

PRELIMINARY REPORT OF 040903

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

last update on Fri Sep 3 13:12:50 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 detected.

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	20040901 170205
H	20040902 062652

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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	-3.468788	0.051906	0.089758
7	P1	-3.314506	0.057002	0.063307
11	P1	-4.656908	0.113023	0.088286
15	P1	-5.759805	0.119233	0.058989
19	P1	-3.468022	0.005470	-0.023889
22	P1	-4.540180	0.011144	0.036792

24	P1	-4.967235	0.020784	0.018506
30	P1	-6.950349	0.021648	-0.073901
3	P1	-15.918021	1.594393	0.199995
7	P1	-14.040905	0.171675	-0.000343
11	P1	-20.160212	0.417400	-0.300808
15	P1	-11.791082	0.166370	-0.004007
19	P1	-13.899134	0.032259	-0.060394
22	P1	-16.175917	0.335764	0.191943
24	P1	-14.532208	0.308937	0.157757
30	P1	-17.829386	0.456134	-0.281158

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.301298	0.083139	-0.003113
7	P2	-22.613901	0.136777	0.042976
11	P2	-15.313899	0.179851	0.128857
15	P2	-7.061752	0.097357	0.043505
19	P2	-9.562136	0.197548	0.065796
22	P2	-17.347616	0.120108	0.095596
24	P2	-20.745457	0.089532	-0.019807
30	P2	-19.250303	0.082659	0.125783

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.141649	0.002738	-0.008375
7	P3	-8.141638	0.002739	-0.008412
11	P3	-8.141641	0.002738	-0.008380
15	P3	-8.141672	0.002737	-0.008221
19	P3	-8.141687	0.002738	-0.008160
22	P3	-8.141687	0.002738	-0.008178
24	P3	-8.141665	0.002737	-0.008289
30	P3	-8.141647	0.002730	-0.008052

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	-2.702881	0.257881	0.050768
7	P1	-2.959057	0.211471	0.107621
11	P1	-3.892202	0.160165	0.076074
15	P1	-3.541635	0.129739	0.080938
19	P1	-3.482912	0.013797	-0.013892
22	P1	-5.696260	0.039503	-0.058776
24	P1	-3.907120	0.015497	-0.086528
30	P1	-6.174648	0.062595	-0.057808
3	P1	-10.401896	1.035700	-0.112349
7	P1	-10.067401	0.169075	0.043933
11	P1	-12.146065	0.114669	-0.125340
15	P1	-11.654604	0.101501	-0.091062
19	P1	-15.622519	0.049540	0.004241
22	P1	-23.365164	1.121399	-0.078012
24	P1	-17.894808	0.231109	-0.215760
30	P1	-20.436197	1.210540	-0.008209

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.979290	0.058213	-0.036754
7	P2	-22.754122	0.048302	0.030223
11	P2	-10.984461	0.067692	0.083806
15	P2	-4.950080	0.036705	-0.028907
19	P2	-6.758832	0.053331	-0.027907
22	P2	-7.443966	0.045616	0.003734
24	P2	-11.041680	0.051840	-0.047279
30	P2	-22.193893	0.036719	0.069214

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.991227	0.003723	-0.024142
7	P3	-7.991277	0.003730	-0.024367
11	P3	-7.991364	0.003719	-0.024055
15	P3	-7.991224	0.003720	-0.024241
19	P3	-7.991241	0.003730	-0.024241
22	P3	-7.991211	0.003725	-0.024180
24	P3	-7.991290	0.003744	-0.024239
30	P3	-7.991204	0.003723	-0.023959

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	0.000480482
	stdev	2.16500e-07
MEAN Q	mean	0.000543541
	stdev	2.35119e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128548
	stdev	0.000968564
STDEV Q	mean	0.128772
	stdev	0.000979538





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

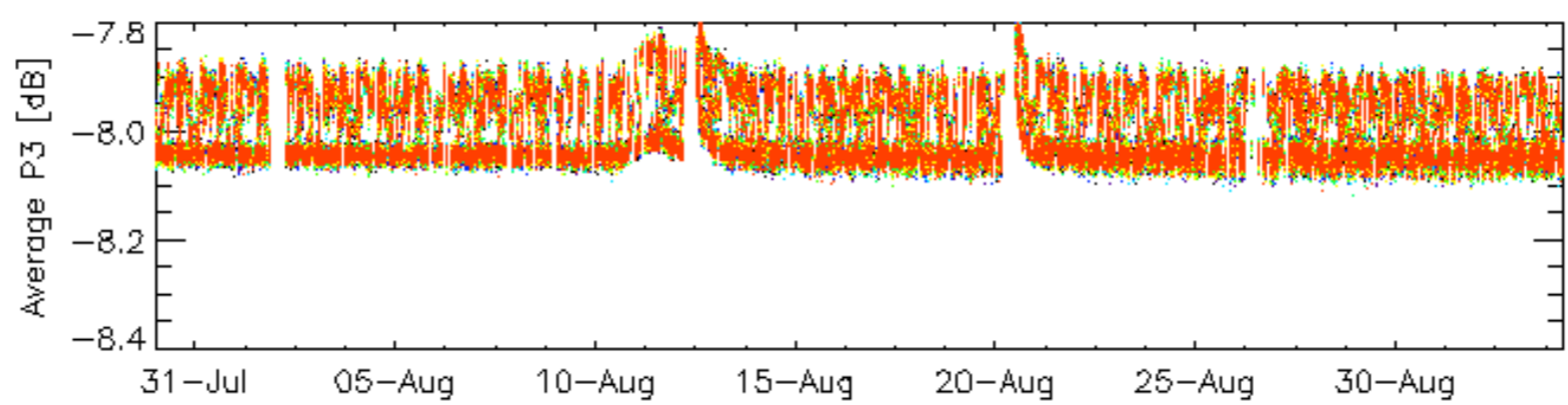
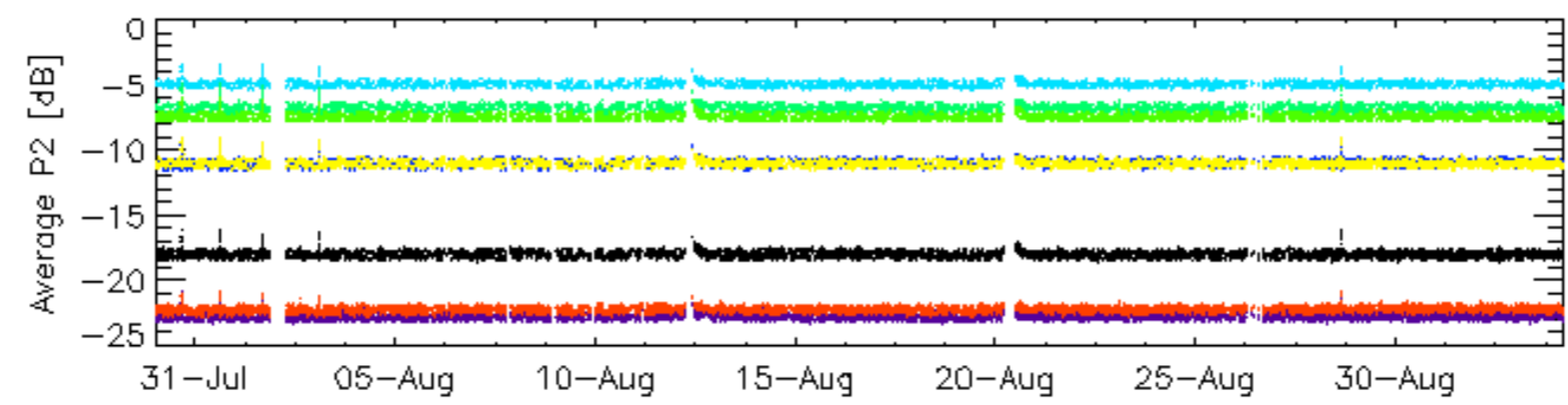
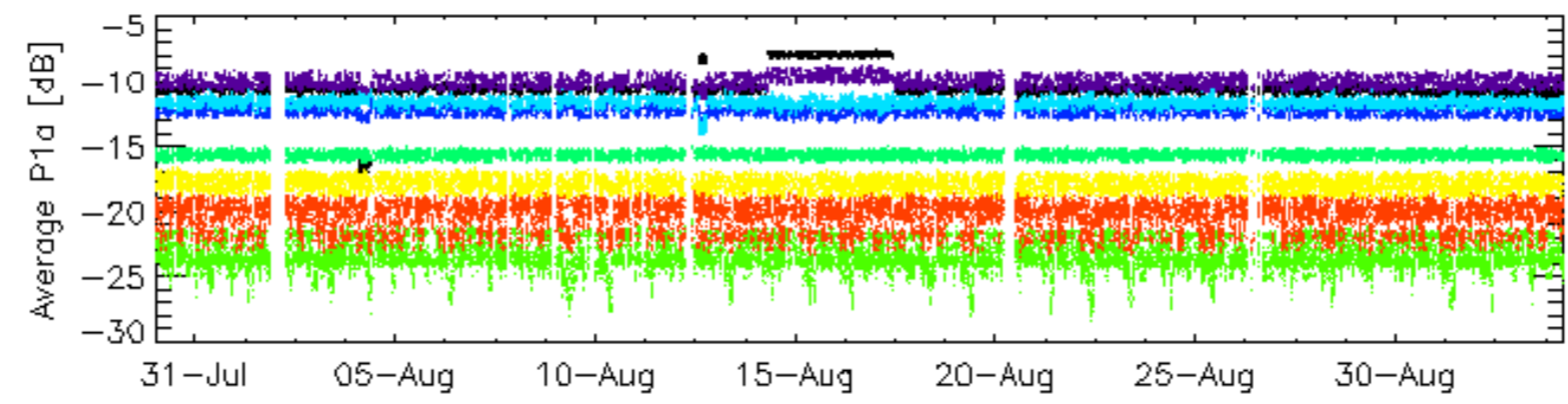
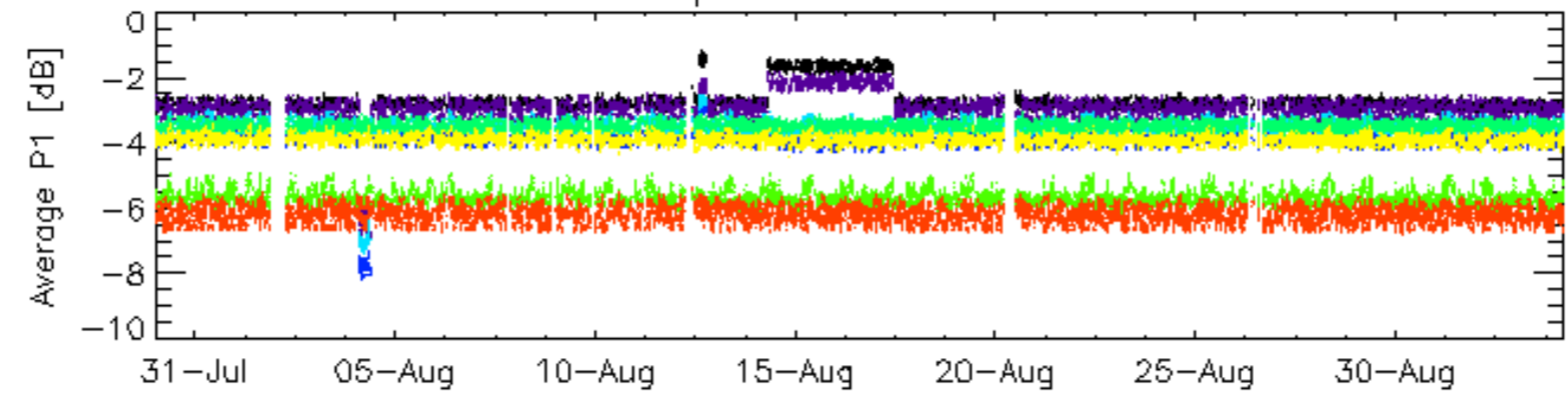
6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

Descending

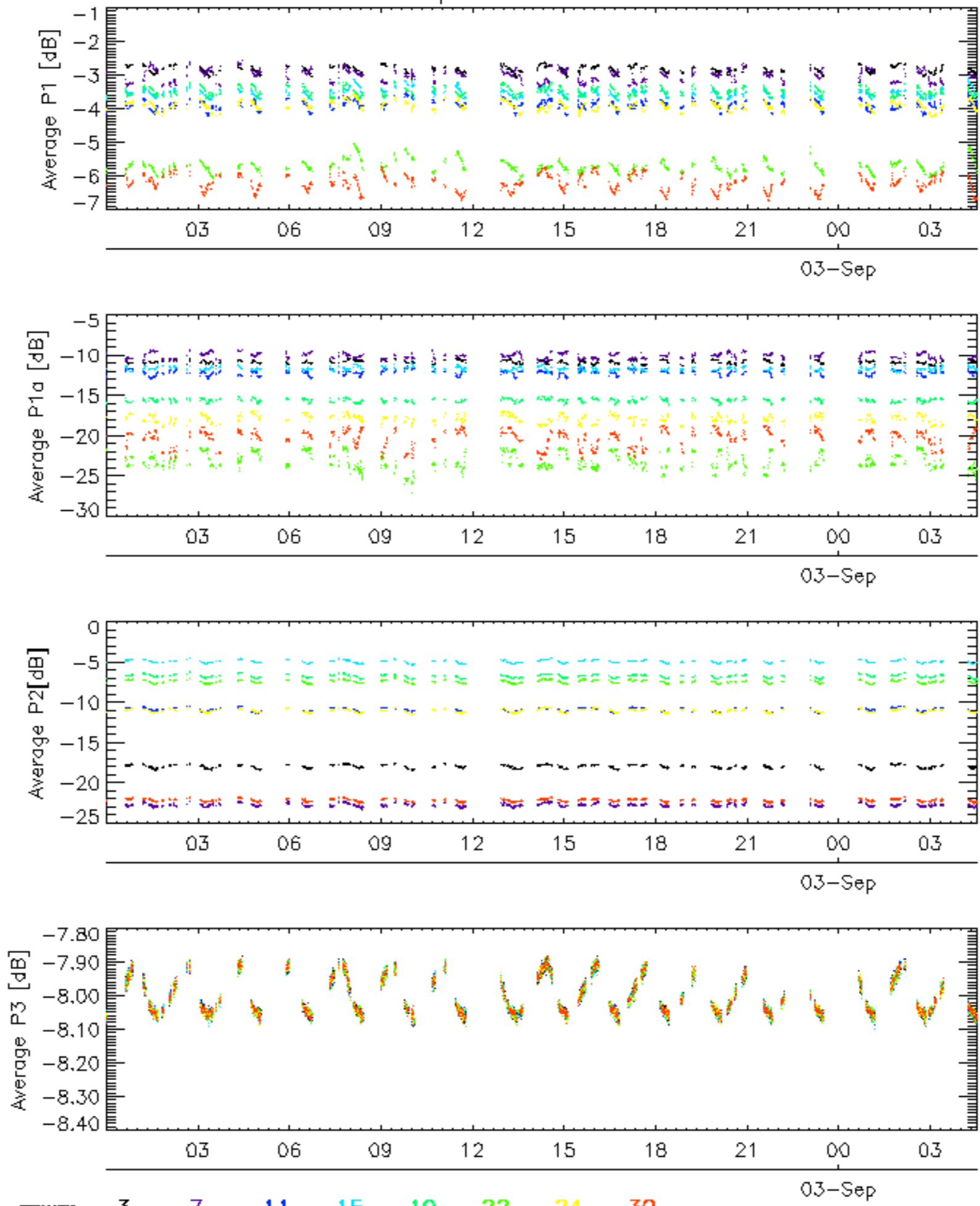
6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

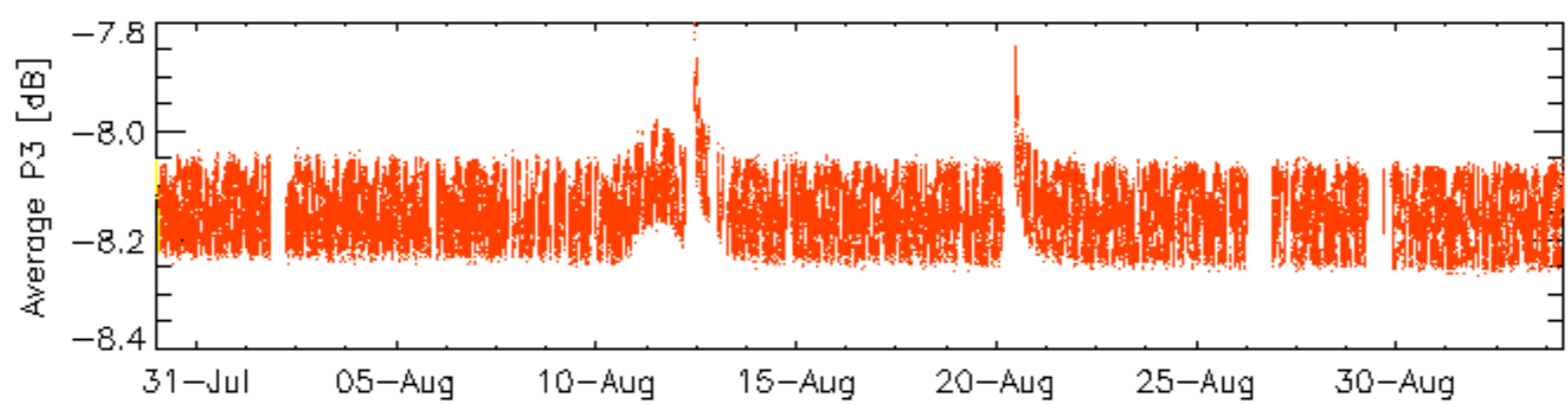
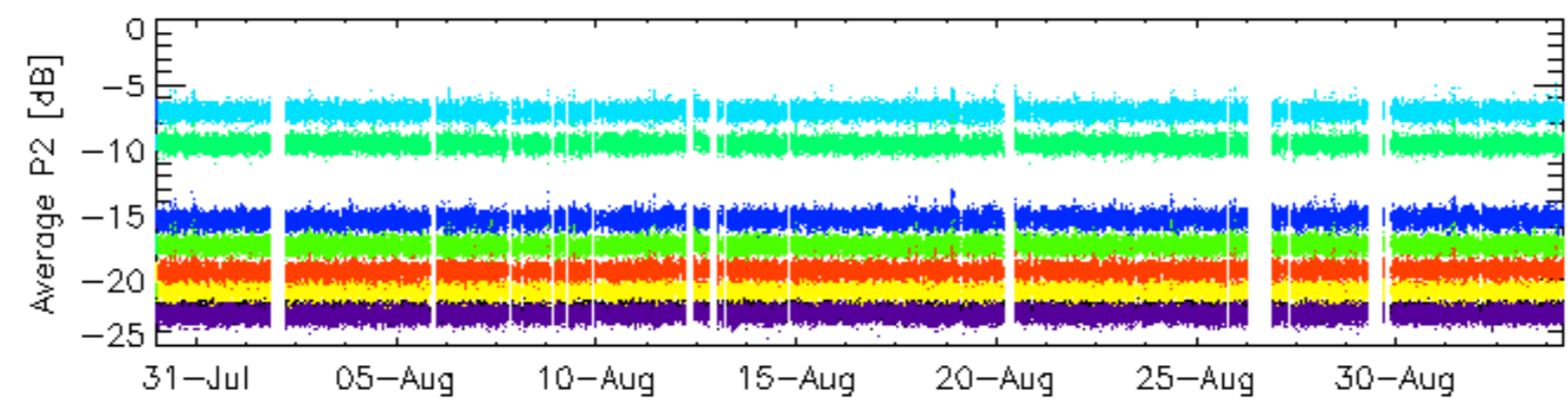
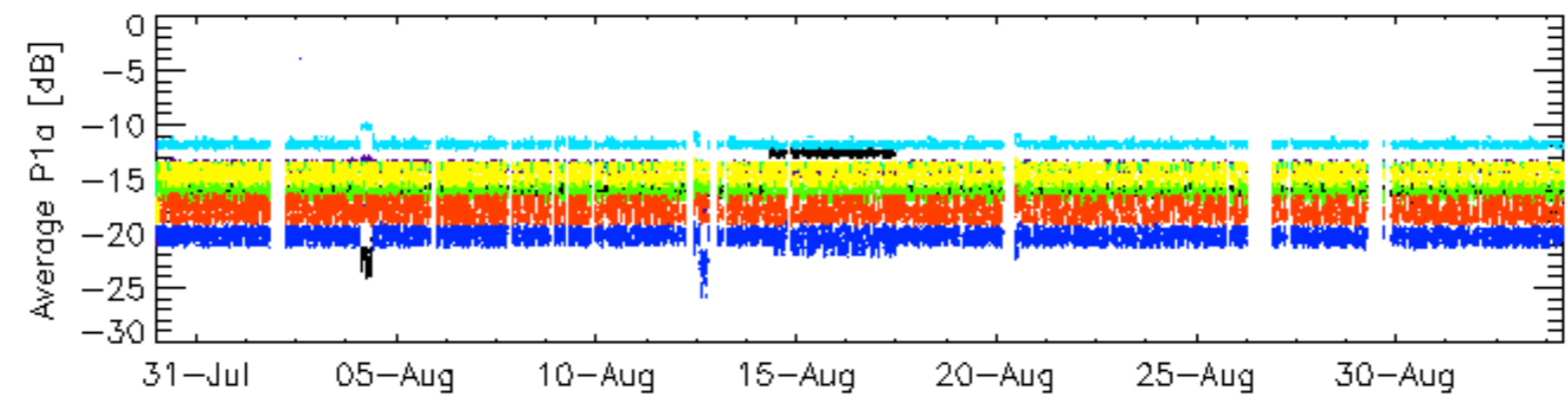
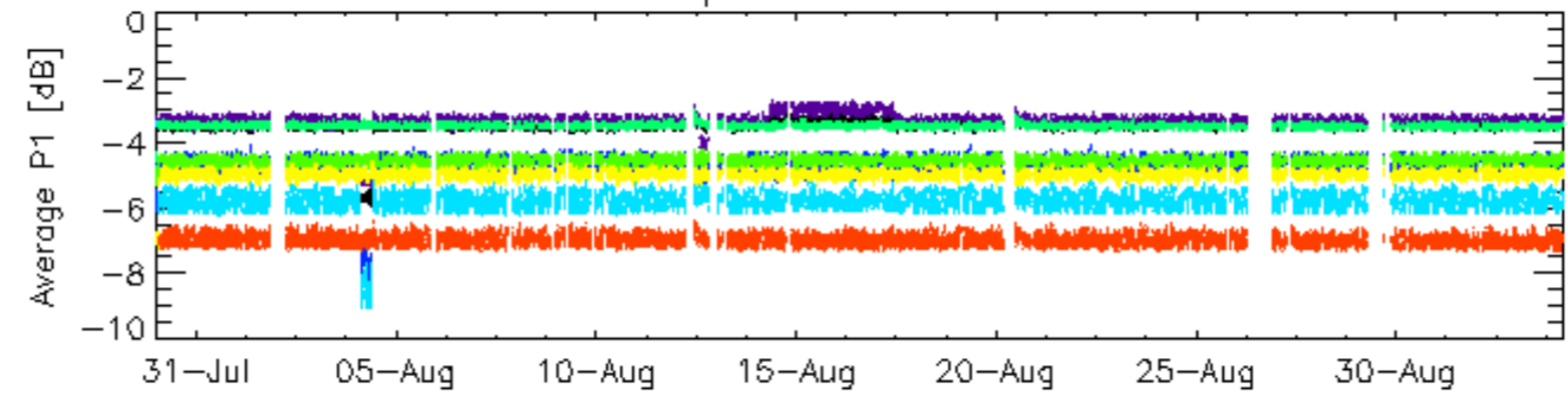


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

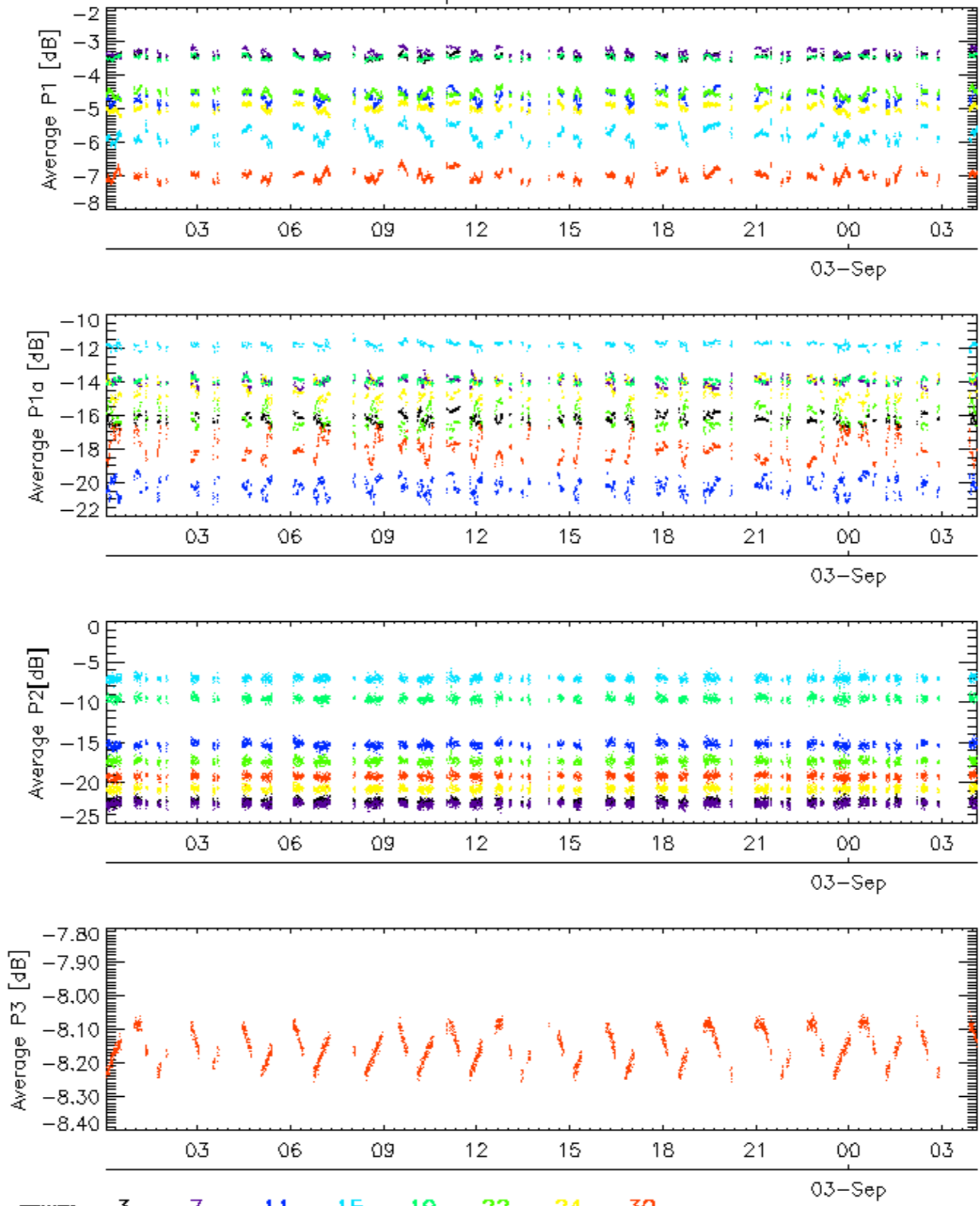


Cal pulses for WVS IS2



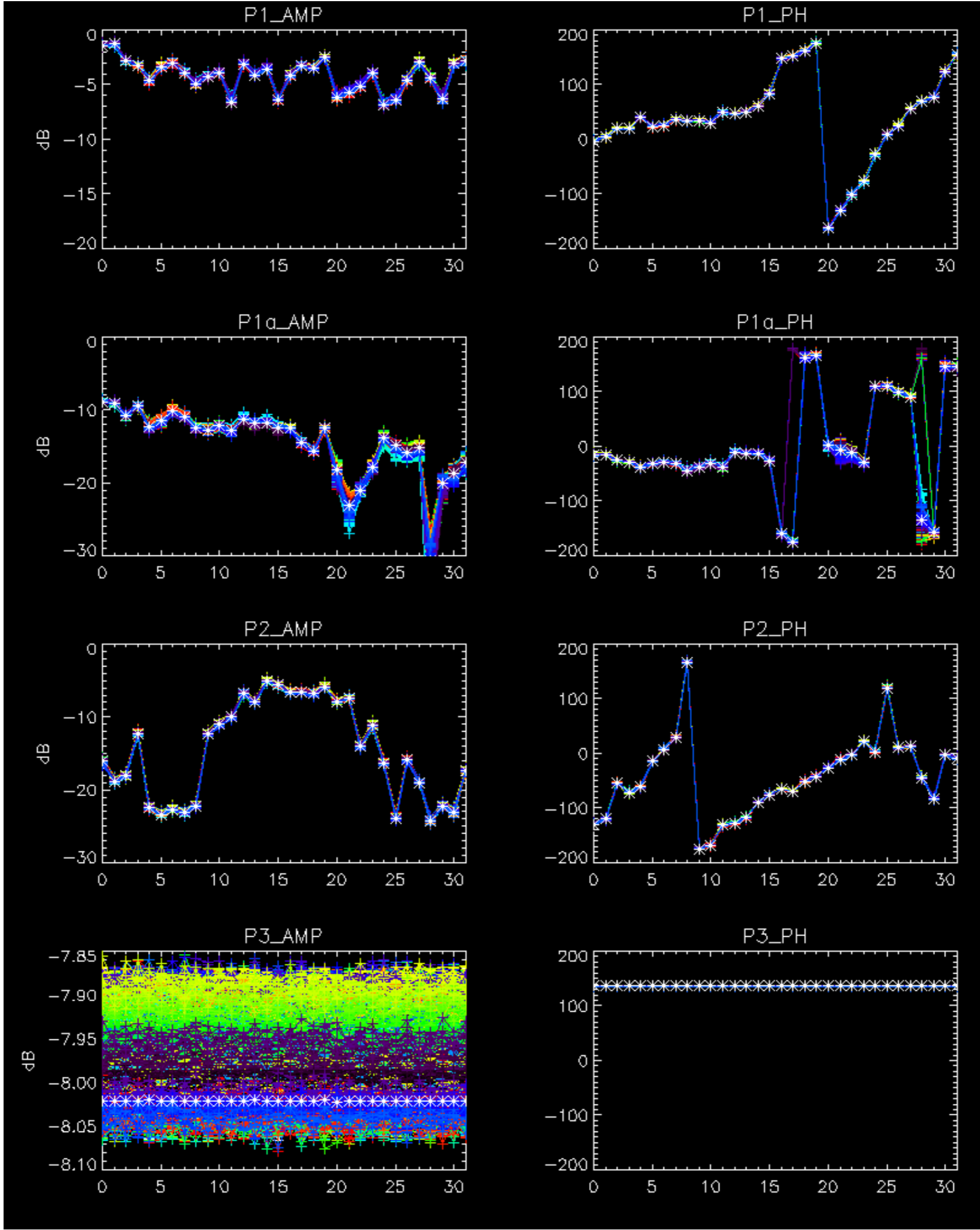
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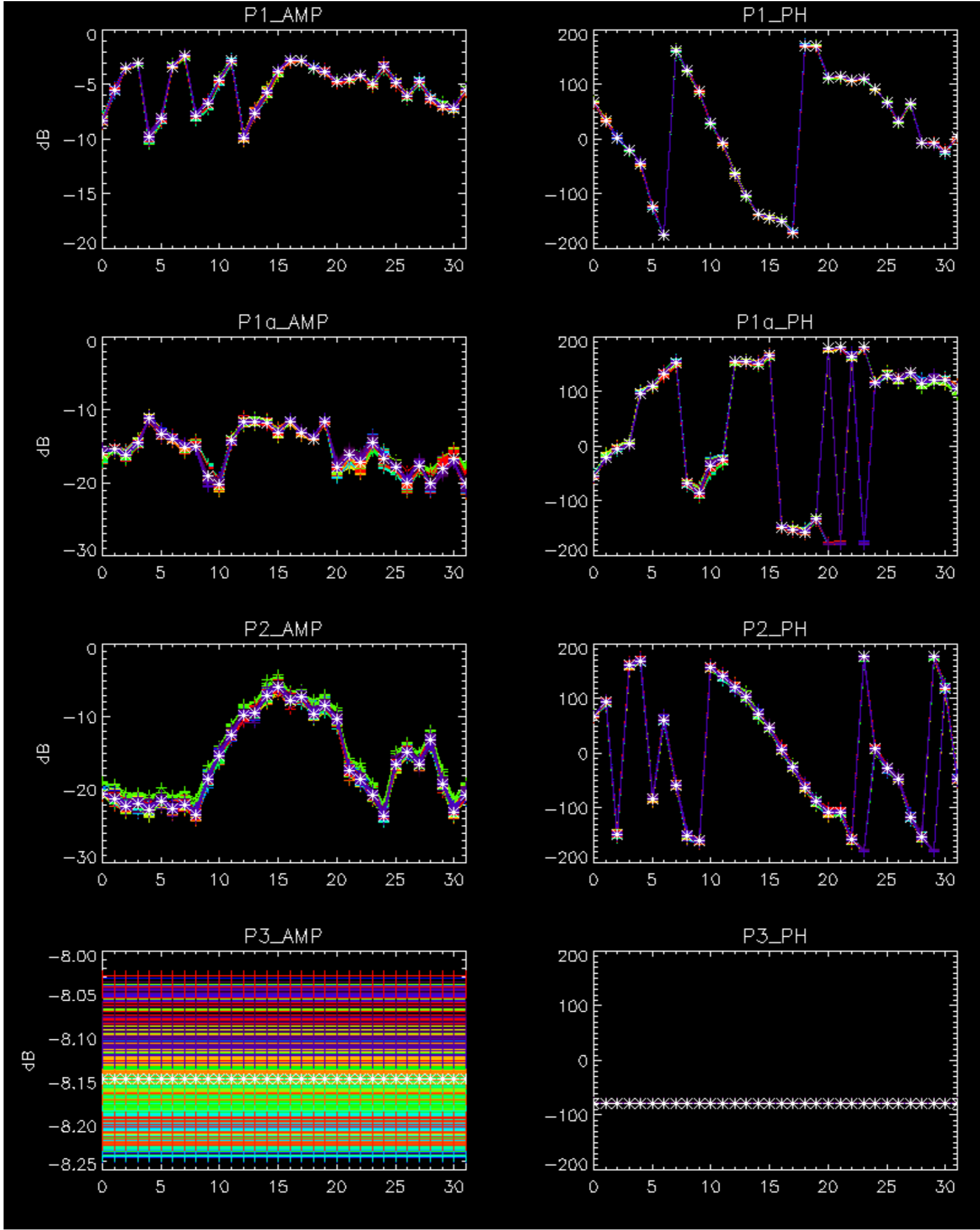
Cal pulses for WVS IS2



No anomalies detected.

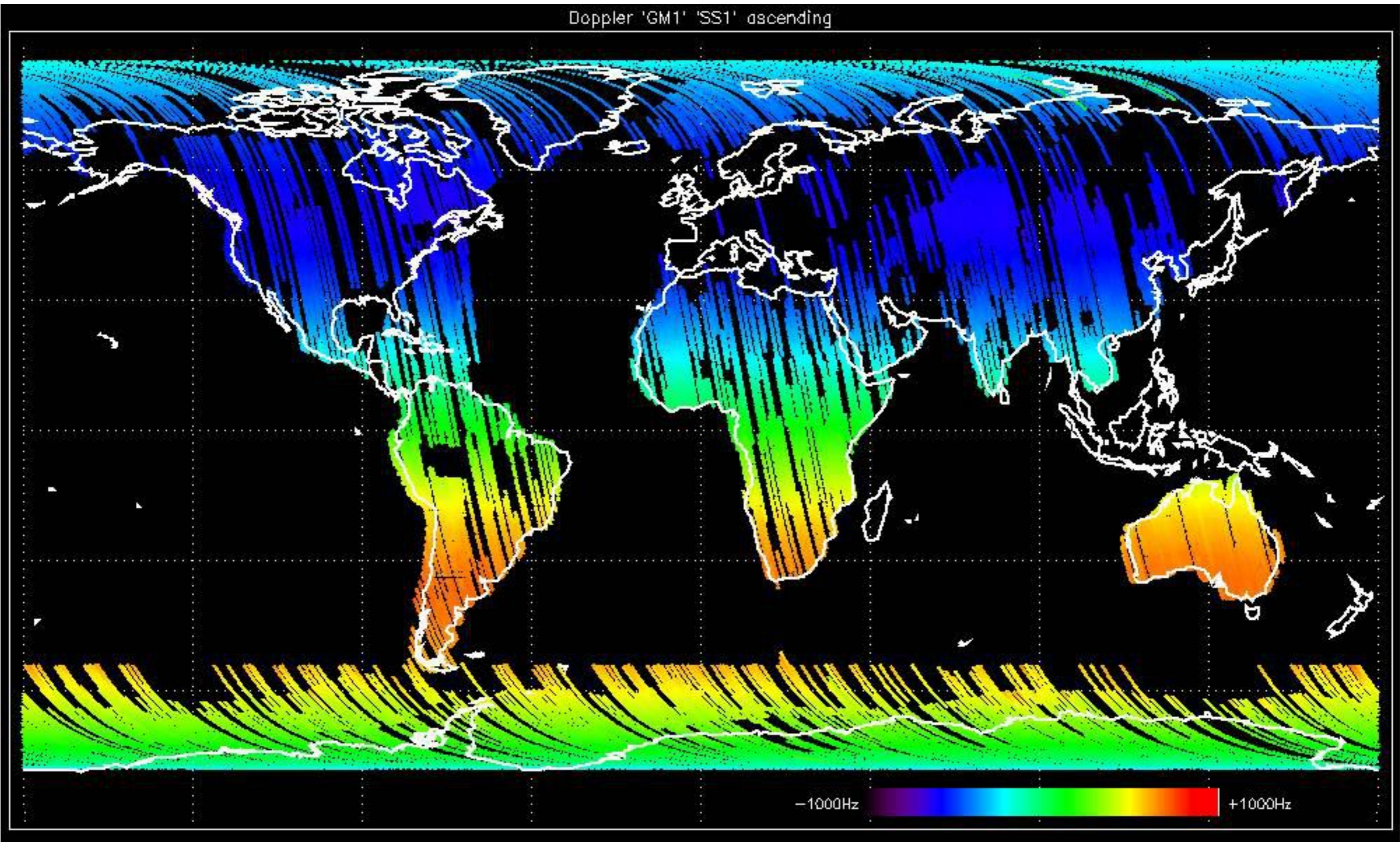
No anomalies observed.



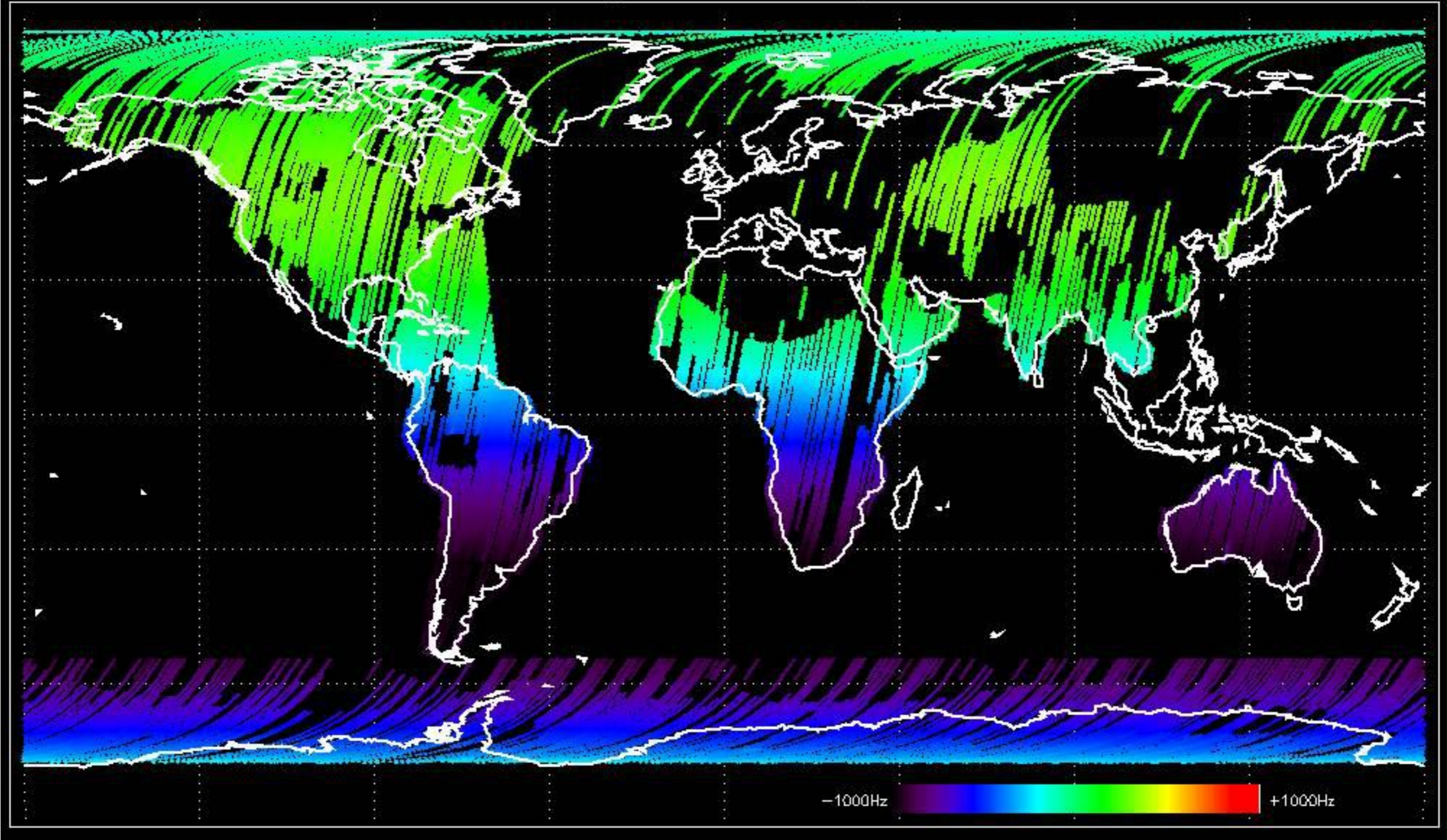


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

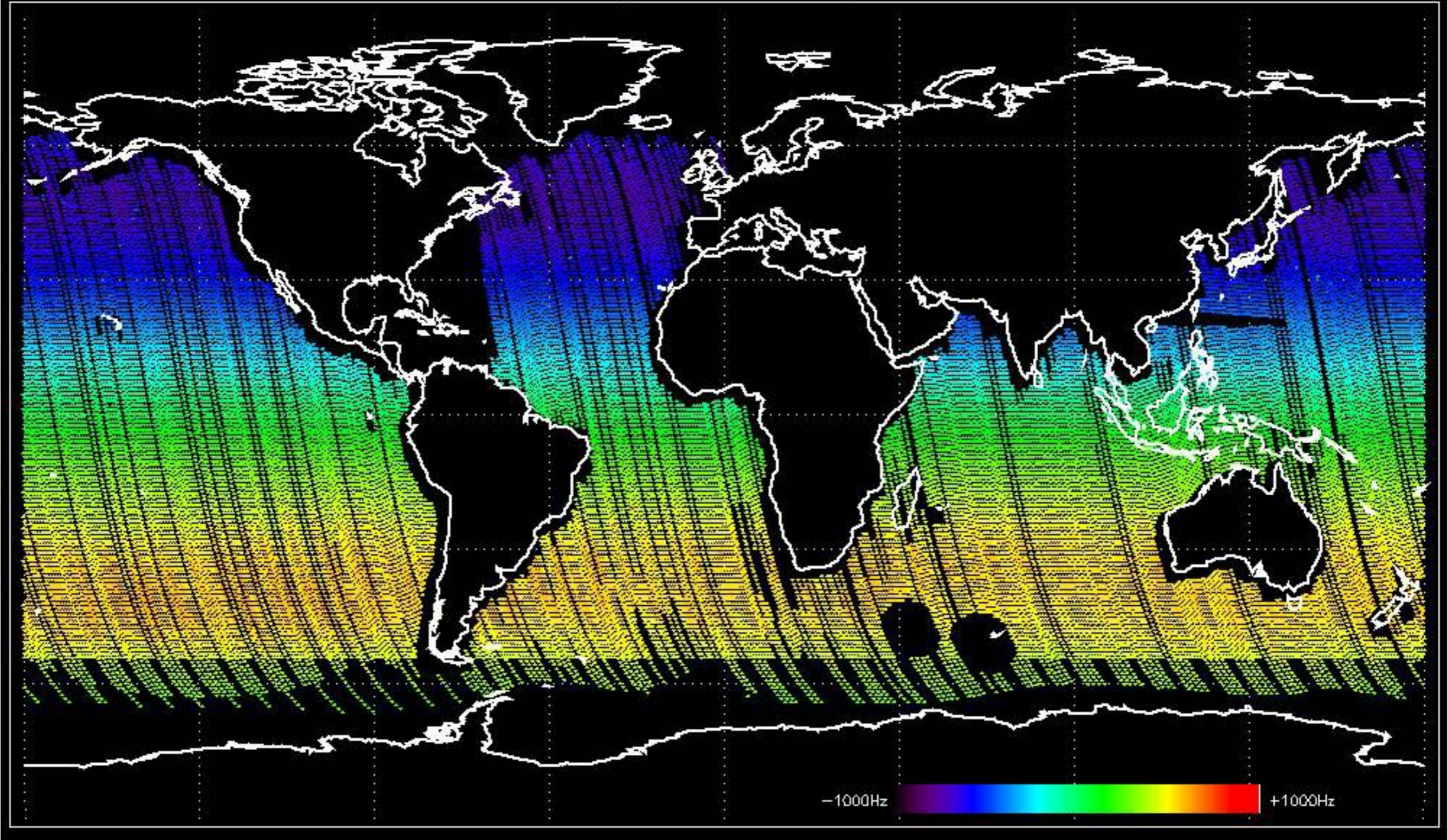
Doppler 'GM1' 'SS1' ascending



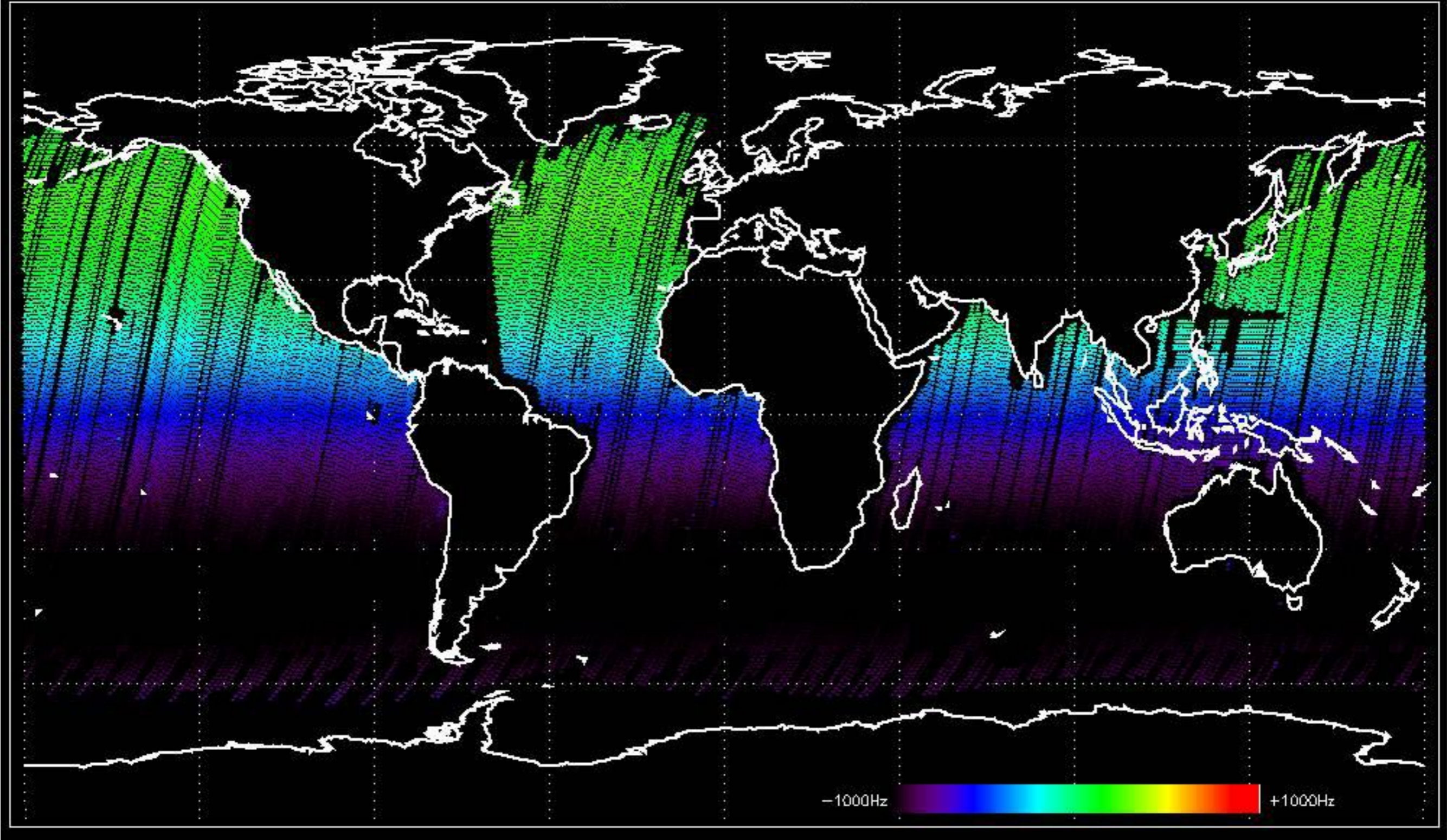
Doppler 'GM1' 'SS1' descending



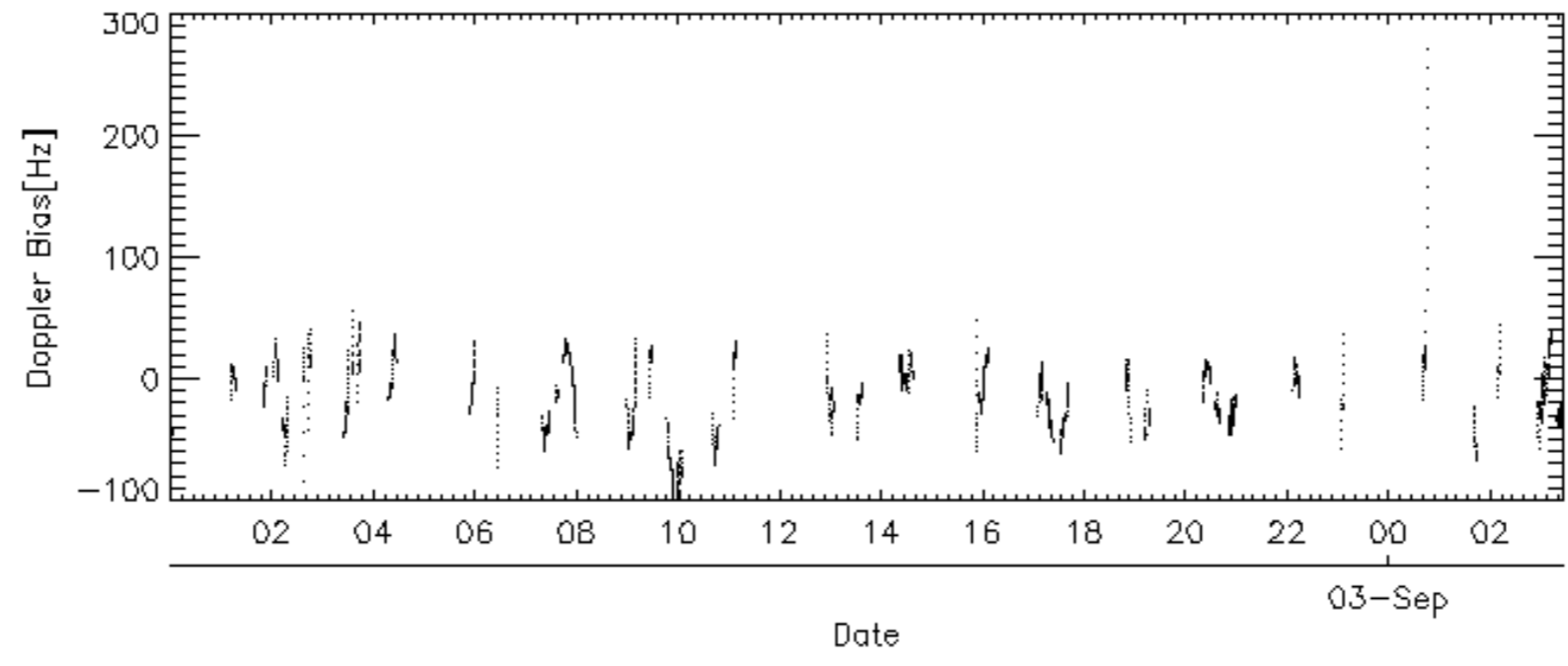
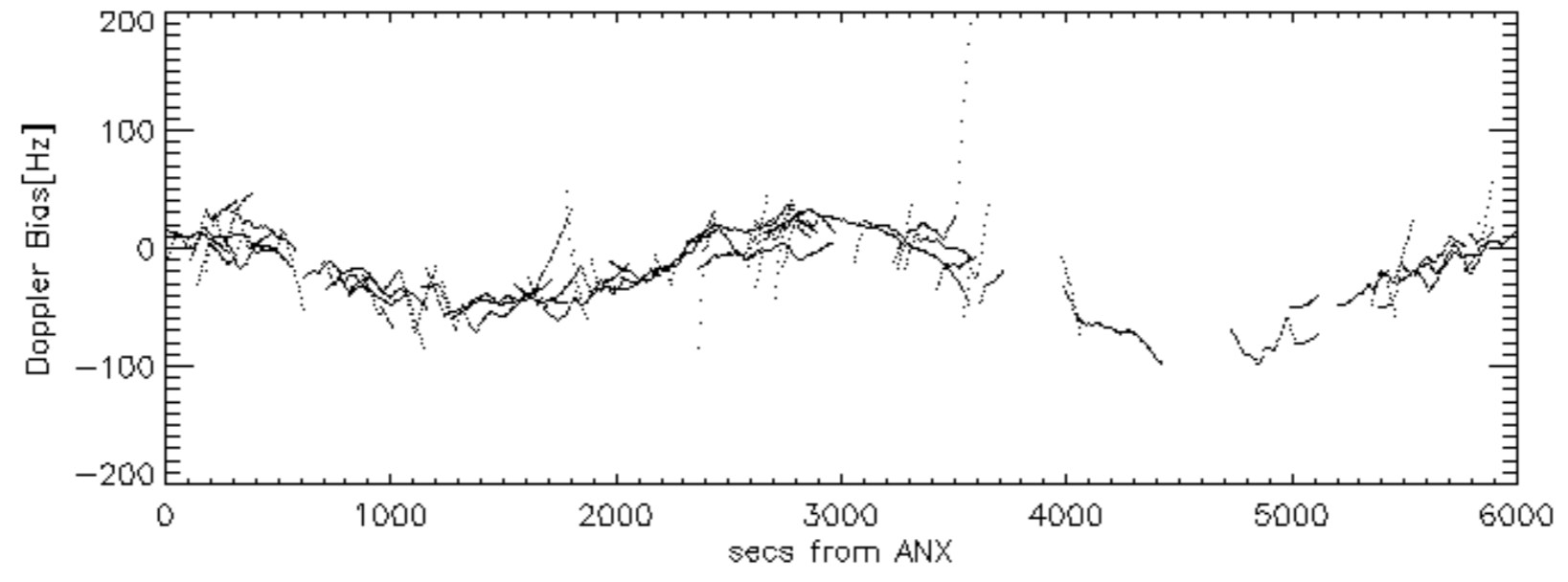
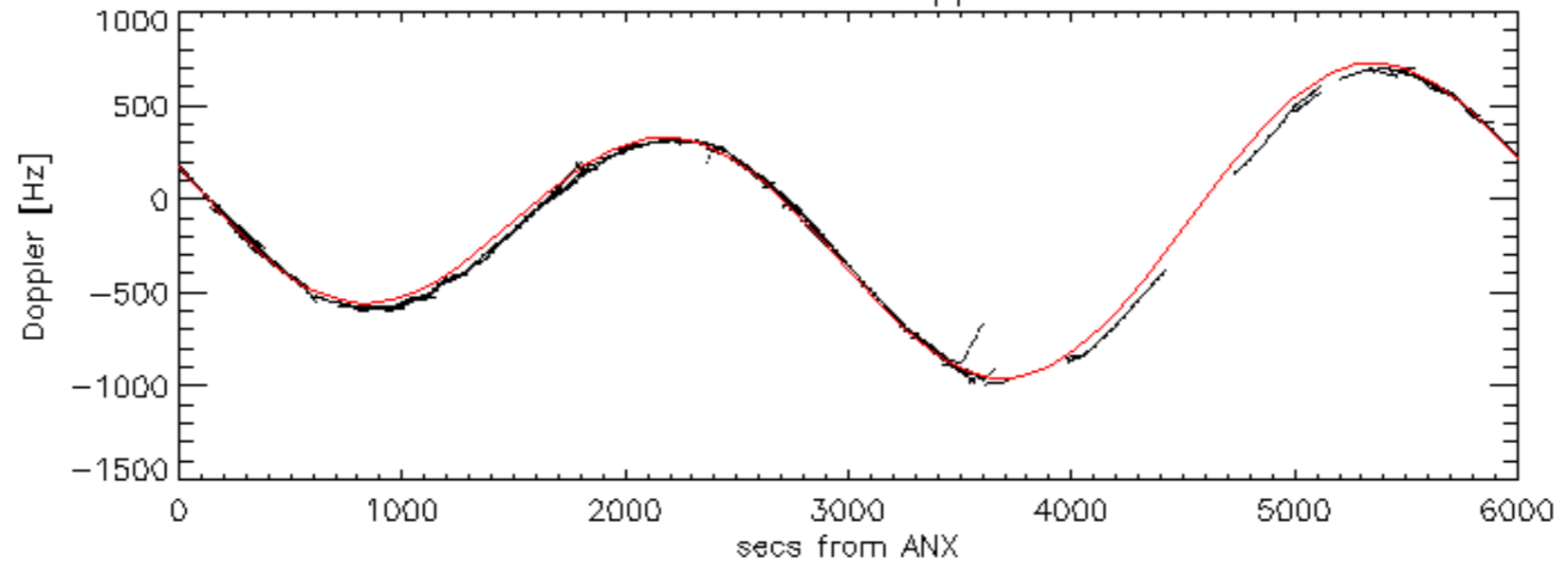
Doppler 'WVS' 'IS2' ascending

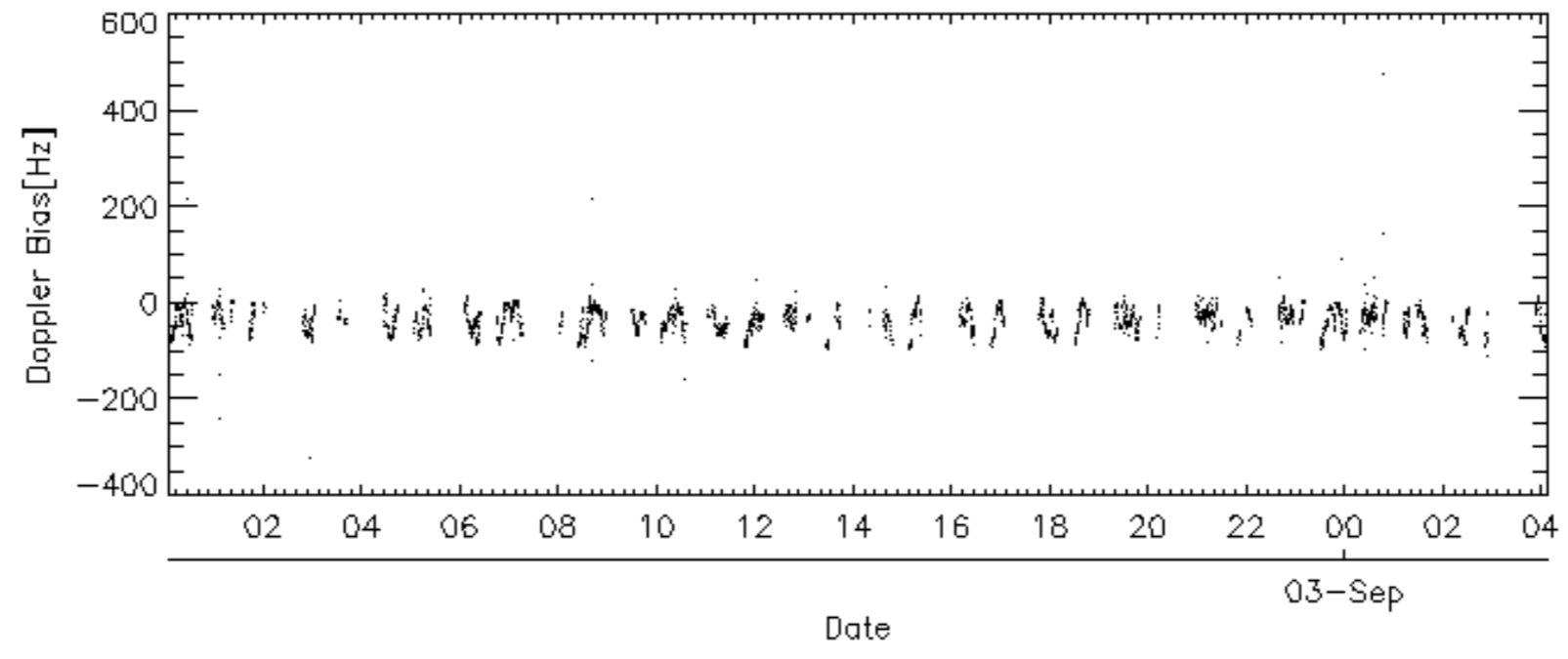
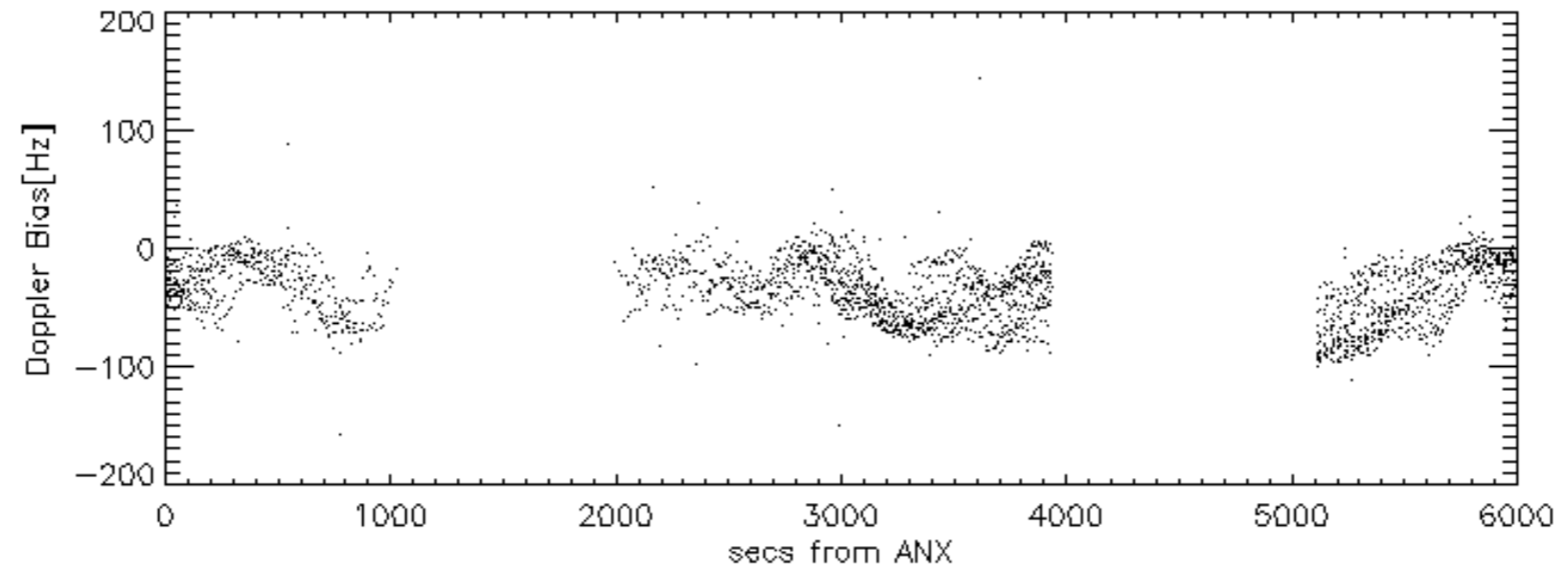
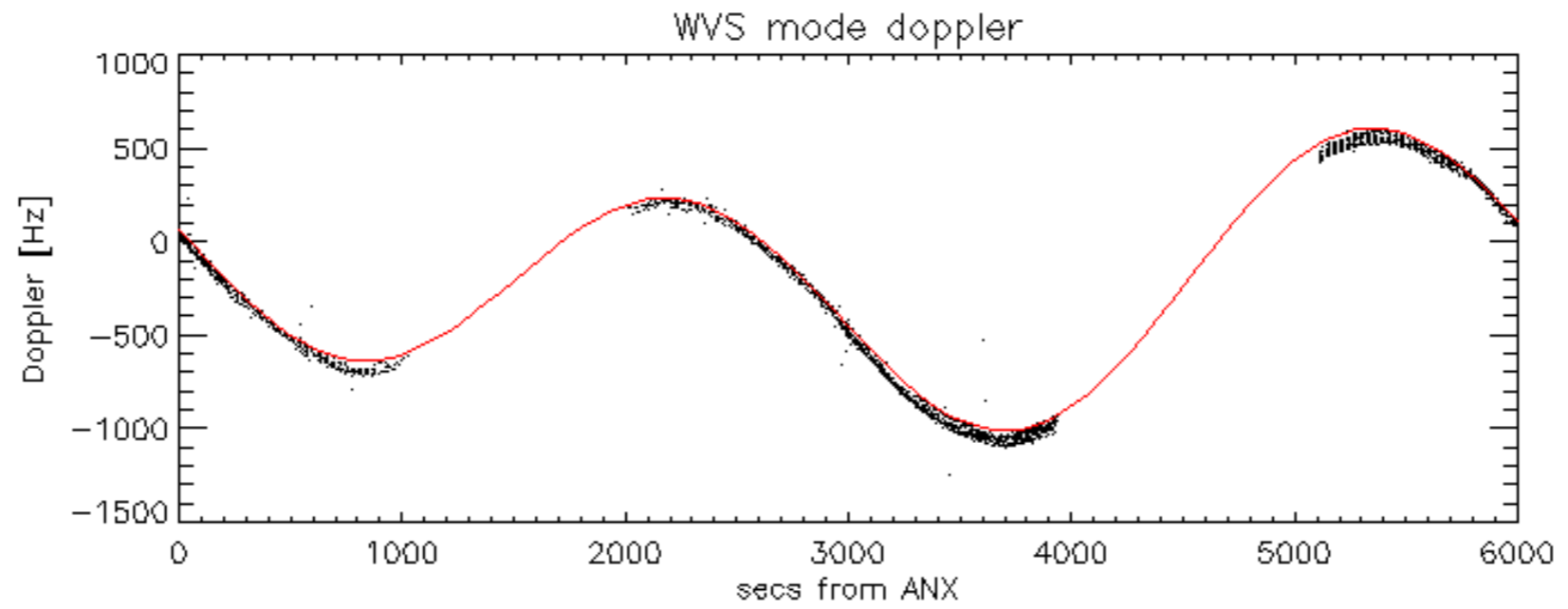


Doppler 'WVS' 'IS2' descending

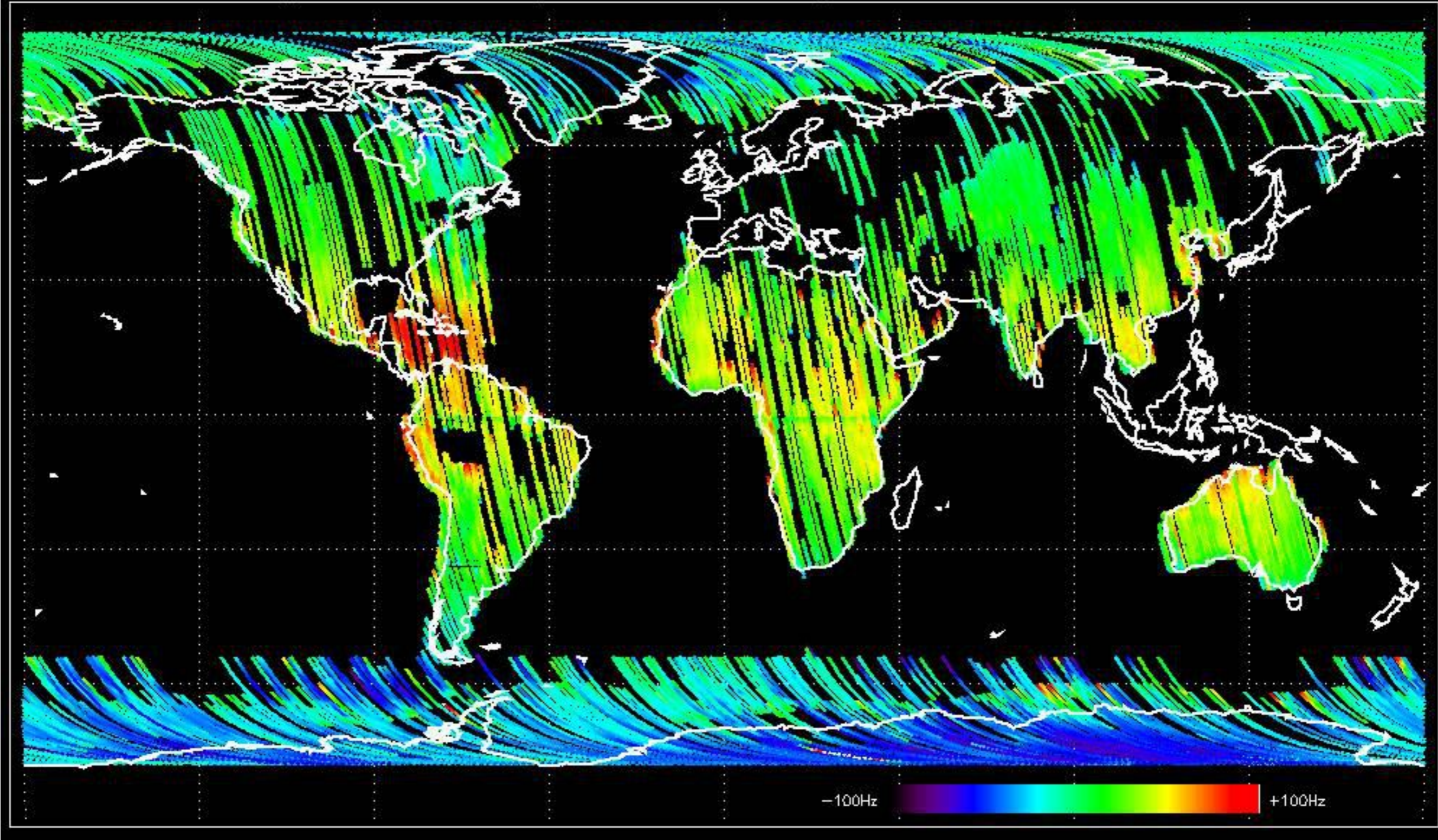


GM1 mode doppler

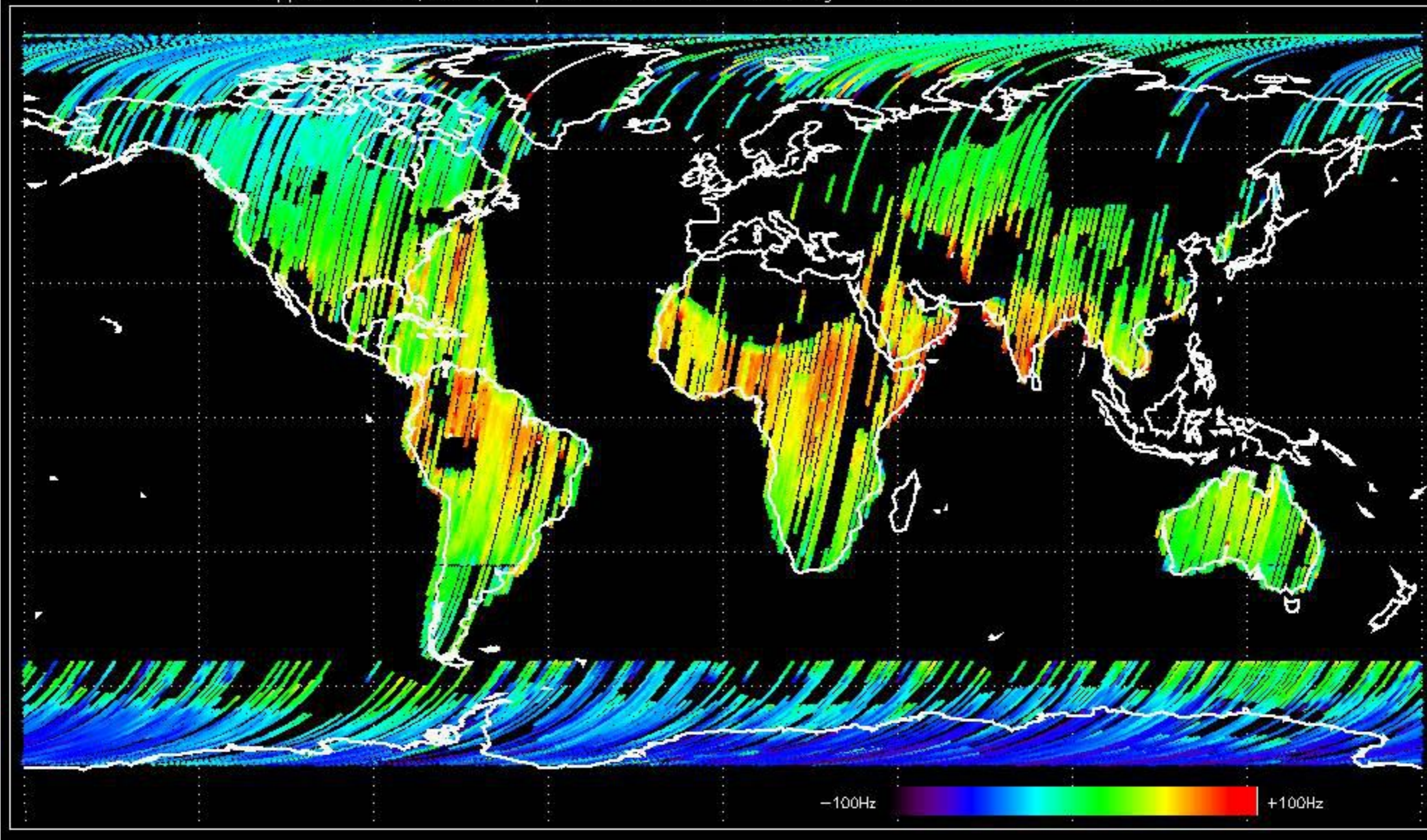




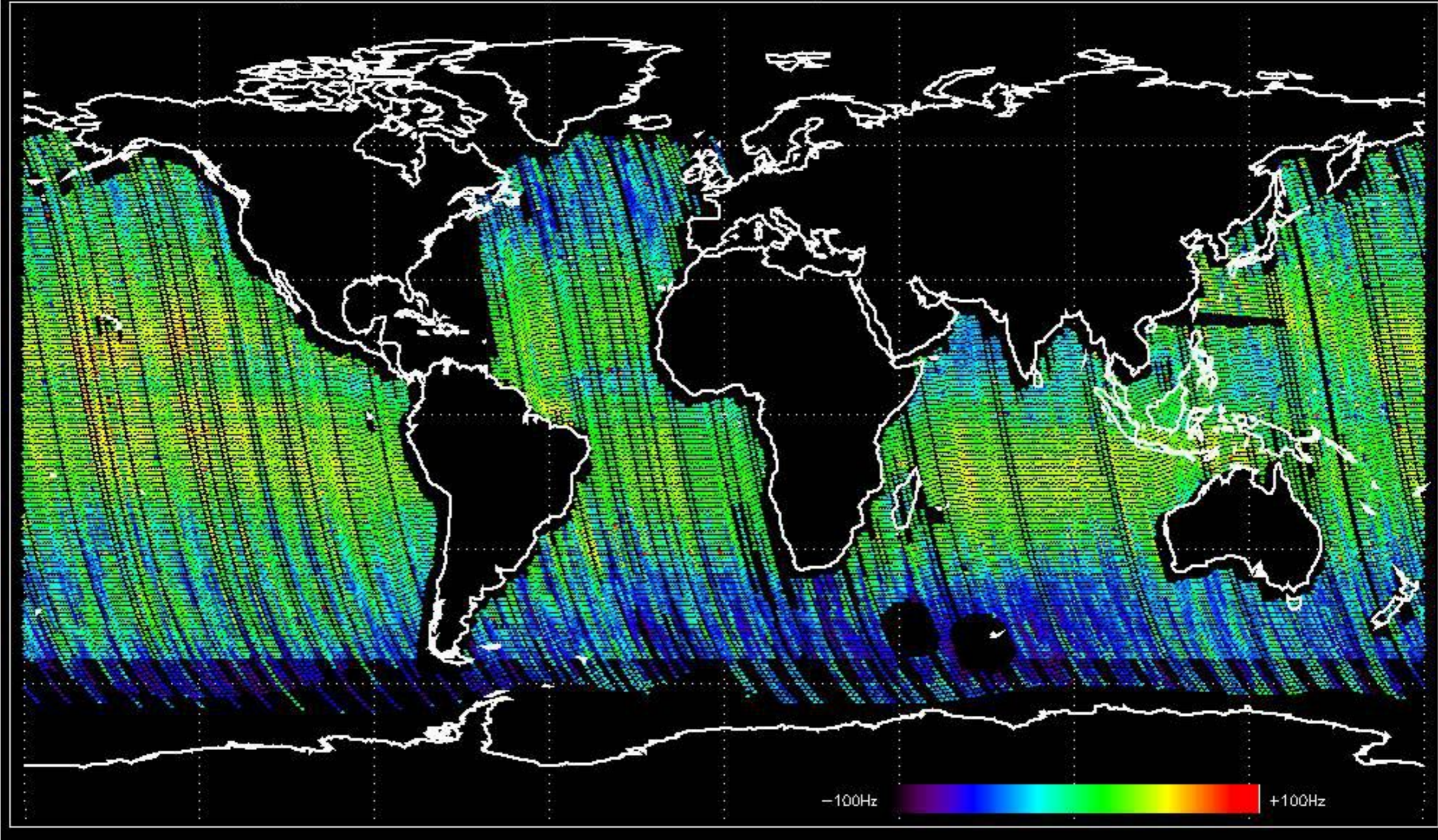
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -35.024952 Hz



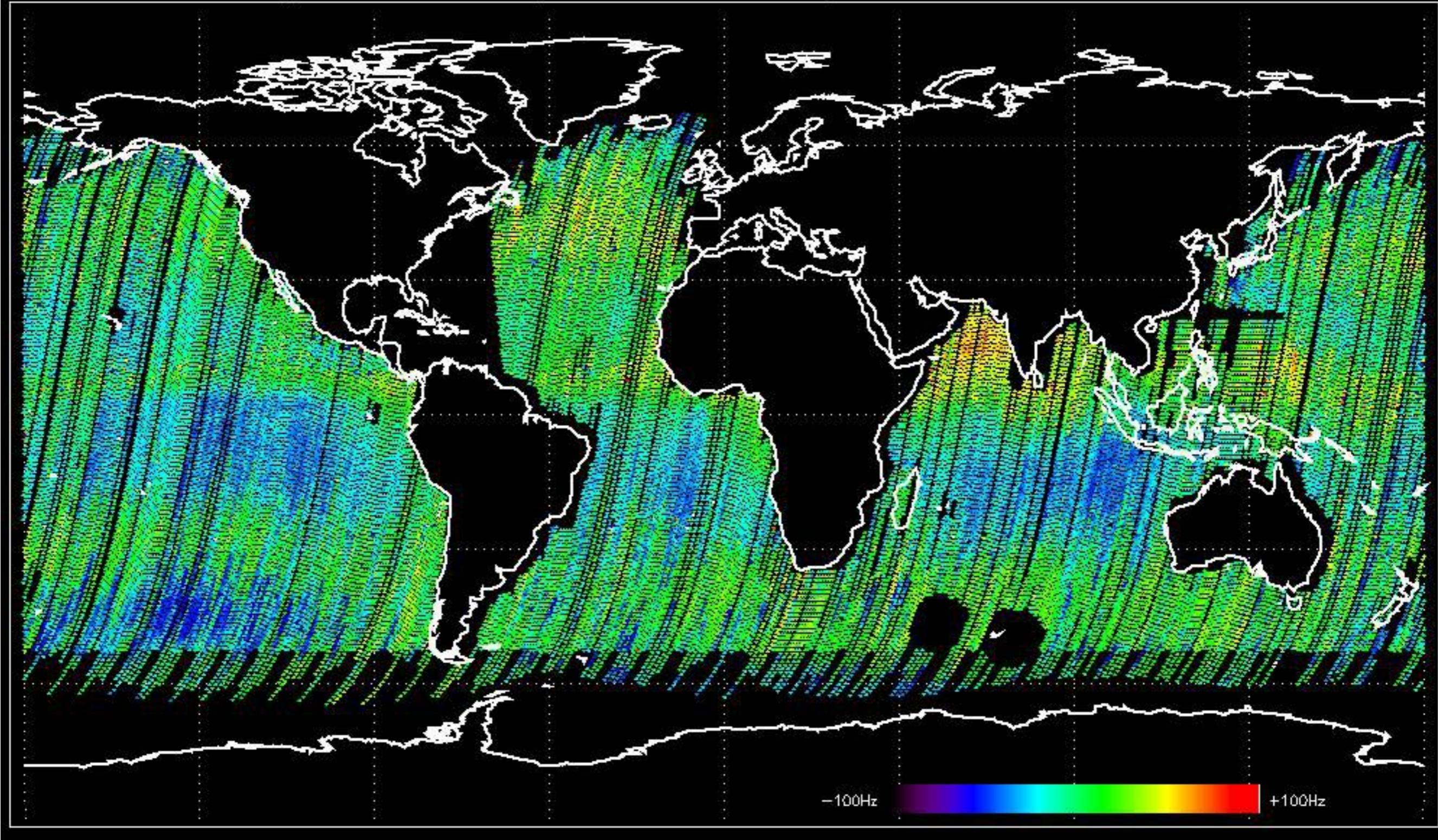
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -23.161658 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -29.533258 Hz

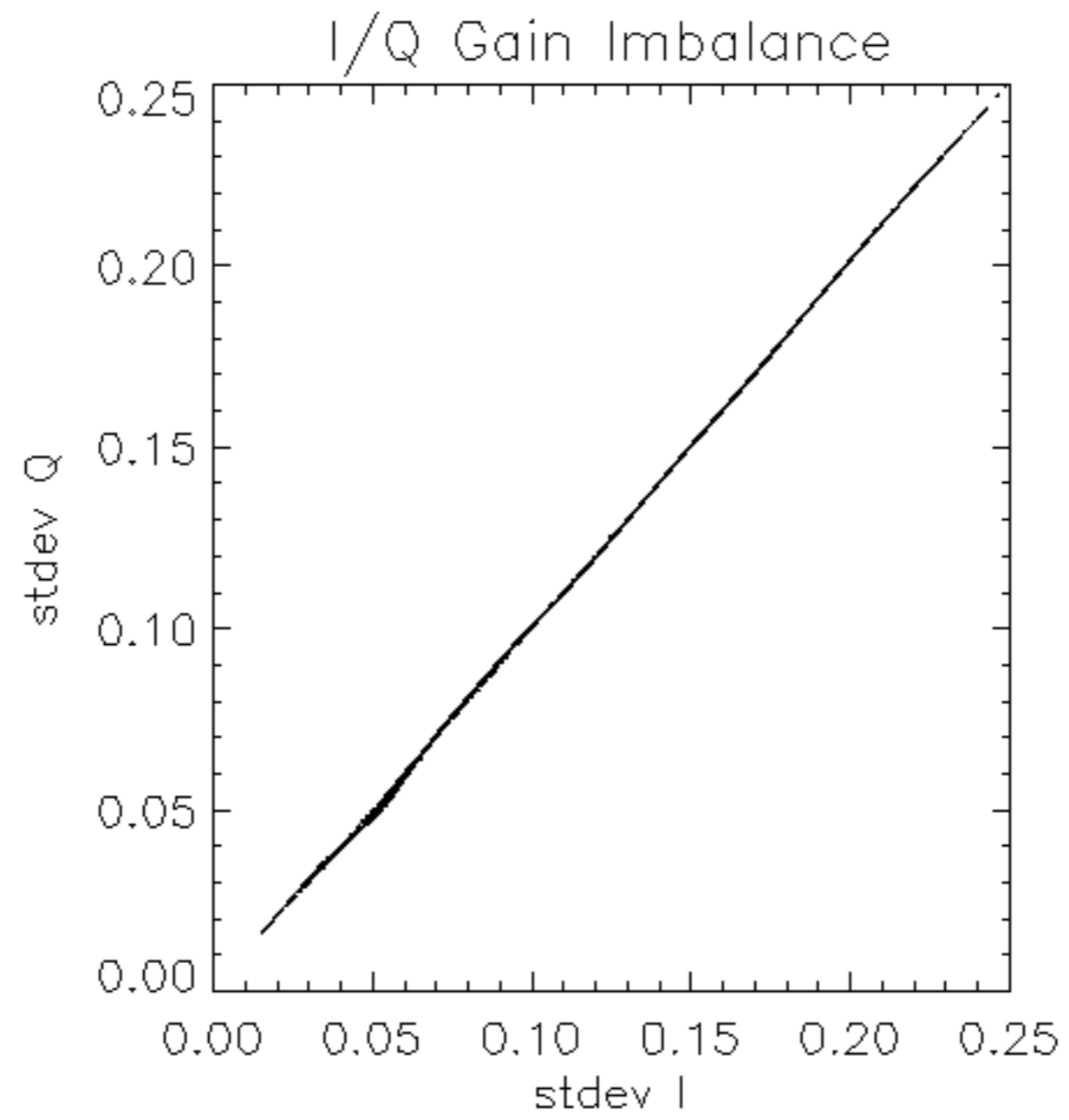


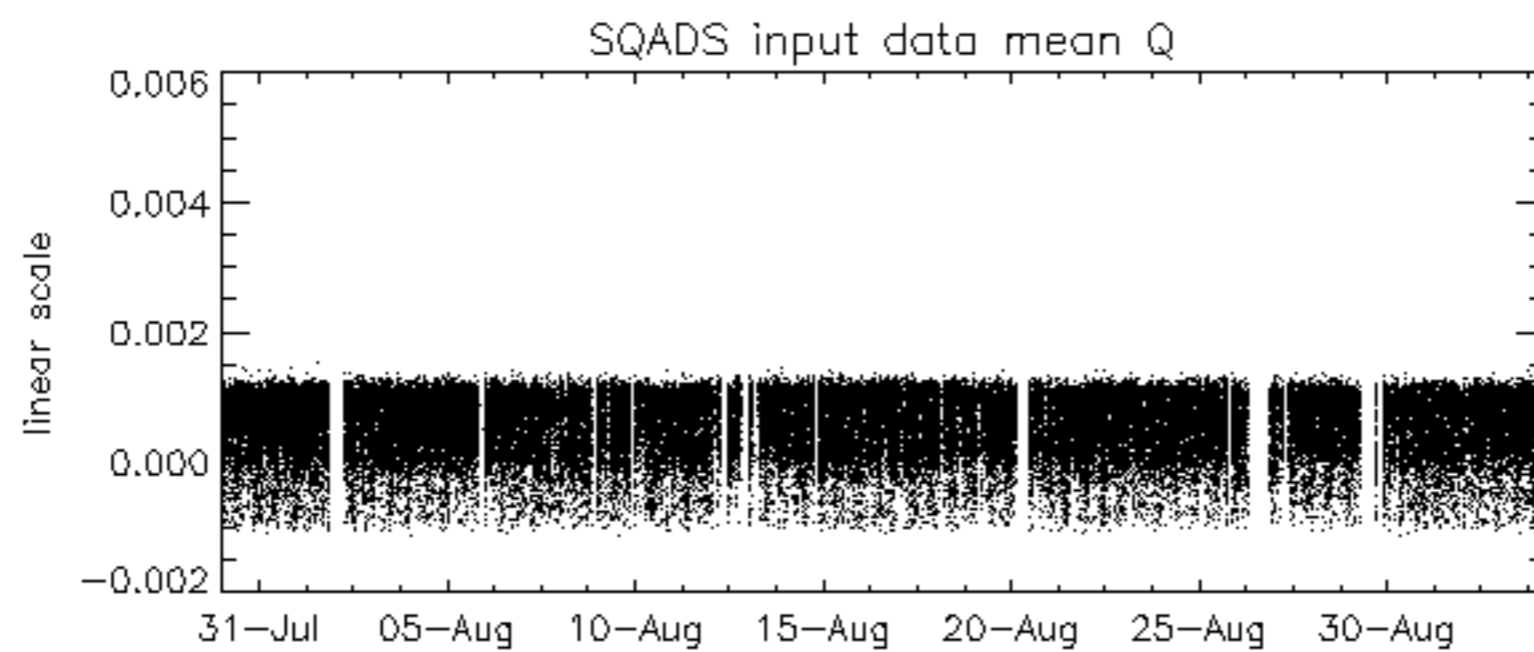
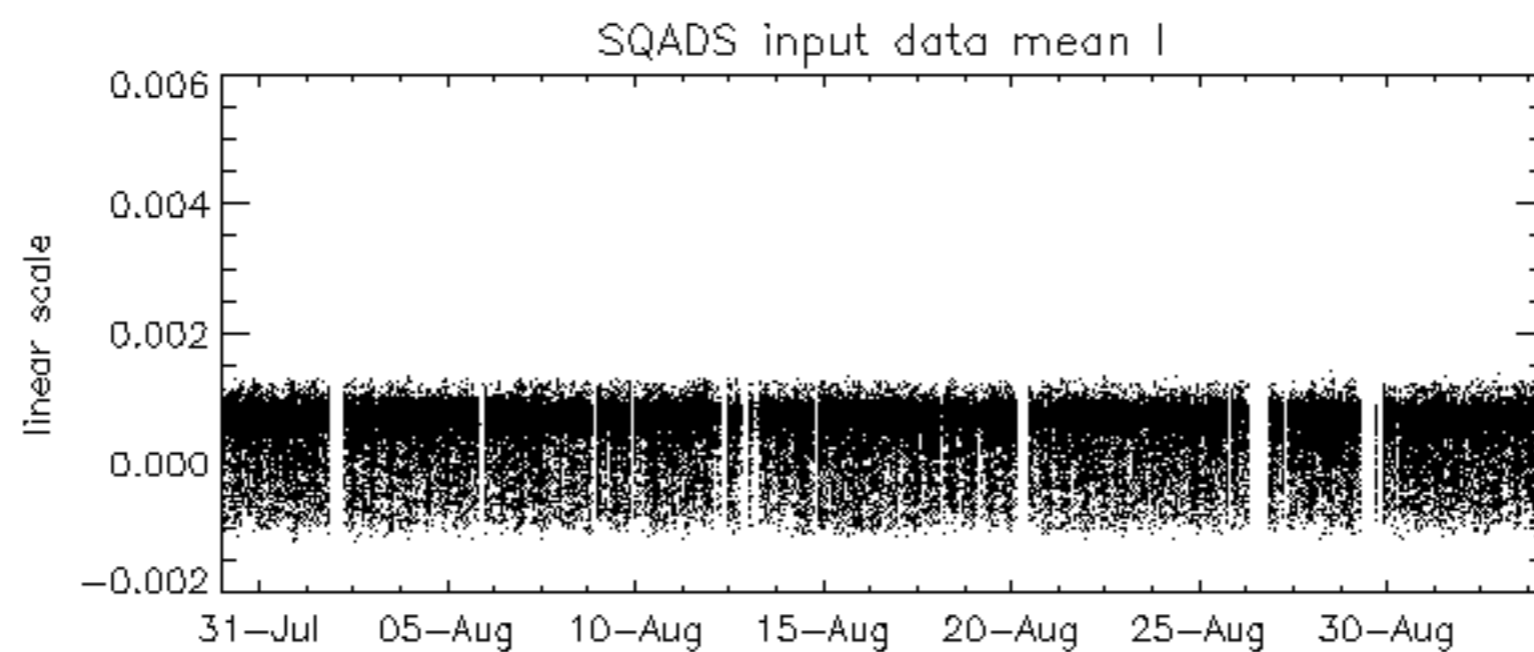
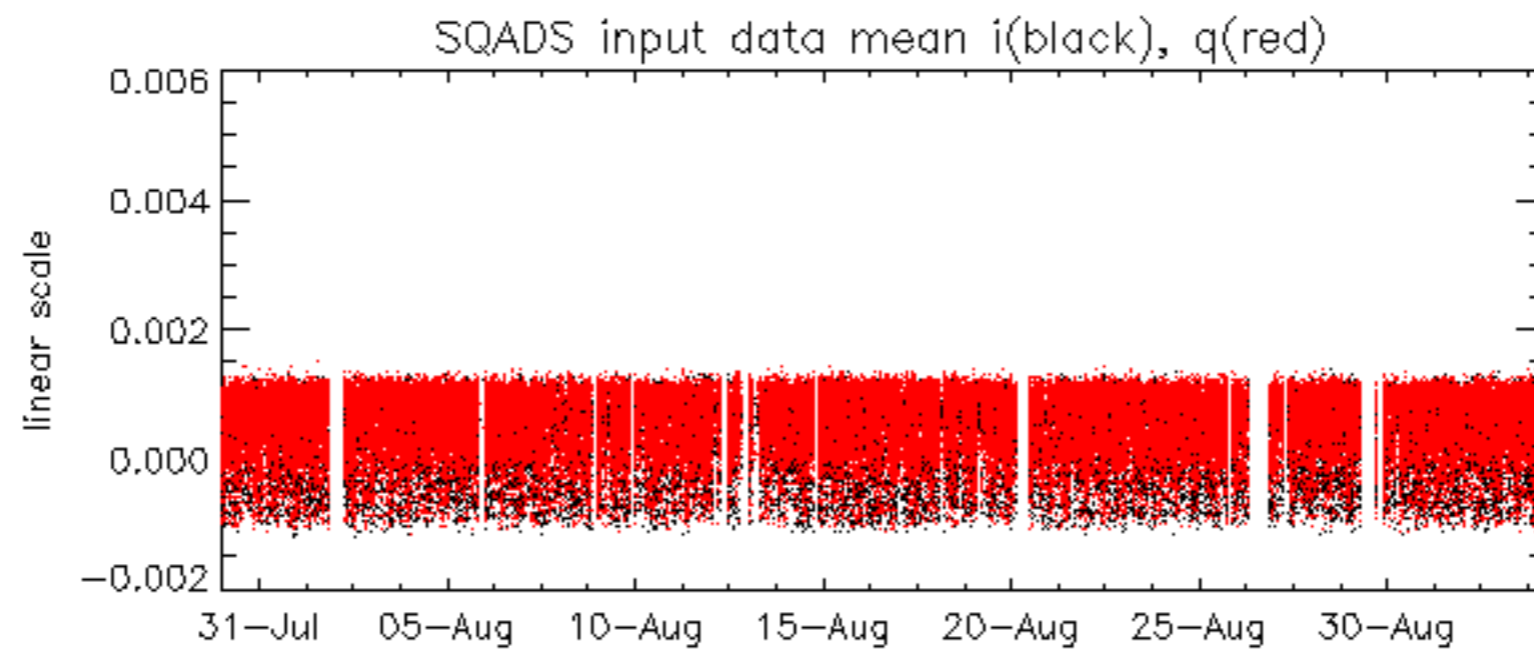
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.619216 Hz

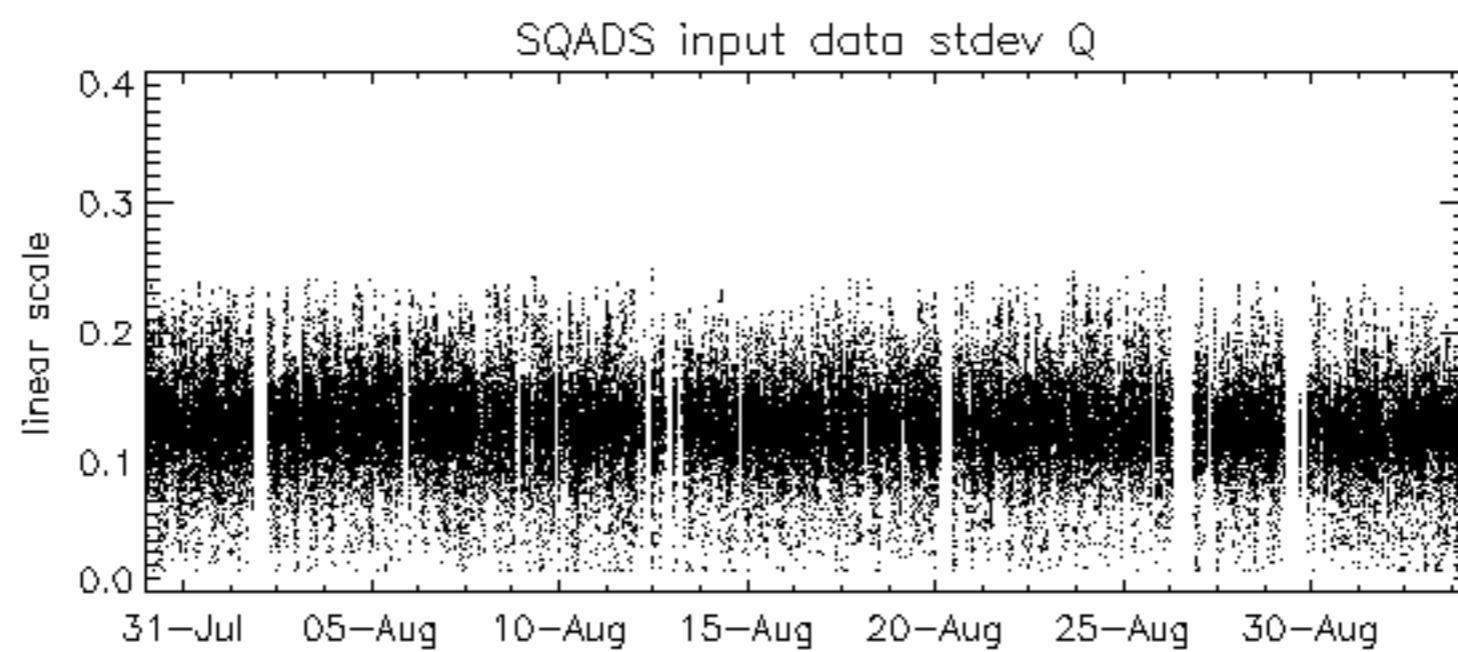
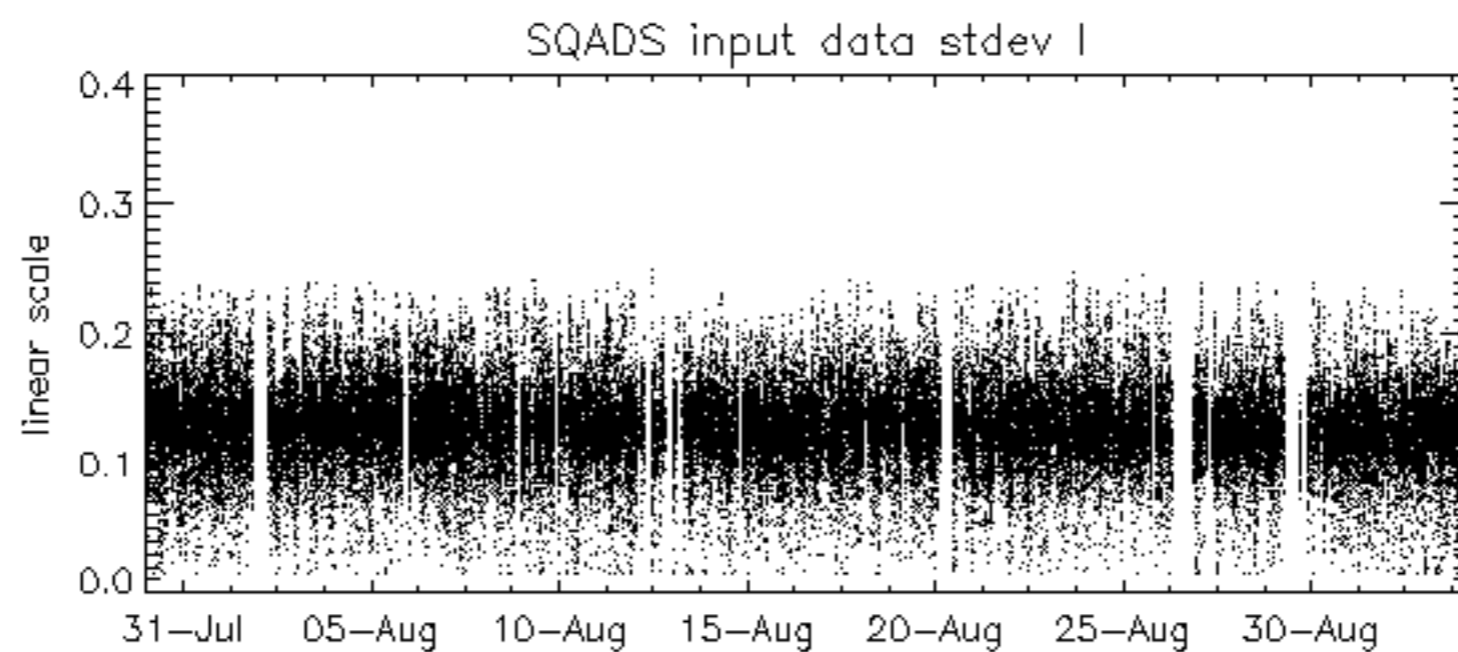
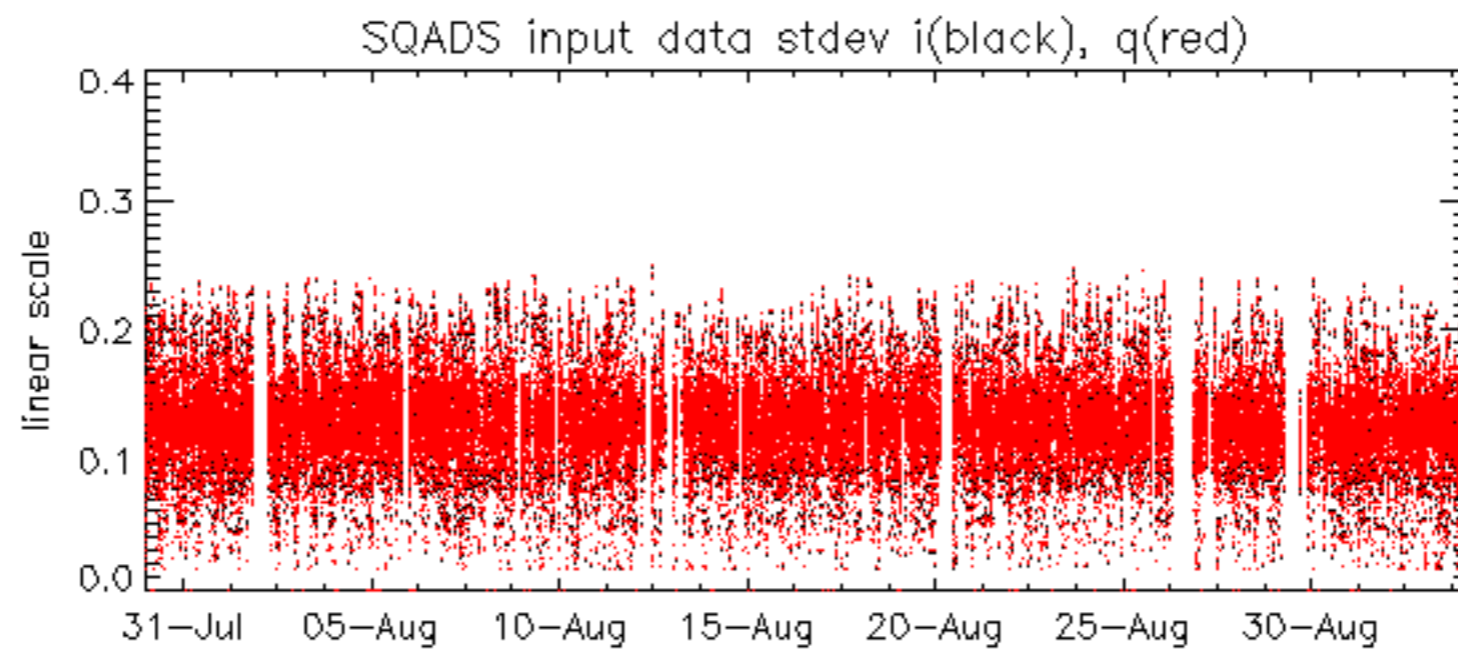


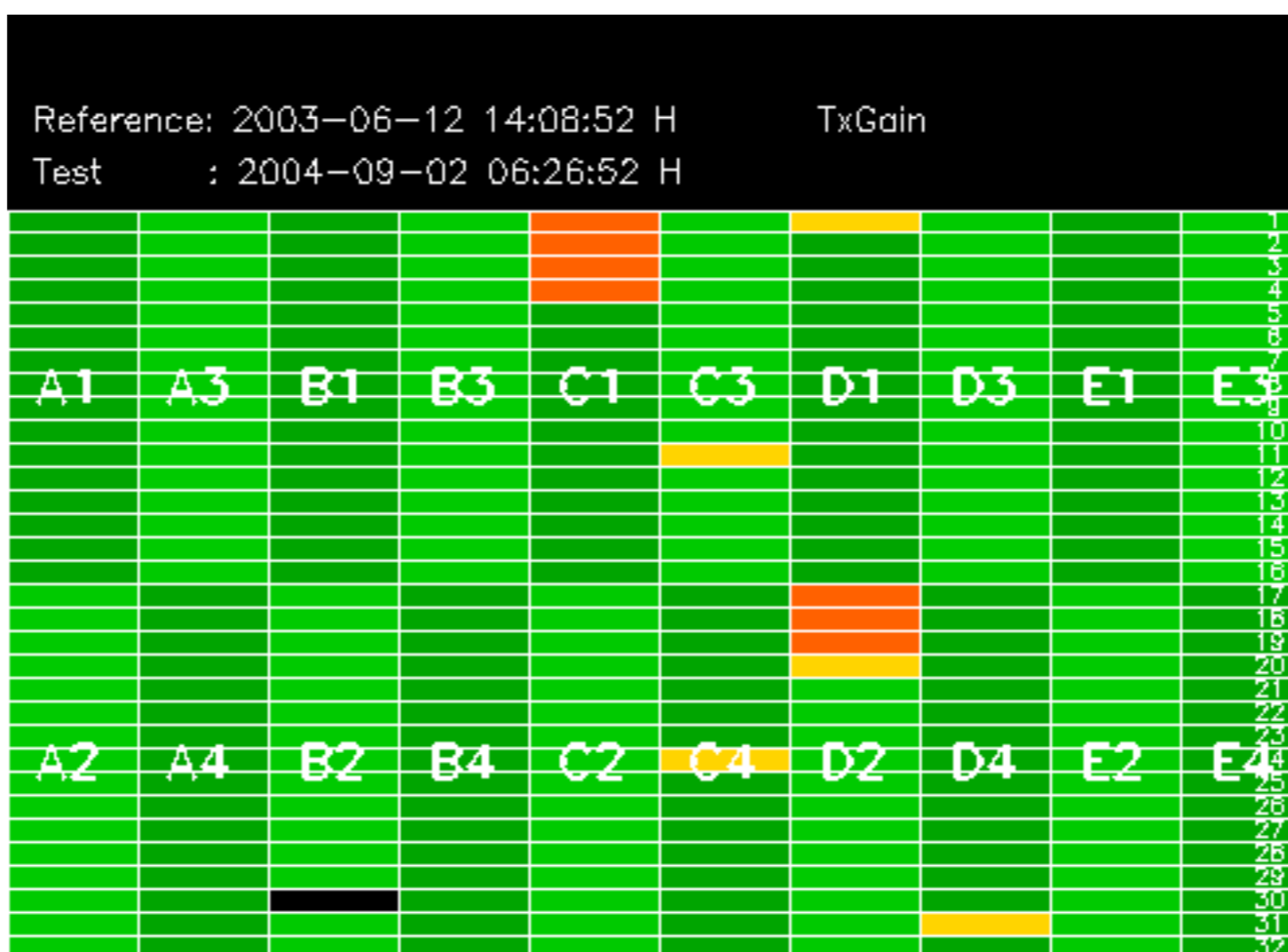
The MS mode provides an internal health check on an individual module basis.
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No anomalies observed on available MS products:

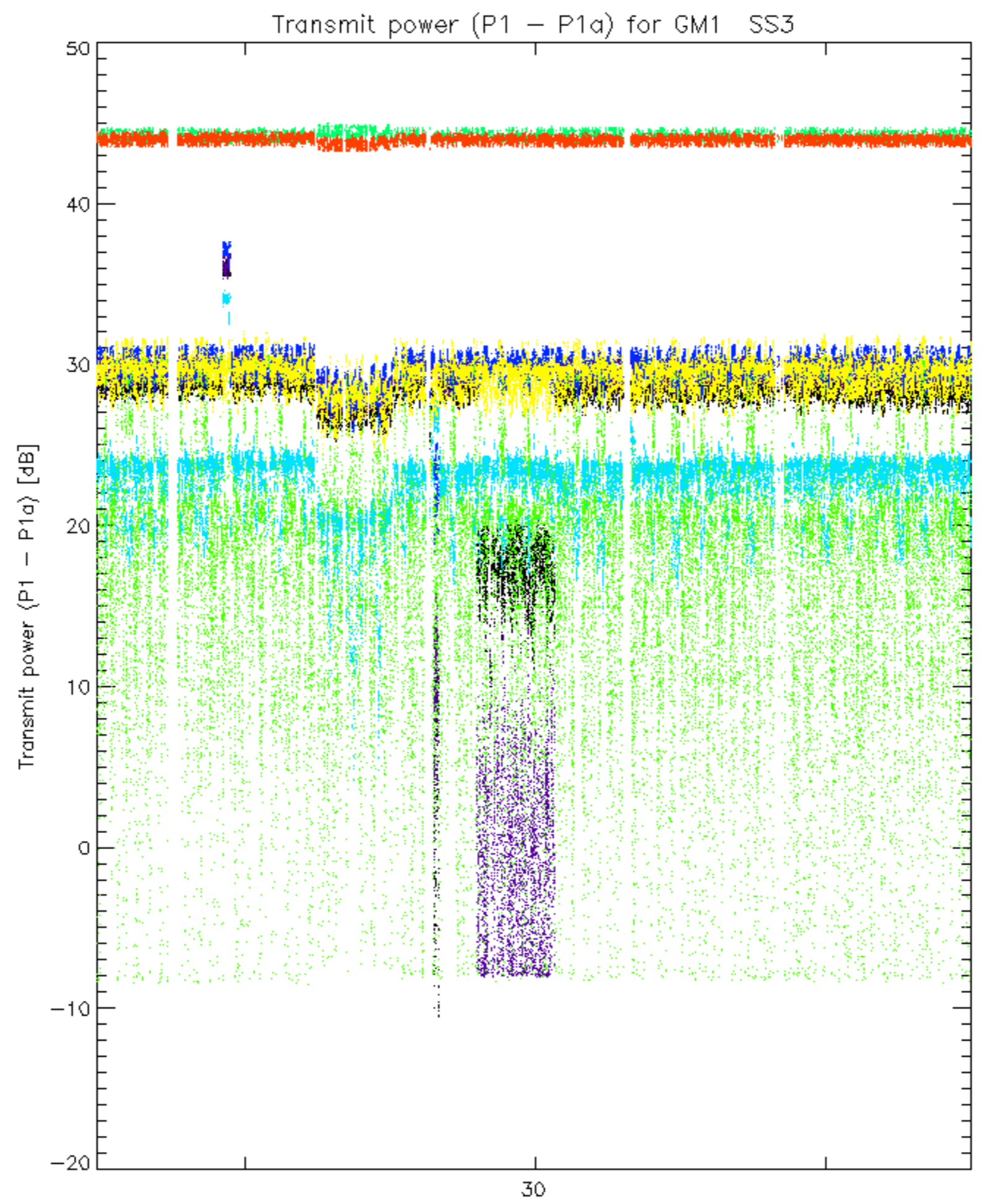
No anomalies observed.



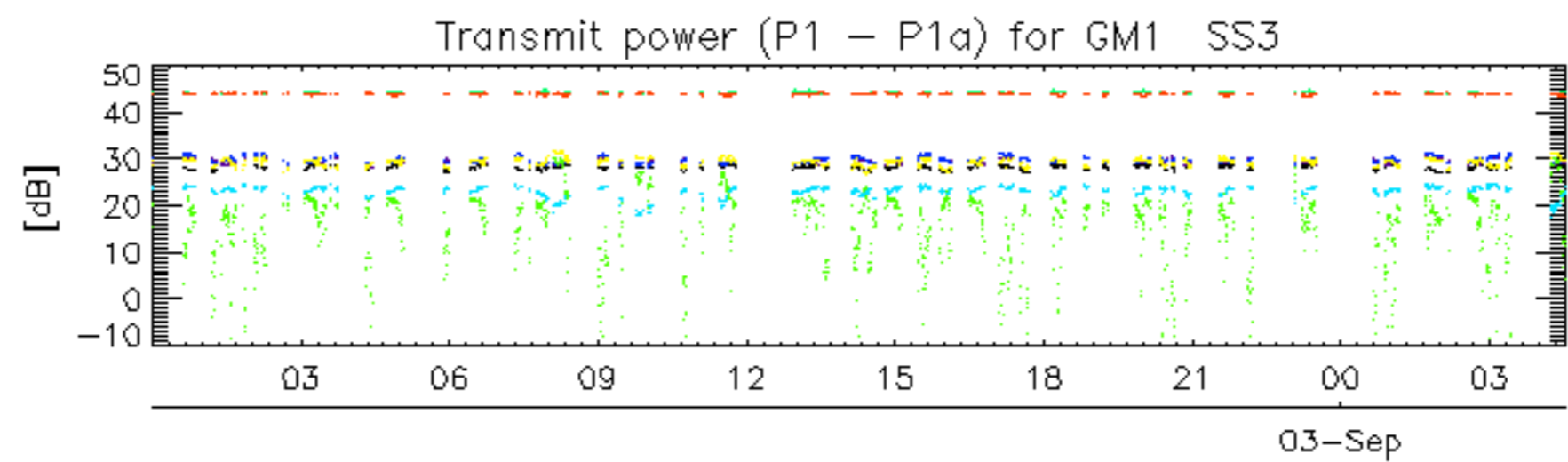




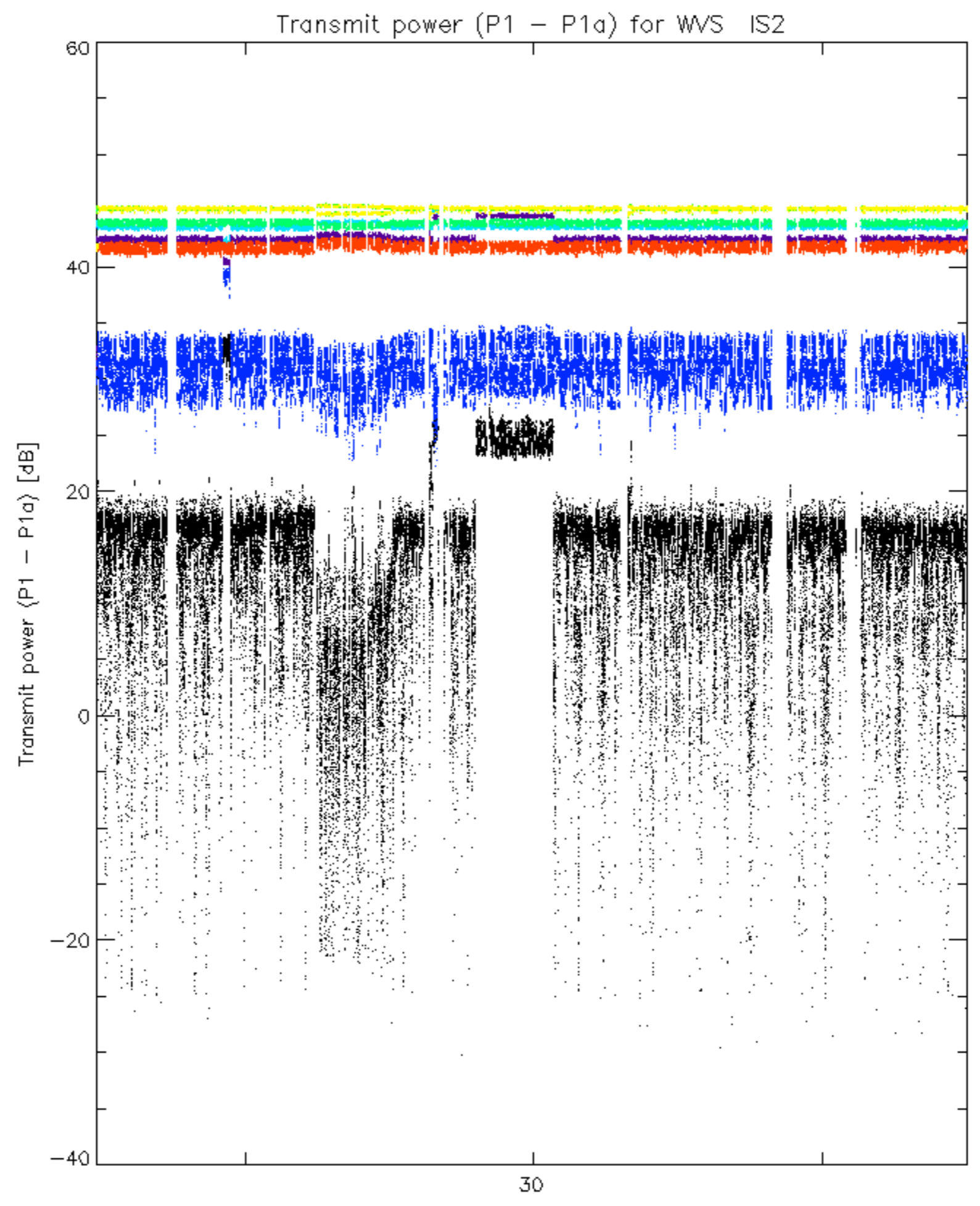




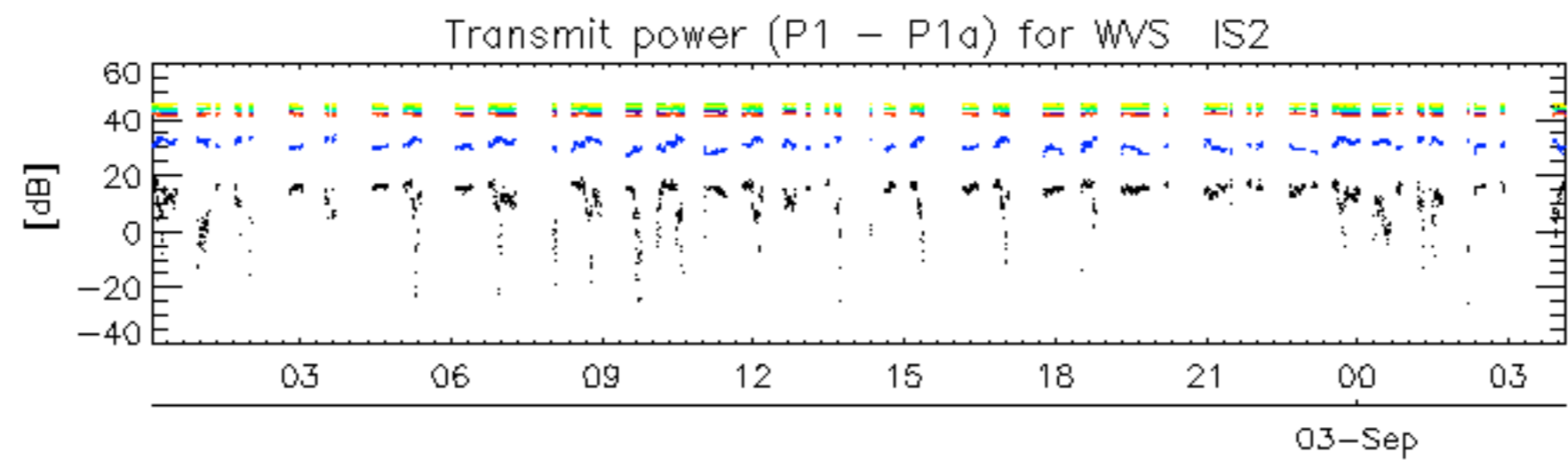
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rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30



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



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

No unavailabilities during the reported period.