

PRELIMINARY REPORT OF 040814

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

last update on Sat Aug 14 13:02:58 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	20040811 043740
H	20040812 040602

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	-3.490544	0.052712	-0.036023
7	P1	-3.341893	0.046666	-0.067654
11	P1	-4.642863	0.117844	-0.100969
15	P1	-5.750737	0.129151	-0.095769
19	P1	-3.454121	0.005190	0.002188
22	P1	-4.556881	0.011020	0.047241
24	P1	-4.957495	0.019207	0.018455
30	P1	-6.910850	0.025107	-0.062278

3	P1	-16.243034	0.521727	-0.098418
7	P1	-13.996532	0.165009	-0.135132
11	P1	-20.067488	0.390110	-0.172211
15	P1	-11.790684	0.178092	-0.095614
19	P1	-13.866220	0.033587	-0.009029
22	P1	-16.282755	0.338305	0.161844
24	P1	-14.587142	0.280766	0.162102
30	P1	-17.701193	0.429077	-0.181534

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.312340	0.079190	0.055245
7	P2	-22.672733	0.125725	0.099611
11	P2	-15.403721	0.155313	0.109500
15	P2	-7.086364	0.091479	0.106265
19	P2	-9.559256	0.175612	0.116732
22	P2	-17.384428	0.109862	0.148737
24	P2	-20.751064	0.083923	0.003250
30	P2	-19.313057	0.078489	0.139969

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.140676	0.002392	0.018393
7	P3	-8.140681	0.002393	0.018446
11	P3	-8.140682	0.002393	0.018460
15	P3	-8.140676	0.002393	0.018401
19	P3	-8.140668	0.002392	0.018352
22	P3	-8.140663	0.002392	0.018321
24	P3	-8.140662	0.002392	0.018287
30	P3	-8.140599	0.002390	0.017943

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	-2.854623	0.188285	0.221824
7	P1	-3.029605	0.229526	-0.119926
11	P1	-3.865392	0.185192	-0.045601
15	P1	-3.613759	0.319483	0.450917
19	P1	-3.462001	0.023899	-0.077213
22	P1	-5.669083	0.047233	-0.000791
24	P1	-3.882890	0.034250	0.064971
30	P1	-6.174123	0.074811	0.028150
3	P1	-10.653621	0.568634	0.271036
7	P1	-10.092566	0.240242	-0.193571
11	P1	-12.057366	0.197256	-0.171861
15	P1	-11.658788	0.206493	0.170774
19	P1	-15.550733	0.209598	-0.398832
22	P1	-23.067804	2.370087	-1.468539
24	P1	-17.691011	0.273144	-0.559352
30	P1	-20.454206	1.838413	0.484423

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.988552	0.086804	0.066490
7	P2	-22.779339	0.257475	0.038707
11	P2	-11.022111	0.125623	-0.022057
15	P2	-4.948708	0.042091	0.024929
19	P2	-6.783621	0.061404	0.141444
22	P2	-7.481054	0.110109	0.158473
24	P2	-11.038364	0.146523	0.041984
30	P2	-22.235620	0.115265	0.055858

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.983247	0.003928	0.005098
7	P3	-7.983355	0.003933	0.005227
11	P3	-7.983308	0.003927	0.004648
15	P3	-7.983195	0.003930	0.004834
19	P3	-7.983291	0.003934	0.004964
22	P3	-7.983289	0.003925	0.005205
24	P3	-7.983352	0.003948	0.004962
30	P3	-7.983343	0.003925	0.005298

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	0.000496777
	stdev	2.11437e-07
MEAN Q	mean	0.000539130
	stdev	2.43362e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129421
	stdev	0.00102948

STDEV Q	mean	0.129668
	stdev	0.00104161





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

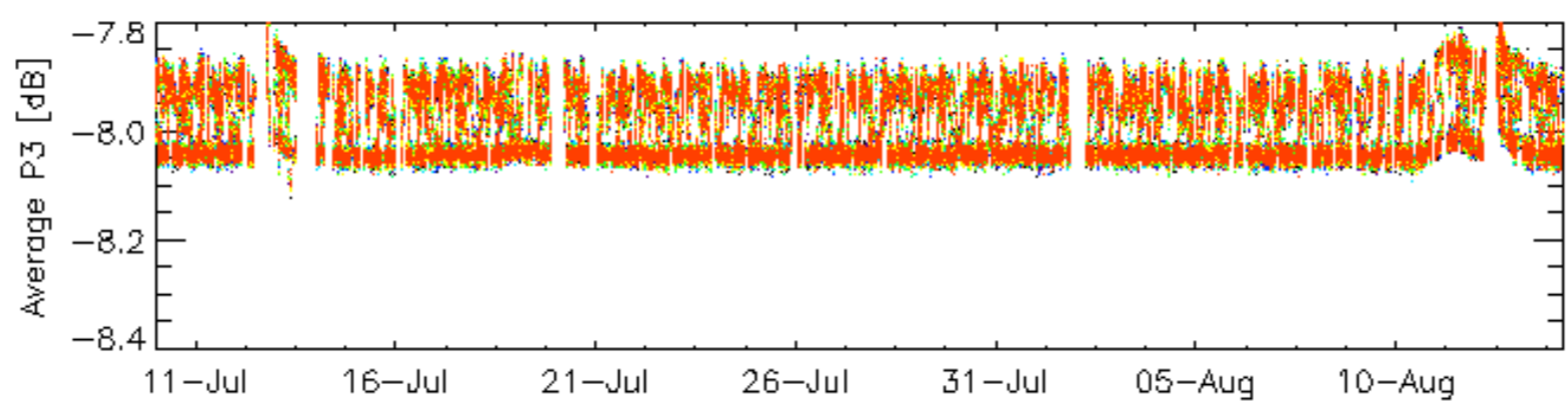
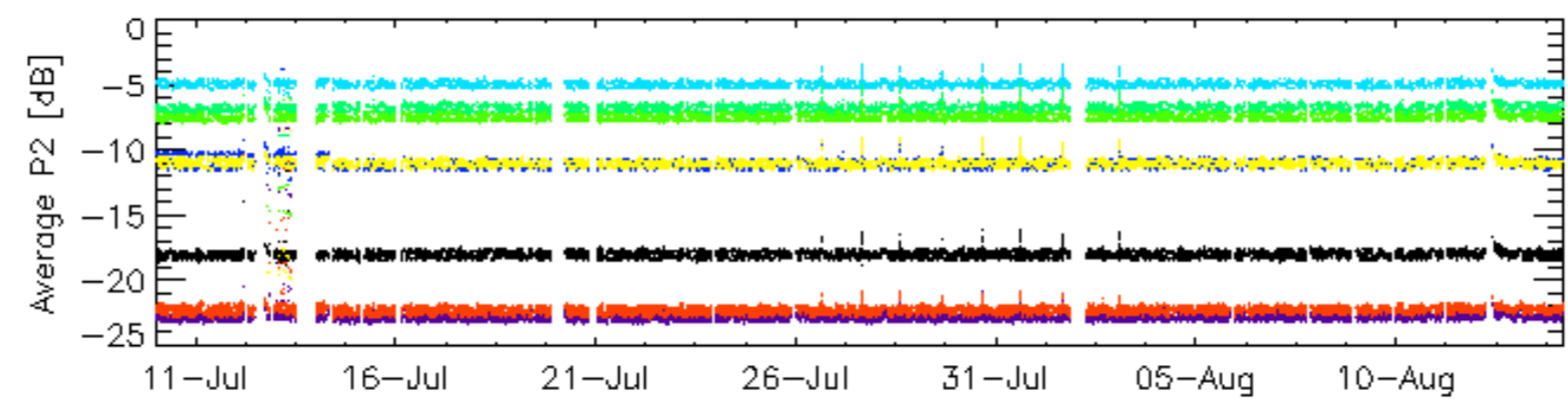
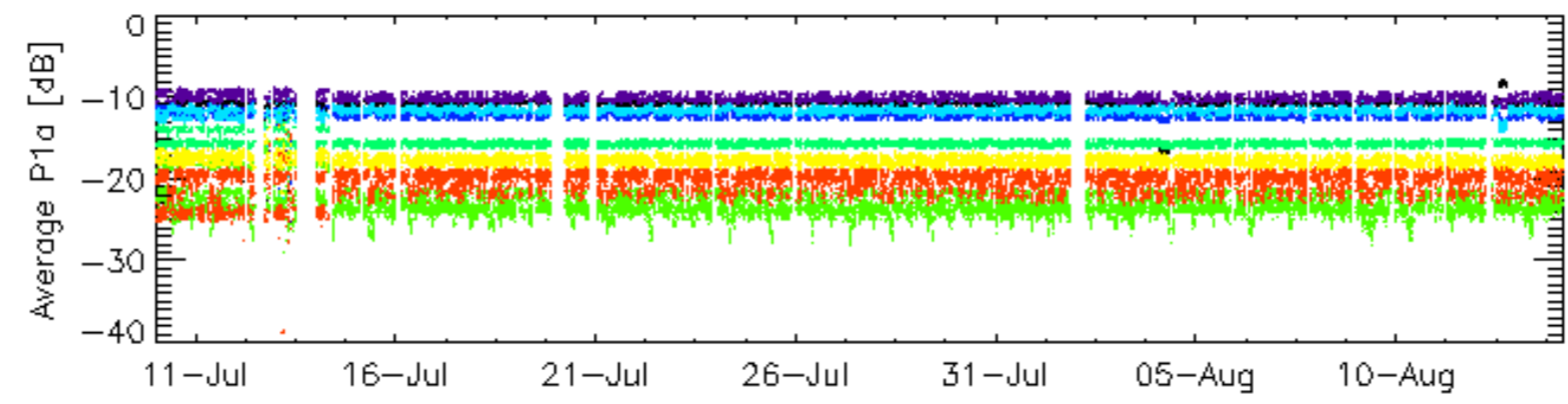
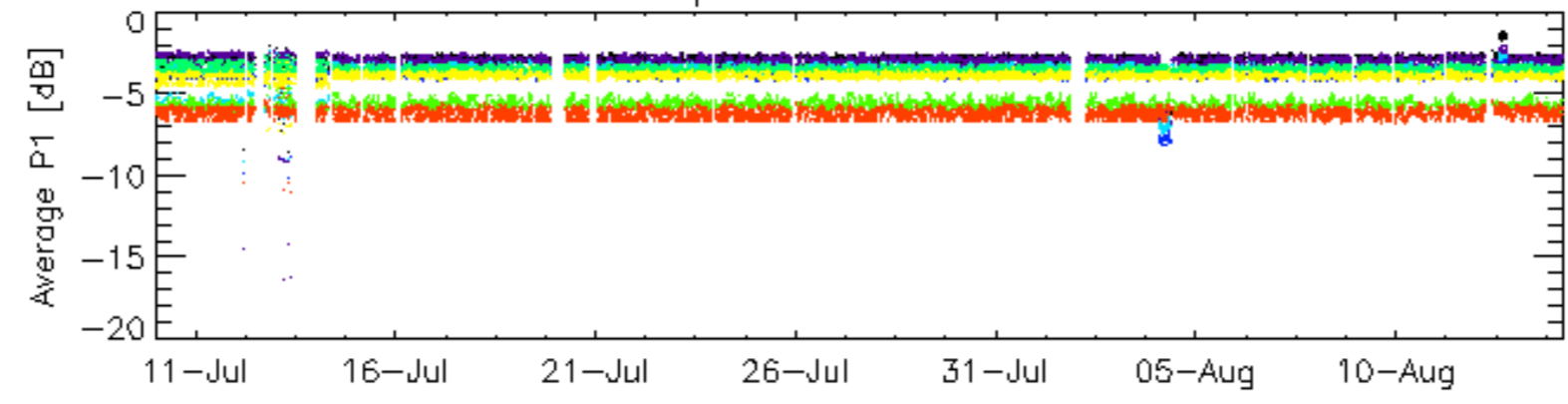
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

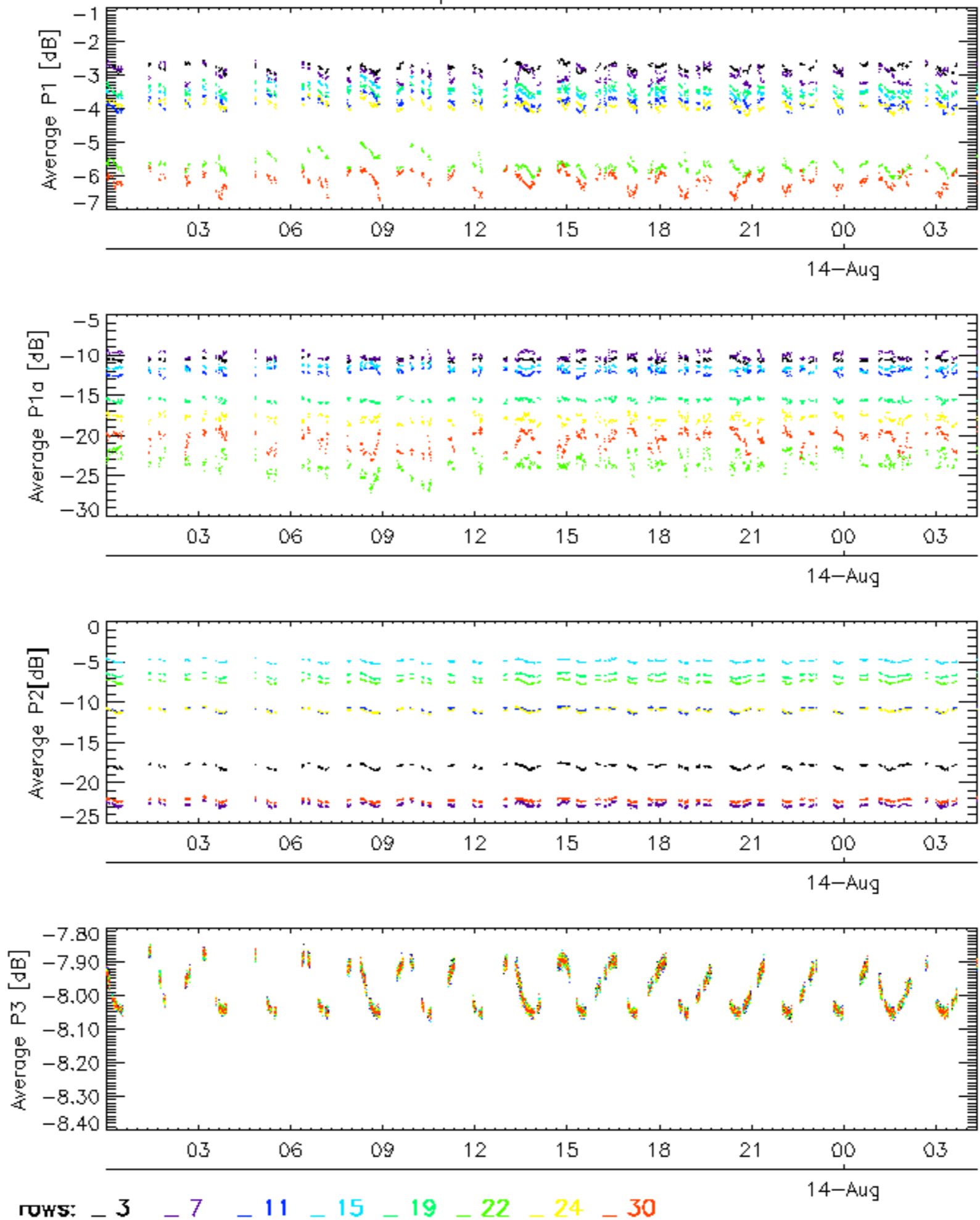
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

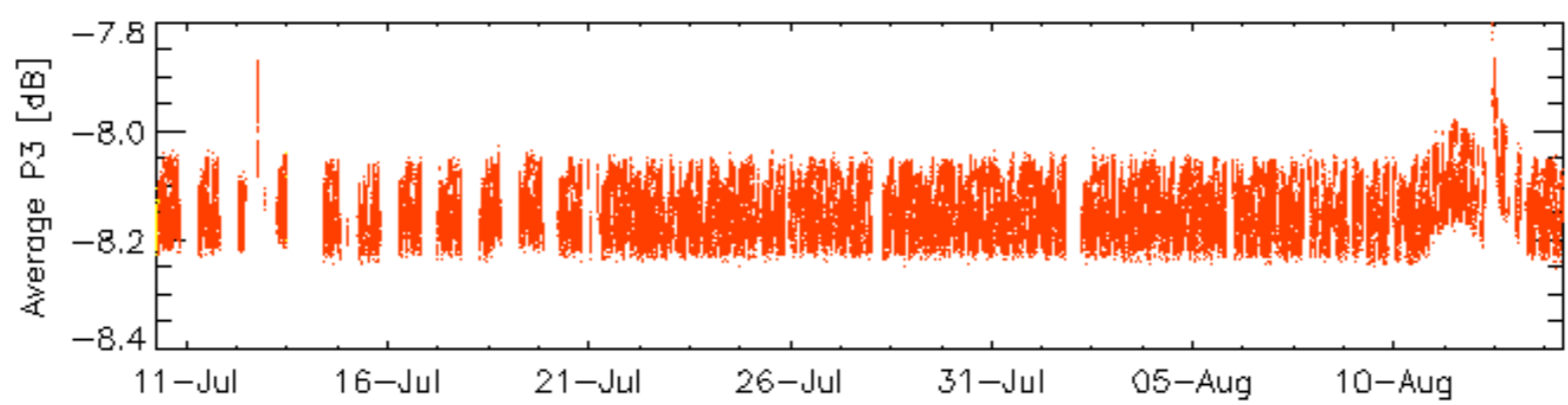
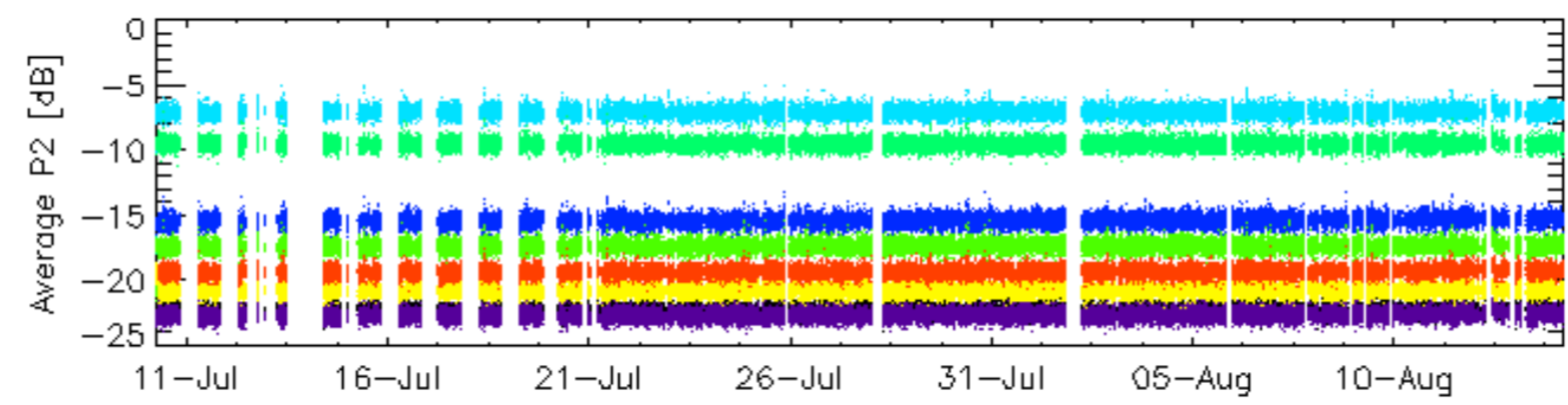
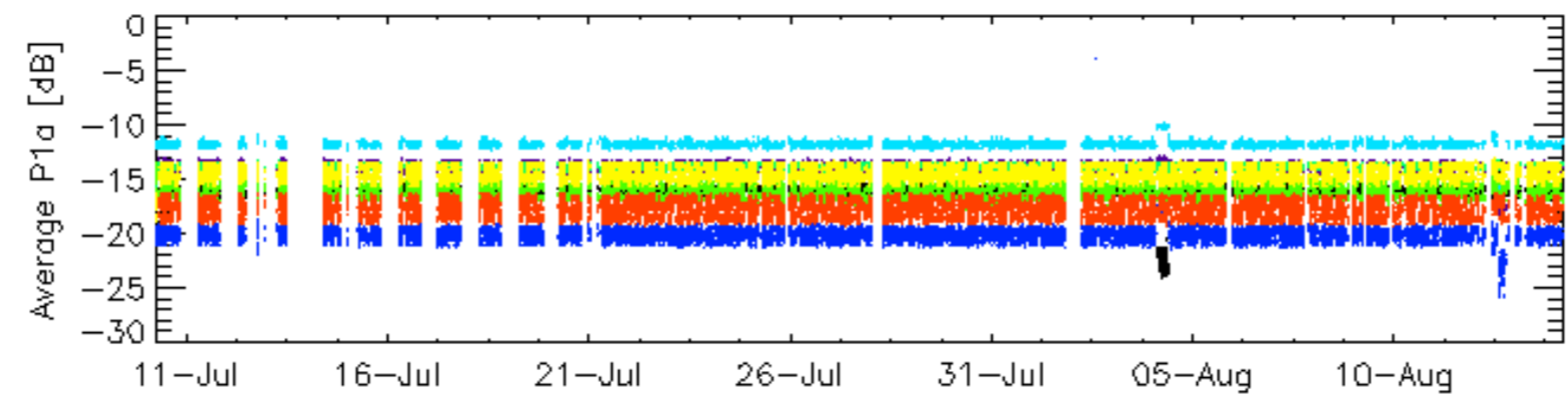
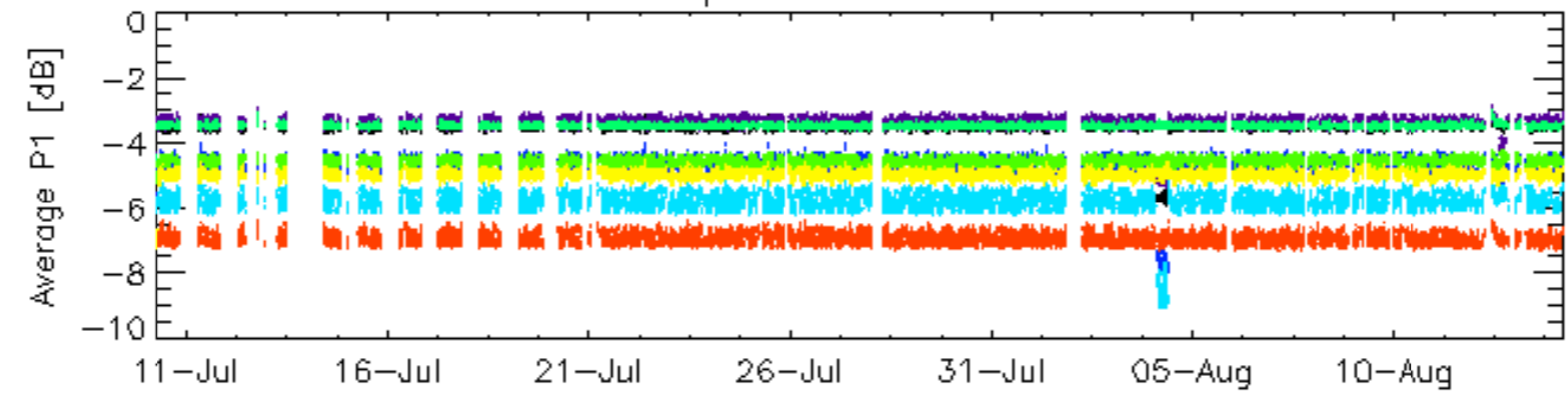


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

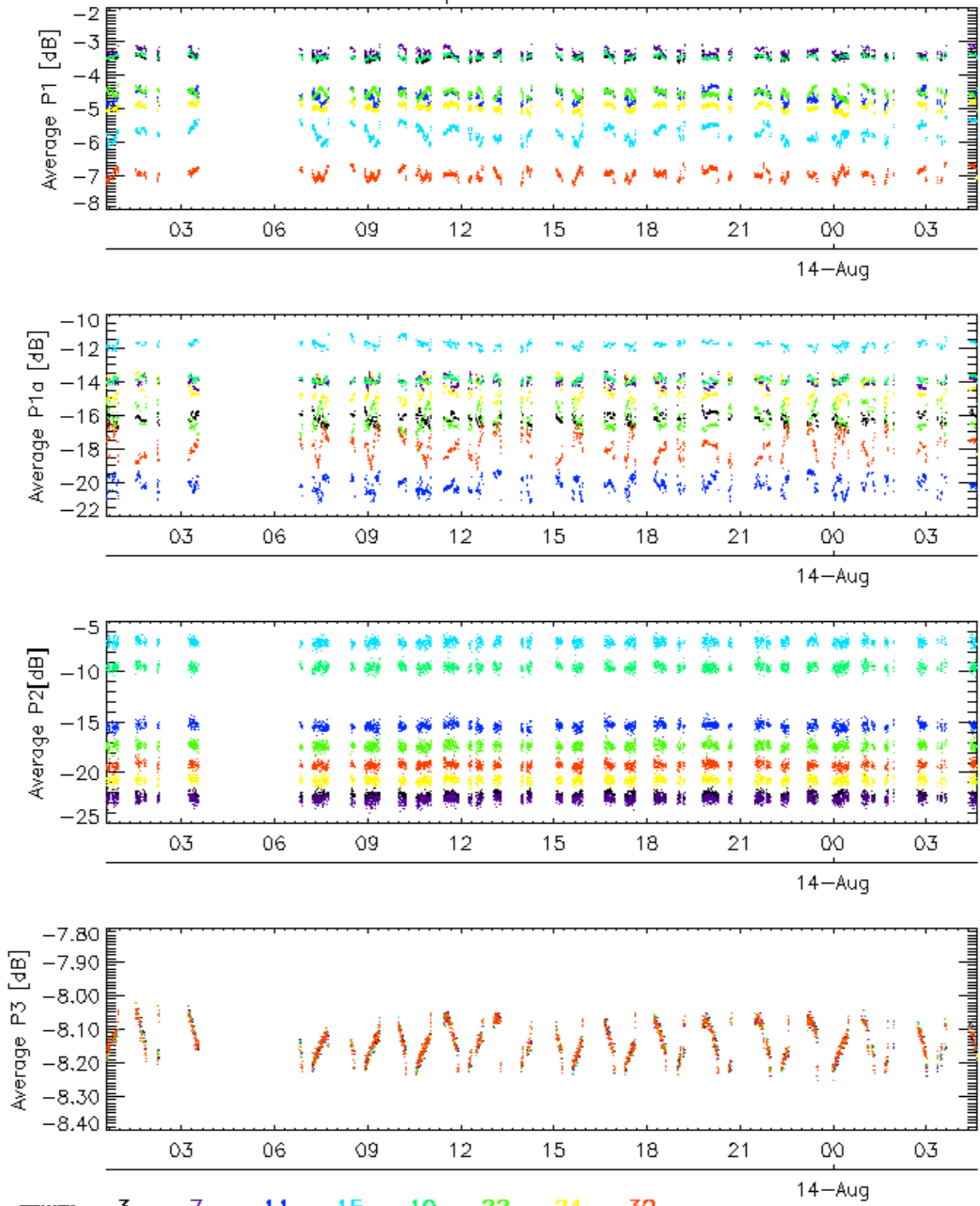


Cal pulses for WVS IS2

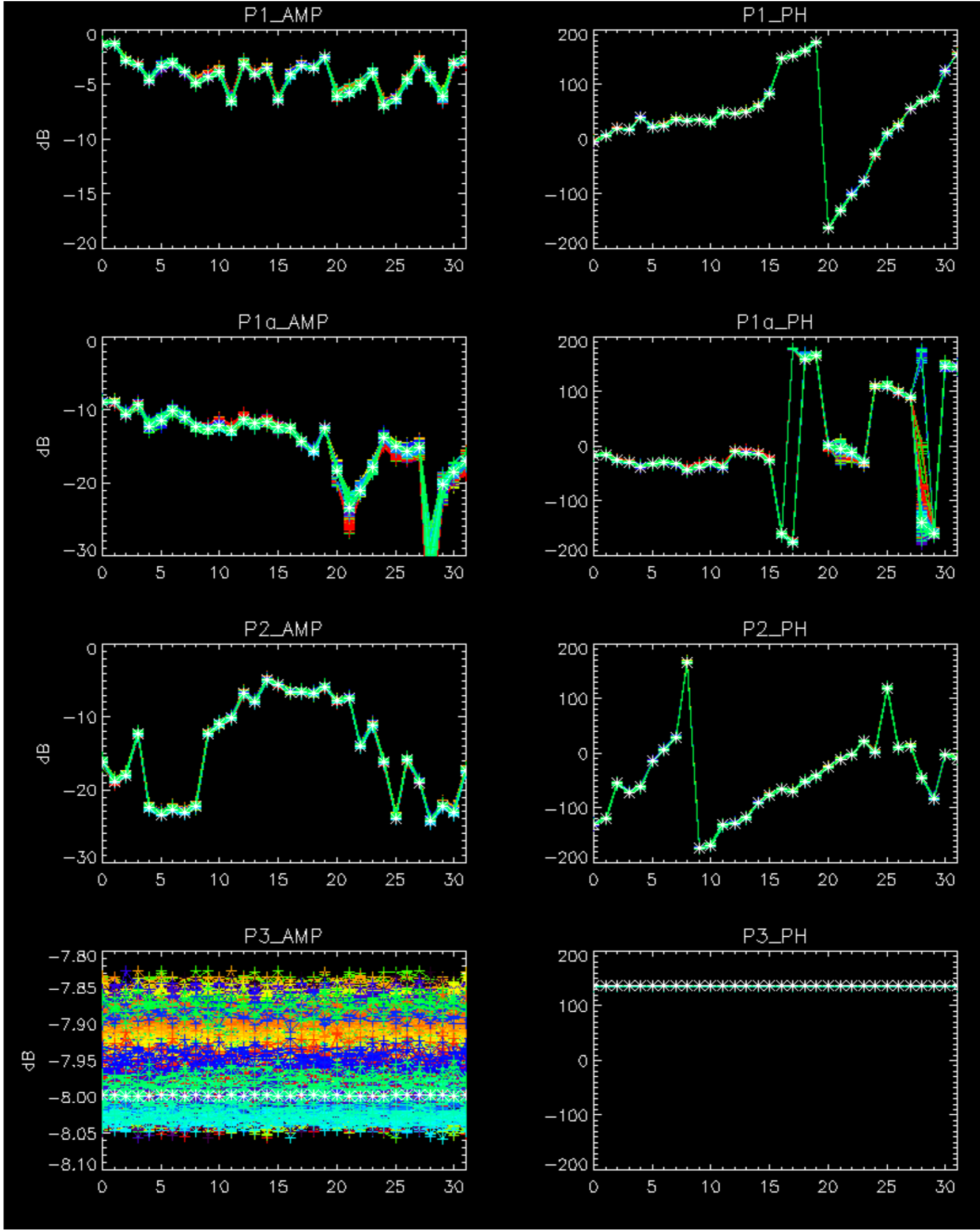


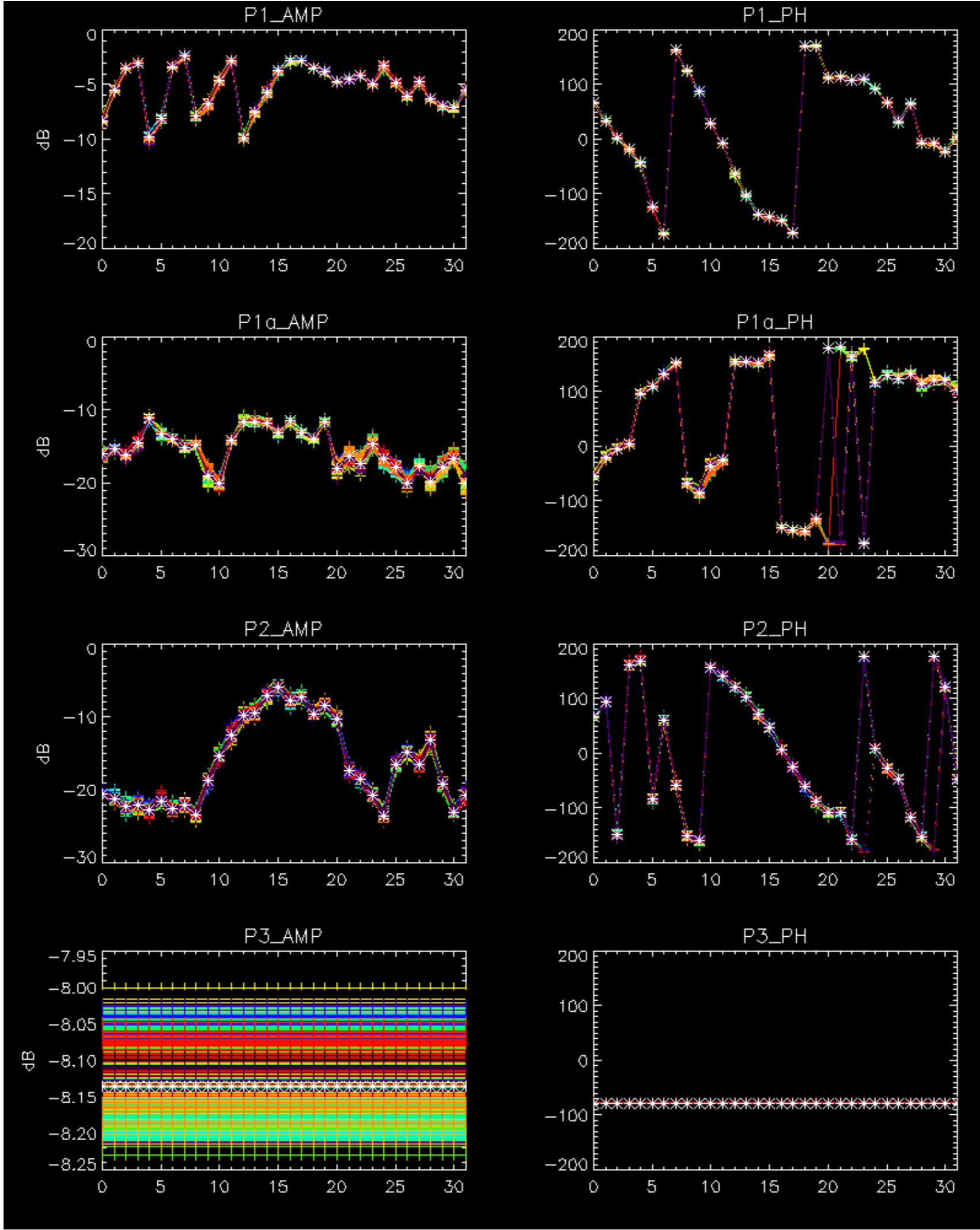
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for WVS IS2



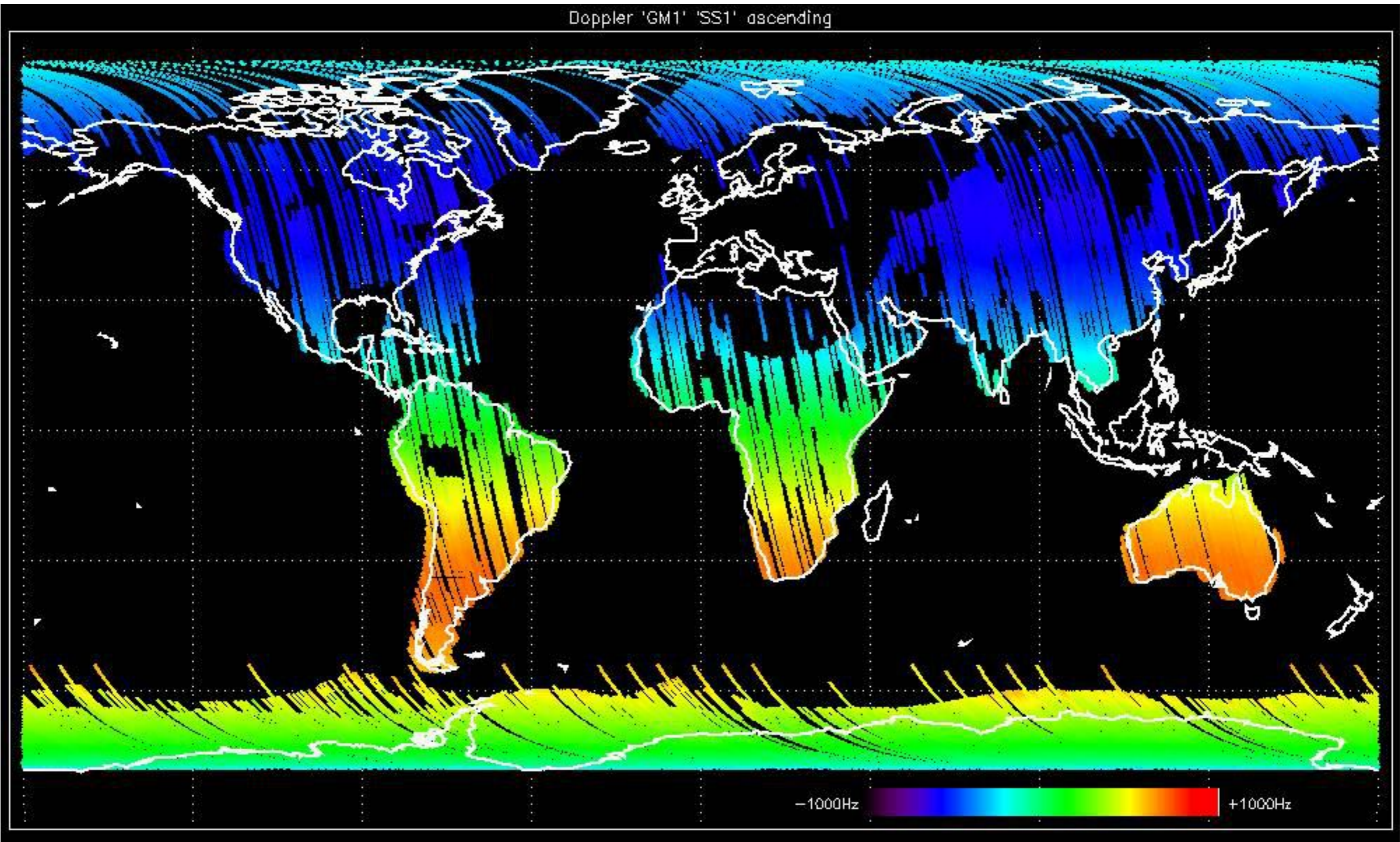
No anomalies observed.



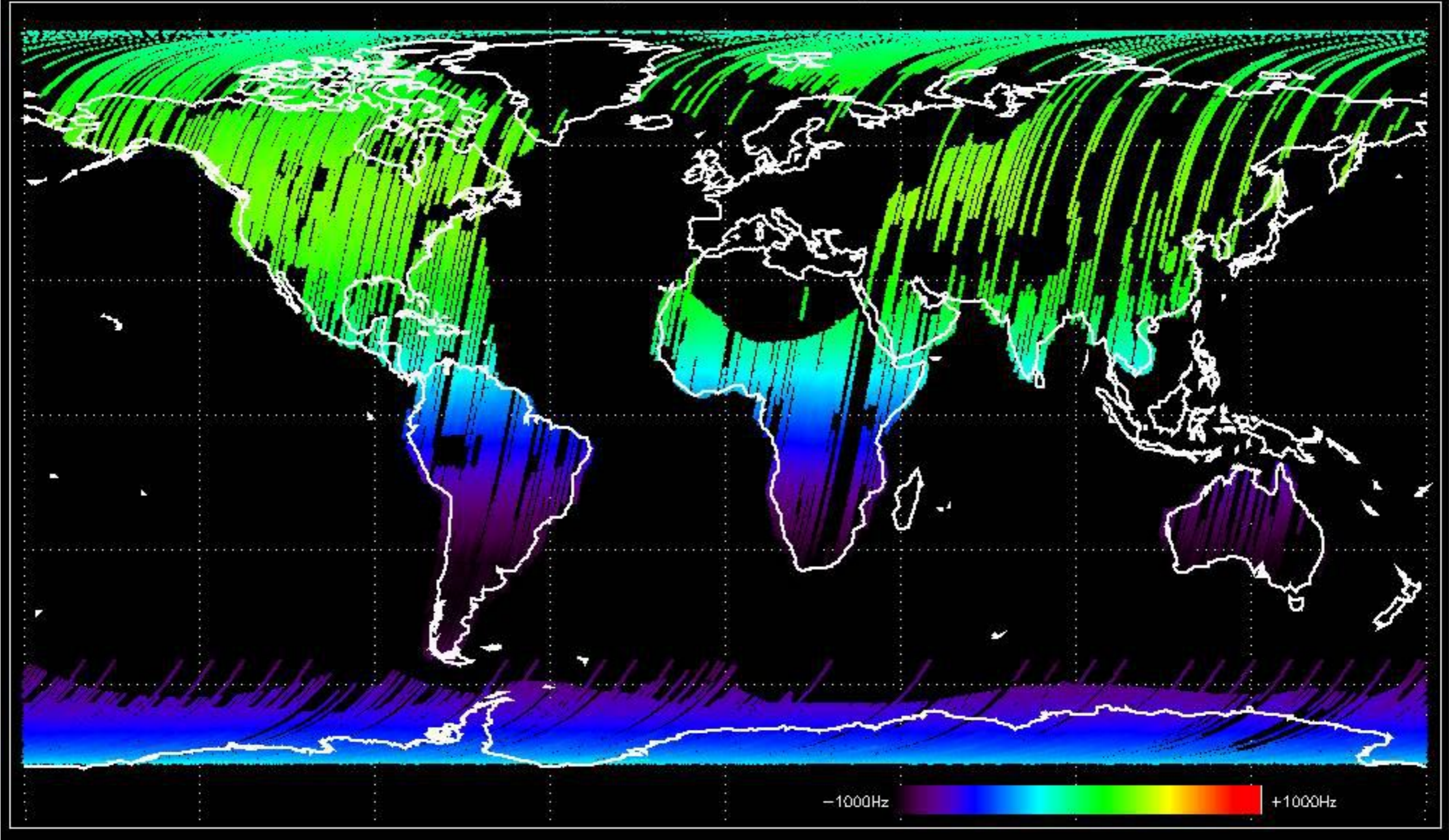


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

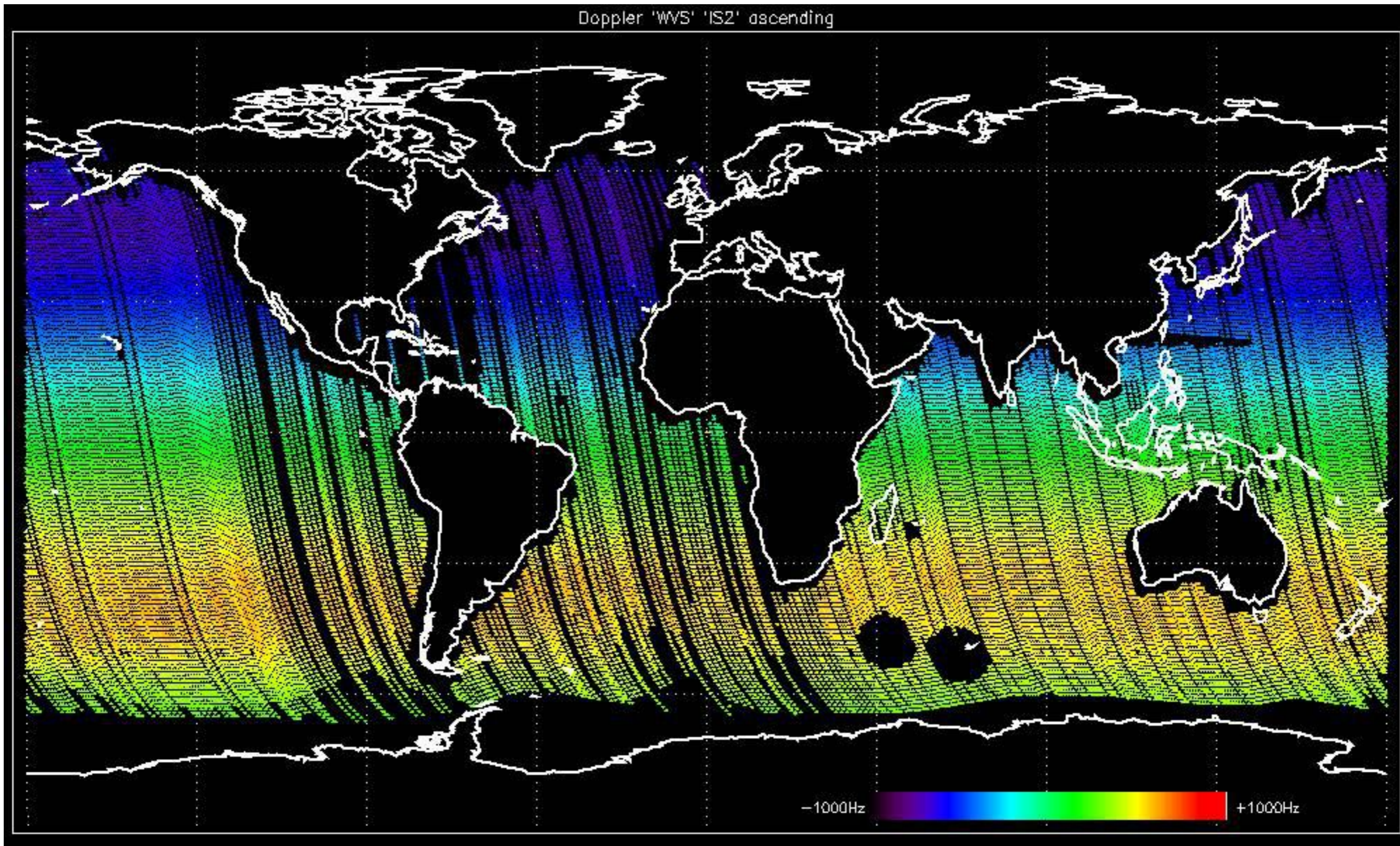
Doppler 'GM1' 'SS1' ascending



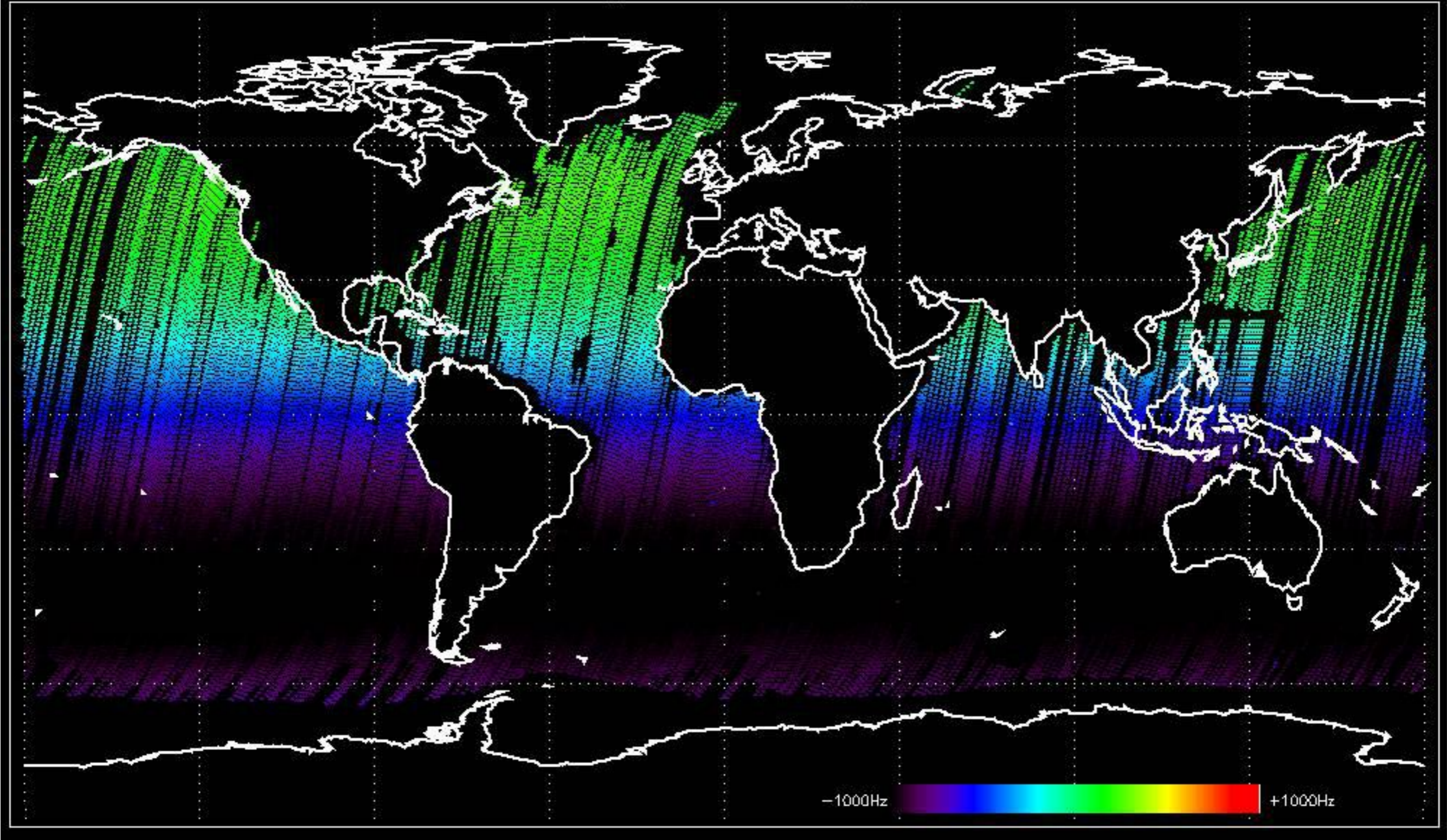
Doppler 'GM1' 'SS1' descending



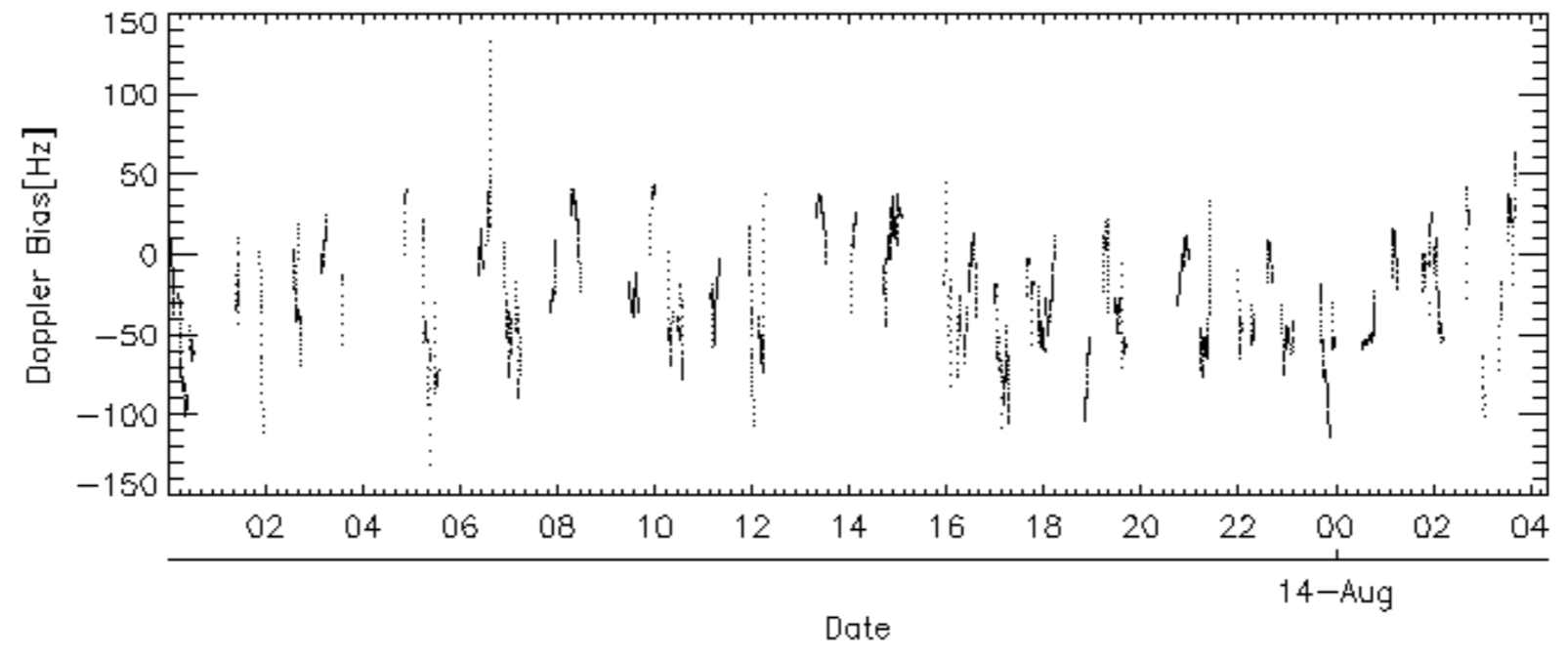
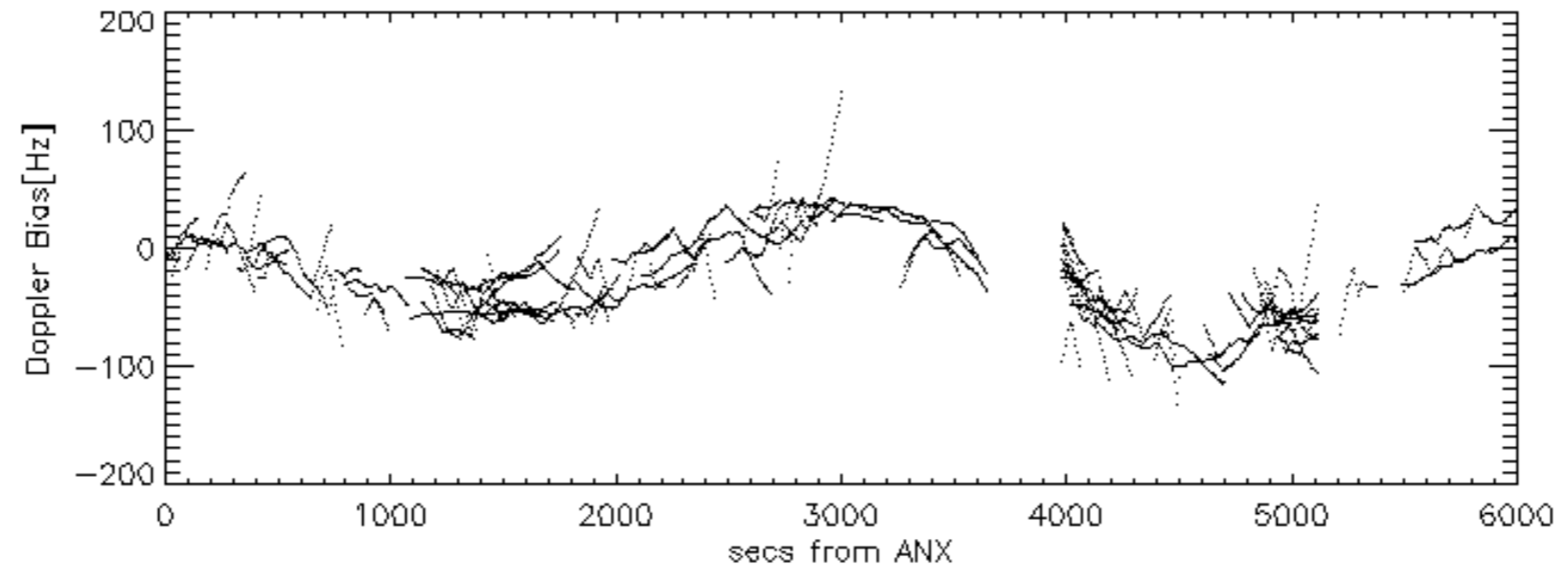
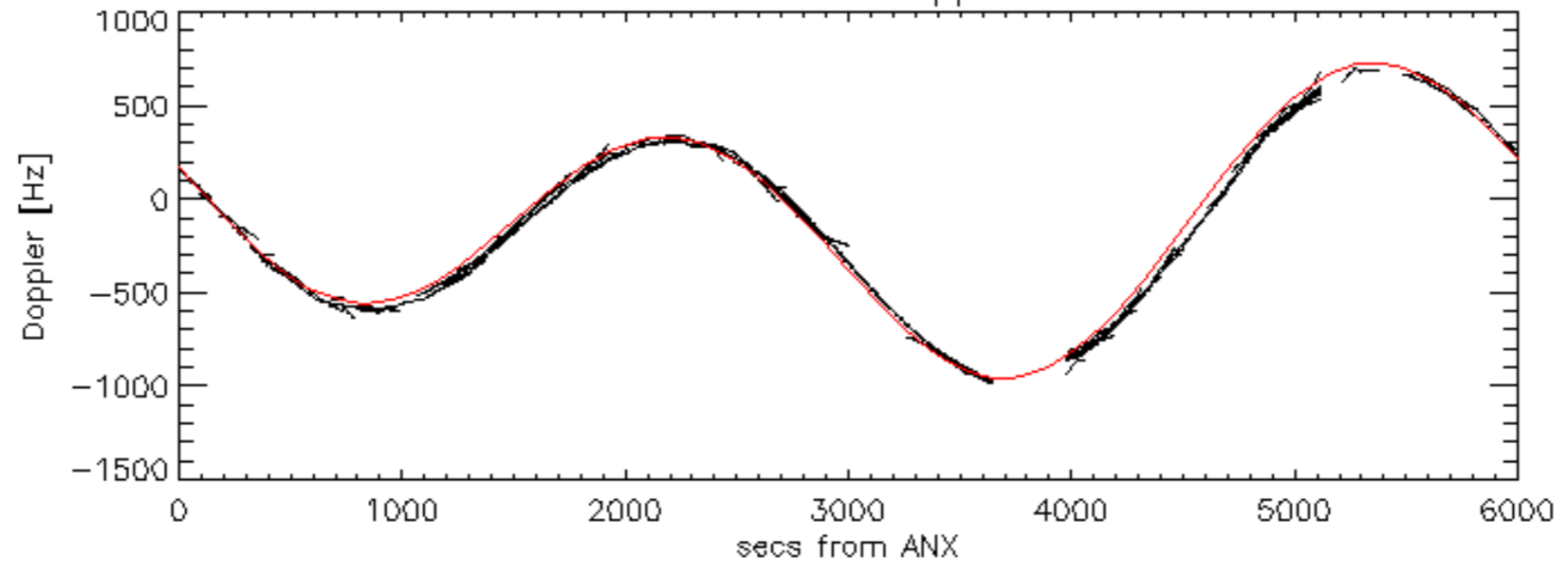
Doppler 'WVS' 'IS2' ascending

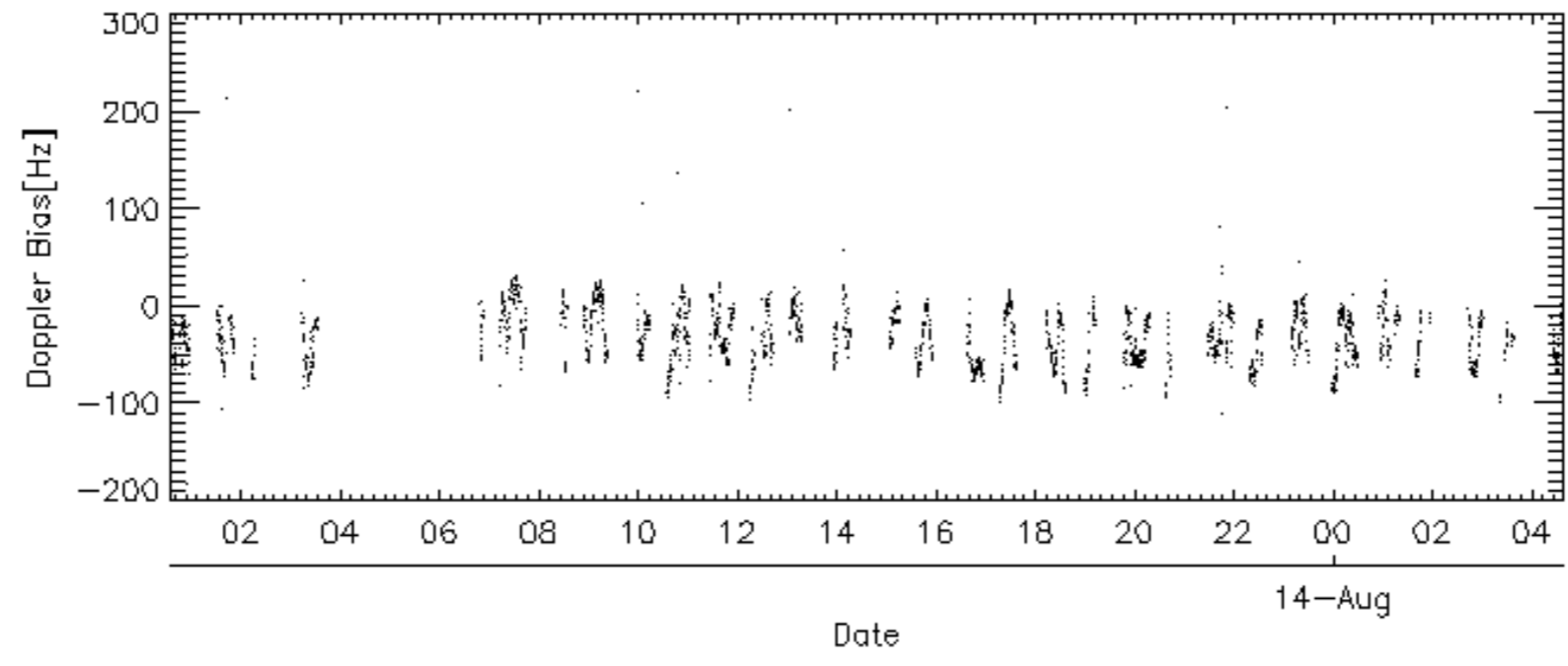
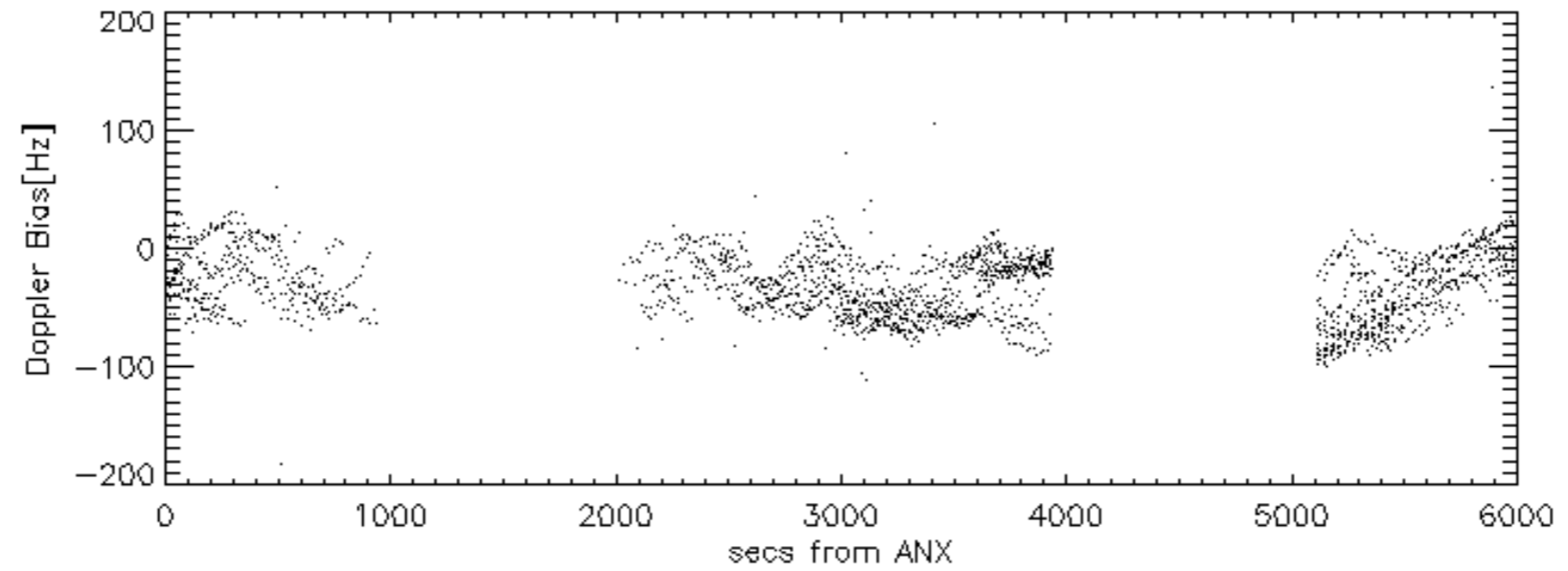
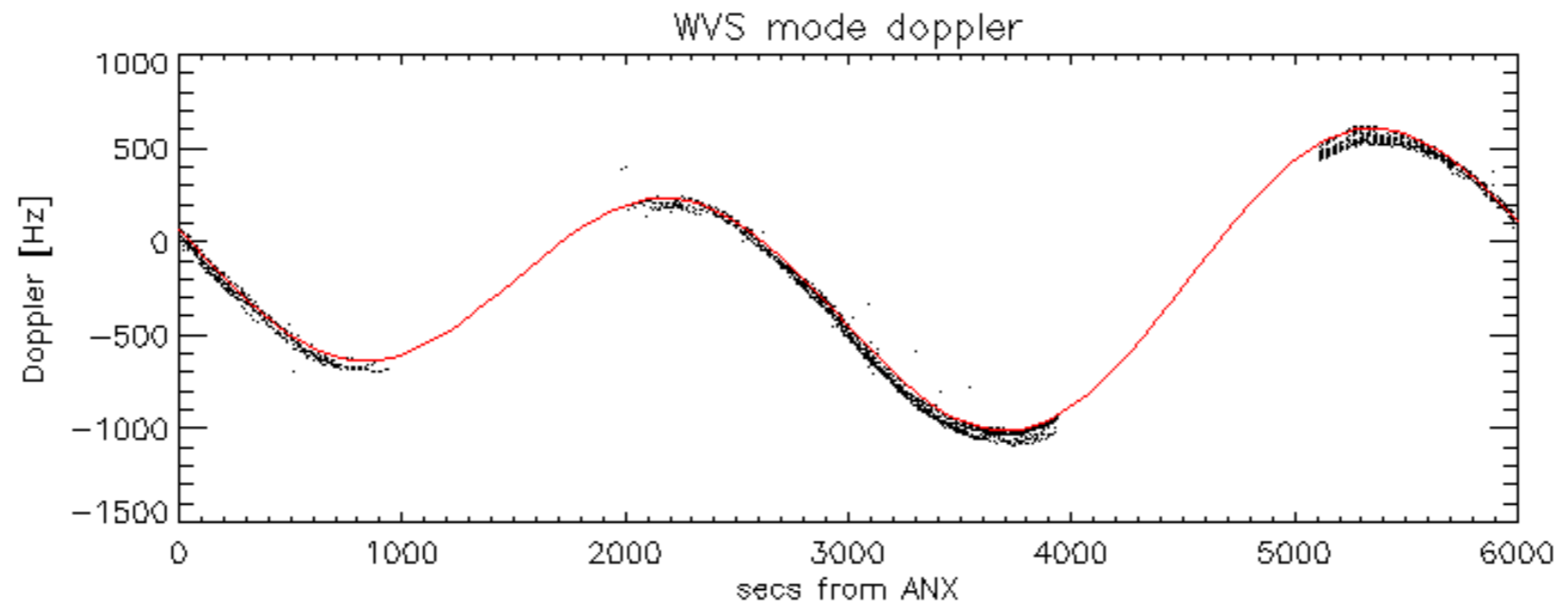


Doppler 'WVS' 'IS2' descending

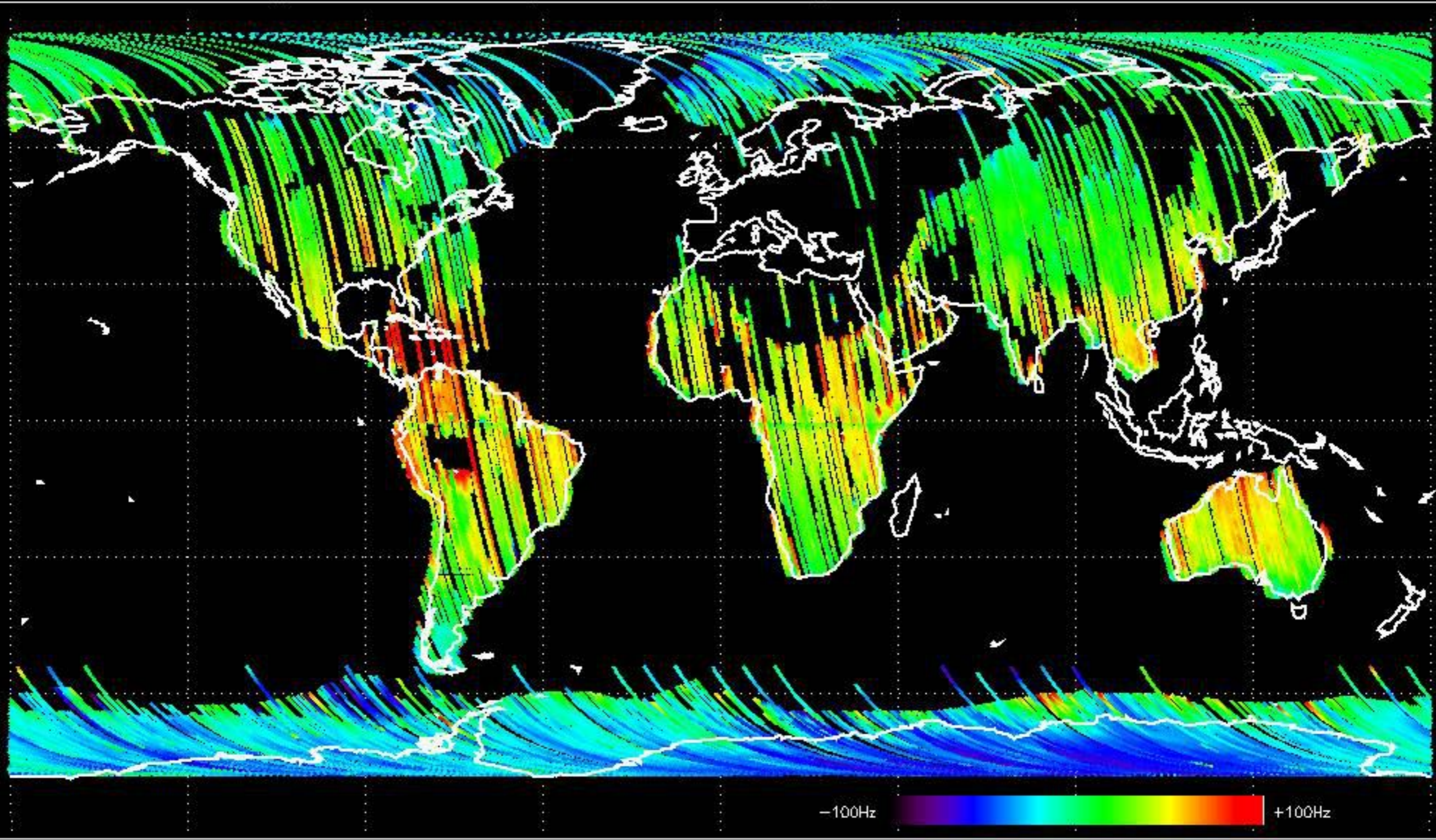


GM1 mode doppler

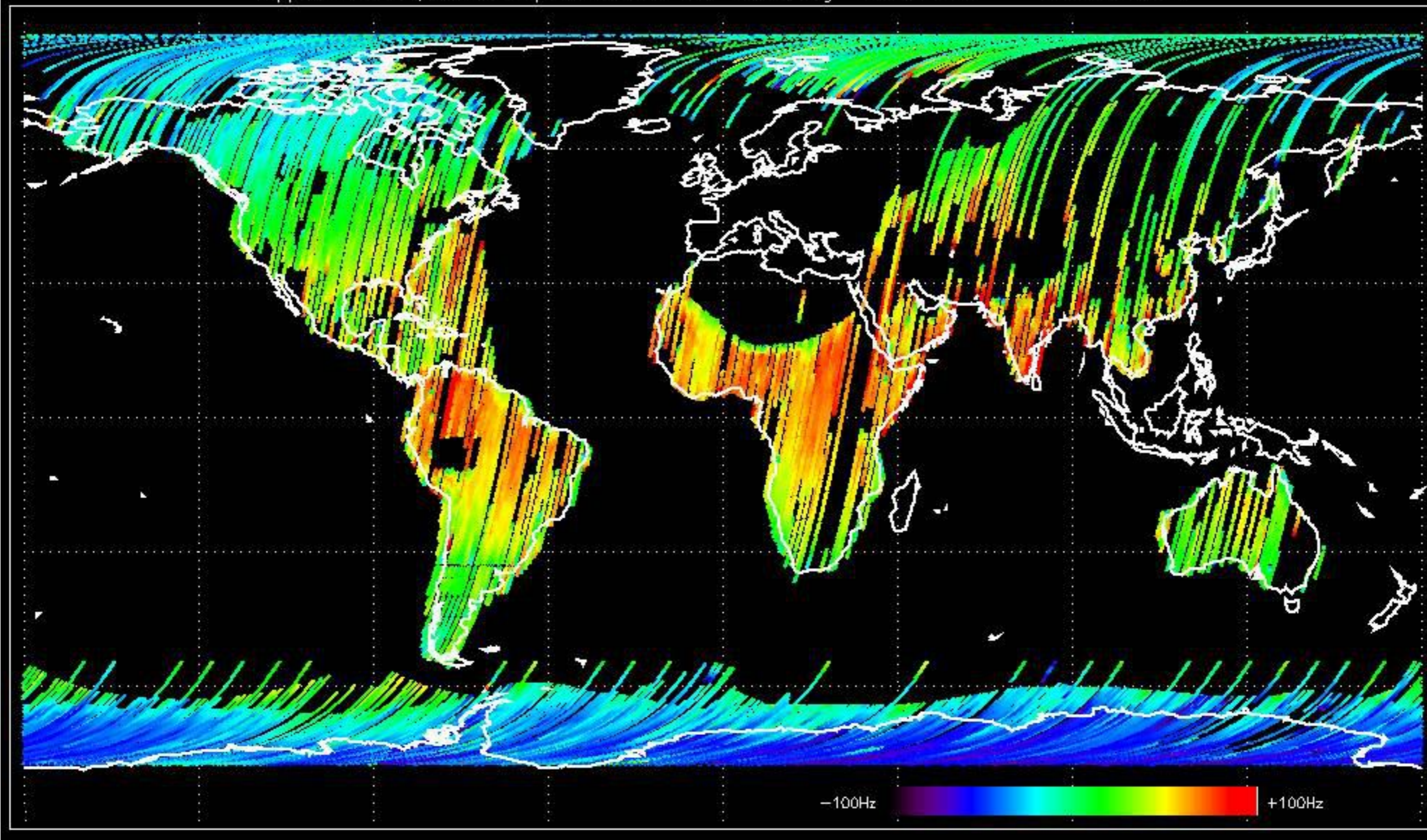




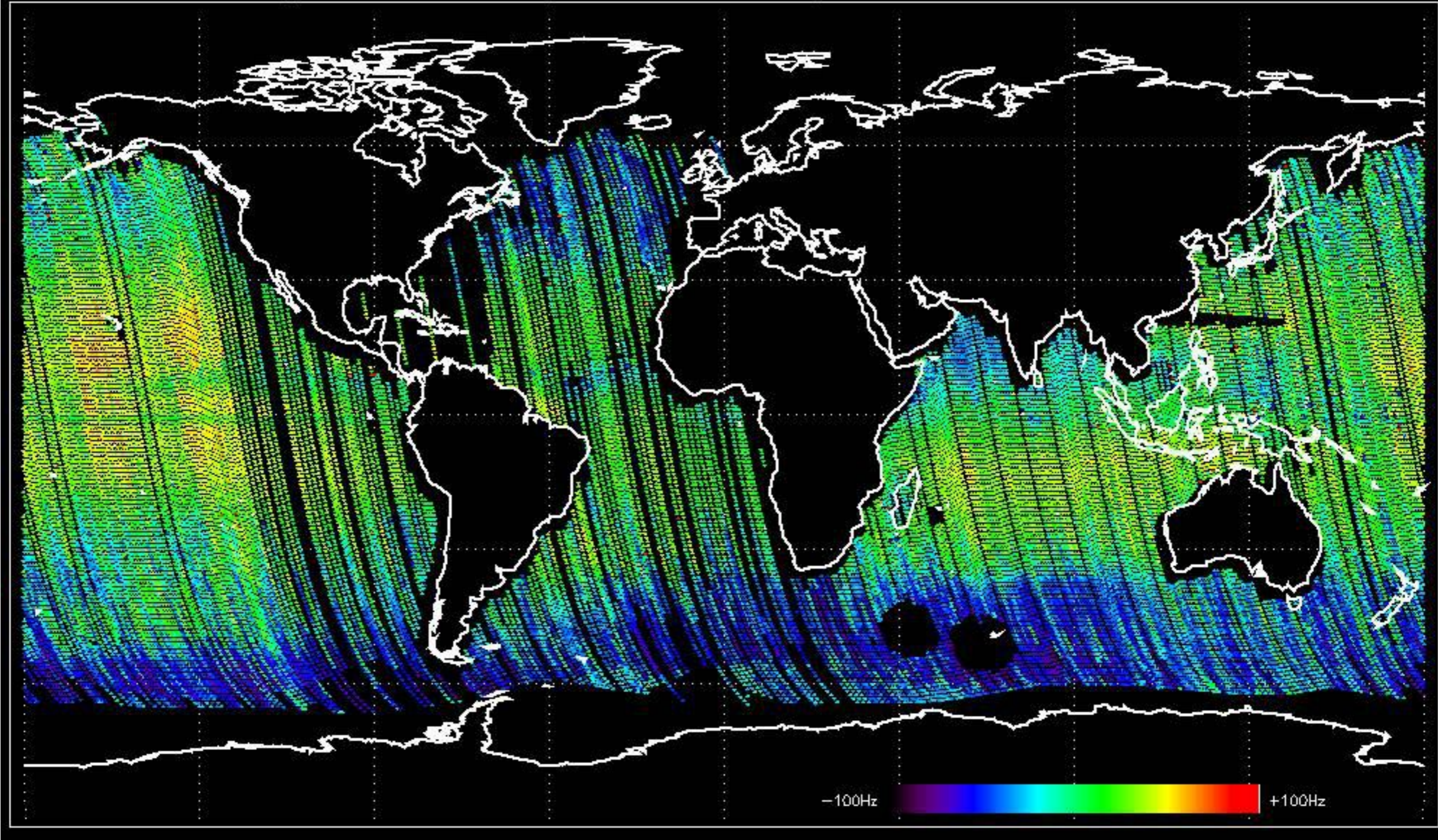
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -38.325545 Hz



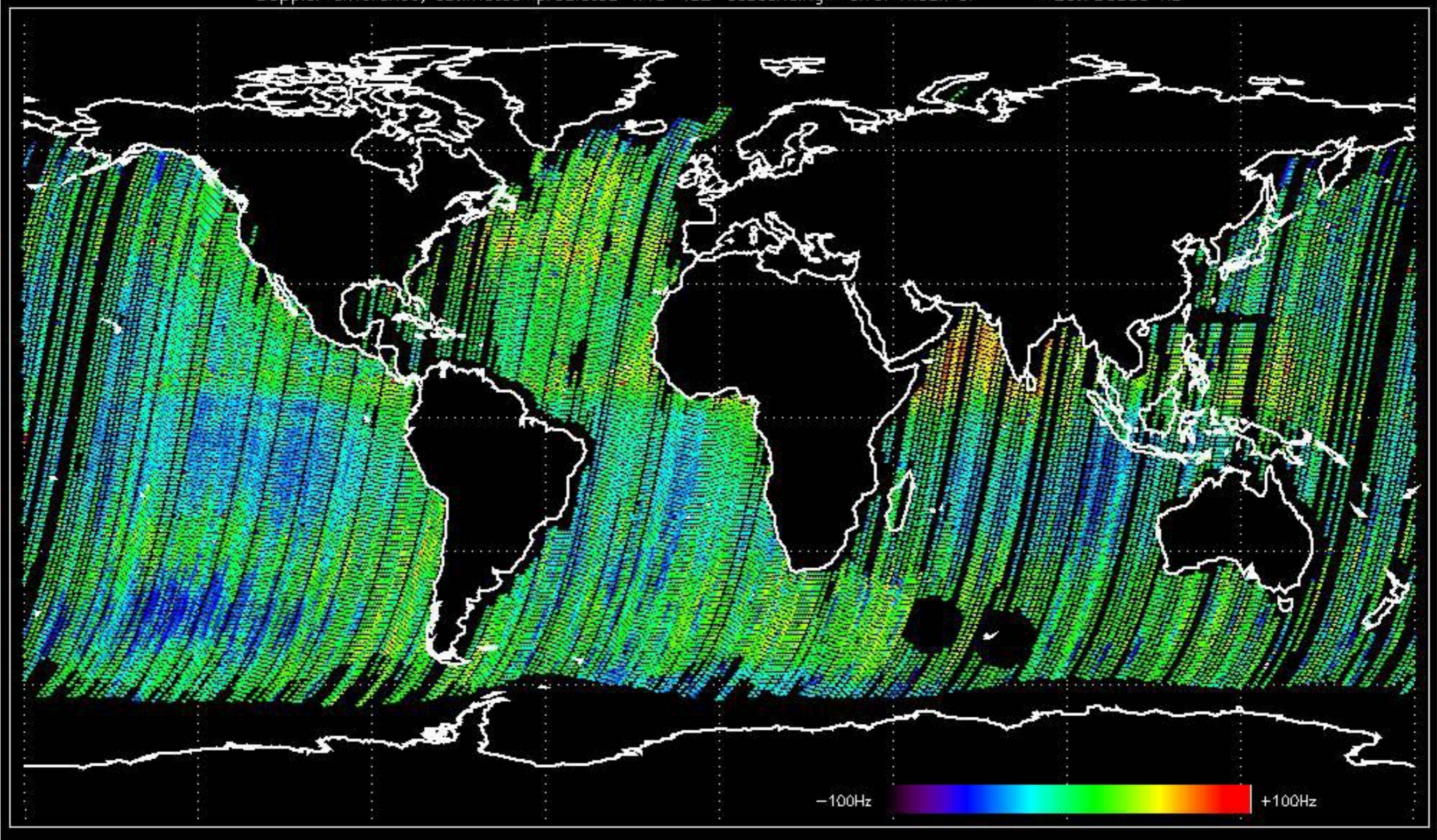
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.087126 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.910171 Hz

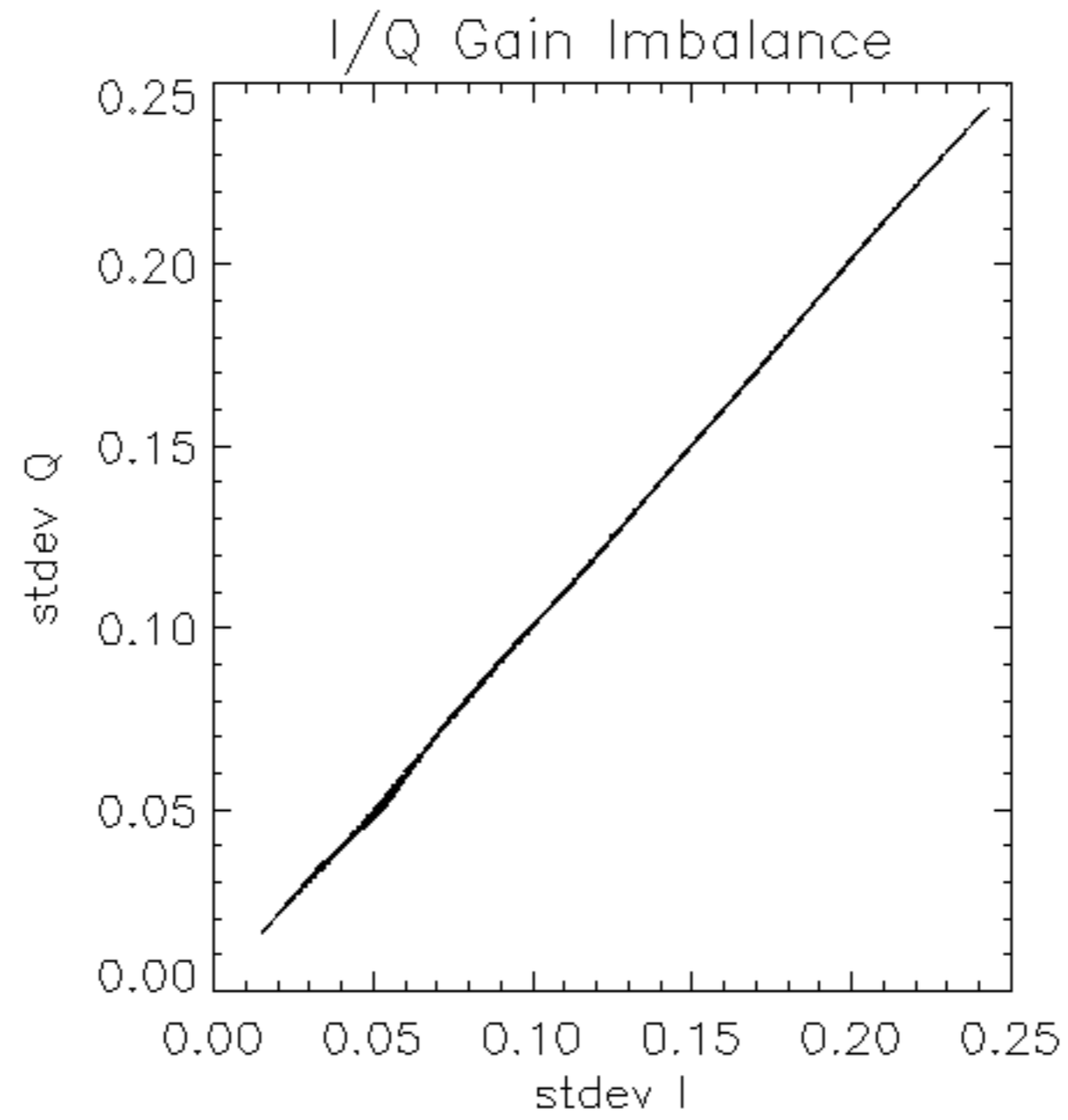


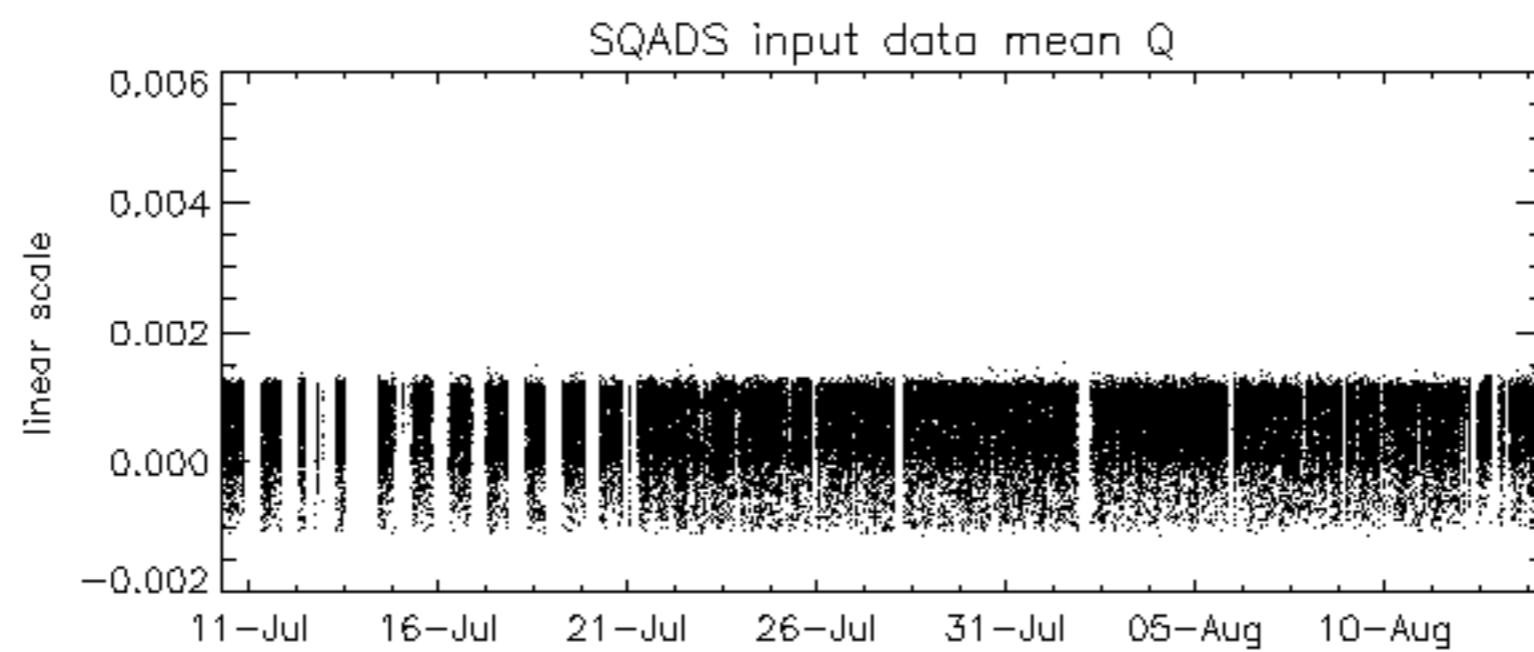
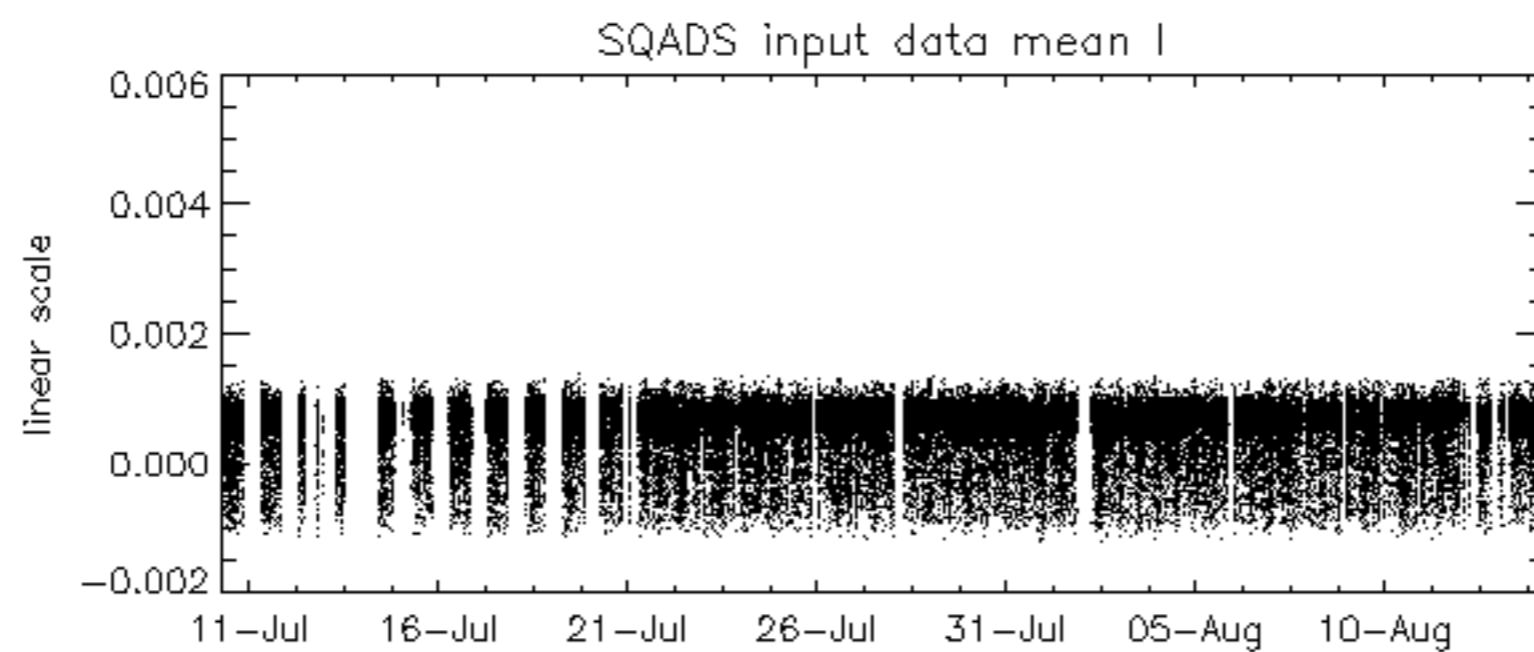
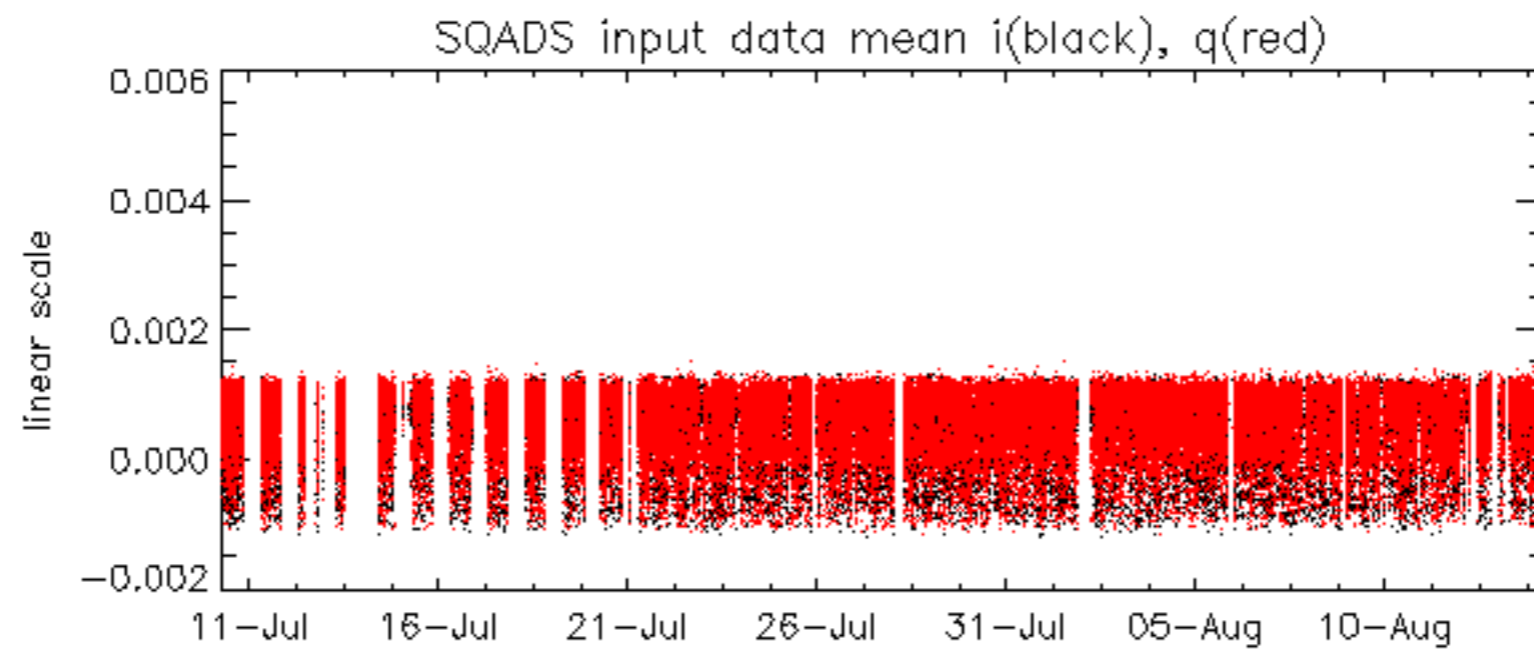
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.786039 Hz

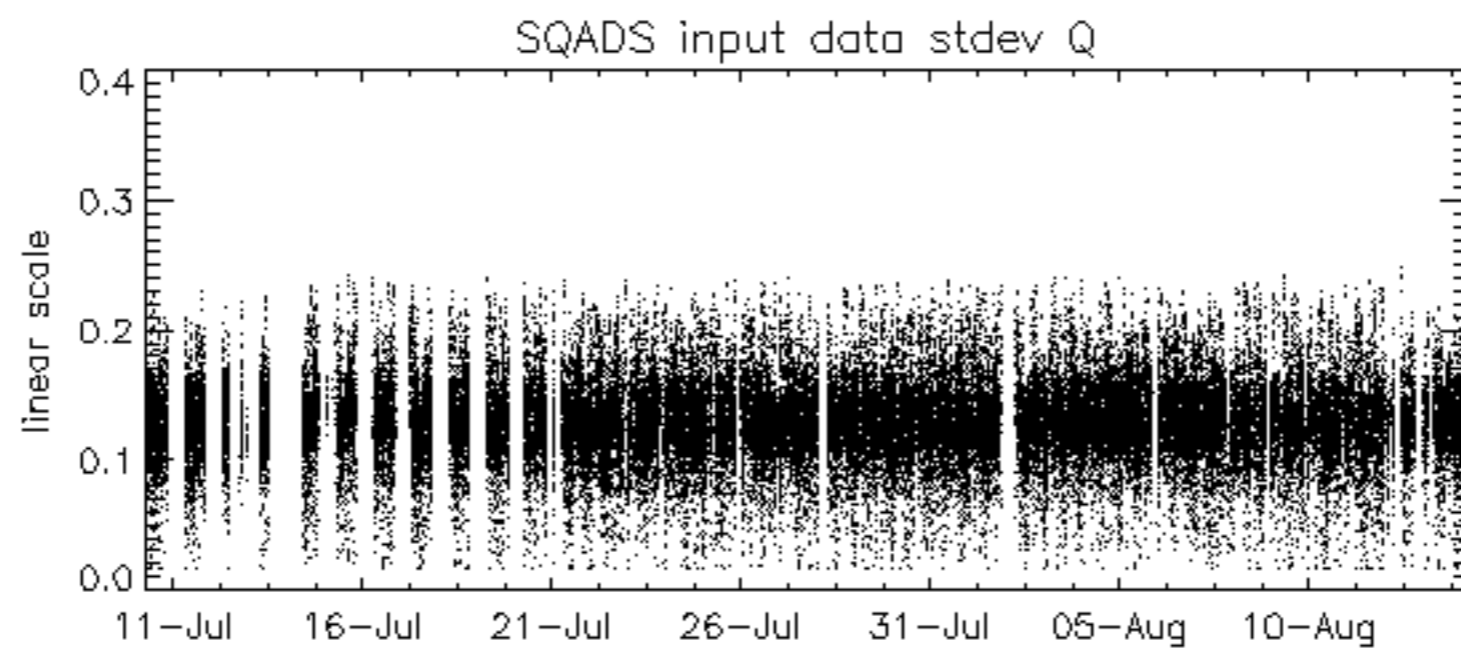
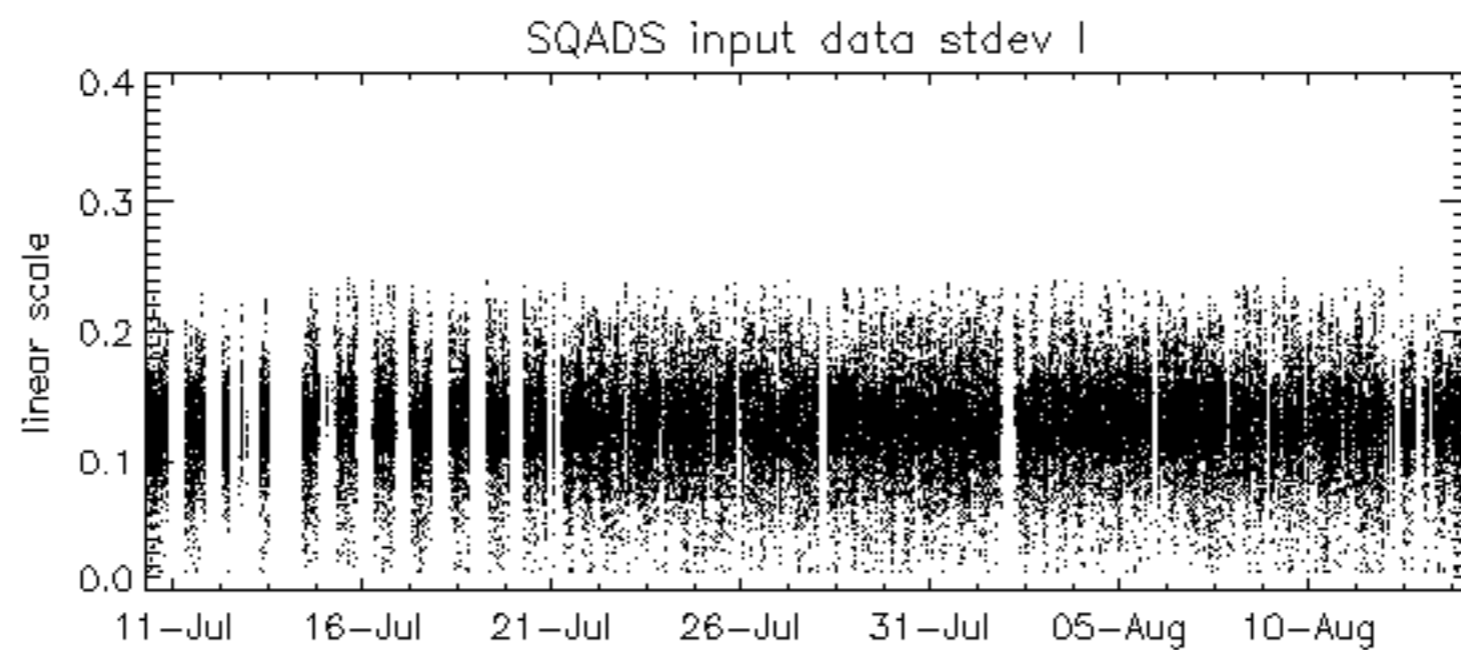
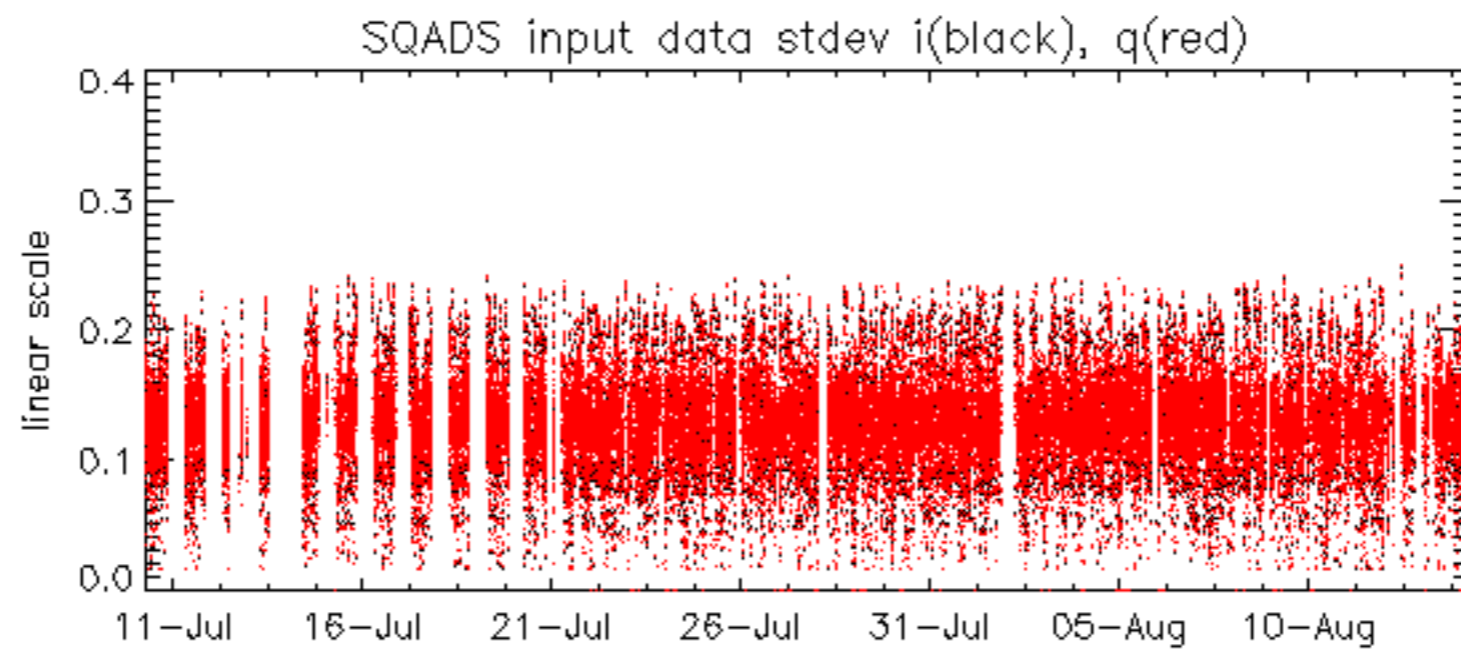


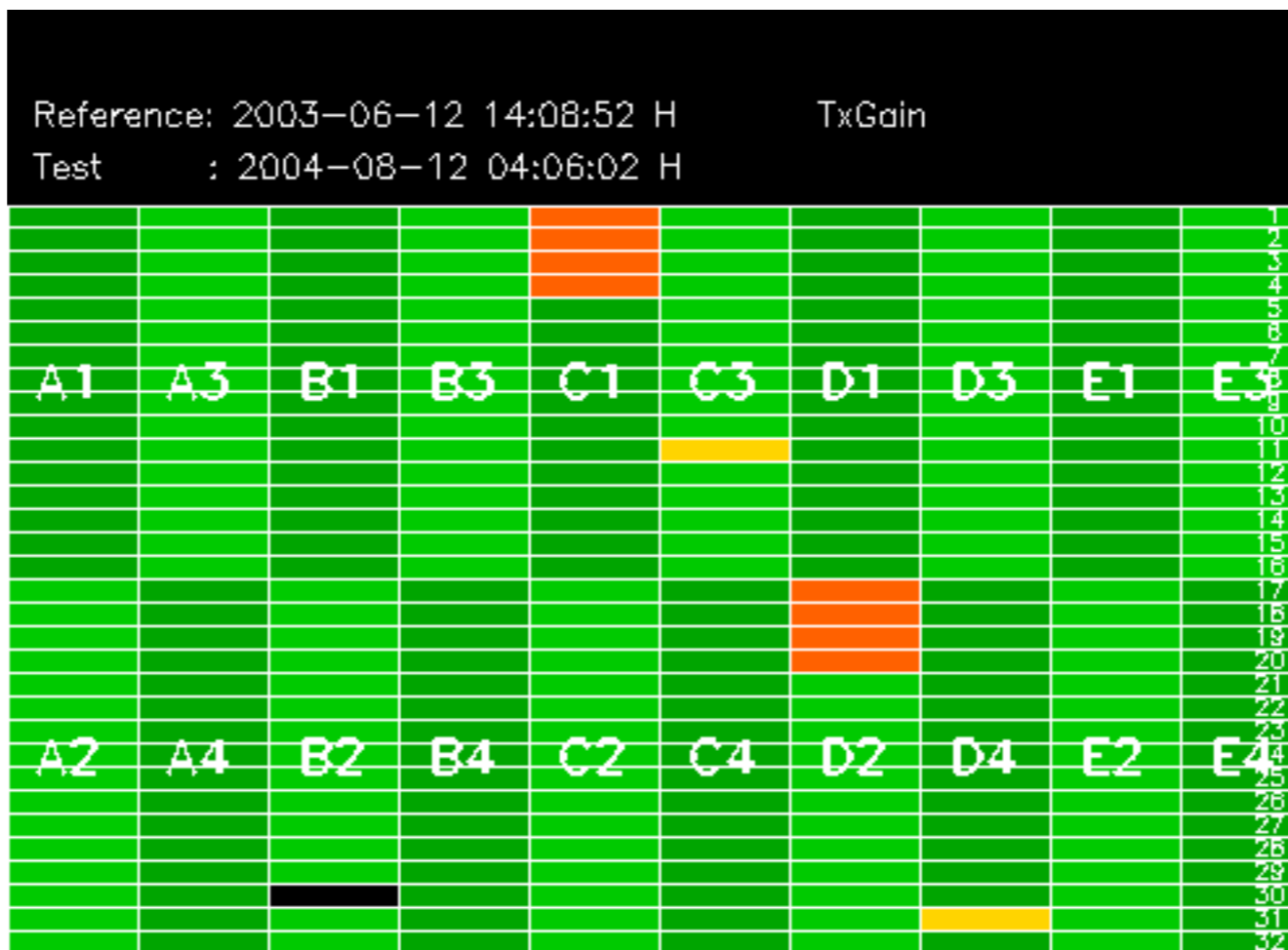
The MS mode provides an internal health check on an individual module basis.
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to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

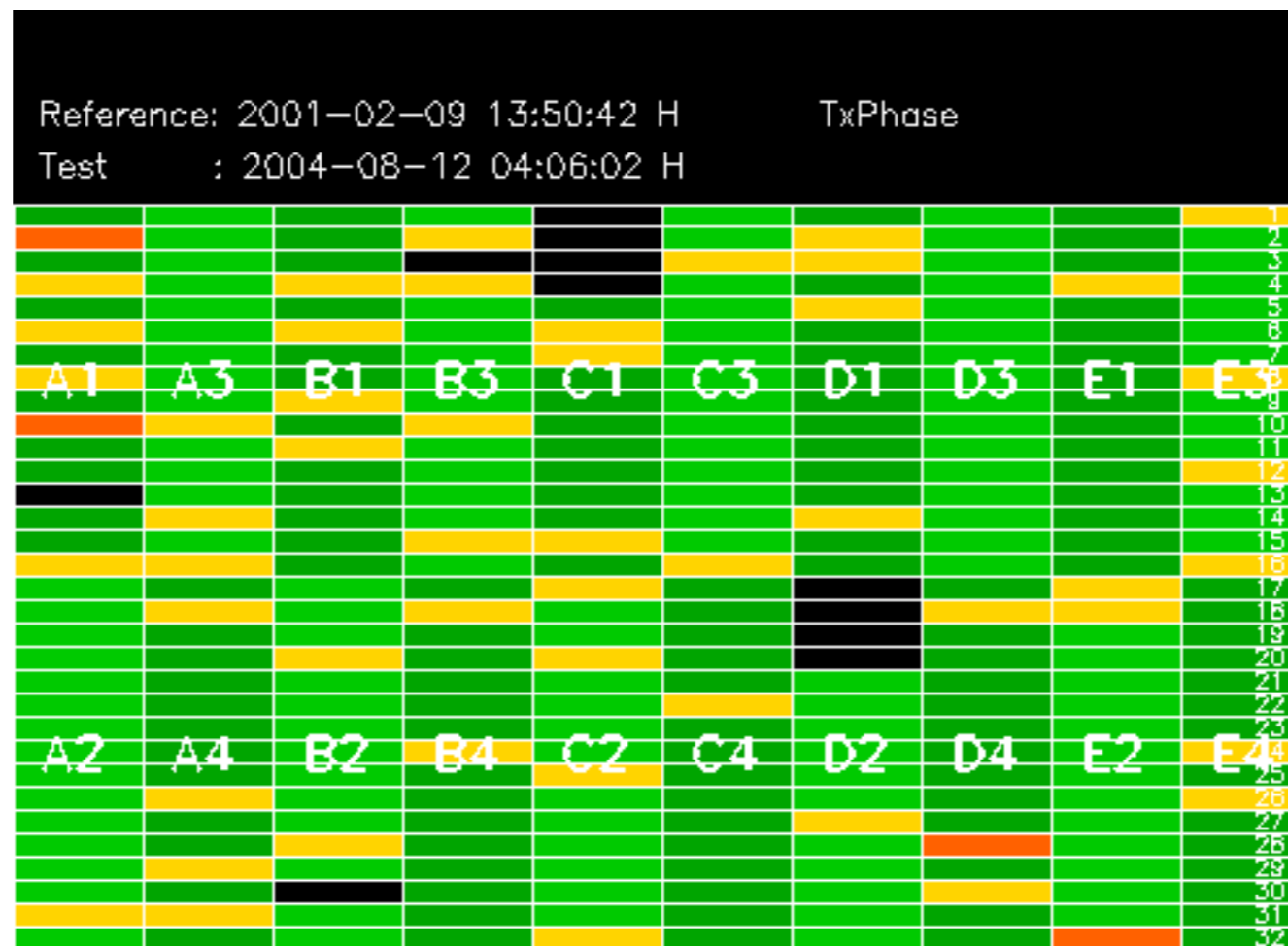
No anomalies observed.



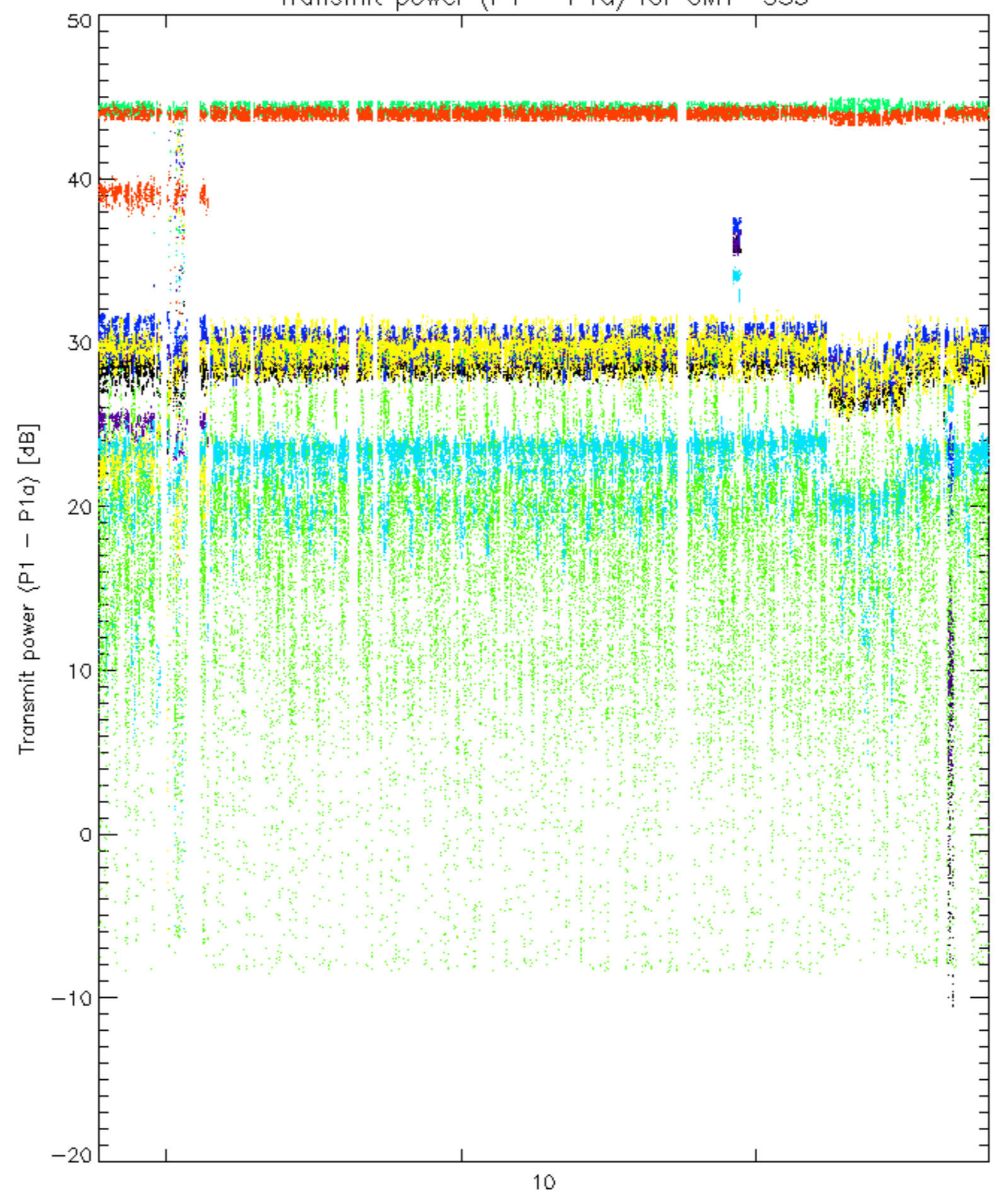




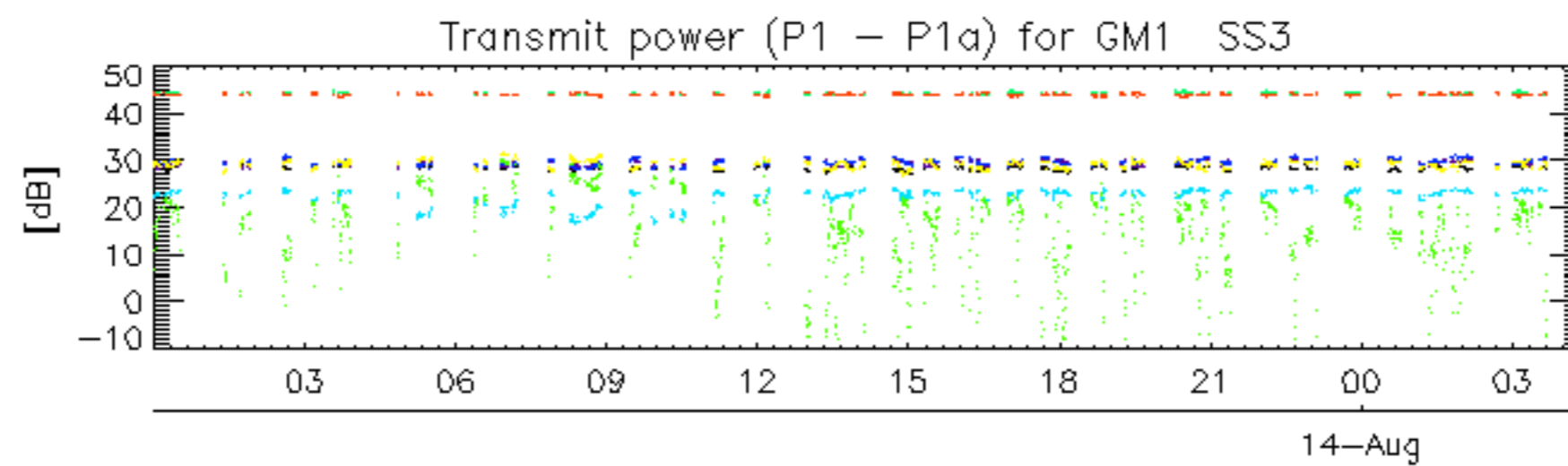




Transmit power (P1 - P1a) for GM1 SS3

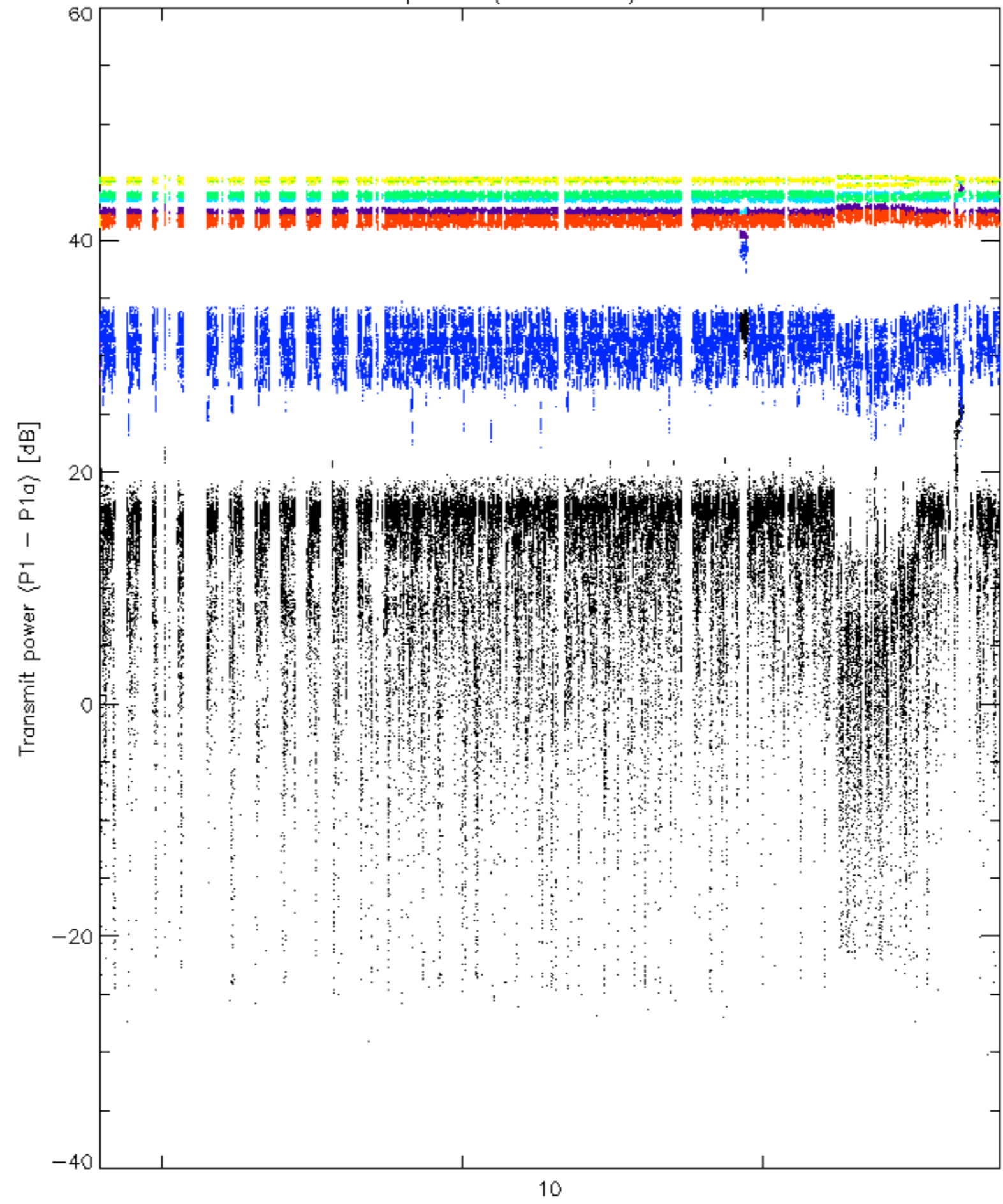


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

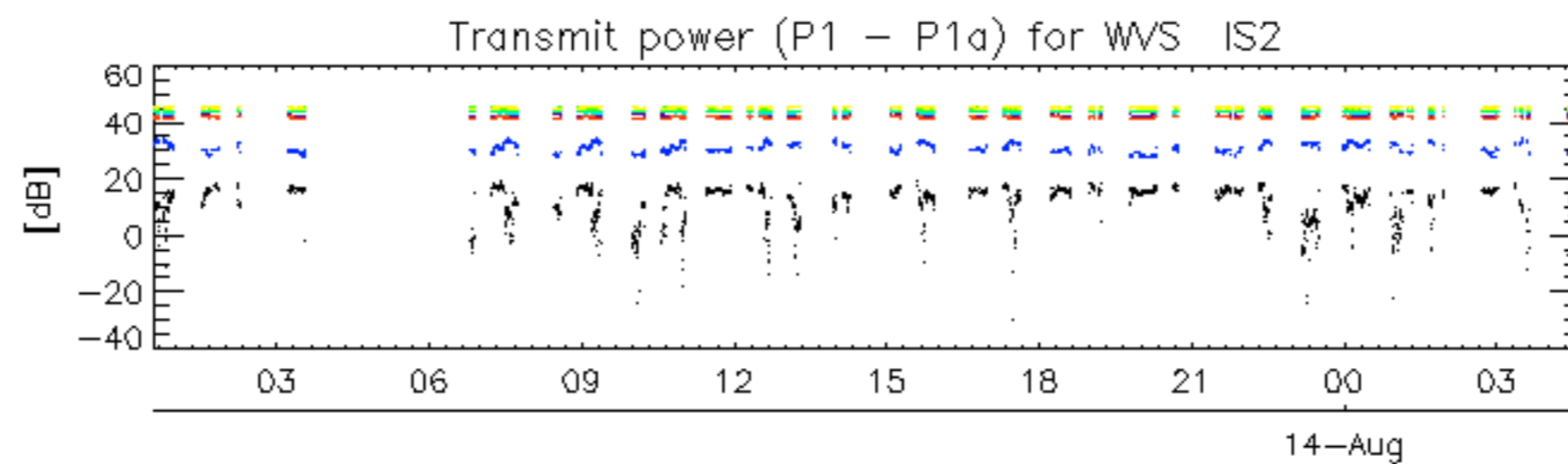


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.