

REPORT OF 040510

last update on Mon May 10 13:15:16 GMT 2004

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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 - Browse Visual Inspection

No anomaly observed on available browse products.

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:

- ASA_MS__0PNPDK20040509_191535_000000152026_00385_11461_0117.N1

Polarisation	Start Time
V	20040509 191535
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	-3.599283	0.083554	-0.051972
7	P1	-3.325814	0.061737	-0.065945
11	P1	-4.615480	0.027042	NaN

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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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	-3.247601	0.315814	-0.000763
7	P1	-2.878532	0.268489	-0.113902
11	P1	-3.811502	0.021832	0.051678
15	P1	-4.013002	0.353886	0.226789
19	P1	-3.264737	0.060176	-0.126843
22	P1	-5.790825	0.043857	0.130885
24	P1	-4.054255	0.085566	0.051206
28	P1	-2.886276	0.068273	-0.110727

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.124216	0.041223	-0.087239
7	P2	-22.989706	0.027299	0.003981
11	P2	-11.067893	0.196167	-0.167379
15	P2	-4.938950	0.031473	-0.120965
19	P2	-6.846099	0.032657	-0.108952
22	P2	-7.707092	0.028664	-0.037654
24	P2	-11.027994	0.059133	-0.119904
28	P2	-19.029982	0.027110	-0.063882

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.971320	0.003671	-0.020785
7	P3	-7.971324	0.003673	-0.020414
11	P3	-7.971231	0.003666	-0.020404
15	P3	-7.971215	0.003681	-0.020718
19	P3	-7.971272	0.003669	-0.020780
22	P3	-7.971498	0.003652	-0.020551

24	P3	-7.971155	0.003684	-0.020454
28	P3	-7.971198	0.003685	-0.020943

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	0.000492071
	stdev	2.24276e-07
MEAN Q	mean	0.000513181
	stdev	2.58916e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128574
	stdev	0.00109592
STDEV Q	mean	0.128818
	stdev	0.00110902



5.3 - Gain imbalance I/Q



6 - Doppler Analysis

No anomaly observed on doppler evolution.

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

Ascending

Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

Ascending



Descending

6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler



Ascending

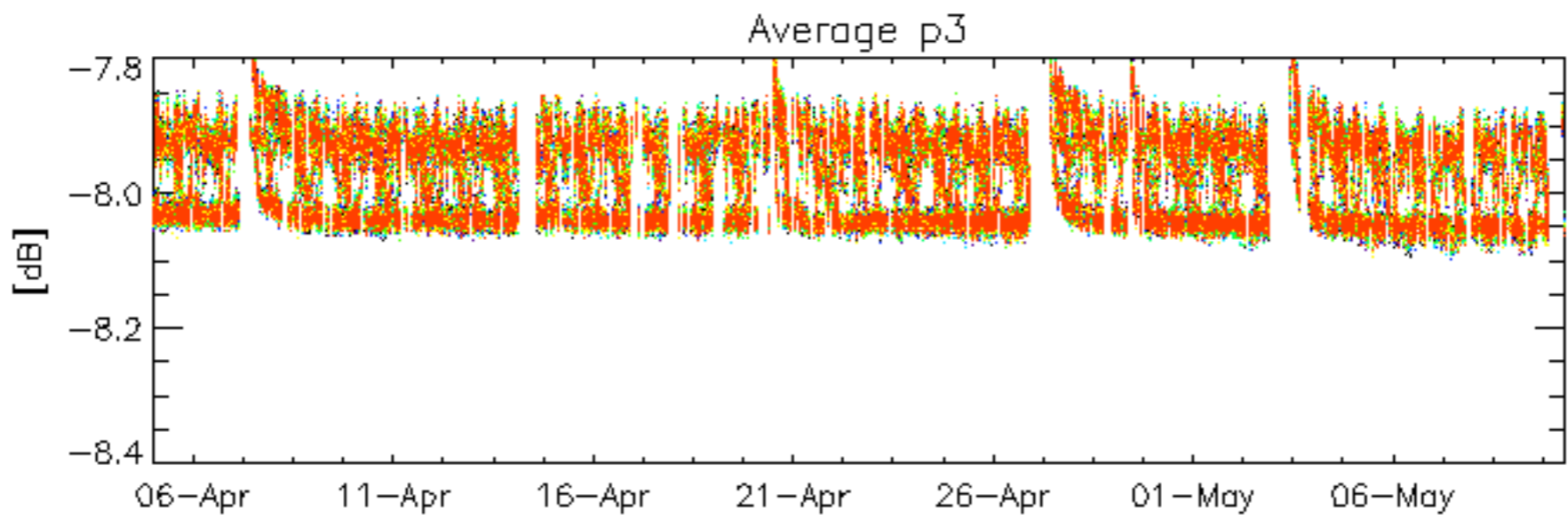
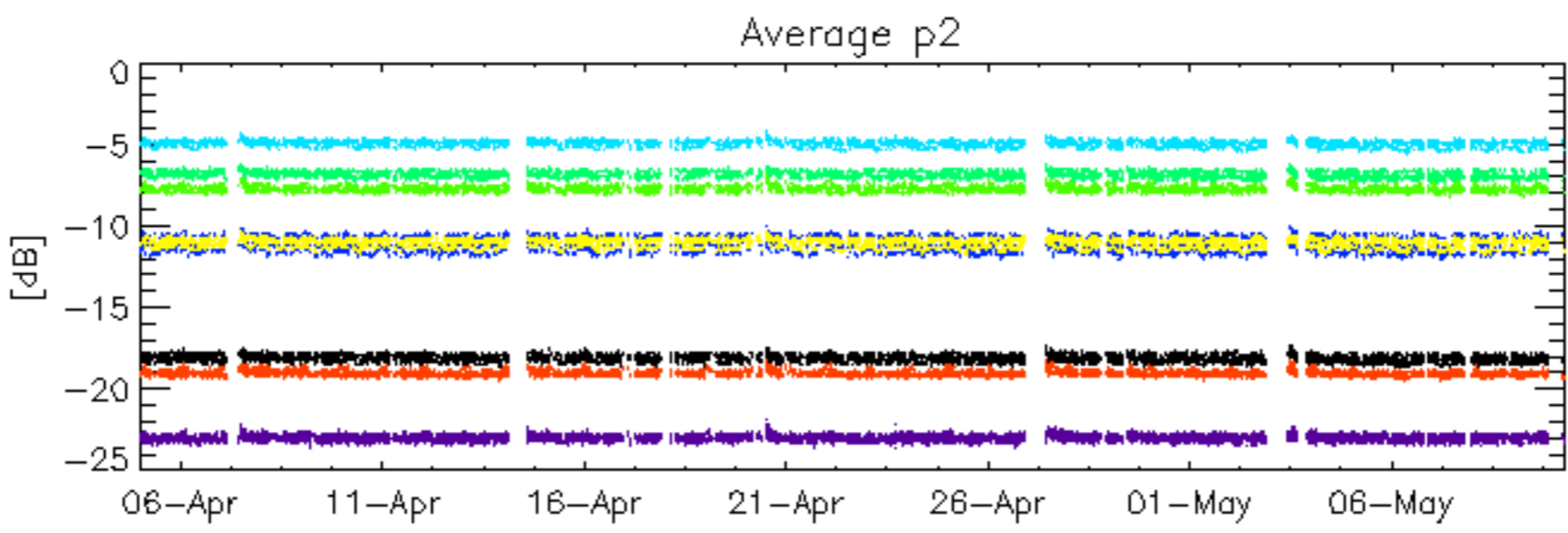
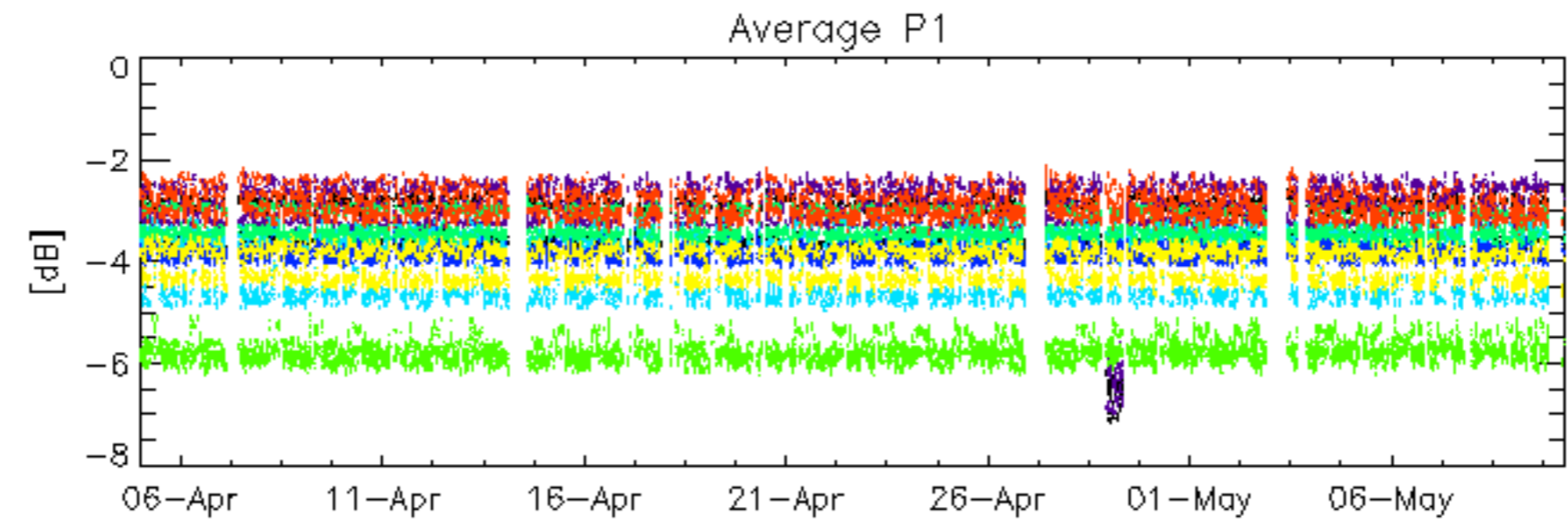


Descending

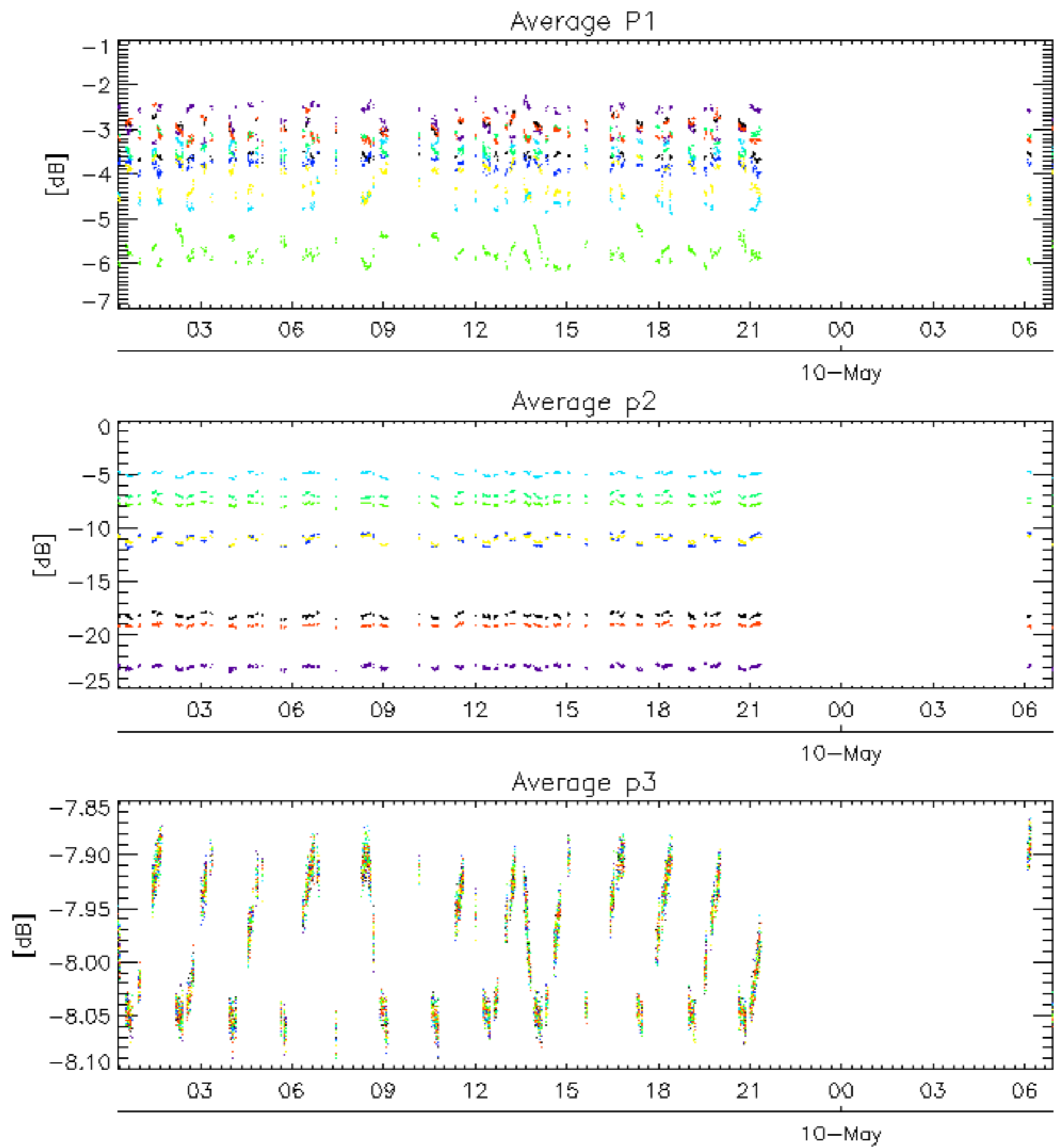
6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

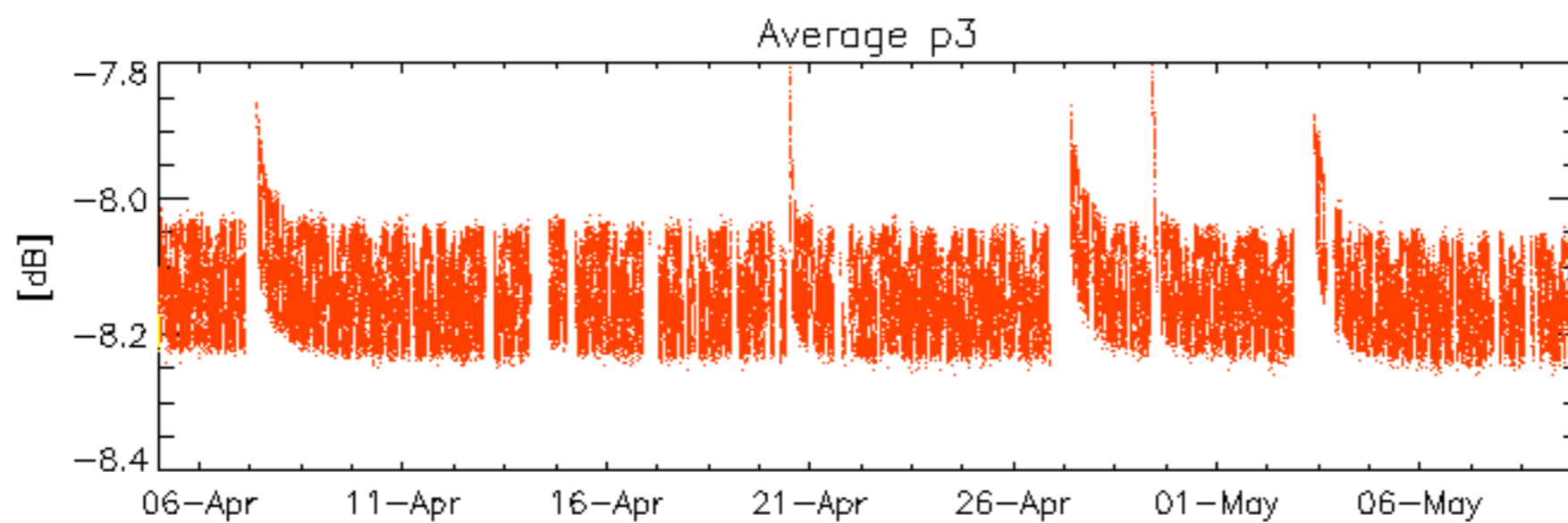
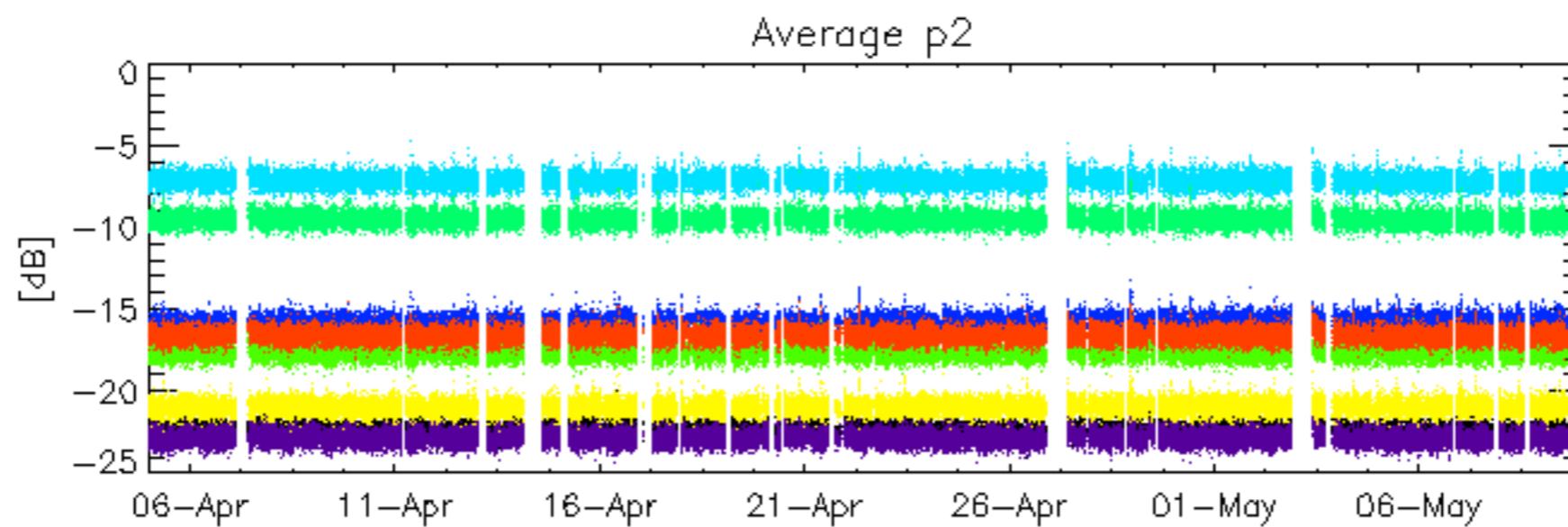
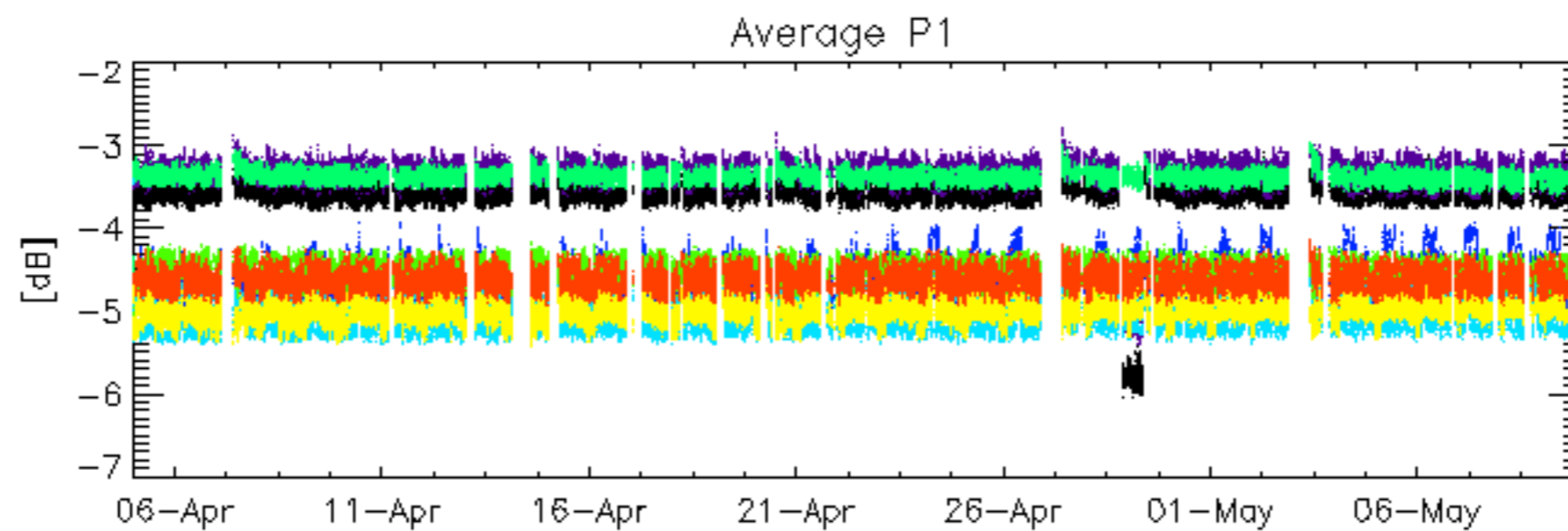




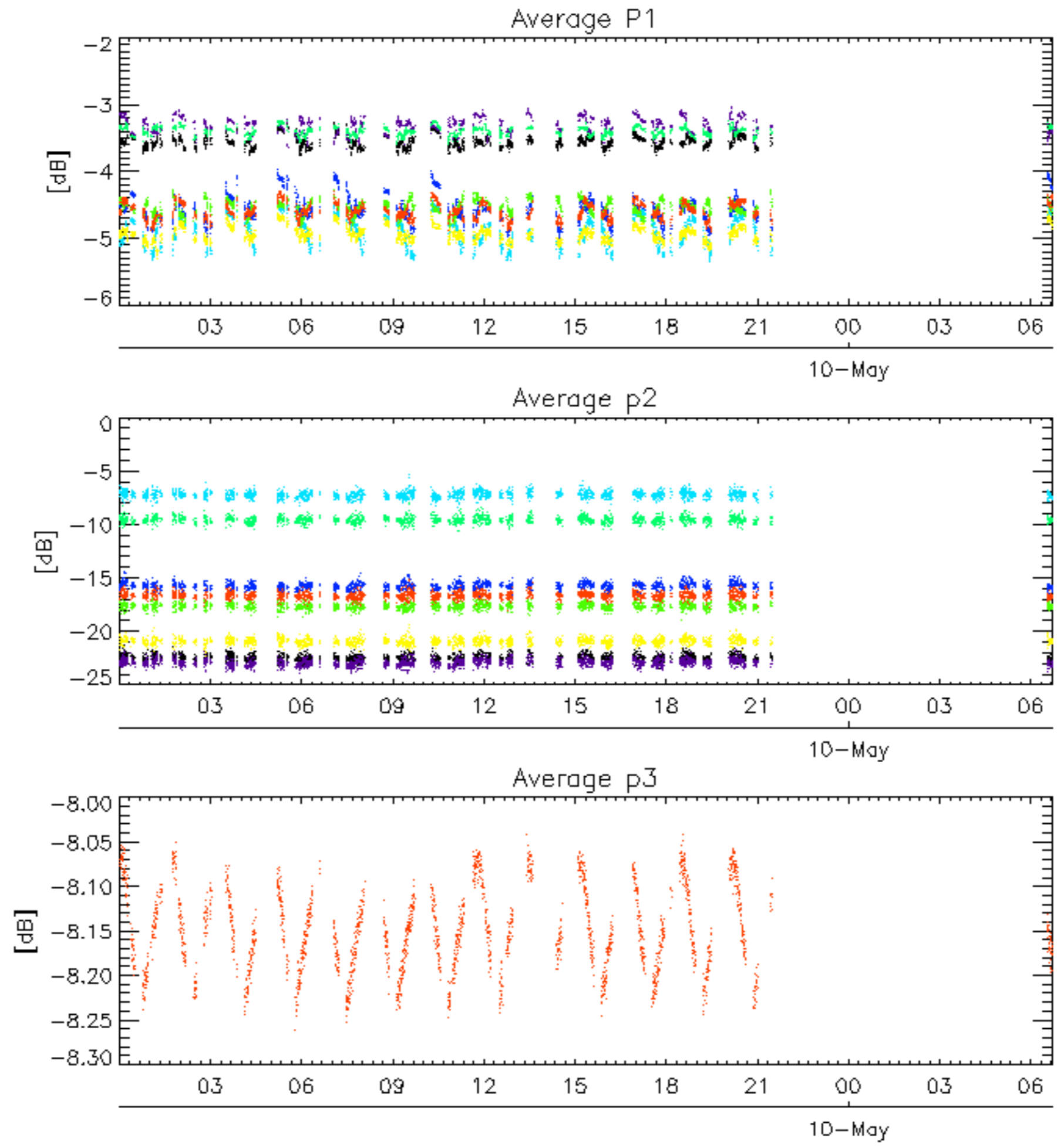
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



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



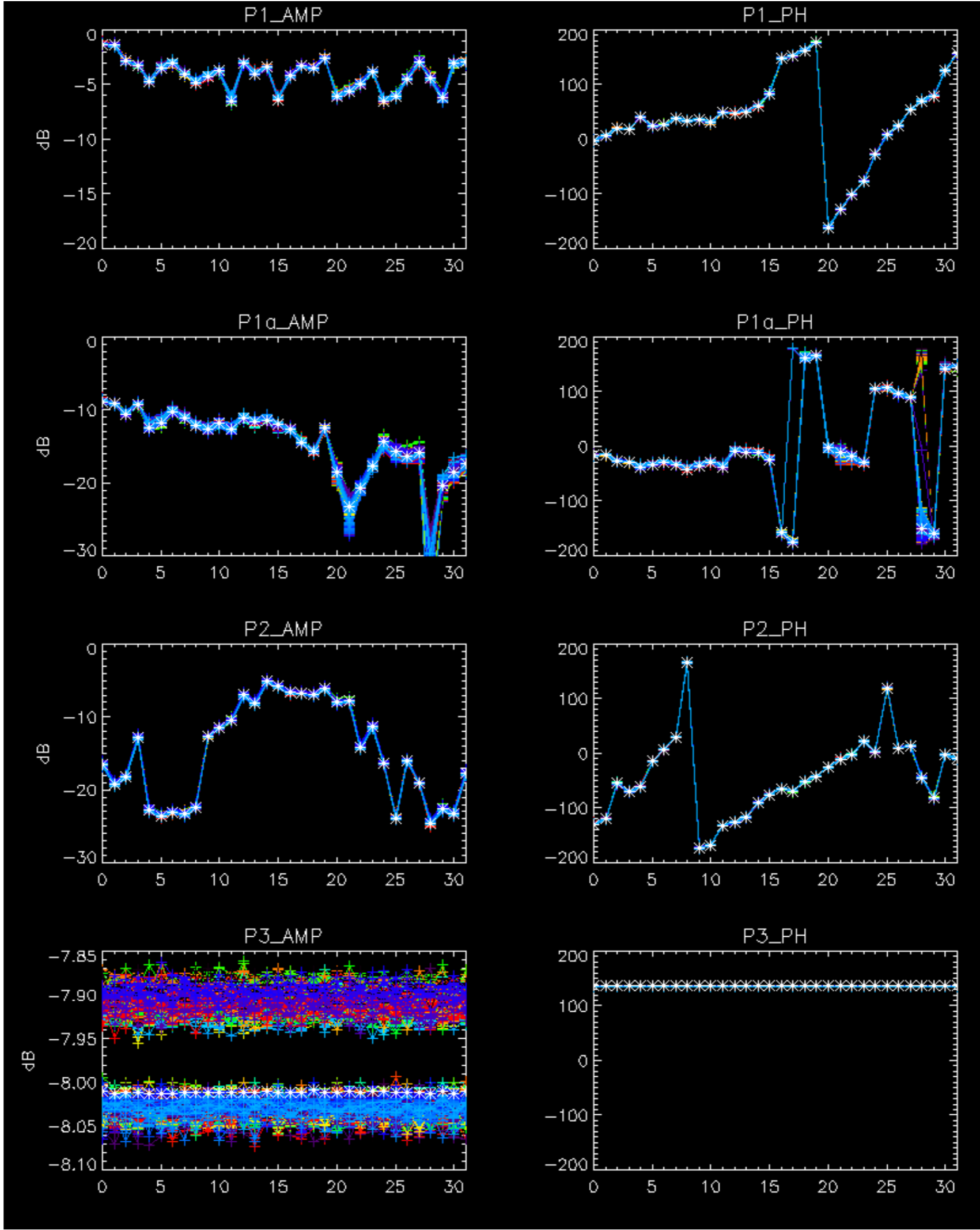
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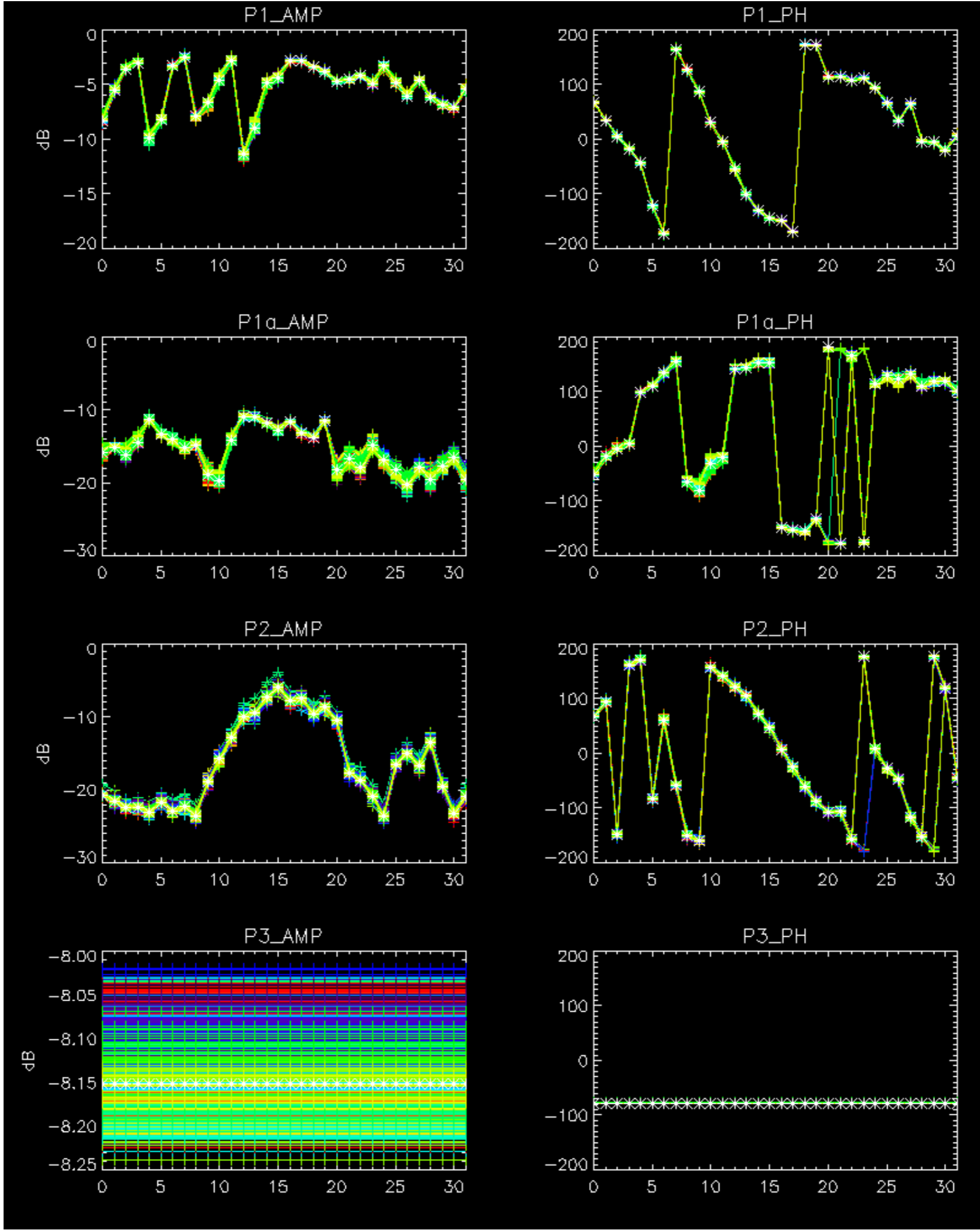


rows: **3** **7** **11** **15** **19** **22** **24** **28**

No anomaly observed on available browse products.

No anomalies observed.

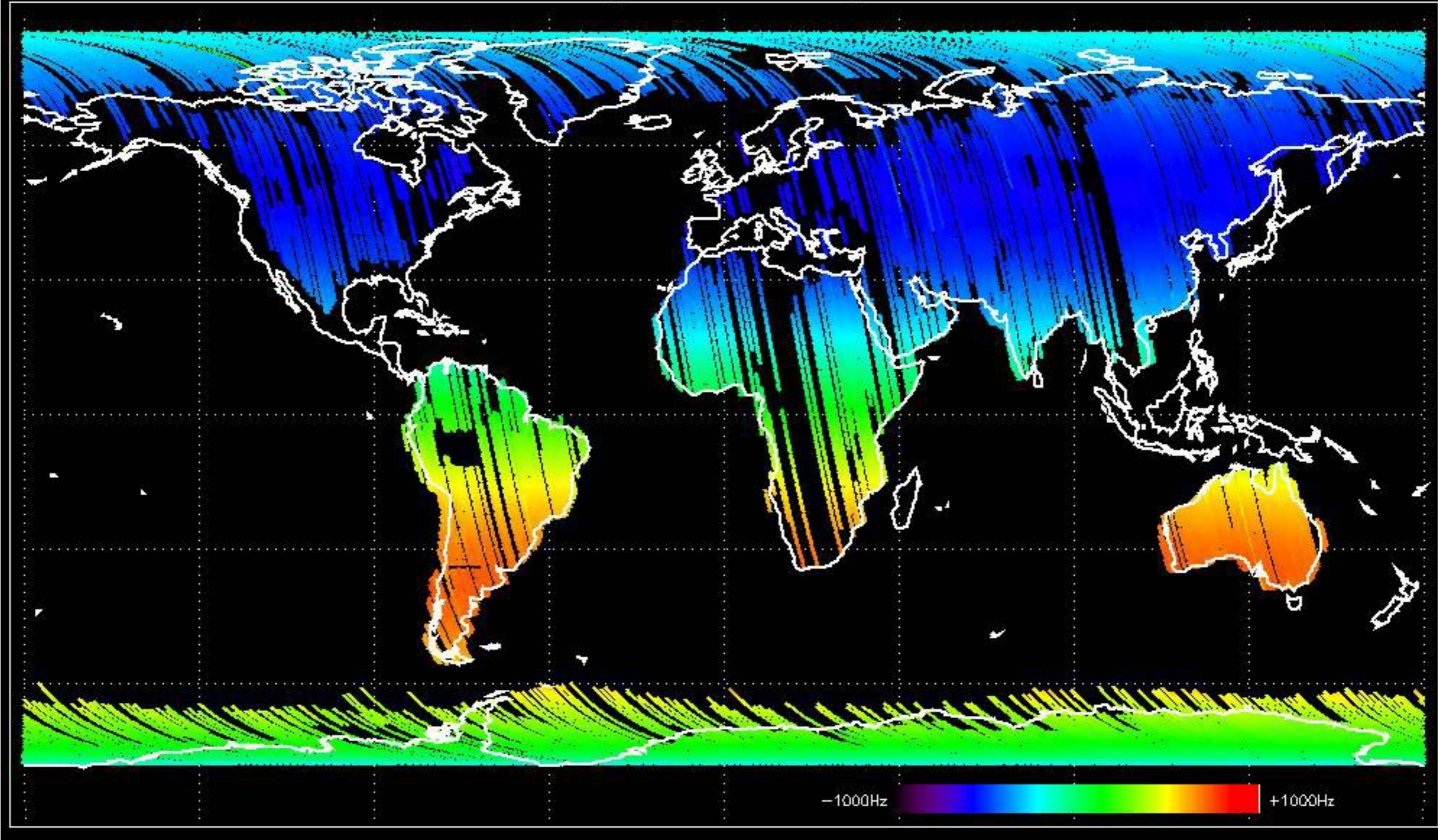




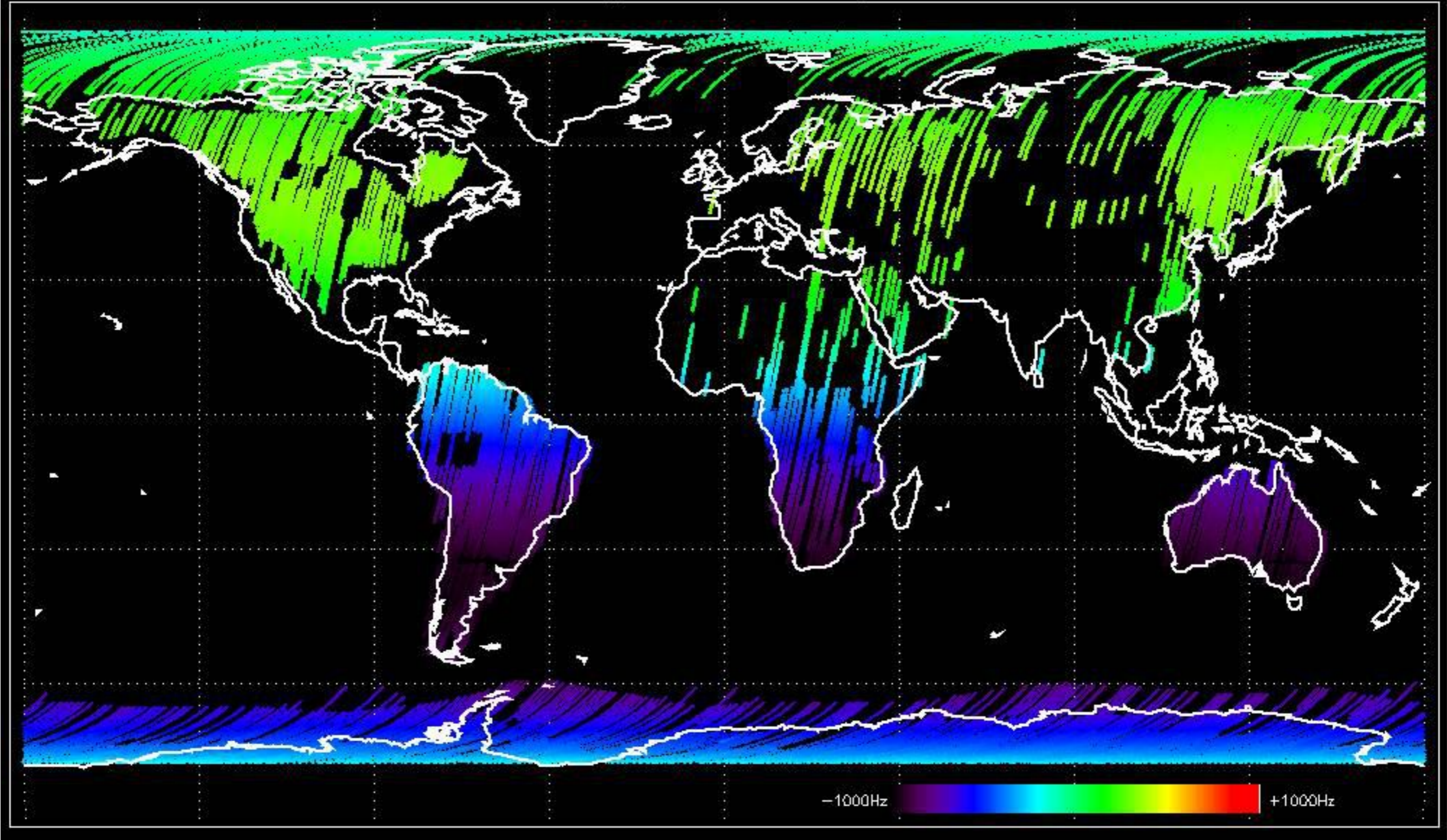
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

No anomaly observed on doppler evolution.

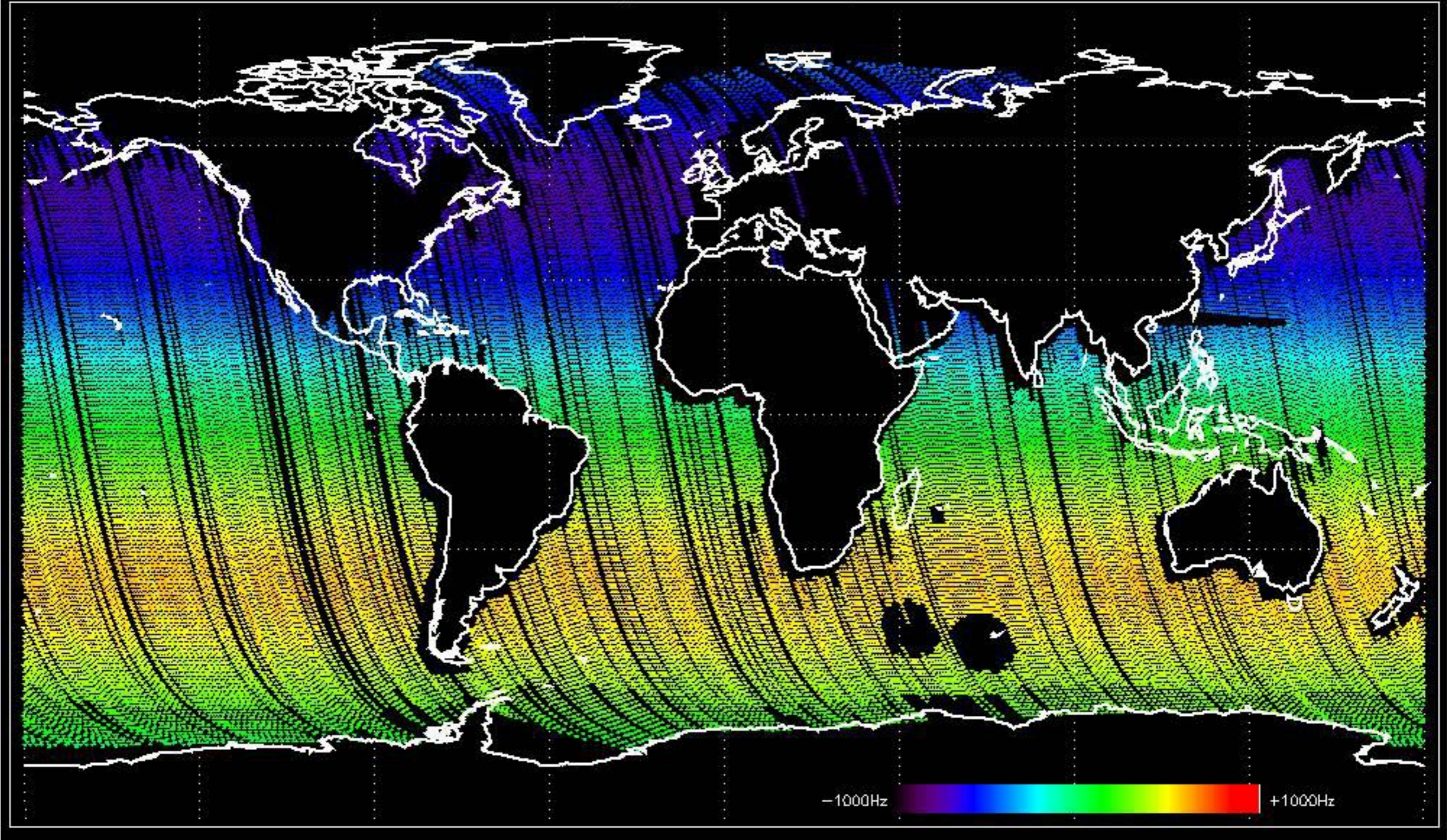
Doppler 'GM1' 'SS1' ascending



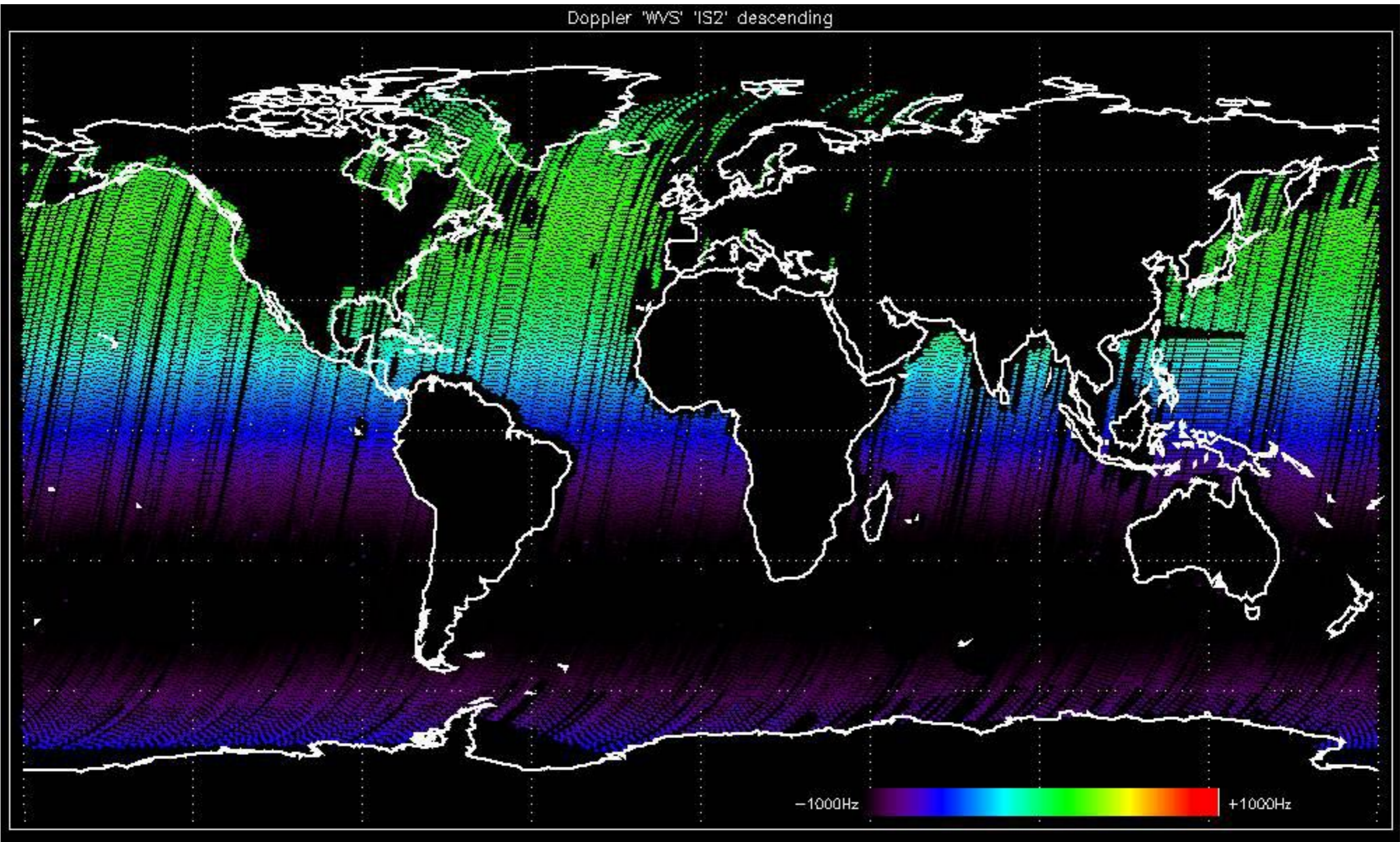
Doppler 'GM1' 'SS1' descending

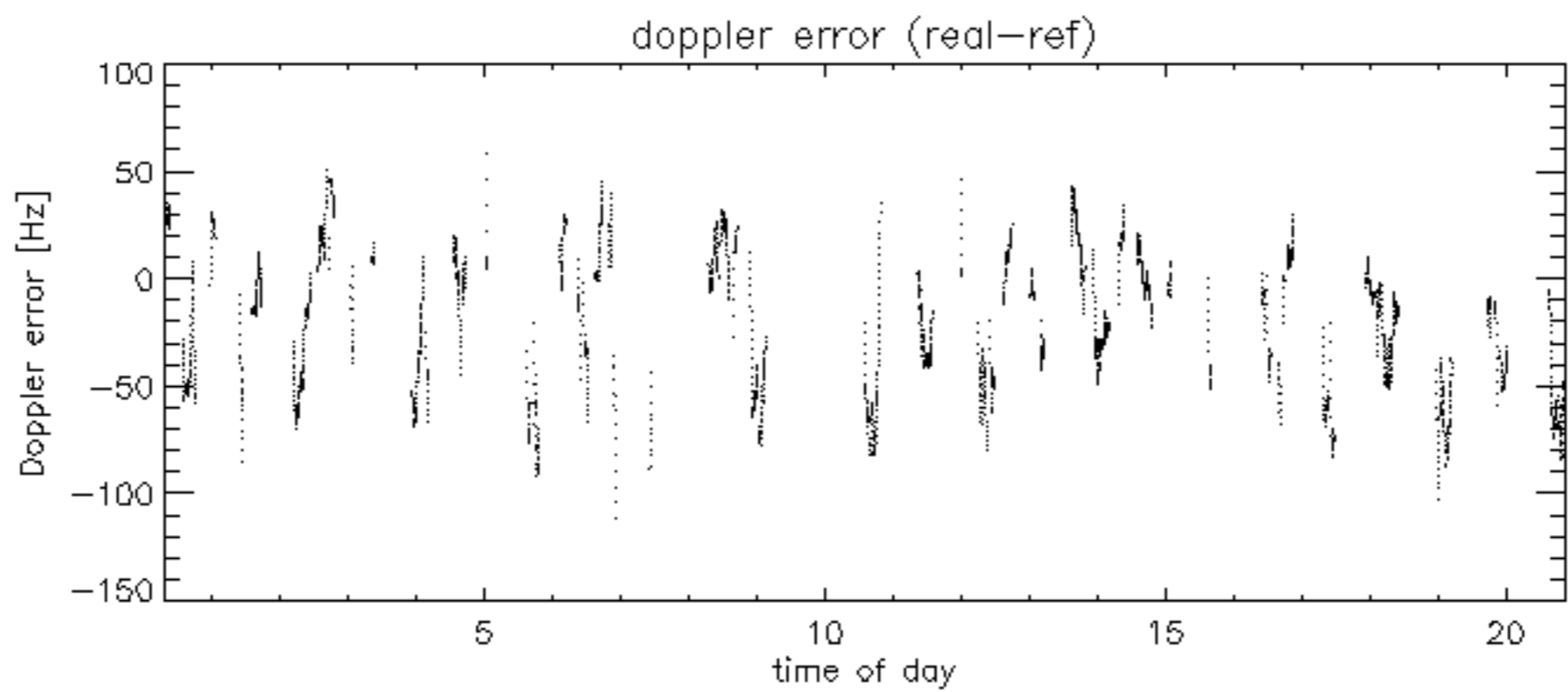
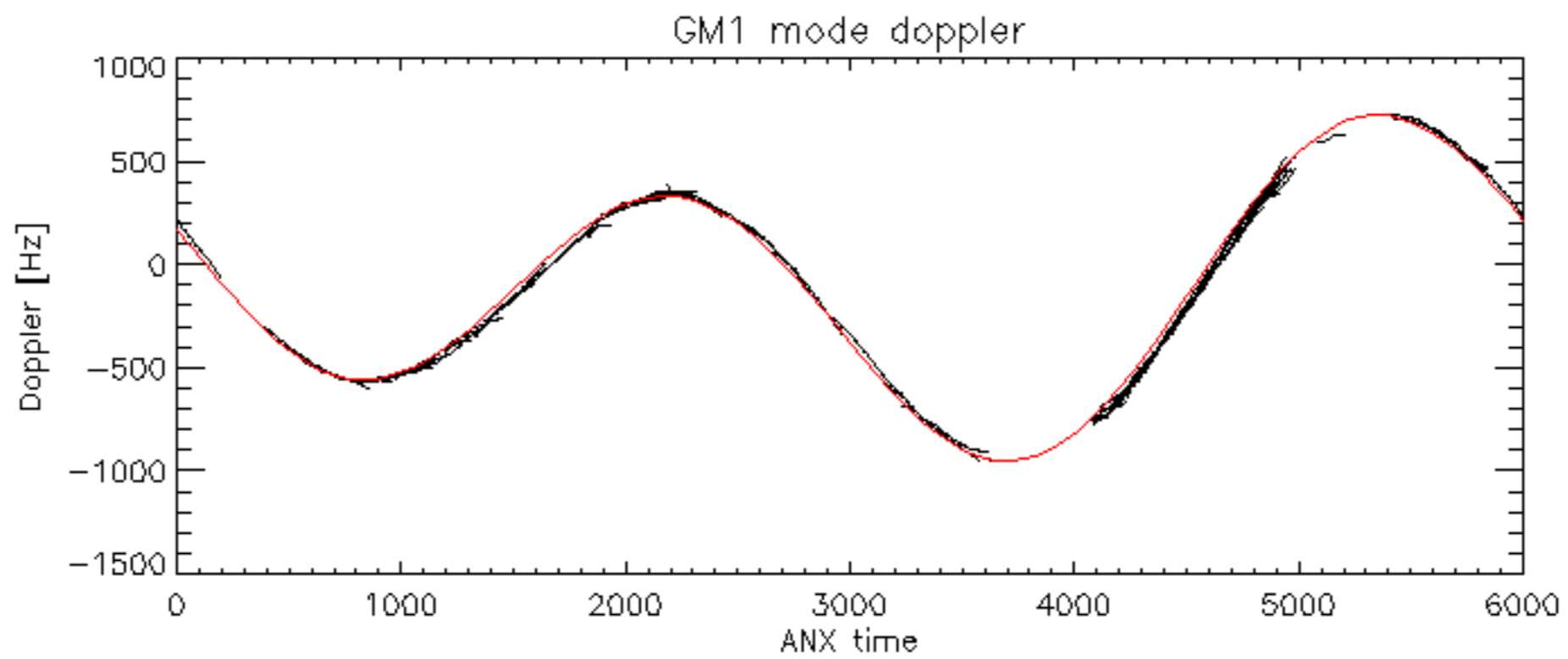


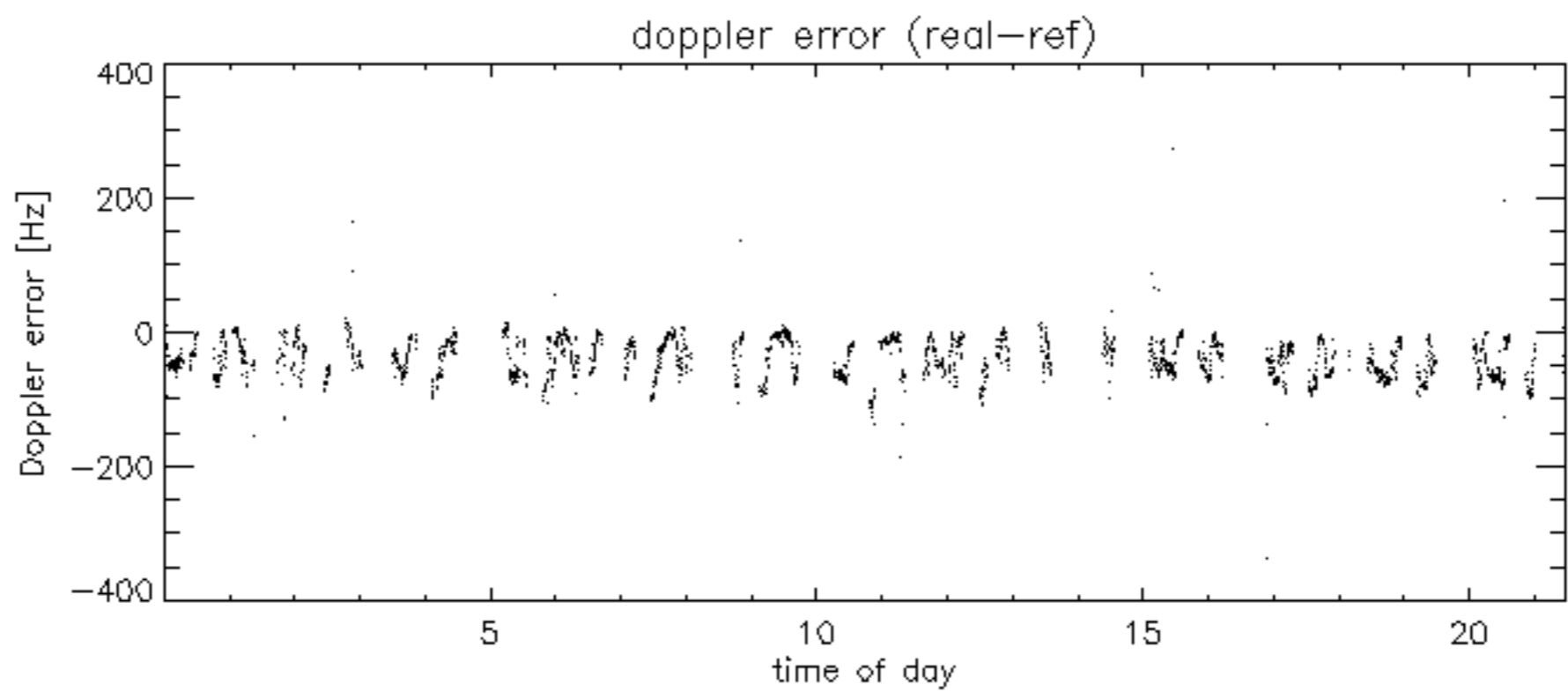
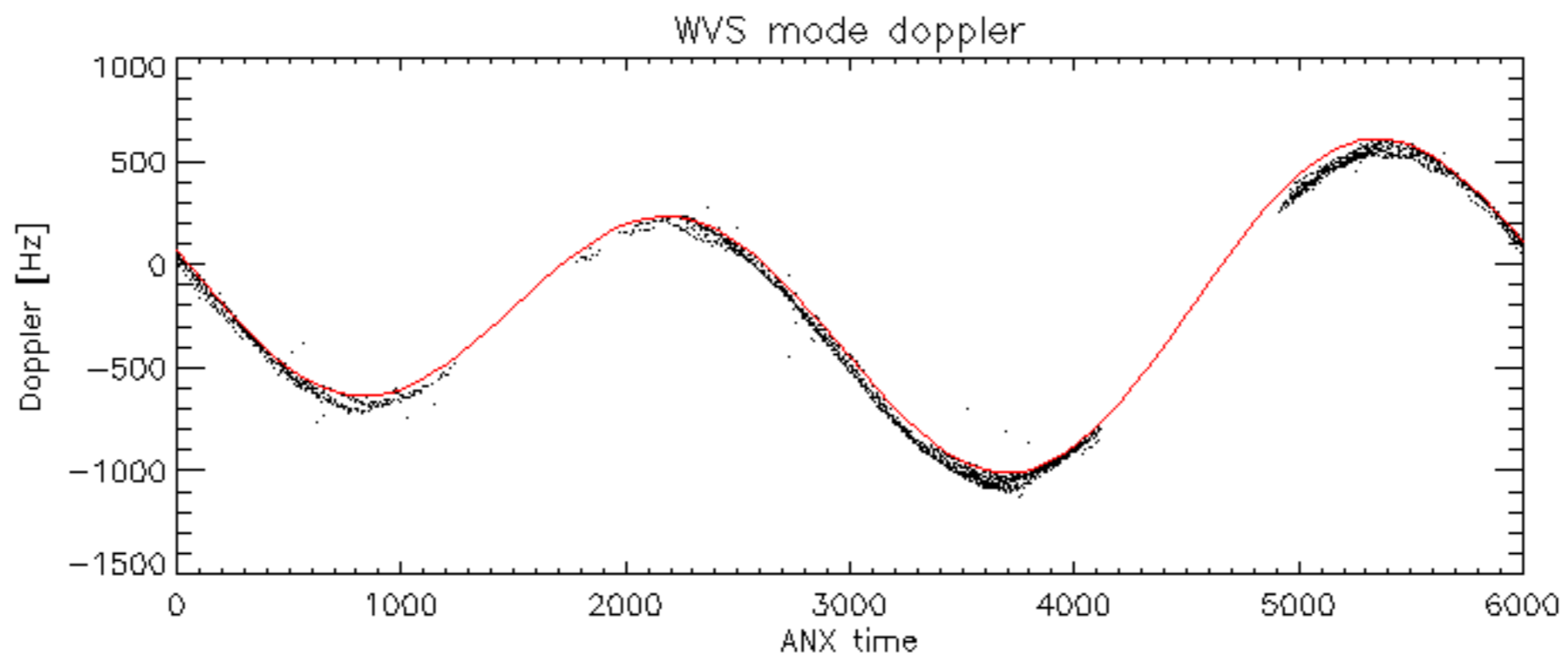
Doppler 'WVS' 'IS2' ascending



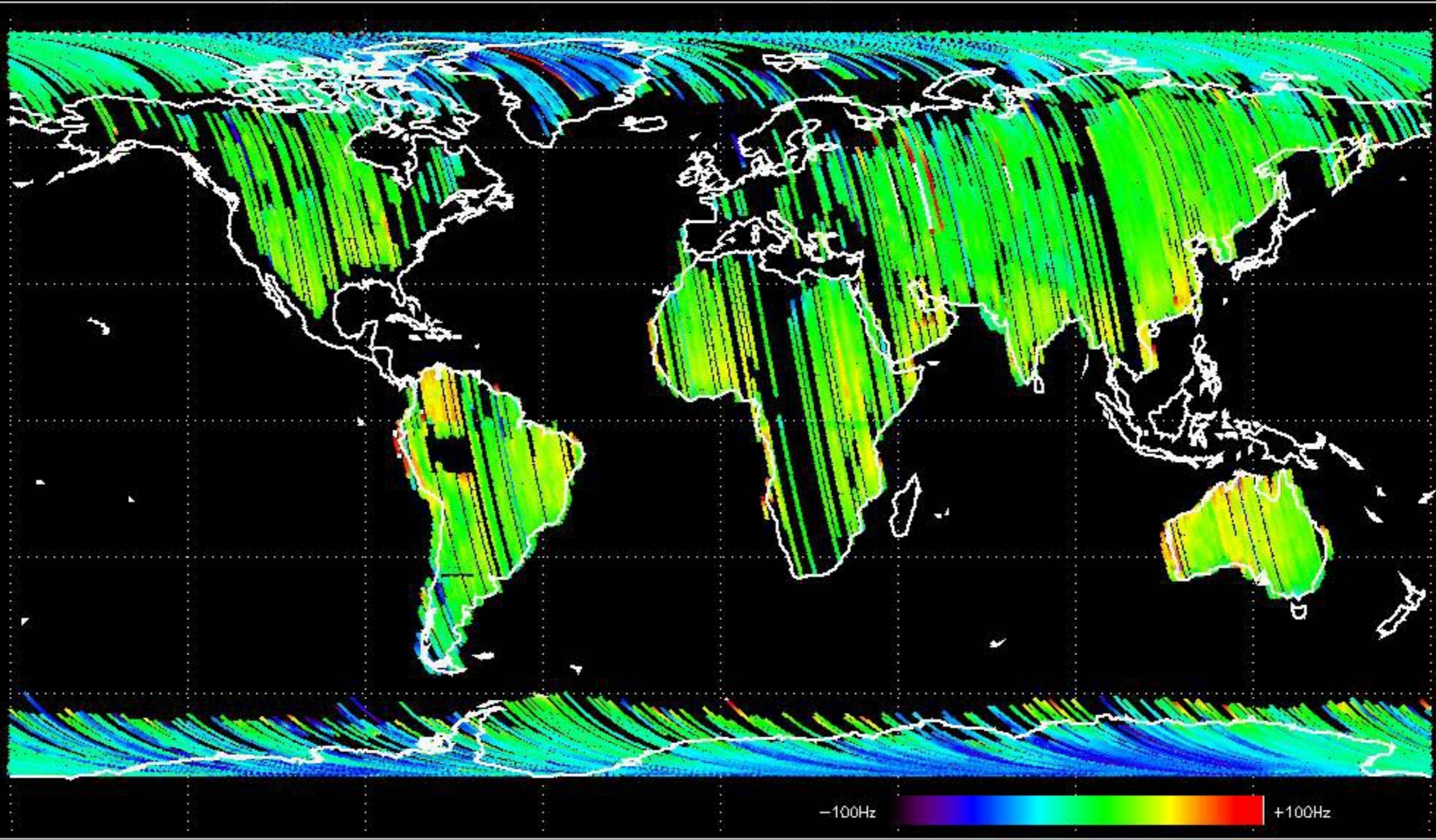
Doppler 'WVS' 'IS2' descending



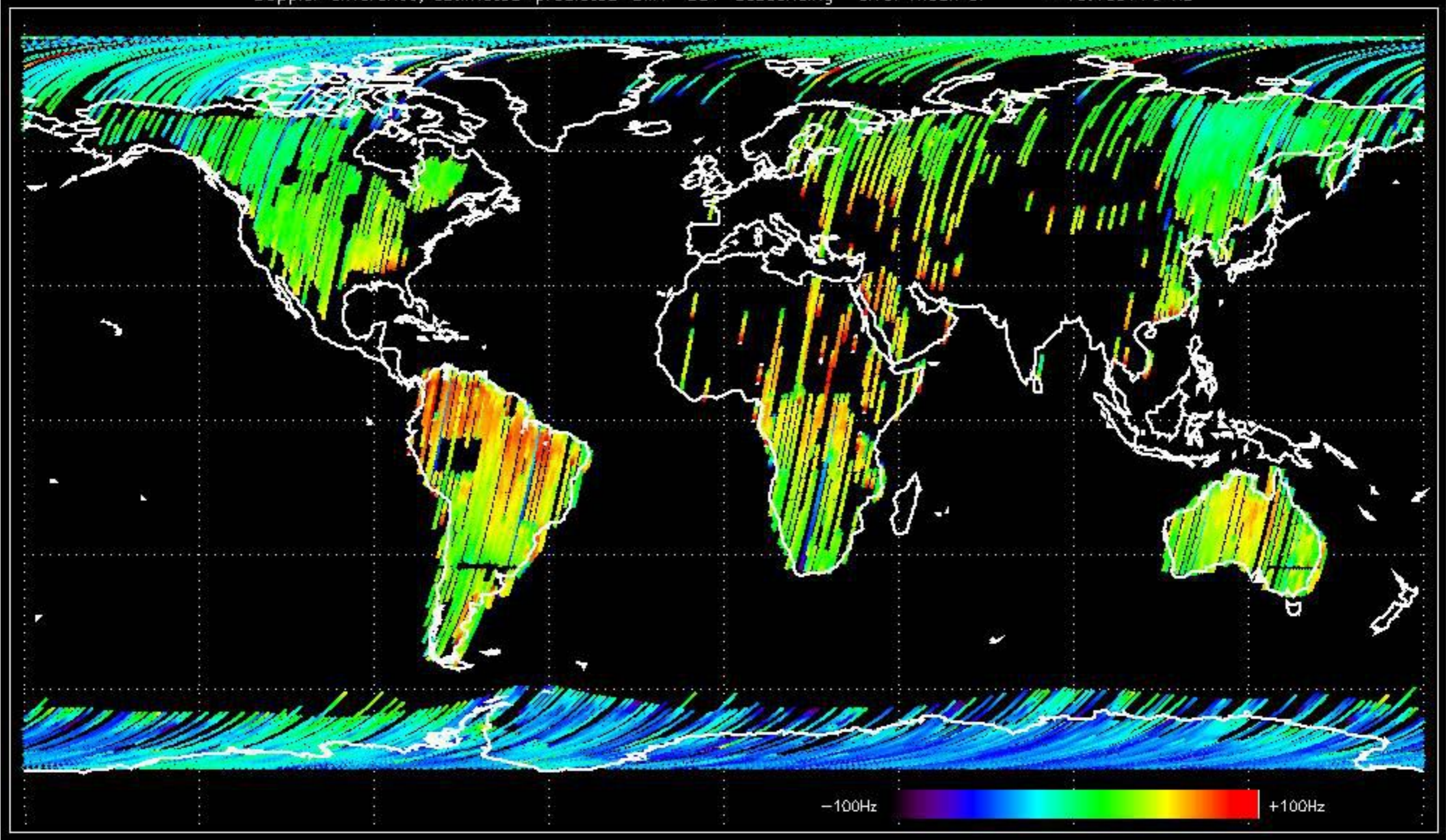




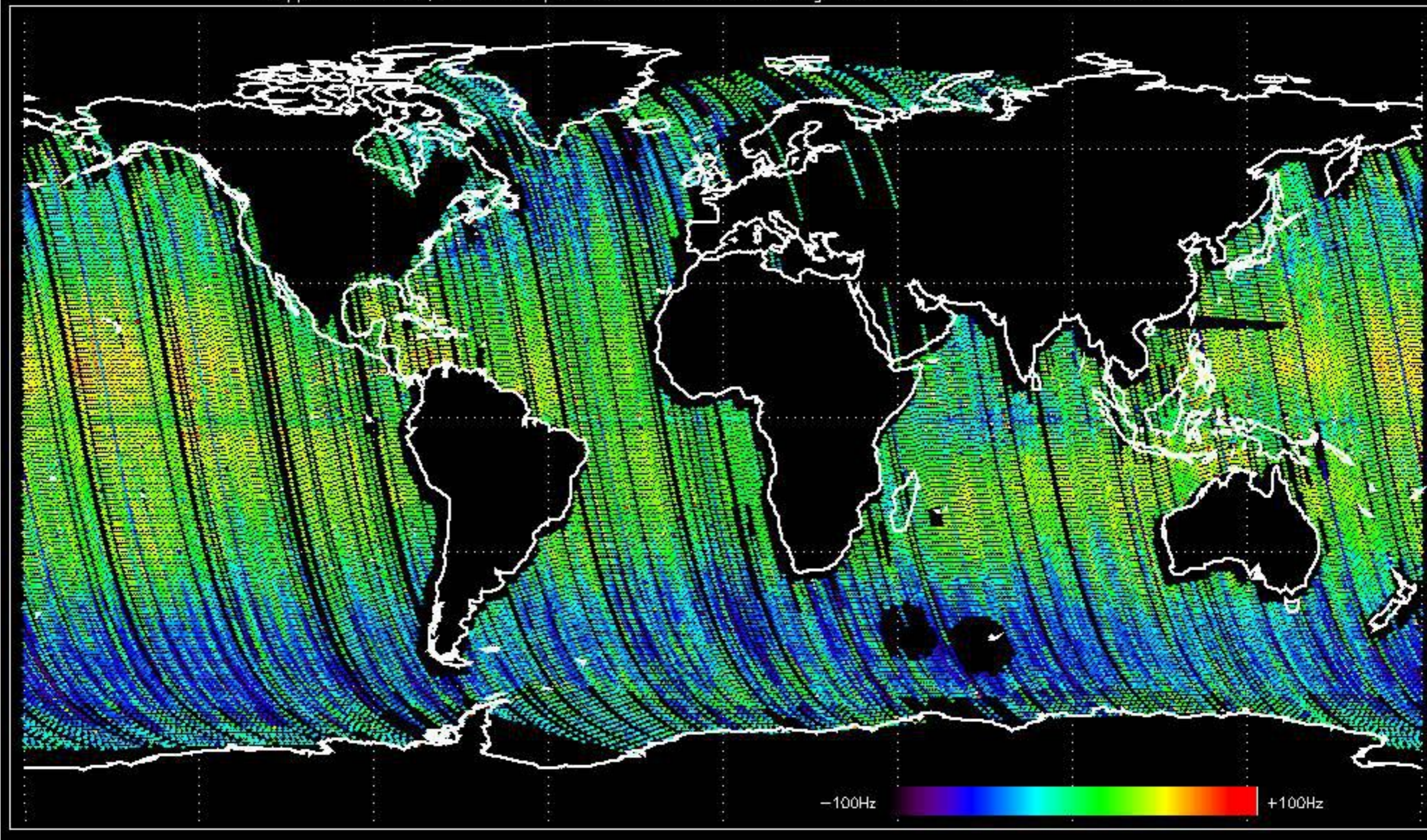
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.328008 Hz



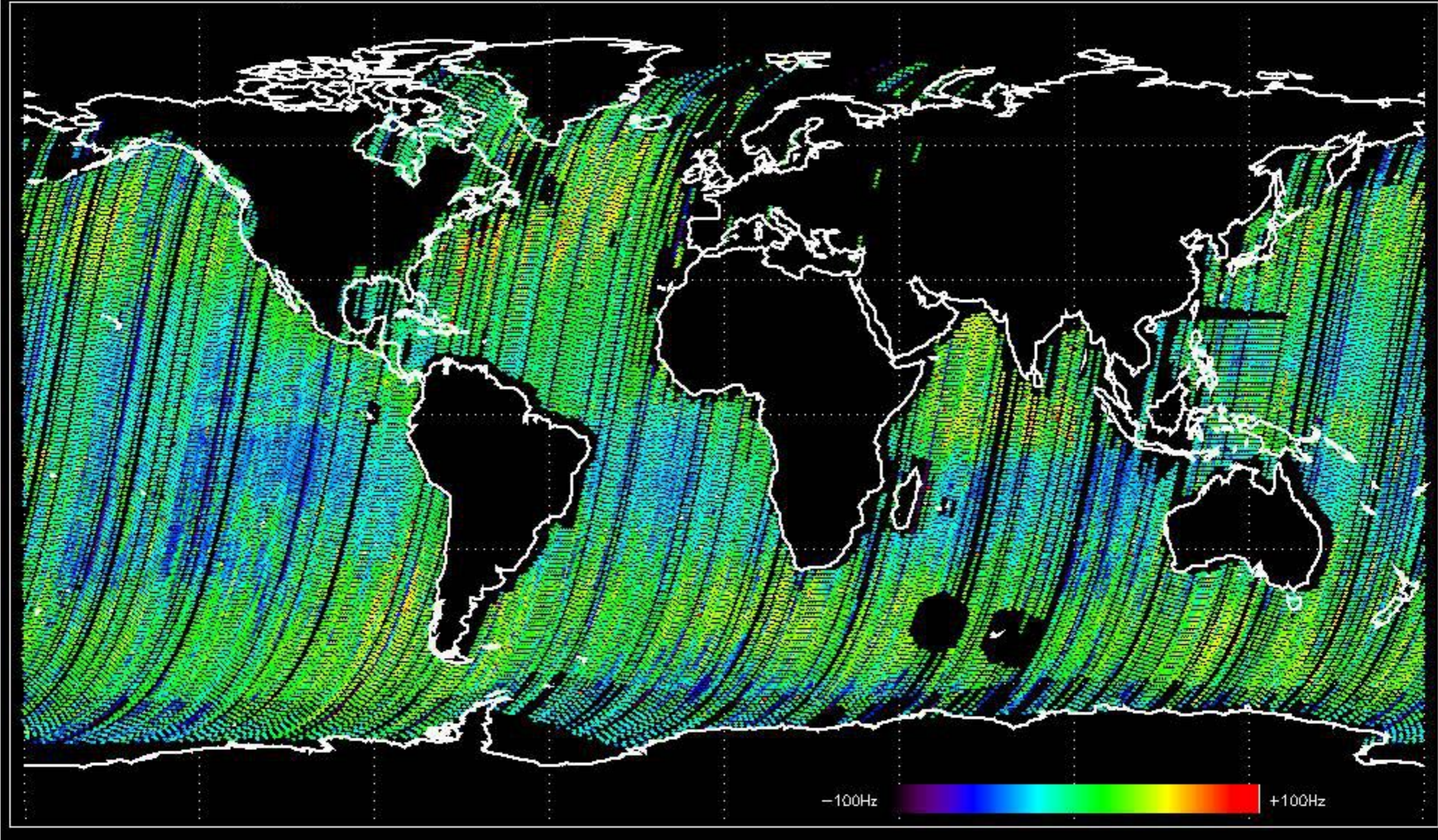
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -19.109776 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -37.156085 Hz



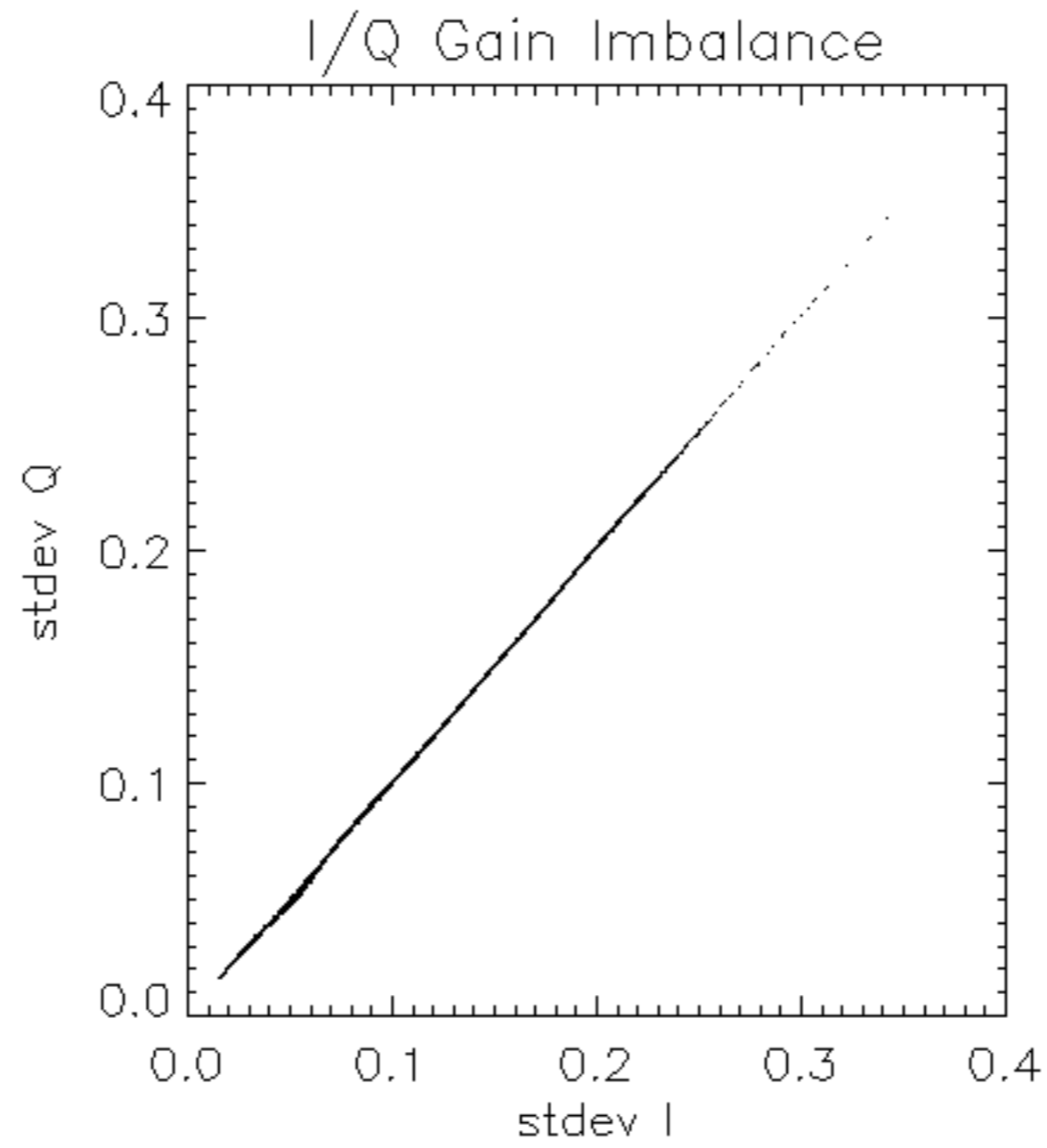
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.581713 Hz

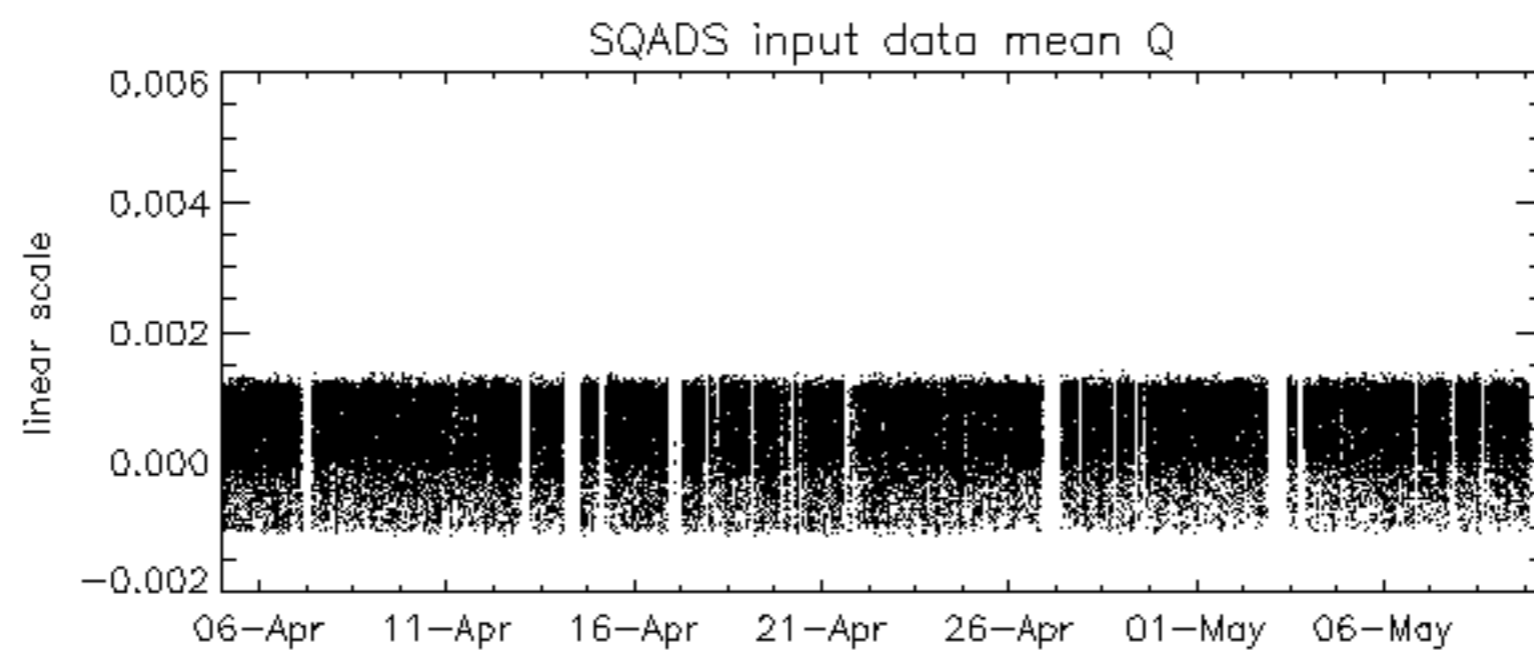
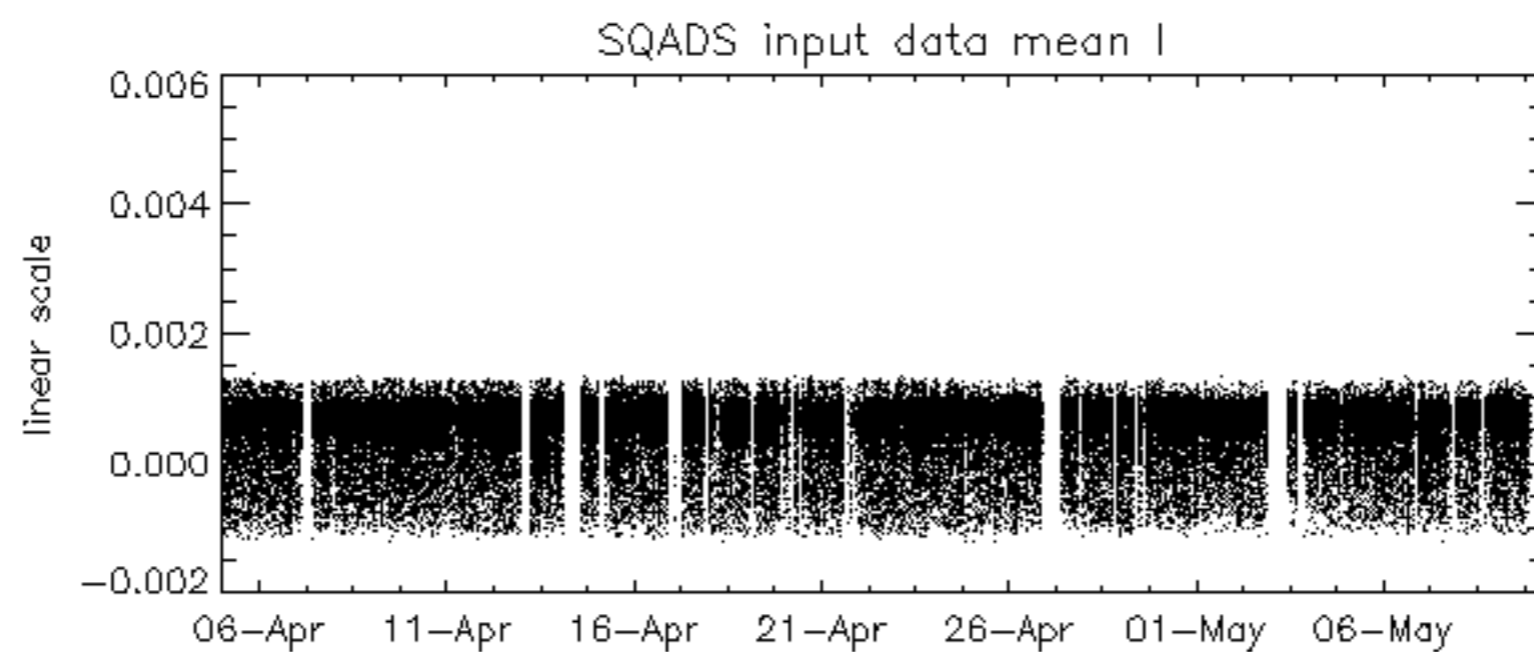
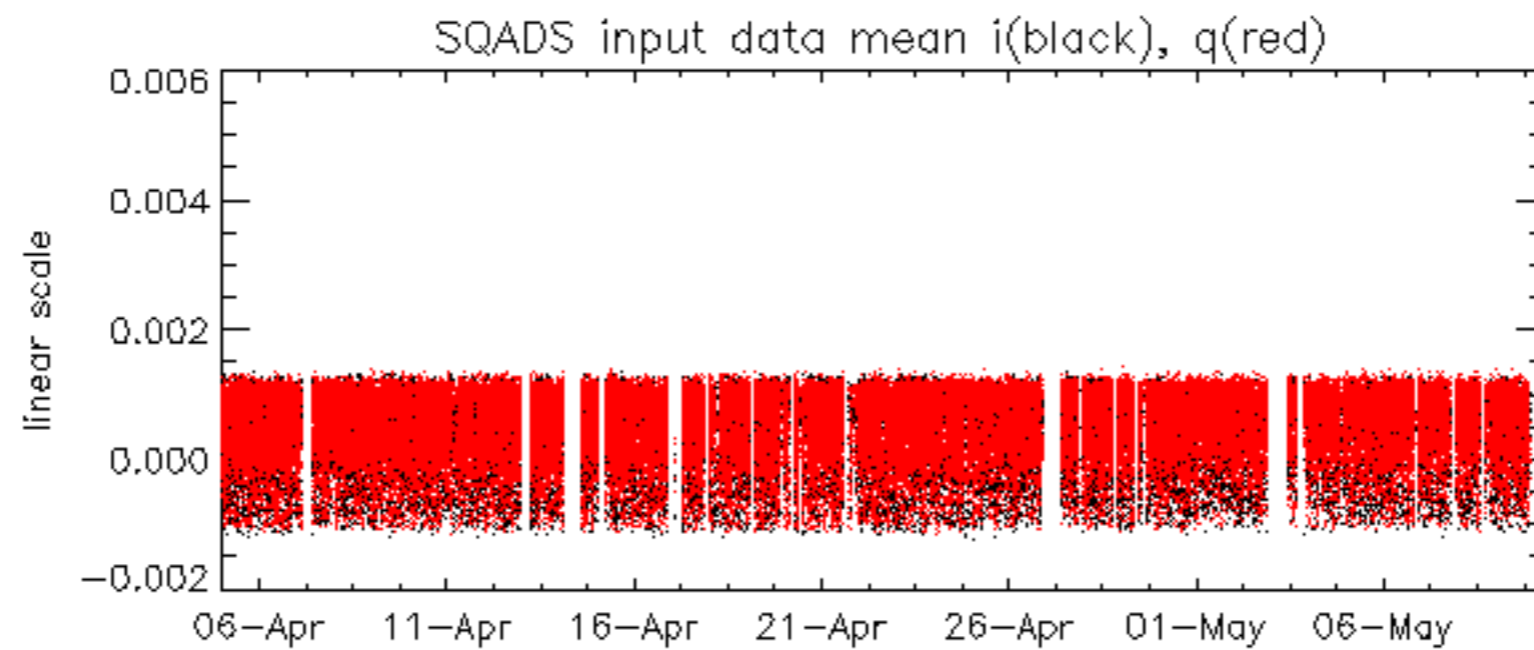


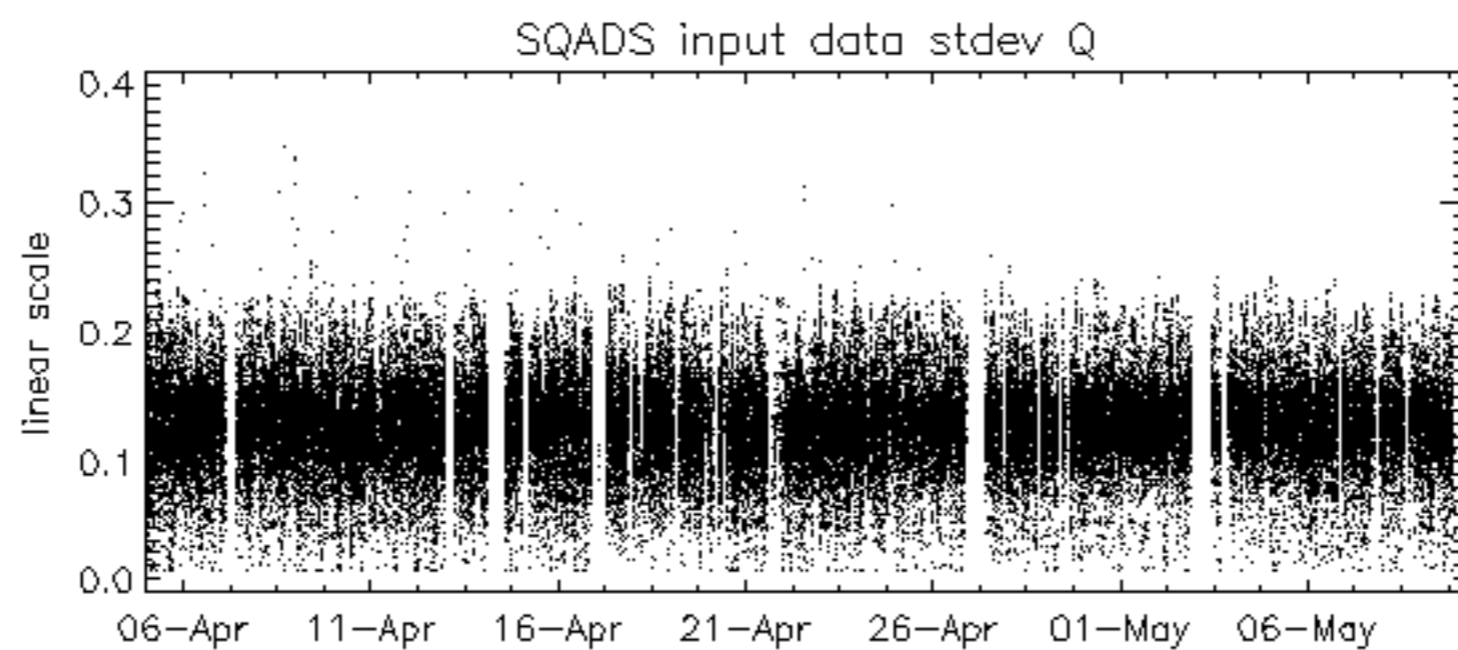
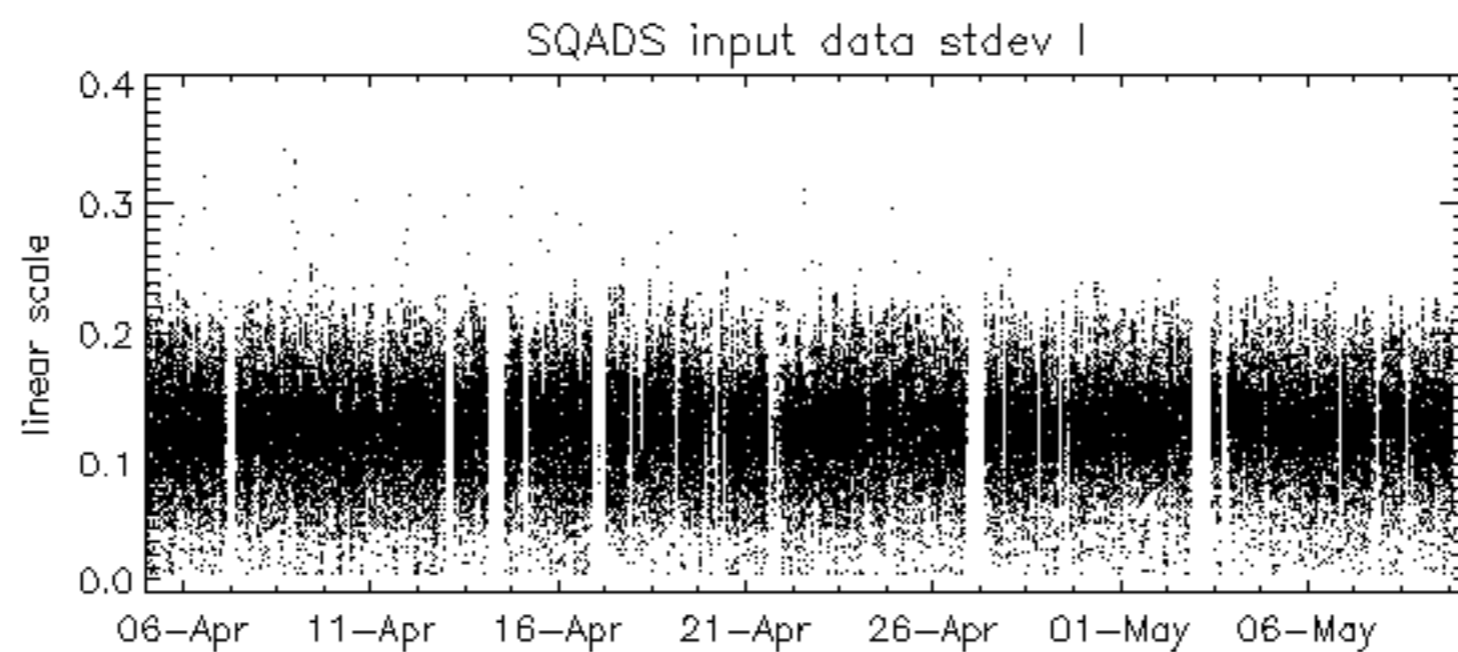
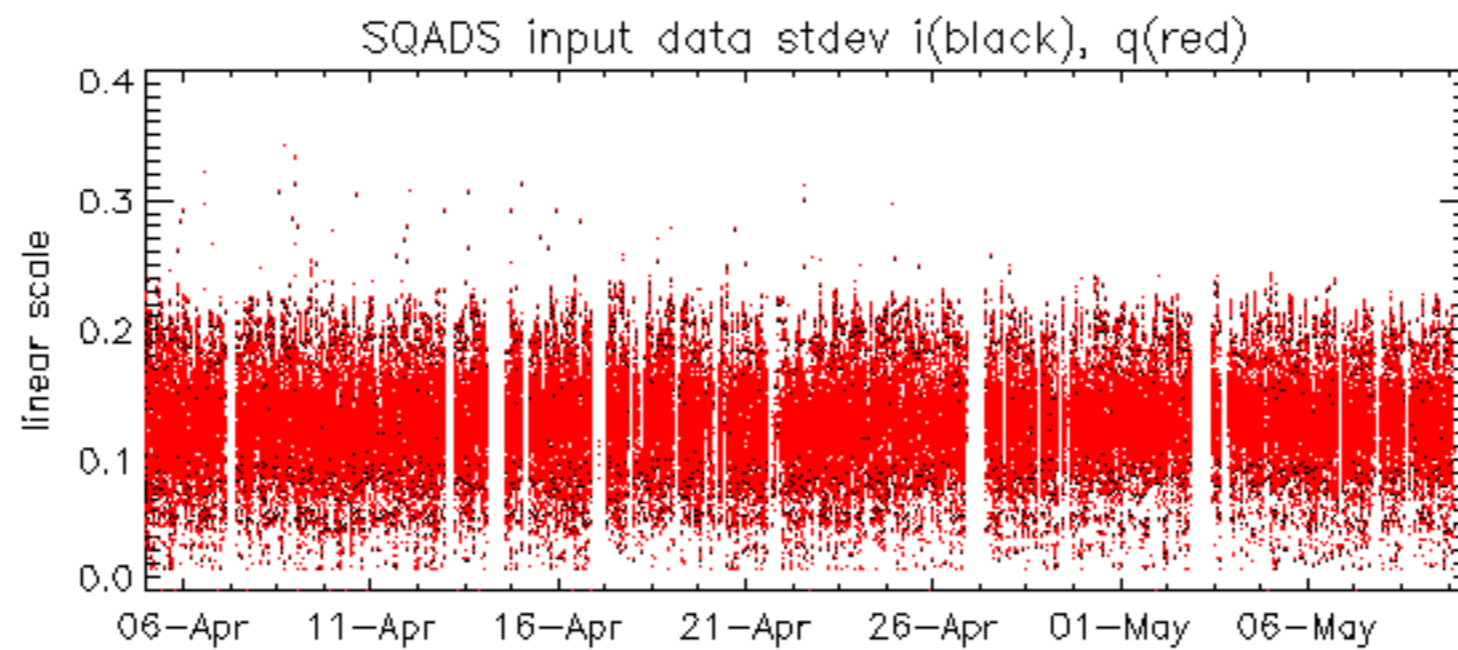
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No anomalies observed.







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