

PRELIMINARY REPORT OF 070318

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Mon Mar 19 13:56:20 GMT 2007

Due to an ASAR test acquisition campaign, the daily analysis on WVS products will be based on IS4 instead of IS2 during the following periods:

From orbit 25621 (23-Jan-2007) to 25720 (30-Jan-2007) in HH polarization

From orbit 26122 (27-Feb-2007) to 26221 (06-Mar-2007) in HH polarization

From orbit 25721 (30-Jan-2007) to 25820 (06-Feb-2007) in VV polarization

From orbit 26222 (06-Mar-2007) to 26321 (13-Mar-2007) in VV polarization

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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 2007-03-18 00:00:00 to 2007-03-19 13:56:20

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	40	59	8	3	19
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	40	59	8	3	19
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	40	59	8	3	19
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	59	8	3	19

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	48	51	70	9	26
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	48	51	70	9	26
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	48	51	70	9	26
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	51	70	9	26

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	20070319 084149

H 20070319 015926

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	-15.131713	0.118711	-0.093997
7	P1a	-17.473989	0.107493	-0.172796
11	P1a	-17.269857	0.334124	0.098660
15	P1a	-12.909501	0.085082	-0.136841
19	P1a	-15.159908	0.079168	-0.050597
22	P1a	-15.385628	0.778595	0.012212
26	P1a	-14.982447	0.876437	0.292940
30	P1a	-17.349573	0.408204	-0.016574

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.746285	0.010064	-0.056813
7	P1	-3.137199	0.008232	-0.022664
11	P1	-4.164101	0.015226	-0.036121
15	P1	-6.386070	0.015482	-0.029640
19	P1	-3.773620	0.008291	-0.035601
22	P1	-4.642624	0.102943	0.061793
26	P1	-3.899004	0.080639	0.138430
30	P1	-5.867574	0.164124	0.143545

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.655949	0.092249	0.049169
7	P2	-21.611973	0.081340	0.025676

11	P2	-15.527980	0.098629	0.079611
15	P2	-7.077451	0.092430	-0.057056
19	P2	-9.109256	0.082979	-0.016571
22	P2	-18.101995	0.074345	0.028102
26	P2	-16.554560	0.084513	-0.074396
30	P2	-19.341167	0.077438	0.054029

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.238283	0.006393	-0.006047
7	P3	-8.238283	0.006393	-0.006047
11	P3	-8.238283	0.006393	-0.006047
15	P3	-8.238283	0.006393	-0.006047
19	P3	-8.238283	0.006393	-0.006047
22	P3	-8.238283	0.006393	-0.006047
26	P3	-8.238283	0.006393	-0.006047
30	P3	-8.238283	0.006393	-0.006047

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	-11.084210	0.056540	-0.081861
7	P1a	-10.071176	0.167948	-0.022936
11	P1a	-10.682178	0.071836	-0.099728
15	P1a	-10.956501	0.142460	0.052931
19	P1a	-15.699585	0.072552	-0.176279
22	P1a	-20.845486	1.623838	0.654536
26	P1a	-15.228543	0.311075	0.184923
30	P1a	-18.344303	0.880937	0.582037

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.406112	0.049932	-0.058641
7	P1	-2.426378	0.031639	-0.020463
11	P1	-2.924522	0.022129	-0.007010
15	P1	-3.849190	0.044351	-0.038882
19	P1	-3.558984	0.011115	-0.054480
22	P1	-5.033276	0.037299	0.110109
26	P1	-5.938712	0.063928	0.112795
30	P1	-5.266428	0.033323	0.042543

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.104265	0.035482	-0.059843
7	P2	-21.954998	0.058592	-0.052525
11	P2	-10.640324	0.031863	-0.000159
15	P2	-4.826844	0.029799	-0.014538
19	P2	-6.813003	0.031549	-0.027783
22	P2	-8.078557	0.035328	-0.010386
26	P2	-24.292873	0.040228	0.036482
30	P2	-21.725536	0.041658	0.053179

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.059913	0.003824	0.000841
7	P3	-8.059825	0.003810	0.000742
11	P3	-8.059859	0.003809	0.000860
15	P3	-8.059980	0.003821	0.001351
19	P3	-8.059937	0.003821	0.002076
22	P3	-8.059938	0.003816	0.000325
26	P3	-8.059670	0.003793	0.001752
30	P3	-8.059857	0.003818	-0.000019

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	0.000681533
	stdev	3.01676e-07
MEAN Q	mean	0.000265410
	stdev	2.81469e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.0848877
	stdev	0.00207437
STDEV Q	mean	0.0846285
	stdev	0.00212682



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007031[678]

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_1PNPDE20070316_210538_000000342056_00258_26364_4589.N1	1	0
ASA_IMM_1PNPDE20070318_210136_000000982056_00286_26392_7093.N1	1	42
ASA_IMM_1PNPDE20070318_210638_000003002056_00286_26392_7140.N1	2	81
ASA_IMM_1PNPDK20070316_092324_000000372056_00251_26357_2261.N1	0	1
ASA_WVS_1PNPDK20070318_191755_000000002056_00285_26391_5999.N1	1	0
ASA_GM1_1PNPDK20070316_142640_000002772056_00254_26360_3264.N1	0	7
ASA_GM1_1PNPDK20070318_150057_000001202056_00283_26389_5642.N1	0	8
ASA_GM1_1PNPDK20070318_191841_000000722056_00285_26391_6049.N1	0	13
ASA_WSM_1PNPDE20070316_141502_000000852056_00254_26360_4383.N1	0	15
ASA_WSM_1PNPDE20070317_153552_000003002056_00269_26375_5553.N1	0	111
ASA_WSM_1PNPDE20070318_145119_000000852056_00283_26389_6914.N1	0	36
ASA_WSM_1PNPDK20070316_070403_000002452056_00249_26355_2248.N1	0	3
ASA_APM_1PNPDK20070316_093722_000000432056_00251_26357_2257.N1	0	1





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

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

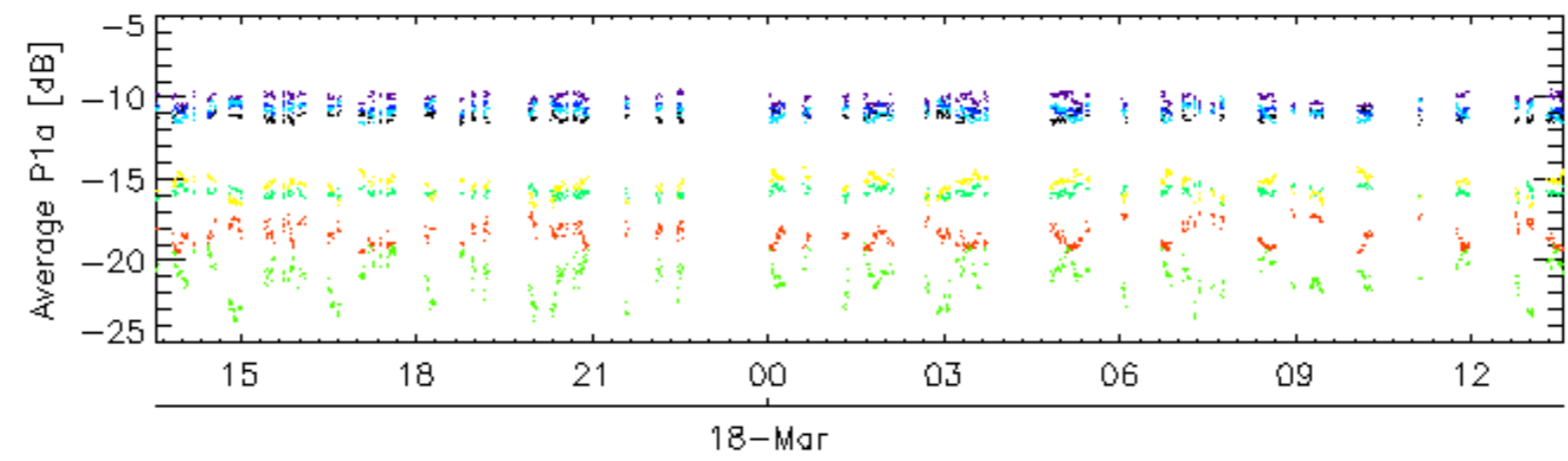
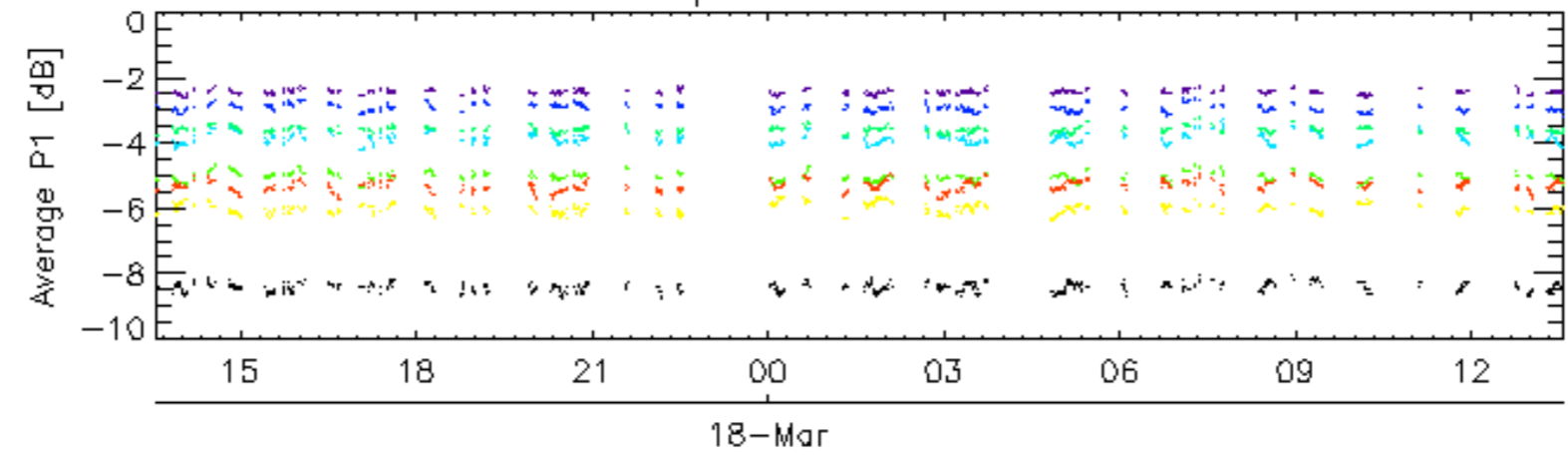
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

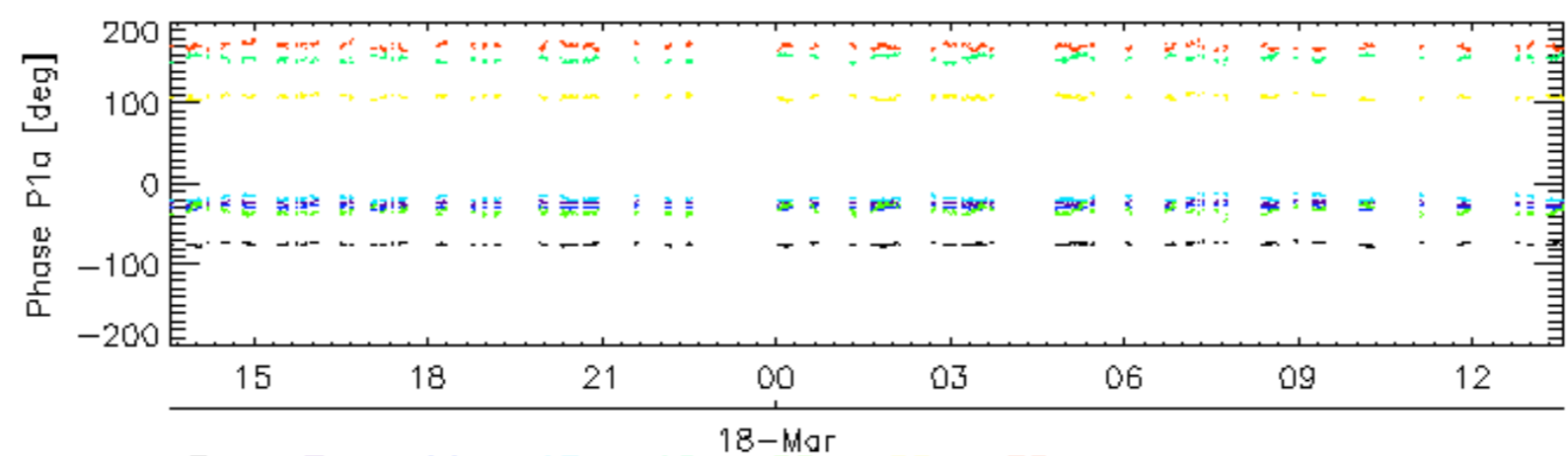
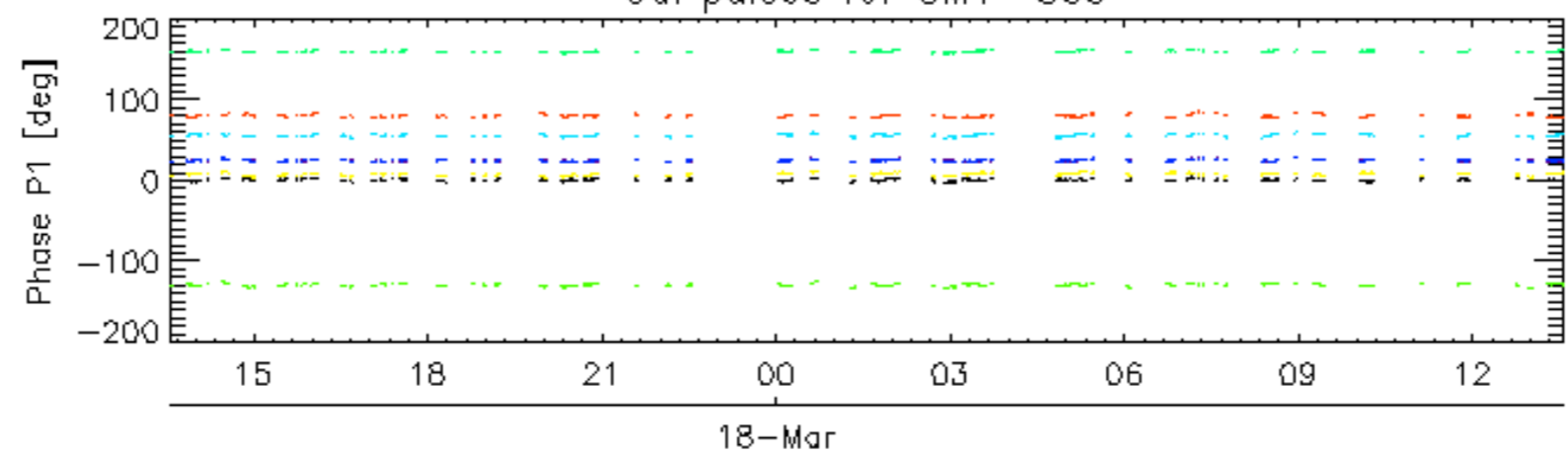
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

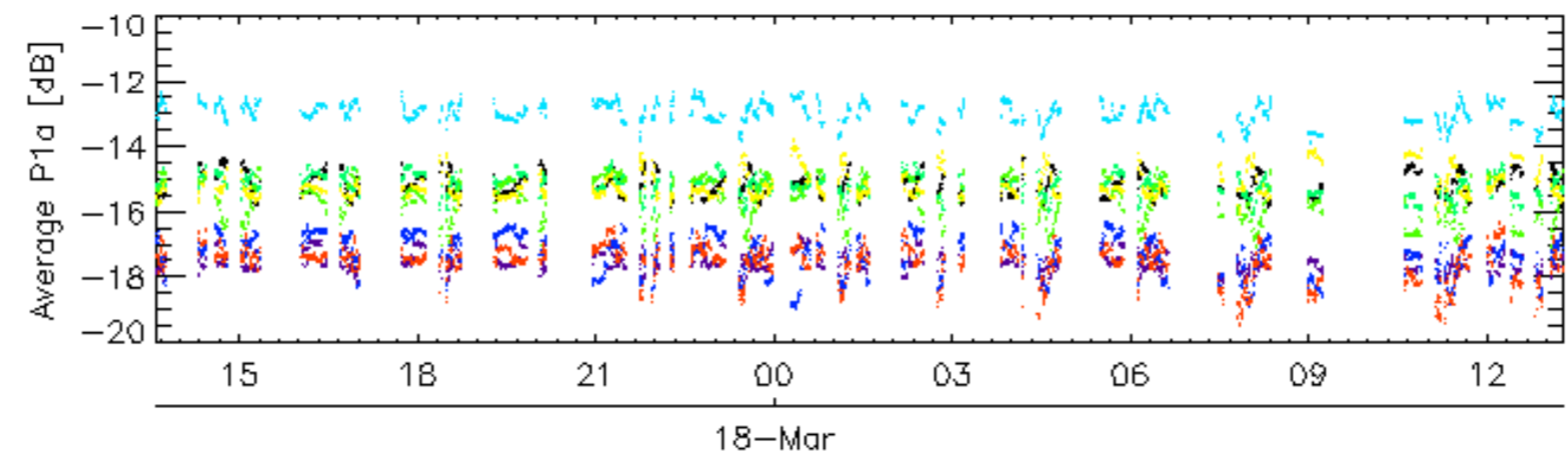
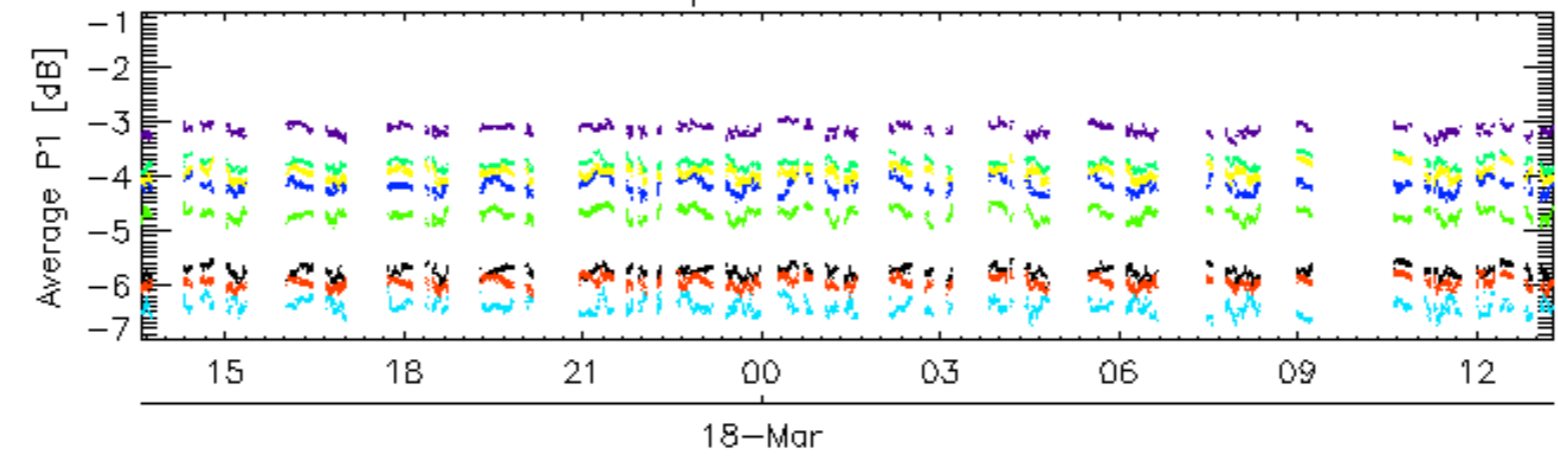


Cal pulses for GM1 SS3

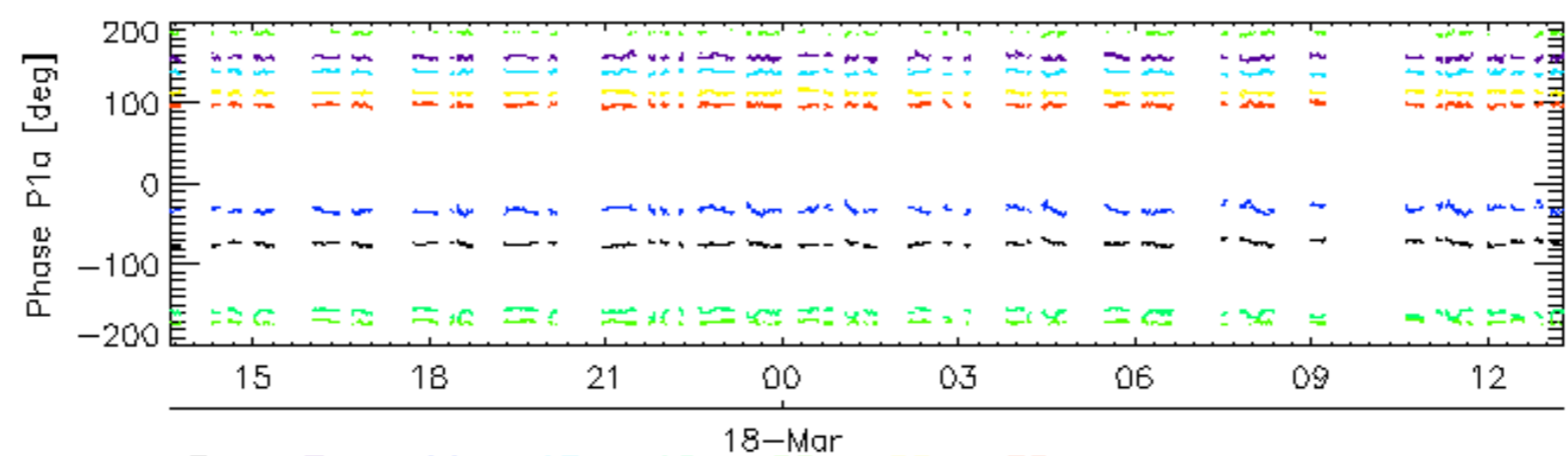
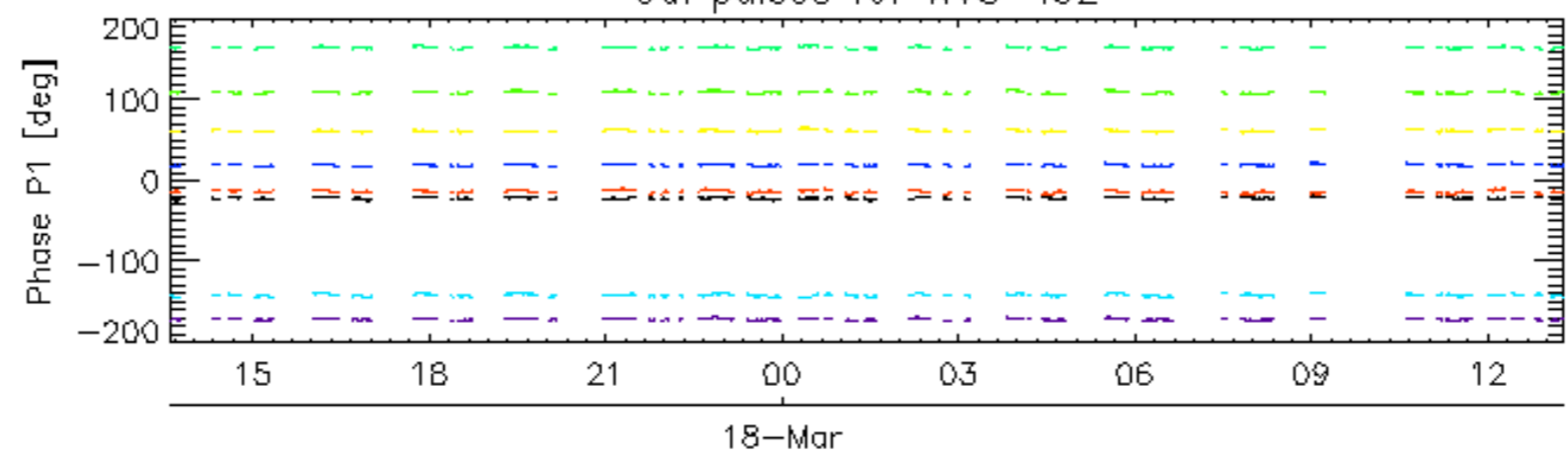


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

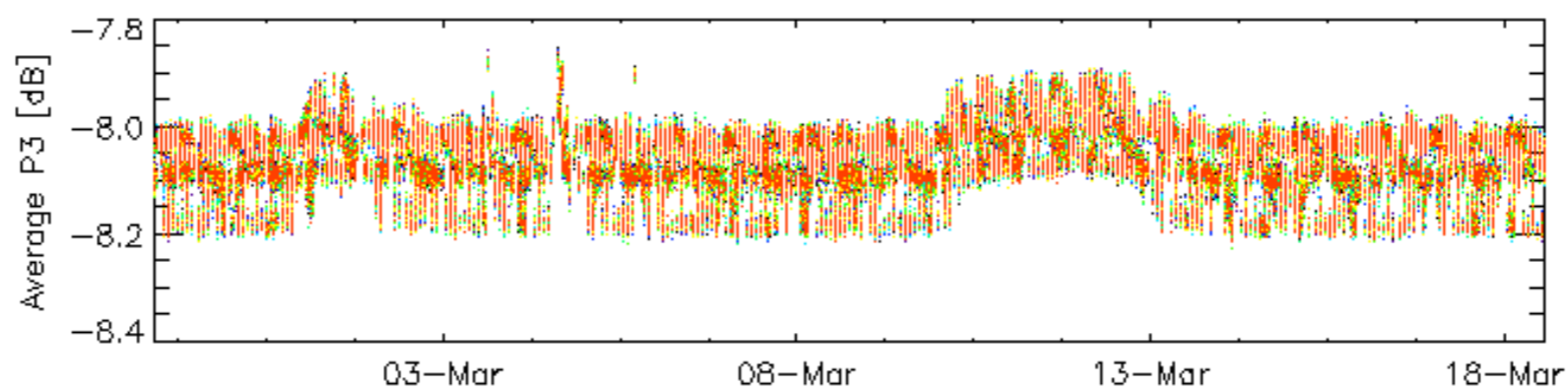
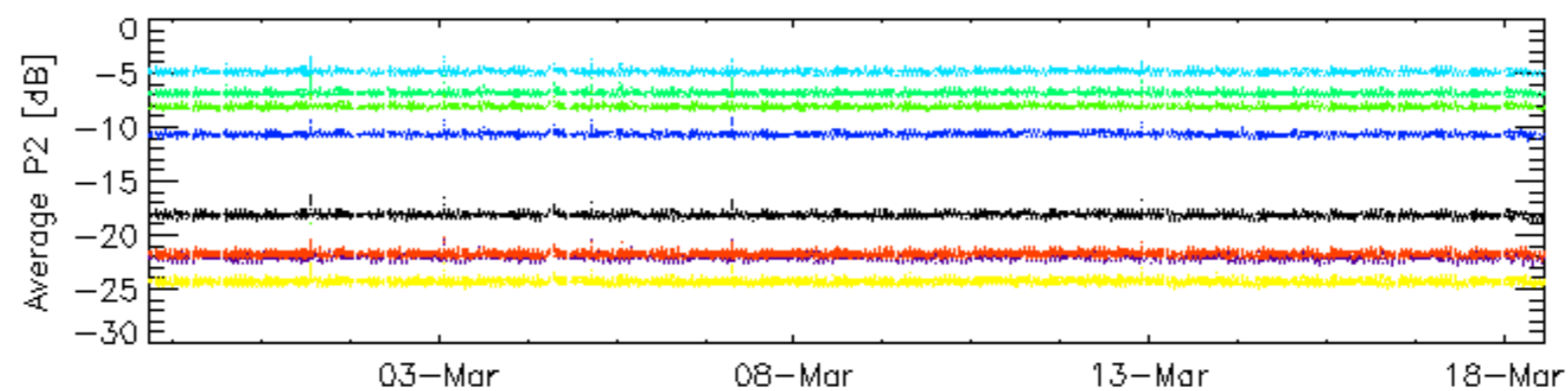
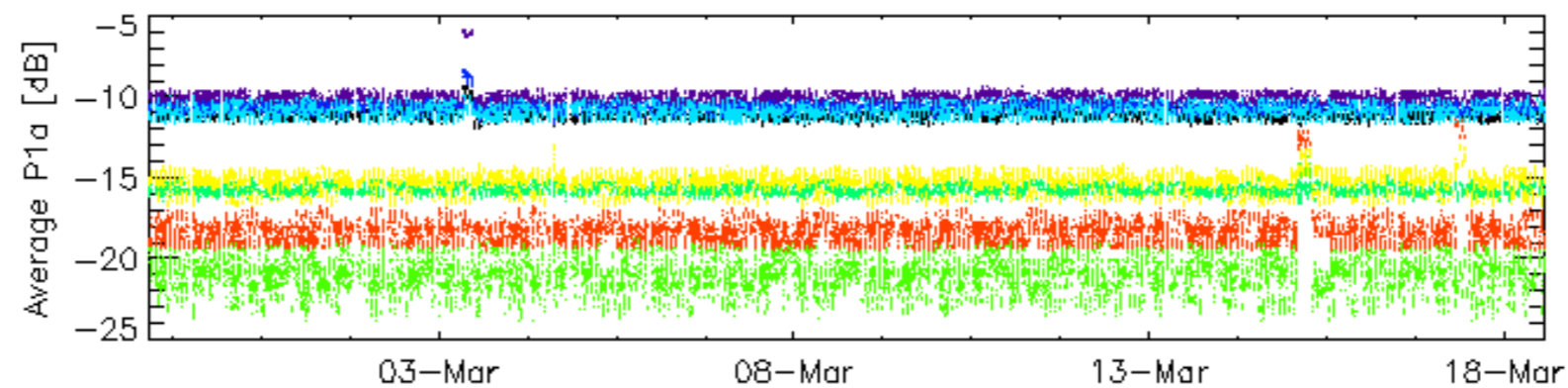
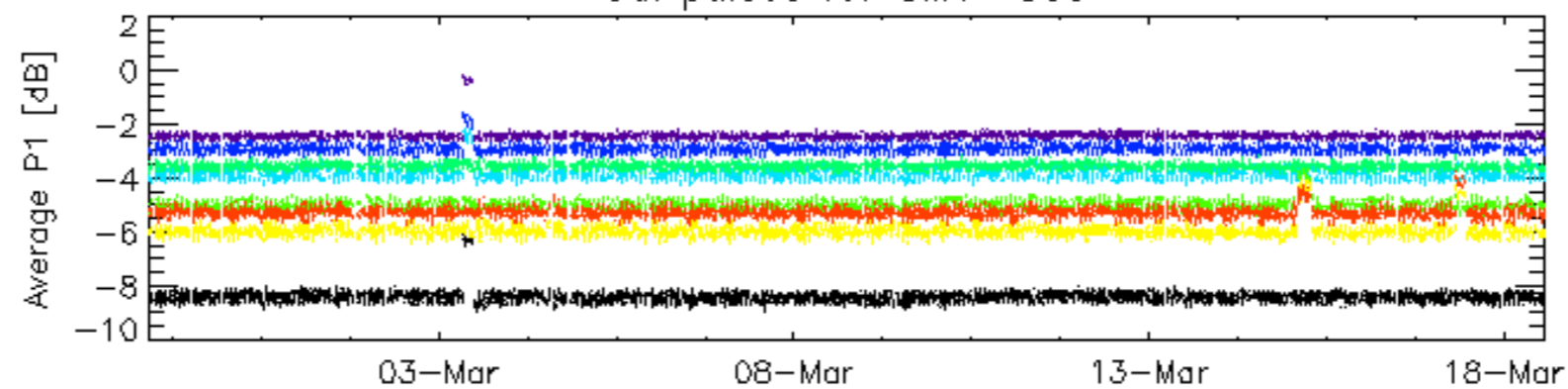


Cal pulses for WVS IS2



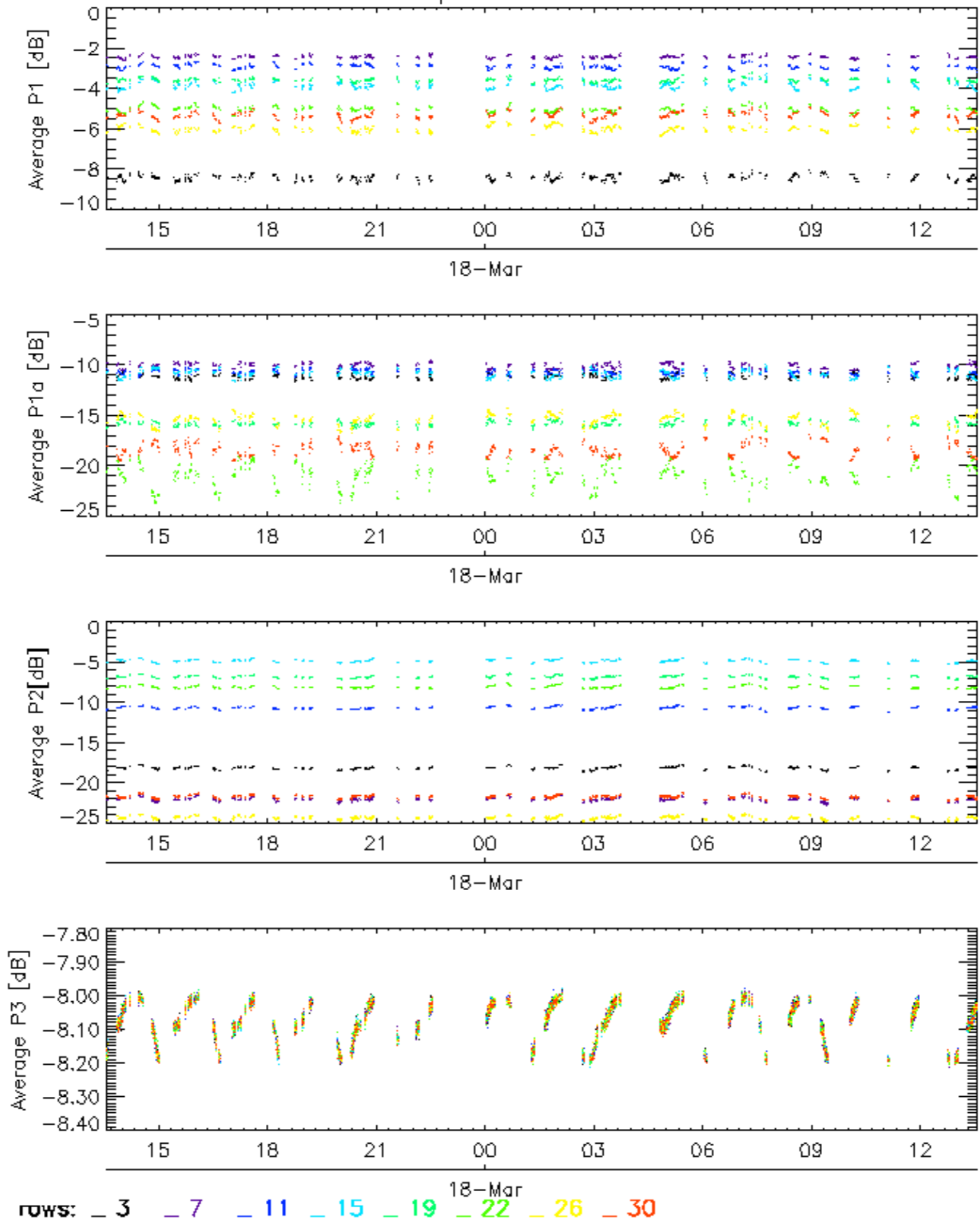
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

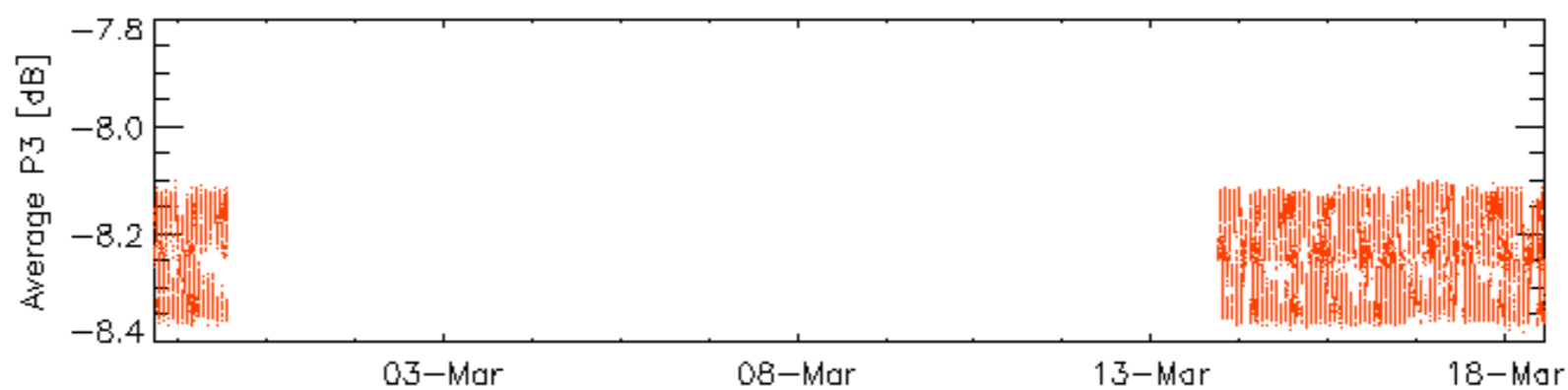
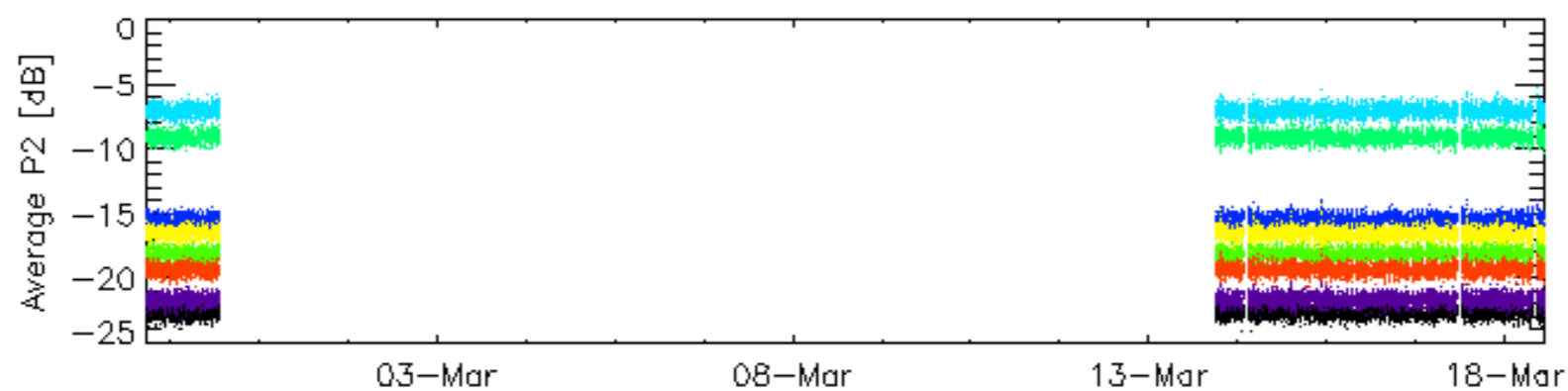
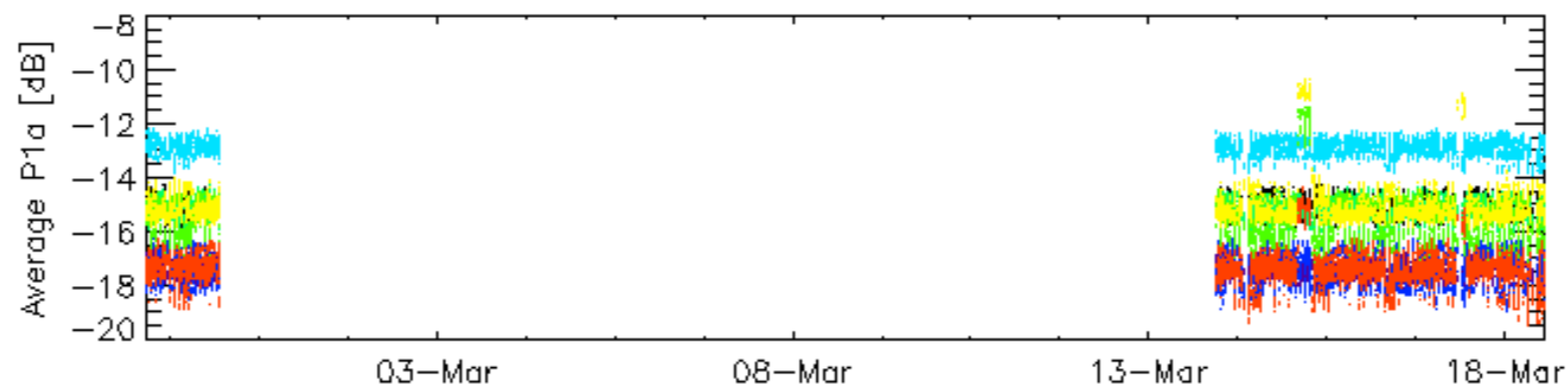
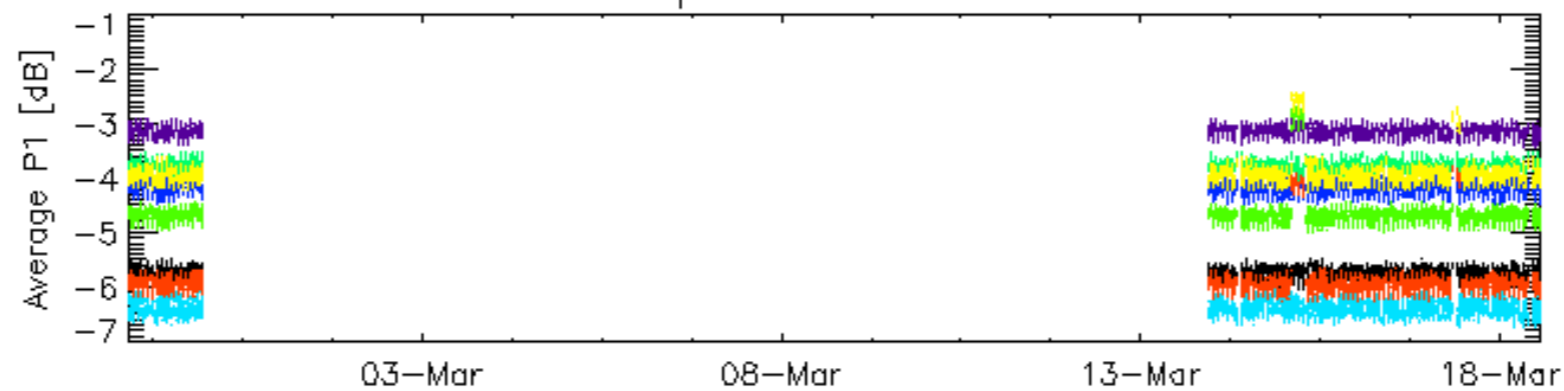


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

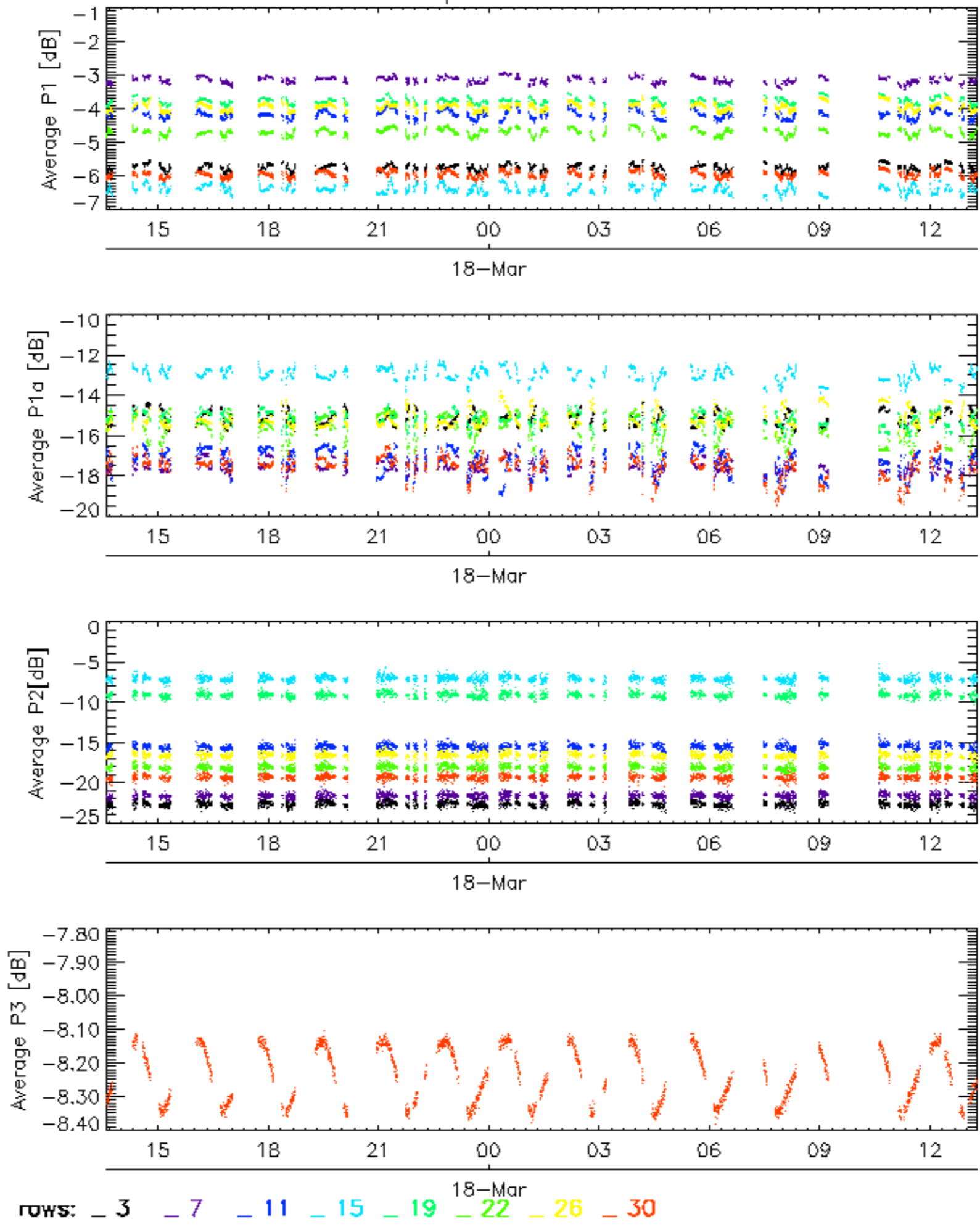


Cal pulses for WVS IS2

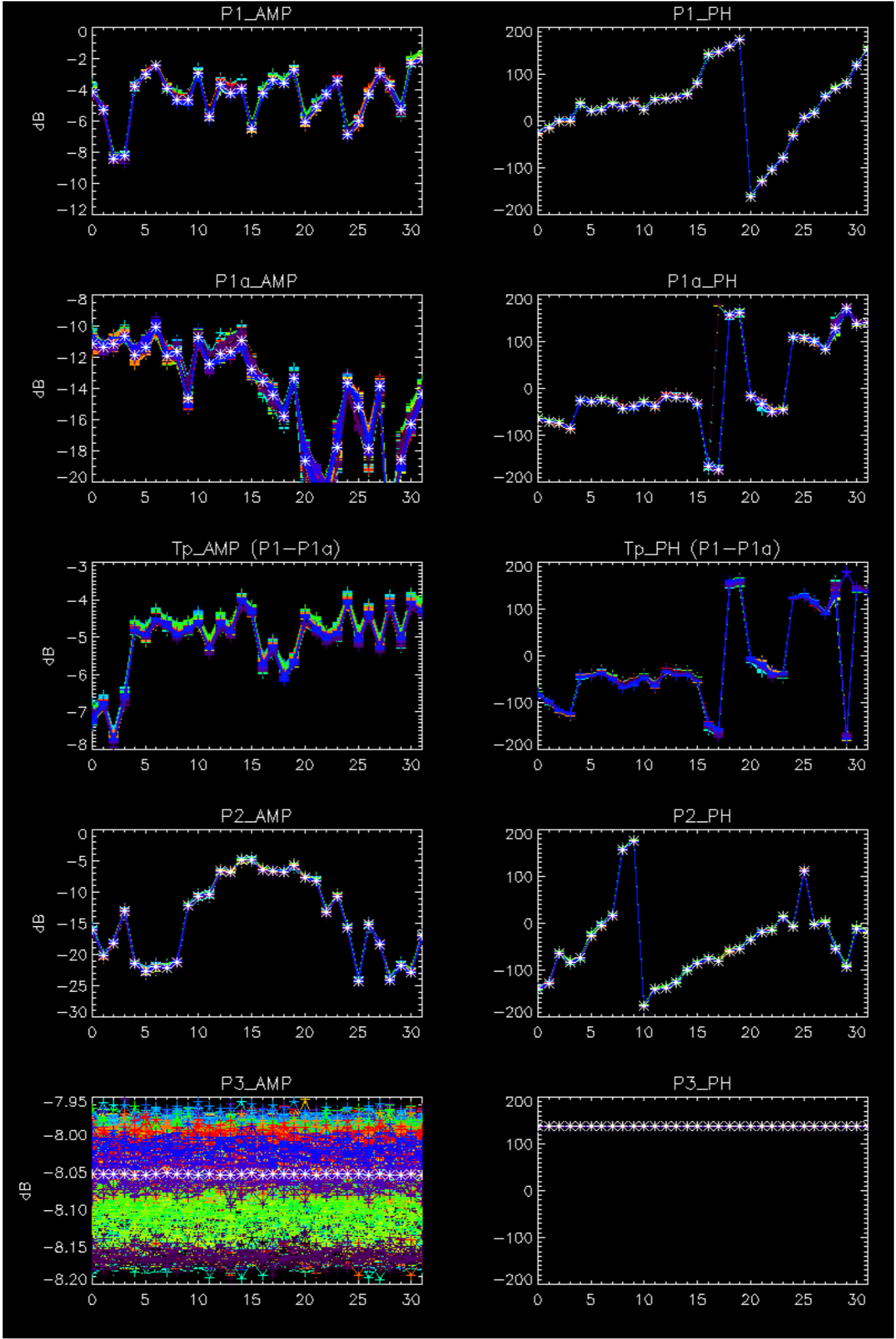


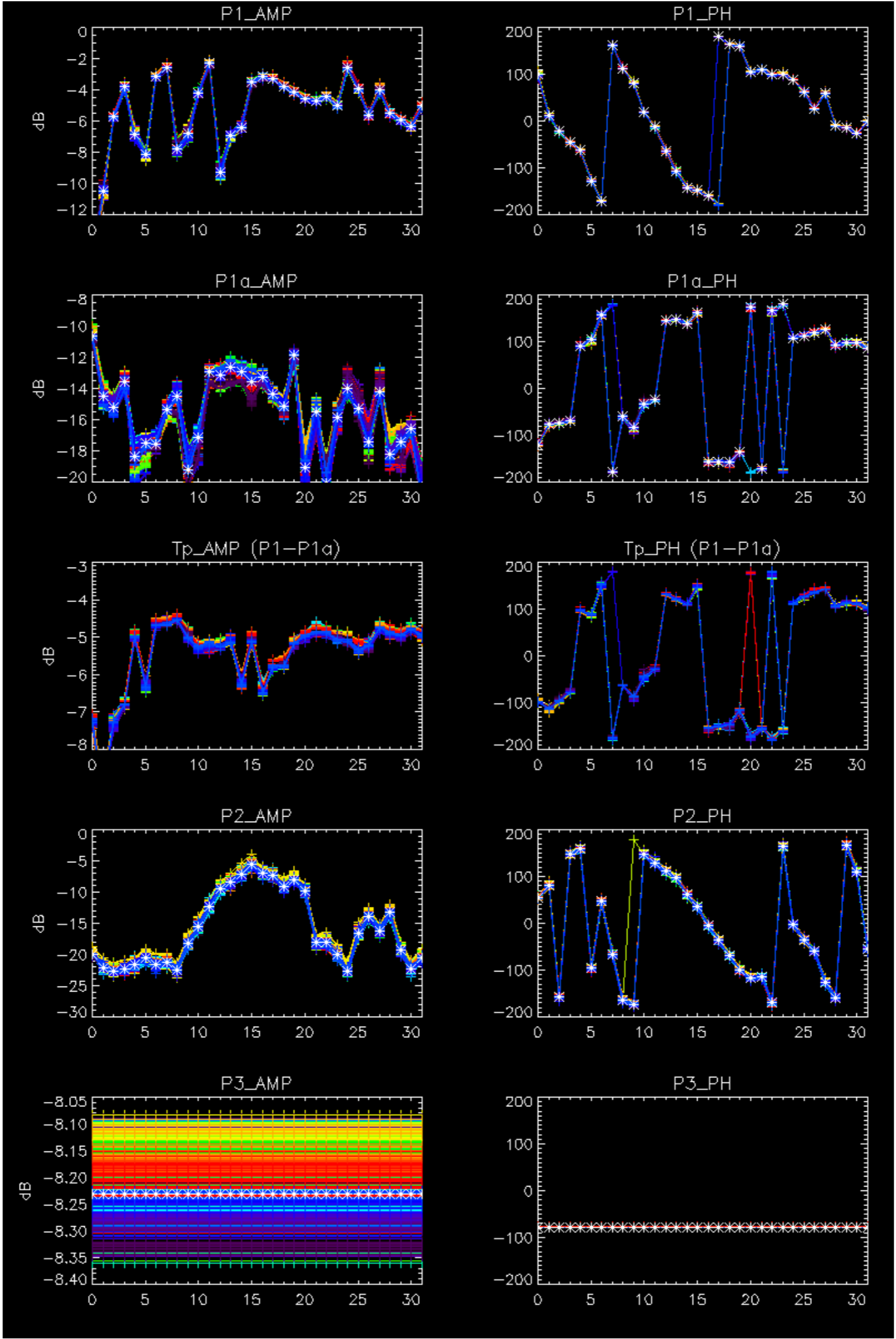
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



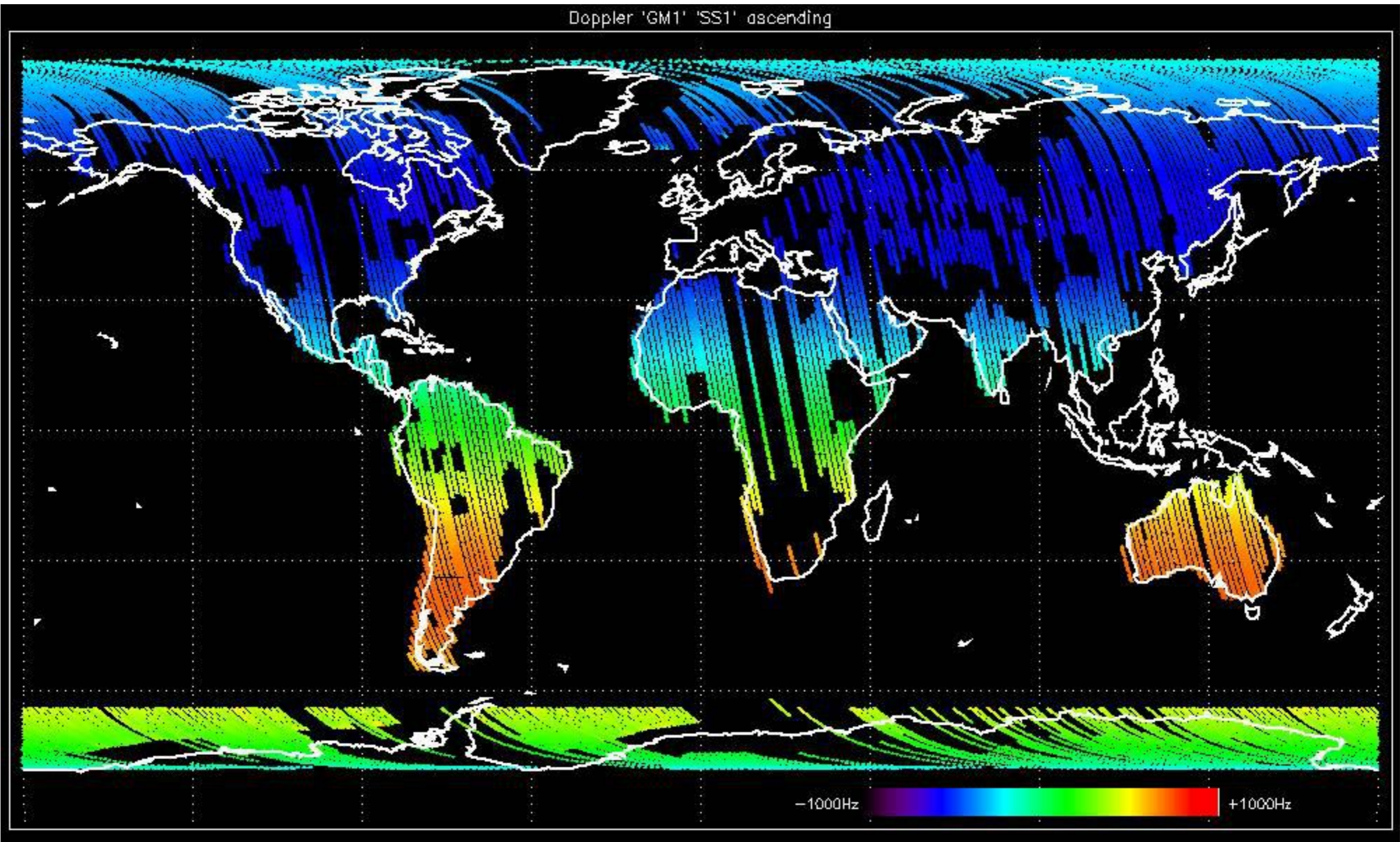
No anomalies observed.



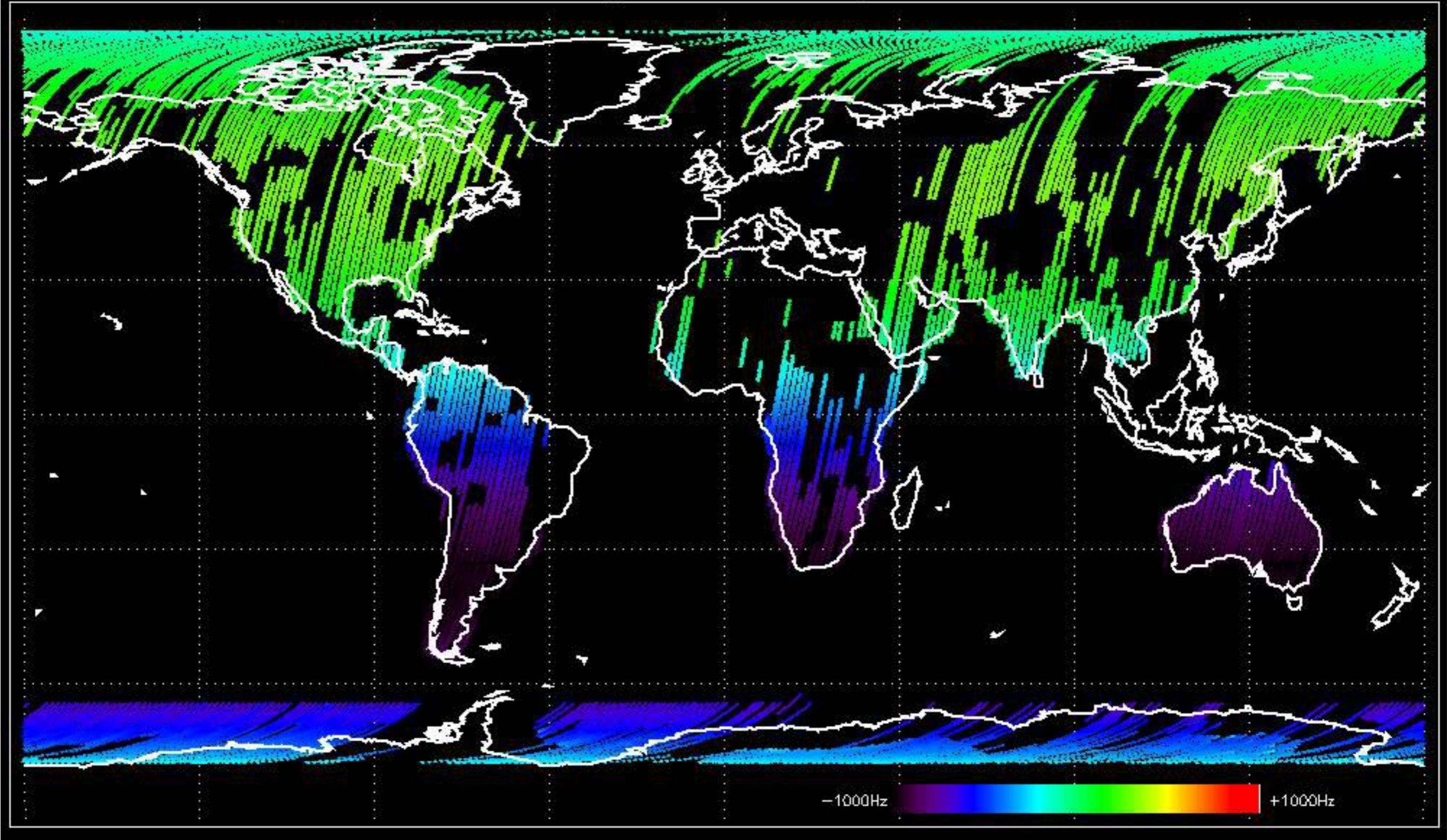


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

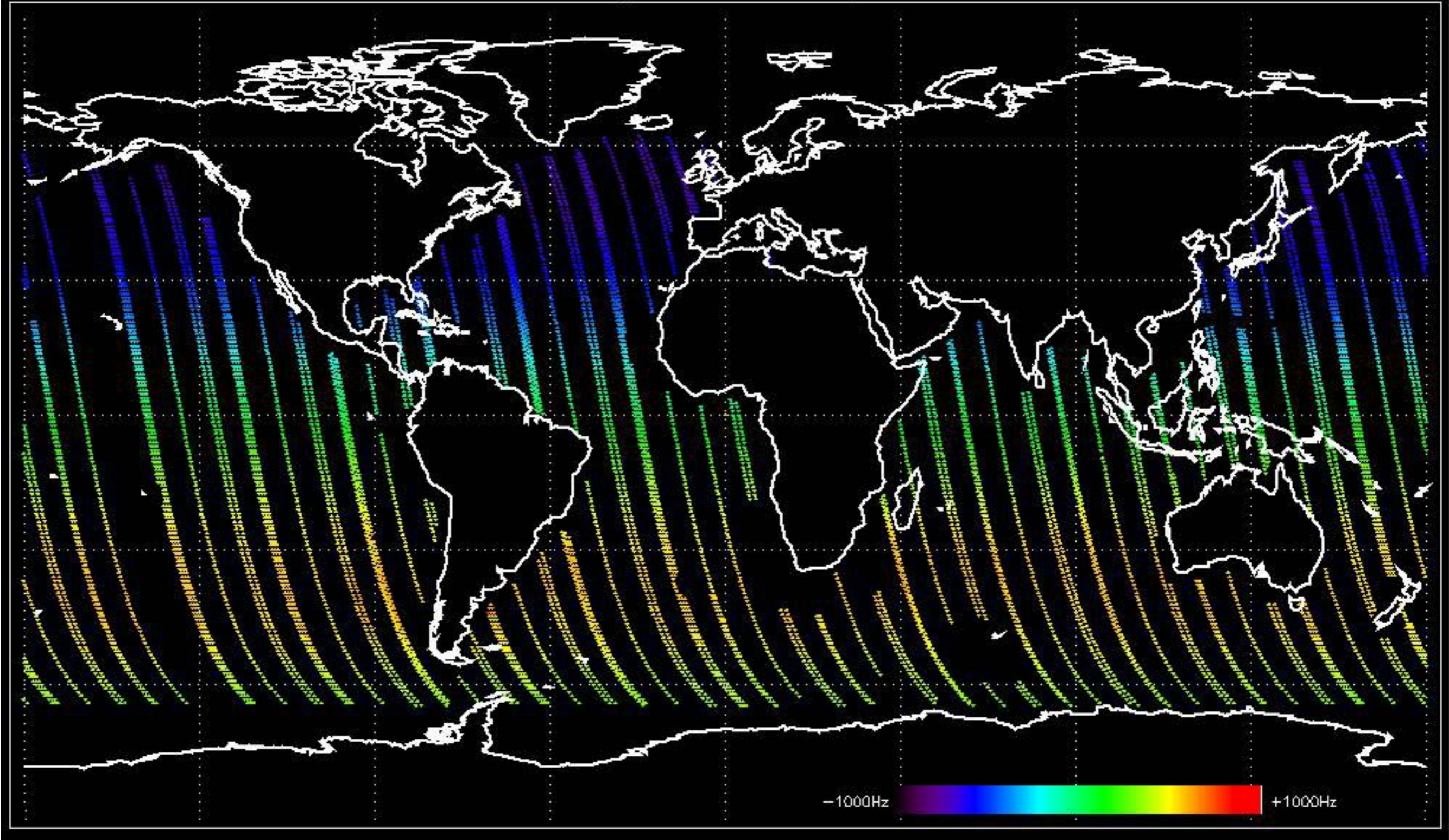
Doppler 'GM1' 'SS1' ascending



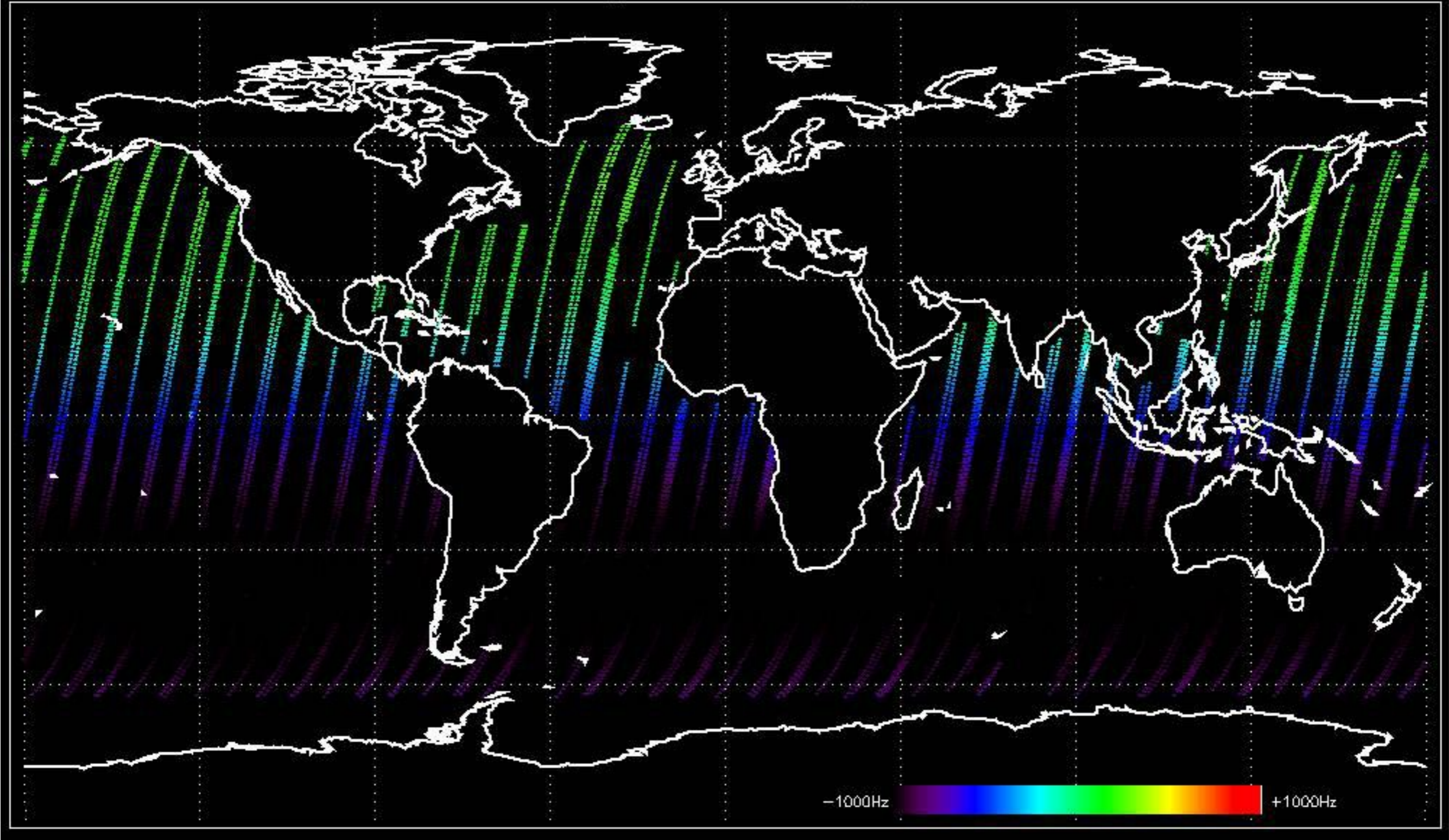
Doppler 'GM1' 'SS1' descending



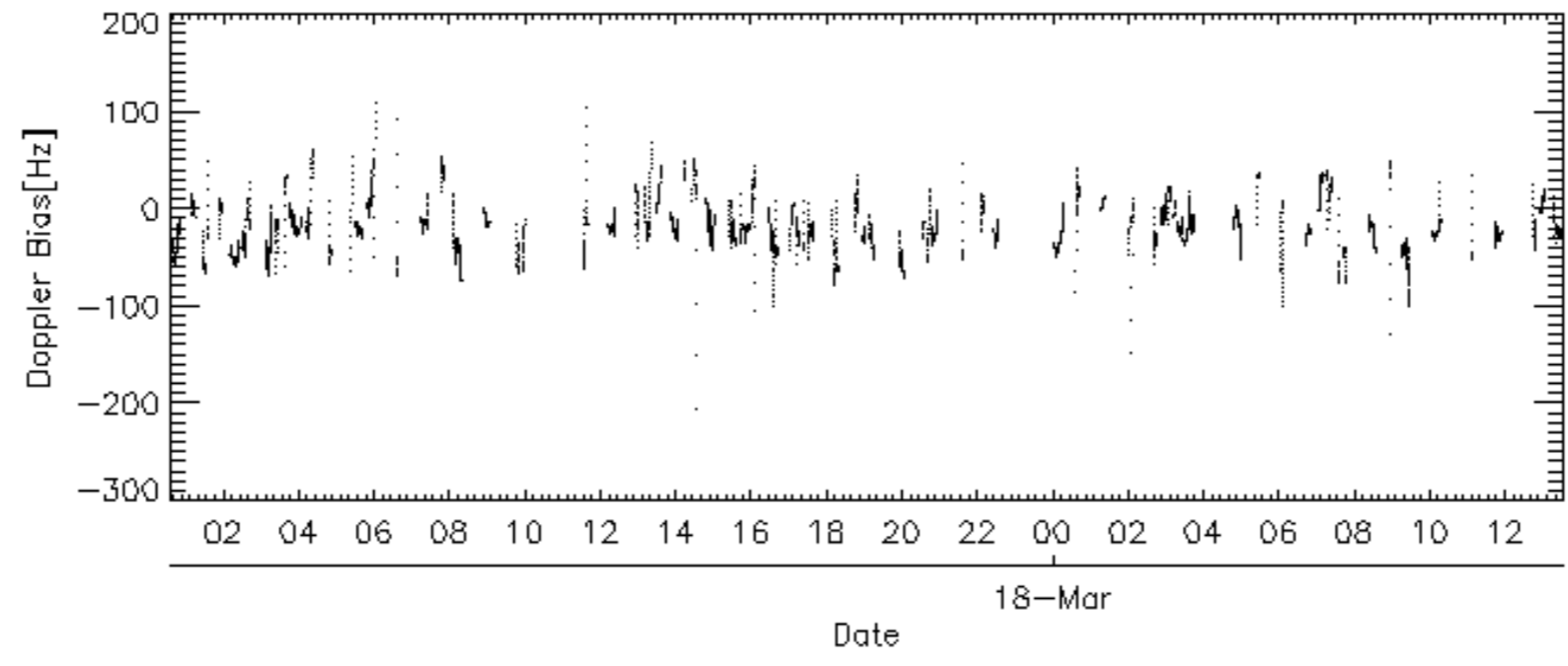
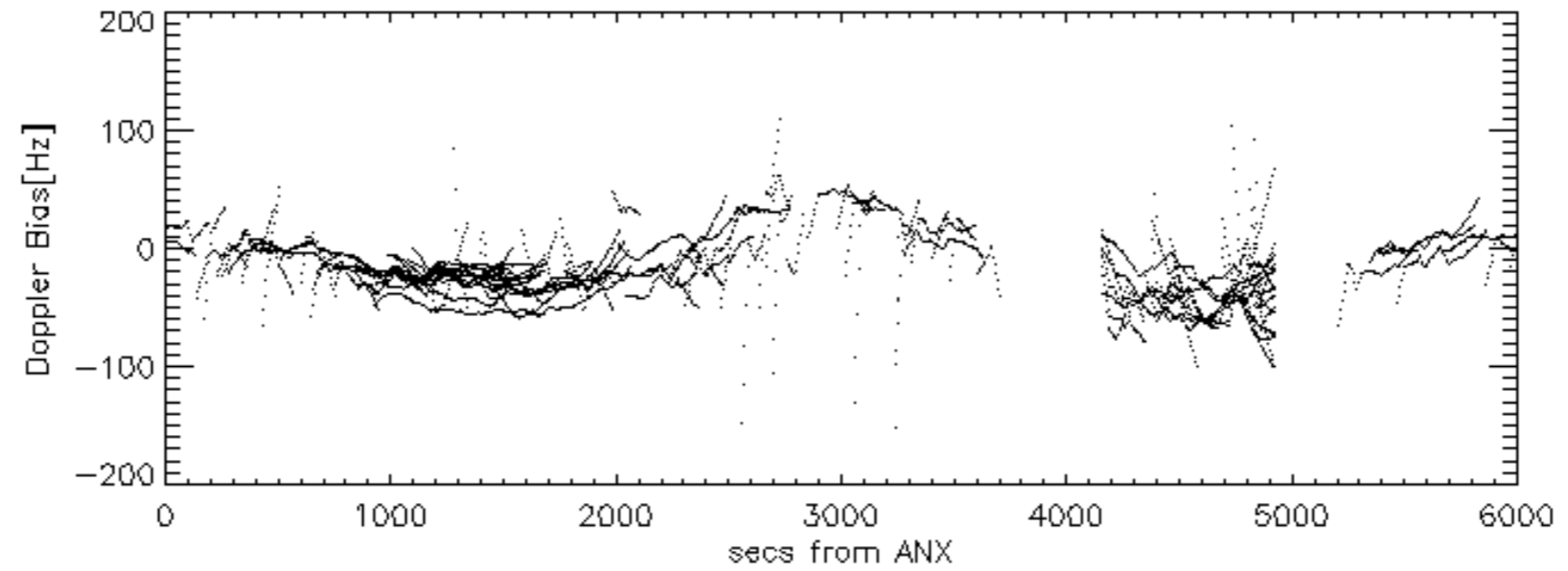
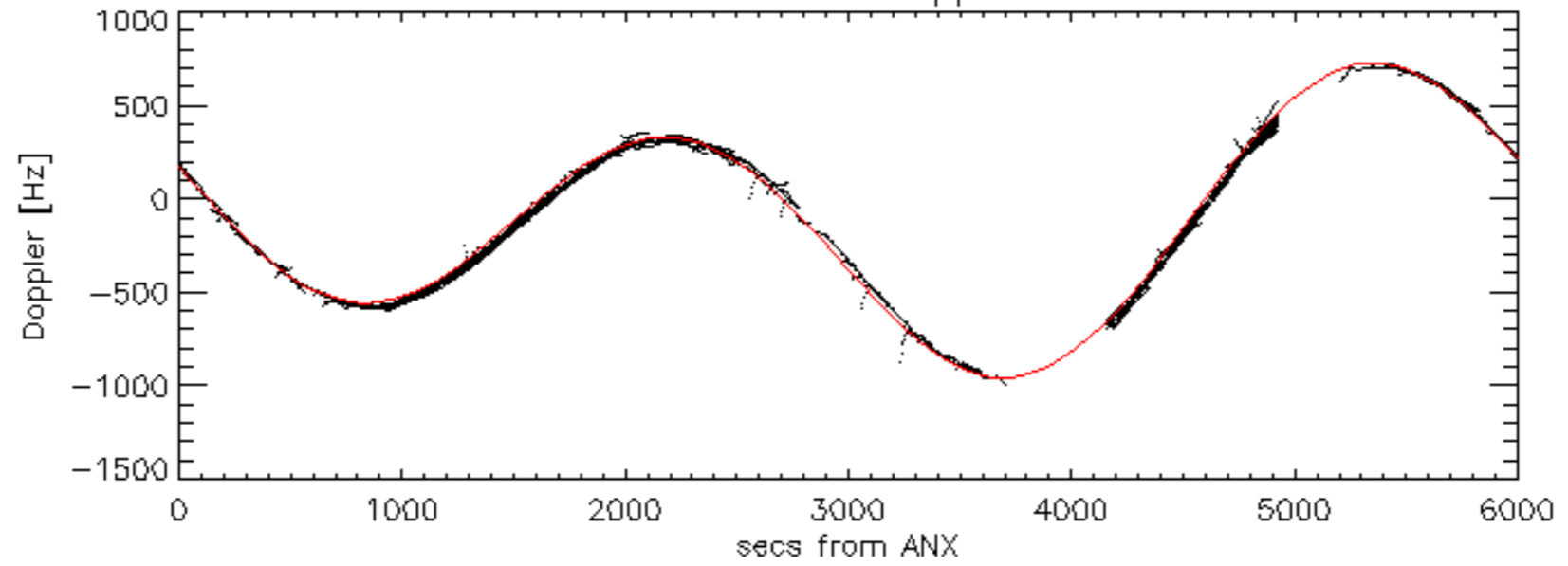
Doppler 'WVS' 'IS2' ascending

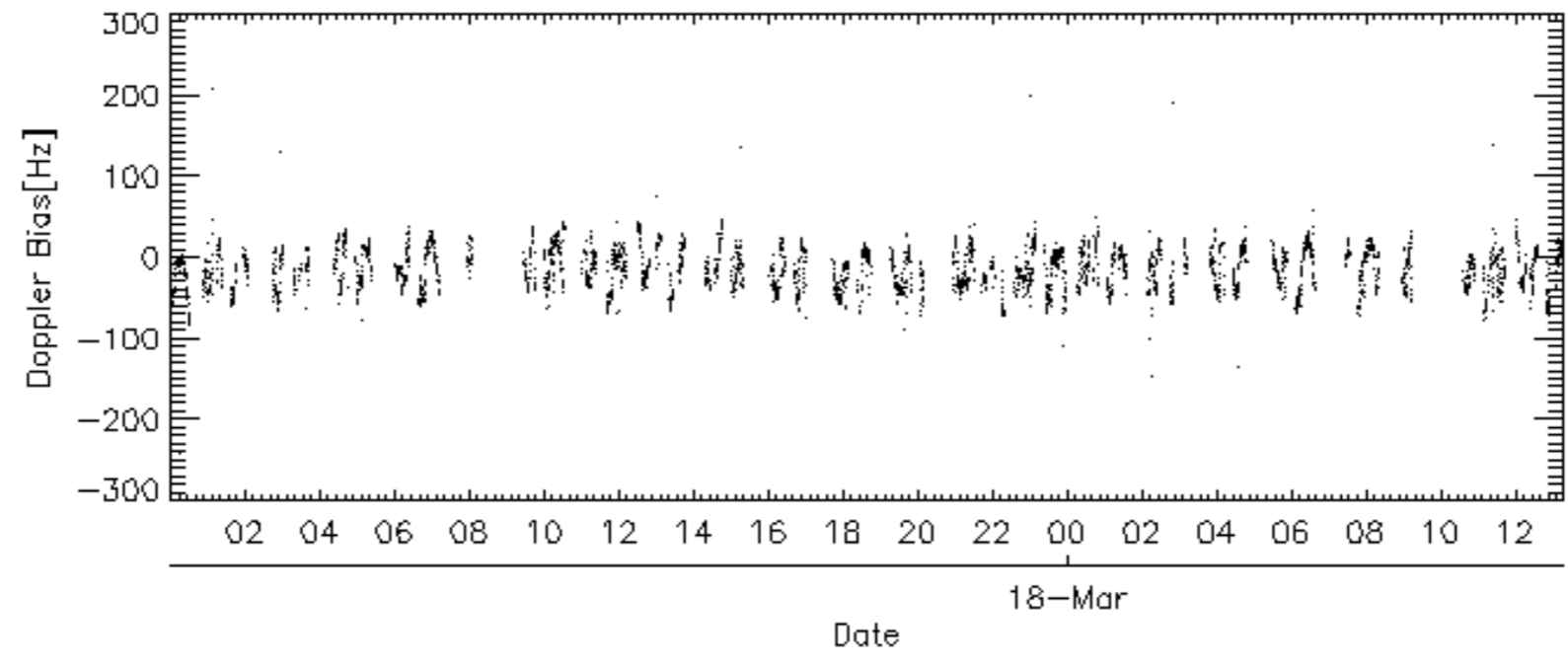
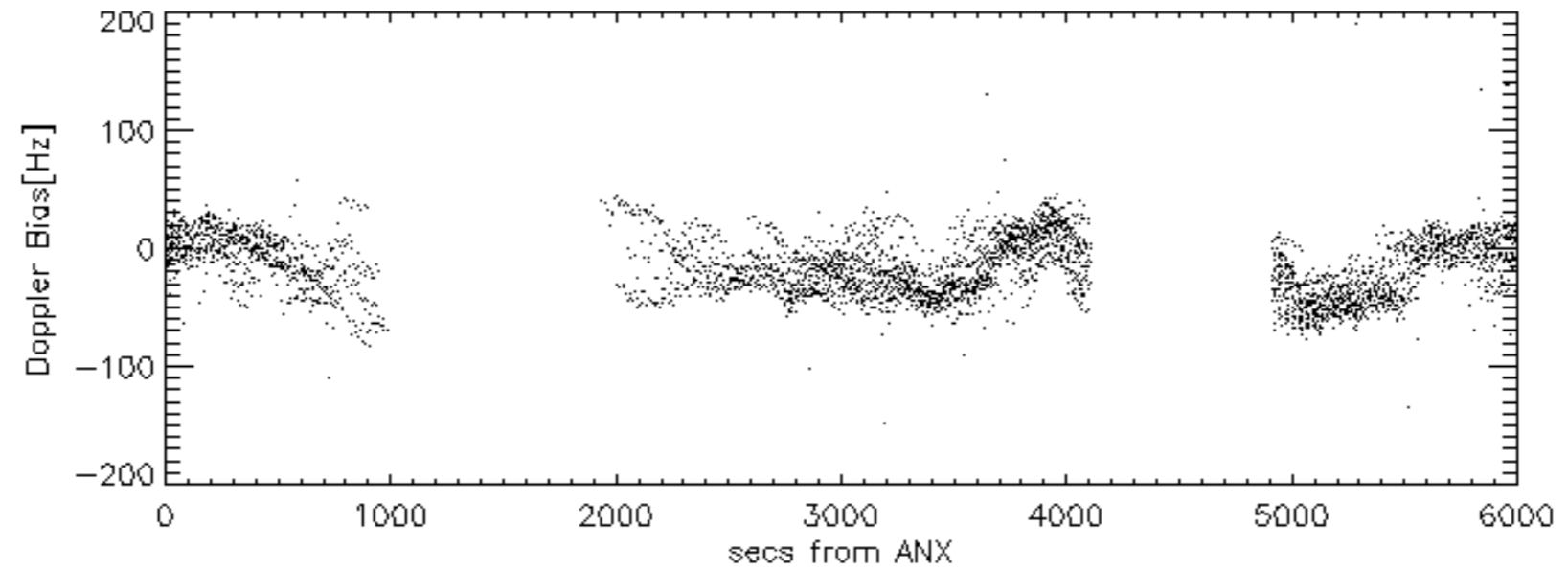
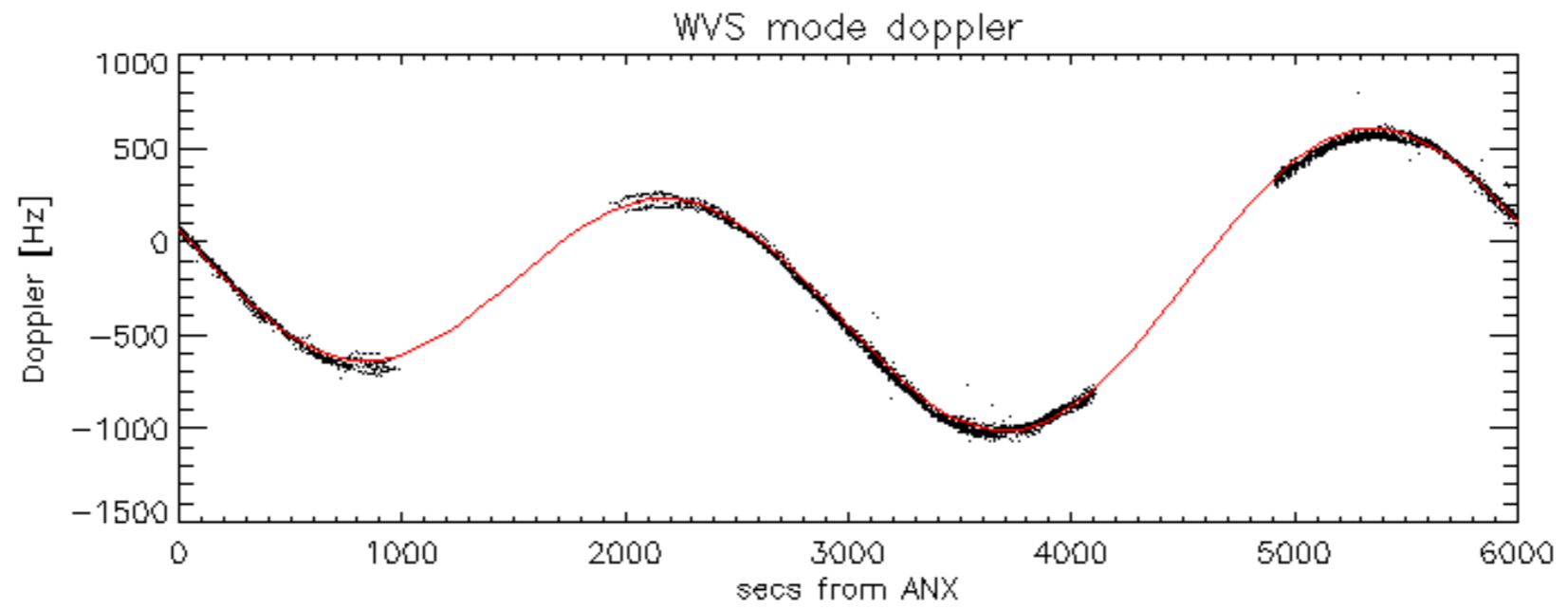


Doppler 'WVS' 'IS2' descending

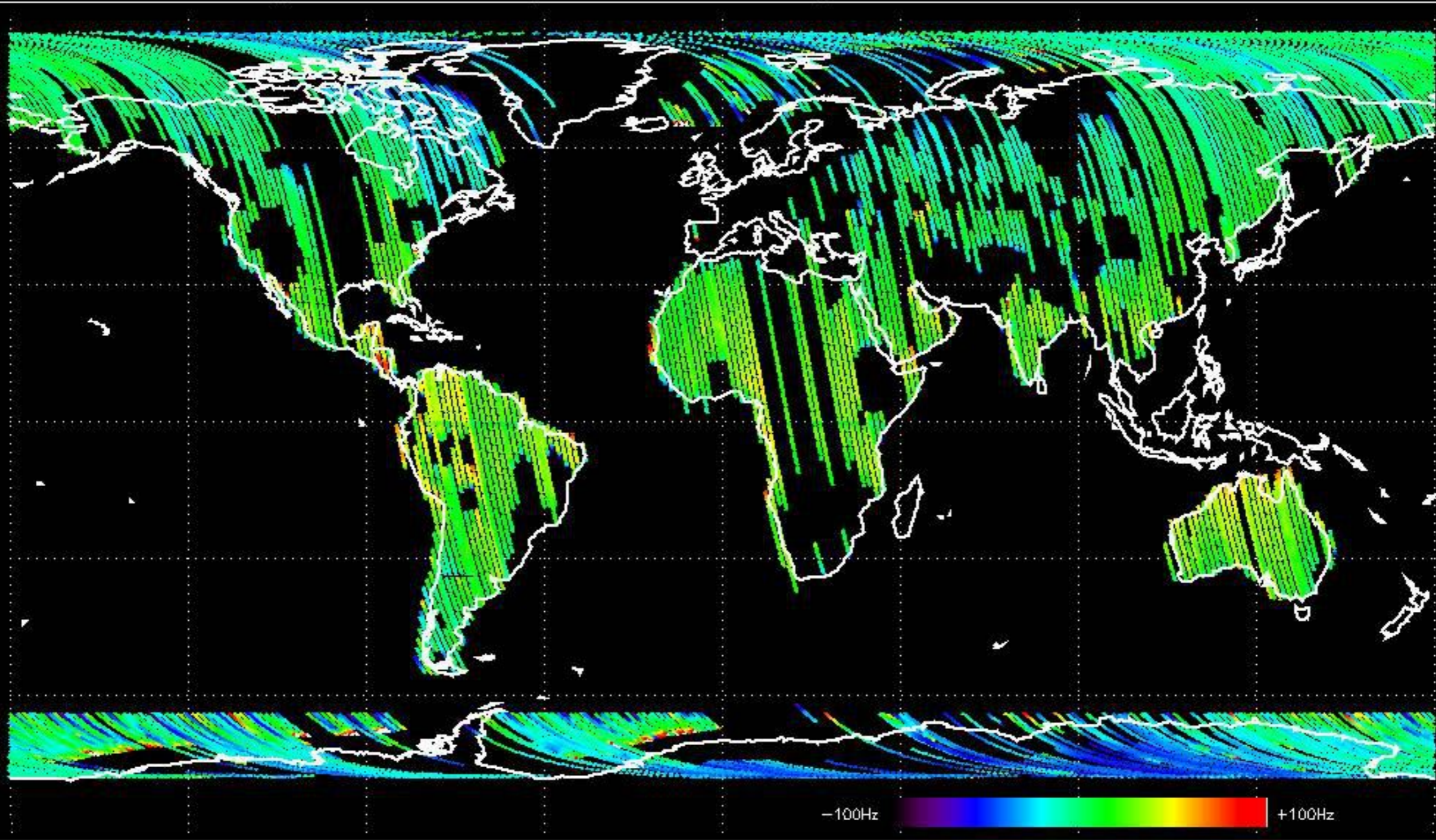


GM1 mode doppler

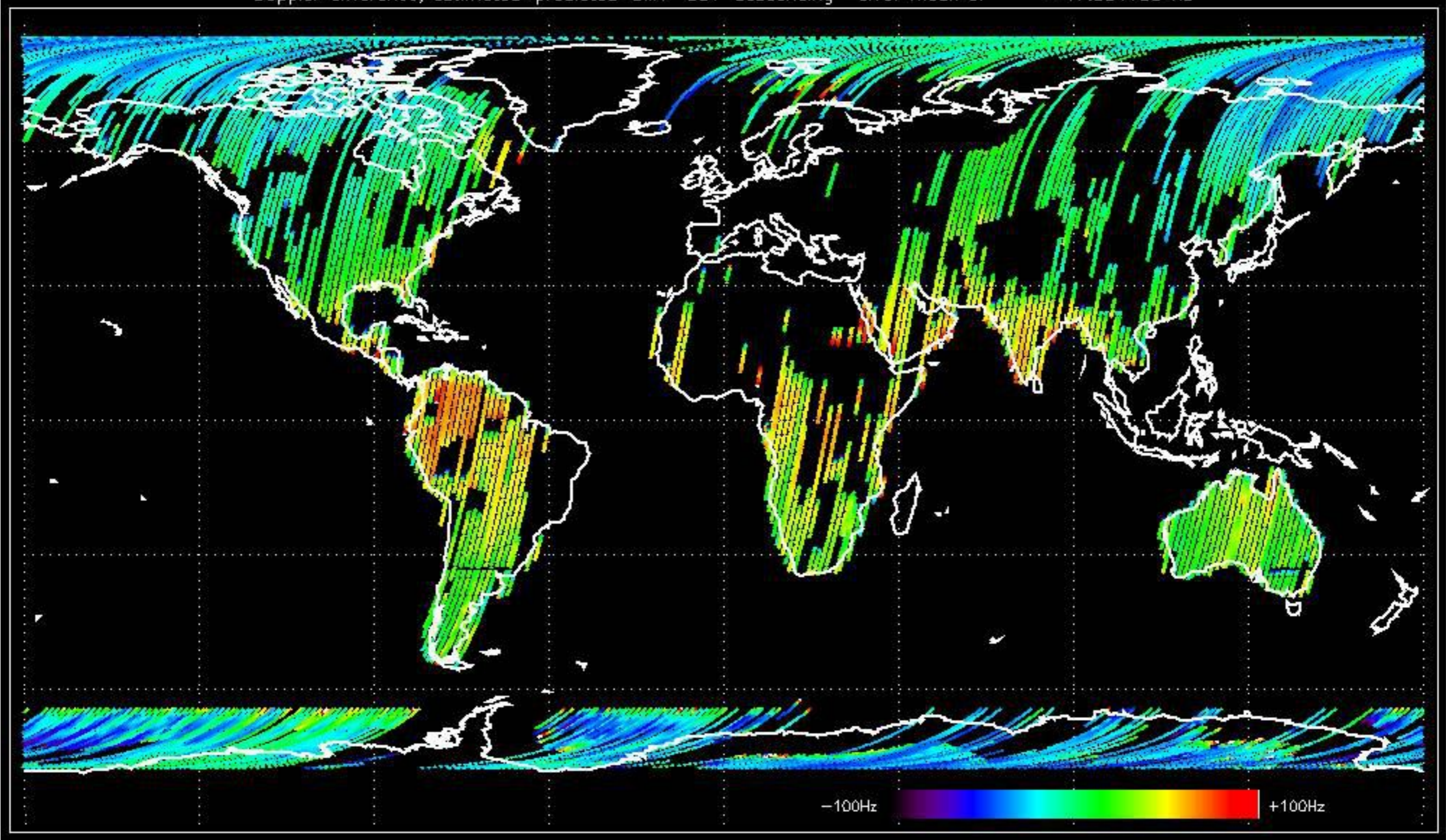




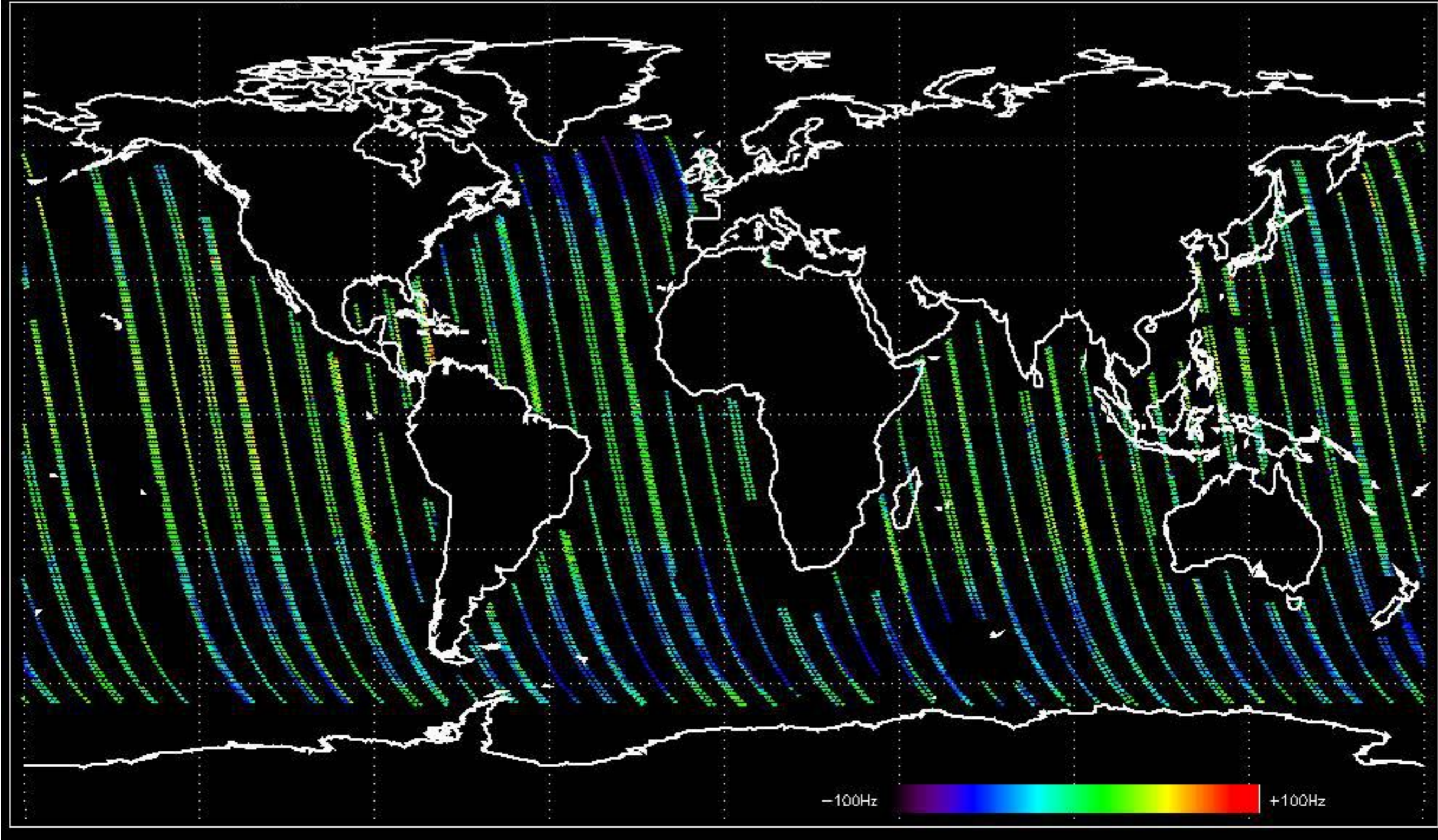
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.374227 Hz



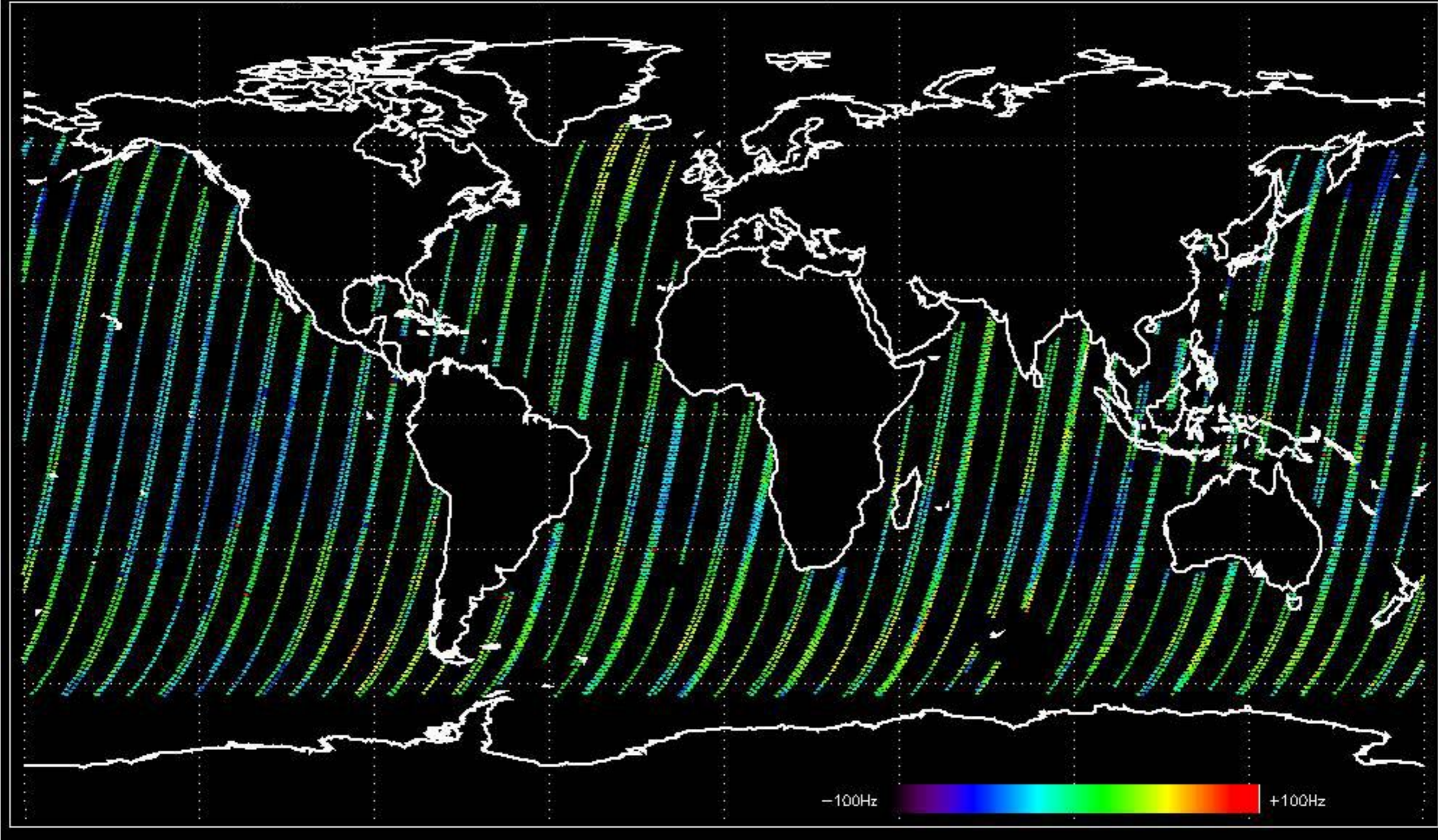
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -17.354188 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -15.189976 Hz

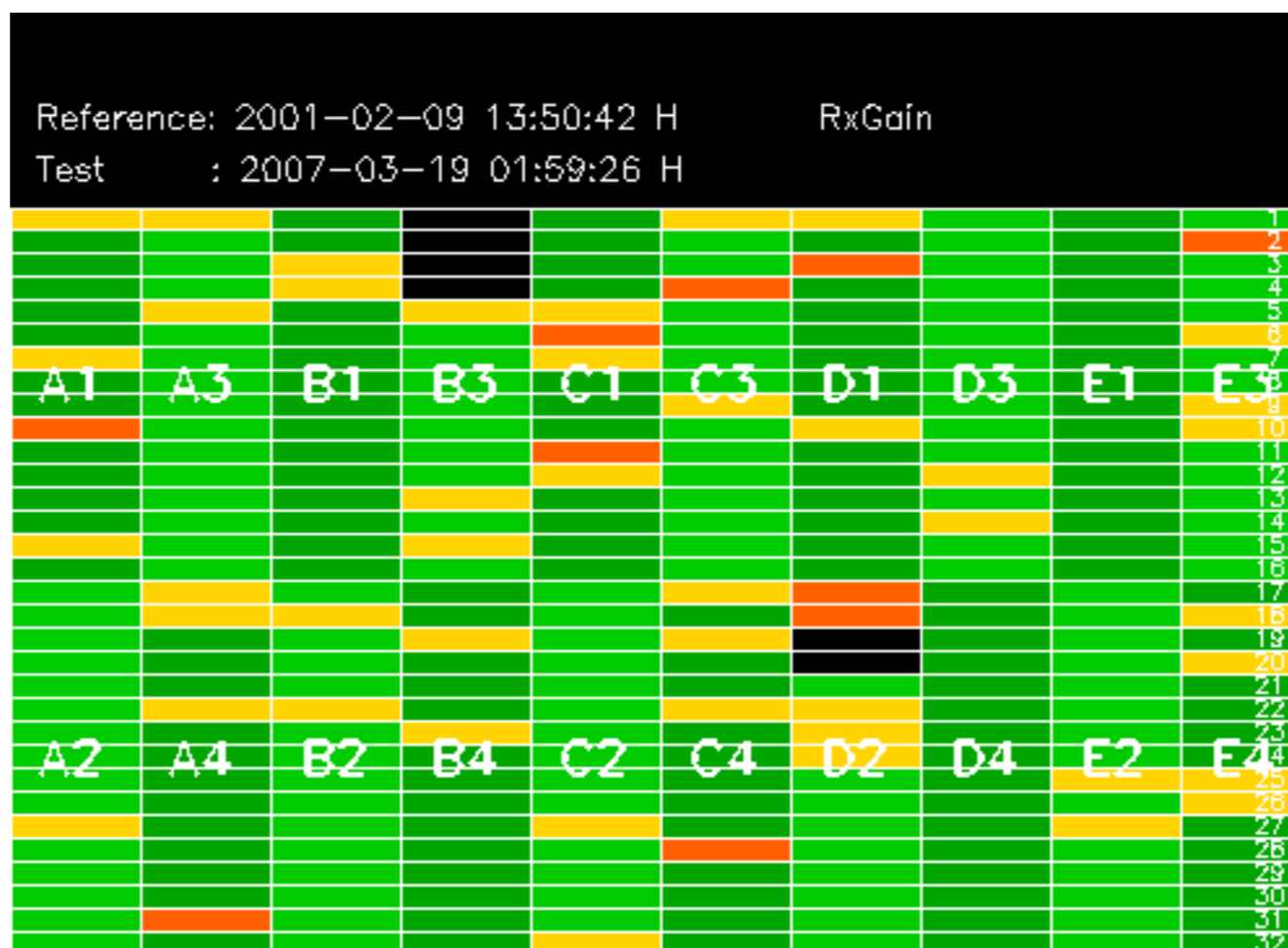


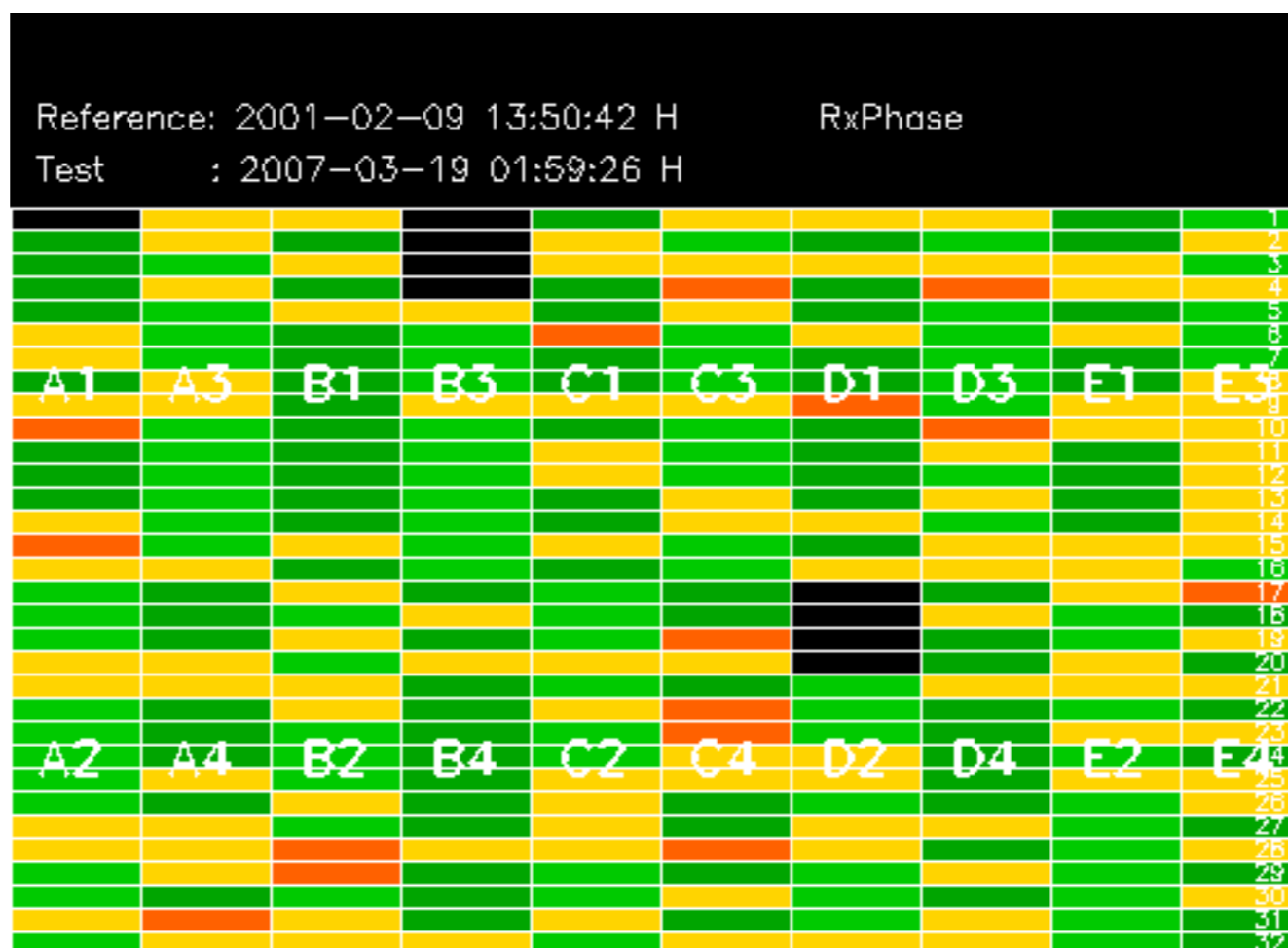
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -14.279100 Hz

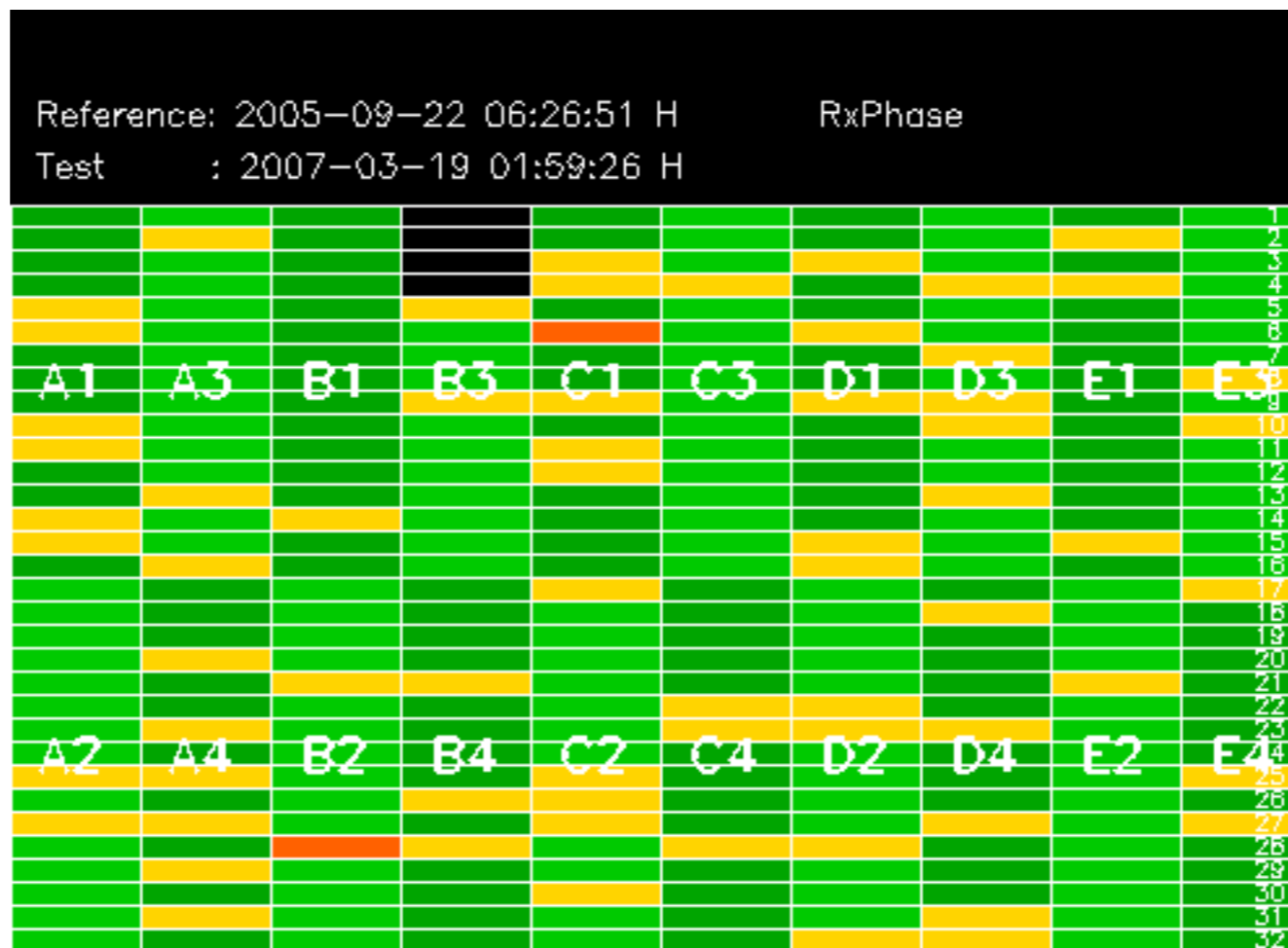


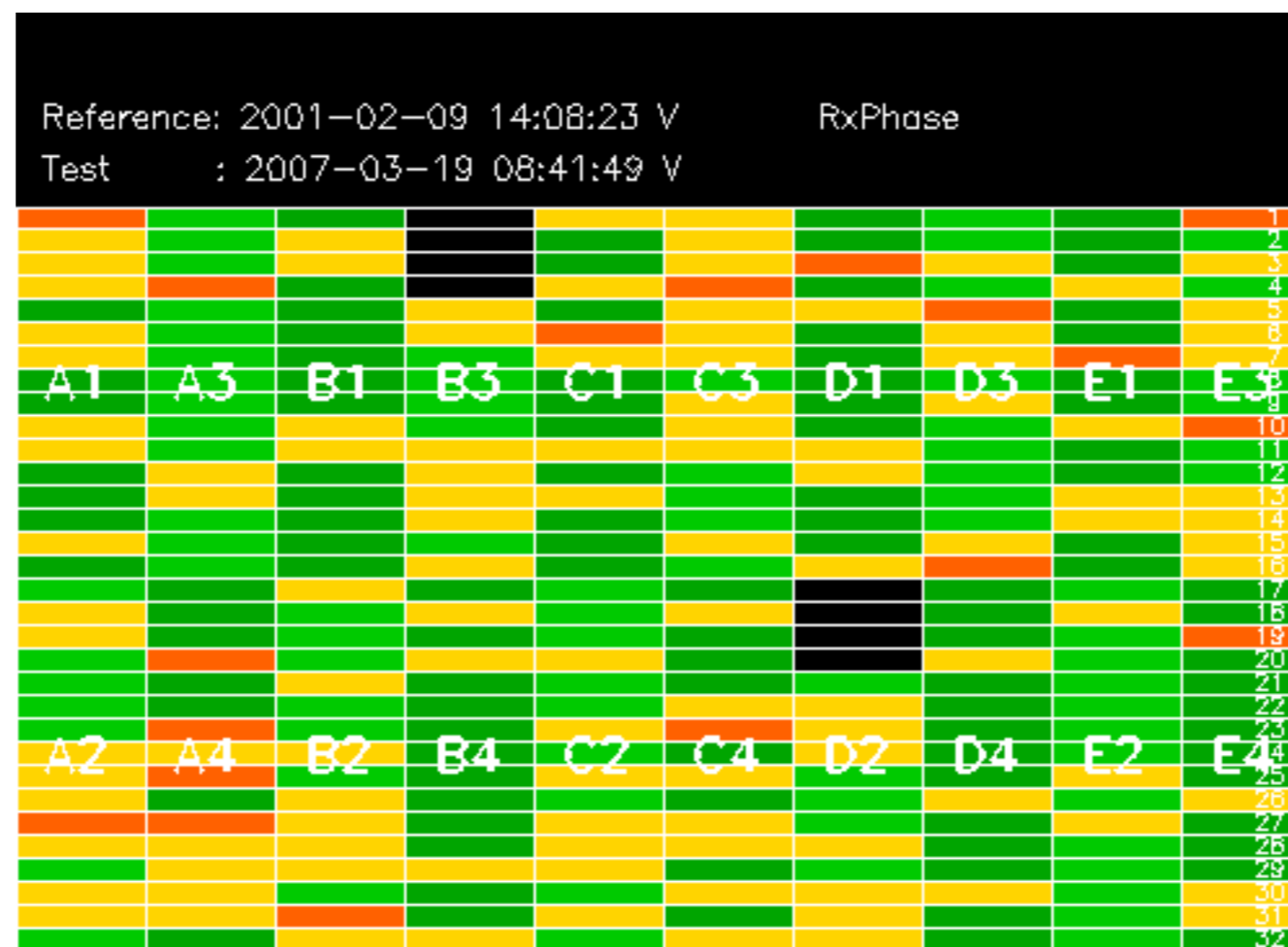
No anomalies observed on available MS products:

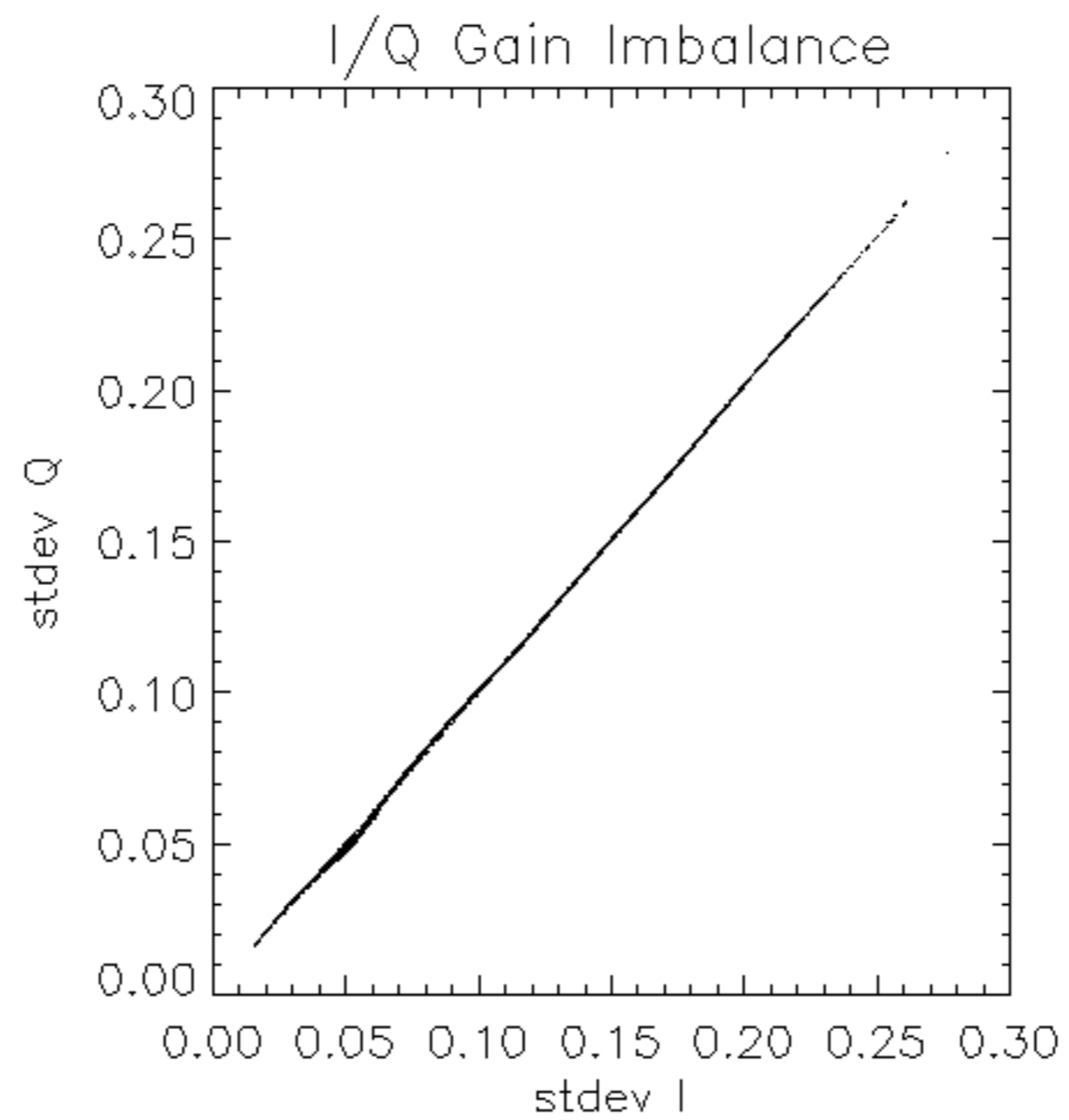
No anomalies observed.

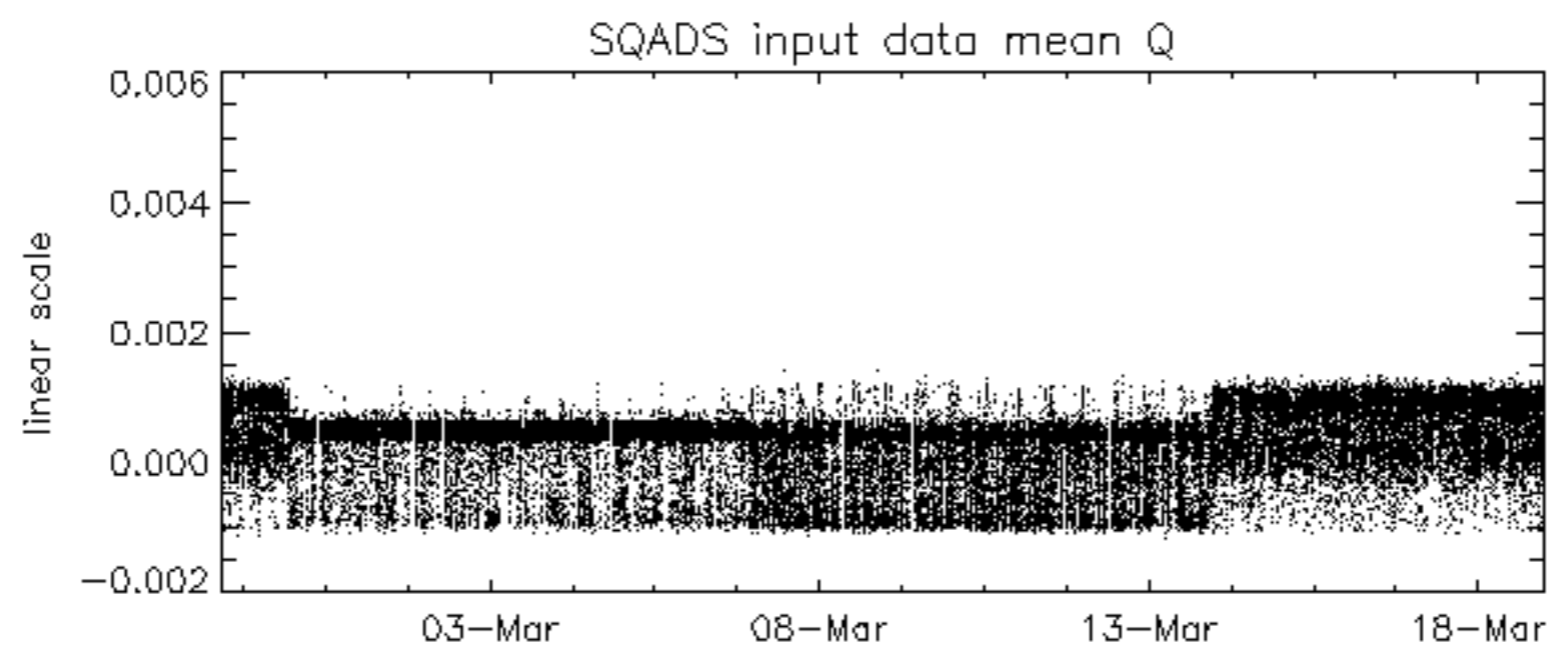
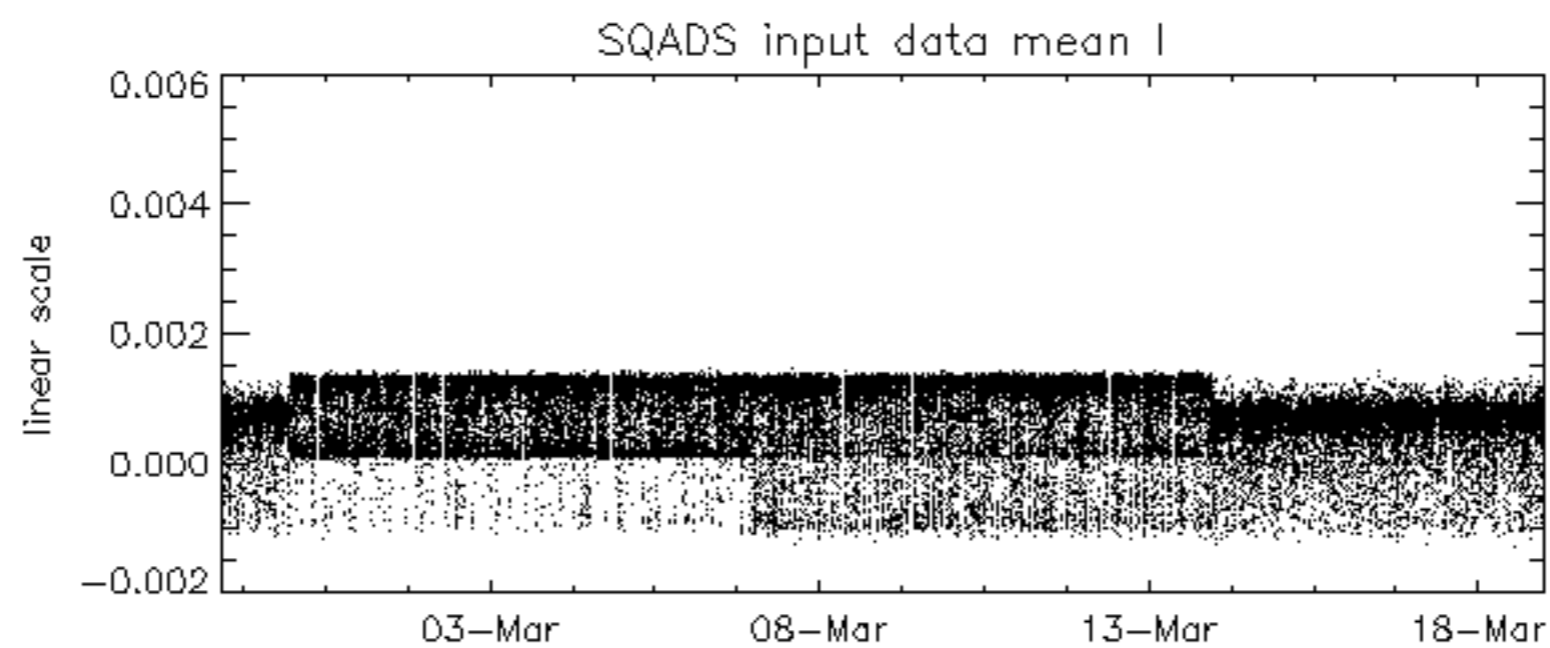
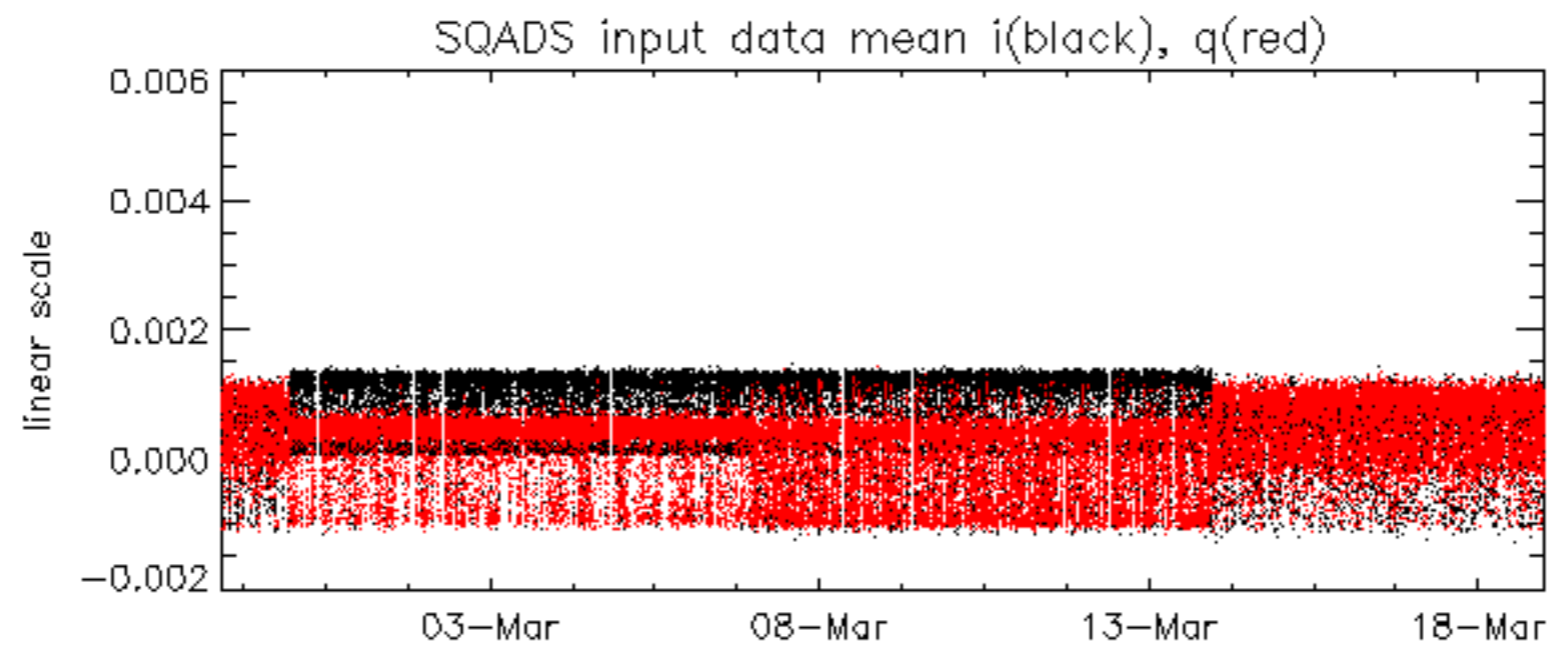


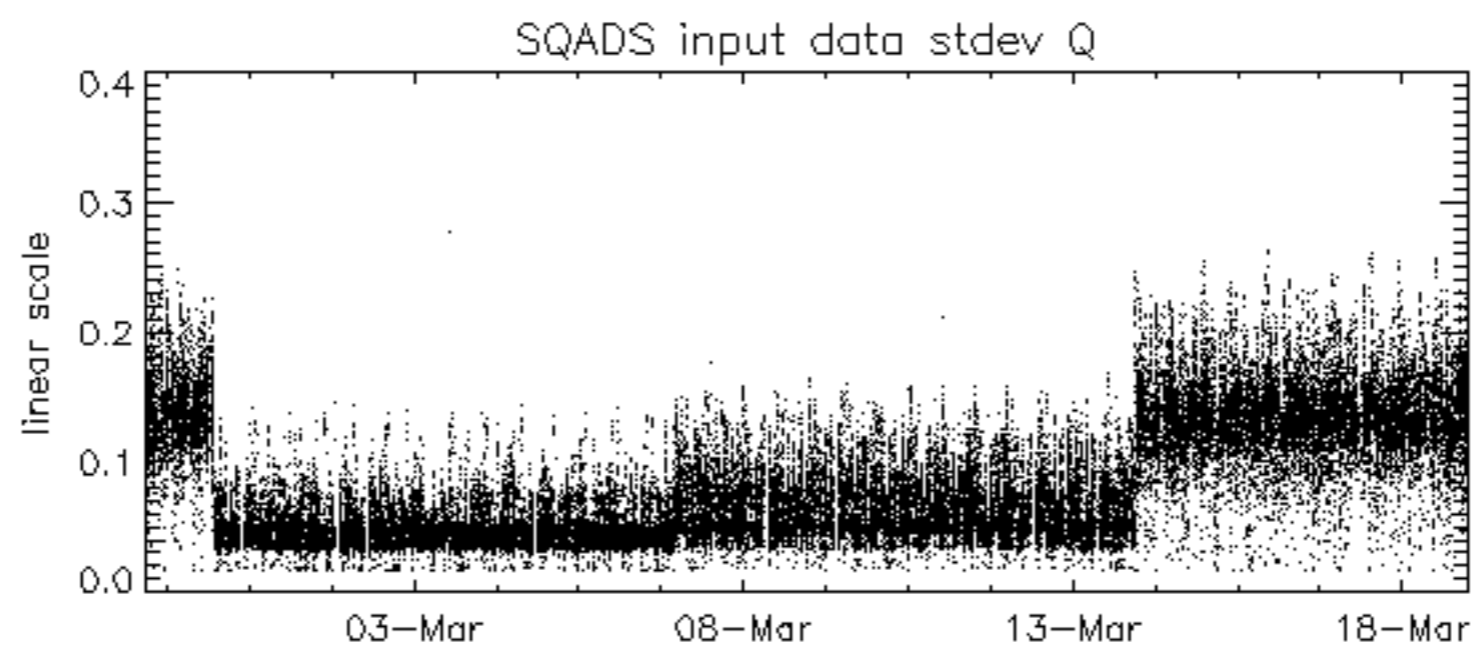
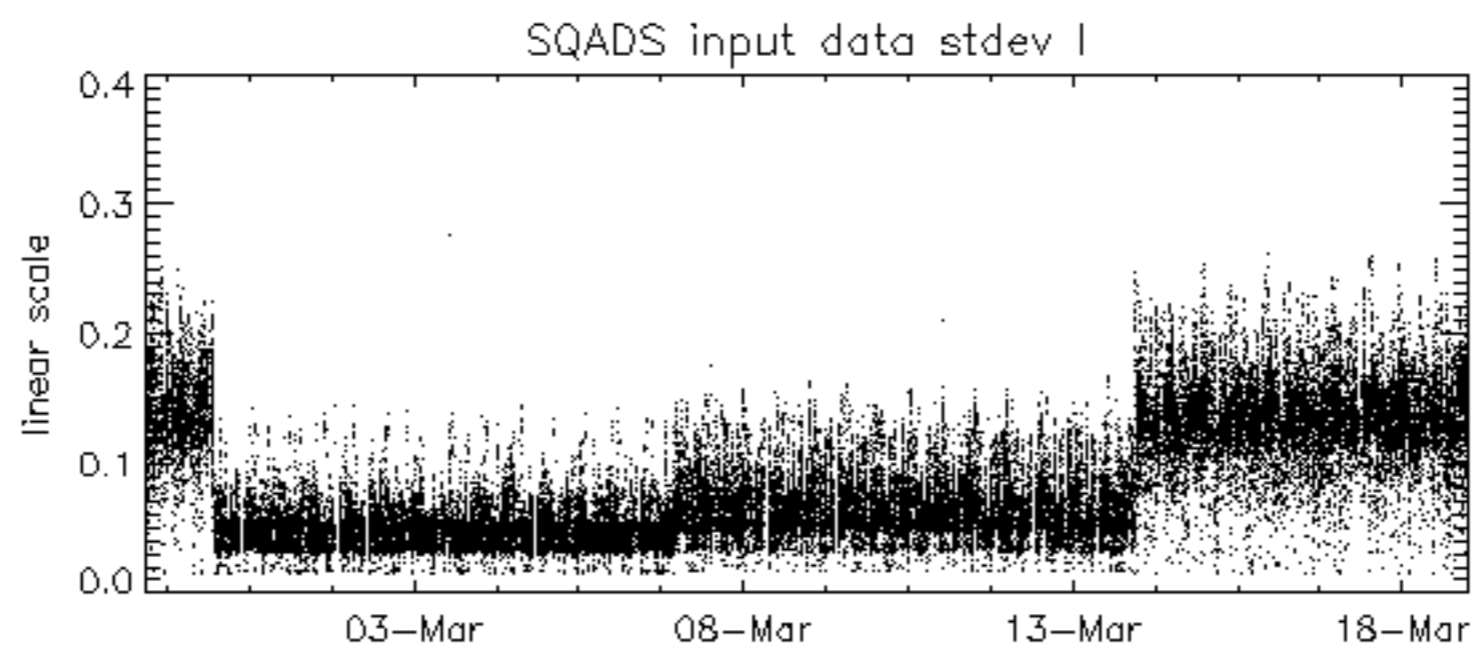
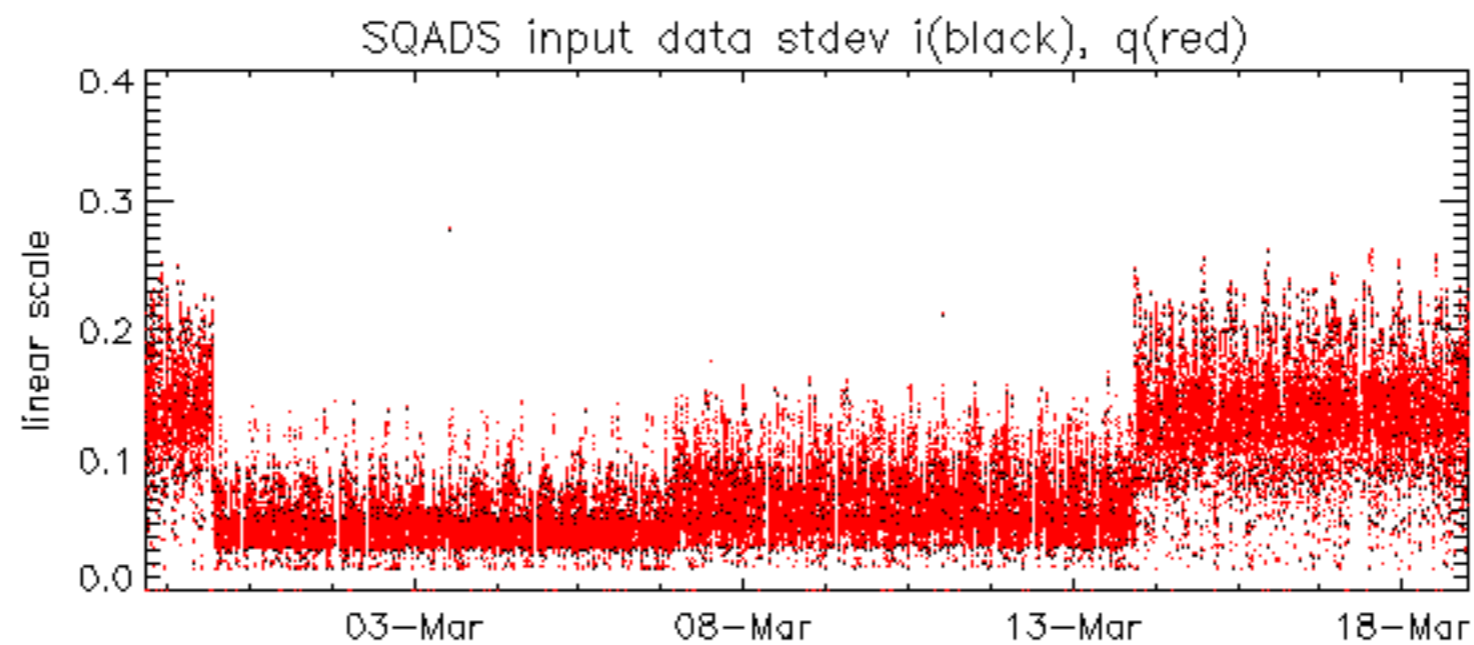










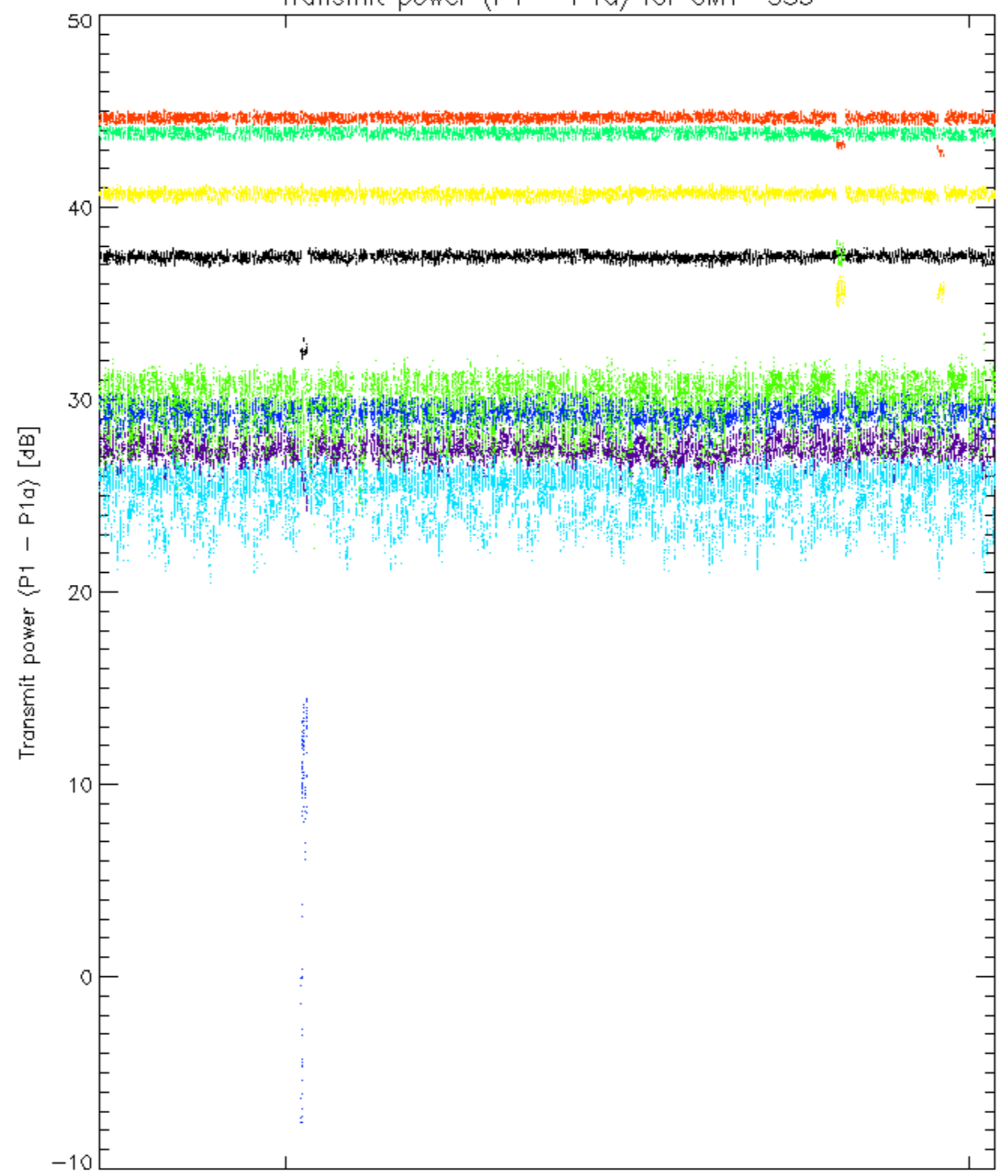


Summary of analysis for the last 3 days 2007031[678]

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

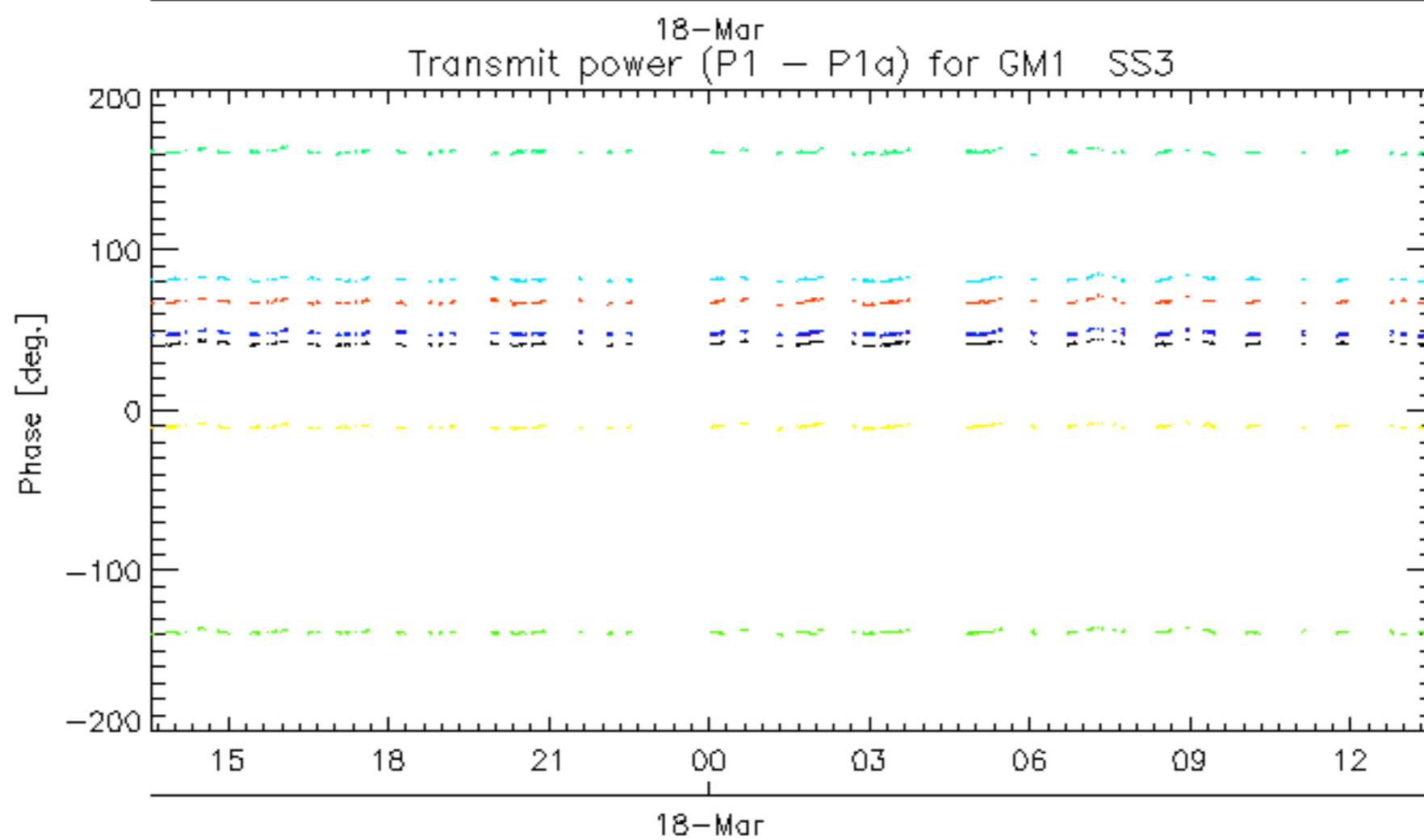
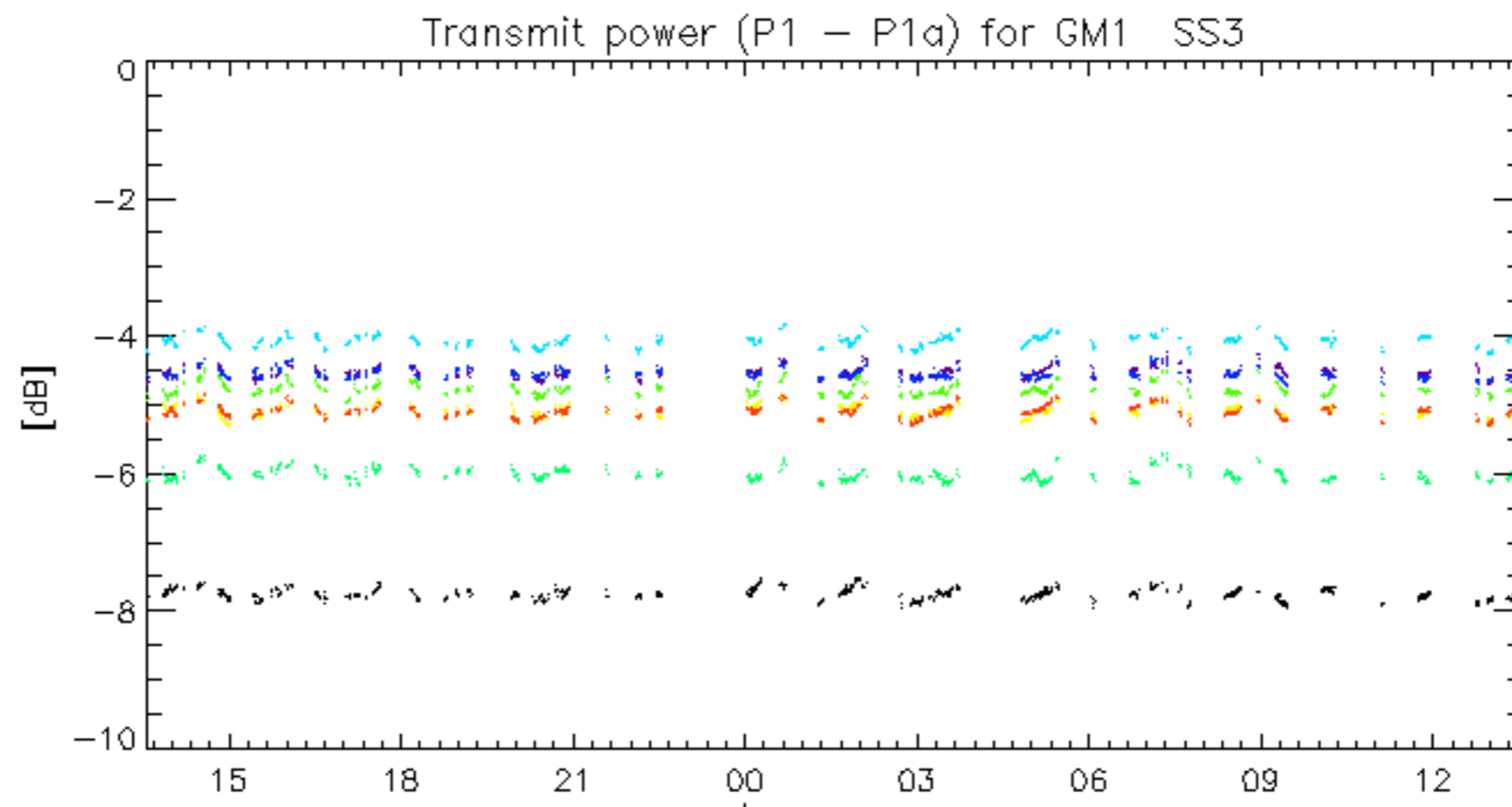
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070316_210538_000000342056_00258_26364_4589.N1	1	0
ASA_IMM_1PNPDE20070318_210136_000000982056_00286_26392_7093.N1	1	42
ASA_IMM_1PNPDE20070318_210638_0000003002056_00286_26392_7140.N1	2	81
ASA_IMM_1PNPDK20070316_092324_000000372056_00251_26357_2261.N1	0	1
ASA_WVS_1PNPDK20070318_191755_000000002056_00285_26391_5999.N1	1	0
ASA_GM1_1PNPDK20070316_142640_000002772056_00254_26360_3264.N1	0	7
ASA_GM1_1PNPDK20070318_150057_000001202056_00283_26389_5642.N1	0	8
ASA_GM1_1PNPDK20070318_191841_000000722056_00285_26391_6049.N1	0	13
ASA_WSM_1PNPDE20070316_141502_000000852056_00254_26360_4383.N1	0	15
ASA_WSM_1PNPDE20070317_153552_0000003002056_00269_26375_5553.N1	0	111
ASA_WSM_1PNPDE20070318_145119_000000852056_00283_26389_6914.N1	0	36
ASA_WSM_1PNPDK20070316_070403_000002452056_00249_26355_2248.N1	0	3
ASA_APM_1PNPDK20070316_093722_000000432056_00251_26357_2257.N1	0	1

Transmit power (P1 - P1a) for GM1 SS3



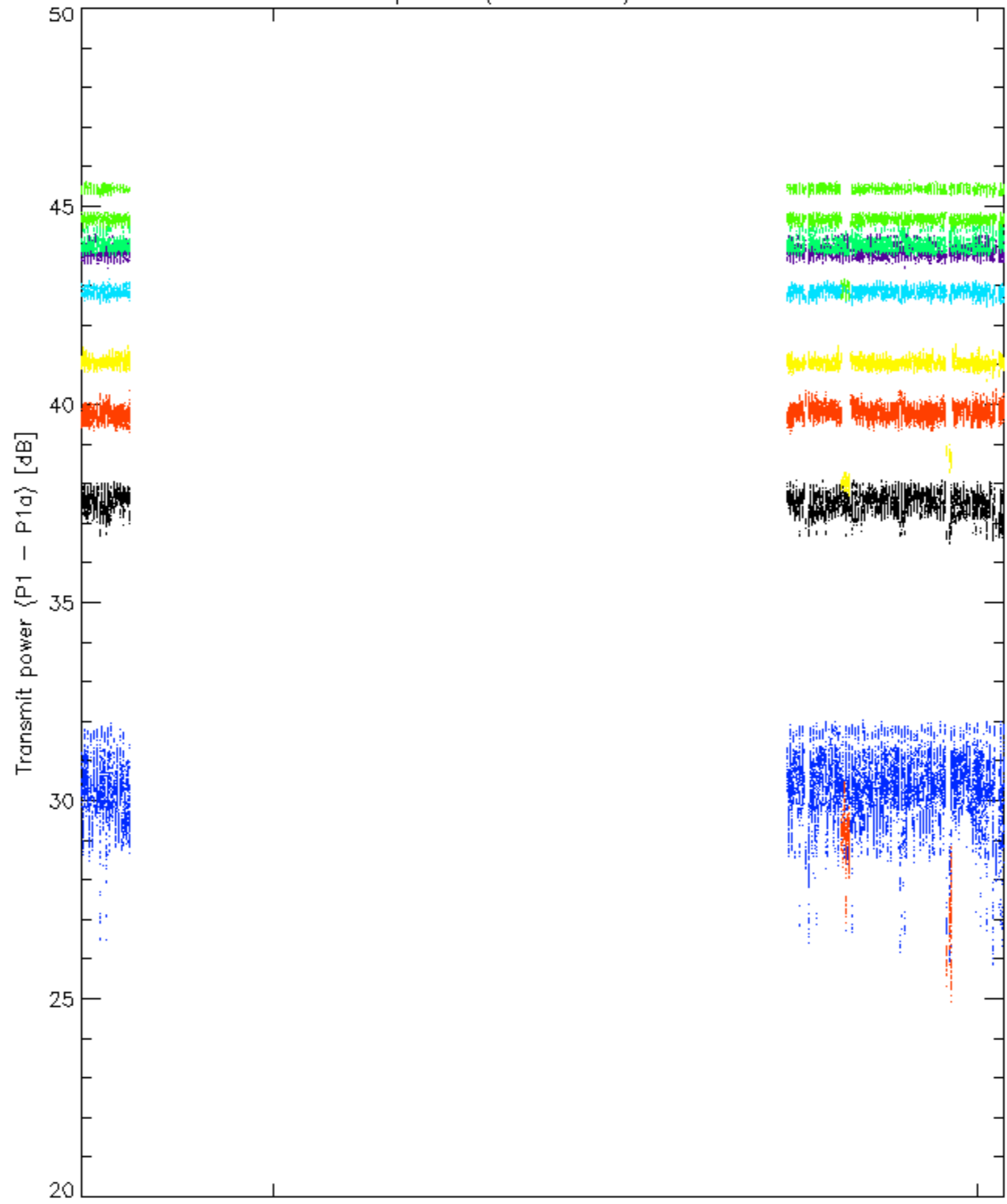
26

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



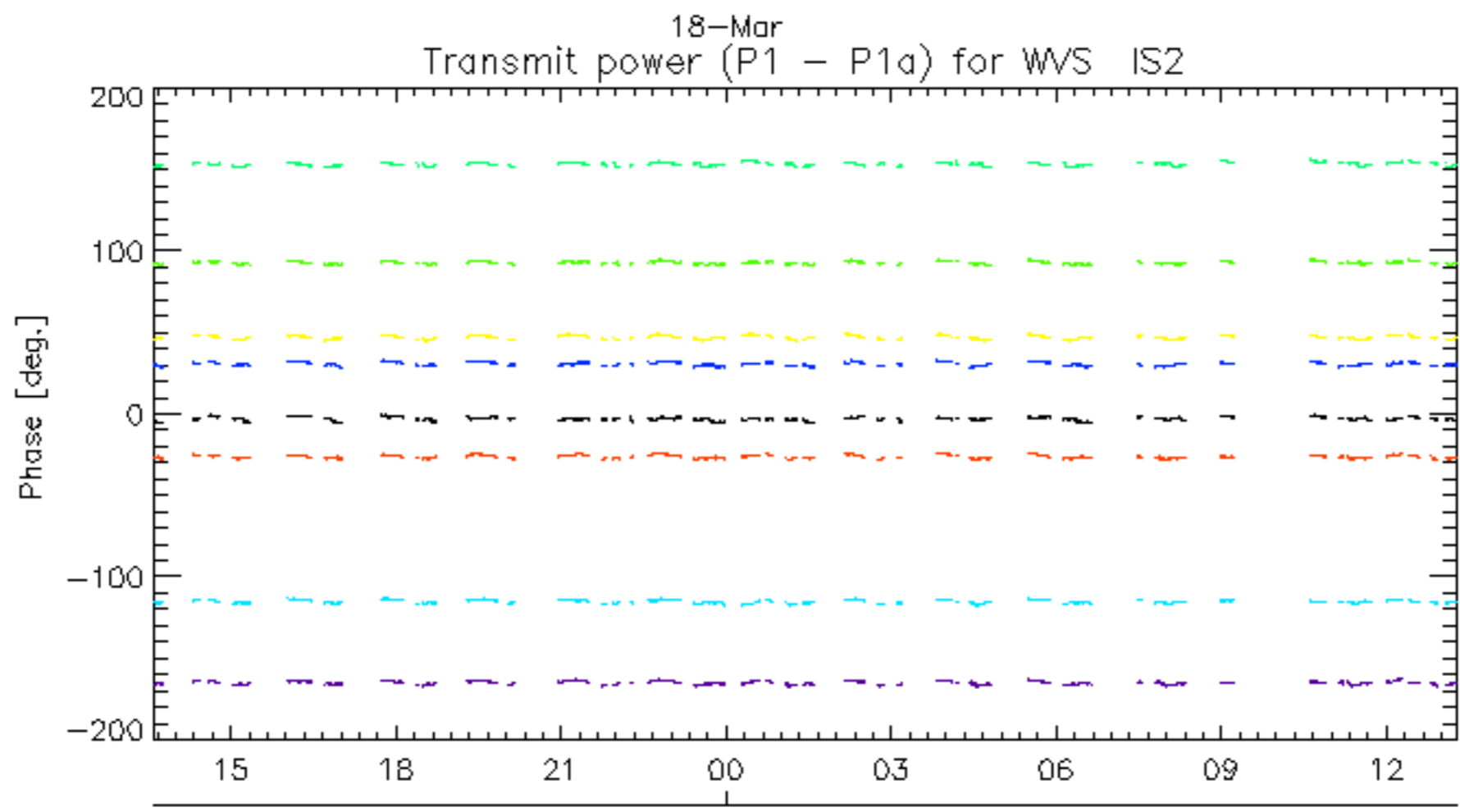
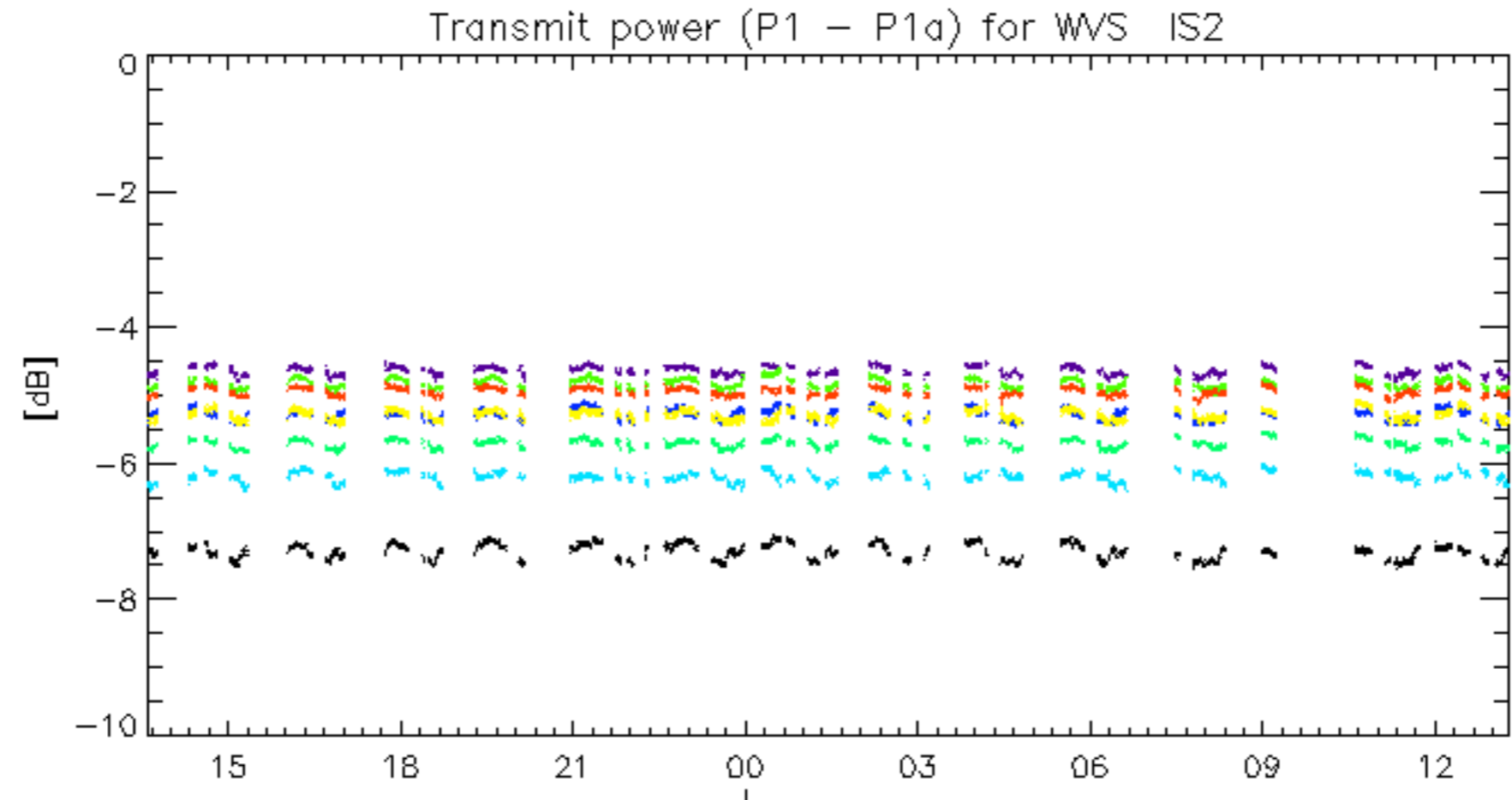
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Transmit power (P1 - P1a) for WVS IS2



26

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



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

No unavailabilities during the reported period.