

PRELIMINARY REPORT OF 050525

last update on Wed May 25 10:50:02 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 2005-05-24 00:00:00 to 2005-05-25 10:50:02

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	25	49	9	3	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	25	49	9	3	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	25	49	9	3	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	25	49	9	3	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	44	61	16	4	1
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	44	61	16	4	1
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	44	61	16	4	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	44	61	16	4	1

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	20050524 081023

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
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

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	-3.346749	0.006937	0.014440
7	P1	-3.113174	0.014651	-0.019099
11	P1	-4.651760	0.028894	0.053899
15	P1	-5.530468	0.045804	0.087868
19	P1	-3.725669	0.003969	-0.008854
22	P1	-4.590107	0.014069	0.007829
26	P1	-4.875619	0.018429	0.028627
30	P1	-7.143160	0.028194	0.004233
3	P1	-15.689408	0.086672	0.140290
7	P1	-15.507645	0.101628	-0.059615
11	P1	-21.290493	0.237592	-0.043323
15	P1	-11.397752	0.038418	0.166083
19	P1	-14.354735	0.033688	-0.060444
22	P1	-15.947437	0.335778	-0.063157
26	P1	-17.658907	0.204146	-0.141007
30	P1	-17.865360	0.241095	0.058730

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.051737	0.077709	0.014215
7	P2	-22.227875	0.100577	0.045751
11	P2	-14.090908	0.099576	0.132623
15	P2	-7.108796	0.085142	-0.035039
19	P2	-9.642640	0.090067	0.034909
22	P2	-16.890350	0.088332	0.003881
26	P2	-16.493412	0.091009	-0.019451
30	P2	-18.817762	0.078469	0.021292

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.168261	0.003136	0.010112
7	P3	-8.168261	0.003136	0.010112
11	P3	-8.168261	0.003136	0.010112
15	P3	-8.168261	0.003136	0.010112
19	P3	-8.168261	0.003136	0.010112
22	P3	-8.168261	0.003136	0.010112
26	P3	-8.168261	0.003136	0.010112
30	P3	-8.168261	0.003136	0.010112

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	-2.777312	0.012252	-0.037277
7	P1	-2.983232	0.030457	0.058481
11	P1	-3.960733	0.017975	0.023581
15	P1	-3.523817	0.023574	0.011766
19	P1	-3.630734	0.015372	-0.008530
22	P1	-5.651615	0.049755	0.033327
26	P1	-7.315806	0.023787	0.014146
30	P1	-6.276825	0.055990	-0.013496
3	P1	-10.798205	0.044472	-0.059047
7	P1	-10.417736	0.156984	0.034801
11	P1	-12.543336	0.103916	0.038292
15	P1	-11.627715	0.074520	0.065653
19	P1	-15.622214	0.065427	-0.020595
22	P1	-25.581121	2.491237	-0.817183
26	P1	-15.670444	0.336107	-0.018830
30	P1	-20.251661	1.194060	-0.098187

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.777760	0.038523	-0.014720
7	P2	-22.240904	0.046625	0.145933
11	P2	-10.011959	0.054107	0.093511
15	P2	-5.094746	0.040466	-0.048157
19	P2	-6.906686	0.054261	-0.022138
22	P2	-7.108171	0.035997	-0.001932
26	P2	-23.930437	0.037239	-0.070707
30	P2	-21.946520	0.039661	-0.012304

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.002996	0.003633	0.009667
7	P3	-8.002869	0.003634	0.010067
11	P3	-8.002806	0.003641	0.009944
15	P3	-8.002936	0.003628	0.010002
19	P3	-8.002868	0.003647	0.009672
22	P3	-8.002960	0.003626	0.009867
26	P3	-8.002751	0.003643	0.010031
30	P3	-8.002889	0.003659	0.009776

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	0.000435658
	stdev	2.33374e-07
MEAN Q	mean	0.000462483
	stdev	2.44101e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125287
	stdev	0.00105658
STDEV Q	mean	0.125528
	stdev	0.00106672



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005052[345]

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_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_IMM_1PNPDK20050524_085741_000000542037_00308_16895_5045.N1	0	1
ASA_APM_1PNPDK20050523_075127_000000432037_00293_16880_2104.N1	0	1



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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<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

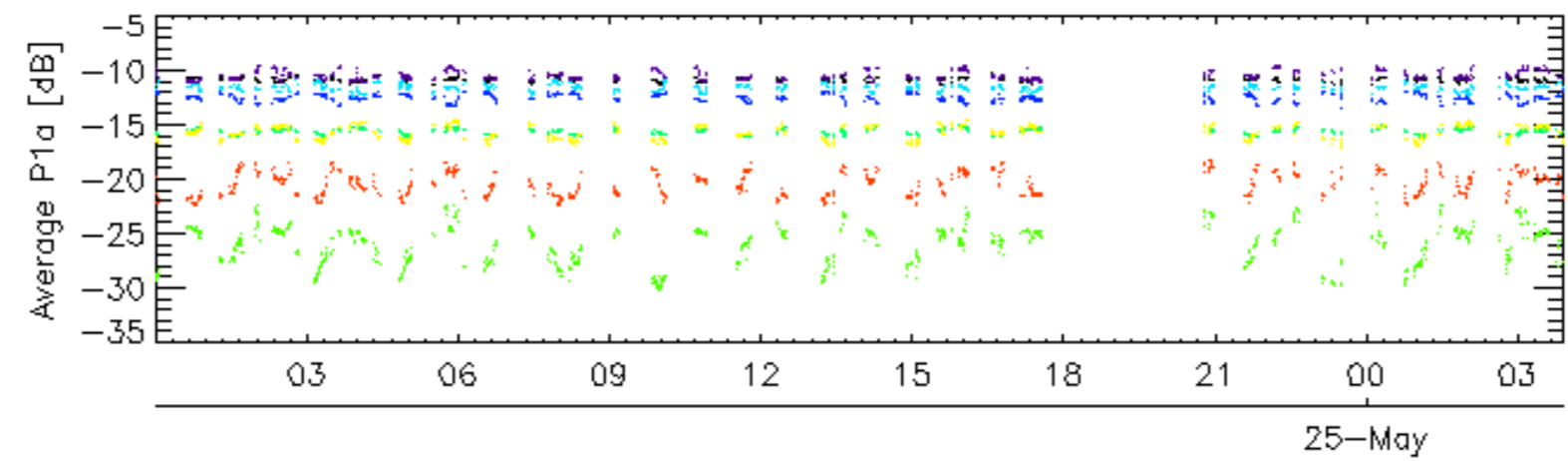
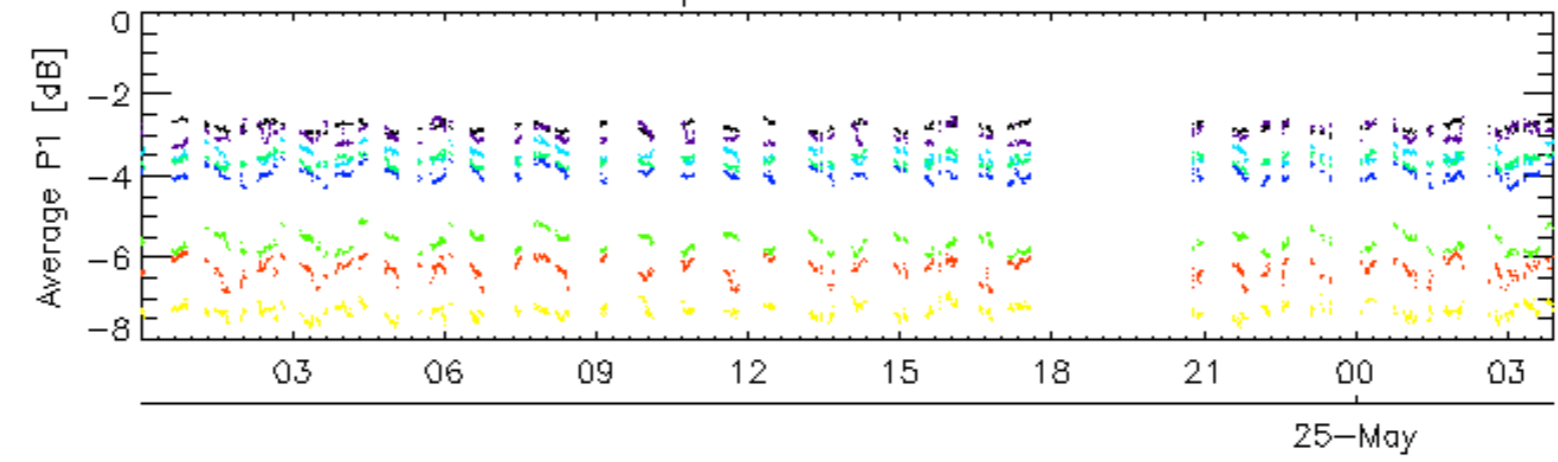
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

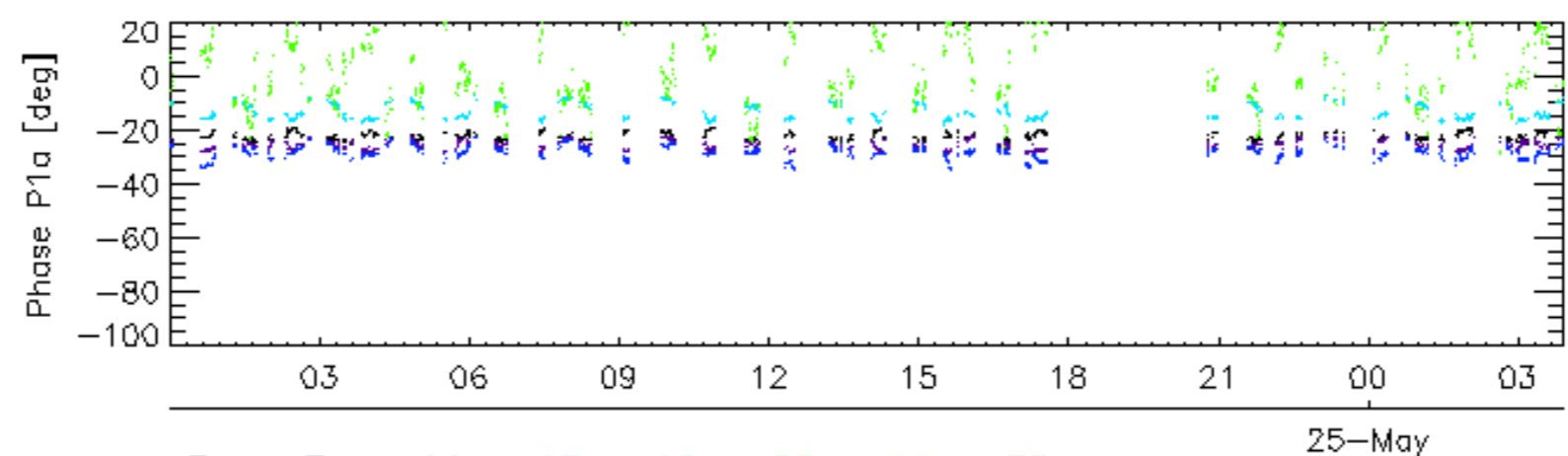
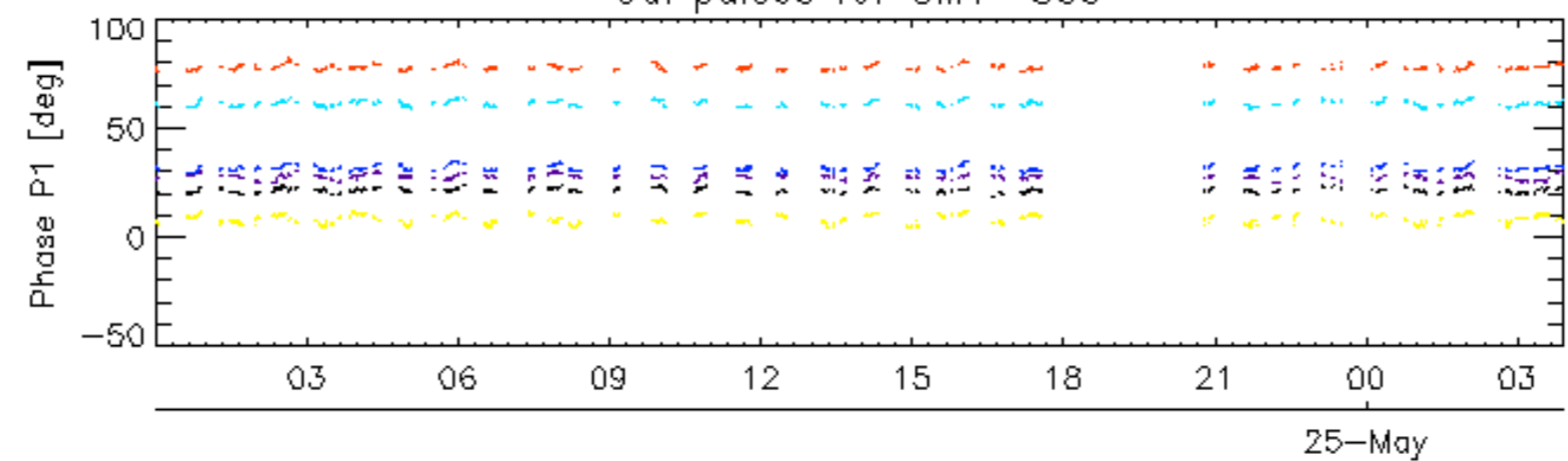
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

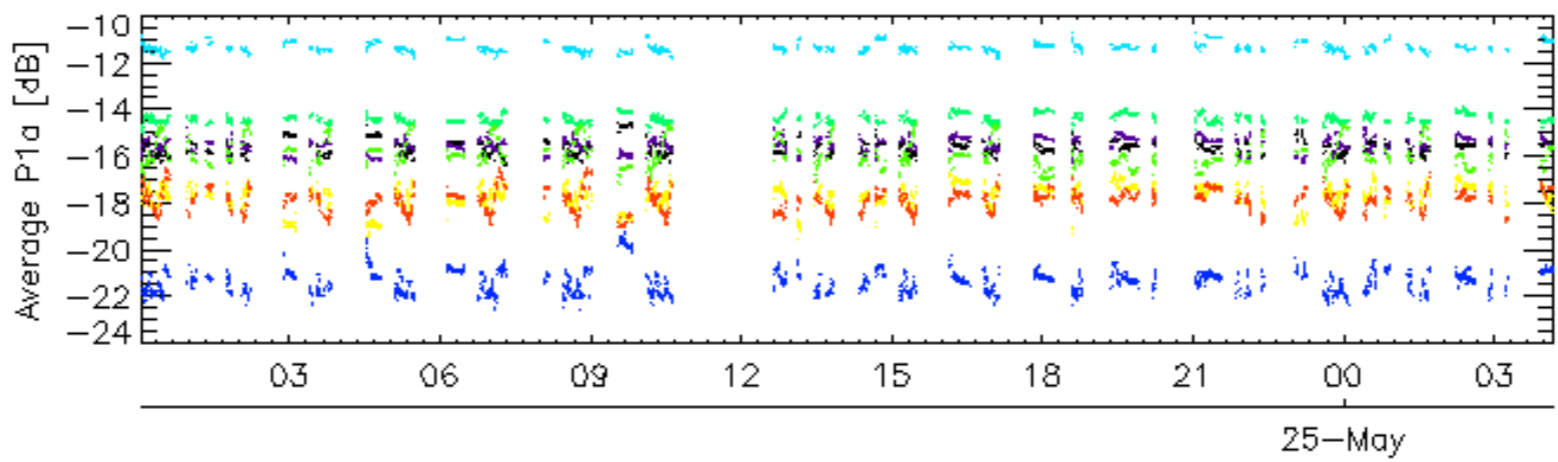
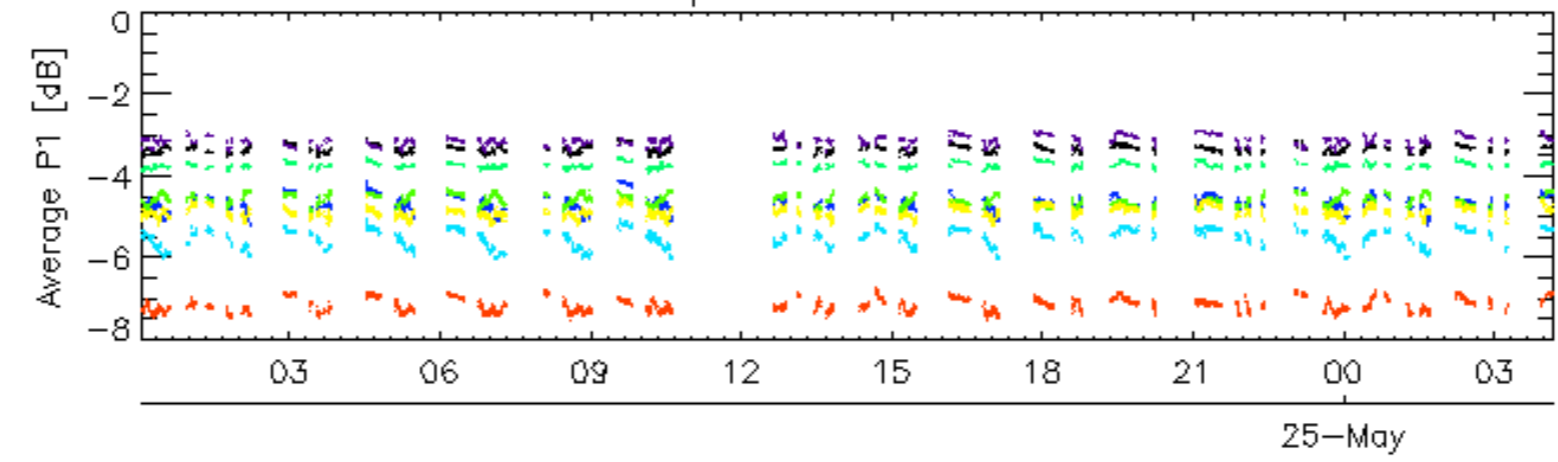


Cal pulses for GM1 SS3

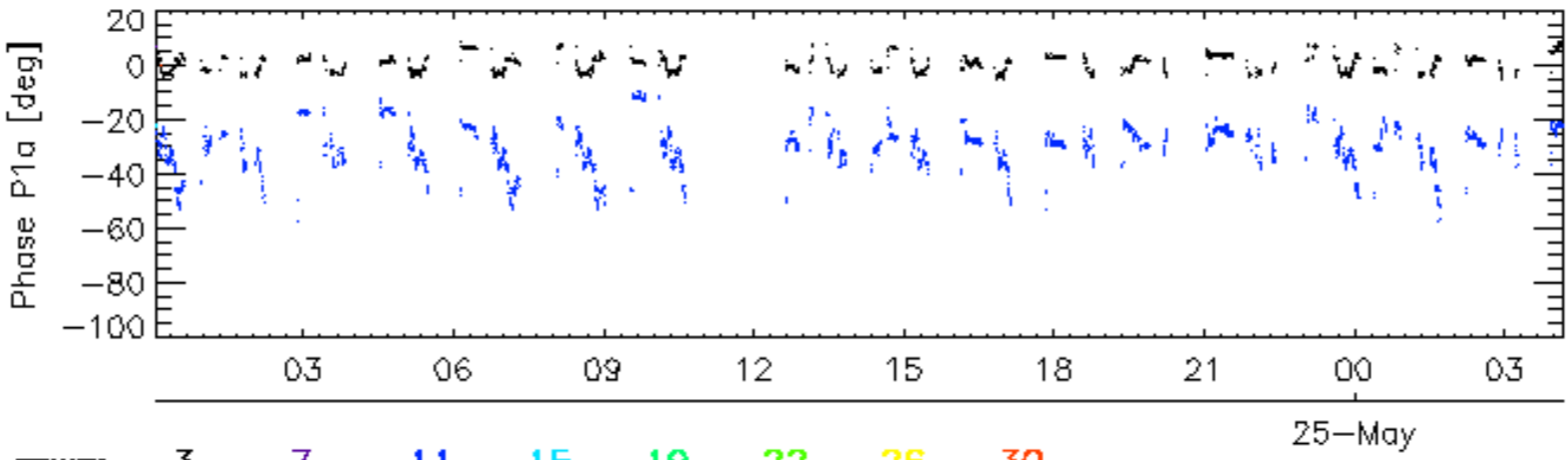
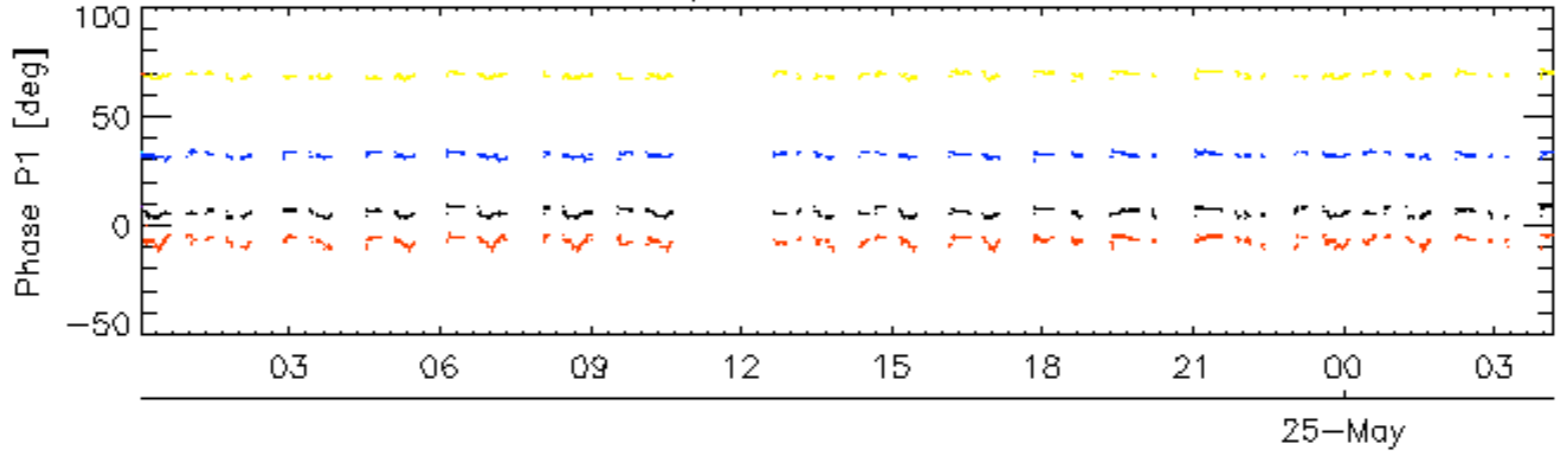


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

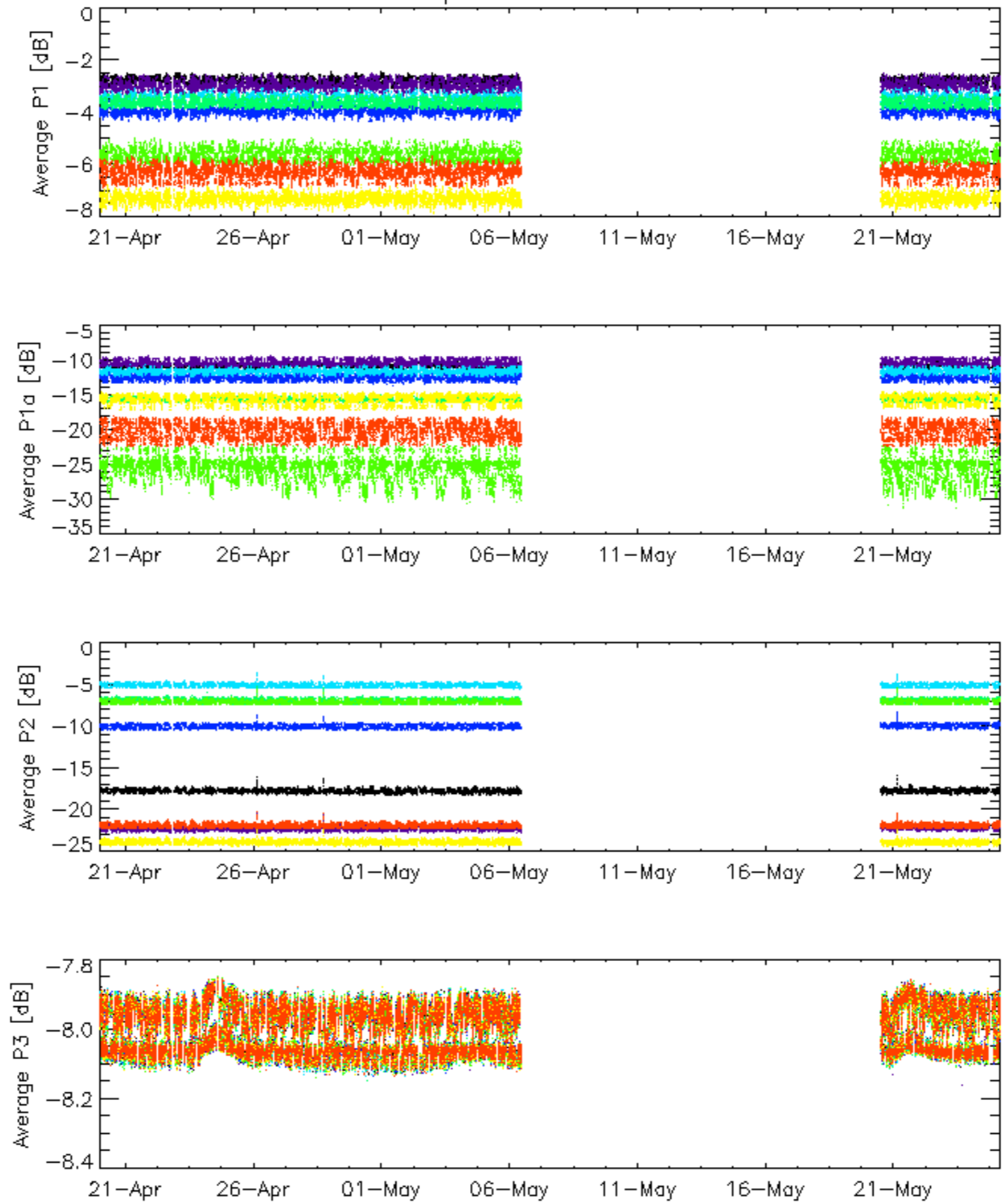


Cal pulses for WVS IS2



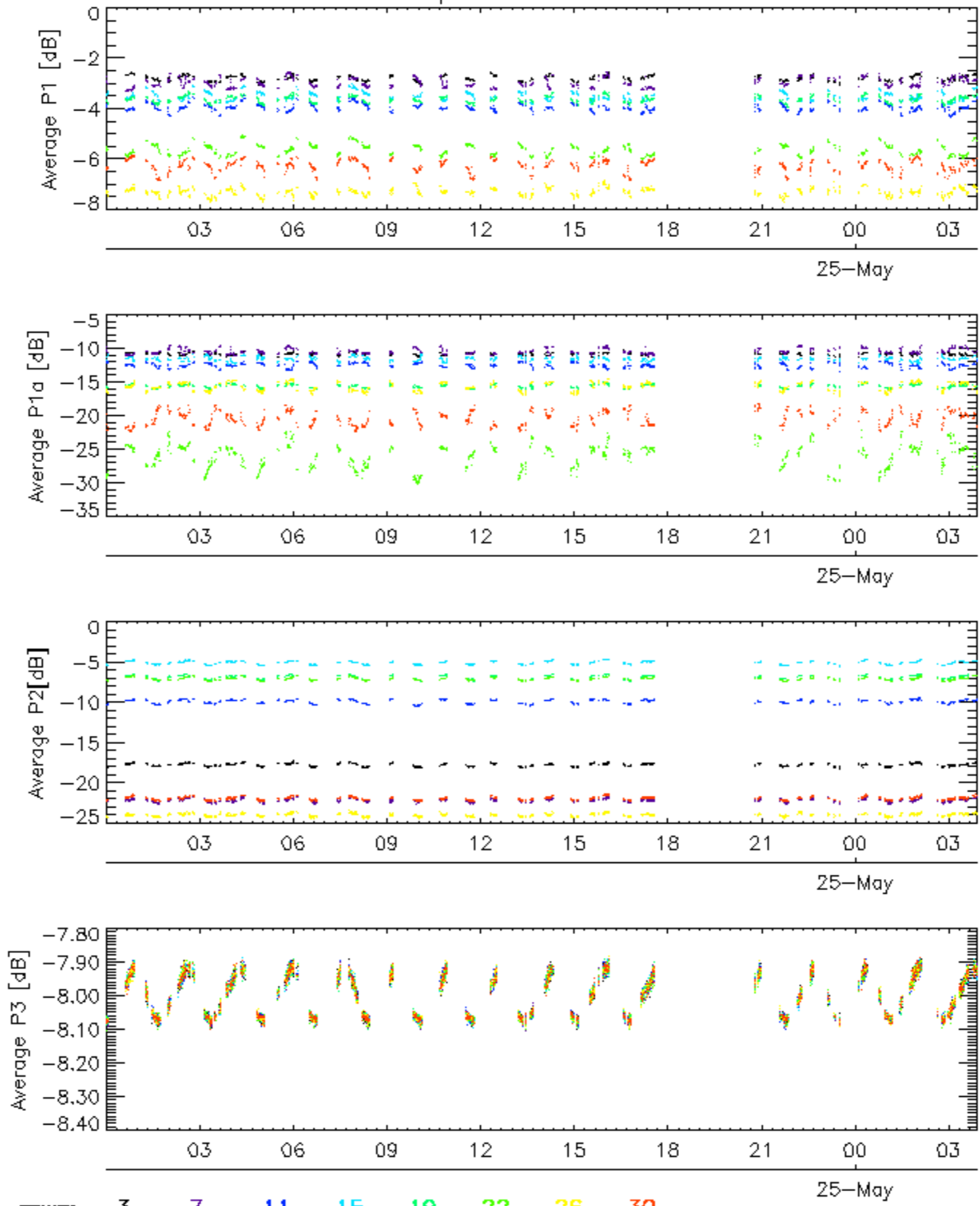
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



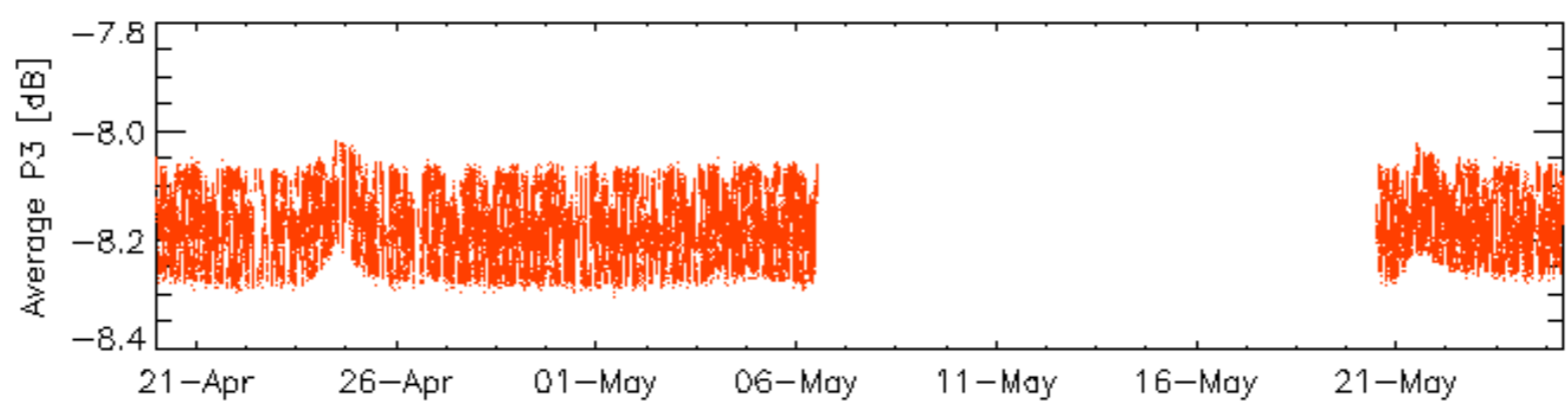
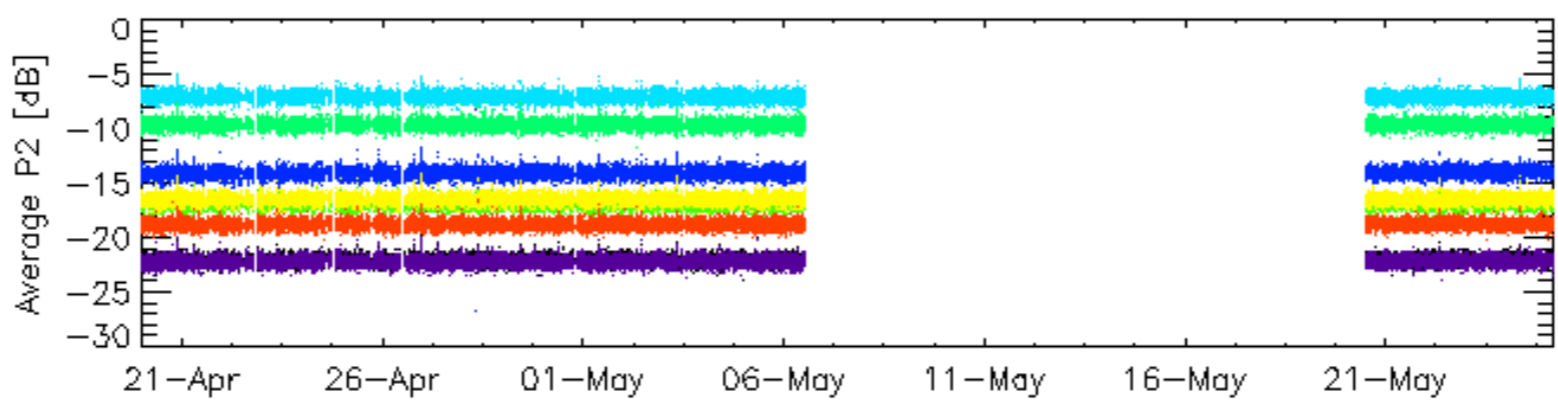
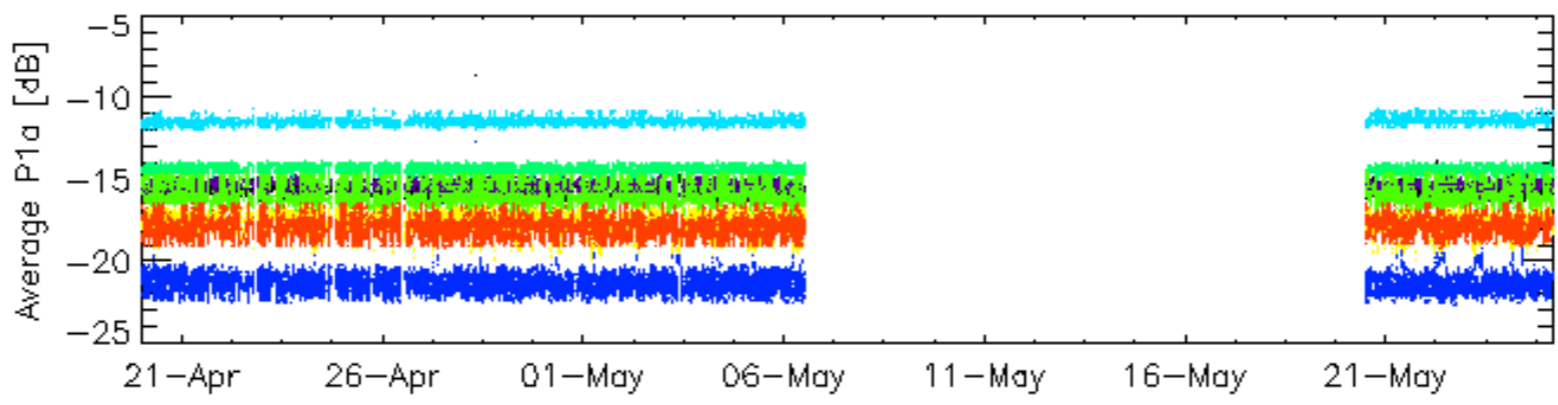
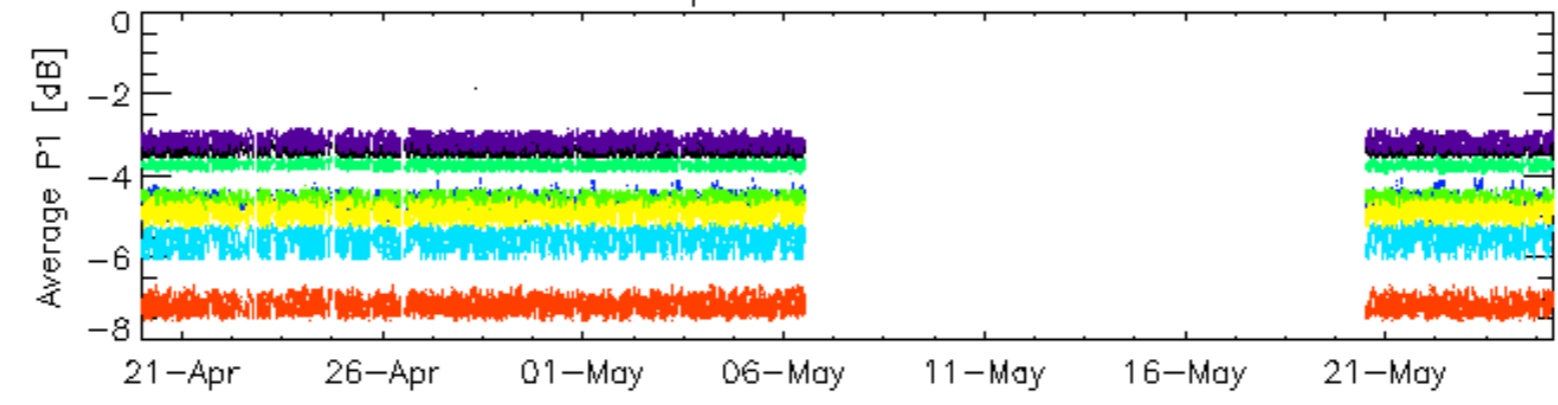
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



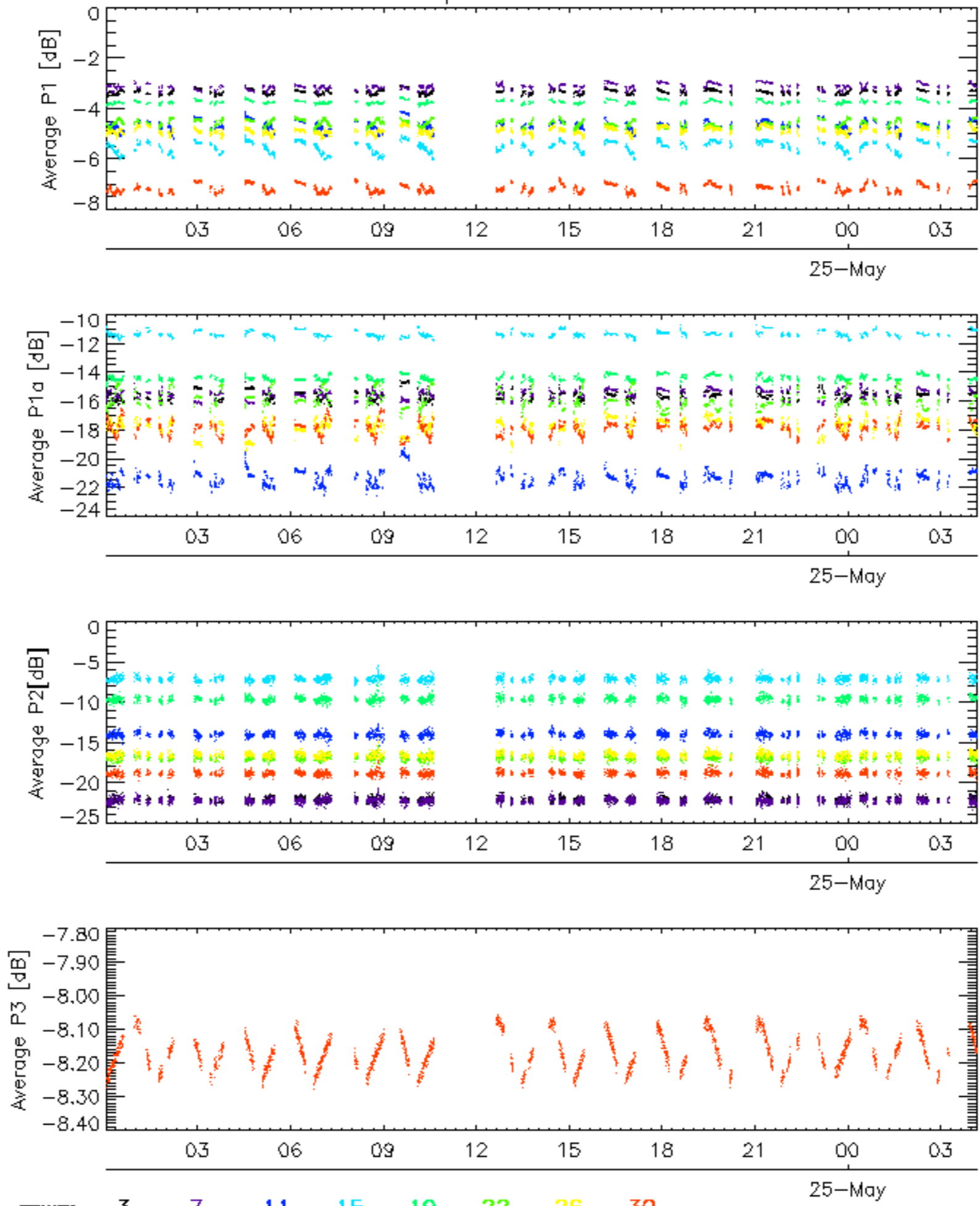
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

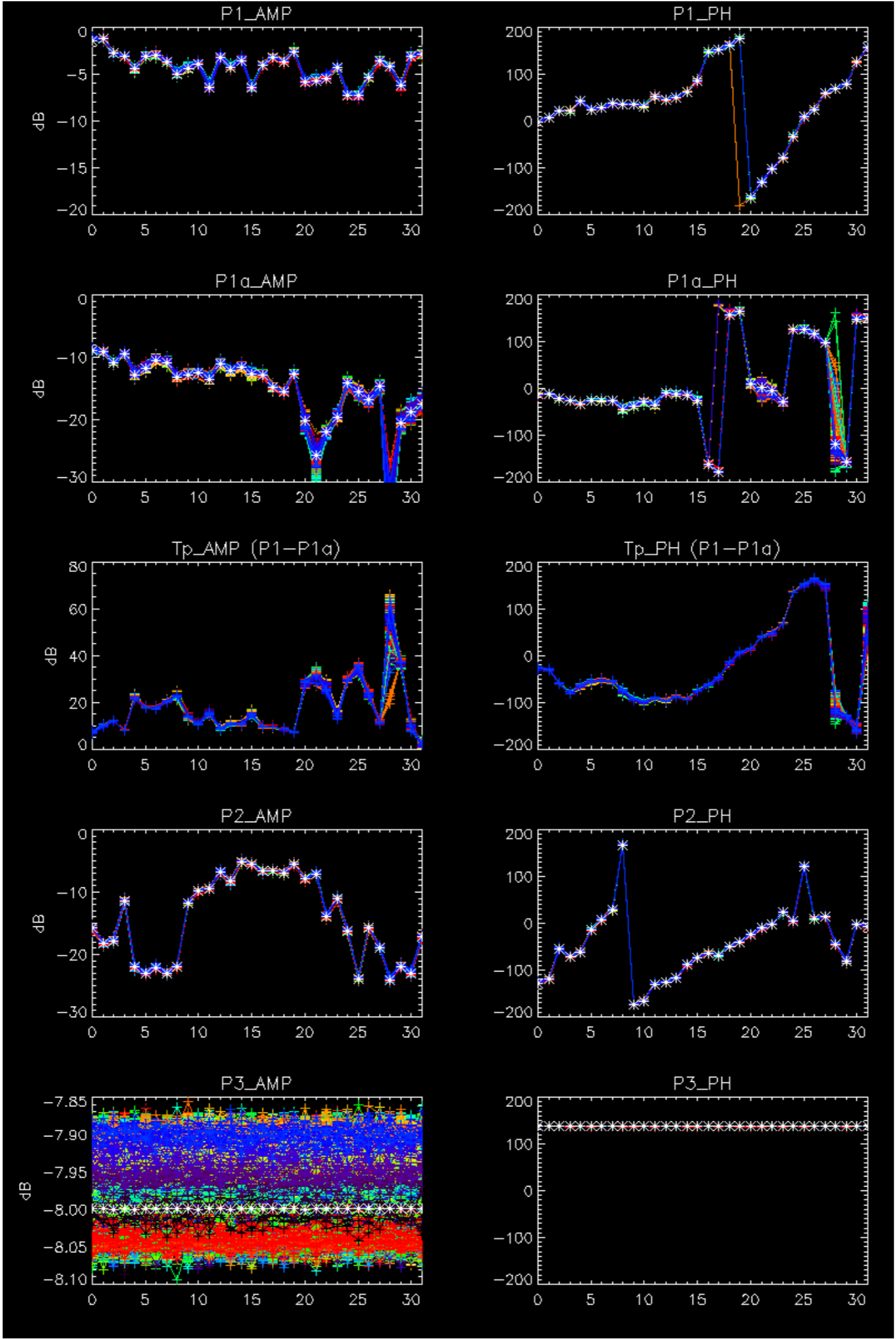


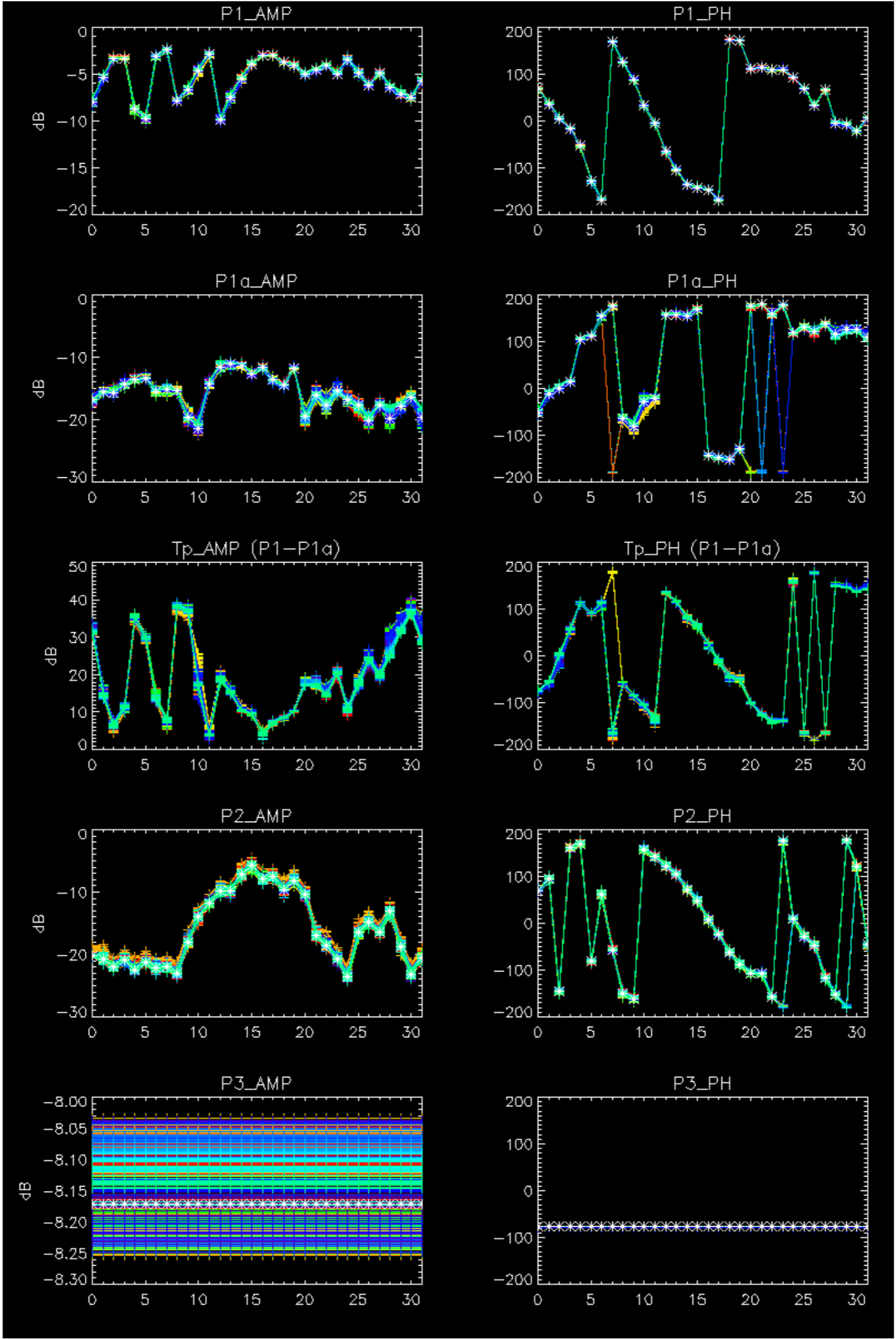
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



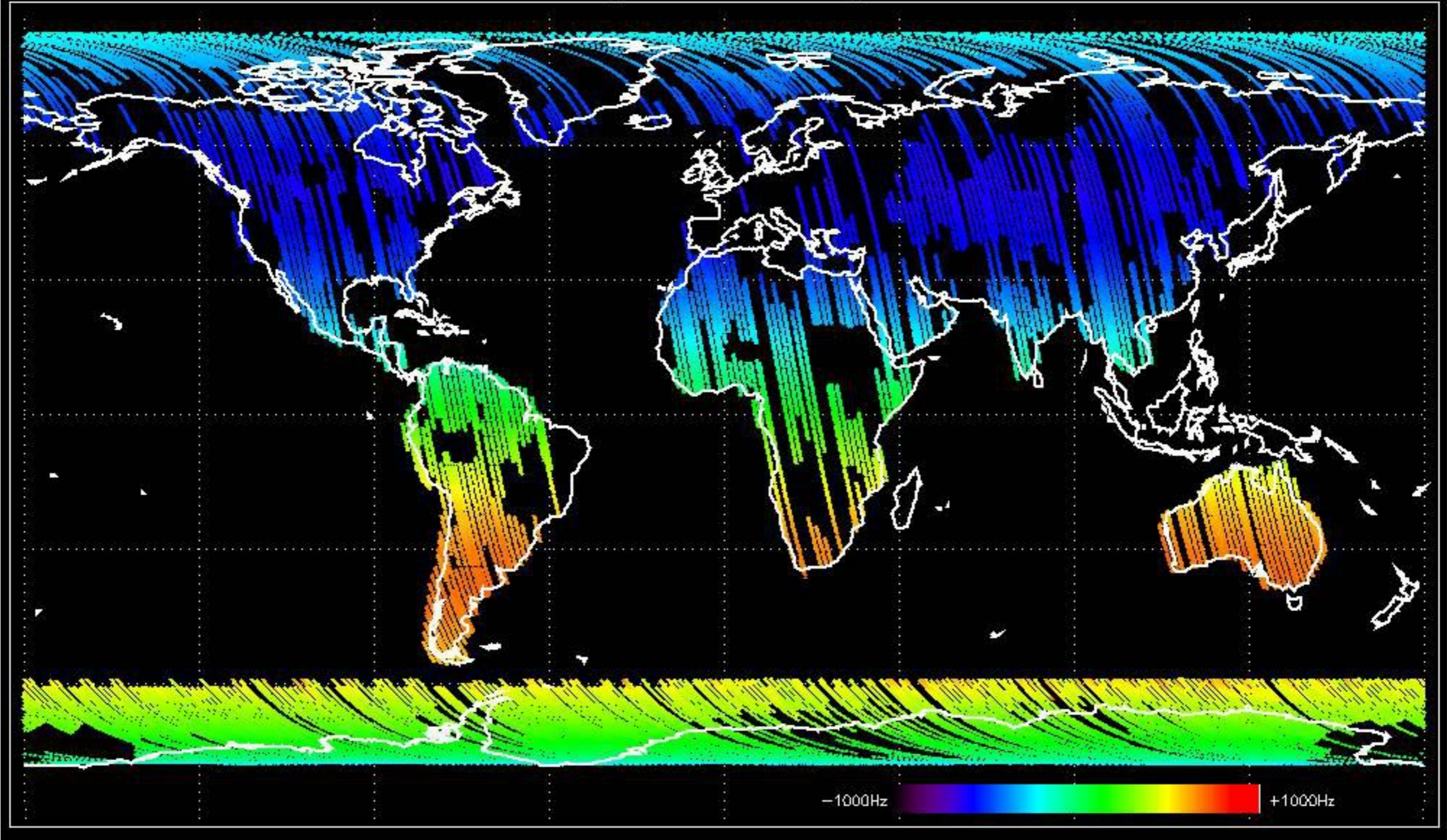
No anomalies observed.



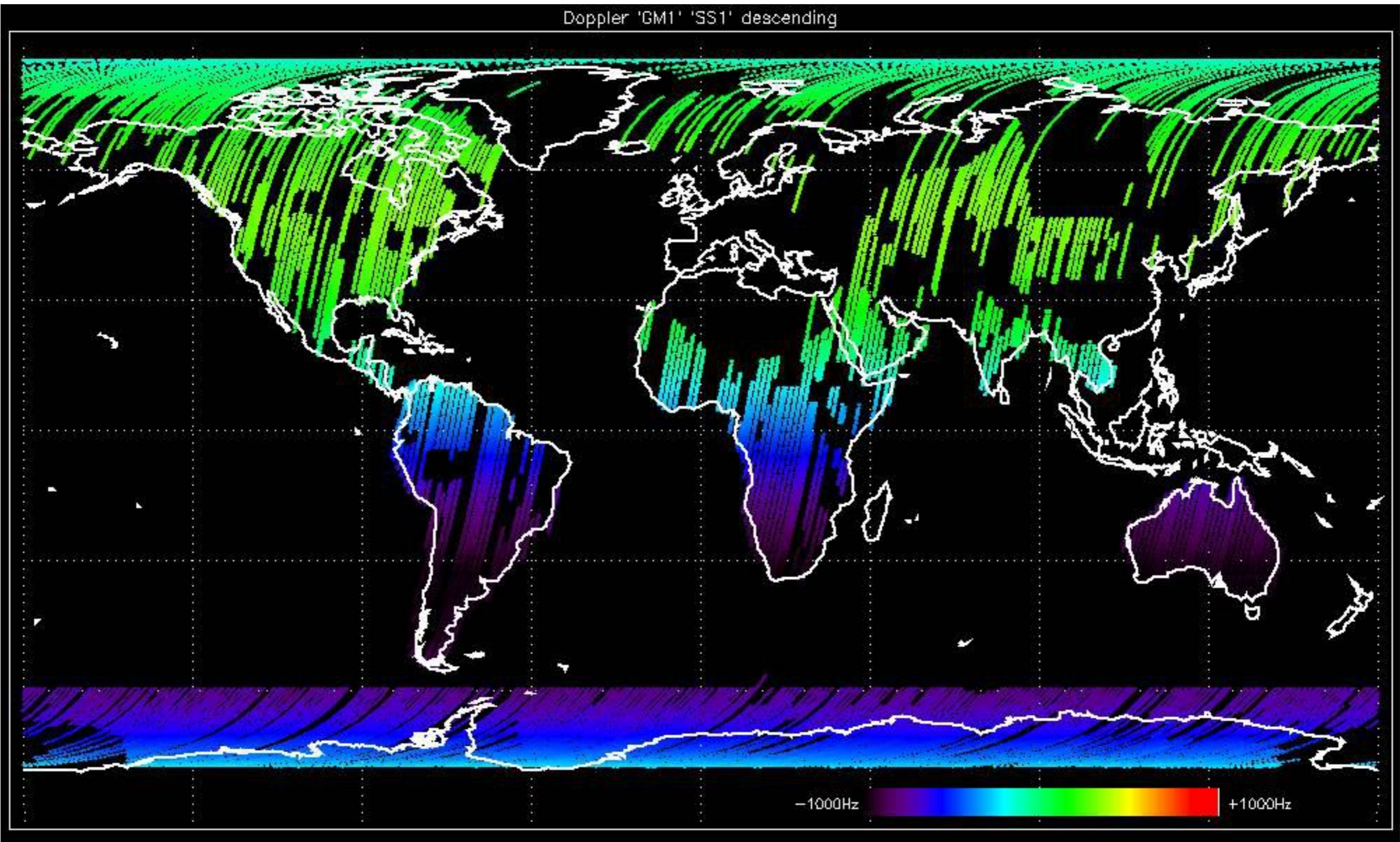


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

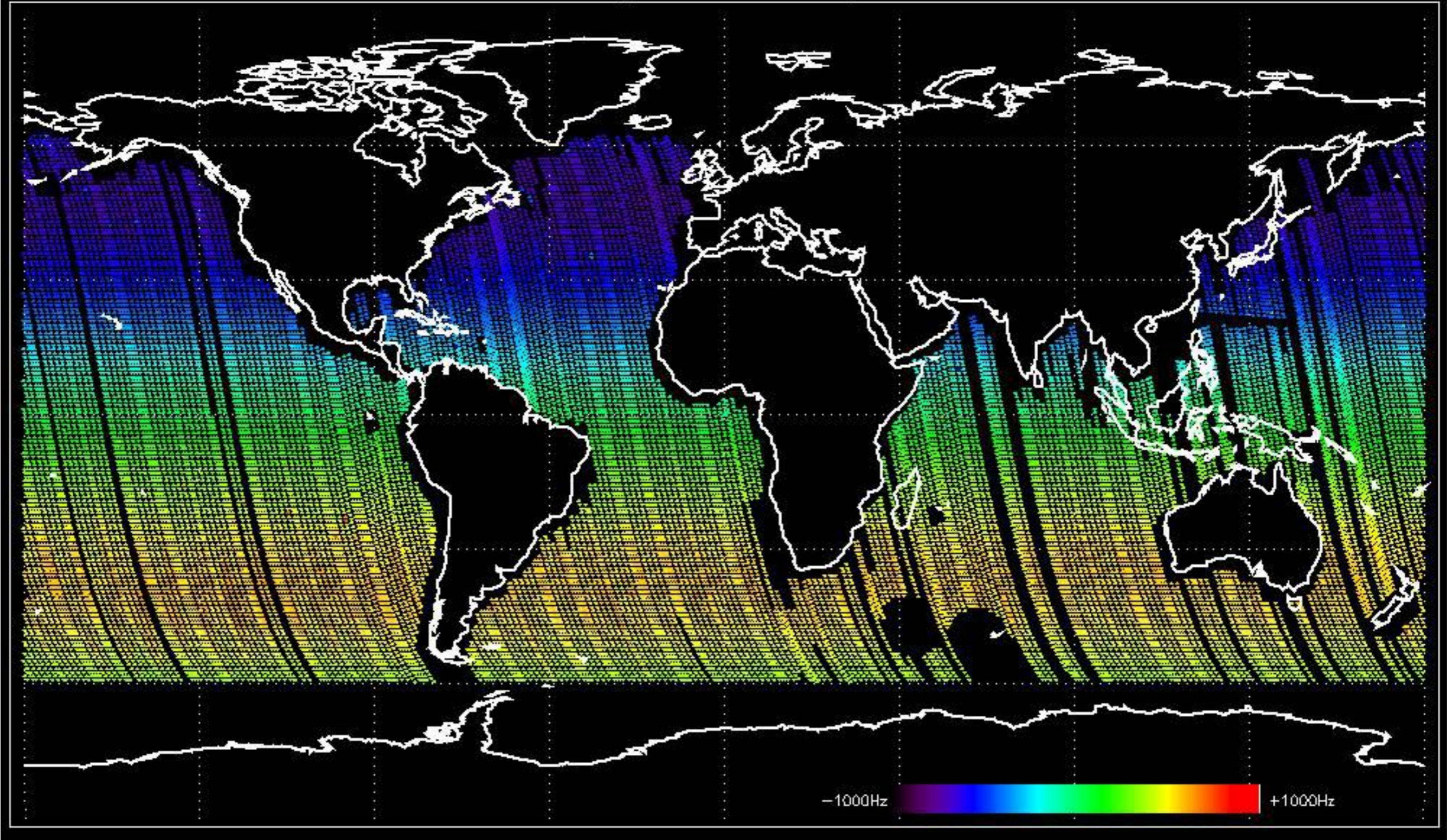
Doppler 'GM1' 'SS1' ascending



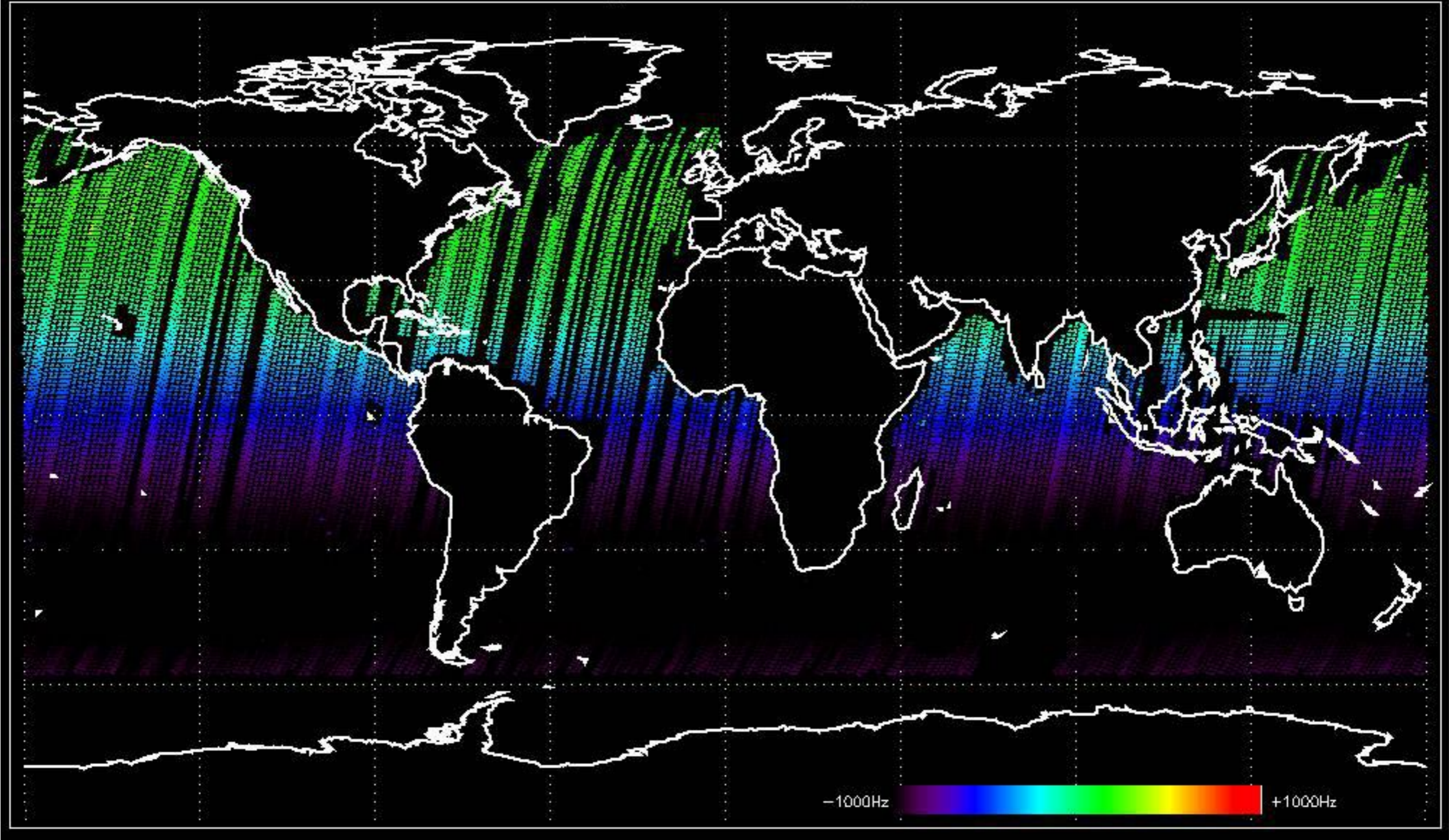
Doppler 'GM1' 'SS1' descending



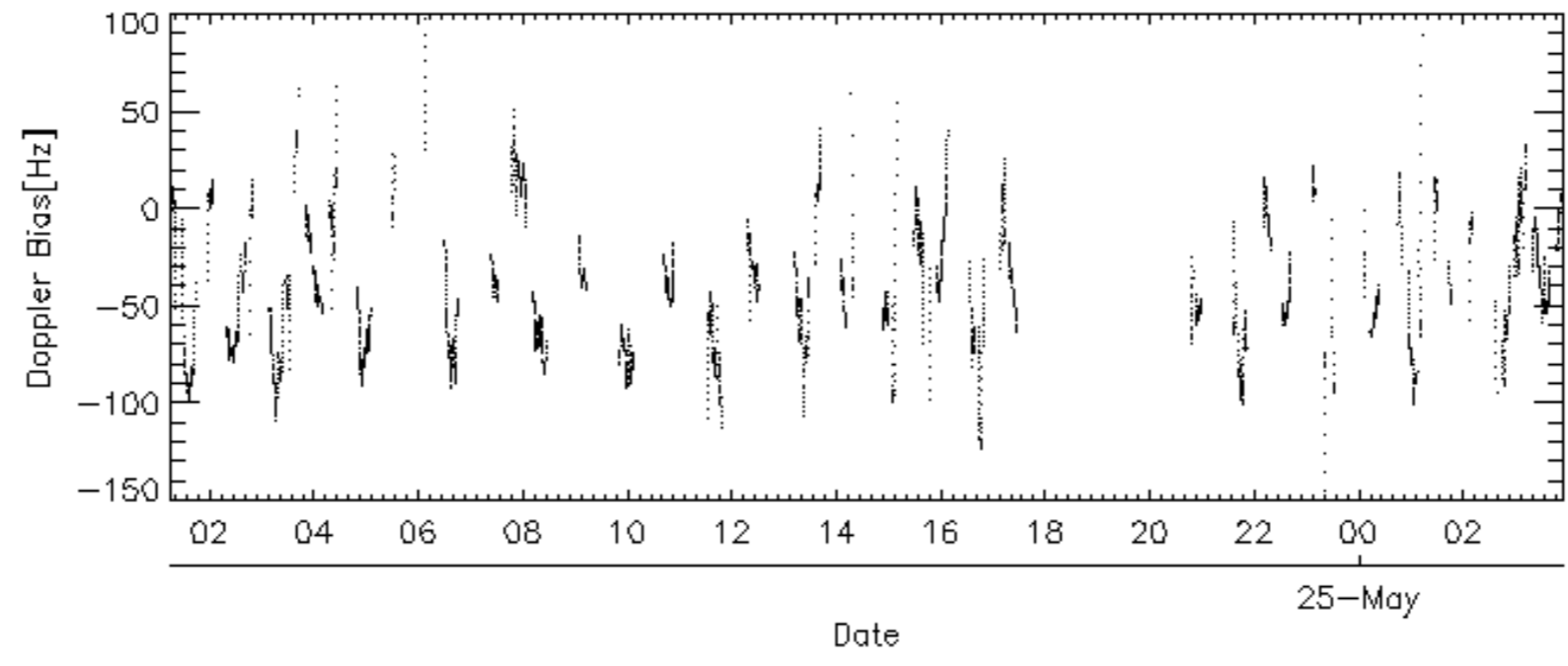
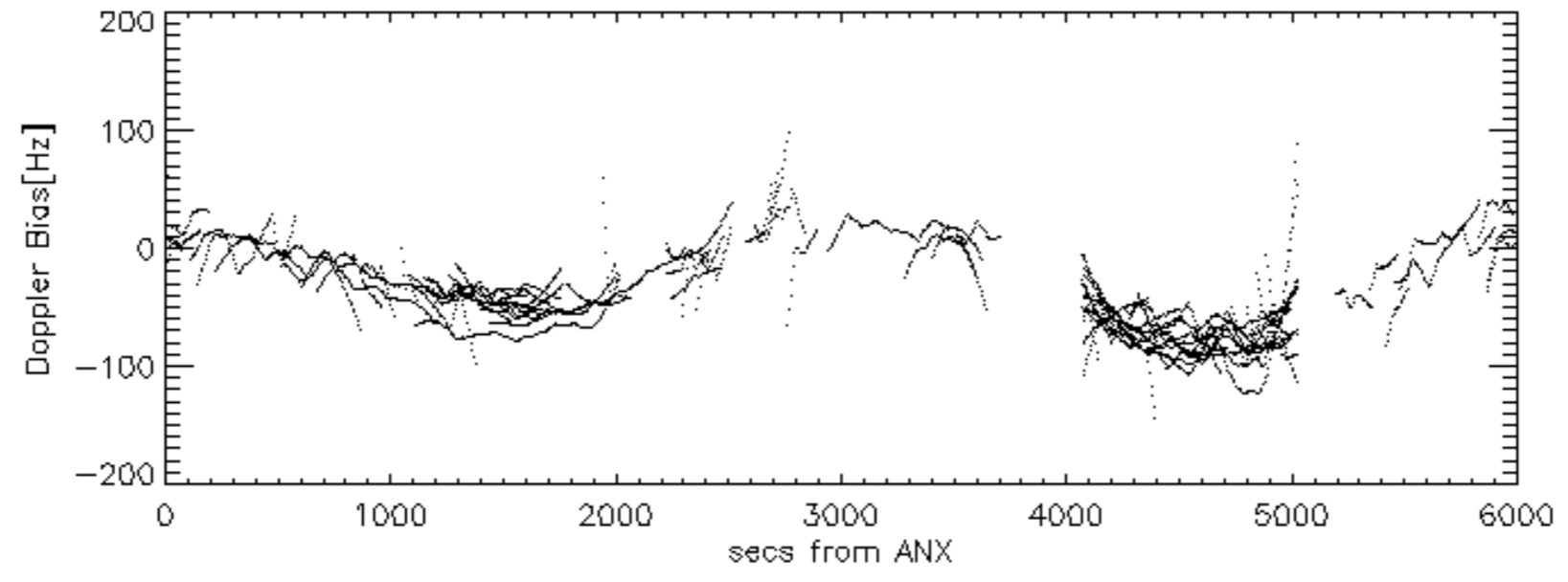
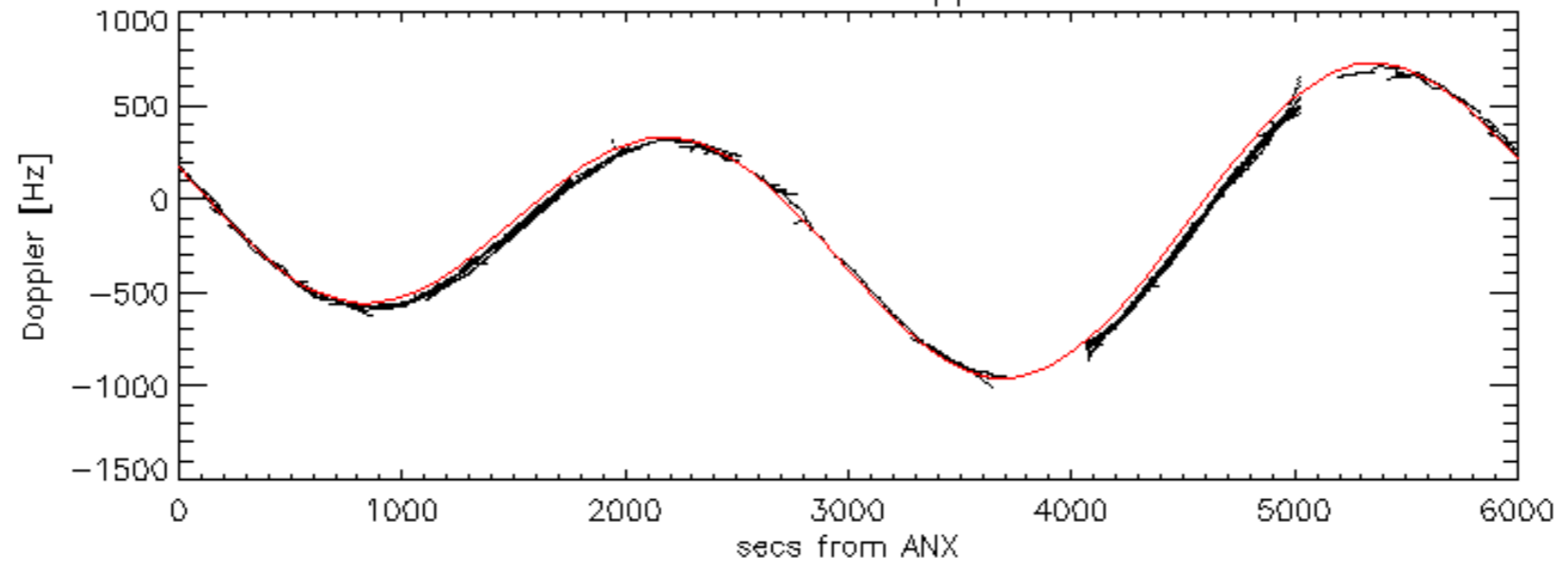
Doppler 'WVS' 'IS2' ascending

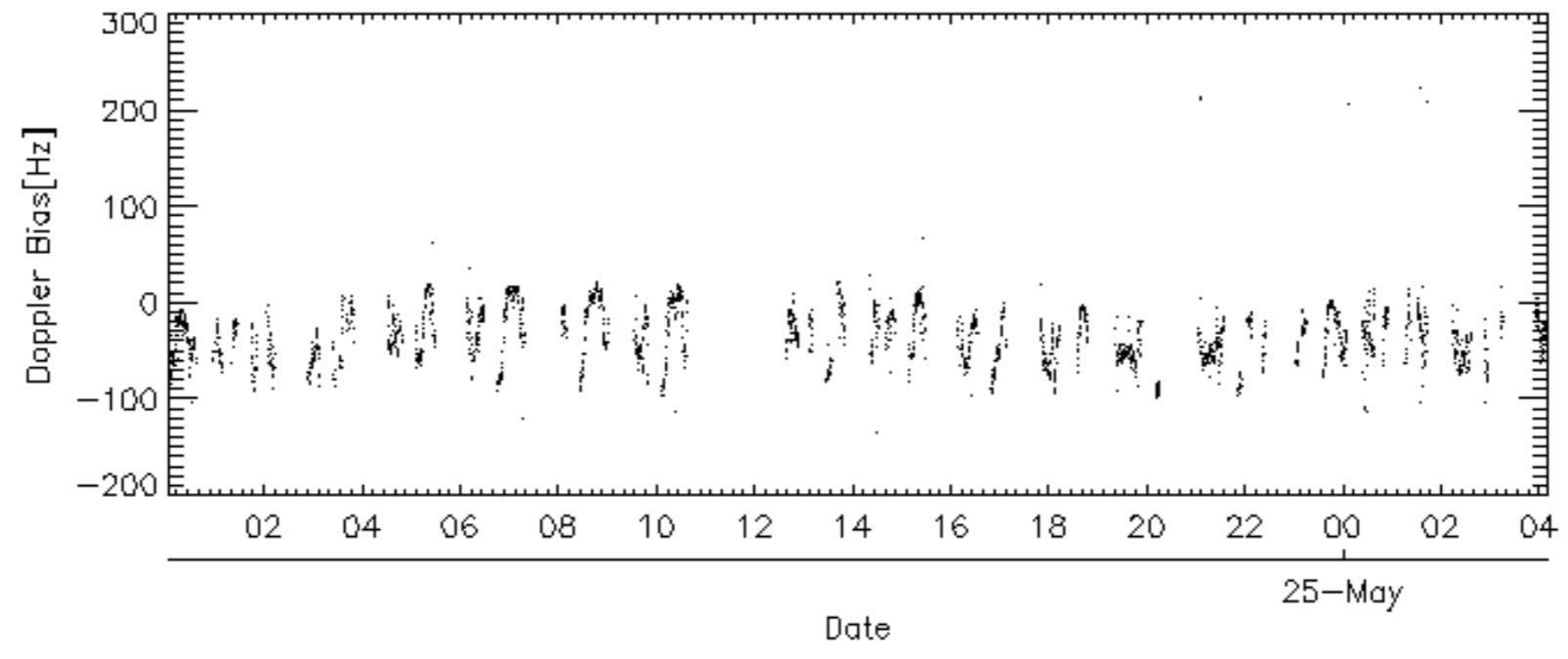
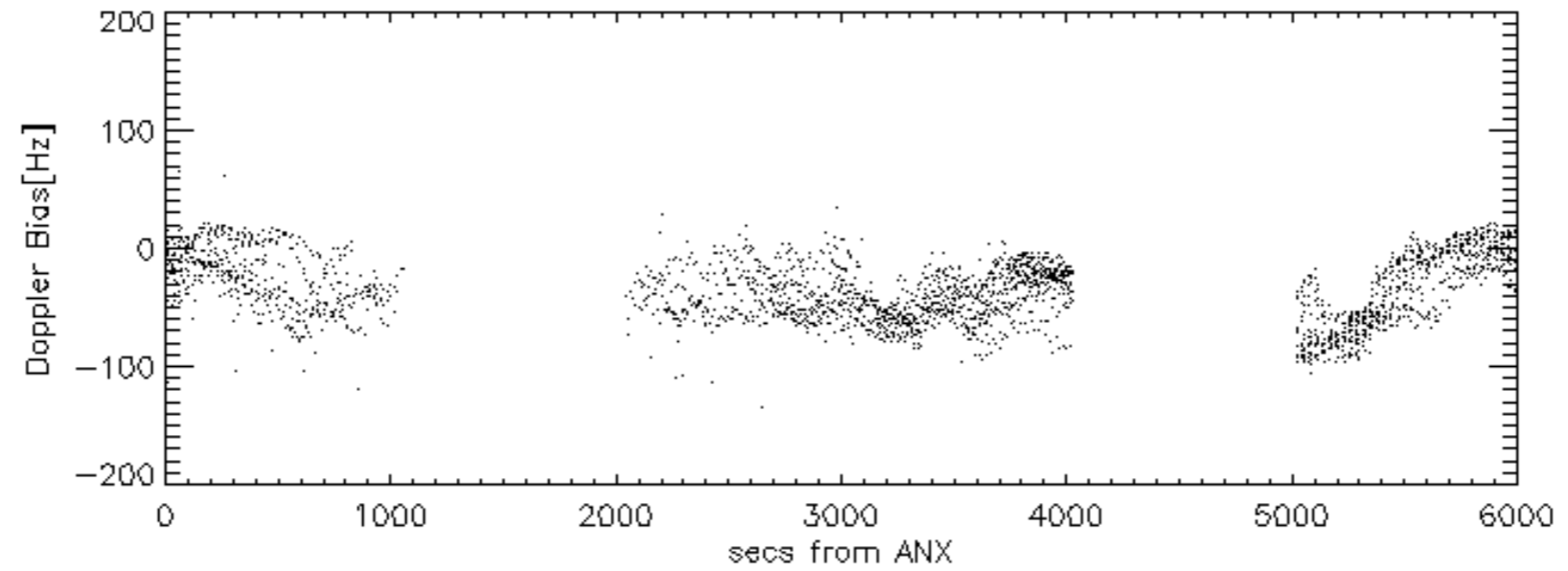
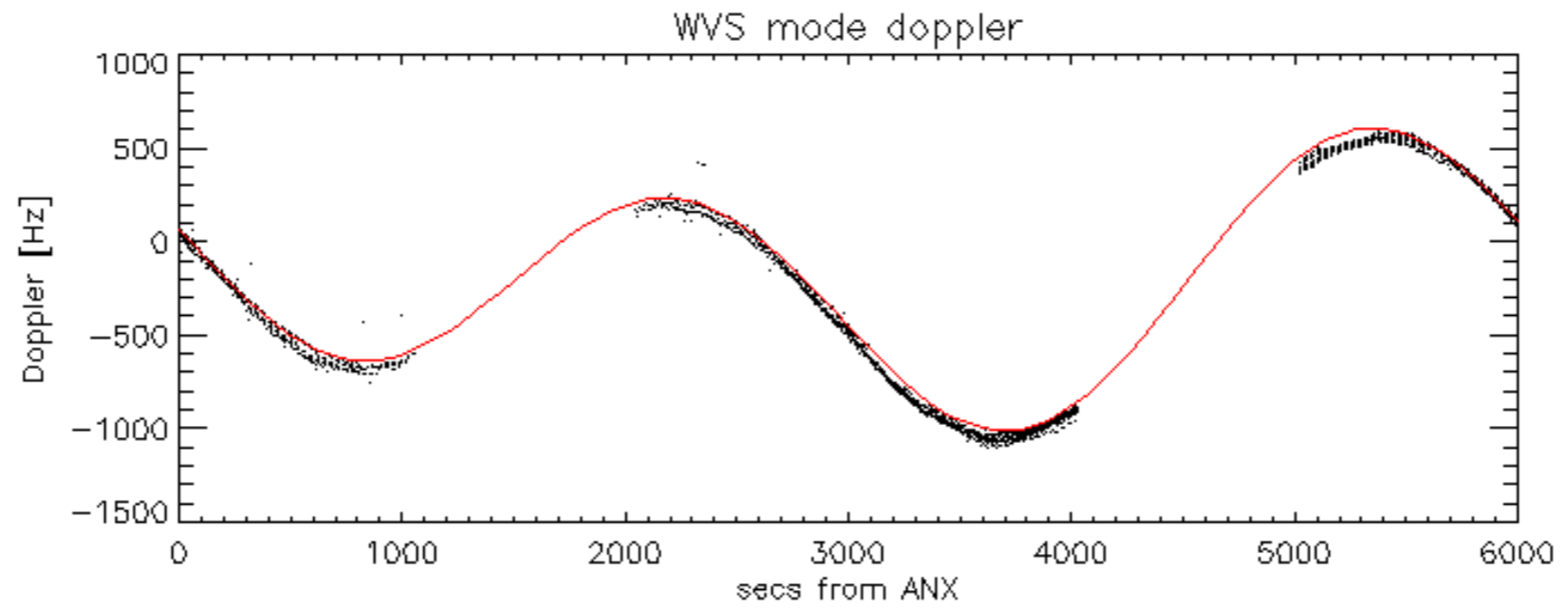


Doppler 'WVS' 'IS2' descending

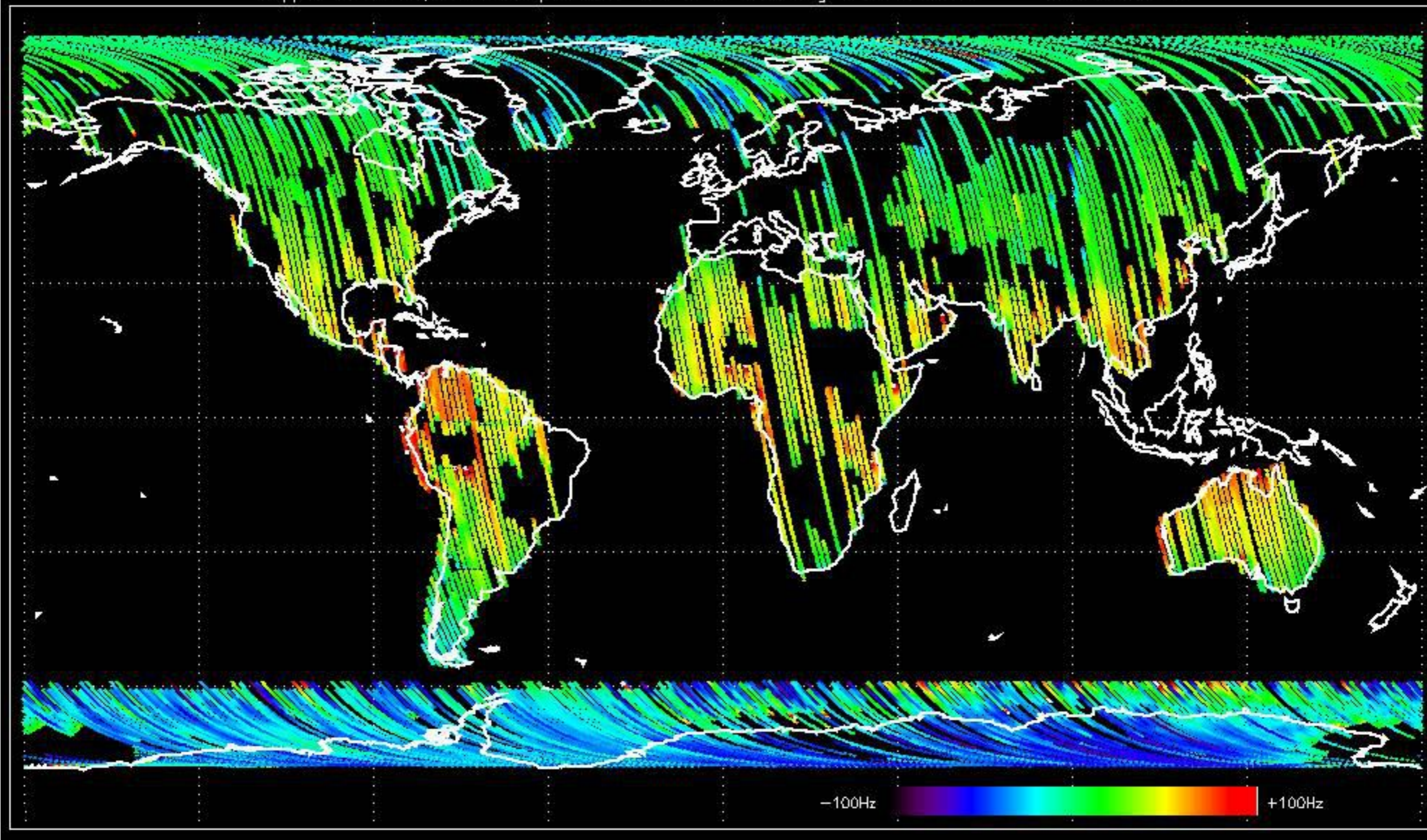


GM1 mode doppler

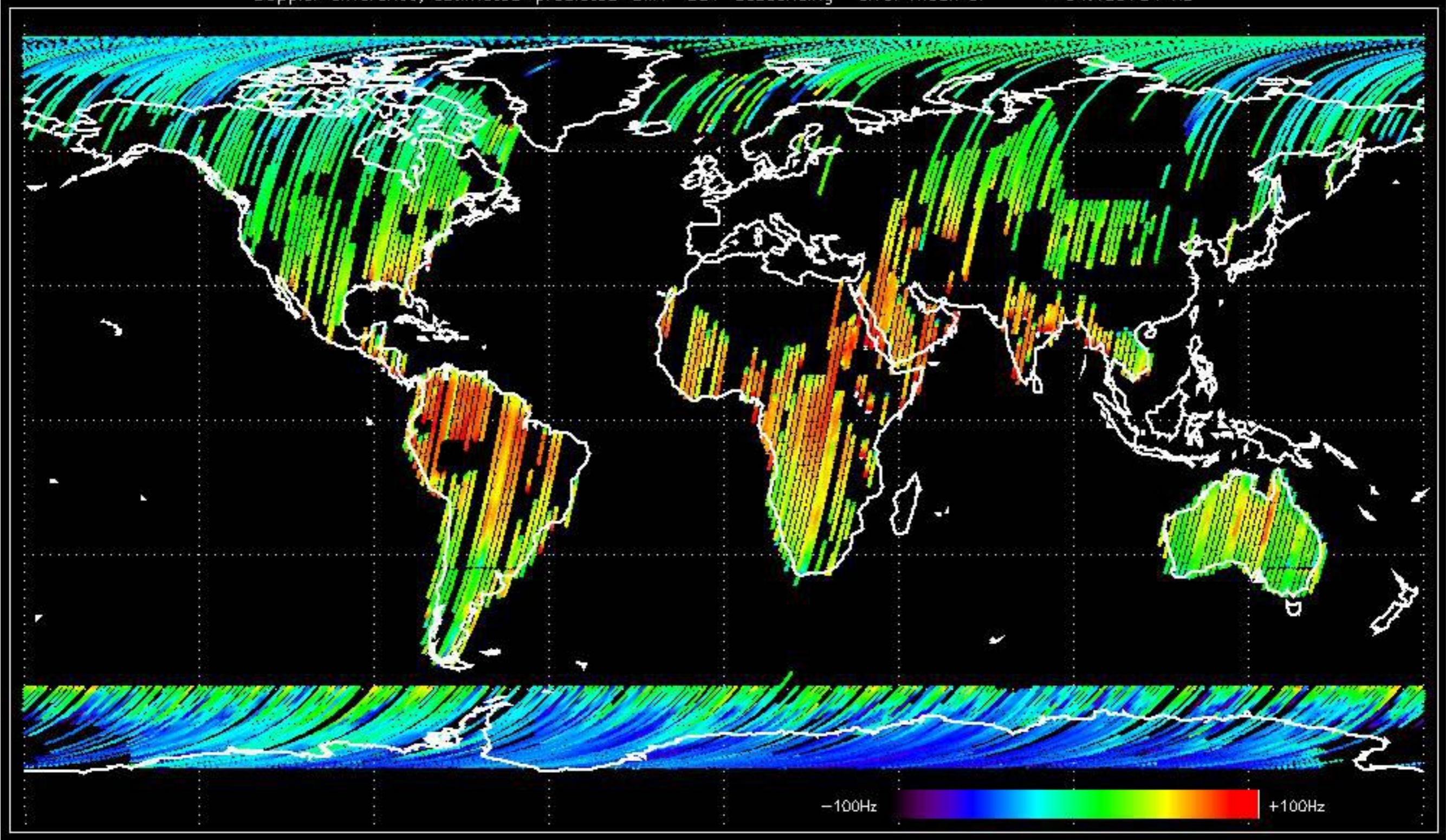




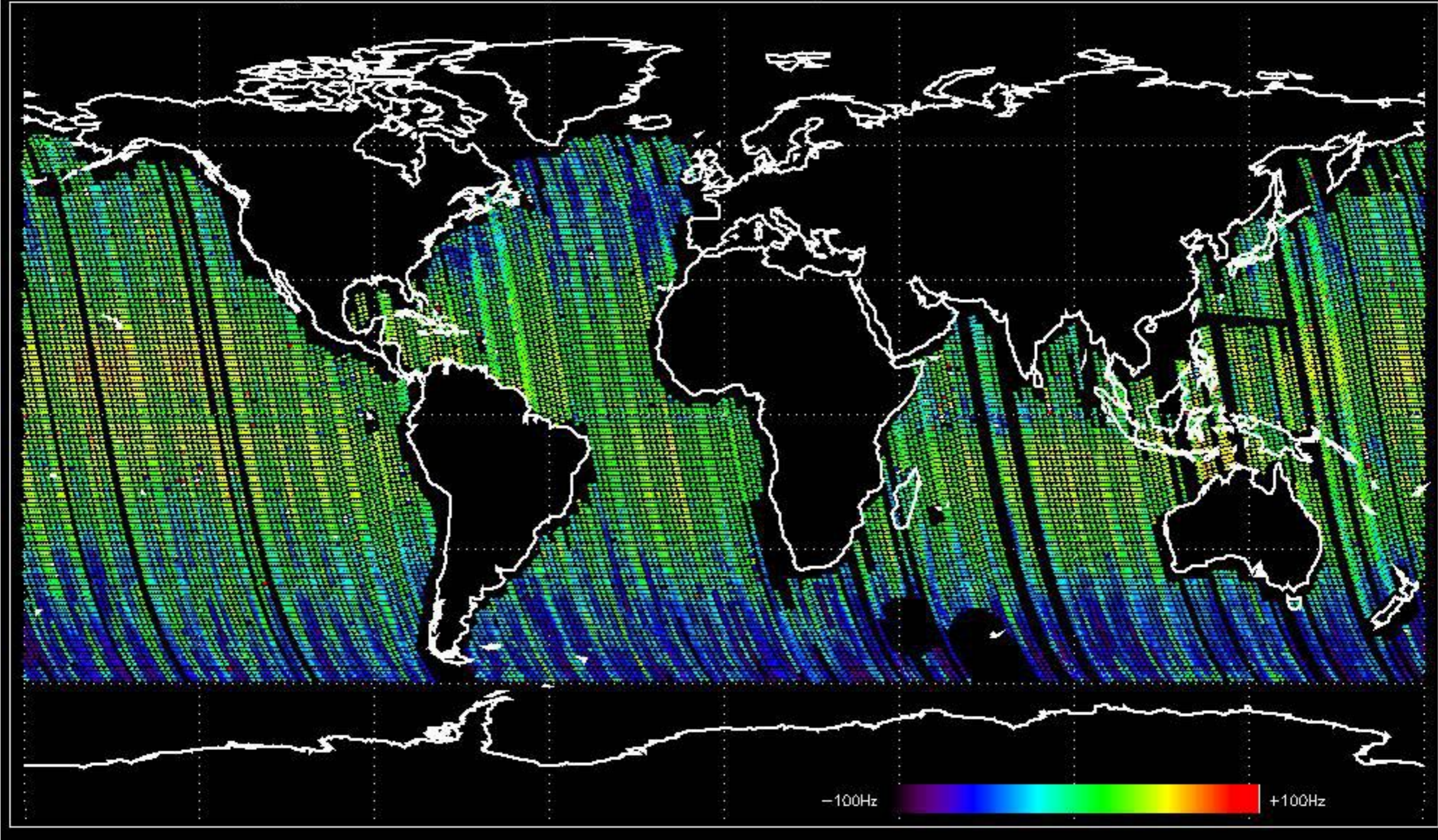
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -40.207152 Hz



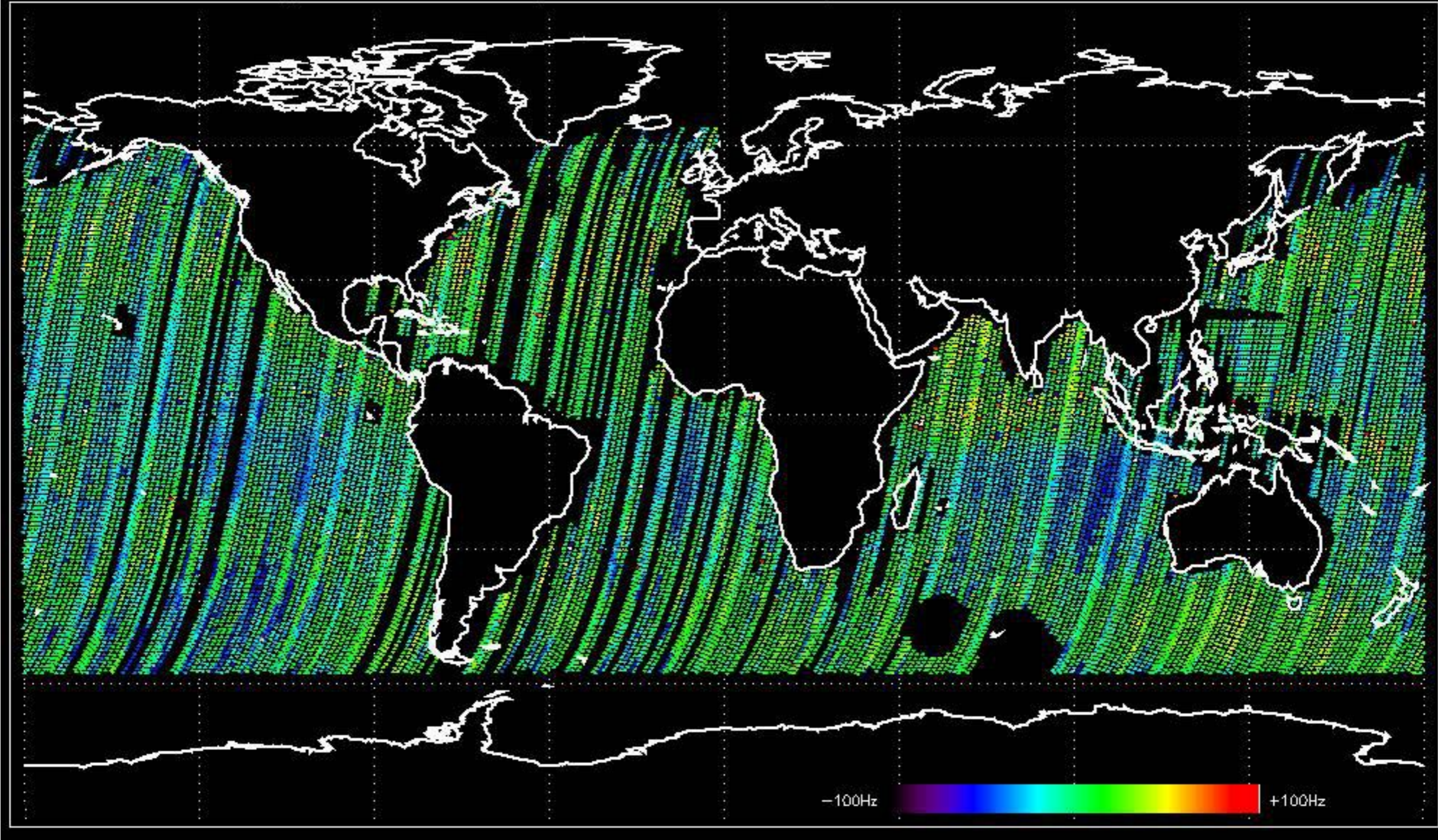
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -34.189754 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.653661 Hz

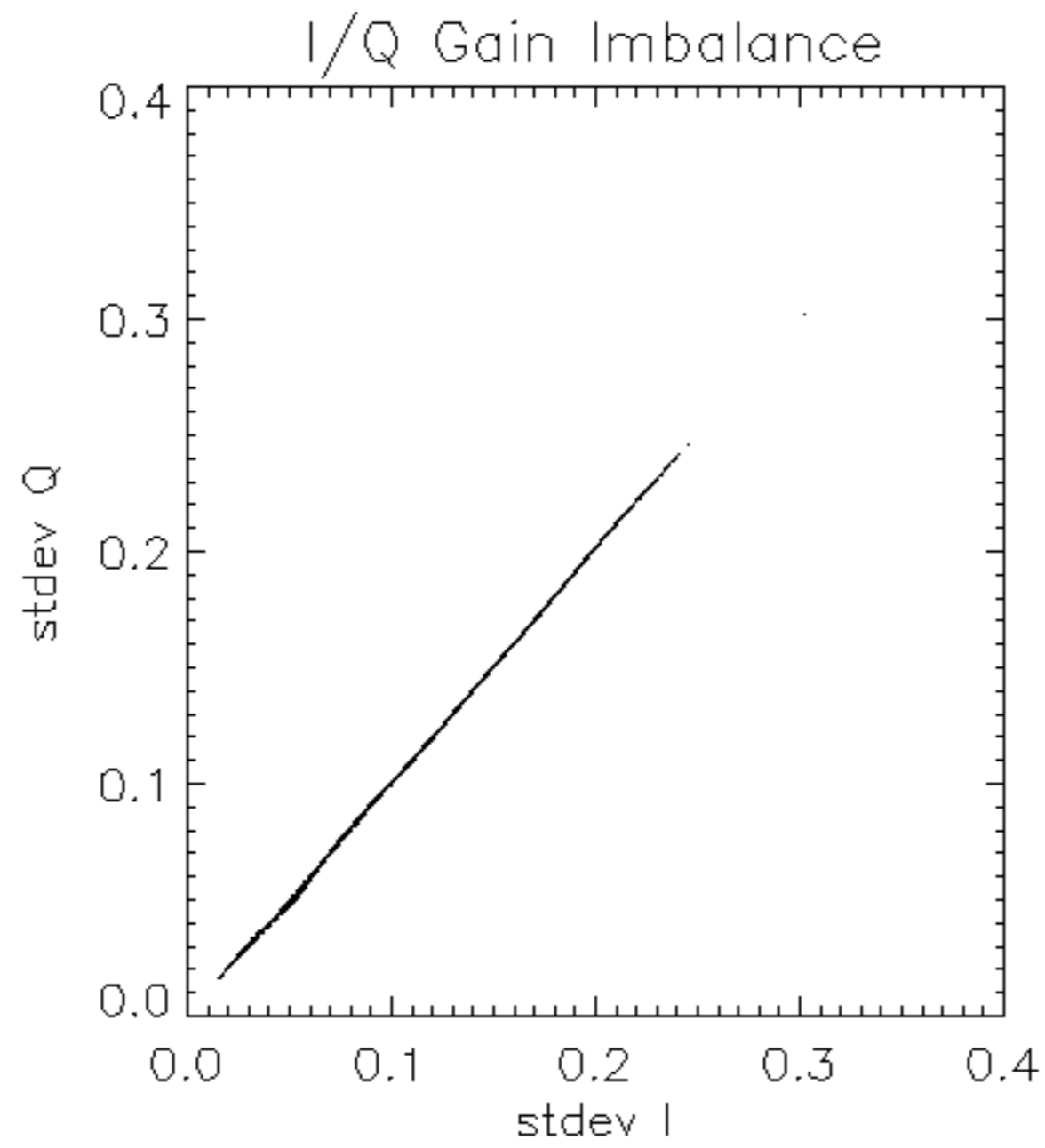


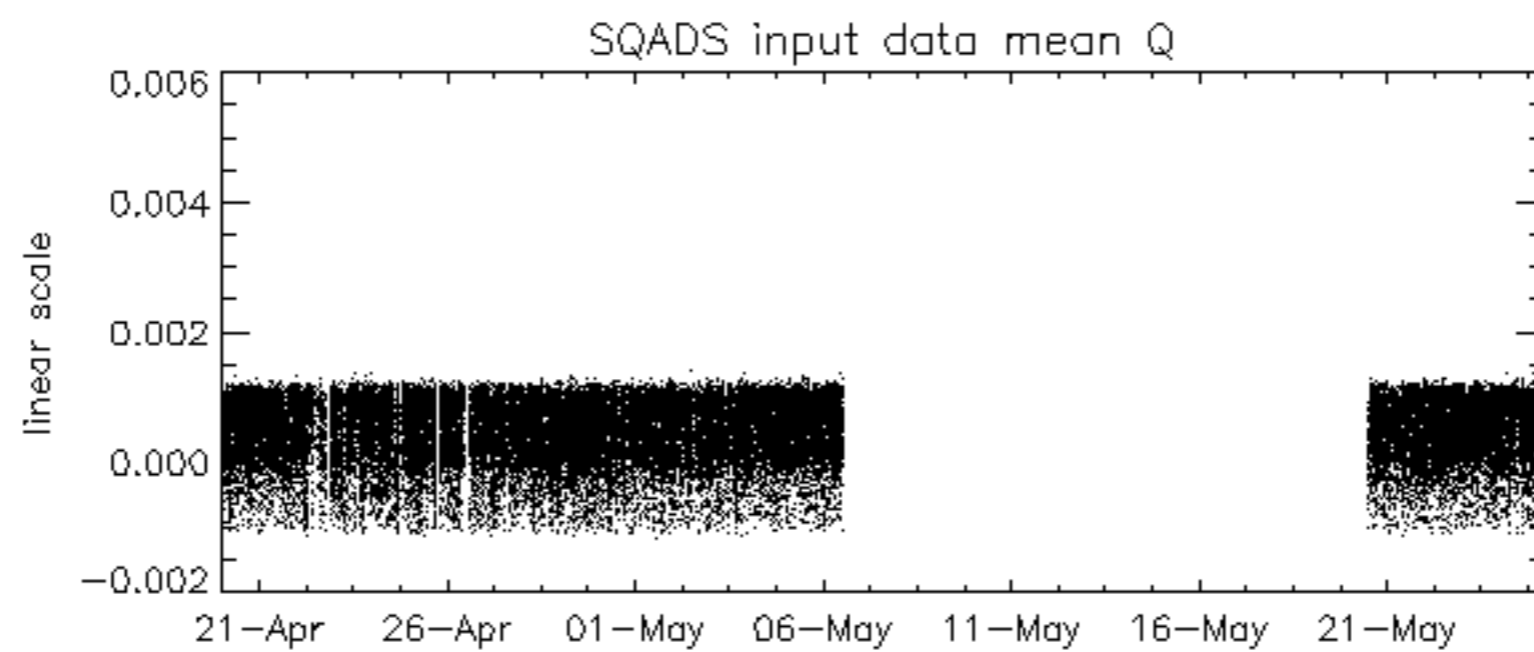
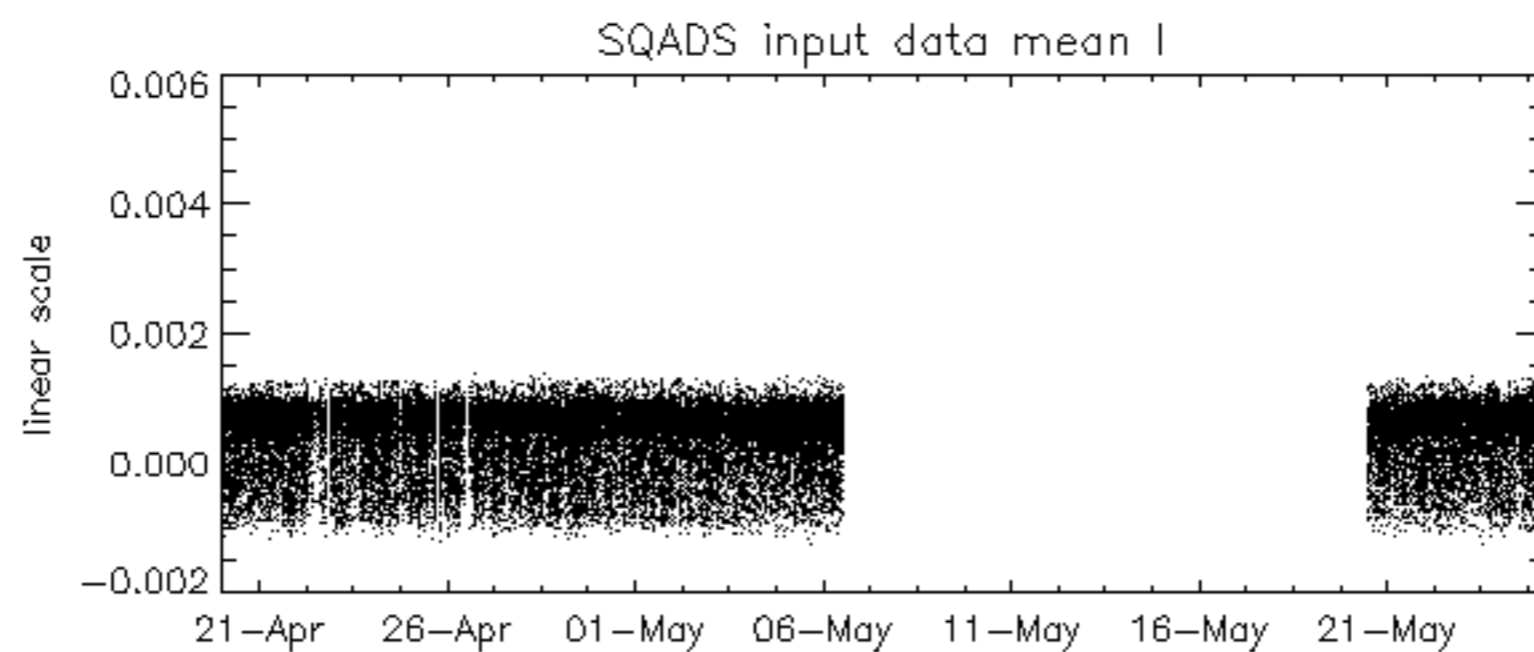
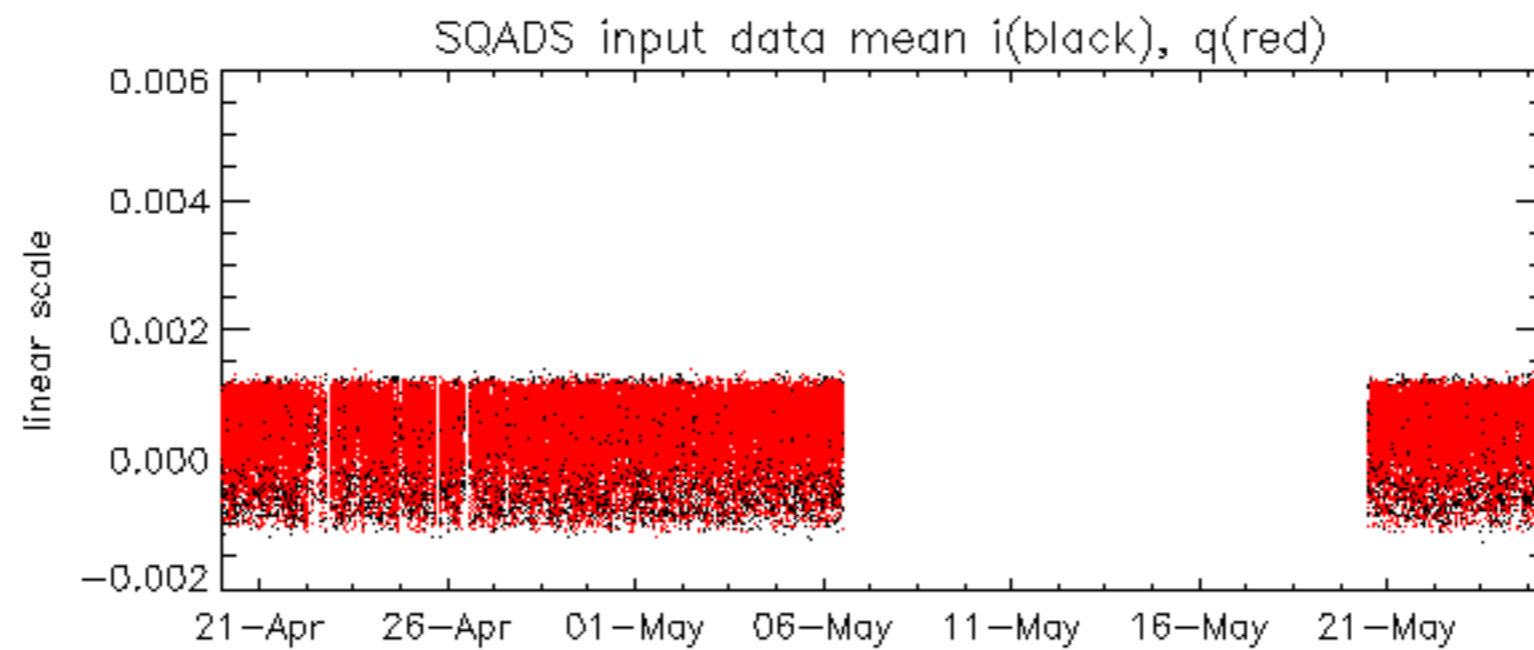
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.508181 Hz

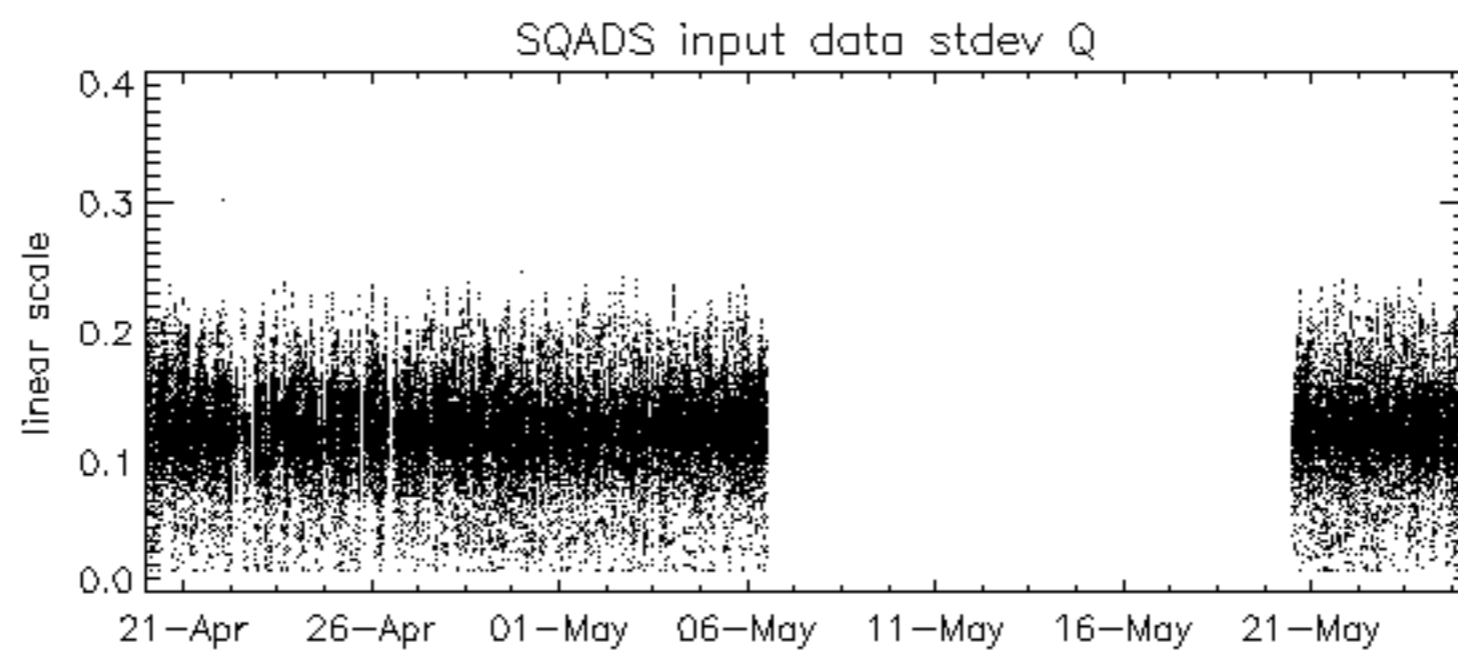
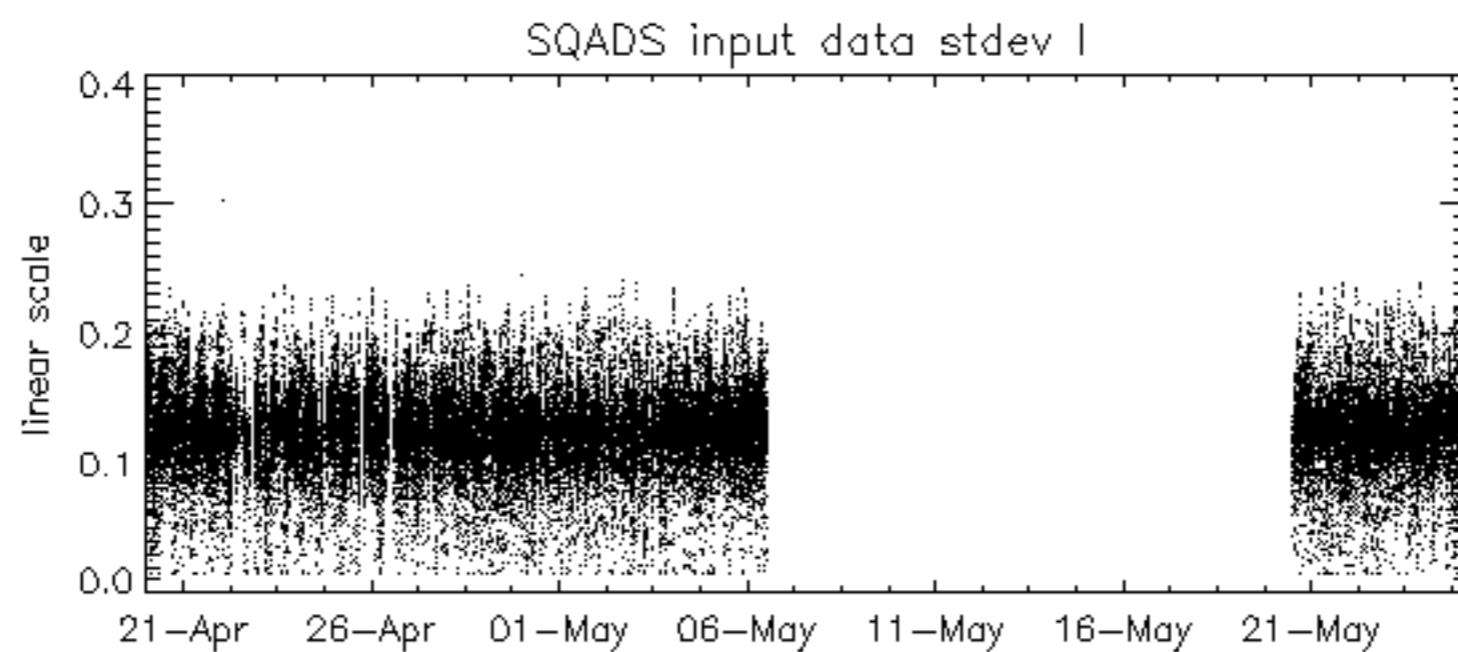
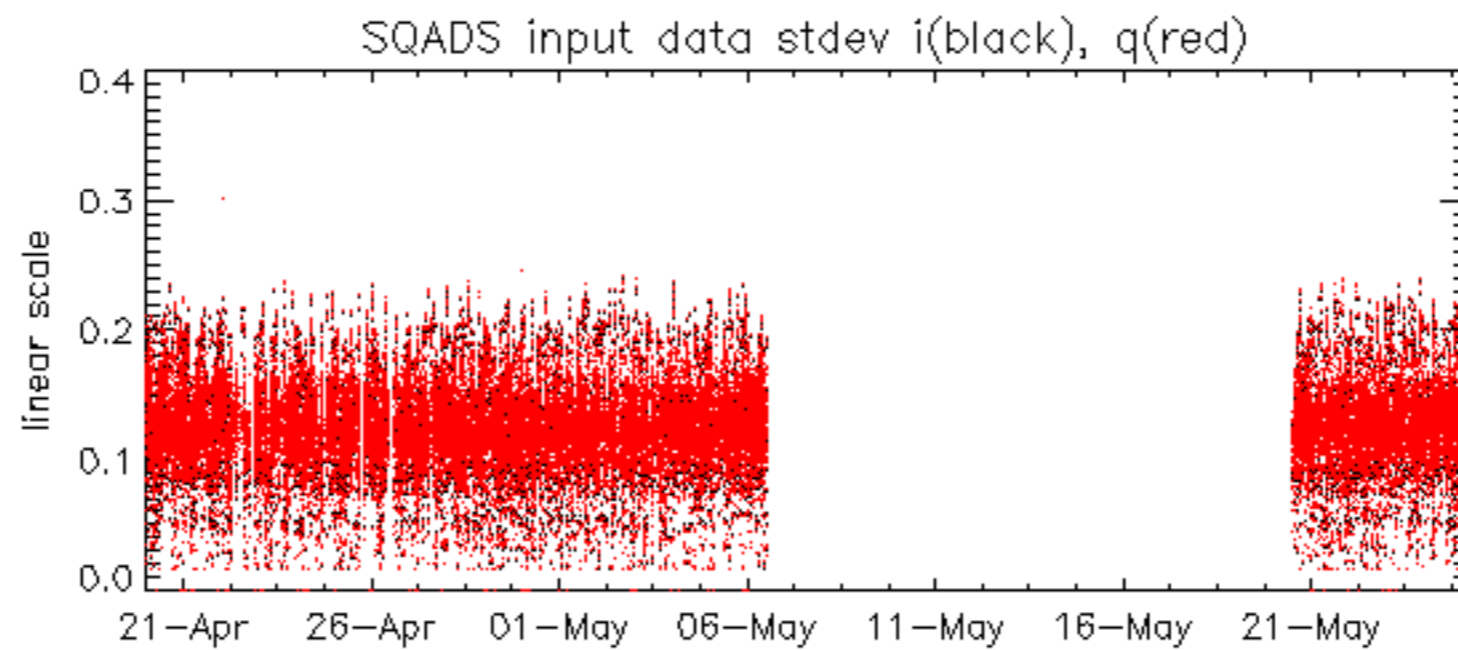


No anomalies observed on available MS products:

No anomalies observed.



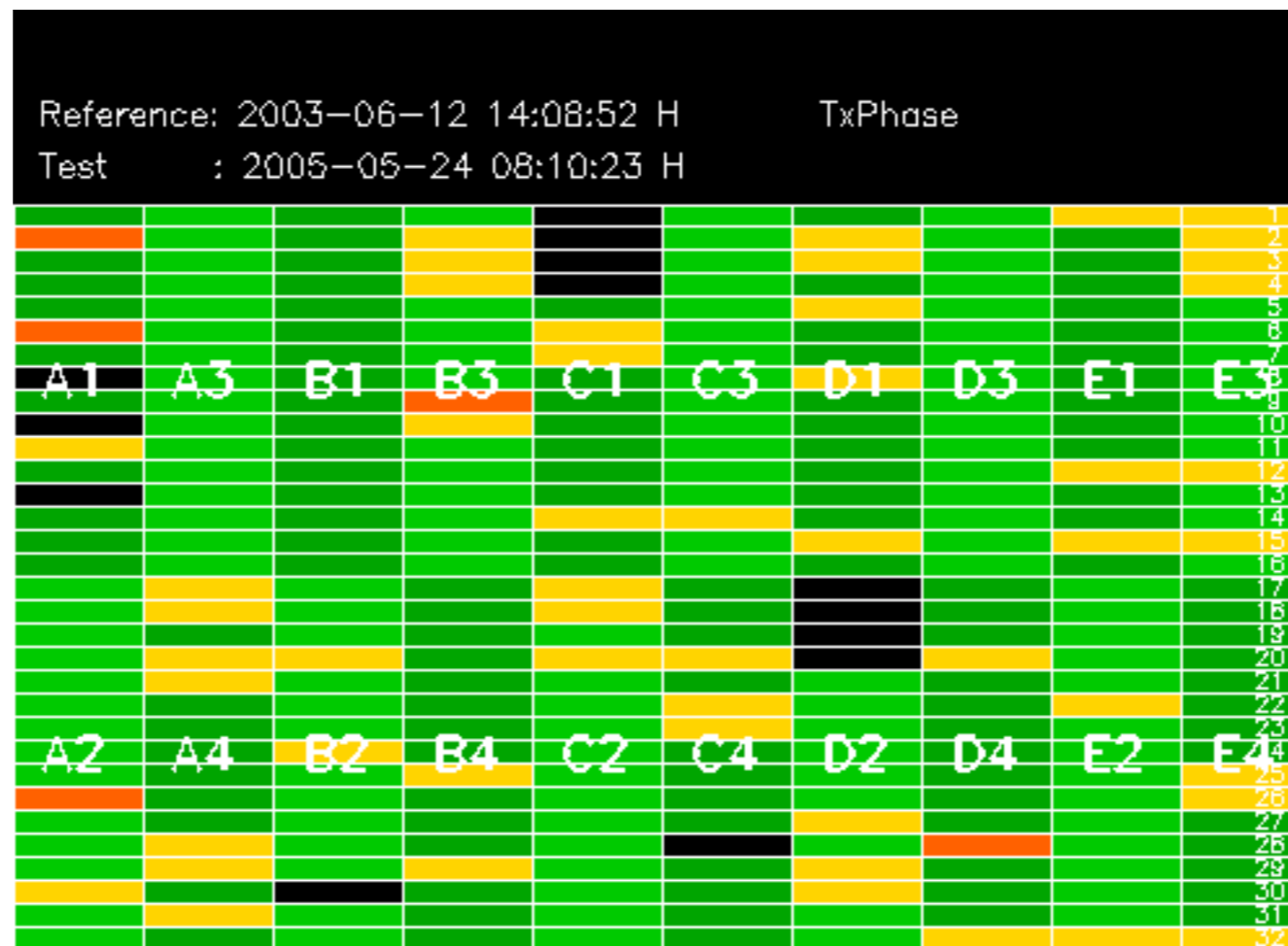


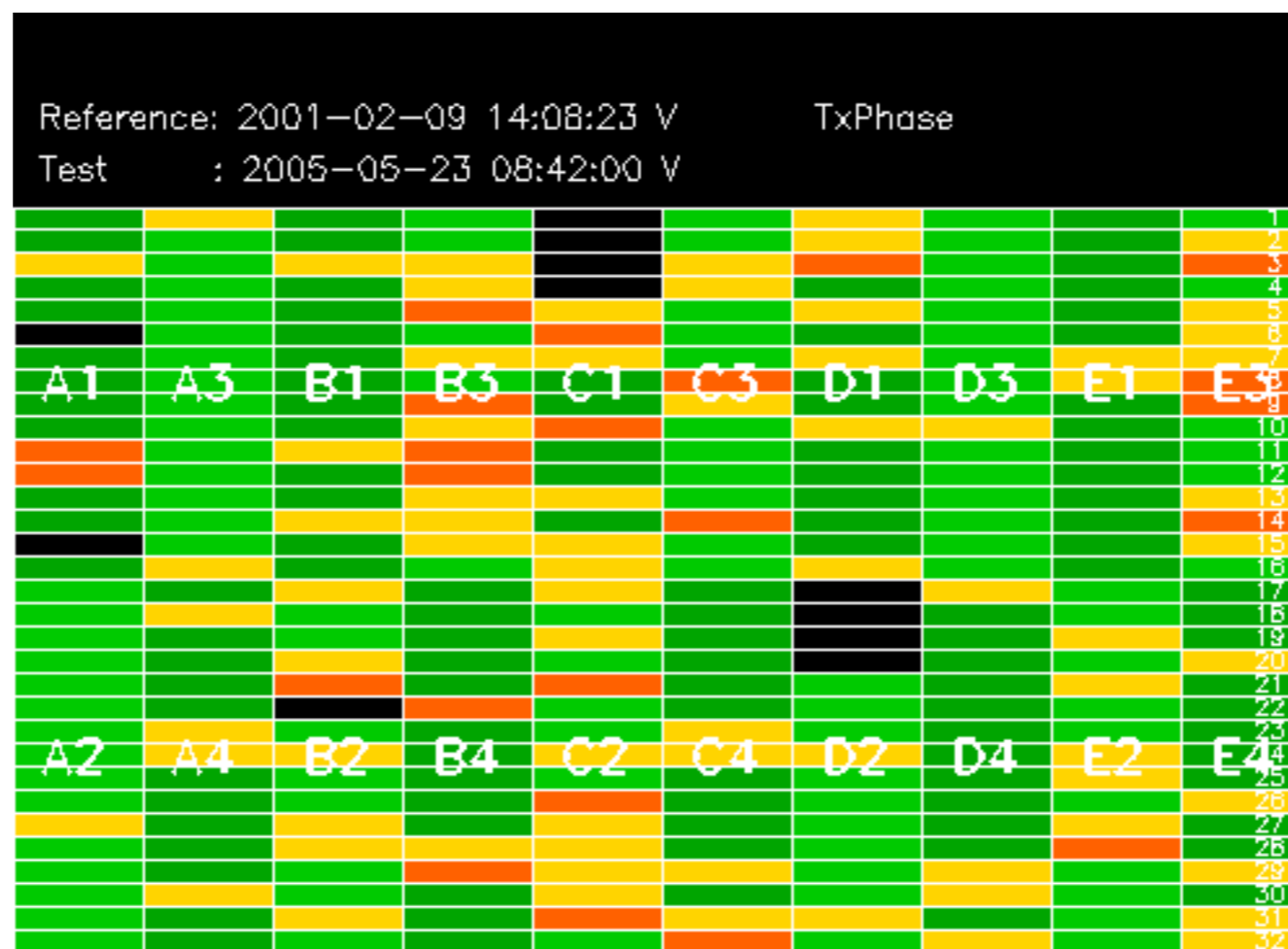


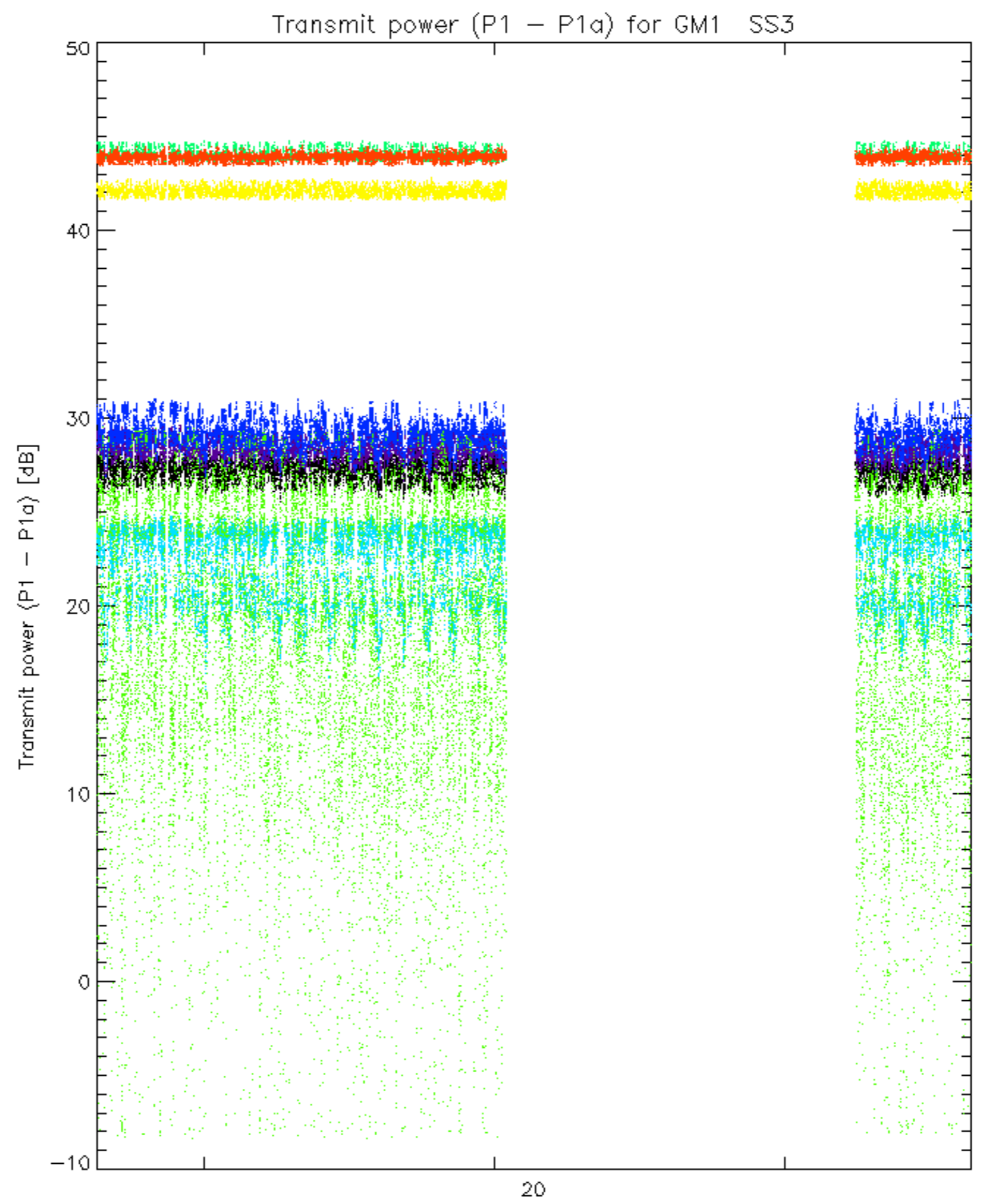
Summary of analysis for the last 3 days 2005052[345]

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

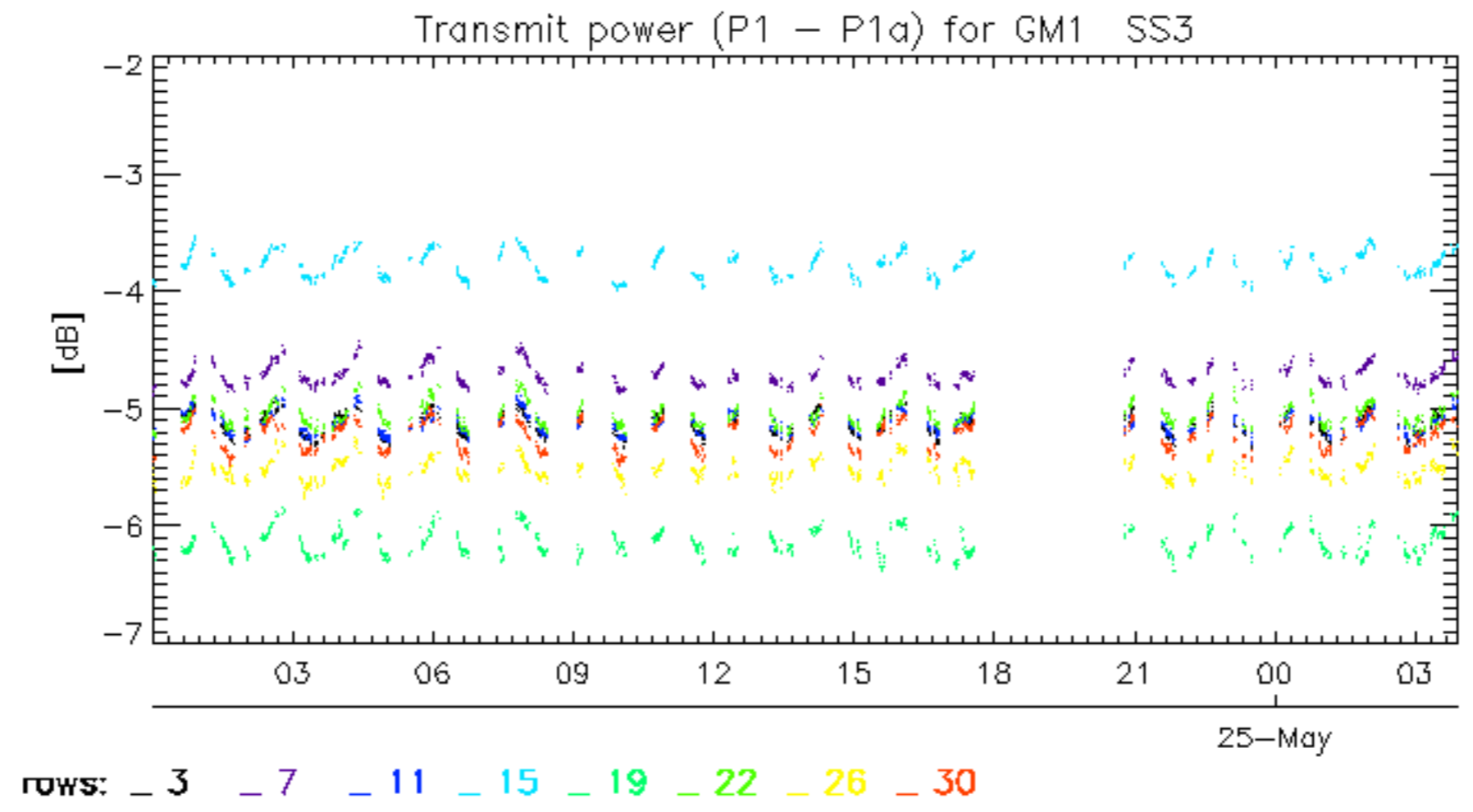
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050523_155735_00000802037_00298_16885_2380.N1	1	0
ASA_IMM_1PNPDK20050523_075014_00000682037_00293_16880_4980.N1	0	6
ASA_IMM_1PNPDK20050523_080440_000003682037_00293_16880_4977.N1	0	7
ASA_IMM_1PNPDK20050523_095107_000001162037_00294_16881_4983.N1	0	2
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_IMM_1PNPDK20050524_085741_00000542037_00308_16895_5045.N1	0	1
ASA_APM_1PNPDK20050523_075127_00000432037_00293_16880_2104.N1	0	1
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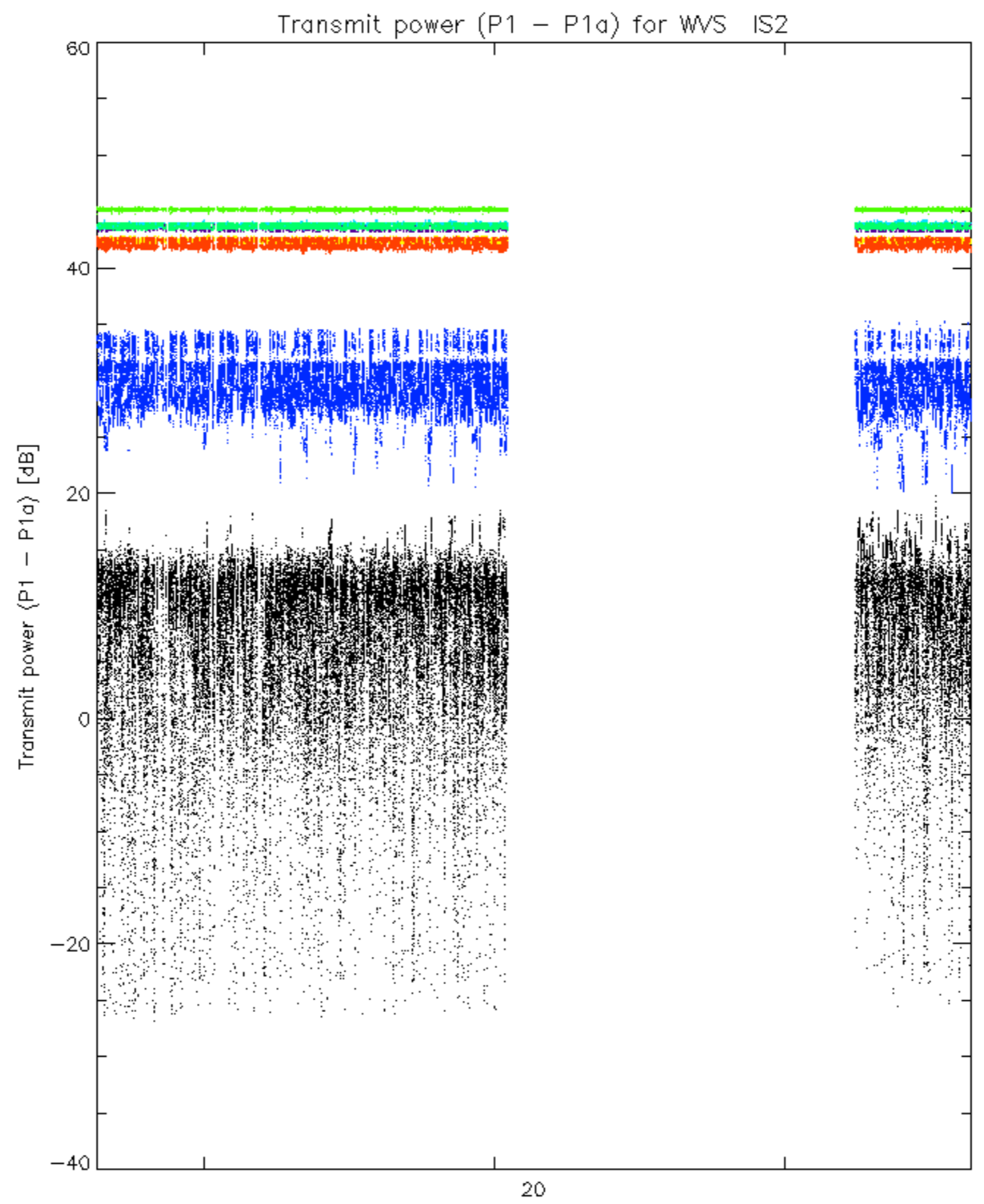




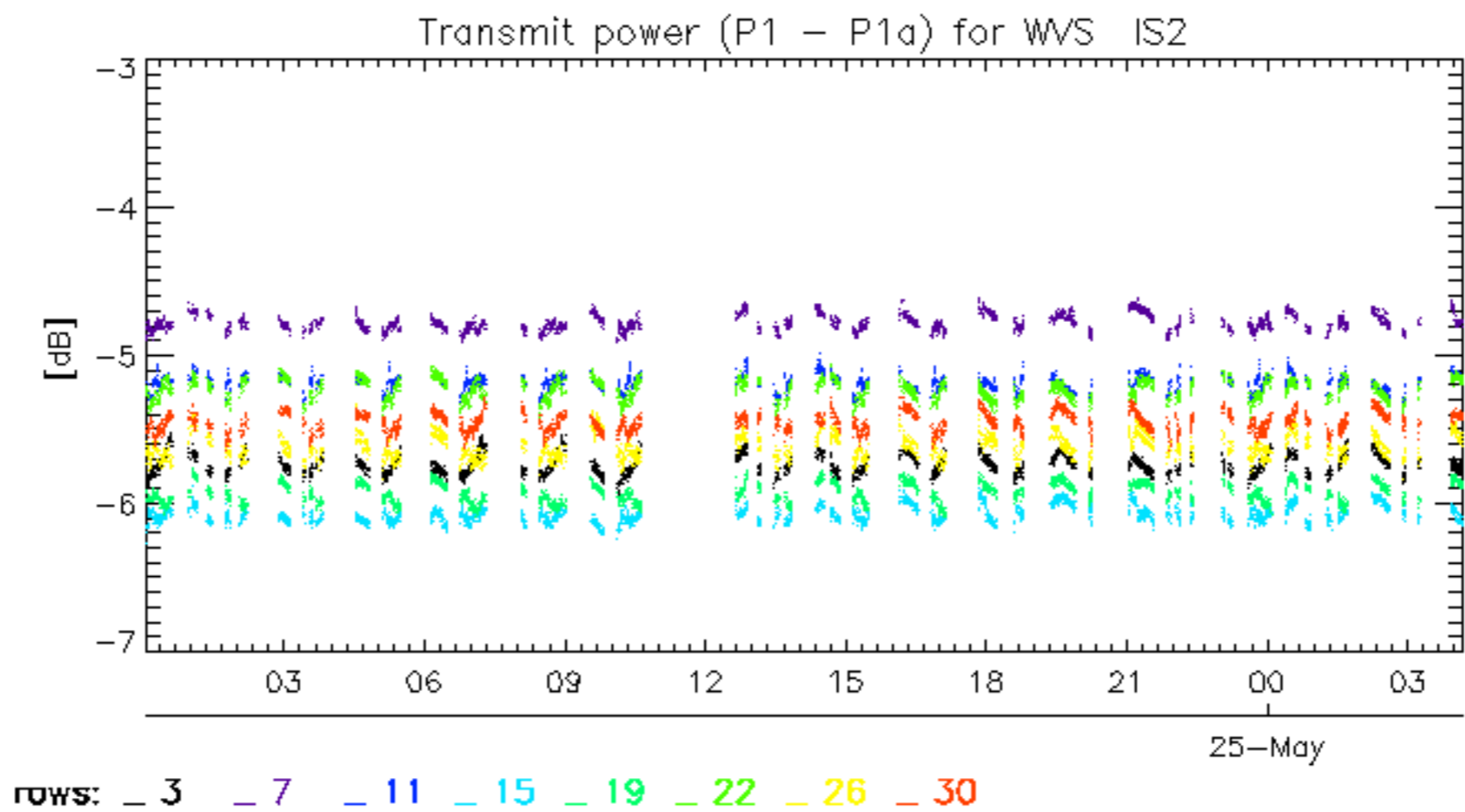


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No unavailabilities during the reported period.