

PRELIMINARY REPORT OF 070503

last update on Thu May 3 21:13:11 GMT 2007

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2007-05-02 00:00:00 to 2007-05-03 21:13:11

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	47	89	12	0	22
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	47	89	12	0	22
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	47	89	12	0	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	89	12	0	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	45	63	36	4	85
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	45	63	36	4	85
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	45	63	36	4	85
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	63	36	4	85

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	20070503 100805
H	20070502 071830

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	-15.107565	0.146548	-0.219799
7	P1a	-17.557878	0.098056	-0.079492
11	P1a	-17.530466	0.359193	-0.656055
15	P1a	-13.024436	0.129101	-0.361809
19	P1a	-15.352405	0.071104	-0.300122
22	P1a	-15.925481	0.408170	-0.321685
26	P1a	-15.012420	0.217460	0.337864
30	P1a	-17.733582	0.351091	-0.601008

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.772343	0.010491	-0.053492
7	P1	-3.148612	0.008873	-0.016053
11	P1	-4.209518	0.012394	-0.011590
15	P1	-6.416385	0.019988	-0.133398
19	P1	-3.782725	0.011108	0.034651
22	P1	-4.749373	0.009504	-0.024658
26	P1	-3.916394	0.019533	0.063410
30	P1	-5.967586	0.009383	0.012149

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.659487	0.090768	-0.000577
7	P2	-21.554649	0.089257	0.104953
11	P2	-15.344327	0.117466	0.188816
15	P2	-7.128687	0.088598	-0.027392
19	P2	-9.118353	0.080354	0.003960
22	P2	-18.086582	0.076955	0.005139
26	P2	-16.623236	0.081796	-0.070181
30	P2	-19.274252	0.082309	0.047067

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.245162	0.005252	-0.006635
7	P3	-8.245162	0.005252	-0.006635
11	P3	-8.245162	0.005252	-0.006635
15	P3	-8.245162	0.005252	-0.006635
19	P3	-8.245162	0.005252	-0.006635
22	P3	-8.245162	0.005252	-0.006635
26	P3	-8.245162	0.005252	-0.006635
30	P3	-8.245162	0.005252	-0.006635

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	-11.210397	0.121142	-0.111269
7	P1a	-10.056611	0.183732	0.053149
11	P1a	-10.686353	0.092797	0.035661
15	P1a	-10.829733	0.162291	0.110118
19	P1a	-15.811017	0.088254	-0.105010
22	P1a	-21.396746	1.450353	-0.358000
26	P1a	-15.508467	0.371200	-0.187737
30	P1a	-18.309690	0.458791	0.147187

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.455024	0.048184	-0.014632
7	P1	-2.404997	0.097395	0.061879
11	P1	-2.886259	0.024016	0.056647
15	P1	-3.815840	0.036557	0.049540
19	P1	-3.589827	0.014636	-0.028373
22	P1	-4.968144	0.023382	0.071833
26	P1	-6.040215	0.026009	-0.049879
30	P1	-5.338746	0.032280	-0.020443

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.182720	0.065209	-0.079237
7	P2	-22.042721	0.185435	-0.045338
11	P2	-10.637643	0.044143	-0.033947
15	P2	-4.925395	0.041480	-0.074230
19	P2	-6.869929	0.040039	-0.021568
22	P2	-8.109282	0.085588	0.012382
26	P2	-24.324020	0.139340	-0.029311
30	P2	-21.710827	0.105102	0.037759

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091424	0.004955	-0.003900
7	P3	-8.091412	0.004959	-0.003587
11	P3	-8.091227	0.004955	-0.003821
15	P3	-8.091161	0.004959	-0.003947
19	P3	-8.091321	0.004977	-0.003783
22	P3	-8.091228	0.004946	-0.003629
26	P3	-8.091256	0.004959	-0.003570
30	P3	-8.091187	0.004949	-0.003605

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	0.000546594
	stdev	1.98787e-07
MEAN Q	mean	0.000497098
	stdev	2.41666e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135727
	stdev	0.00122337
STDEV Q	mean	0.136117
	stdev	0.00124097



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007050[123]

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_1PNPDE20070502_143310_00000372057_00425_27032_5713.N1	1	0
ASA_WVS_1PNPDK20070501_115225_000002392057_00410_27017_9992.N1	0	16
ASA_GM1_1PNPDK20070501_075015_000001442057_00407_27014_9738.N1	0	99
ASA_GM1_1PNPDK20070501_075523_000006462057_00407_27014_9749.N1	0	13
ASA_GM1_1PNPDK20070501_161314_000009242057_00412_27019_0280.N1	0	60
ASA_GM1_1PNPDK20070502_100004_000001082057_00423_27030_1179.N1	0	6
ASA_WSM_1PNPDE20070501_150736_000001402057_00412_27019_4446.N1	0	36
ASA_WSM_1PNPDE20070502_162039_000002072057_00427_27034_5777.N1	0	15
ASA_WSM_1PNPDE20070502_202012_000000672057_00429_27036_5922.N1	0	63



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)

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

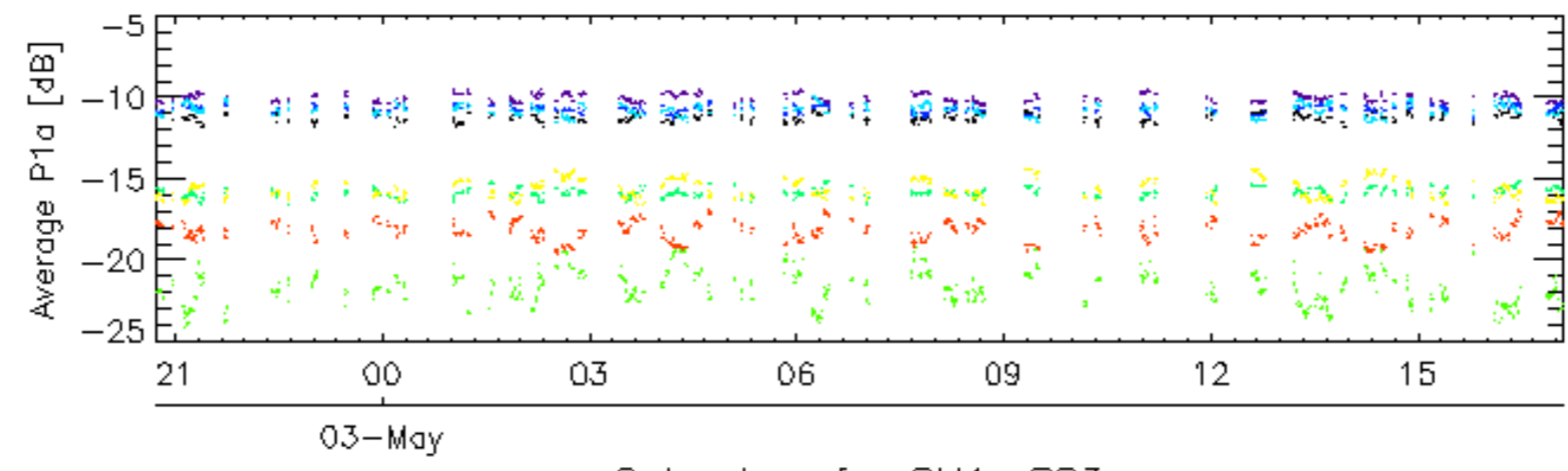
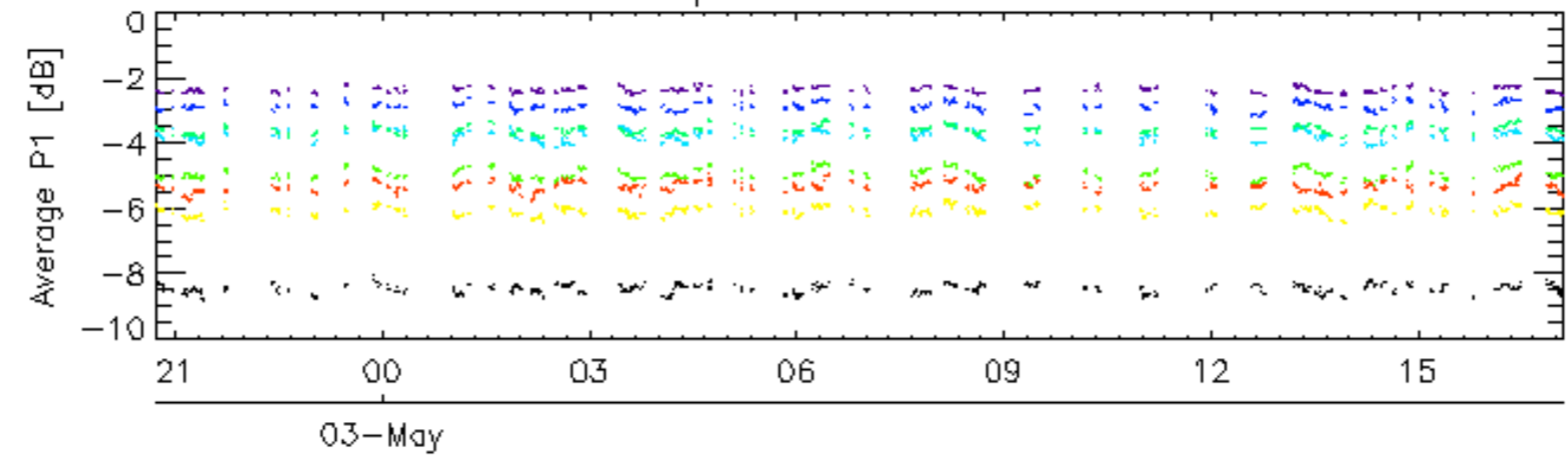
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

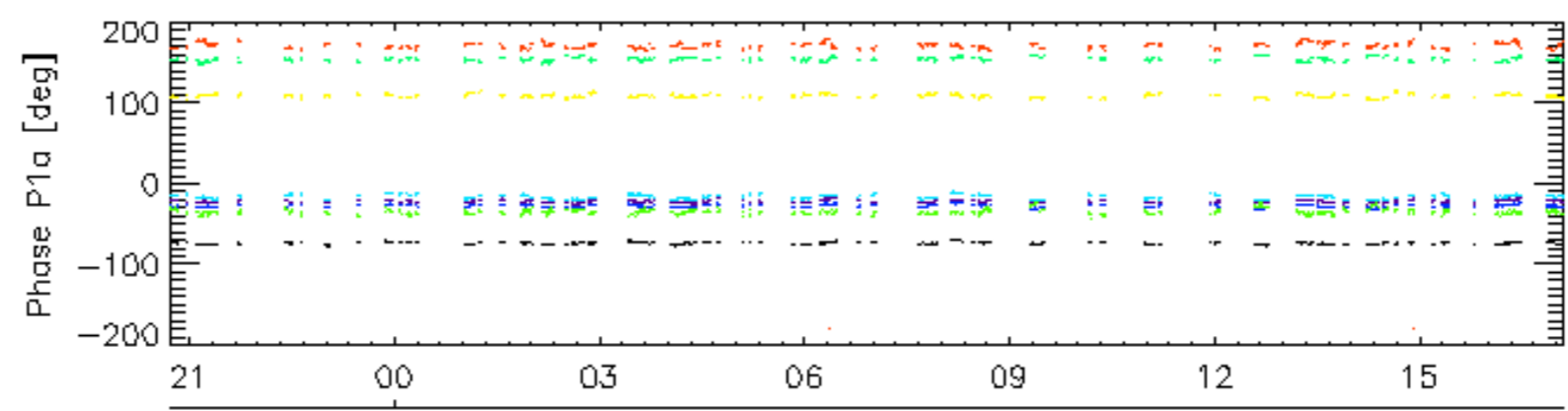
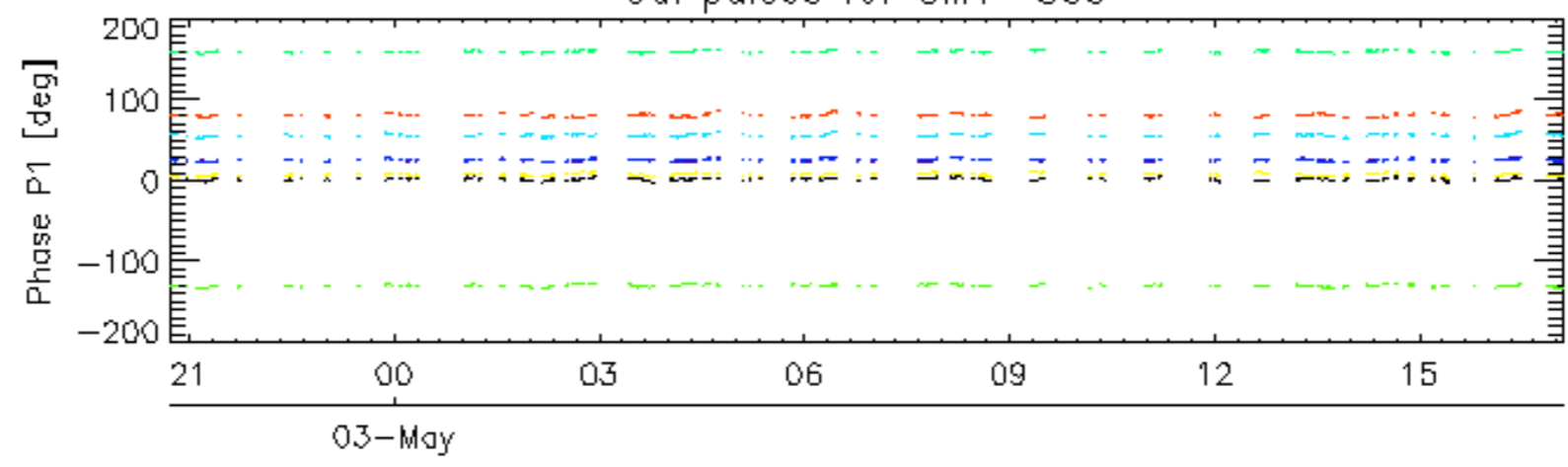
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

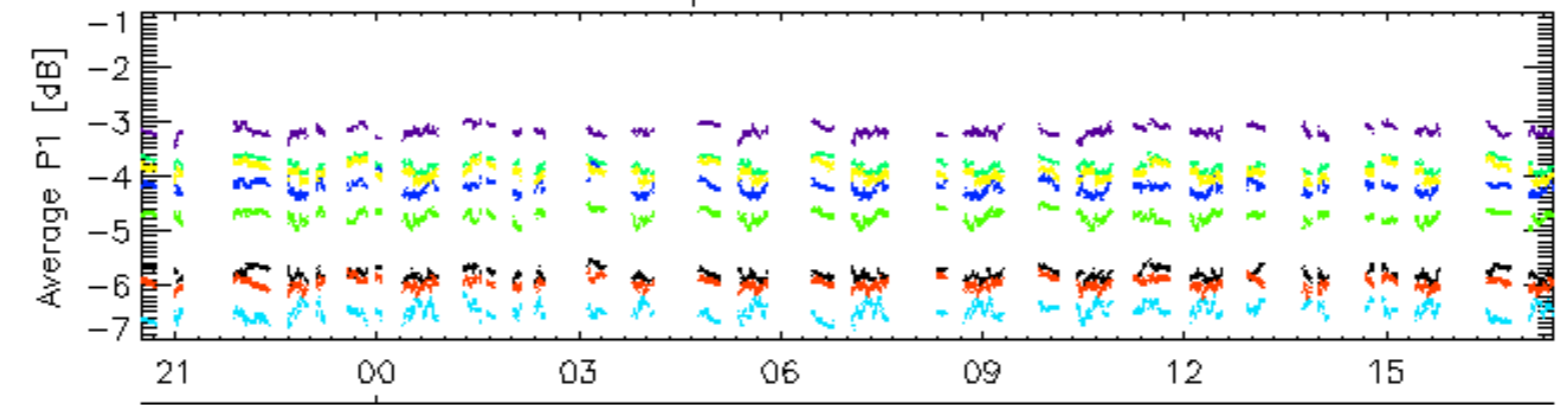


Cal pulses for GM1 SS3

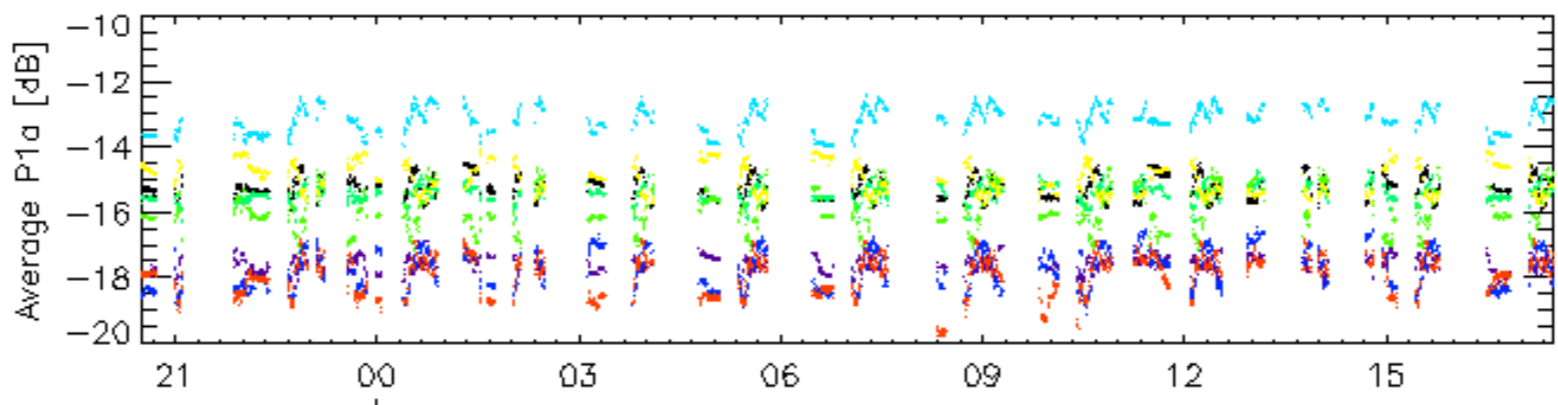


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

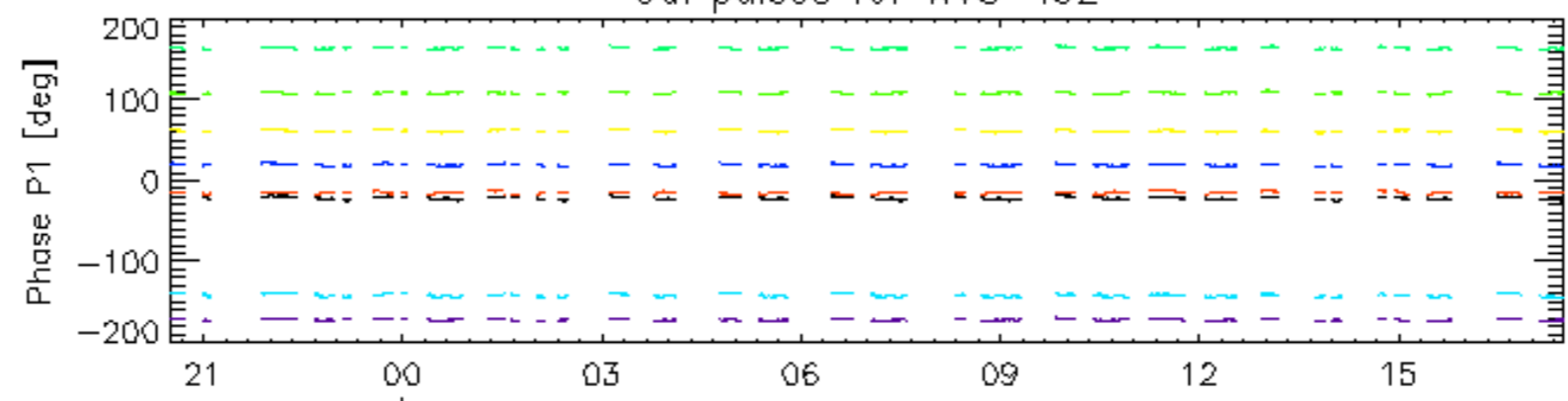


03-May

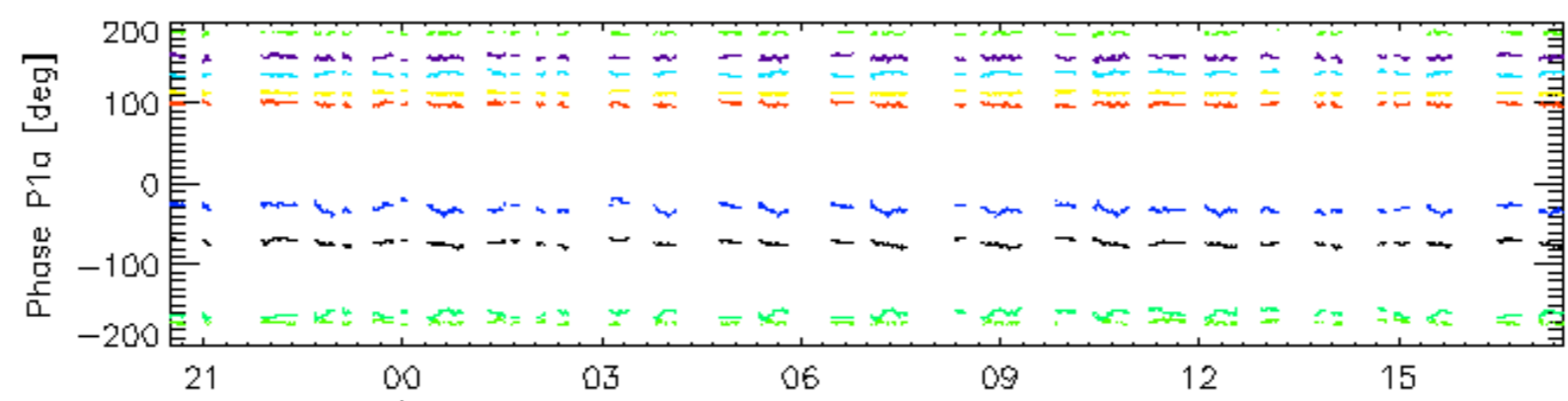


03-May

Cal pulses for WVS IS2

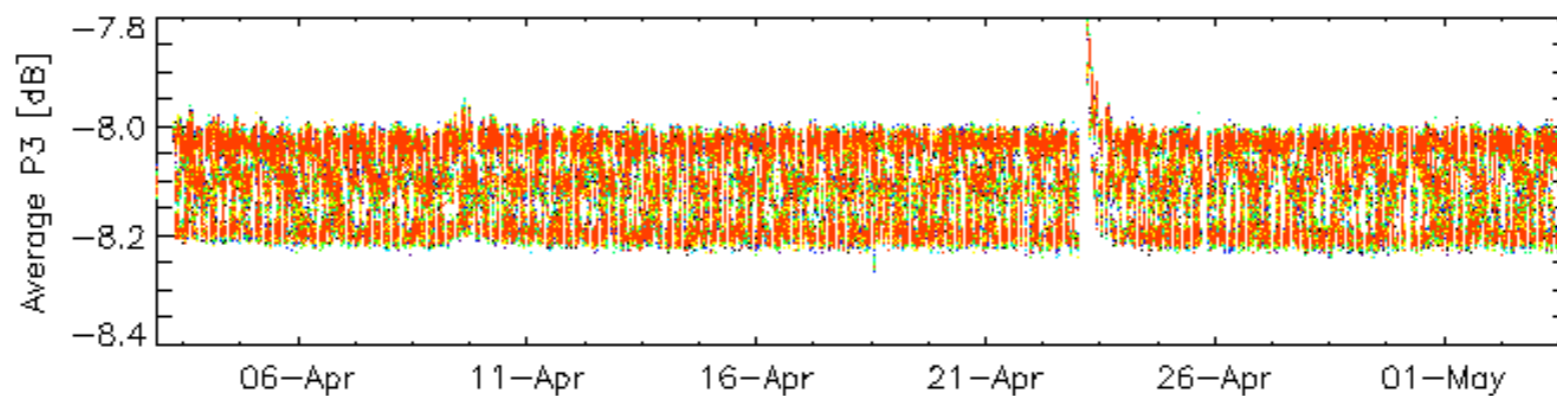
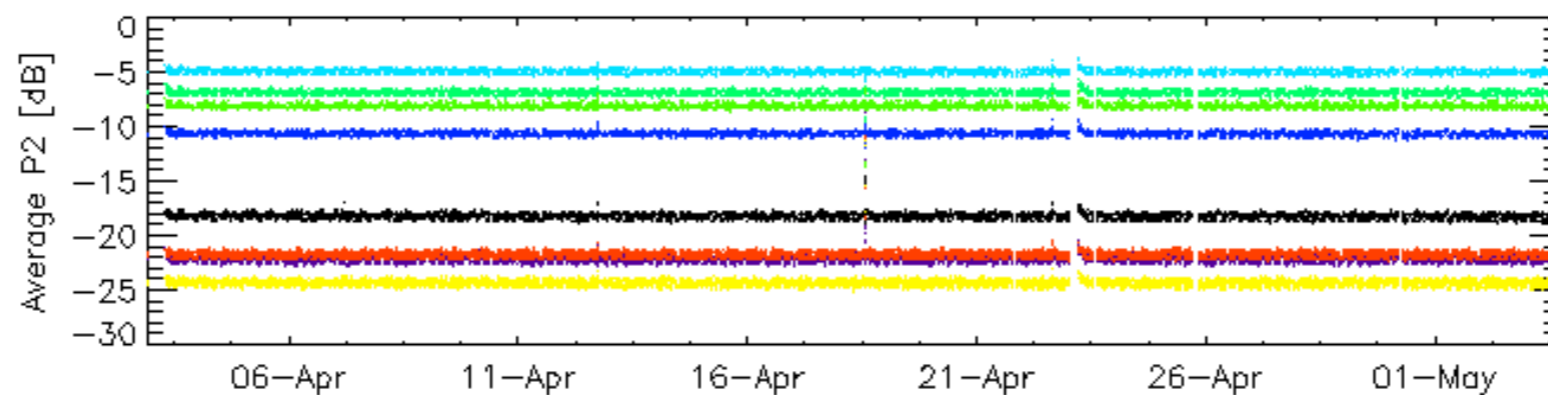
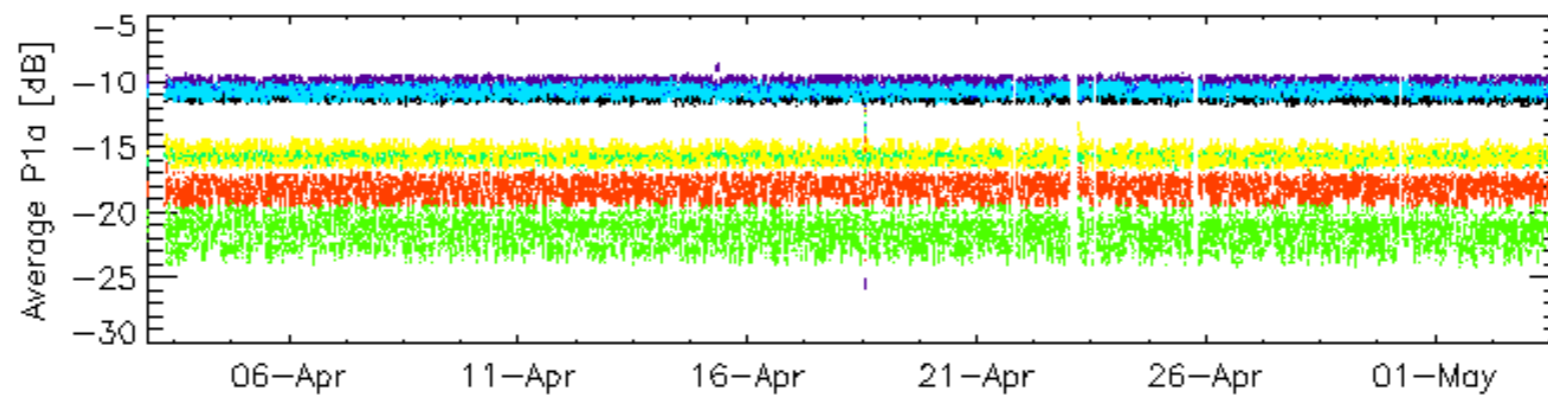
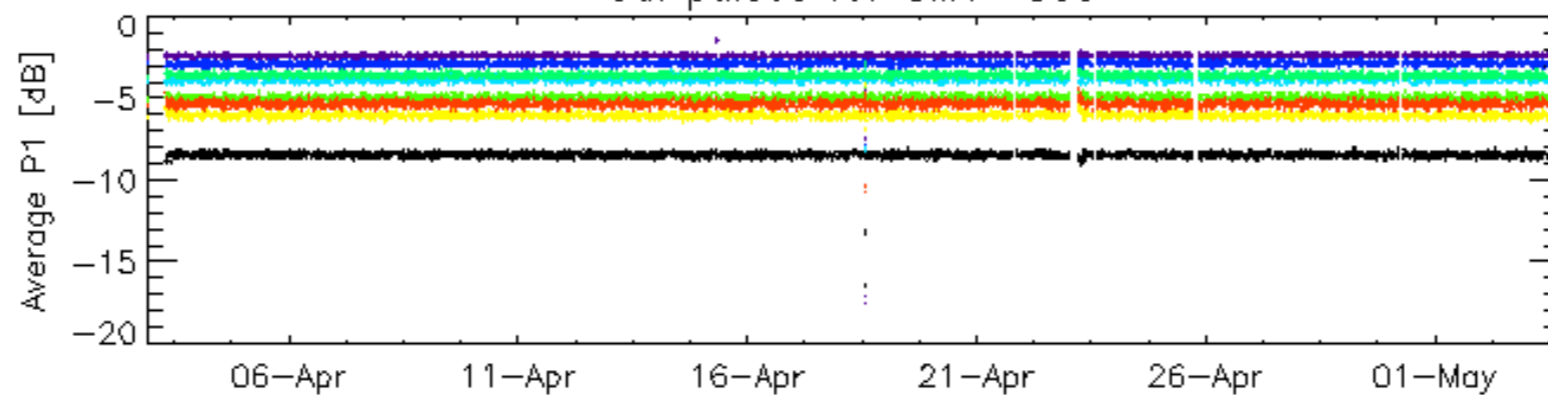


03-May



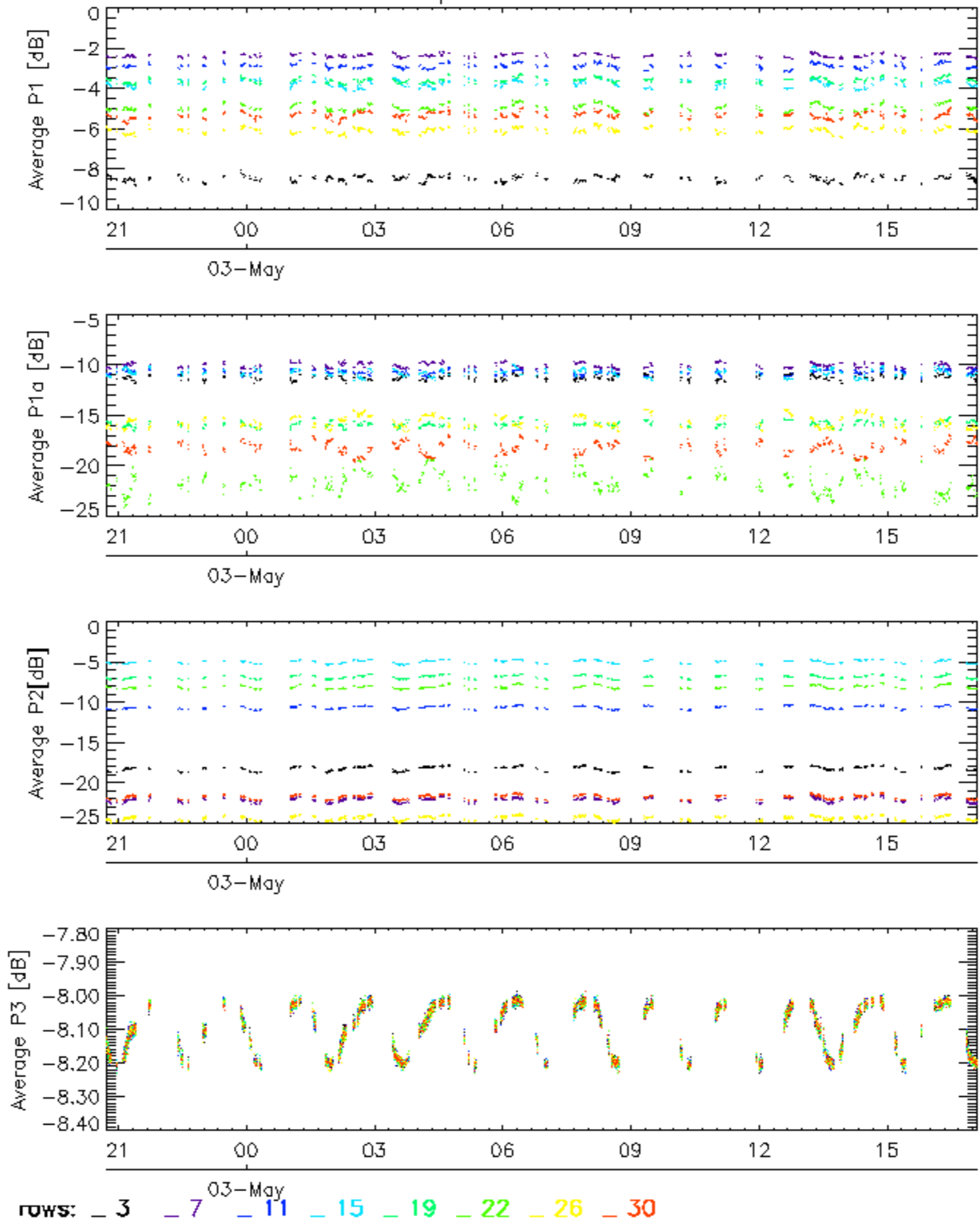
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

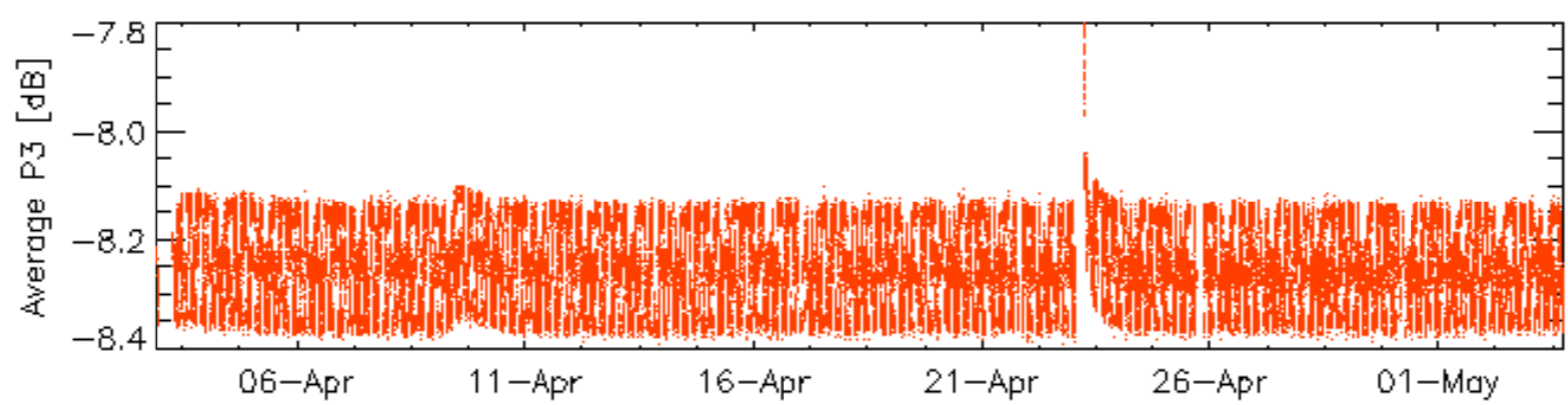
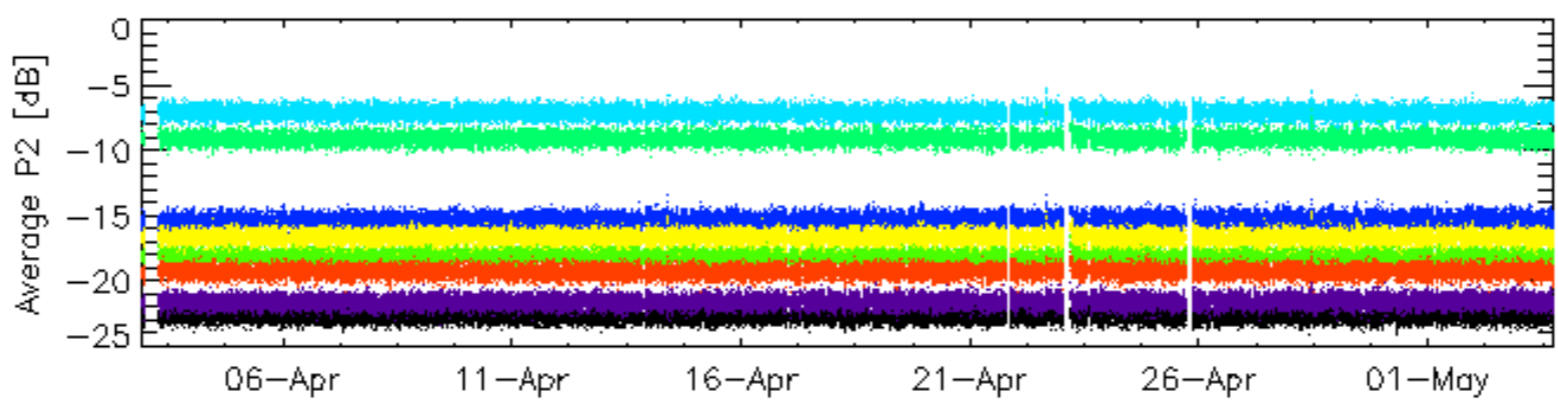
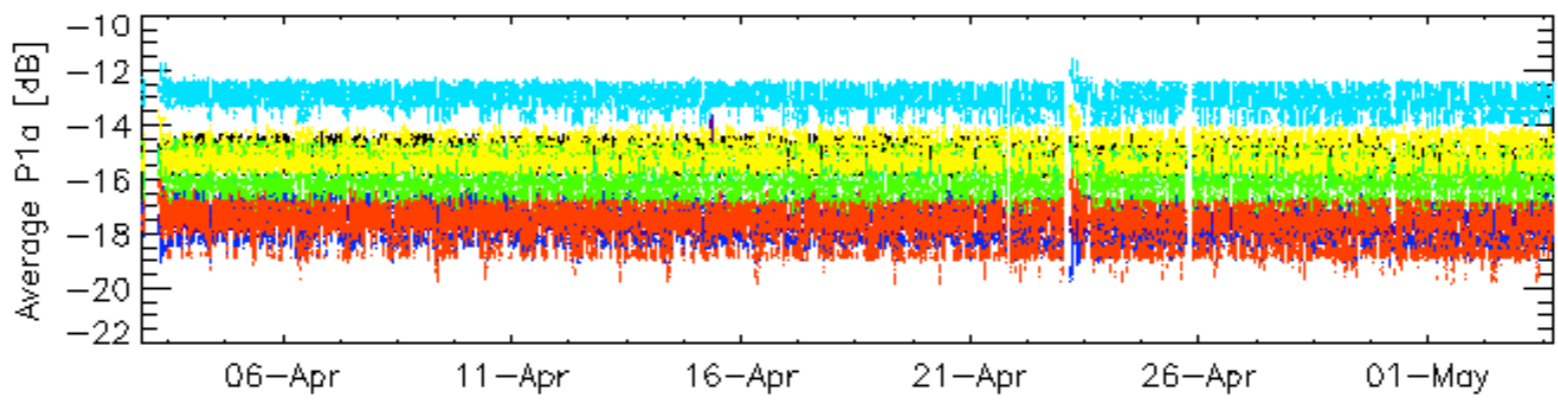
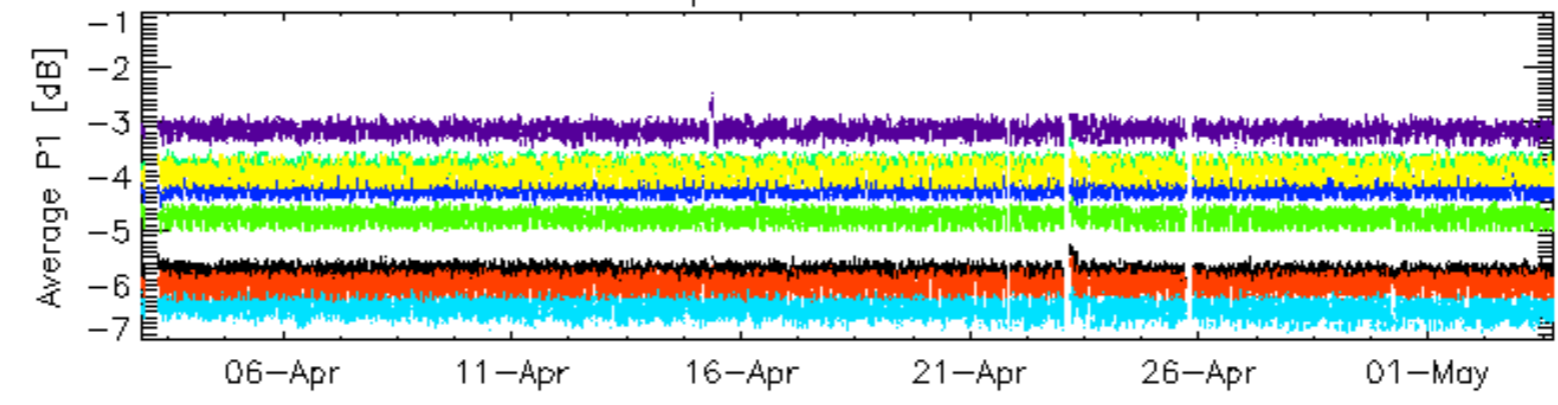


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

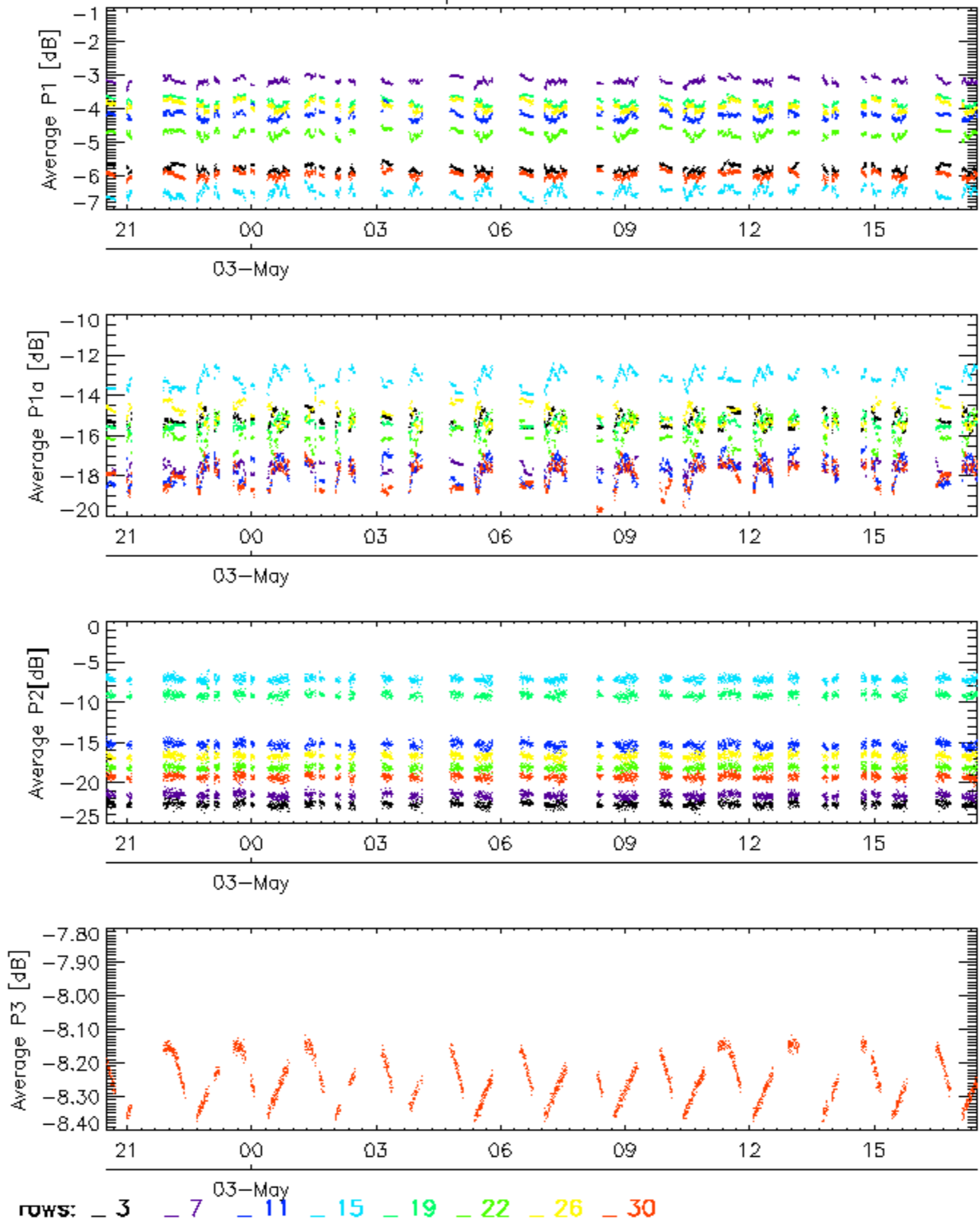


Cal pulses for WVS IS2

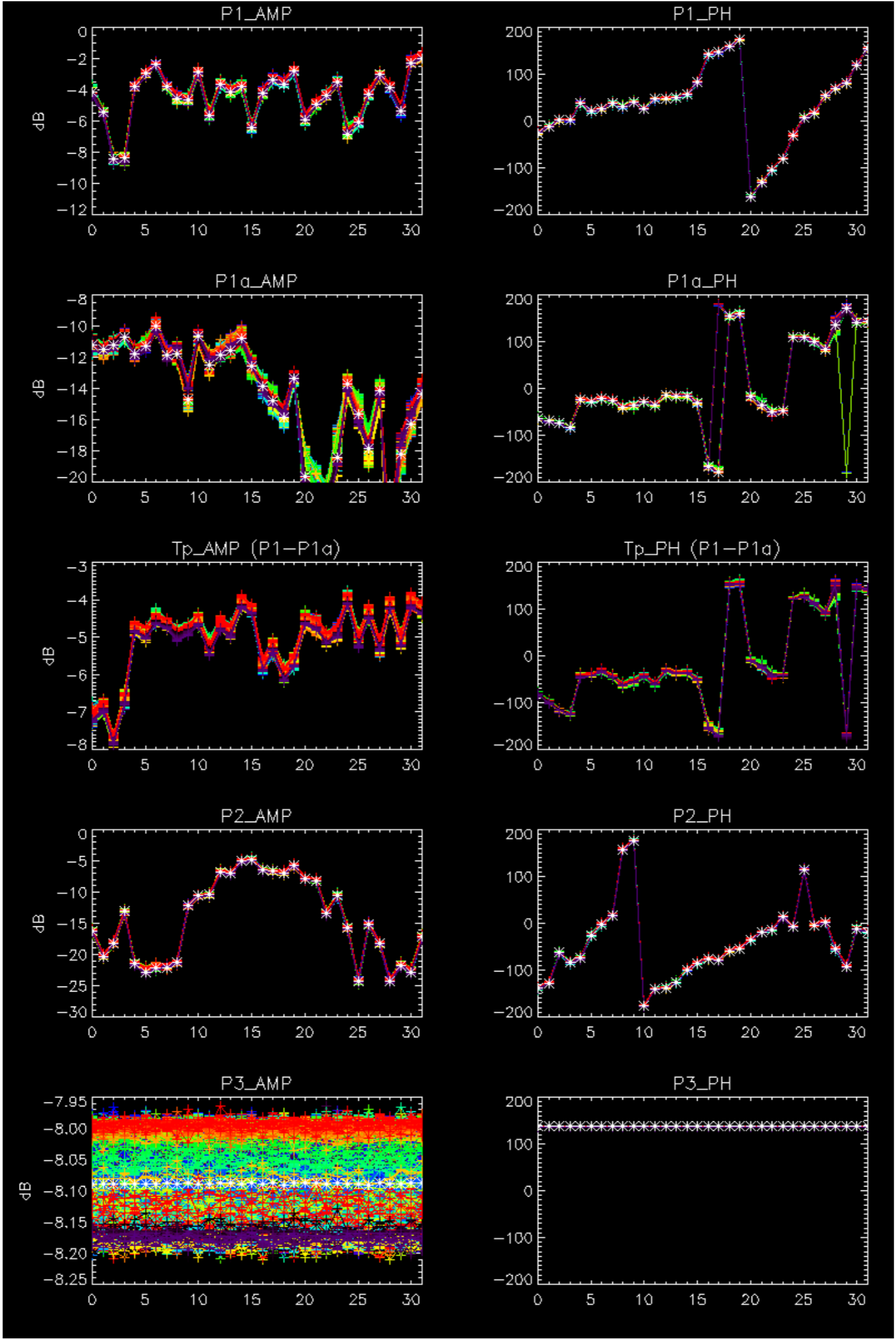


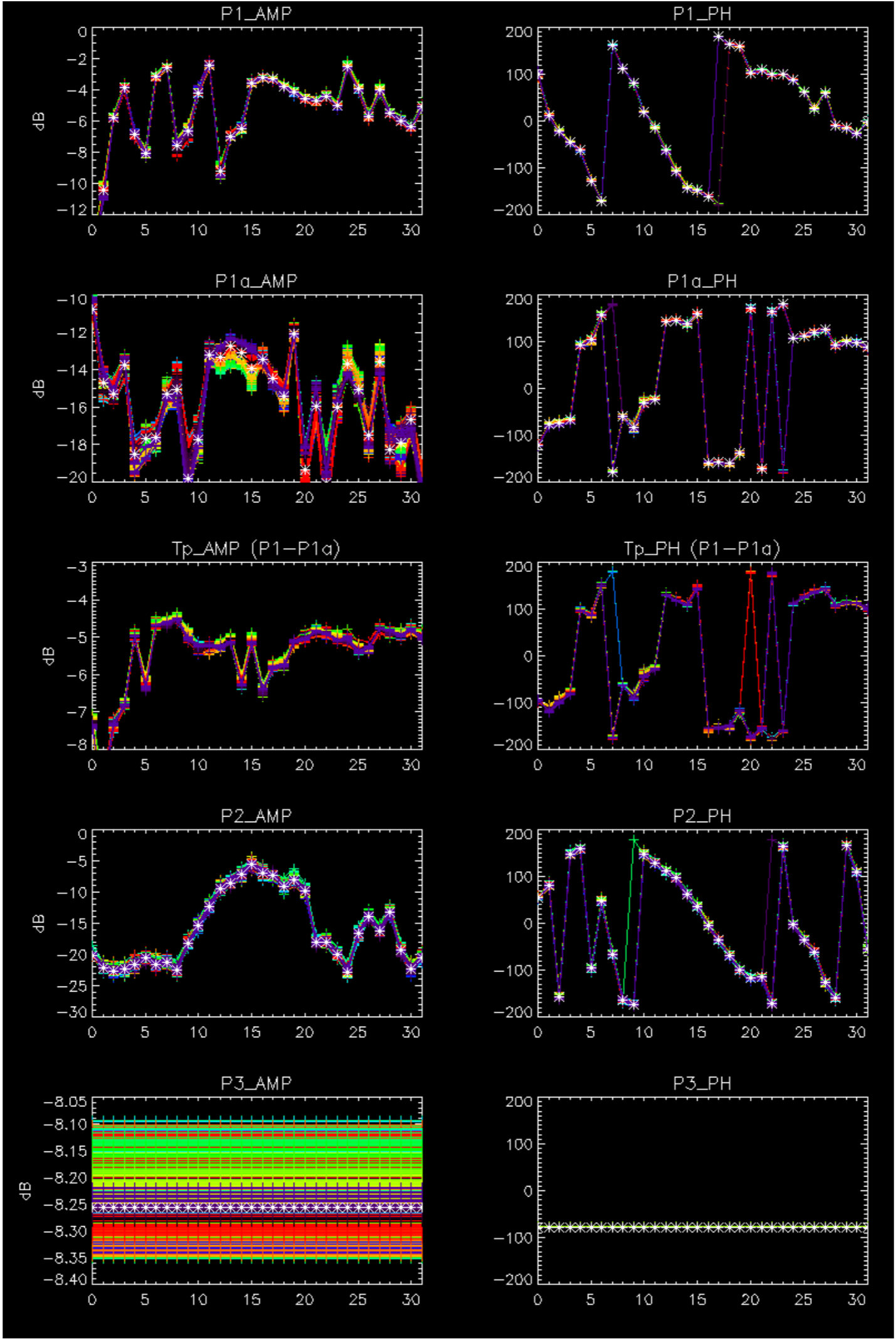
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Cal pulses for WVS IS2



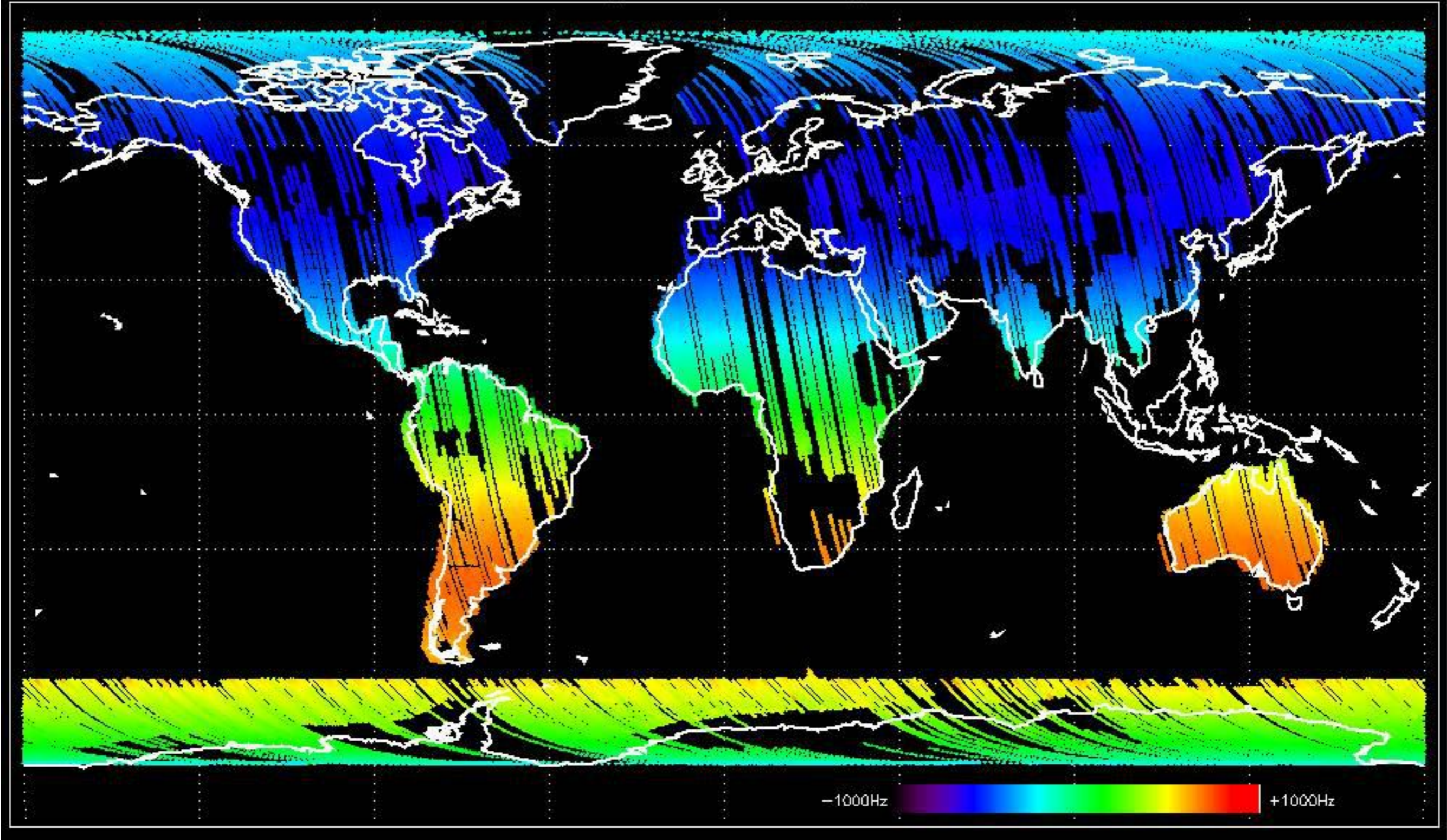
No anomalies observed.



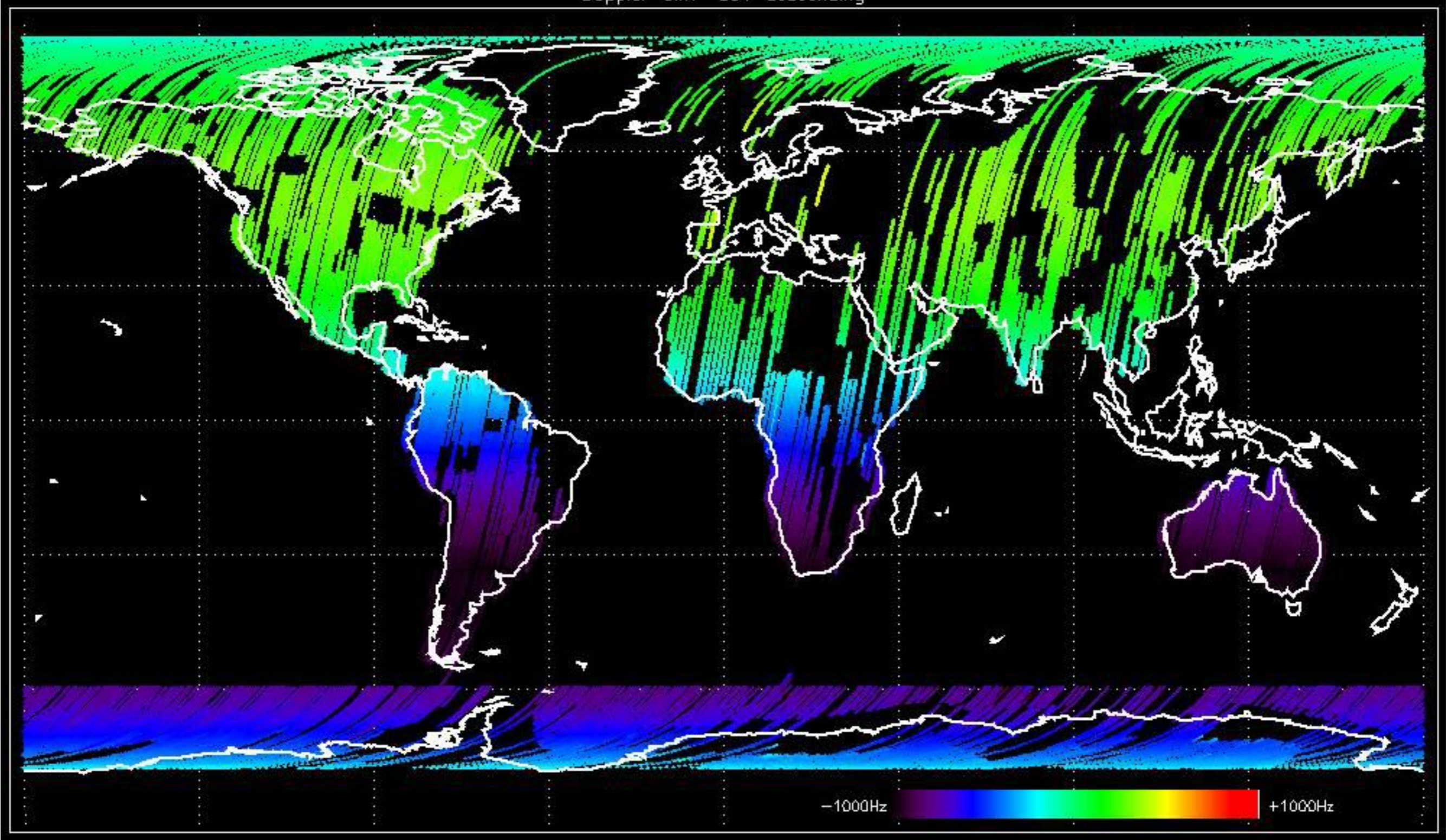


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

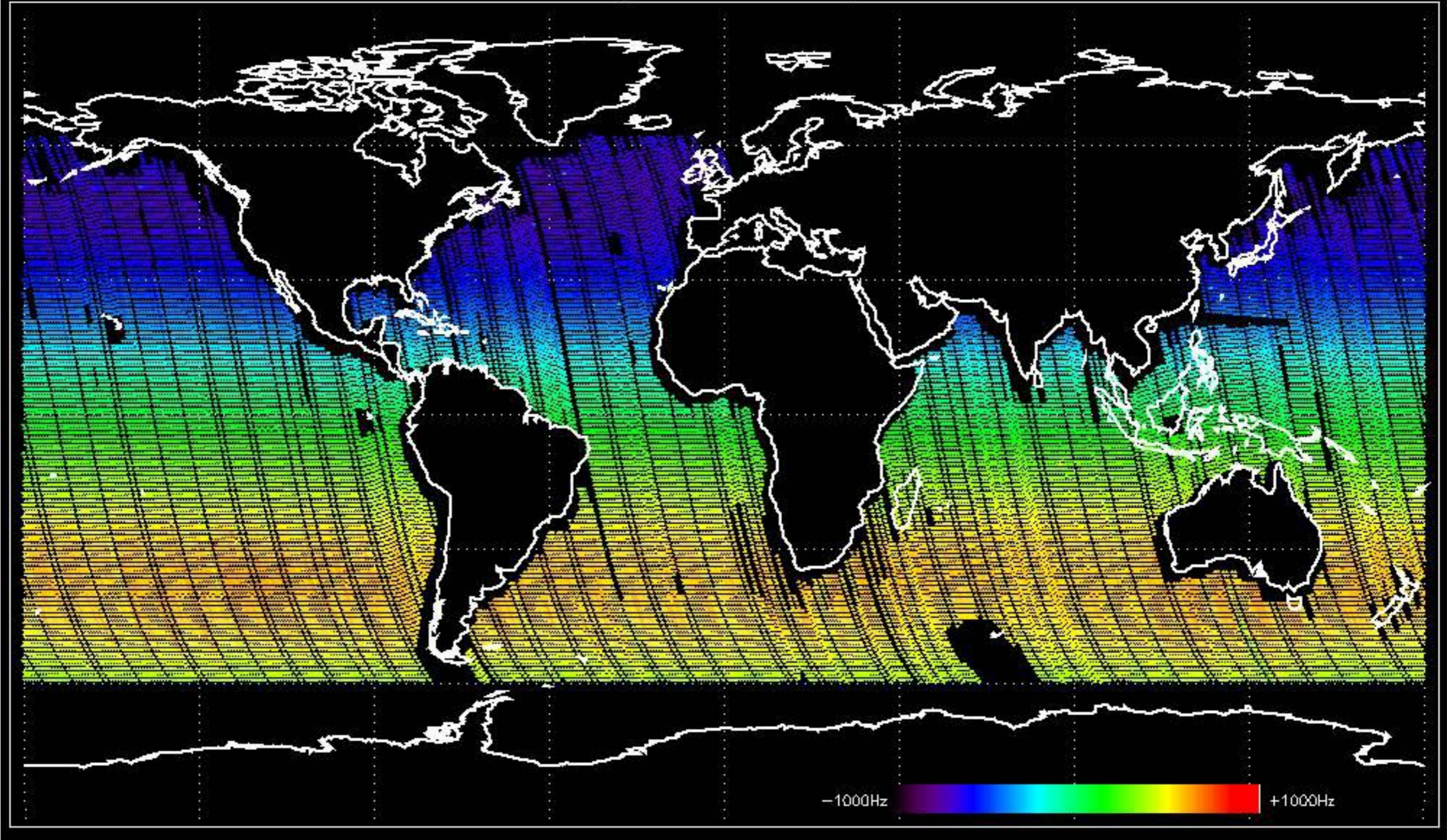
Doppler 'GM1' 'SS1' ascending



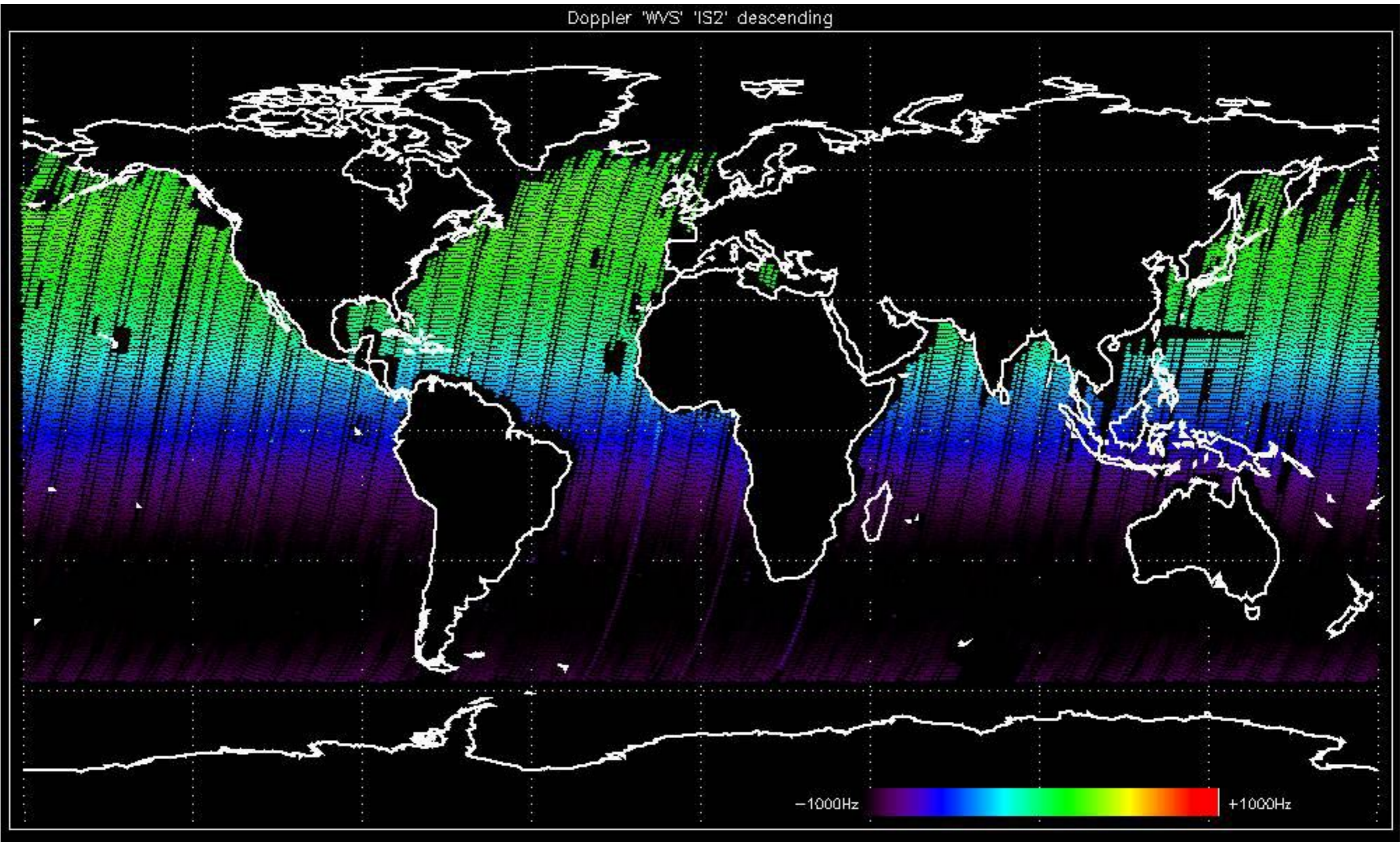
Doppler 'GM1' 'SS1' descending

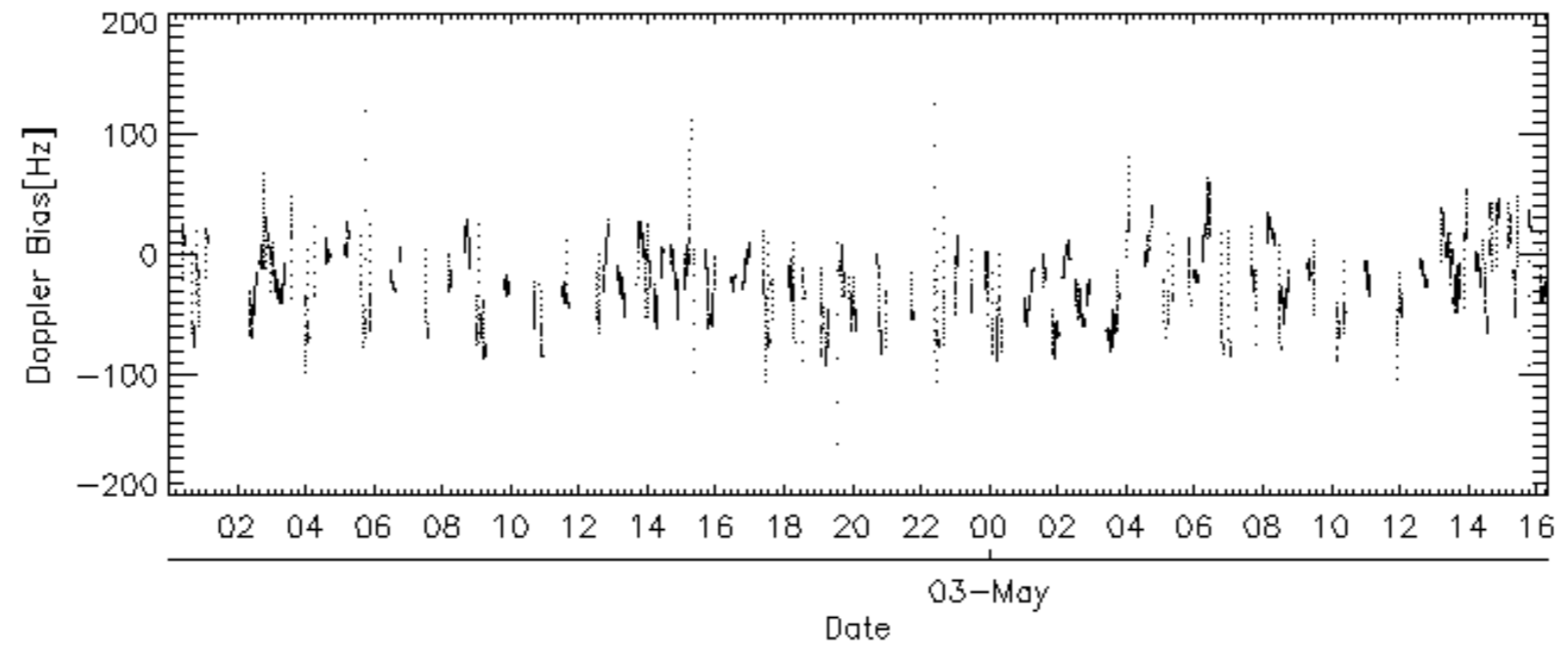
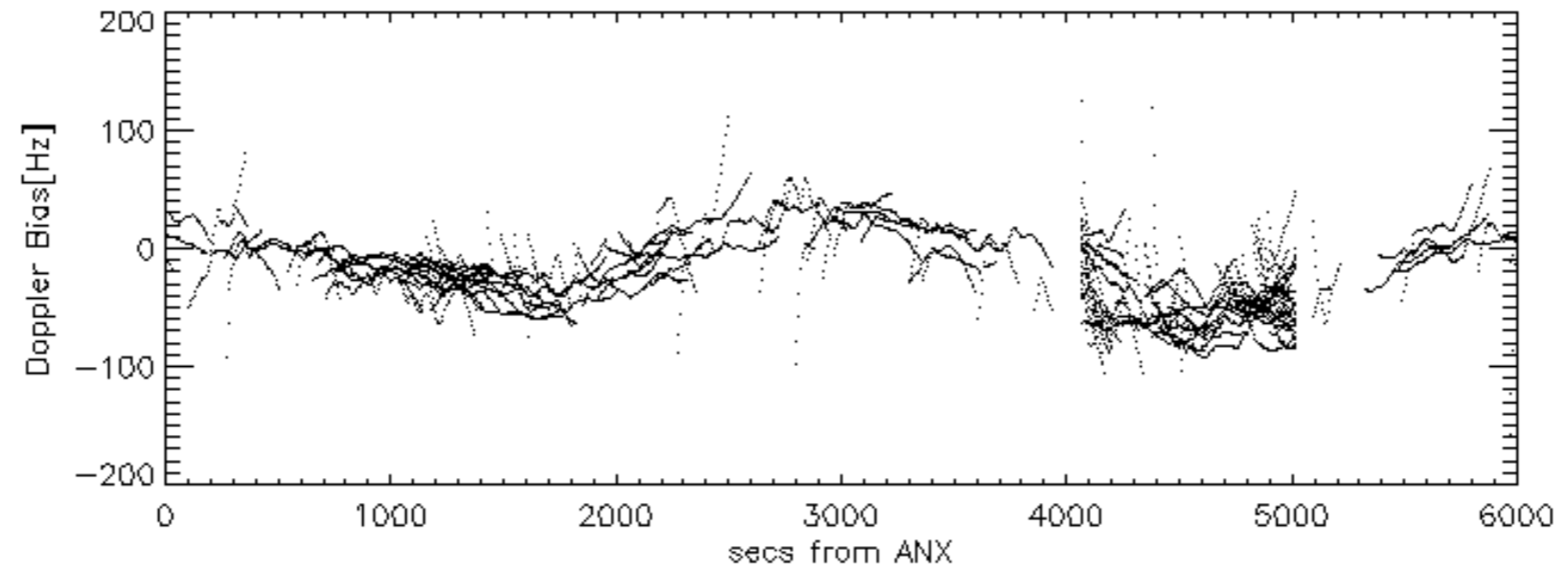
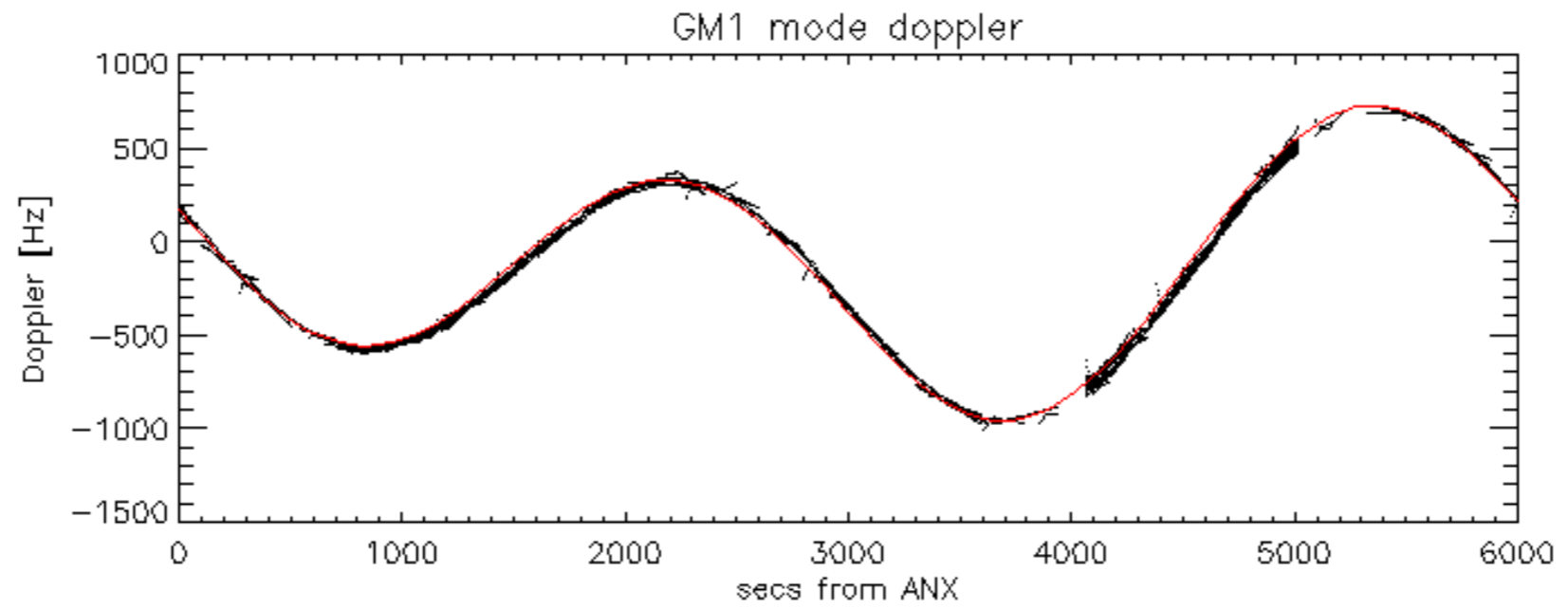


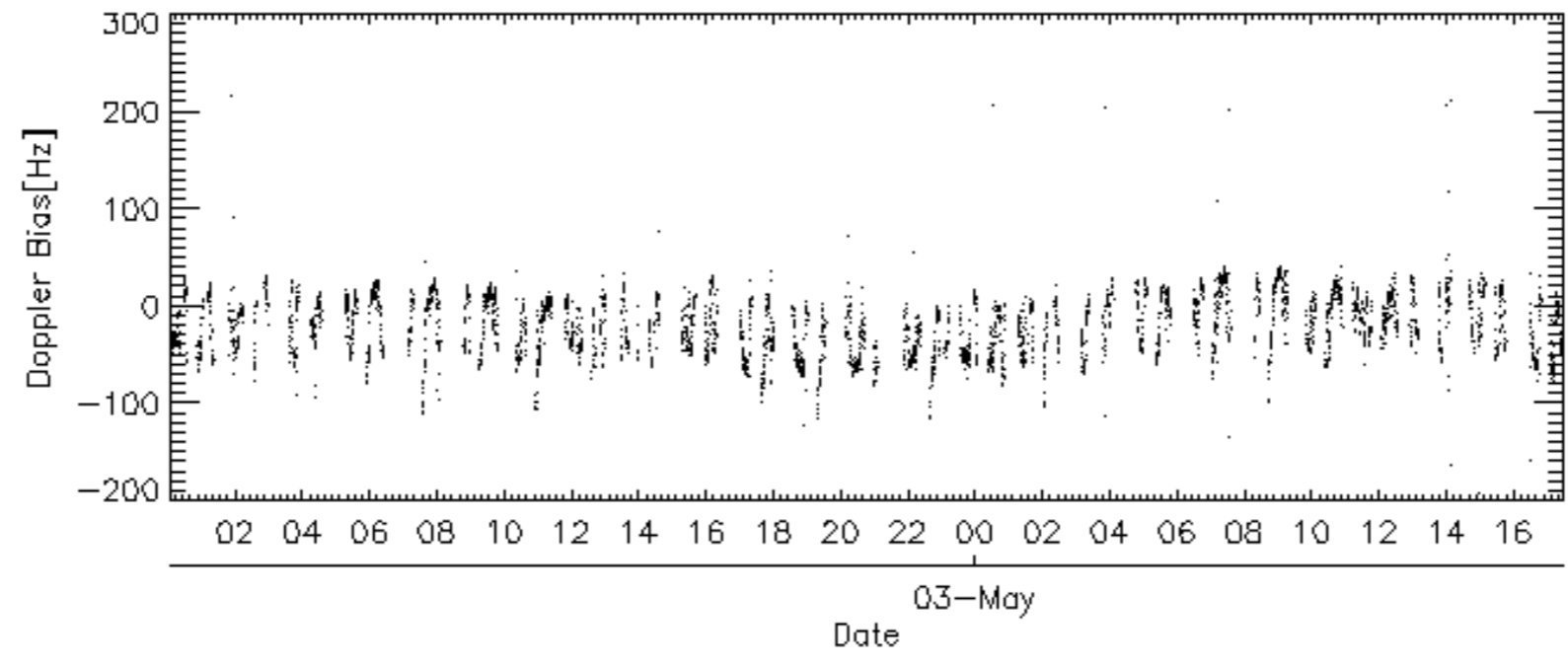
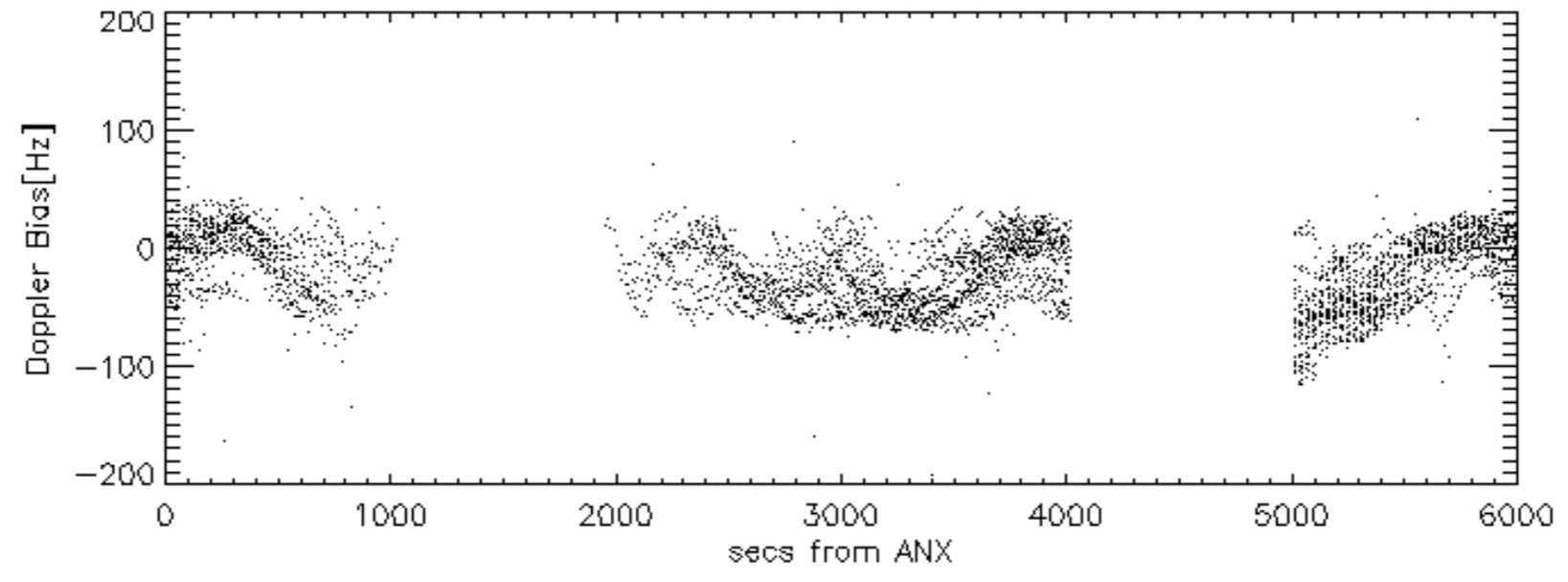
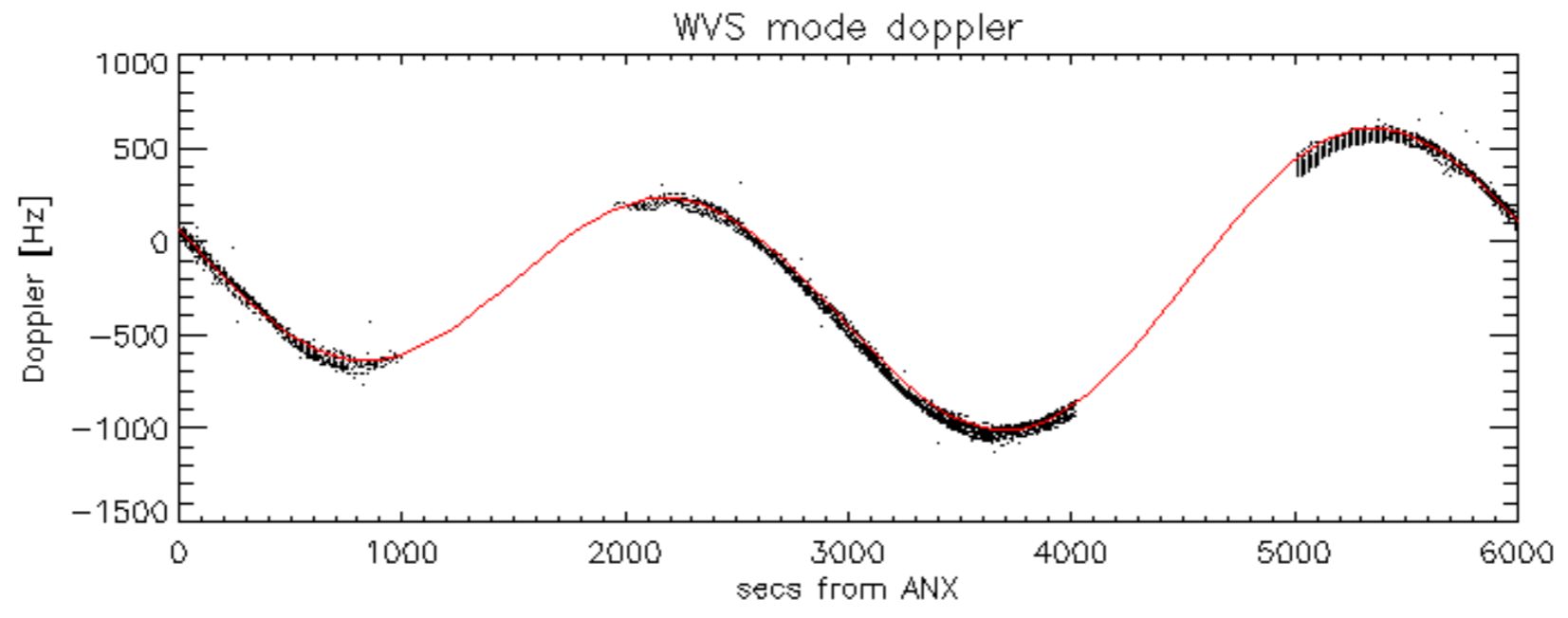
Doppler 'WVS' 'IS2' ascending



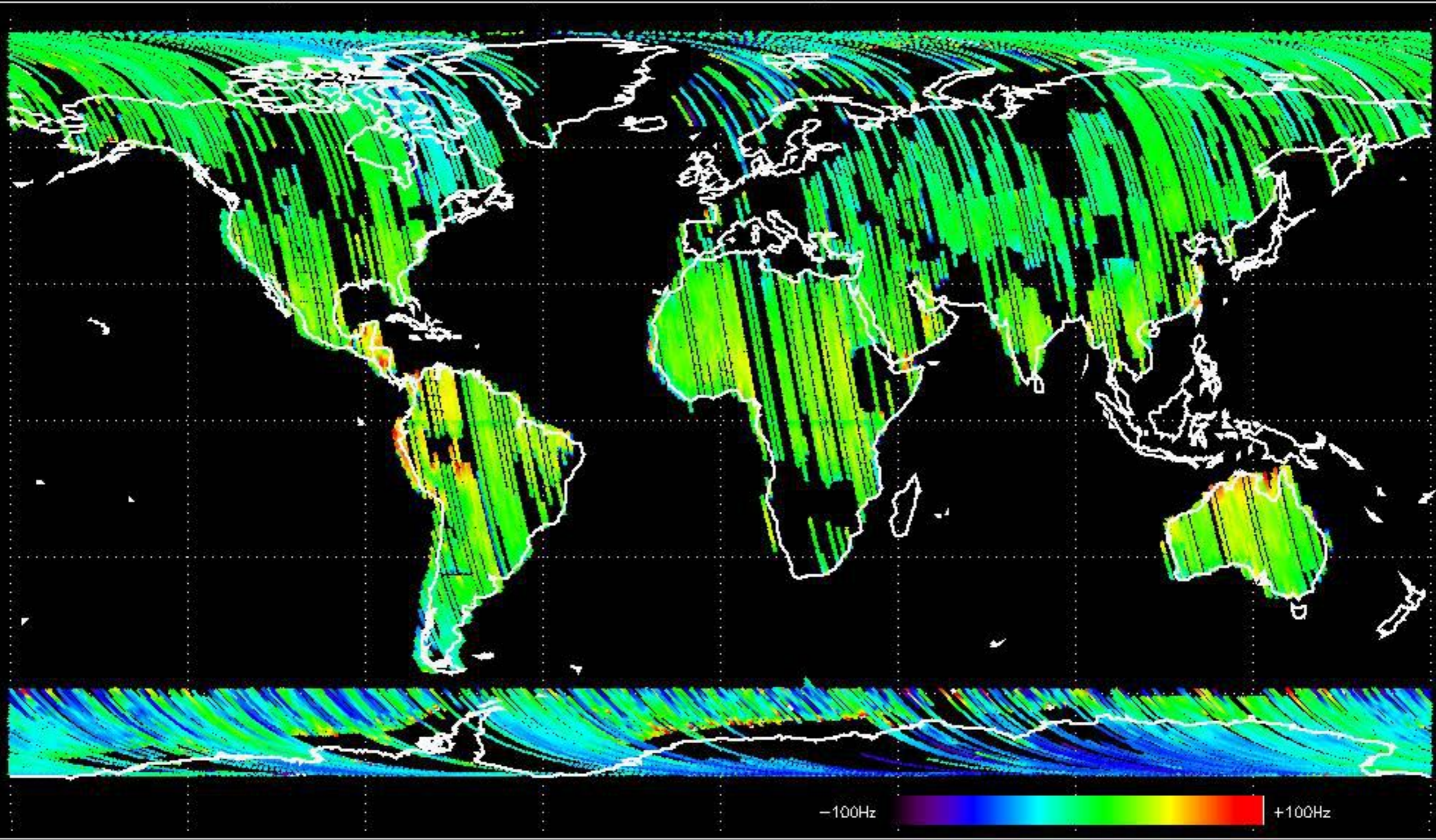
Doppler 'WVS' 'IS2' descending



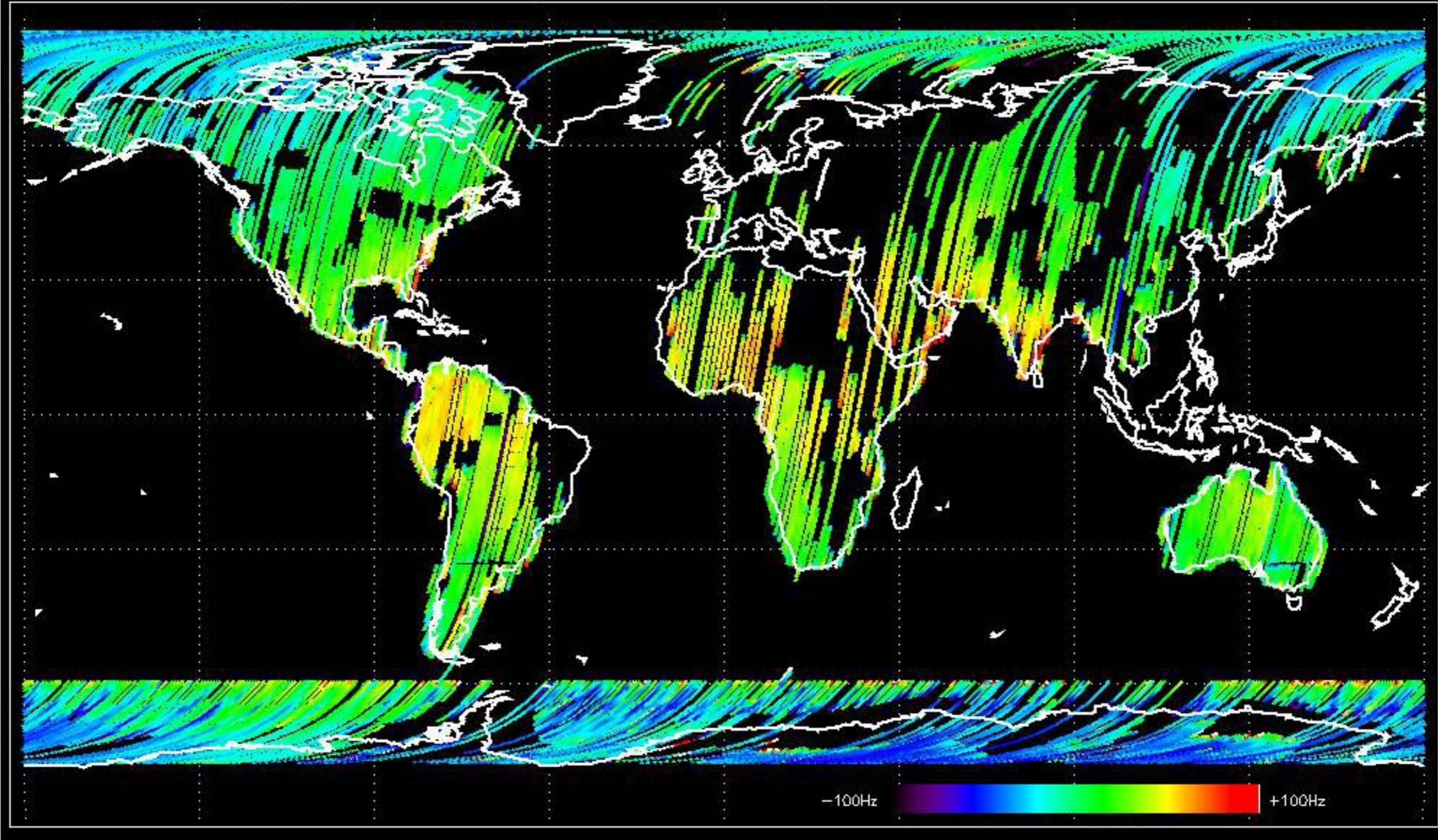




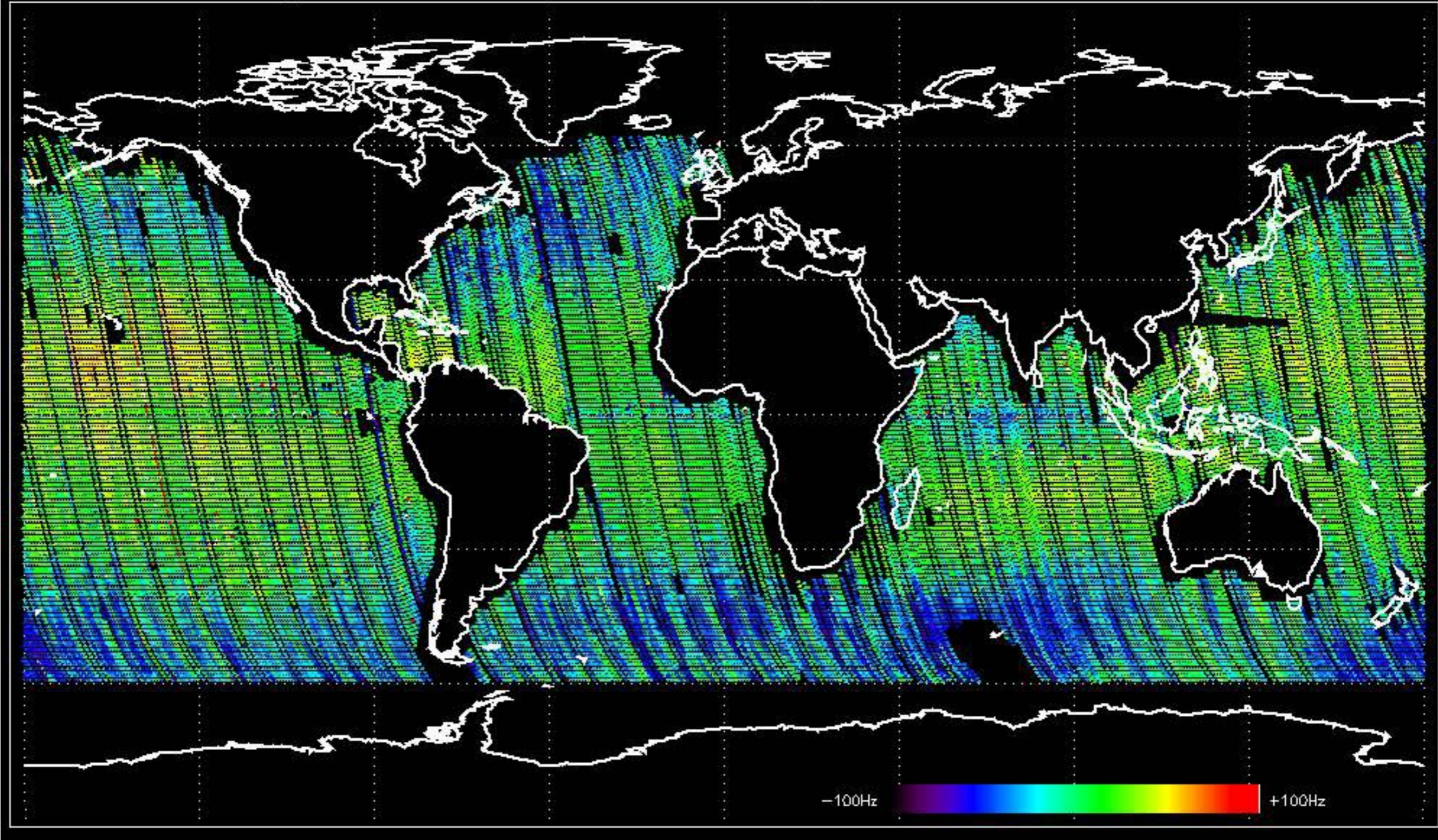
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -25.242081 Hz



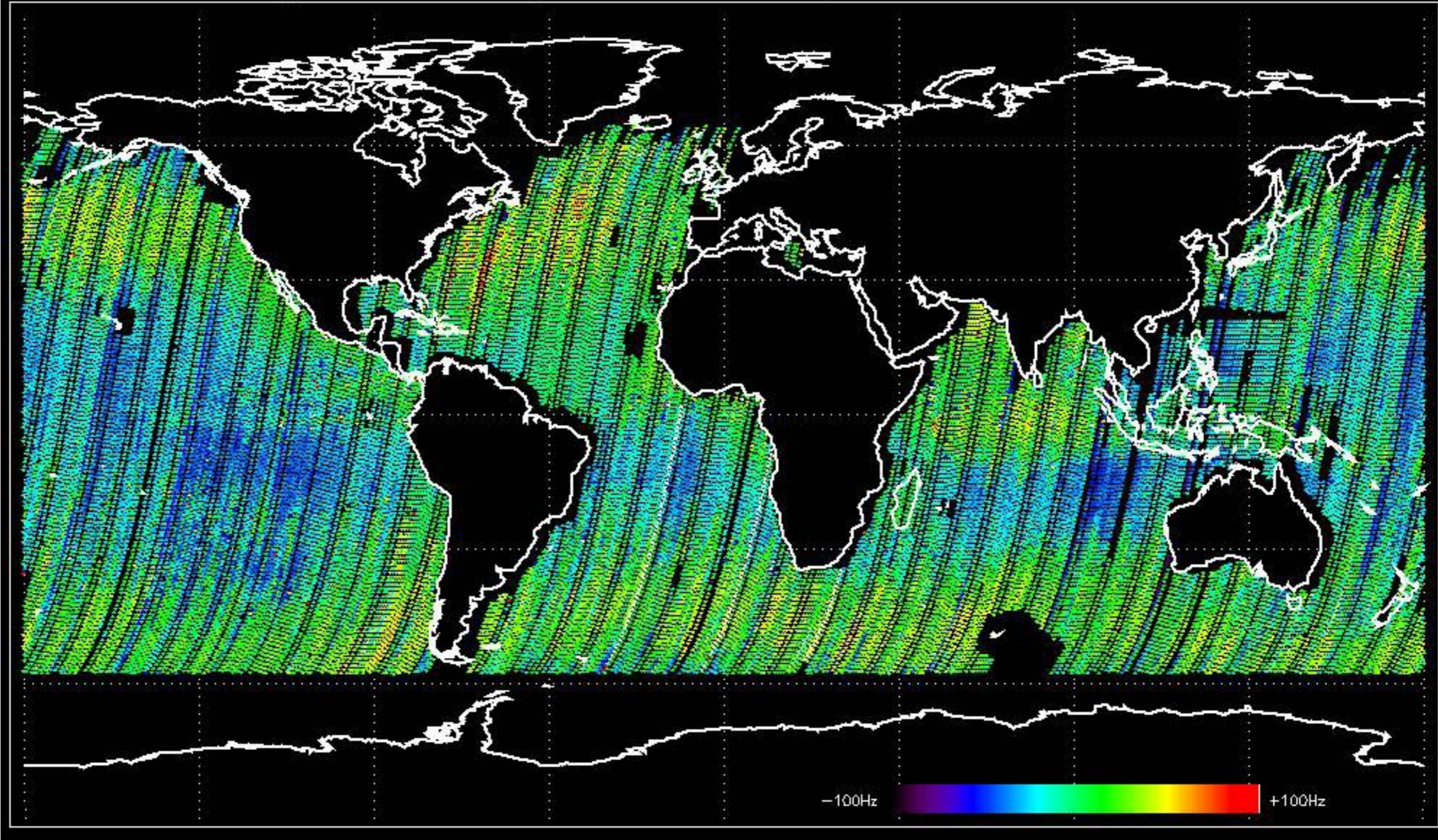
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.726463 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -19.397521 Hz

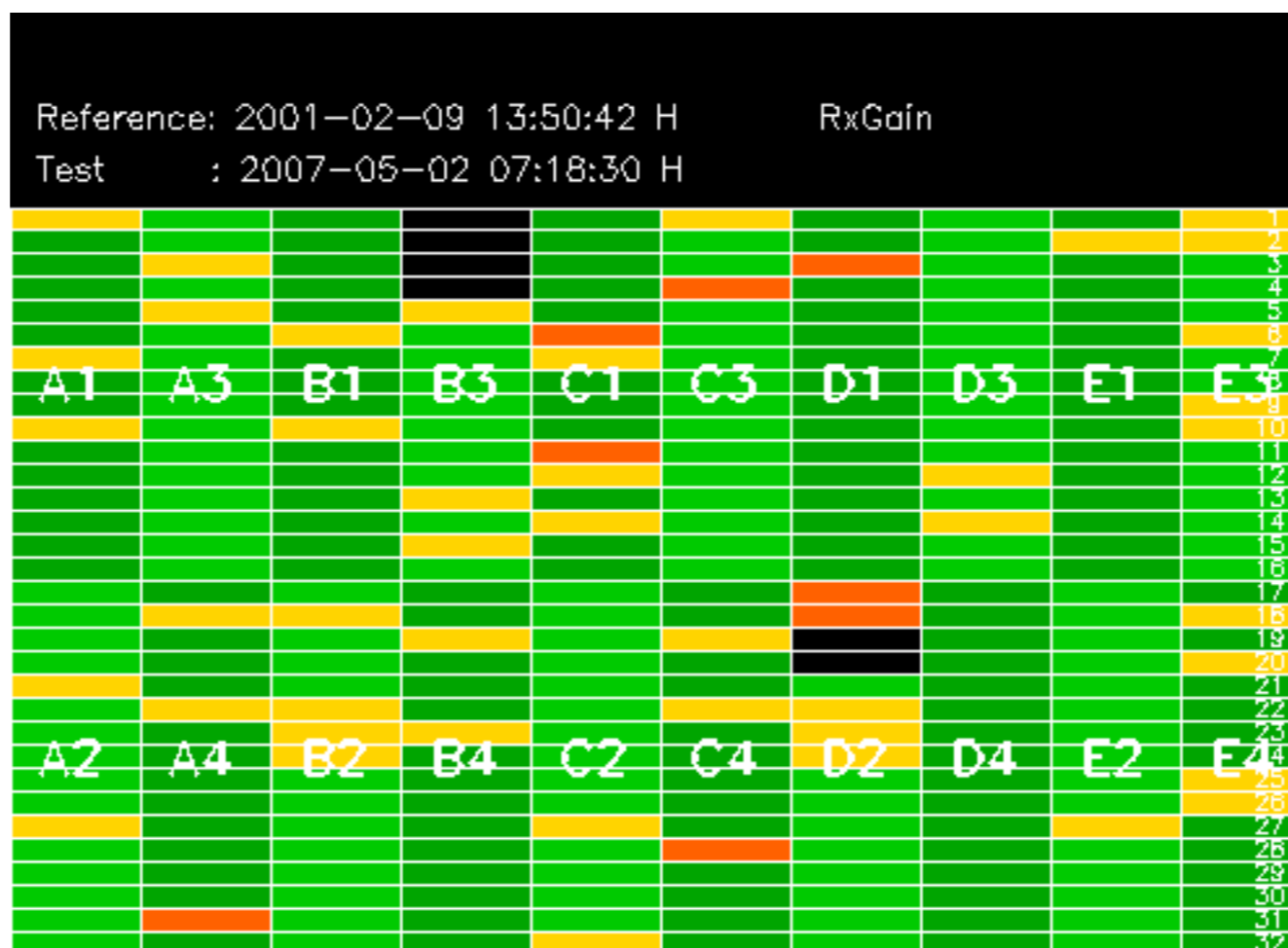


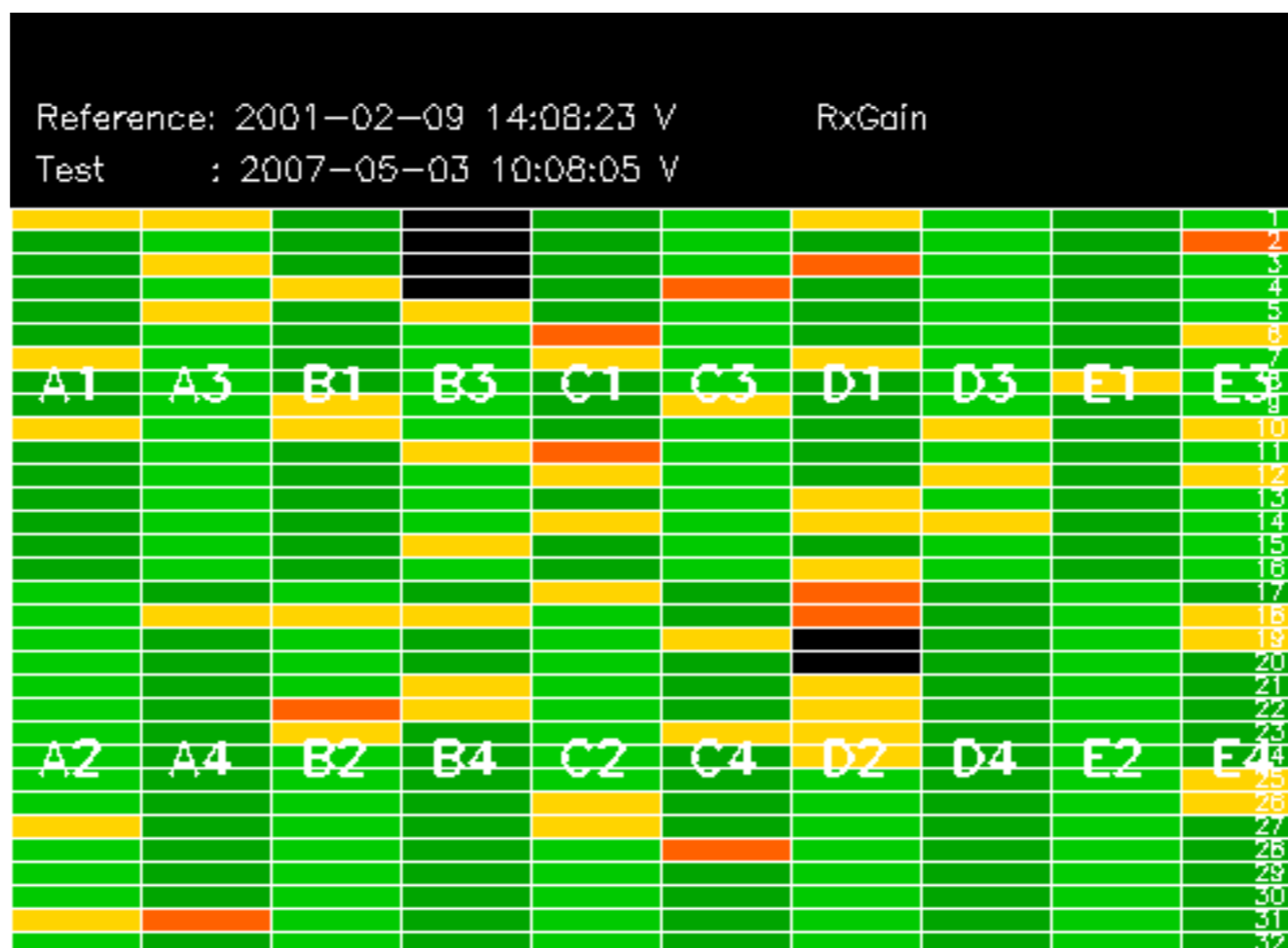
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.438575 Hz

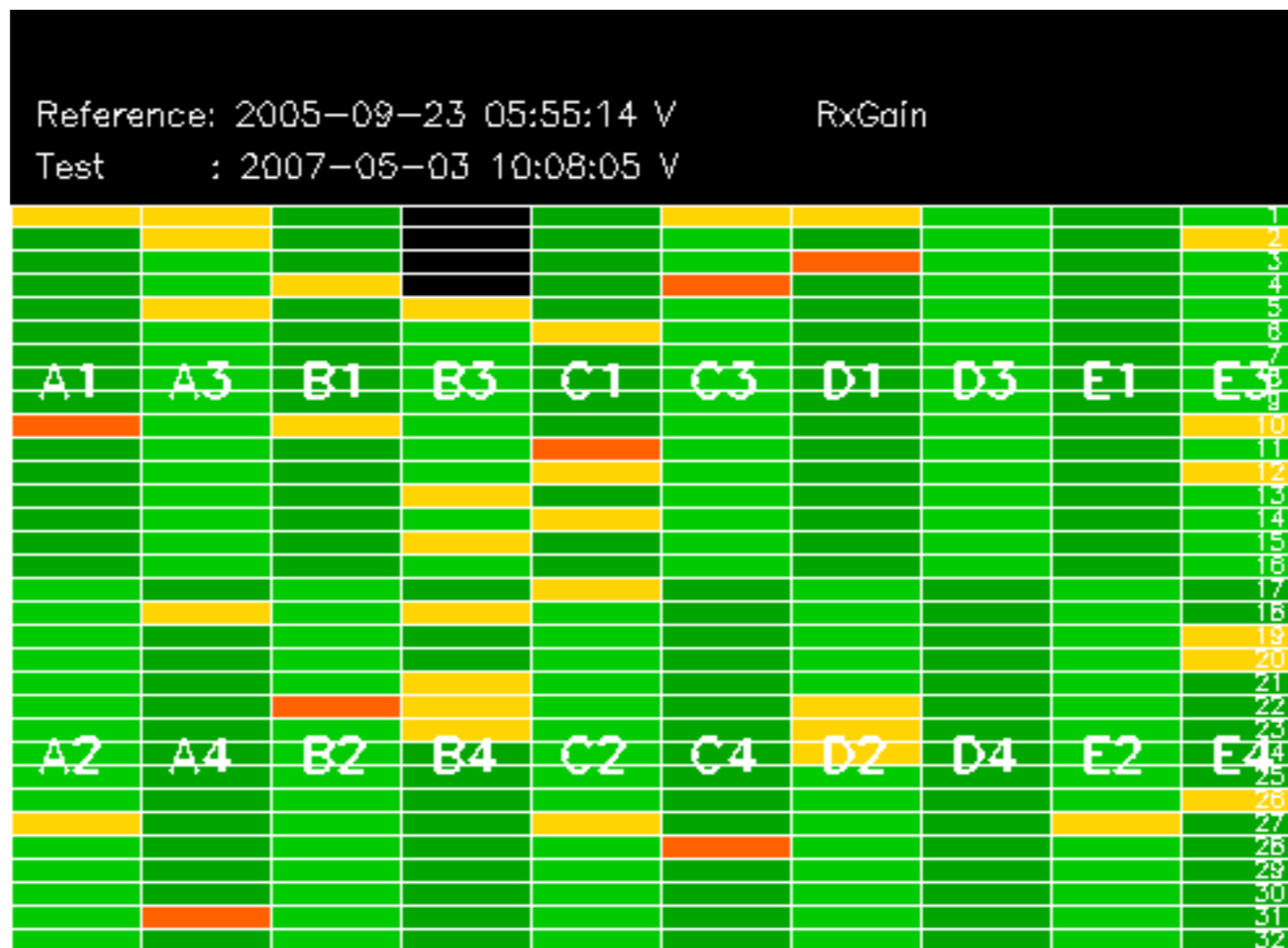


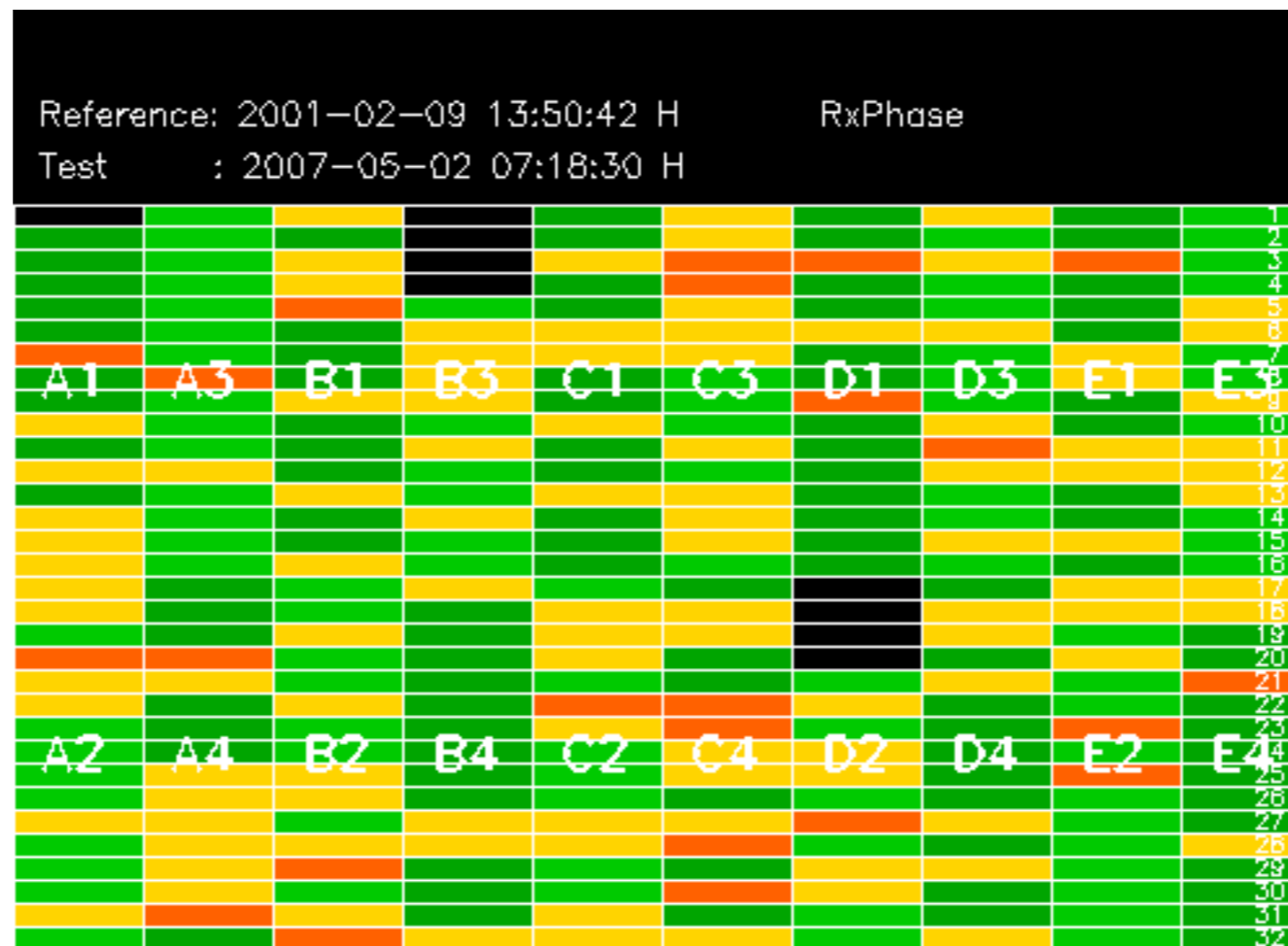
No anomalies observed on available MS products:

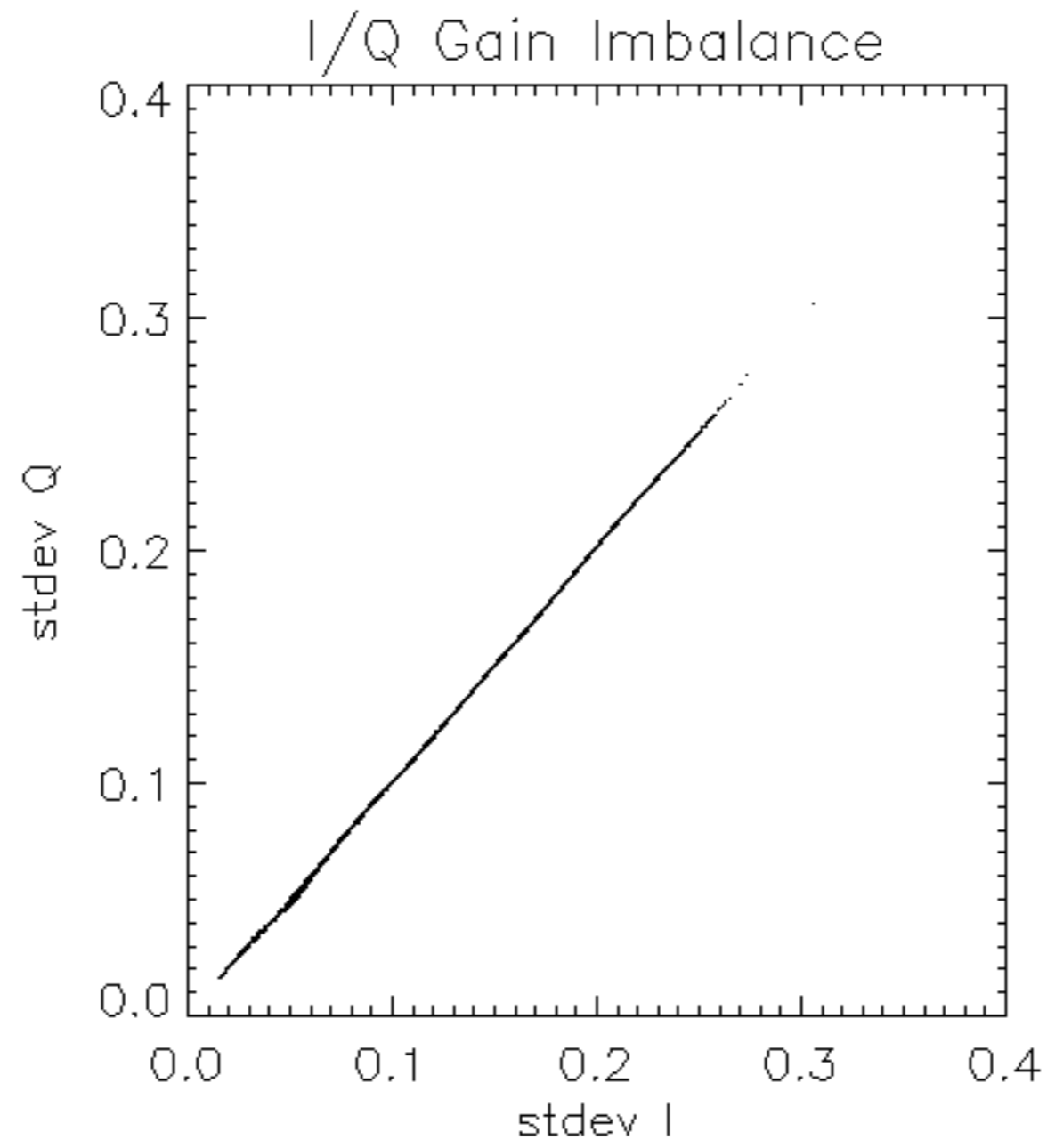
No anomalies observed.

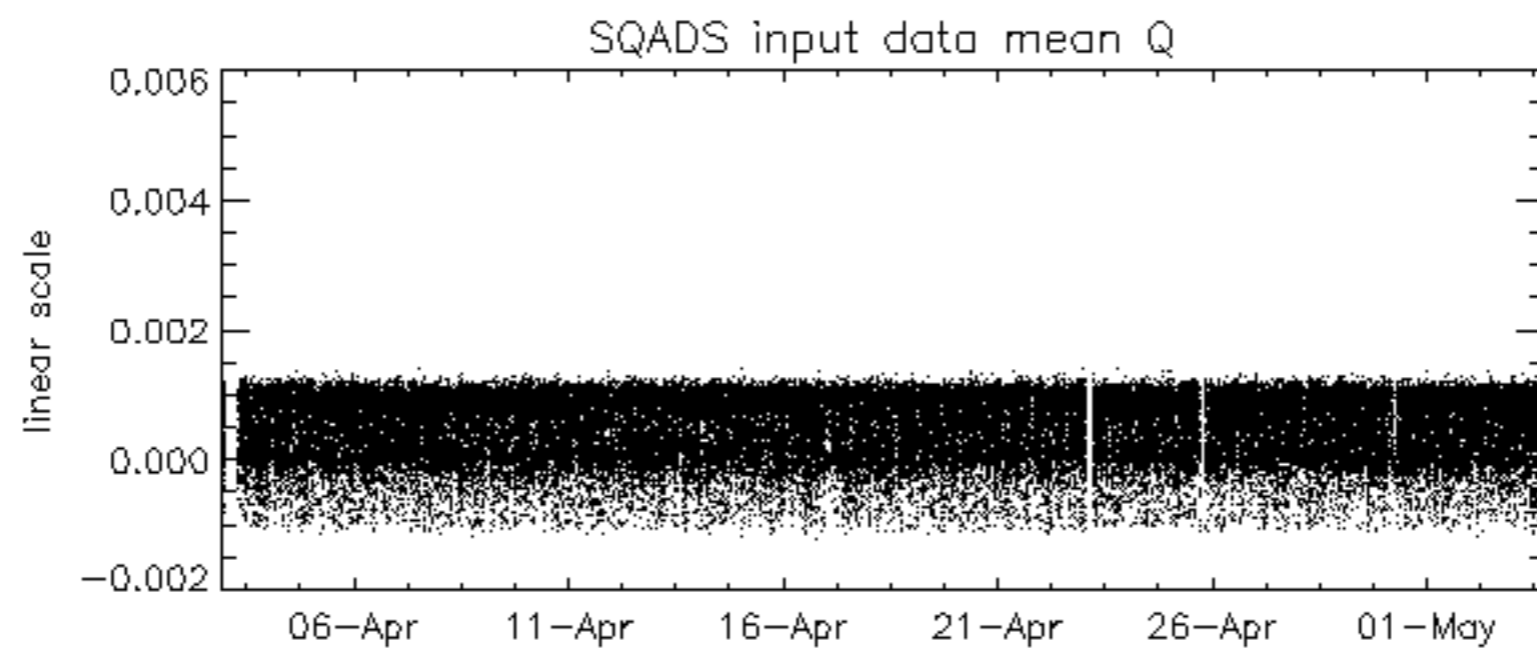
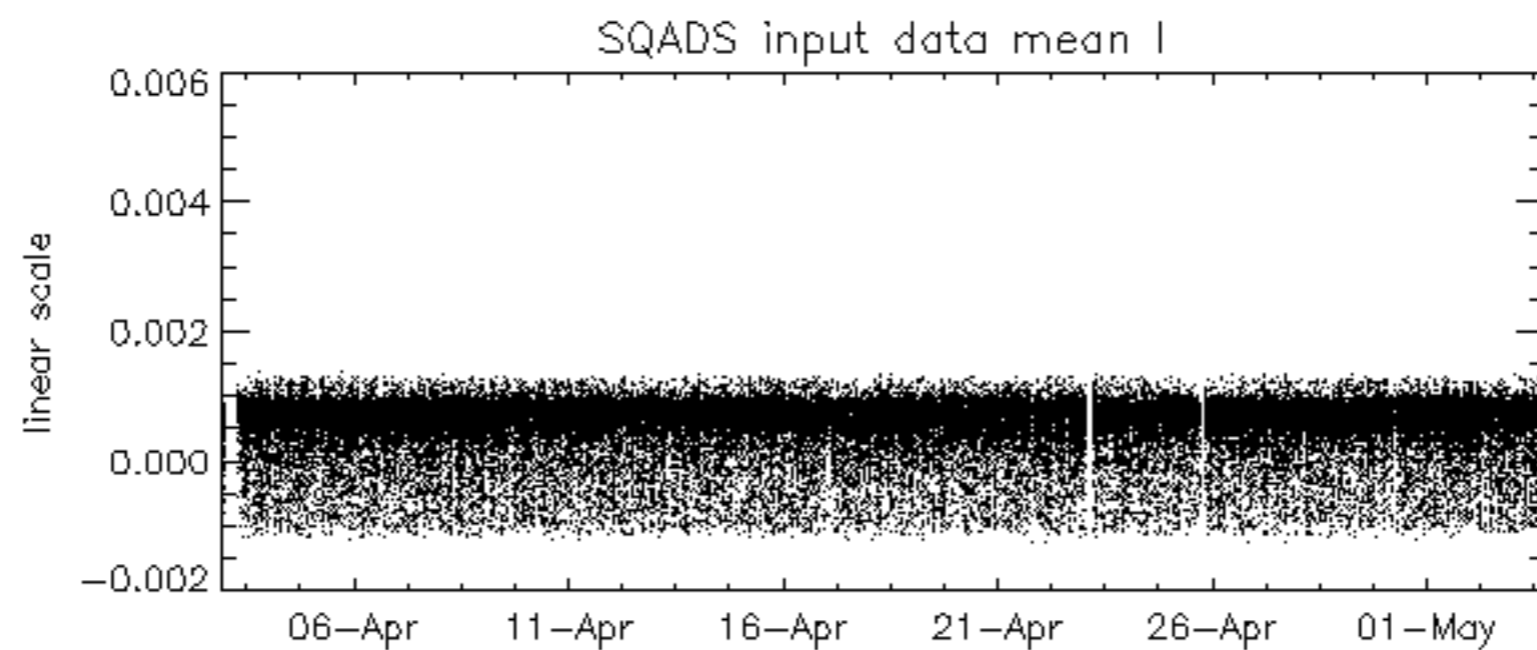
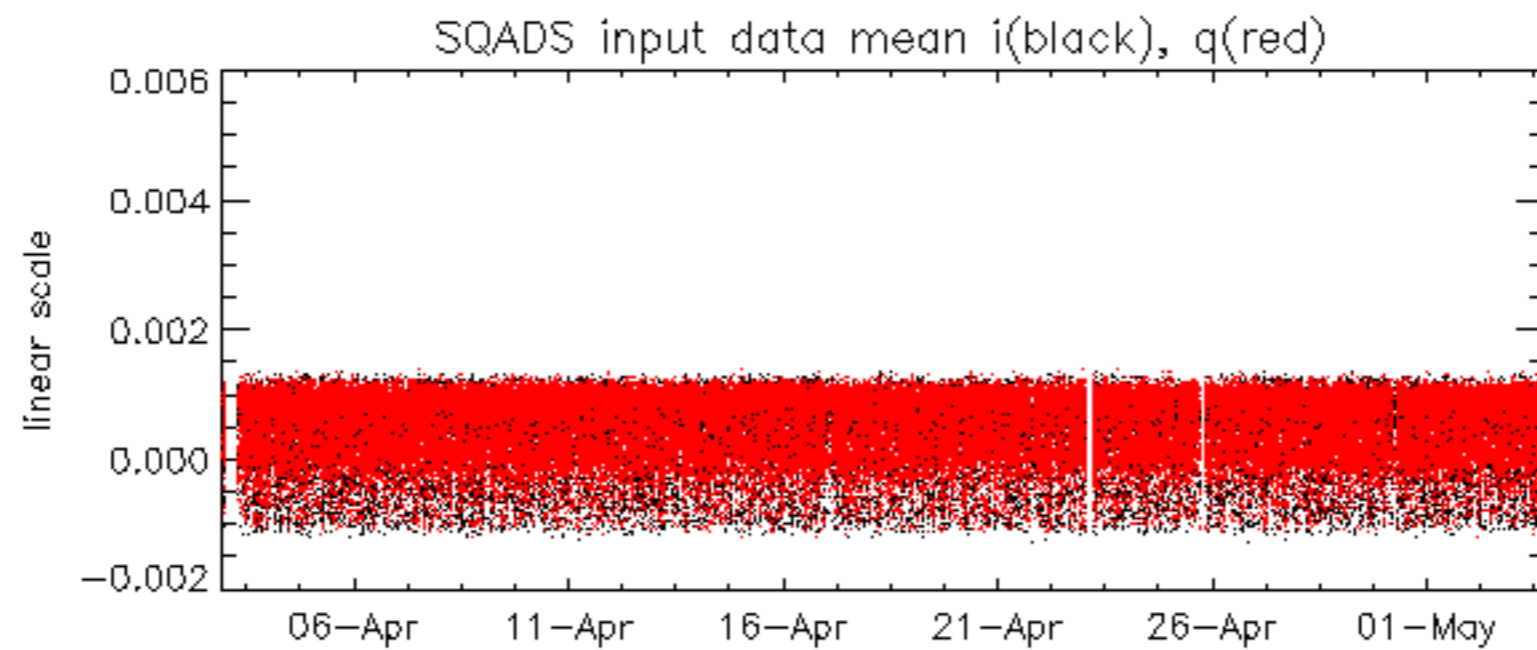


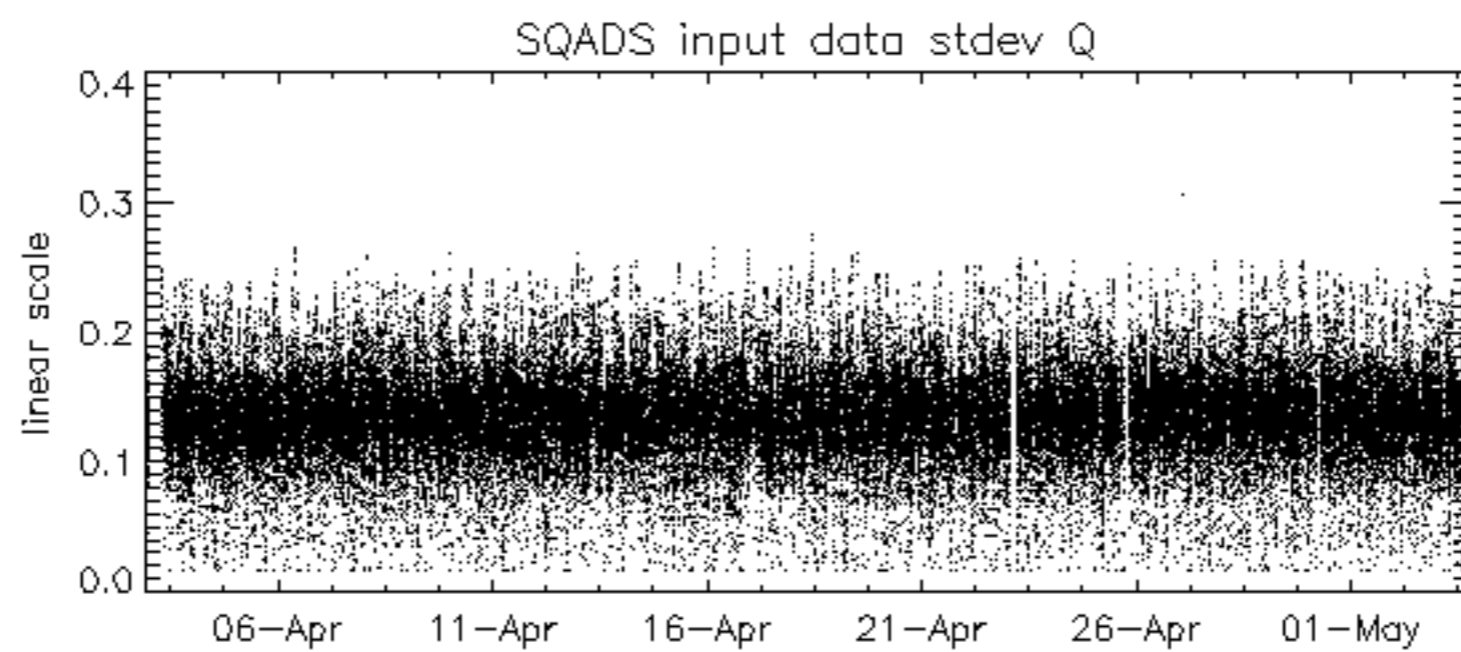
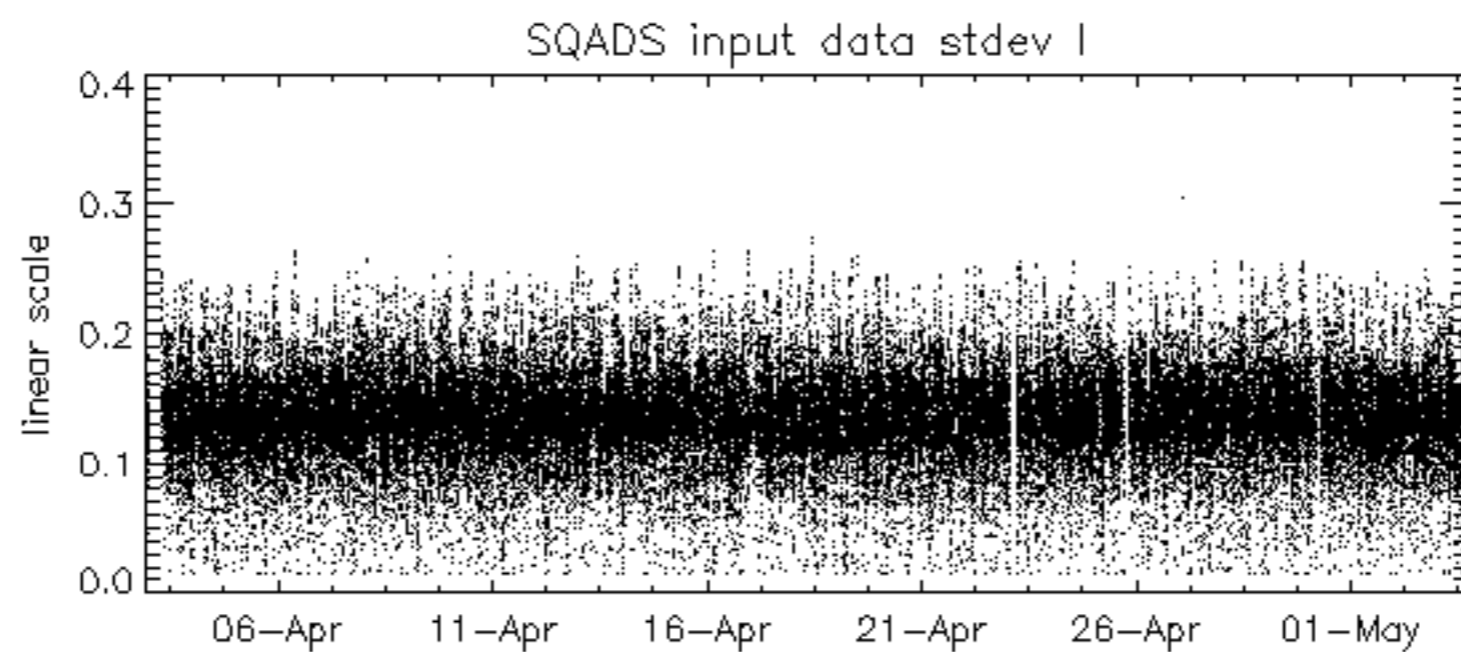
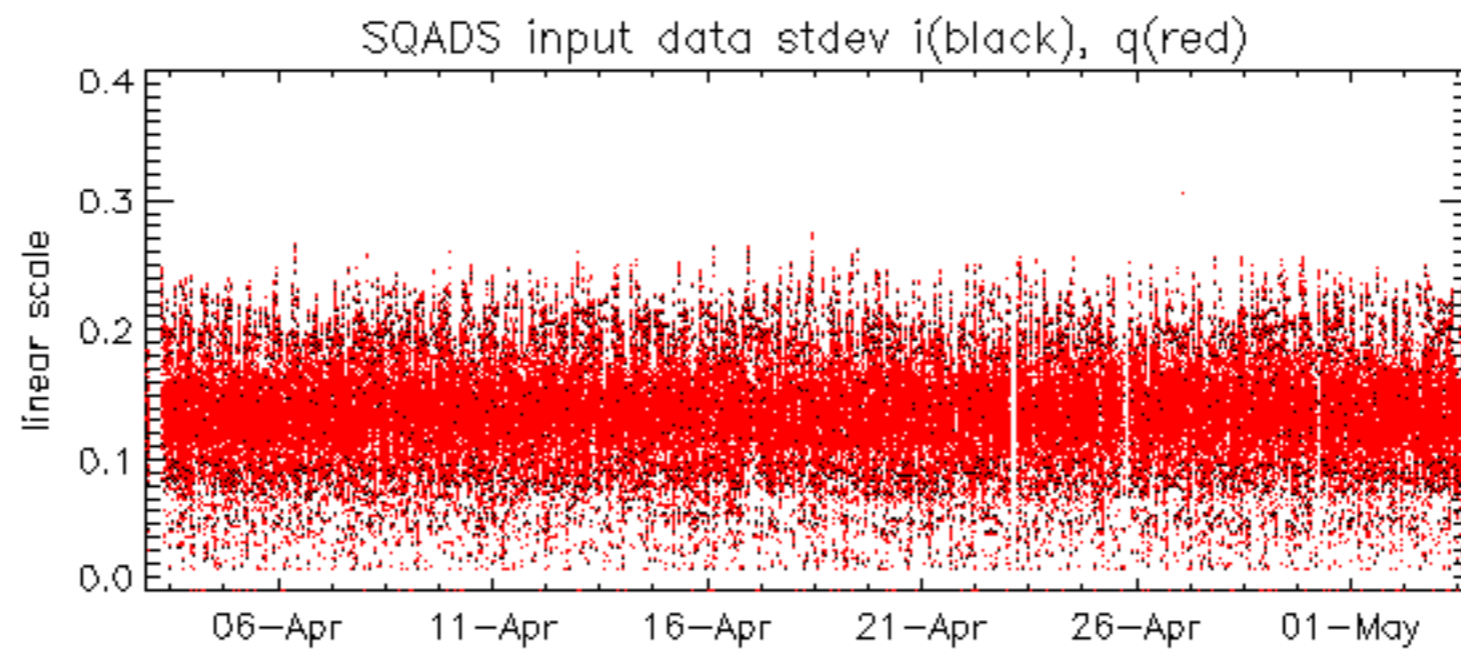








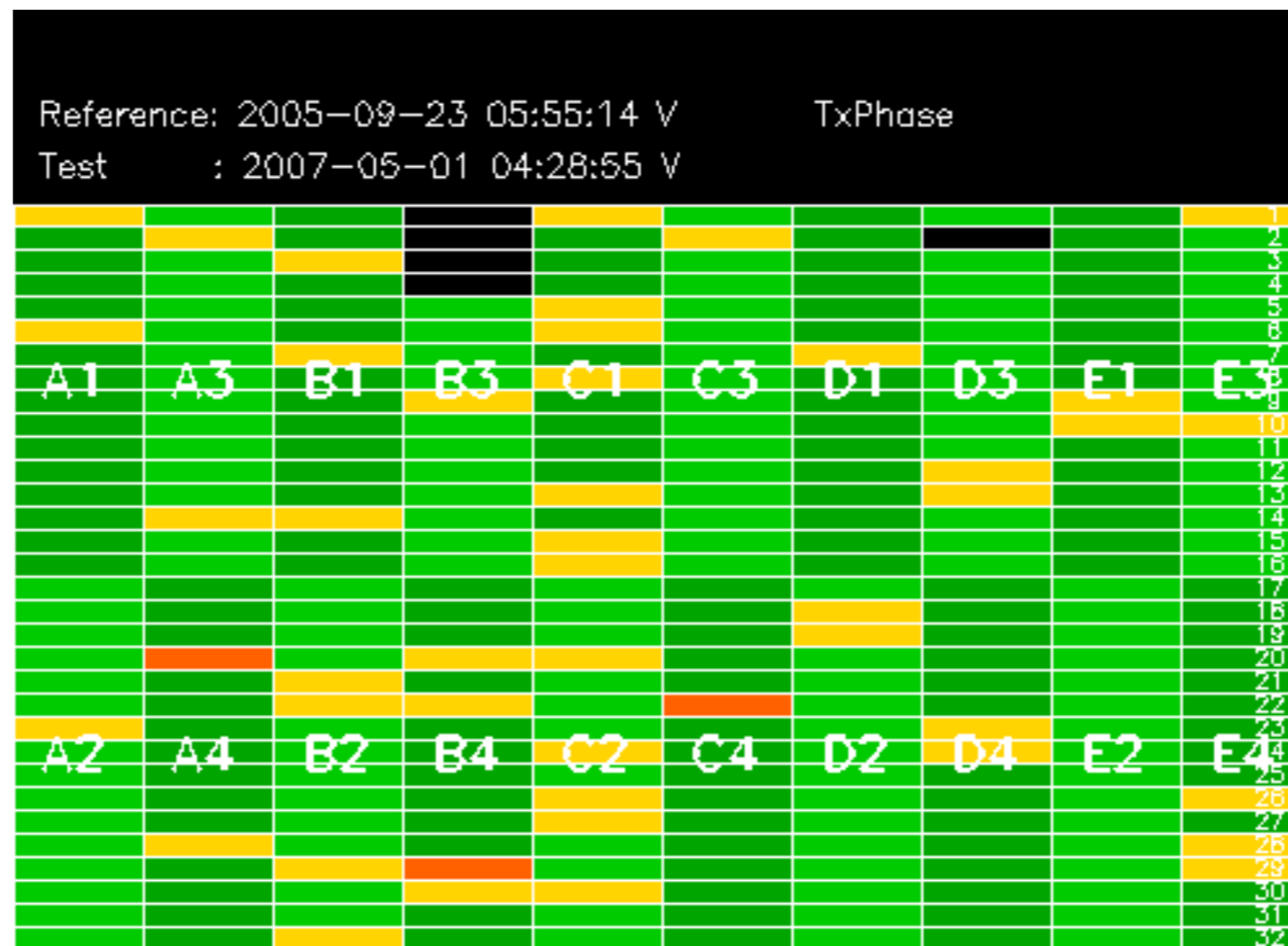


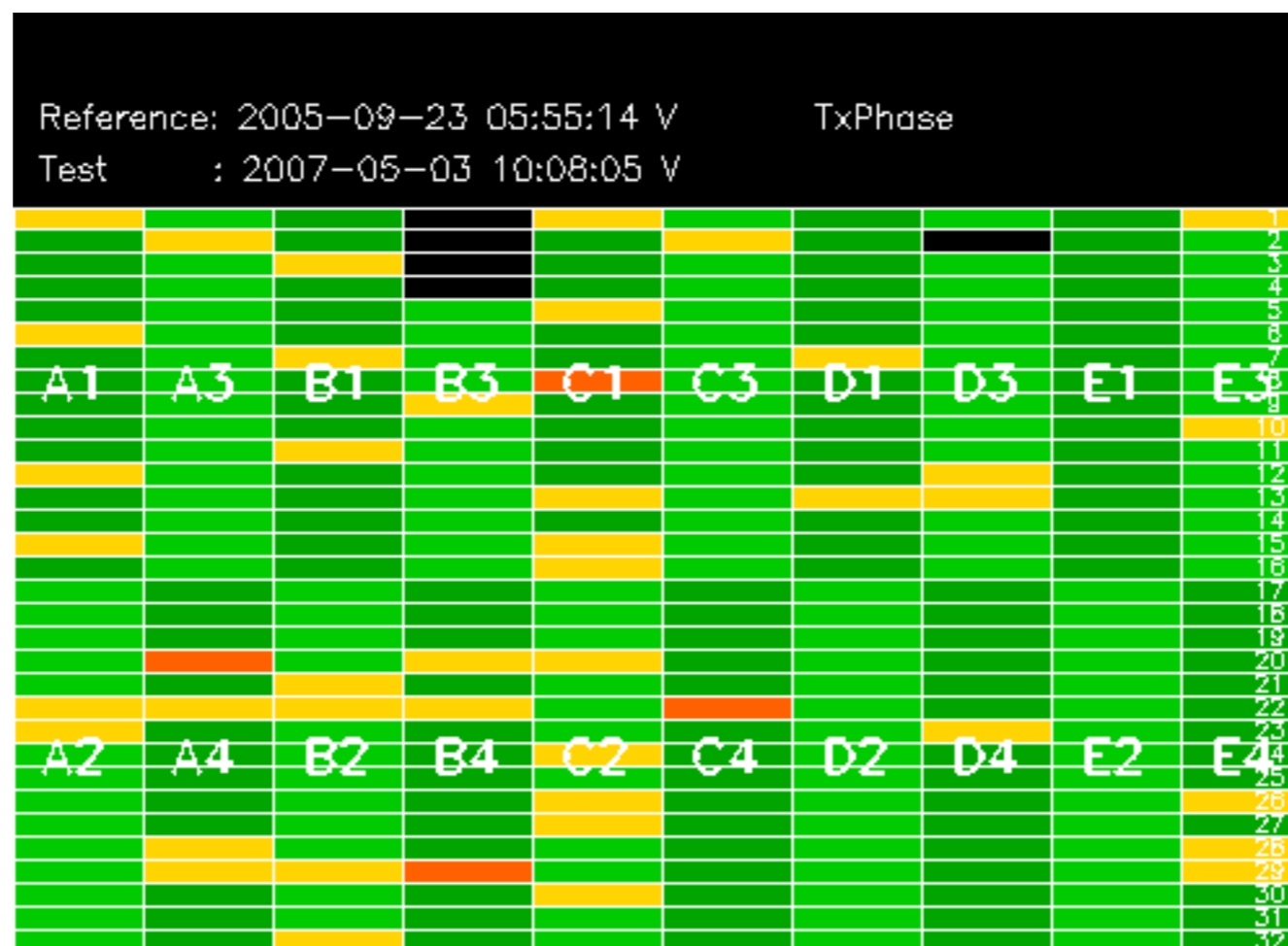


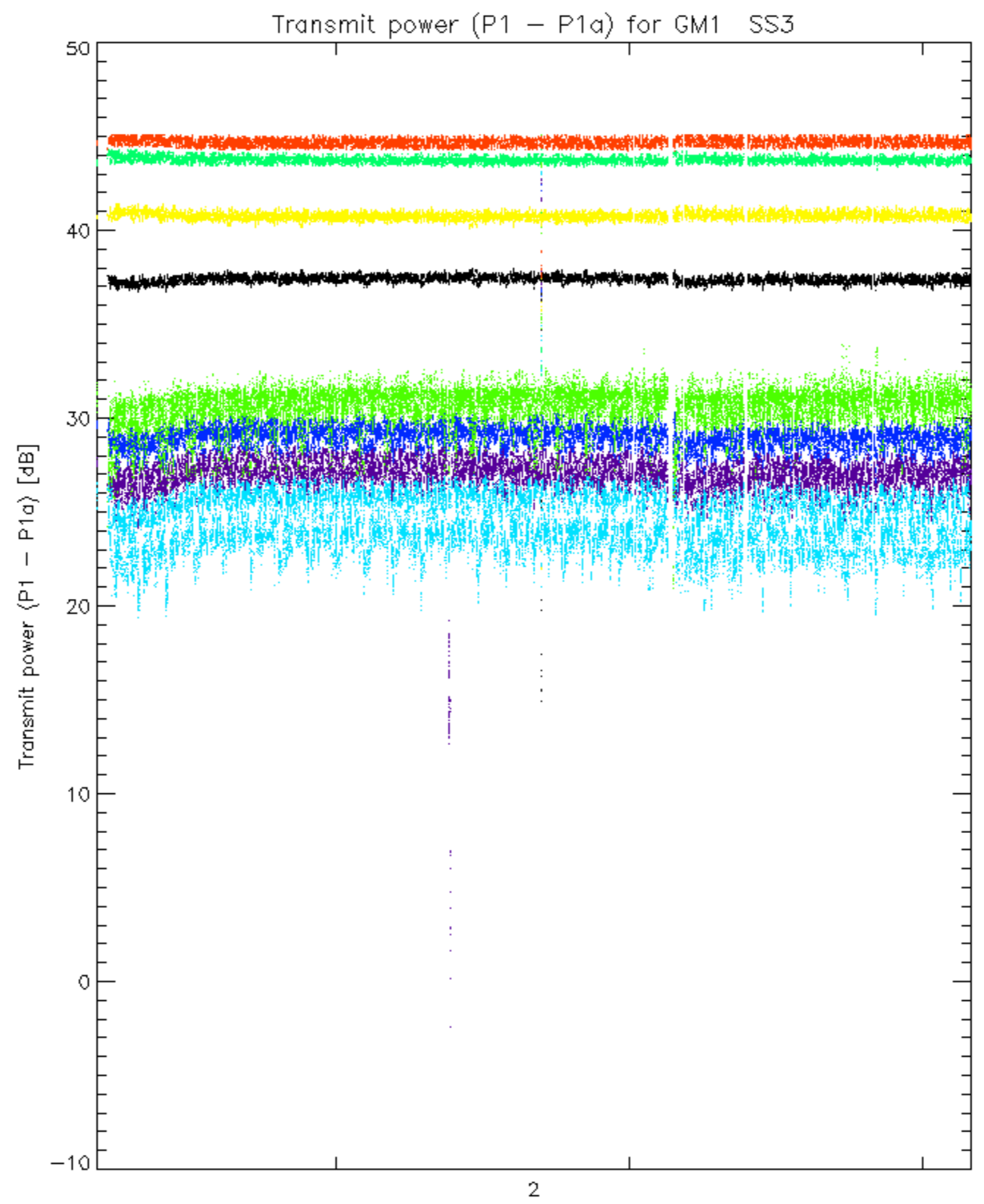
Summary of analysis for the last 3 days 2007050[123]

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

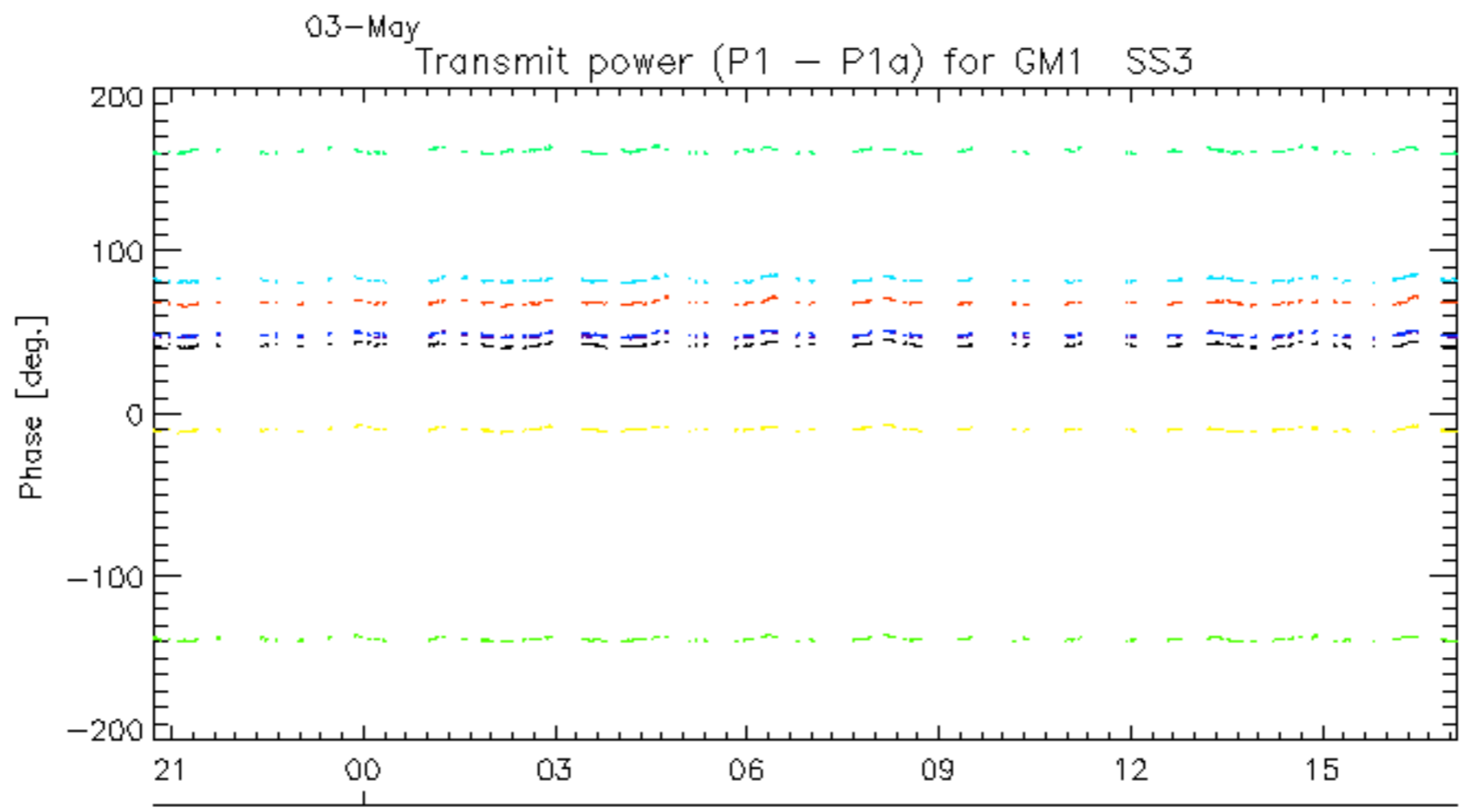
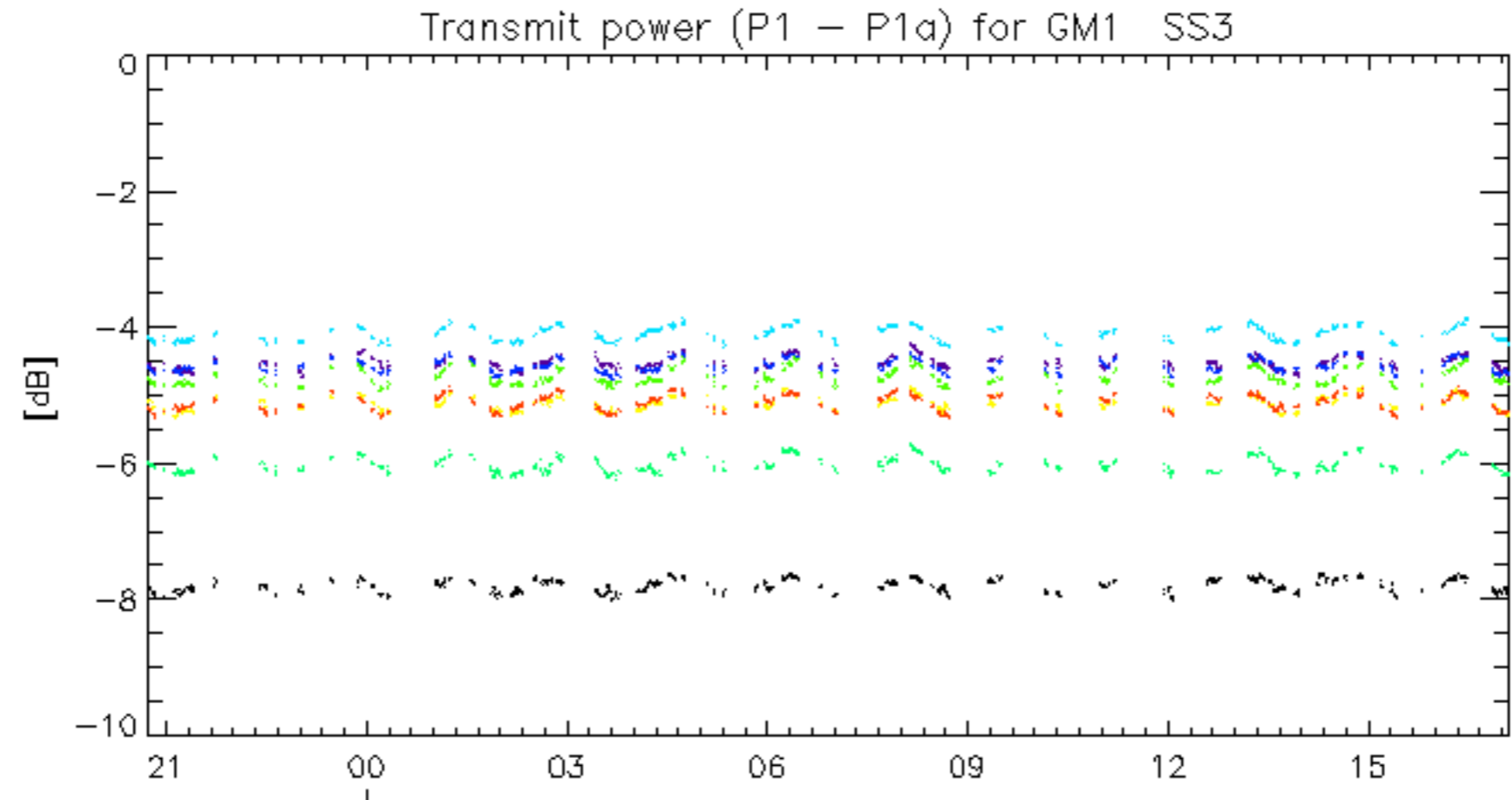
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070502_143310_000000372057_00425_27032_5713.N1	1	0
ASA_WVS_1PNPDK20070501_115225_000002392057_00410_27017_9992.N1	0	16
ASA_GM1_1PNPDK20070501_075015_000001442057_00407_27014_9738.N1	0	99
ASA_GM1_1PNPDK20070501_075523_000006462057_00407_27014_9749.N1	0	13
ASA_GM1_1PNPDK20070501_161314_000009242057_00412_27019_0280.N1	0	60
ASA_GM1_1PNPDK20070502_100004_000001082057_00423_27030_1179.N1	0	6
ASA_WSM_1PNPDE20070501_150736_000001402057_00412_27019_4446.N1	0	36
ASA_WSM_1PNPDE20070502_162039_000002072057_00427_27034_5777.N1	0	15
ASA_WSM_1PNPDE20070502_202012_000000672057_00429_27036_5922.N1	0	63
ASA_WSM_1PNPDE20070503_112609_000001152057_00438_27045_6978.N1	0	42



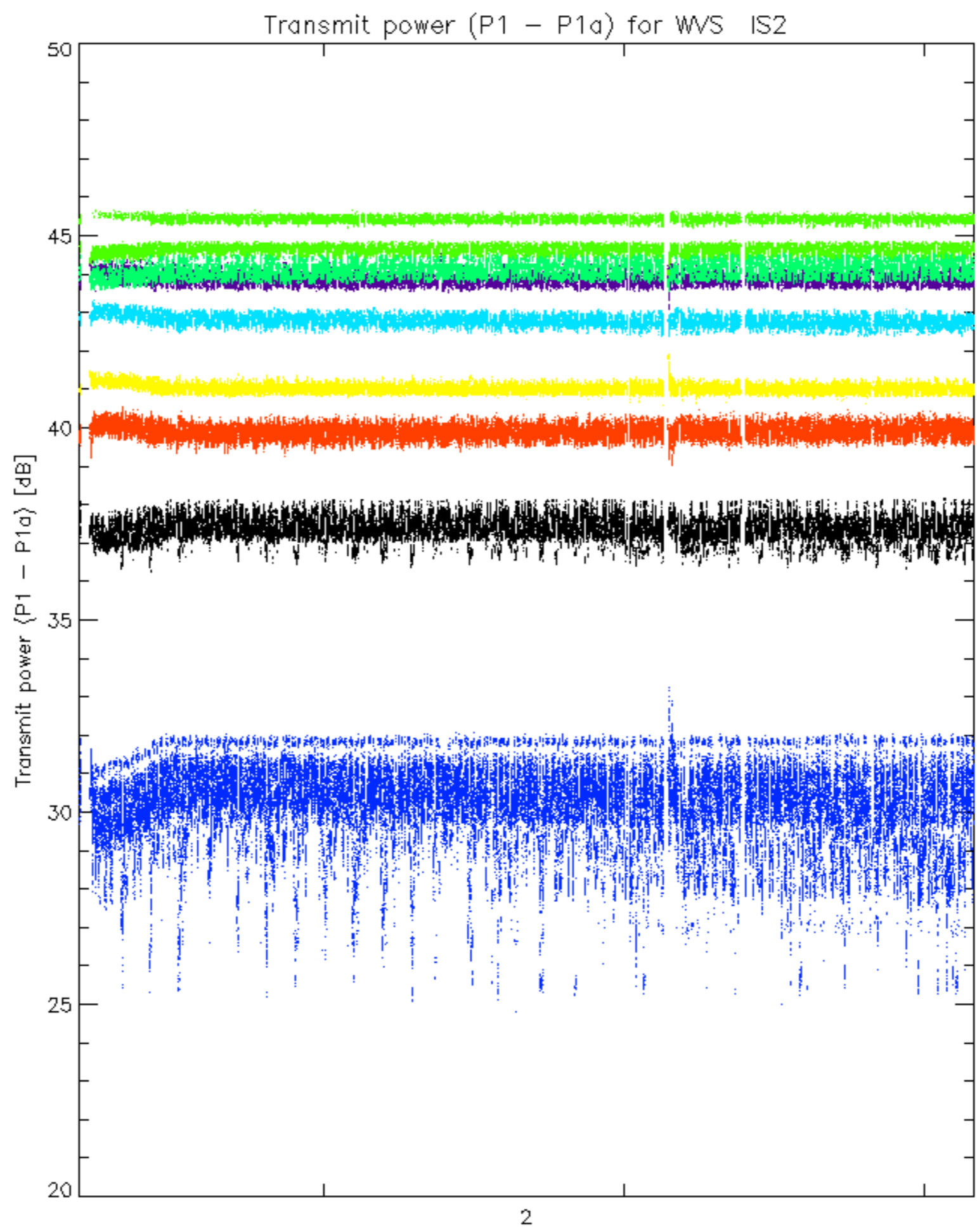




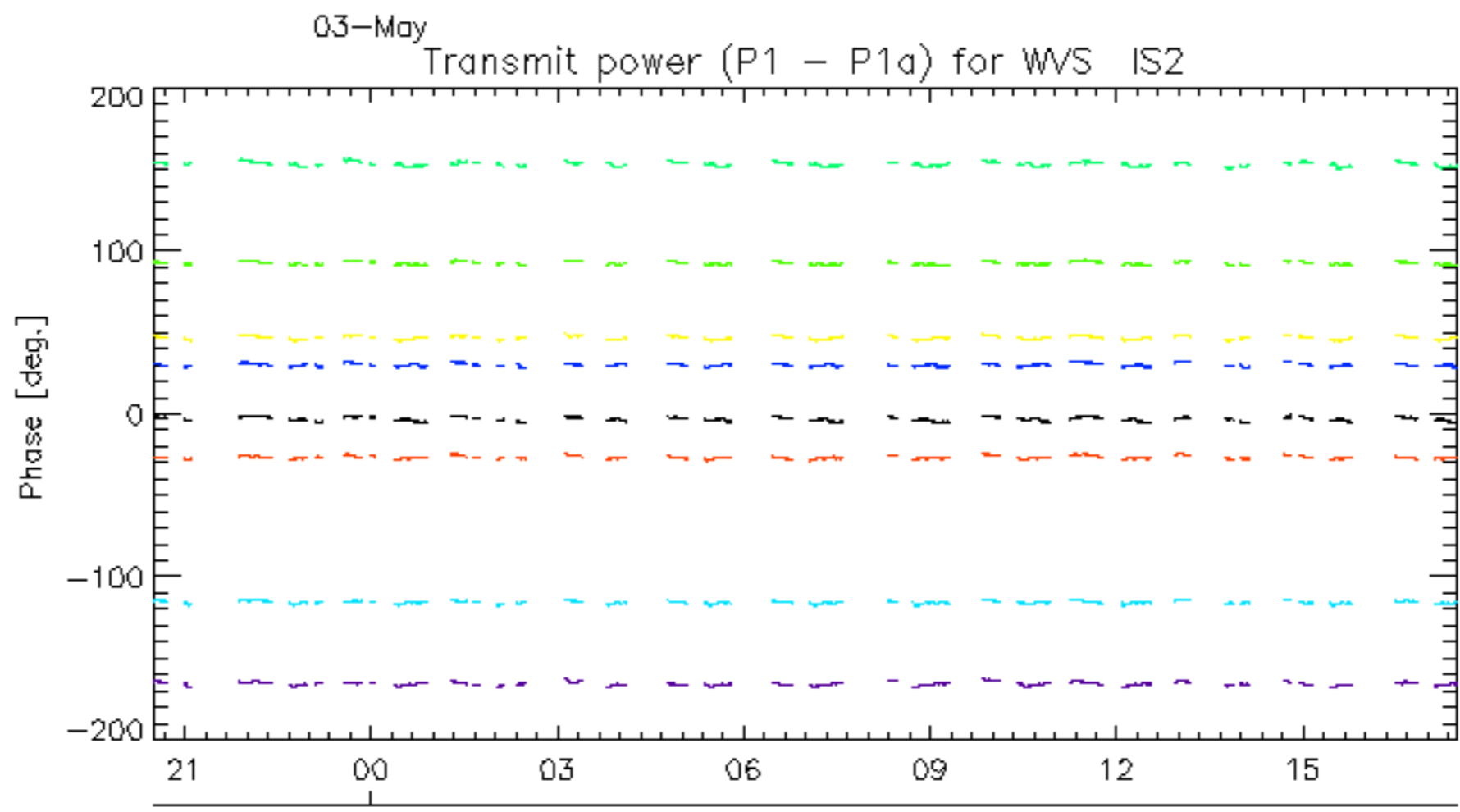
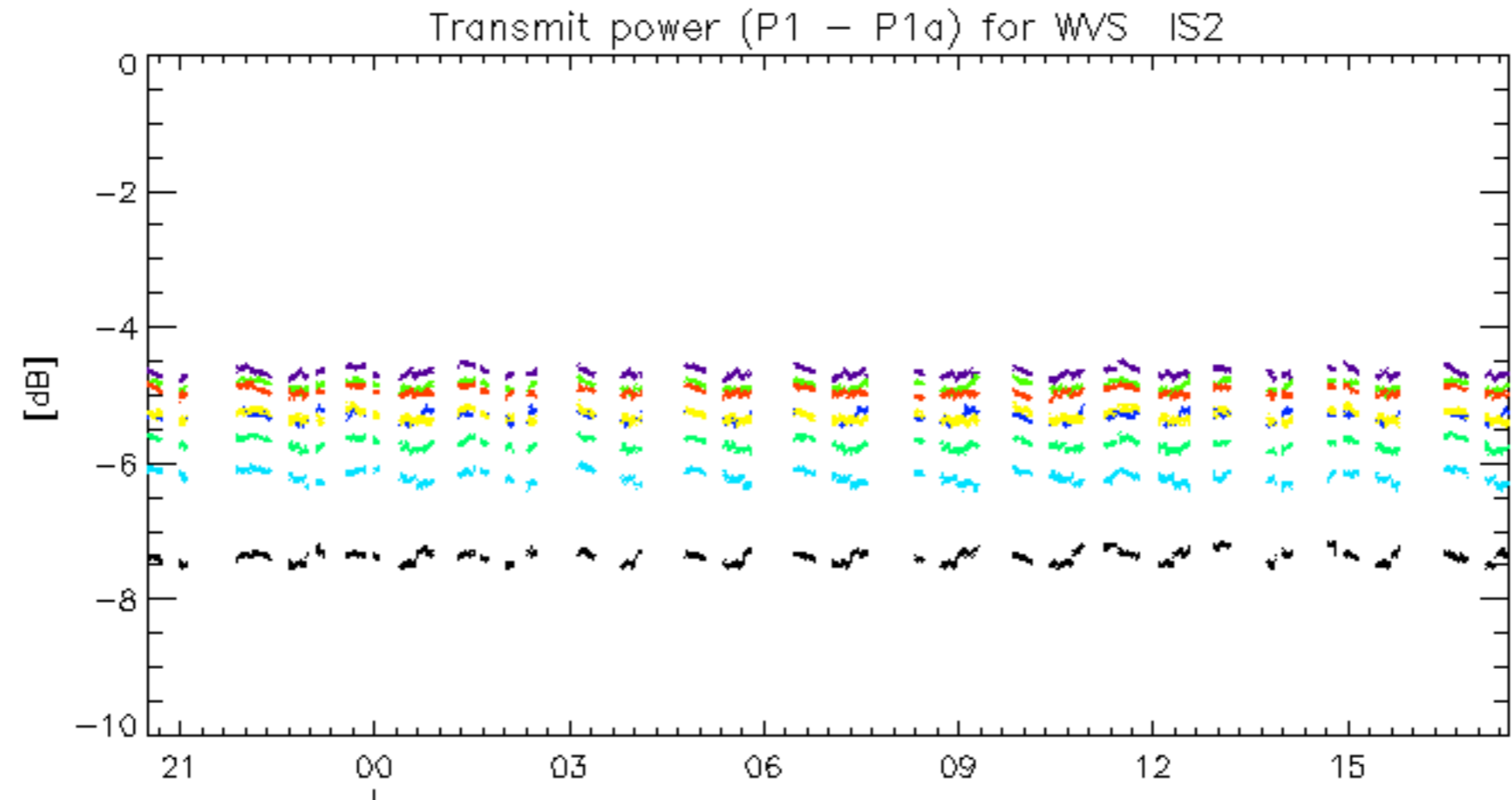
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.