

PRELIMINARY REPORT OF 040624

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

last update on Thu Jun 24 13:07:51 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	20040623 190117
H	20040622 193254

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	-3.511685	0.011270	0.052575
7	P1	-3.325399	0.015580	-0.012808
11	P1	-4.530060	0.038181	-0.003592
15	P1	-5.679892	0.059616	0.011141
19	P1	-3.428321	0.005093	-0.022248
22	P1	-4.560311	0.010929	0.005952
24	P1	-4.913329	0.015220	0.018417
30	P1	-6.842606	0.023227	-0.024646

3	P1	-16.098698	0.229023	0.056805
7	P1	-13.993298	0.107127	-0.003603
11	P1	-19.843075	0.312947	-0.212943
15	P1	-11.783819	0.047095	0.044262
19	P1	-13.808749	0.037188	-0.048822
22	P1	-16.579487	0.422741	0.146803
24	P1	-14.699817	0.302635	0.074678
30	P1	-17.670935	0.374619	-0.057220

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.422239	0.082589	0.053226
7	P2	-22.865589	0.123733	0.074781
11	P2	-15.640701	0.139099	0.122410
15	P2	-7.197282	0.097739	0.053782
19	P2	-9.569880	0.153696	0.058351
22	P2	-17.557304	0.105958	0.135965
24	P2	-20.878479	0.087932	0.065248
30	P2	-19.442698	0.079889	0.075798

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.143774	0.002015	0.003526
7	P3	-8.143777	0.002015	0.003547
11	P3	-8.143780	0.002015	0.003575
15	P3	-8.143782	0.002015	0.003601
19	P3	-8.143787	0.002015	0.003634
22	P3	-8.143794	0.002015	0.003663
24	P3	-8.143789	0.002015	0.003661
30	P3	-8.143743	0.002012	0.003470

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	-3.148356	0.136230	0.008693
7	P1	-2.808405	0.072998	0.010292
11	P1	-3.790239	0.021775	-0.025423
15	P1	-4.267539	1.026870	-0.023293
19	P1	-3.353693	0.048966	-0.014181
22	P1	-5.721701	0.044831	-0.003058
24	P1	-4.049876	0.080926	-0.018834
30	P1	-6.095725	0.061018	-0.029996
3	P1	-11.033106	0.431993	0.018000
7	P1	-9.762976	0.250877	-0.000672
11	P1	-11.760382	0.168995	-0.056498
15	P1	-11.842816	0.282454	-0.050635
19	P1	-14.987442	0.822839	0.005180
22	P1	-21.481426	8.895007	0.135184
24	P1	-17.363998	0.280311	-0.041890
30	P1	-21.724493	4.167301	-0.009140

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.166960	0.043096	0.033984
7	P2	-22.949854	0.029214	0.072517
11	P2	-11.048294	0.216543	0.153469
15	P2	-5.004531	0.044111	0.023243
19	P2	-6.932408	0.043517	-0.007858
22	P2	-7.690033	0.023531	0.081375
24	P2	-11.078416	0.071660	0.043156
30	P2	-22.406271	0.092747	0.100337

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.984183	0.003294	0.001080
7	P3	-7.984042	0.003283	0.001029
11	P3	-7.984079	0.003294	0.001307
15	P3	-7.984187	0.003279	0.001271
19	P3	-7.984060	0.003296	0.001067
22	P3	-7.984253	0.003277	0.001220
24	P3	-7.983968	0.003311	0.000707
30	P3	-7.984097	0.003287	0.001216

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	0.000489025
	stdev	2.12778e-07
MEAN Q	mean	0.000541391
	stdev	2.38111e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129217
	stdev	0.00101380

STDEV Q	mean	0.129458
	stdev	0.00102573





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

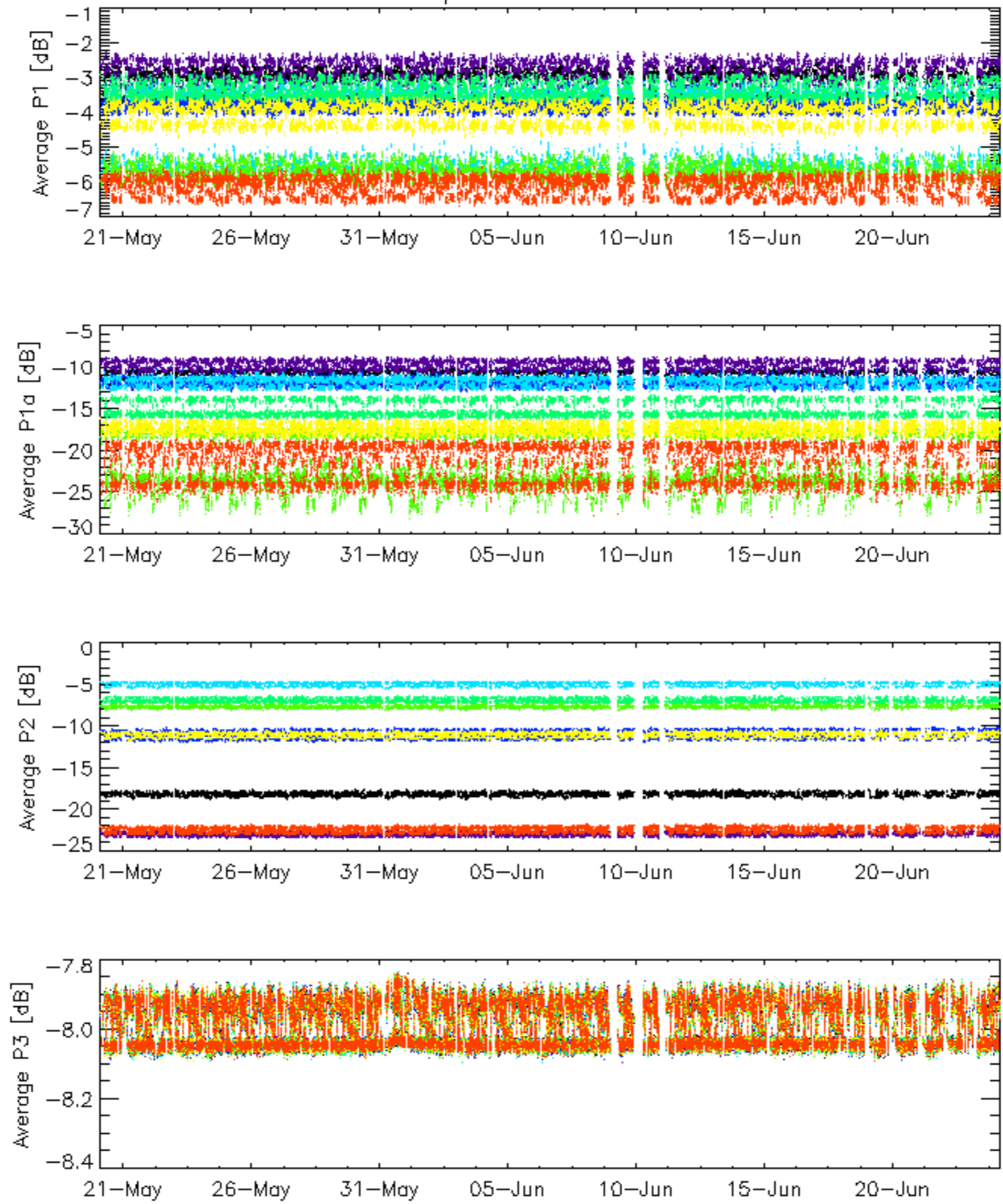
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

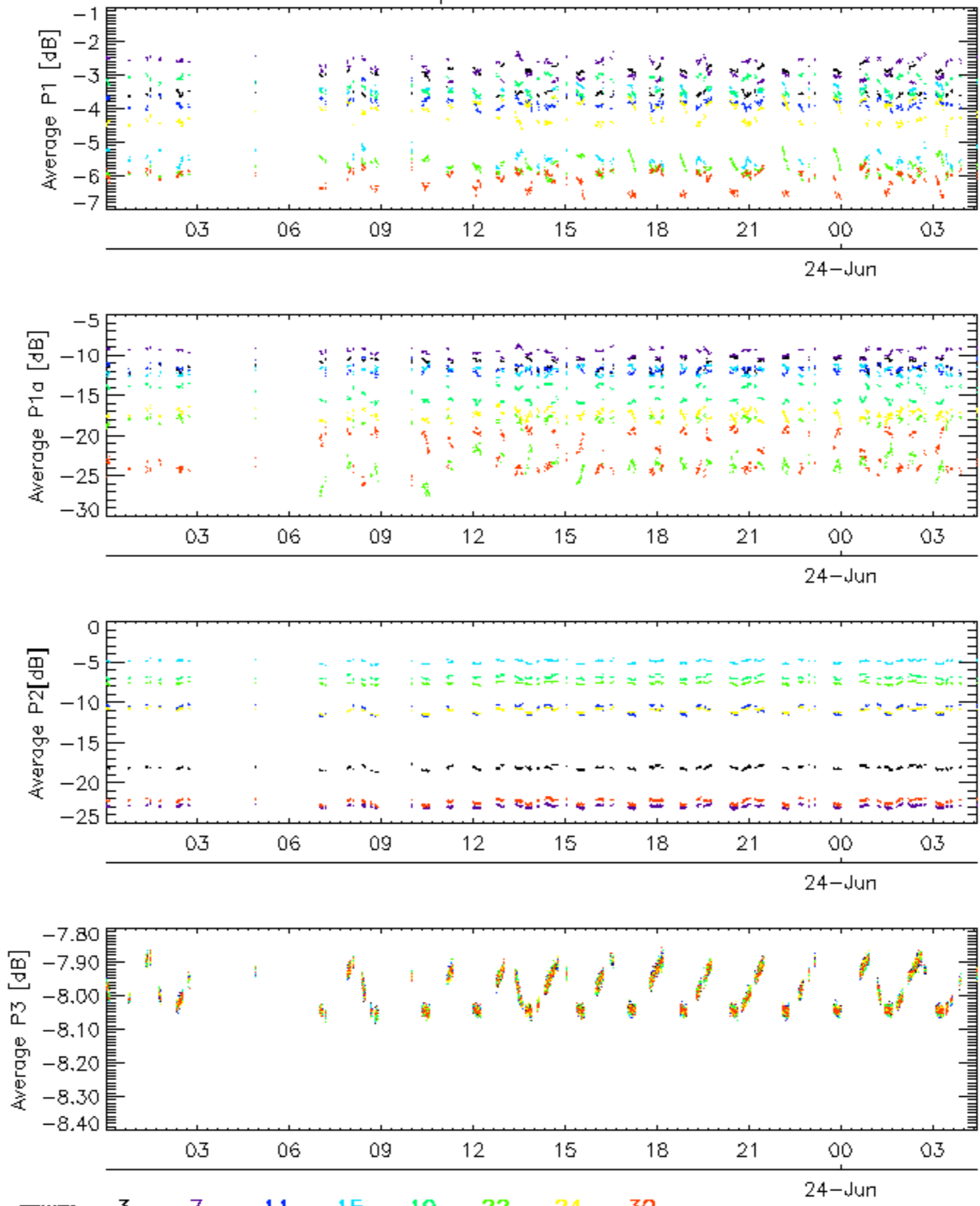
Evolution Doppler error versus ANX	
<input type="checkbox"/>	

Cal pulses for GM1 SS3

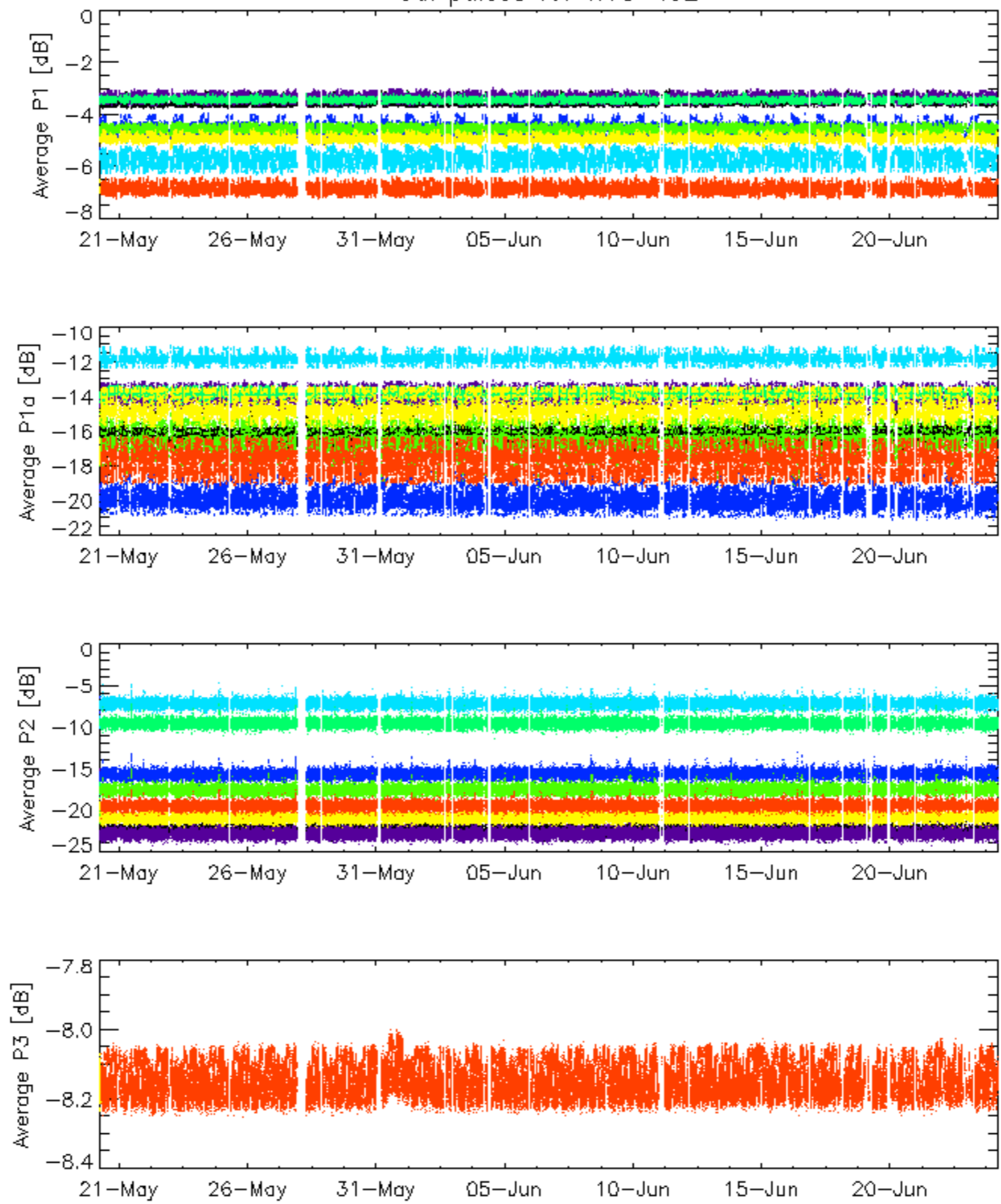


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

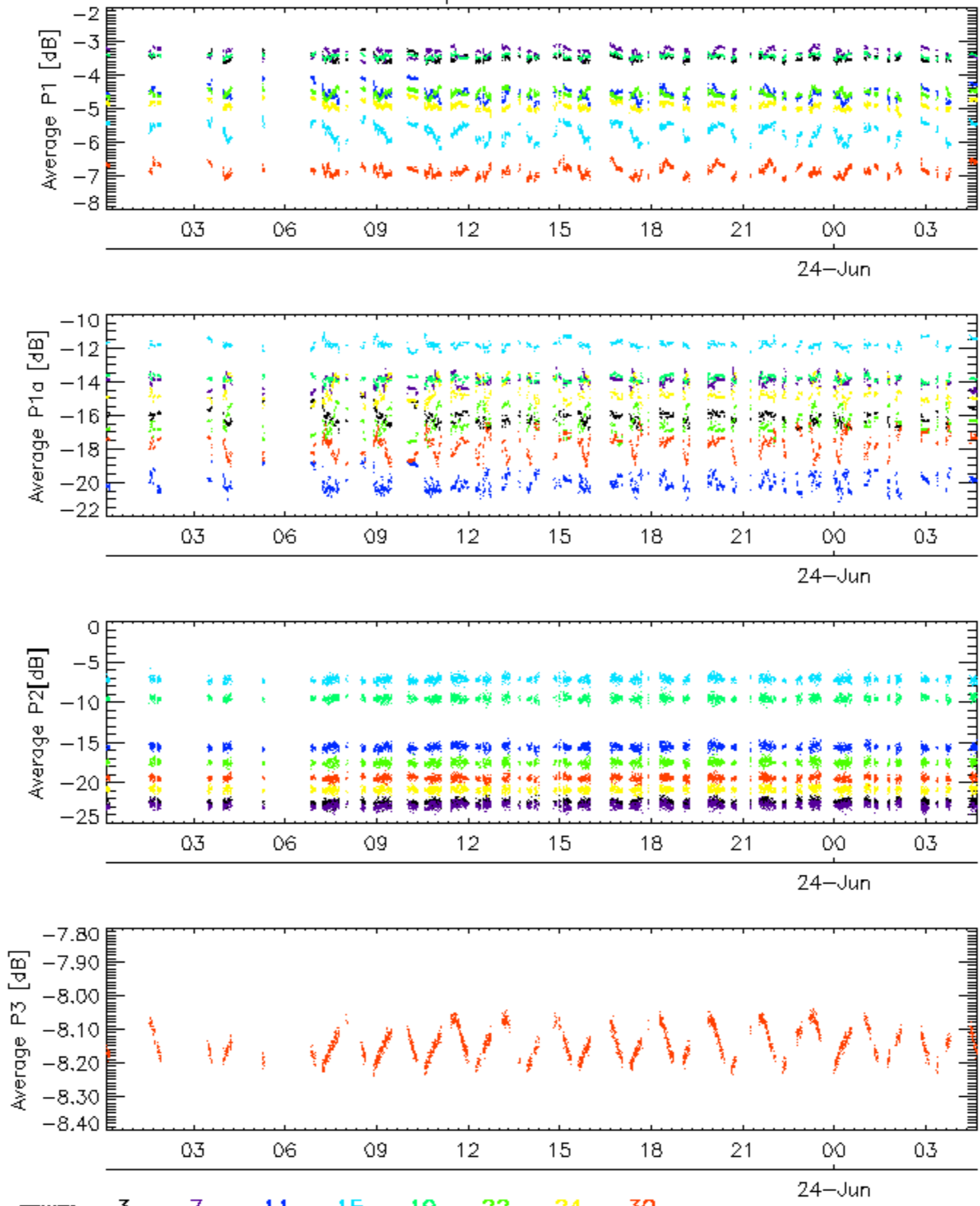


Cal pulses for WVS IS2



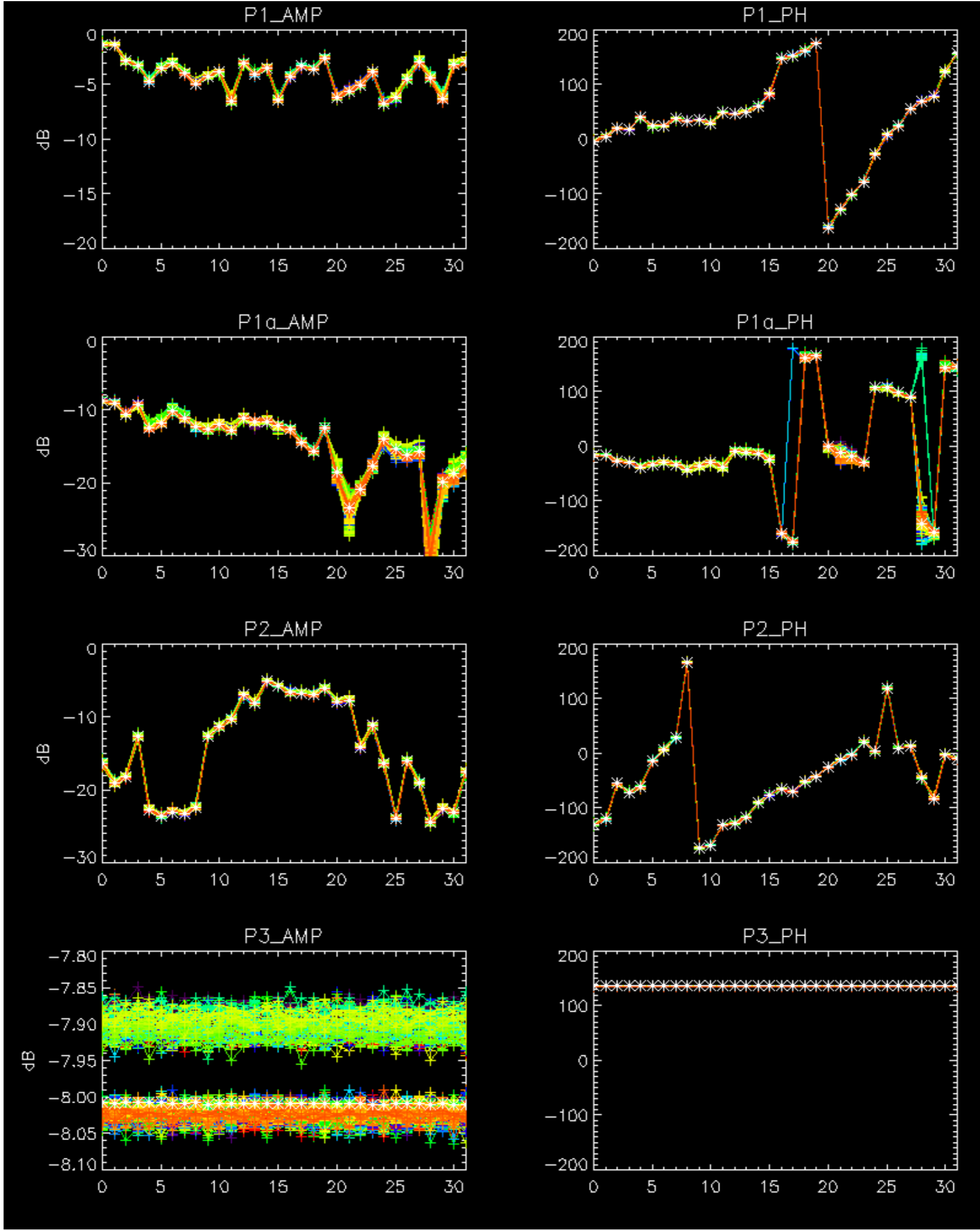
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

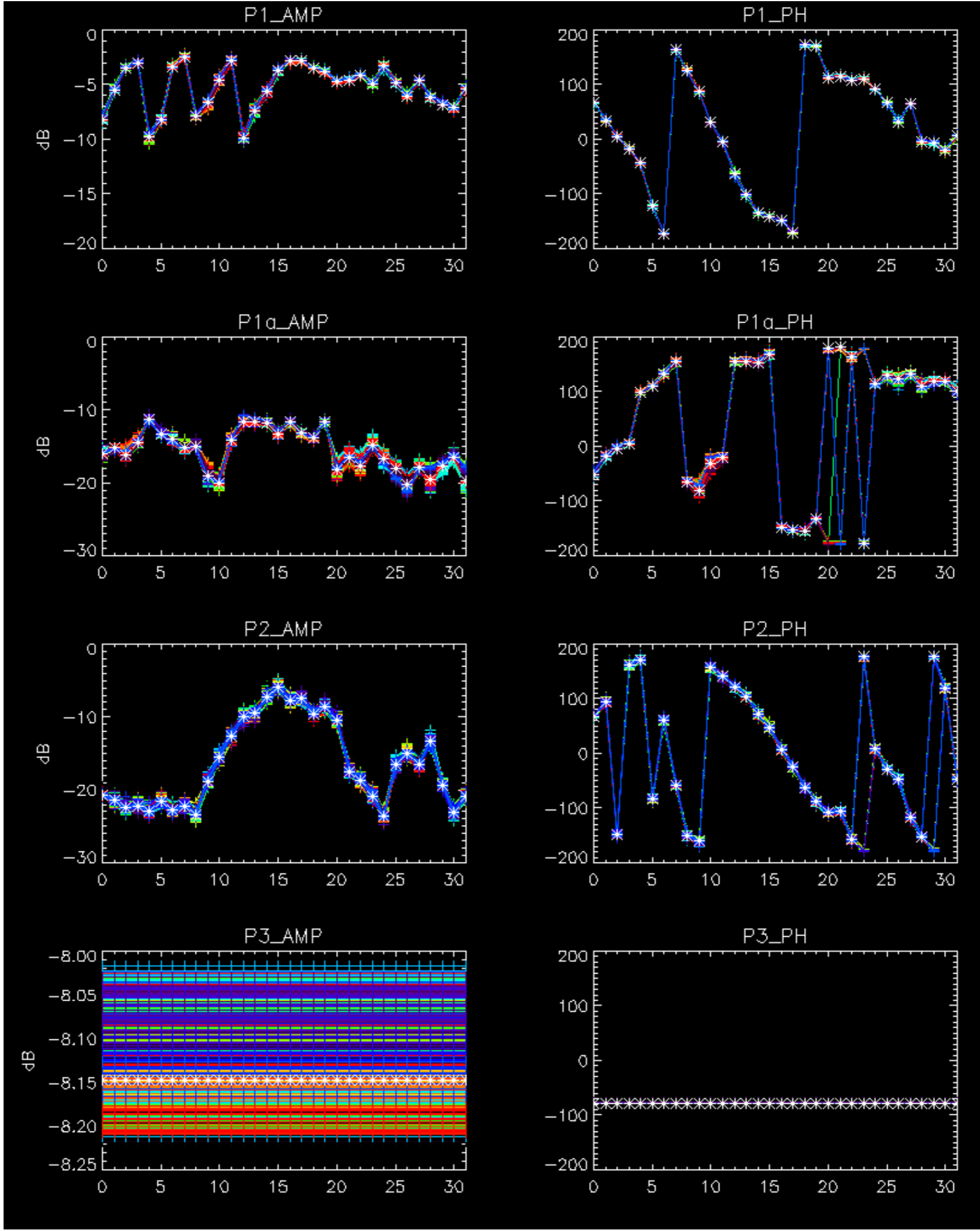
Cal pulses for WVS IS2



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

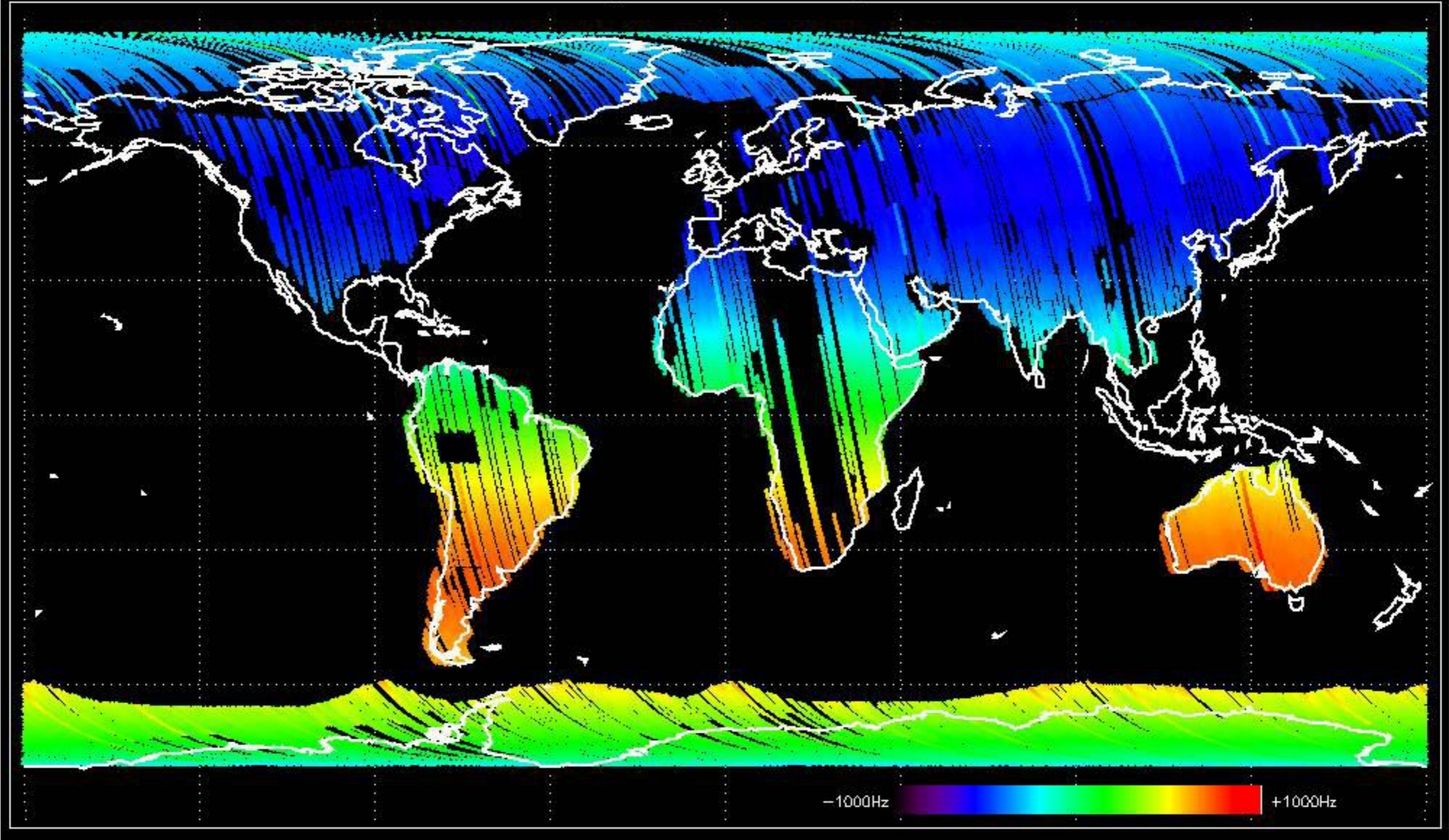
No anomalies observed.



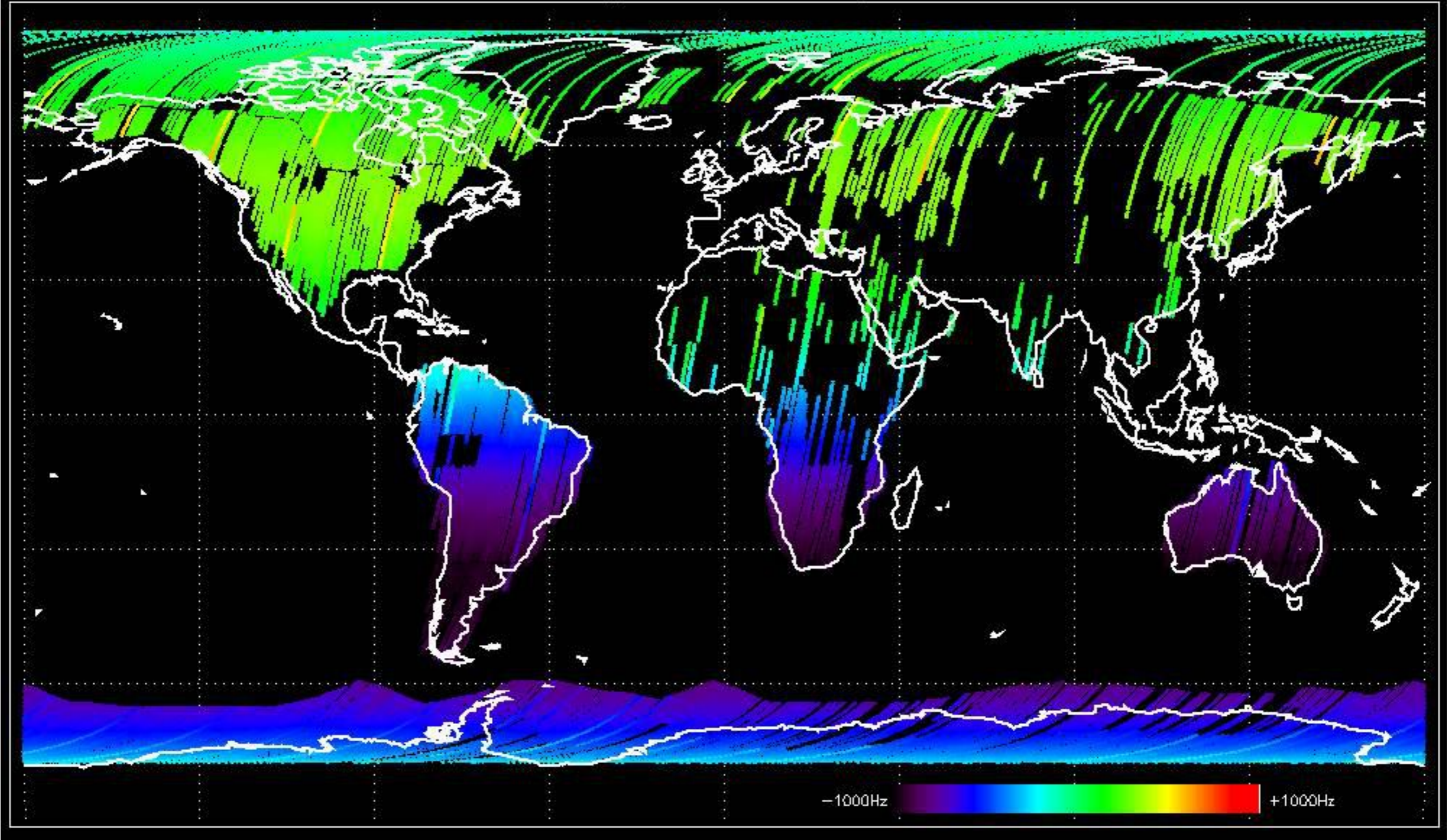


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

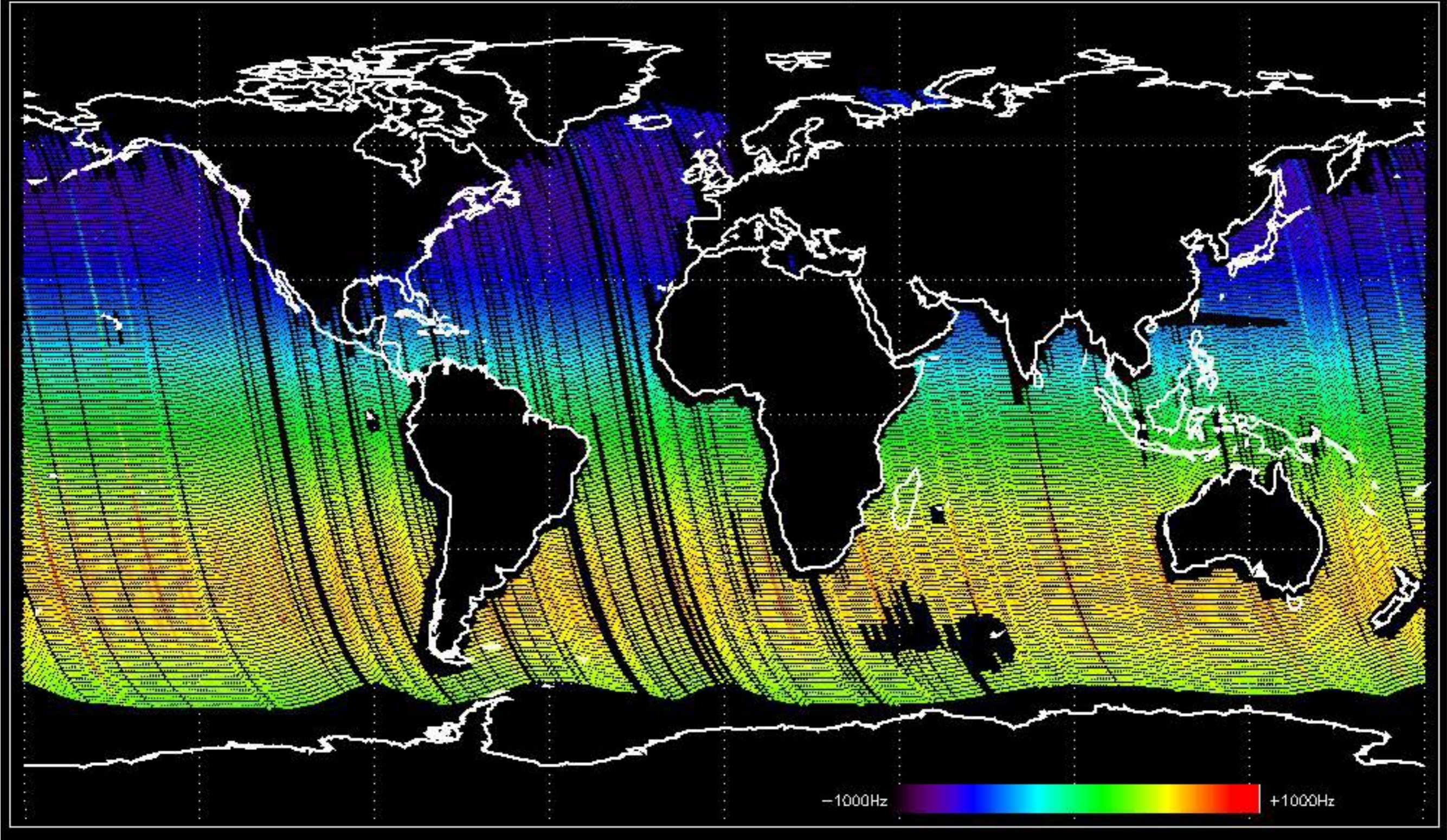
Doppler 'GM1' 'SS1' ascending



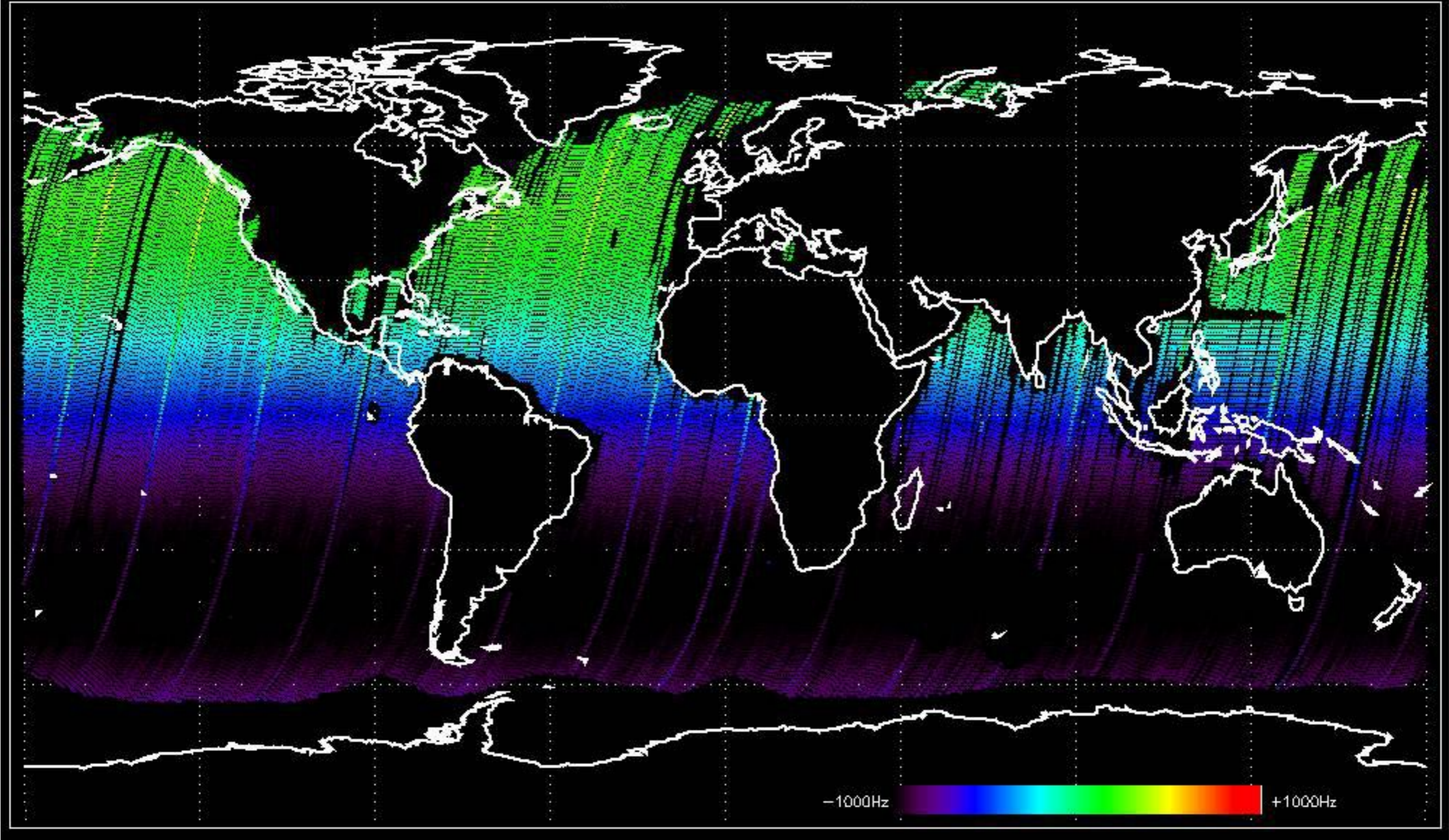
Doppler 'GM1' 'SS1' descending



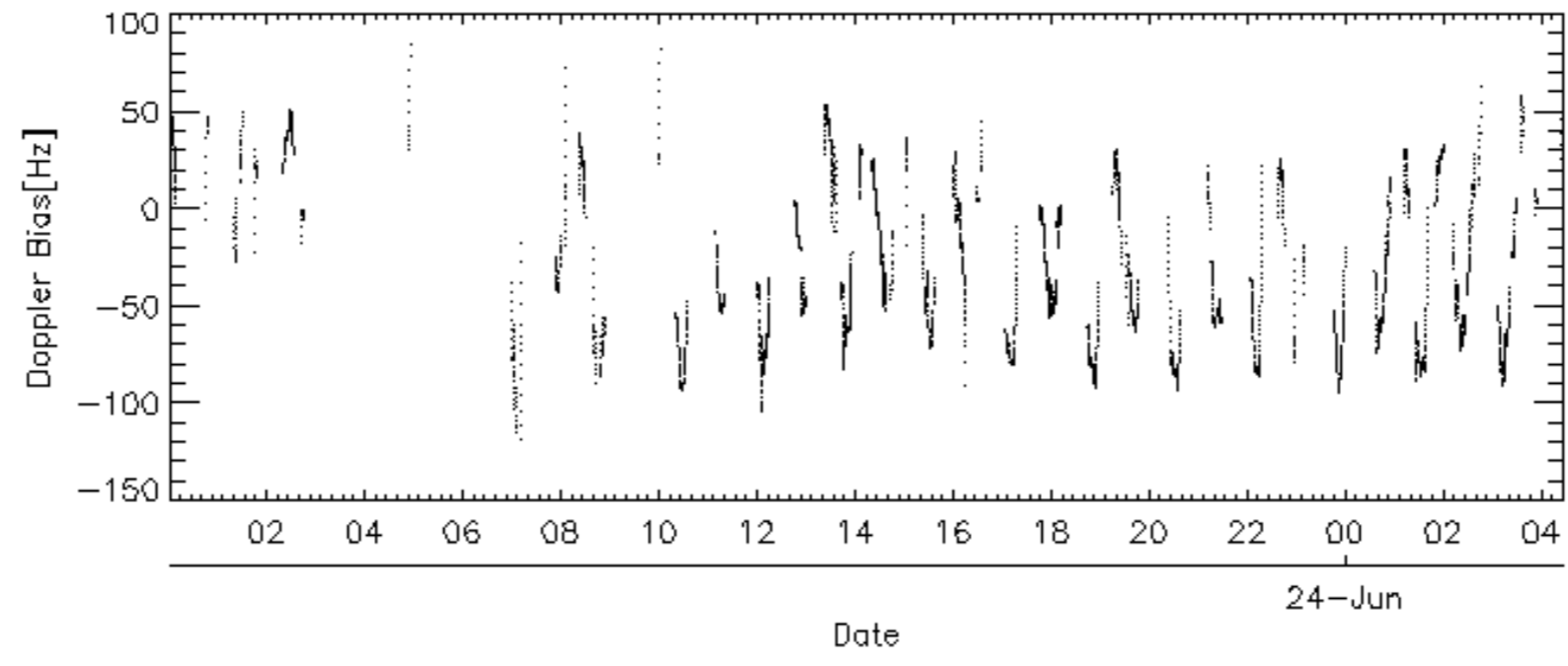
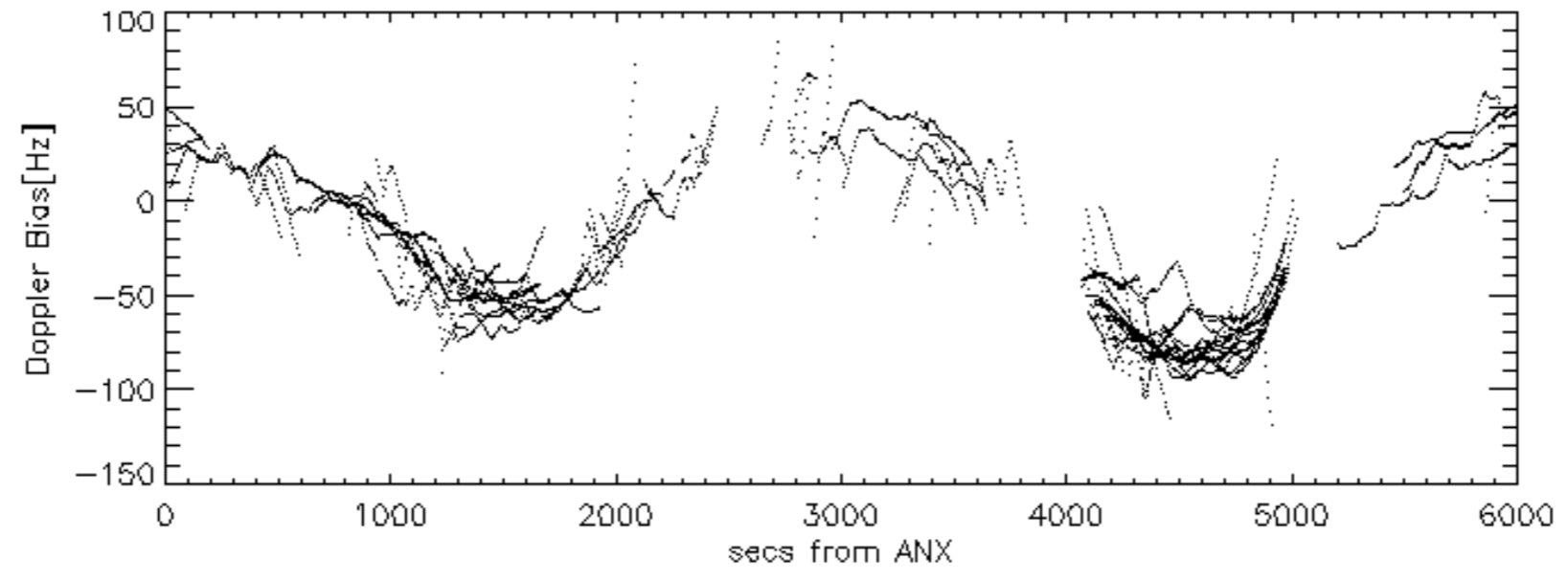
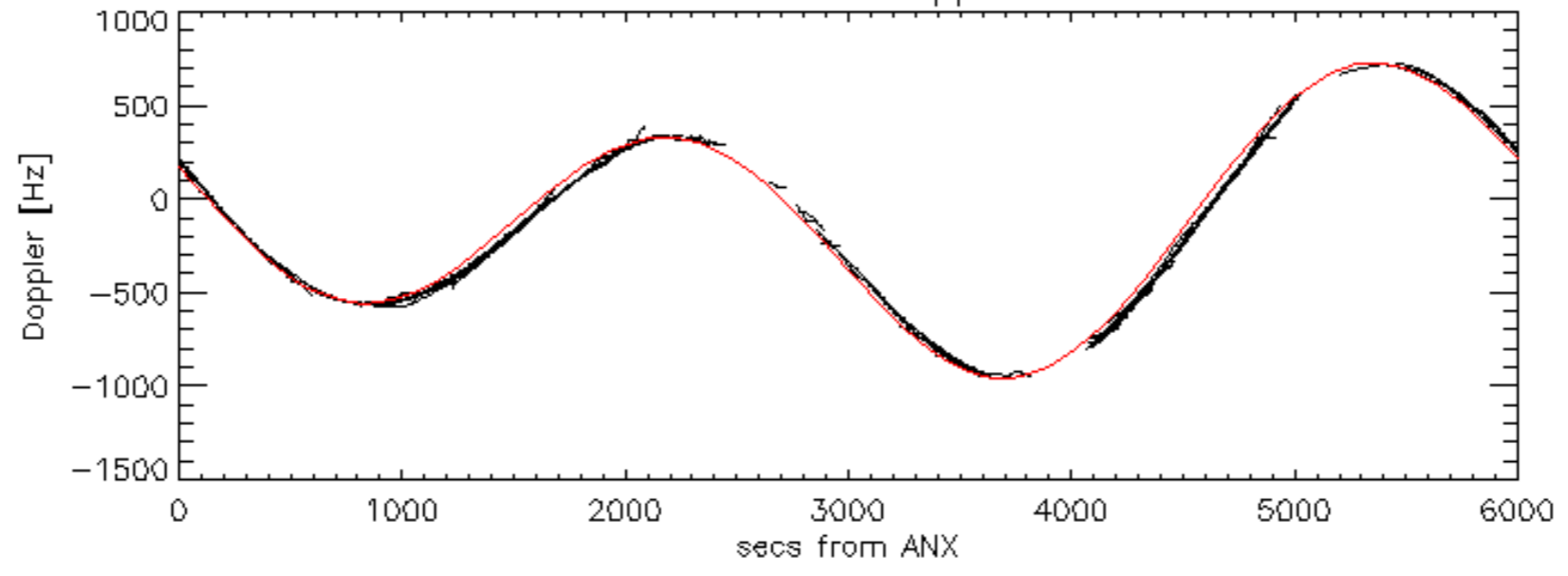
Doppler 'WVS' 'IS2' ascending

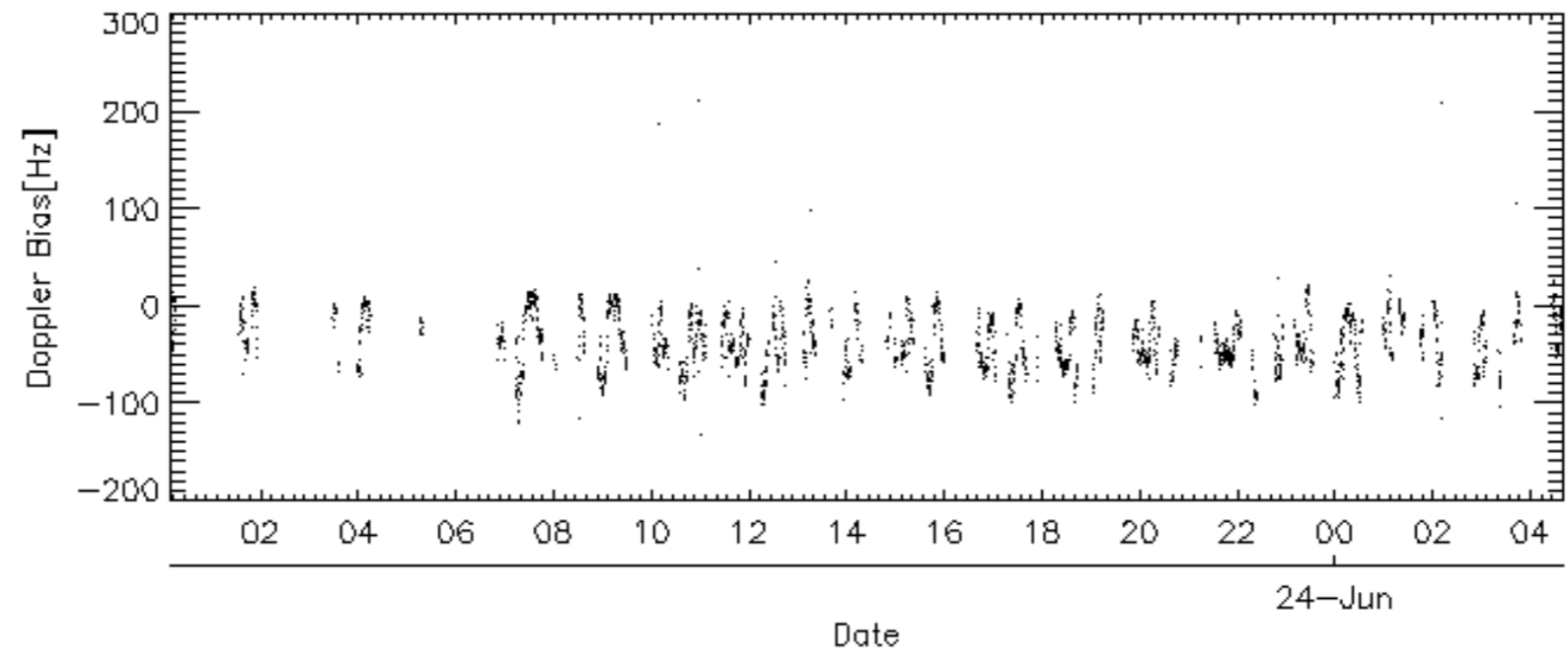
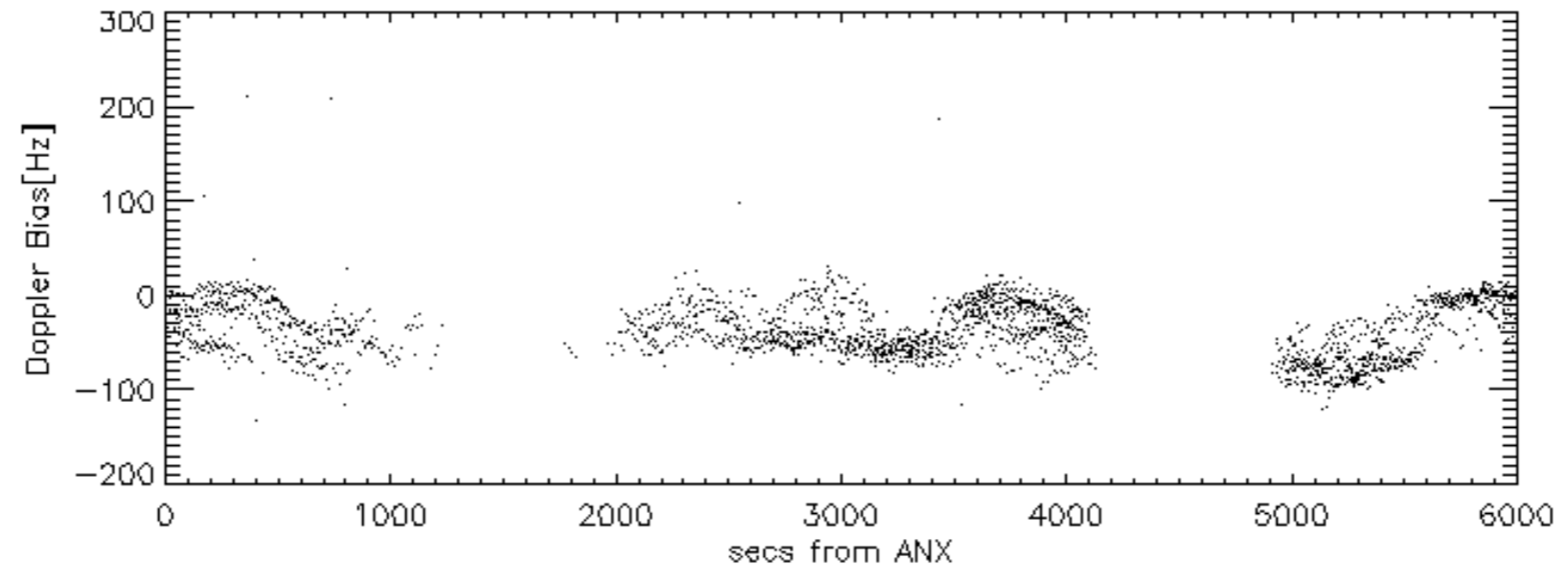
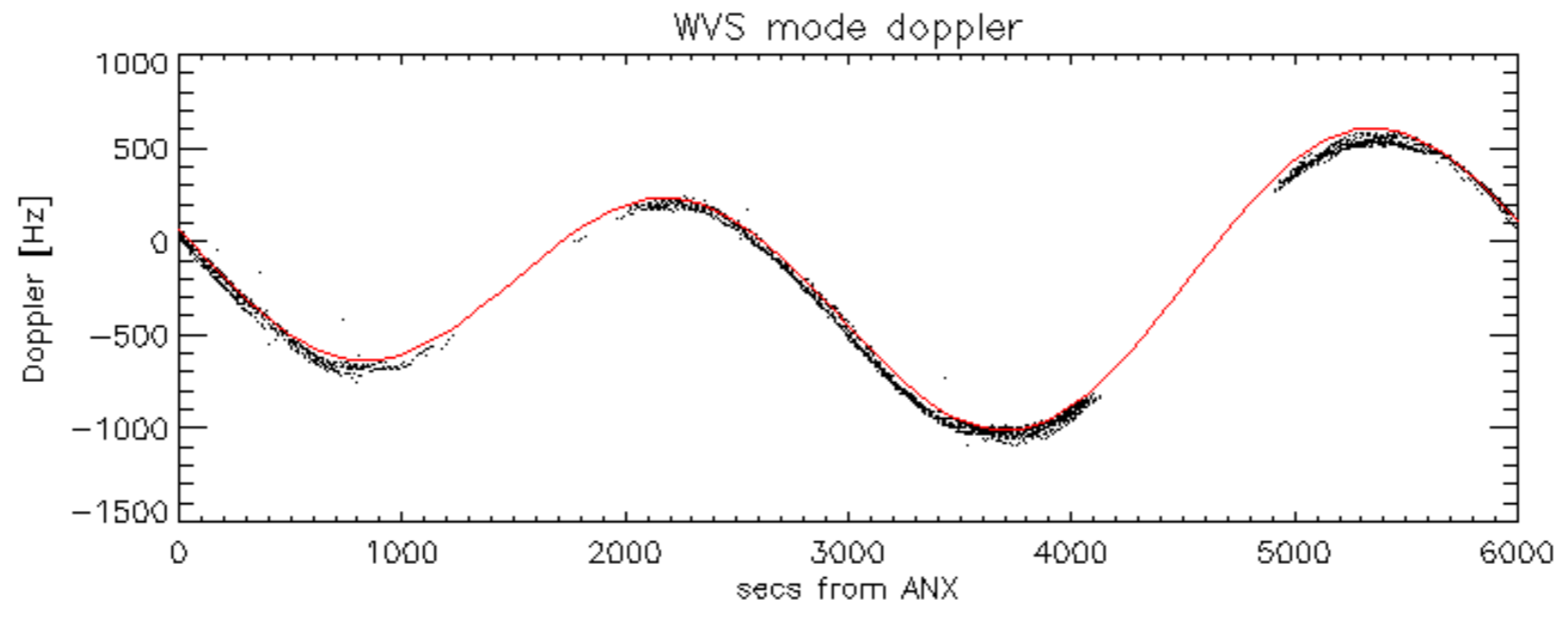


Doppler 'WVS' 'IS2' descending

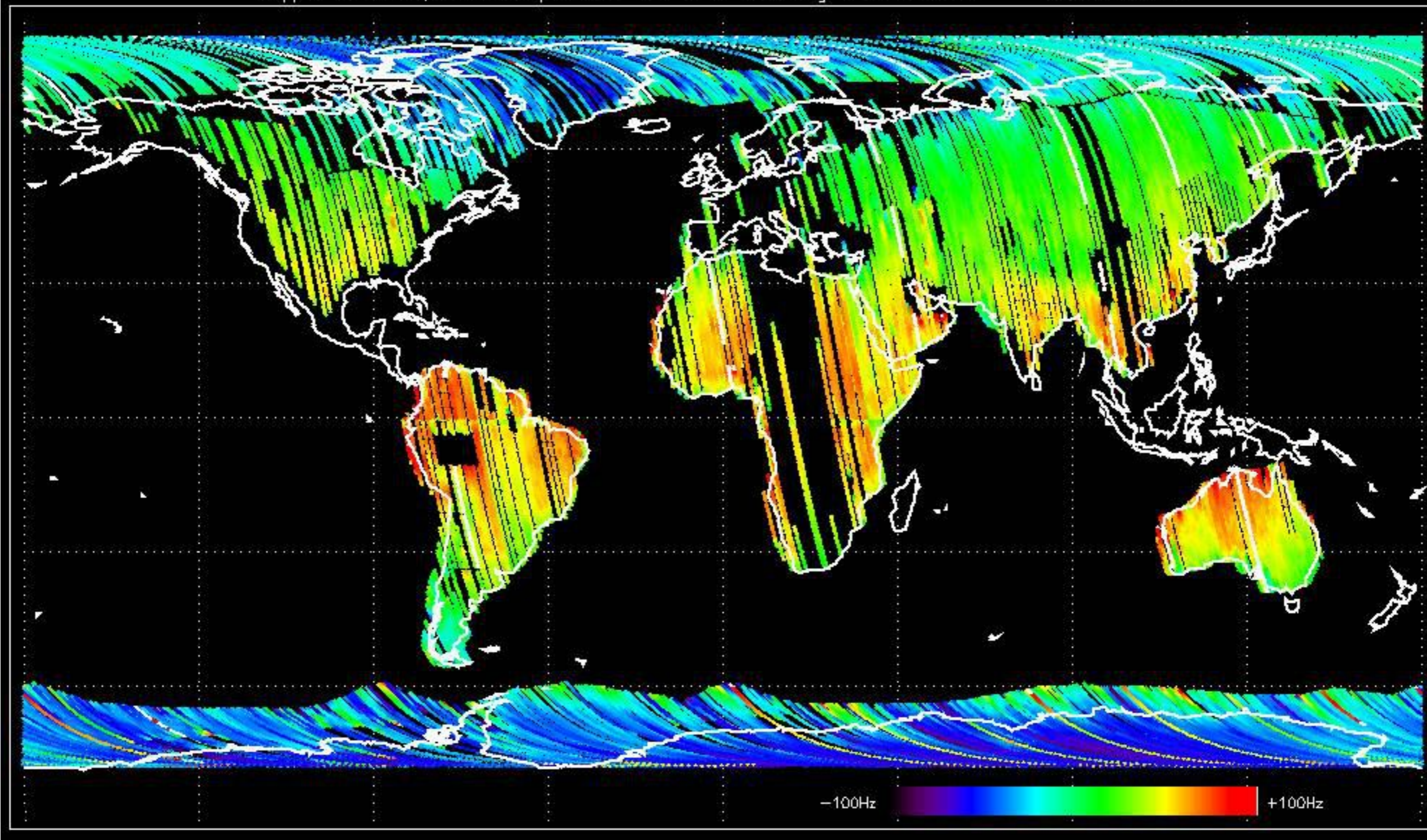


GM1 mode doppler

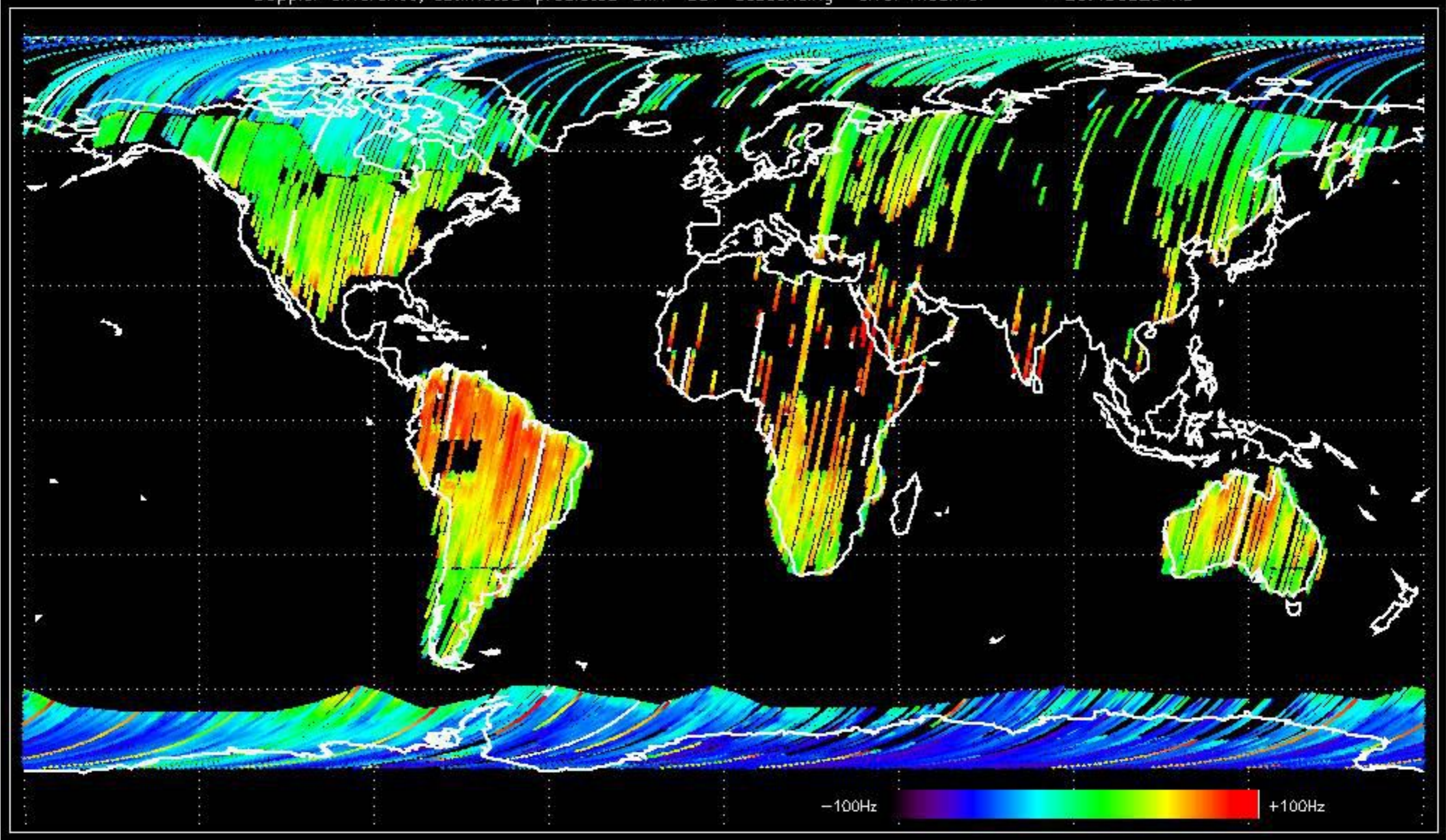




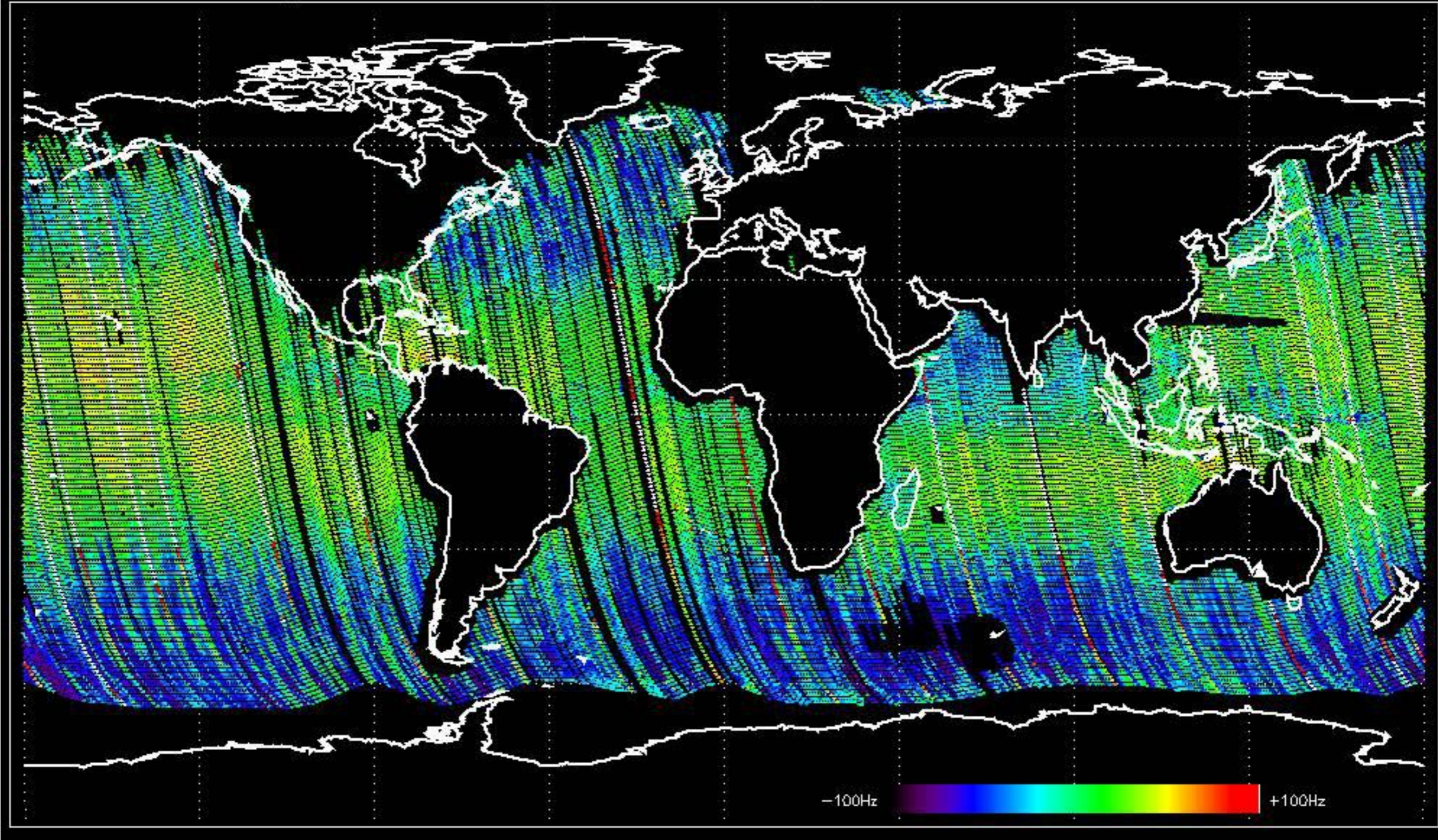
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -25.508000 Hz



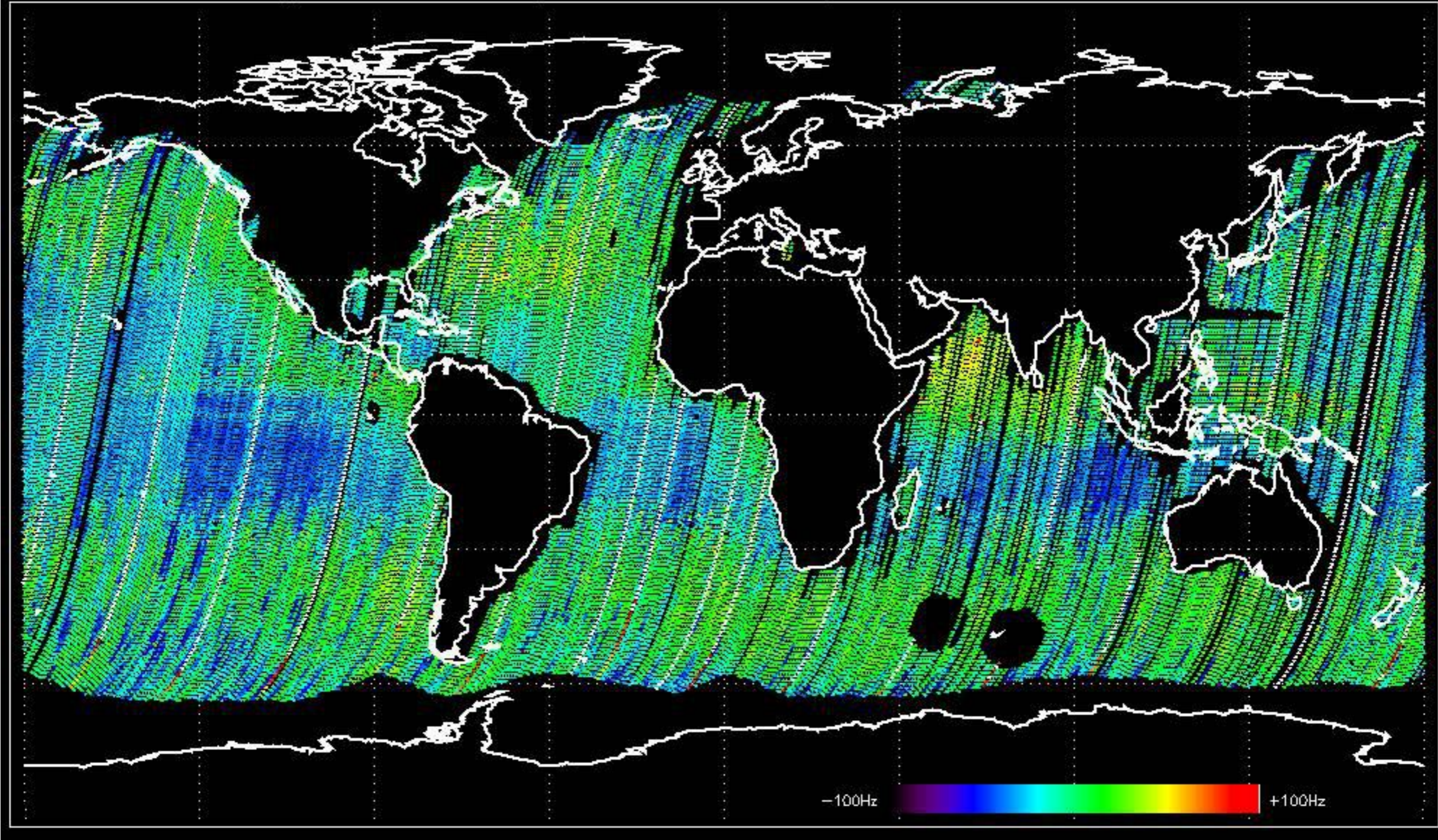
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -23.436525 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -26.749094 Hz

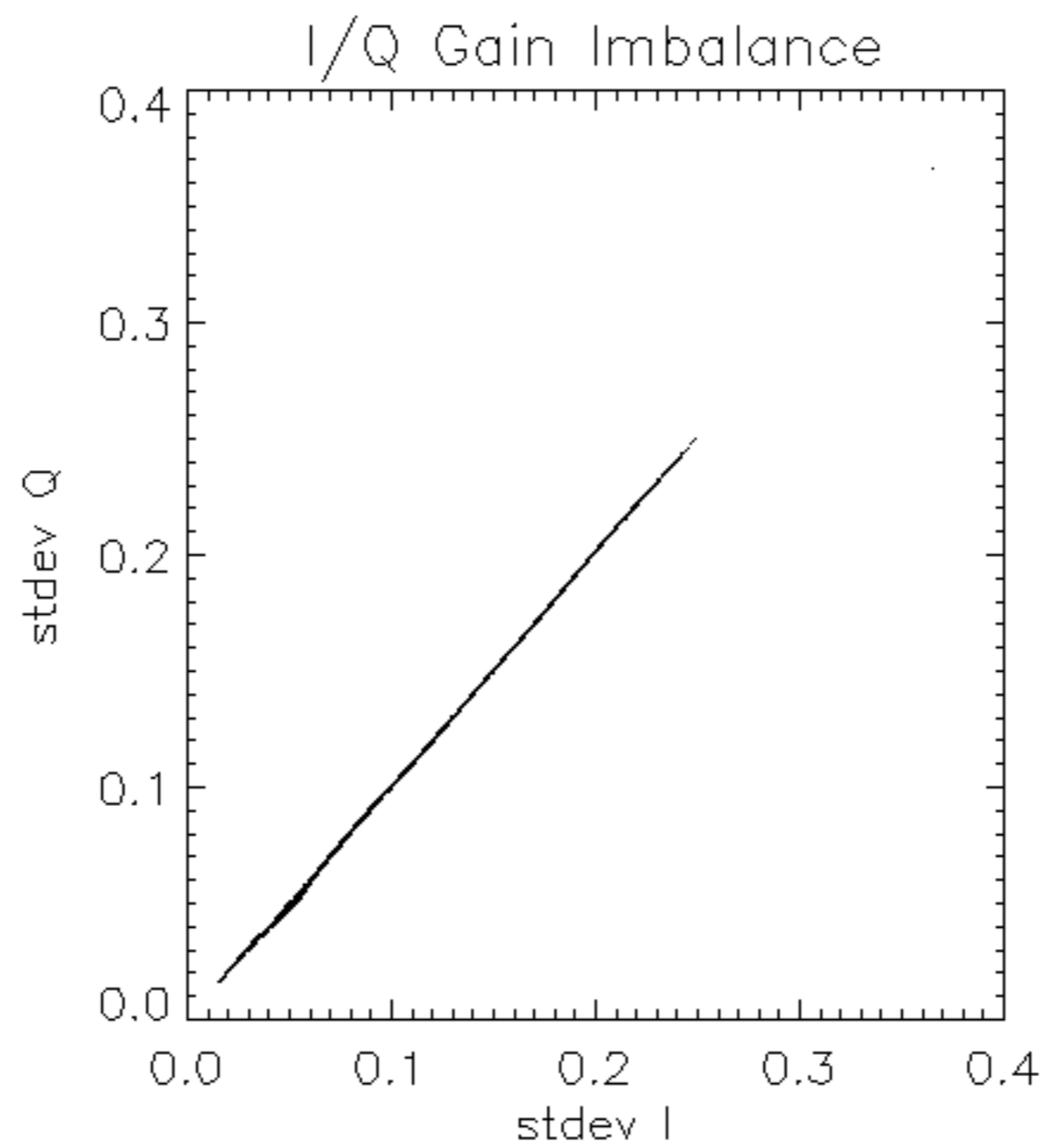


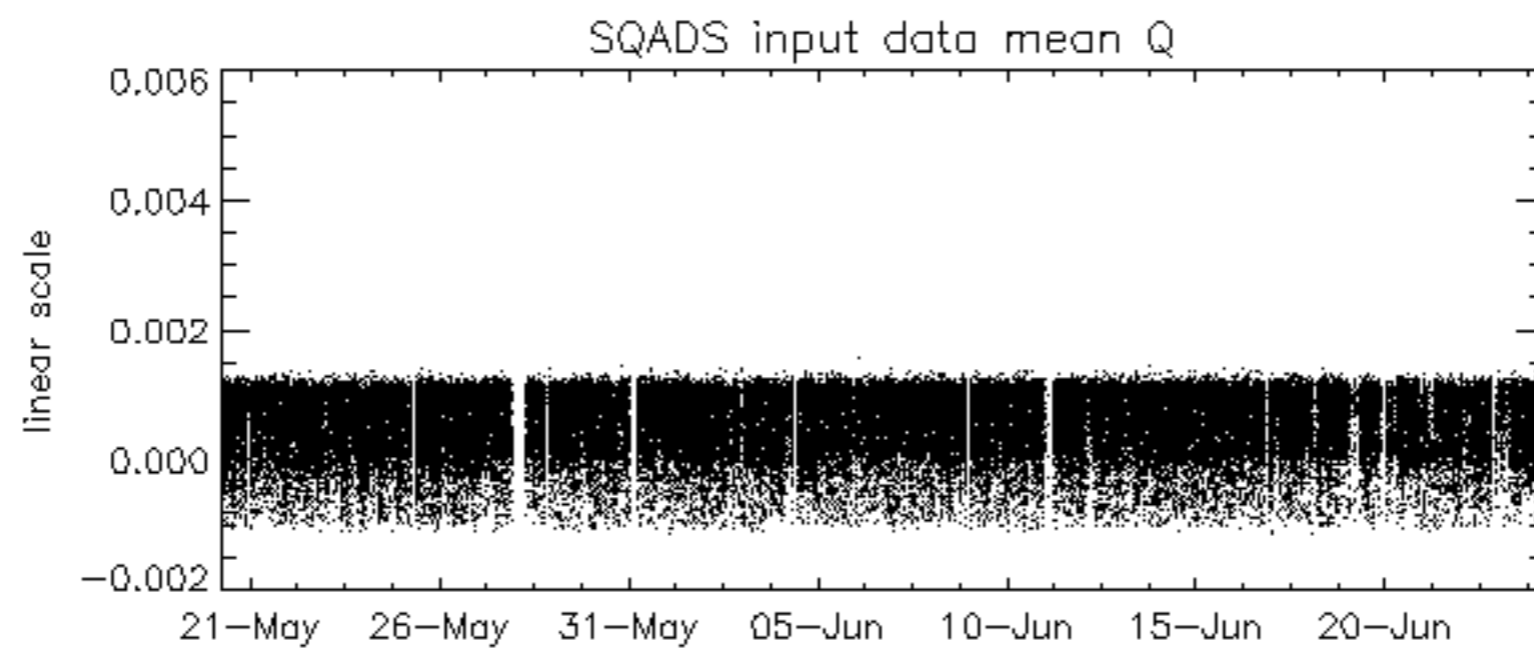
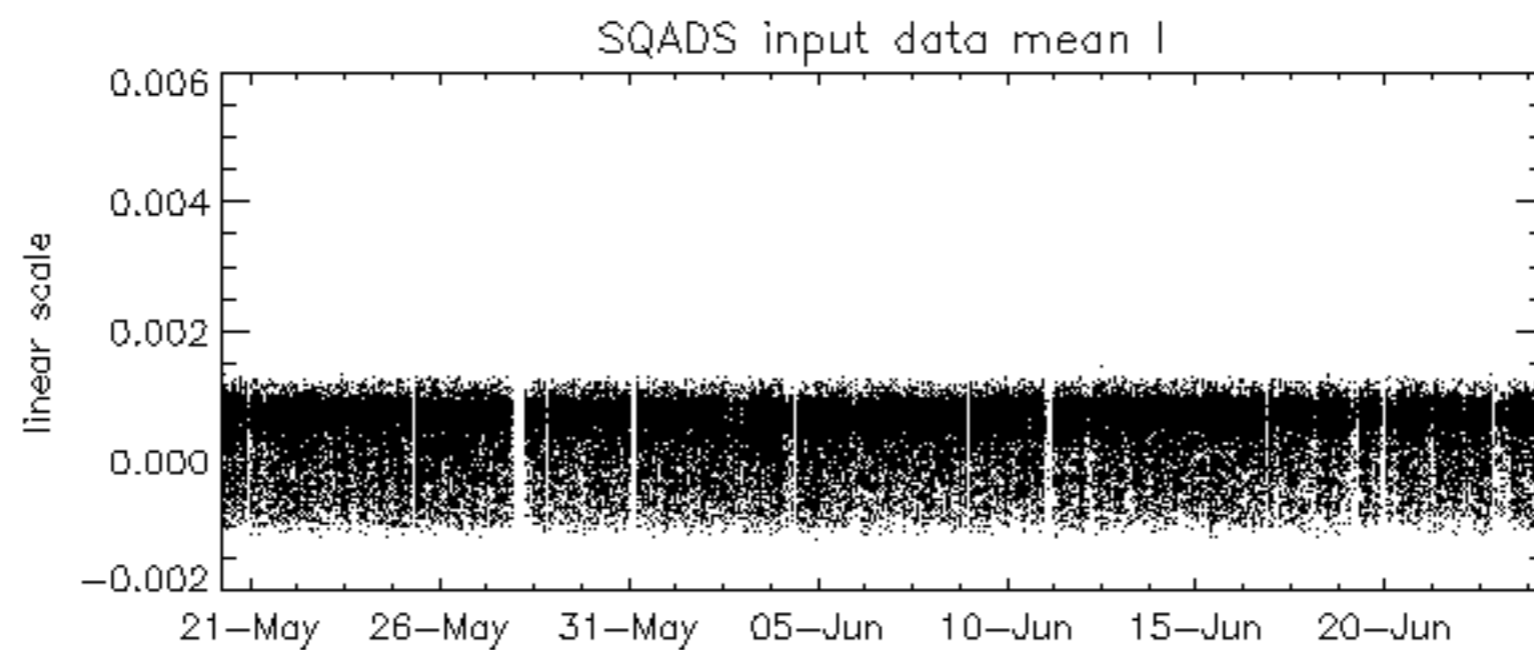
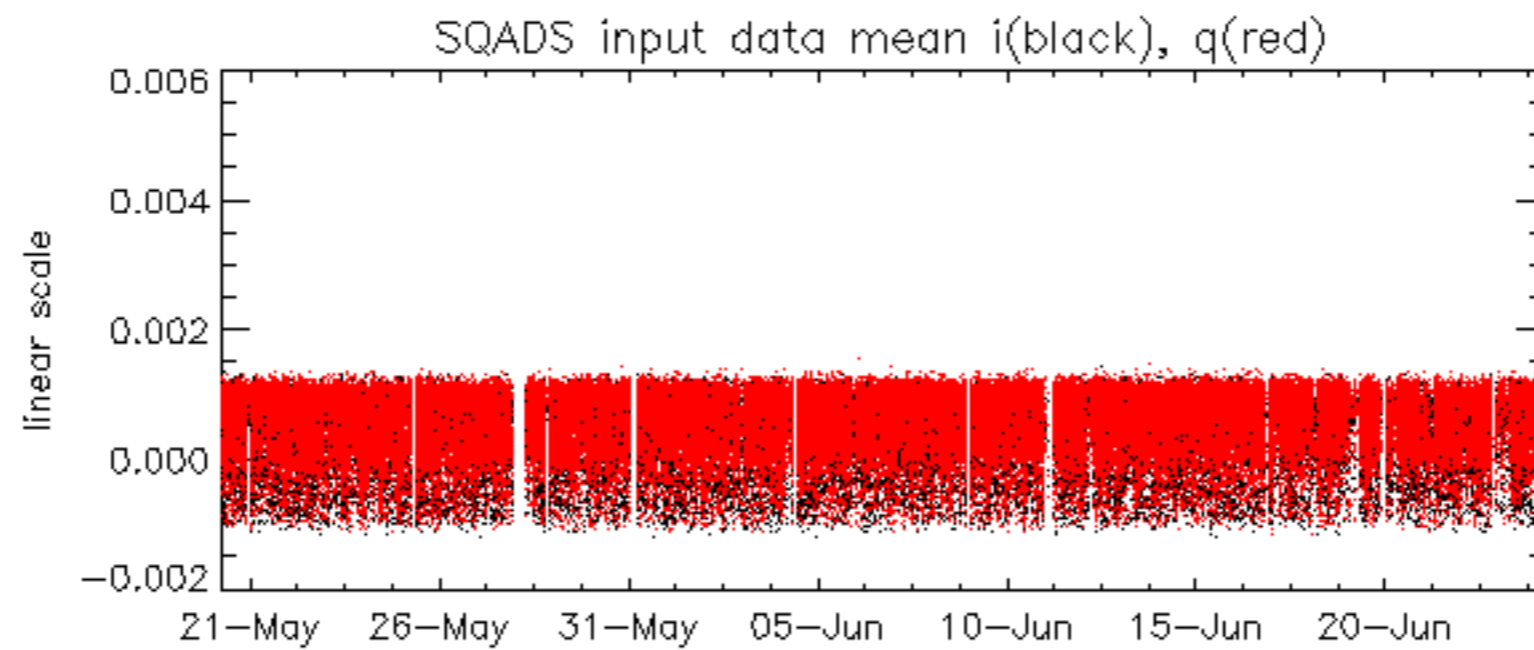
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -24.170598 Hz

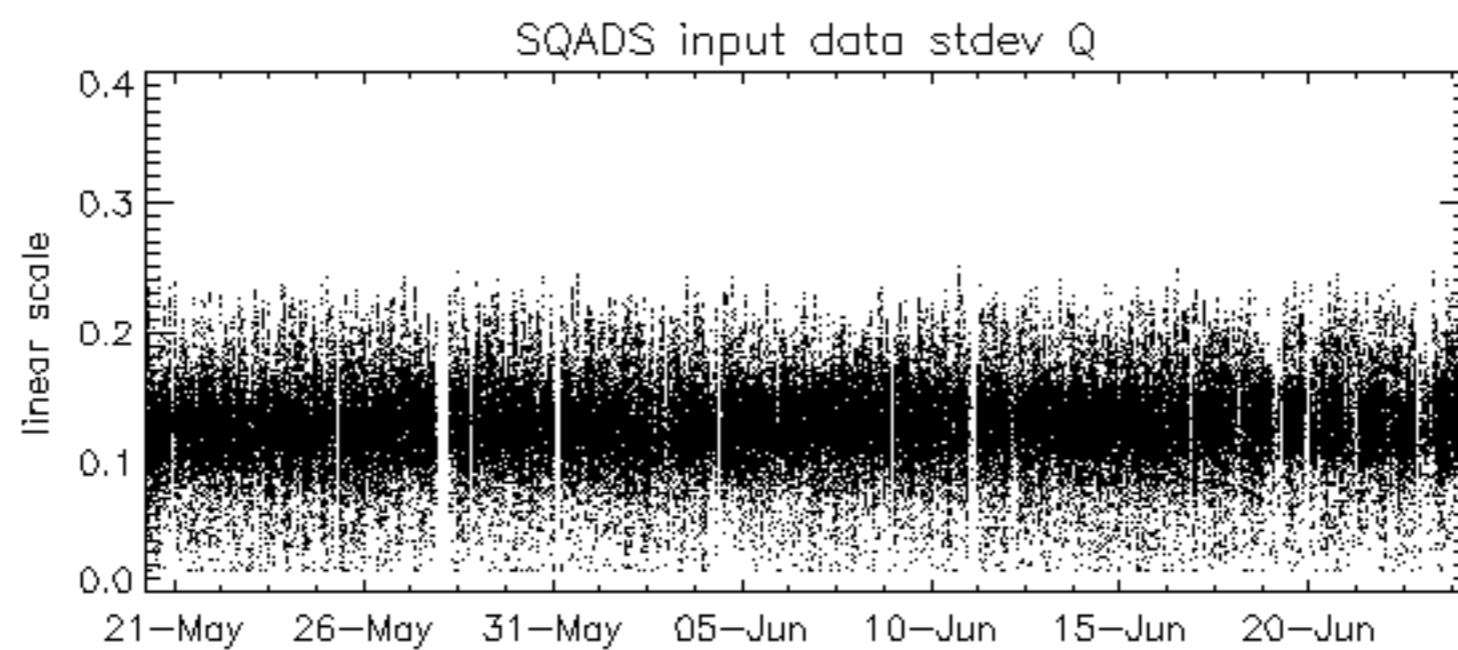
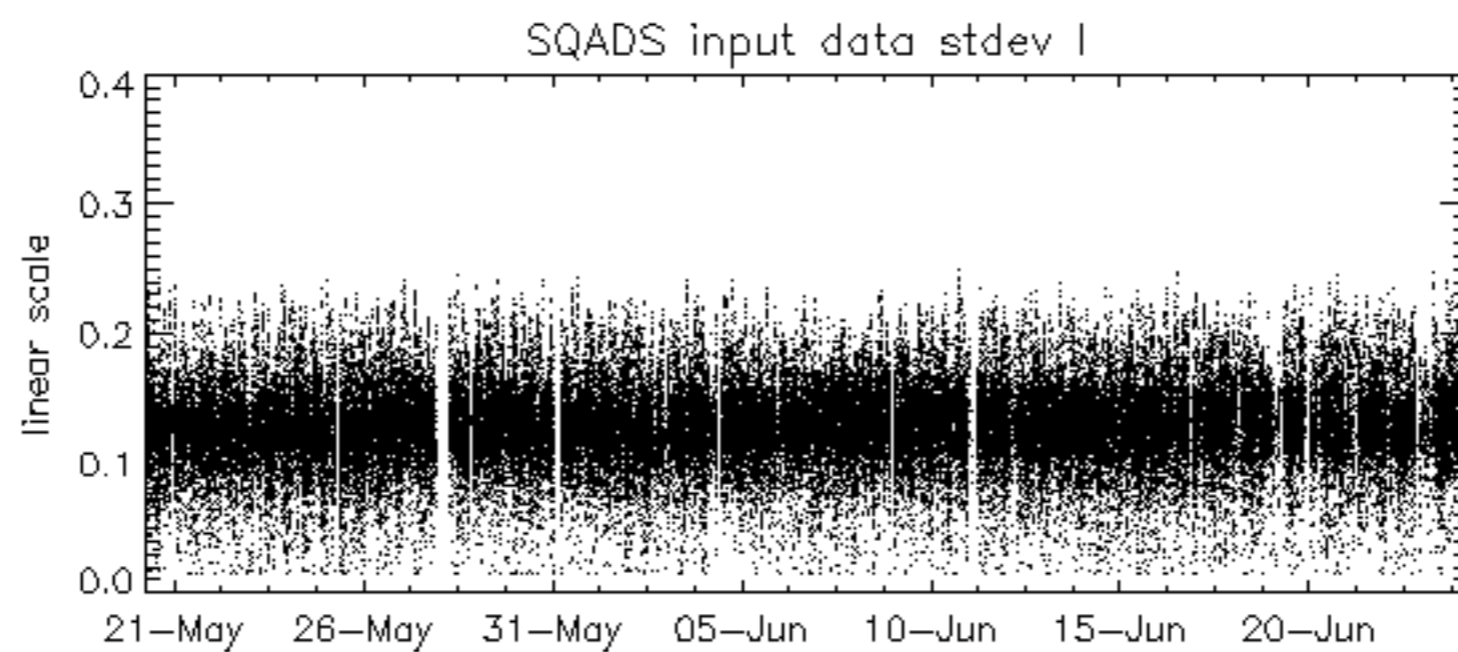
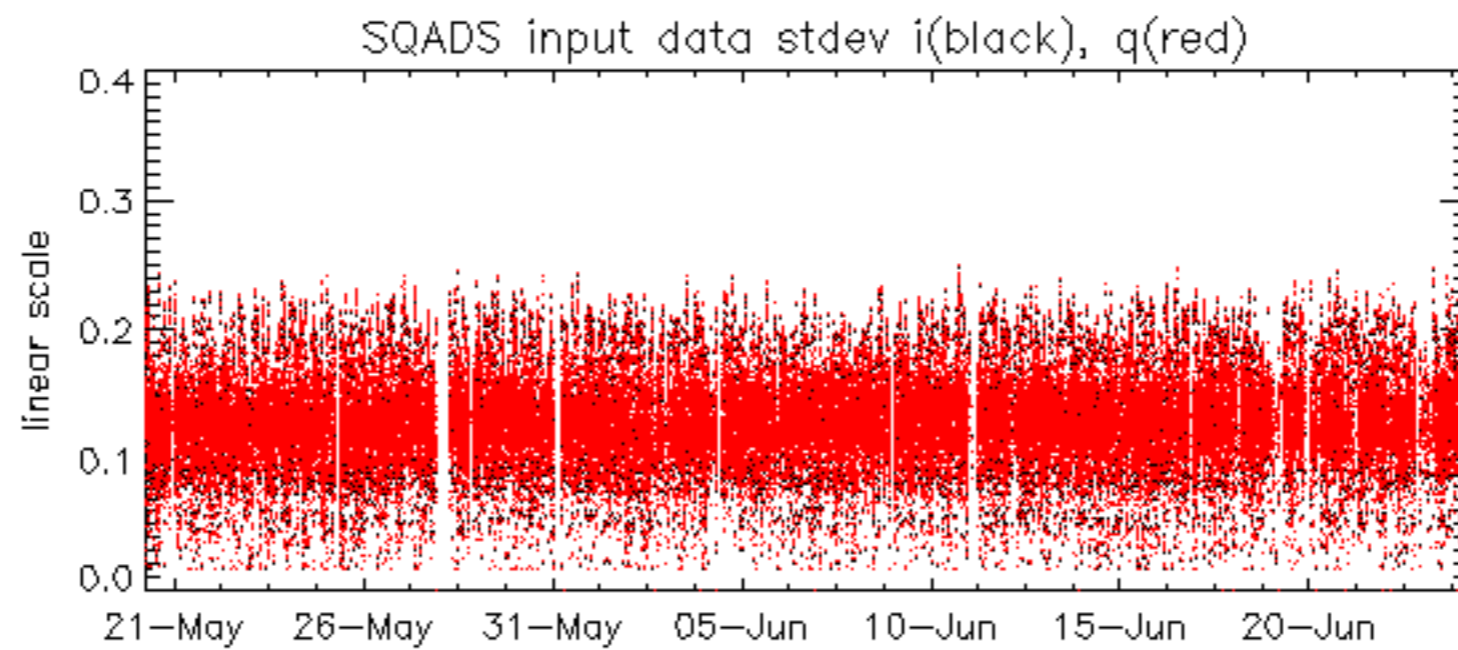


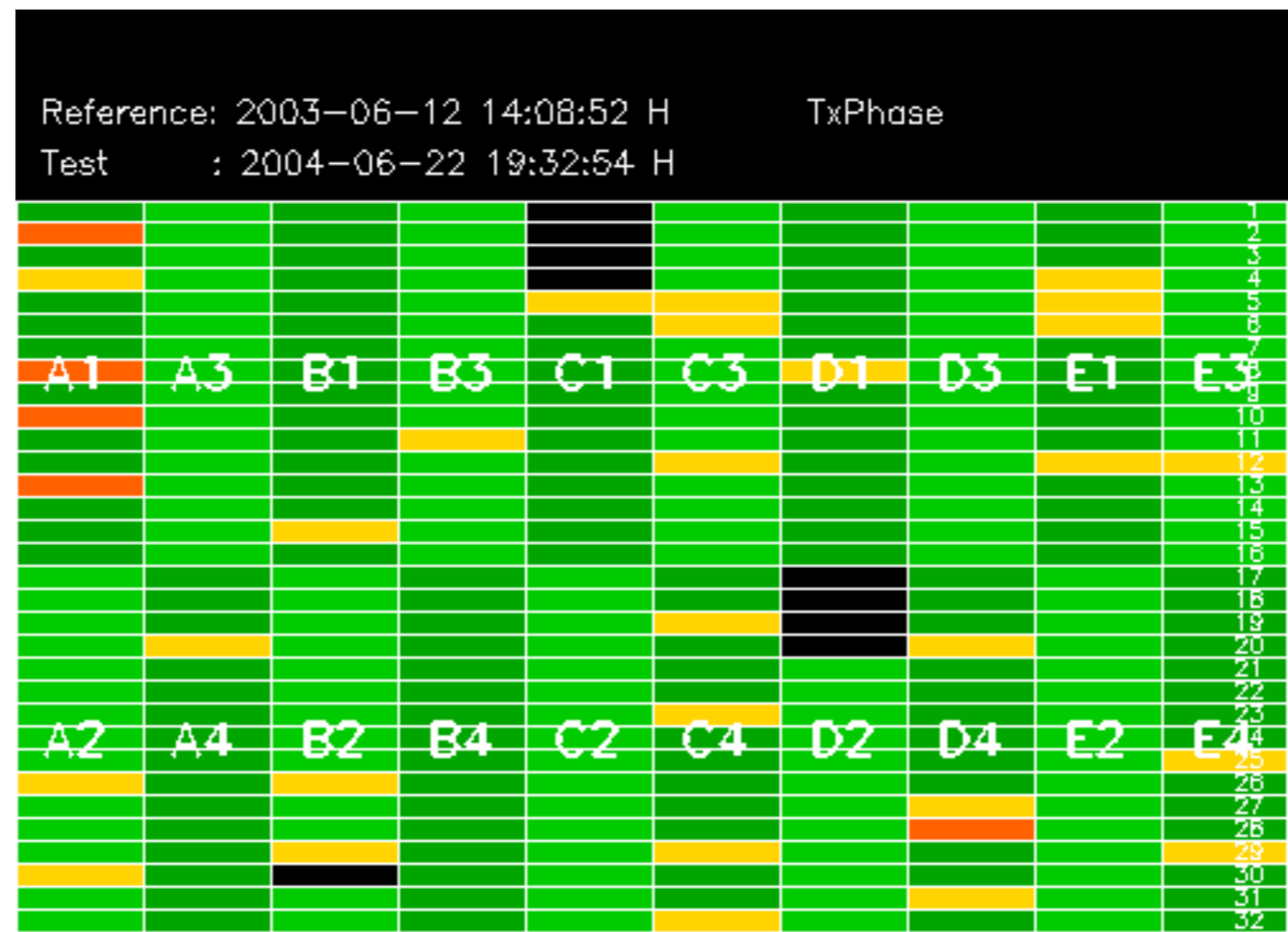
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to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

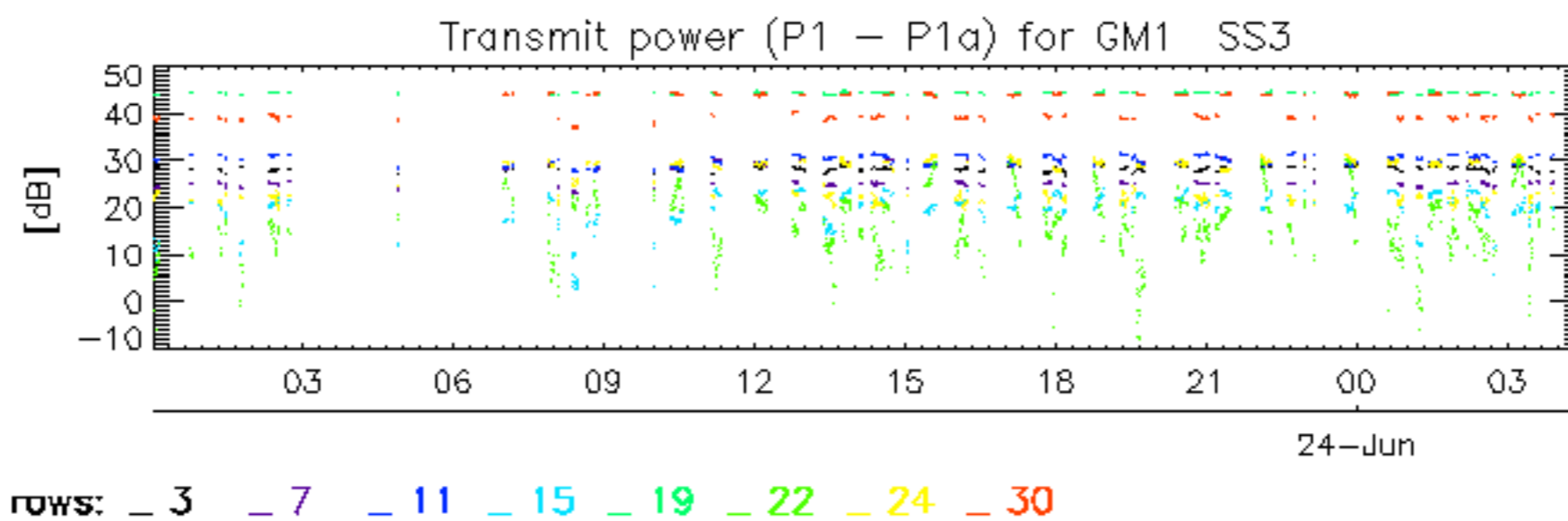
No anomalies observed.

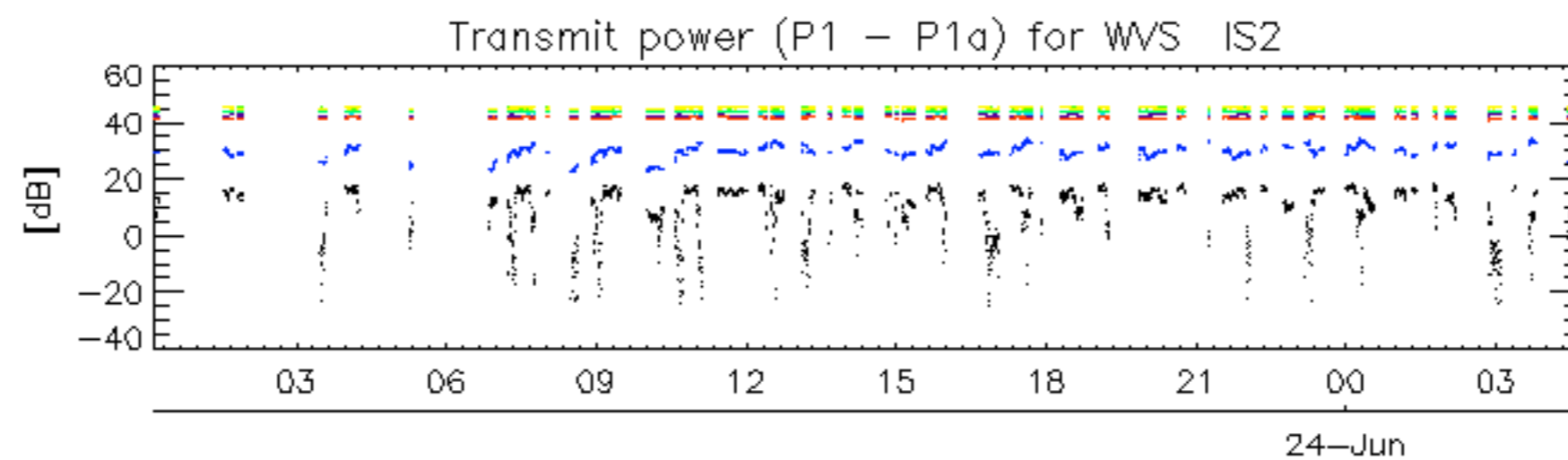












rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

No unavailabilities during the reported period.