

PRELIMINARY REPORT OF 070517

last update on Thu May 17 23:13:48 GMT 2007

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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 2007-05-16 00:00:00 to 2007-05-17 23:13:48

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	48	101	9	6	39
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	9	18	3	0	4
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	48	101	9	6	39
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	39	83	6	6	35
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	101	9	6	39

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	41	67	24	13	91
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	2	5	0	0	8
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	41	67	24	13	91
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	39	62	24	13	83
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	67	24	13	91

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	20070517 074715
H	20070516 081852

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)
3	P1a	-15.197747	0.134735	-0.297661
7	P1a	-17.590719	0.092764	-0.109039
11	P1a	-17.693018	0.348860	-0.341062
15	P1a	-13.134262	0.149817	-0.288312
19	P1a	-15.425742	0.067546	-0.144145
22	P1a	-15.993923	0.359250	-0.076087
26	P1a	-14.951015	0.216026	0.049512
30	P1a	-17.933260	0.403906	-0.510916

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.781947	0.010075	-0.023927
7	P1	-3.162089	0.008994	-0.044779
11	P1	-4.197945	0.016149	0.053545
15	P1	-6.457174	0.019824	-0.108729
19	P1	-3.776999	0.012031	0.003116
22	P1	-4.744713	0.010703	0.032715
26	P1	-3.908132	0.018677	-0.005130
30	P1	-5.963531	0.009290	0.006384

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.653143	0.093317	0.043922
7	P2	-21.517677	0.093734	0.106671
11	P2	-15.293066	0.122488	0.125108
15	P2	-7.133050	0.090880	-0.006586
19	P2	-9.121064	0.083224	-0.015594
22	P2	-18.086435	0.078698	0.001430
26	P2	-16.646551	0.084959	-0.065183
30	P2	-19.255367	0.084390	0.065249

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.245628	0.004798	0.003428
7	P3	-8.245628	0.004798	0.003428
11	P3	-8.245628	0.004798	0.003428
15	P3	-8.245628	0.004798	0.003428
19	P3	-8.245628	0.004798	0.003428
22	P3	-8.245628	0.004798	0.003428
26	P3	-8.245628	0.004798	0.003428
30	P3	-8.245628	0.004798	0.003428

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-11.420715	0.180547	-0.775482
7	P1a	-10.029783	0.163514	0.115334
11	P1a	-10.683049	0.085068	-0.013094
15	P1a	-10.791305	0.145798	0.122226
19	P1a	-15.847094	0.092076	-0.116832
22	P1a	-21.482693	1.419524	-0.041807
26	P1a	-15.558575	0.334259	-0.053694
30	P1a	-18.269615	0.434743	0.020022

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.074803	0.327900	1.512890
7	P1	-2.378718	0.086420	0.094705
11	P1	-2.873219	0.022051	0.027217
15	P1	-3.799900	0.035758	0.044443
19	P1	-3.602106	0.015865	-0.039395
22	P1	-4.951407	0.023053	0.028249

26	P1	-6.054865	0.023460	-0.042676
30	P1	-5.352722	0.031907	-0.040711

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.207897	0.073919	-0.075786
7	P2	-22.061323	0.168796	-0.071148
11	P2	-10.657210	0.046165	-0.064015
15	P2	-4.953770	0.044395	-0.067870
19	P2	-6.881384	0.042374	-0.022765
22	P2	-8.107851	0.082741	0.019786
26	P2	-24.345320	0.135106	-0.078683
30	P2	-21.703920	0.108840	0.002216

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.092952	0.005123	-0.000948
7	P3	-8.092921	0.005122	-0.000958
11	P3	-8.092883	0.005115	-0.001277
15	P3	-8.092878	0.005122	-0.001365
19	P3	-8.092936	0.005124	-0.001436
22	P3	-8.092785	0.005121	-0.001314
26	P3	-8.092787	0.005130	-0.001216
30	P3	-8.092828	0.005118	-0.001062

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	0.000549934
	stdev	1.93042e-07
MEAN Q	mean	0.000508780
	stdev	2.38374e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136157
	stdev	0.00117660
STDEV Q	mean	0.136547
	stdev	0.00119372



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007051[567]

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_1PNPDE20070515_014512_000000352058_00103_27211_6080.N1	0	29
ASA_WSM_1PNPDE20070515_201141_000000672058_00114_27222_7296.N1	0	29
ASA_WSM_1PNPDE20070515_233737_000001412058_00116_27224_7642.N1	0	35
ASA_WSM_1PNPDE20070516_161232_000000852058_00126_27234_8519.N1	0	1
ASA_WSM_1PNPDE20070516_171622_000002252058_00127_27235_8573.N1	0	62

ASA_WSM_1PNPDE20070517_035646_000001282058_00133_27241_9322.N1	0	1
ASA_WSM_1PNPDE20070517_164501_000000852058_00141_27249_9765.N1	0	57
ASA_WSM_1PNPDE20070517_182820_000000852058_00142_27250_9815.N1	0	67
ASA_WSM_1PNPDK20070516_135852_000000862058_00125_27233_1603.N1	0	2



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)

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

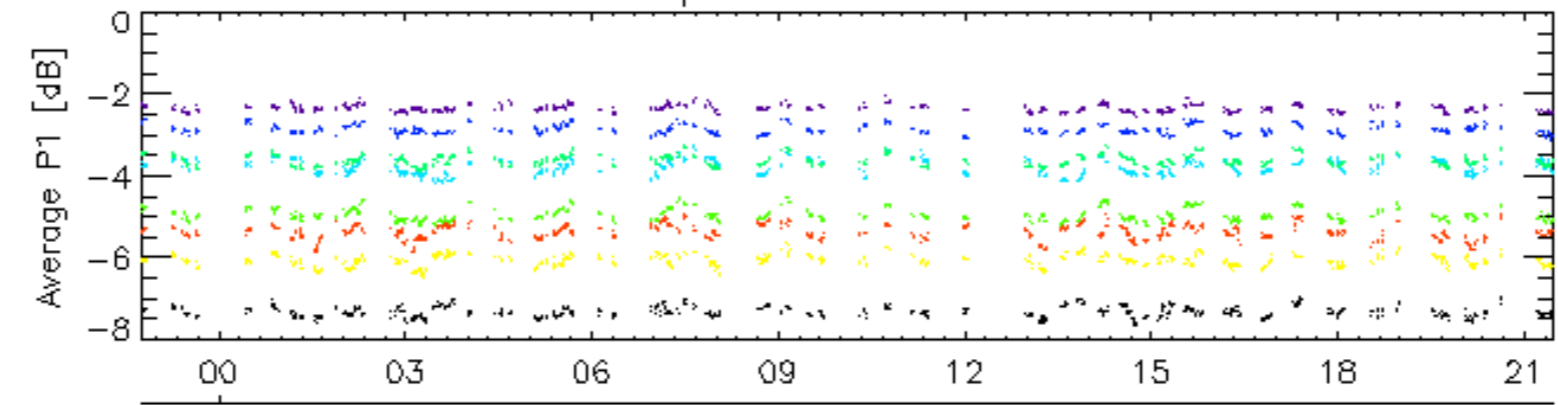
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

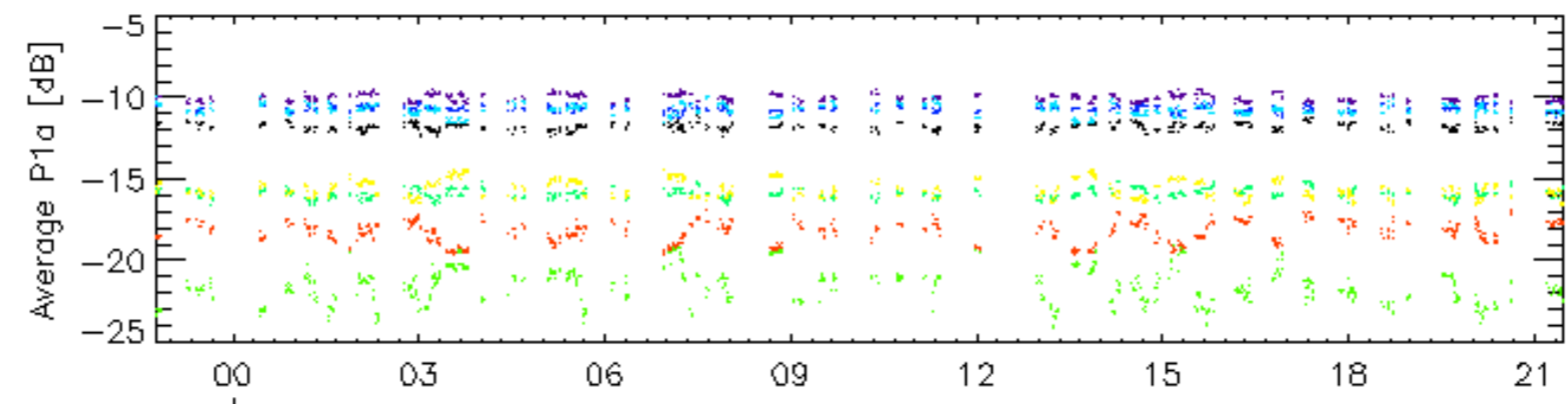
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

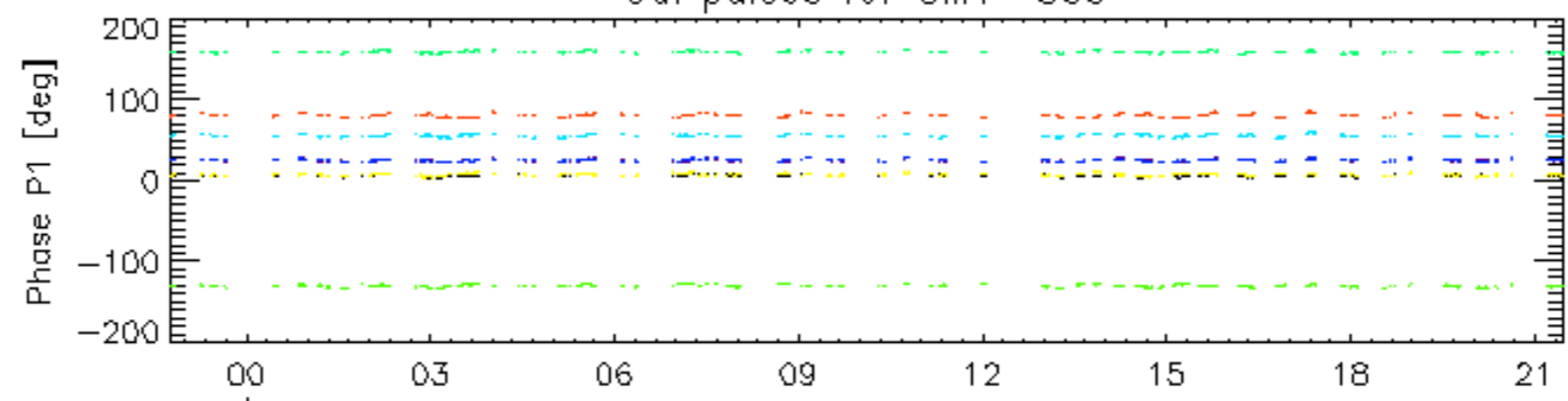


17-May

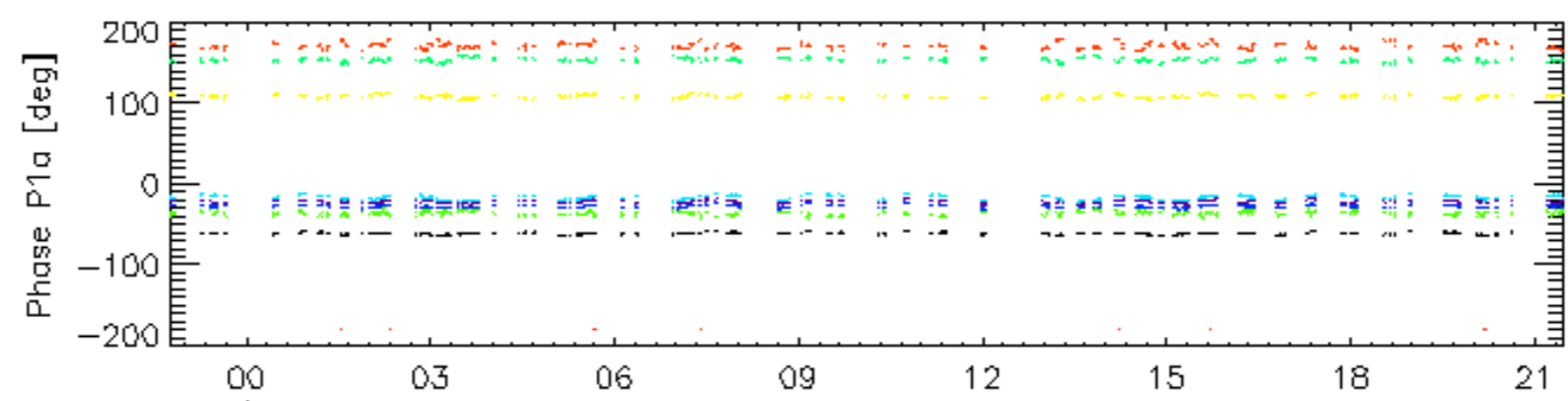


17-May

Cal pulses for GM1 SS3

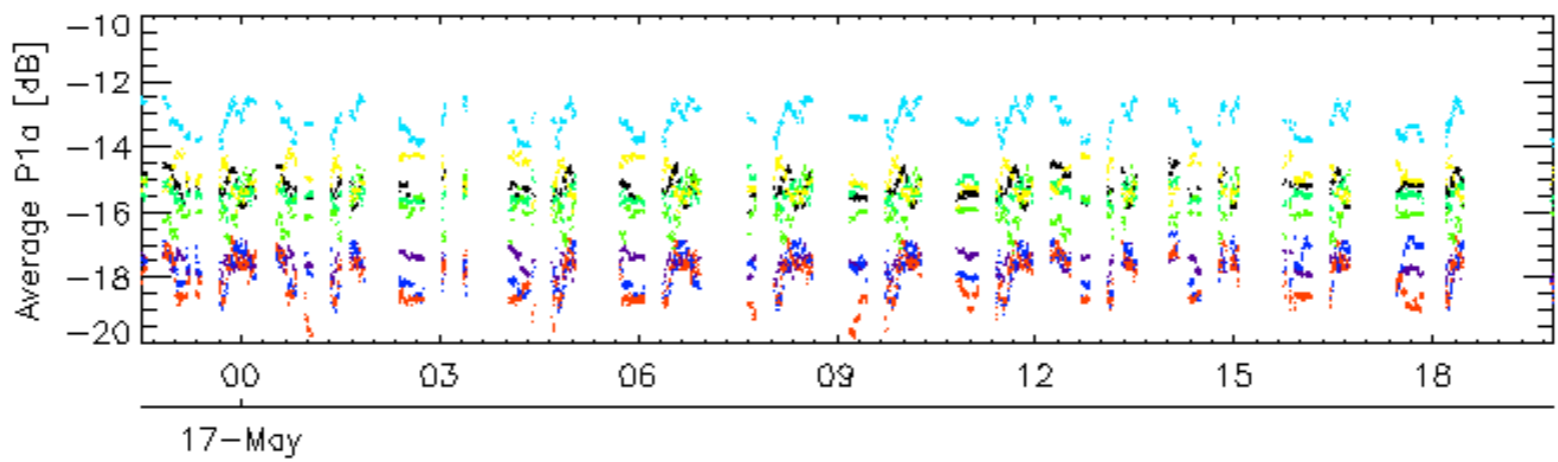
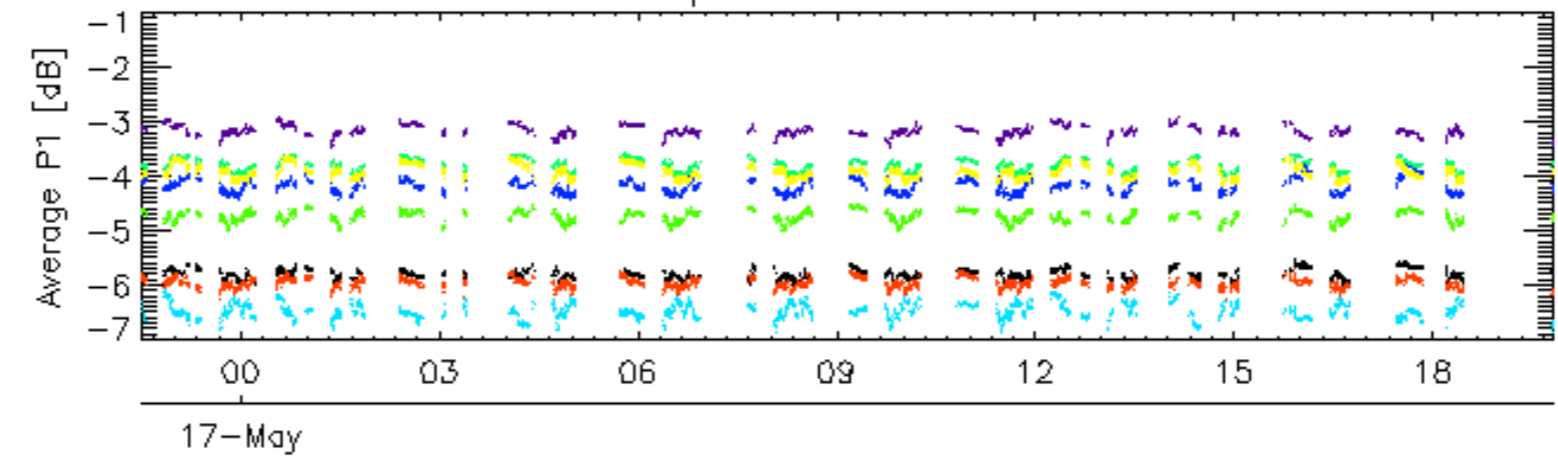


17-May

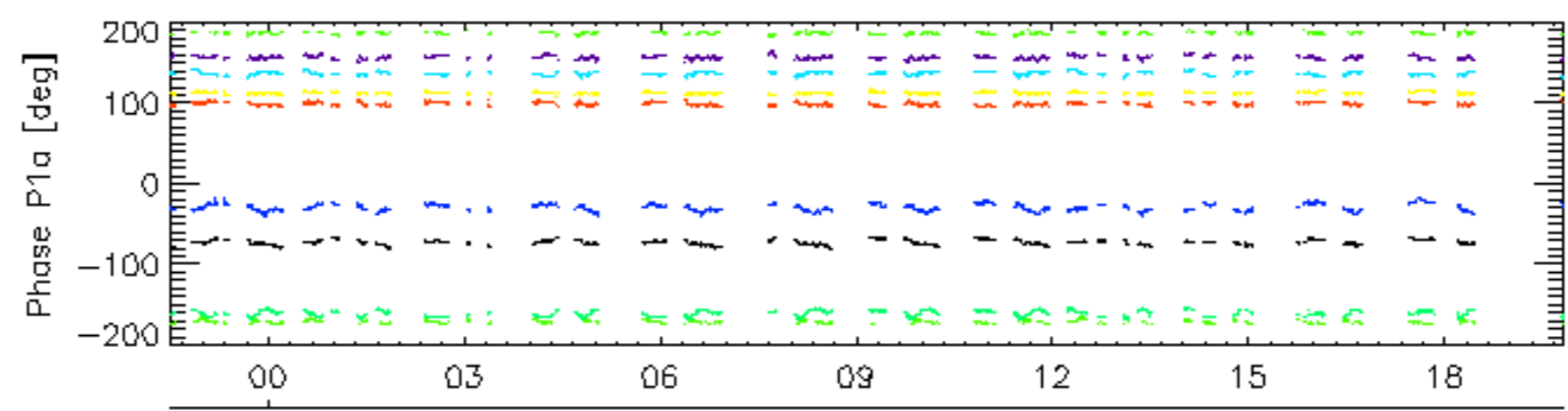
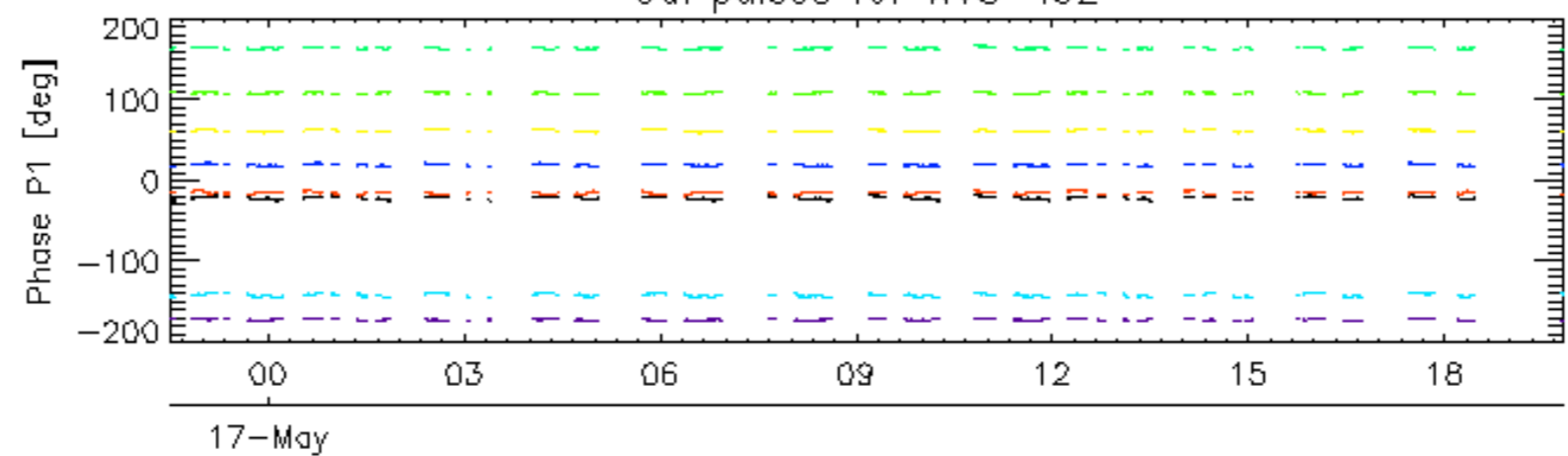


rows: 17-May
 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

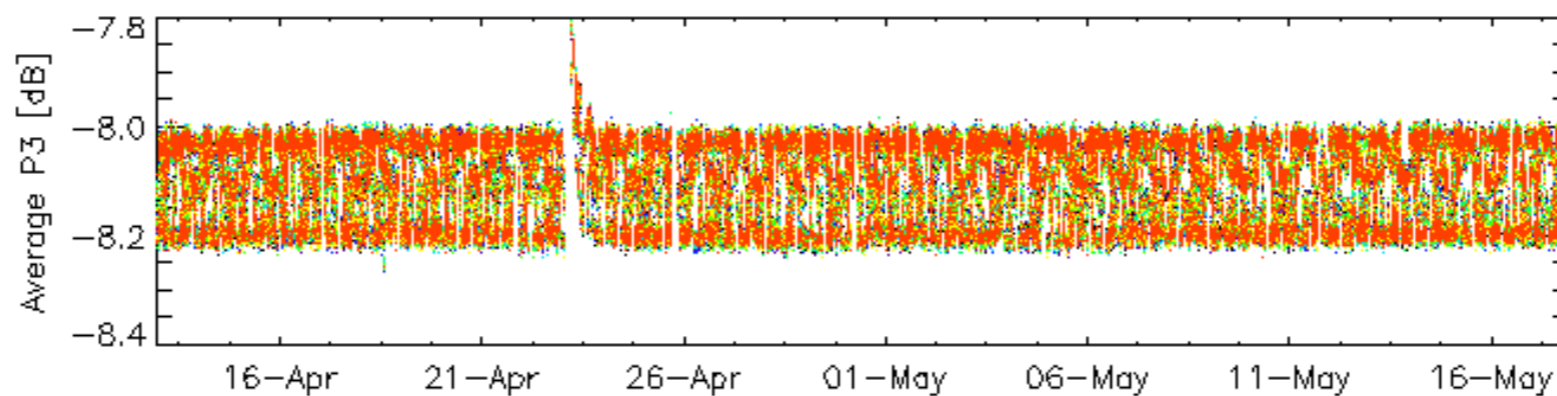
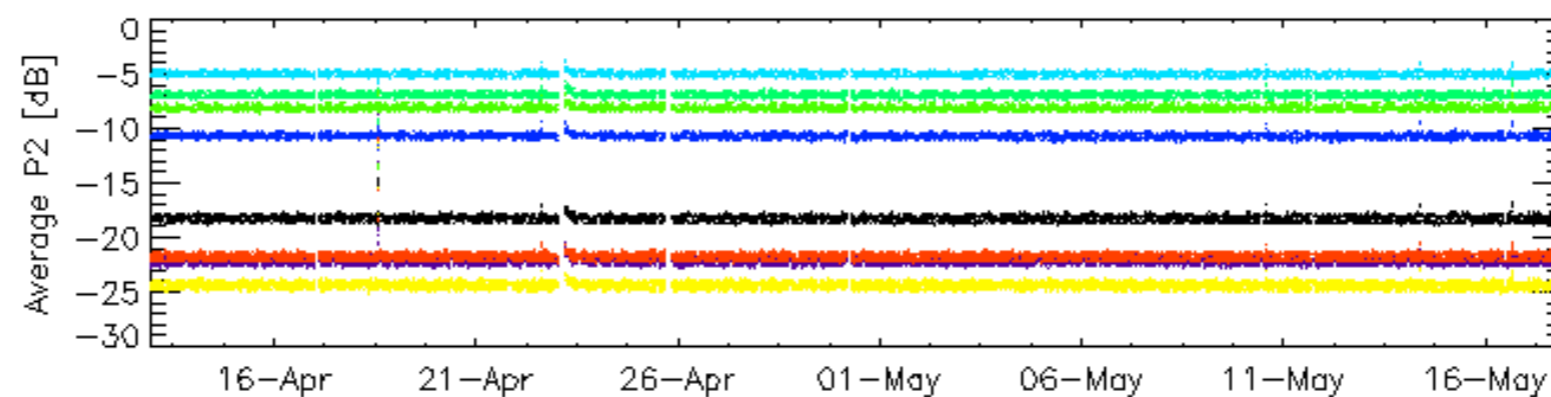
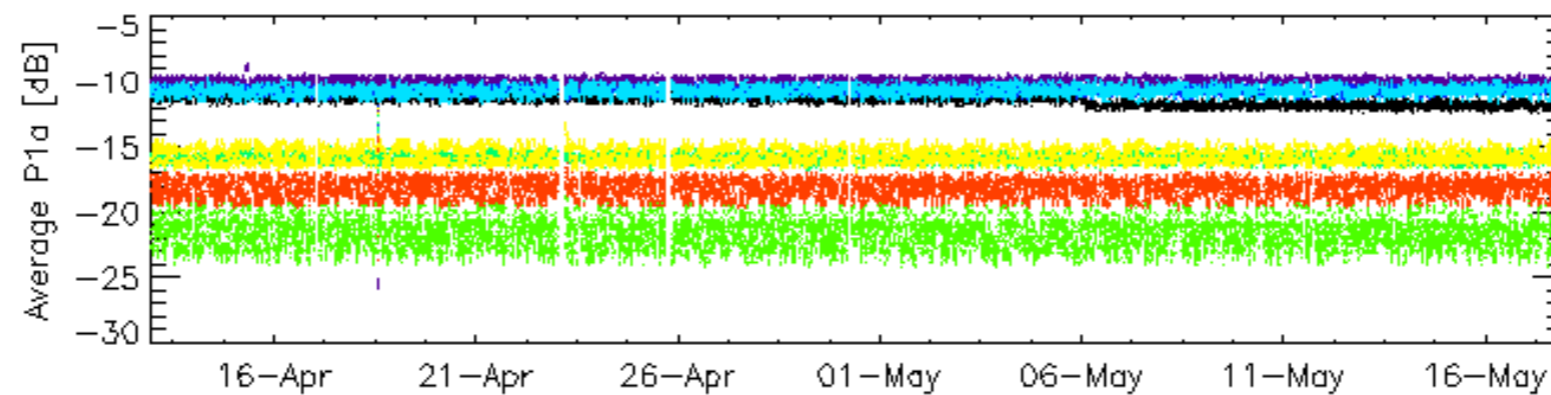
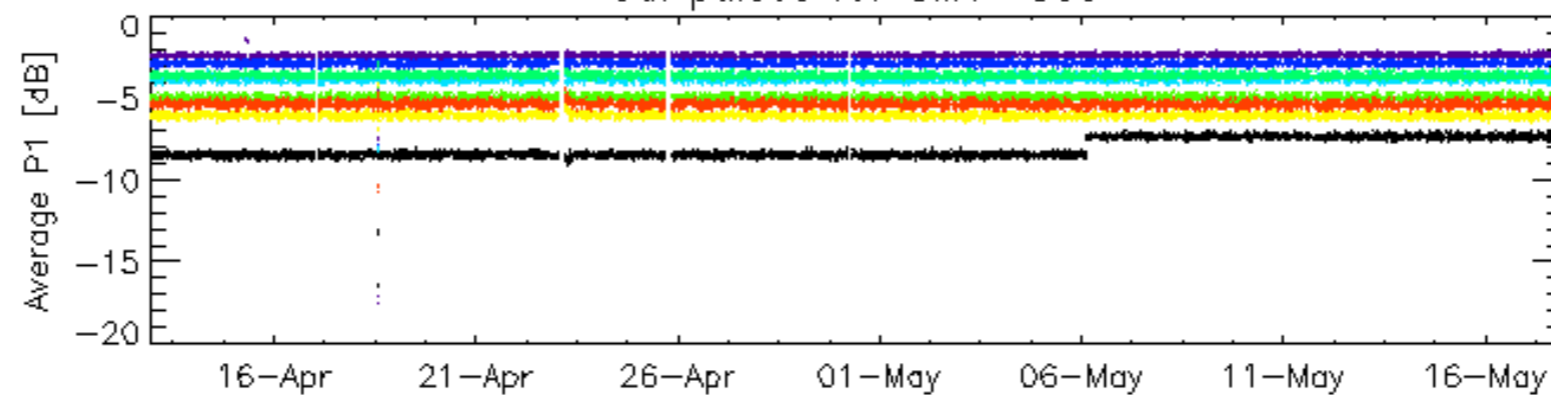


Cal pulses for WVS IS2



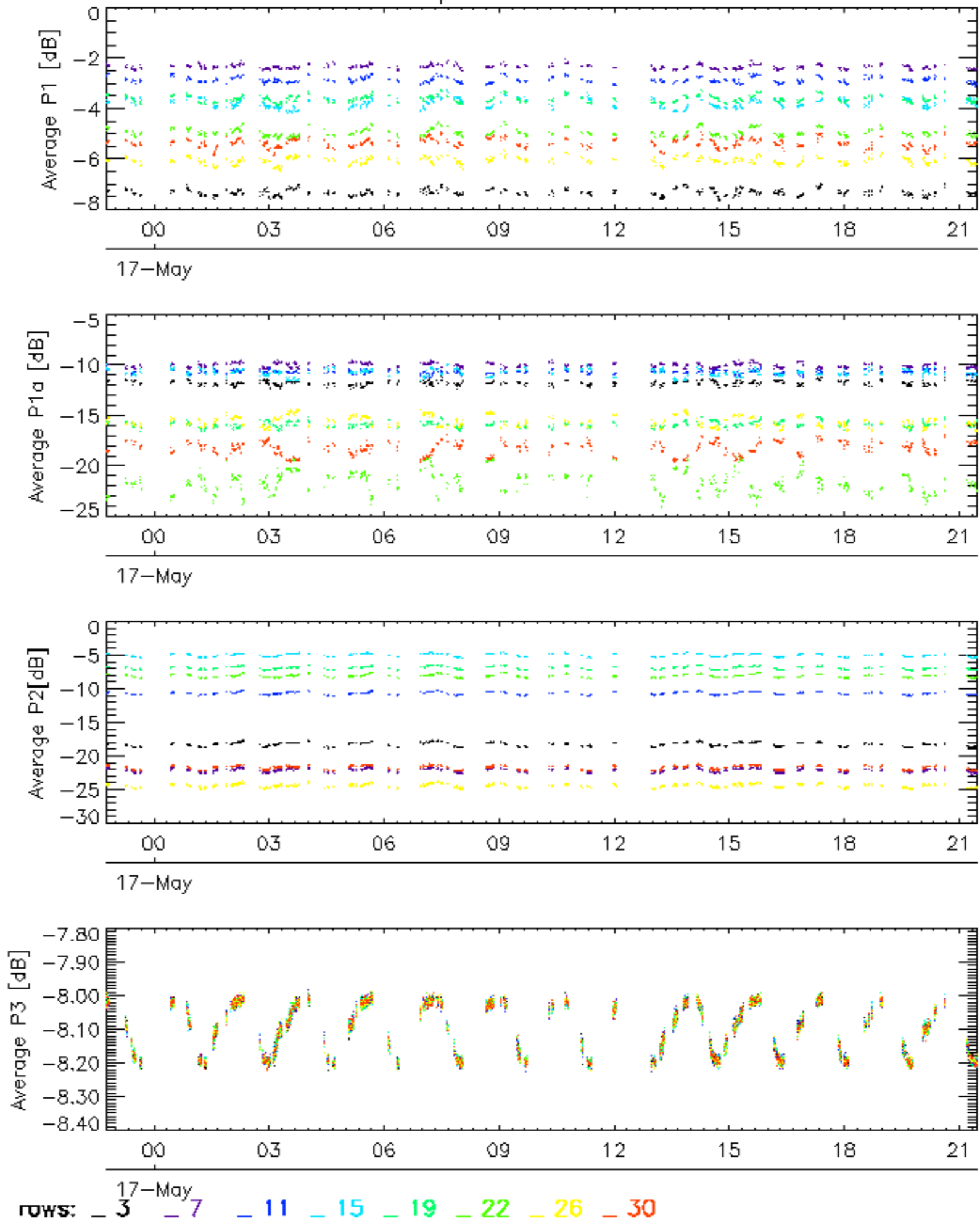
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

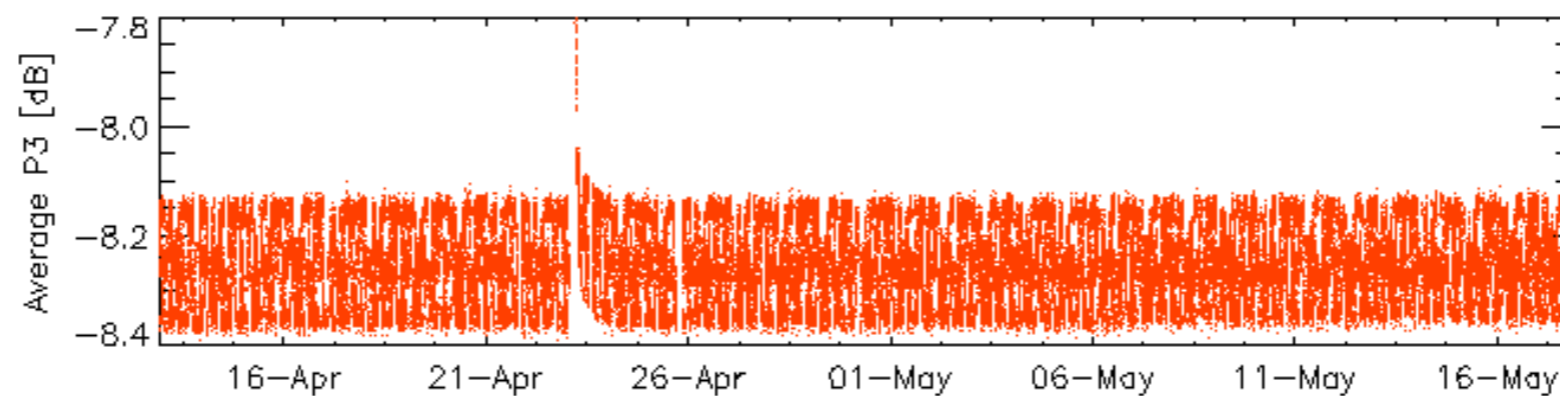
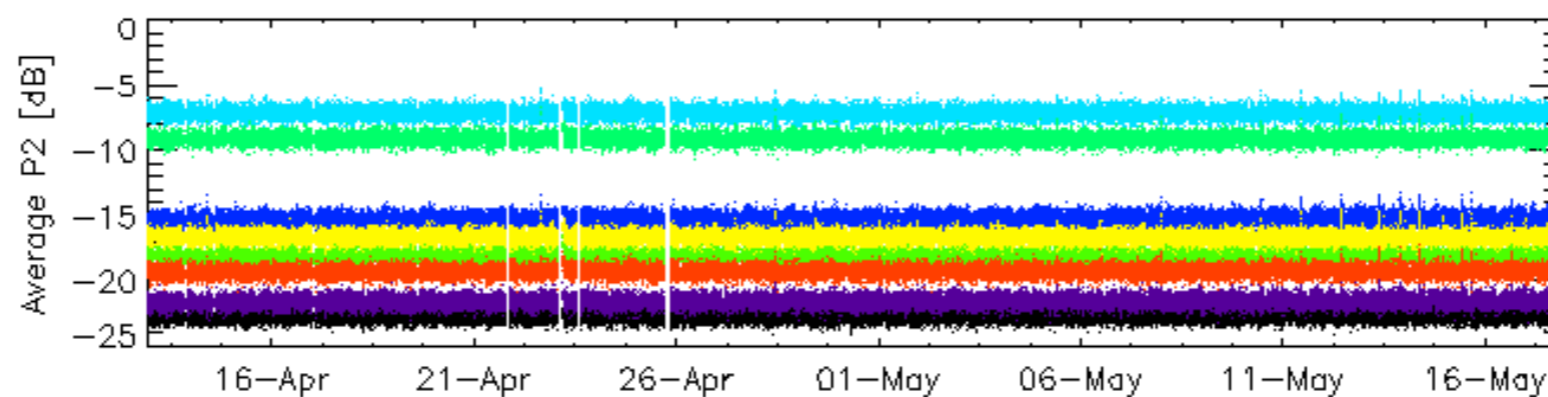
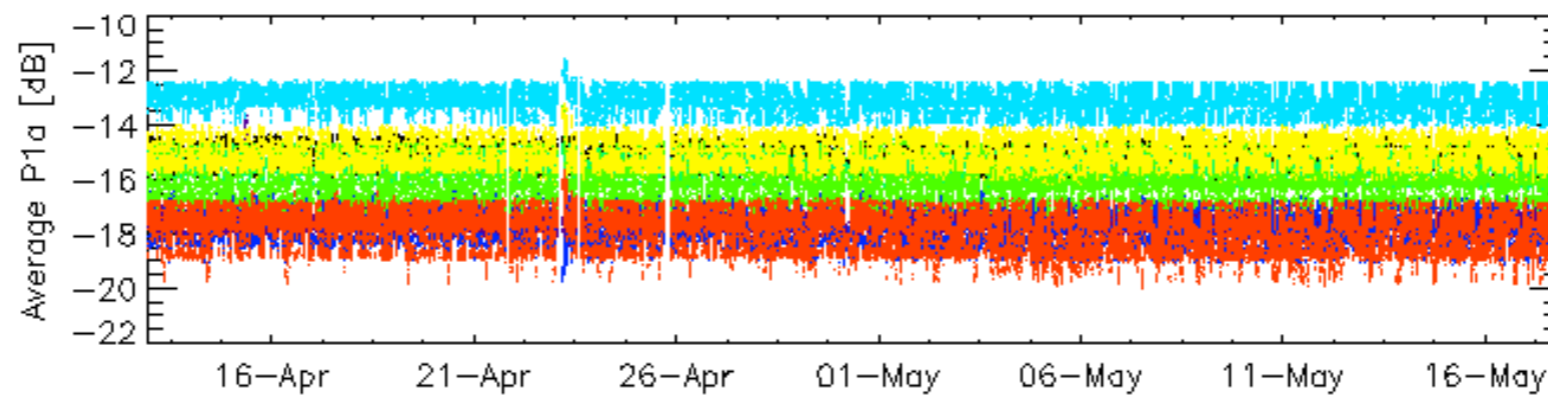
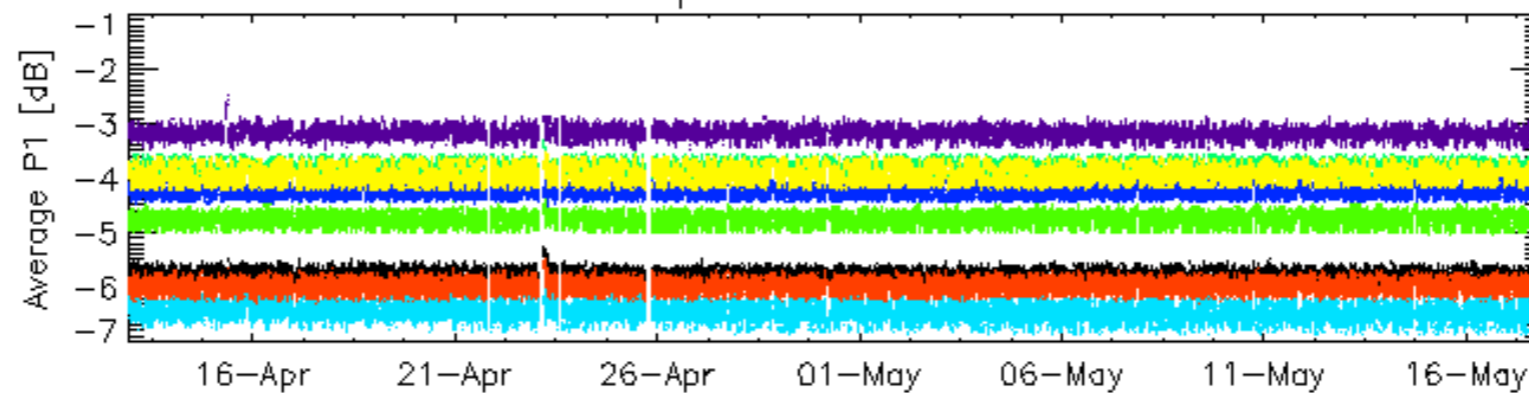


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

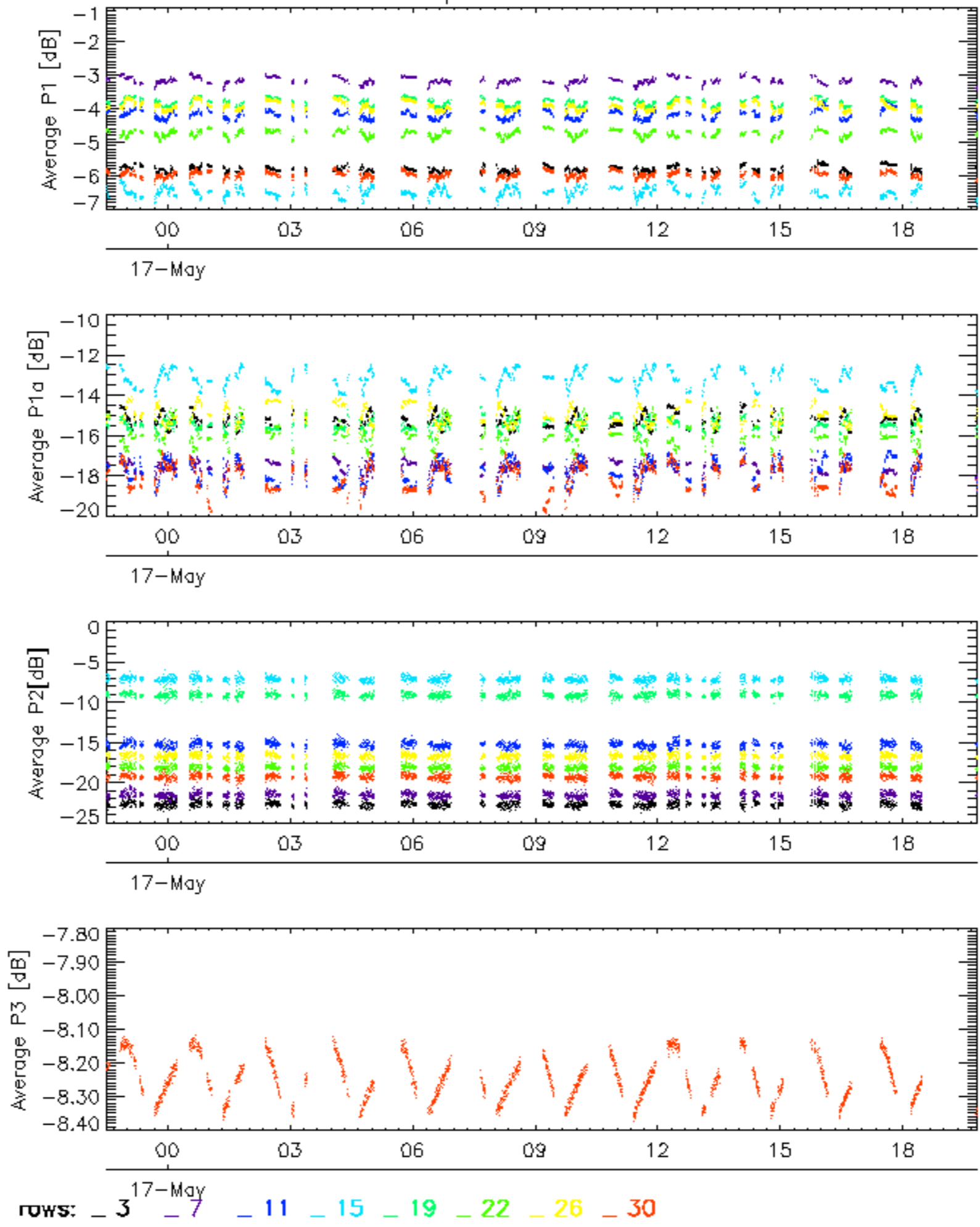


Cal pulses for WVS IS2



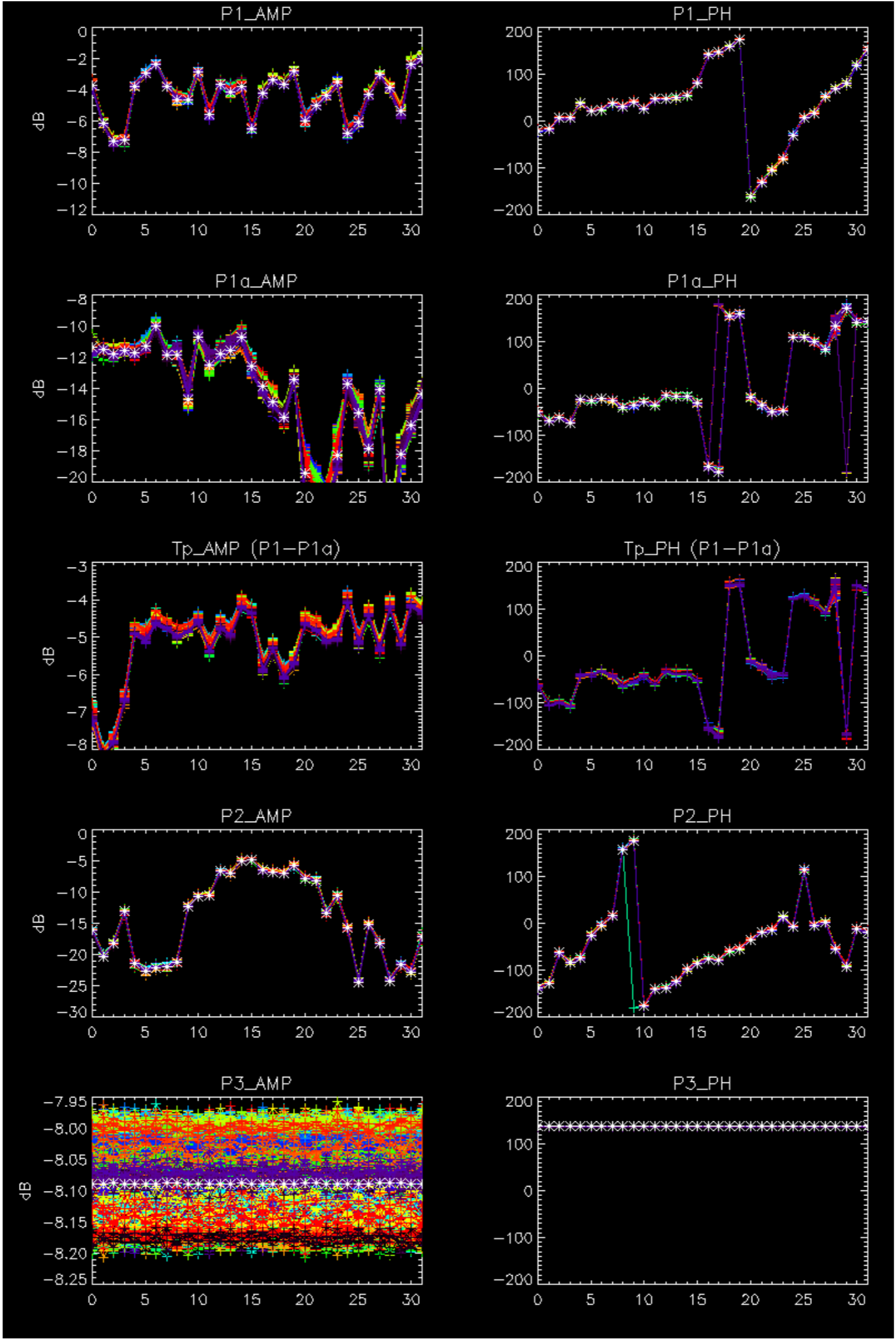
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

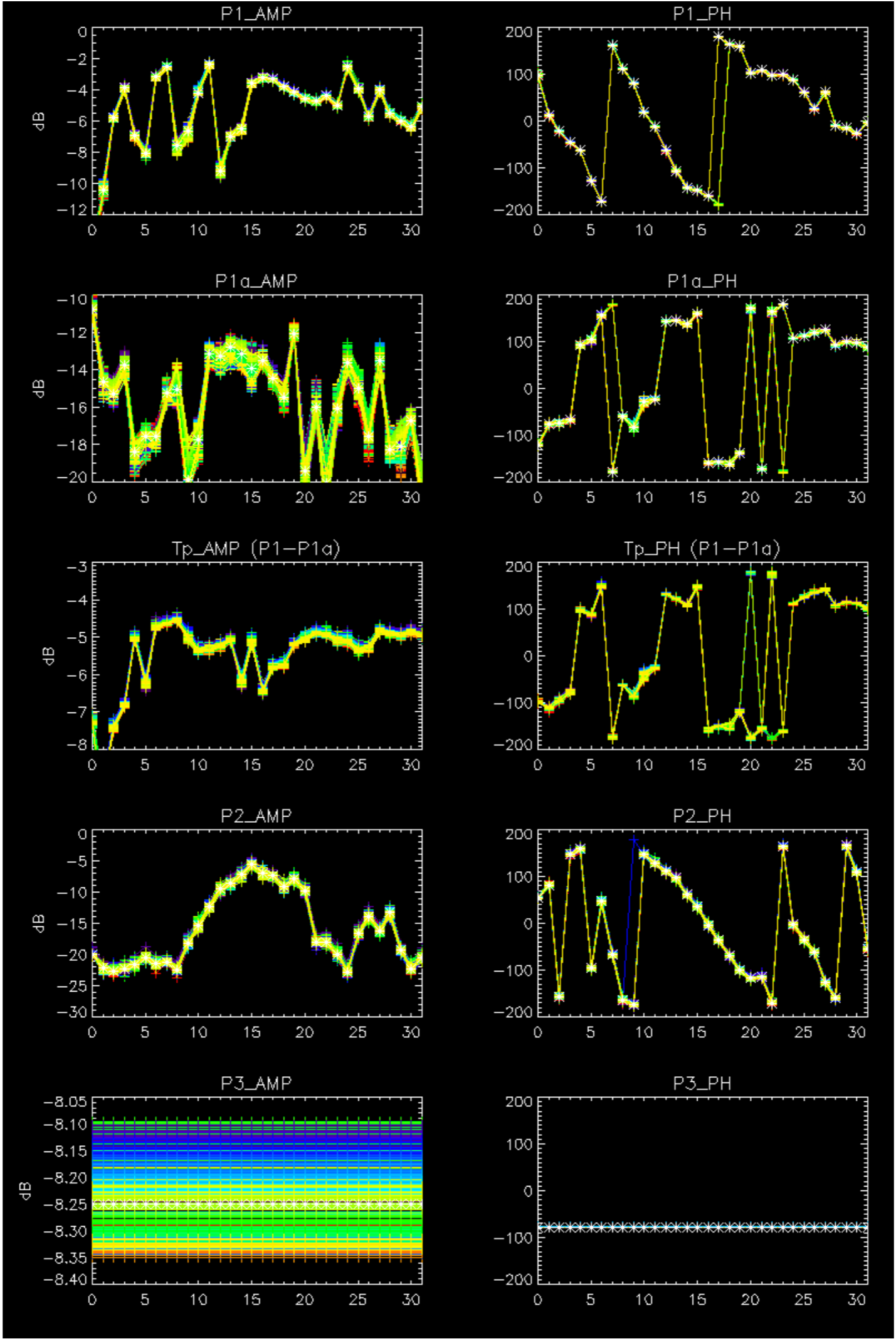
Cal pulses for WVS IS2



No anomalies observed on available browse products

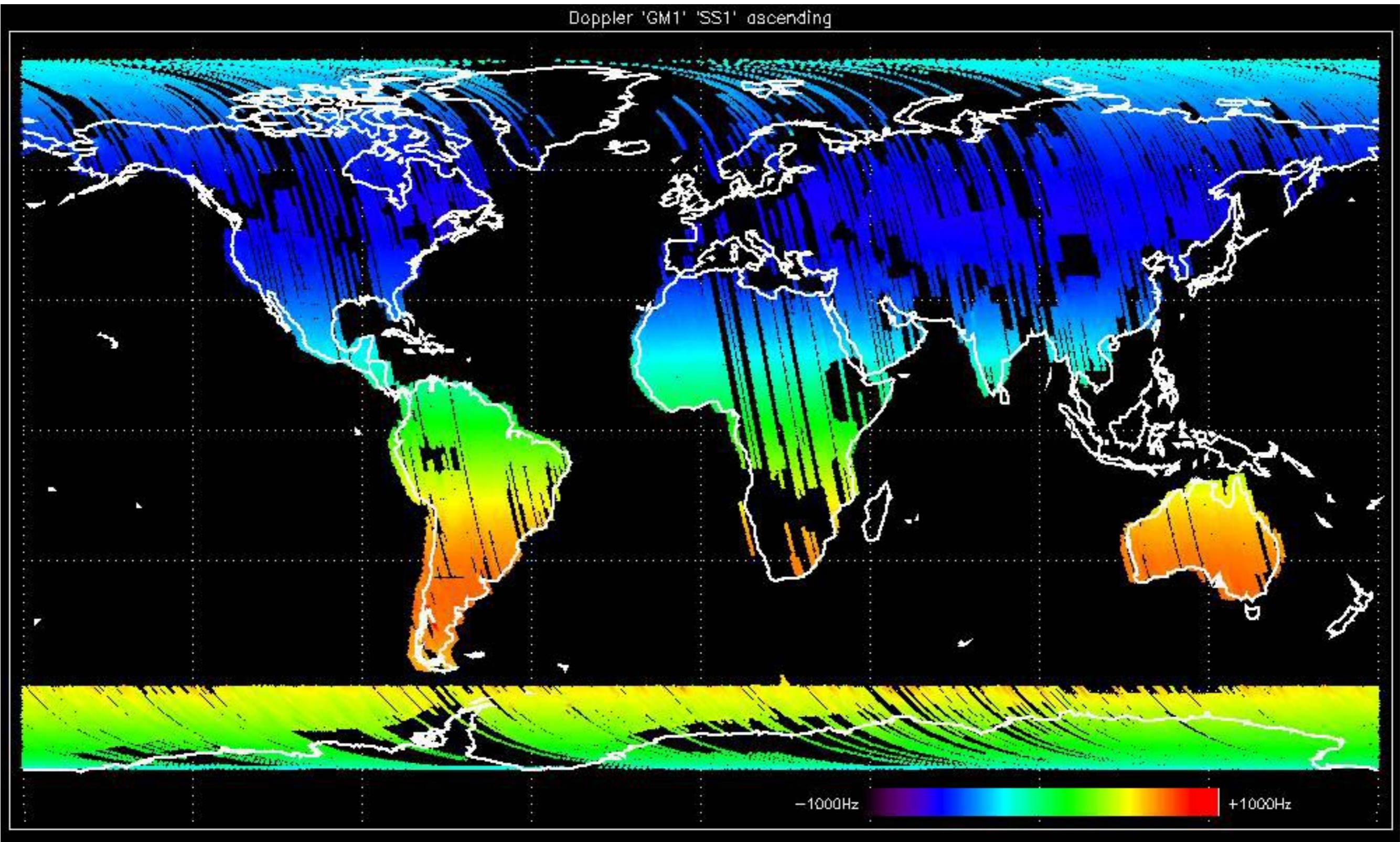
No anomalies observed.



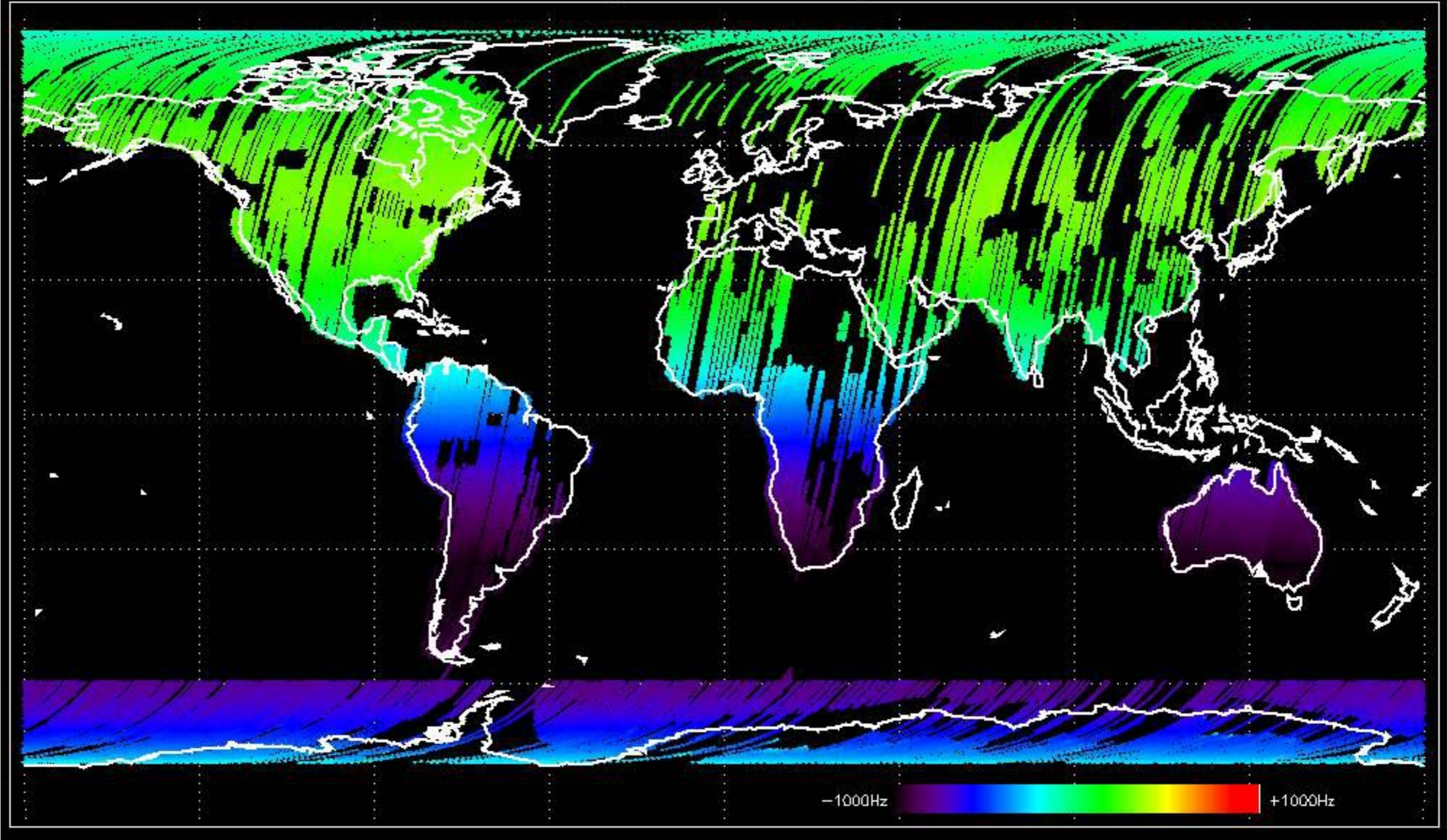


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

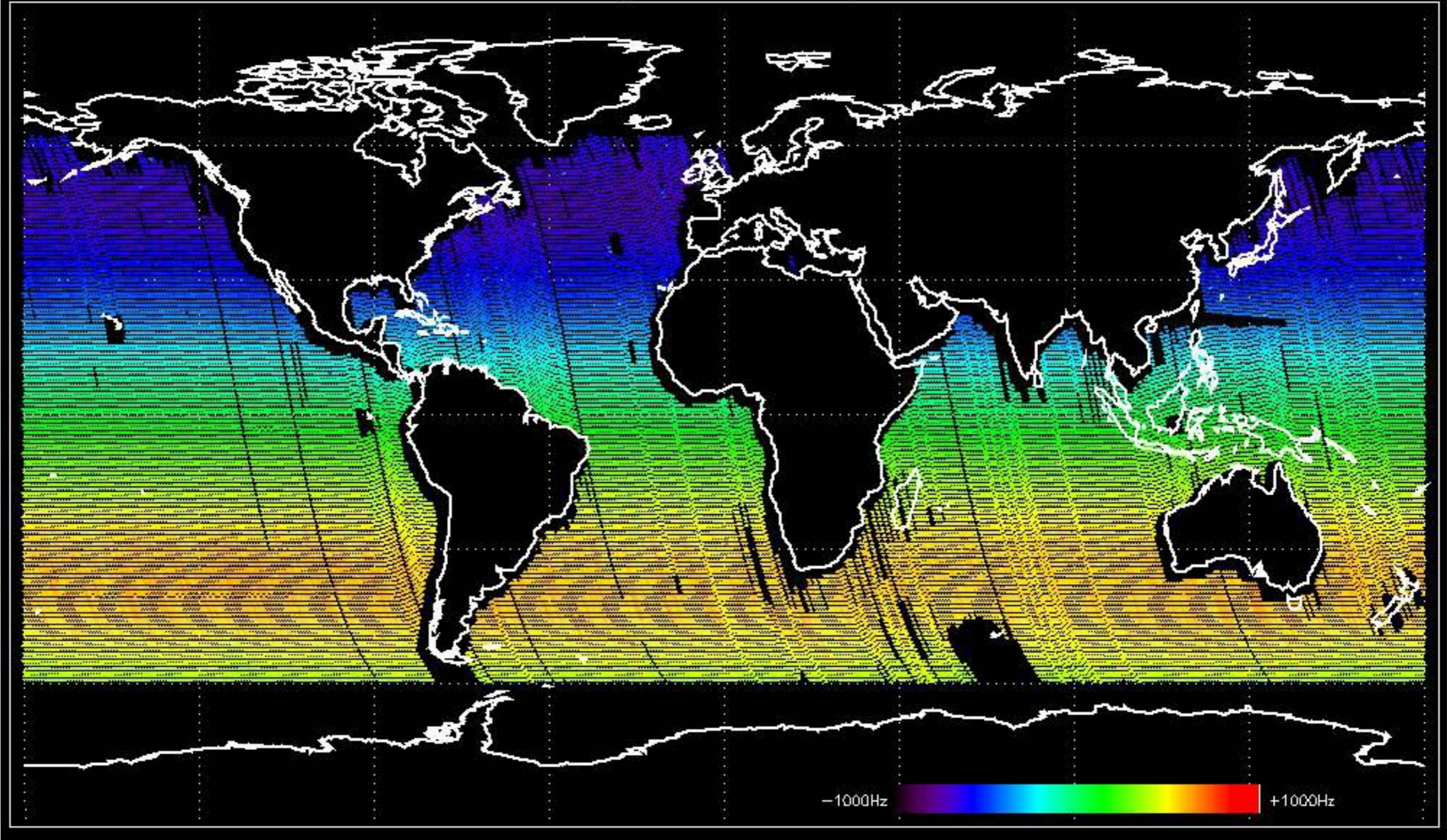
Doppler 'GM1' 'SS1' ascending



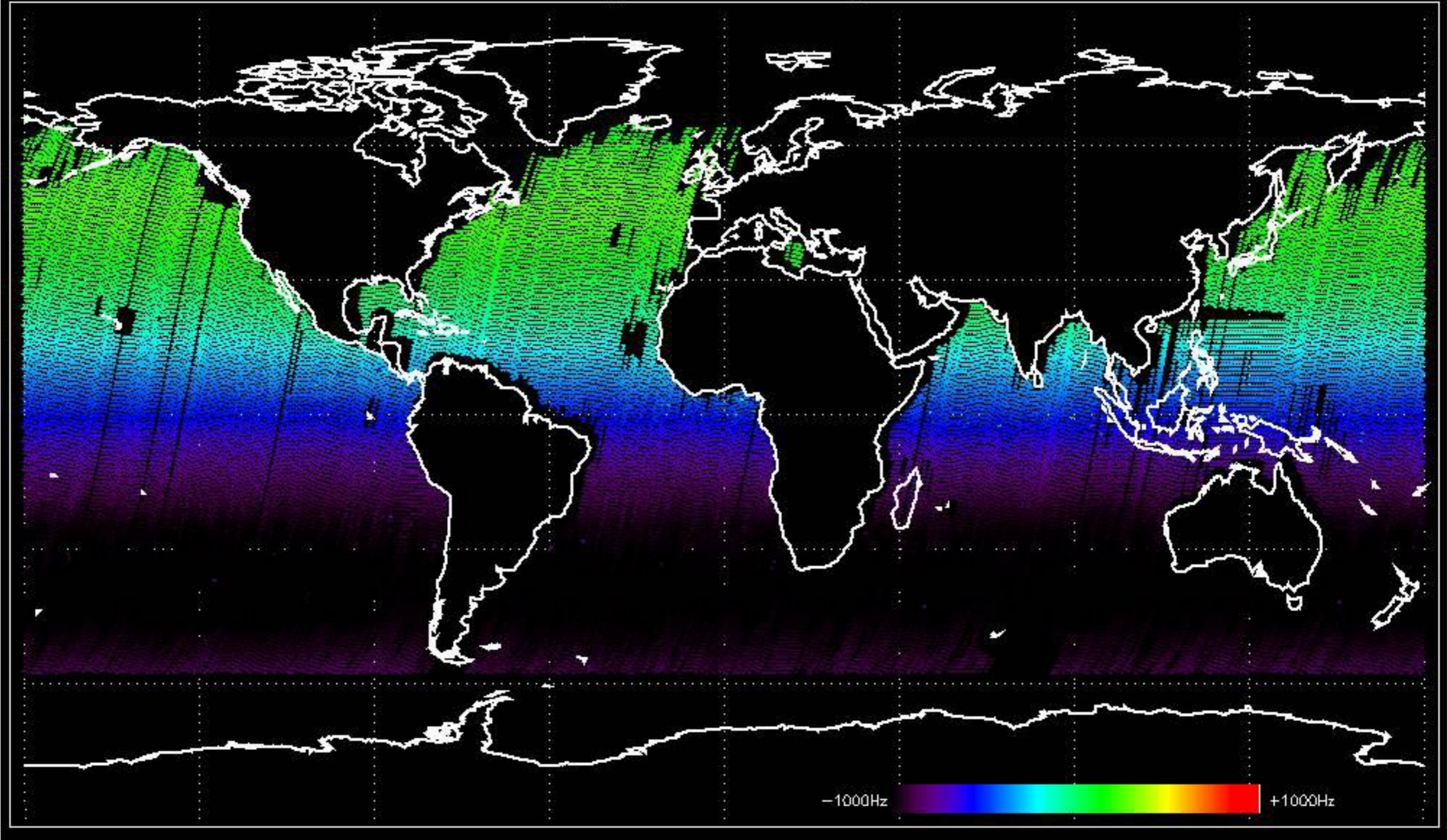
Doppler 'GM1' 'SS1' descending



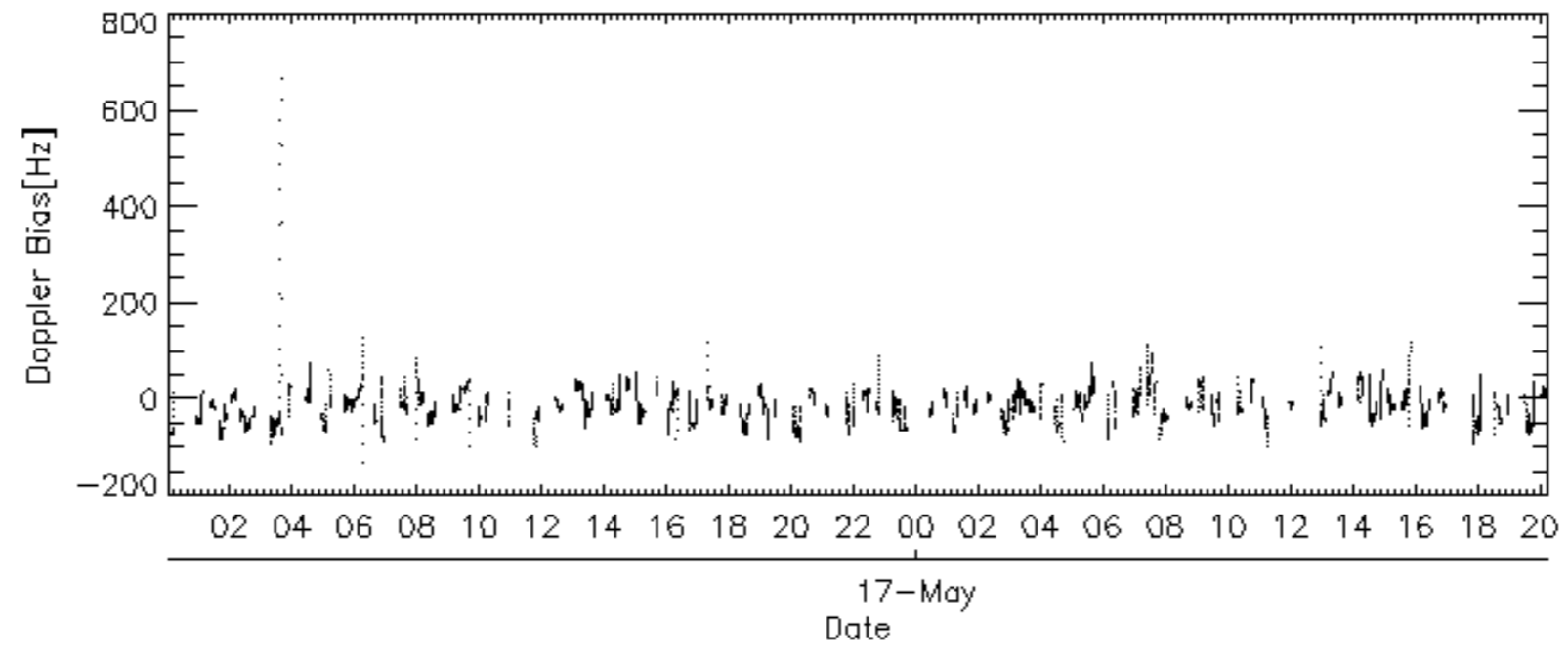
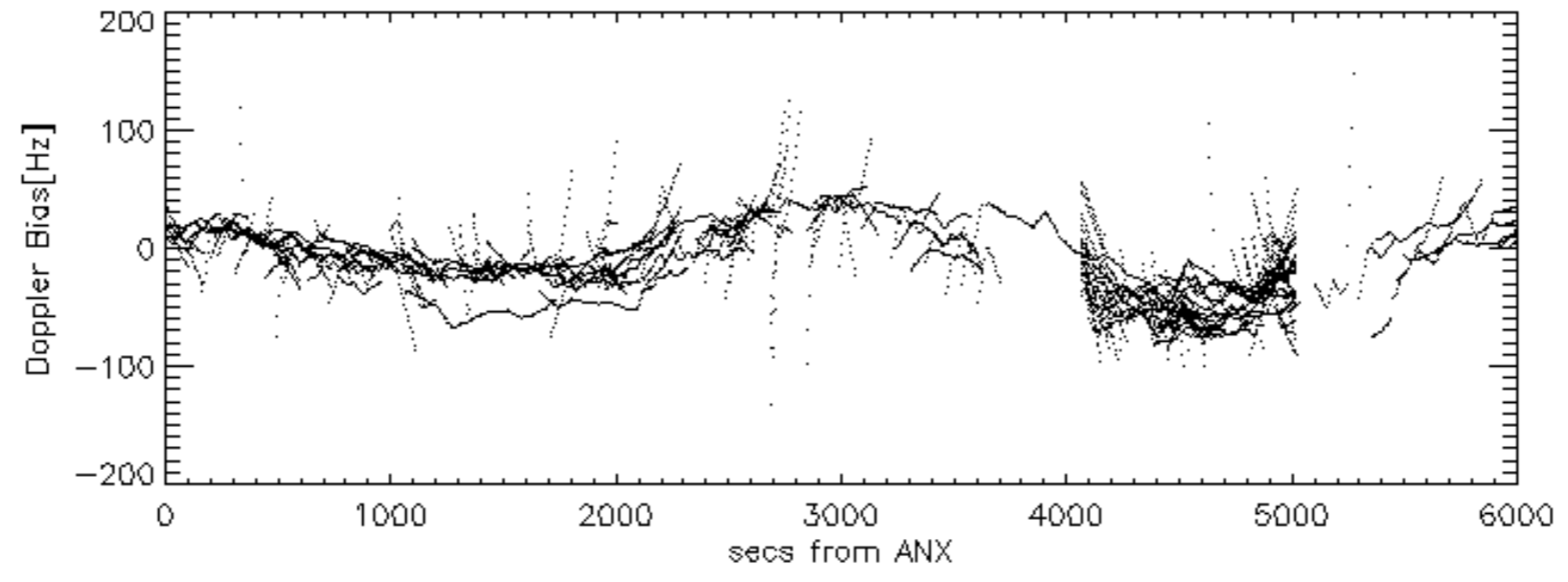
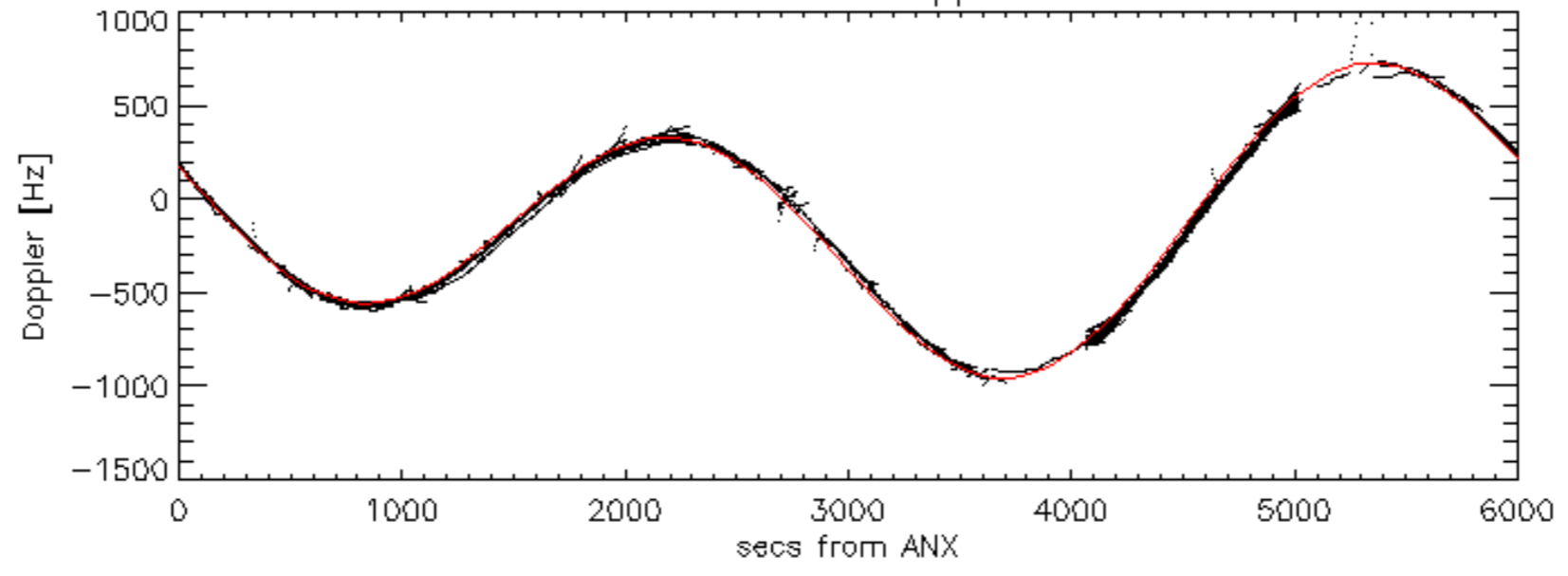
Doppler 'WVS' 'IS2' ascending

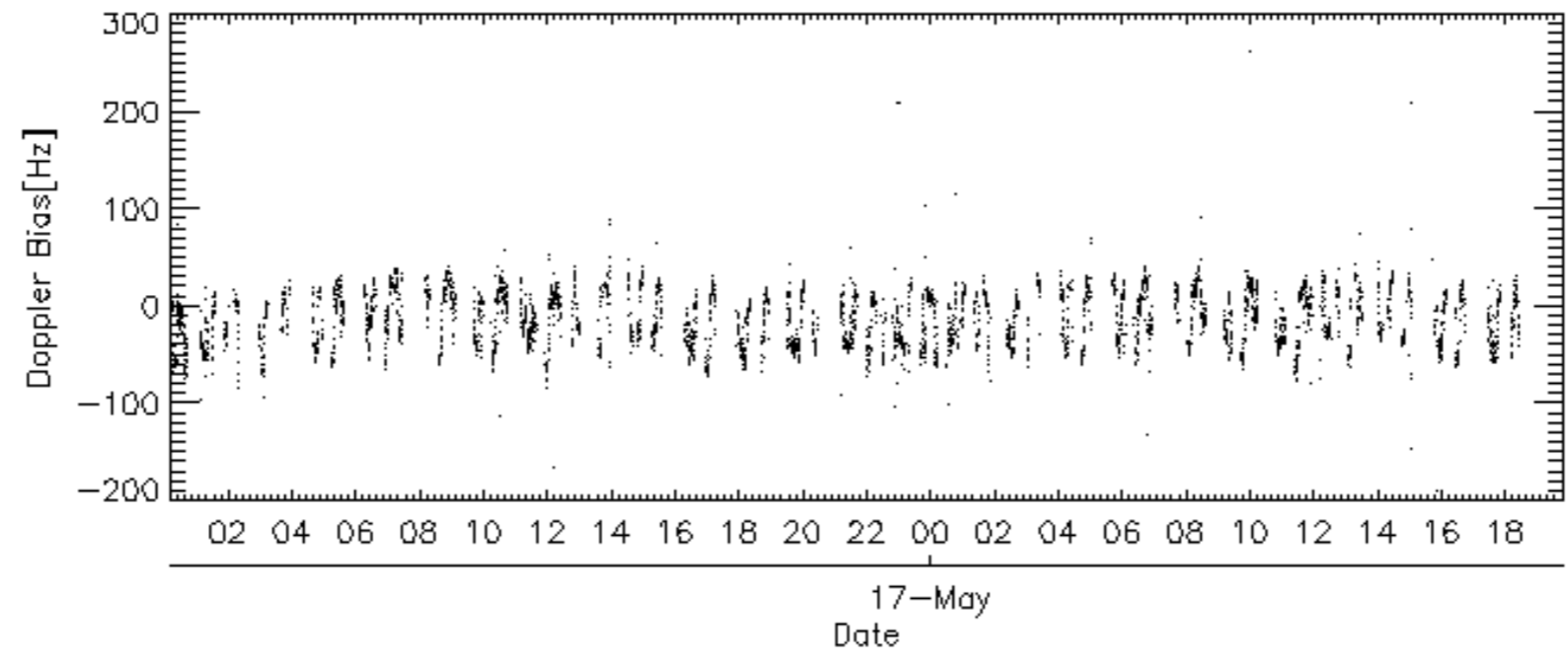
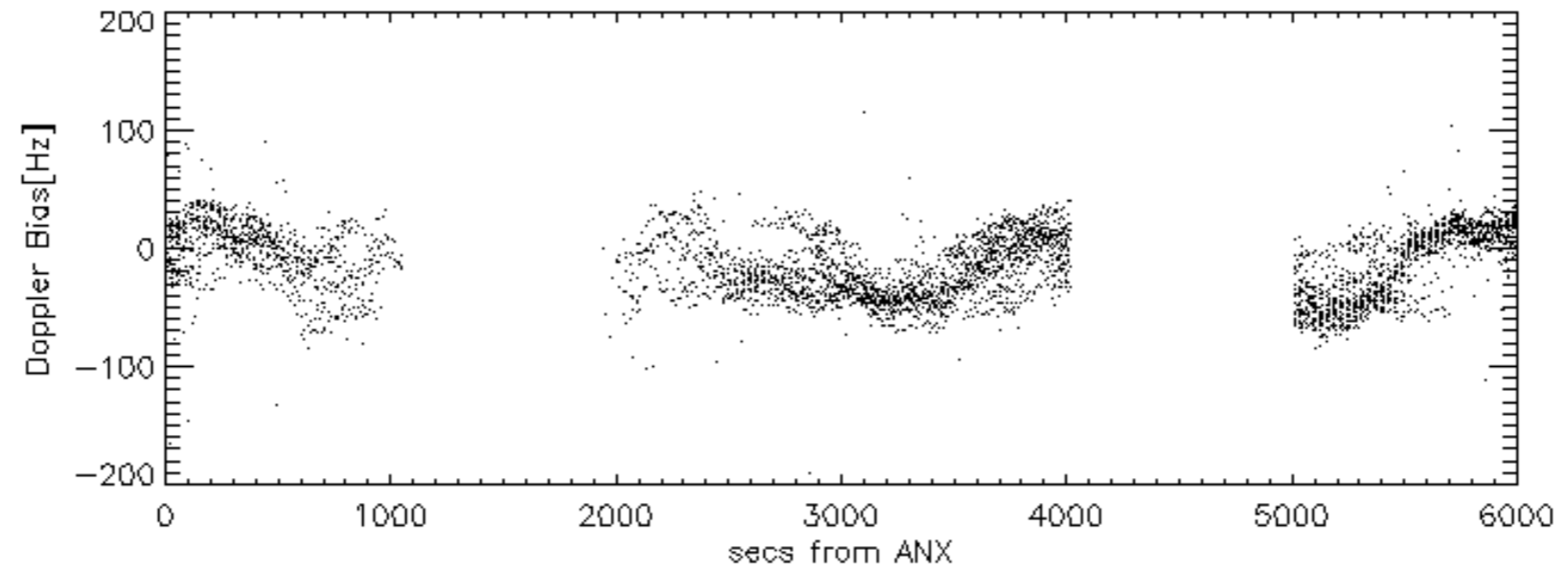
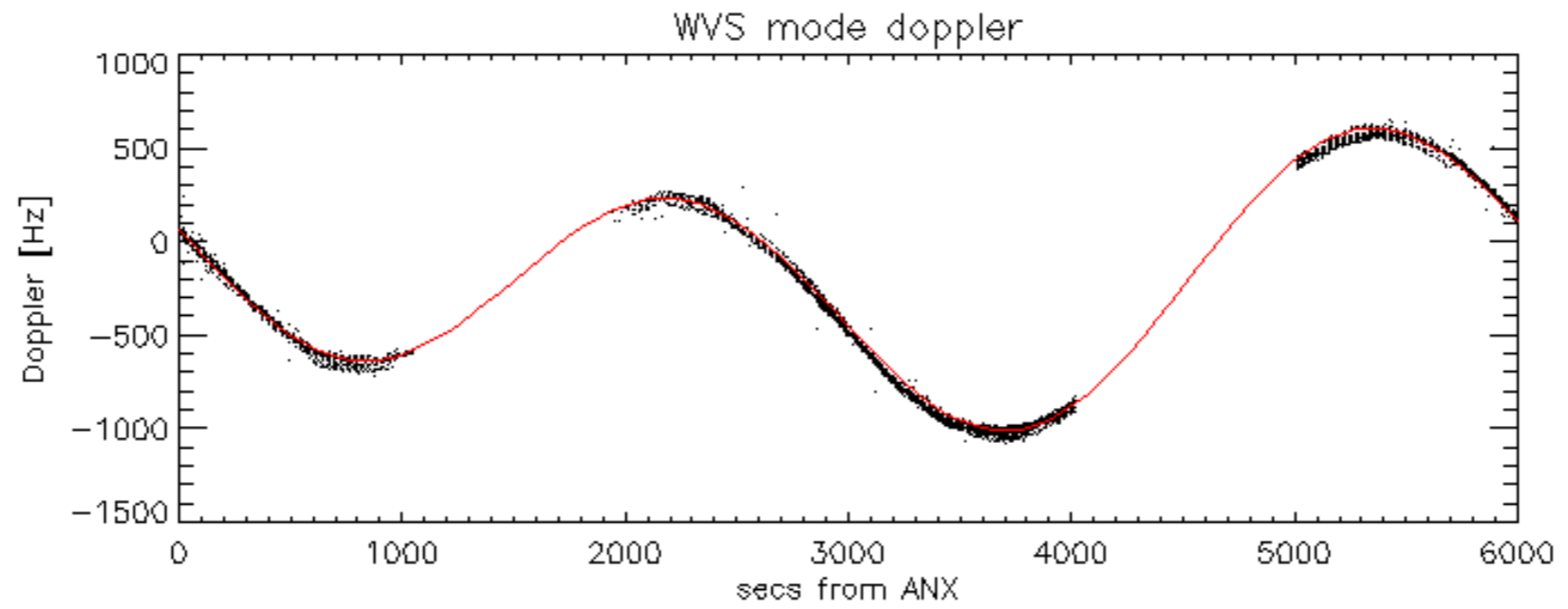


Doppler 'WVS' 'IS2' descending

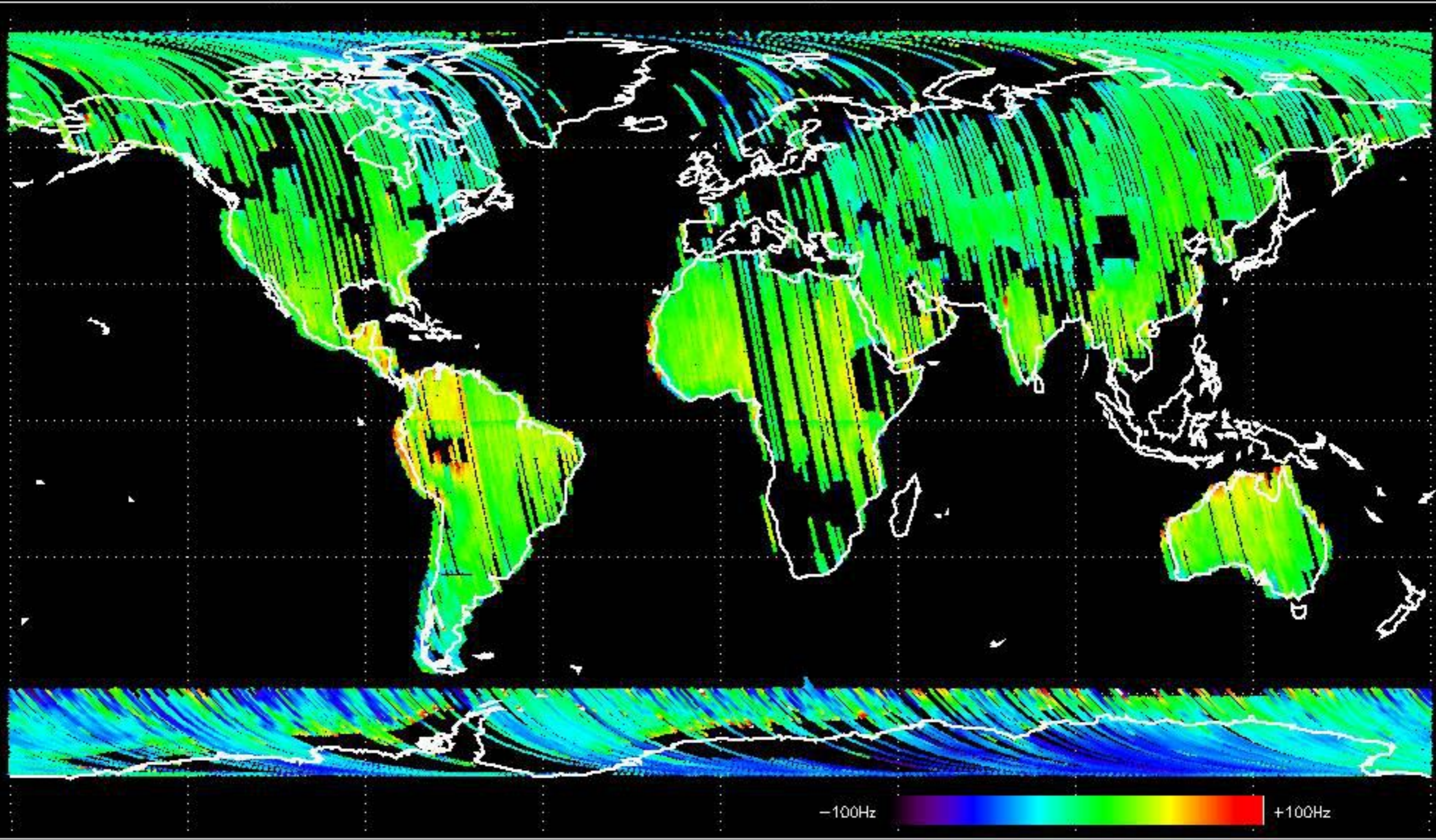


GM1 mode doppler

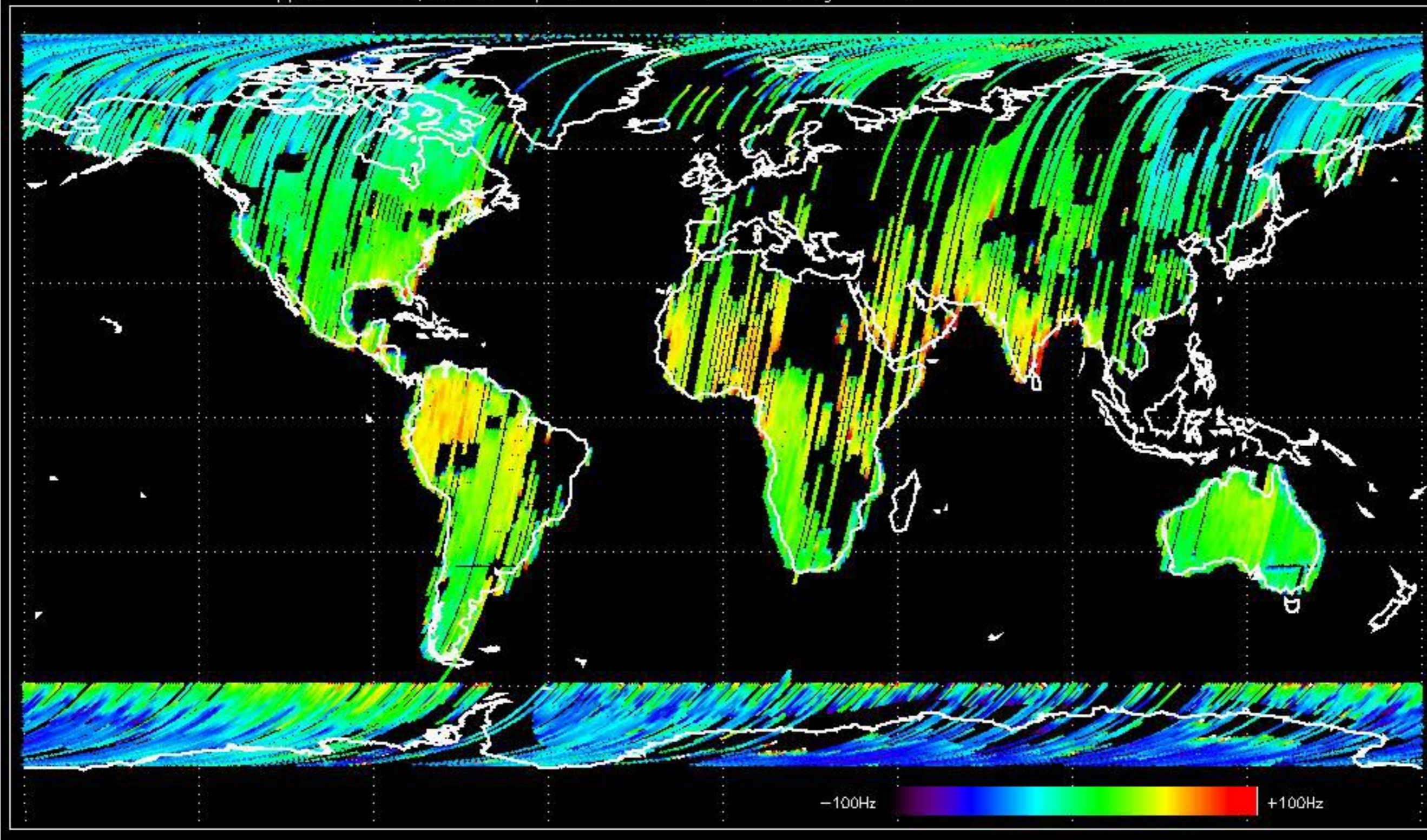




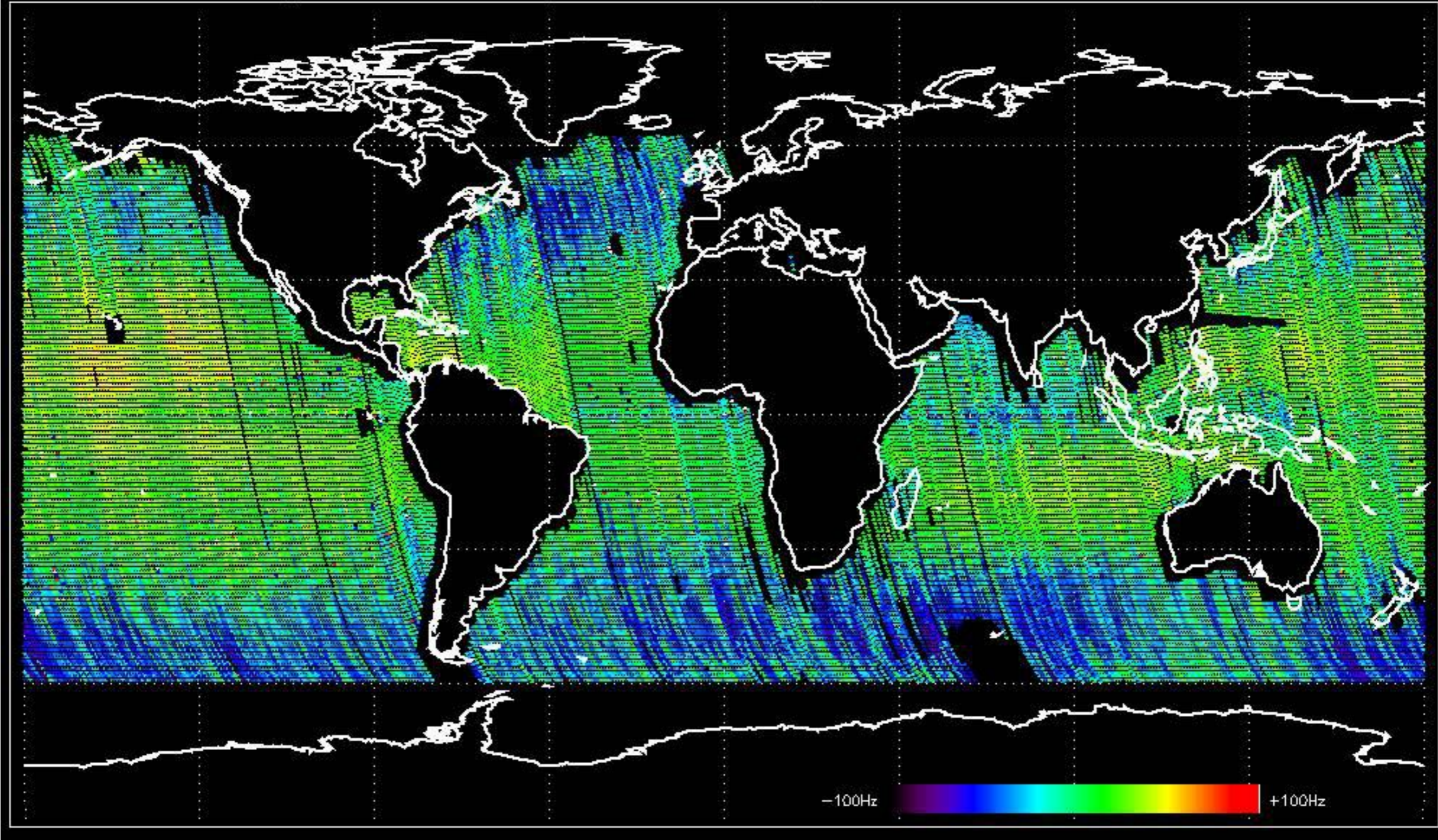
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.087901 Hz



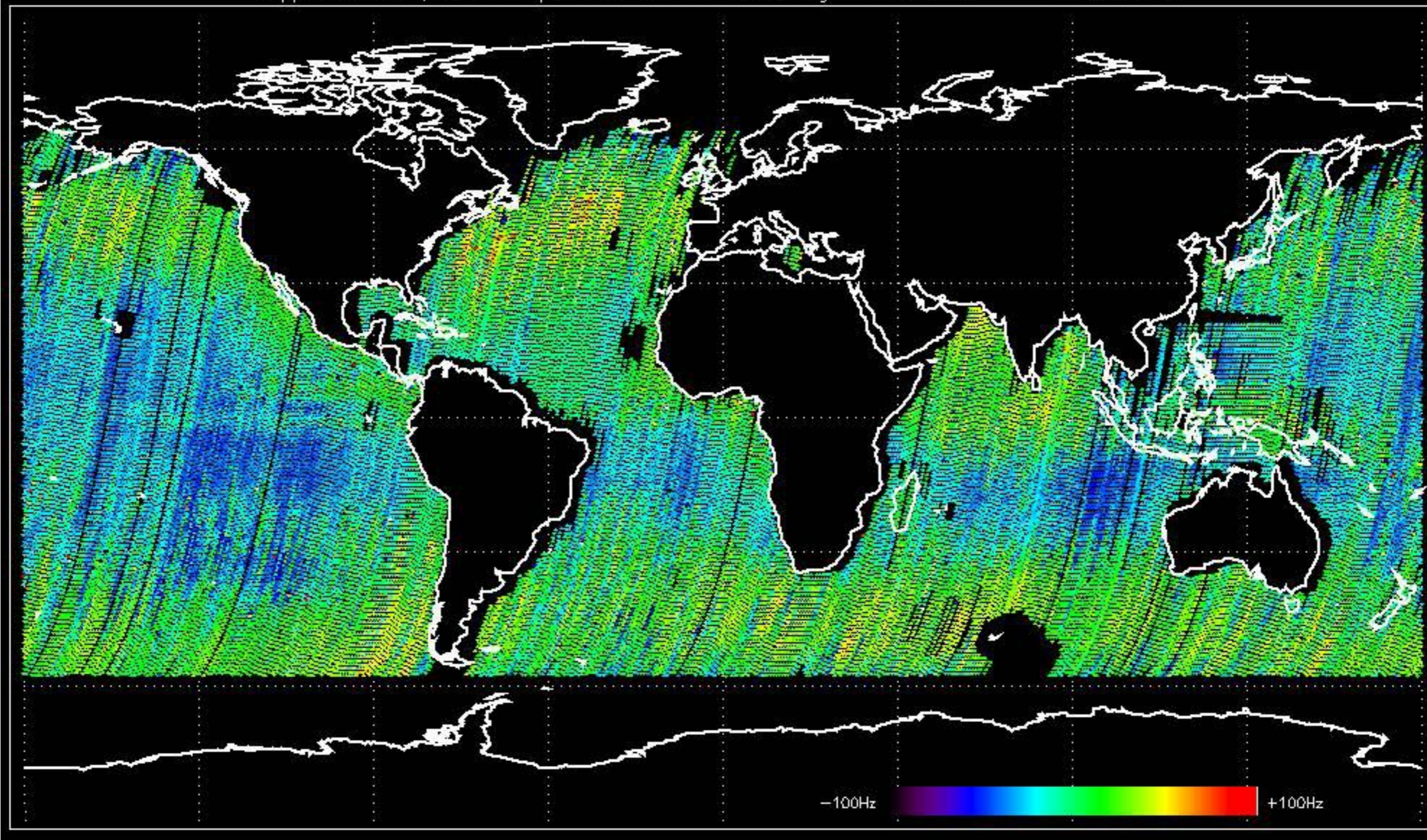
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.525746 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -15.363789 Hz

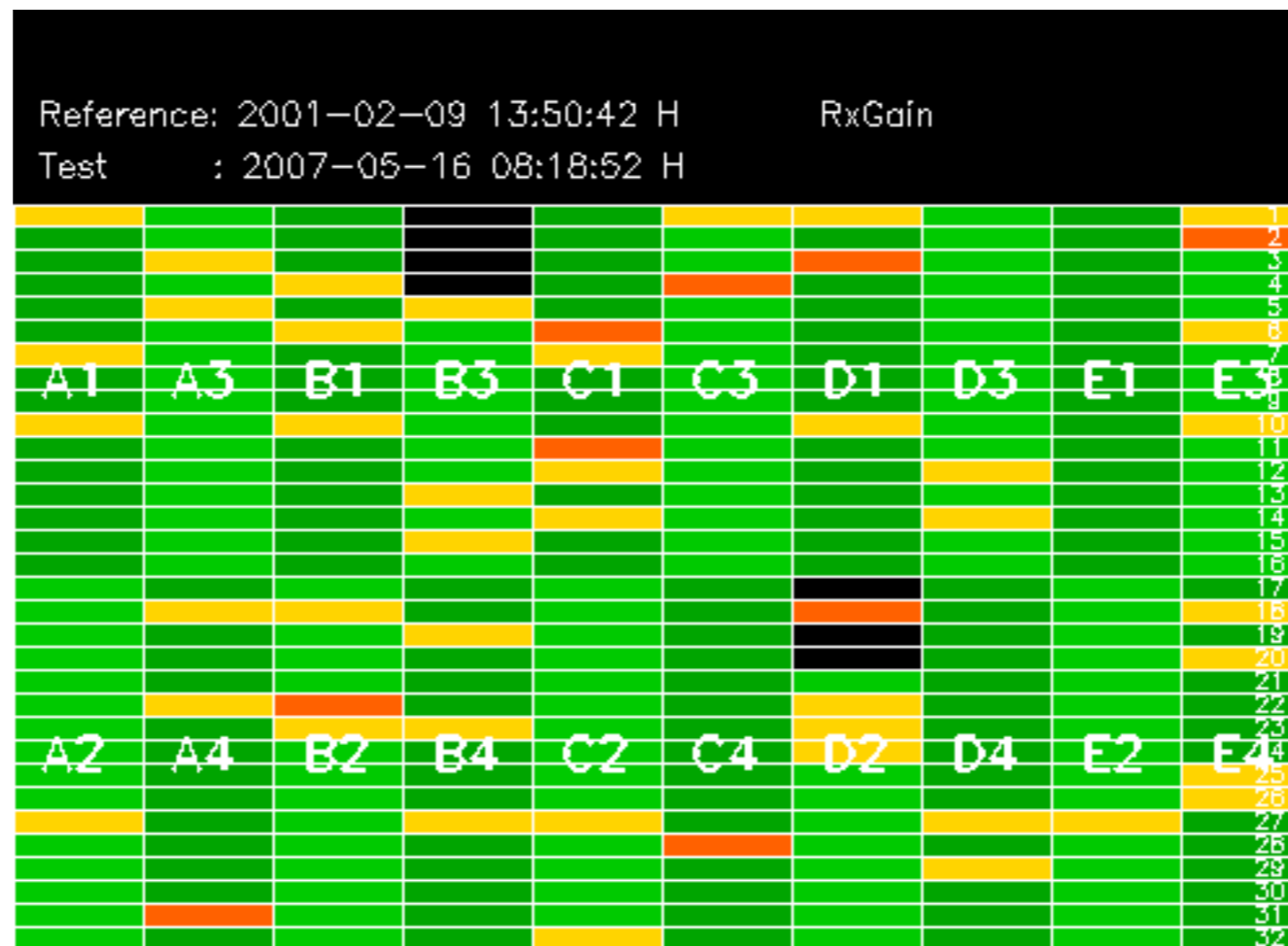


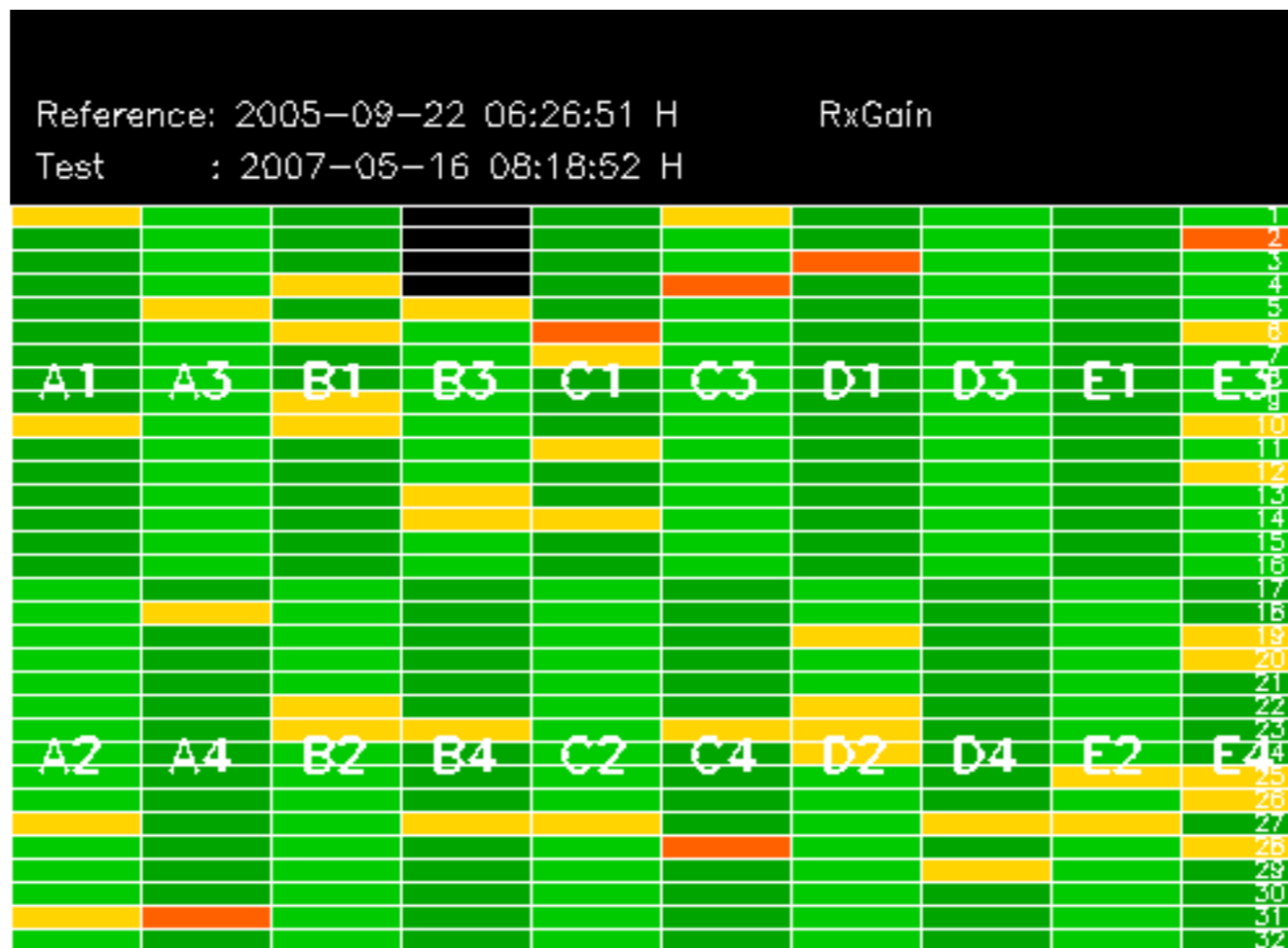
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.376886 Hz

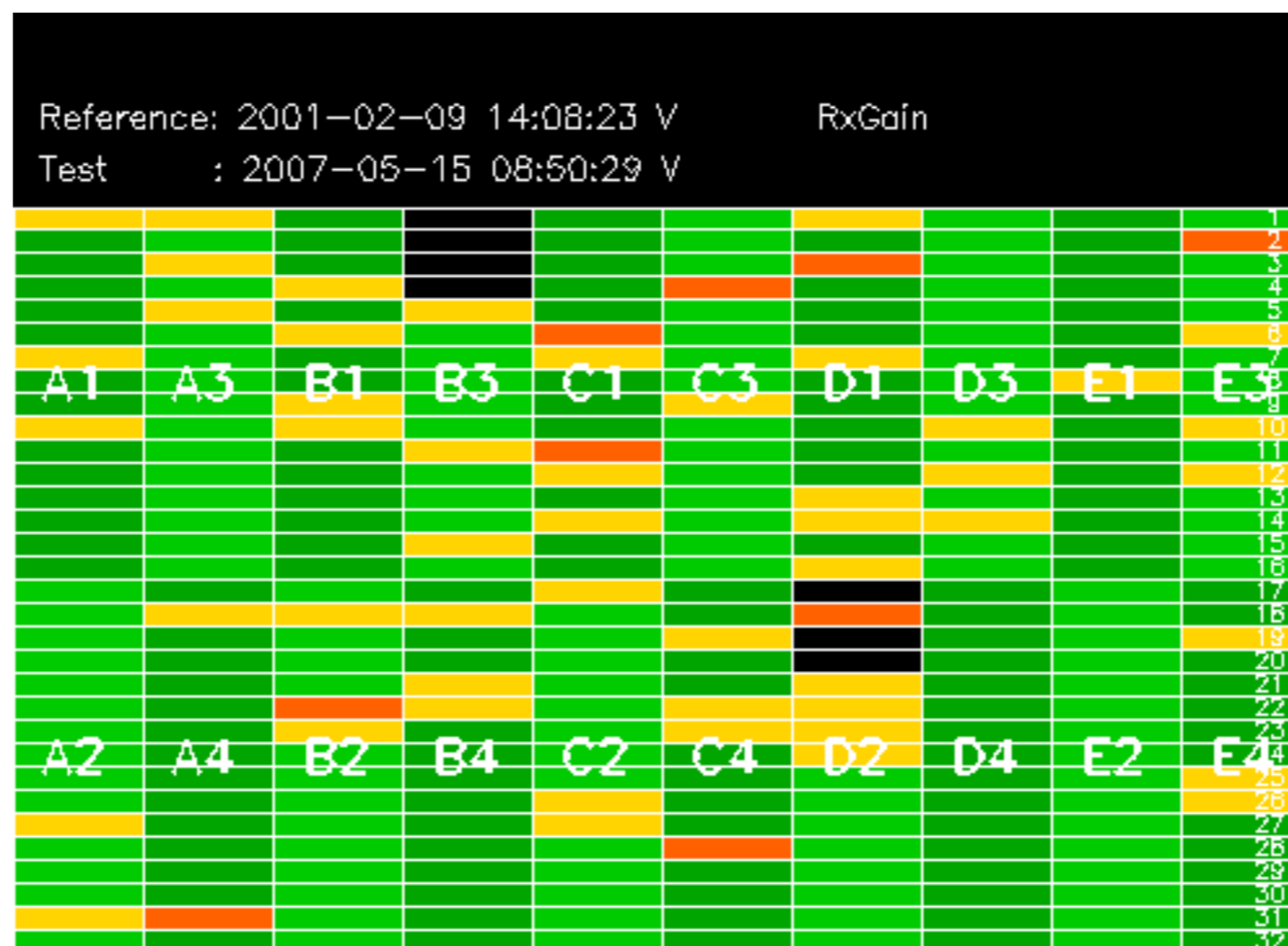


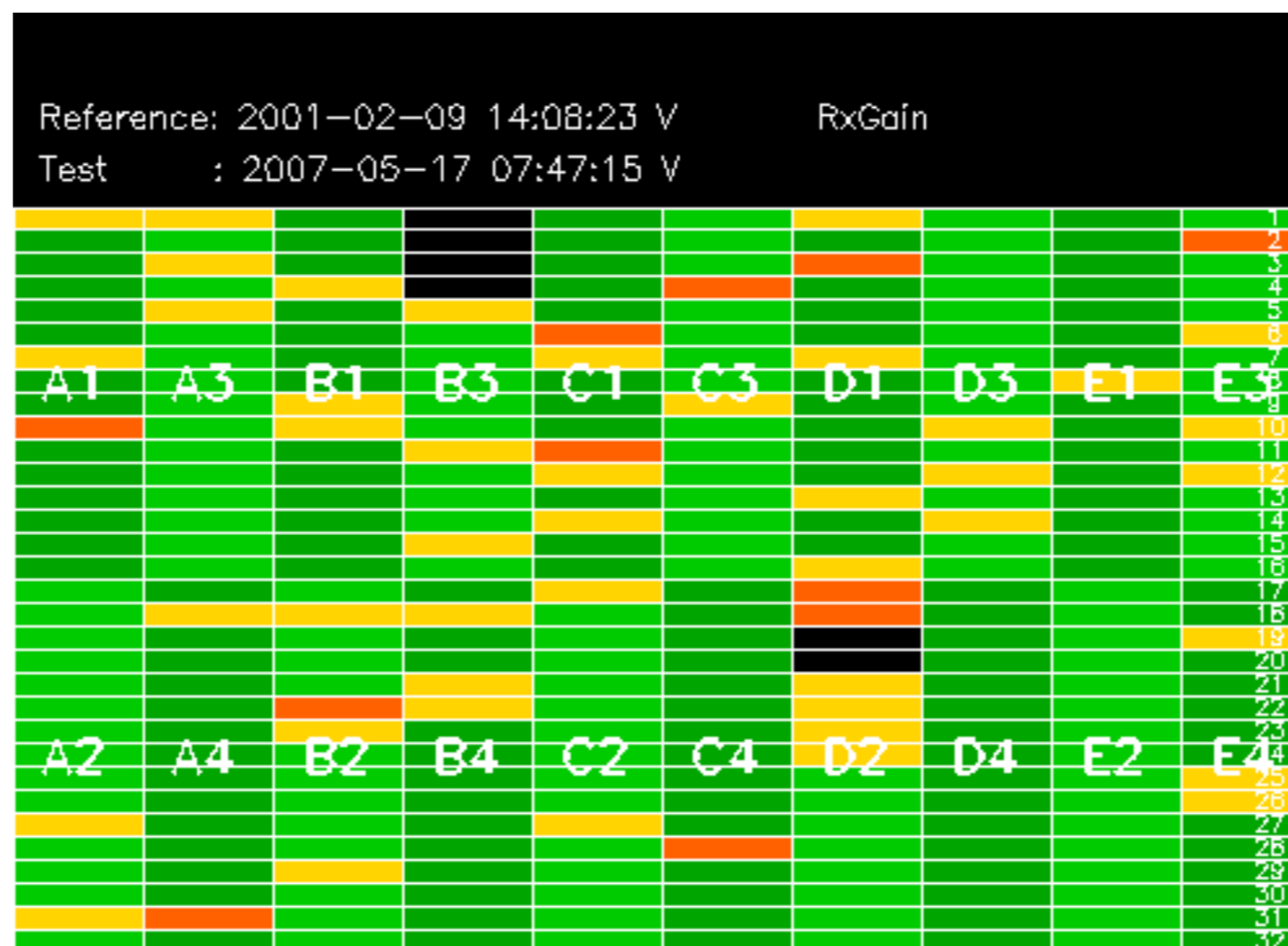
No anomalies observed on available MS products:

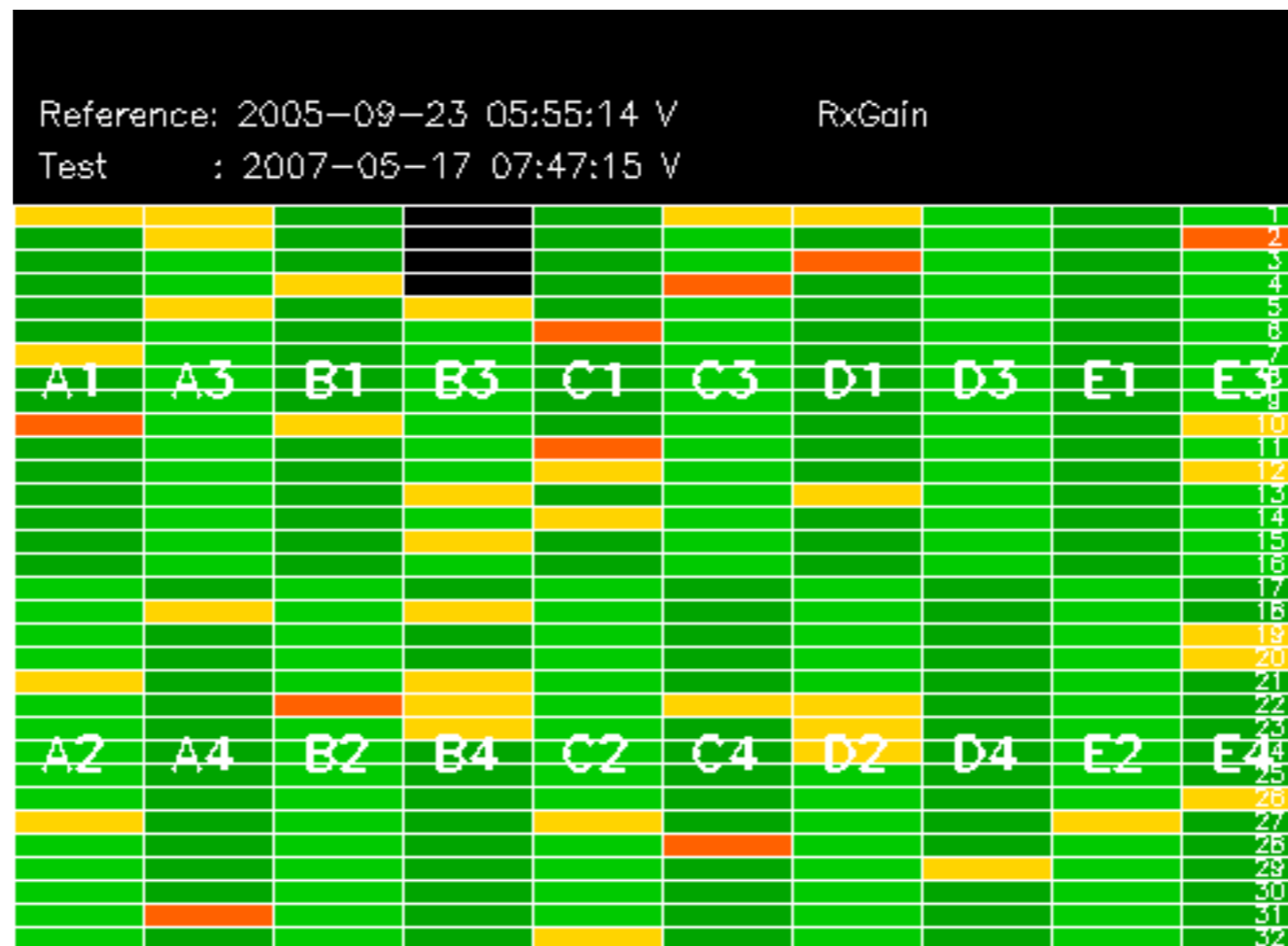
No anomalies observed.

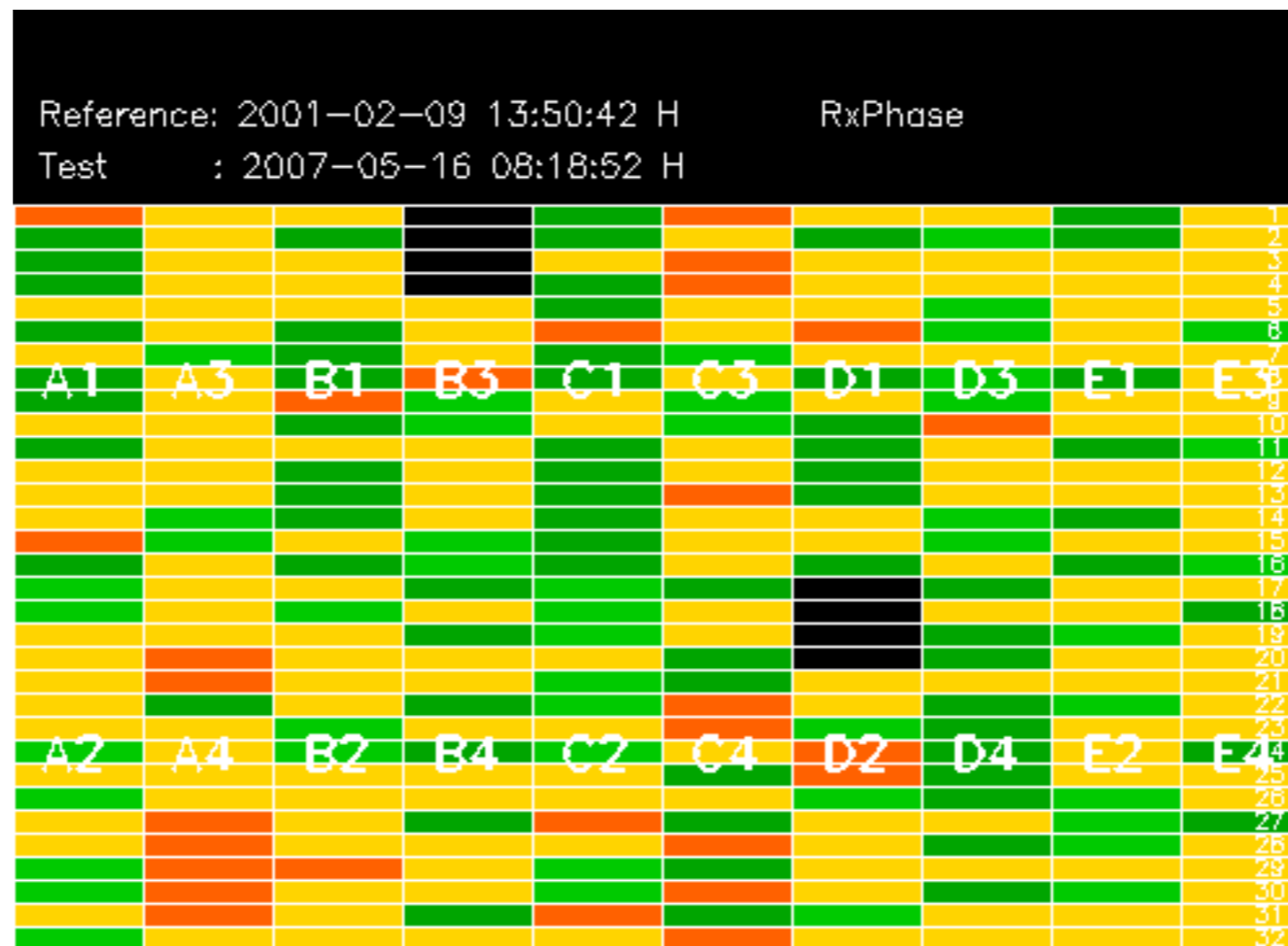


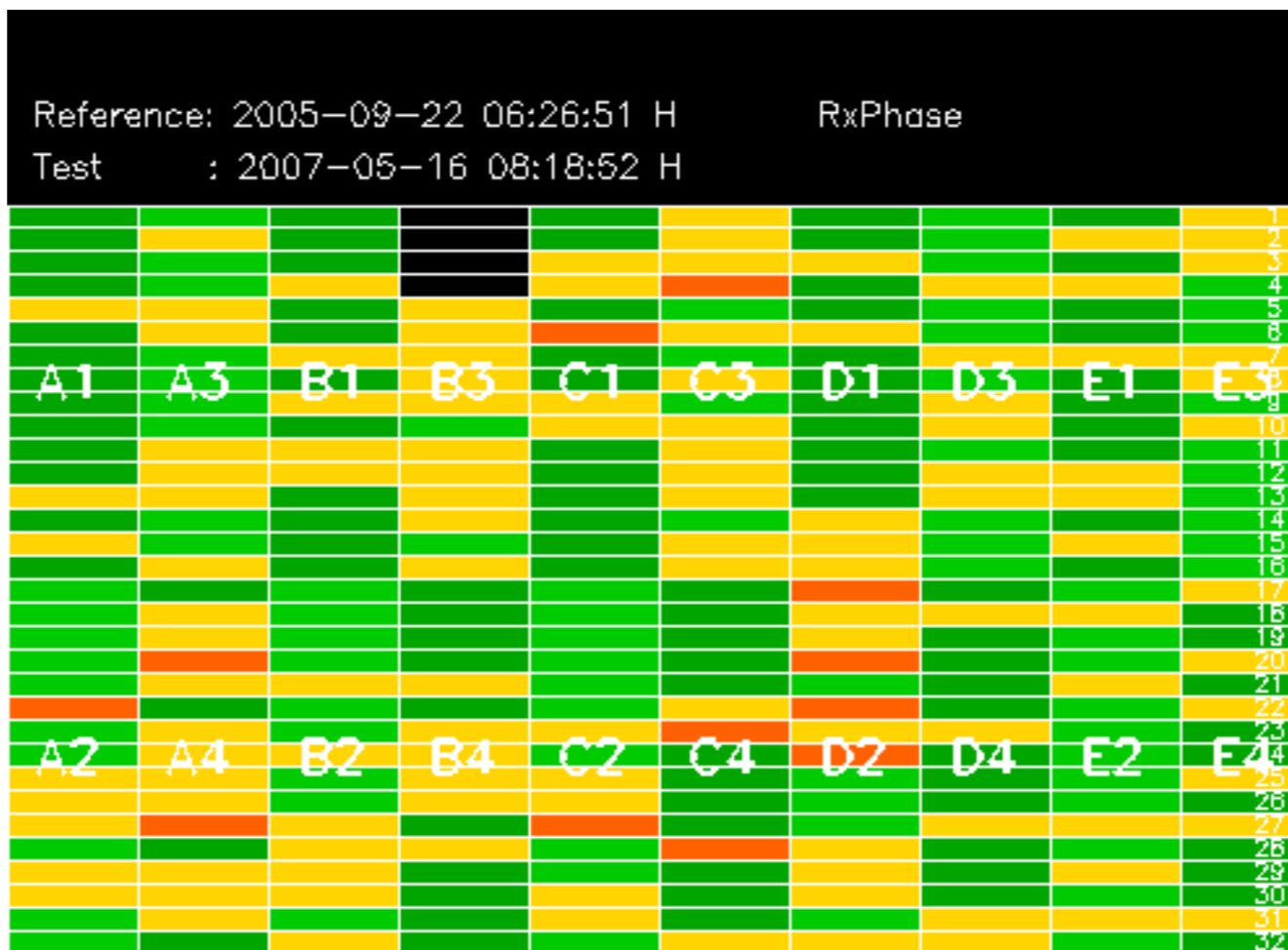


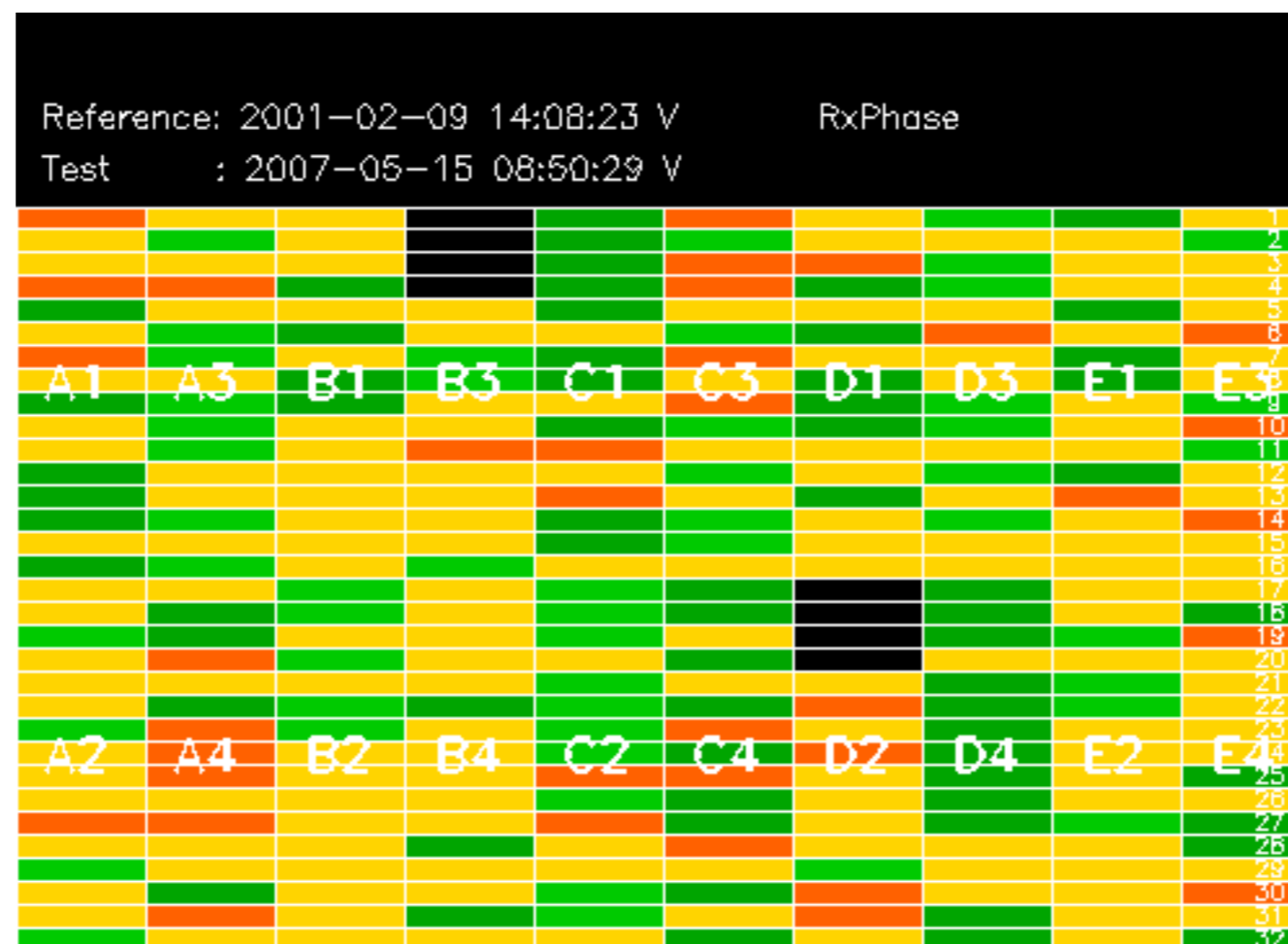


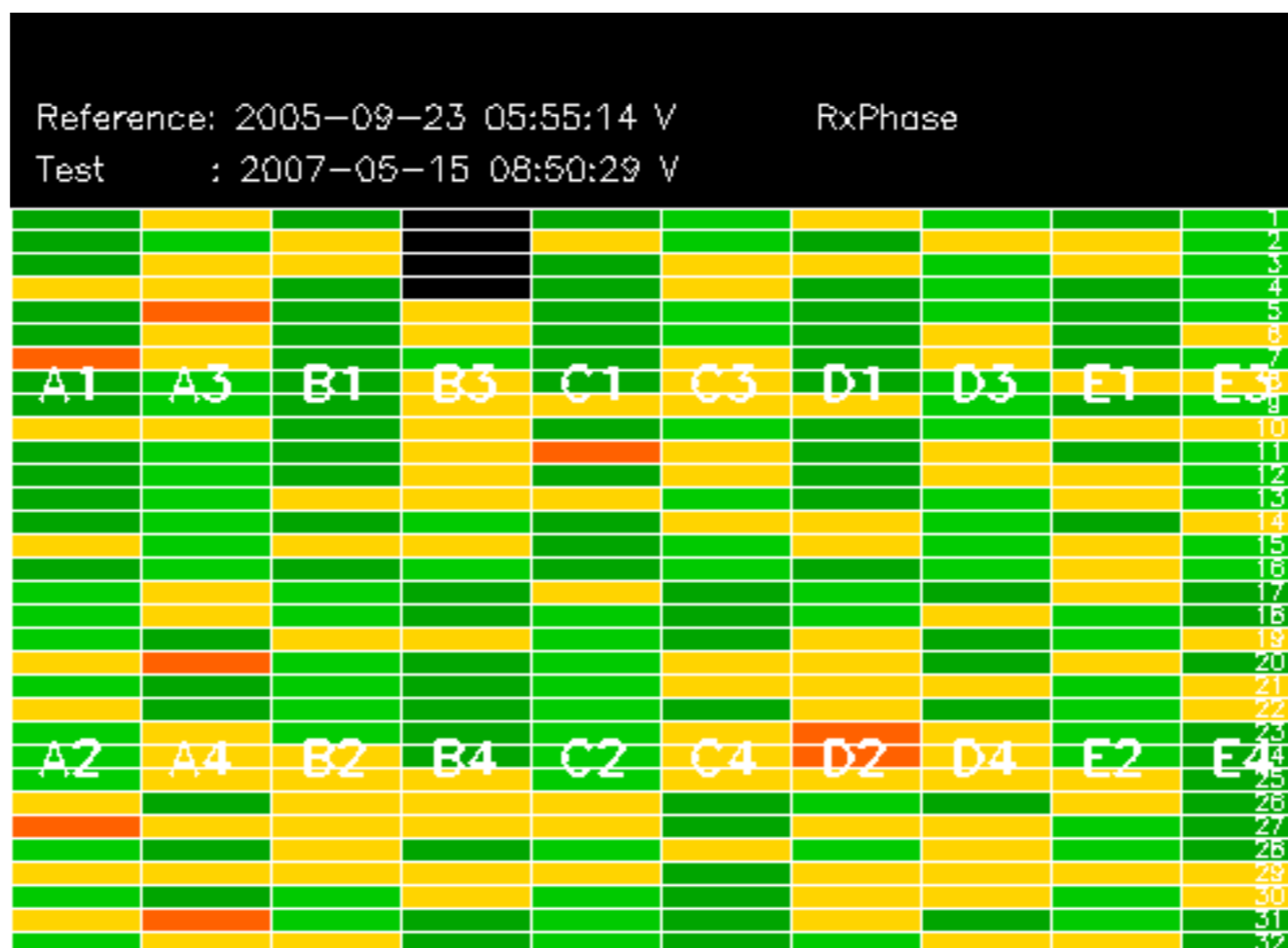


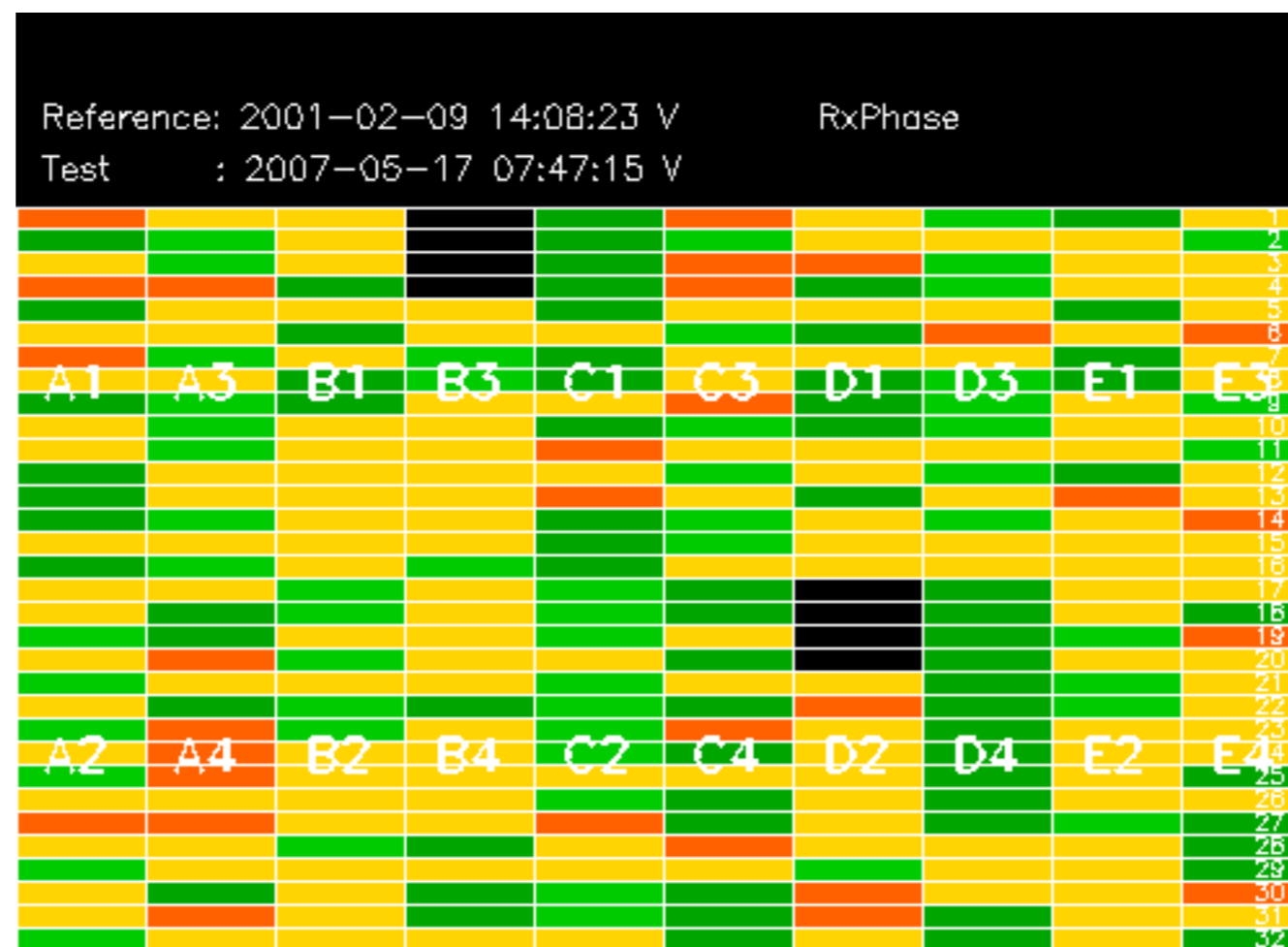


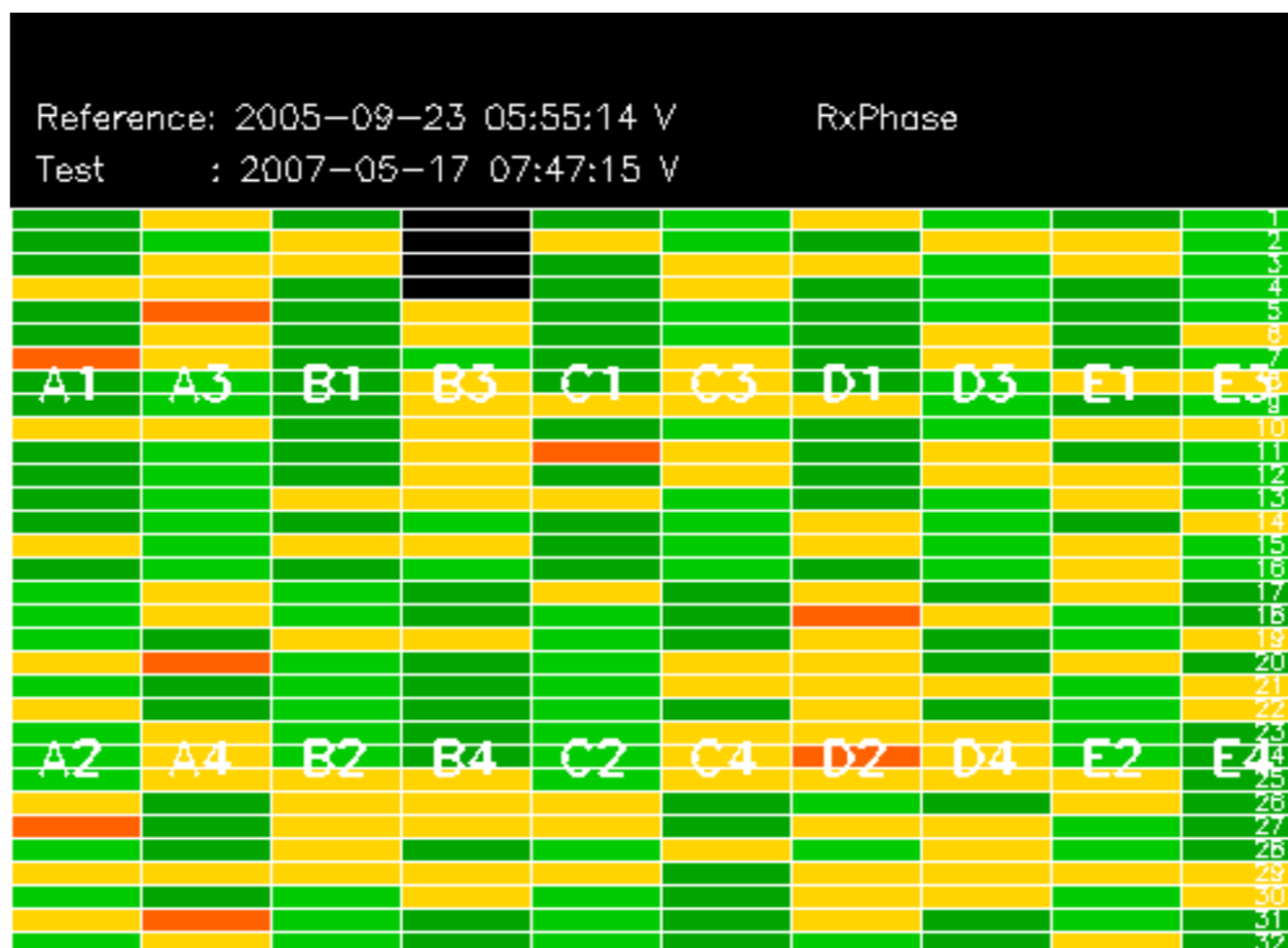


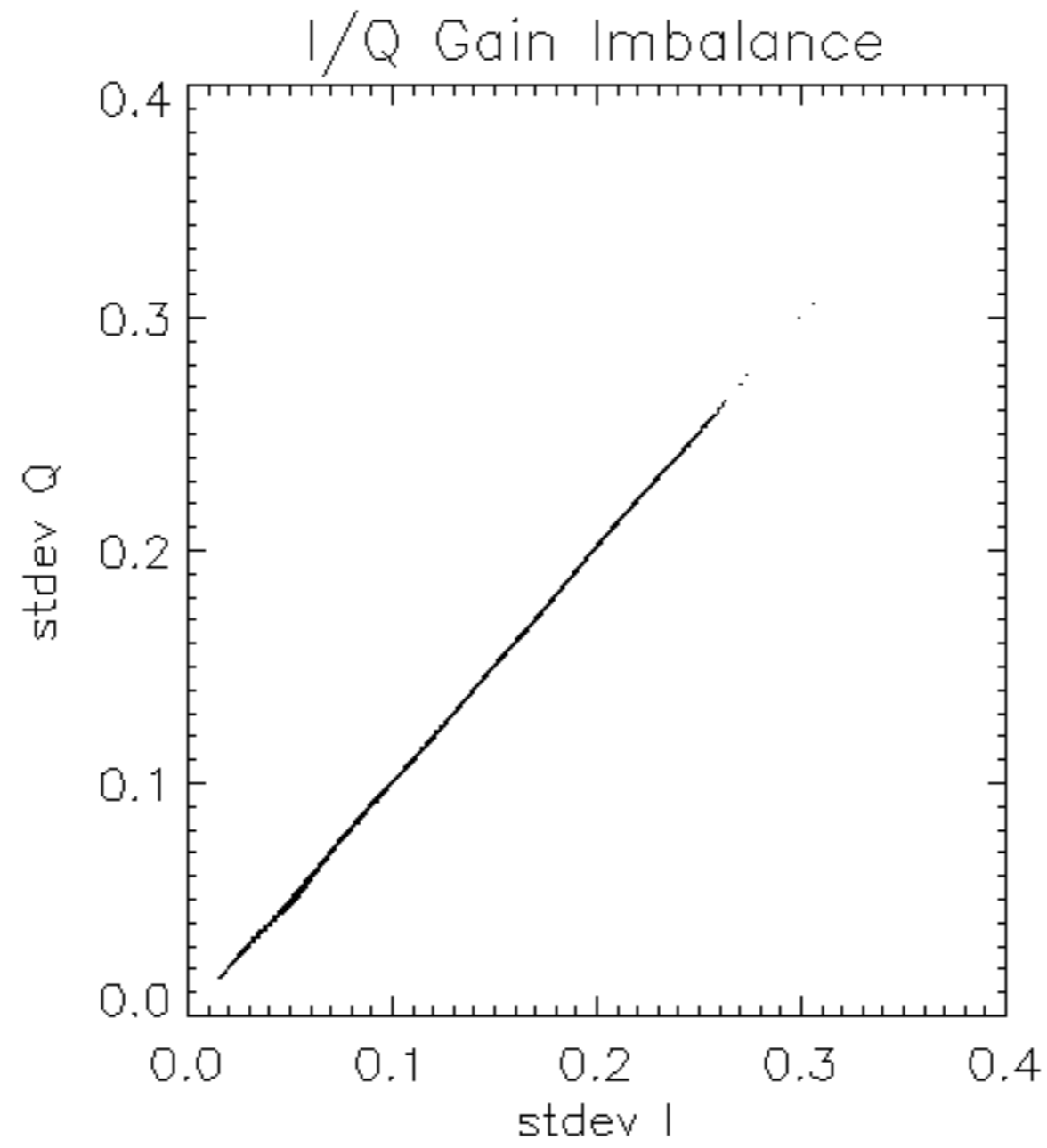


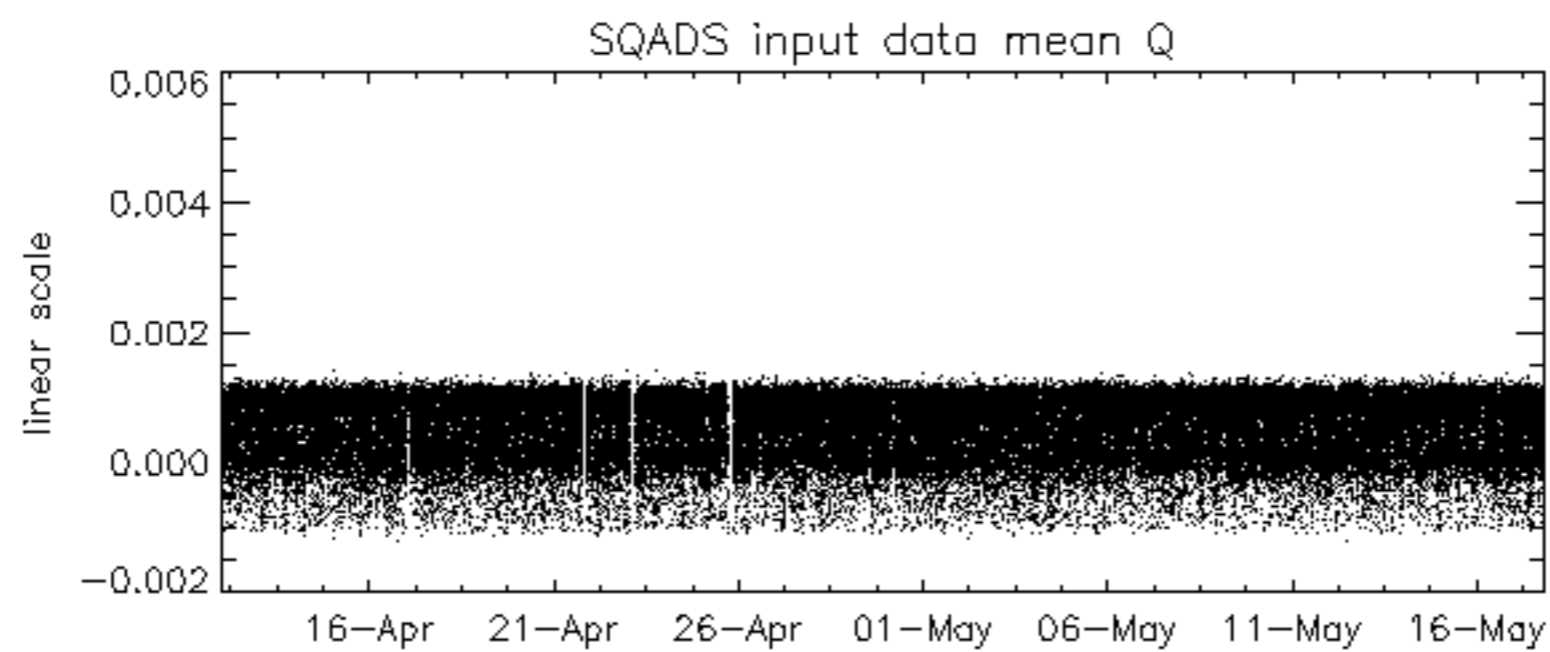
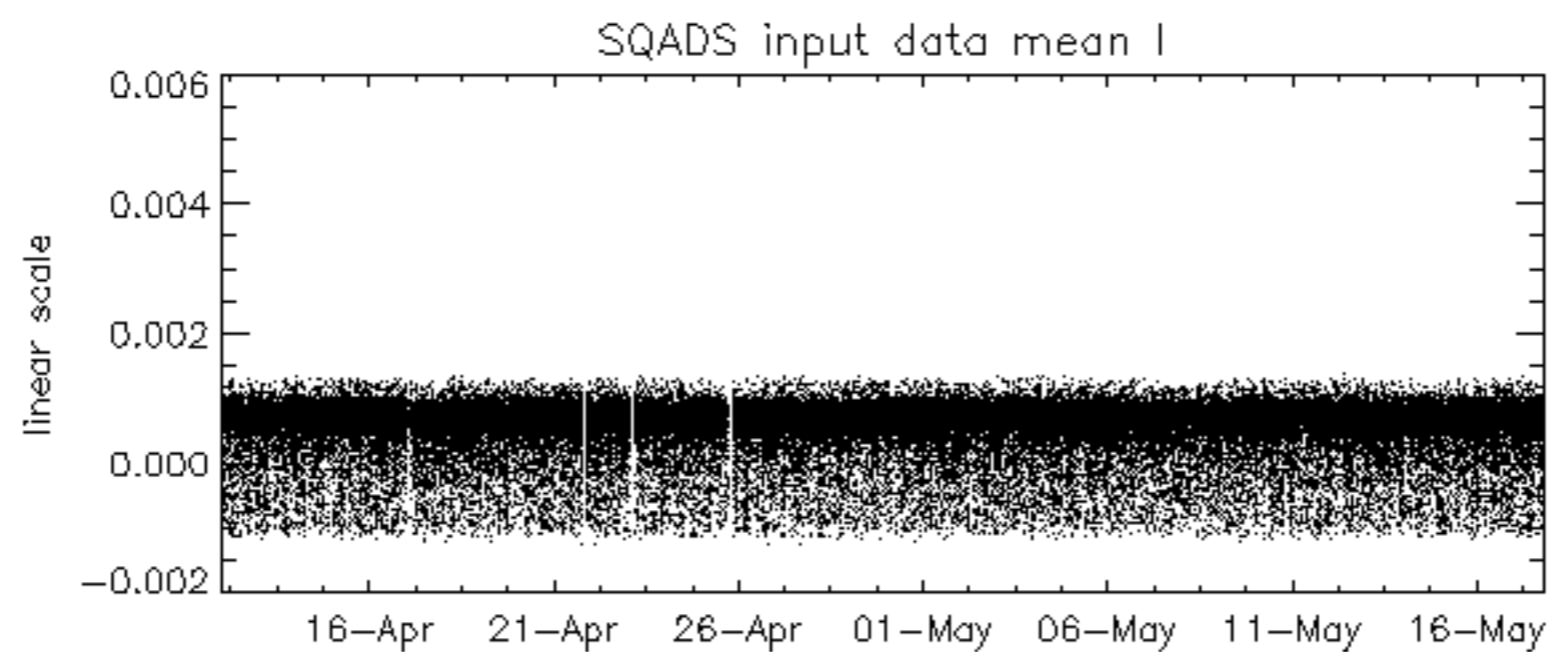
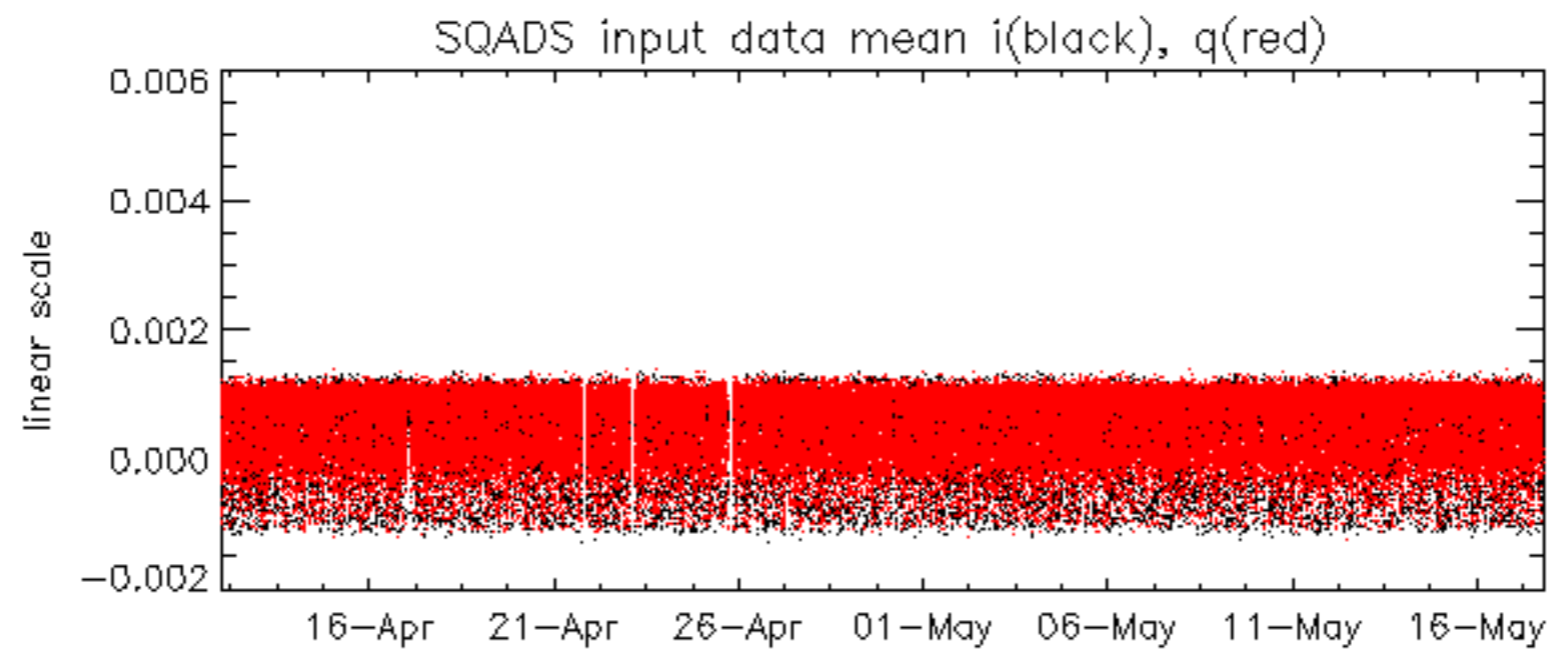


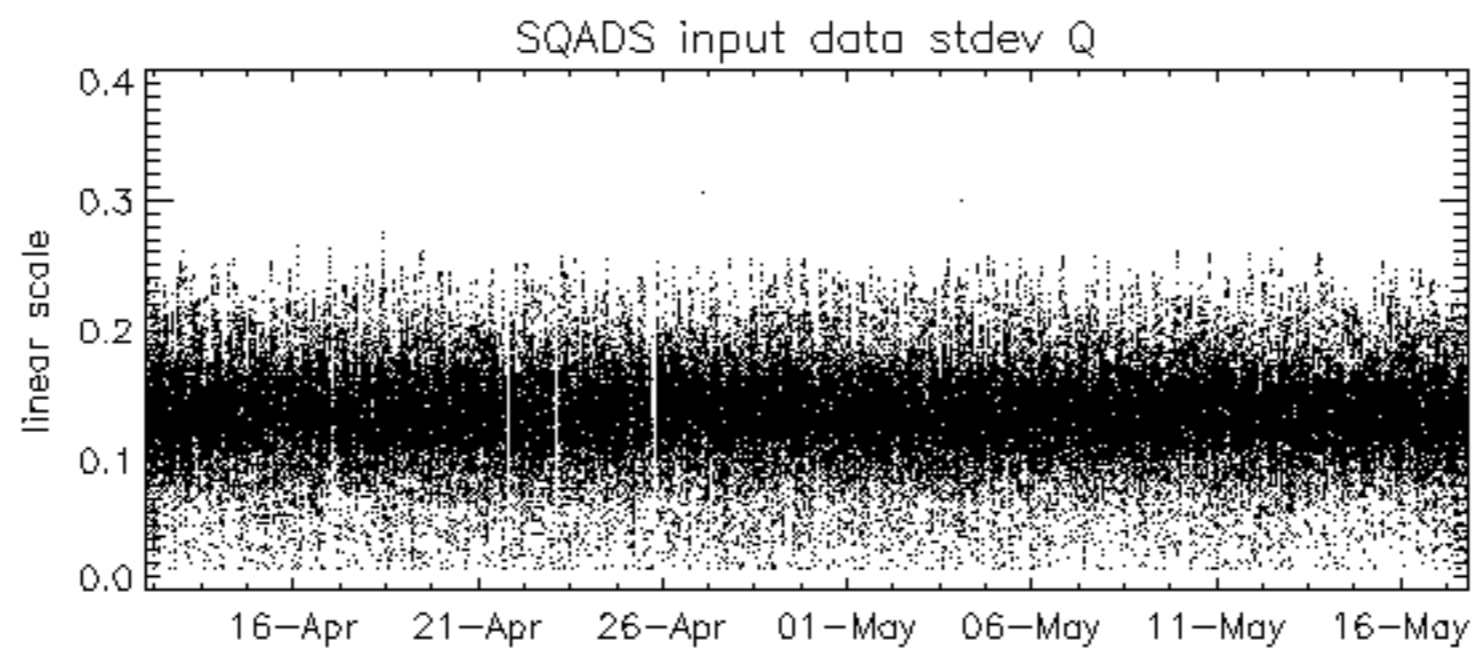
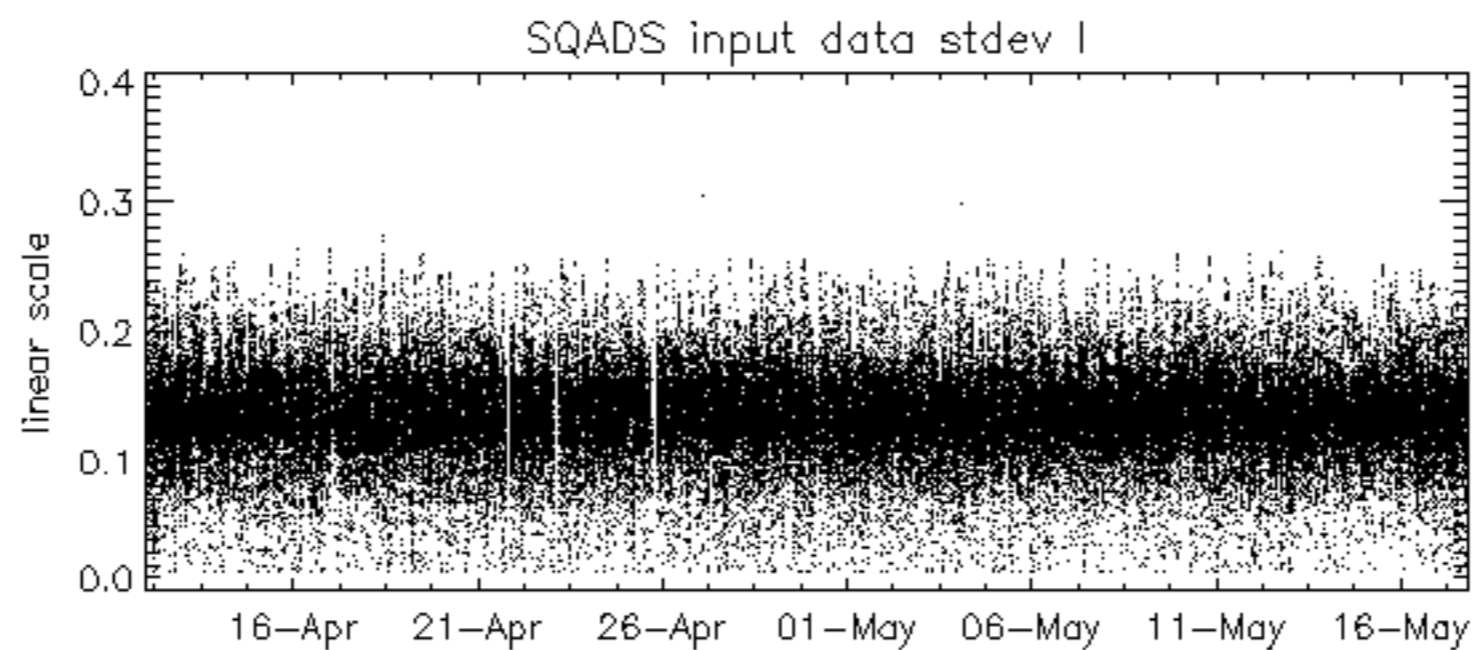
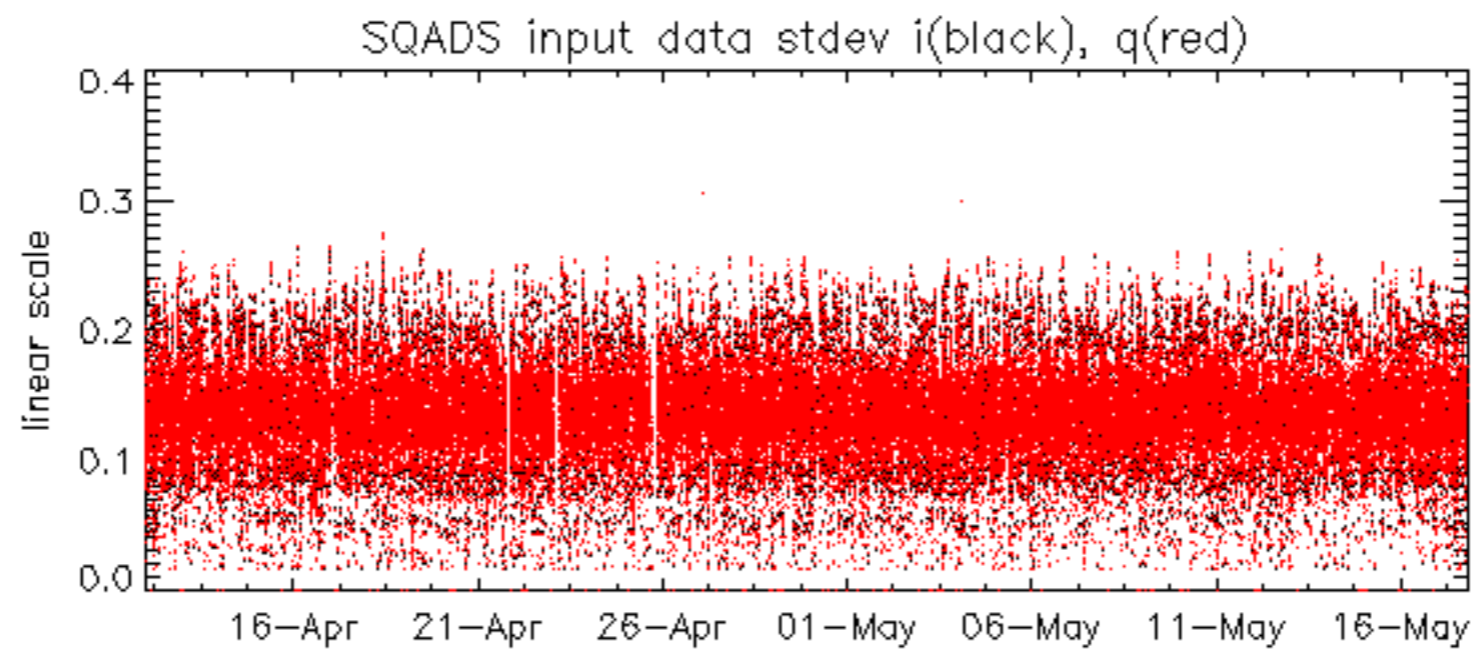








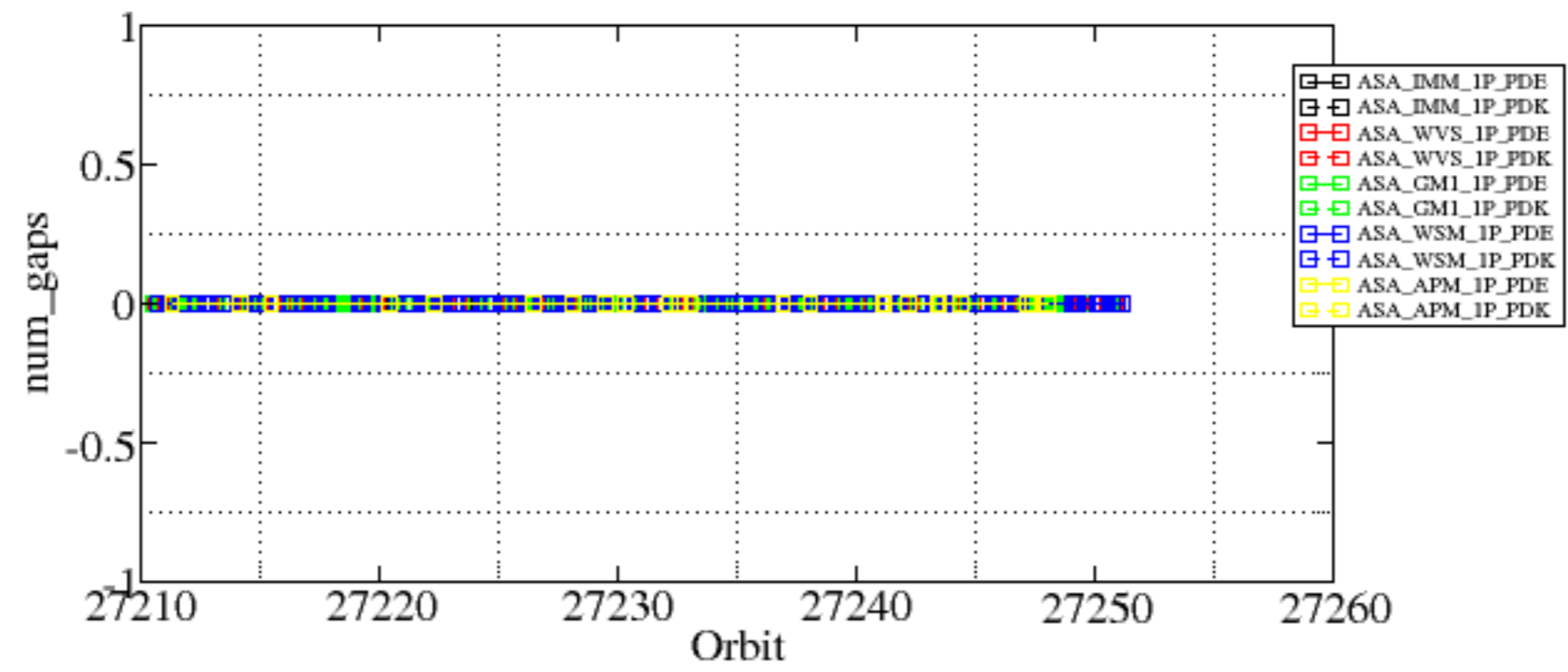


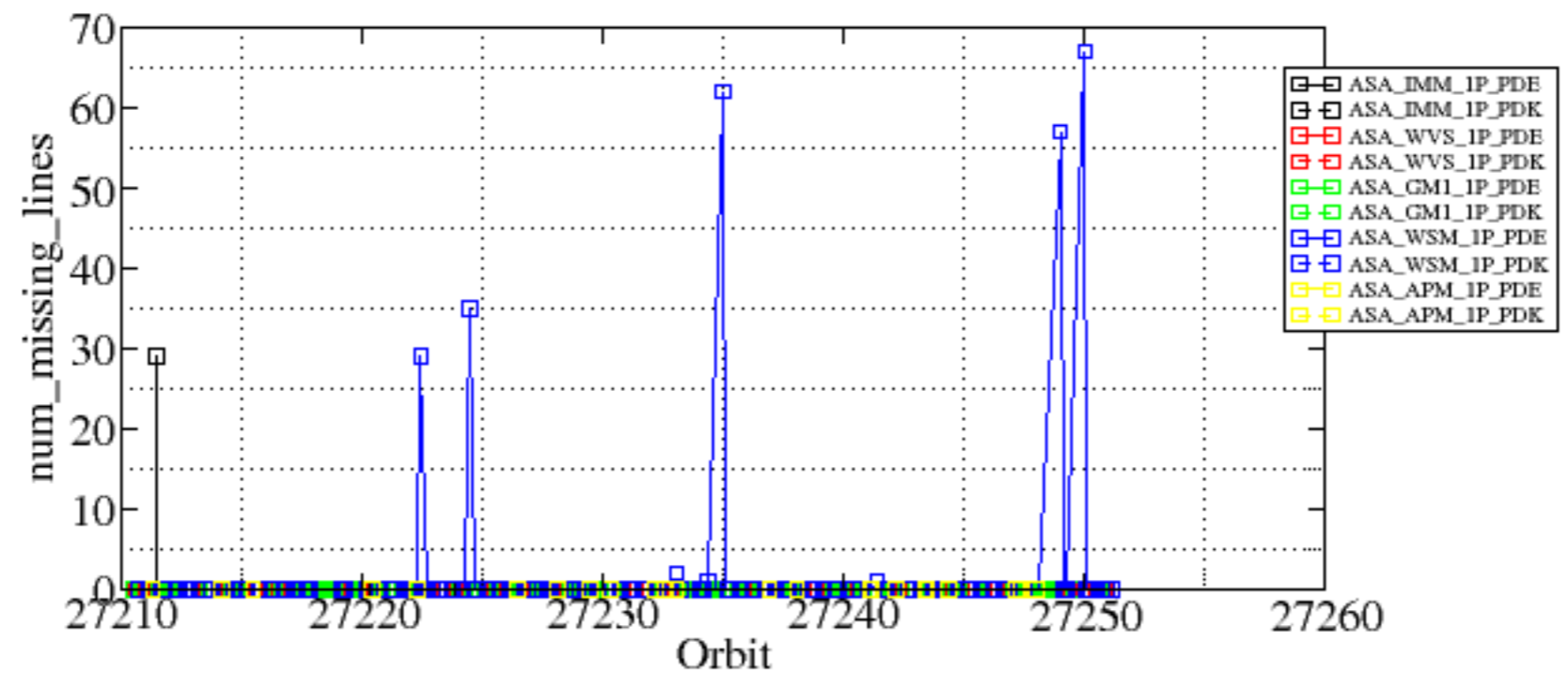


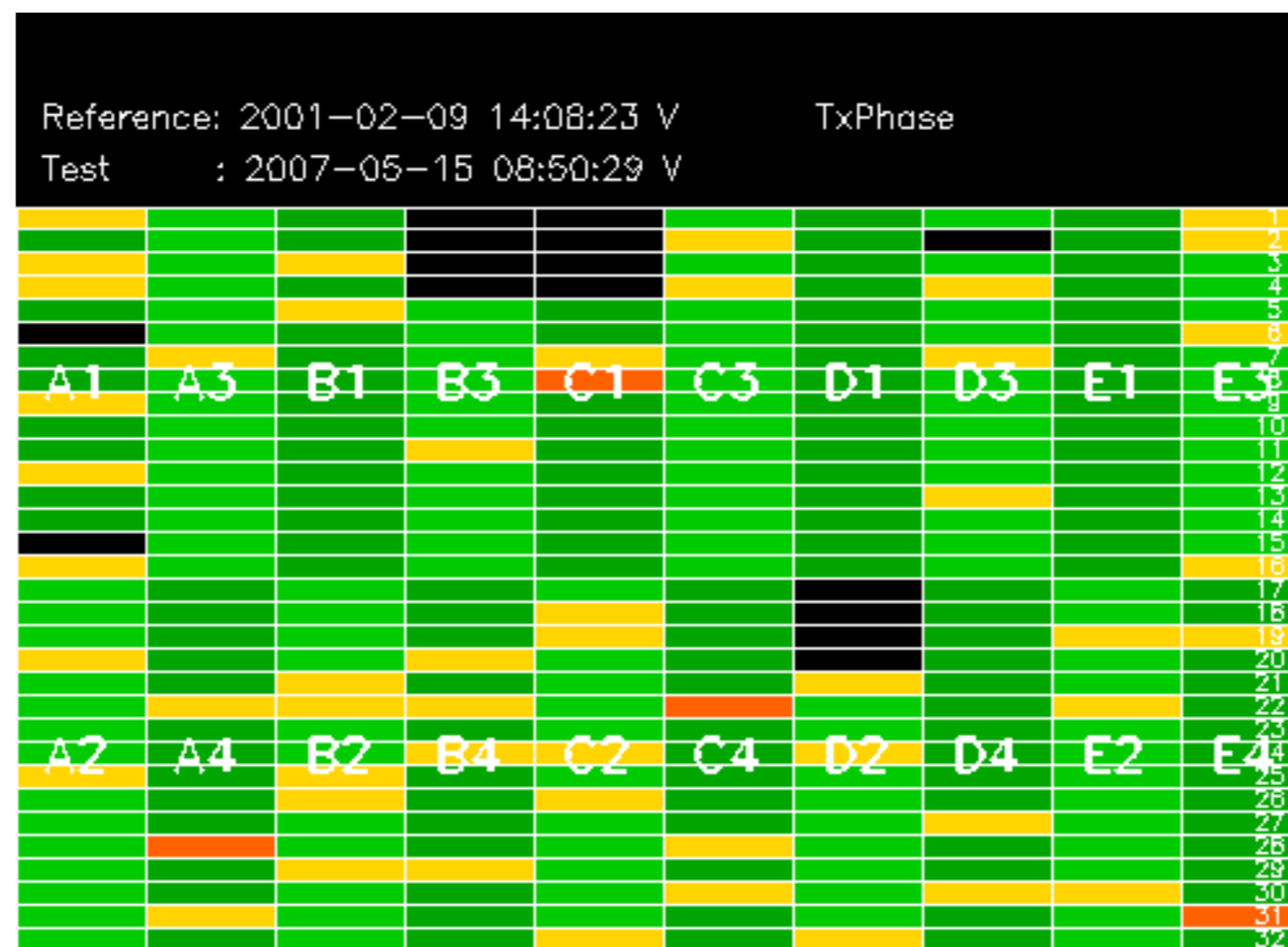
Summary of analysis for the last 3 days 2007051[567]

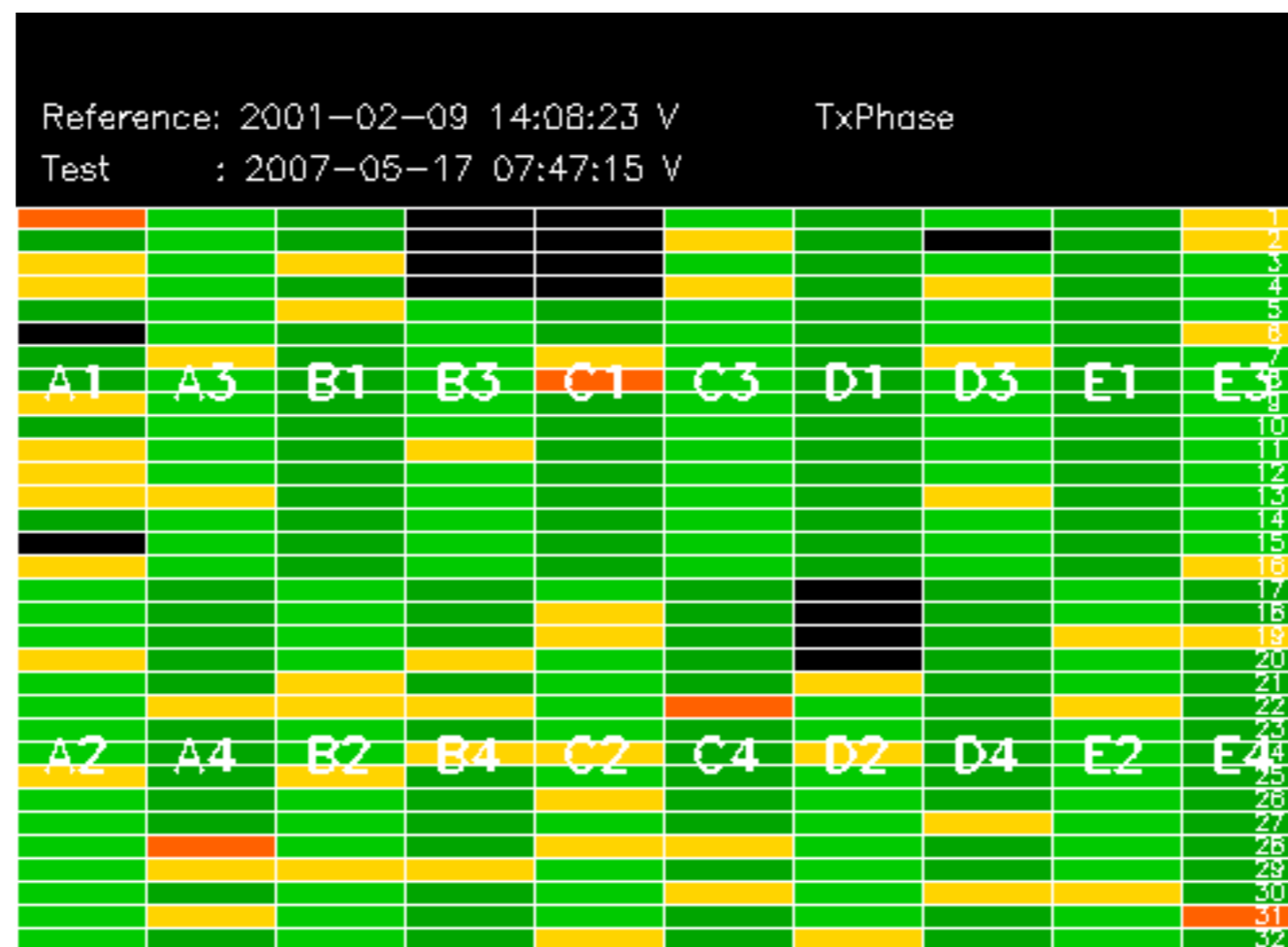
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

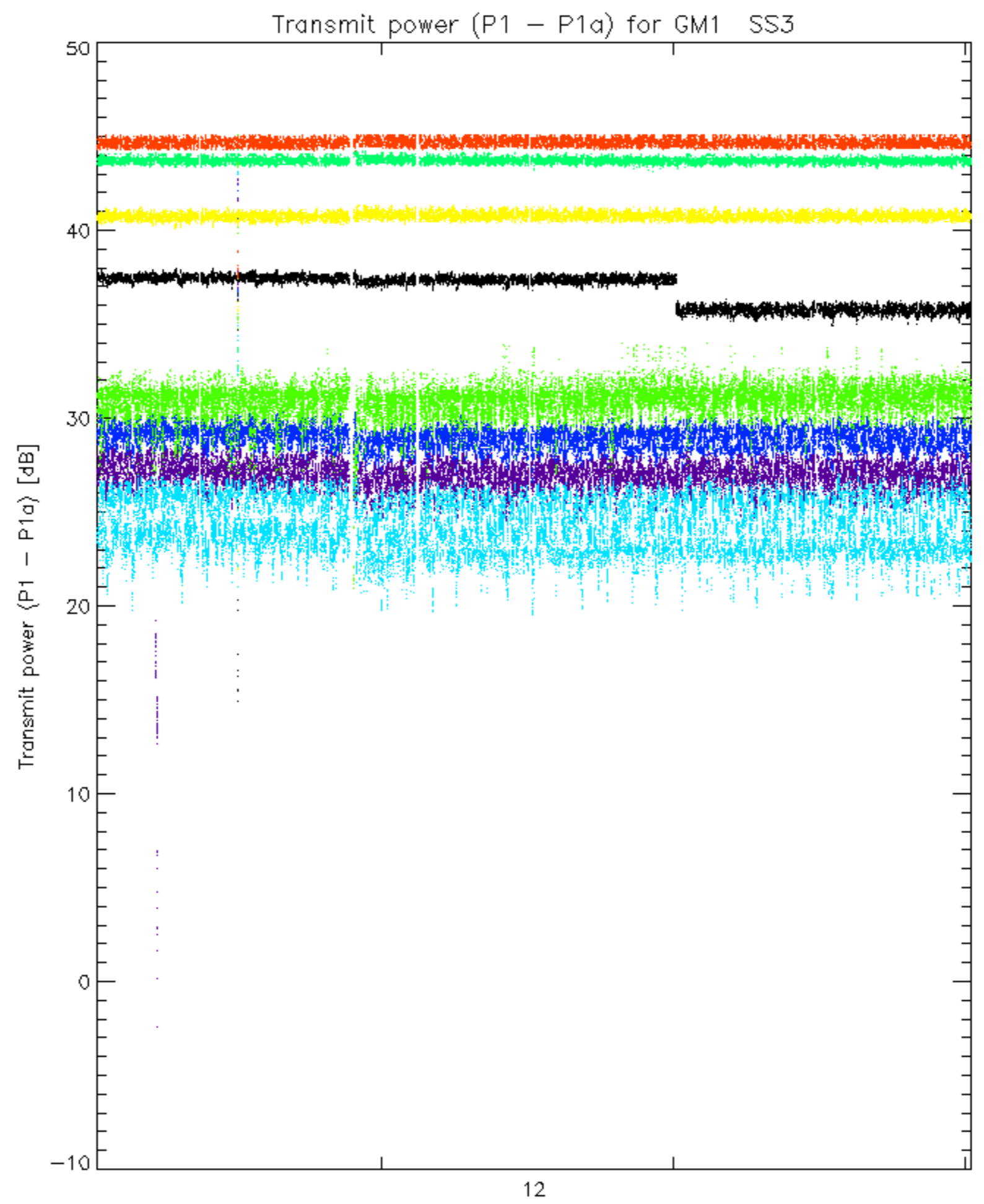
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070515_014512_000000352058_00103_27211_6080.N1	0	29
ASA_WSM_1PNPDE20070515_201141_000000672058_00114_27222_7296.N1	0	29
ASA_WSM_1PNPDE20070515_233737_000001412058_00116_27224_7642.N1	0	35
ASA_WSM_1PNPDE20070516_161232_000000852058_00126_27234_8519.N1	0	1
ASA_WSM_1PNPDE20070516_171622_000002252058_00127_27235_8573.N1	0	62
ASA_WSM_1PNPDE20070517_035646_000001282058_00133_27241_9322.N1	0	1
ASA_WSM_1PNPDE20070517_164501_000000852058_00141_27249_9765.N1	0	57
ASA_WSM_1PNPDE20070517_182820_000000852058_00142_27250_9815.N1	0	67
ASA_WSM_1PNPDK20070516_135852_000000862058_00125_27233_1603.N1	0	2

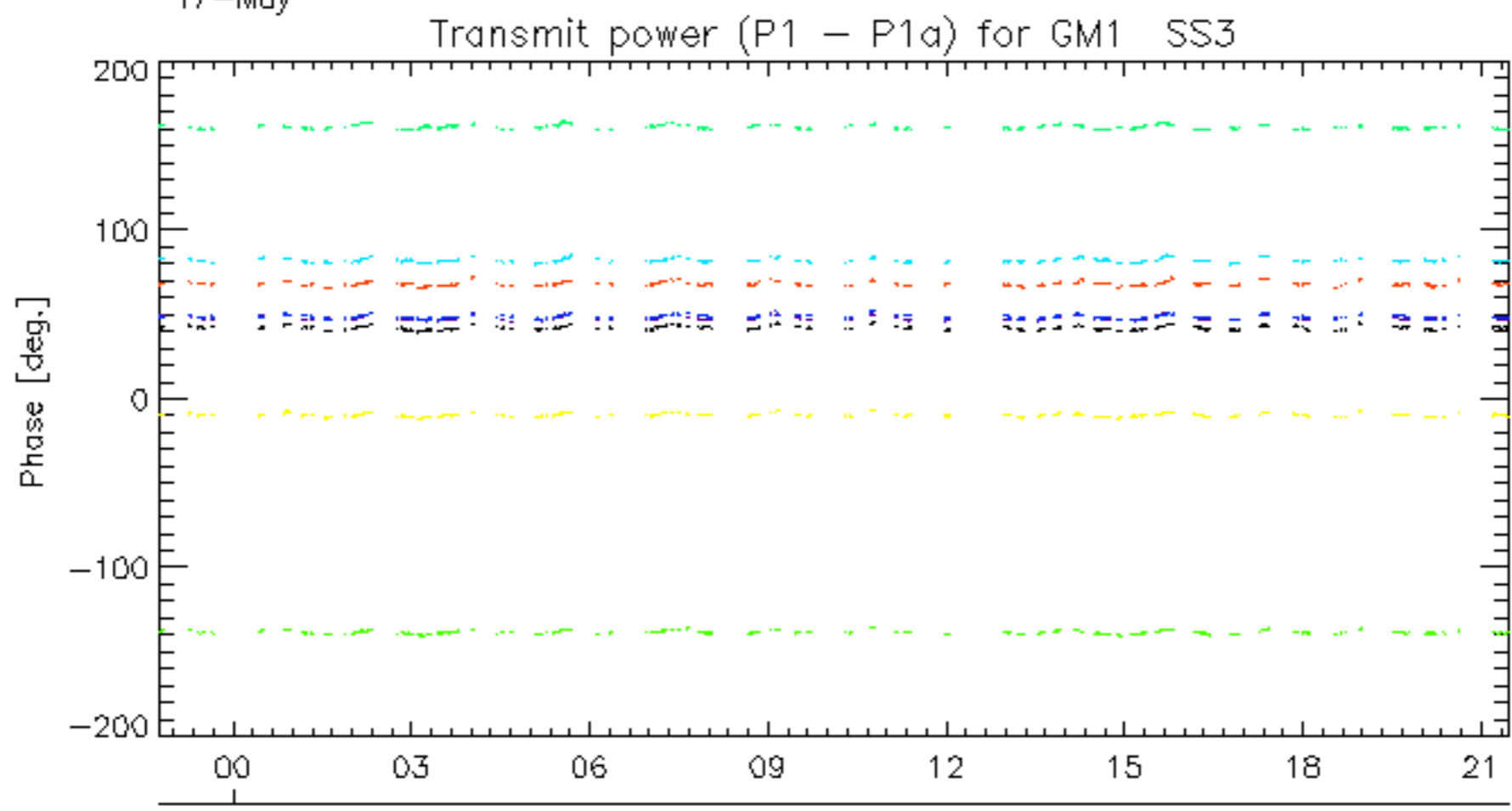
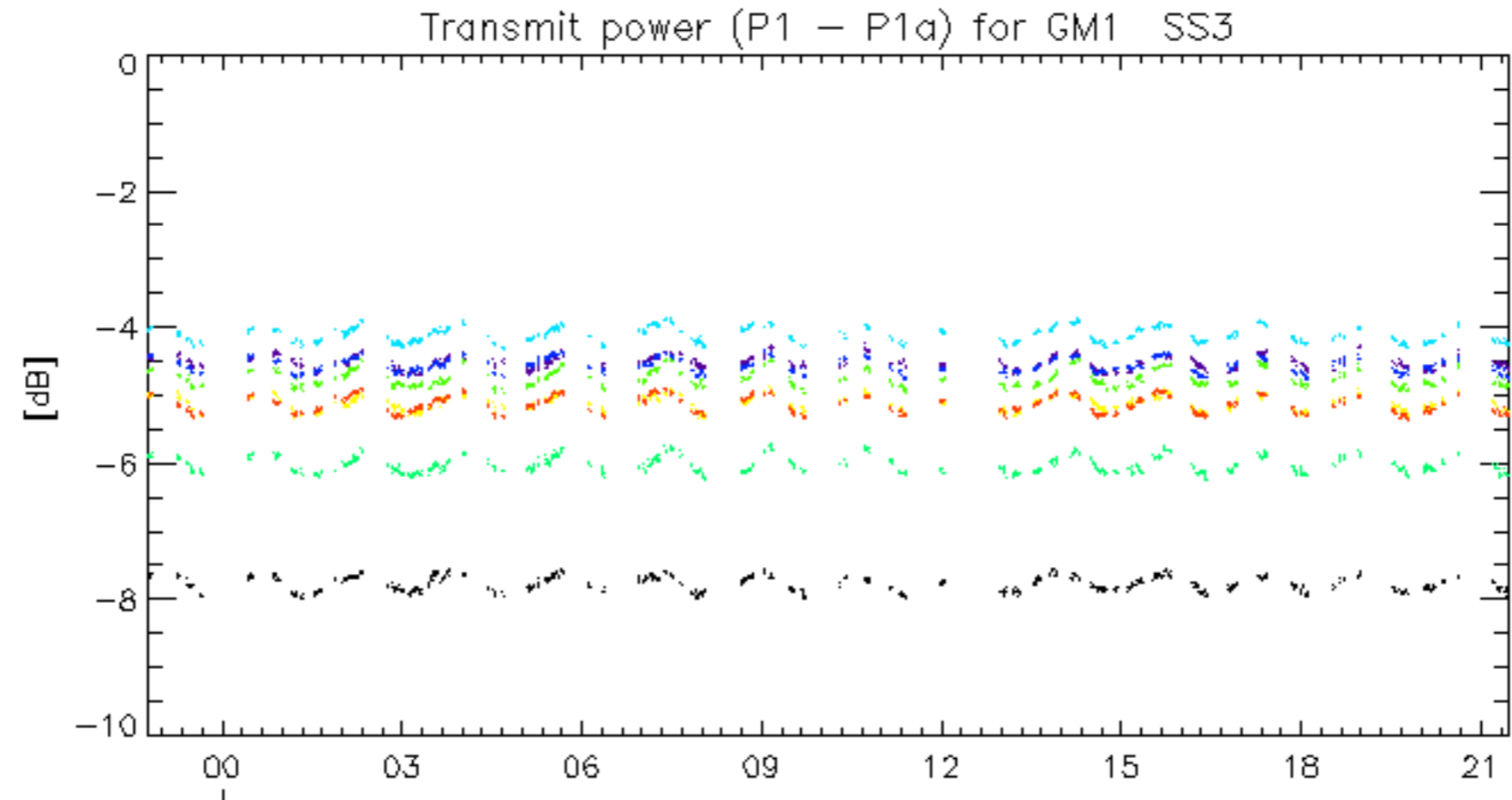




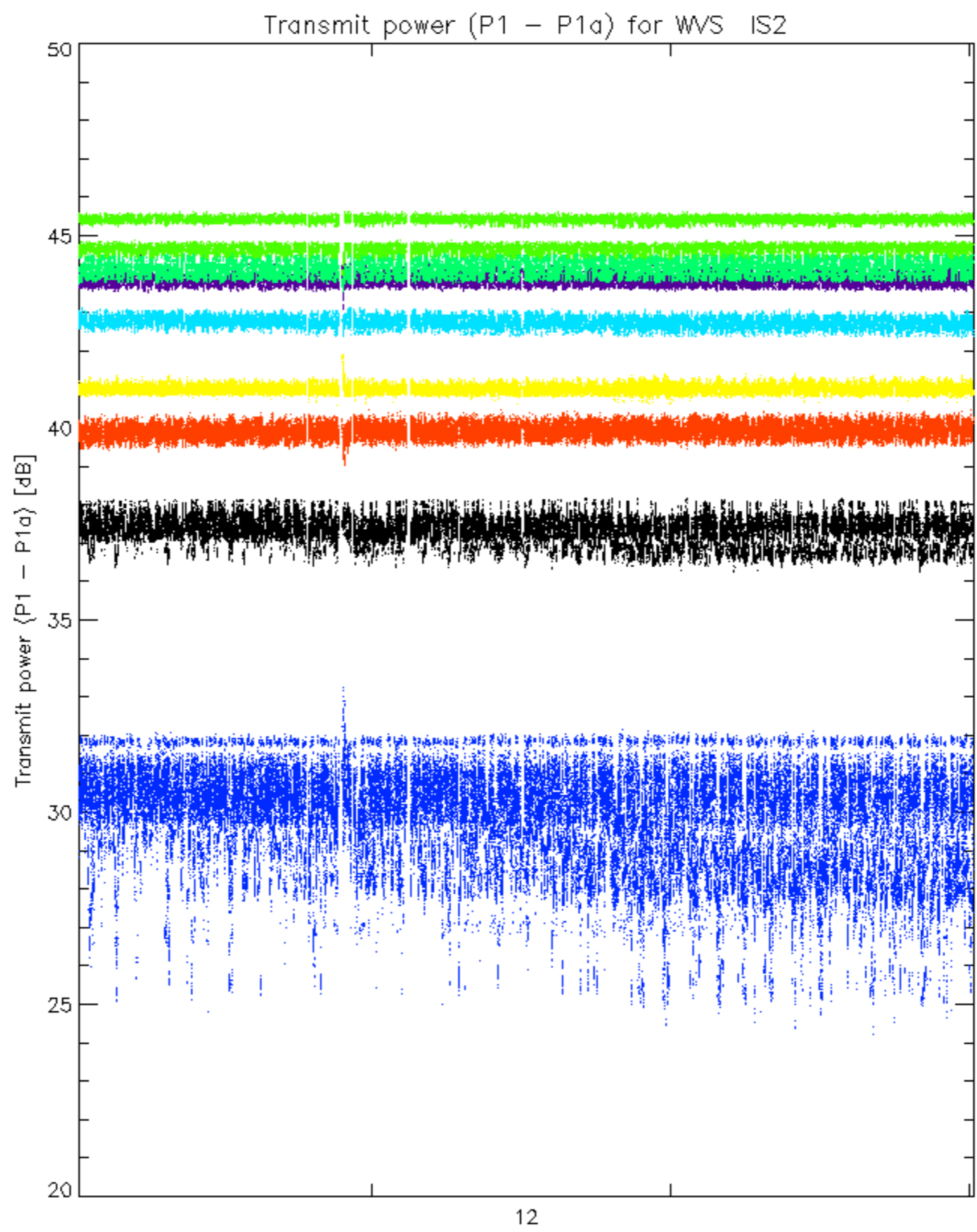




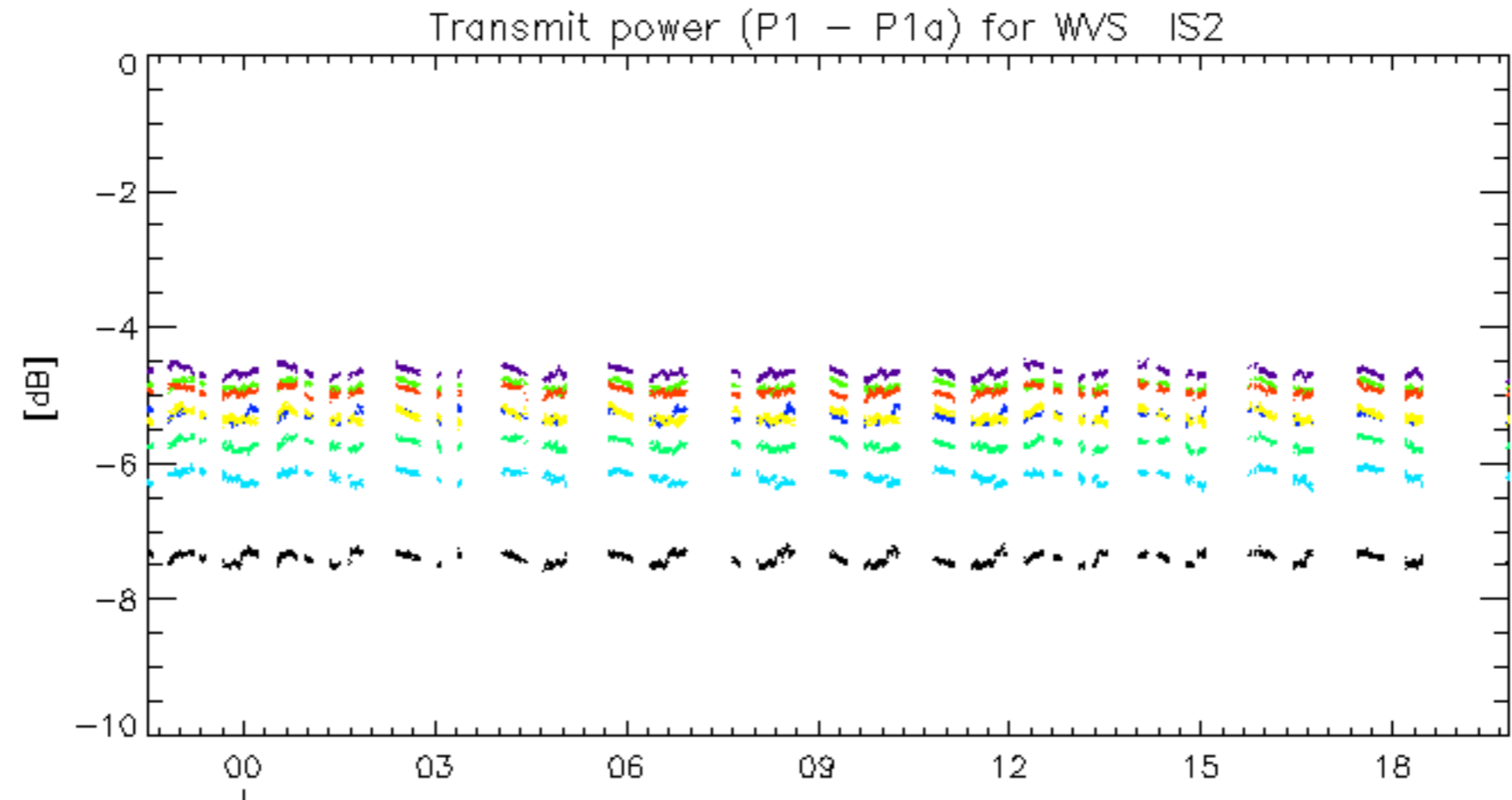




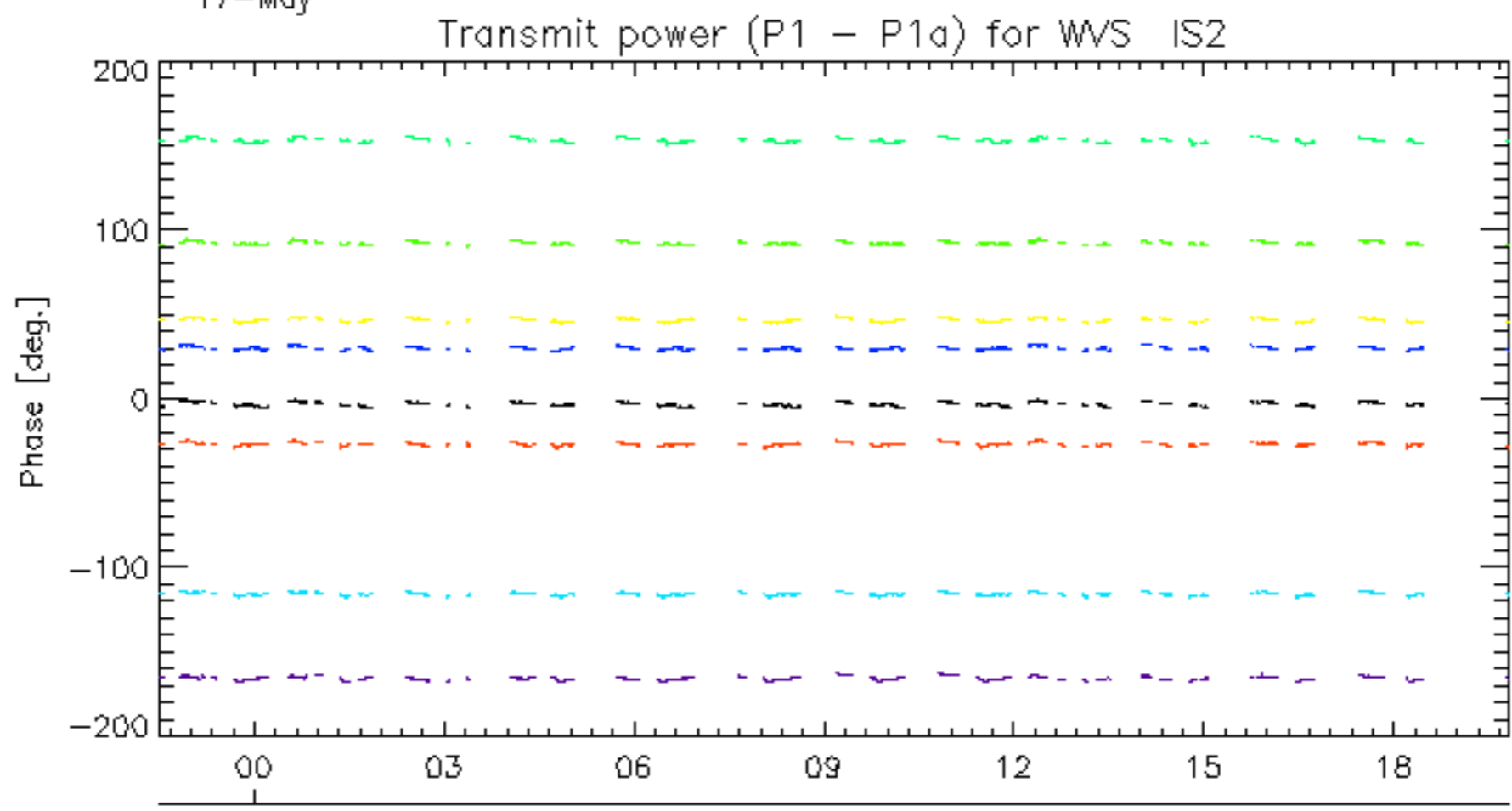
rows: 3 7 11 15 19 22 26 30



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



17-May



17-May

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

No unavailabilities during the reported period.