

PRELIMINARY REPORT OF 070331

last update on Sat Mar 31 18:02:09 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 2007-03-30 00:00:00 to 2007-03-31 18:02:09

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	36	67	0	0	19
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	46	86	0	1	23
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	46	86	0	1	23
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	10	19	0	1	4
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	86	0	1	23

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	24	34	51	8	23
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	39	57	70	12	33
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	39	57	70	12	33
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	15	23	19	4	10
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	57	70	12	33

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
<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

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-15.100194	0.129103	0.079279
7	P1a	-17.493683	0.101026	-0.131435
11	P1a	-17.269217	0.347270	-0.008153
15	P1a	-12.892531	0.088648	-0.036558
19	P1a	-15.175054	0.078368	-0.094088
22	P1a	-15.551291	0.544011	-0.559284
26	P1a	-15.095365	0.401568	-0.175278
30	P1a	-17.431705	0.292659	-0.302693

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.746859	0.010570	-0.029730
7	P1	-3.137218	0.008492	-0.017408
11	P1	-4.175985	0.014731	-0.064310
15	P1	-6.374773	0.016673	0.010250
19	P1	-3.776875	0.007560	-0.022183
22	P1	-4.690094	0.040939	-0.122904
26	P1	-3.928624	0.035581	-0.032134
30	P1	-5.929299	0.060928	-0.124448

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.644850	0.093423	0.021488
7	P2	-21.599485	0.082936	0.046821
11	P2	-15.486353	0.102654	0.171890
15	P2	-7.084737	0.094190	-0.054654
19	P2	-9.108693	0.083517	-0.013311
22	P2	-18.092459	0.078447	0.021822
26	P2	-16.563425	0.086051	-0.057876
30	P2	-19.314922	0.082065	0.087583

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.233905	0.006404	0.003322
7	P3	-8.233905	0.006404	0.003322
11	P3	-8.233905	0.006404	0.003322
15	P3	-8.233905	0.006404	0.003322
19	P3	-8.233905	0.006404	0.003322
22	P3	-8.233905	0.006404	0.003322
26	P3	-8.233844	0.006405	0.003489
30	P3	-8.233844	0.006405	0.003489

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	-11.100298	0.052246	-0.077650
7	P1a	-10.069886	0.127021	0.000083
11	P1a	-10.681307	0.061883	-0.022285
15	P1a	-10.930254	0.145013	0.112471
19	P1a	-15.723845	0.072059	-0.137494
22	P1a	-20.937922	1.499334	-0.271659
26	P1a	-15.275941	0.327868	-0.173766
30	P1a	-18.375111	0.673804	0.025573

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.414142	0.037844	-0.040807
7	P1	-2.424900	0.020985	0.002727
11	P1	-2.919245	0.018759	0.019278
15	P1	-3.846508	0.038652	0.005333
19	P1	-3.565444	0.011265	-0.039682
22	P1	-5.027285	0.031454	0.049824

26	P1	-5.964672	0.049795	-0.086358
30	P1	-5.279627	0.030500	-0.044082

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.109158	0.038113	-0.041934
7	P2	-21.963963	0.062448	-0.063457
11	P2	-10.634047	0.033504	0.026582
15	P2	-4.839076	0.032376	-0.063325
19	P2	-6.817875	0.033695	-0.035573
22	P2	-8.081478	0.033855	-0.019913
26	P2	-24.291098	0.042493	0.005393
30	P2	-21.719030	0.045431	0.026907

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.063957	0.004074	-0.019547
7	P3	-8.063877	0.004074	-0.019649
11	P3	-8.063979	0.004069	-0.019734
15	P3	-8.064077	0.004074	-0.019543
19	P3	-8.063967	0.004083	-0.019203
22	P3	-8.064034	0.004077	-0.019865
26	P3	-8.063833	0.004061	-0.019692
30	P3	-8.063935	0.004065	-0.019717

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	0.000637334
	stdev	2.58919e-07
MEAN Q	mean	0.000359213
	stdev	2.75763e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.105310
	stdev	0.00238994
STDEV Q	mean	0.105301
	stdev	0.00244575



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007033[901]

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_1PNPDE20070331_015157_000000532056_00461_26567_3757.N1	1	0
ASA_GM1_1PNPDK20070330_080056_000006582056_00450_26556_0149.N1	0	109
ASA_GM1_1PNPDK20070330_080102_000000782056_00450_26556_9771.N1	0	65
ASA_GM1_1PNPDK20070330_080230_000005612056_00450_26556_9789.N1	0	44
ASA_GM1_1PNPDK20070330_112243_000006222056_00452_26558_0084.N1	0	14

ASA_GM1_1PNPDK20070330_172811_000002892056_00456_26562_0672.N1	0	15
ASA_WSM_1PNPDK20070331_094426_000000852056_00466_26572_1239.N1	0	18





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


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)
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

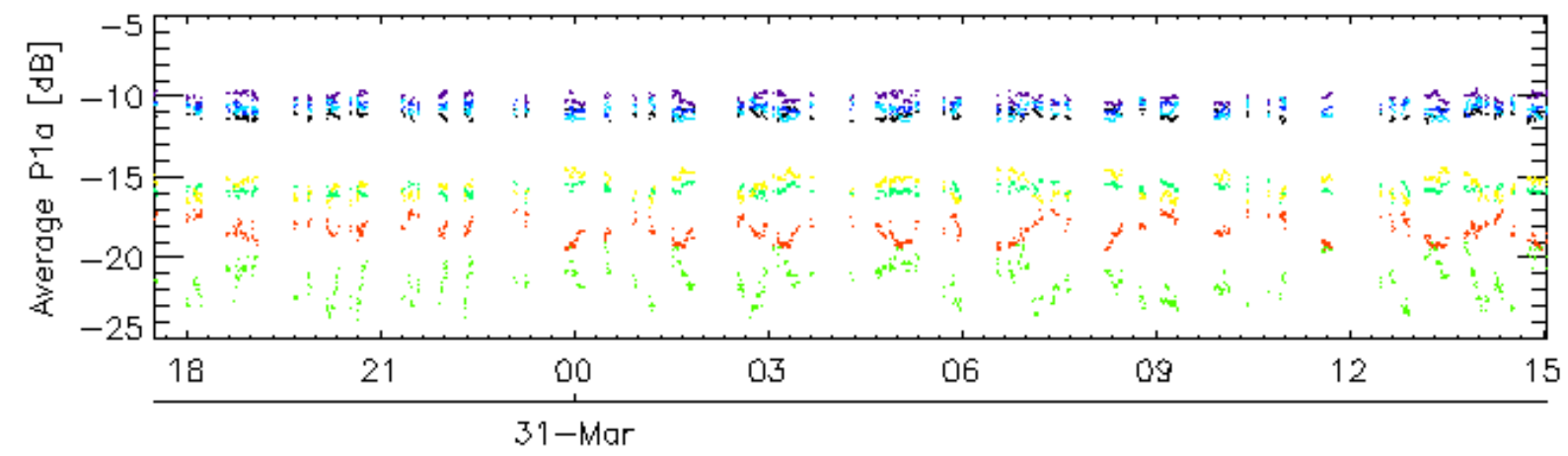
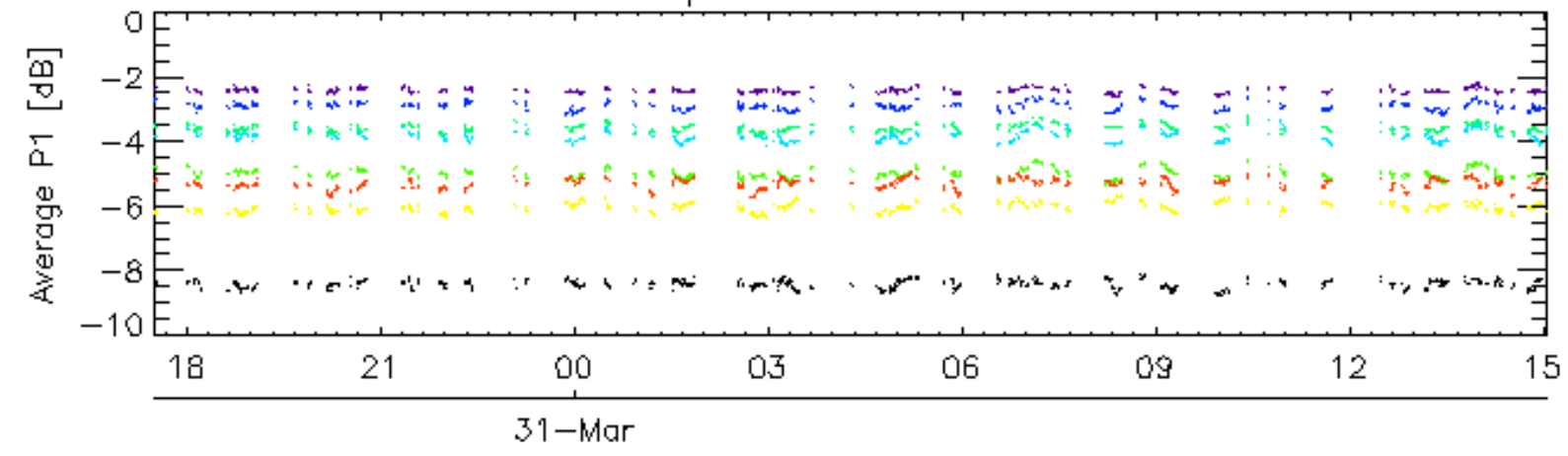
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

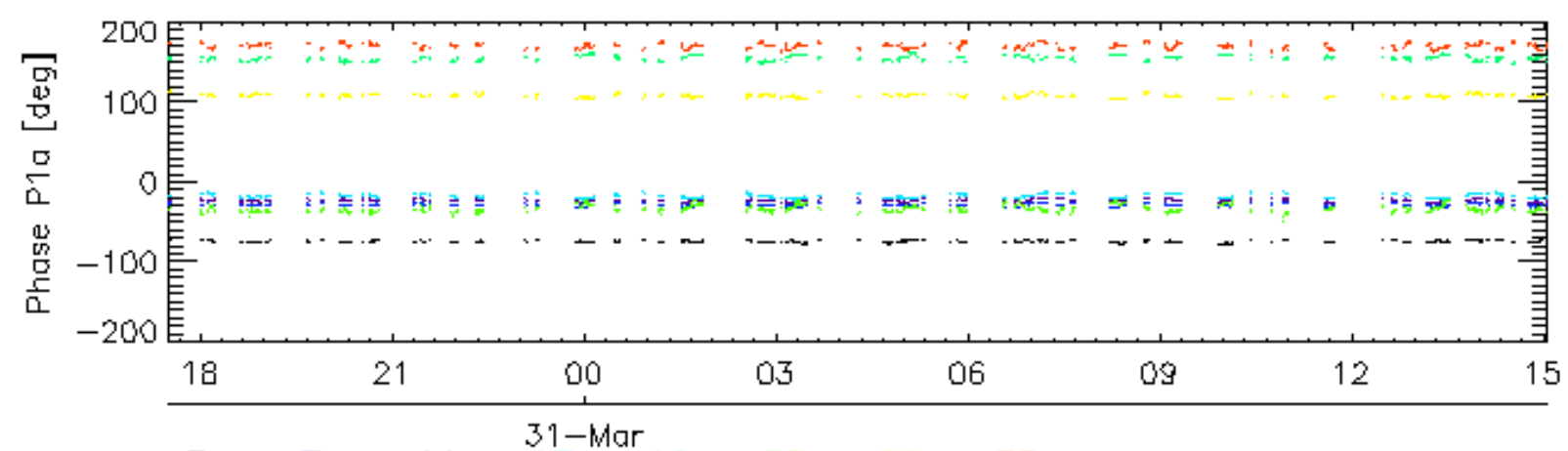
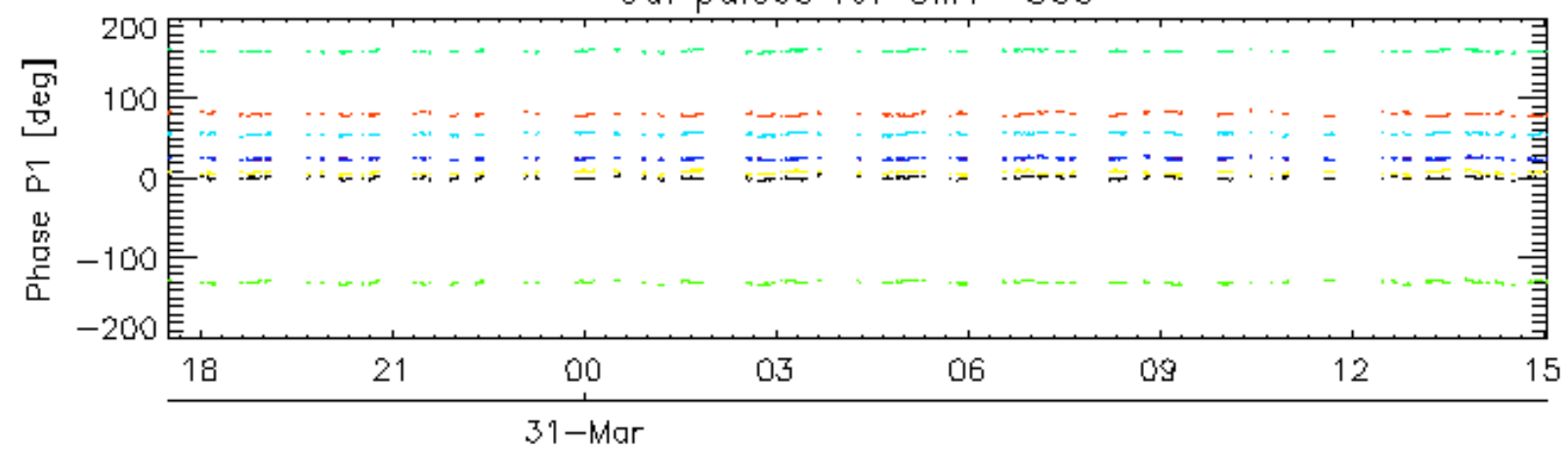
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

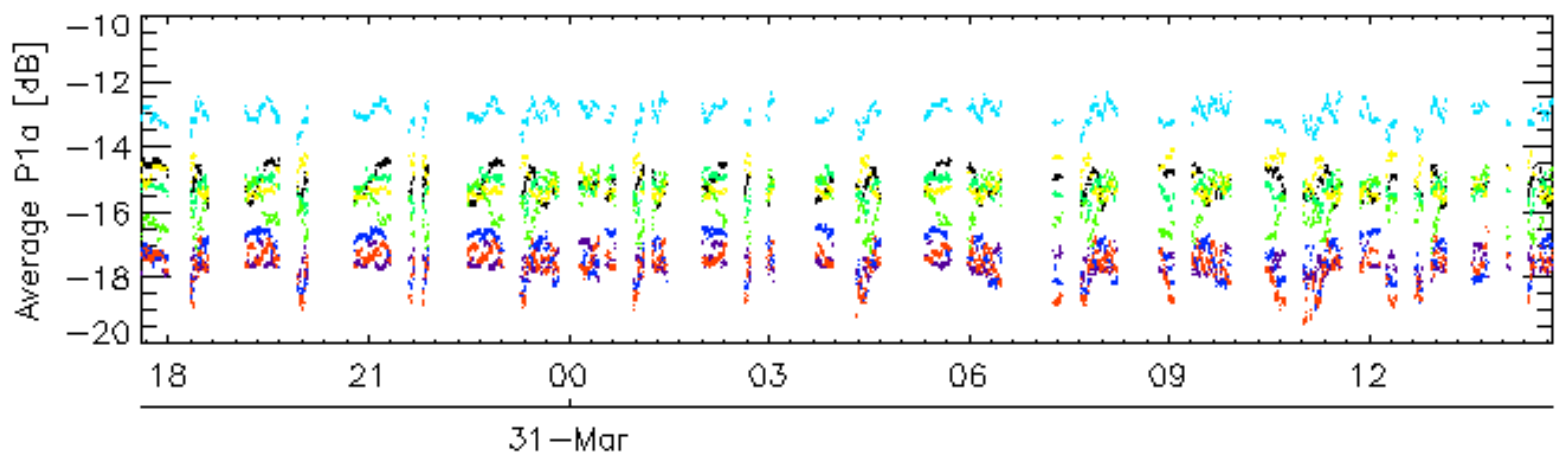
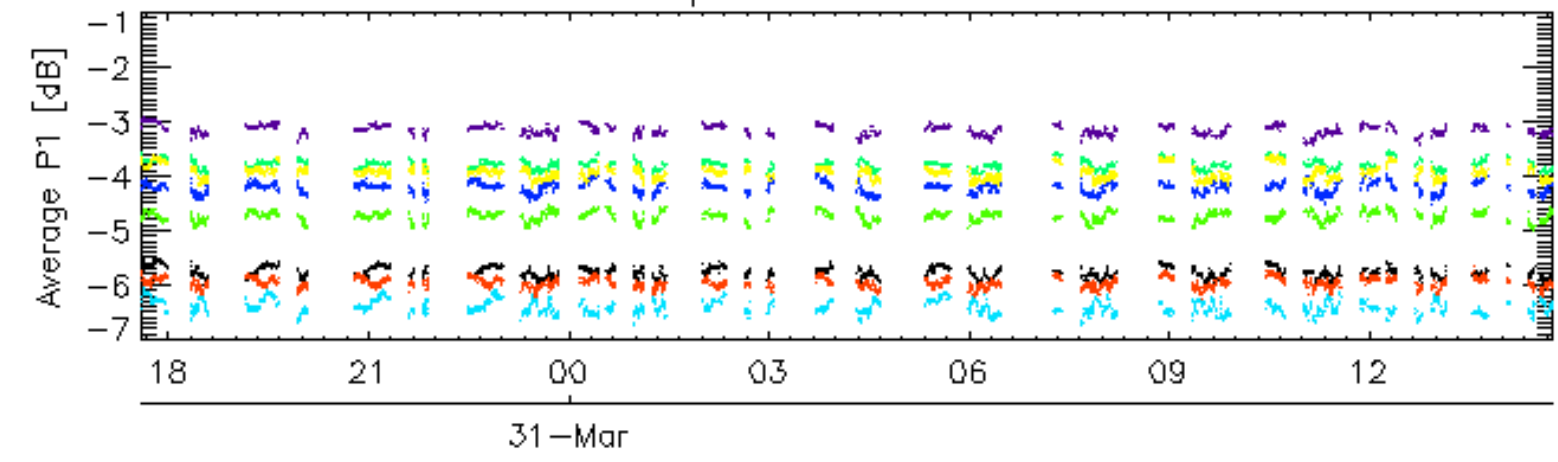


Cal pulses for GM1 SS3

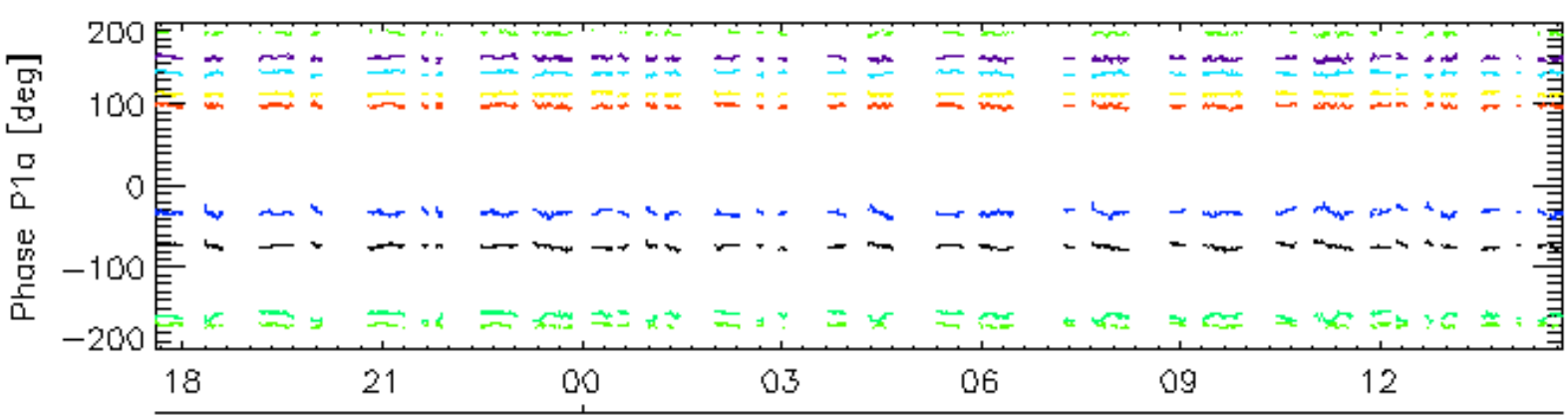
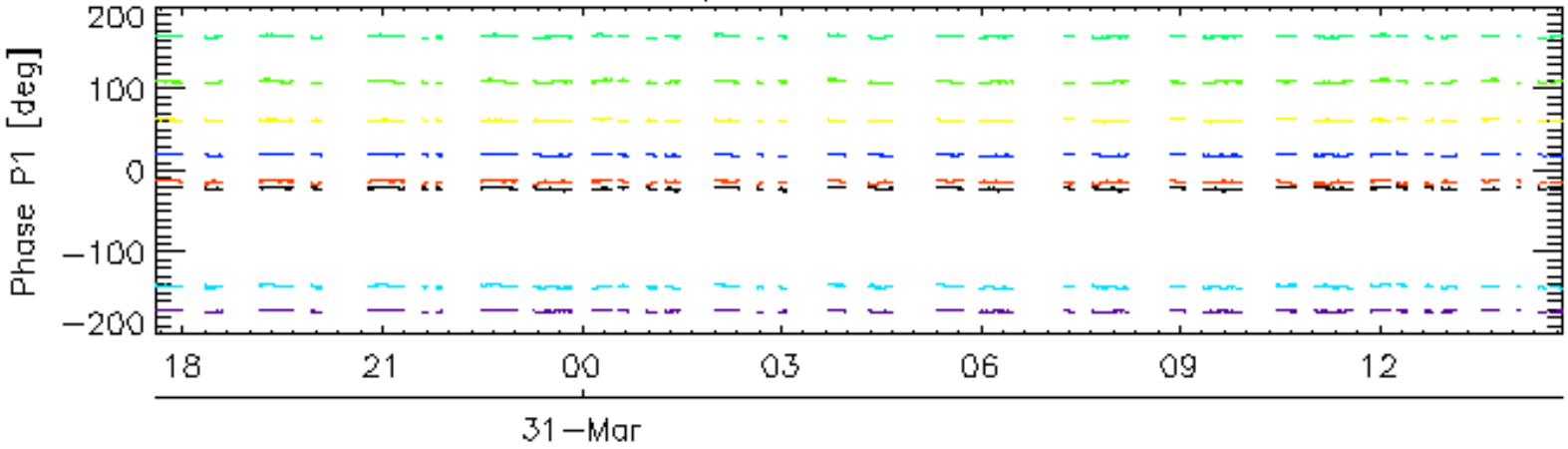


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

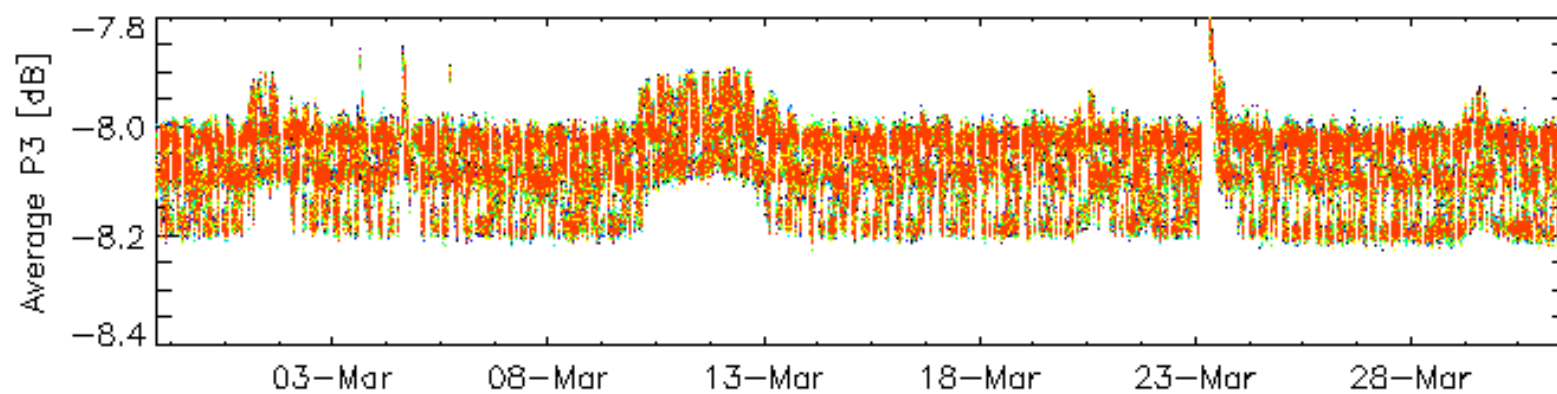
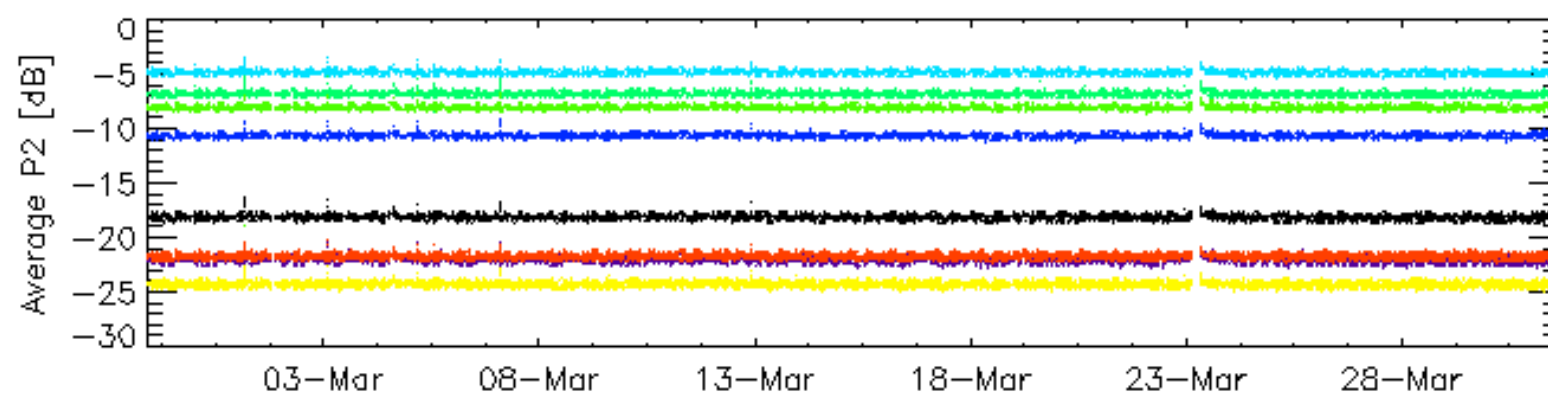
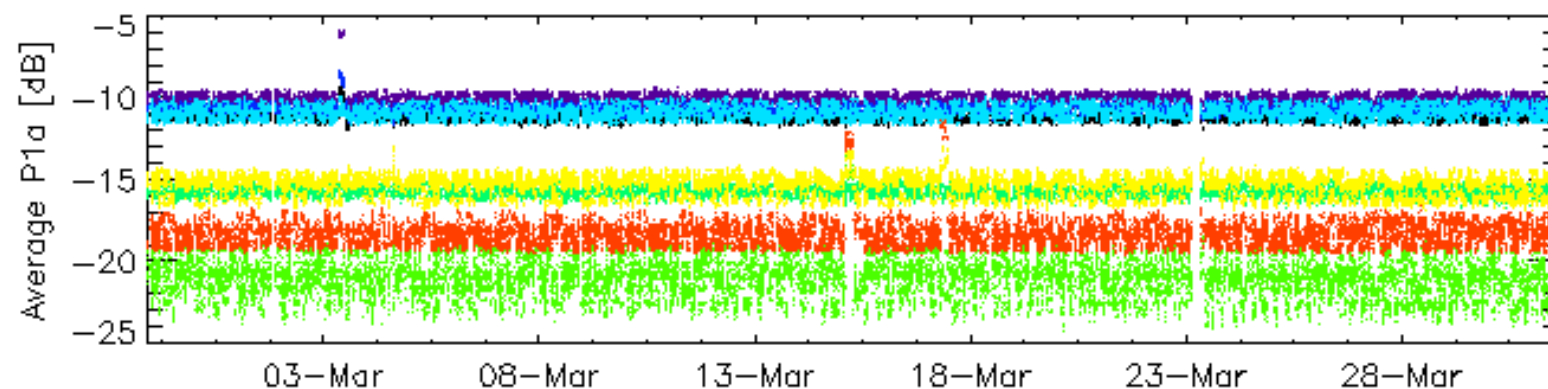
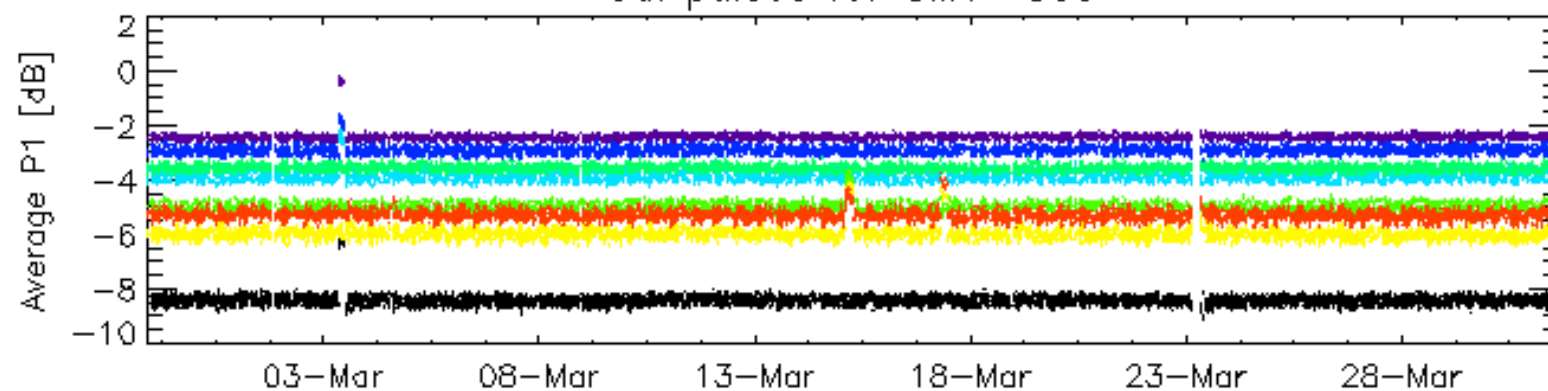


Cal pulses for WVS IS2



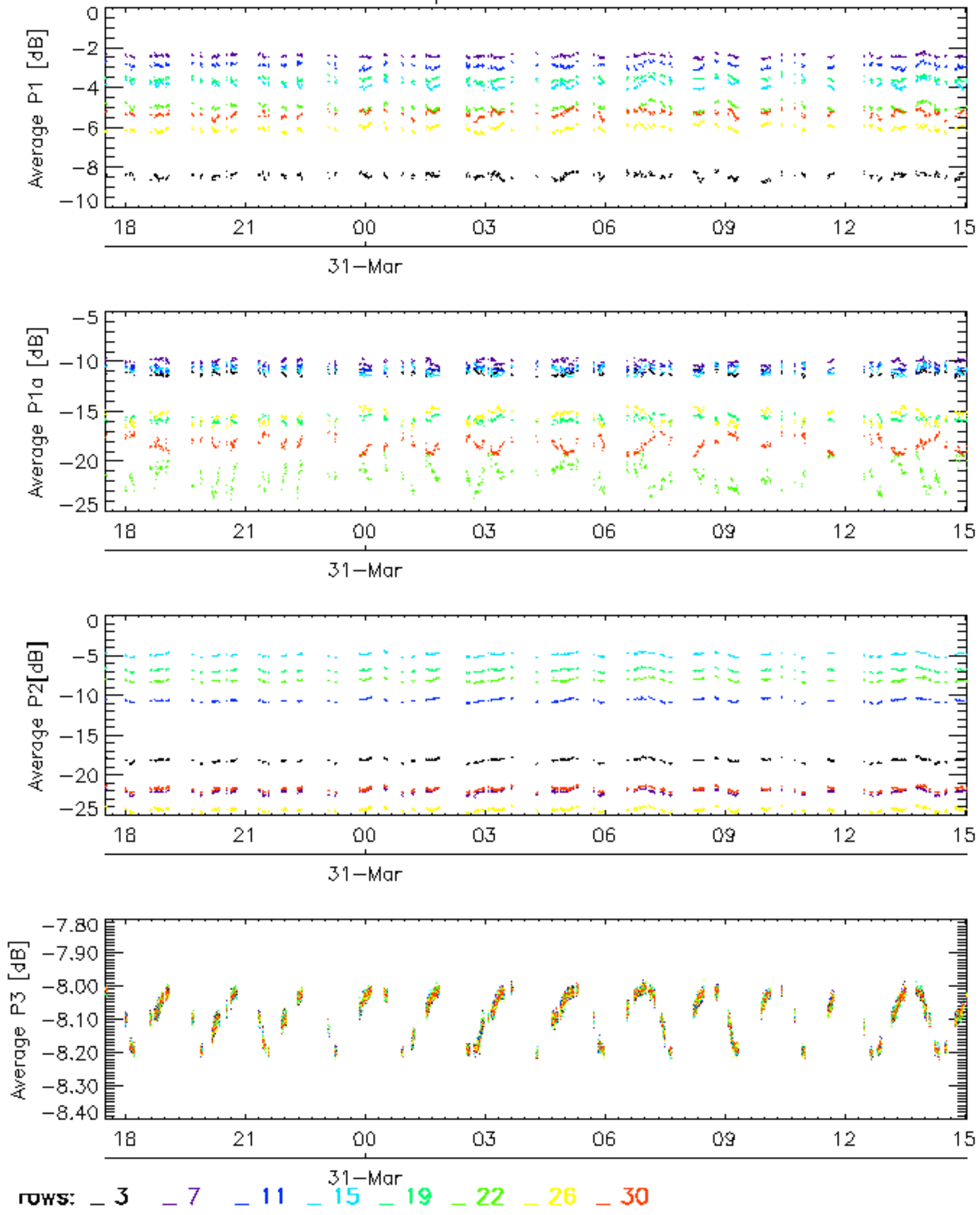
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

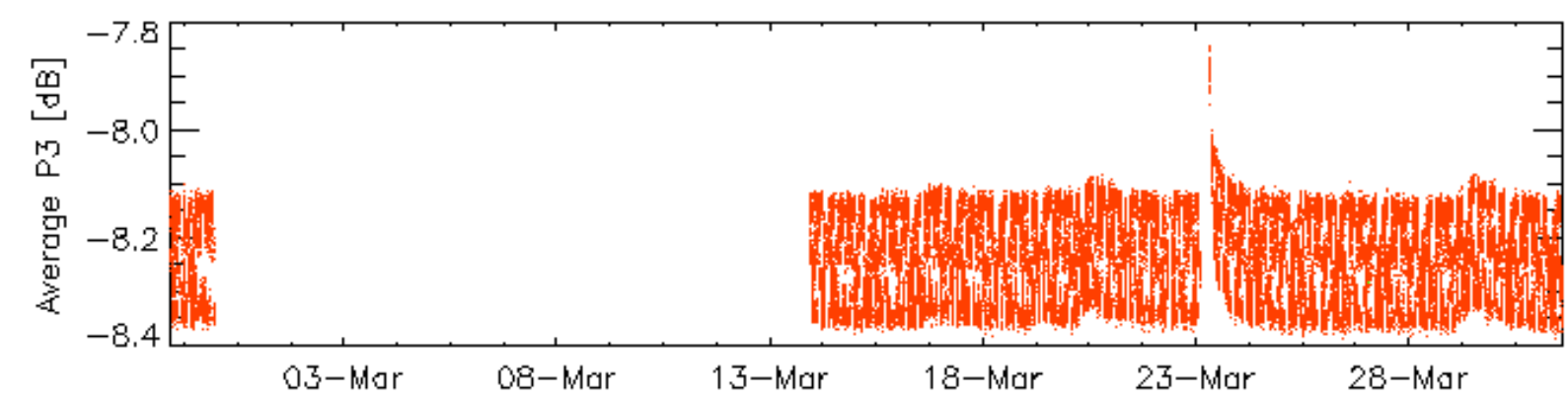
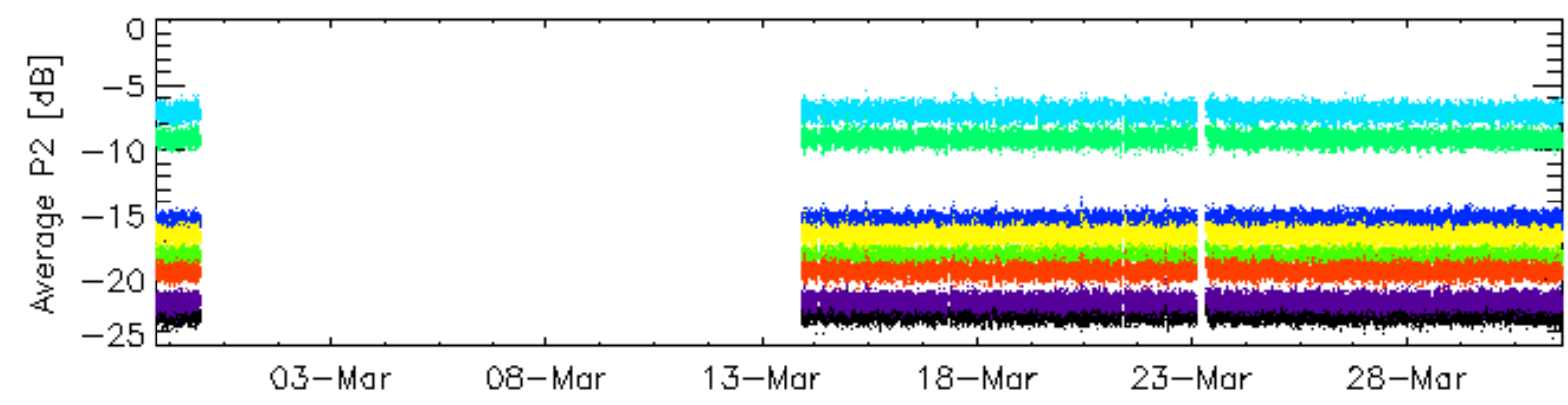
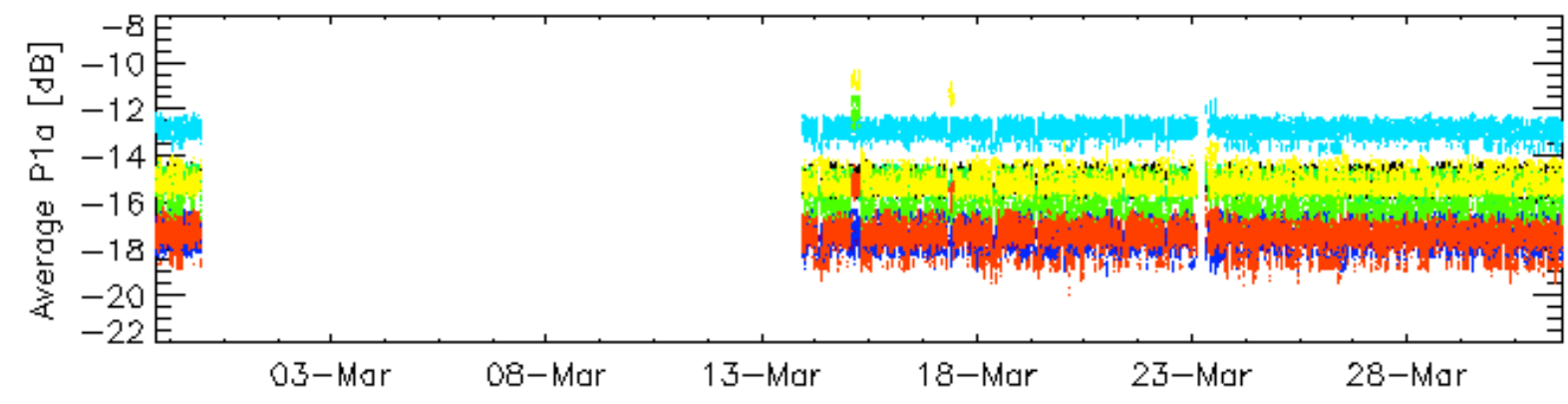
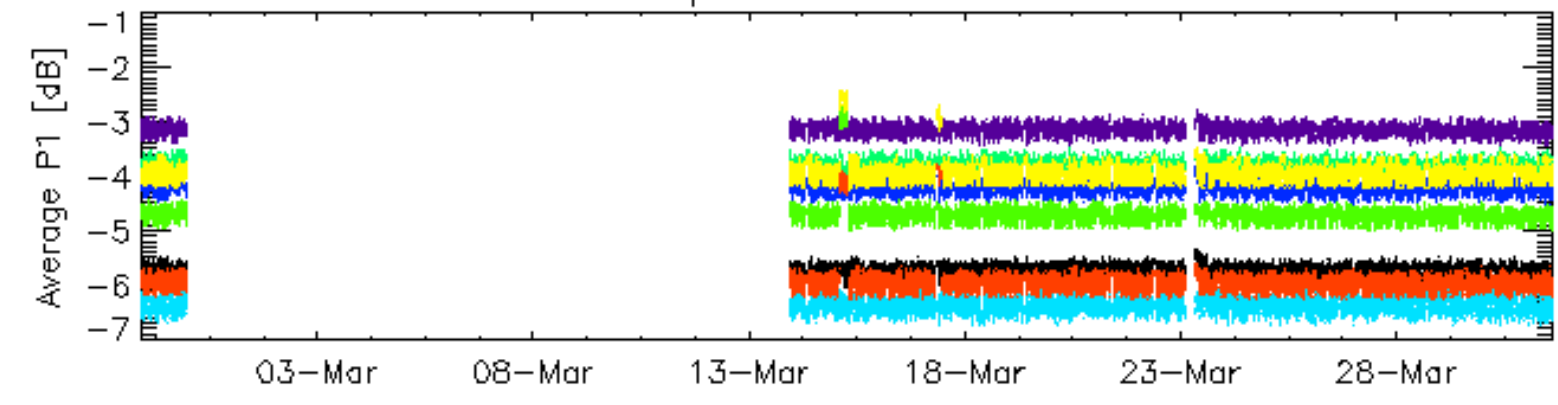


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

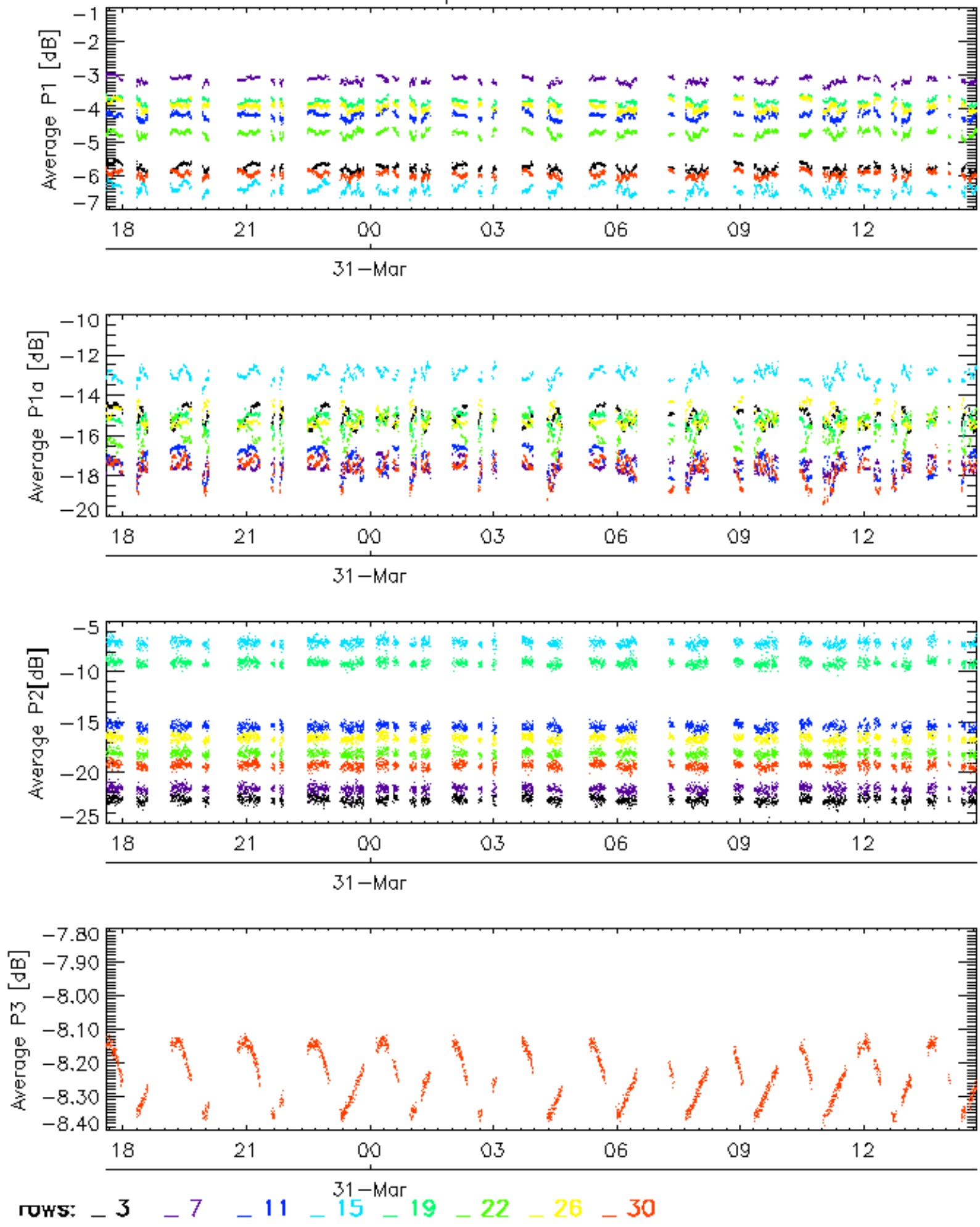


Cal pulses for WVS IS2

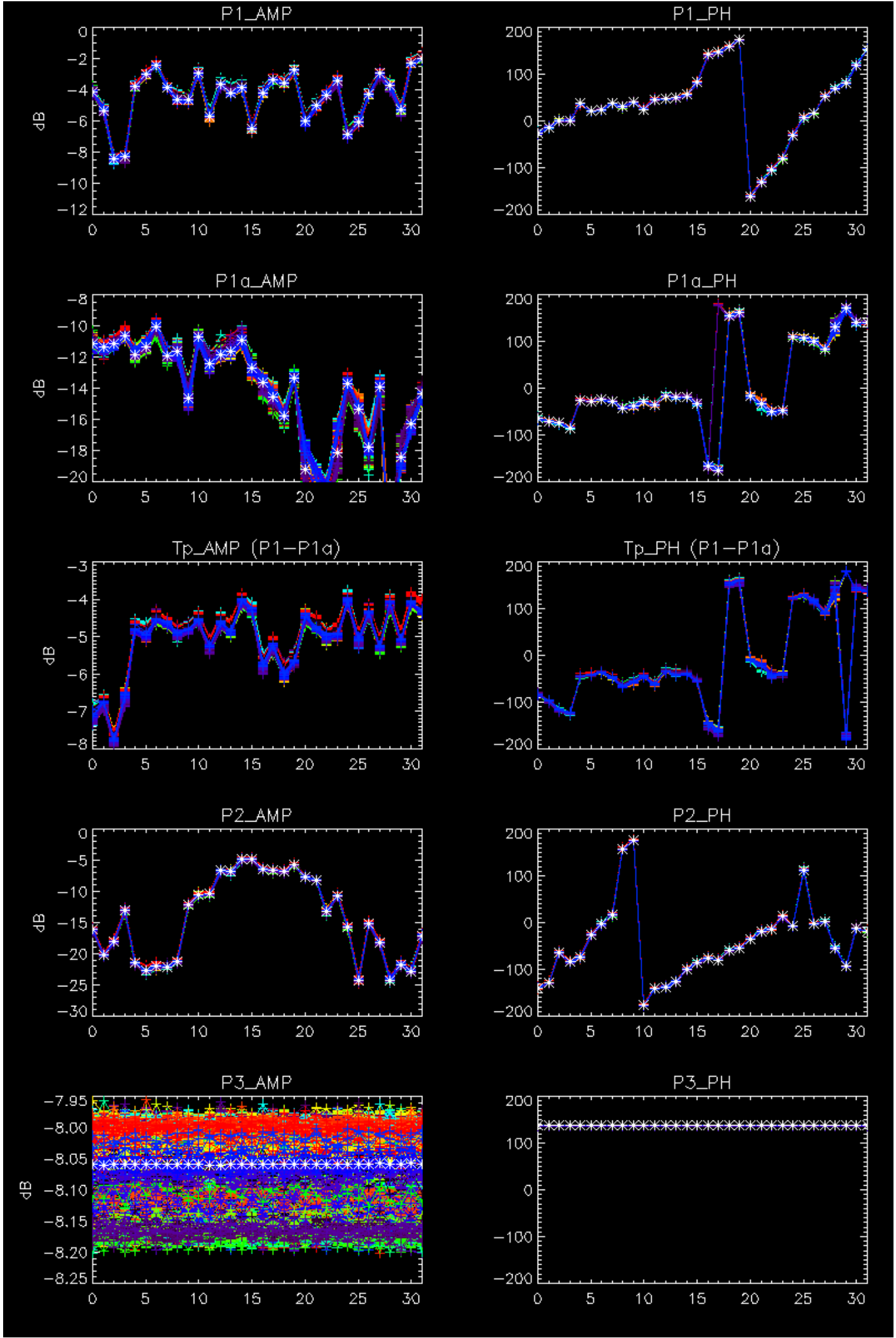


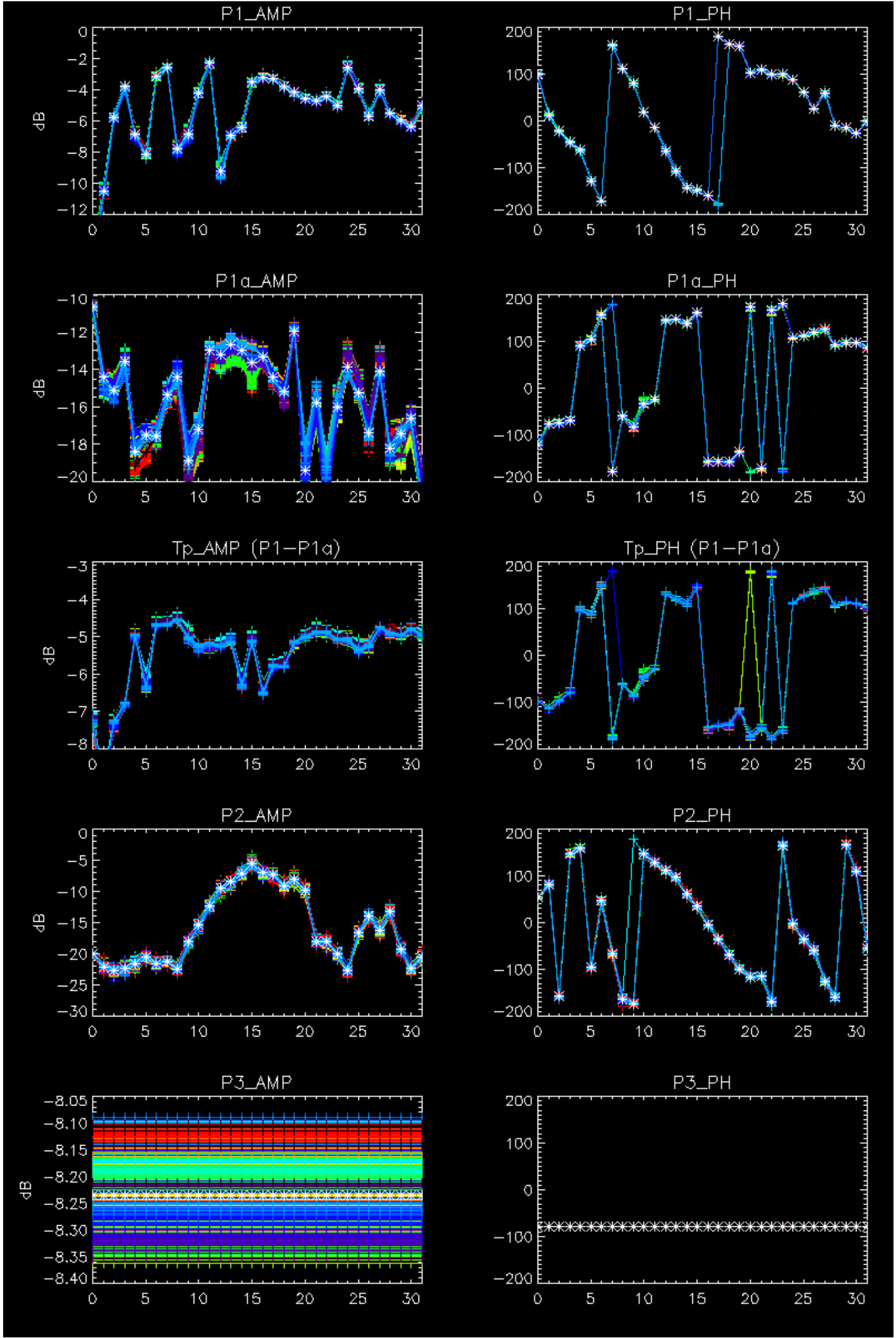
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



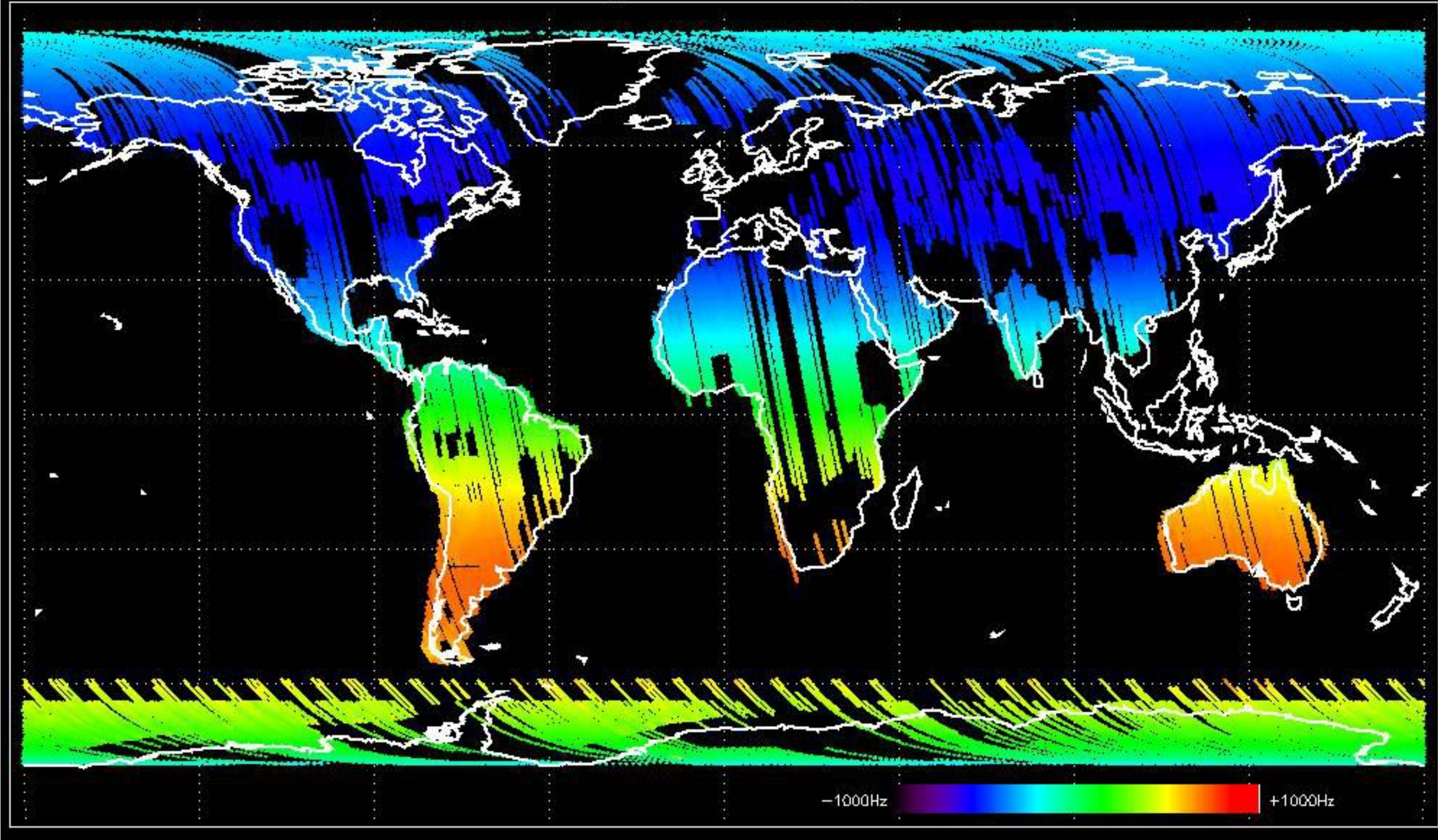
No anomalies observed.



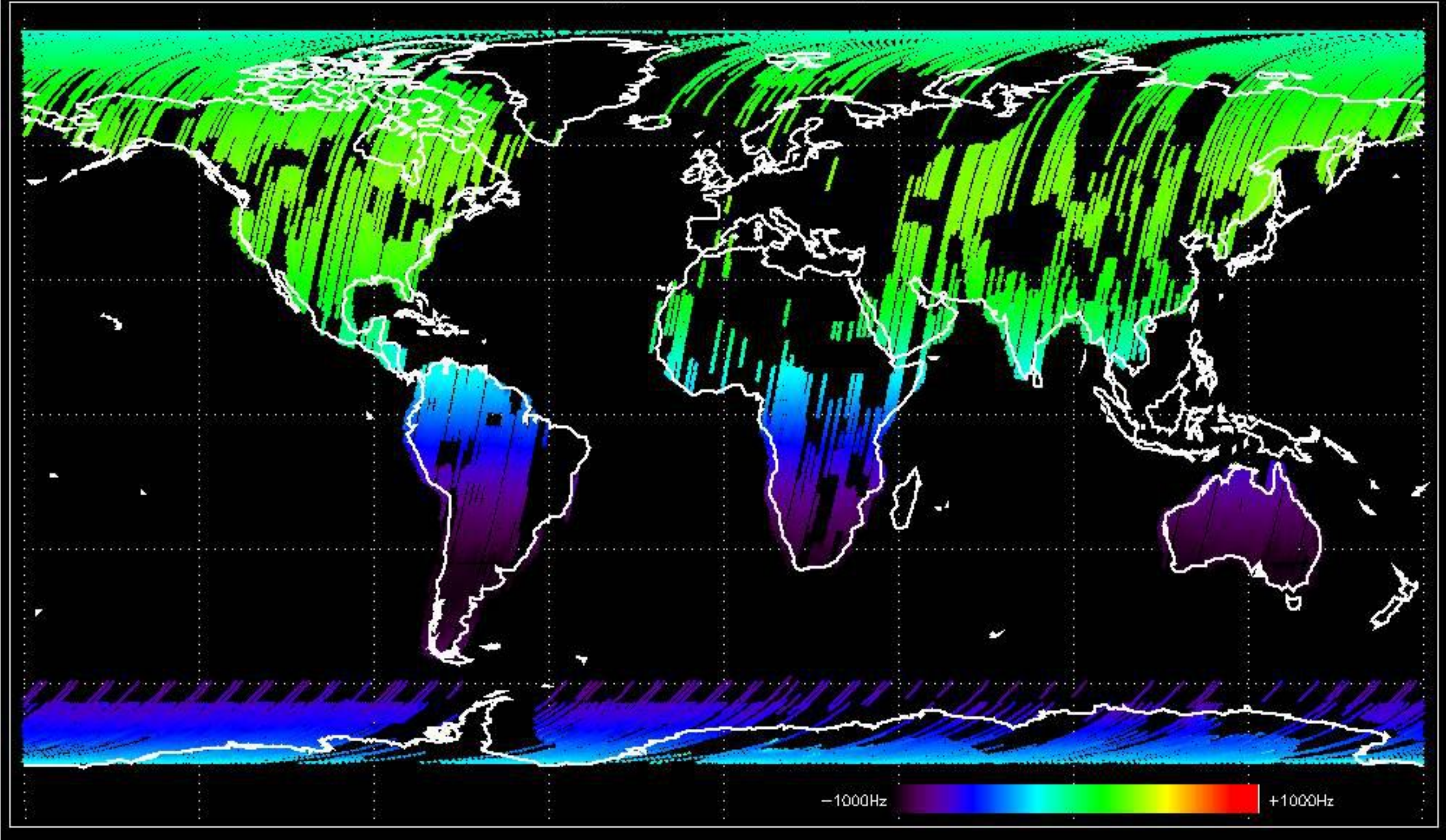


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

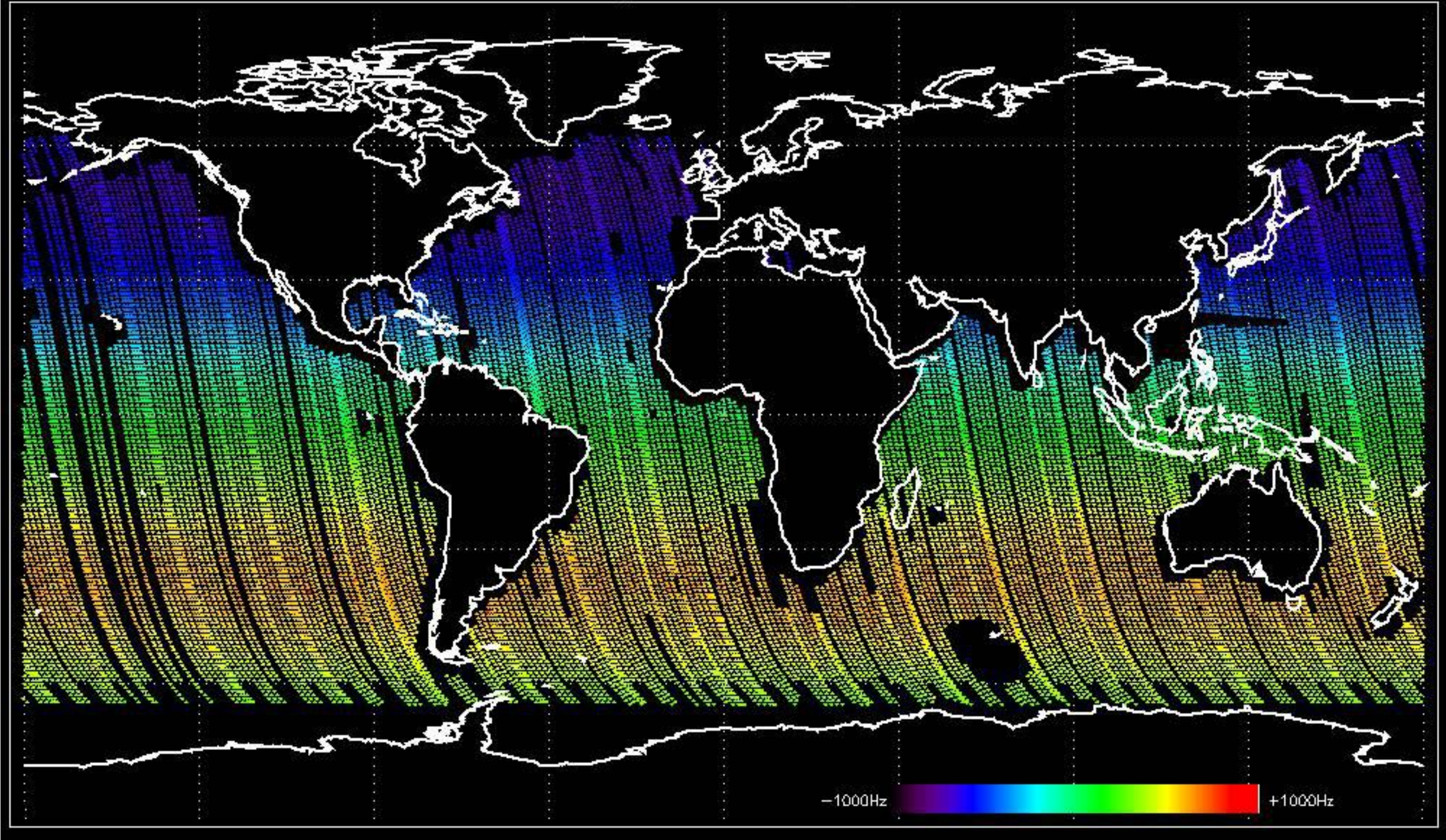
Doppler 'GM1' 'SS1' ascending



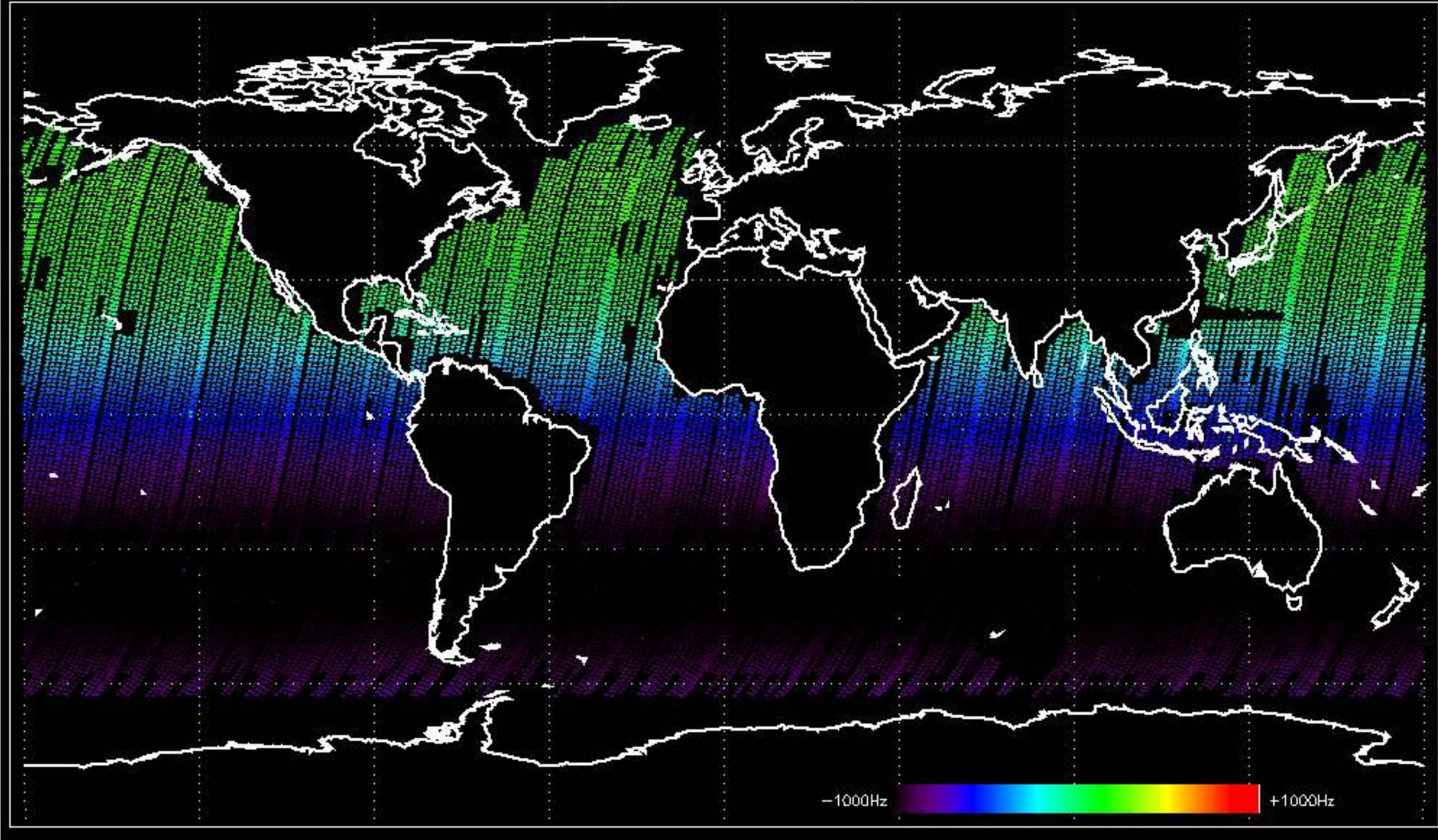
Doppler 'GM1' 'SS1' descending

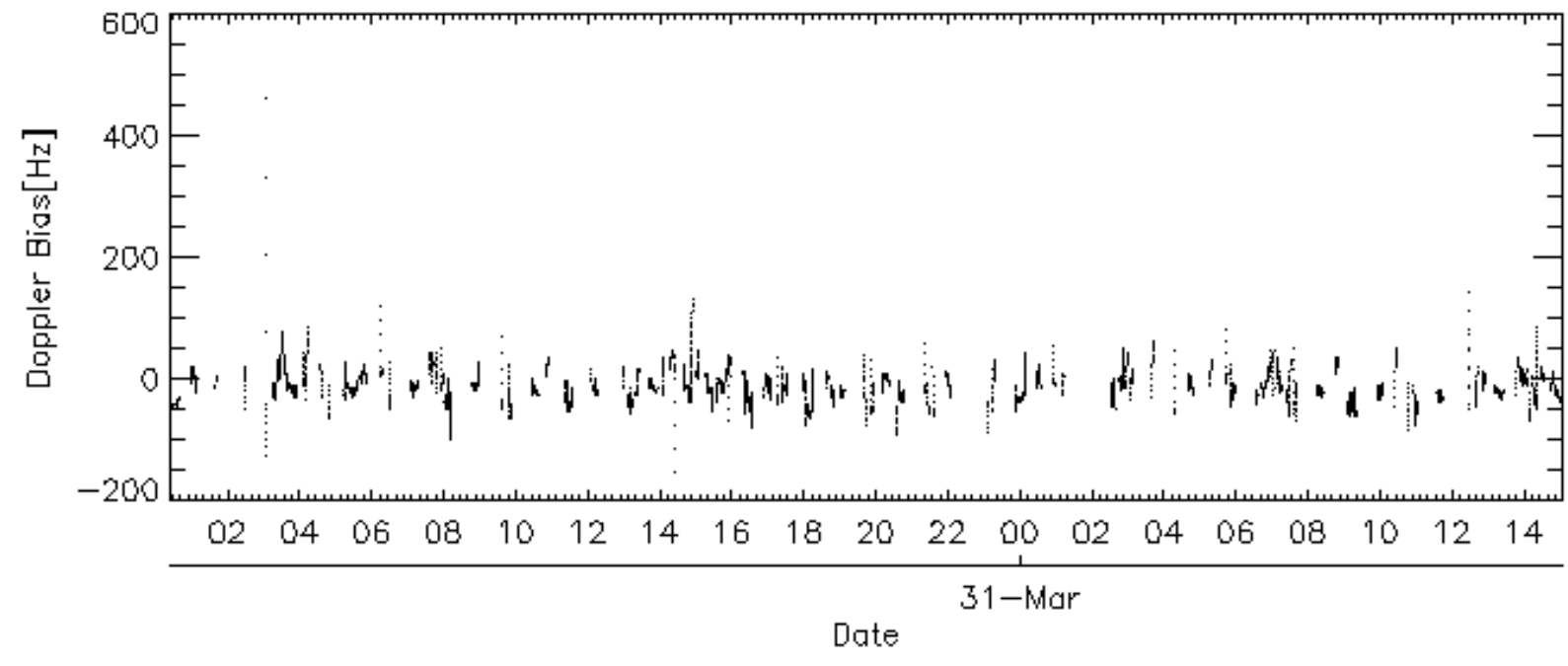
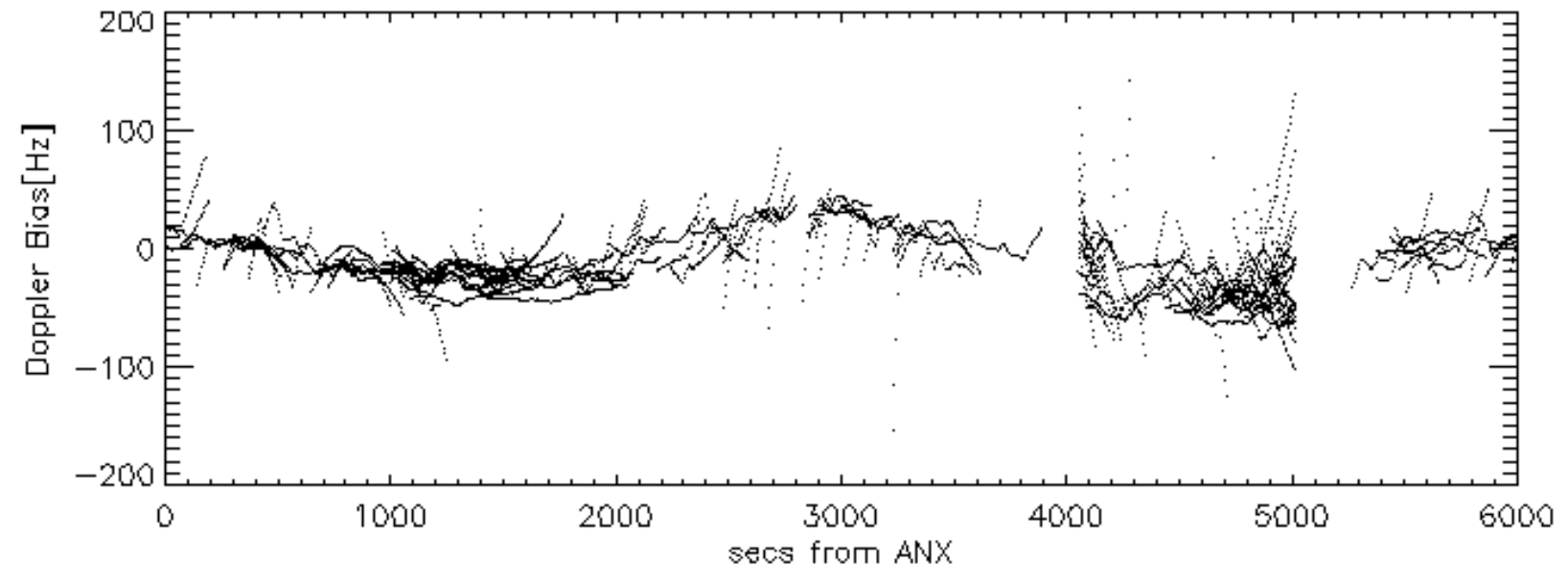
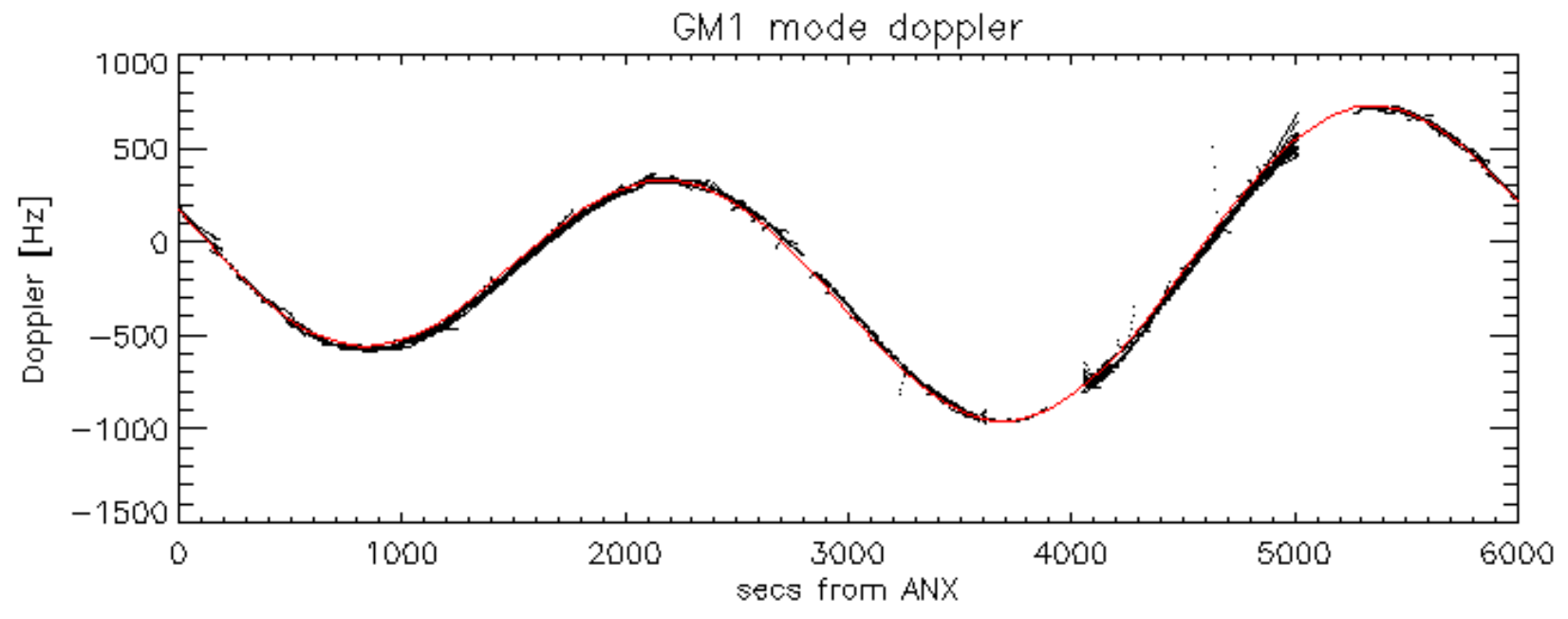


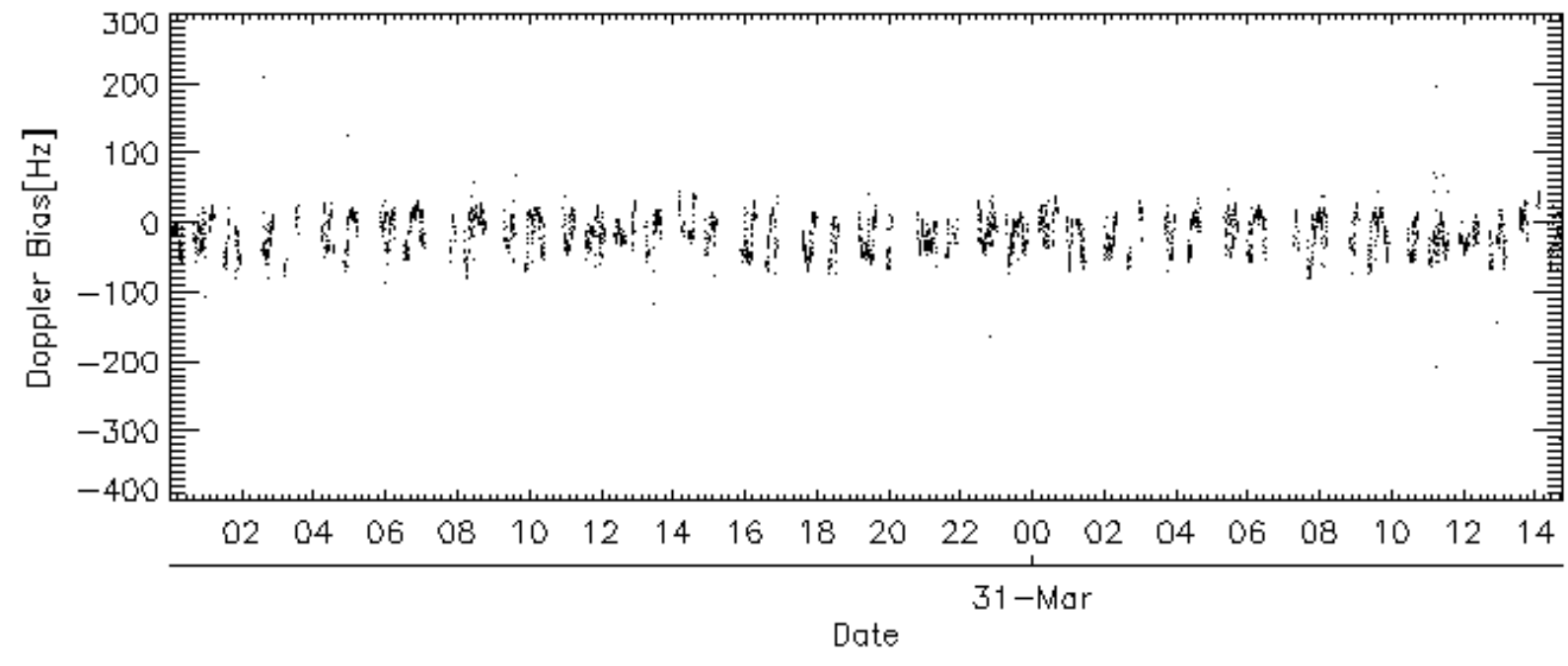
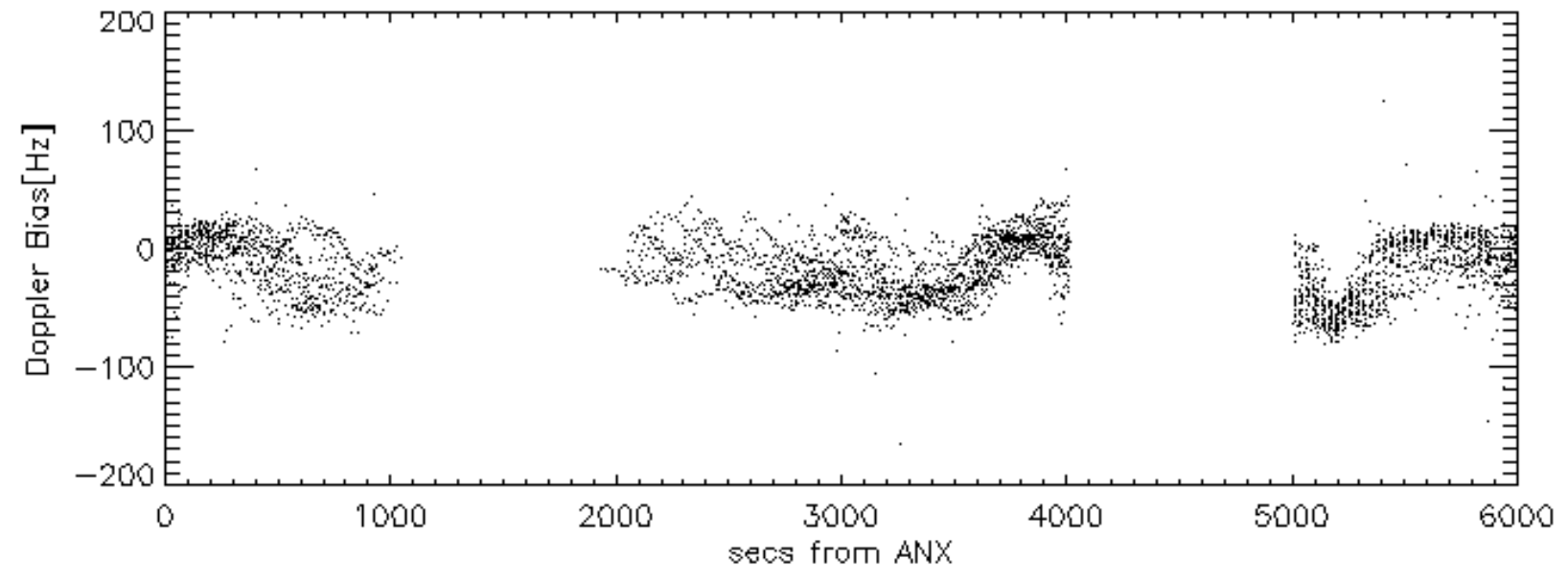
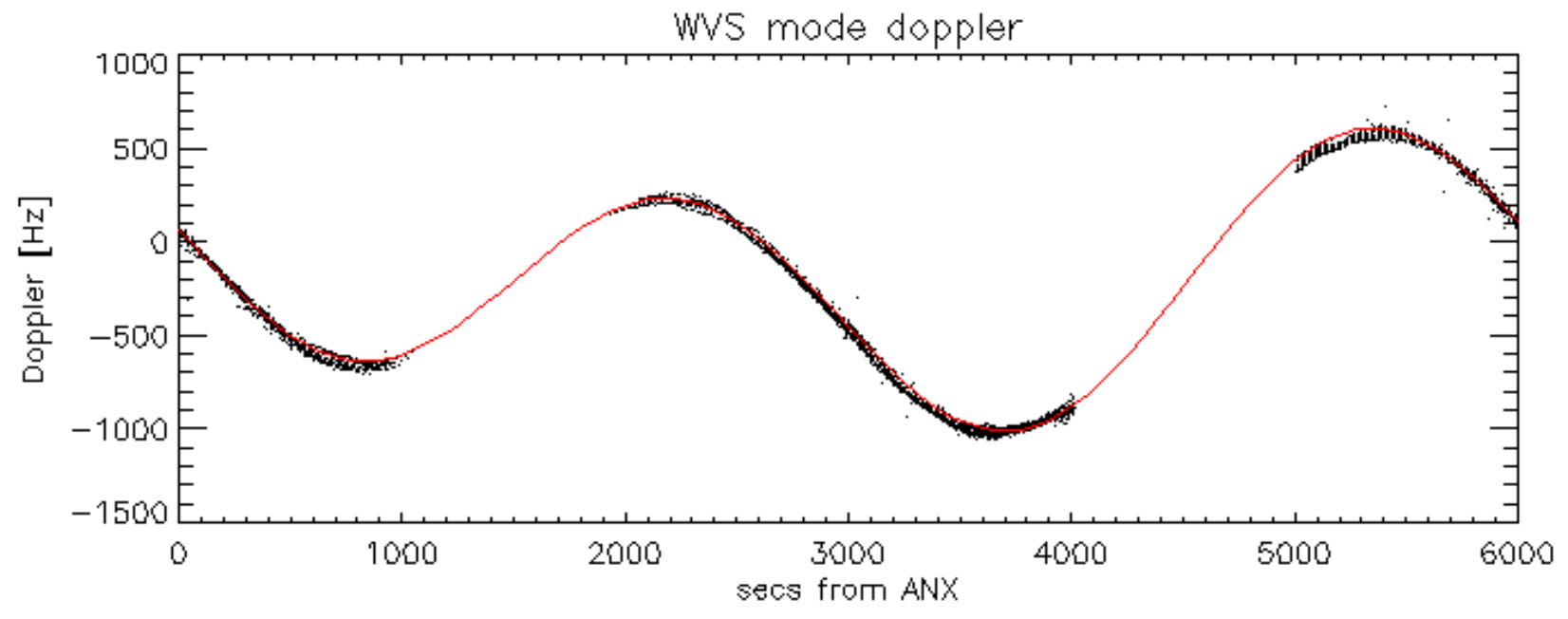
Doppler 'WVS' 'IS2' ascending



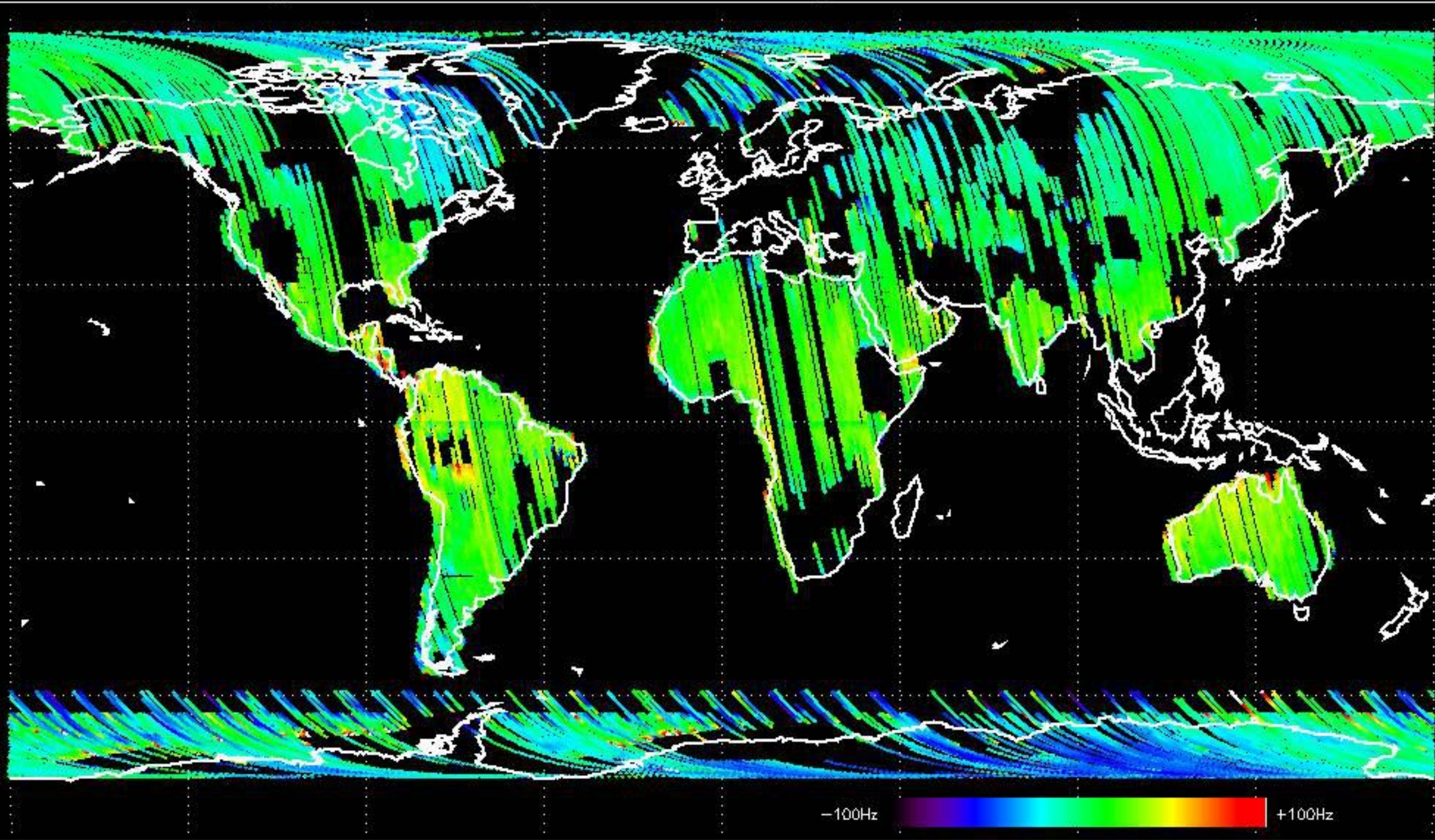
Doppler 'WVS' 'IS2' descending



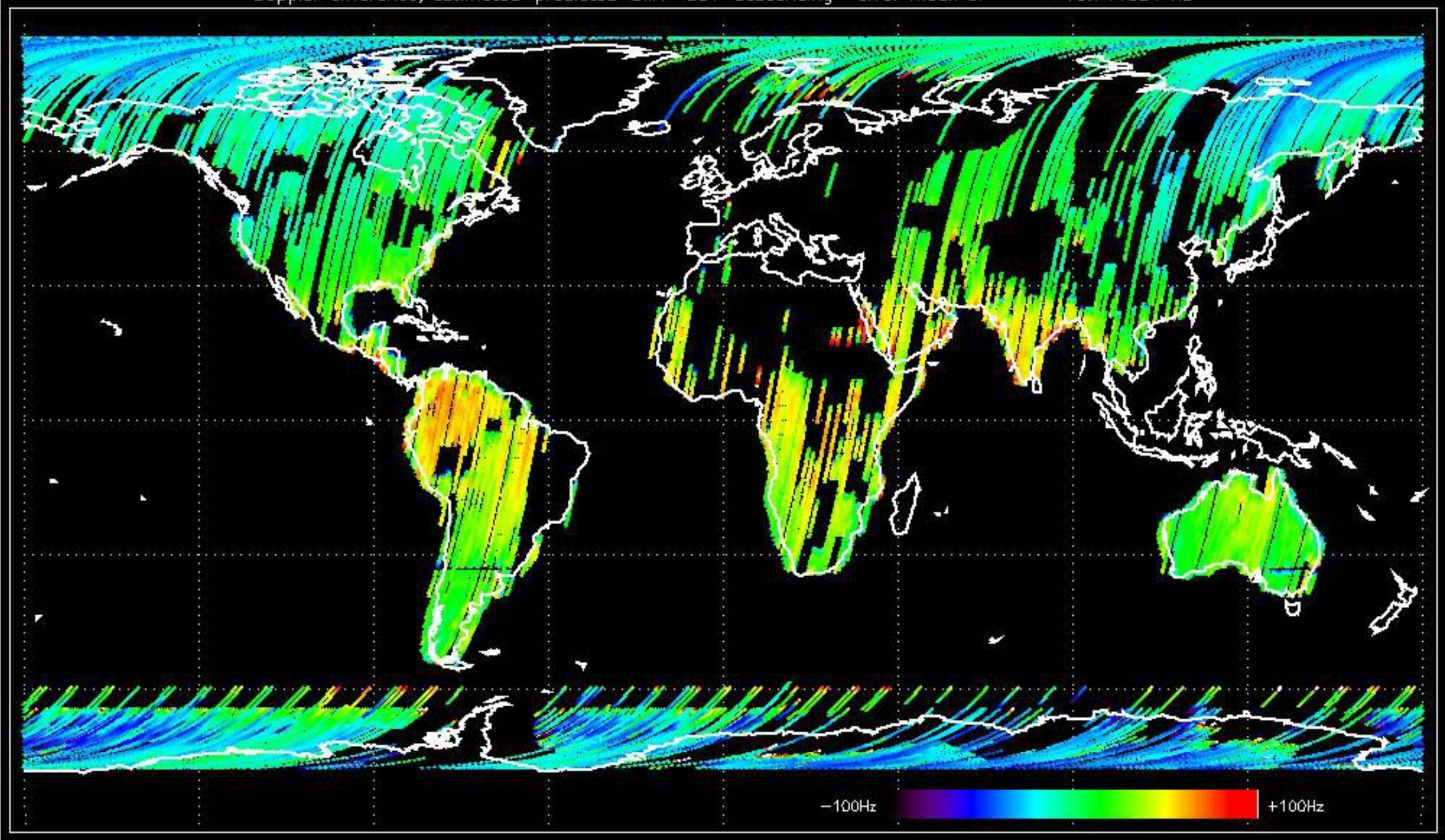




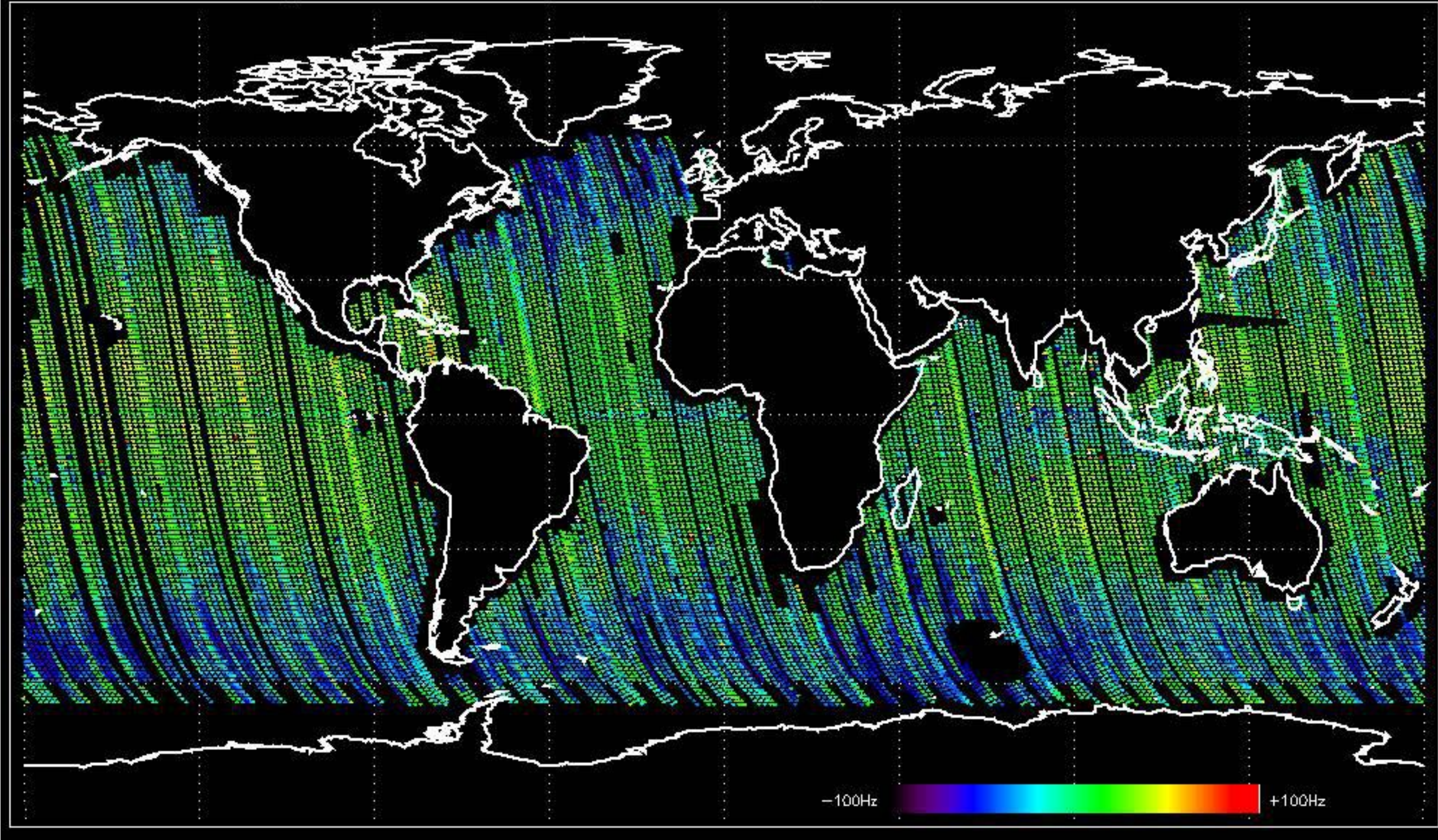
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.873391 Hz



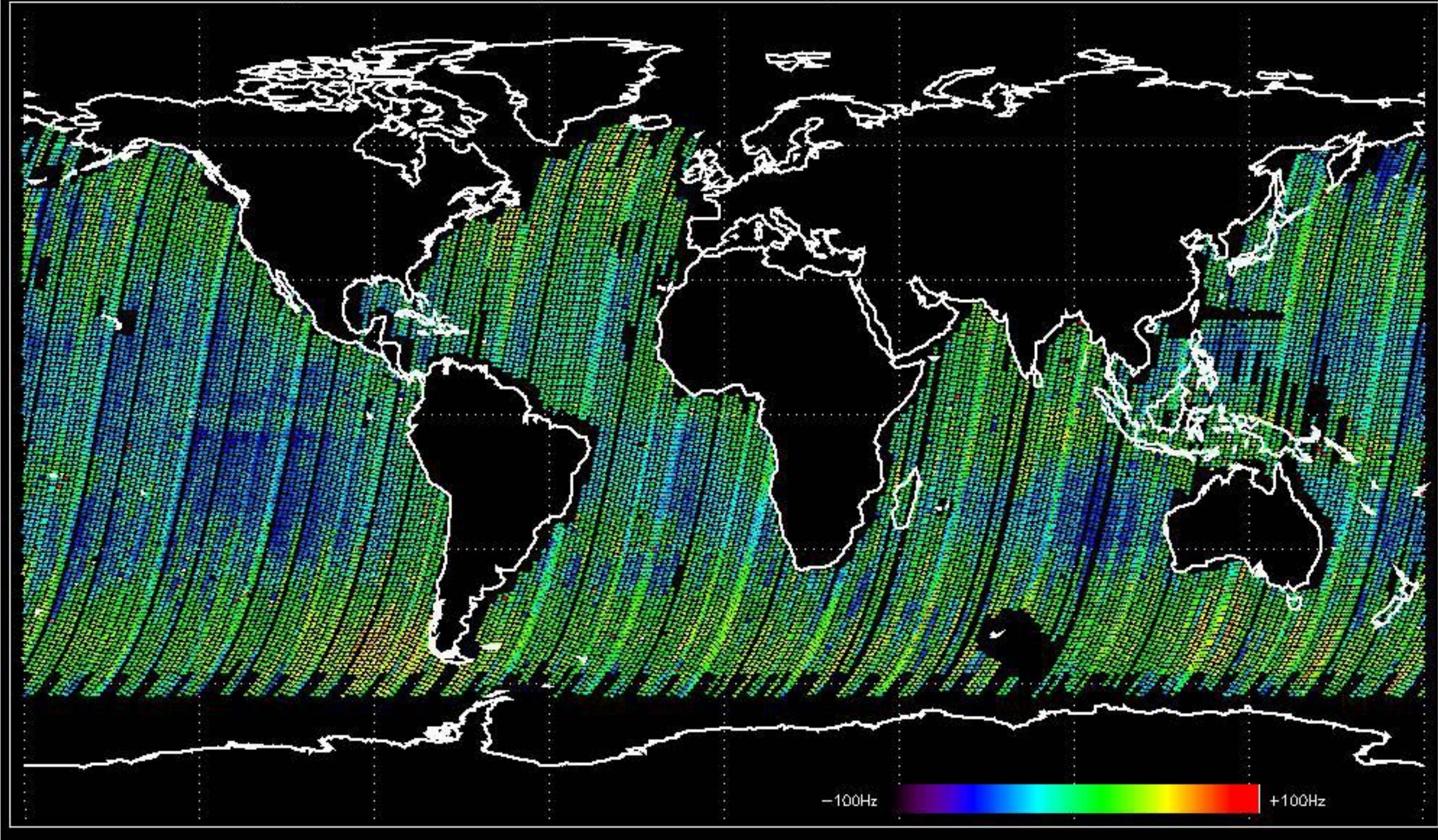
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.741654 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -16.227764 Hz

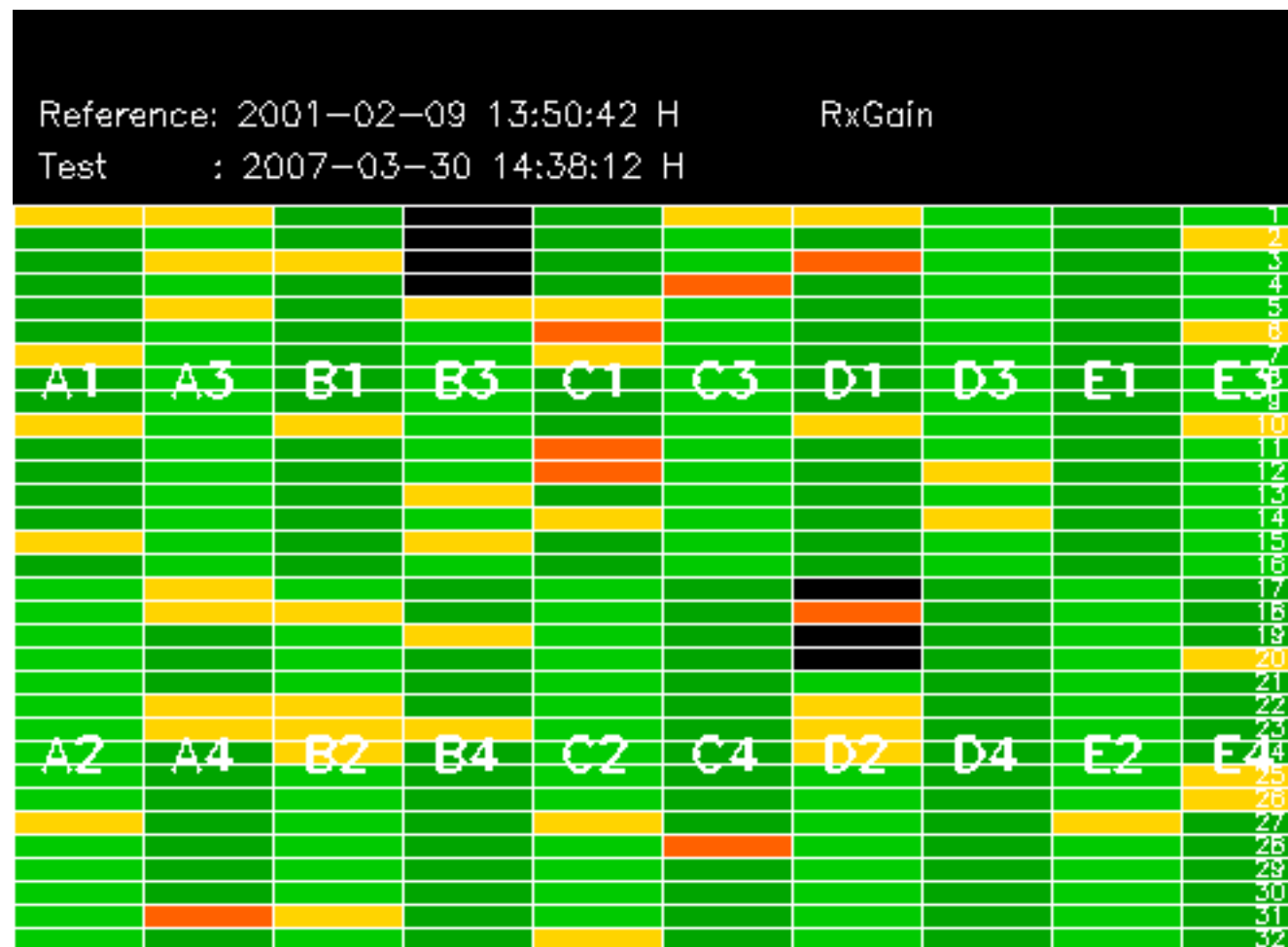


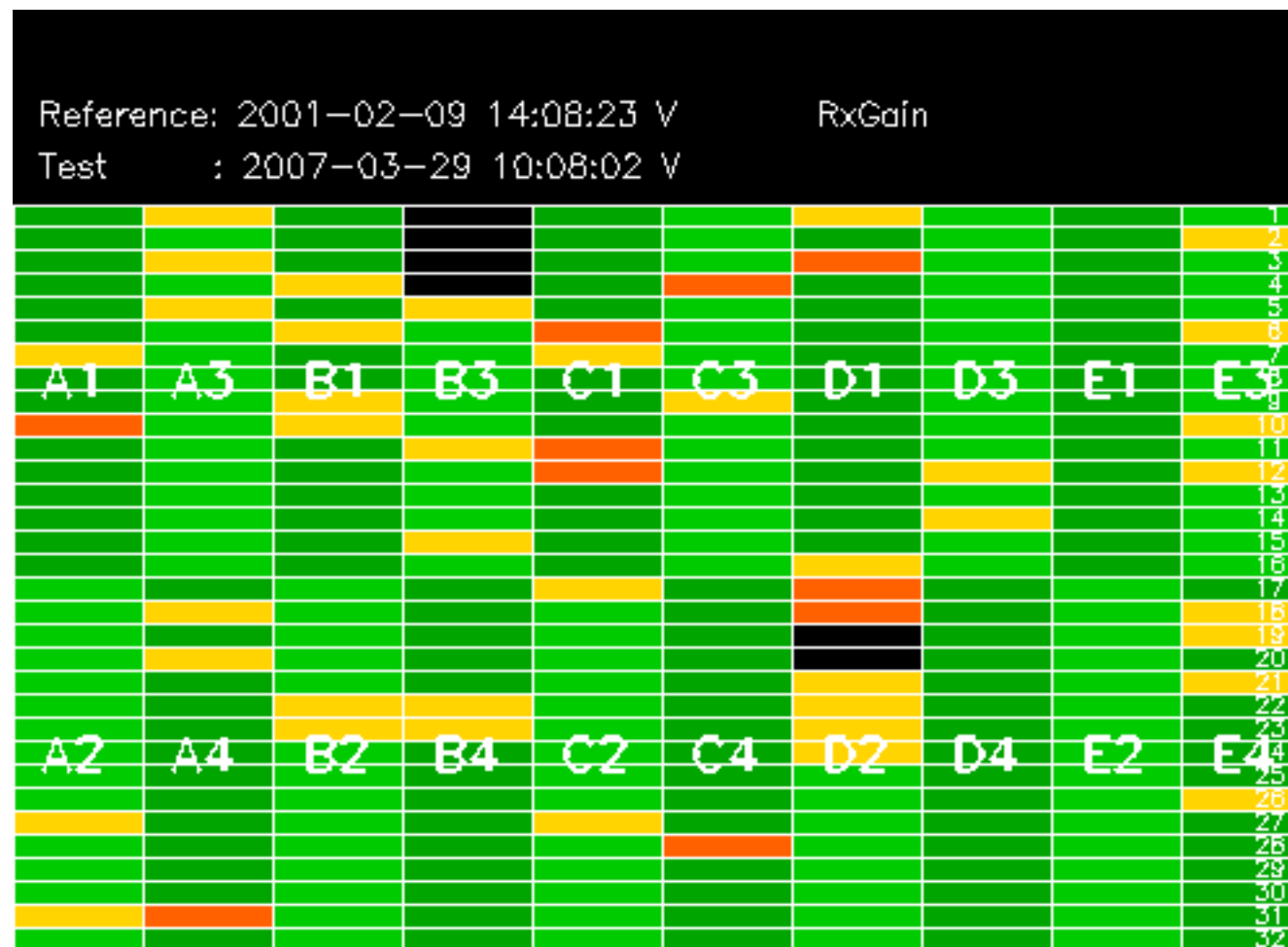
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -15.882998 Hz

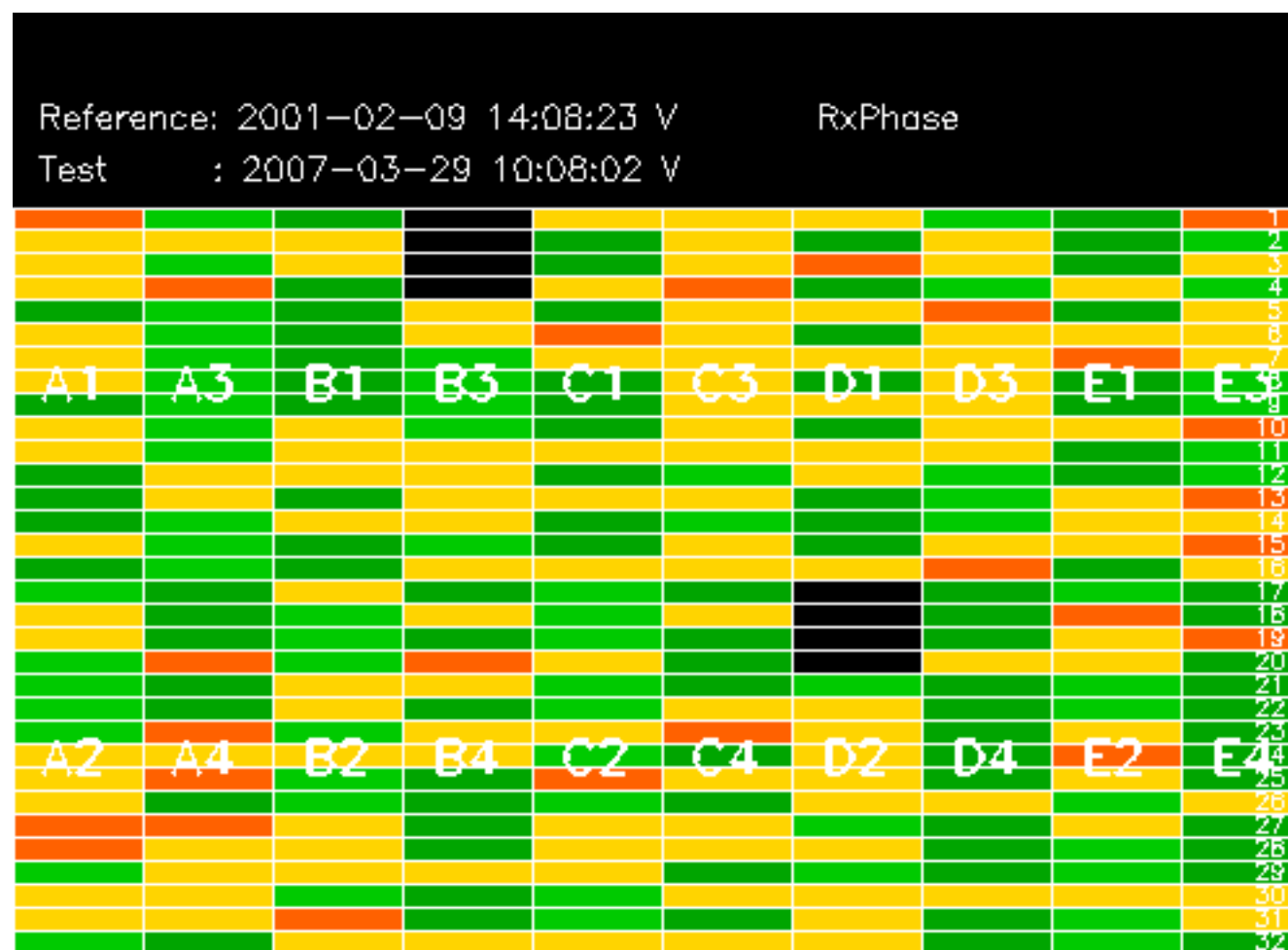


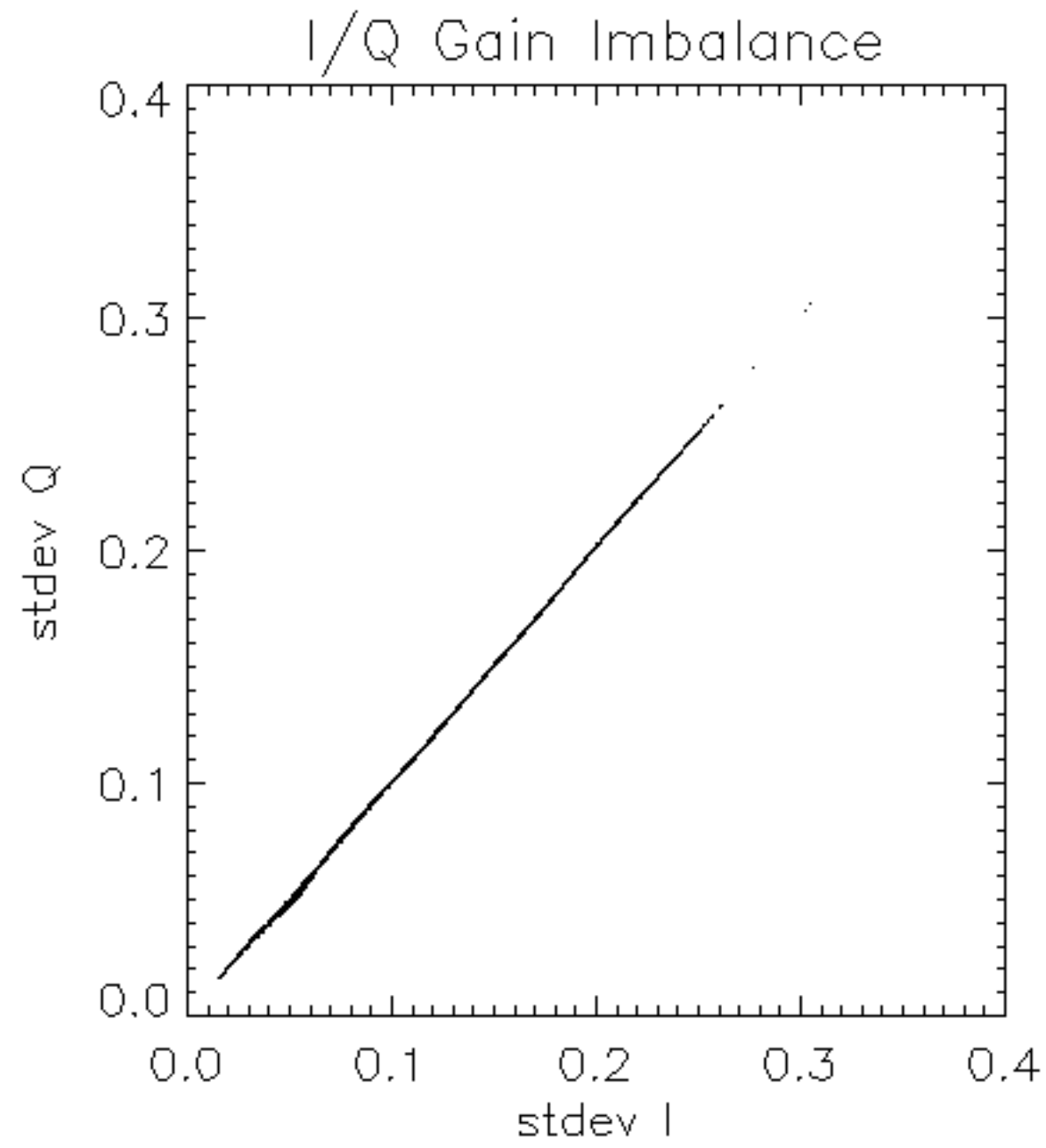
No anomalies observed on available MS products:

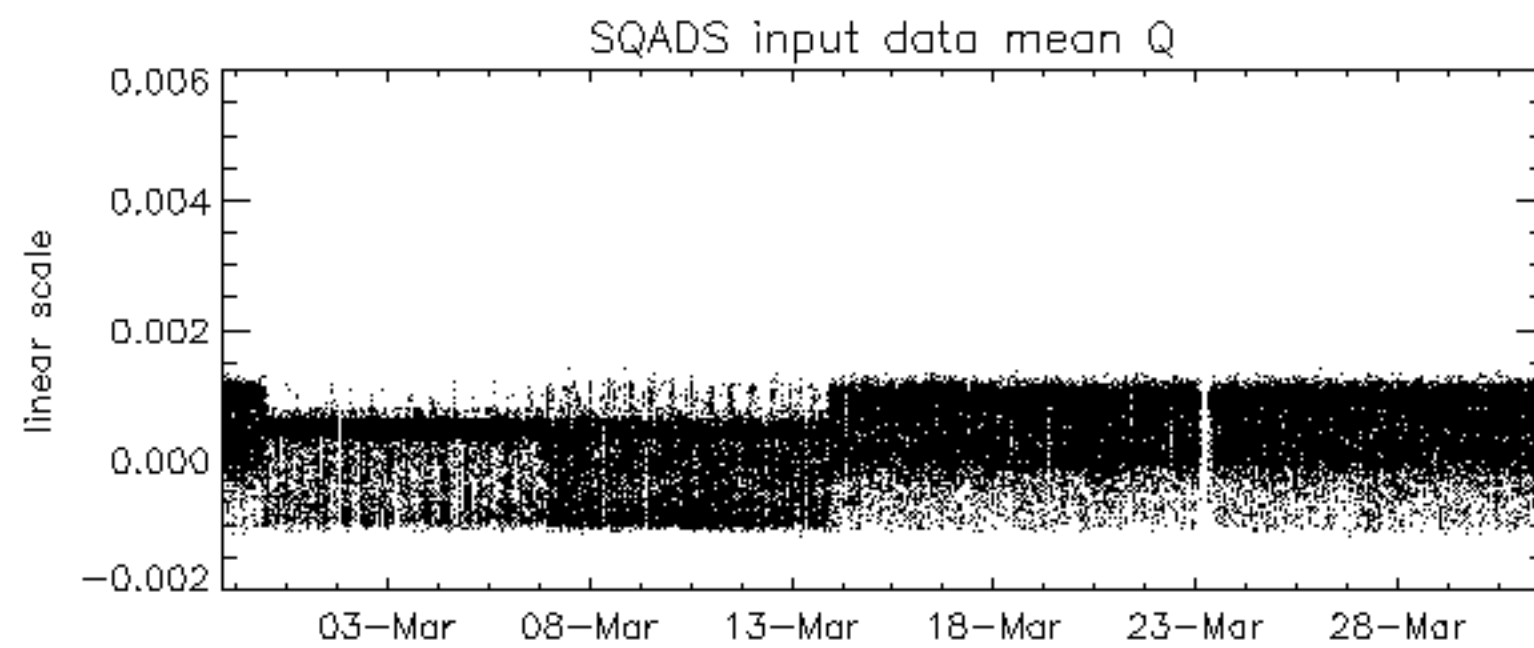
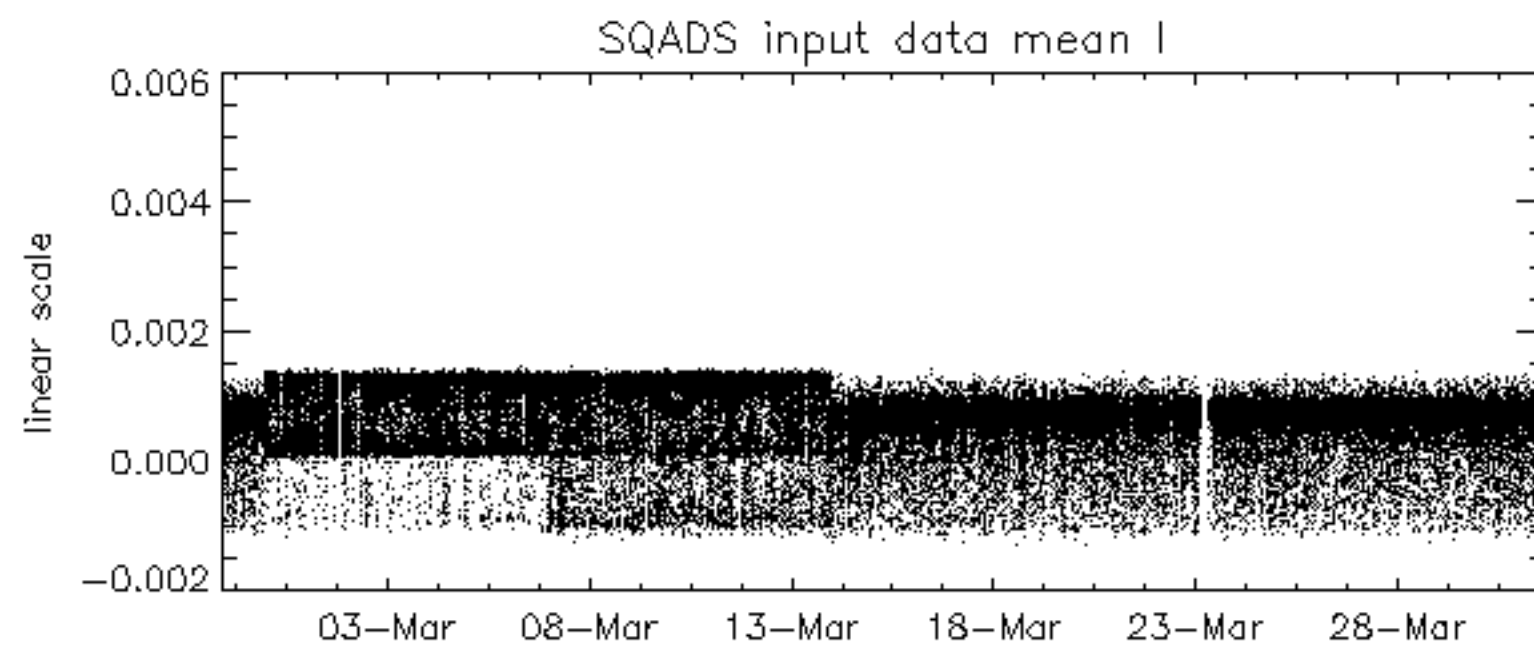
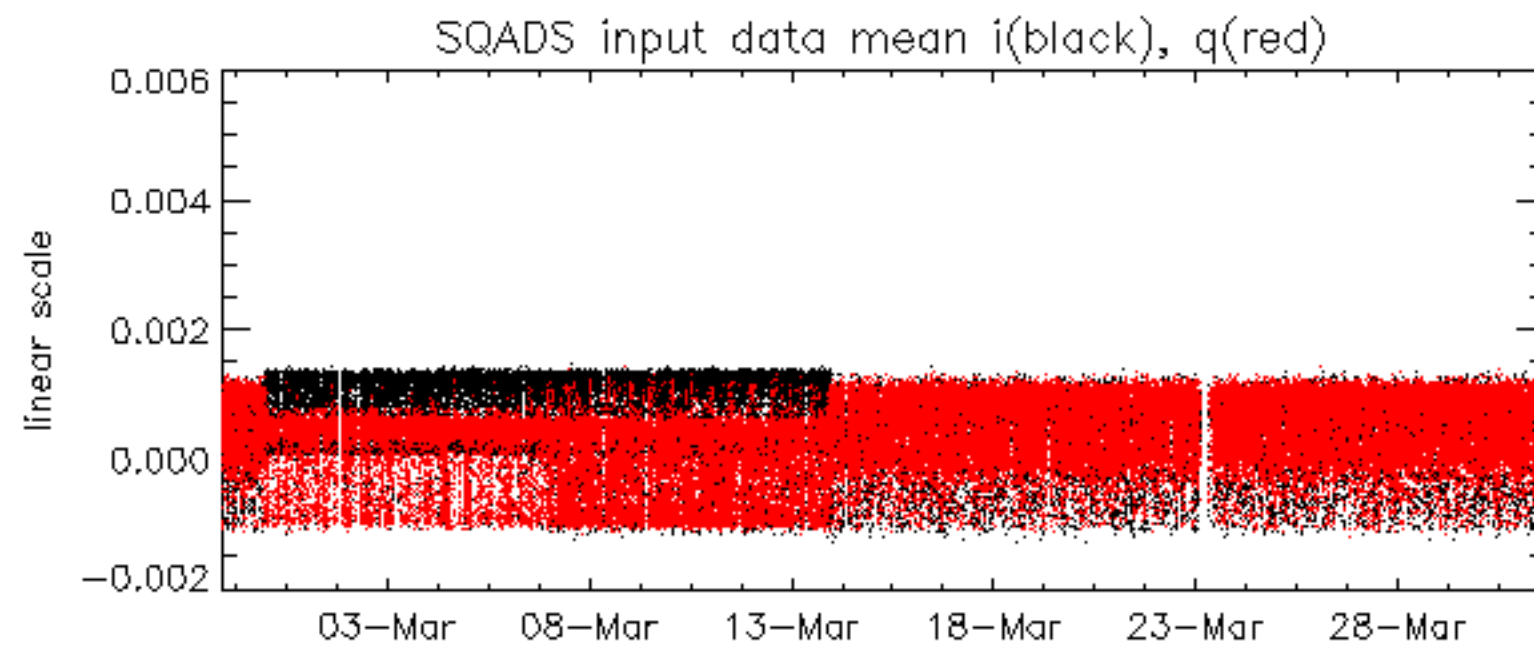
No anomalies observed.

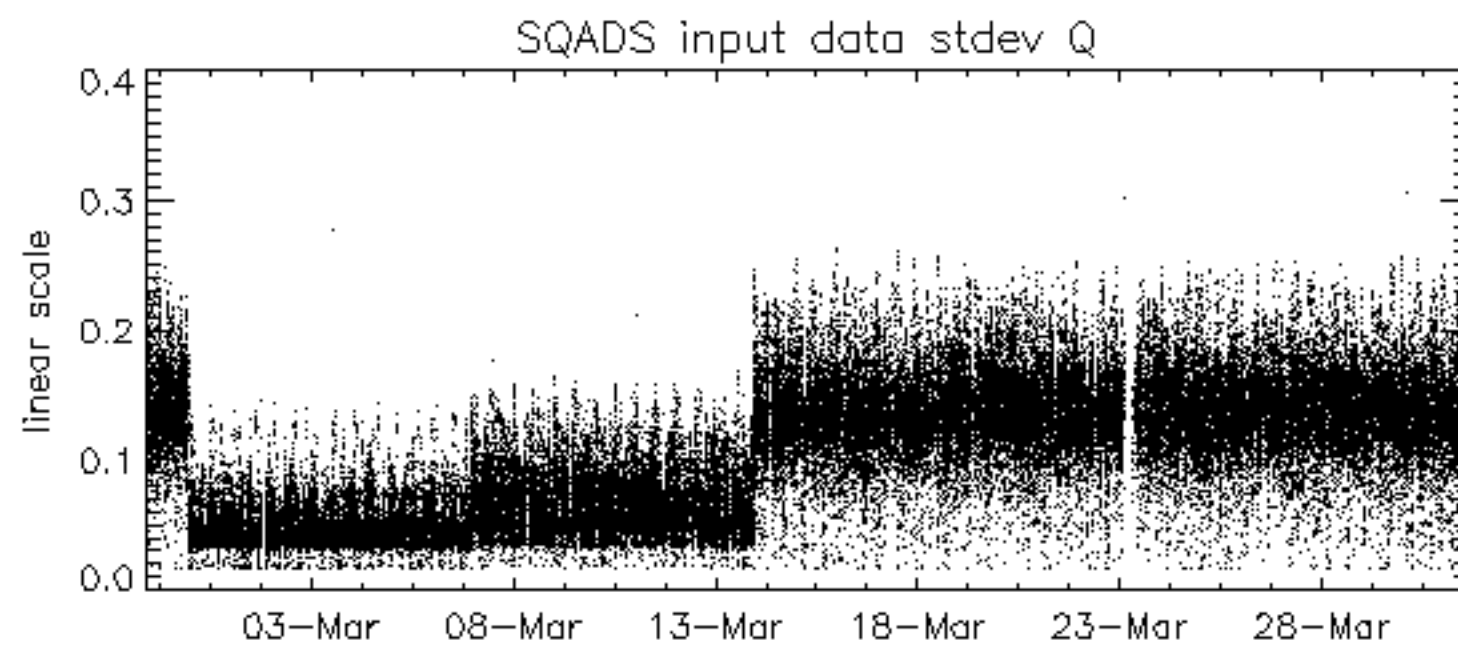
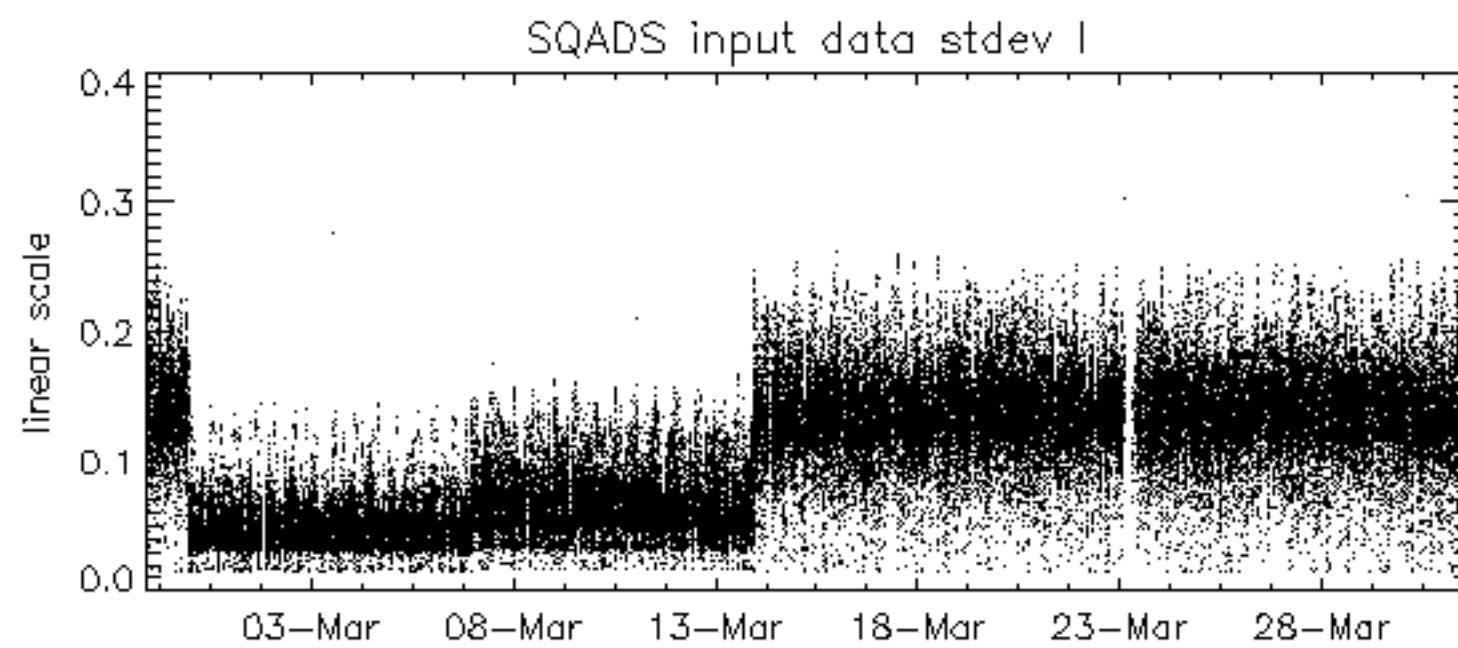
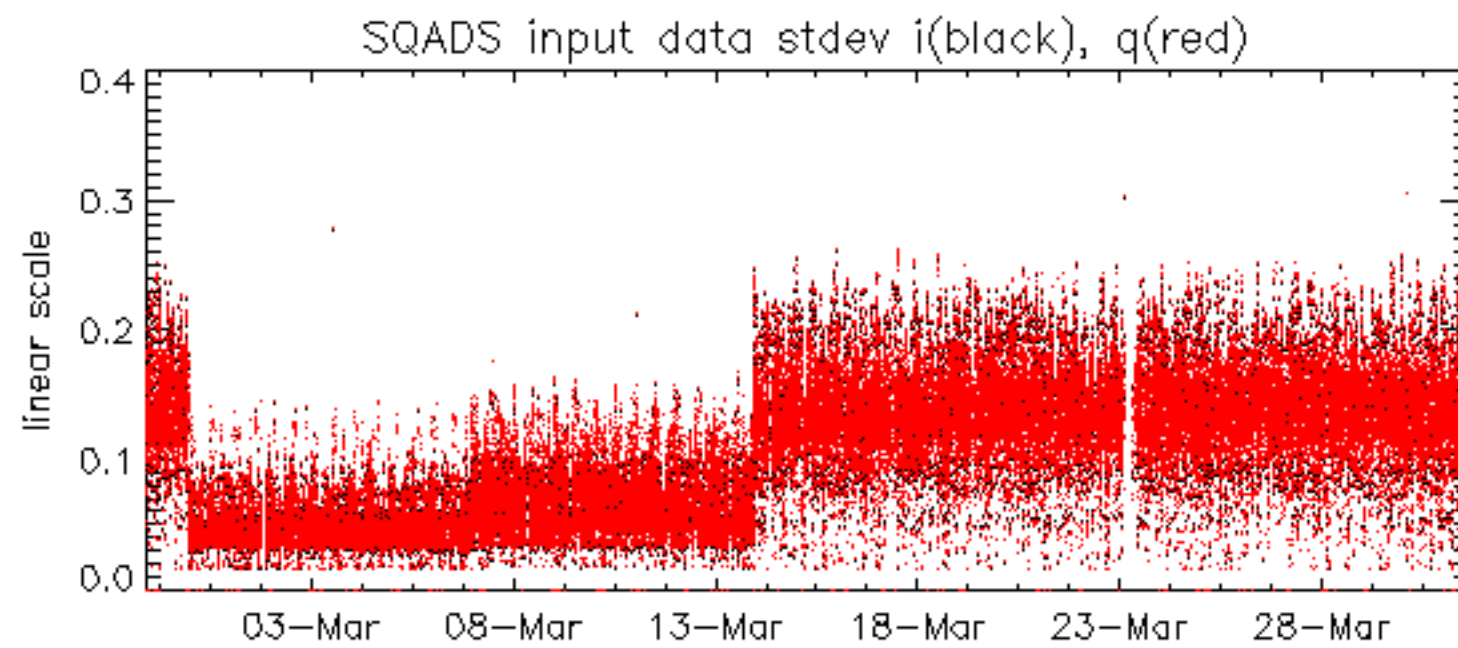








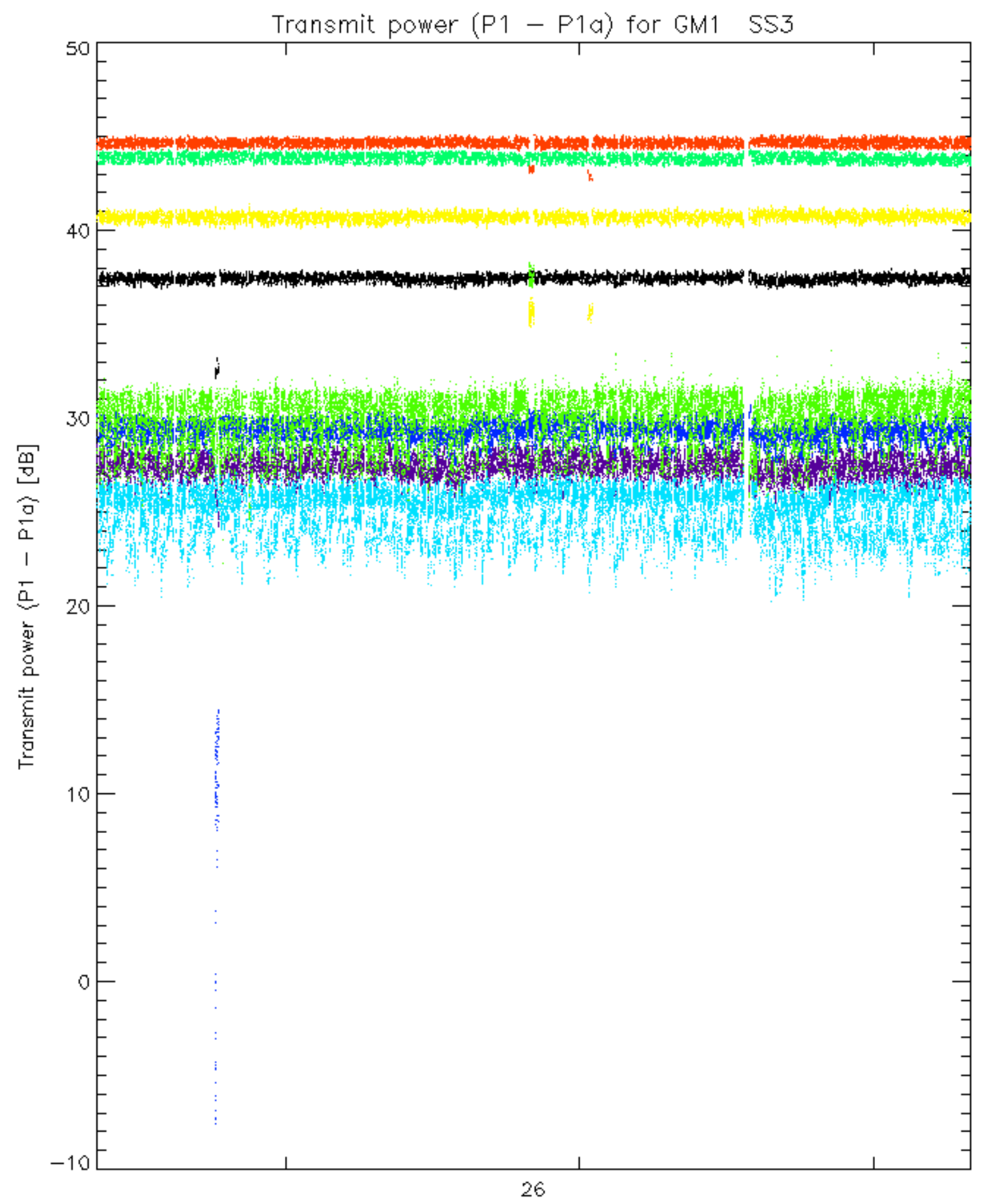


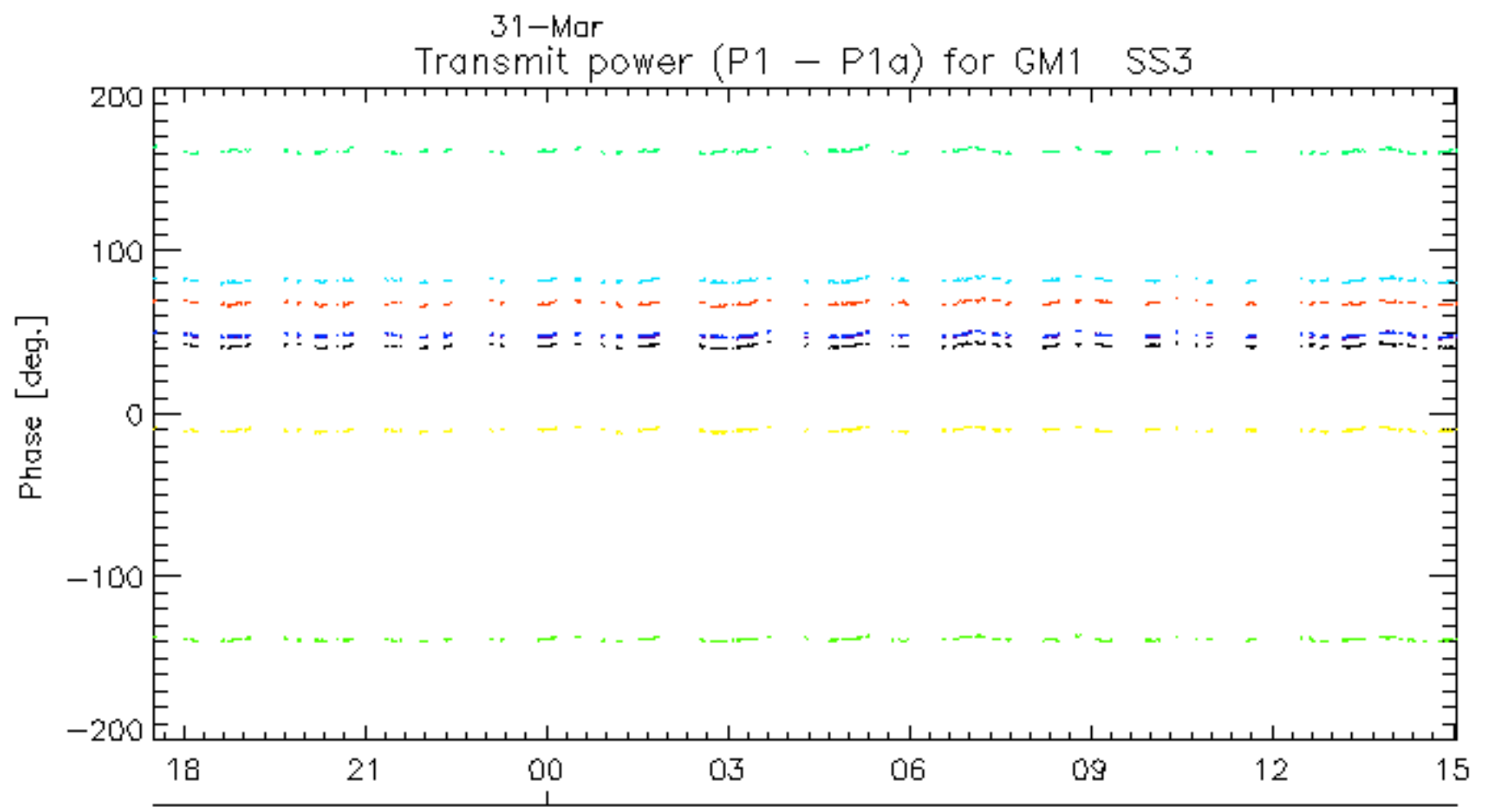
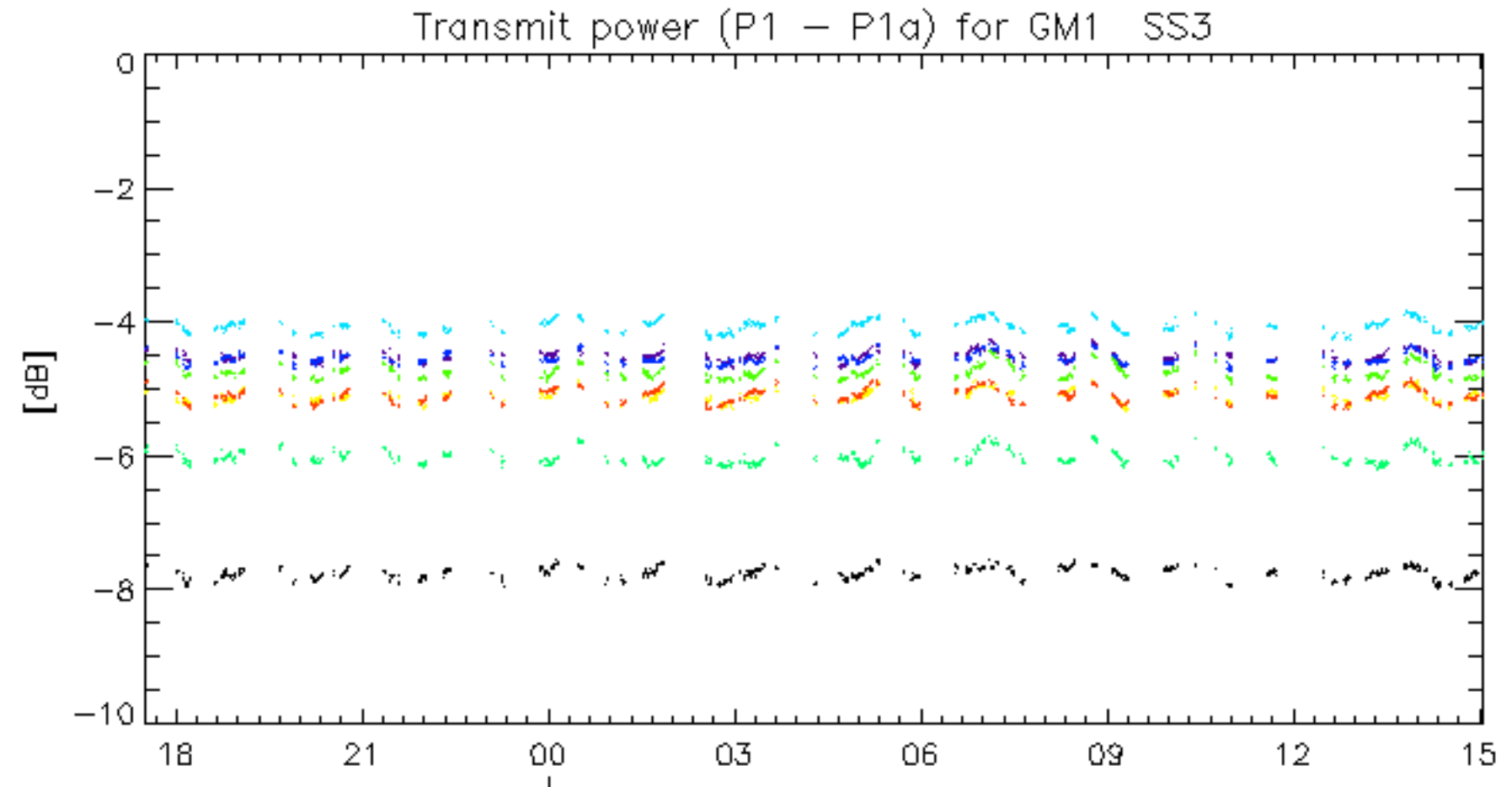


Summary of analysis for the last 3 days 2007033[901]

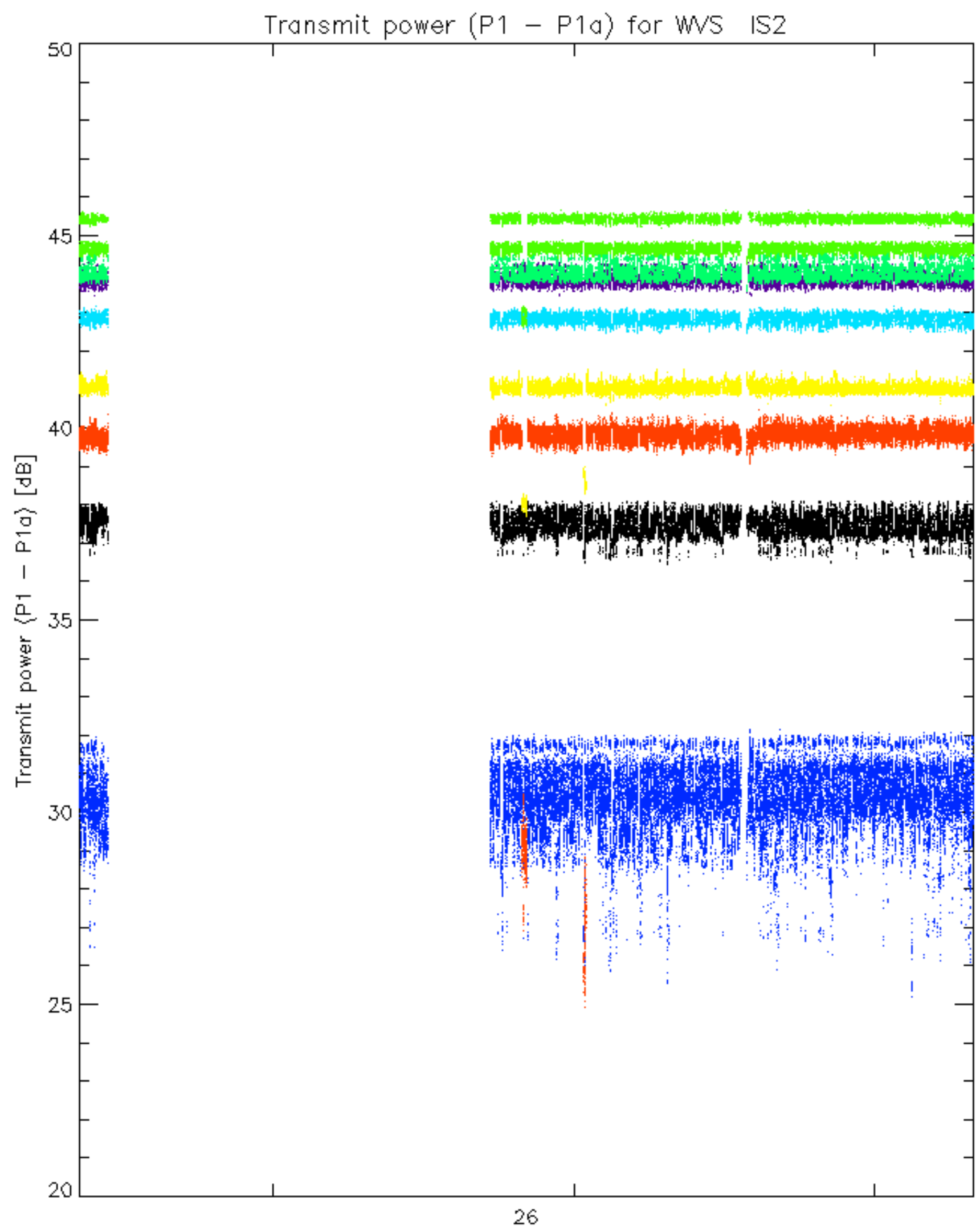
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070331_015157_00000532056_00461_26567_3757.N1	1	0
ASA_GM1_1PNPDK20070330_080056_000006582056_00450_26556_0149.N1	0	109
ASA_GM1_1PNPDK20070330_080102_000000782056_00450_26556_9771.N1	0	65
ASA_GM1_1PNPDK20070330_080230_000005612056_00450_26556_9789.N1	0	44
ASA_GM1_1PNPDK20070330_112243_000006222056_00452_26558_0084.N1	0	14
ASA_GM1_1PNPDK20070330_172811_000002892056_00456_26562_0672.N1	0	15
ASA_WSM_1PNPDK20070331_094426_000000852056_00466_26572_1239.N1	0	18

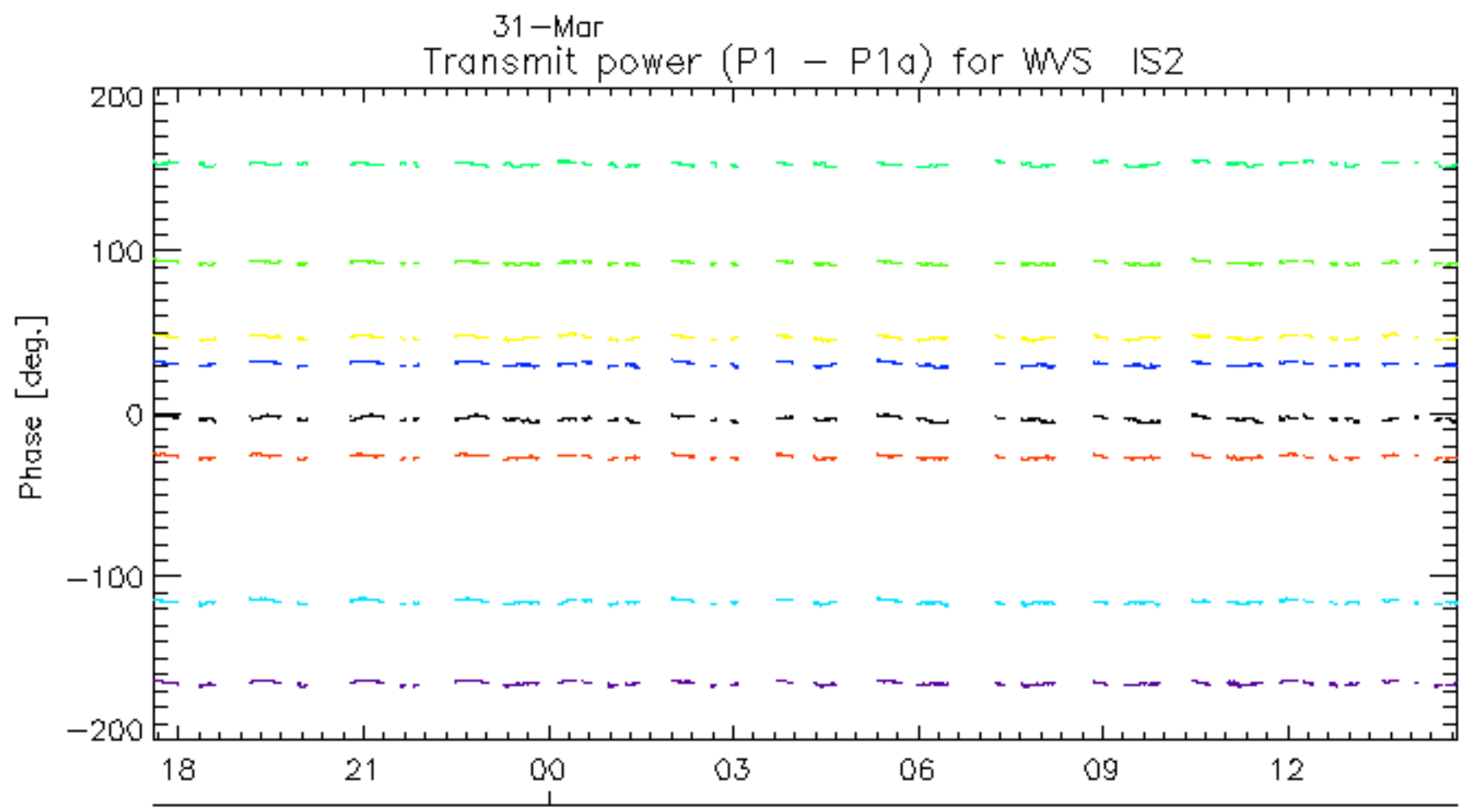
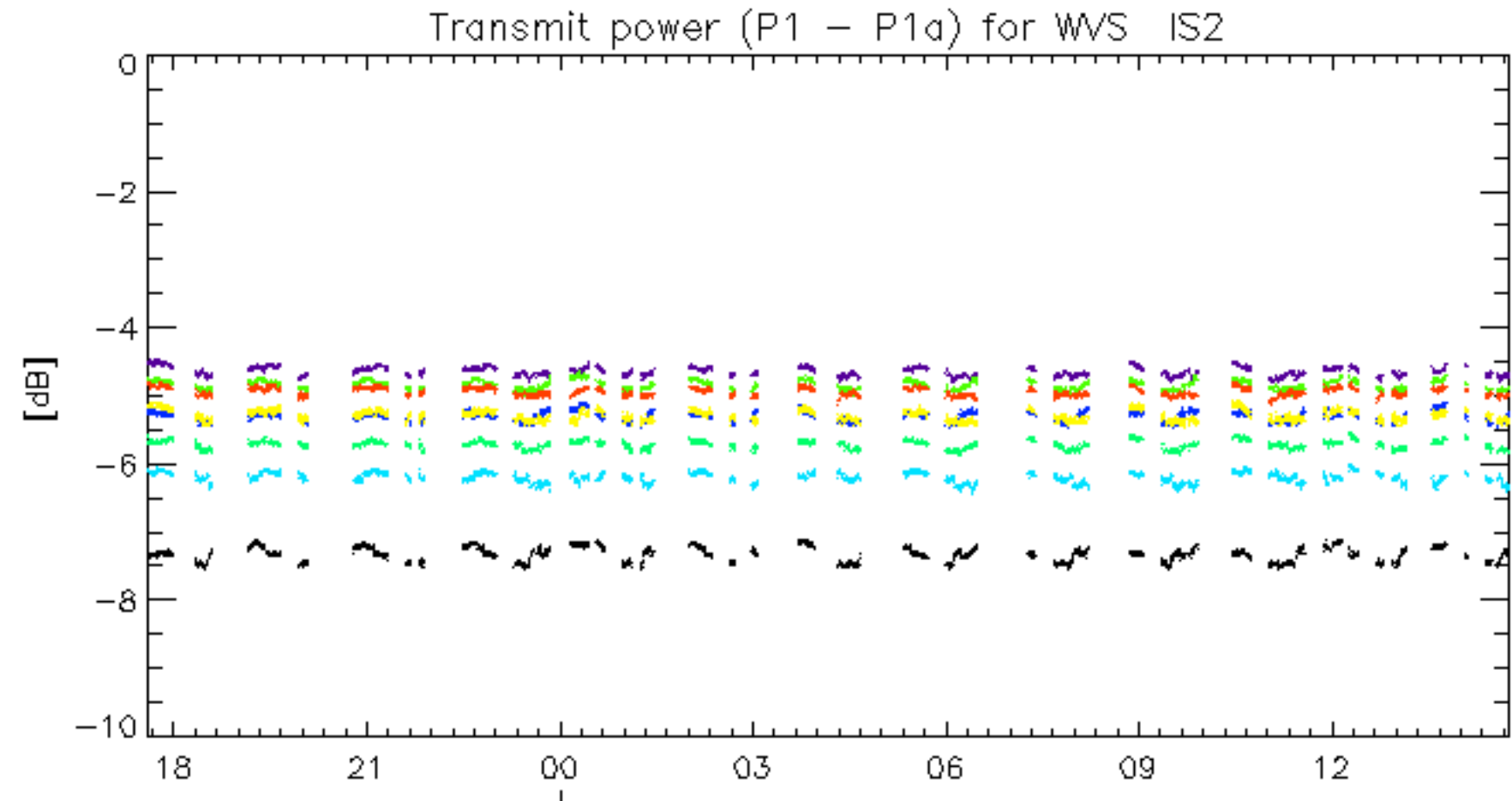




rows: 3 7 11 15 19 22 26 30



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



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

No unavailabilities during the reported period.