

REPORT OF 040621

last update on Mon Jun 21 15:00:43 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	20040620 185432
H	20040619 192709

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	-3.516381	0.011304	0.055400
7	P1	-3.324792	0.015652	-0.012623
11	P1	-4.530752	0.038685	0.012977
15	P1	-5.684896	0.058070	0.033738
19	P1	-3.425483	0.004710	-0.028407
22	P1	-4.560875	0.011091	0.005017
24	P1	-4.915078	0.014519	0.018937
30	P1	-6.841180	0.023225	-0.022280
3	P1	-16.104906	0.229230	0.082066
7	P1	-13.990443	0.104315	-0.008430

11	P1	-19.828230	0.294140	-0.179052
15	P1	-11.786845	0.045477	0.052526
19	P1	-13.802332	0.033338	-0.066603
22	P1	-16.588749	0.424896	0.119043
24	P1	-14.702328	0.297879	0.051333
30	P1	-17.661184	0.377181	-0.066088

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.428673	0.081903	0.060039
7	P2	-22.872618	0.115144	0.072681
11	P2	-15.656844	0.121819	0.134744
15	P2	-7.201411	0.095662	0.042380
19	P2	-9.567345	0.126148	0.036546
22	P2	-17.566387	0.099477	0.123704
24	P2	-20.887714	0.085885	0.070370
30	P2	-19.452616	0.079648	0.094634

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.144488	0.002016	0.004812
7	P3	-8.144485	0.002016	0.004809
11	P3	-8.144485	0.002016	0.004800
15	P3	-8.144485	0.002016	0.004795
19	P3	-8.144486	0.002016	0.004788
22	P3	-8.144484	0.002016	0.004781
24	P3	-8.144485	0.002016	0.004781
30	P3	-8.144506	0.002016	0.004477

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1	
<input type="checkbox"/>	
<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	-3.149935	0.136588	0.016159
7	P1	-2.809655	0.074422	0.023225
11	P1	-3.787948	0.021624	-0.021383
15	P1	-4.266159	1.027021	0.019149
19	P1	-3.351662	0.048690	-0.028240
22	P1	-5.721950	0.044821	0.000010
24	P1	-4.048619	0.080761	-0.007821
30	P1	-6.093484	0.060052	-0.043023
3	P1	-11.034588	0.432663	0.048532
7	P1	-9.763990	0.255161	0.017168
11	P1	-11.752732	0.166933	-0.081943
15	P1	-11.838820	0.282039	-0.019406
19	P1	-14.984488	0.822479	-0.047674
22	P1	-21.487516	8.924093	-0.011166
24	P1	-17.358940	0.283036	-0.057105
30	P1	-21.725208	4.143028	0.130294

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.169273	0.043122	0.021439
7	P2	-22.955160	0.028693	0.063764
11	P2	-11.059346	0.215515	0.132800
15	P2	-5.005454	0.043684	0.007636
19	P2	-6.932132	0.043749	-0.011730
22	P2	-7.695505	0.023435	0.069191
24	P2	-11.080959	0.071022	0.017948
30	P2	-22.412951	0.092568	0.078333

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.984258	0.003297	0.001912

7	P3	-7.984114	0.003283	0.001881
11	P3	-7.984149	0.003290	0.002060
15	P3	-7.984321	0.003278	0.002041
19	P3	-7.984129	0.003292	0.001875
22	P3	-7.984318	0.003274	0.001951
24	P3	-7.984076	0.003306	0.001672
30	P3	-7.984202	0.003283	0.001991

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	0.000482863
	stdev	2.15746e-07
MEAN Q	mean	0.000536658
	stdev	2.39599e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128800
	stdev	0.00101006
STDEV Q	mean	0.129039

stdev 0.00102157



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)

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

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<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

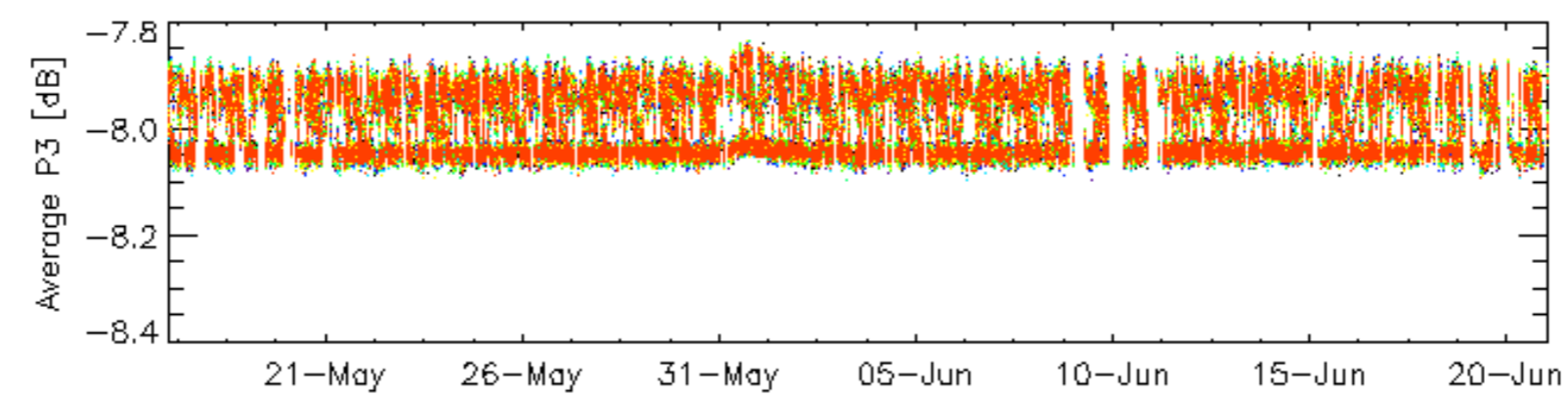
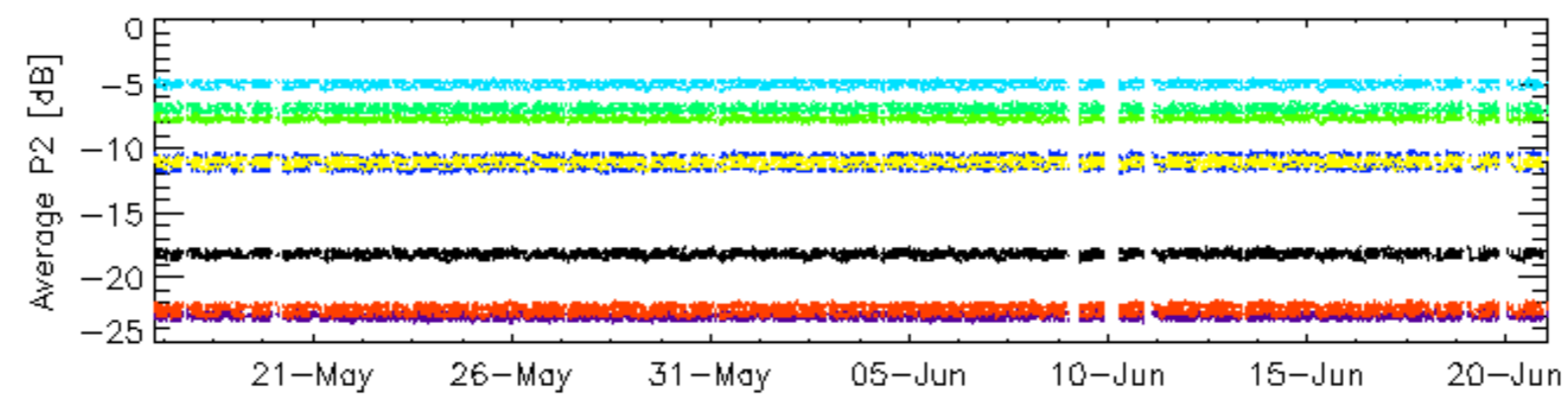
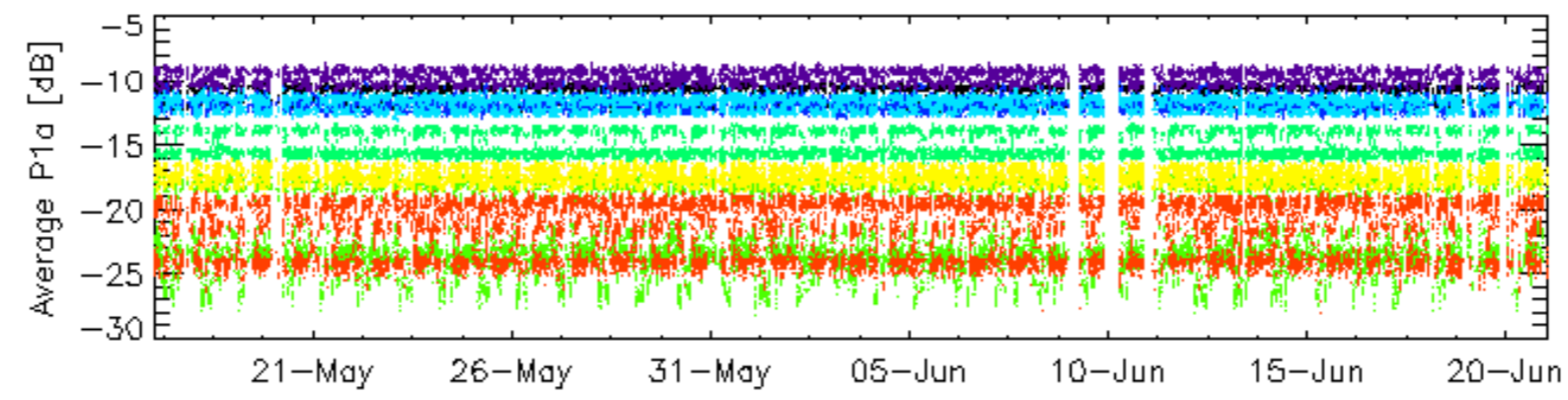
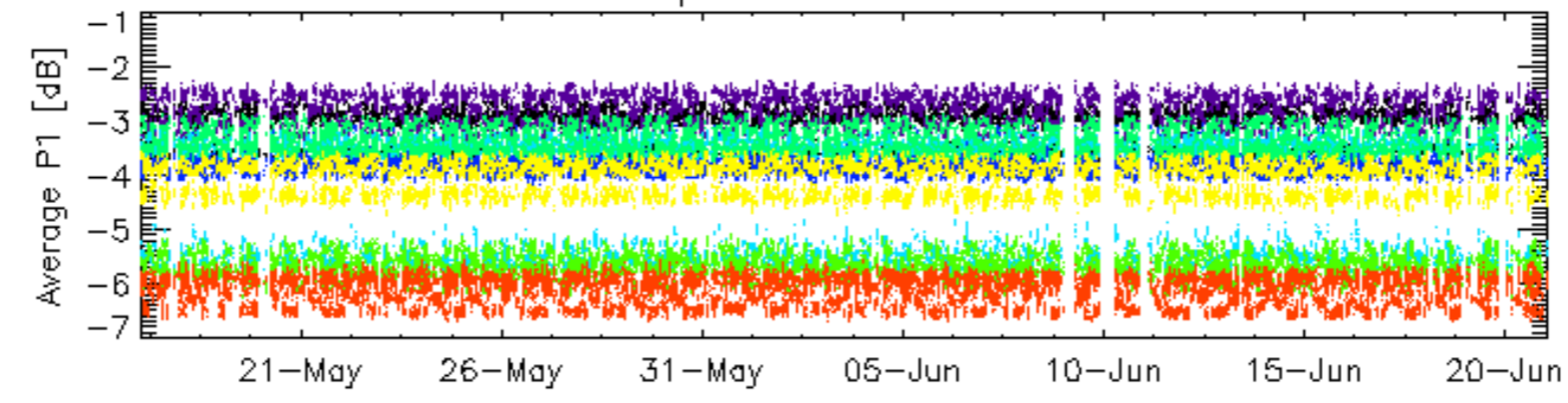
6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

6.6 - Doppler evolution versus ANX for GM1

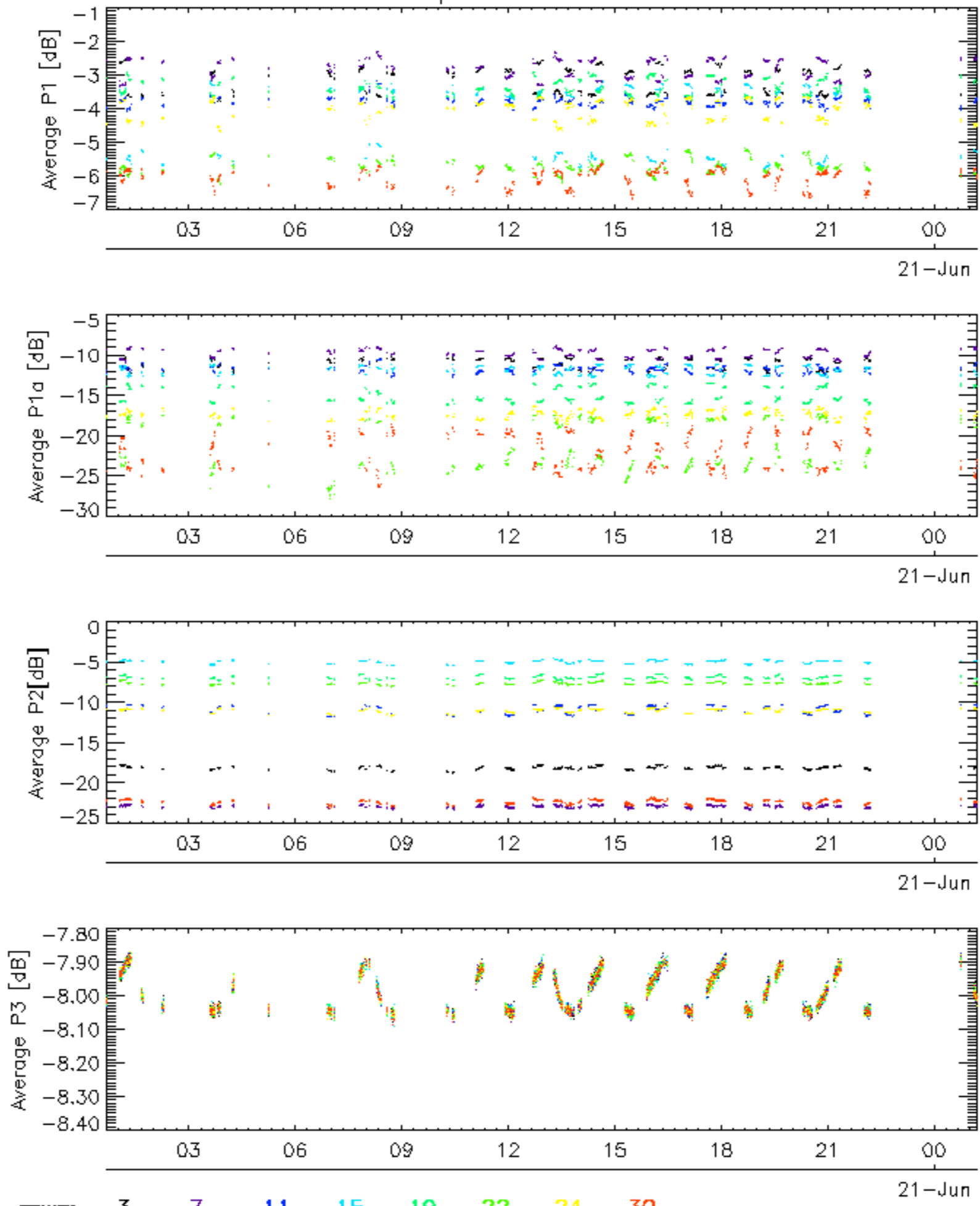
Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3



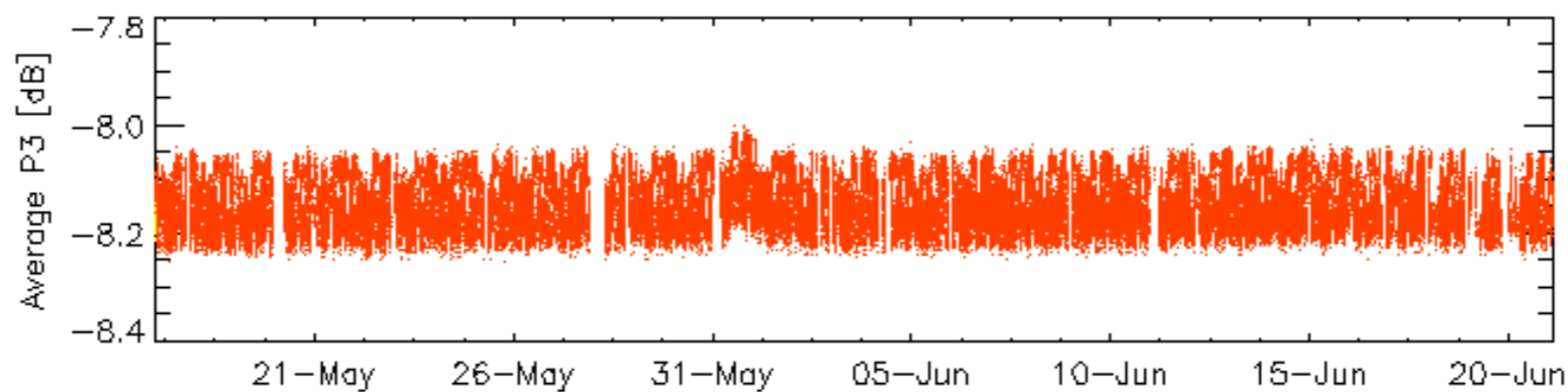
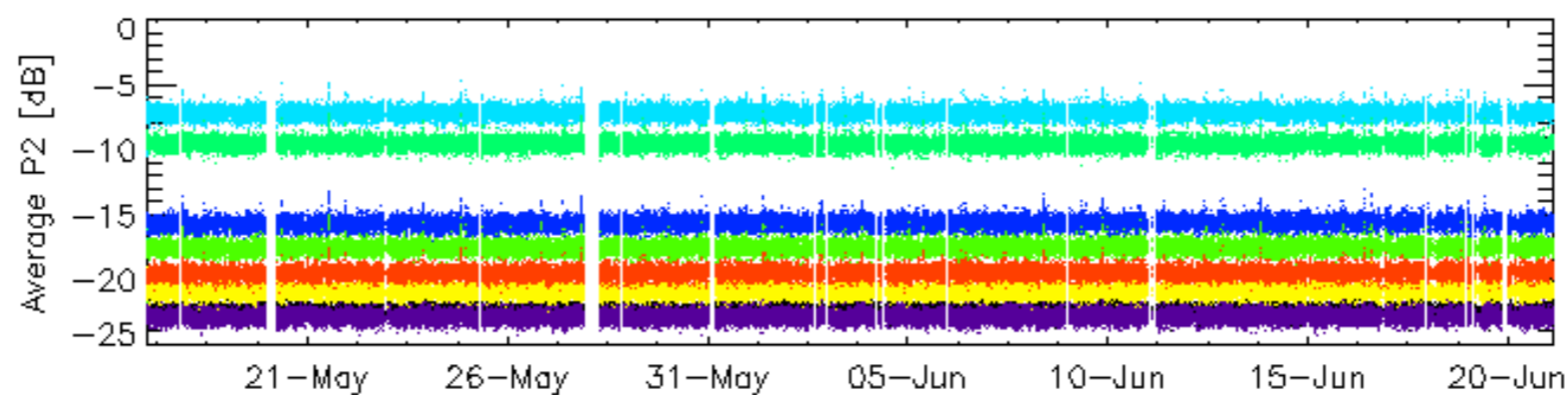
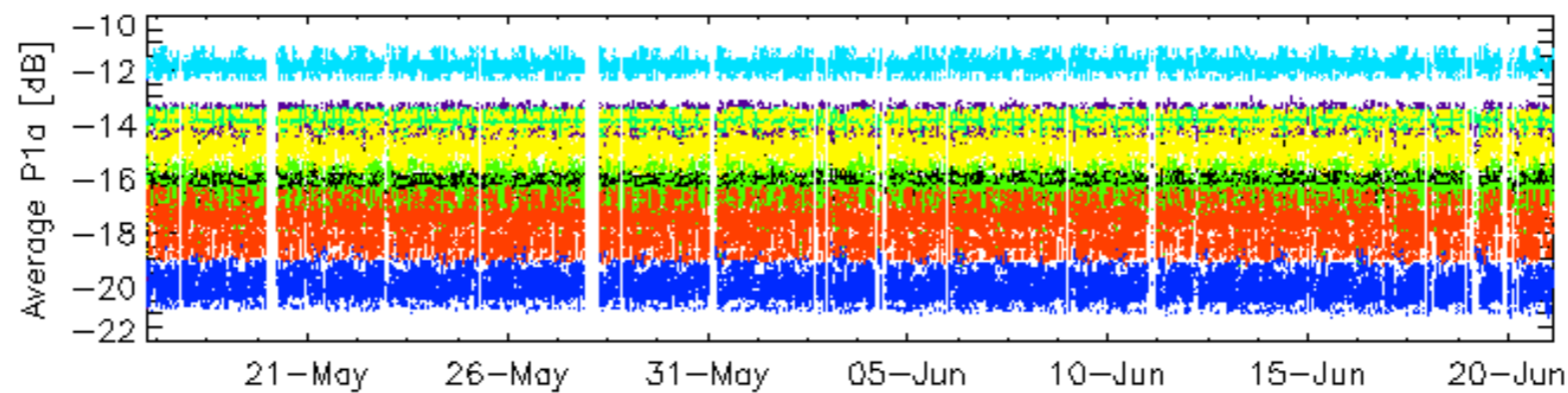
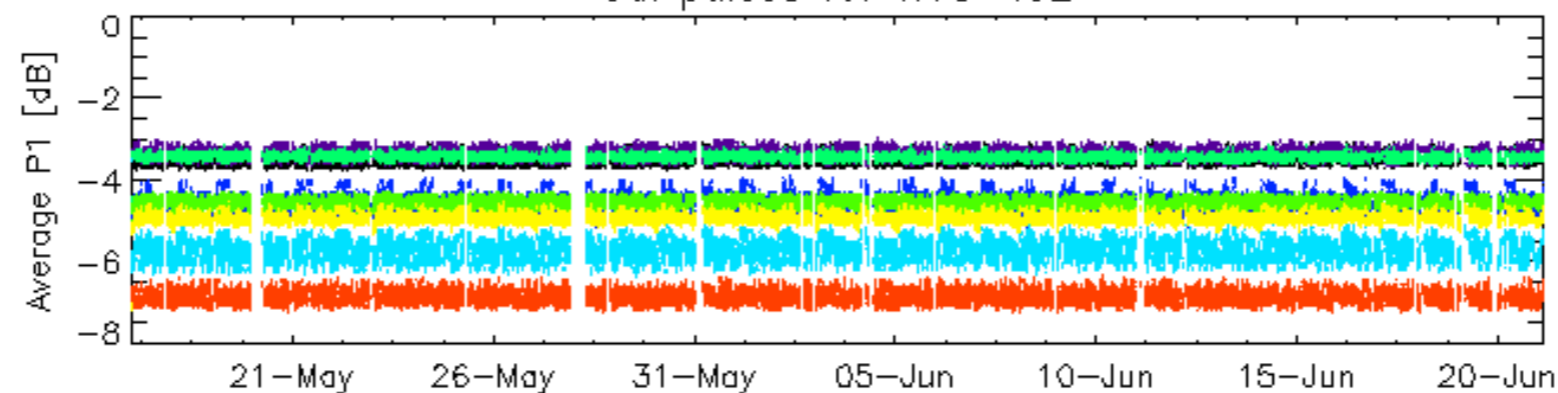
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3



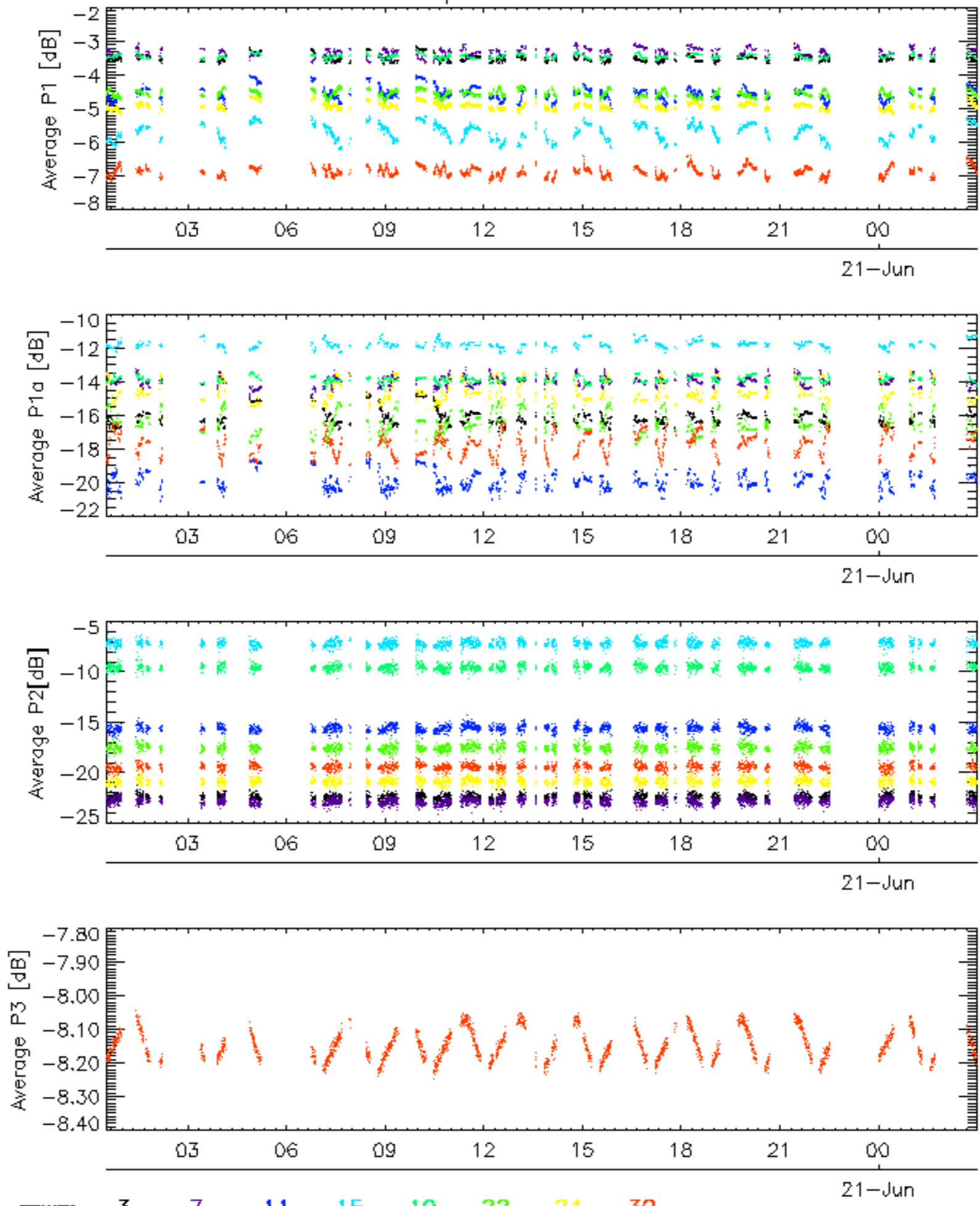
rows: **3** **7** **11** **15** **19** **22** **24** **30**

Cal pulses for WVS IS2



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

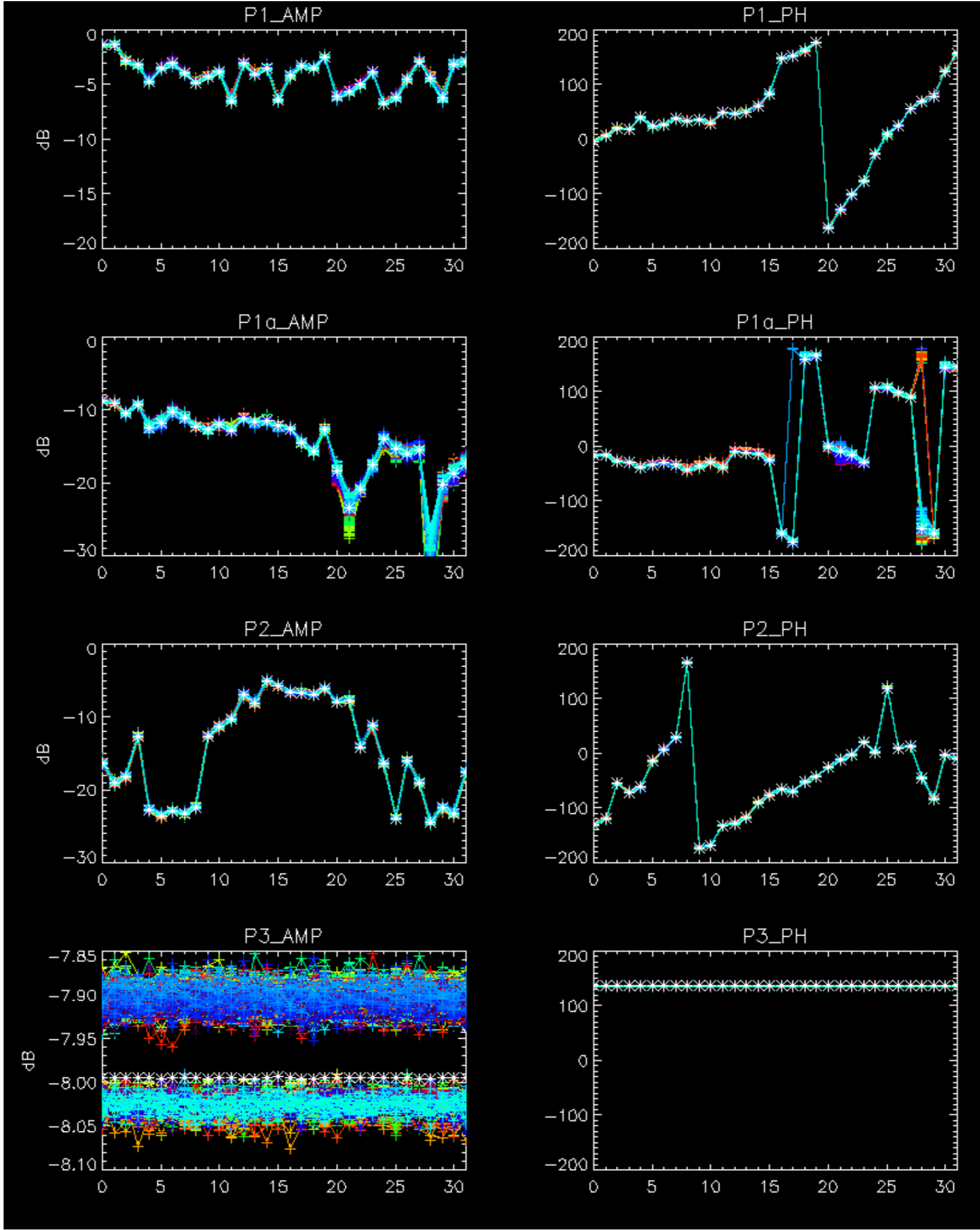
Cal pulses for WVS IS2

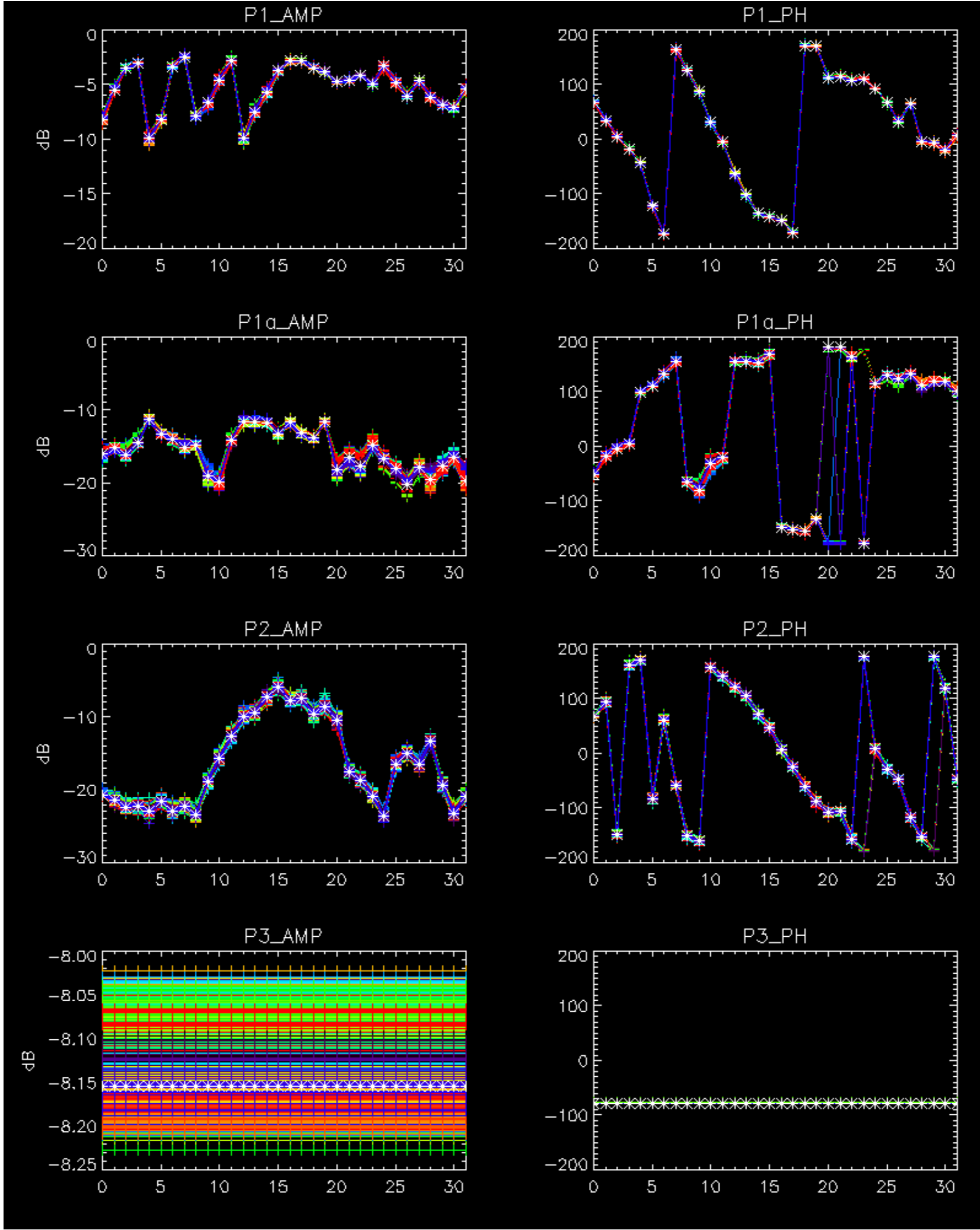


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

No anomalies observed on available browse products

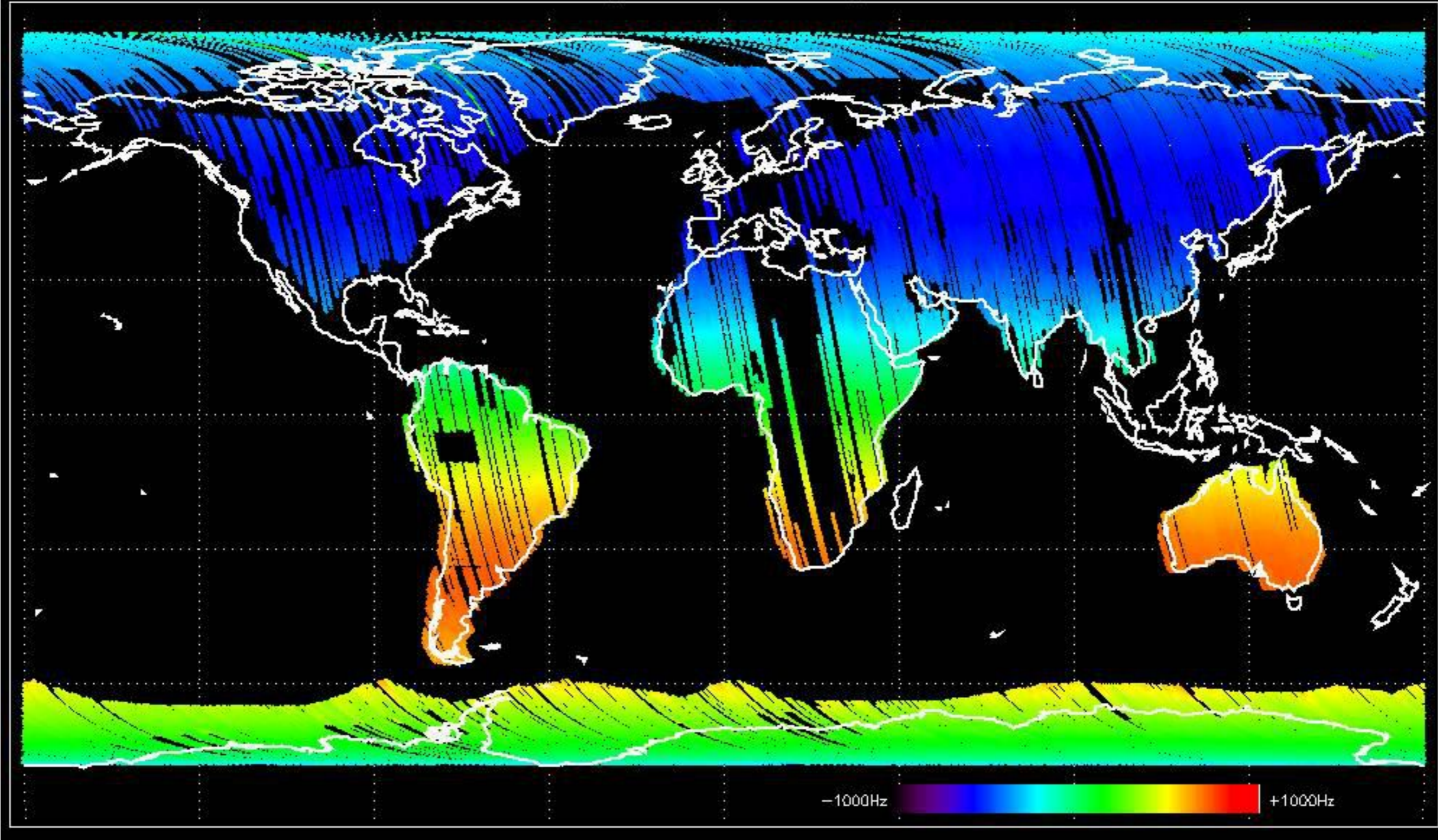
No anomalies observed.



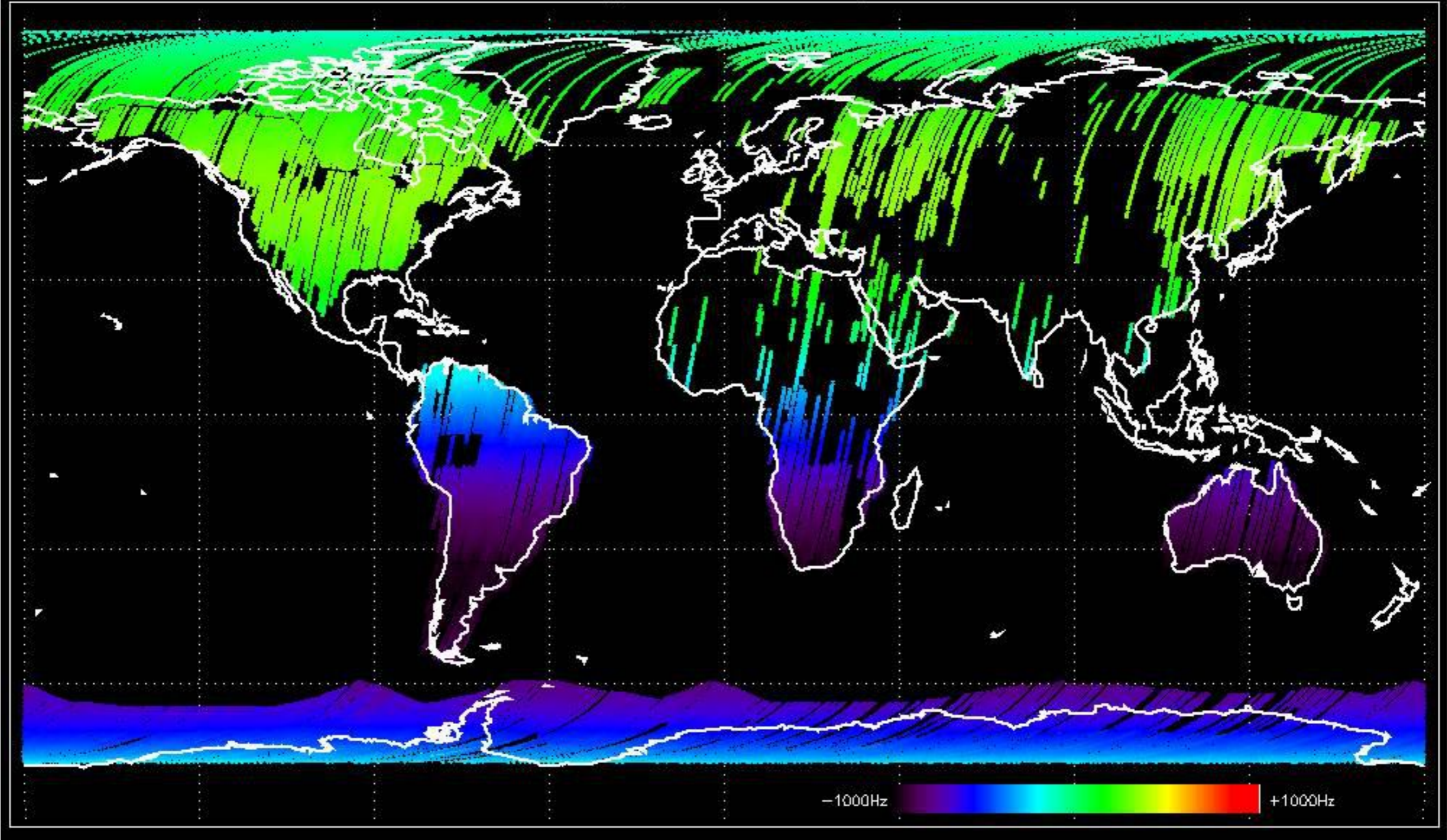


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

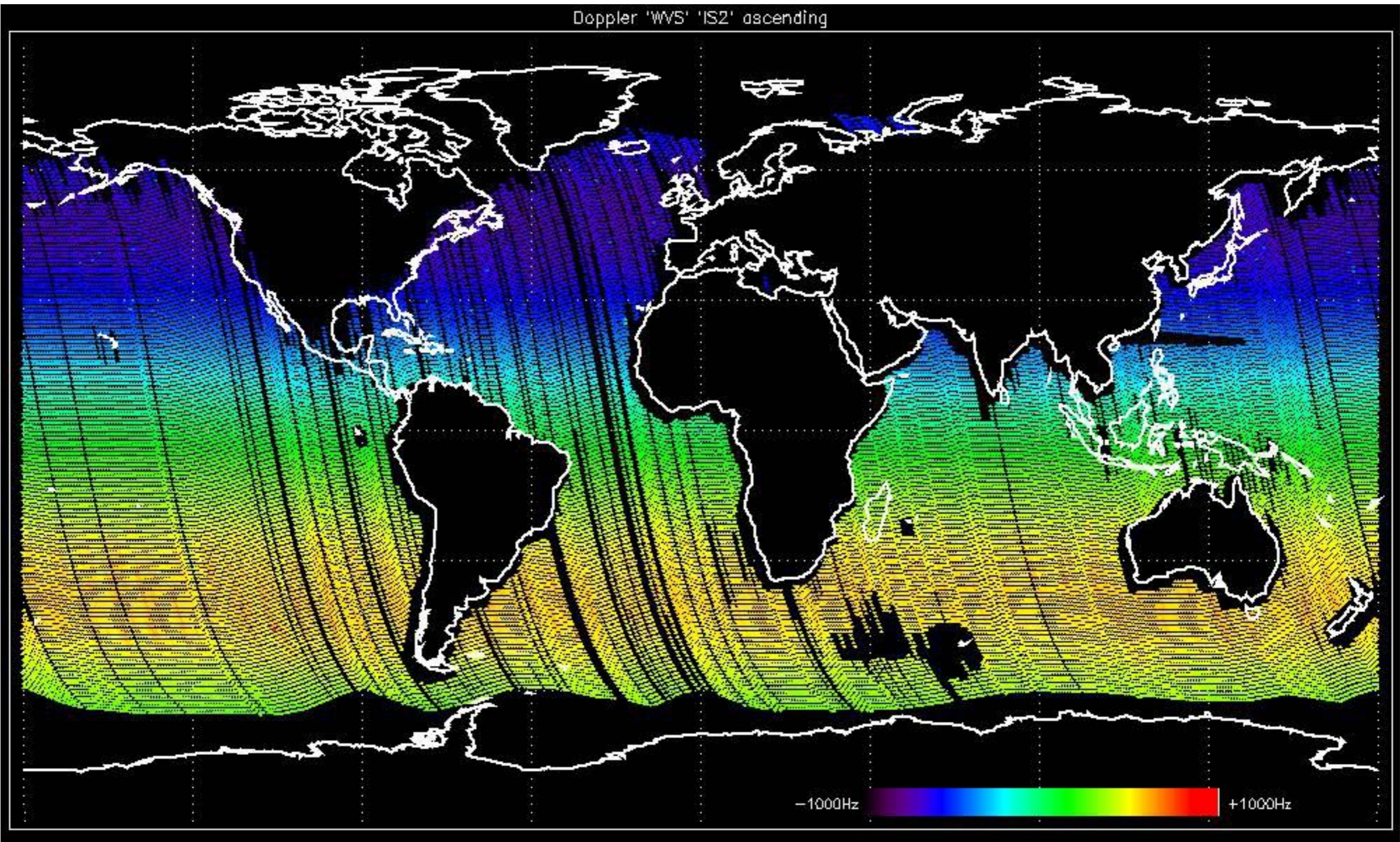
Doppler 'GM1' 'SS1' ascending



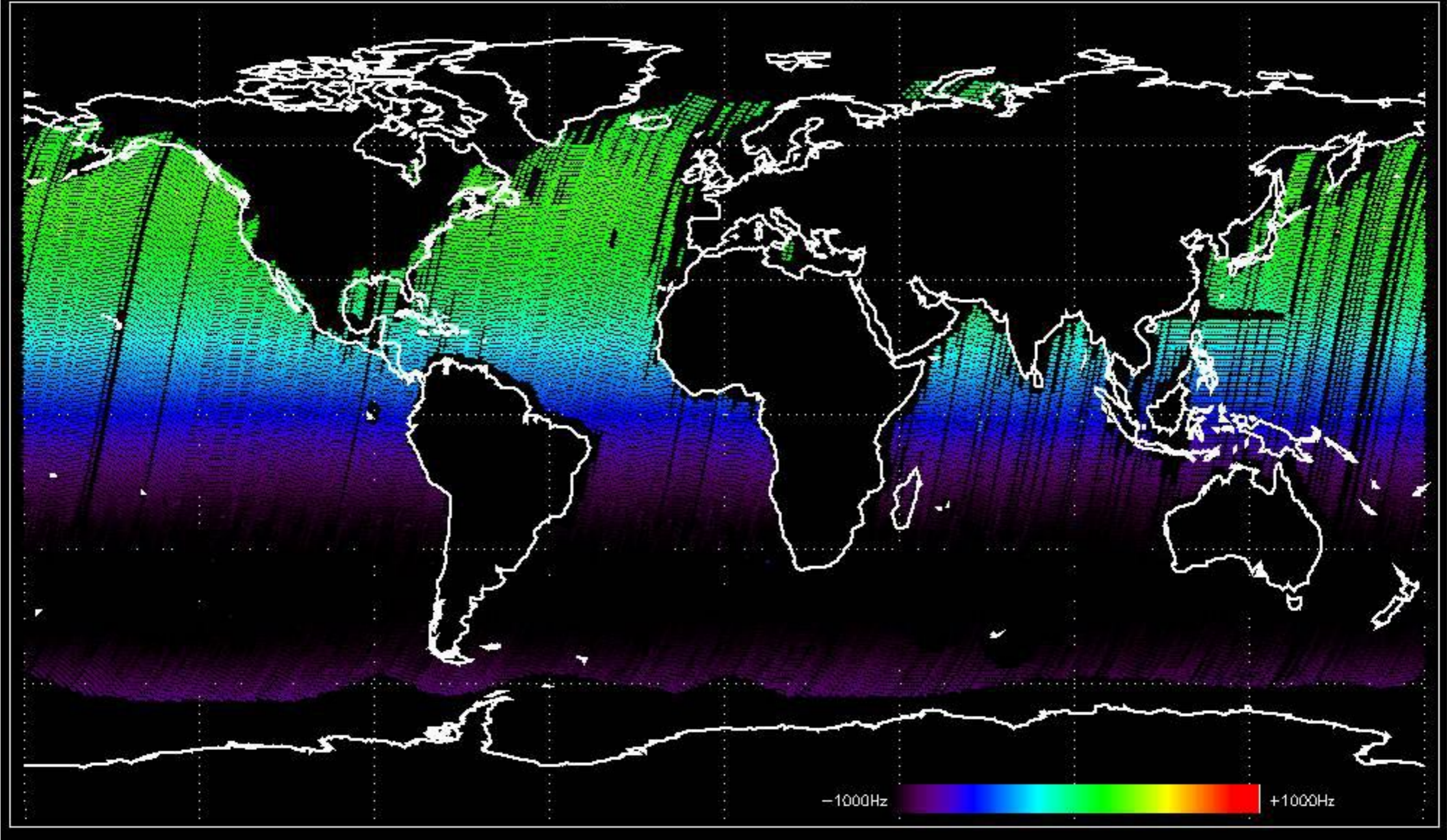
Doppler 'GM1' 'SS1' descending

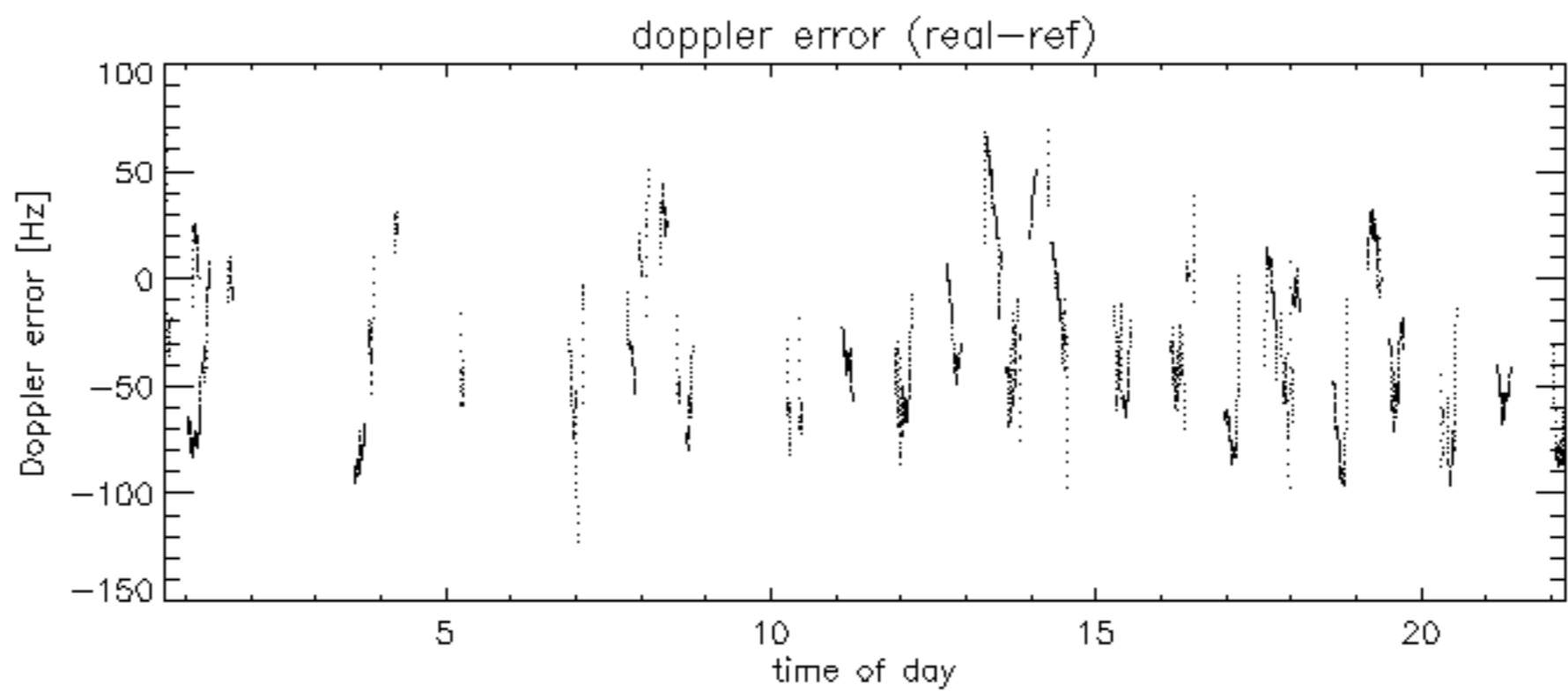
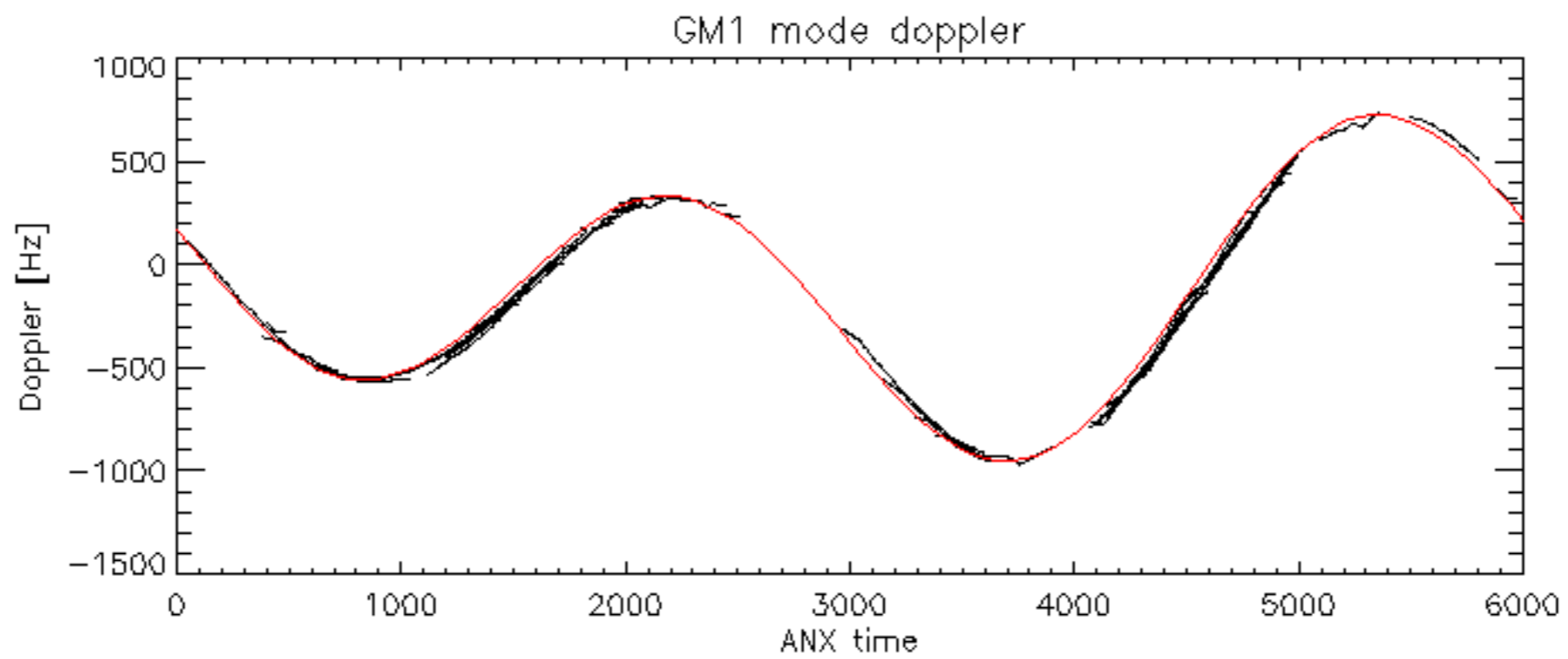


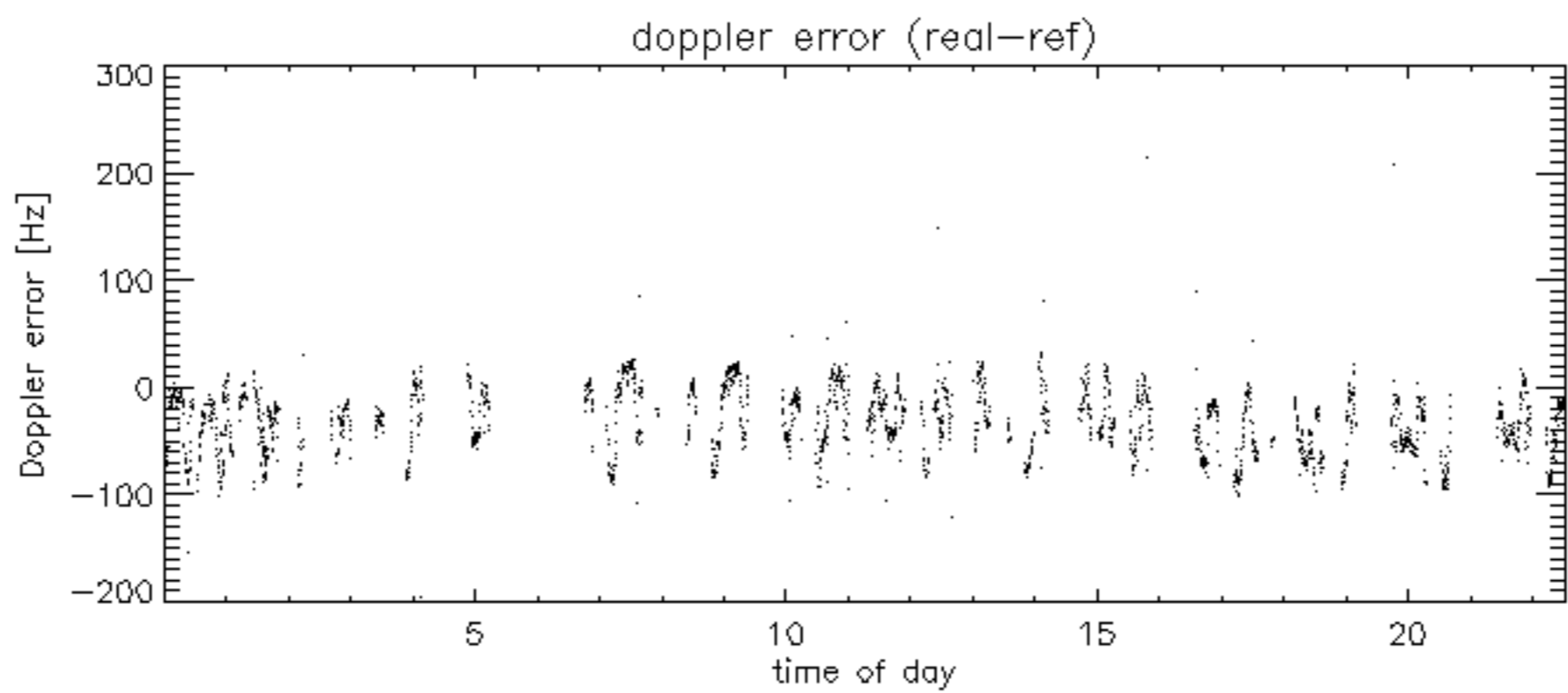
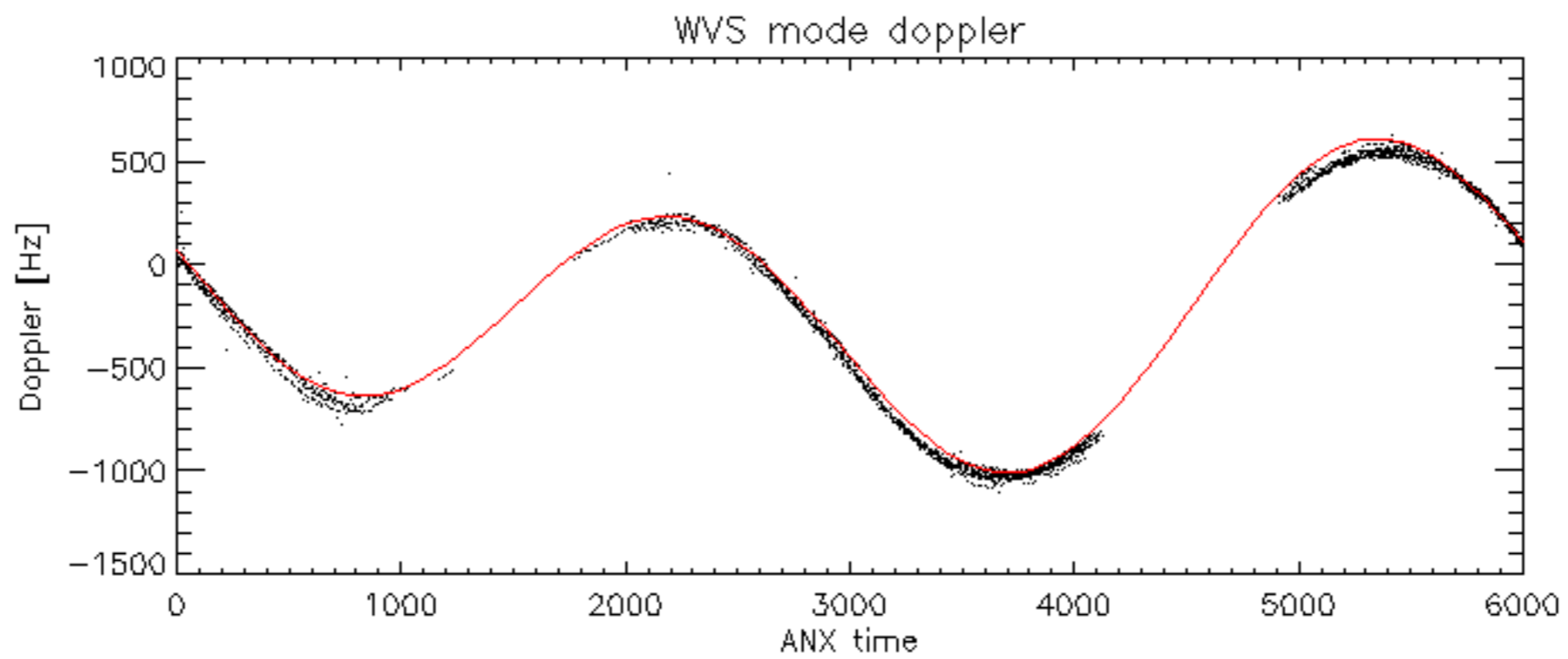
Doppler 'WVS' 'IS2' ascending



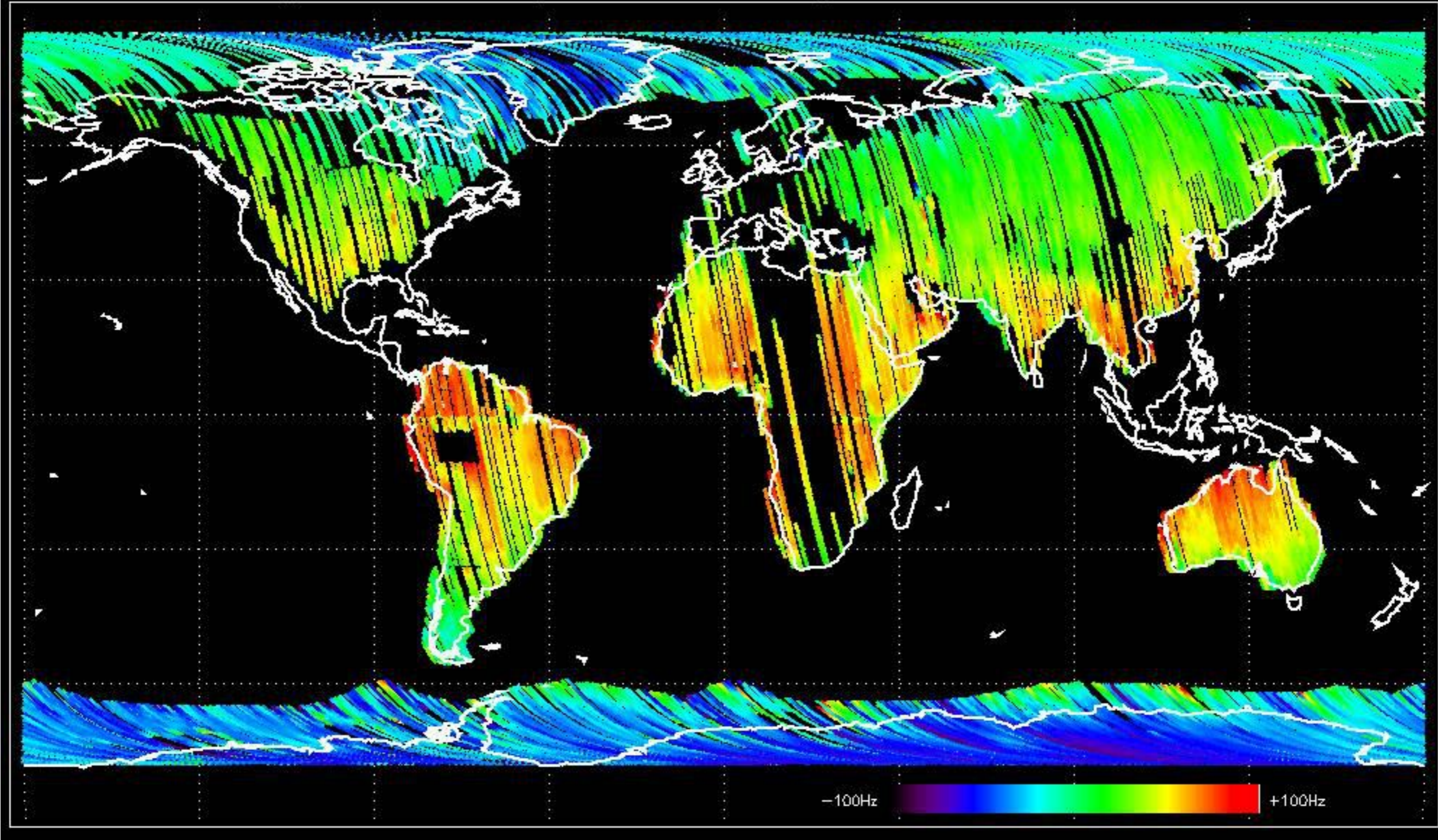
Doppler 'WVS' 'IS2' descending



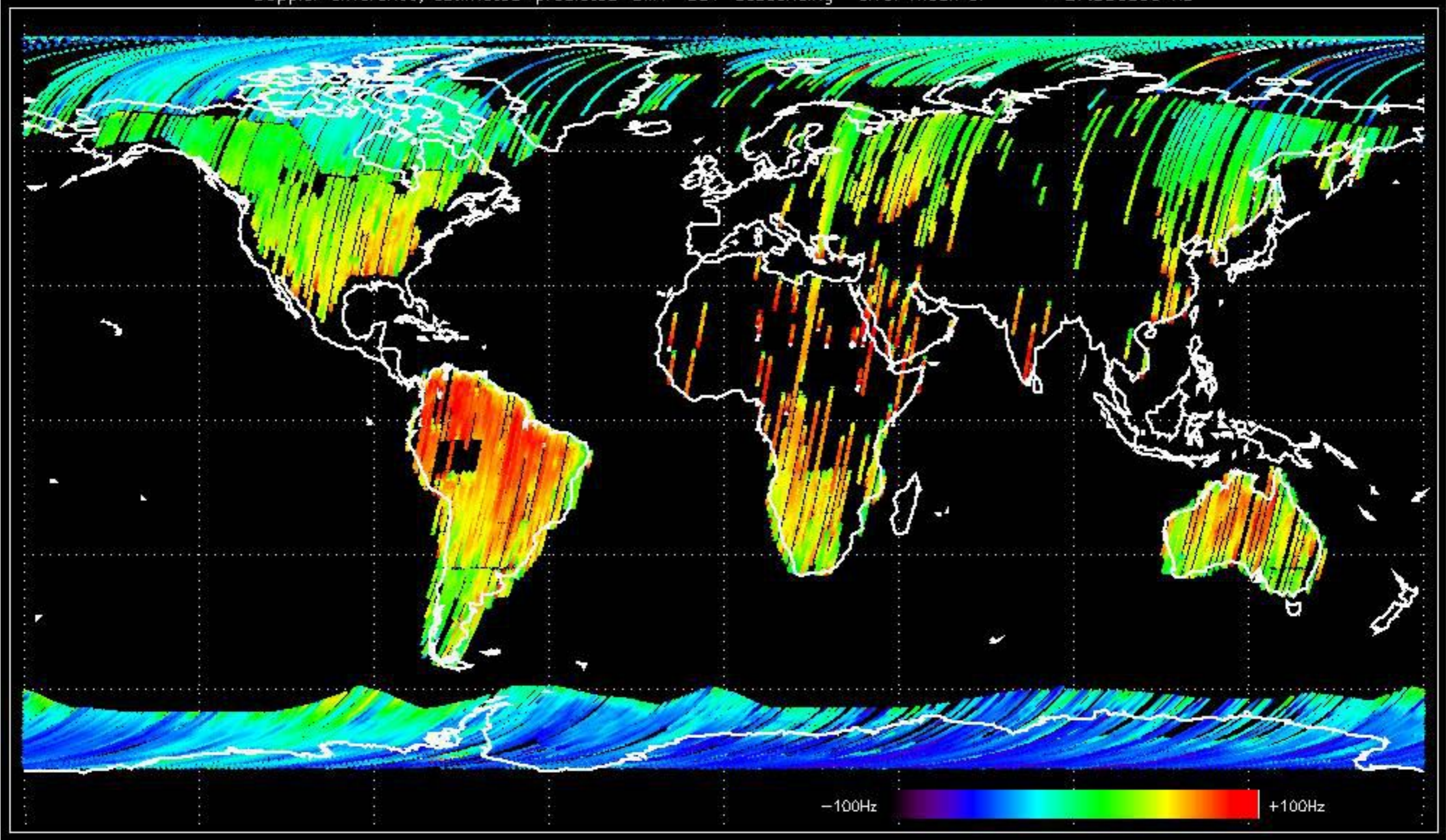




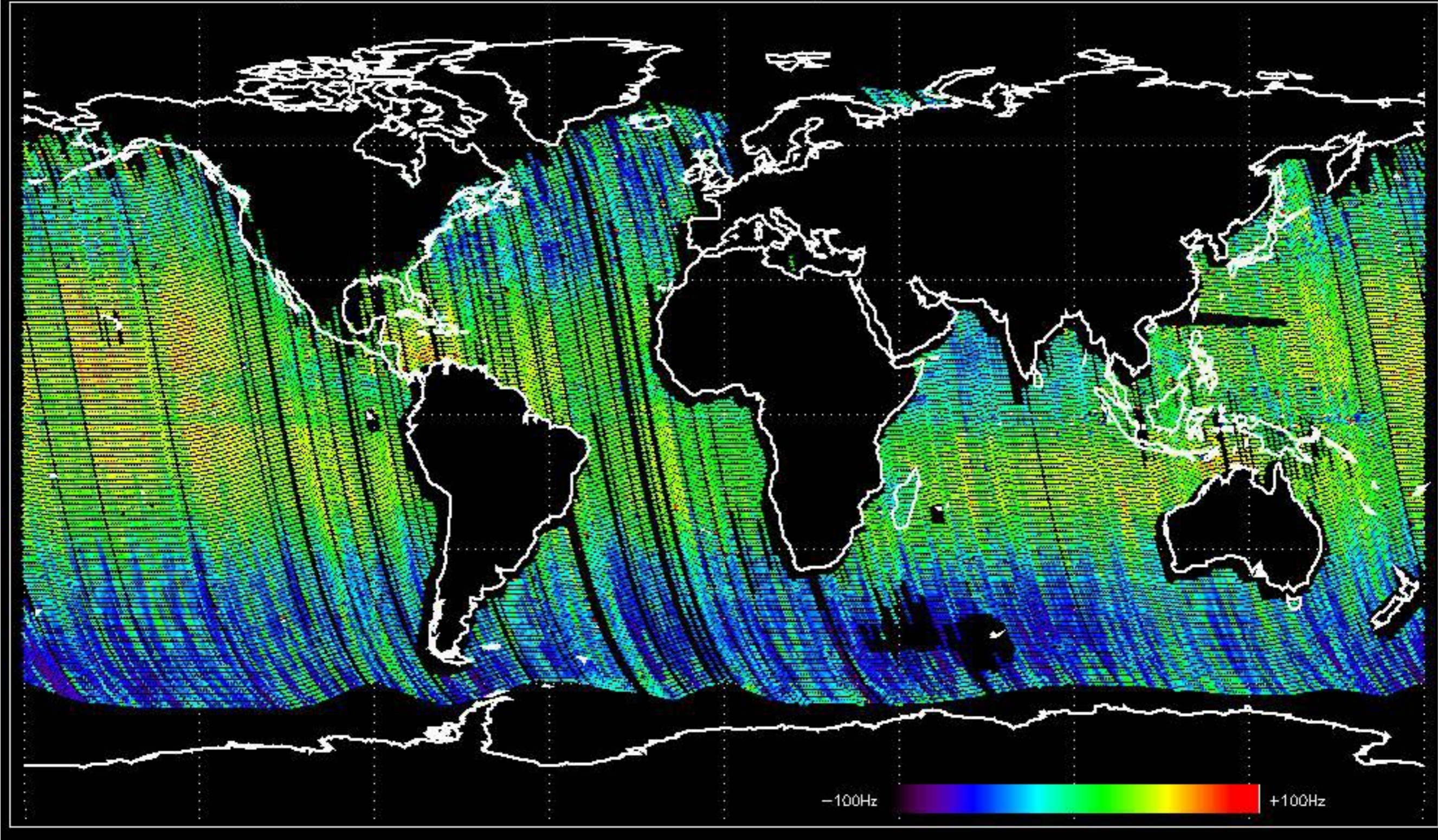
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -27.801142 Hz



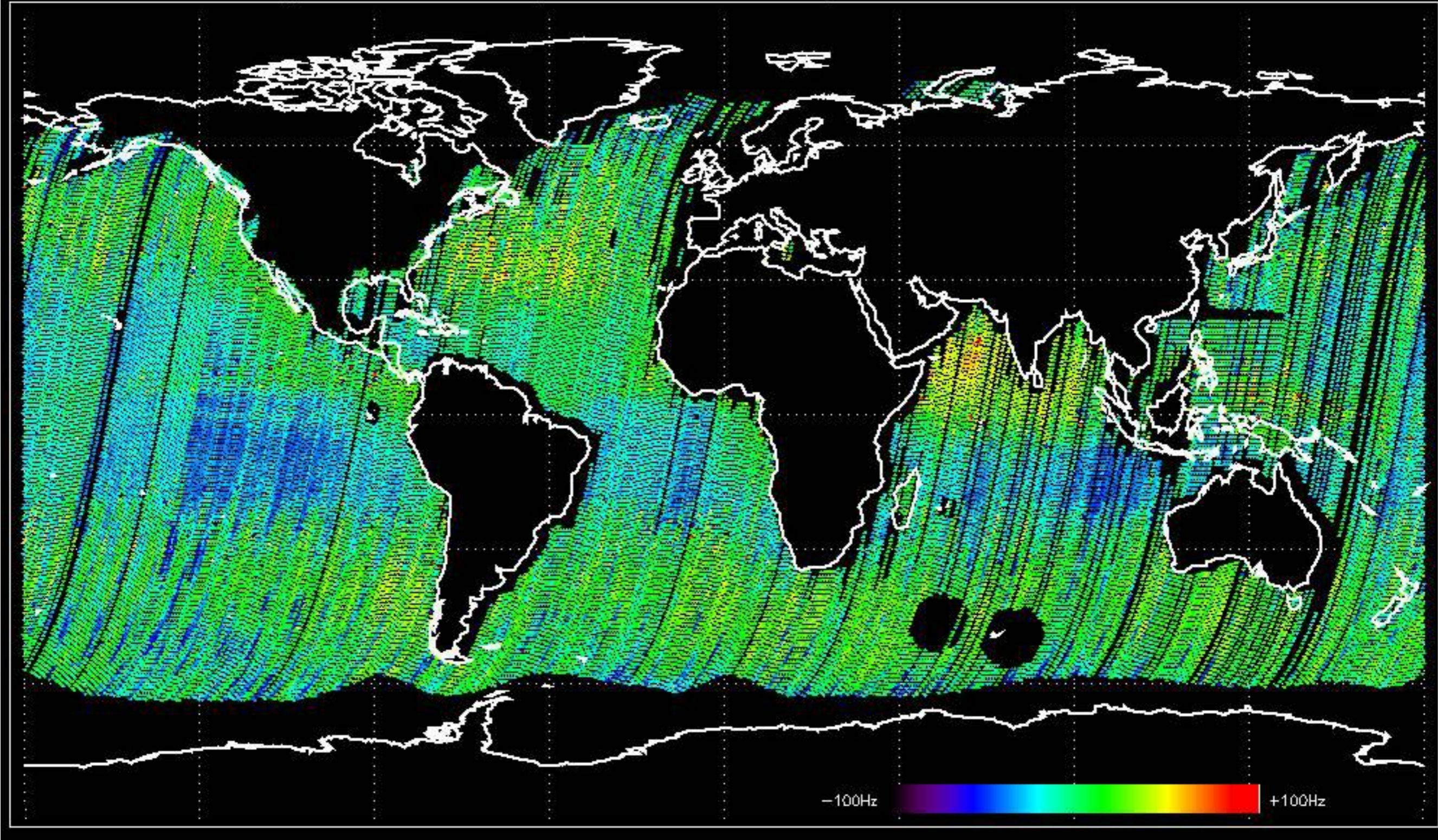
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.986899 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.209114 Hz

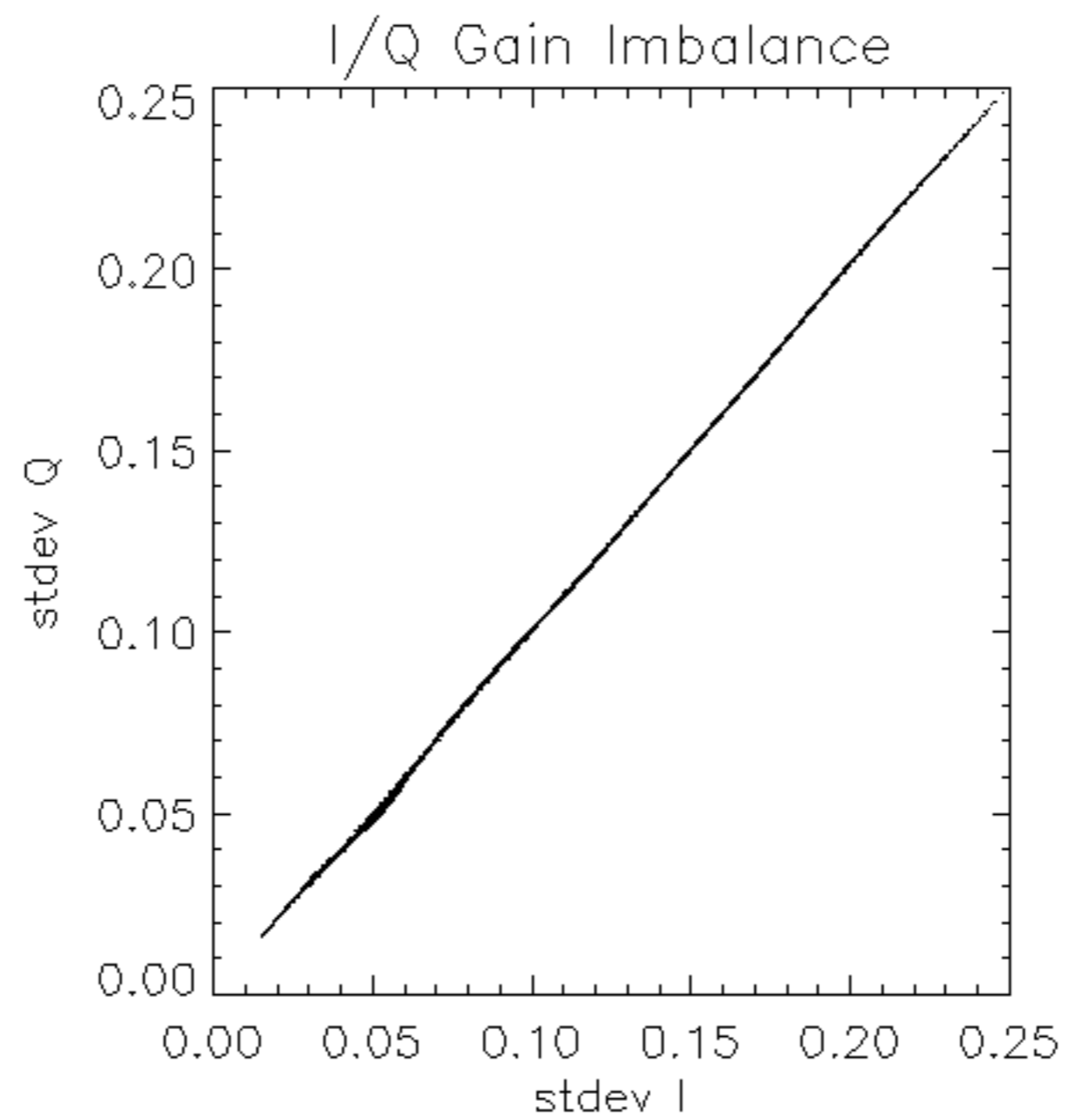


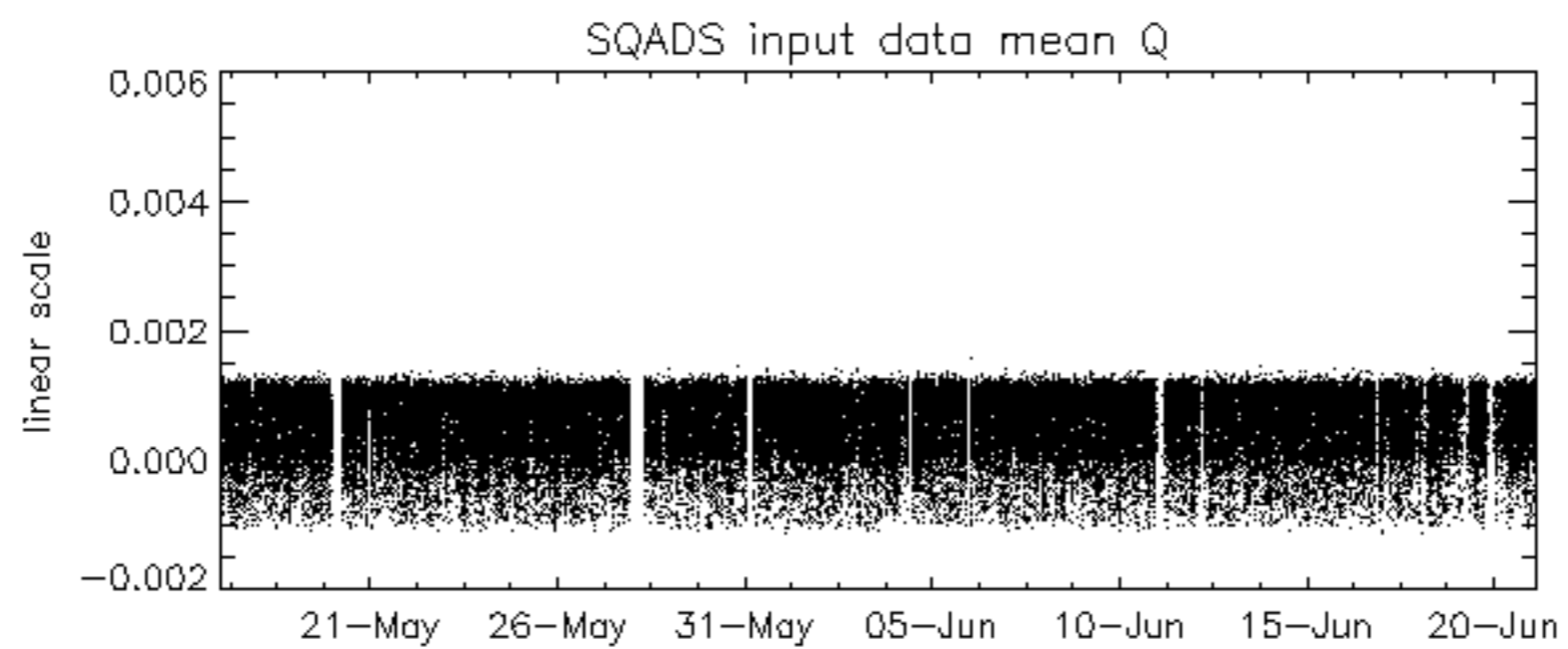
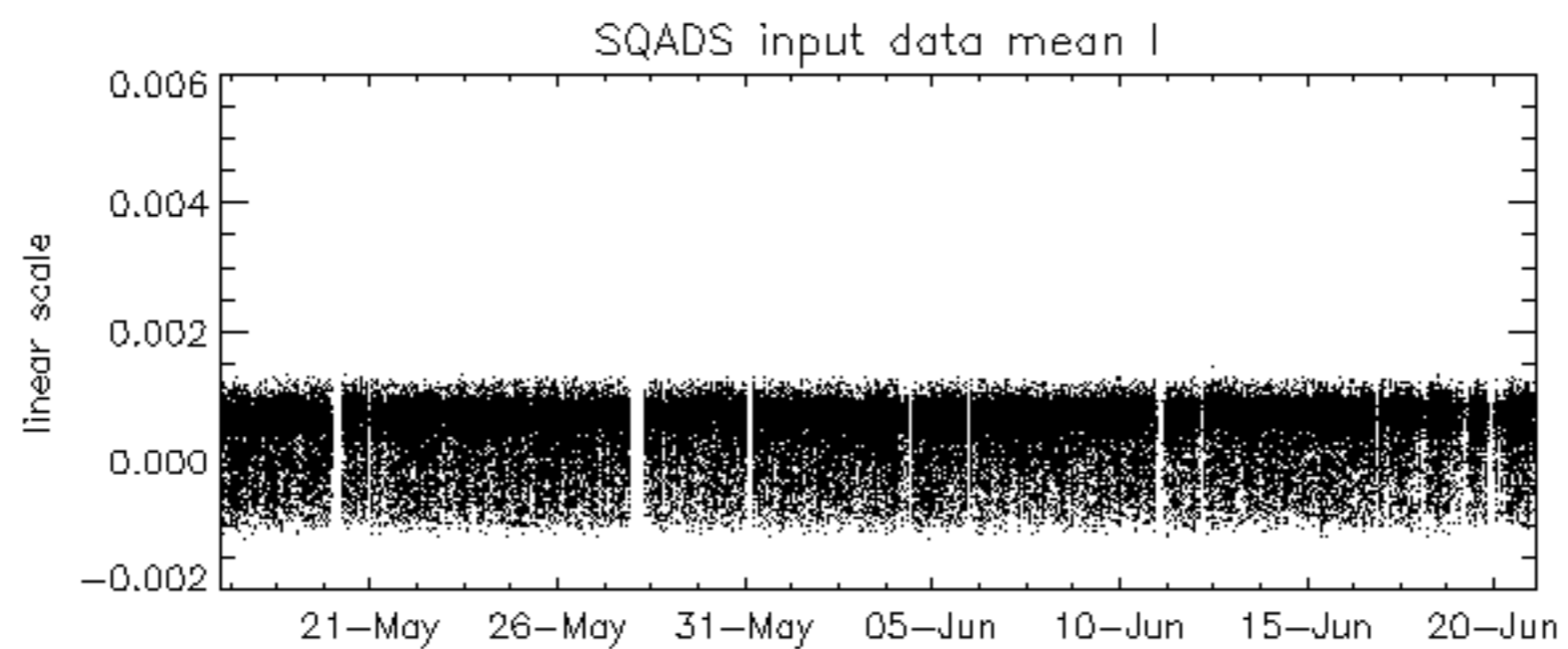
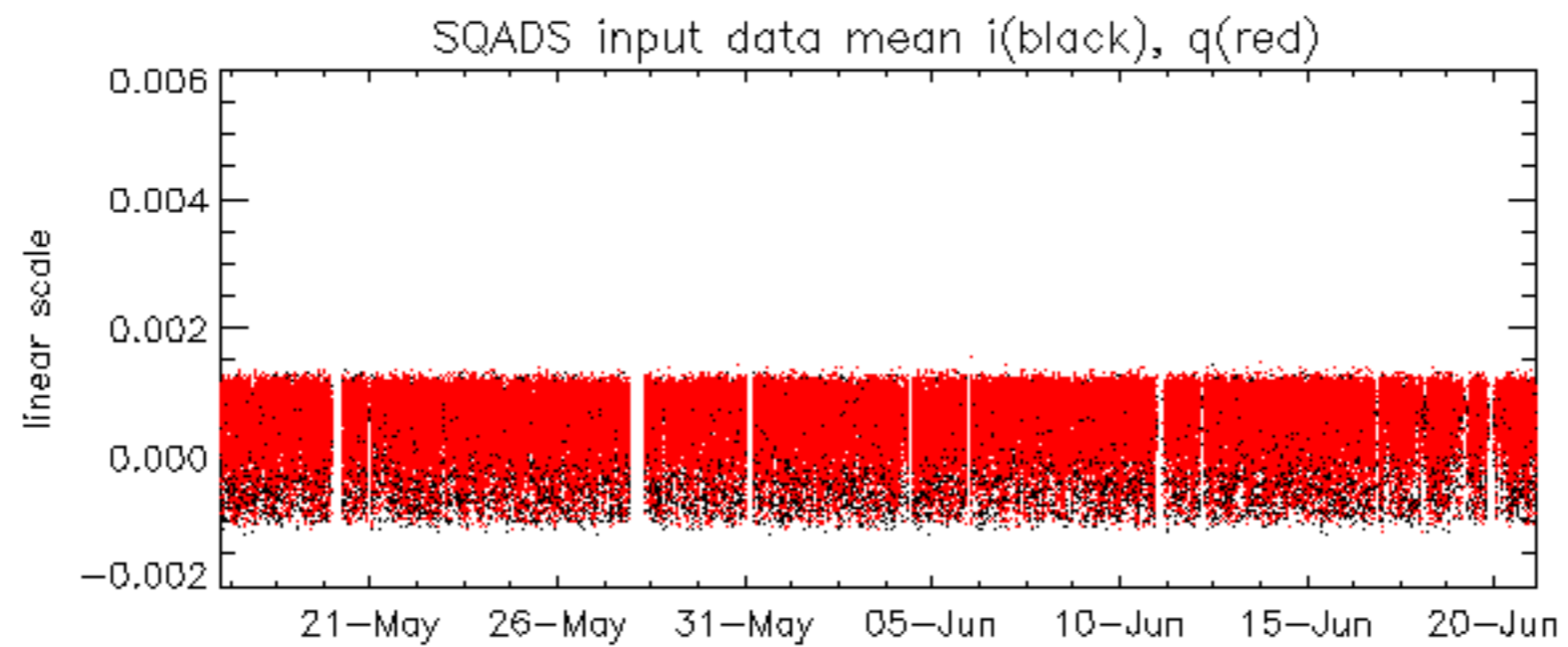
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.949605 Hz

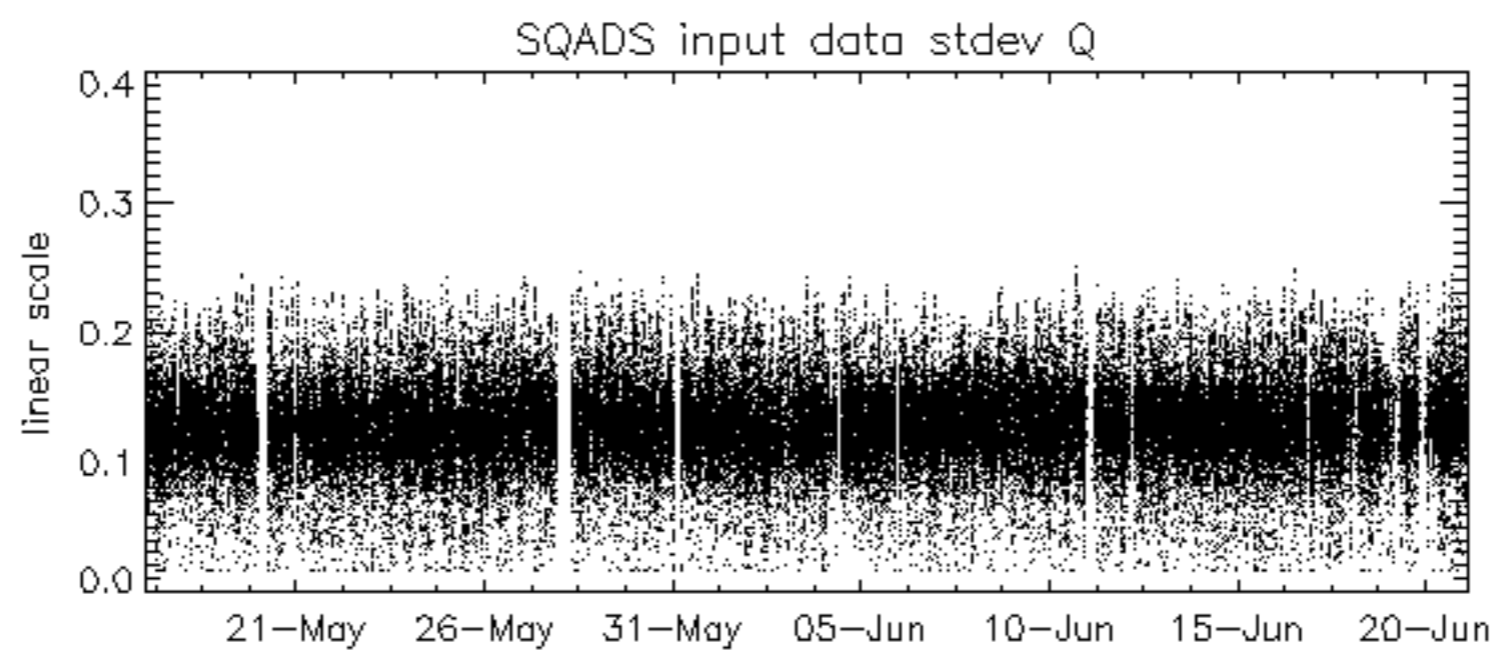
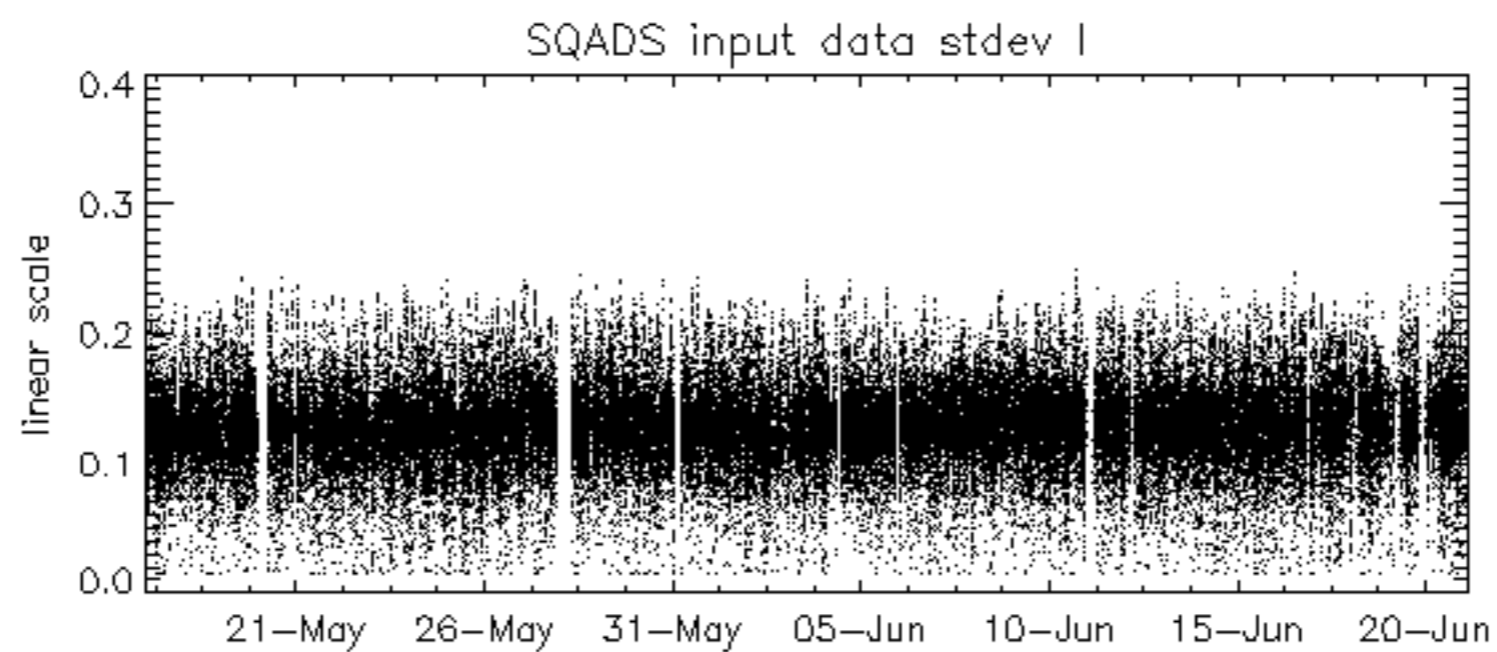
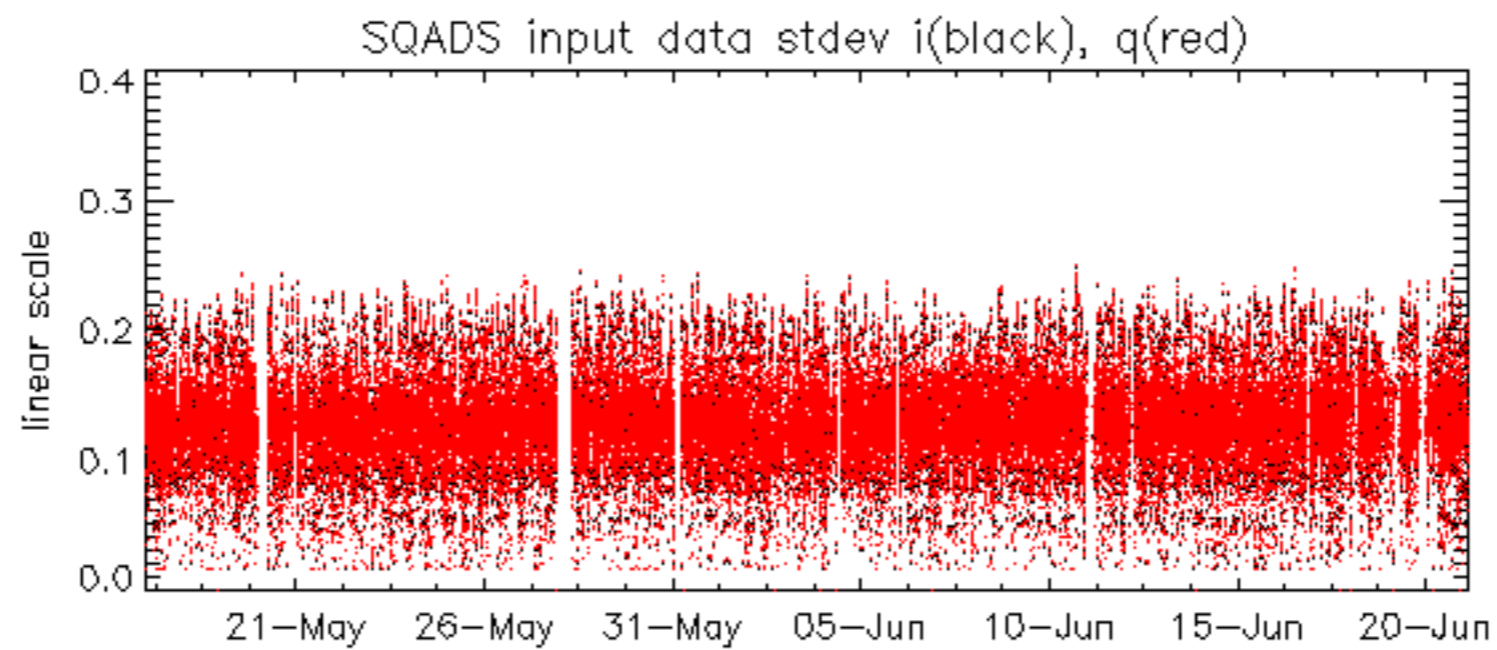


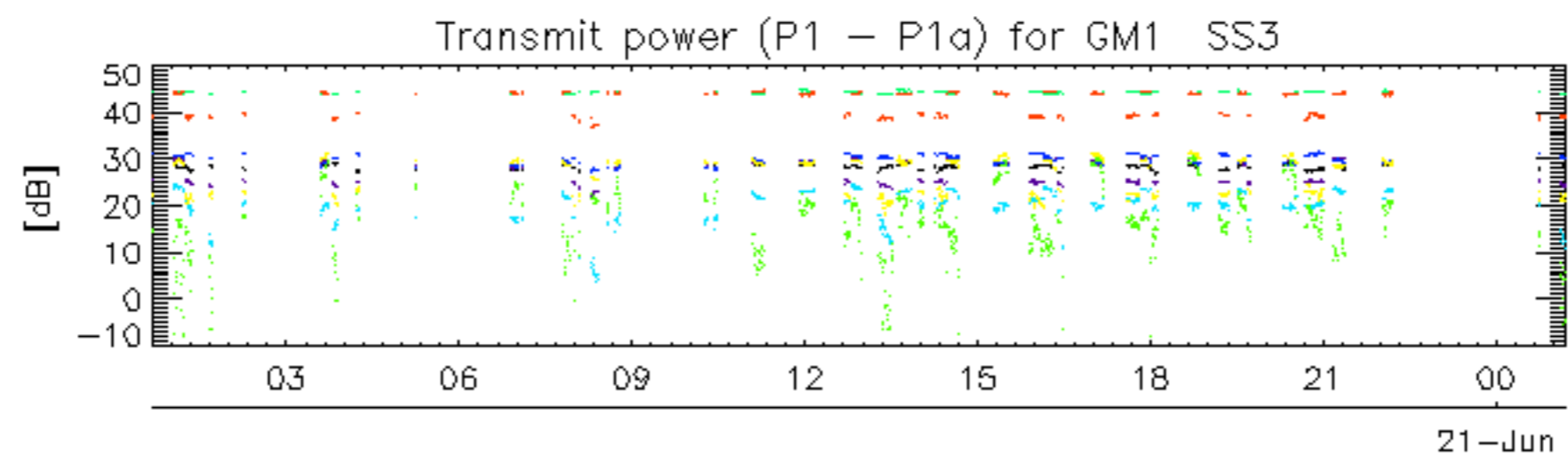
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No anomalies observed on available MS products:

No anomalies observed.

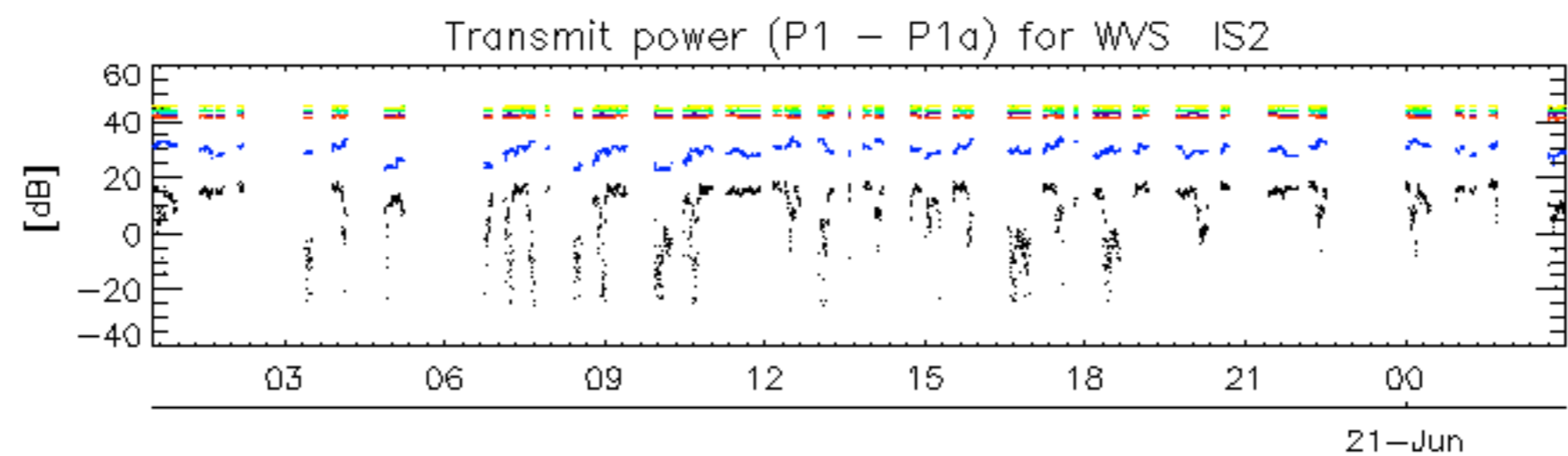








rows: **3** **7** **11** **15** **19** **22** **24** **30**



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

No unavailabilities during the reported period.