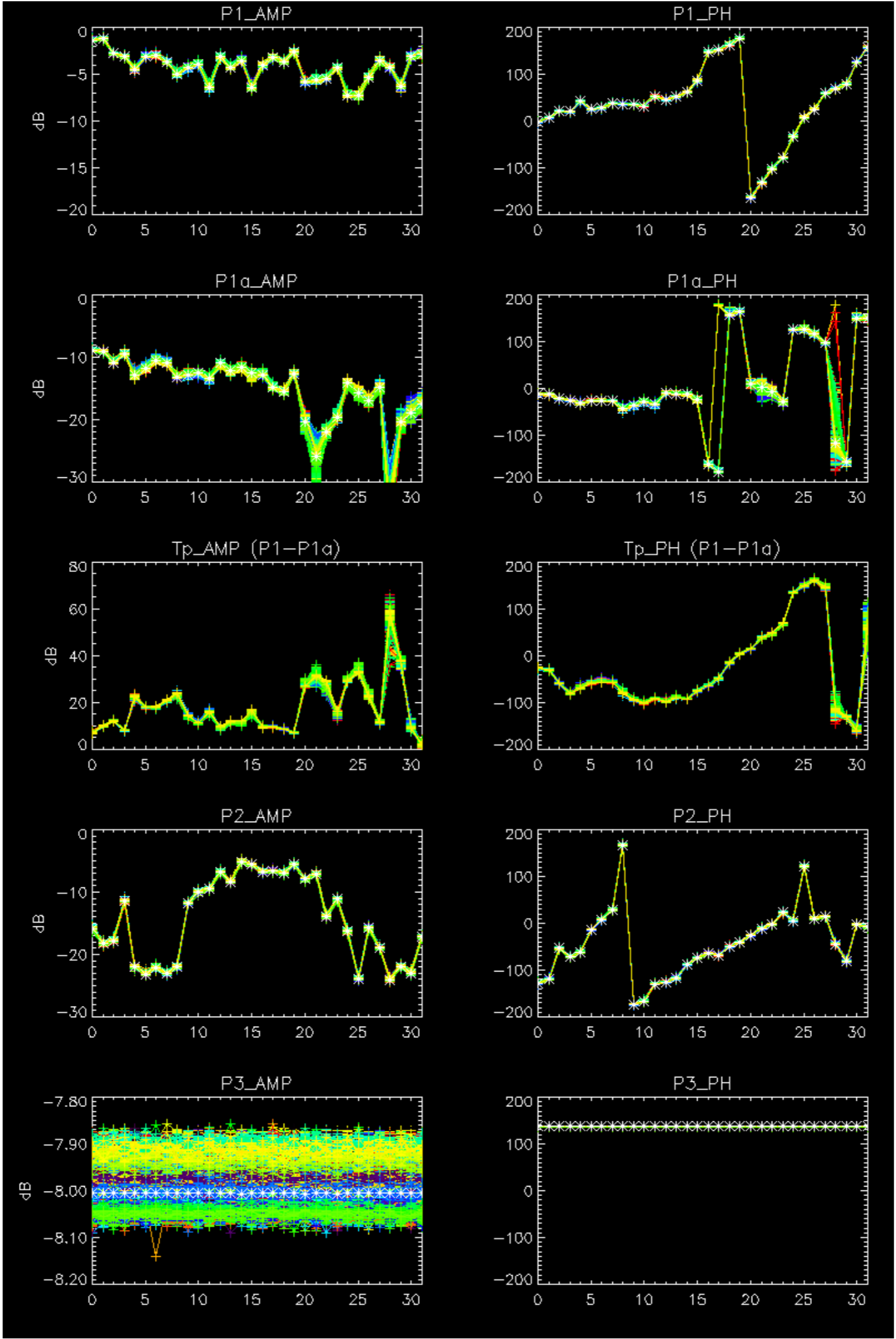
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

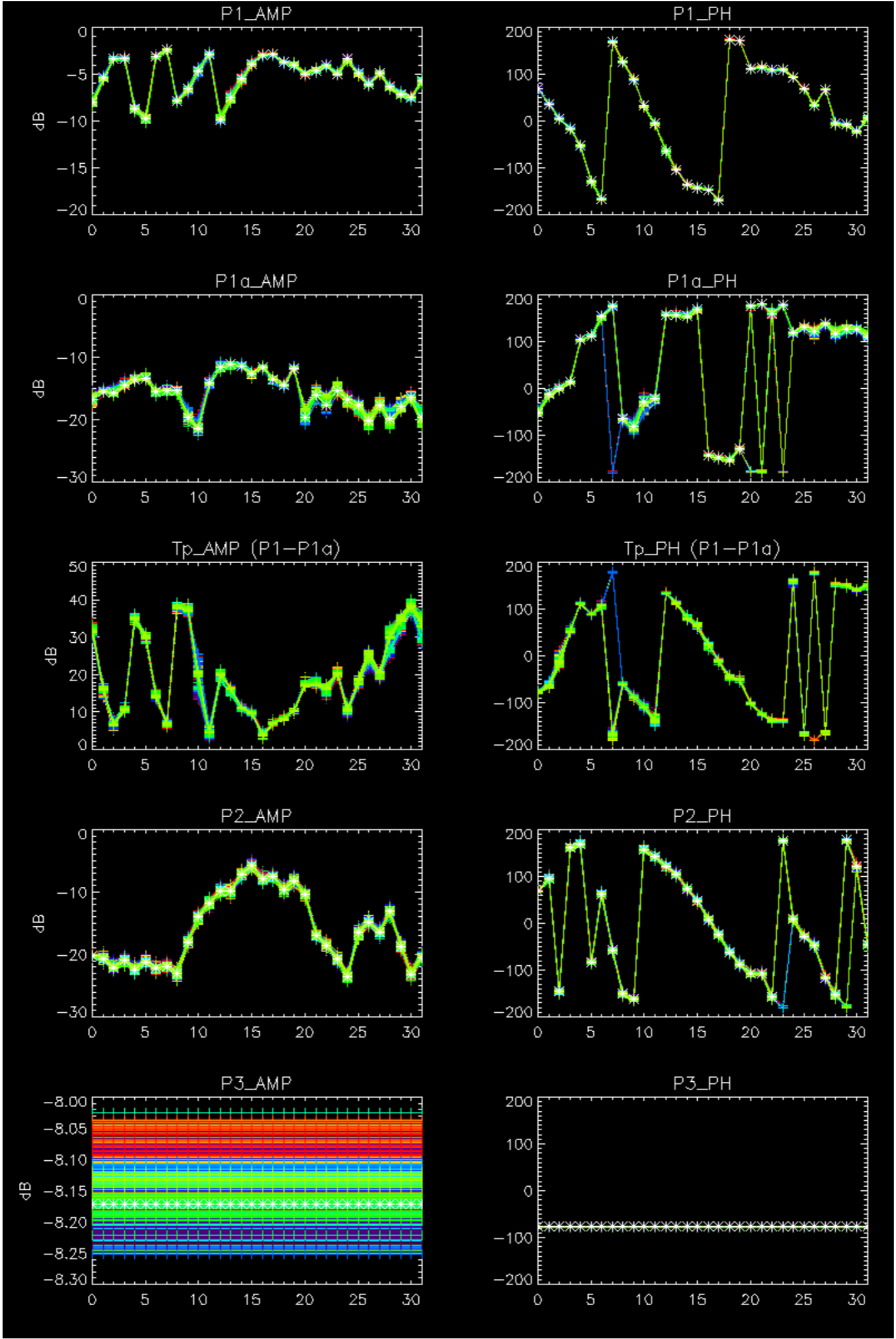
Cal pulses for WVS IS2



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

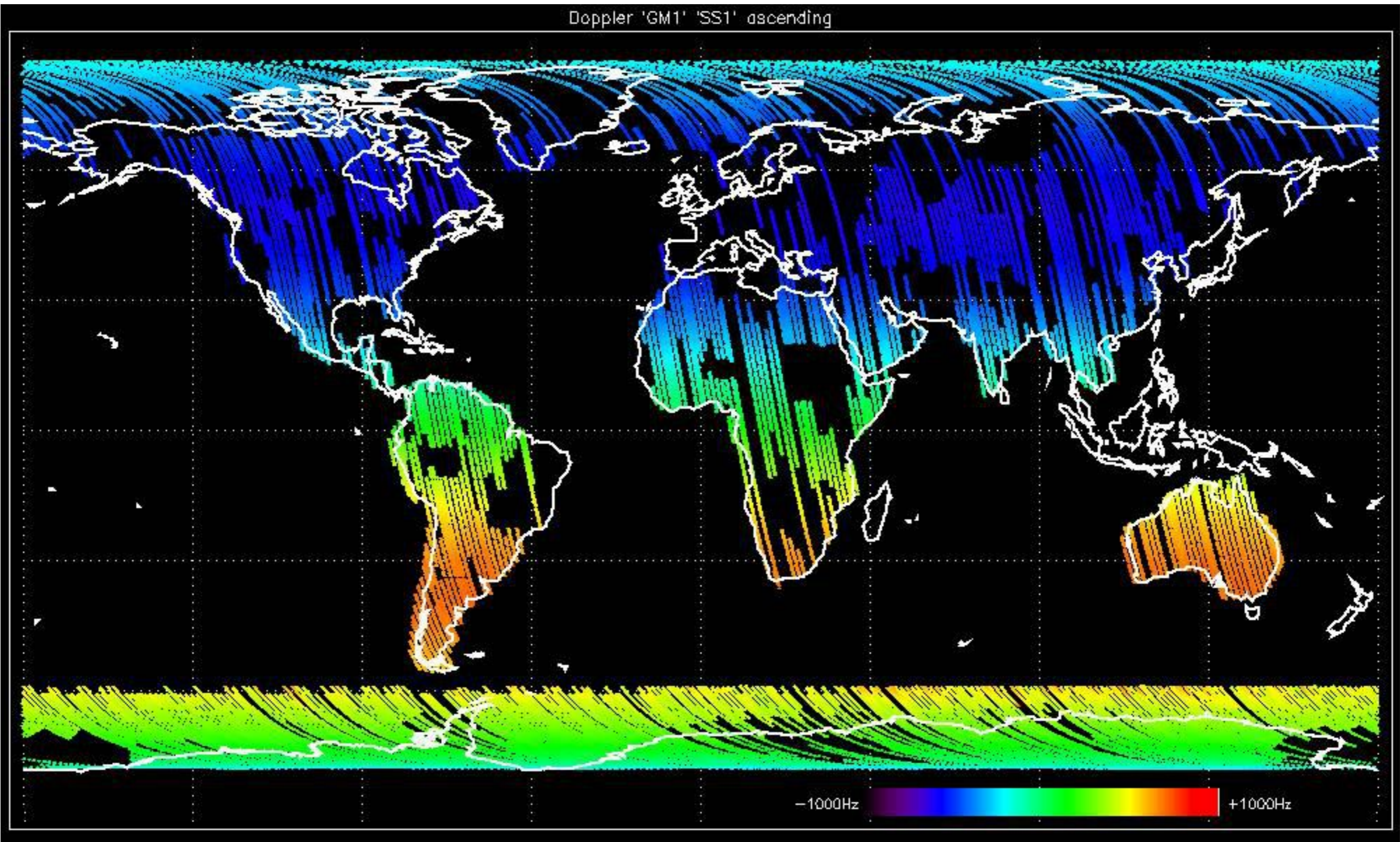
No anomalies observed.



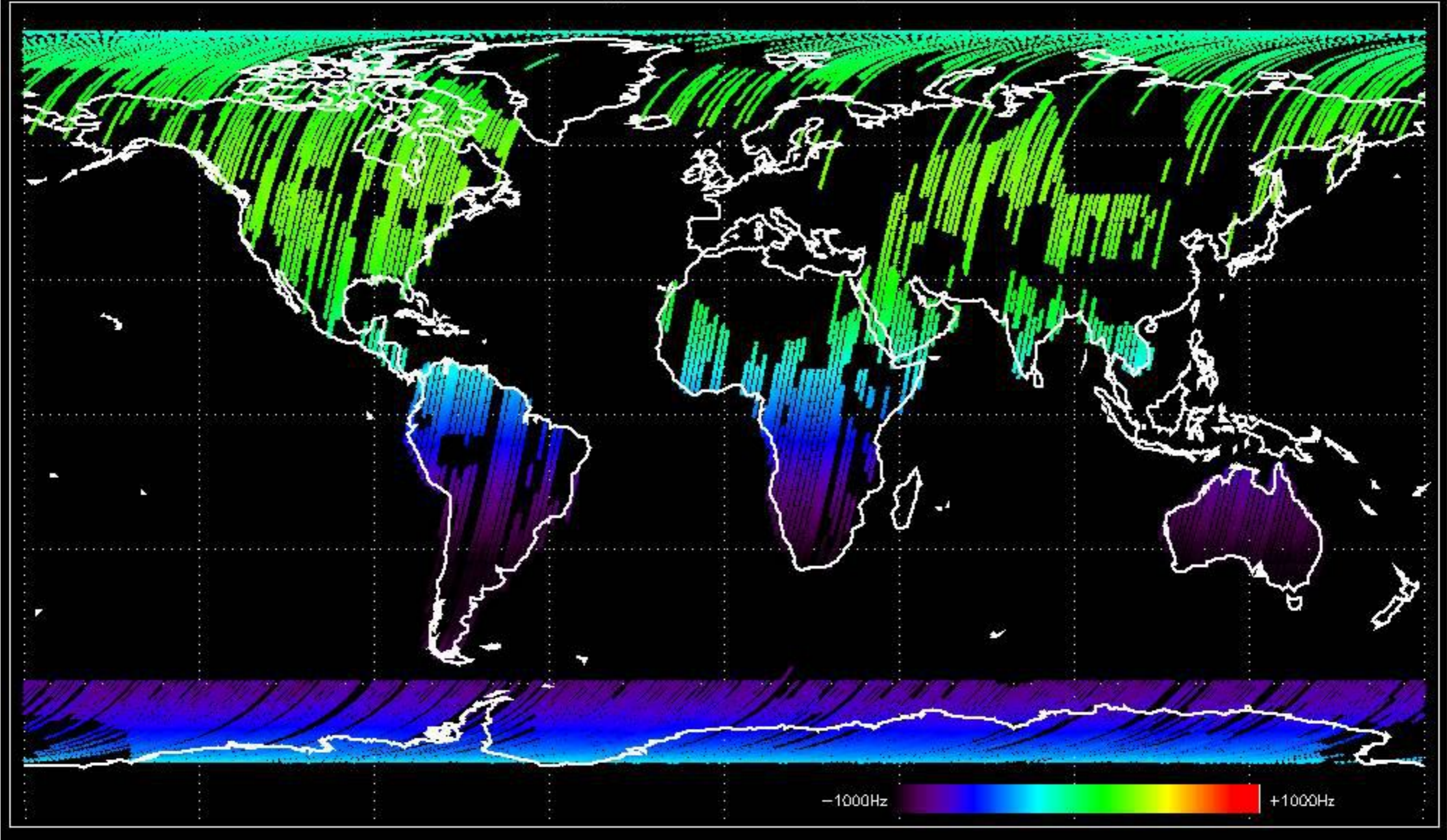


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

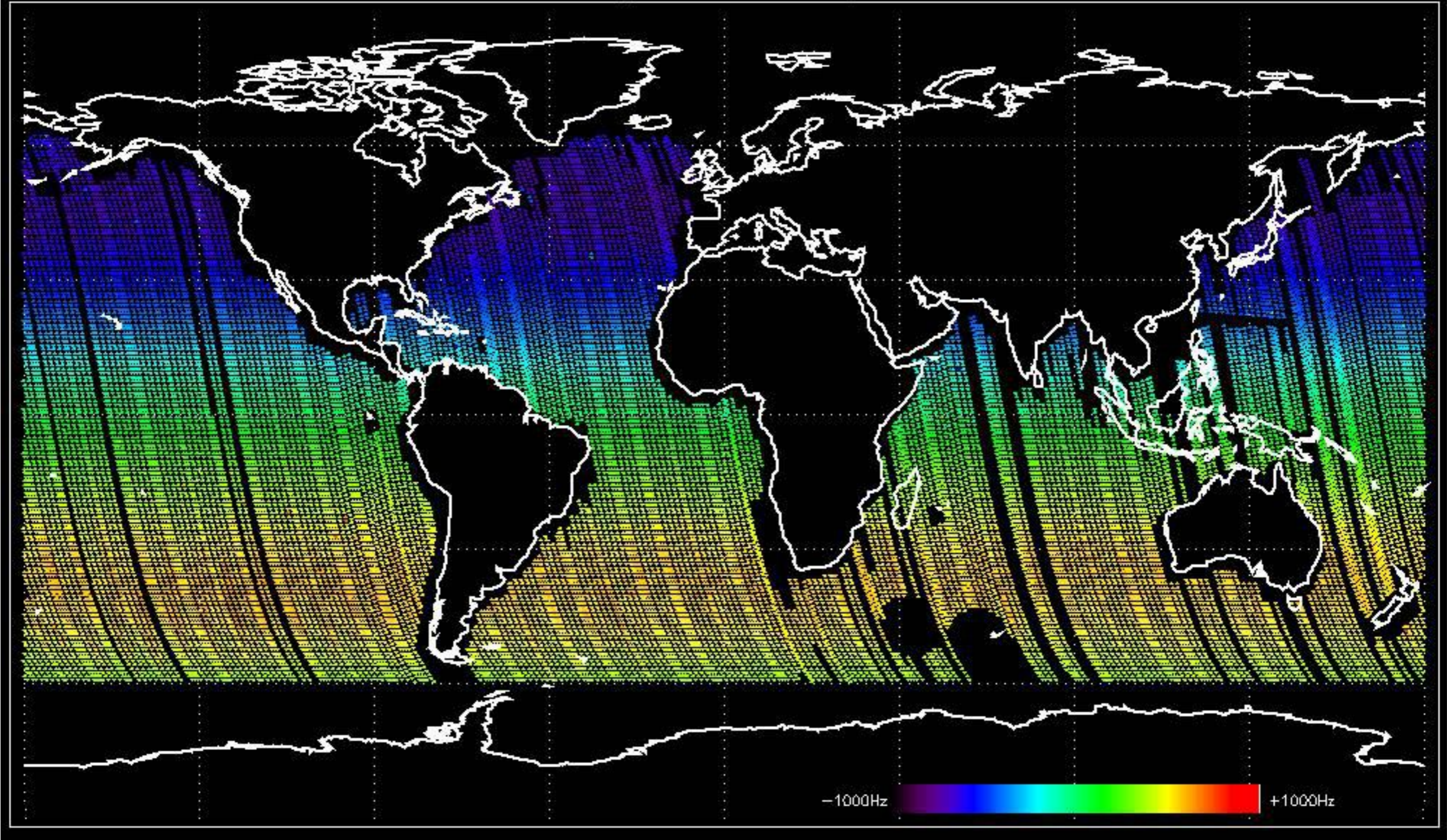
Doppler 'GM1' 'SS1' ascending



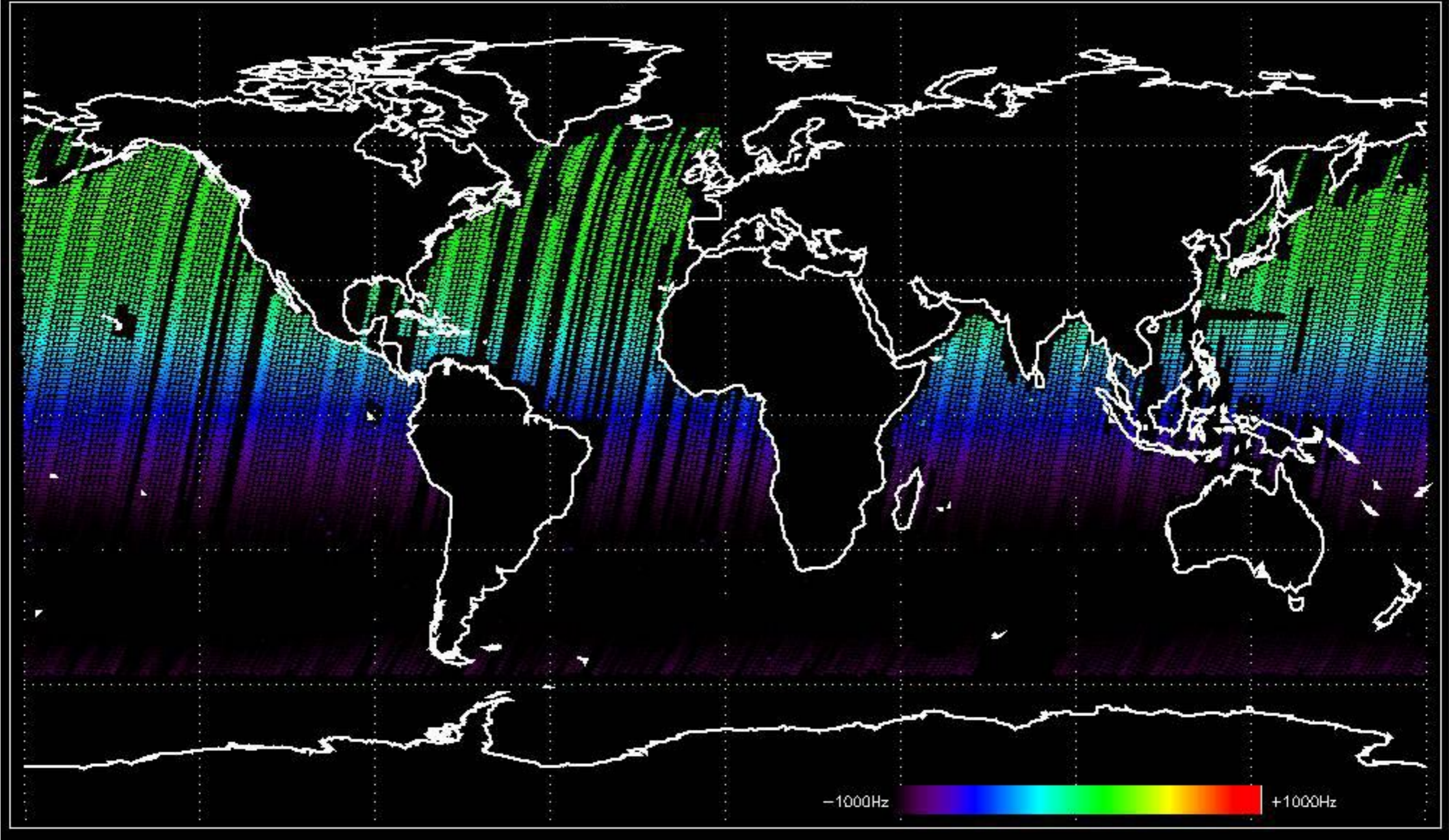
Doppler 'GM1' 'SS1' descending



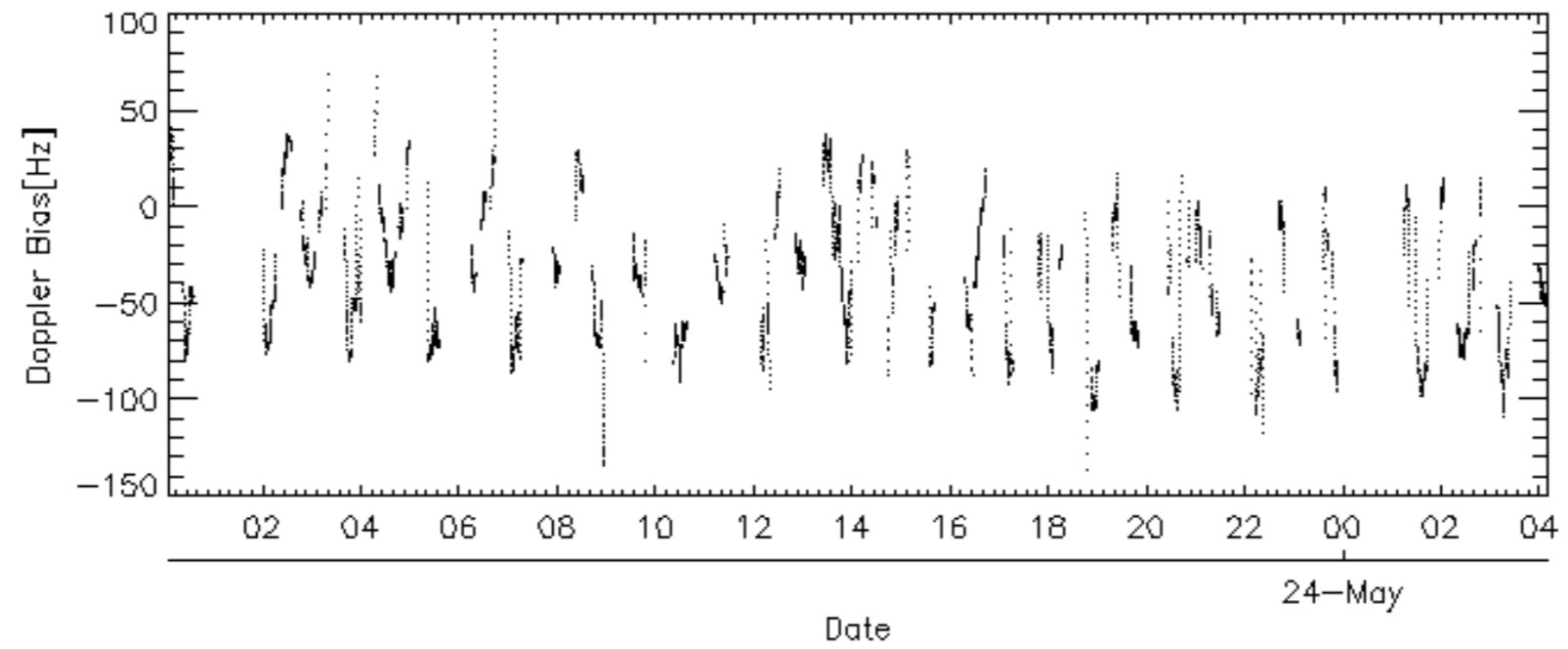
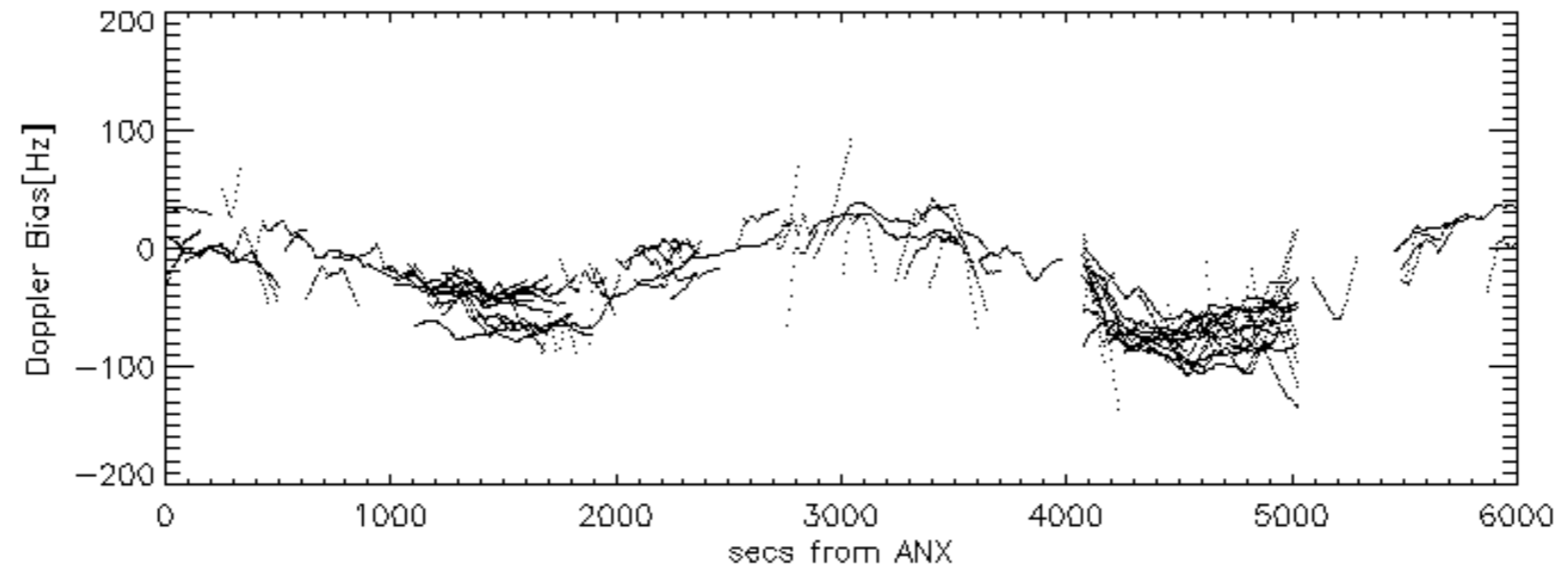
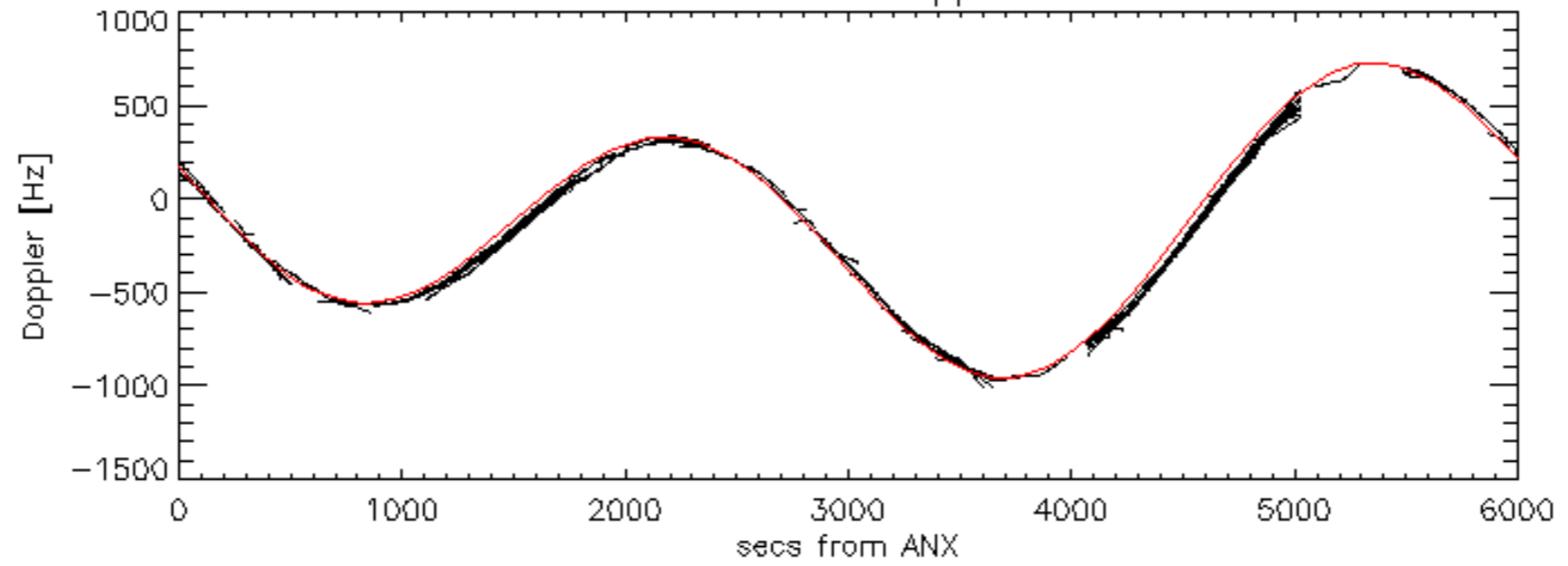
Doppler 'WVS' 'IS2' ascending

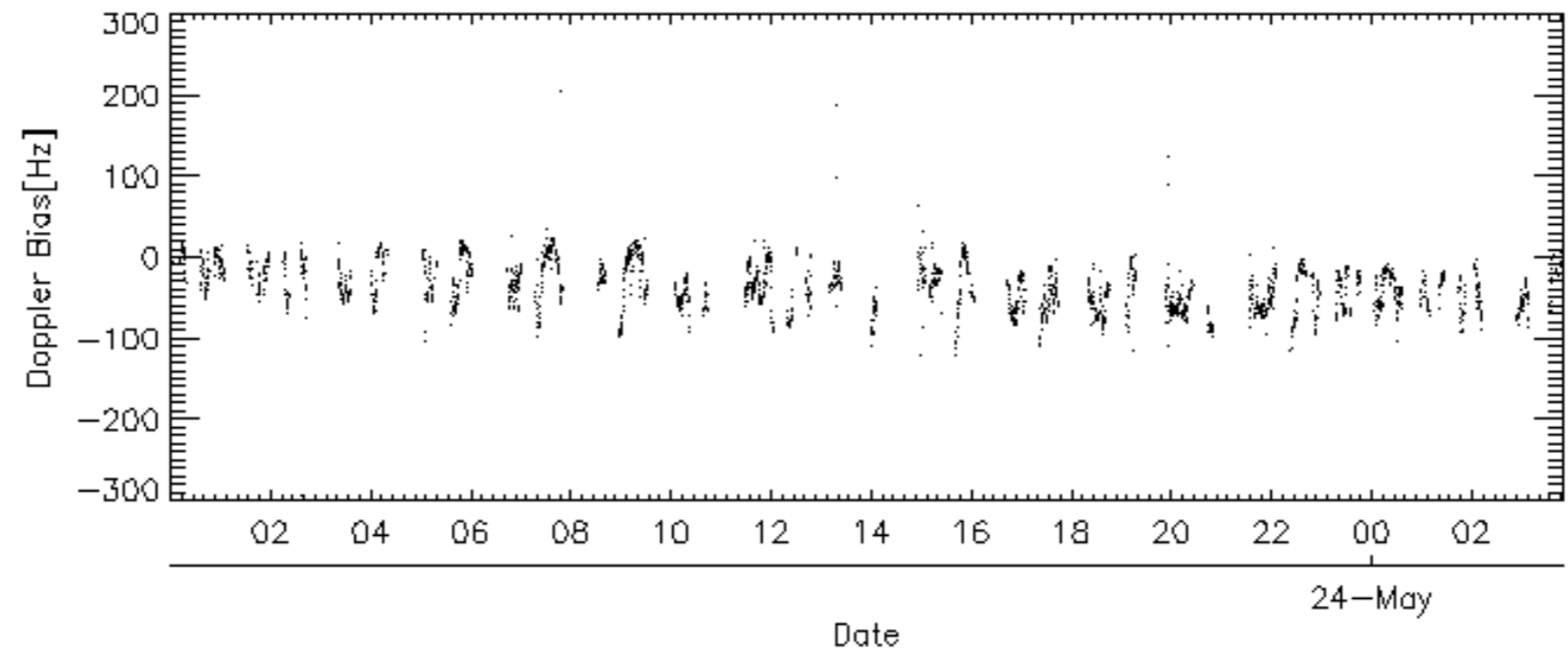
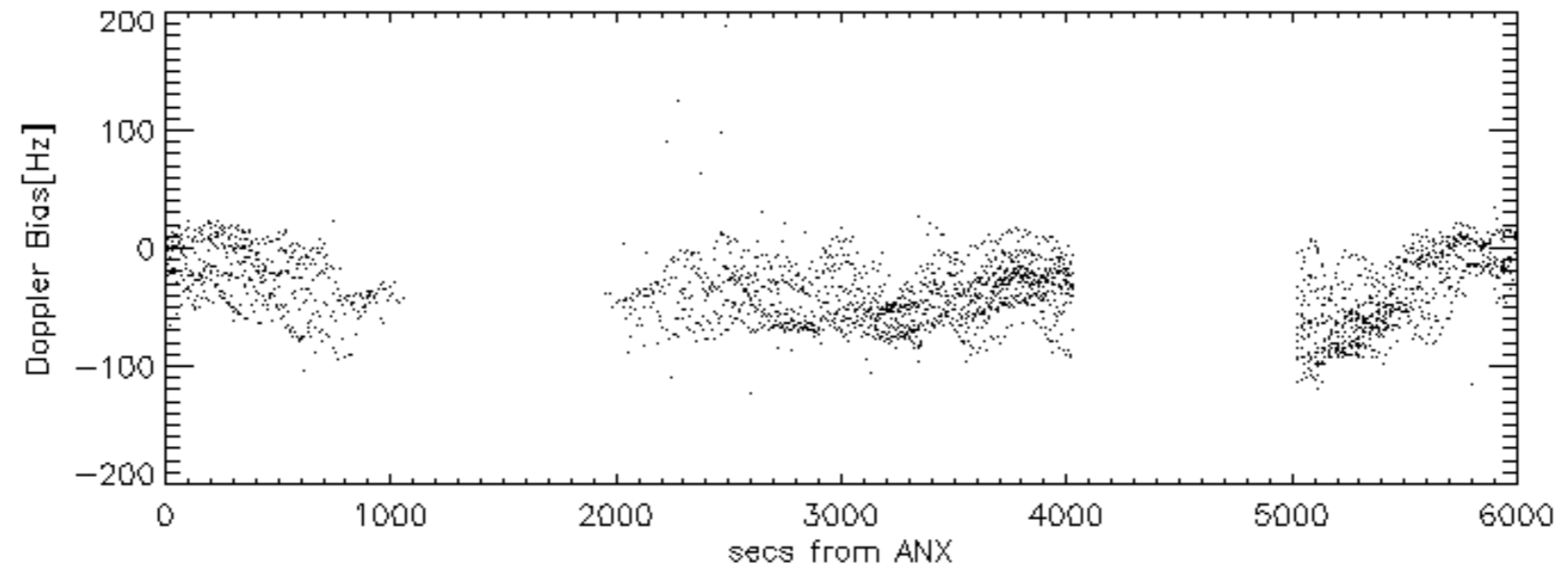
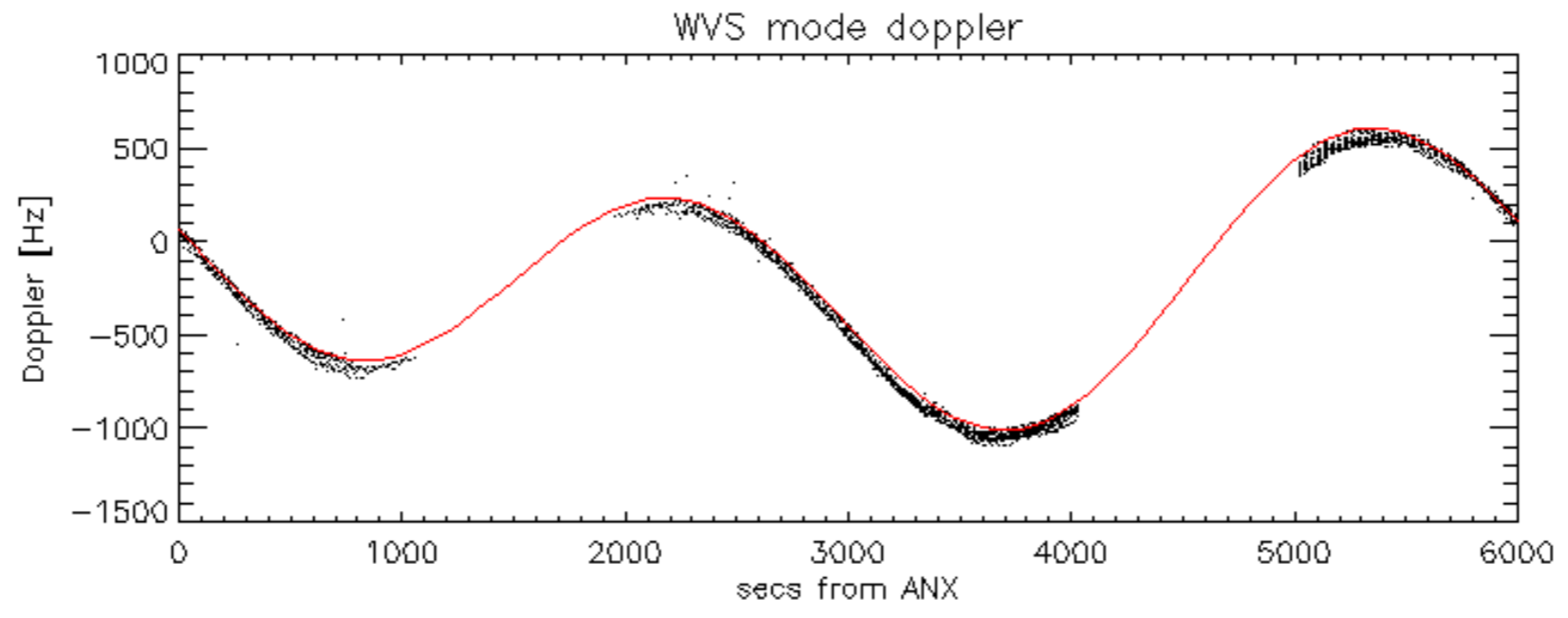


Doppler 'WVS' 'IS2' descending

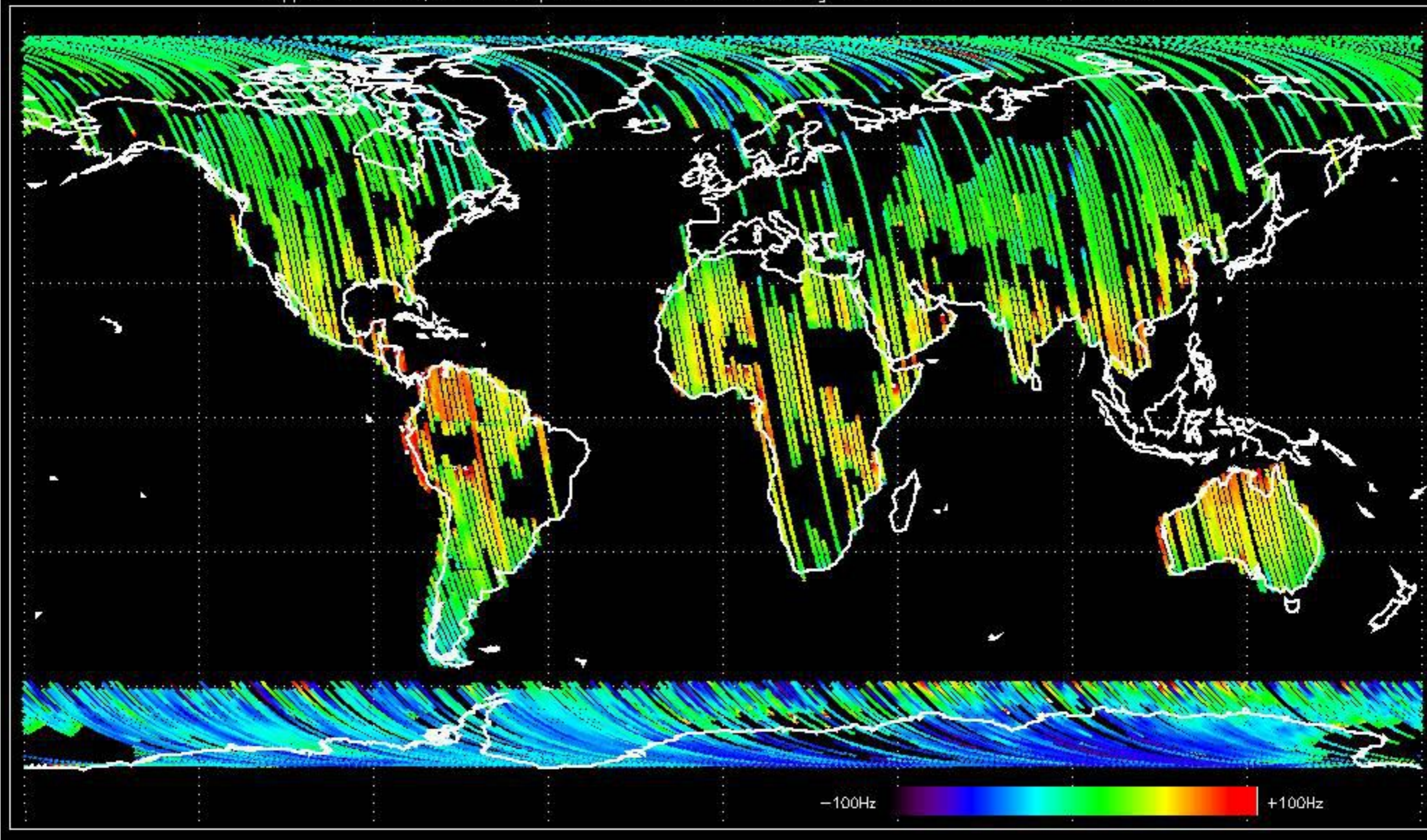


GM1 mode doppler

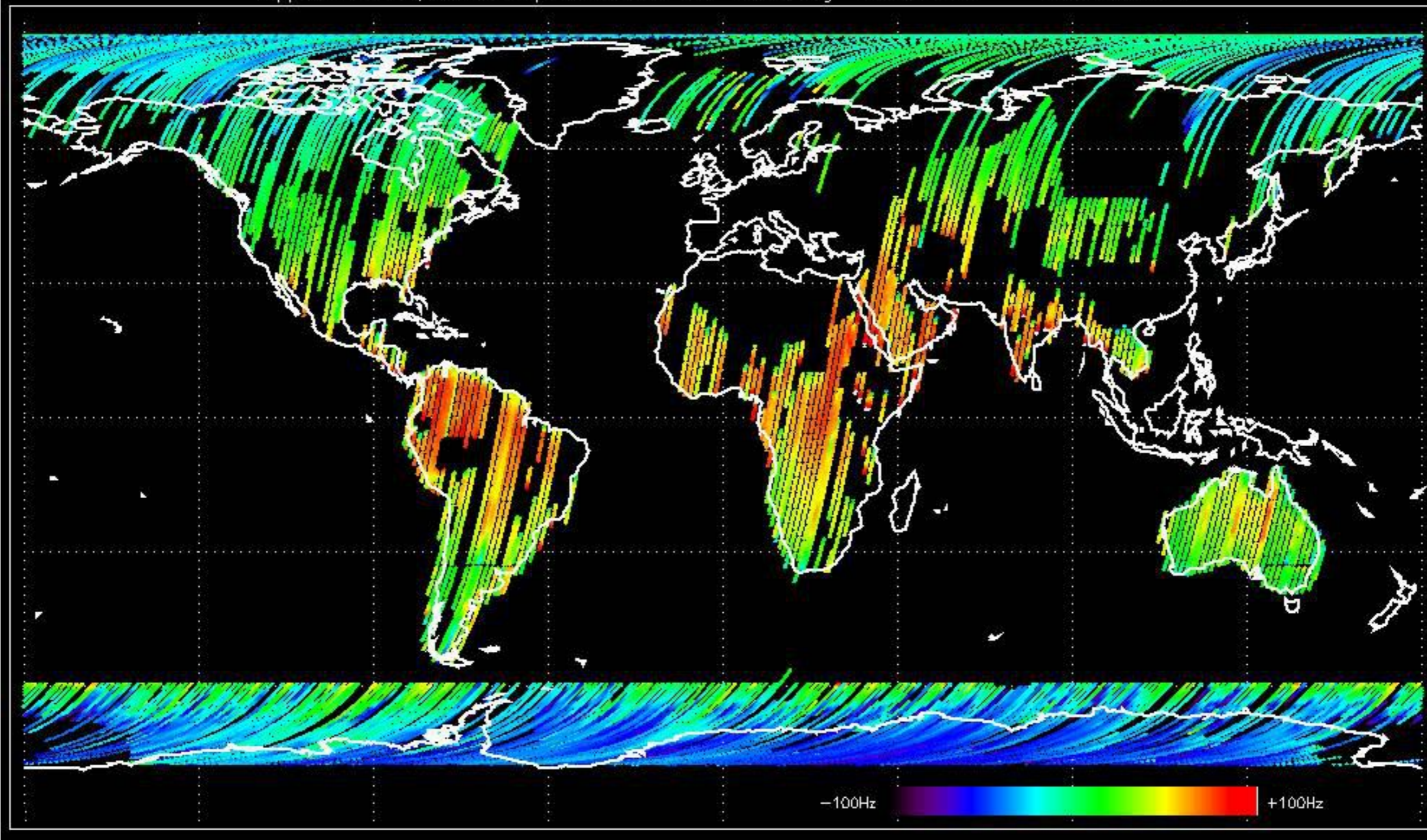




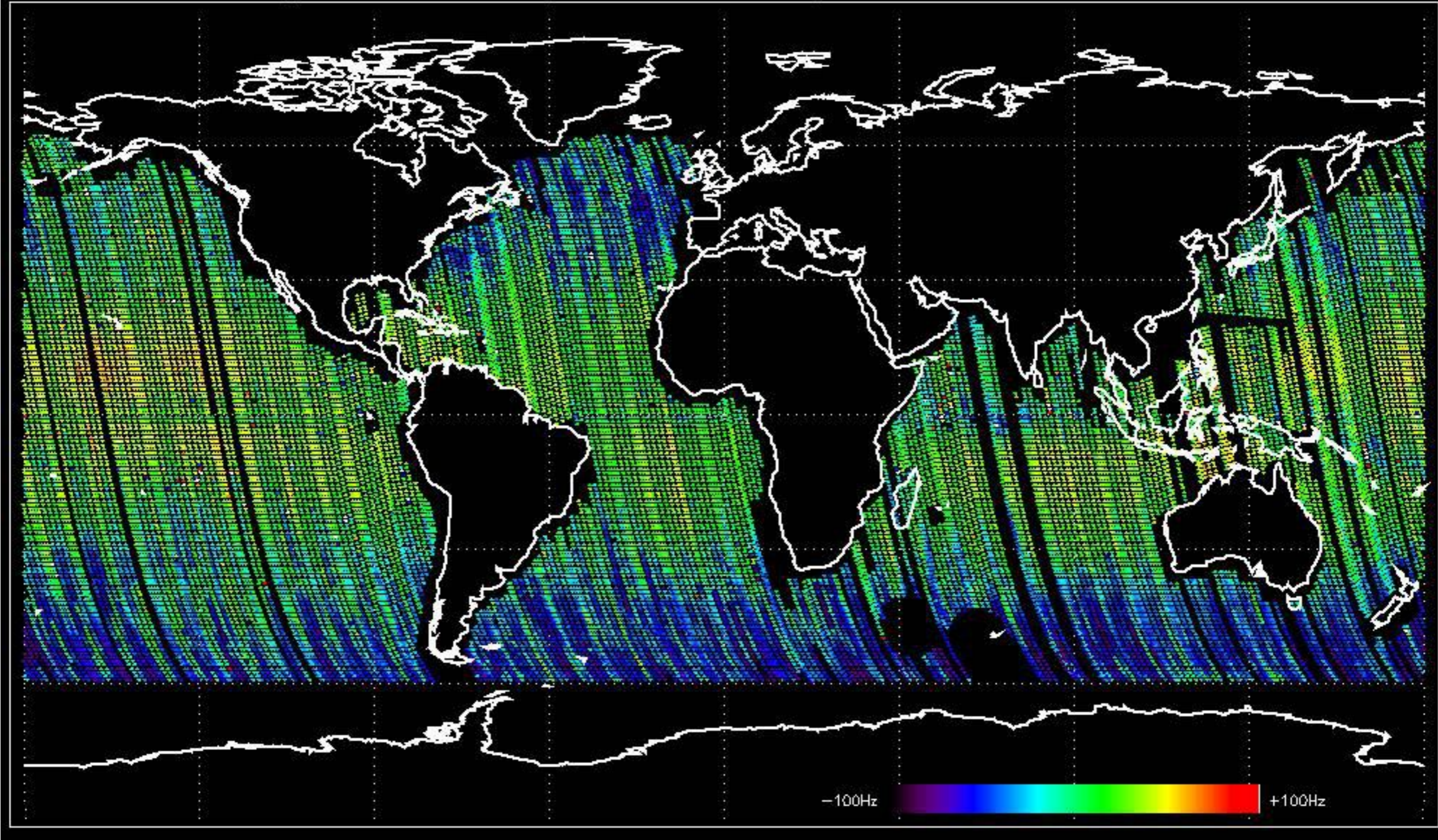
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.884339 Hz



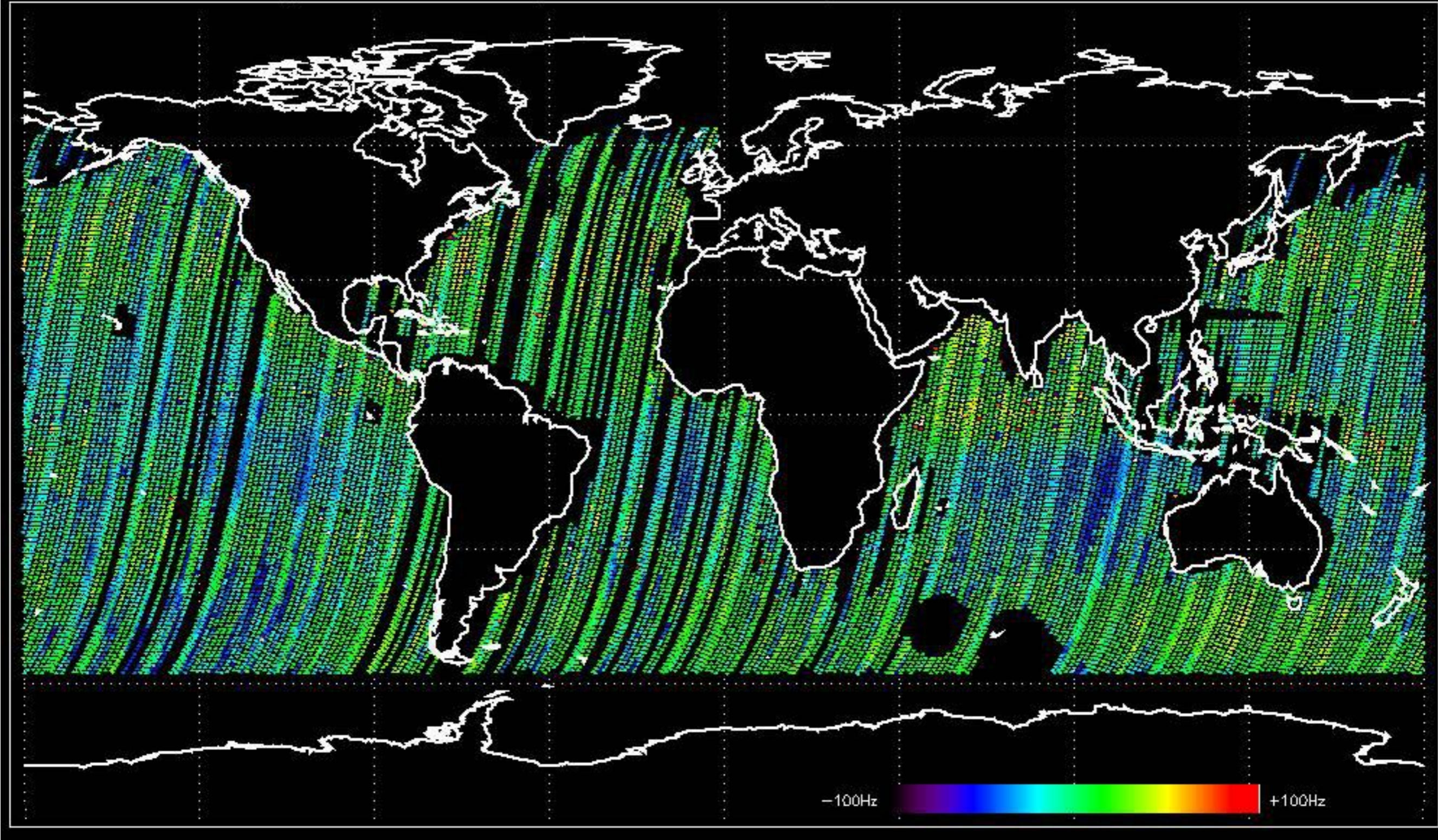
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.475776 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.696398 Hz

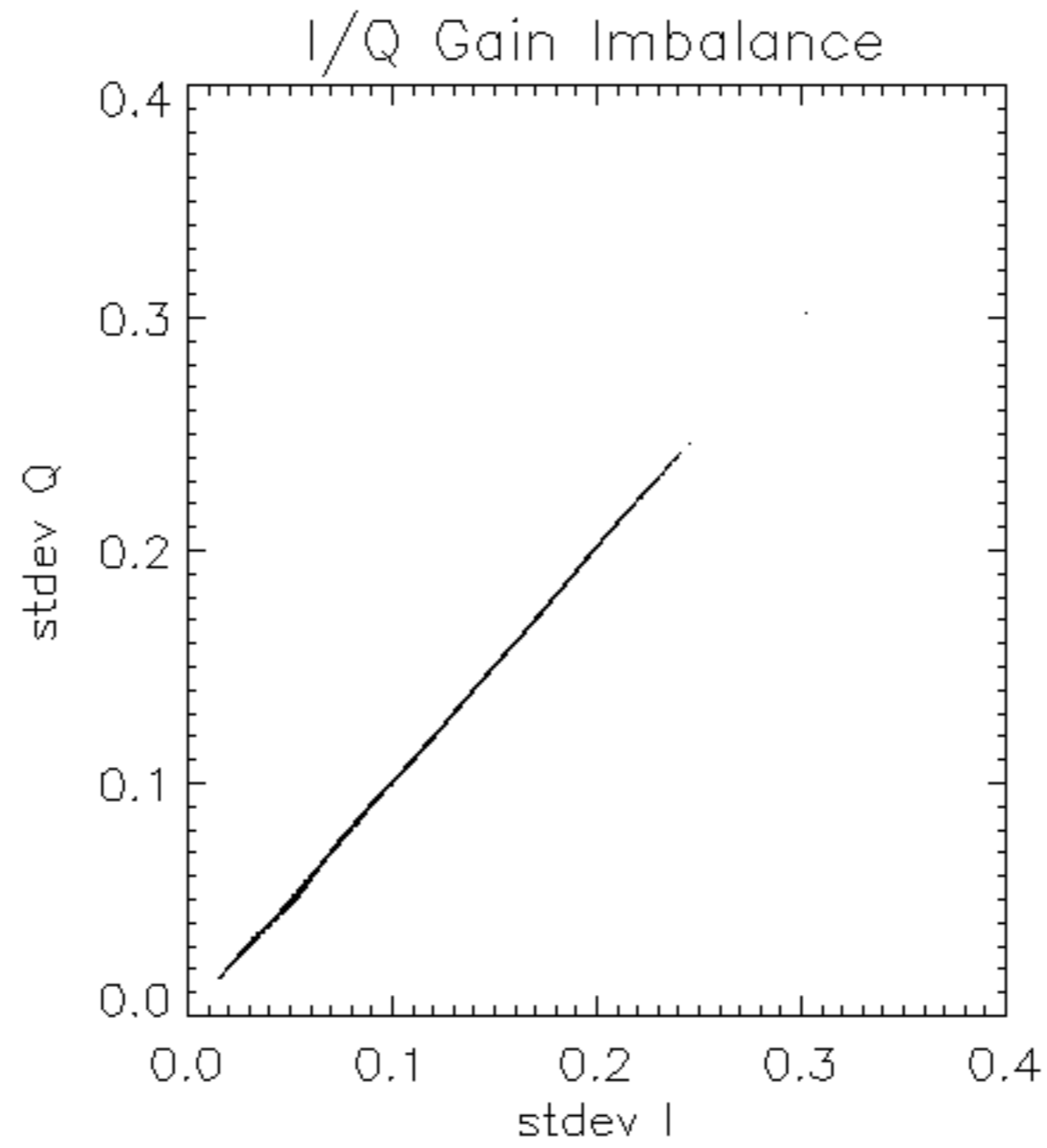


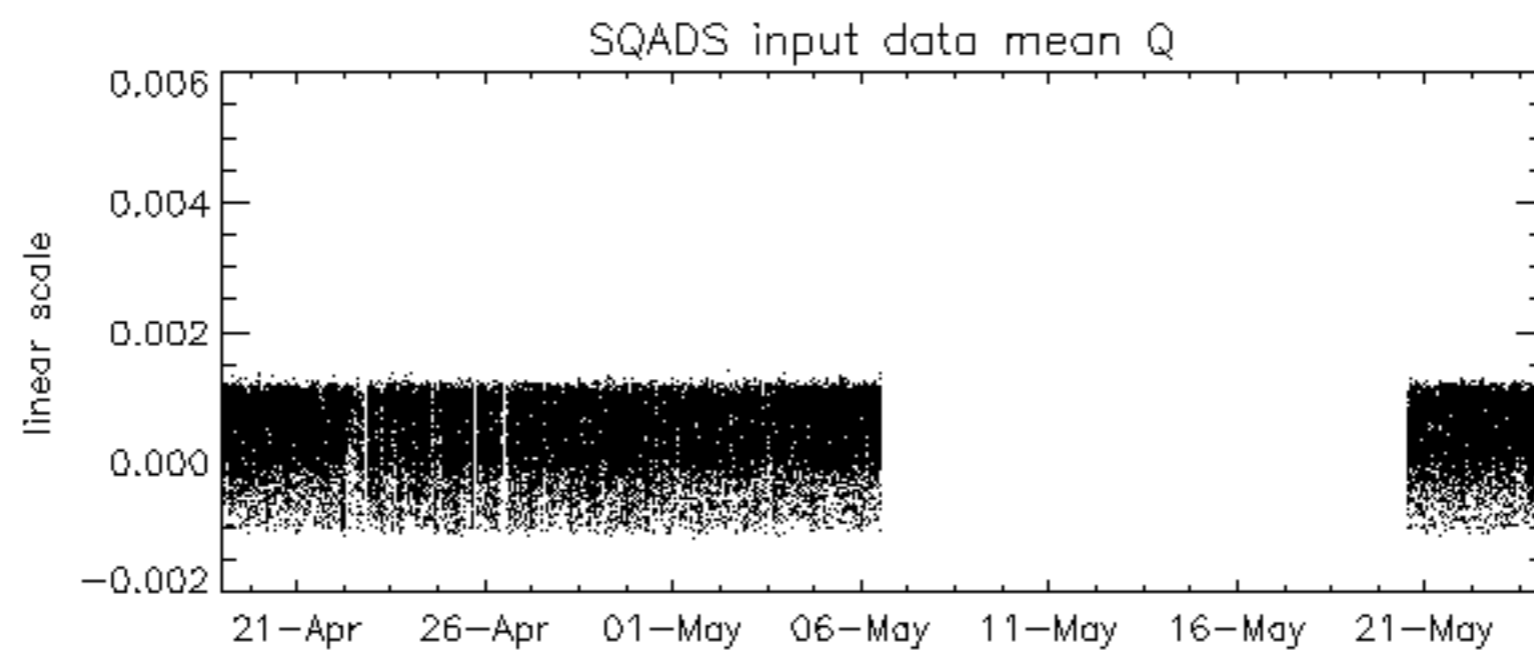
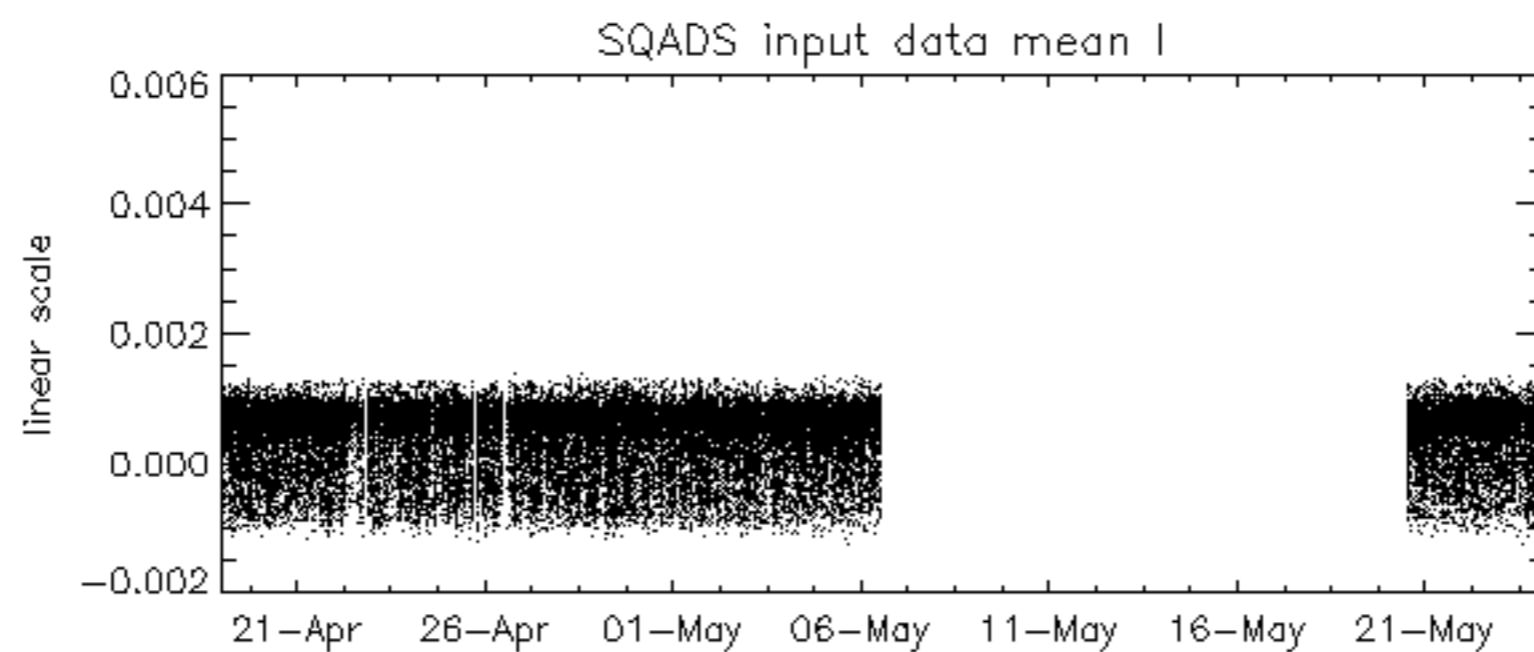
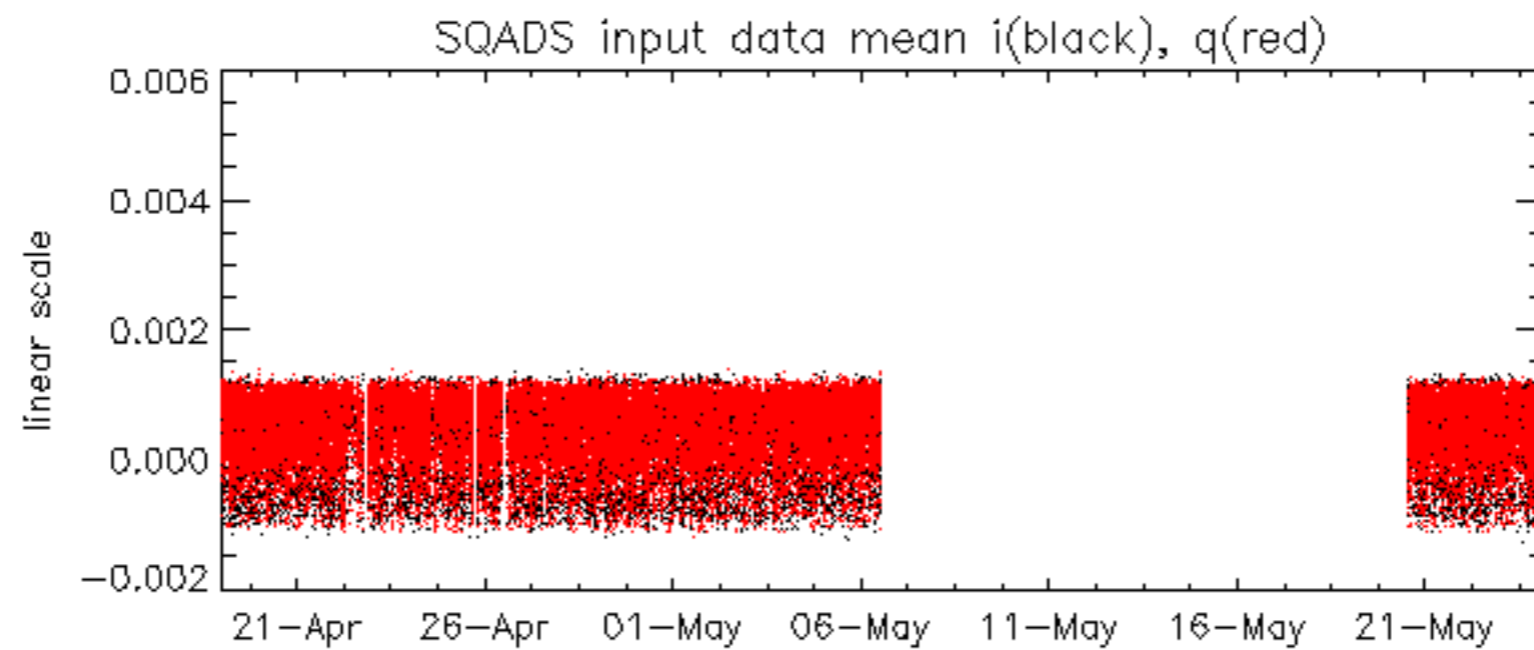
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.254714 Hz

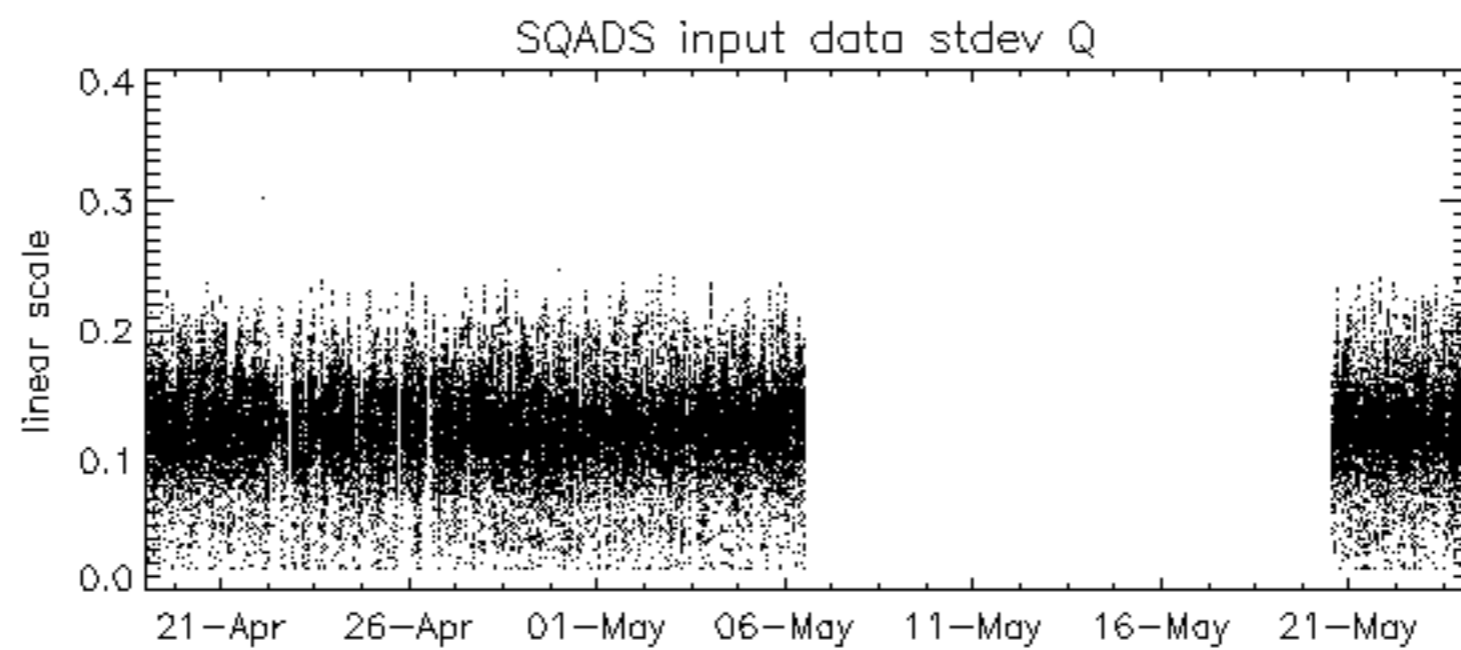
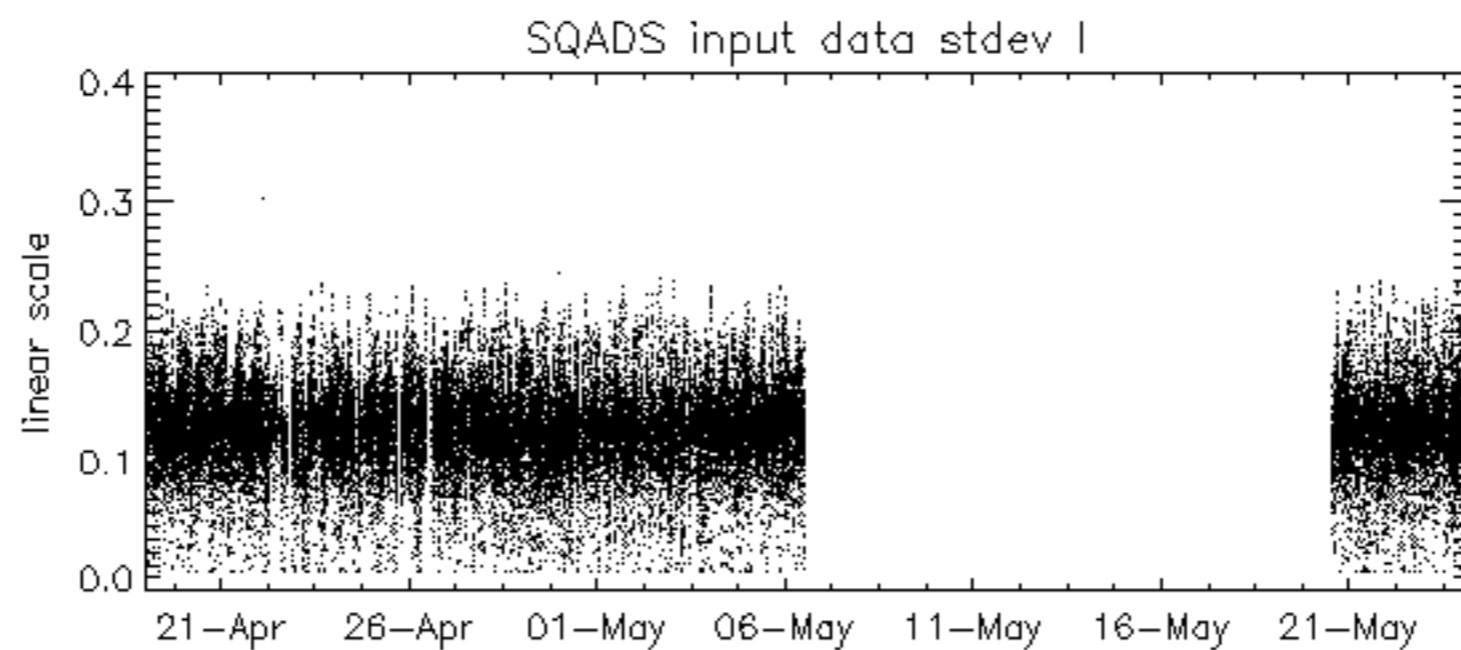
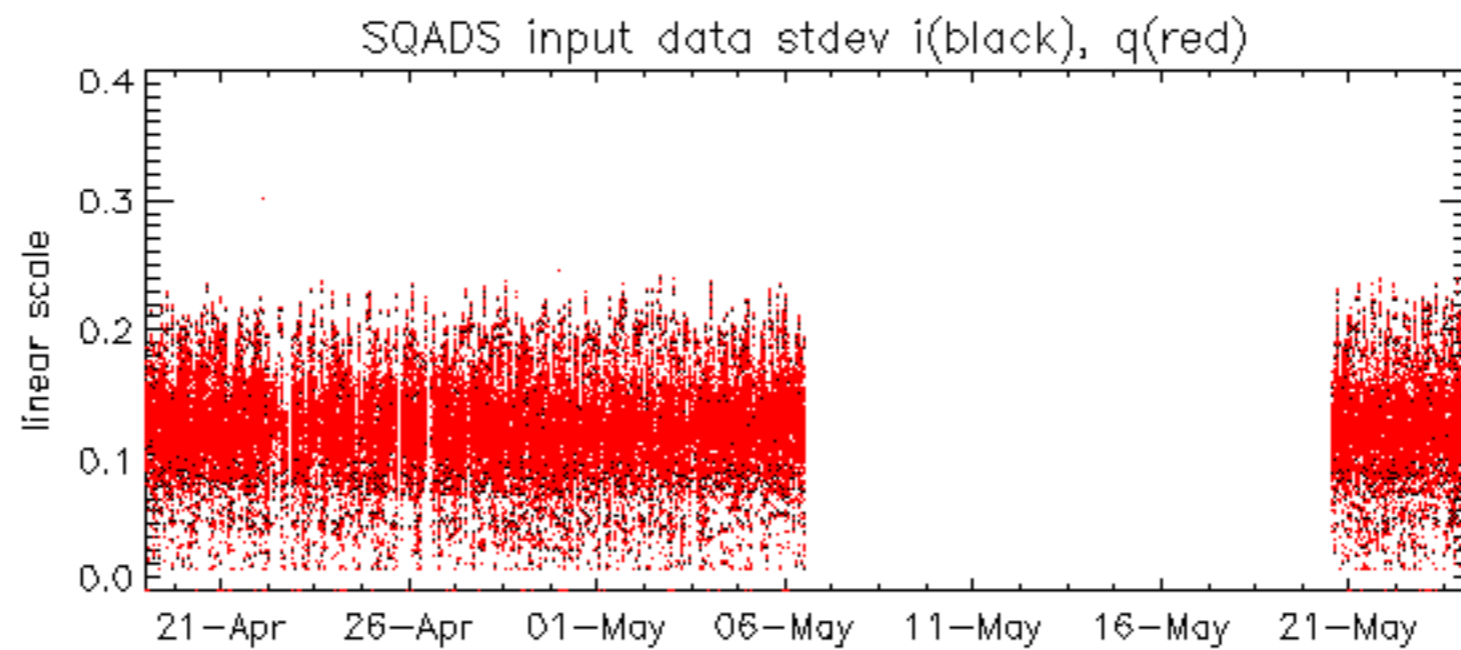


No anomalies observed on available MS products:

No anomalies observed.





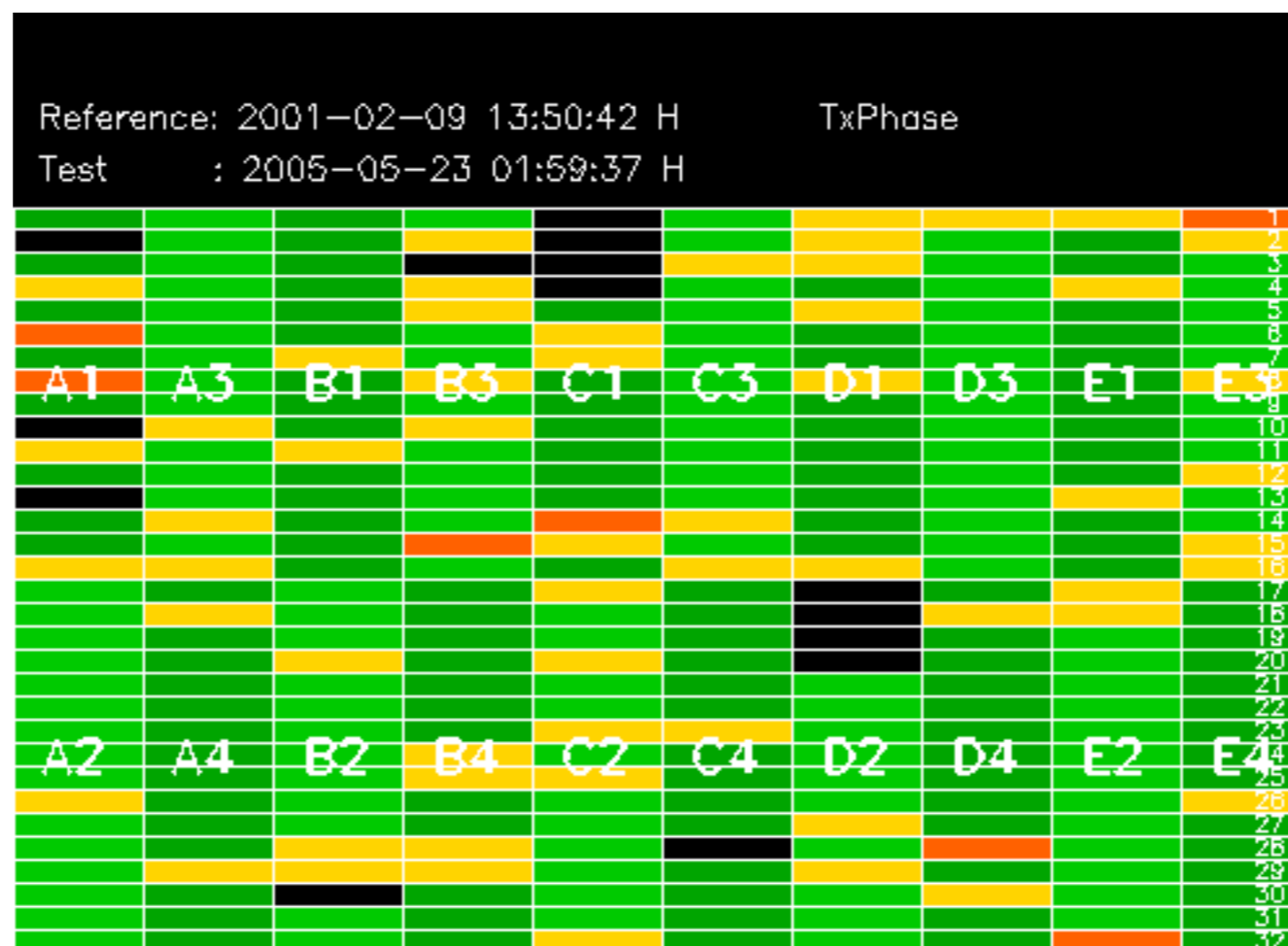


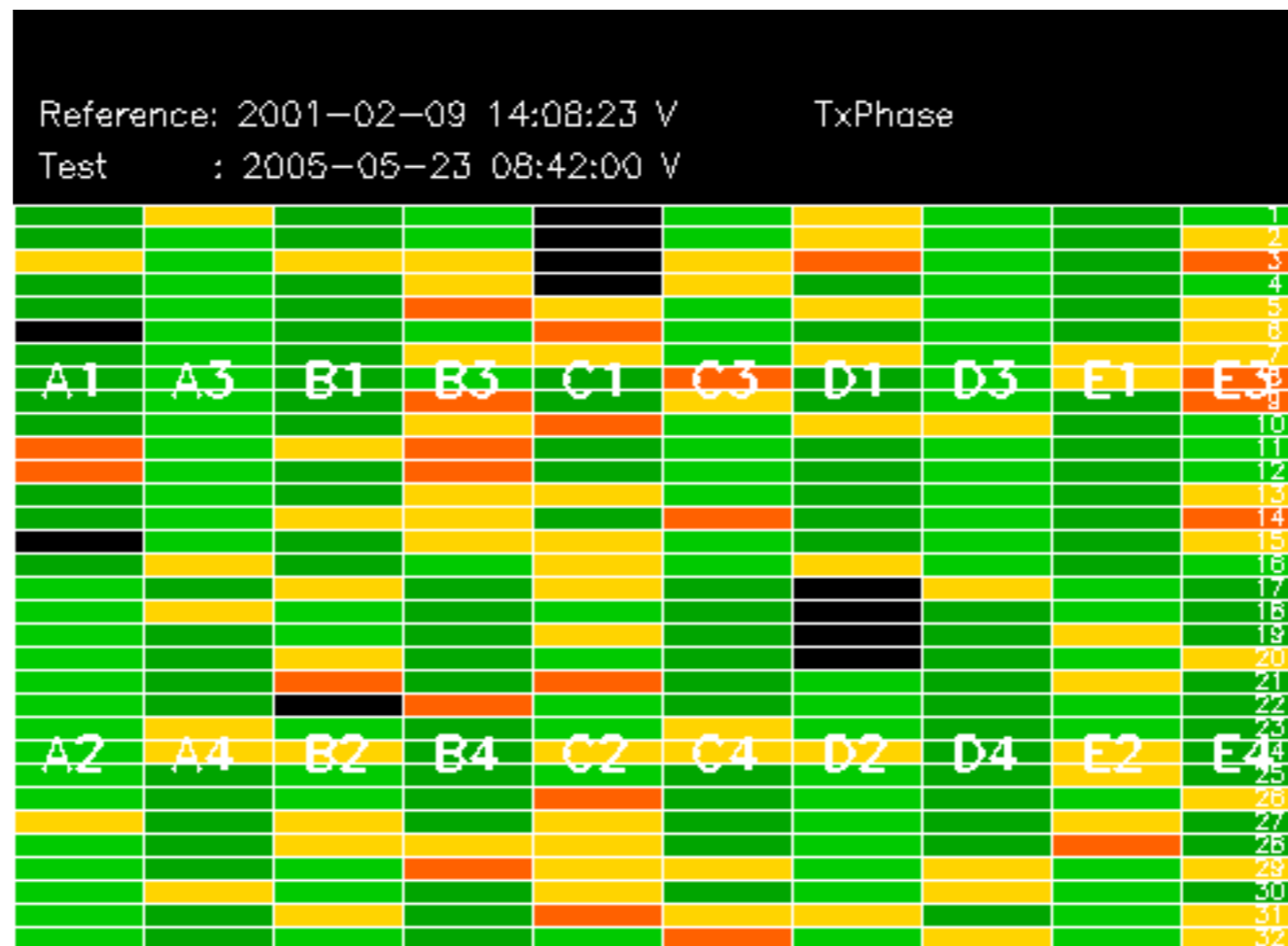


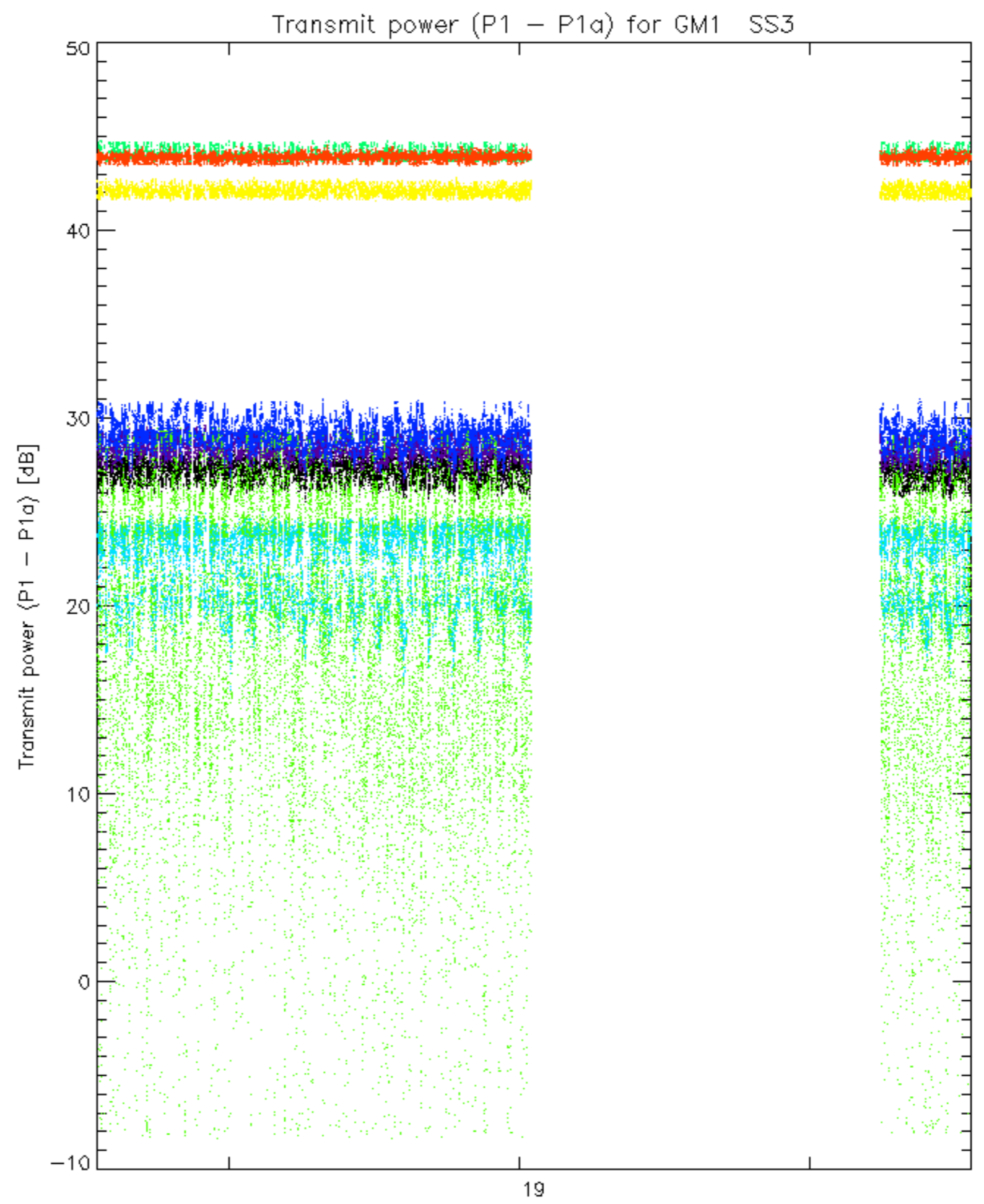
Summary of analysis for the last 3 days 2005052[234]

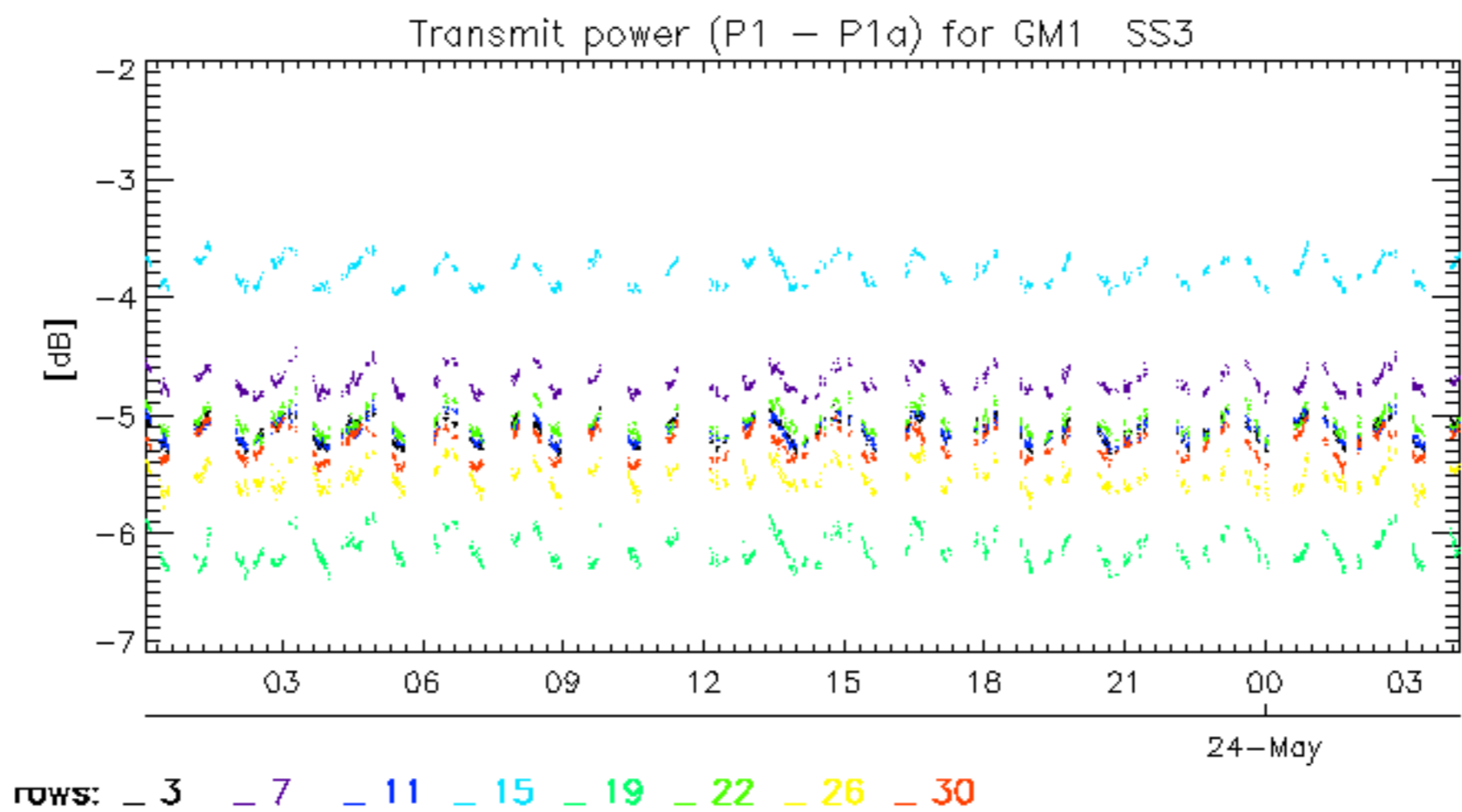
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

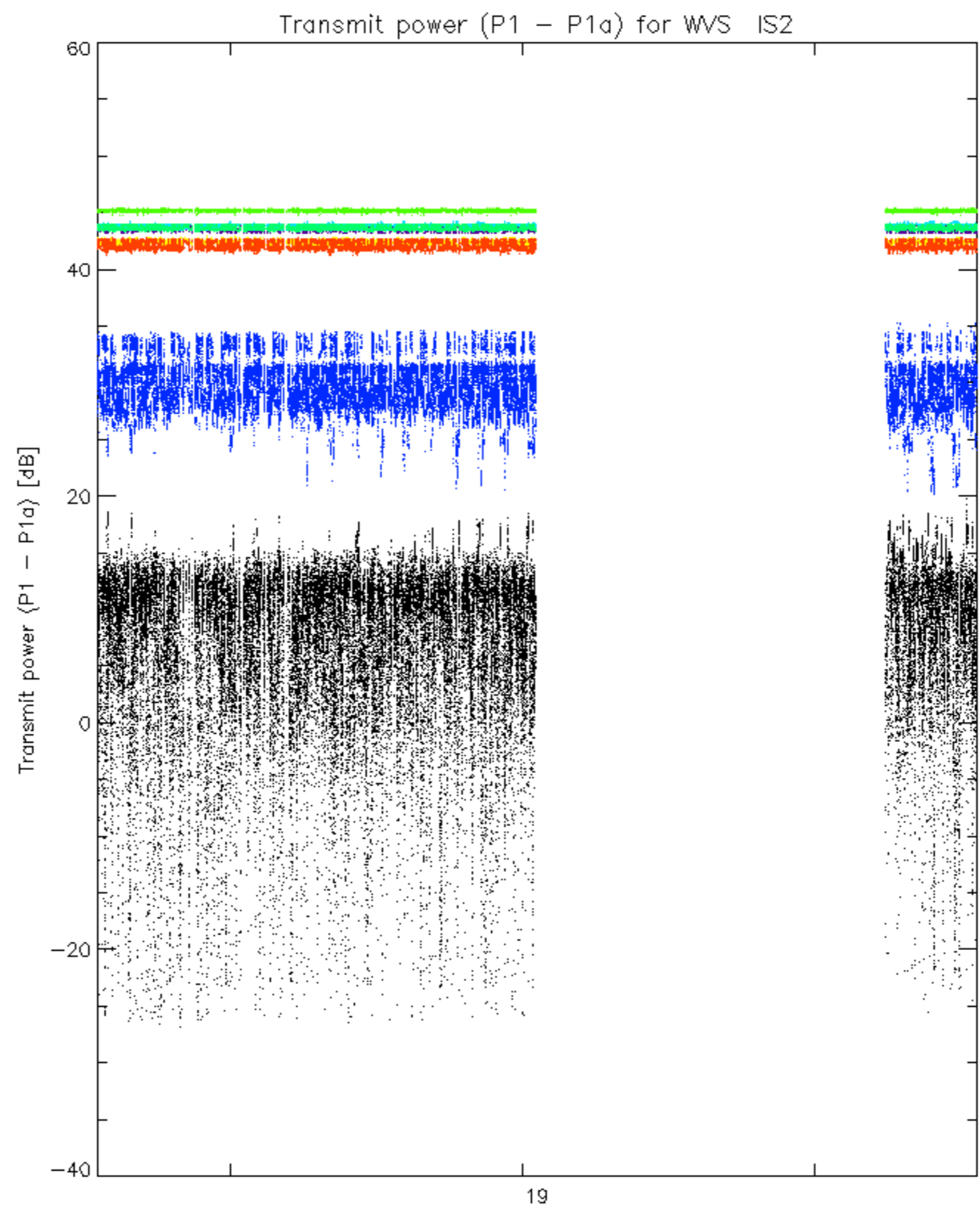
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050523_155735_00000802037_00298_16885_2380.N1	1	0
ASA_IMM_1PNPDK20050522_082106_00000532037_00279_16866_4889.N1	0	5
ASA_IMM_1PNPDK20050522_083702_000004282037_00279_16866_4898.N1	0	15
ASA_IMM_1PNPDK20050522_115824_000001212037_00281_16868_4901.N1	0	3
ASA_IMM_1PNPDK20050522_132153_000000932037_00282_16869_4904.N1	0	6
ASA_IMM_1PNPDK20050522_151439_000002202037_00283_16870_4909.N1	0	1
ASA_IMM_1PNPDK20050523_075014_00000682037_00293_16880_4980.N1	0	6
ASA_IMM_1PNPDK20050523_080440_000003682037_00293_16880_4977.N1	0	7
ASA_IMM_1PNPDK20050523_095107_000001162037_00294_16881_4983.N1	0	2
ASA_IMM_1PNPDK20050523_124850_00000872037_00296_16883_4986.N1	1	1
ASA_IMM_1PNPDK20050523_175207_000004032037_00299_16886_4999.N1	0	2
ASA_IMM_1PNPDK20050523_193131_000002772037_00300_16887_5005.N1	0	4
ASA_GM1_1PNPDK20050522_105419_000009242037_00280_16867_1428.N1	0	9
ASA_GM1_1PNPDK20050522_132945_000007062037_00282_16869_1453.N1	0	8
ASA_APM_1PNPDK20050522_132037_00000432037_00282_16869_2099.N1	0	1
ASA_APM_1PNPDK20050523_075127_00000432037_00293_16880_2104.N1	0	1
ASA_APM_1PNPDK20050523_082039_00000712037_00293_16880_2107.N1	0	2

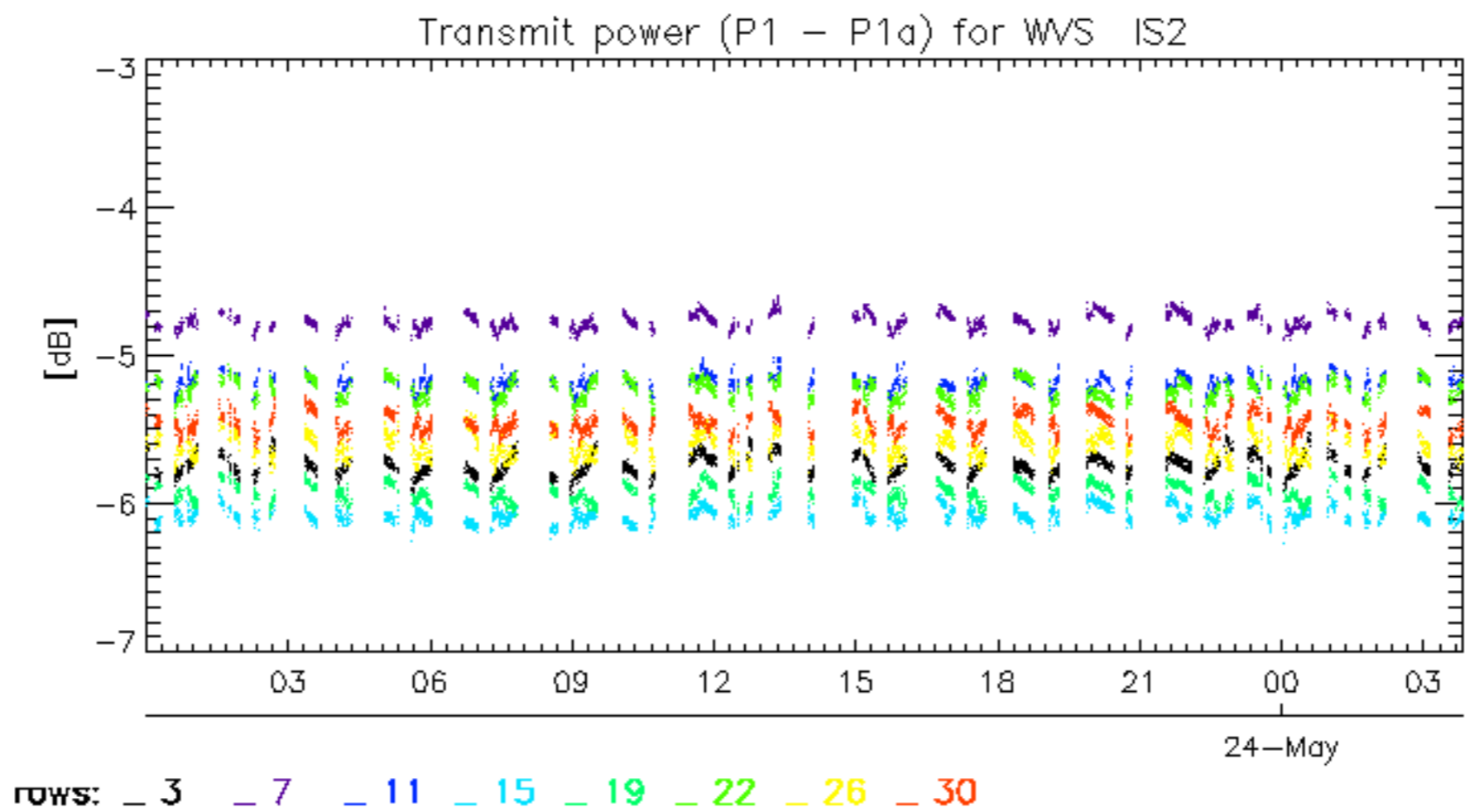












No unavailabilities during the reported period.