

PRELIMINARY REPORT OF 060830

last update on Wed Aug 30 16:40:37 GMT 2006

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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 - Auxiliary files

Summary of the auxiliary files used from 2006-08-29 00:00:00 to 2006-08-30 16:40:37

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	63	7	4	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	63	7	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	63	7	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	63	7	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	55	22	19	79
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	31	55	22	19	79
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	55	22	19	79
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	55	22	19	79

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

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

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060829 042858
H	20060830 071833

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
☒	☒
☒	☒
☒	☒
☒	☒

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
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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	-3.941847	0.009935	0.006448
7	P1	-3.078681	0.051611	0.111711
11	P1	-4.084296	0.064341	0.070455
15	P1	-6.200904	0.094592	0.030557
19	P1	-3.464603	0.009313	-0.082607
22	P1	-4.561352	0.024654	0.016424
26	P1	-3.927451	0.019139	-0.026629
30	P1	-5.759391	0.025114	0.025623
3	P1	-16.545853	0.261499	-0.060944
7	P1	-16.855806	0.647100	0.764595
11	P1	-16.843382	0.305720	0.186259
15	P1	-12.973415	0.153801	0.133240
19	P1	-14.518781	0.051818	-0.082727
22	P1	-15.848340	0.549527	0.377781
26	P1	-15.163595	0.209488	-0.127957
30	P1	-17.014093	0.326845	0.187716

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.871147	0.083810	0.107576
7	P2	-21.861061	0.098866	-0.001141
11	P2	-15.753220	0.112690	0.040927
15	P2	-7.102714	0.097172	0.039126
19	P2	-9.115620	0.090854	0.023085
22	P2	-18.135965	0.085217	0.046824
26	P2	-16.397583	0.091694	0.011540
30	P2	-19.479427	0.090538	0.043304

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172338	0.003705	-0.001013
7	P3	-8.172338	0.003705	-0.001013
11	P3	-8.172338	0.003705	-0.001013
15	P3	-8.172338	0.003705	-0.001013
19	P3	-8.172338	0.003705	-0.001013
22	P3	-8.172338	0.003705	-0.001013
26	P3	-8.172391	0.003704	-0.001032
30	P3	-8.172391	0.003704	-0.001032

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	-3.832464	0.021349	-0.017695
7	P1	-2.496400	0.283847	0.287250
11	P1	-2.896779	0.141794	0.034400
15	P1	-3.651985	0.146909	-0.028921
19	P1	-3.428744	0.013448	-0.016820
22	P1	-5.080959	0.034217	0.011667
26	P1	-5.870047	0.024661	-0.014064
30	P1	-5.185450	0.038040	0.036518
3	P1	-11.628033	0.067765	-0.016112
7	P1	-9.917645	0.188173	0.152861
11	P1	-10.297282	0.083927	-0.074987
15	P1	-10.815780	0.175657	-0.157765
19	P1	-15.532550	0.088444	0.001299
22	P1	-20.870604	1.743468	0.336120

26	P1	-16.097563	0.413133	0.343217
30	P1	-17.970716	0.721127	0.040720

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.467527	0.083109	0.131933
7	P2	-22.255018	0.199290	0.172560
11	P2	-10.946255	0.056628	0.149878
15	P2	-4.879151	0.042994	0.050465
19	P2	-6.854272	0.040911	0.029099
22	P2	-8.178966	0.062861	0.046497
26	P2	-24.166904	0.127783	0.022235
30	P2	-21.969301	0.078579	0.044071

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013467	0.003749	-0.006814
7	P3	-8.013380	0.003752	-0.006780
11	P3	-8.013497	0.003751	-0.006387
15	P3	-8.013445	0.003756	-0.006449
19	P3	-8.013529	0.003768	-0.006875
22	P3	-8.013650	0.003742	-0.006607
26	P3	-8.013503	0.003739	-0.006928
30	P3	-8.013400	0.003751	-0.006427

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	0.000552352
	stdev	1.77519e-07
MEAN Q	mean	0.000531891
	stdev	2.15446e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136317
	stdev	0.00107672
STDEV Q	mean	0.136663
	stdev	0.00109300



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006082[890]

The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060820_013600_000001612050_00275_23375_3774.N1	1	0
ASA_IMM_1PNPDE20060829_003806_000000512050_00403_23503_4904.N1	1	0
ASA_IMM_1PNPDK20060829_083807_000000362050_00408_23508_1602.N1	0	5
ASA_GM1_1PNPDK20060828_091301_000006642050_00394_23494_3759.N1	0	13
ASA_WSM_1PNPDE20060820_231435_000000972050_00288_23388_8788.N1	0	56

ASA_WSM_1PNPDE20060828_171916_000001462050_00399_23499_9799.N1	0	63
ASA_WSM_1PNPDE20060829_183107_000002262050_00414_23514_9976.N1	0	21
ASA_WSM_1PNPDK20060828_121928_000000852050_00396_23496_4543.N1	0	60
ASA_WSM_1PNPDK20060828_135847_000000862050_00397_23497_4512.N1	0	69



7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

<input type="checkbox"/>

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

✕
Ascending
✕
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

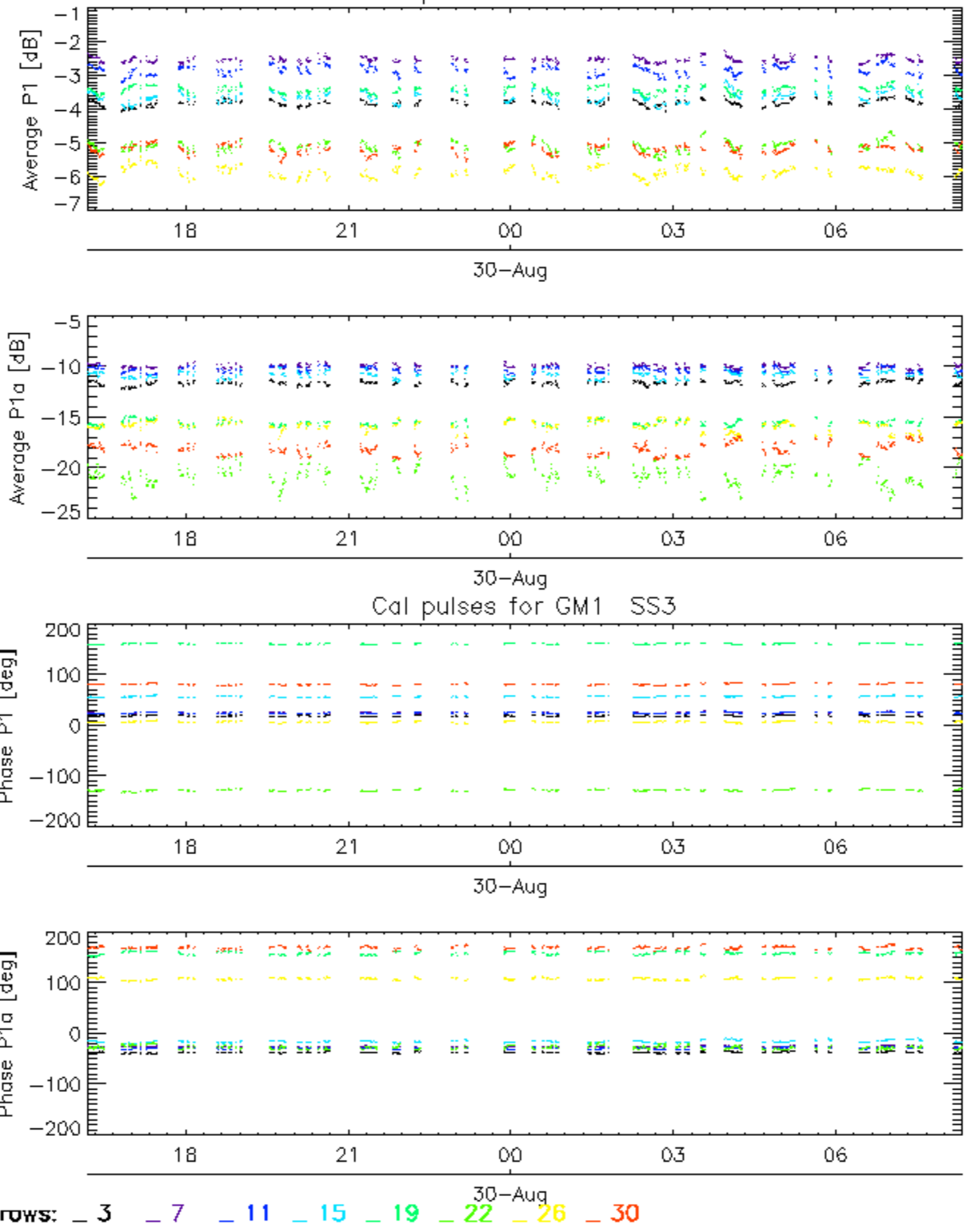
✕
Ascending
✕
Descending

7.6 - Doppler evolution versus ANX for GM1

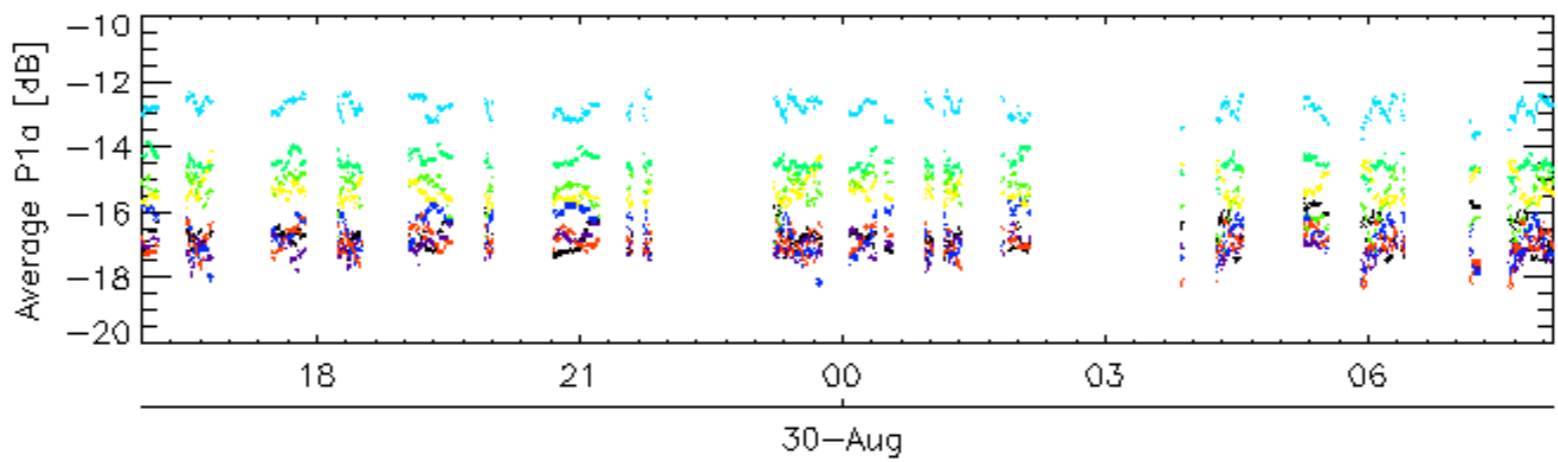
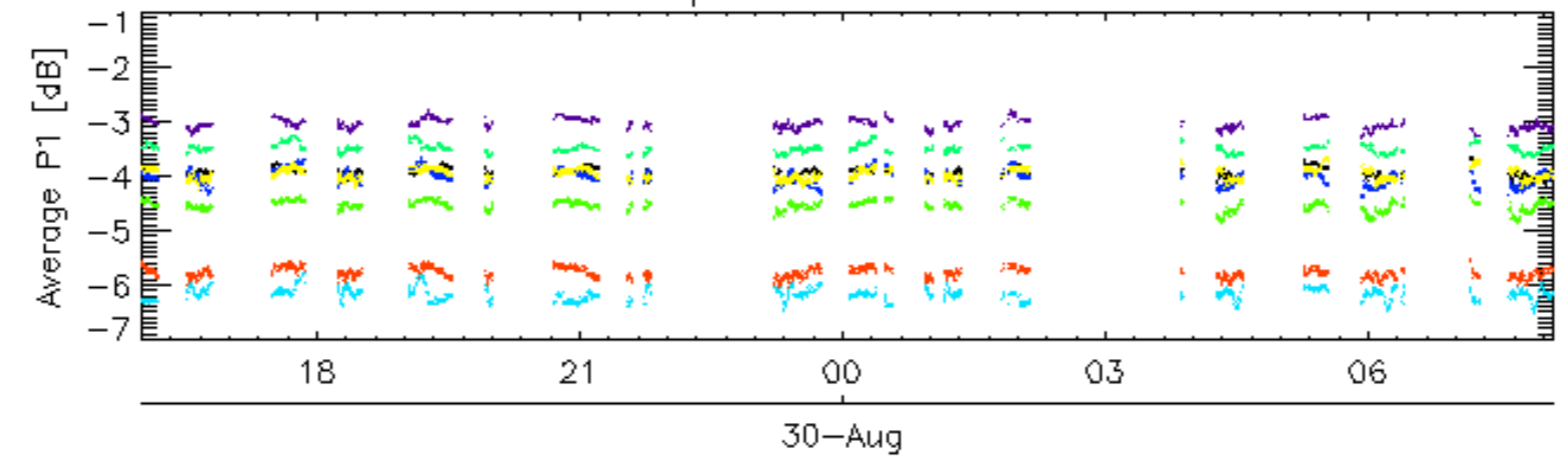
Evolution Doppler error versus ANX

✕

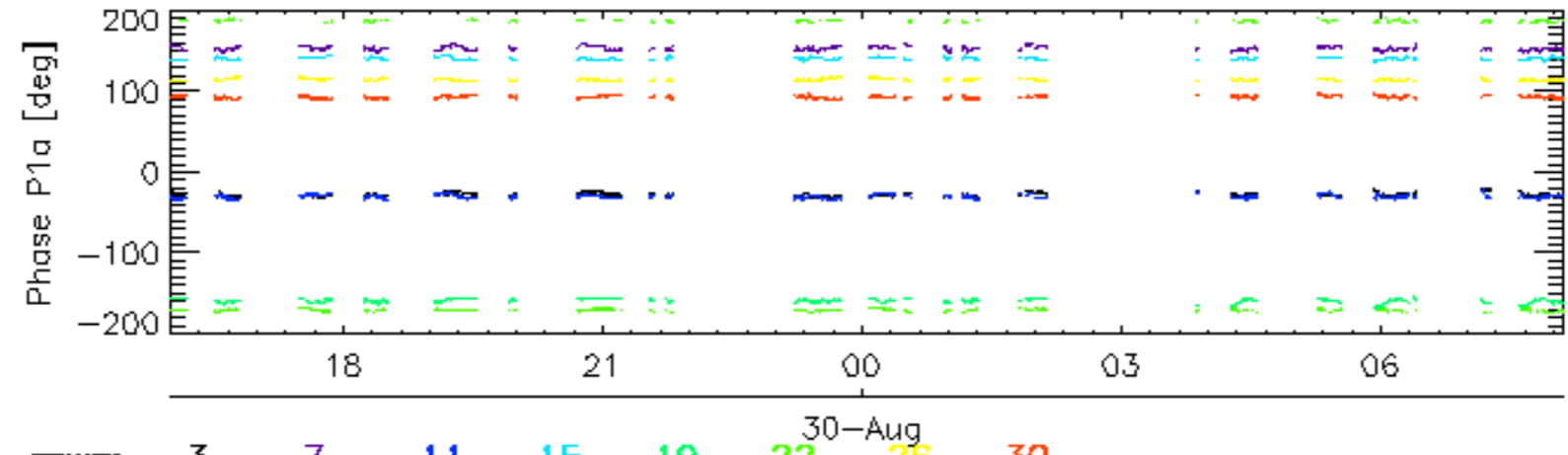
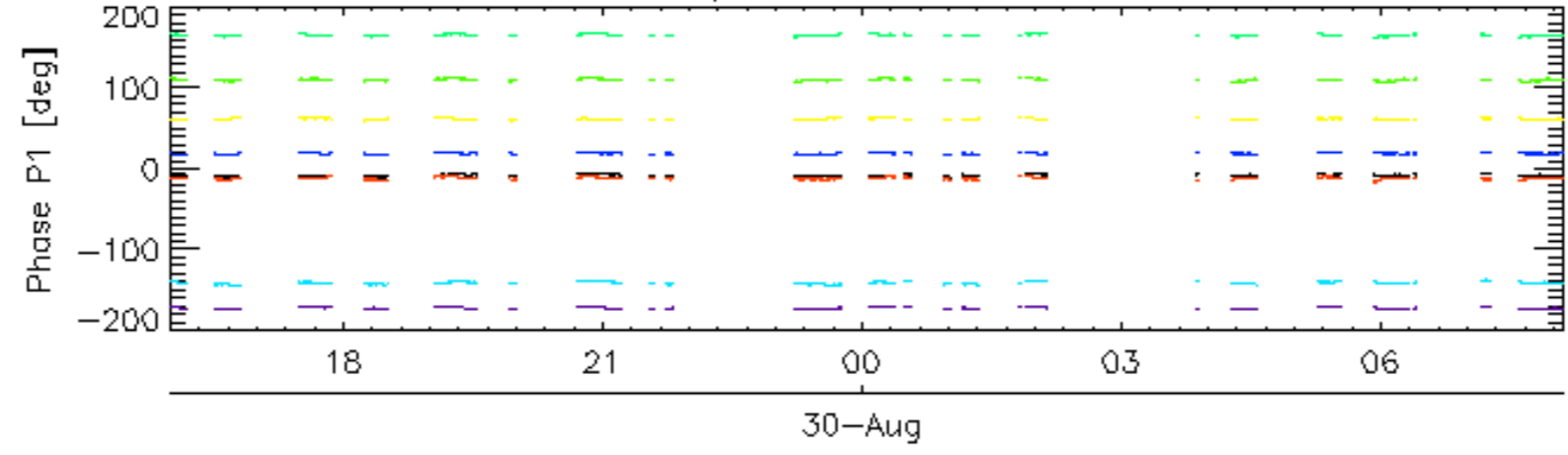
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

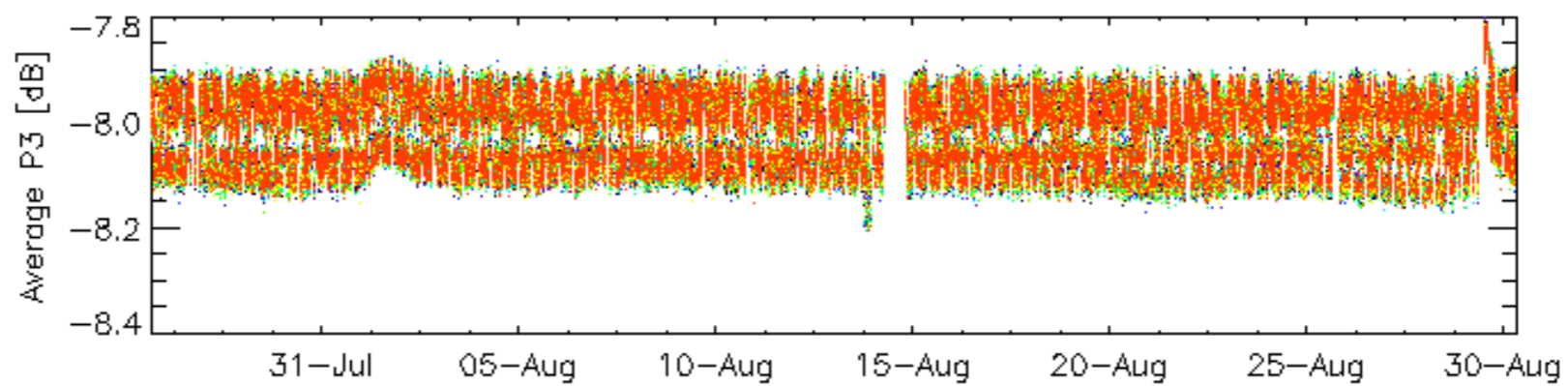
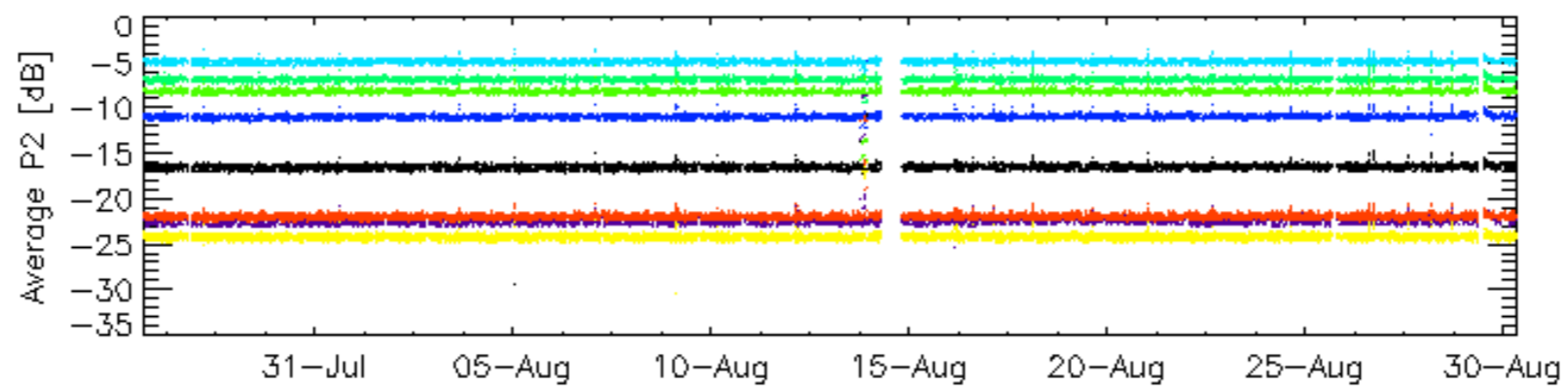
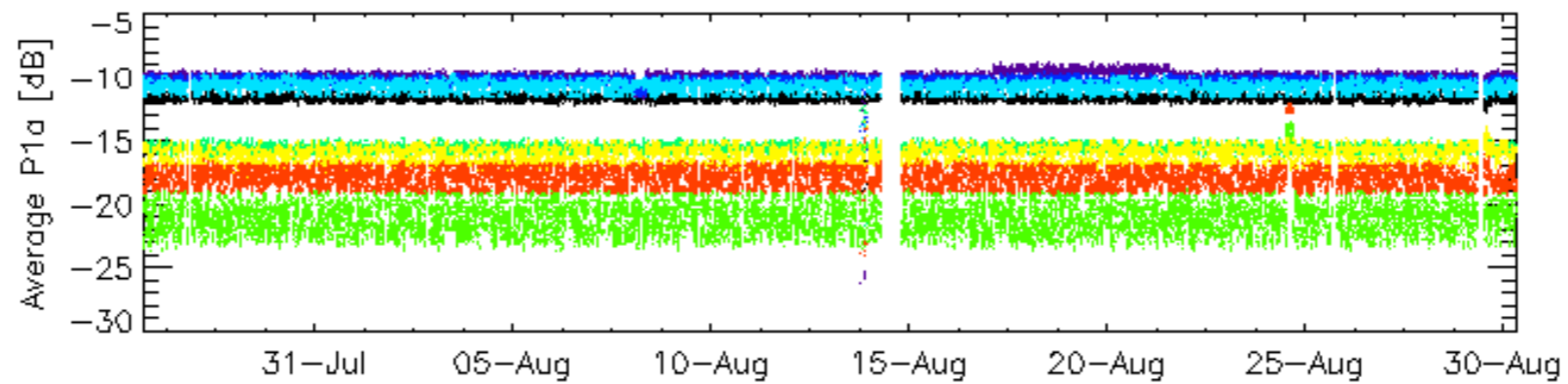
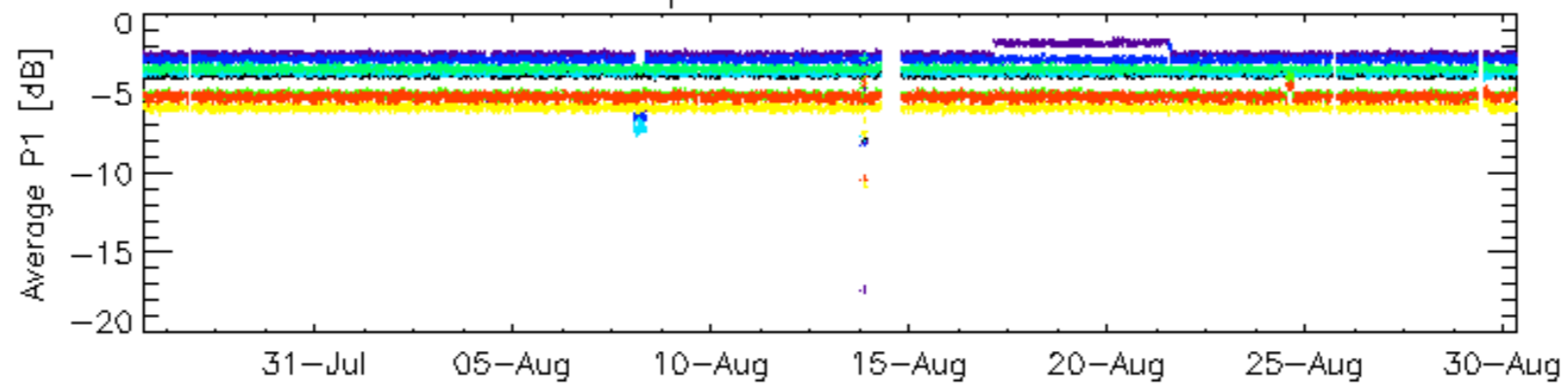


Cal pulses for WVS IS2



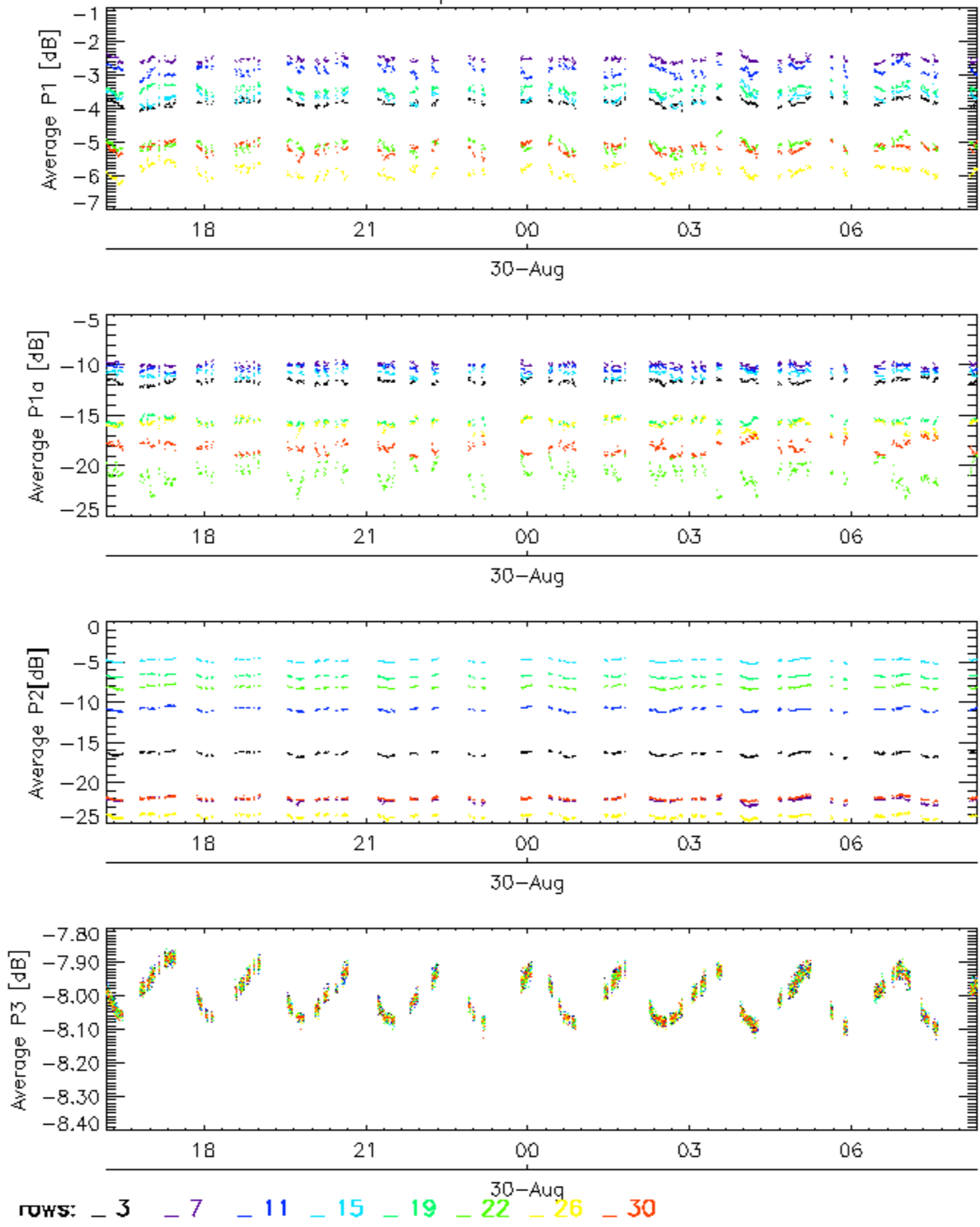
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

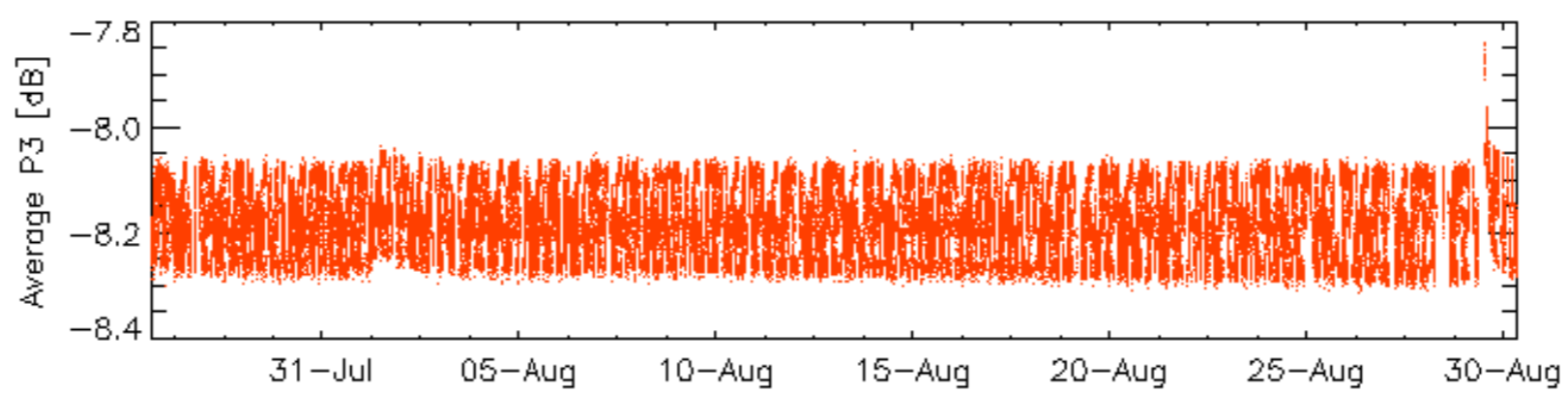
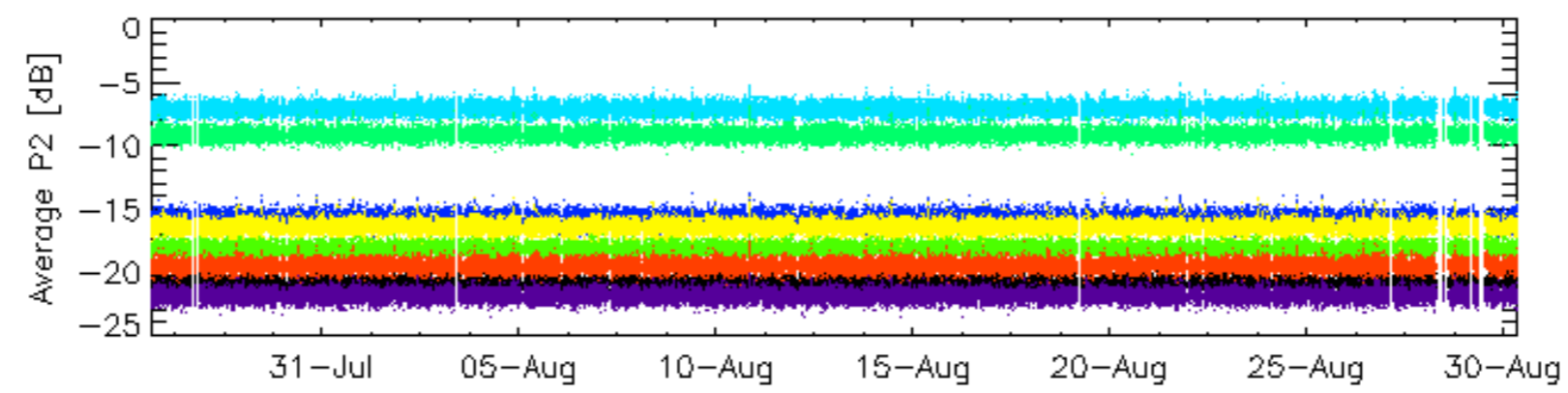
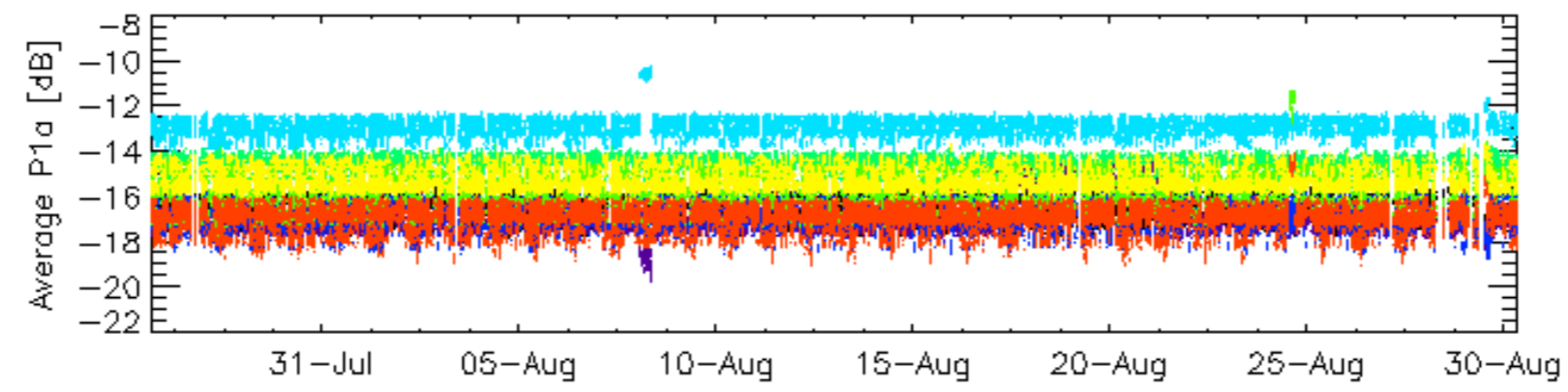
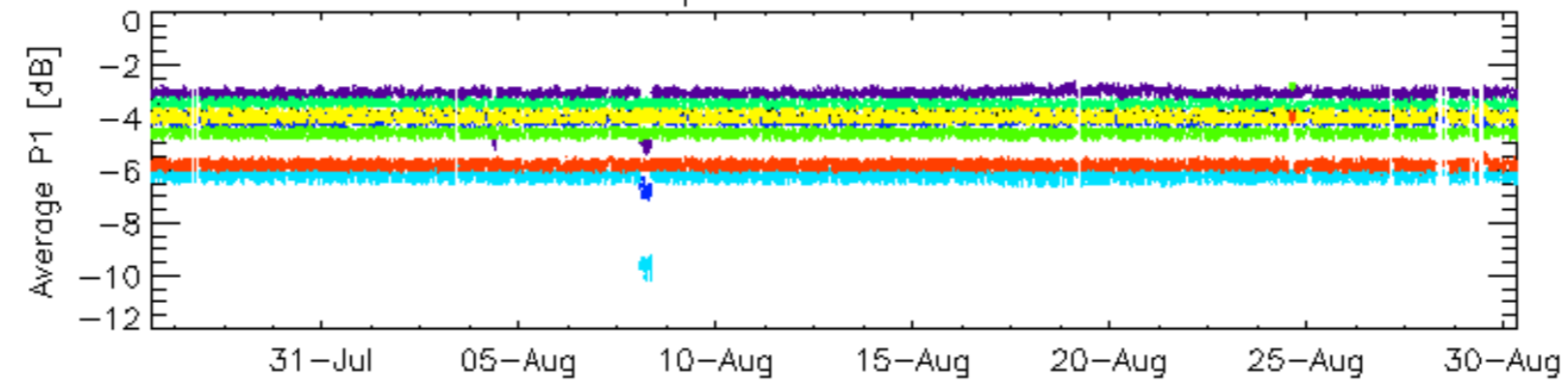


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

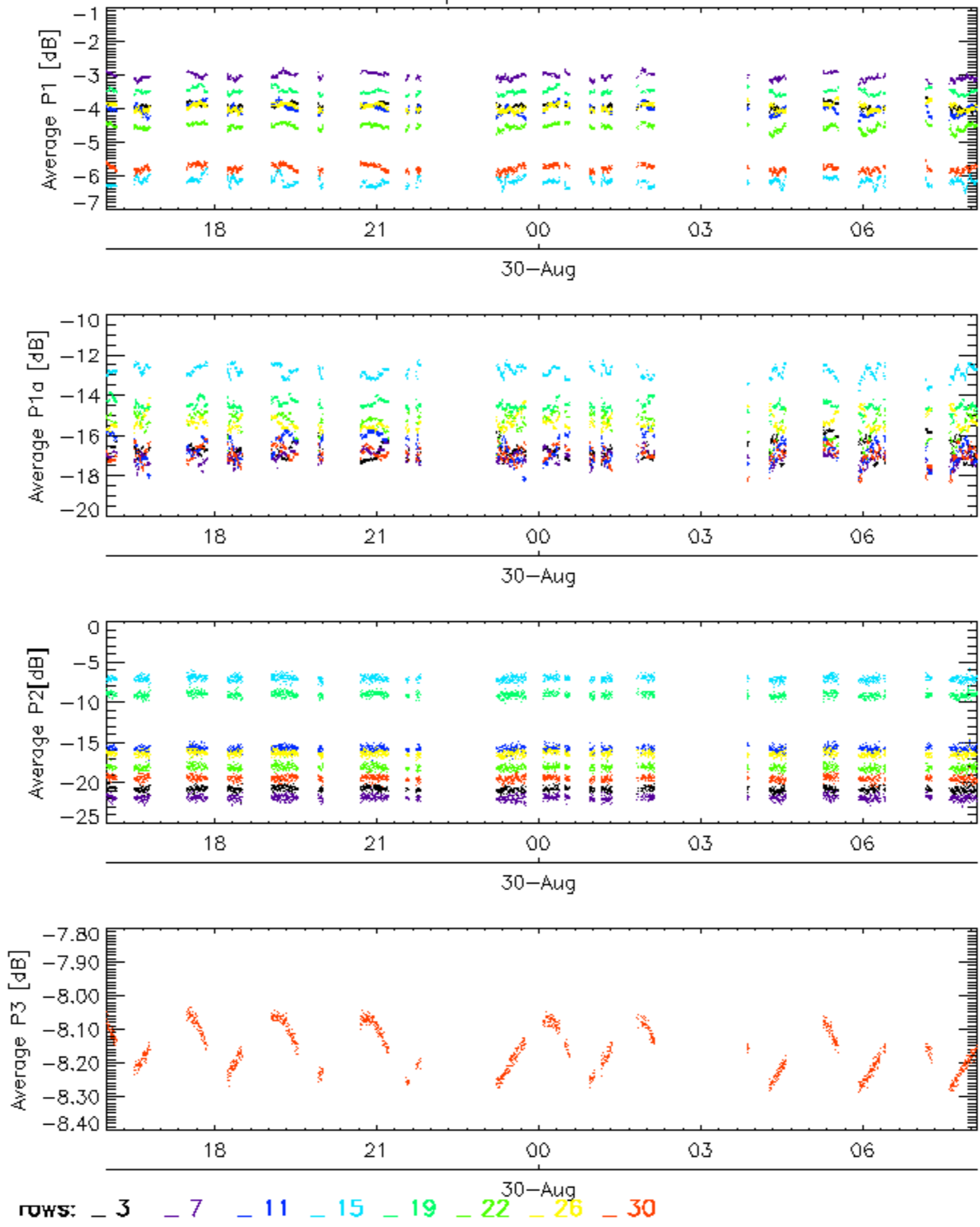


Cal pulses for WVS IS2



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

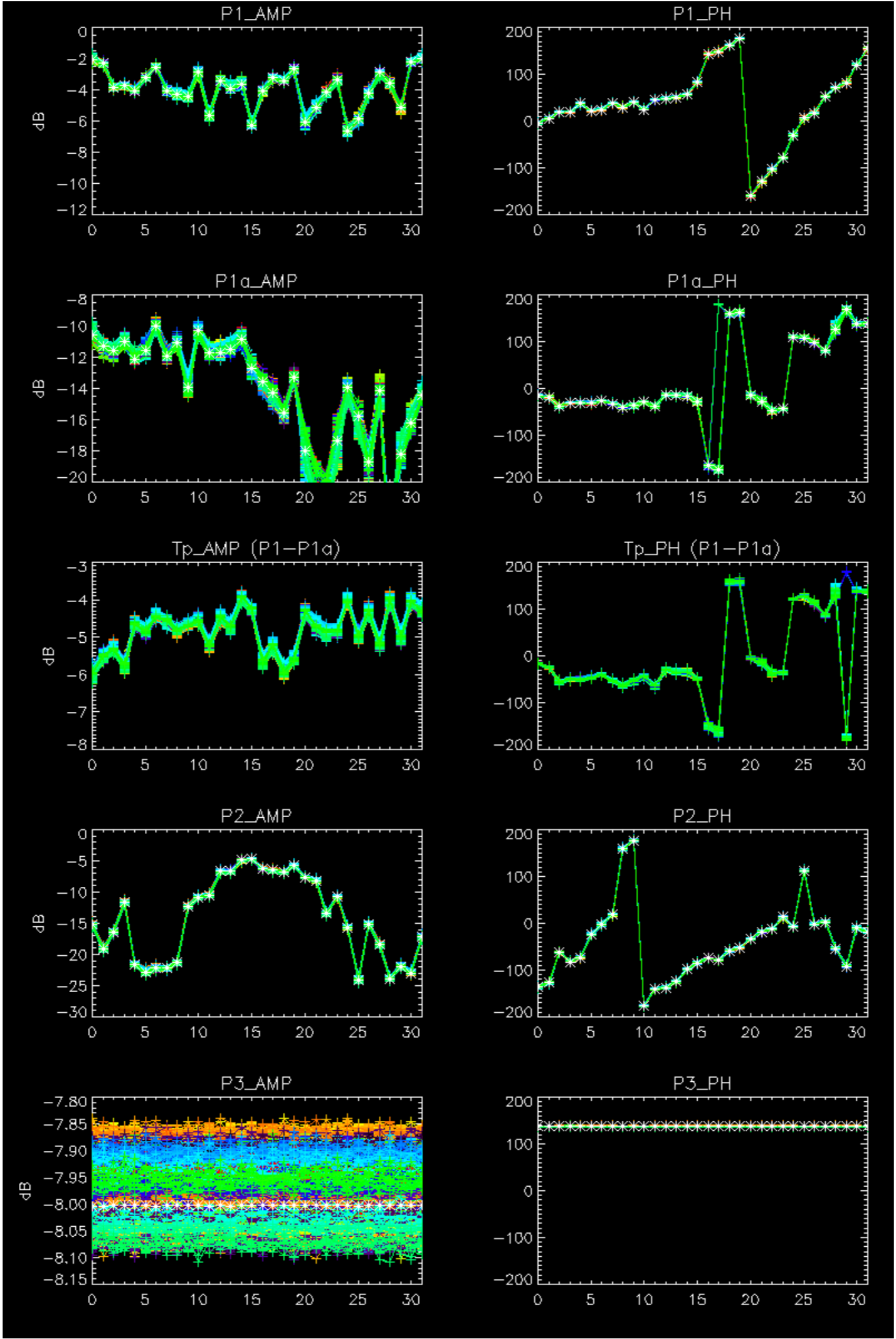
Cal pulses for WVS IS2

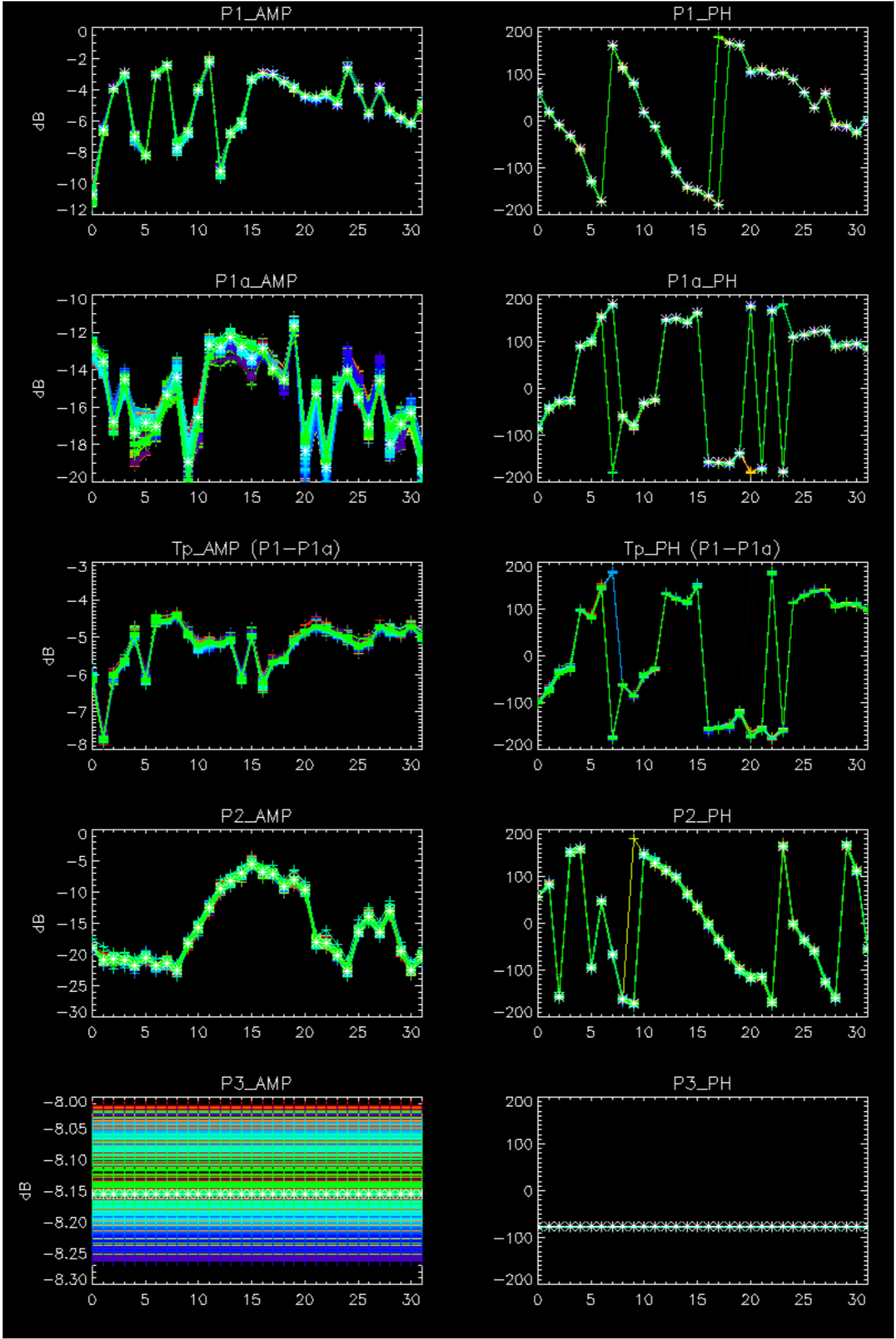


No anomalies observed on available browse products



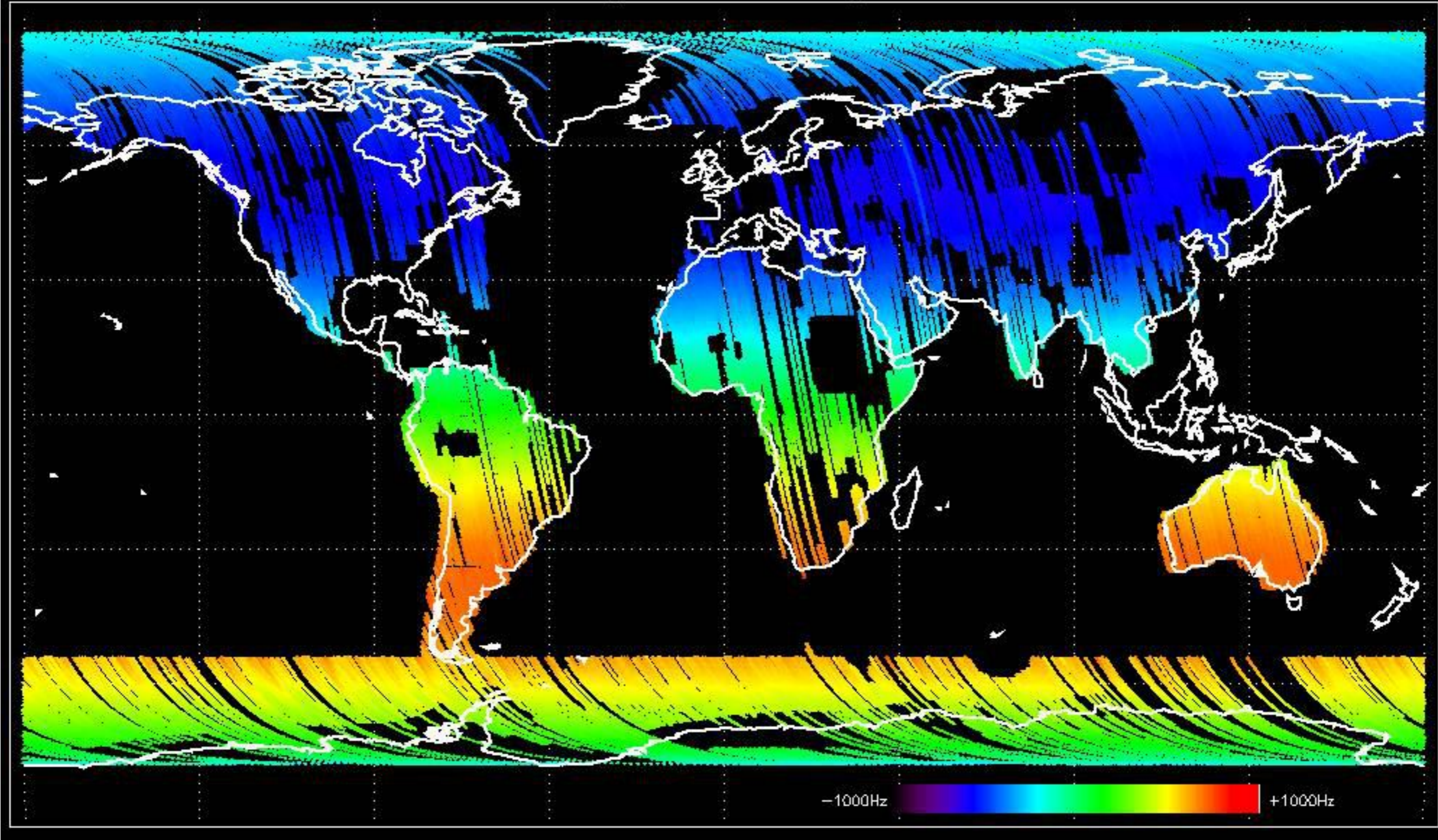
No anomalies observed.



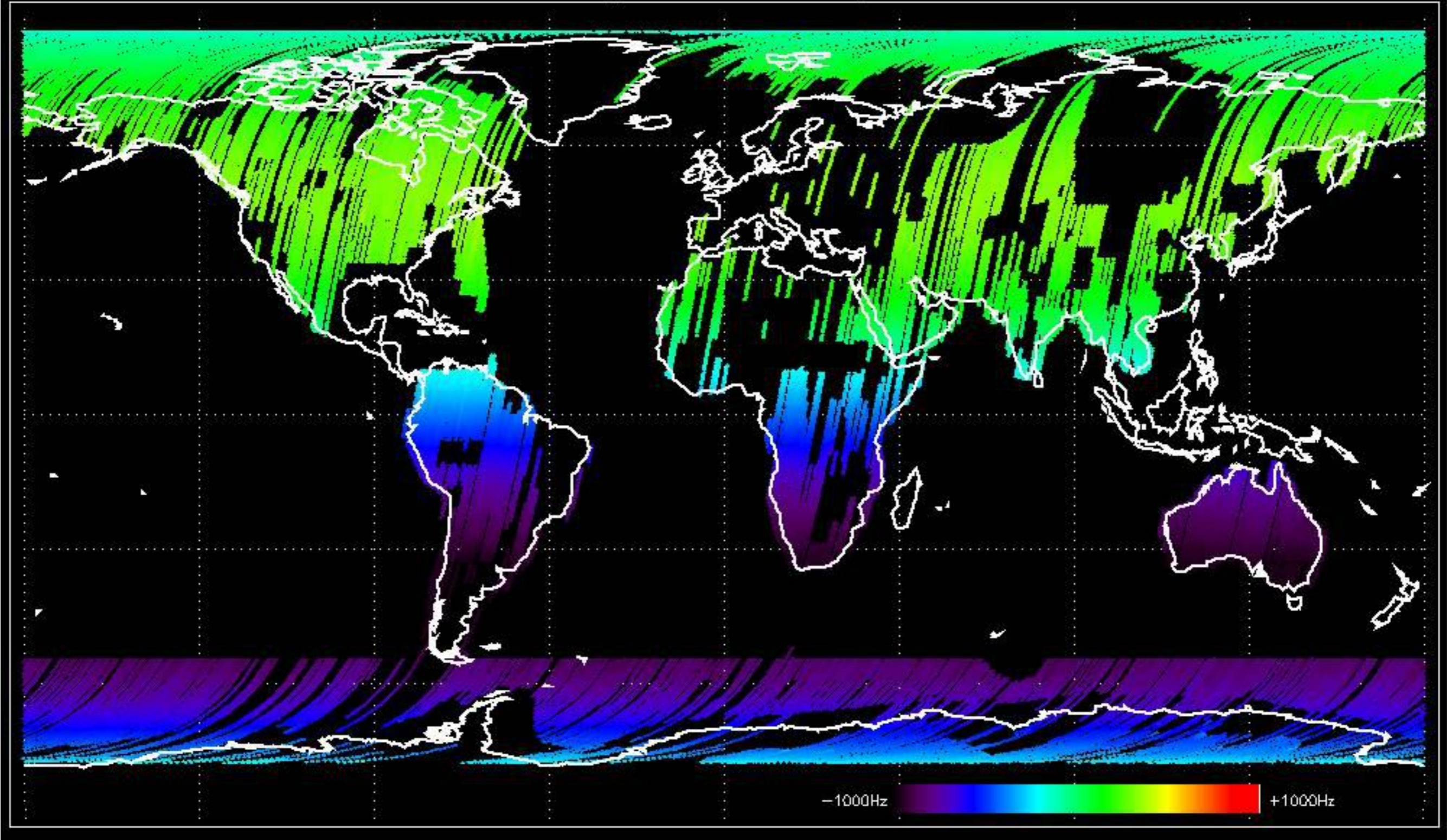


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

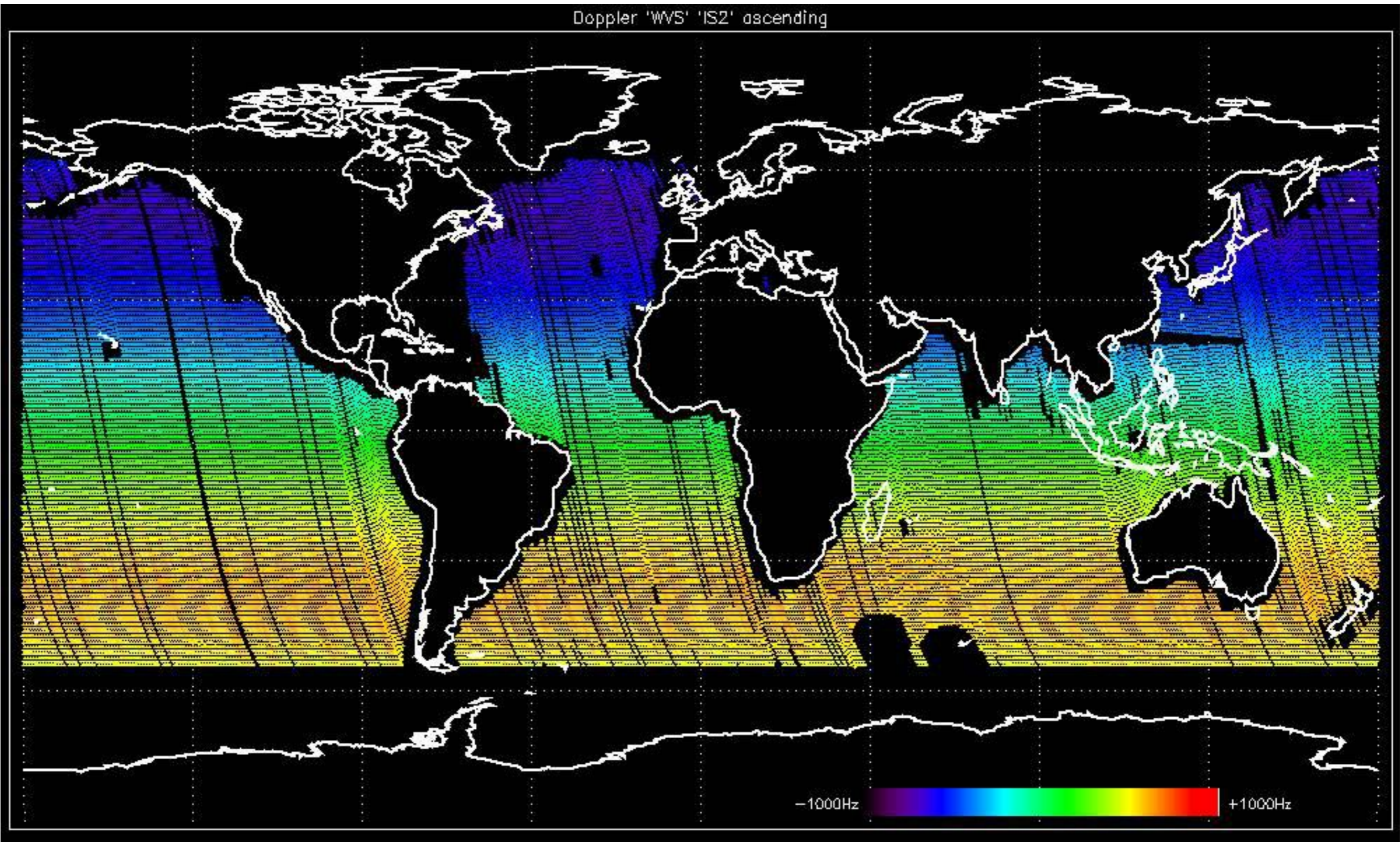
Doppler 'GM1' 'SS1' ascending



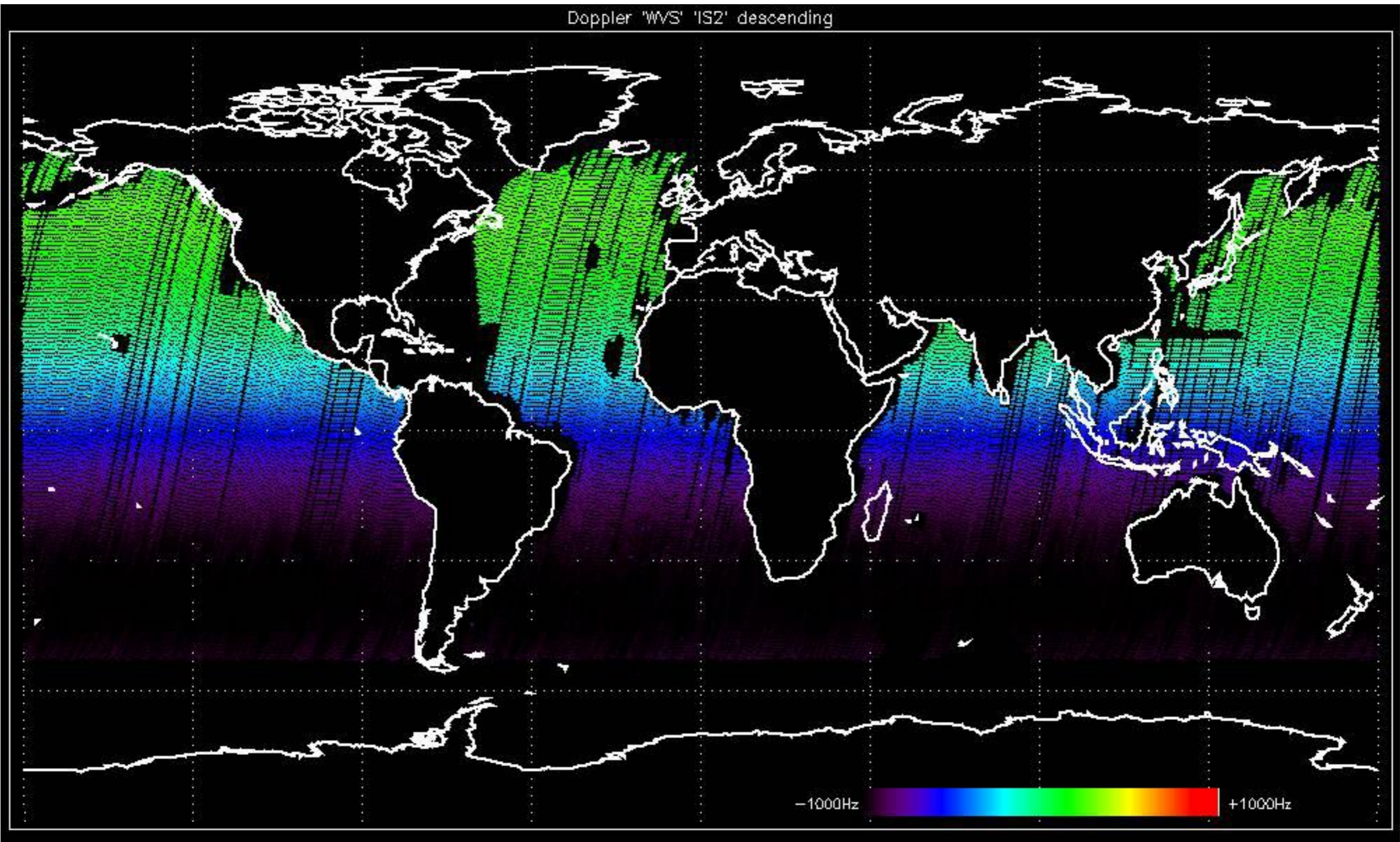
Doppler 'GM1' 'SS1' descending



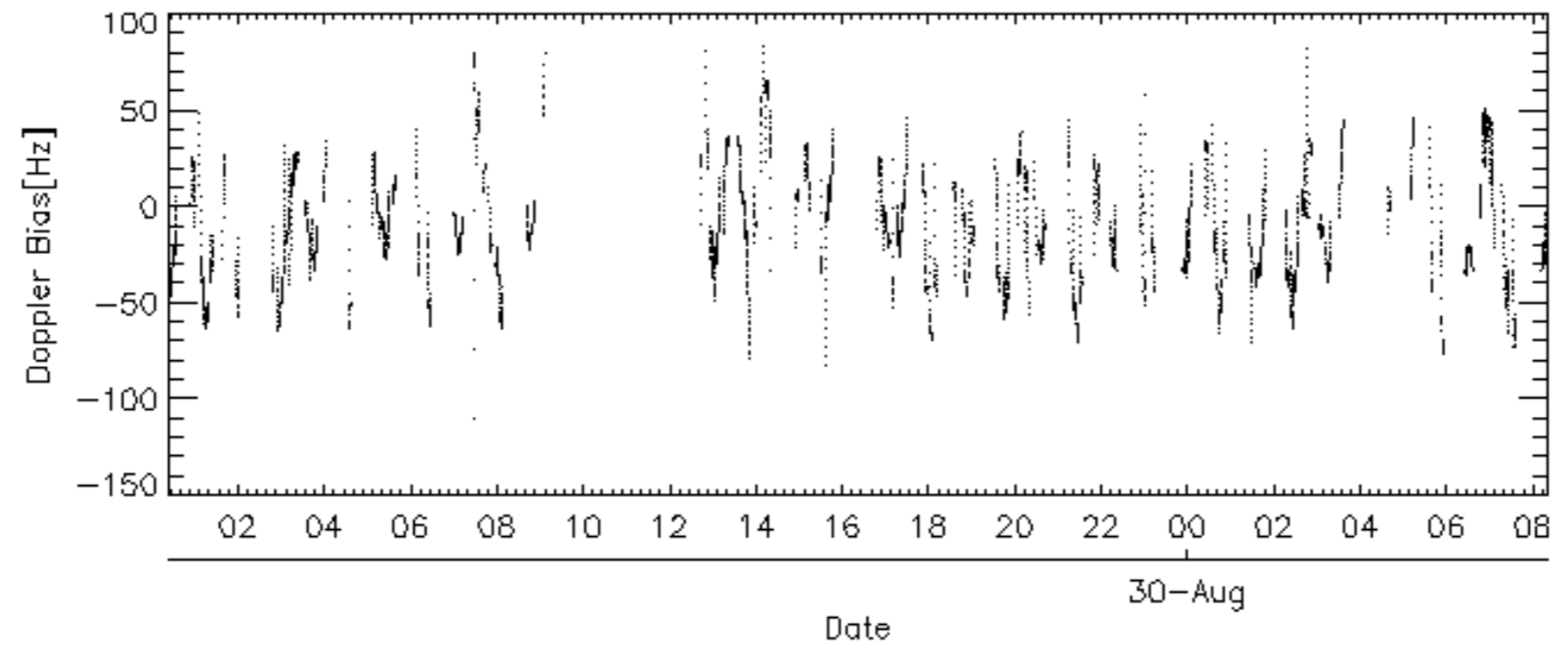
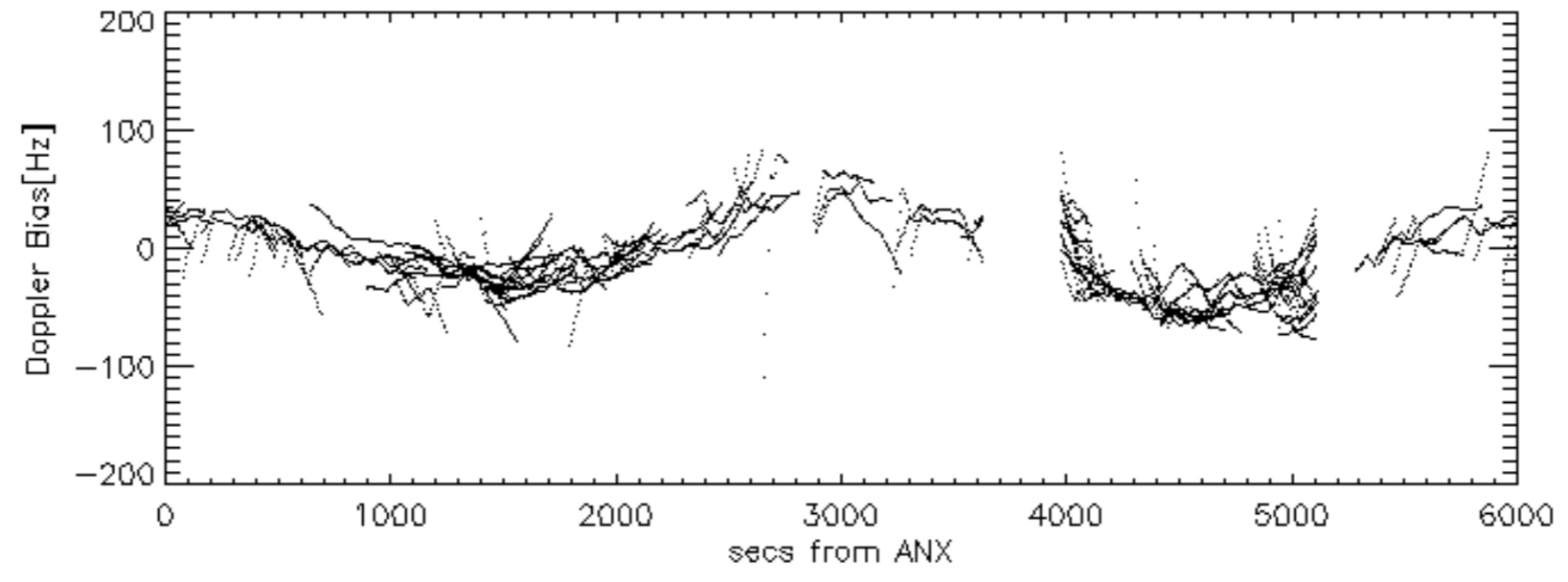
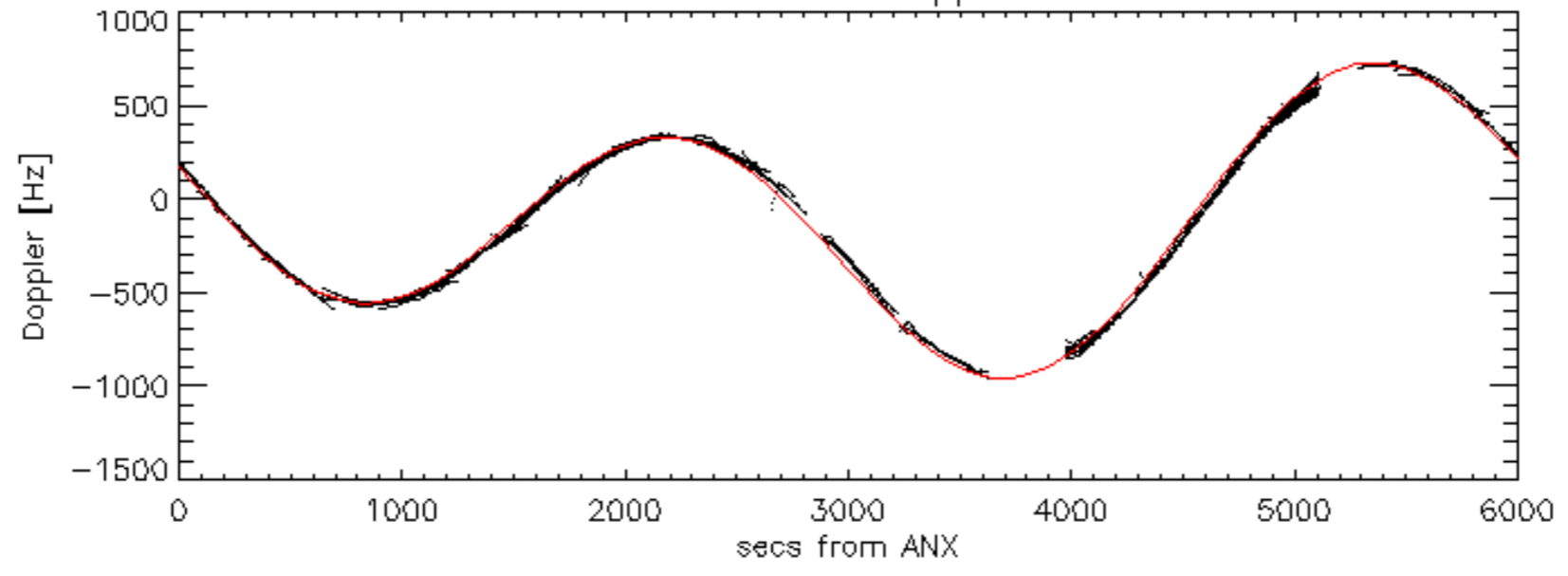
Doppler 'WVS' 'IS2' ascending

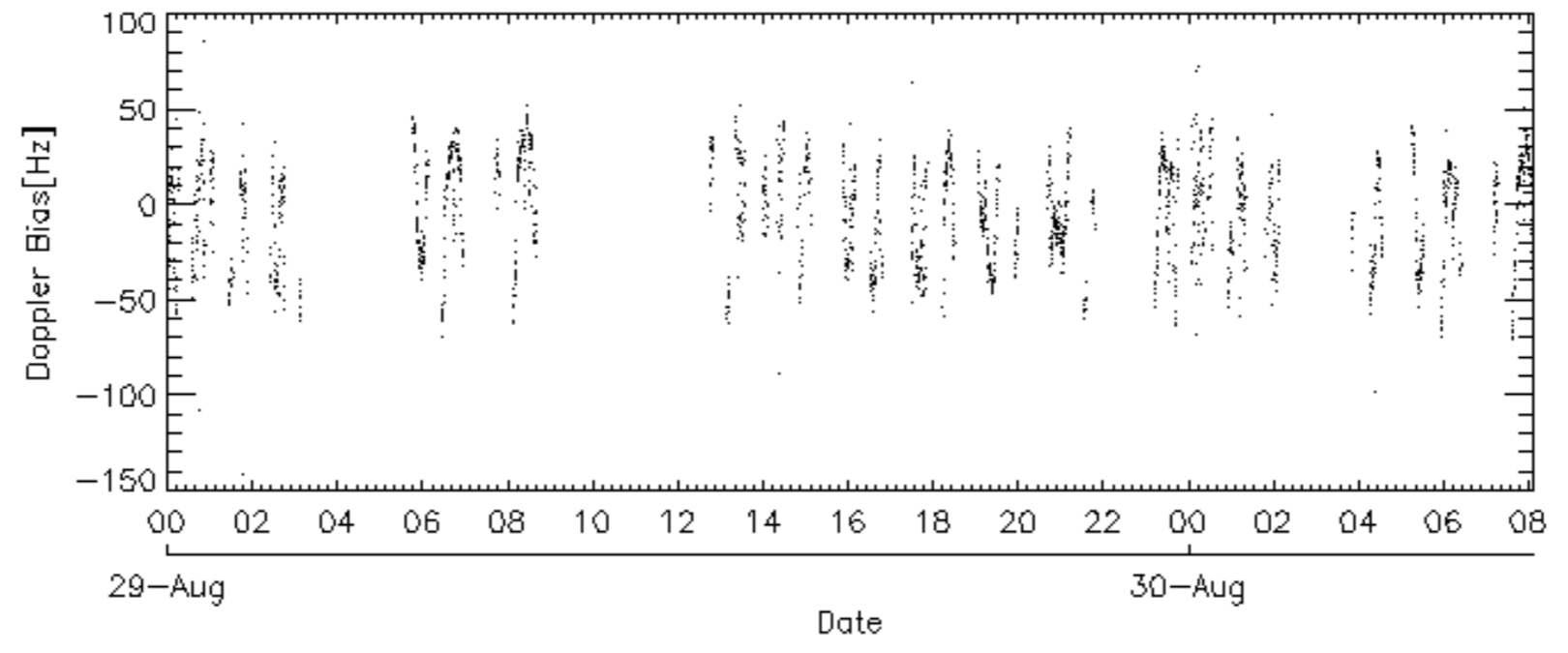
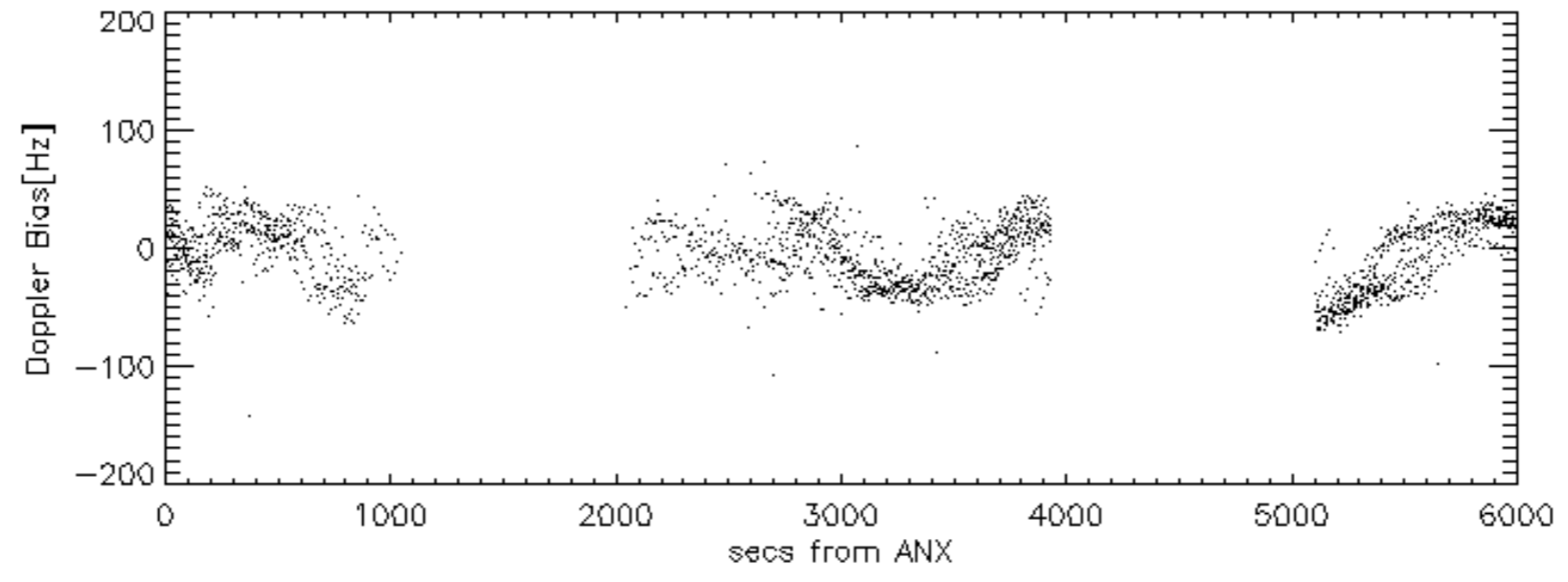
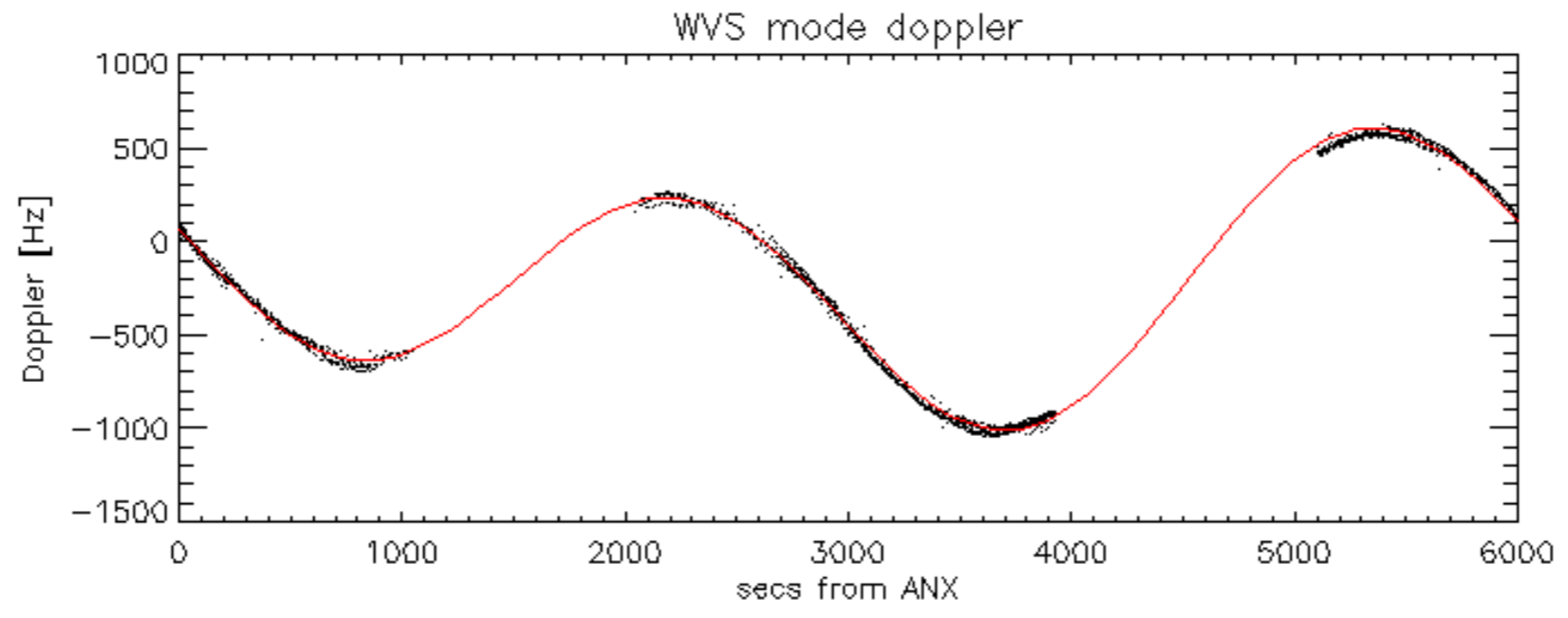


Doppler 'WVS' 'IS2' descending

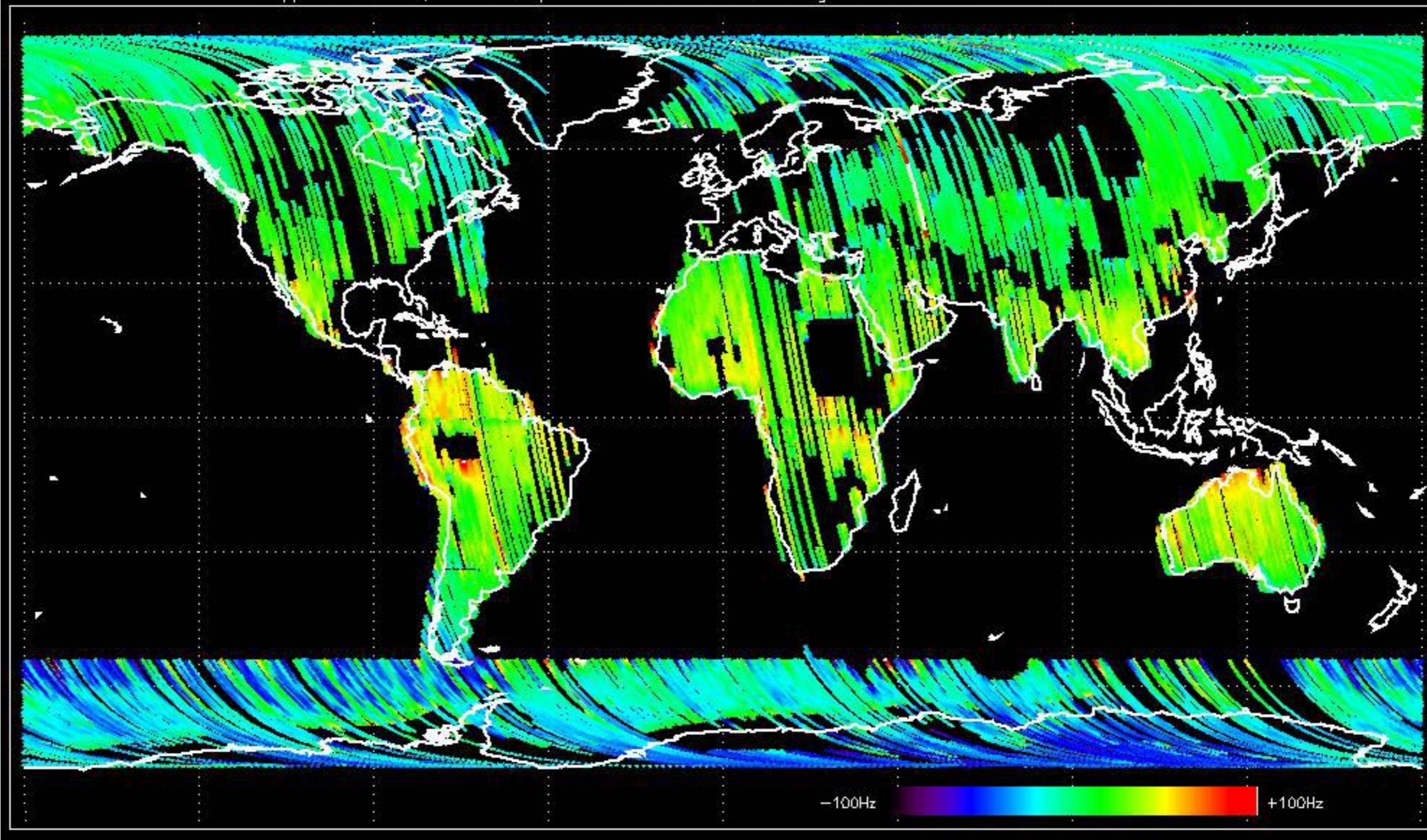


GM1 mode doppler

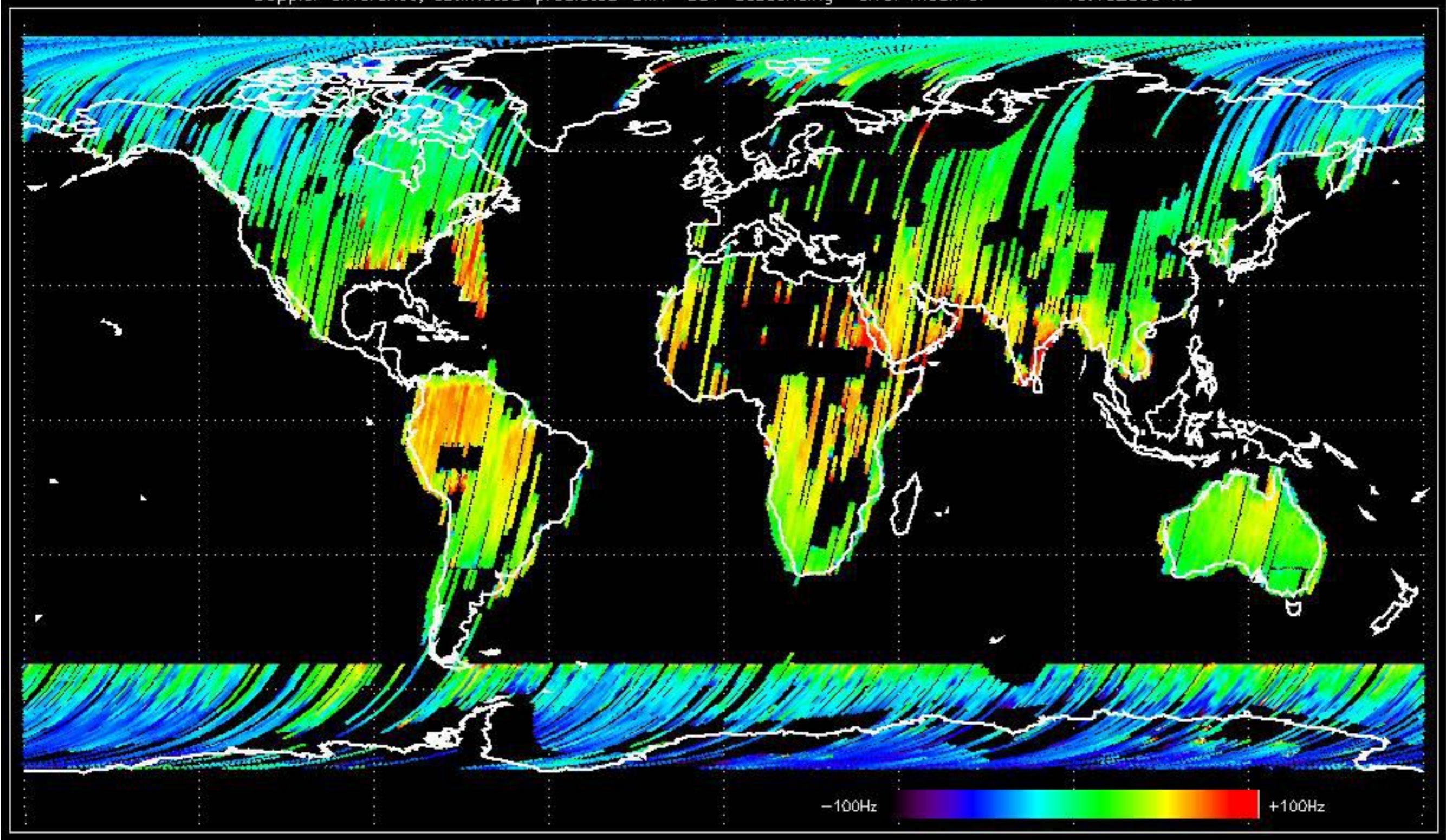




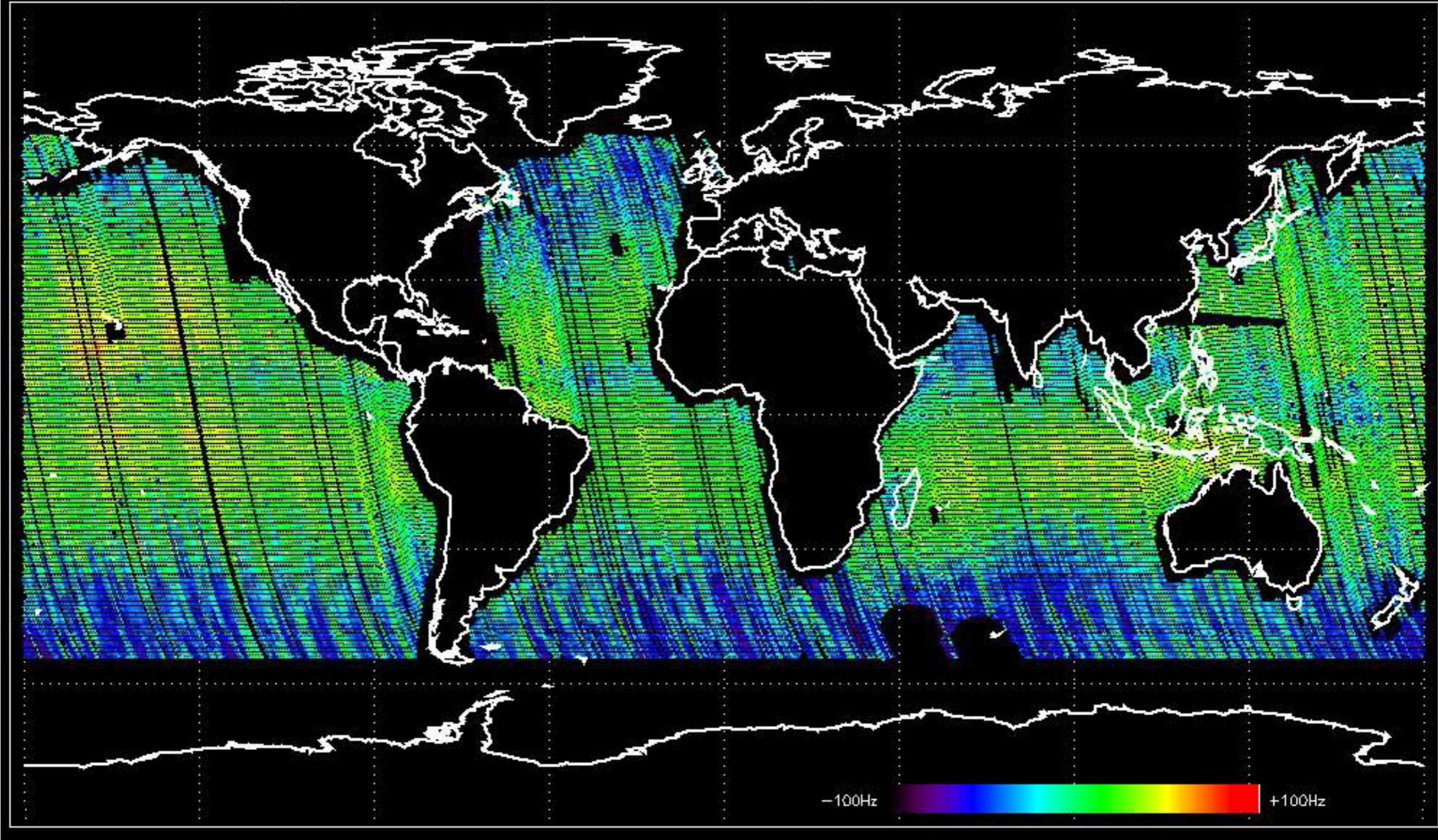
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.910422 Hz



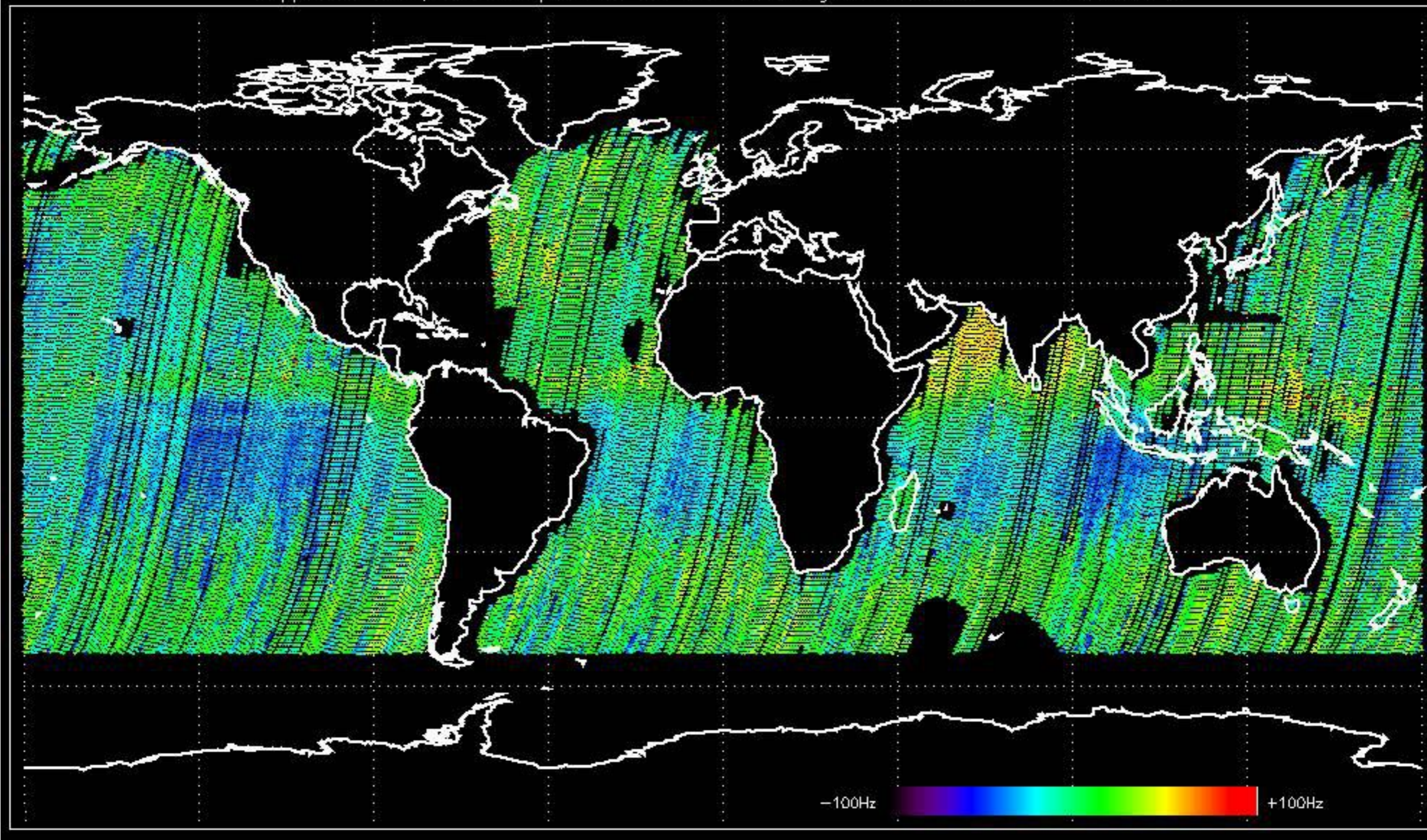
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.102899 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -4.0094741 Hz

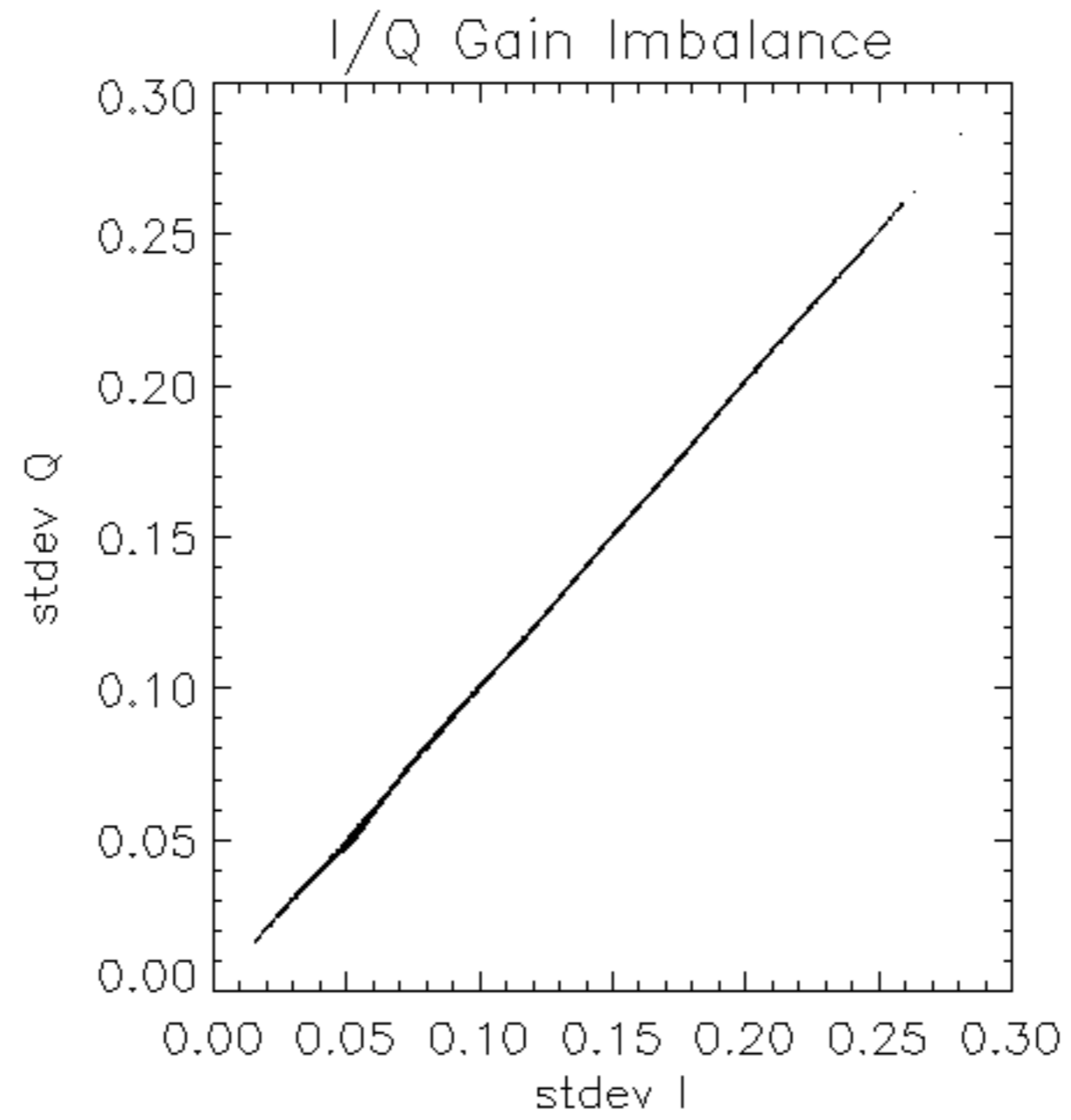


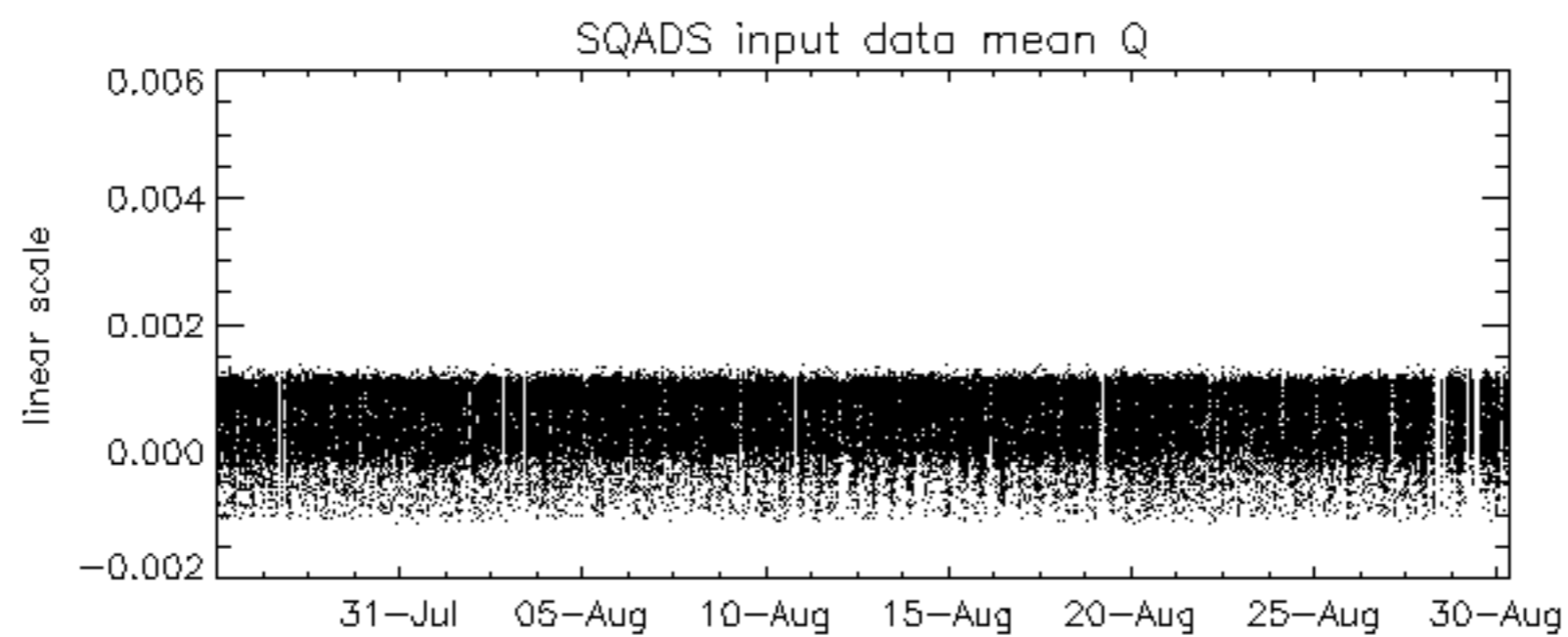
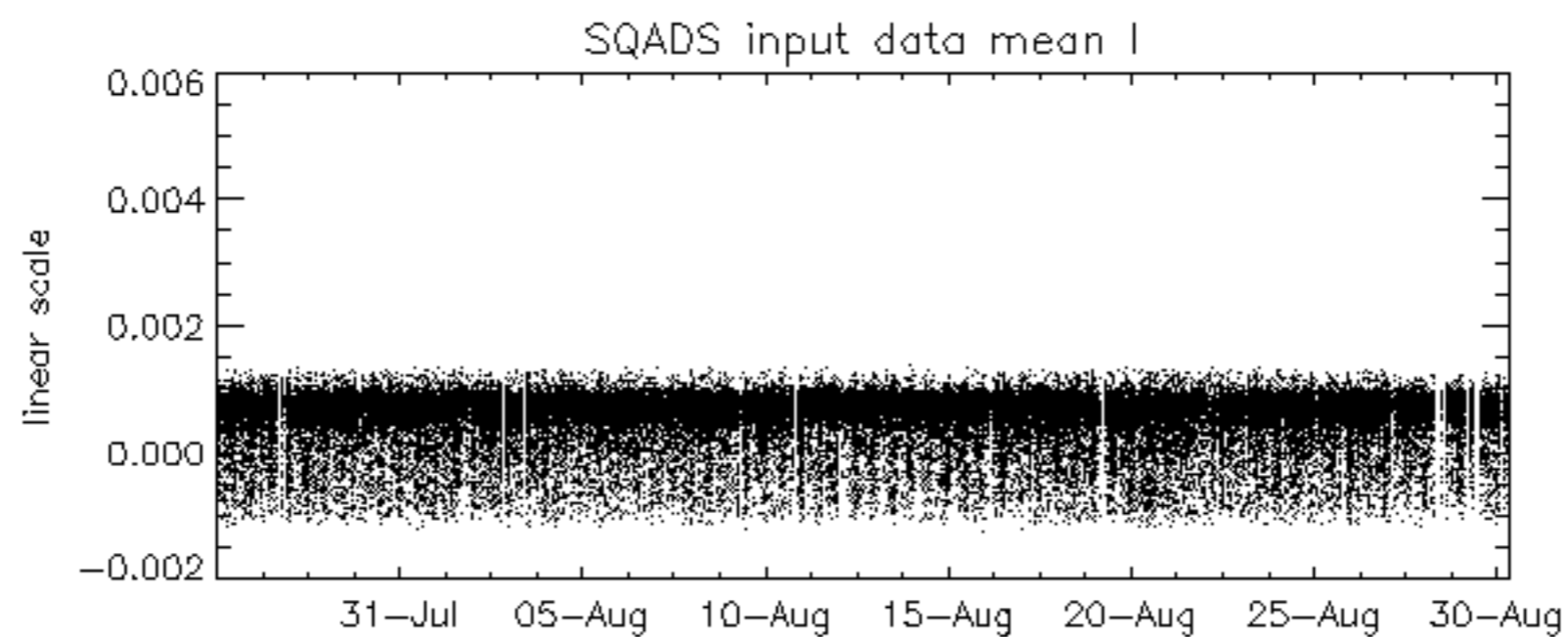
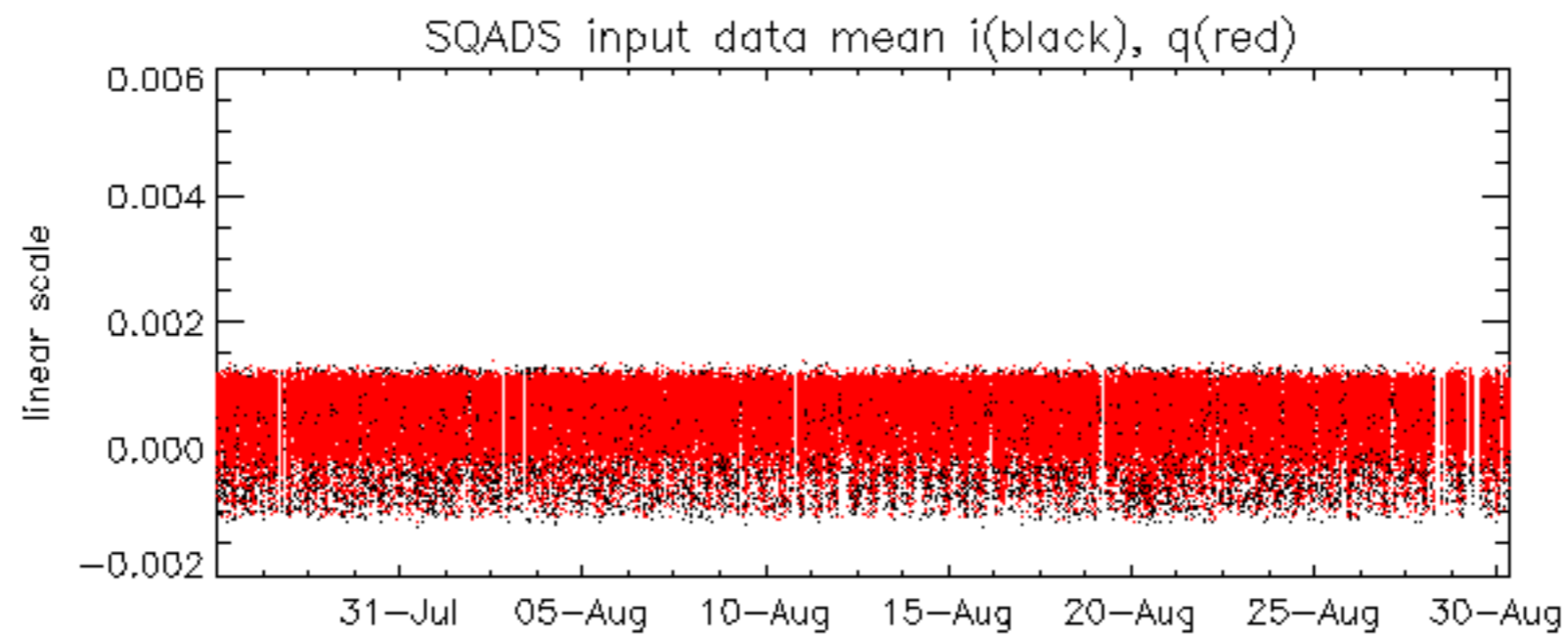
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4401564 Hz

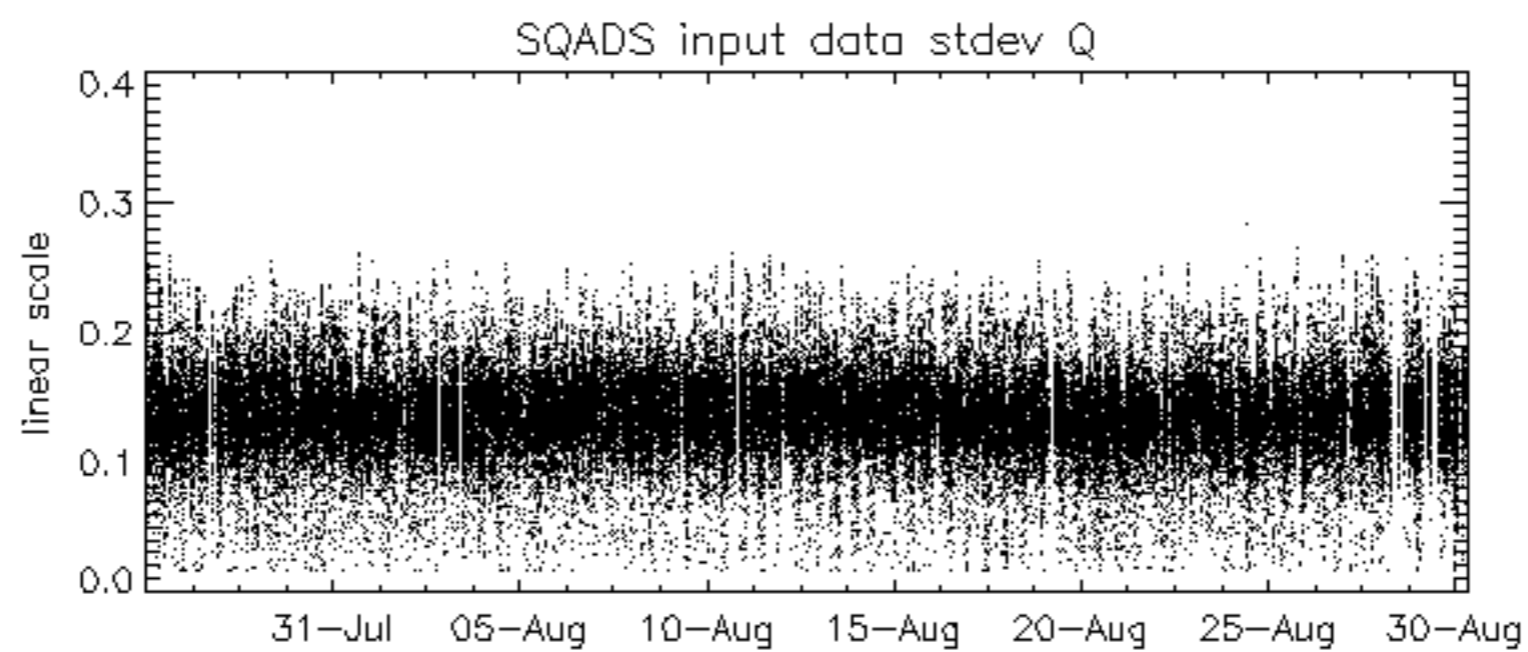
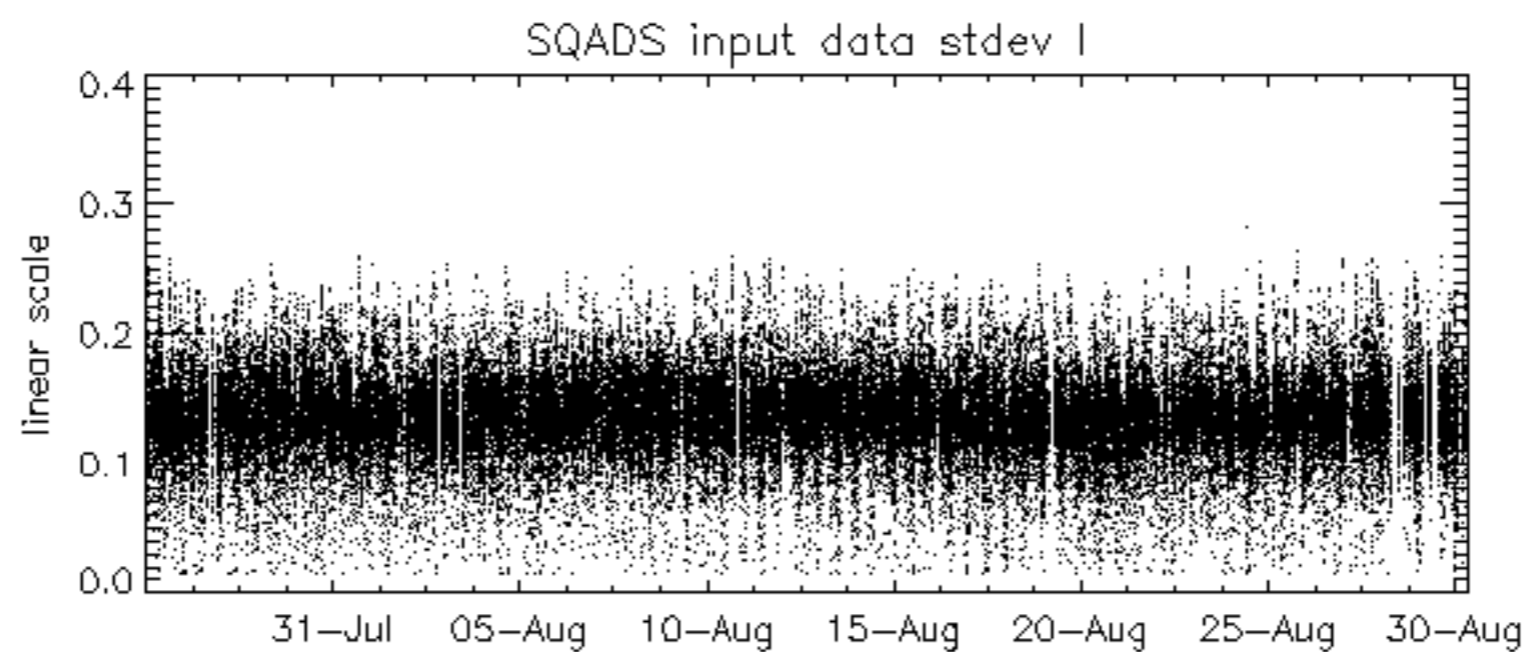
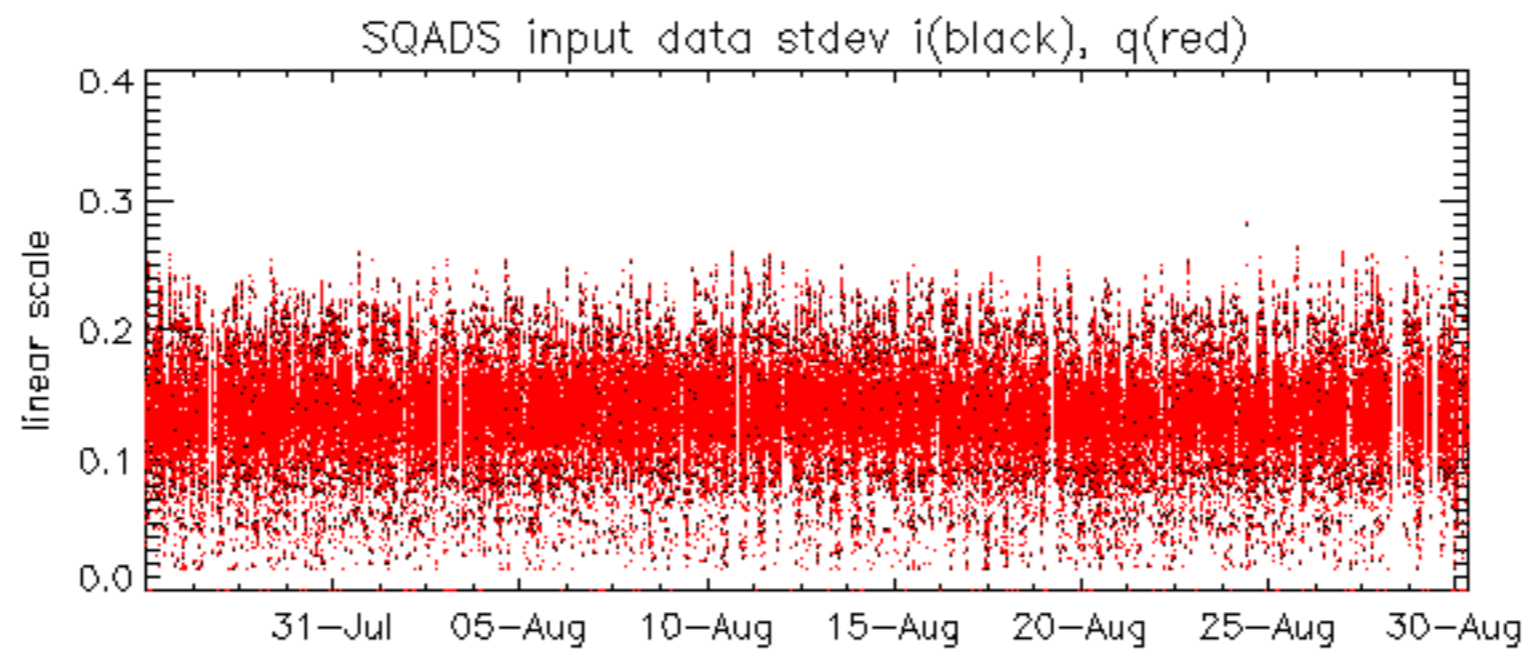


No anomalies observed on available MS products:

No anomalies observed.



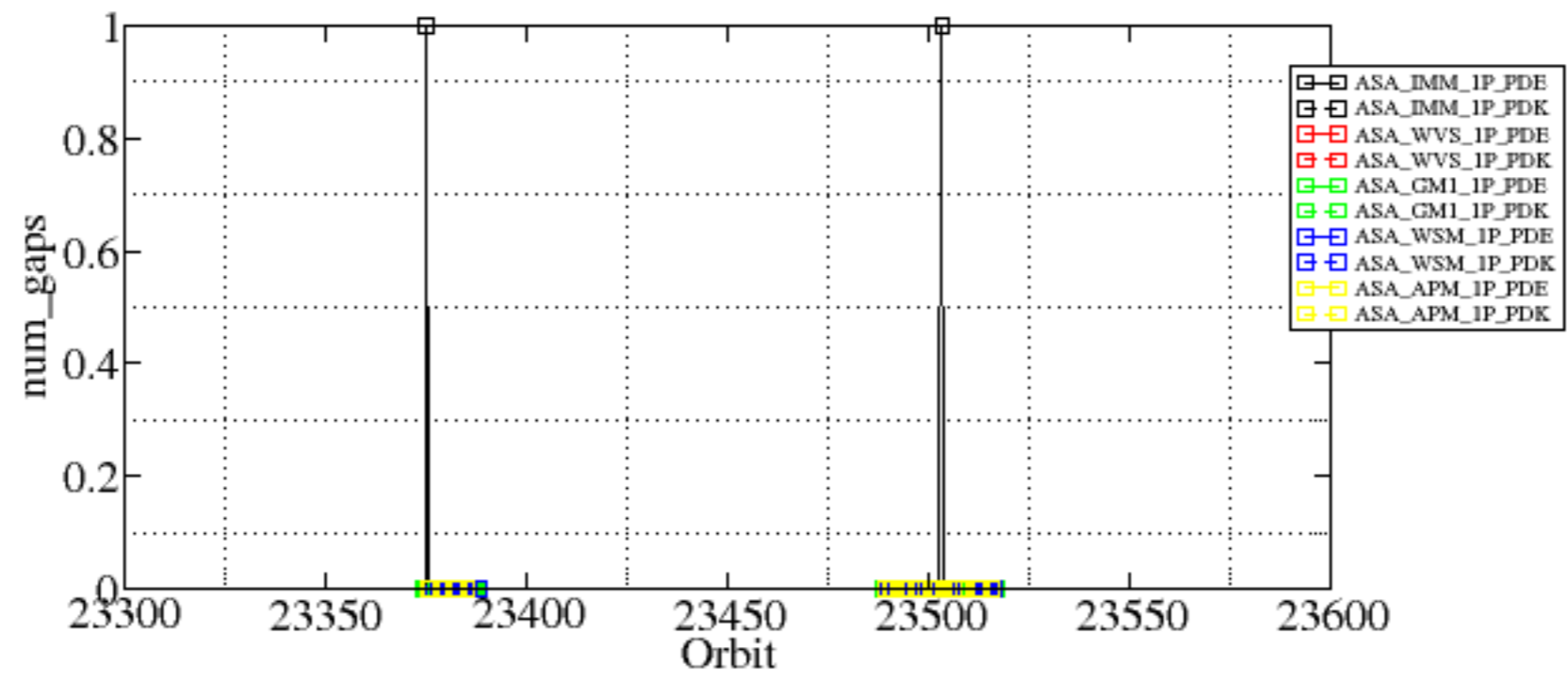


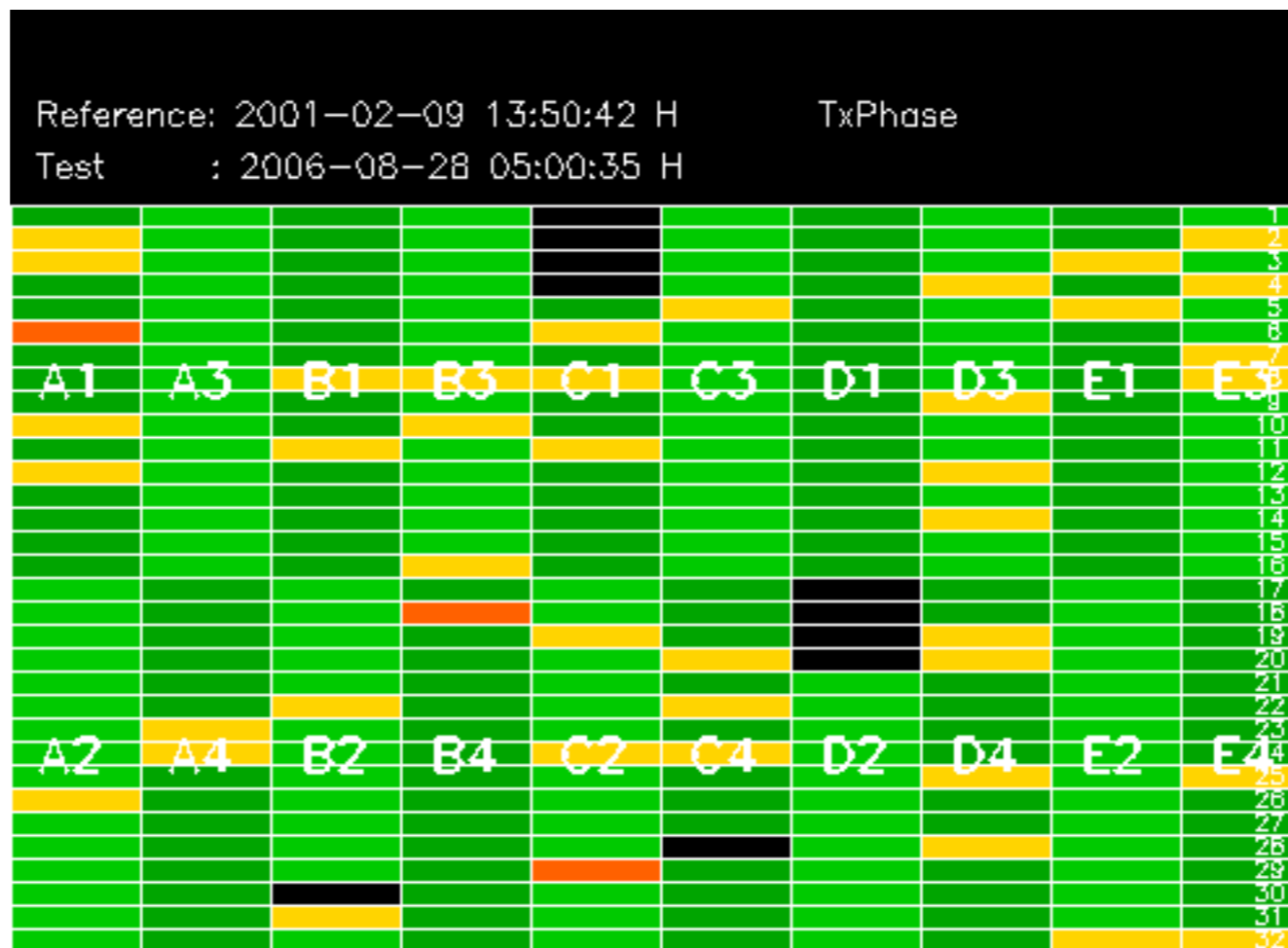


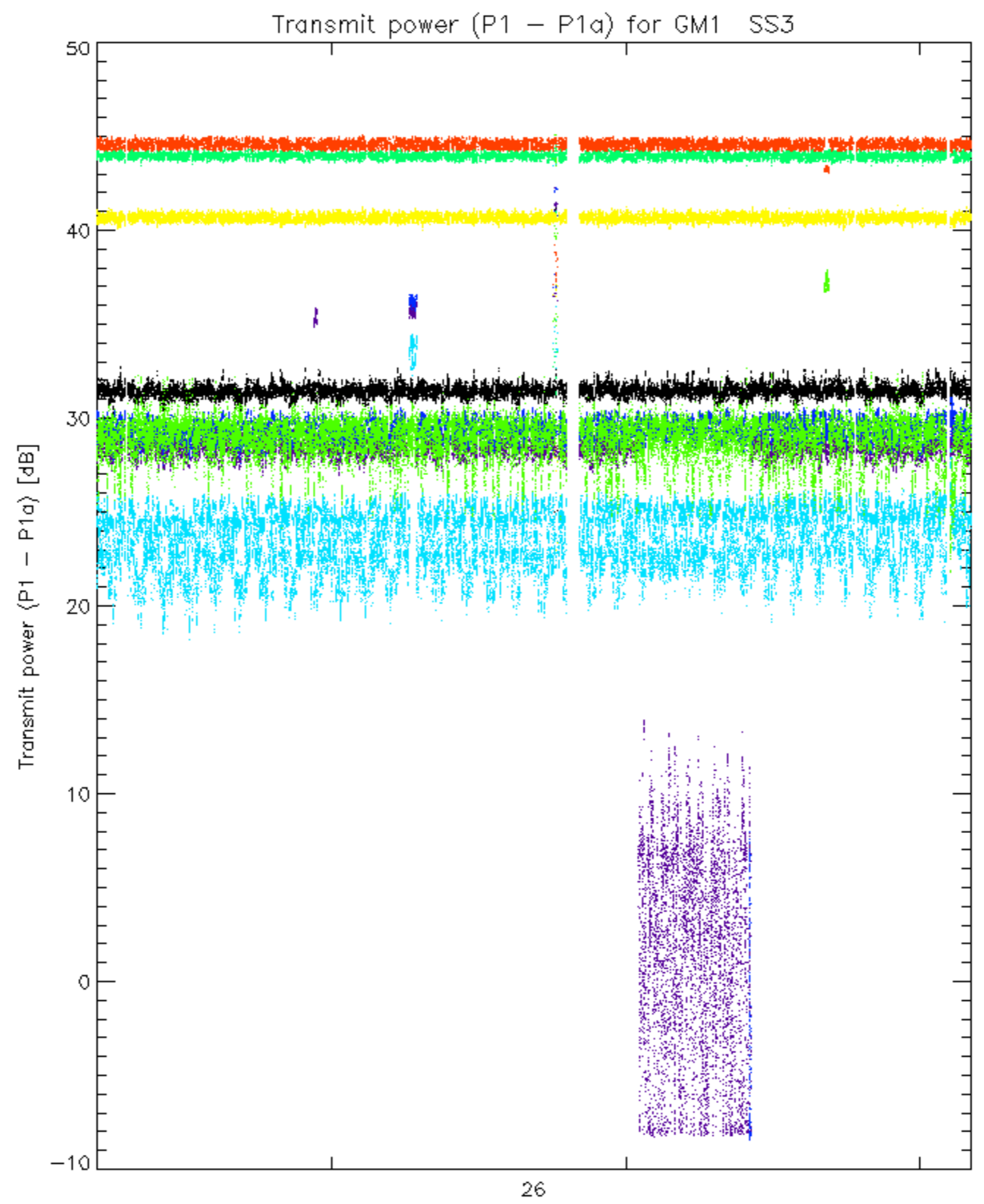
Summary of analysis for the last 3 days 2006082[890]

The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

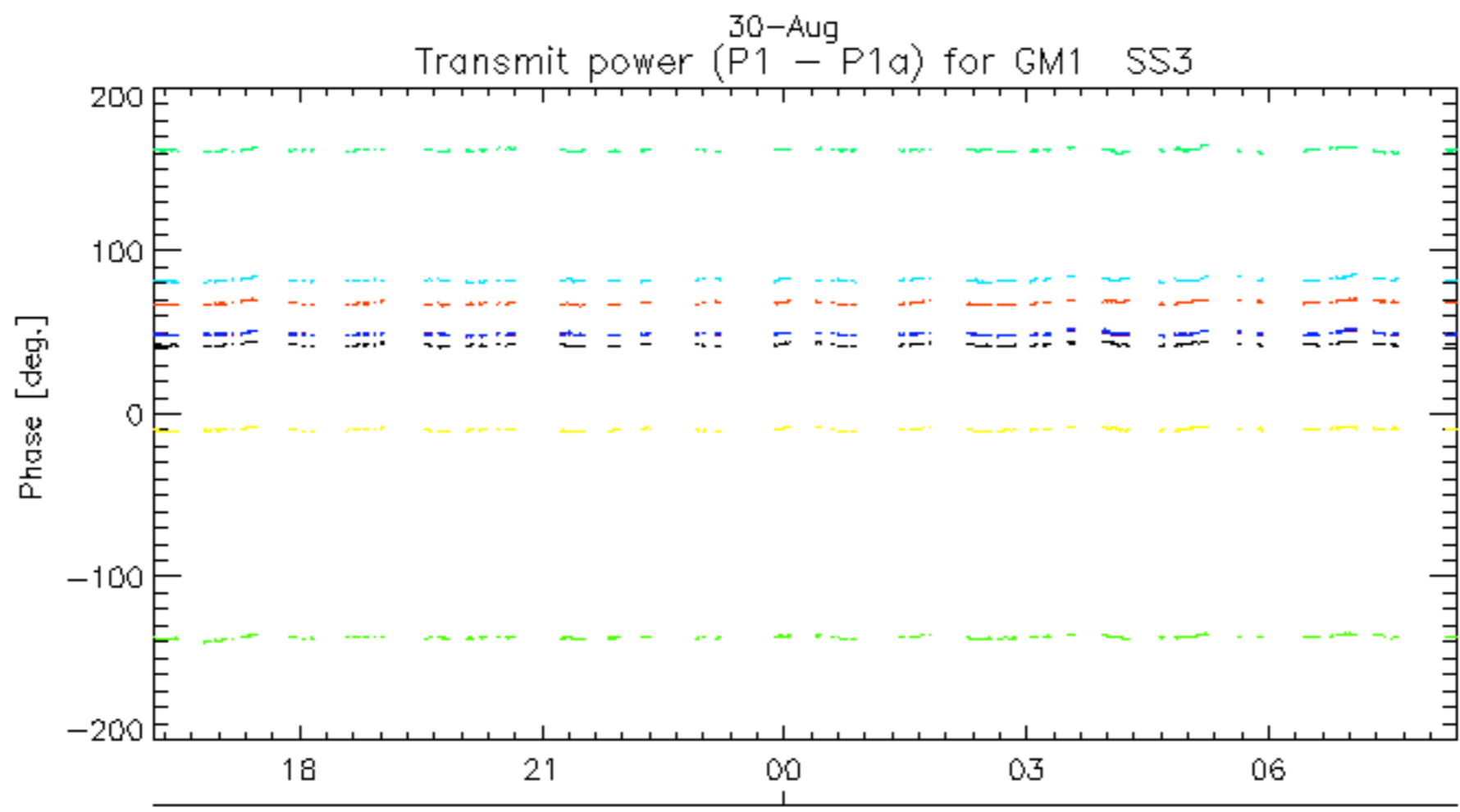
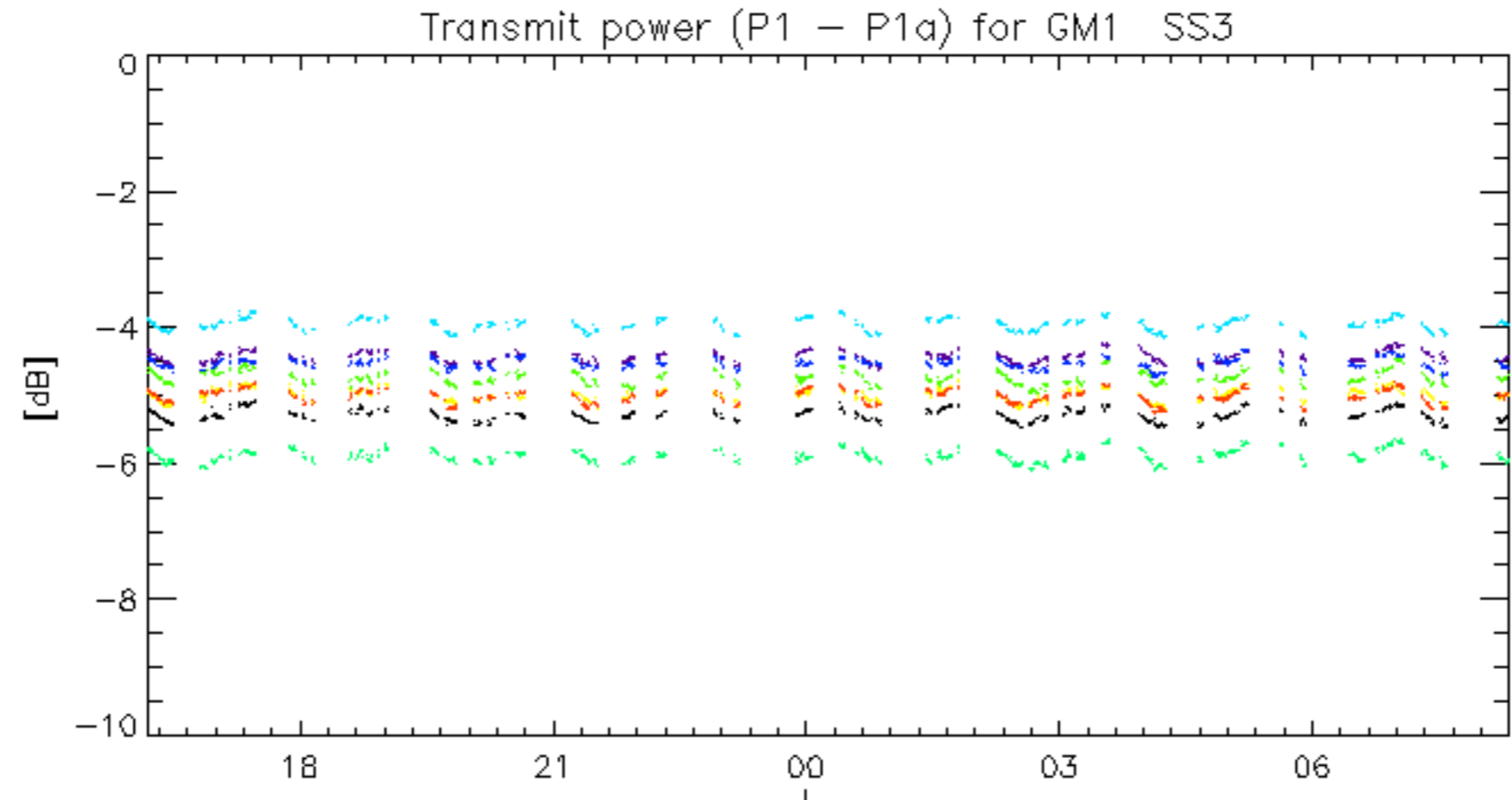
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060820_013600_000001612050_00275_23375_3774.N1	1	0
ASA_IMM_1PNPDE20060829_003806_000000512050_00403_23503_4904.N1	1	0
ASA_IMM_1PNPDK20060829_083807_000000362050_00408_23508_1602.N1	0	5
ASA_GM1_1PNPDK20060828_091301_000006642050_00394_23494_3759.N1	0	13
ASA_WSM_1PNPDE20060820_231435_000000972050_00288_23388_8788.N1	0	56
ASA_WSM_1PNPDE20060828_171916_000001462050_00399_23499_9799.N1	0	63
ASA_WSM_1PNPDK20060829_183107_000002262050_00414_23514_9976.N1	0	21
ASA_WSM_1PNPDK20060828_121928_000000852050_00396_23496_4543.N1	0	60
ASA_WSM_1PNPDK20060828_135847_000000862050_00397_23497_4512.N1	0	69



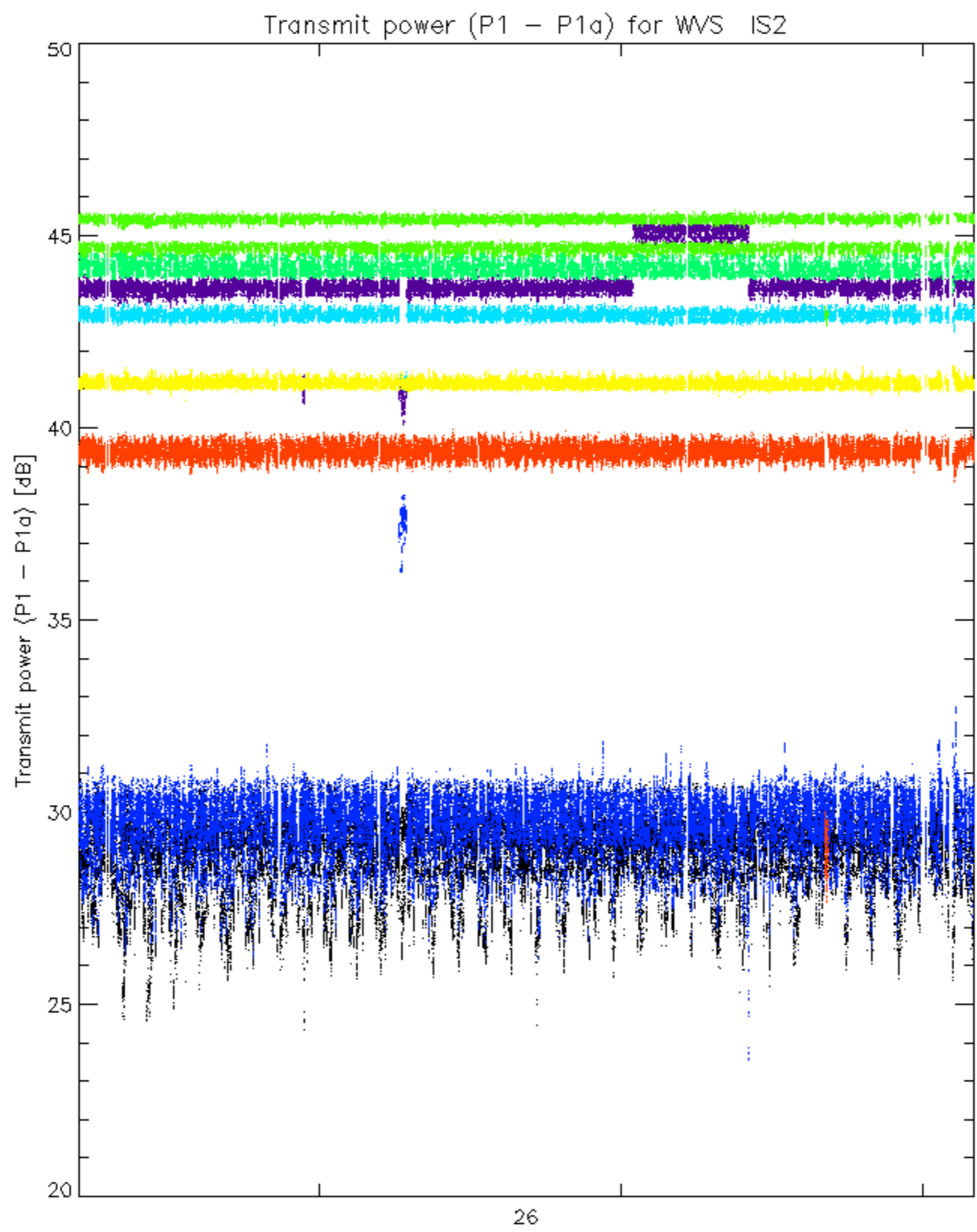




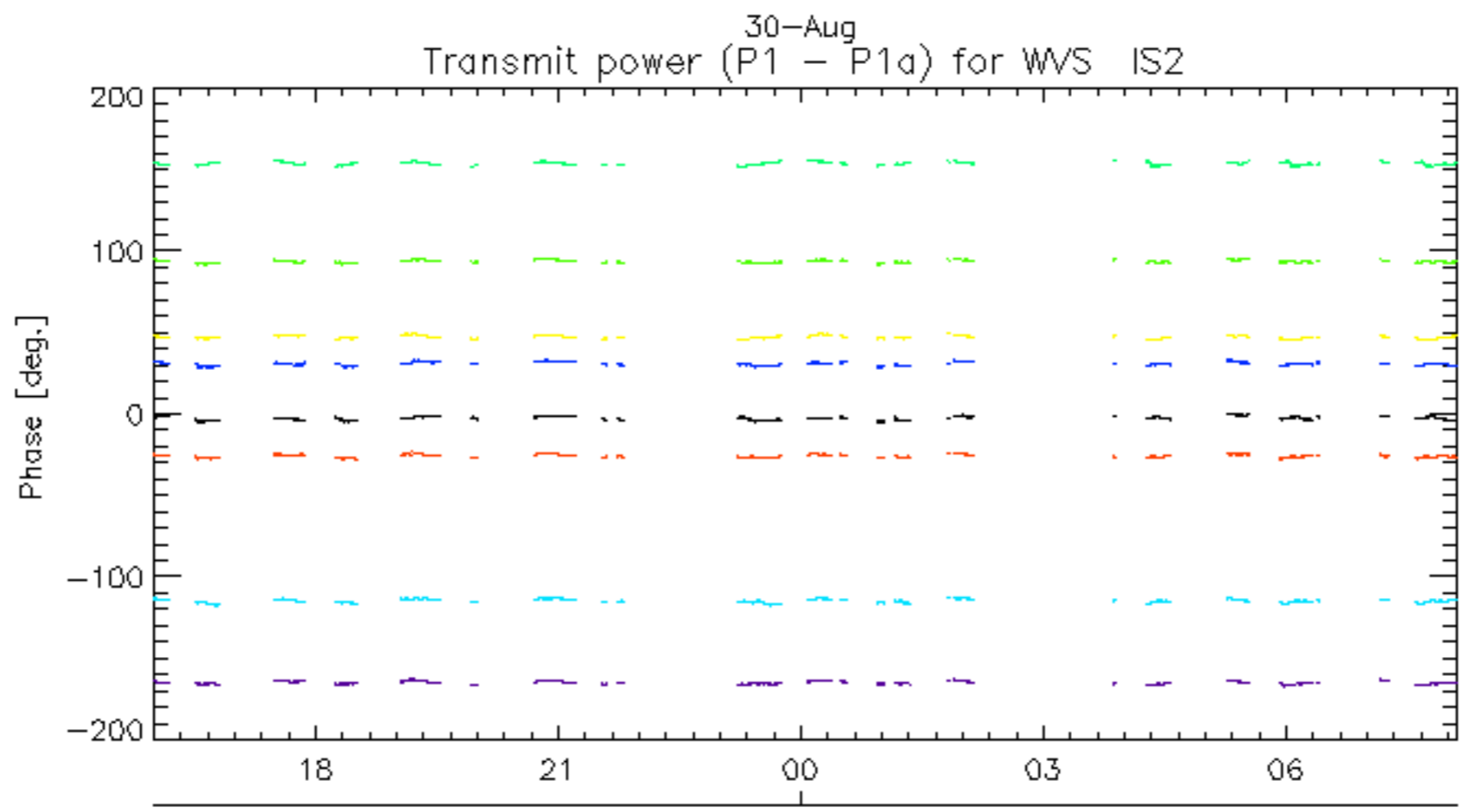
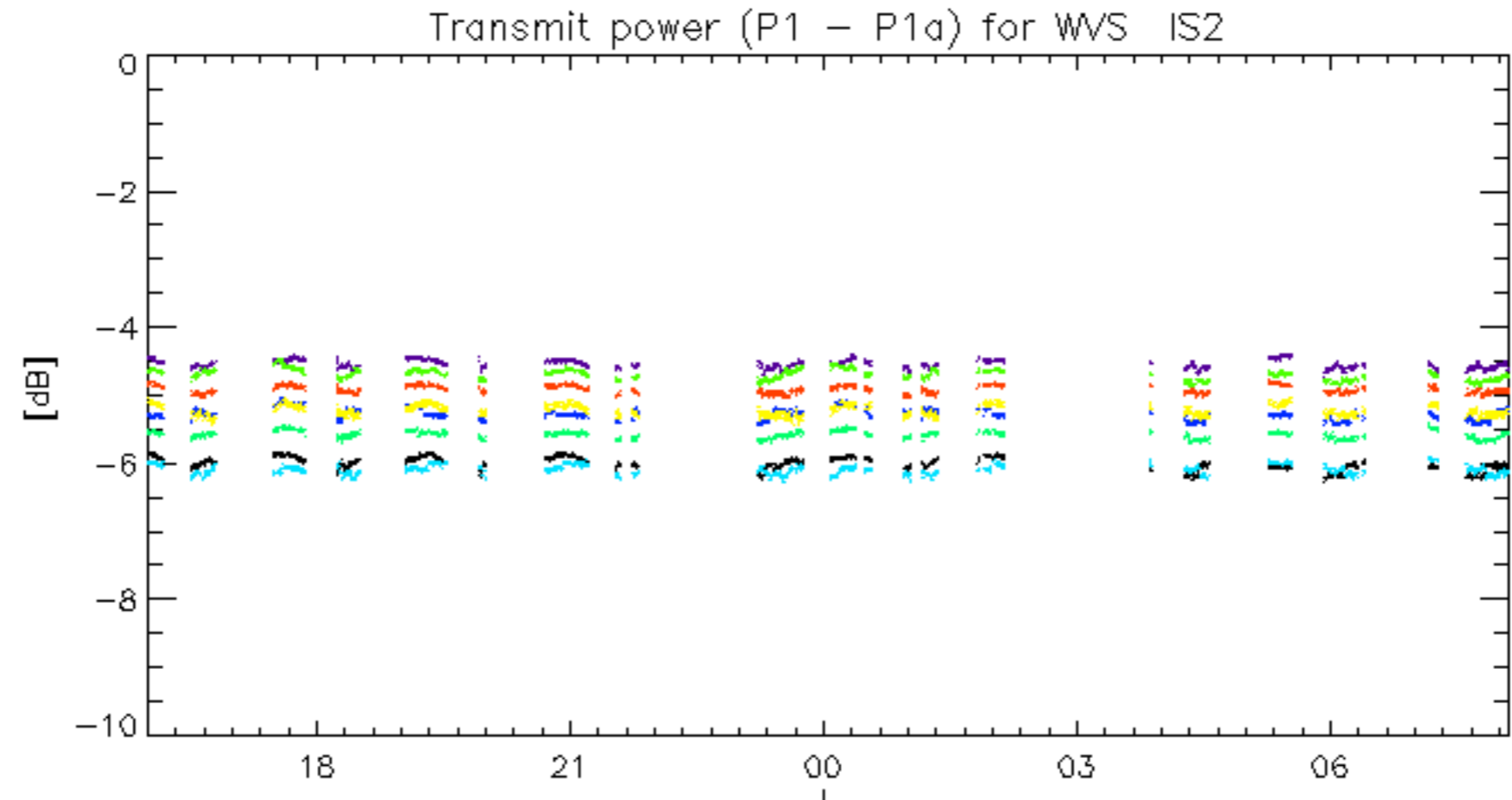
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.