

PRELIMINARY REPORT OF 040509

ATTENTION: This report is automatically generated no comments are provided on data analysis

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1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [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. [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 - Browse Visual Inspection

2.3 - Data Analysis

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

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied. No anomalies observed on available MS products:

Polarisation	Start Time
V	20040505 194126
H	20040506 190849

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

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.599505	0.083006	-0.067878
7	P1	-3.326252	0.061390	-0.070374
11	P1	-4.607457	0.029696	0.098064
15	P1	-4.946426	0.042728	0.123813
19	P1	-3.366435	0.005768	-0.032997
22	P1	-4.518924	0.013941	-0.010432
24	P1	-4.993915	0.015087	0.106344
28	P1	-4.593354	0.013740	0.013078

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.407101	0.081439	-0.049880

7	P2	-22.878424	0.117942	-0.042582
11	P2	-15.832024	0.133875	0.153602
15	P2	-7.166440	0.091913	-0.042978
19	P2	-9.524080	0.140421	-0.000540
22	P2	-17.639040	0.096144	0.040607
24	P2	-20.959389	0.103318	0.055952
28	P2	-16.605579	0.083639	-0.005361

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.134749	0.003175	-0.010860
7	P3	-8.134748	0.003175	-0.010862
11	P3	-8.134752	0.003176	-0.010866
15	P3	-8.134758	0.003175	-0.010853
19	P3	-8.134763	0.003175	-0.010826
22	P3	-8.134768	0.003174	-0.010789
24	P3	-8.134770	0.003174	-0.010771
28	P3	-8.134896	0.003171	-0.010781

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.247185	0.316760	-0.014744
7	P1	-2.879978	0.268856	-0.132850
11	P1	-3.812771	0.021799	0.045710
15	P1	-4.014793	0.352938	0.227654
19	P1	-3.262460	0.060491	-0.123338
22	P1	-5.793215	0.043310	0.124183
24	P1	-4.052568	0.085570	0.054483
28	P1	-2.880057	0.068711	-0.100658

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.121655	0.041012	-0.080979
7	P2	-22.989885	0.027382	0.007974
11	P2	-11.067188	0.194552	-0.167824
15	P2	-4.935593	0.031052	-0.119731
19	P2	-6.841448	0.031995	-0.098463
22	P2	-7.705840	0.028780	-0.033999
24	P2	-11.026126	0.058073	-0.120043
28	P2	-19.027863	0.027394	-0.058125

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.970711	0.003659	-0.019450
7	P3	-7.970747	0.003659	-0.018970
11	P3	-7.970613	0.003655	-0.019083
15	P3	-7.970607	0.003671	-0.019353
19	P3	-7.970682	0.003656	-0.019529
22	P3	-7.970891	0.003639	-0.019268
24	P3	-7.970541	0.003673	-0.019025
28	P3	-7.970583	0.003672	-0.019466

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	0.000491198
	stdev	2.25441e-07
MEAN Q	mean	0.000510505
	stdev	2.60183e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128550
	stdev	0.00110315
STDEV Q	mean	0.128796
	stdev	0.00111623





5.3 - Gain imbalance I/Q



6 - Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

Ascending

Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

6.3 - Doppler evolution versus ANX for WVS**Evolution Doppler error versus ANX**

<input type="checkbox"/>

6.4 - Unbiased Doppler Error for GM1**Evolution of unbiased Doppler error (Real - Expected)**

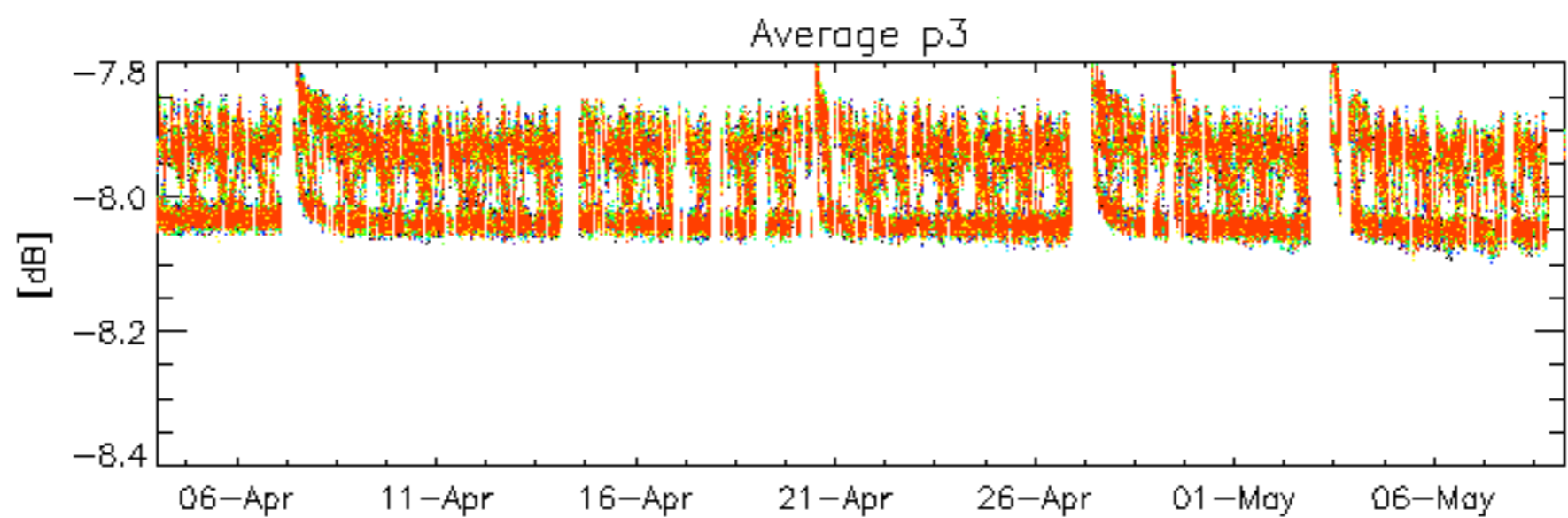
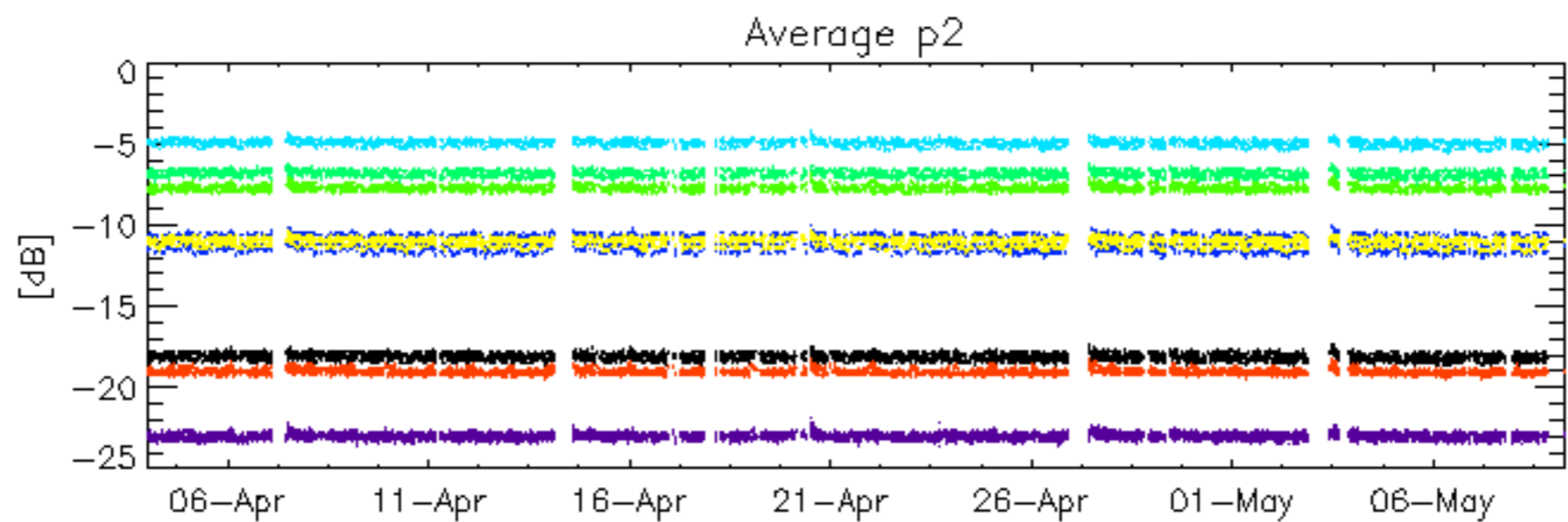
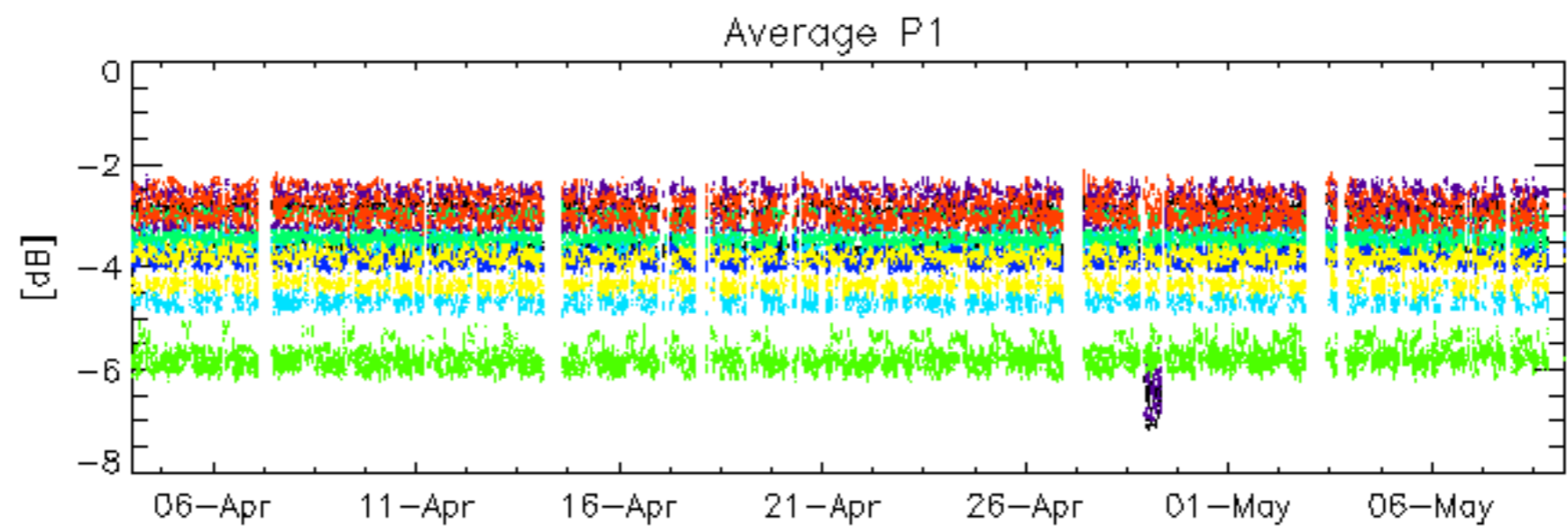
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

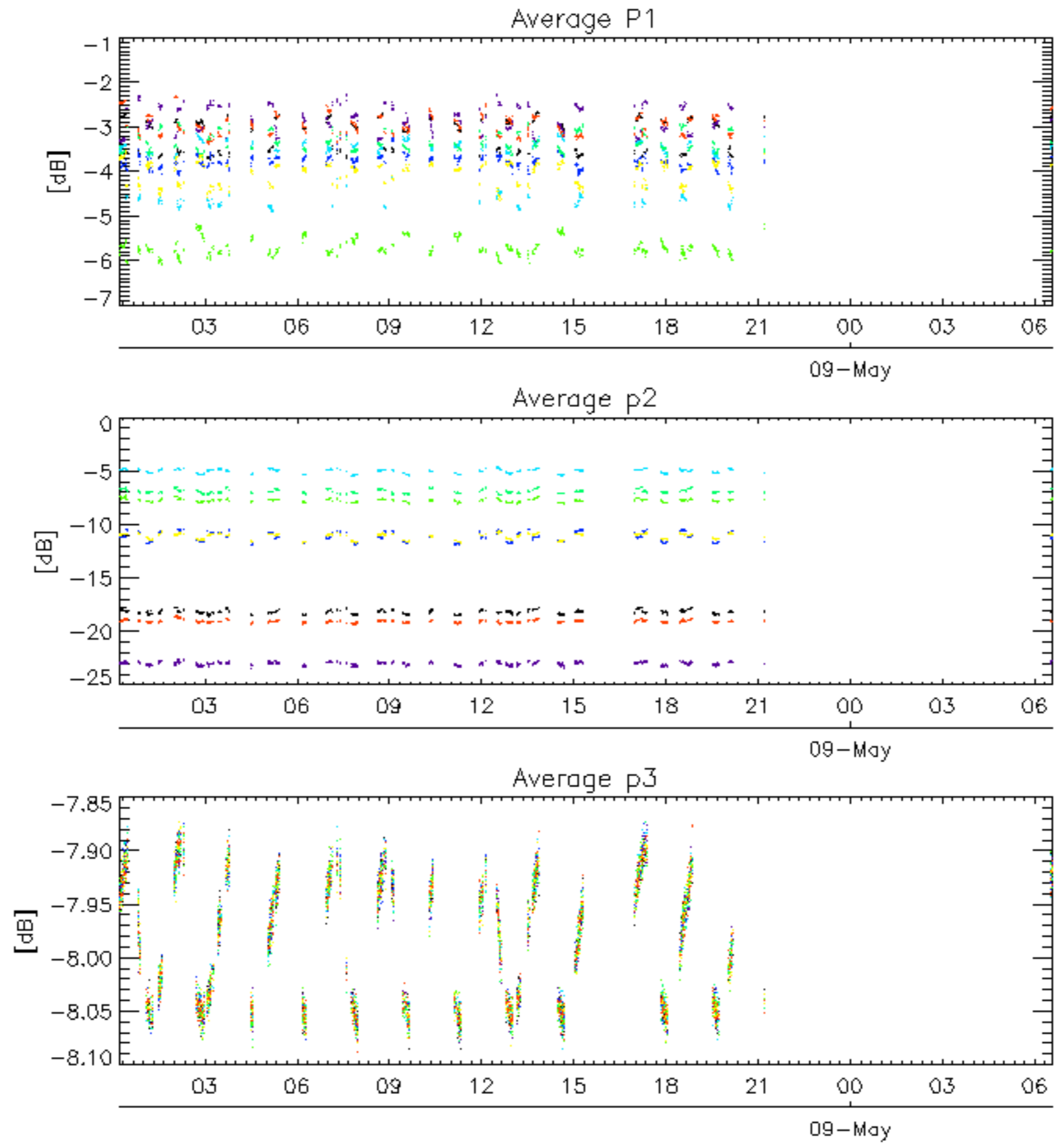
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

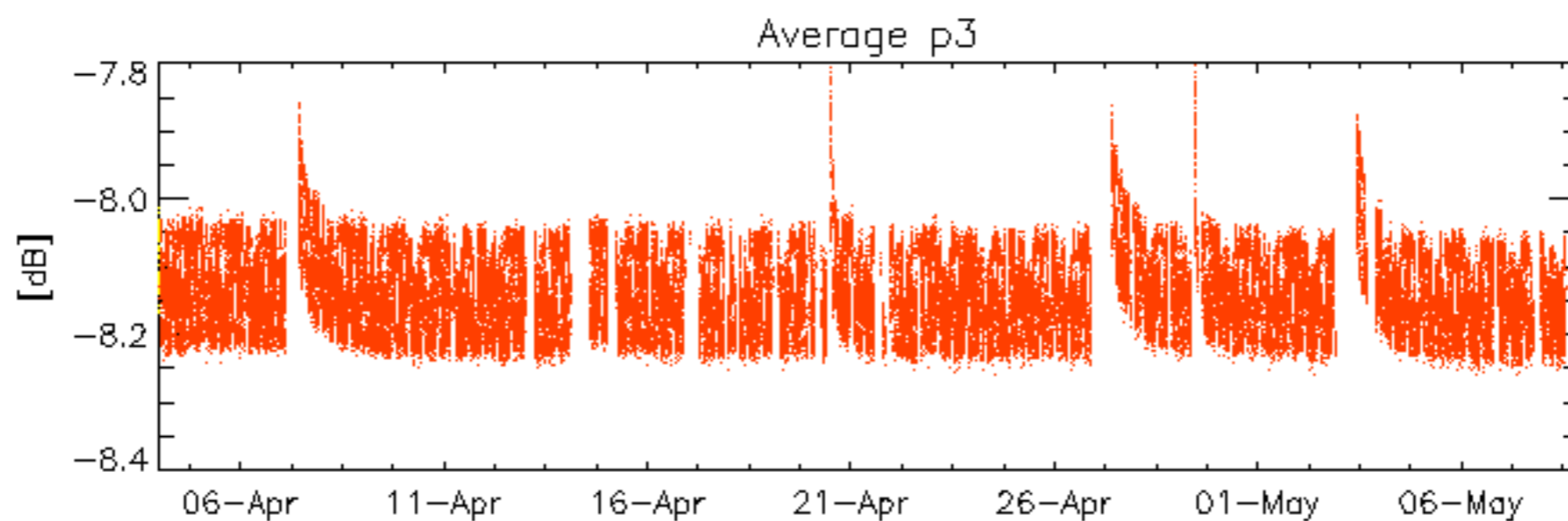
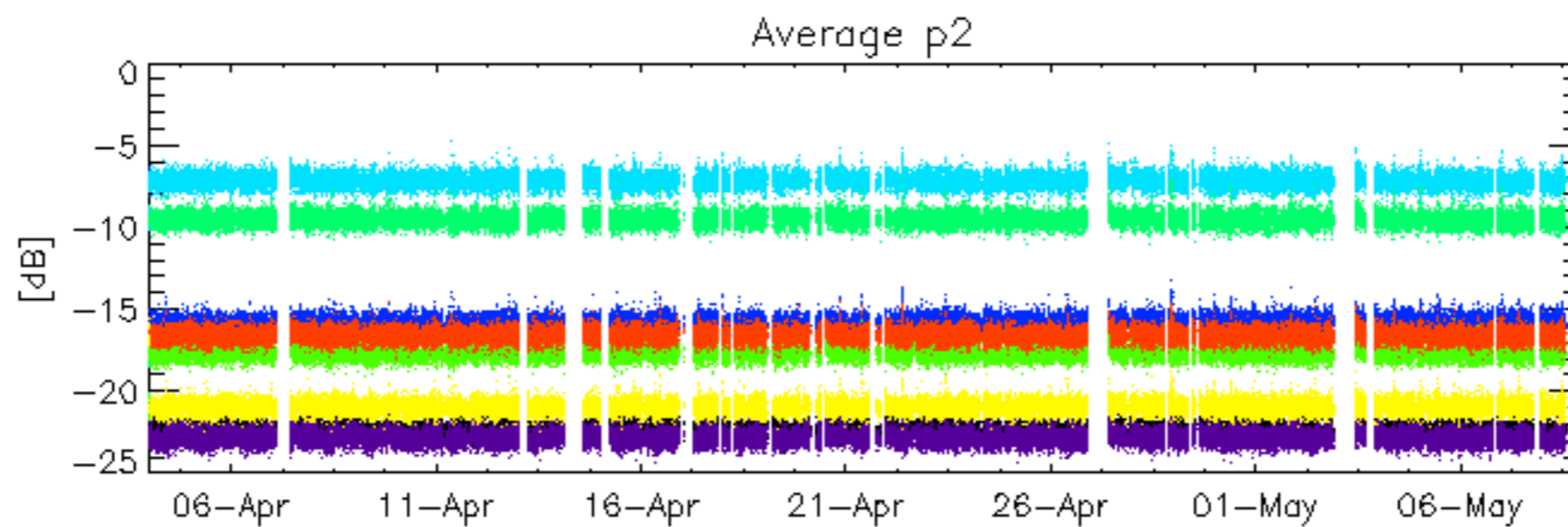
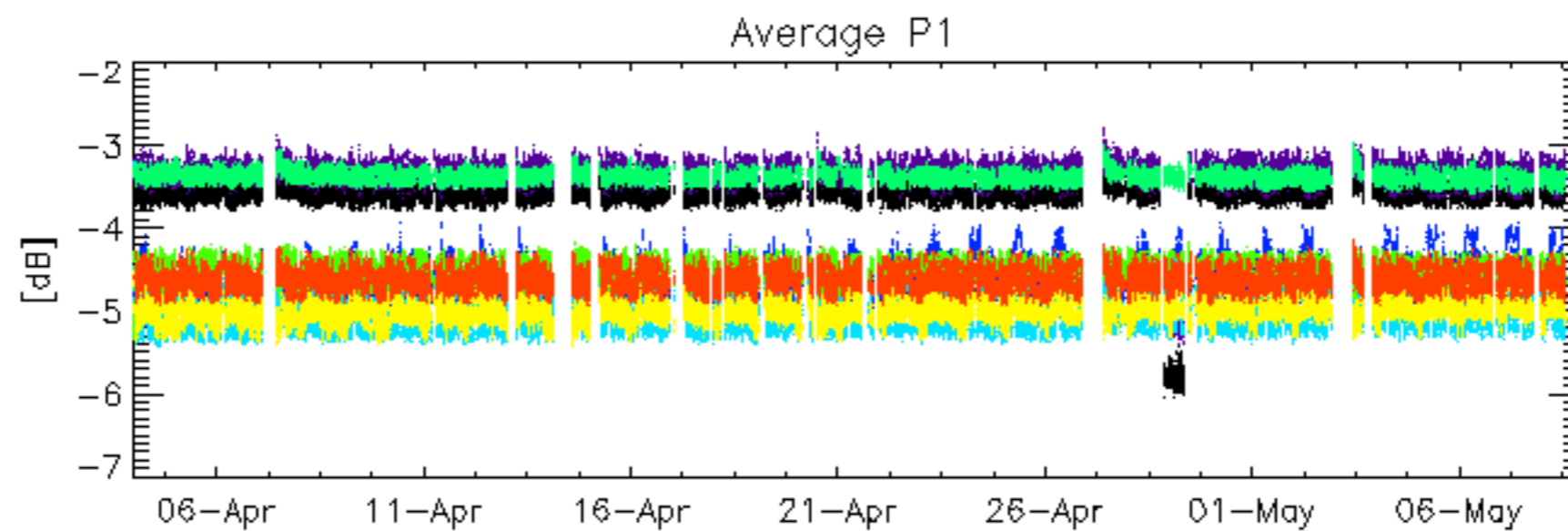
<input type="checkbox"/>



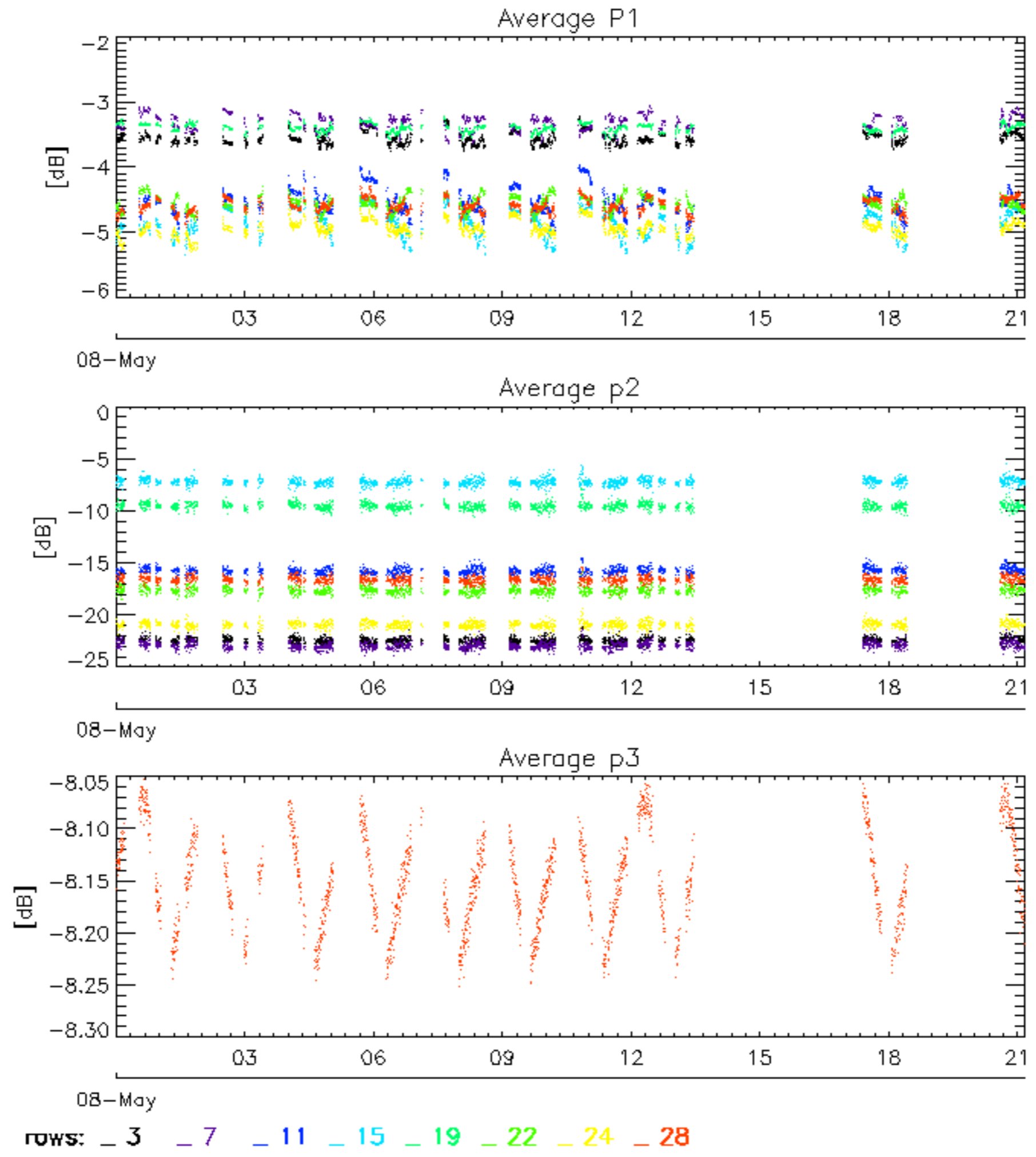
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



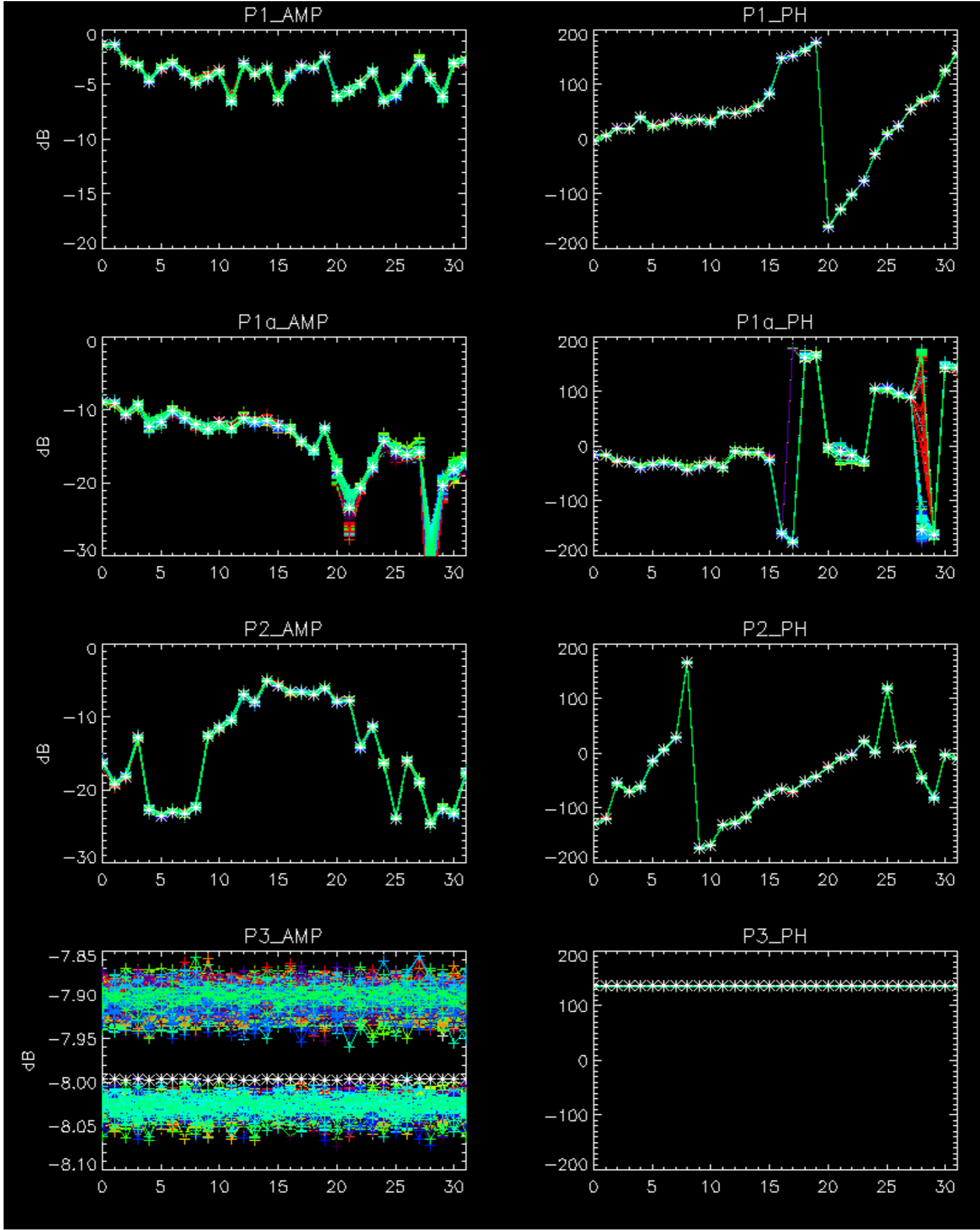
rows: **3** **7** **11** **15** **19** **22** **24** **28**

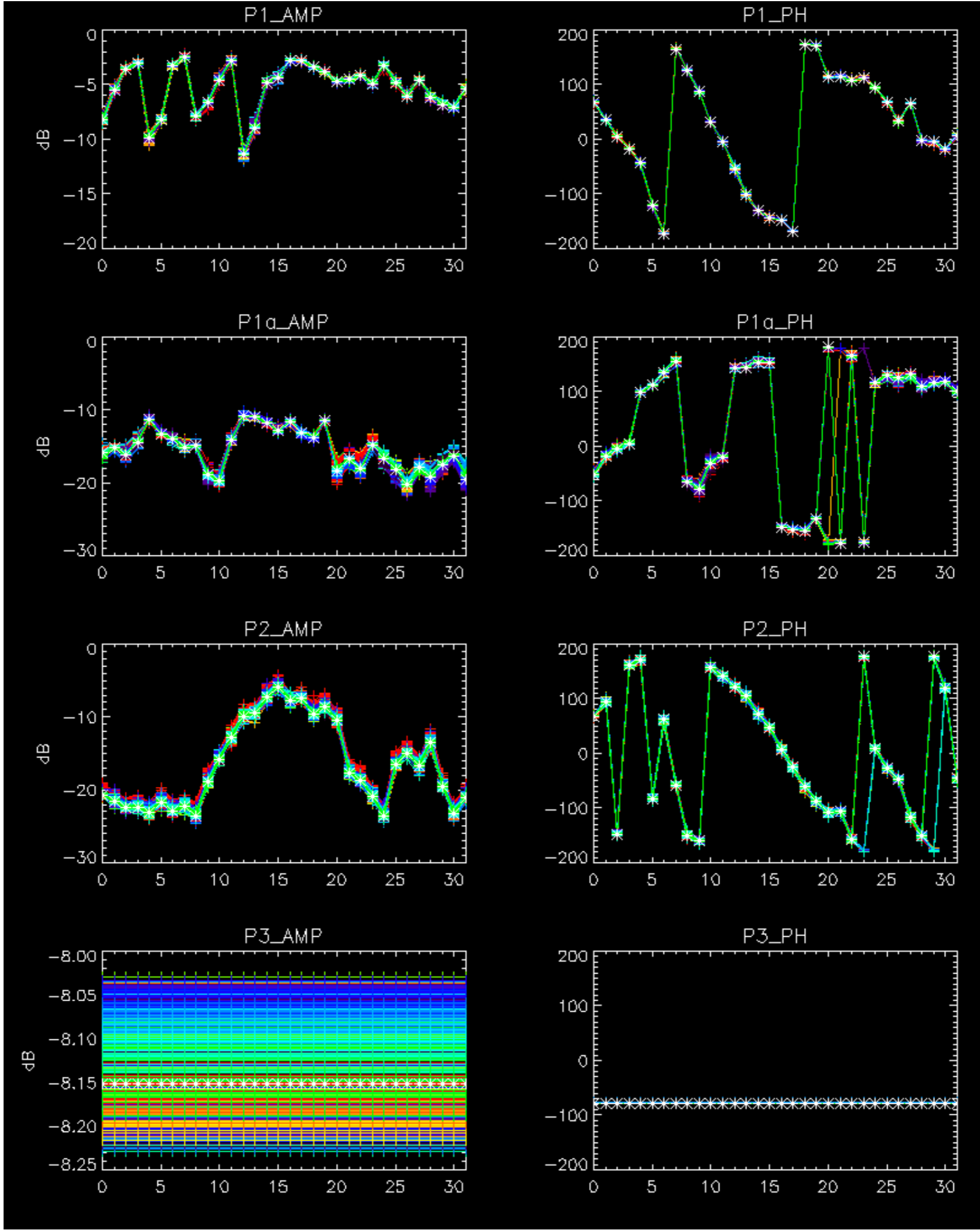


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



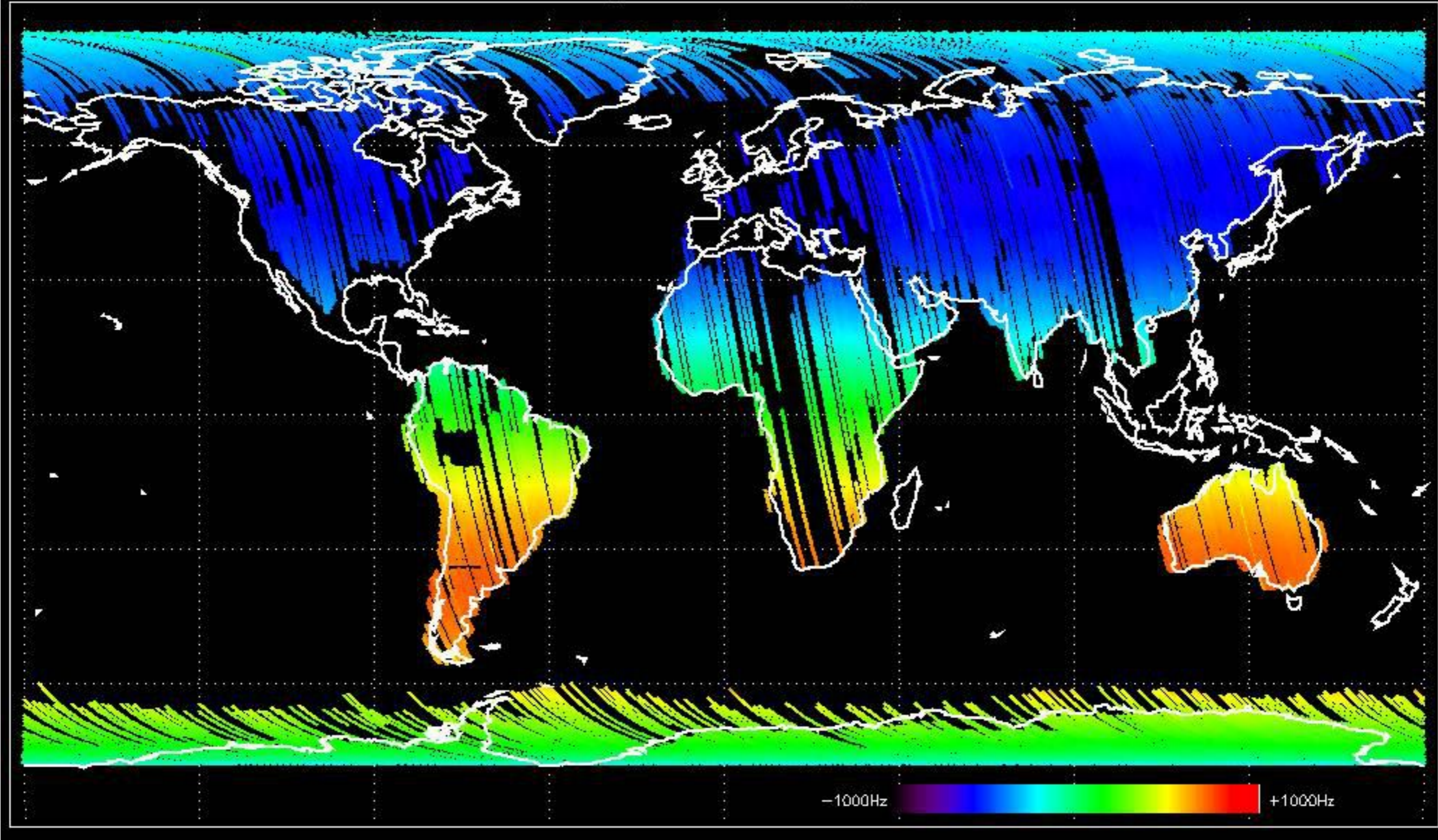
No anomalies observed.



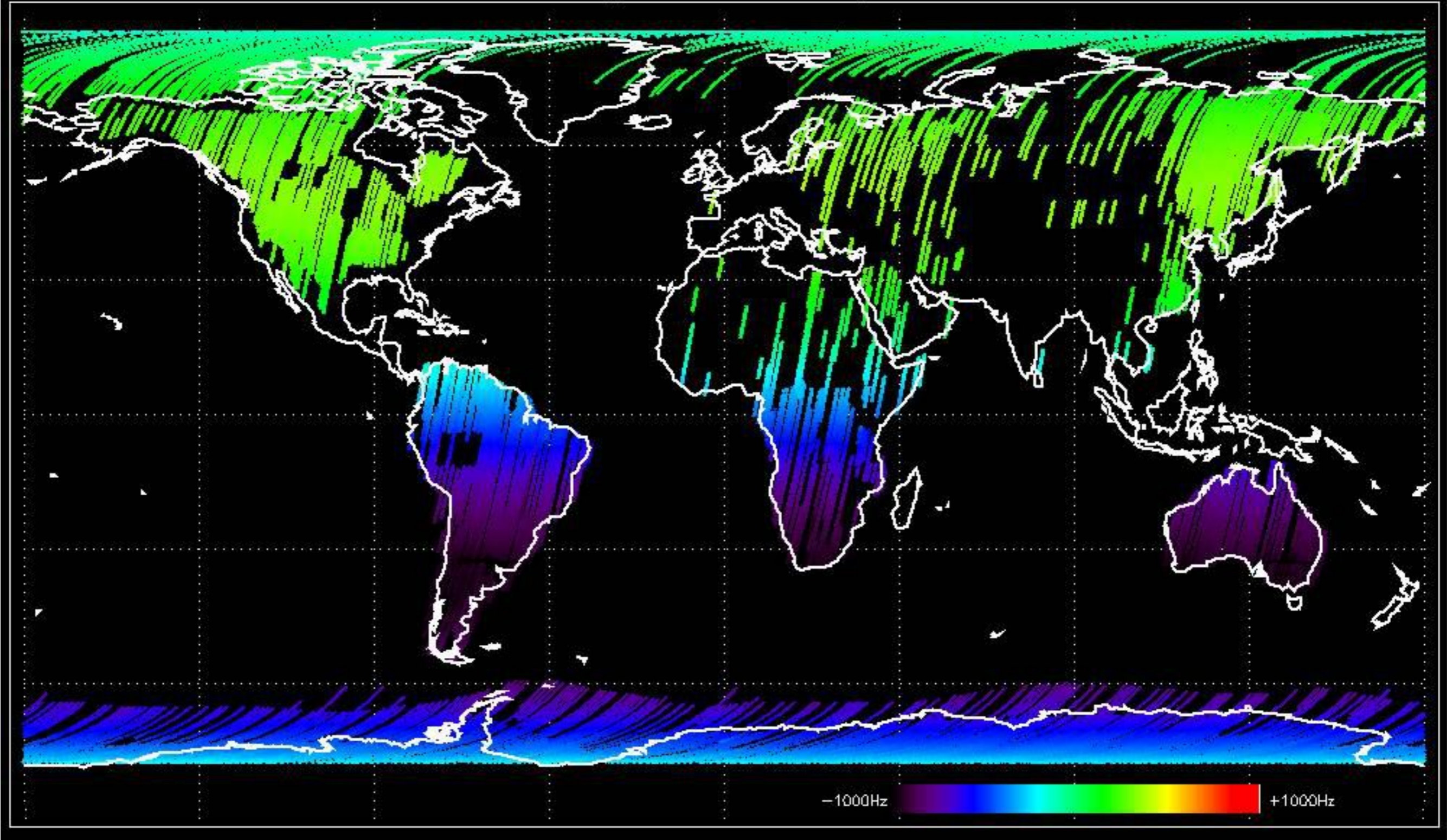


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

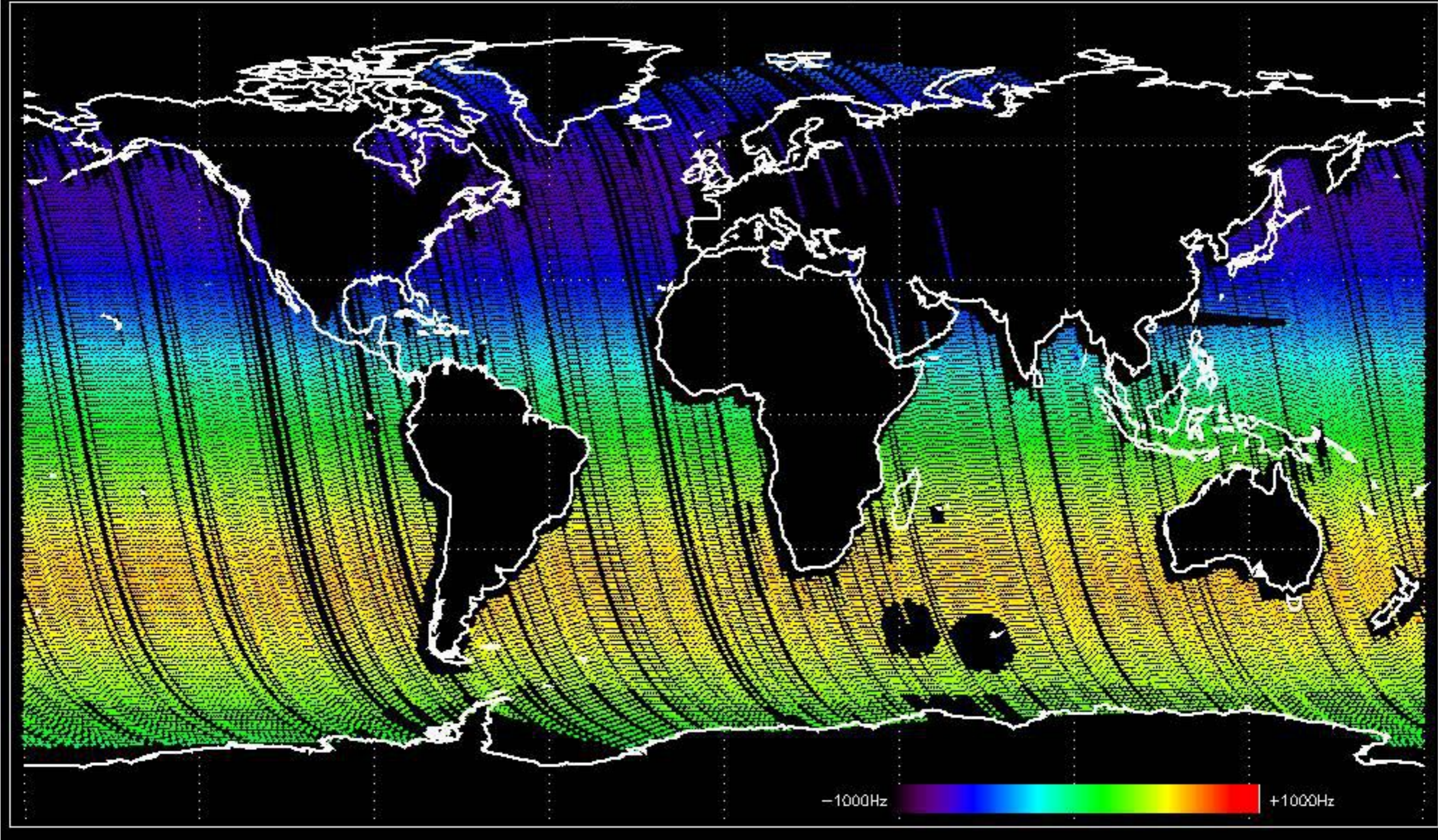
Doppler 'GM1' 'SS1' ascending



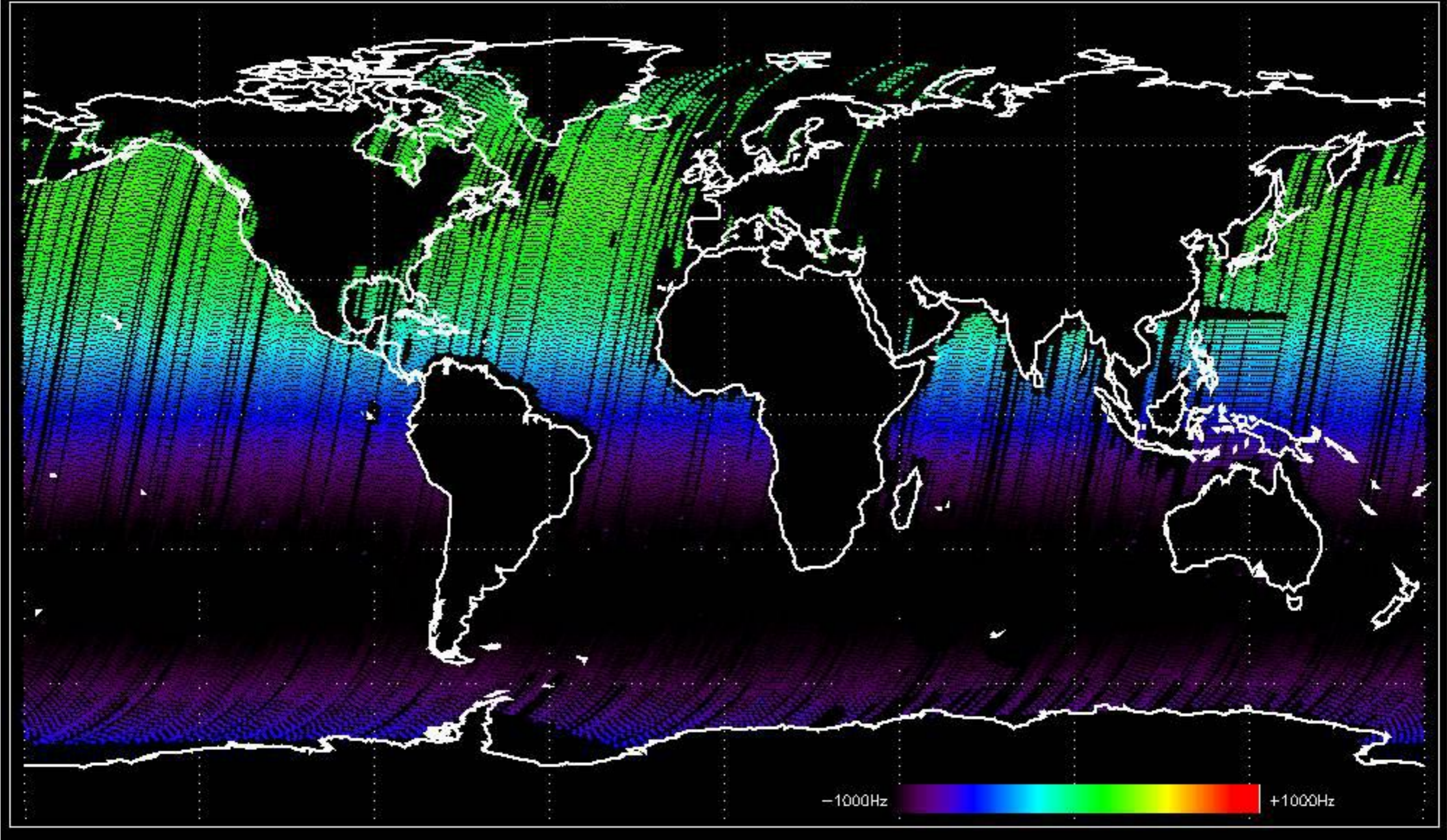
Doppler 'GM1' 'SS1' descending

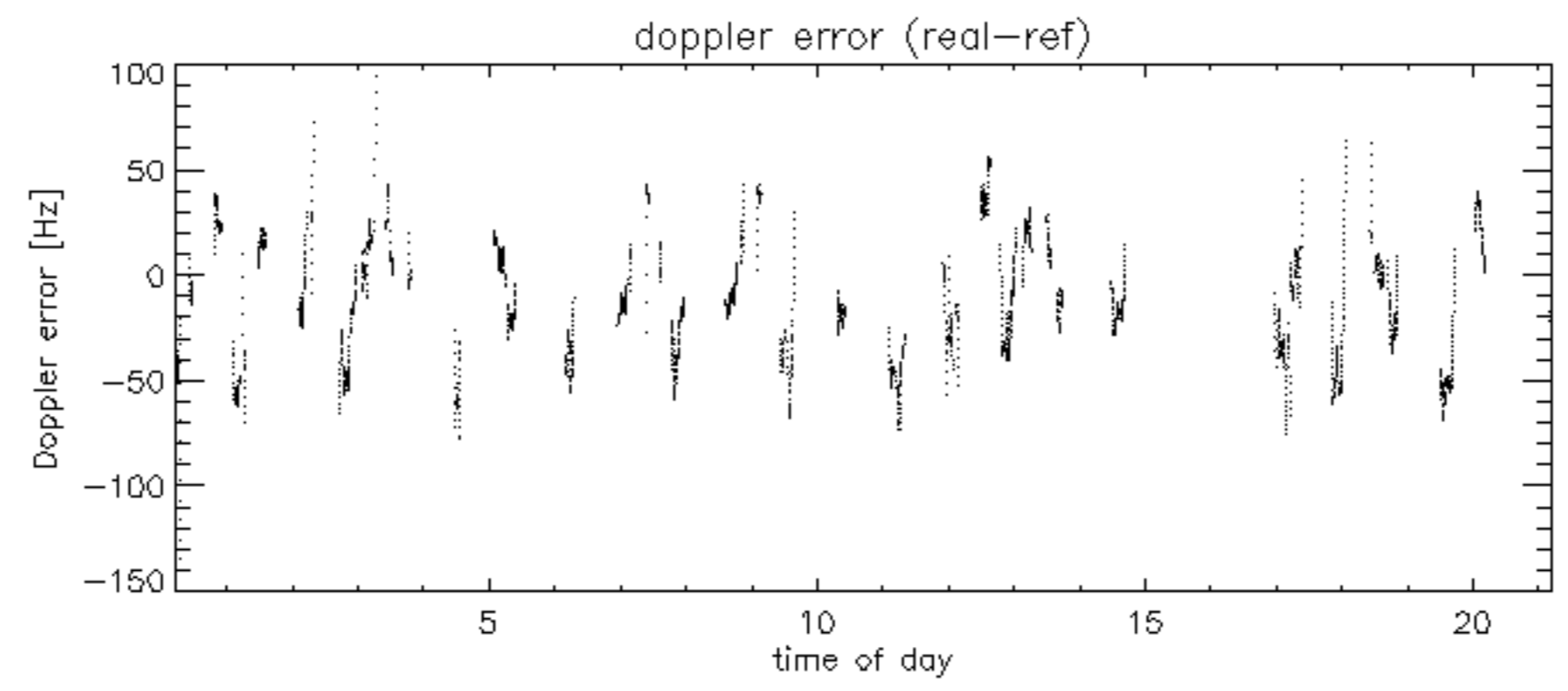
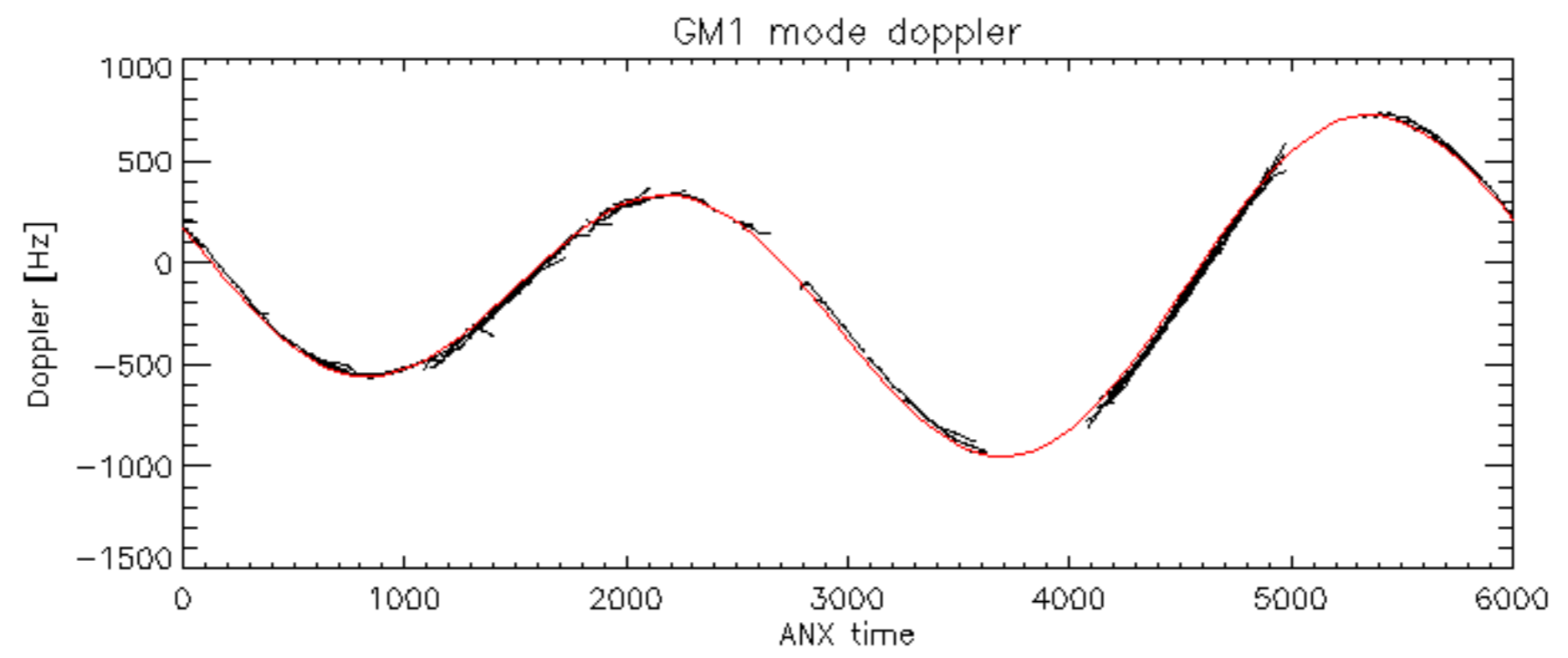


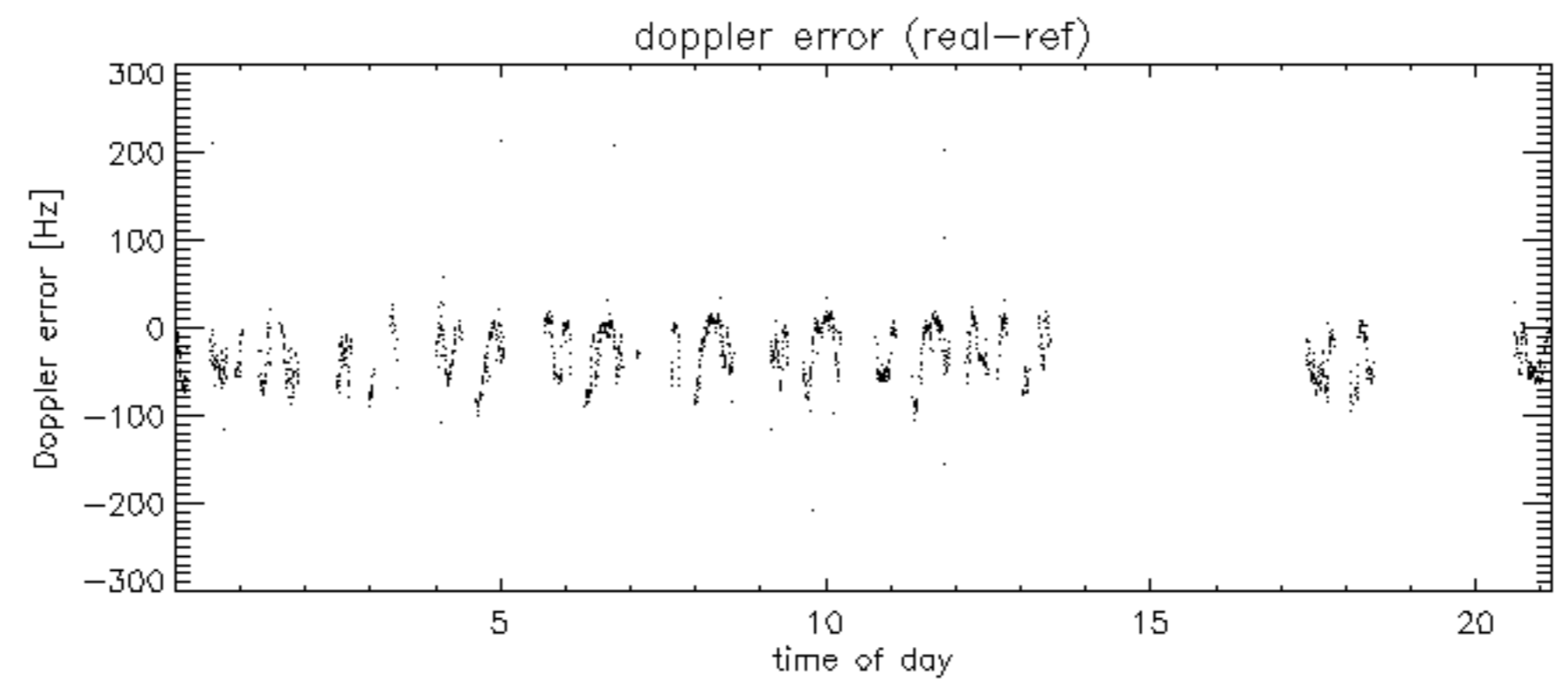
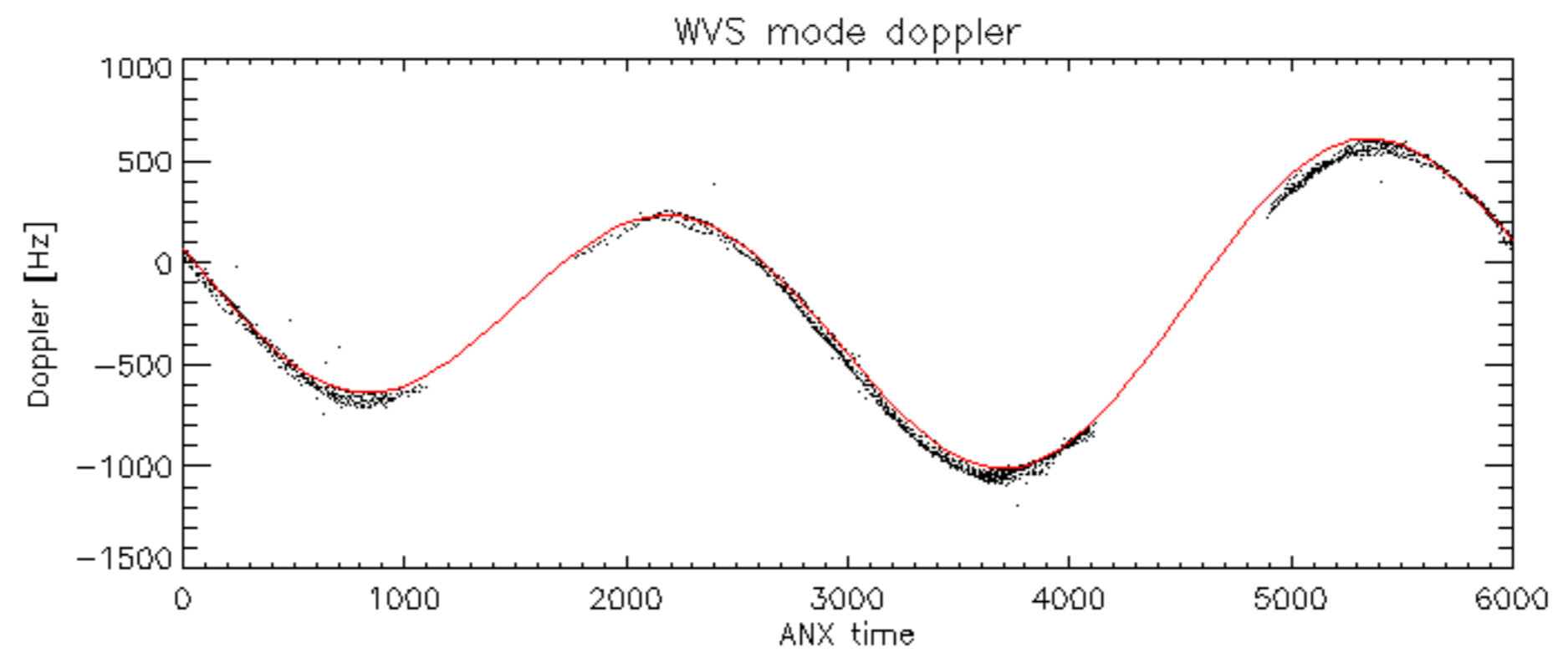
Doppler 'WVS' 'IS2' ascending



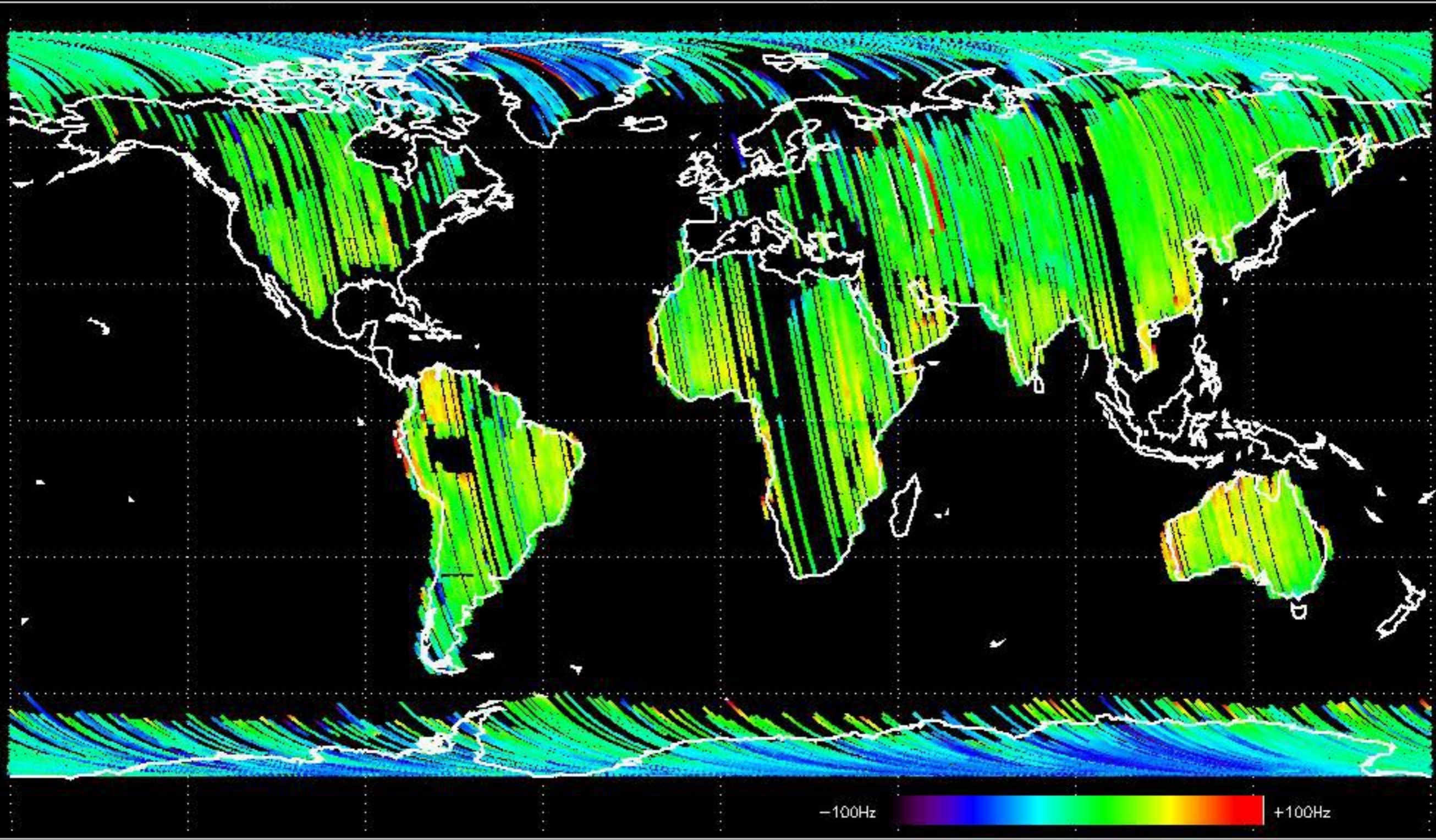
Doppler 'WVS' 'IS2' descending



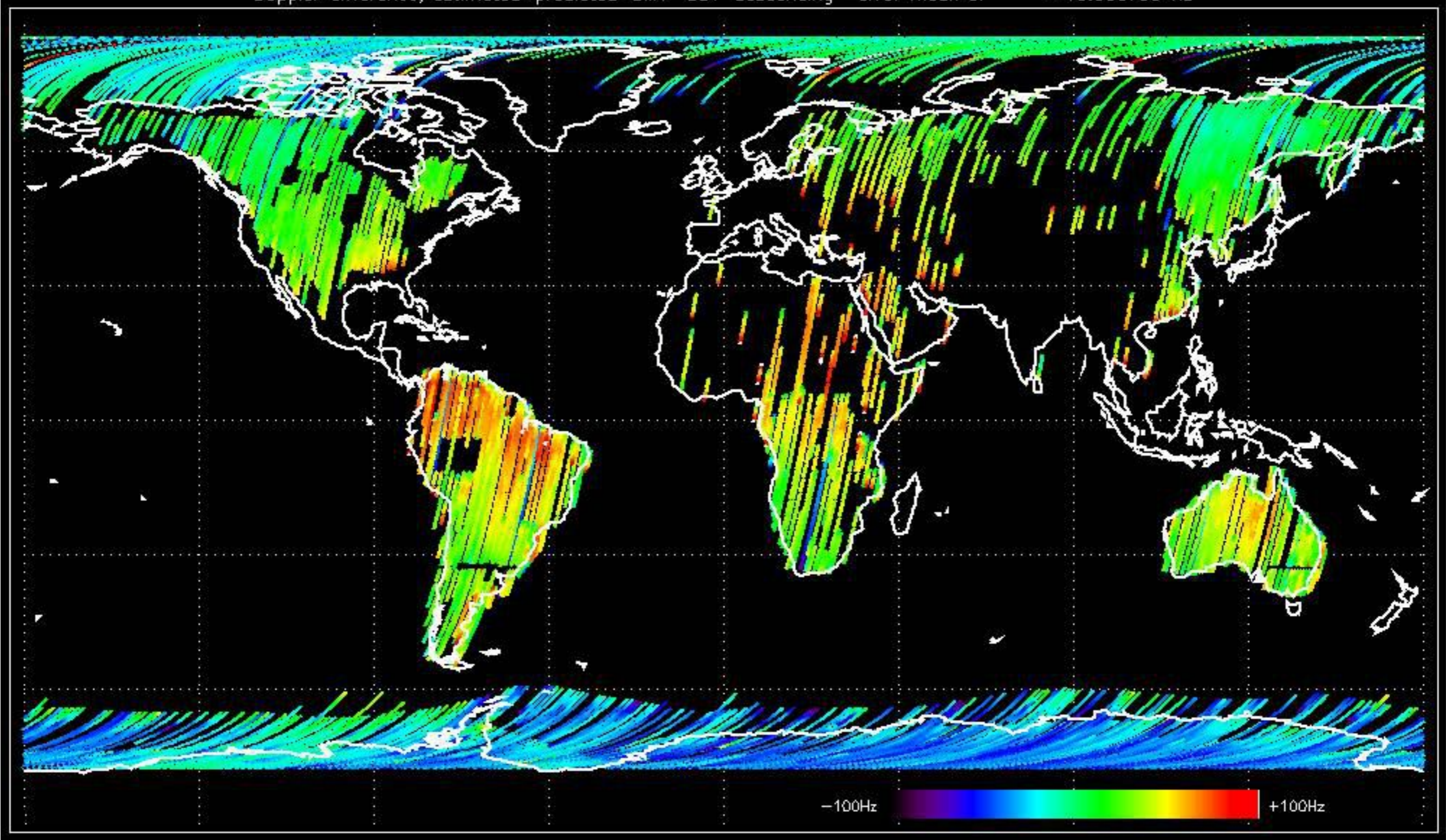




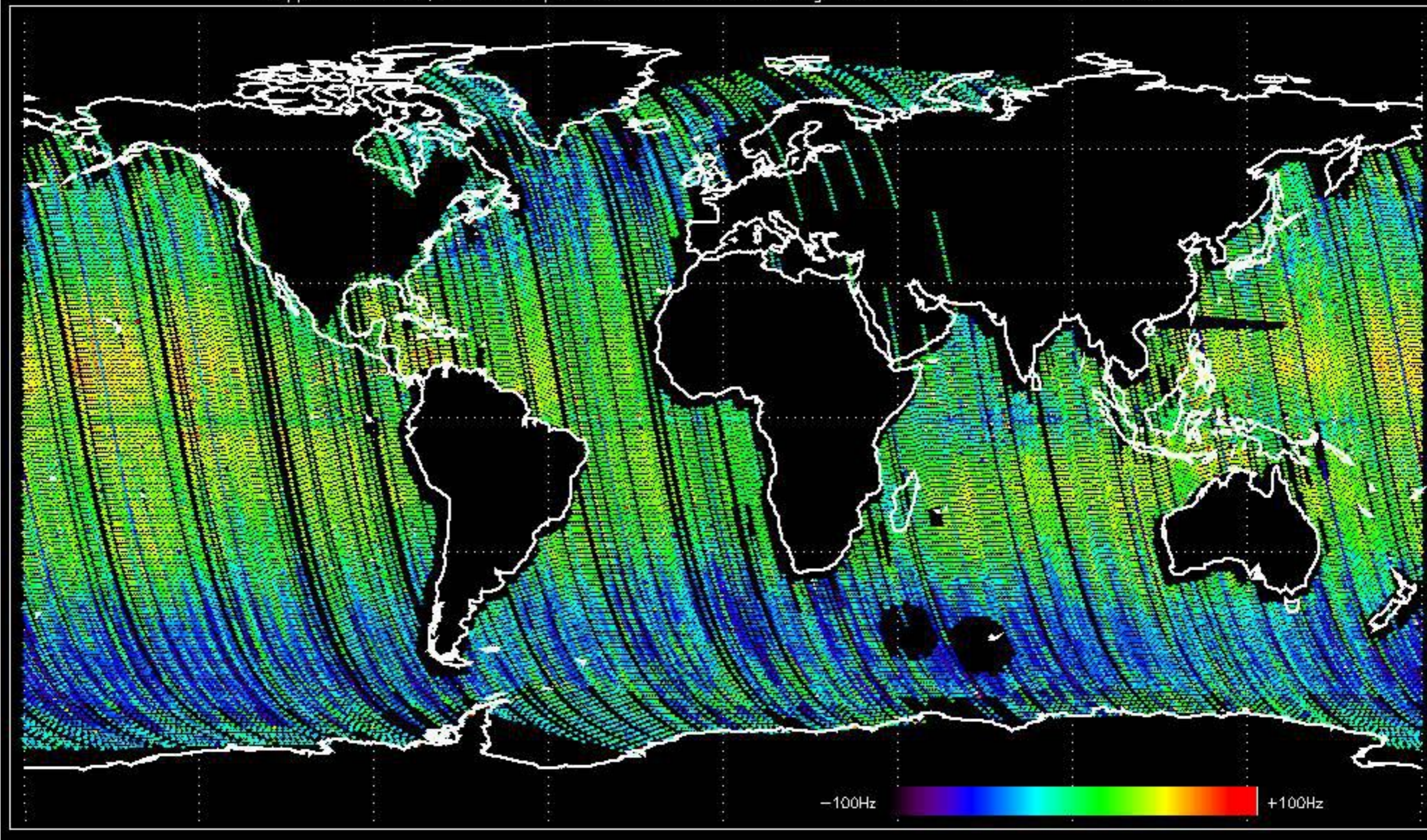
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.311452 Hz



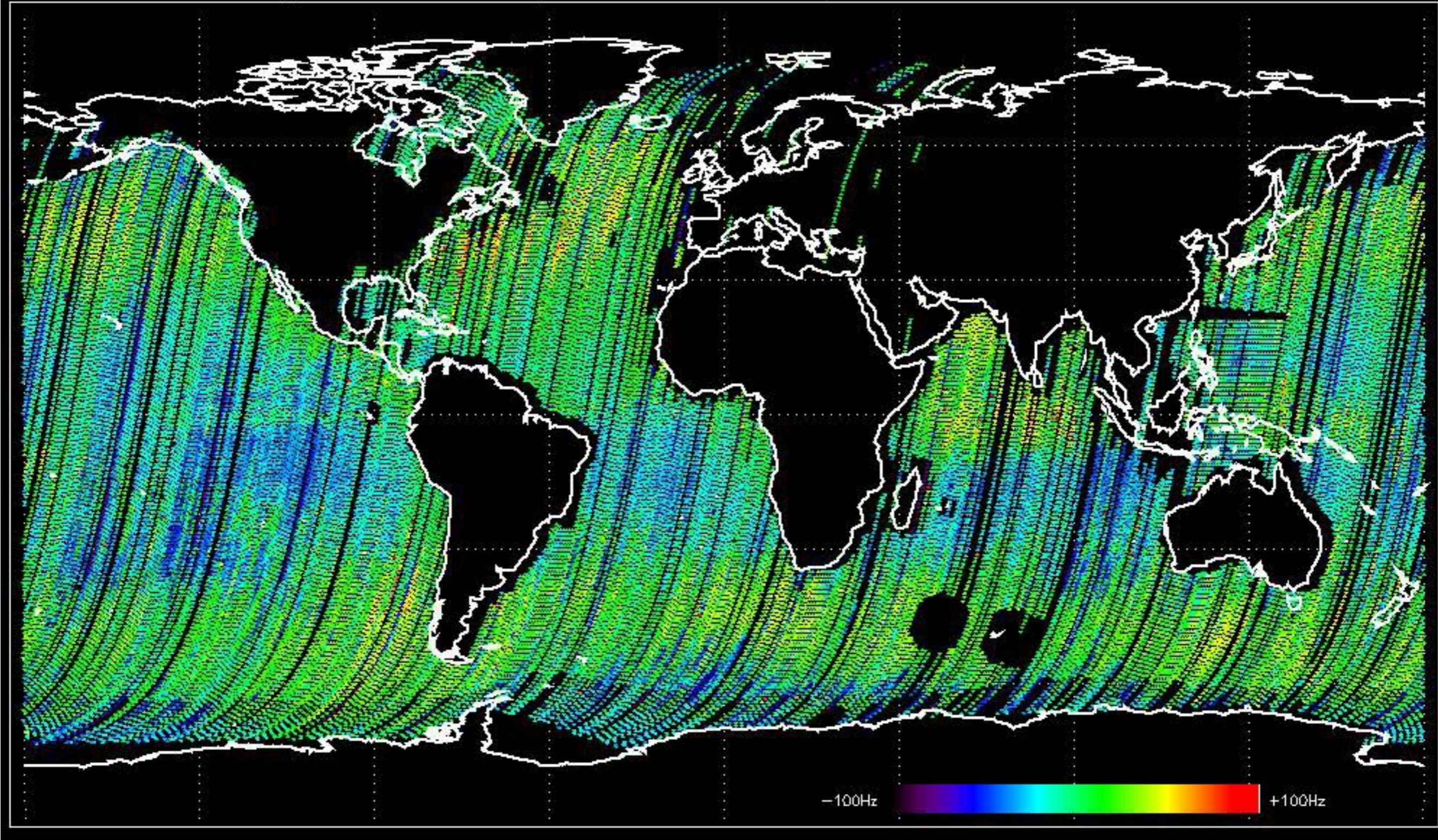
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -19.066799 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -37.295838 Hz

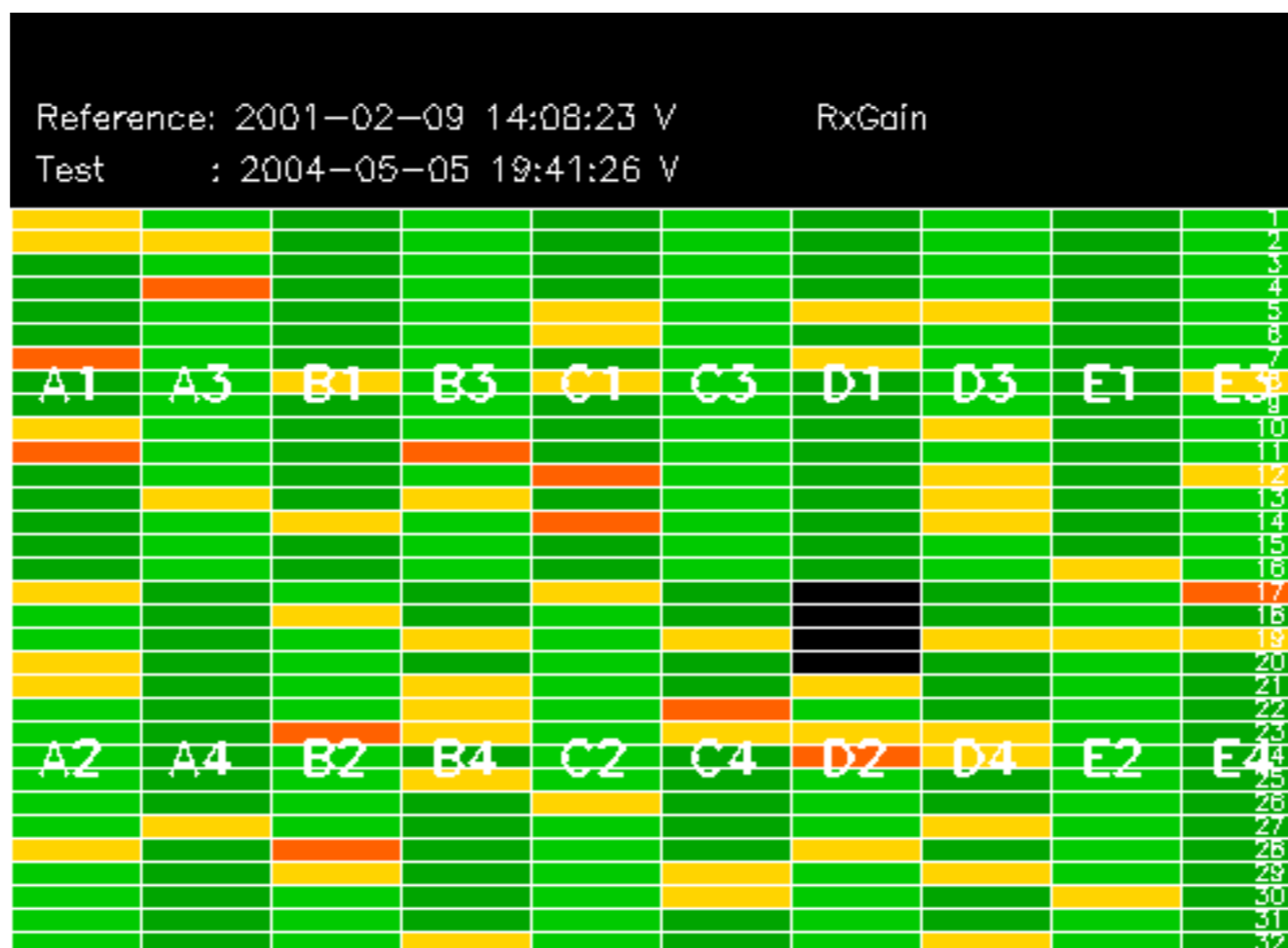


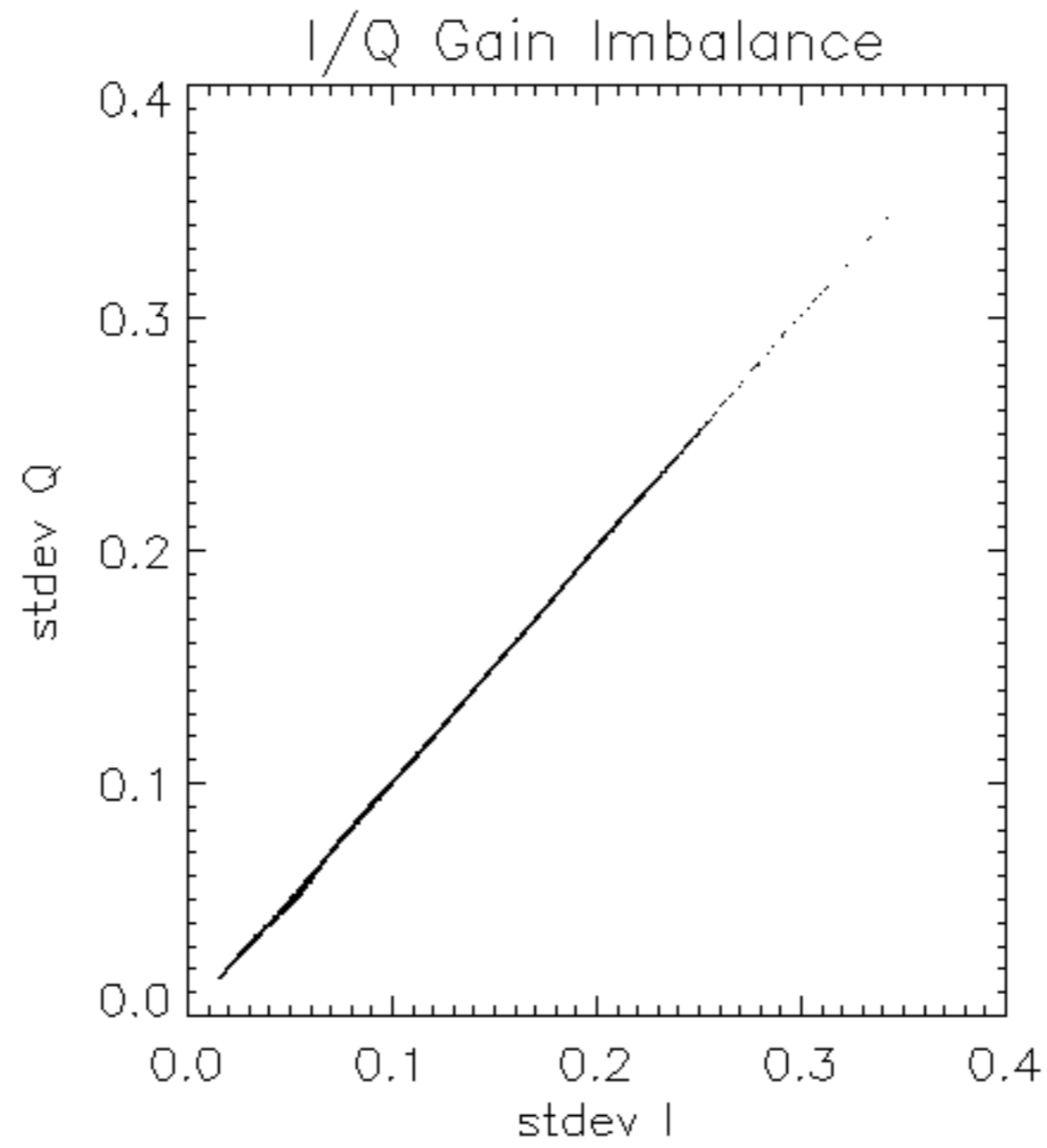
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.393630 Hz

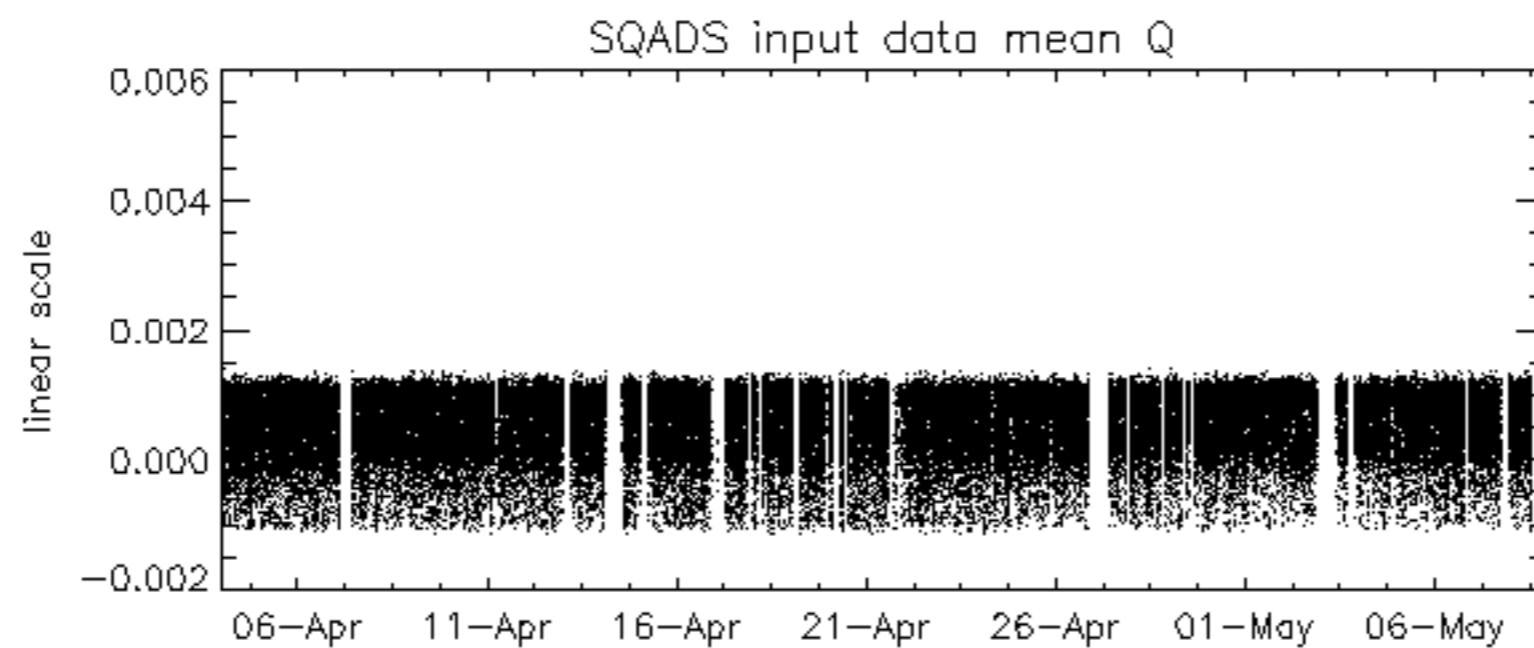
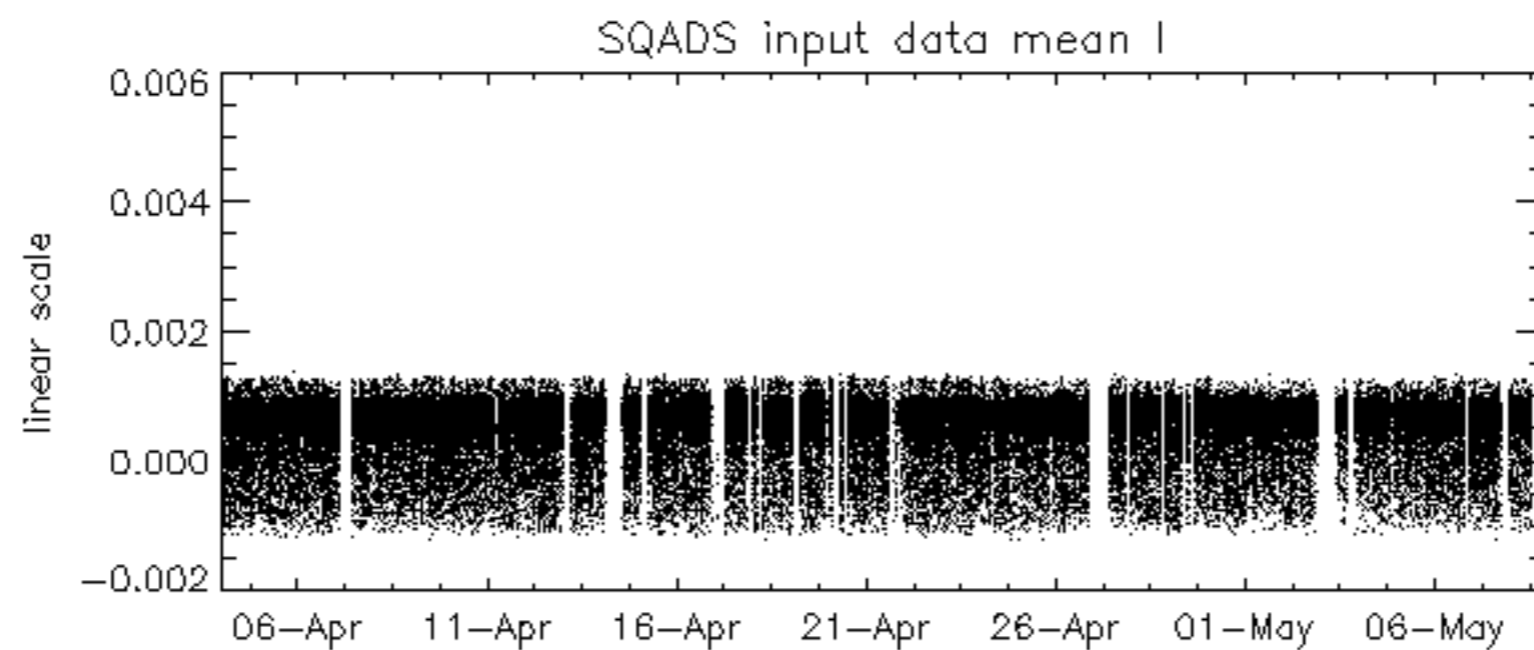
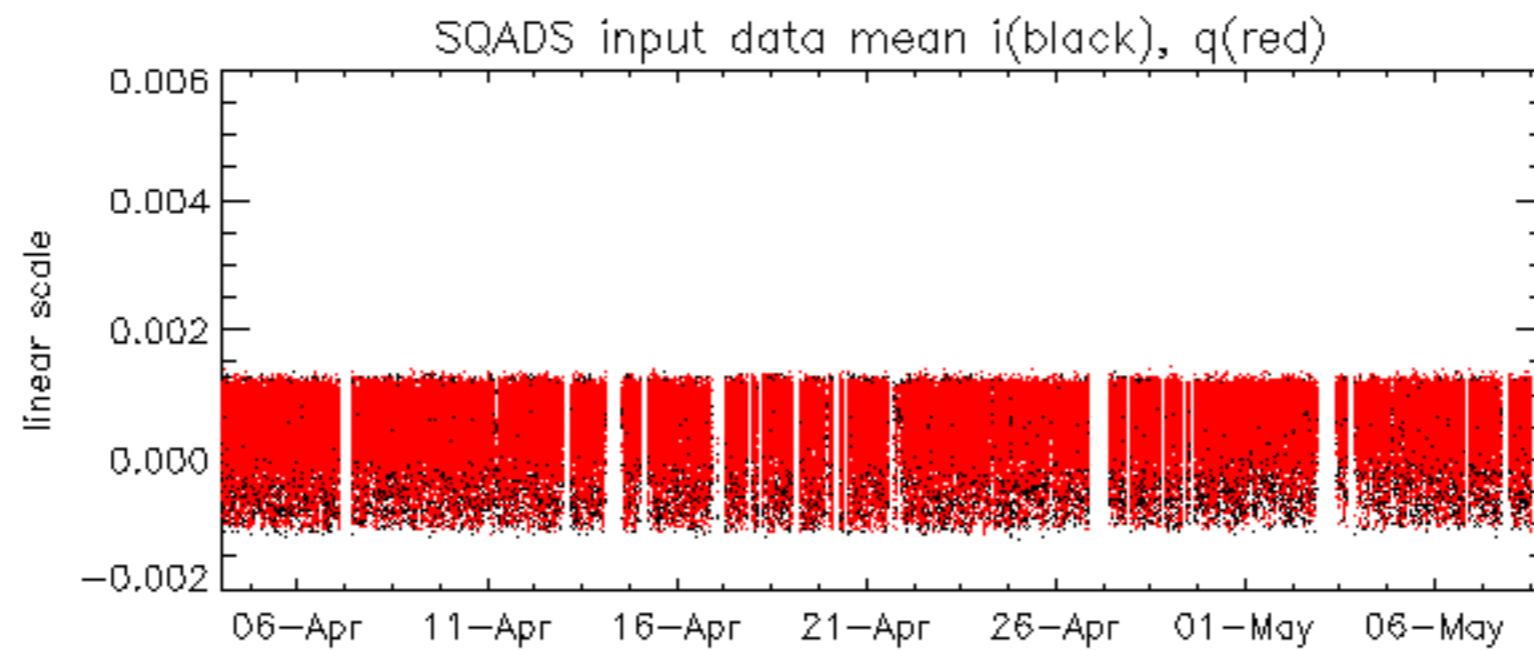


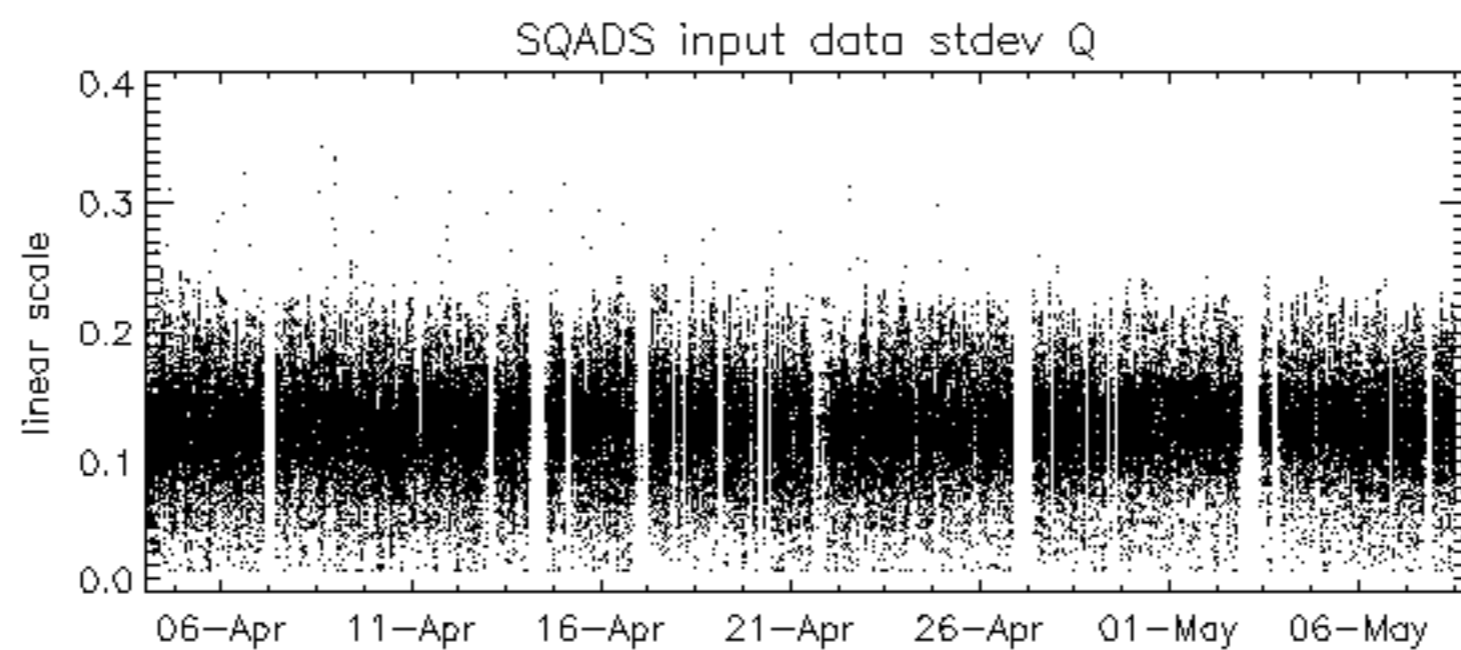
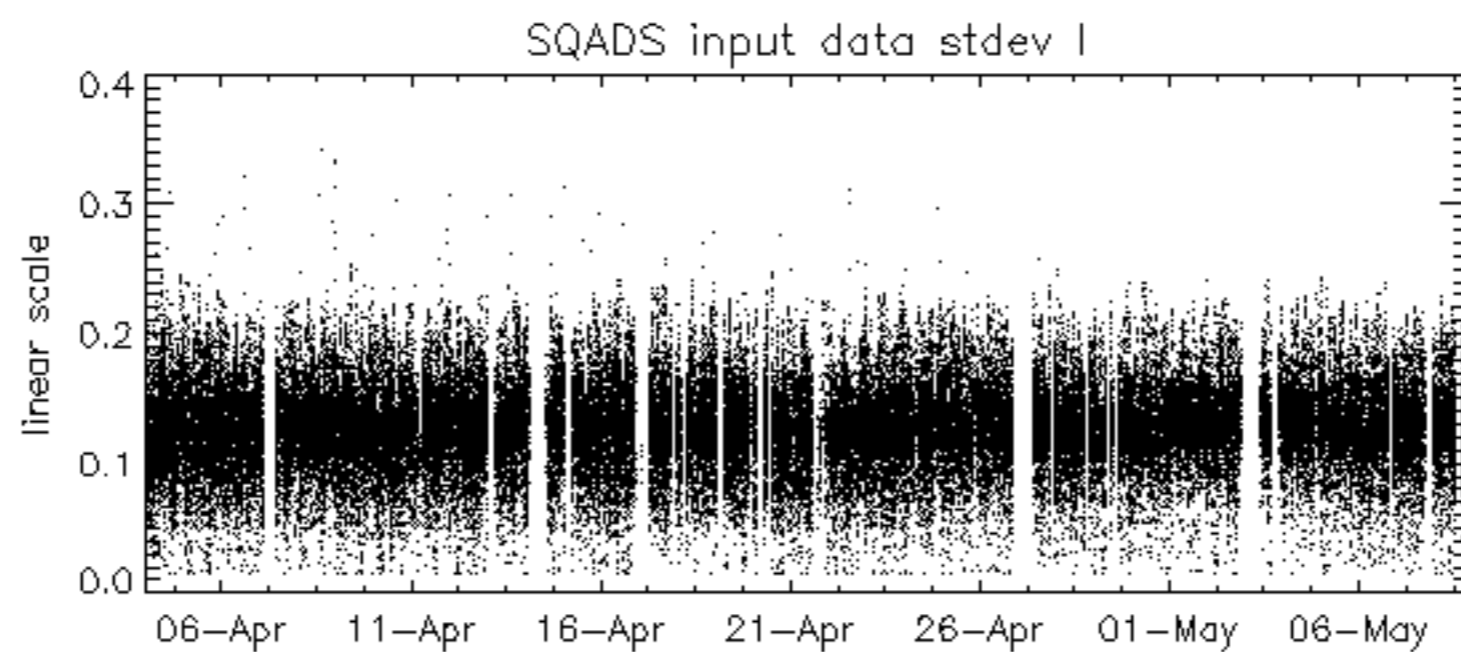
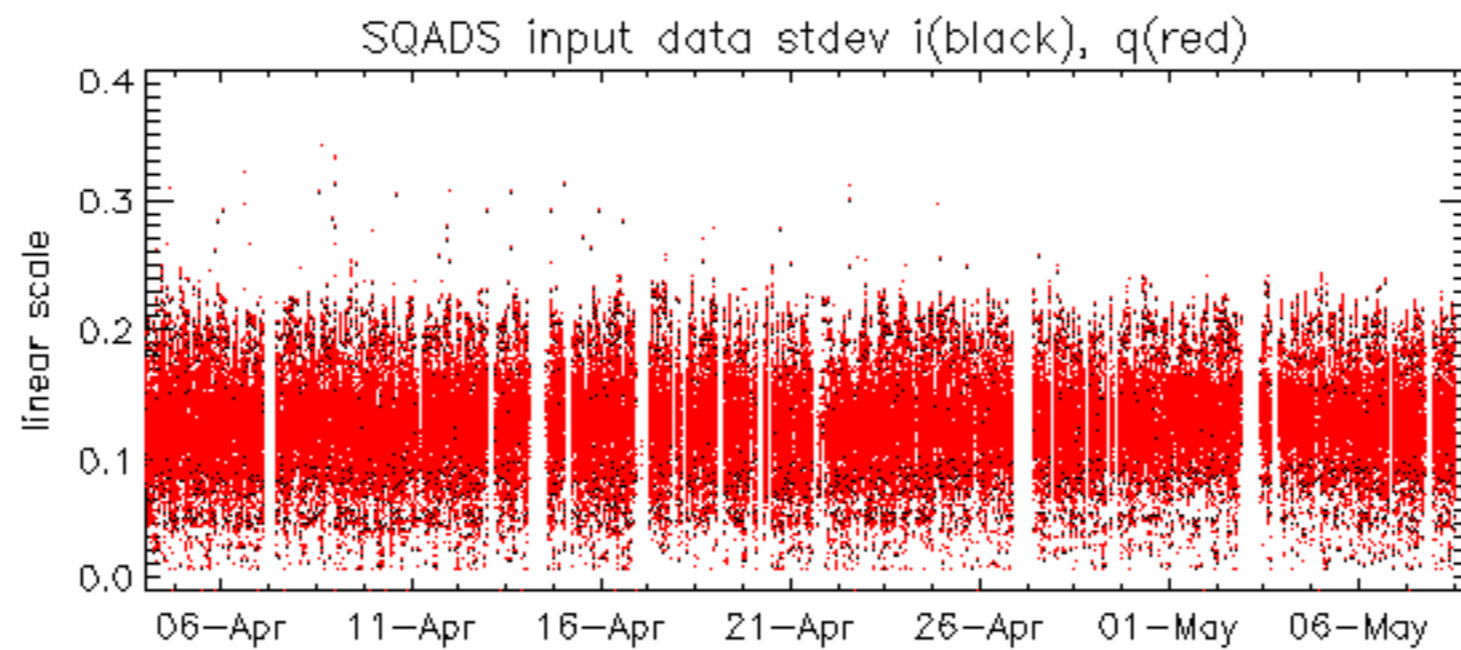
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