

PRELIMINARY REPORT OF 060512

last update on Fri May 12 16:37:14 GMT 2006

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 2006-05-11 00:00:00 to 2006-05-12 16:37:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	61	9	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	61	9	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	61	9	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	61	9	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	61	26	19	69
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	61	26	19	69
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	61	26	19	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	61	26	19	69

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060512 063524
H	20060511 070701

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
<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

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.971133	0.011865	0.004061
7	P1	-3.062418	0.013352	-0.096779
11	P1	-4.092759	0.015724	-0.051181
15	P1	-6.105670	0.012382	-0.099567
19	P1	-3.308913	0.007827	-0.011696
22	P1	-4.521369	0.011096	-0.028306
26	P1	-4.031407	0.020343	0.102700
30	P1	-5.738027	0.021172	-0.038744
3	P1	-16.662861	0.316618	0.155229
7	P1	-16.992100	0.149318	-0.276715
11	P1	-16.771591	0.321768	-0.437855
15	P1	-13.117746	0.141073	-0.295241
19	P1	-14.162644	0.048711	-0.255718
22	P1	-16.072561	0.460223	-0.270173
26	P1	-15.413162	0.270920	0.423478
30	P1	-16.815498	0.324138	-0.537140

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.281754	0.085488	0.103766
7	P2	-22.179693	0.100537	0.125098
11	P2	-16.021107	0.111946	0.153354
15	P2	-7.163594	0.096362	-0.029492
19	P2	-9.153744	0.089178	-0.037894
22	P2	-18.064003	0.087977	-0.139850
26	P2	-16.317591	0.093095	-0.118645
30	P2	-19.602610	0.087486	-0.008691

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.189567	0.004355	-0.018812
7	P3	-8.189567	0.004355	-0.018812
11	P3	-8.189567	0.004355	-0.018812
15	P3	-8.189567	0.004355	-0.018812
19	P3	-8.189567	0.004355	-0.018812
22	P3	-8.189567	0.004355	-0.018812
26	P3	-8.189586	0.004356	-0.018789
30	P3	-8.189586	0.004356	-0.018789

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.742188	0.040909	0.042710
7	P1	-2.655194	0.110652	0.119610
11	P1	-2.880332	0.032936	0.056298
15	P1	-3.510636	0.030599	0.051969
19	P1	-3.383625	0.013878	-0.015402
22	P1	-5.114959	0.022478	0.062504
26	P1	-5.816990	0.023534	-0.045866
30	P1	-5.180017	0.046744	-0.000965
3	P1	-11.589016	0.142547	0.040356
7	P1	-9.982094	0.169113	0.003091
11	P1	-10.224546	0.085977	0.078268
15	P1	-10.676290	0.131919	0.146411
19	P1	-15.456629	0.089581	-0.077109
22	P1	-20.707397	1.292295	-0.456065

26	P1	-16.403685	0.411797	-0.247183
30	P1	-18.219353	0.496706	0.437431

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.947115	0.070513	0.079258
7	P2	-22.510223	0.183949	-0.092540
11	P2	-11.191842	0.050881	-0.011720
15	P2	-4.872388	0.042842	-0.075752
19	P2	-6.861240	0.041829	-0.049667
22	P2	-8.159101	0.055534	-0.085756
26	P2	-24.056484	0.131384	-0.115821
30	P2	-22.051020	0.089641	-0.025832

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024029	0.003793	-0.007797
7	P3	-8.023986	0.003807	-0.008211
11	P3	-8.024134	0.003788	-0.007534
15	P3	-8.023880	0.003801	-0.007530
19	P3	-8.024118	0.003802	-0.007918
22	P3	-8.024023	0.003803	-0.007633
26	P3	-8.023879	0.003790	-0.007408
30	P3	-8.023966	0.003796	-0.007523

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	0.000544034
	stdev	1.85604e-07
MEAN Q	mean	0.000514415
	stdev	2.26392e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135856
	stdev	0.00118761
STDEV Q	mean	0.136211
	stdev	0.00120494



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006051[012]

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_1PNPDE20060512_010614_000000832047_00346_21943_4800.N1	1	0
ASA_GM1_1PNPDK20060511_153006_000003862047_00340_21937_3252.N1	0	50
ASA_WSM_1PNPDE20060511_064141_000000672047_00335_21932_8794.N1	0	42
ASA_WSM_1PNPDE20060511_064141_000001472047_00335_21932_8799.N1	0	42





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

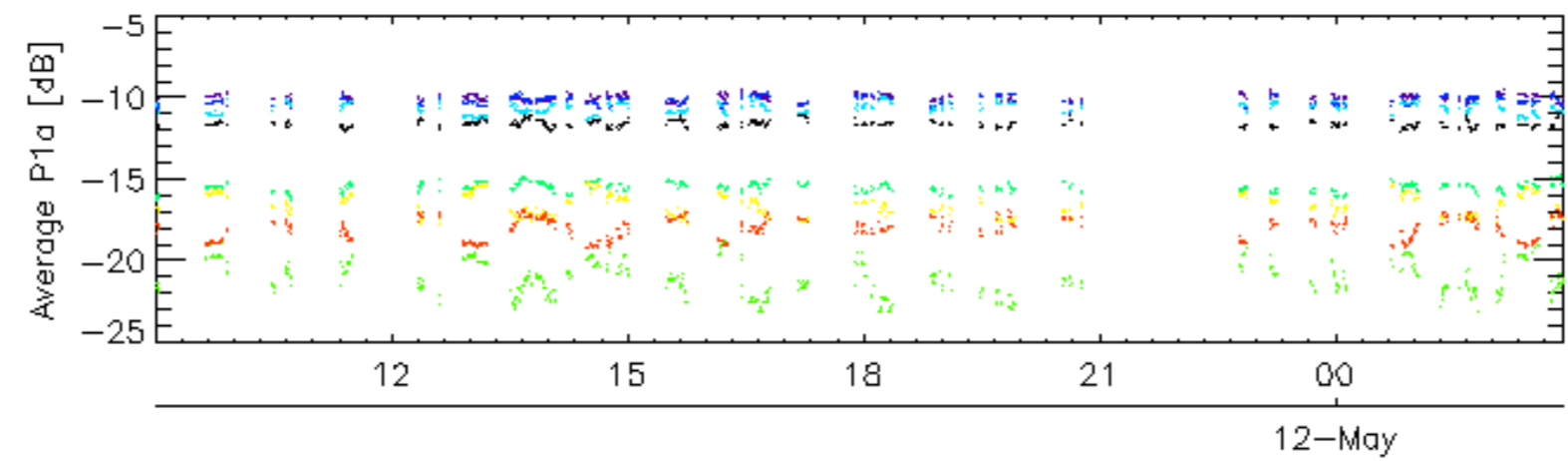
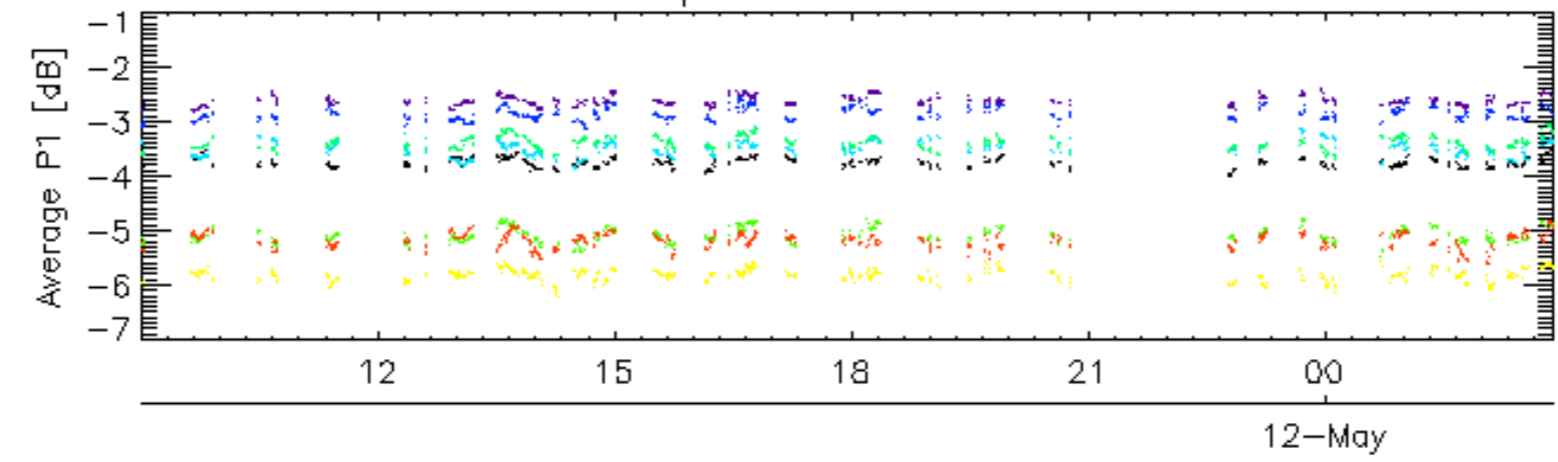
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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Acsending
<input type="checkbox"/>
Descending

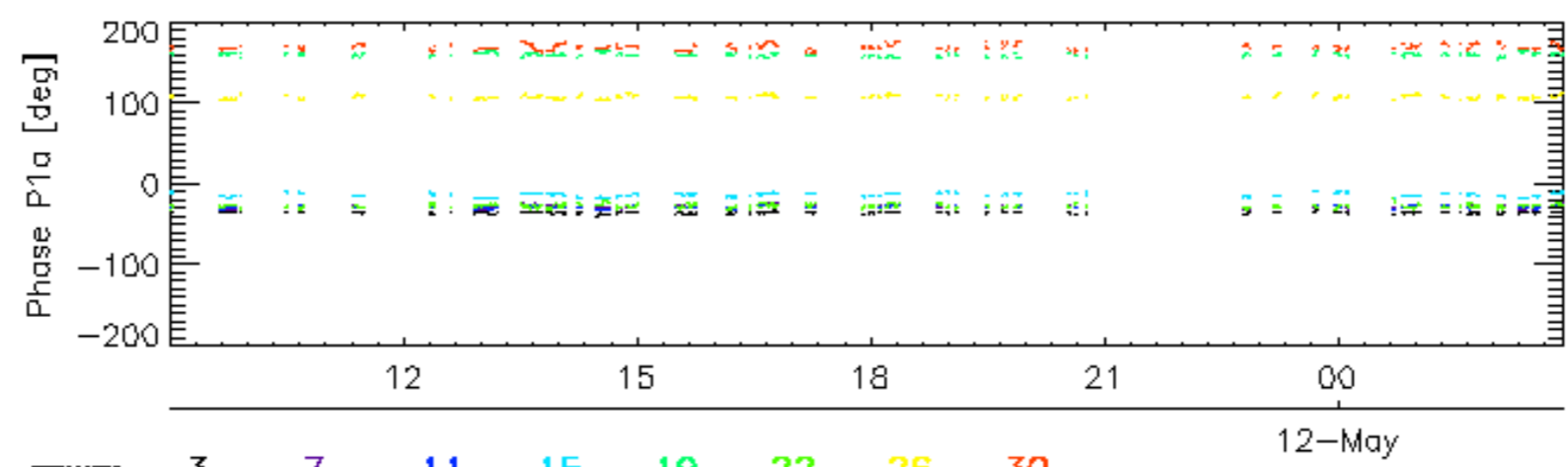
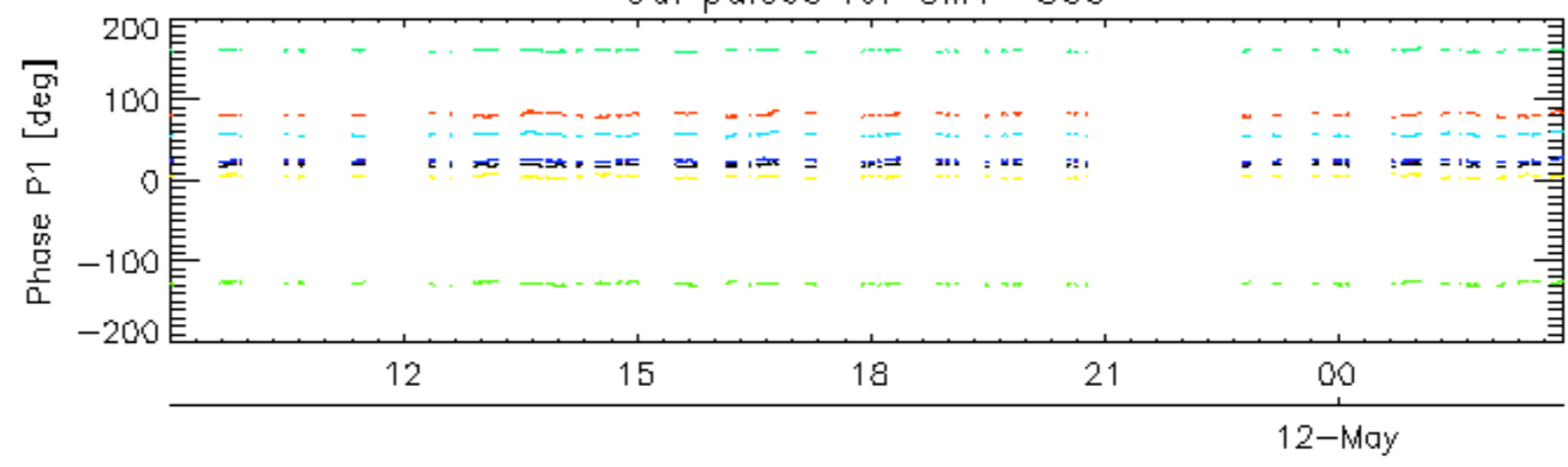
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

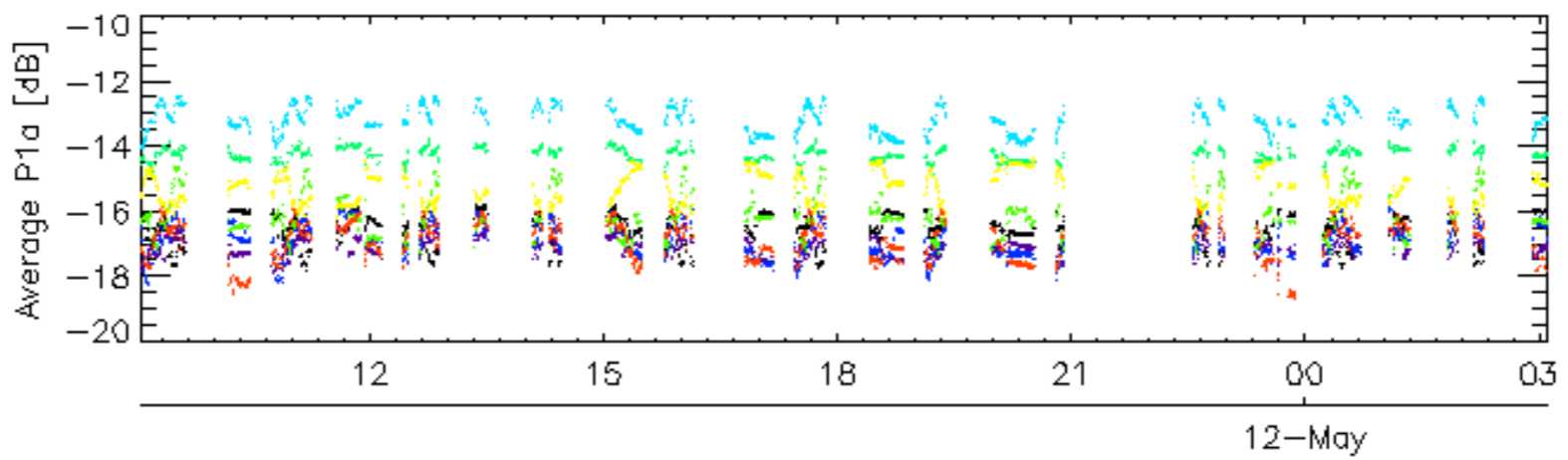
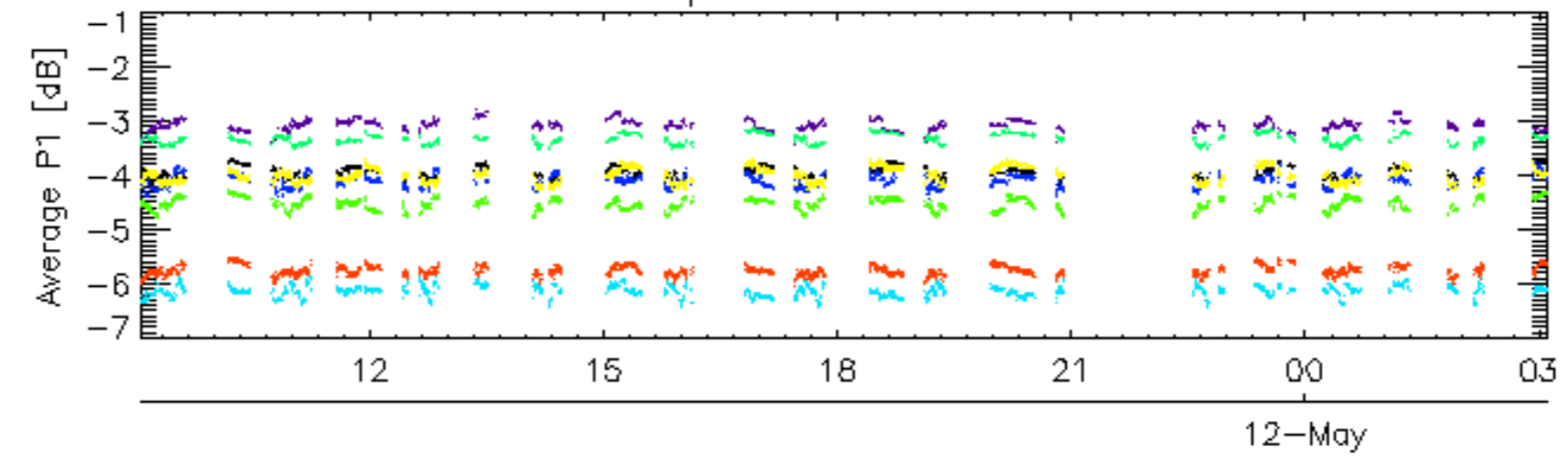


Cal pulses for GM1 SS3

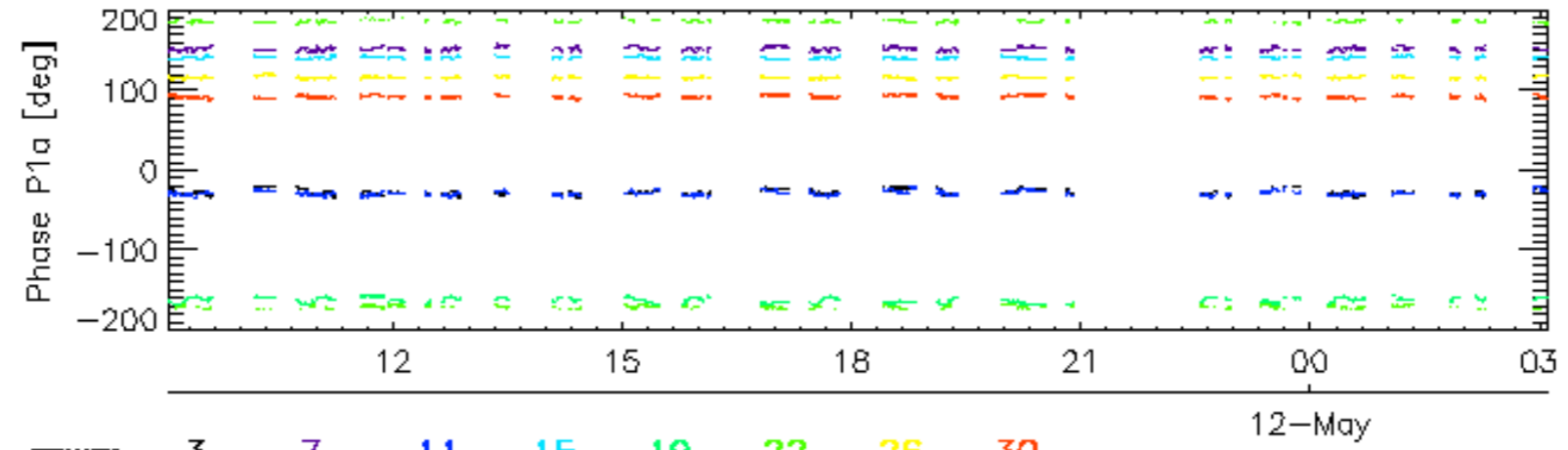
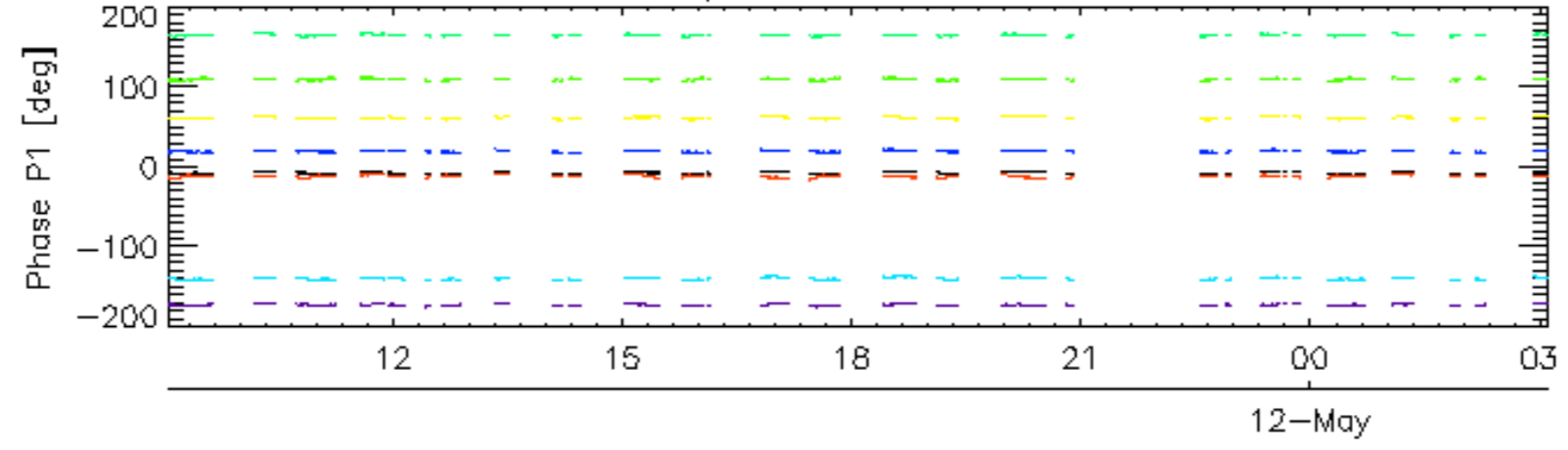


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

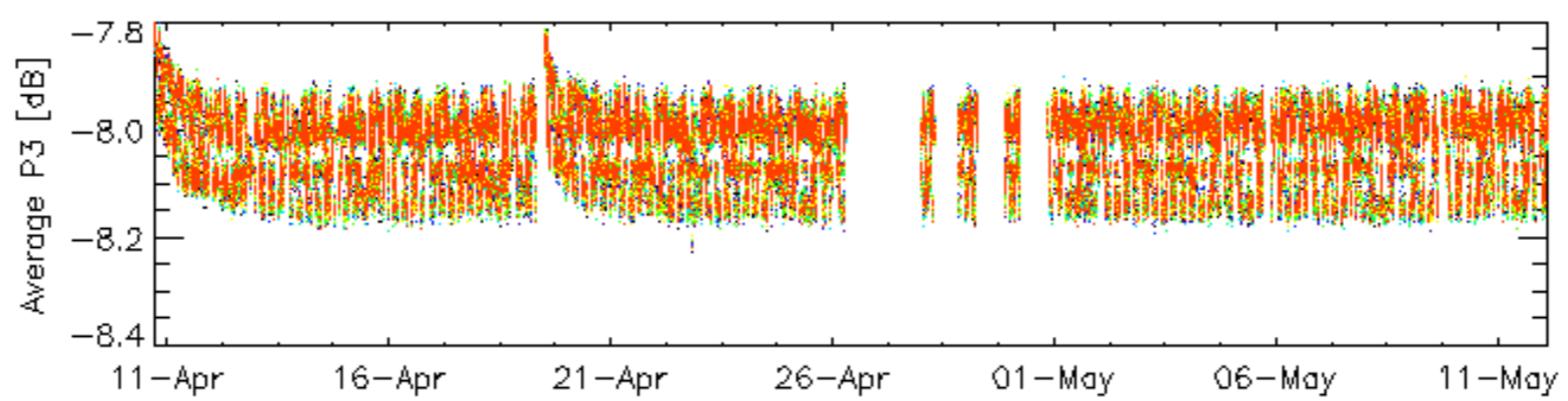
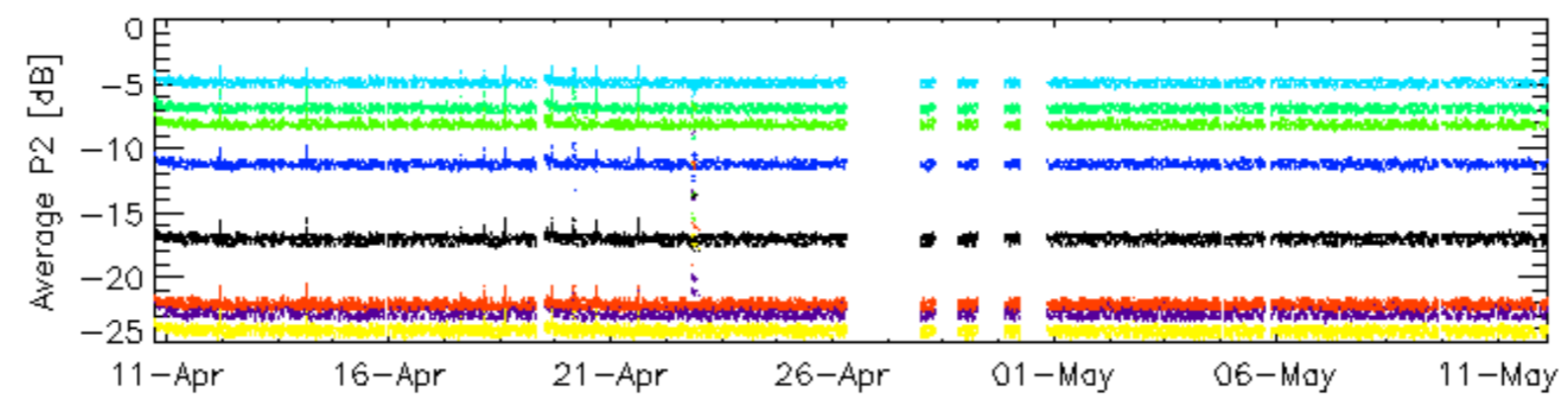
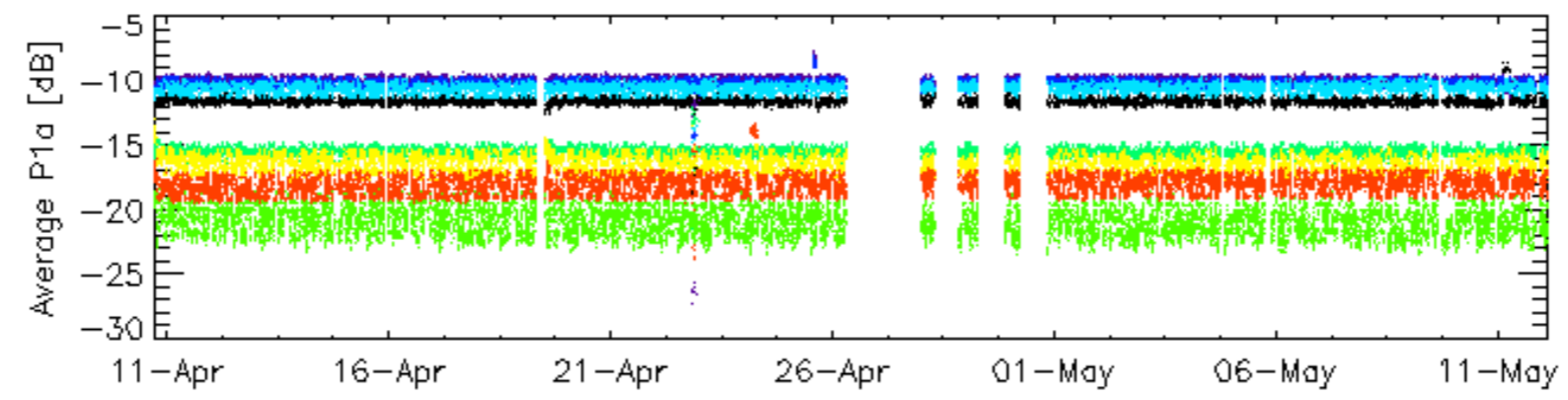
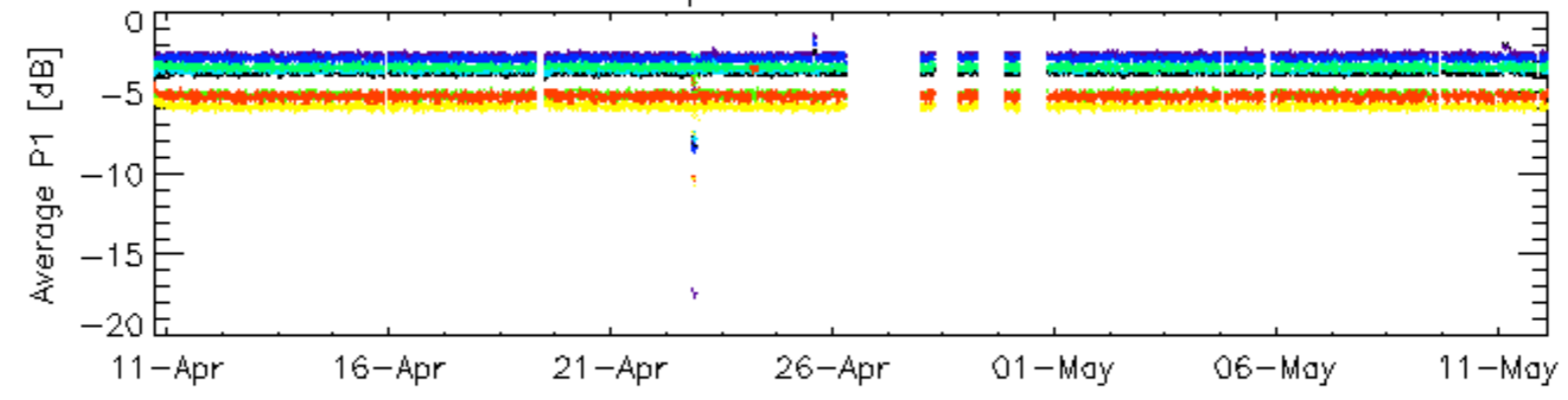


Cal pulses for WVS IS2



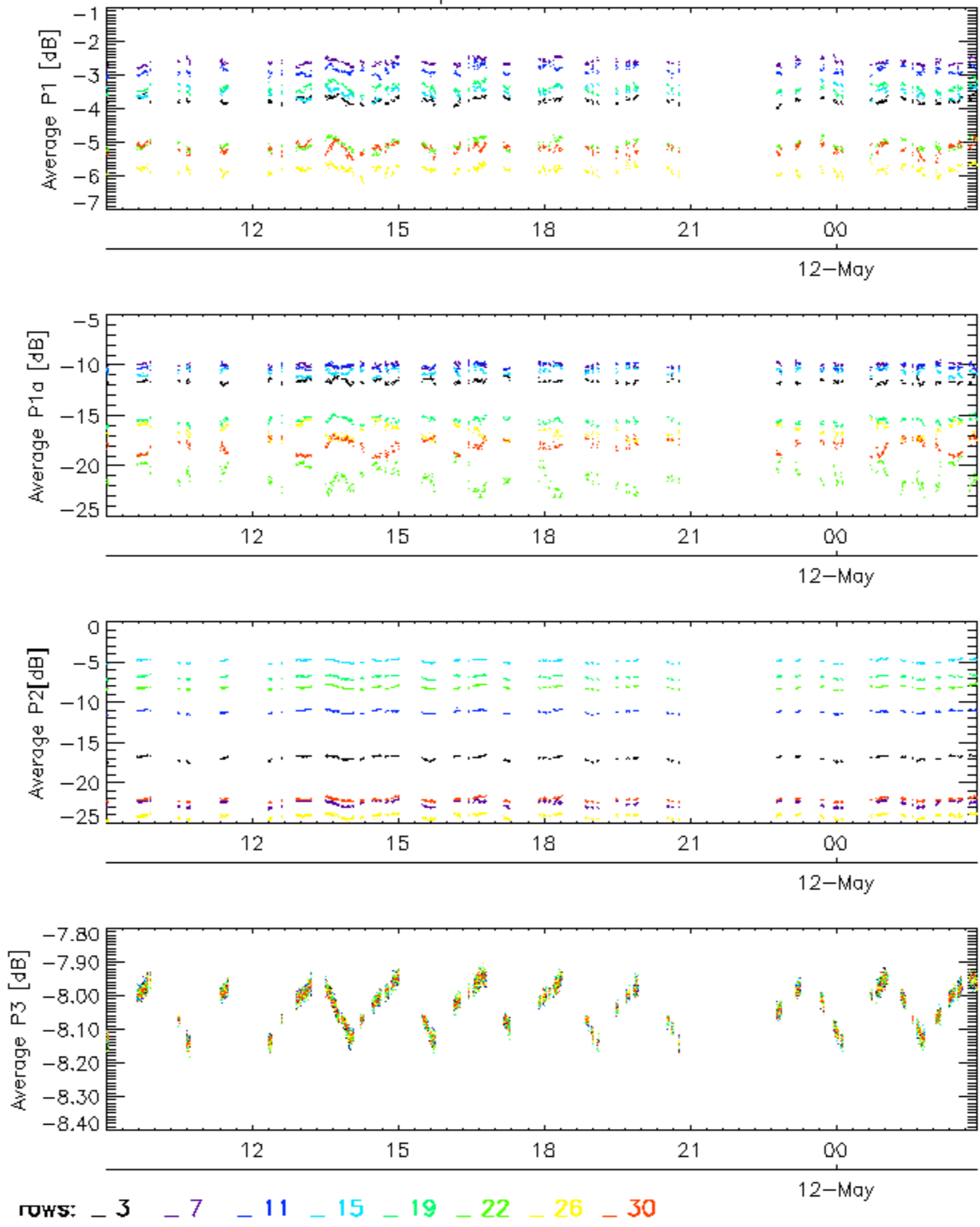
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

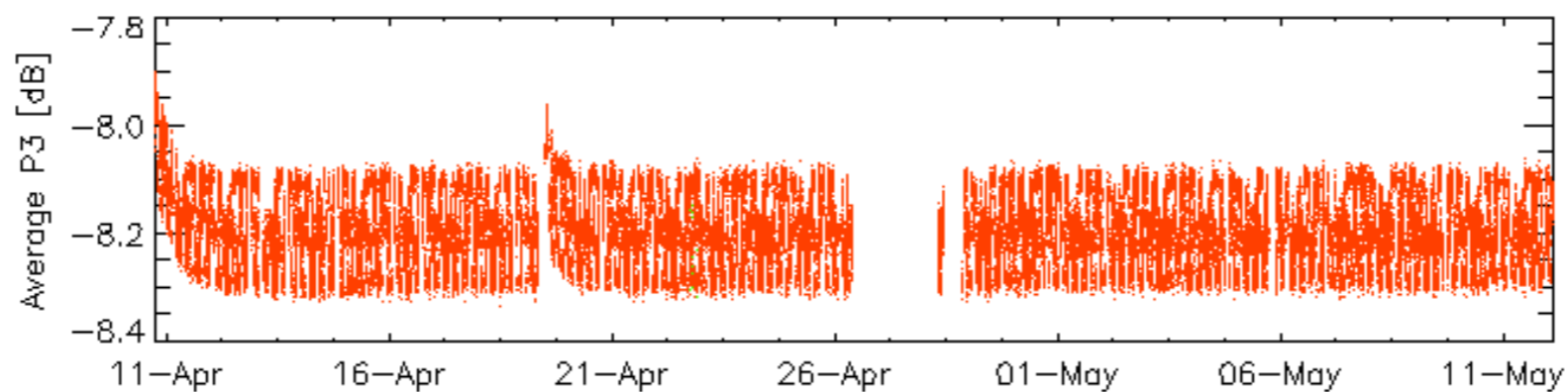
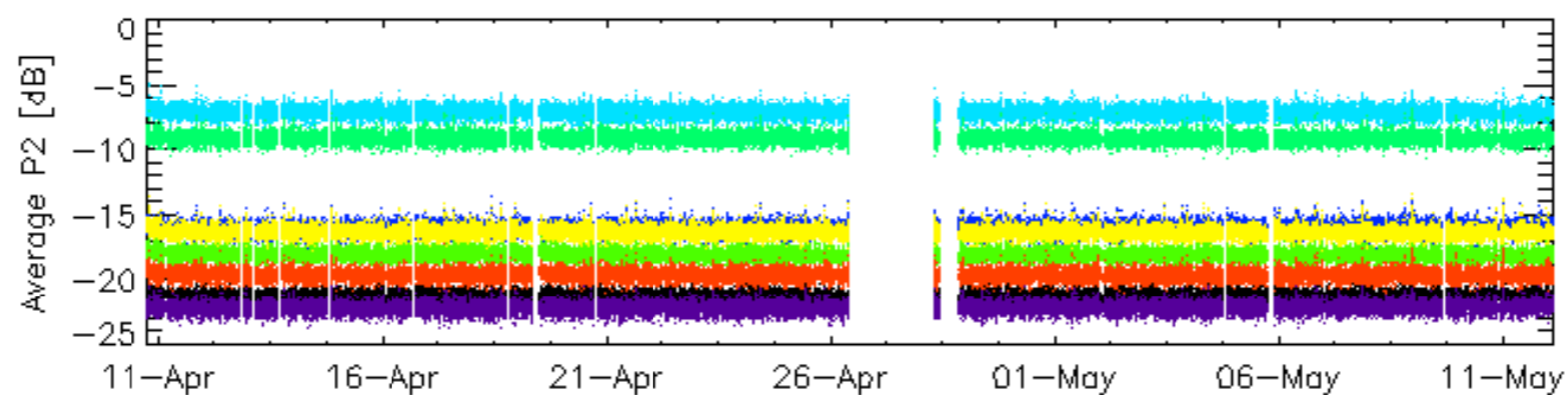
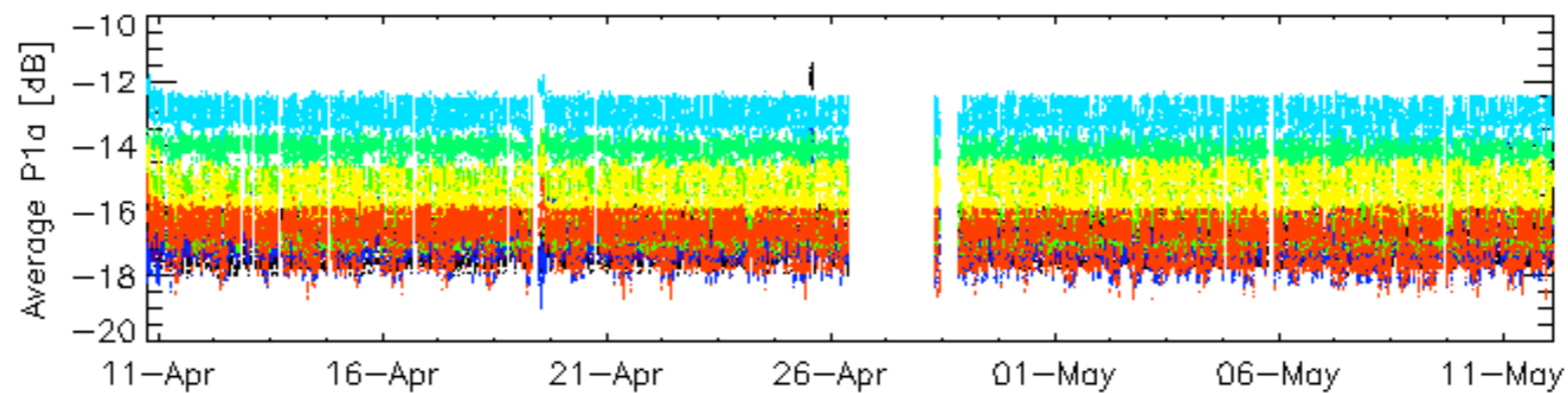
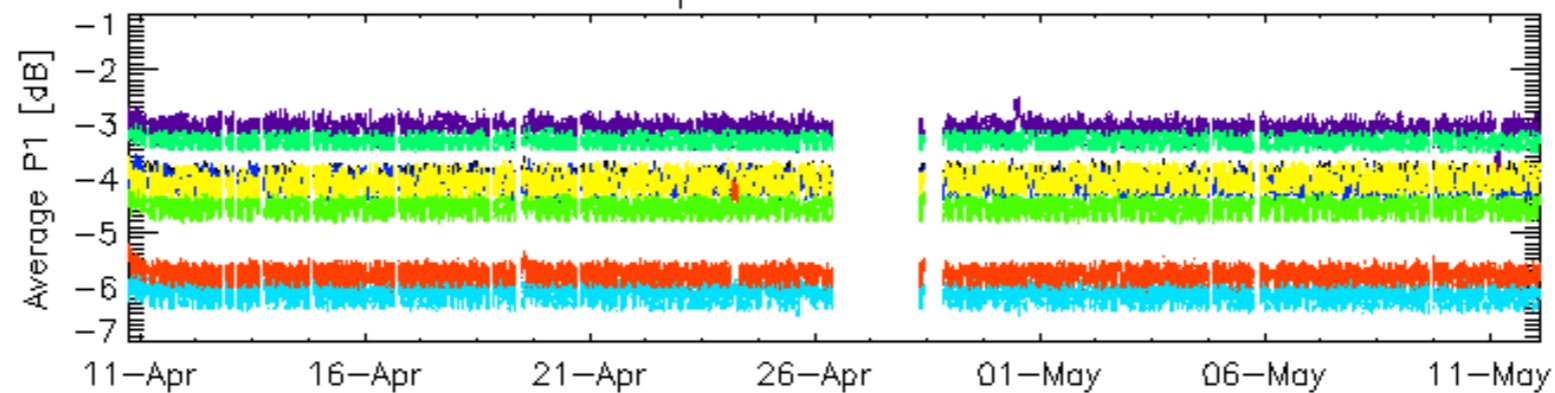


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

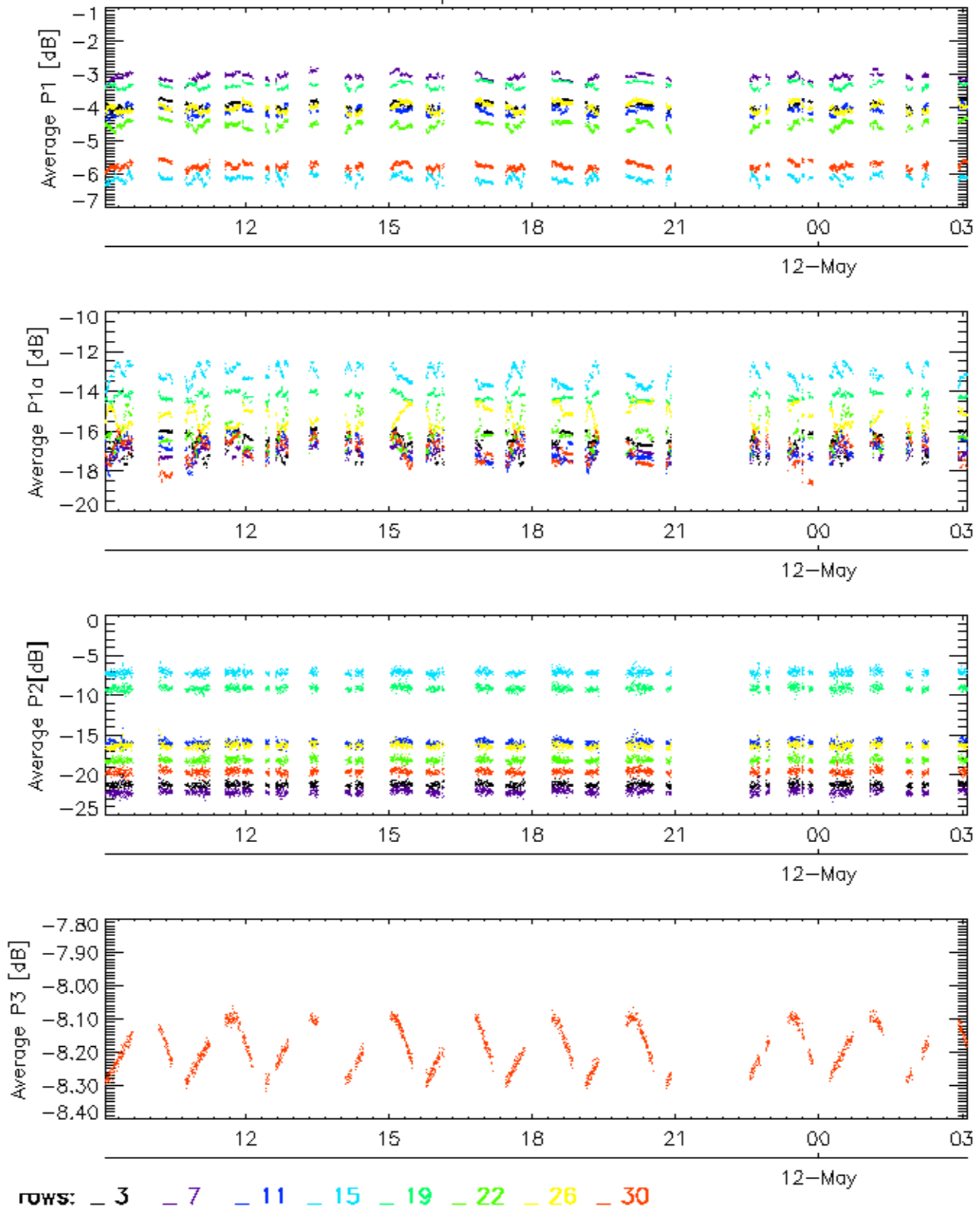


Cal pulses for WVS IS2



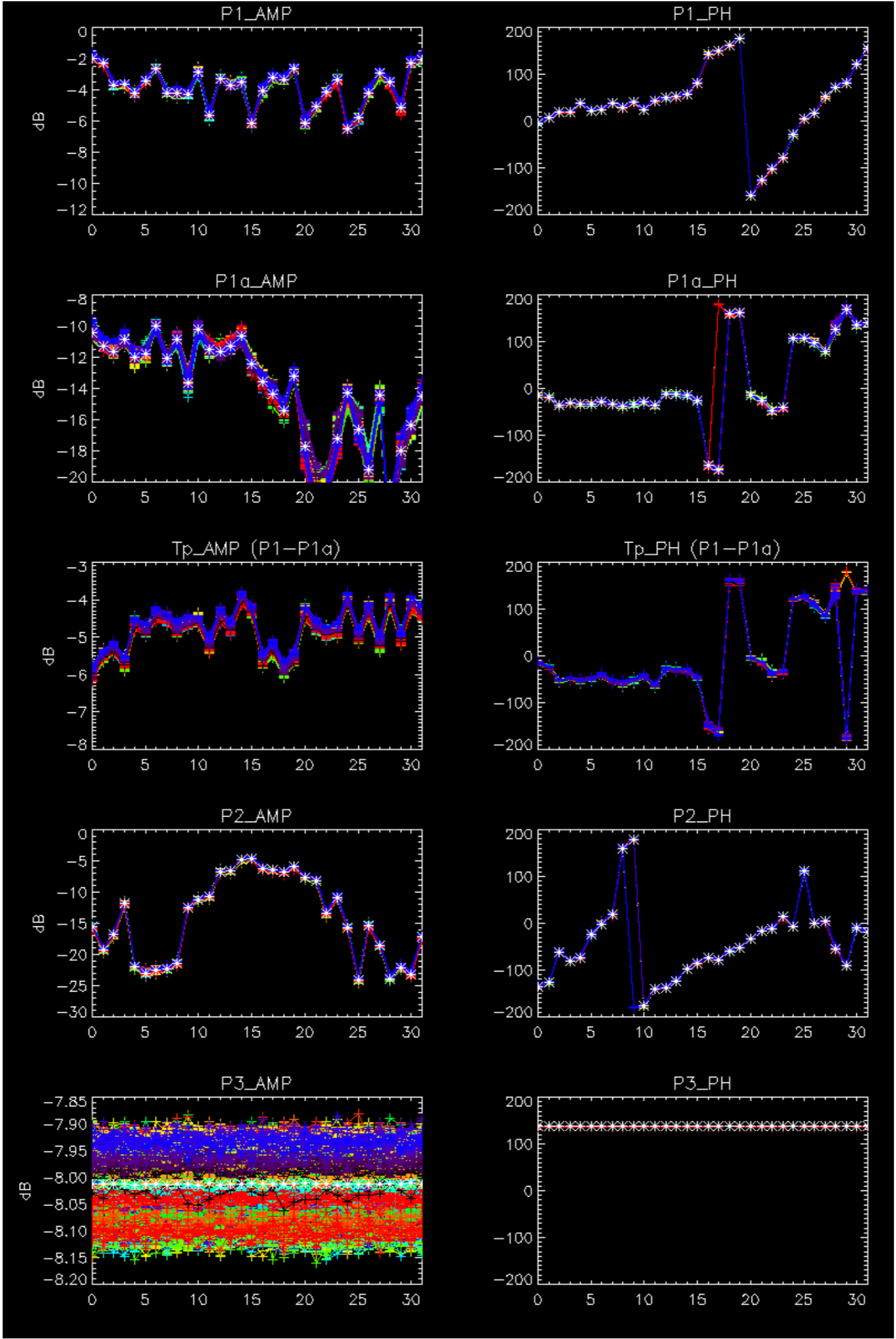
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

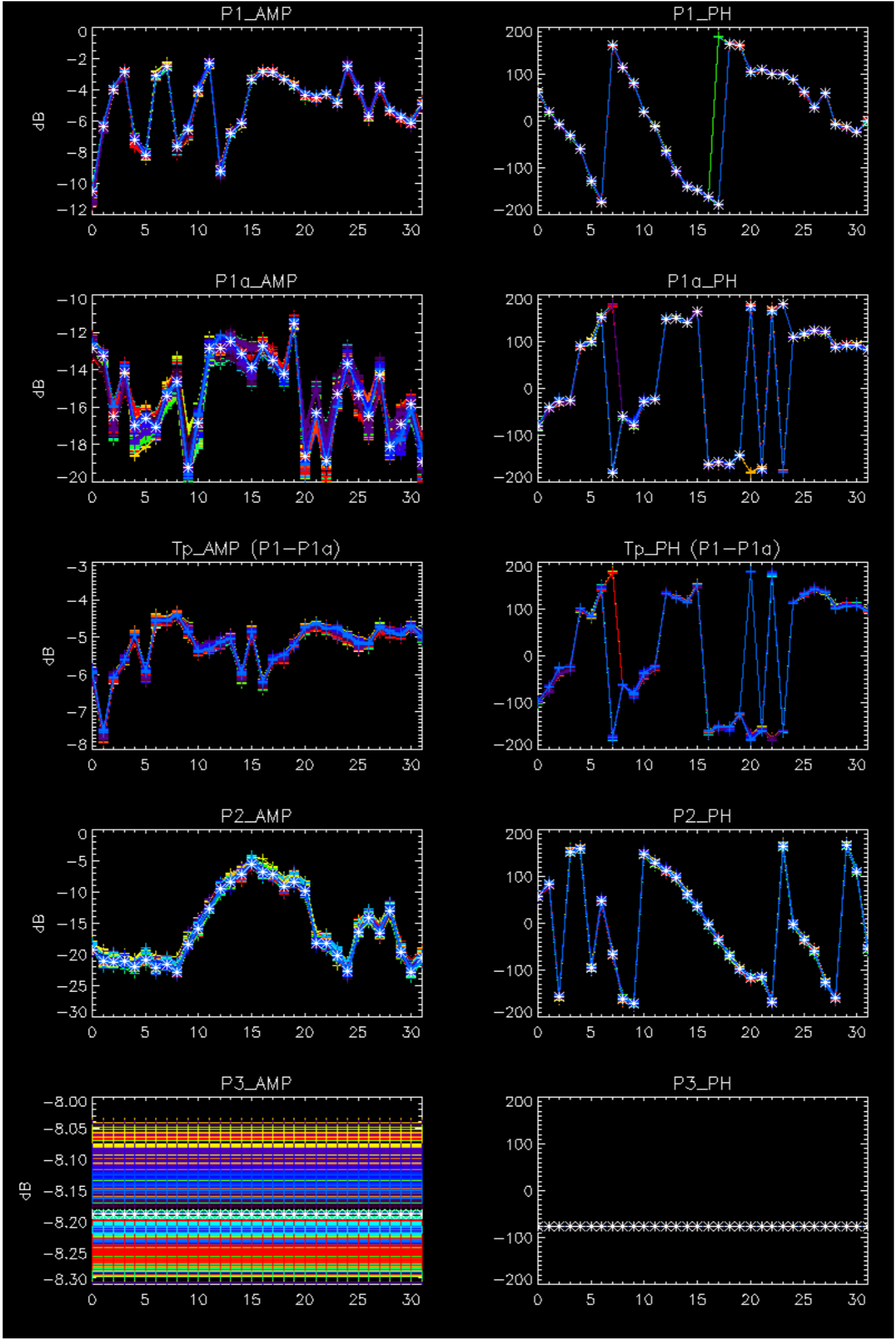
Cal pulses for WVS IS2



No anomalies observed on available browse products

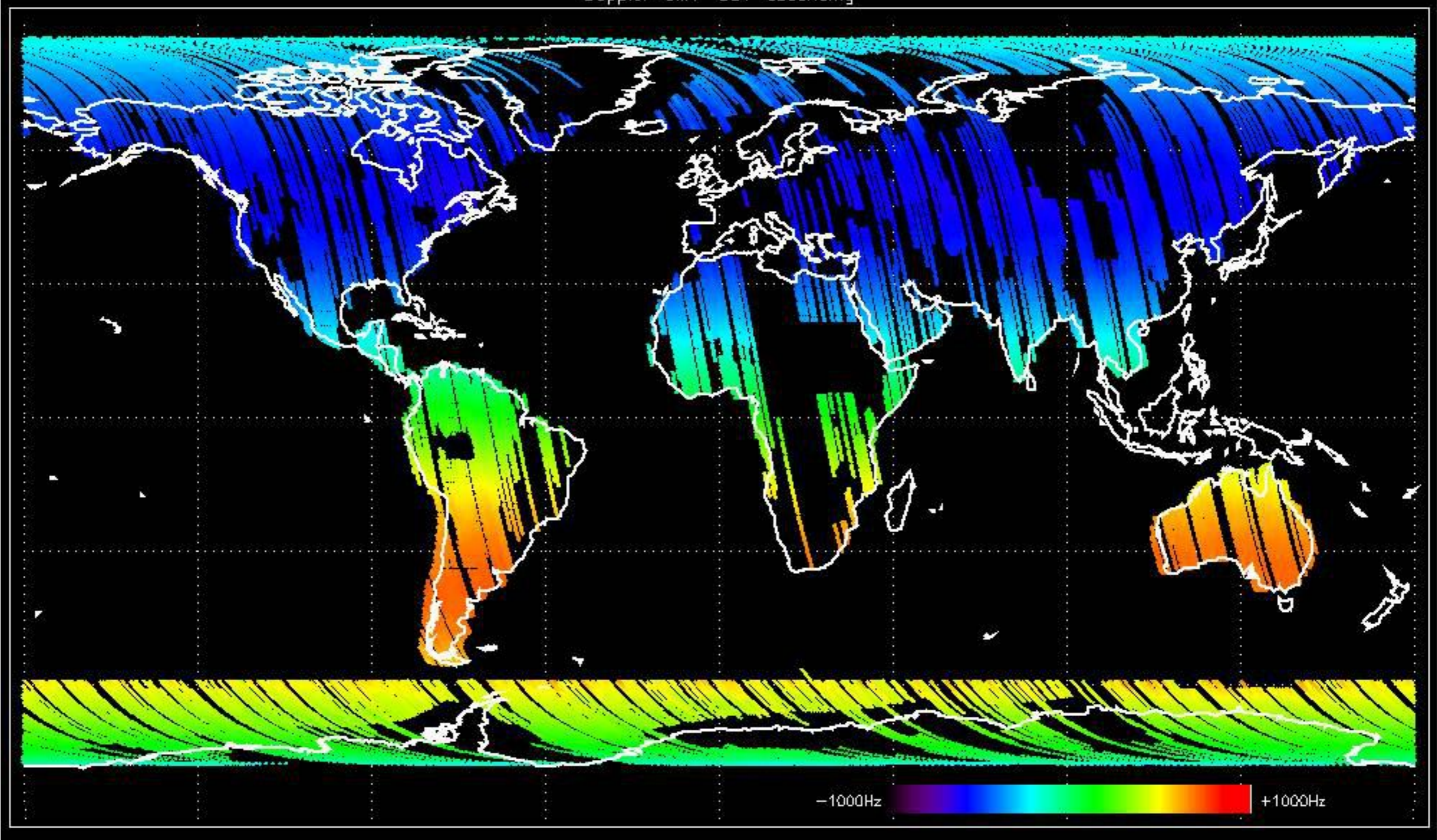
No anomalies observed.



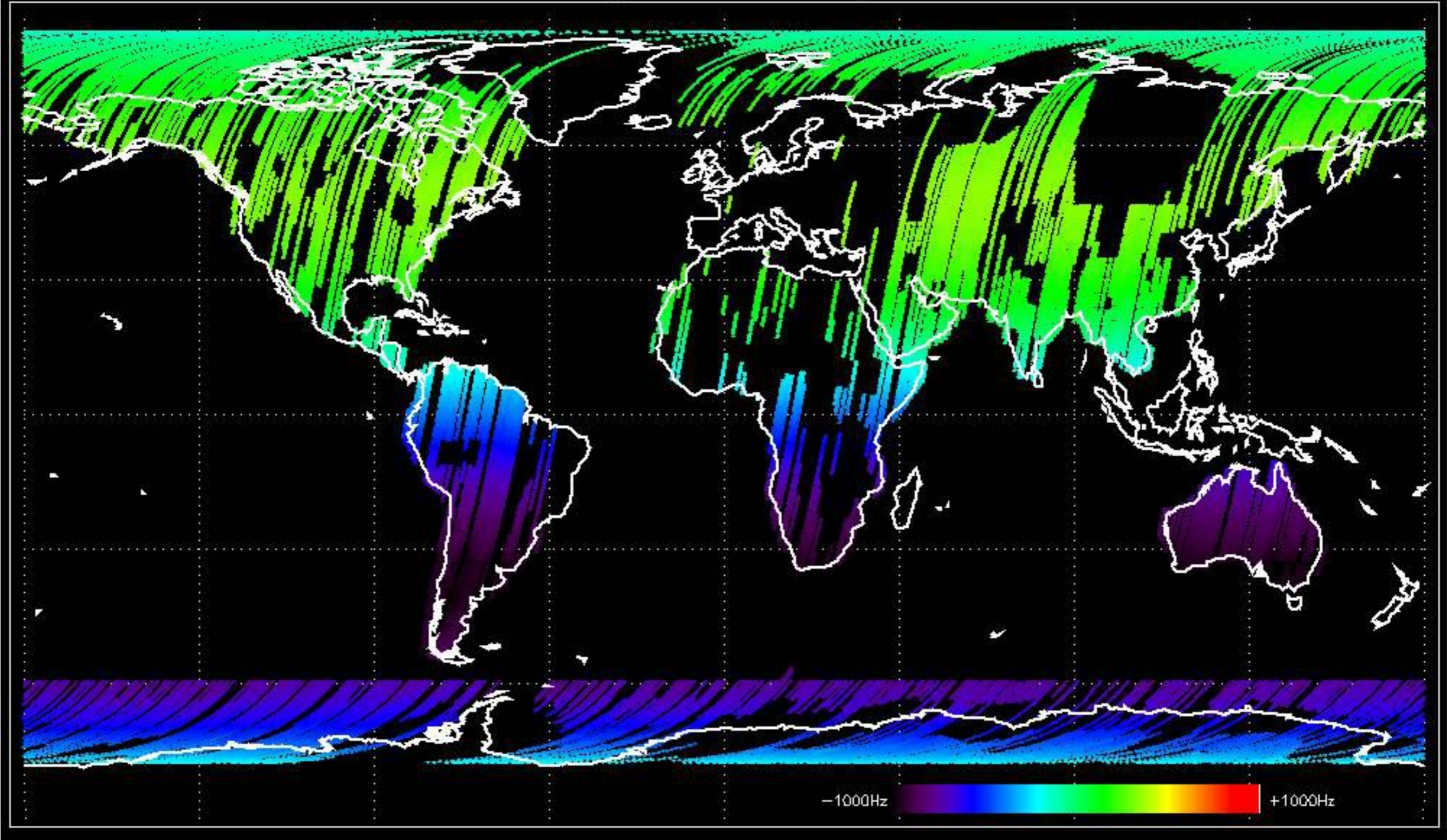


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

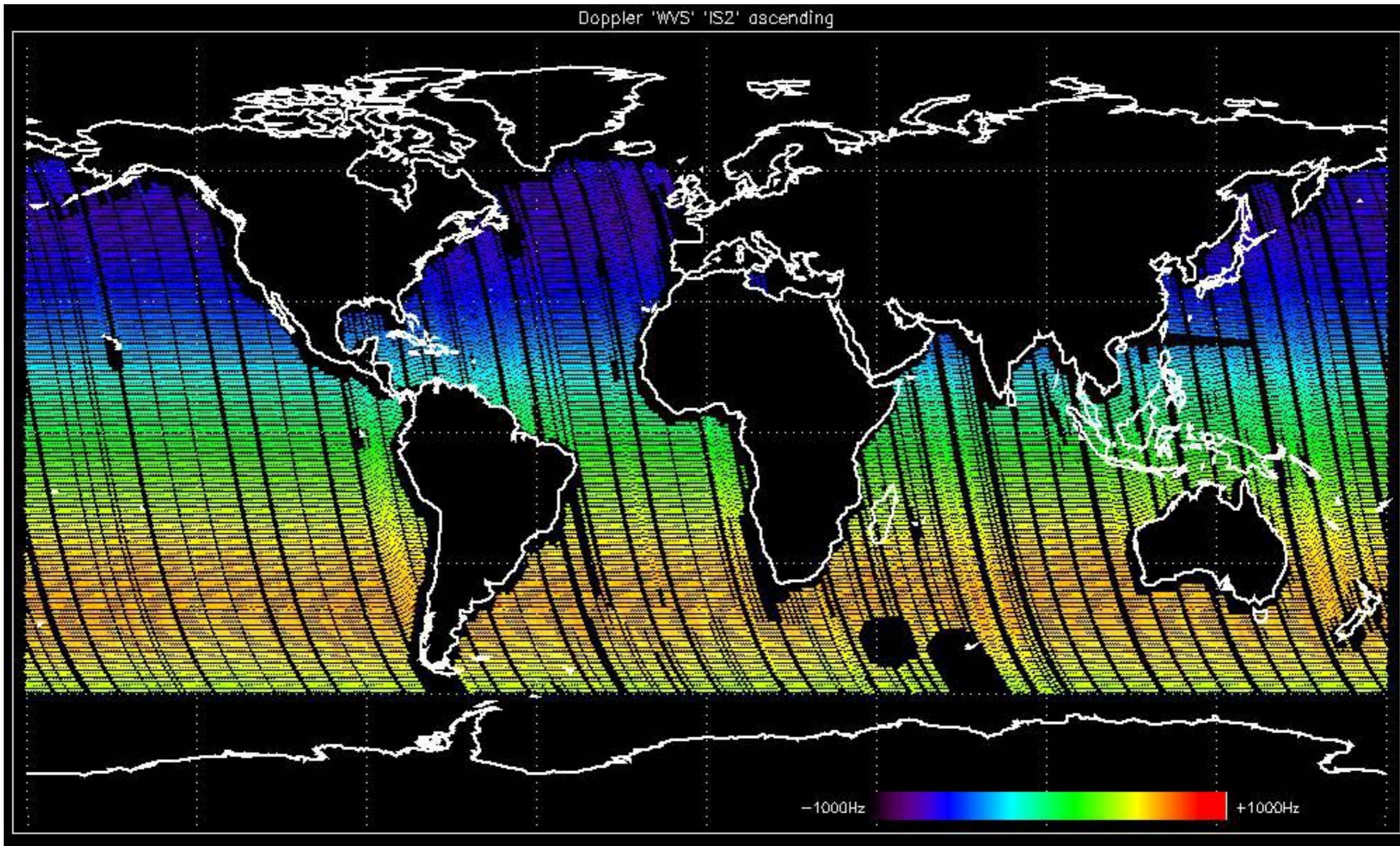
Doppler 'GM1' 'SS1' ascending



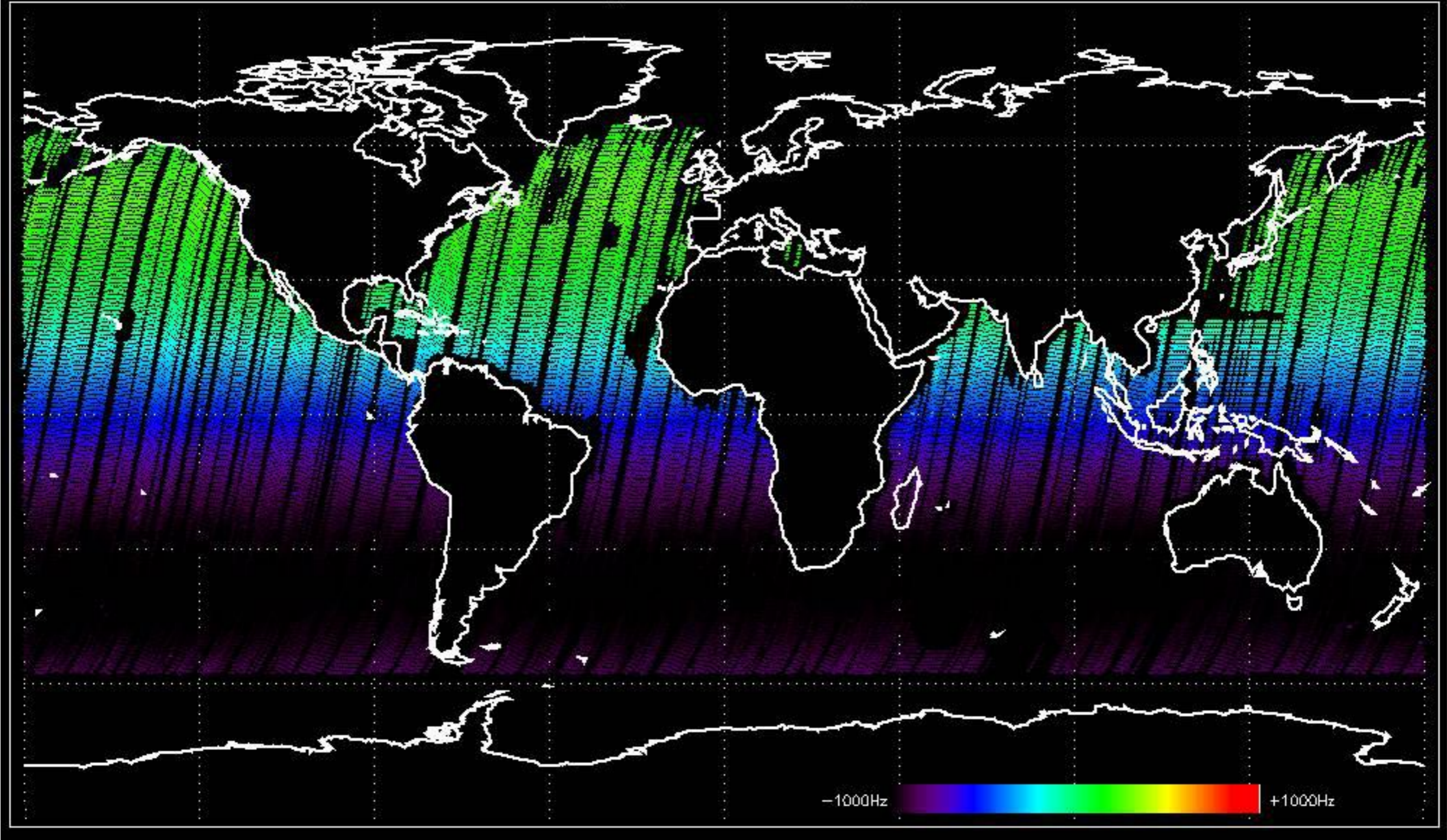
Doppler 'GM1' 'SS1' descending



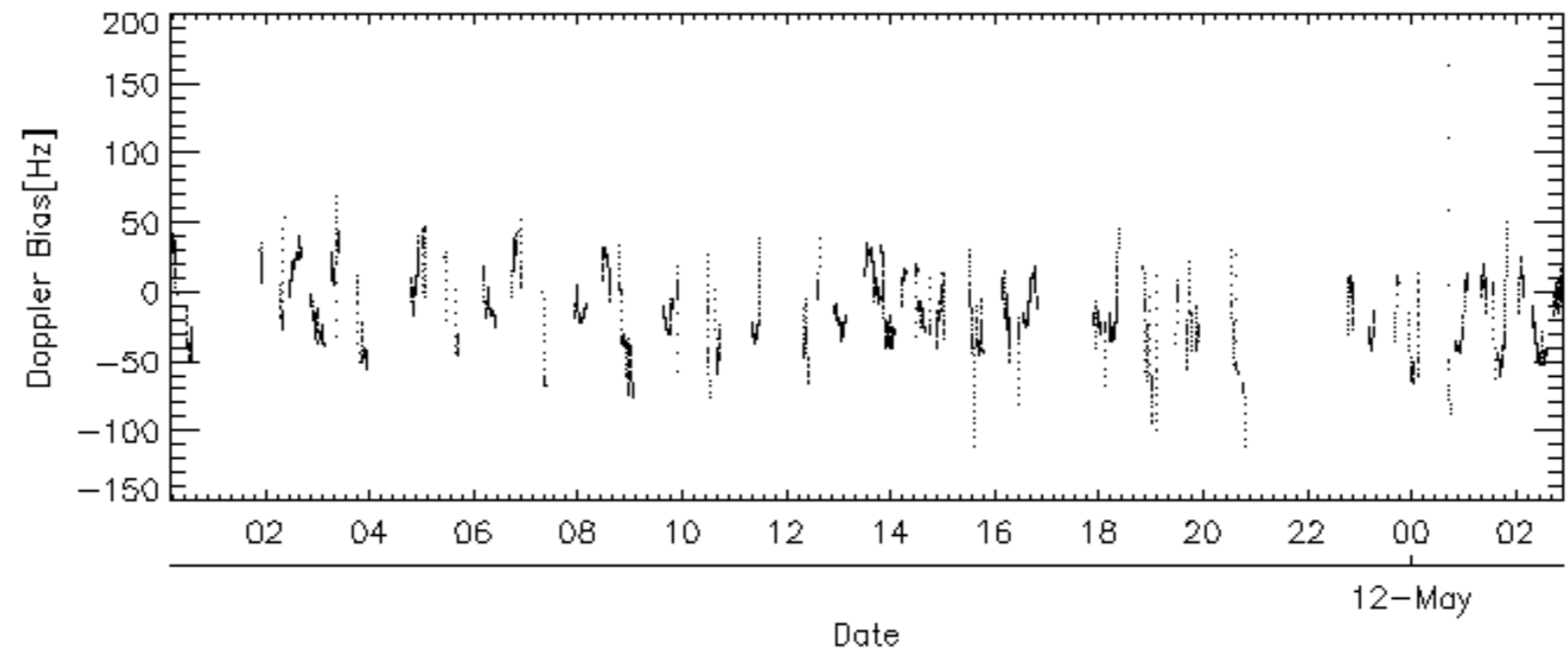
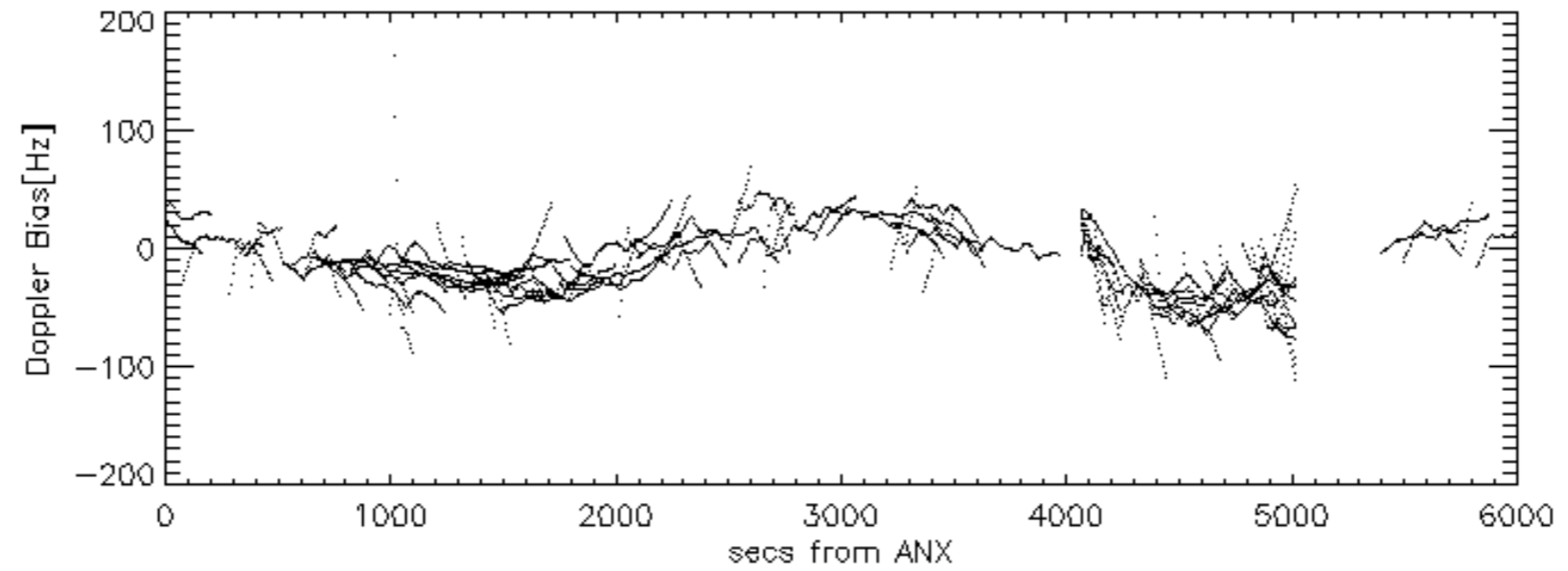
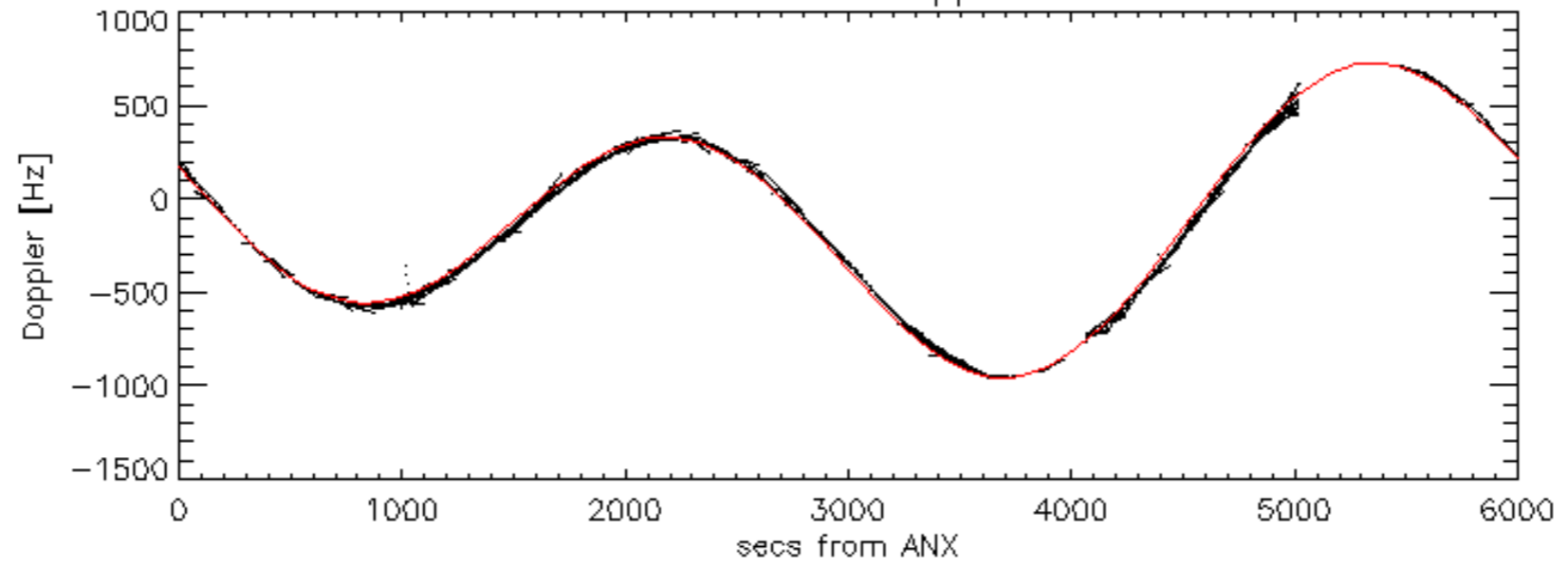
Doppler 'WVS' 'IS2' ascending

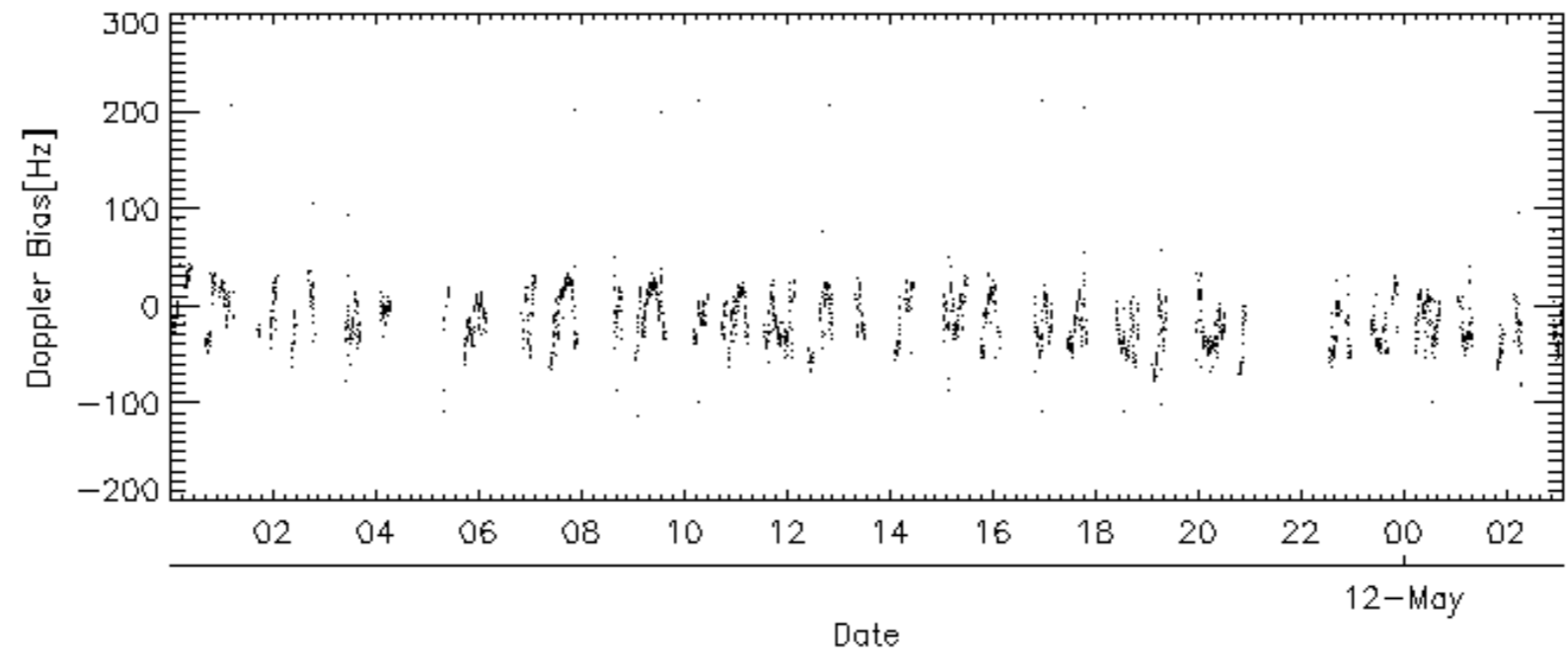
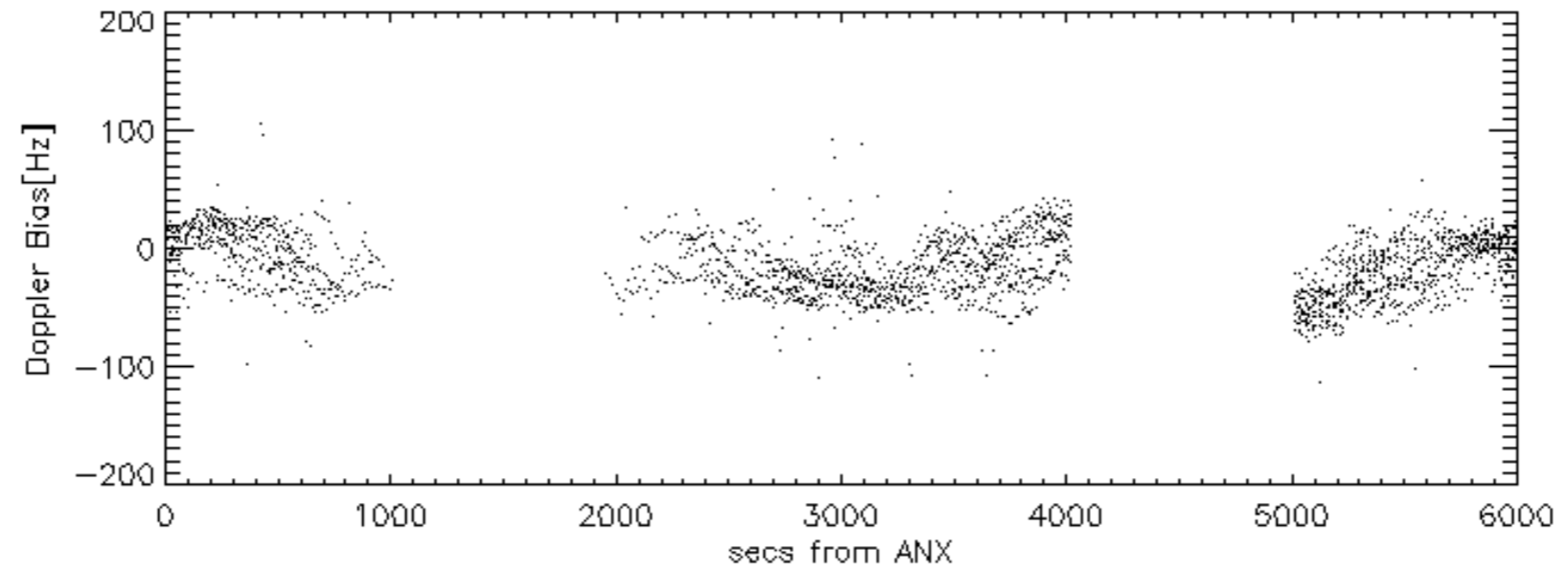
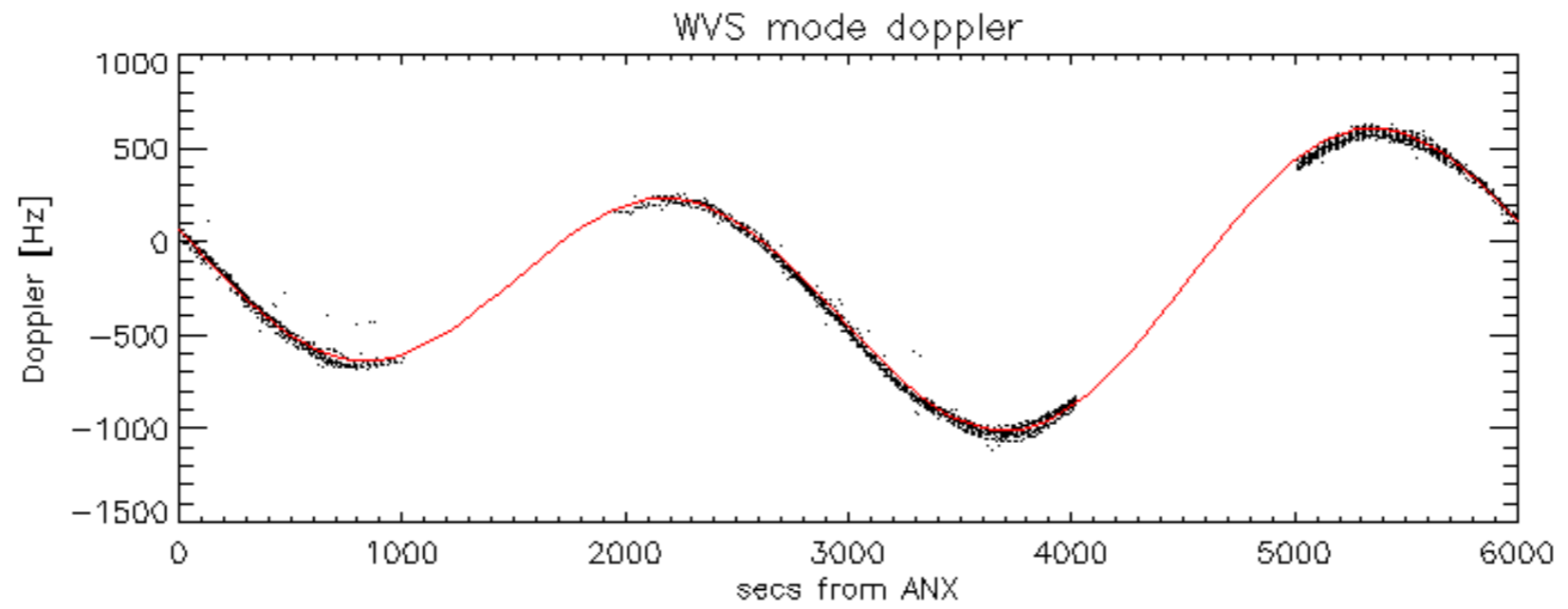


Doppler 'WVS' 'IS2' descending

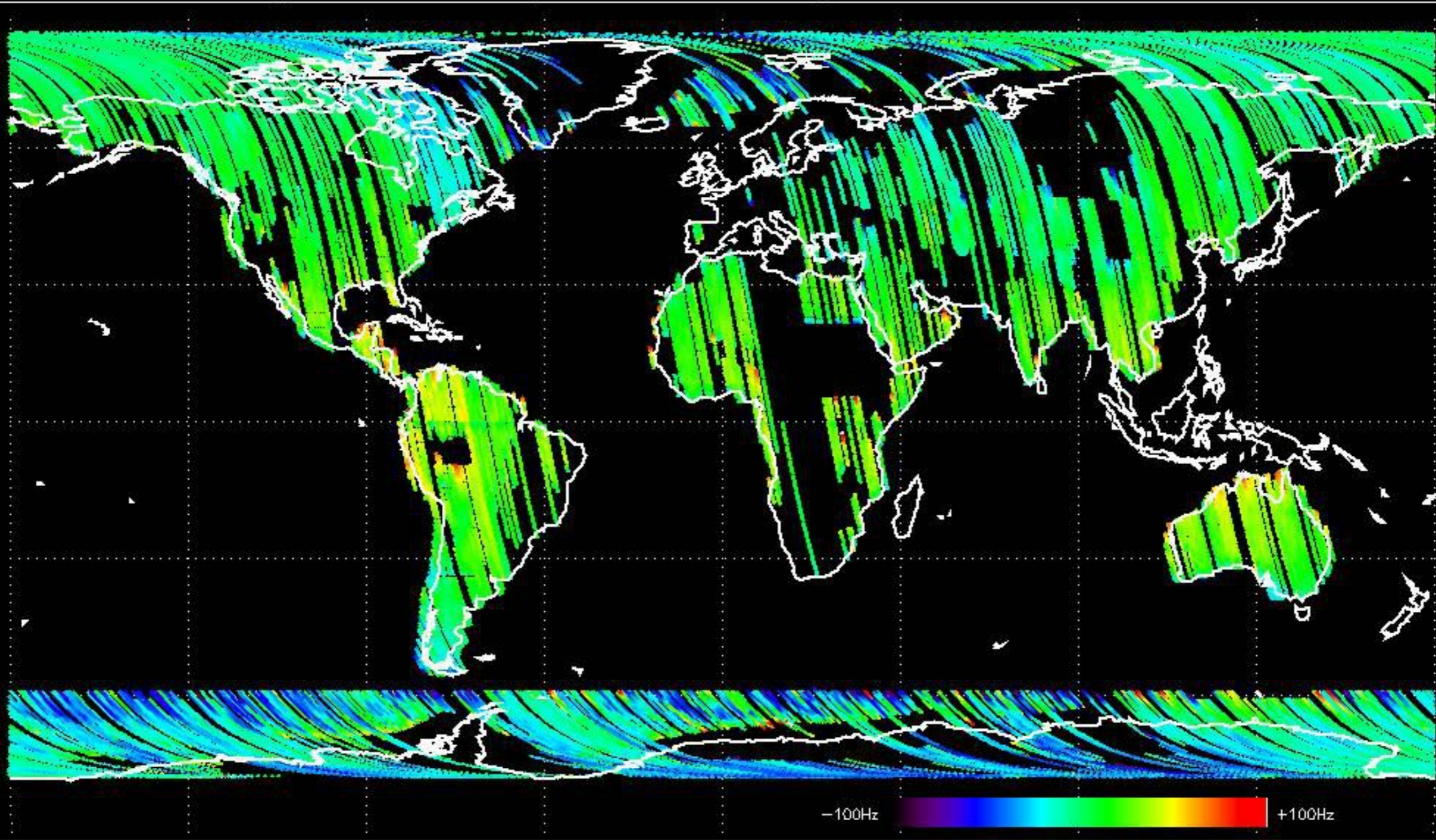


GM1 mode doppler

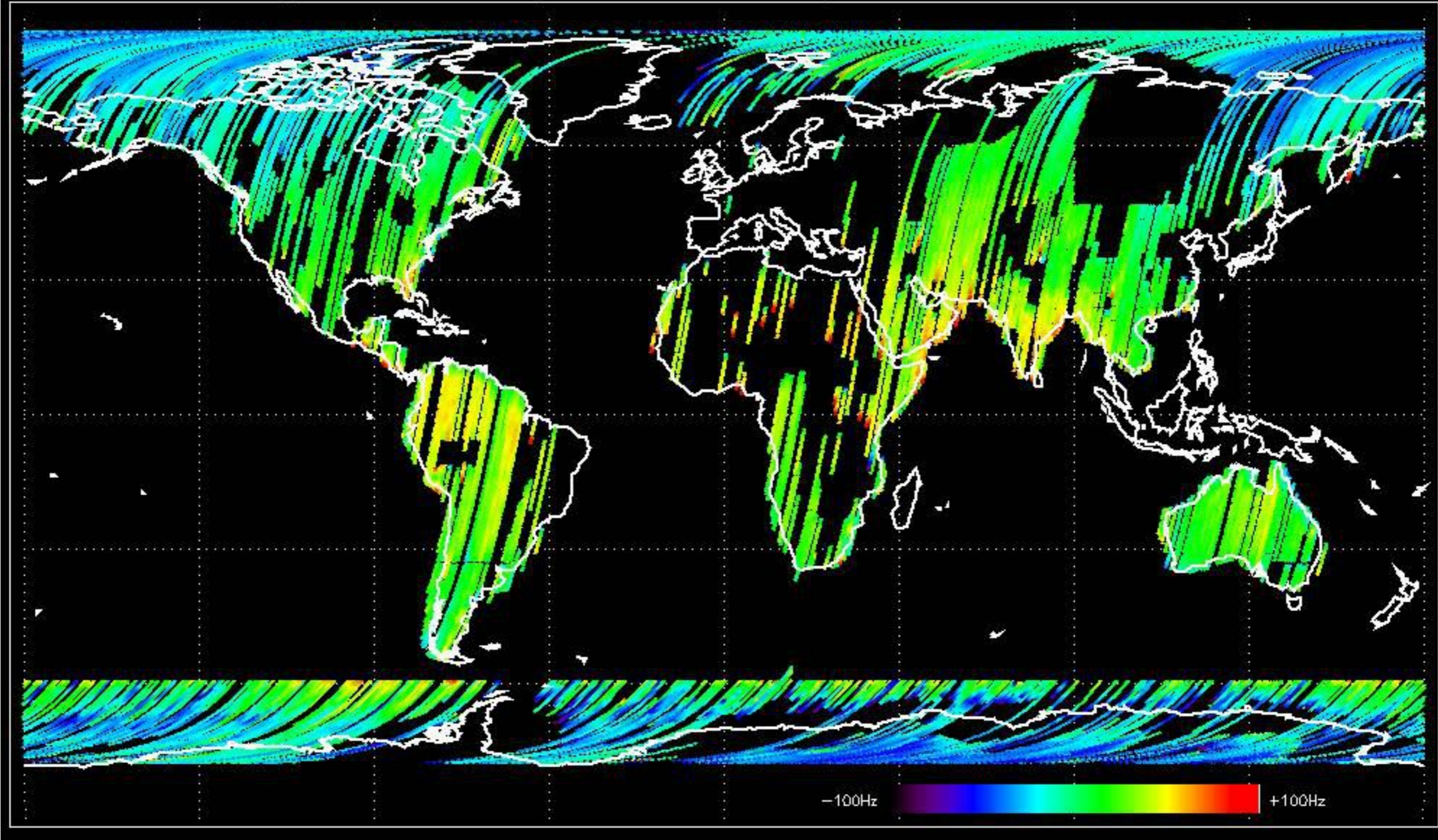




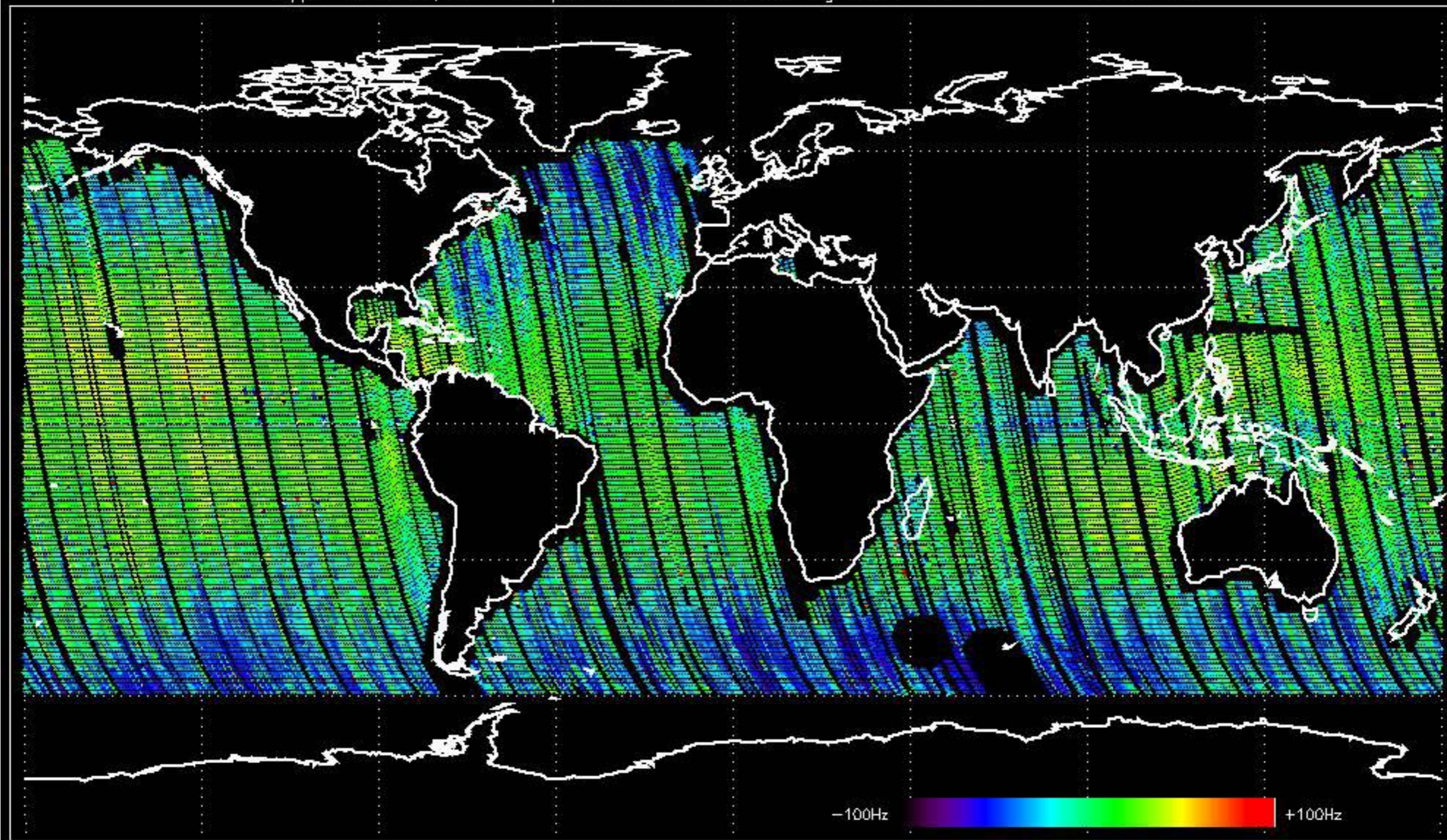
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.763756 Hz



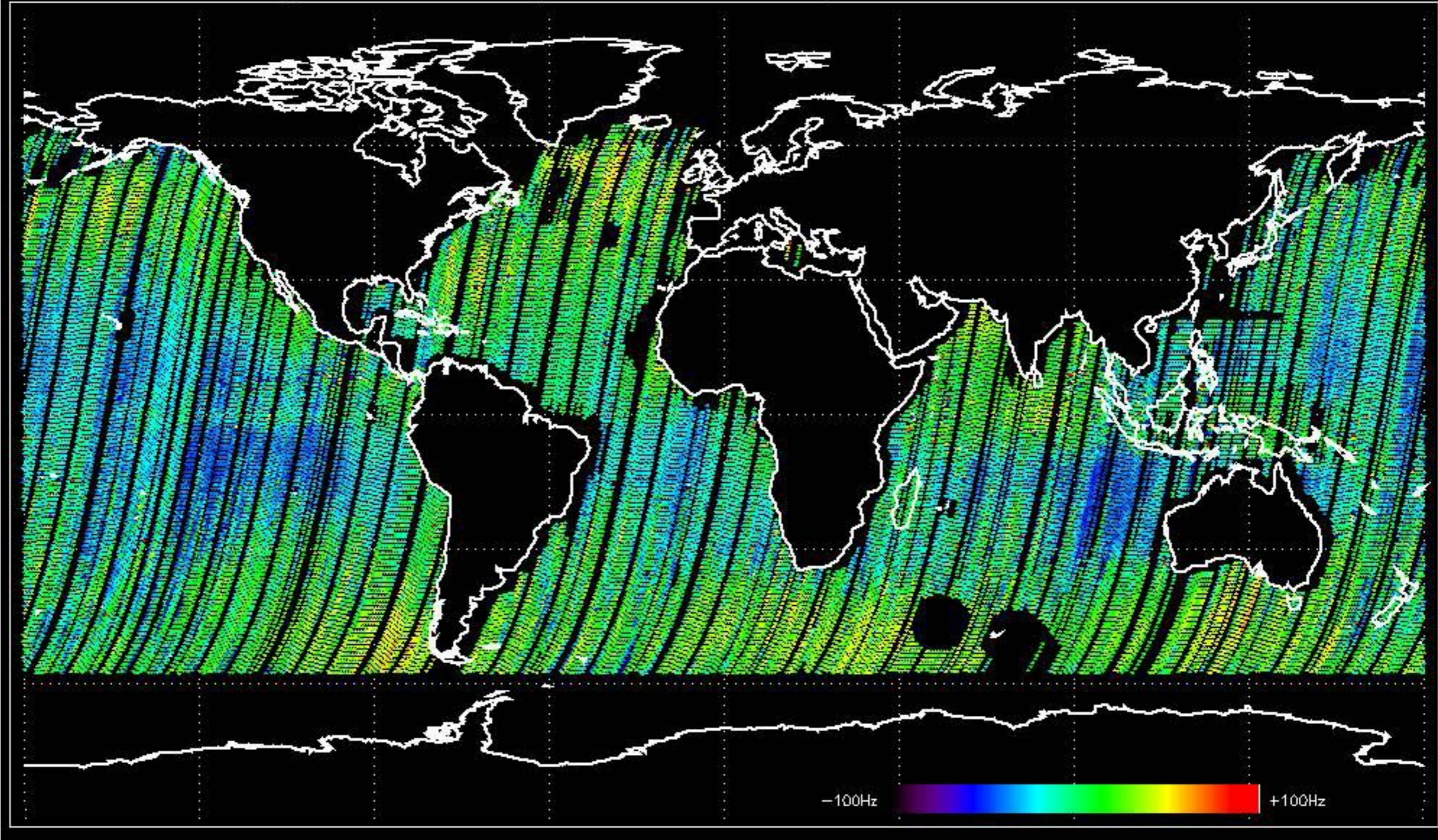
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.2005881 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.3269176 Hz

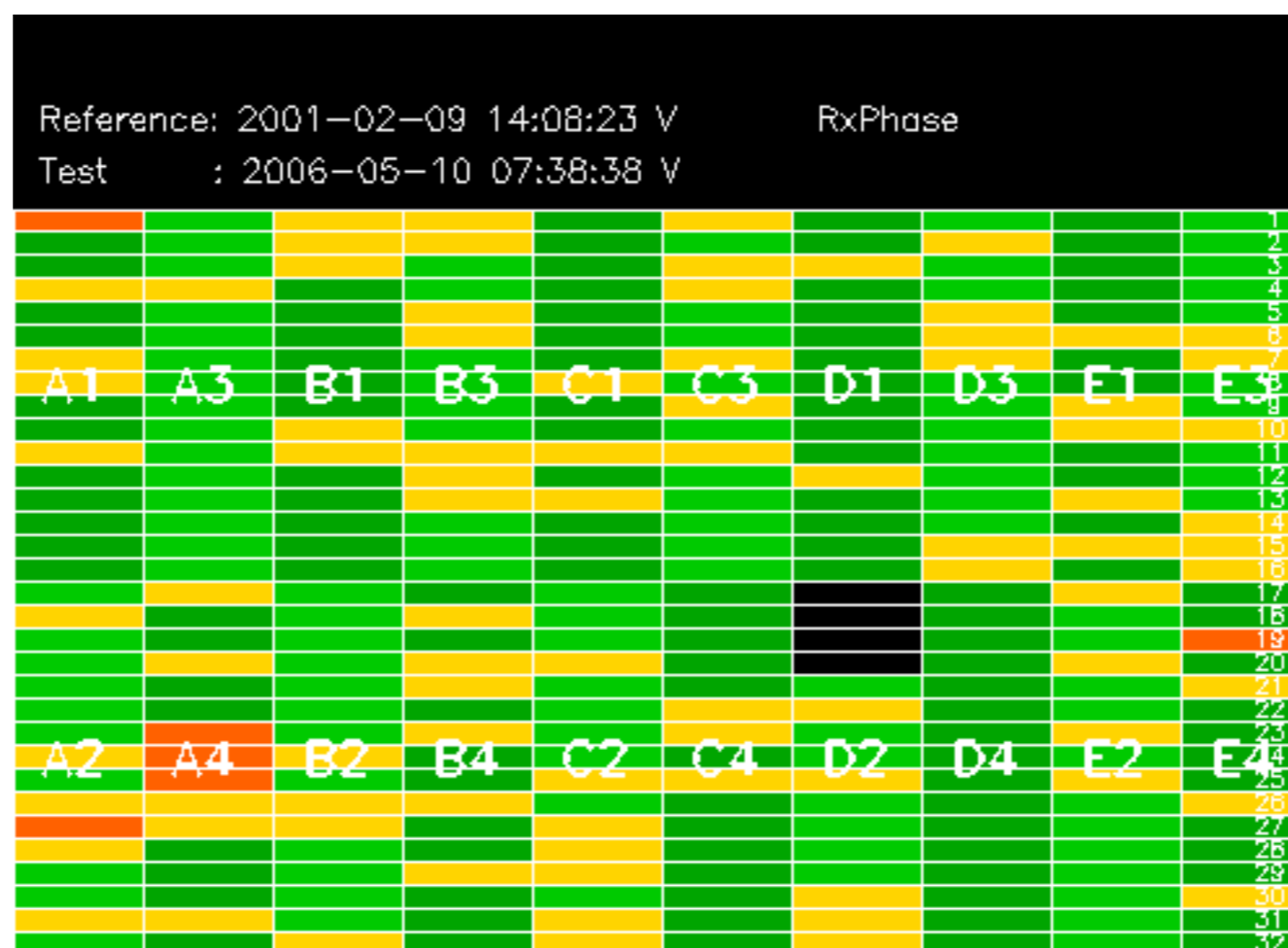


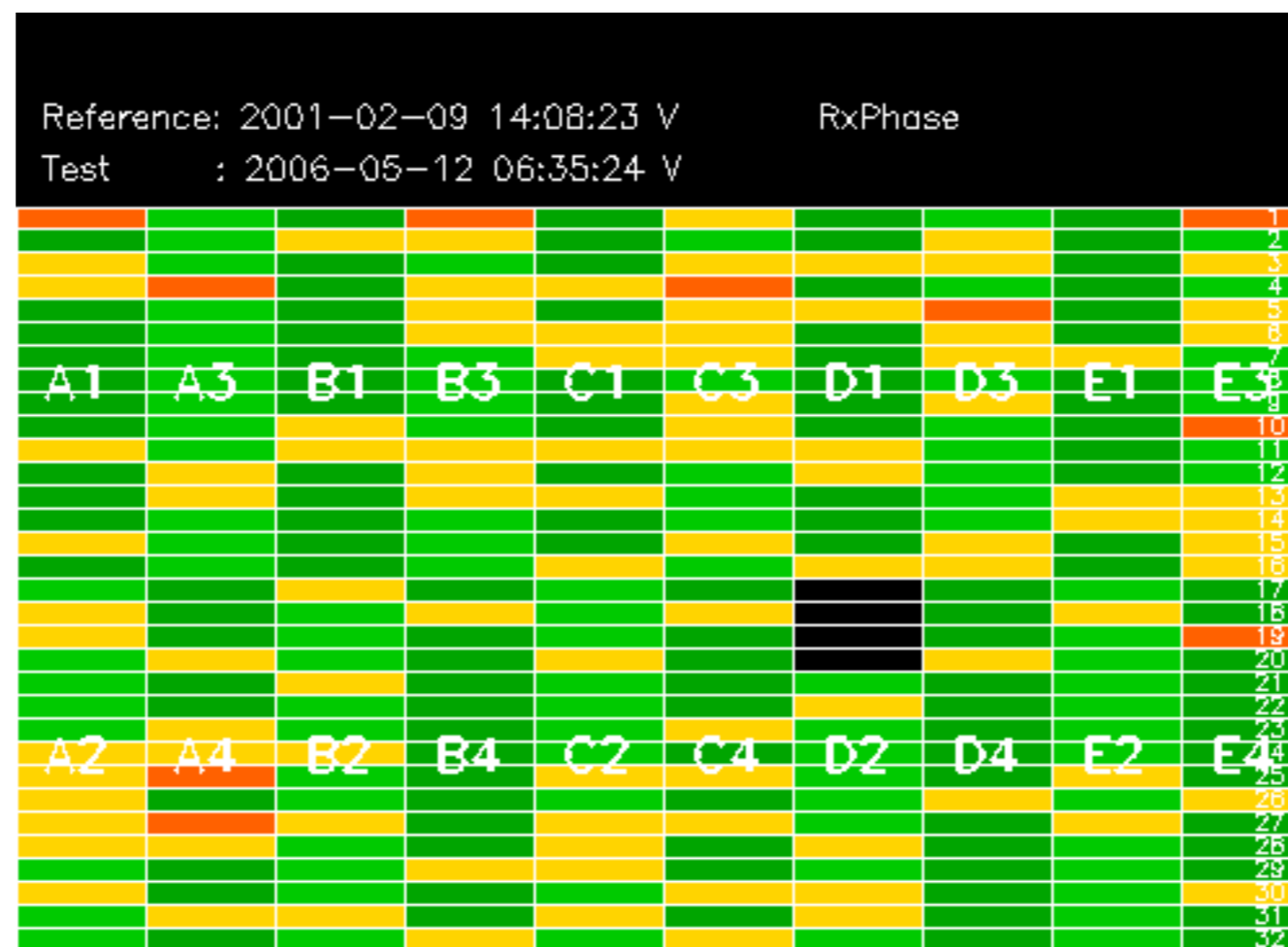
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.639439 Hz

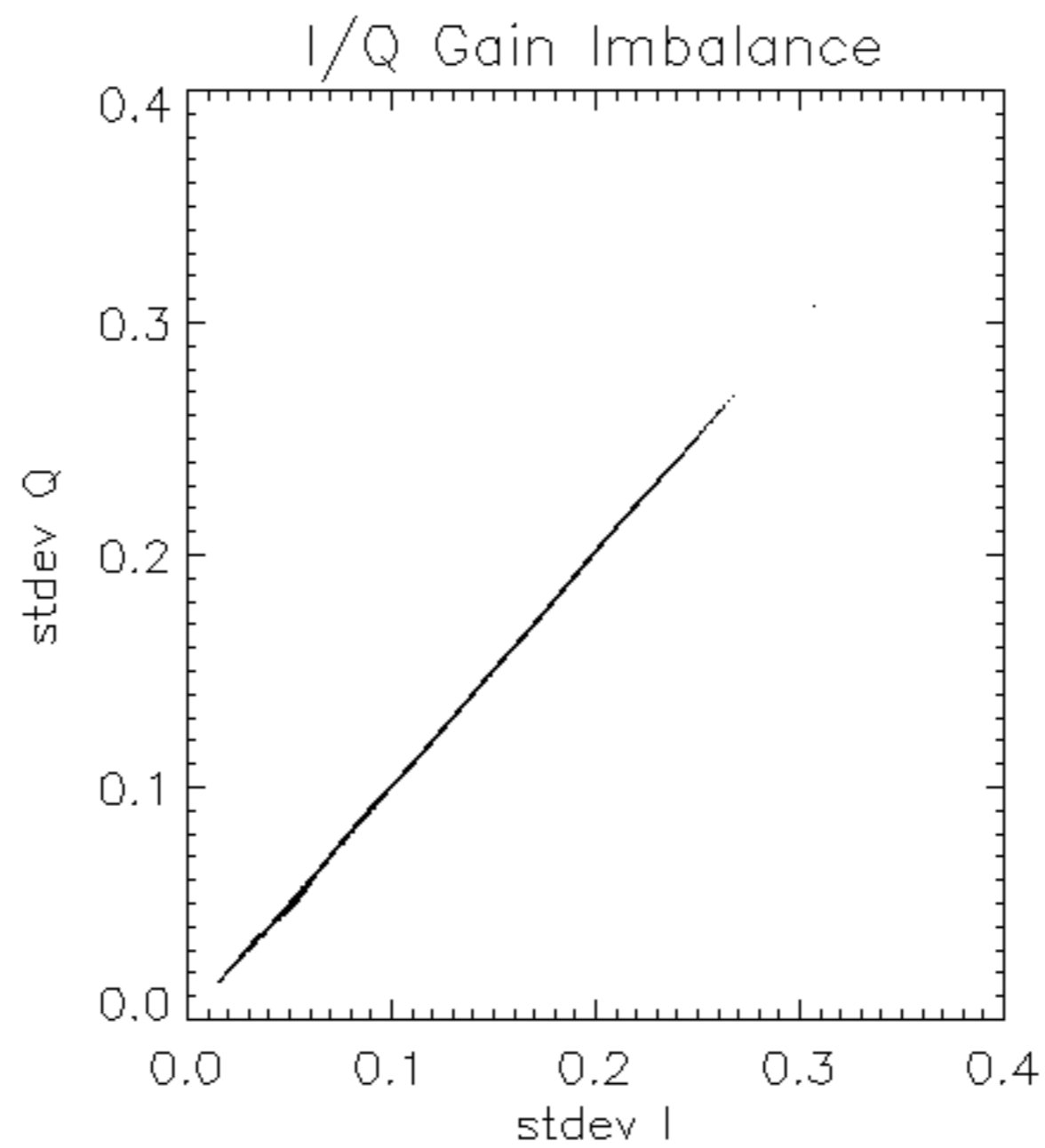


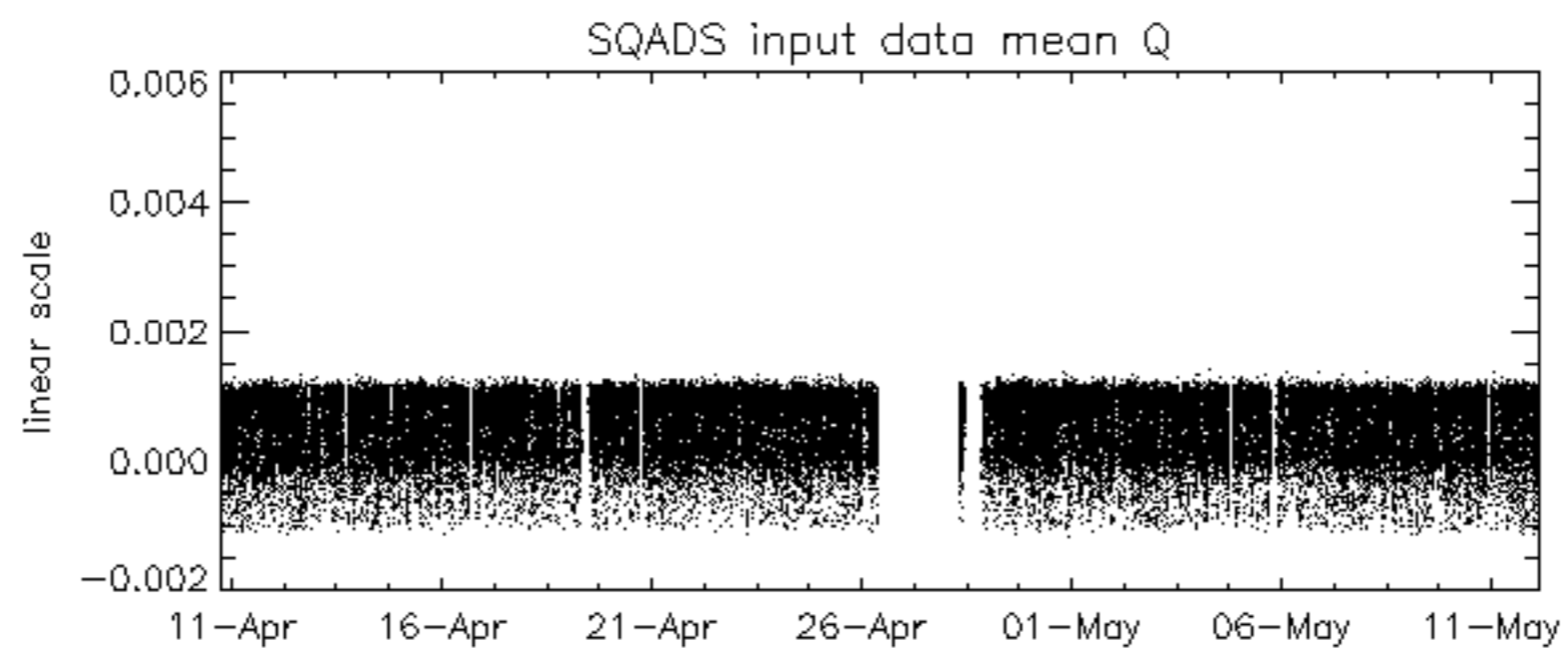
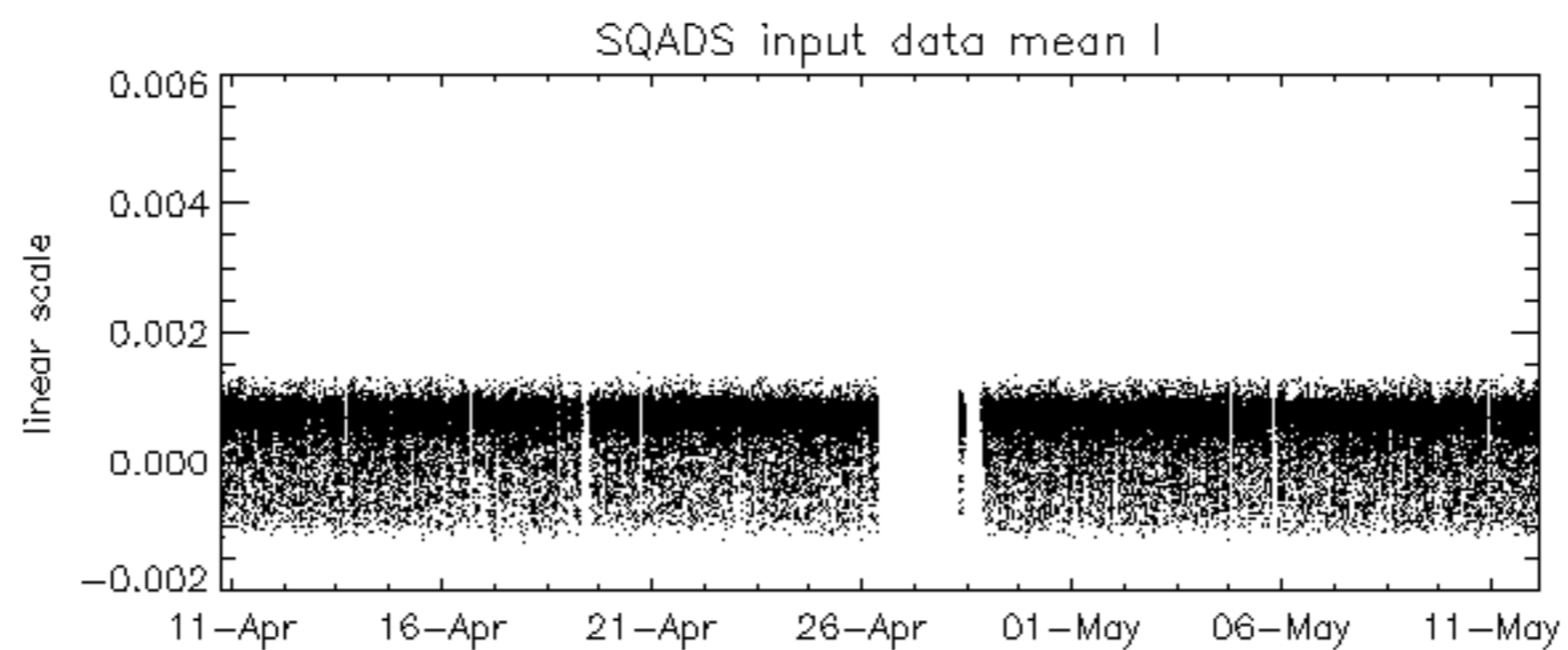
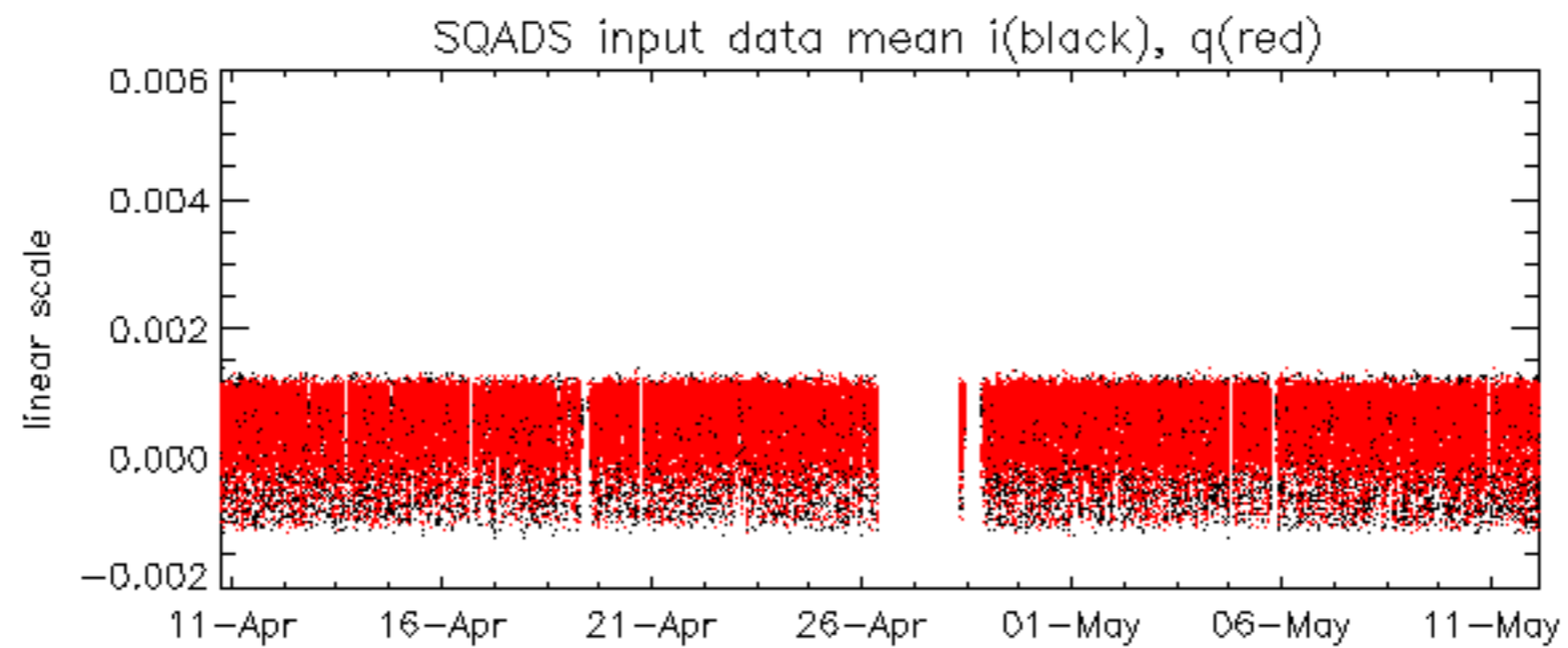
No anomalies observed on available MS products:

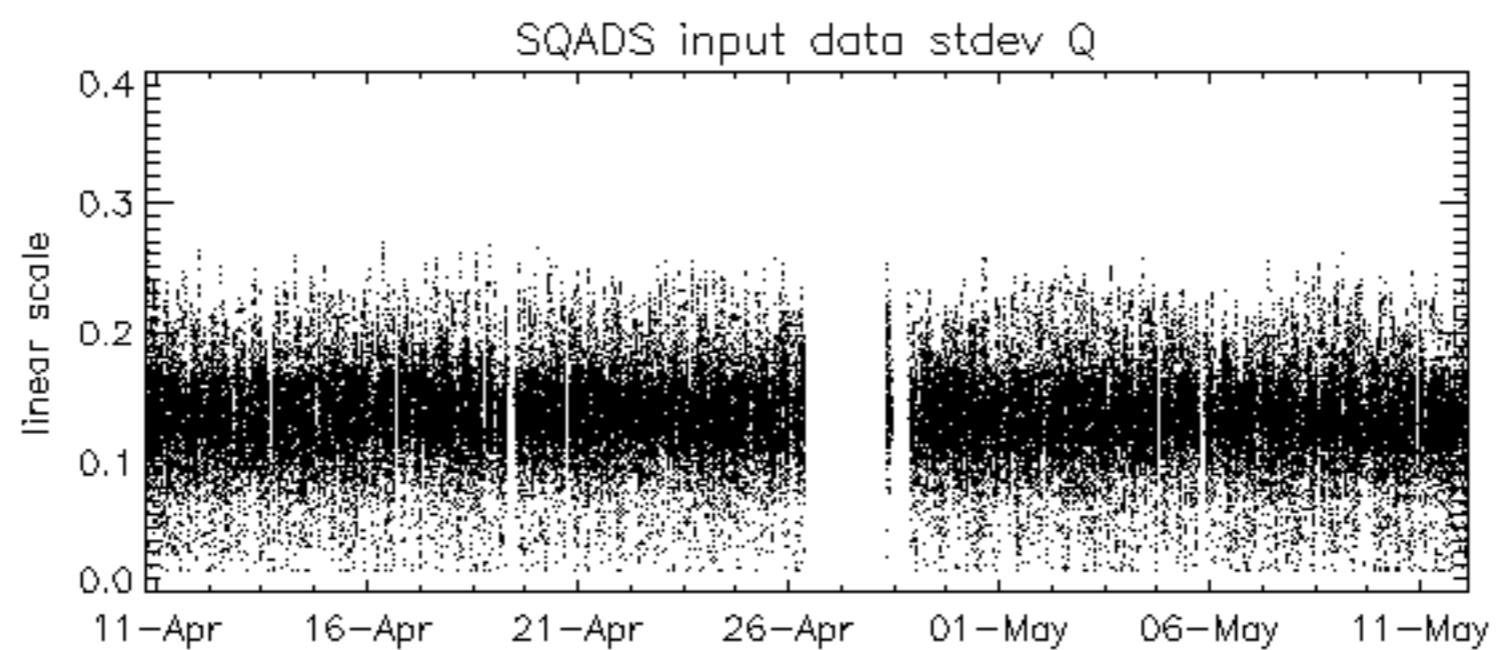
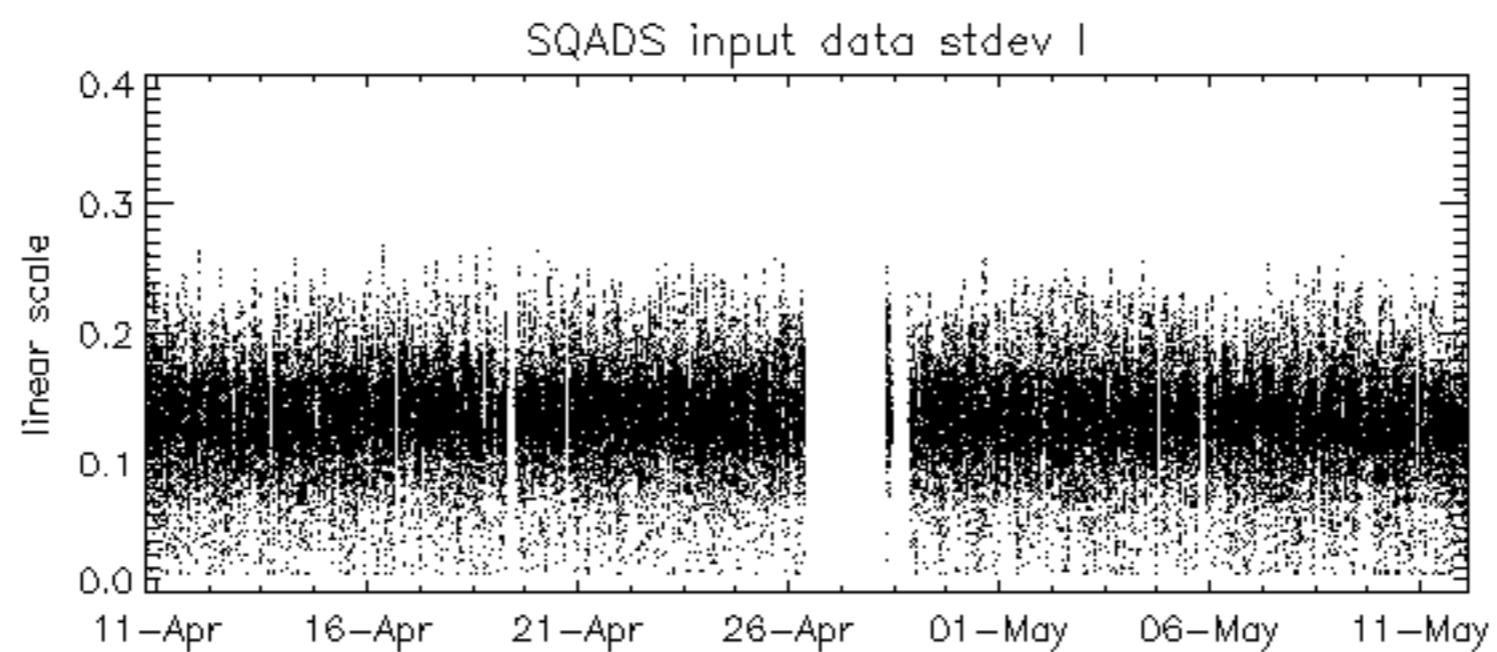
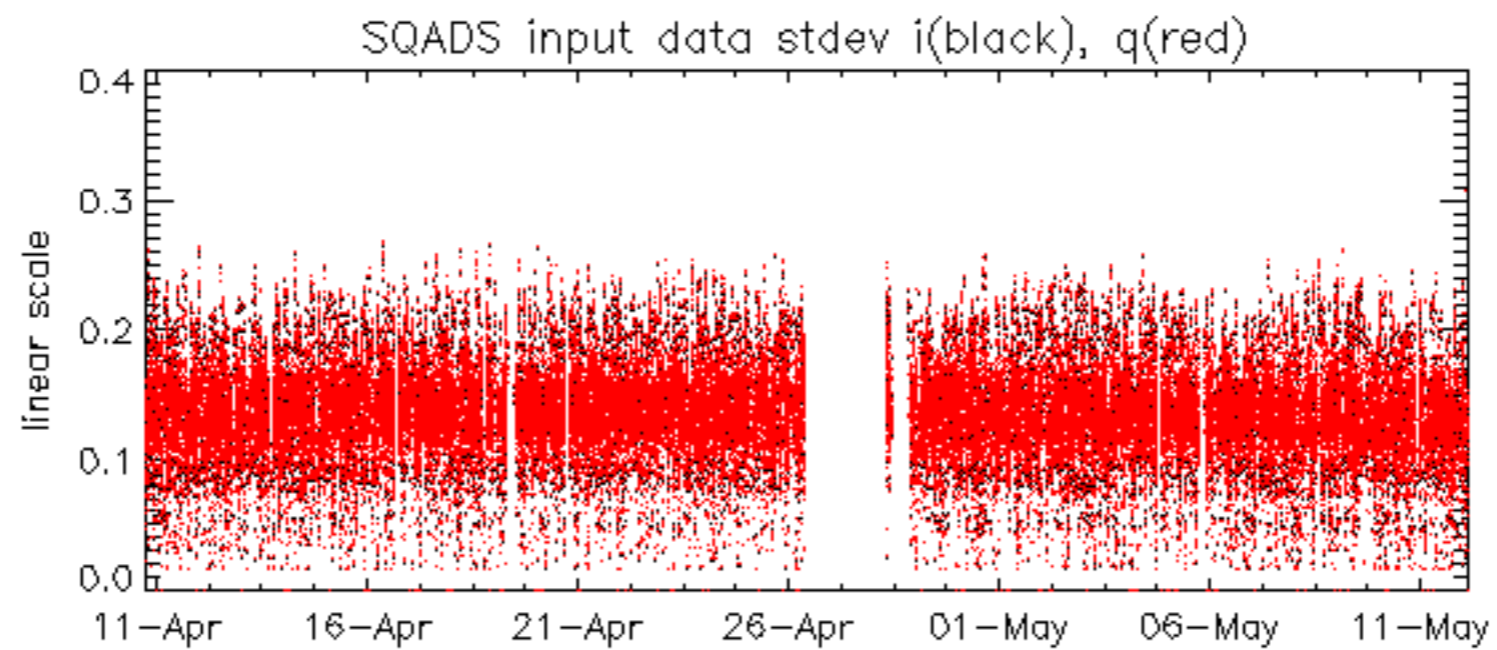
No anomalies observed.







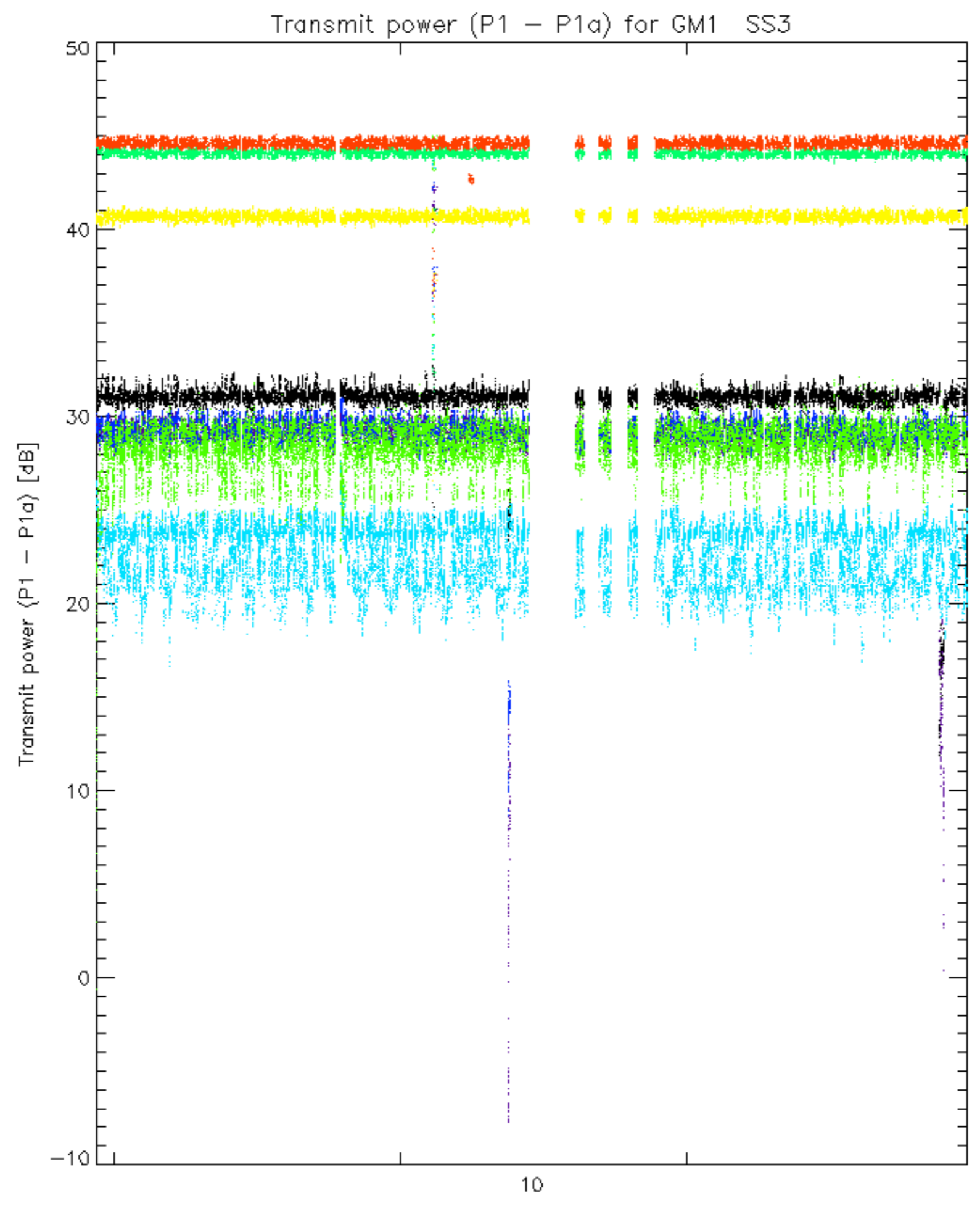




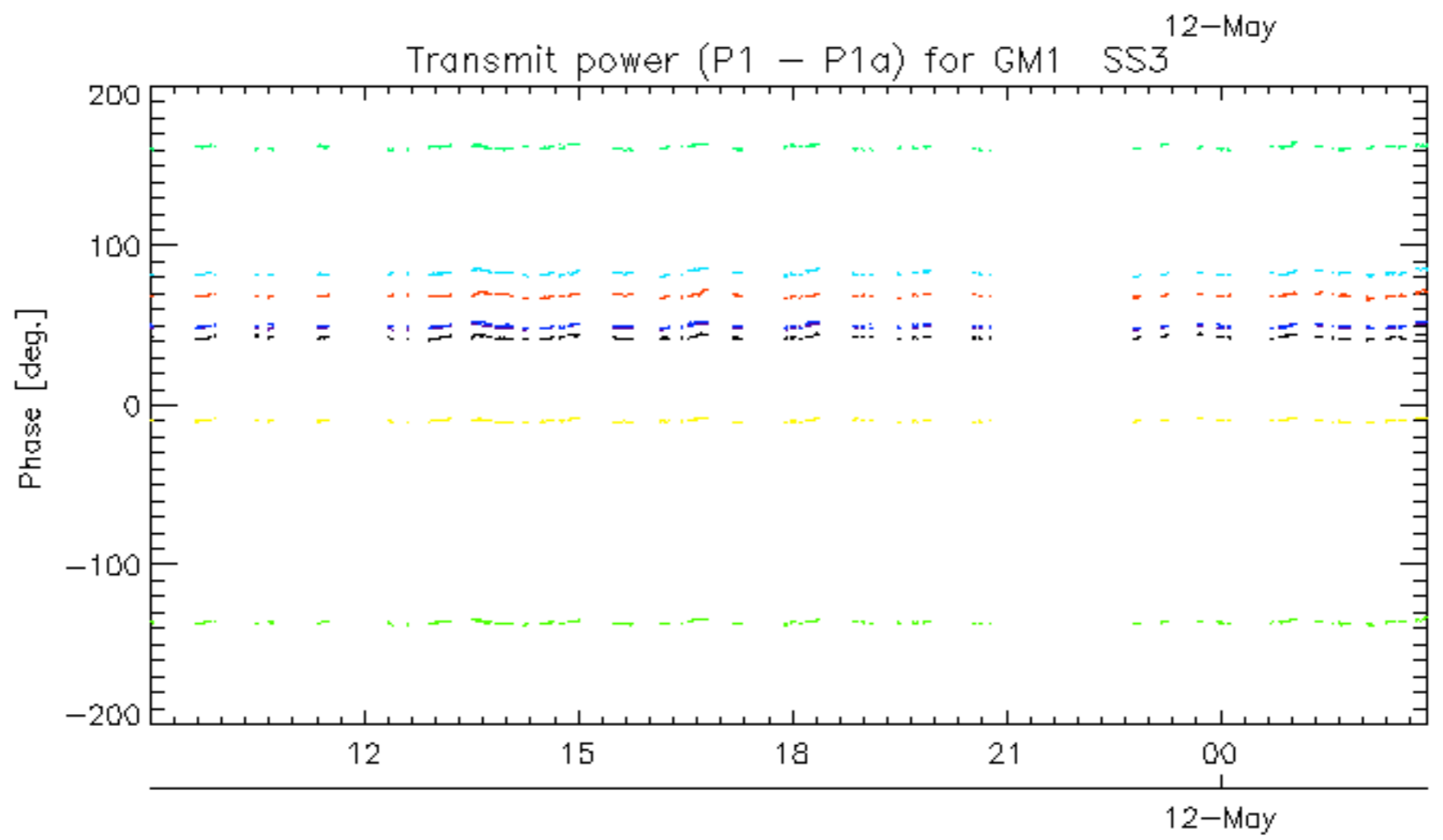
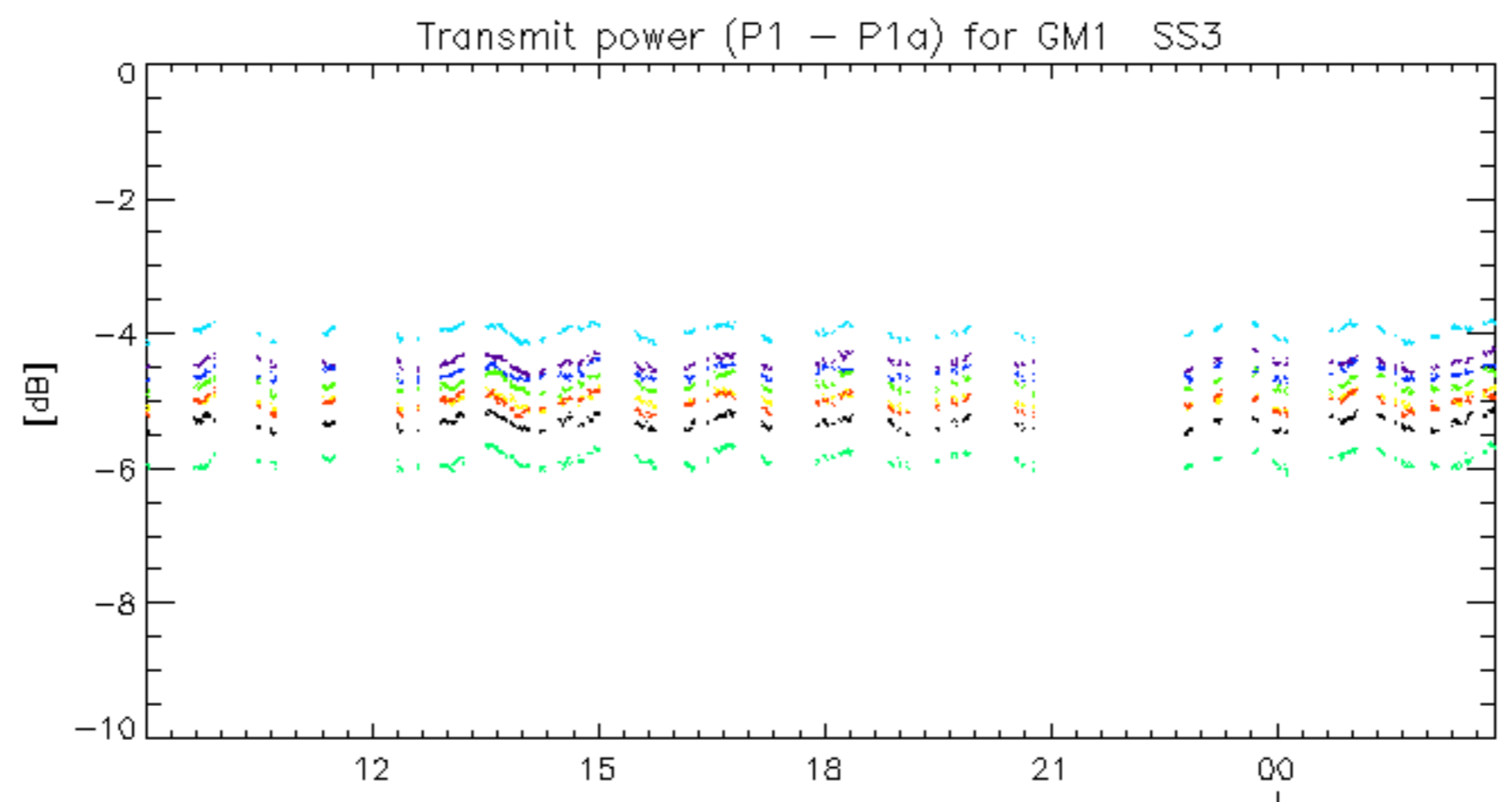
Summary of analysis for the last 3 days 2006051[012]

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

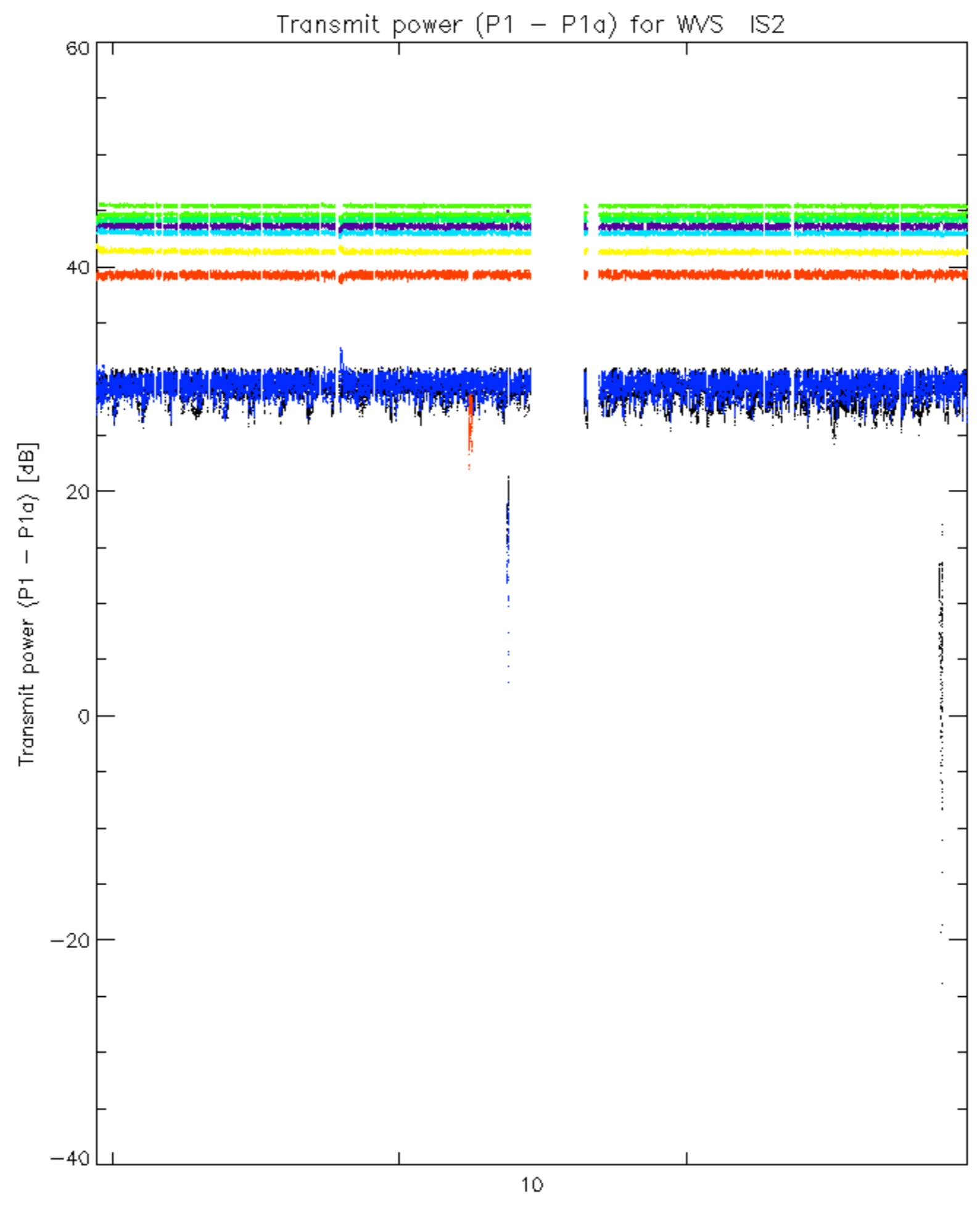
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060512_010614_00000832047_00346_21943_4800.N1	1	0
ASA_GM1_1PNPDK20060511_153006_000003862047_00340_21937_3252.N1	0	50
ASA_WSM_1PNPDE20060511_064141_00000672047_00335_21932_8794.N1	0	42
ASA_WSM_1PNPDE20060511_064141_000001472047_00335_21932_8799.N1	0	42



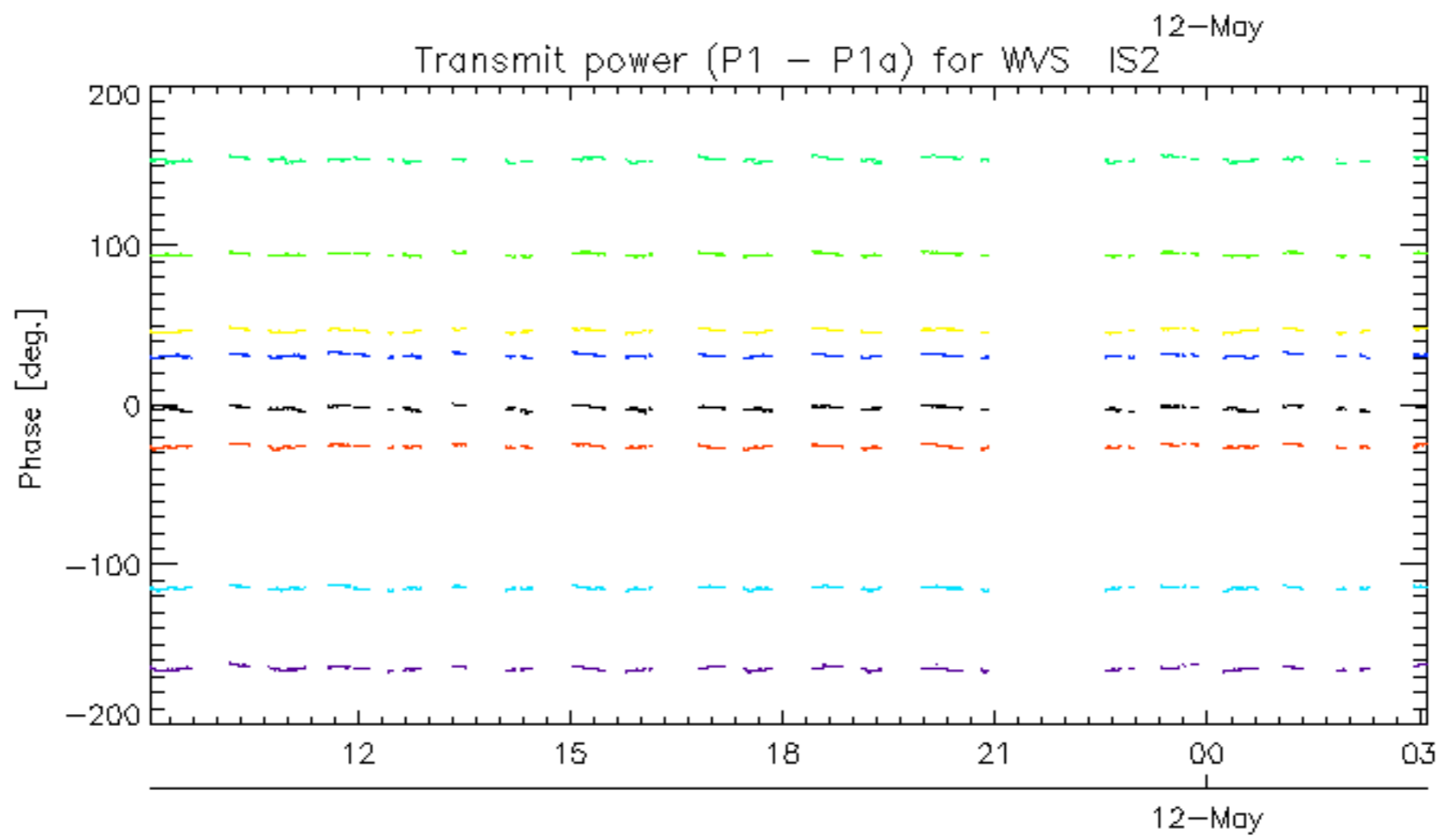
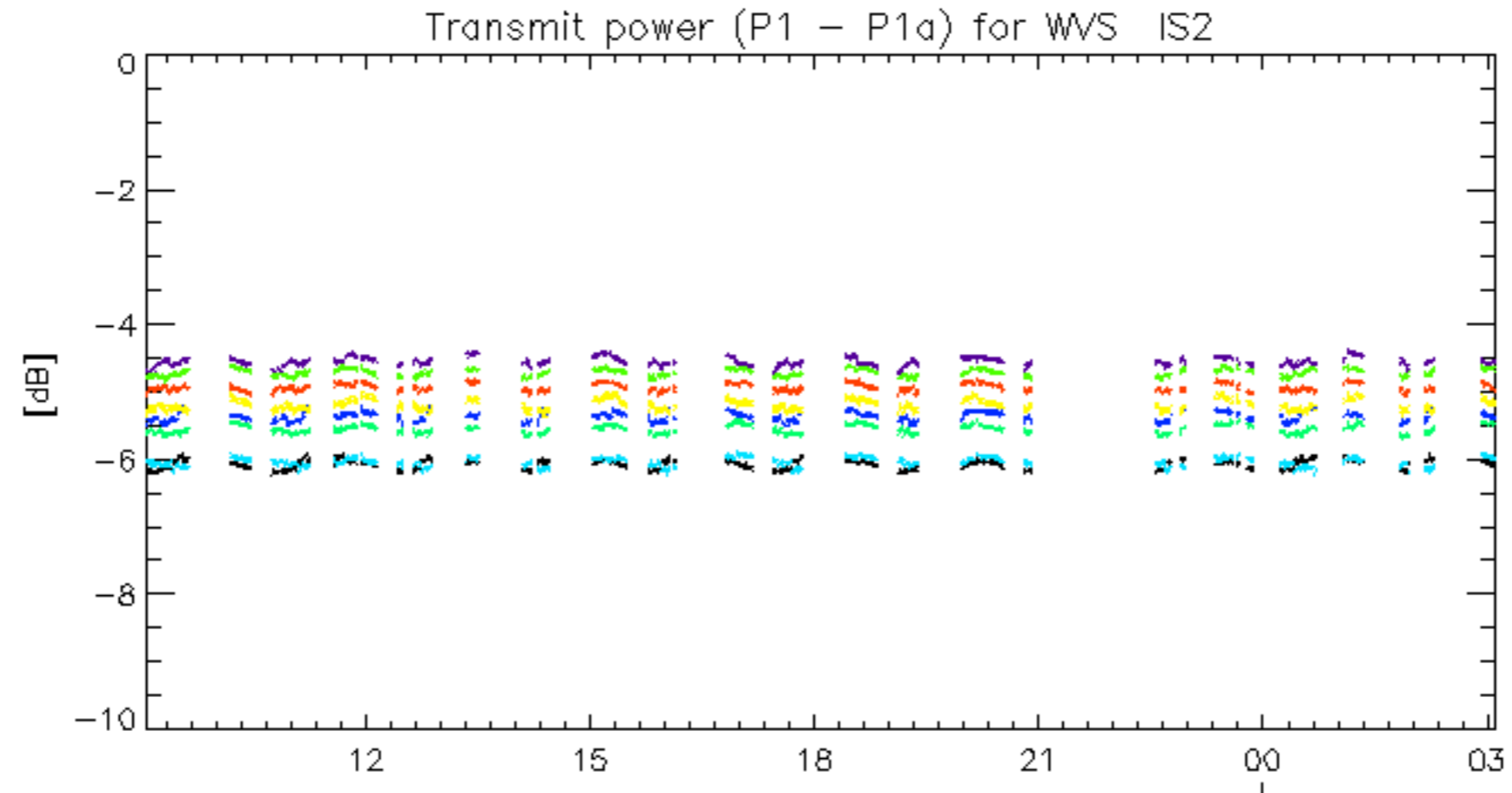
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.