

PRELIMINARY REPORT OF 070330

last update on Fri Mar 30 18:02:41 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 2007-03-29 00:00:00 to 2007-03-30 18:02:42

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	11	21	0	0	3
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	45	88	0	2	31
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	45	88	0	2	31
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	34	67	0	2	28
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	88	0	2	31

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	0	0	2	0	1
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	41	62	44	7	51
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	41	62	44	7	51
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	41	62	42	7	50
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	62	44	7	51

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	20070329 100802
H	20070330 143812

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	-15.100052	0.127951	0.089516
7	P1a	-17.490938	0.101202	-0.125588
11	P1a	-17.268450	0.345283	-0.001728
15	P1a	-12.887806	0.088584	-0.006598
19	P1a	-15.172069	0.077900	-0.082211
22	P1a	-15.539122	0.548690	-0.532226
26	P1a	-15.093580	0.413550	-0.181737
30	P1a	-17.422762	0.292781	-0.270052

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.745924	0.010566	-0.025966
7	P1	-3.136305	0.008500	-0.012596
11	P1	-4.174138	0.014901	-0.057975
15	P1	-6.373490	0.016694	0.020781
19	P1	-3.776403	0.007546	-0.021203
22	P1	-4.687552	0.042549	-0.117918
26	P1	-3.928309	0.036726	-0.033297
30	P1	-5.927591	0.063673	-0.125493

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.643778	0.093213	0.031579
7	P2	-21.599949	0.082838	0.048731
11	P2	-15.488855	0.102741	0.172569
15	P2	-7.083401	0.094378	-0.050653
19	P2	-9.108030	0.083891	-0.009890
22	P2	-18.091923	0.078591	0.028284
26	P2	-16.562193	0.086154	-0.055308
30	P2	-19.316074	0.082180	0.089349

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.233512	0.006431	0.006619
7	P3	-8.233512	0.006431	0.006619
11	P3	-8.233512	0.006431	0.006619
15	P3	-8.233512	0.006431	0.006619
19	P3	-8.233512	0.006431	0.006619
22	P3	-8.233512	0.006431	0.006619
26	P3	-8.233447	0.006433	0.006831
30	P3	-8.233447	0.006433	0.006831

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	-11.099504	0.052429	-0.080004
7	P1a	-10.069908	0.129160	0.000149
11	P1a	-10.680836	0.062152	-0.021246
15	P1a	-10.931265	0.144619	0.117024
19	P1a	-15.722536	0.072033	-0.142745
22	P1a	-20.927427	1.499815	-0.228897
26	P1a	-15.270732	0.325737	-0.156344
30	P1a	-18.374969	0.682422	0.029034

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.413753	0.038531	-0.042237
7	P1	-2.425058	0.021520	0.001973
11	P1	-2.919413	0.018912	0.020182
15	P1	-3.846815	0.038959	0.003813
19	P1	-3.564802	0.011234	-0.039399
22	P1	-5.028072	0.031665	0.049505

26	P1	-5.962224	0.050604	-0.078760
30	P1	-5.278677	0.030640	-0.042197

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.108267	0.037952	-0.040161
7	P2	-21.961451	0.062266	-0.052923
11	P2	-10.634429	0.033491	0.026579
15	P2	-4.836994	0.032089	-0.055772
19	P2	-6.816767	0.033753	-0.031759
22	P2	-8.080555	0.033956	-0.015822
26	P2	-24.290668	0.042420	0.008658
30	P2	-21.718573	0.045085	0.032615

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.063375	0.004061	-0.017591
7	P3	-8.063290	0.004060	-0.017693
11	P3	-8.063398	0.004059	-0.017904
15	P3	-8.063492	0.004061	-0.017629
19	P3	-8.063382	0.004071	-0.017272
22	P3	-8.063452	0.004068	-0.017955
26	P3	-8.063239	0.004047	-0.017698
30	P3	-8.063358	0.004053	-0.017808

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	0.000639648
	stdev	2.60661e-07
MEAN Q	mean	0.000355150
	stdev	2.76286e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.104417
	stdev	0.00239197
STDEV Q	mean	0.104396
	stdev	0.00244804



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007032[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_1PNPDE20070320_114001_000002562056_00309_26415_9412.N1	1	52
ASA_IMM_1PNPDE20070328_143307_000000372056_00425_26531_0306.N1	1	0
ASA_IMM_1PNPDK20070320_131732_000000812056_00310_26416_7792.N1	0	5
ASA_IMM_1PNPDK20070320_135505_000000602056_00311_26417_7788.N1	0	24
ASA_IMM_1PNPDK20070320_135505_000000792056_00311_26417_7798.N1	0	24



ASA_WVS_1PNPDK20070329_111415_000000602056_00438_26544_8744.N1	0	16
ASA_GM1_1PNPDK20070328_172929_000005192056_00427_26533_7340.N1	0	7
ASA_WSM_1PNPDE20070320_010734_000000852056_00303_26409_8706.N1	0	32
ASA_WSM_1PNPDE20070328_001649_000002022056_00417_26523_9211.N1	0	26
ASA_WSM_1PNPDE20070328_234612_000002022056_00431_26537_0915.N1	0	27
ASA_WSM_1PNPDE20070329_022250_000000862056_00433_26539_1185.N1	0	44
ASA_WSM_1PNPDK20070320_123133_000003062056_00310_26416_7660.N1	0	17
ASA_WSM_1PNPDK20070320_135308_000000852056_00311_26417_7800.N1	0	21
ASA_WSM_1PNPDK20070329_140622_000000862056_00440_26546_8981.N1	0	15
ASA_APM_1PNPDE20070320_021347_000000402056_00304_26410_8728.N1	14	0
ASA_APM_1PNPDK20070320_084923_000000402056_00308_26414_7265.N1	15	257





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)

Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

Acsending

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"/>

Ascending

<input type="checkbox"/>

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

<input type="checkbox"/>

Ascending

<input type="checkbox"/>

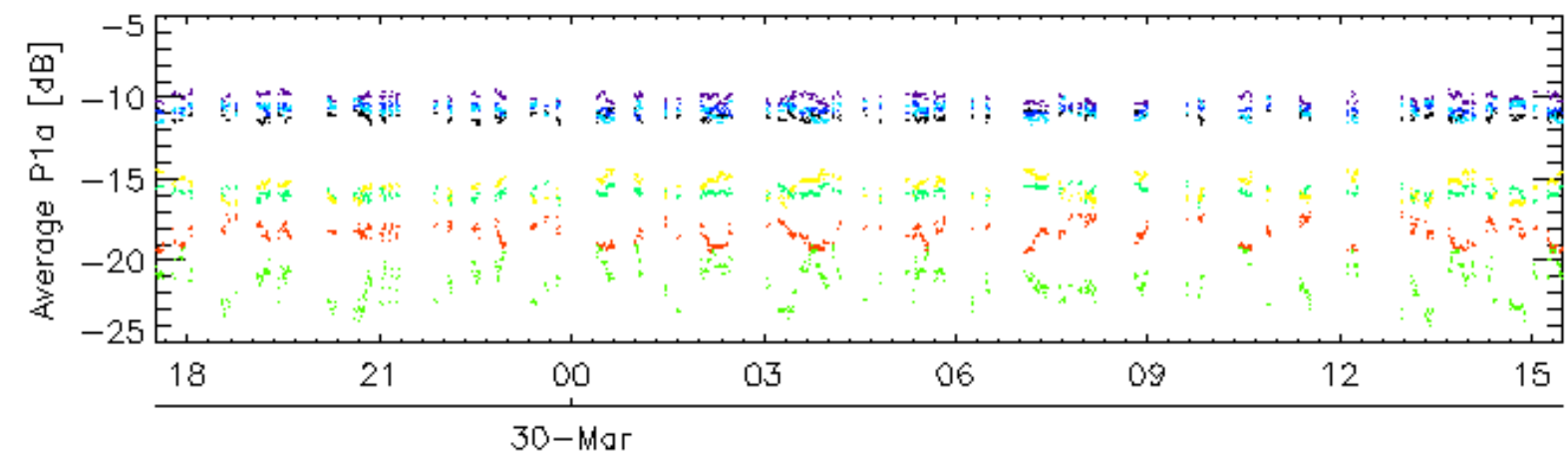
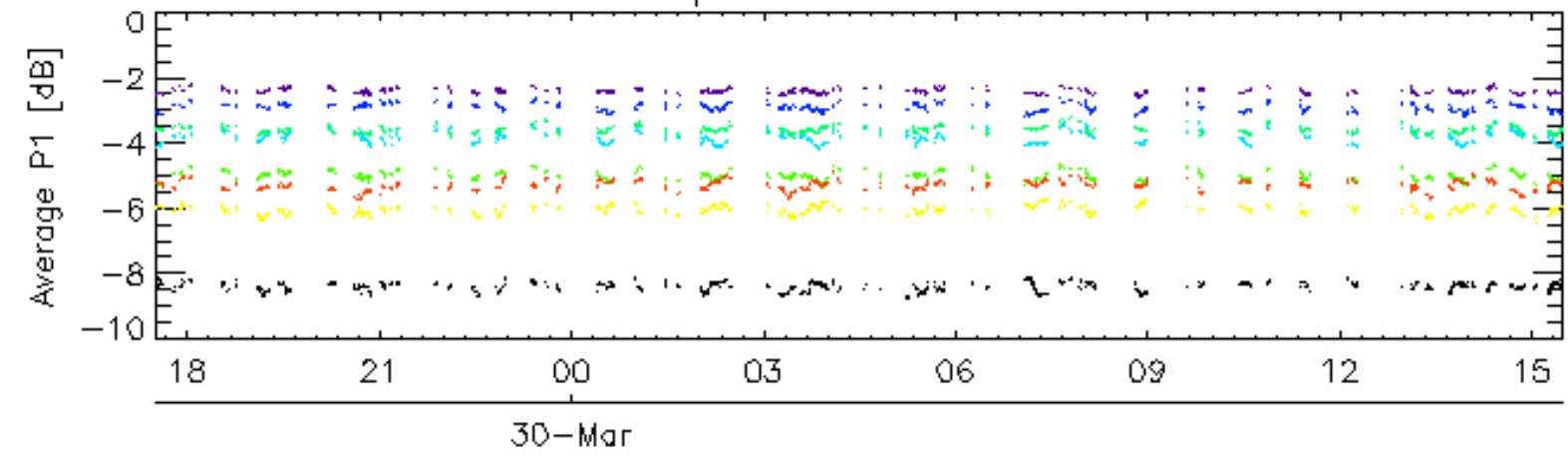
Descending

7.6 - Doppler evolution versus ANX for GM1

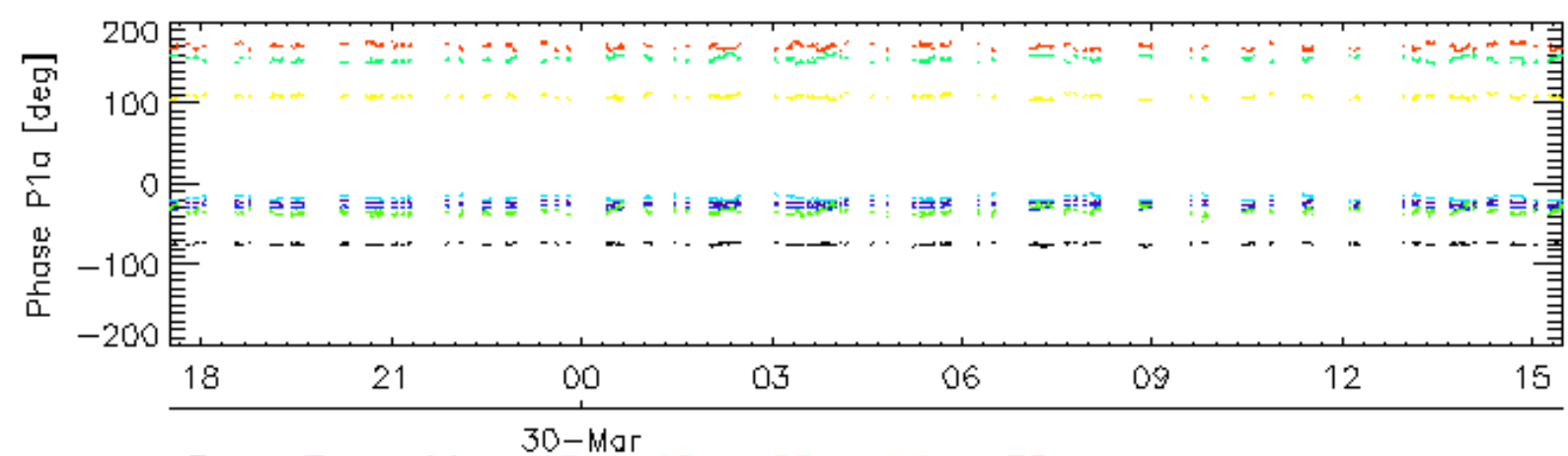
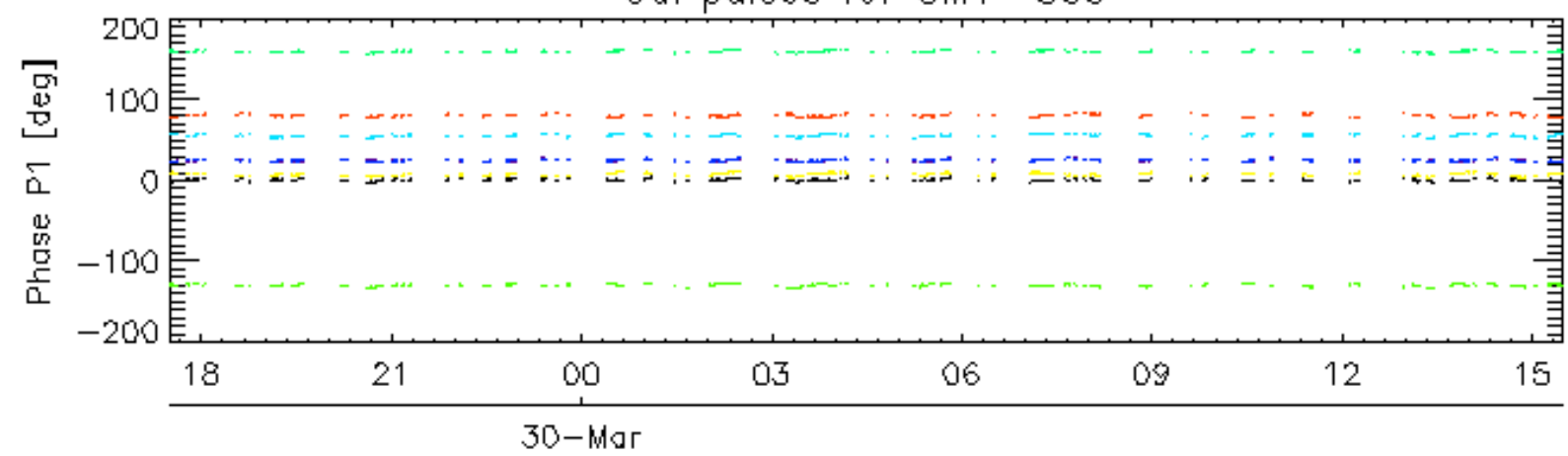
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

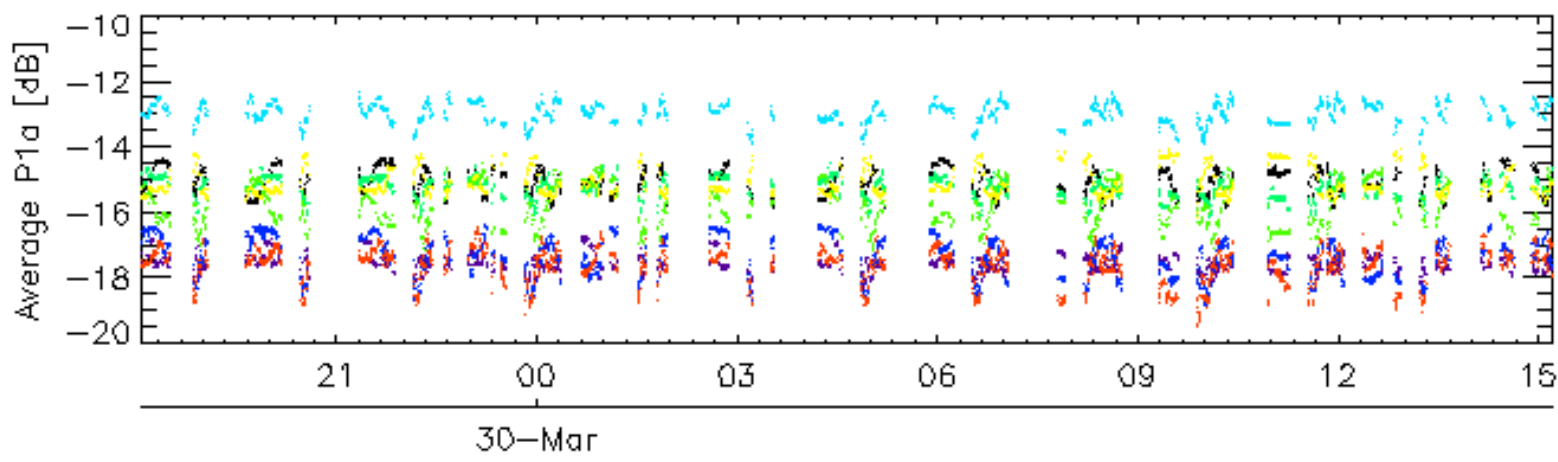
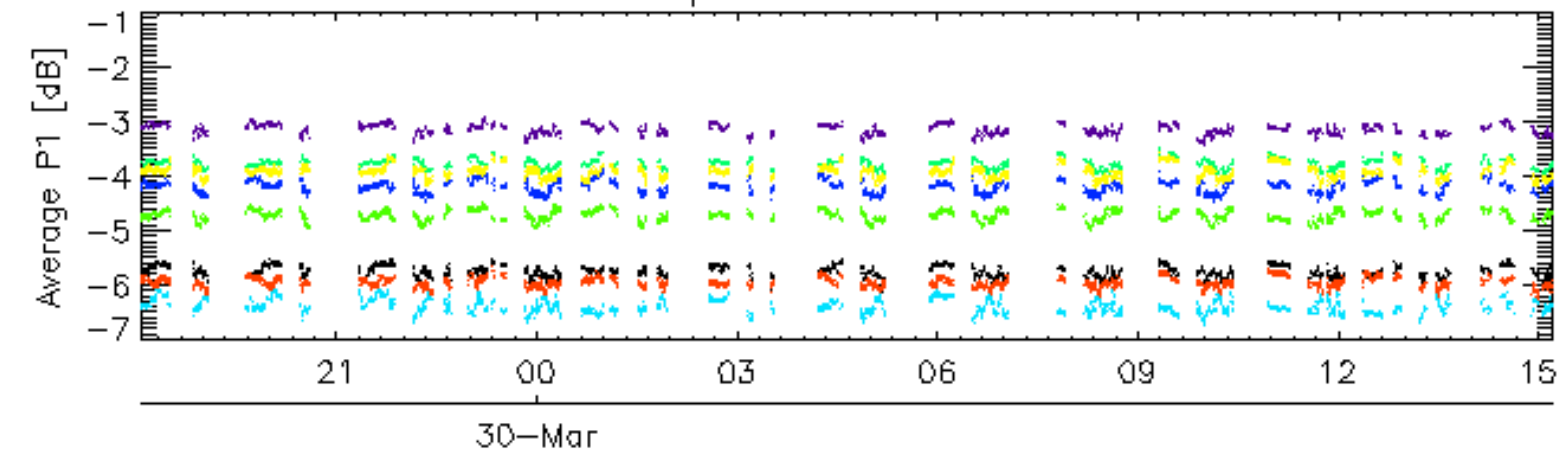


Cal pulses for GM1 SS3

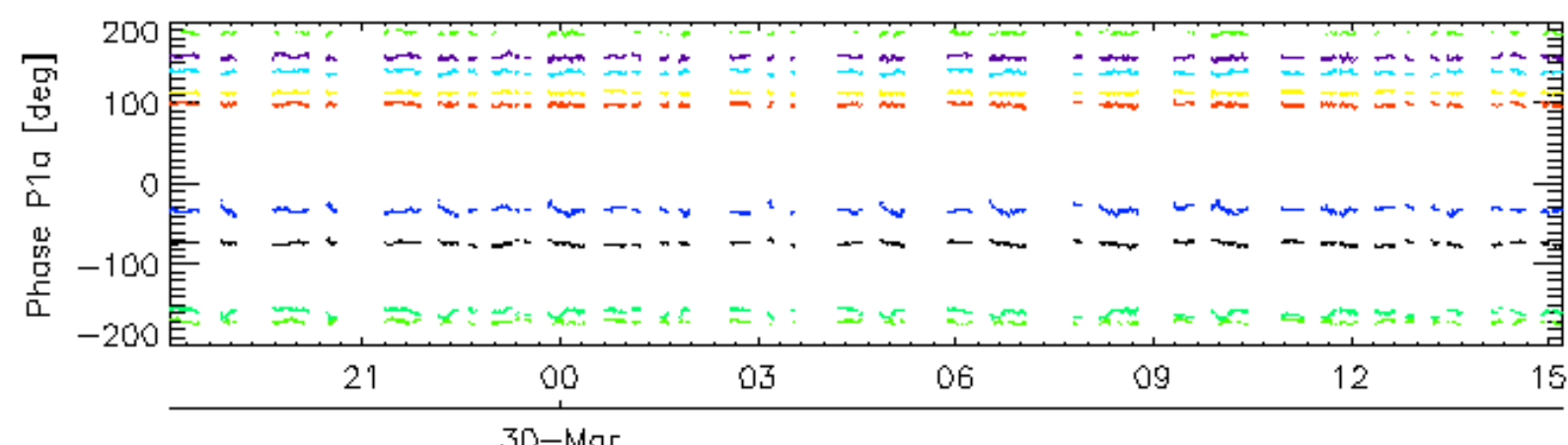
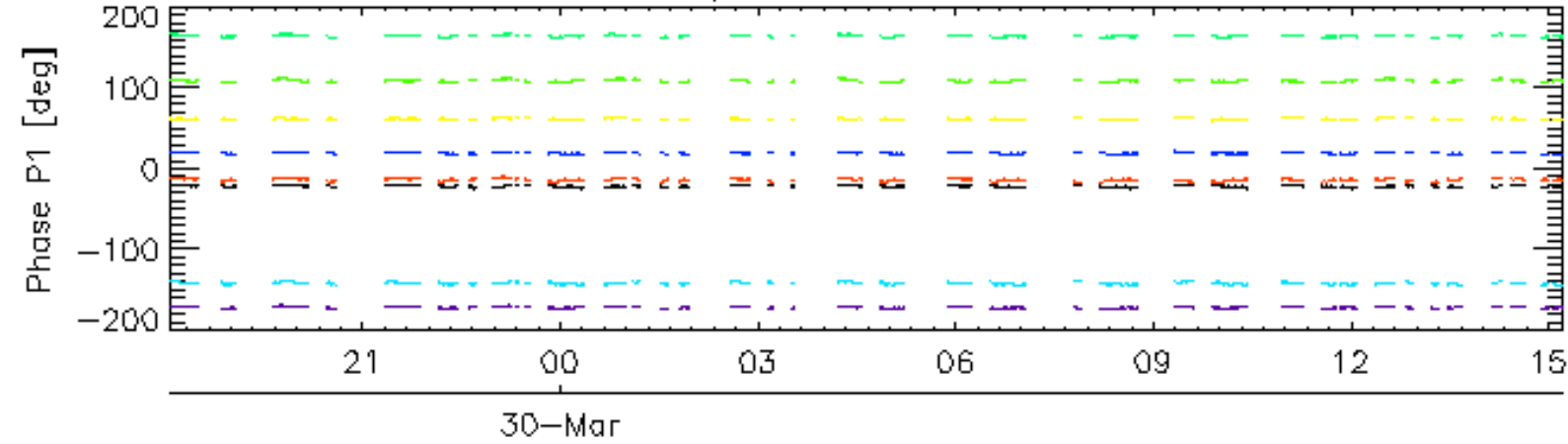


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

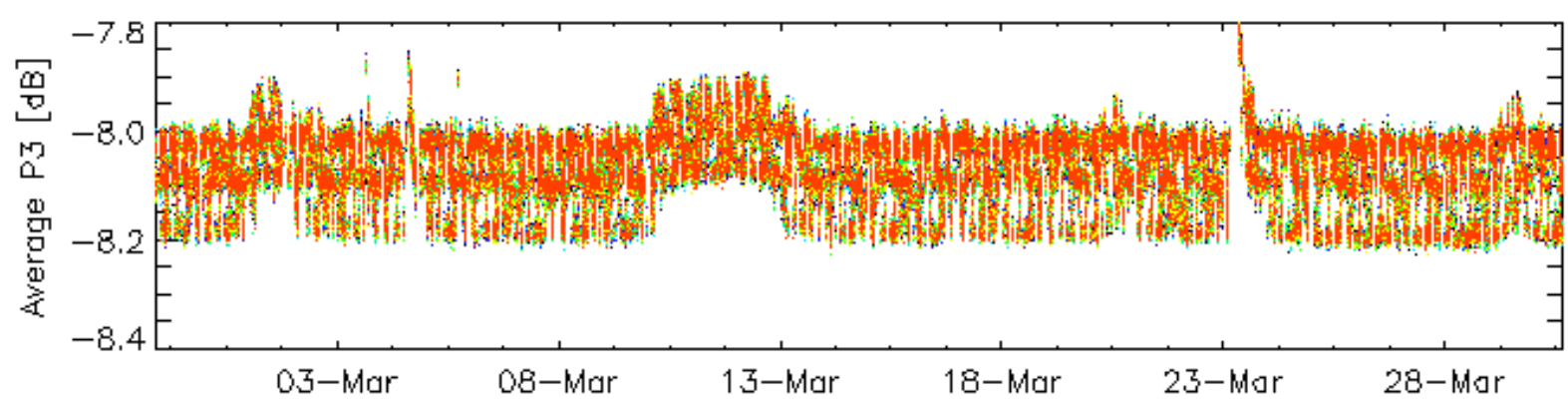
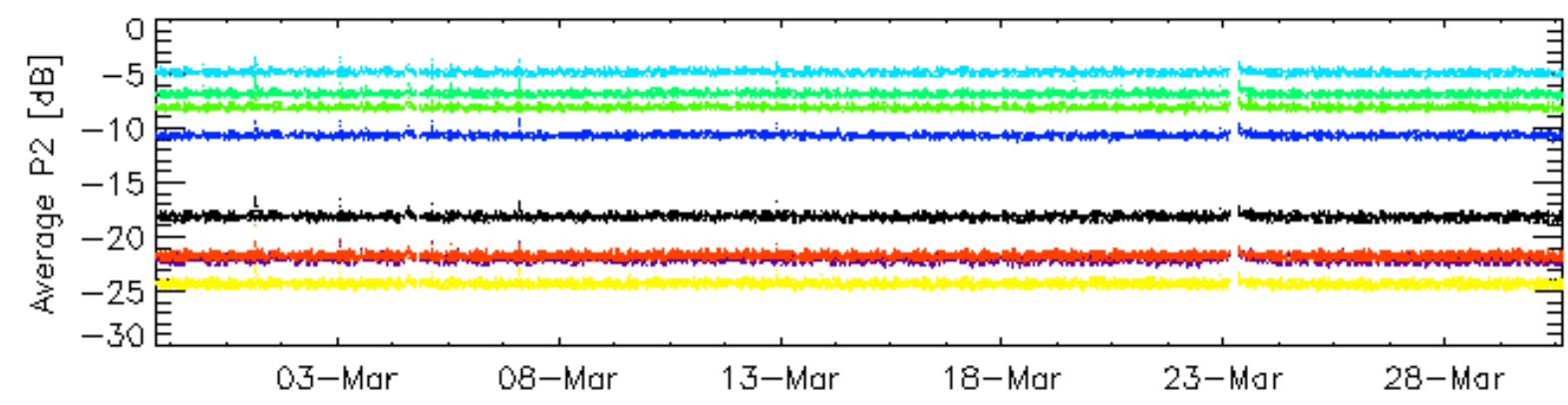
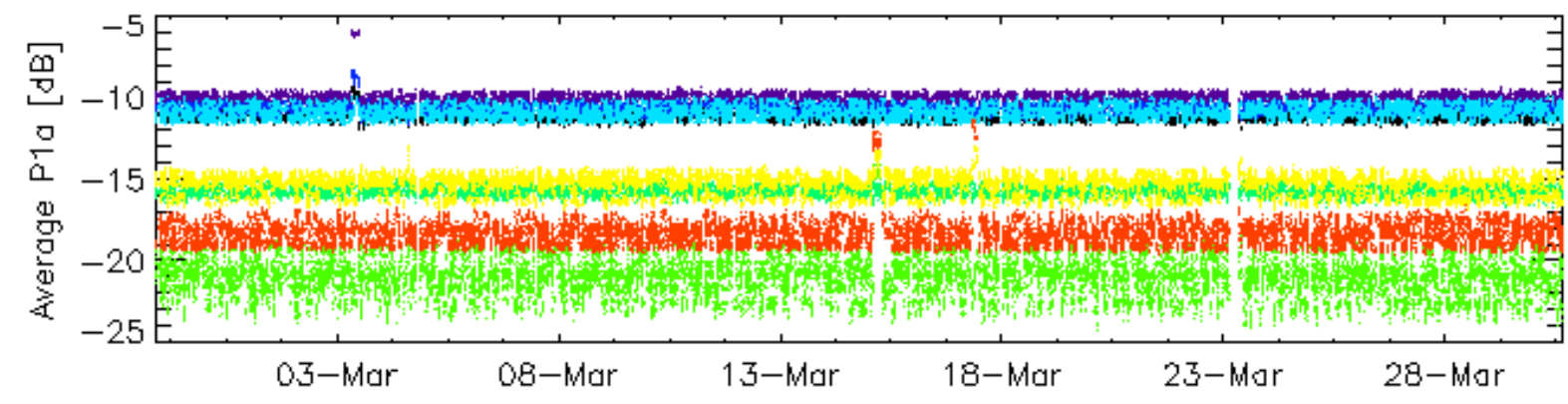
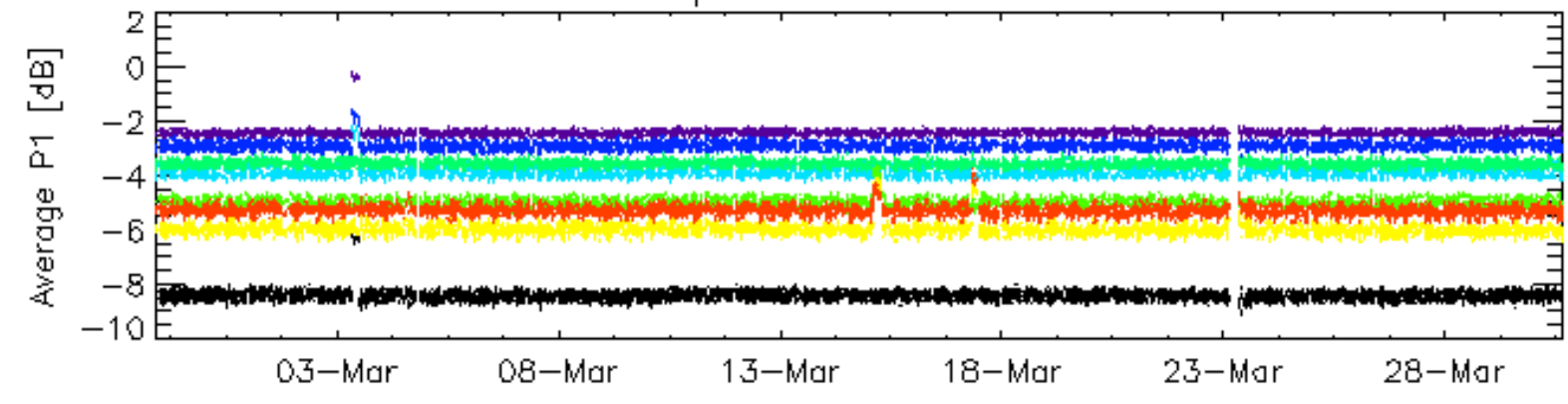


Cal pulses for WVS IS2



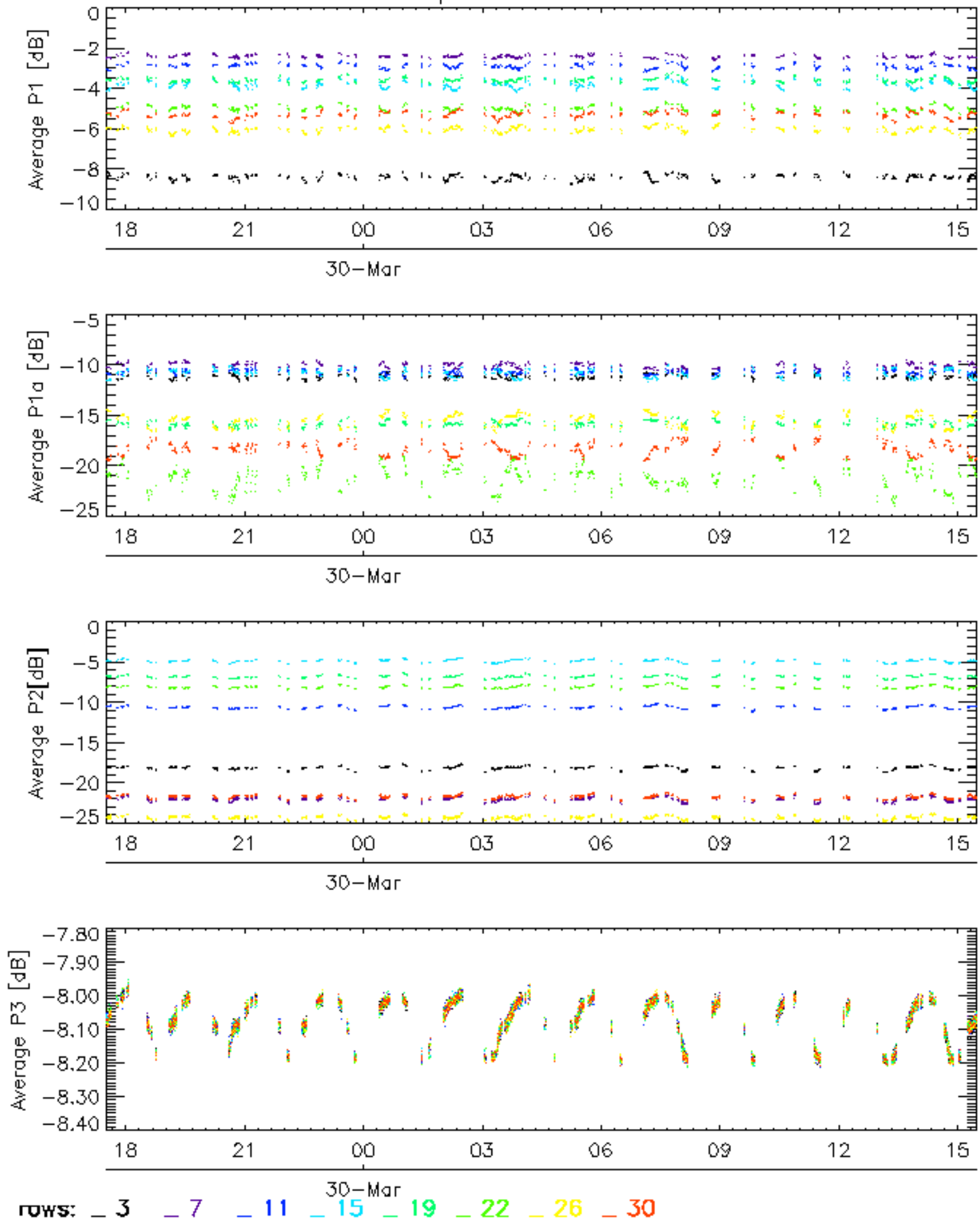
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

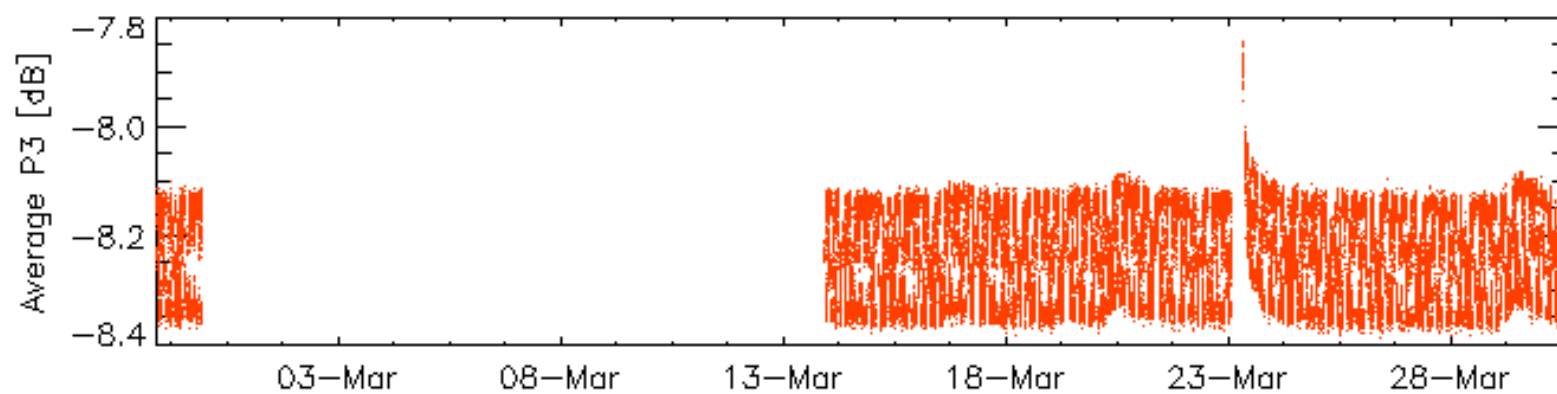
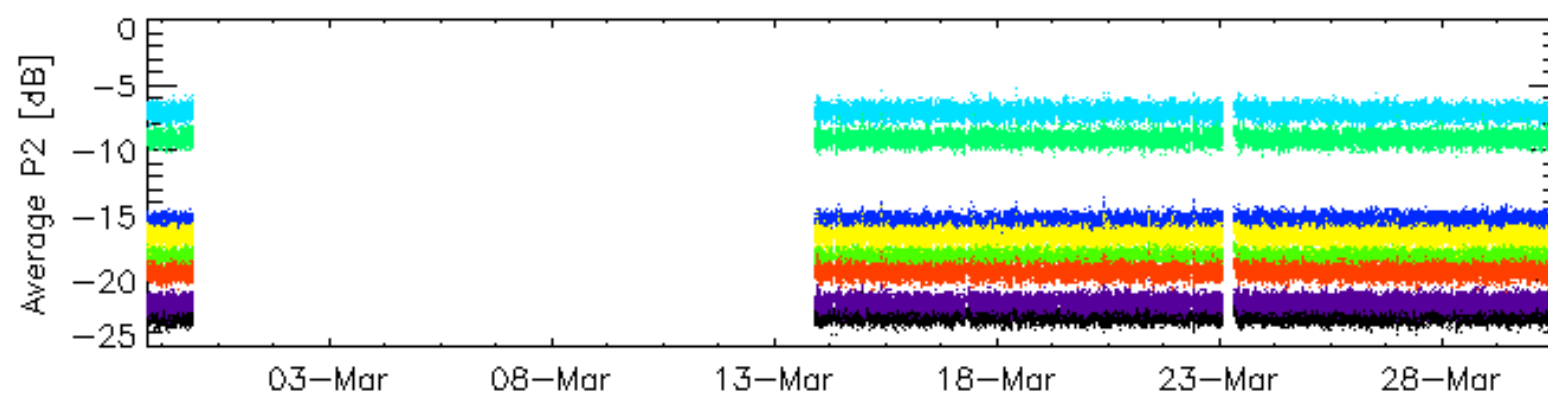
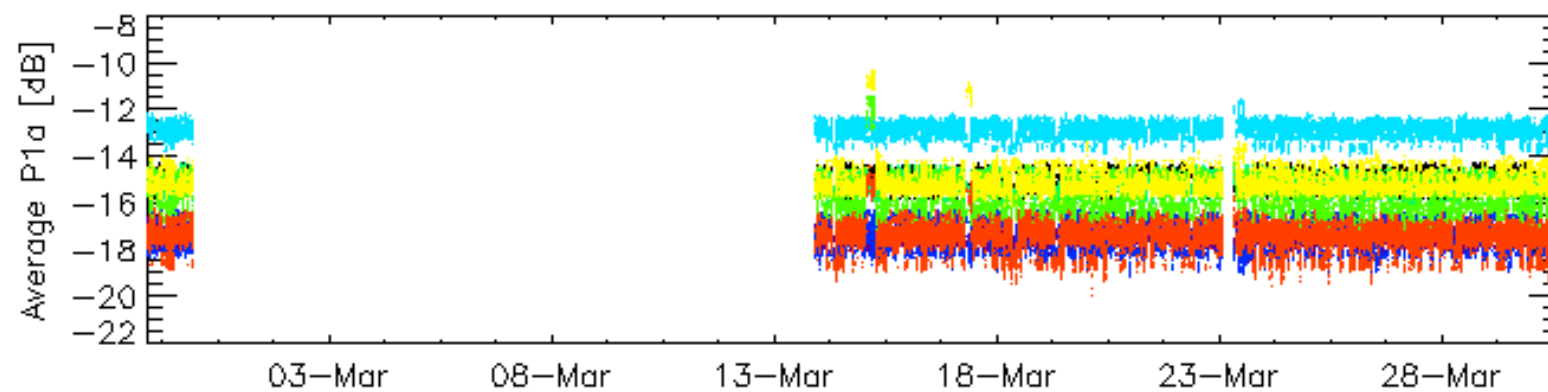
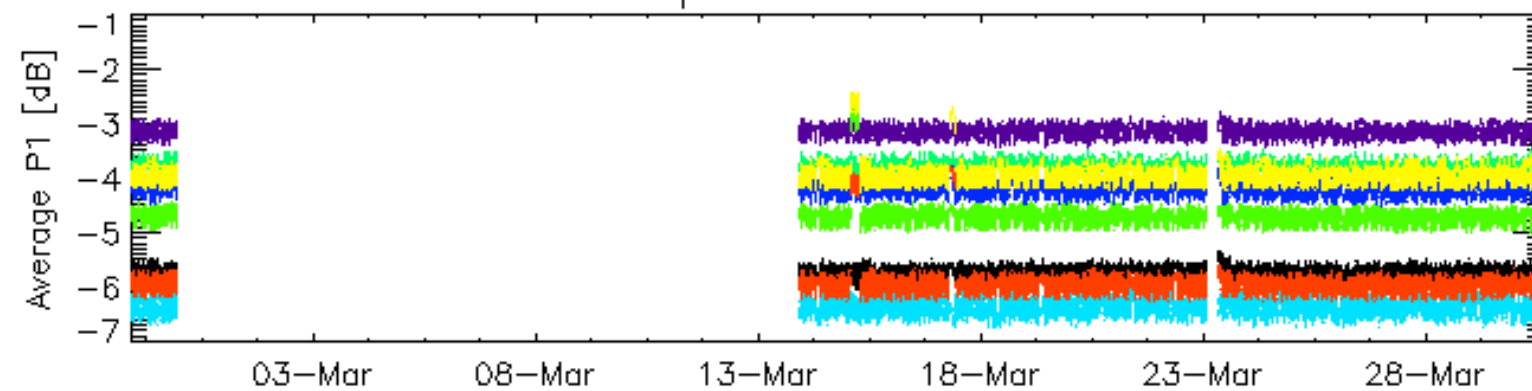


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

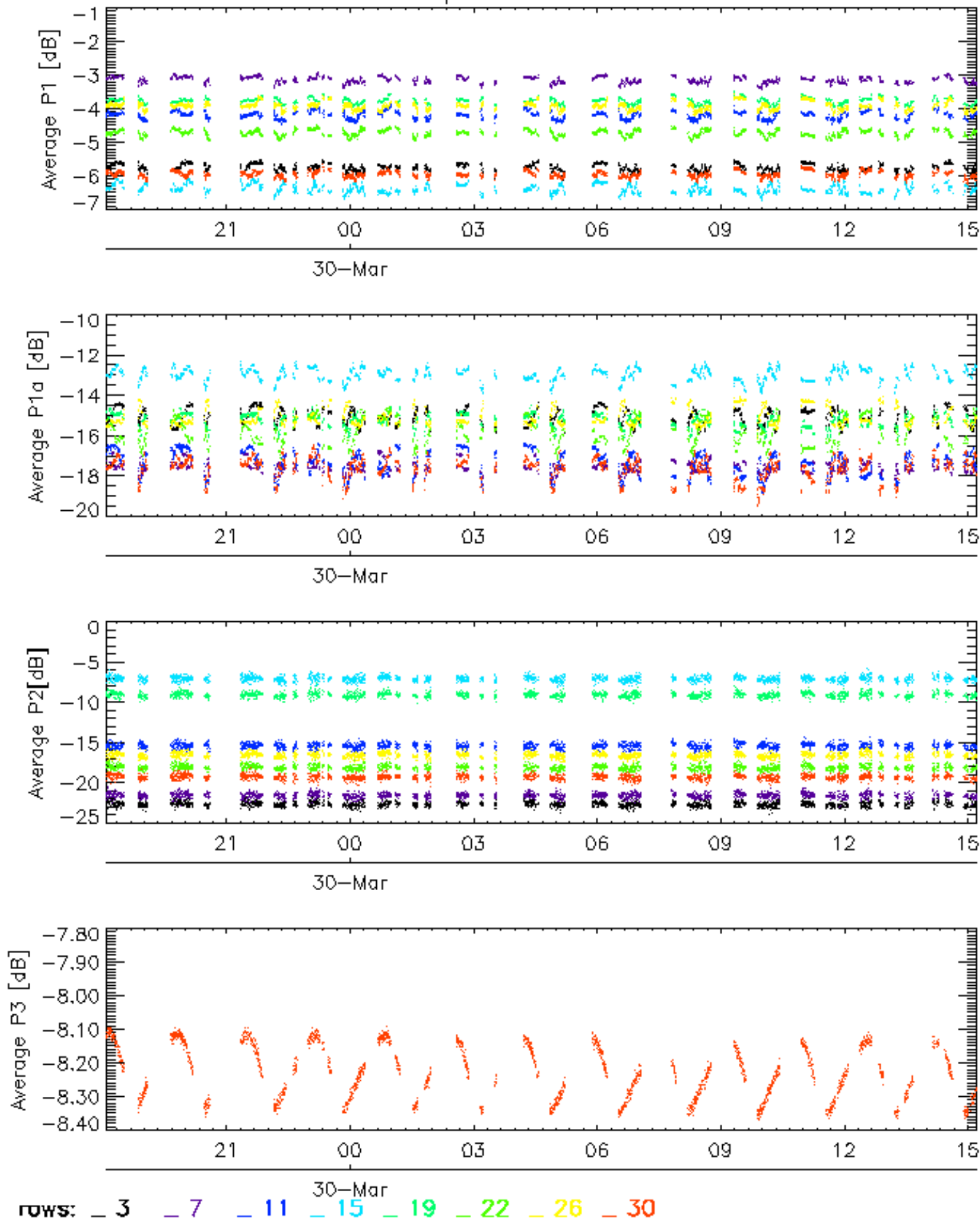


Cal pulses for WVS IS2

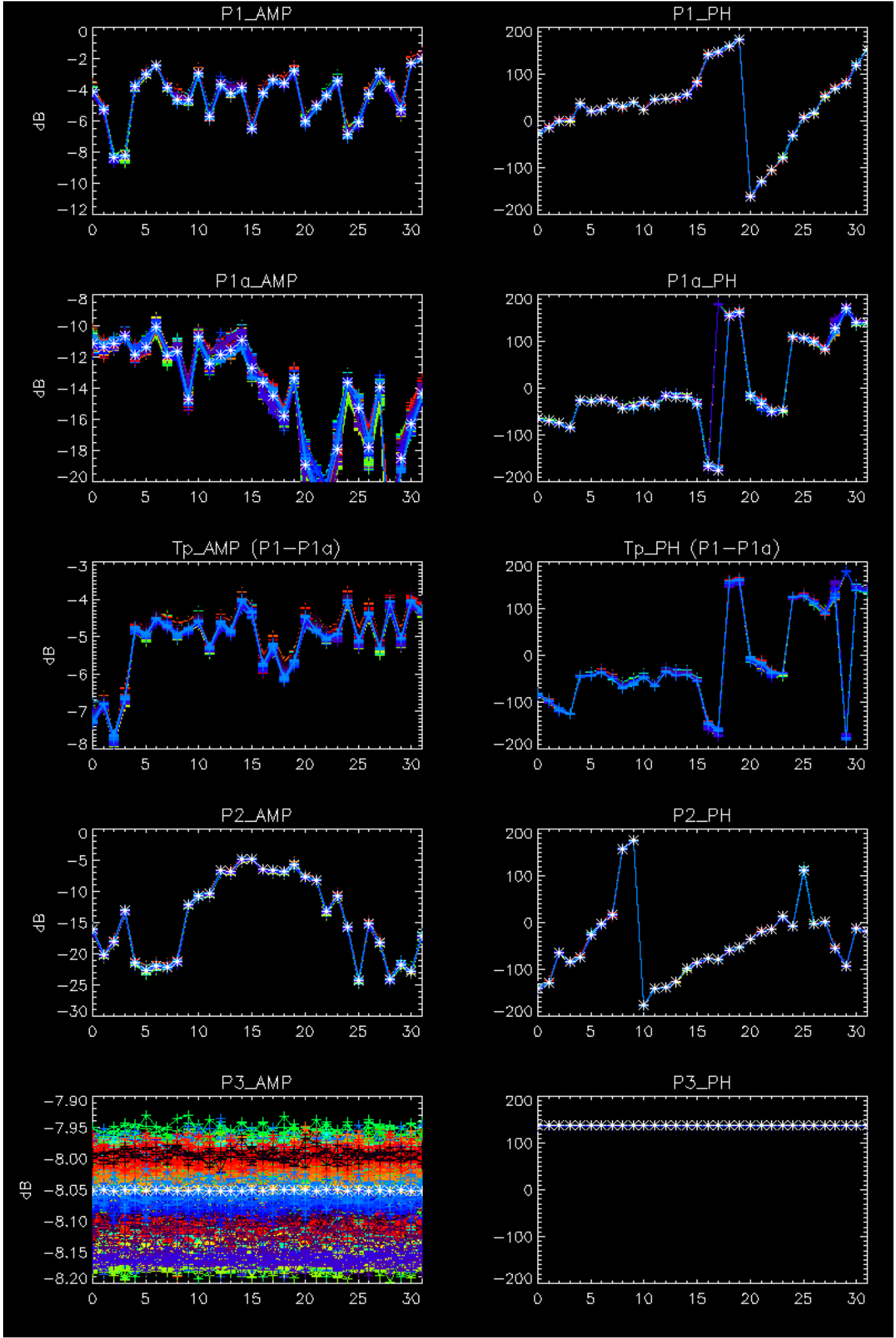


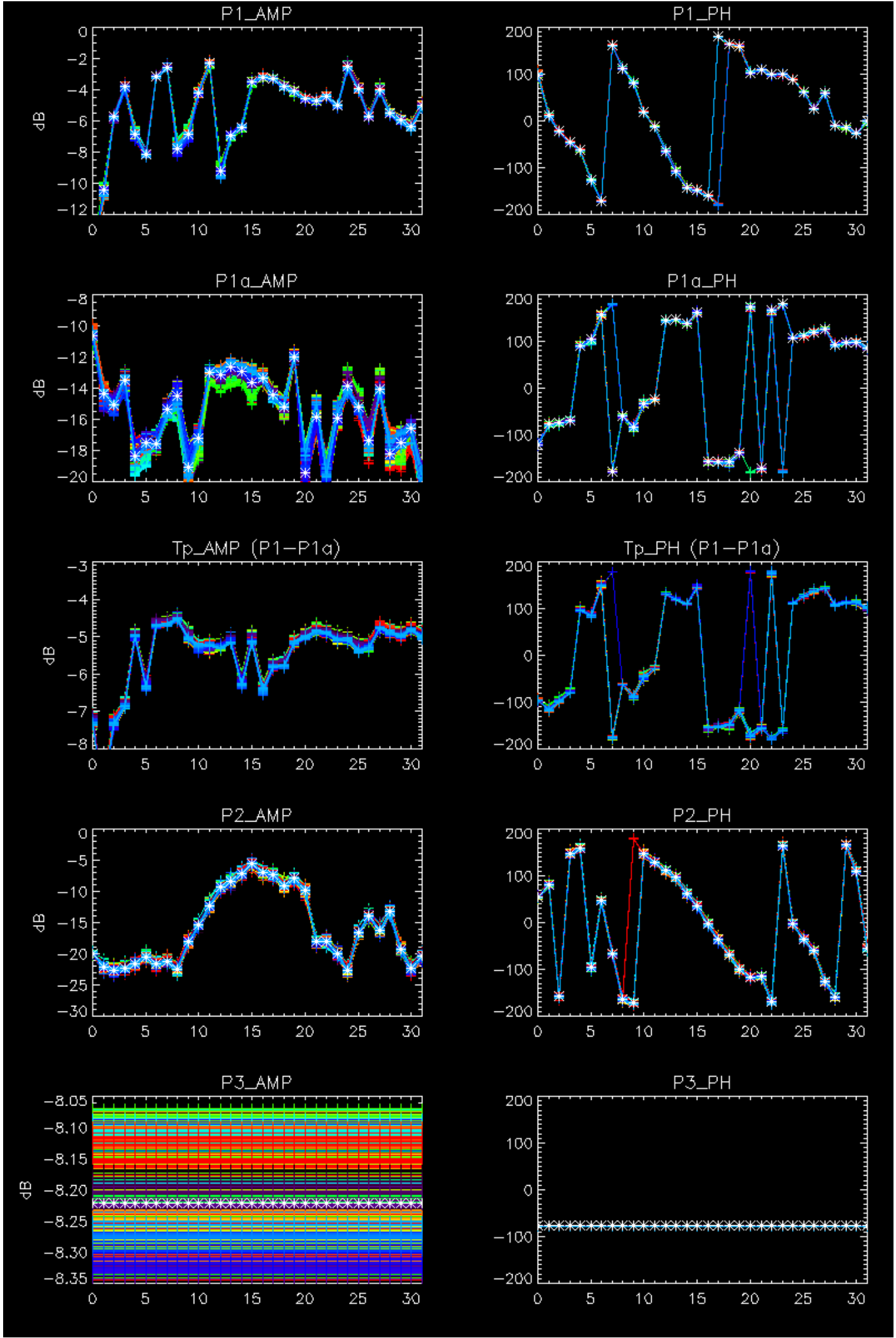
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



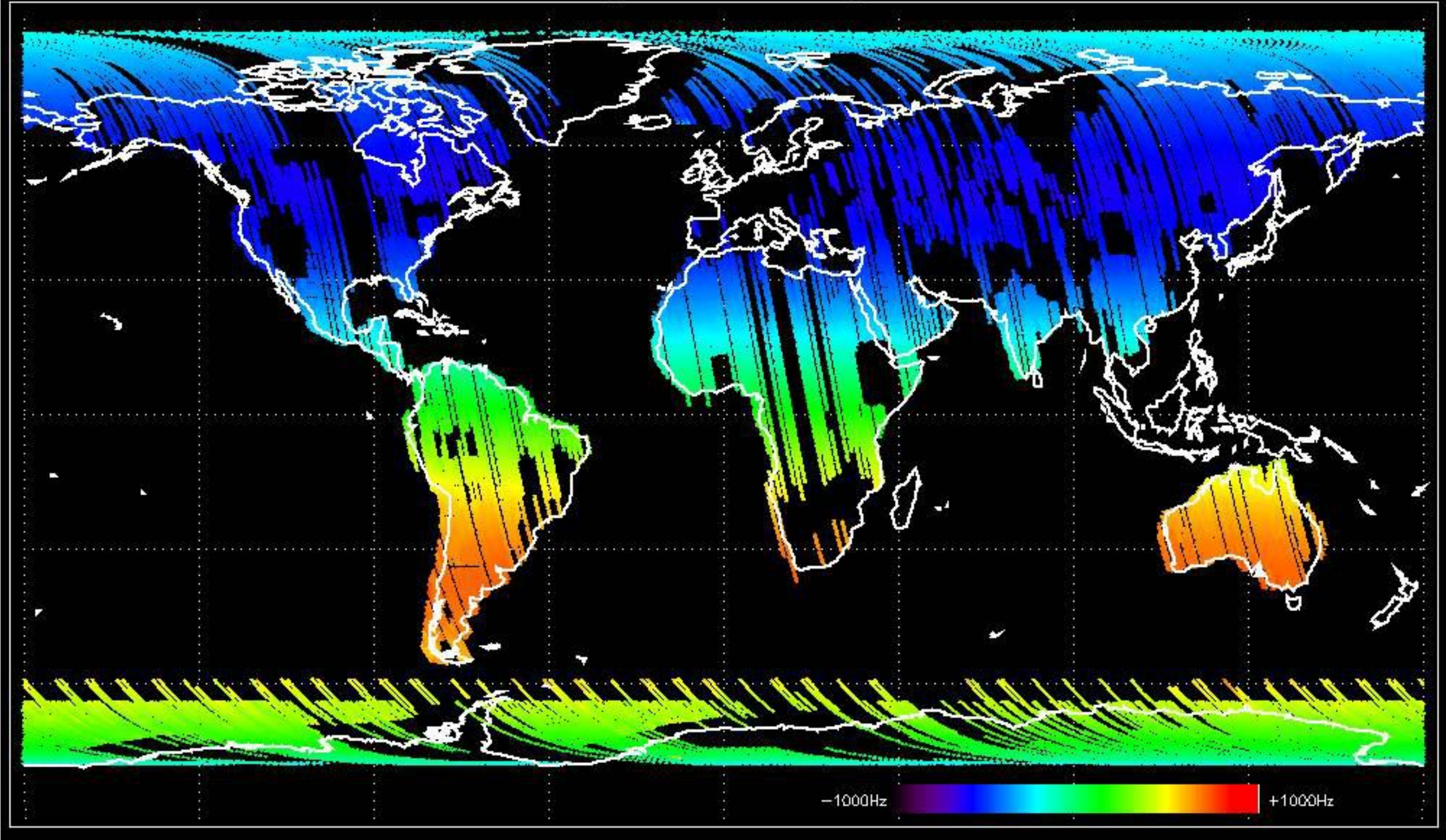
No anomalies observed.



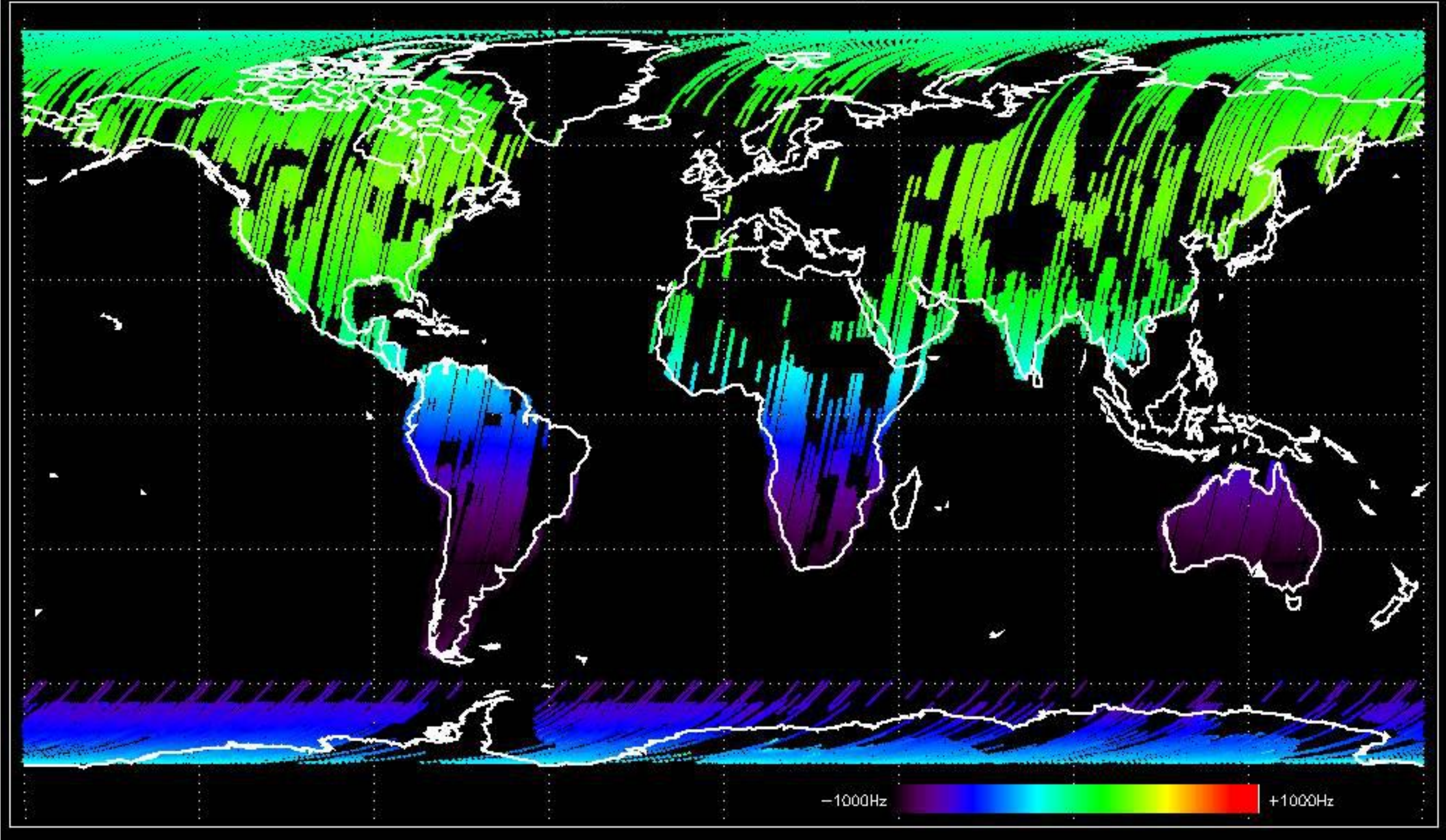


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

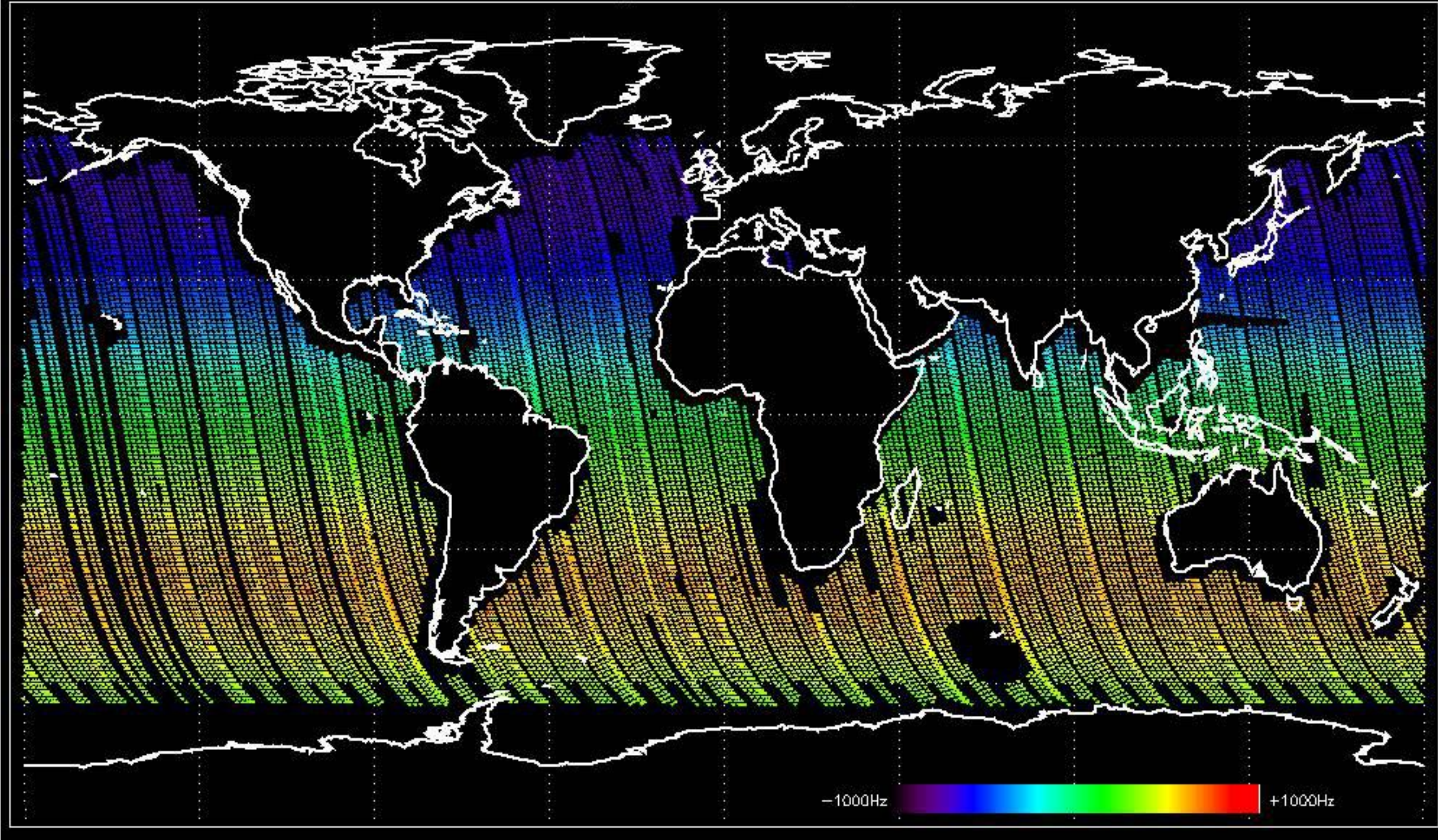
Doppler 'GM1' 'SS1' ascending



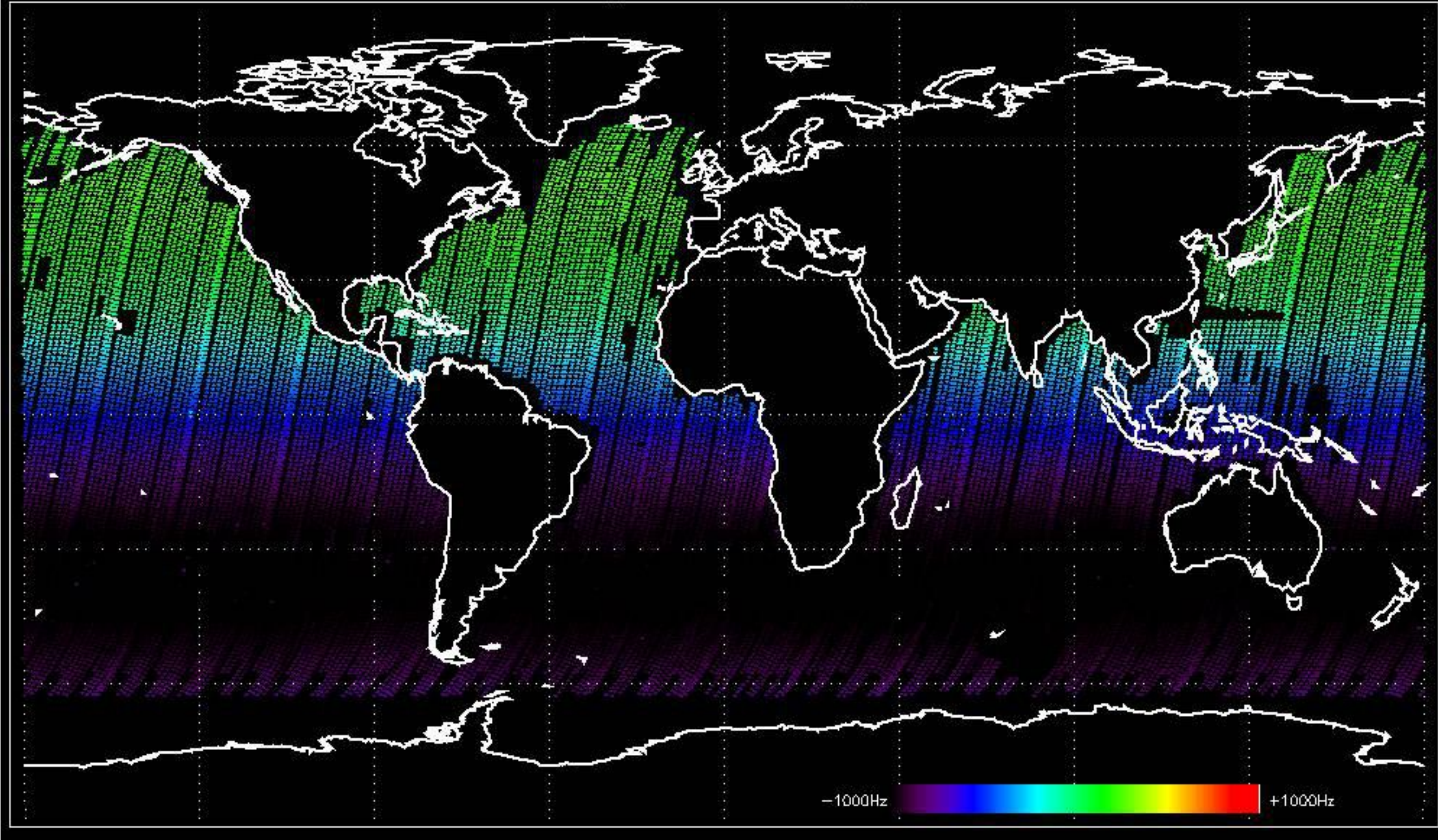
Doppler 'GM1' 'SS1' descending



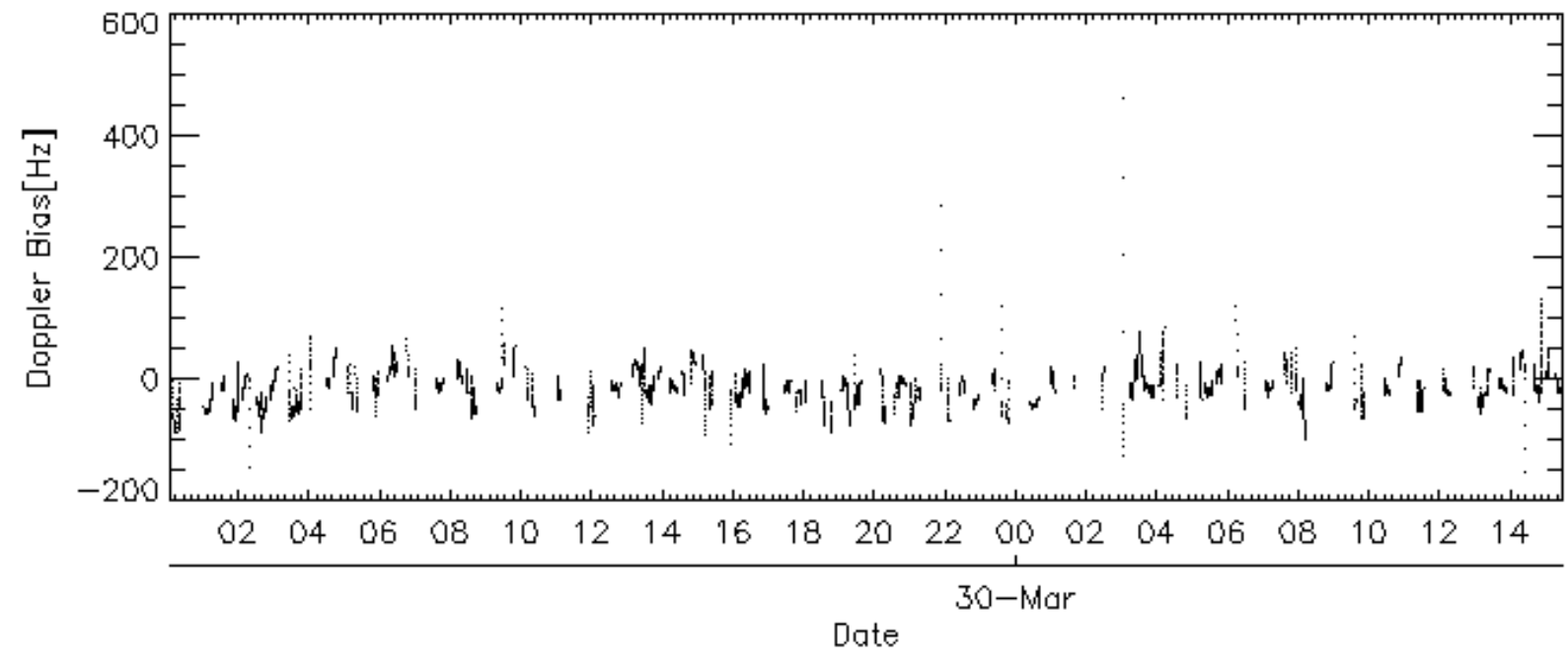
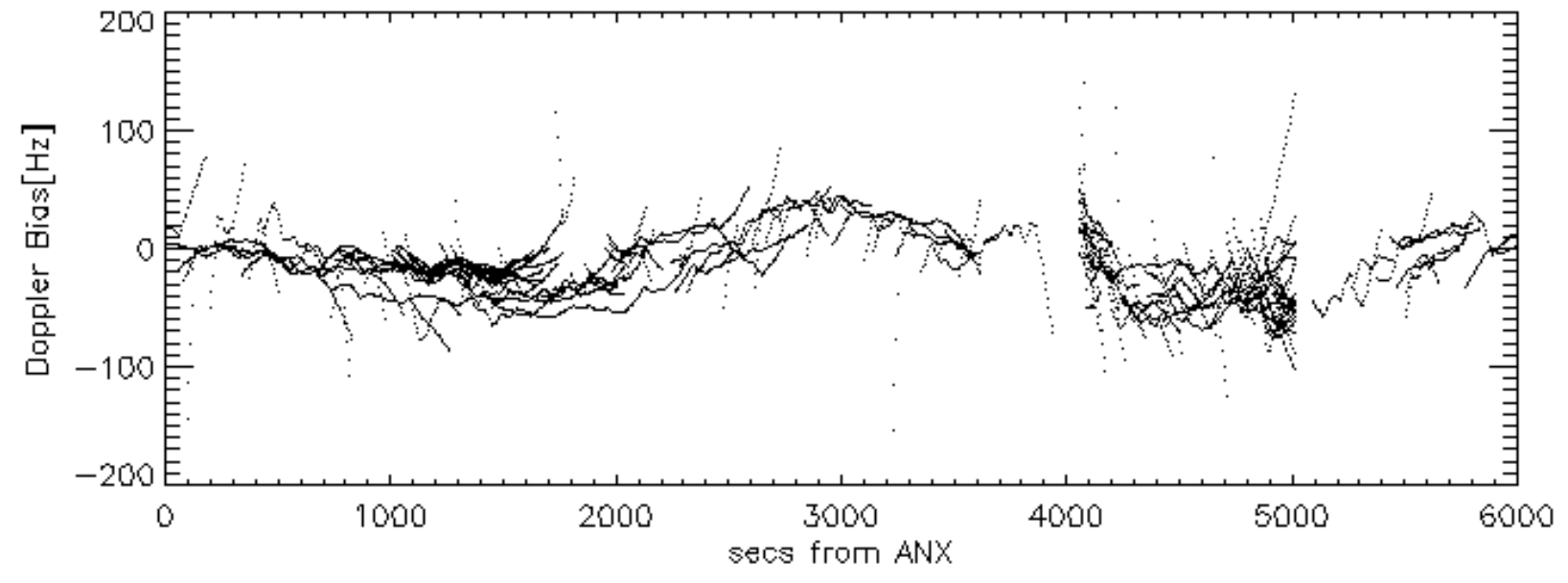
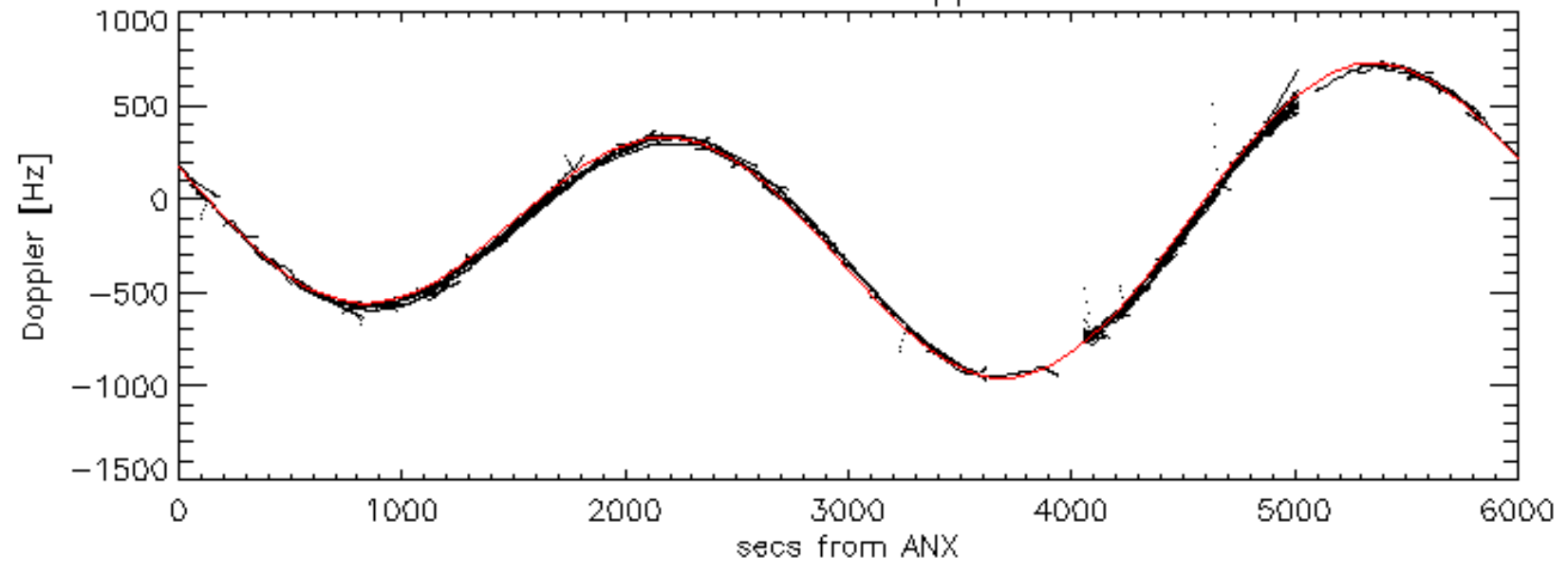
Doppler 'WVS' 'IS2' ascending

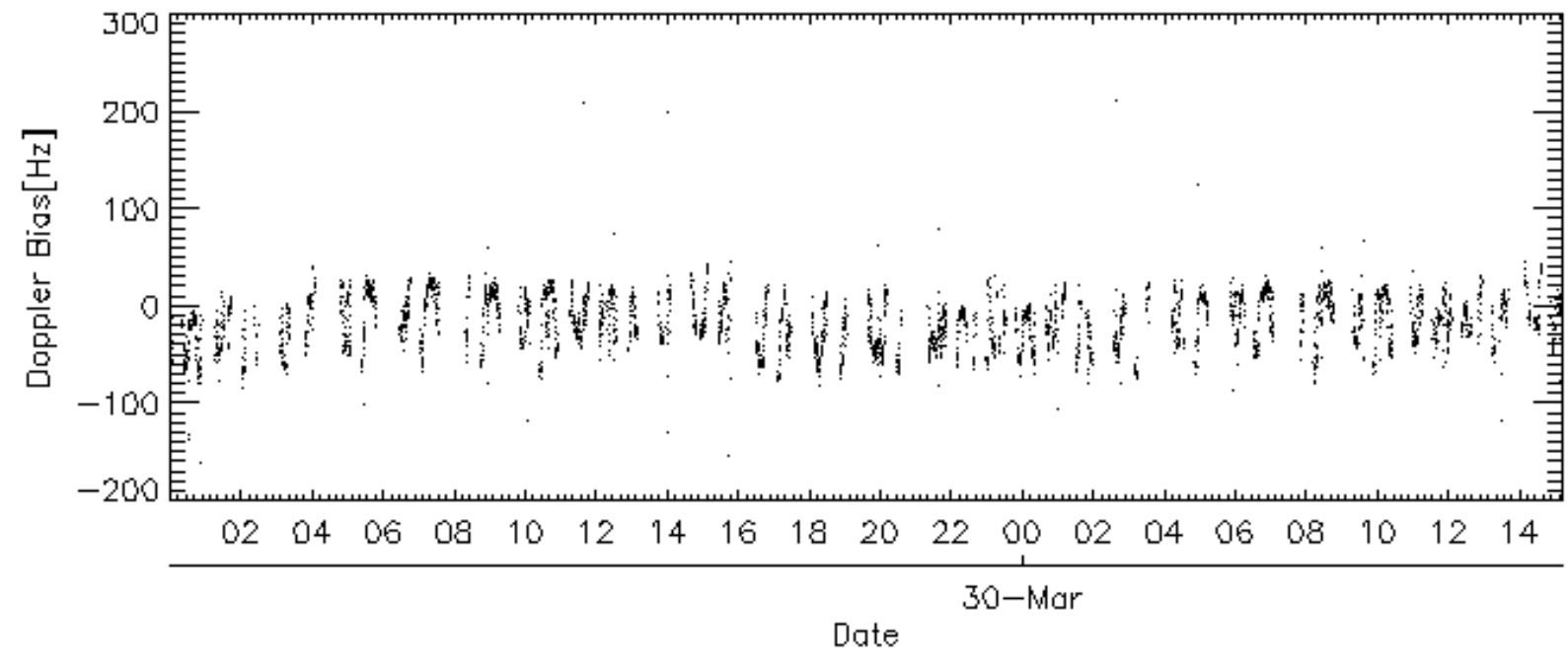
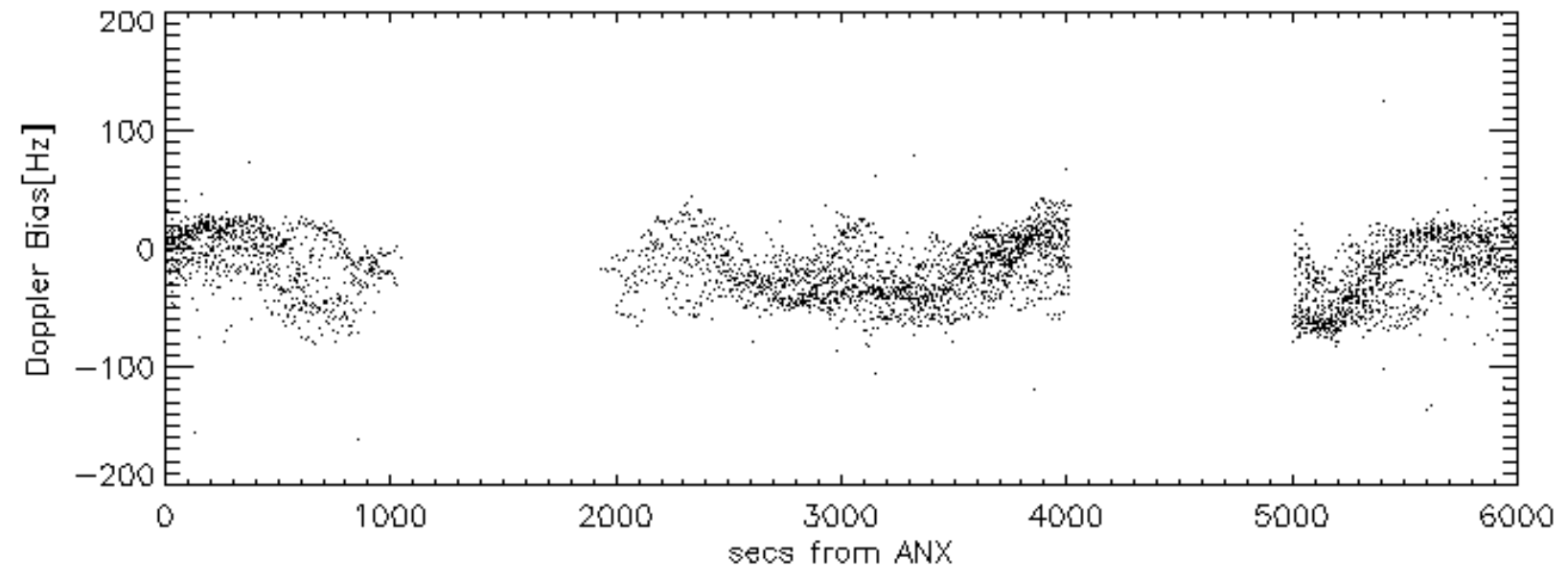
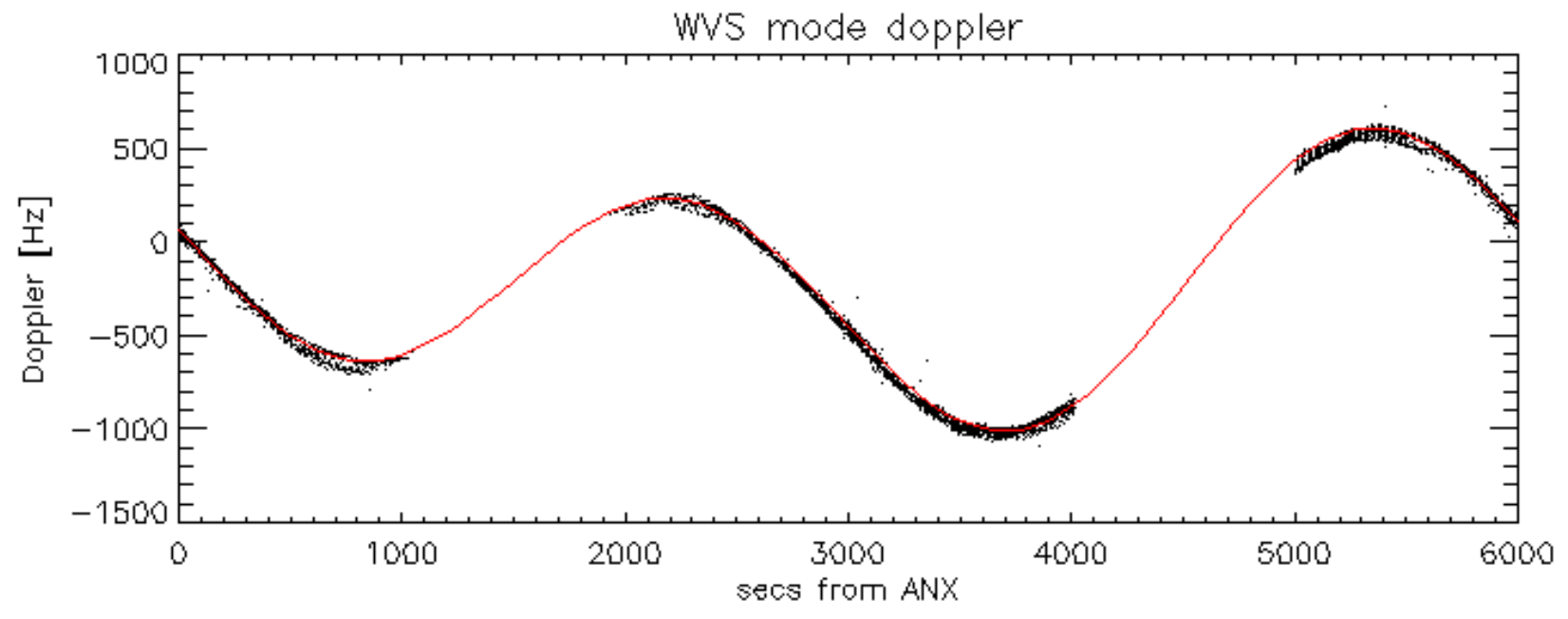


Doppler 'WVS' 'IS2' descending

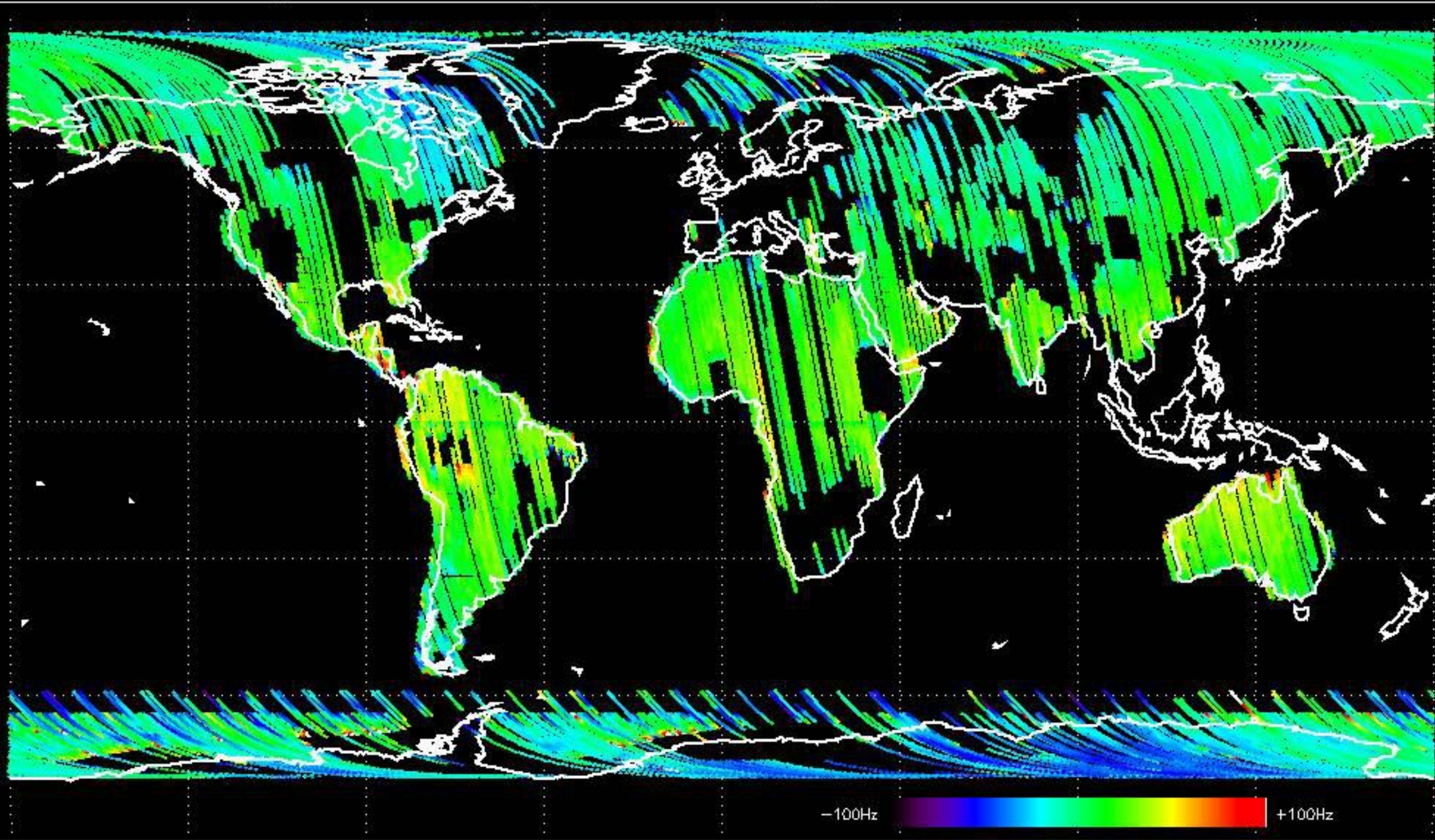


GM1 mode doppler

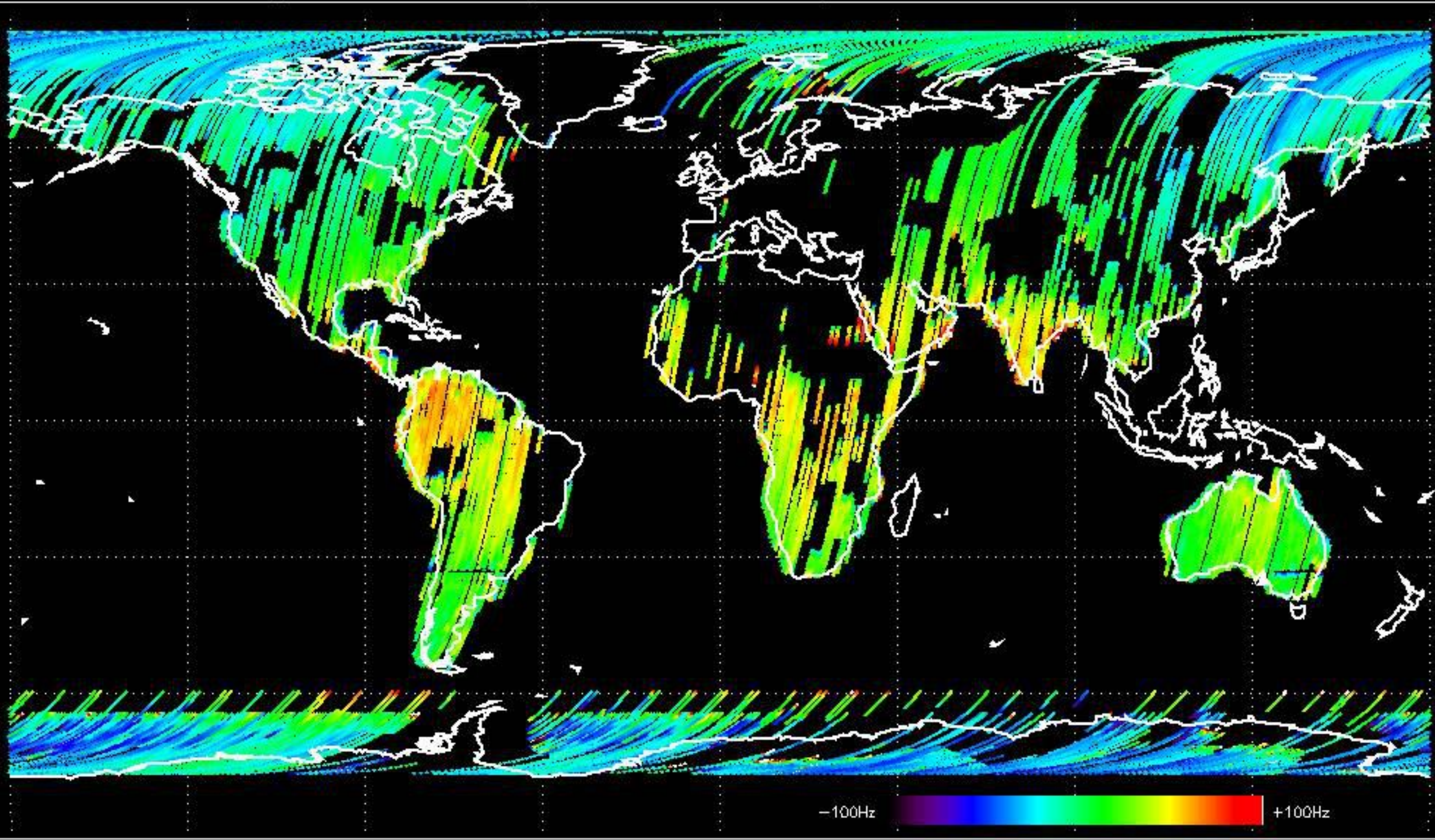




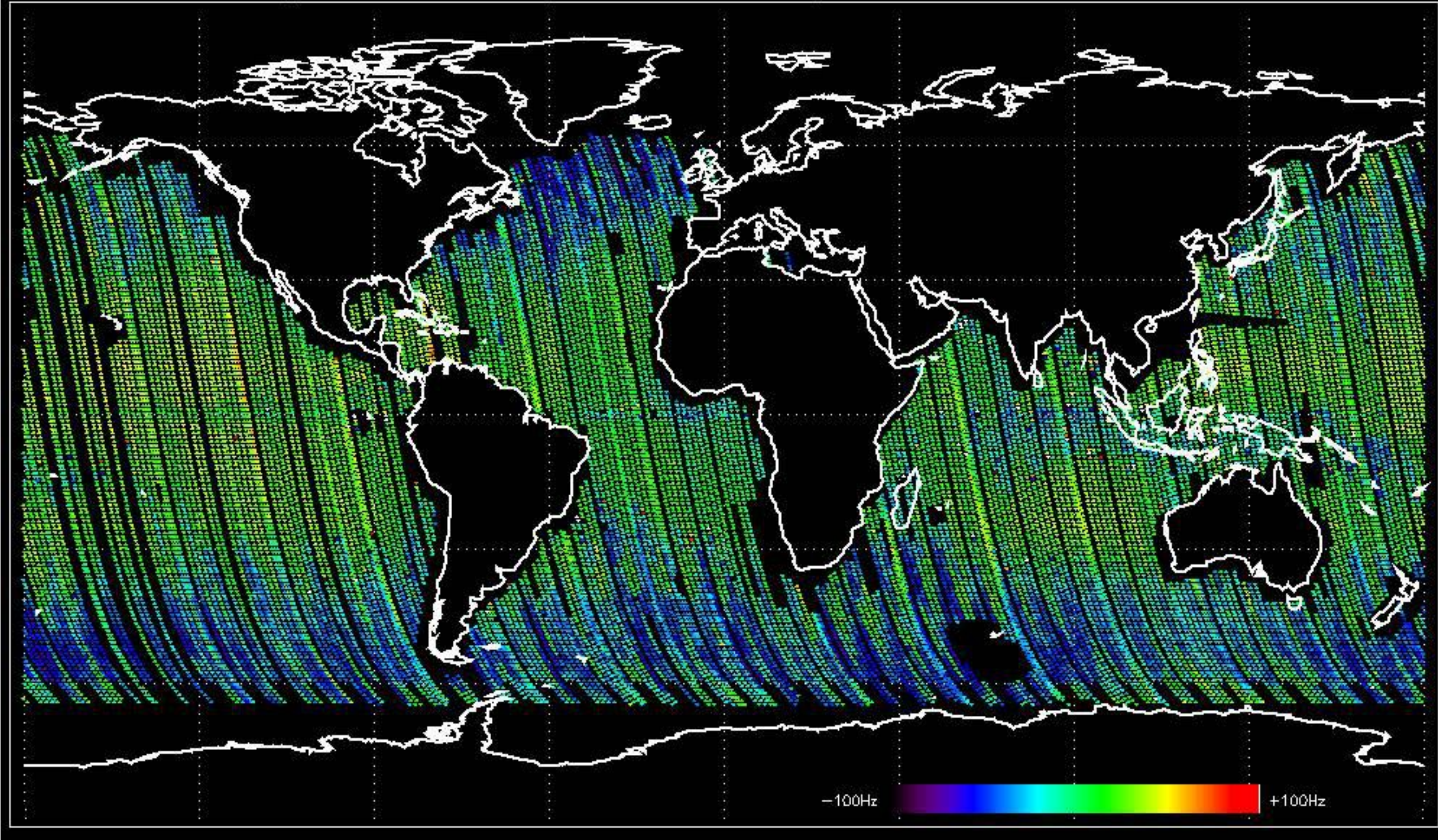
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.909063 Hz



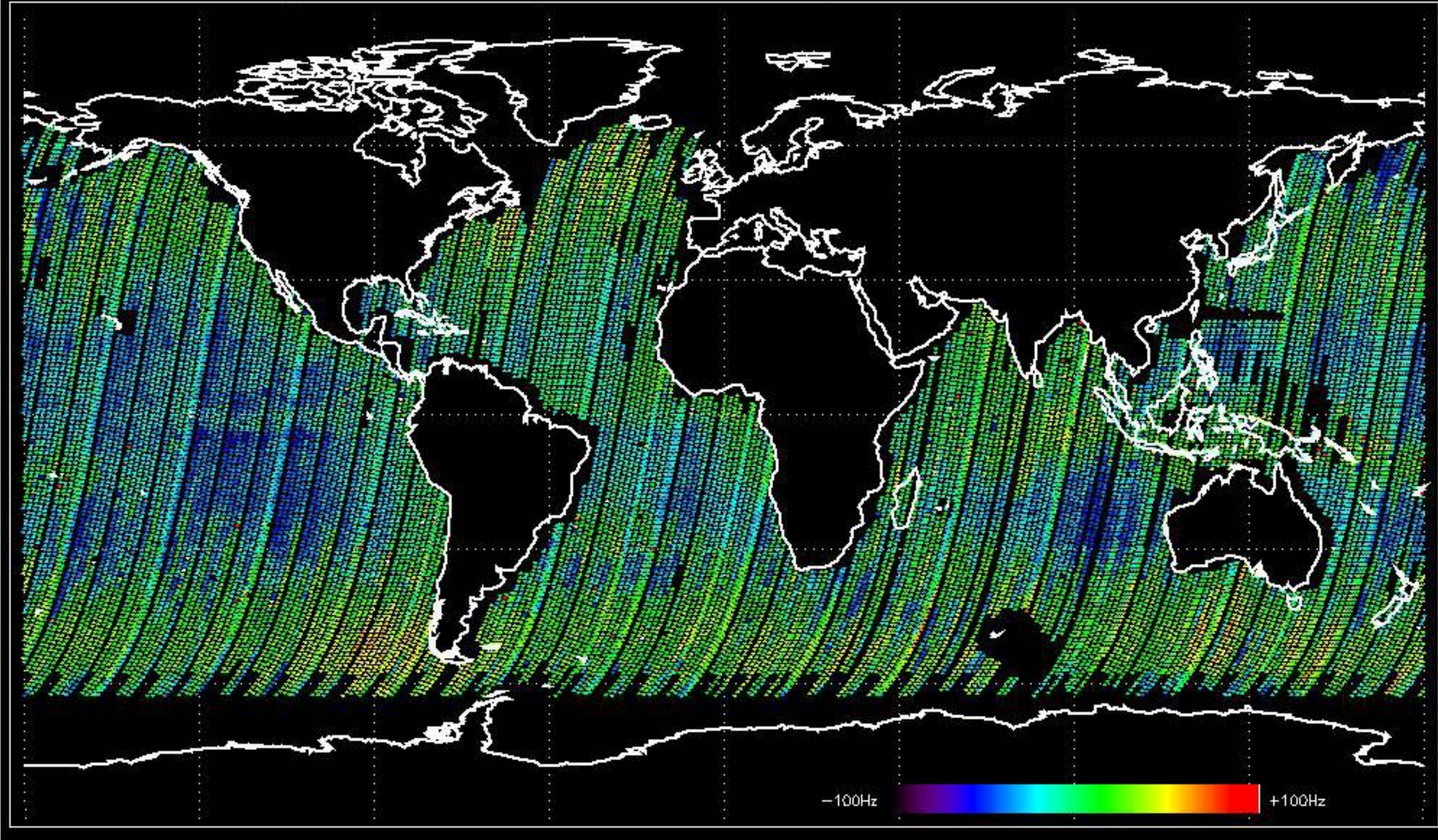
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.929821 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -16.059066 Hz

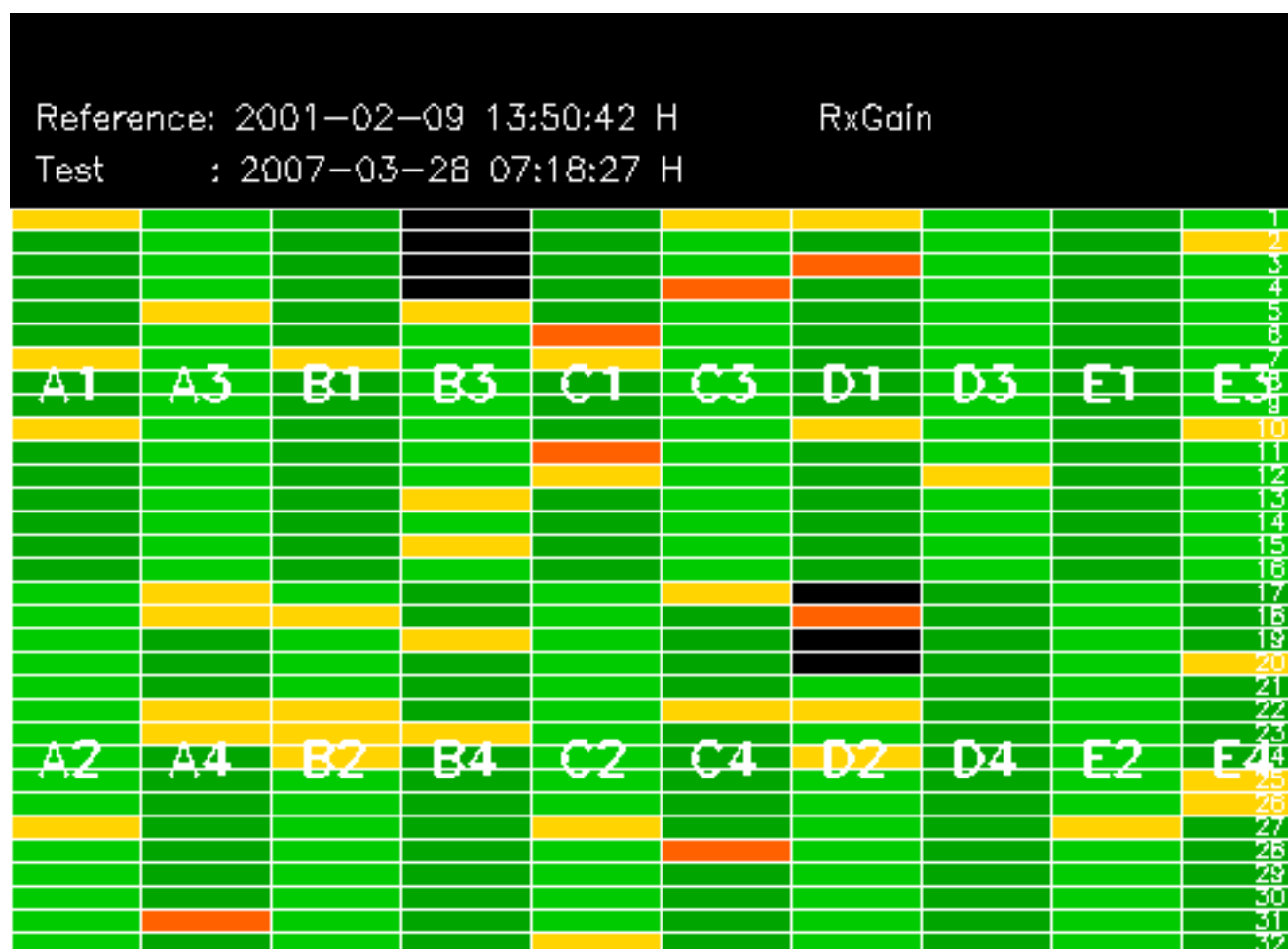


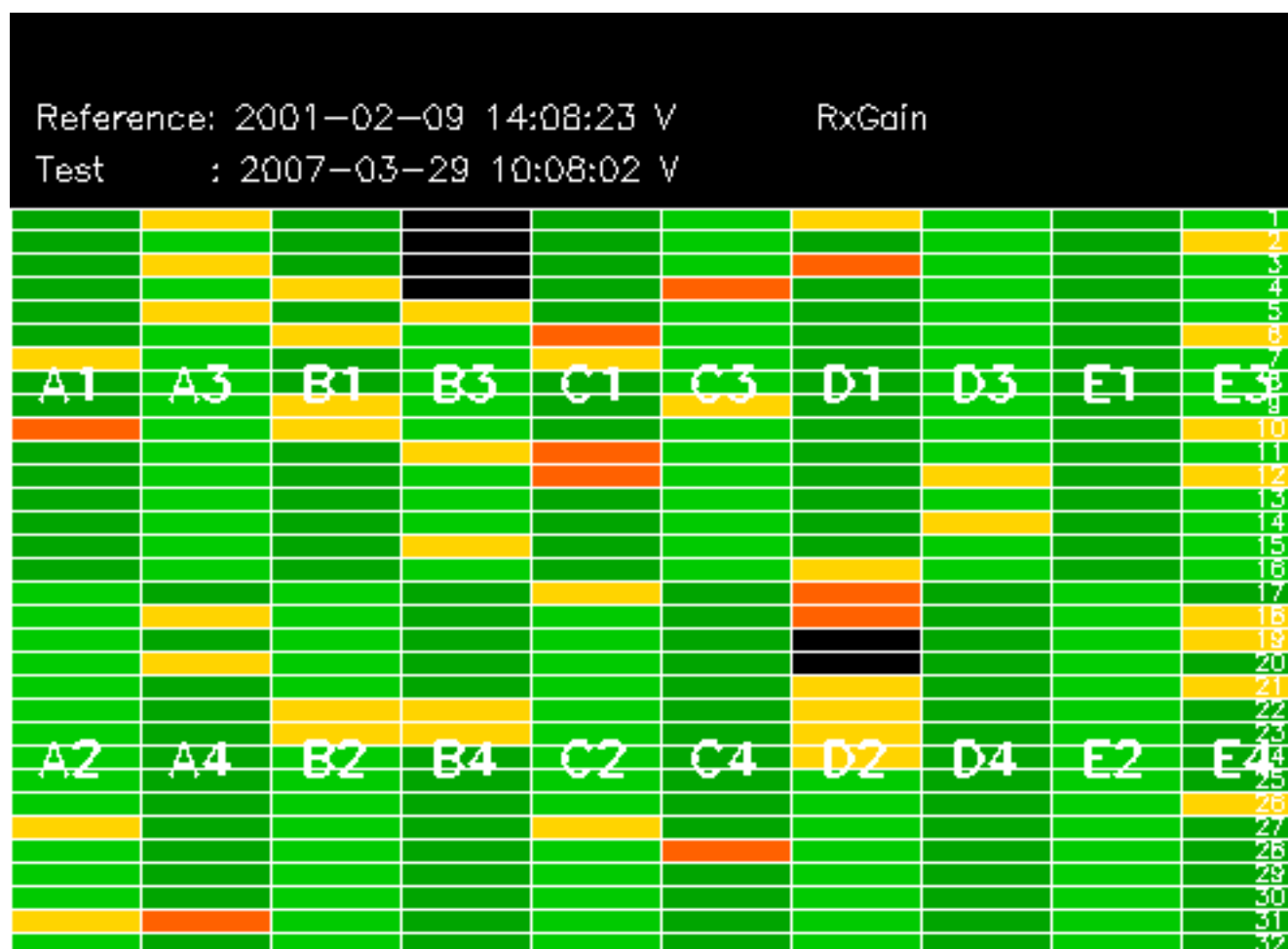
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -15.841632 Hz

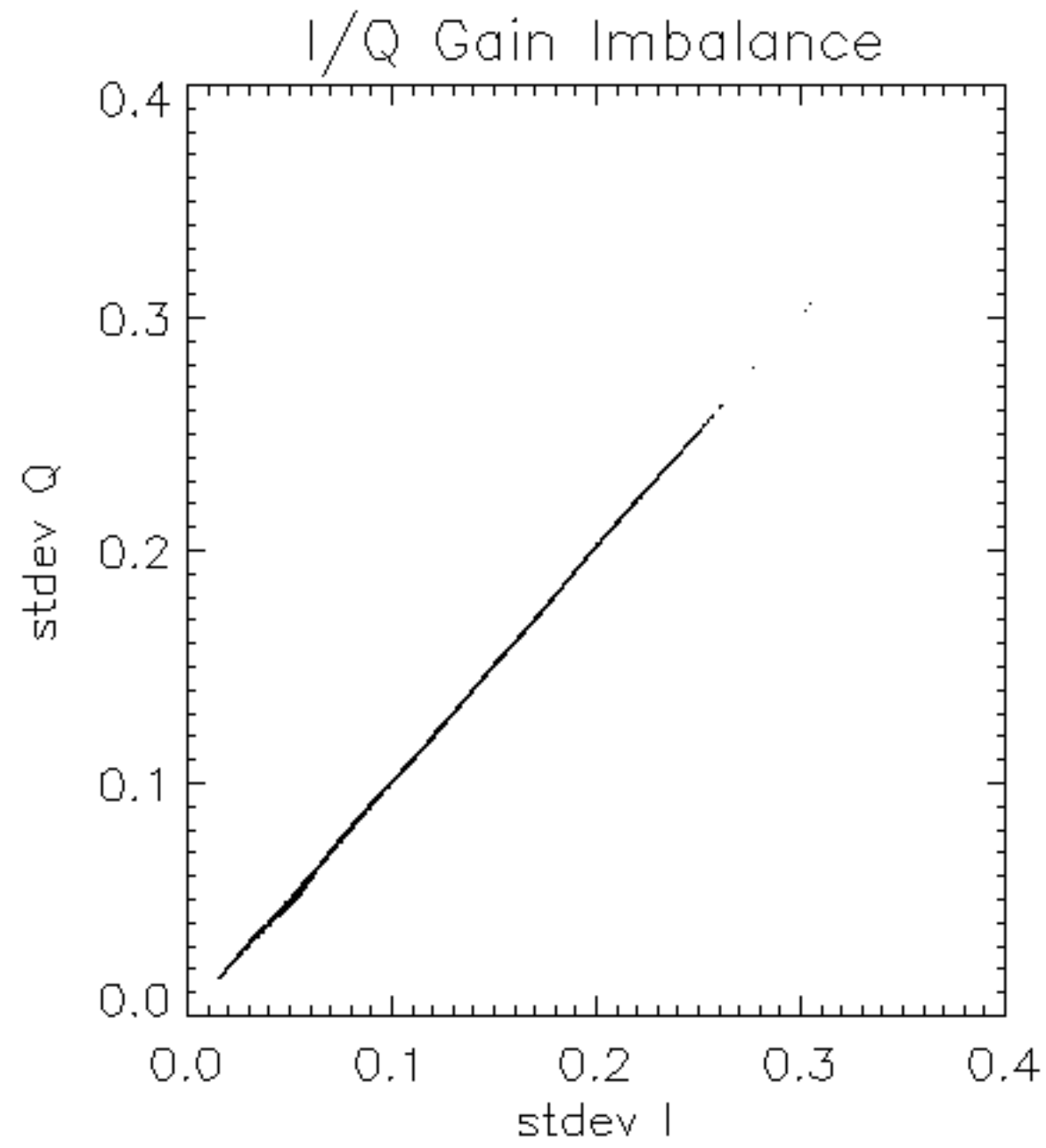


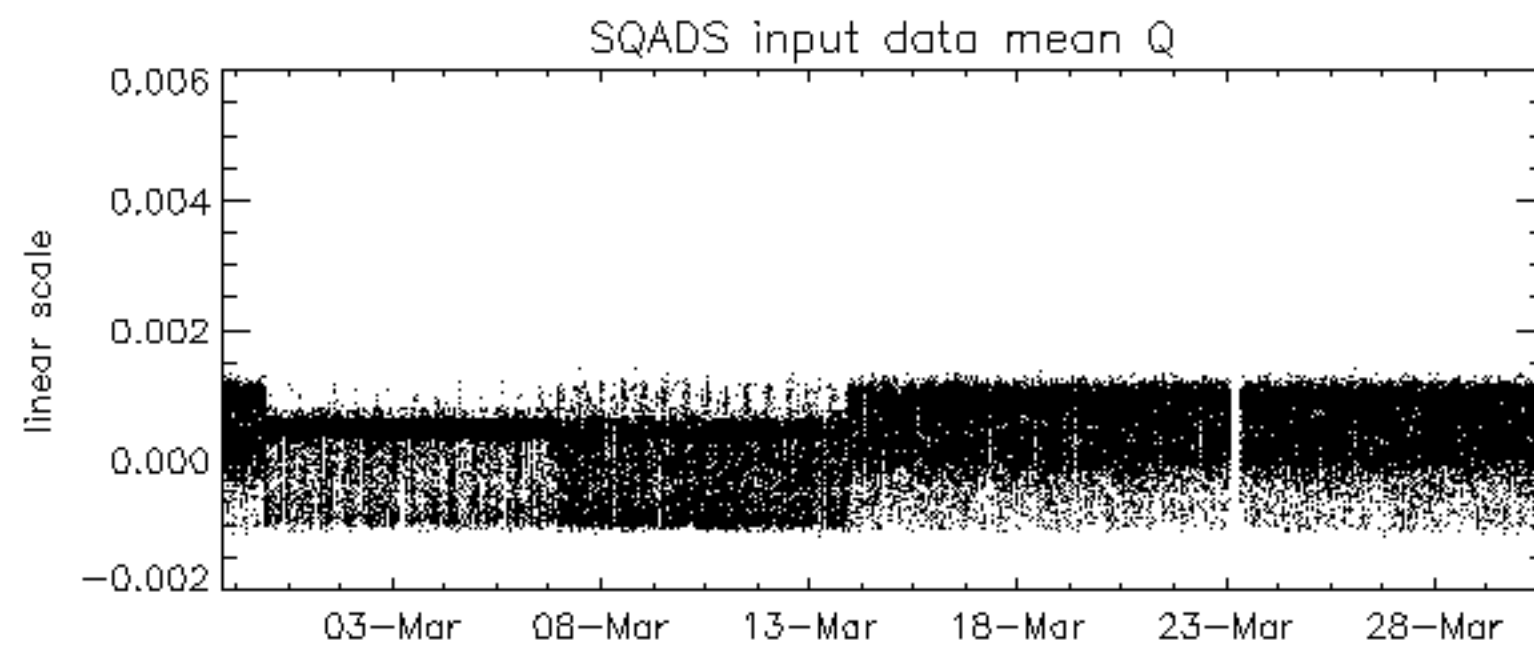
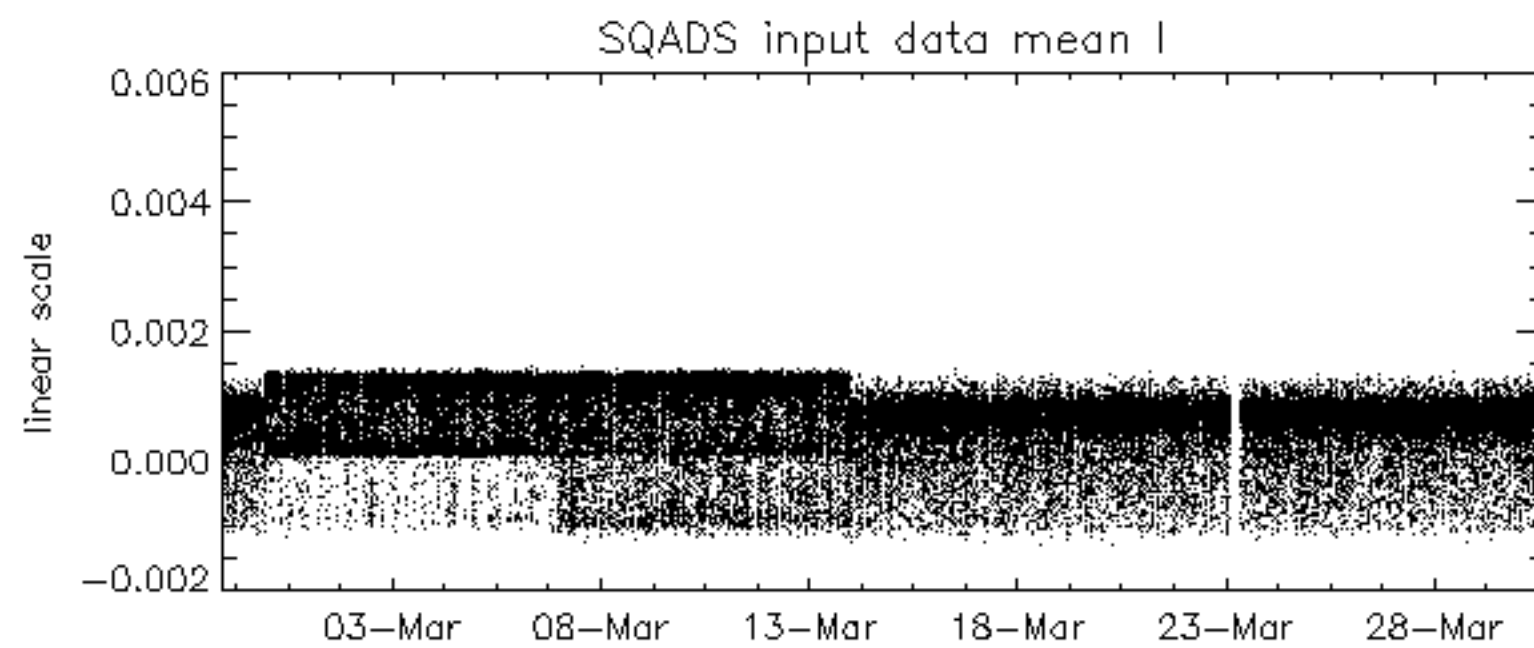
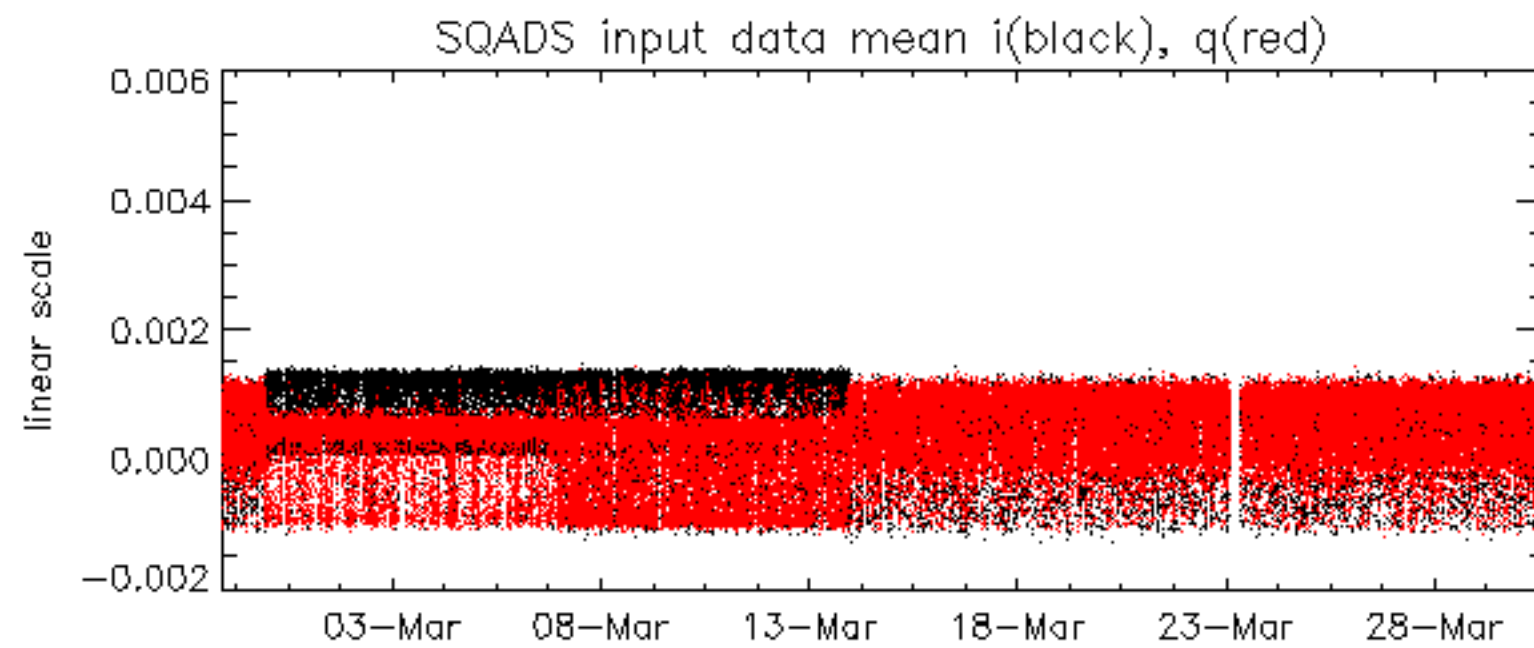
No anomalies observed on available MS products:

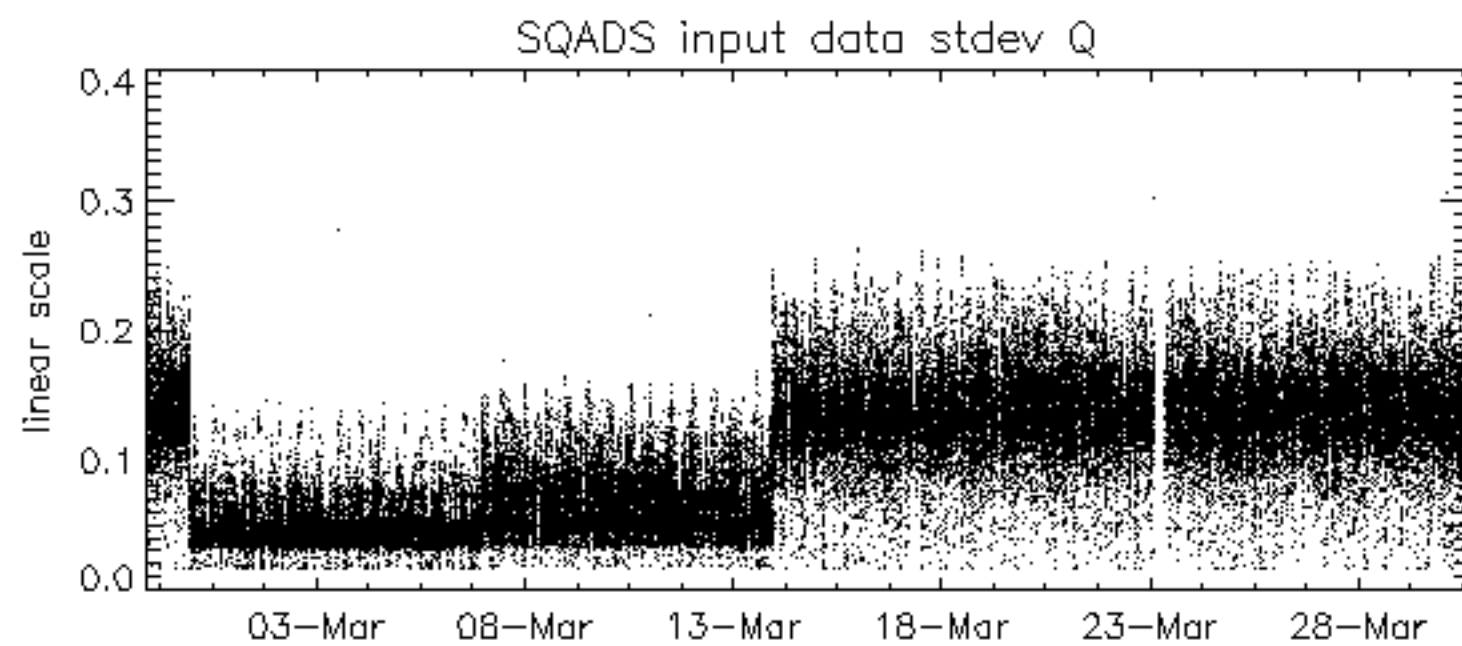
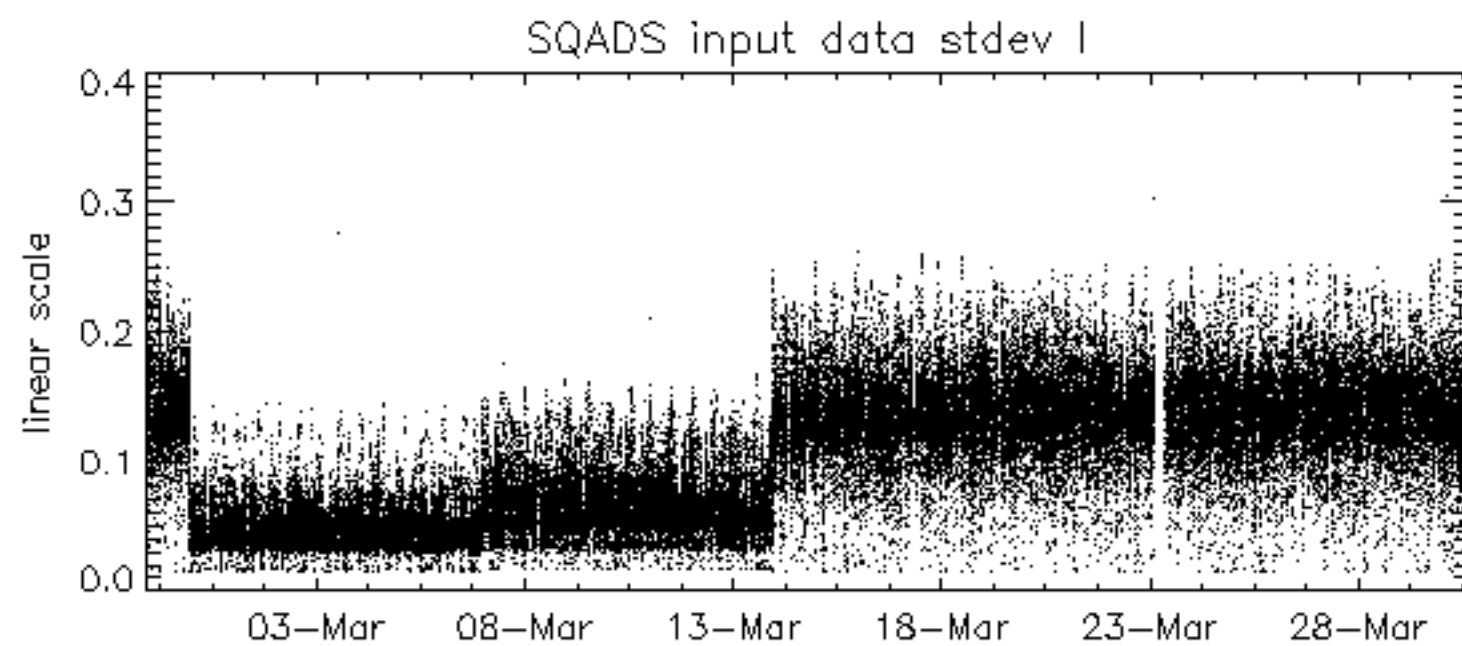
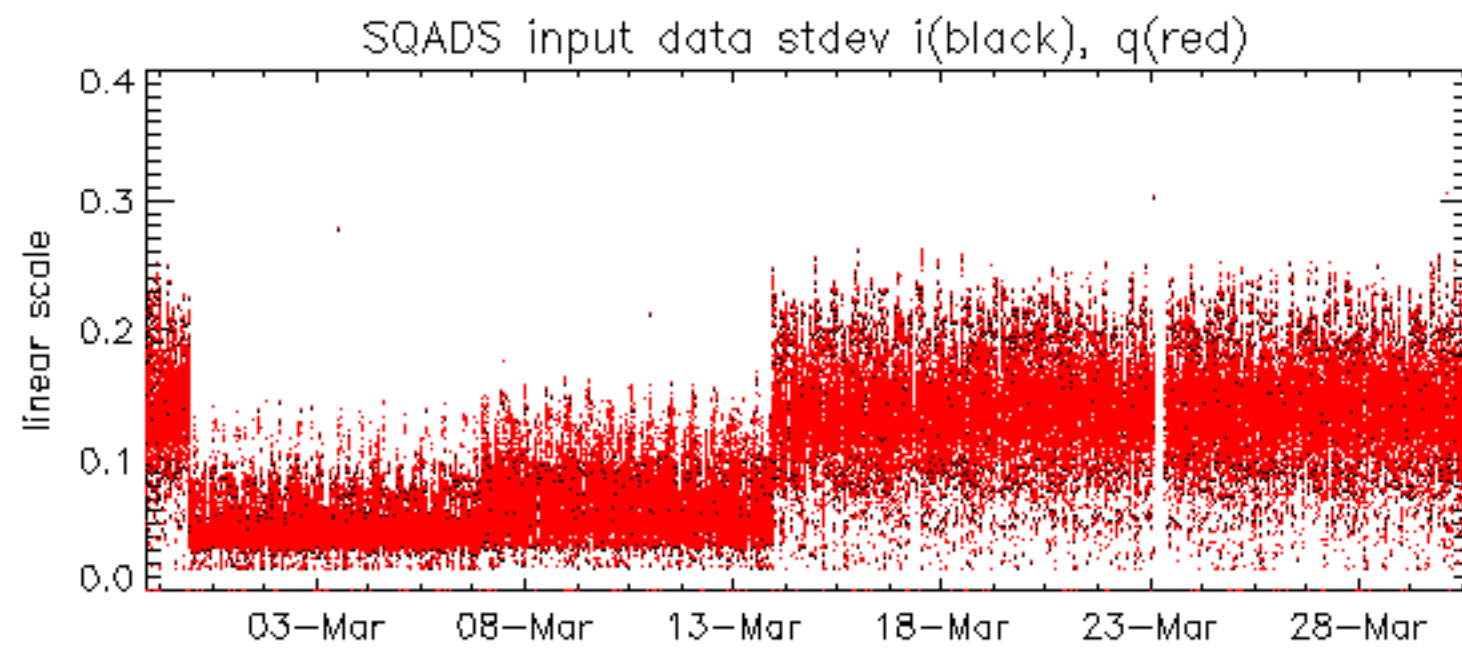
No anomalies observed.







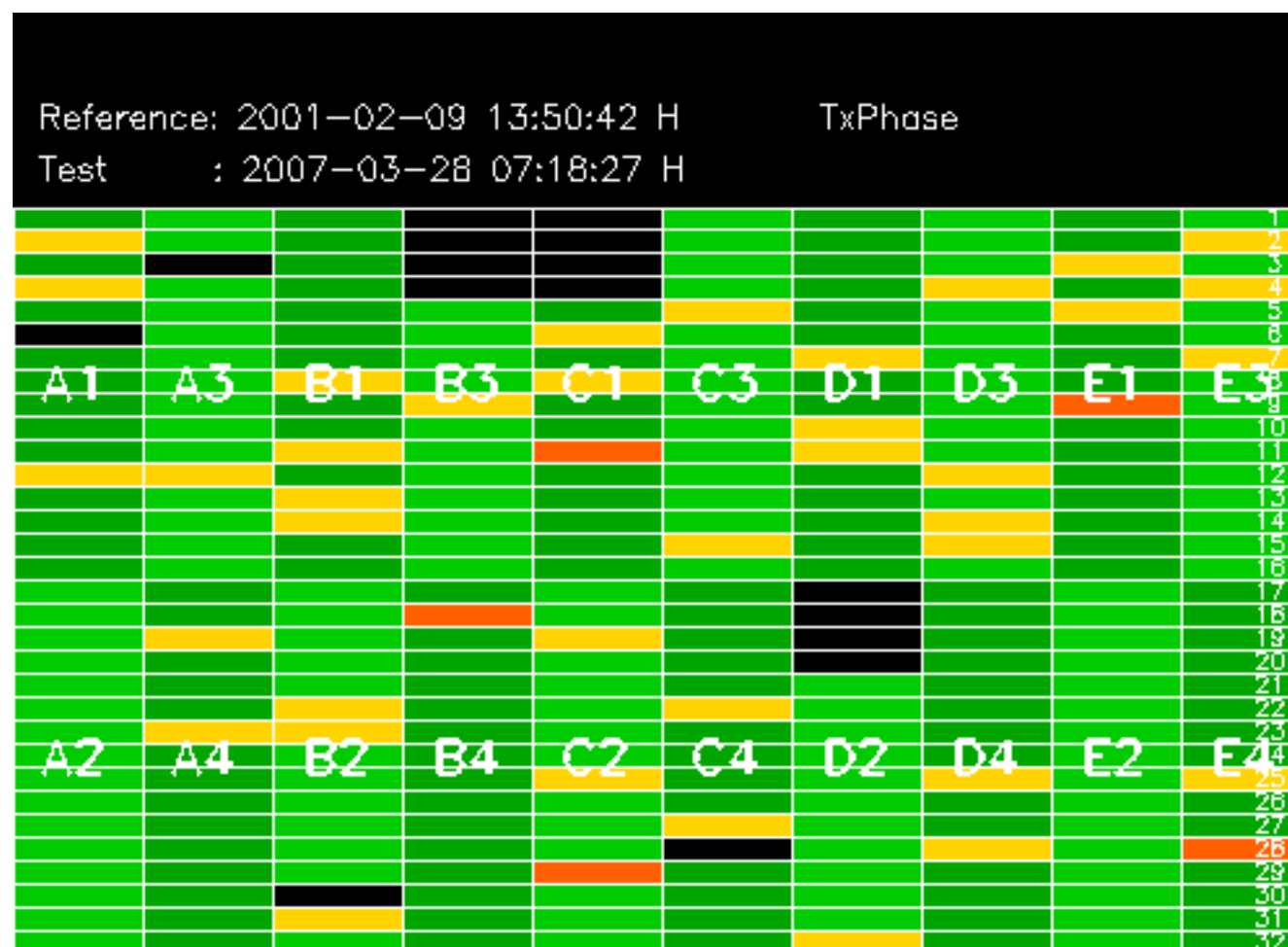


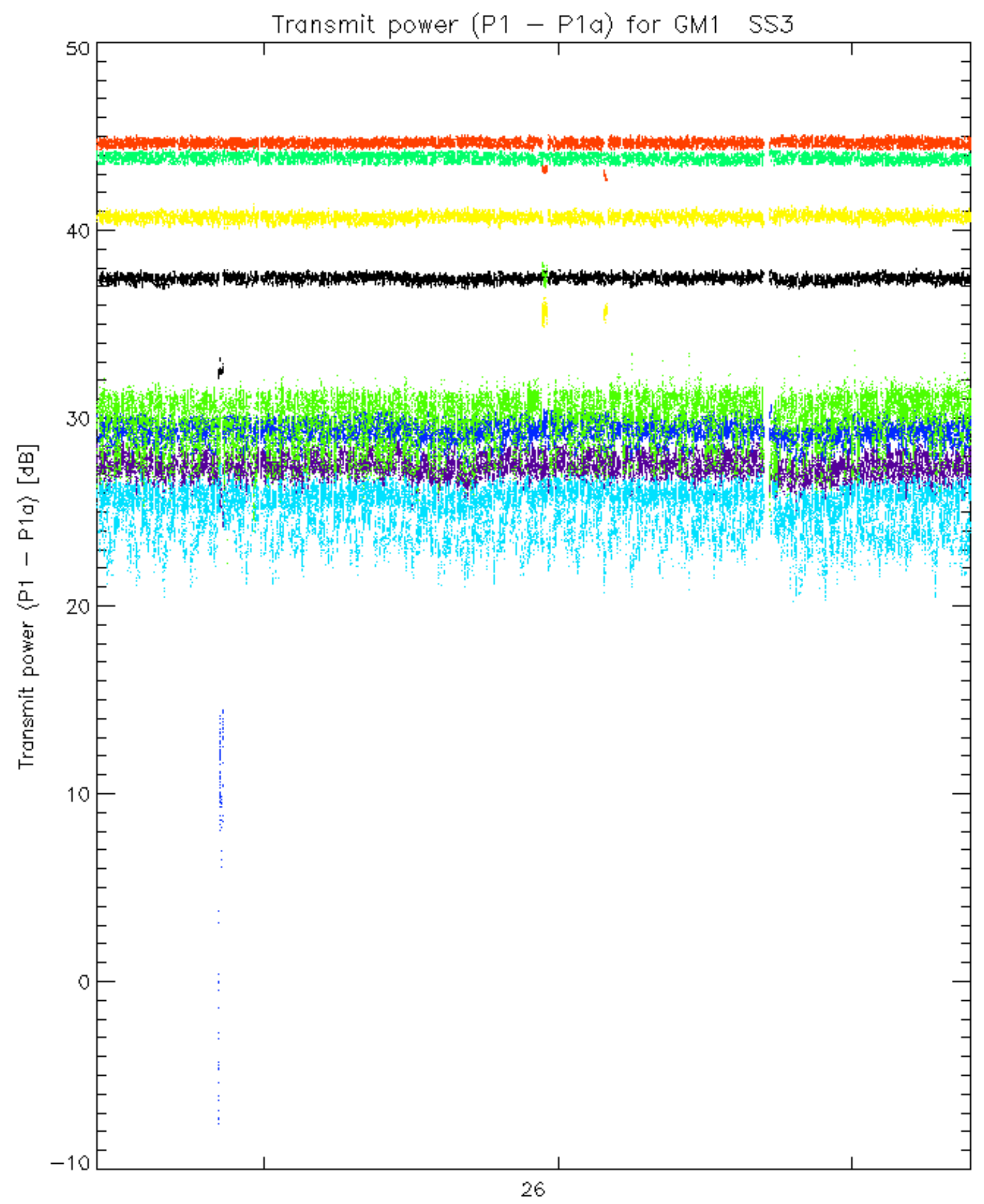


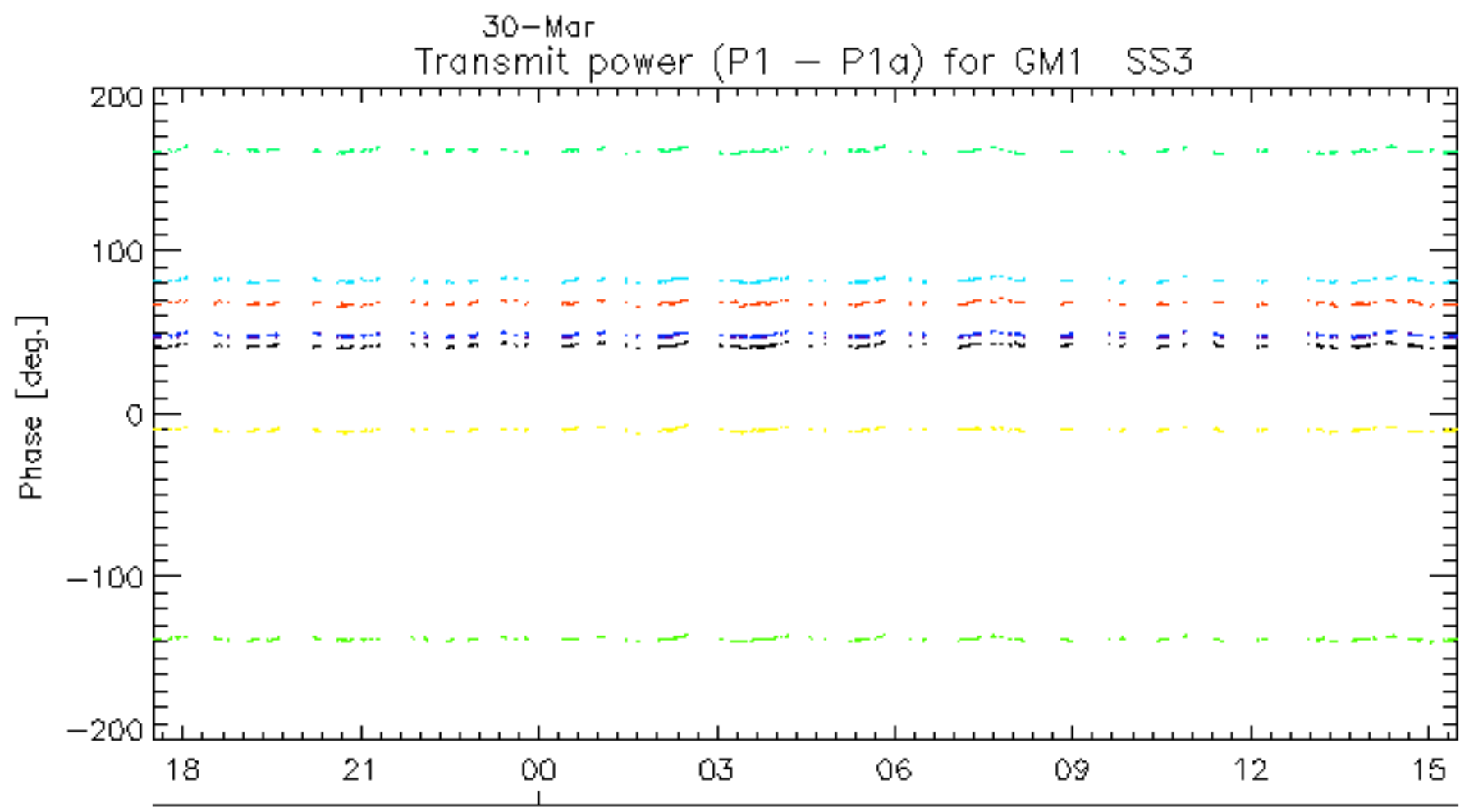
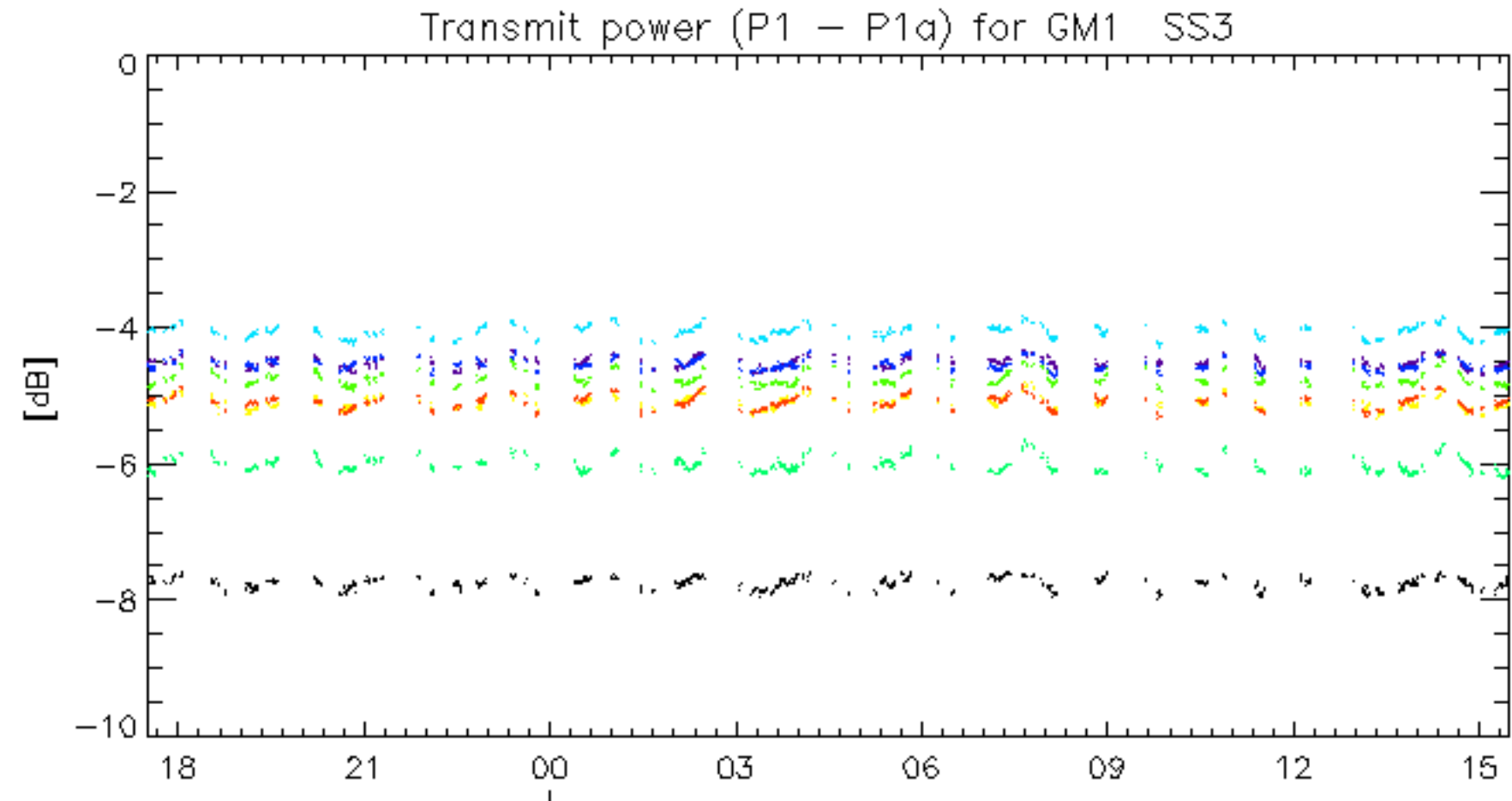
Summary of analysis for the last 3 days 2007032[890]

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

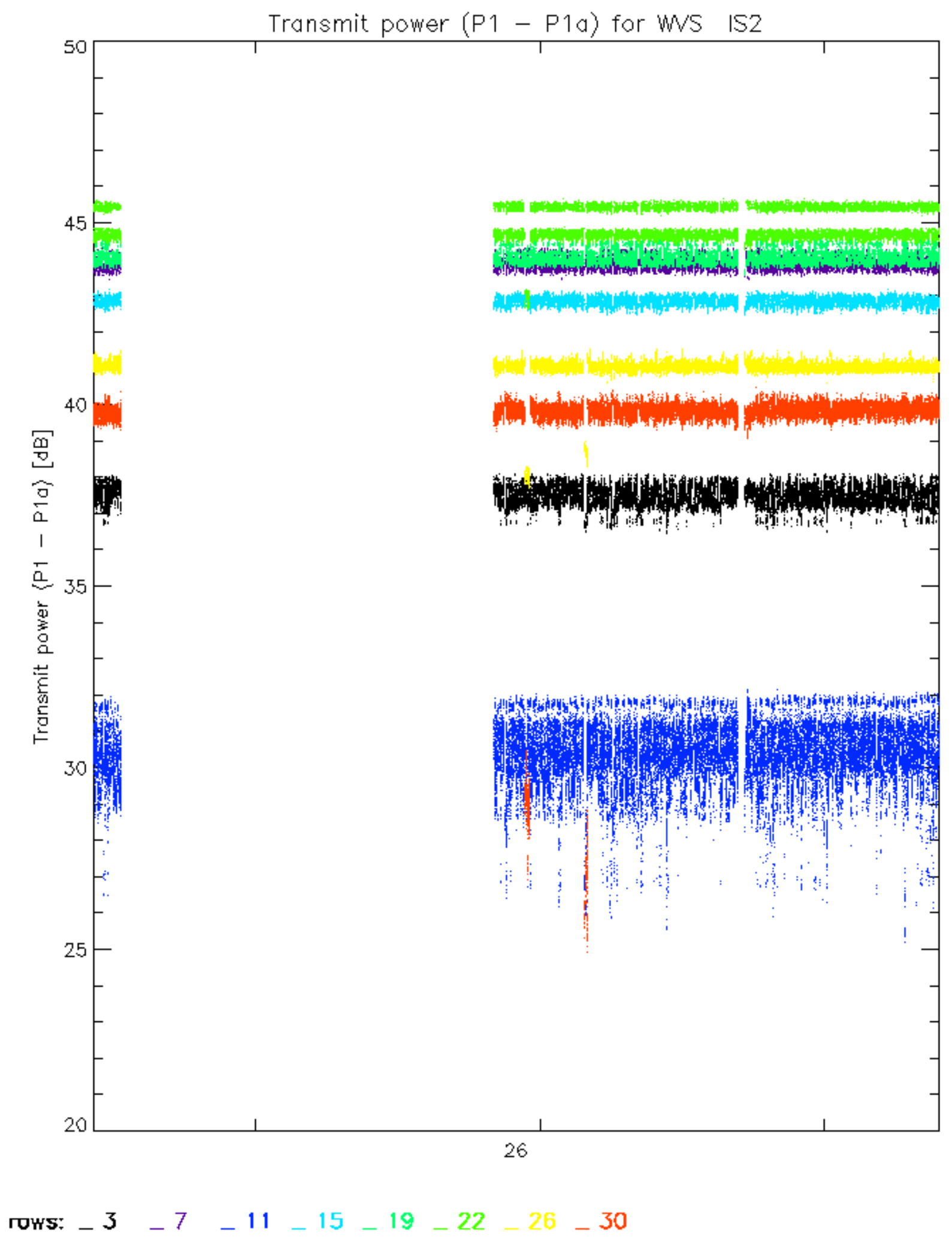
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070320_114001_000002562056_00309_26415_9412.N1	1	52
ASA_IMM_1PNPDE20070328_143307_000000372056_00425_26531_0306.N1	1	0
ASA_IMM_1PNPDK20070320_131732_000000812056_00310_26416_7792.N1	0	5
ASA_IMM_1PNPDK20070320_135505_000000602056_00311_26417_7788.N1	0	24
ASA_IMM_1PNPDK20070320_135505_000000792056_00311_26417_7798.N1	0	24
ASA_WVS_1PNPDK20070329_111415_000000602056_00438_26544_8744.N1	0	16
ASA_GM1_1PNPDK20070328_172929_000005192056_00427_26533_7340.N1	0	7
ASA_WSM_1PNPDE20070320_010734_000000852056_00303_26409_8706.N1	0	32
ASA_WSM_1PNPDE20070328_001649_000002022056_00417_26523_9211.N1	0	26
ASA_WSM_1PNPDE20070328_234612_000002022056_00431_26537_0915.N1	0	27
ASA_WSM_1PNPDE20070329_022250_000000862056_00433_26539_1185.N1	0	44
ASA_WSM_1PNPDK20070320_123133_000003062056_00310_26416_7660.N1	0	17
ASA_WSM_1PNPDK20070320_135308_000000852056_00311_26417_7800.N1	0	21
ASA_WSM_1PNPDK20070329_140622_000000862056_00440_26546_8981.N1	0	15
ASA_APM_1PNPDE20070320_021347_000000402056_00304_26410_8728.N1	14	0
ASA_APM_1PNPDK20070320_084923_000000402056_00308_26414_7265.N1	15	257

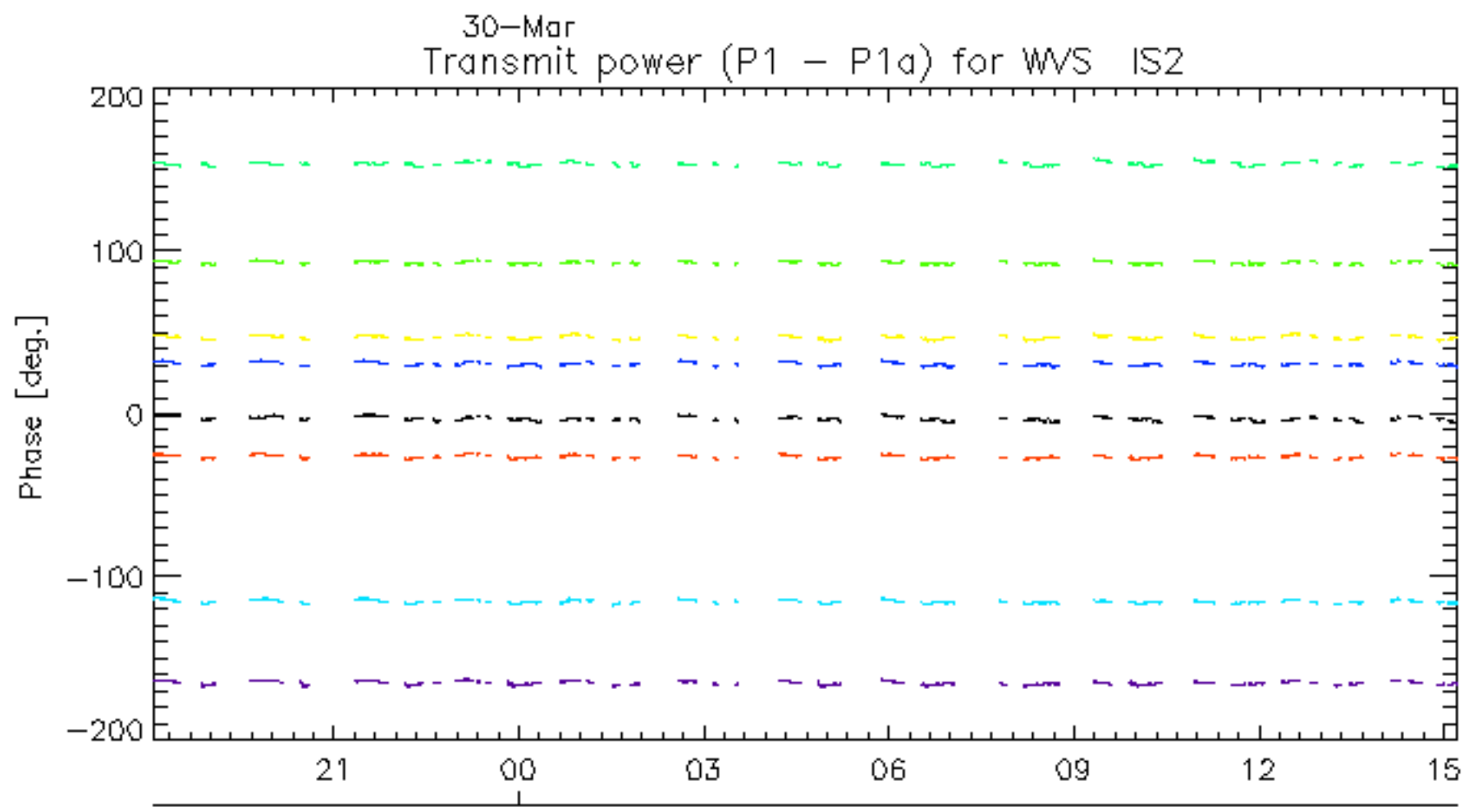
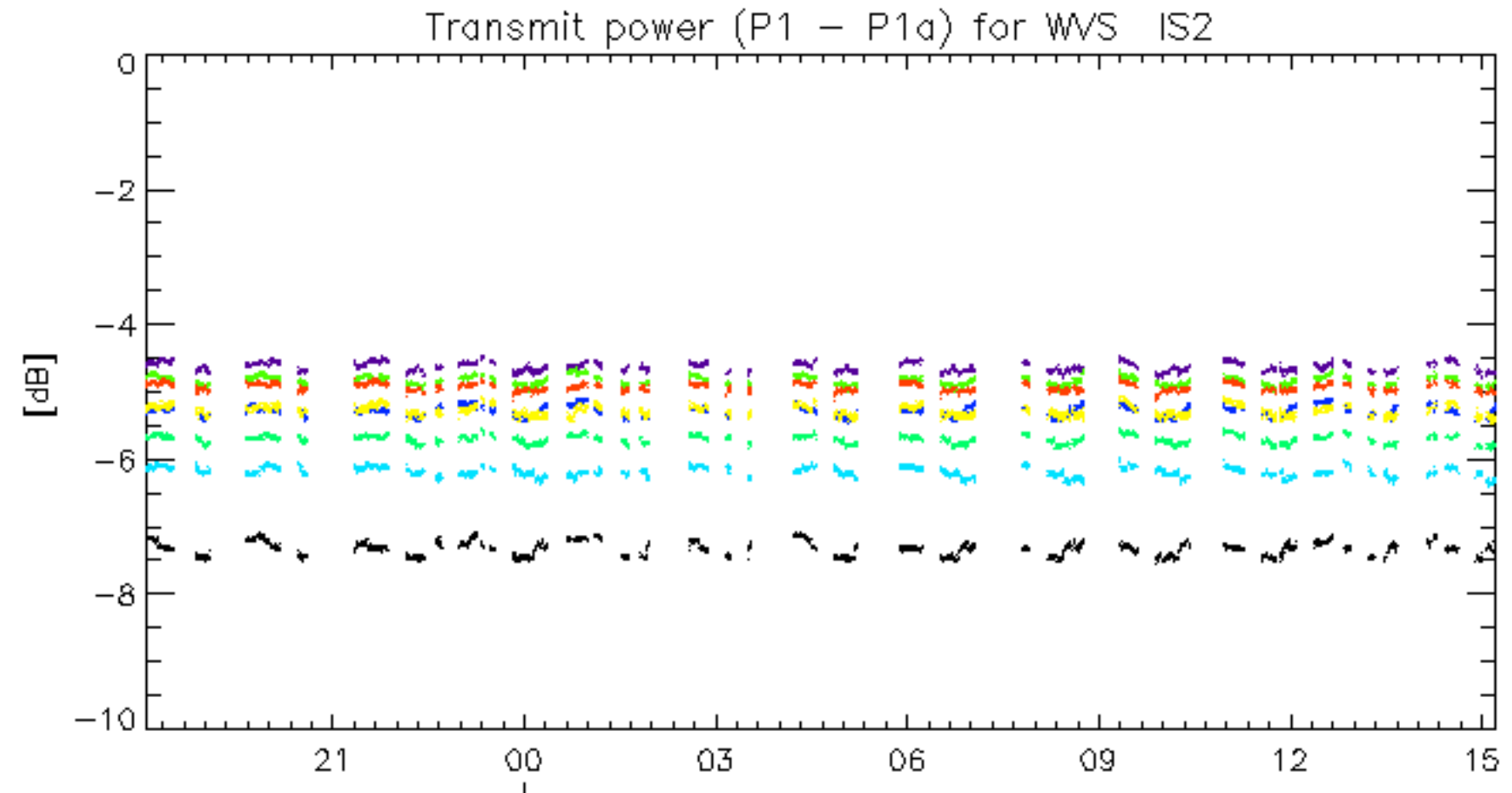






rows: **3** **7** **11** **15** **19** **22** **26** **30**





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

No unavailabilities during the reported period.