

PRELIMINARY REPORT OF 060511

last update on Thu May 11 16:39:48 GMT 2006

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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 2006-05-10 00:00:00 to 2006-05-11 16:39:48

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	74	8	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	74	8	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	74	8	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	74	8	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	57	25	24	80
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	35	57	25	24	80
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	57	25	24	80
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	57	25	24	80

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	20060510 073838
H	20060511 070701

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)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.971429	0.011828	0.002716
7	P1	-3.061482	0.013446	-0.101949
11	P1	-4.092213	0.015777	-0.053571
15	P1	-6.104253	0.012382	-0.101739
19	P1	-3.308206	0.007785	-0.008232
22	P1	-4.521675	0.011052	-0.033533
26	P1	-4.032421	0.020347	0.107988
30	P1	-5.737197	0.021660	-0.037790
3	P1	-16.664442	0.319043	0.163091
7	P1	-16.987747	0.150819	-0.279985
11	P1	-16.766298	0.323036	-0.453464
15	P1	-13.115415	0.139549	-0.314576
19	P1	-14.159319	0.048797	-0.263169
22	P1	-16.072126	0.462710	-0.298283
26	P1	-15.417294	0.271431	0.445096
30	P1	-16.810305	0.322538	-0.564596

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.283518	0.085578	0.103798
7	P2	-22.182543	0.100479	0.120552
11	P2	-16.022427	0.112240	0.162516
15	P2	-7.163176	0.096517	-0.030105
19	P2	-9.153127	0.089478	-0.038337
22	P2	-18.061729	0.088283	-0.140771
26	P2	-16.315498	0.093310	-0.118550
30	P2	-19.602753	0.087718	-0.010640

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.189298	0.004393	-0.019585
7	P3	-8.189298	0.004393	-0.019585
11	P3	-8.189298	0.004393	-0.019585
15	P3	-8.189298	0.004393	-0.019585
19	P3	-8.189298	0.004393	-0.019585
22	P3	-8.189298	0.004393	-0.019585
26	P3	-8.189312	0.004394	-0.019563
30	P3	-8.189312	0.004394	-0.019563

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	-3.741828	0.042040	0.051036
7	P1	-2.657061	0.115061	0.123038
11	P1	-2.881212	0.033817	0.057926
15	P1	-3.511796	0.030967	0.050982
19	P1	-3.383700	0.013852	-0.017959
22	P1	-5.116255	0.022516	0.062029
26	P1	-5.816929	0.023941	-0.051608
30	P1	-5.180150	0.047883	-0.002026
3	P1	-11.588414	0.145898	0.050039
7	P1	-9.981681	0.174952	0.006220
11	P1	-10.225501	0.087330	0.082435
15	P1	-10.678847	0.133210	0.148547
19	P1	-15.455410	0.090195	-0.079209
22	P1	-20.700525	1.297074	-0.471343

26	P1	-16.397774	0.412497	-0.240268
30	P1	-18.227047	0.498332	0.444819

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.948933	0.070828	0.077421
7	P2	-22.509855	0.187018	-0.102549
11	P2	-11.191839	0.051475	-0.013534
15	P2	-4.871394	0.042980	-0.079280
19	P2	-6.860558	0.042085	-0.051944
22	P2	-8.158286	0.056276	-0.091805
26	P2	-24.053911	0.134459	-0.114124
30	P2	-22.050669	0.091588	-0.026887

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024024	0.003798	-0.008950
7	P3	-8.023964	0.003815	-0.009287
11	P3	-8.024112	0.003792	-0.008467
15	P3	-8.023900	0.003806	-0.008694
19	P3	-8.024119	0.003805	-0.009075
22	P3	-8.024016	0.003808	-0.008708
26	P3	-8.023872	0.003793	-0.008438
30	P3	-8.023960	0.003803	-0.008684

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	0.000545940
	stdev	1.84562e-07
MEAN Q	mean	0.000515218
	stdev	2.25418e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136126
	stdev	0.00118690
STDEV Q	mean	0.136482
	stdev	0.00120444



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006051[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_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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)

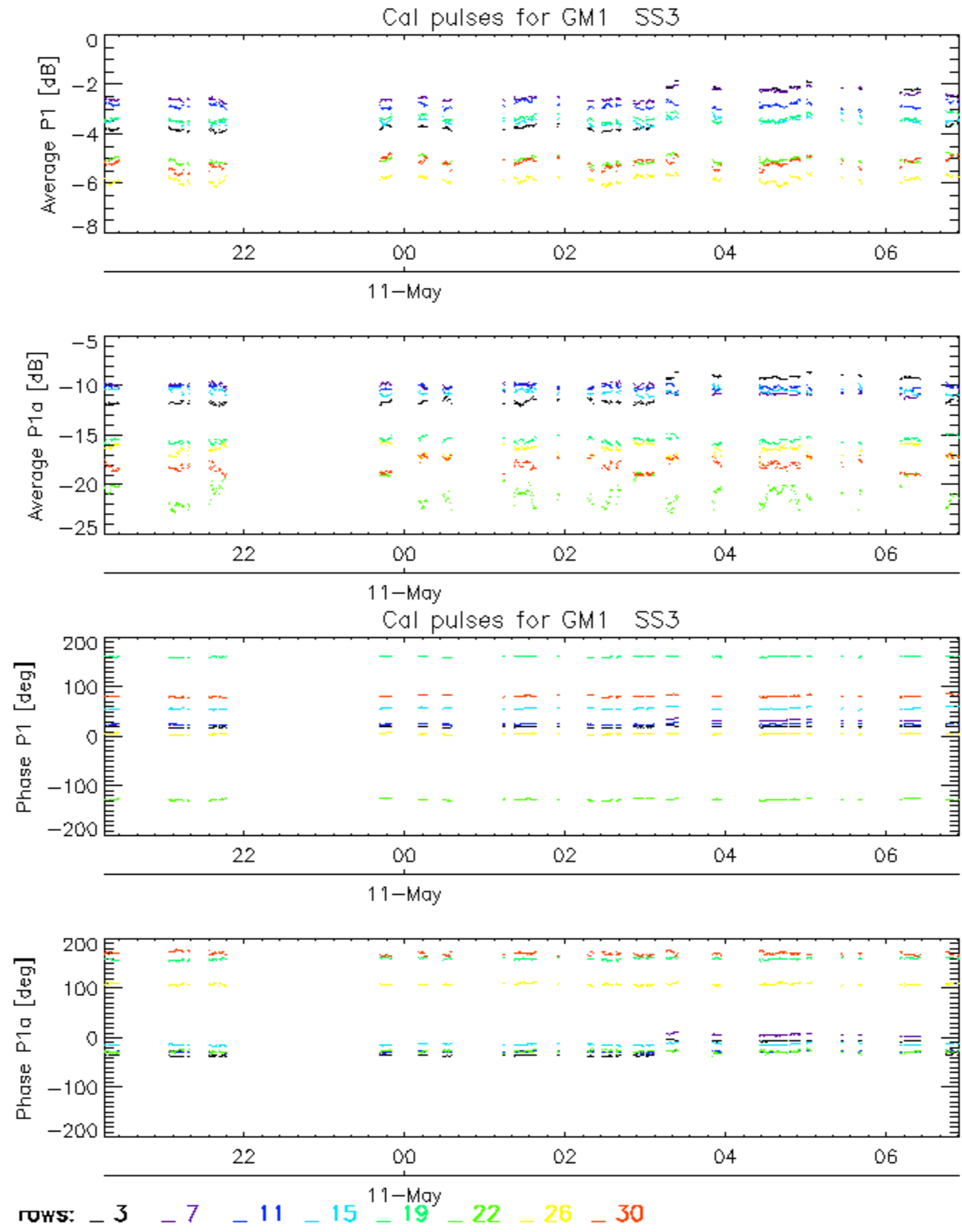
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

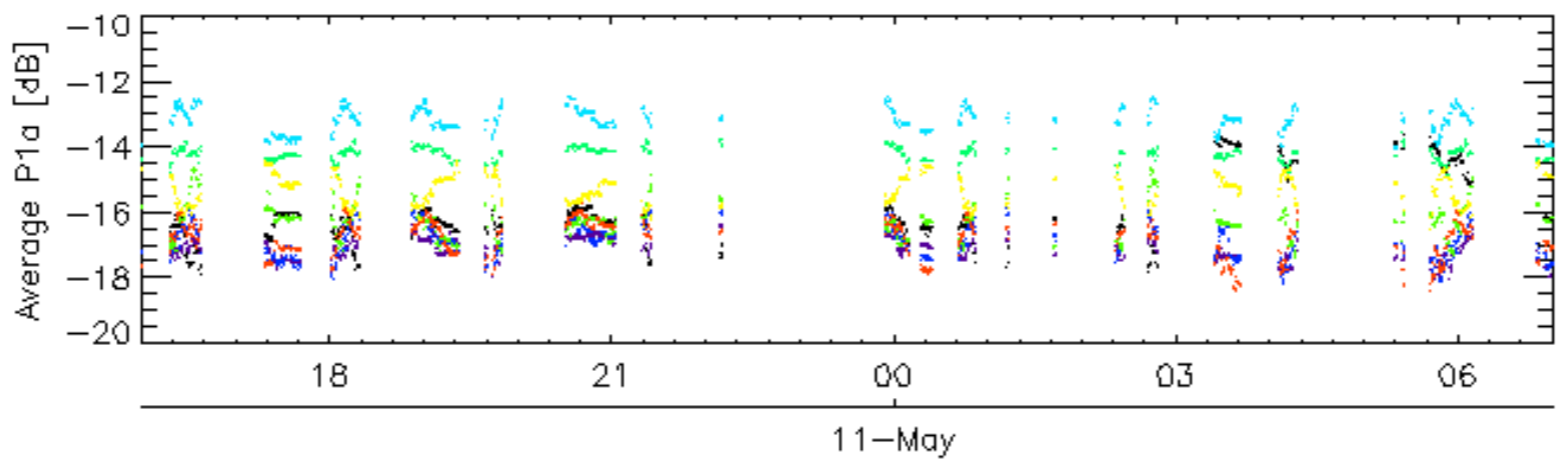
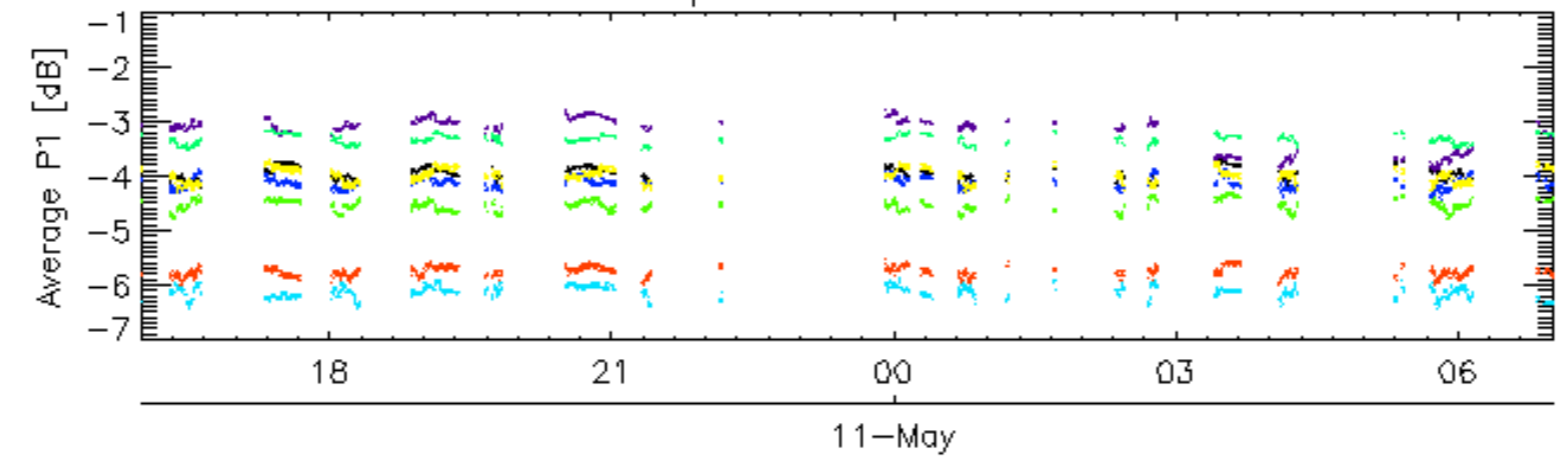
Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

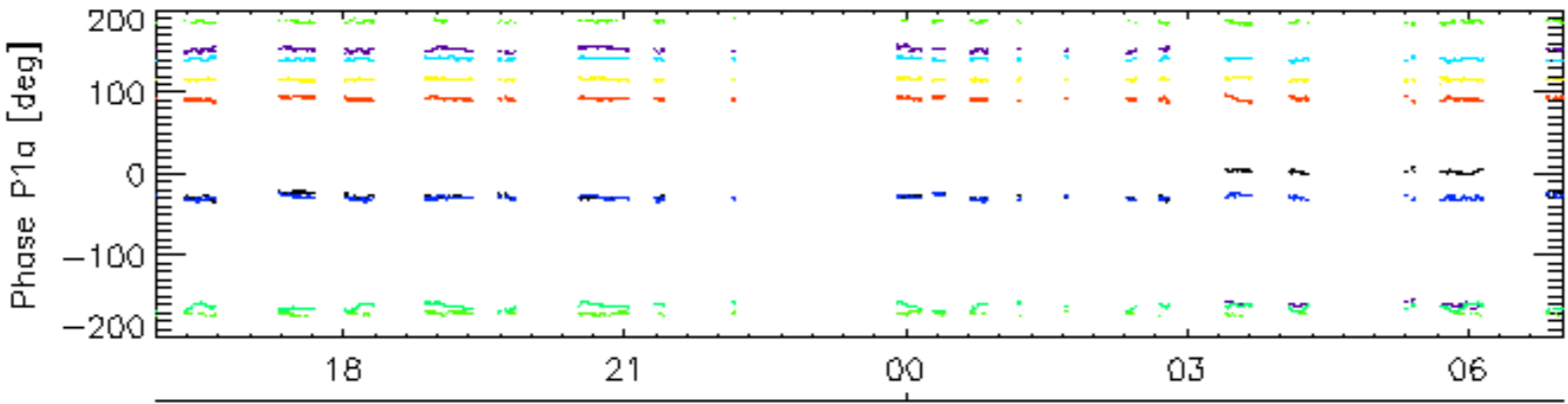
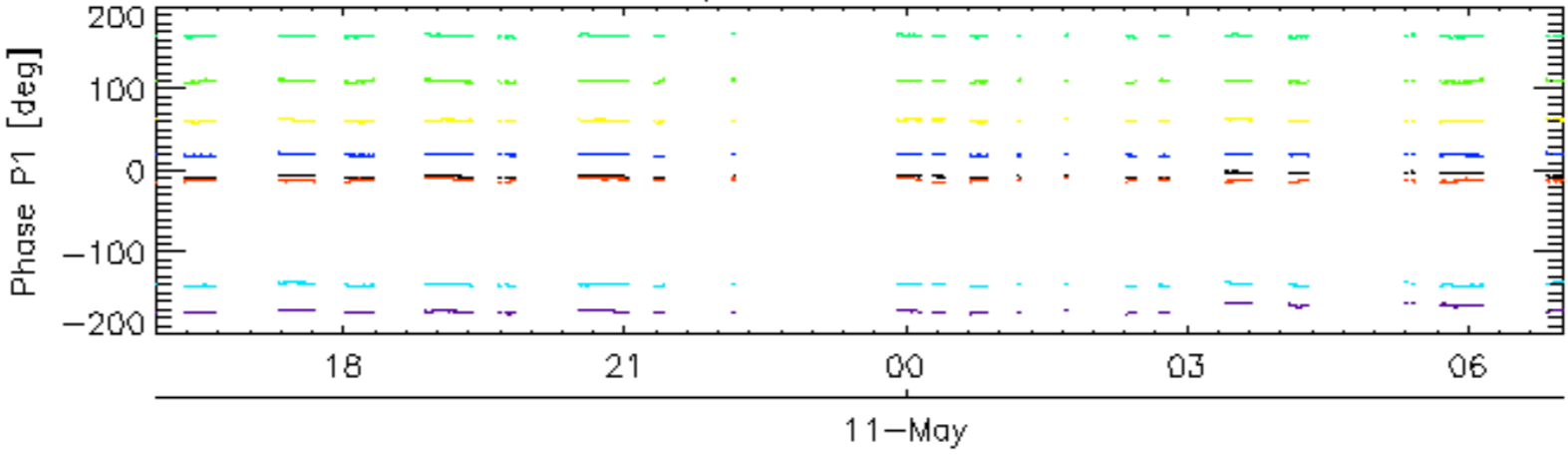
Evolution Doppler error versus ANX
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Cal pulses for WVS IS2

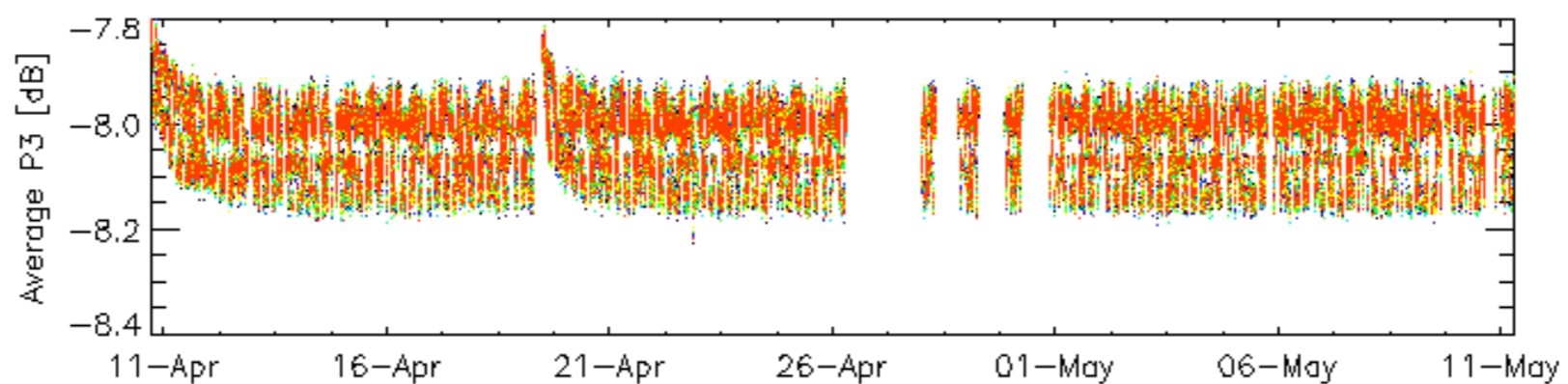
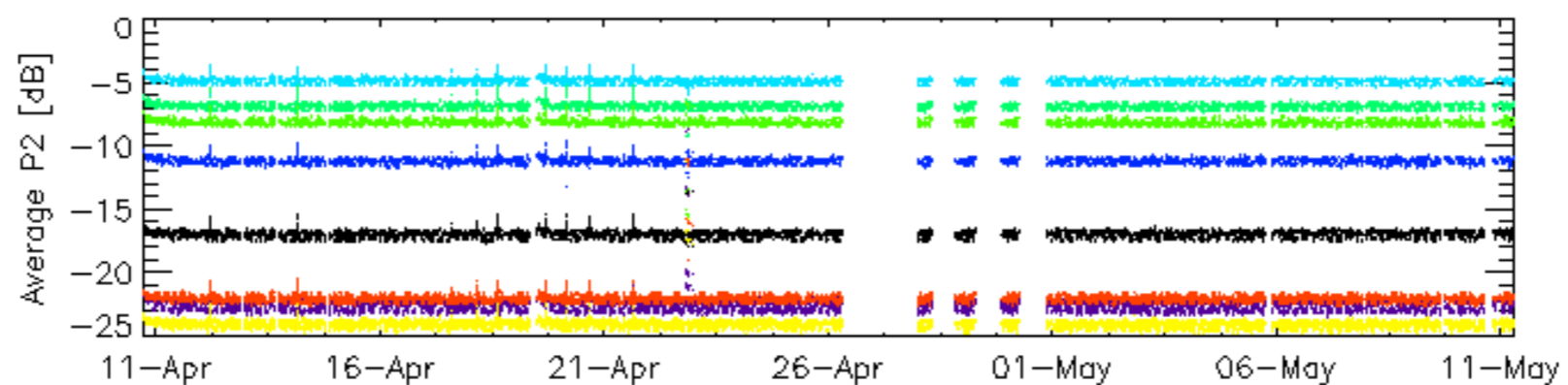
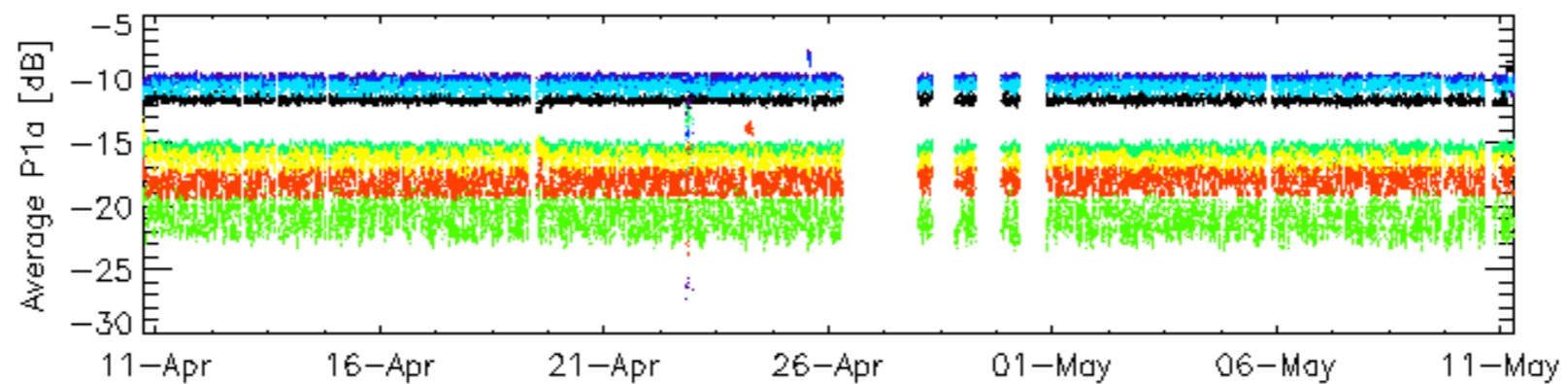
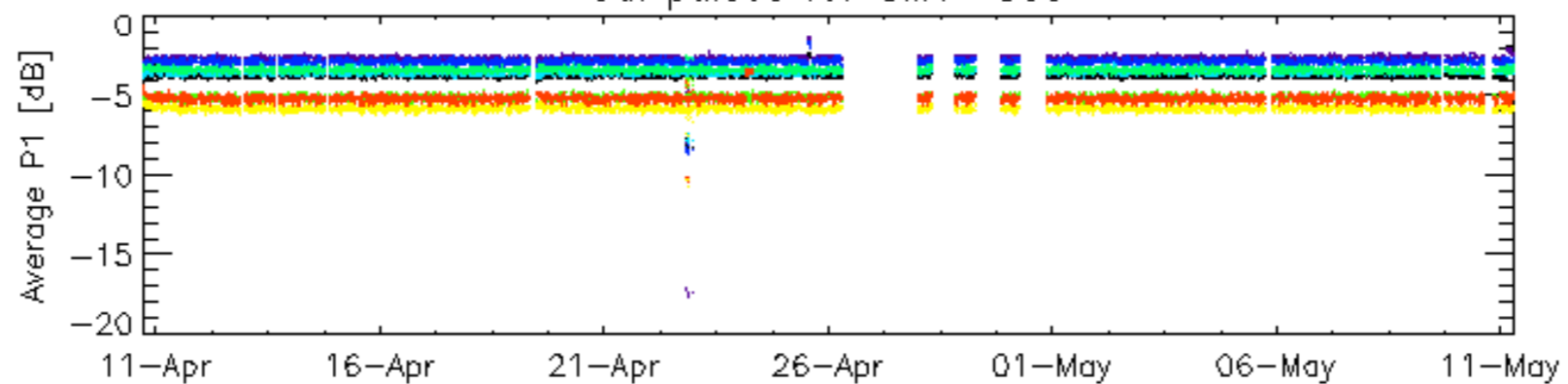


Cal pulses for WVS IS2



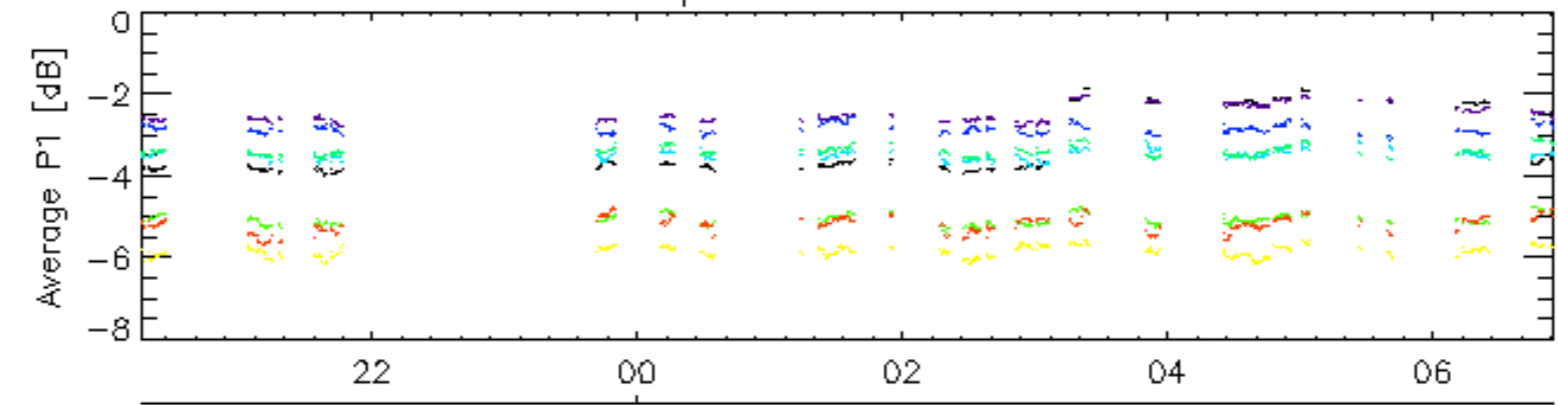
rows: **3** **7** **11** **15** **19** **22** **26** **30** 11-May

Cal pulses for GM1 SS3

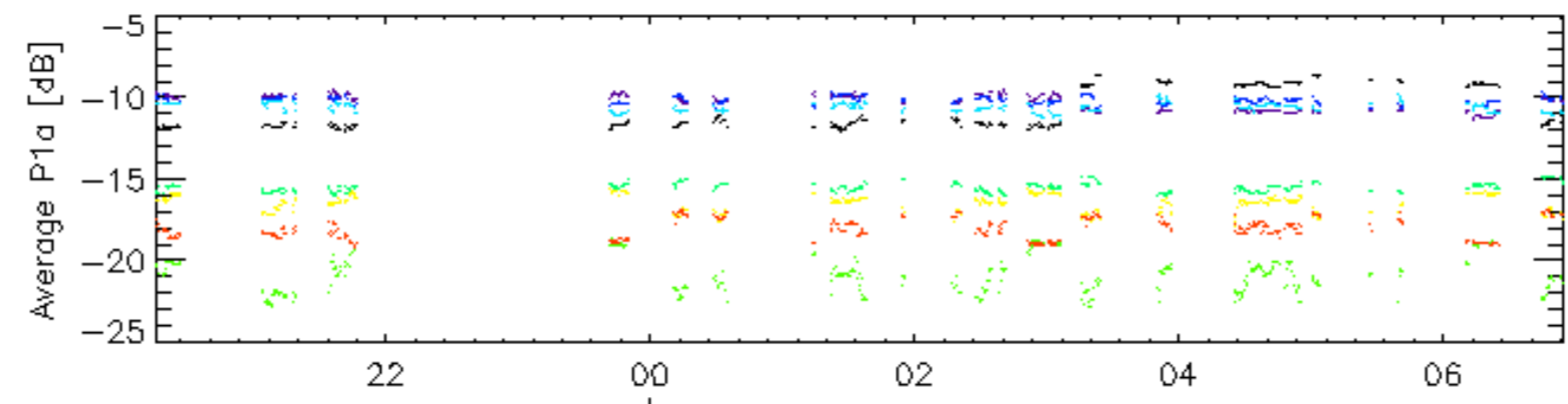


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

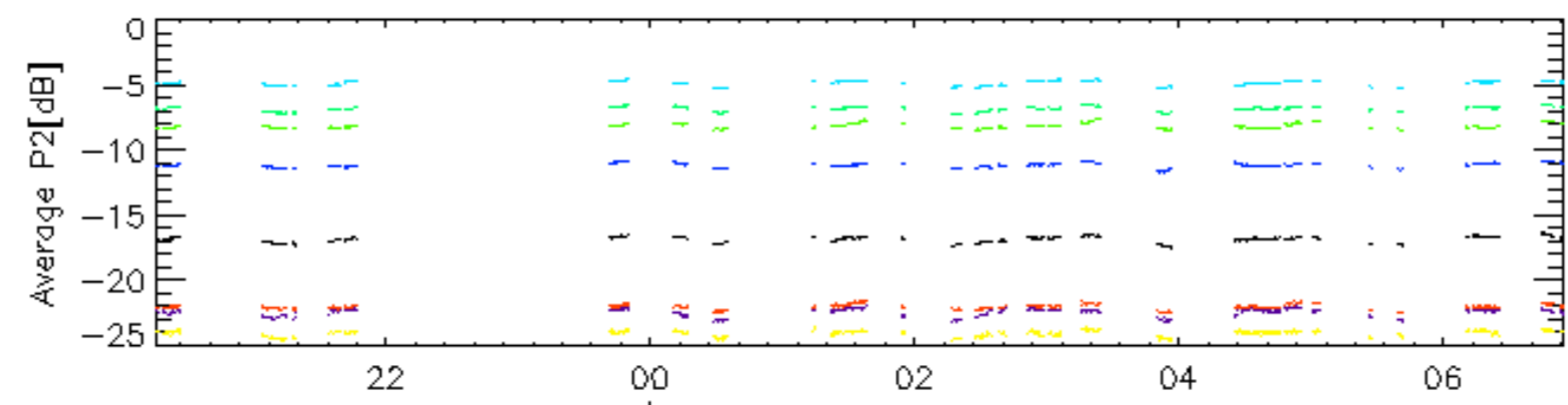
Cal pulses for GM1 SS3



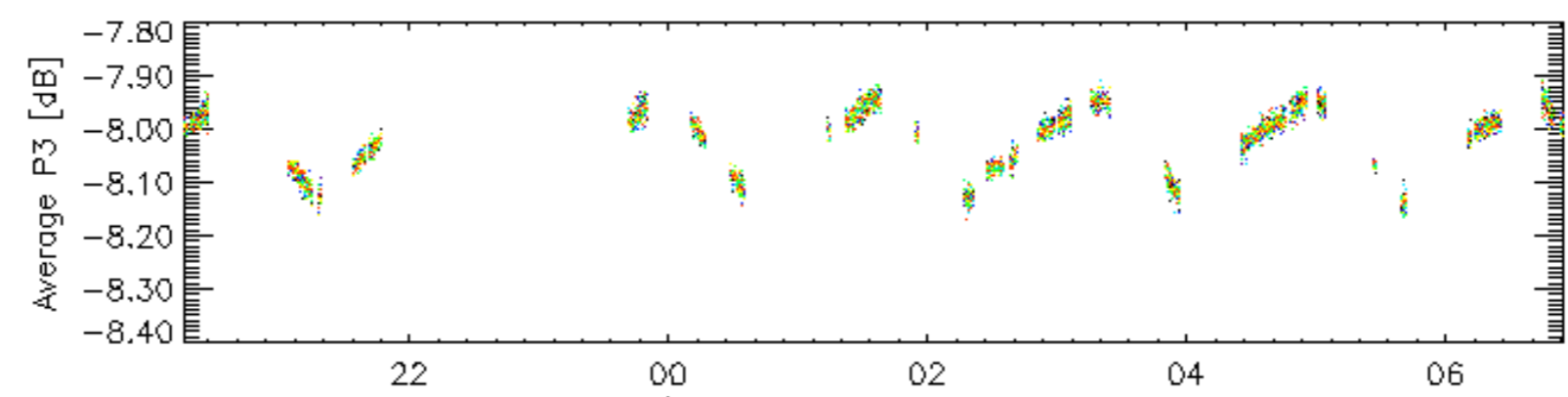
11-May



11-May

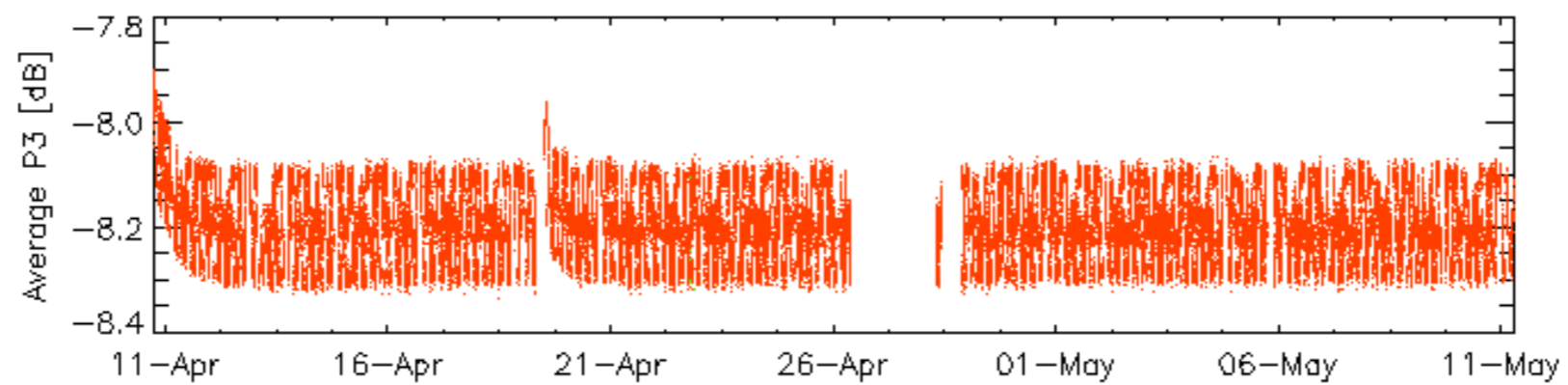
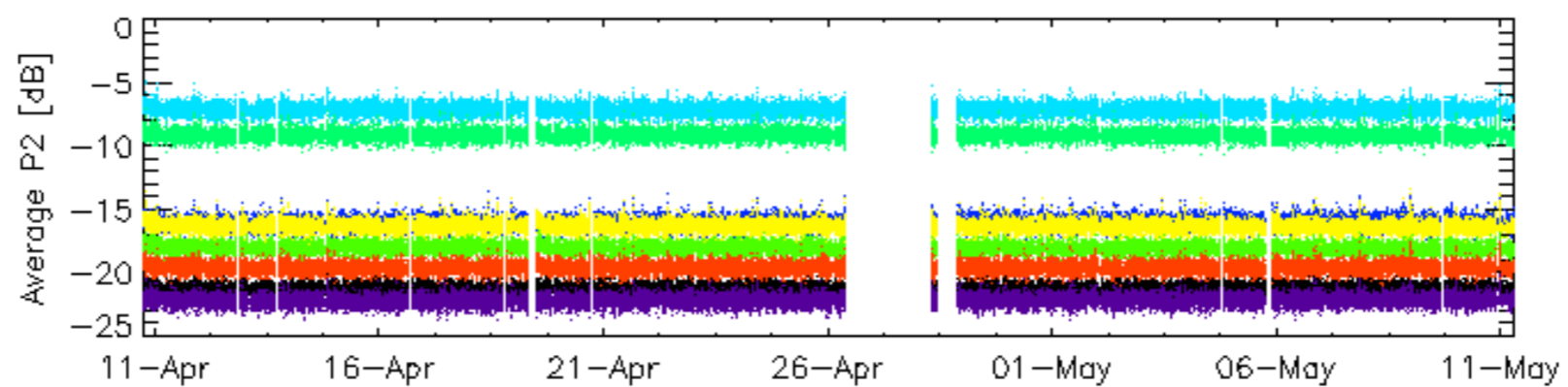
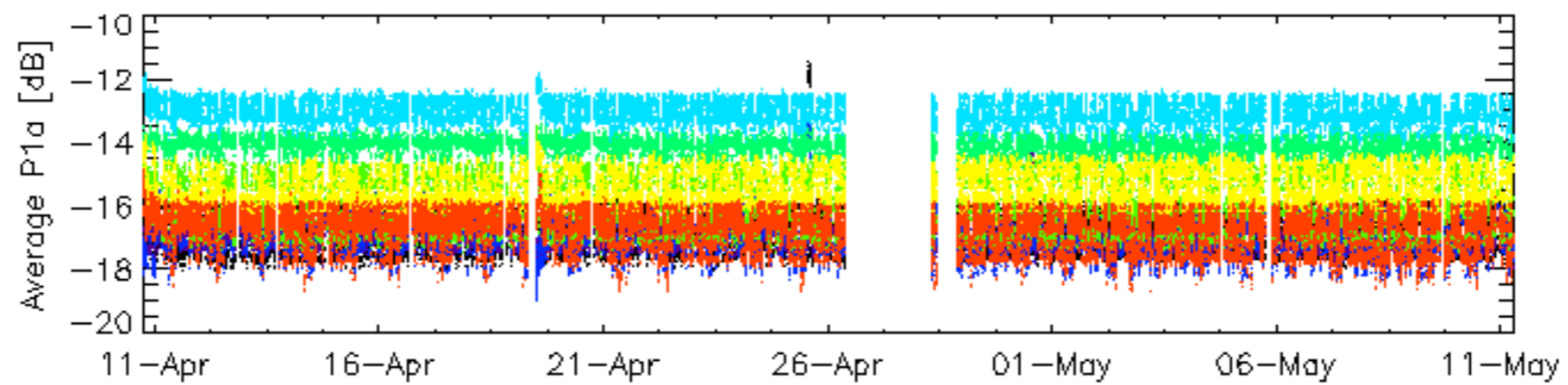
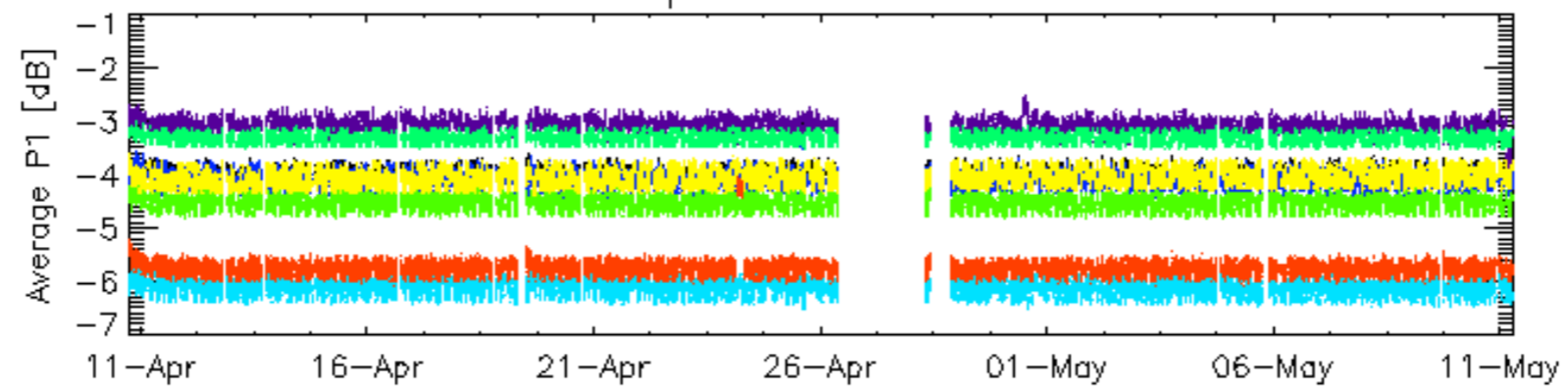


11-May



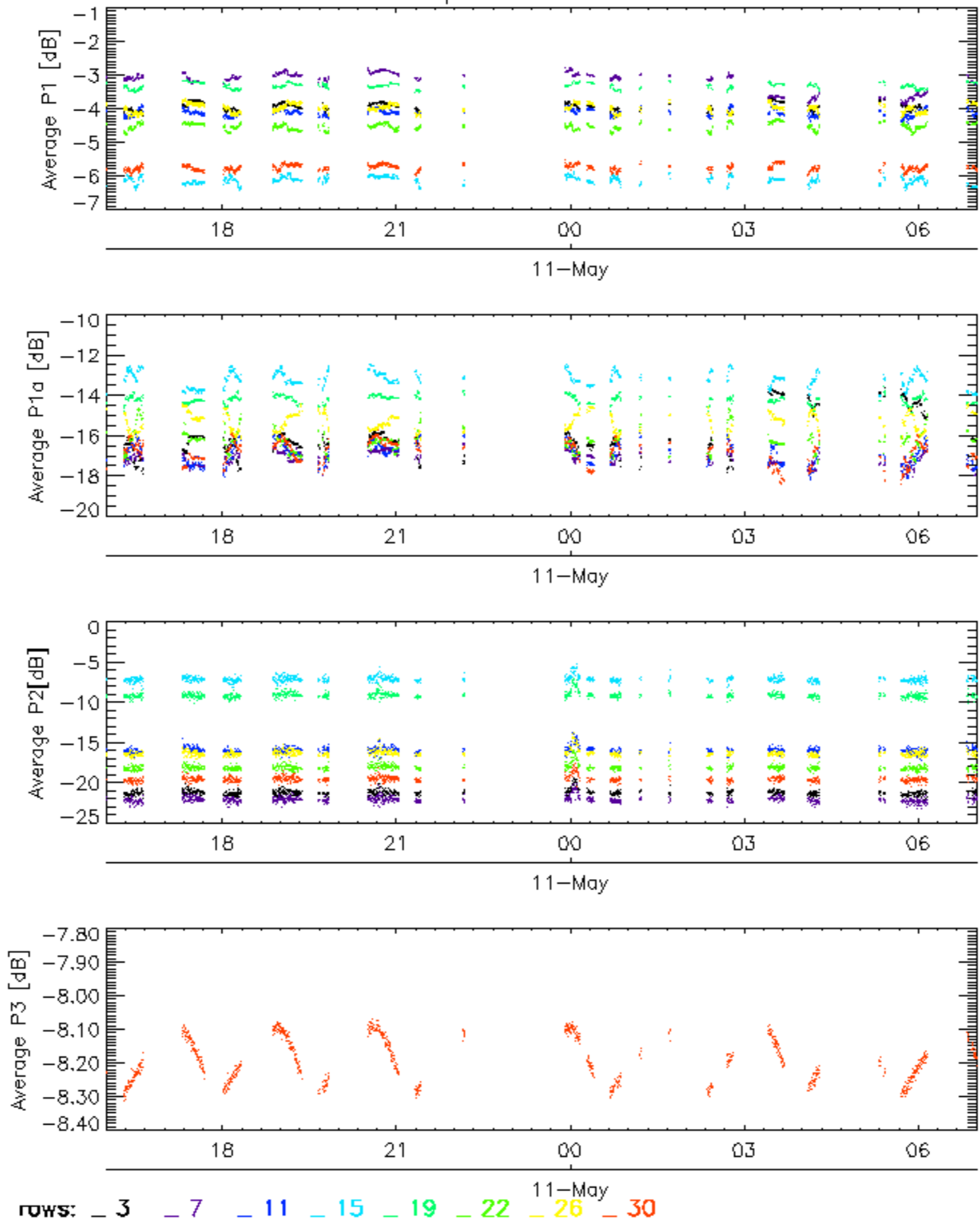
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



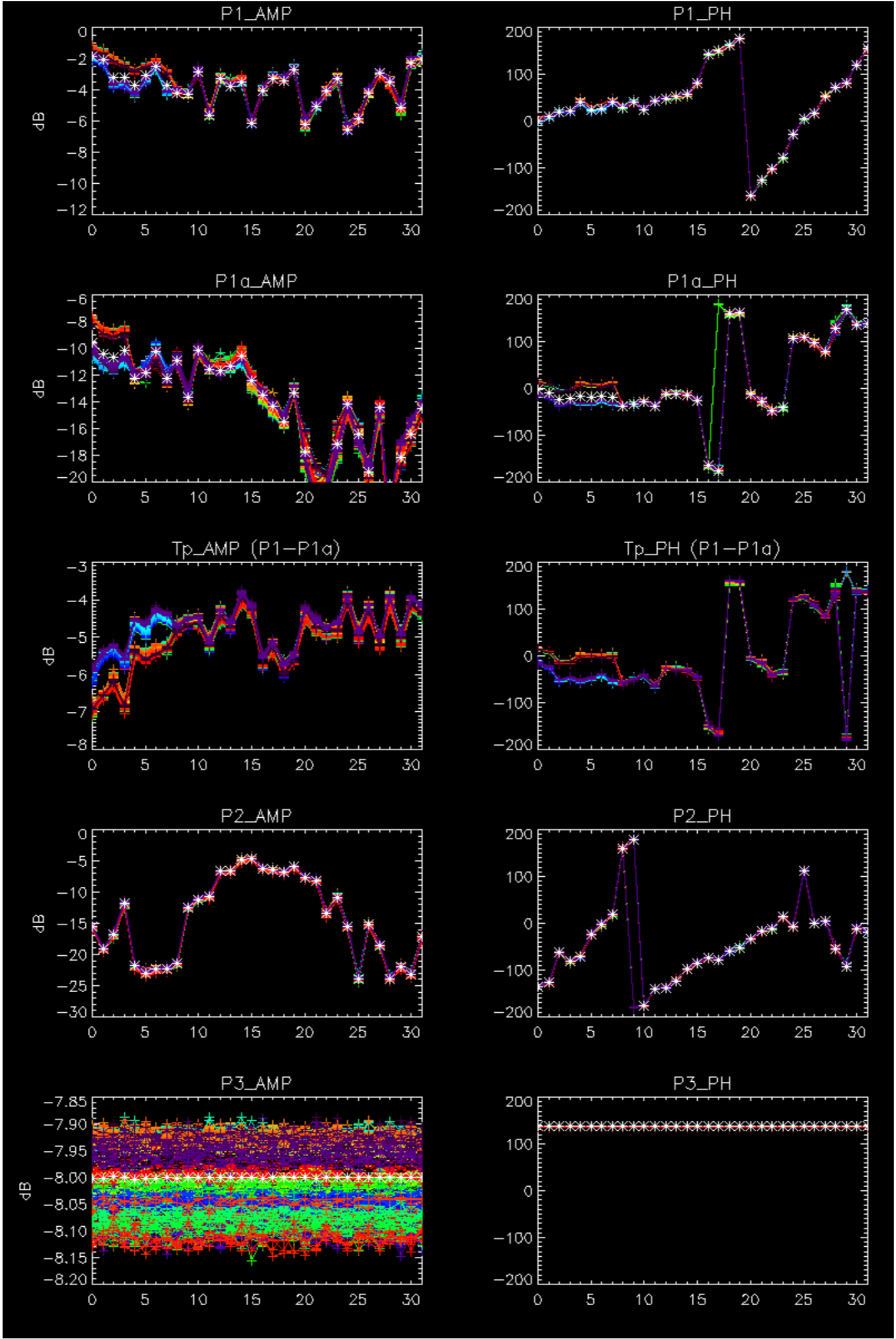
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

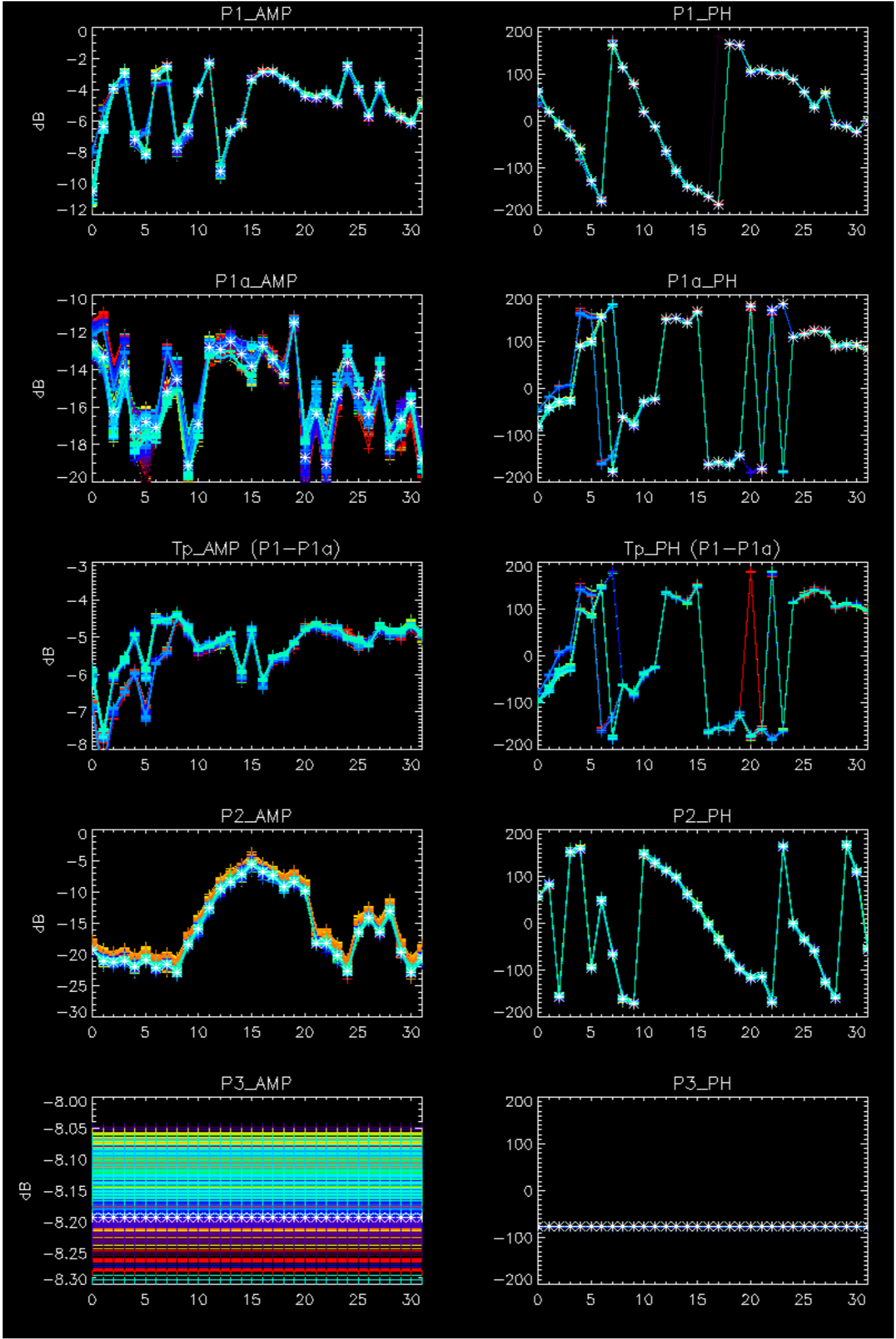
Cal pulses for WVS IS2



No anomalies observed on available browse products

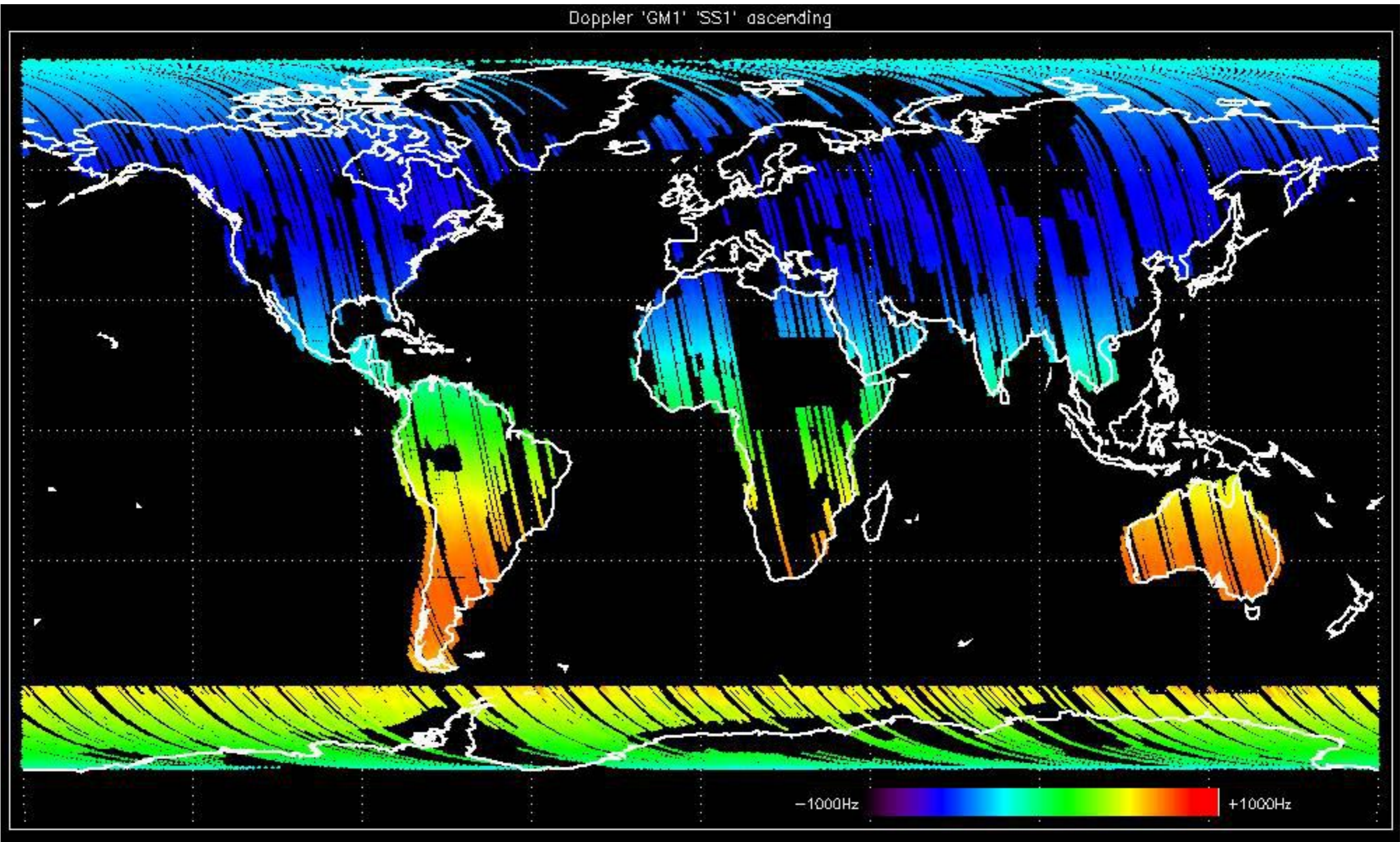
No anomalies observed.



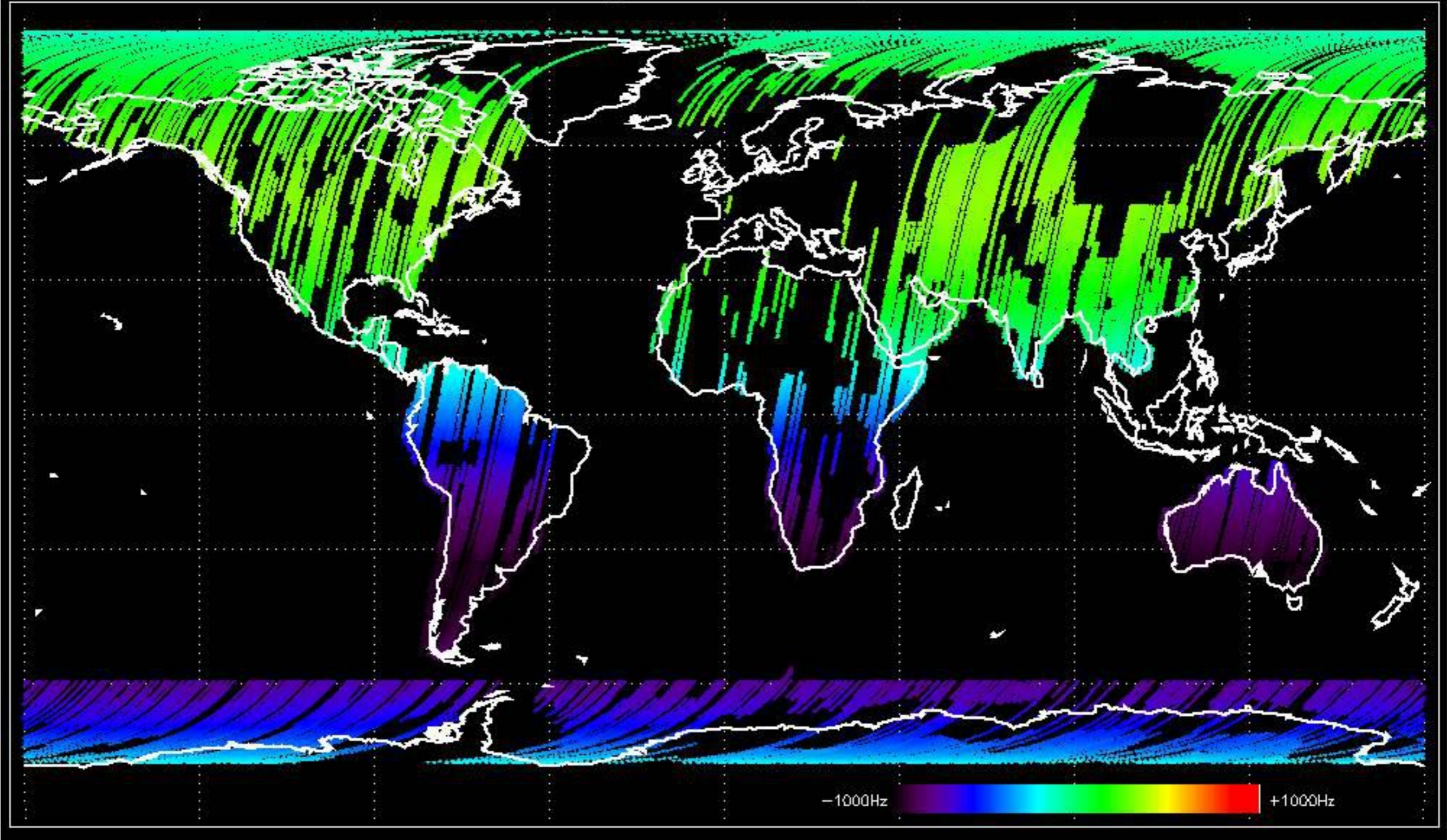


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

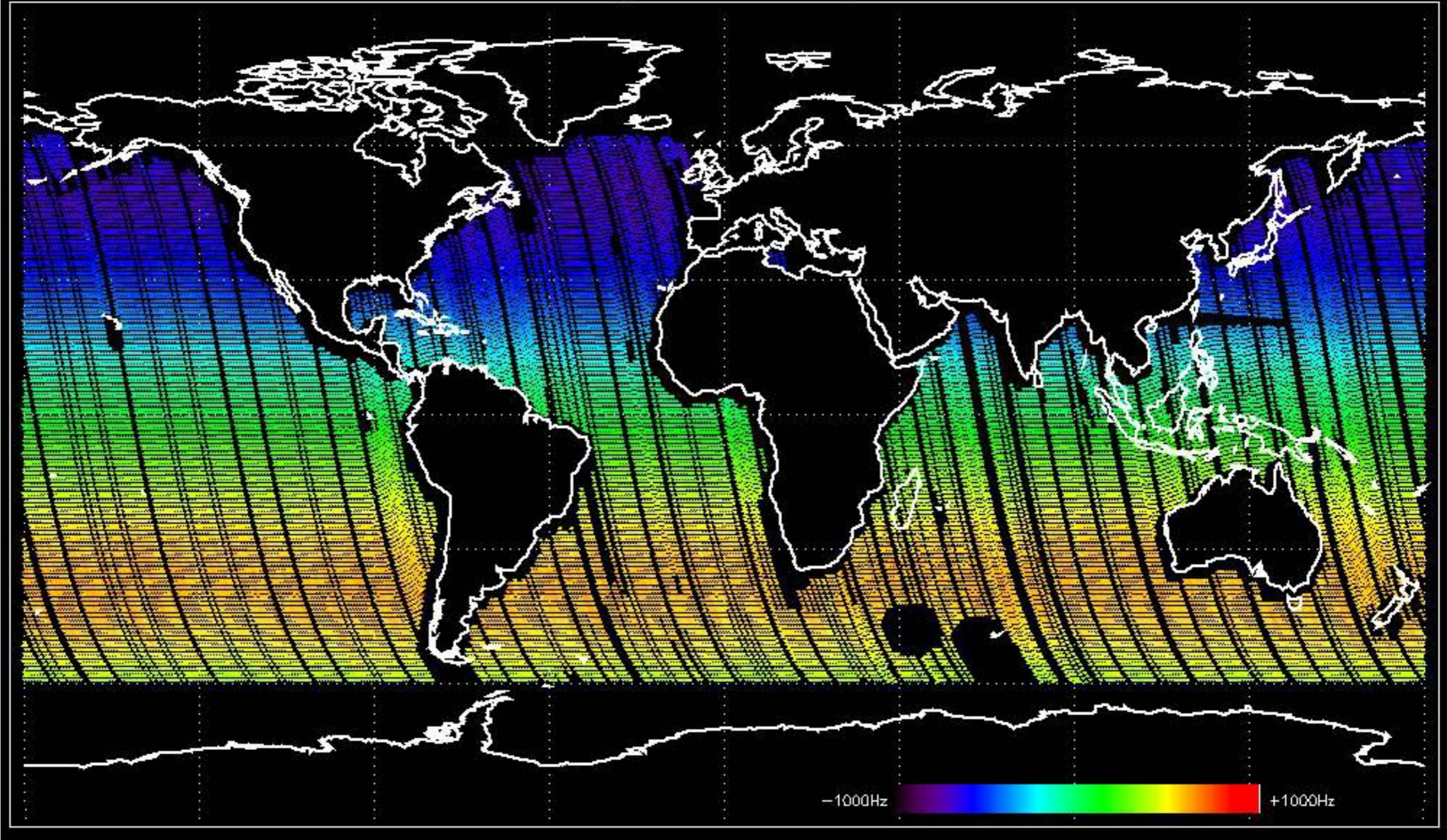
Doppler 'GM1' 'SS1' ascending



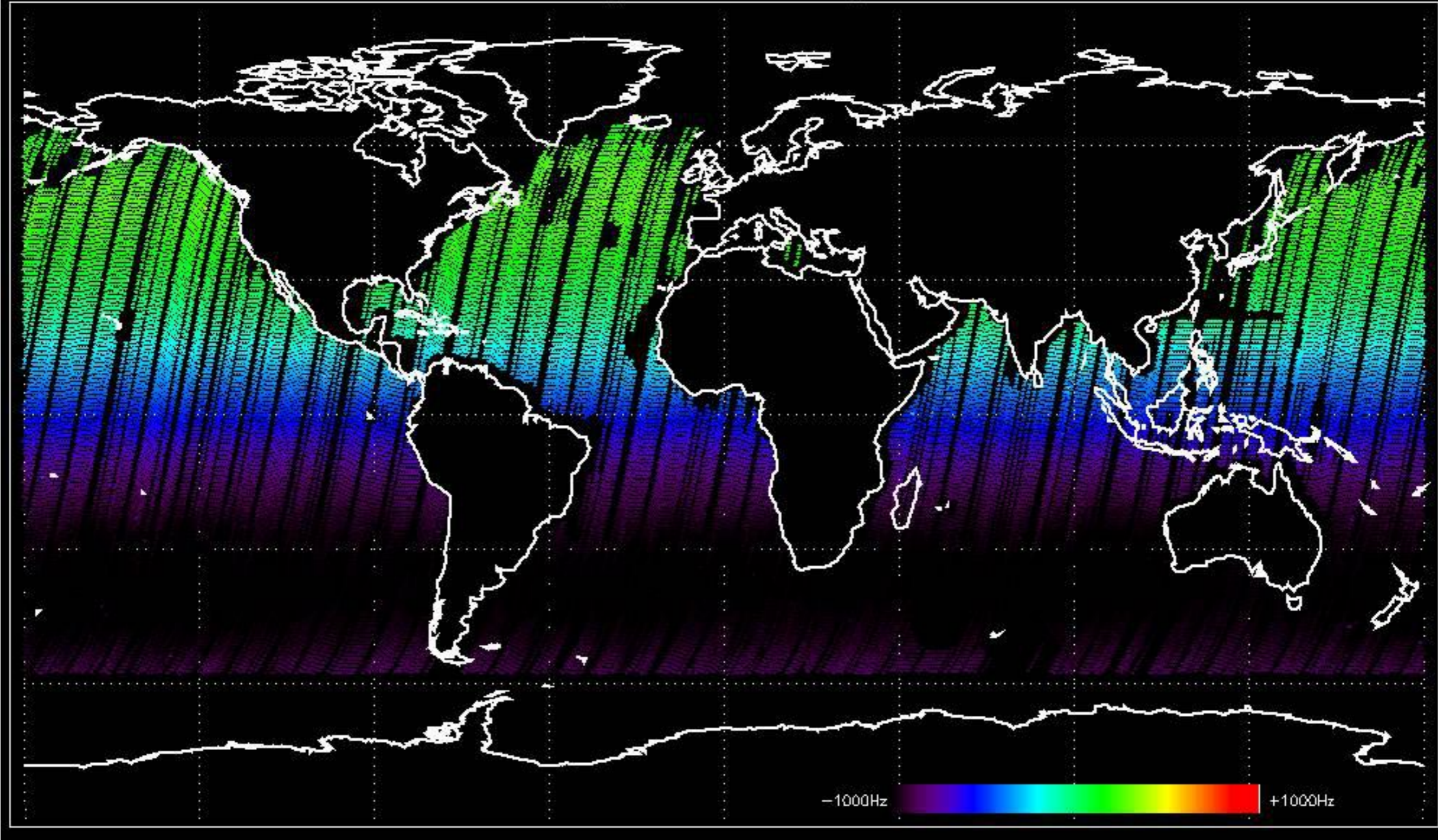
Doppler 'GM1' 'SS1' descending

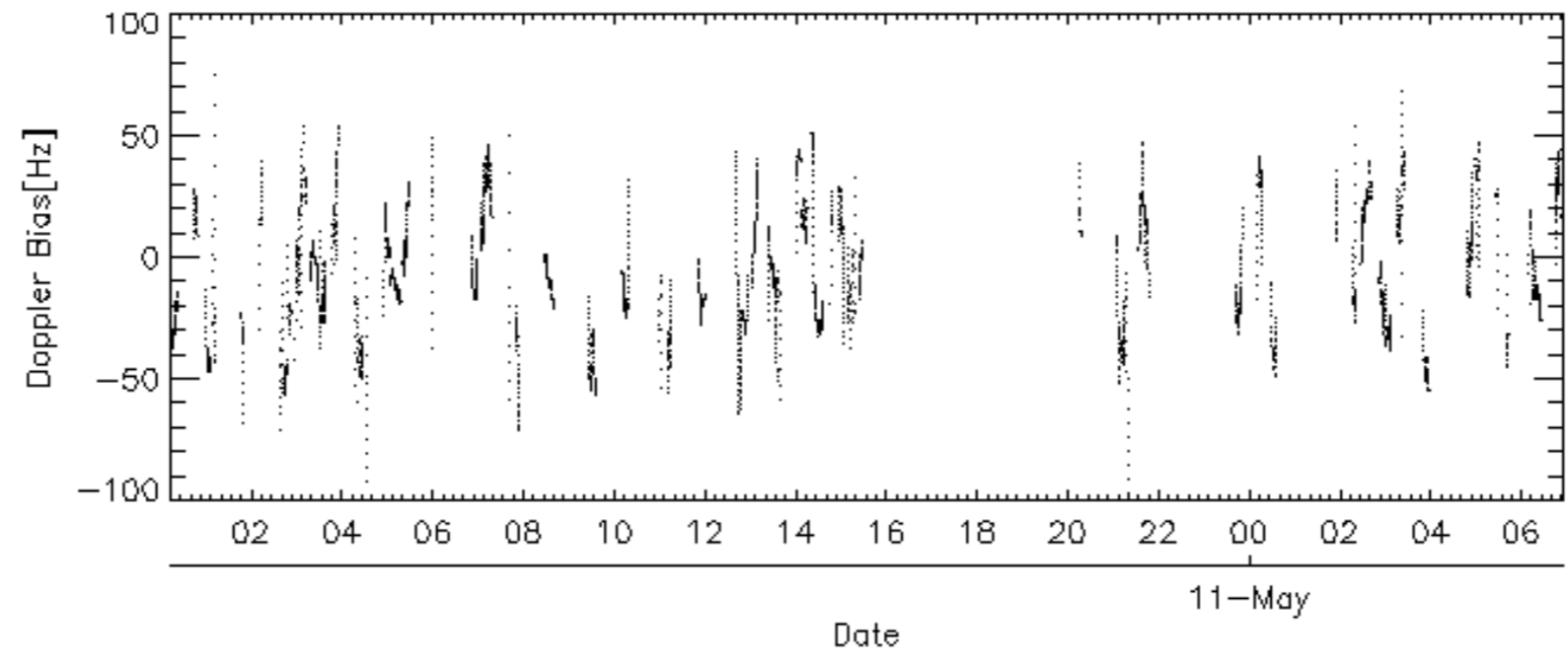
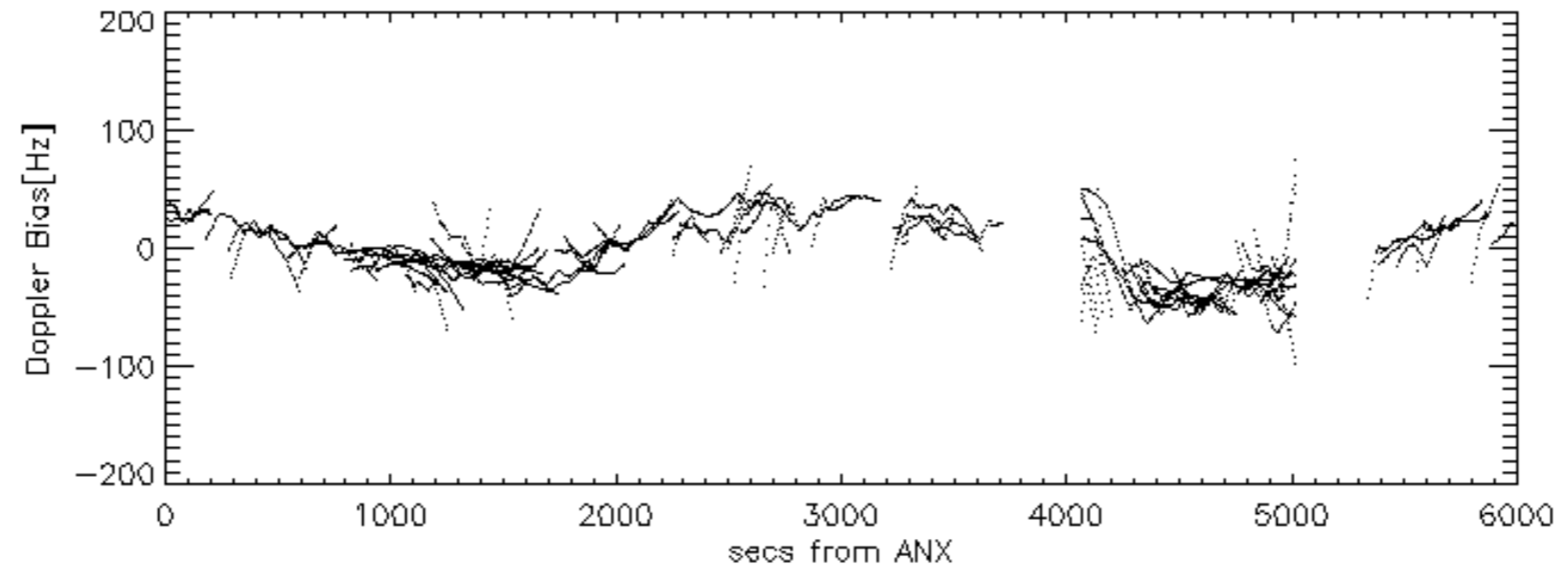
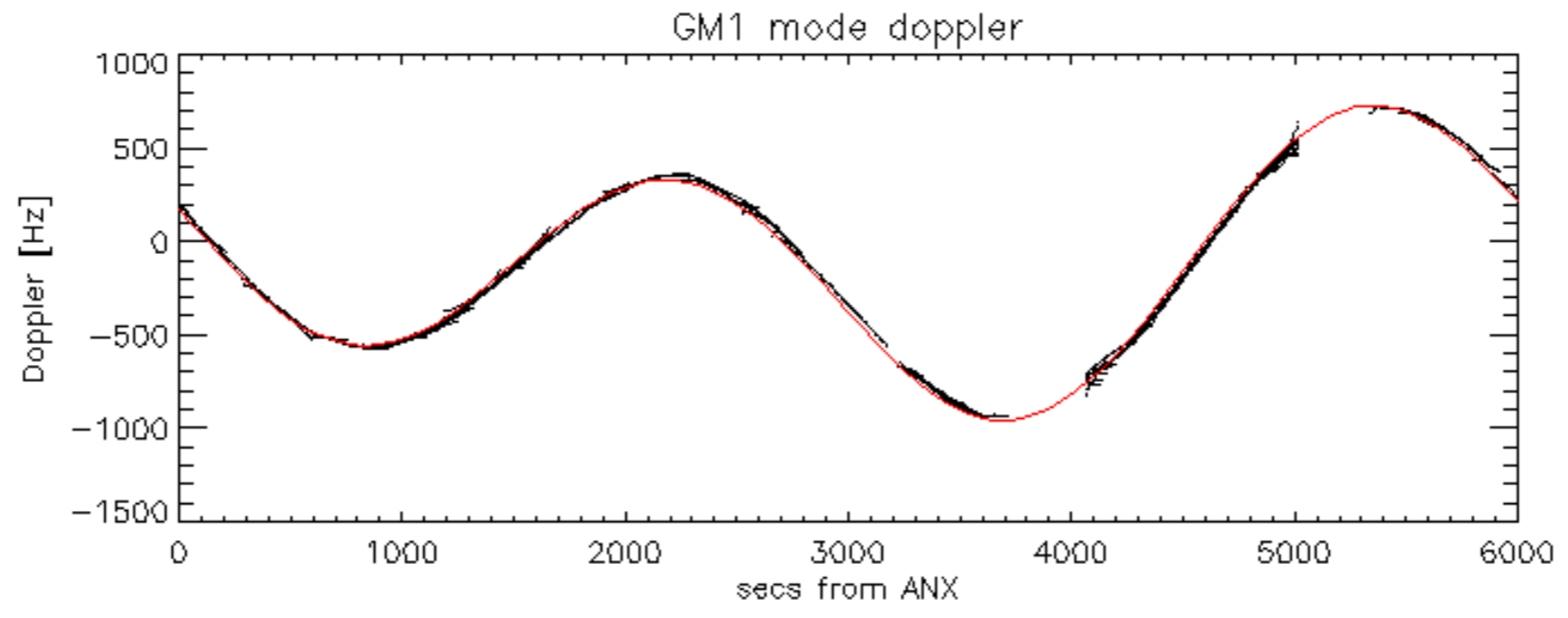


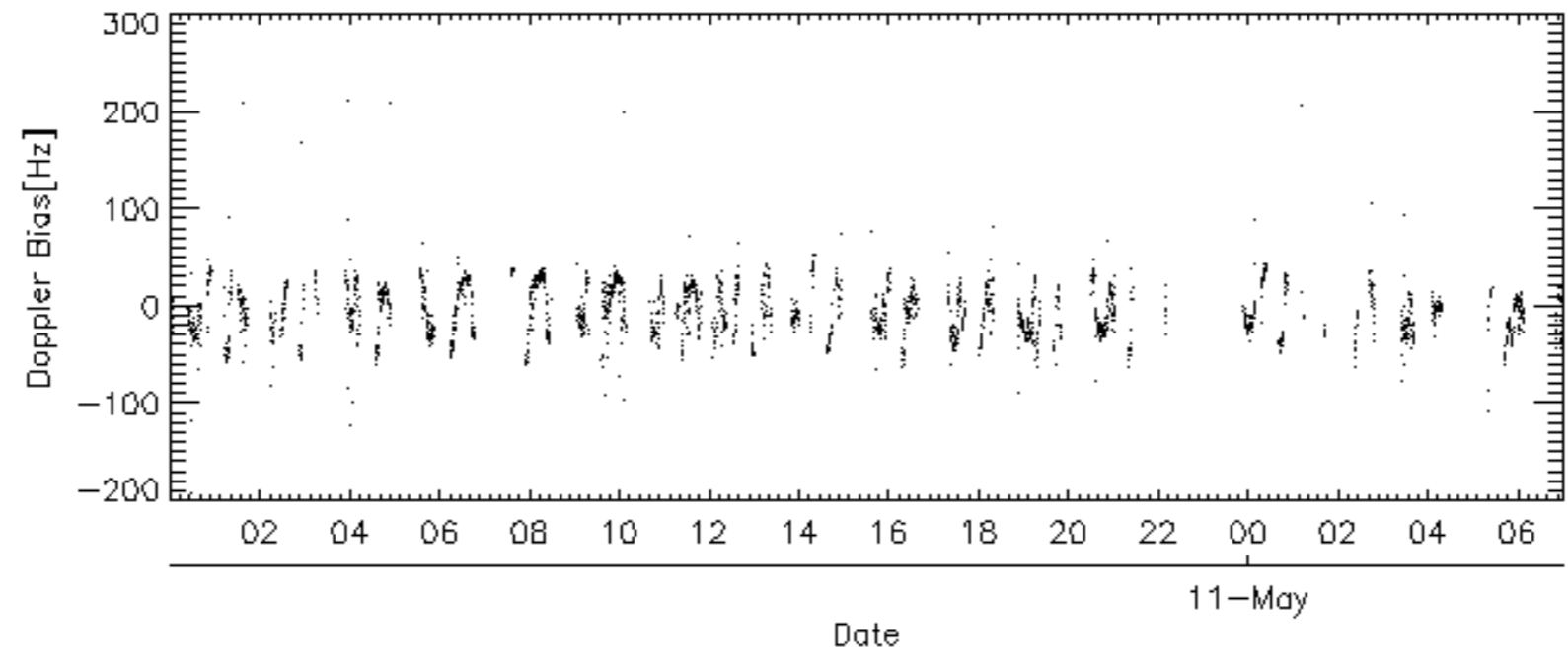
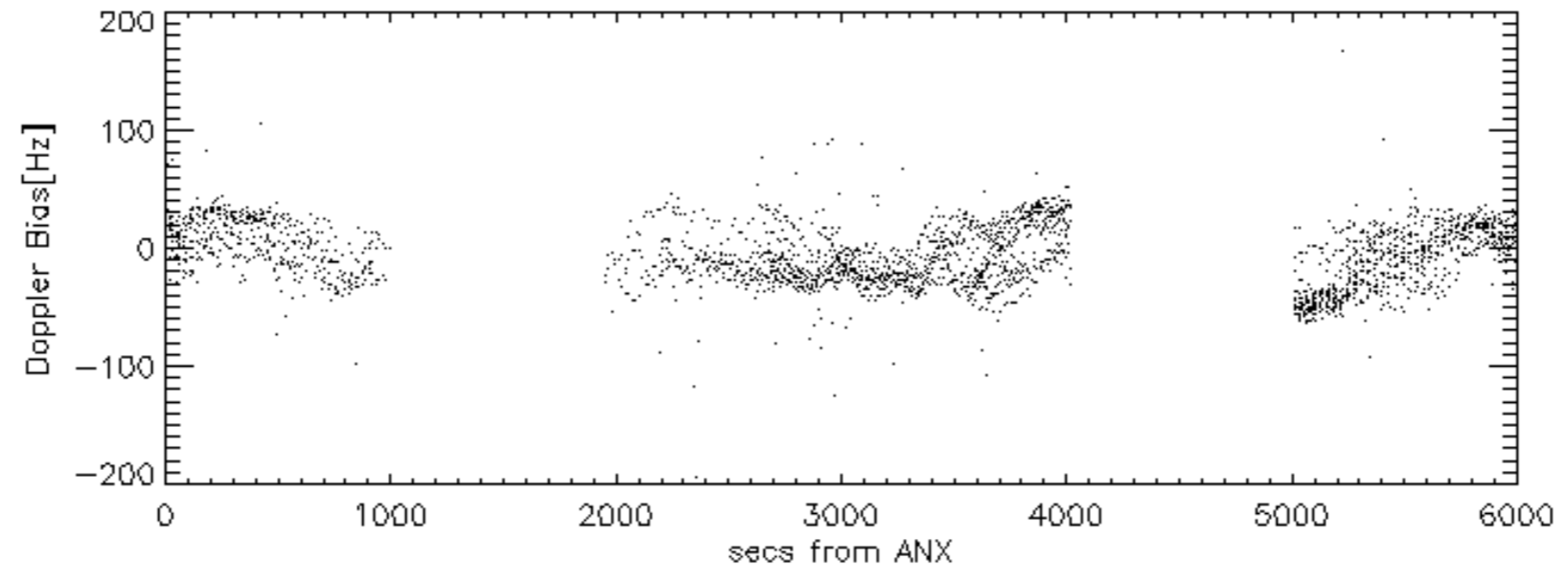
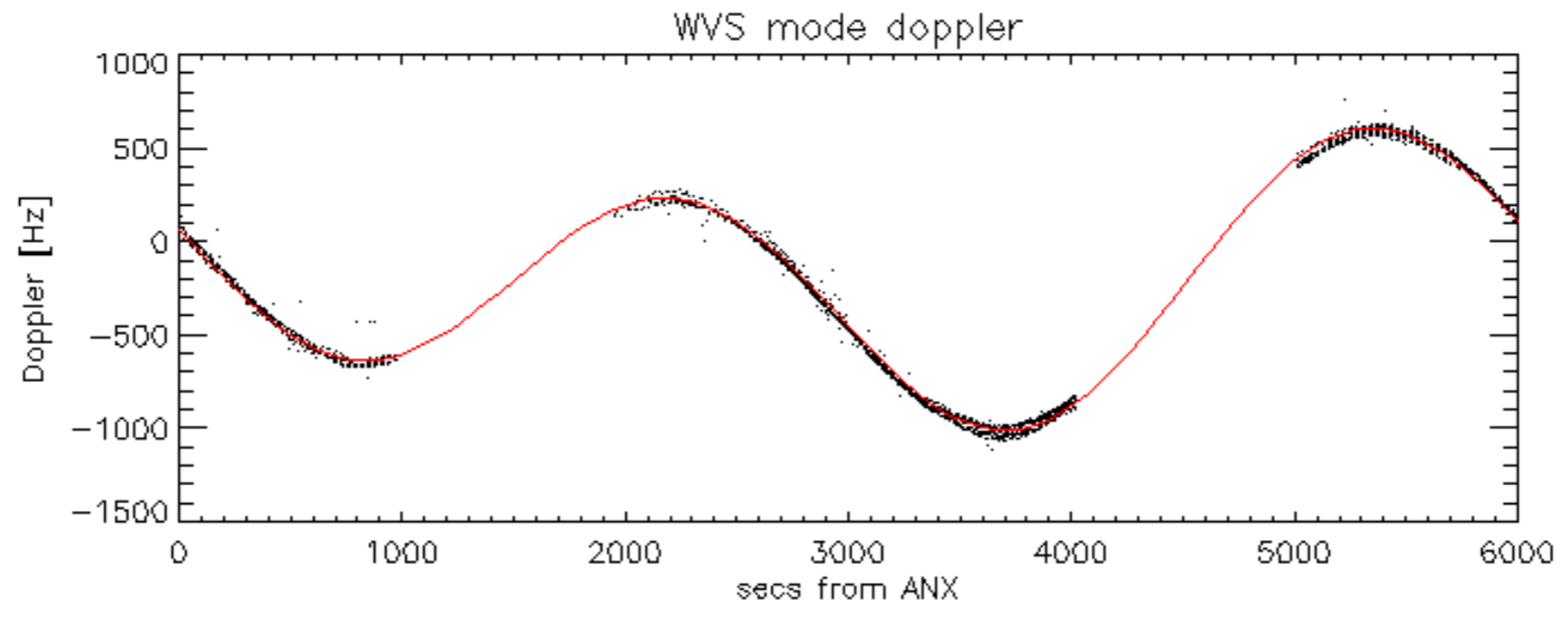
Doppler 'WVS' 'IS2' ascending



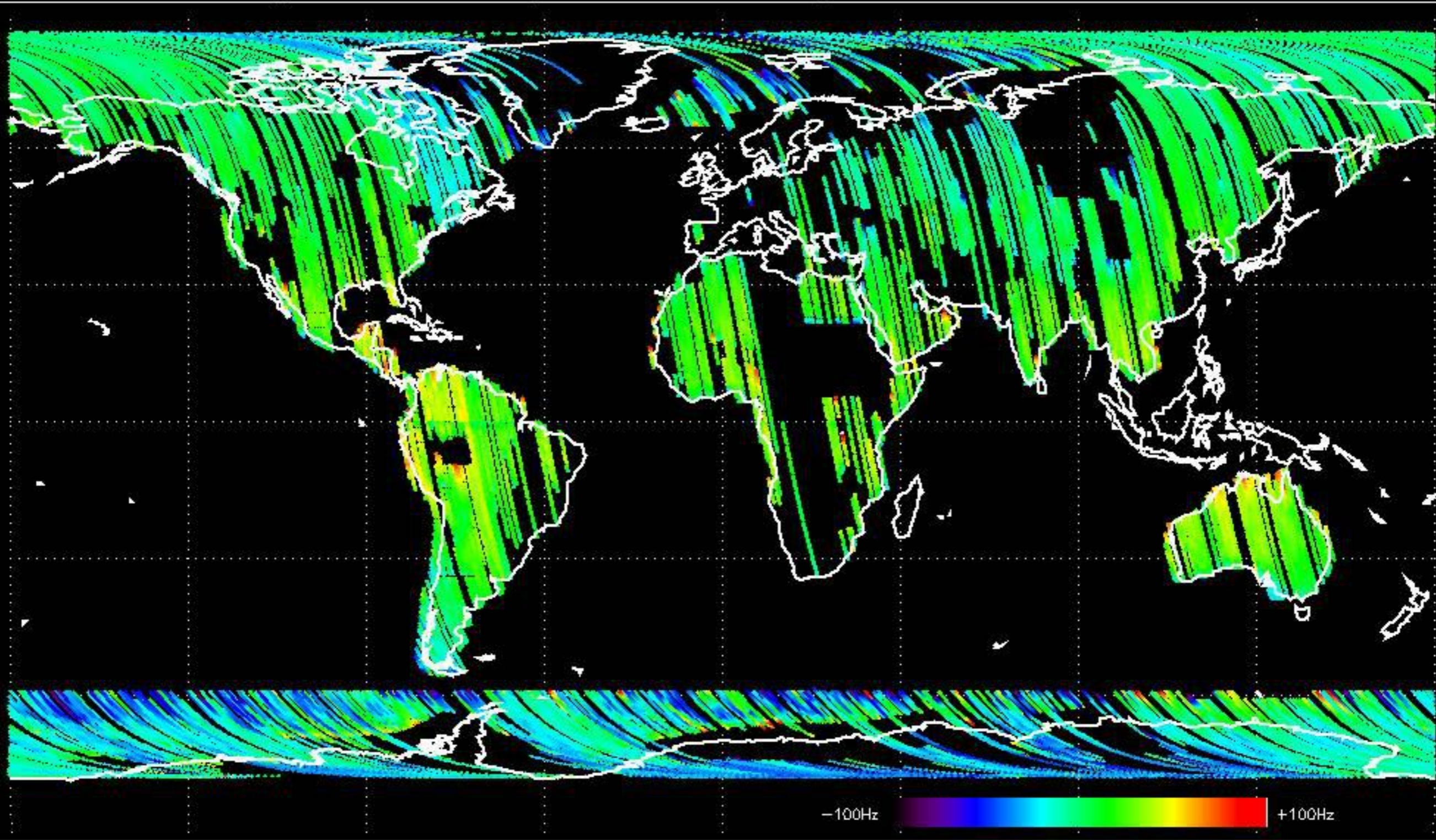
Doppler 'WVS' 'IS2' descending



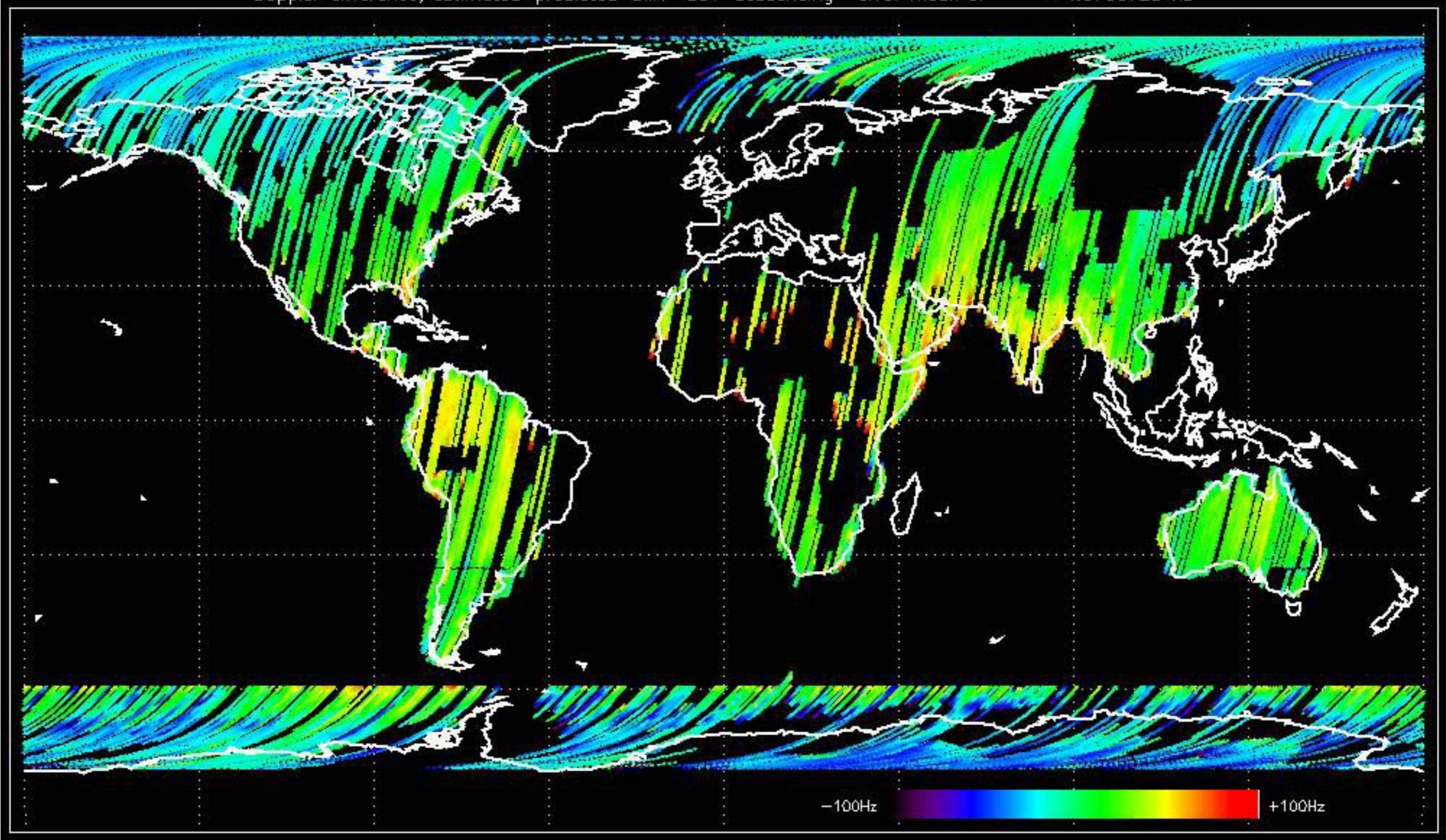




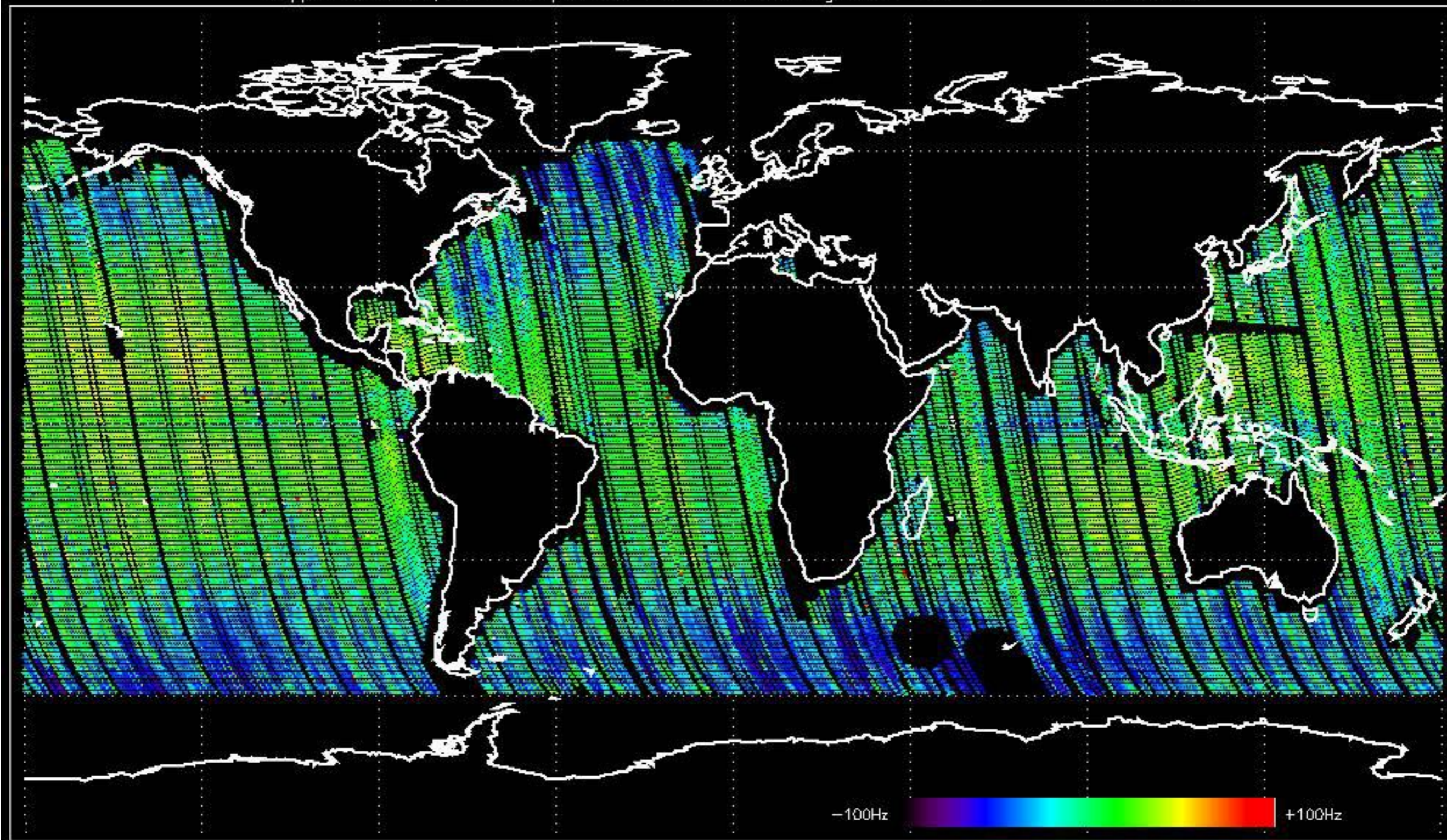
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.411865 Hz



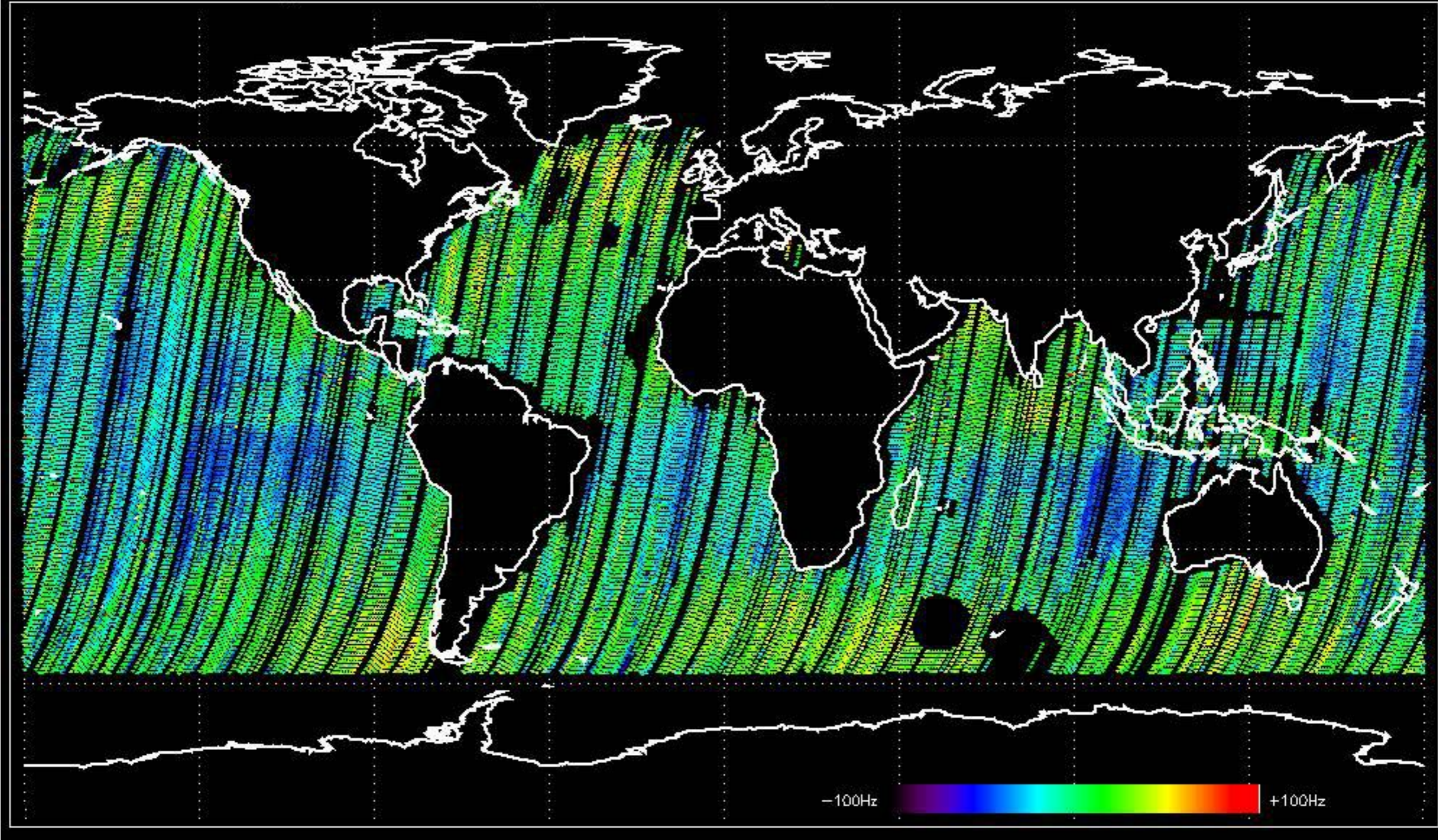
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.0700728 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.1732529 Hz

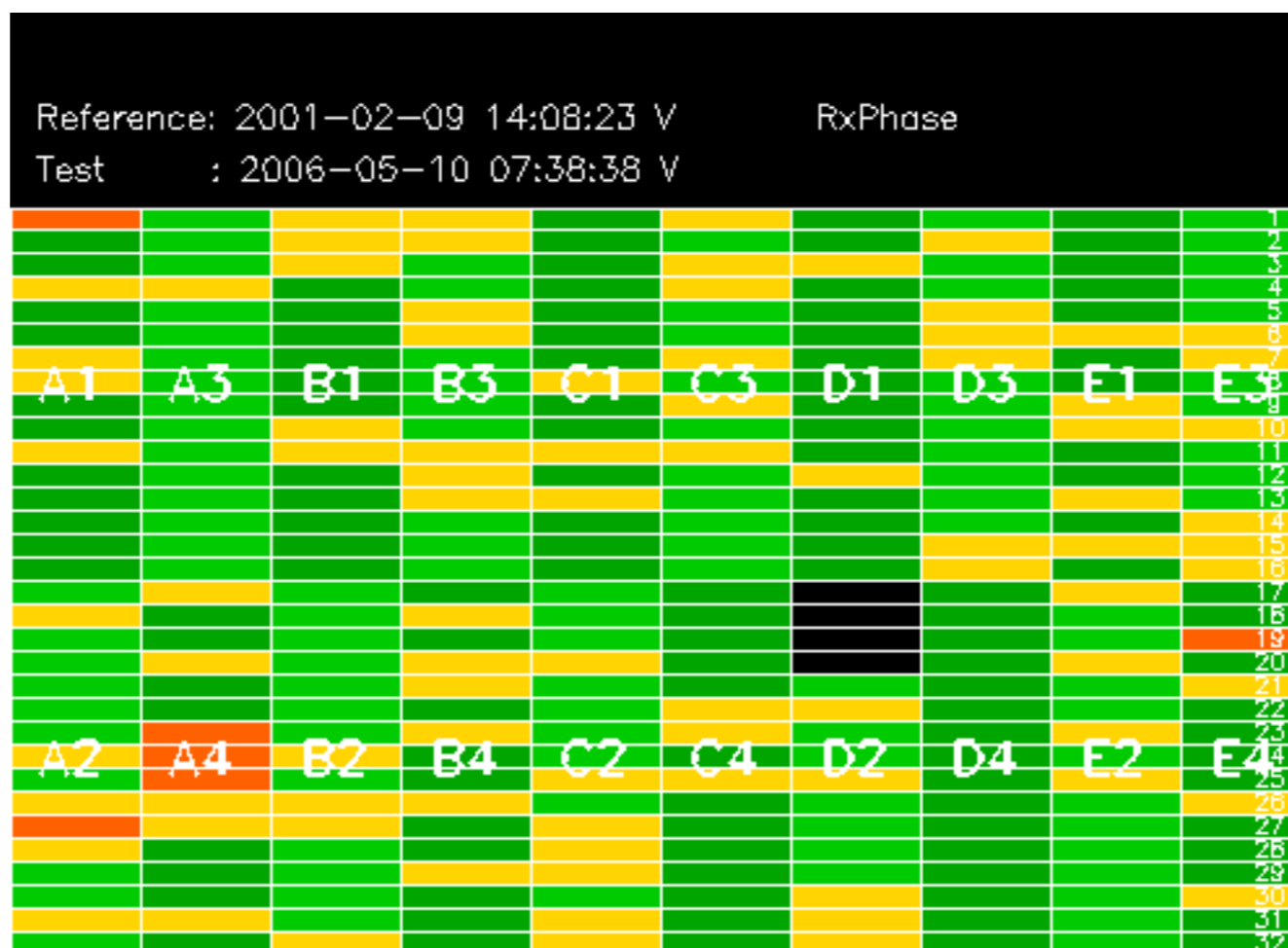


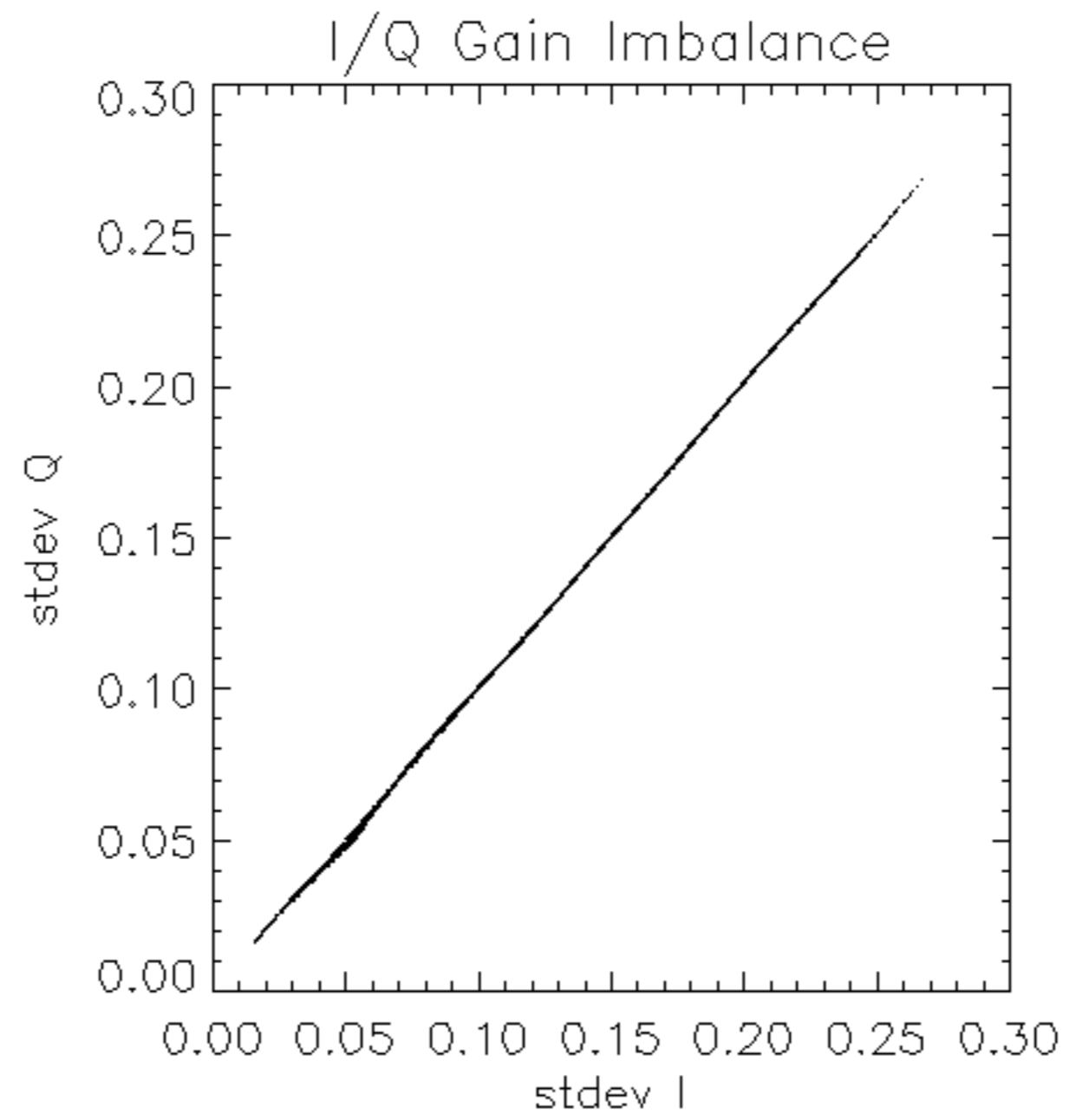
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.498035 Hz

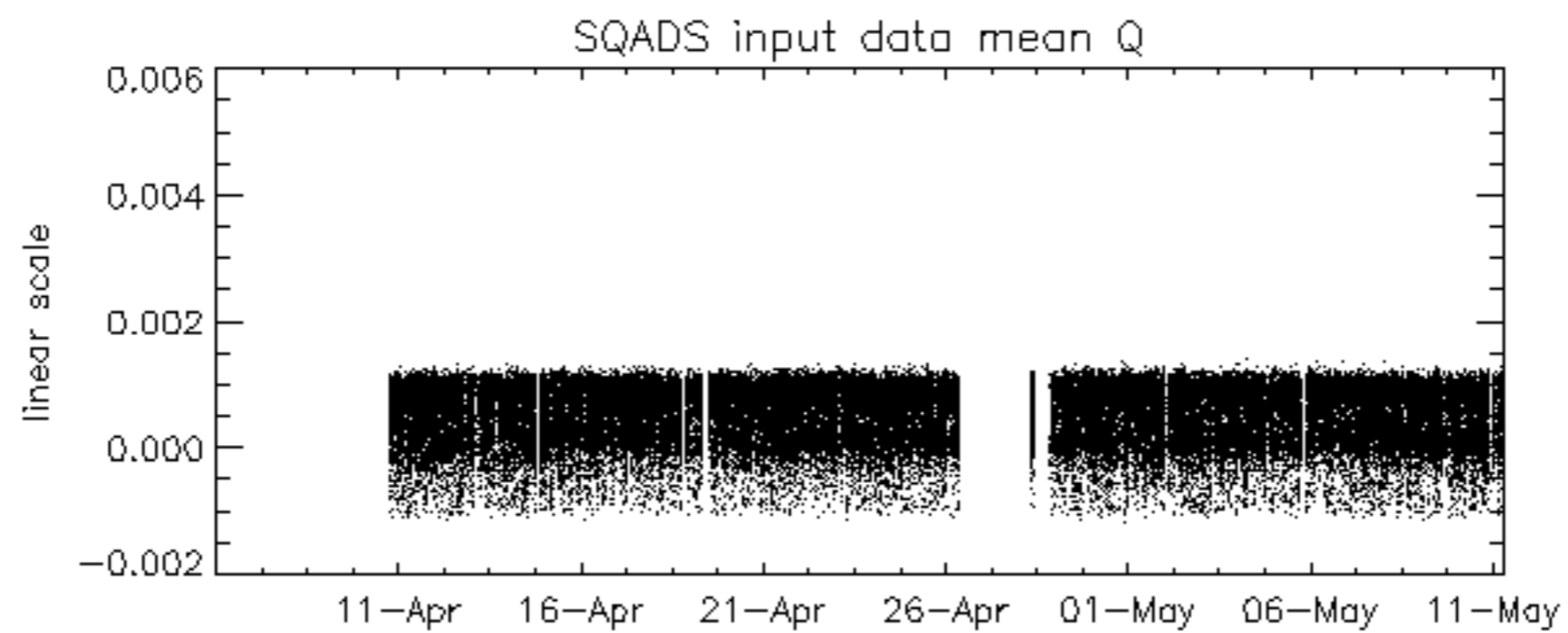
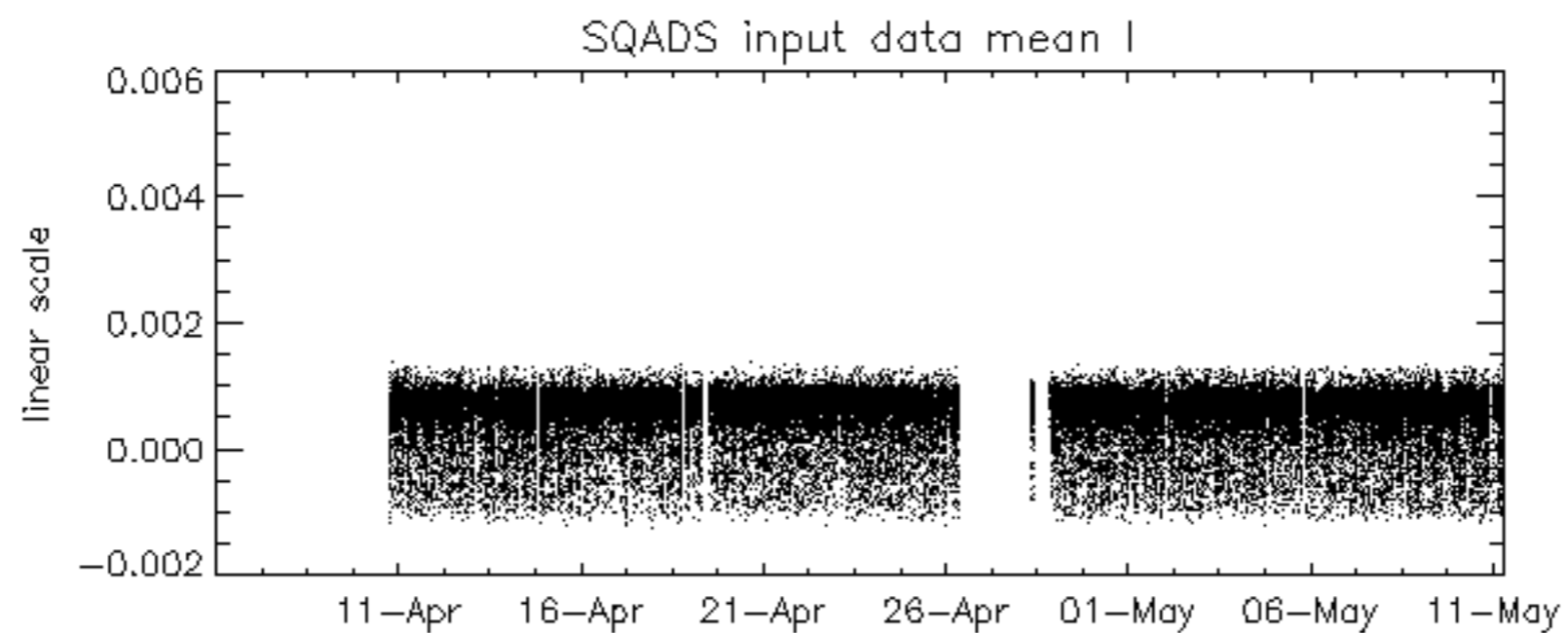
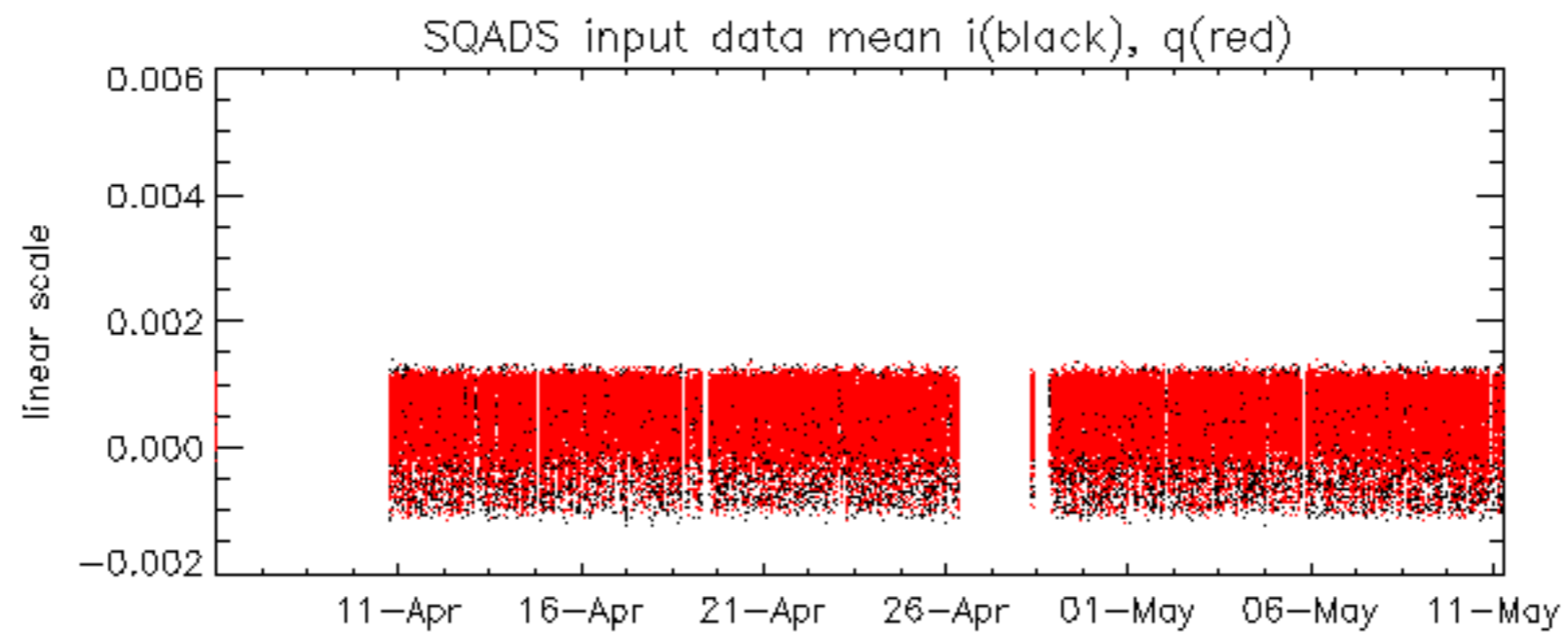


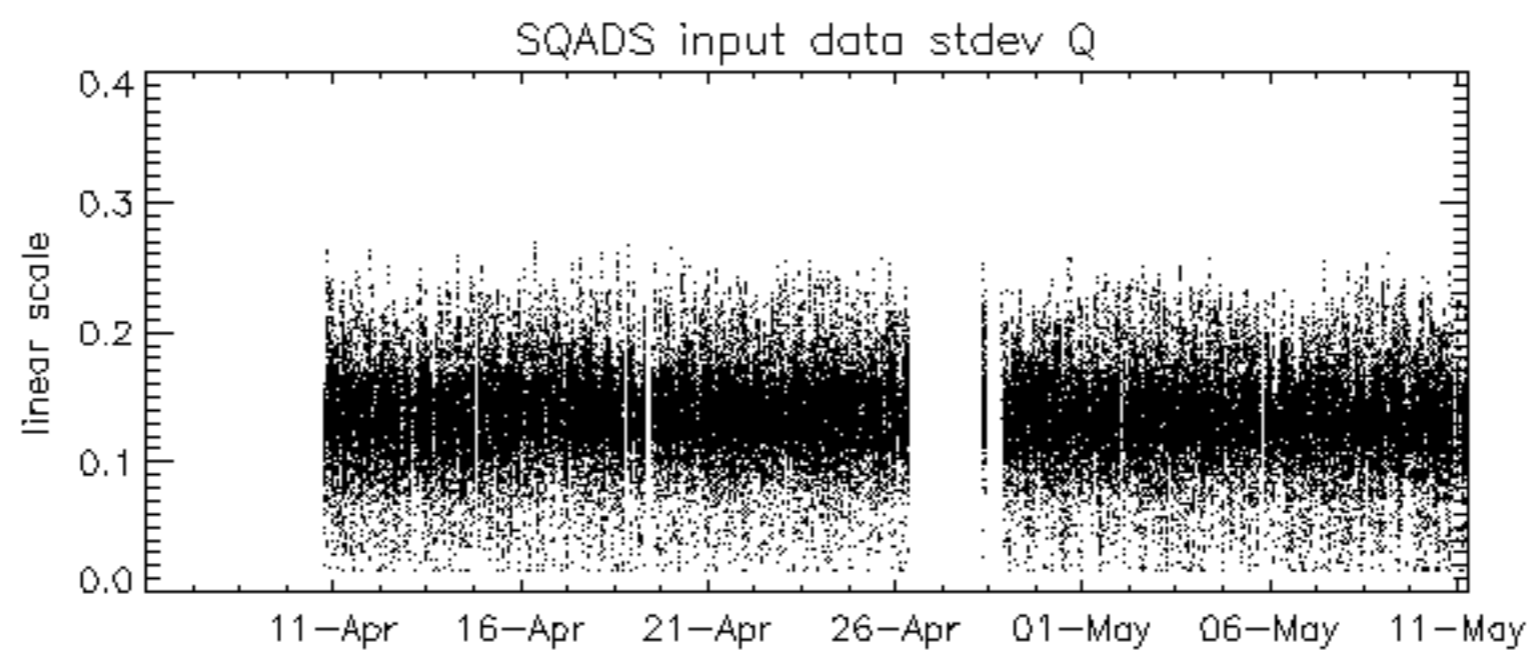
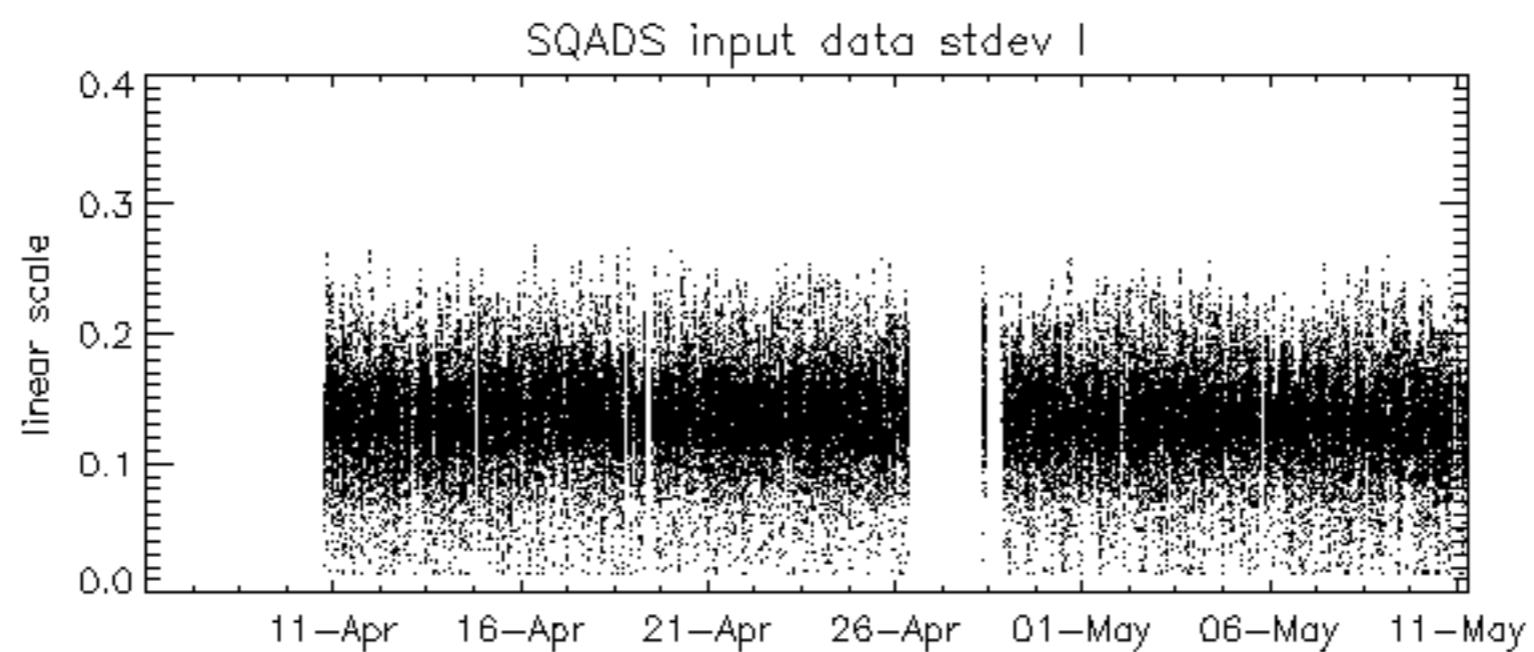
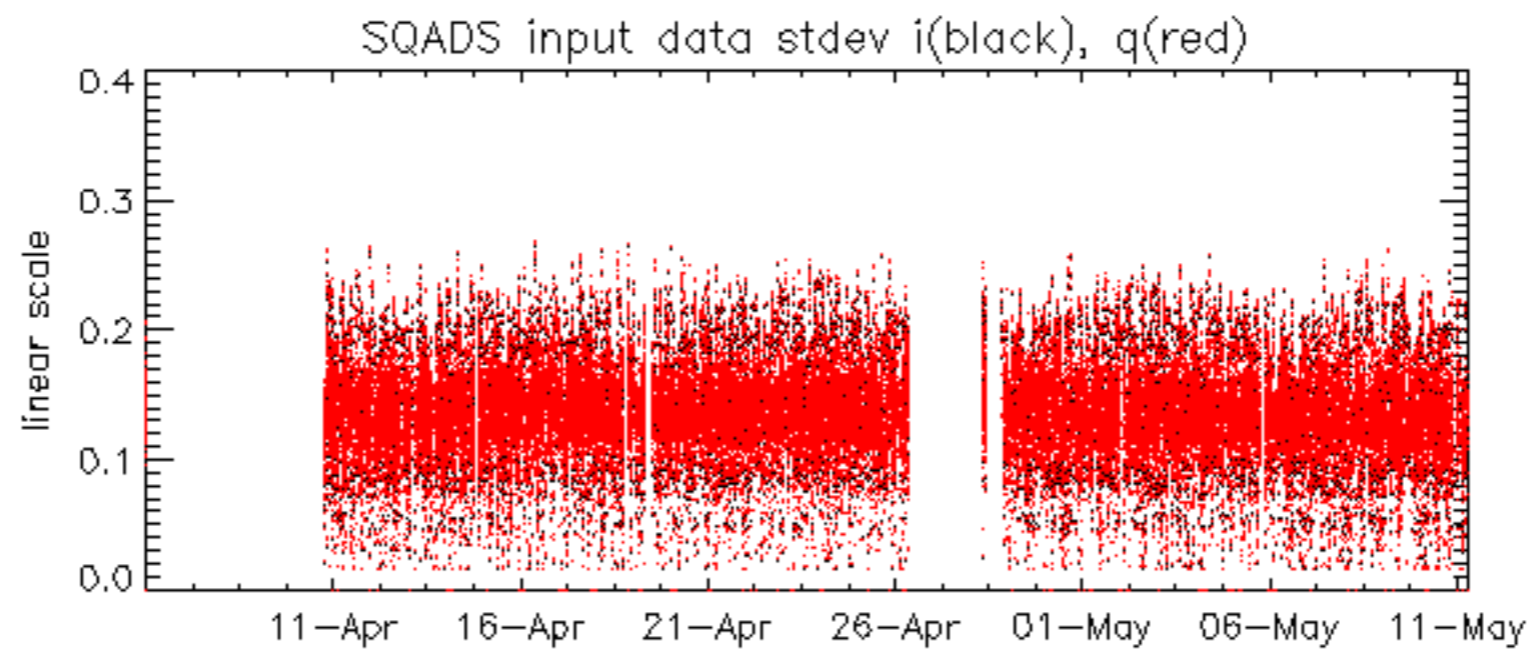
No anomalies observed on available MS products:

No anomalies observed.





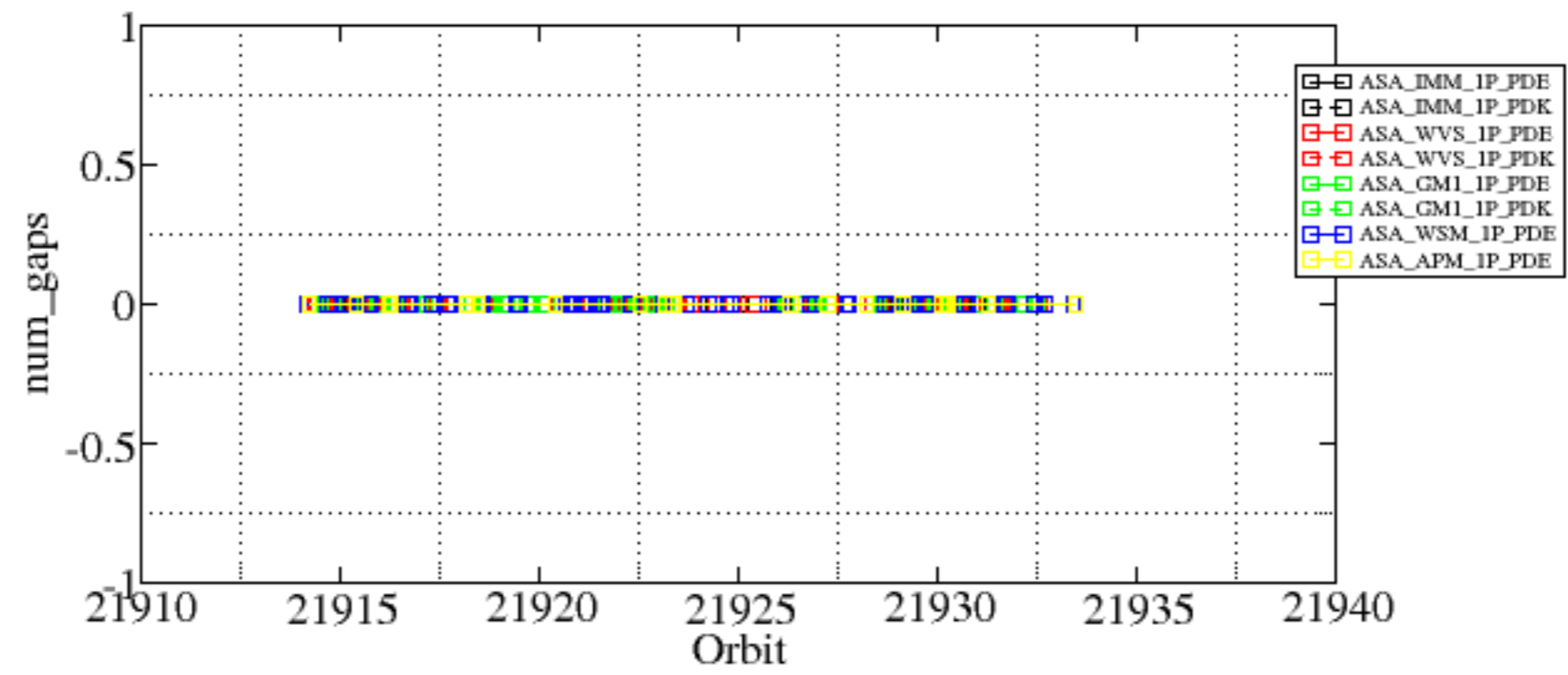




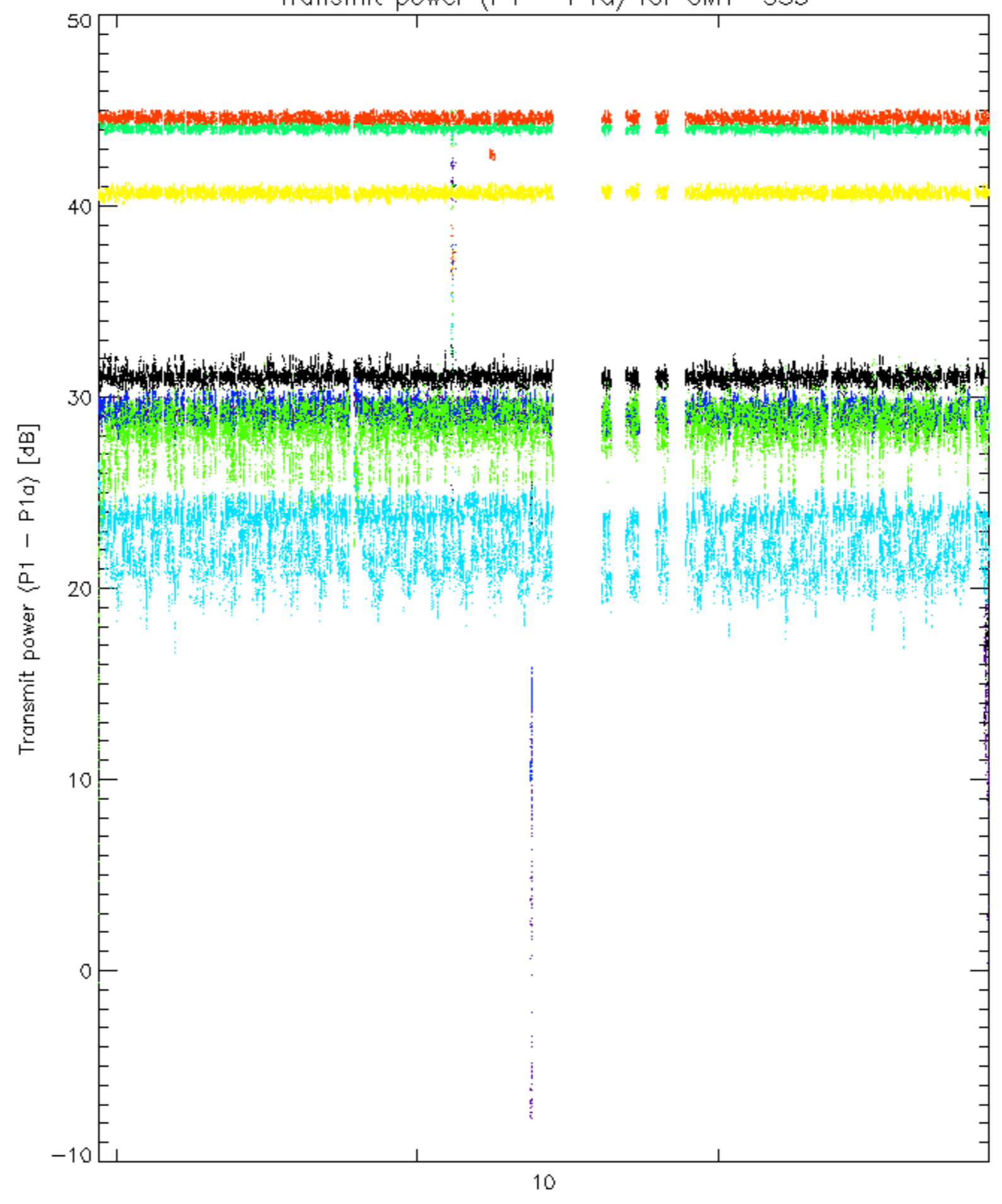
Summary of analysis for the last 3 days 2006051[901]

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

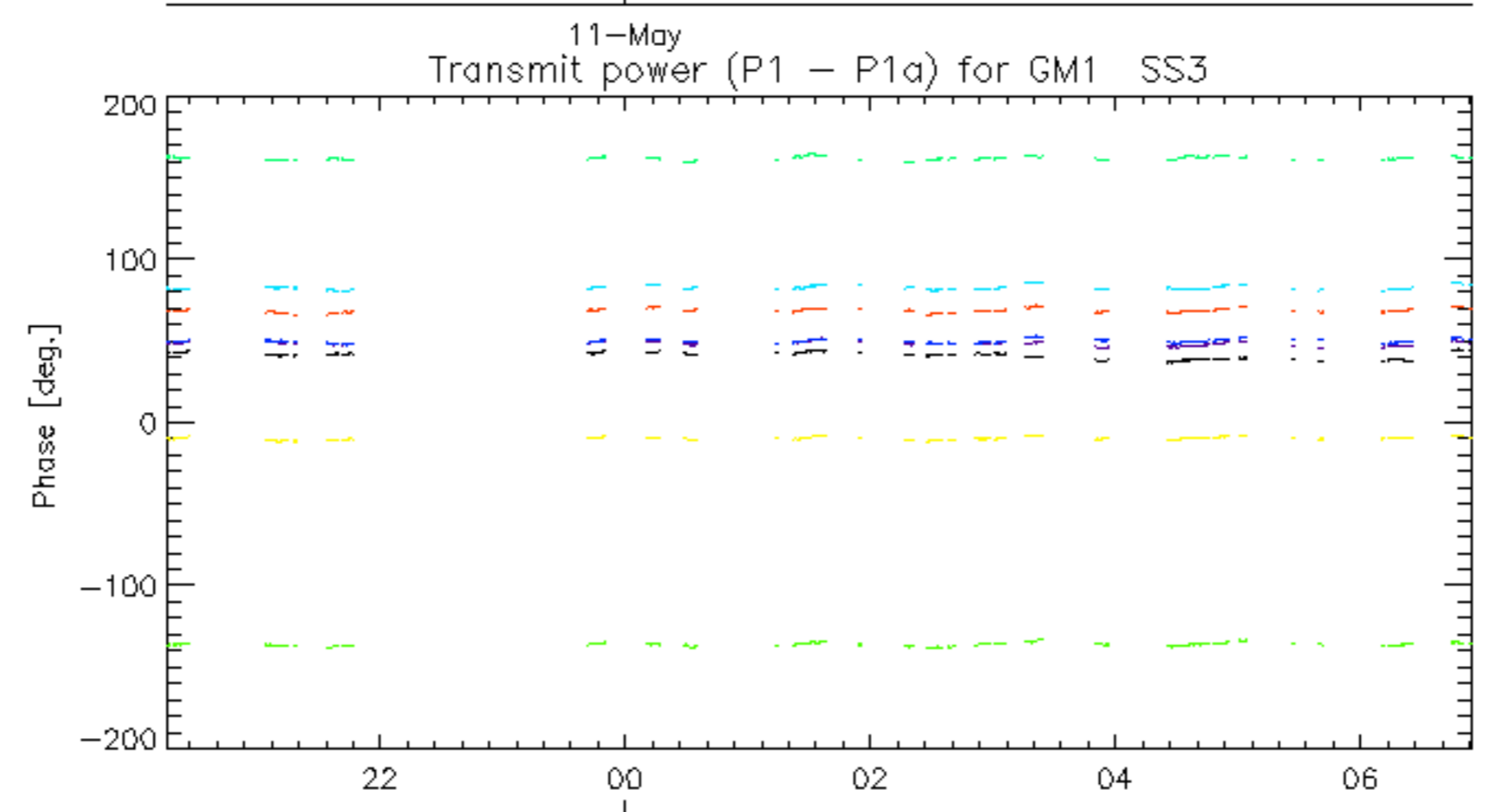
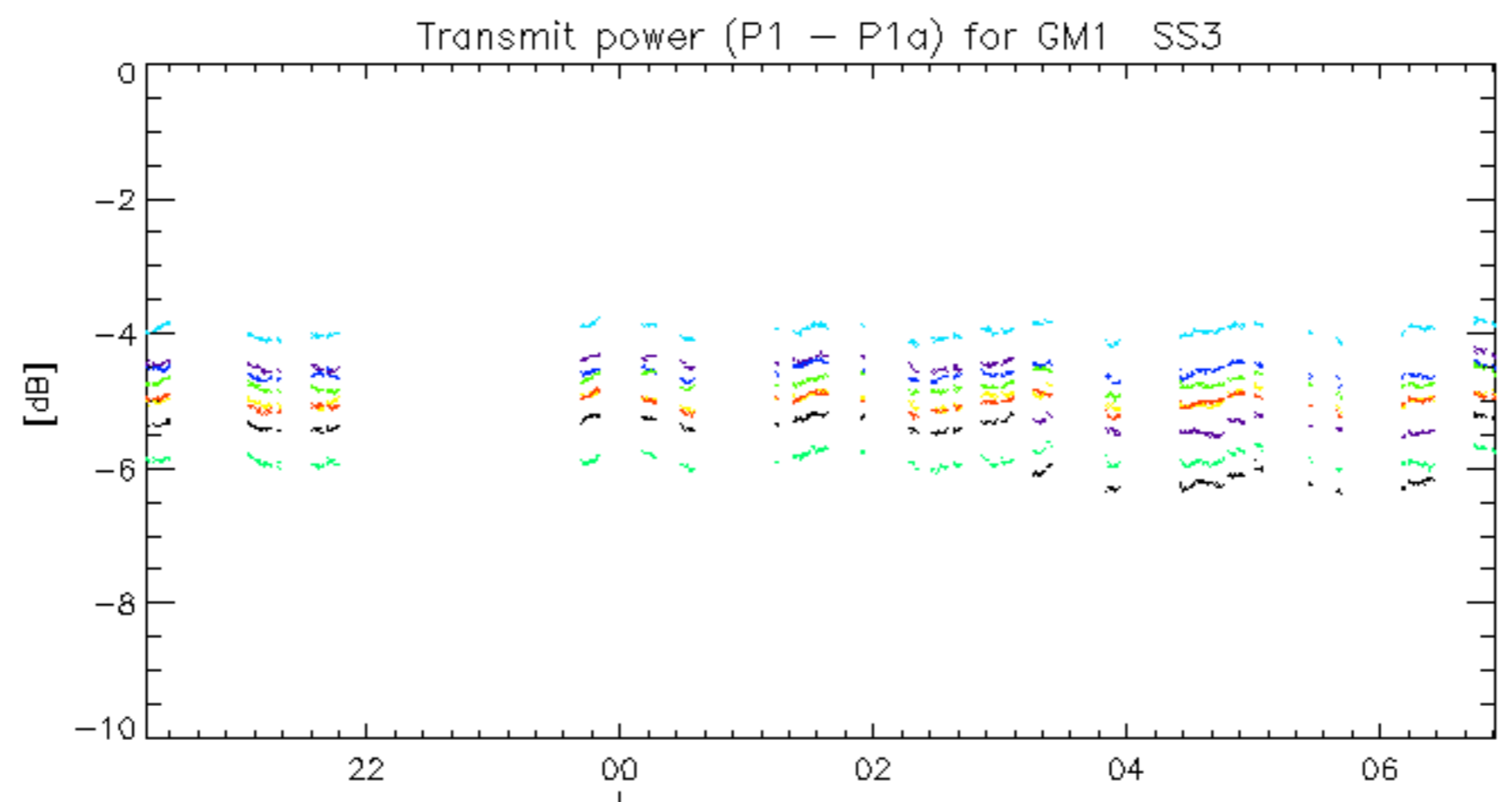
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20060511_064141_00000672047_00335_21932_8794.N1	0	42
ASA_WSM_1PNPDE20060511_064141_000001472047_00335_21932_8799.N1	0	42



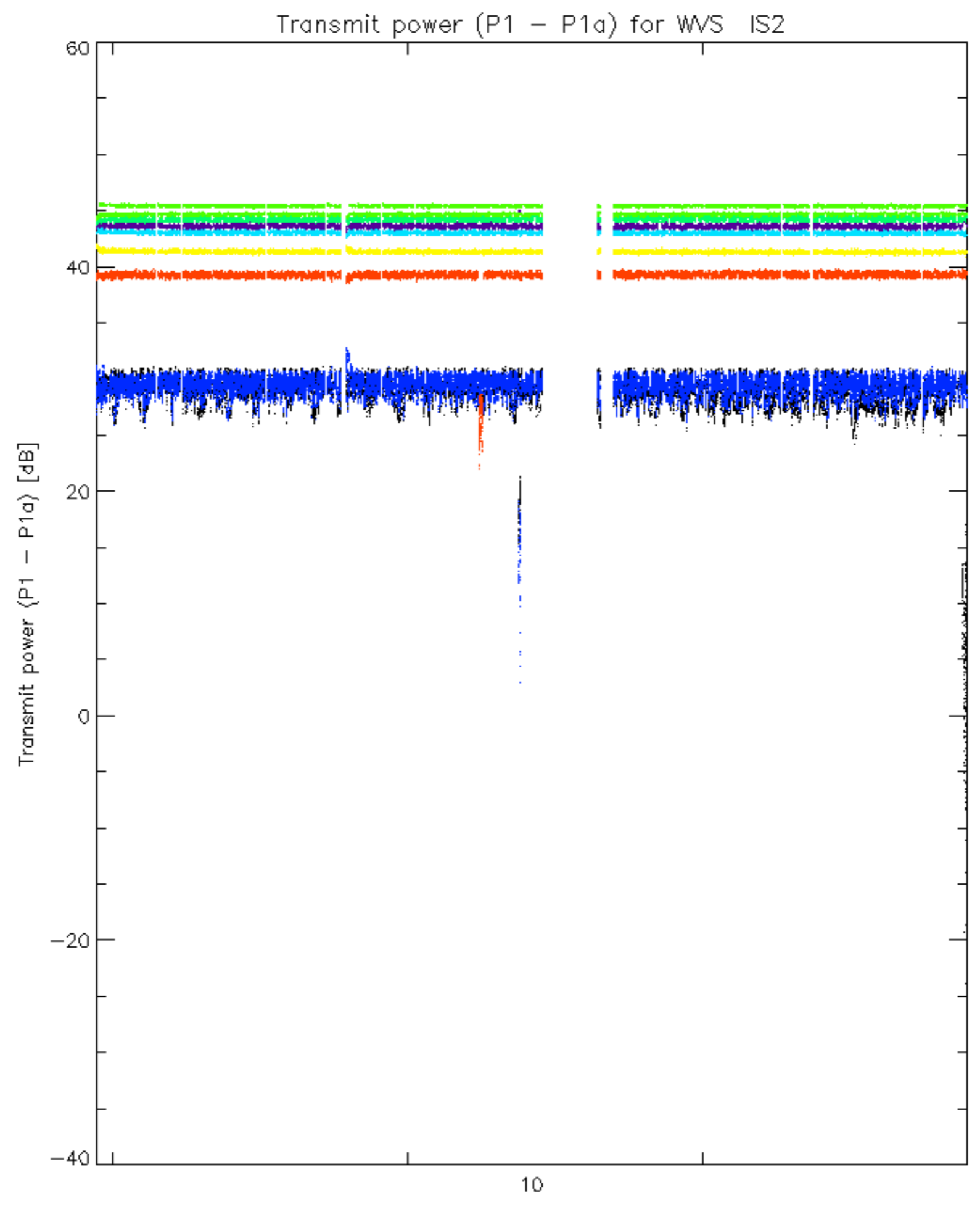
Transmit power (P1 - P1a) for GM1 SS3



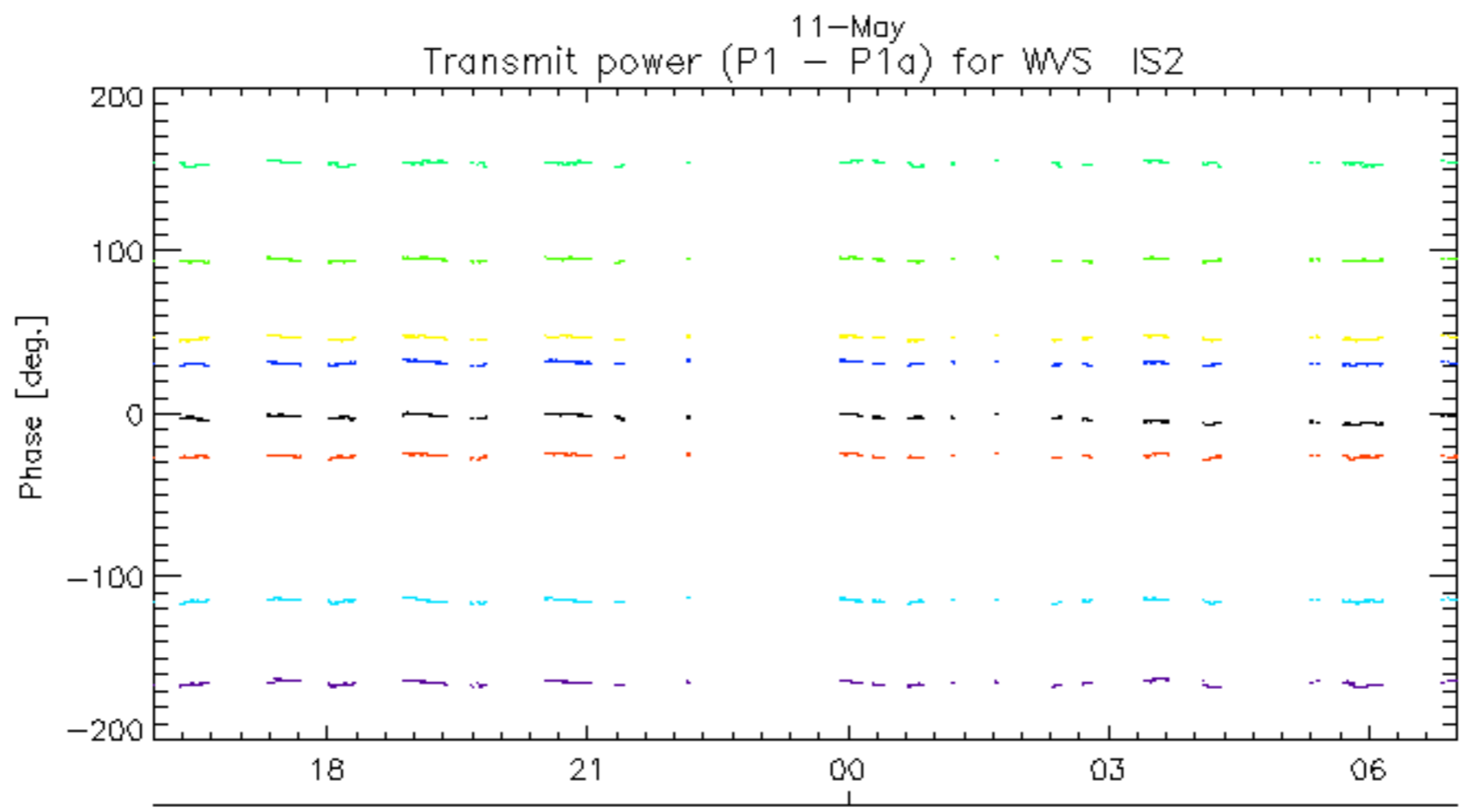
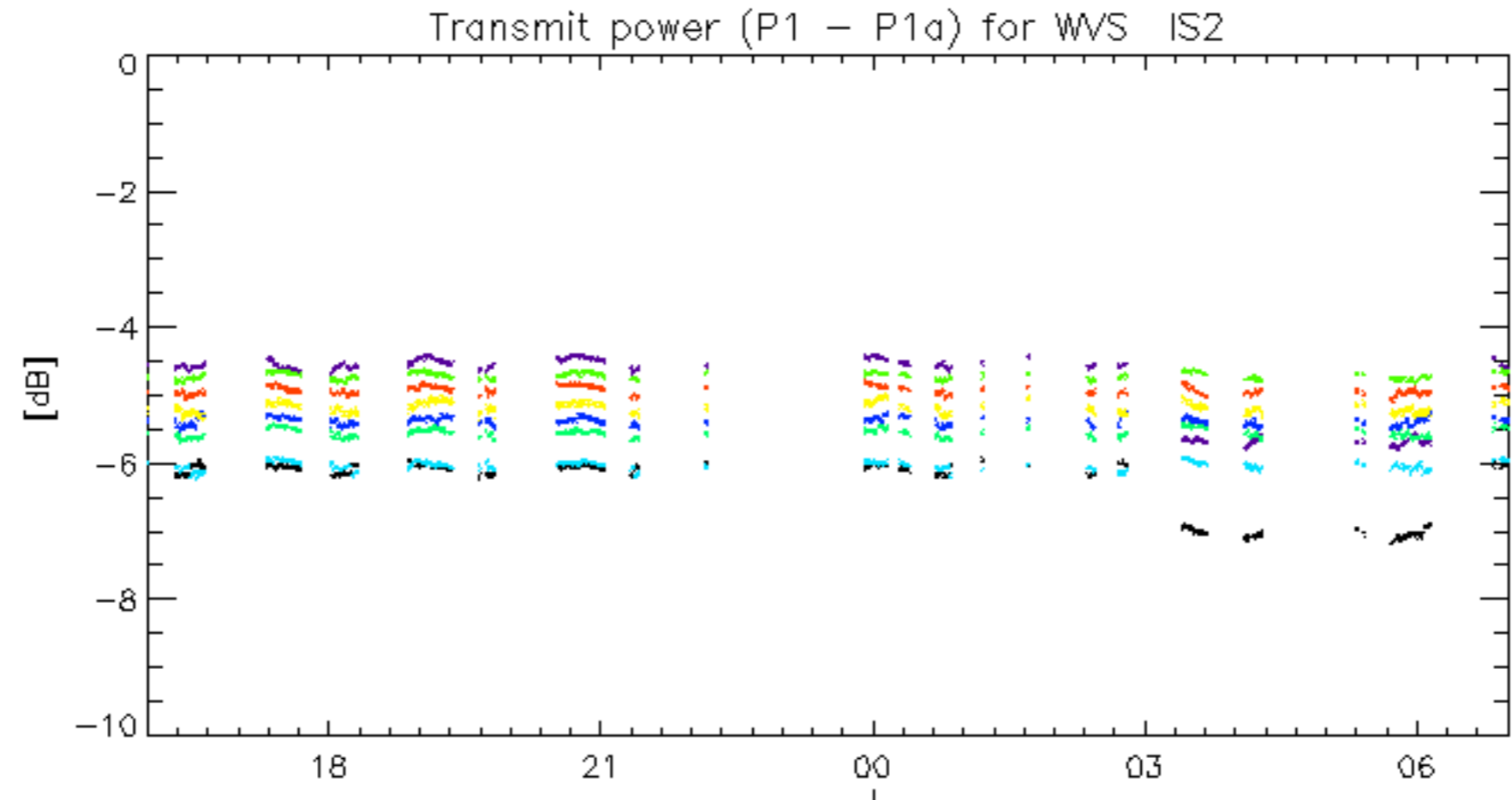
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



11-May
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.