

REPORT OF 040810

last update on Tue Aug 10 13:08:53 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 browse product available for the reported period.

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:

- ASA_MS__0PNPDE20040809_054054_000000152029_00191_12770_0005.N1

Polarisation	Start Time
V	20040809 054054
H	20040808 061231

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	-3.494252	0.052606	-0.062606
7	P1	-3.338898	0.044432	-0.066365
11	P1	-4.639168	0.117508	-0.120724
15	P1	-5.753525	0.129006	-0.126176
19	P1	-3.454331	0.004517	-0.013471
22	P1	-4.560515	0.010558	0.016379
24	P1	-4.956396	0.018773	0.010483
30	P1	-6.906141	0.025518	-0.061672

3	P1	-16.256596	0.491665	-0.217337
7	P1	-13.970109	0.081277	0.002276
11	P1	-20.040586	0.329237	-0.055918
15	P1	-11.771191	0.069978	0.050670
19	P1	-13.862467	0.032165	-0.032620
22	P1	-16.300037	0.334482	0.048850
24	P1	-14.600624	0.278954	0.086377
30	P1	-17.686335	0.421113	-0.117016

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.319452	0.077769	0.039381
7	P2	-22.689728	0.120038	0.076907
11	P2	-15.422561	0.148373	0.088483
15	P2	-7.096026	0.088211	0.071386
19	P2	-9.564210	0.165175	0.073737
22	P2	-17.395962	0.106569	0.117849
24	P2	-20.756273	0.083023	-0.005884
30	P2	-19.329376	0.076871	0.113819

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.144344	0.001929	-0.003561
7	P3	-8.144343	0.001928	-0.003588
11	P3	-8.144341	0.001928	-0.003603
15	P3	-8.144347	0.001929	-0.003556
19	P3	-8.144347	0.001929	-0.003562
22	P3	-8.144349	0.001929	-0.003539
24	P3	-8.144345	0.001929	-0.003573
30	P3	-8.144239	0.001925	-0.004142

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	-2.910826	0.186438	0.243273
7	P1	-3.012672	0.230222	-0.303813
11	P1	-3.874170	0.174210	-0.134894
15	P1	-3.726353	0.487210	0.761750
19	P1	-3.448113	0.030417	-0.156447
22	P1	-5.675294	0.048936	0.070587
24	P1	-3.902143	0.045300	0.186578
30	P1	-6.172989	0.076667	-0.044595
3	P1	-10.724696	0.558623	0.298510
7	P1	-10.047250	0.254544	-0.335312
11	P1	-12.016429	0.203393	-0.246665
15	P1	-11.682030	0.210309	0.387105
19	P1	-15.467373	0.354116	-0.746797
22	P1	-22.776590	3.580829	-2.453888
24	P1	-17.609554	0.288576	-0.614717
30	P1	-20.614697	2.462257	1.315819

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.007908	0.083245	0.098676
7	P2	-22.800304	0.249253	0.033480
11	P2	-11.010672	0.148549	-0.181290
15	P2	-4.953040	0.041965	-0.018268
19	P2	-6.809455	0.059246	0.153771
22	P2	-7.501825	0.105533	0.149249
24	P2	-11.037065	0.146100	-0.036724
30	P2	-22.249516	0.117899	0.024525

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.985449	0.003554	-0.015122
7	P3	-7.985567	0.003558	-0.014882
11	P3	-7.985503	0.003556	-0.015161
15	P3	-7.985455	0.003558	-0.015023
19	P3	-7.985434	0.003561	-0.015122
22	P3	-7.985480	0.003547	-0.015270
24	P3	-7.985473	0.003572	-0.015155
30	P3	-7.985532	0.003551	-0.014932

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	0.000490678
	stdev	2.15805e-07
MEAN Q	mean	0.000532009
	stdev	2.47886e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129005
	stdev	0.00103784

STDEV Q	mean	0.129255
	stdev	0.00104950



5.3 - Gain imbalance I/Q



6 - Doppler Analysis

No anomalies observed in Doppler evolution.
 Doppler analysis performed over the last 35 days.

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

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

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

<input type="checkbox"/>	
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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

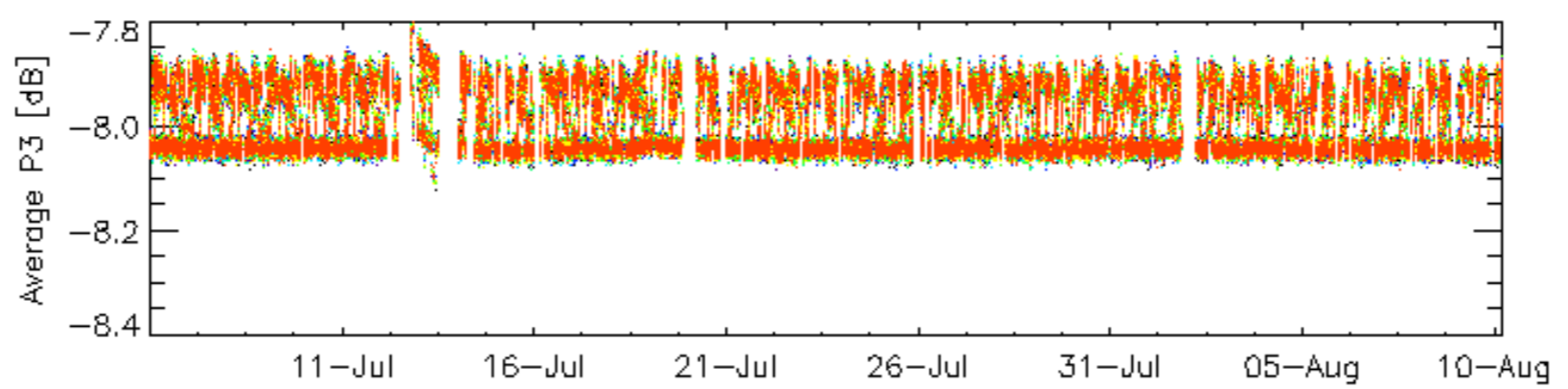
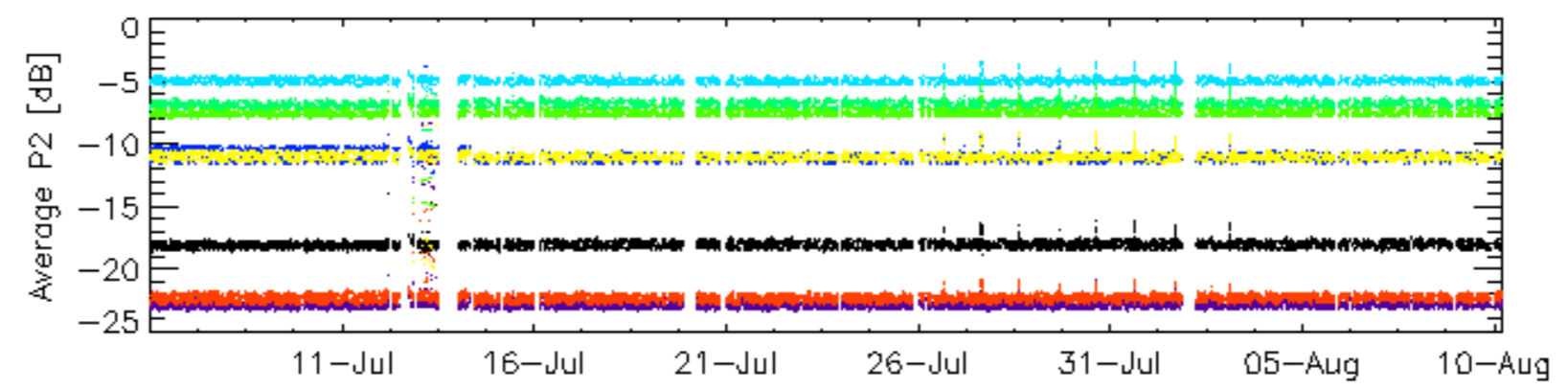
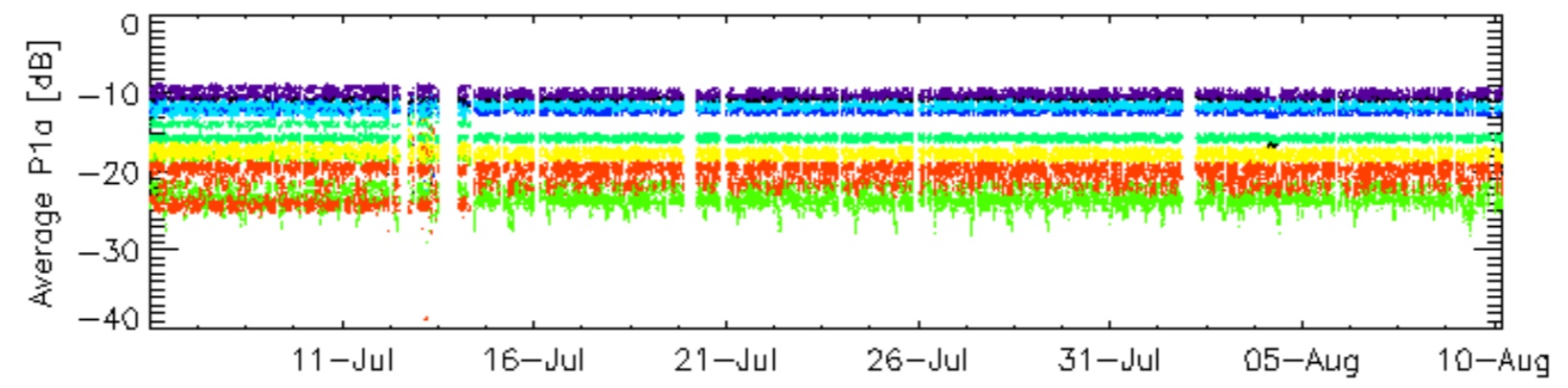
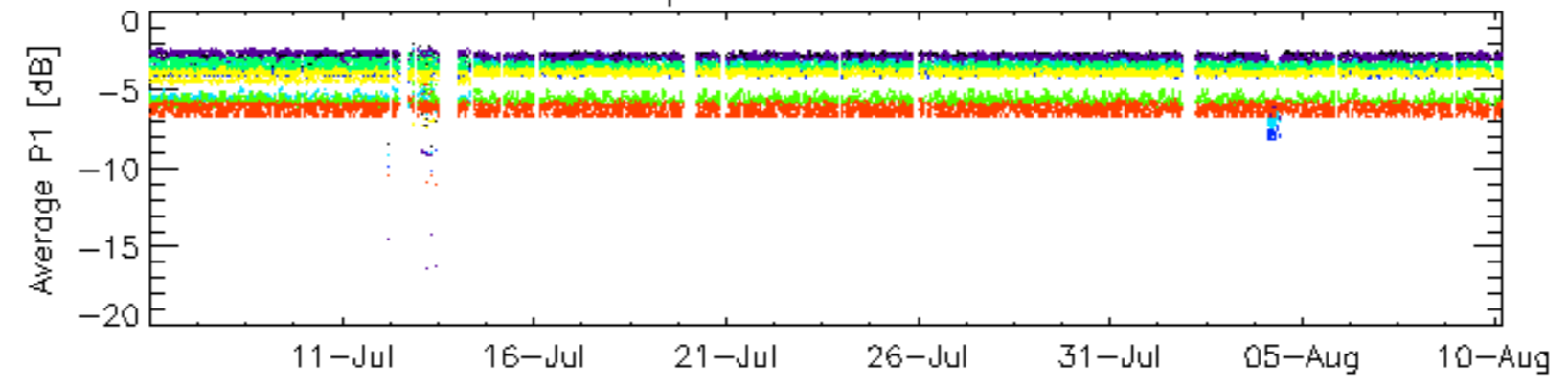
✕
Acsending
✕
Descending

6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

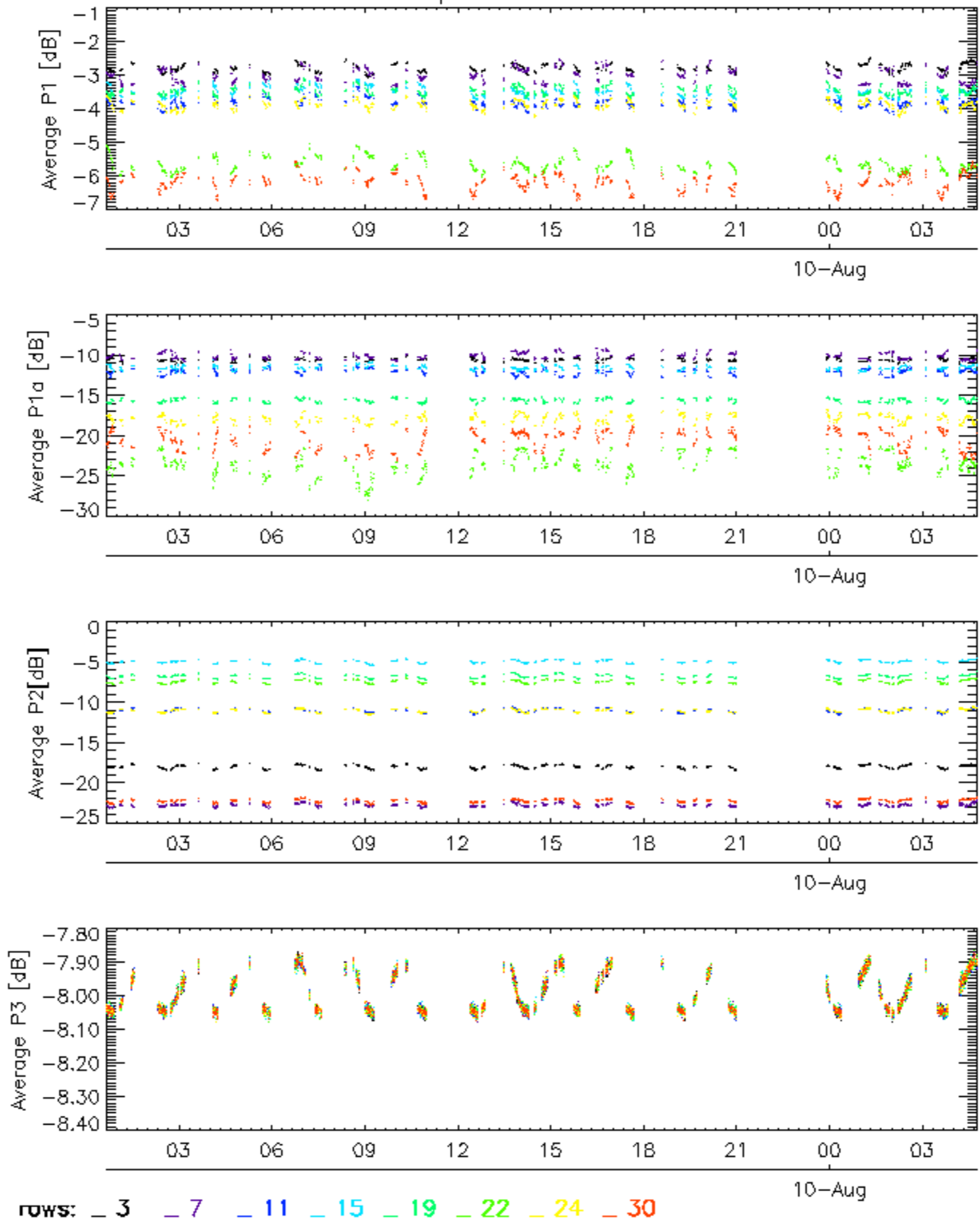
✕

Cal pulses for GM1 SS3

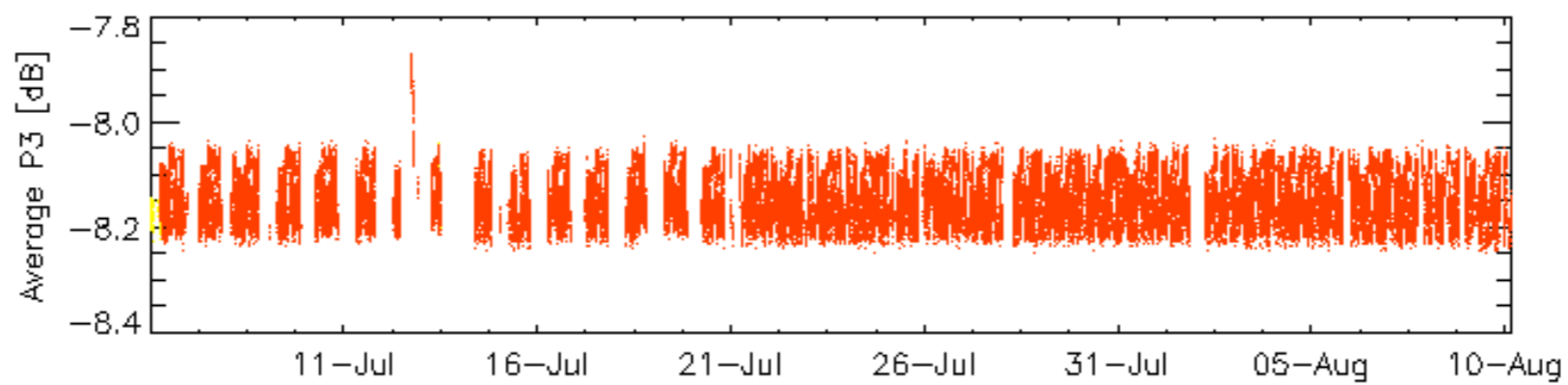
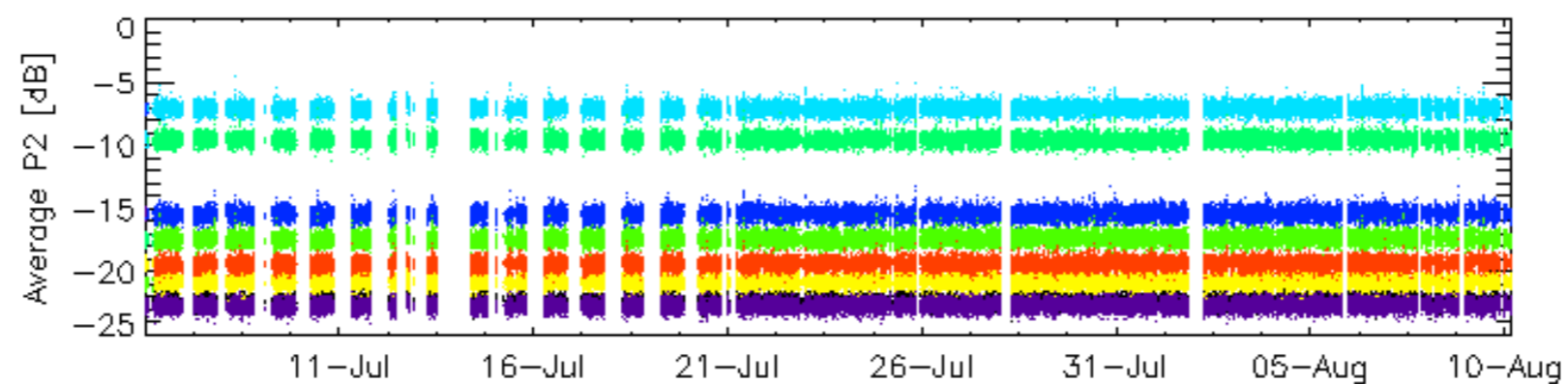
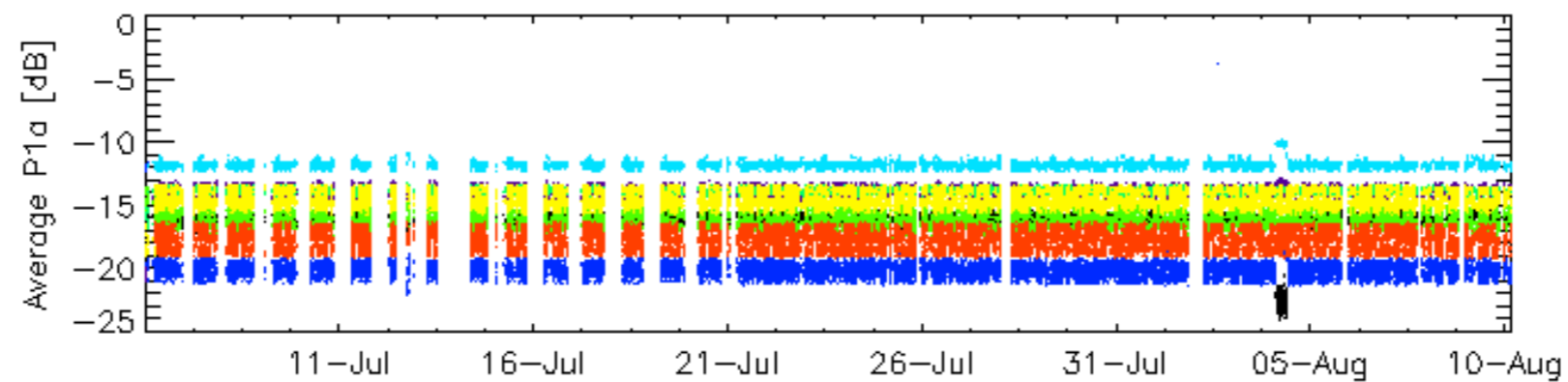
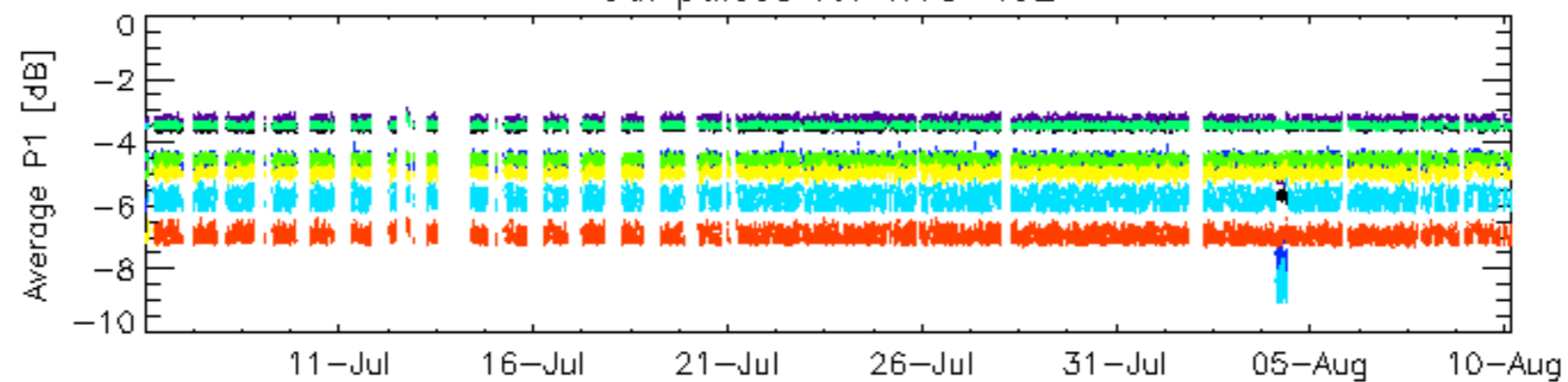


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

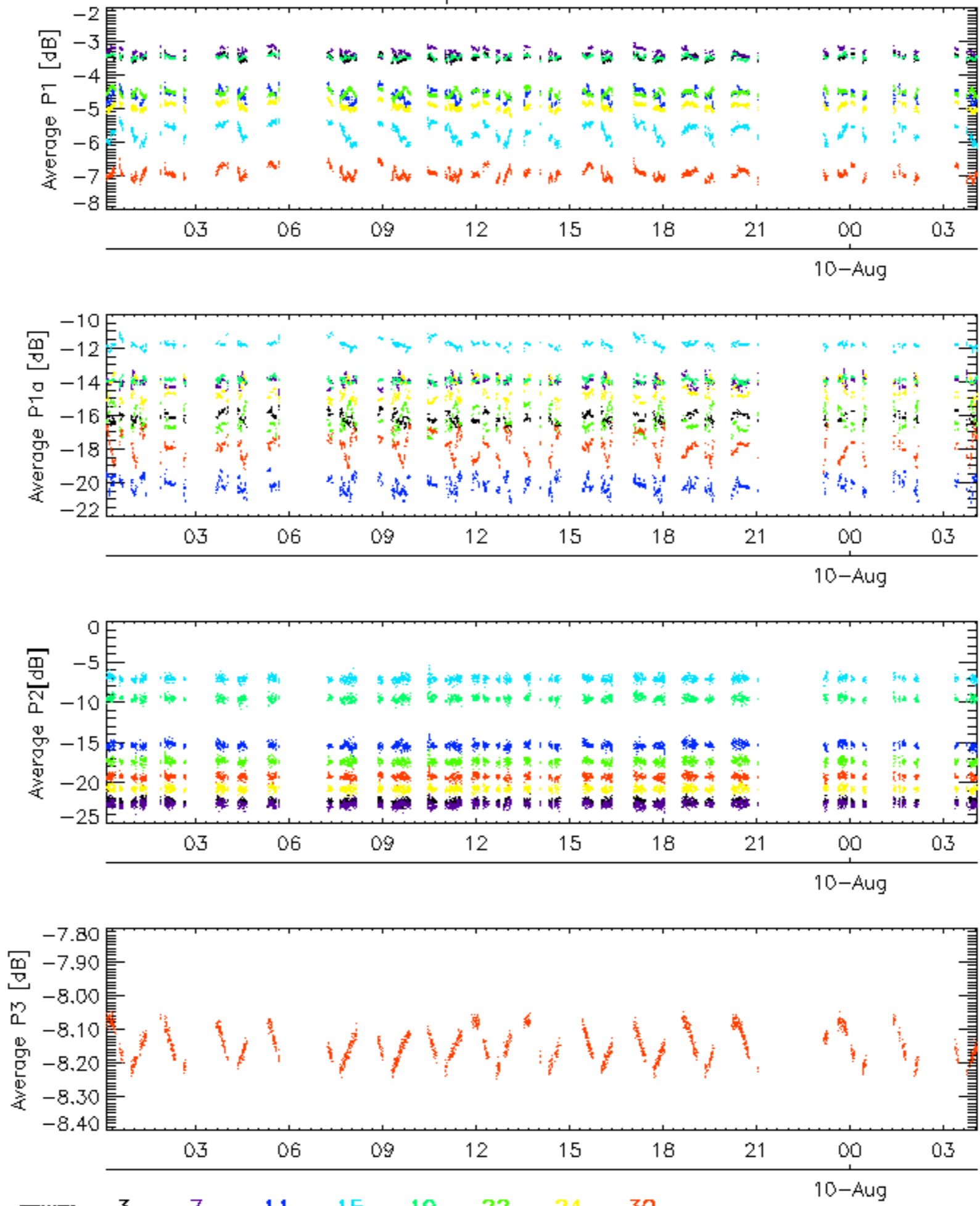


Cal pulses for WVS IS2



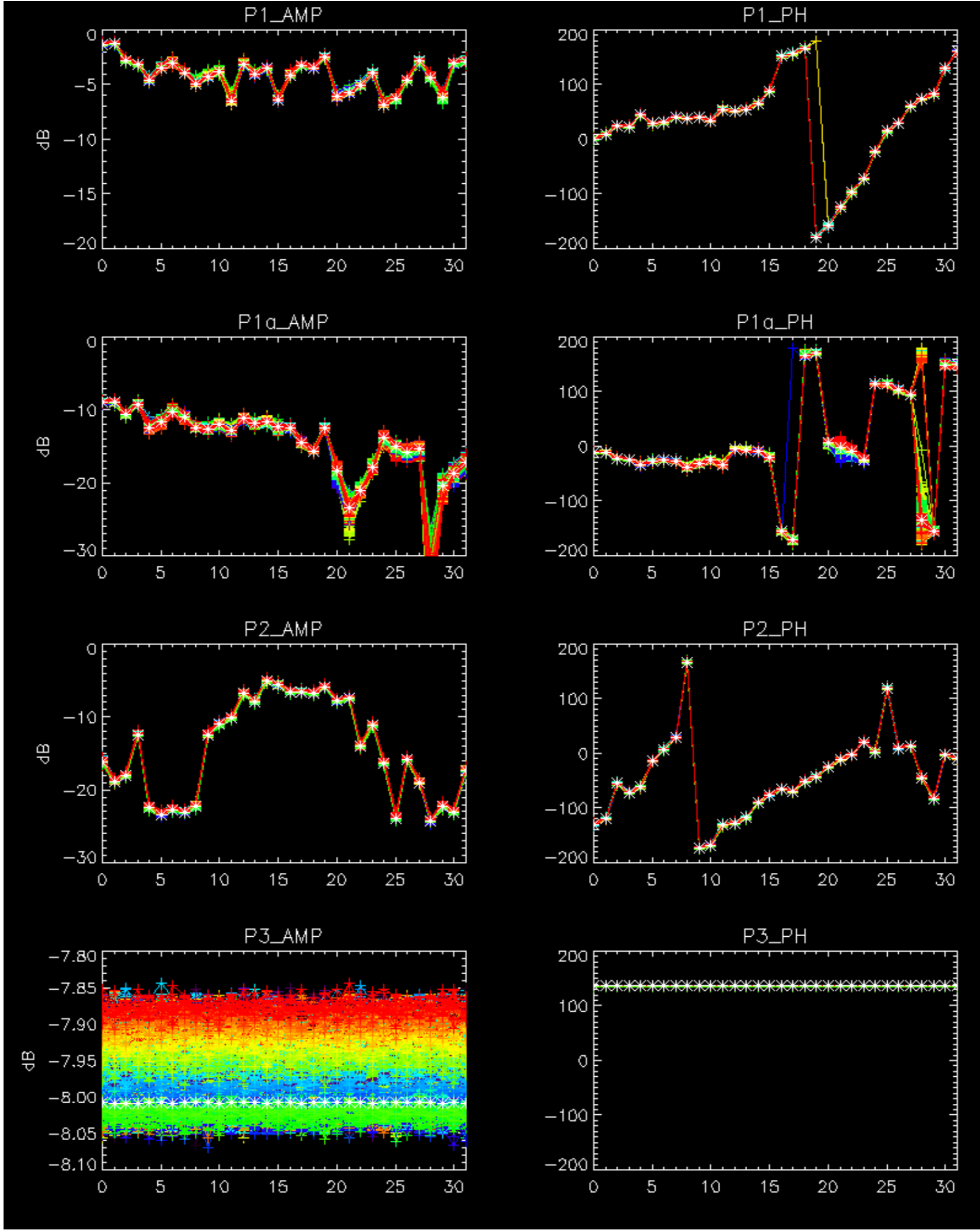
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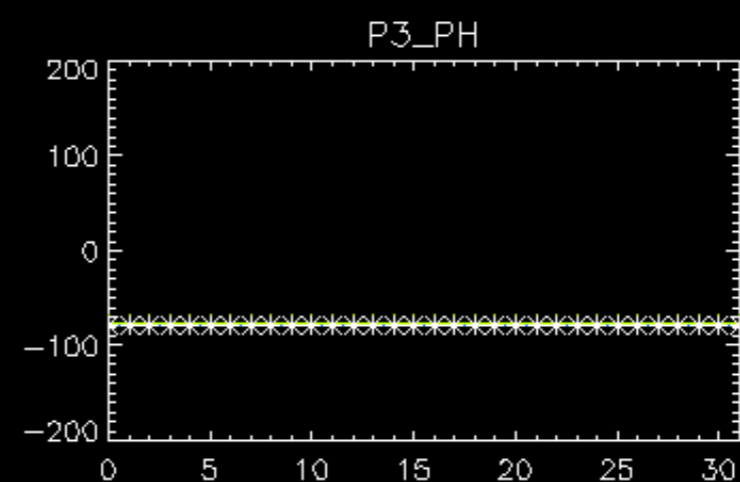
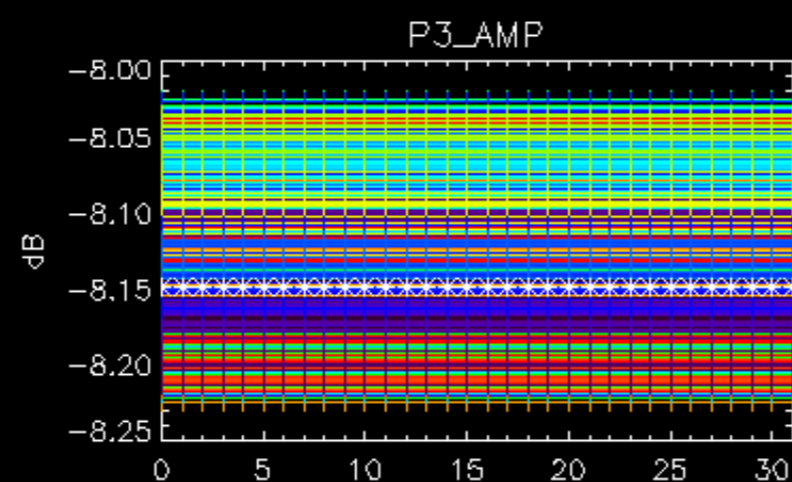
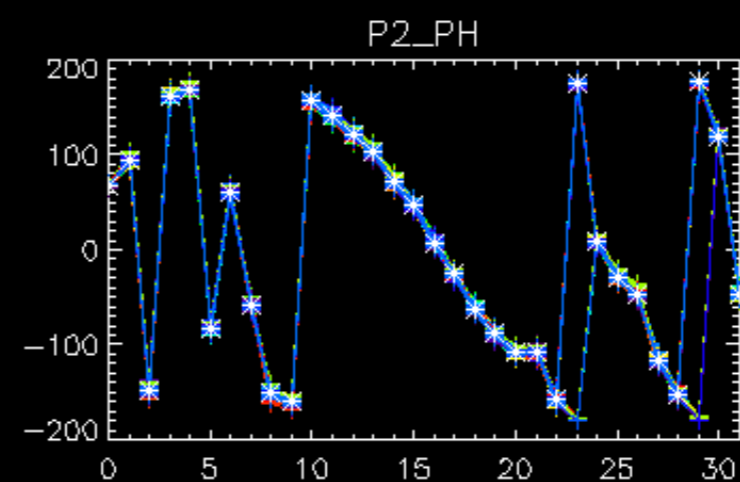
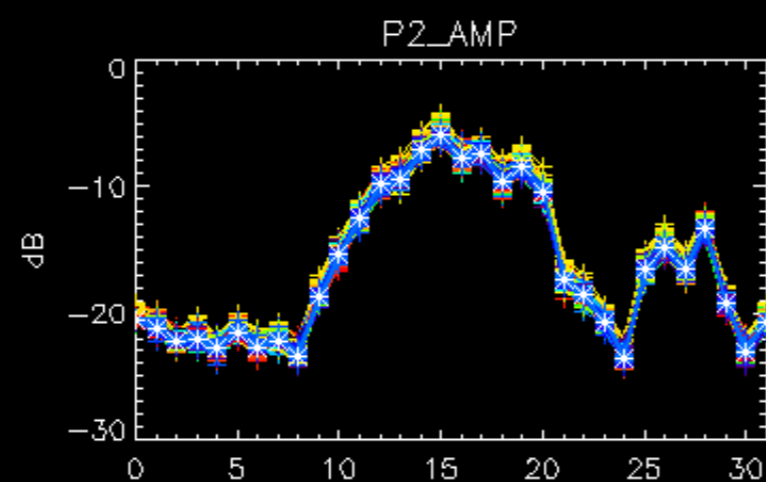
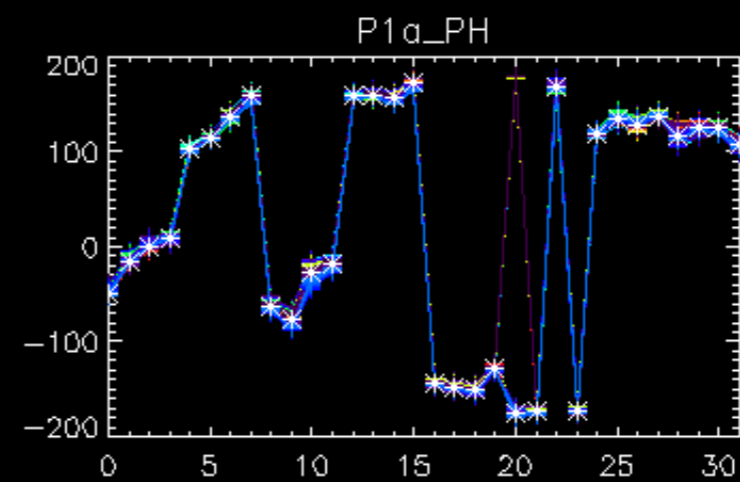
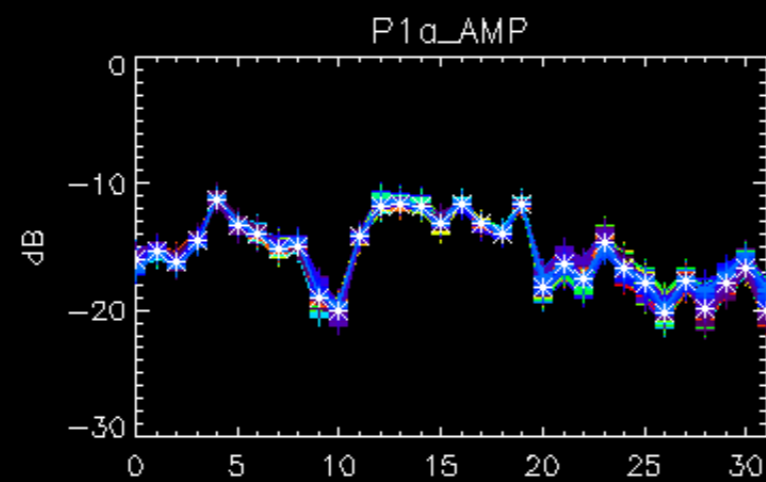
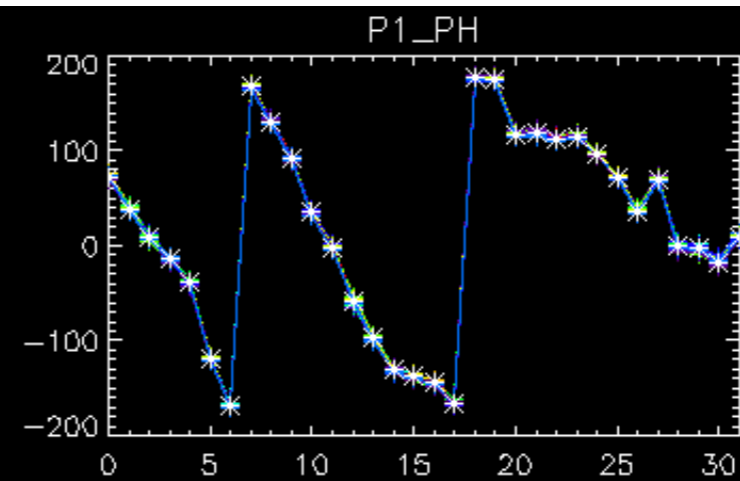
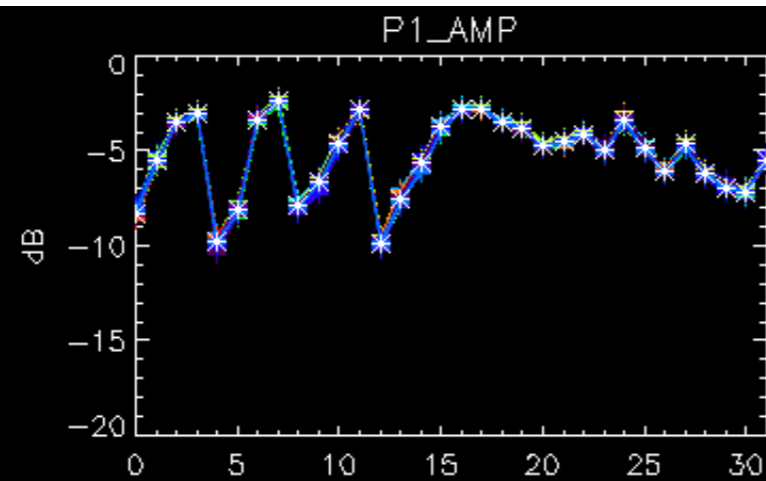
Cal pulses for WVS IS2



No browse product available for the reported period.

No anomalies observed.

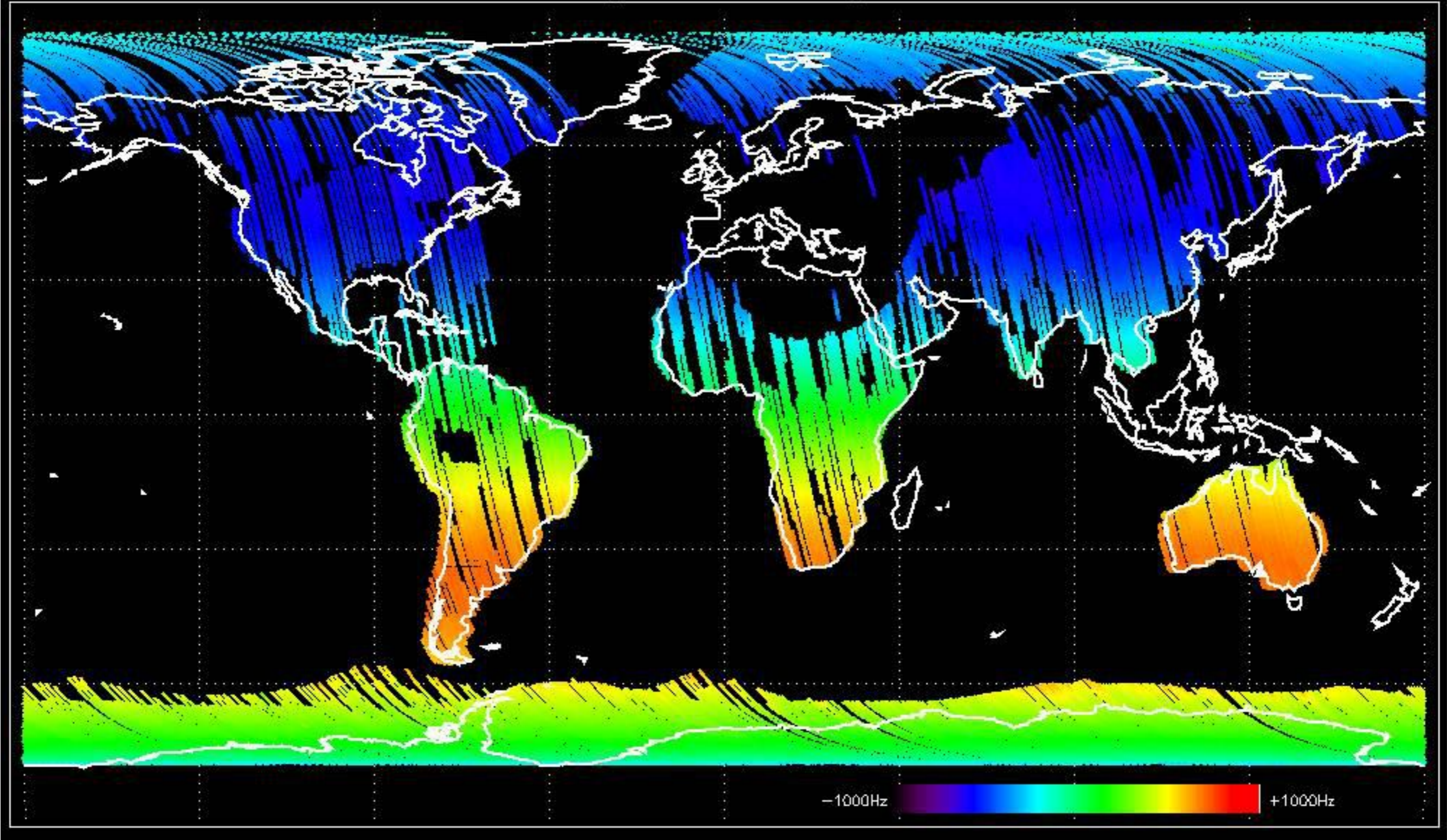




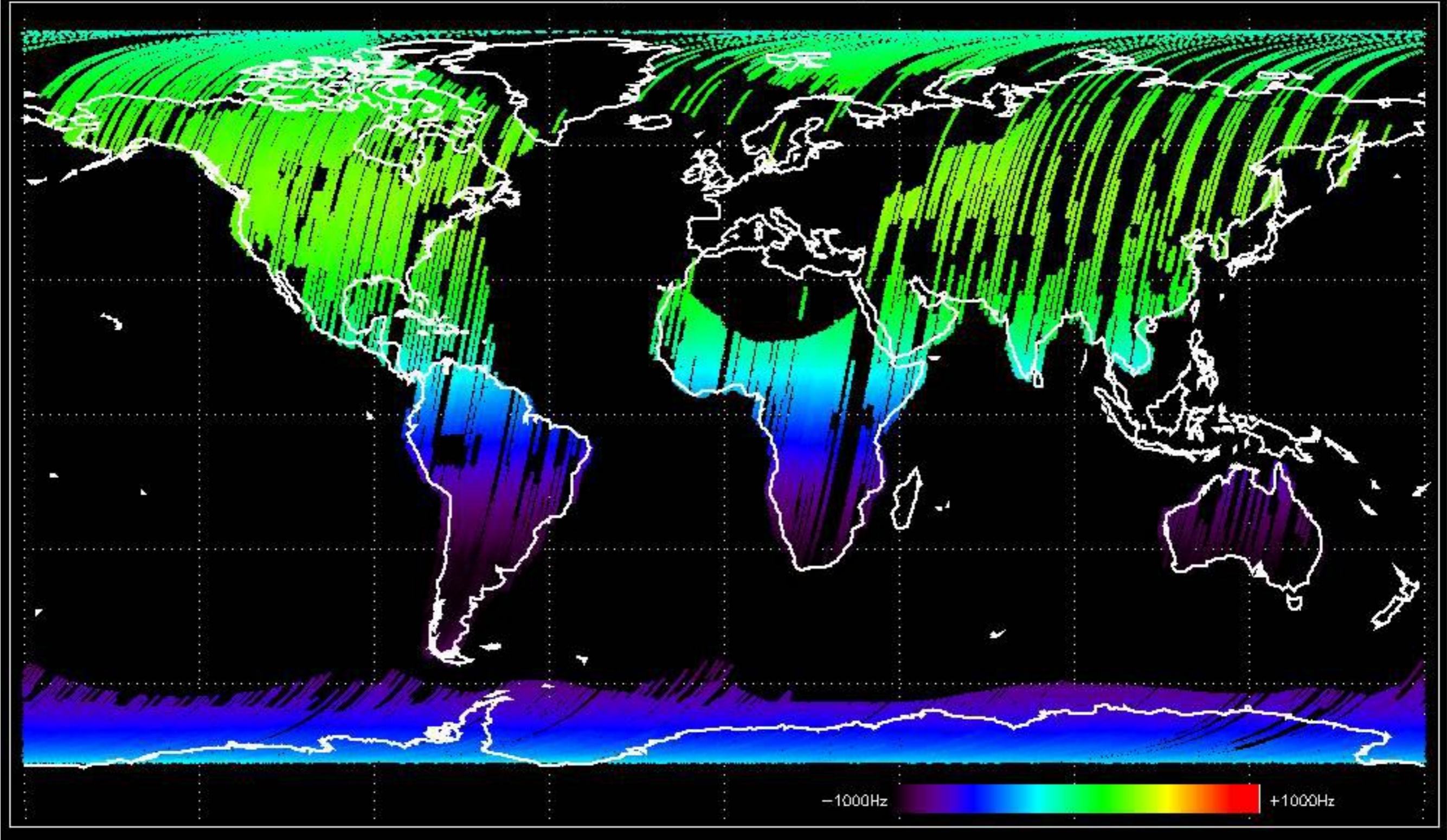
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

No anomalies observed in Doppler evolution.
Doppler analysis performed over the last 35 days.

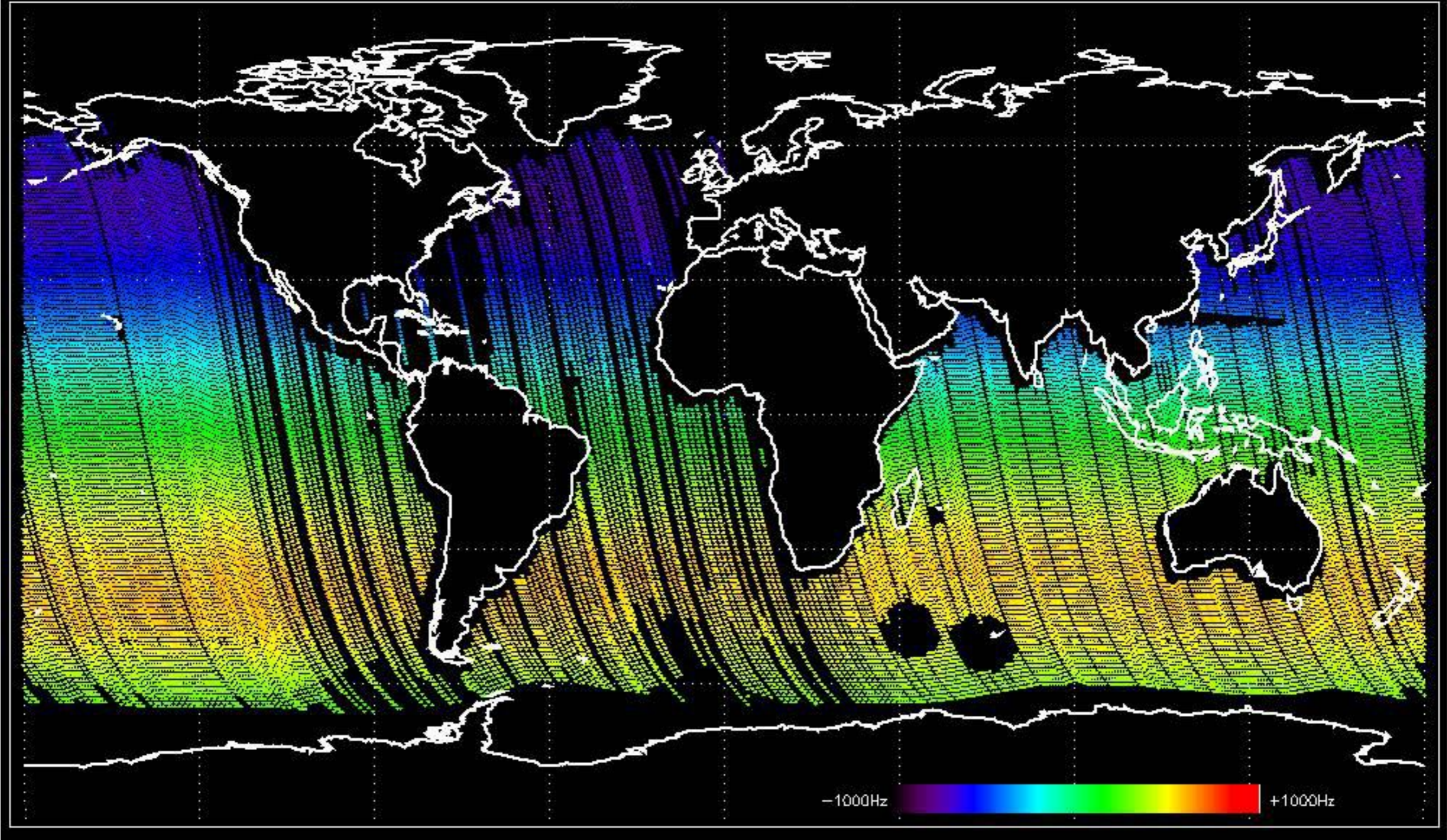
Doppler 'GM1' 'SS1' ascending



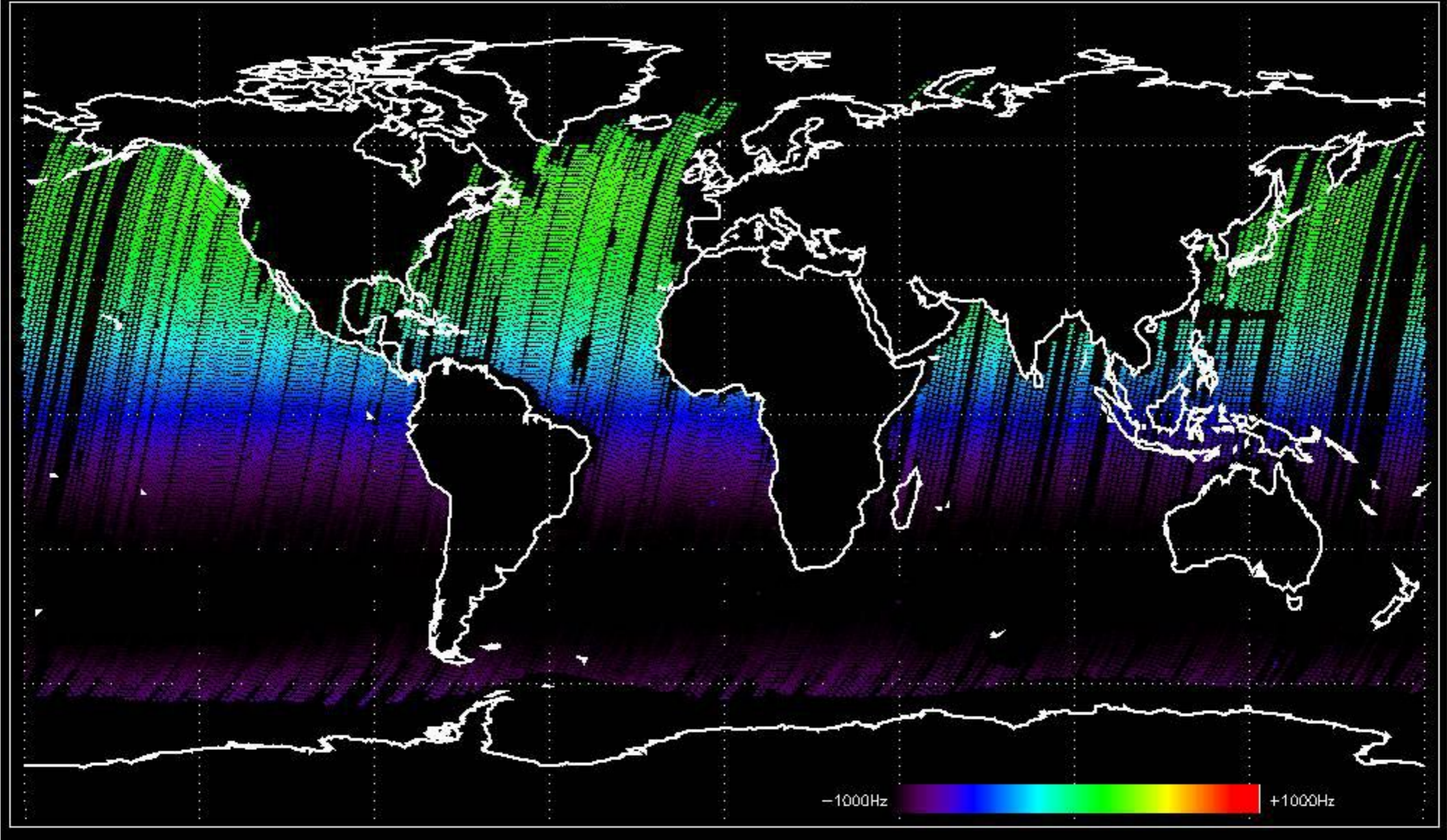
Doppler 'GM1' 'SS1' descending



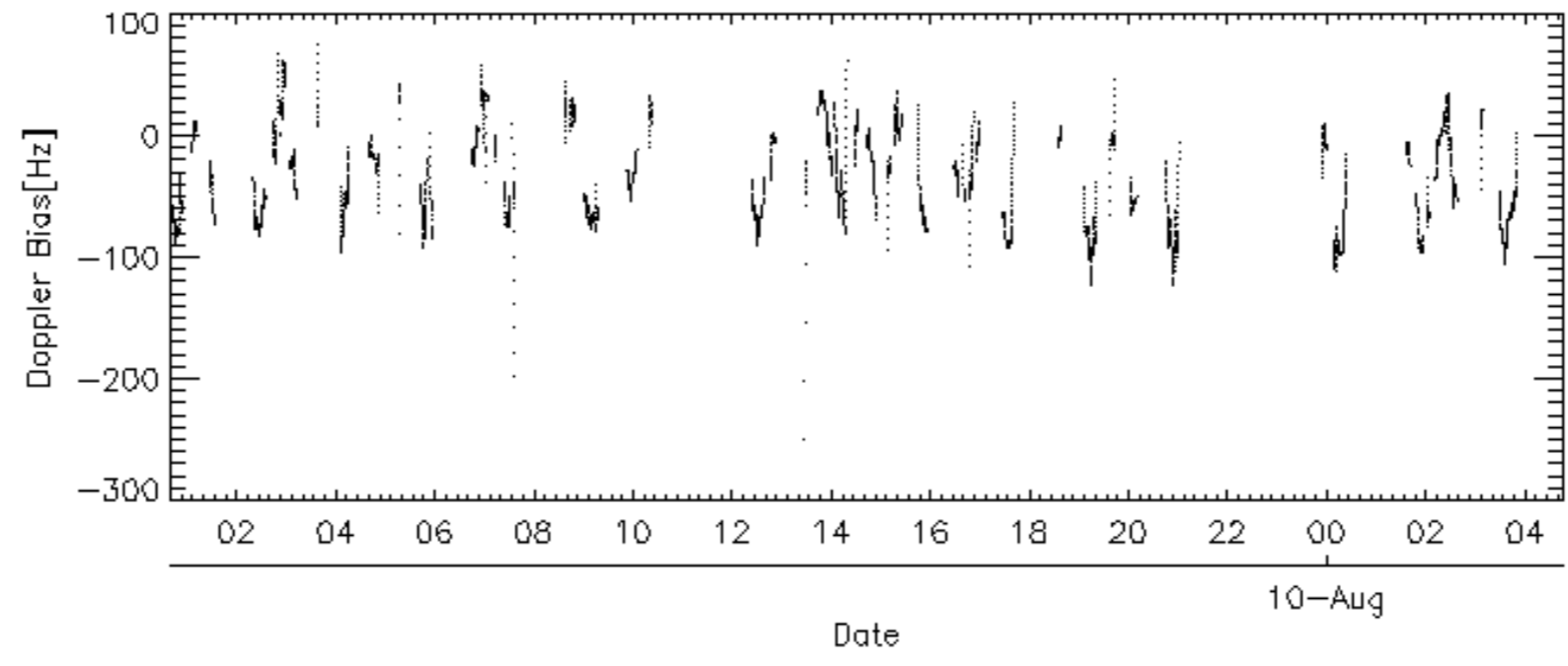
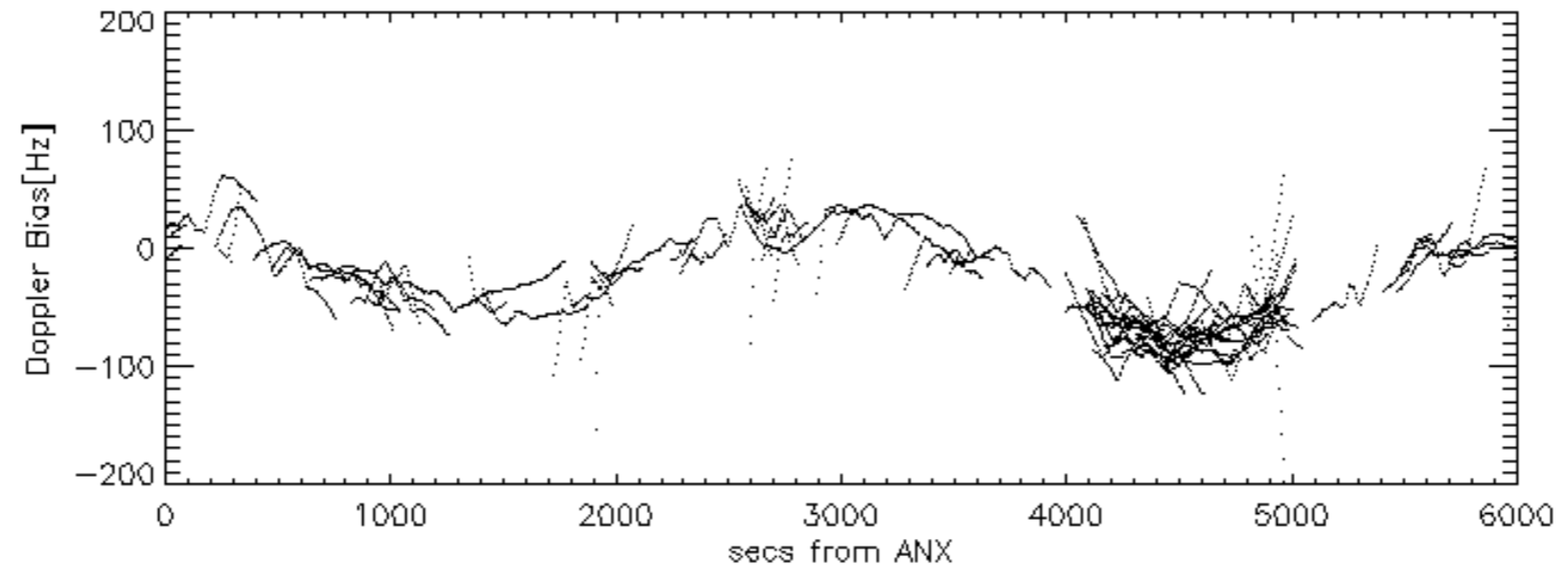
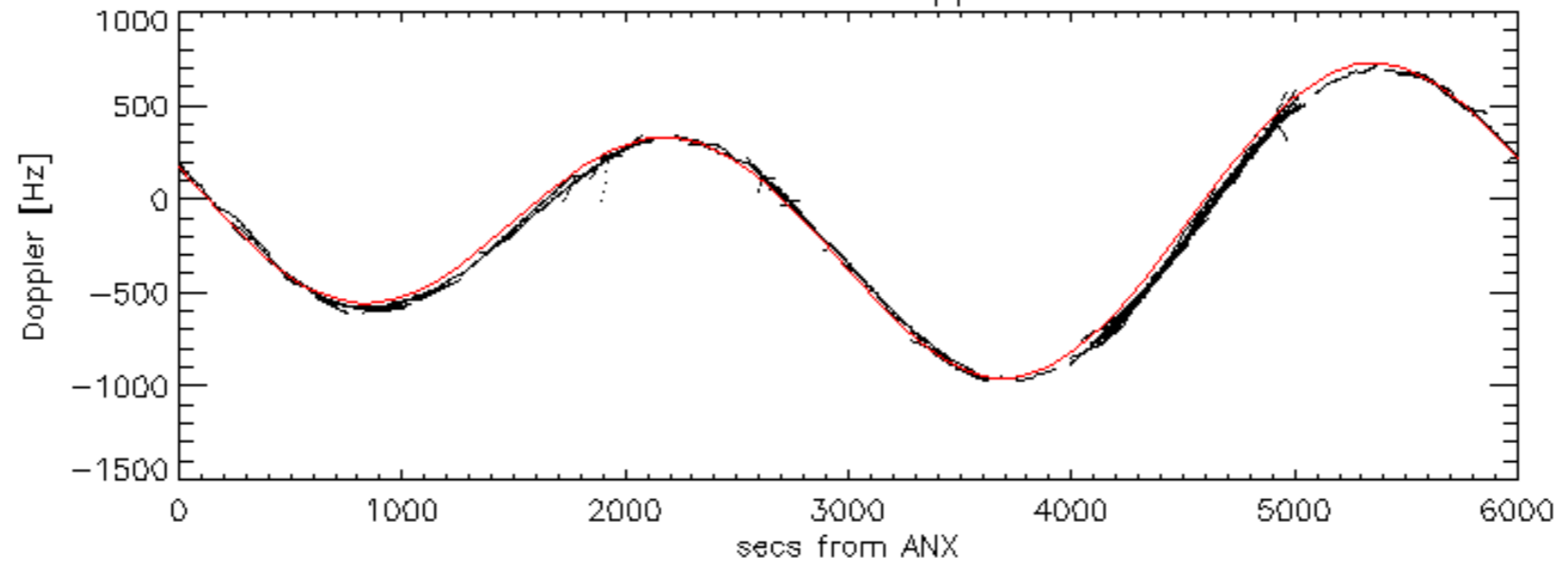
Doppler 'WVS' 'IS2' ascending

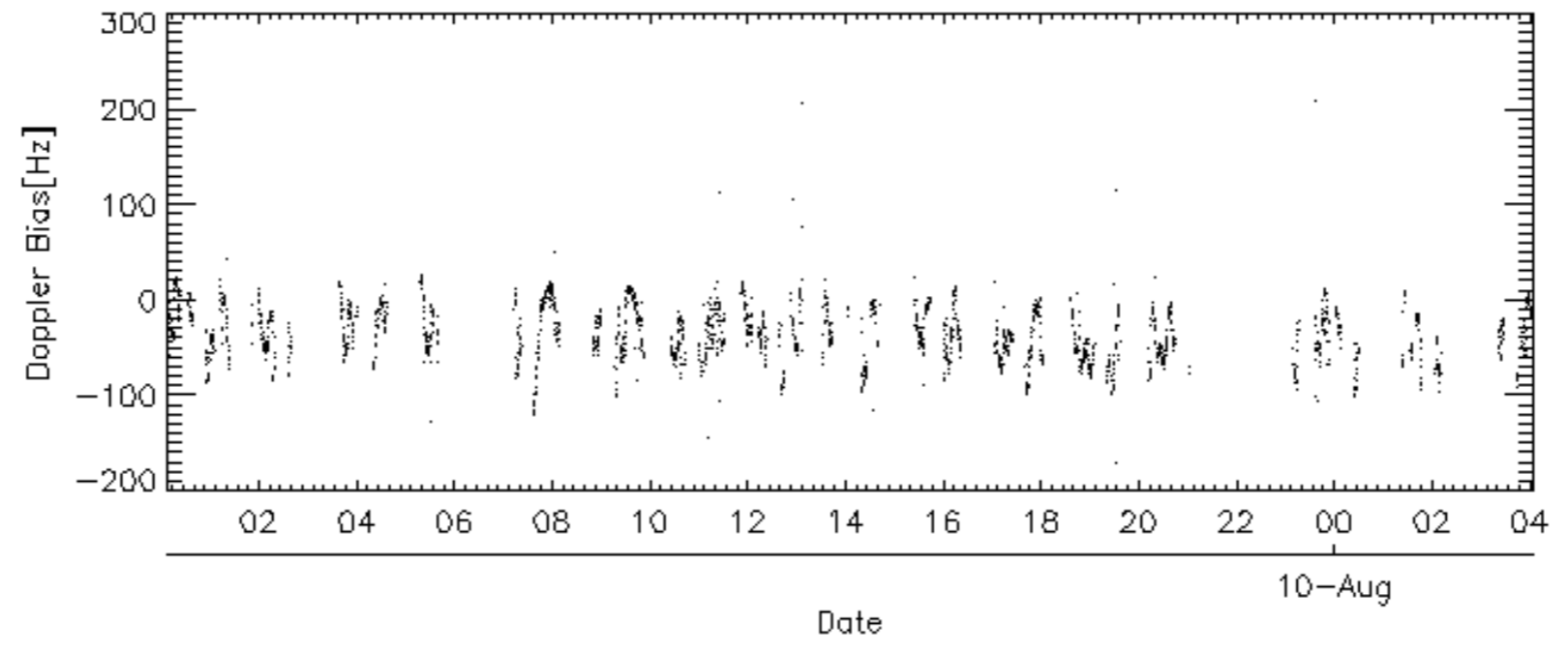
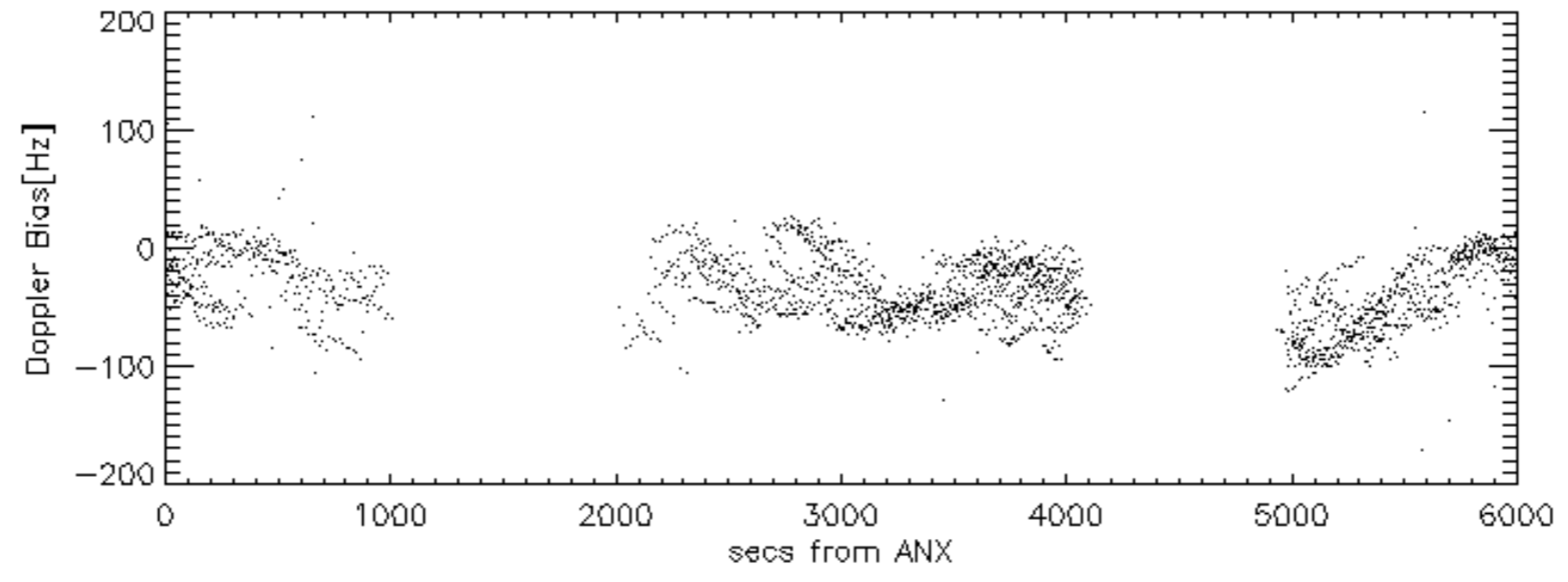
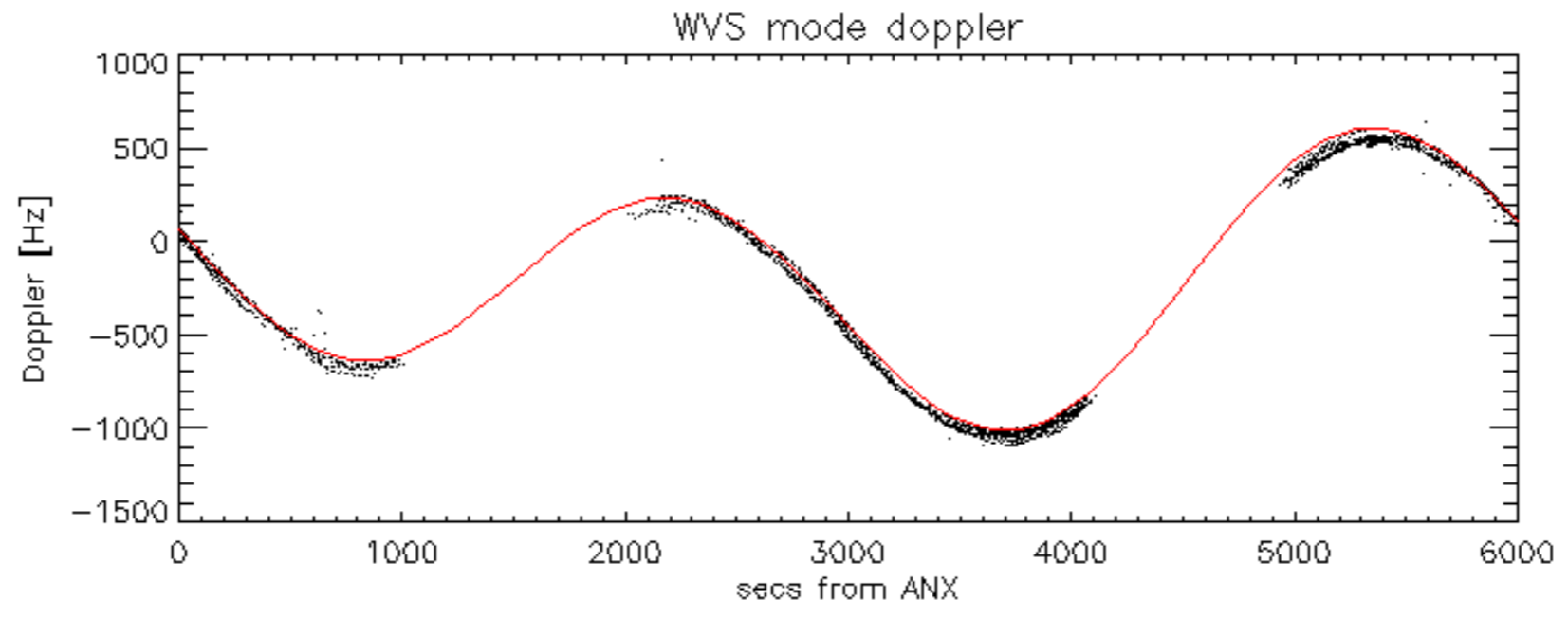


Doppler 'WVS' 'IS2' descending

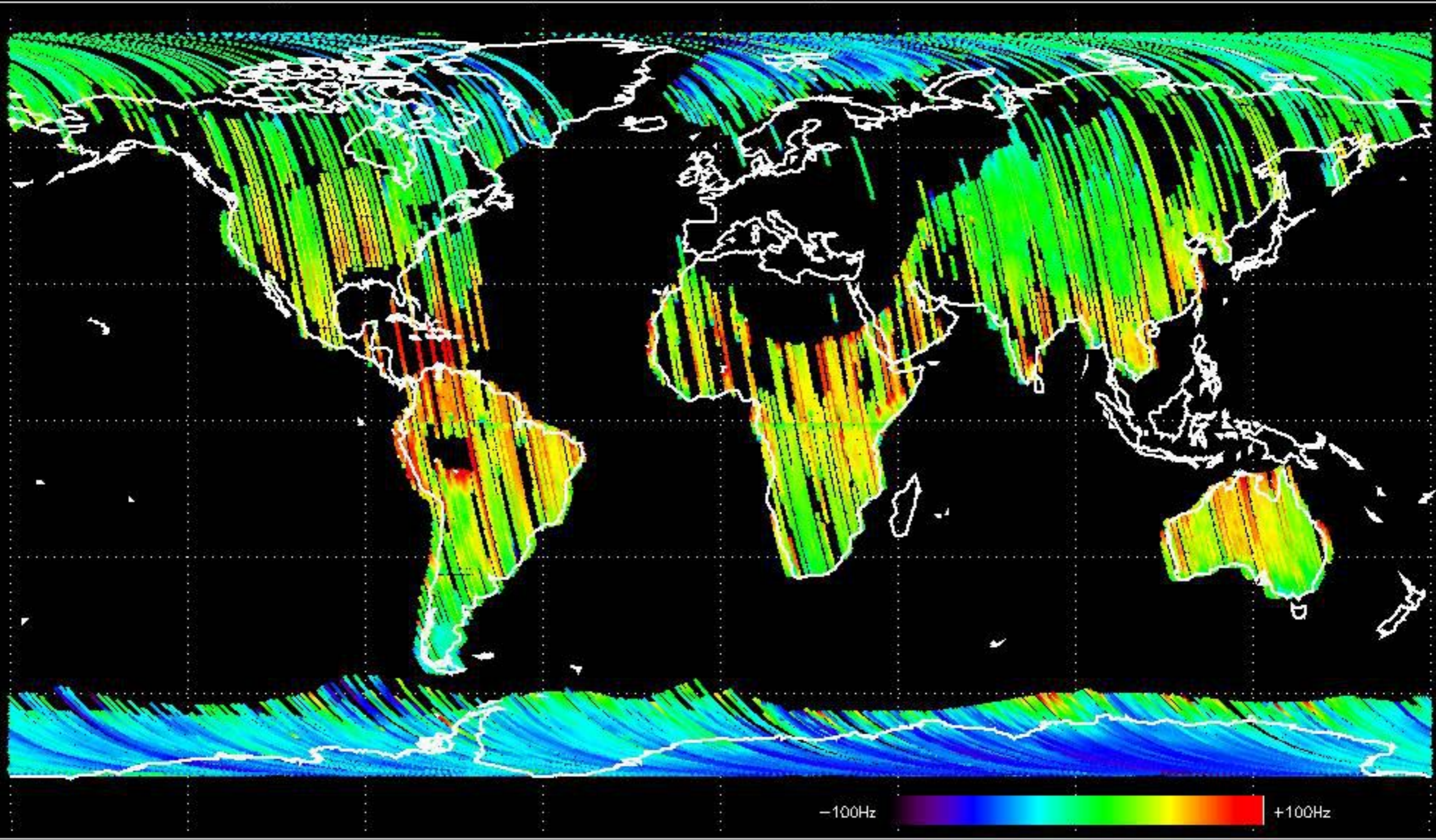


GM1 mode doppler

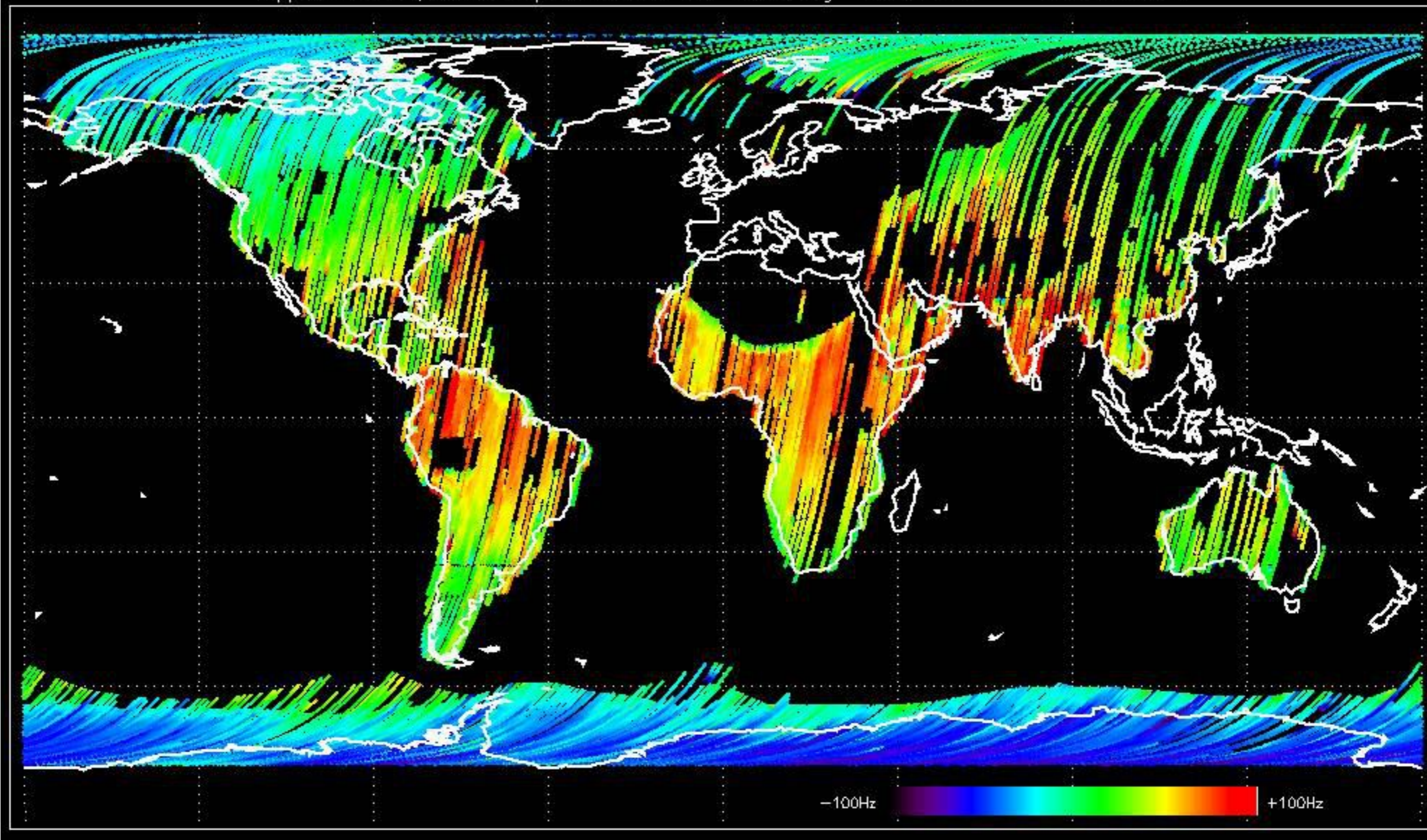




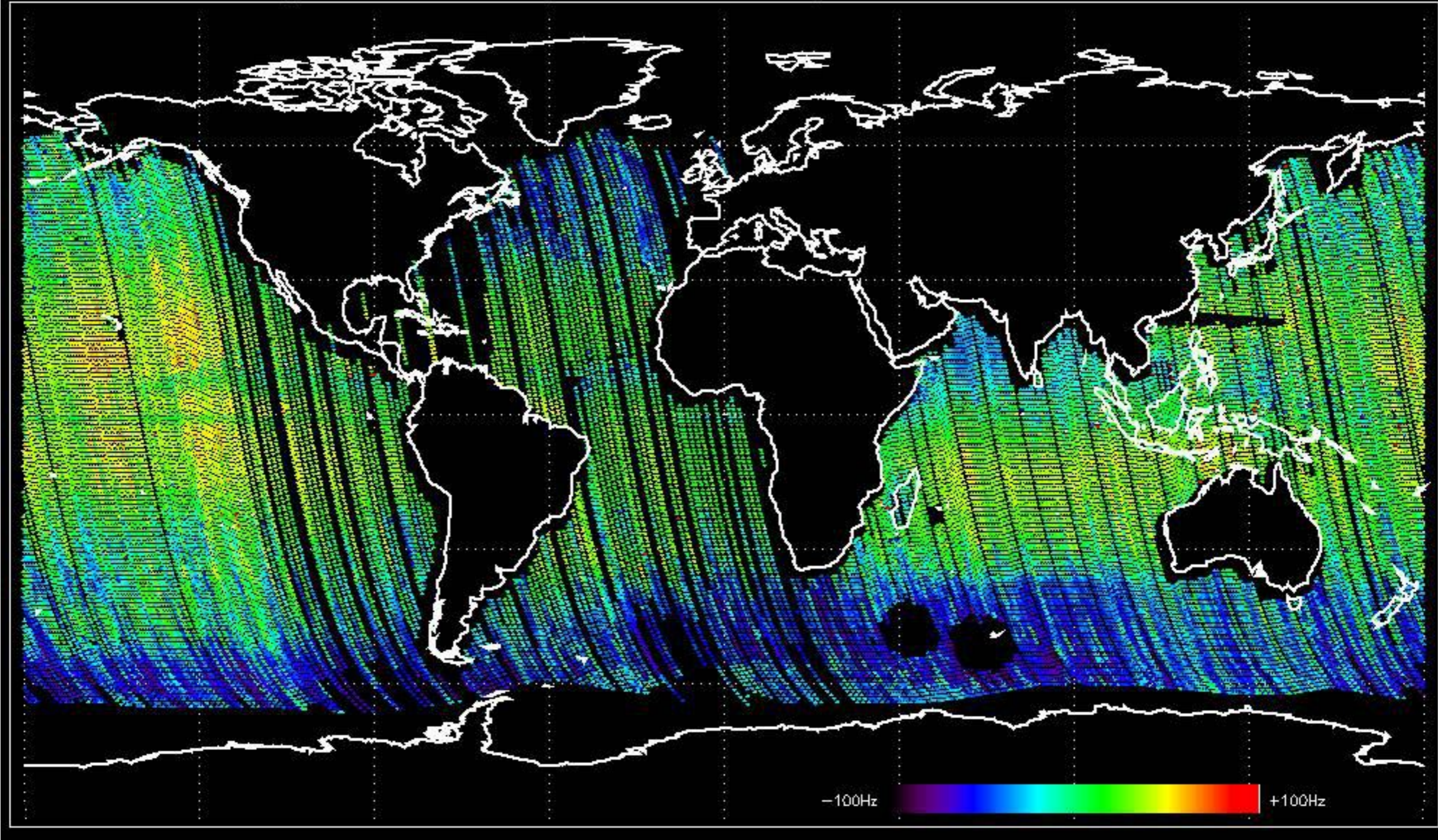
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -37.524196 Hz



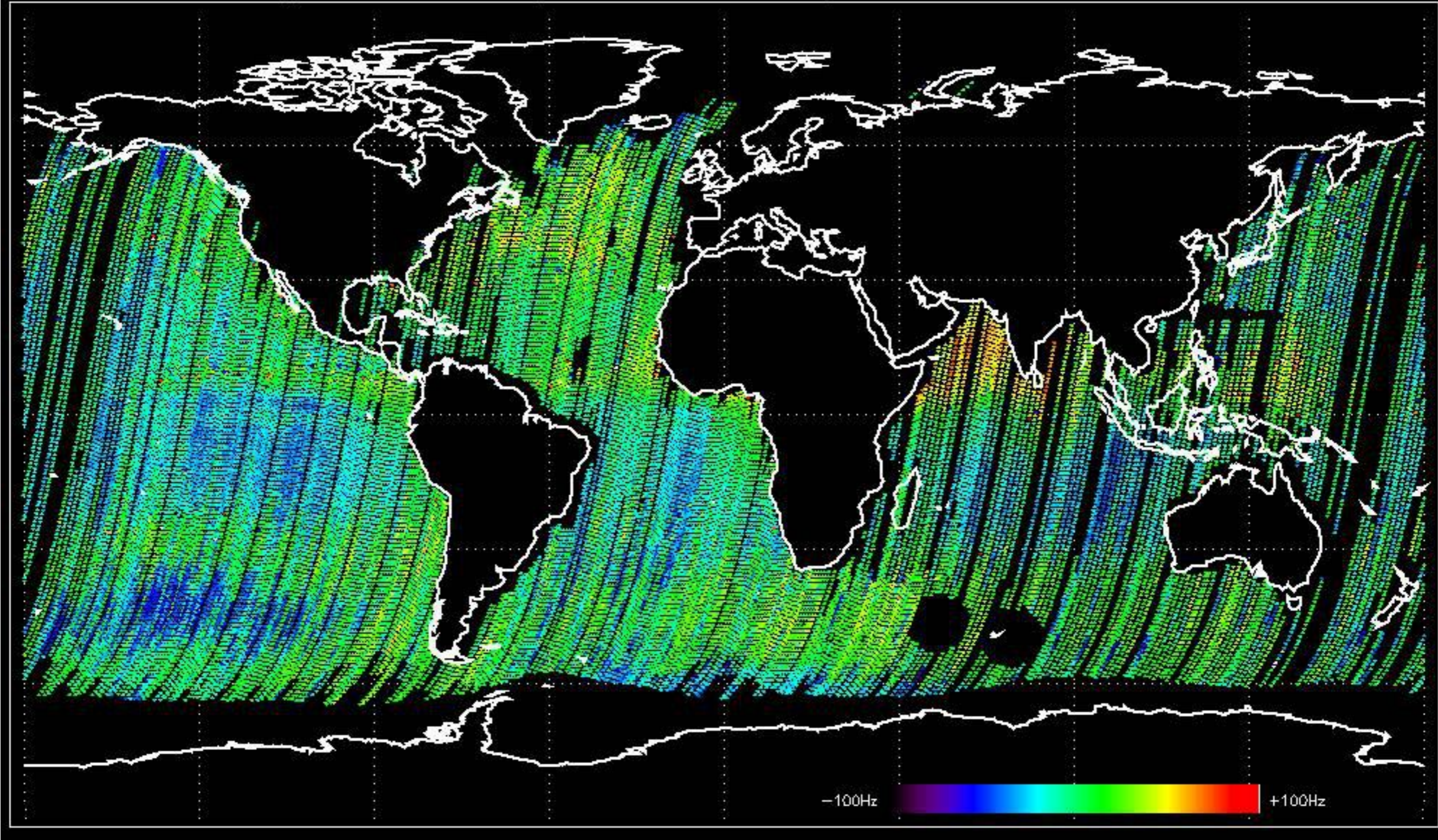
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -26.836478 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.496655 Hz



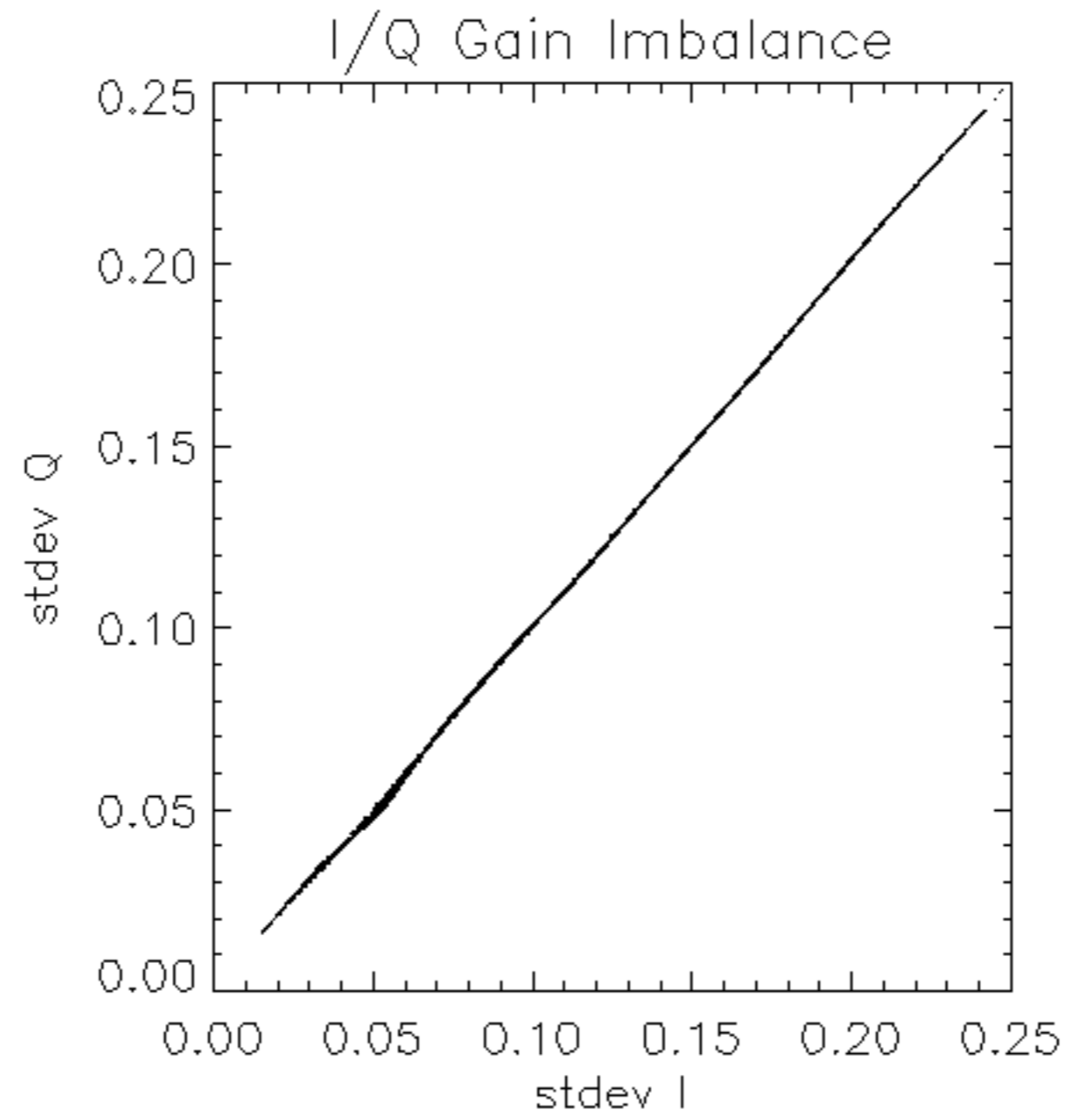
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.809167 Hz

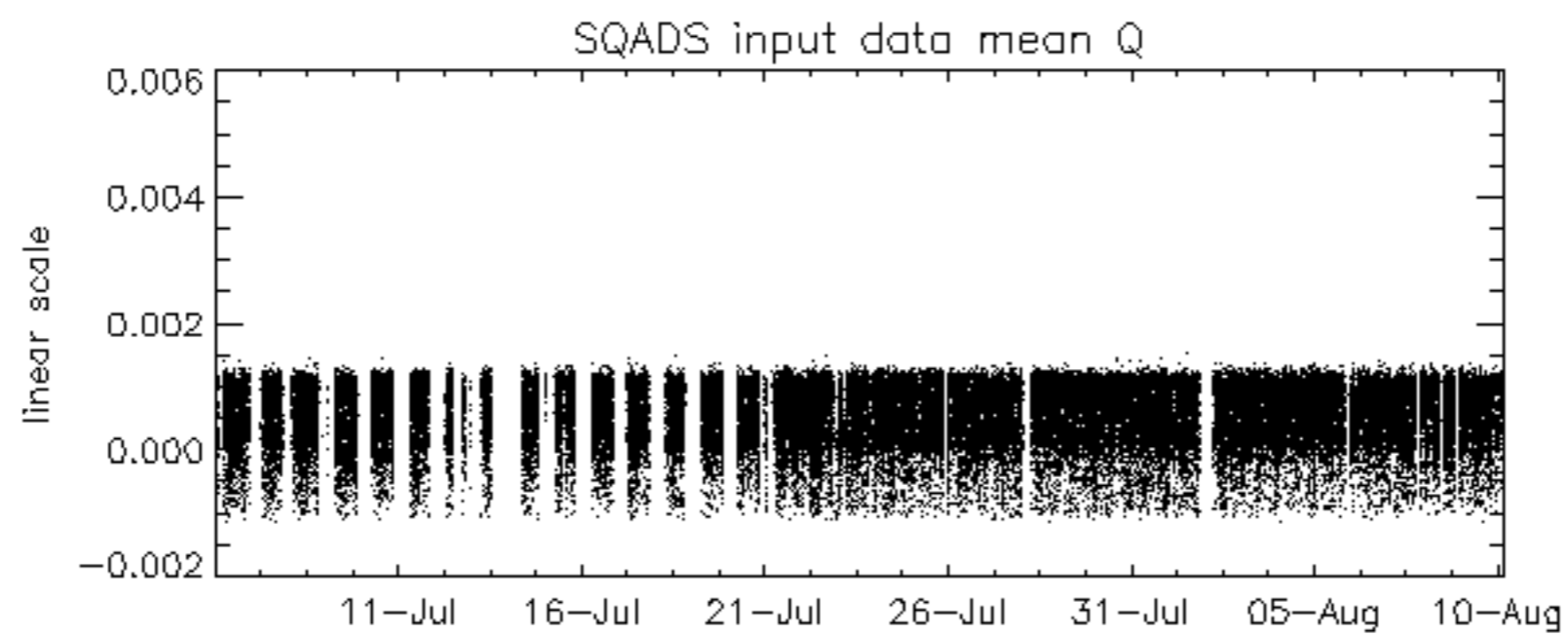
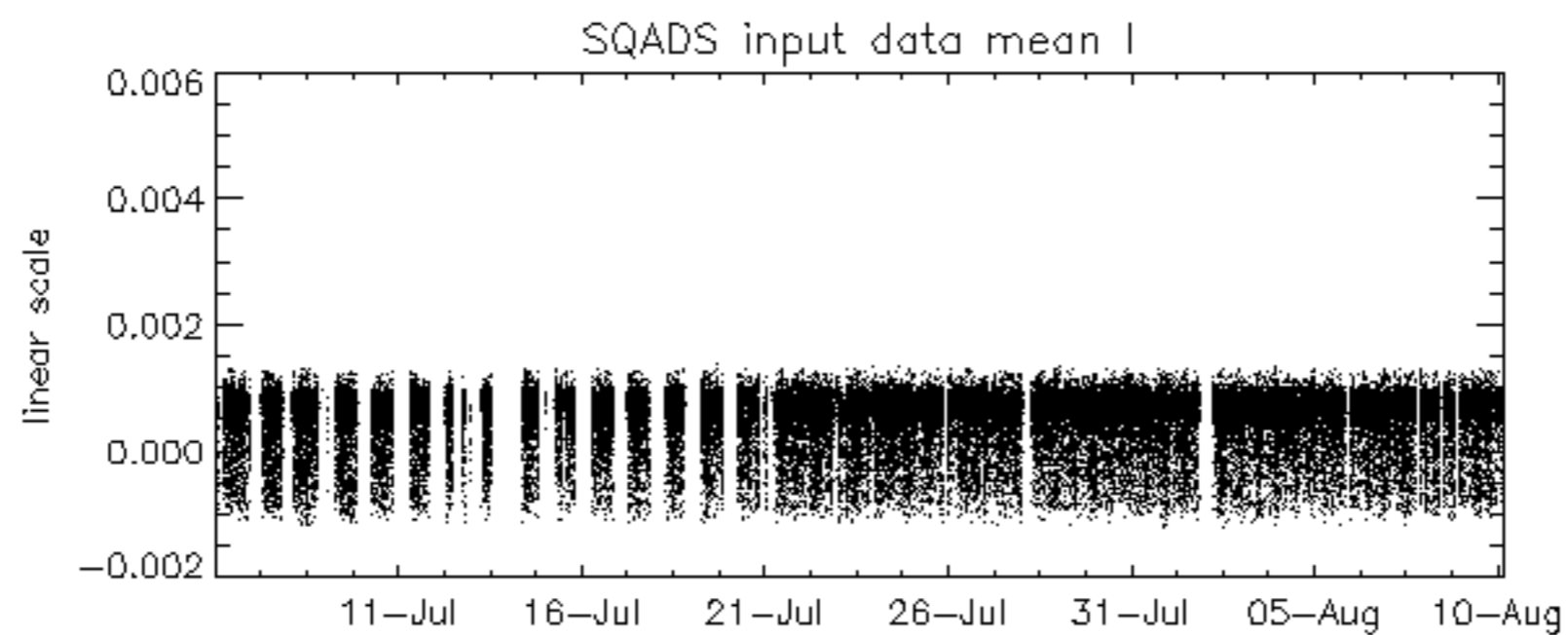
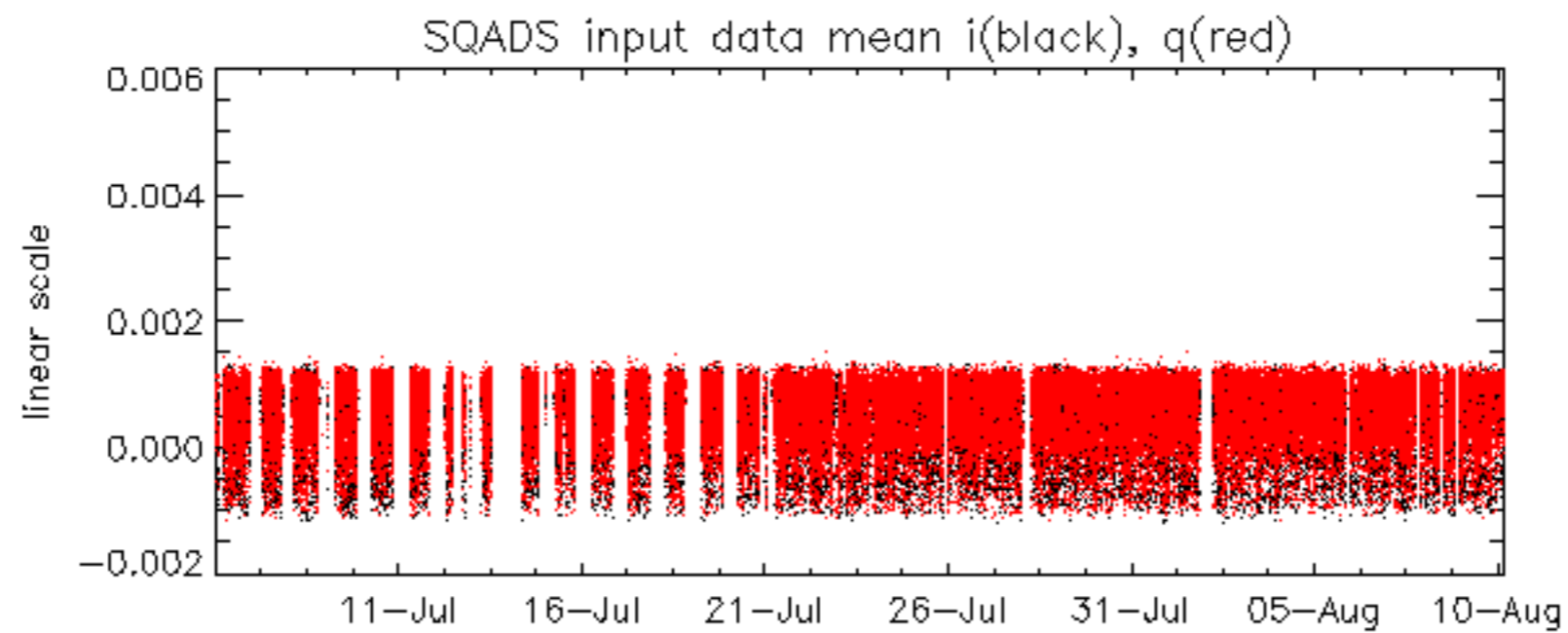


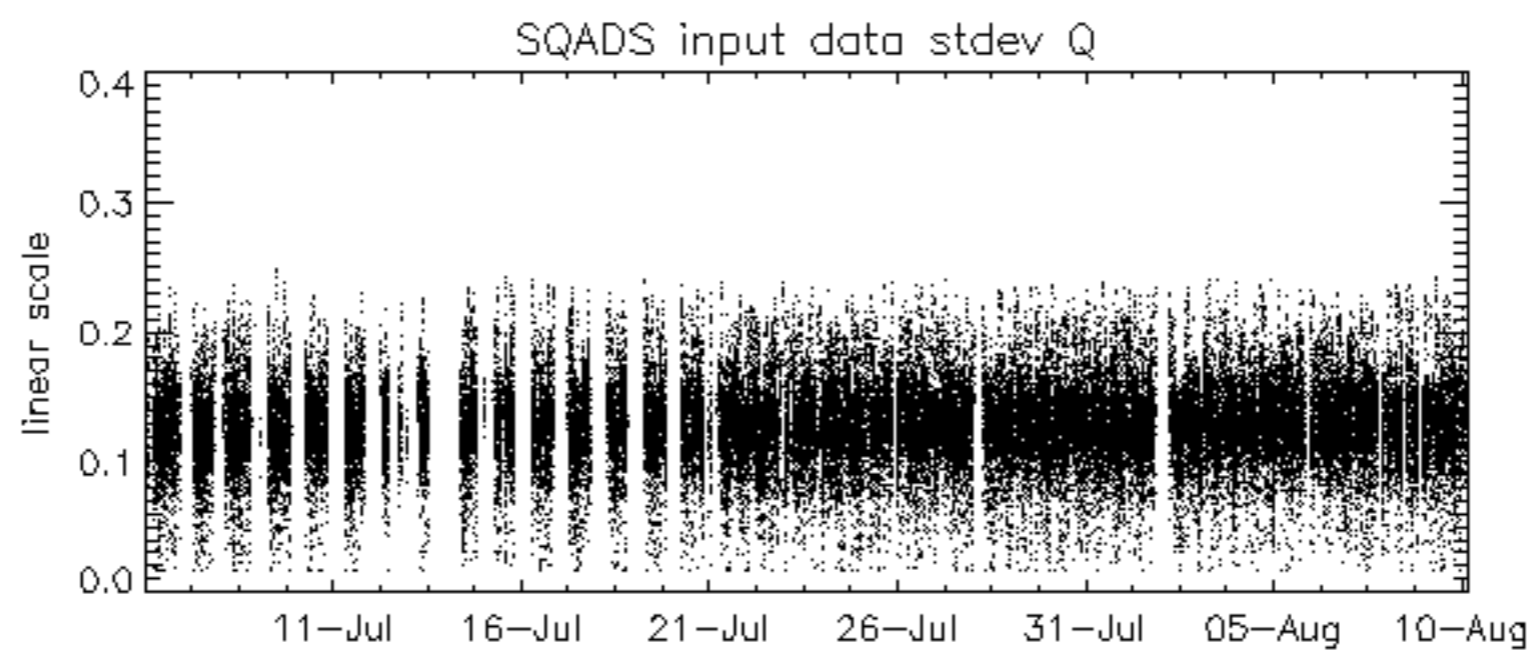
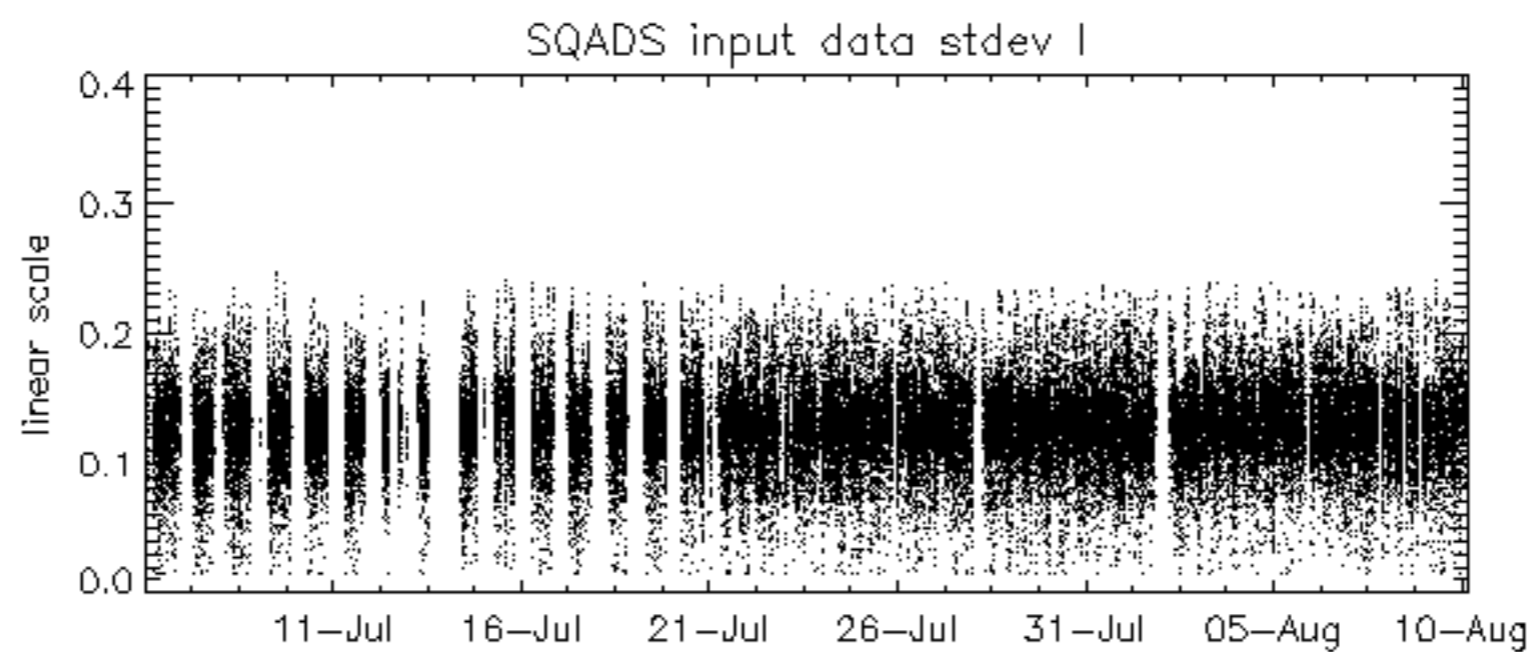
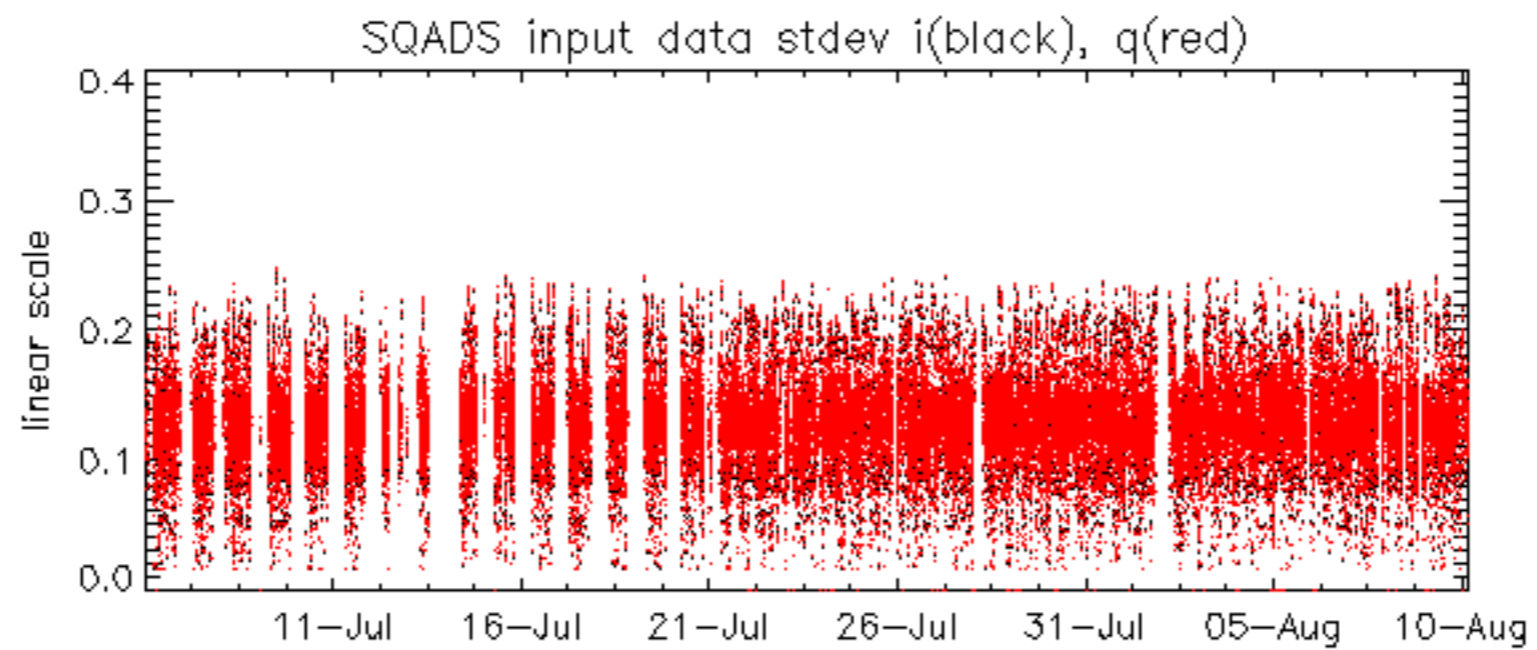
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

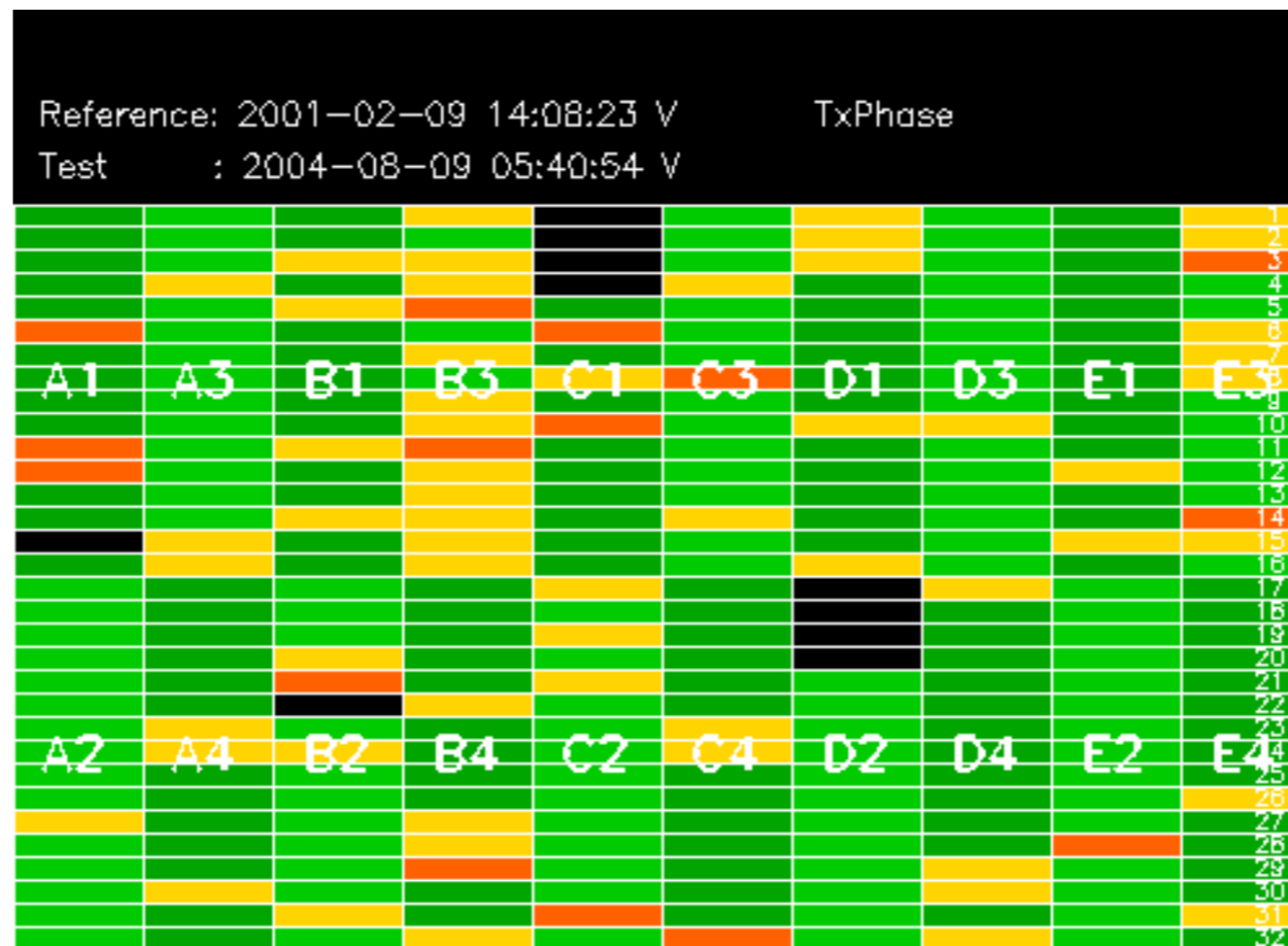
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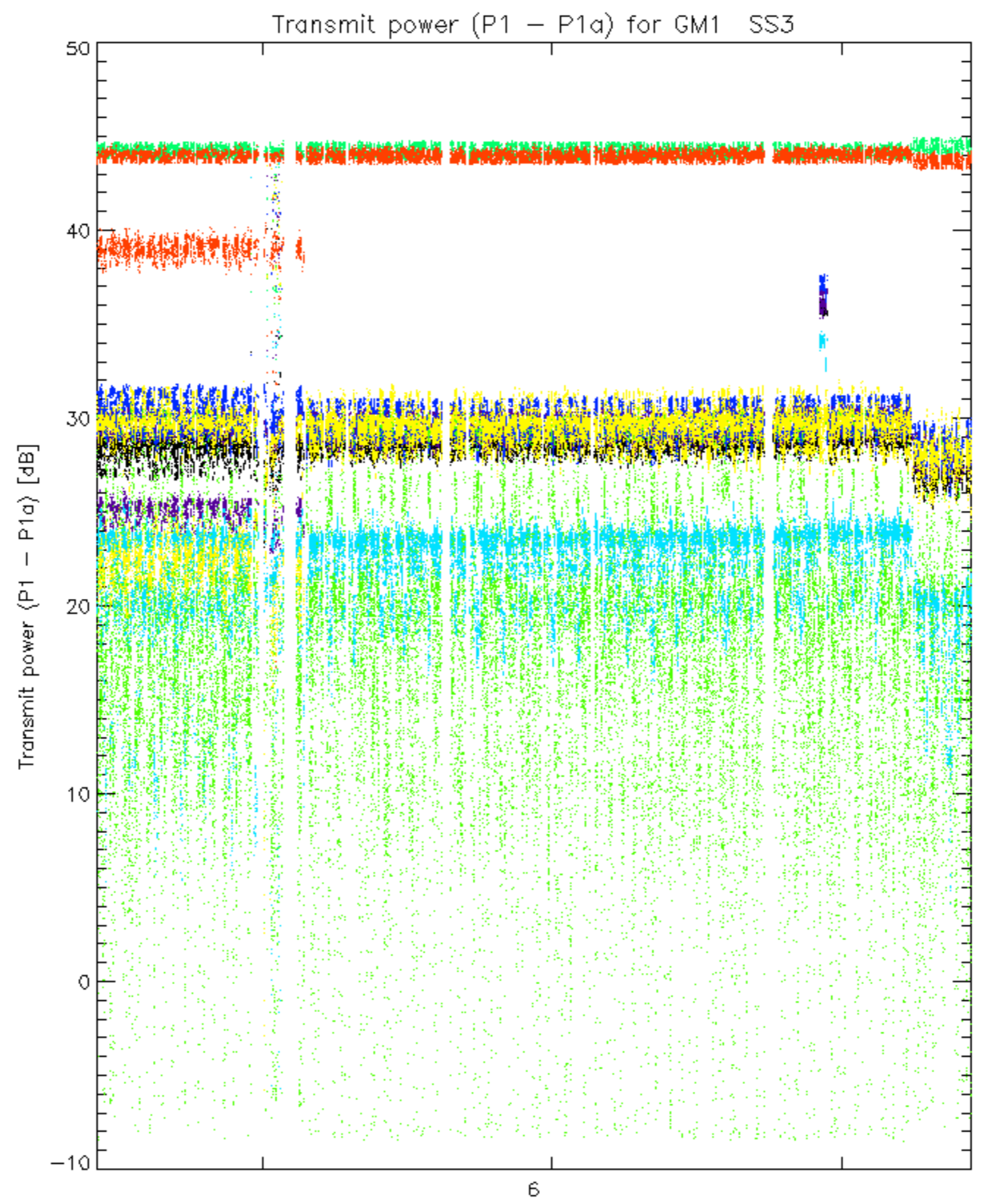
No anomalies observed.



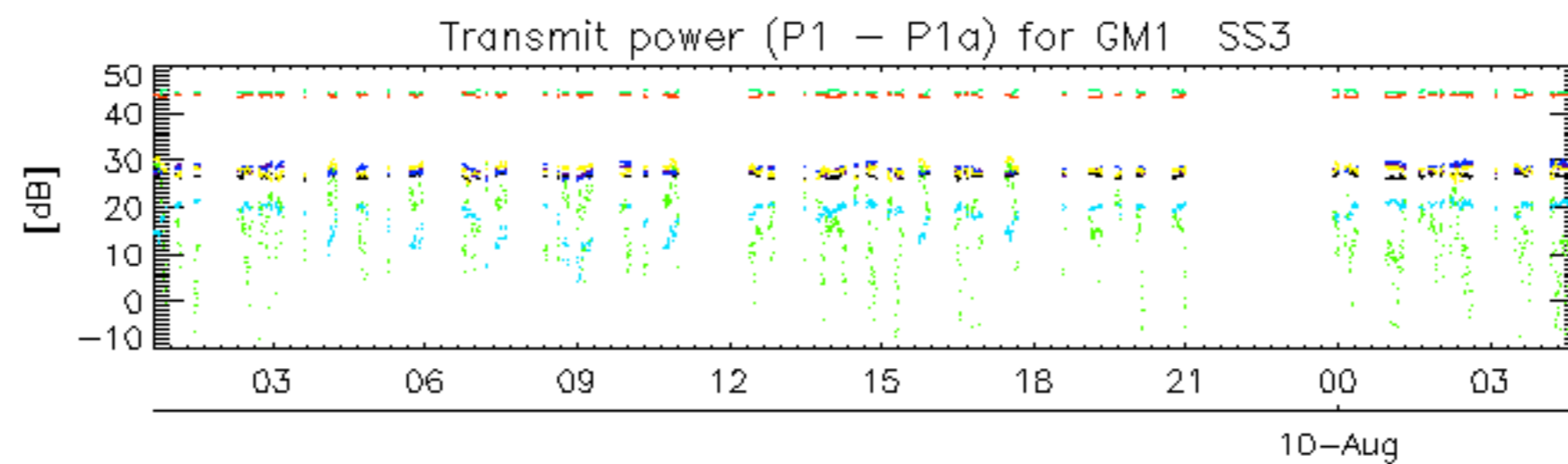




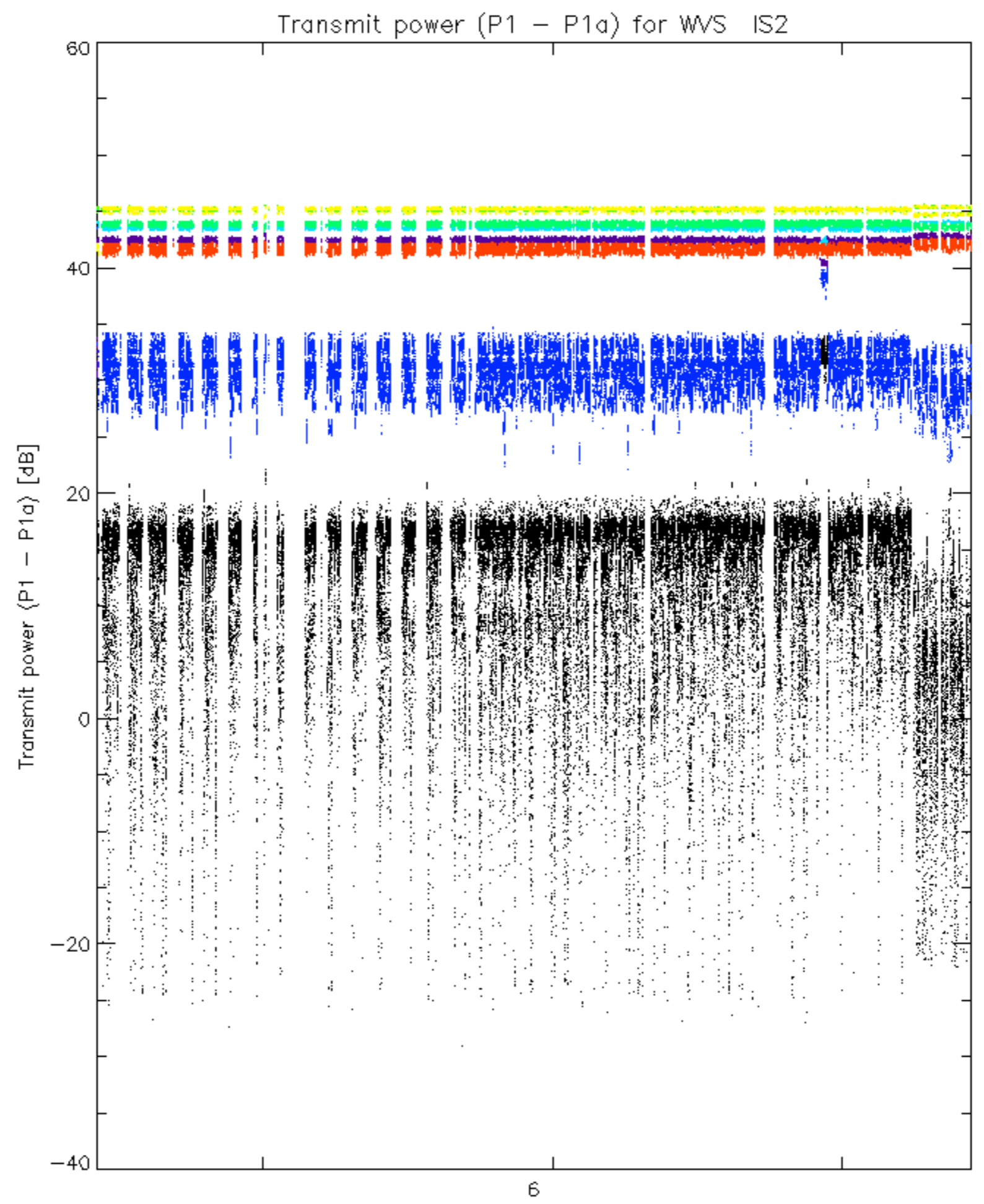


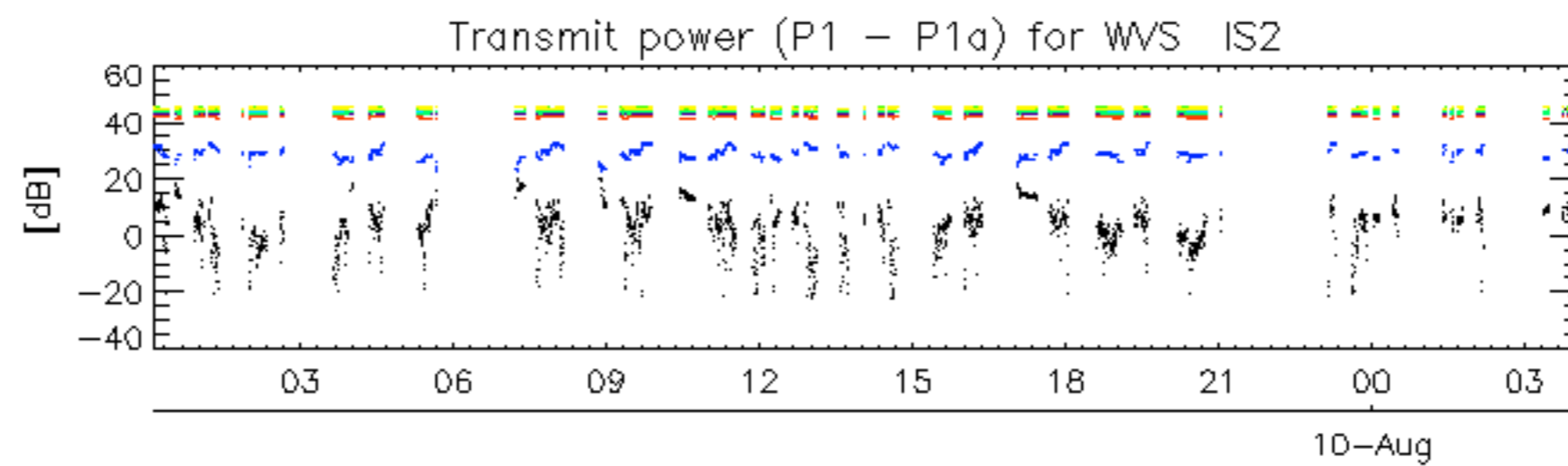


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30



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





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

No unavailabilities during the reported period.