

REPORT OF 040426

last update on Mon Apr 26 14:19:50 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 from 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:

ASA_MS__0PNPDK20040424_202126_000000152026_00171_11247_0092.N1
 ASA_MS__0PNPDK20040424_202246_000000152026_00171_11247_0093.N1

Polarisation	Start Time
V	20040424 202246
H	20040424 202126

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	-3.576372	0.005377	0.013982
7	P1	-3.299819	0.010862	0.001946
11	P1	-4.629341	0.023153	0.033464
15	P1	-4.979292	0.039311	0.044131
19	P1	-3.352311	0.006304	-0.042271
22	P1	-4.515560	0.014555	0.005229
24	P1	-5.023349	0.014891	0.064237
28	P1	-4.591840	0.013598	-0.018243

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.400337	0.079602	-0.020961

7	P2	-22.876324	0.121607	-0.045236
11	P2	-15.894472	0.151726	0.117908
15	P2	-7.161134	0.088853	-0.001739
19	P2	-9.515994	0.162105	0.023507
22	P2	-17.654337	0.097852	0.051935
24	P2	-20.988739	0.110875	0.022462
28	P2	-16.607244	0.080869	-0.020559

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.132186	0.003035	-0.018994
7	P3	-8.132191	0.003036	-0.019003
11	P3	-8.132190	0.003036	-0.019004
15	P3	-8.132208	0.003034	-0.018928
19	P3	-8.132213	0.003034	-0.018863
22	P3	-8.132227	0.003035	-0.018782
24	P3	-8.132224	0.003035	-0.018786
28	P3	-8.132229	0.003026	-0.018803

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	-4.189301	0.098629	-0.094473
7	P1	-3.412027	0.347137	-0.151379
11	P1	-4.649694	0.074141	0.056123
15	P1	-3.614299	0.508972	-0.200214
19	P1	-2.880567	0.080733	-0.103898
22	P1	-4.692411	0.101446	0.017711
24	P1	-7.073851	0.040773	0.009498
28	P1	-6.630330	0.116126	0.005555

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.606453	0.243087	0.010902
7	P2	-13.448738	0.190408	-0.000210
11	P2	-12.061590	0.146864	0.087674
15	P2	-5.731260	0.024022	-0.043931
19	P2	-6.559554	0.052295	-0.123397
22	P2	-15.014402	0.559382	-0.038982
24	P2	-19.702435	0.042820	0.055145
28	P2	-17.111244	0.060249	-0.052082

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.026093	0.003225	-0.017070
7	P3	-8.026155	0.003226	-0.017122
11	P3	-8.026043	0.003222	-0.016930
15	P3	-8.026066	0.003231	-0.017354
19	P3	-8.026095	0.003229	-0.017229
22	P3	-8.026125	0.003216	-0.017332
24	P3	-8.026115	0.003249	-0.017051
28	P3	-8.026103	0.003252	-0.017197

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	0.000481302
	stdev	2.36925e-07
MEAN Q	mean	0.000484199
	stdev	2.71914e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127551
	stdev	0.00118645
STDEV Q	mean	0.127805
	stdev	0.00120000





5.3 - Gain imbalance I/Q



6 - Doppler Analysis

No anomalies observed in Doppler evolution.
Analysis performed over the last 35 days.

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)**

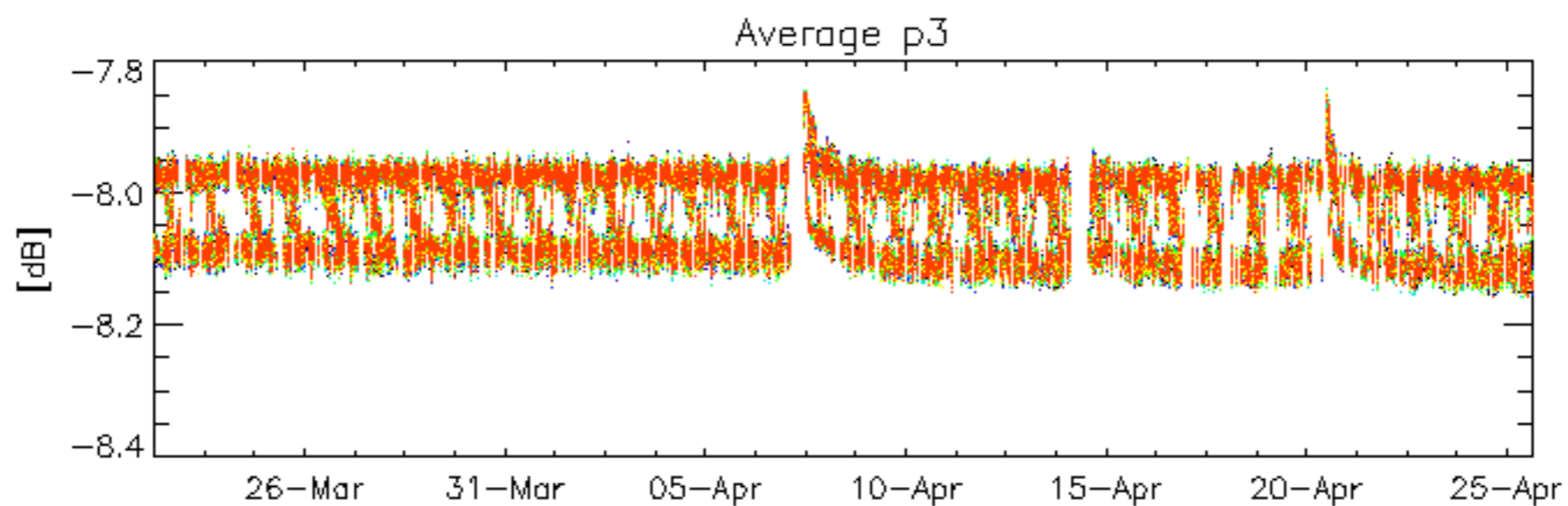
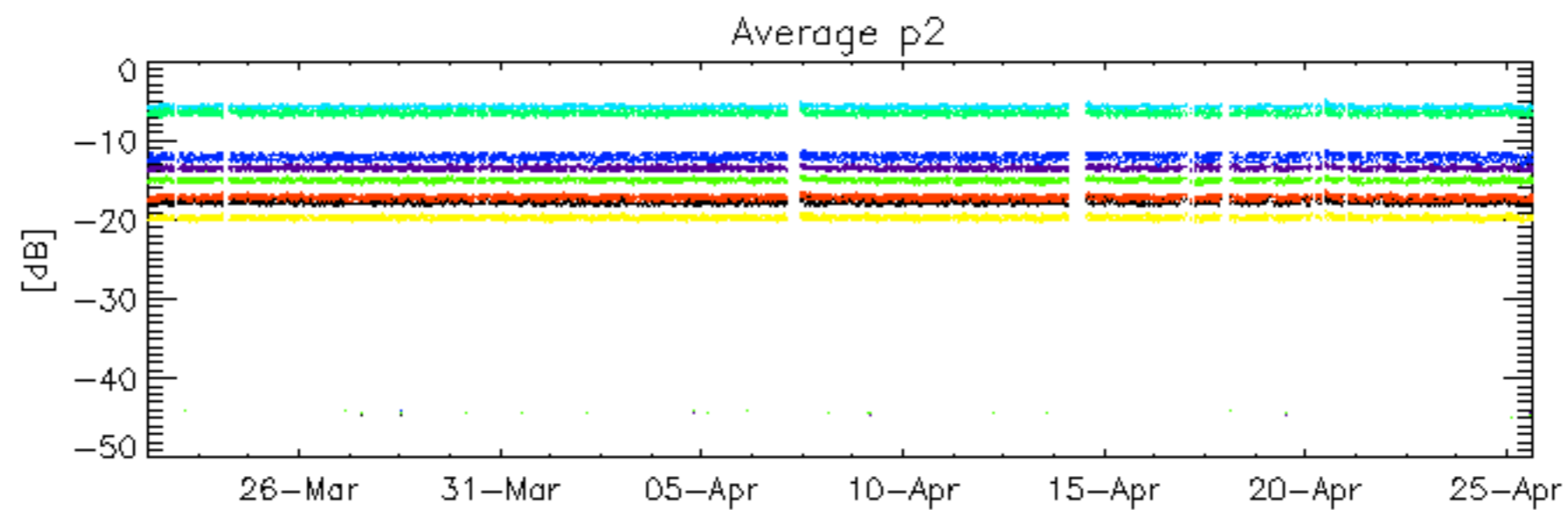
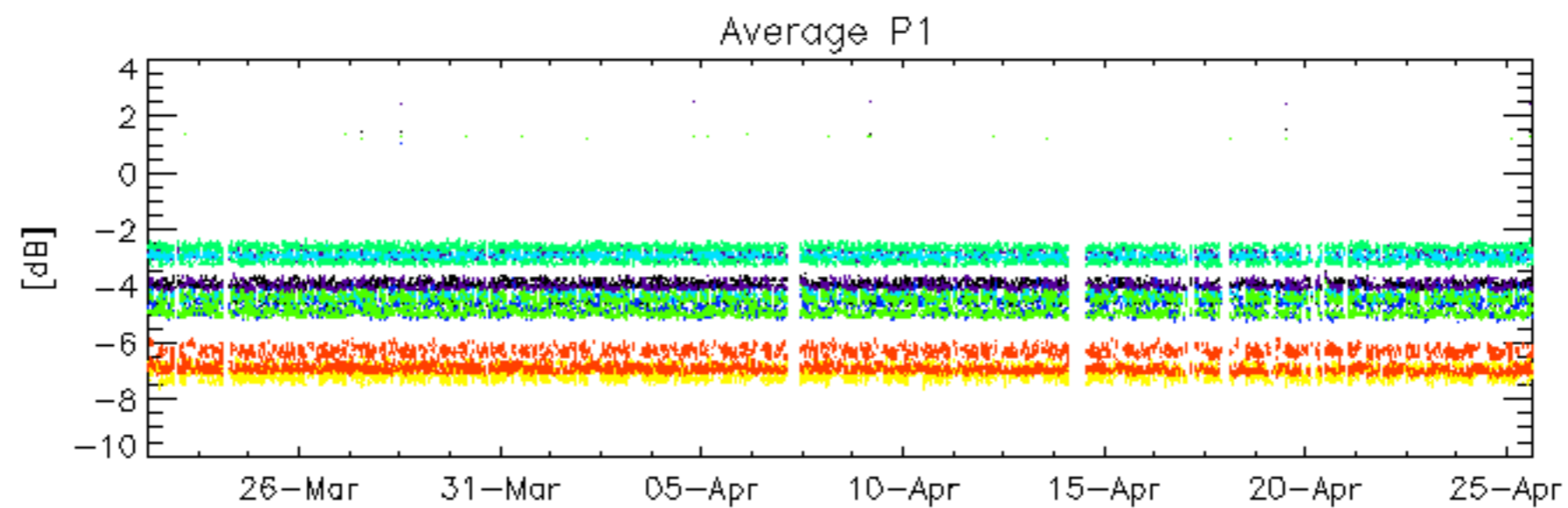
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Ascending
<input type="checkbox"/>
Descending

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

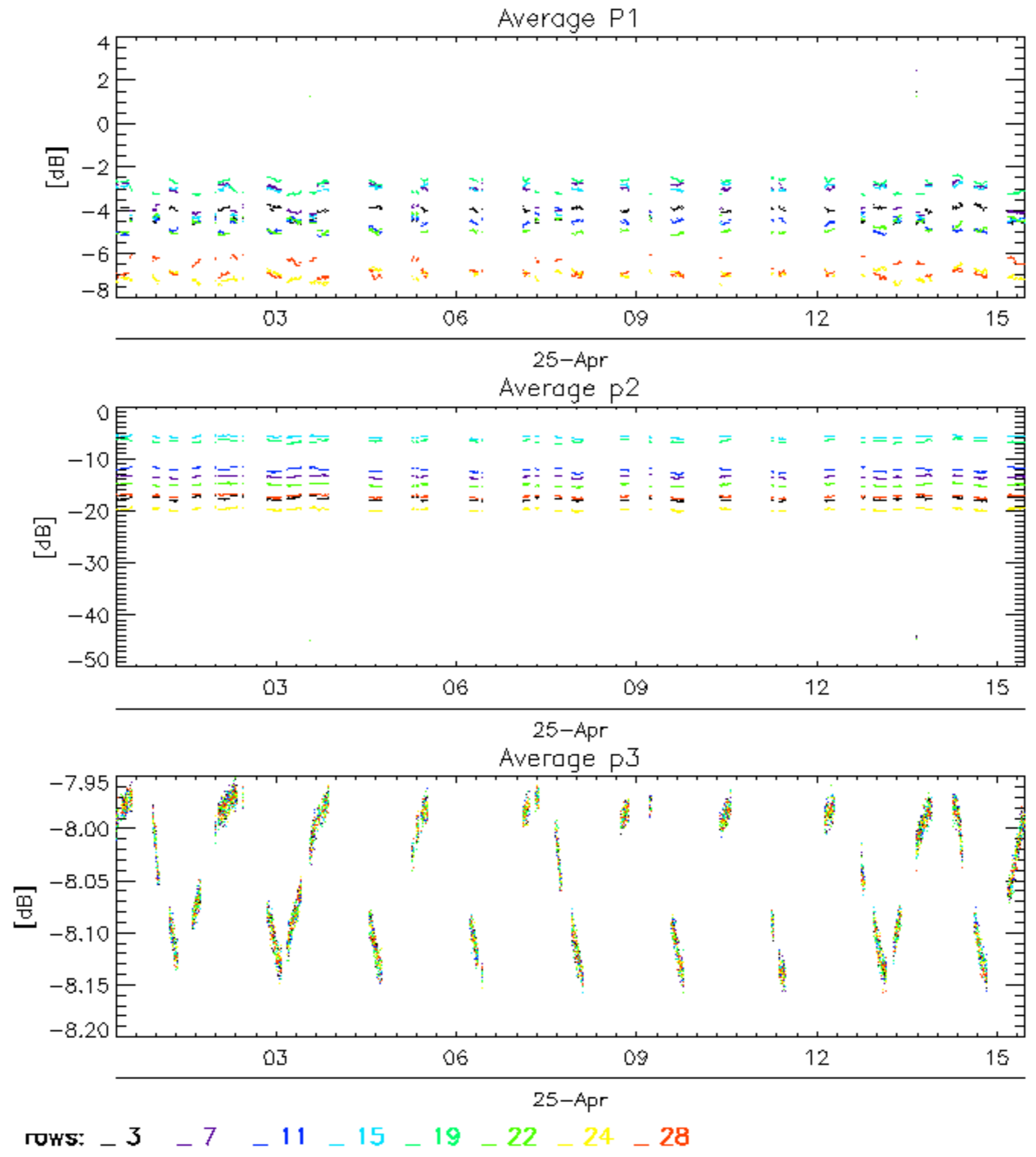
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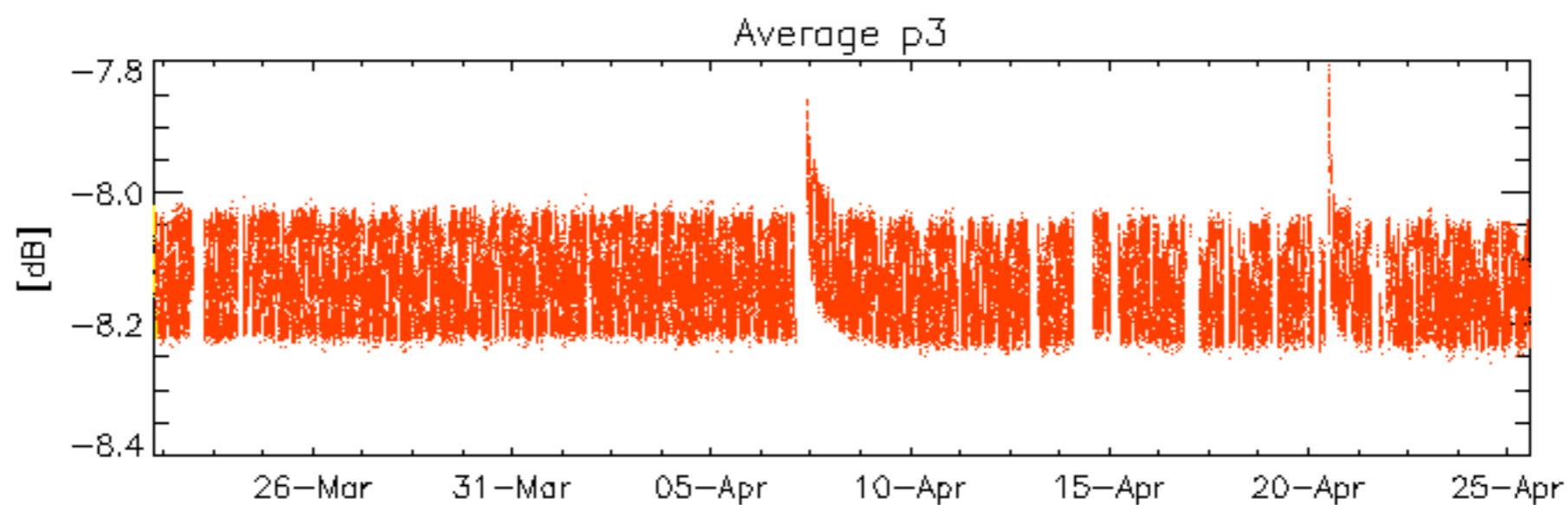
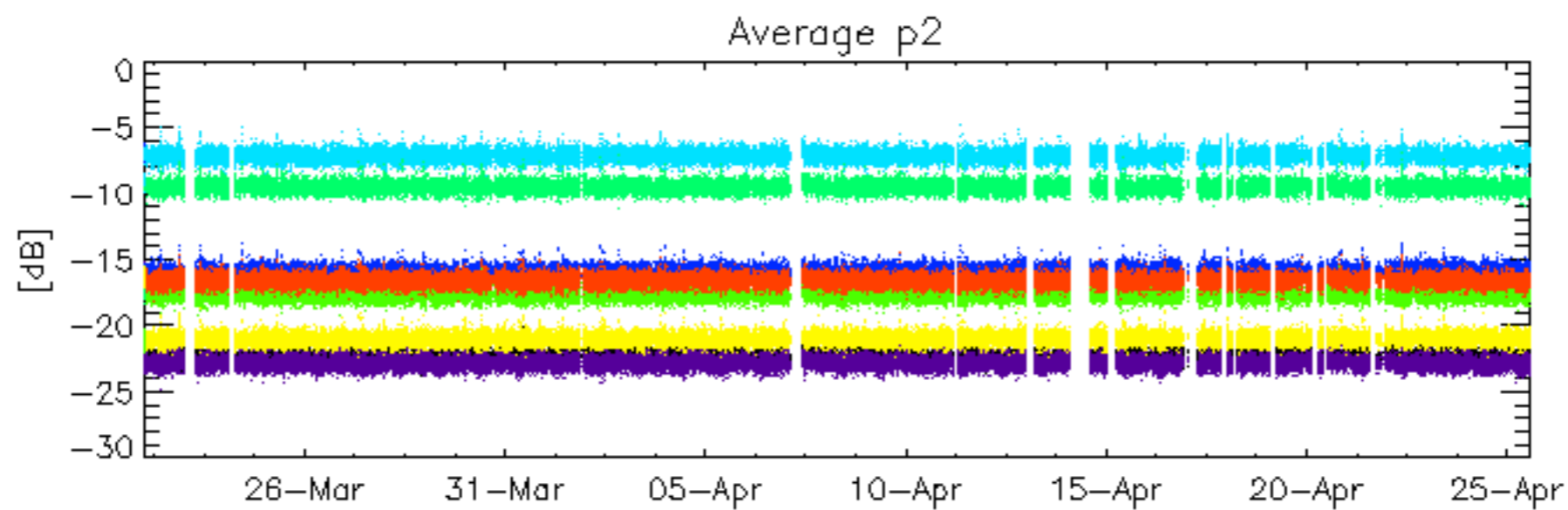
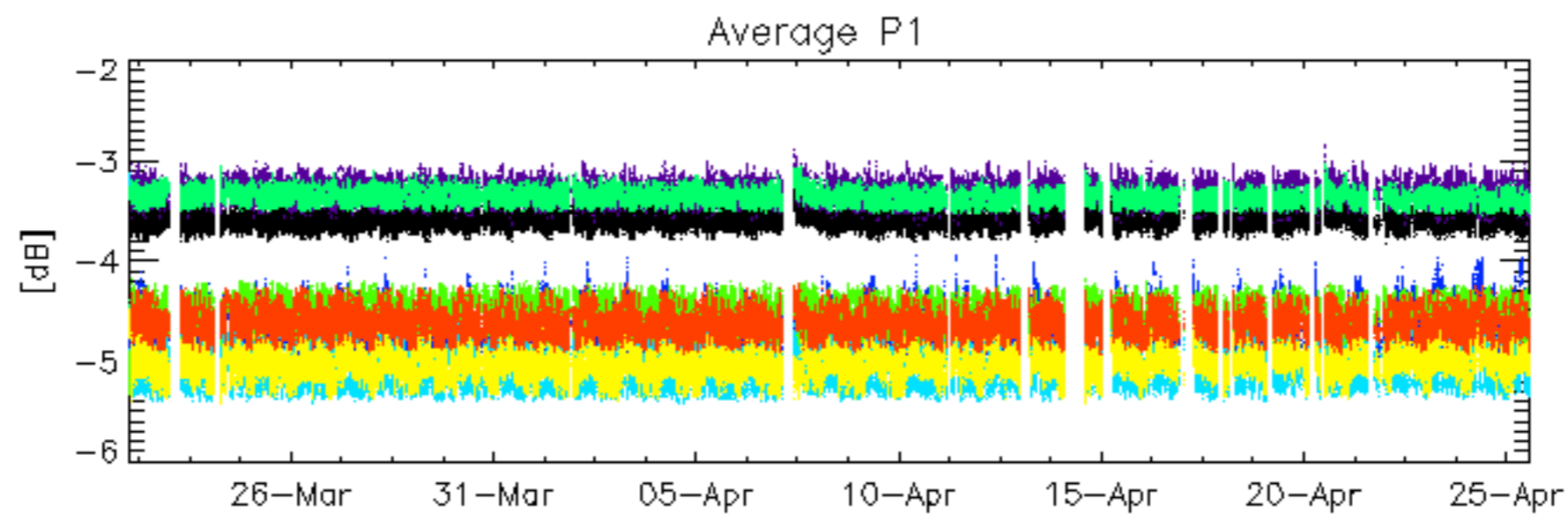
6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

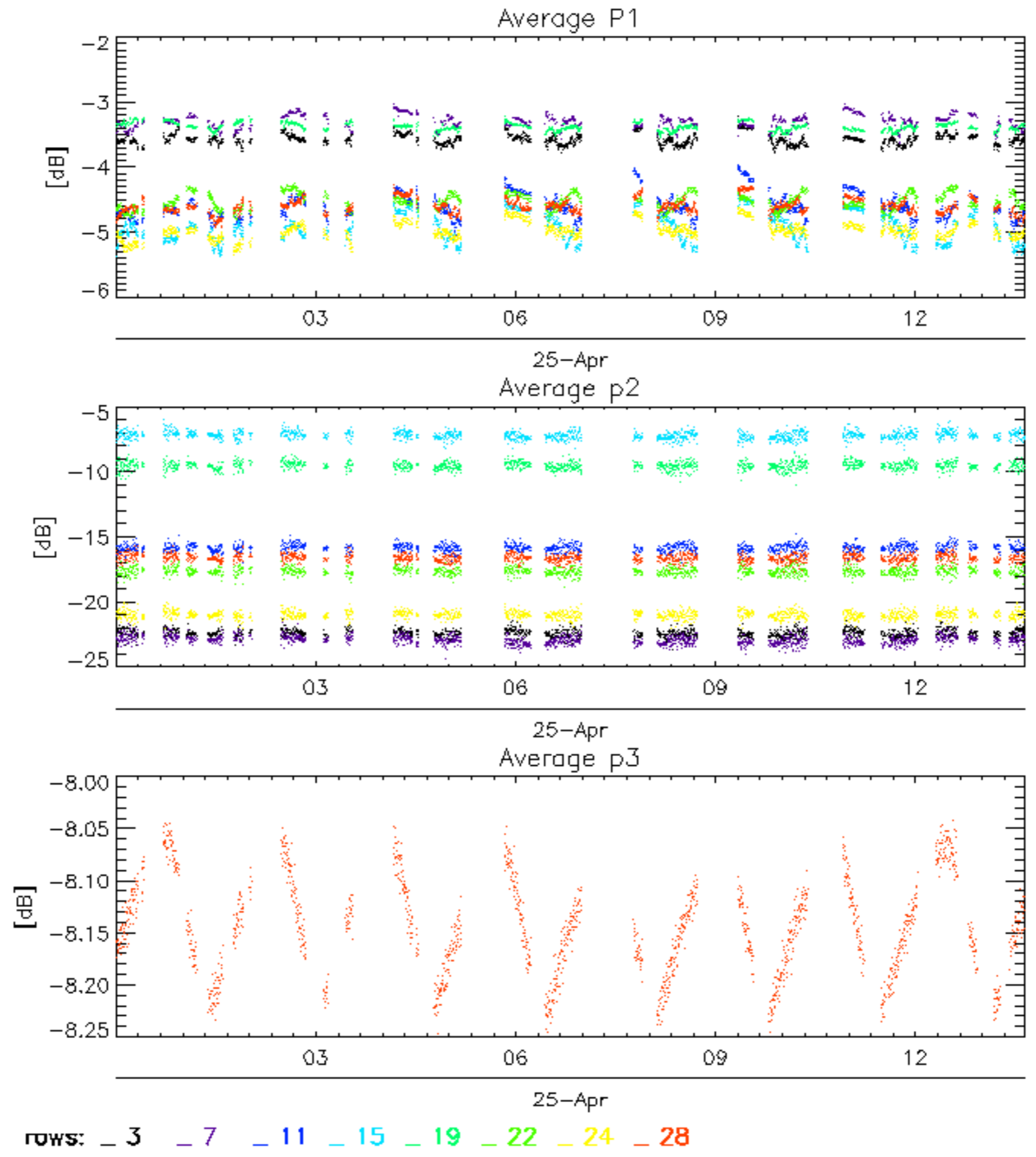


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



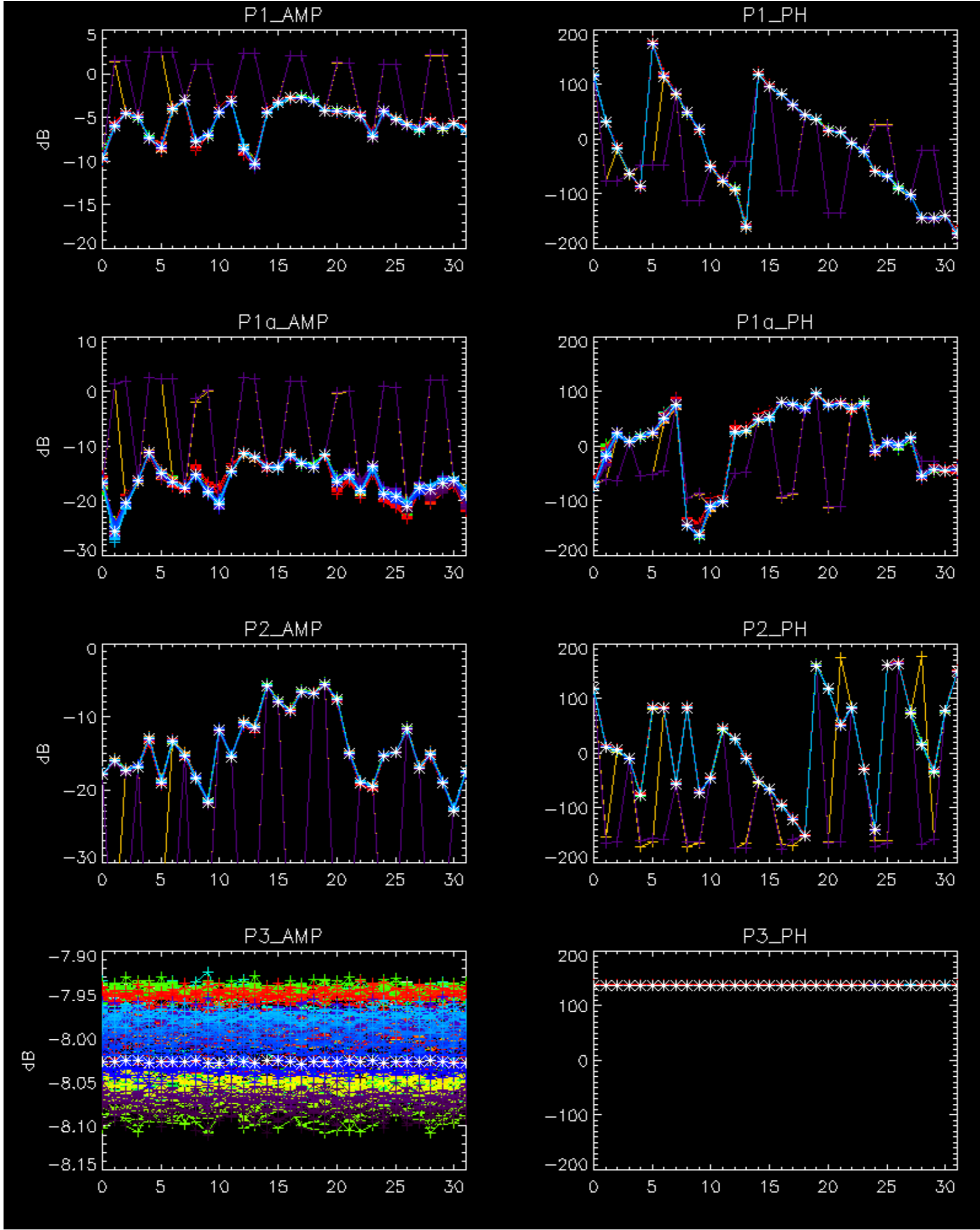


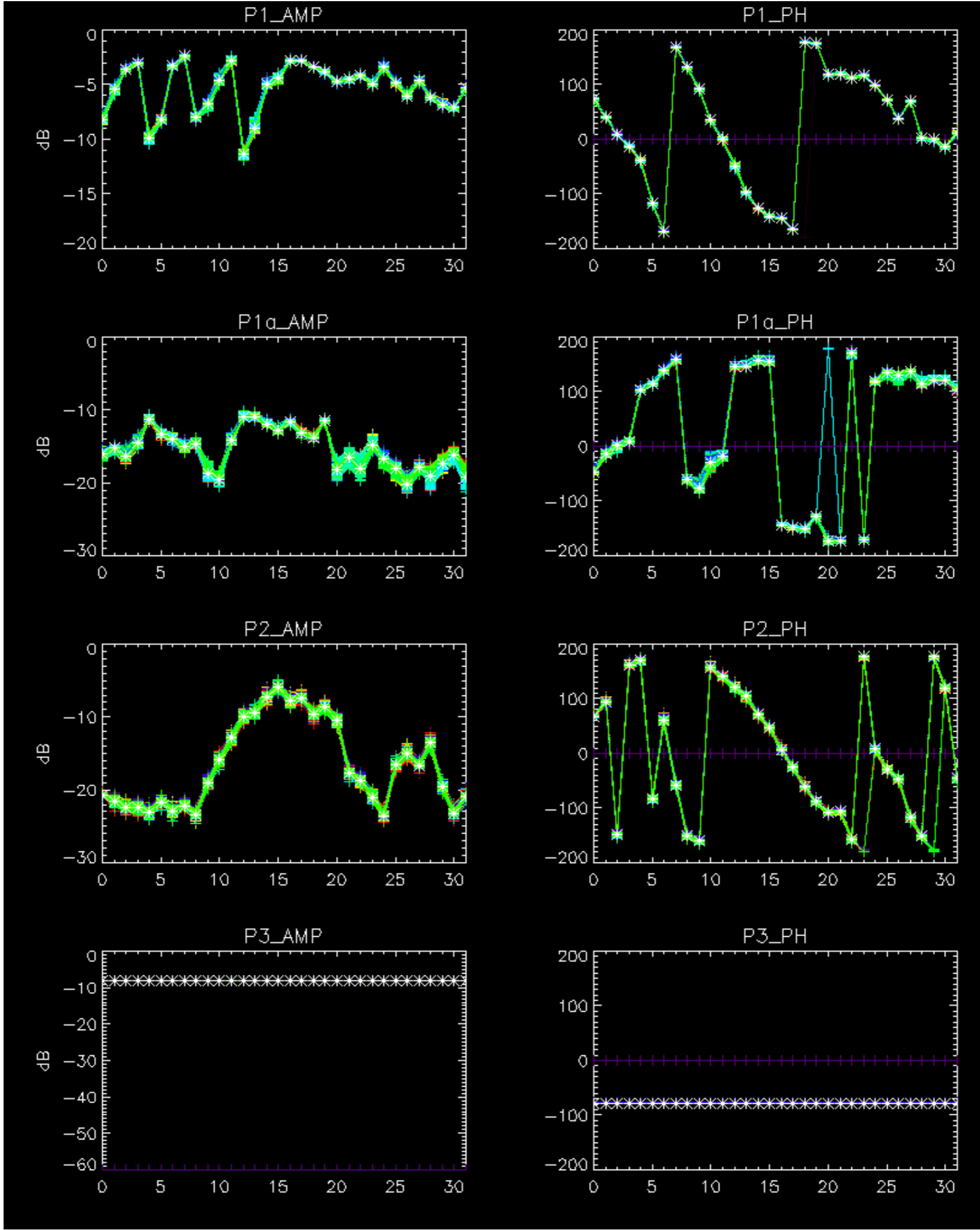
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



No anomalies observed from browse visual inspection.

No anomalies observed.

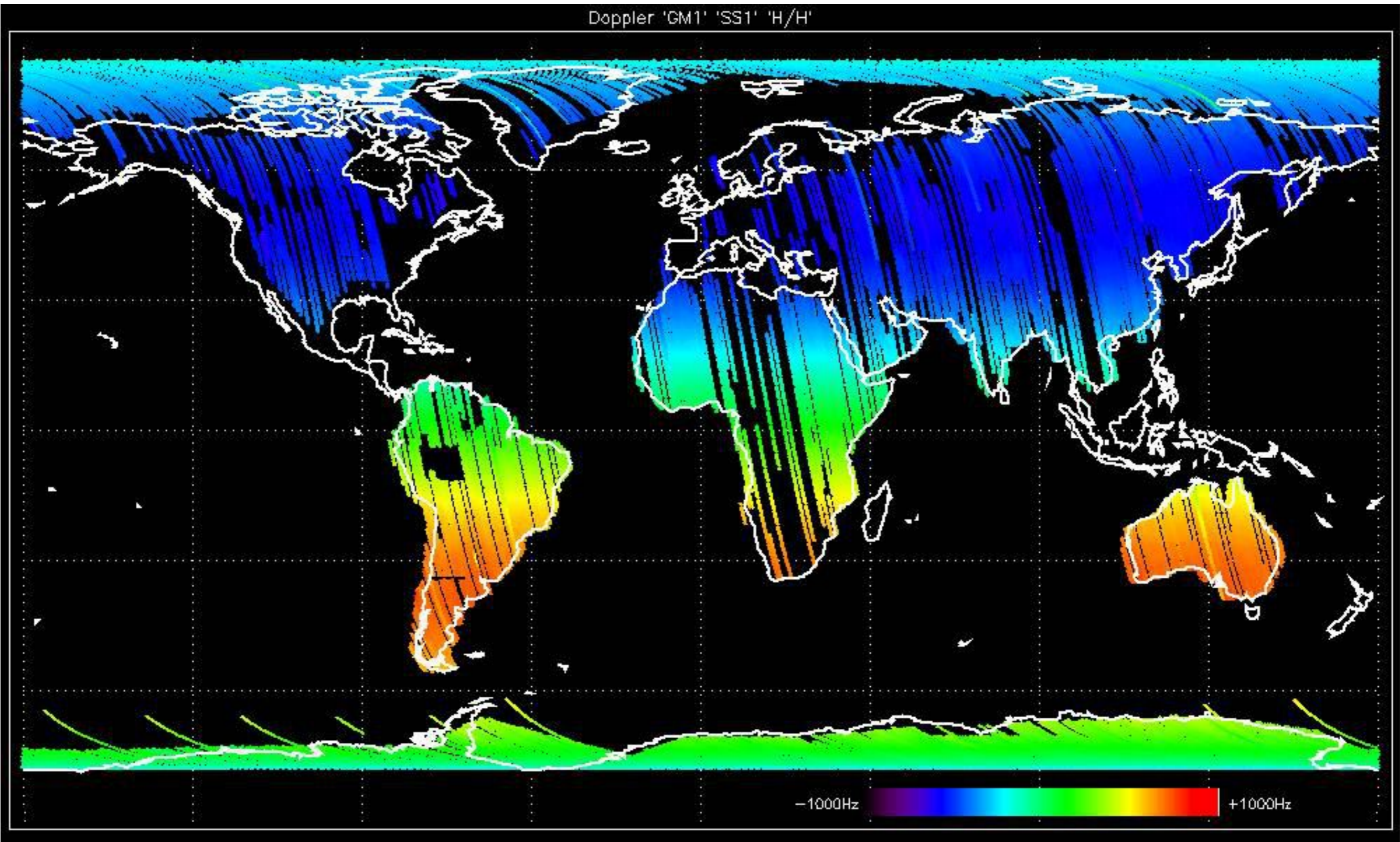




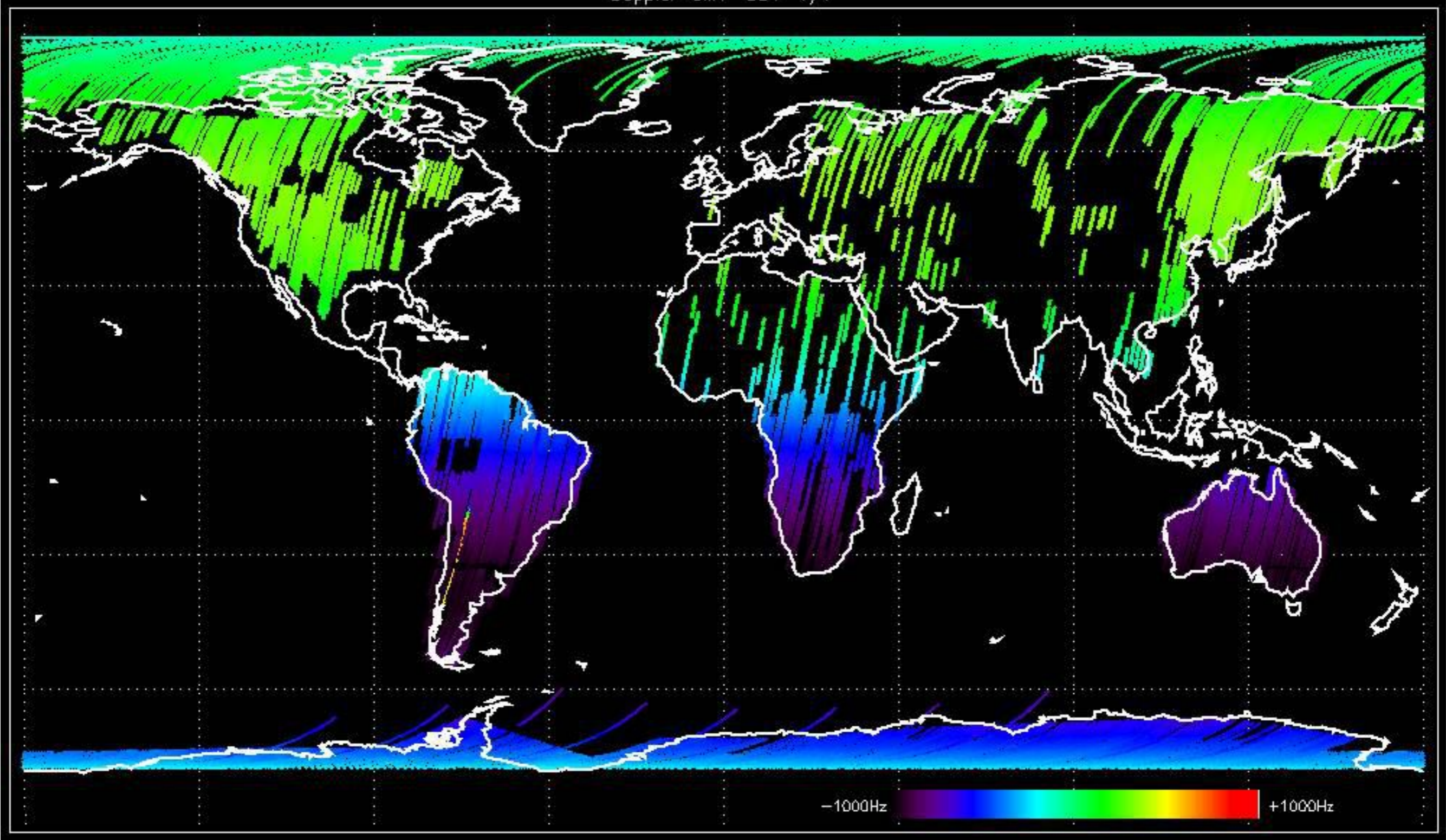
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

No anomalies observed in Doppler evolution.
Analysis performed over the last 35 days.

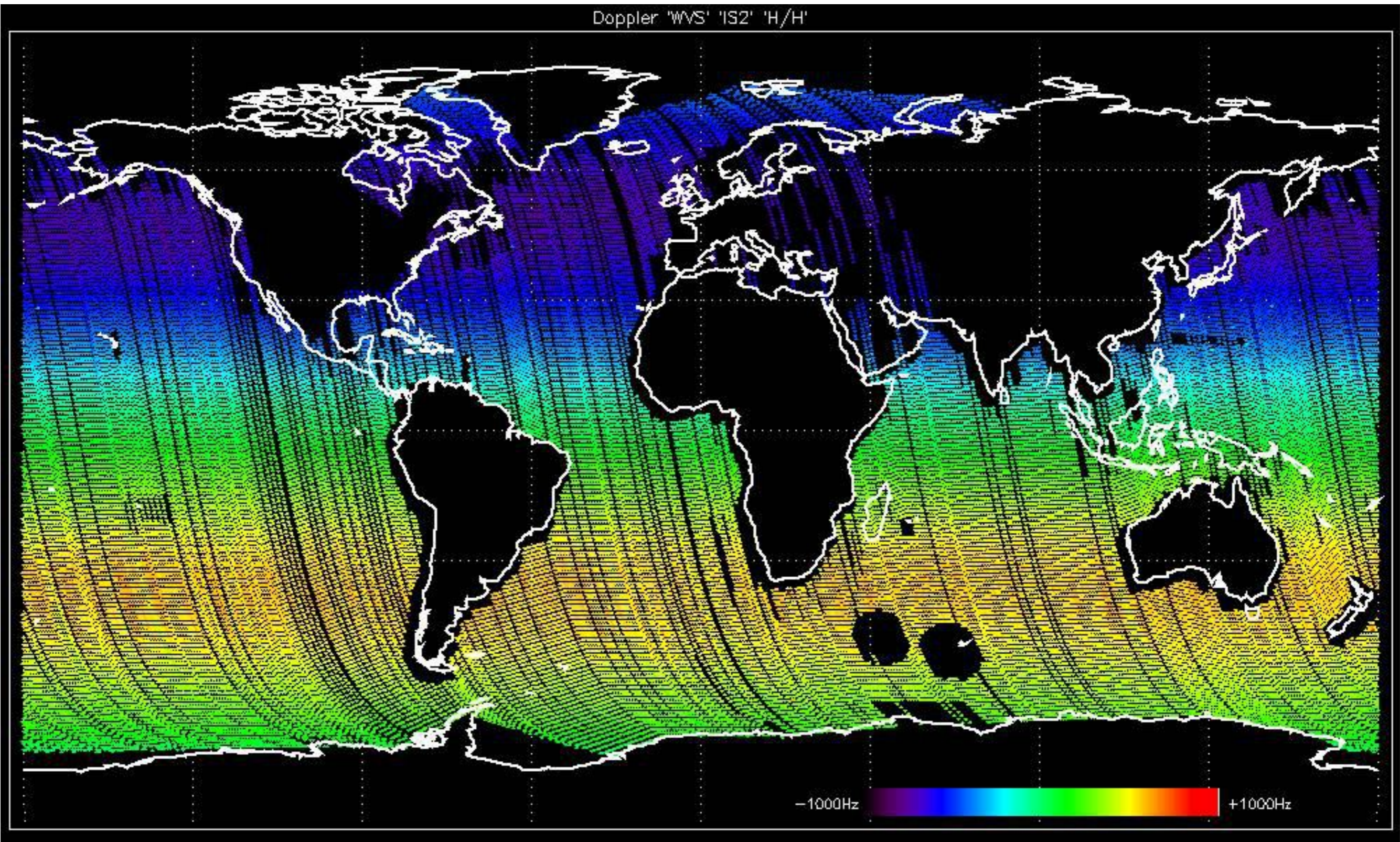
Doppler 'GM1' 'SS1' 'H/H'

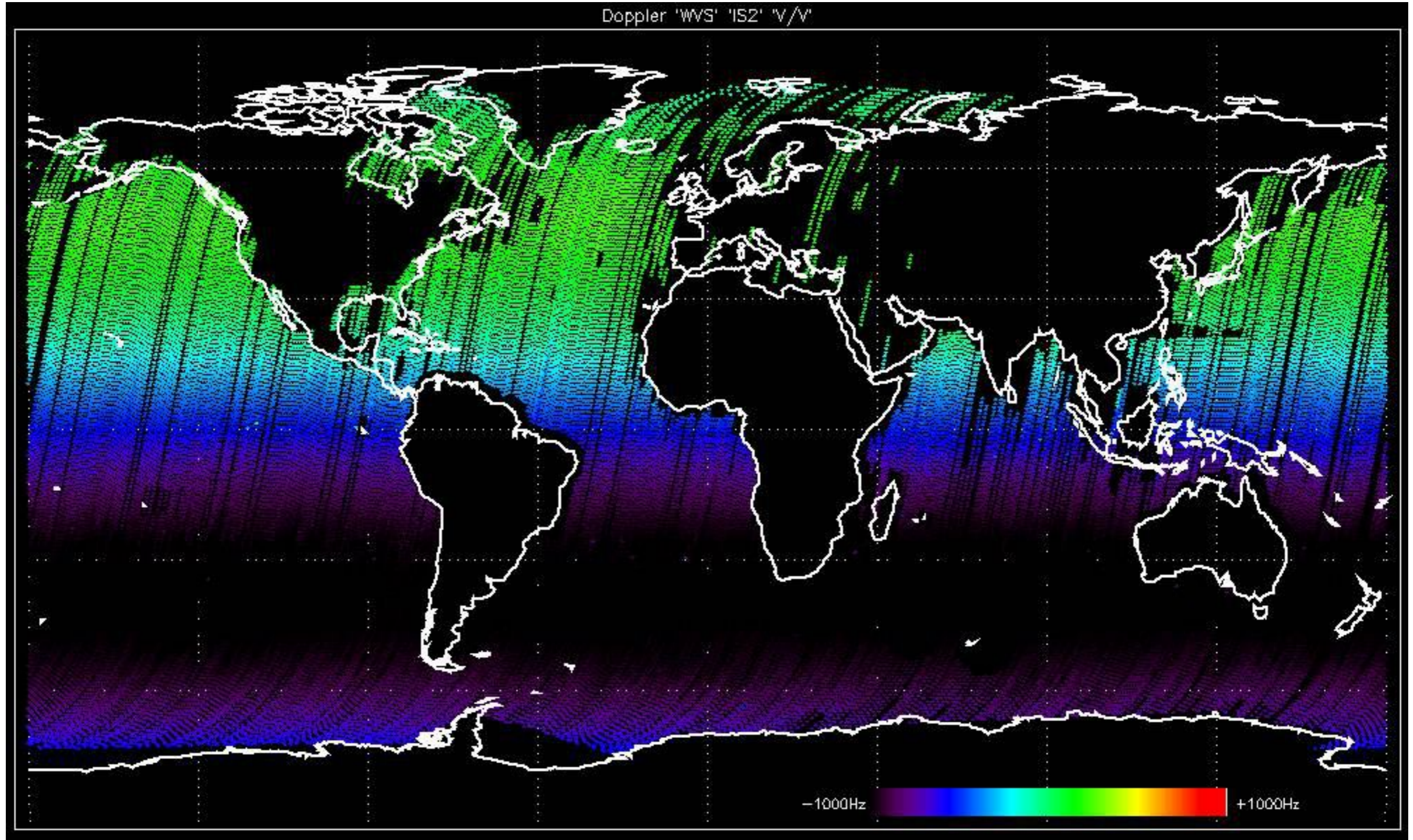


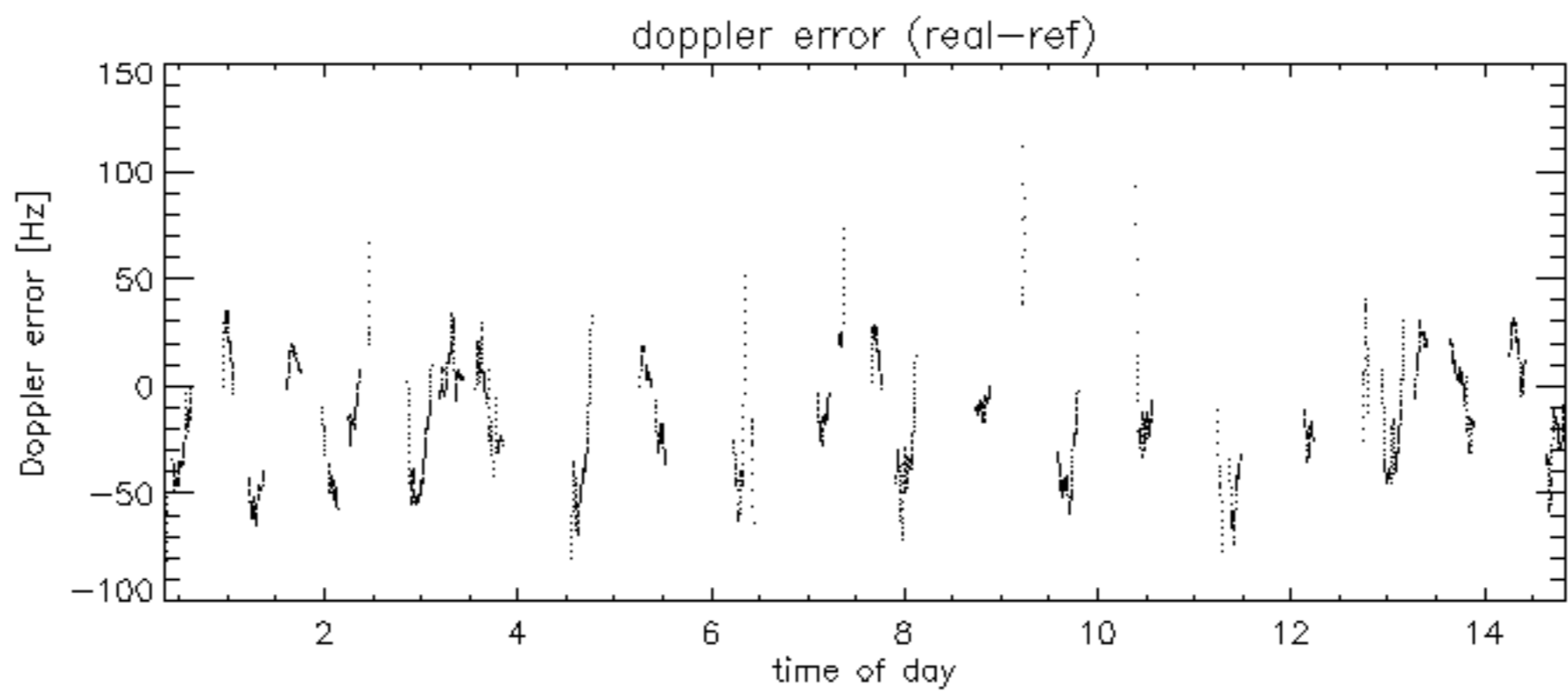
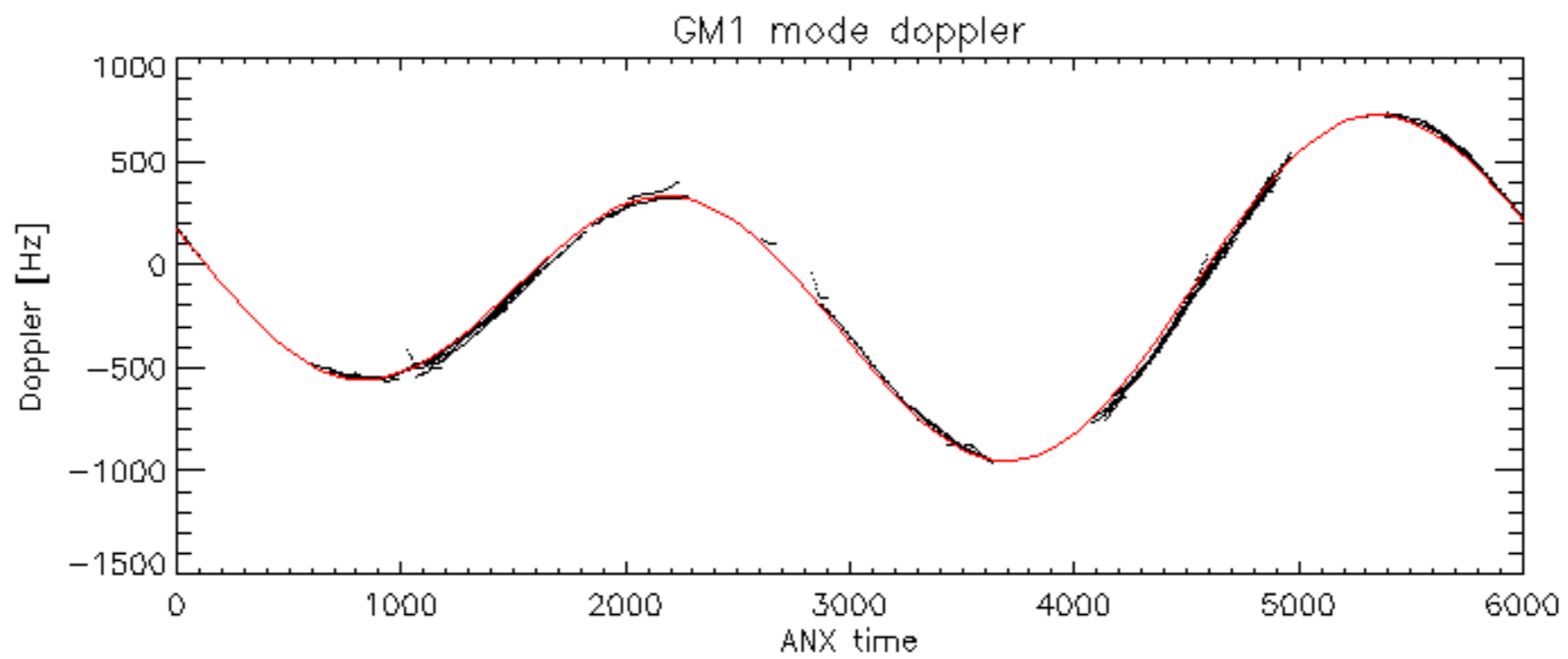
Doppler 'GM1' 'SS1' 'V/V'

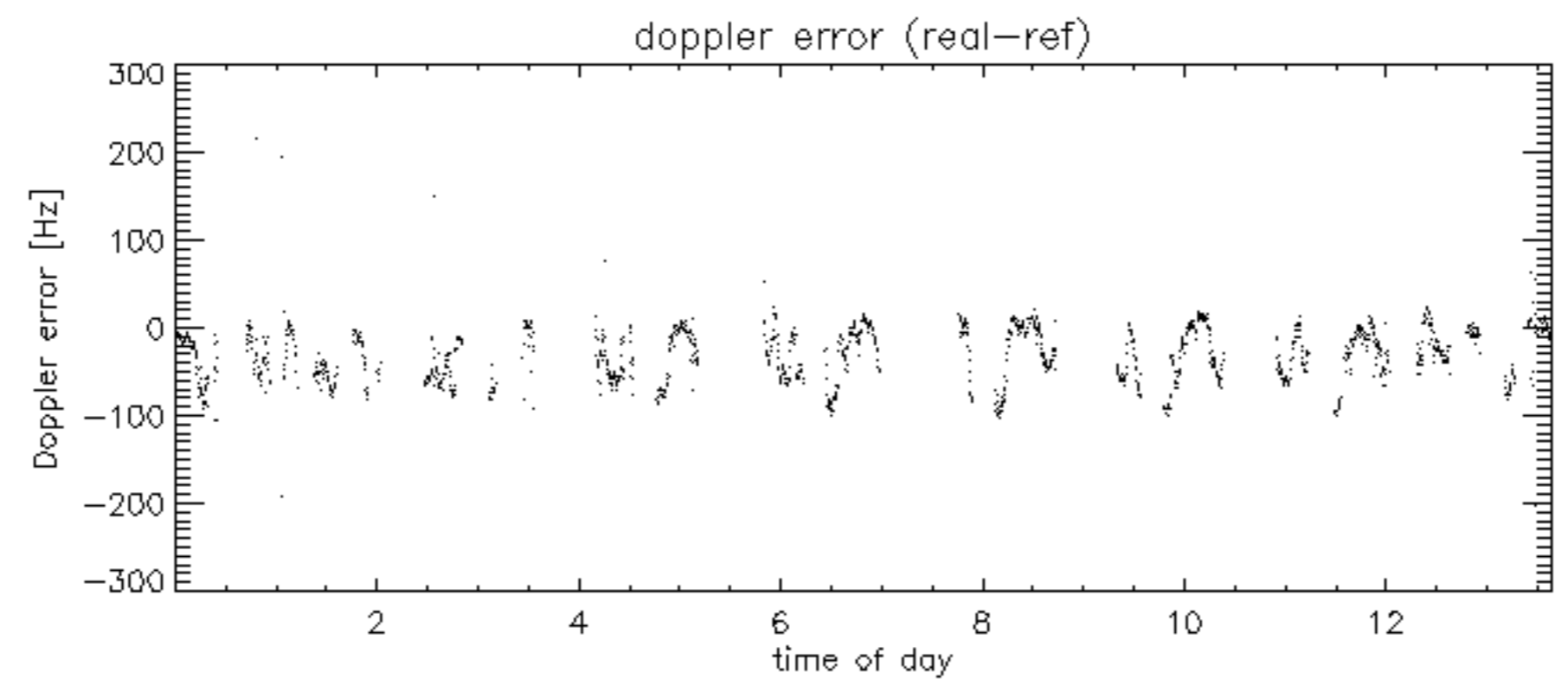
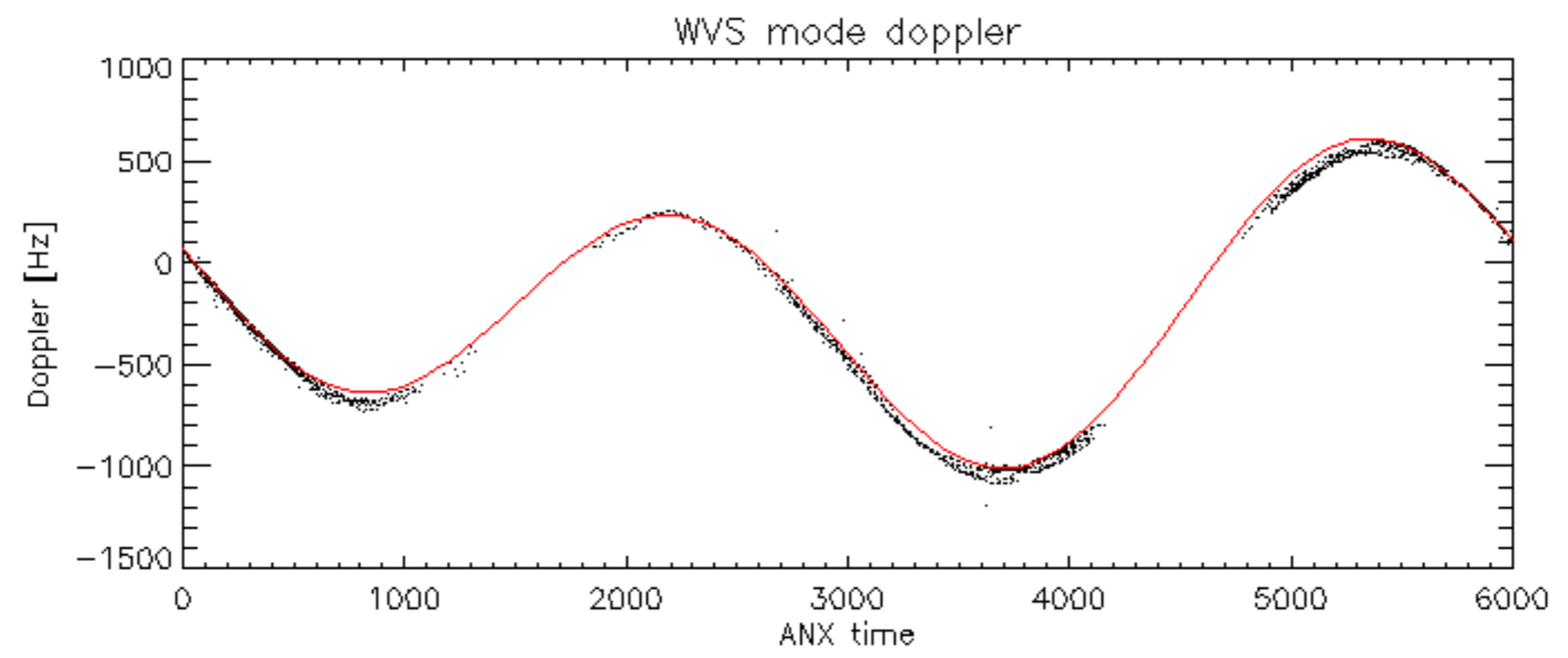


Doppler 'WVS' 'IS2' 'H/H'

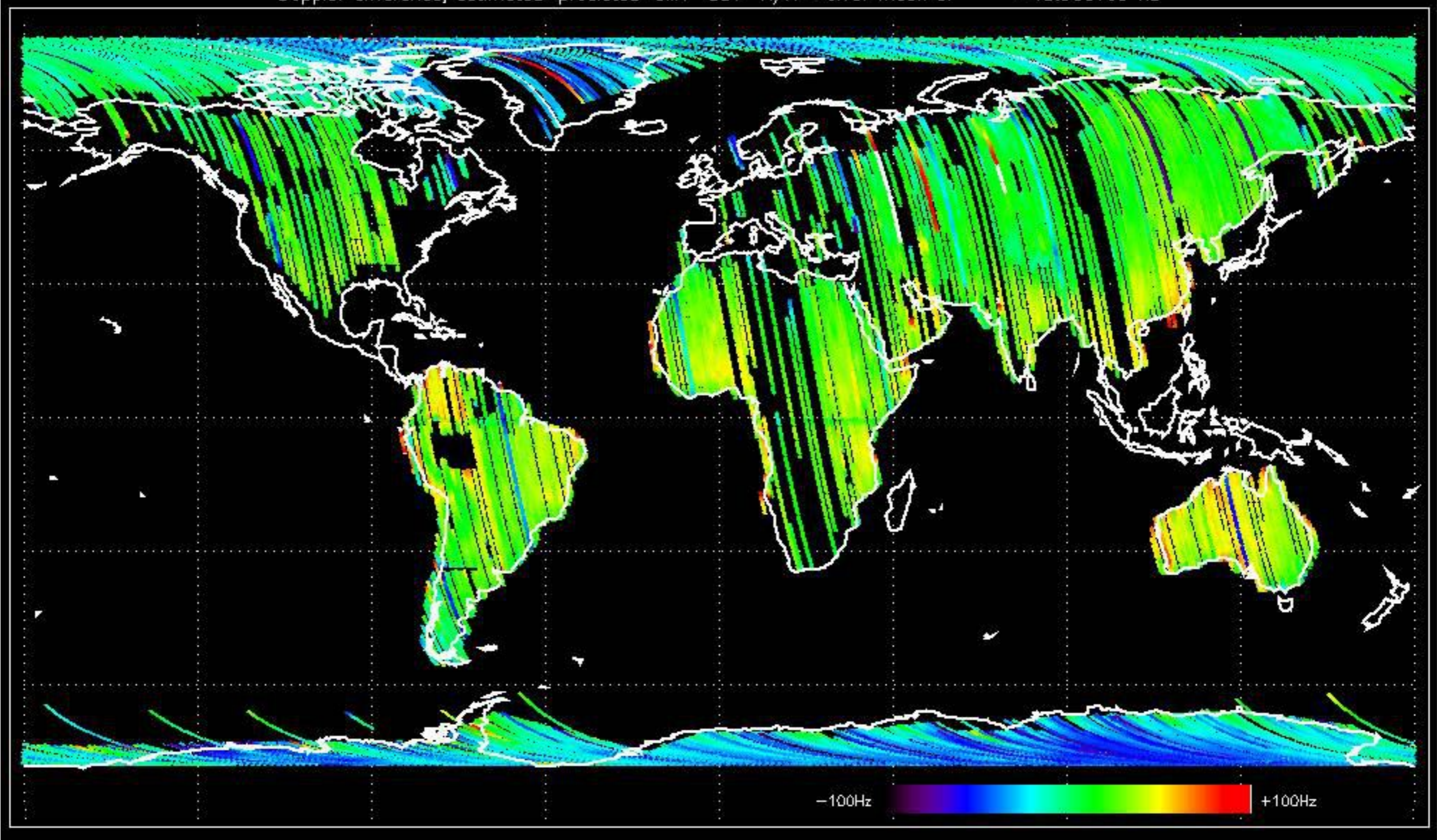




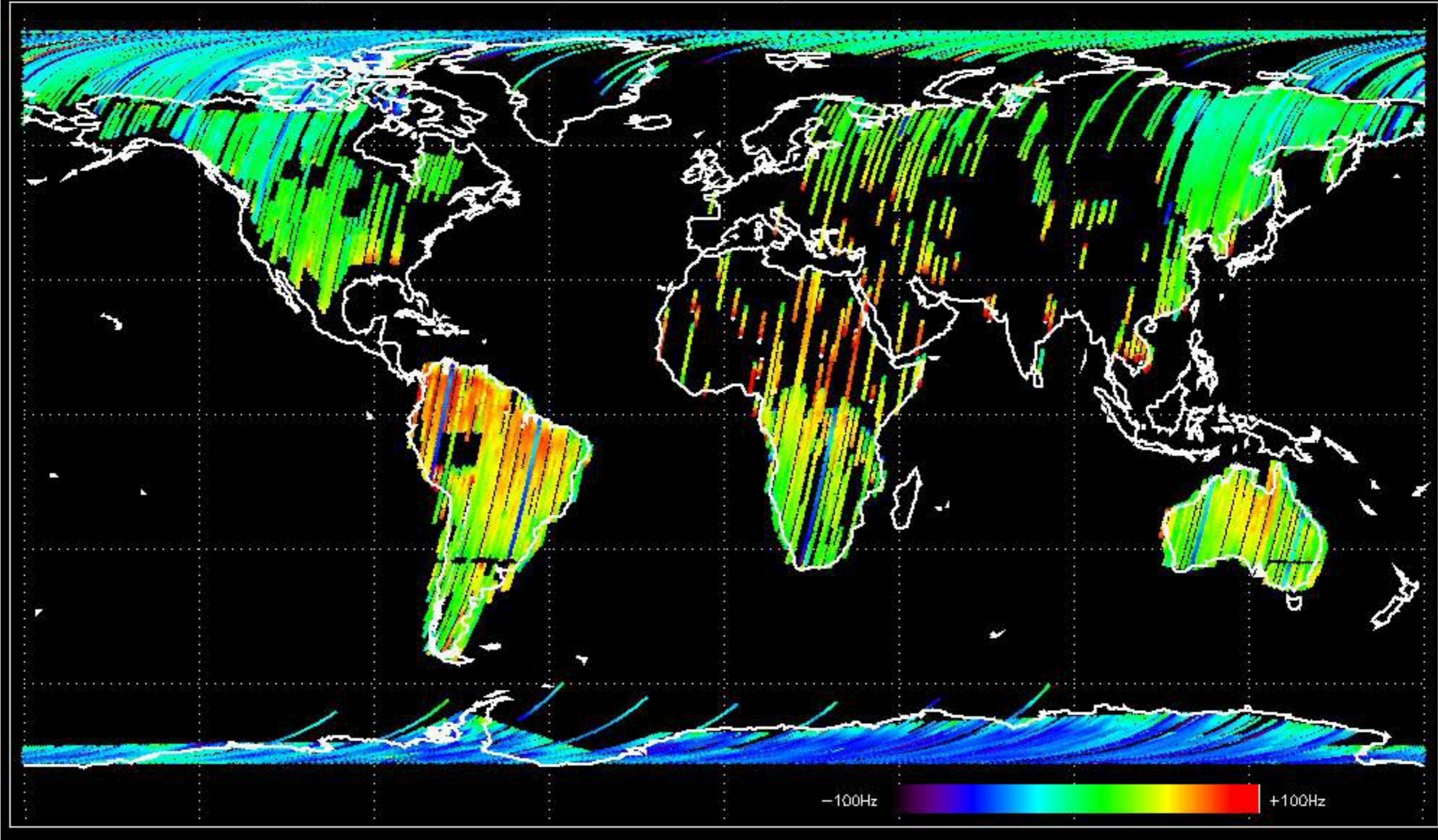




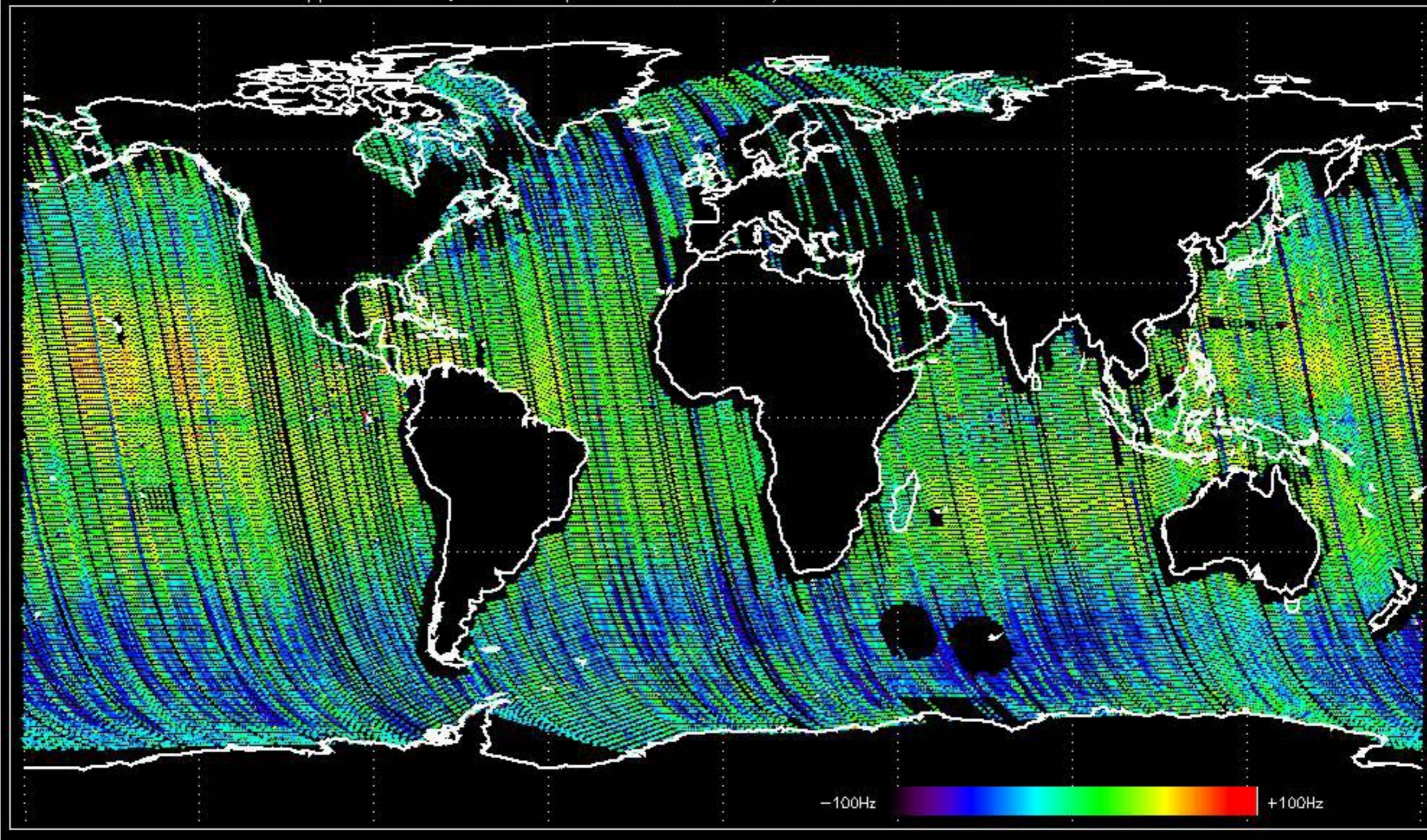
Doppler difference, estimated-predicted 'GM1' 'SS1' 'H/H' -error mean of -19.966160 Hz



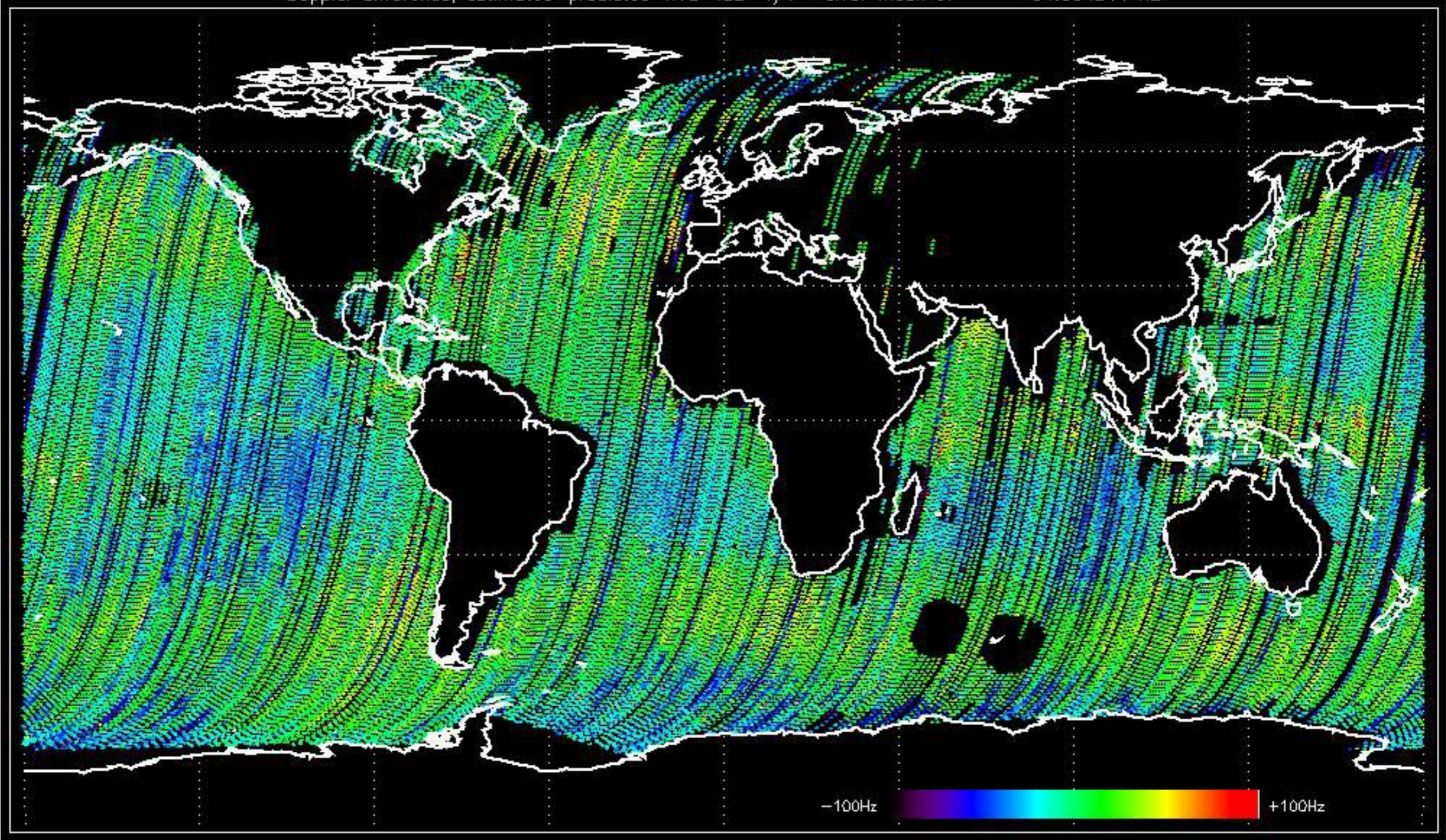
Doppler difference, estimated—predicted 'GM1' 'SS1' 'V/V' -error mean of -15.626278 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -36.934951 Hz



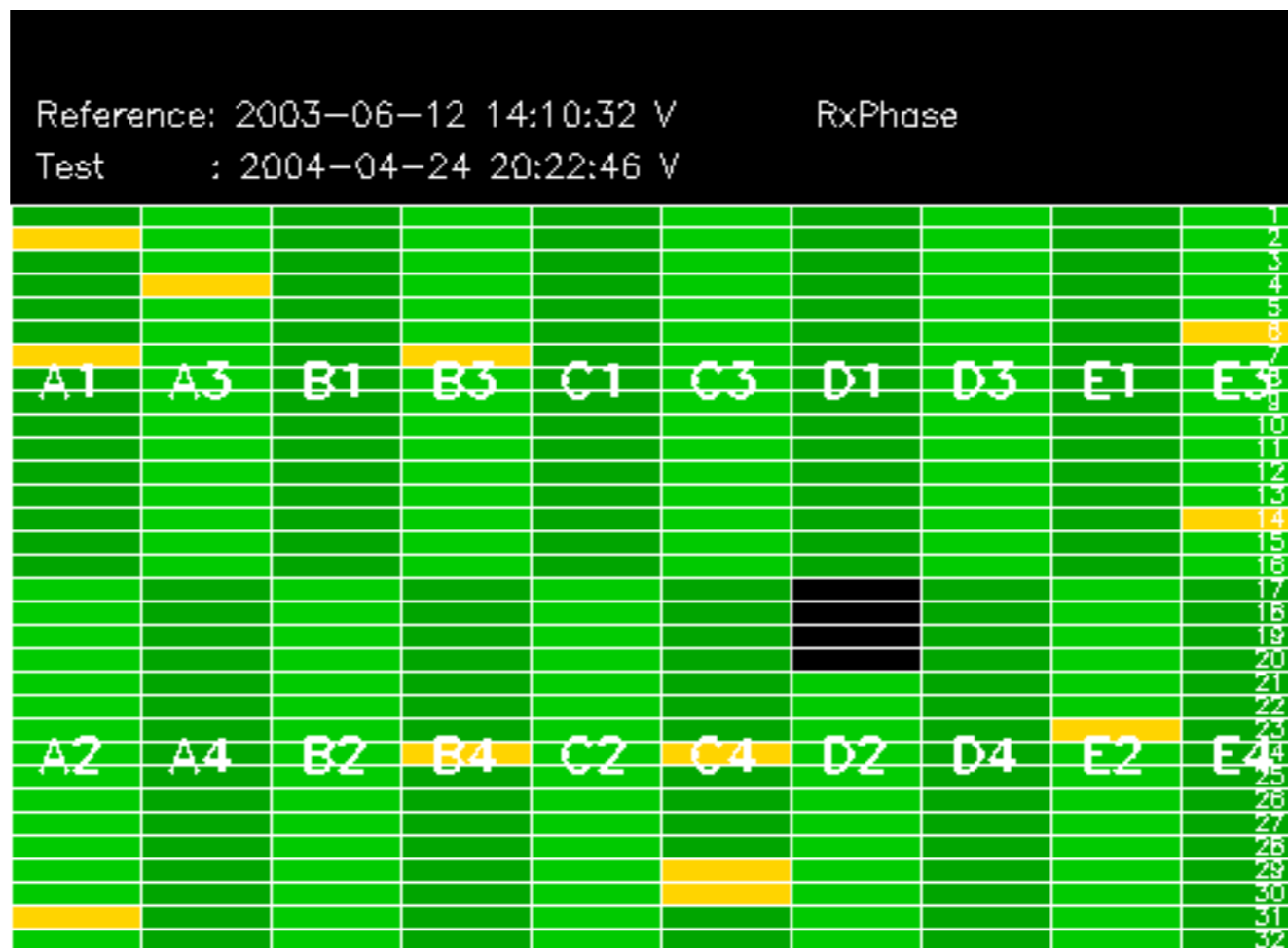
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -34.064911 Hz

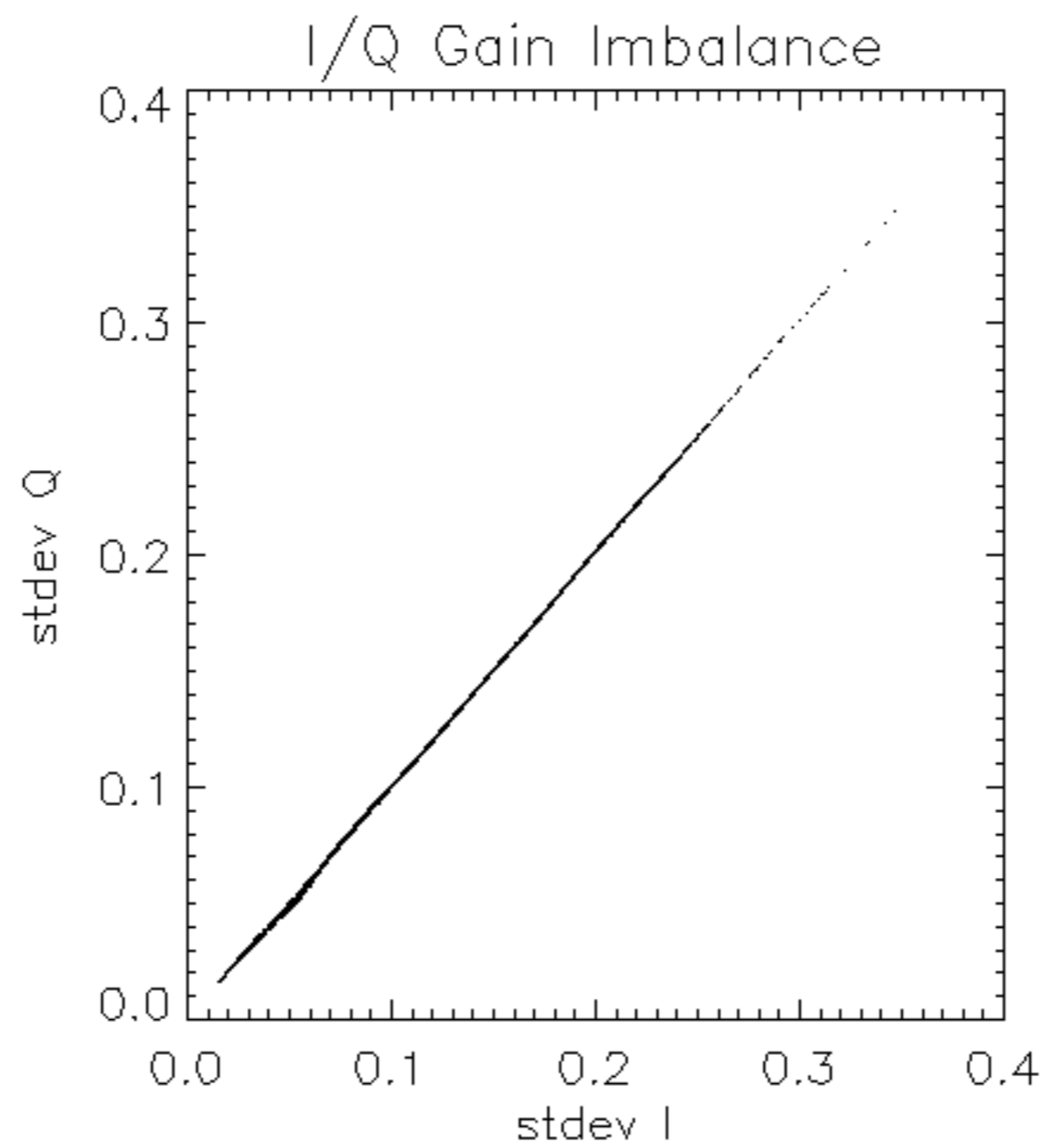


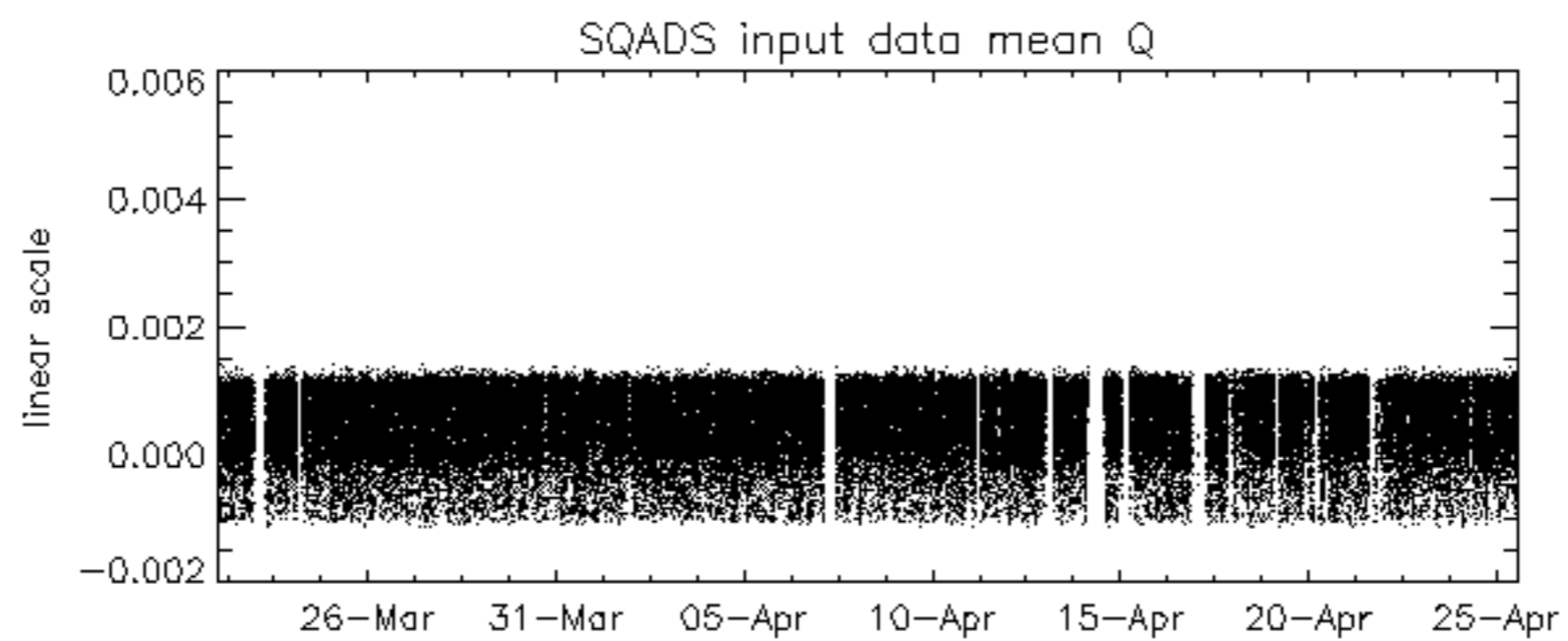
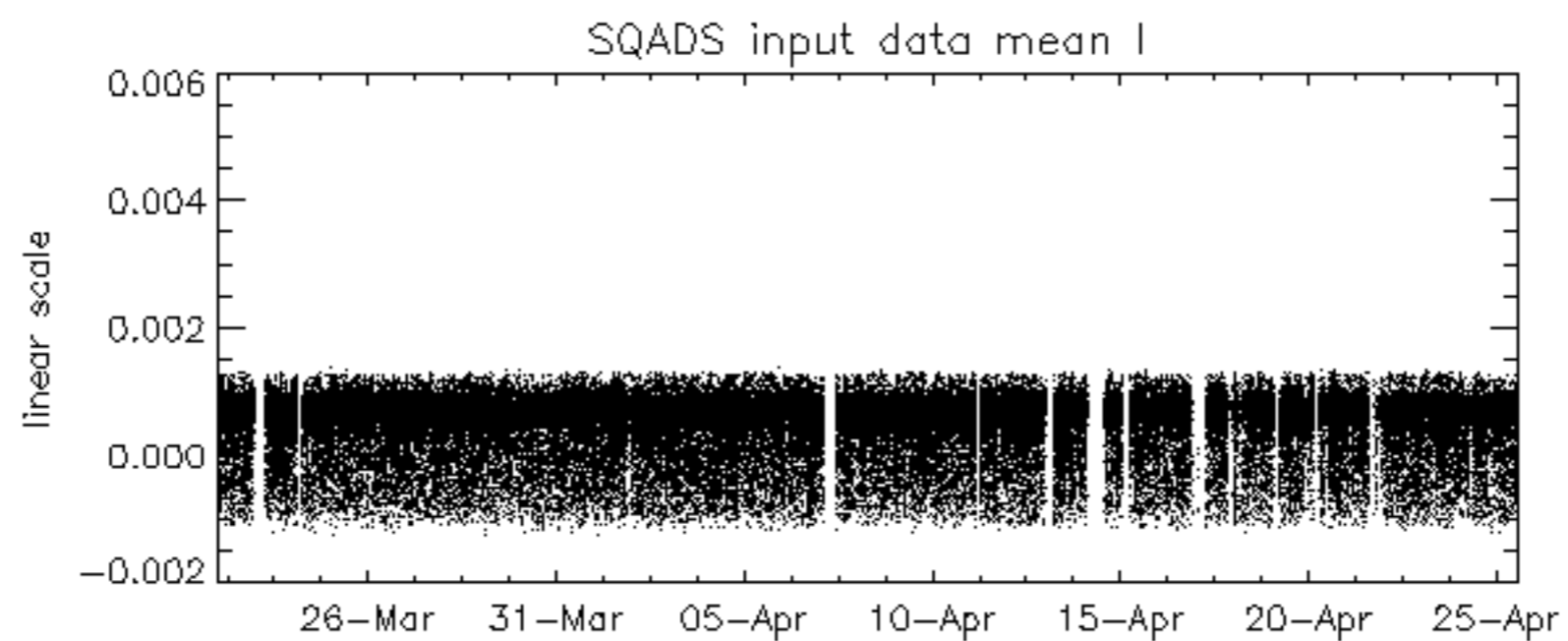
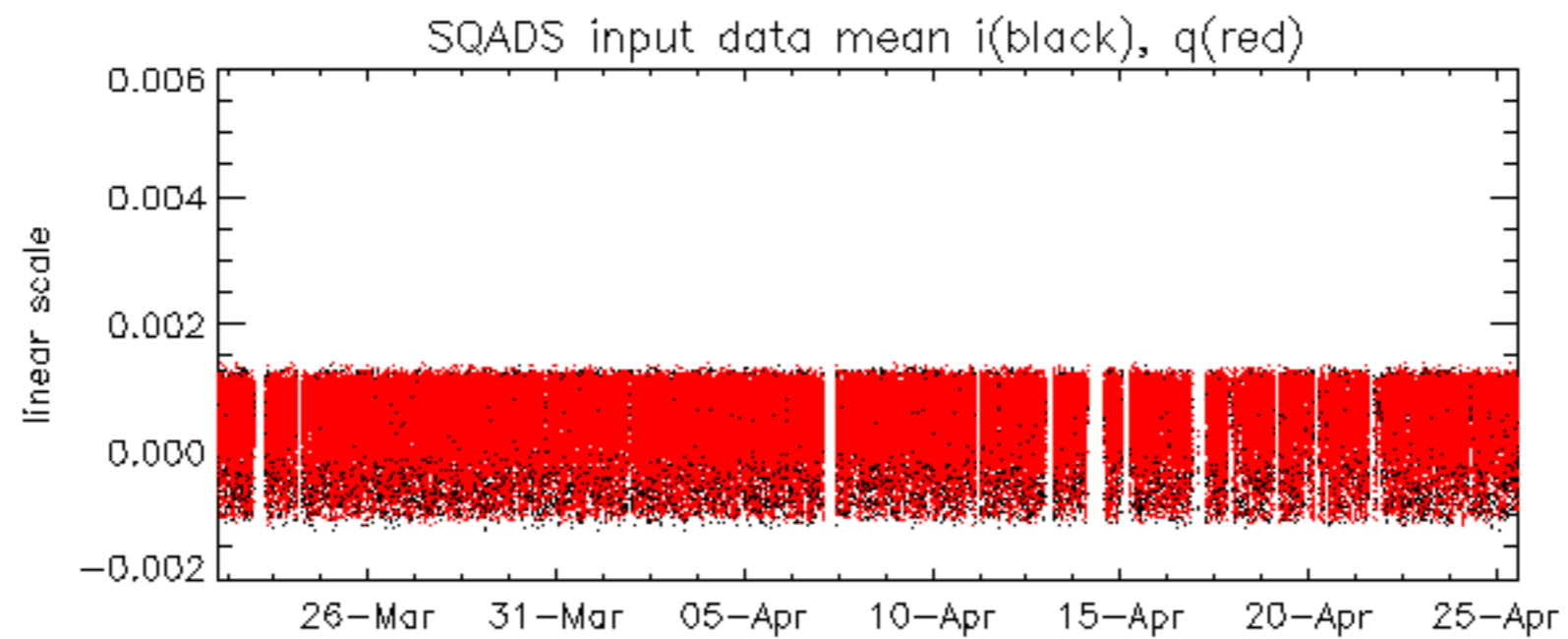
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

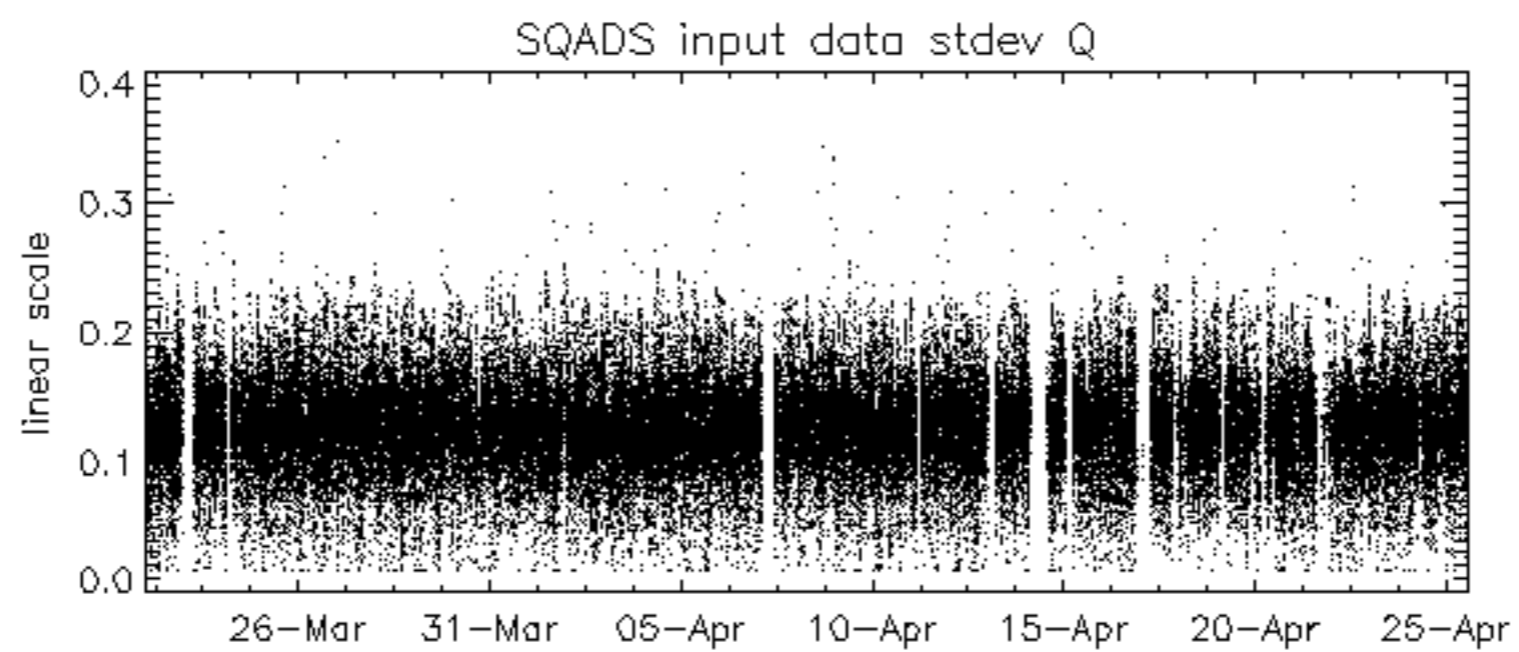
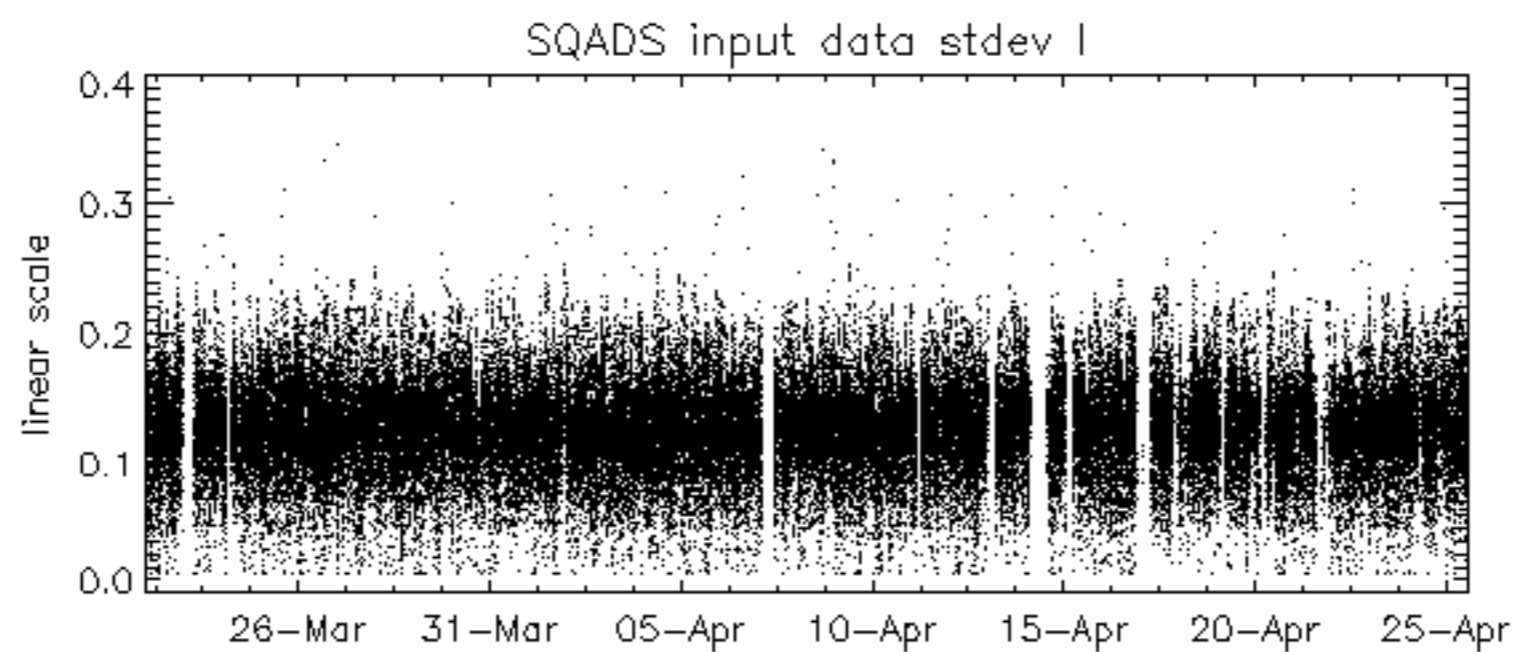
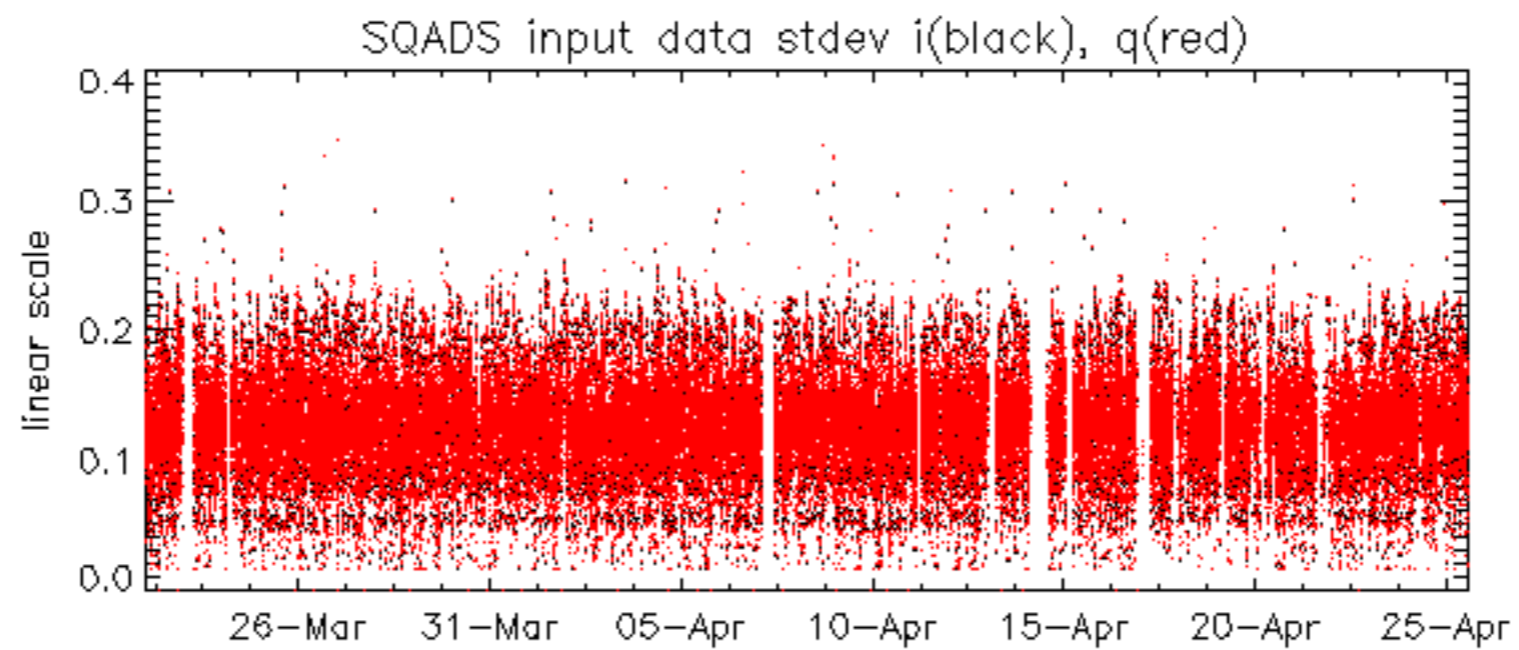
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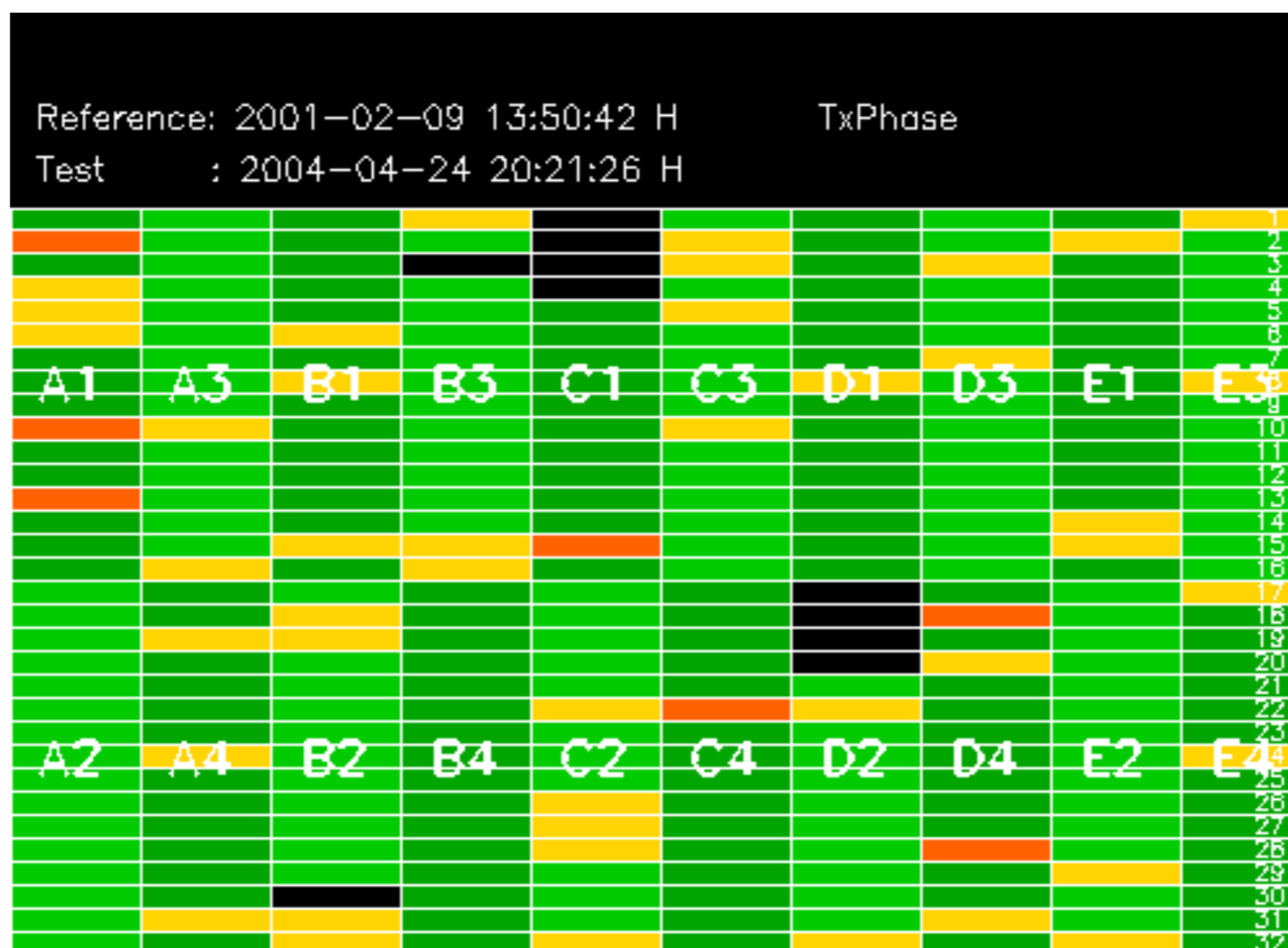
No anomalies observed.

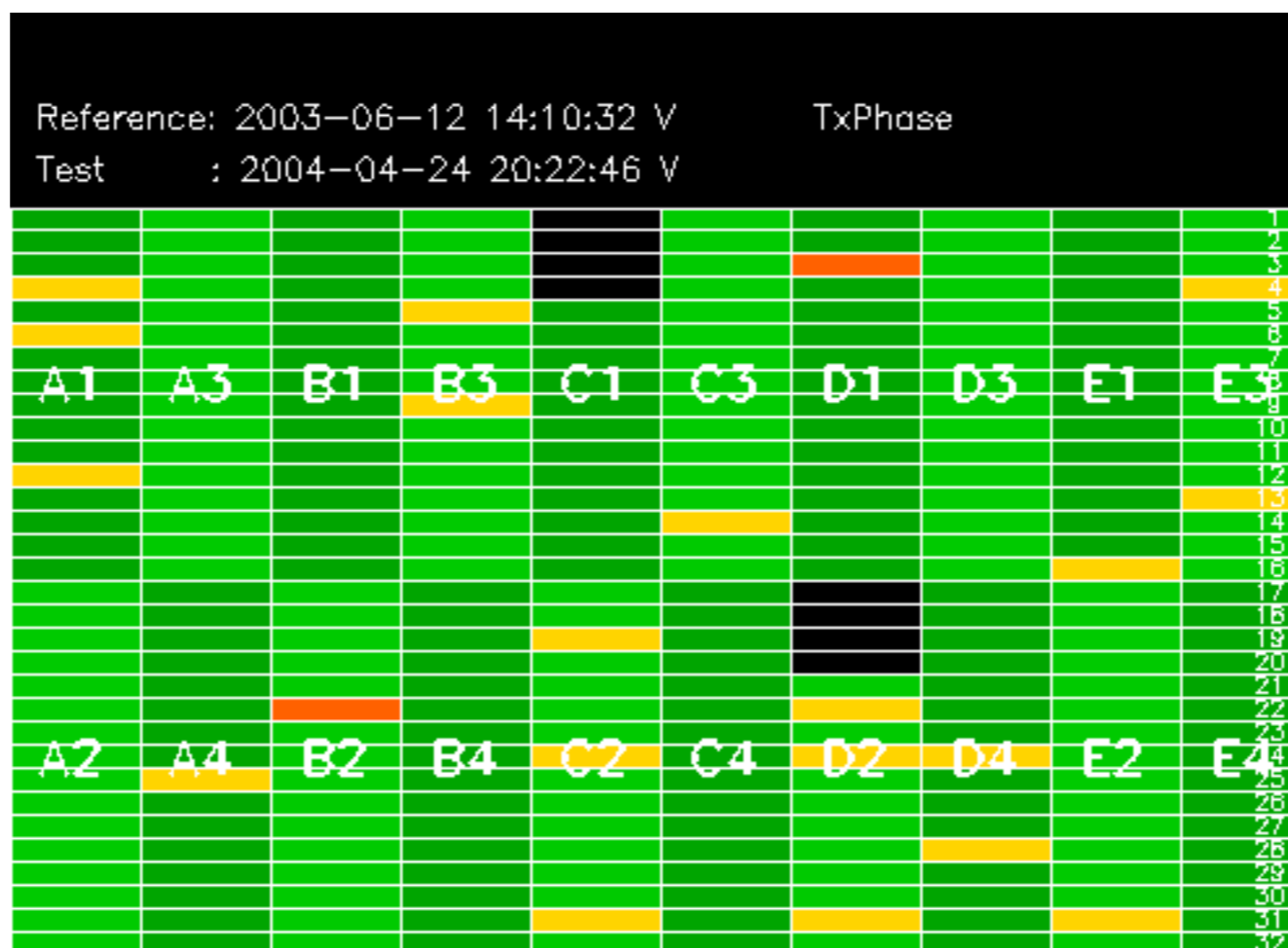












No unavailabilities during the reported period.