

PRELIMINARY REPORT OF 040811

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

last update on Wed Aug 11 13:02:46 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 observed on available browse products

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	20040809 054054
H	20040810 050917

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.494007	0.052529	-0.058888
7	P1	-3.339149	0.044176	-0.063495
11	P1	-4.639881	0.117155	-0.114291
15	P1	-5.753812	0.129270	-0.127736
19	P1	-3.454826	0.004720	-0.012016
22	P1	-4.560394	0.010766	0.024987

24	P1	-4.957016	0.019102	0.009235
30	P1	-6.908844	0.025236	-0.065133
3	P1	-16.258017	0.490629	-0.212032
7	P1	-13.970729	0.080468	0.004841
11	P1	-20.043381	0.334126	-0.063416
15	P1	-11.770385	0.069932	0.037099
19	P1	-13.864565	0.033930	-0.029758
22	P1	-16.298697	0.333765	0.090002
24	P1	-14.598358	0.273679	0.091911
30	P1	-17.691090	0.425626	-0.144732

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.318588	0.077819	0.036936
7	P2	-22.686504	0.123321	0.078072
11	P2	-15.417889	0.150742	0.087211
15	P2	-7.095139	0.088706	0.074552
19	P2	-9.563459	0.169740	0.080491
22	P2	-17.394217	0.106583	0.118487
24	P2	-20.755697	0.083148	-0.007354
30	P2	-19.326233	0.076967	0.111956

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.144151	0.001947	-0.002659
7	P3	-8.144157	0.001947	-0.002612
11	P3	-8.144160	0.001948	-0.002588
15	P3	-8.144160	0.001947	-0.002633
19	P3	-8.144155	0.001947	-0.002673
22	P3	-8.144149	0.001947	-0.002694
24	P3	-8.144143	0.001947	-0.002721
30	P3	-8.144078	0.001945	-0.002743

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	-2.901356	0.183354	0.226020
7	P1	-3.018524	0.229920	-0.275925
11	P1	-3.874418	0.175853	-0.125743
15	P1	-3.701279	0.447958	0.696496
19	P1	-3.452349	0.028972	-0.144708
22	P1	-5.673162	0.049054	0.053900
24	P1	-3.897708	0.042690	0.159679
30	P1	-6.175519	0.075851	-0.035684
3	P1	-10.713662	0.551516	0.269123
7	P1	-10.056152	0.249712	-0.296005
11	P1	-12.023461	0.201192	-0.220206
15	P1	-11.672573	0.203518	0.362259
19	P1	-15.489429	0.321336	-0.690229
22	P1	-22.852051	3.337426	-2.308096
24	P1	-17.628511	0.285514	-0.613692
30	P1	-20.572746	2.305593	1.153885

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.004623	0.083743	0.082554
7	P2	-22.797226	0.251804	0.027602
11	P2	-11.014902	0.143094	-0.160940
15	P2	-4.953836	0.041928	-0.016343
19	P2	-6.805237	0.059391	0.145882
22	P2	-7.498597	0.106555	0.145257
24	P2	-11.039176	0.146686	-0.029971
30	P2	-22.247314	0.117602	0.022670

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.985695	0.003546	-0.015266
7	P3	-7.985868	0.003549	-0.015017
11	P3	-7.985803	0.003547	-0.015325
15	P3	-7.985722	0.003550	-0.015266
19	P3	-7.985766	0.003554	-0.015269
22	P3	-7.985775	0.003537	-0.015280
24	P3	-7.985823	0.003564	-0.015300
30	P3	-7.985856	0.003545	-0.015091

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	0.000491088
	stdev	2.15765e-07
MEAN Q	mean	0.000532445
	stdev	2.47000e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129093
	stdev	0.00103761
STDEV Q	mean	0.129342
	stdev	0.00104943





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)**

Acsending

Descending

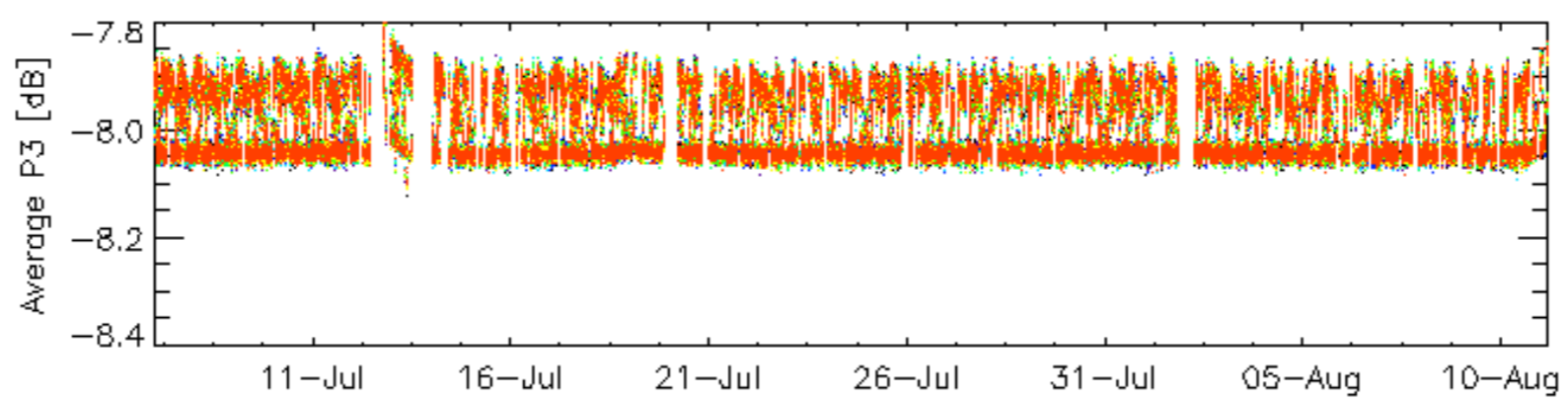
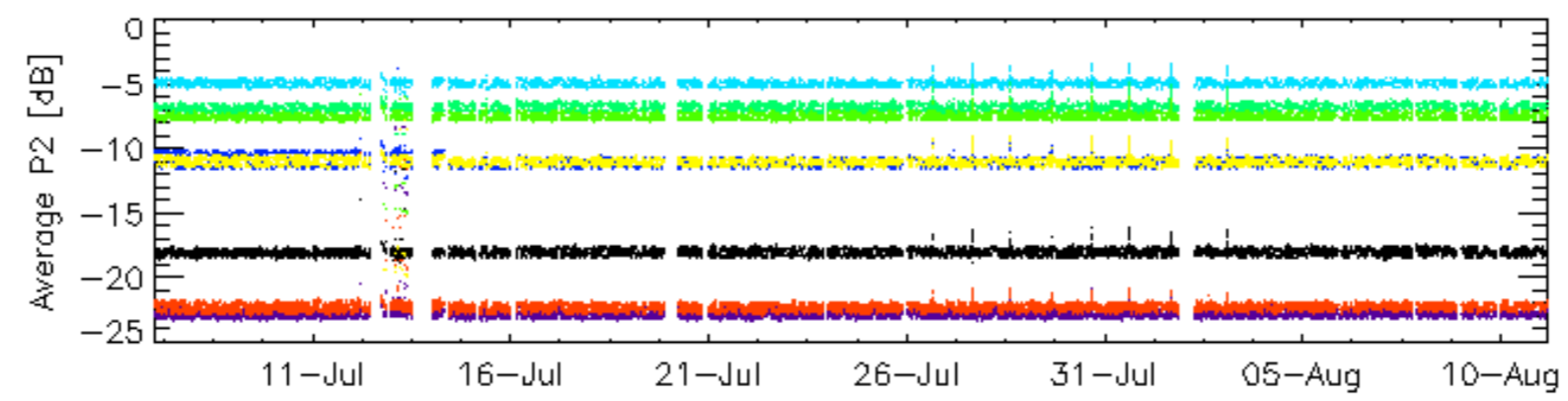
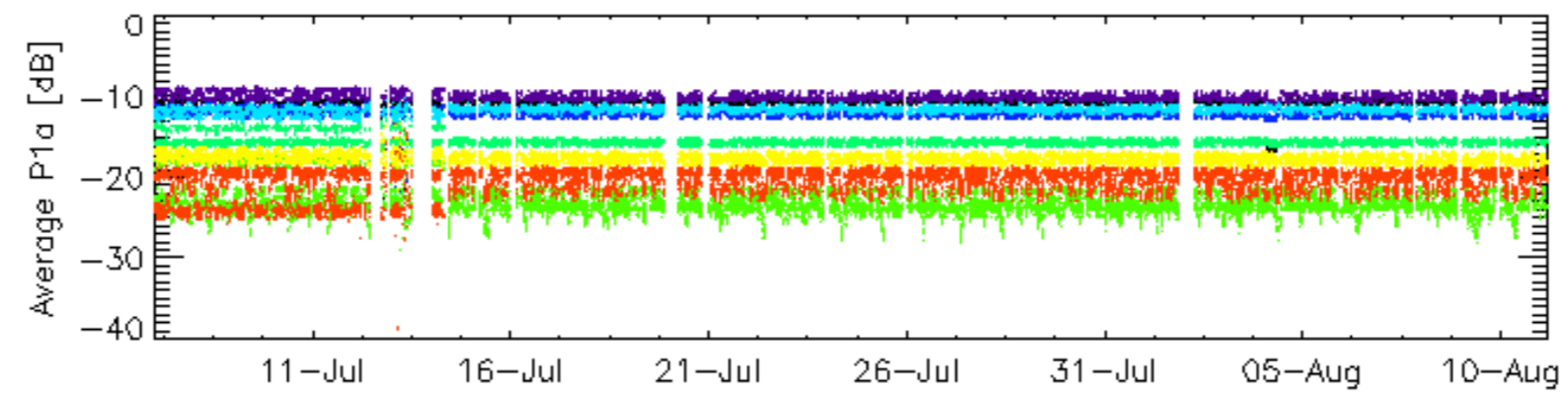
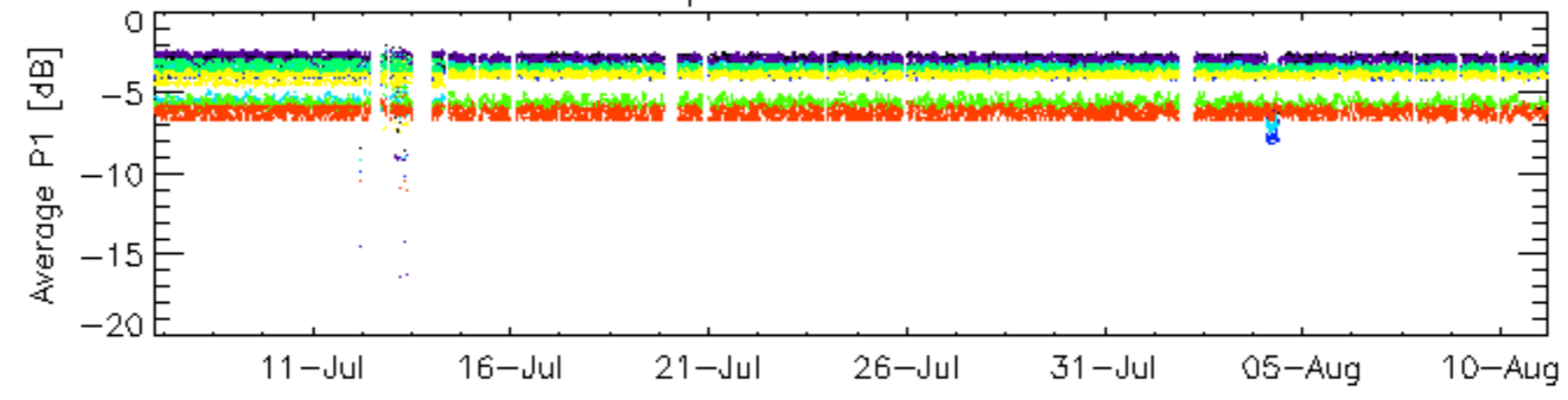
6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

Descending

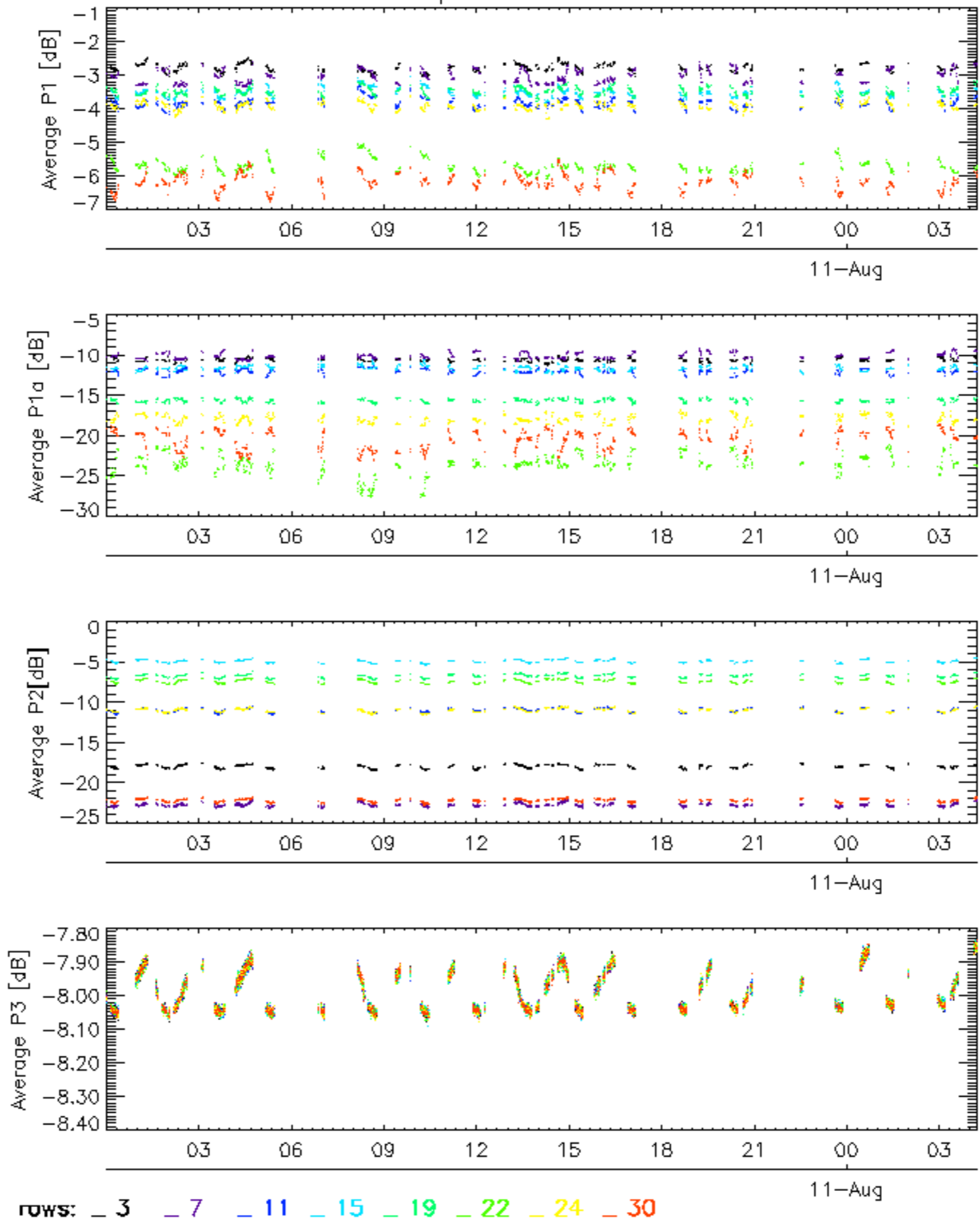
6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

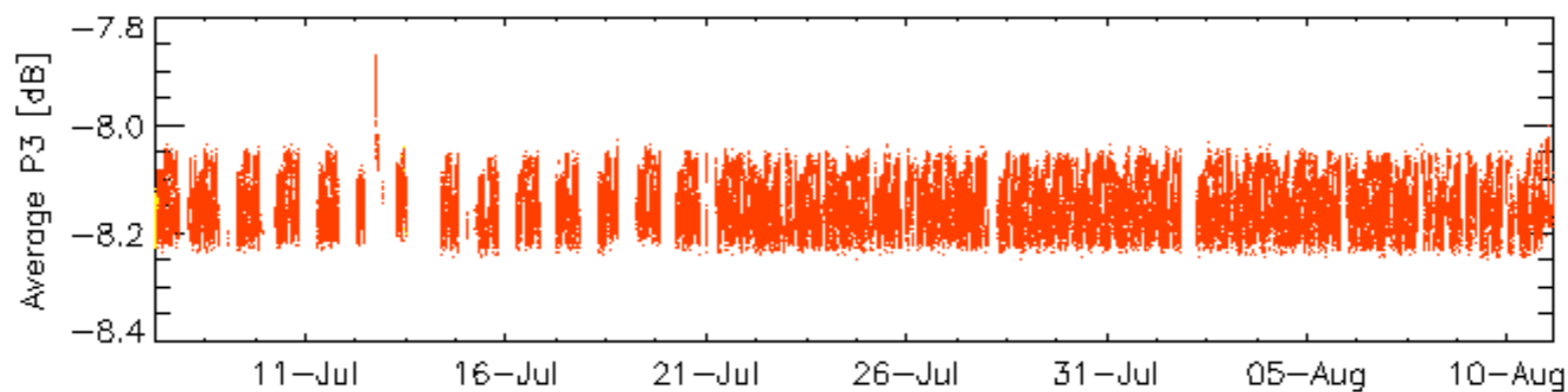
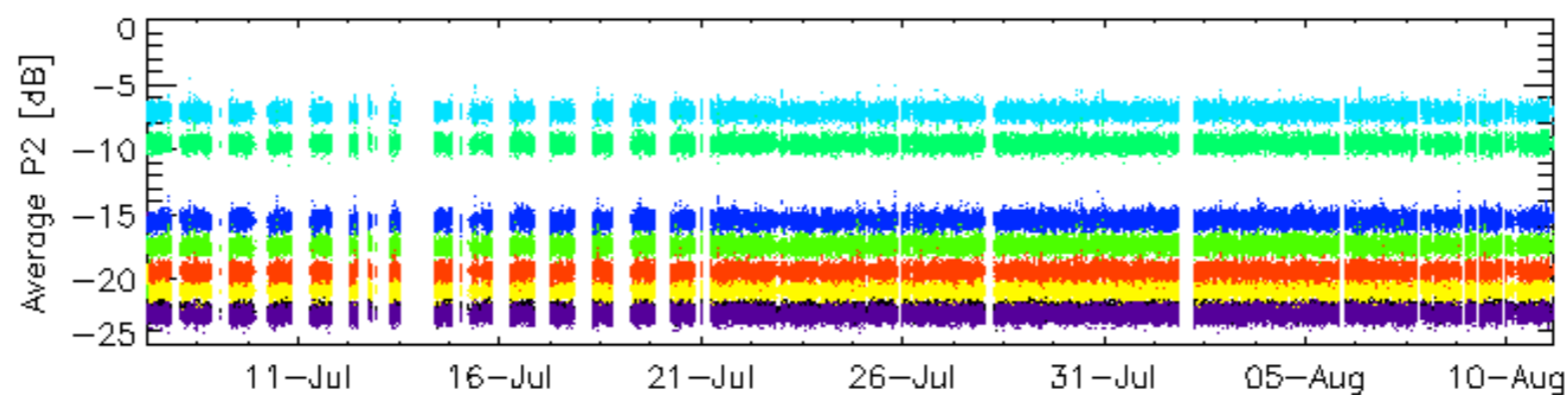
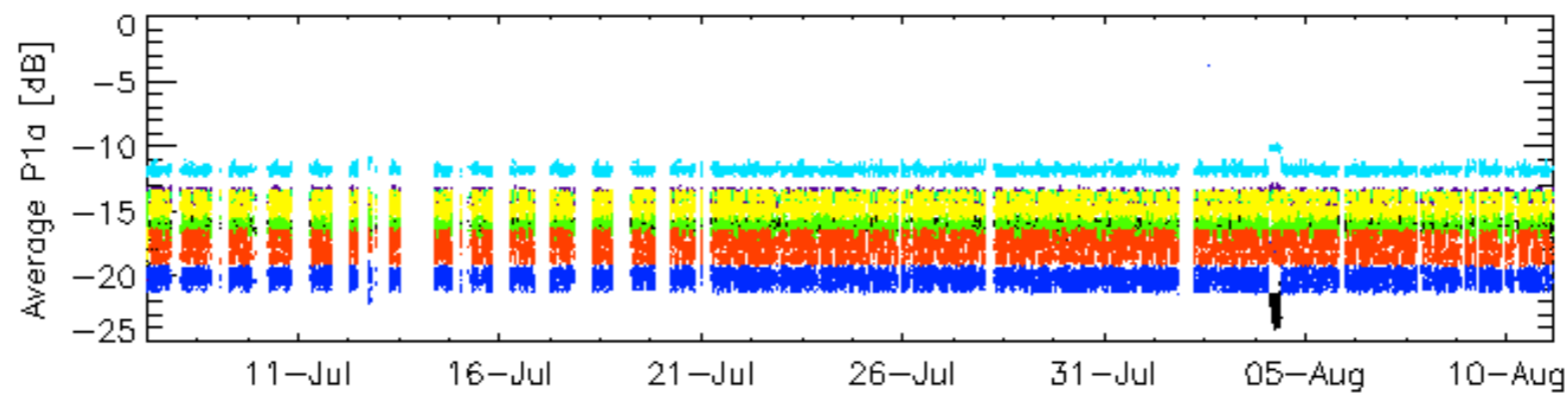
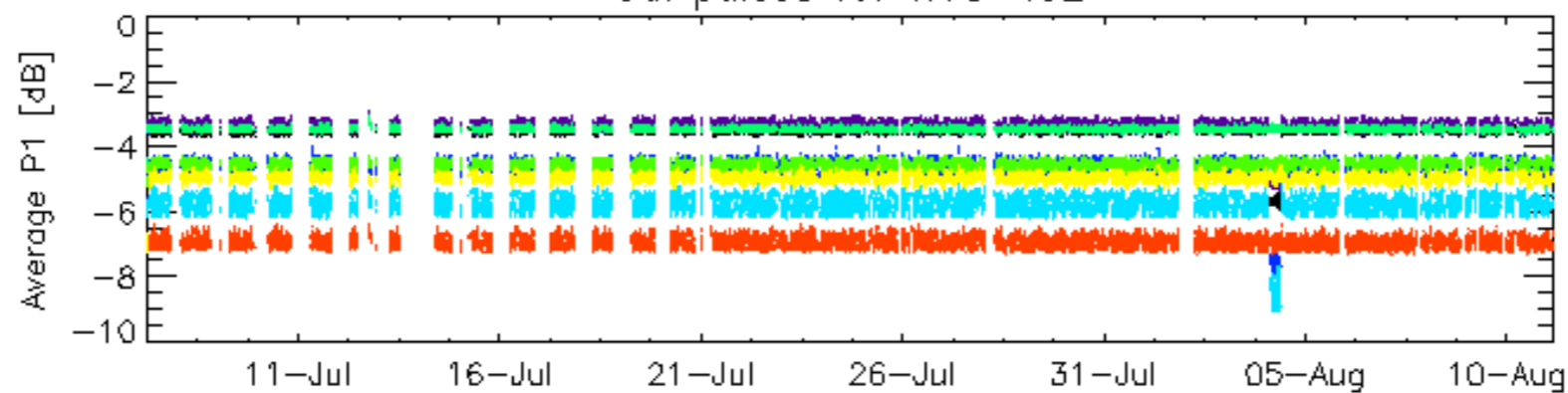


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

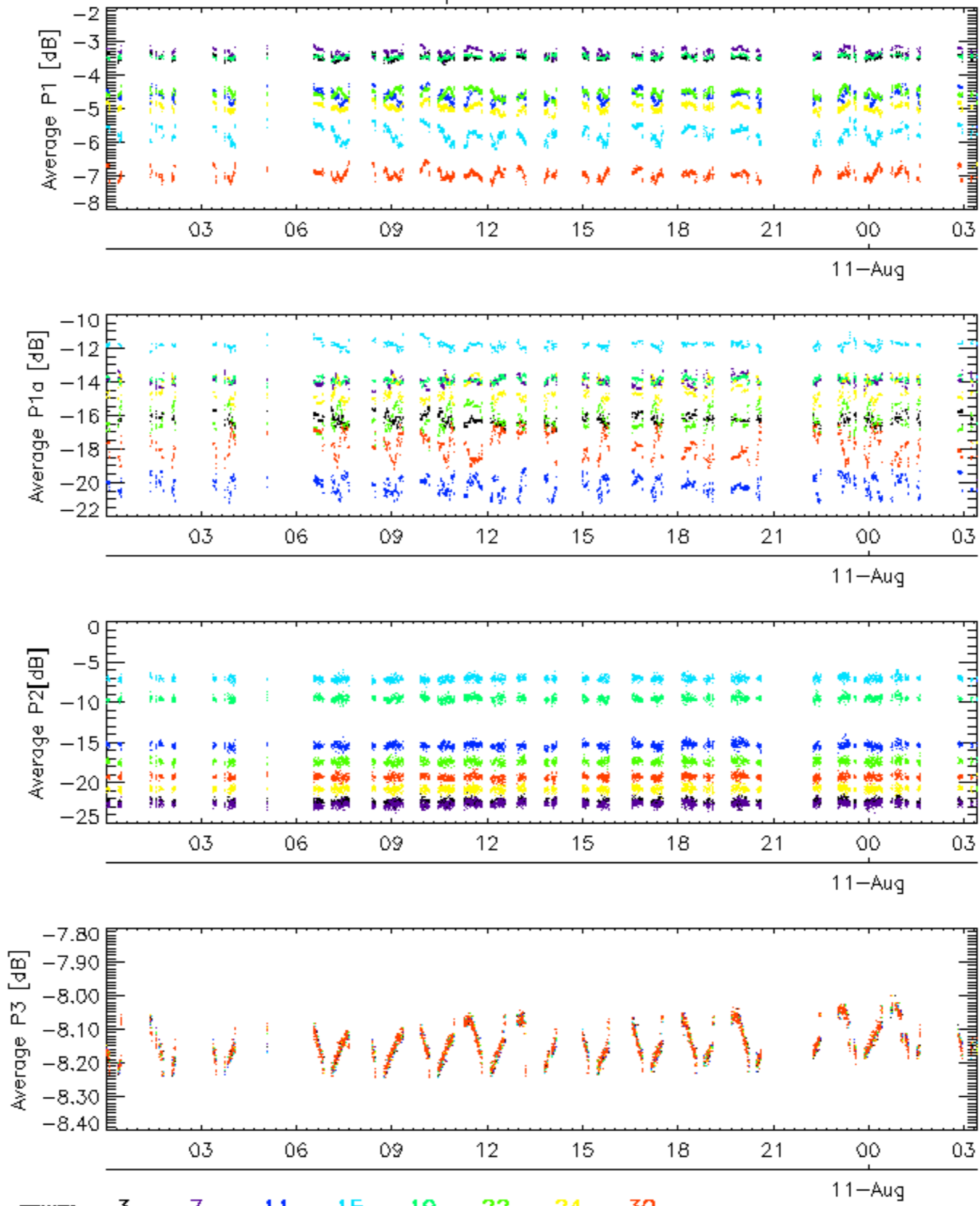


Cal pulses for WVS IS2



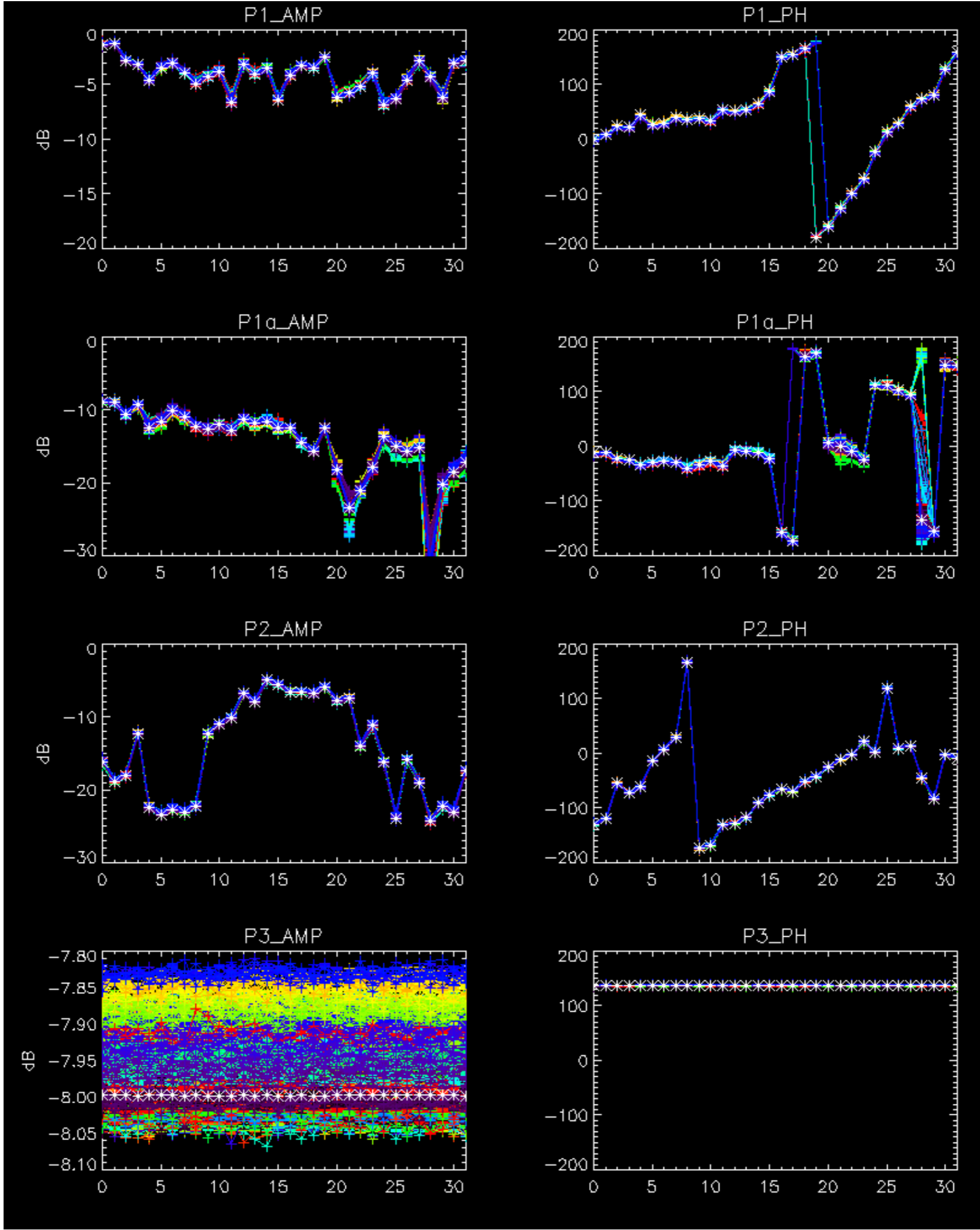
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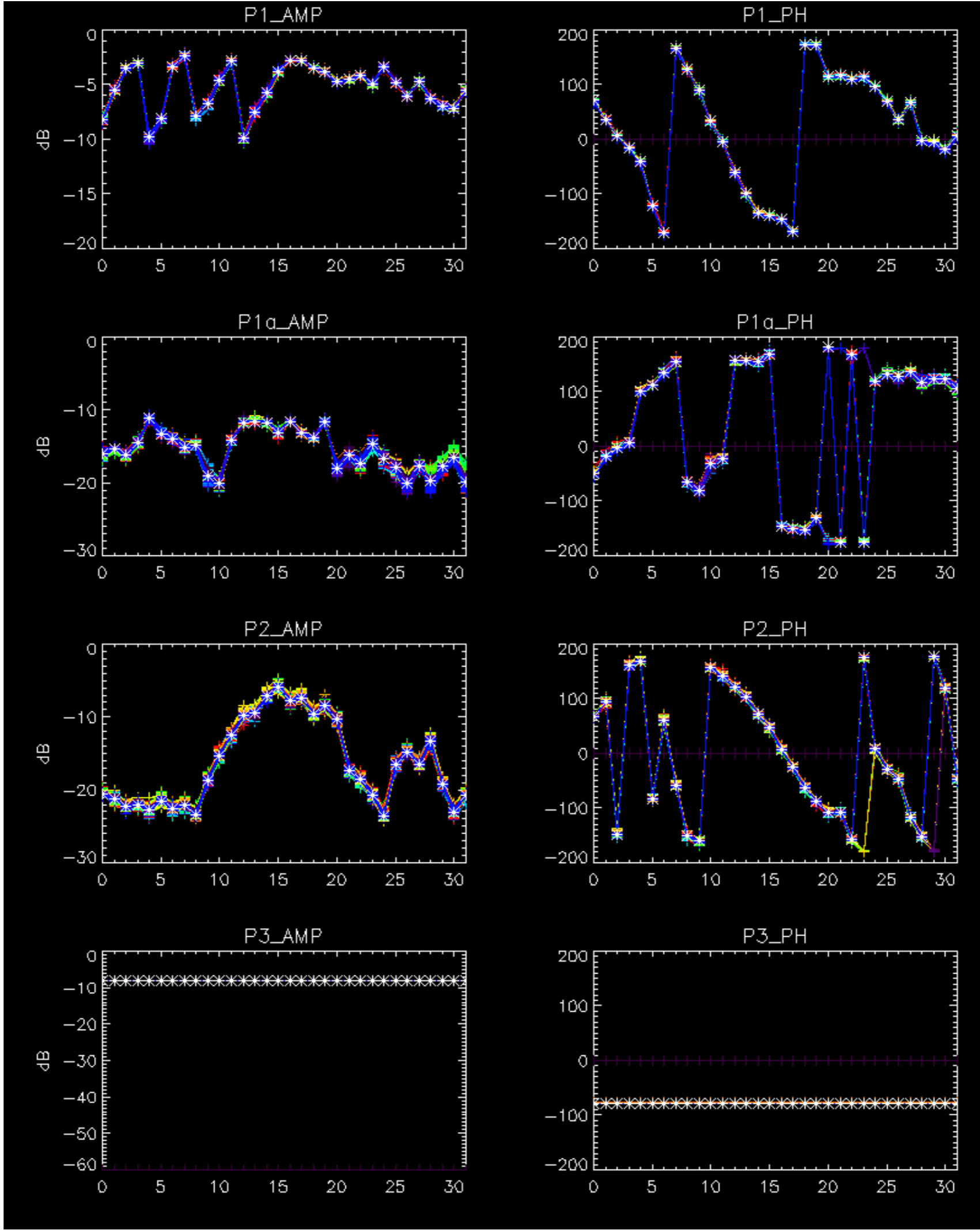
Cal pulses for WVS IS2



No anomalies observed on available browse products

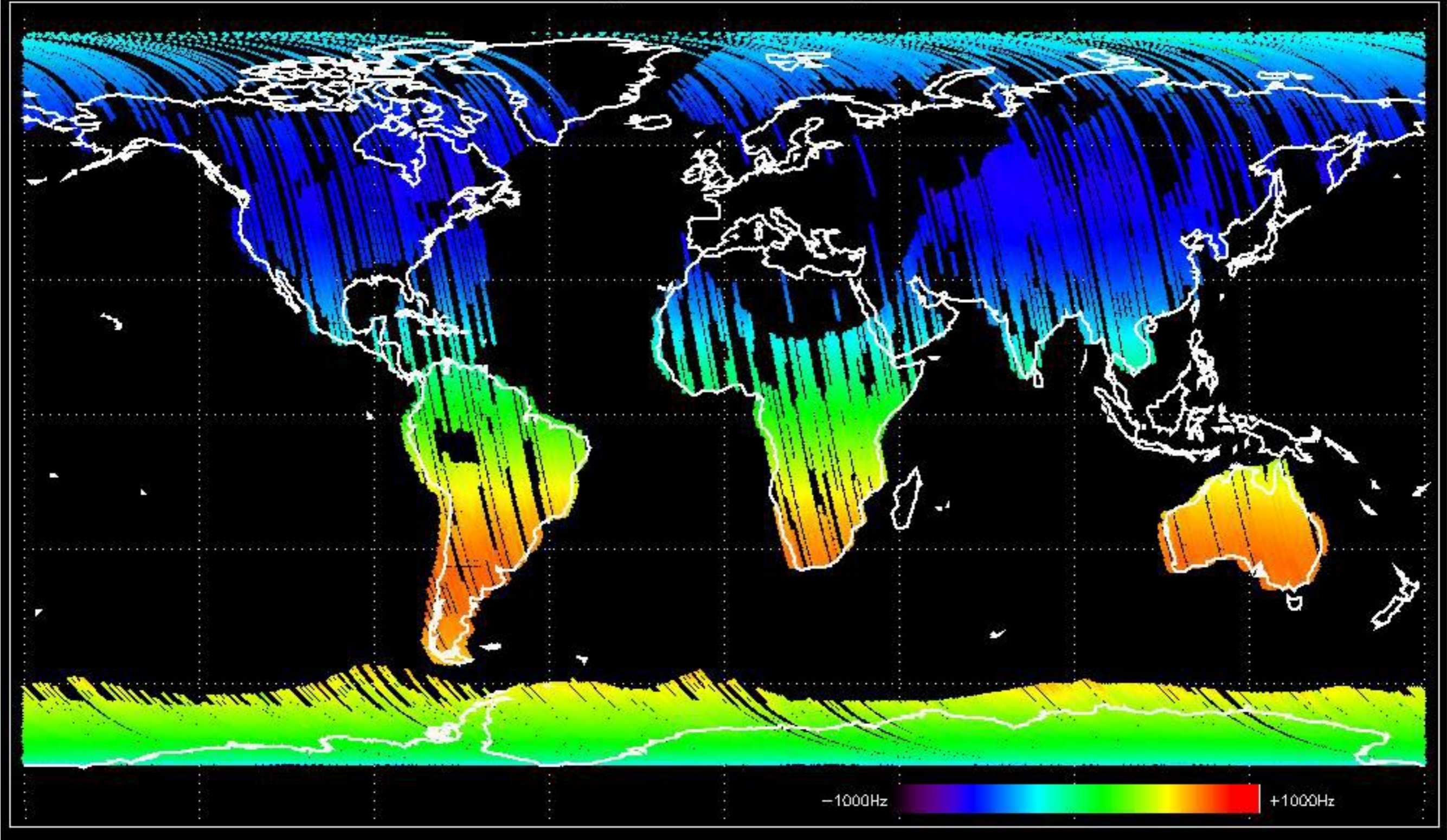
No anomalies observed.



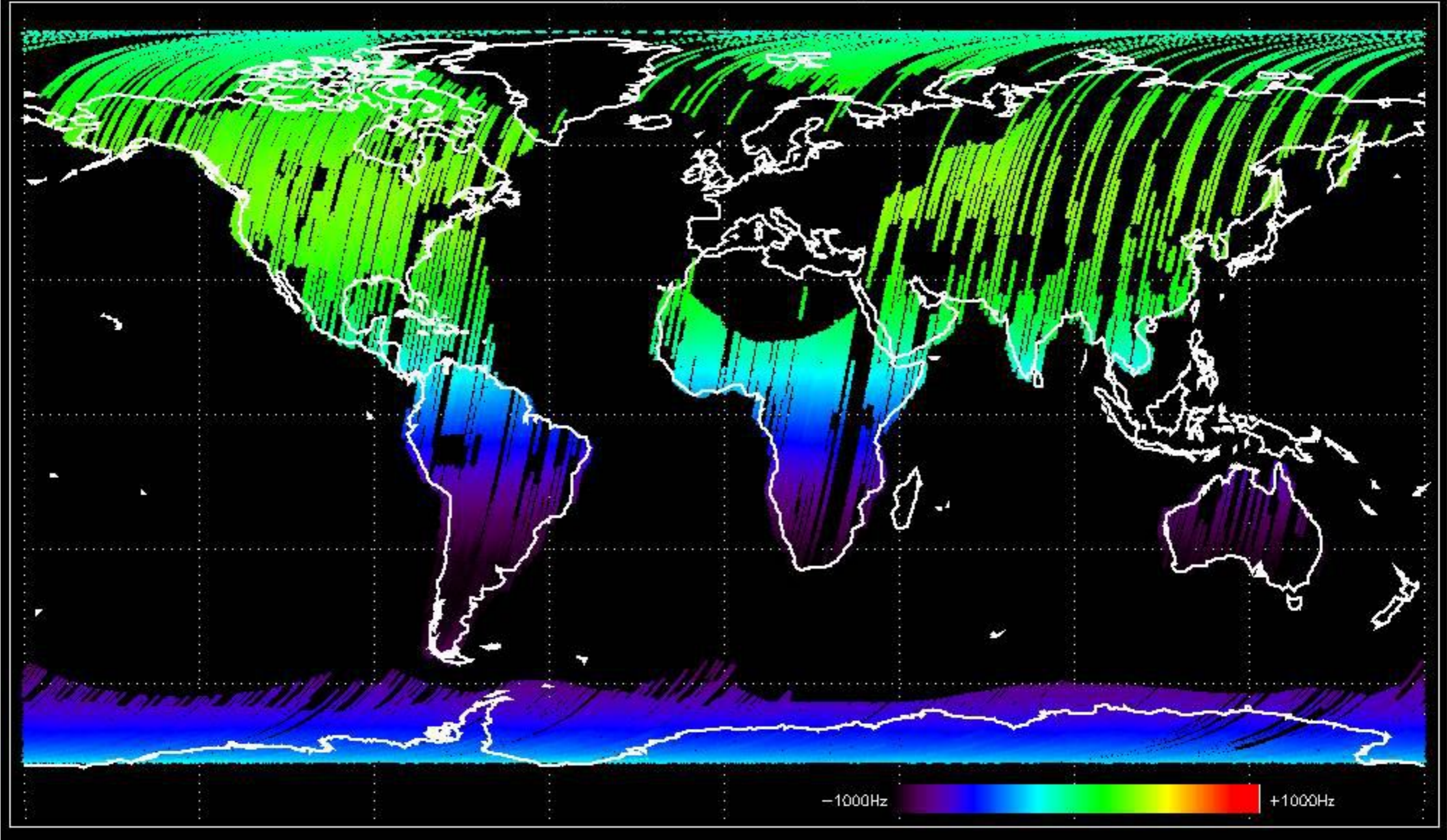


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

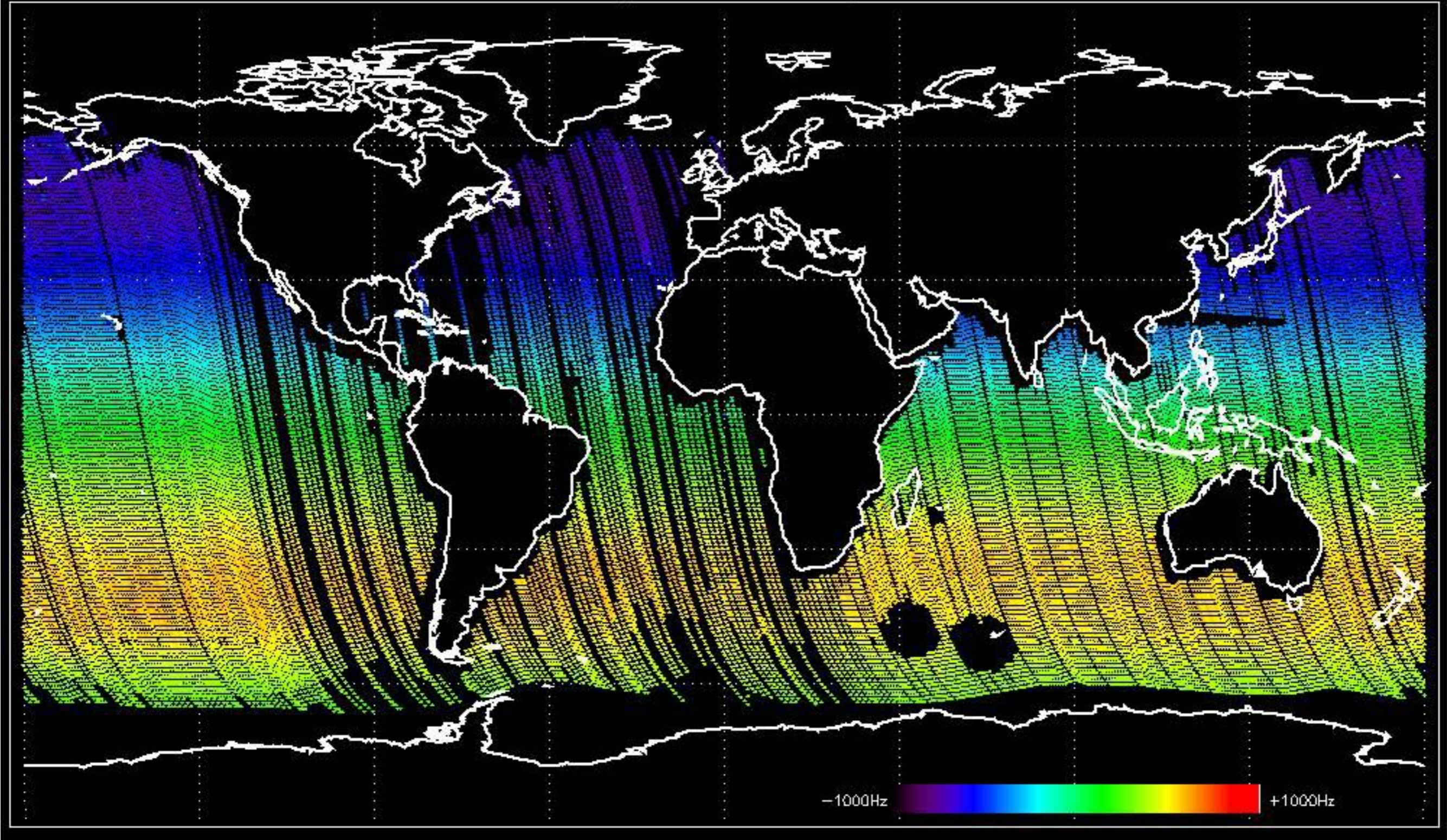
Doppler 'GM1' 'SS1' ascending



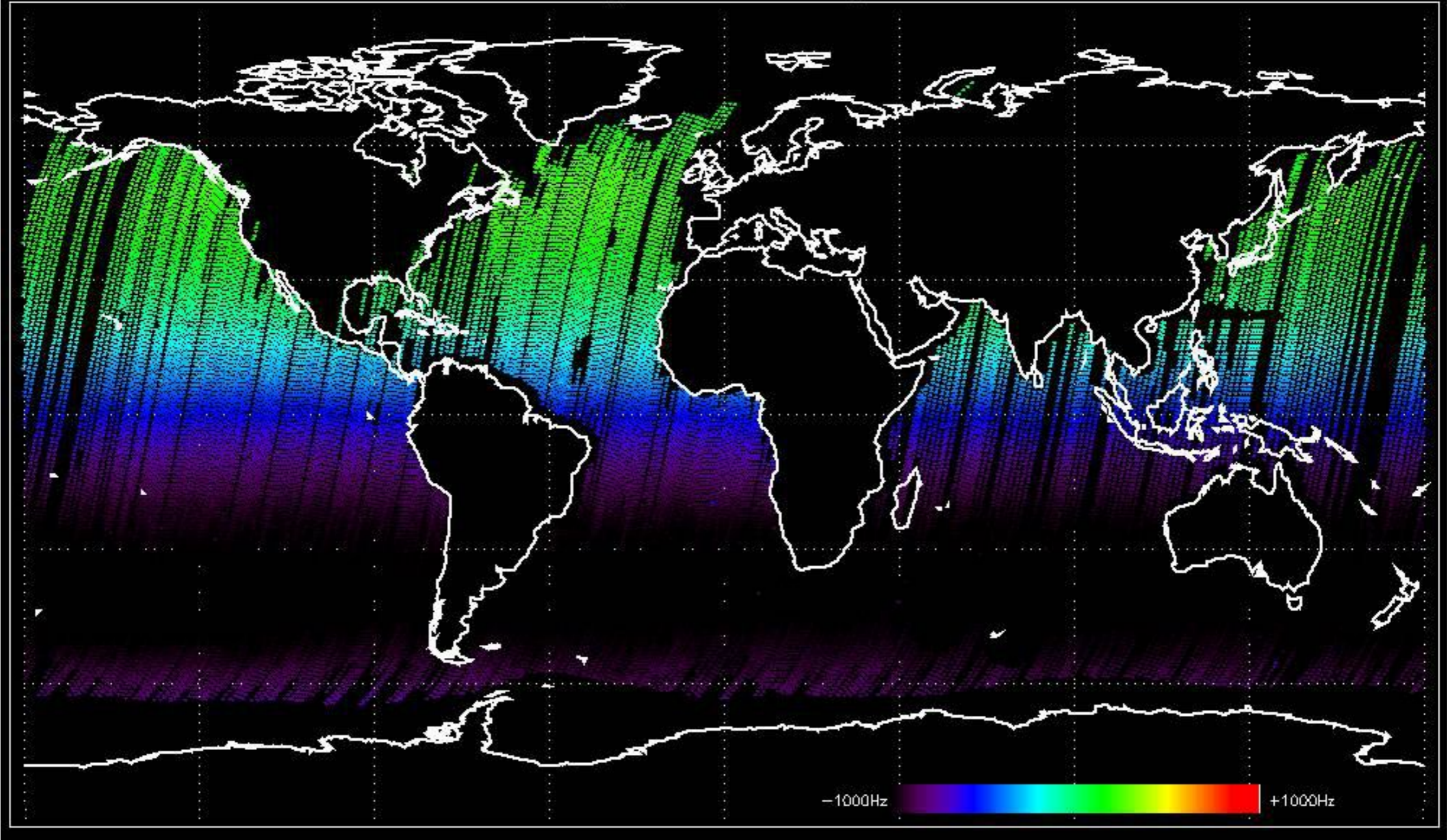
Doppler 'GM1' 'SS1' descending



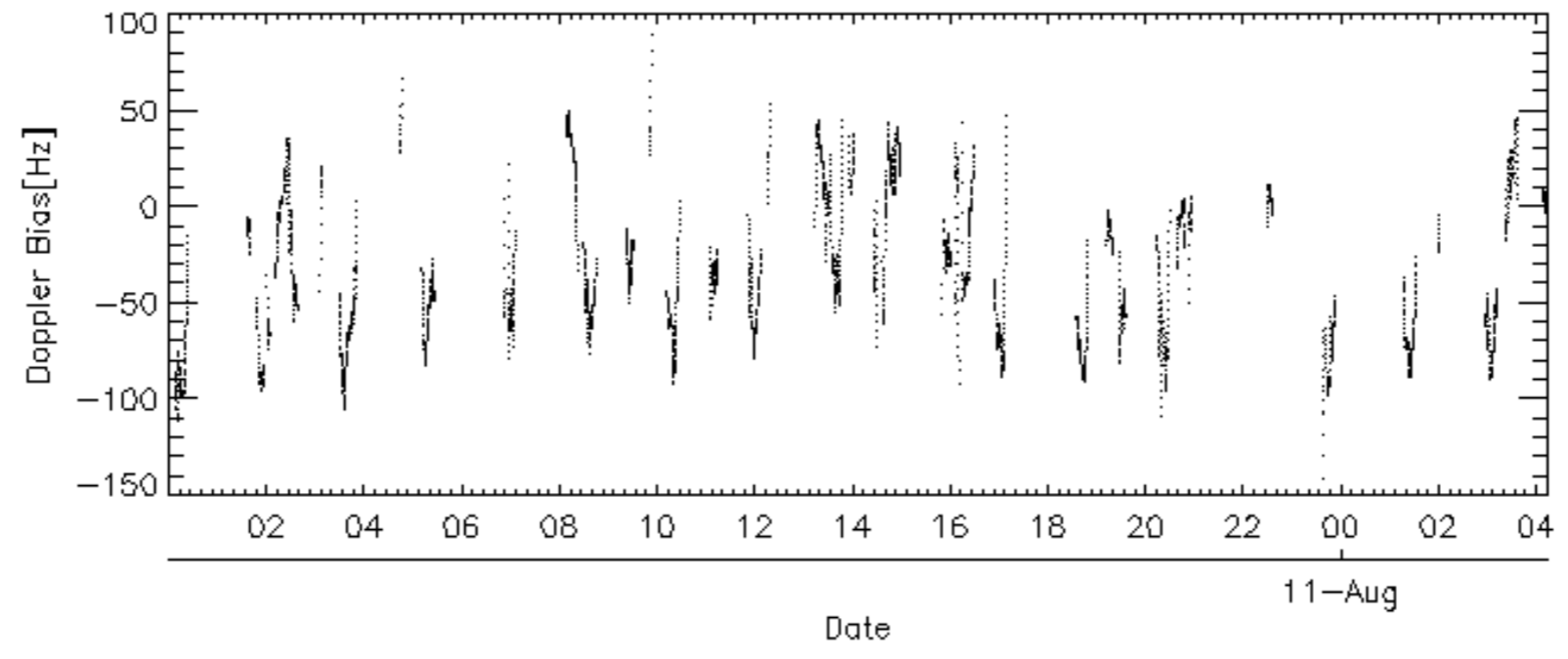
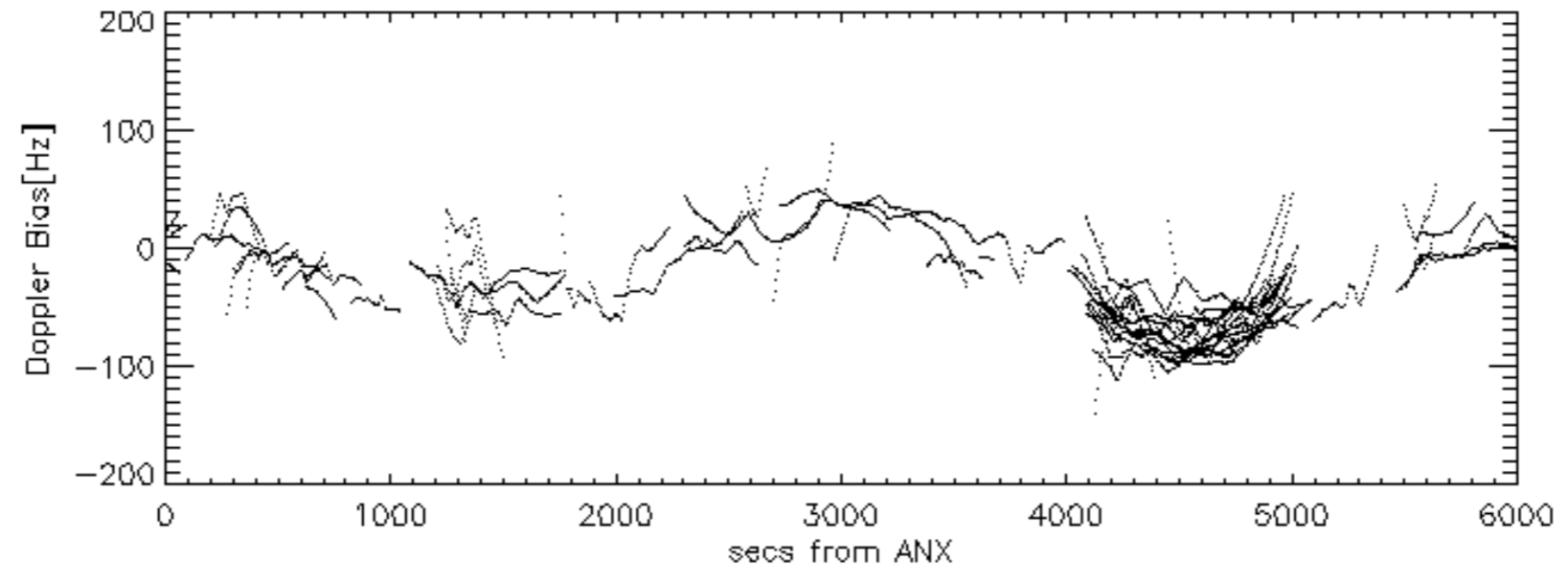
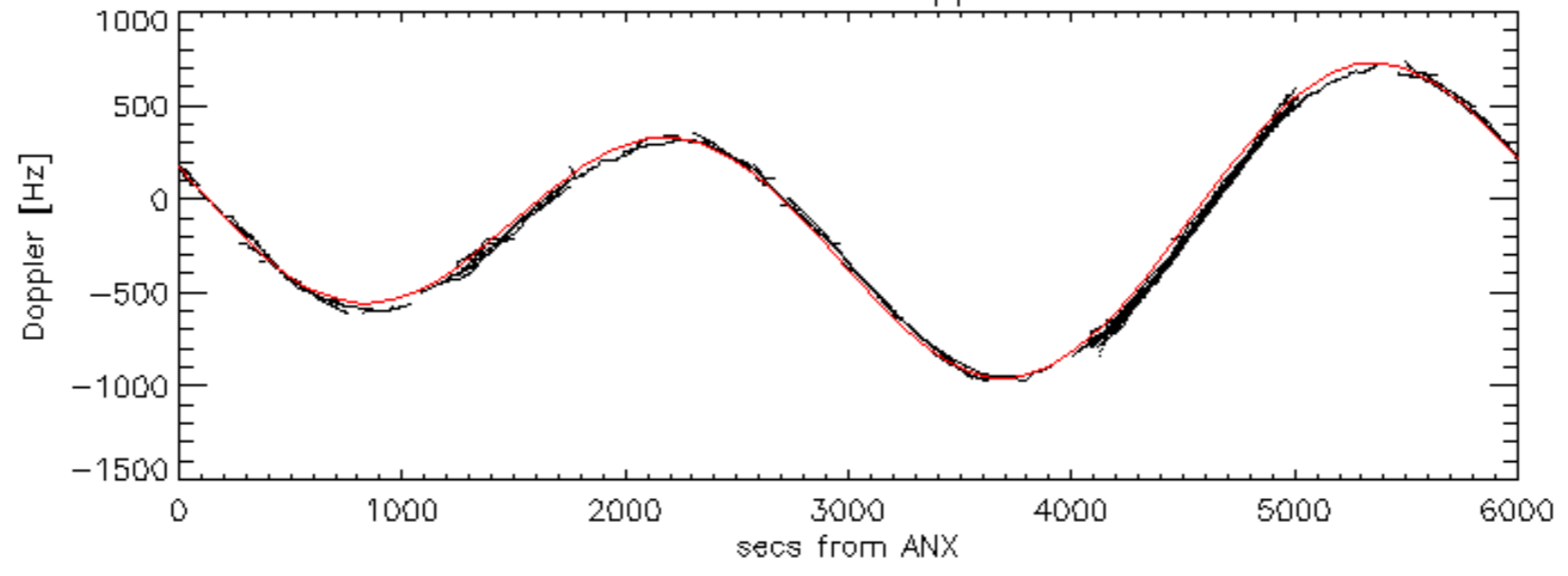
Doppler 'WVS' 'IS2' ascending

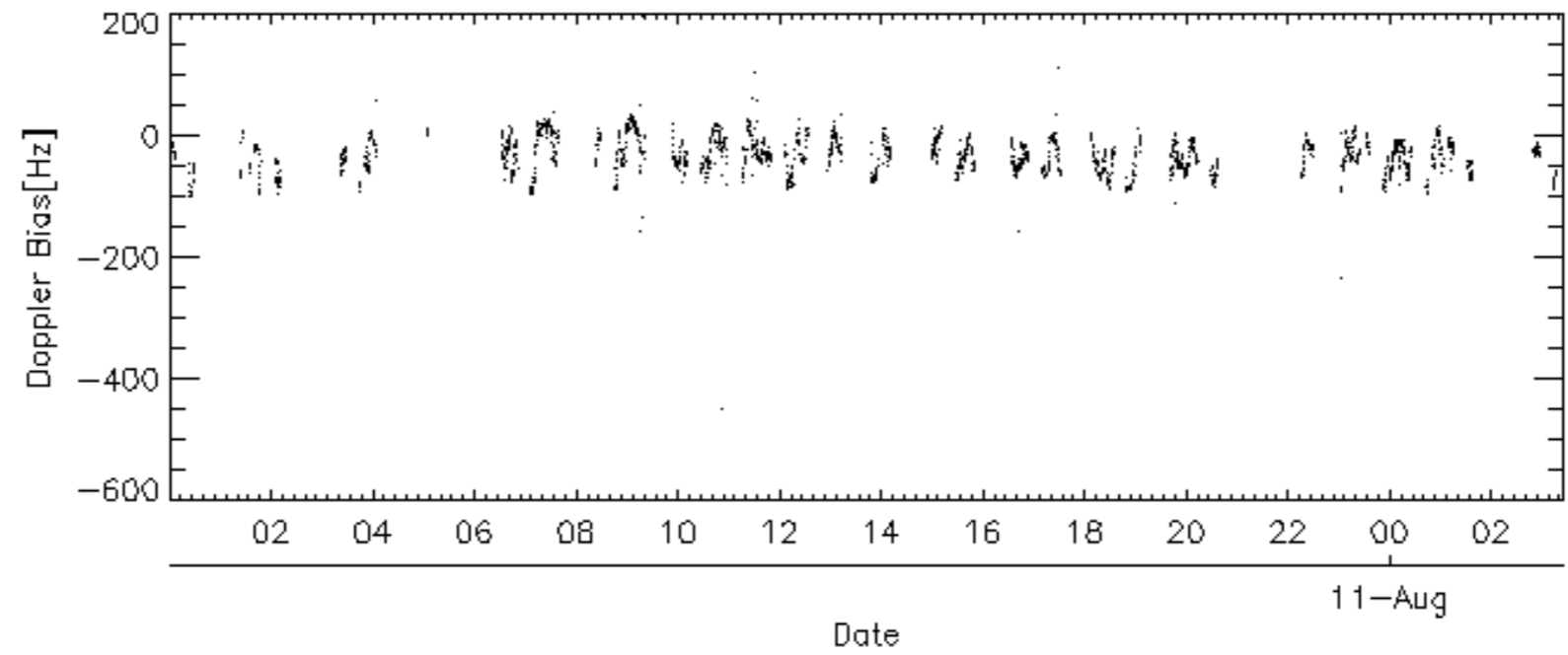
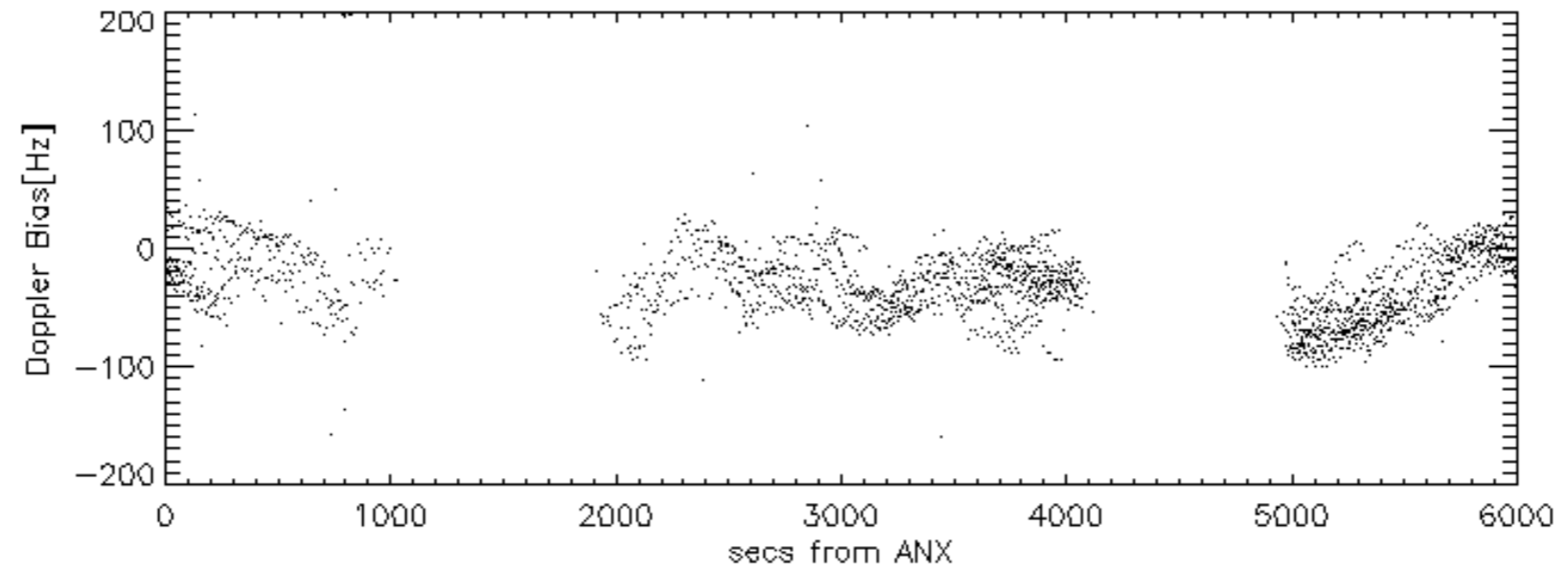
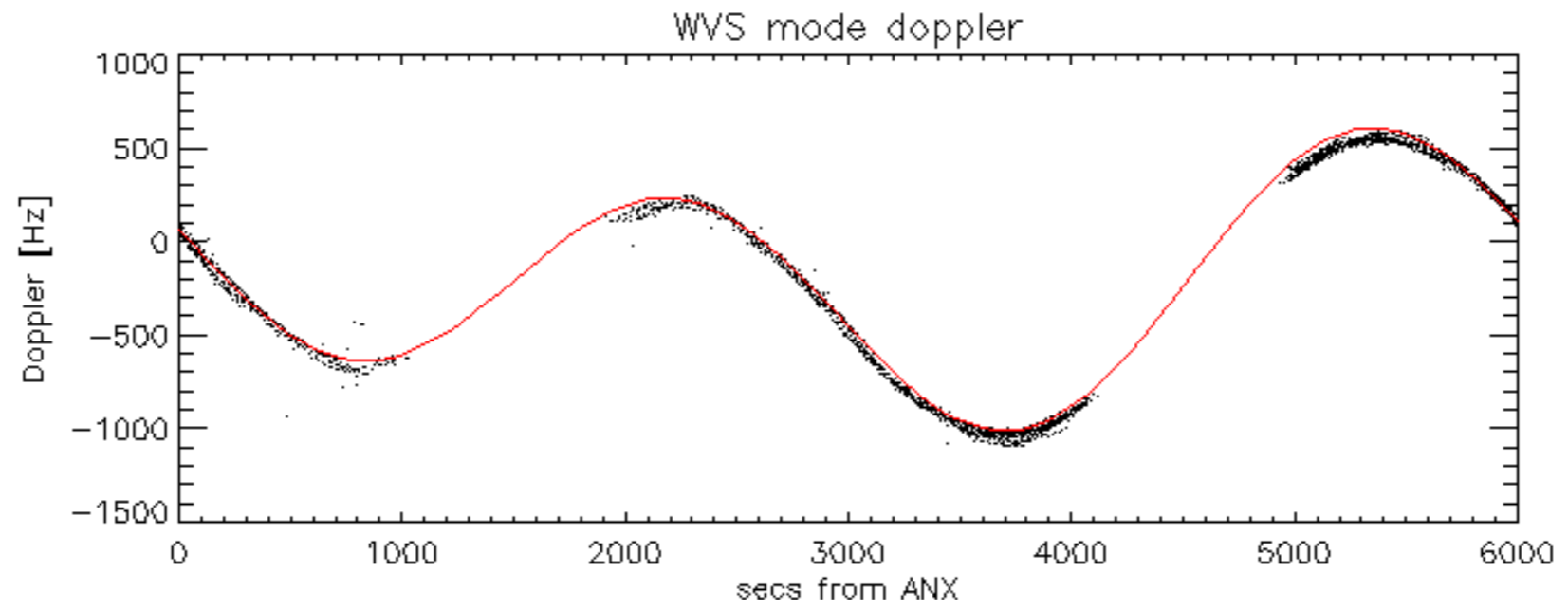


Doppler 'WVS' 'IS2' descending

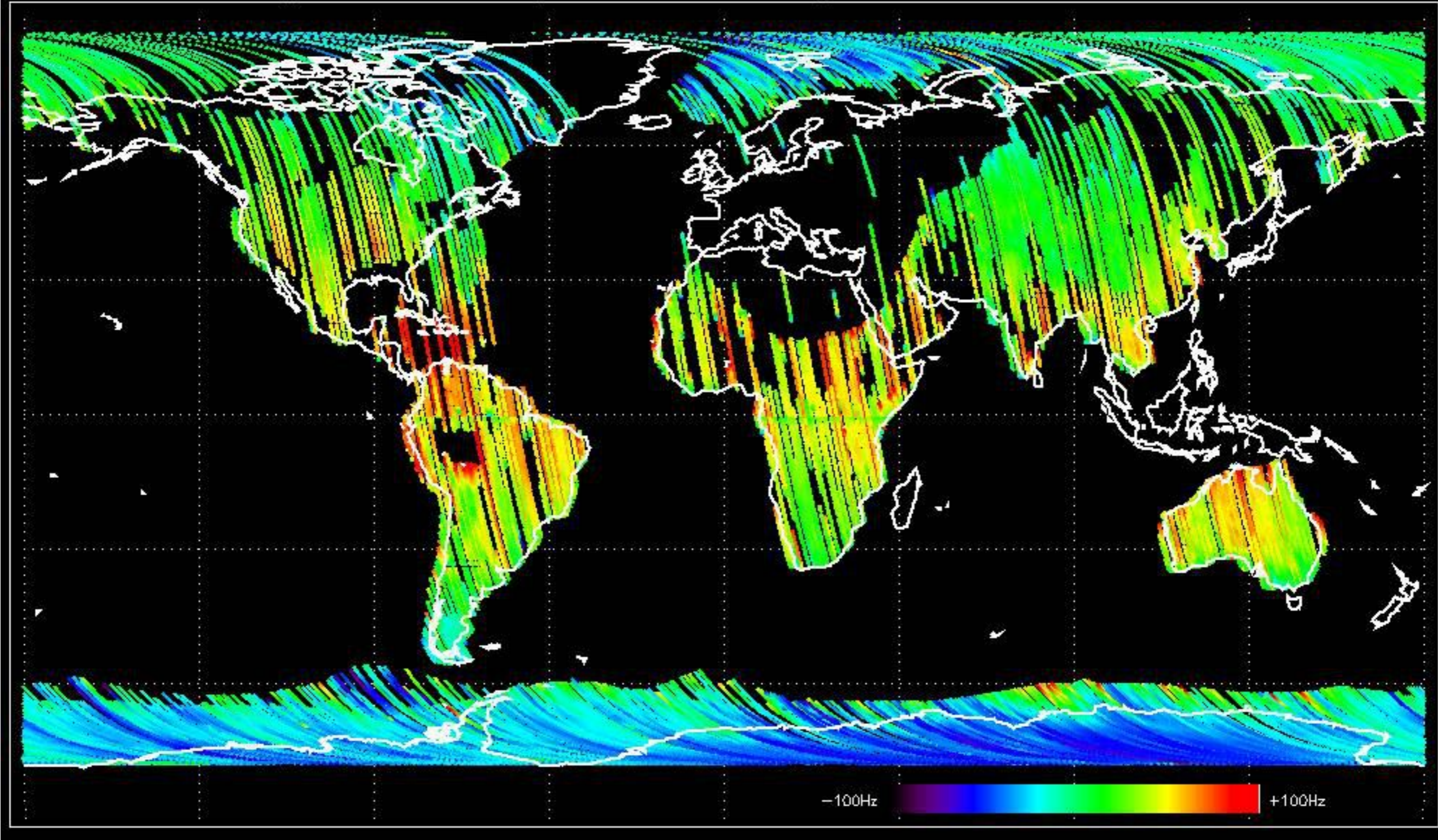


GM1 mode doppler

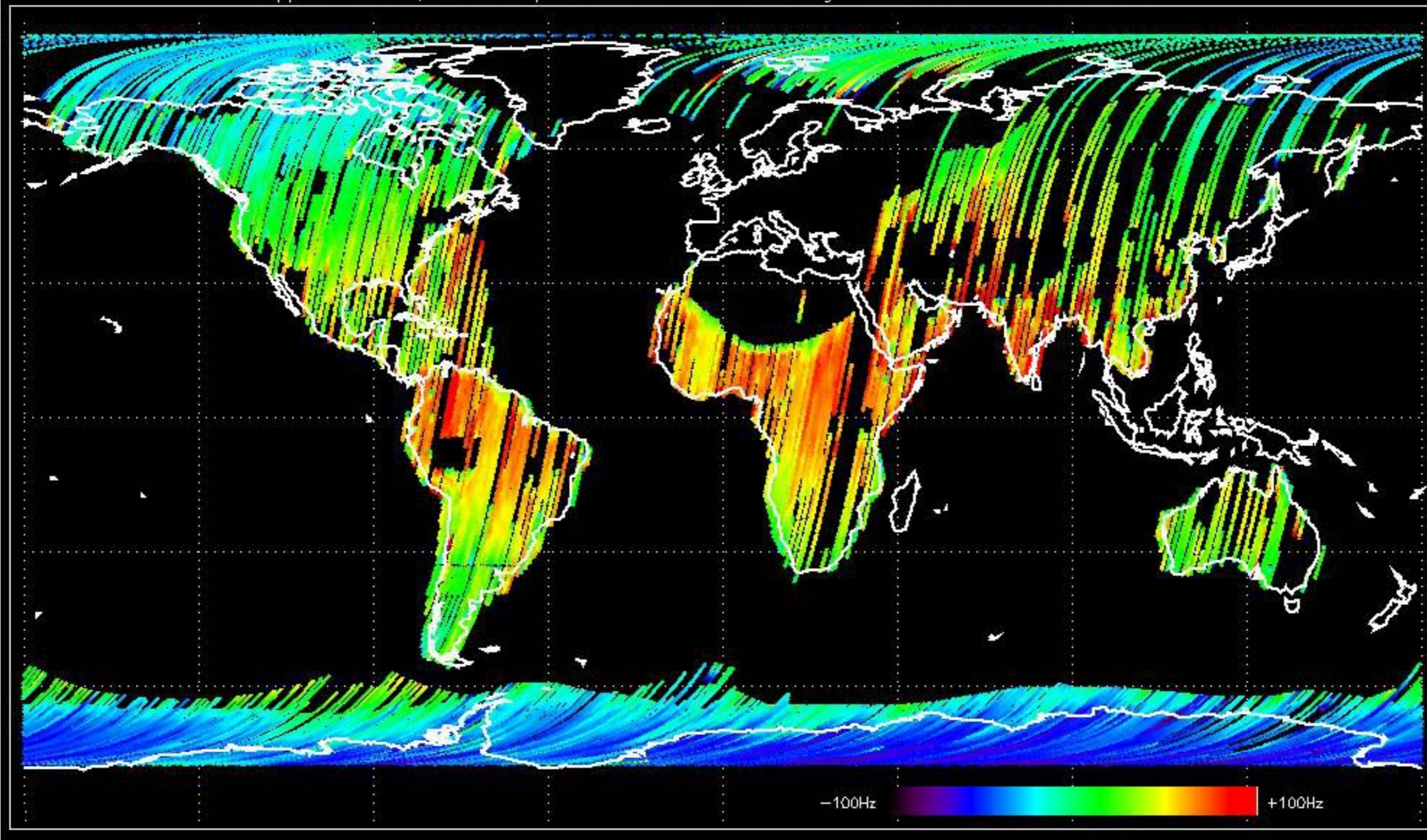




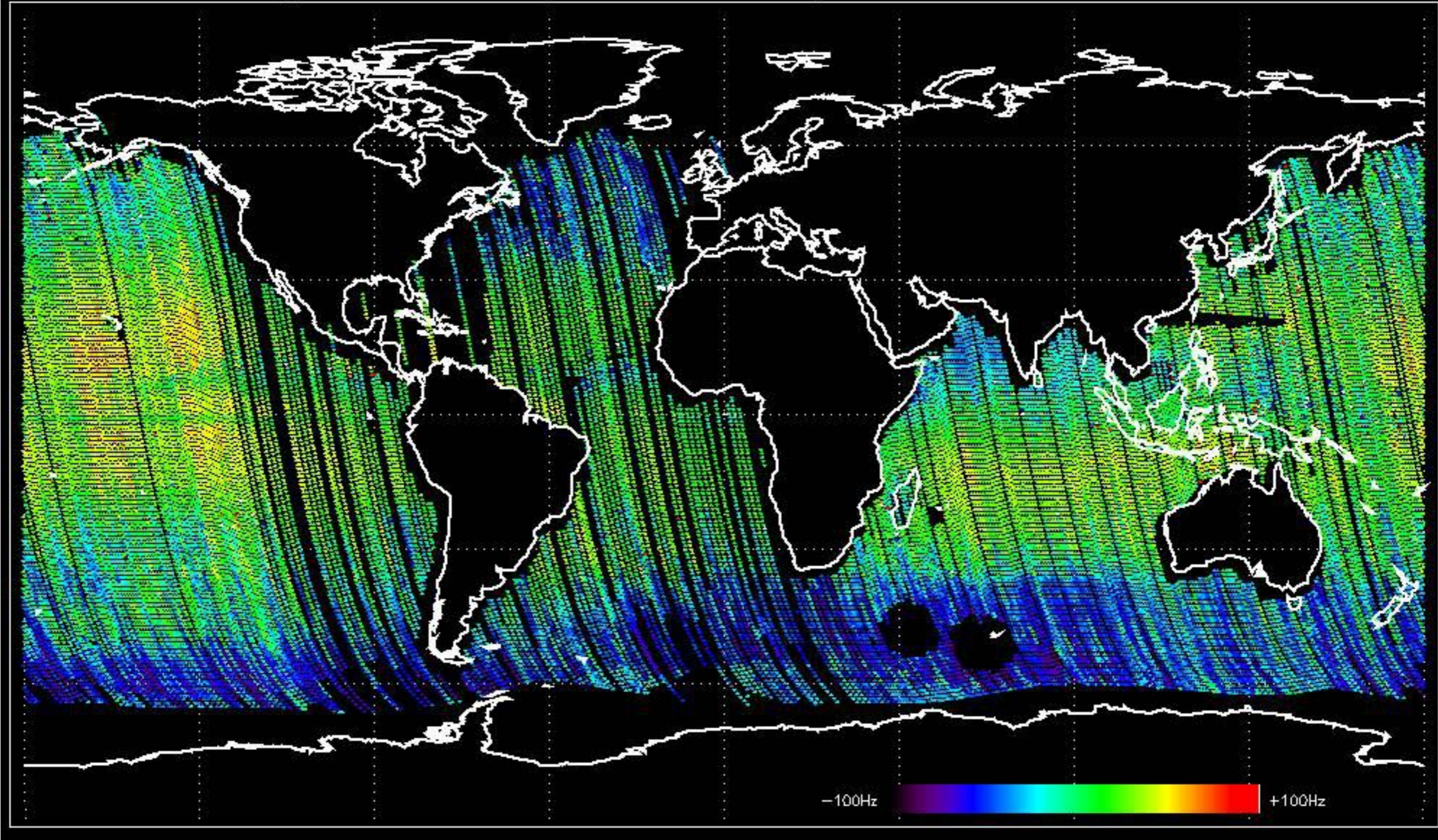
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -37.713900 Hz



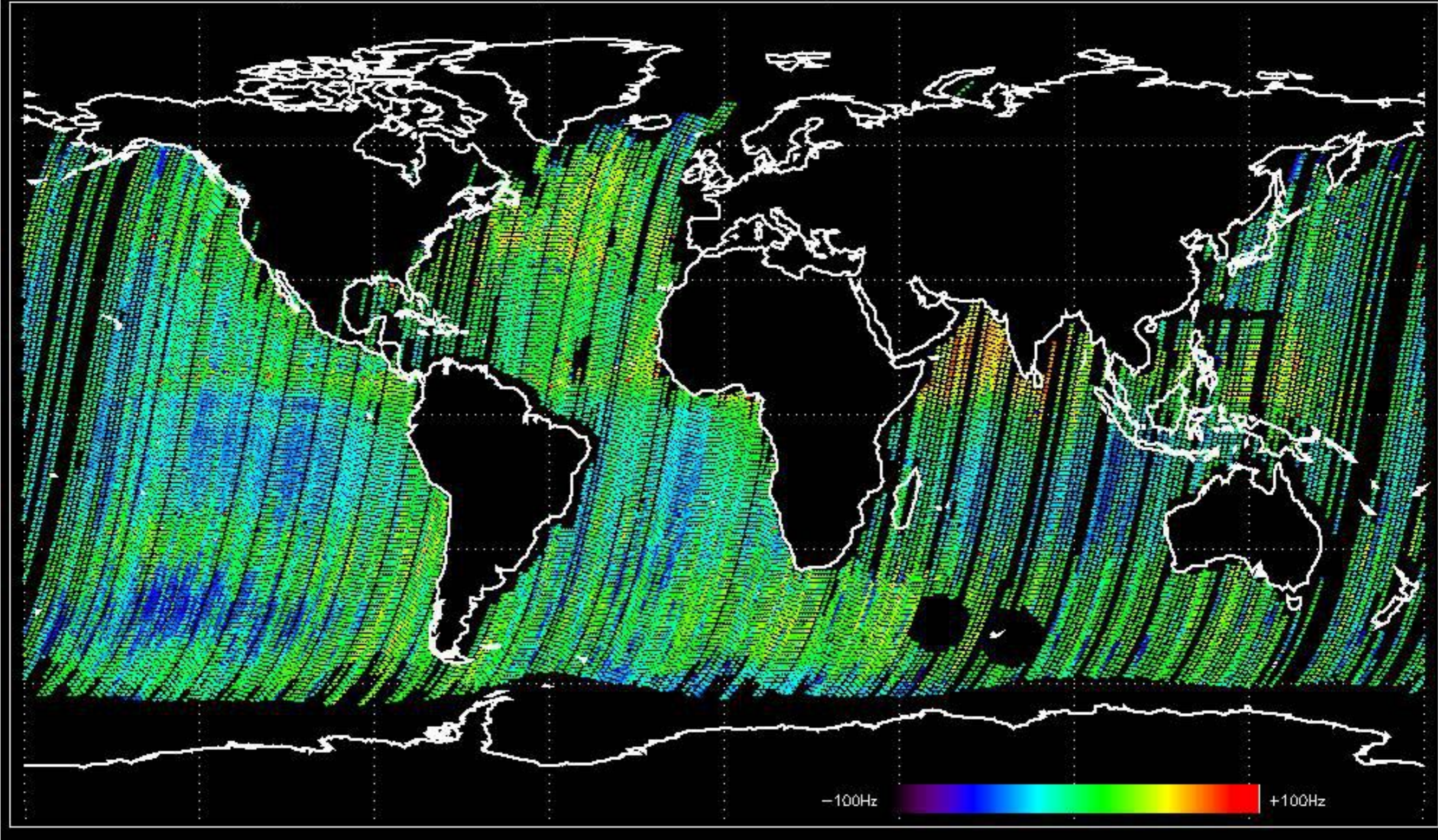
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.047234 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.626829 Hz

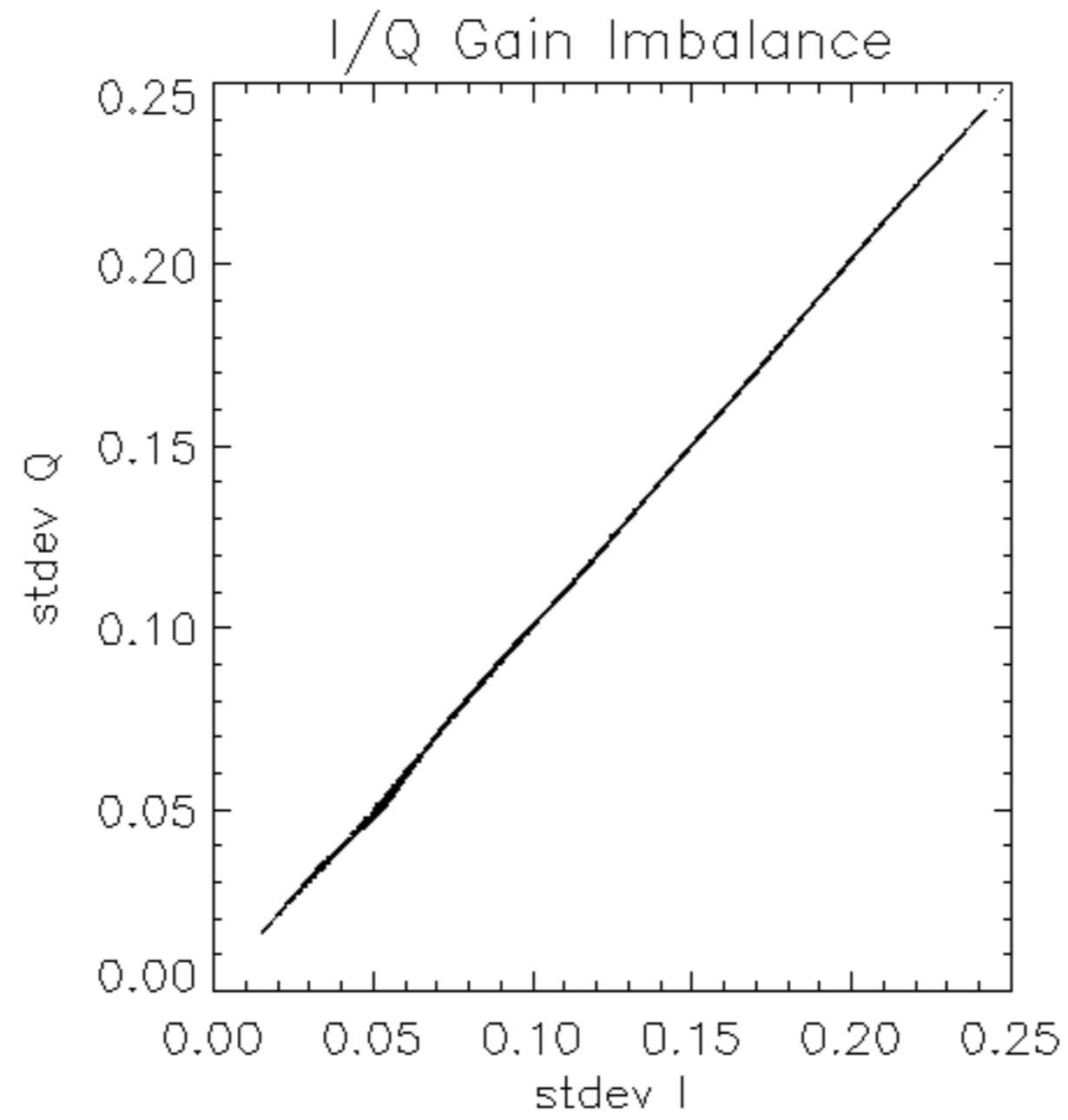


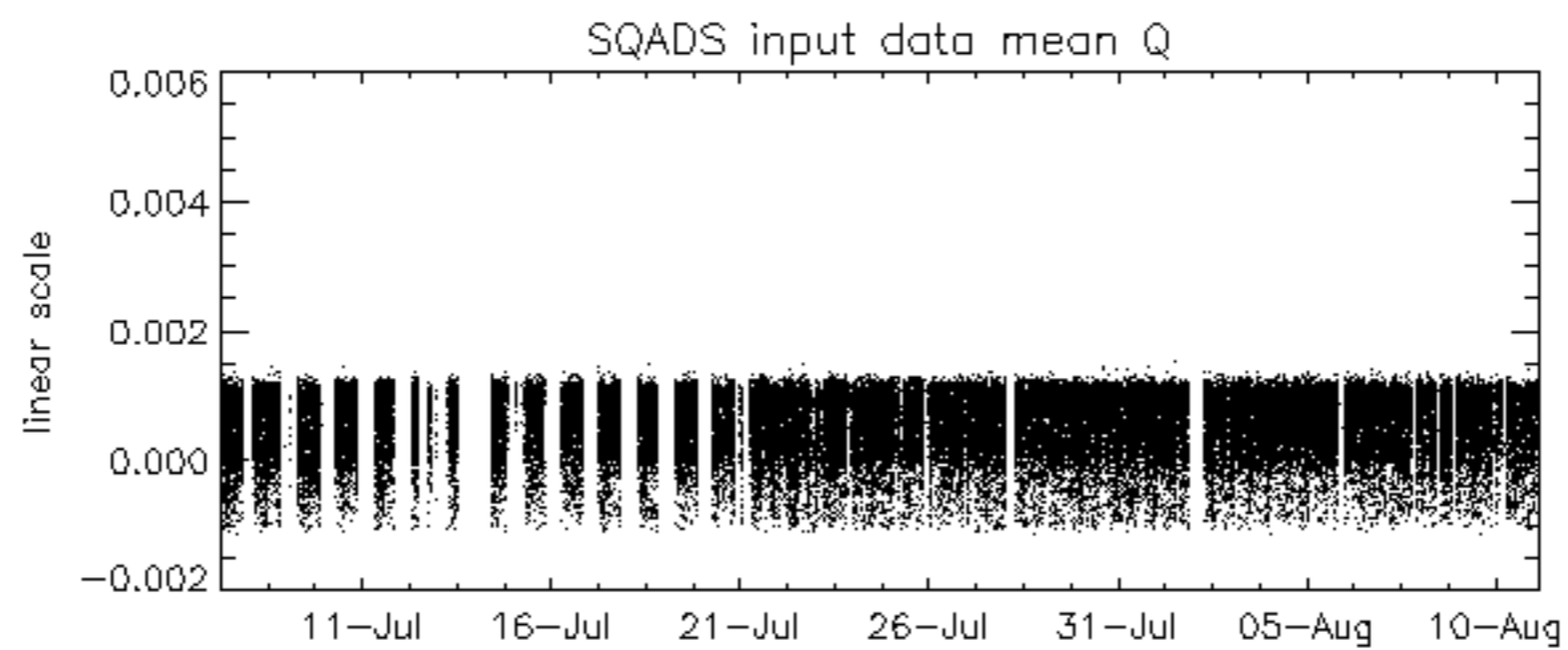
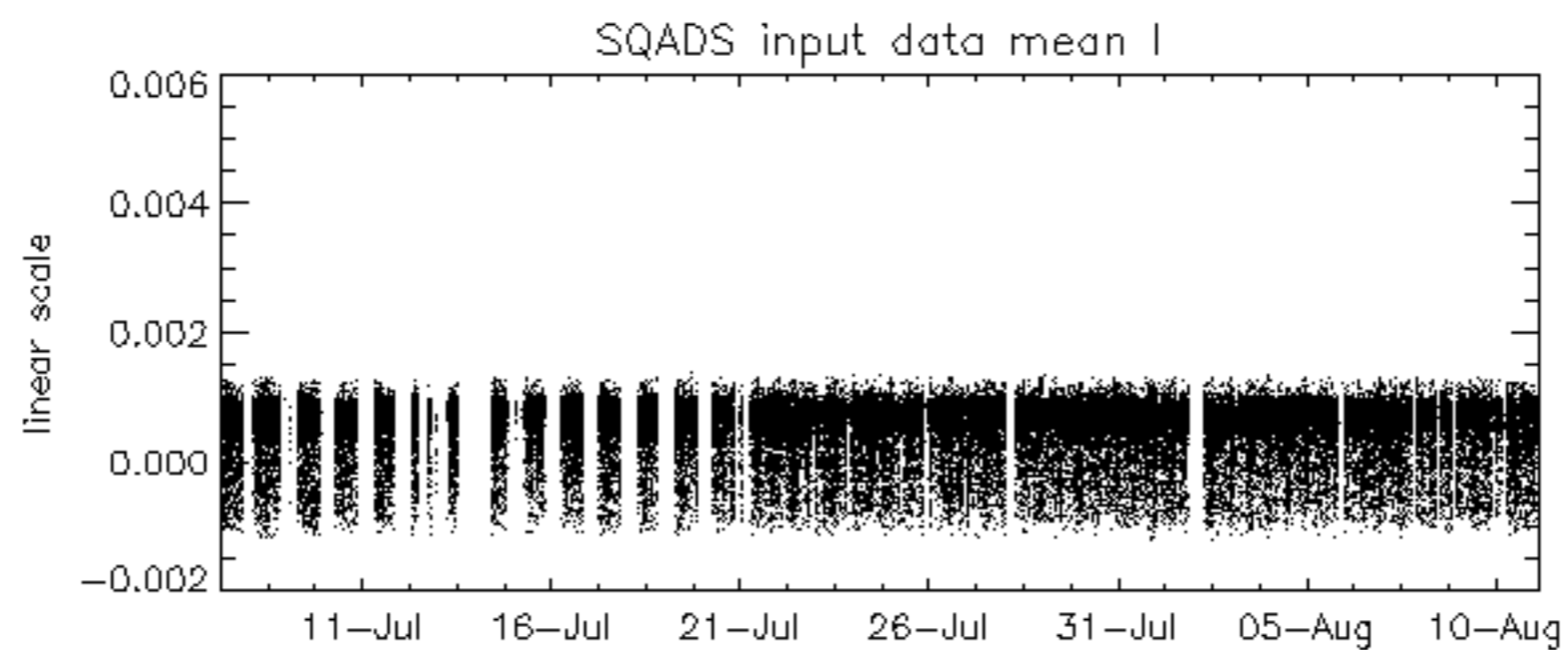
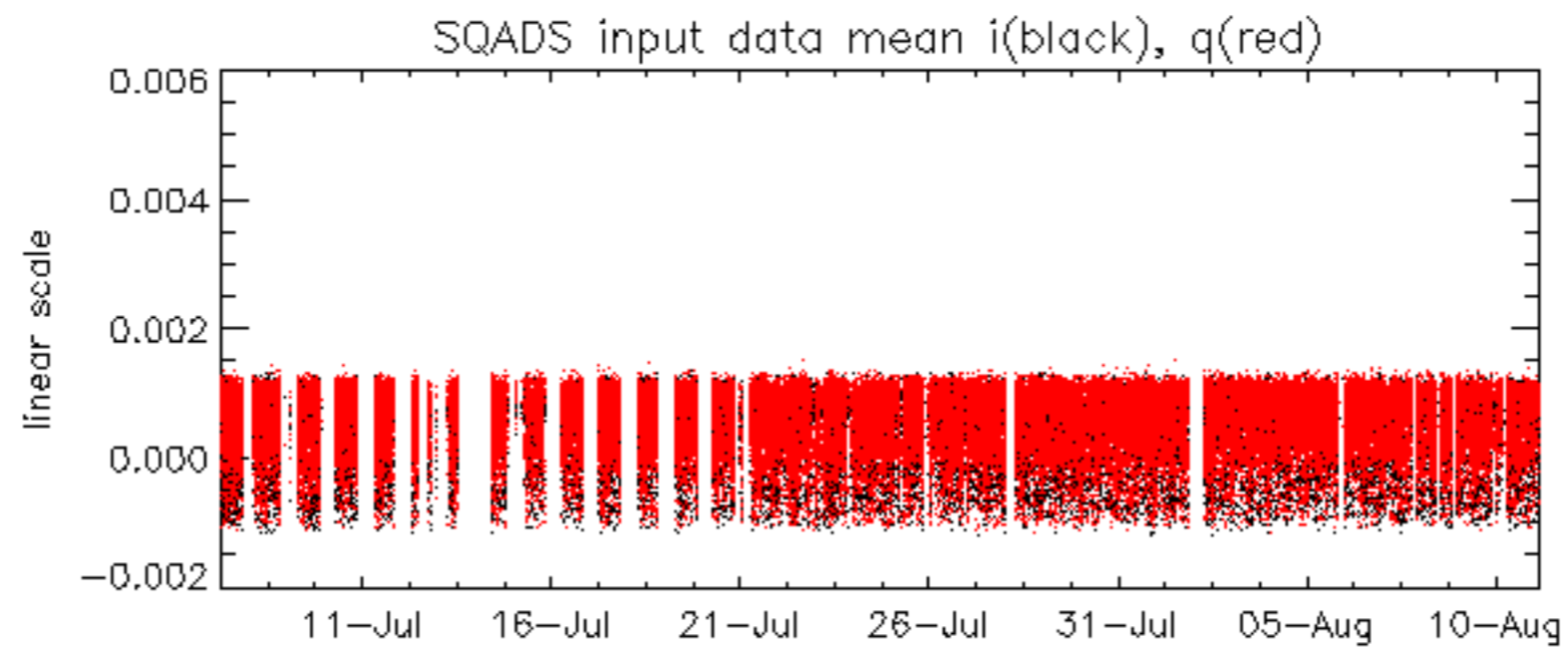
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.786014 Hz

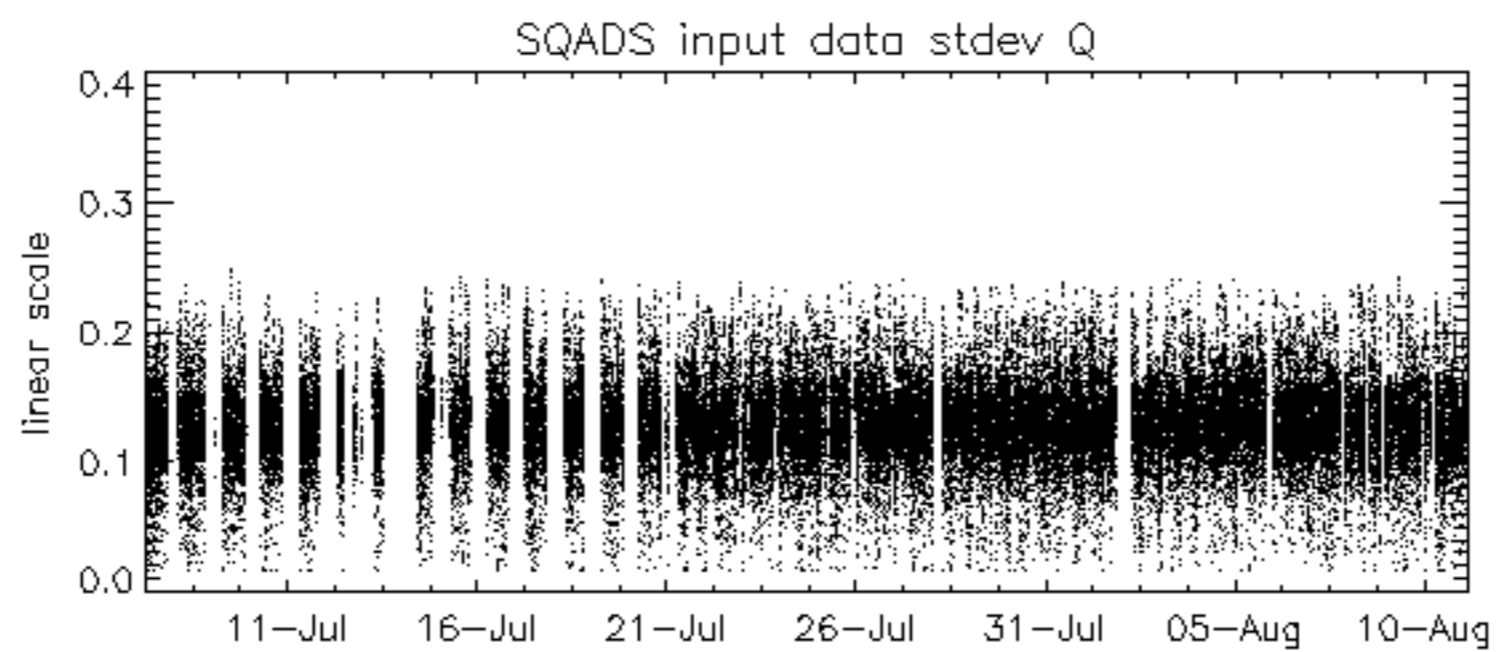
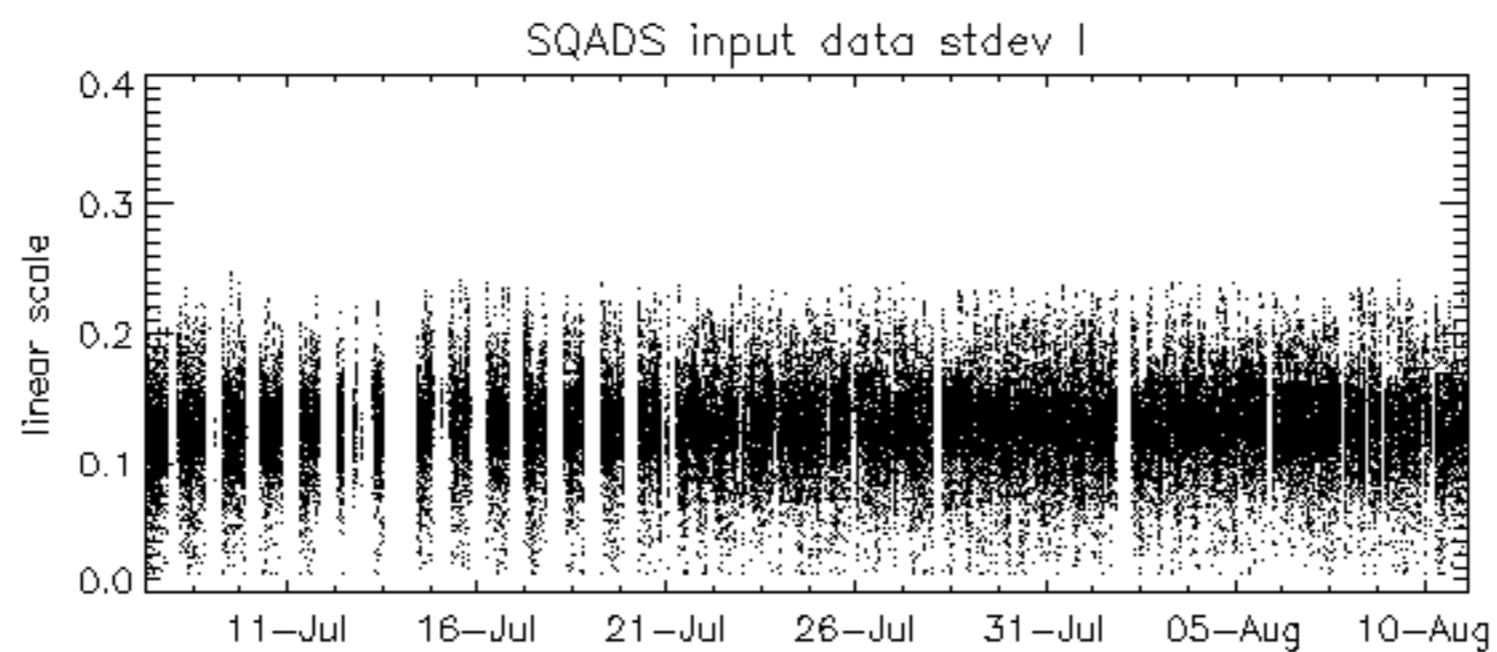
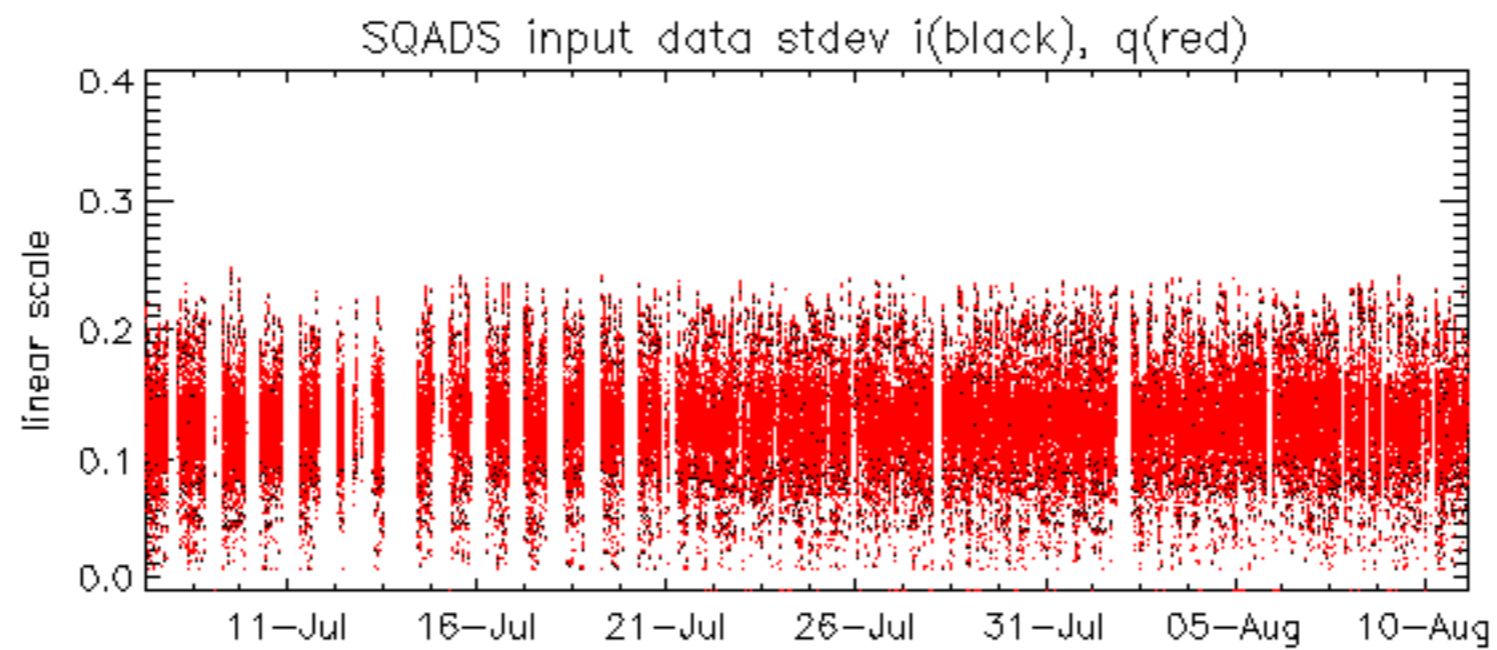


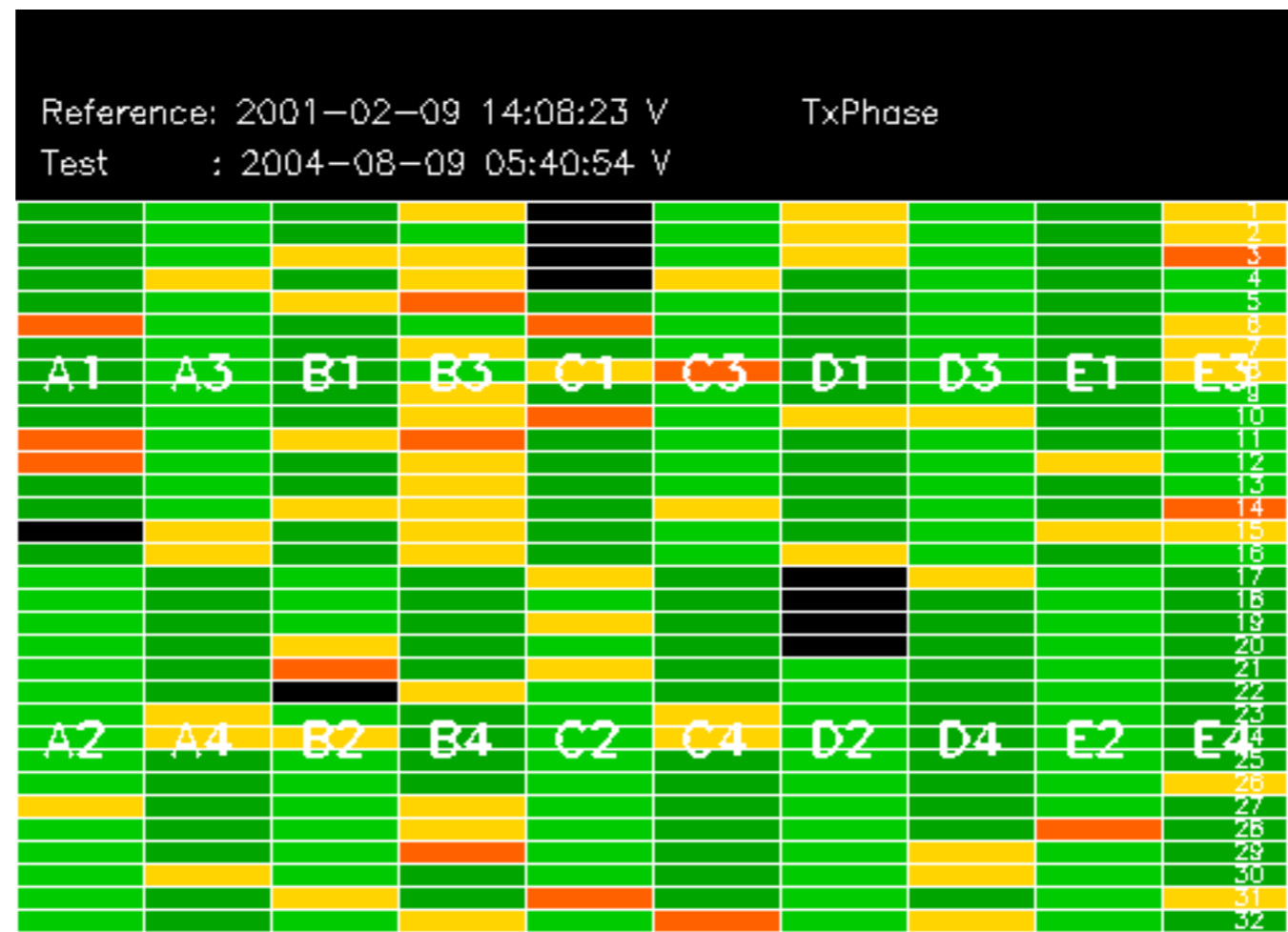
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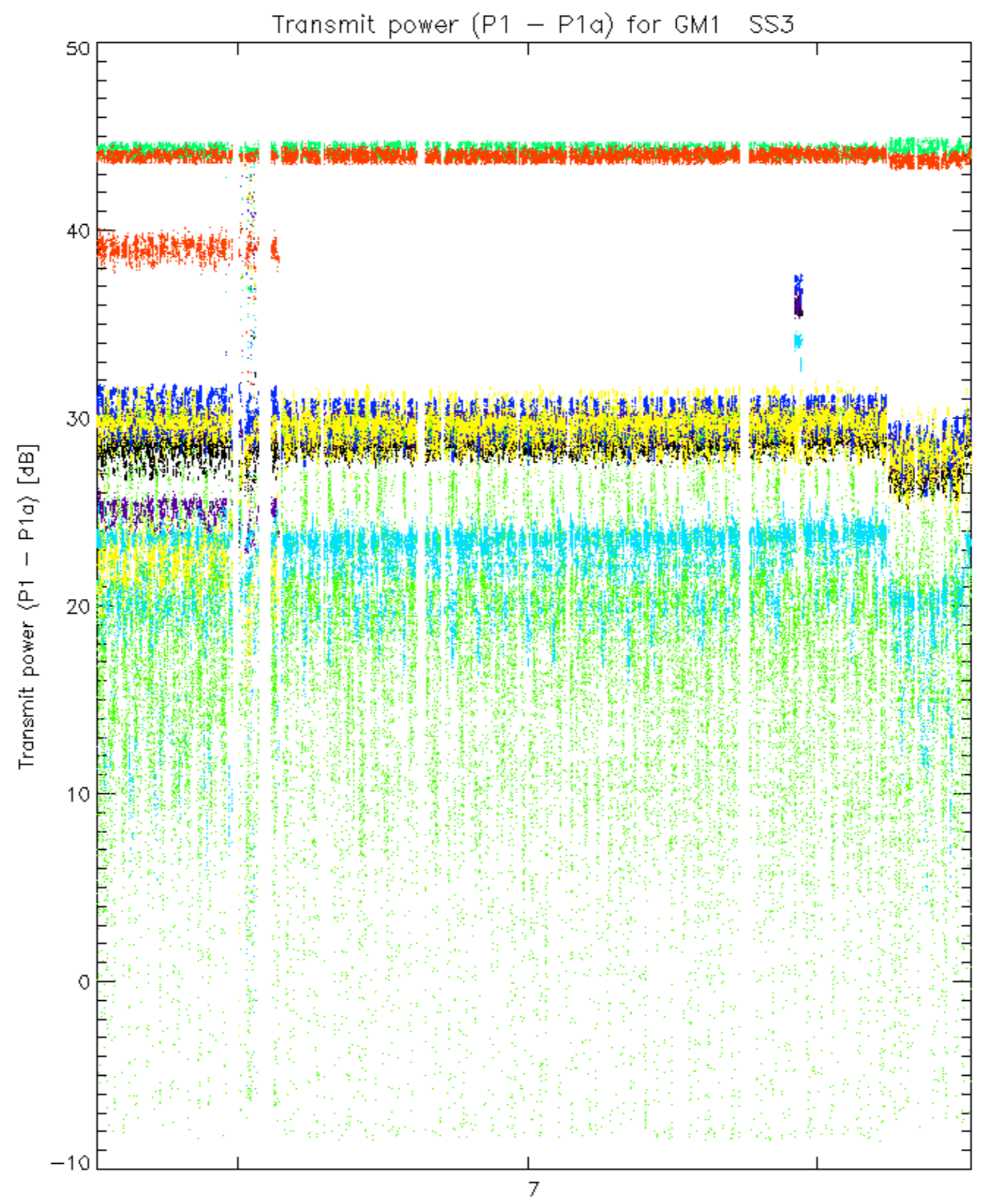
No anomalies observed.



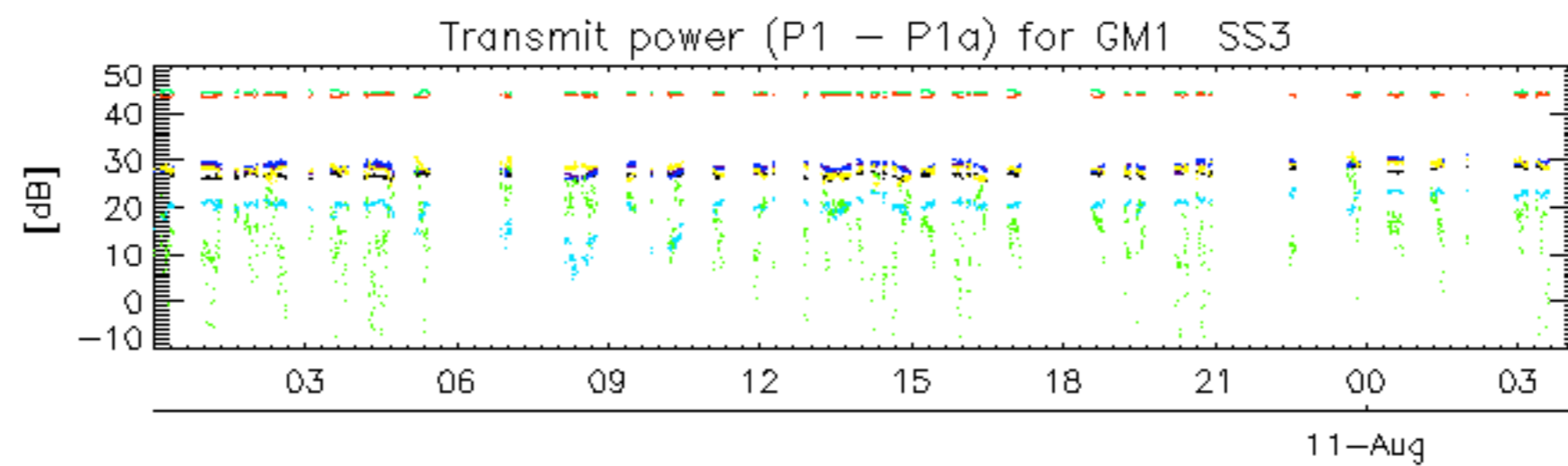






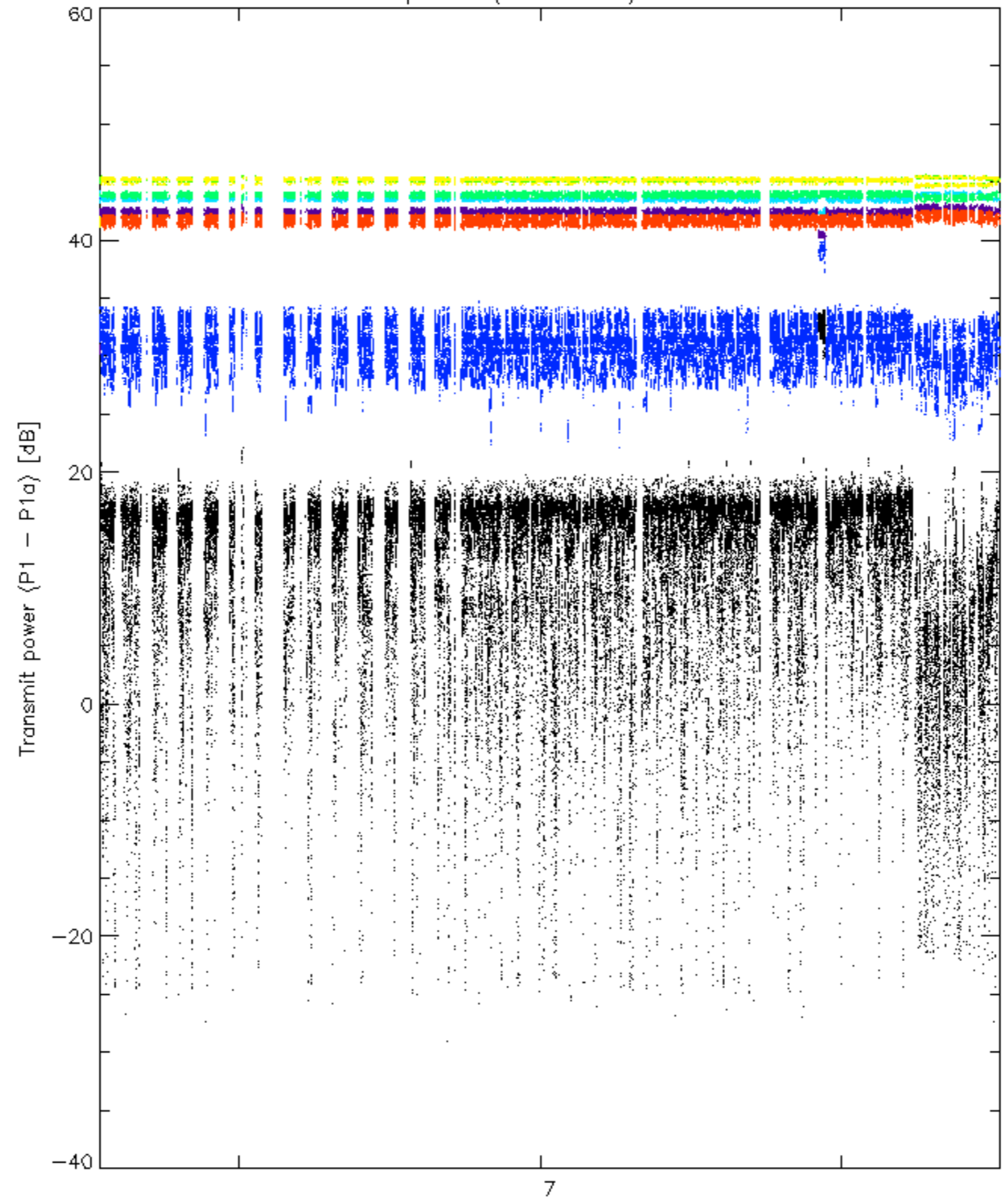


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

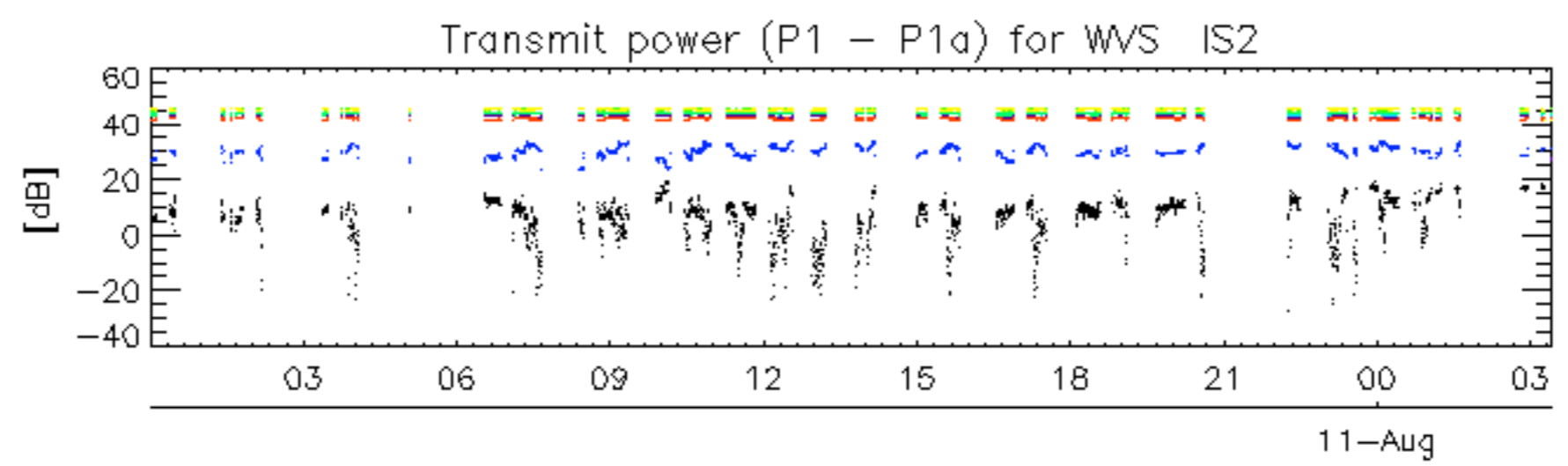


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



No unavailabilities during the reported period.