

PRELIMINARY REPORT OF 040809

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

last update on Mon Aug 9 13:03:22 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 browse product available for 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	20040807 064408
H	20040808 061231

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	-3.494574	0.052934	-0.065984
7	P1	-3.338785	0.044438	-0.070630
11	P1	-4.639310	0.117798	-0.132806
15	P1	-5.754693	0.130048	-0.135984
19	P1	-3.453932	0.004809	-0.010267
22	P1	-4.560812	0.010599	0.008998

24	P1	-4.956731	0.019138	0.004281
30	P1	-6.903966	0.025917	-0.059906
3	P1	-16.258045	0.494946	-0.241541
7	P1	-13.969377	0.080055	0.007185
11	P1	-20.035612	0.336471	-0.053311
15	P1	-11.772221	0.069601	0.050846
19	P1	-13.861289	0.034519	-0.021856
22	P1	-16.298214	0.333315	0.037374
24	P1	-14.600082	0.275313	0.069210
30	P1	-17.684658	0.419988	-0.086194

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.319826	0.078046	0.044219
7	P2	-22.691397	0.122457	0.084063
11	P2	-15.425964	0.150888	0.083049
15	P2	-7.096689	0.089042	0.076075
19	P2	-9.564891	0.172320	0.077812
22	P2	-17.397621	0.107585	0.121679
24	P2	-20.756445	0.083492	-0.005489
30	P2	-19.333260	0.077011	0.107256

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.144156	0.001924	-0.002806
7	P3	-8.144164	0.001925	-0.002753
11	P3	-8.144159	0.001925	-0.002742
15	P3	-8.144154	0.001925	-0.002760
19	P3	-8.144156	0.001925	-0.002803
22	P3	-8.144144	0.001924	-0.002846
24	P3	-8.144137	0.001924	-0.002857
30	P3	-8.144066	0.001922	-0.003042

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1





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	-2.920283	0.189898	0.254375
7	P1	-3.007157	0.230490	-0.323766
11	P1	-3.873589	0.173233	-0.146944
15	P1	-3.750004	0.523461	0.811047
19	P1	-3.444018	0.031785	-0.167531
22	P1	-5.677745	0.049082	0.078063
24	P1	-3.907243	0.047741	0.206773
30	P1	-6.170812	0.077276	-0.052346
3	P1	-10.736286	0.567181	0.309967
7	P1	-10.038361	0.257986	-0.348757
11	P1	-12.008226	0.204890	-0.272449
15	P1	-11.690975	0.217210	0.401617
19	P1	-15.446282	0.384066	-0.799817
22	P1	-22.708582	3.810542	-2.570787
24	P1	-17.595461	0.290583	-0.611447
30	P1	-20.652487	2.592653	1.482075

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.010372	0.082762	0.108952
7	P2	-22.803337	0.247459	0.039886
11	P2	-11.005301	0.154131	-0.193906
15	P2	-4.952255	0.041933	-0.017200
19	P2	-6.812785	0.059004	0.166091
22	P2	-7.505334	0.104597	0.150902
24	P2	-11.034717	0.145984	-0.043044
30	P2	-22.251415	0.118486	0.025037

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.984966	0.003565	-0.015008
7	P3	-7.985059	0.003567	-0.014861
11	P3	-7.984994	0.003567	-0.015141
15	P3	-7.984962	0.003568	-0.014966
19	P3	-7.984932	0.003574	-0.015082
22	P3	-7.985011	0.003557	-0.015232
24	P3	-7.984993	0.003584	-0.015134
30	P3	-7.985018	0.003563	-0.014985

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	0.000490940
	stdev	2.15377e-07
MEAN Q	mean	0.000532107
	stdev	2.48071e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128972
	stdev	0.00103676
STDEV Q	mean	0.129221
	stdev	0.00104841





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	
	
	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)**

Acsending

Descending

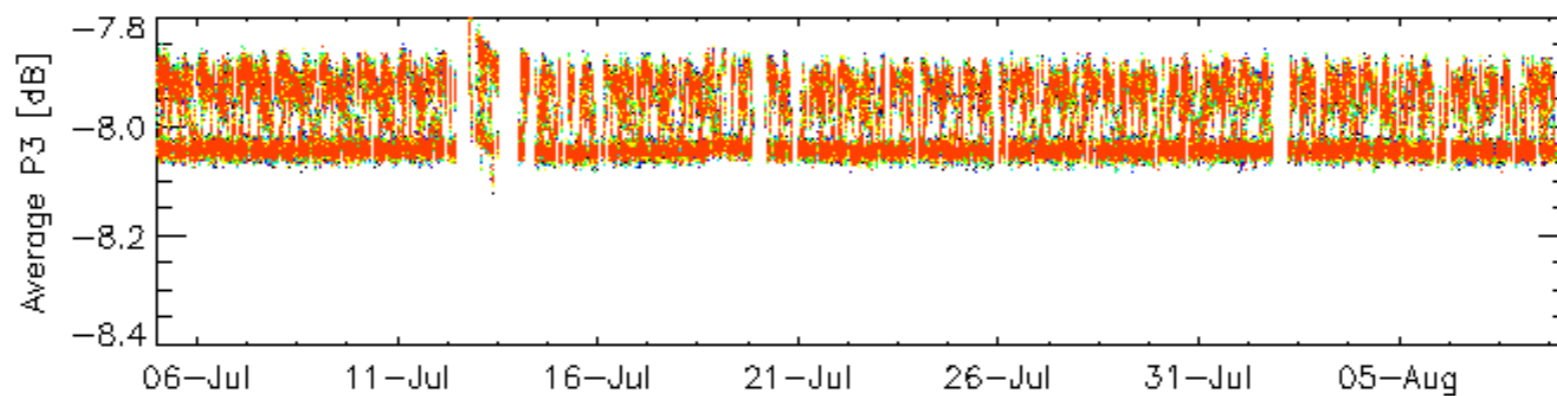
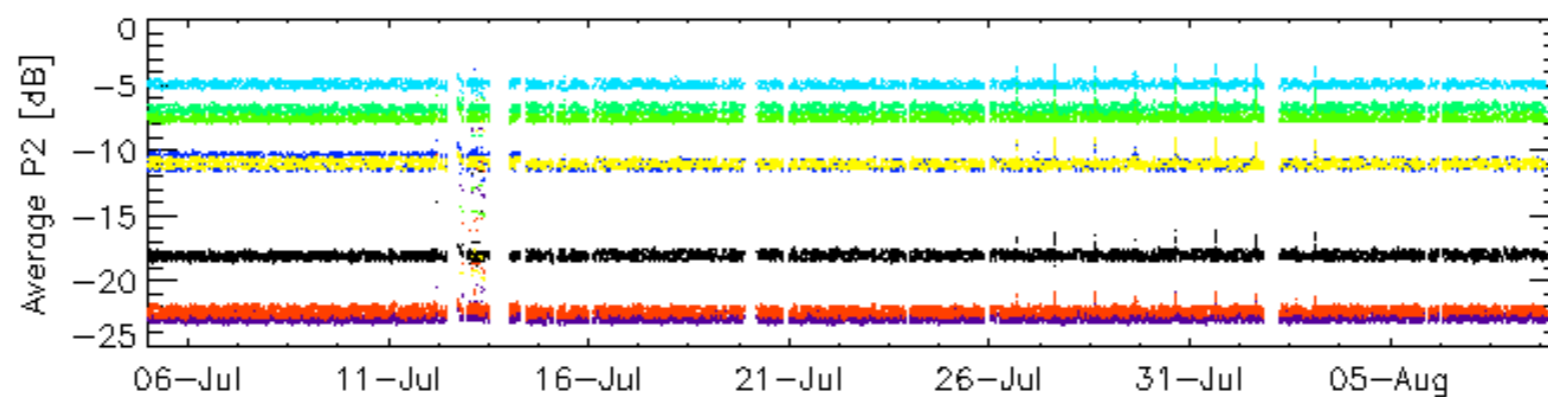
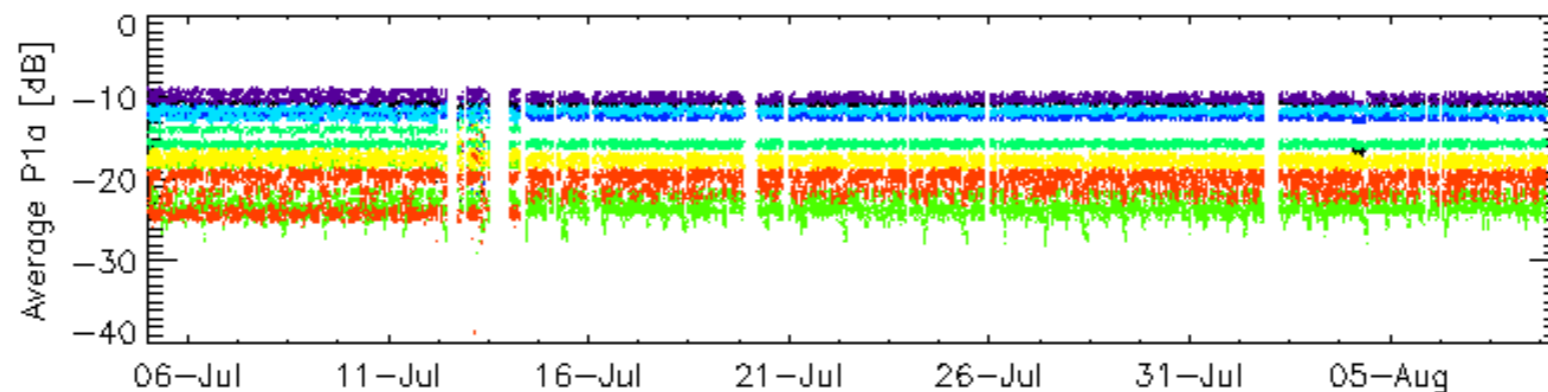
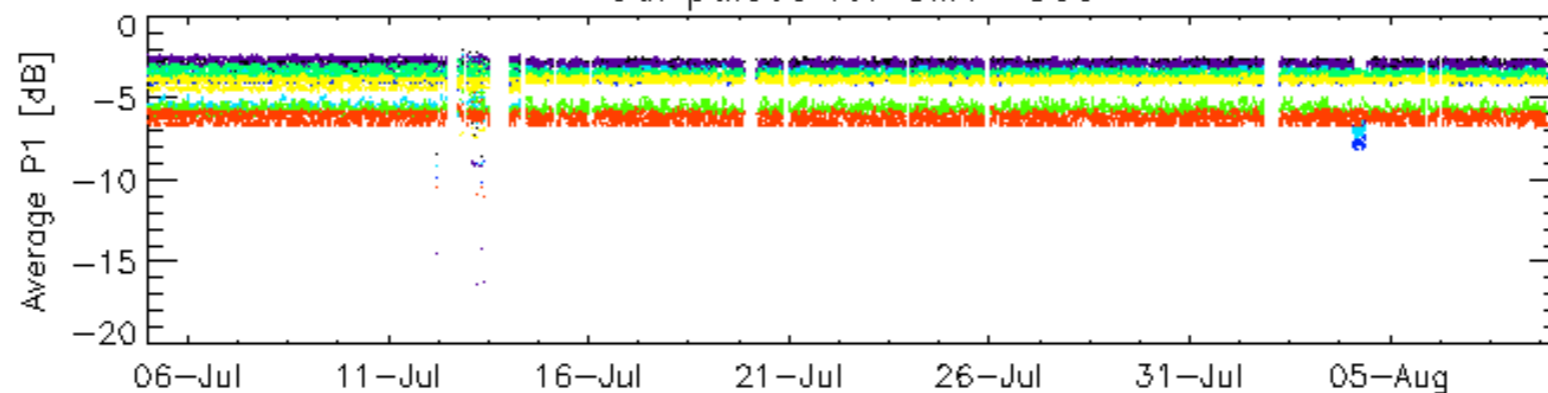
6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

Descending

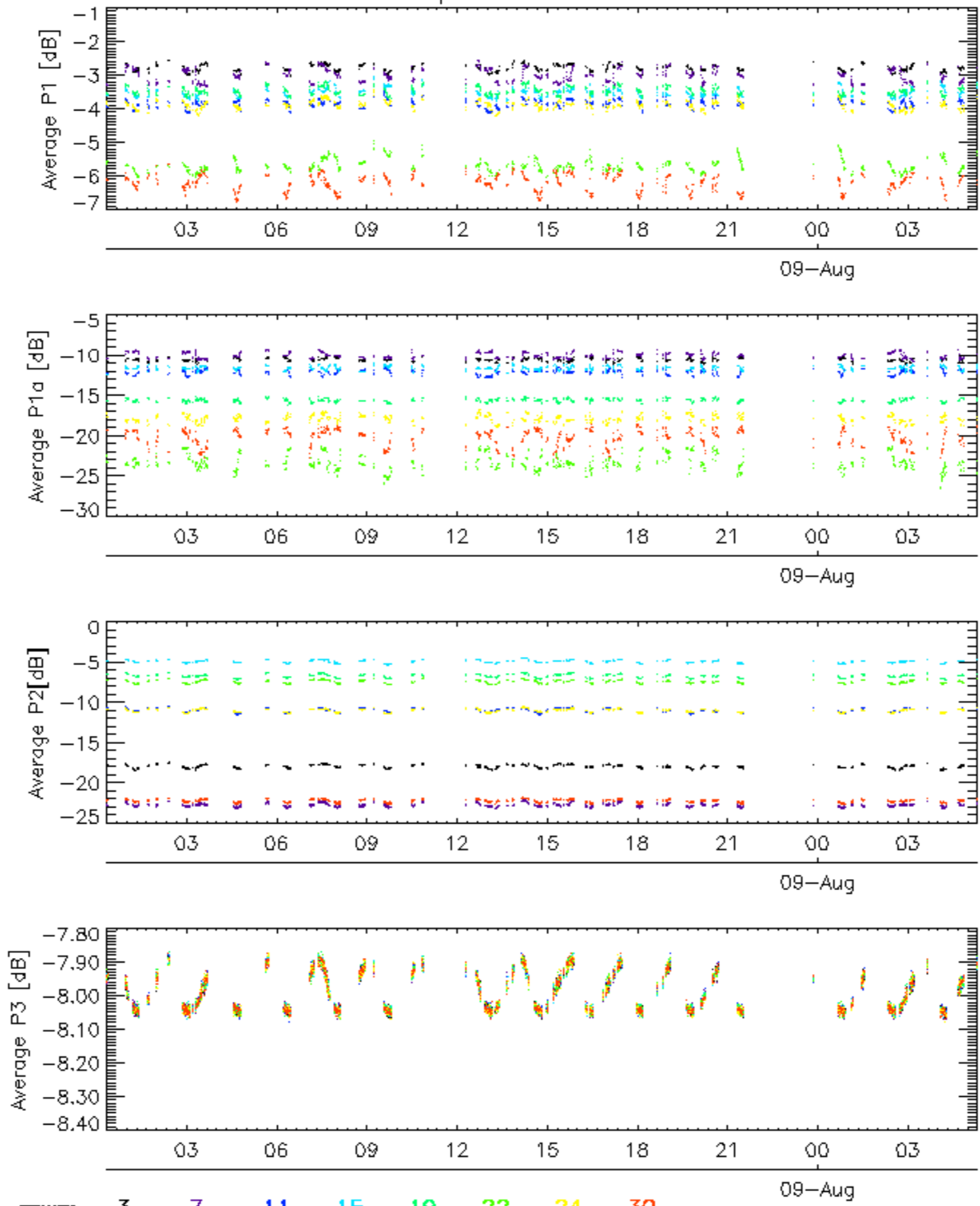
6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

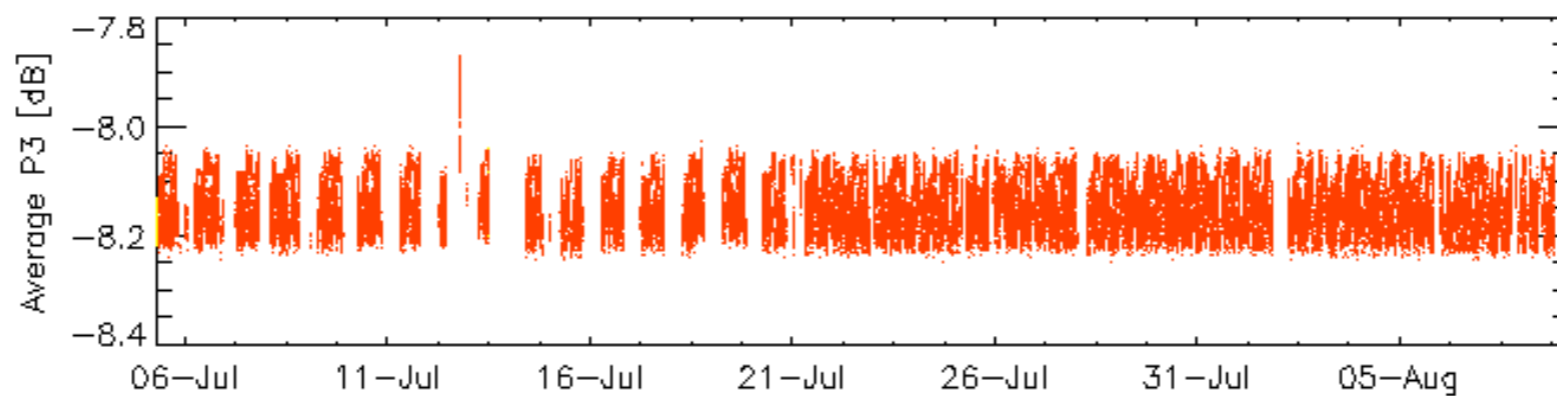
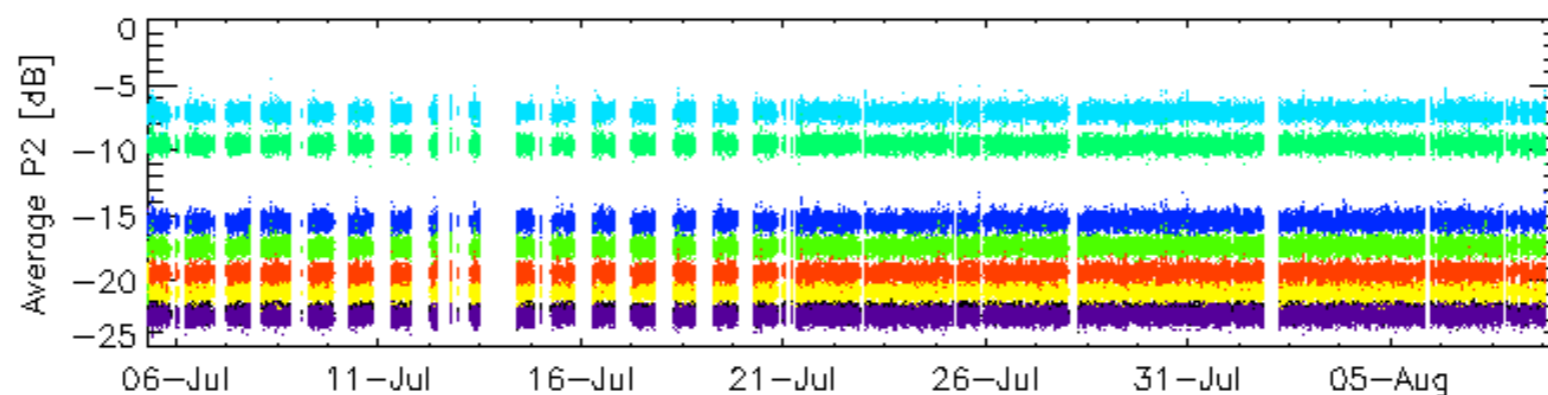
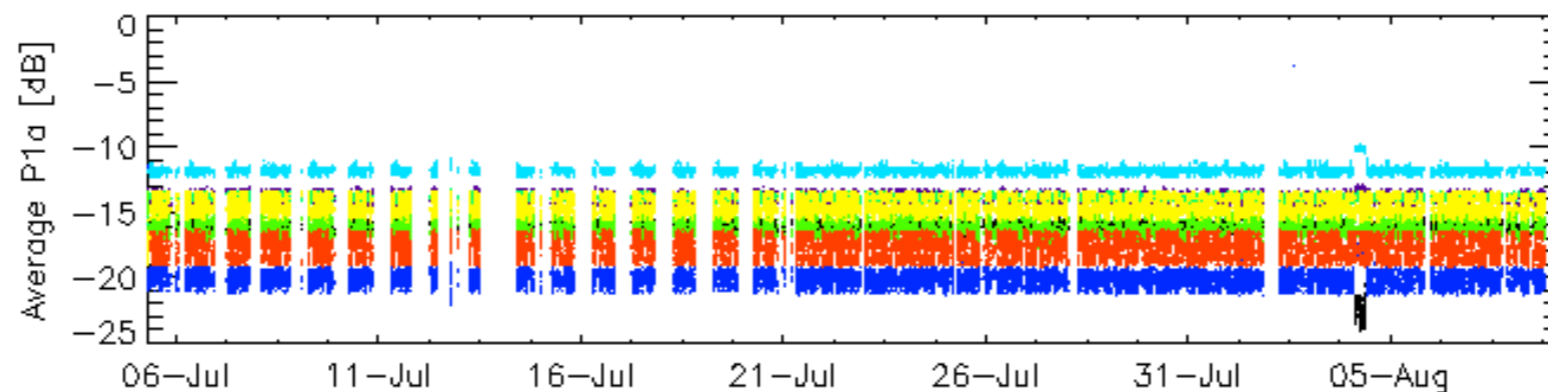
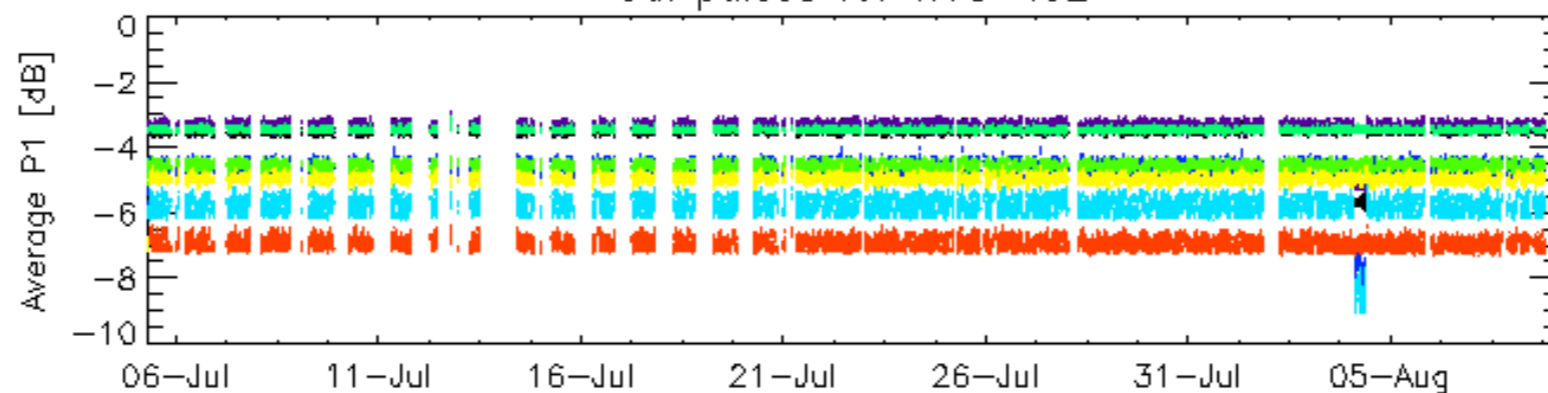


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

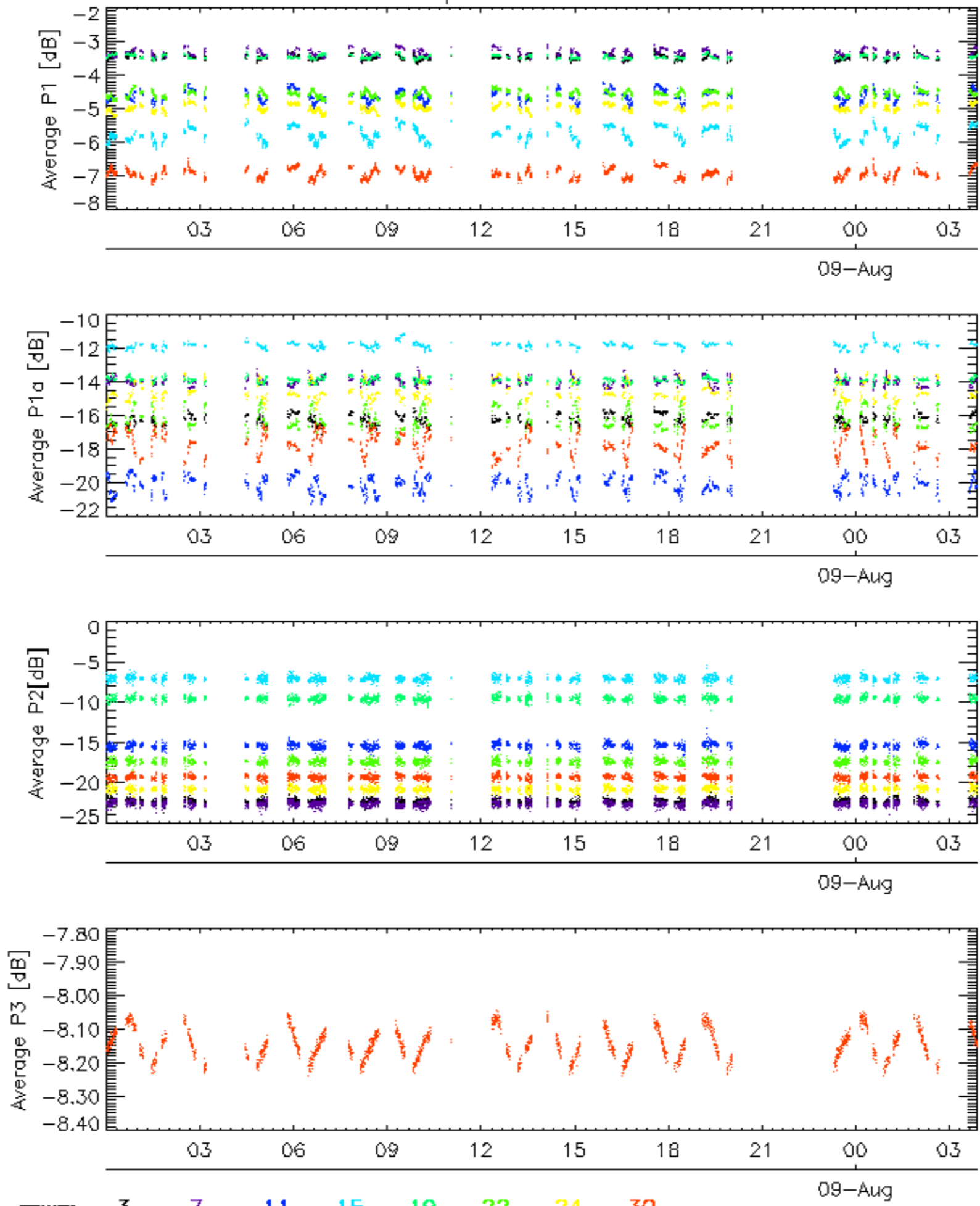


Cal pulses for WVS IS2



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

Cal pulses for WVS IS2

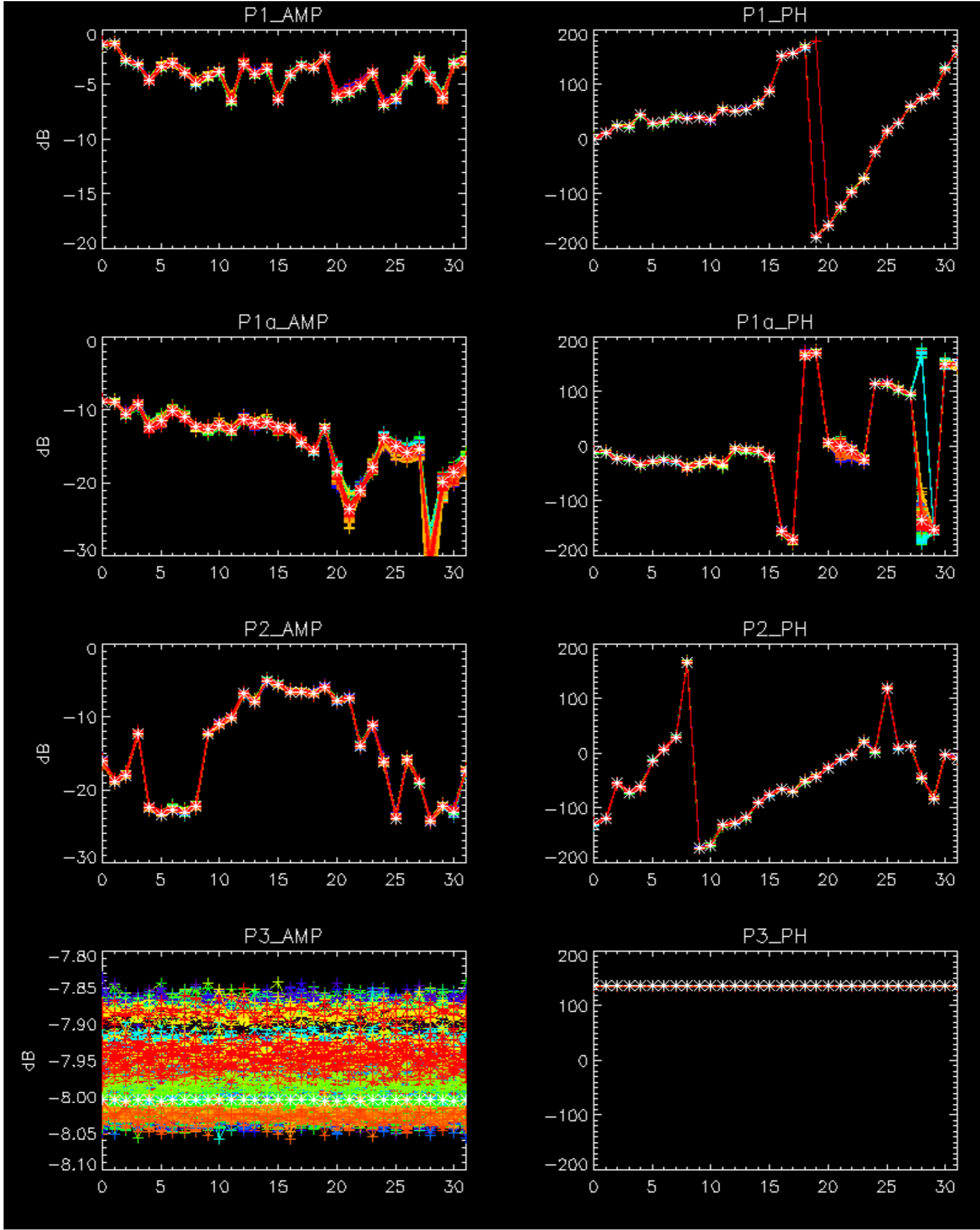


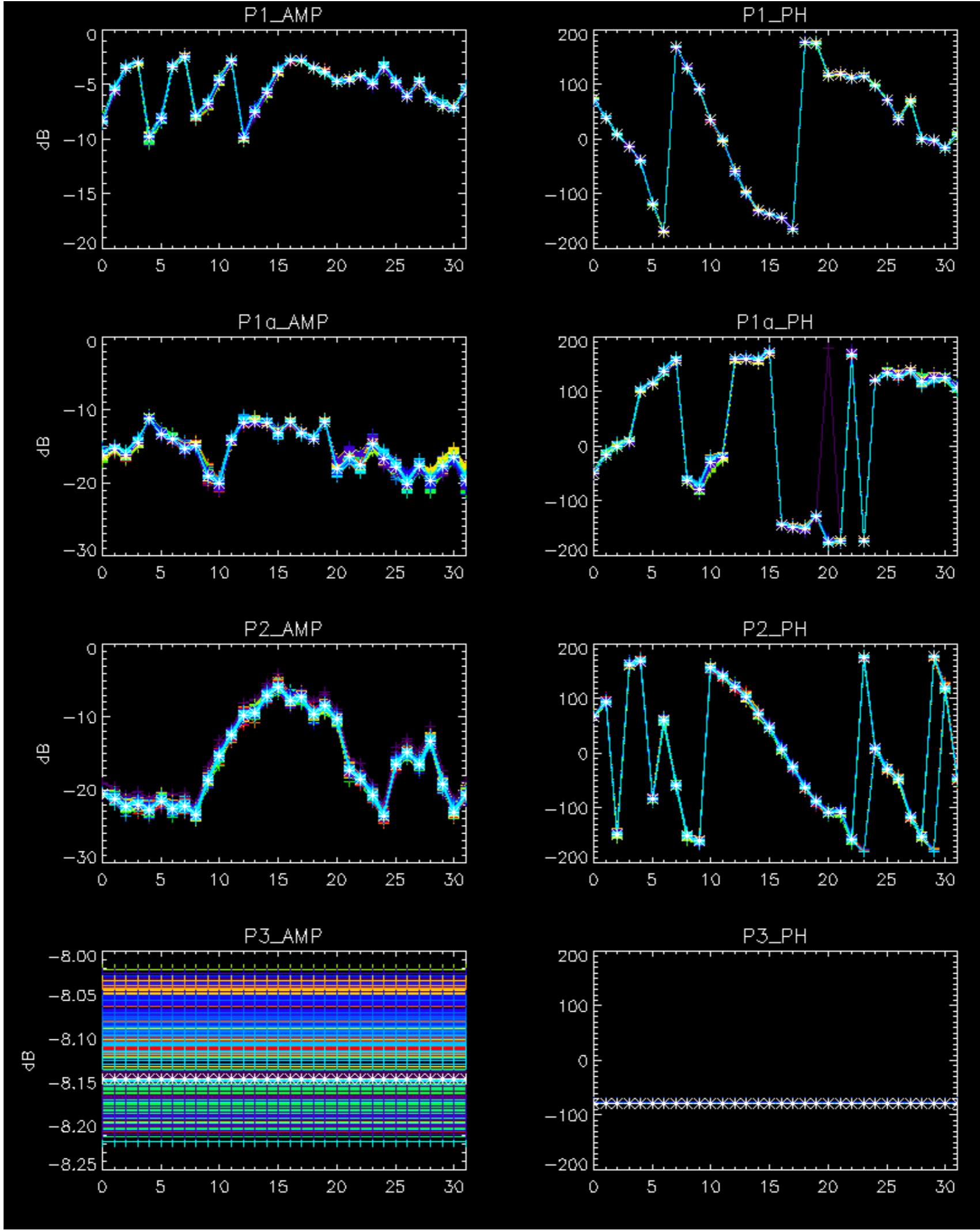
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No browse product available for visual inspection



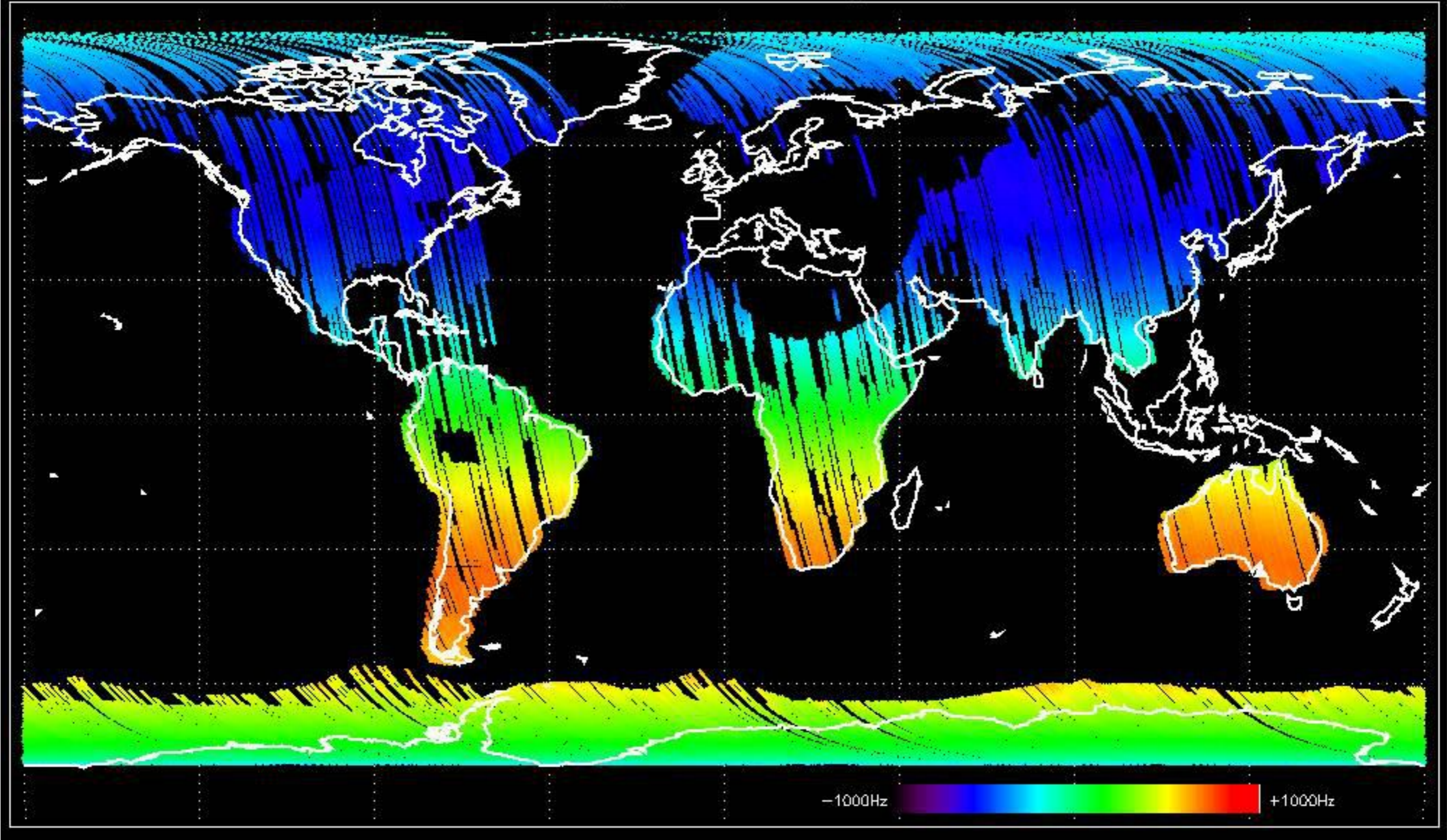
No anomalies observed.



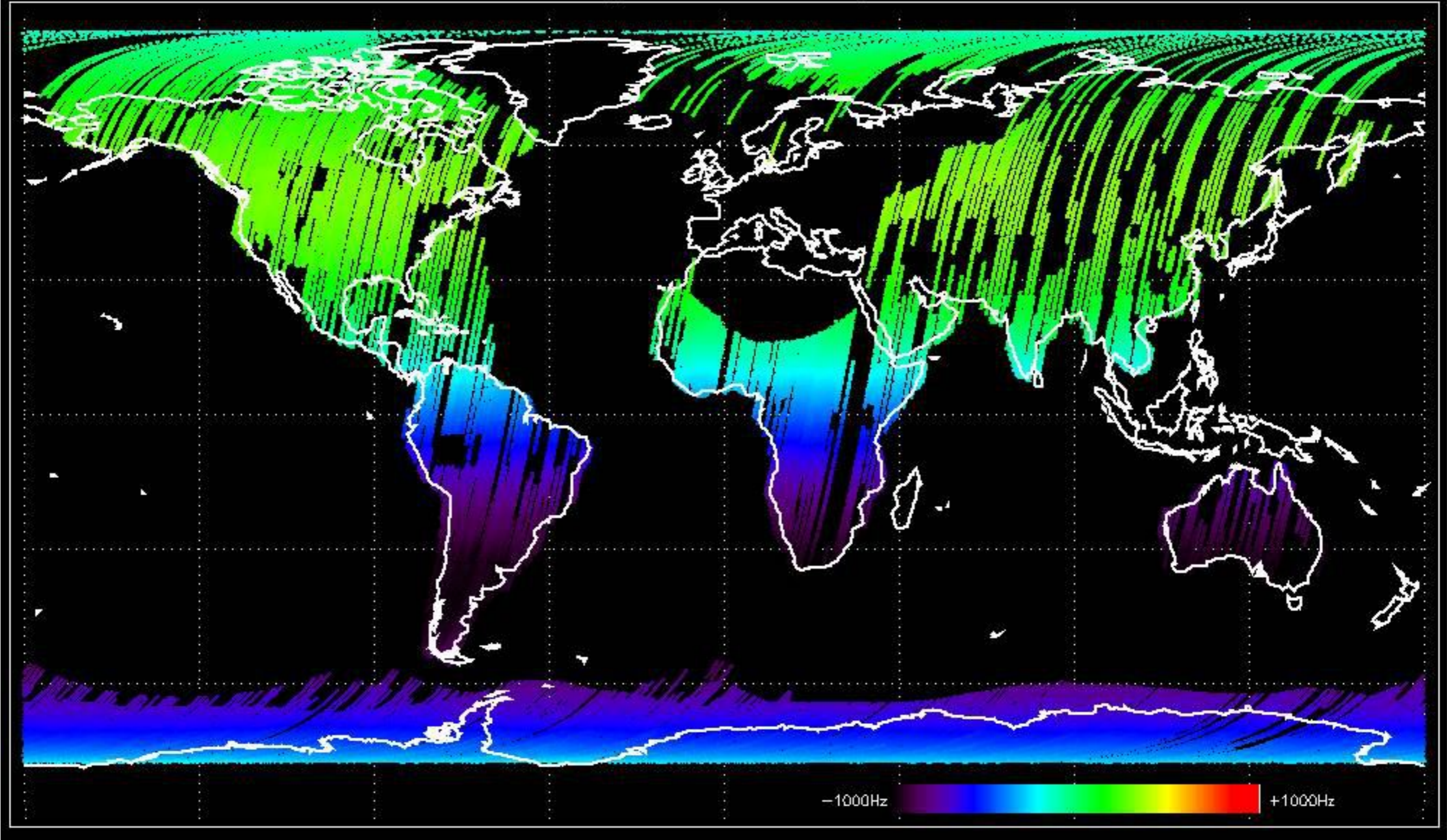


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

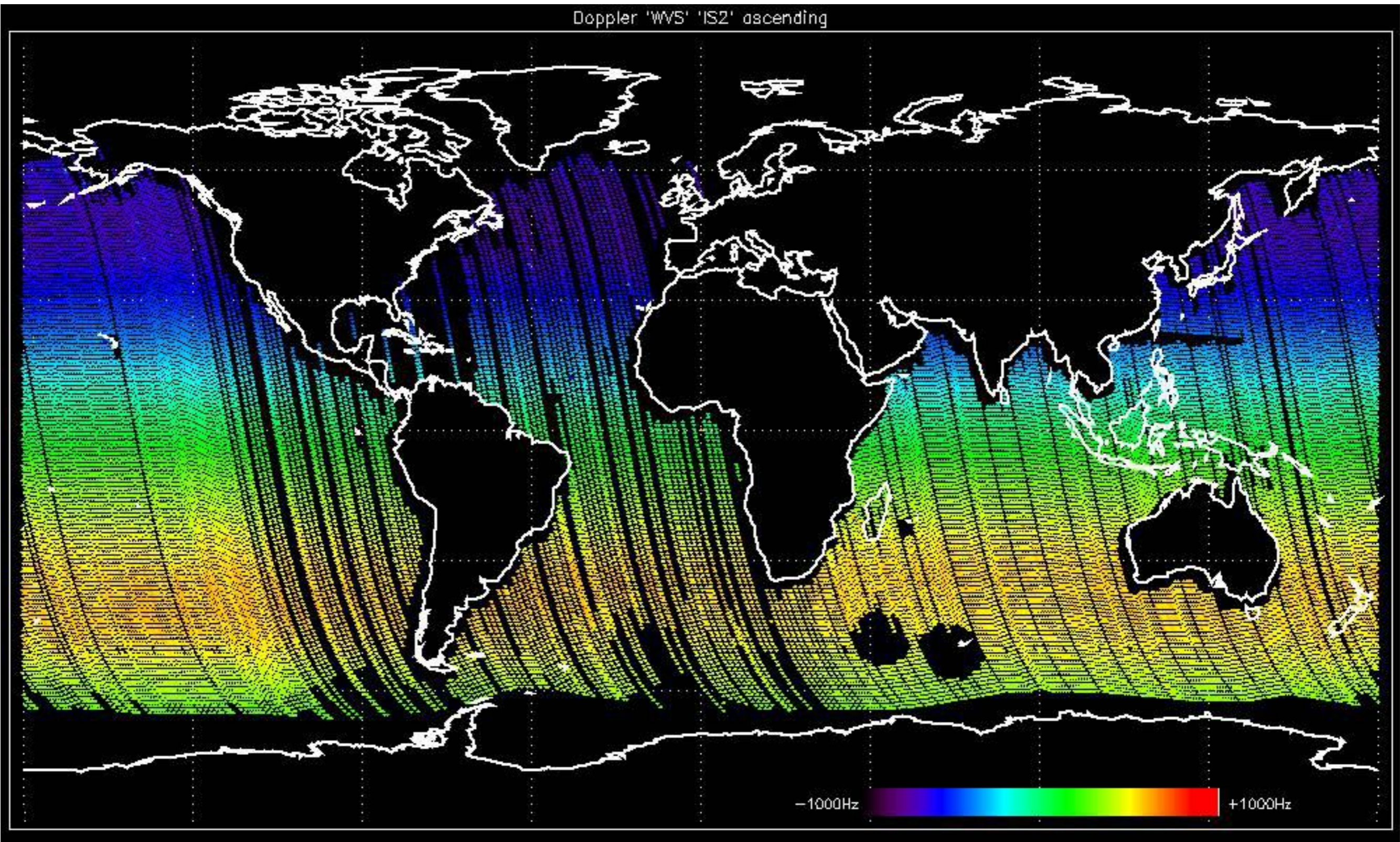
Doppler 'GM1' 'SS1' ascending



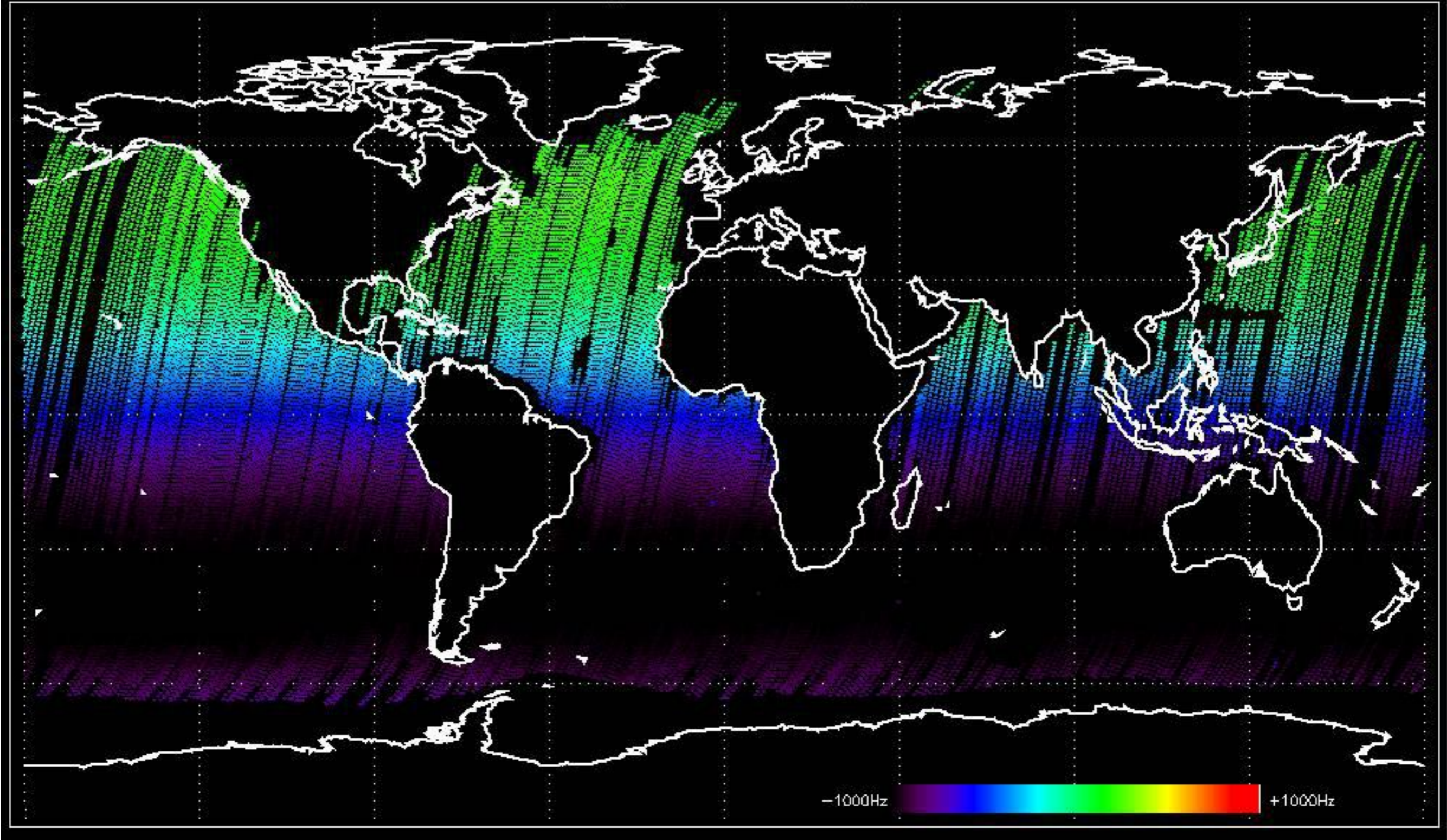
Doppler 'GM1' 'SS1' descending



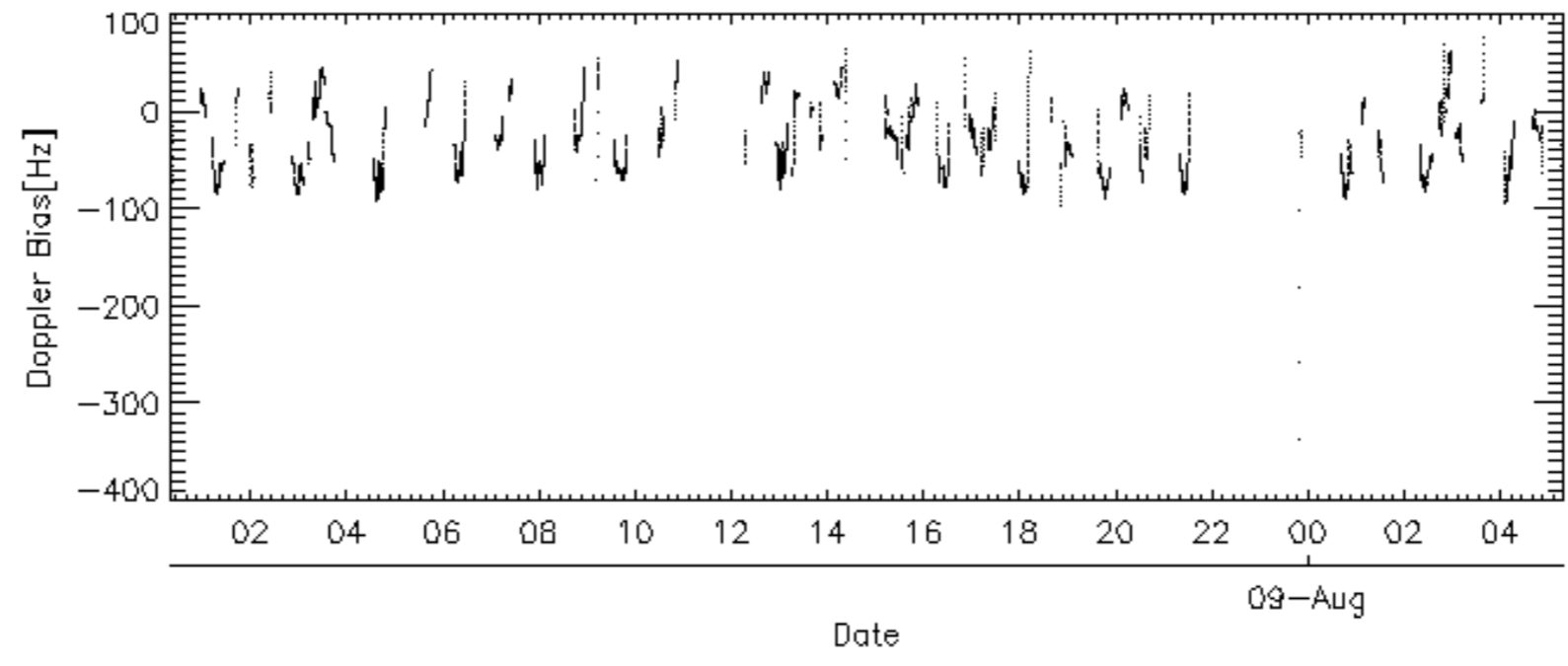
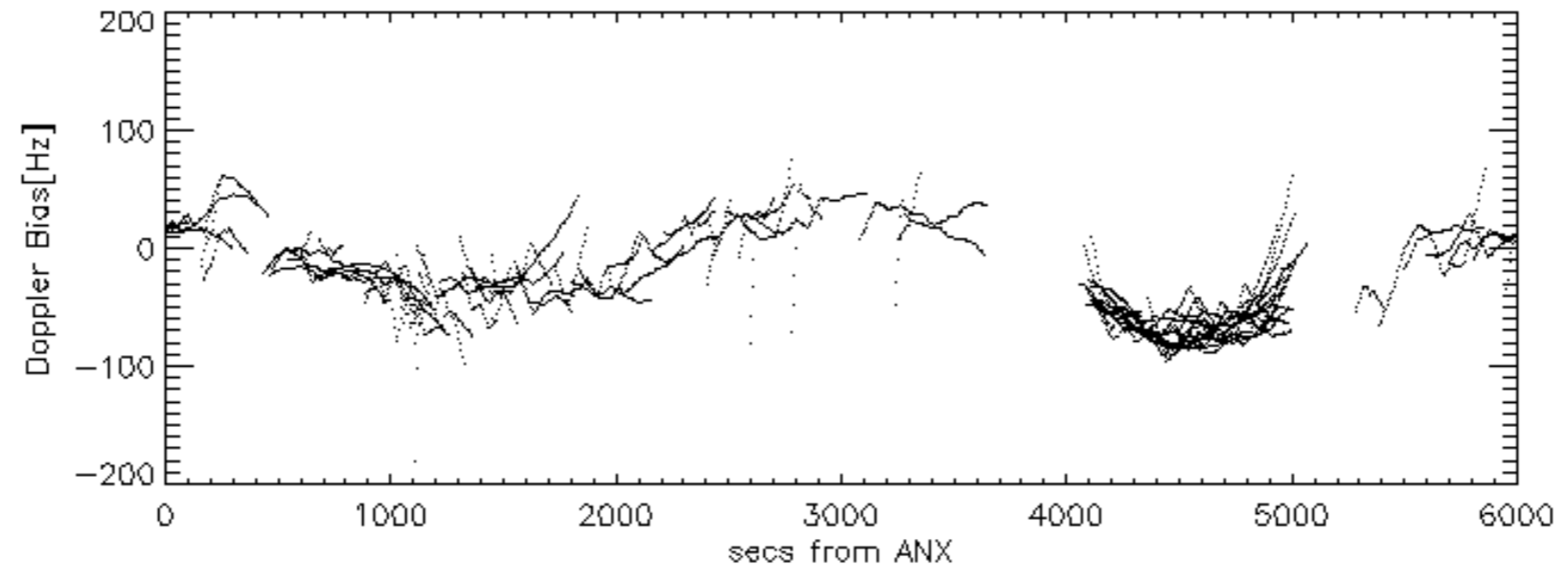
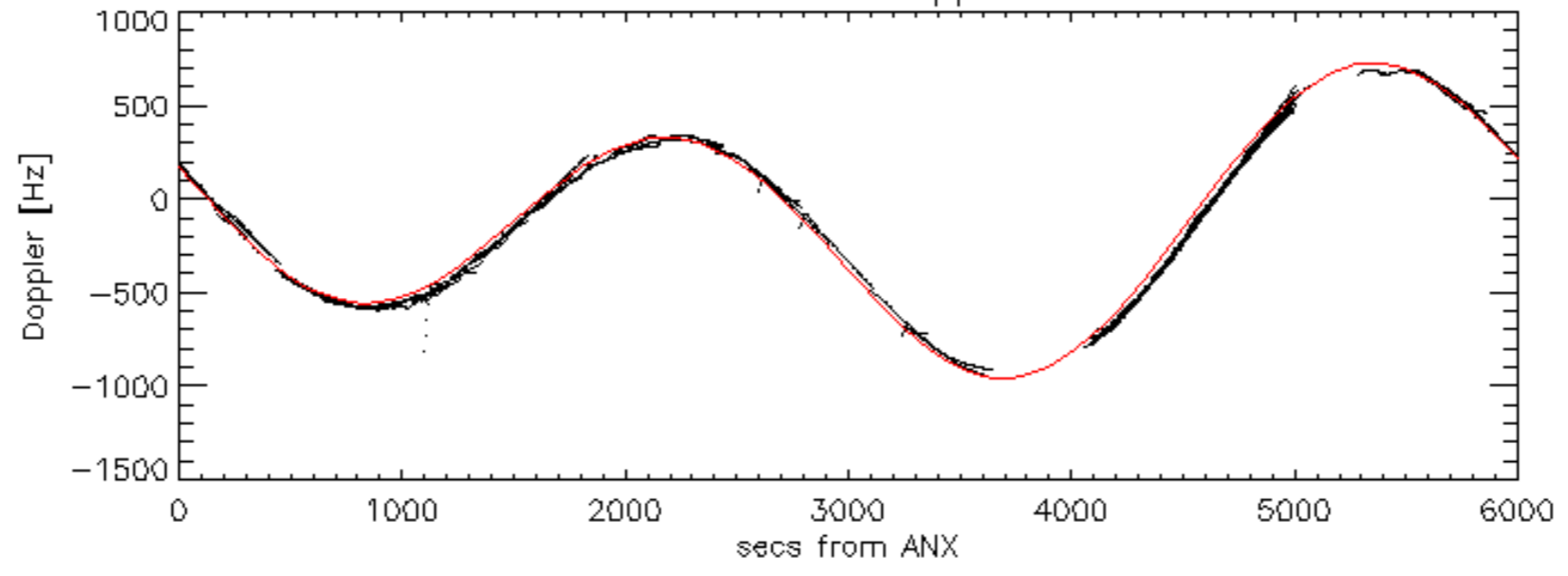
Doppler 'WVS' 'IS2' ascending

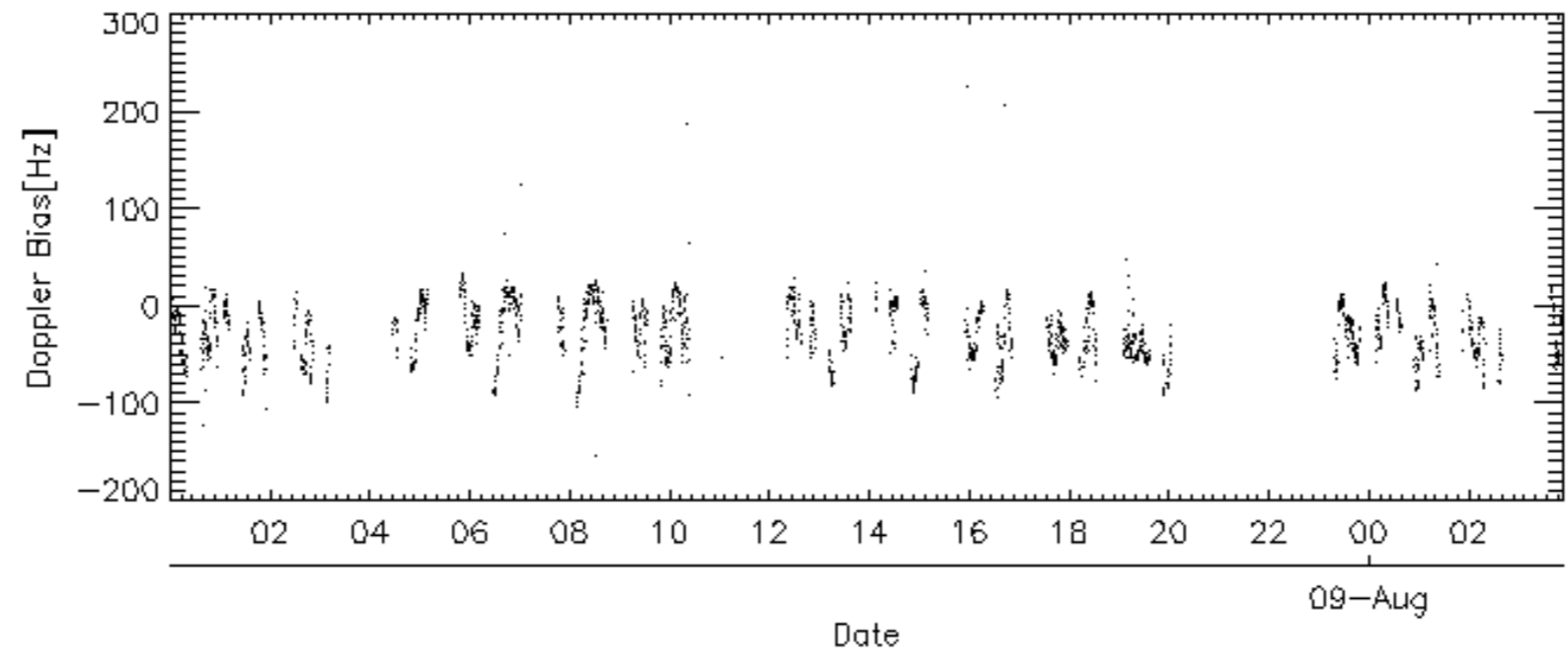
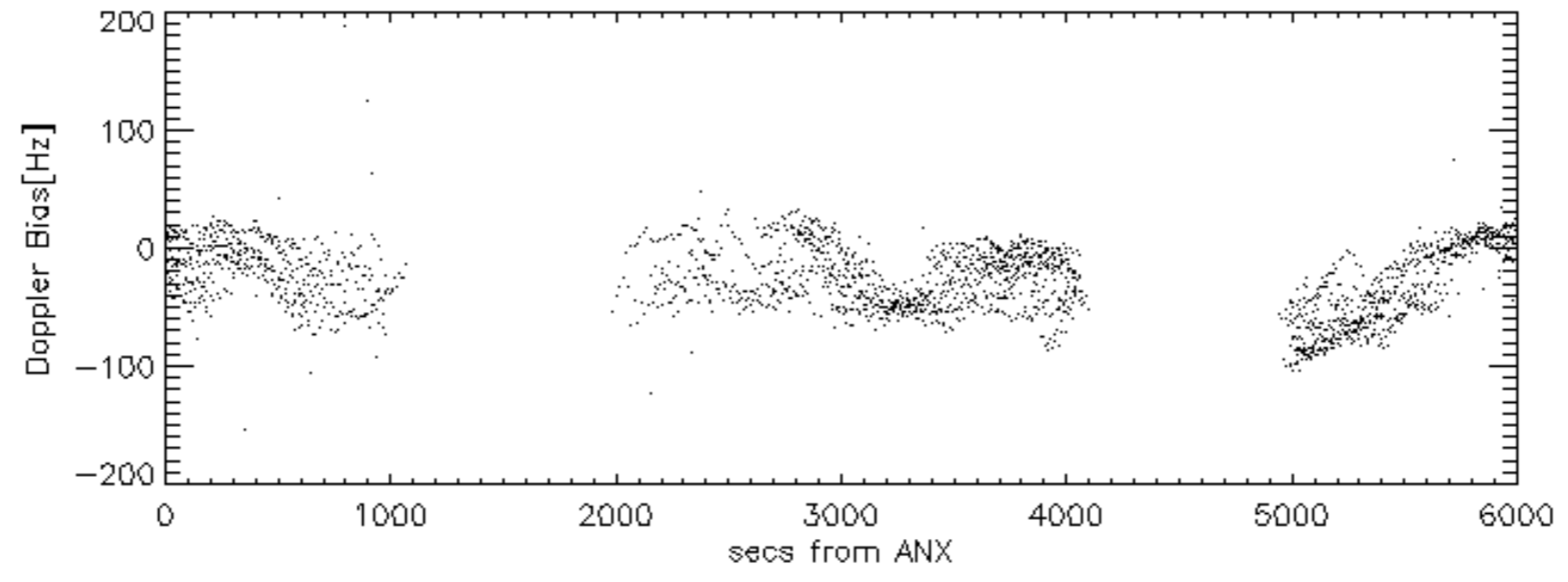
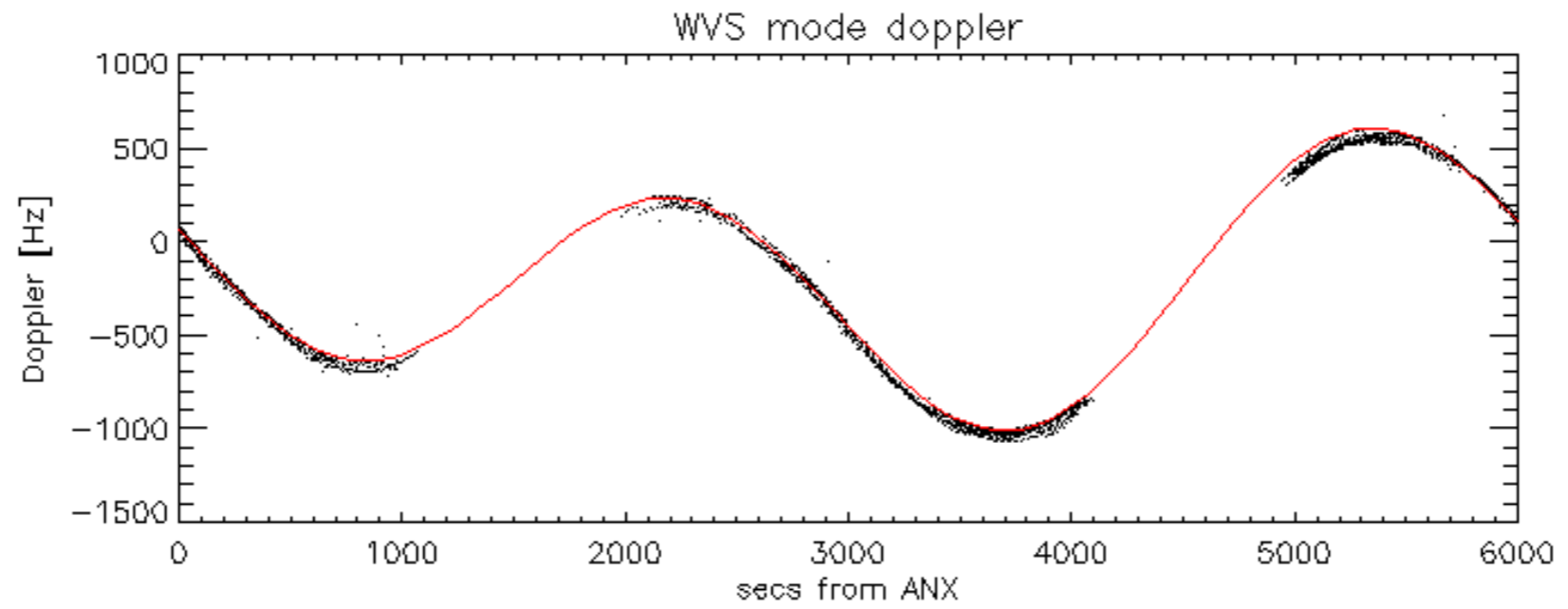


Doppler 'WVS' 'IS2' descending

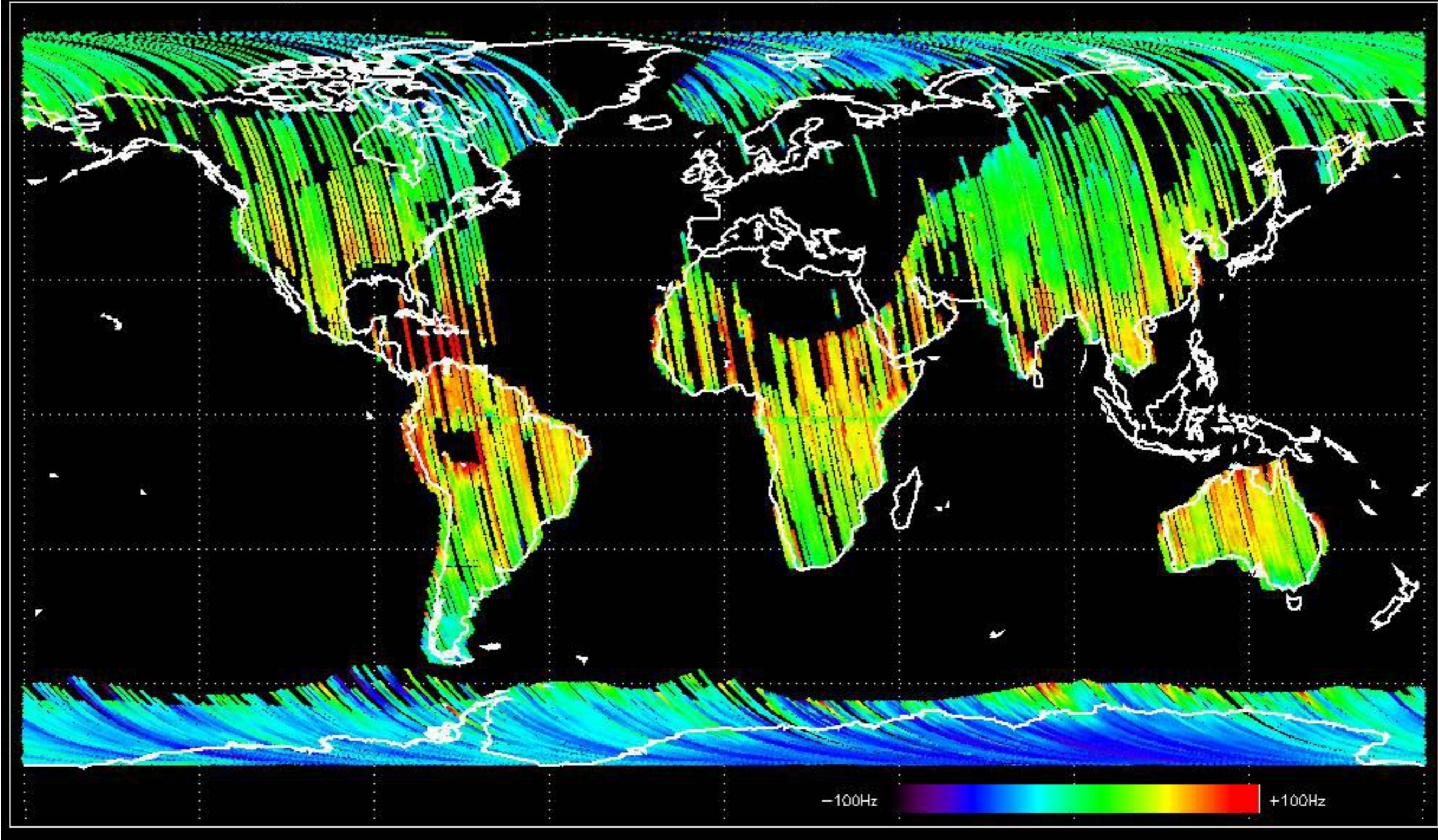


GM1 mode doppler

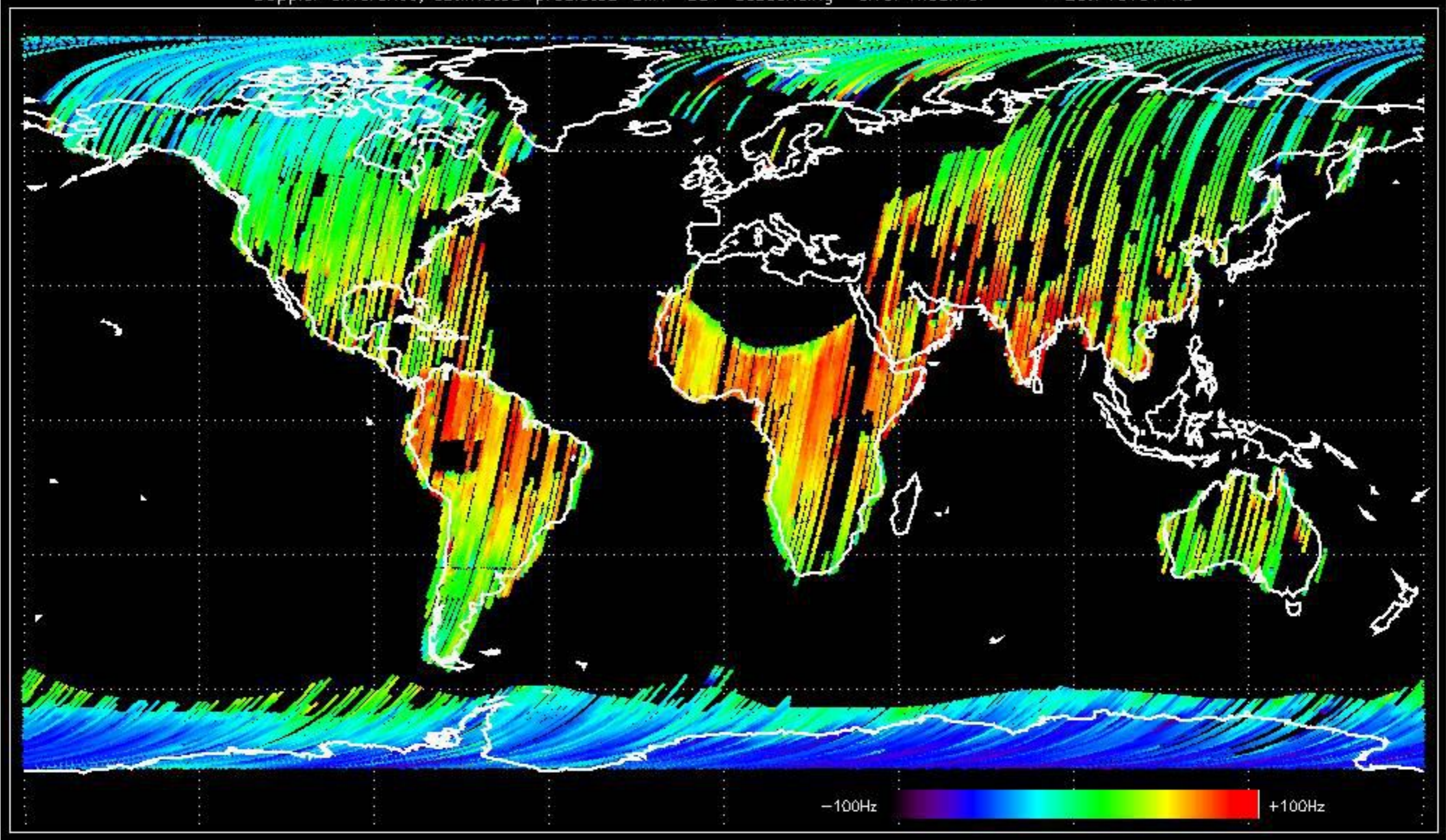




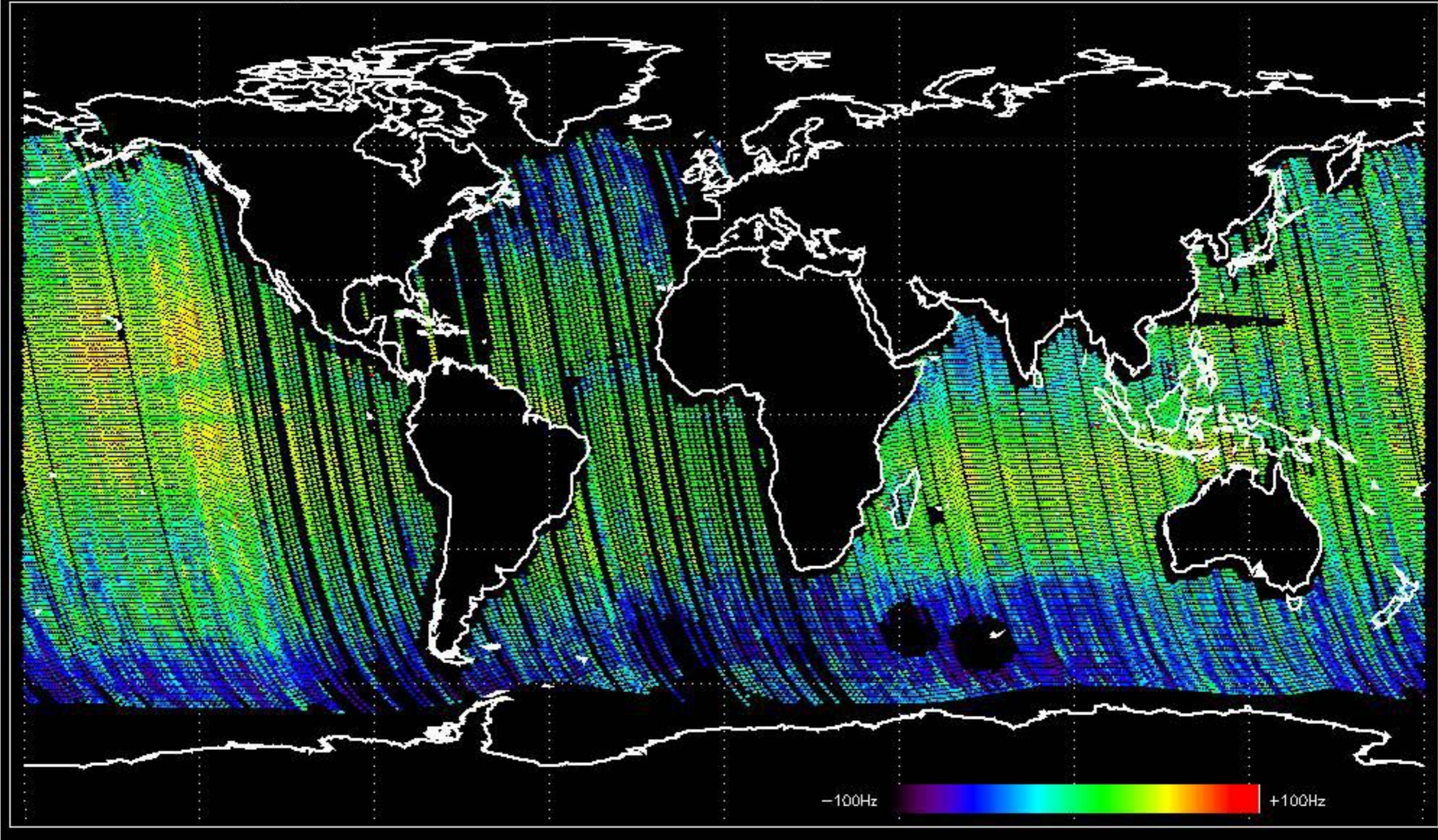
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -37.207531 Hz



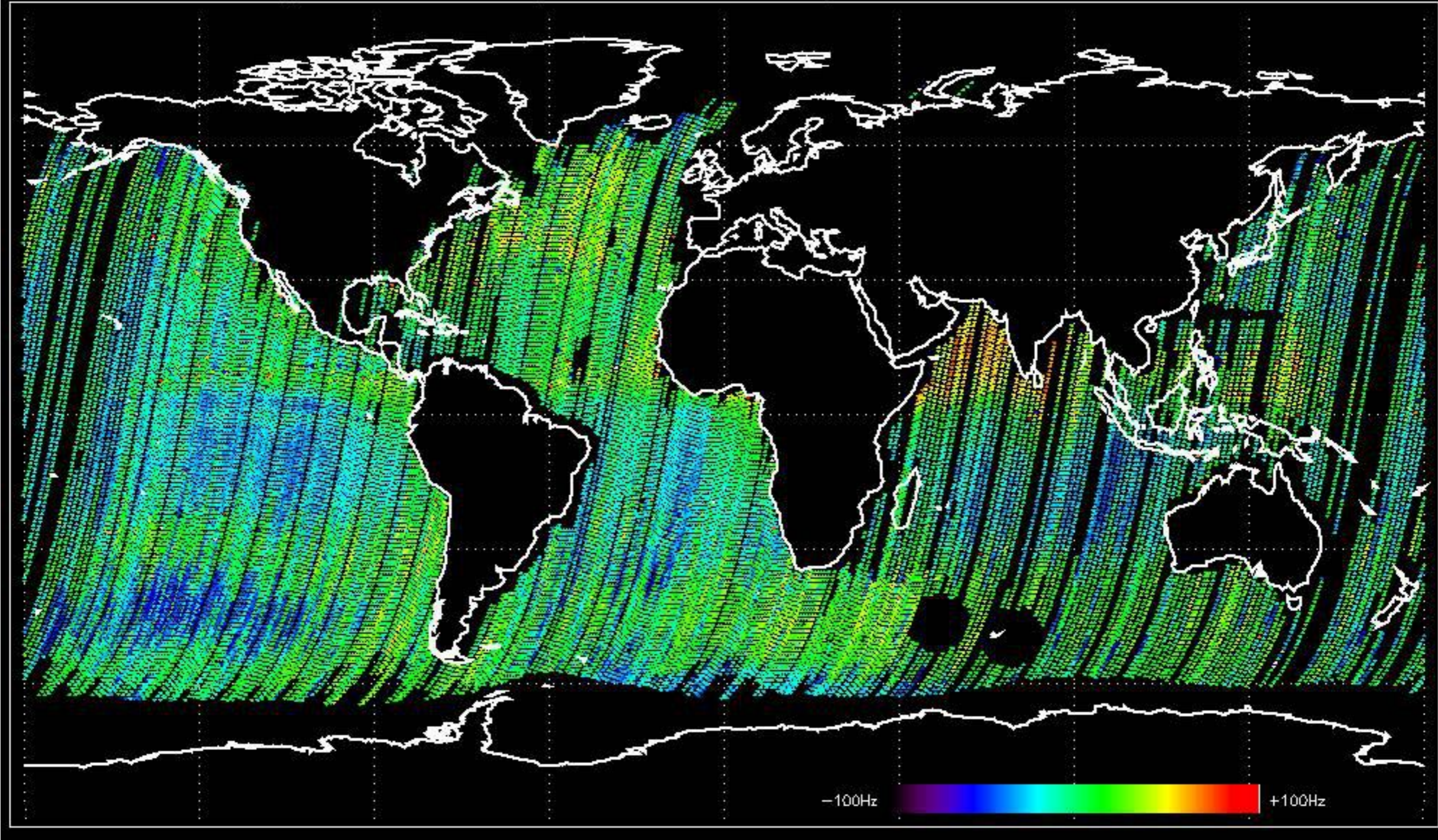
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -26.710197 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.402028 Hz

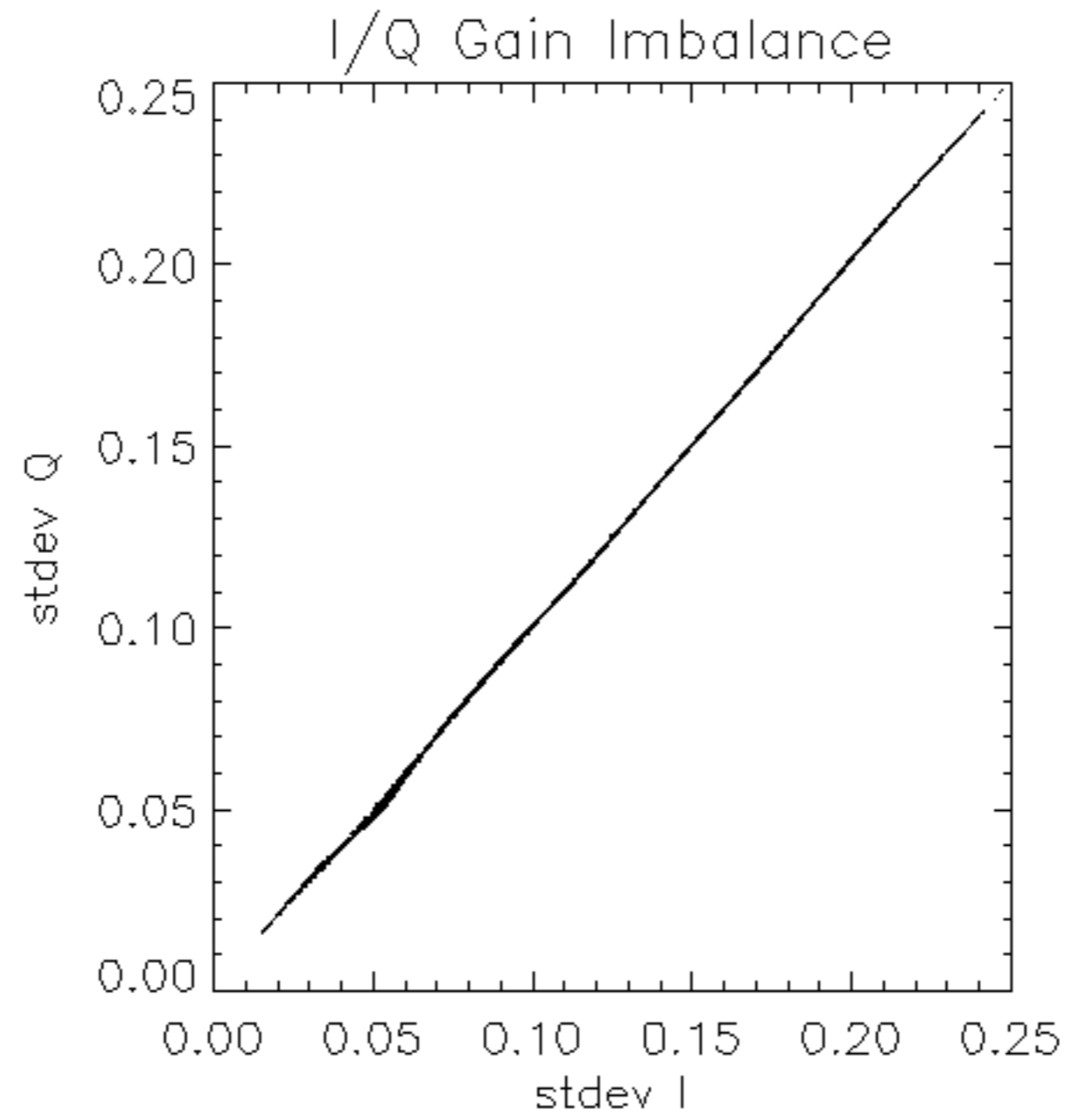


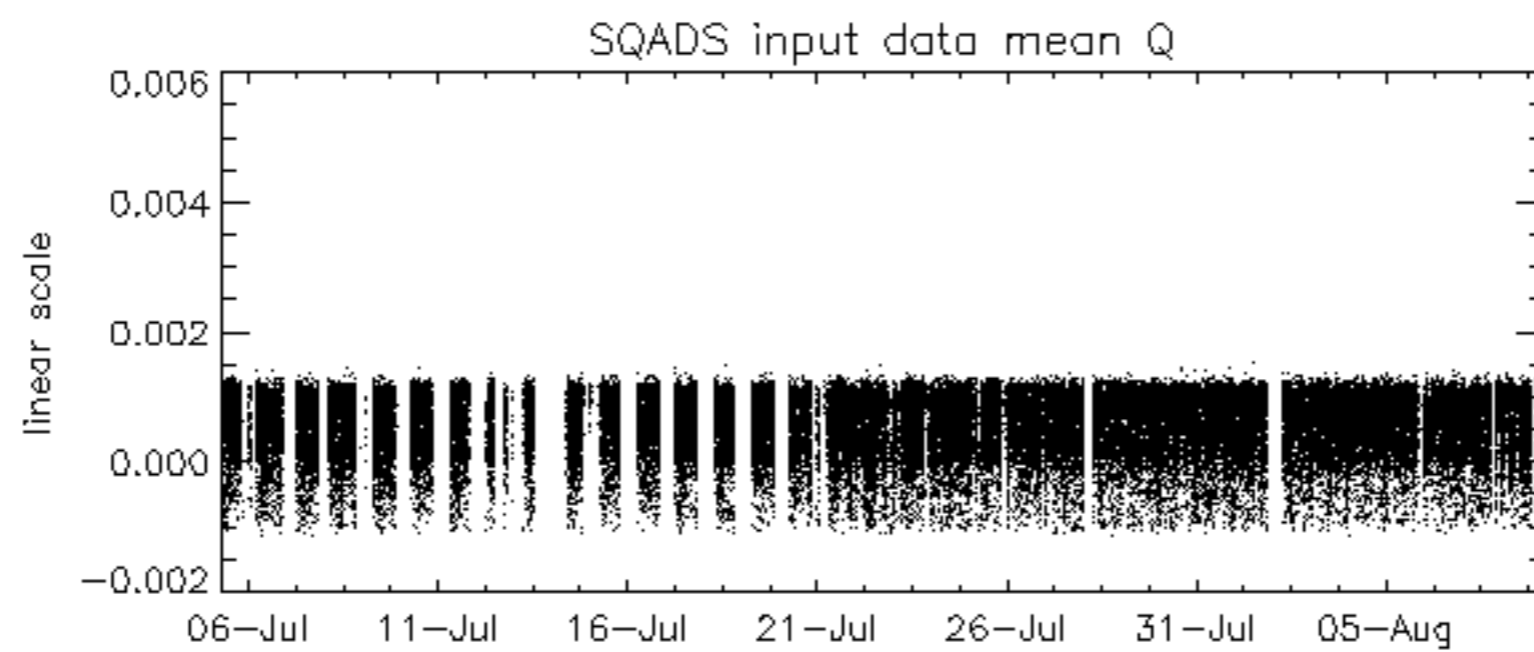
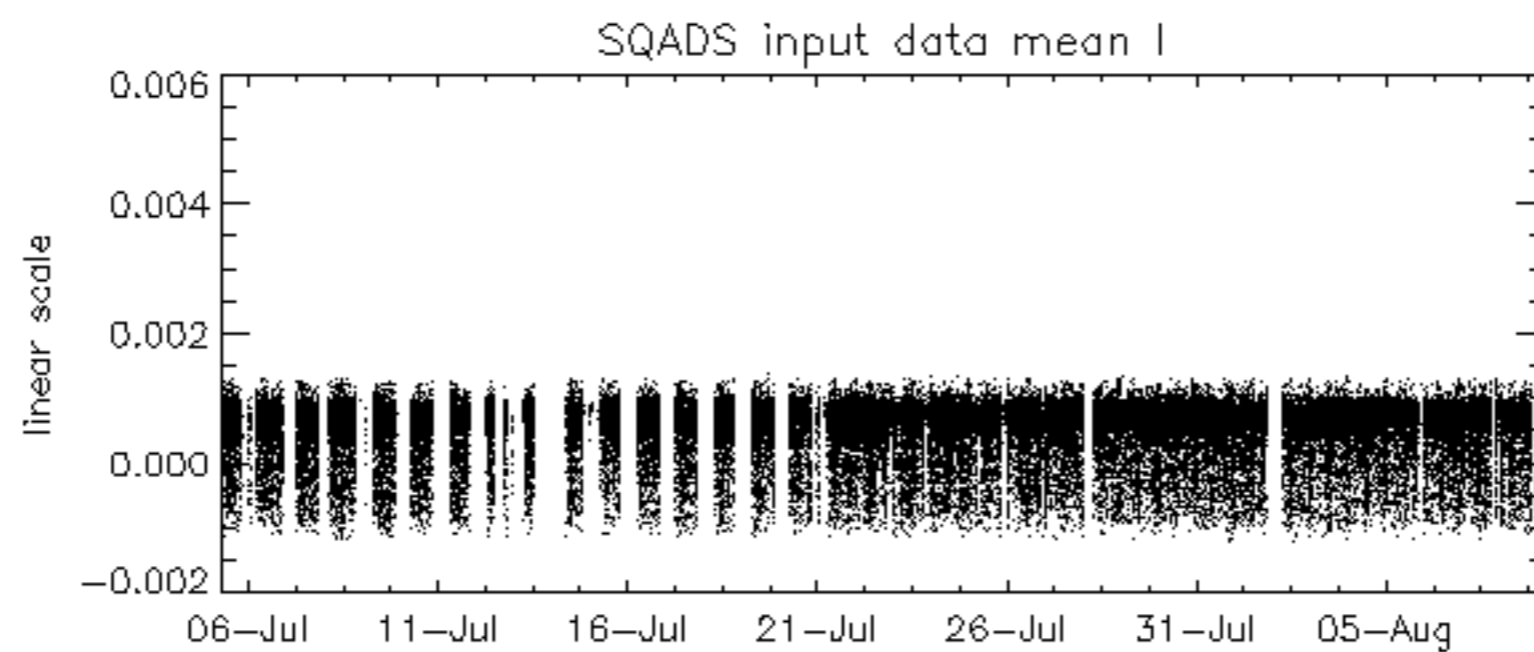
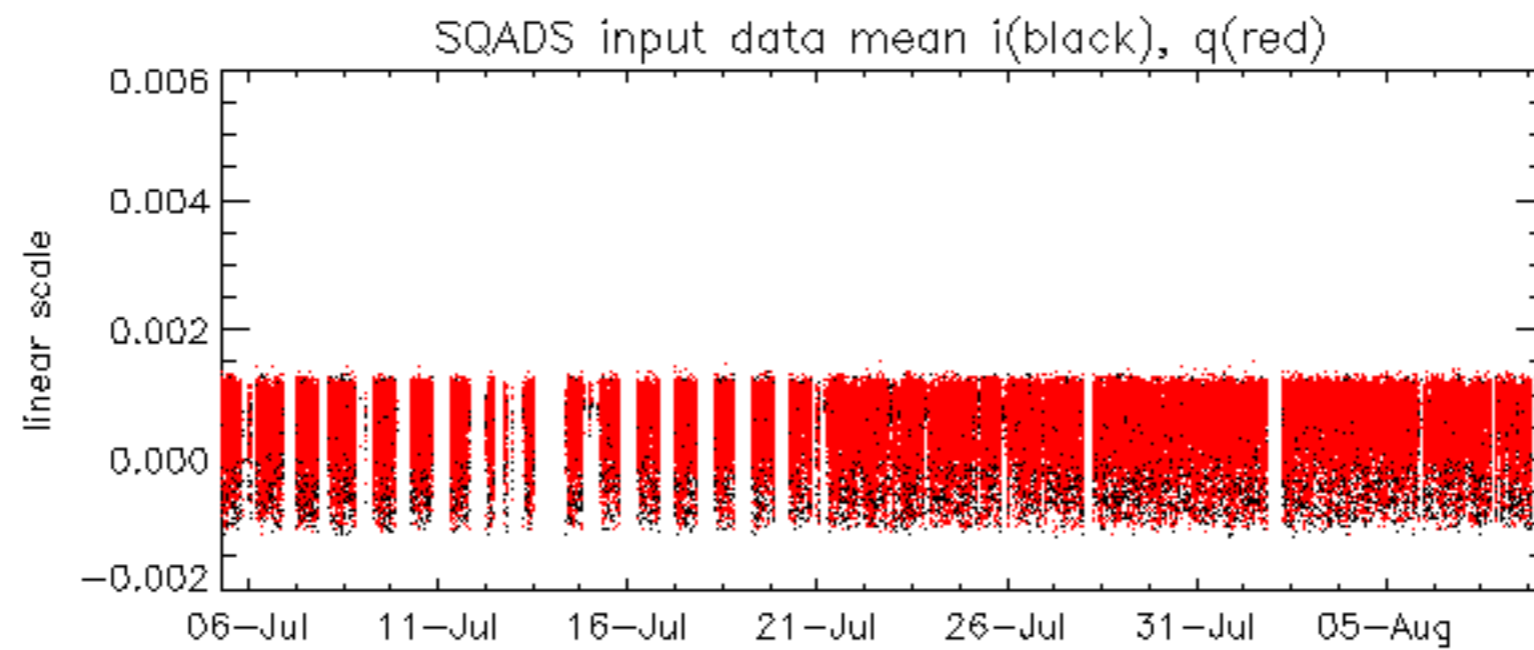
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.803758 Hz

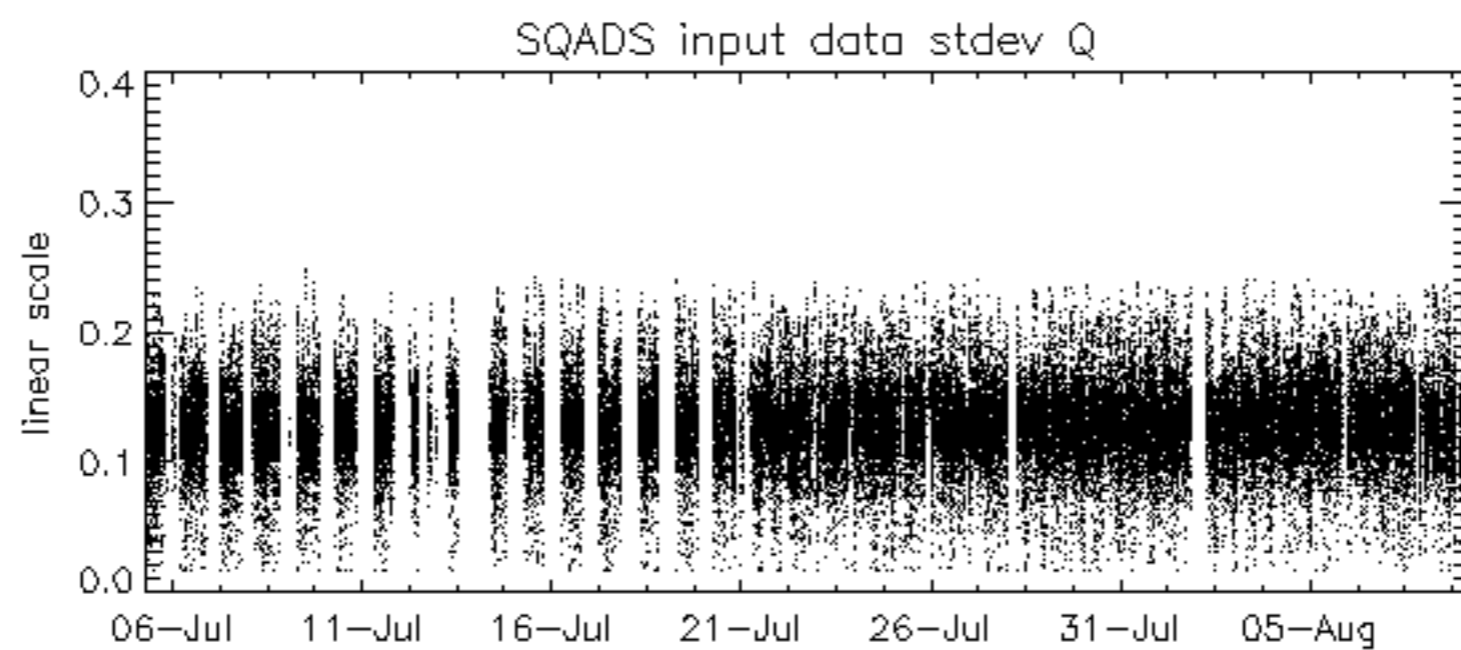
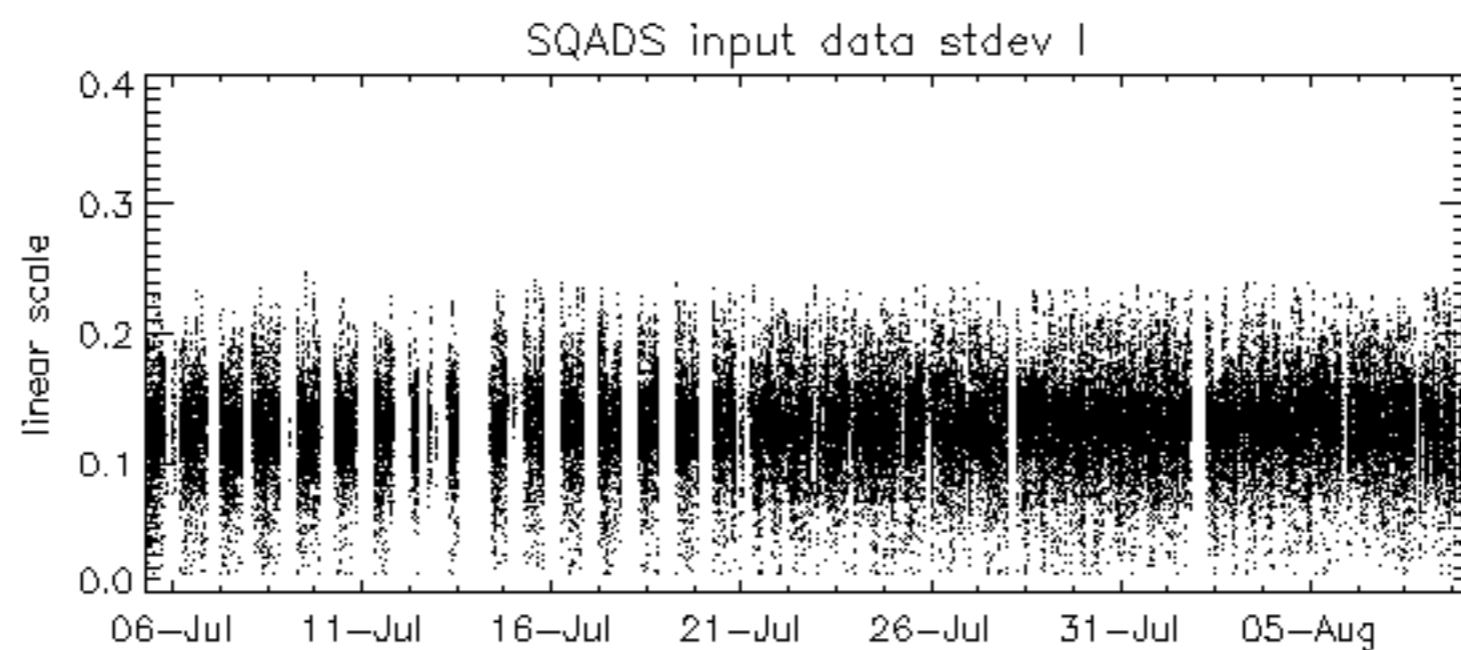
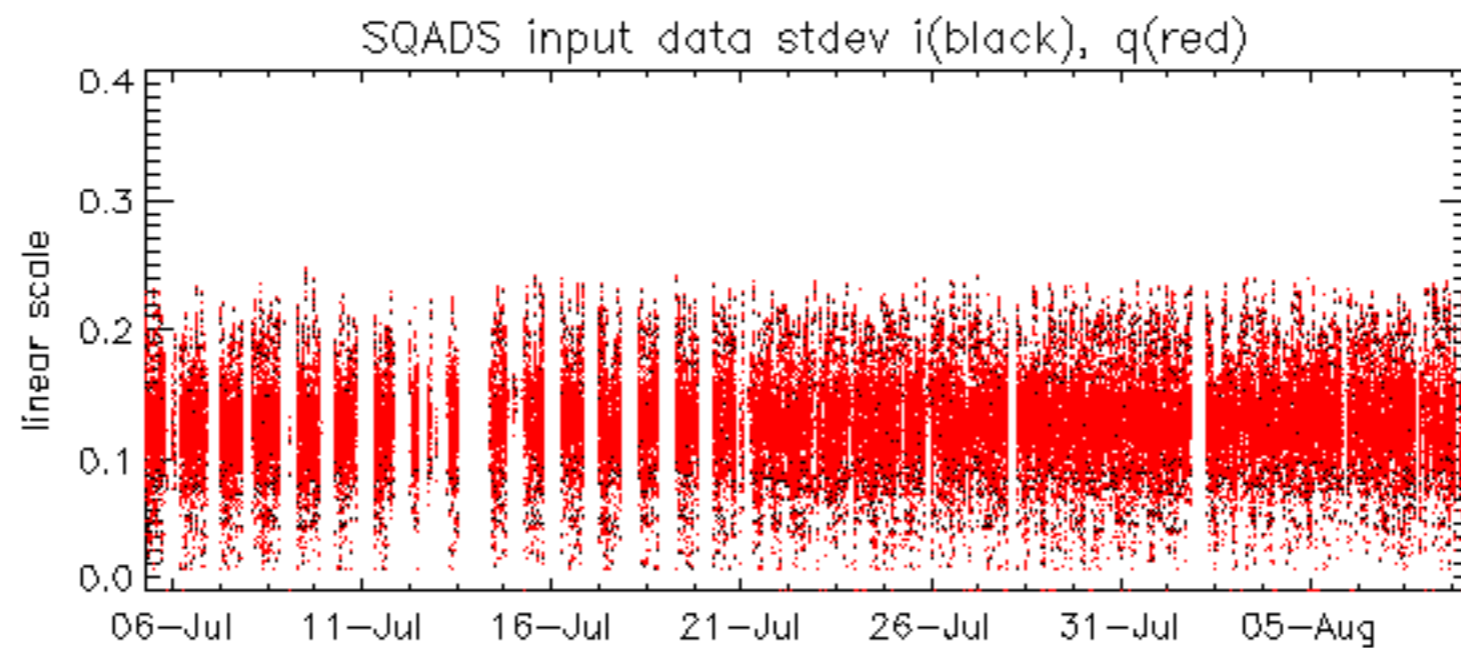


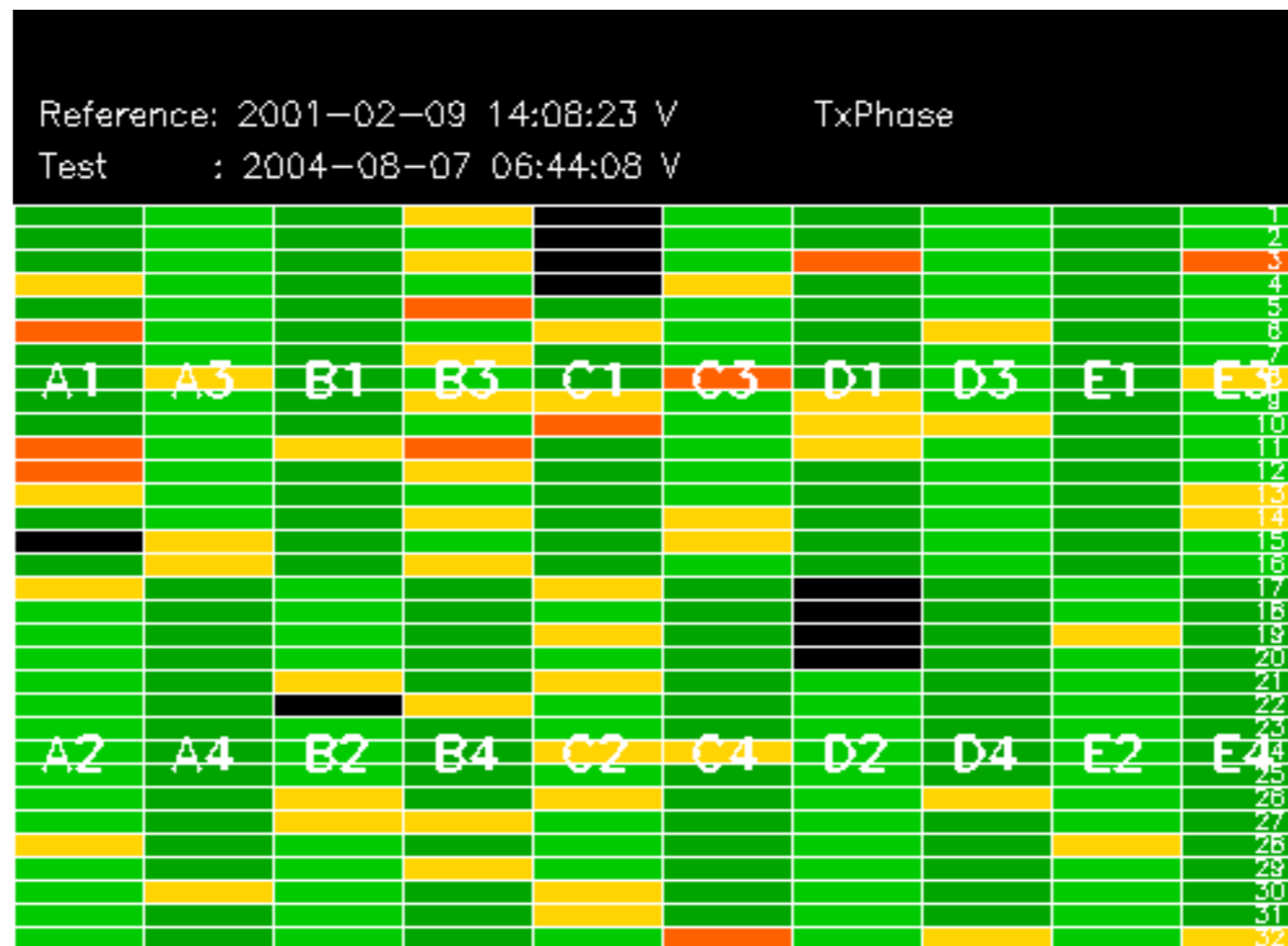
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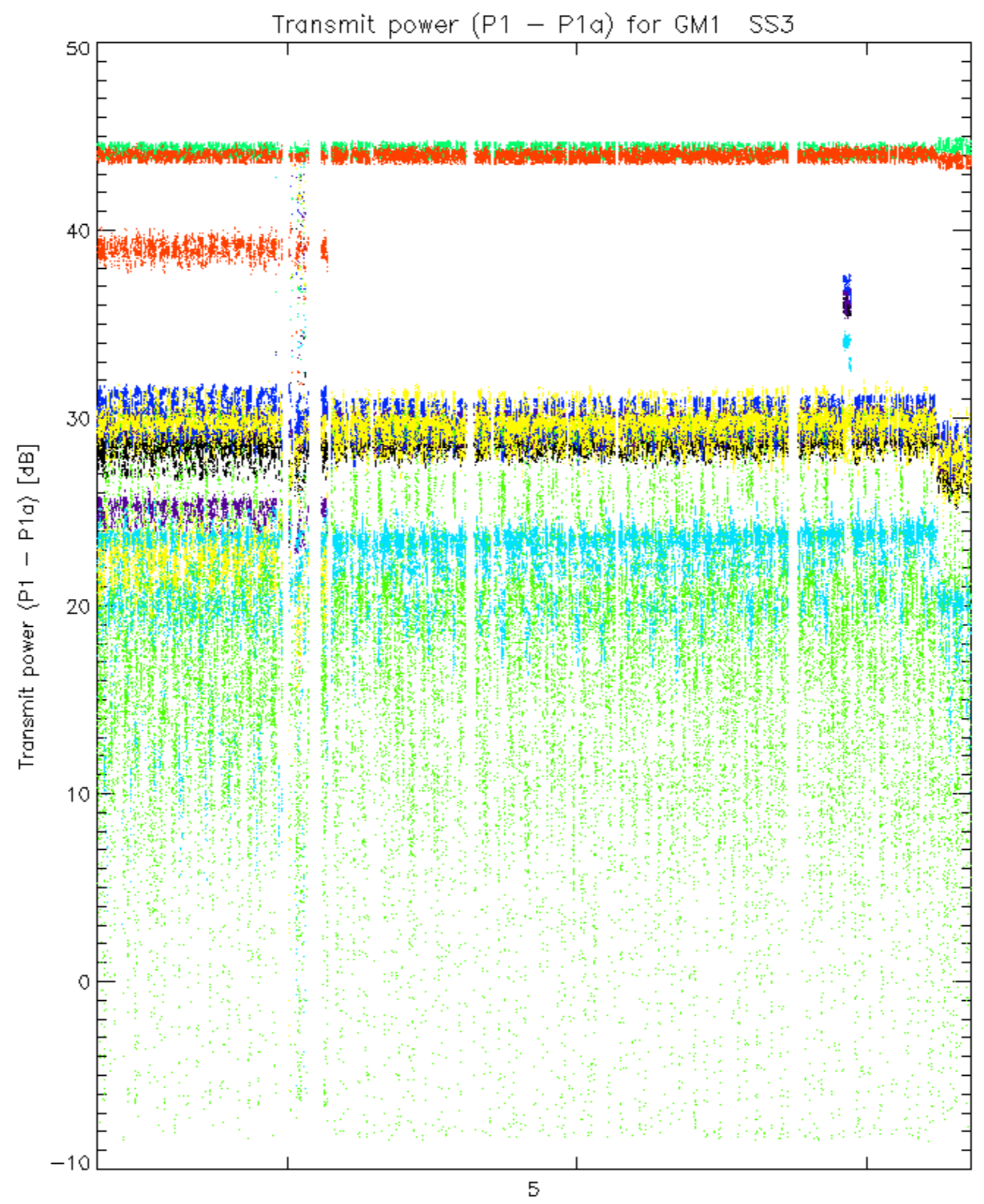
No anomalies observed.



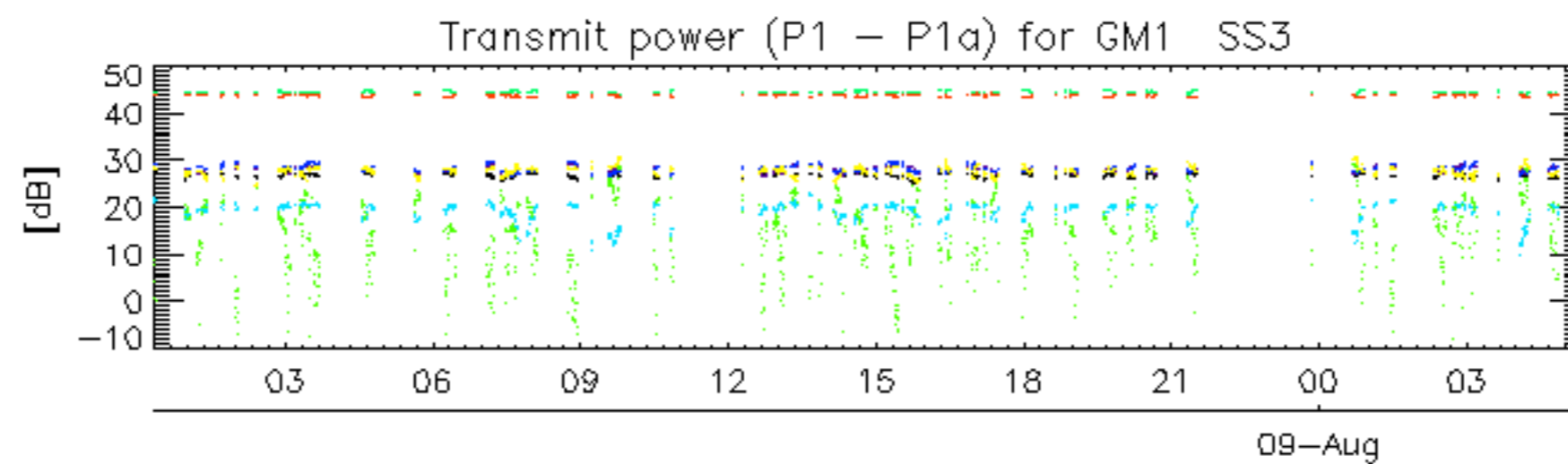




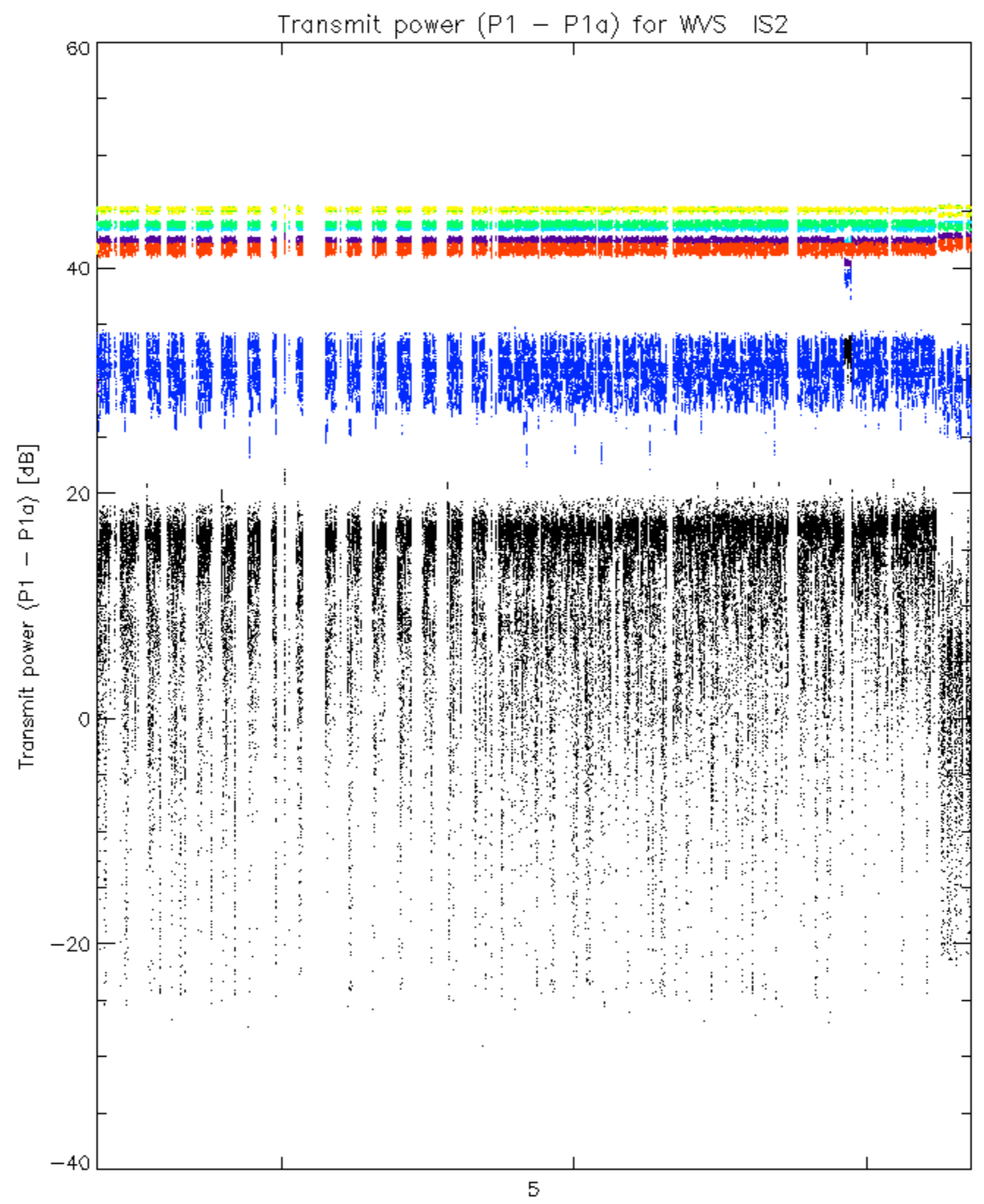




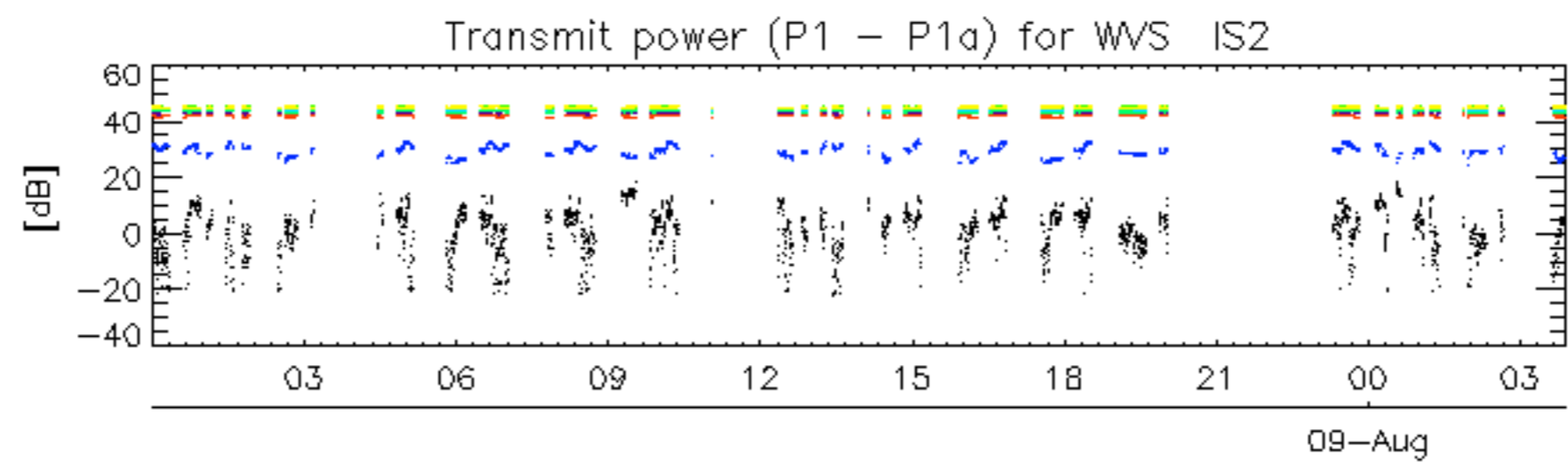
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rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30



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



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

No unavailabilities during the reported period.