

PRELIMINARY REPORT OF 070508

last update on Tue May 8 23:38:02 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 2007-05-07 00:00:00 to 2007-05-08 23:38:03

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	46	89	15	0	34
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	46	89	15	0	34
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	46	89	15	0	34
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	89	15	0	34

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	52	74	36	15	88
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	52	74	36	15	88
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	52	74	36	15	88
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	52	74	36	15	88

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	20070507 180513
H	20070508 173336

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"/>

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"/>

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	-15.137810	0.146522	-0.289283
7	P1a	-17.568377	0.094570	-0.092873
11	P1a	-17.576662	0.364103	-0.611081
15	P1a	-13.061879	0.137182	-0.362749
19	P1a	-15.372914	0.071676	-0.262110
22	P1a	-15.947757	0.389286	-0.253384
26	P1a	-14.995625	0.217835	0.275920
30	P1a	-17.800201	0.376745	-0.633271

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.774804	0.010280	-0.041781
7	P1	-3.153154	0.009071	-0.030233
11	P1	-4.206367	0.013503	0.009902
15	P1	-6.428634	0.020346	-0.132557
19	P1	-3.780730	0.011351	0.028472
22	P1	-4.747486	0.009731	-0.002601
26	P1	-3.914308	0.019387	0.046338
30	P1	-5.966585	0.009281	0.011478

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.656406	0.091262	0.017835
7	P2	-21.544973	0.089677	0.104870
11	P2	-15.329787	0.118774	0.175905
15	P2	-7.130631	0.088373	-0.021112
19	P2	-9.121268	0.080672	-0.012546
22	P2	-18.088957	0.077122	-0.004442
26	P2	-16.631716	0.082149	-0.079634
30	P2	-19.270876	0.082155	0.050165

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.245648	0.005117	-0.004466

7	P3	-8.245648	0.005117	-0.004466
11	P3	-8.245648	0.005117	-0.004466
15	P3	-8.245648	0.005117	-0.004466
19	P3	-8.245648	0.005117	-0.004466
22	P3	-8.245648	0.005117	-0.004466
26	P3	-8.245648	0.005117	-0.004466
30	P3	-8.245648	0.005117	-0.004466

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	-11.261007	0.135646	-0.342866
7	P1a	-10.045744	0.167564	0.090639
11	P1a	-10.684401	0.087130	0.022232
15	P1a	-10.816194	0.156169	0.141090
19	P1a	-15.821187	0.087006	-0.113702
22	P1a	-21.413628	1.459994	-0.297666
26	P1a	-15.520934	0.361415	-0.137908
30	P1a	-18.307404	0.449510	0.079254

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.365896	0.134926	0.474060
7	P1	-2.397371	0.086130	0.075012
11	P1	-2.881903	0.022452	0.050445
15	P1	-3.811315	0.035457	0.046663
19	P1	-3.592846	0.014555	-0.032326
22	P1	-4.962358	0.023180	0.067536
26	P1	-6.043911	0.024452	-0.048578
30	P1	-5.343349	0.031530	-0.039152

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.185911	0.065355	-0.056524
7	P2	-22.048075	0.168902	-0.037831
11	P2	-10.642432	0.043611	-0.042524
15	P2	-4.931211	0.041395	-0.065391
19	P2	-6.872582	0.039696	-0.017248
22	P2	-8.108514	0.079170	0.018439
26	P2	-24.327827	0.129431	-0.025235
30	P2	-21.707729	0.101516	0.041635

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091016	0.004920	0.001784
7	P3	-8.090973	0.004926	0.001714
11	P3	-8.090854	0.004921	0.001534
15	P3	-8.090782	0.004924	0.001517
19	P3	-8.090899	0.004942	0.001815
22	P3	-8.090753	0.004916	0.001955
26	P3	-8.090895	0.004924	0.001701
30	P3	-8.090813	0.004915	0.001583

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	0.000547237
	stdev	1.96846e-07
MEAN Q	mean	0.000500504
	stdev	2.41014e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135770
	stdev	0.00120670
STDEV Q	mean	0.136158
	stdev	0.00122412



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007050[678]

The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20070507_103322_000006402057_00495_27102_9475.N1	0	28
ASA_WSM_1PNPDE20070506_094328_000000852057_00480_27087_0728.N1	0	1
ASA_WSM_1PNPDE20070506_113212_000001532057_00481_27088_0776.N1	0	25
ASA_WSM_1PNPDE20070507_165905_000000852057_00499_27106_2177.N1	0	72
ASA_APM_1PNPDE20070506_023611_000000422057_00476_27083_0204.N1	6	0





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)



Ascending



Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


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Ascending



Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



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

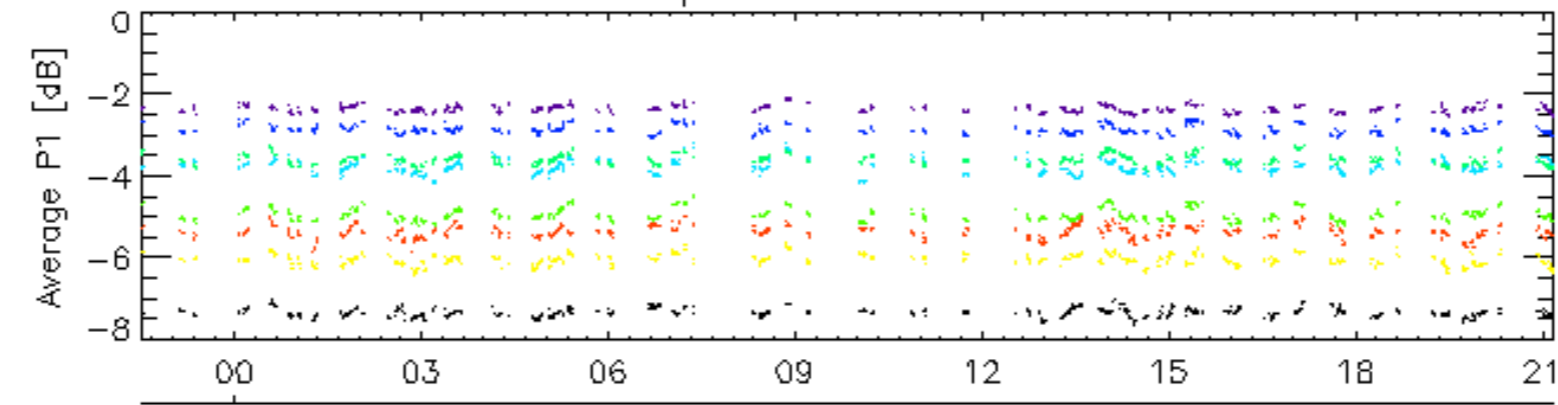
Ascending

Descending

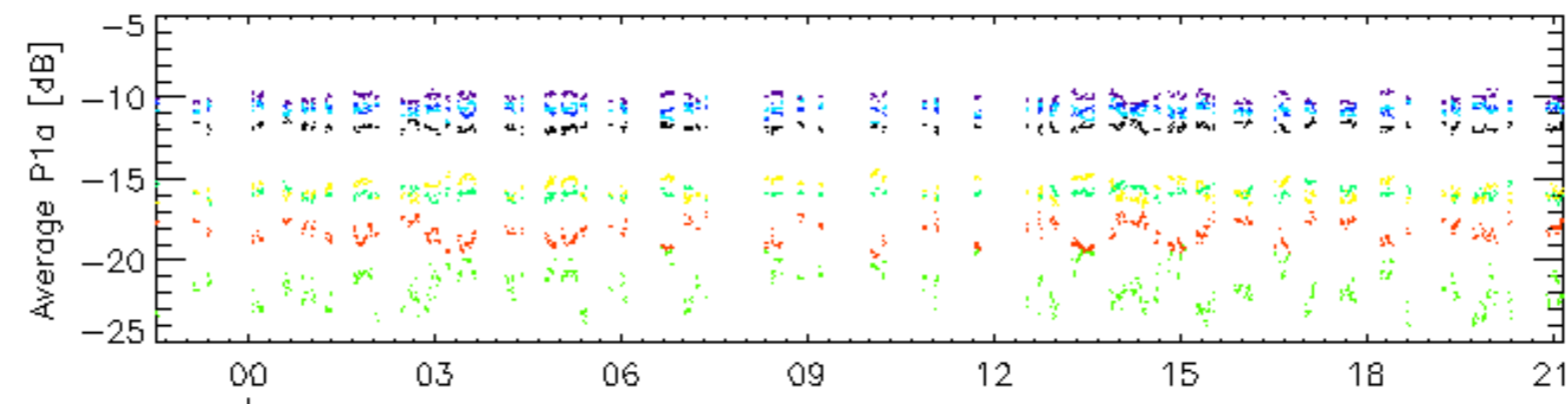
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

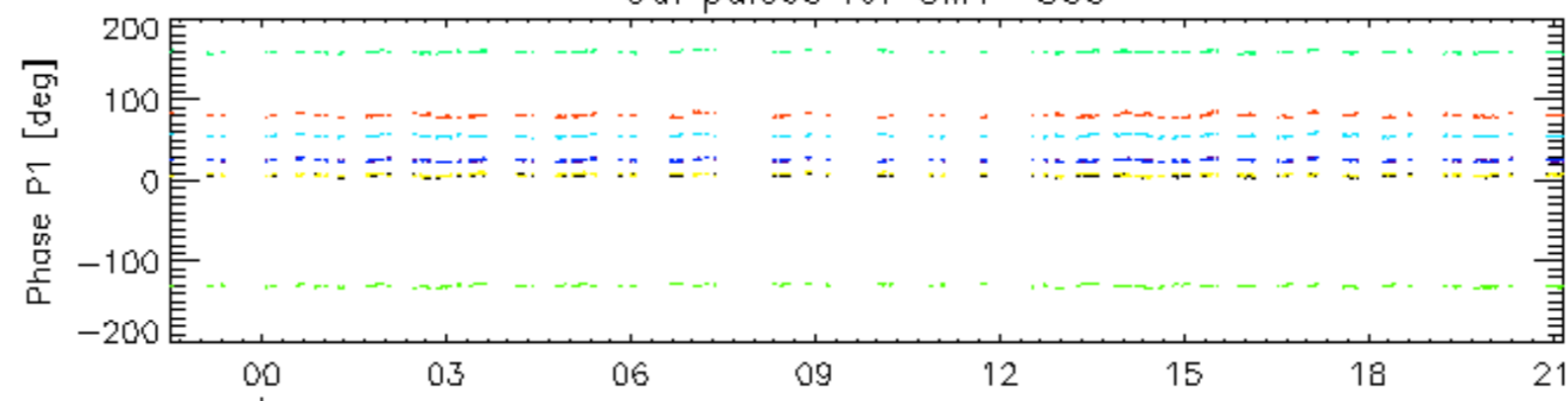


08-May

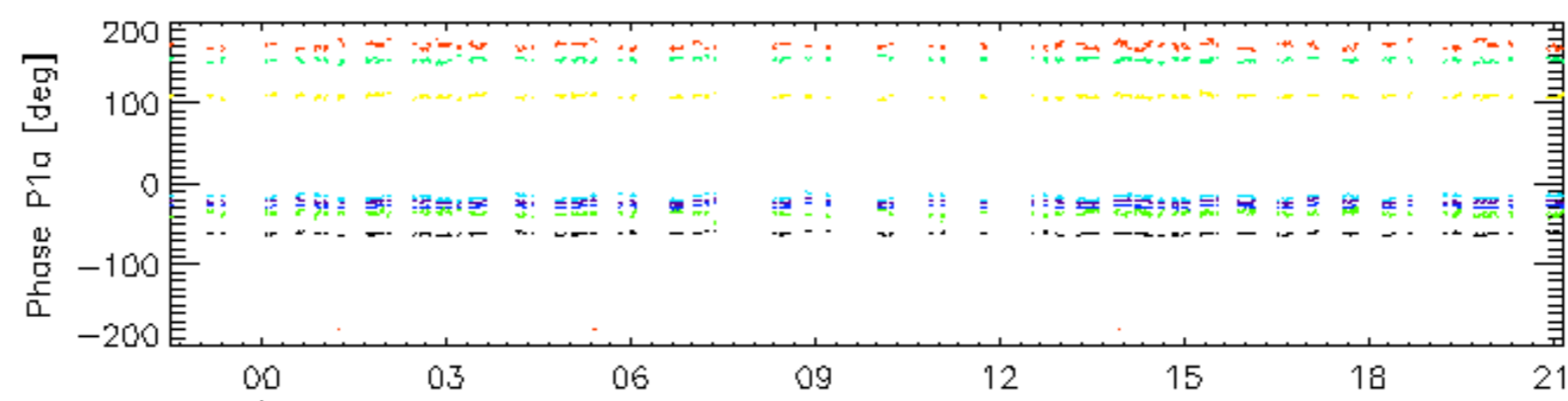


08-May

Cal pulses for GM1 SS3

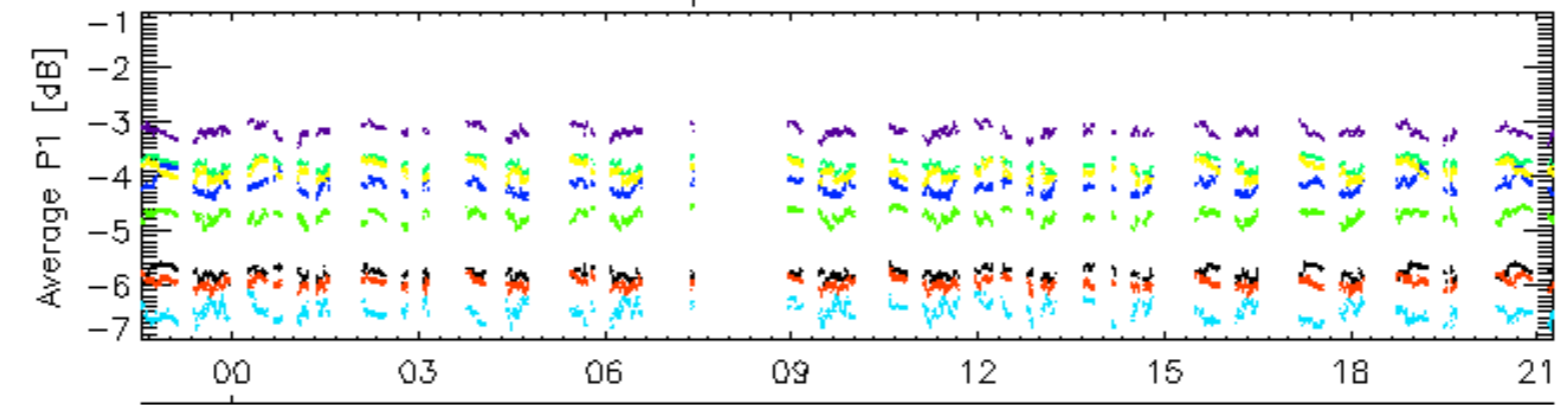


08-May

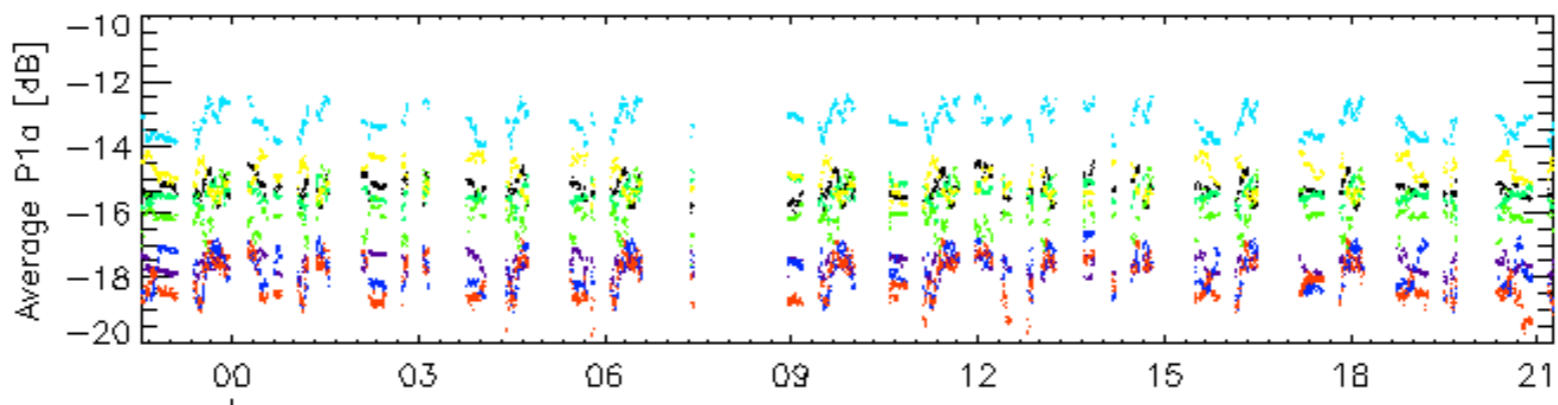


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

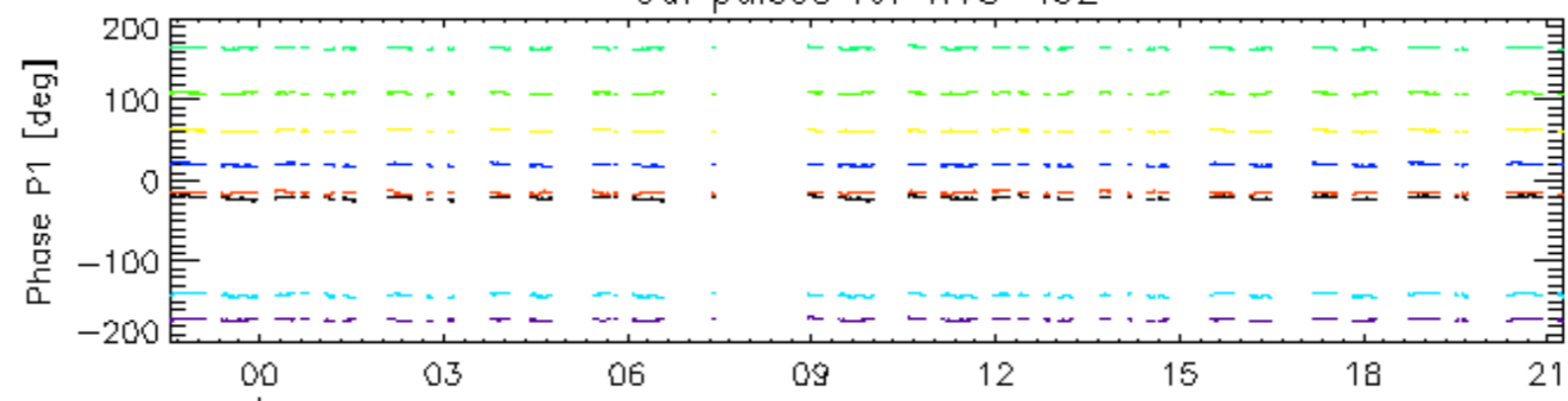


08-May

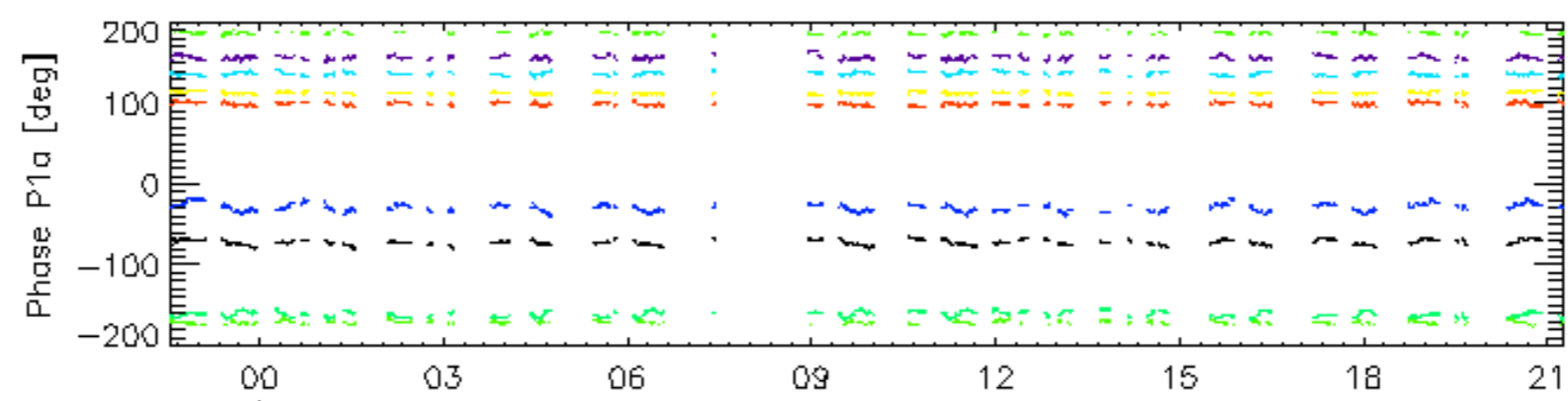


08-May

Cal pulses for WVS IS2

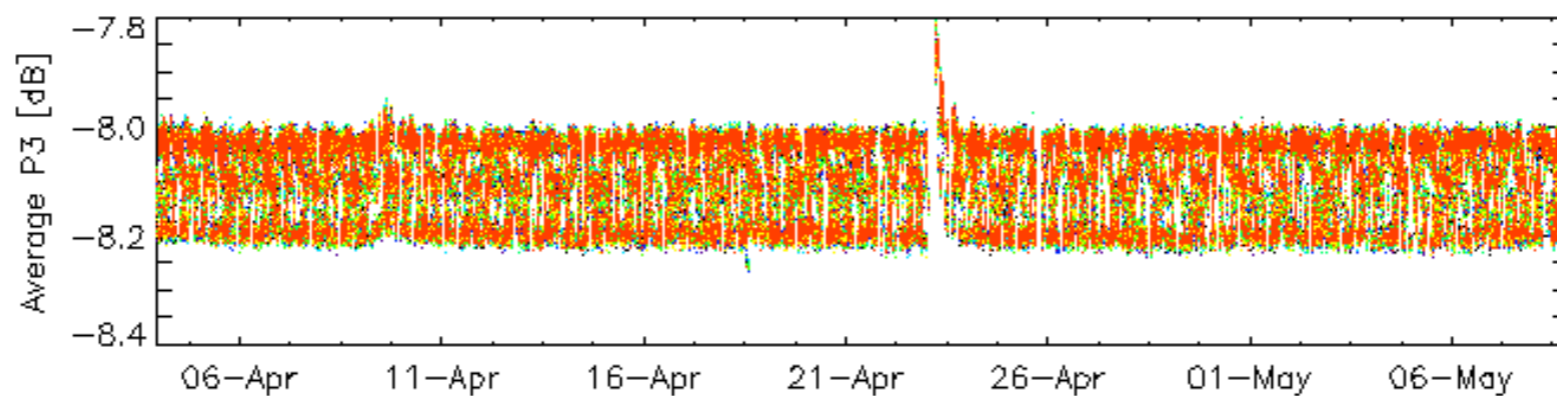
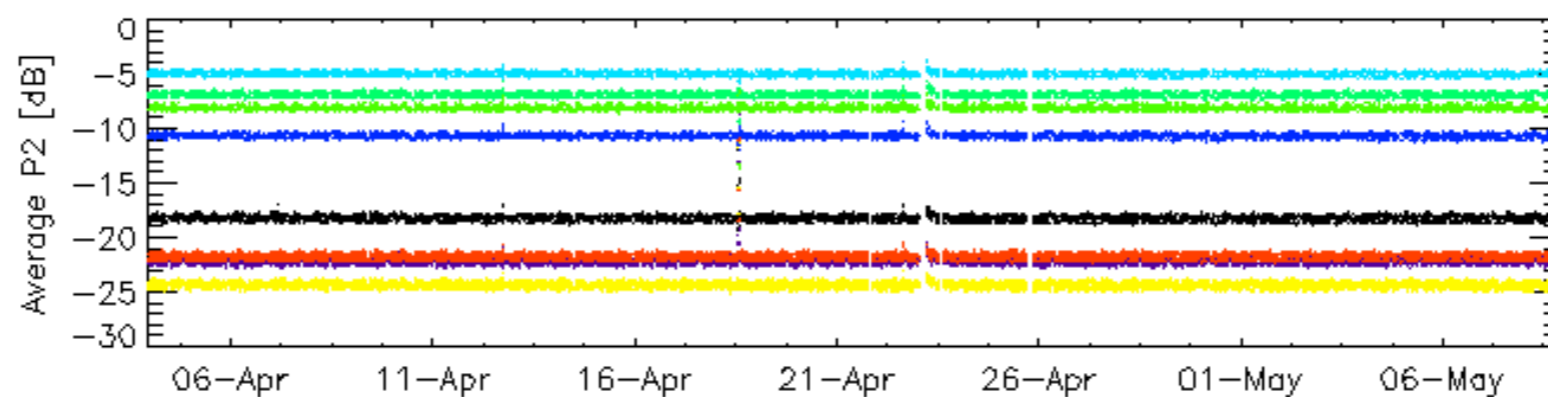
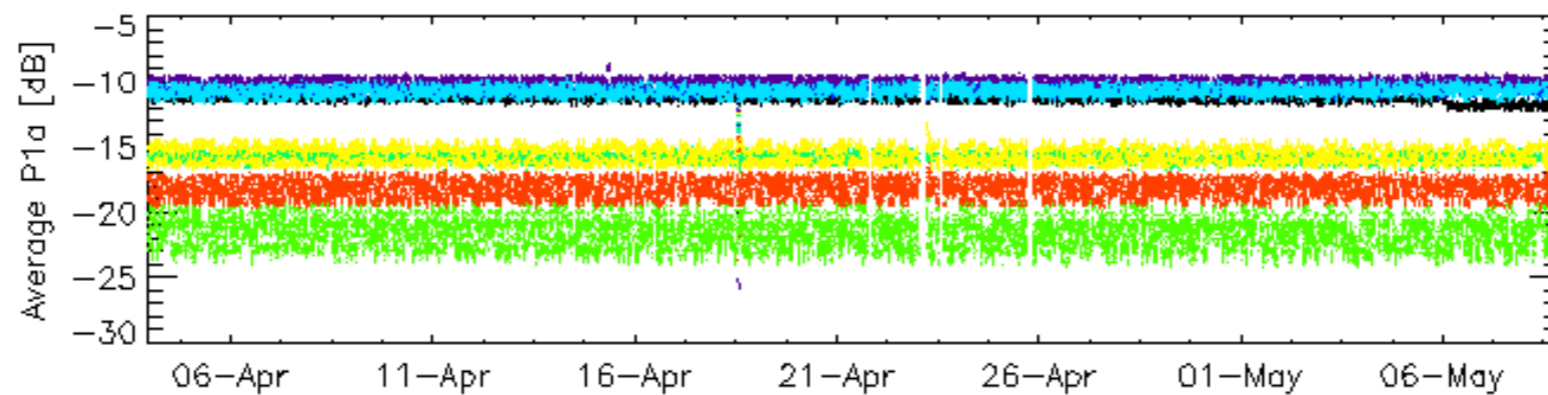
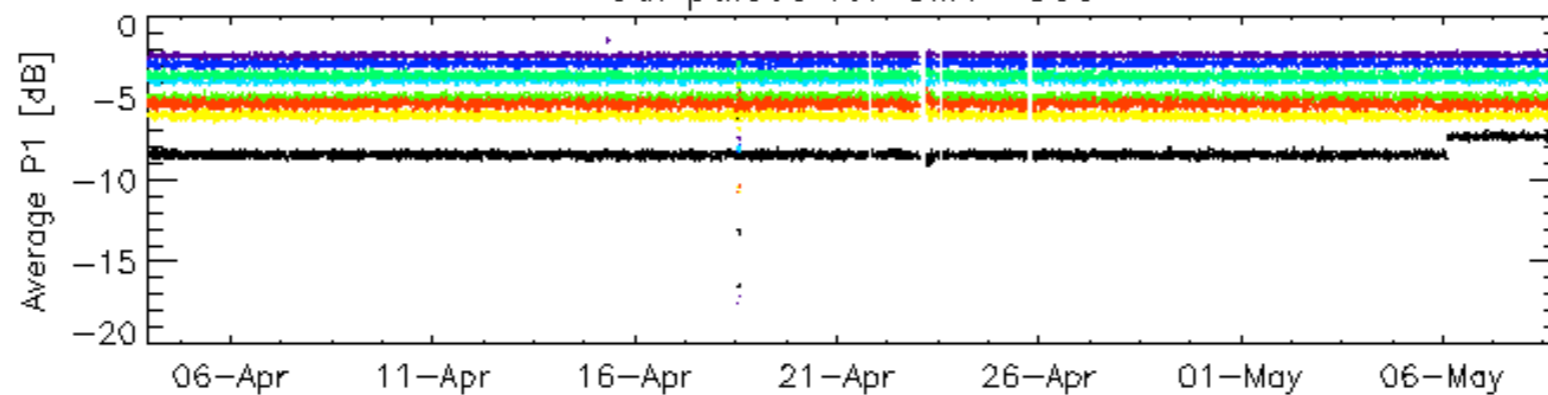


08-May



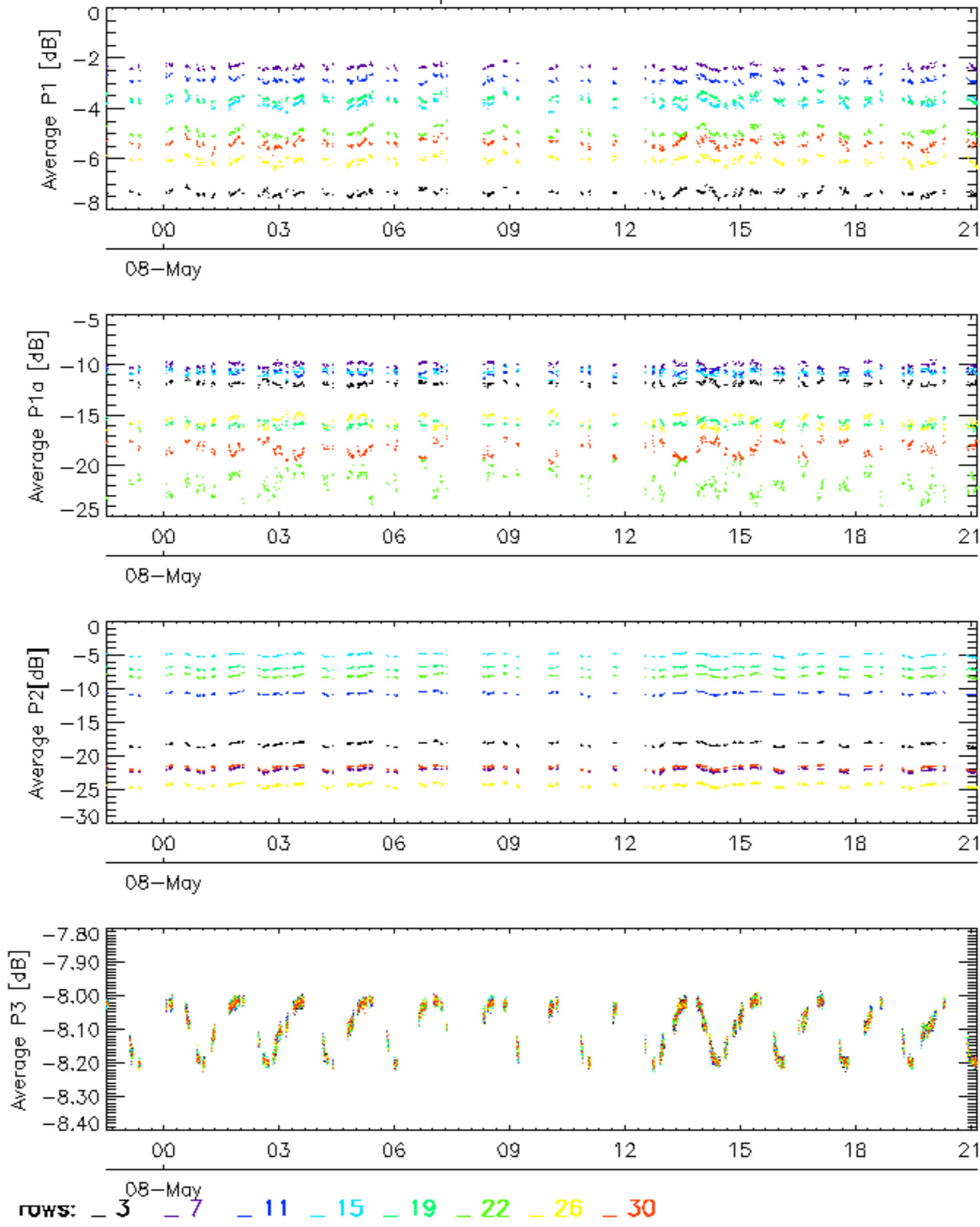
rows: 08-May
3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

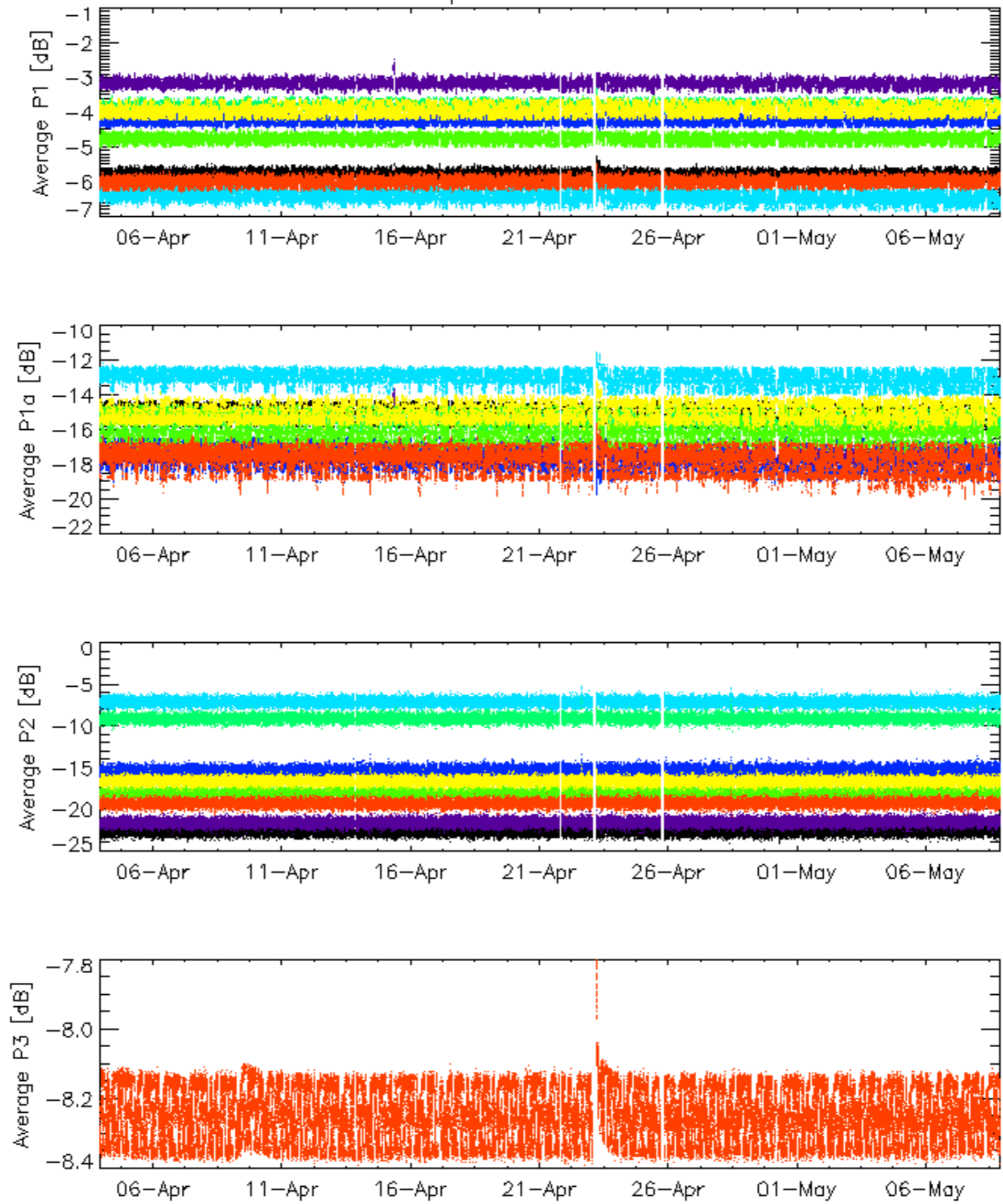


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

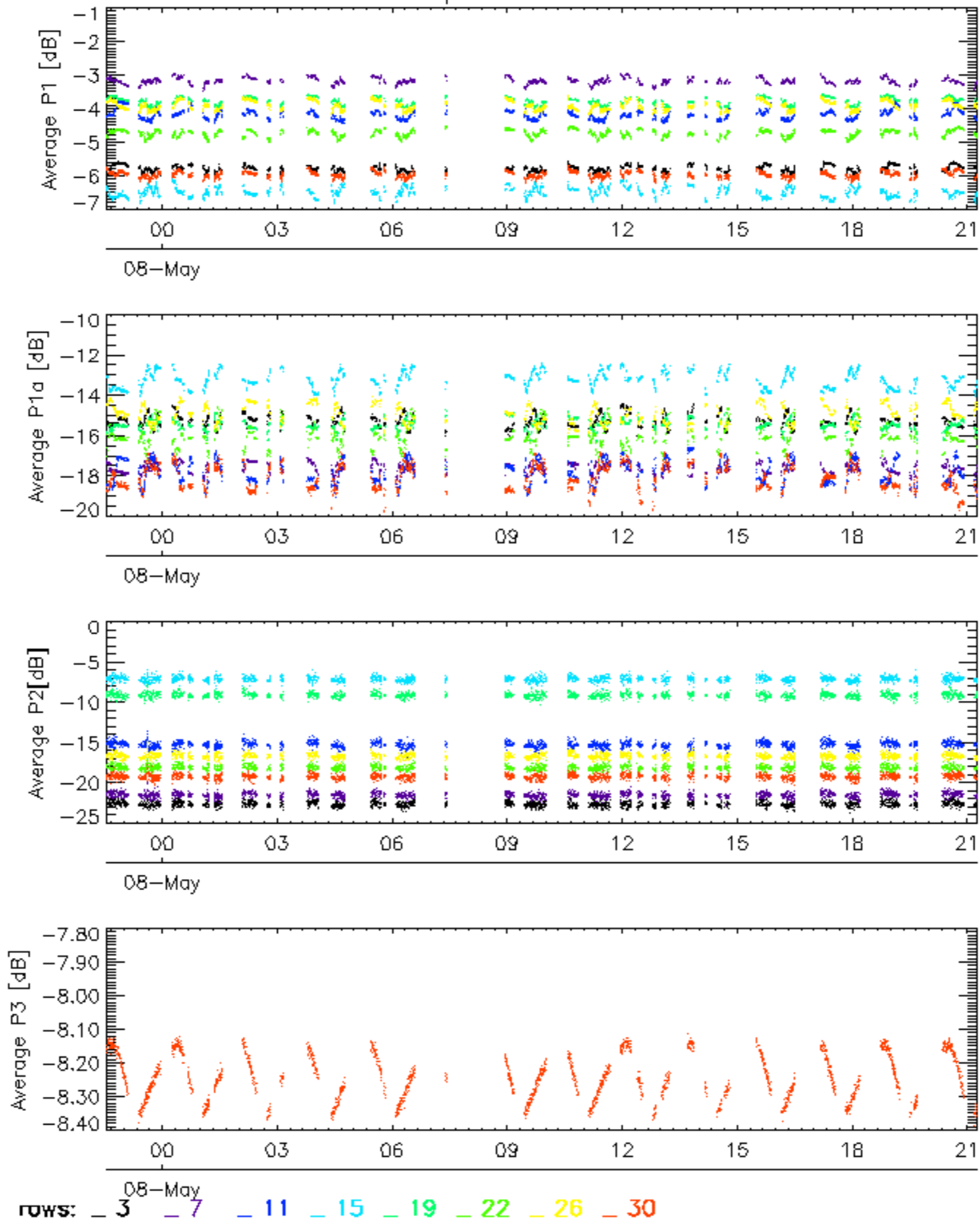


Cal pulses for WVS IS2

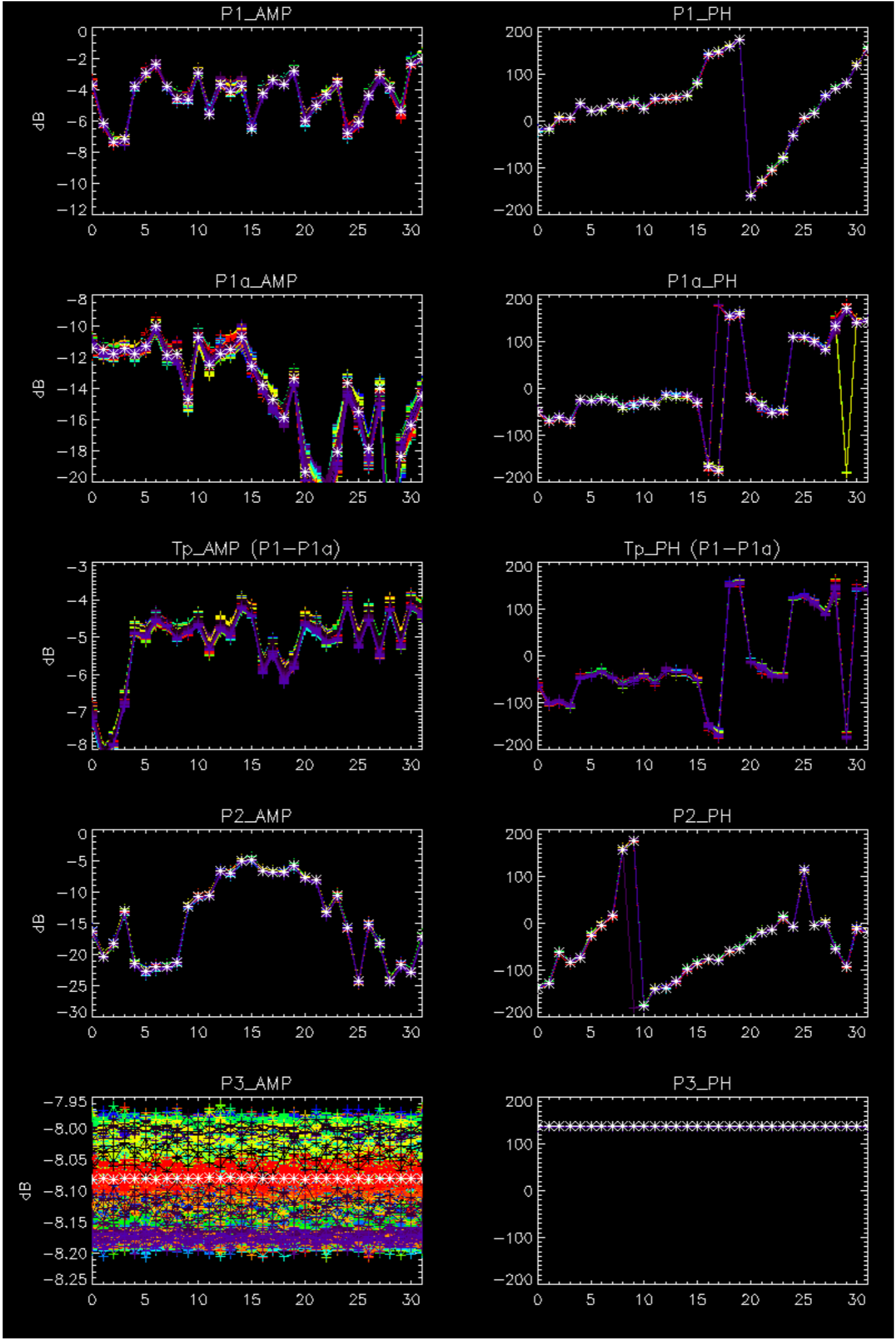


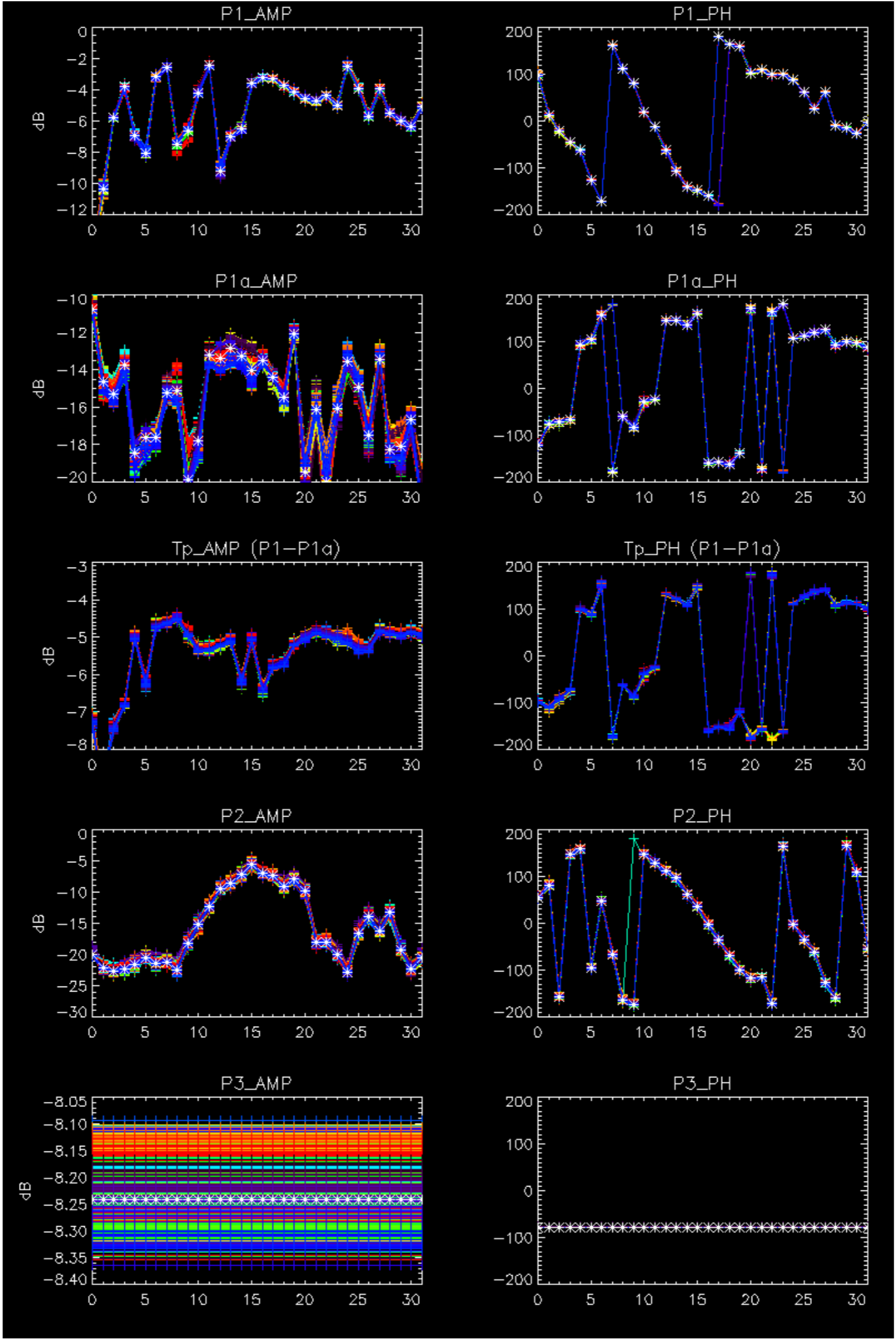
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



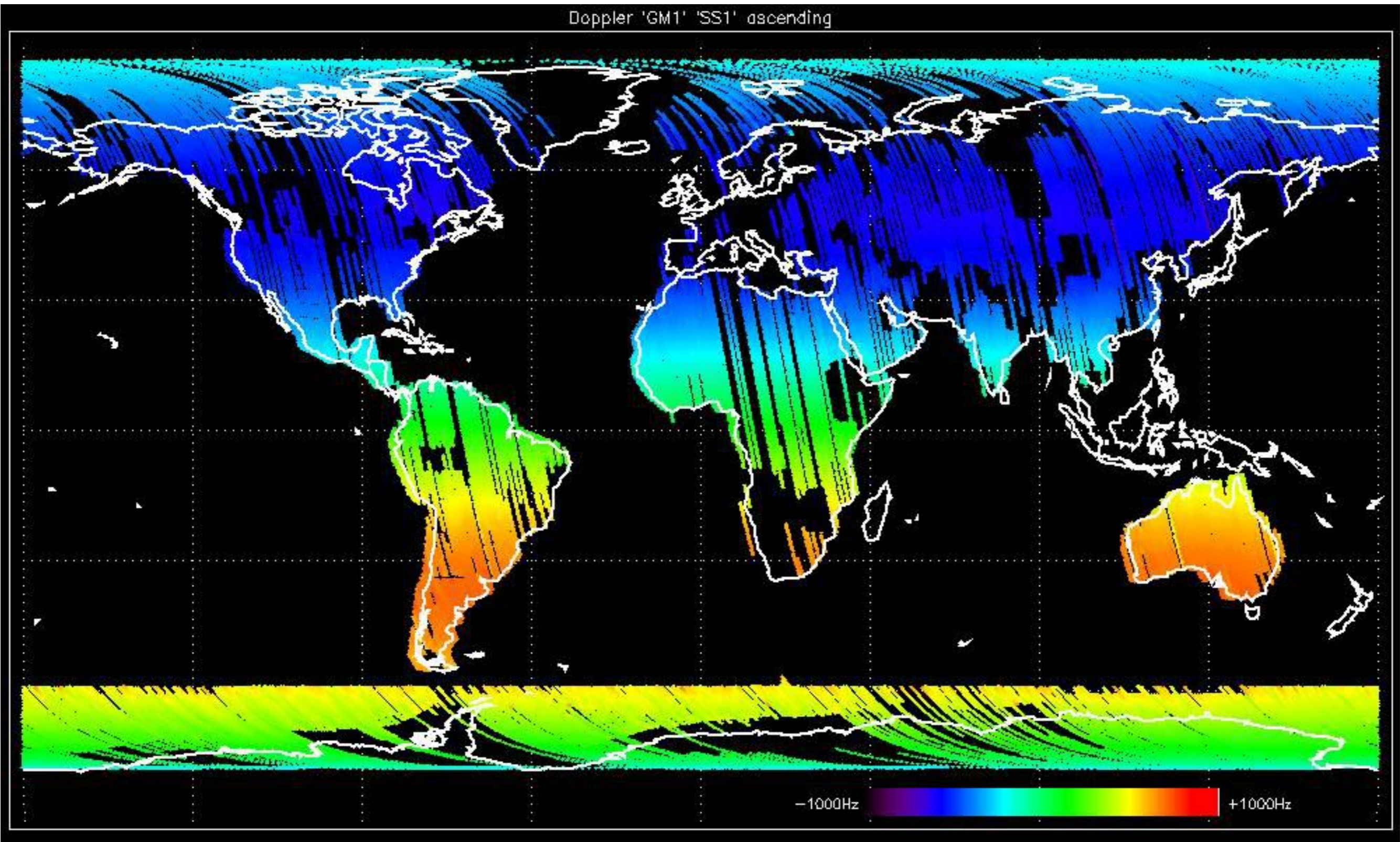
No anomalies observed.



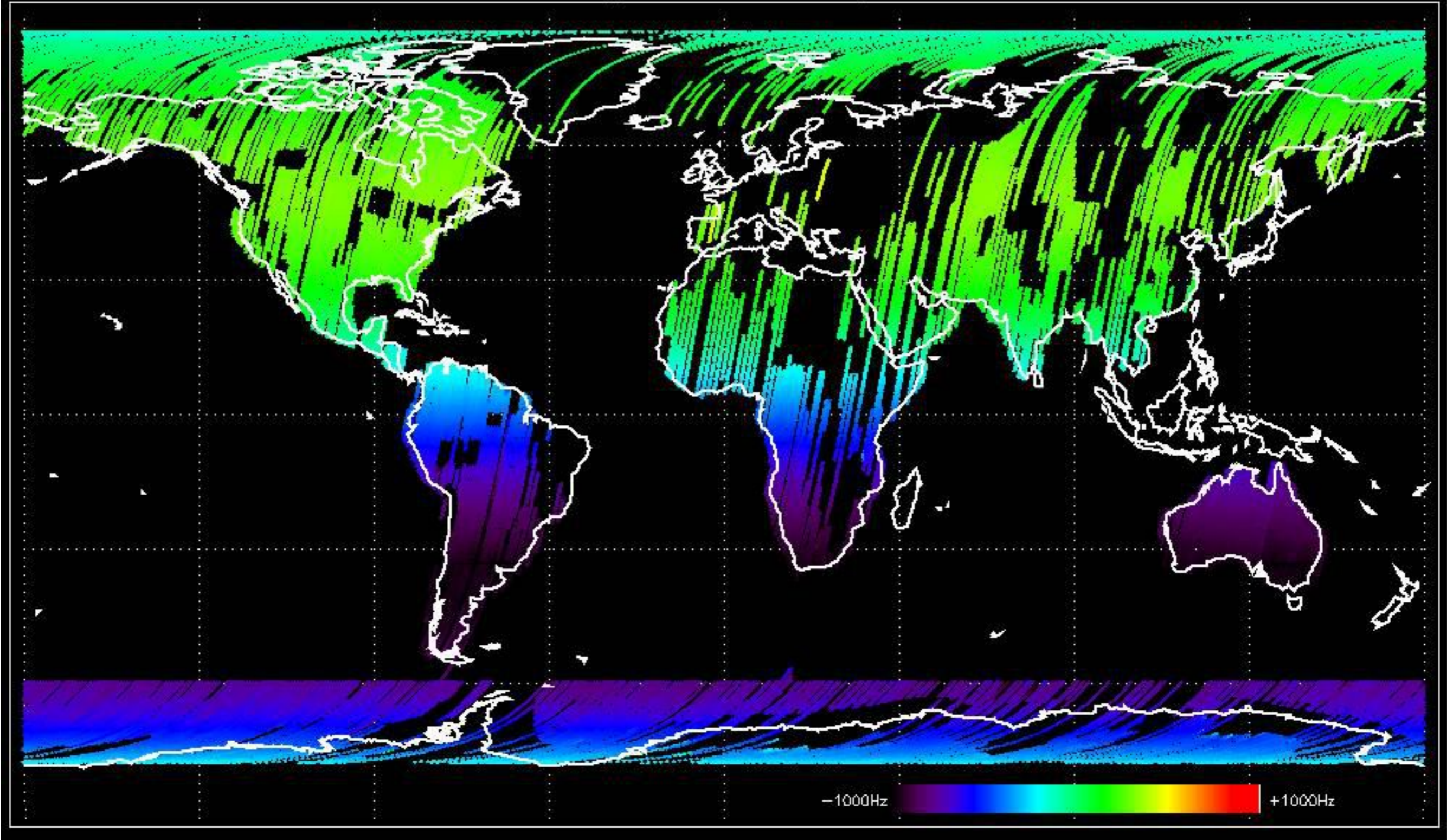


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

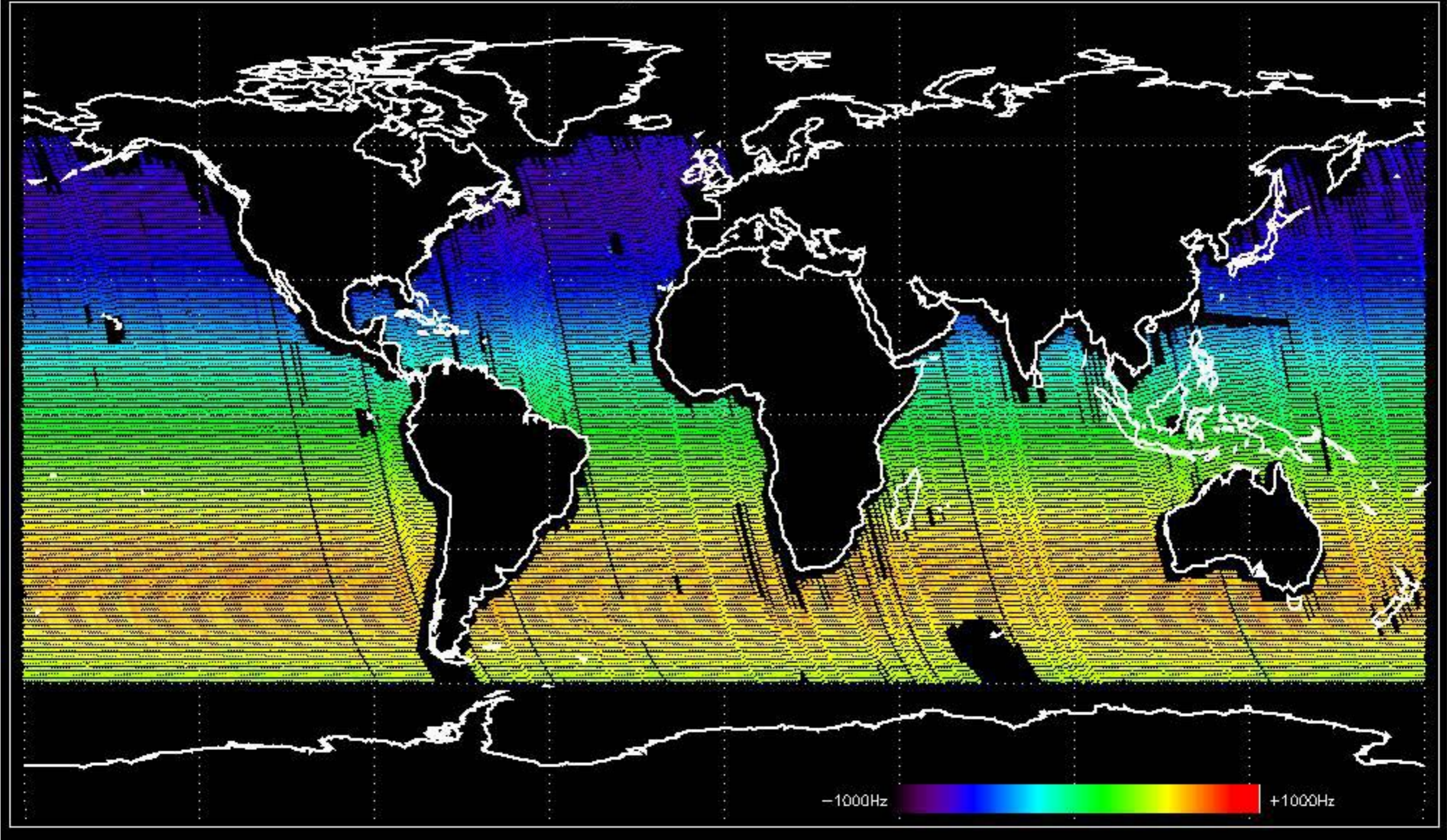
Doppler 'GM1' 'SS1' ascending



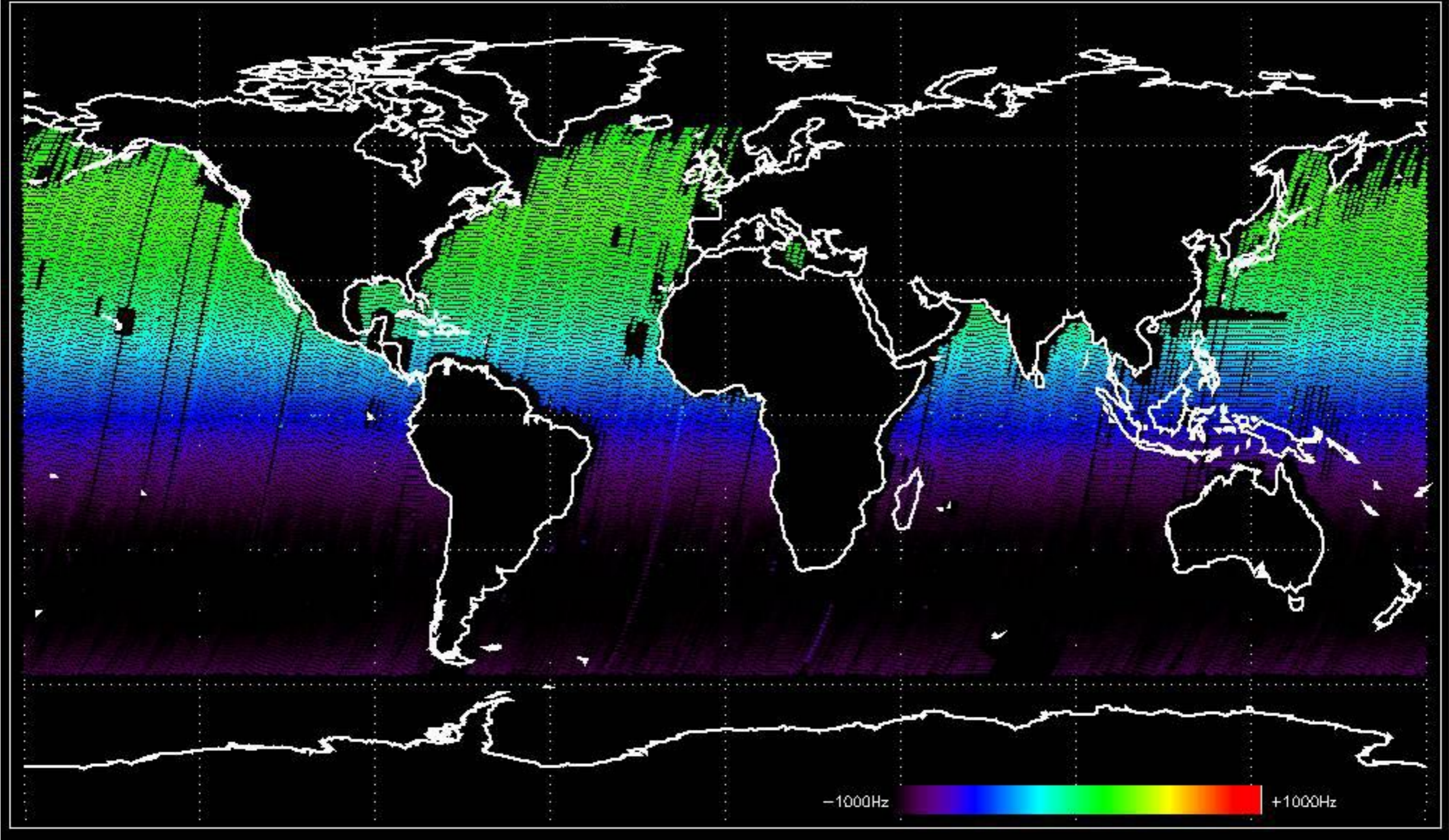
Doppler 'GM1' 'SS1' descending



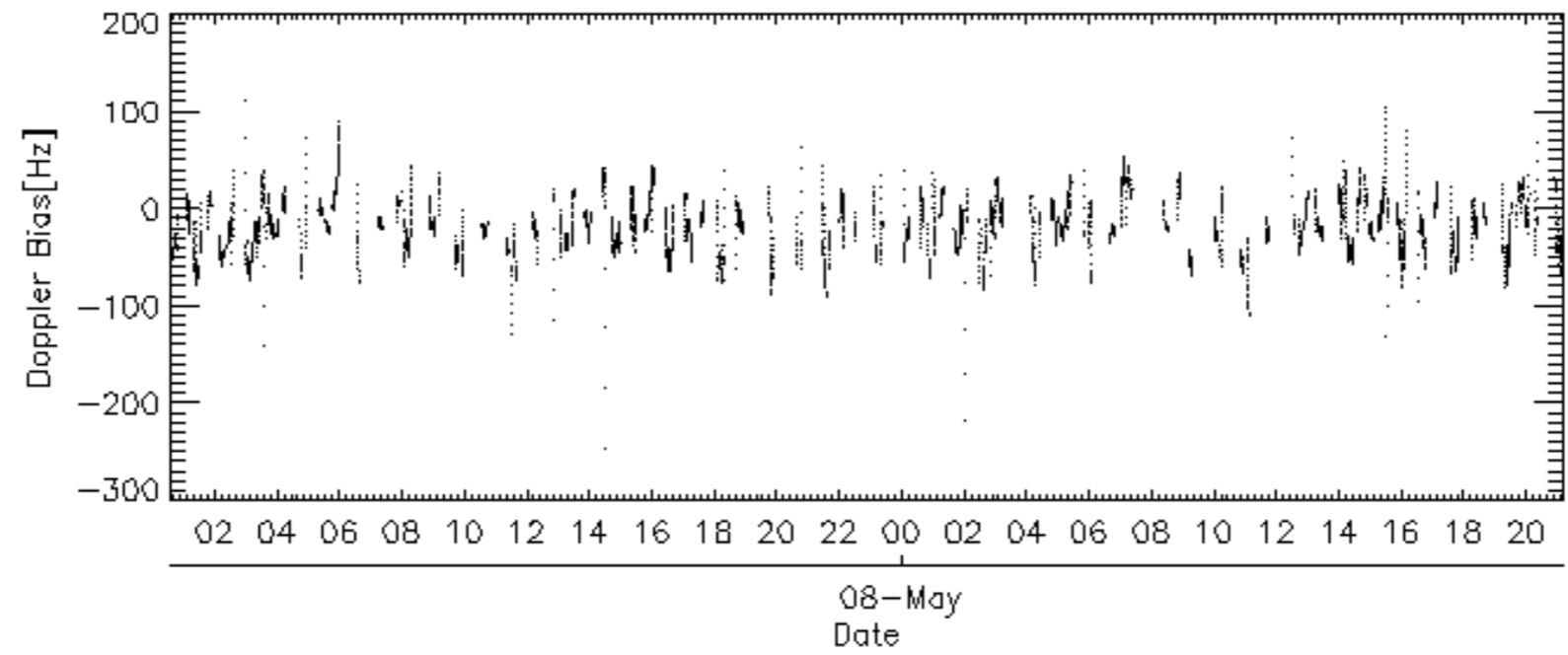
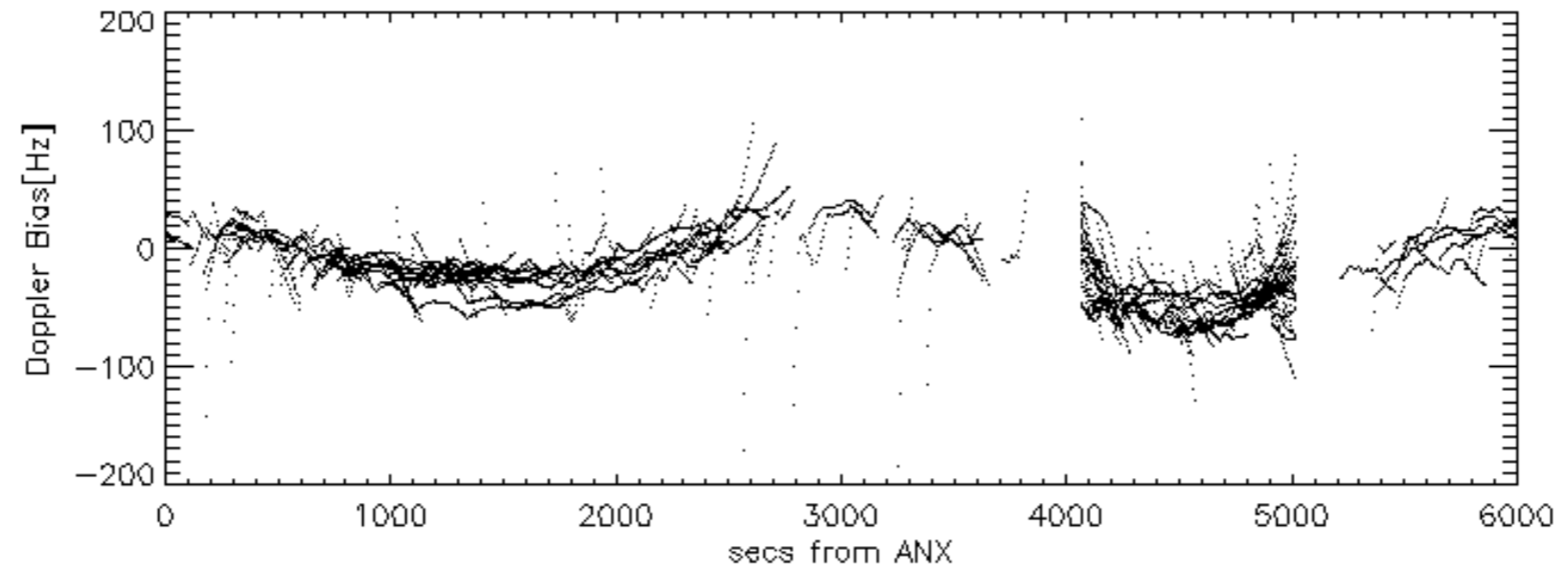
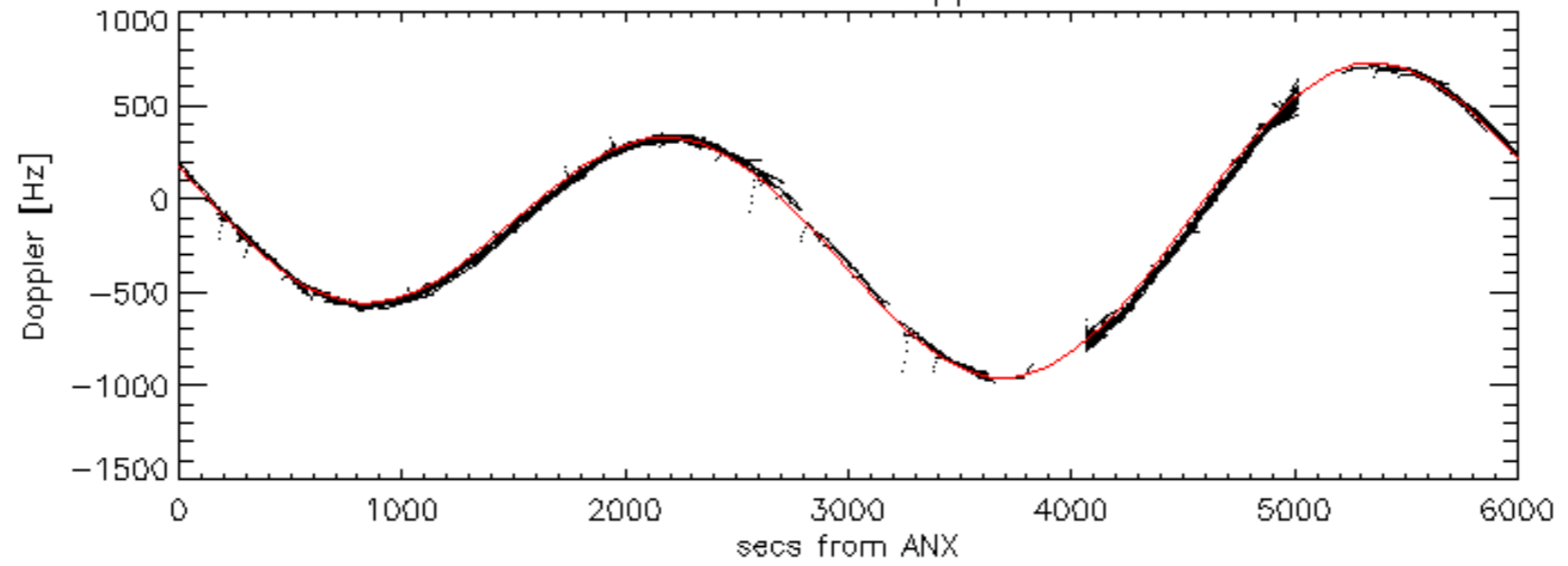
Doppler 'WVS' 'IS2' ascending

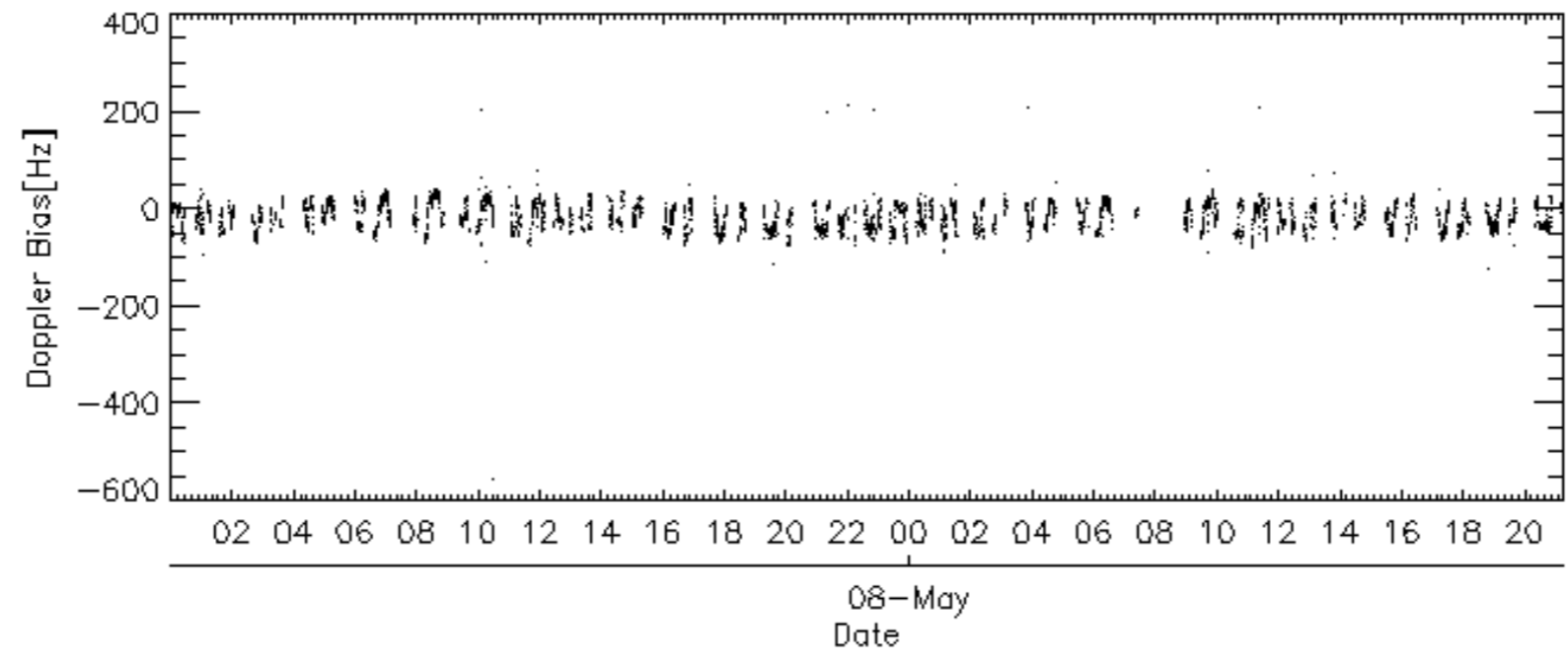
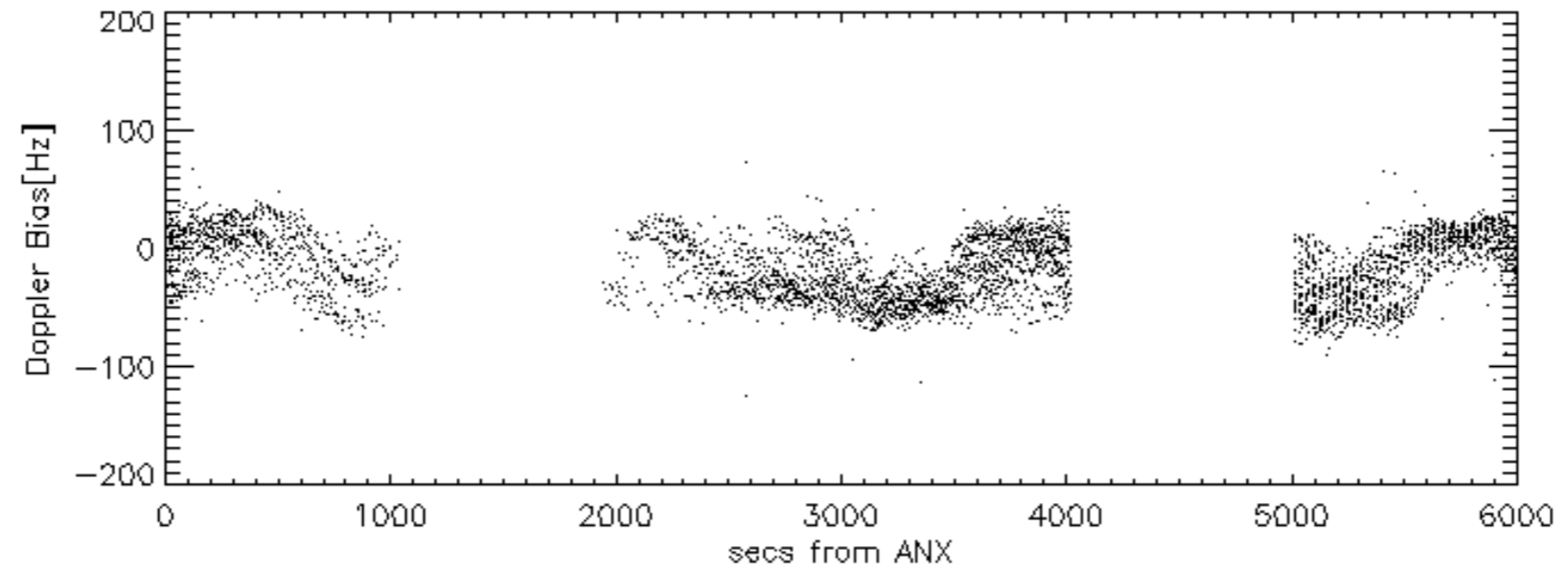
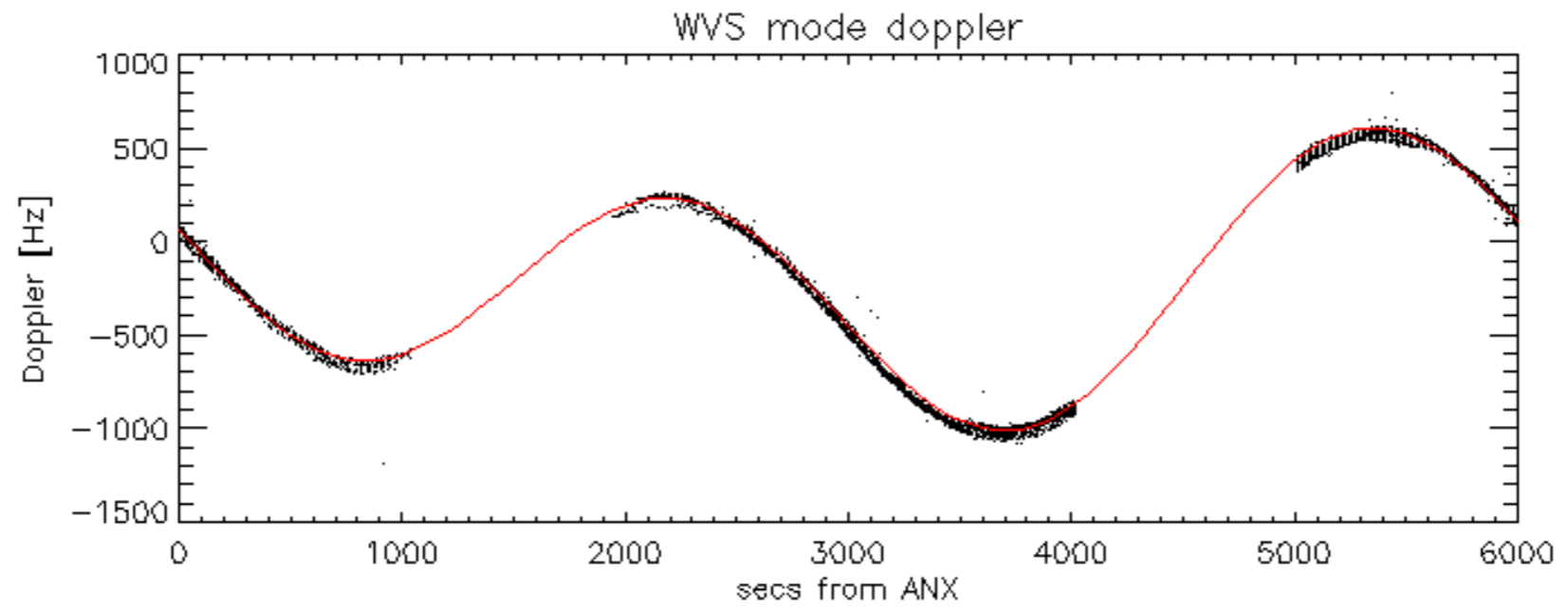


Doppler 'WVS' 'IS2' descending

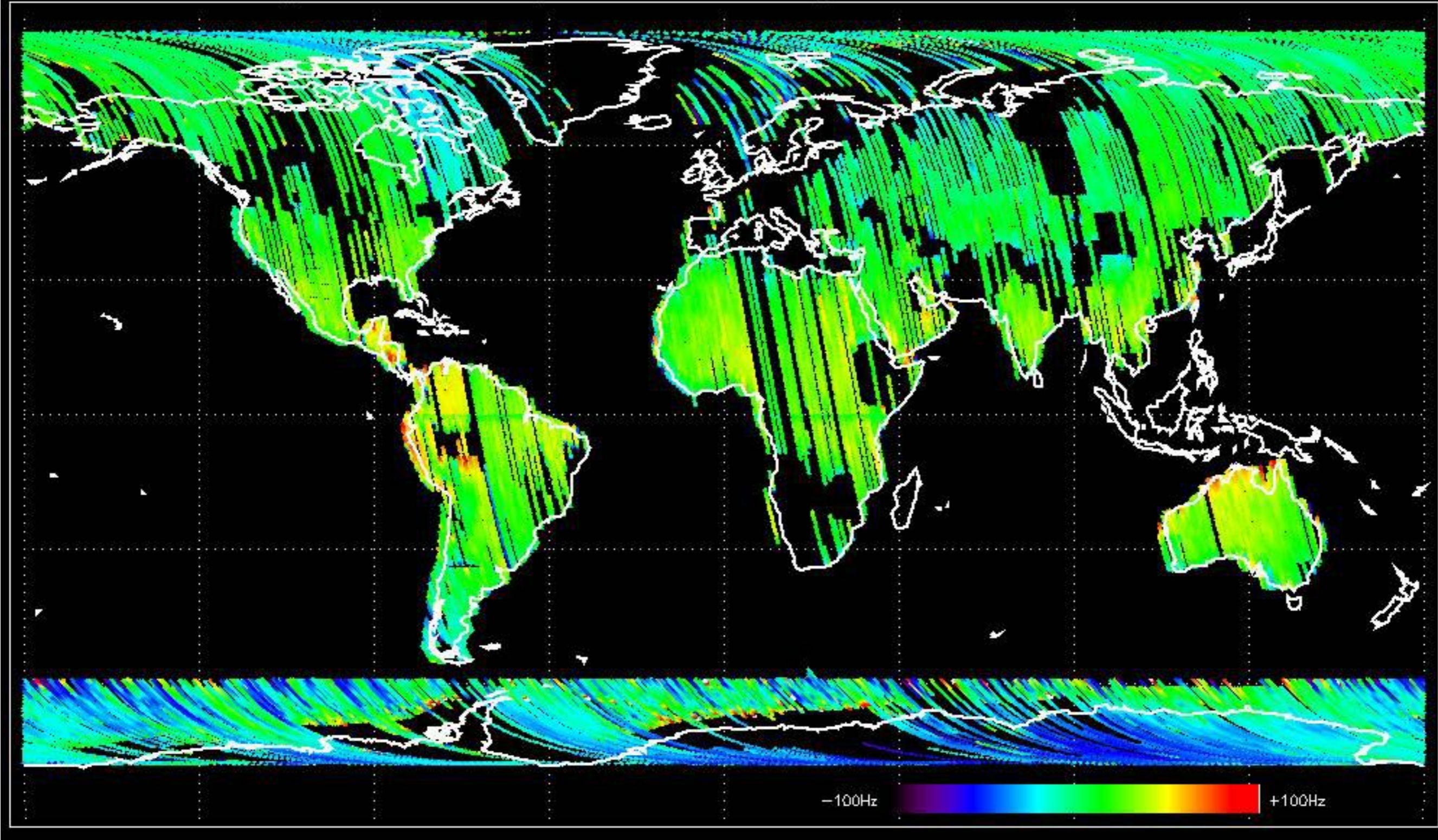


GM1 mode doppler

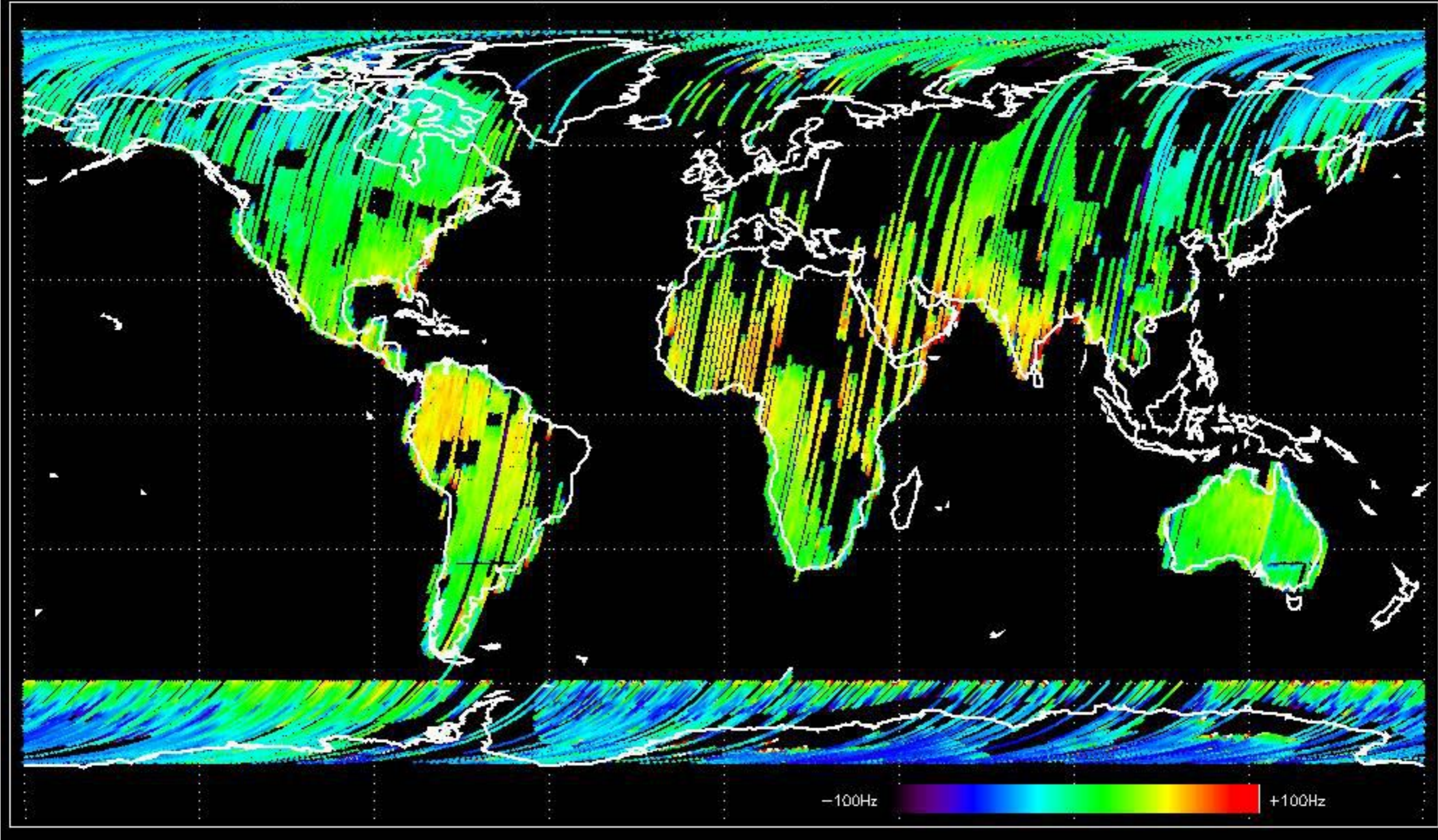




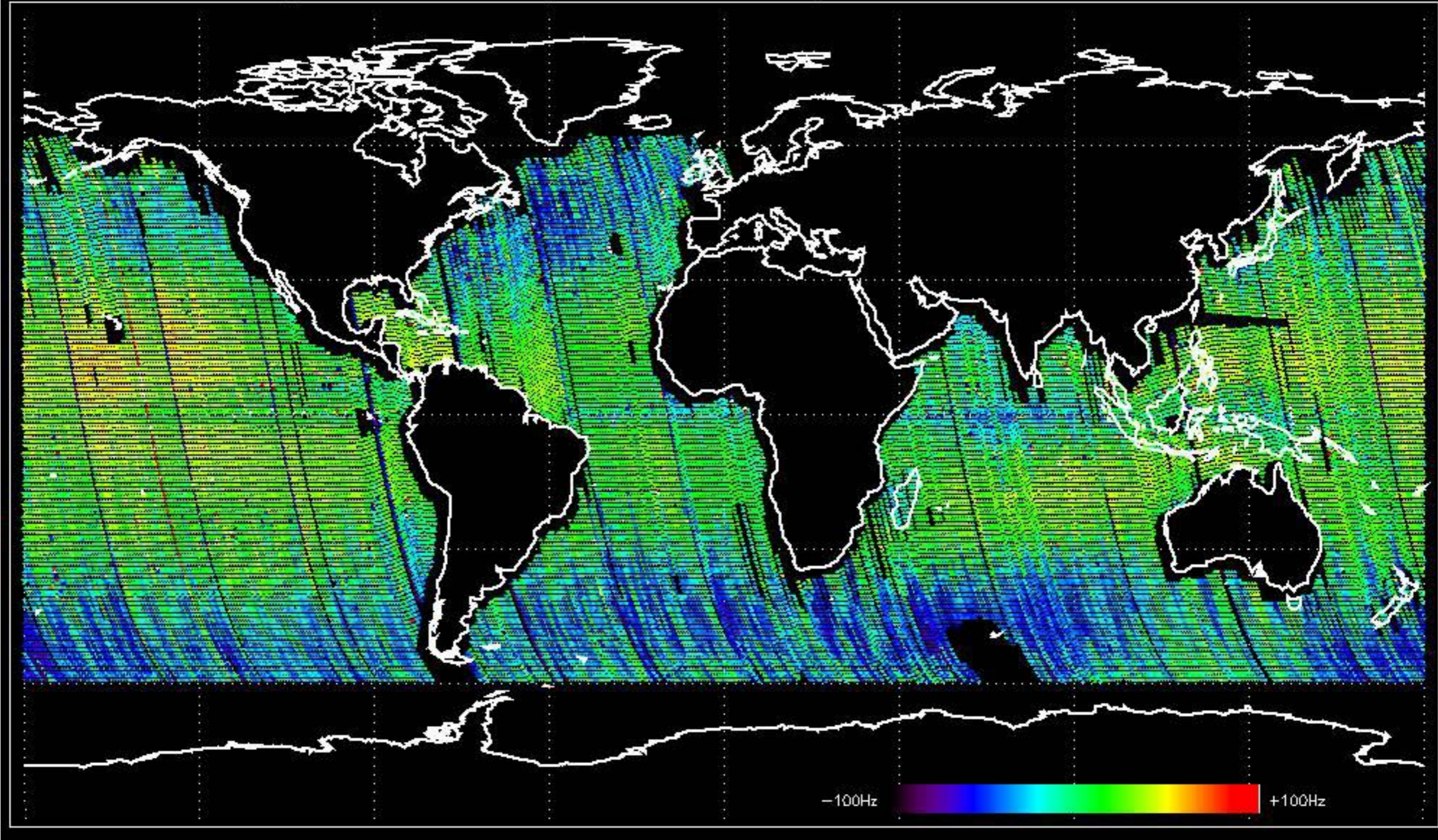
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -24.497305 Hz



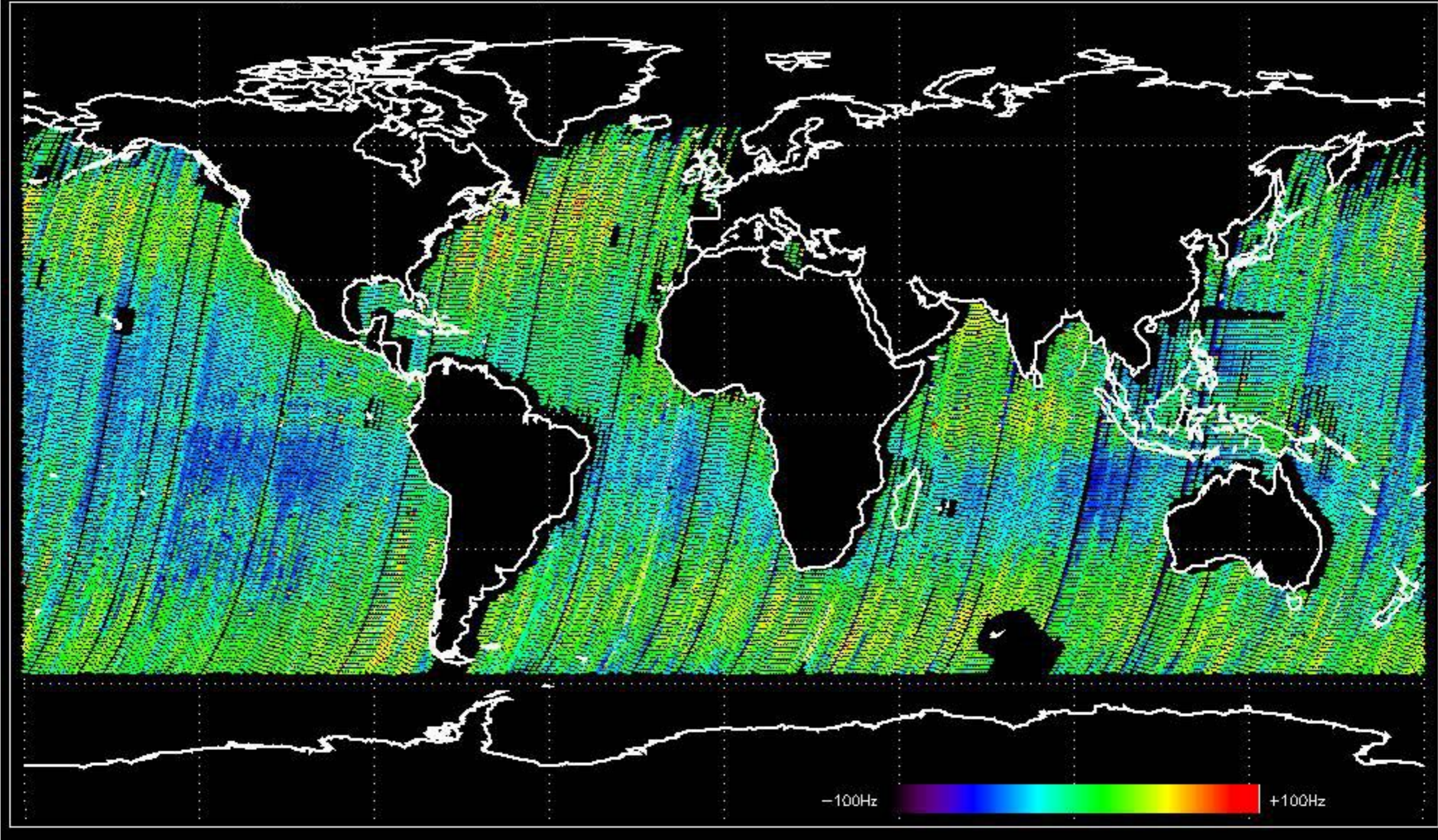
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.619740 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -18.675574 Hz

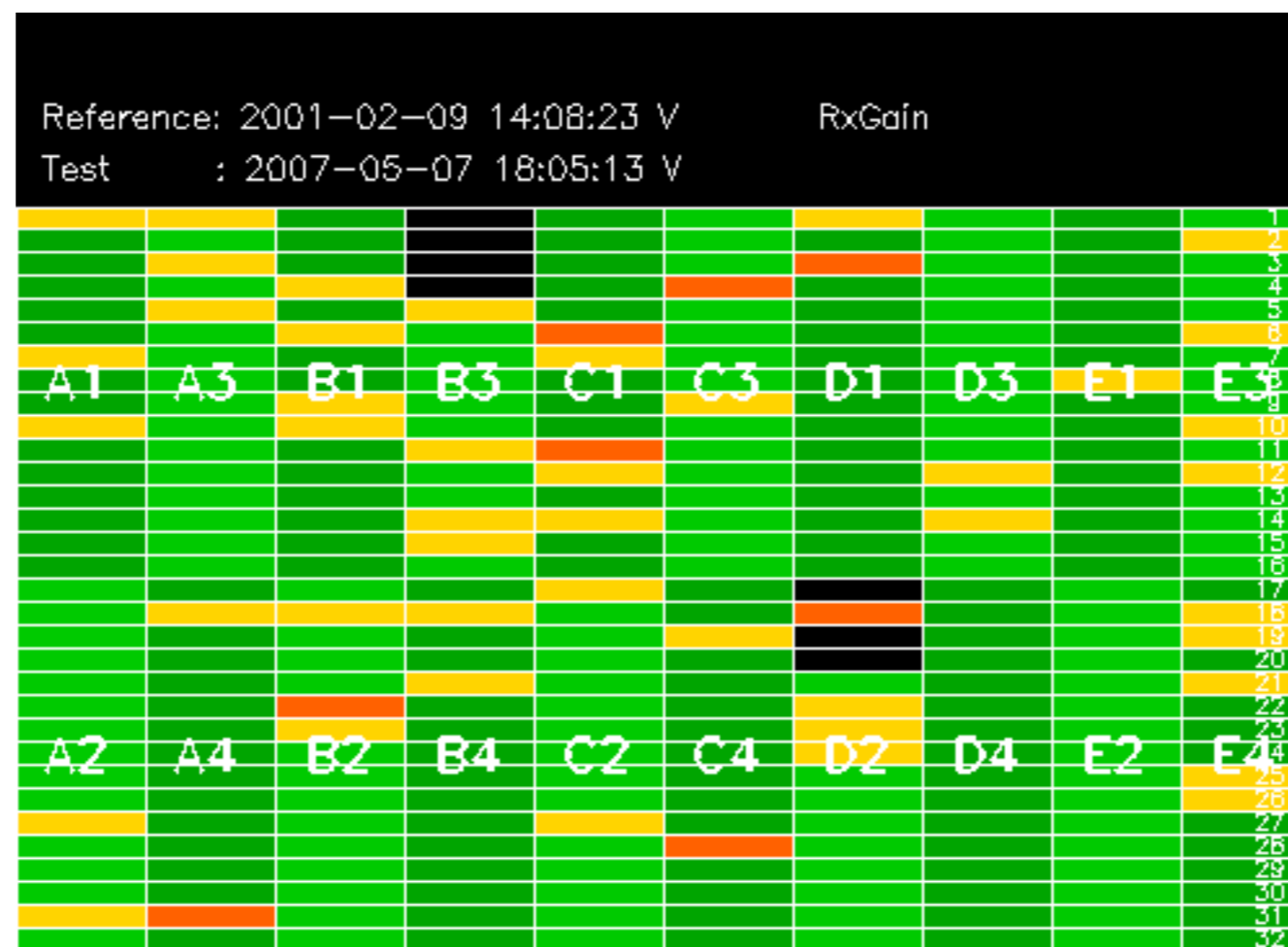


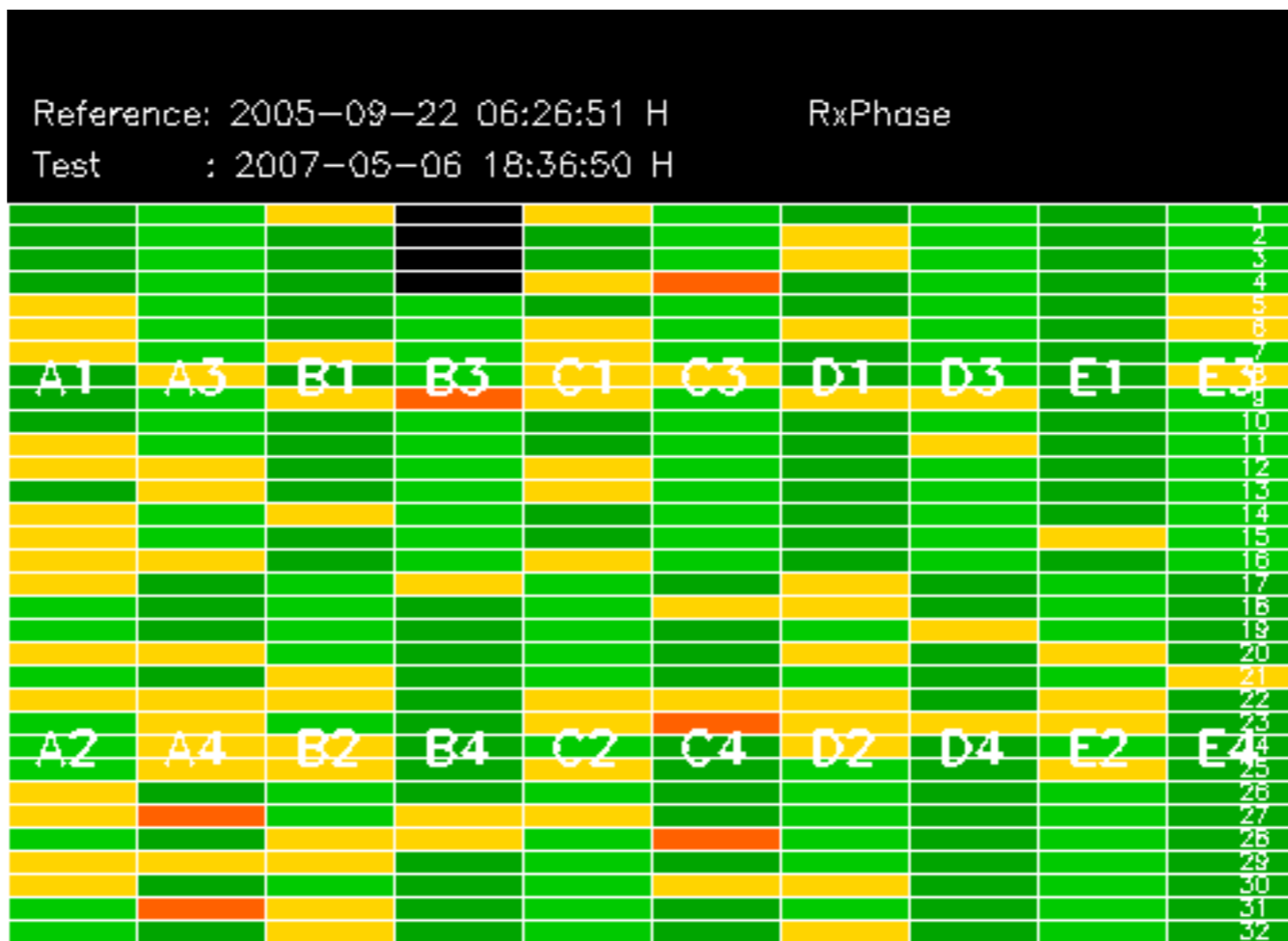
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.751099 Hz

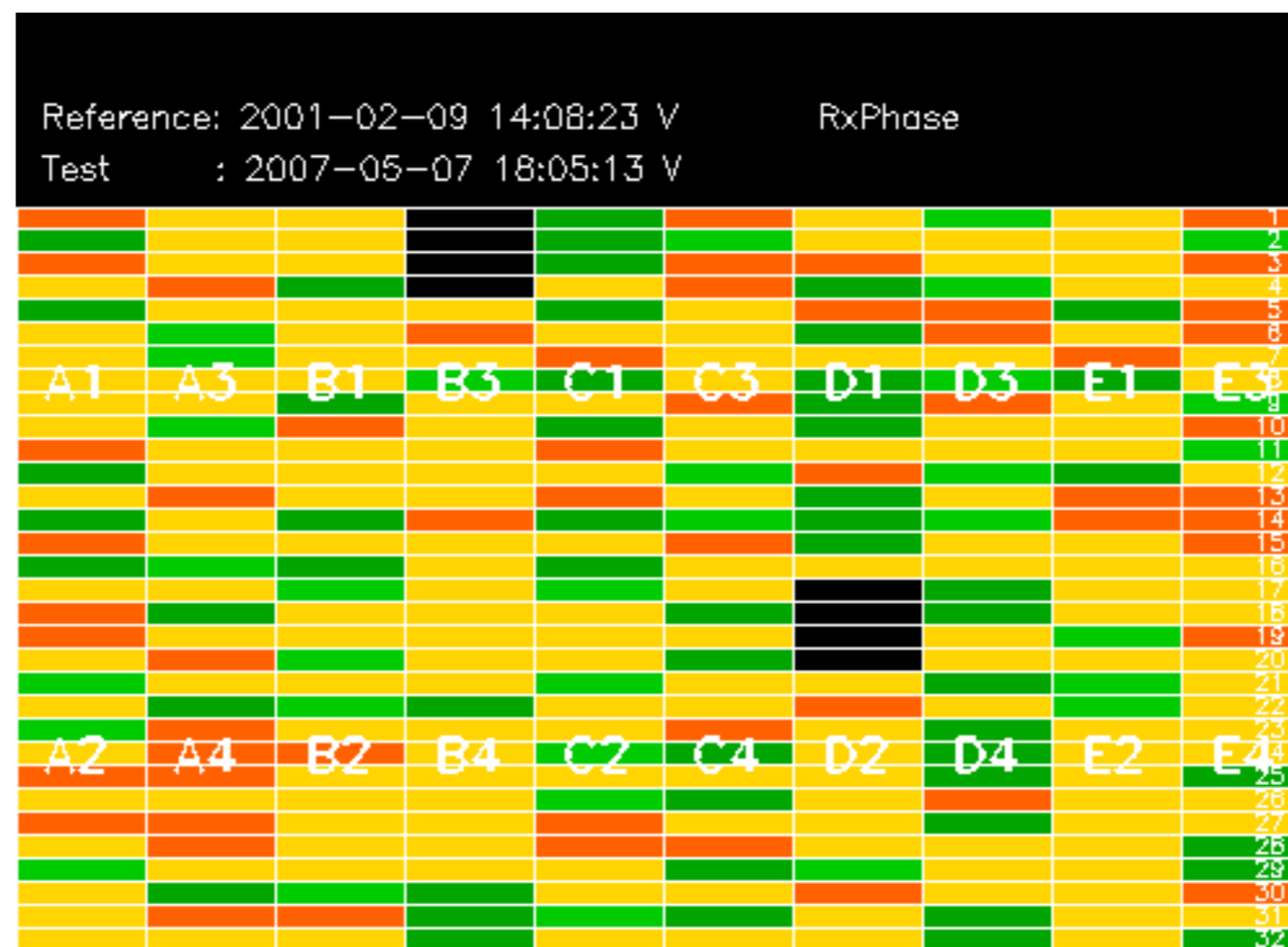


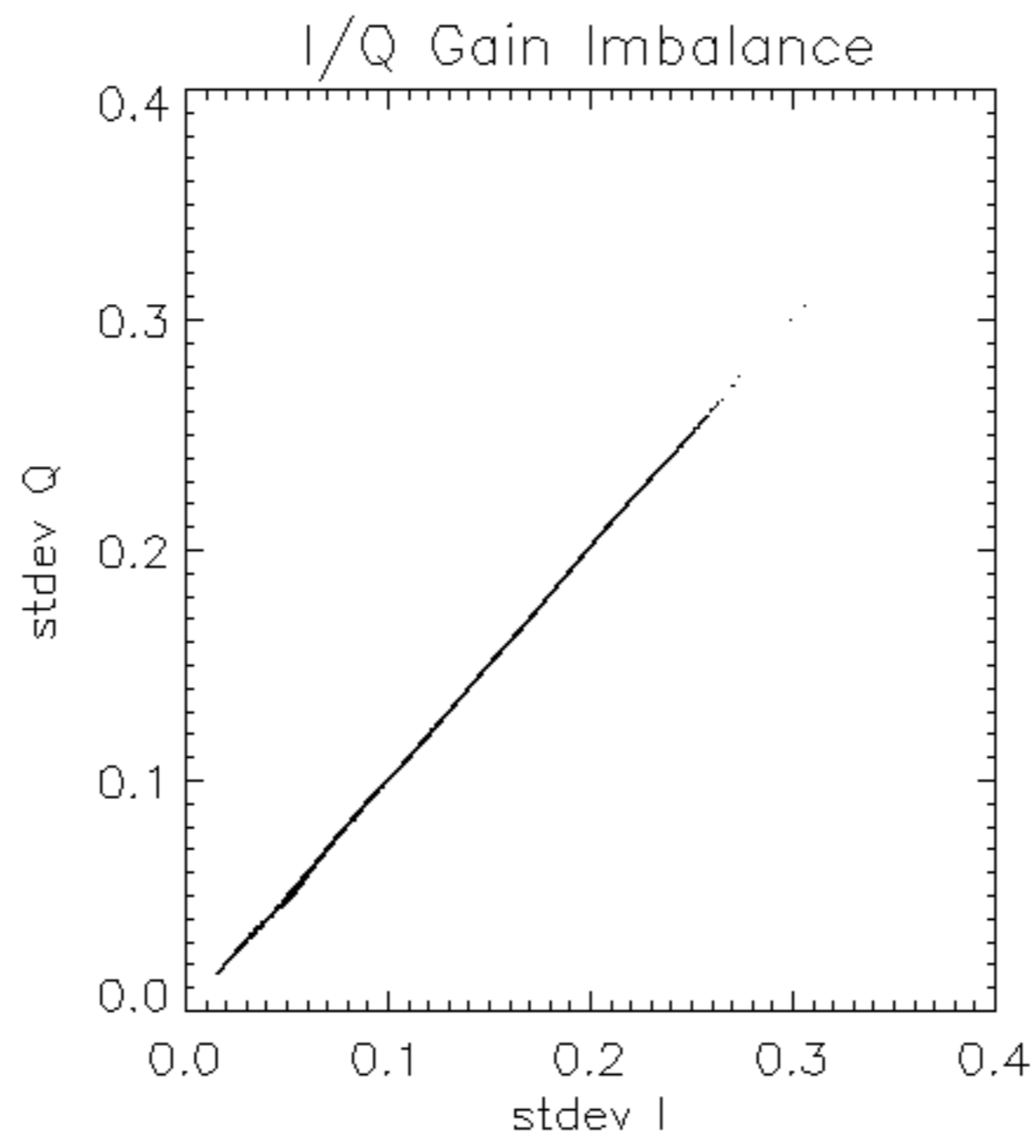
No anomalies observed on available MS products:

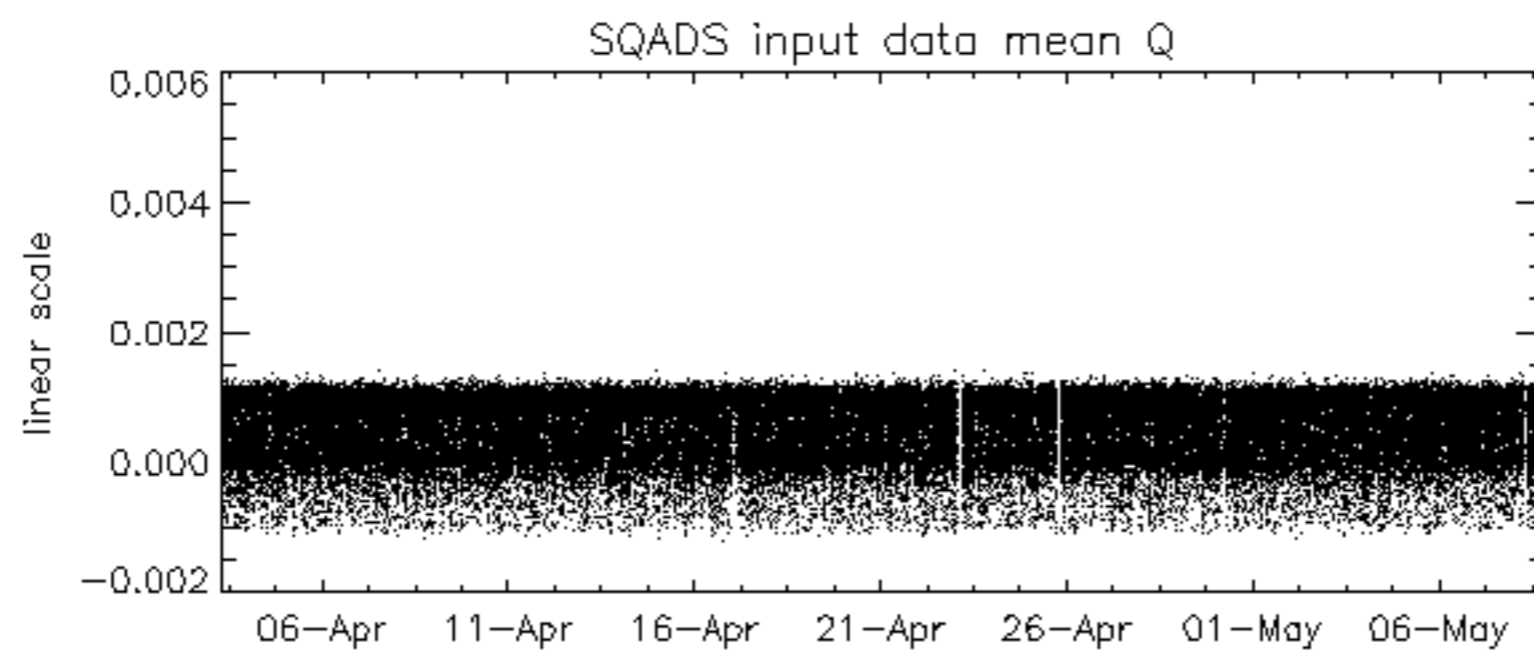
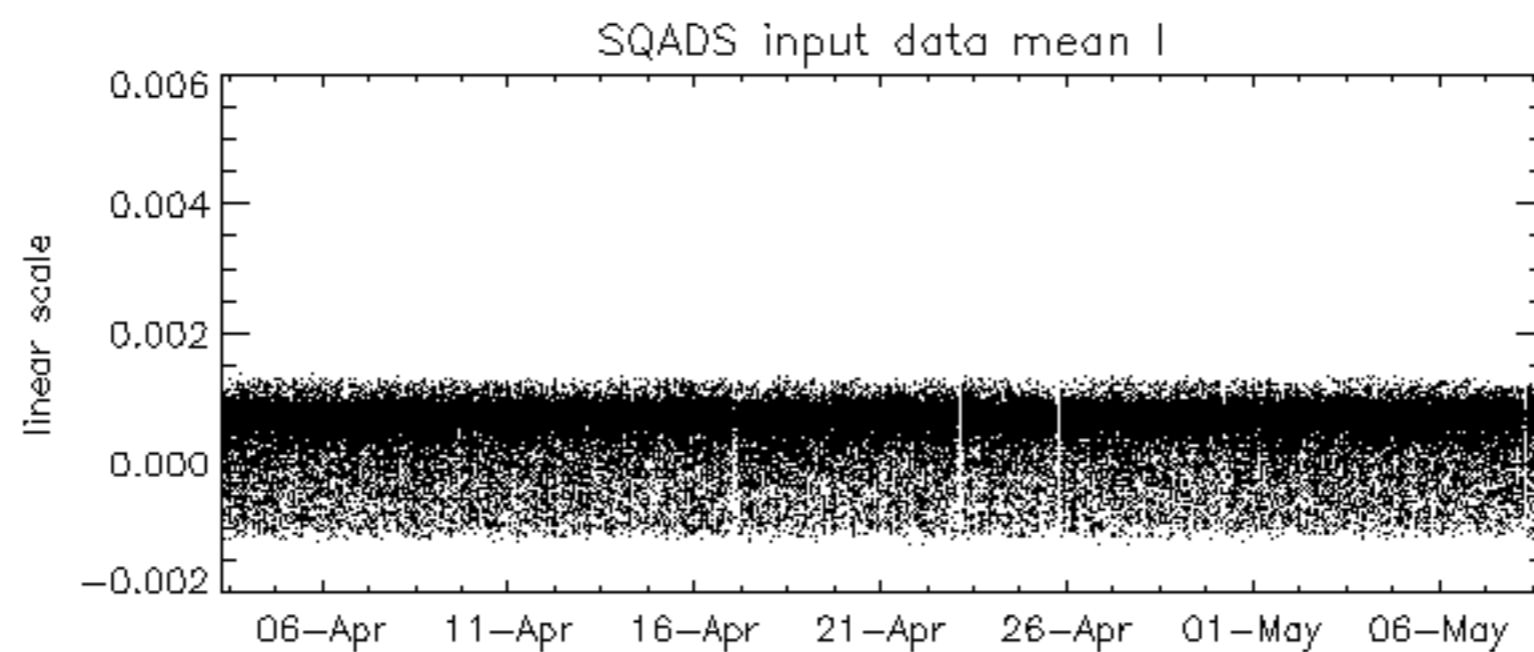
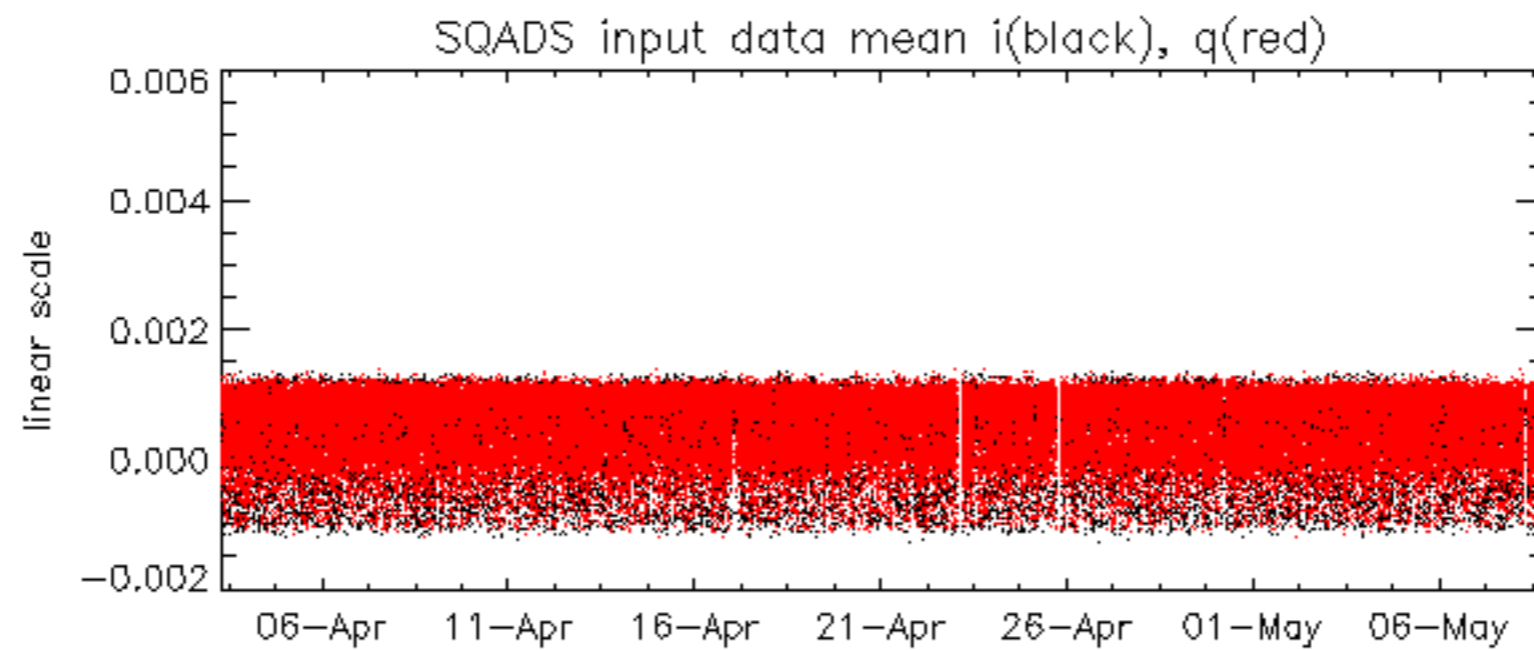
No anomalies observed.

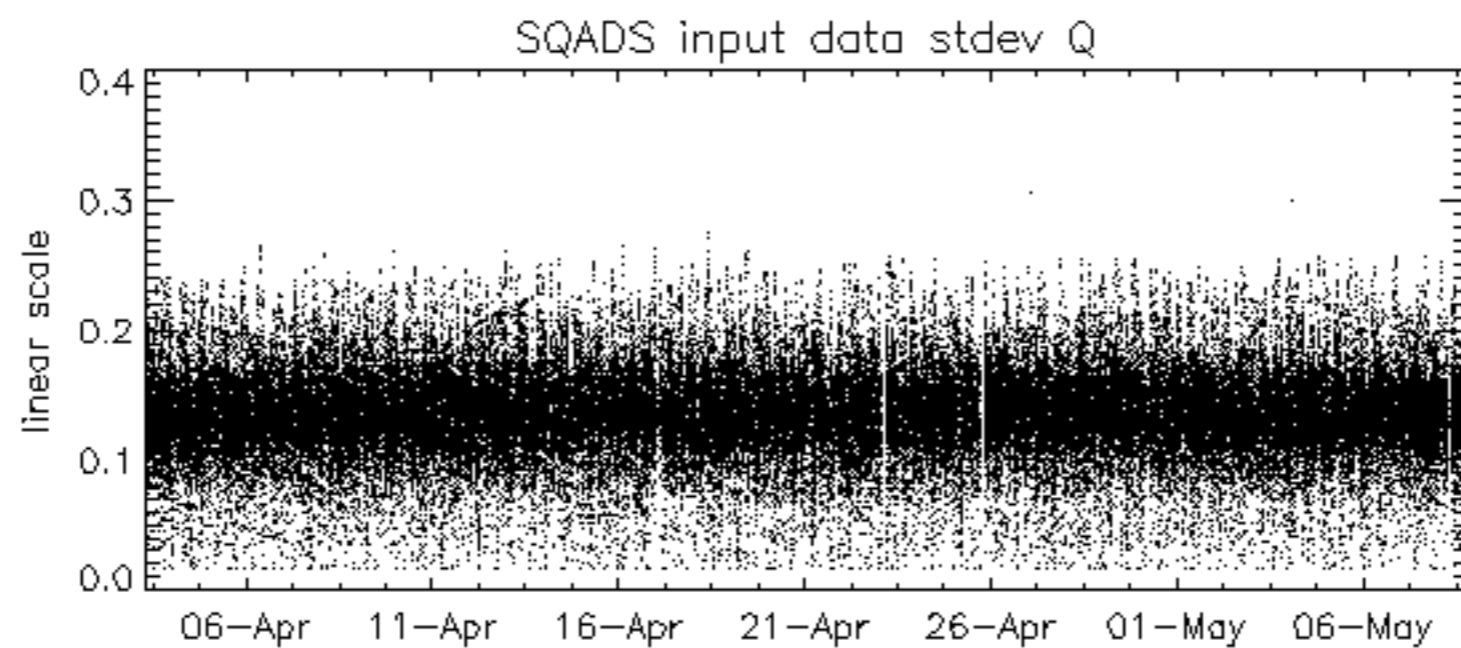
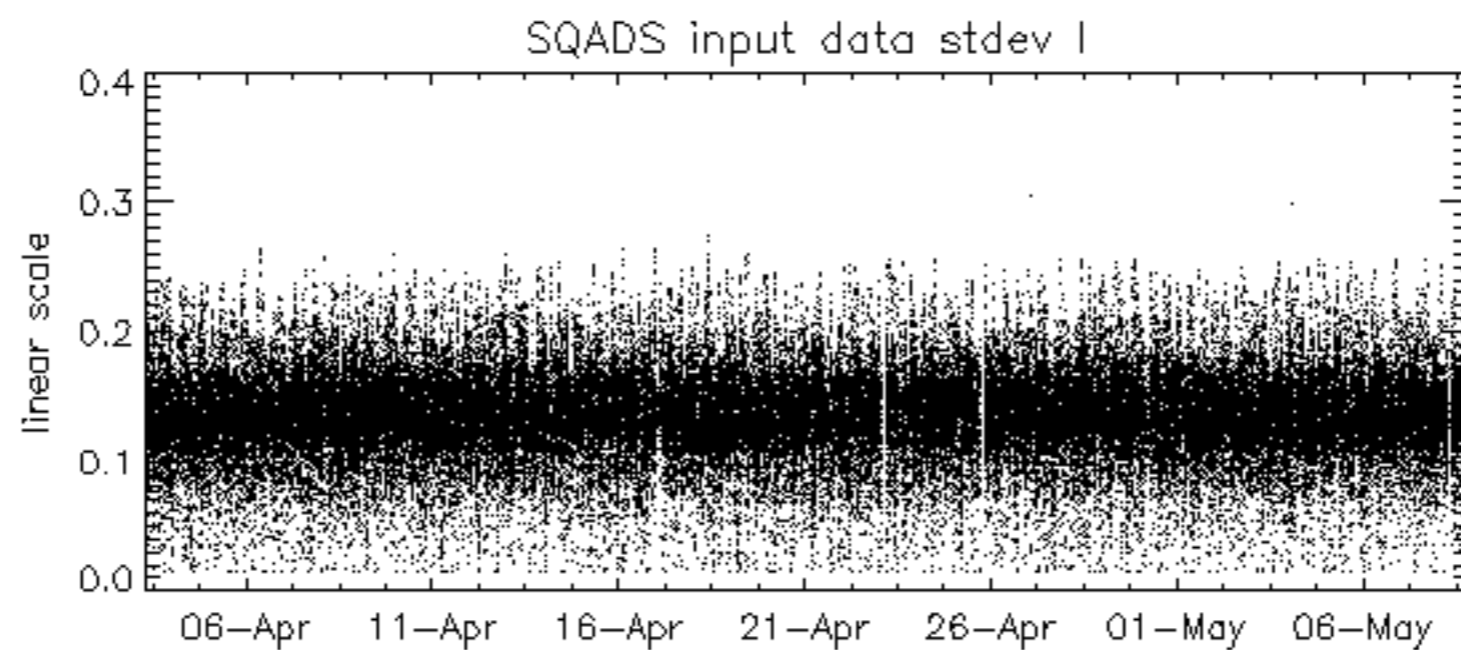
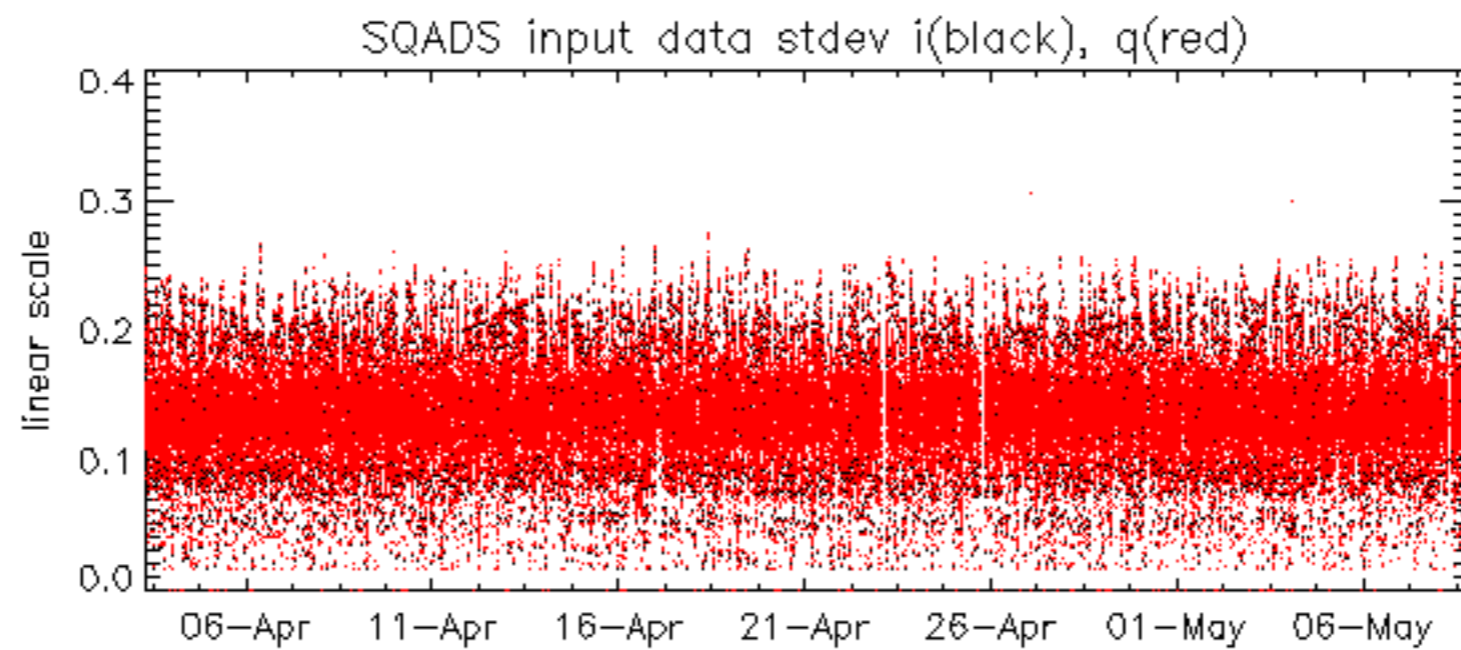








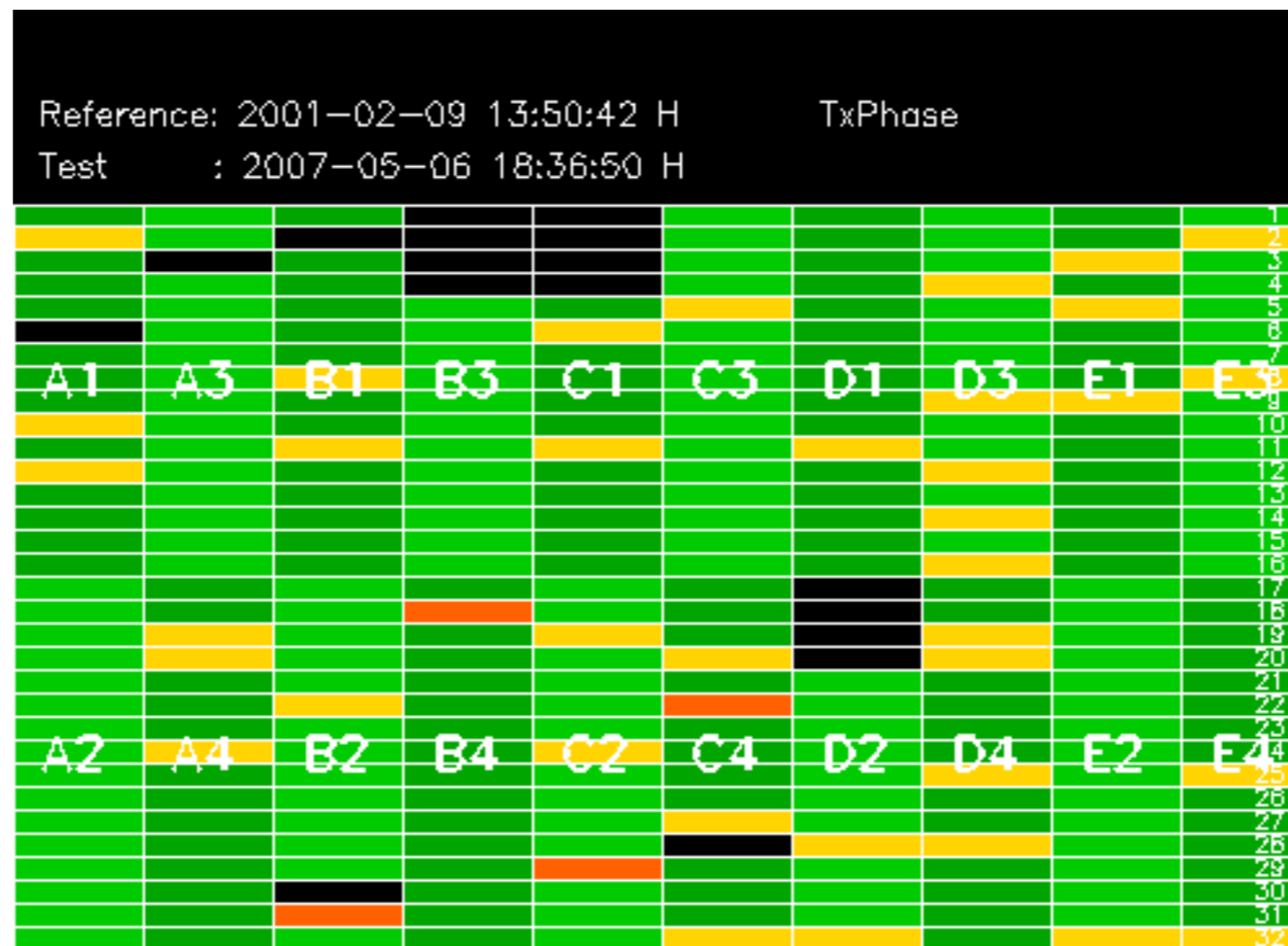


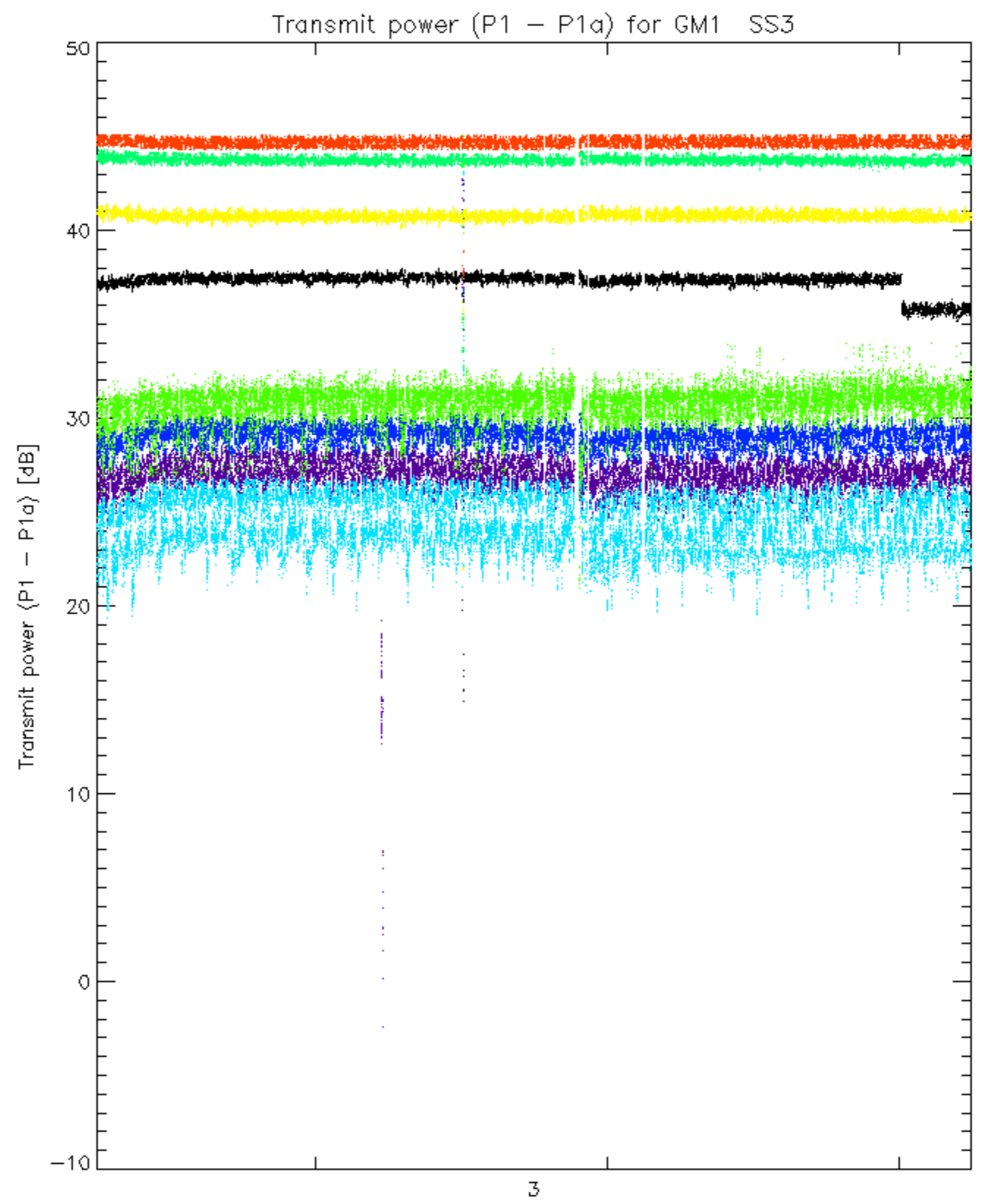


Summary of analysis for the last 3 days 2007050[678]

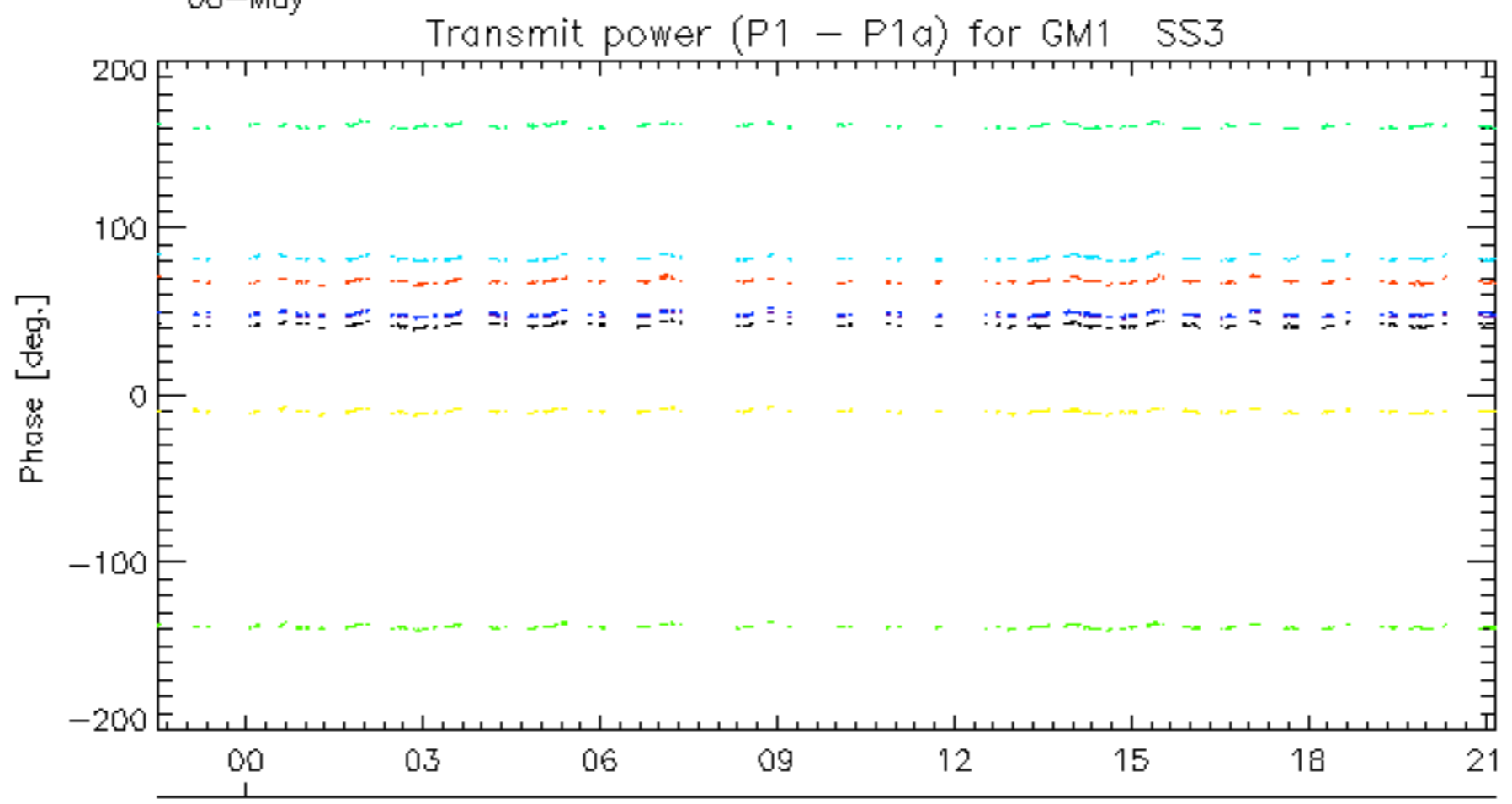
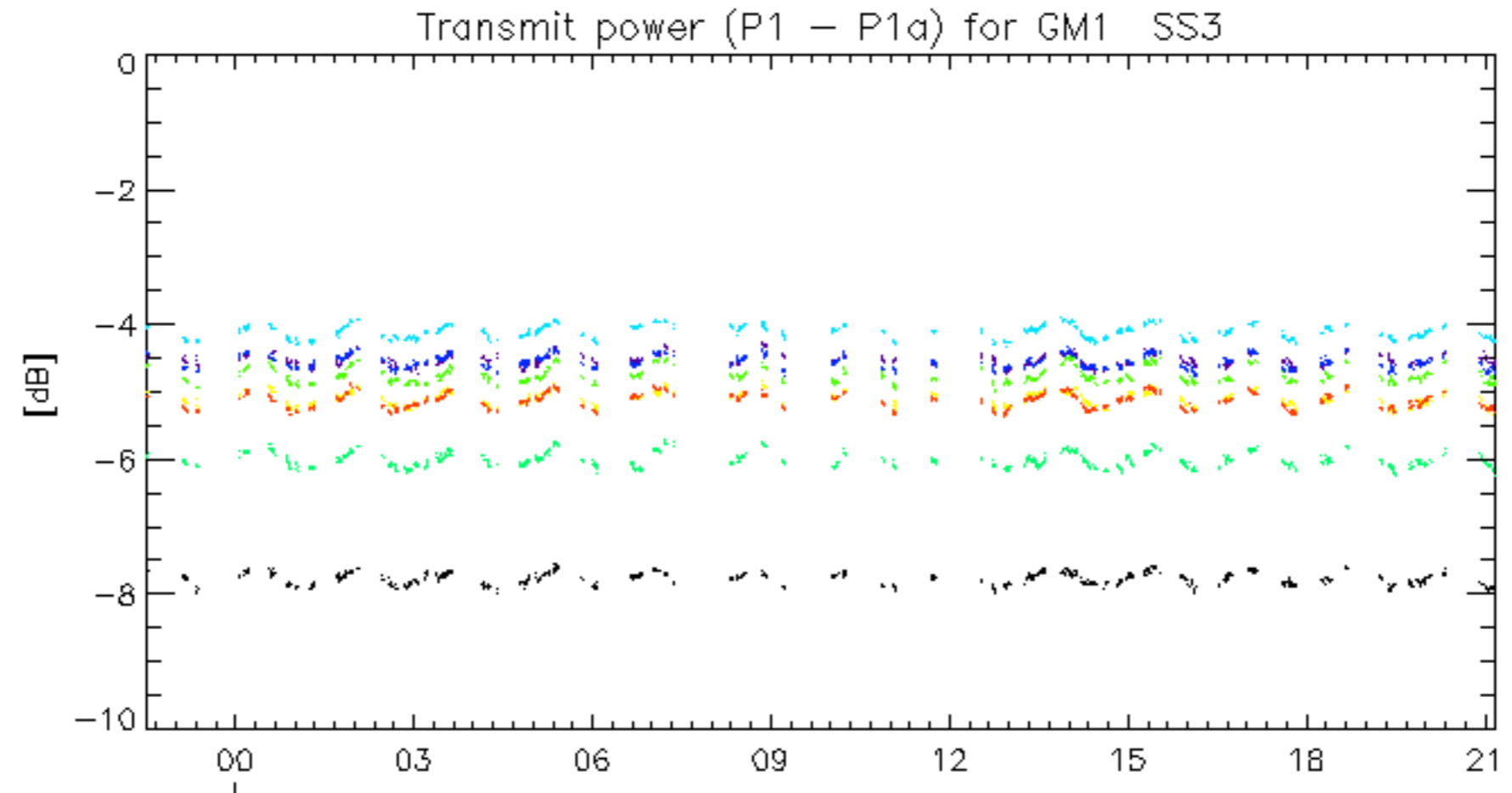
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20070507_103322_000006402057_00495_27102_9475.N1	0	28
ASA_WSM_1PNPDE20070506_094328_000000852057_00480_27087_0728.N1	0	1
ASA_WSM_1PNPDE20070506_113212_000001532057_00481_27088_0776.N1	0	25
ASA_WSM_1PNPDE20070507_165905_000000852057_00499_27106_2177.N1	0	72
ASA_APM_1PNPDE20070506_023611_000000422057_00476_27083_0204.N1	6	0

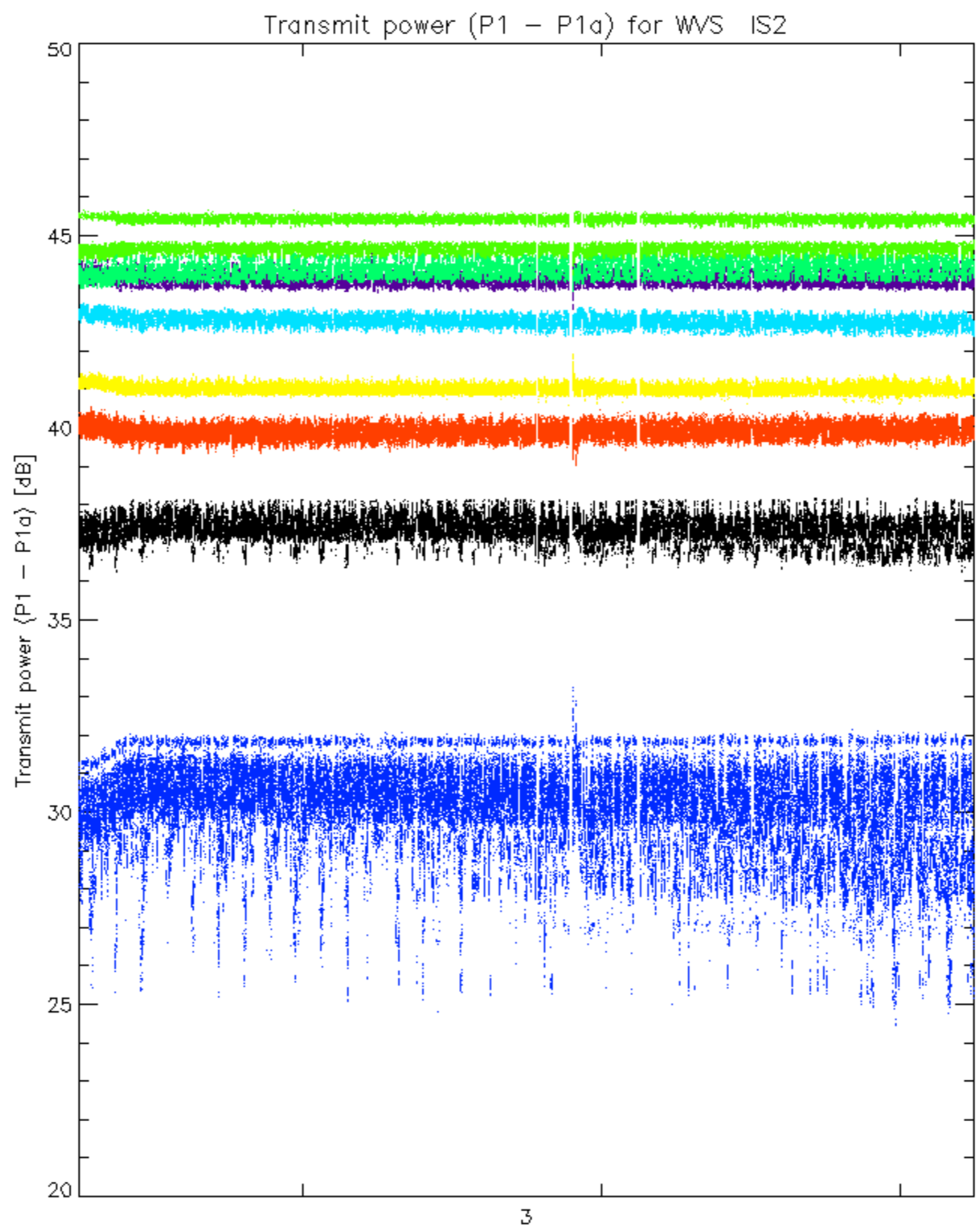




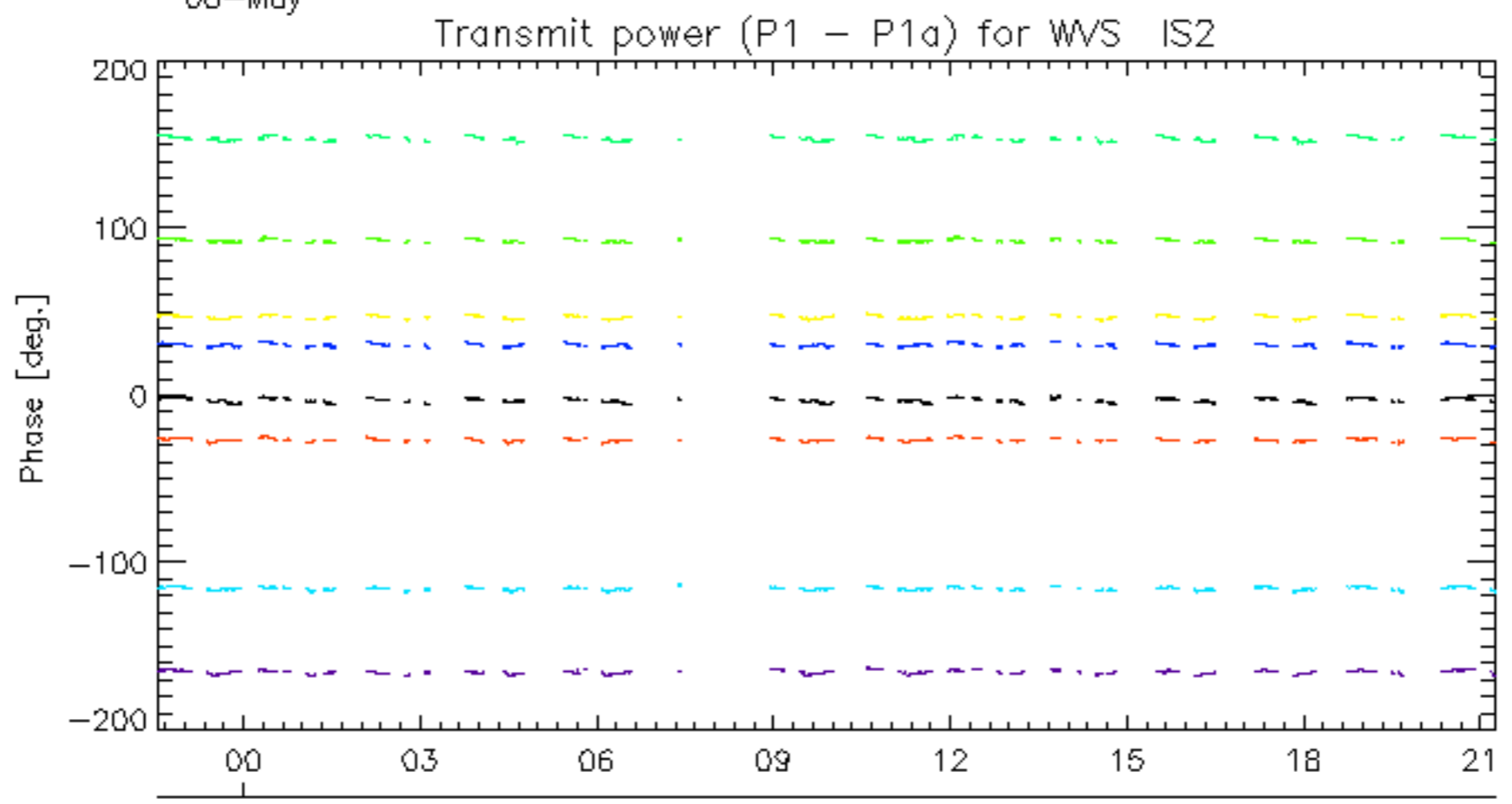
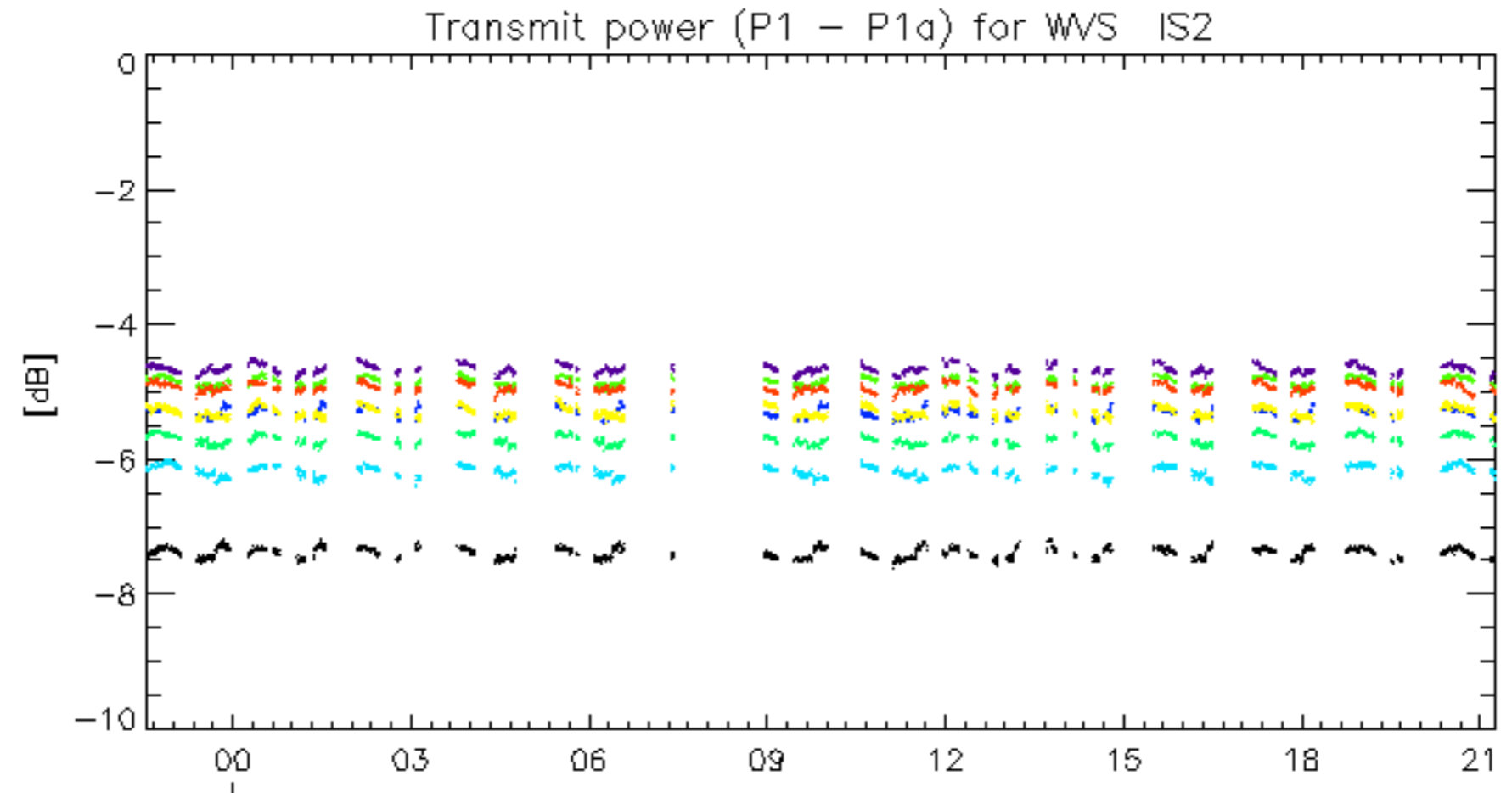
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.