

PRELIMINARY REPORT OF 040802

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

last update on Mon Aug 2 08:07:49 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

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	20040801 095351
H	20040731 084452

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	-3.475944	0.005256	0.019826
7	P1	-3.318624	0.012913	0.017905
11	P1	-4.603487	0.029904	-0.019002
15	P1	-5.723491	0.055710	-0.004943
19	P1	-3.447368	0.004346	-0.013827
22	P1	-4.562755	0.010901	-0.015085
24	P1	-4.949382	0.016790	-0.004227
30	P1	-6.891488	0.025946	-0.039156

3	P1	-16.191784	0.119890	0.011189
7	P1	-13.963661	0.077086	0.009198
11	P1	-20.042309	0.252258	-0.163579
15	P1	-11.789668	0.041226	0.027284
19	P1	-13.843511	0.032843	-0.036544
22	P1	-16.325066	0.343351	-0.021774
24	P1	-14.599563	0.267974	0.001469
30	P1	-17.670254	0.417399	0.004973

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.334997	0.079085	0.062218
7	P2	-22.717514	0.115523	0.083535
11	P2	-15.461771	0.137408	0.104148
15	P2	-7.109407	0.087973	0.058604
19	P2	-9.560080	0.146587	0.046351
22	P2	-17.419315	0.101997	0.123782
24	P2	-20.763187	0.082981	0.021886
30	P2	-19.358141	0.077870	0.110207

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.142993	0.001905	-0.003680
7	P3	-8.142993	0.001905	-0.003694
11	P3	-8.142989	0.001905	-0.003717
15	P3	-8.142982	0.001906	-0.003738
19	P3	-8.142986	0.001906	-0.003738
22	P3	-8.142989	0.001906	-0.003731
24	P3	-8.142991	0.001905	-0.003713
30	P3	-8.143169	0.001902	-0.003577

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1	
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⊗	

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	-2.954799	0.108497	0.461172
7	P1	-2.934842	0.122486	-0.252930
11	P1	-3.834003	0.028829	0.025497
15	P1	-3.879792	0.662321	1.161371
19	P1	-3.417426	0.039921	-0.187196
22	P1	-5.692182	0.050780	0.152825
24	P1	-3.945036	0.063844	0.293638
30	P1	-6.161699	0.078999	-0.106245
3	P1	-10.767364	0.328071	0.651396
7	P1	-9.966467	0.278853	-0.453491
11	P1	-11.945320	0.215069	-0.320825
15	P1	-11.752105	0.255782	0.453061
19	P1	-15.309320	0.569131	-0.964628
22	P1	-22.297283	5.444293	-3.052066
24	P1	-17.503731	0.312174	-0.549482
30	P1	-20.916430	3.416079	1.950119

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.036884	0.079503	0.156475
7	P2	-22.826948	0.238999	0.090469
11	P2	-10.982358	0.188544	-0.245624
15	P2	-4.951785	0.042758	-0.024689
19	P2	-6.844523	0.055900	0.174786
22	P2	-7.532125	0.099708	0.165244
24	P2	-11.026088	0.148413	-0.068105
30	P2	-22.269529	0.125527	0.036939

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.983419	0.003618	-0.013448
7	P3	-7.983423	0.003616	-0.013512
11	P3	-7.983424	0.003619	-0.013555
15	P3	-7.983307	0.003625	-0.013435
19	P3	-7.983300	0.003626	-0.013919
22	P3	-7.983419	0.003604	-0.013893
24	P3	-7.983279	0.003638	-0.013706
30	P3	-7.983400	0.003614	-0.013688

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	0.000488172
	stdev	2.17109e-07
MEAN Q	mean	0.000526539
	stdev	2.49649e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128704
	stdev	0.00106105

STDEV Q	mean	0.128955
	stdev	0.00107277





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)	
	
	Acsending
	
	Descending

6.2 - Absolute Doppler for WVS

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

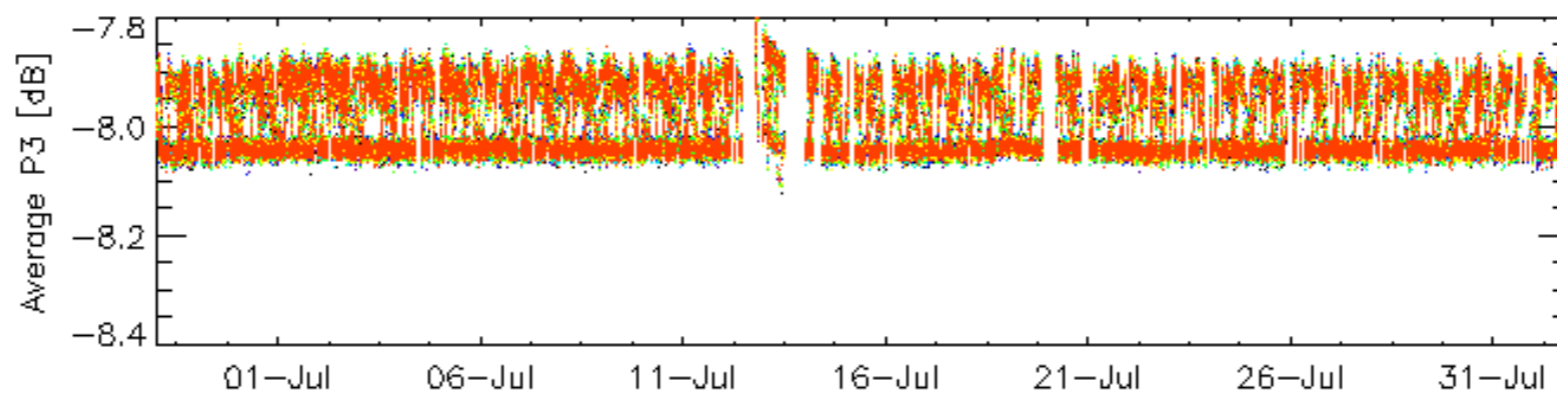
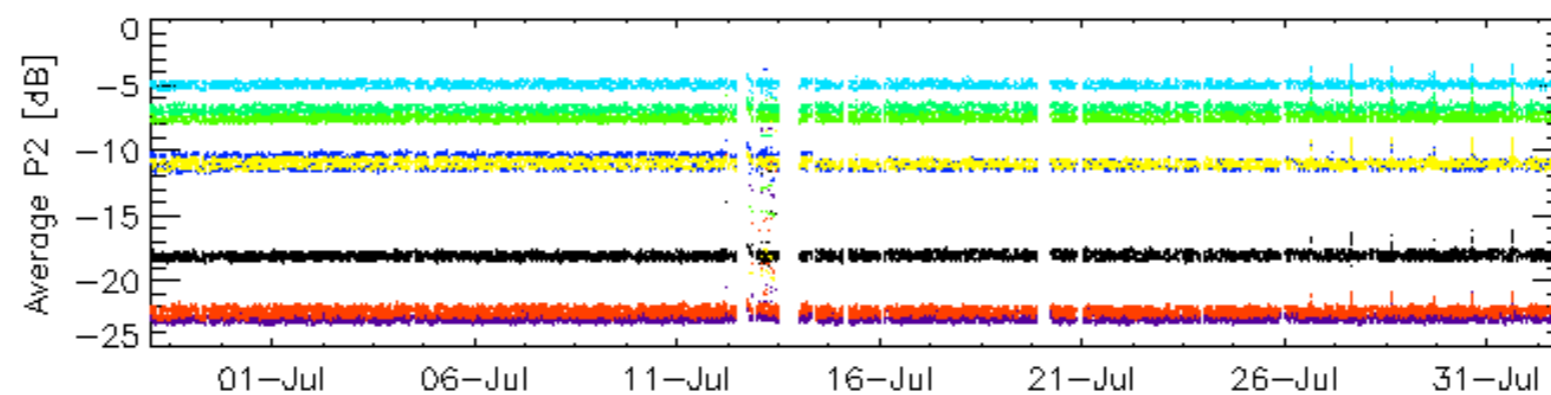
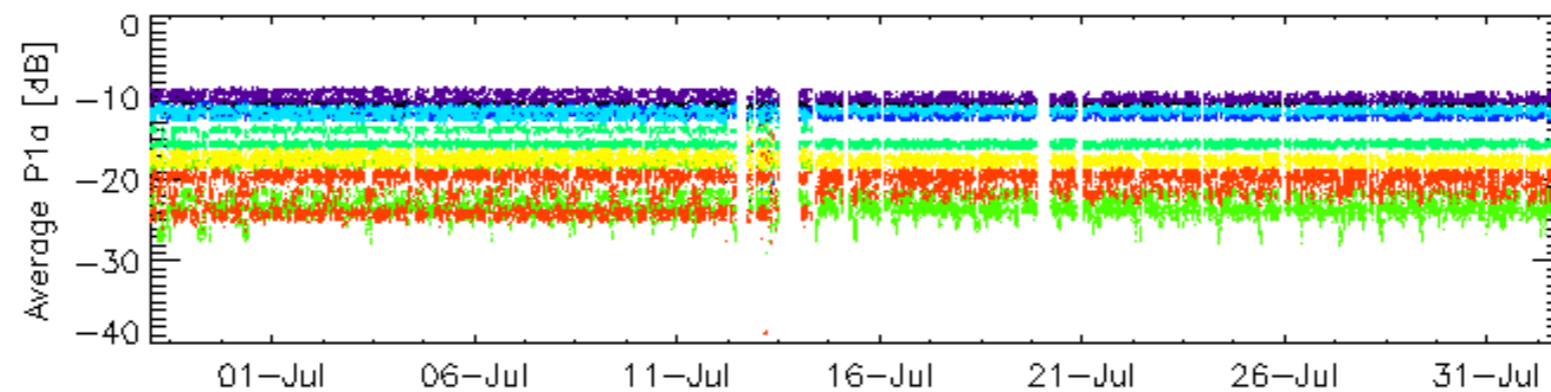
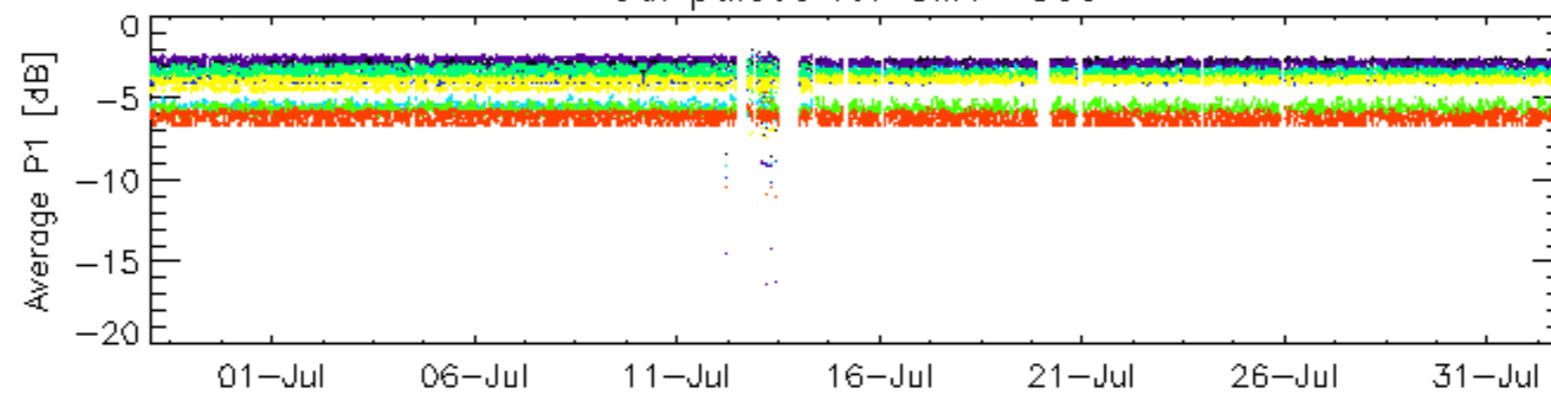
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

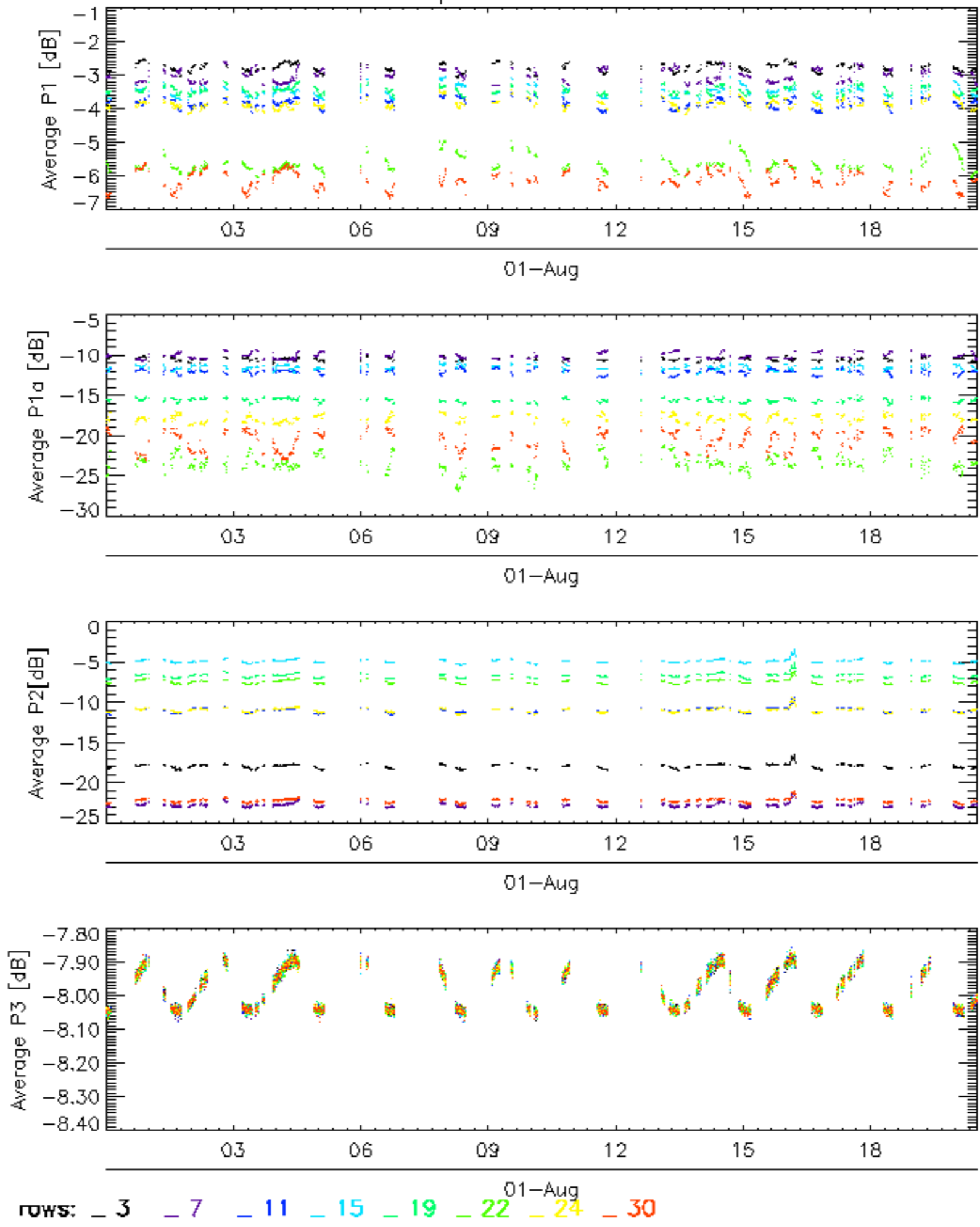
Evolution Doppler error versus ANX	
<input type="checkbox"/>	

Cal pulses for GM1 SS3

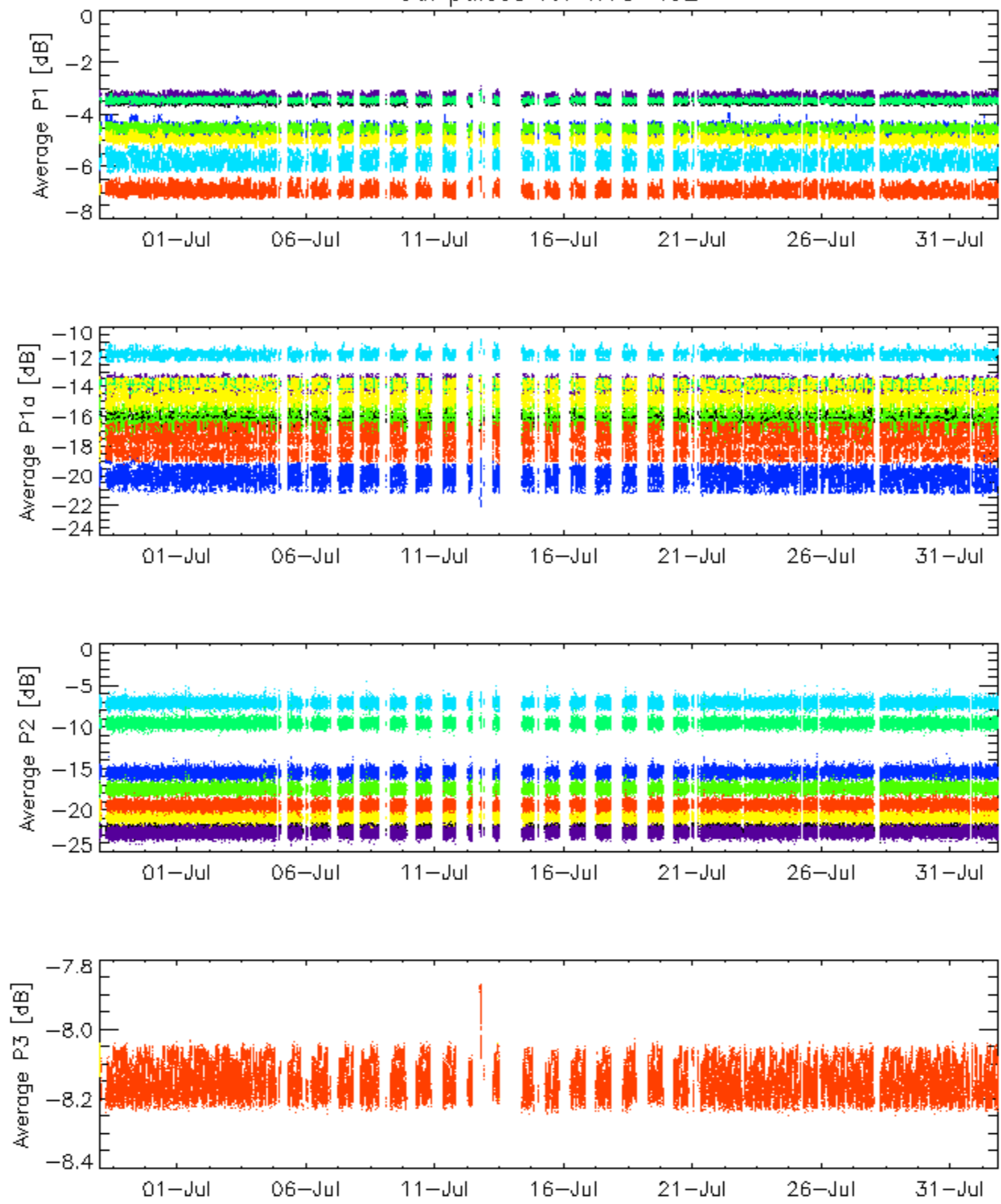


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

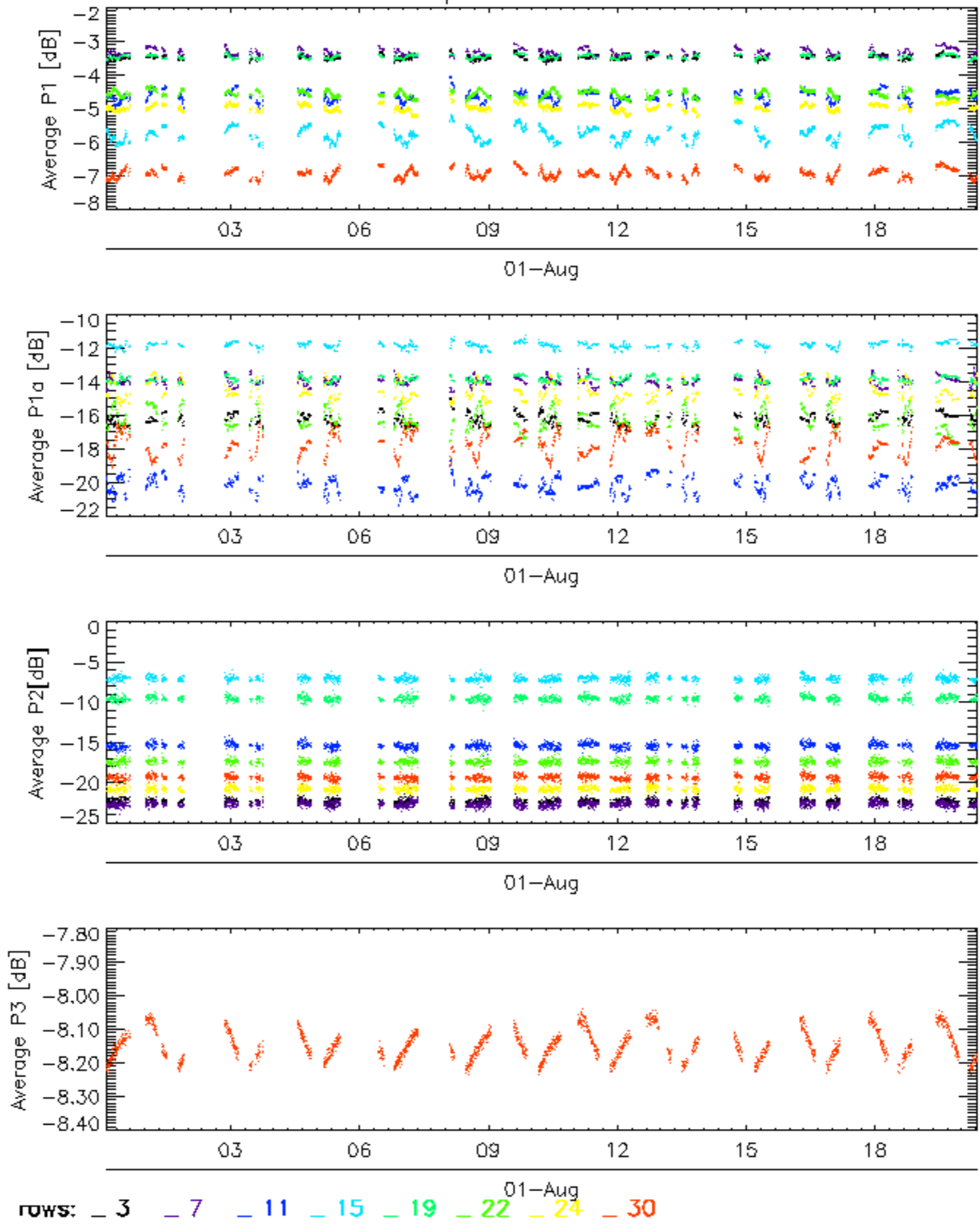
Cal pulses for GM1 SS3



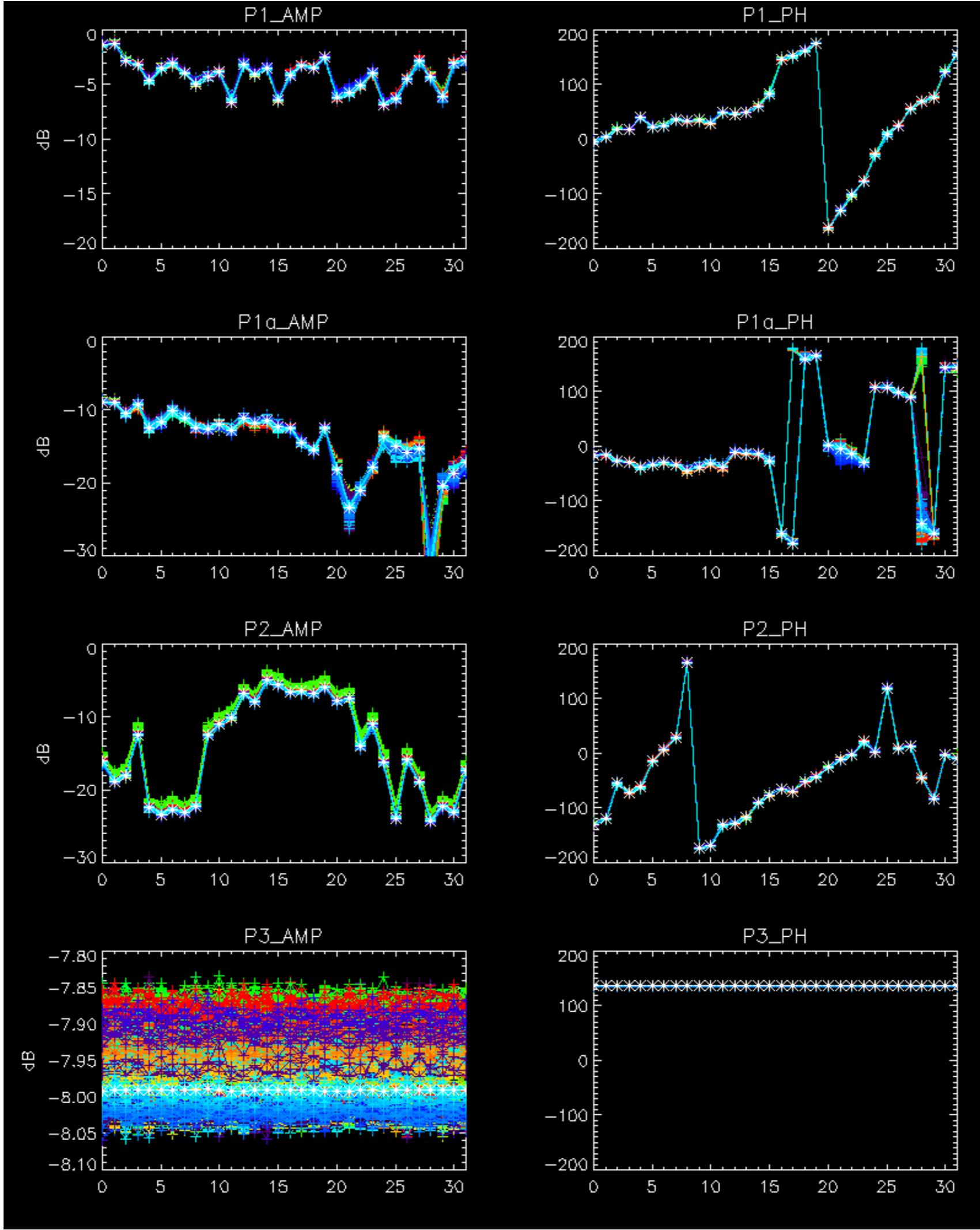
Cal pulses for WVS IS2

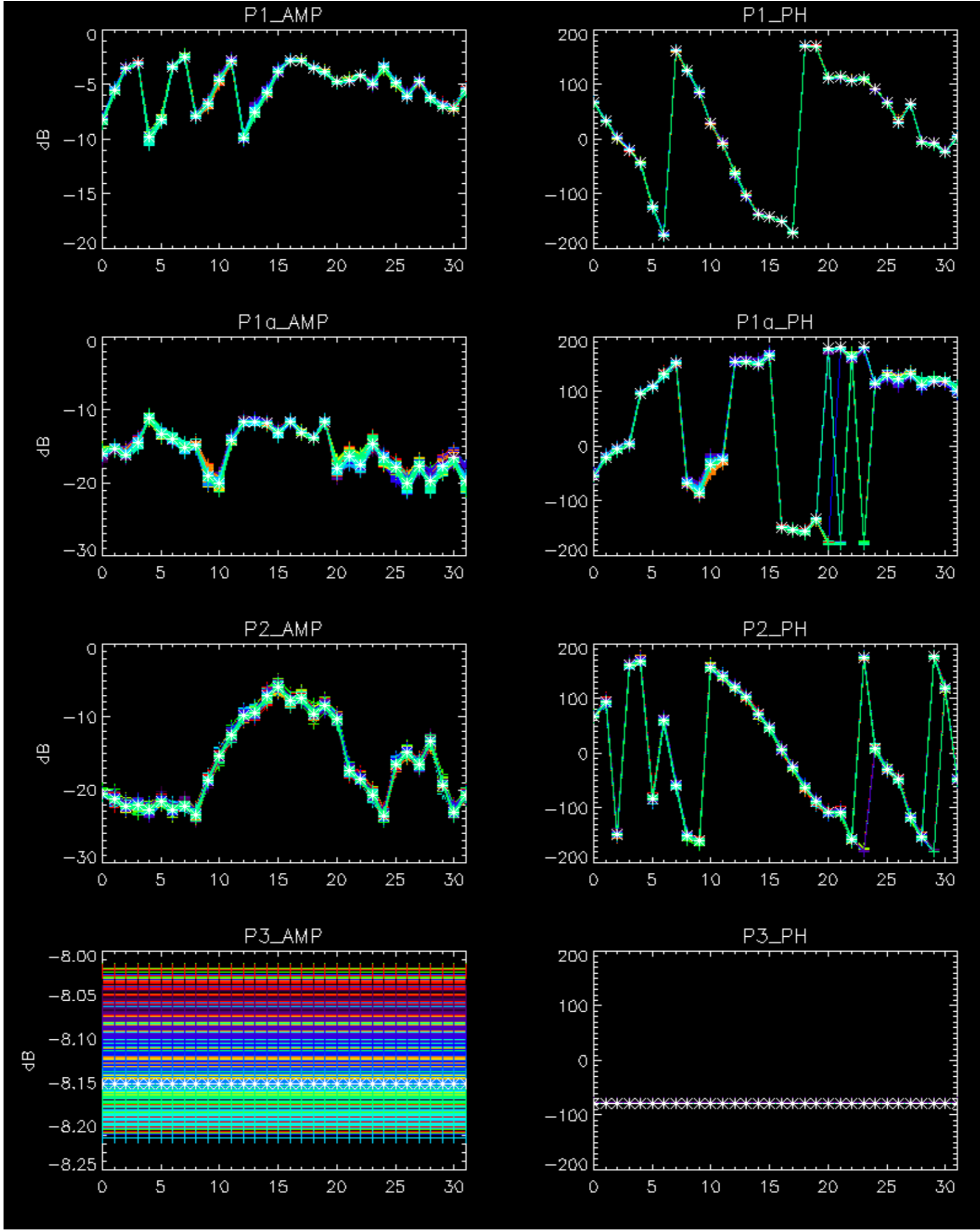


Cal pulses for WVS IS2



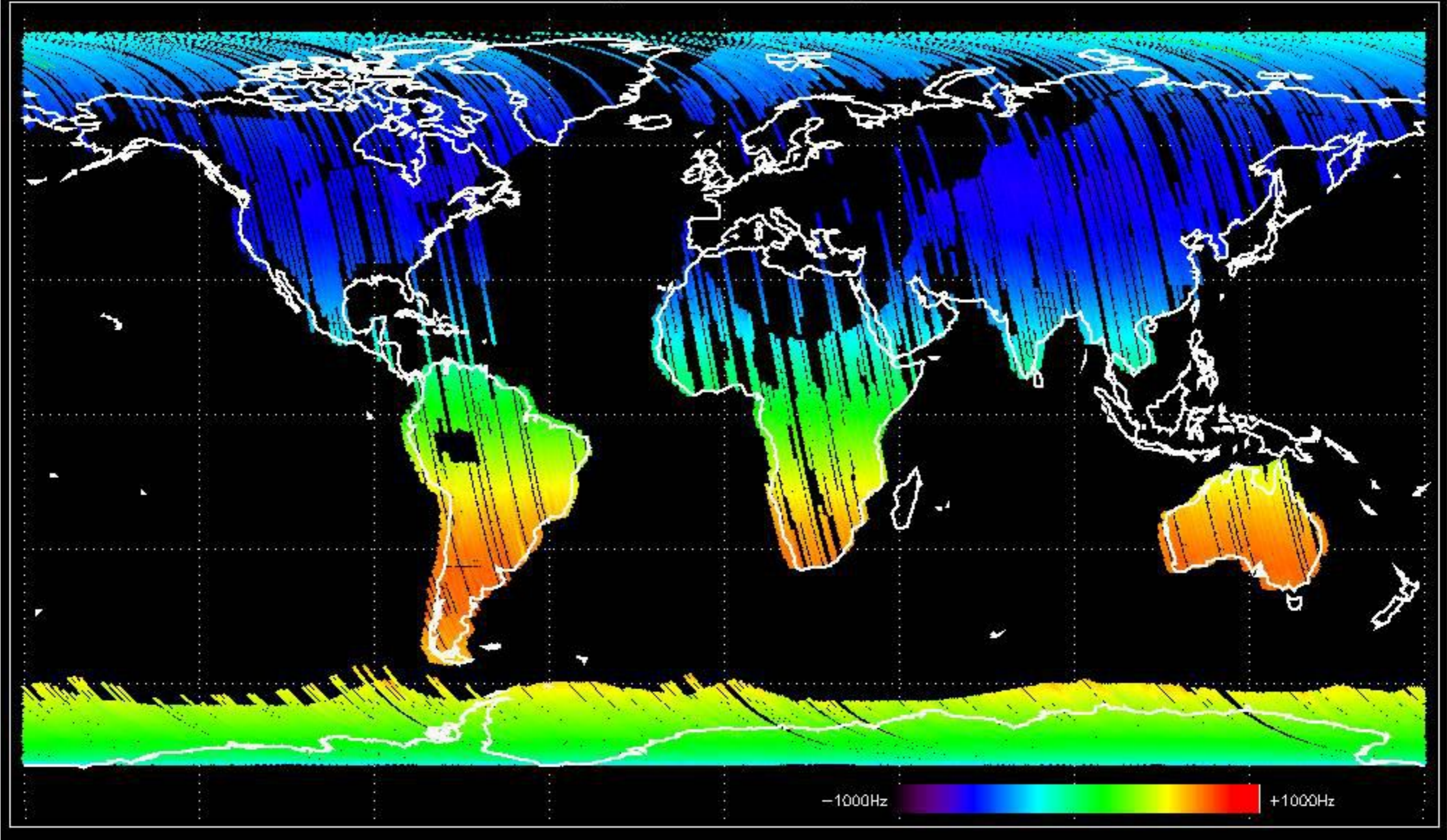
No anomalies observed.



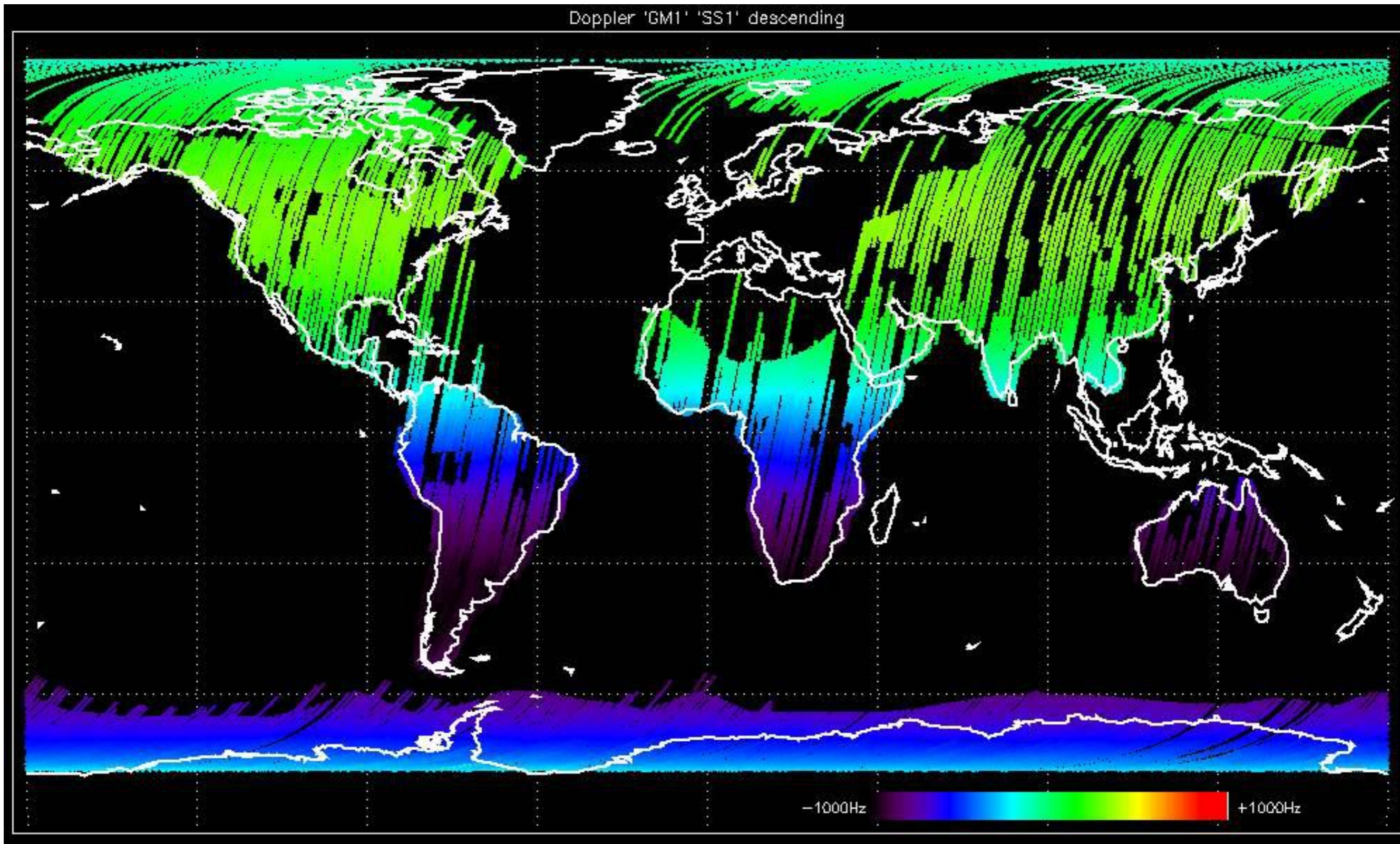


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

Doppler 'GM1' 'SS1' ascending

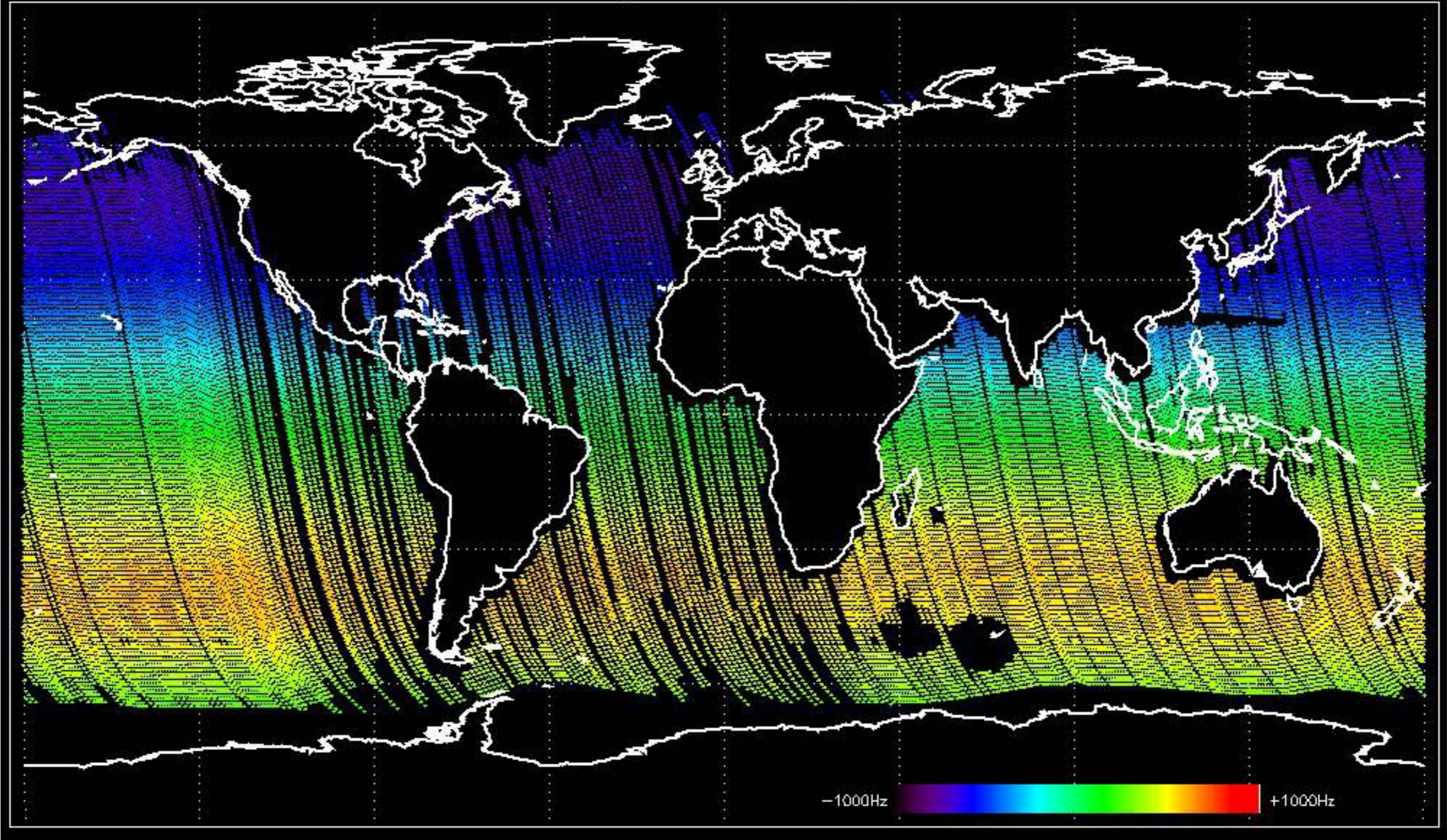


Doppler 'GM1' 'SS1' descending

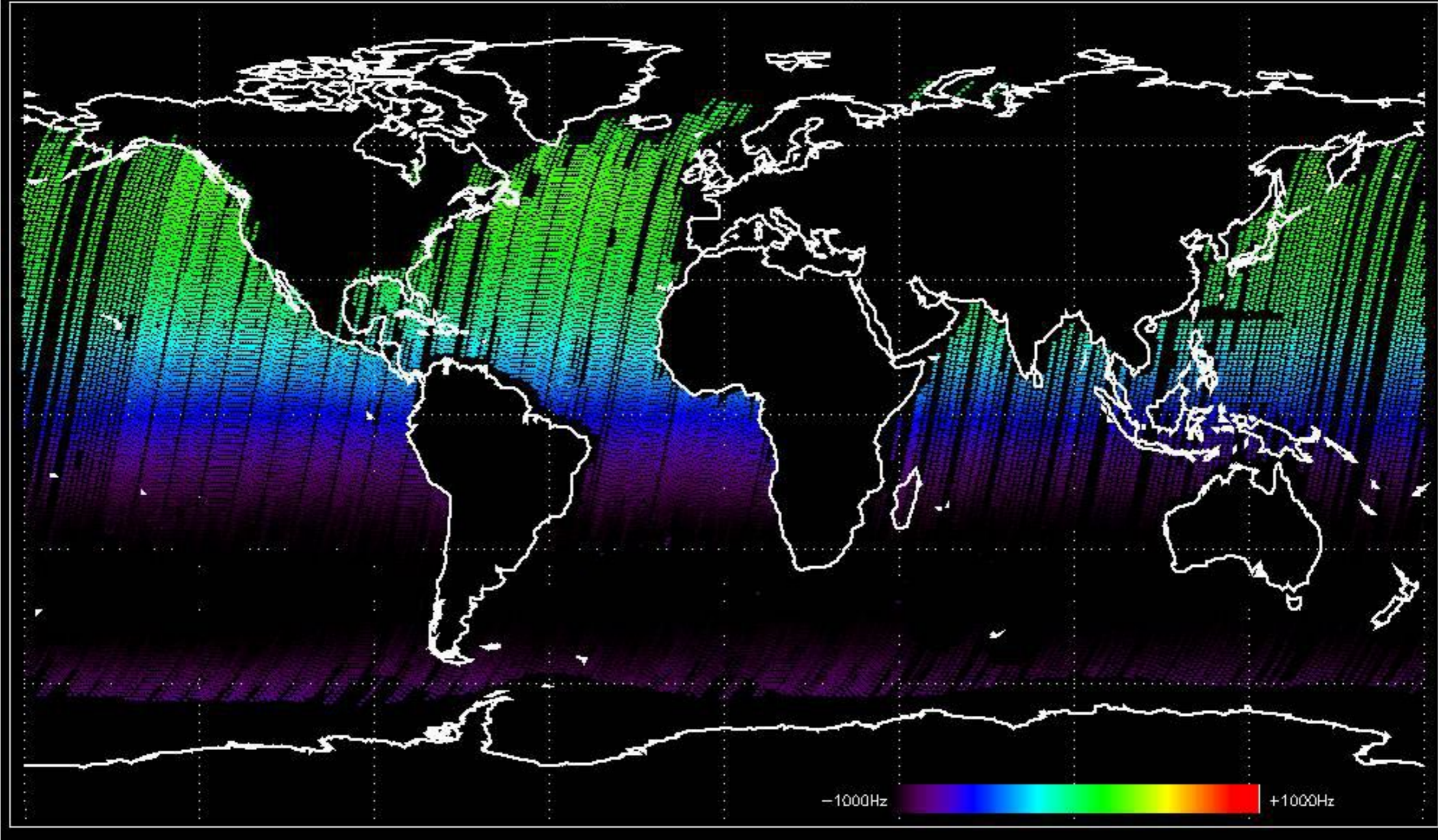


-1000Hz +1000Hz

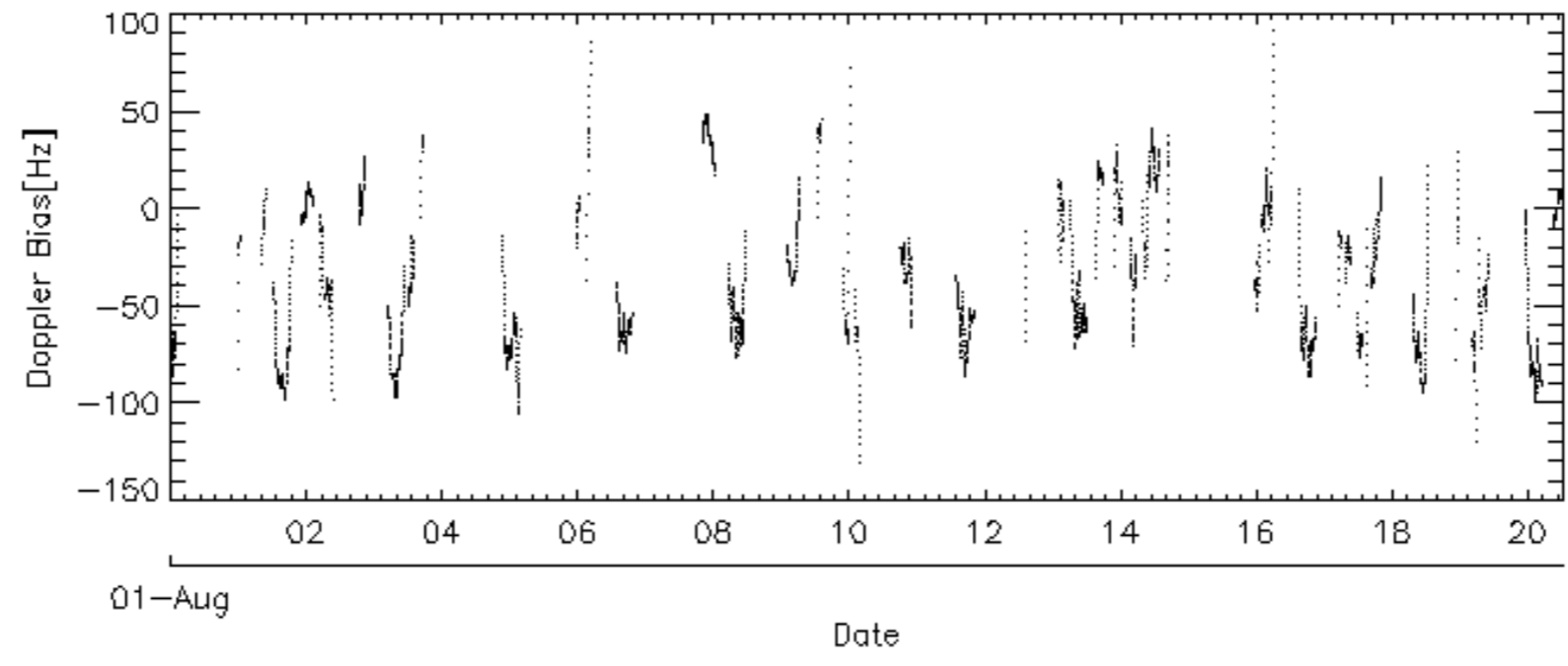
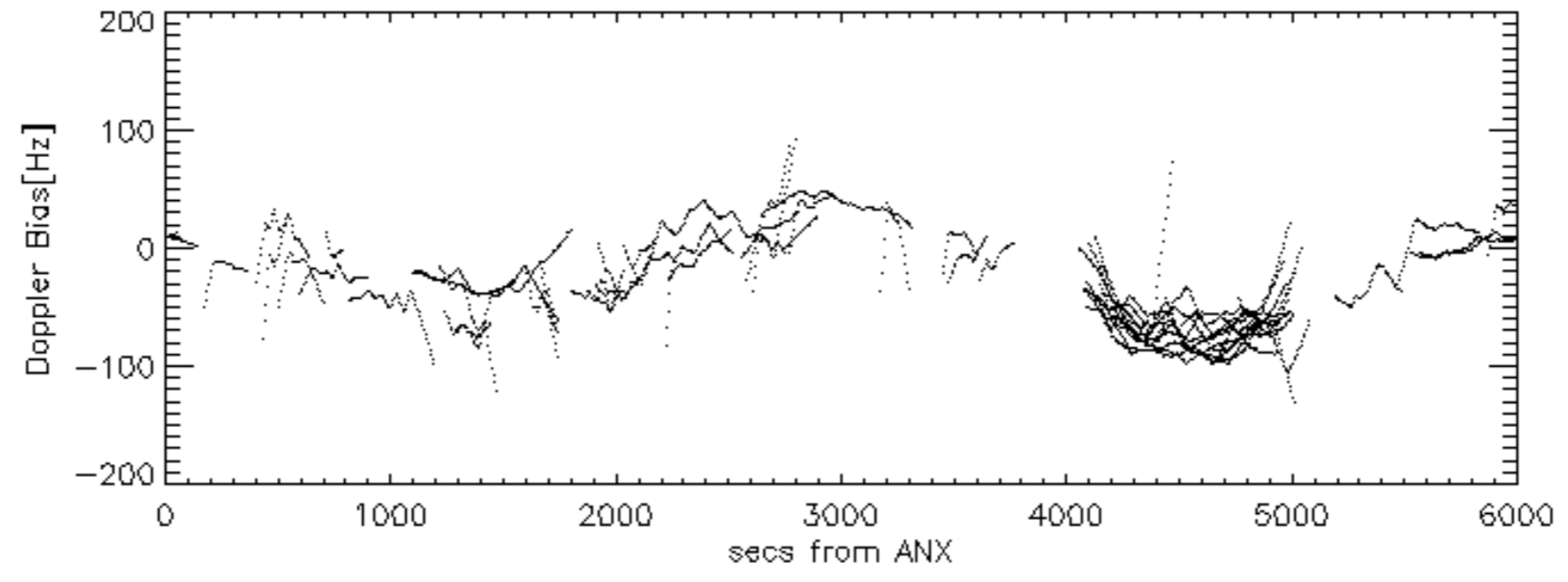
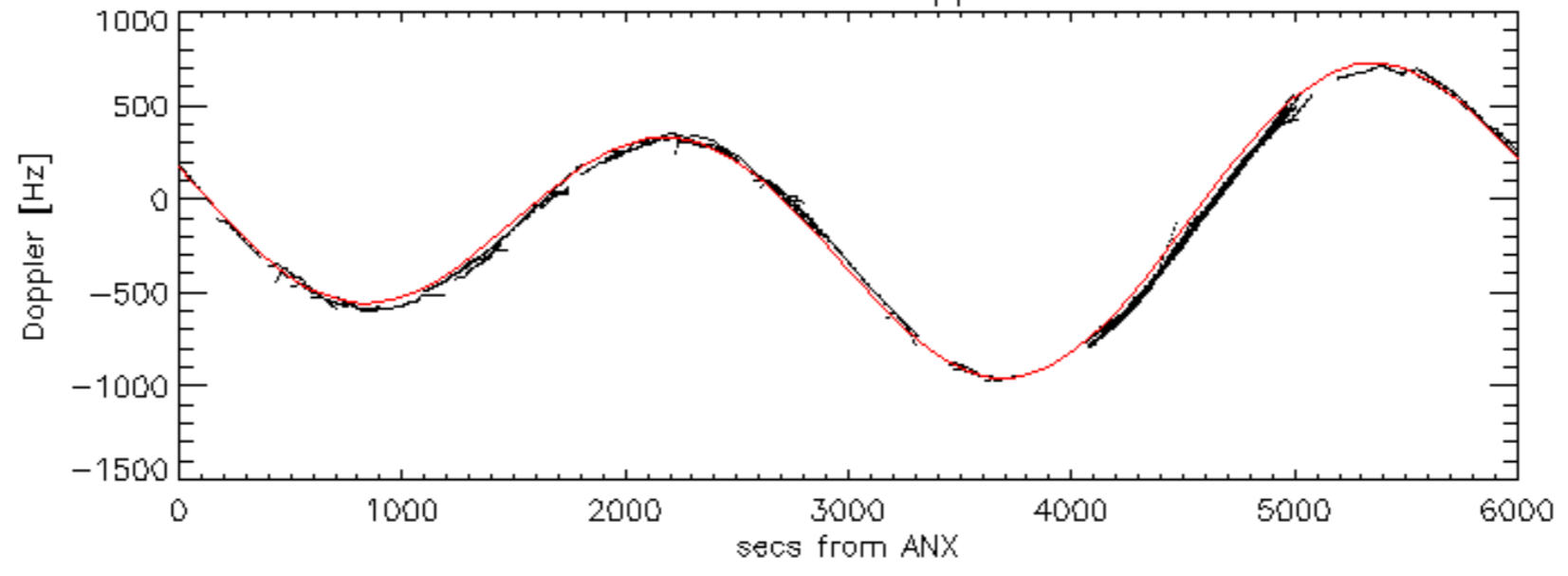
Doppler 'WVS' 'IS2' ascending

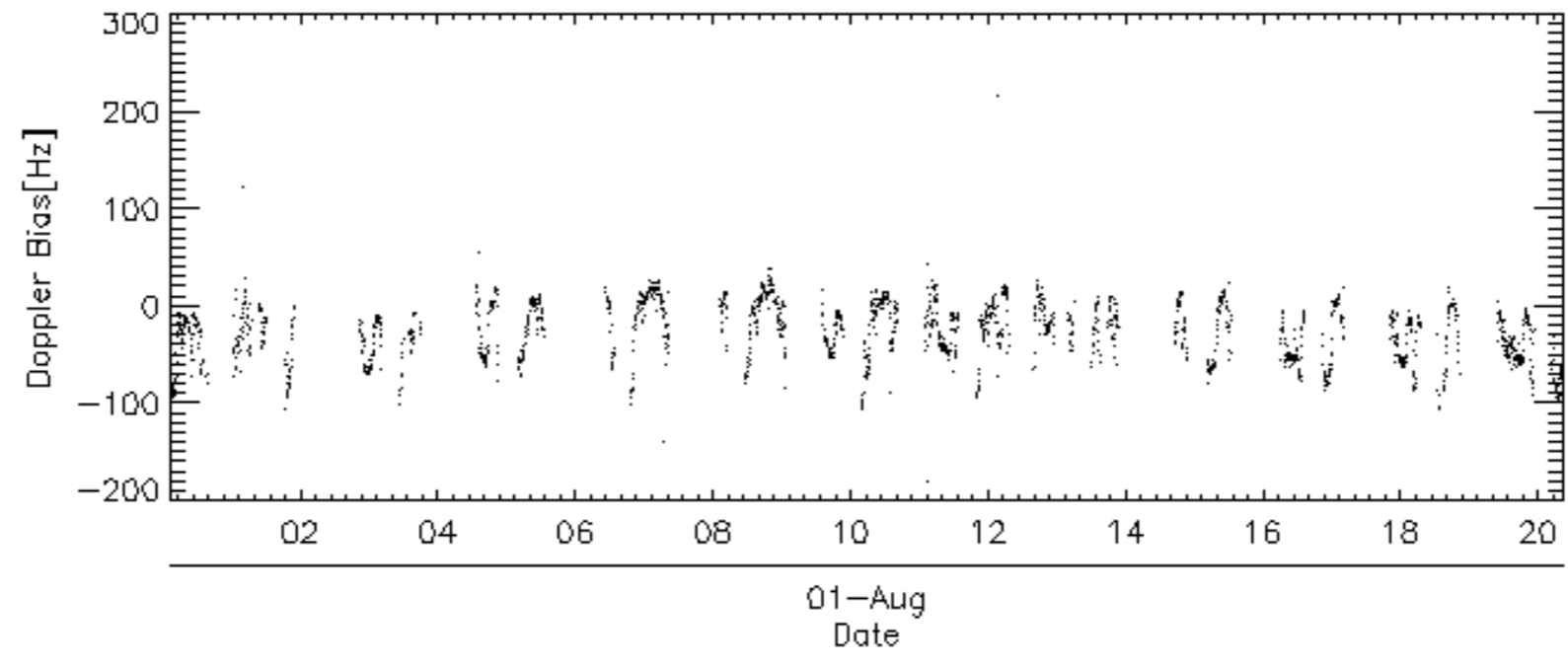
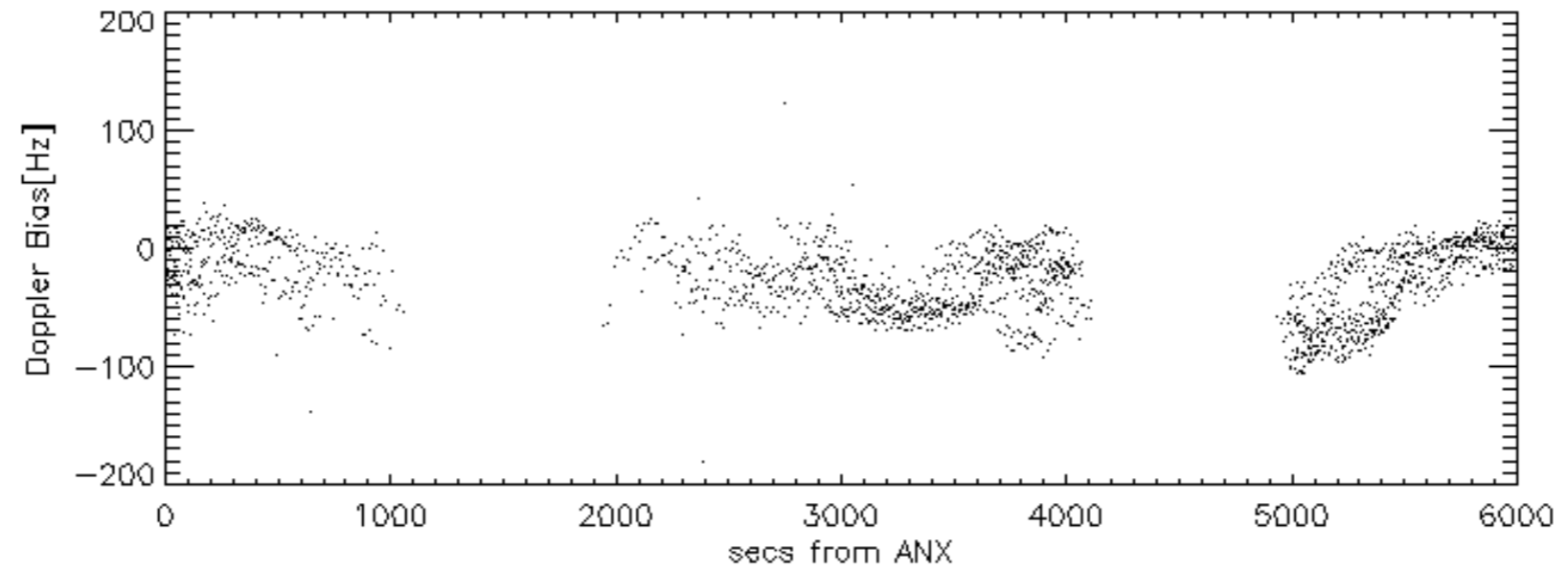
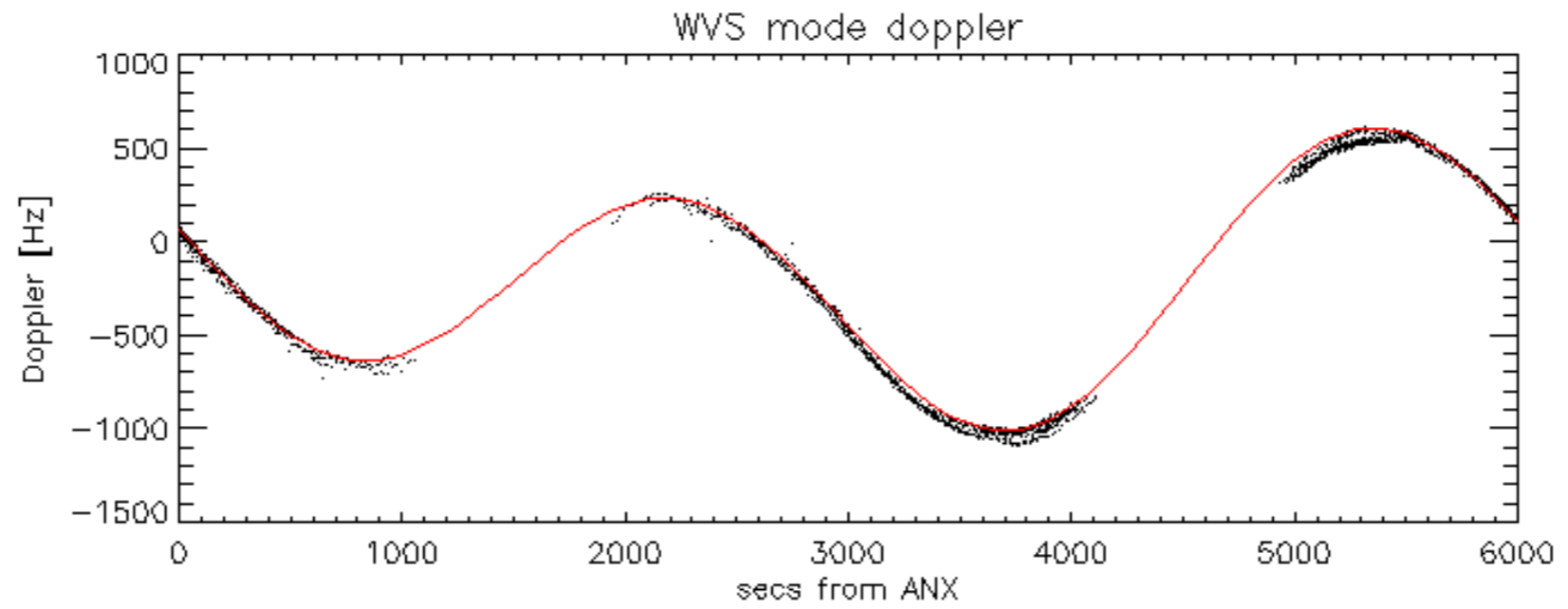


Doppler 'WVS' 'IS2' descending

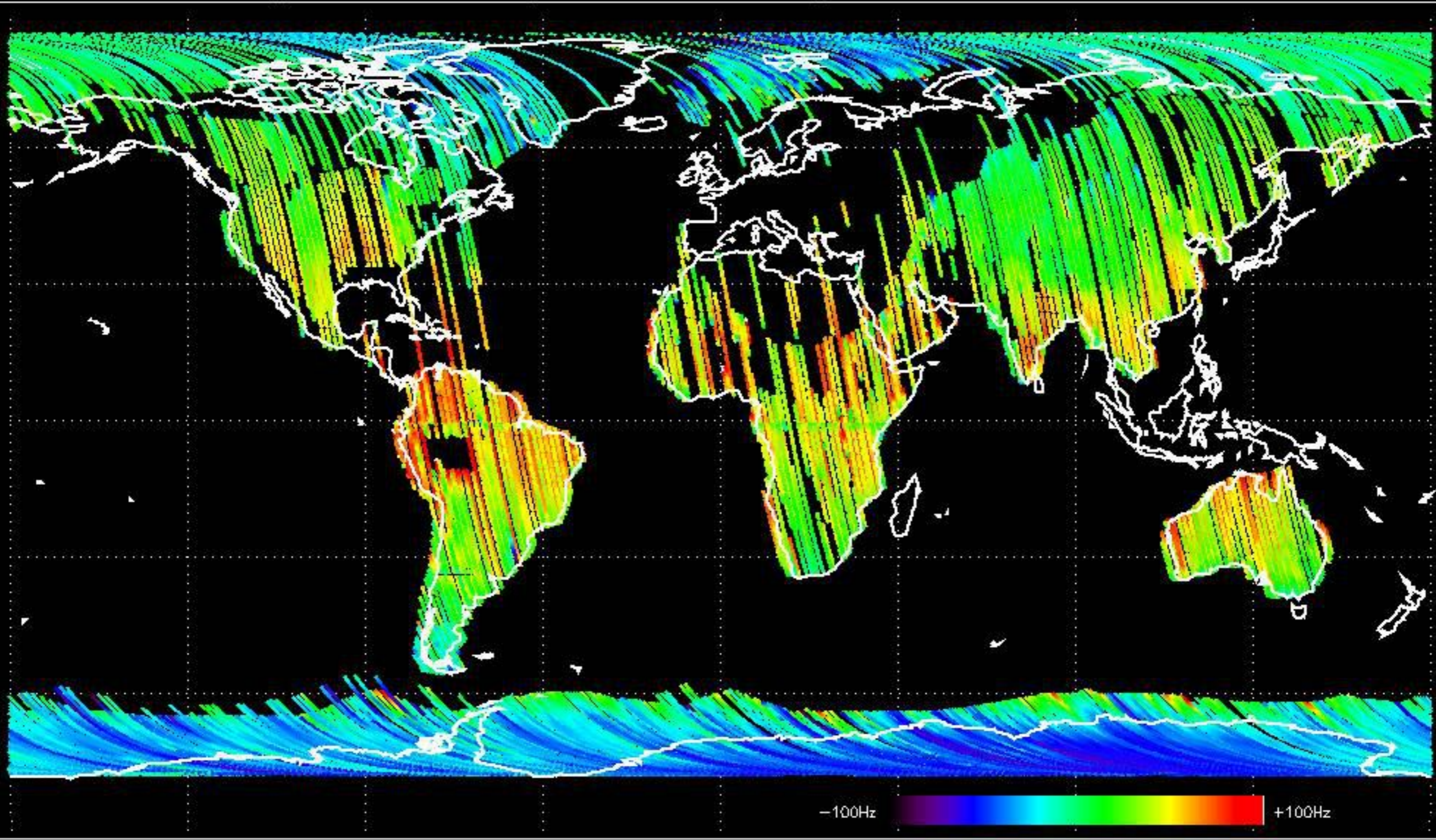


GM1 mode doppler

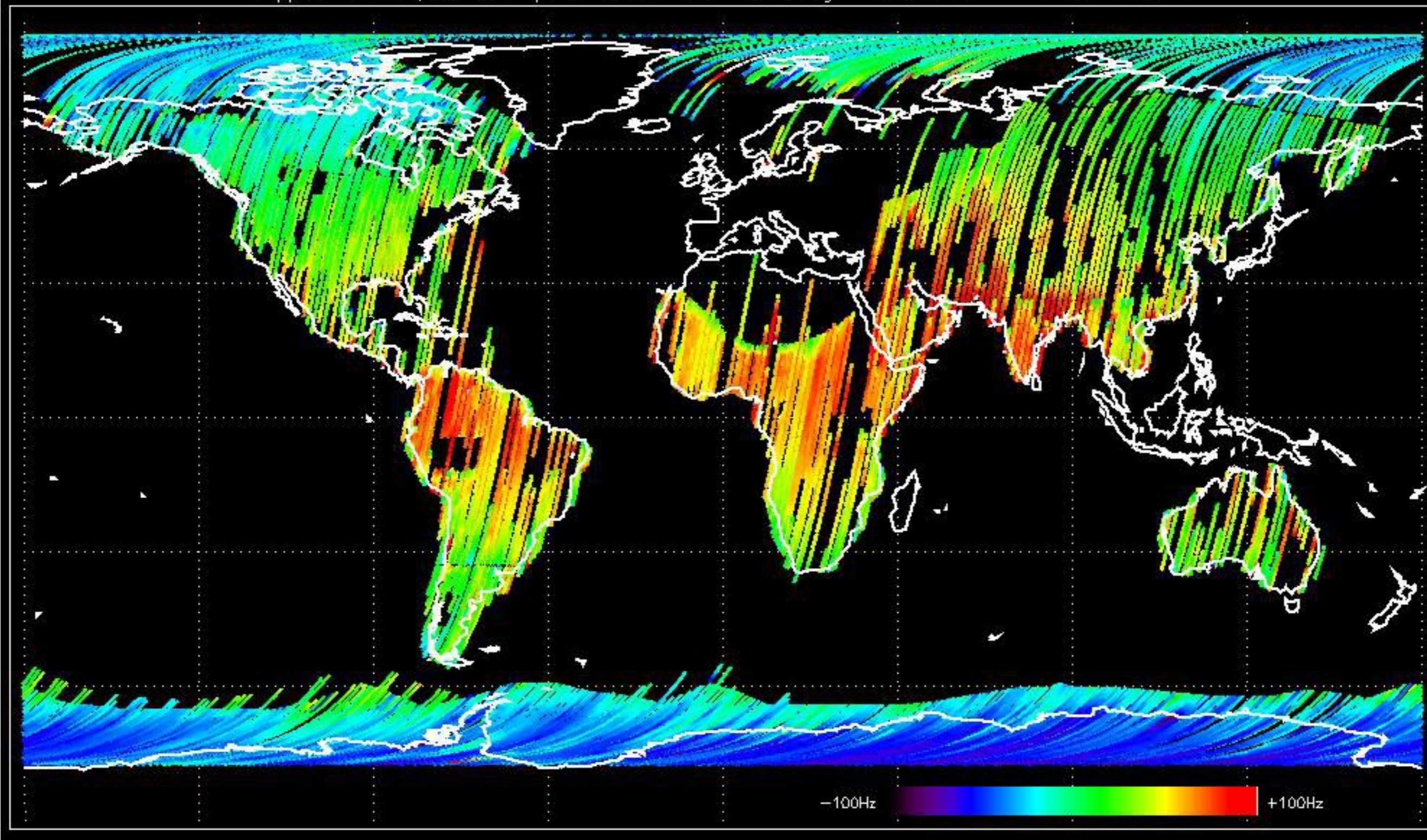




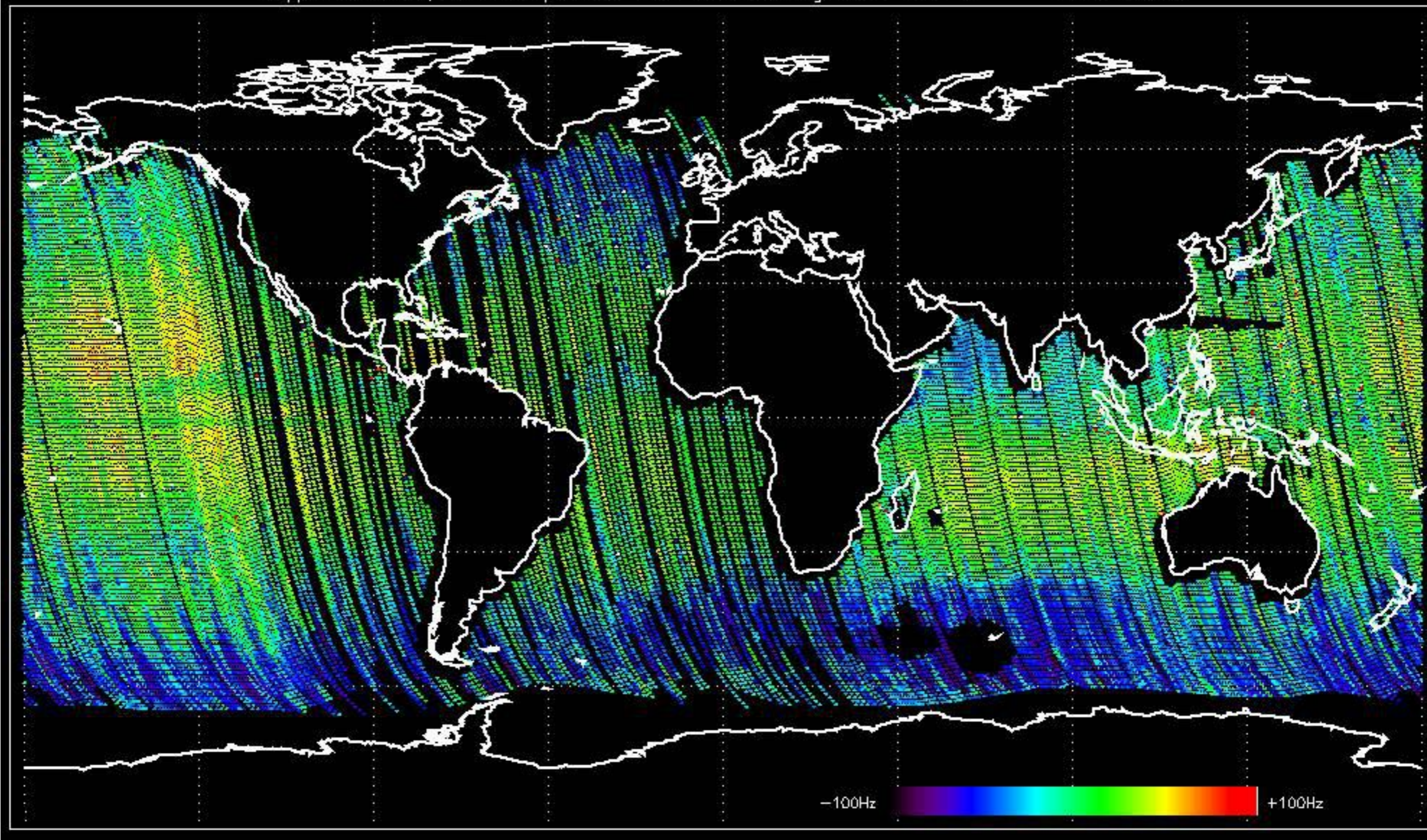
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -34.738264 Hz



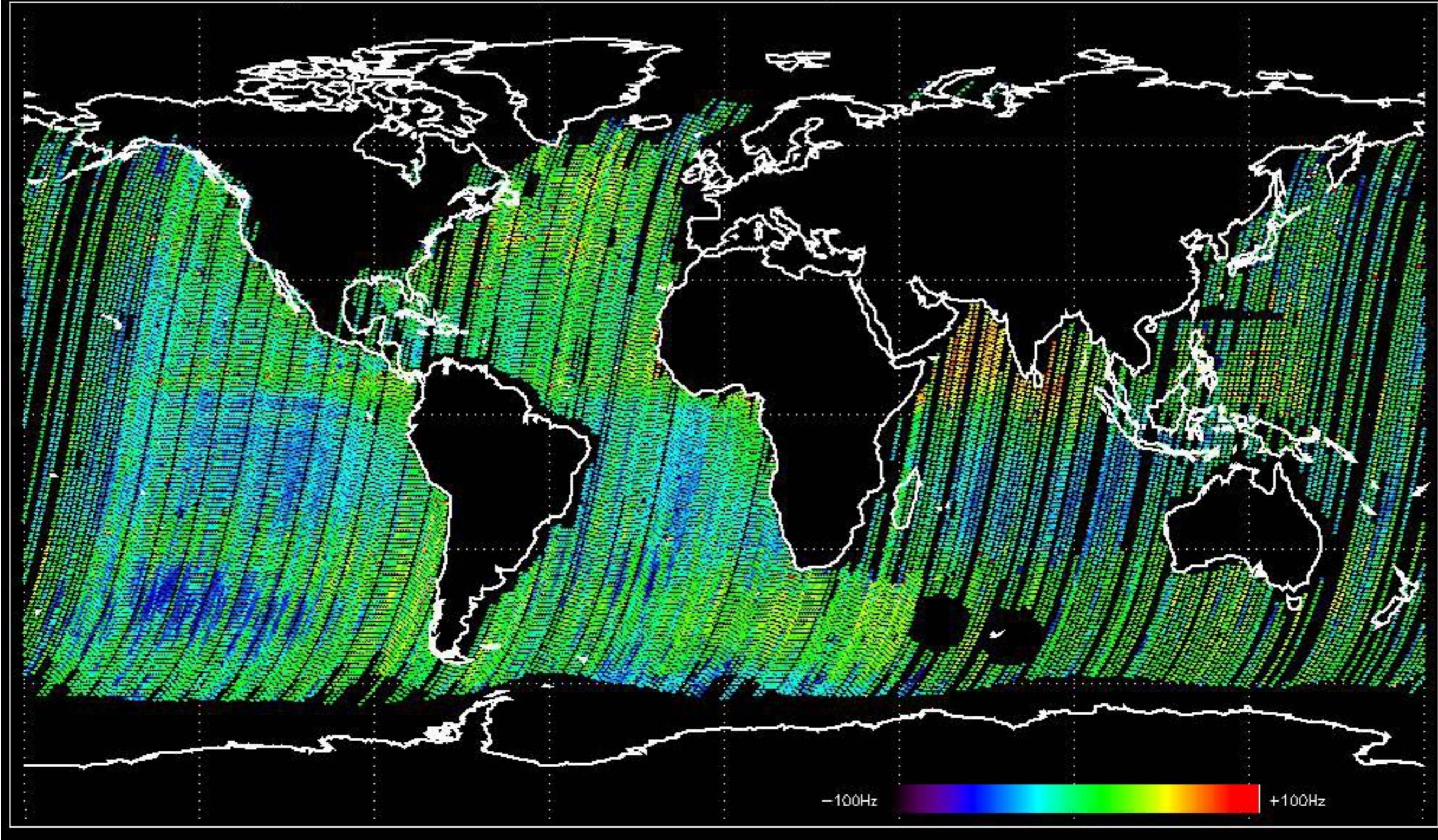
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -24.871272 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.577018 Hz

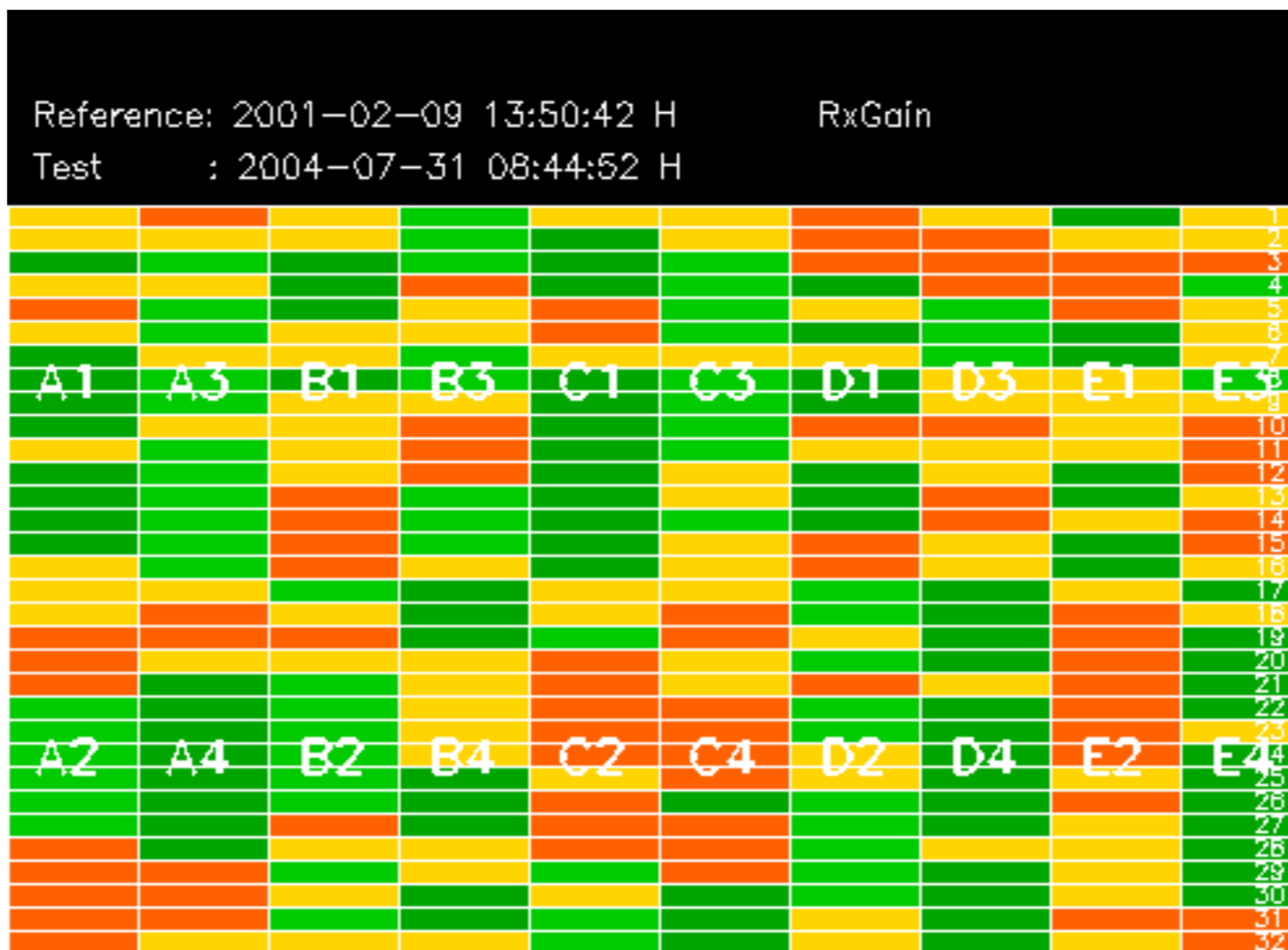


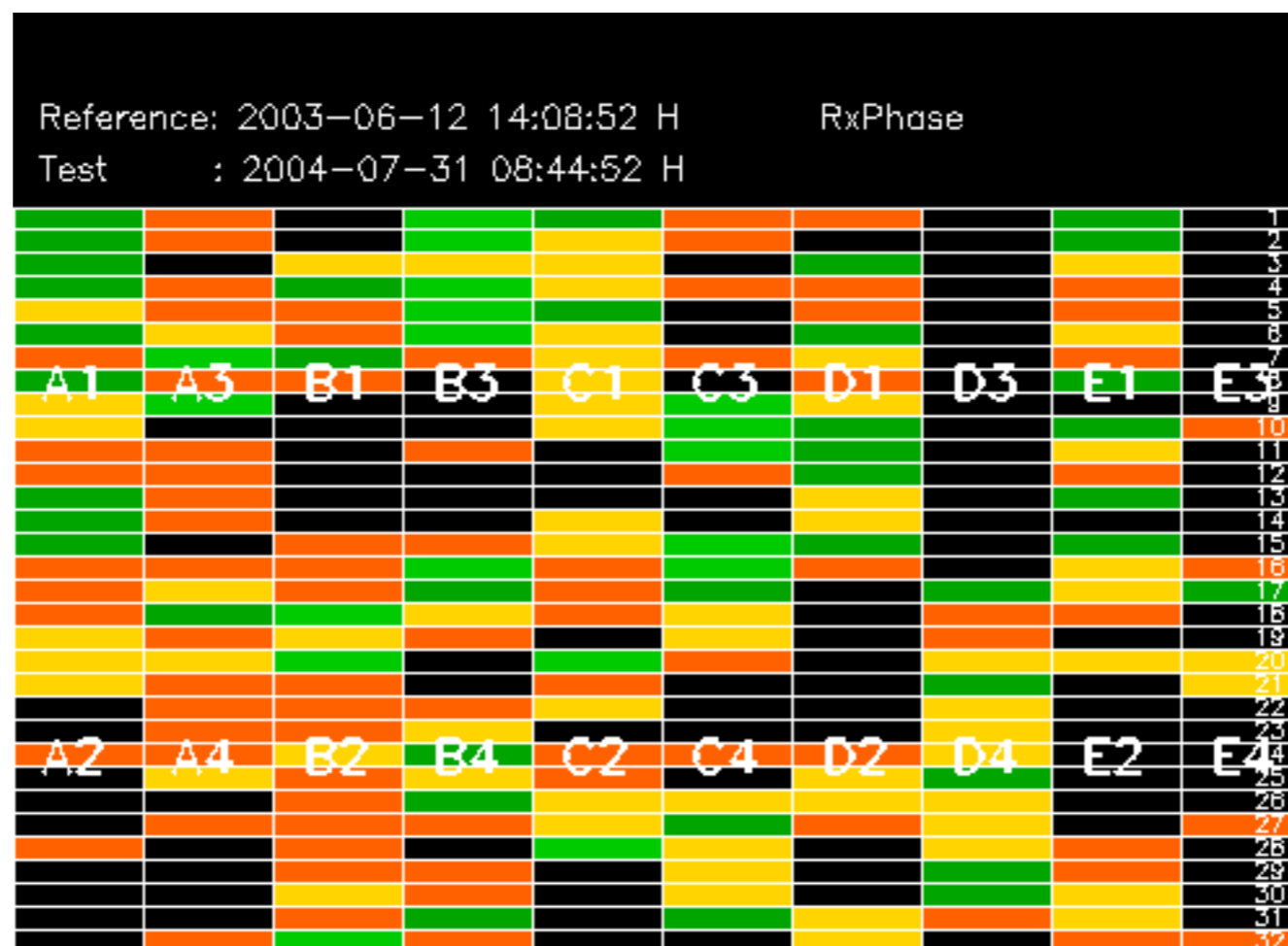
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.128723 Hz

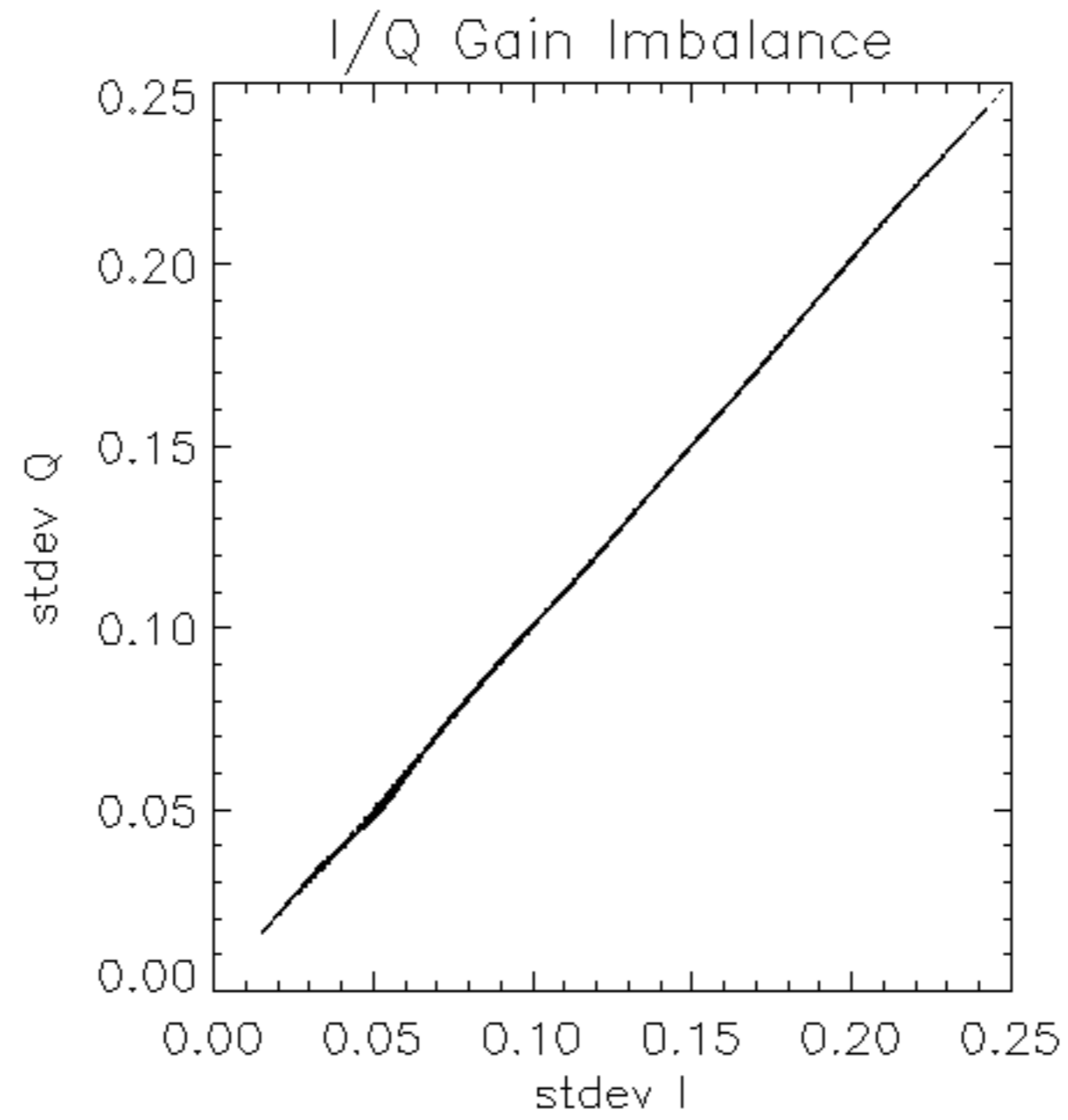


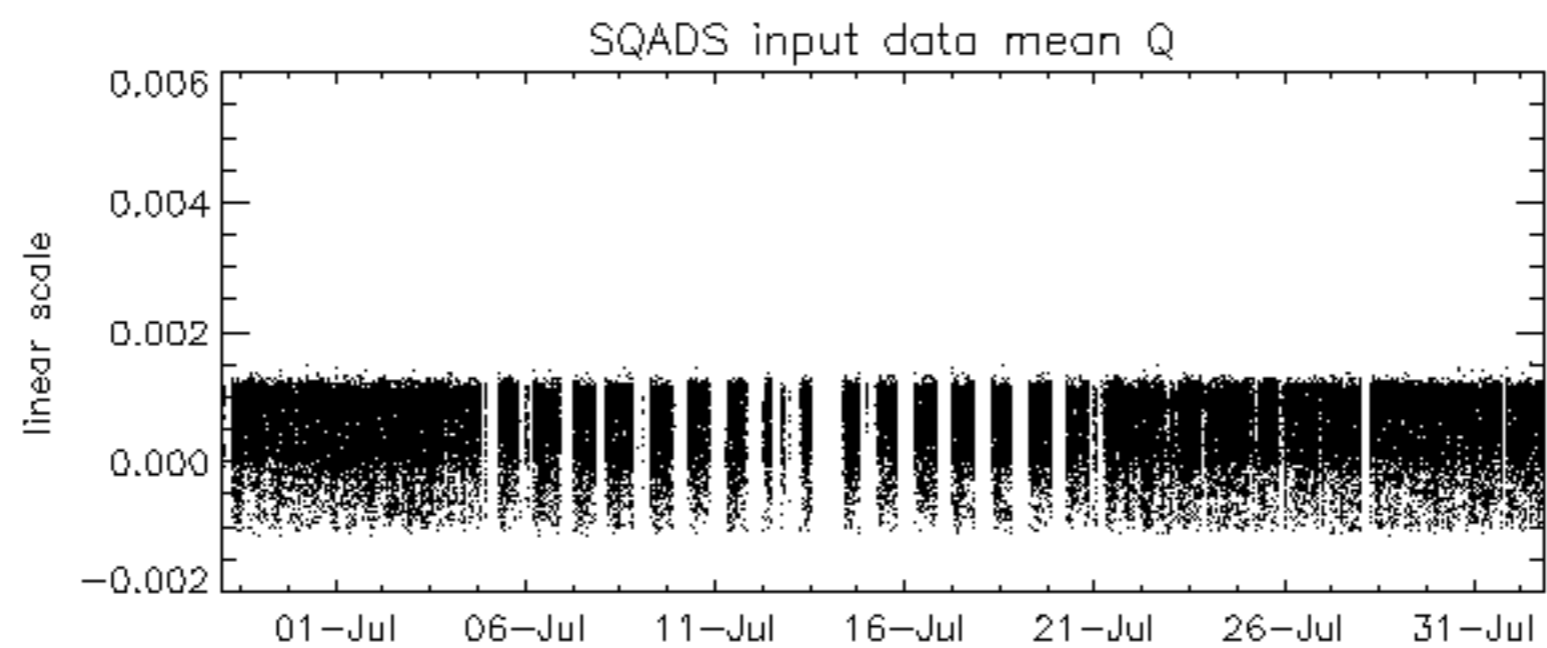
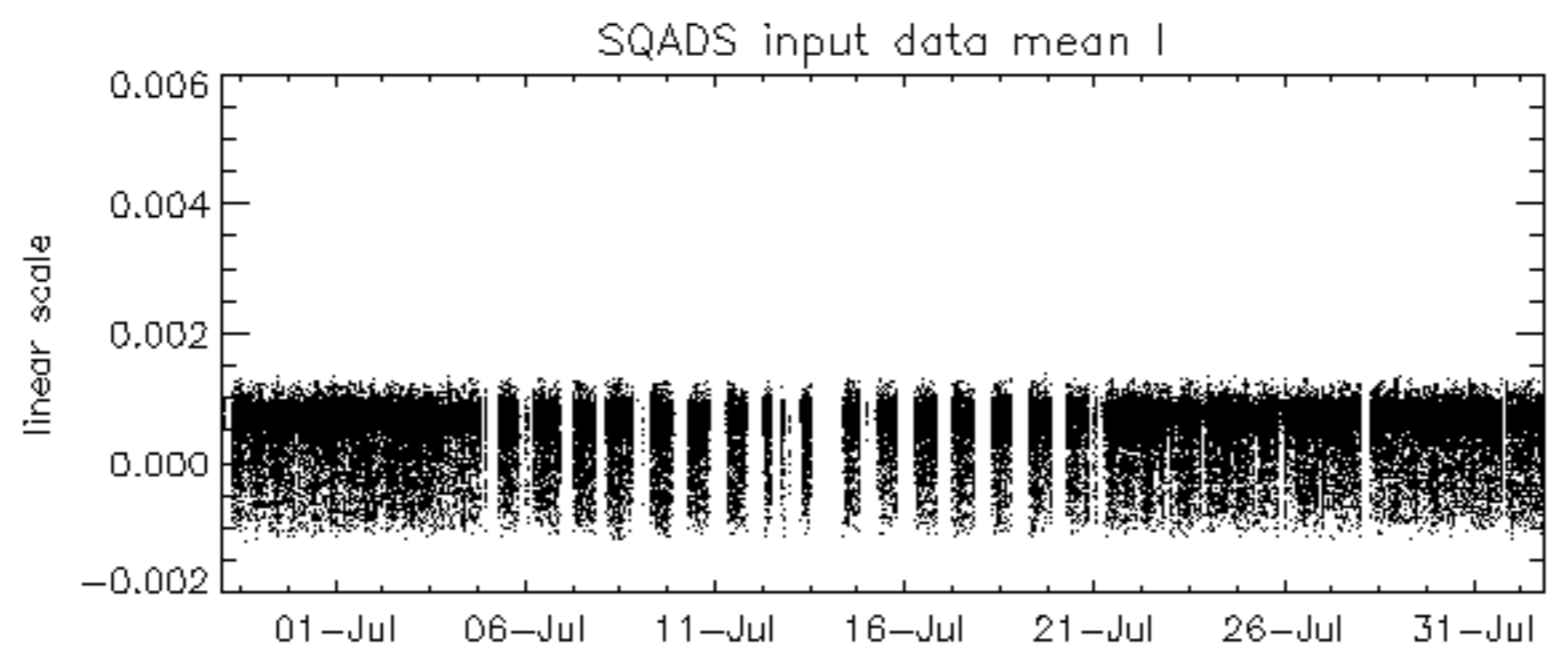
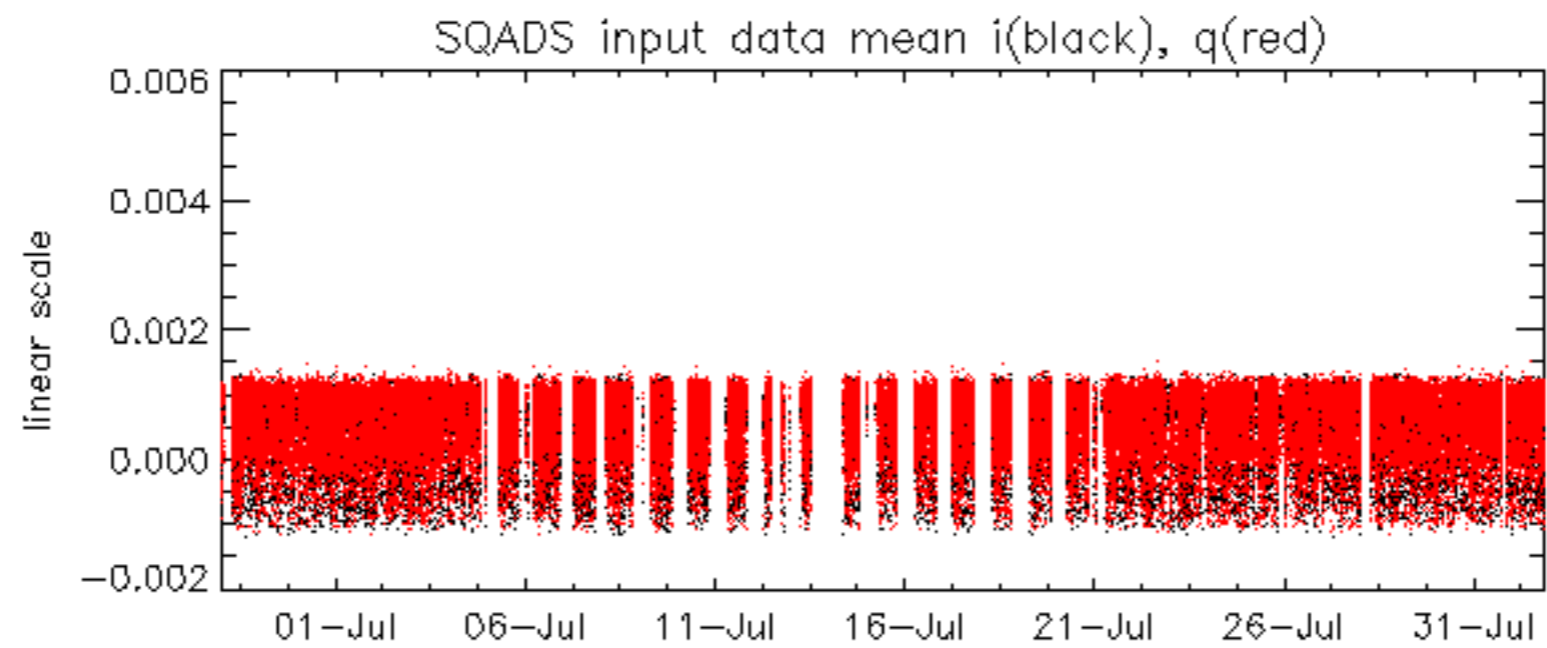
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to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

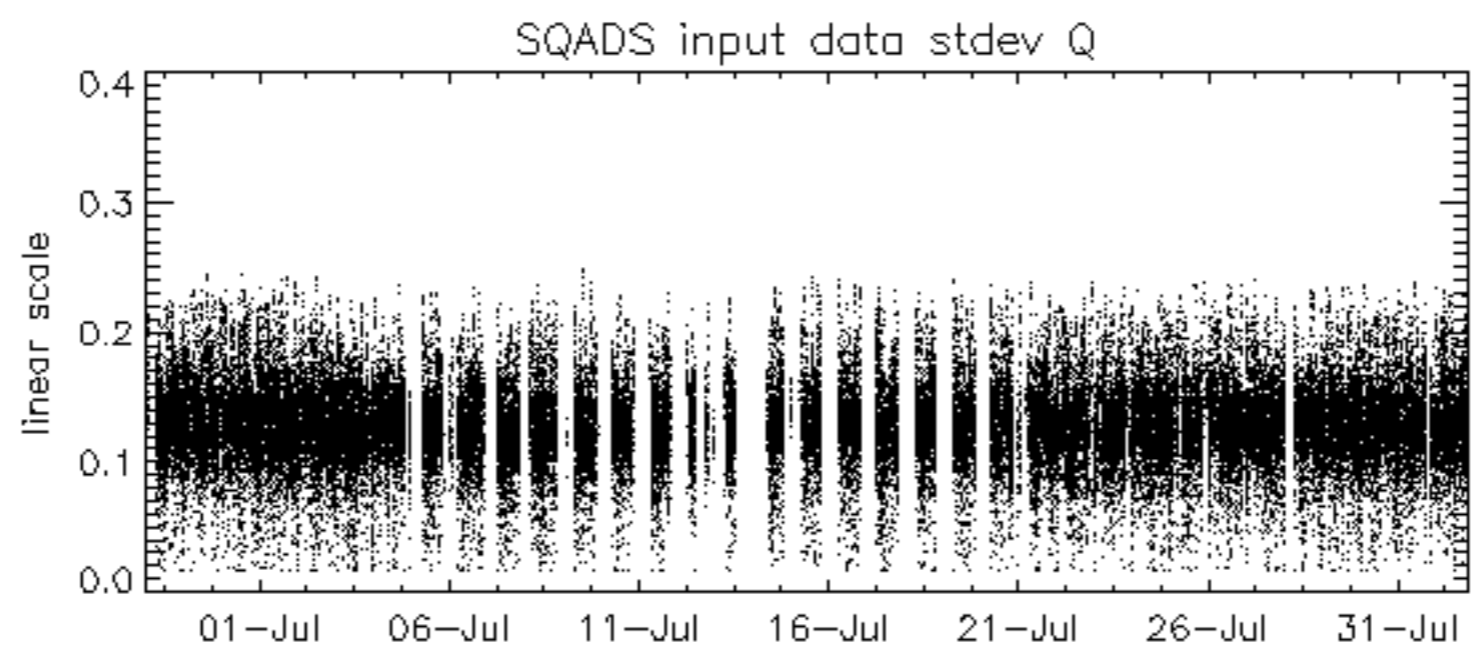
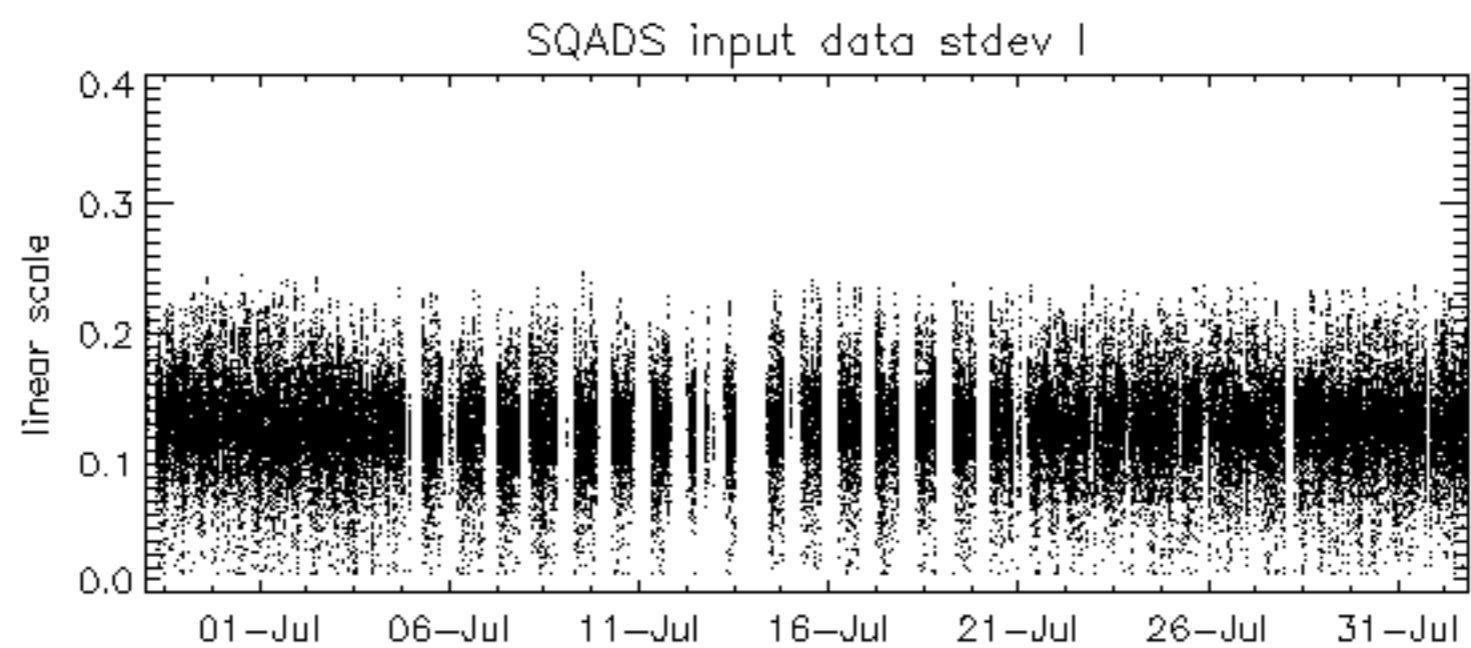
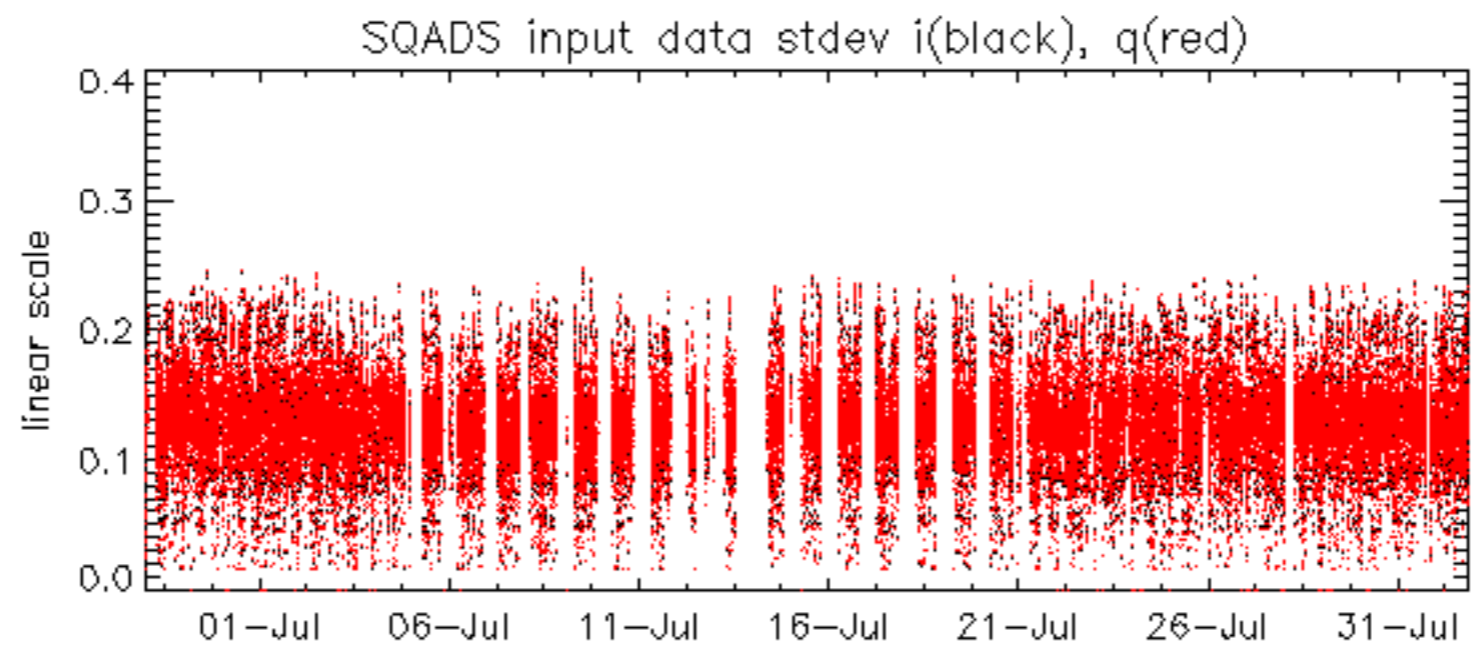
No anomalies observed.

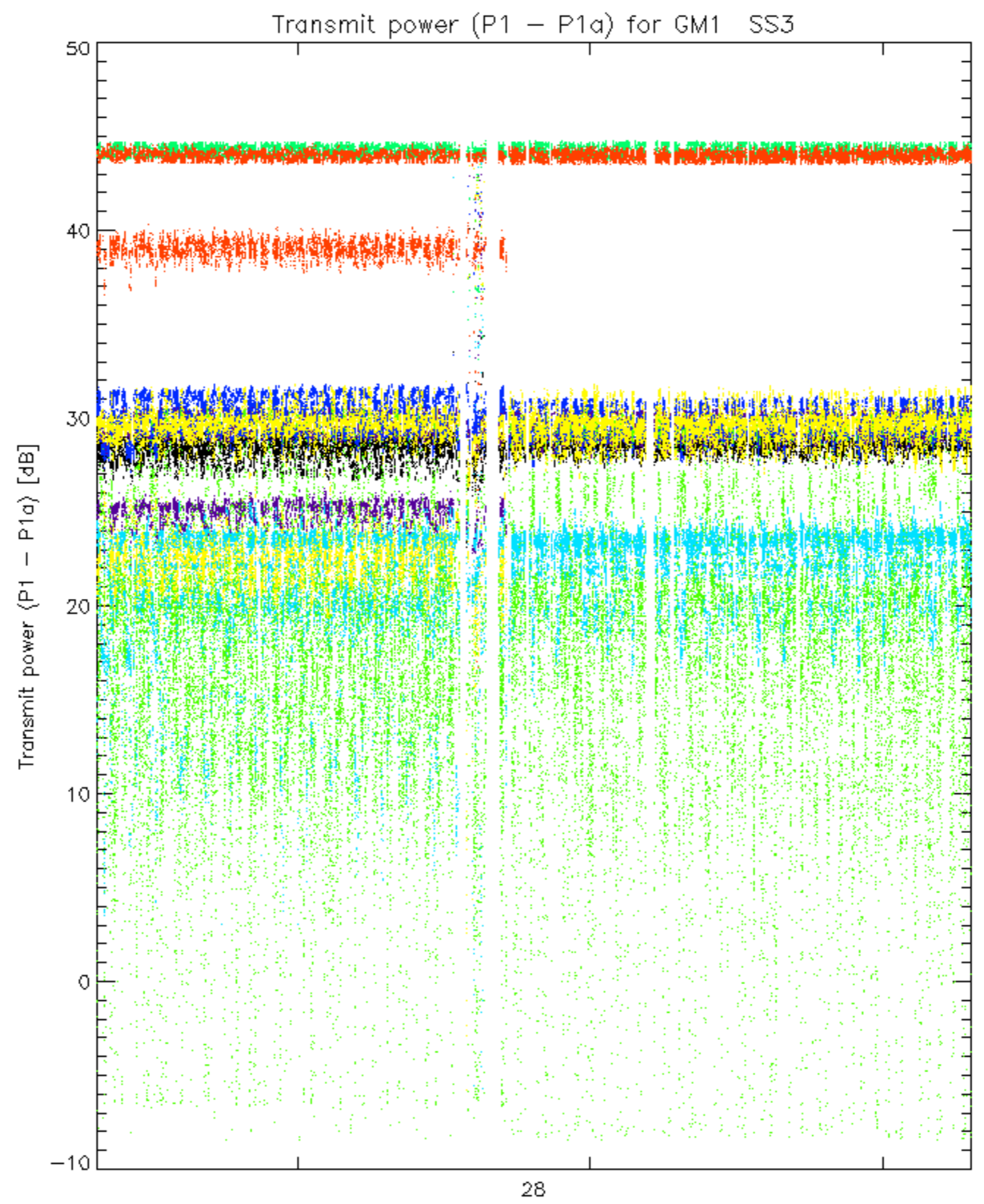




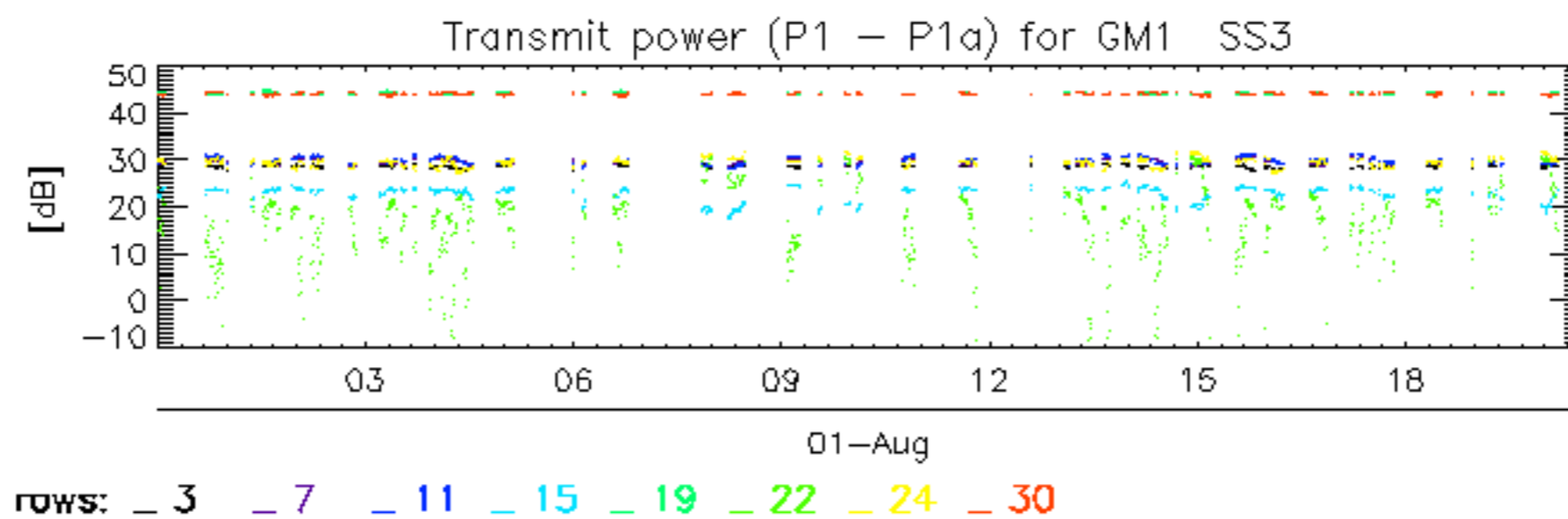


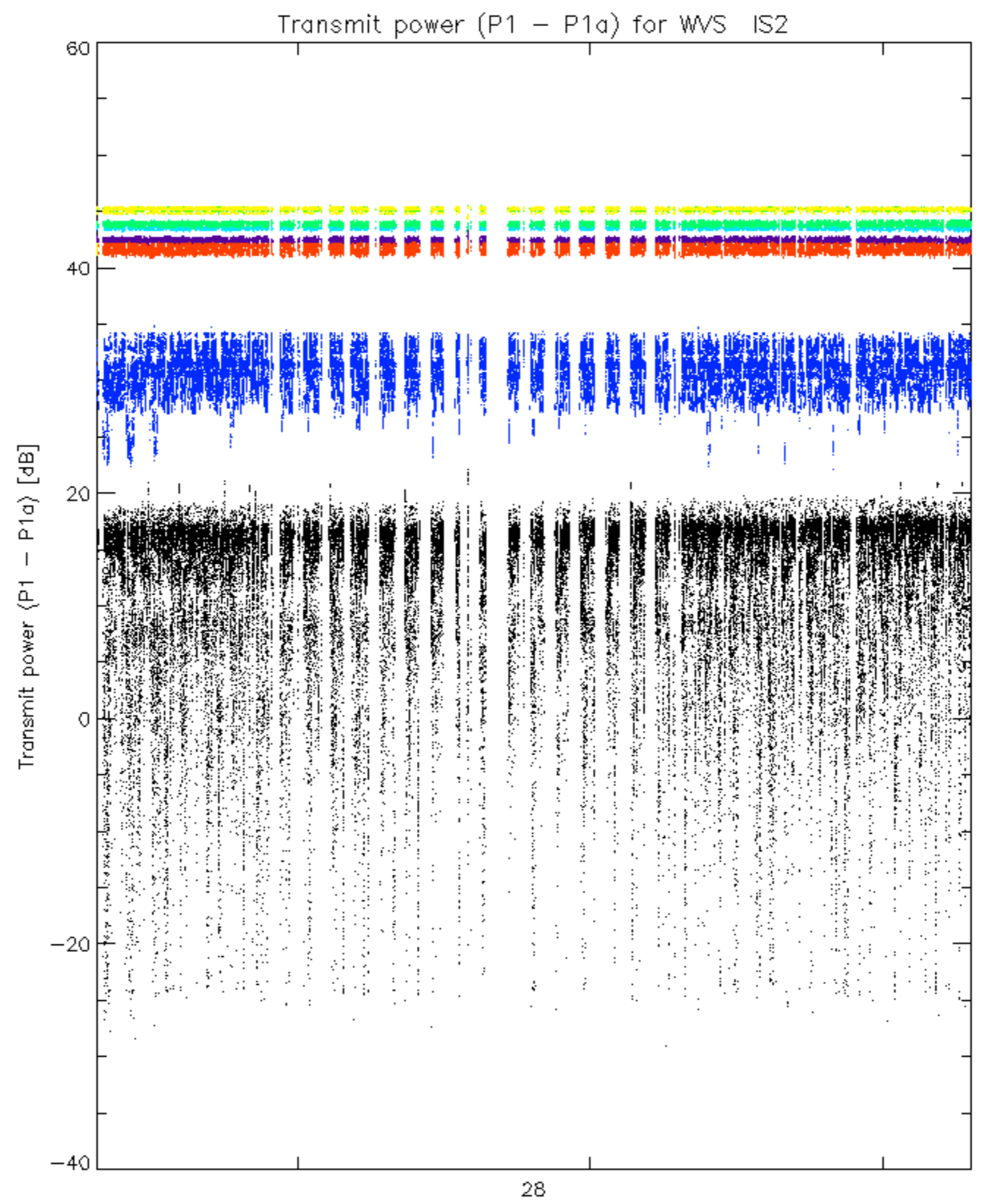




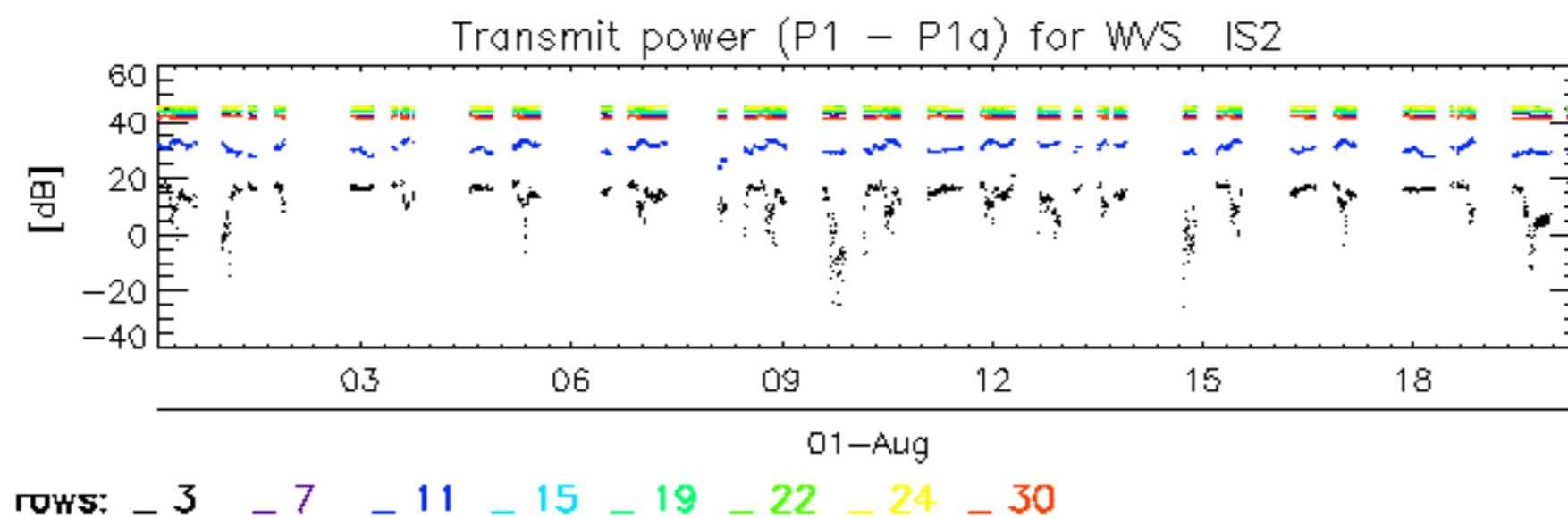


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30





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



No unavailabilities during the reported period.