

PRELIMINARY REPORT OF 060507

last update on Sun May 7 16:34:00 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 2006-05-06 00:00:00 to 2006-05-07 16:34:00

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	70	7	0	6
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	70	7	0	6
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	70	7	0	6
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	70	7	0	6

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	53	35	32	42
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	31	53	35	32	42
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	53	35	32	42
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	53	35	32	42

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	20060505 033419
H	20060504 040556

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
<input type="checkbox"/>

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	-3.974707	0.011700	0.011673
7	P1	-3.051800	0.011370	-0.057825
11	P1	-4.087087	0.015996	-0.049314
15	P1	-6.100904	0.012773	-0.049954
19	P1	-3.309844	0.007558	0.018457
22	P1	-4.518521	0.011333	-0.043112
26	P1	-4.046173	0.019983	0.118849
30	P1	-5.736669	0.022125	-0.008445
3	P1	-16.697447	0.309175	0.128212
7	P1	-16.951309	0.148269	-0.199013
11	P1	-16.712029	0.326794	-0.455822
15	P1	-13.095676	0.132165	-0.226764
19	P1	-14.133121	0.048433	-0.242455
22	P1	-16.024630	0.486732	-0.381233
26	P1	-15.471689	0.267282	0.493435
30	P1	-16.758087	0.301911	-0.493595

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.295244	0.086944	0.065621
7	P2	-22.200148	0.101251	0.093384
11	P2	-16.044397	0.111969	0.164231
15	P2	-7.163362	0.097829	-0.020818
19	P2	-9.149652	0.090621	-0.040683
22	P2	-18.047289	0.089690	-0.134216
26	P2	-16.301970	0.095135	-0.109988
30	P2	-19.607225	0.088403	-0.009918

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.189666	0.004548	-0.008578
7	P3	-8.189666	0.004548	-0.008578
11	P3	-8.189666	0.004548	-0.008578
15	P3	-8.189666	0.004548	-0.008578
19	P3	-8.189666	0.004548	-0.008578
22	P3	-8.189666	0.004548	-0.008578
26	P3	-8.189692	0.004550	-0.008588
30	P3	-8.189692	0.004550	-0.008588

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



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	-3.748717	0.028633	0.007422
7	P1	-2.669889	0.115826	0.094989
11	P1	-2.886868	0.034733	0.067616
15	P1	-3.518926	0.031778	0.051298
19	P1	-3.382449	0.013536	-0.011654
22	P1	-5.125770	0.023121	0.068971
26	P1	-5.814566	0.024555	-0.032400
30	P1	-5.177671	0.048309	0.010577
3	P1	-11.593163	0.112001	-0.021716
7	P1	-9.978119	0.174502	0.039075
11	P1	-10.233309	0.087555	0.091112
15	P1	-10.700640	0.135708	0.126979
19	P1	-15.447287	0.089948	-0.075268
22	P1	-20.651855	1.273083	-0.470226
26	P1	-16.376167	0.412523	-0.192751
30	P1	-18.263010	0.491925	0.349424

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.962664	0.071504	0.081017
7	P2	-22.510706	0.188938	-0.073336
11	P2	-11.194402	0.051629	0.001807
15	P2	-4.865066	0.042923	-0.060173
19	P2	-6.859534	0.042777	-0.042045
22	P2	-8.154293	0.056153	-0.060251
26	P2	-24.046877	0.136135	-0.093407
30	P2	-22.050247	0.092113	-0.002453

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024914	0.003765	-0.002650
7	P3	-8.024761	0.003785	-0.002611
11	P3	-8.024989	0.003752	-0.001909
15	P3	-8.024833	0.003776	-0.002162
19	P3	-8.025060	0.003772	-0.002320
22	P3	-8.024960	0.003772	-0.002339
26	P3	-8.024840	0.003764	-0.001738
30	P3	-8.024870	0.003776	-0.002329

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	0.000550158
	stdev	1.81606e-07
MEAN Q	mean	0.000519656
	stdev	2.24263e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136567
	stdev	0.00116265
STDEV Q	mean	0.136926
	stdev	0.00117996



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006050[567]

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_1PNPDE20060505_004234_000001742047_00245_21842_4113.N1	1	0
ASA_WSM_1PNPDE20060506_184504_000003042047_00271_21868_8331.N1	0	57
ASA_WSM_1PNPDK20060505_210724_000000672047_00258_21855_4515.N1	0	20





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)



Ascending



Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

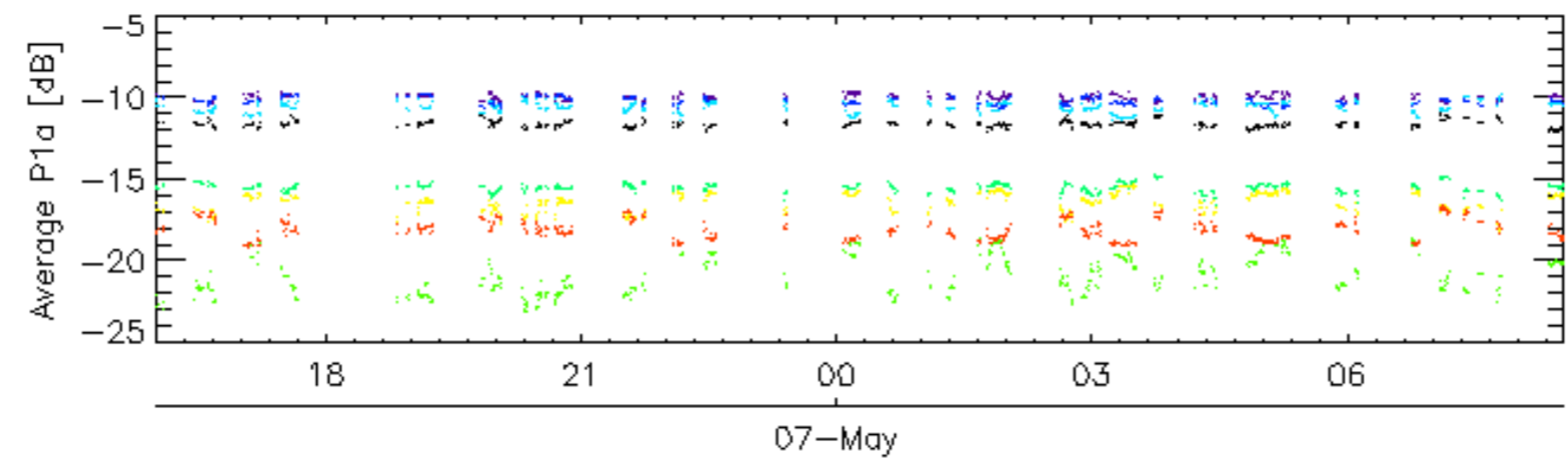
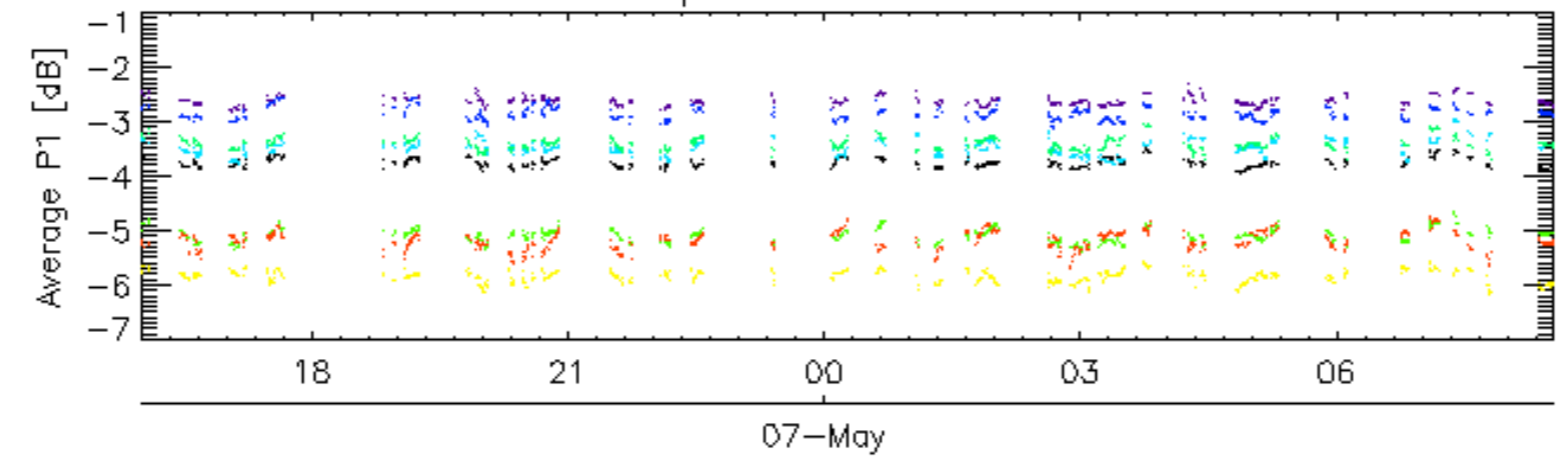
Ascending

Descending

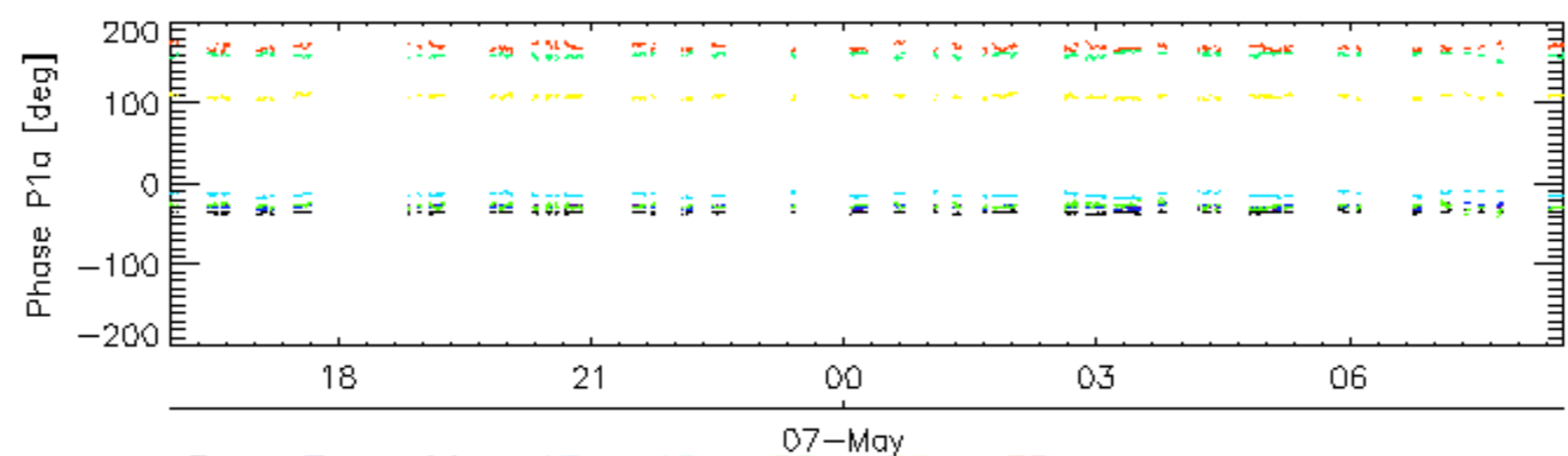
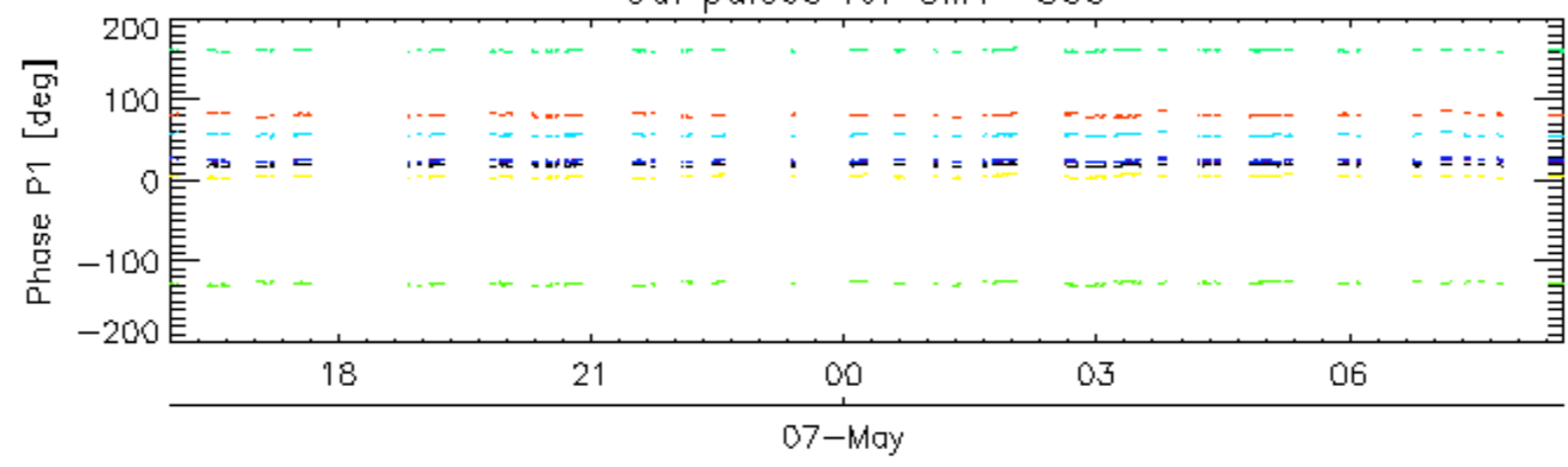
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

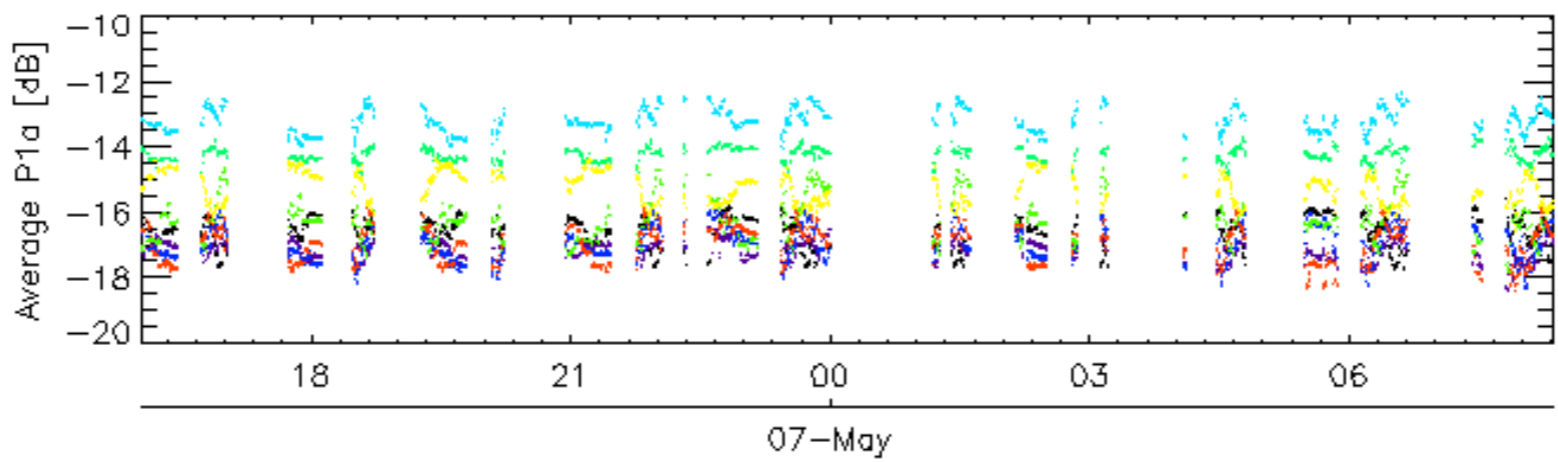
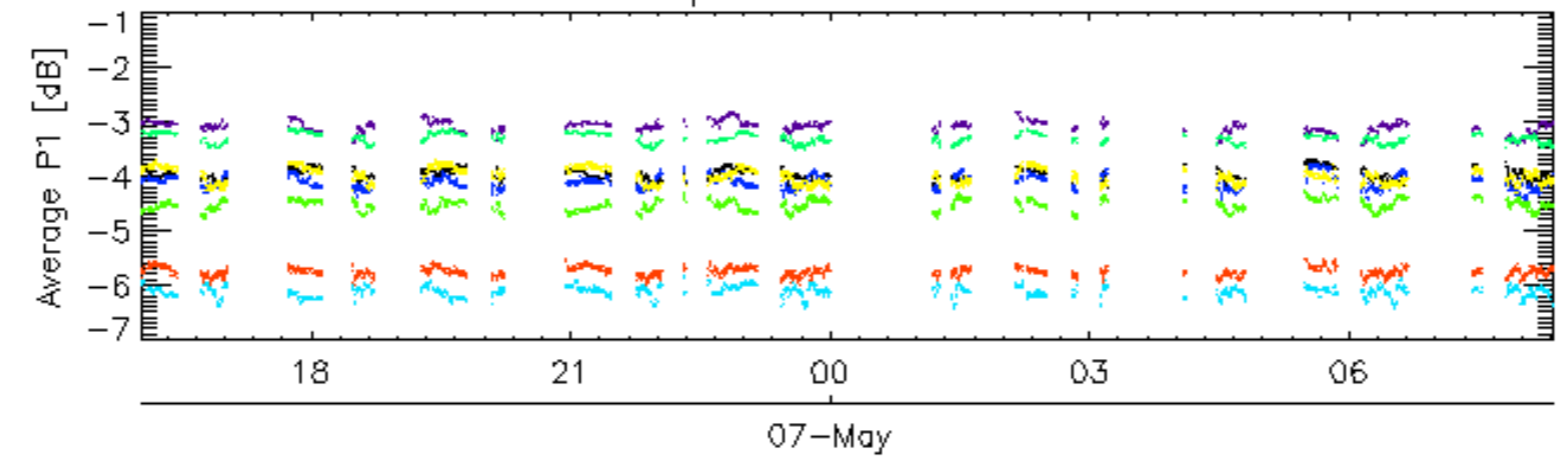


Cal pulses for GM1 SS3

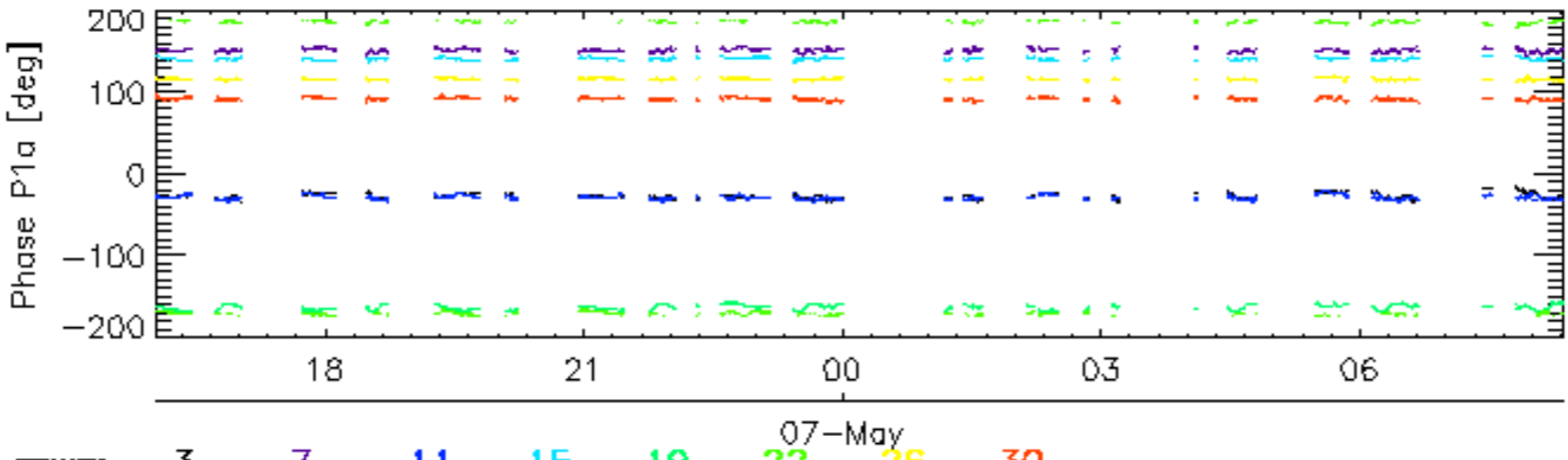
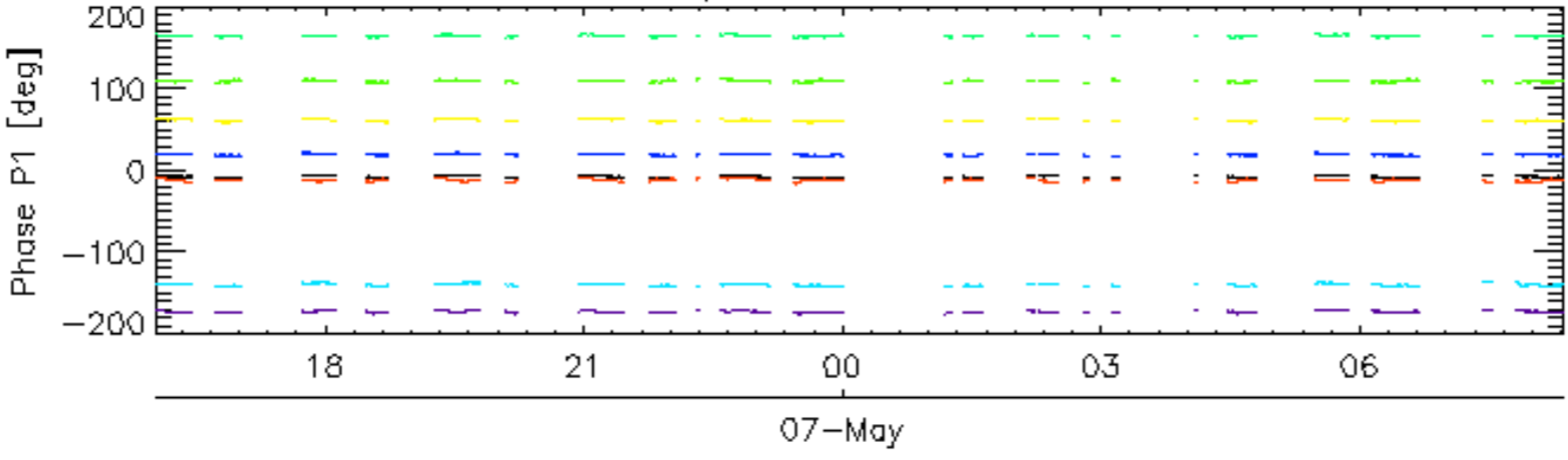


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

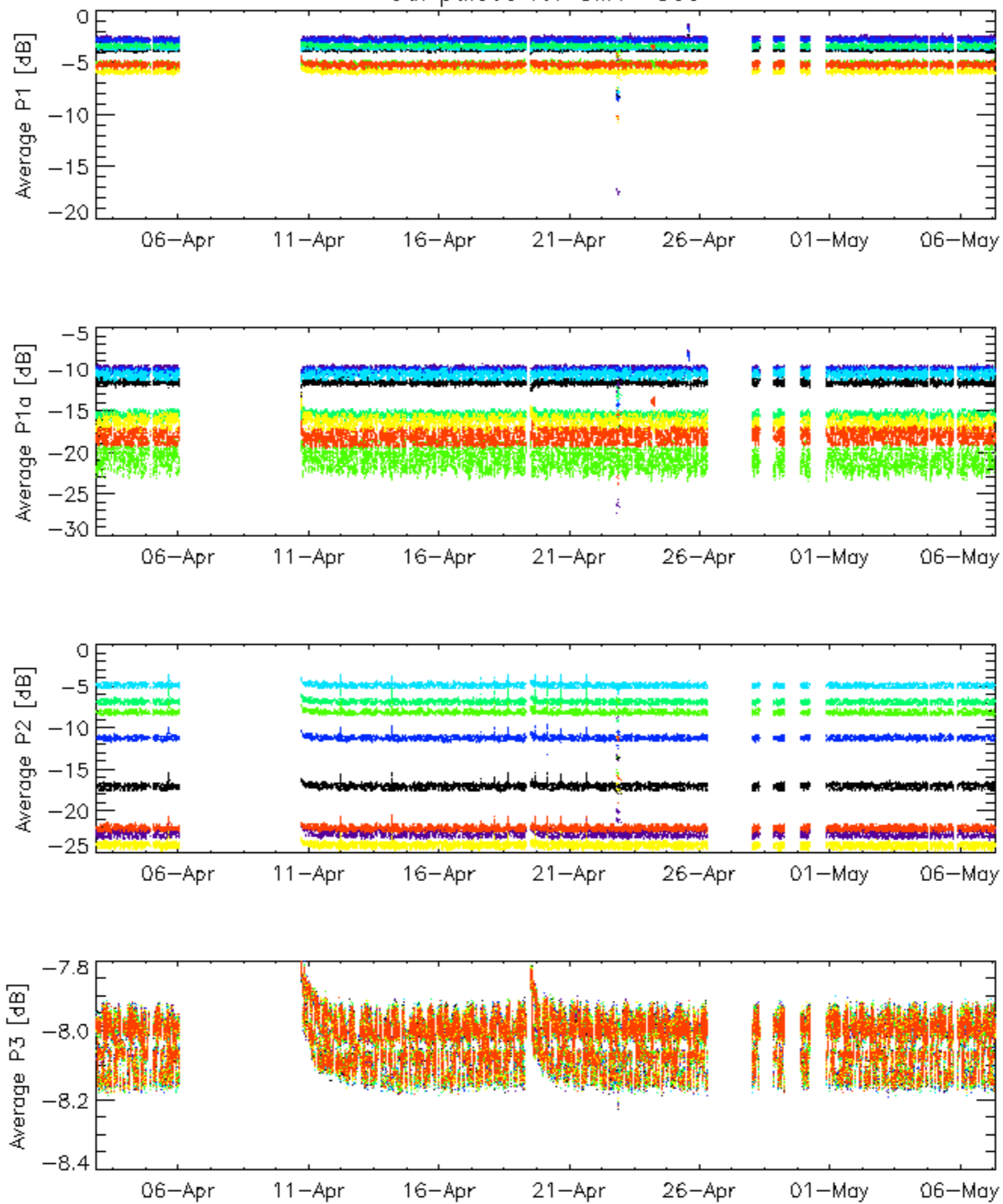


Cal pulses for WVS IS2



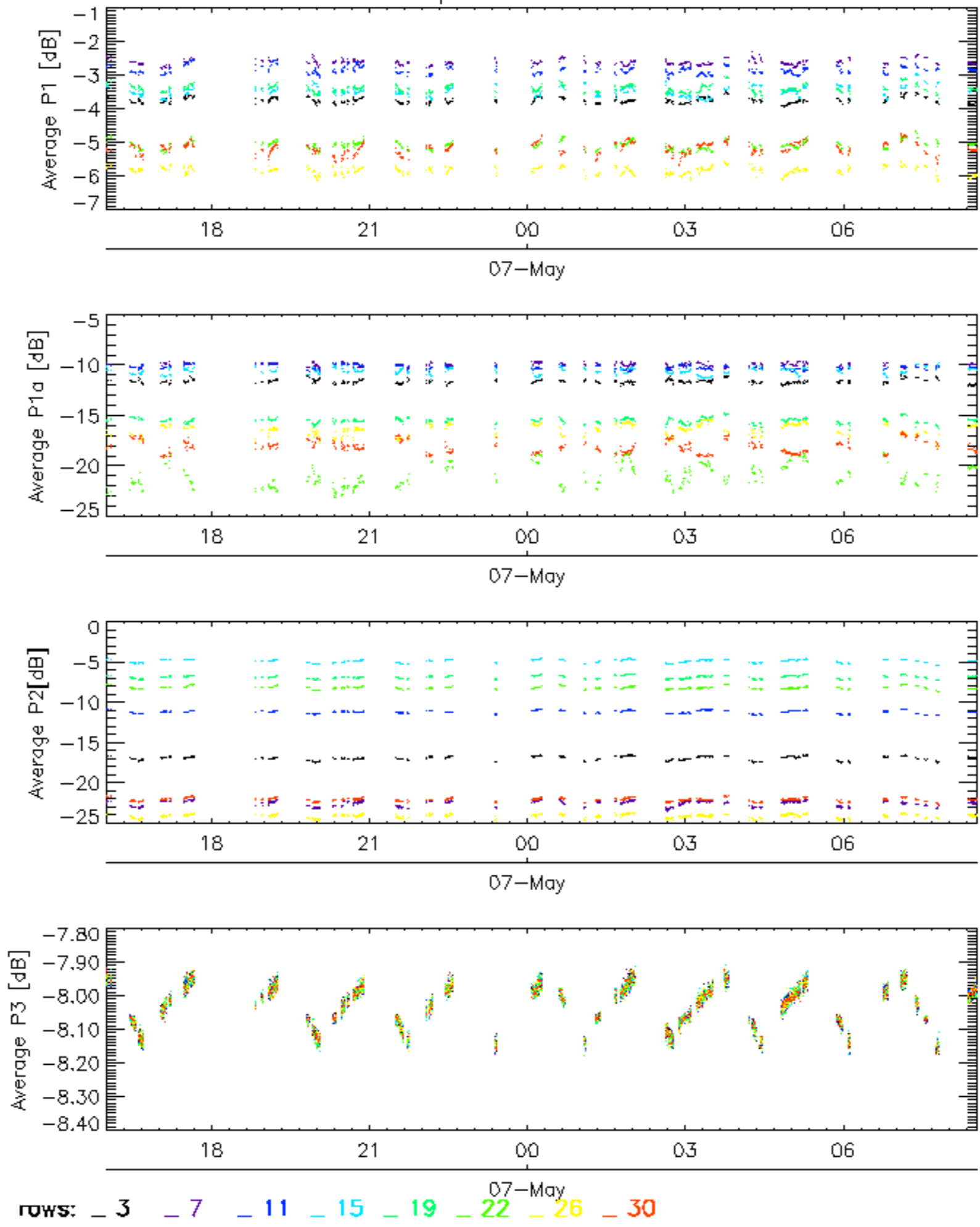
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

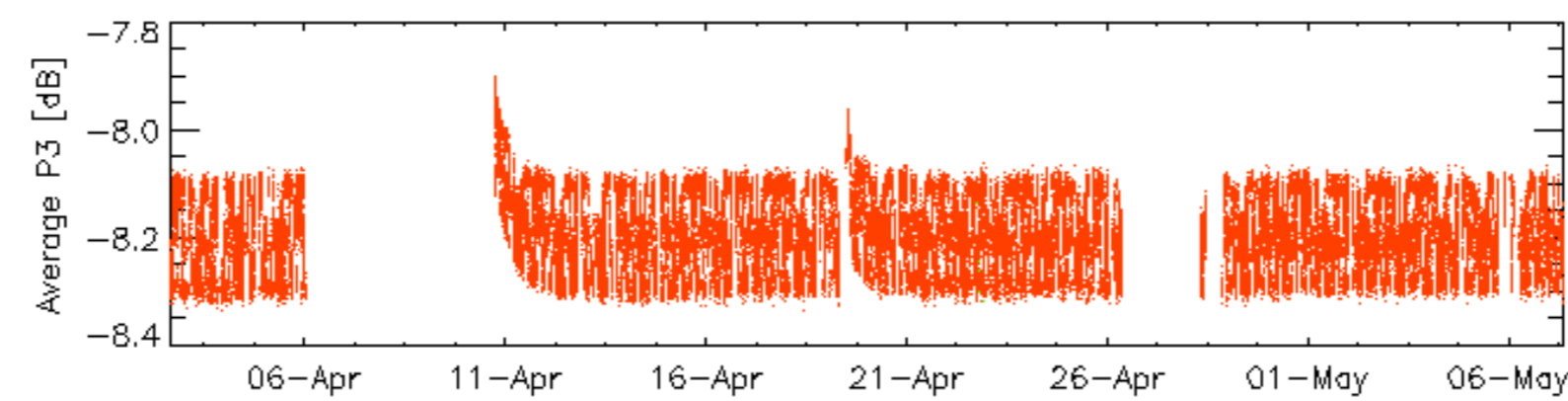
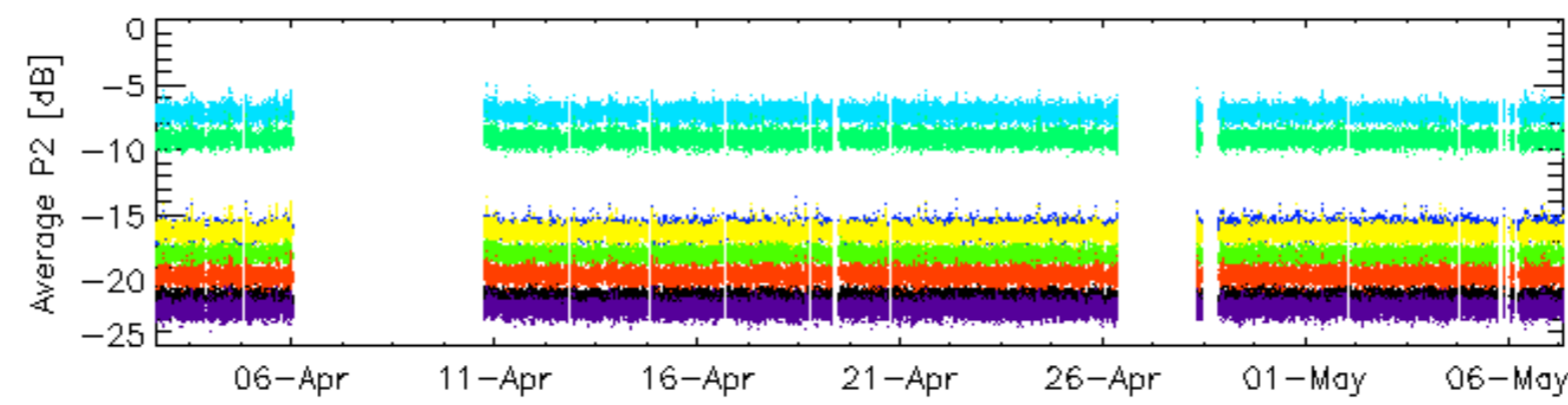
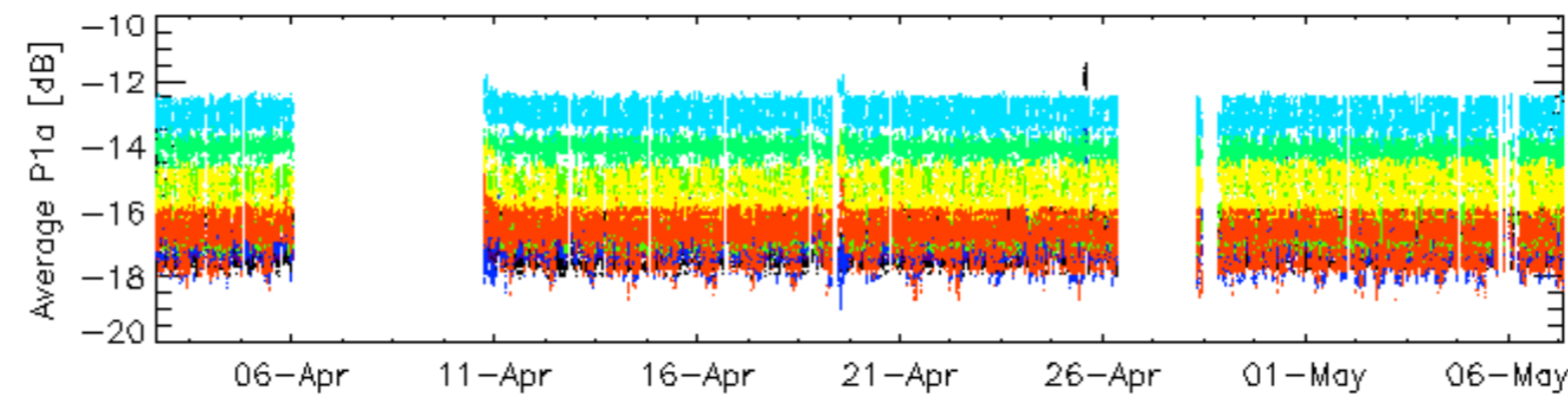
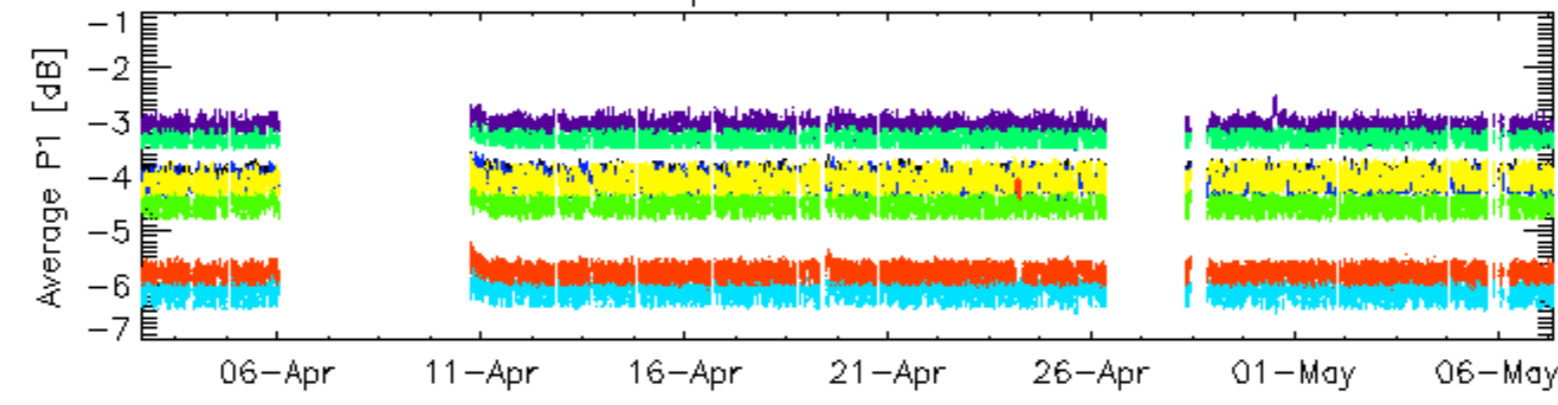


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

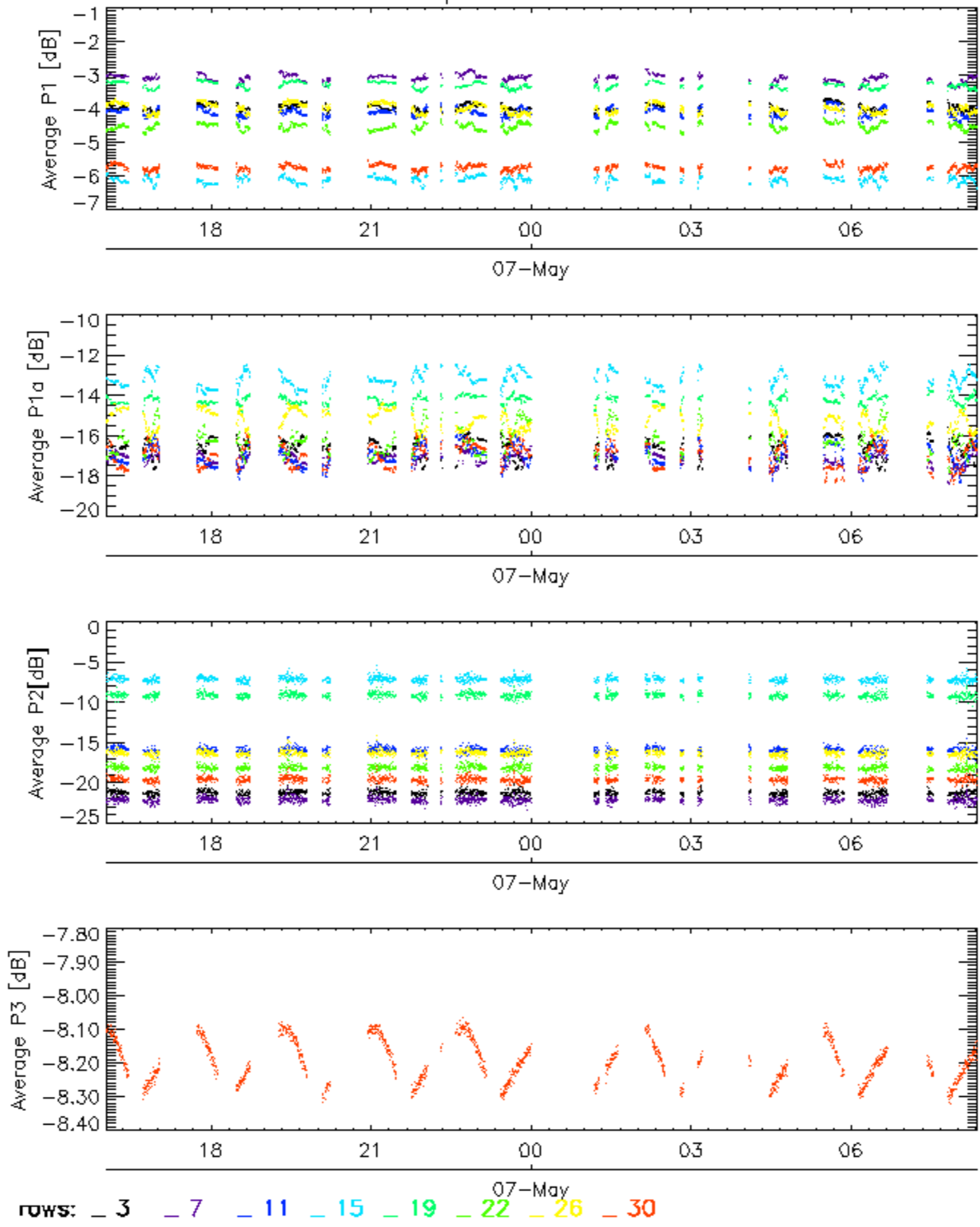


Cal pulses for WVS IS2

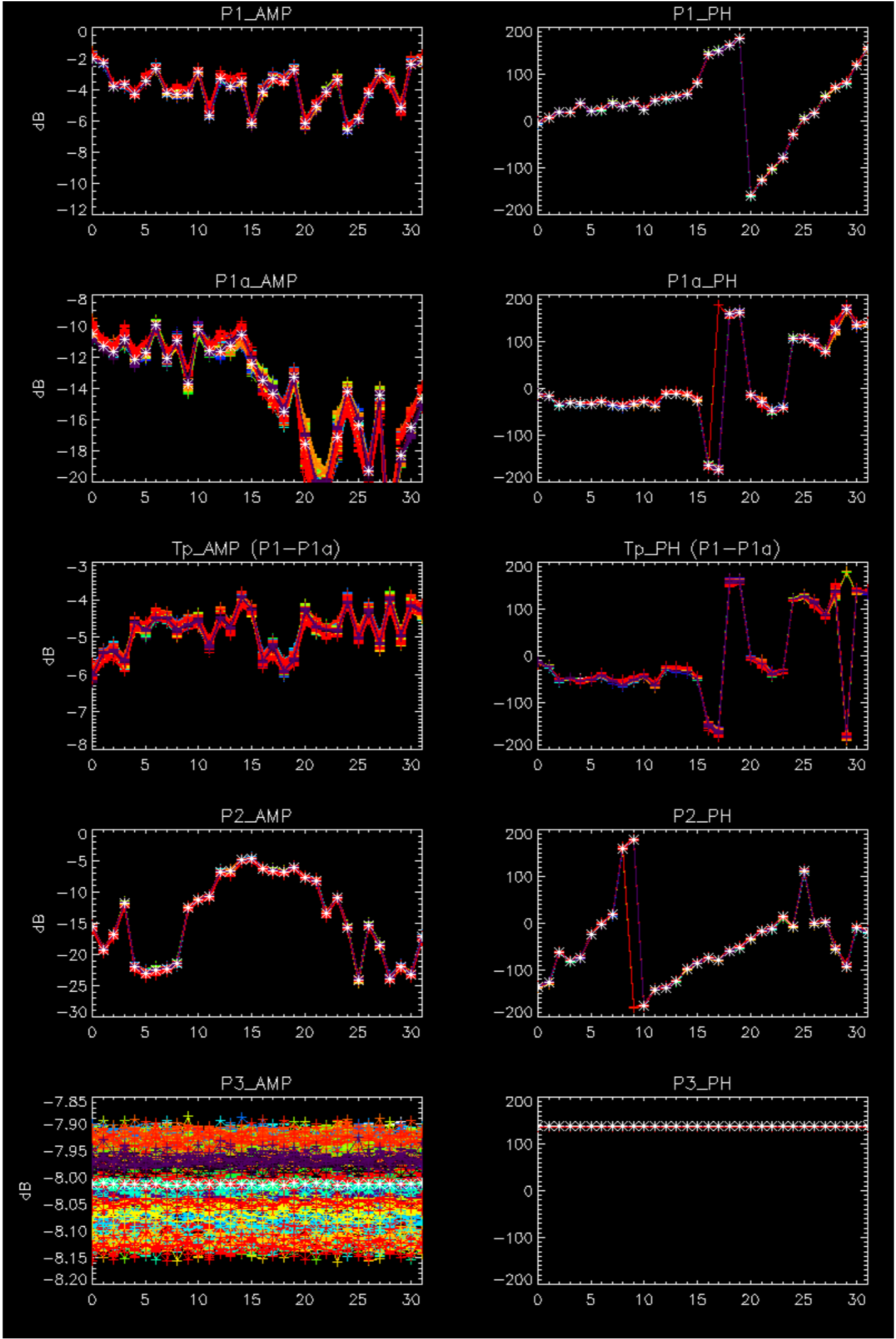


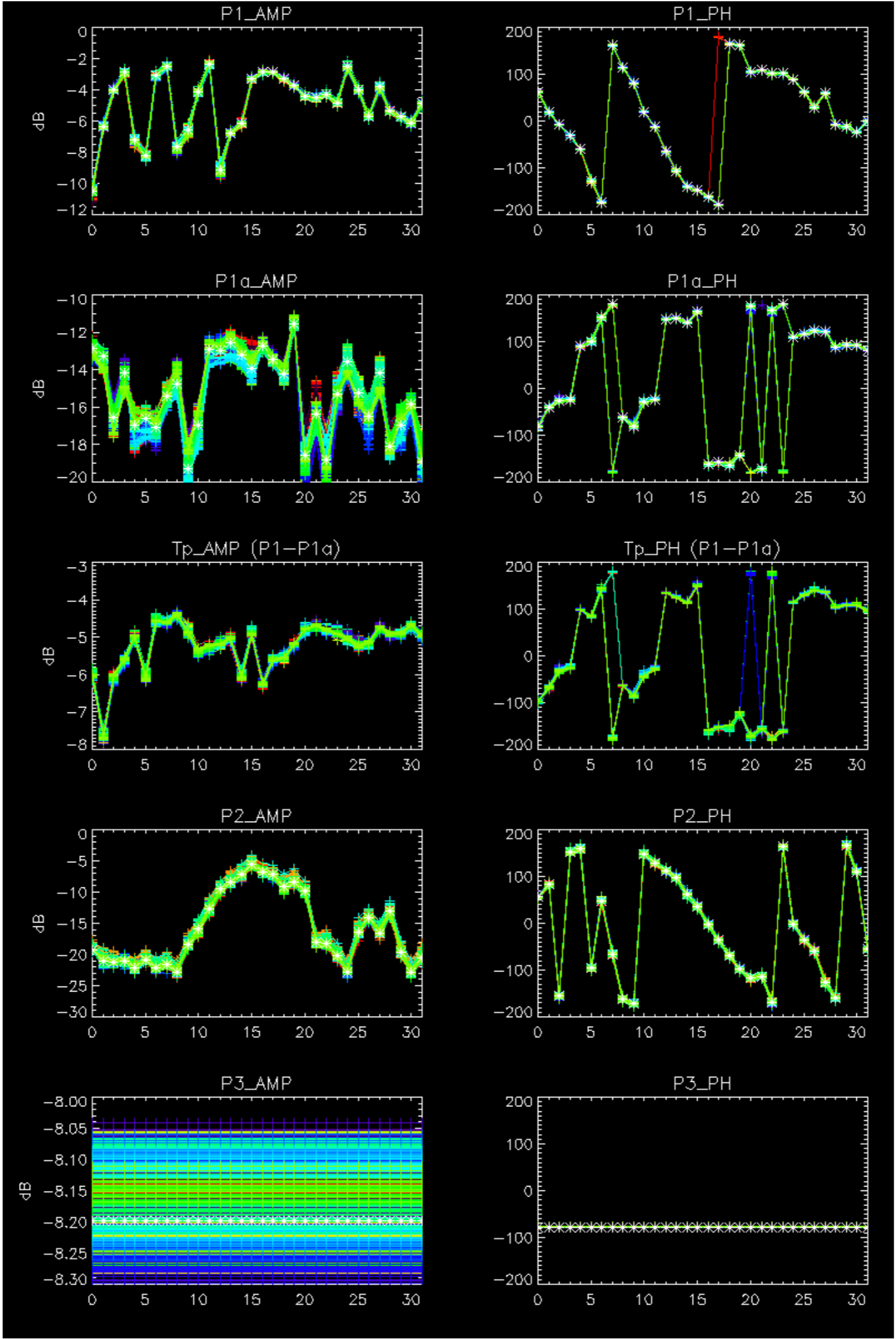
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



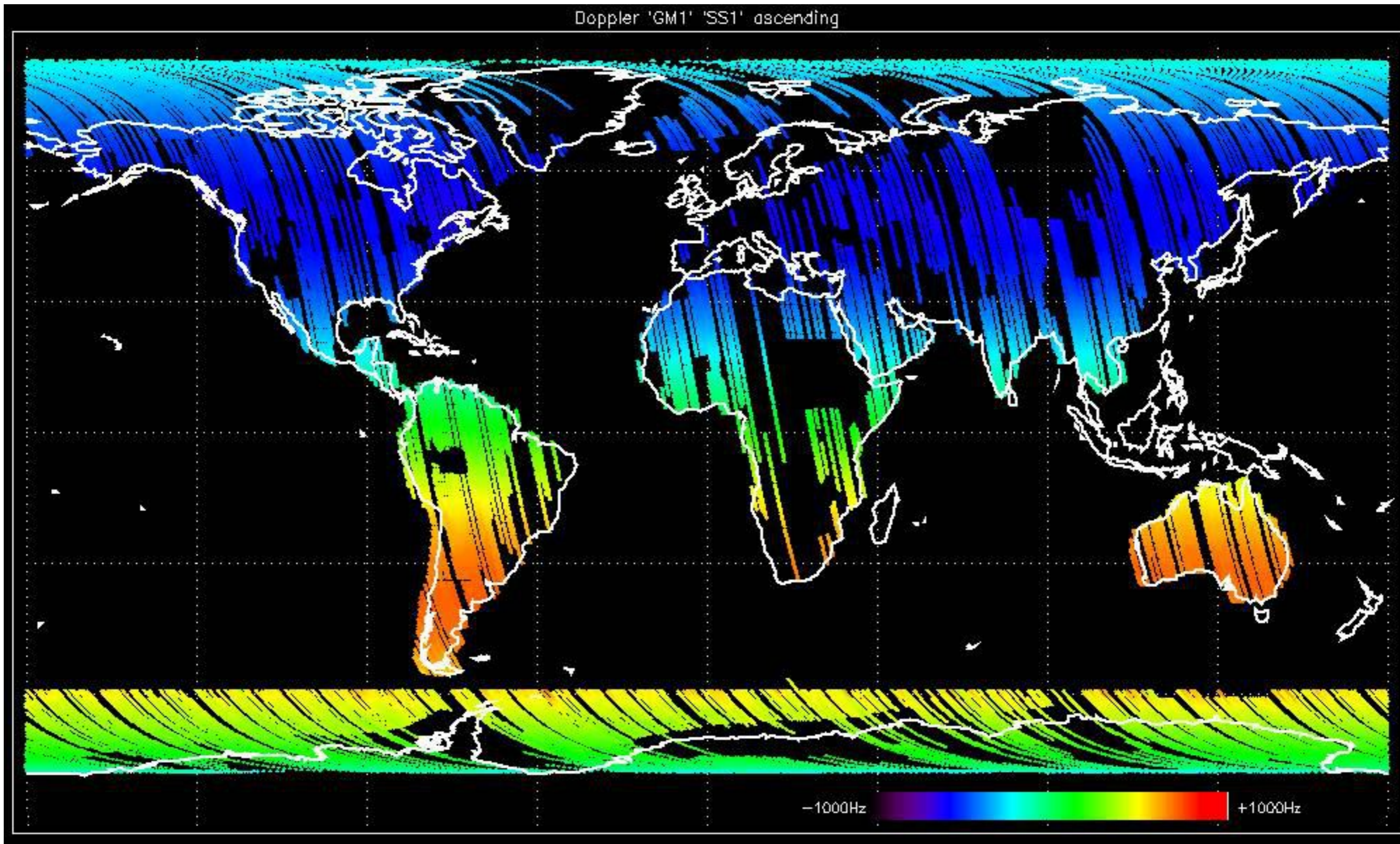
No anomalies observed.



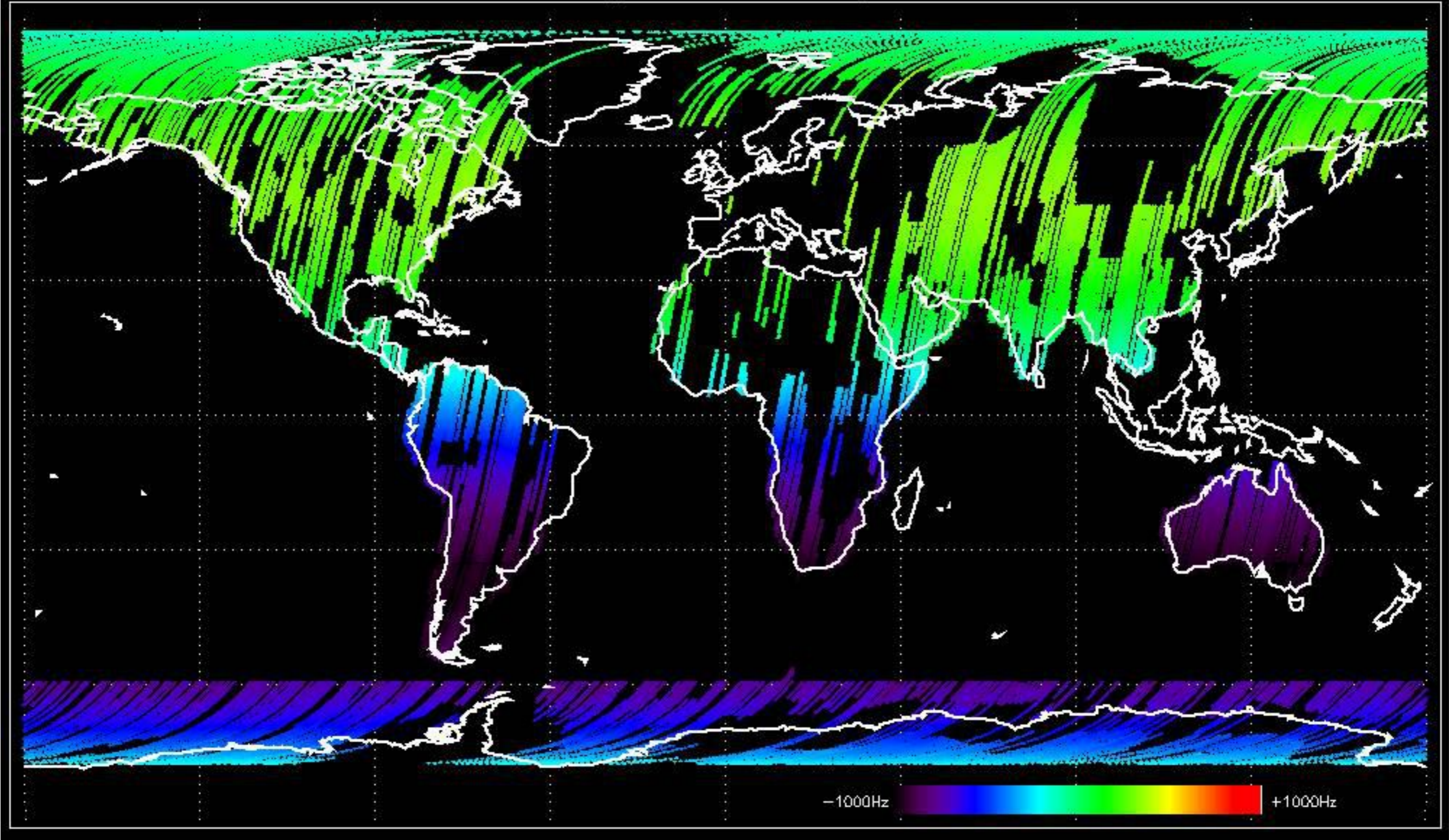


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

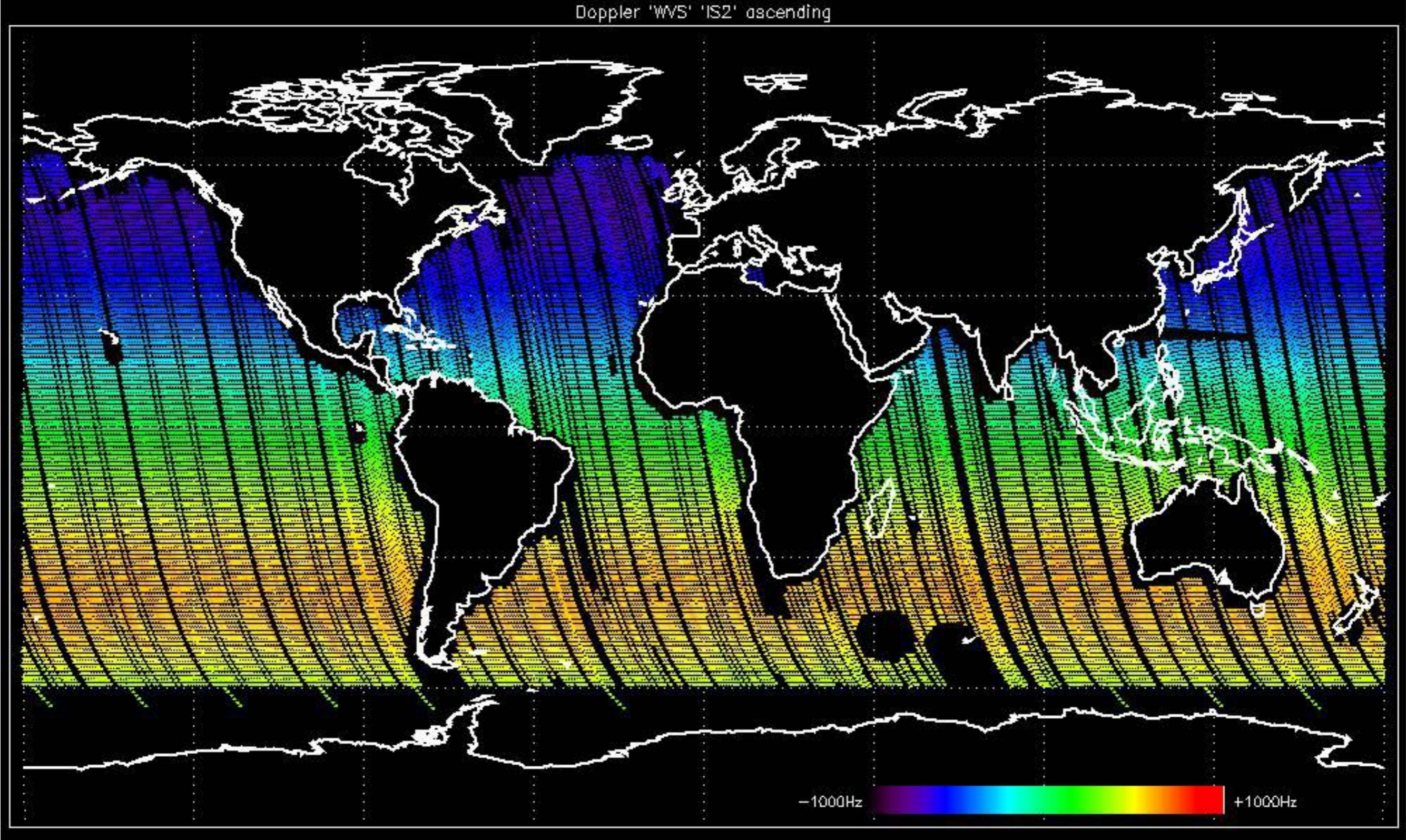
Doppler 'GM1' 'SS1' ascending



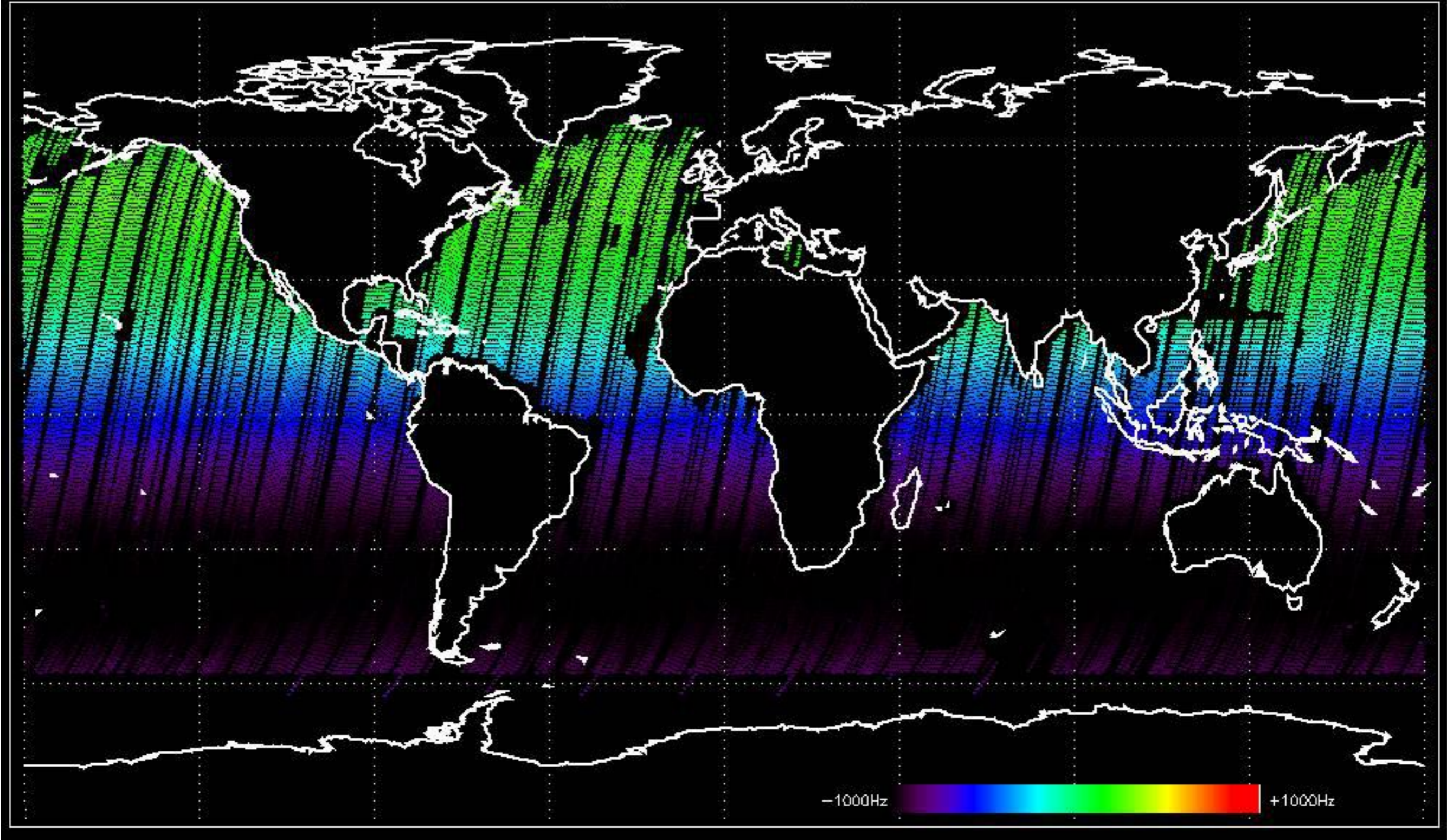
Doppler 'GM1' 'SS1' descending



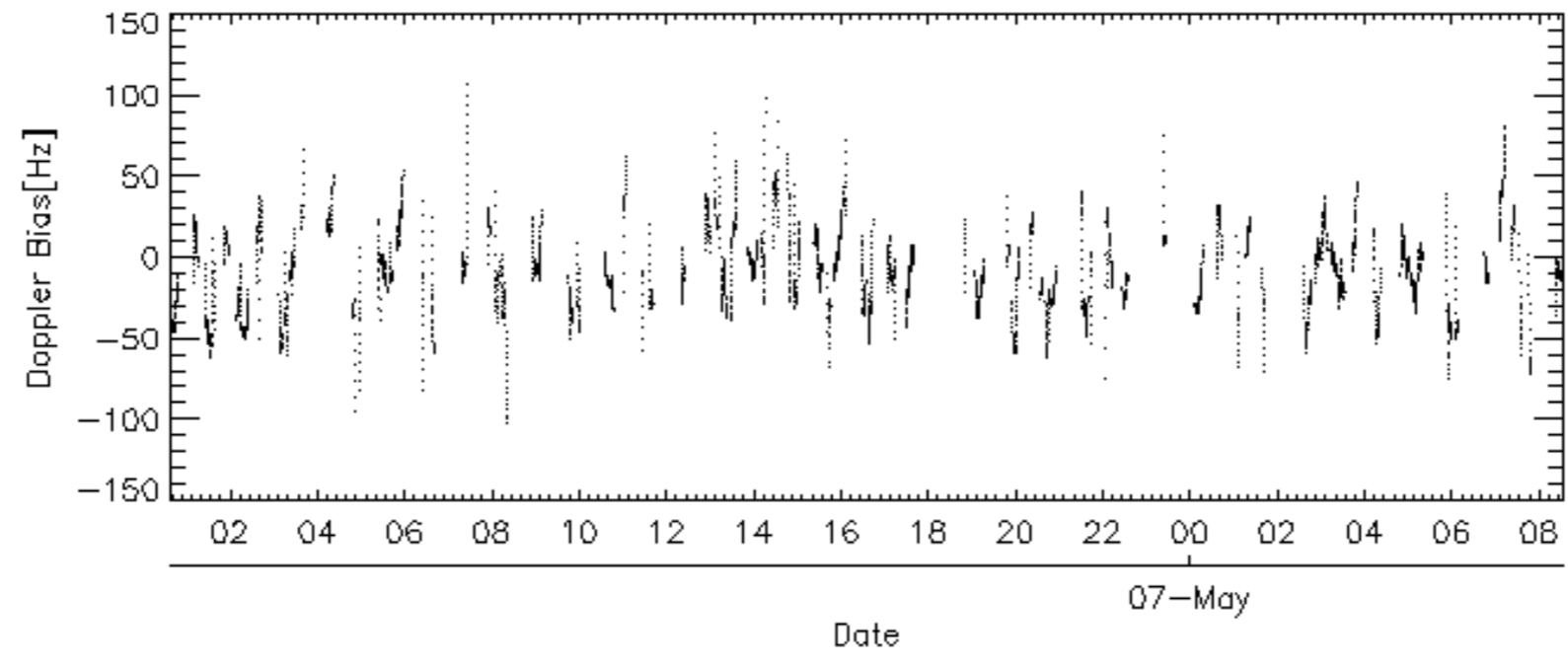
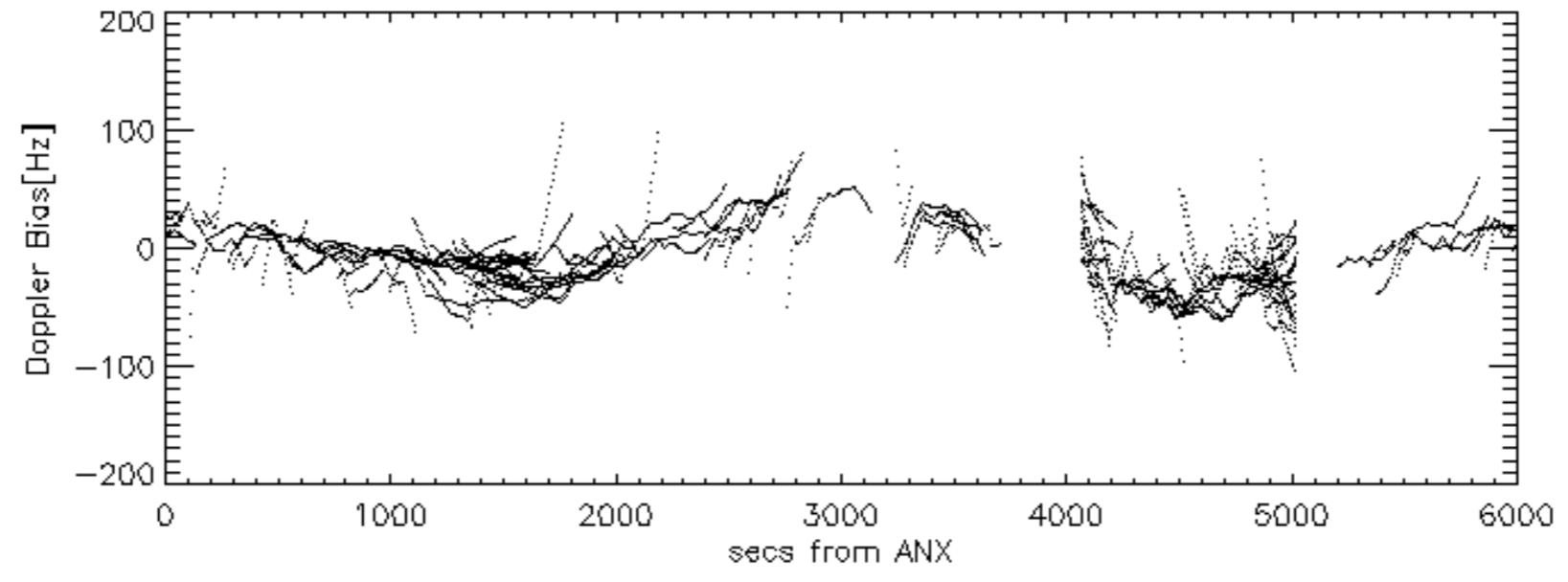
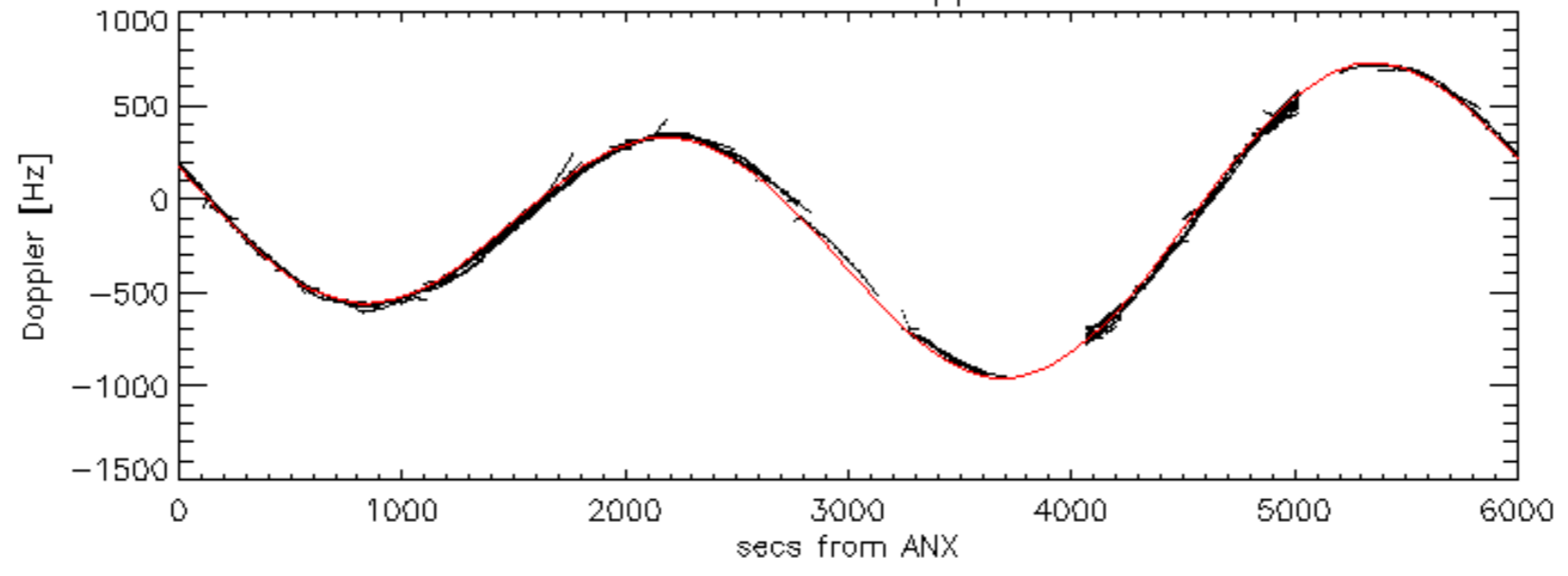
Doppler 'WVS' 'IS2' ascending

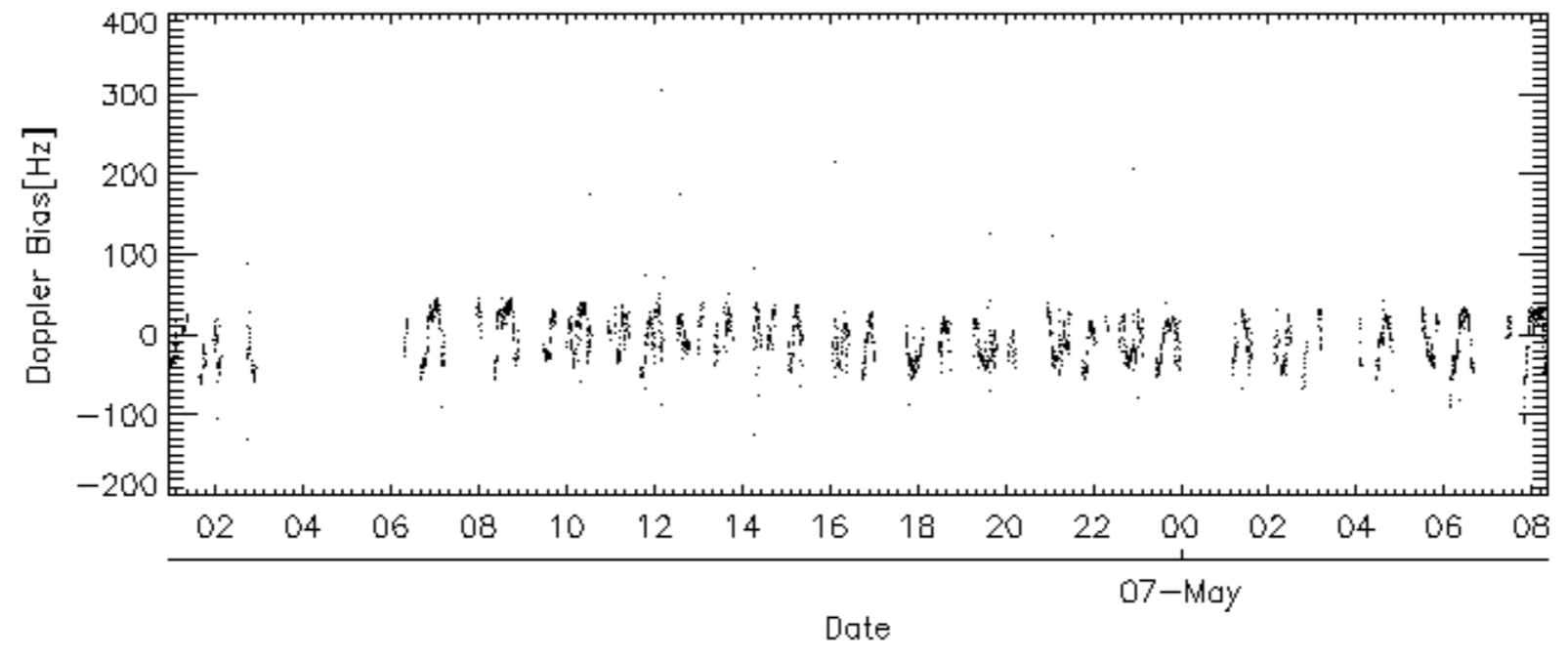
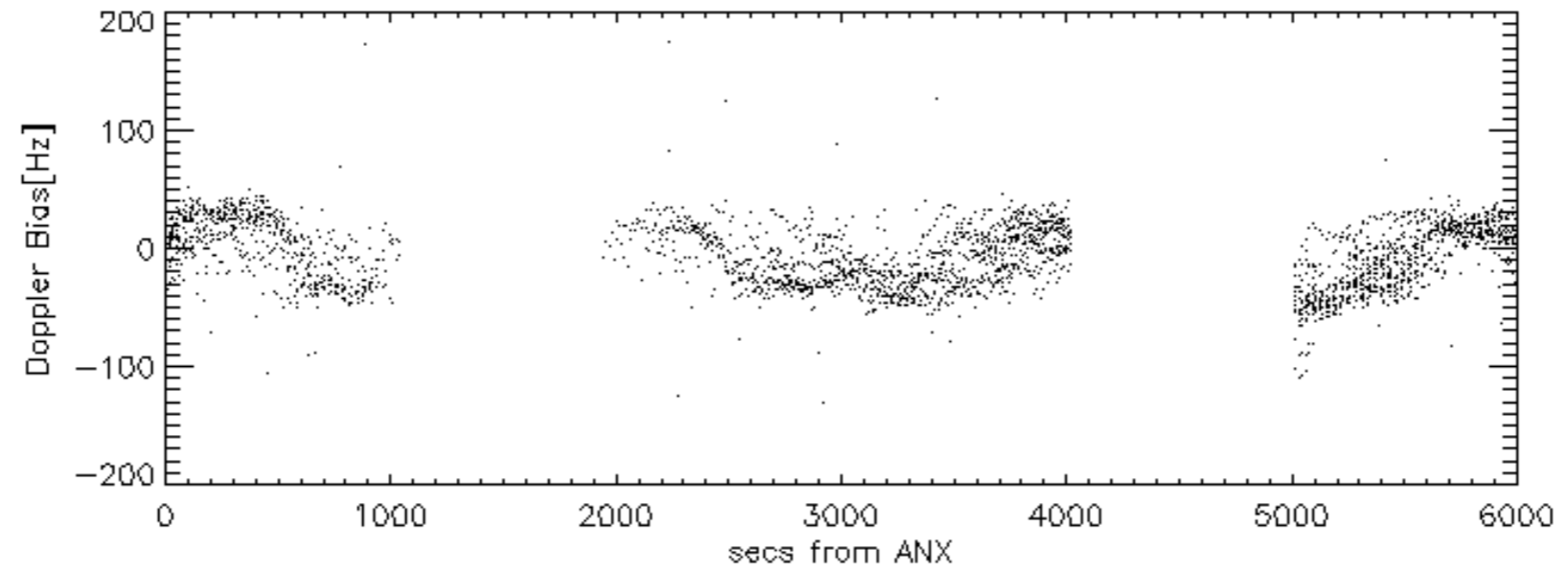
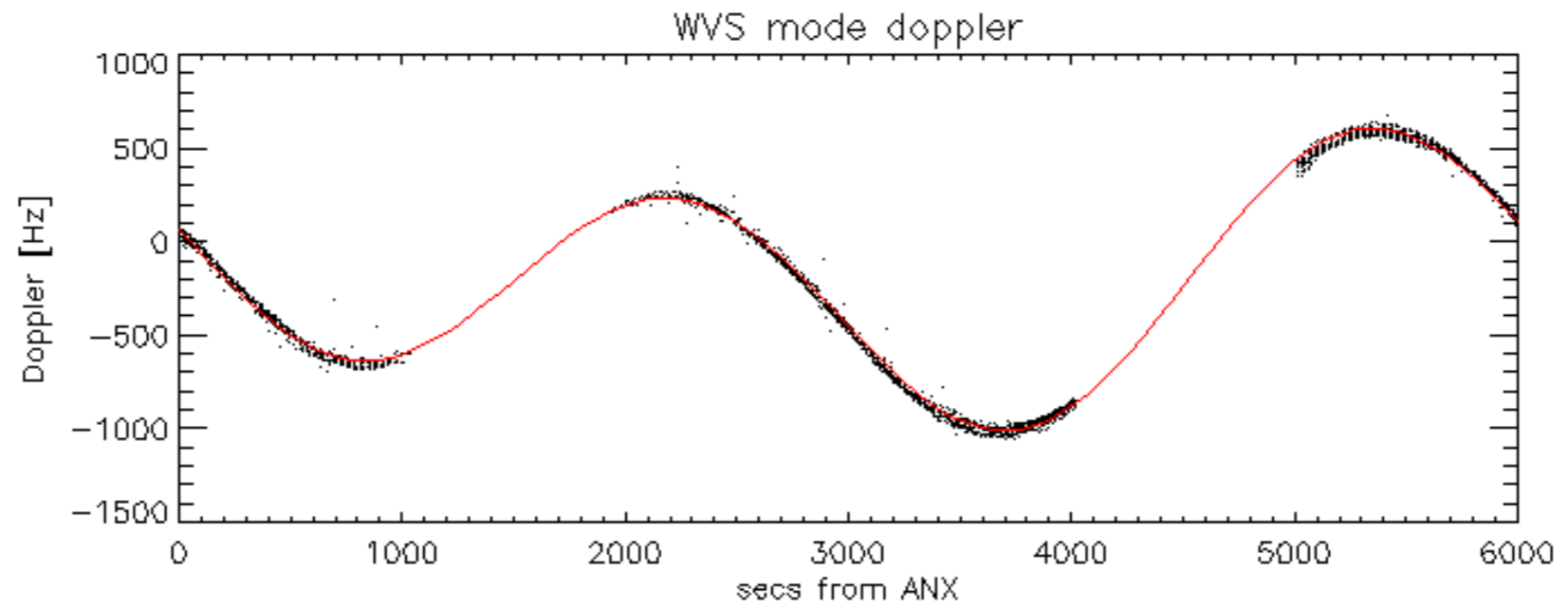


Doppler 'WVS' 'IS2' descending

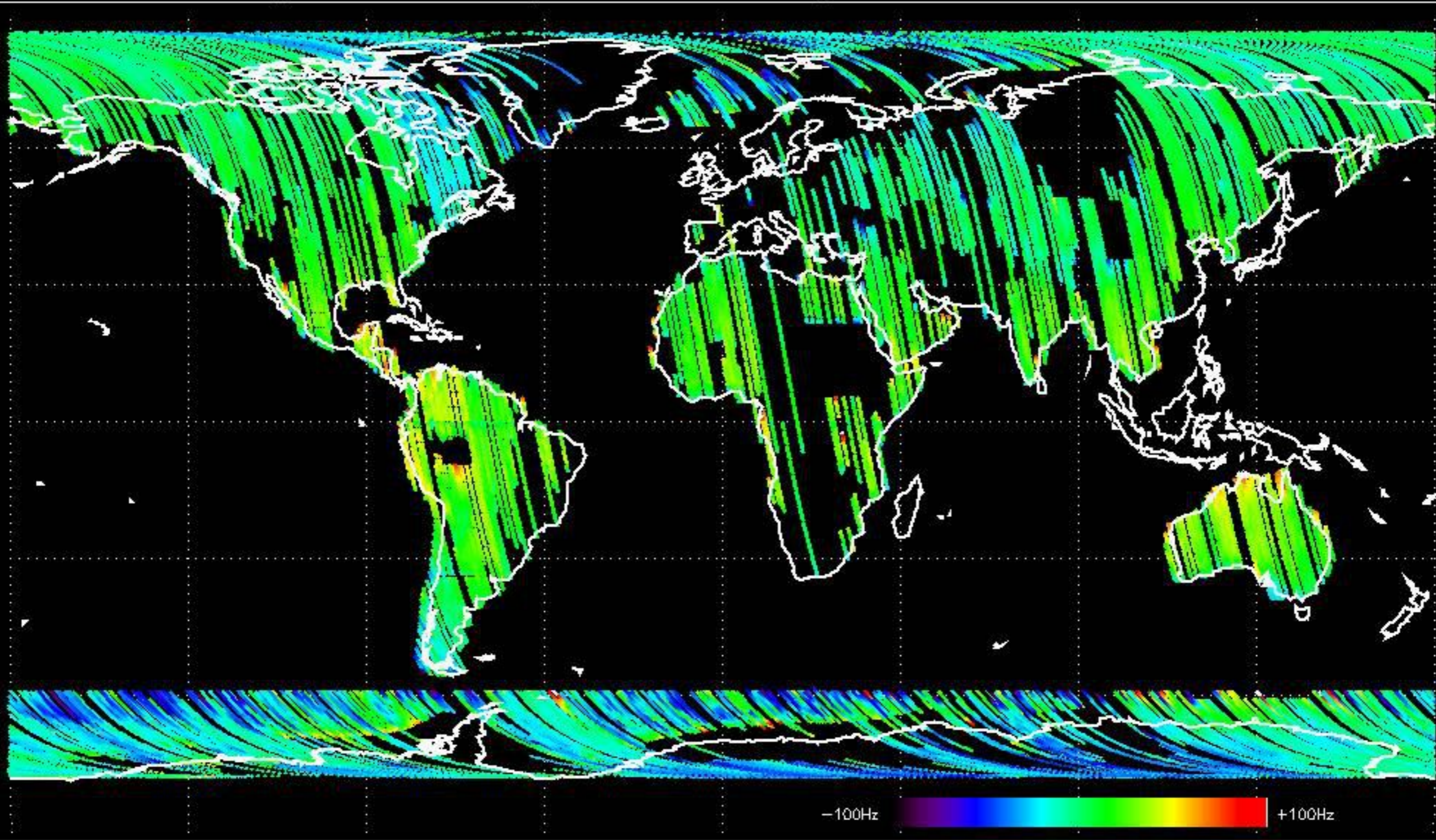


GM1 mode doppler

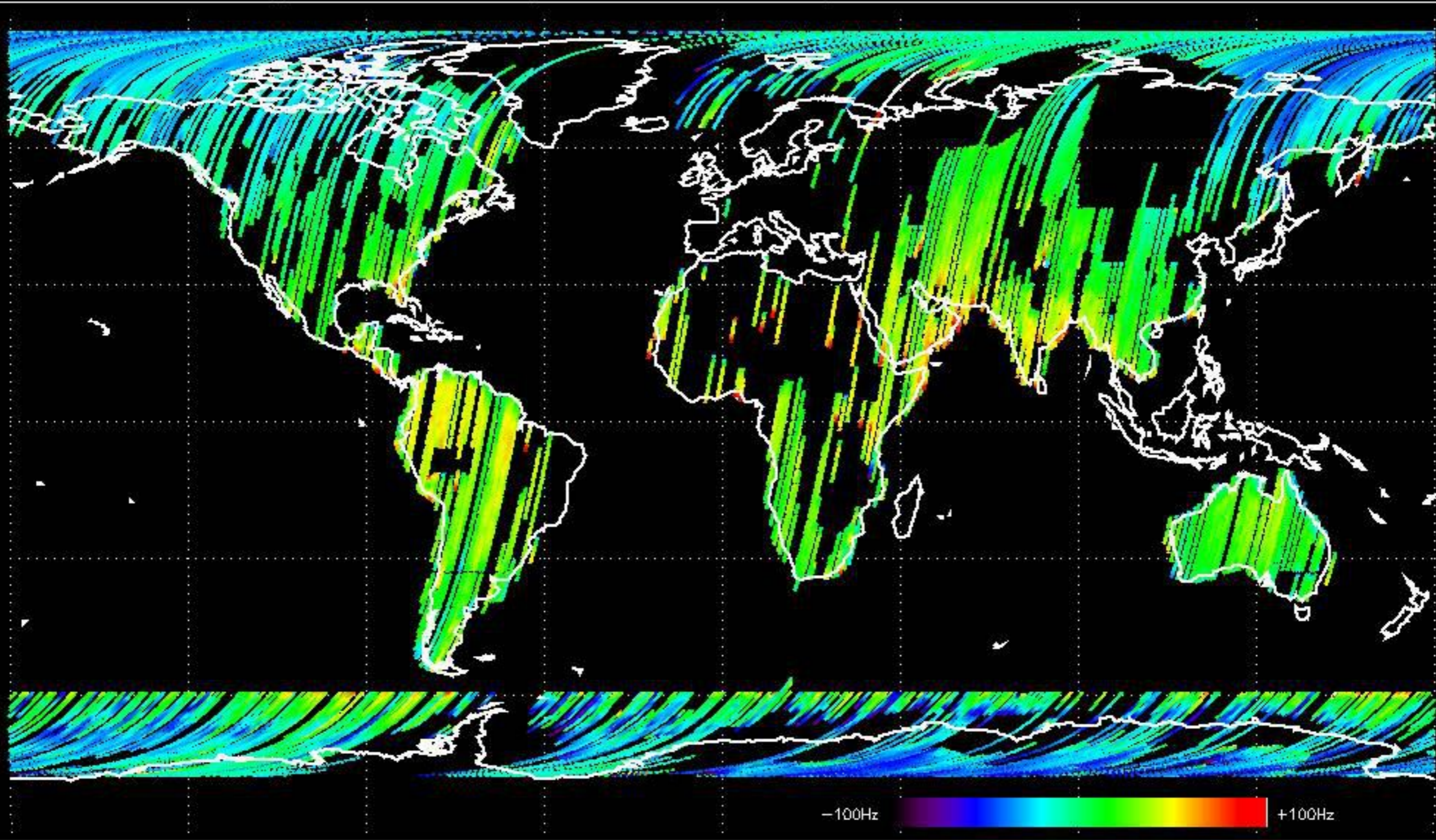




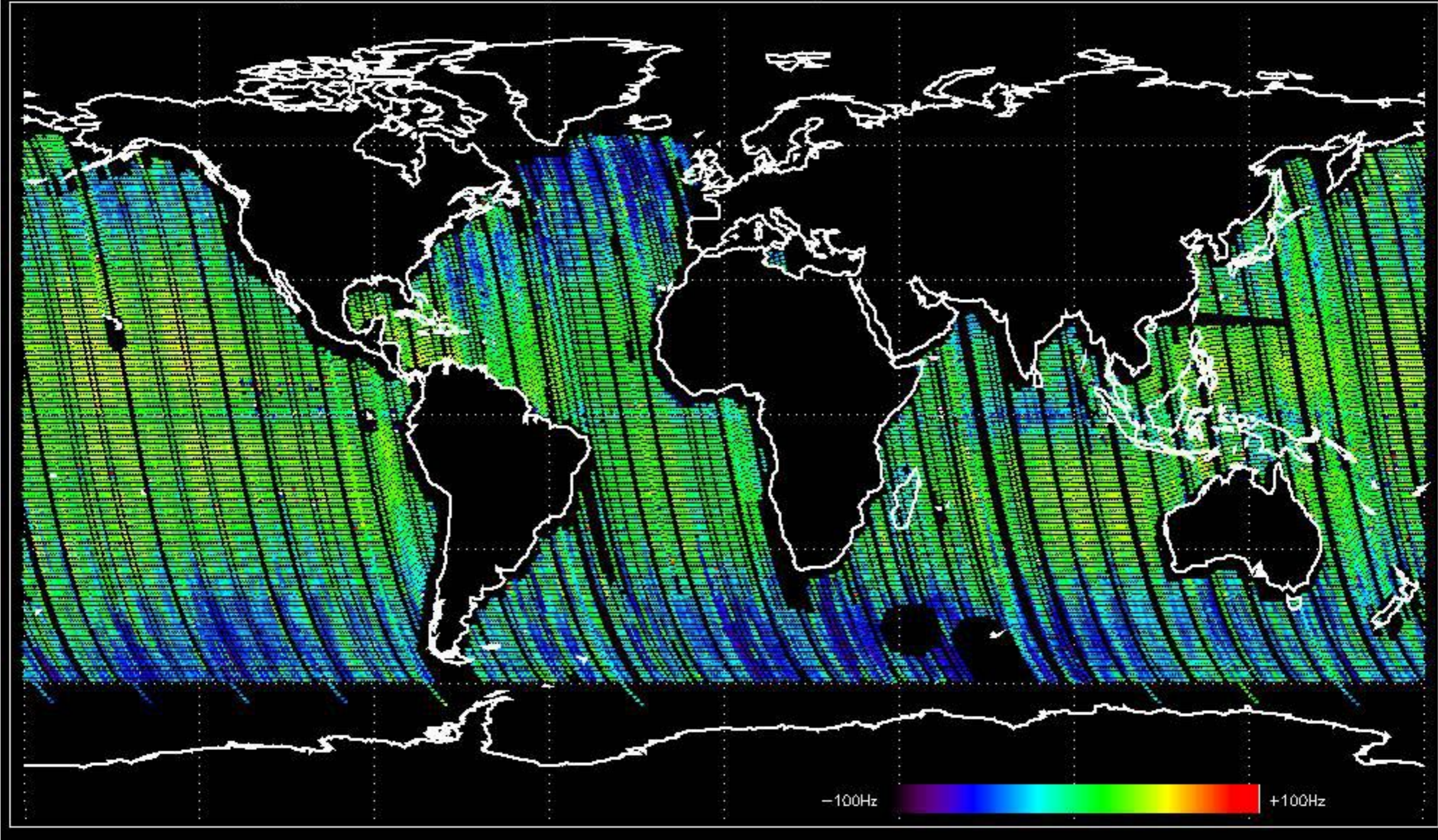
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -12.158827 Hz



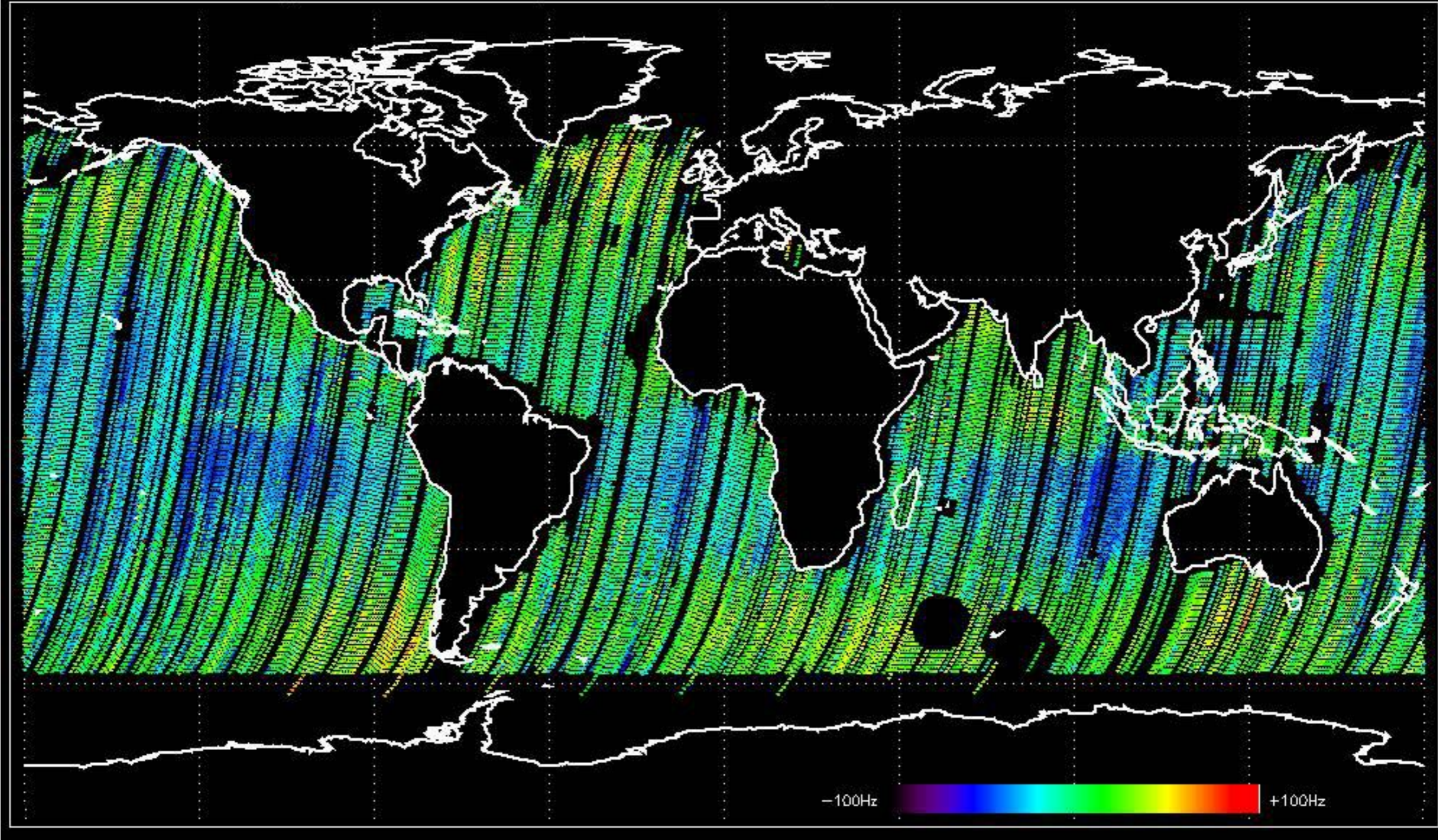
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.3386192 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.5848654 Hz

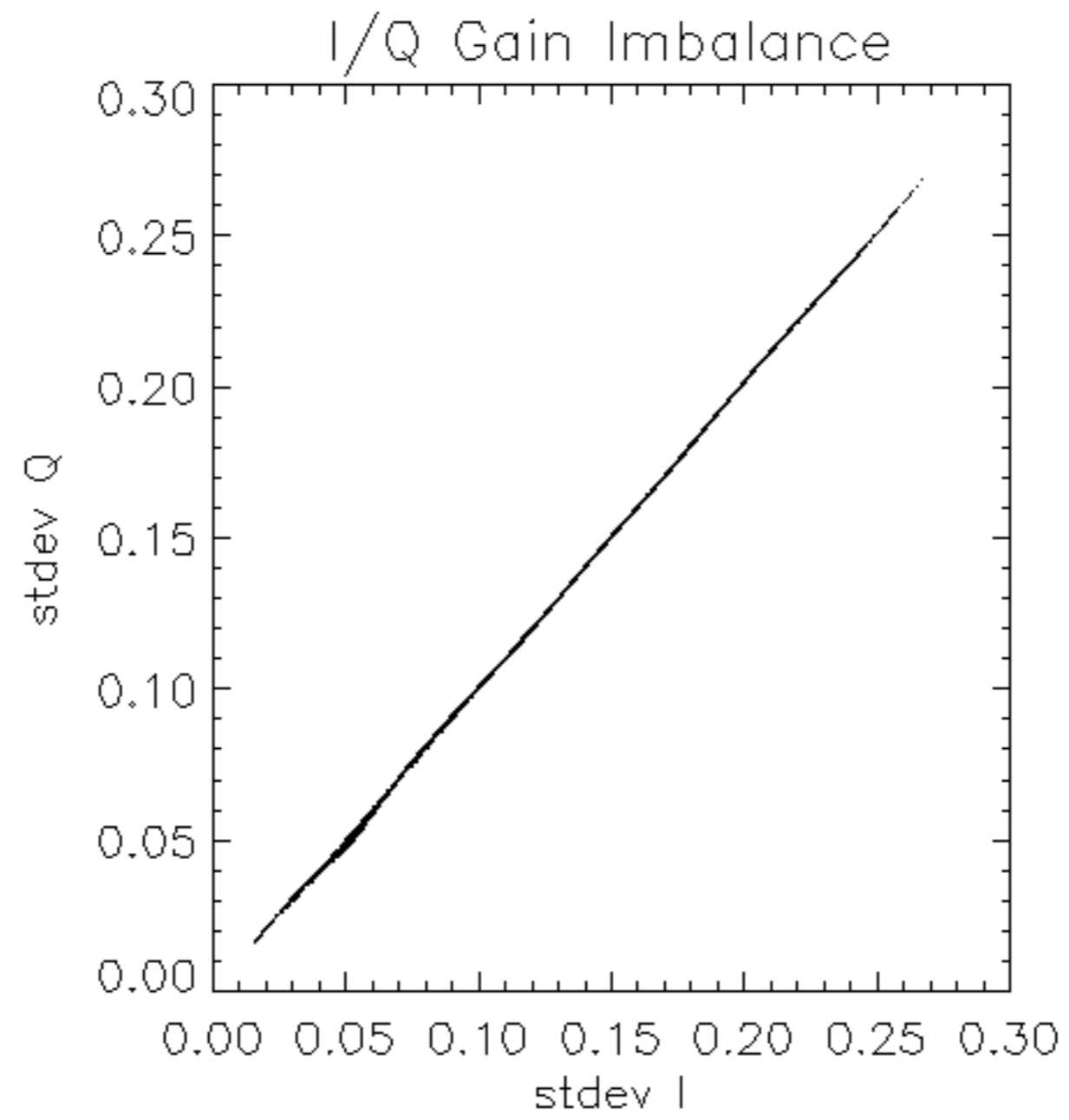


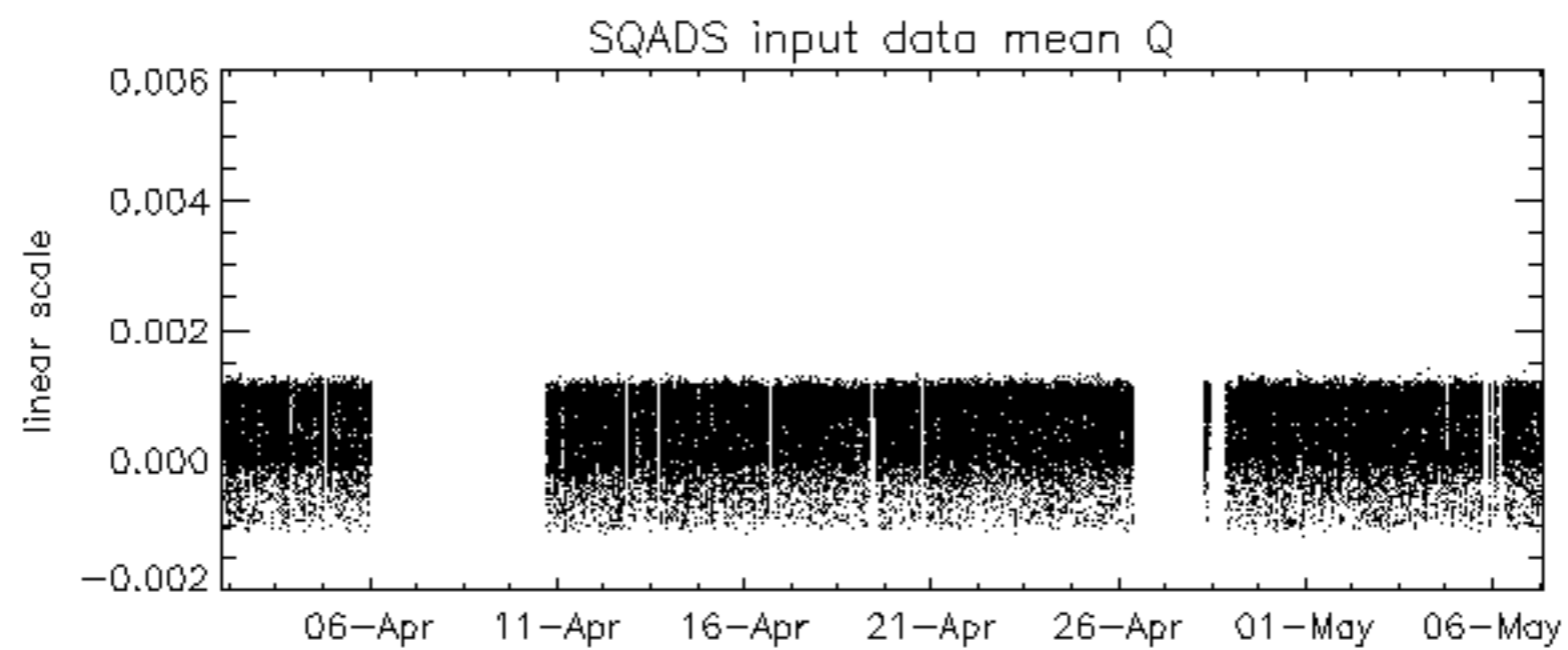
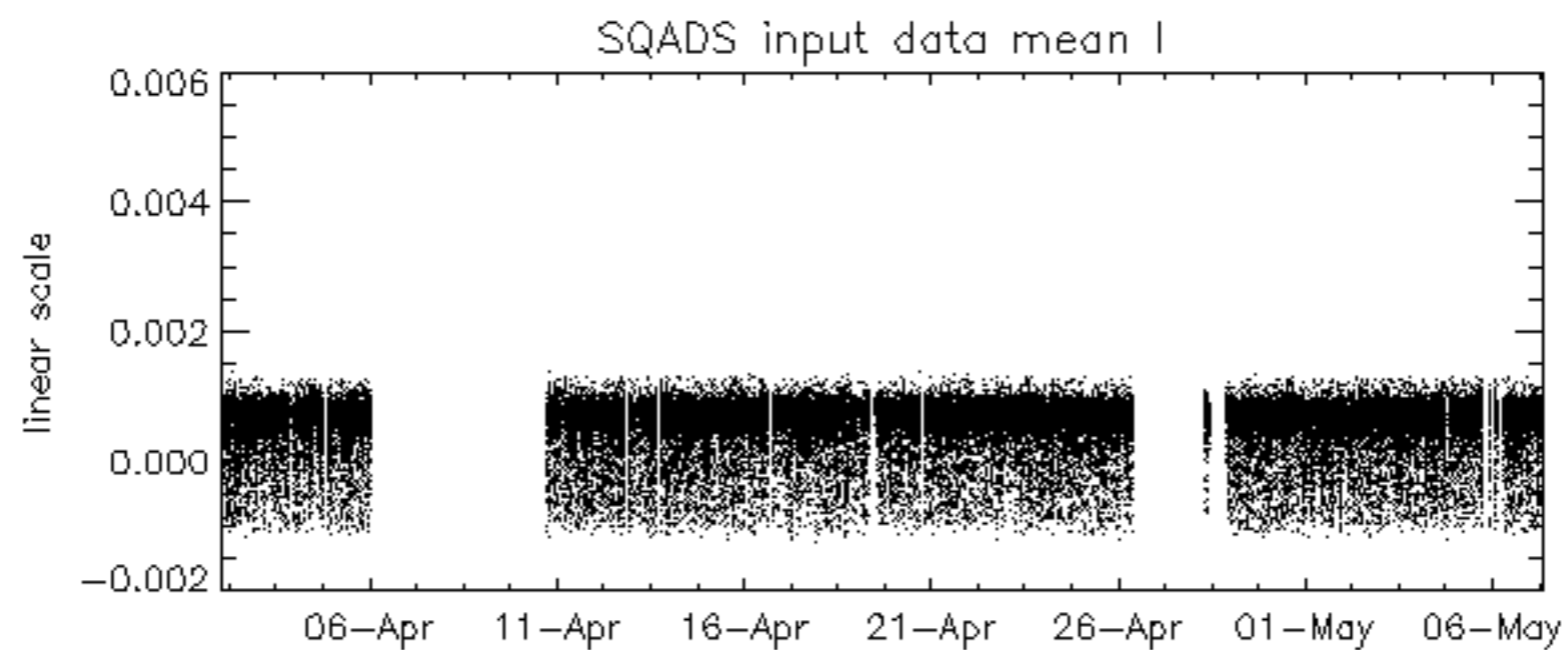
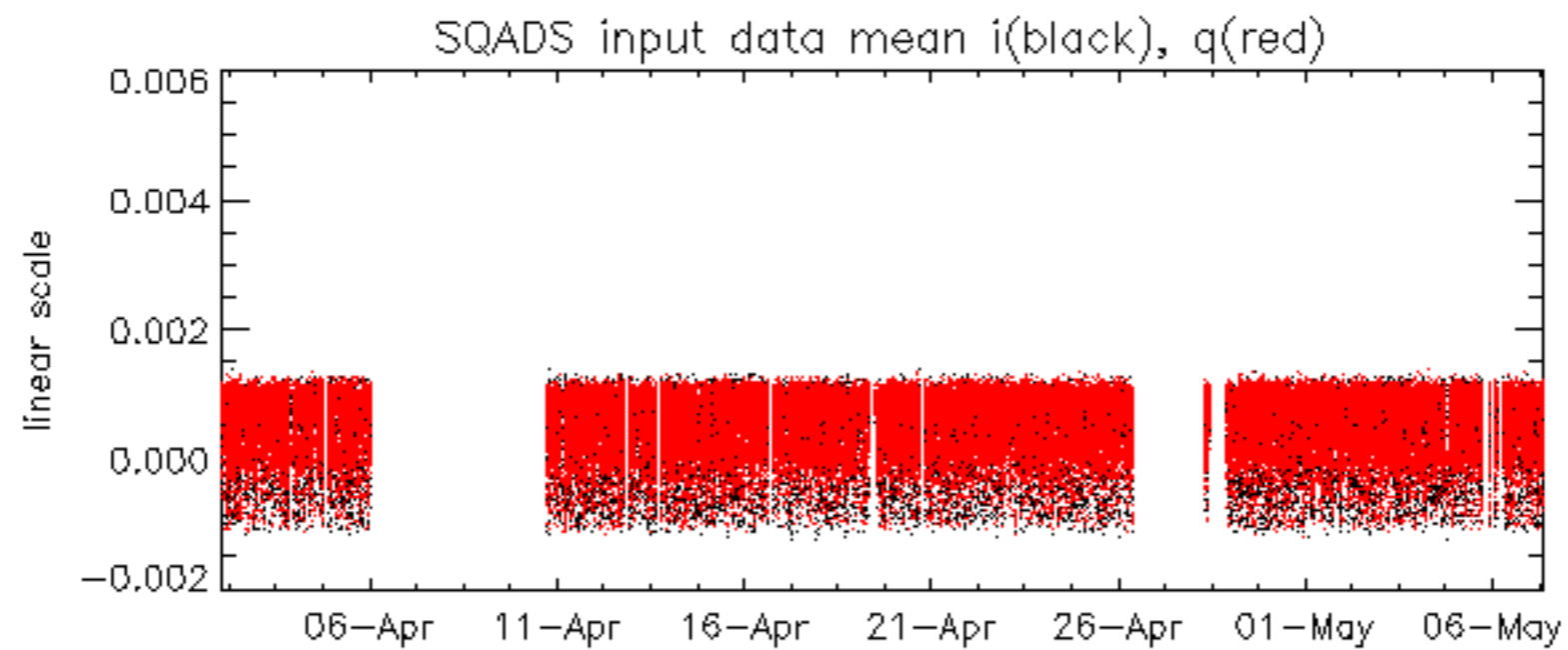
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.209067 Hz

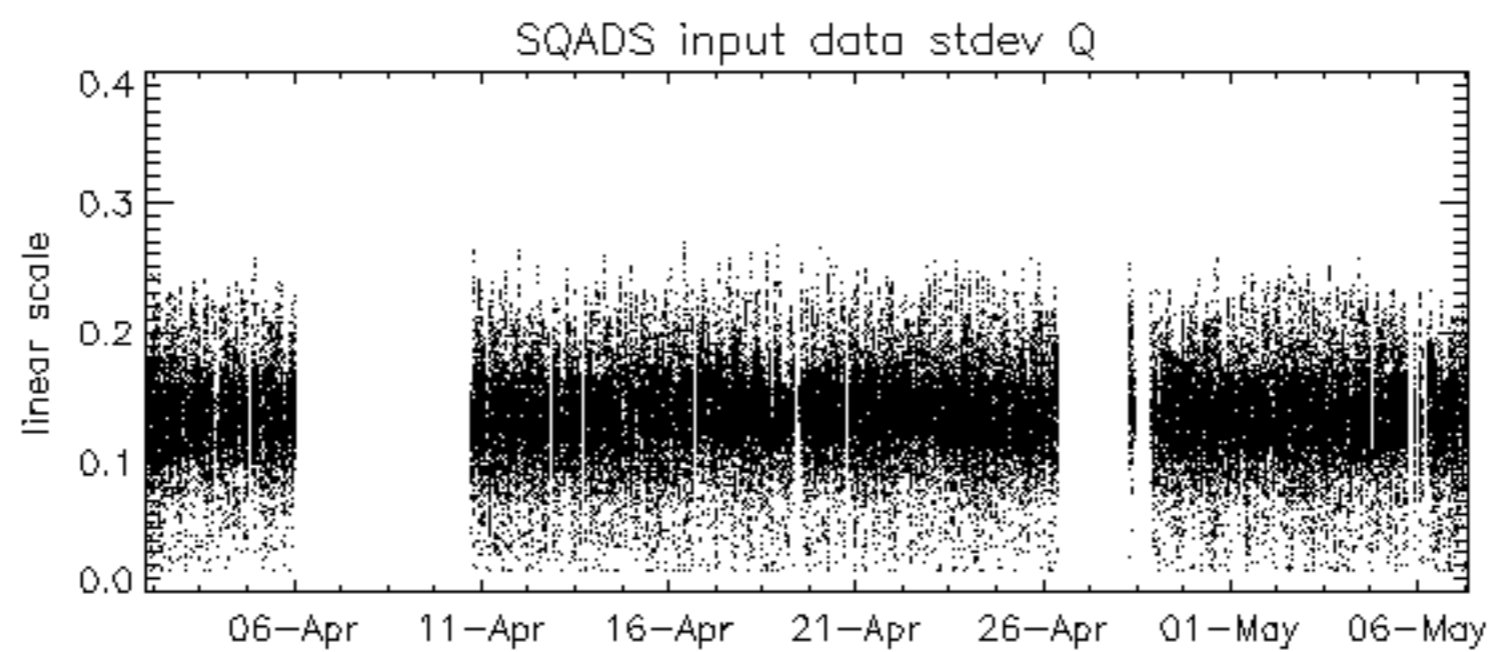
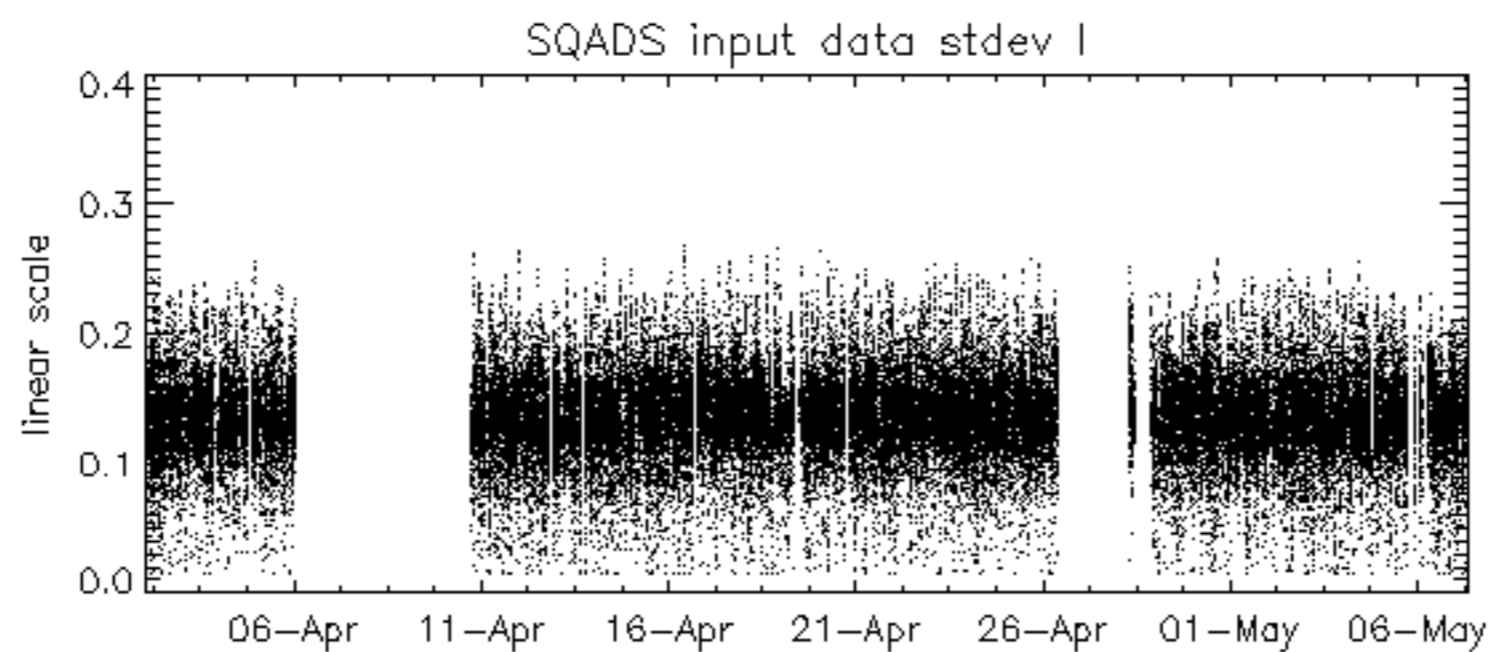
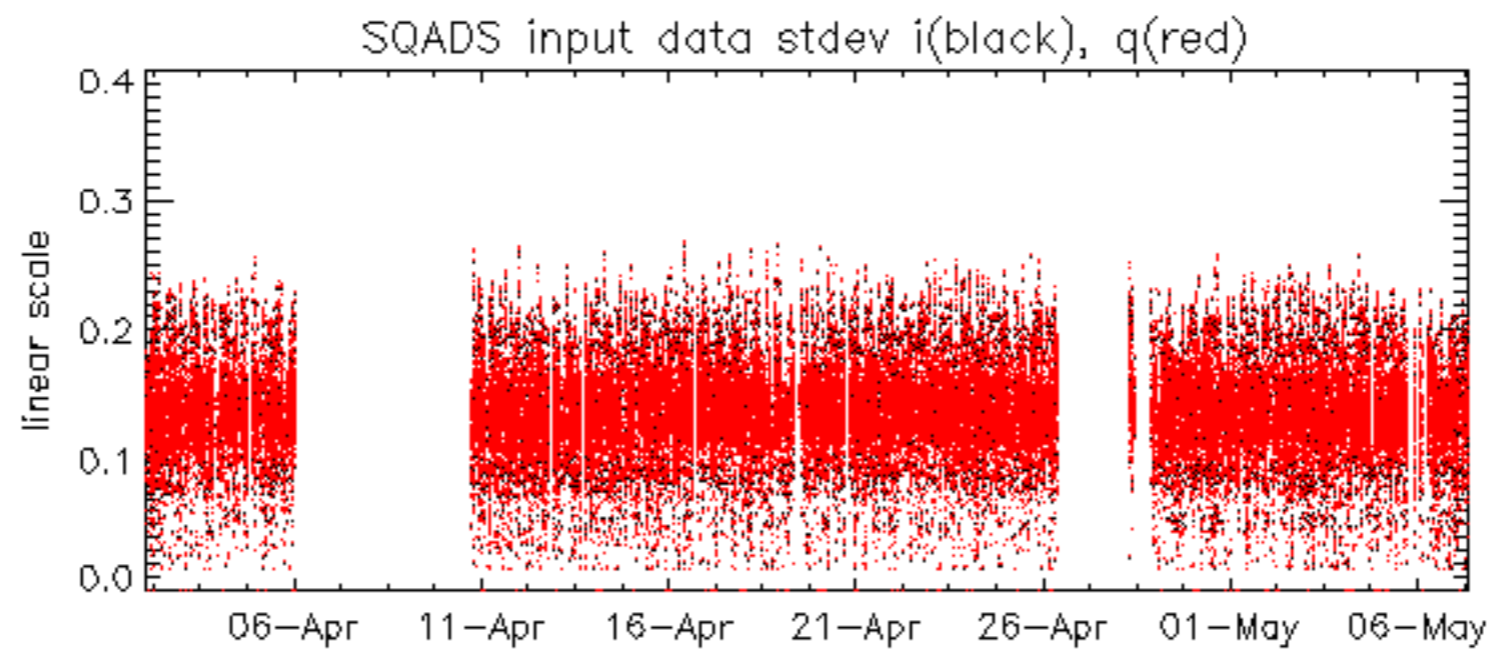


No anomalies observed on available MS products:

No anomalies observed.



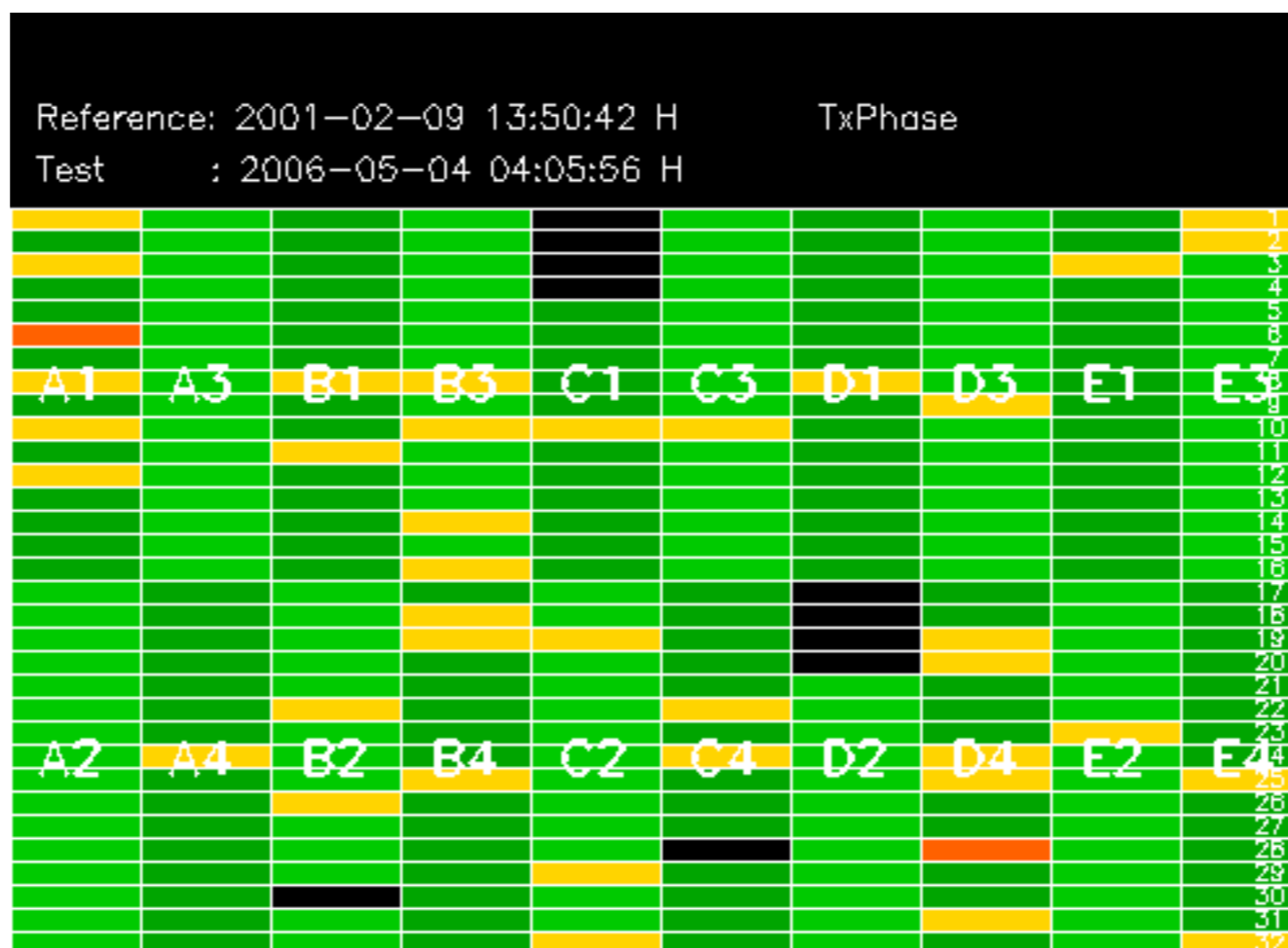




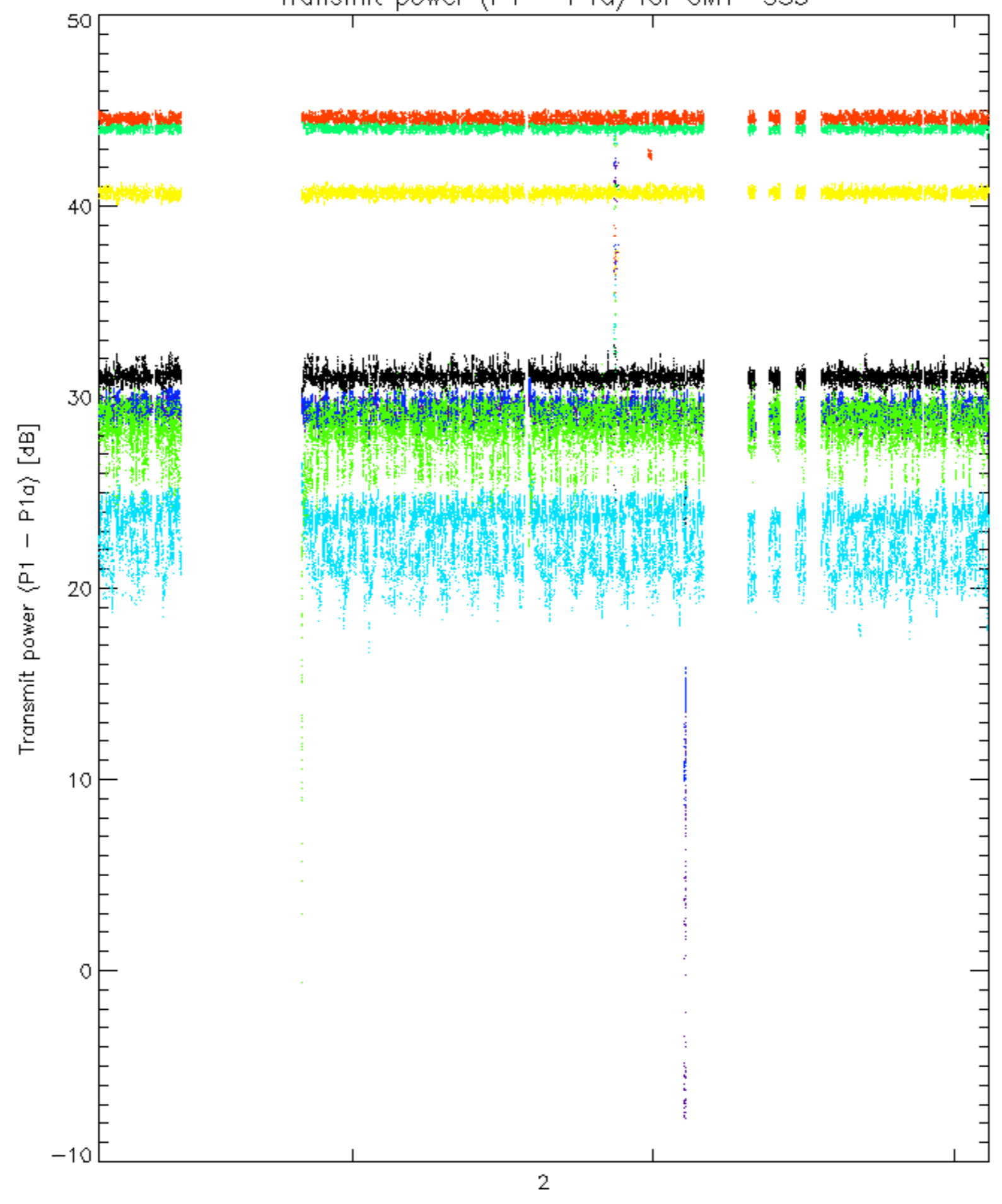
Summary of analysis for the last 3 days 2006050[567]

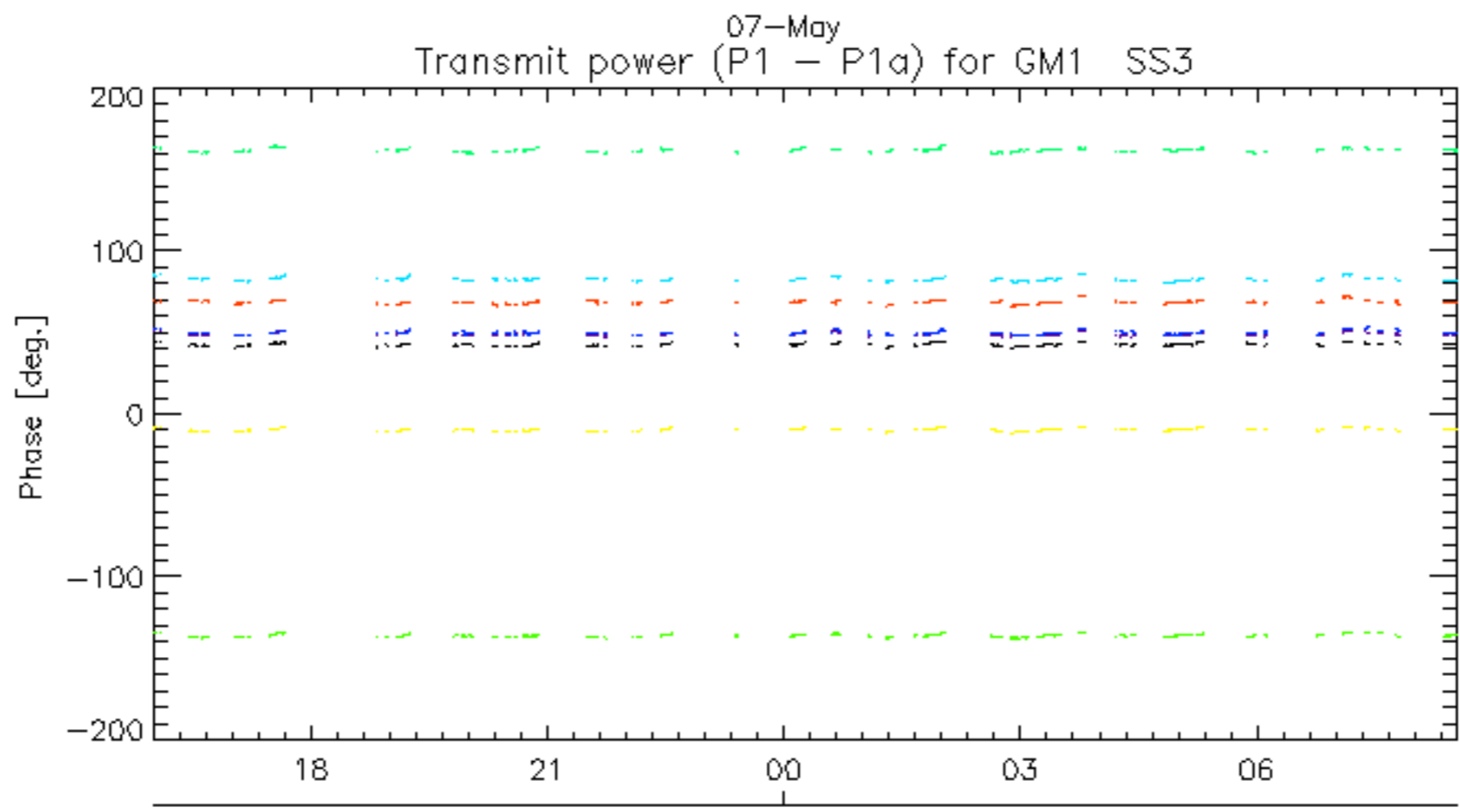
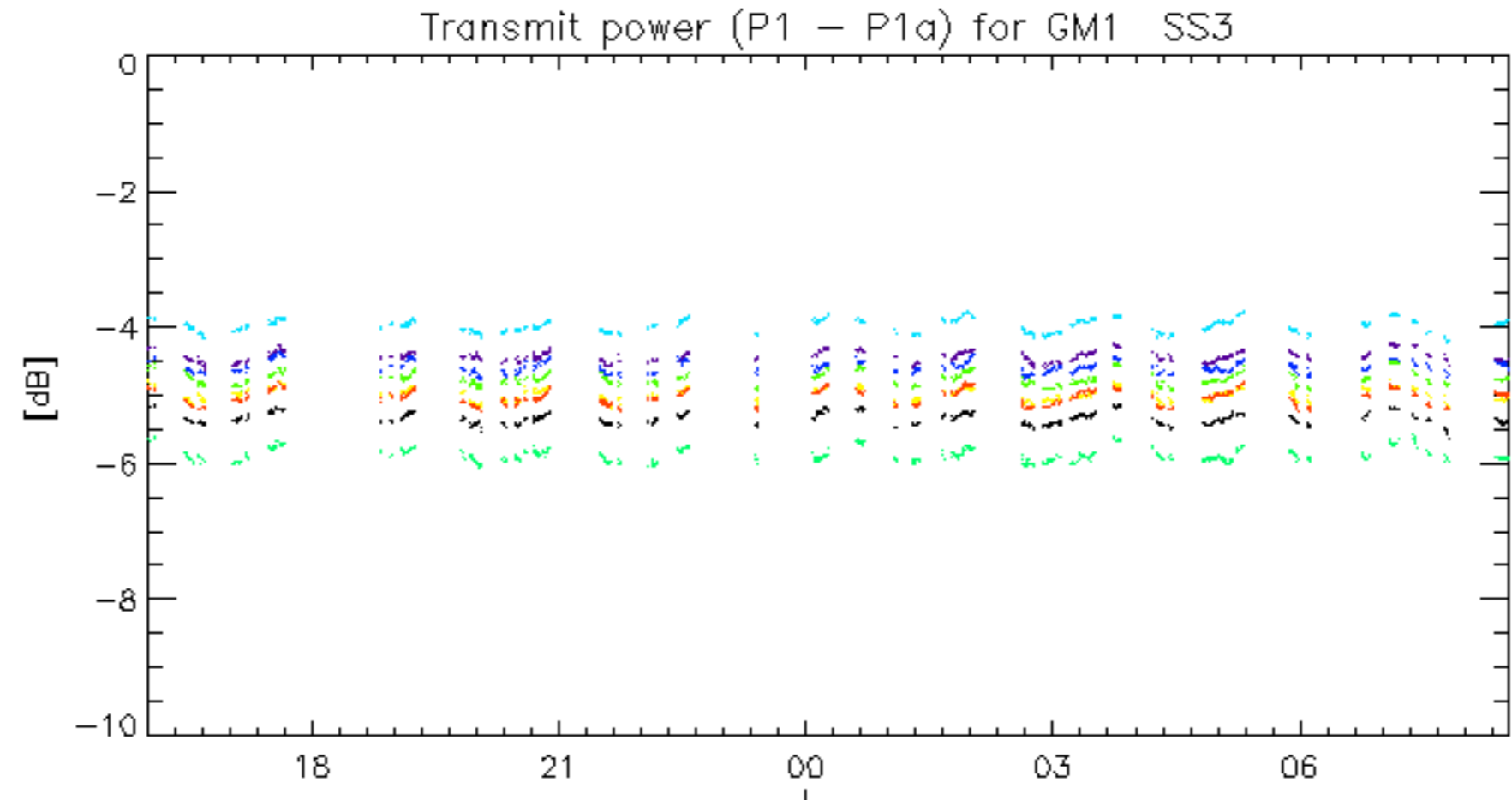
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060505_004234_000001742047_00245_21842_4113.N1	1	0
ASA_WSM_1PNPDE20060506_184504_000003042047_00271_21868_8331.N1	0	57
ASA_WSM_1PNPDK20060505_210724_000000672047_00258_21855_4515.N1	0	20

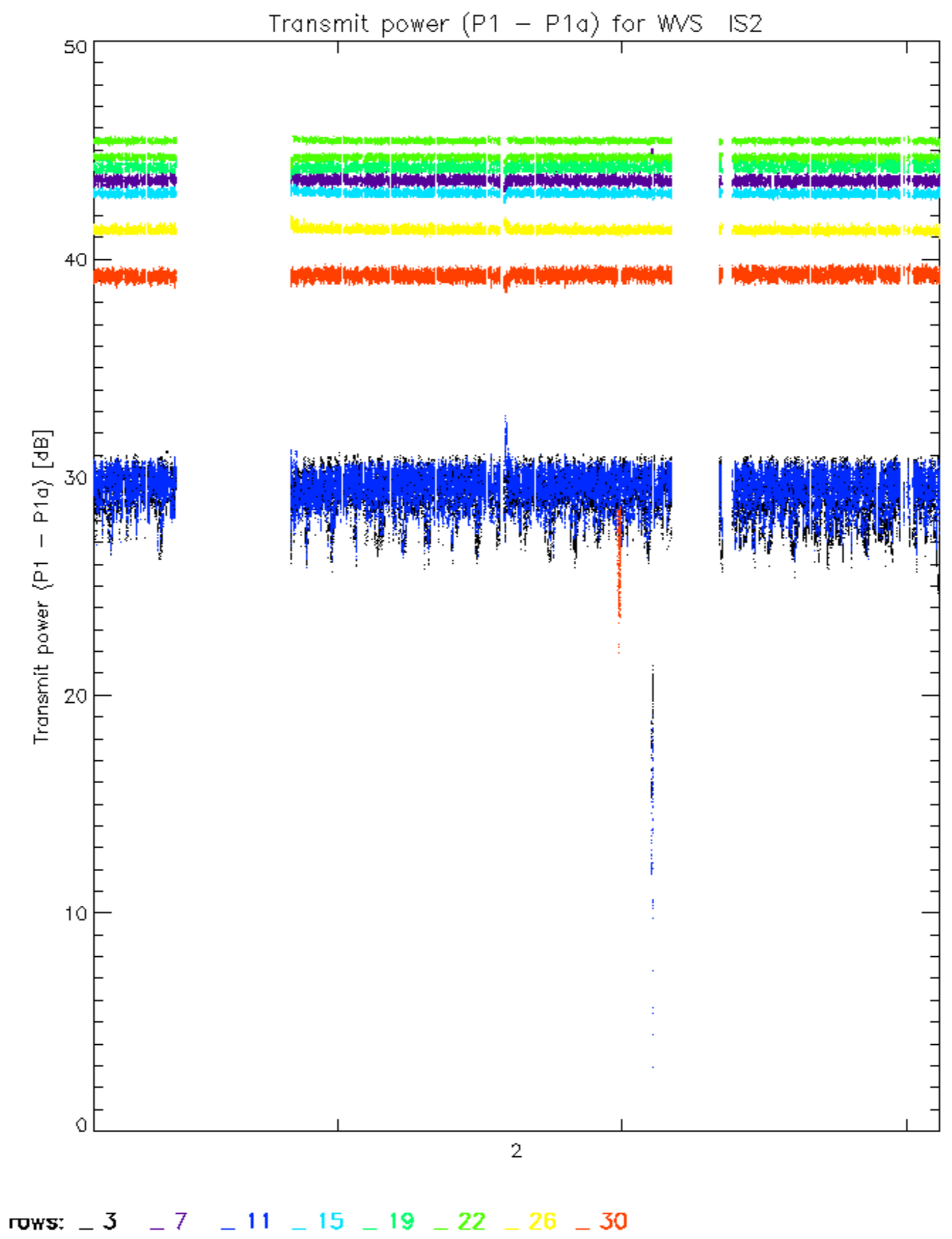


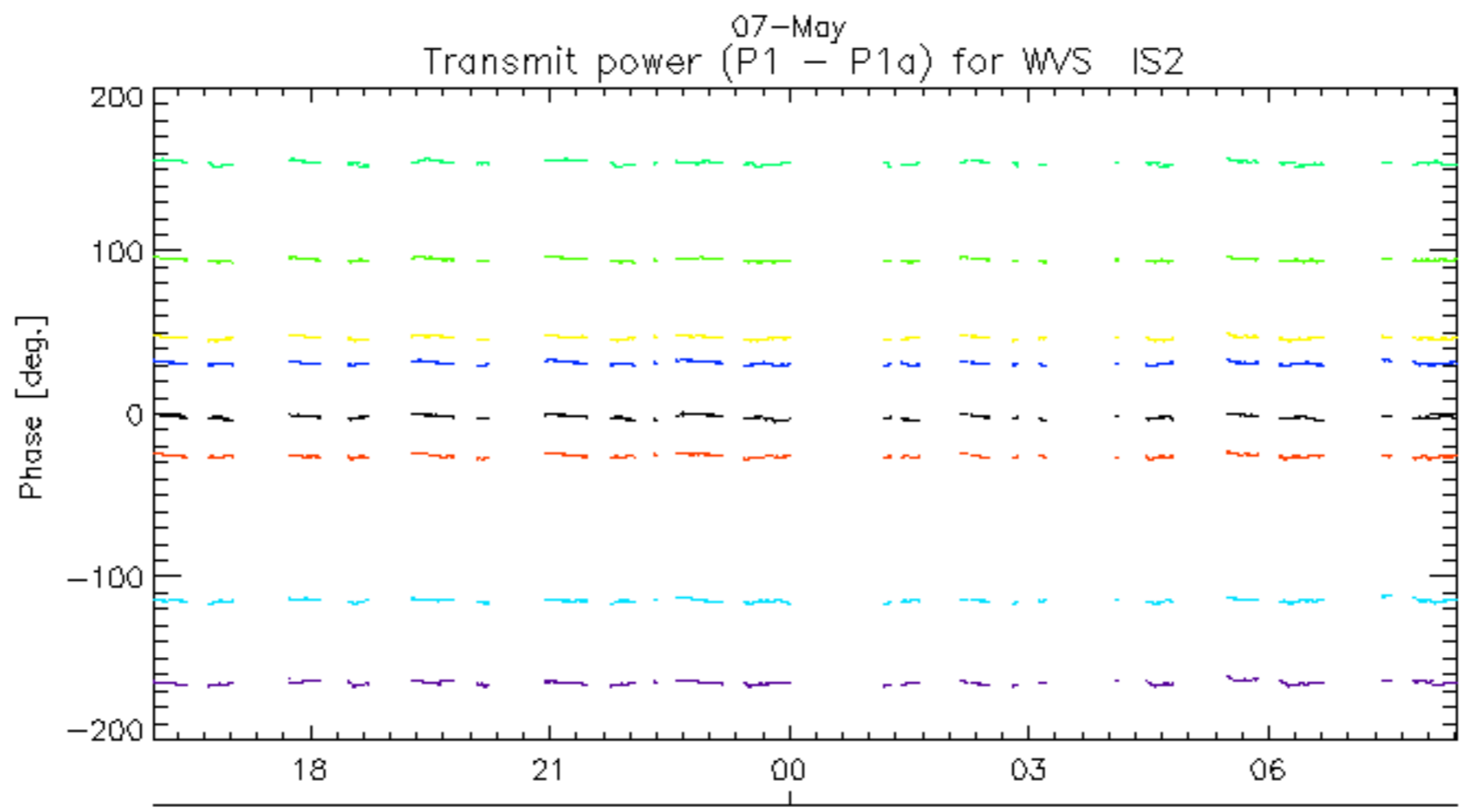
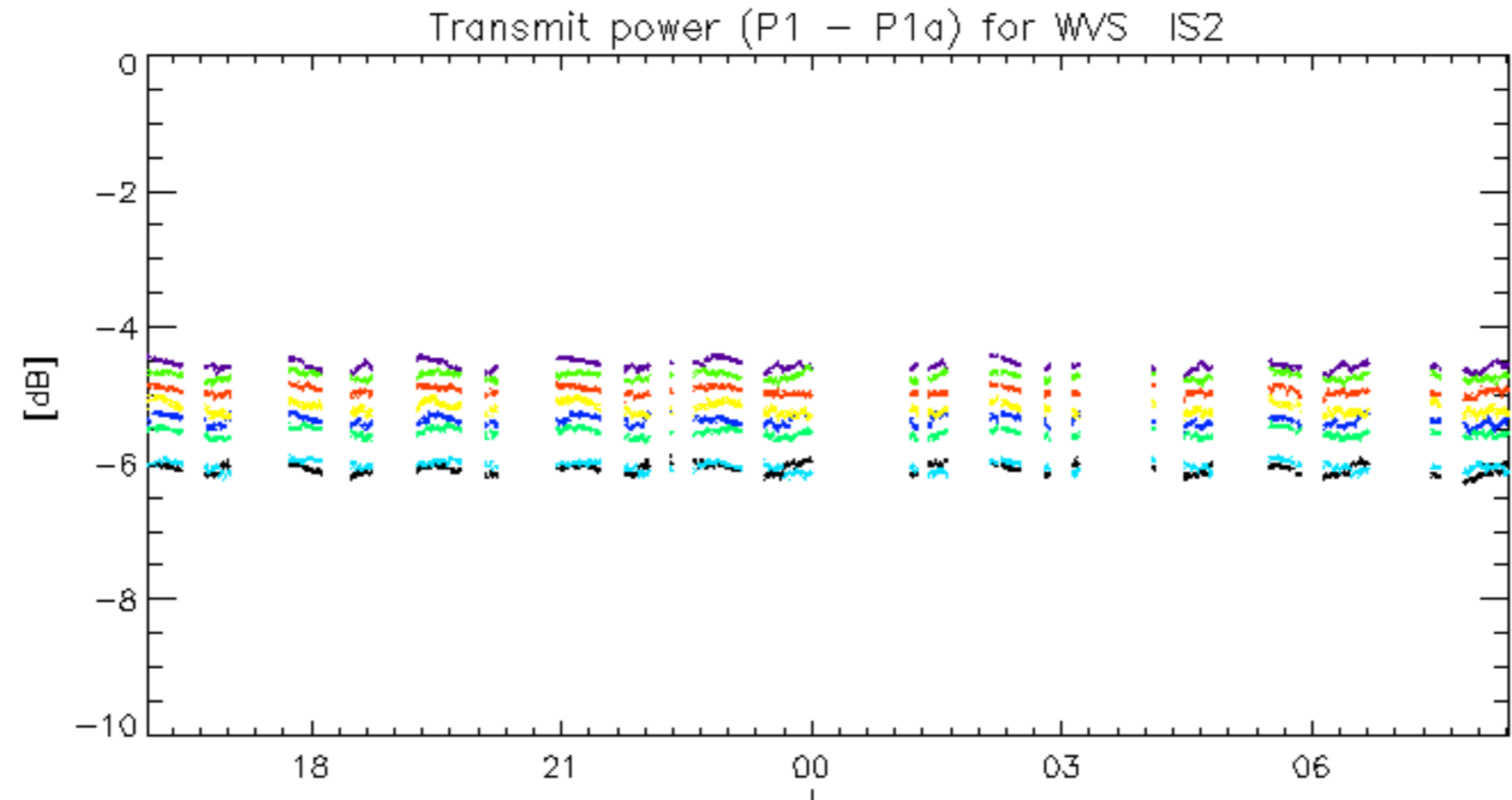
Transmit power (P1 - P1a) for GM1 SS3





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





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

No unavailabilities during the reported period.