

PRELIMINARY REPORT OF 040817

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

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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	20040816 084157
H	20040816 015933

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	-3.476147	0.053029	0.063036
7	P1	-3.309123	0.057290	0.149520
11	P1	-4.645617	0.115380	-0.080802
15	P1	-5.750635	0.124703	-0.072669
19	P1	-3.456112	0.005027	0.002634
22	P1	-4.554643	0.011107	0.060823
24	P1	-4.958652	0.019121	0.012999
30	P1	-6.917085	0.024599	-0.076942

3	P1	-15.928557	1.542065	1.834851
7	P1	-14.020326	0.167502	-0.252918
11	P1	-20.095375	0.407553	-0.302888
15	P1	-11.792727	0.170426	-0.070376
19	P1	-13.870392	0.034159	-0.013878
22	P1	-16.267845	0.341082	0.243707
24	P1	-14.576653	0.285010	0.209273
30	P1	-17.722918	0.433692	-0.268898

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.310171	0.079092	0.051696
7	P2	-22.657375	0.128859	0.145411
11	P2	-15.390063	0.158165	0.125853
15	P2	-7.081677	0.091298	0.107915
19	P2	-9.560189	0.177833	0.112853
22	P2	-17.380478	0.109644	0.141417
24	P2	-20.749950	0.084259	0.001863
30	P2	-19.303499	0.079007	0.150220

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.141314	0.002353	0.015752
7	P3	-8.141327	0.002353	0.015816
11	P3	-8.141332	0.002353	0.015800
15	P3	-8.141326	0.002353	0.015761
19	P3	-8.141316	0.002353	0.015727
22	P3	-8.141316	0.002353	0.015692
24	P3	-8.141317	0.002353	0.015650
30	P3	-8.141296	0.002352	0.015651

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	-2.718306	0.290995	0.700491
7	P1	-2.963189	0.277954	0.428331
11	P1	-3.868550	0.180786	-0.071385
15	P1	-3.550693	0.193155	0.087047
19	P1	-3.474296	0.018760	-0.016201
22	P1	-5.665935	0.046249	-0.072994
24	P1	-3.874079	0.026323	-0.046931
30	P1	-6.177070	0.072524	0.071614
3	P1	-10.365243	1.129943	1.458696
7	P1	-10.071777	0.233192	0.218574
11	P1	-12.085187	0.185640	-0.154414
15	P1	-11.641428	0.183096	-0.026038
19	P1	-15.606402	0.108920	-0.083622
22	P1	-23.262192	1.497776	-0.490714
24	P1	-17.750641	0.249163	-0.445595
30	P1	-20.376375	1.447509	-0.189134

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.976225	0.085532	0.053774
7	P2	-22.771172	0.246261	0.034073
11	P2	-11.032196	0.107375	0.105512
15	P2	-4.951881	0.041055	0.038494
19	P2	-6.773862	0.061022	0.101905
22	P2	-7.472404	0.104272	0.136445
24	P2	-11.043777	0.135390	0.079019
30	P2	-22.232887	0.100283	0.083452

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.985168	0.003818	0.003972
7	P3	-7.985209	0.003824	0.004373
11	P3	-7.985253	0.003815	0.003754
15	P3	-7.985128	0.003823	0.003884
19	P3	-7.985191	0.003824	0.003845
22	P3	-7.985223	0.003815	0.004209
24	P3	-7.985204	0.003836	0.004282
30	P3	-7.985204	0.003814	0.004344

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	0.000495136
	stdev	2.13750e-07
MEAN Q	mean	0.000539341
	stdev	2.43800e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129308
	stdev	0.00102704

STDEV Q	mean	0.129551
	stdev	0.00103923





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)	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

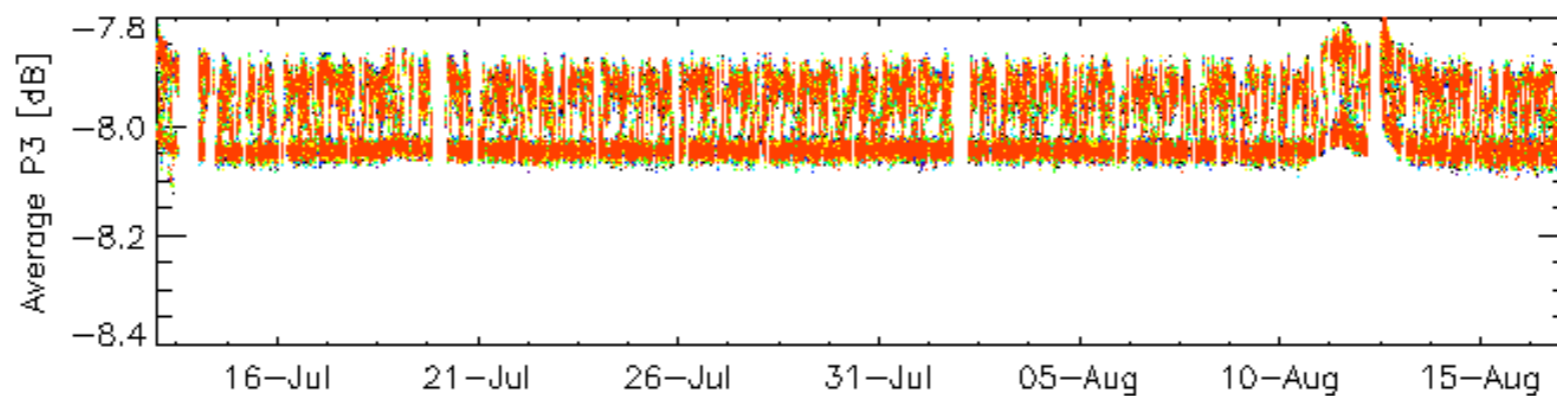
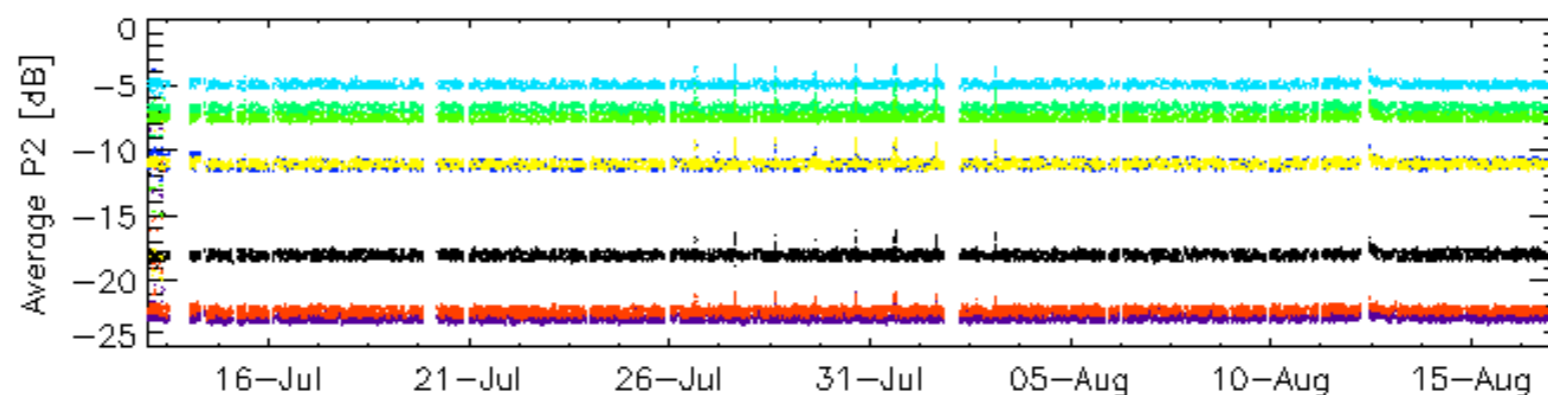
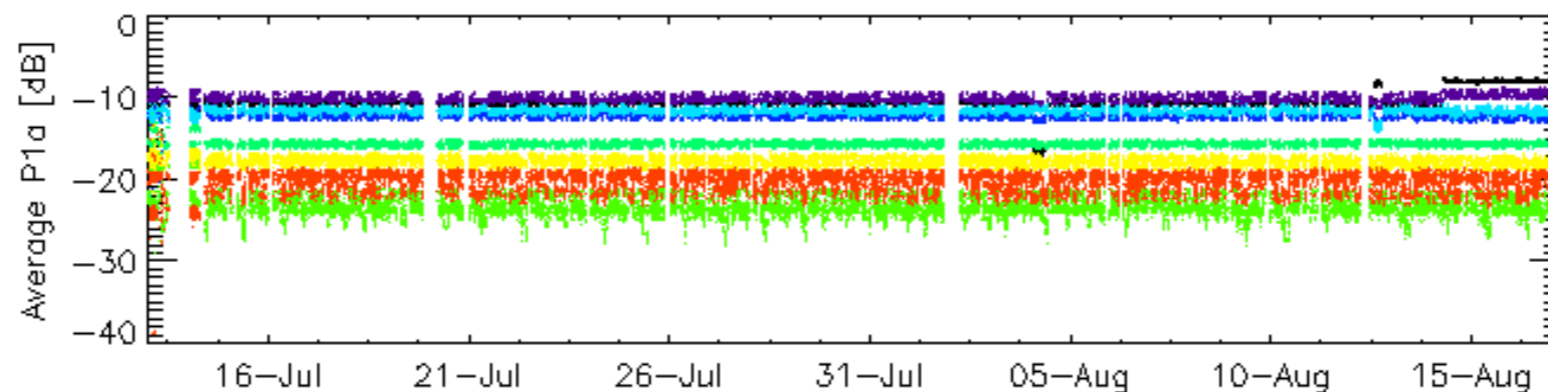
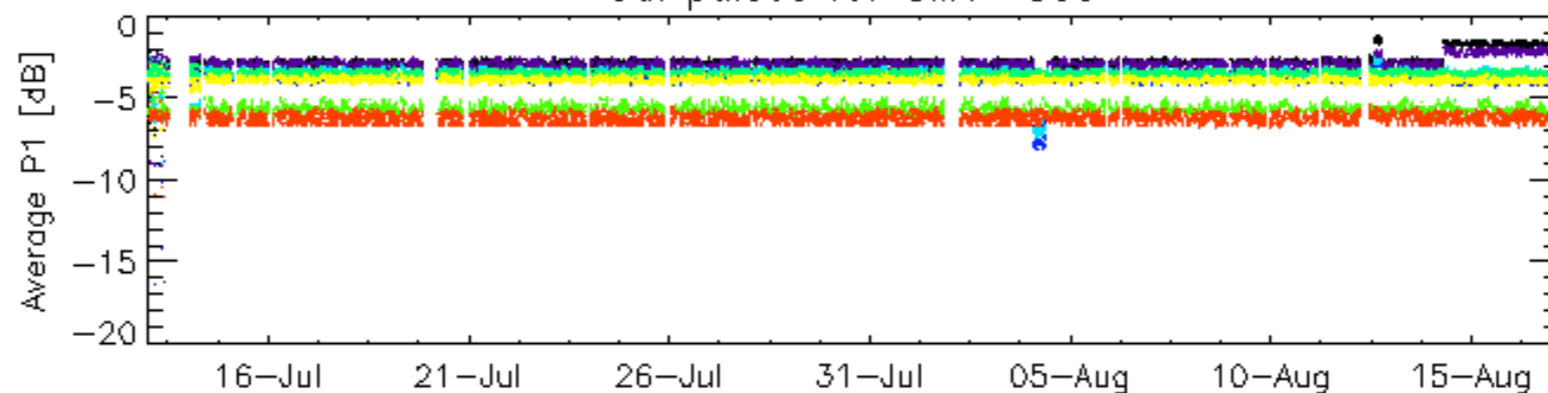
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

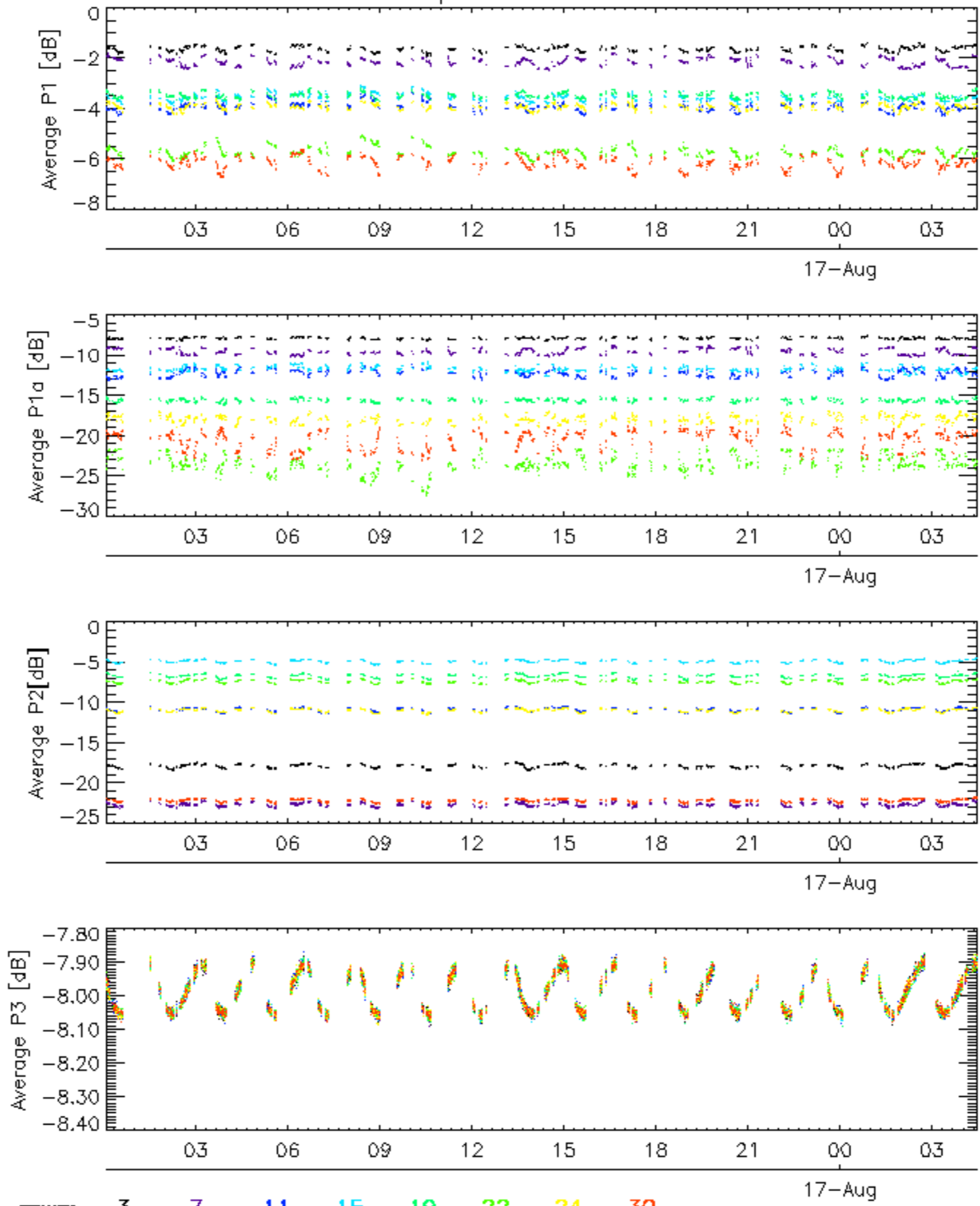
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

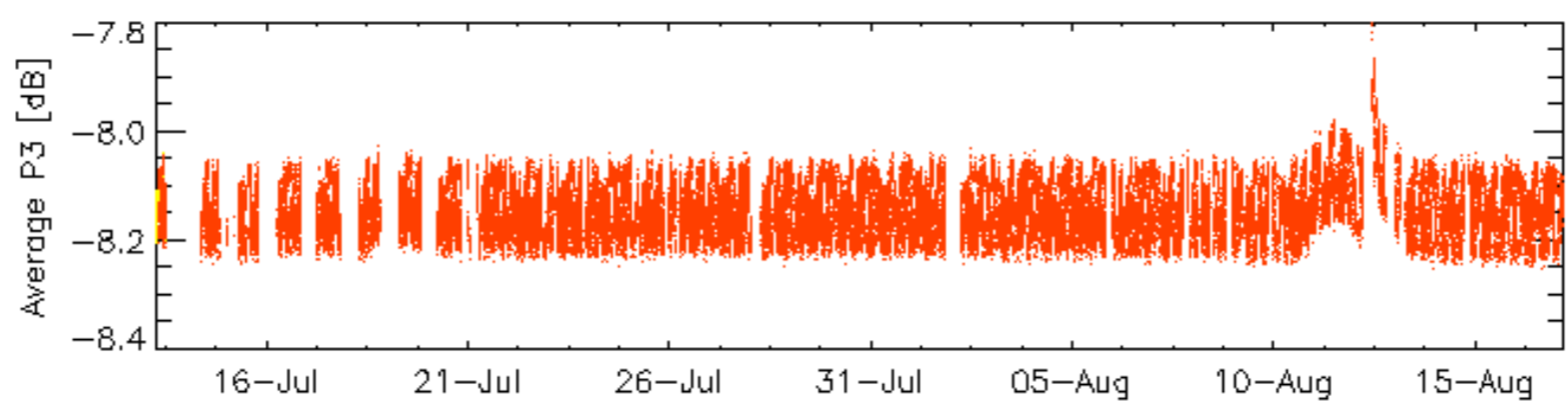
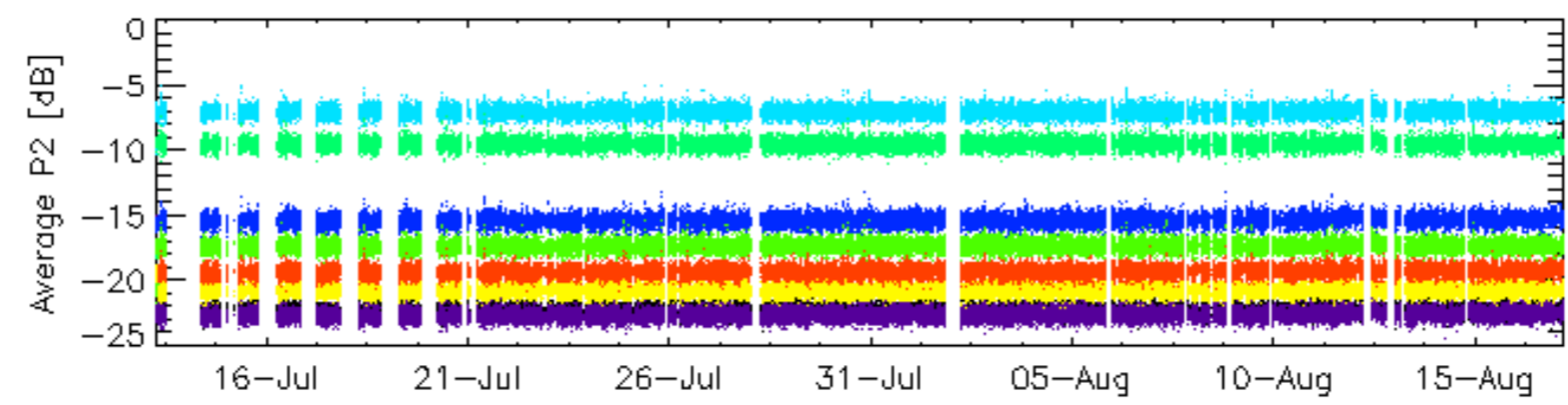
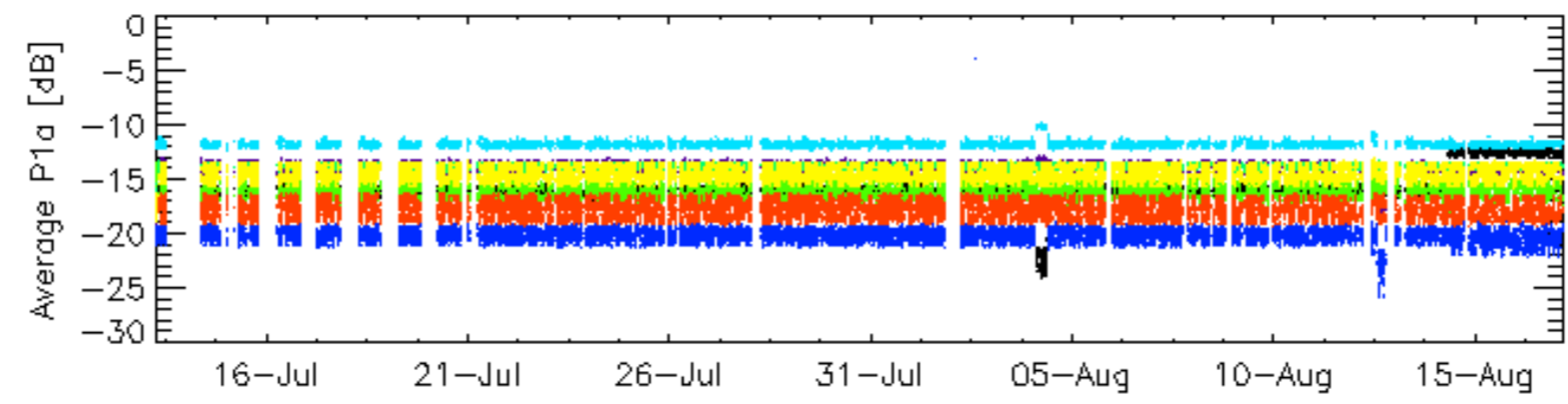
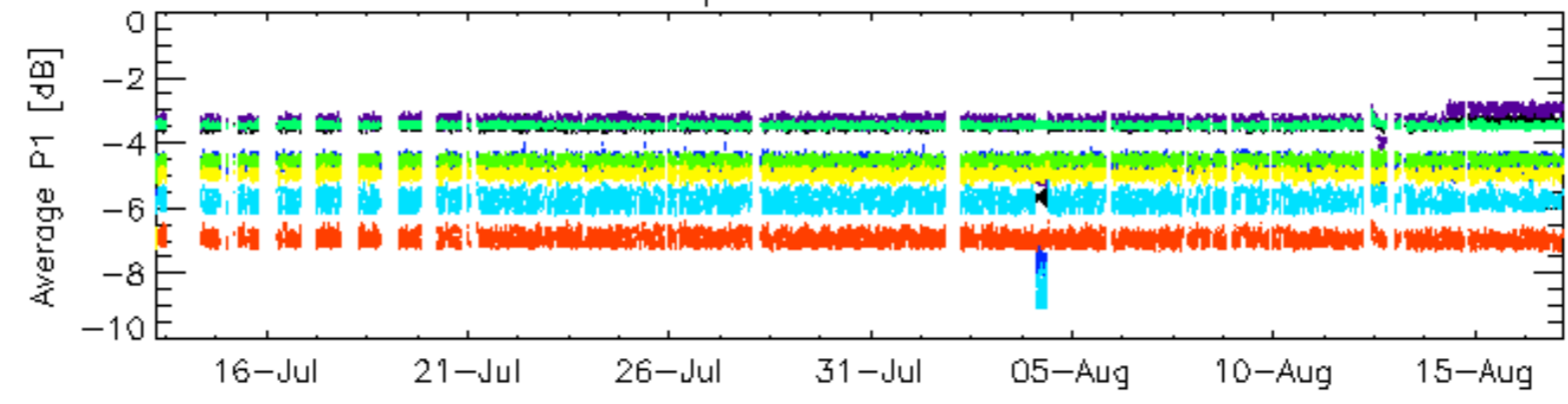


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

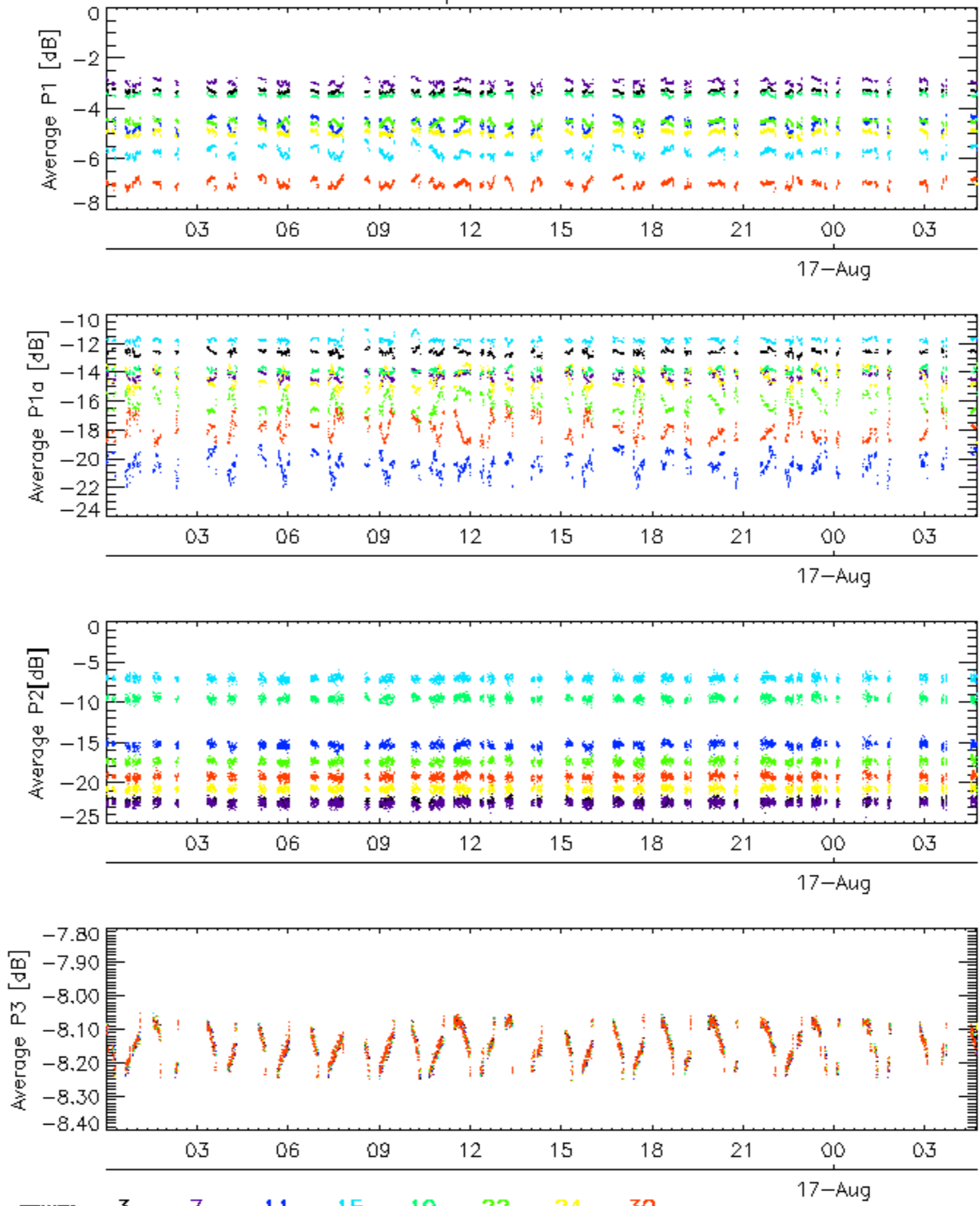


Cal pulses for WVS IS2



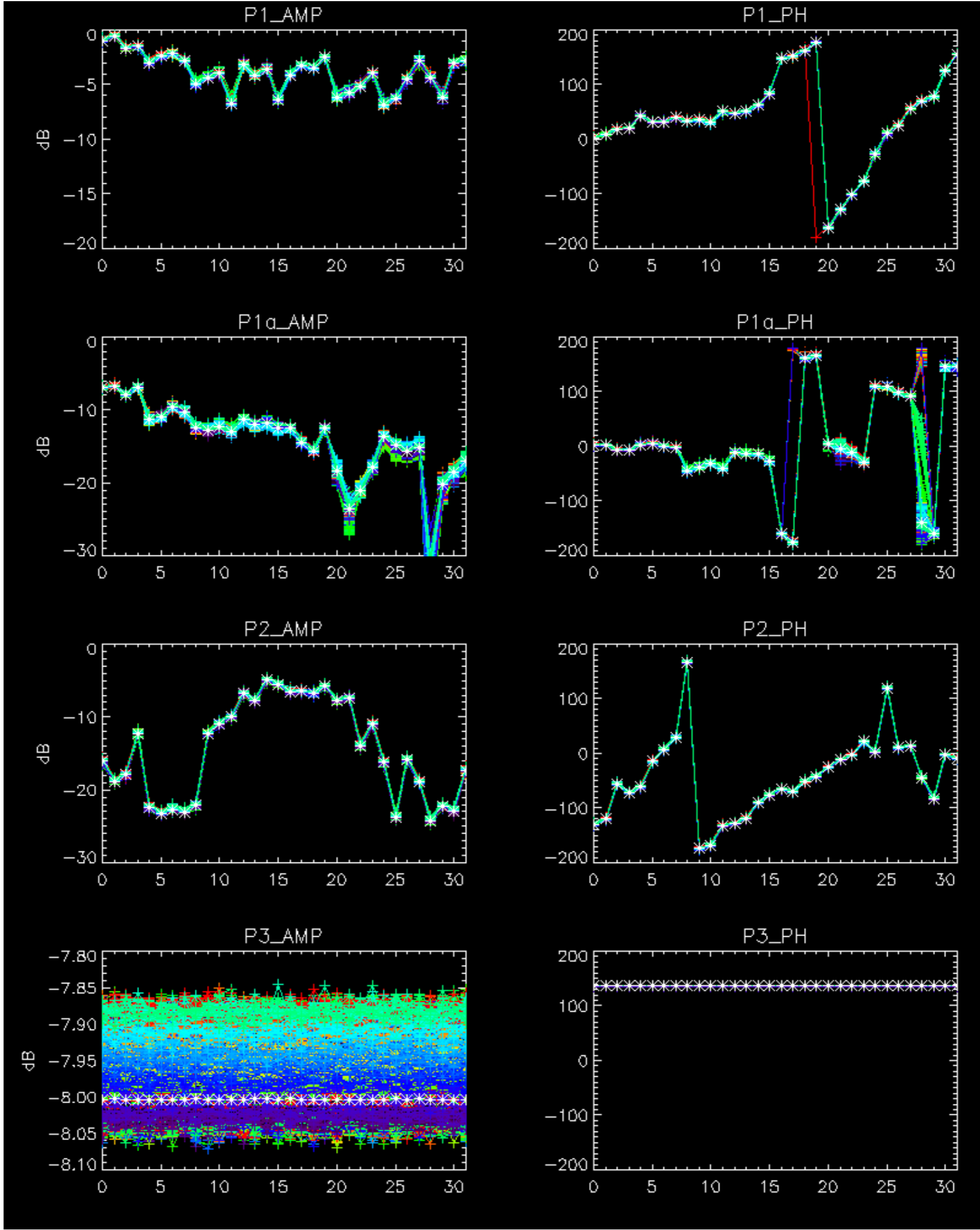
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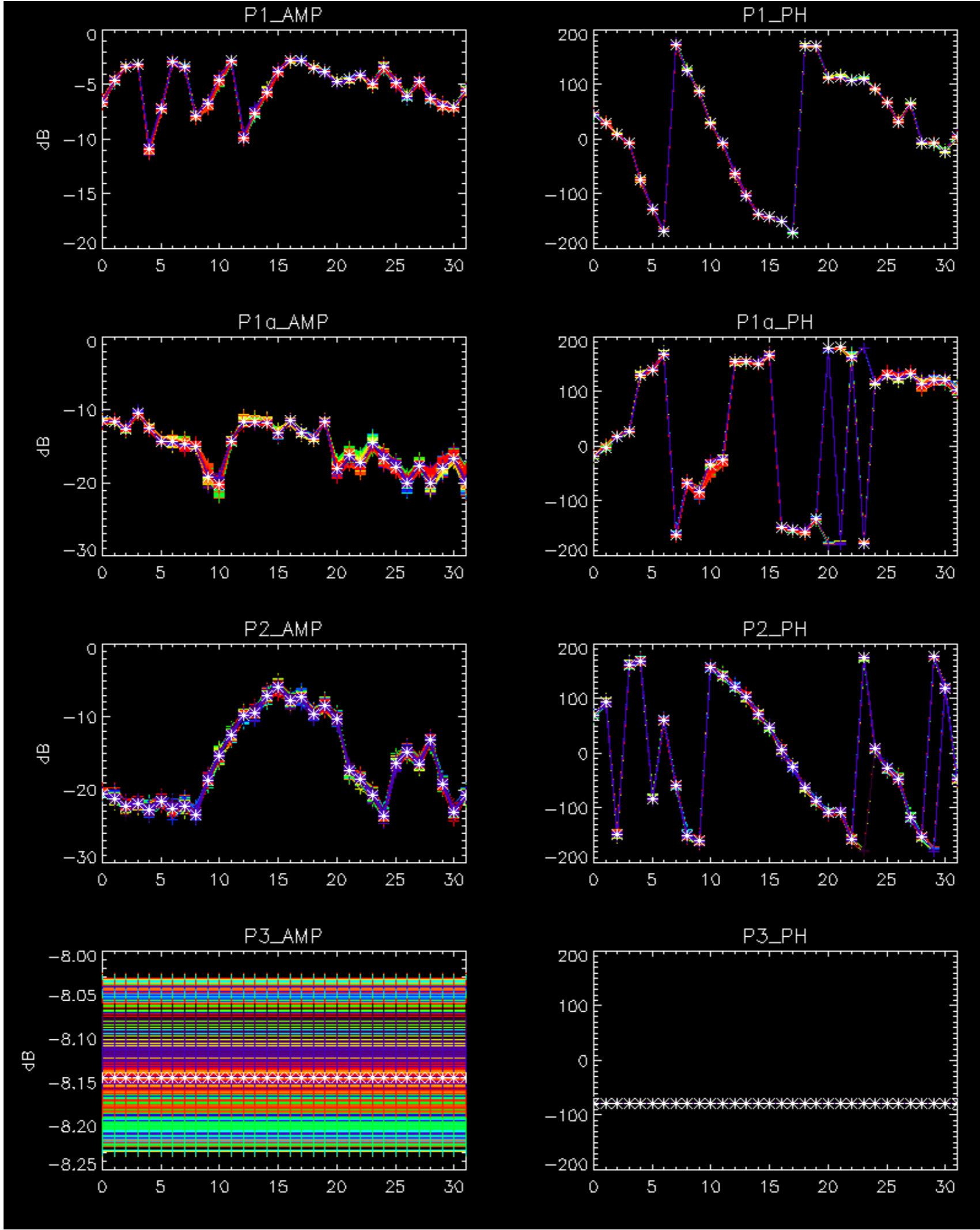
Cal pulses for WVS IS2



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

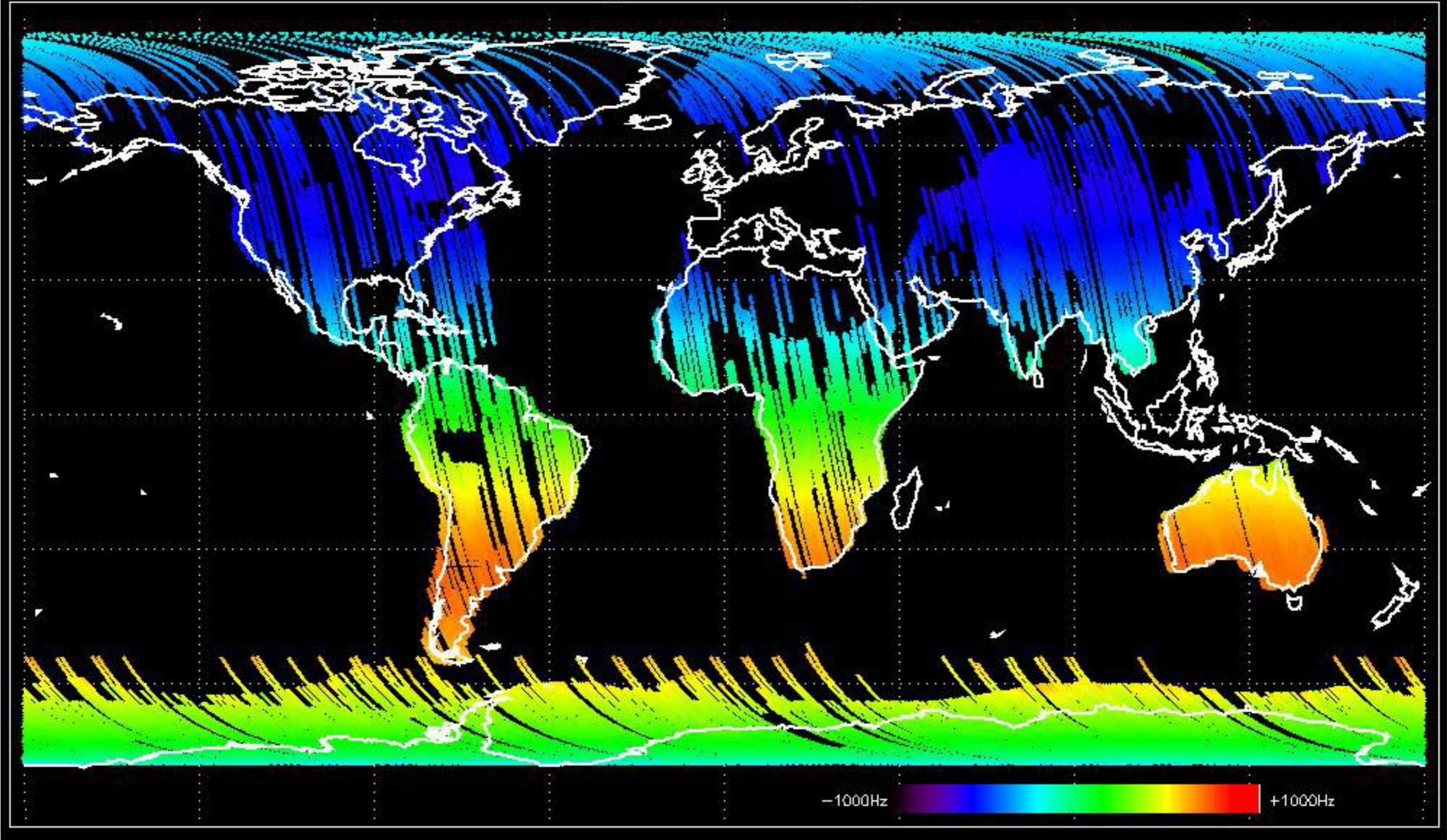
No anomalies observed.



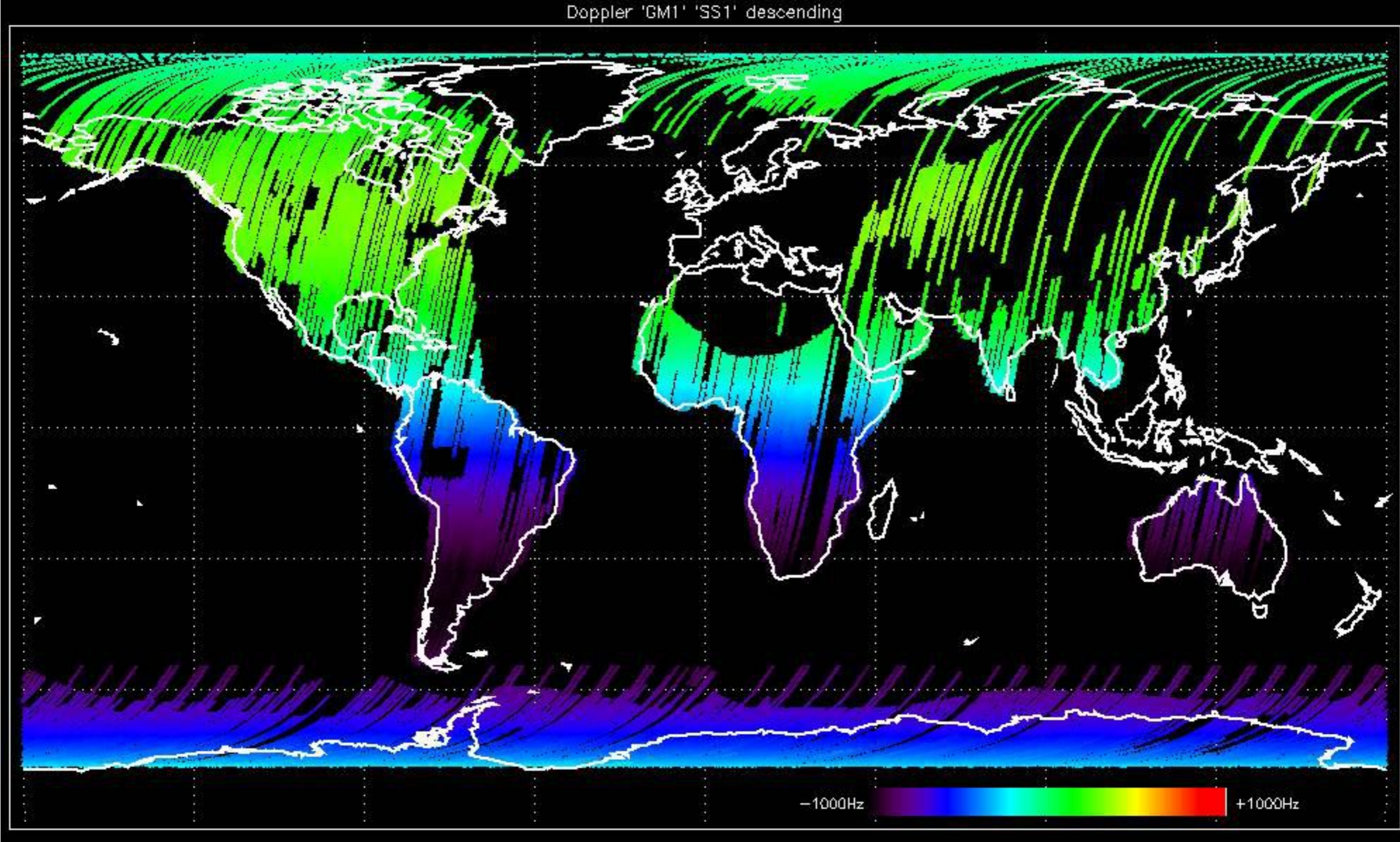


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

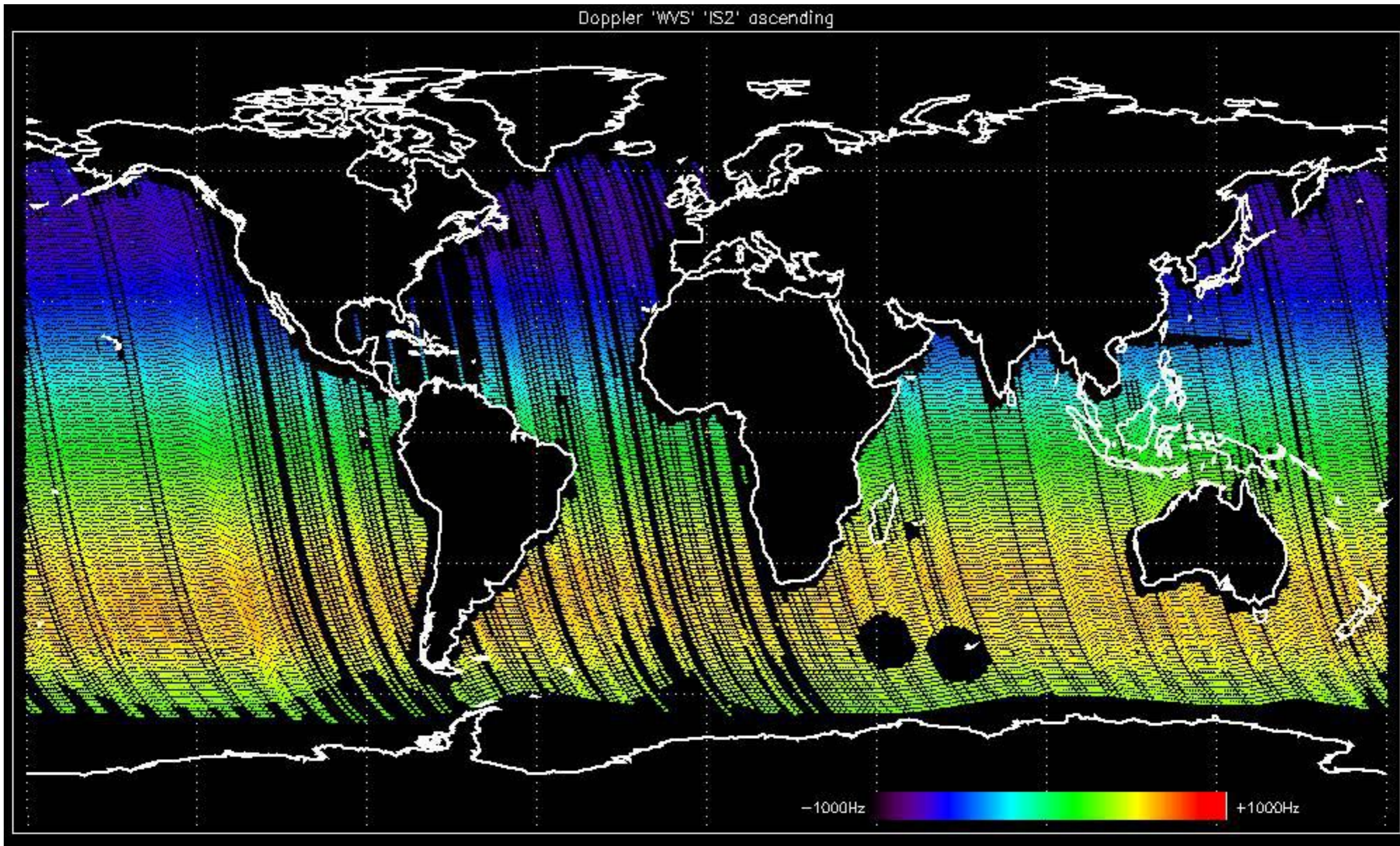
Doppler 'GM1' 'SS1' ascending



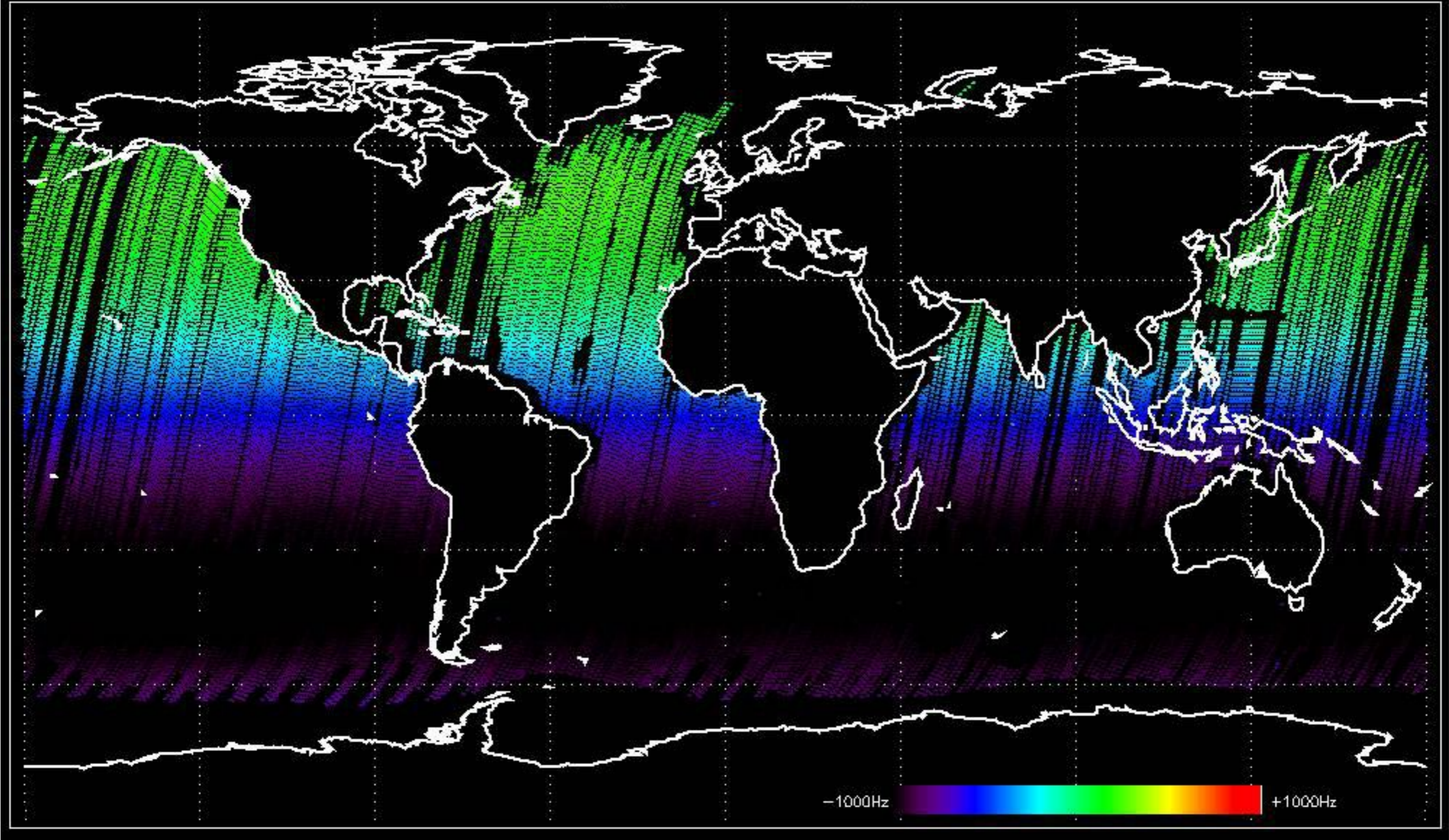
Doppler 'GM1' 'SS1' descending



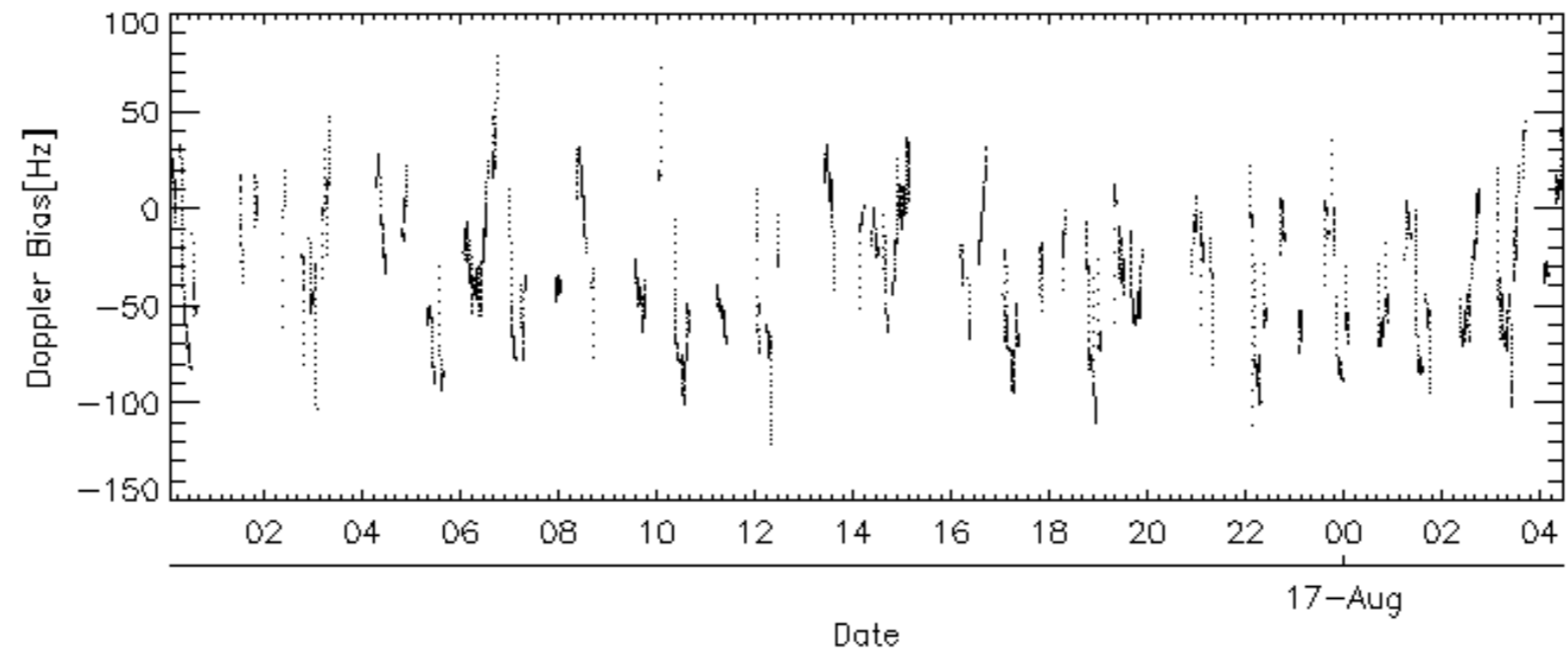
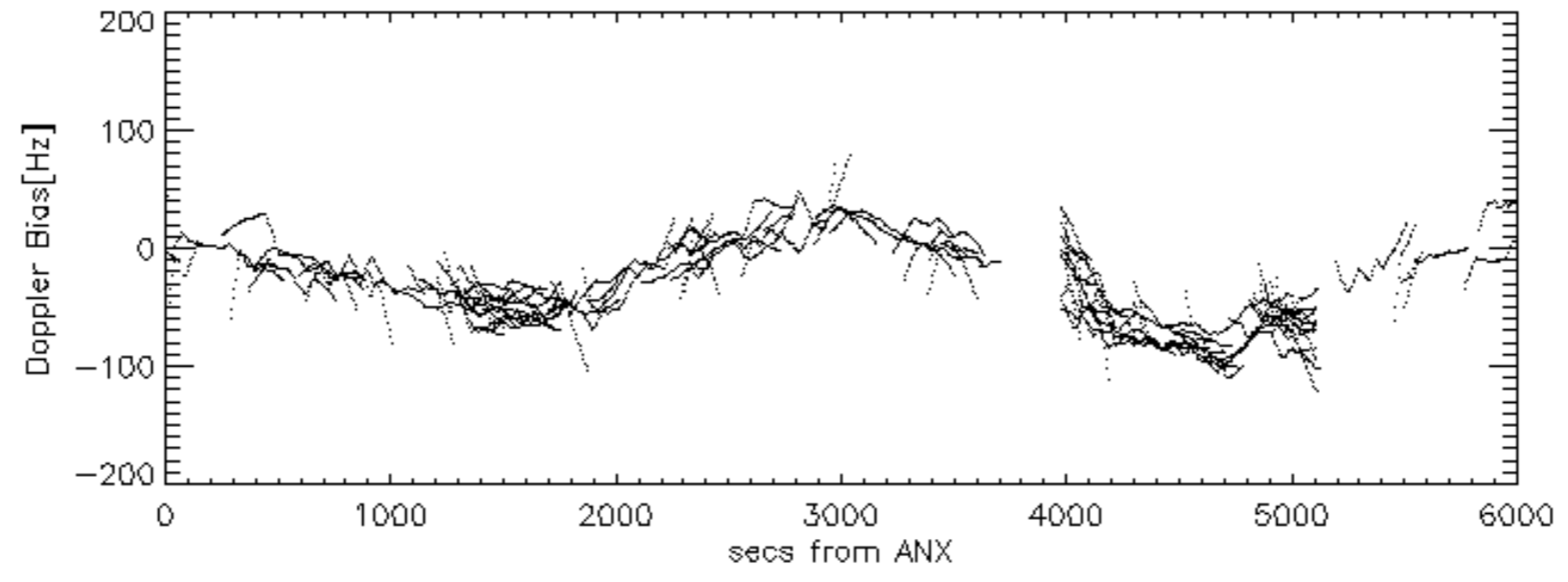
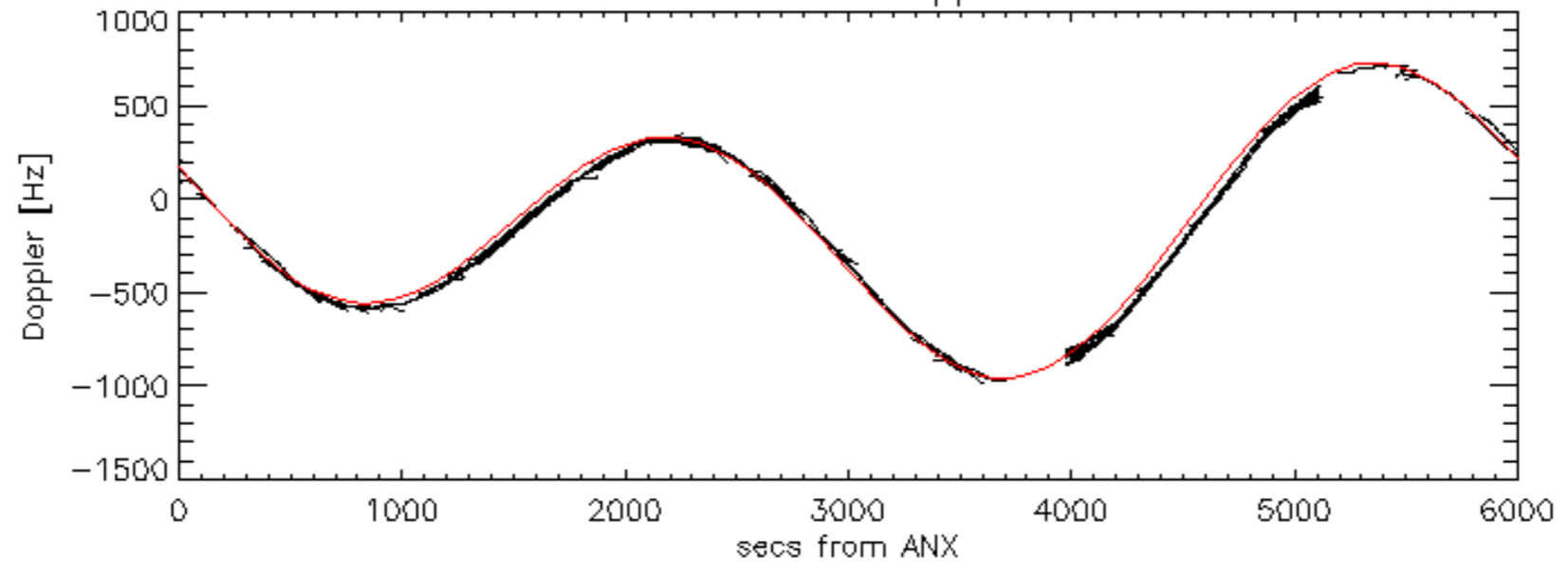
Doppler 'WVS' 'IS2' ascending

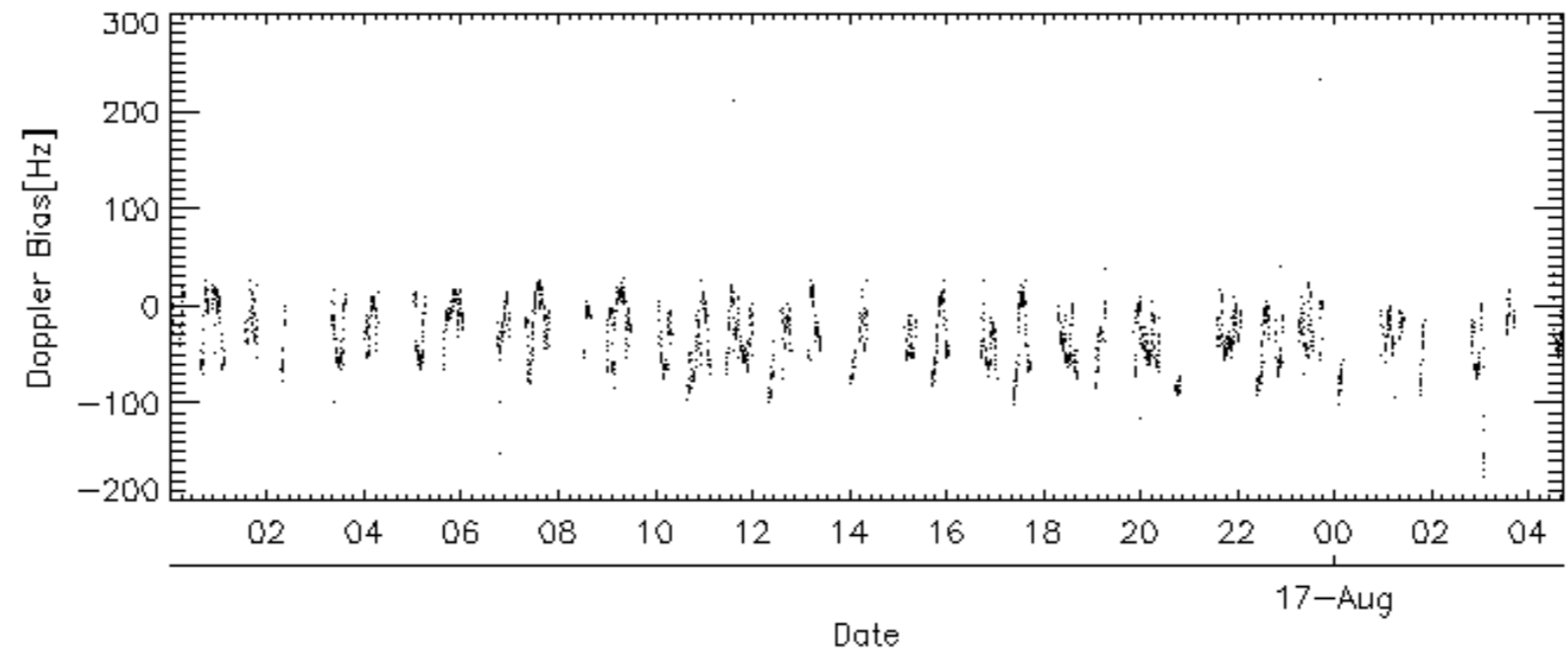
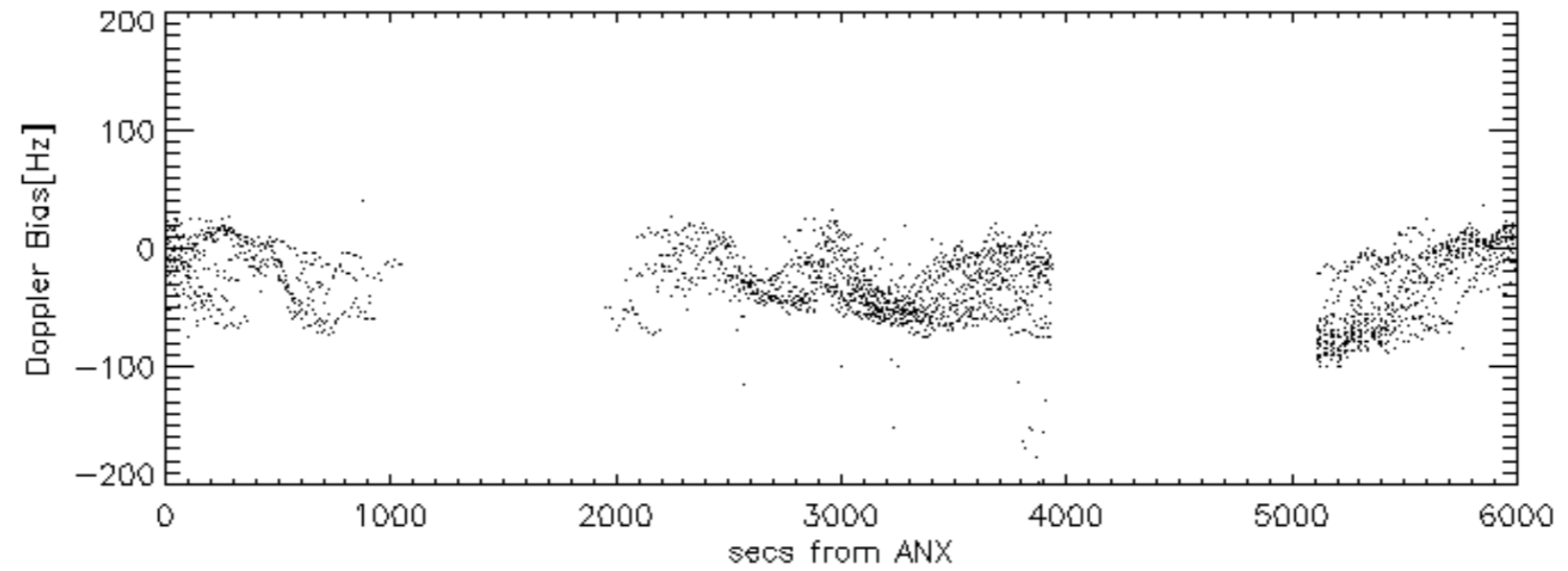
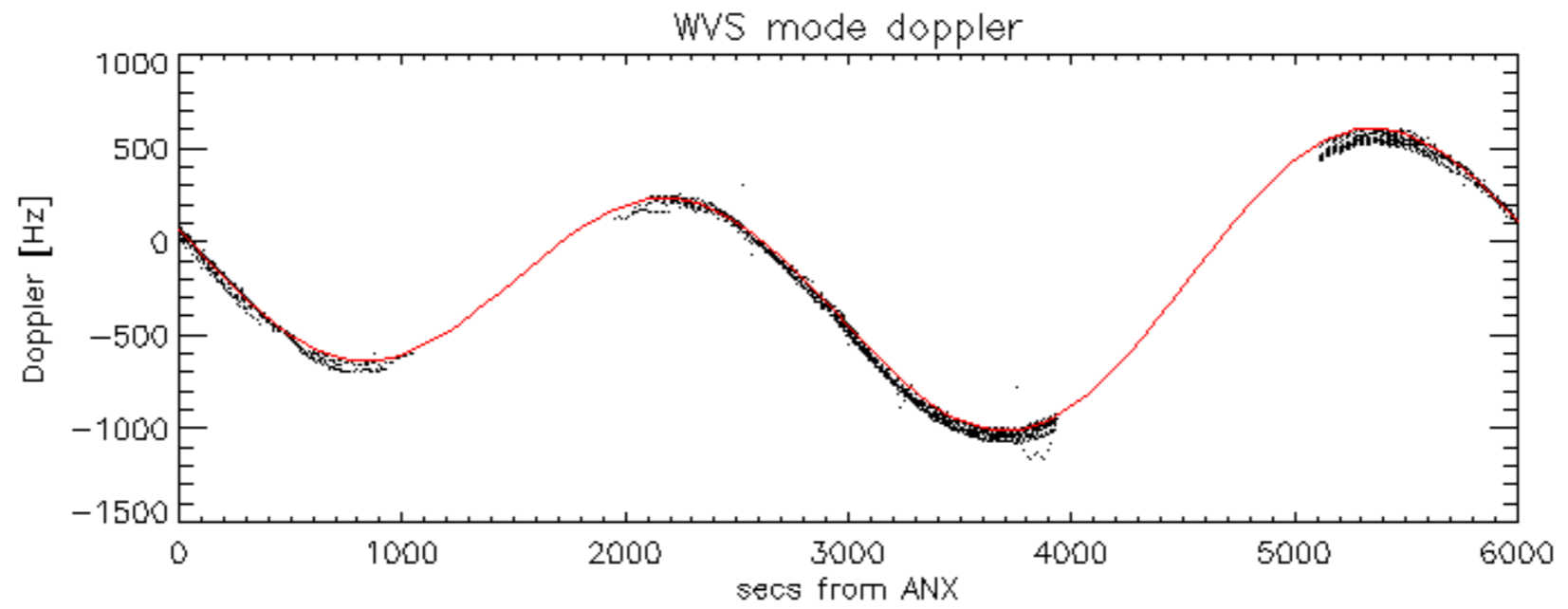


Doppler 'WVS' 'IS2' descending

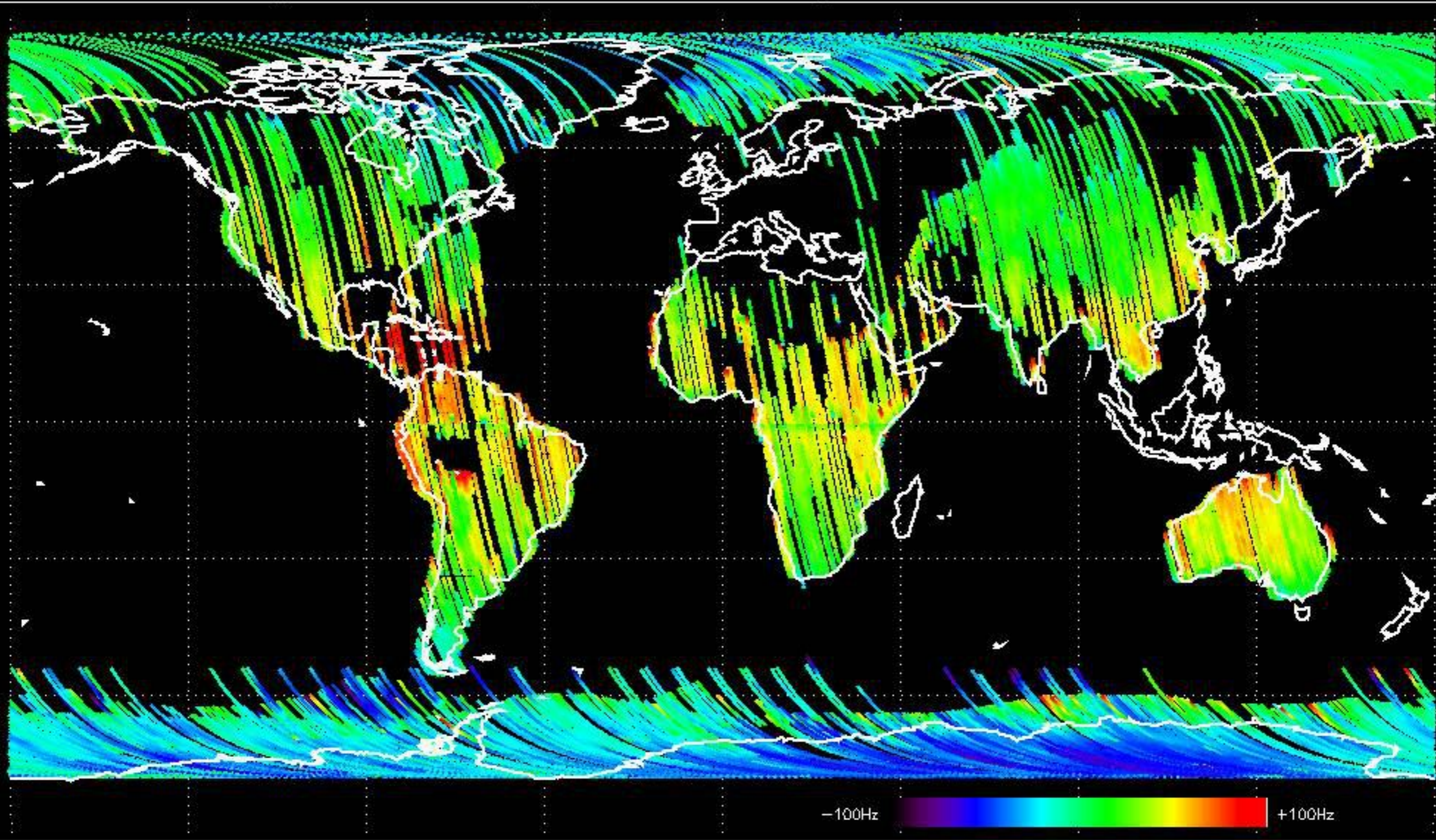


GM1 mode doppler

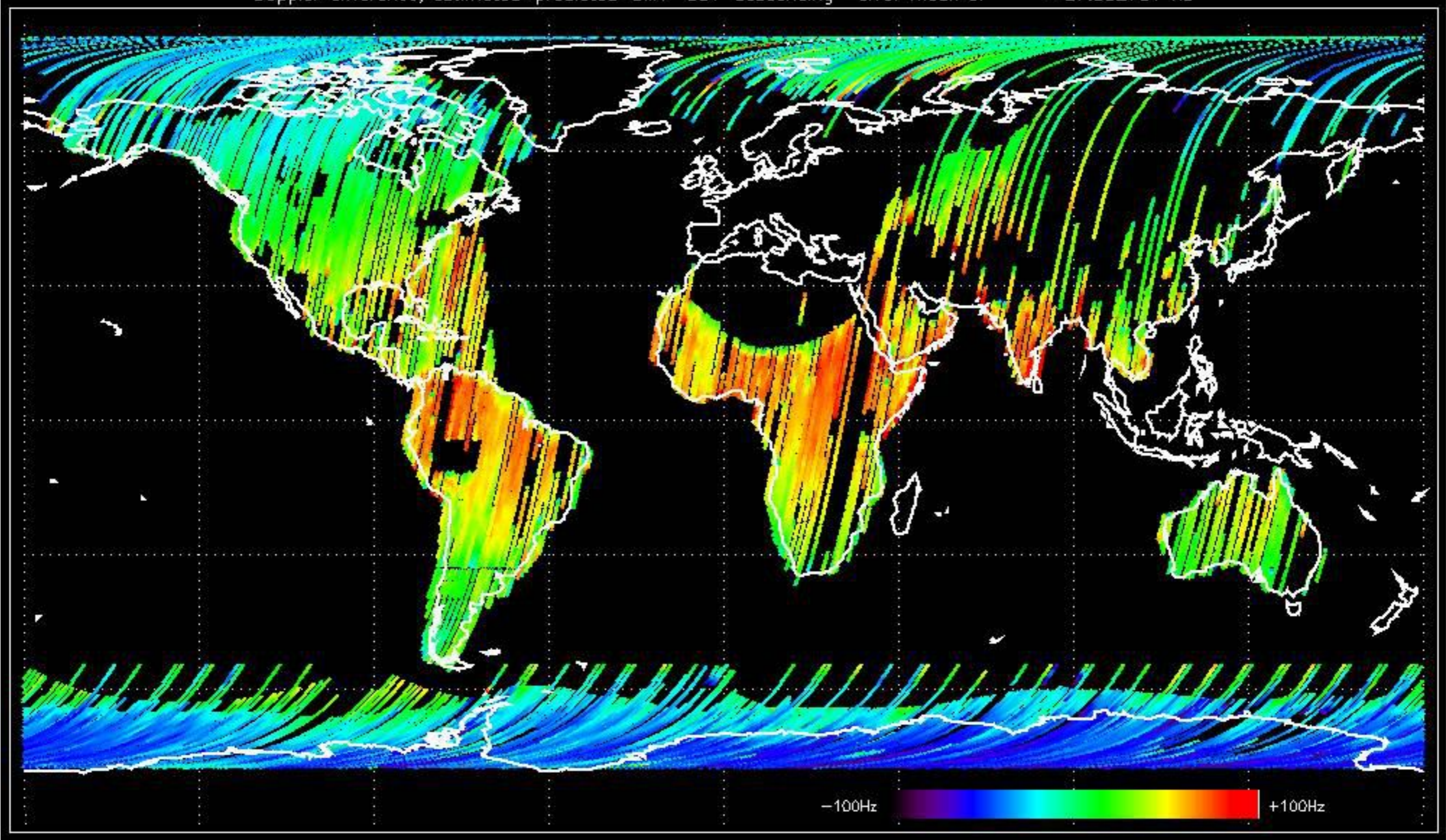




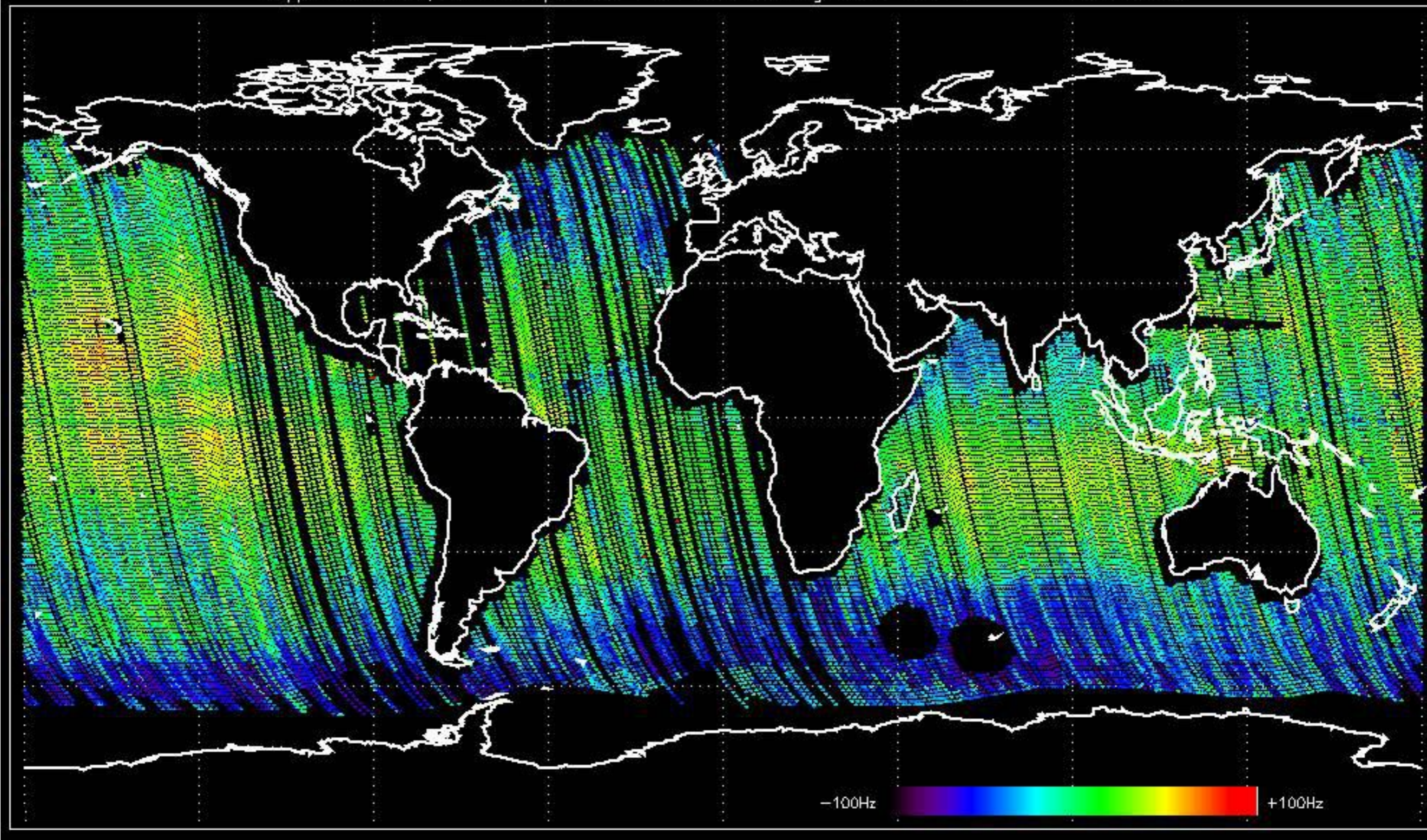
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -38.890248 Hz



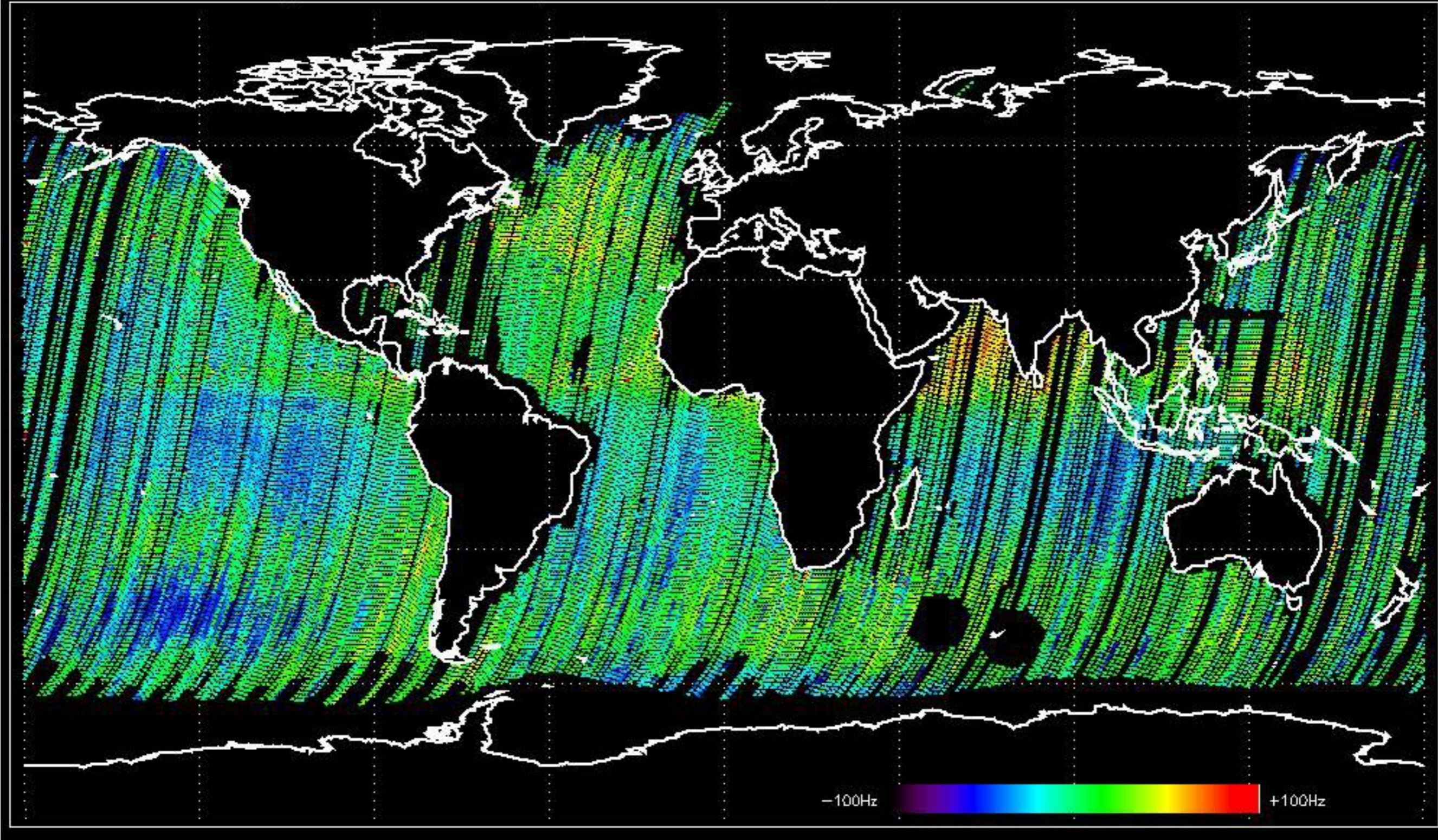
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.382731 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.730846 Hz

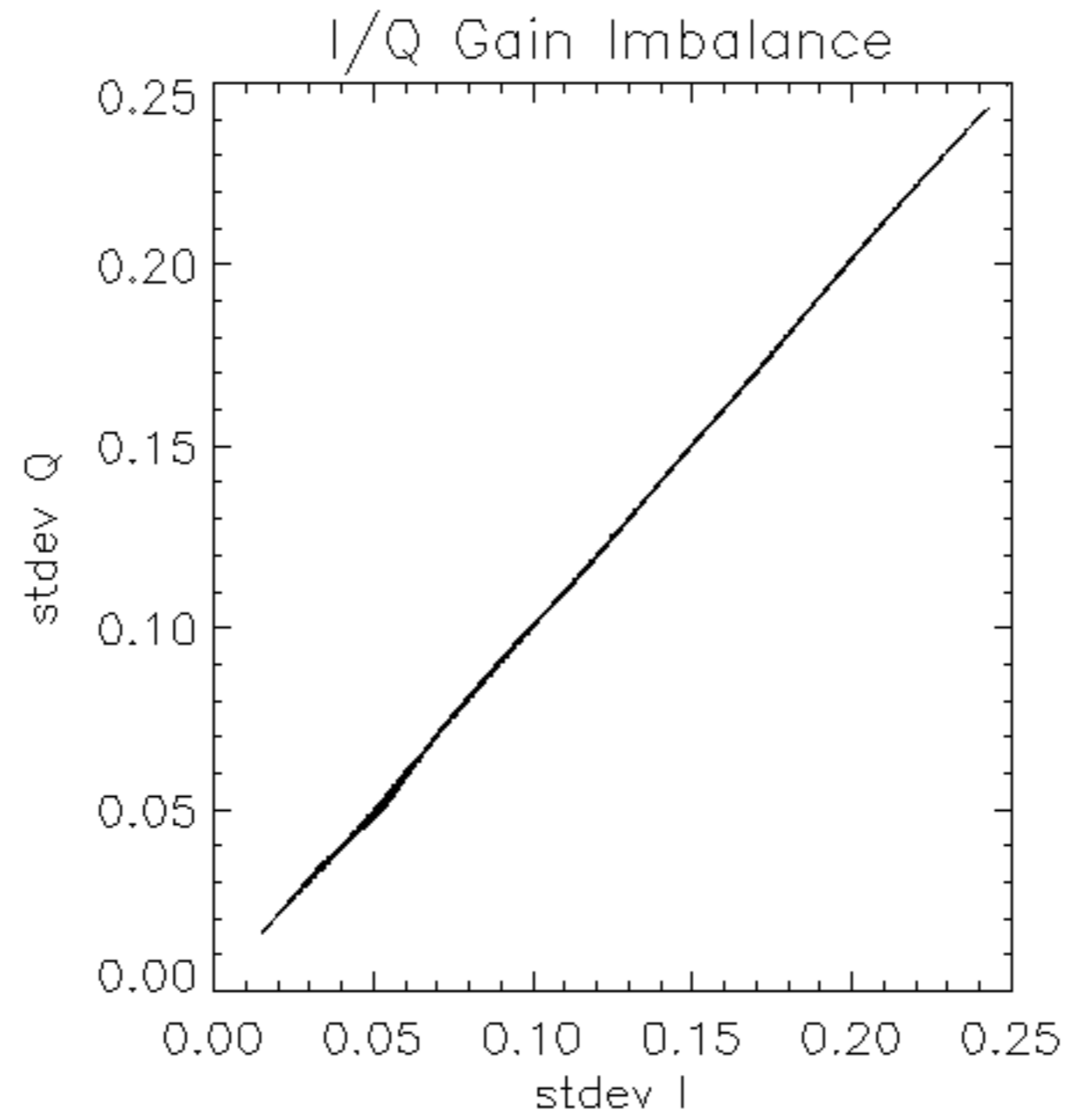


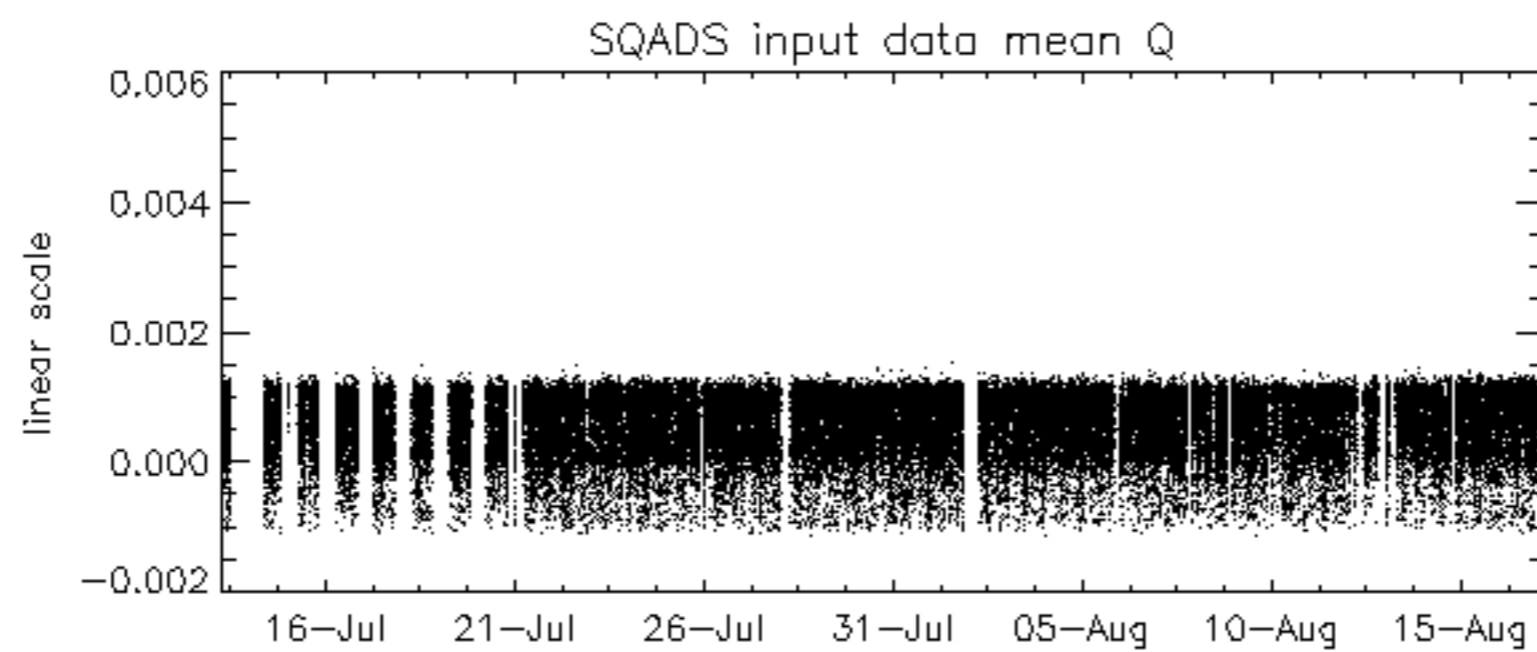
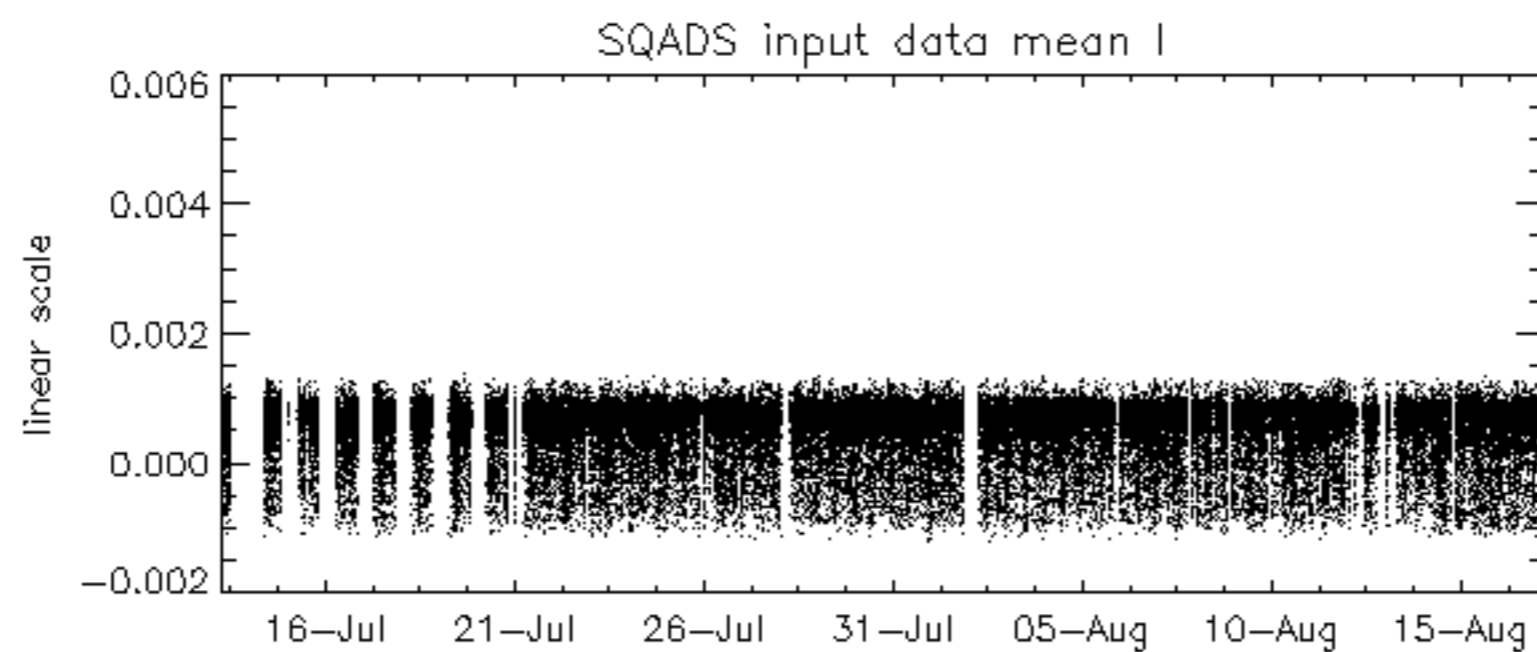
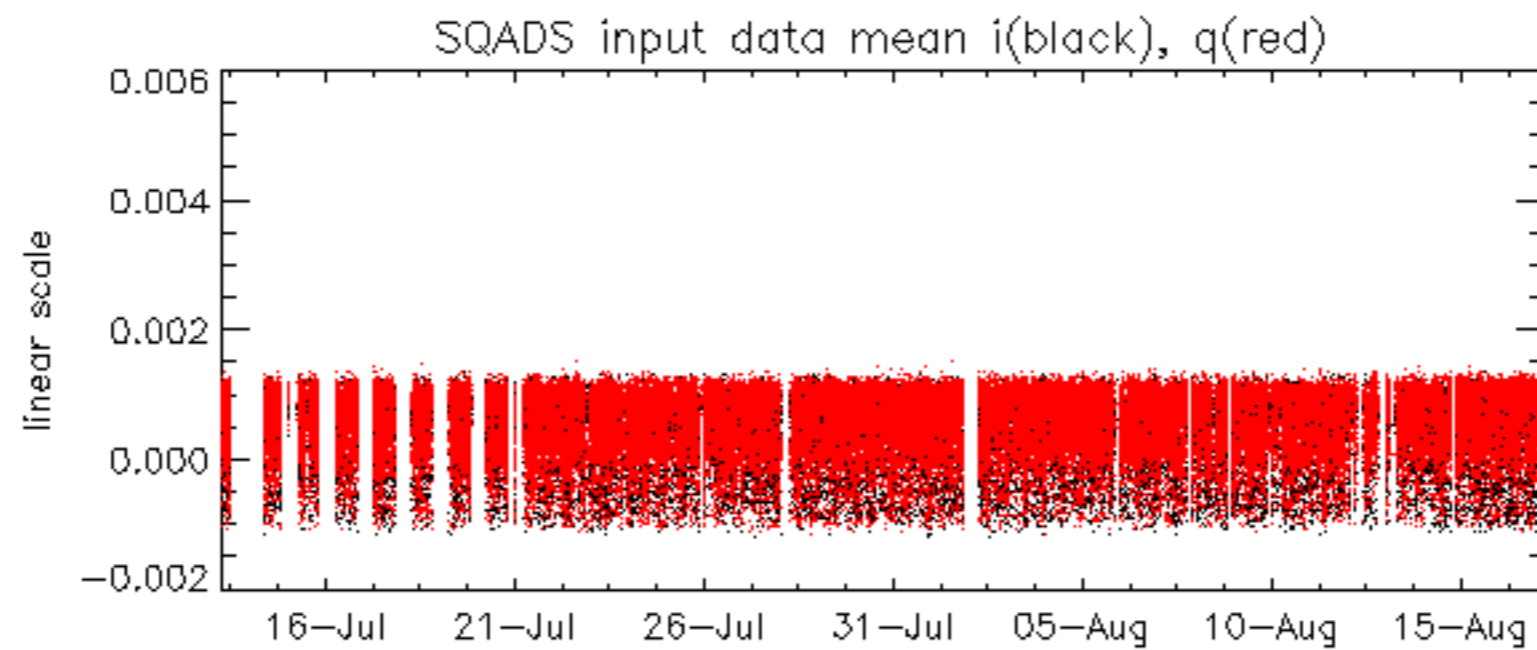
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.205510 Hz

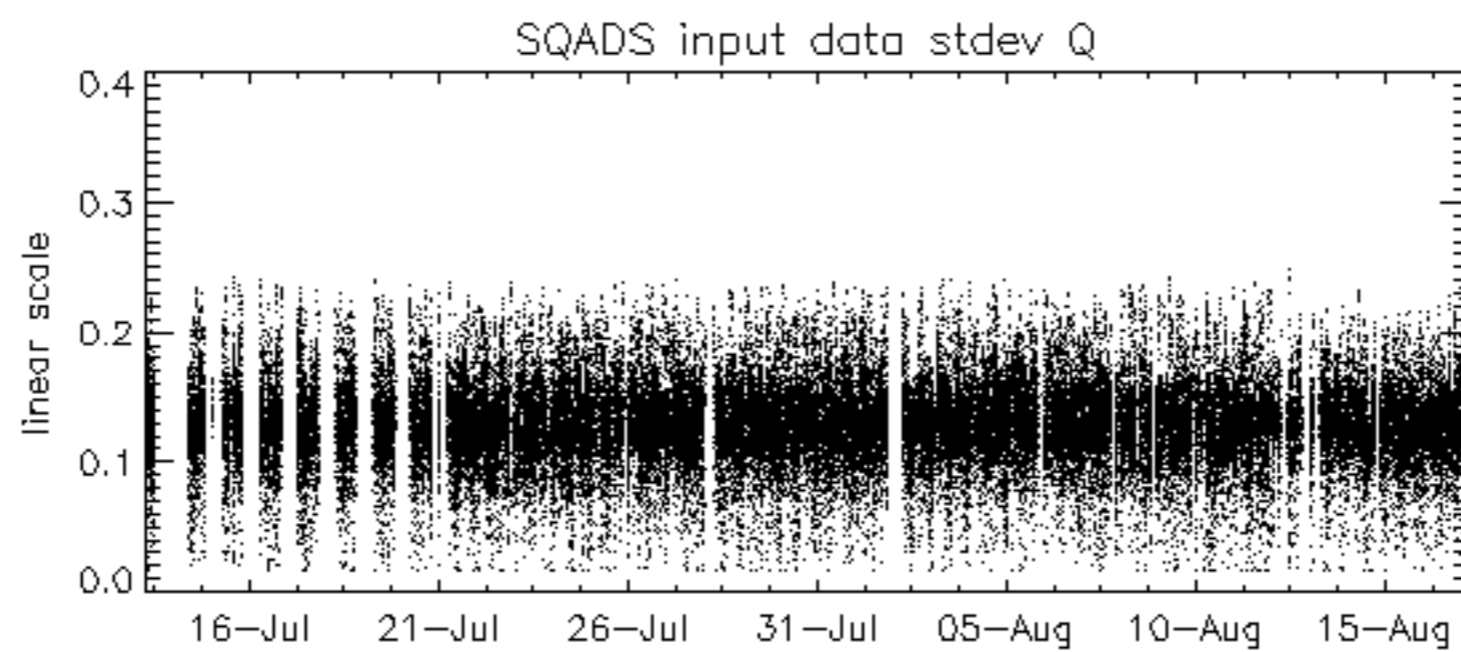
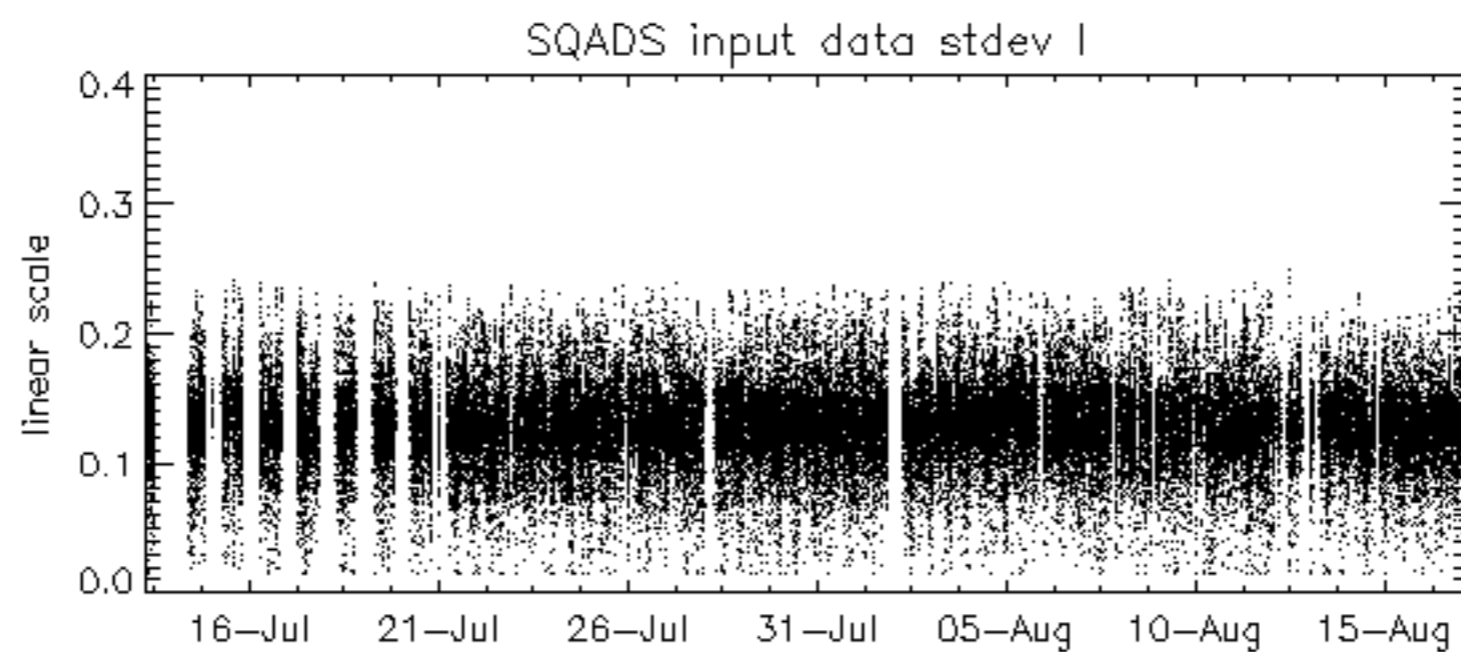
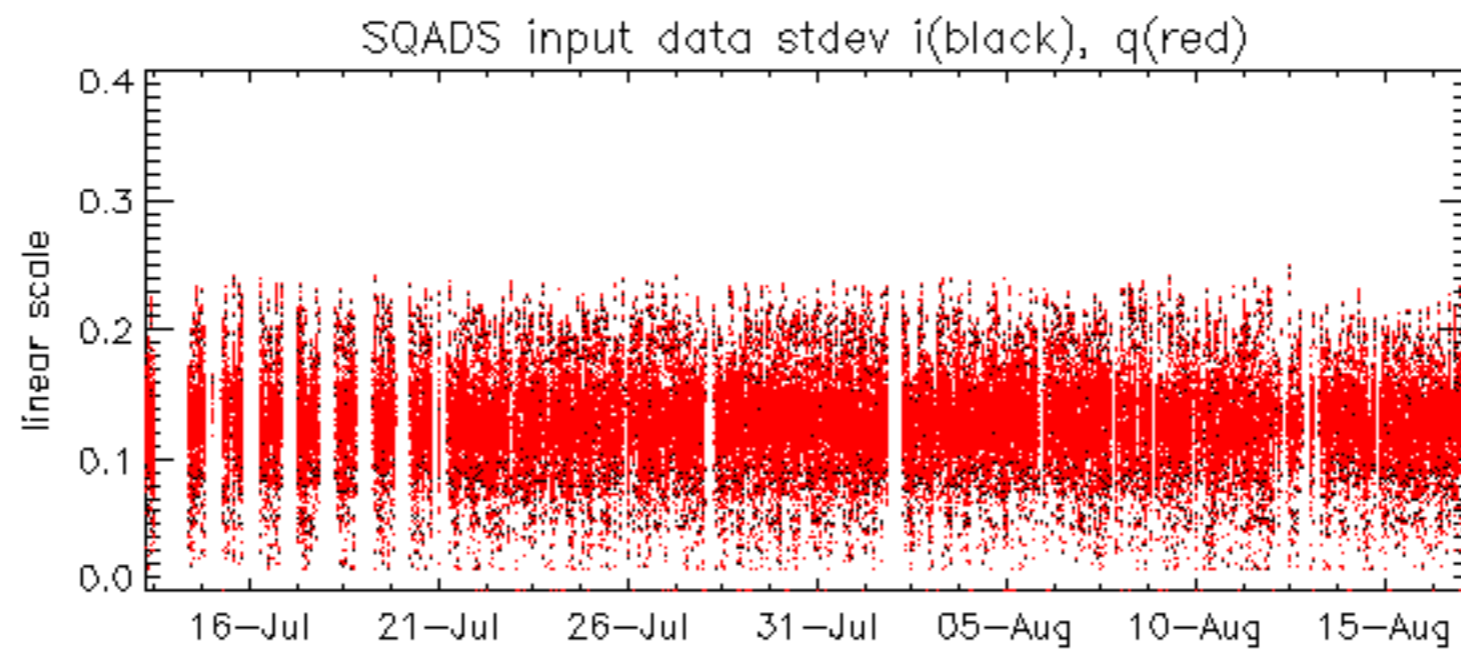


The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

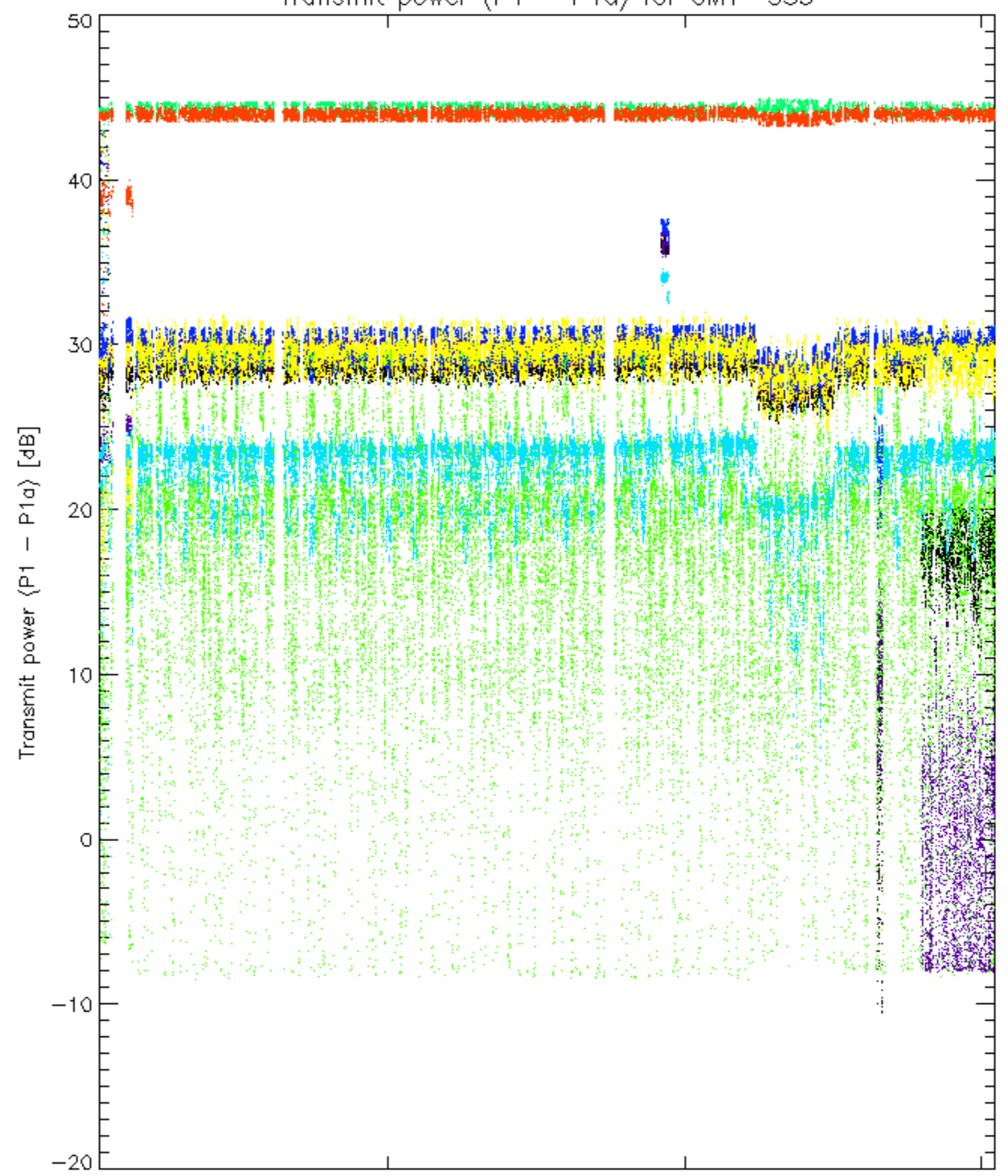
No anomalies observed.



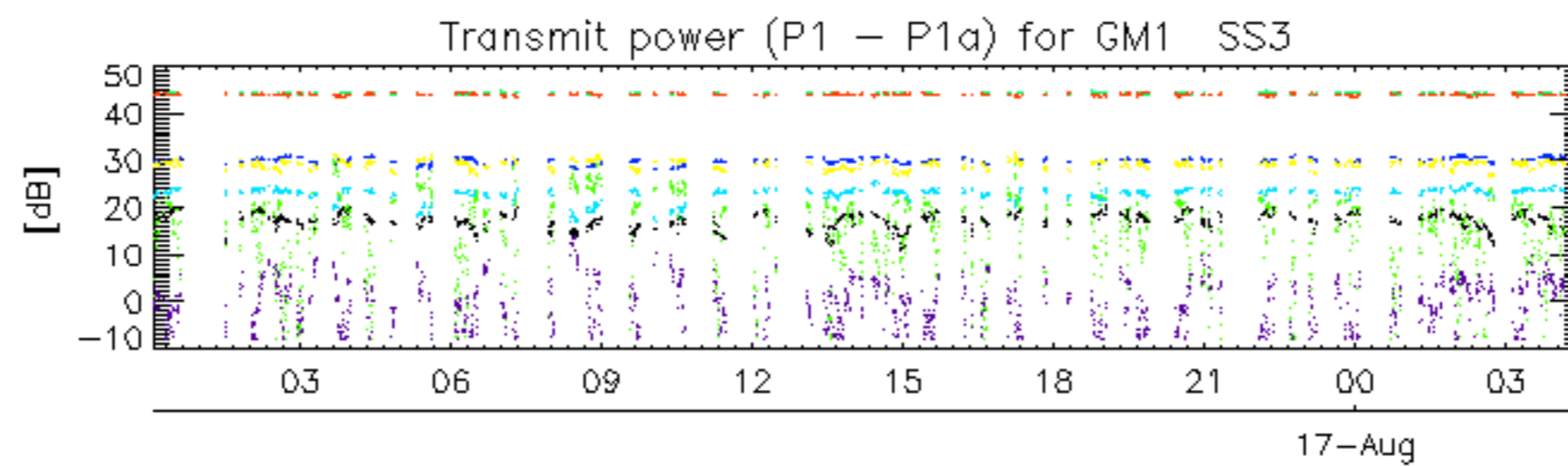




Transmit power (P1 - P1a) for GM1 SS3

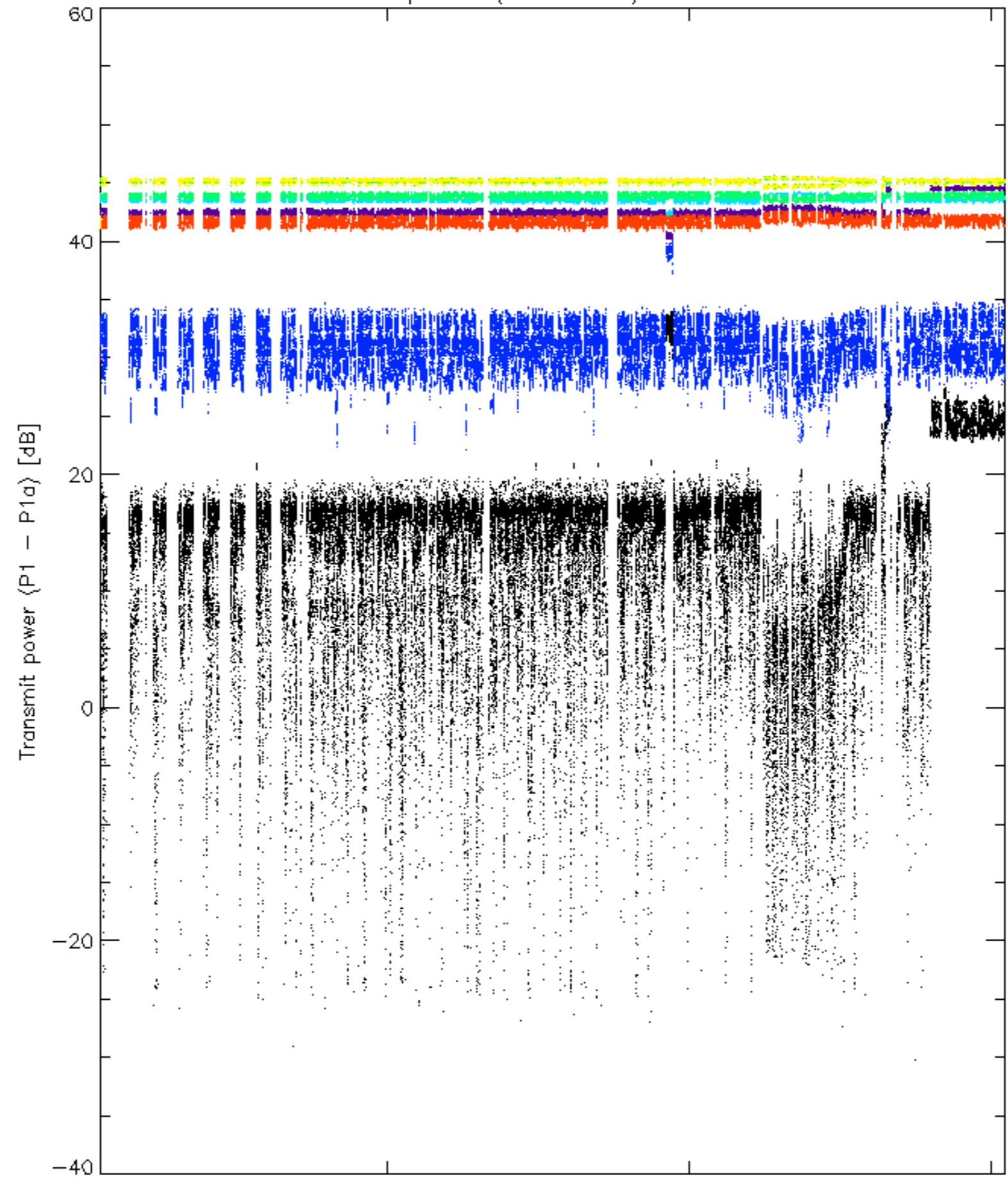


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

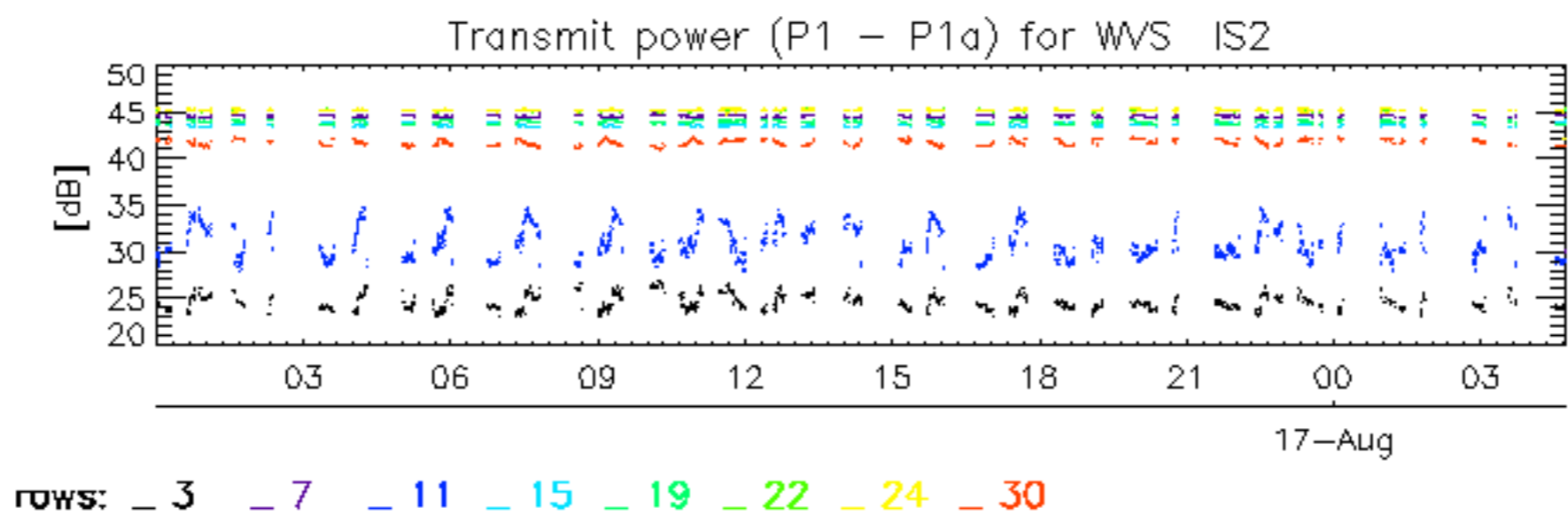


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



No unavailabilities during the reported period.