

REPORT OF 040506

last update on Thu May 6 15:01:41 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 anomalies 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:

Polarisation	Start Time
V	20040505 194126
H	20040504 201203

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	-3.600235	0.080645	-0.106248
7	P1	-3.325343	0.059601	-0.078107
11	P1	-4.617336	0.027225	0.082903
15	P1	-4.956998	0.041568	0.109014
19	P1	-3.361584	0.005572	-0.028425
22	P1	-4.517822	0.014093	0.009725
24	P1	-5.004194	0.015131	0.100777
28	P1	-4.594145	0.013738	0.019799

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.402859	0.081243	-0.027663
7	P2	-22.872959	0.117964	-0.024583

11	P2	-15.847483	0.136352	0.171191
15	P2	-7.160789	0.091067	-0.019444
19	P2	-9.519492	0.142357	0.017098
22	P2	-17.640150	0.096106	0.055708
24	P2	-20.966028	0.101843	0.059701
28	P2	-16.602692	0.083124	0.005516

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.132767	0.003192	-0.005799
7	P3	-8.132768	0.003192	-0.005793
11	P3	-8.132773	0.003192	-0.005772
15	P3	-8.132783	0.003191	-0.005725
19	P3	-8.132788	0.003191	-0.005704
22	P3	-8.132793	0.003192	-0.005659
24	P3	-8.132792	0.003192	-0.005648
28	P3	-8.132870	0.003191	-0.006114

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	-3.250586	0.318182	-0.104222
7	P1	-2.881716	0.268529	-0.154460
11	P1	-3.814573	0.021689	0.023836
15	P1	-4.024363	0.353116	0.145623
19	P1	-3.254532	0.061394	-0.093443
22	P1	-5.799937	0.043505	0.085848
24	P1	-4.051627	0.087685	0.021349
28	P1	-2.867667	0.069325	-0.108687

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.113949	0.040304	-0.066444
7	P2	-22.990723	0.027392	0.034374
11	P2	-11.058467	0.190695	-0.105355
15	P2	-4.925763	0.029004	-0.090527
19	P2	-6.831521	0.030836	-0.093452
22	P2	-7.701769	0.028445	-0.013586
24	P2	-11.017275	0.055171	-0.087754
28	P2	-19.022570	0.027665	-0.040971

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.968762	0.003632	-0.012511
7	P3	-7.968797	0.003629	-0.012066
11	P3	-7.968722	0.003626	-0.012428
15	P3	-7.968679	0.003643	-0.012523
19	P3	-7.968742	0.003629	-0.012700
22	P3	-7.968941	0.003616	-0.012577
24	P3	-7.968608	0.003649	-0.012413
28	P3	-7.968651	0.003646	-0.012534

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	0.000487276
	stdev	2.28664e-07
MEAN Q	mean	0.000503188
	stdev	2.62313e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128317
	stdev	0.00112153
STDEV Q	mean	0.128564
	stdev	0.00113472





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

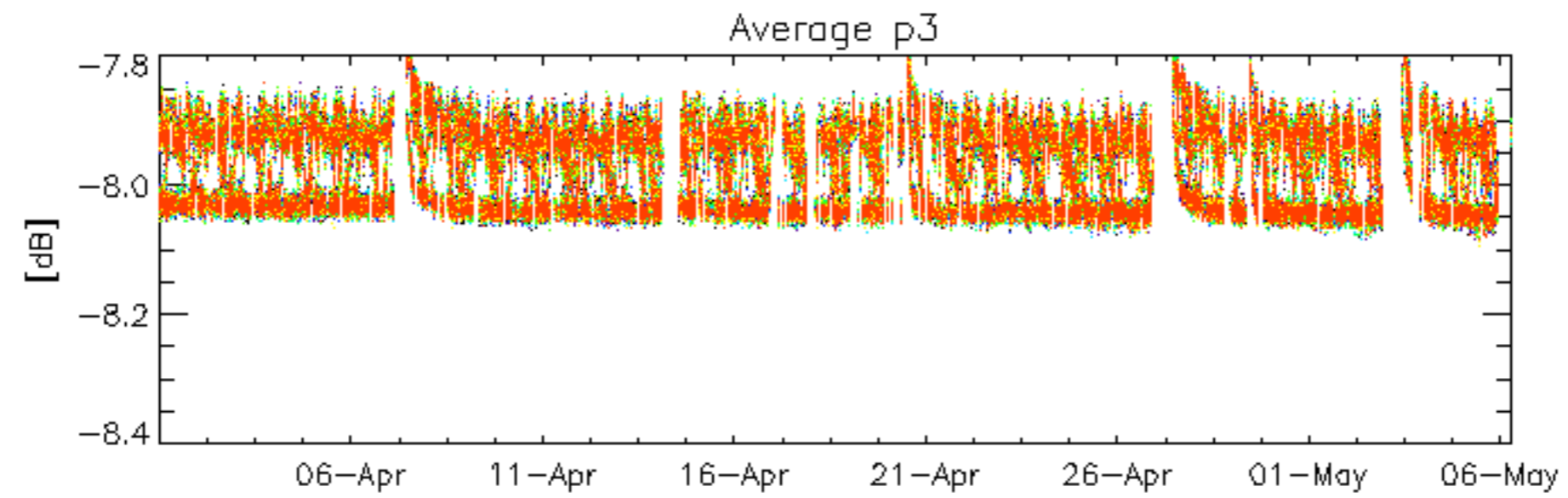
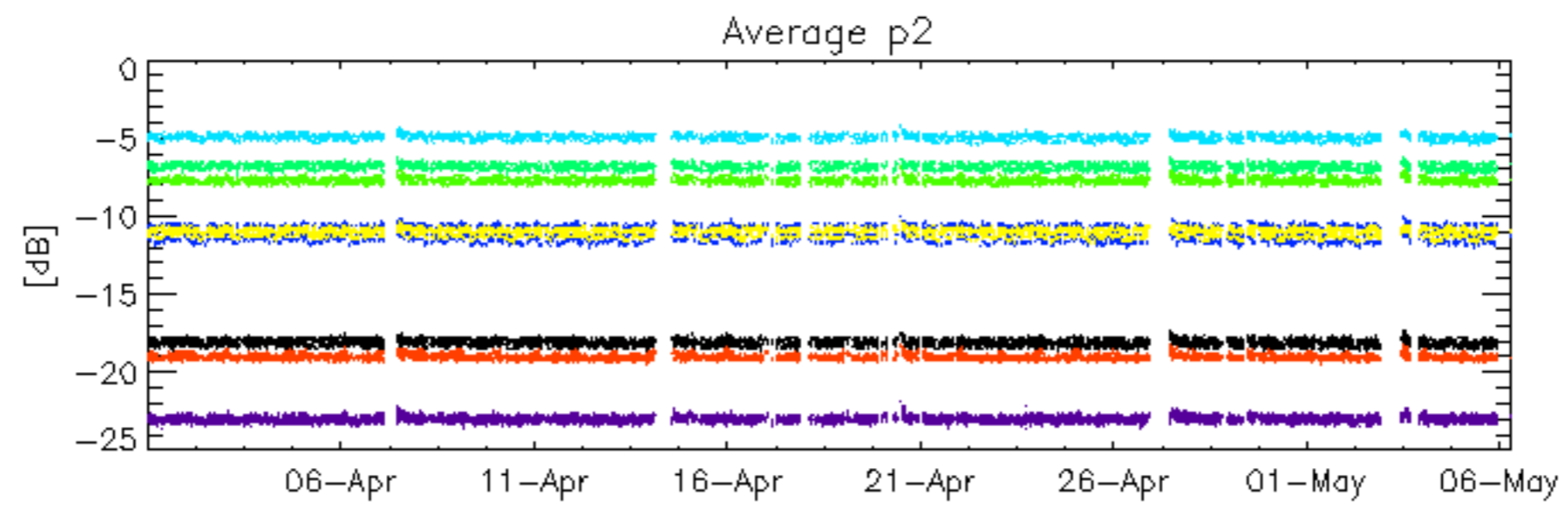
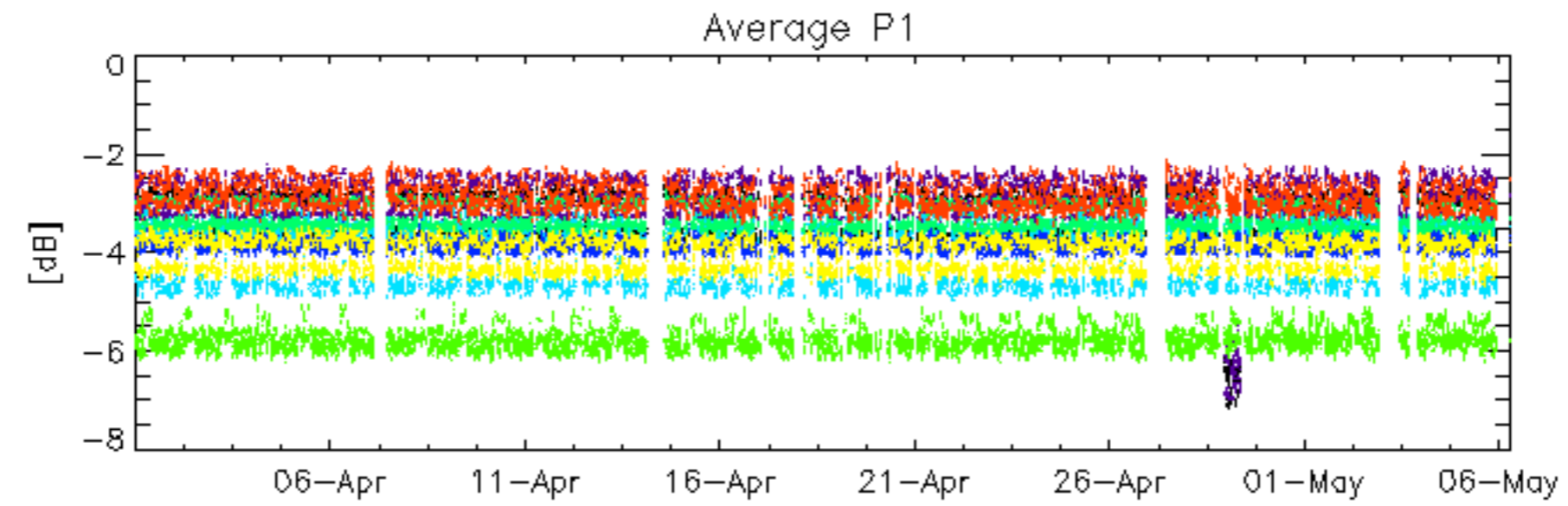
Evolution of Absolute Doppler

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

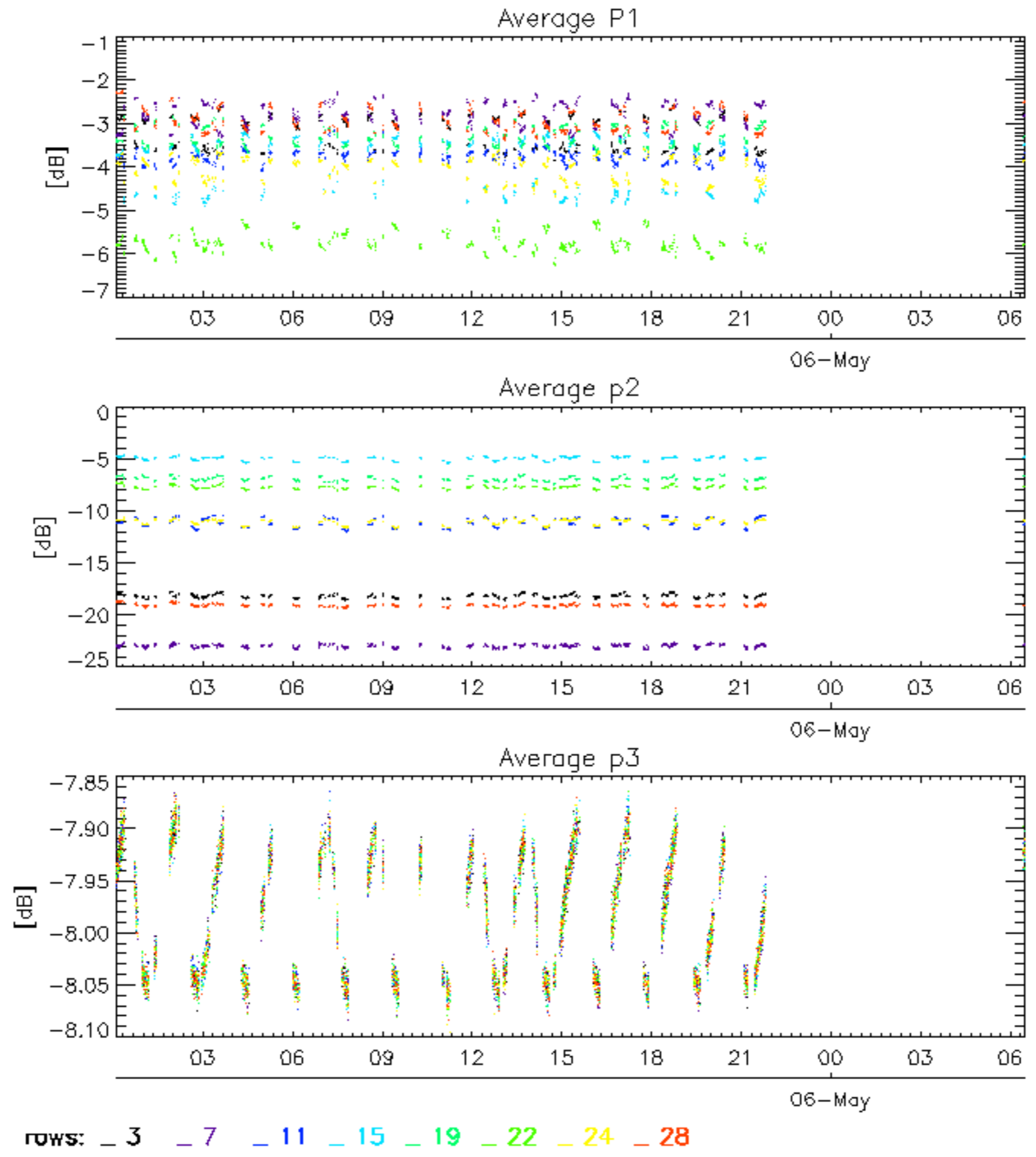
6.6 - Doppler evolution versus ANX for GM1

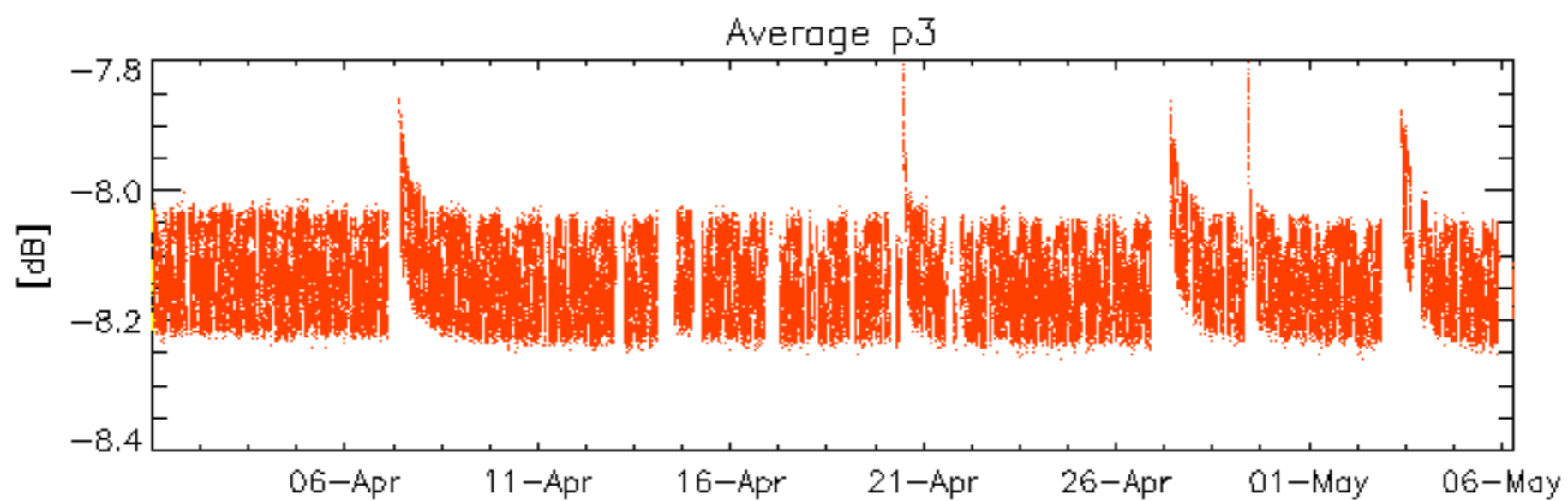
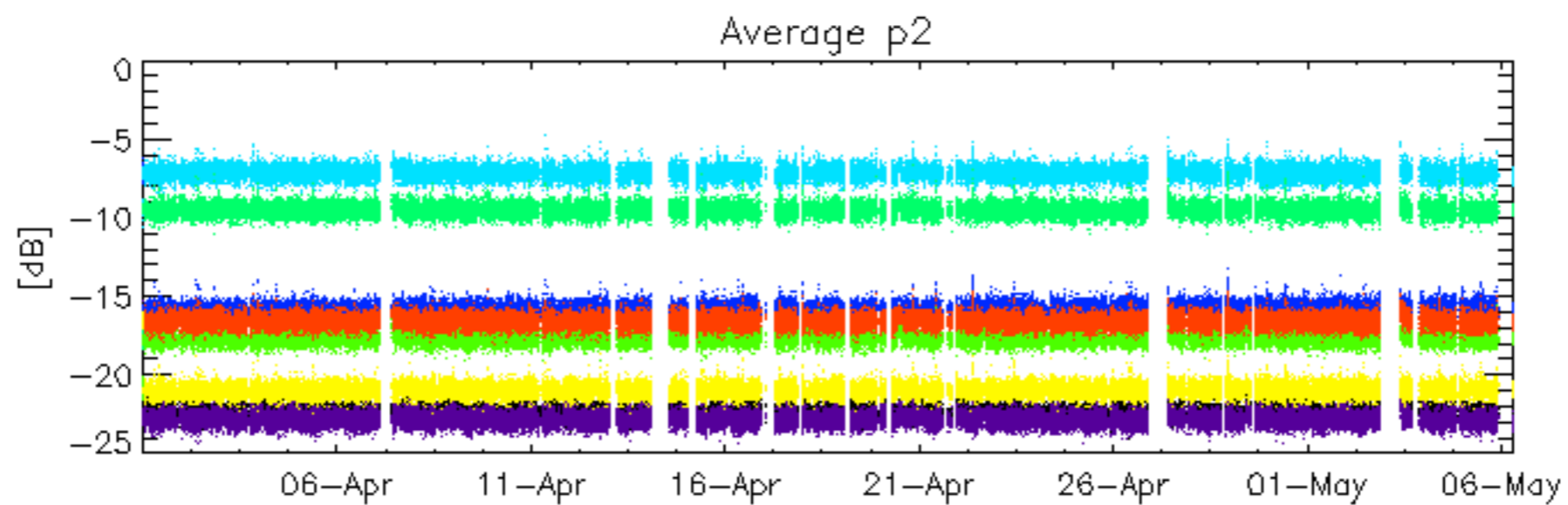
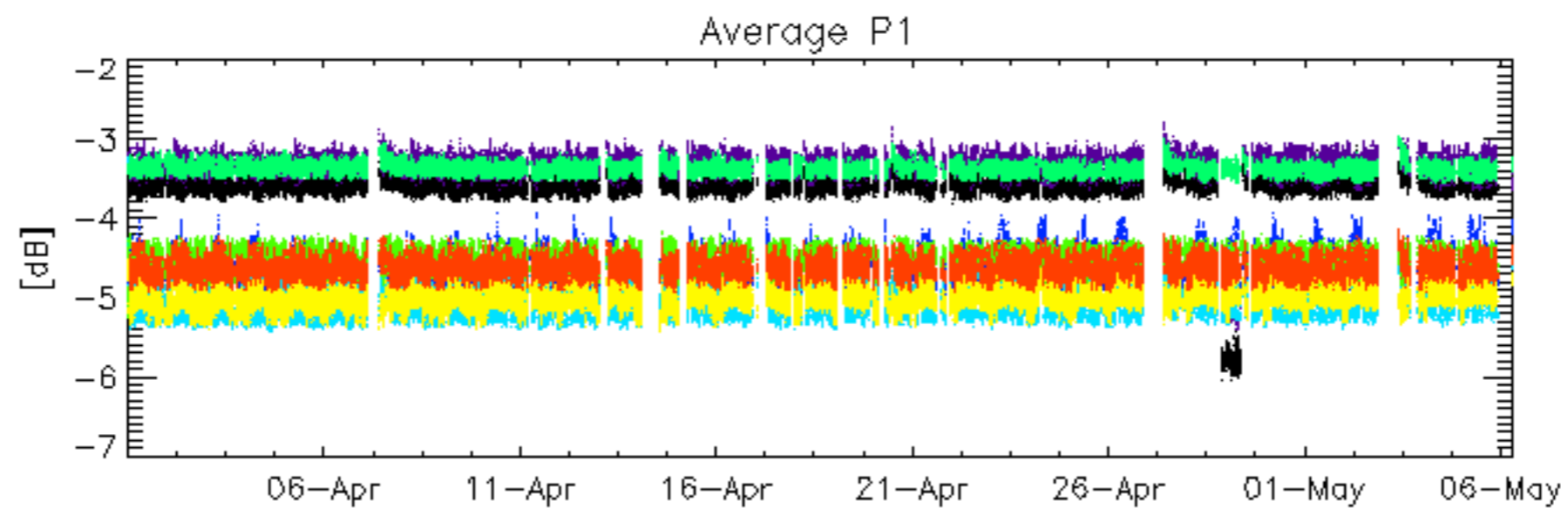
Evolution Doppler error versus ANX

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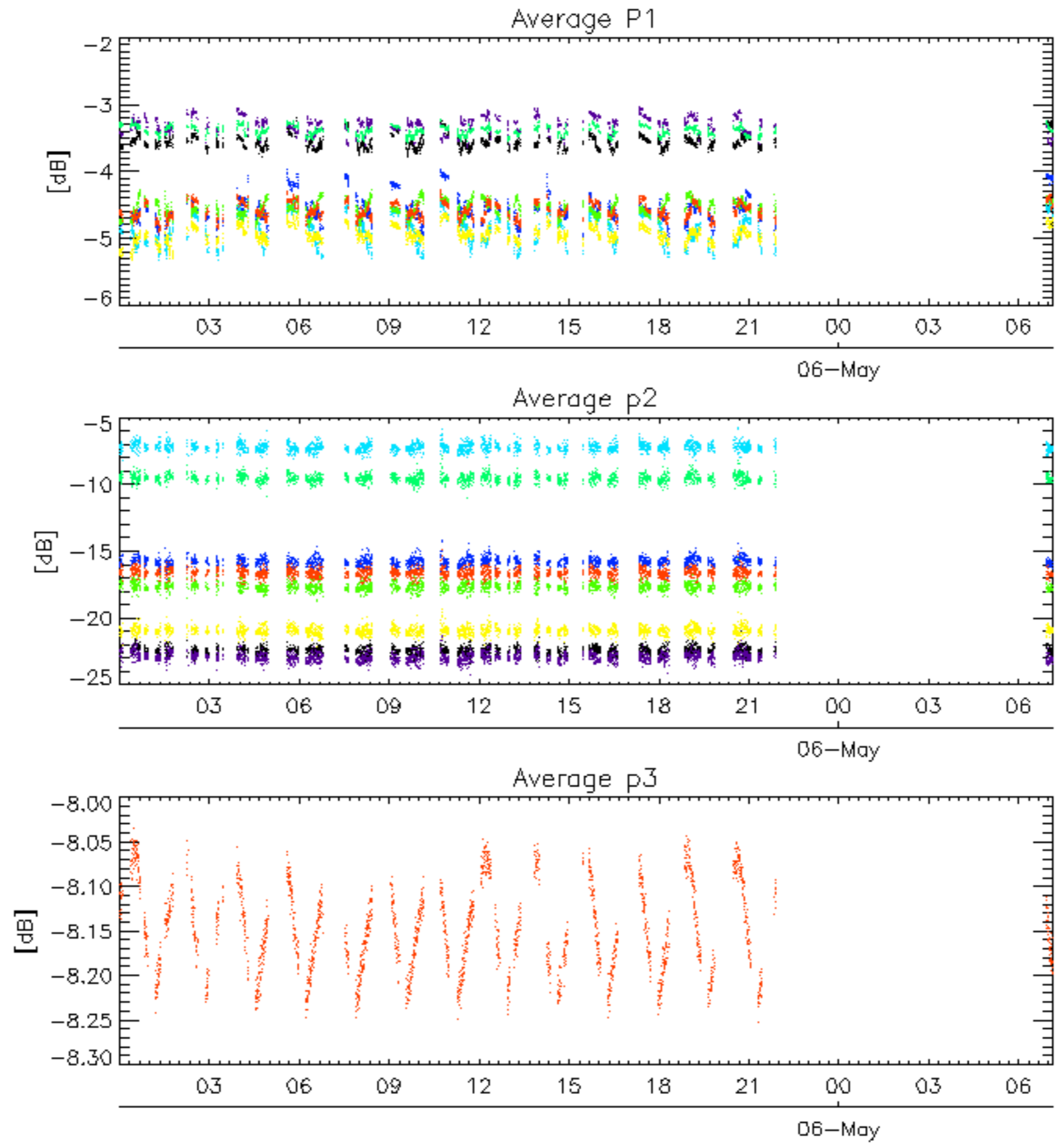


rows: **3** **7** **11** **15** **19** **22** **24** **28**





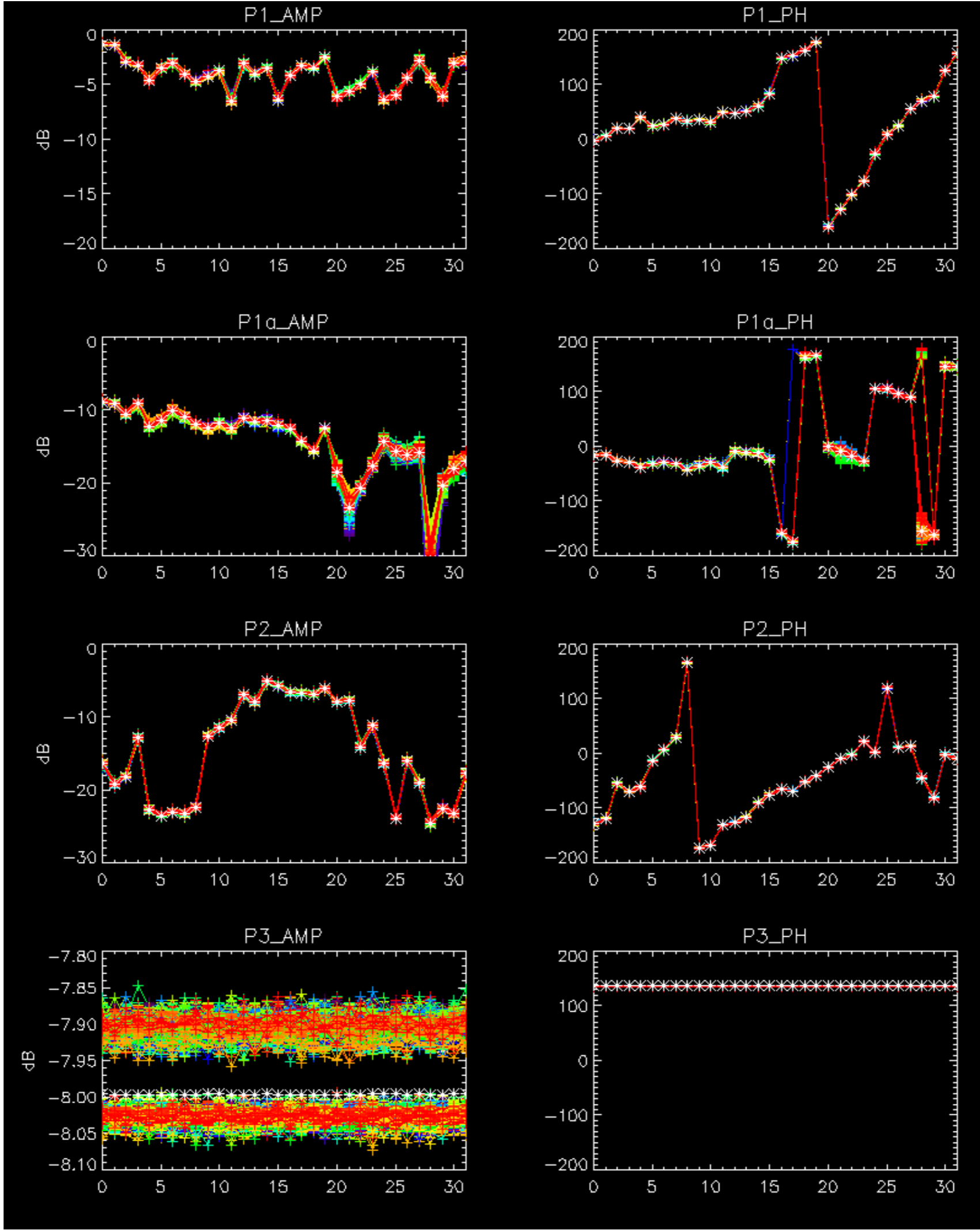
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28

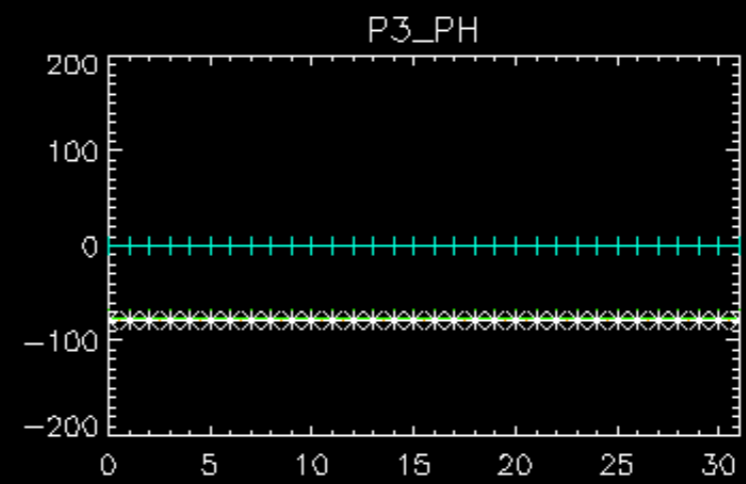
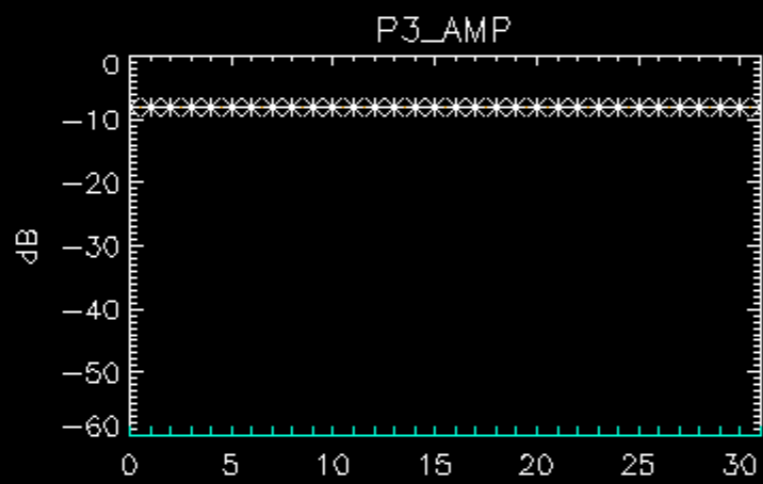
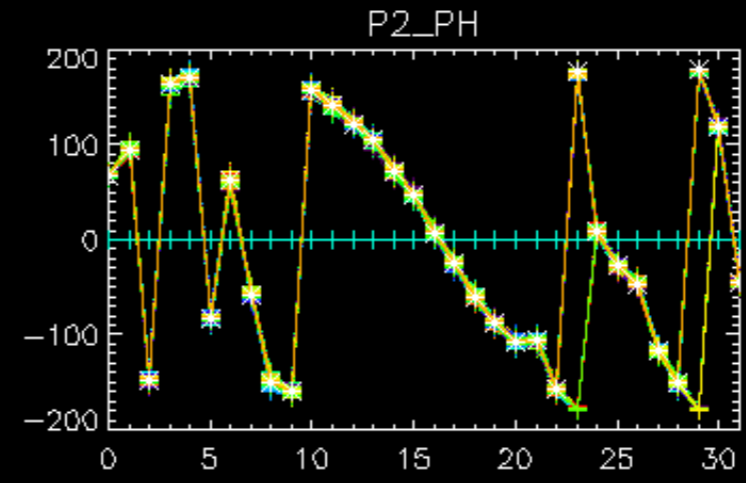
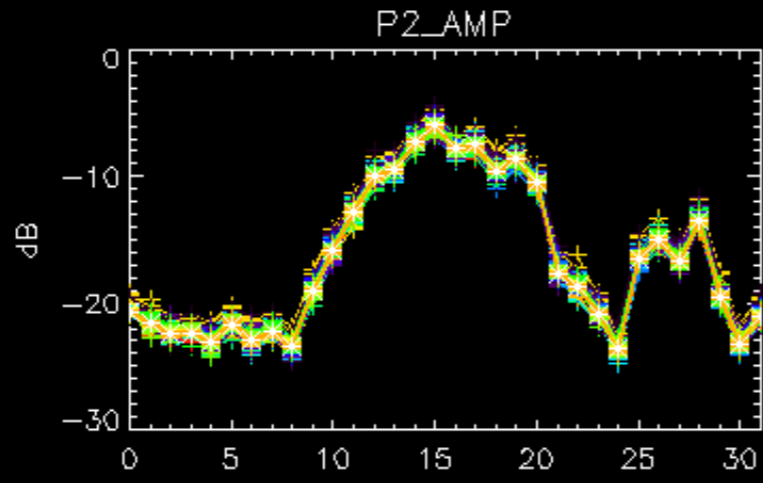
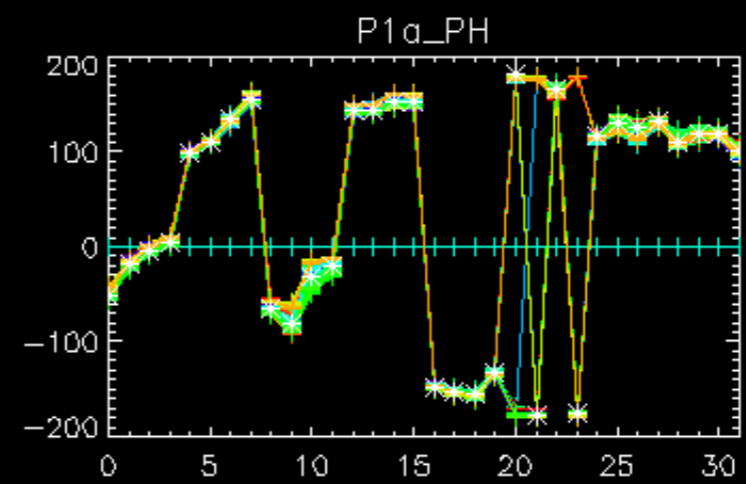
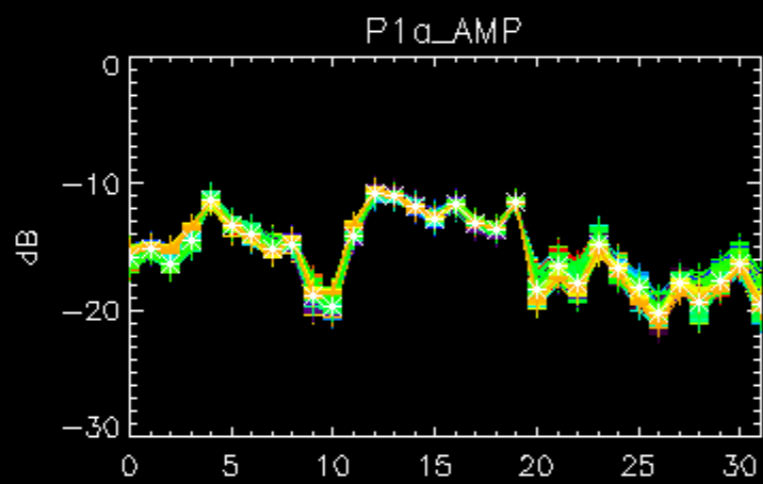
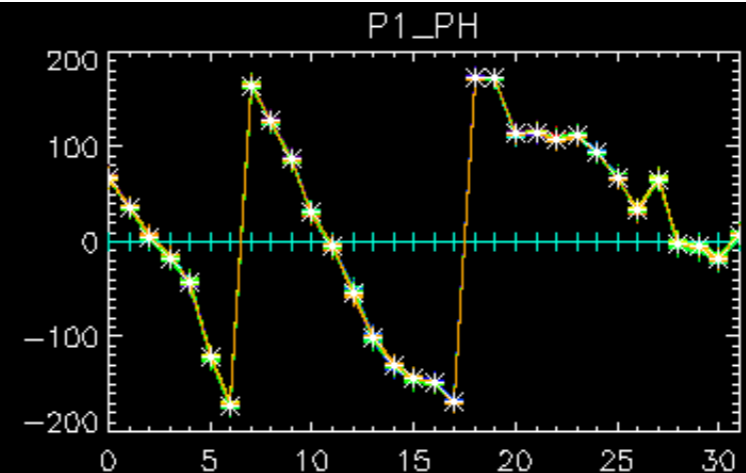
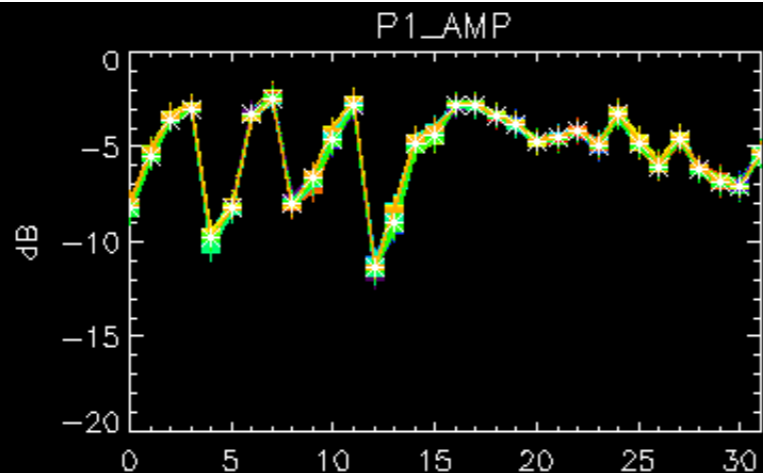


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28

No anomalies observed on available browse products

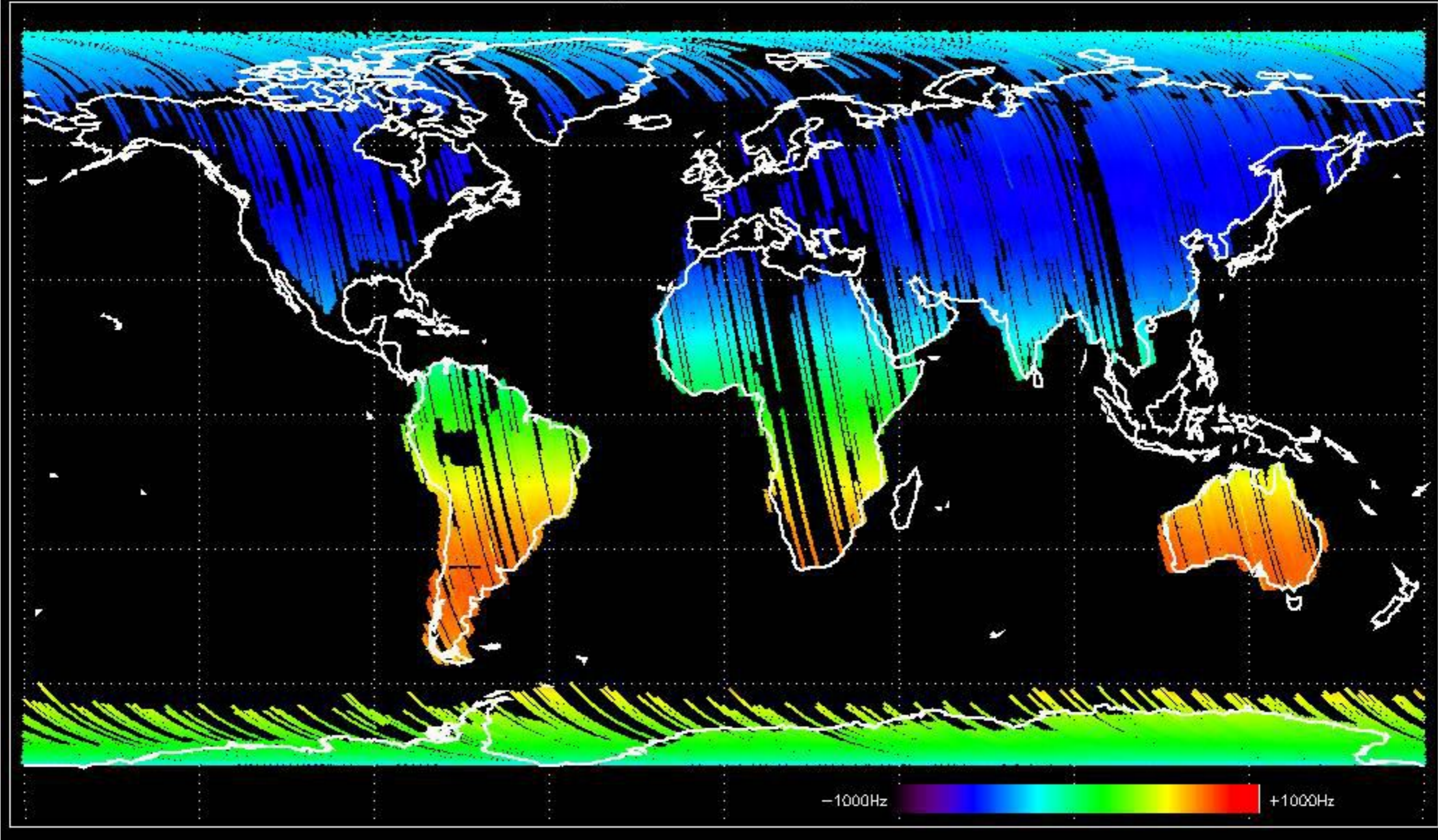
No anomalies observed.



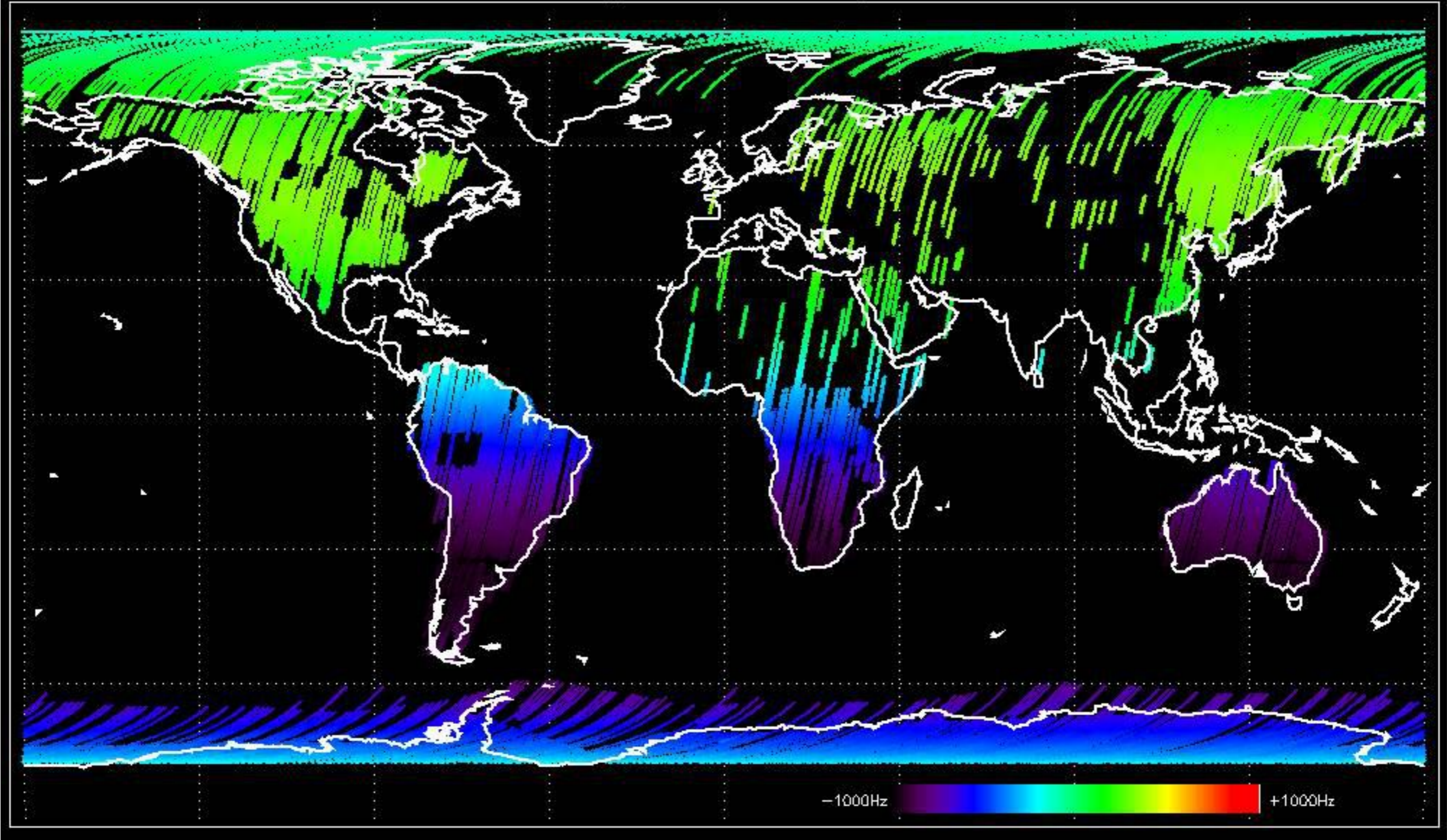


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

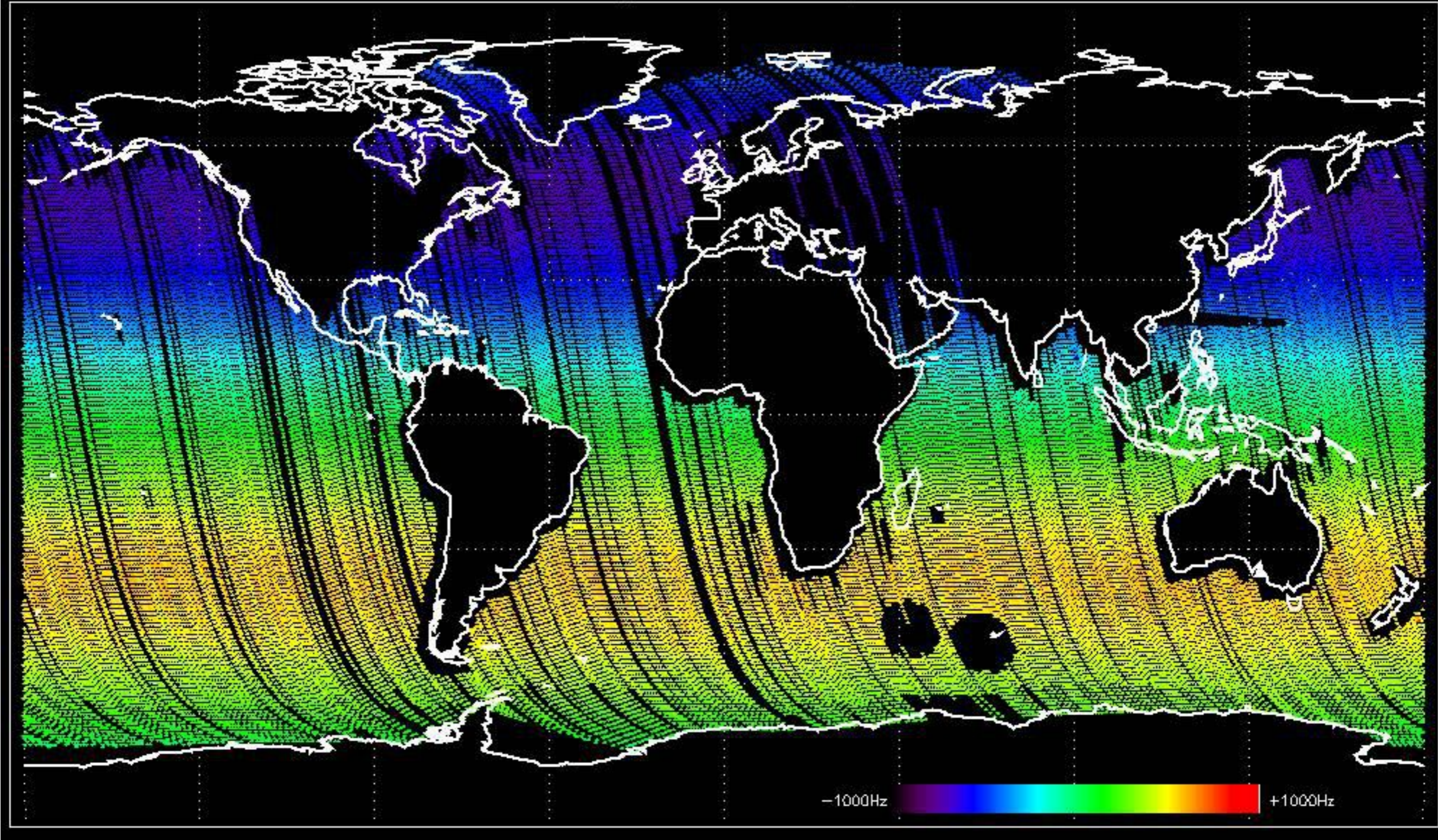
Doppler 'GM1' 'SS1' ascending



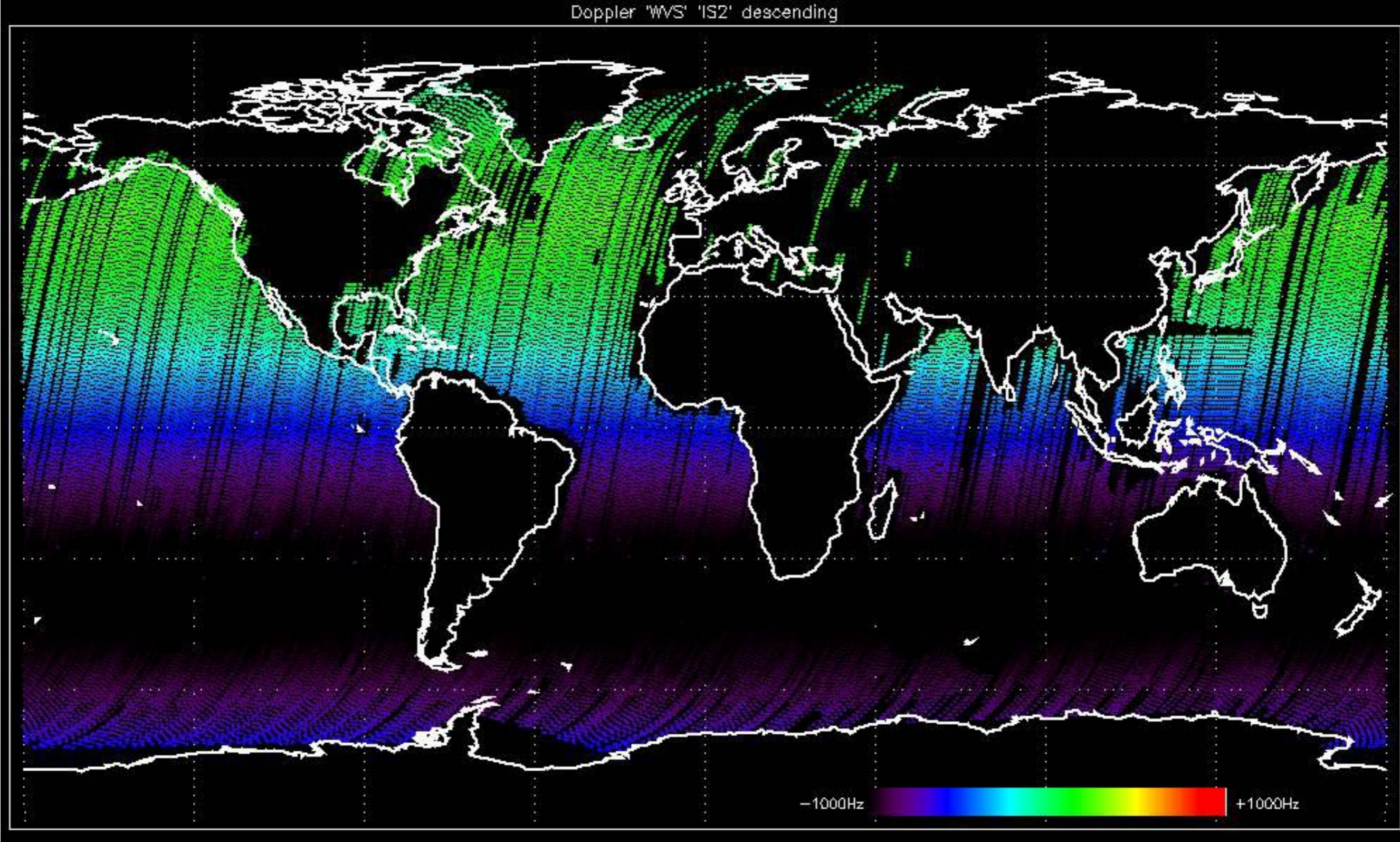
Doppler 'GM1' 'SS1' descending

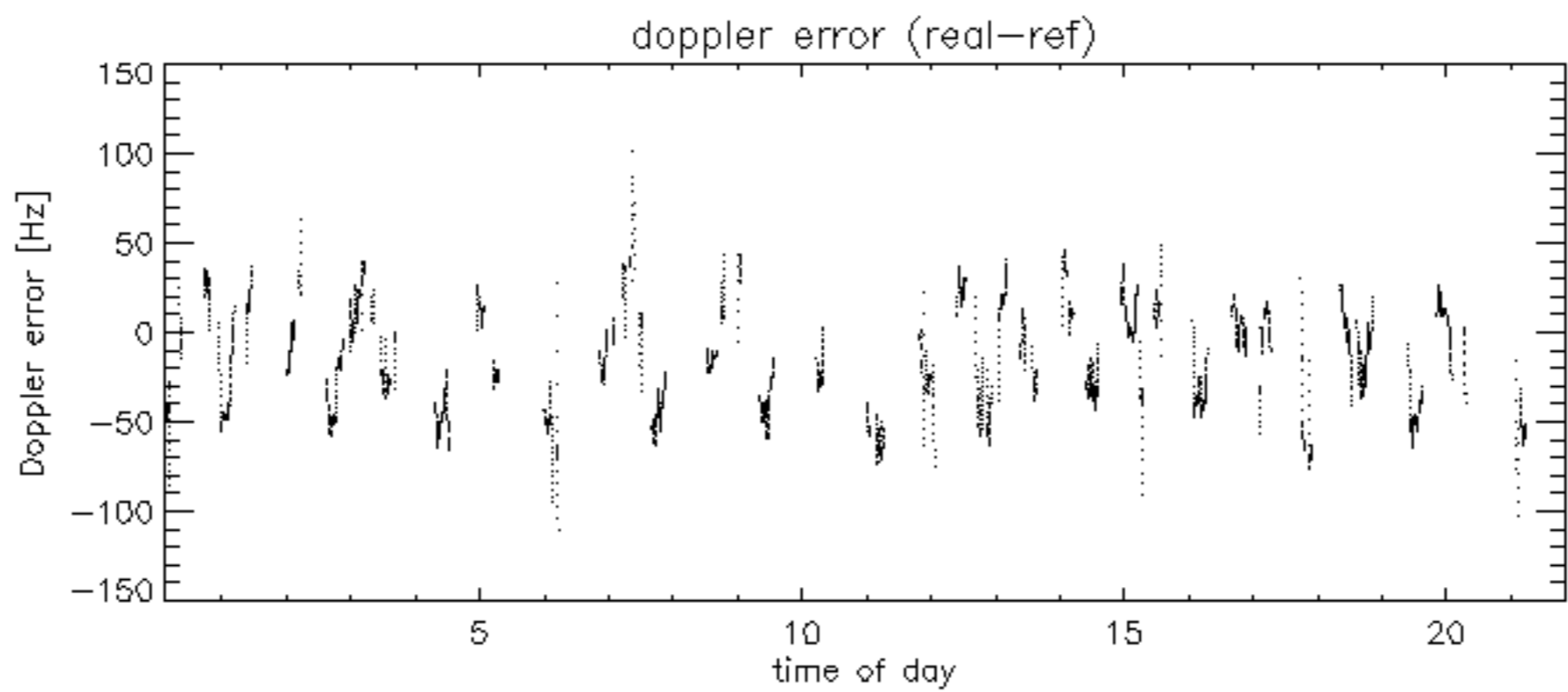
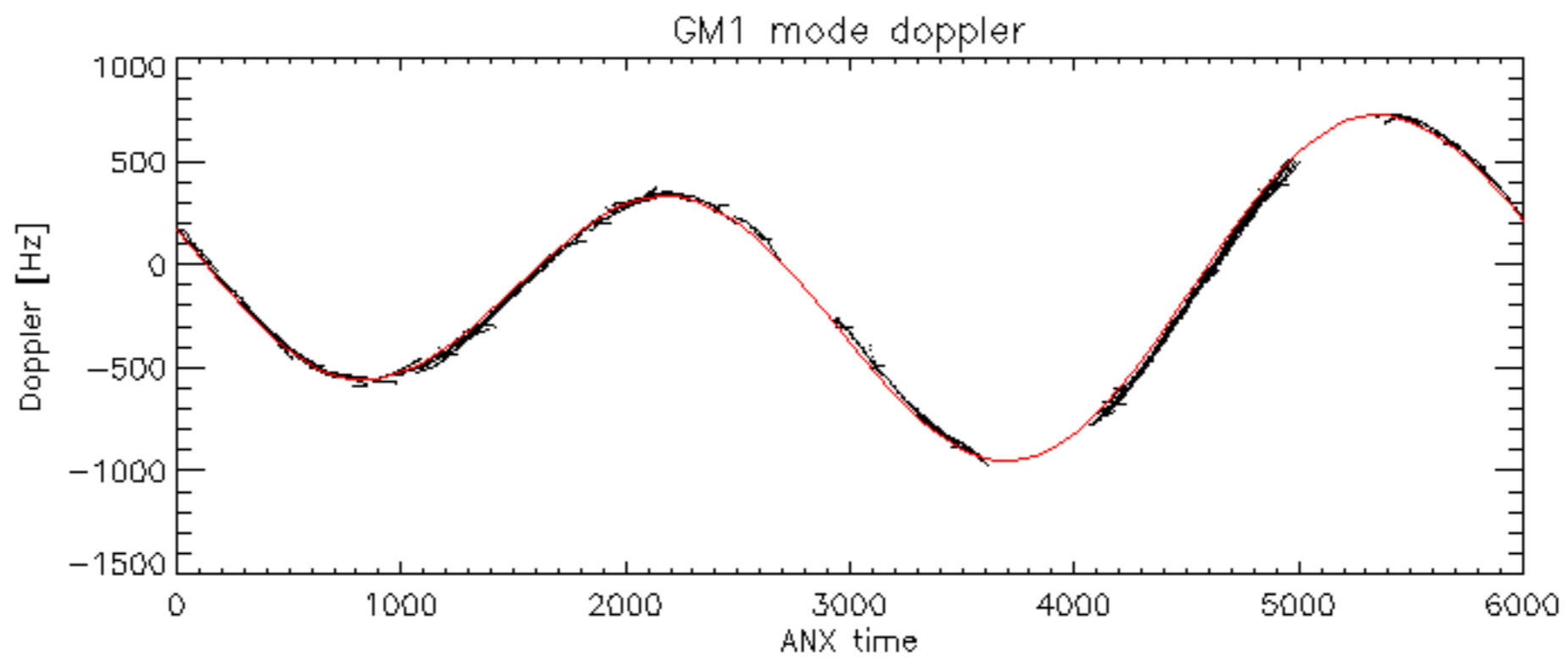


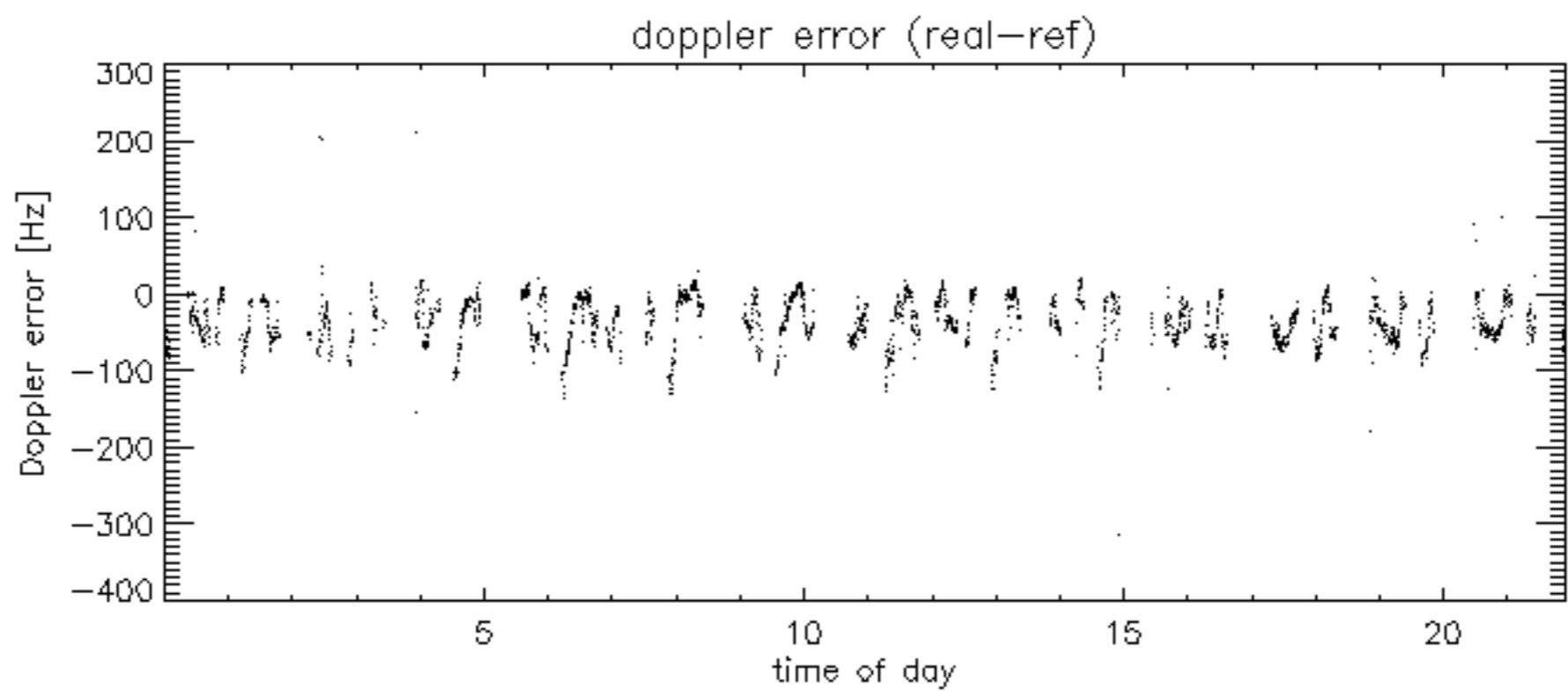
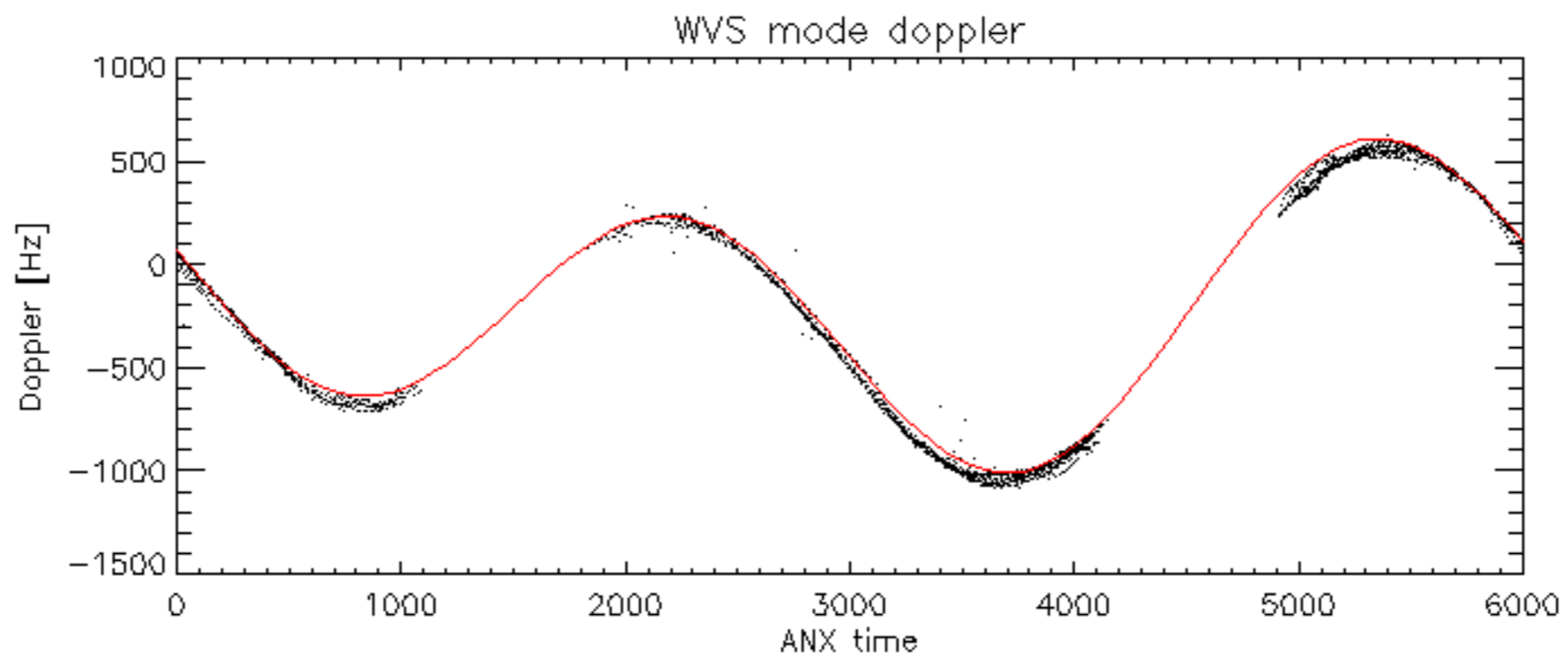
Doppler 'WVS' 'IS2' ascending



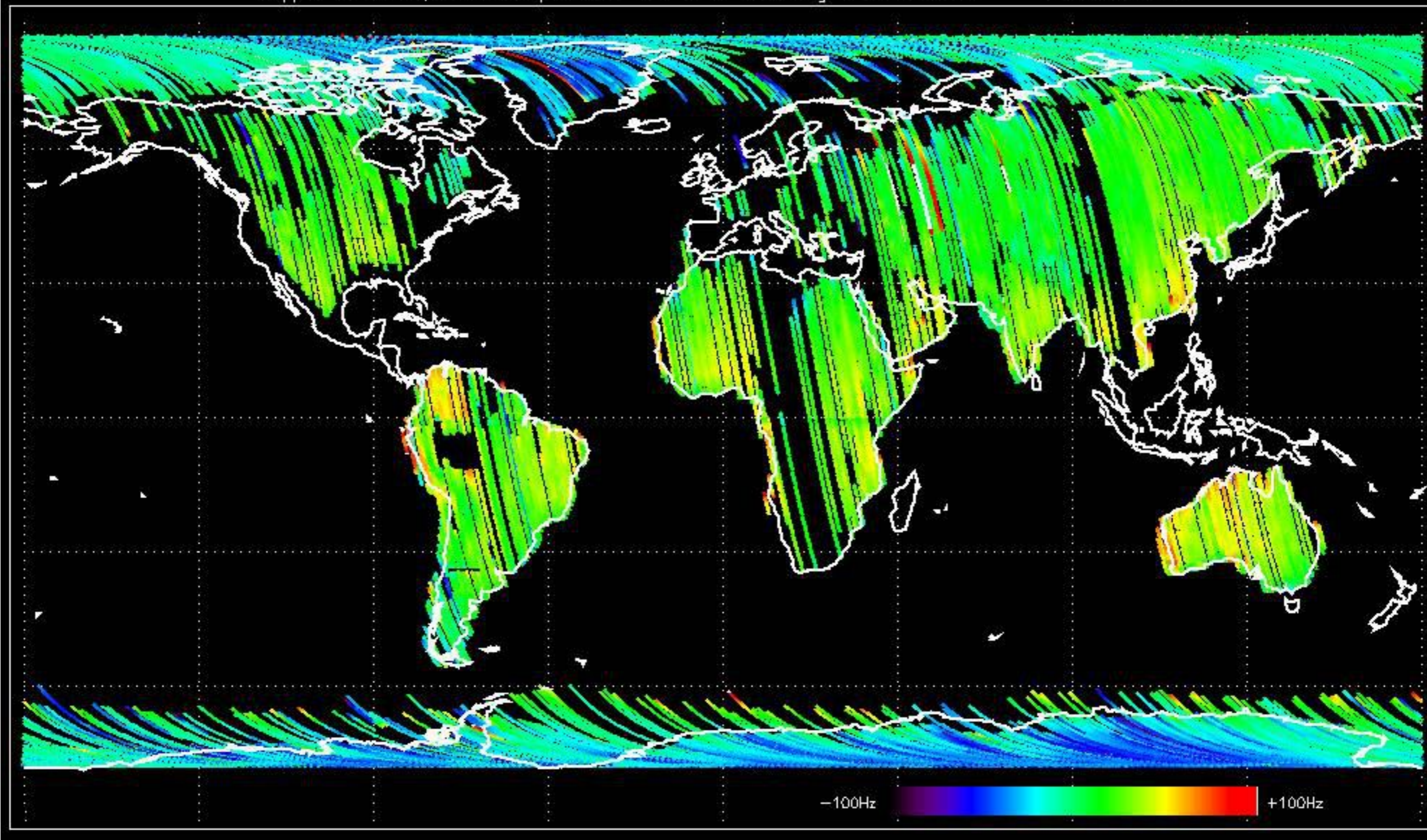
Doppler 'WVS' 'IS2' descending



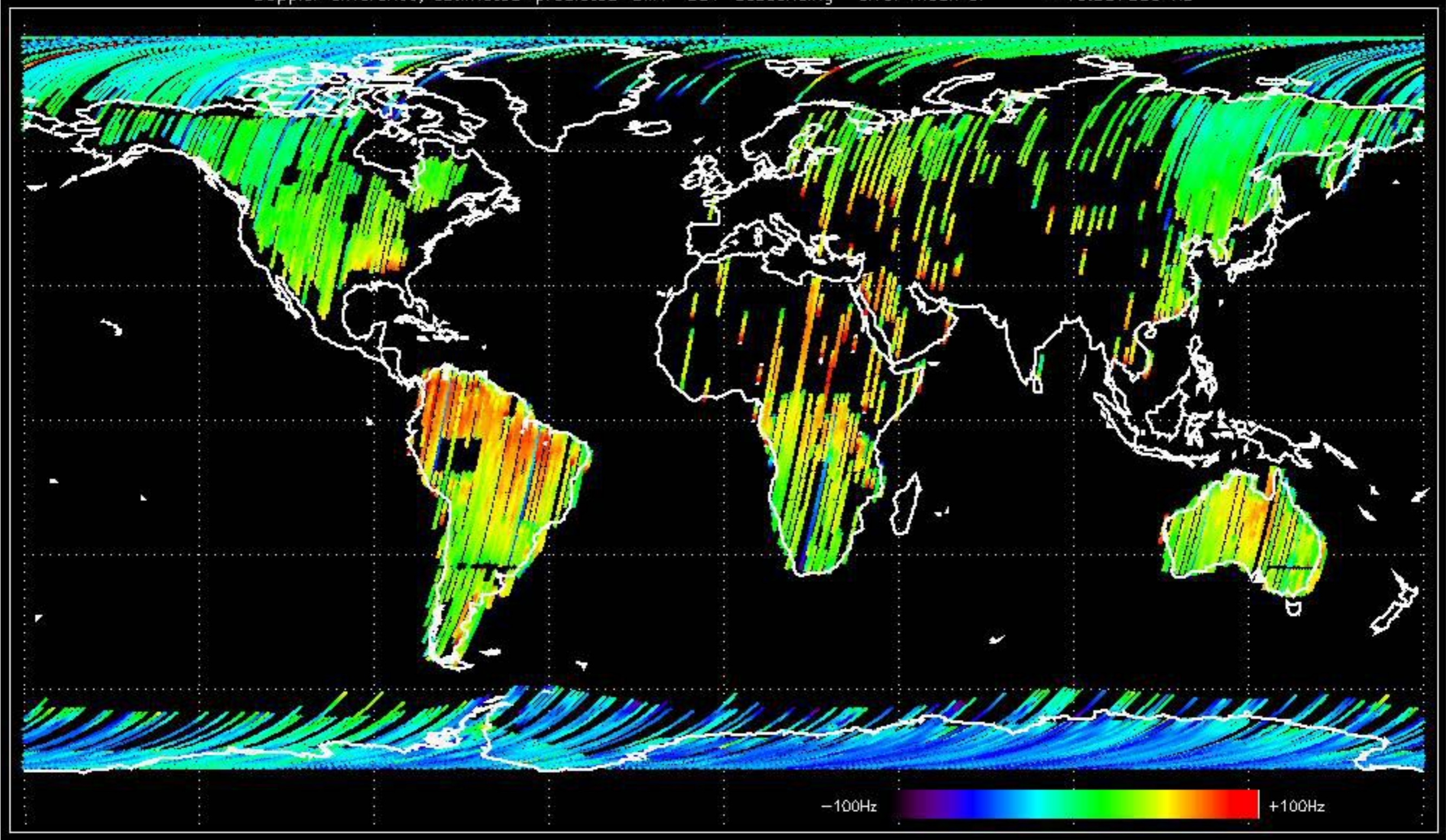




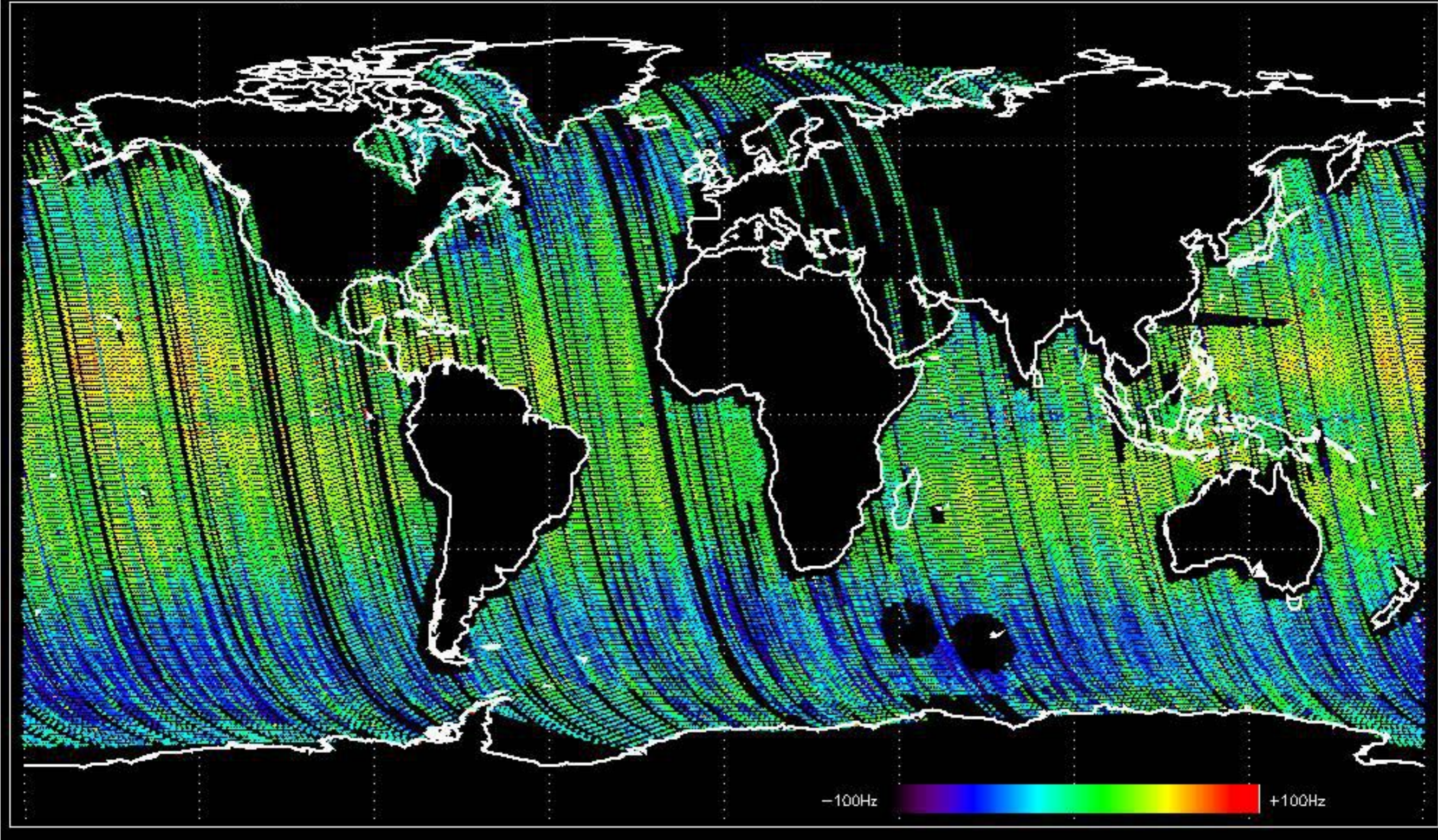
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.921272 Hz



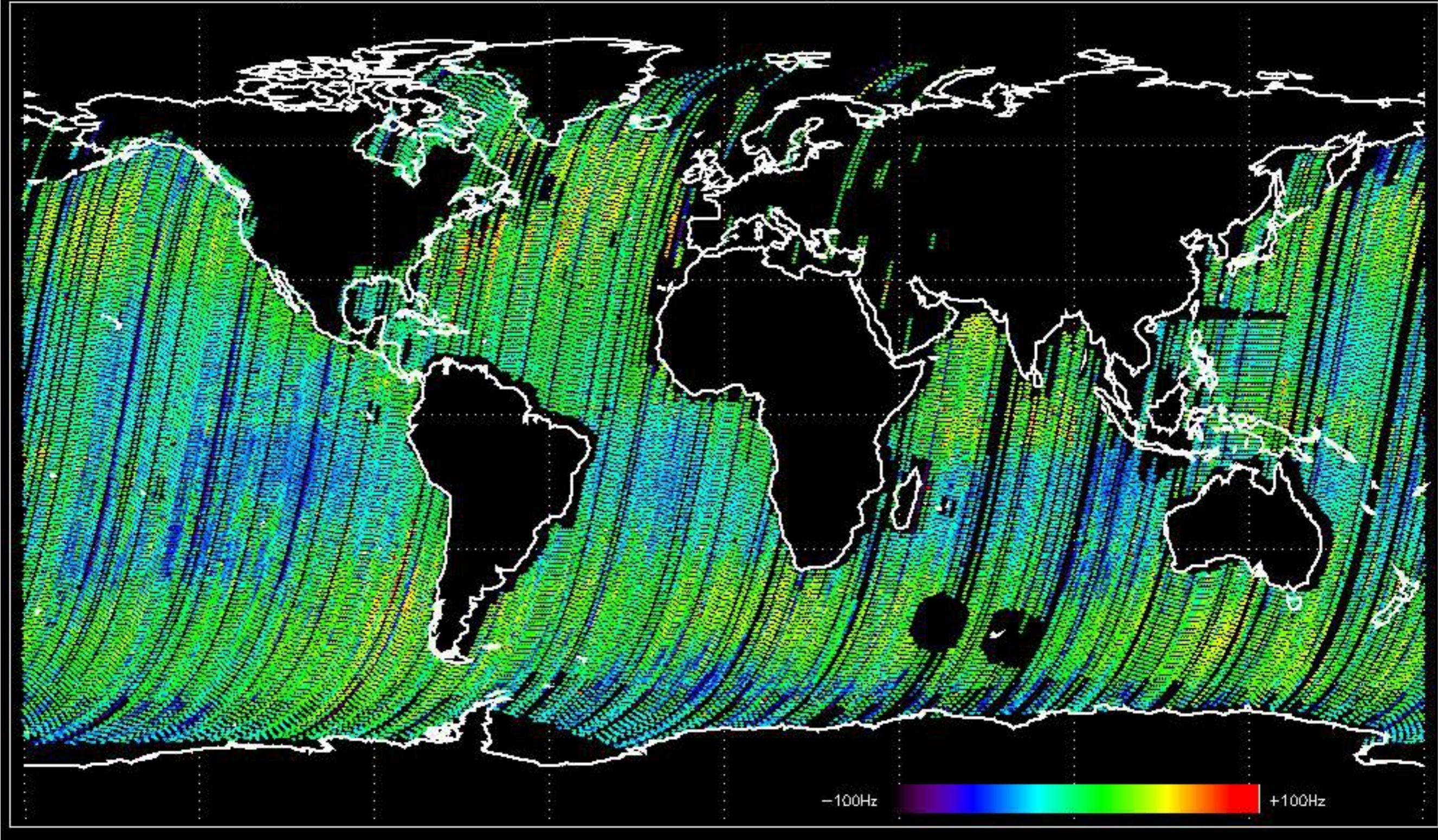
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.857300 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -37.356196 Hz

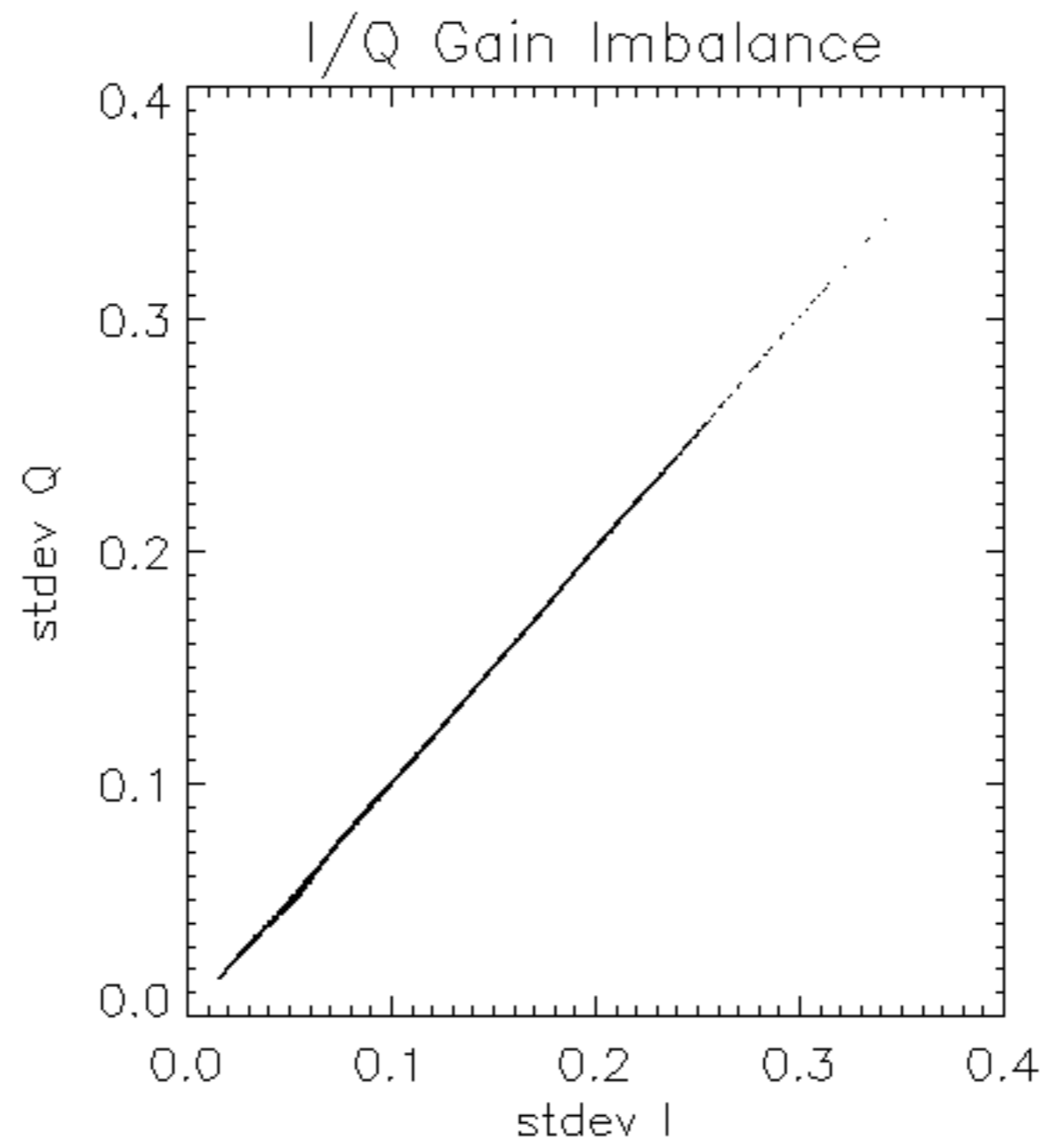


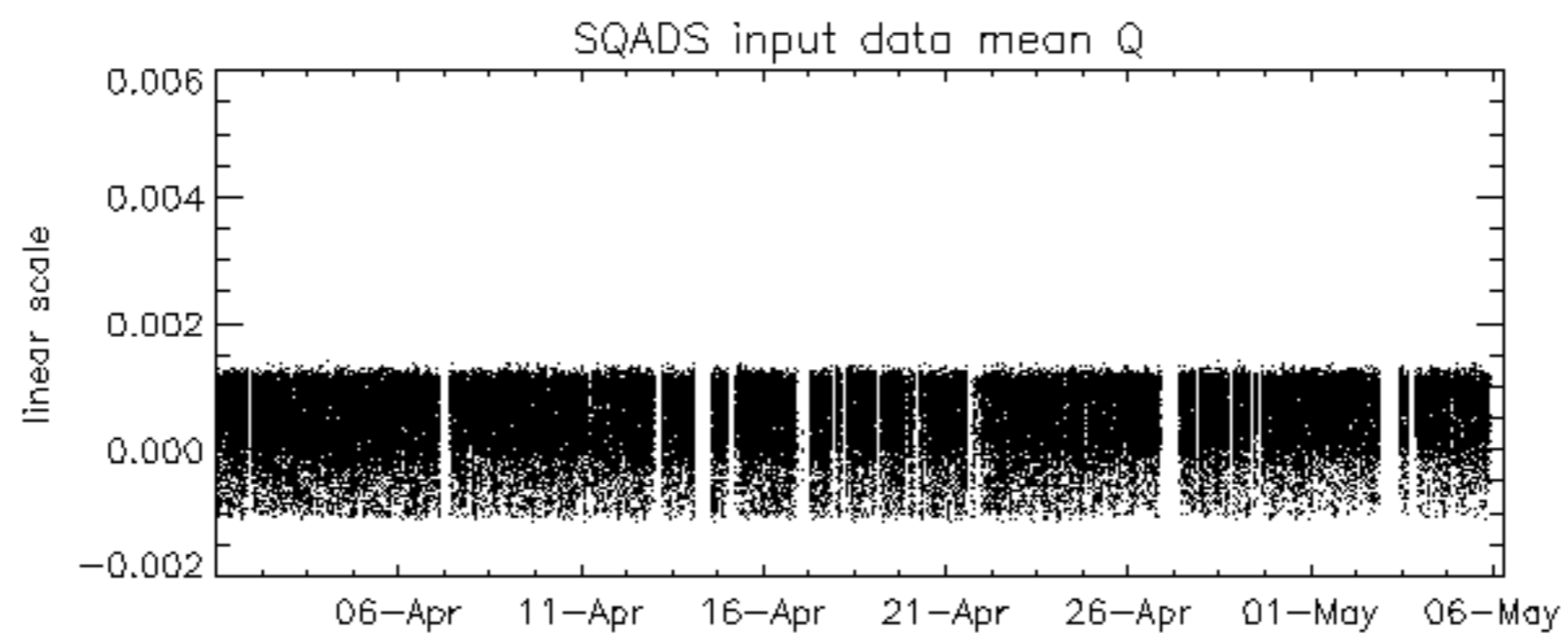
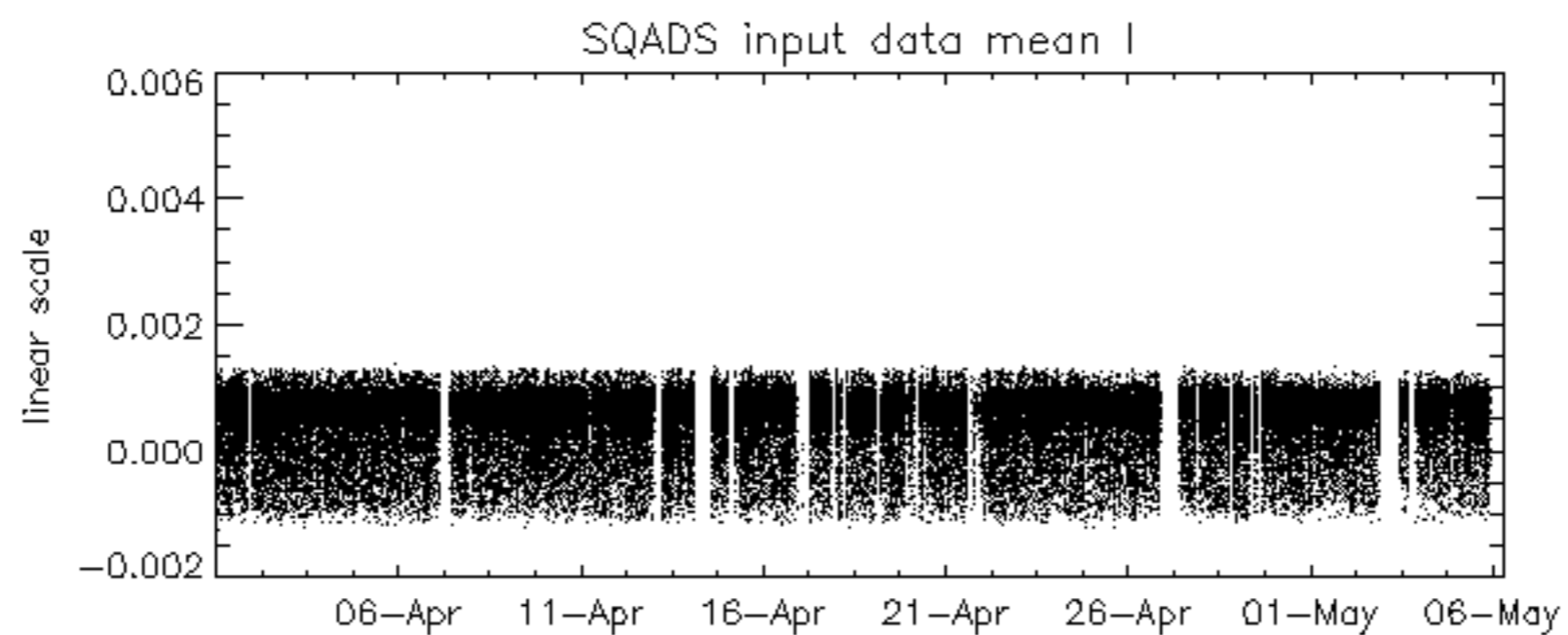
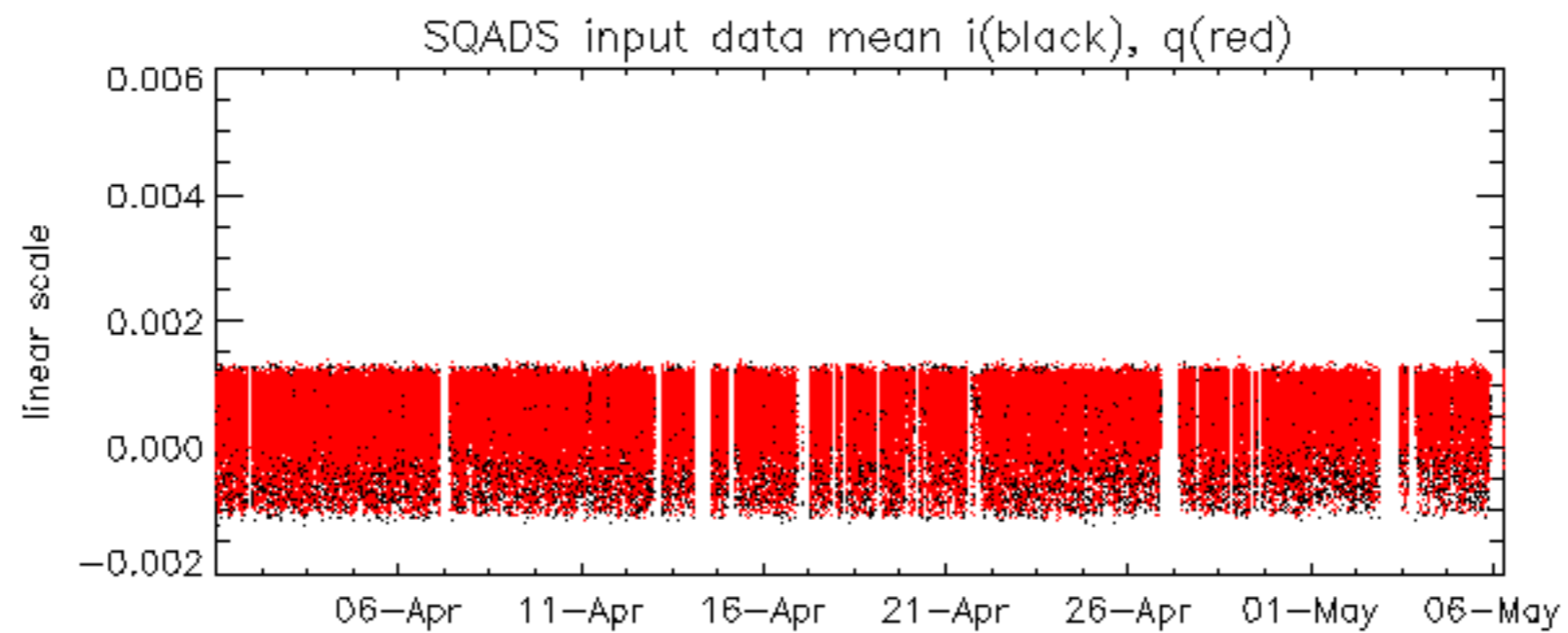
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -35.900837 Hz

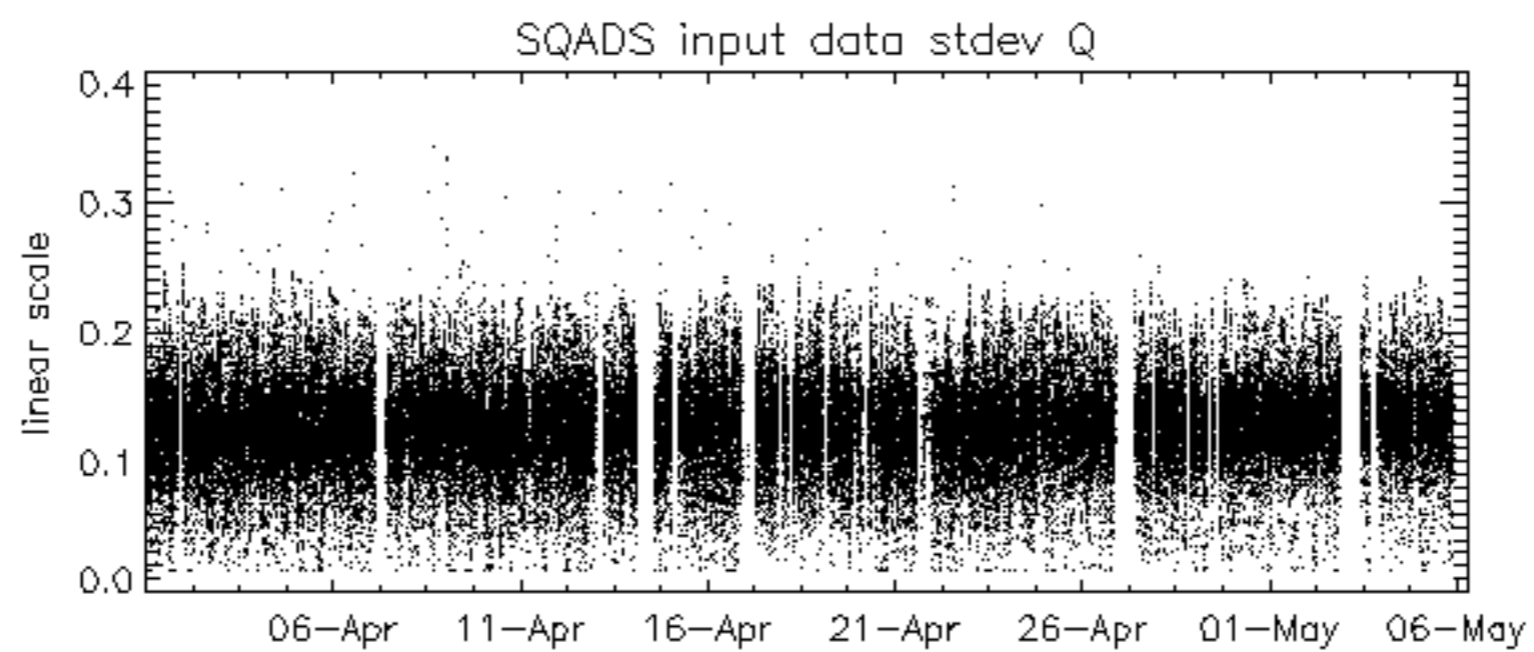
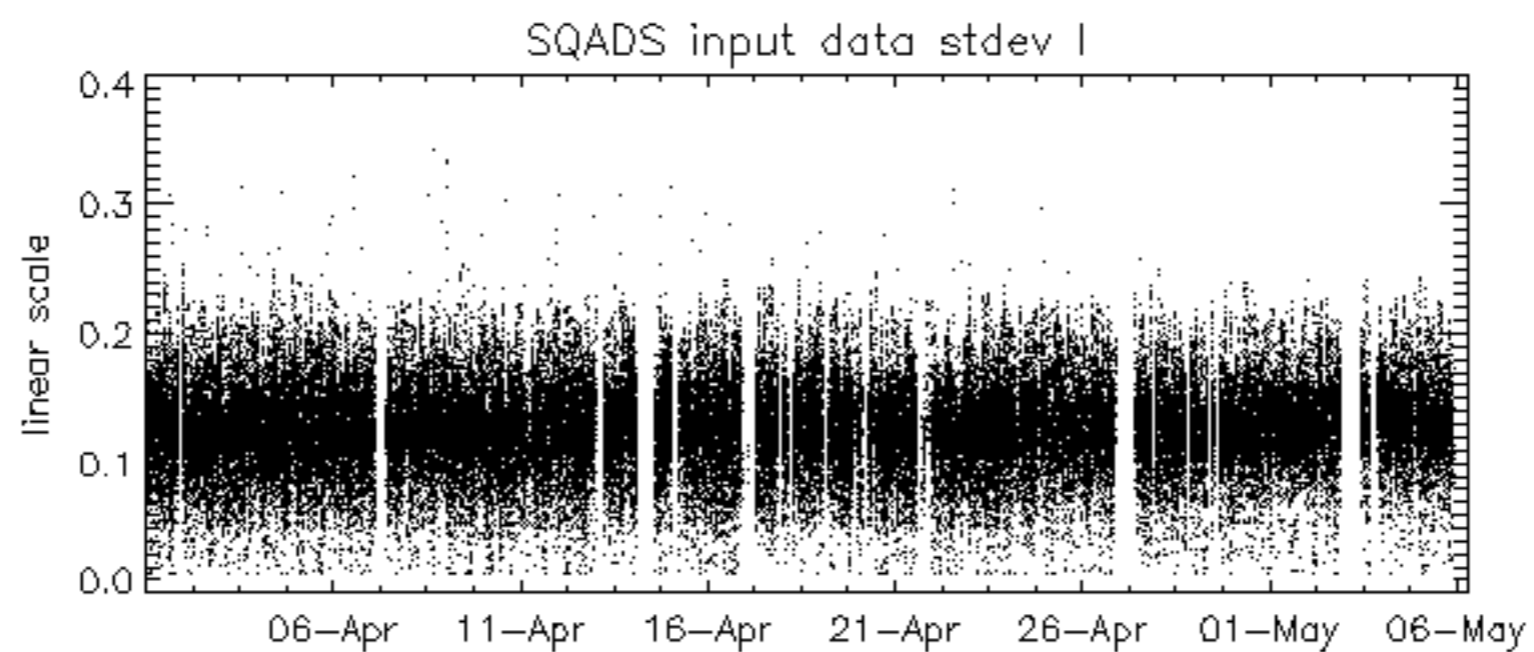
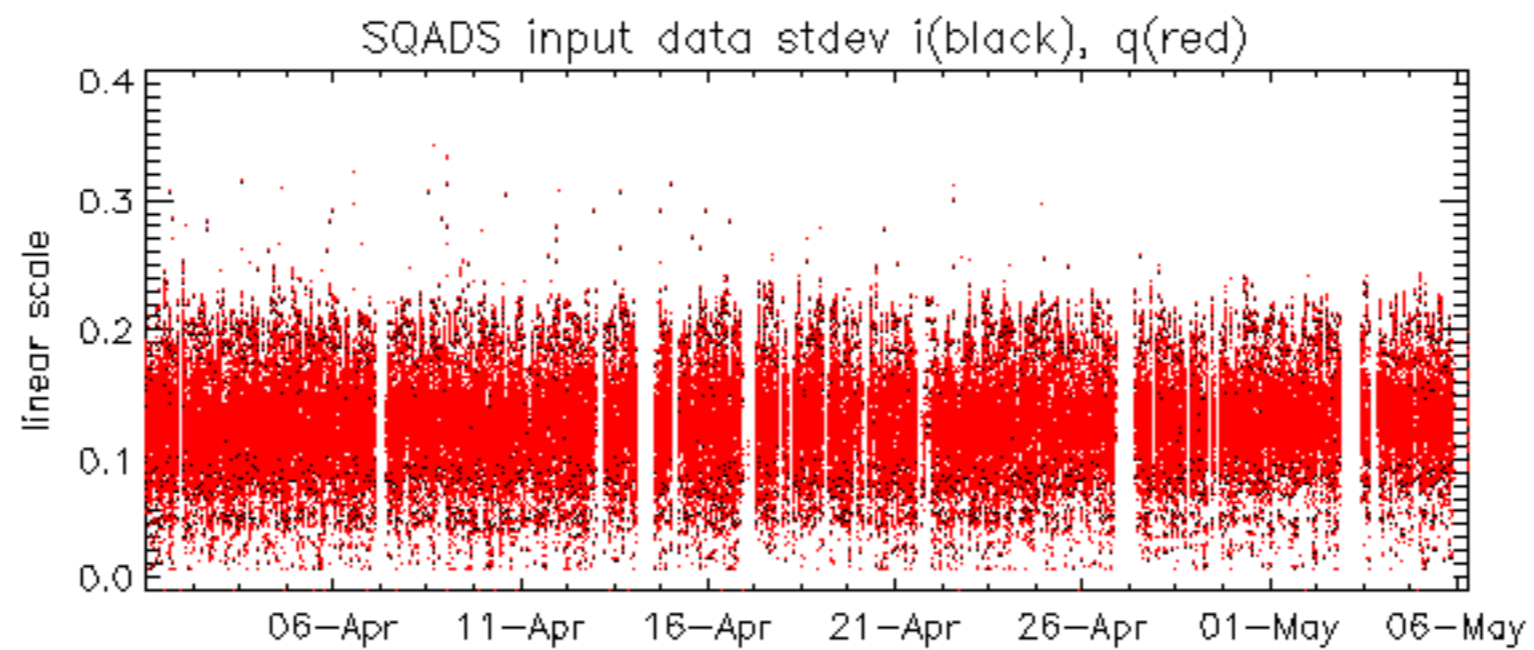


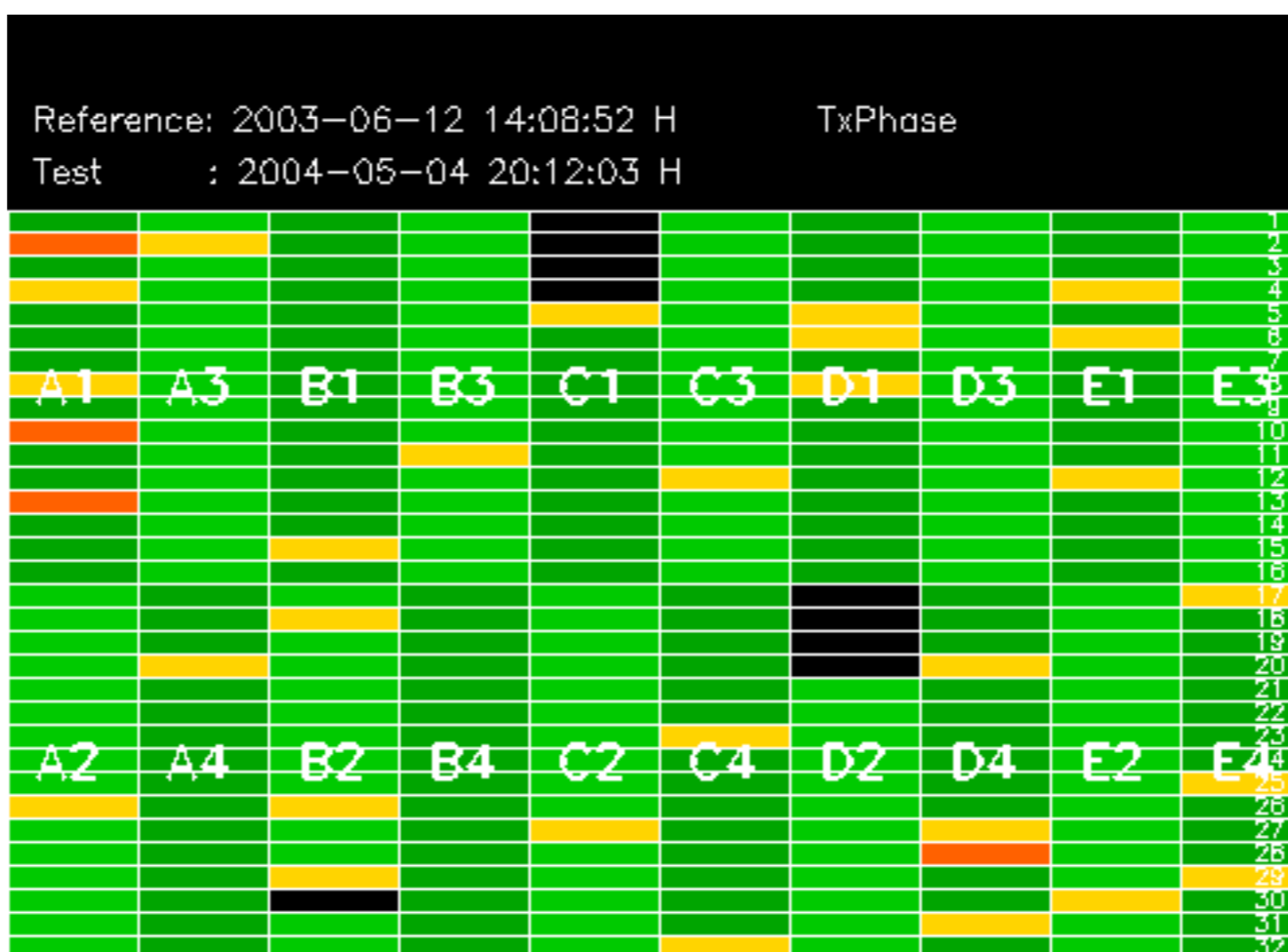
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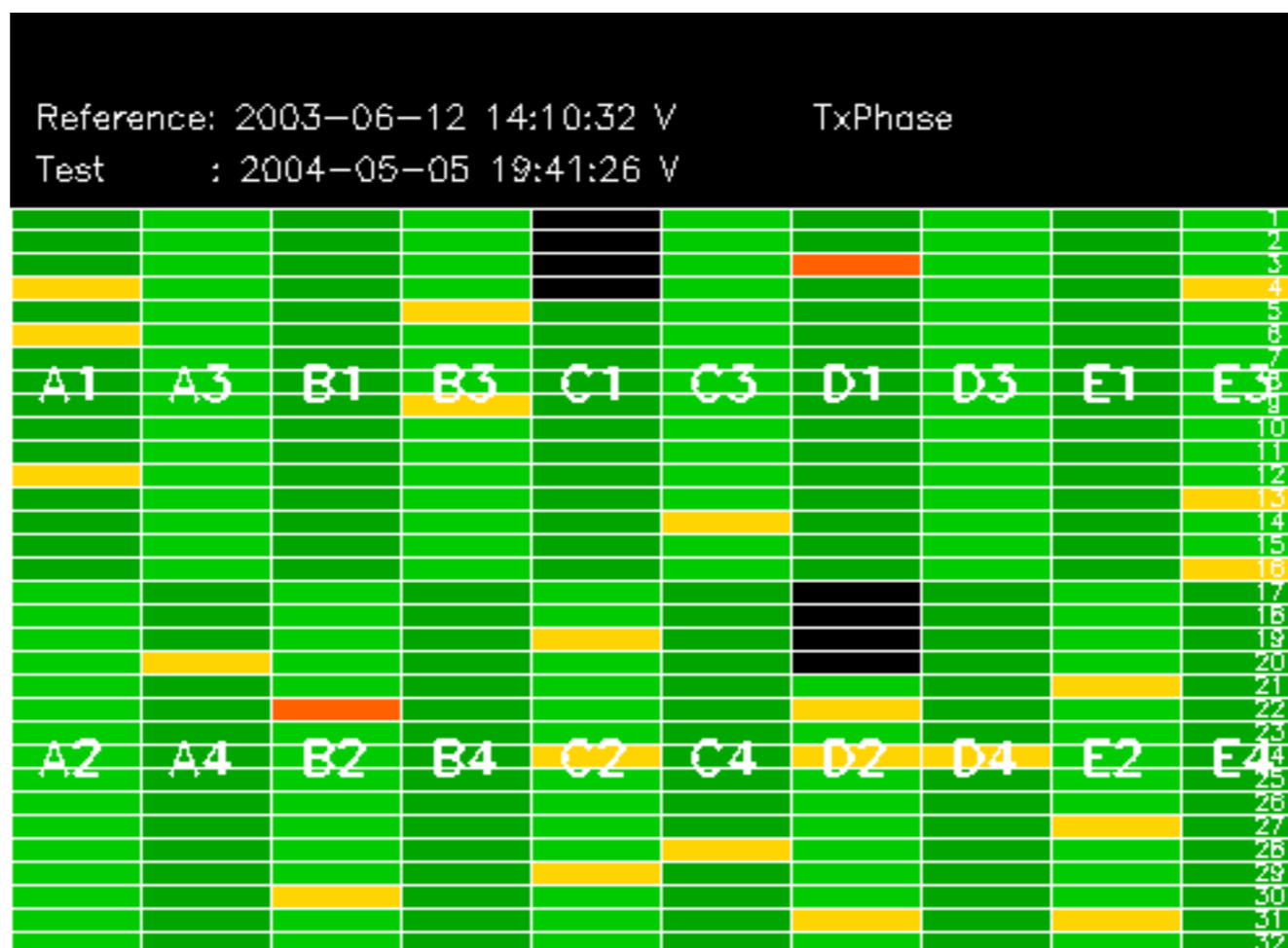
No anomalies observed.











No unavailabilities during the reported period.