

PRELIMINARY REPORT OF 070516

last update on Wed May 16 23:19:47 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 2007-05-15 00:00:00 to 2007-05-16 23:19:47

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	46	93	6	4	42
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	46	93	6	4	42
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	46	93	6	4	42
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	93	6	4	42

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	55	74	31	9	90
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	55	74	31	9	90
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	55	74	31	9	90
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	55	74	31	9	90

2.3 - Browse Visual Inspection

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	20070515 085029
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
<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
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-15.191586	0.136260	-0.308308
7	P1a	-17.589880	0.092898	-0.114044
11	P1a	-17.683062	0.349581	-0.355375
15	P1a	-13.128424	0.148320	-0.293500
19	P1a	-15.420741	0.067927	-0.151971
22	P1a	-15.993844	0.361308	-0.087299
26	P1a	-14.954866	0.215972	0.059733
30	P1a	-17.921715	0.402369	-0.527052

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.780810	0.010127	-0.024494
7	P1	-3.161583	0.009029	-0.046035
11	P1	-4.198828	0.016018	0.053071
15	P1	-6.454569	0.019974	-0.112915
19	P1	-3.777002	0.011962	0.004298
22	P1	-4.744904	0.010648	0.032141
26	P1	-3.908509	0.018762	-0.003068
30	P1	-5.963633	0.009324	0.007378

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.653858	0.093154	0.045387
7	P2	-21.520069	0.093714	0.108731
11	P2	-15.295938	0.122590	0.131159
15	P2	-7.132761	0.090812	-0.007819
19	P2	-9.121282	0.083291	-0.015342
22	P2	-18.086876	0.078801	0.003999
26	P2	-16.645470	0.085052	-0.065235
30	P2	-19.256607	0.084451	0.068040

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.245757	0.004829	0.002740
7	P3	-8.245757	0.004829	0.002740
11	P3	-8.245757	0.004829	0.002740
15	P3	-8.245757	0.004829	0.002740
19	P3	-8.245757	0.004829	0.002740
22	P3	-8.245757	0.004829	0.002740
26	P3	-8.245757	0.004829	0.002740
30	P3	-8.245757	0.004829	0.002740

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	-11.404868	0.177924	-0.745395
7	P1a	-10.031057	0.163587	0.110954
11	P1a	-10.682714	0.085378	-0.014528
15	P1a	-10.791182	0.146952	0.119267
19	P1a	-15.846533	0.091732	-0.110045
22	P1a	-21.479660	1.422953	-0.064883
26	P1a	-15.556439	0.336086	-0.065199
30	P1a	-18.273645	0.435246	0.042236

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.106980	0.315410	1.446009
7	P1	-2.380826	0.086364	0.095208
11	P1	-2.873807	0.022013	0.028619
15	P1	-3.800839	0.035721	0.046918
19	P1	-3.601628	0.015677	-0.036451
22	P1	-4.952681	0.022983	0.032997
26	P1	-6.054372	0.023535	-0.041115
30	P1	-5.352656	0.031647	-0.036803

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.206446	0.072783	-0.072395
7	P2	-22.060024	0.168599	-0.065176
11	P2	-10.656879	0.045795	-0.060379
15	P2	-4.951663	0.044076	-0.069692
19	P2	-6.881197	0.041923	-0.019566
22	P2	-8.108417	0.082357	0.020250
26	P2	-24.343422	0.134333	-0.068044
30	P2	-21.704435	0.108078	0.004414

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.092899	0.005093	0.000005
7	P3	-8.092878	0.005095	-0.000075
11	P3	-8.092816	0.005089	-0.000416
15	P3	-8.092847	0.005095	-0.000461
19	P3	-8.092896	0.005101	-0.000514
22	P3	-8.092728	0.005091	-0.000389
26	P3	-8.092740	0.005101	-0.000263
30	P3	-8.092815	0.005089	-0.000240

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	0.000550592
	stdev	1.92710e-07
MEAN Q	mean	0.000508706
	stdev	2.38487e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136211
	stdev	0.00117713
STDEV Q	mean	0.136601
	stdev	0.00119421



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007051[456]

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_00000352058_00103_27211_6080.N1	0	29
ASA_WSM_1PNPDE20070514_145940_000001582058_00097_27205_5551.N1	0	61
ASA_WSM_1PNPDE20070514_182245_000001582058_00099_27207_5646.N1	0	16
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_1PNPDK20070514_132855_000000612058_00096_27204_8337.N1	5	437
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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

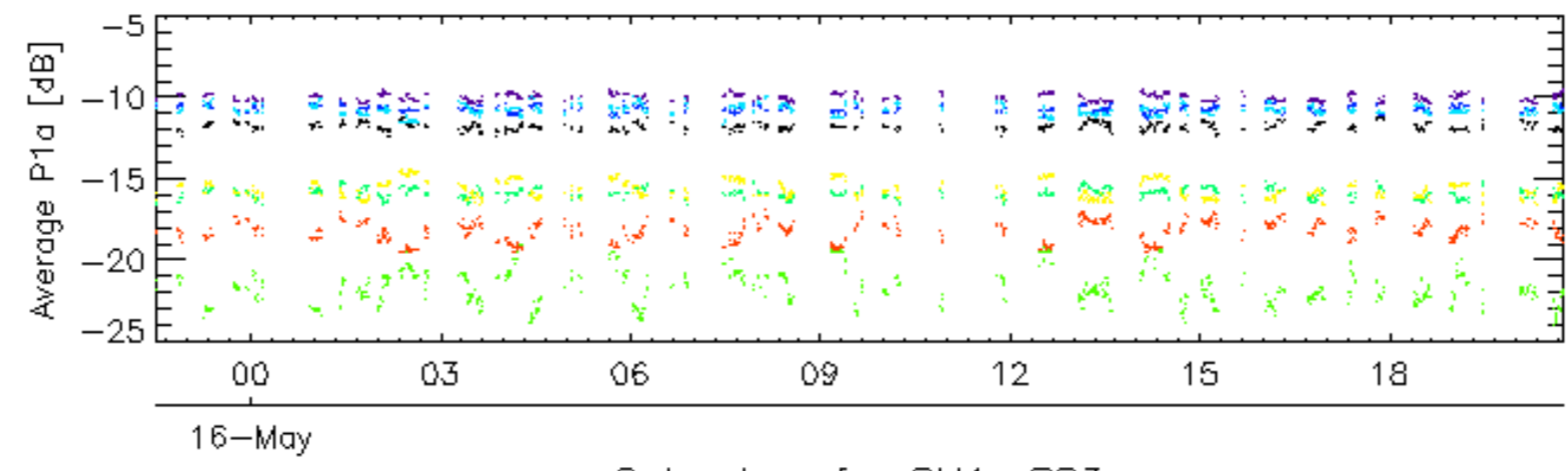
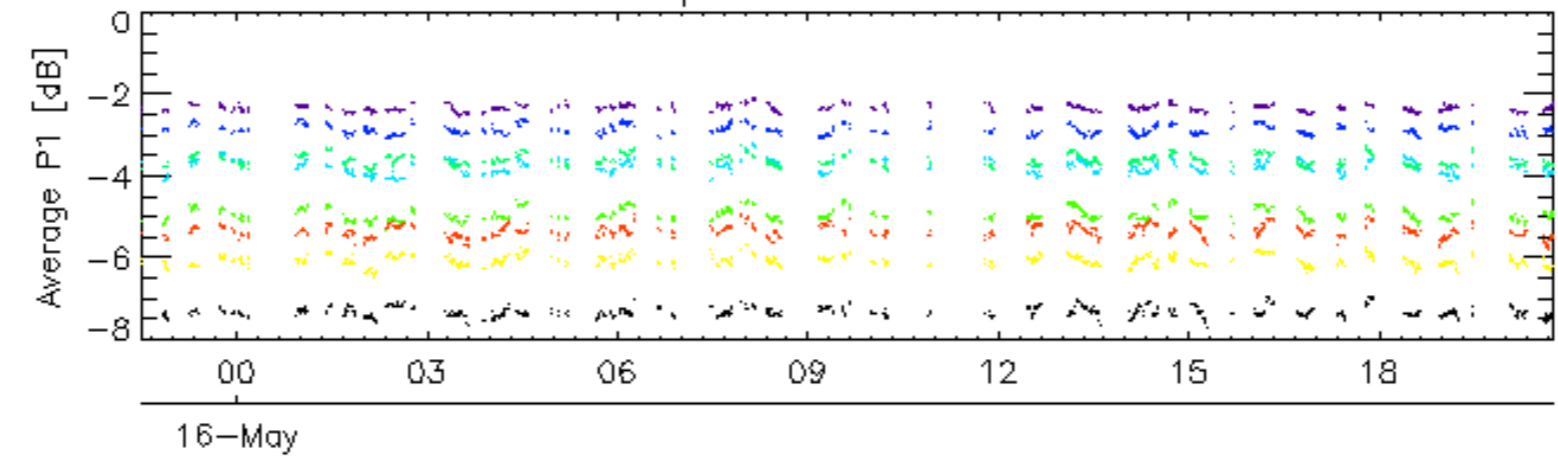
Ascending

Descending

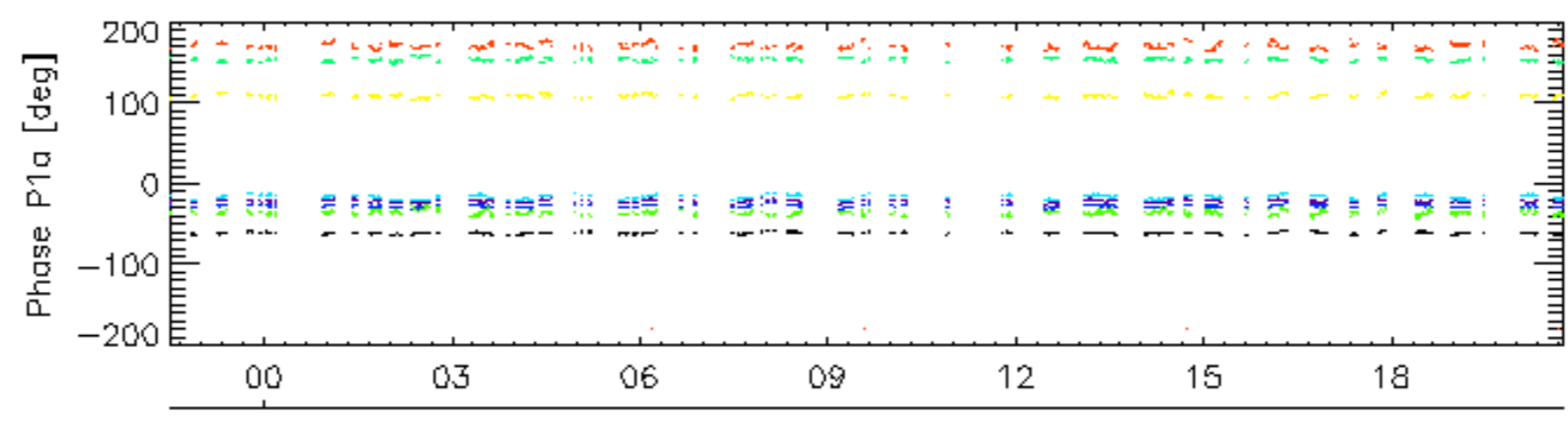
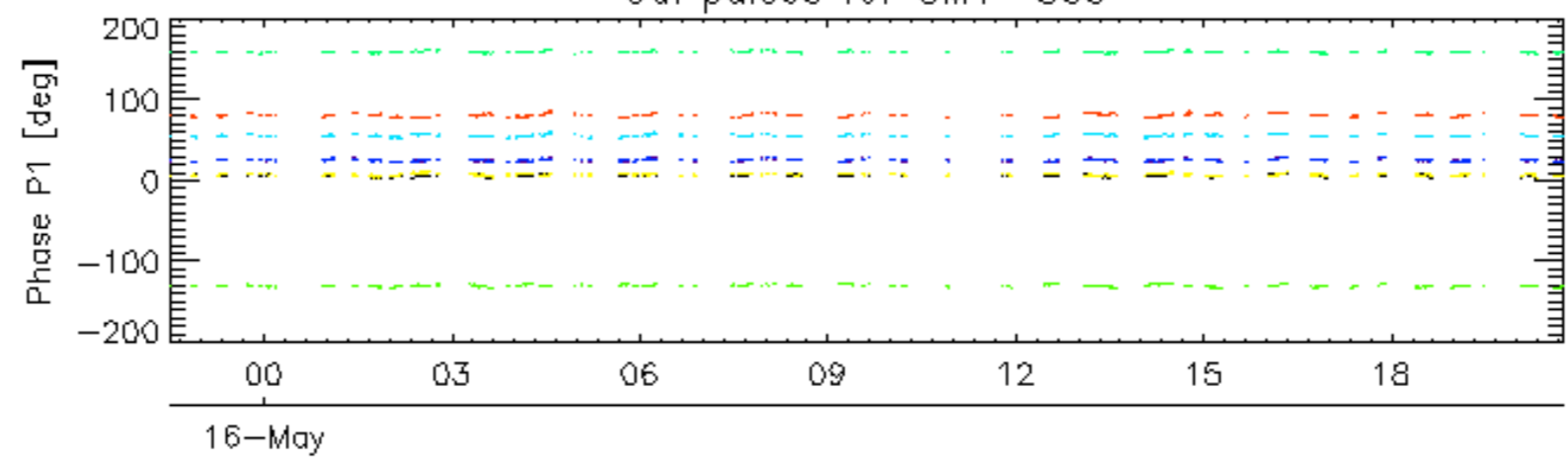
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

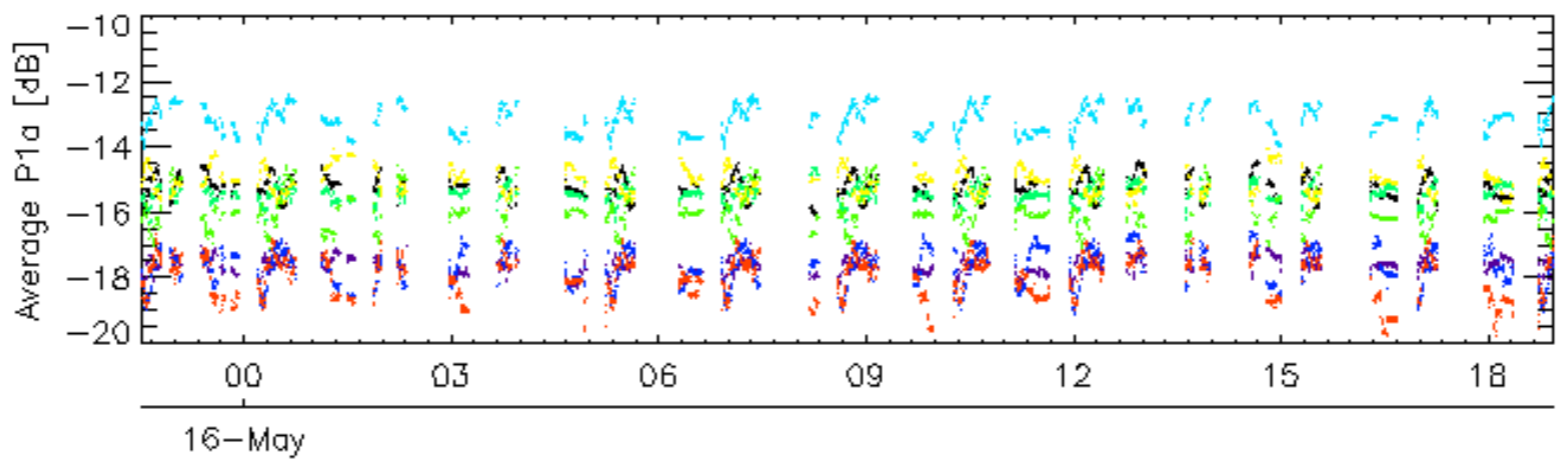
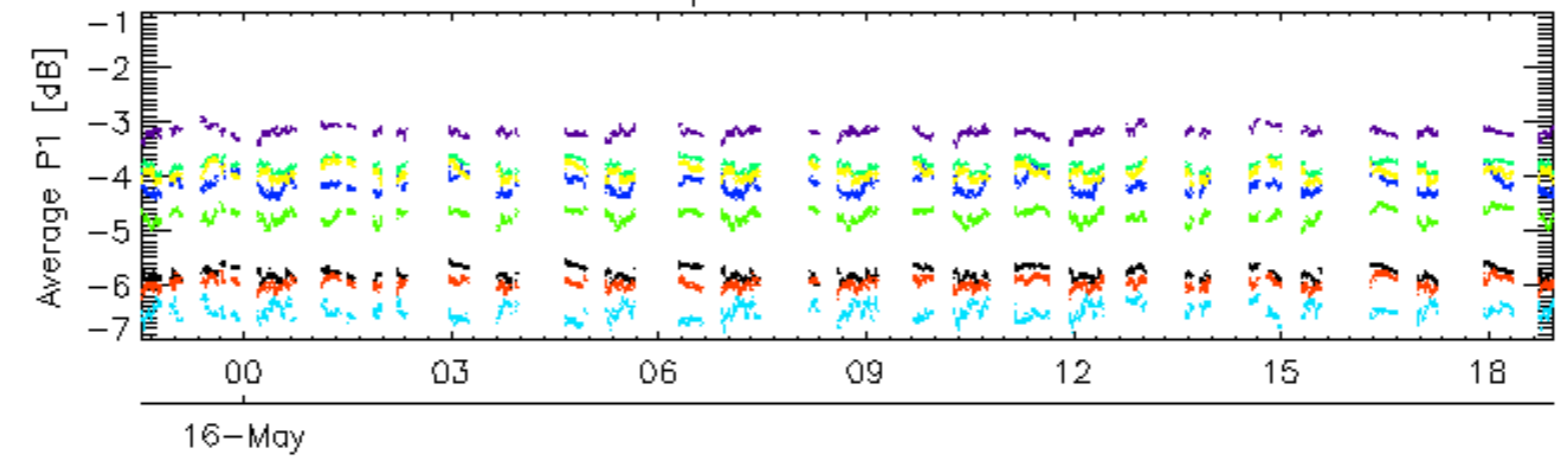


Cal pulses for GM1 SS3

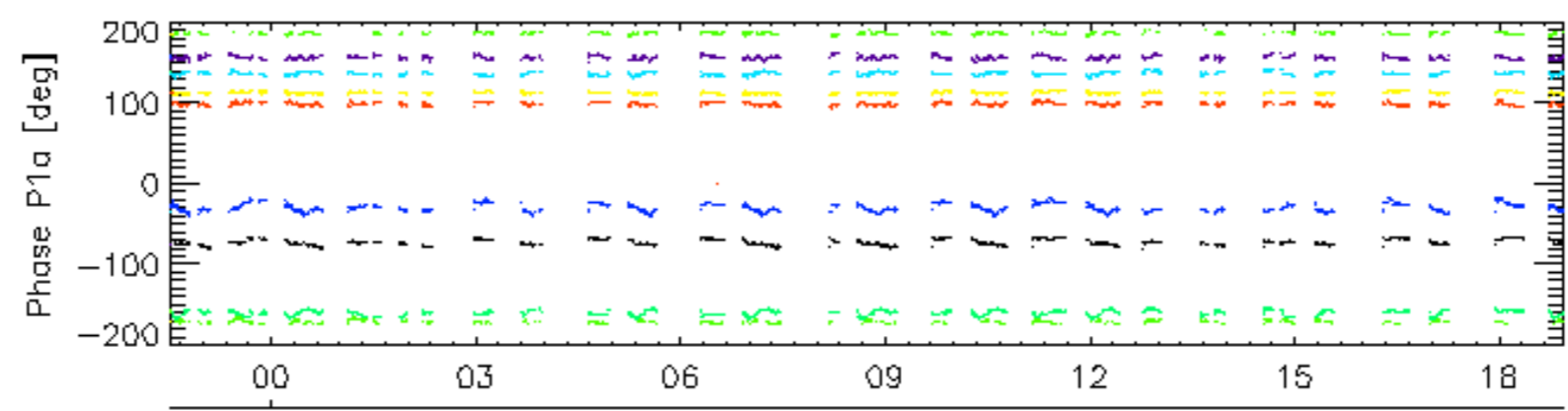
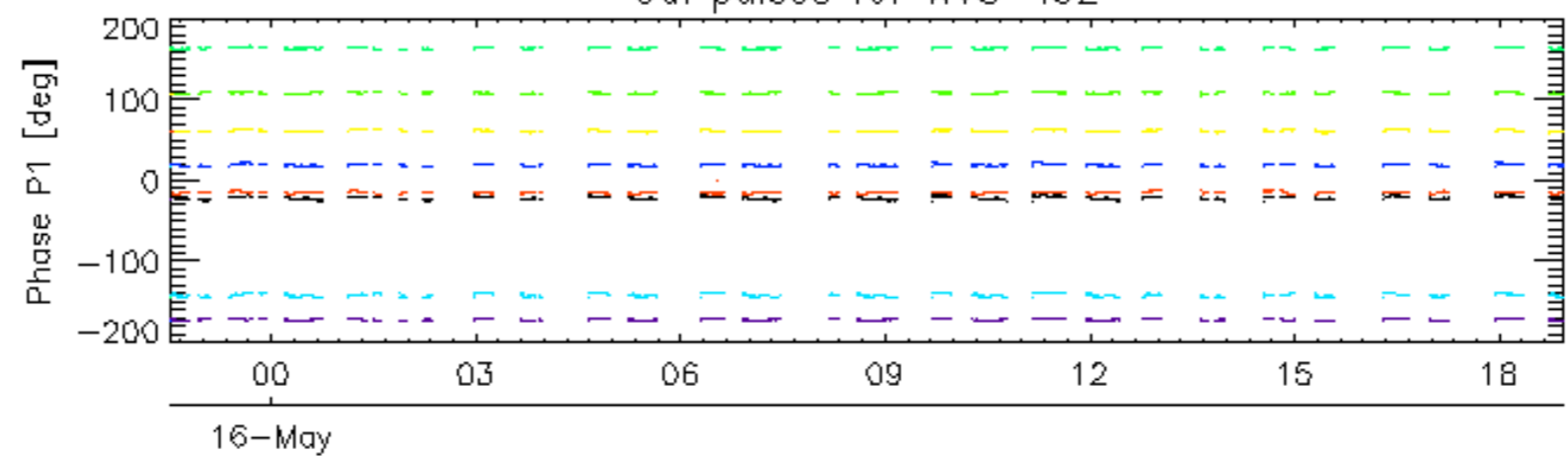


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

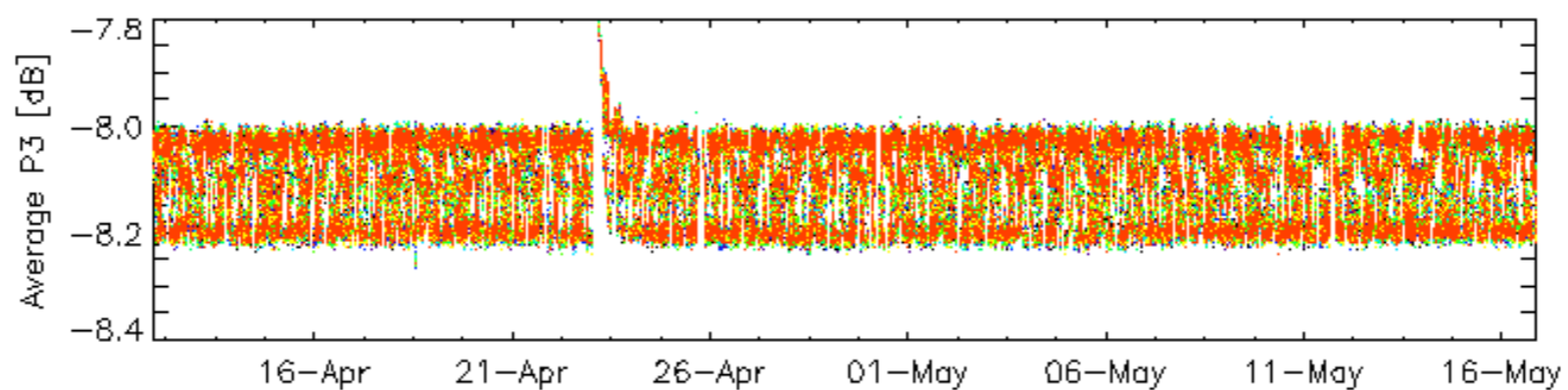
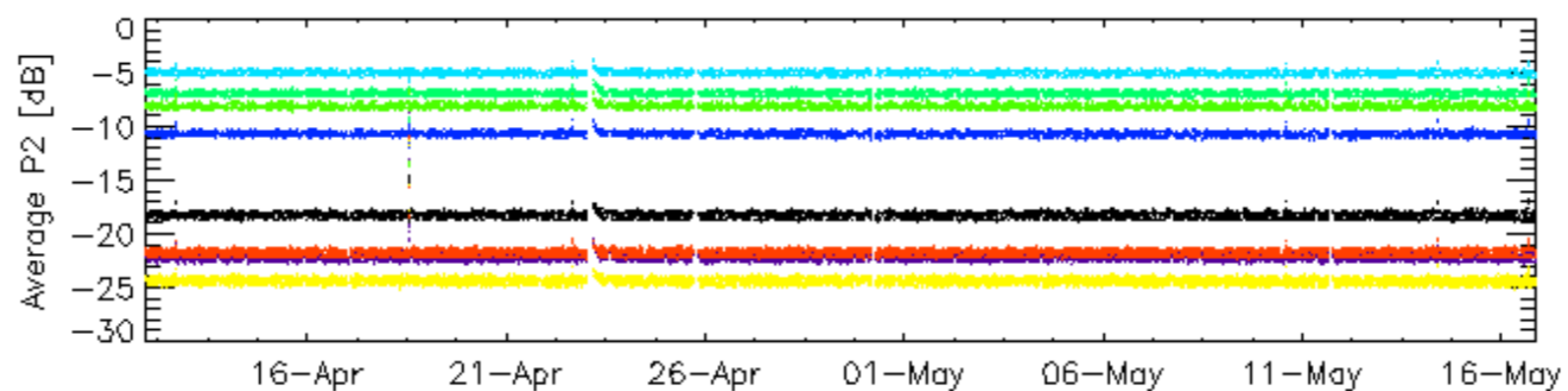
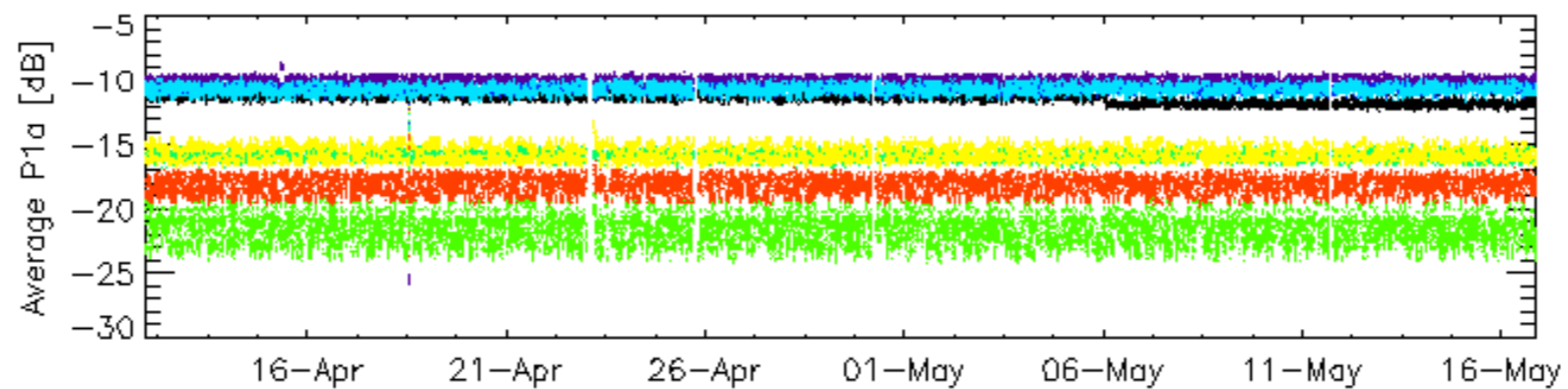
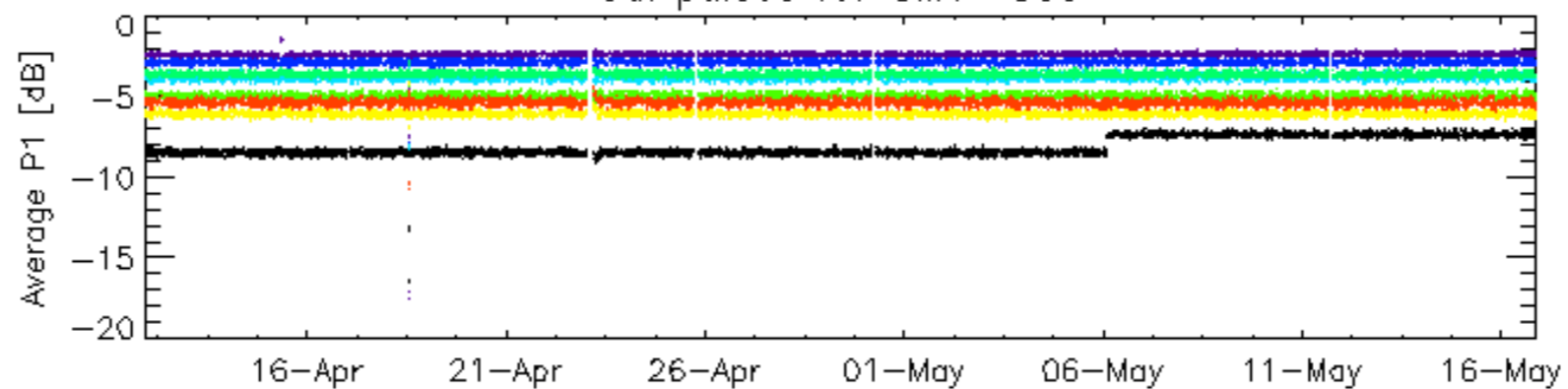


Cal pulses for WVS IS2



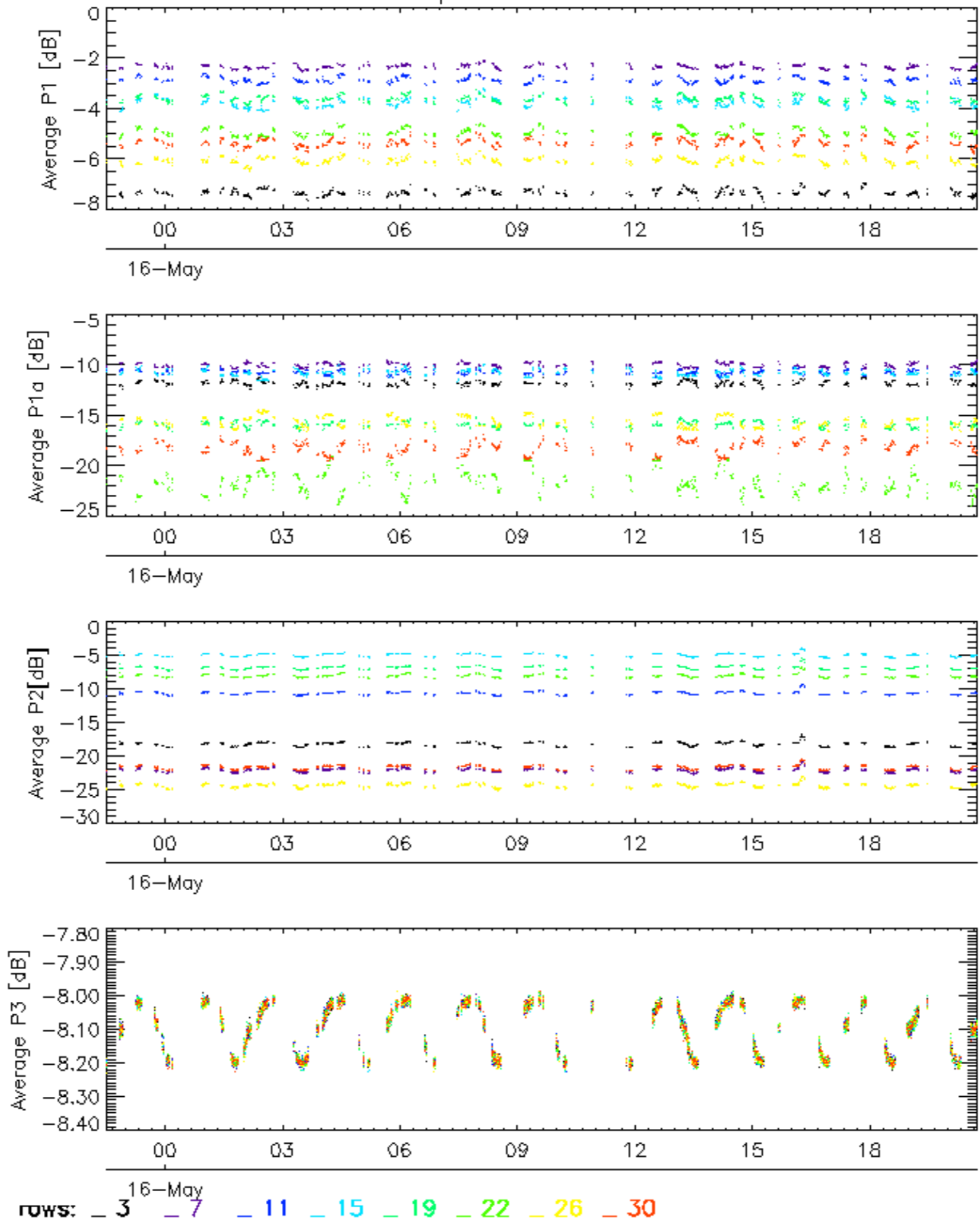
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

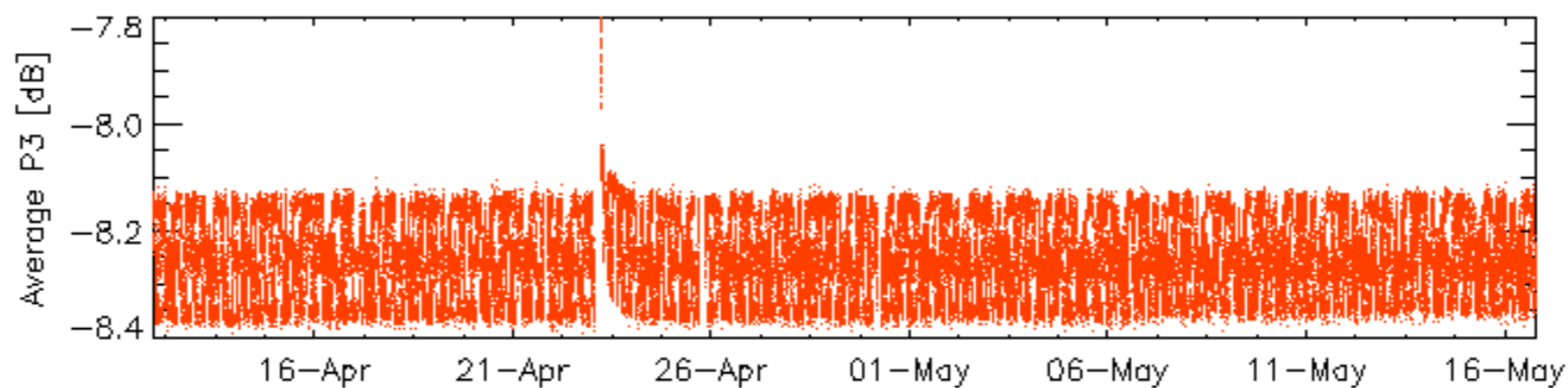
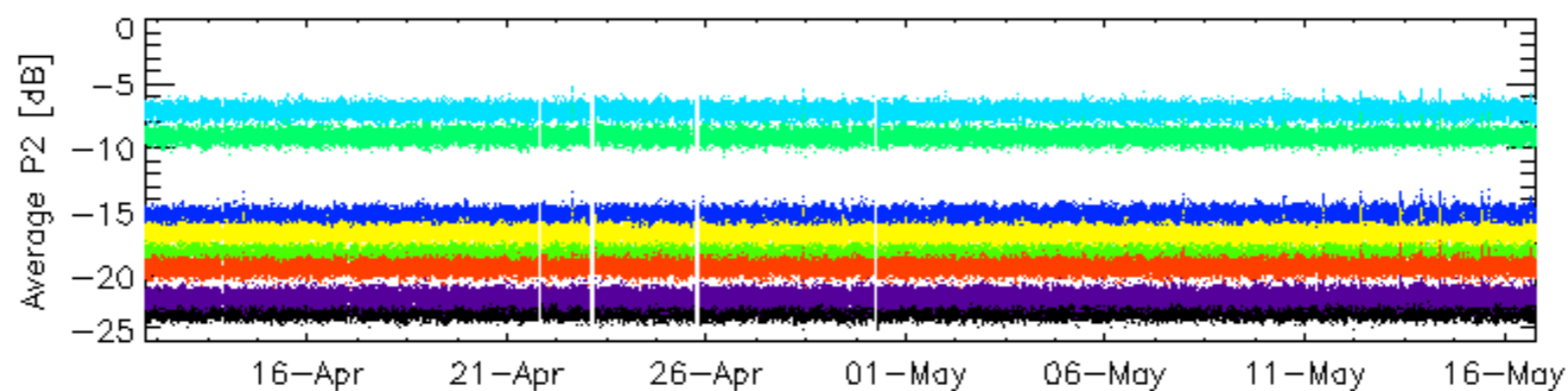
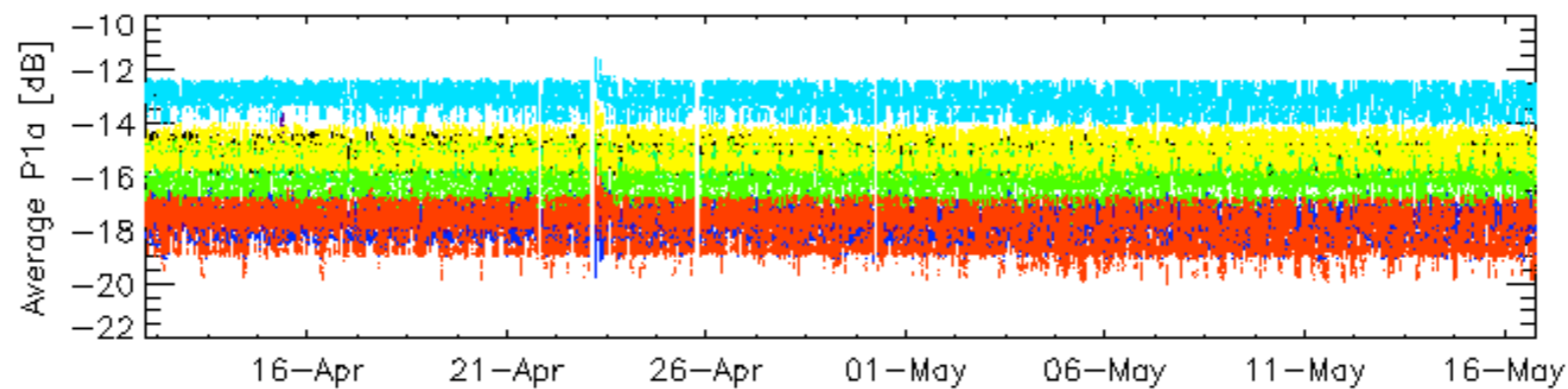
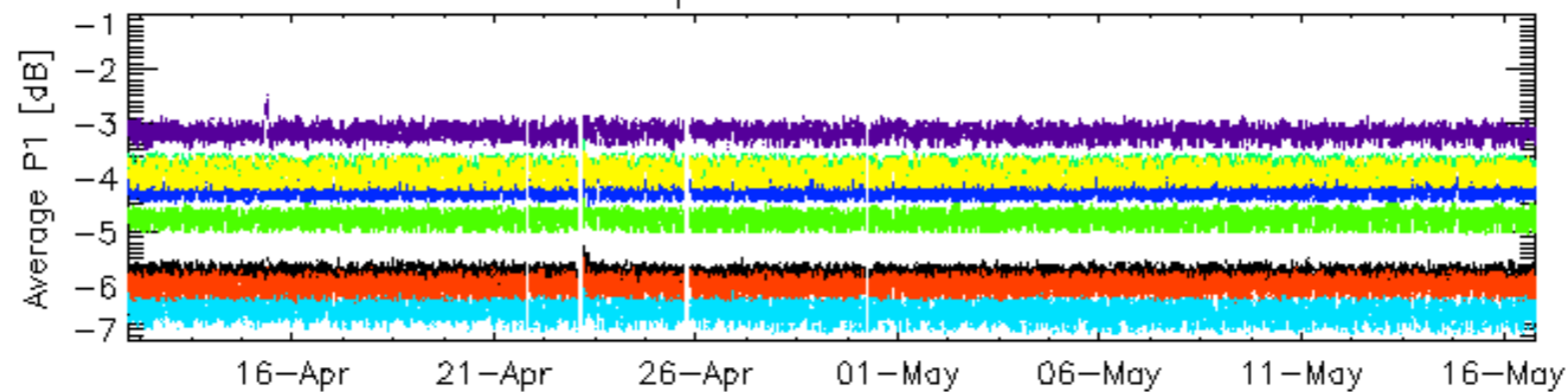


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

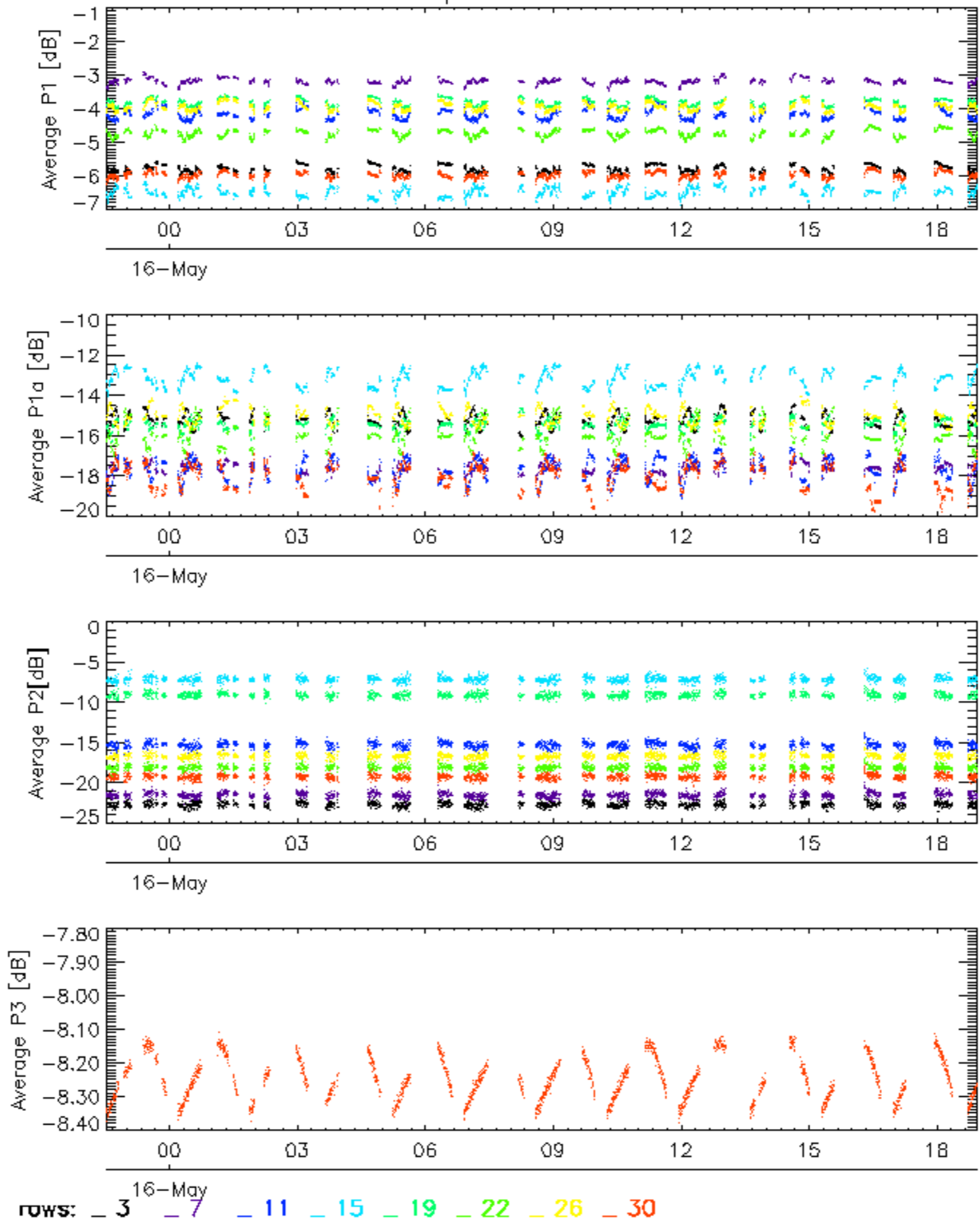


Cal pulses for WVS IS2

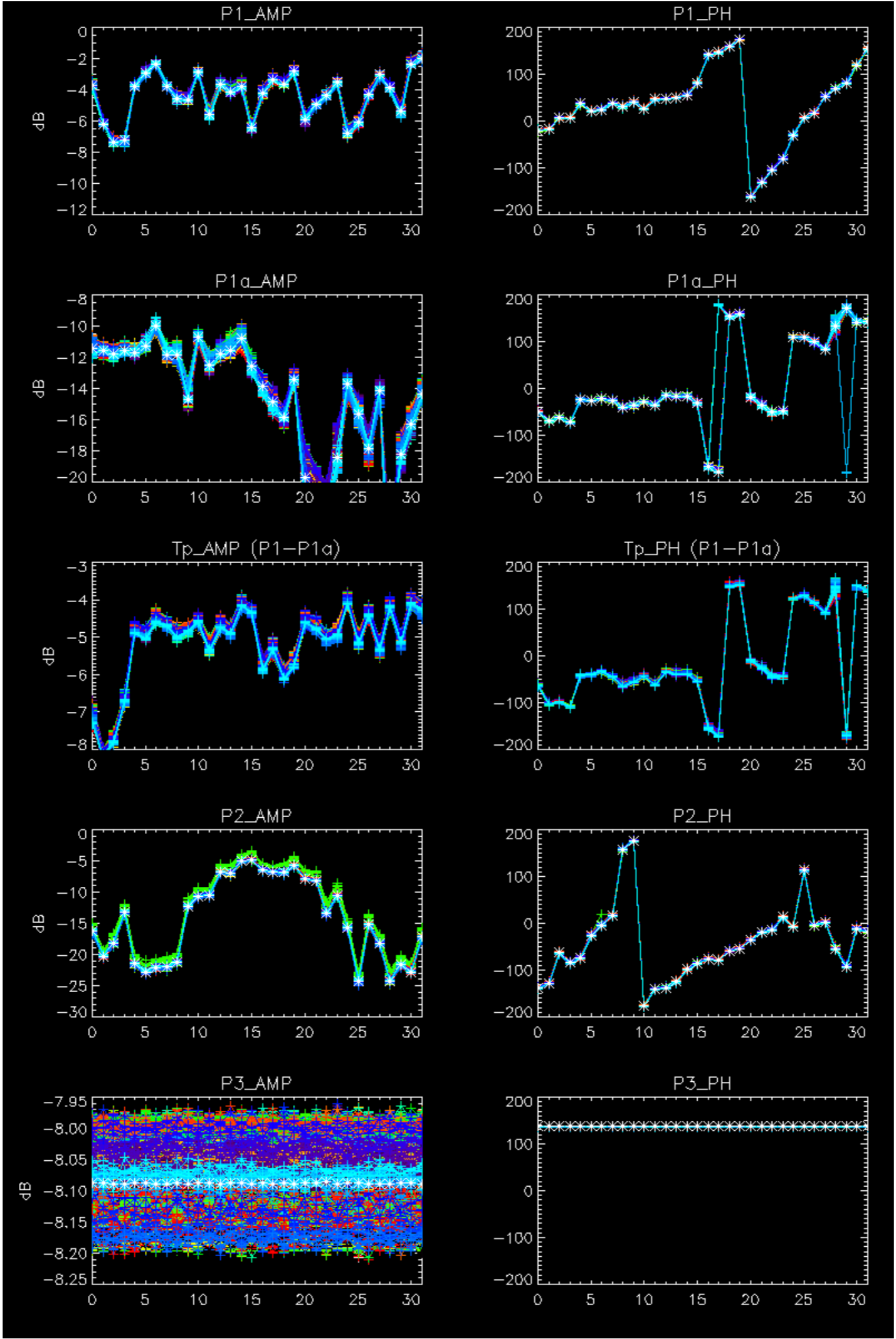


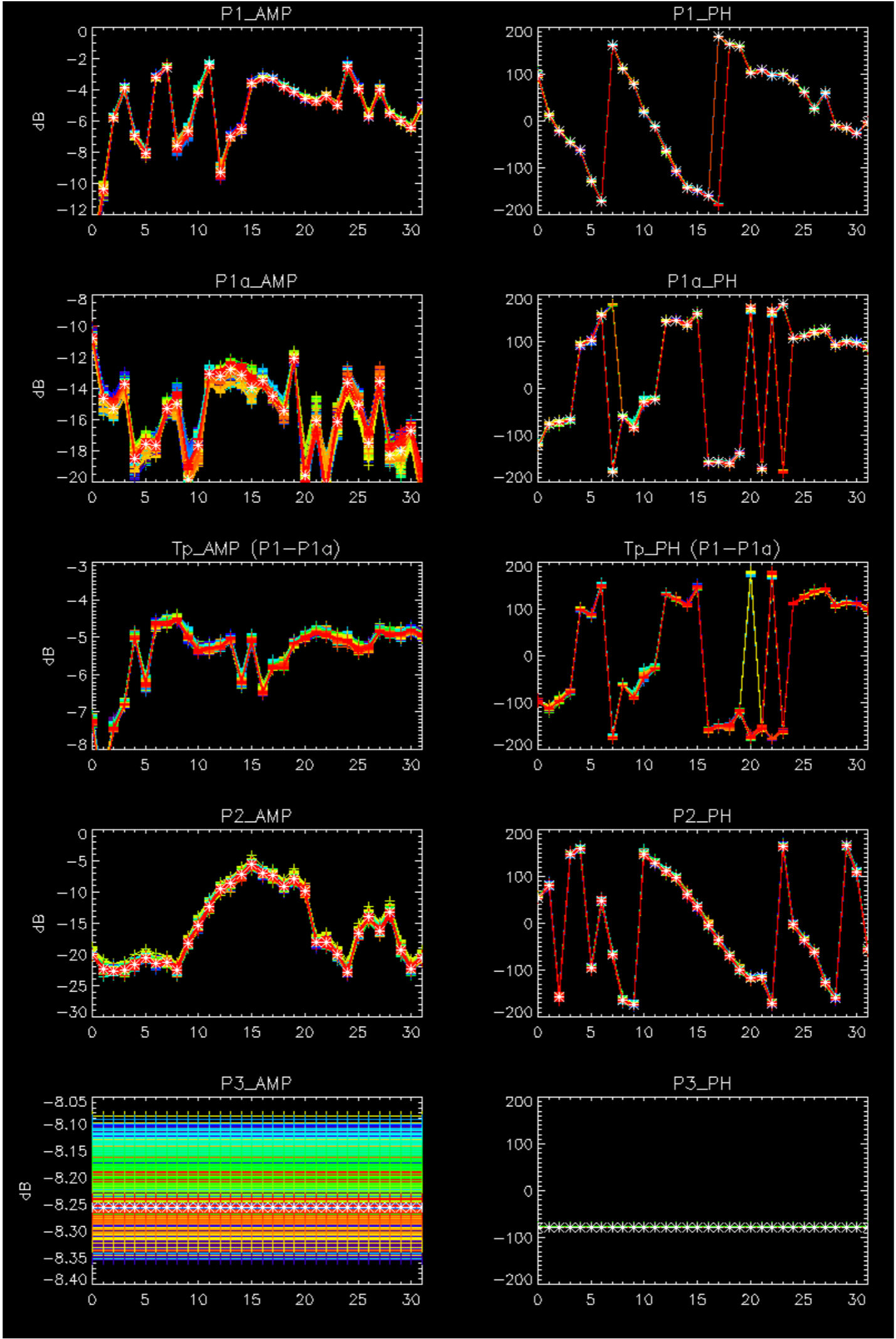
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



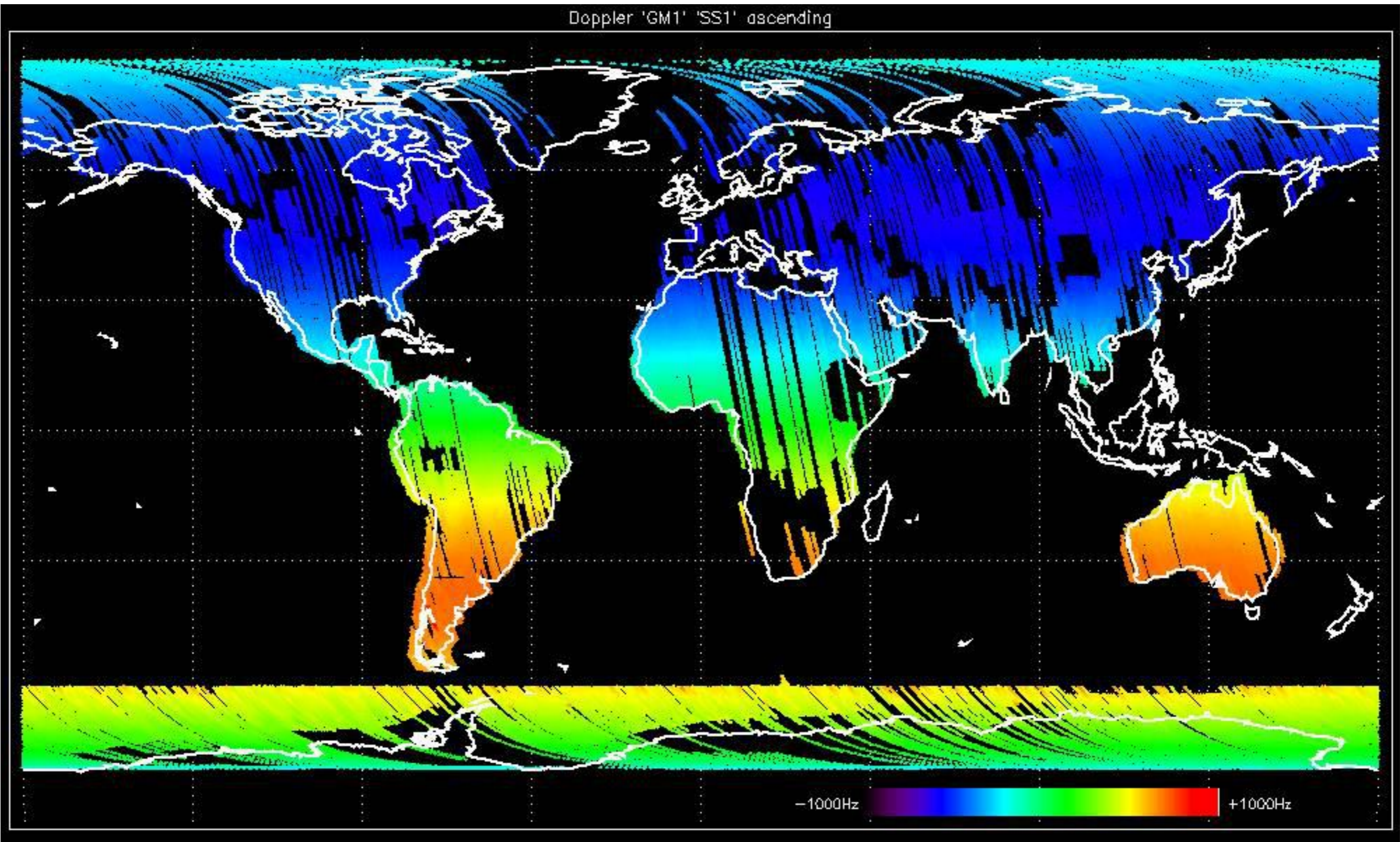
No anomalies observed.



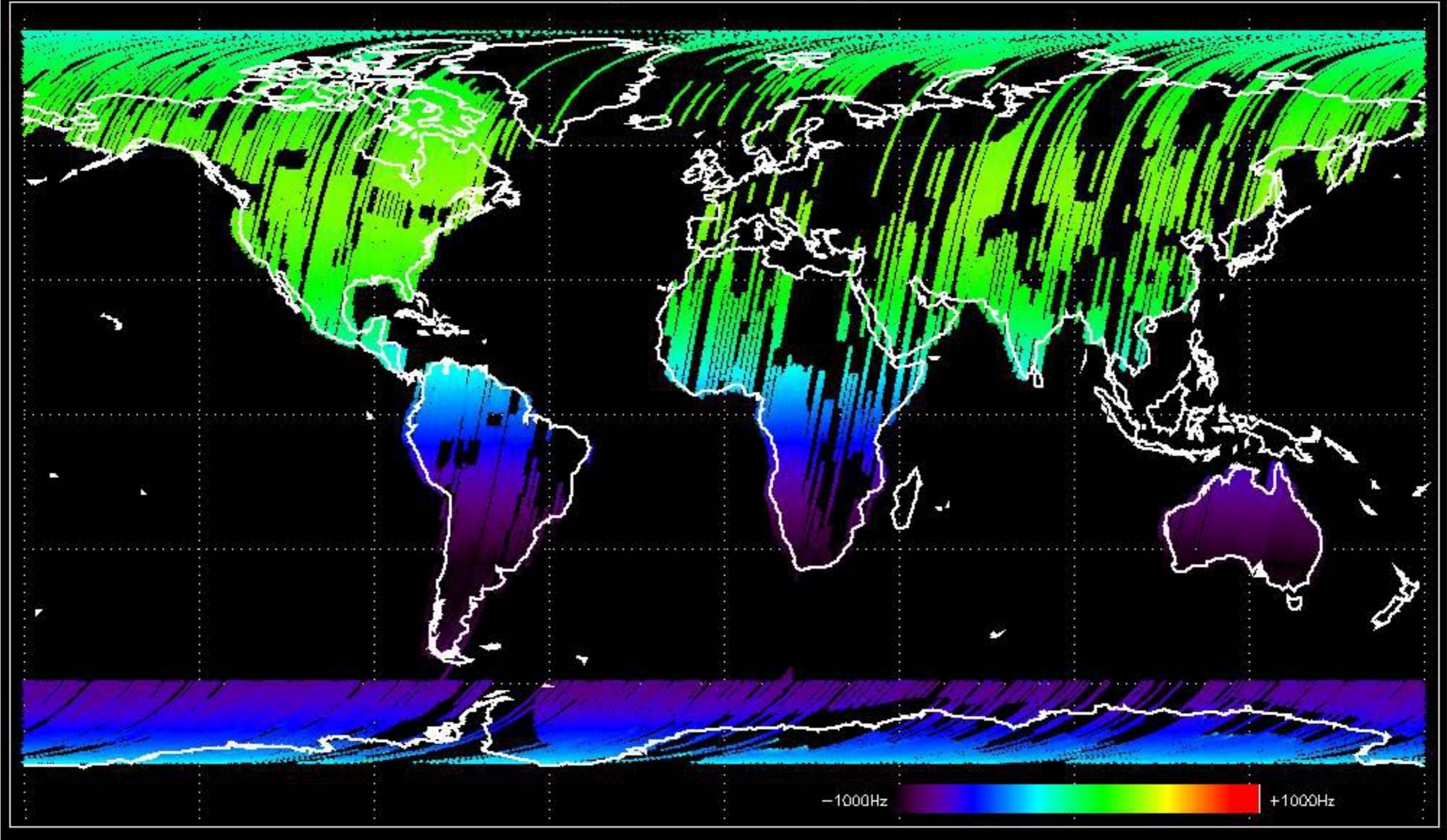


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

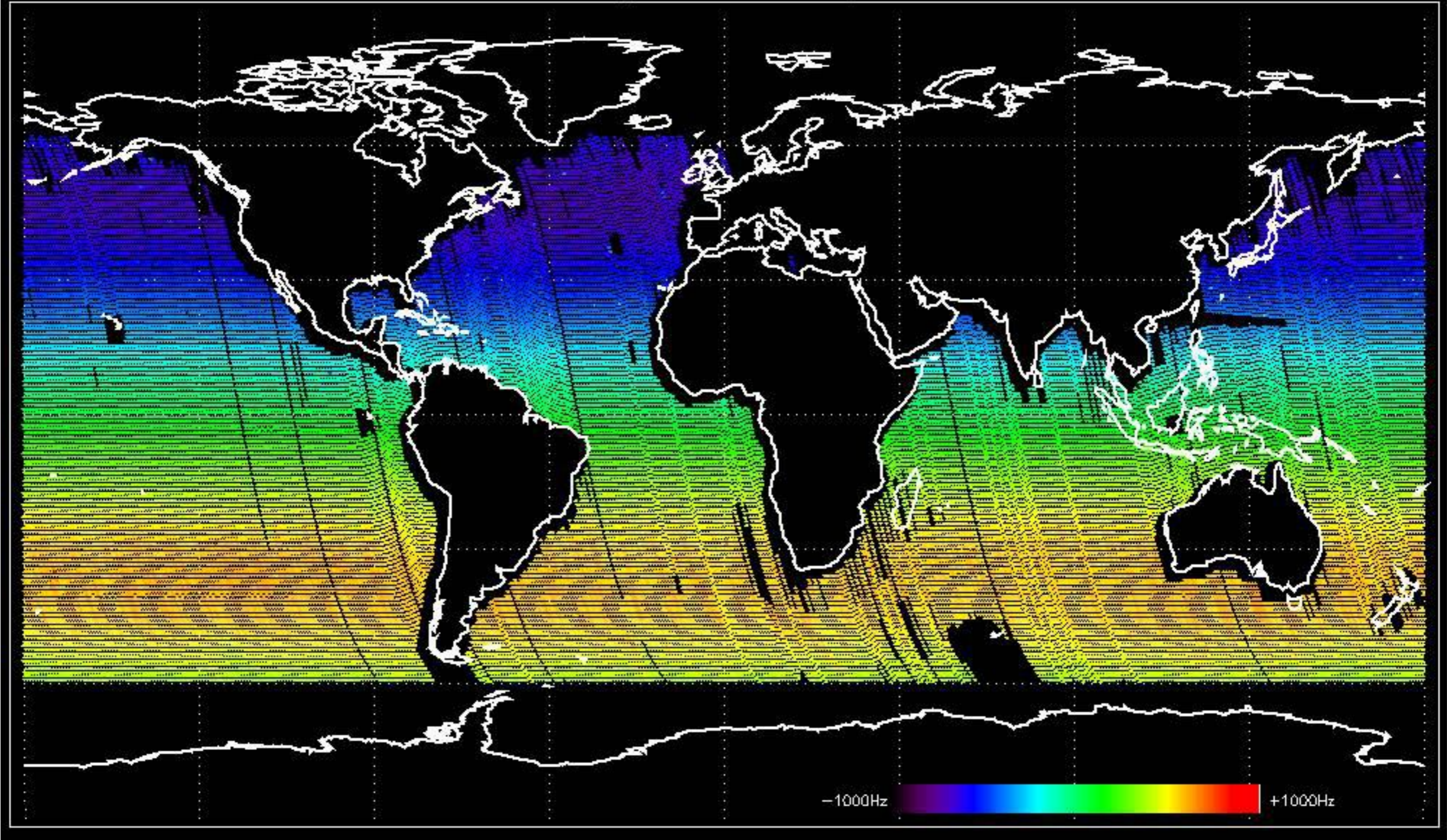
Doppler 'GM1' 'SS1' ascending



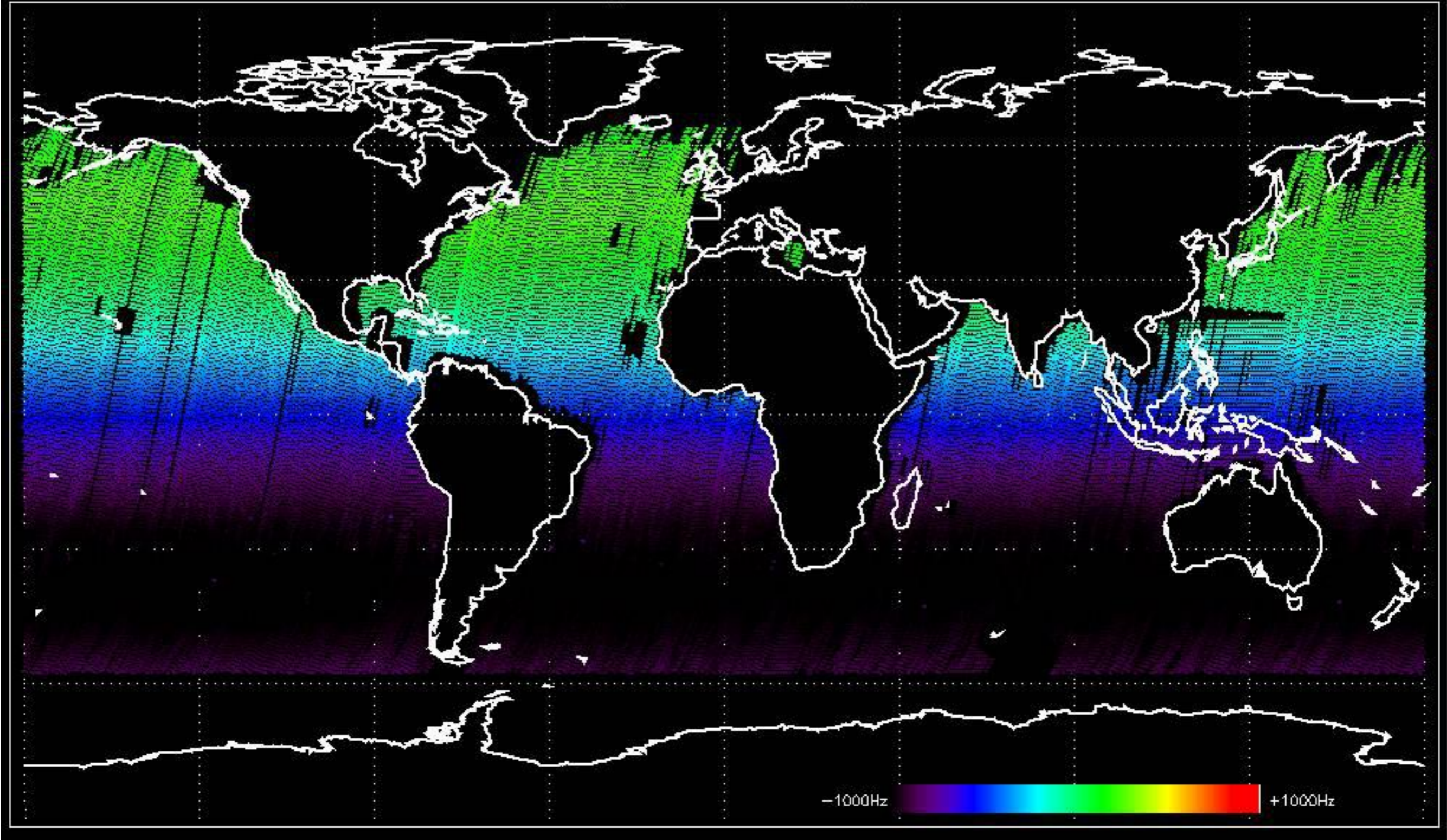
Doppler 'GM1' 'SS1' descending

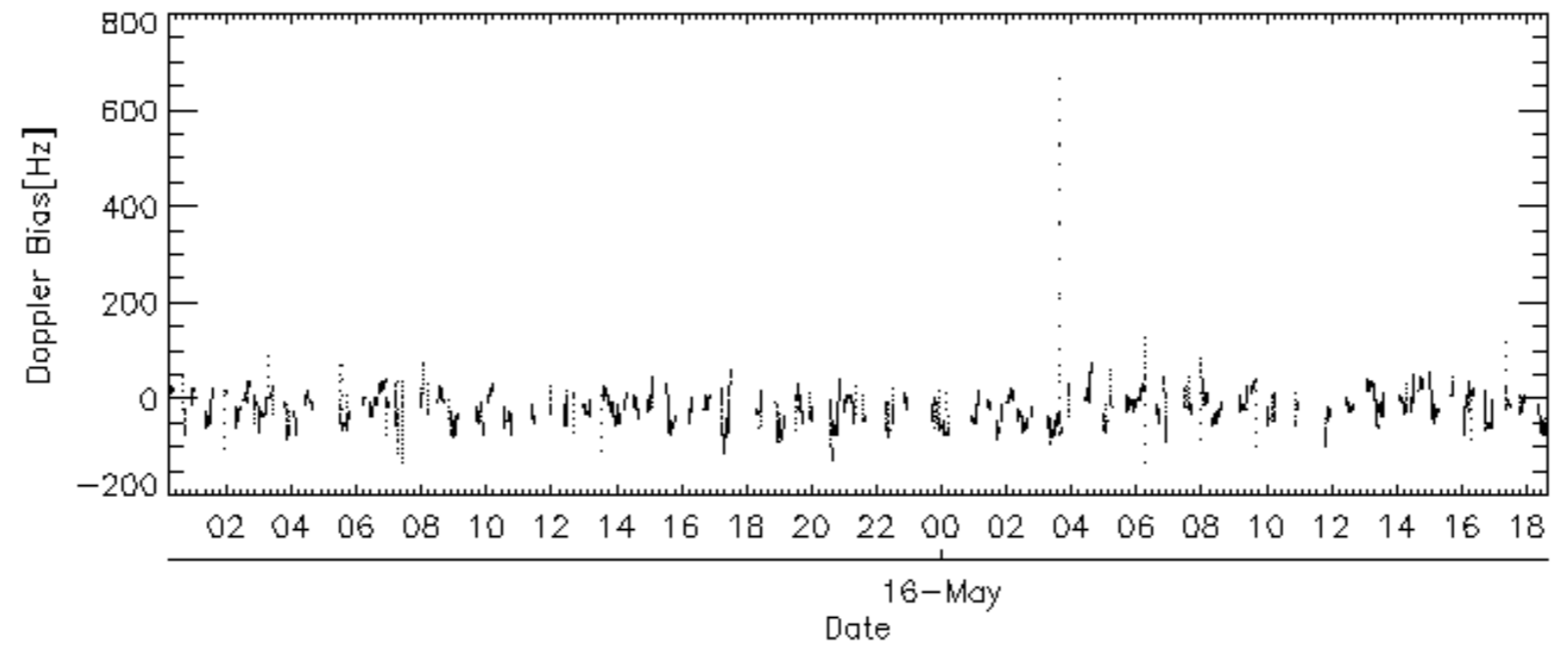
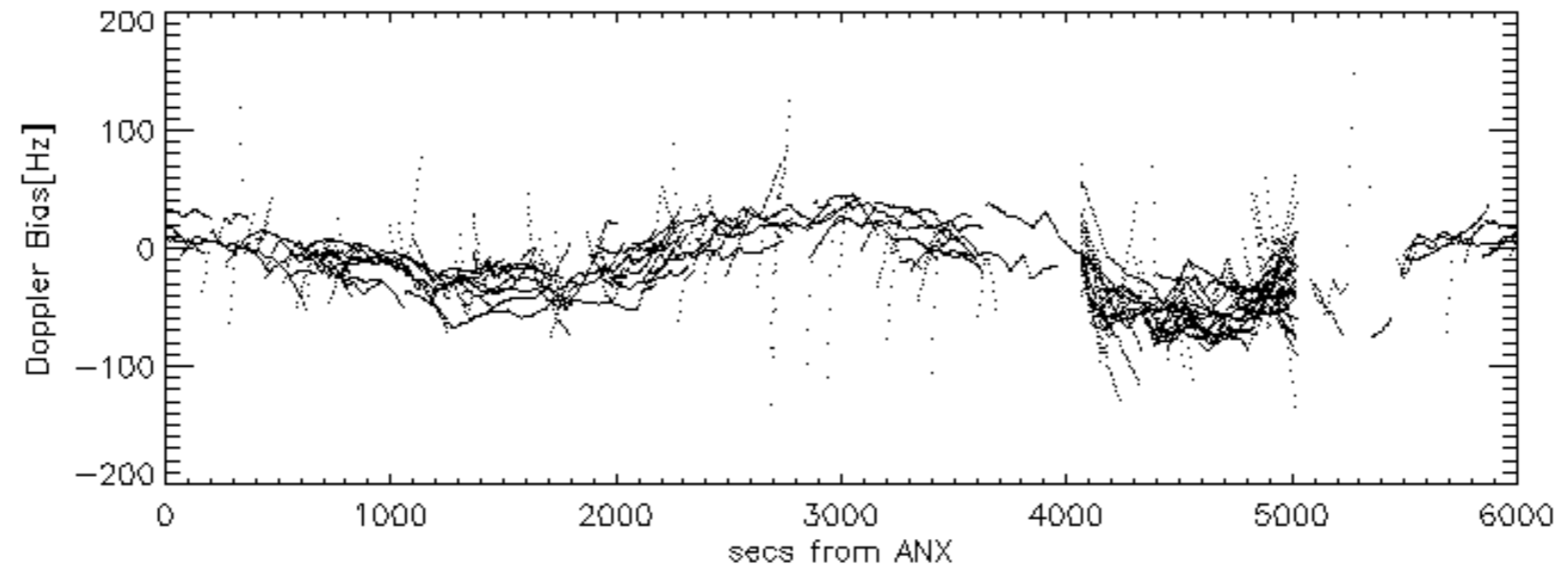
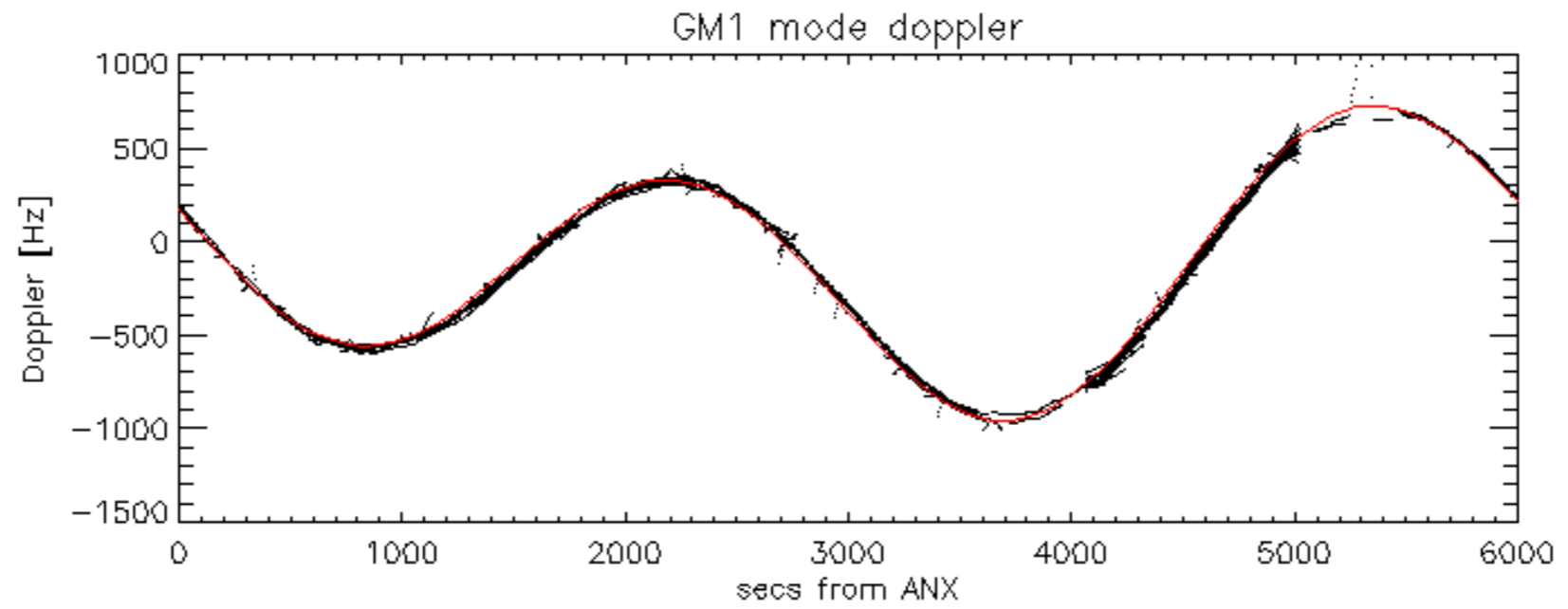


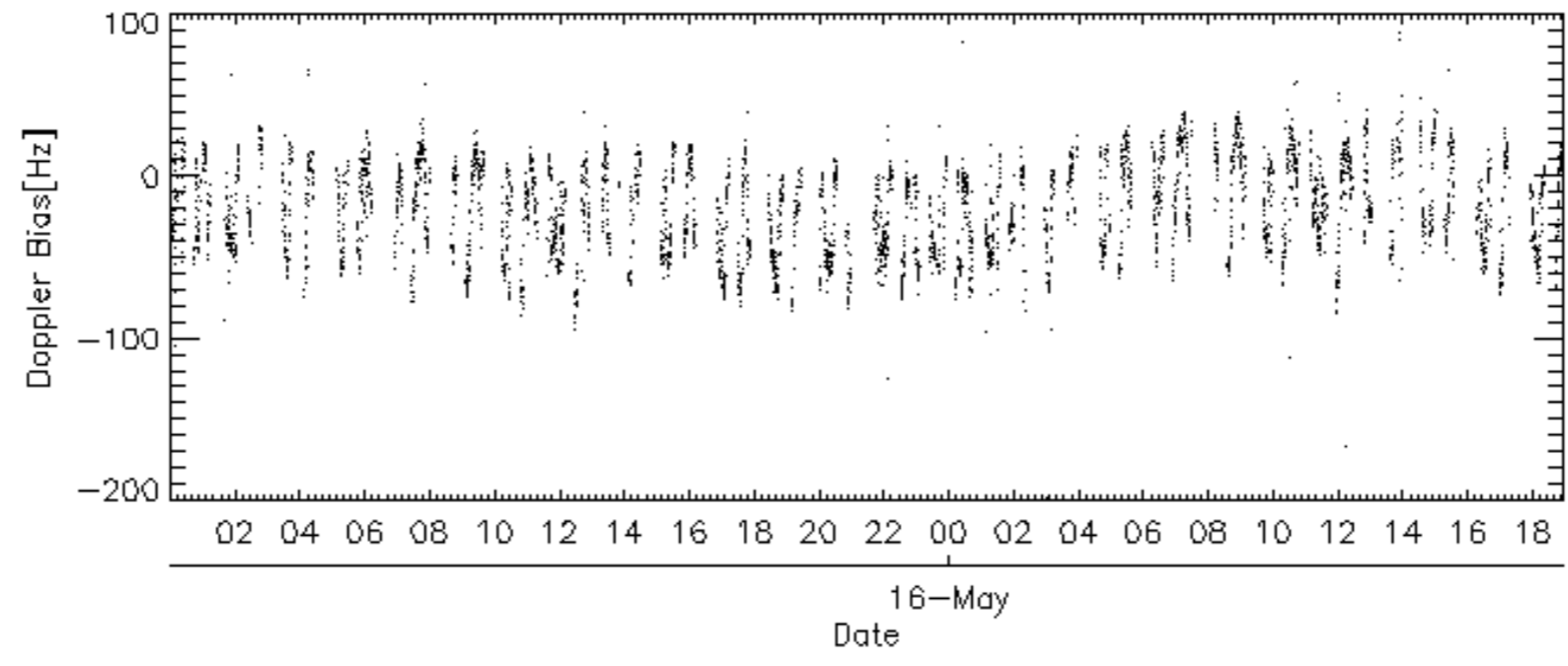
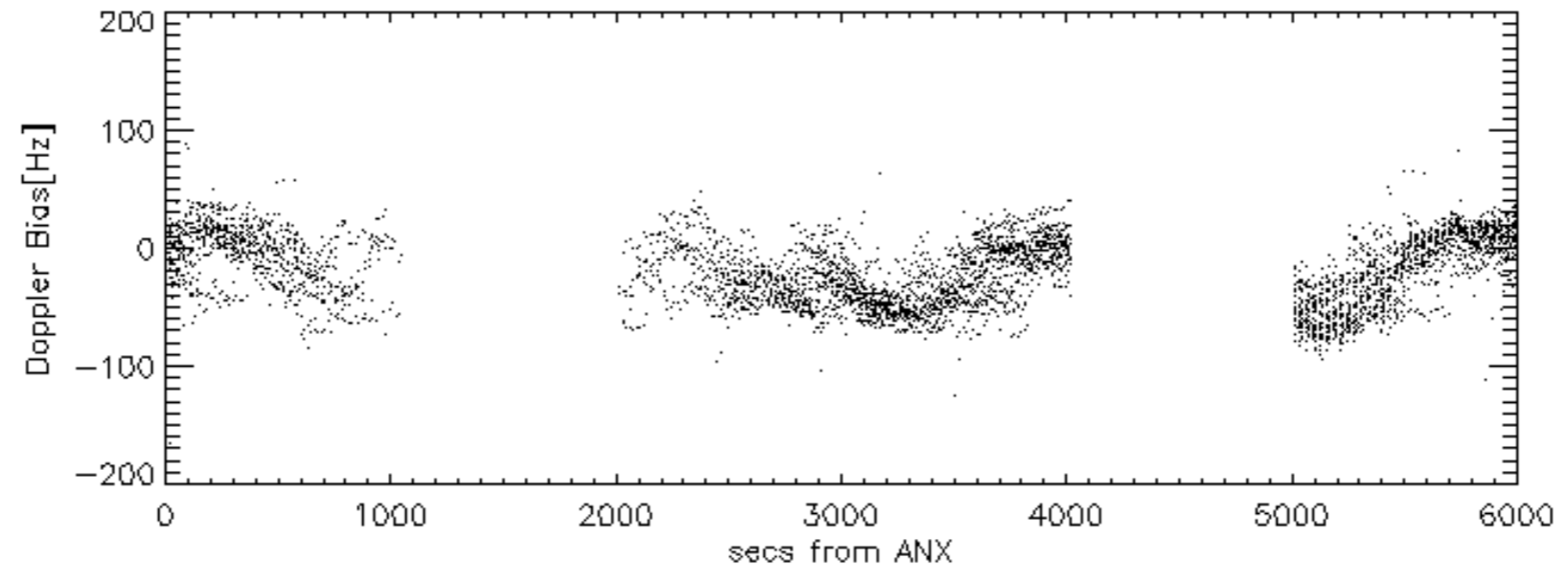
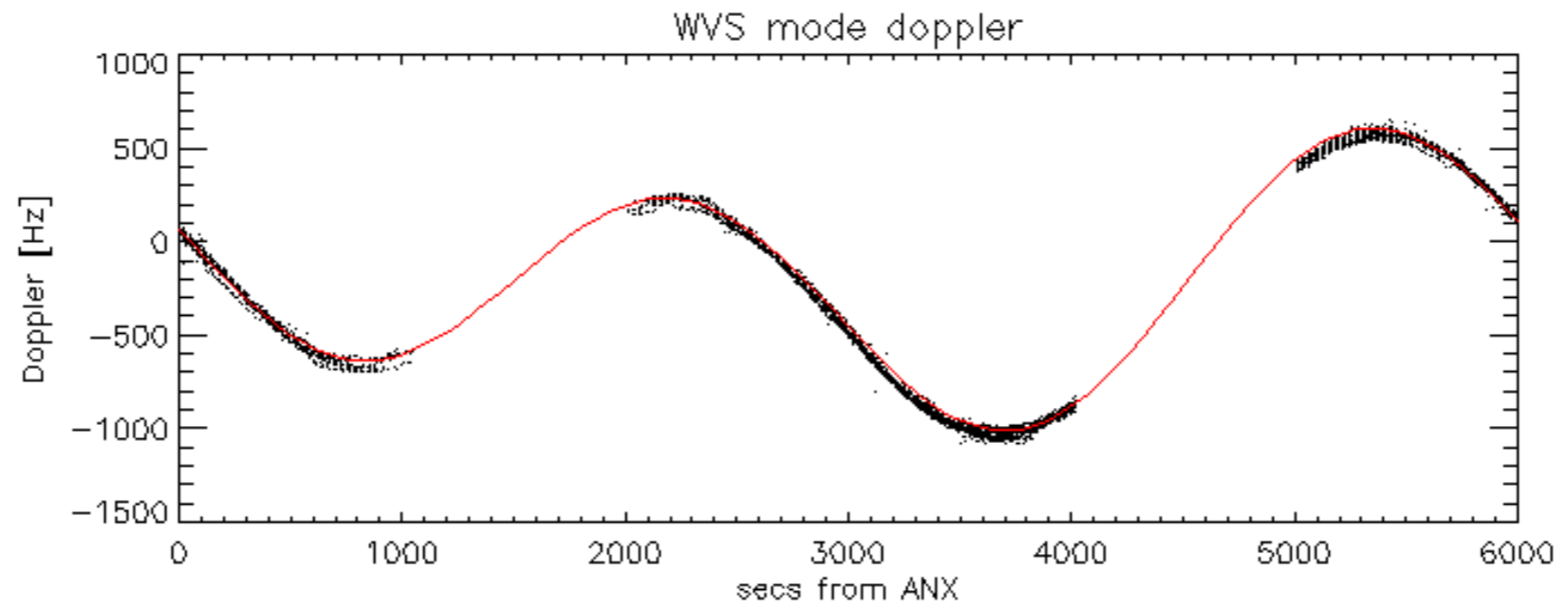
Doppler 'WVS' 'IS2' ascending



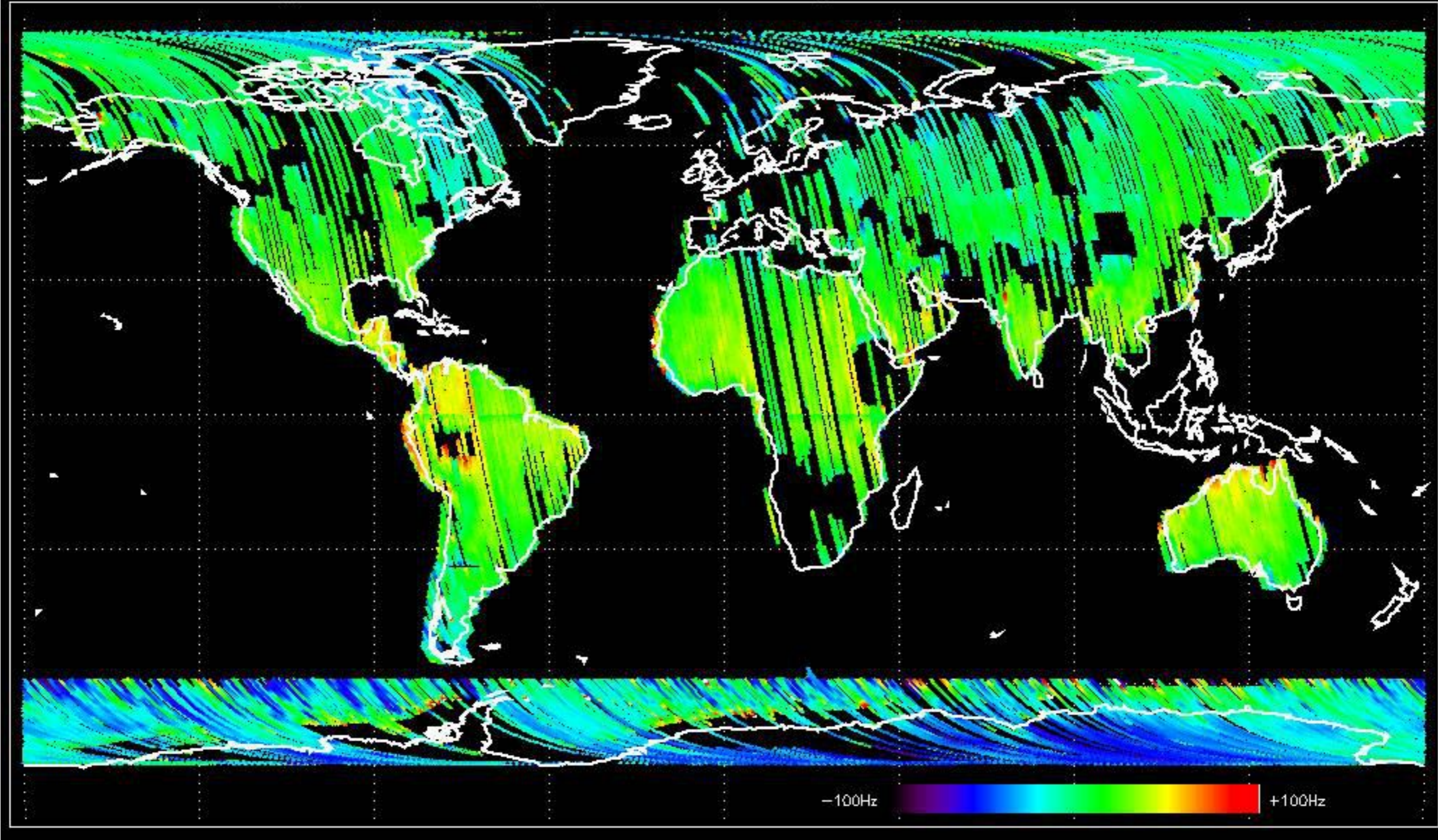
Doppler 'WVS' 'IS2' descending



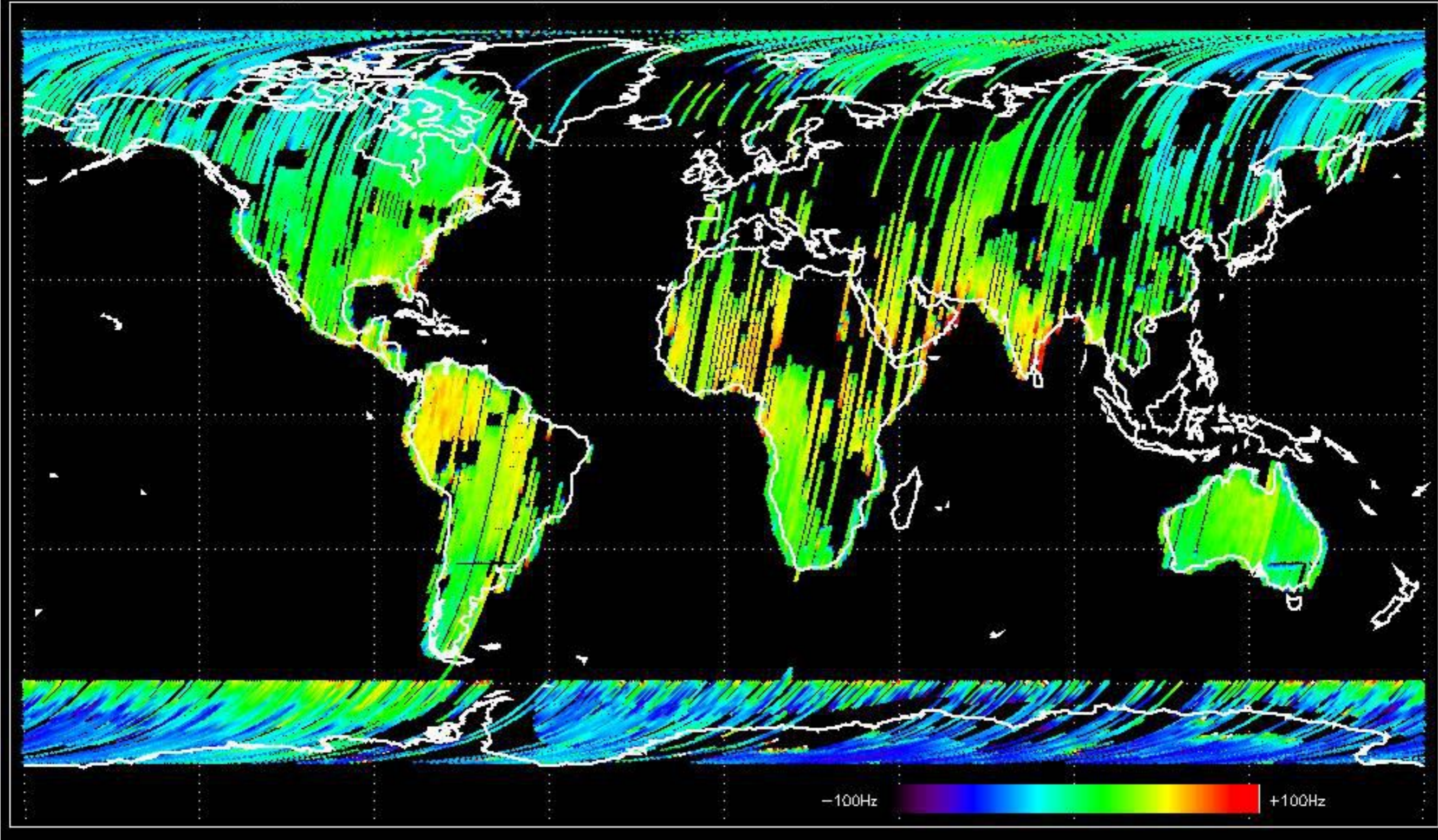




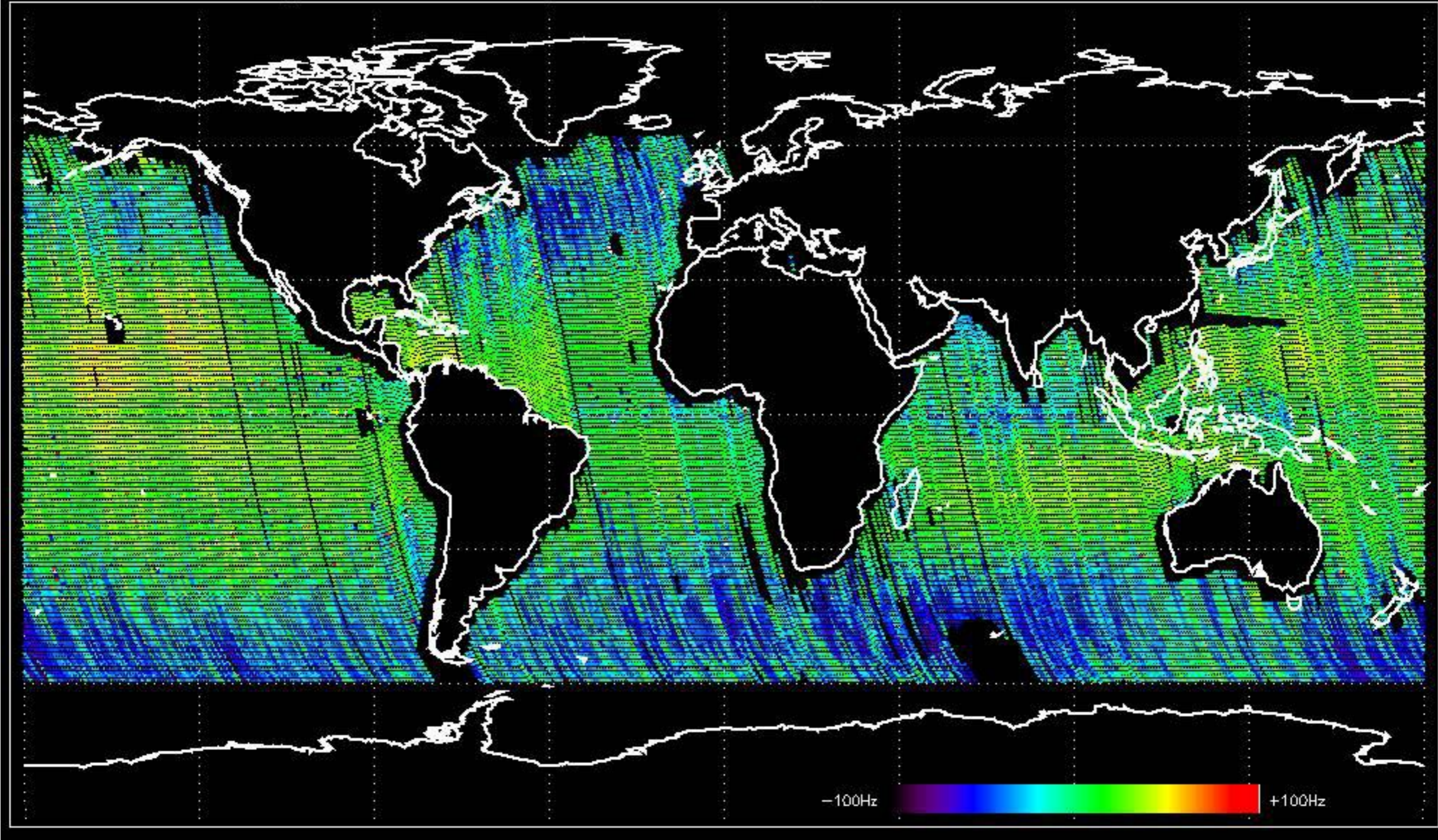
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.347410 Hz



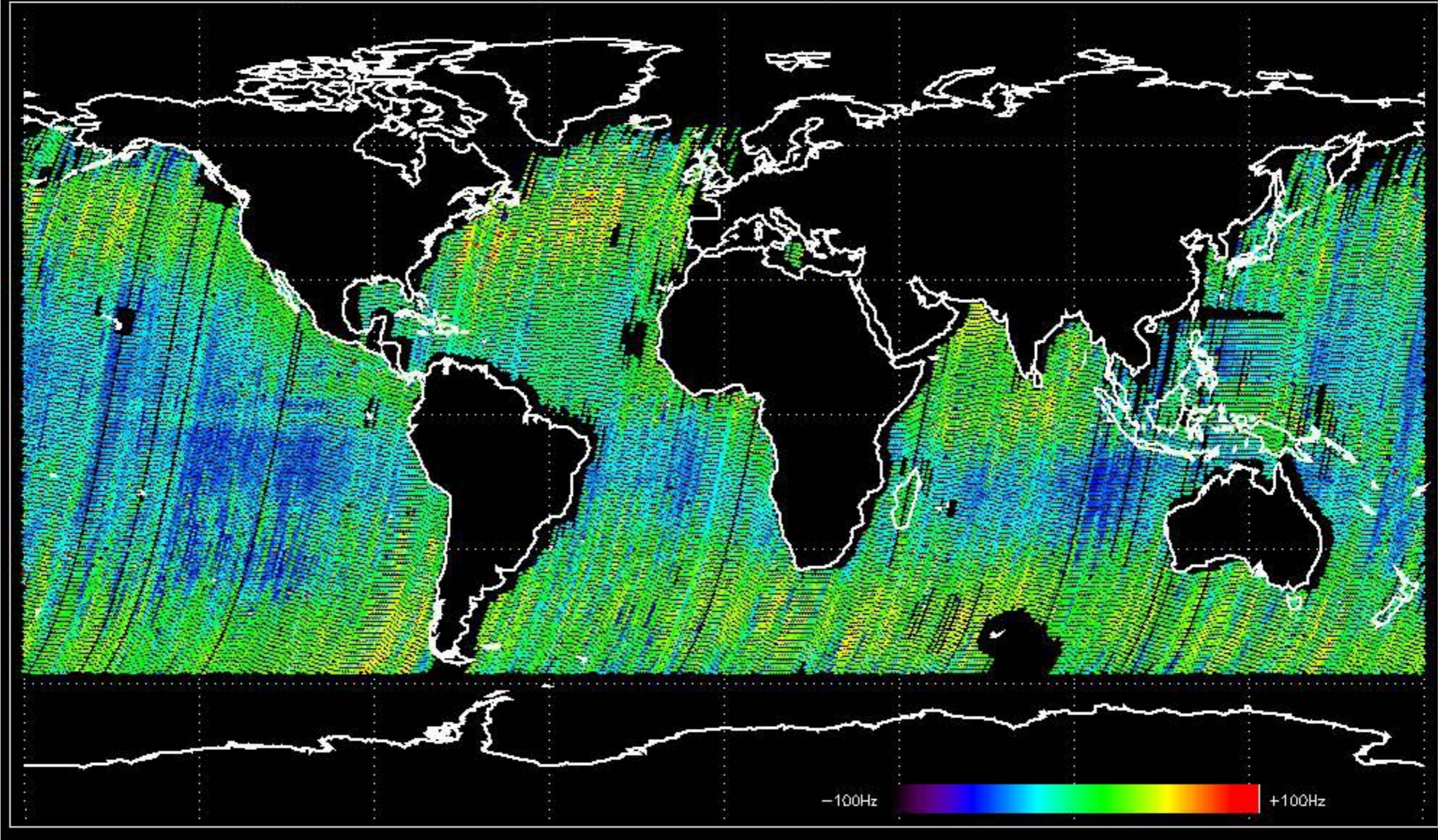
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.505010 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -15.494370 Hz

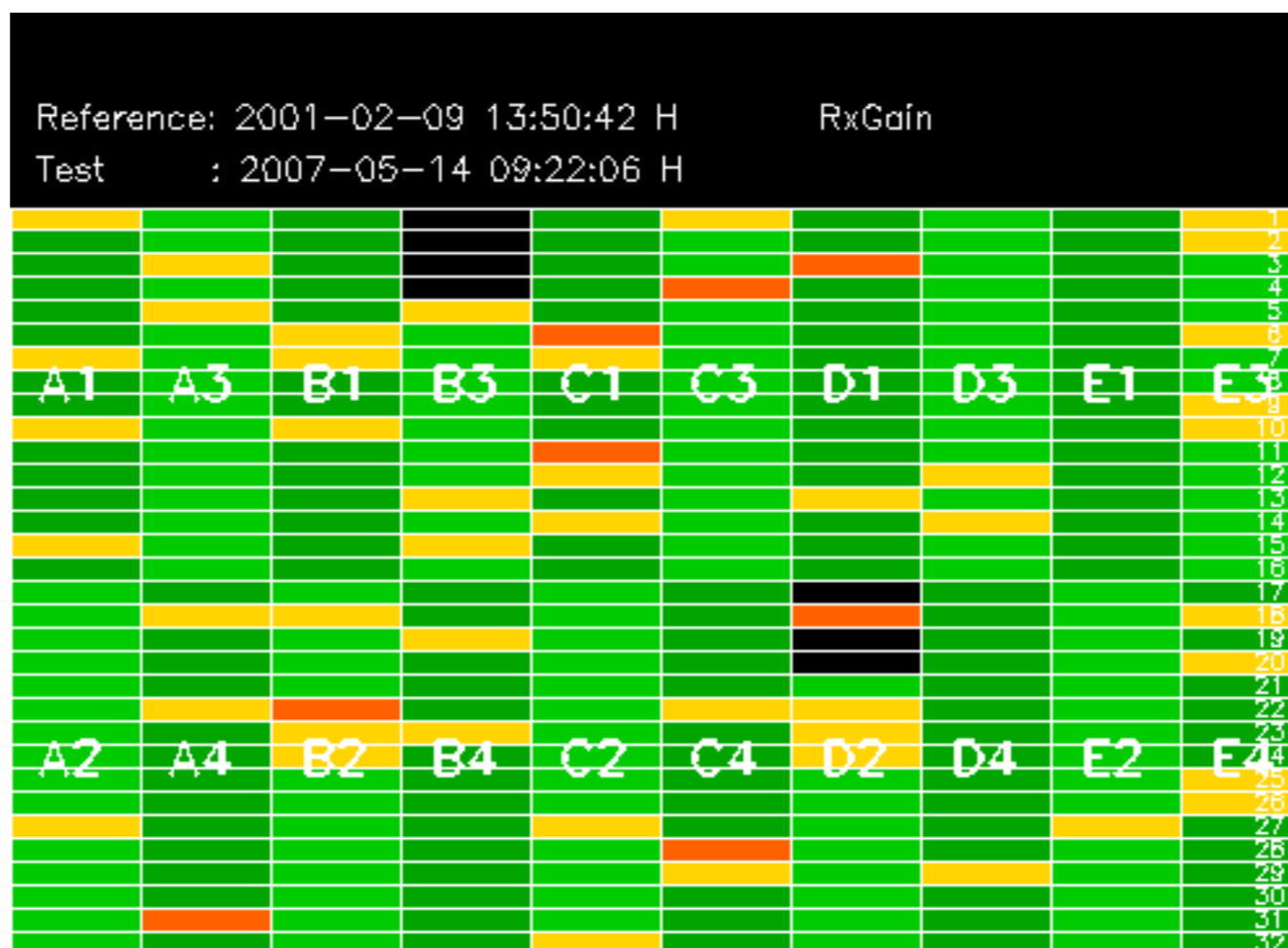


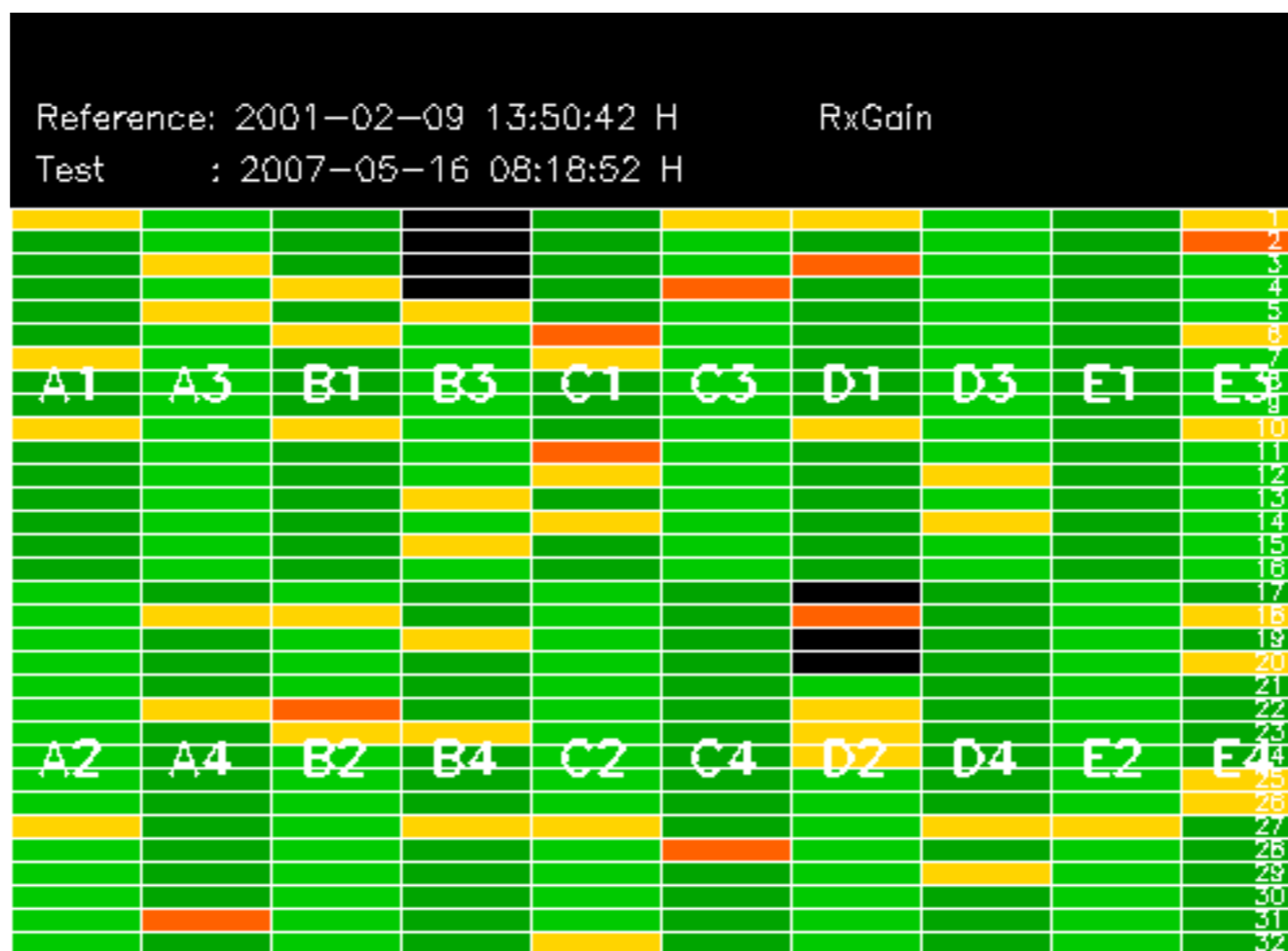
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.459914 Hz

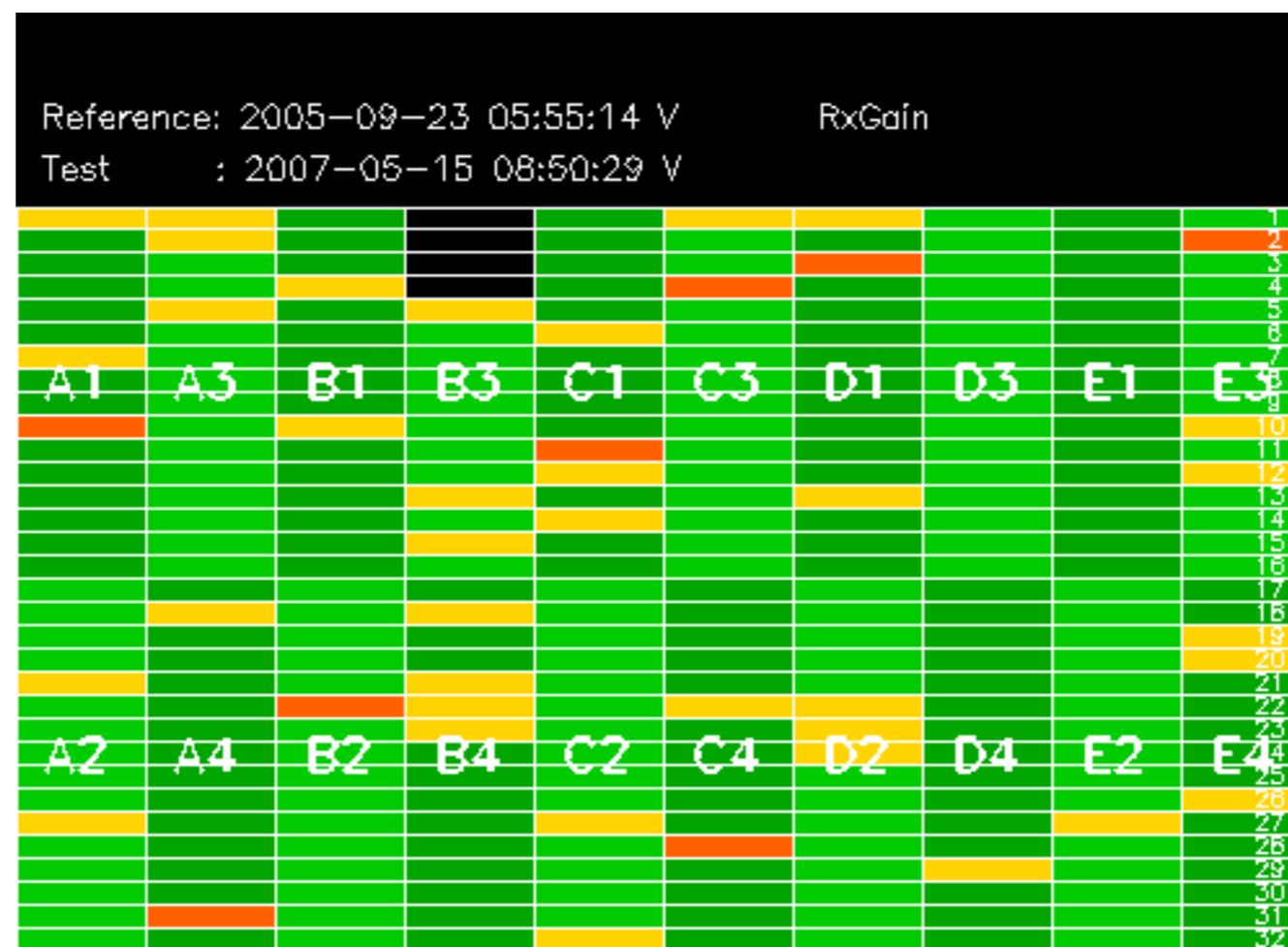


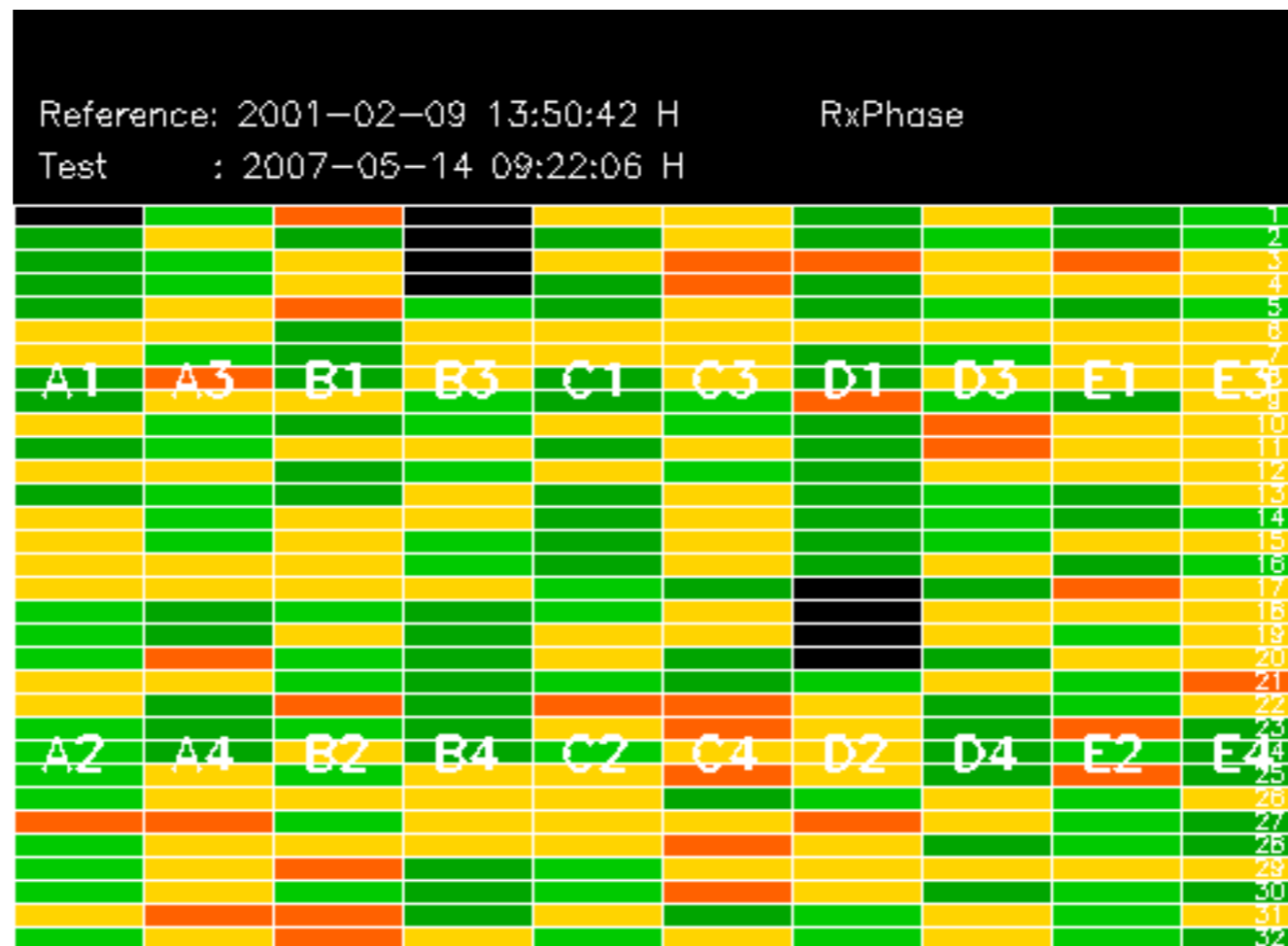
No anomalies observed on available MS products:

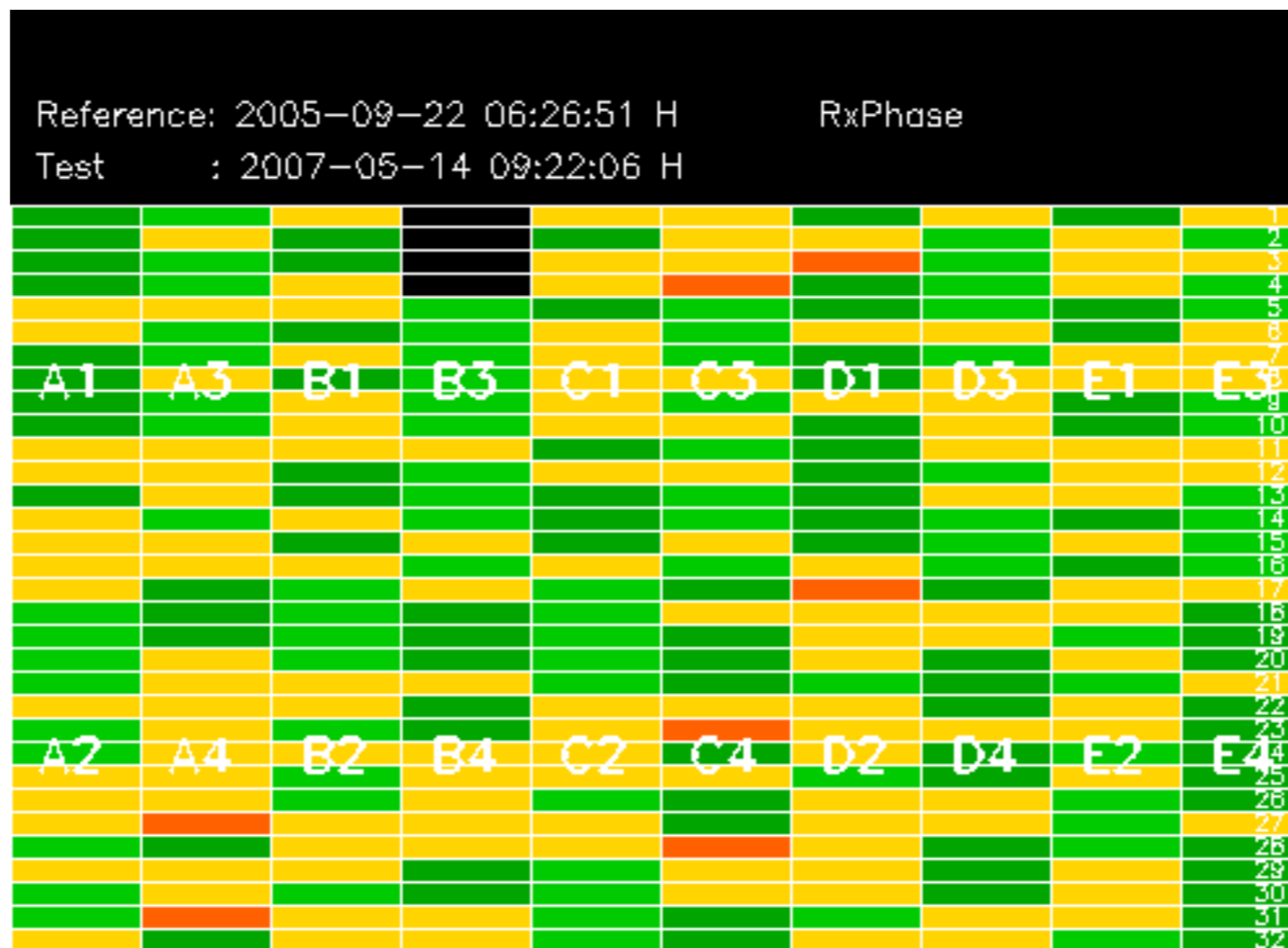
No anomalies observed.

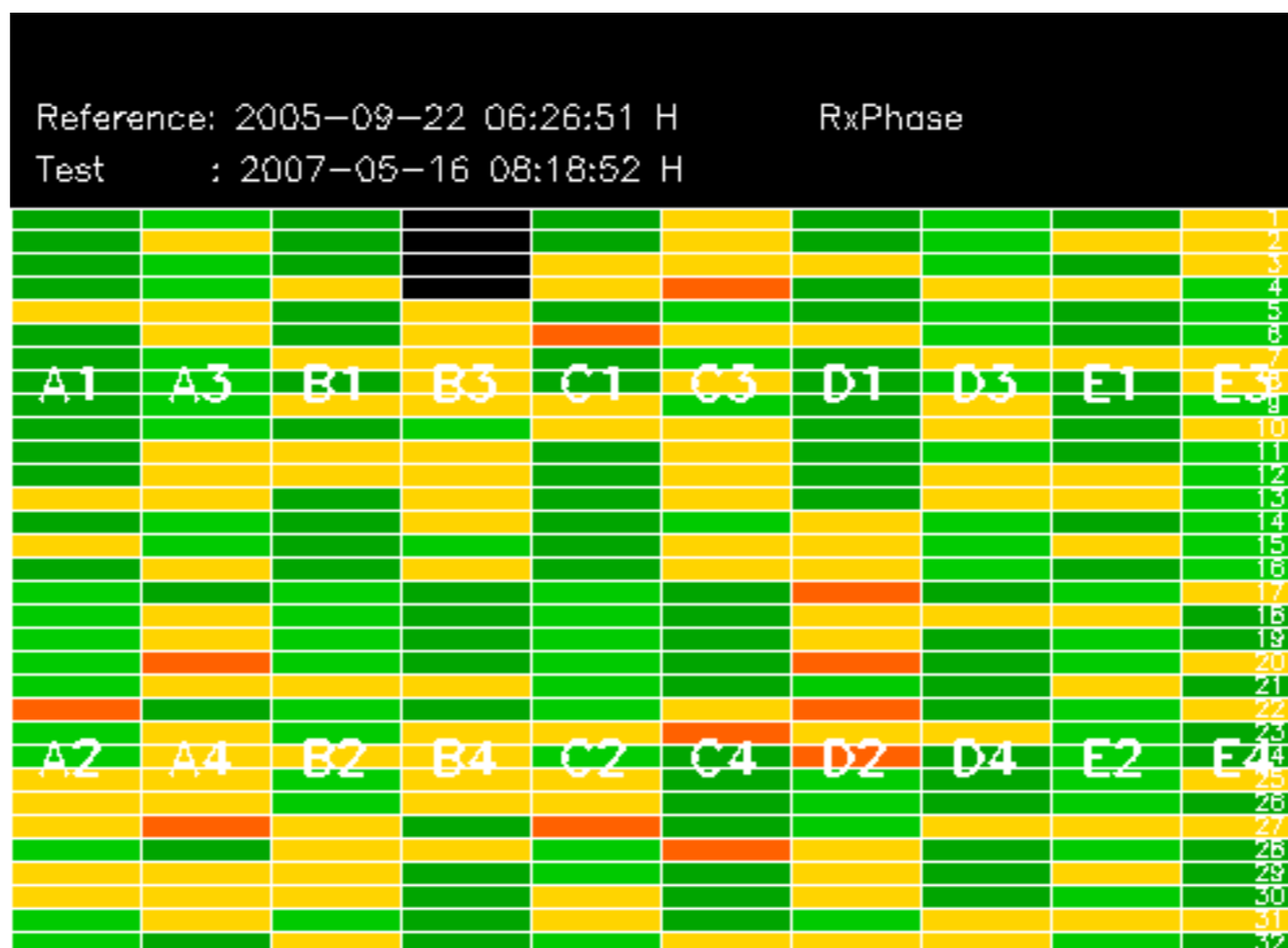


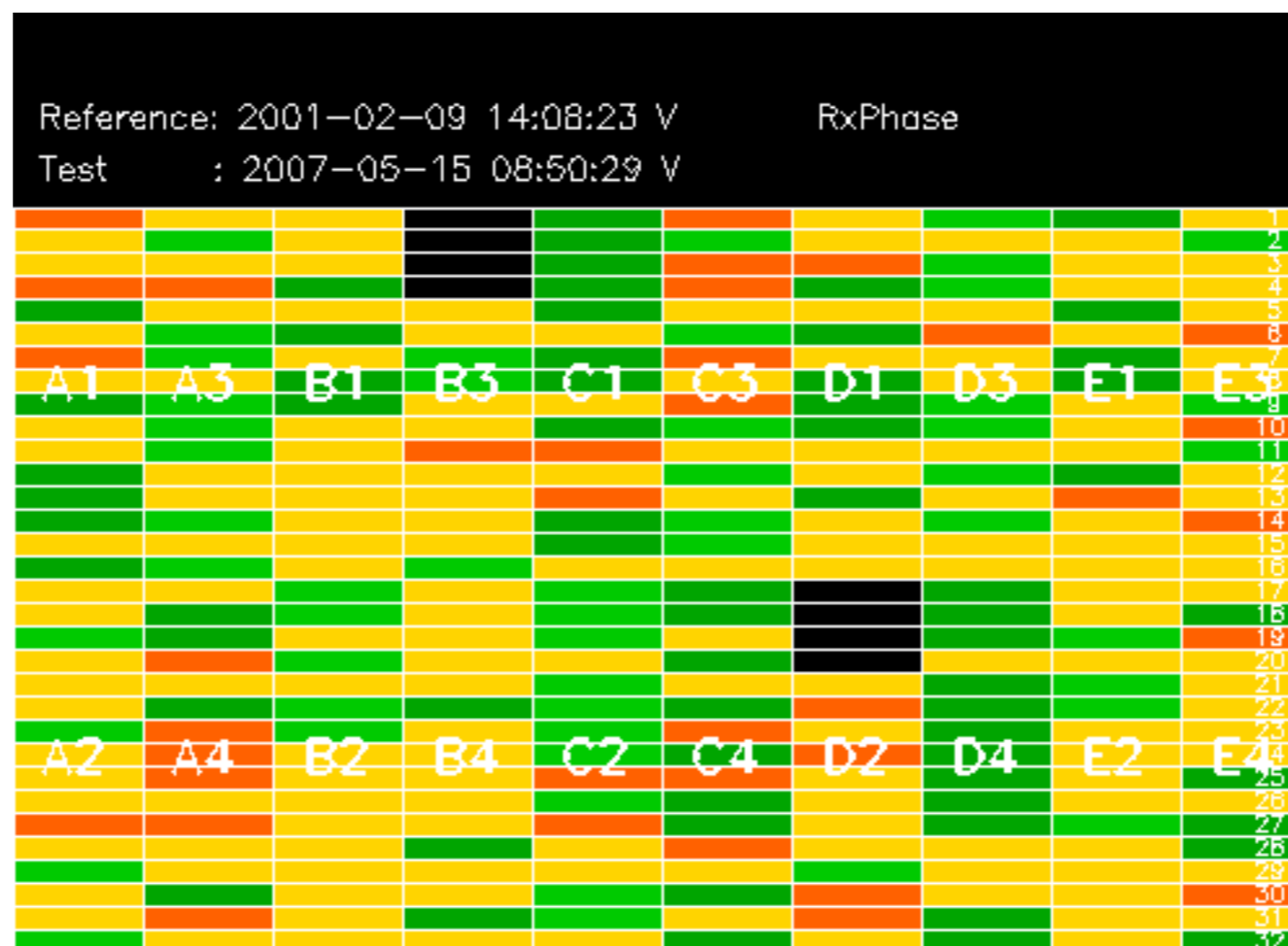


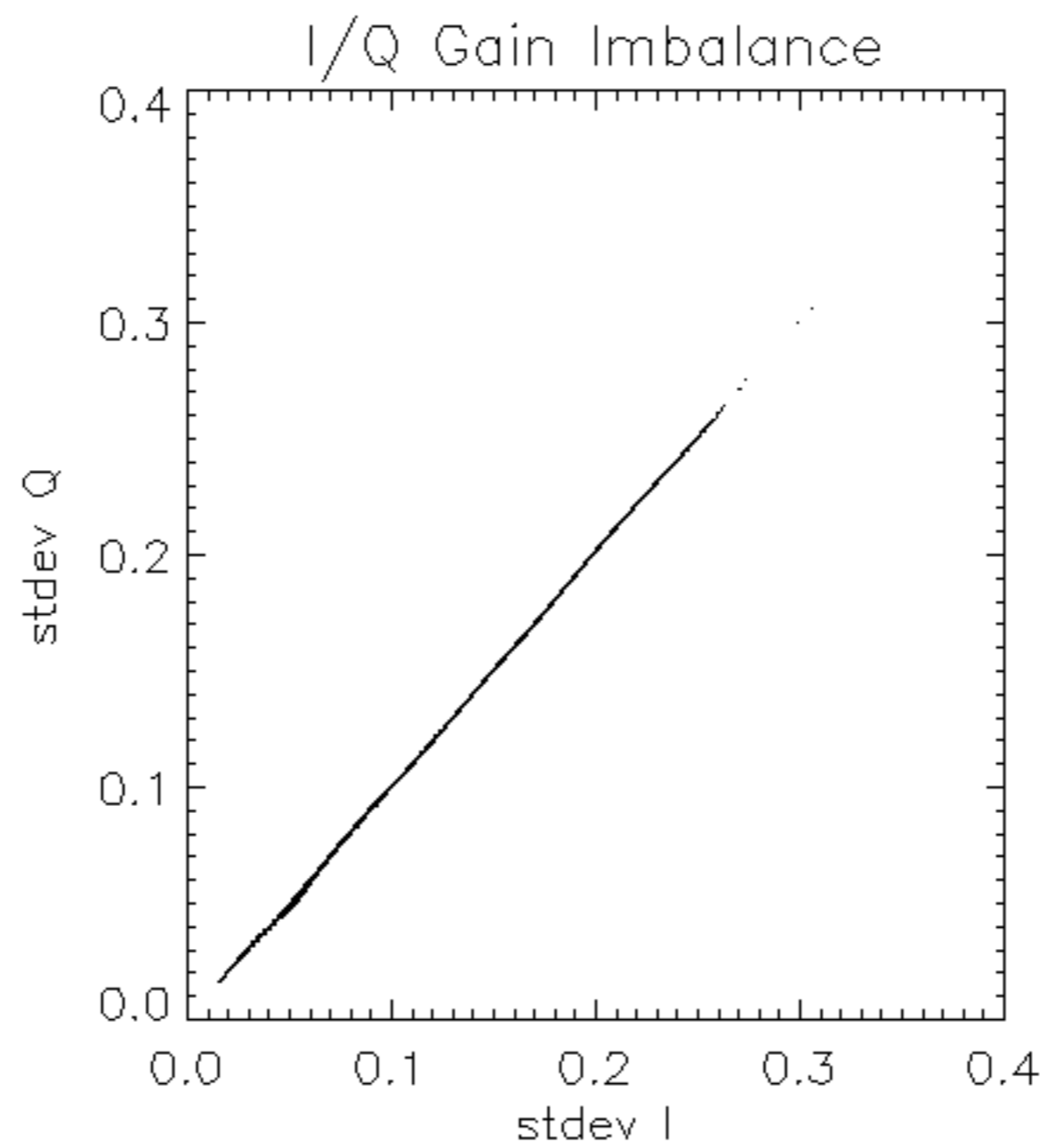


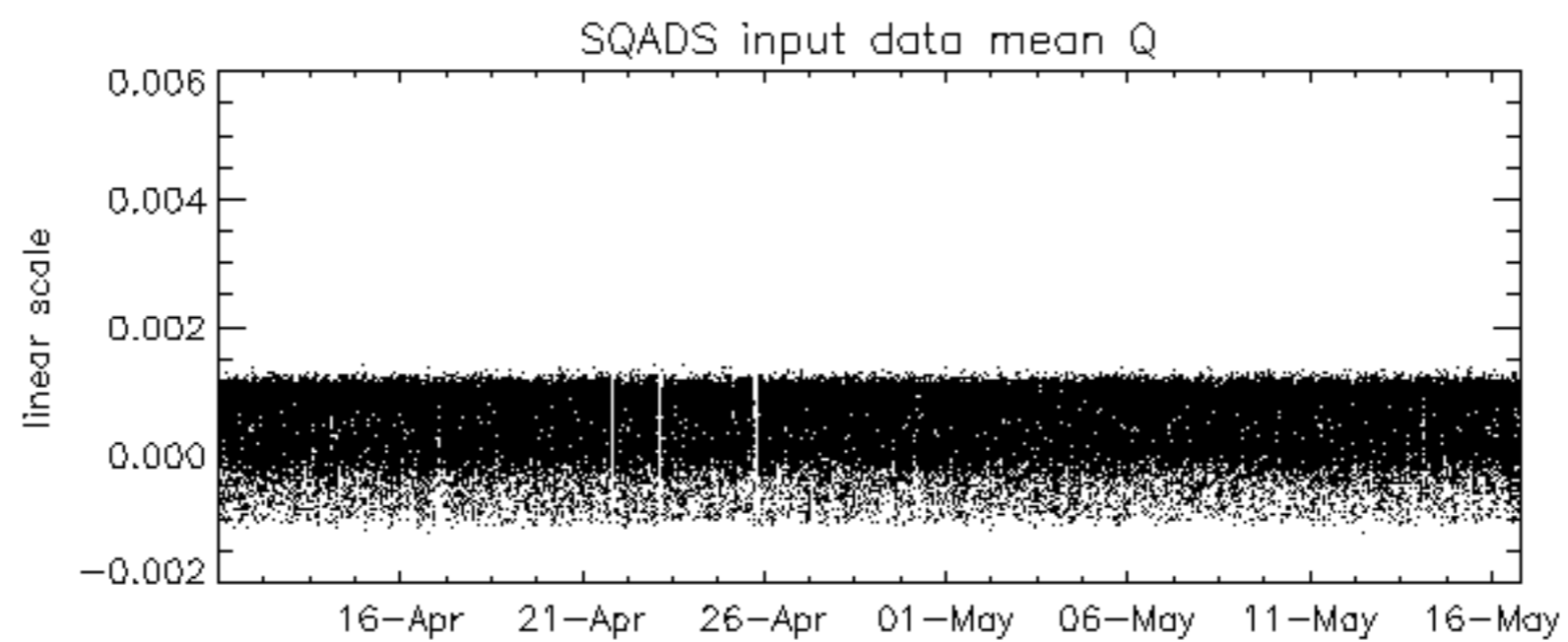
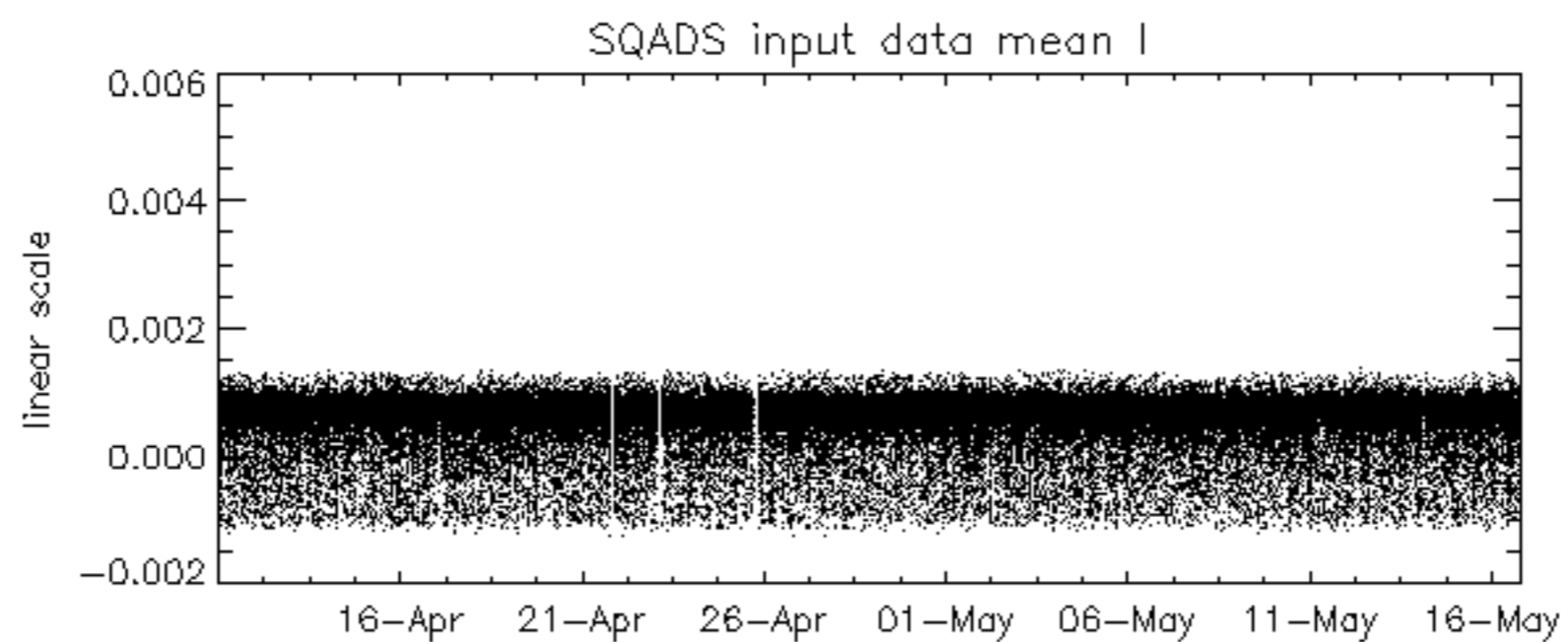
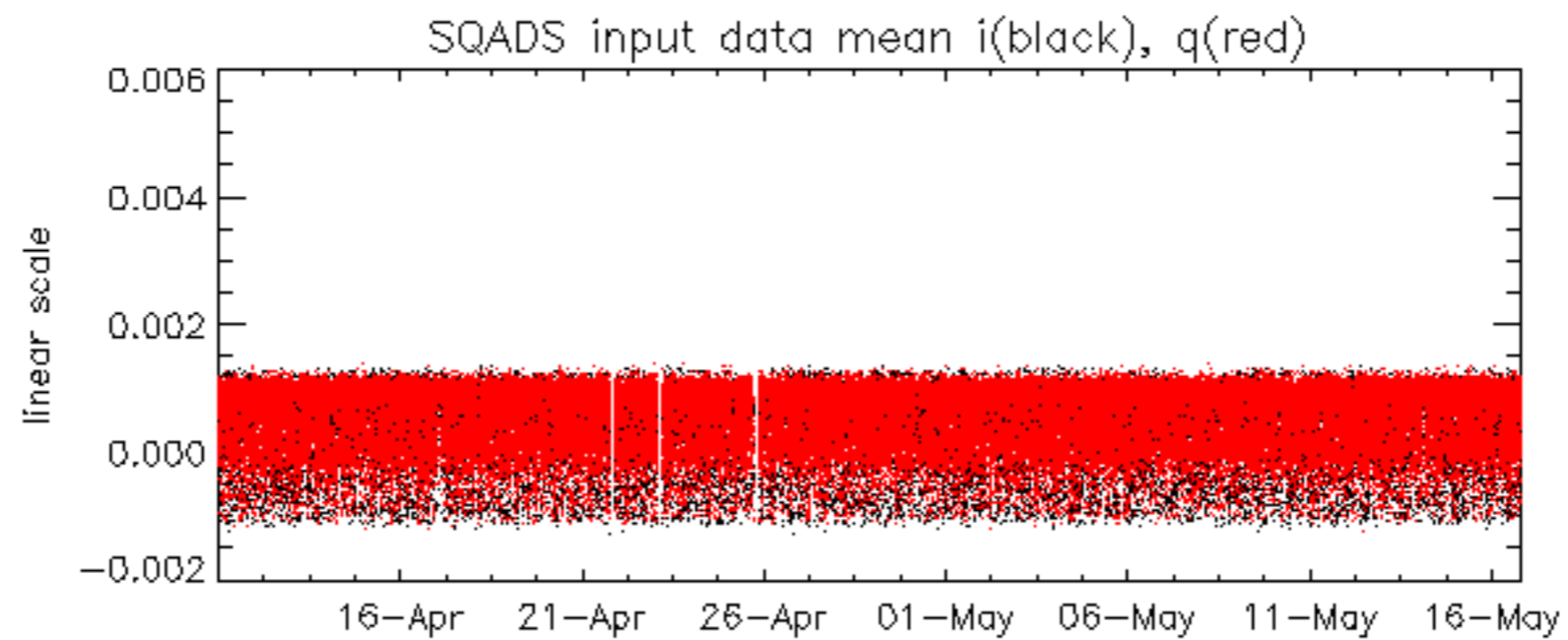


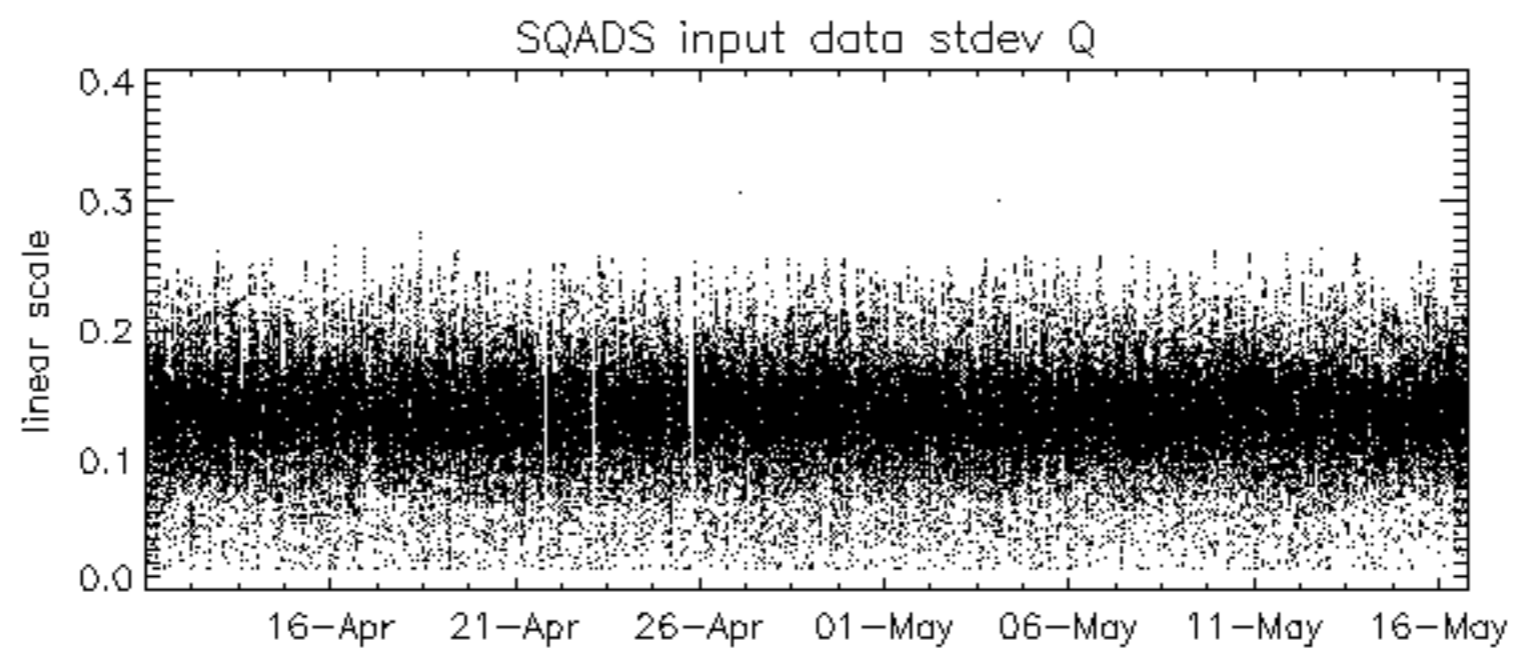
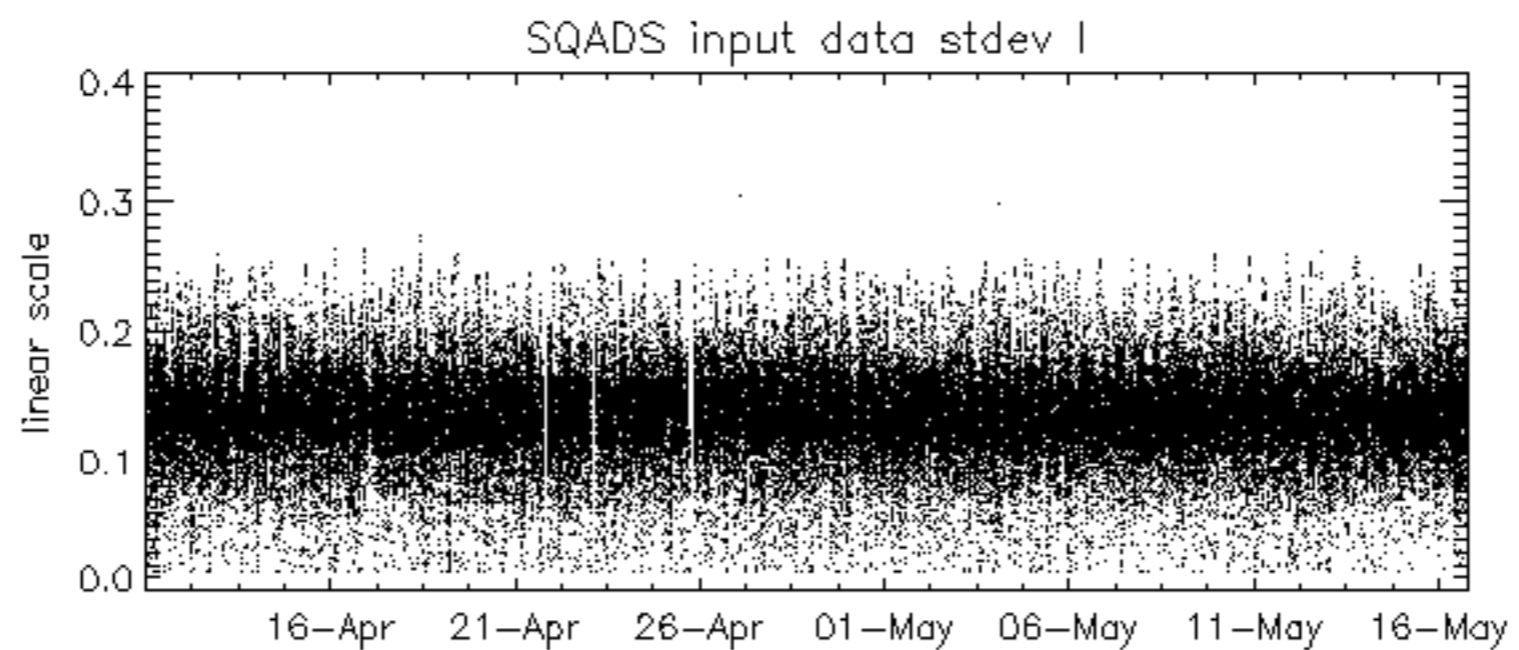
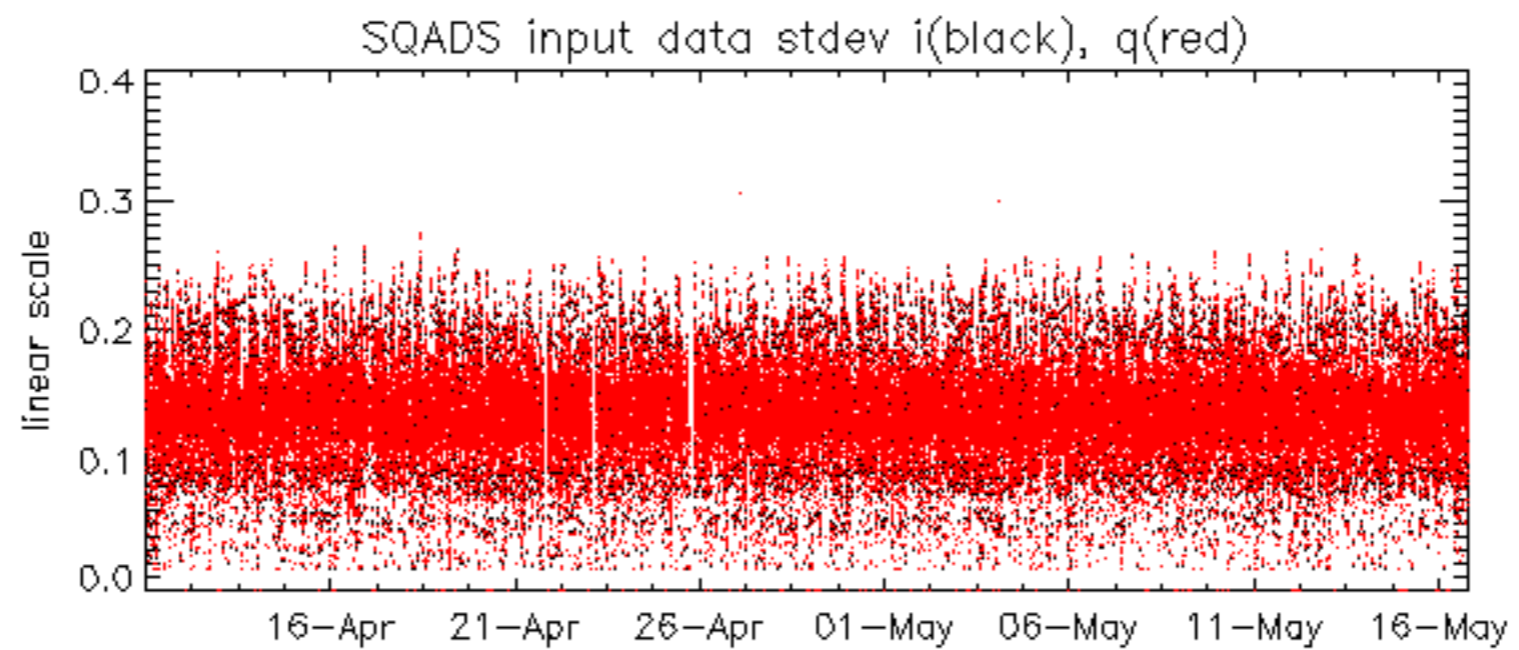


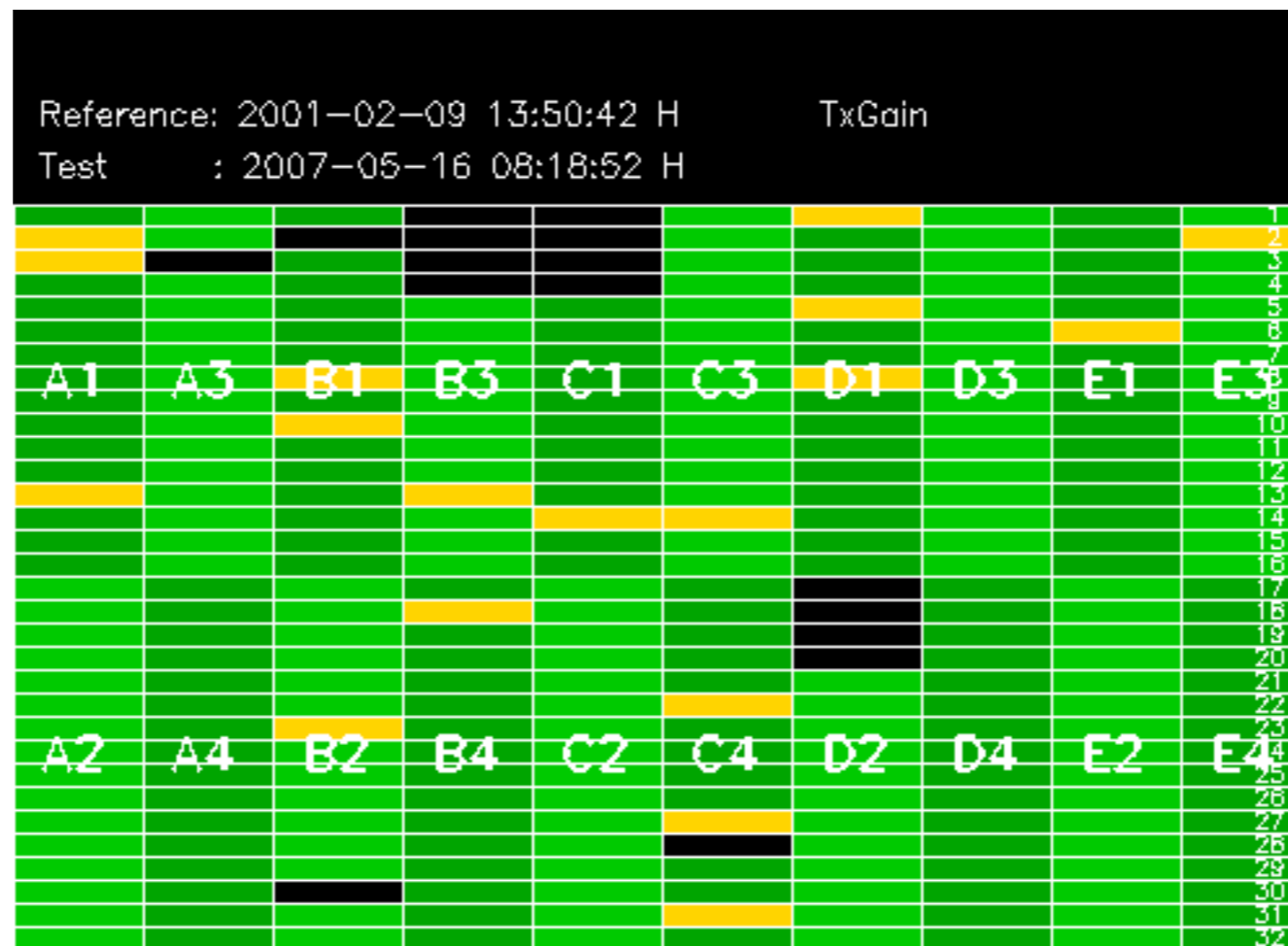








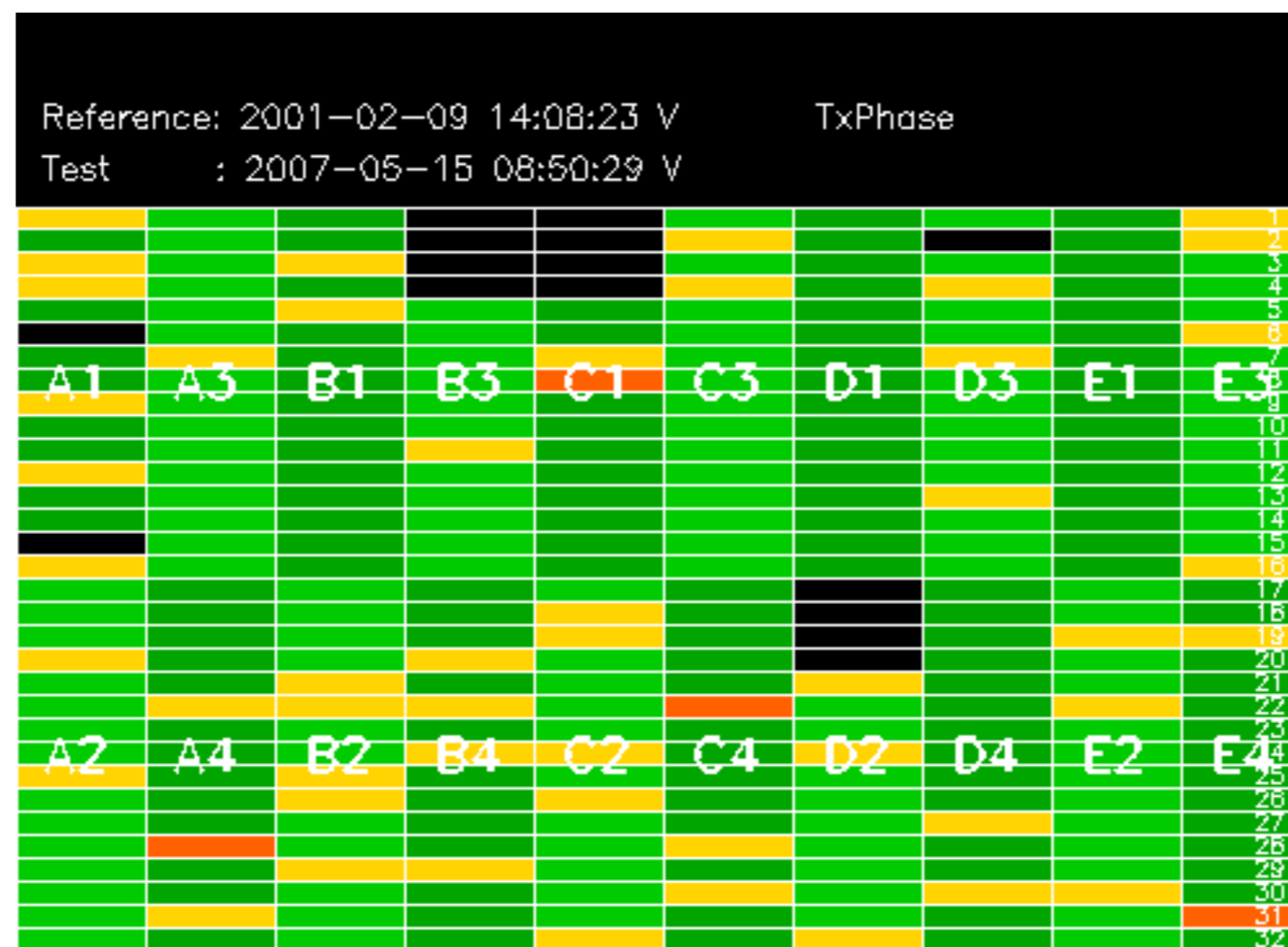


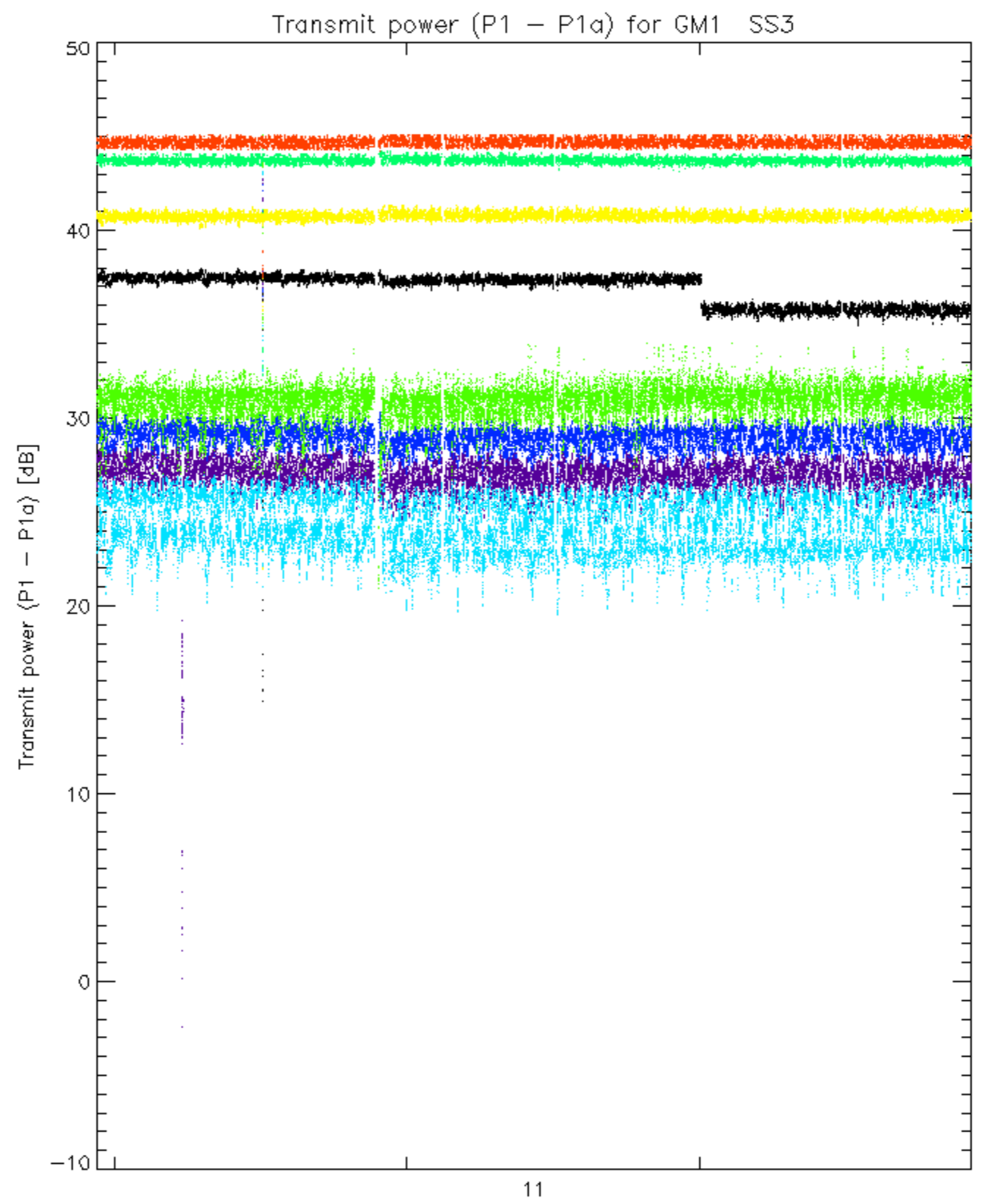


Summary of analysis for the last 3 days 2007051[456]

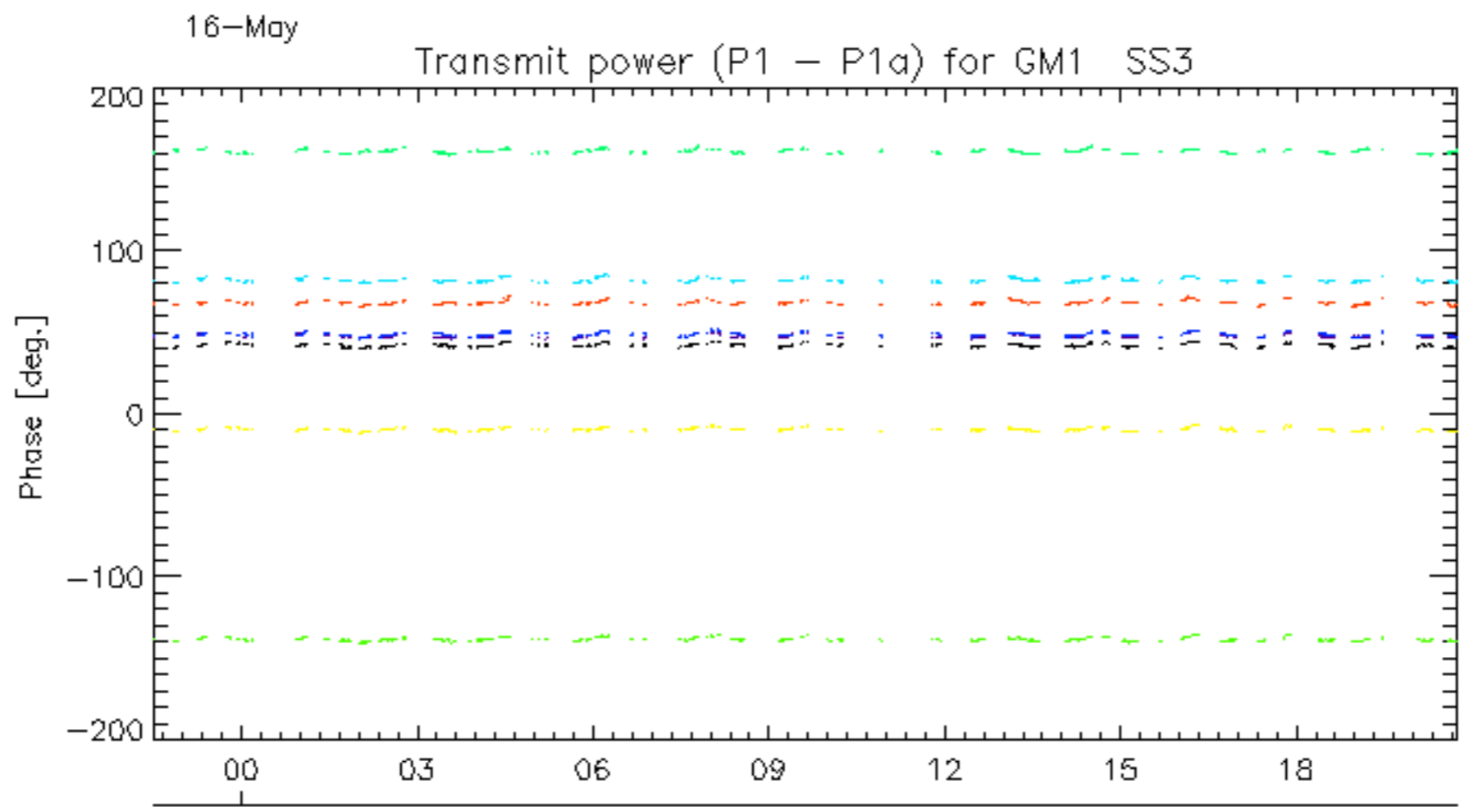
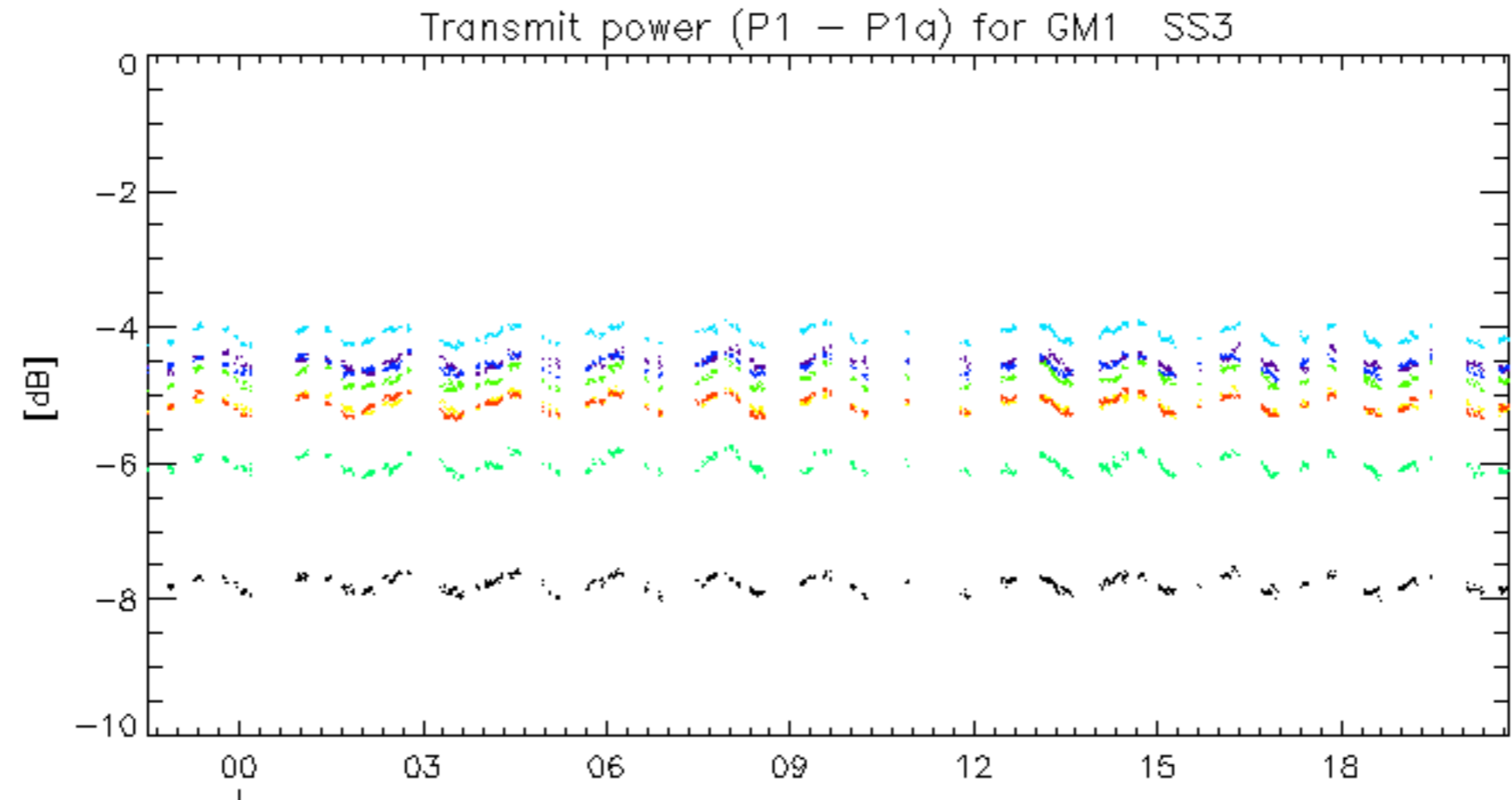
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070515_014512_000000352058_00103_27211_6080.N1	0	29
ASA_WSM_1PNPDE20070514_145940_000001582058_00097_27205_5551.N1	0	61
ASA_WSM_1PNPDE20070514_182245_000001582058_00099_27207_5646.N1	0	16
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_1PNPDK20070514_132855_000000612058_00096_27204_8337.N1	5	437
ASA_WSM_1PNPDK20070516_135852_000000862058_00125_27233_1603.N1	0	2

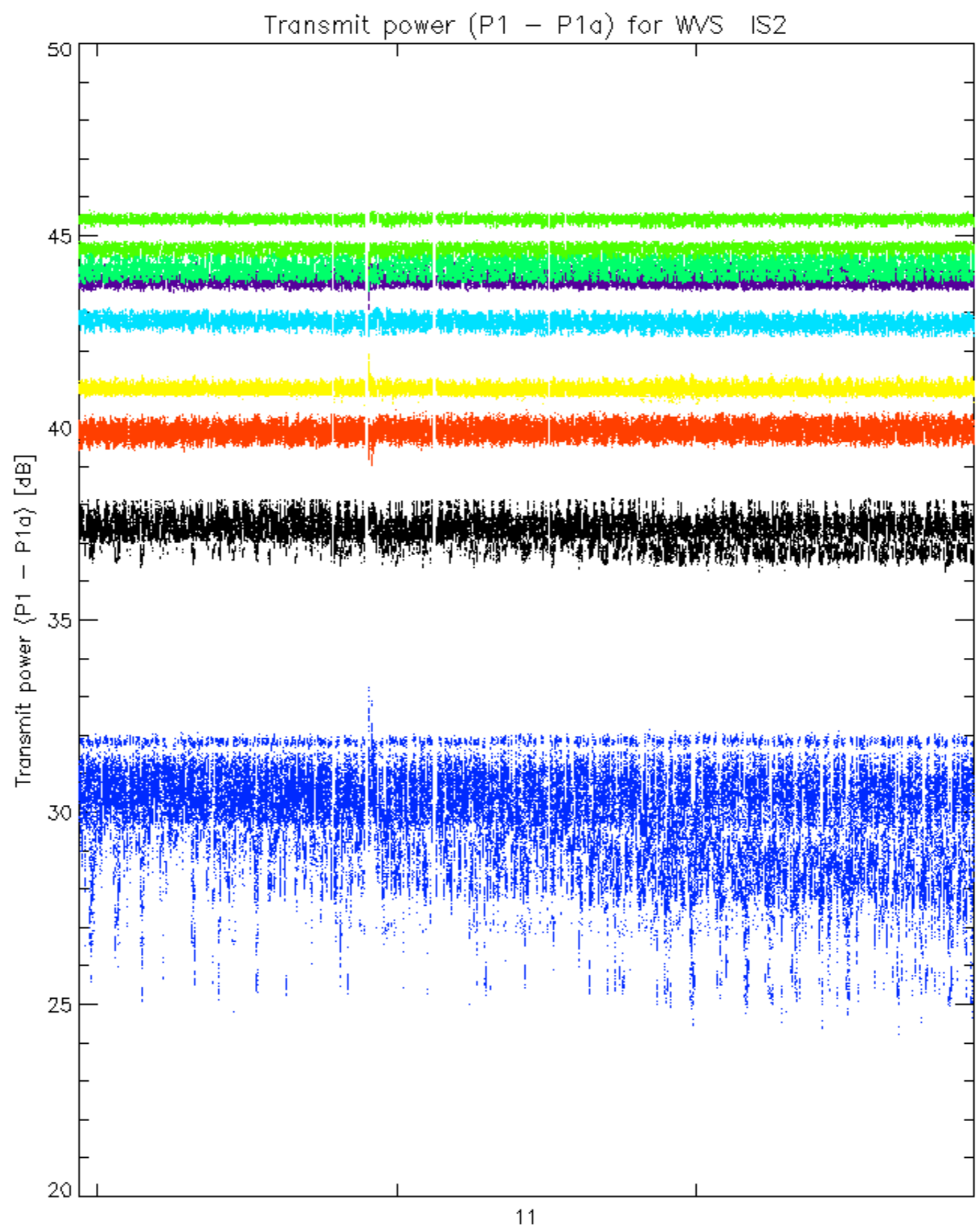




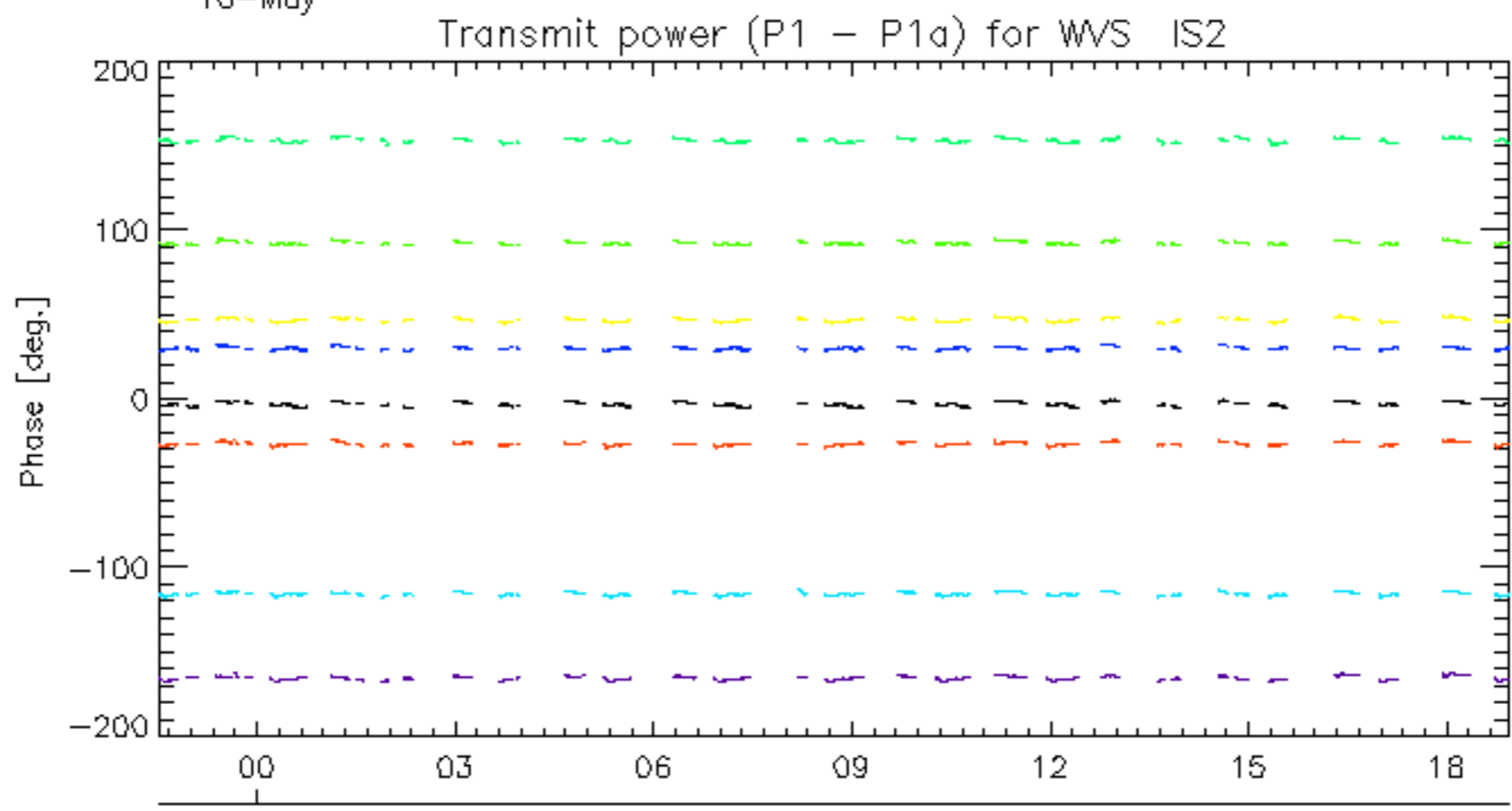
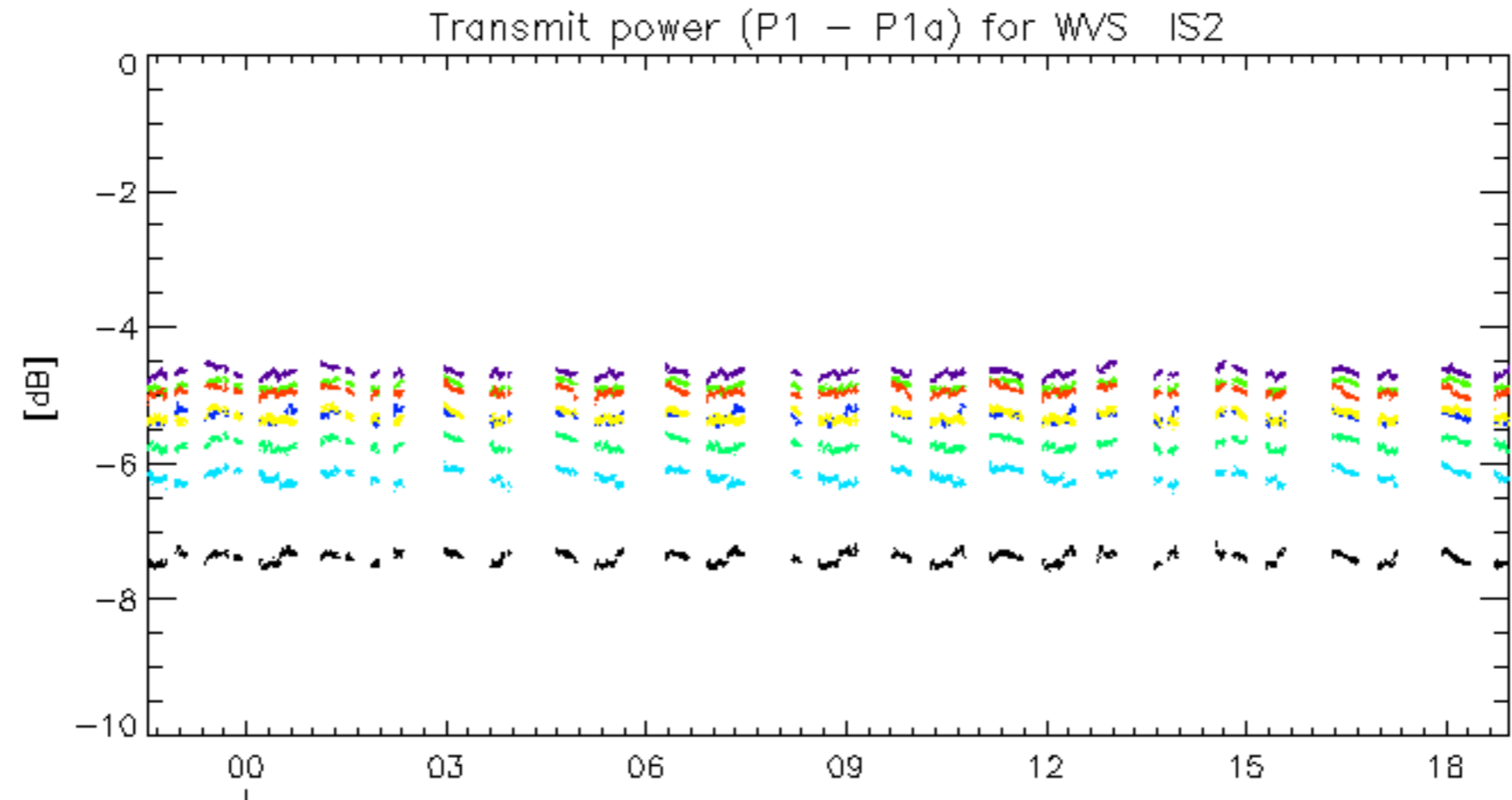
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.