

PRELIMINARY REPORT OF 060506

last update on Sat May 6 16:34:18 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 2006-05-05 00:00:00 to 2006-05-06 16:34:18

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	62	4	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	62	4	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	62	4	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	62	4	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	20	52	23	28	70
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	20	52	23	28	70
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	20	52	23	28	70
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	20	52	23	28	70

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.975200	0.011707	0.011538
7	P1	-3.049943	0.011360	-0.048959
11	P1	-4.085854	0.016110	-0.045968
15	P1	-6.099970	0.012859	-0.041418
19	P1	-3.310018	0.007490	0.021158
22	P1	-4.516832	0.011356	-0.044744
26	P1	-4.049481	0.019893	0.118203
30	P1	-5.736651	0.022222	-0.000550
3	P1	-16.702793	0.311806	0.128963
7	P1	-16.942835	0.147662	-0.171291
11	P1	-16.701614	0.328043	-0.436887
15	P1	-13.092288	0.131885	-0.201476
19	P1	-14.126244	0.048468	-0.236611
22	P1	-16.011312	0.486420	-0.388286
26	P1	-15.483376	0.267285	0.484410
30	P1	-16.746677	0.300121	-0.467212

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.298147	0.086847	0.061905
7	P2	-22.204990	0.101084	0.091528
11	P2	-16.050663	0.111674	0.165066
15	P2	-7.163845	0.097822	-0.017743
19	P2	-9.149230	0.090508	-0.039060
22	P2	-18.043692	0.089740	-0.128624
26	P2	-16.299513	0.094916	-0.105286
30	P2	-19.608479	0.088410	-0.006147

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.189693	0.004593	-0.005385
7	P3	-8.189693	0.004593	-0.005385
11	P3	-8.189693	0.004593	-0.005385
15	P3	-8.189693	0.004593	-0.005385
19	P3	-8.189693	0.004593	-0.005385
22	P3	-8.189693	0.004593	-0.005385
26	P3	-8.189718	0.004595	-0.005404
30	P3	-8.189718	0.004595	-0.005404

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	-3.748500	0.029172	0.008103
7	P1	-2.671953	0.118462	0.092602
11	P1	-2.887641	0.035255	0.072668
15	P1	-3.519786	0.031906	0.054145
19	P1	-3.382150	0.013480	-0.010479
22	P1	-5.126668	0.023308	0.072651
26	P1	-5.814294	0.024865	-0.031560
30	P1	-5.177975	0.048908	0.003243
3	P1	-11.592591	0.113700	-0.025183
7	P1	-9.977715	0.178105	0.036213
11	P1	-10.233957	0.088586	0.103822
15	P1	-10.702381	0.136208	0.141578
19	P1	-15.446060	0.089865	-0.080569
22	P1	-20.646139	1.272849	-0.521774
26	P1	-16.374590	0.413605	-0.221029
30	P1	-18.268105	0.491905	0.357812

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.964031	0.071498	0.076842
7	P2	-22.509657	0.190219	-0.076389
11	P2	-11.193998	0.051946	-0.003695
15	P2	-4.863604	0.042878	-0.060874
19	P2	-6.858216	0.042910	-0.043867
22	P2	-8.152925	0.056631	-0.055894
26	P2	-24.043289	0.137809	-0.091326
30	P2	-22.049492	0.093306	-0.001274

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024620	0.003750	-0.003631
7	P3	-8.024510	0.003772	-0.003715
11	P3	-8.024707	0.003737	-0.002906
15	P3	-8.024558	0.003761	-0.003409
19	P3	-8.024749	0.003760	-0.003248
22	P3	-8.024683	0.003759	-0.003388
26	P3	-8.024600	0.003749	-0.002842
30	P3	-8.024624	0.003763	-0.003407

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	0.000550544
	stdev	1.81302e-07
MEAN Q	mean	0.000519868
	stdev	2.24034e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136639
	stdev	0.00116359
STDEV Q	mean	0.136998
	stdev	0.00118112



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006050[456]

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_1PNPDE20060504_180901_000000862047_00242_21839_7952.N1	0	31
ASA_WSM_1PNPDE20060504_230834_000001222047_00245_21842_8010.N1	0	31







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

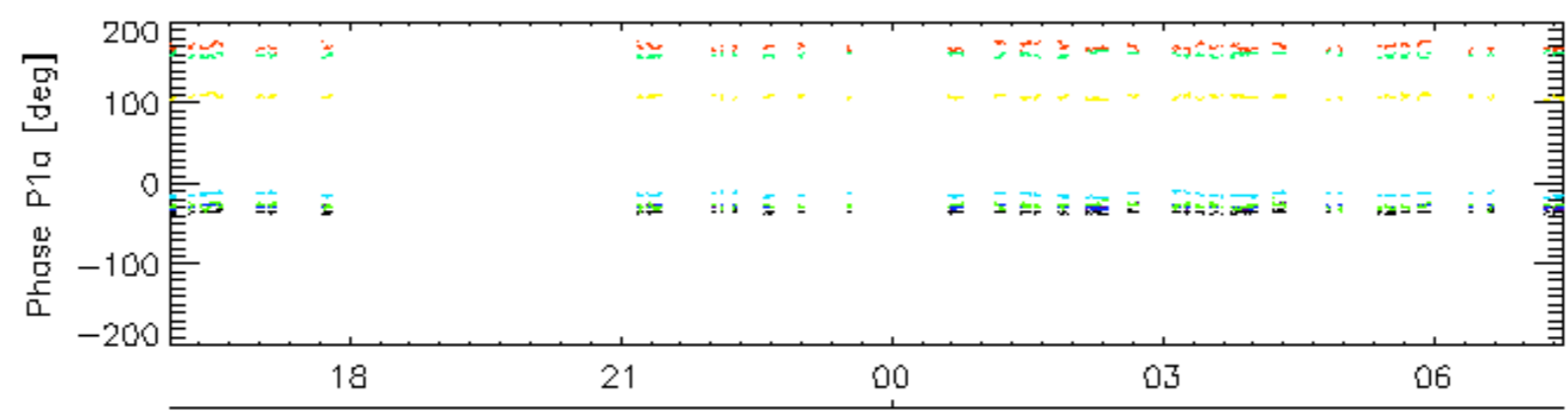
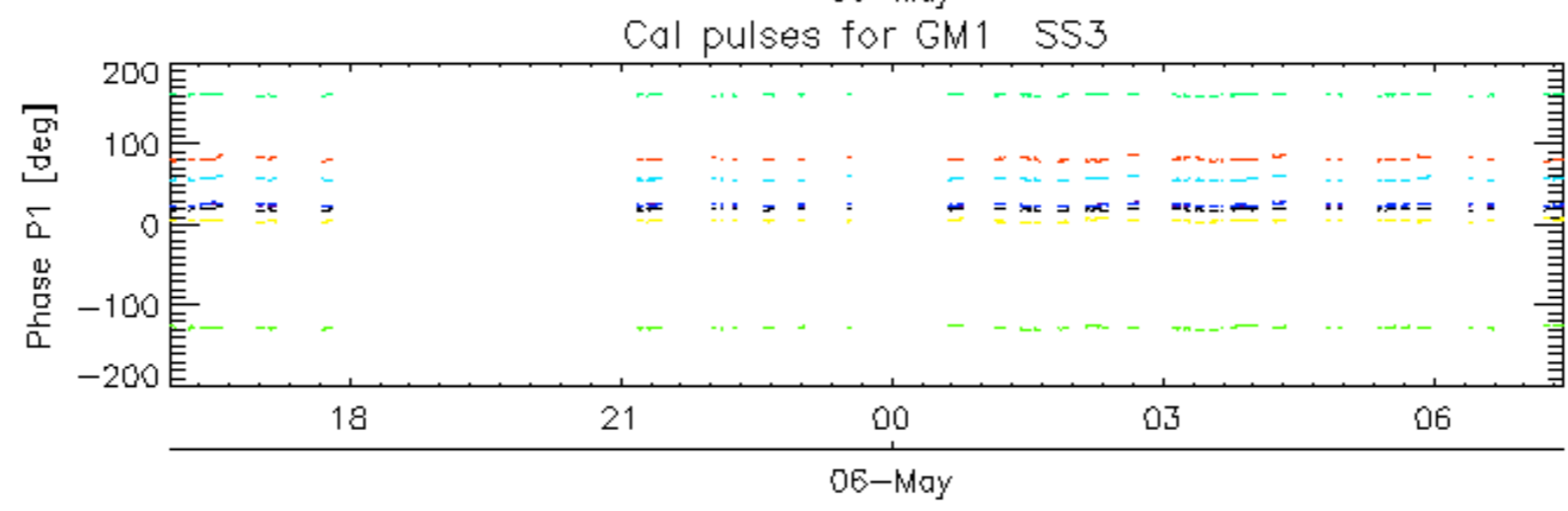
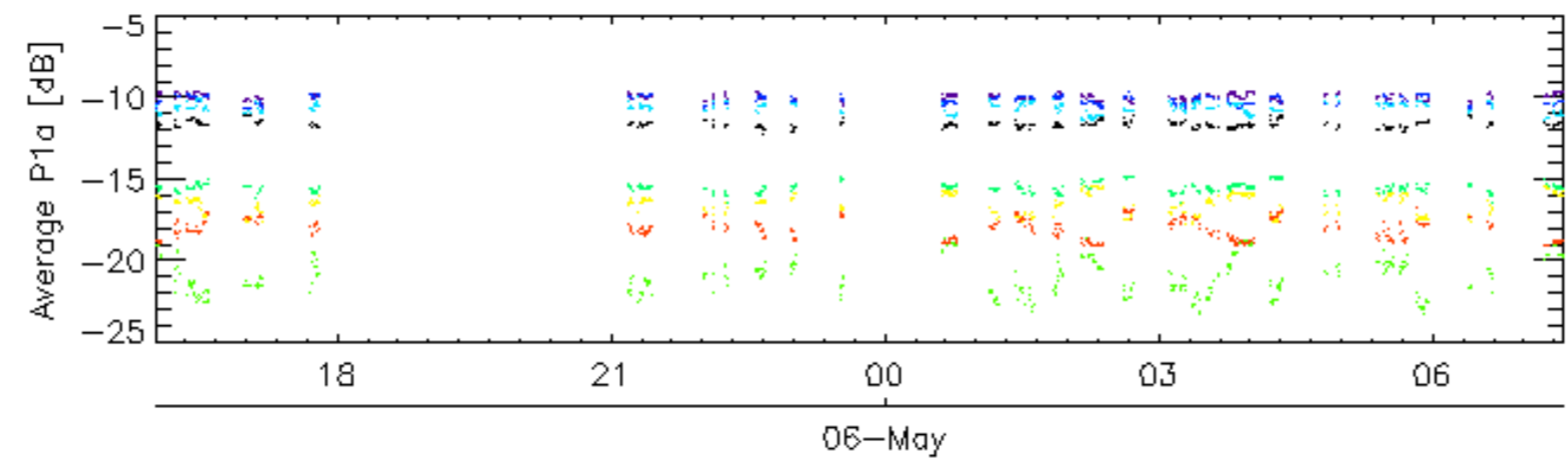
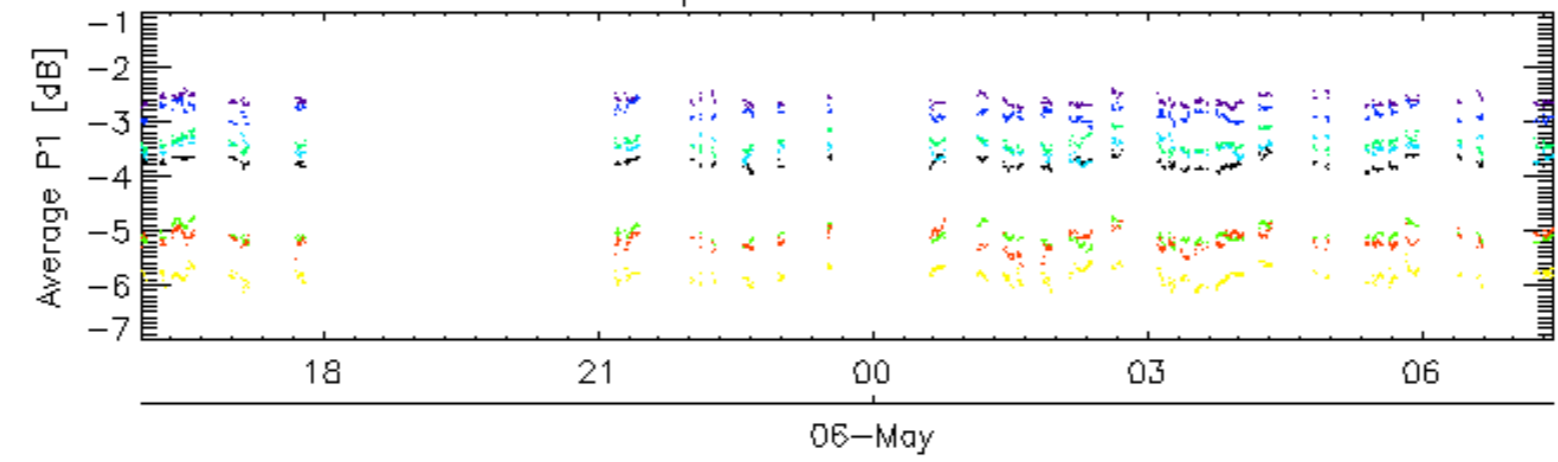
Ascending

Descending

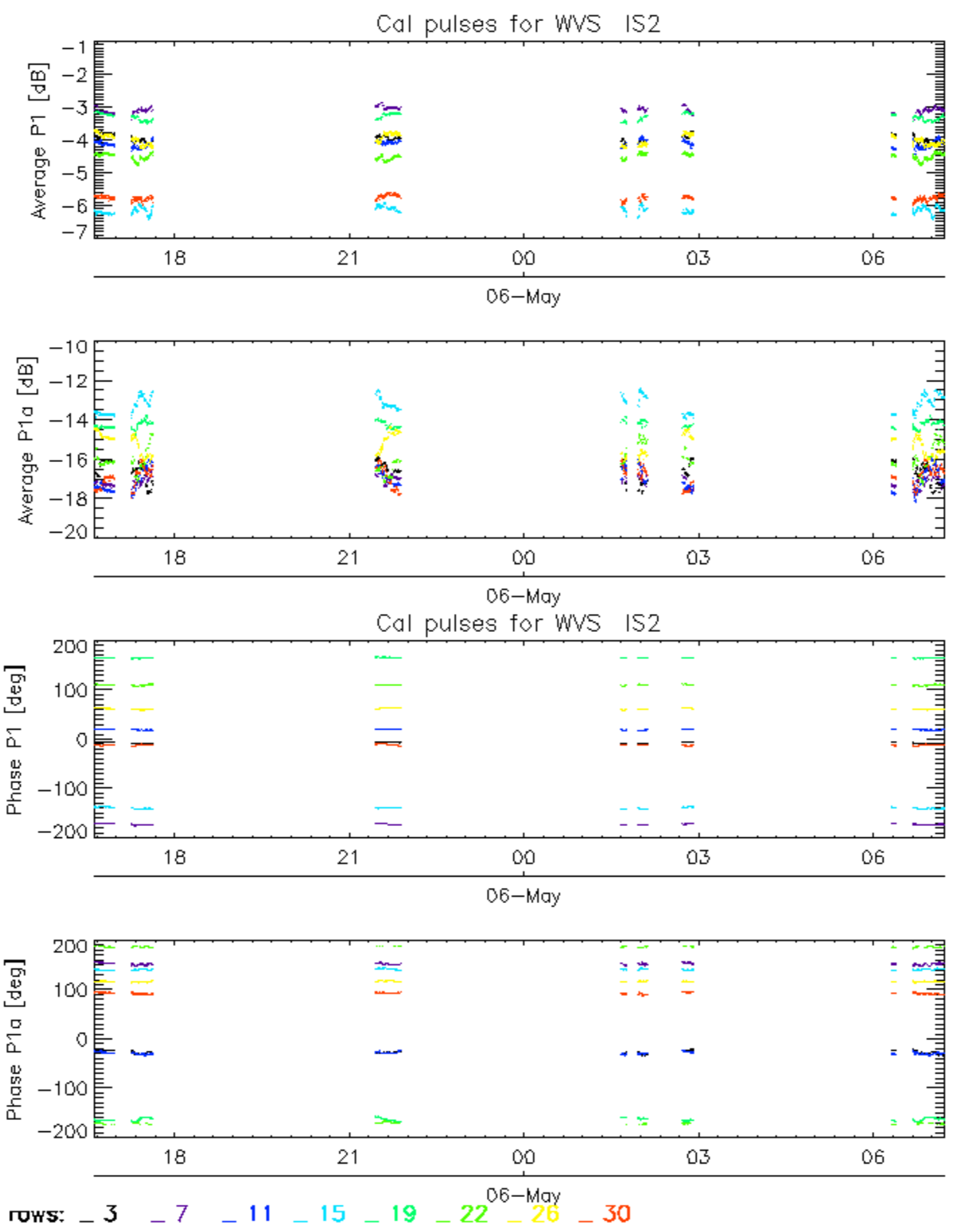
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

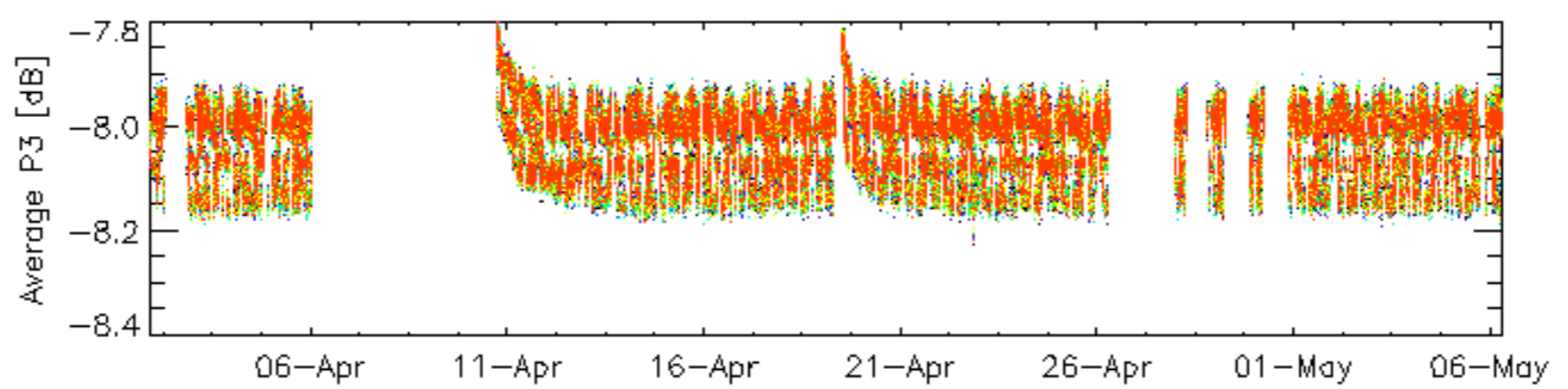
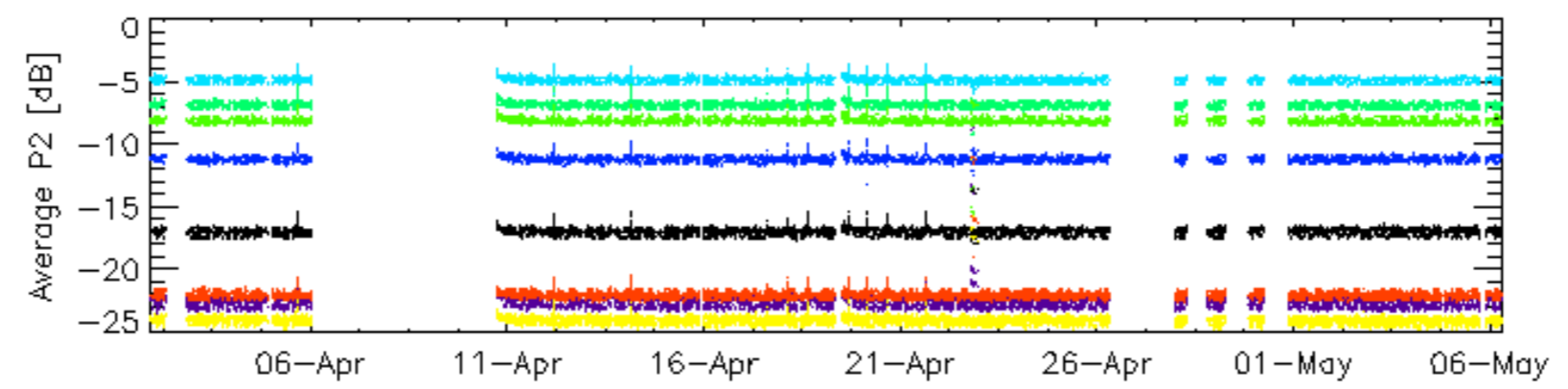
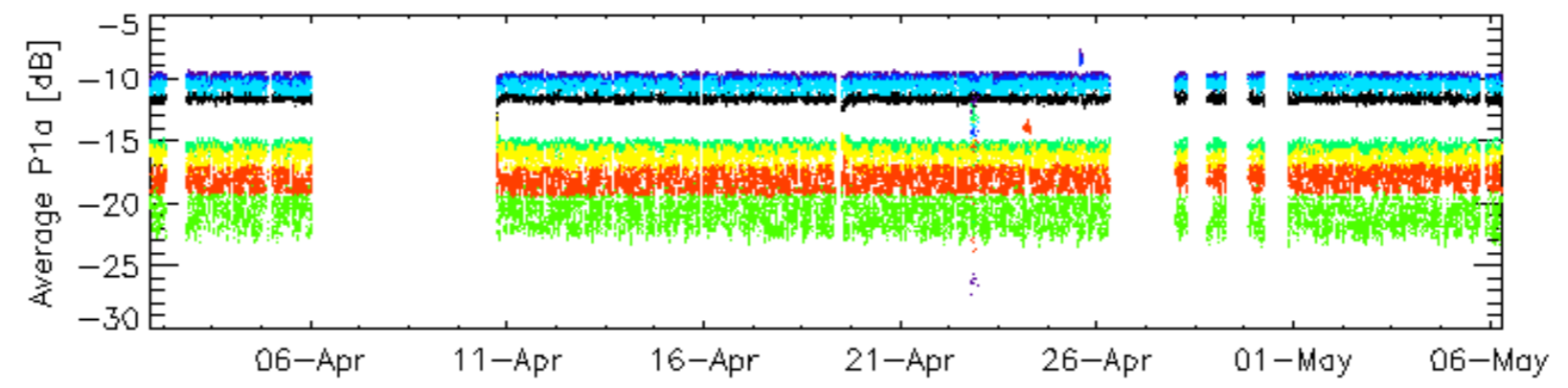
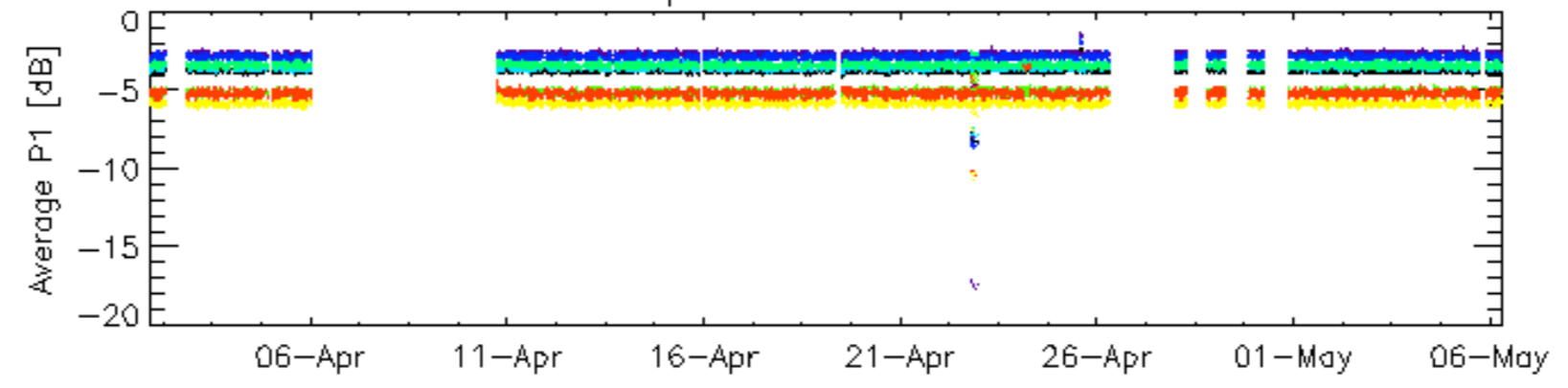
Cal pulses for GM1 SS3



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

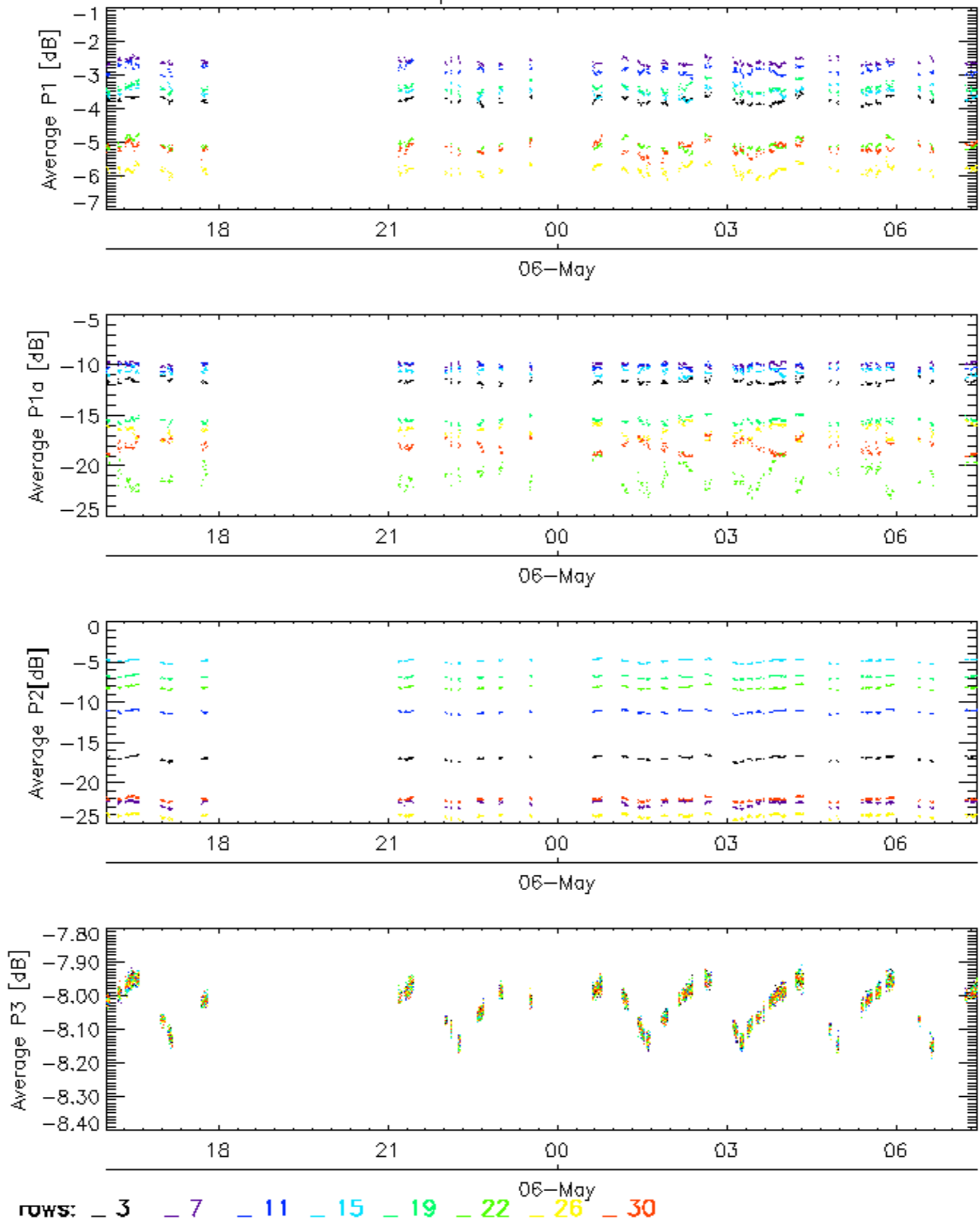


Cal pulses for GM1 SS3

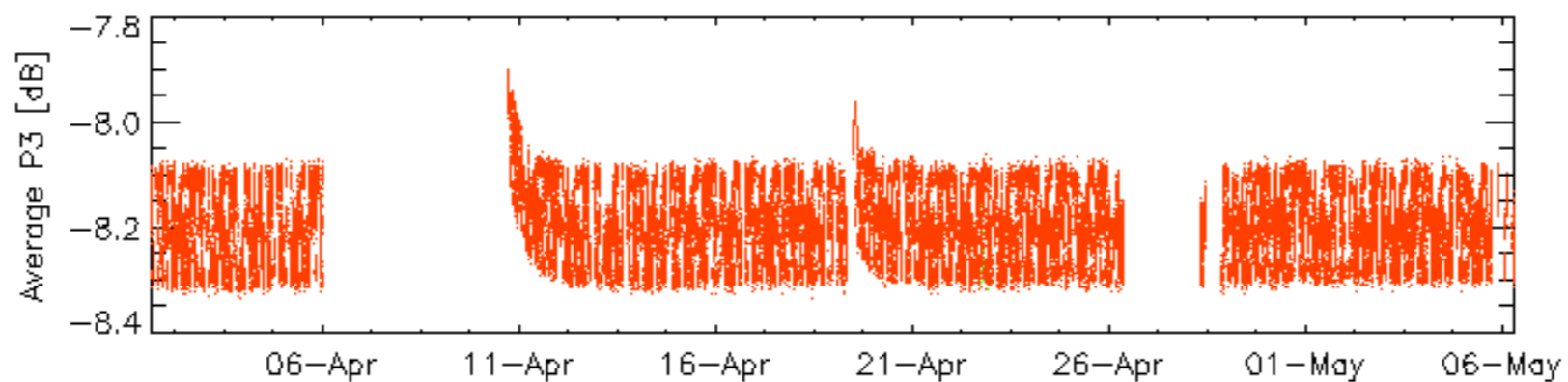
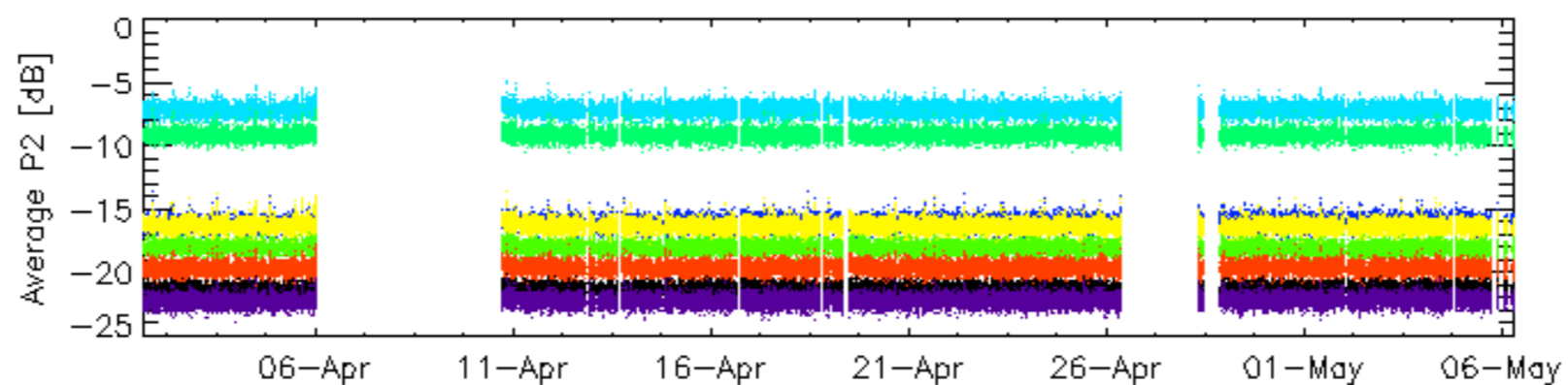
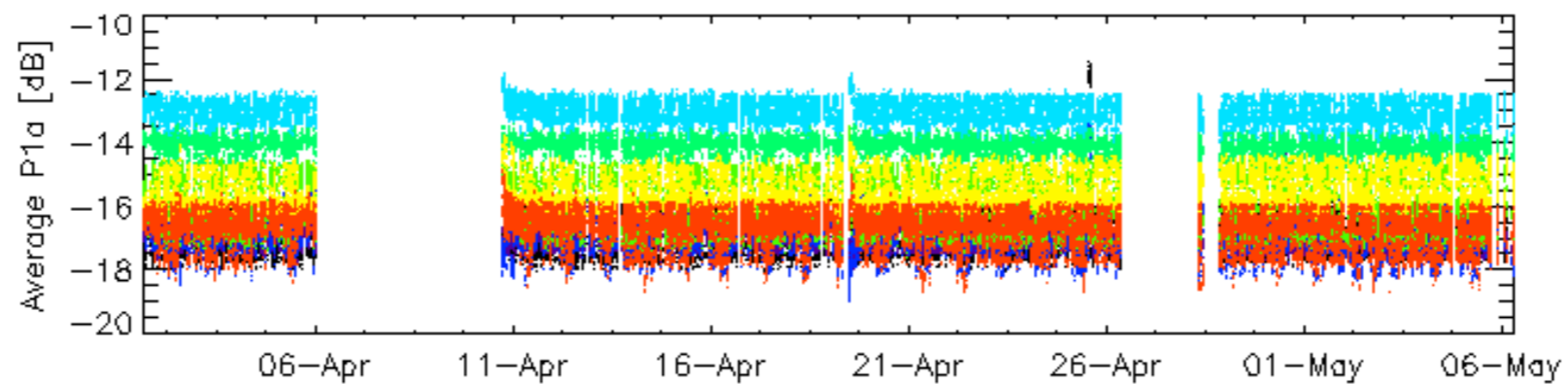
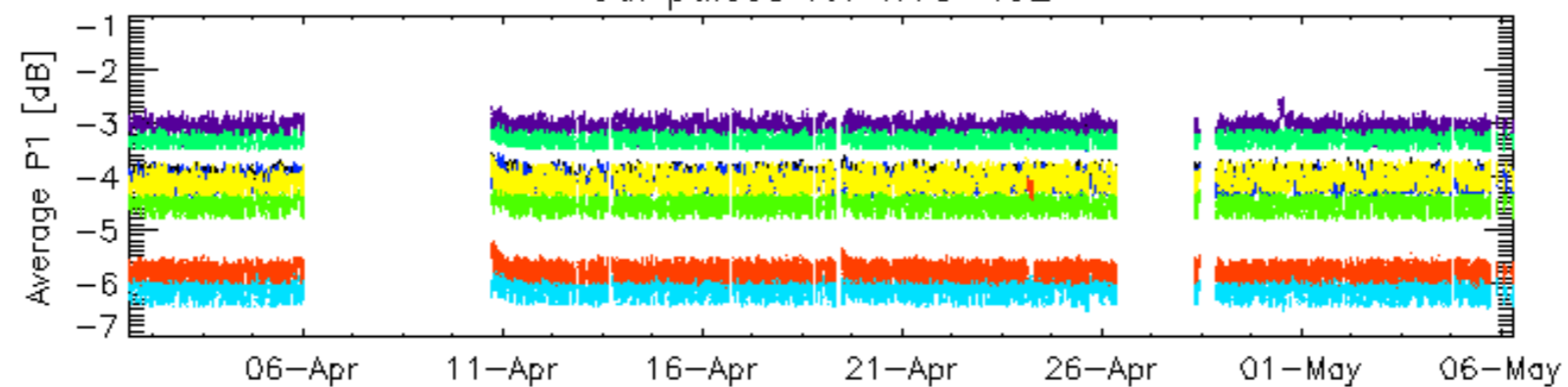


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

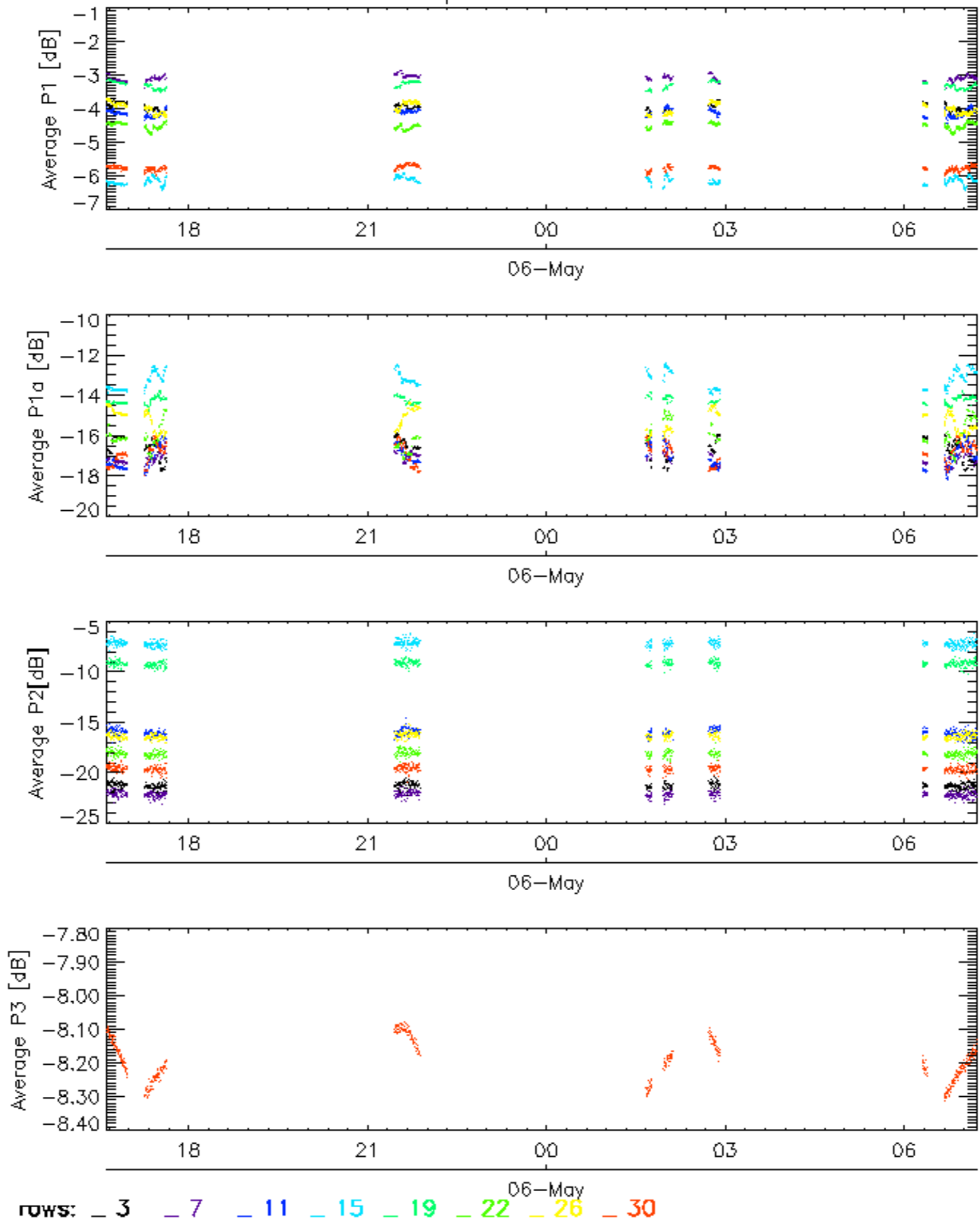


Cal pulses for WVS IS2

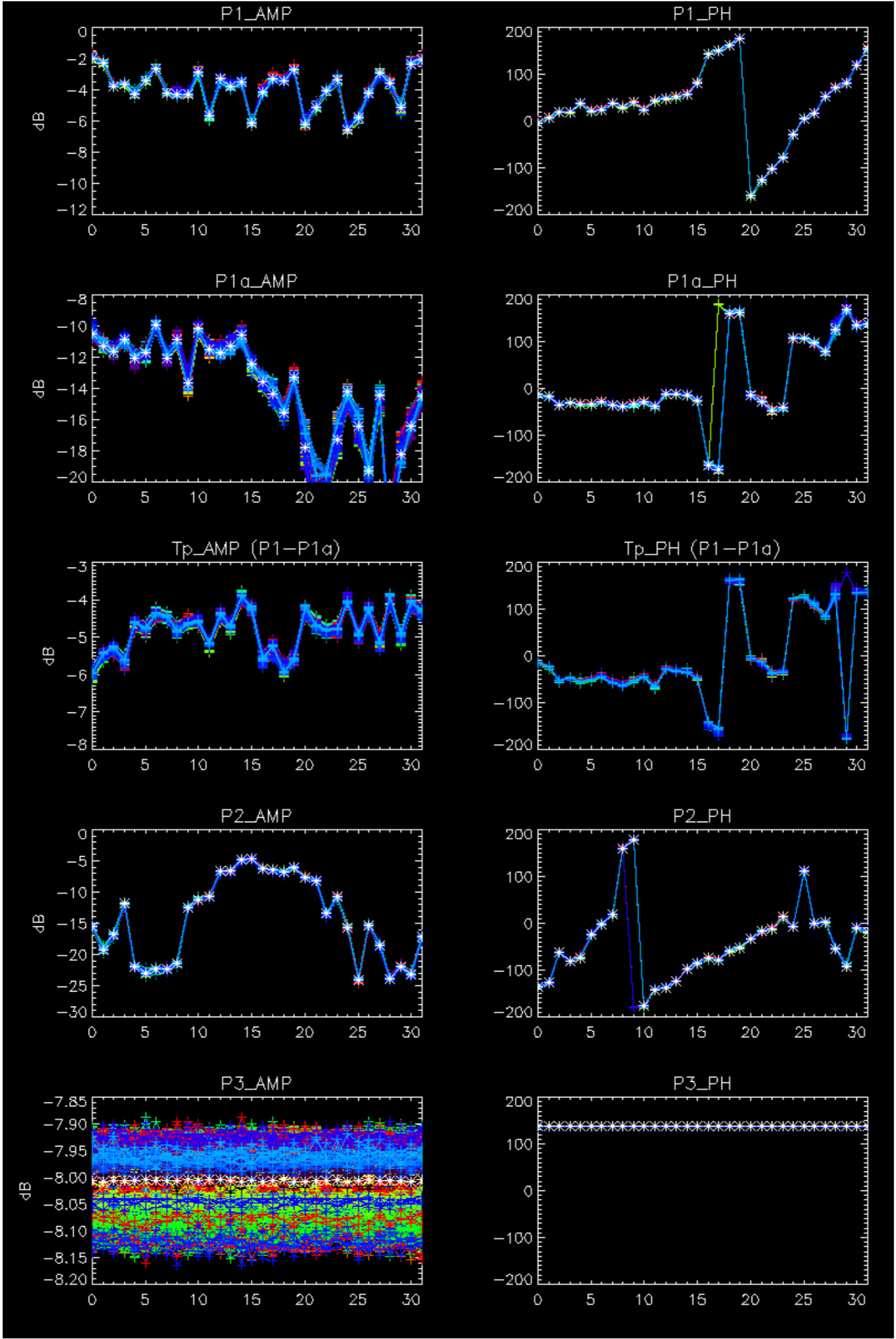


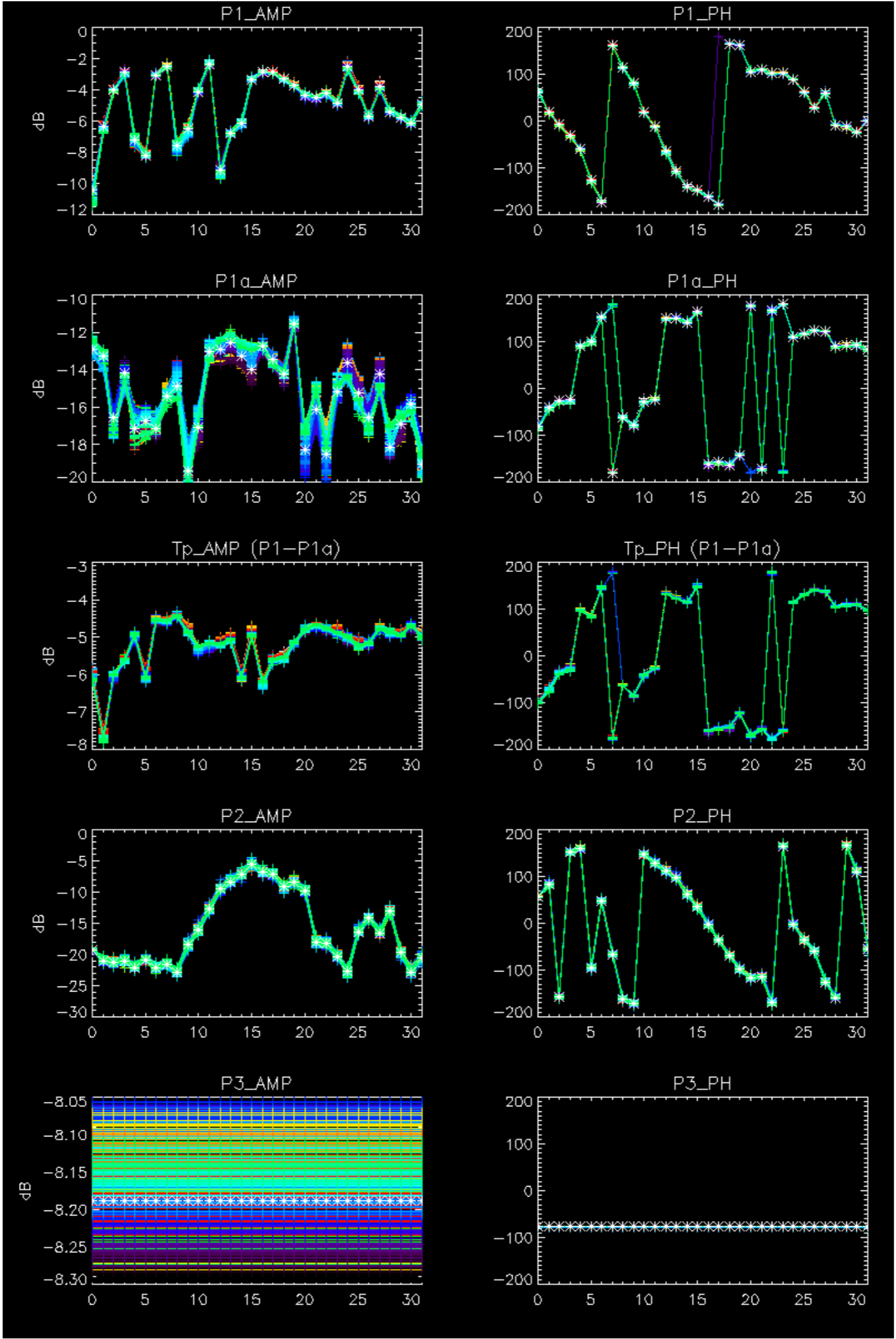
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



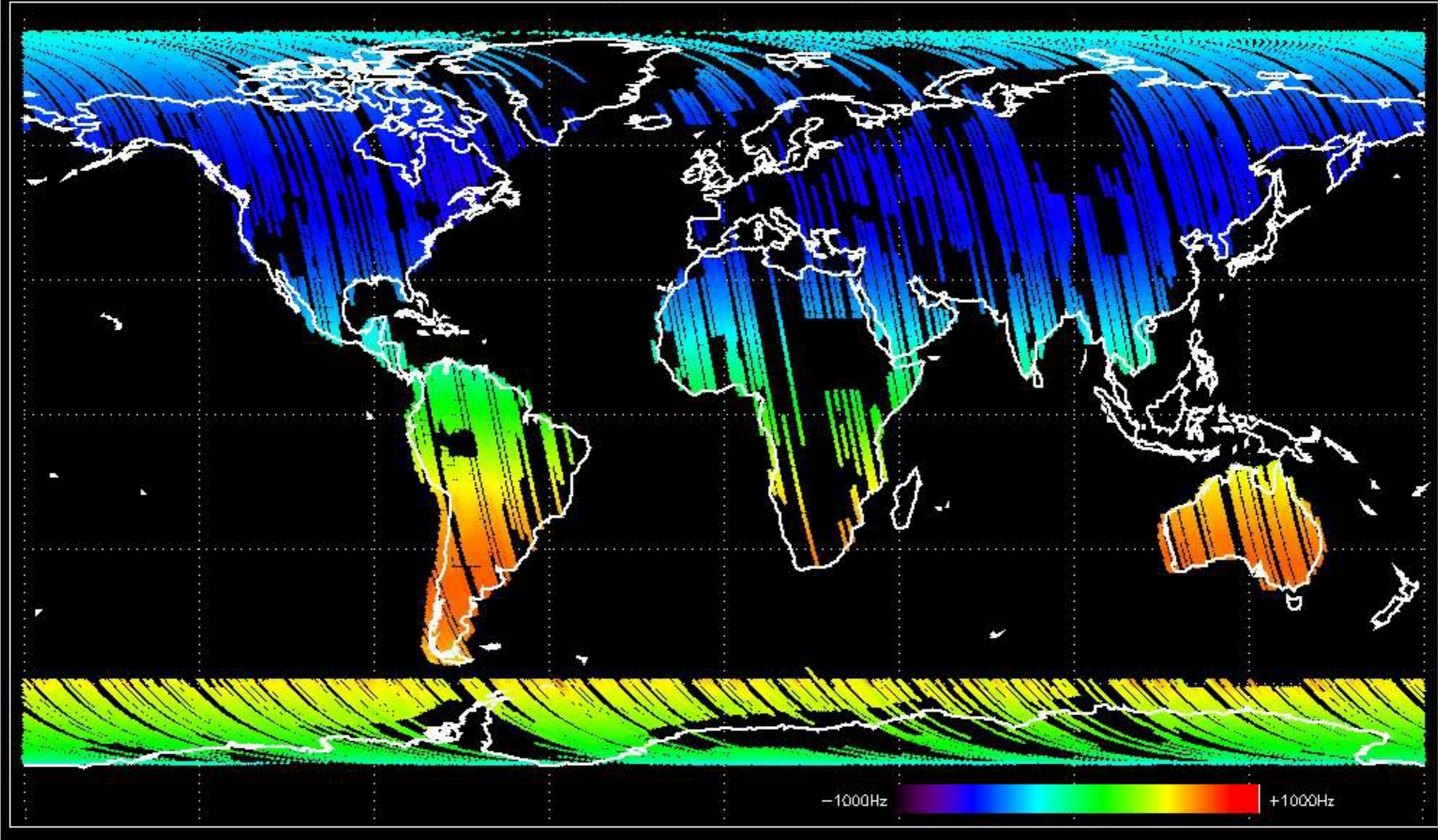
No anomalies observed.



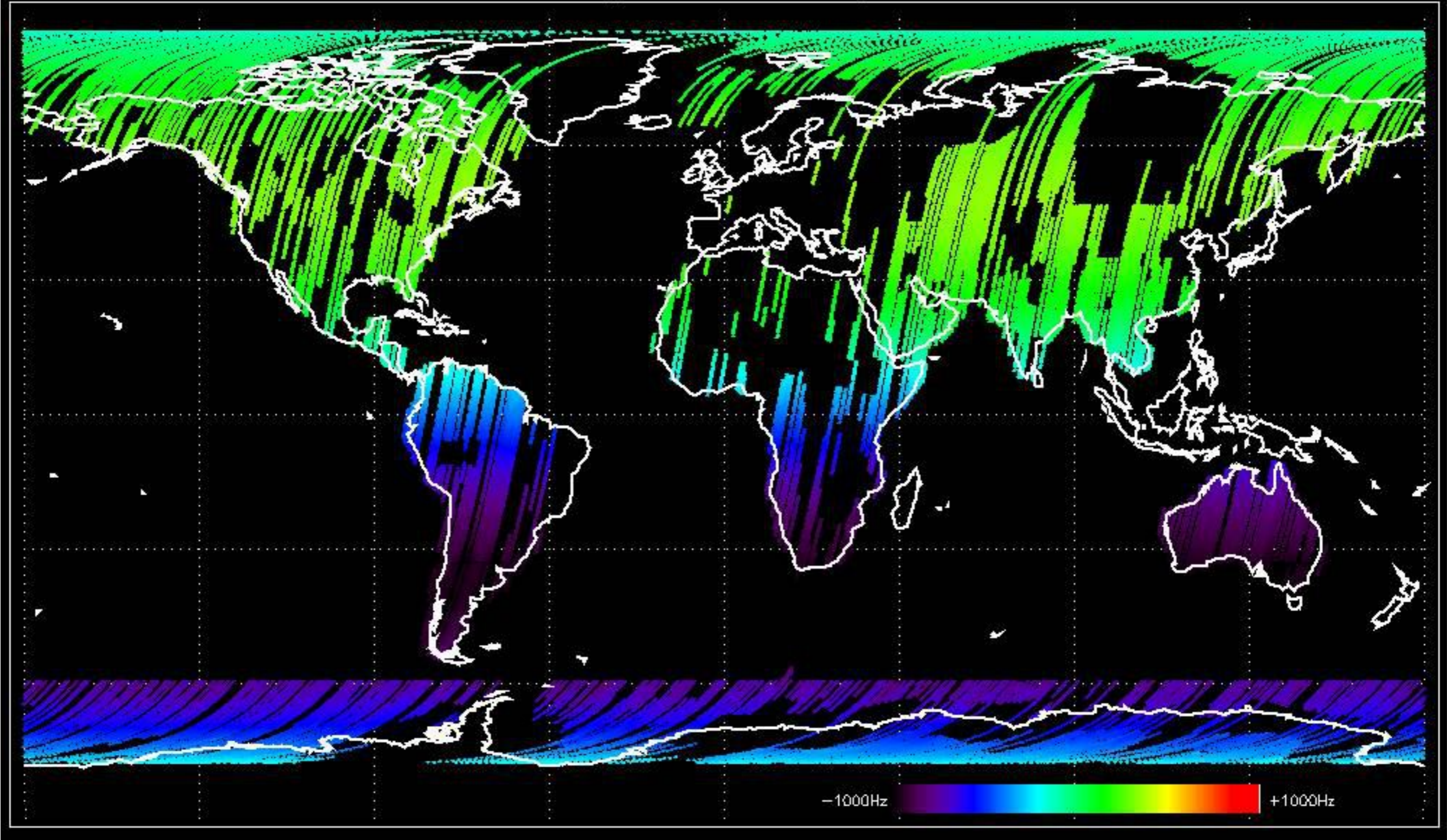


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

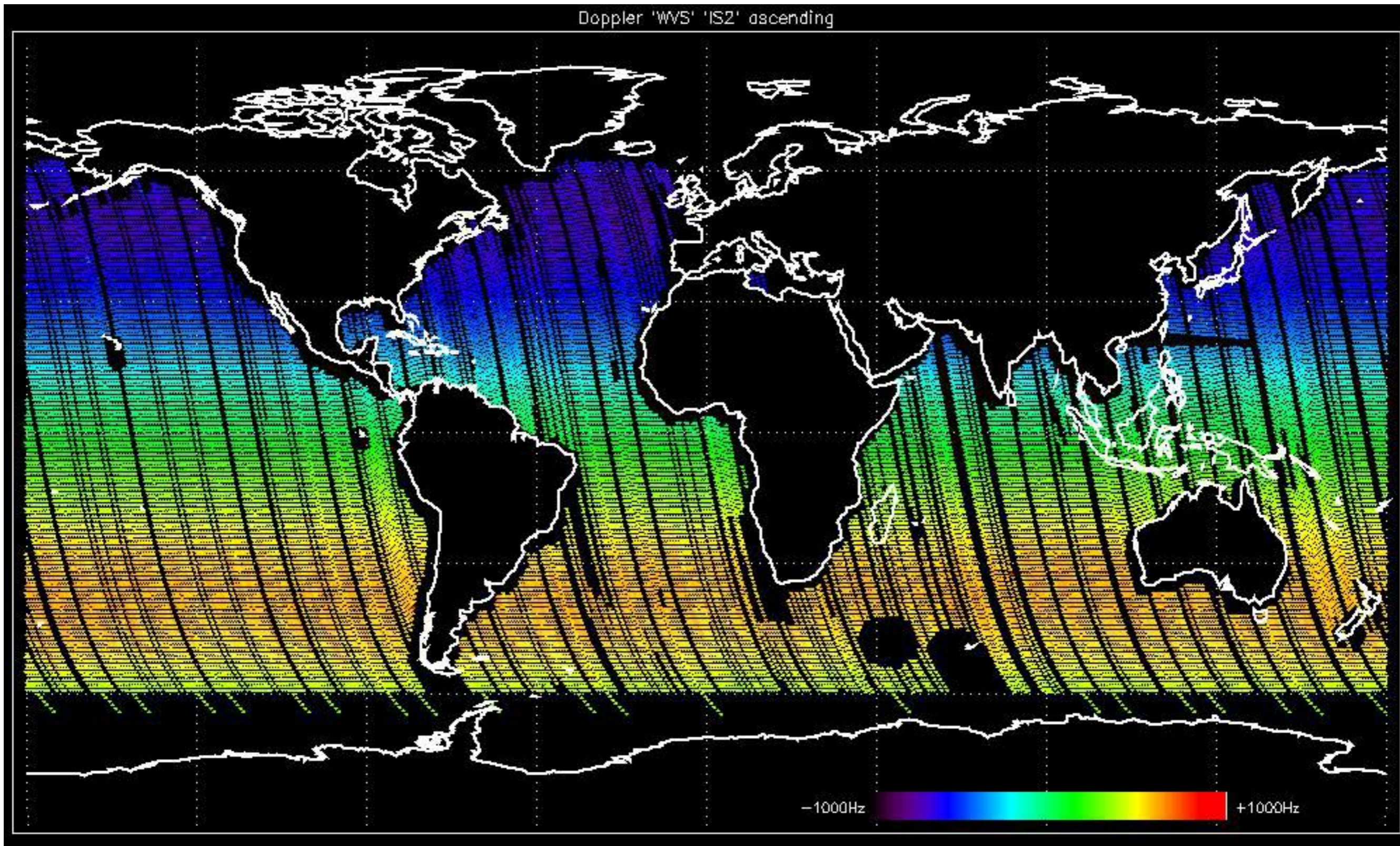
Doppler 'GM1' 'SS1' ascending



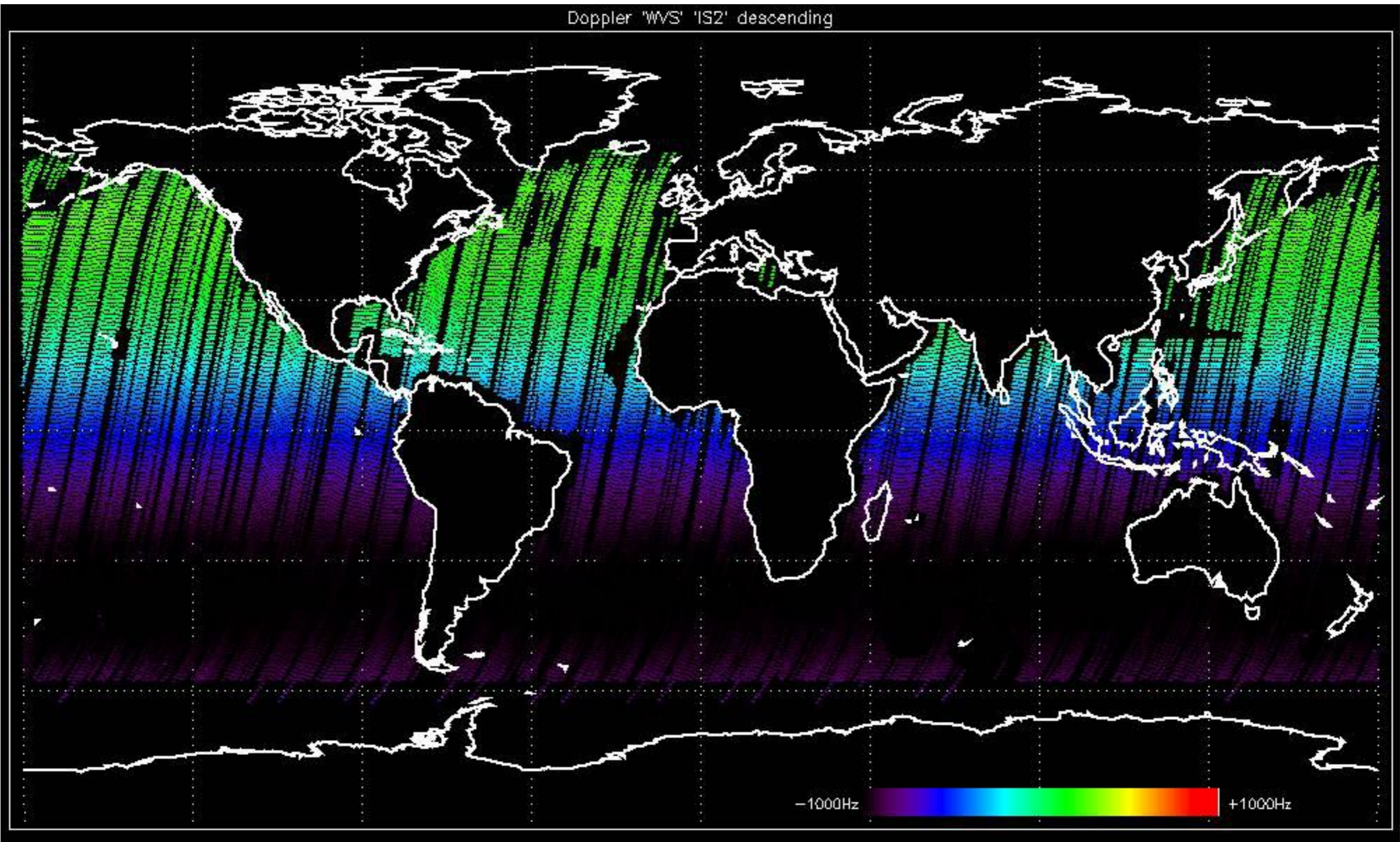
Doppler 'GM1' 'SS1' descending



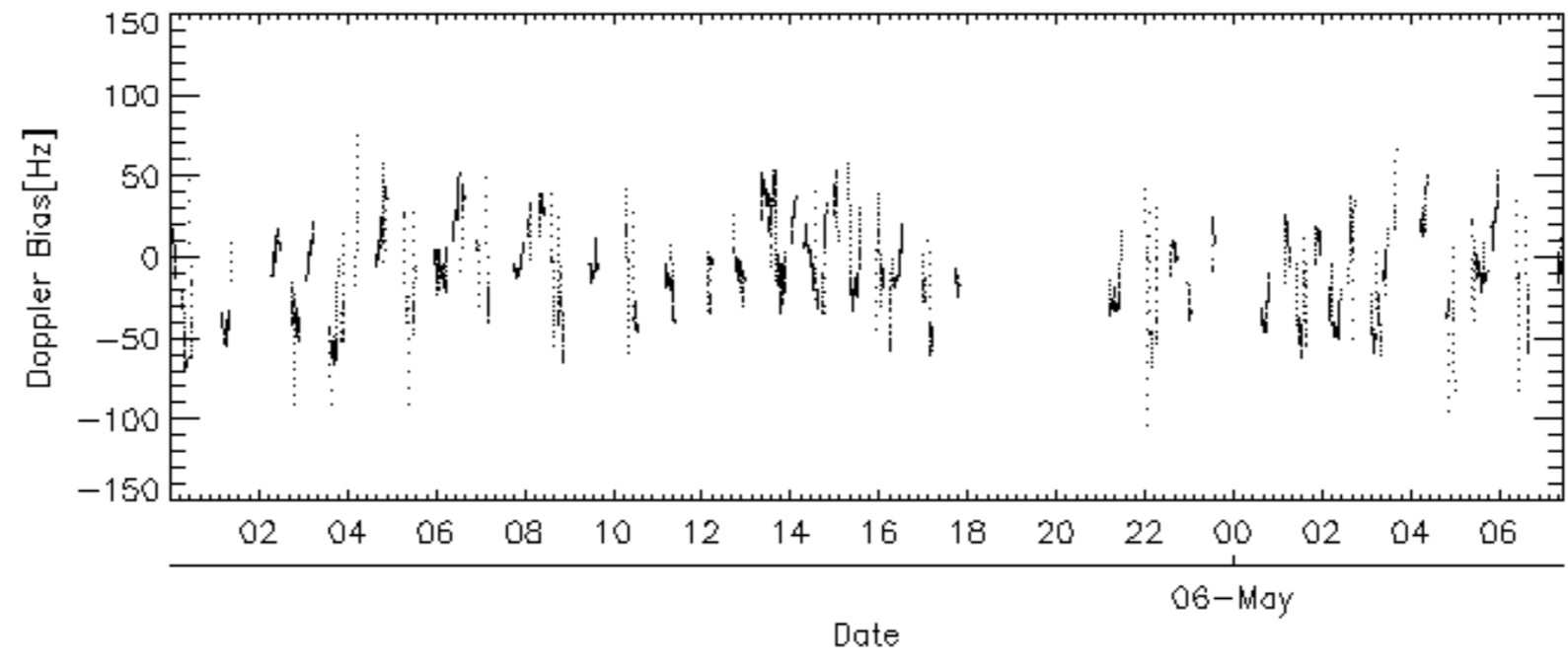
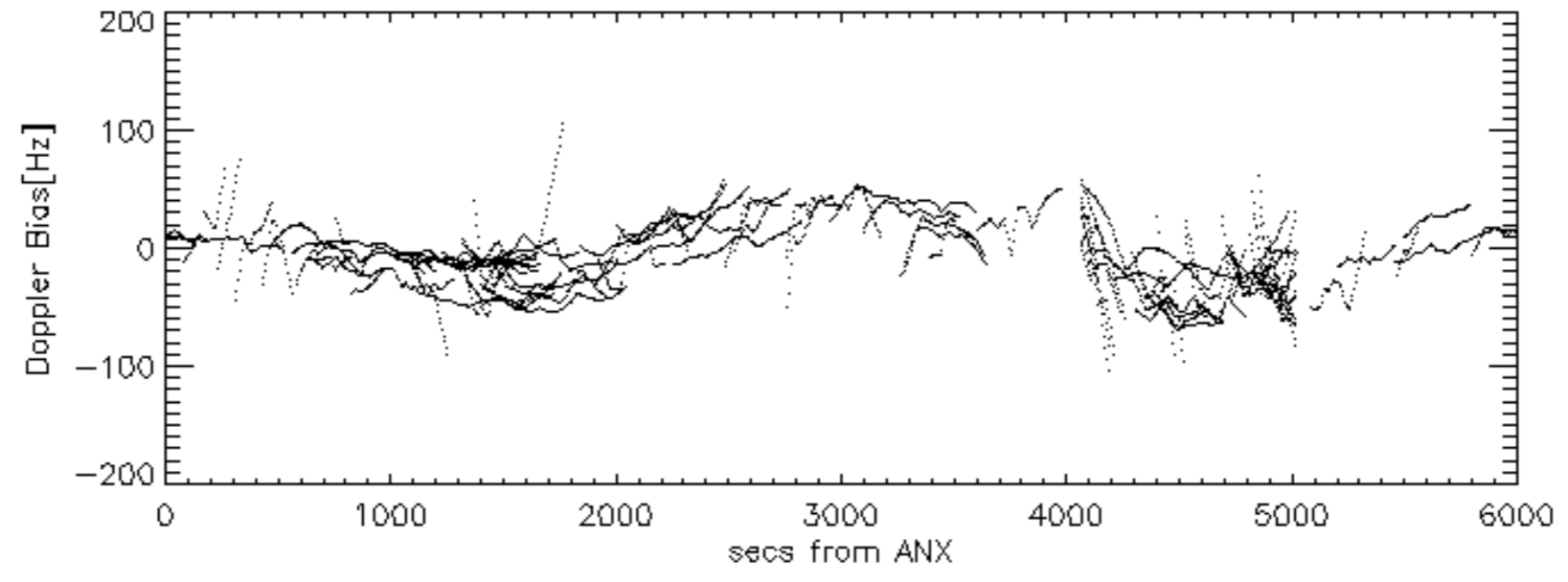
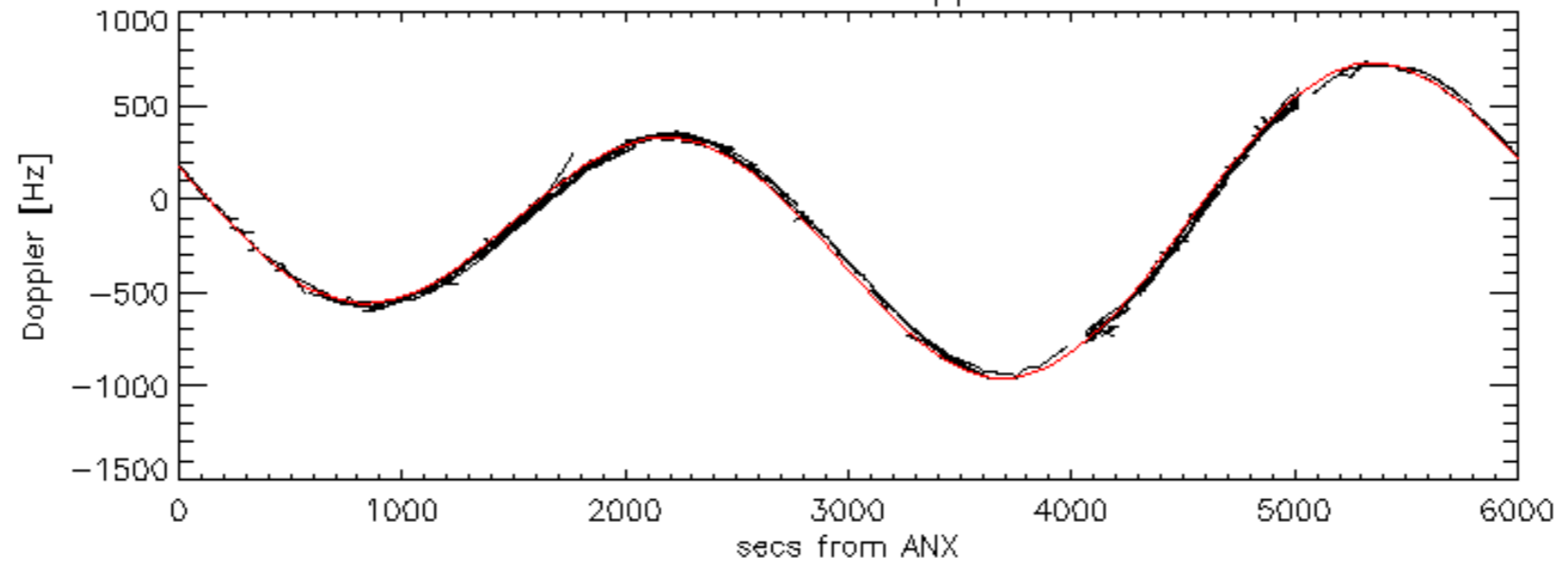
Doppler 'WVS' 'IS2' ascending

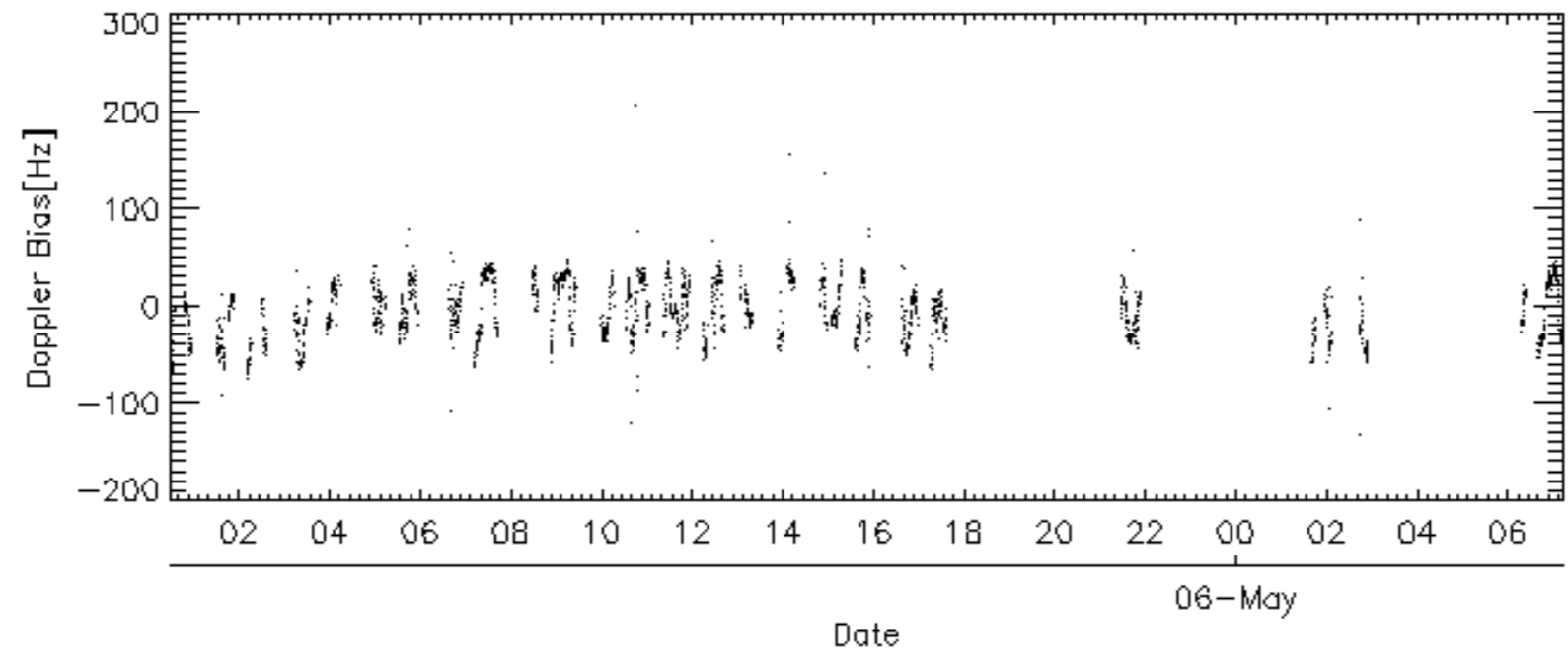
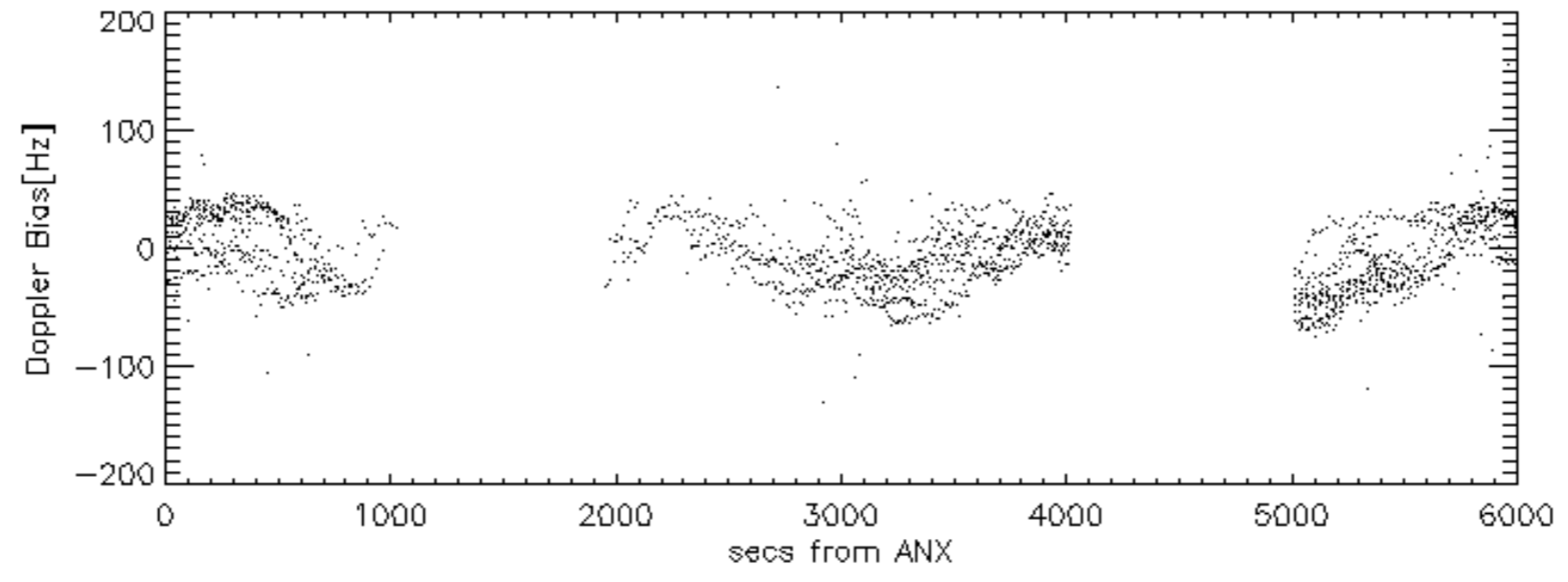
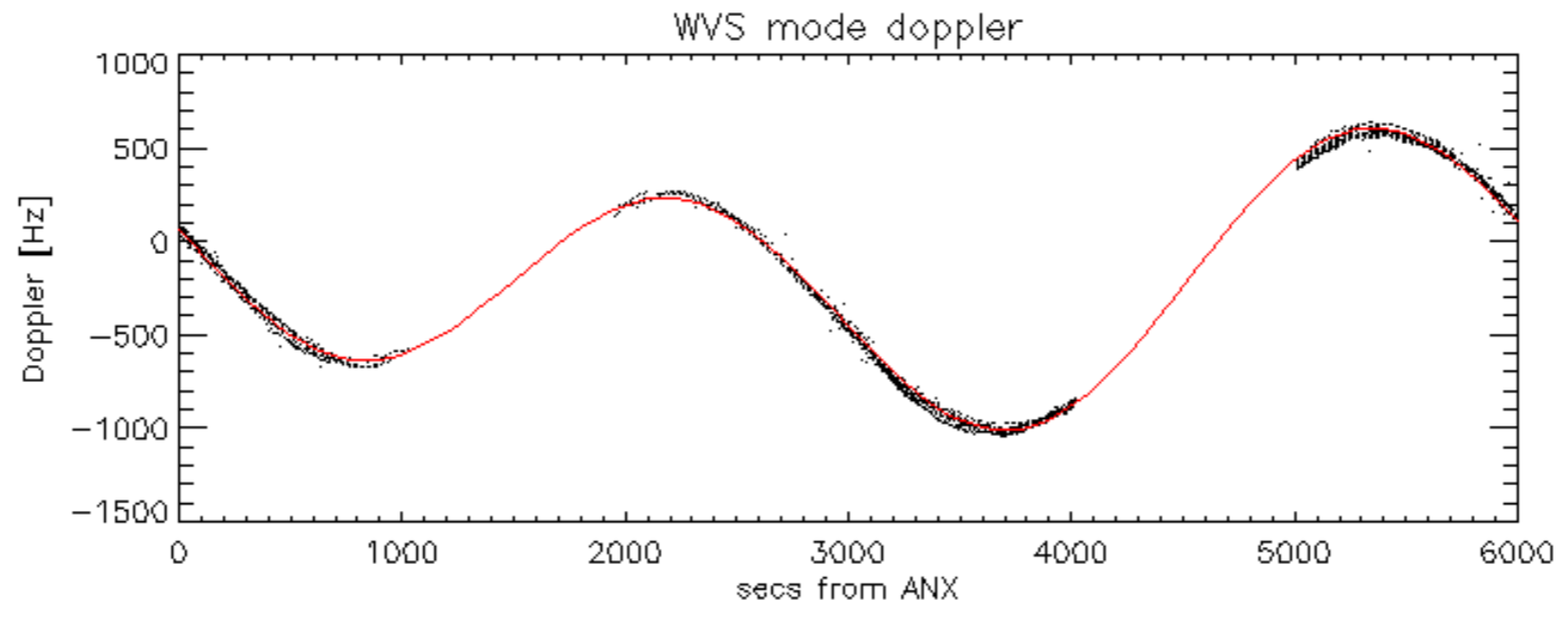


Doppler 'WVS' 'IS2' descending

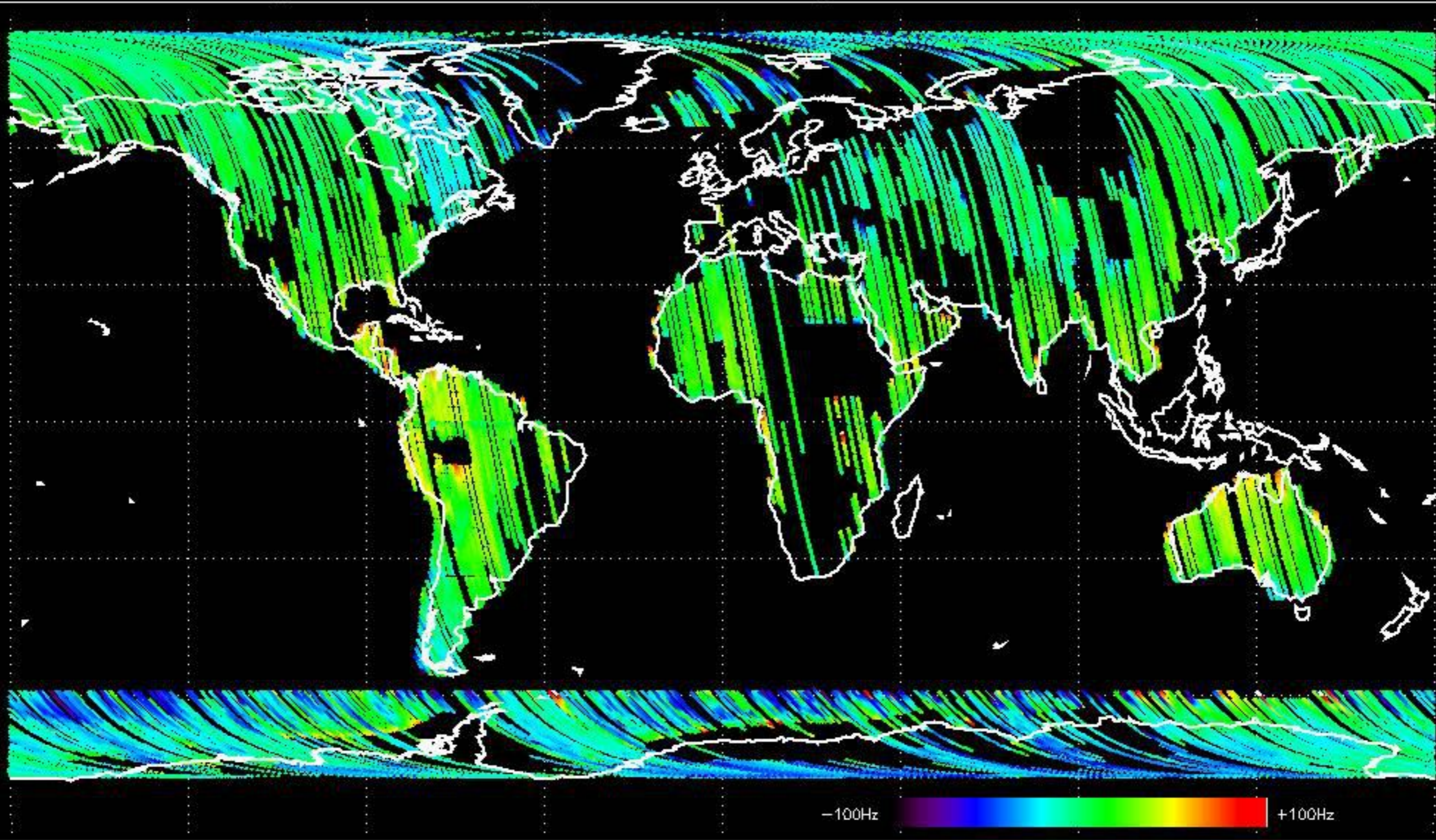


GM1 mode doppler

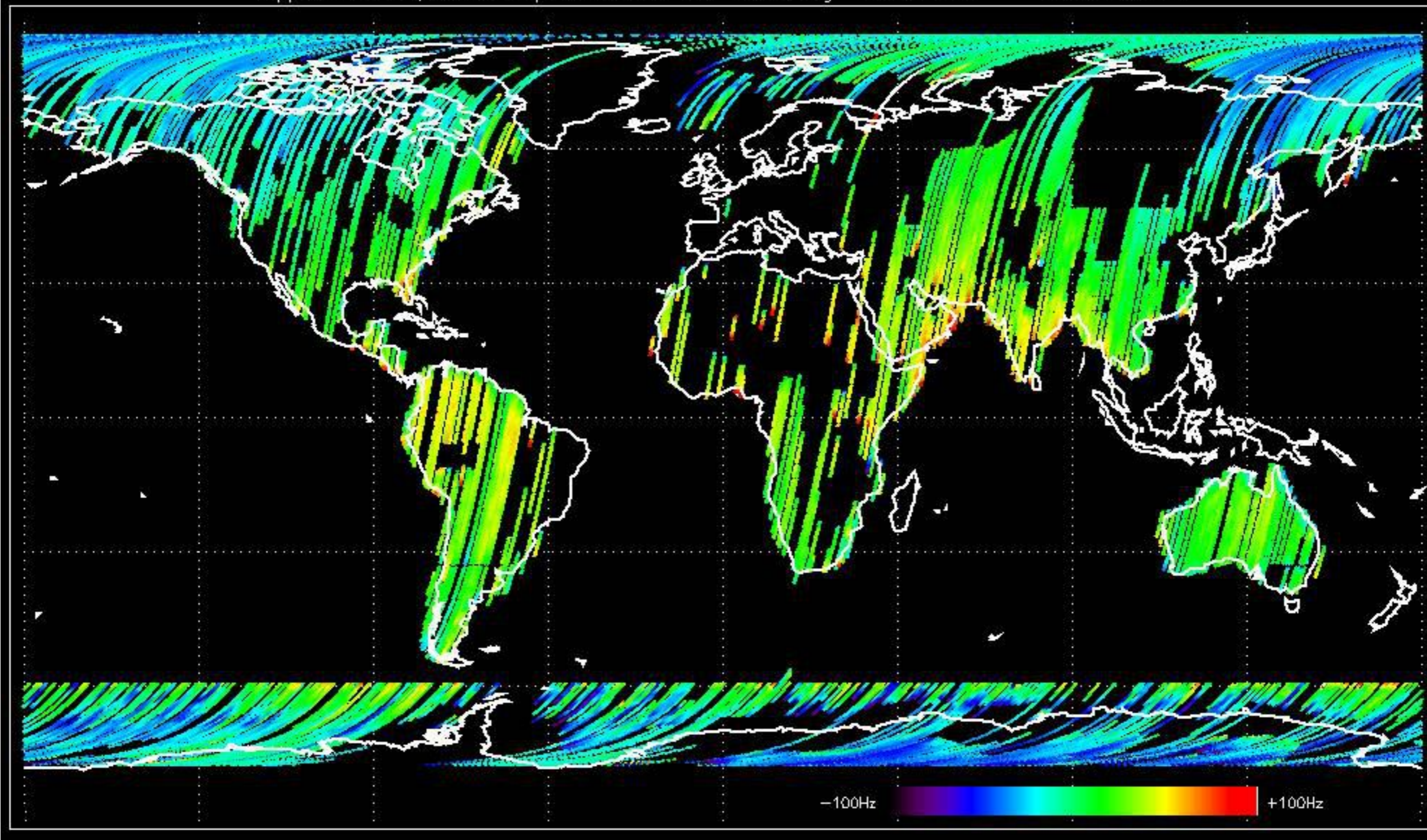




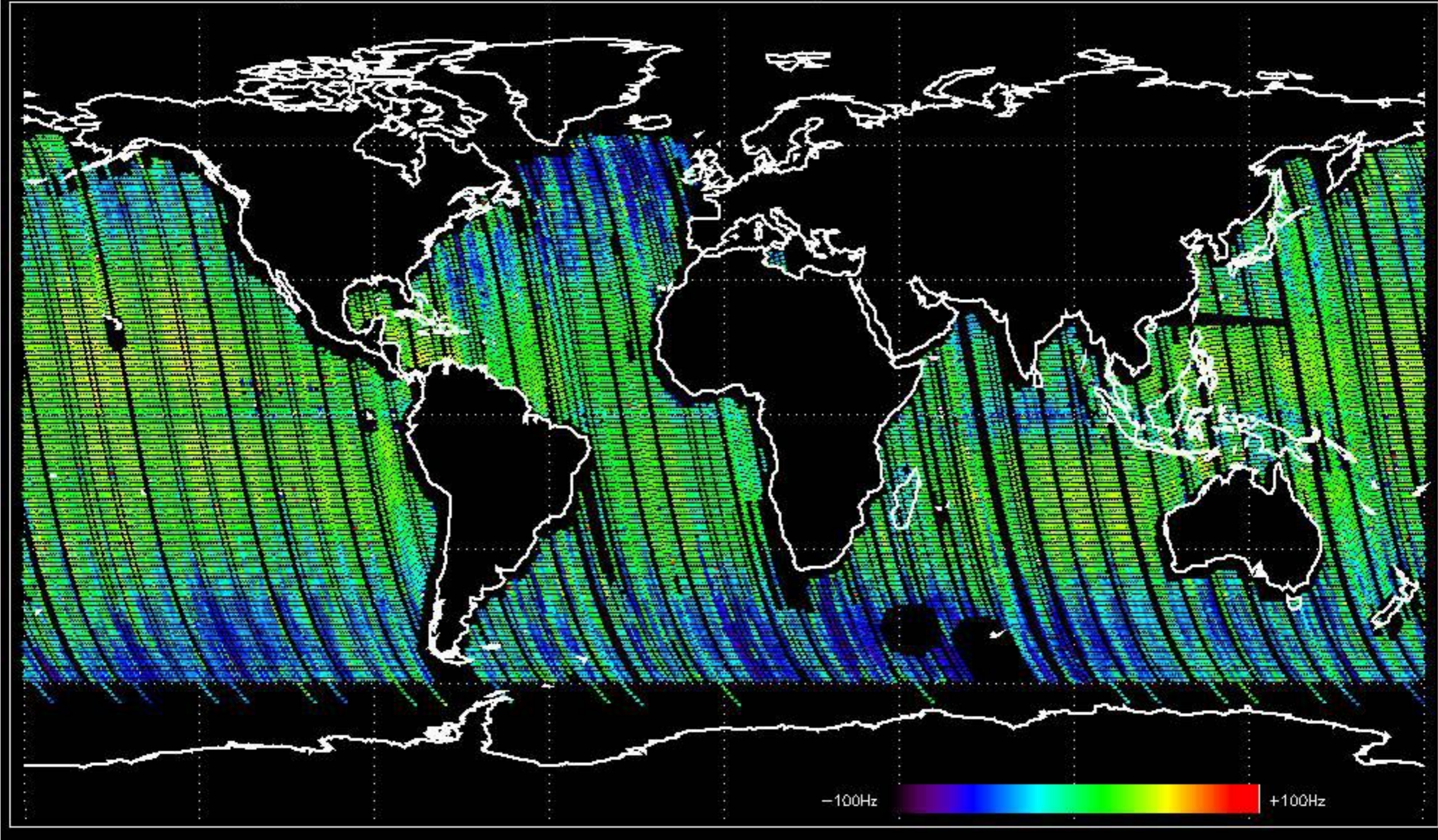
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -12.077673 Hz



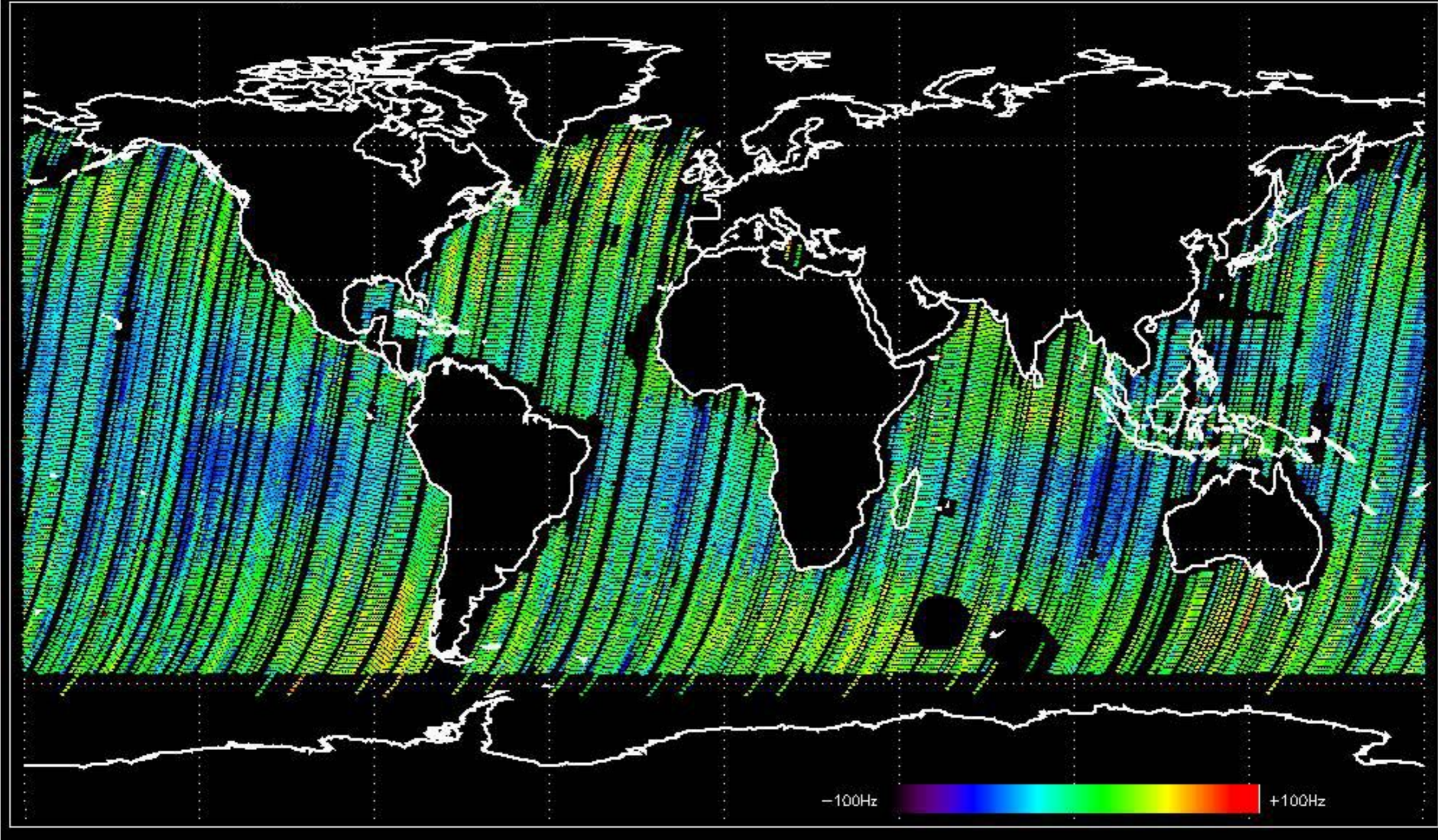
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.2098547 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.4991317 Hz

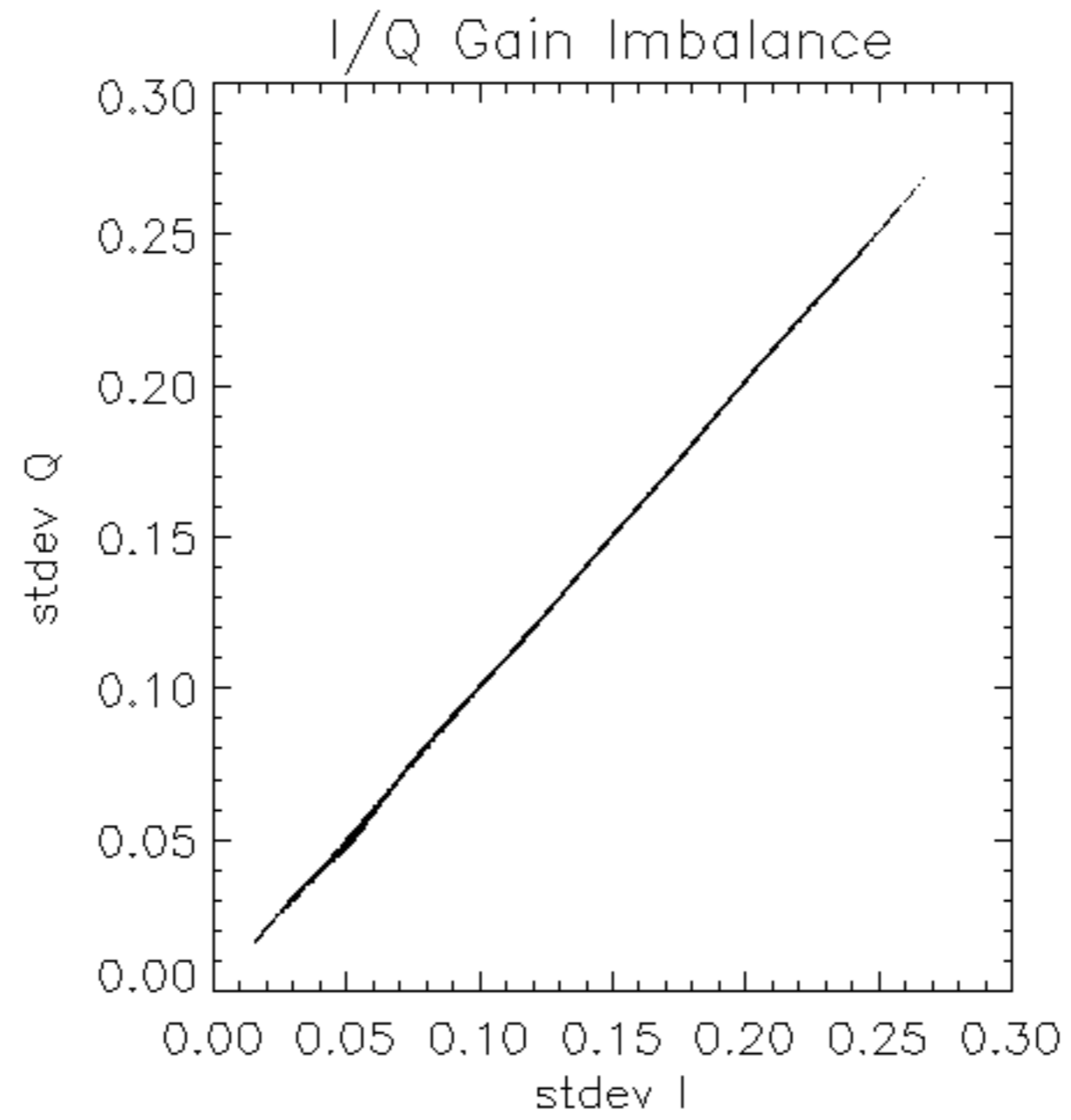


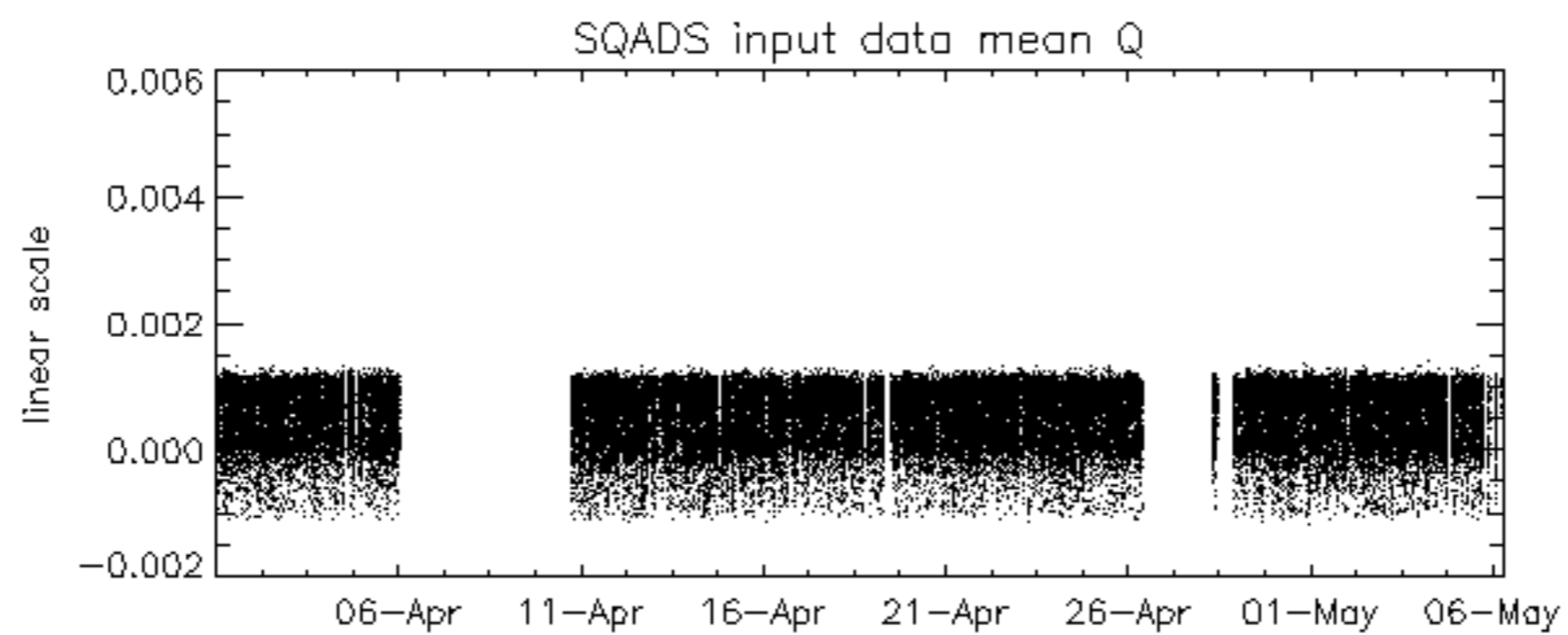
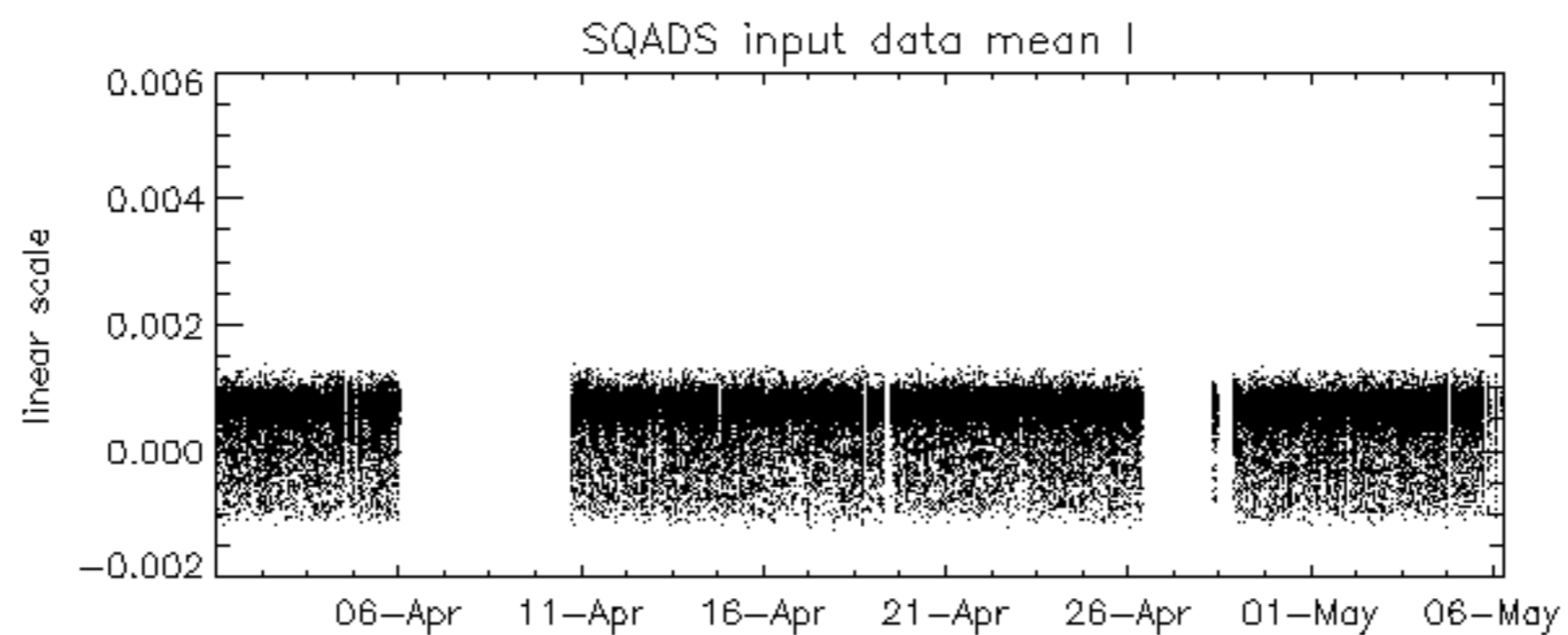
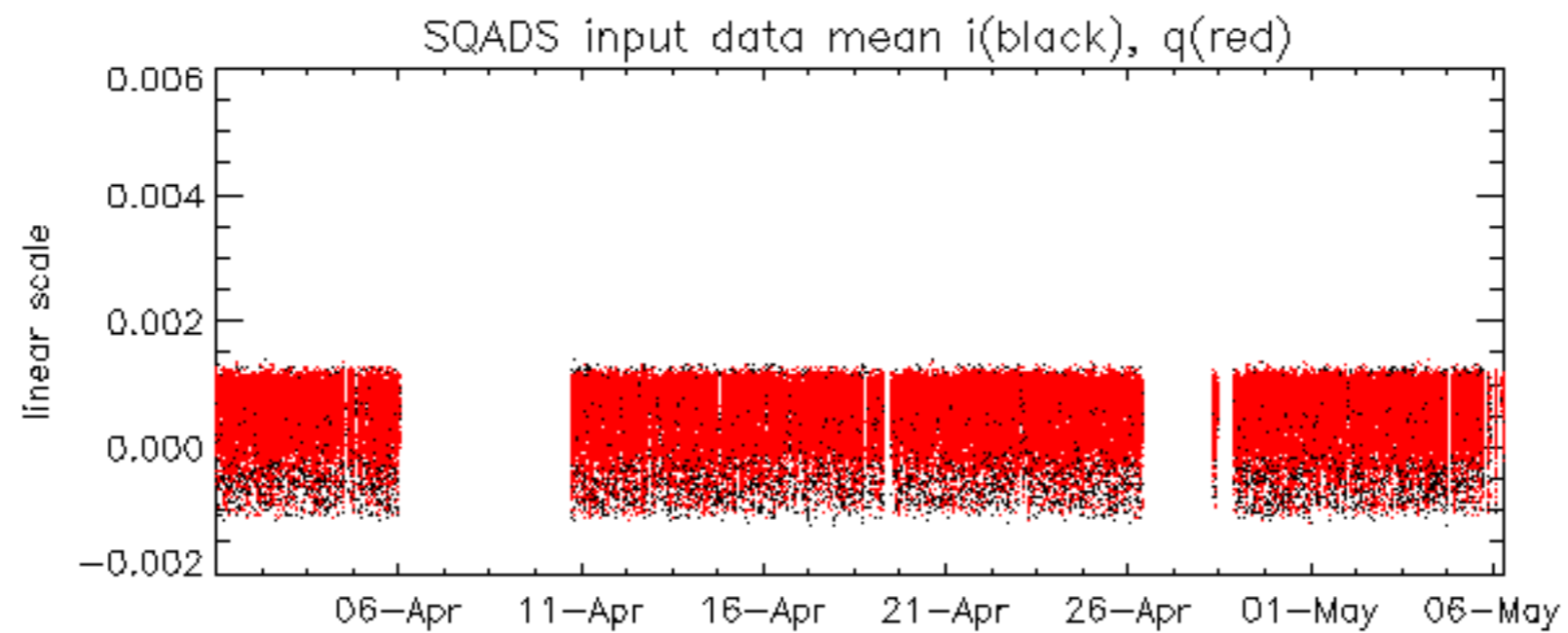
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.104328 Hz

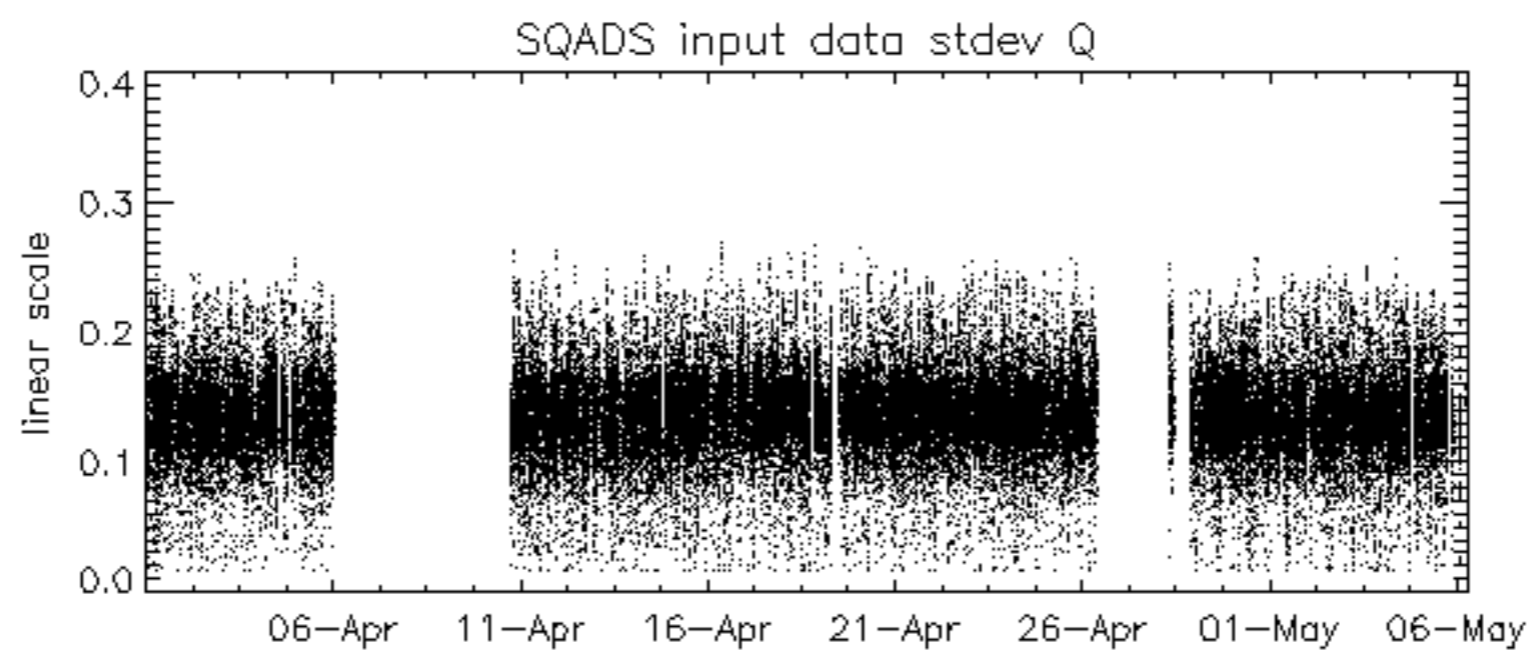
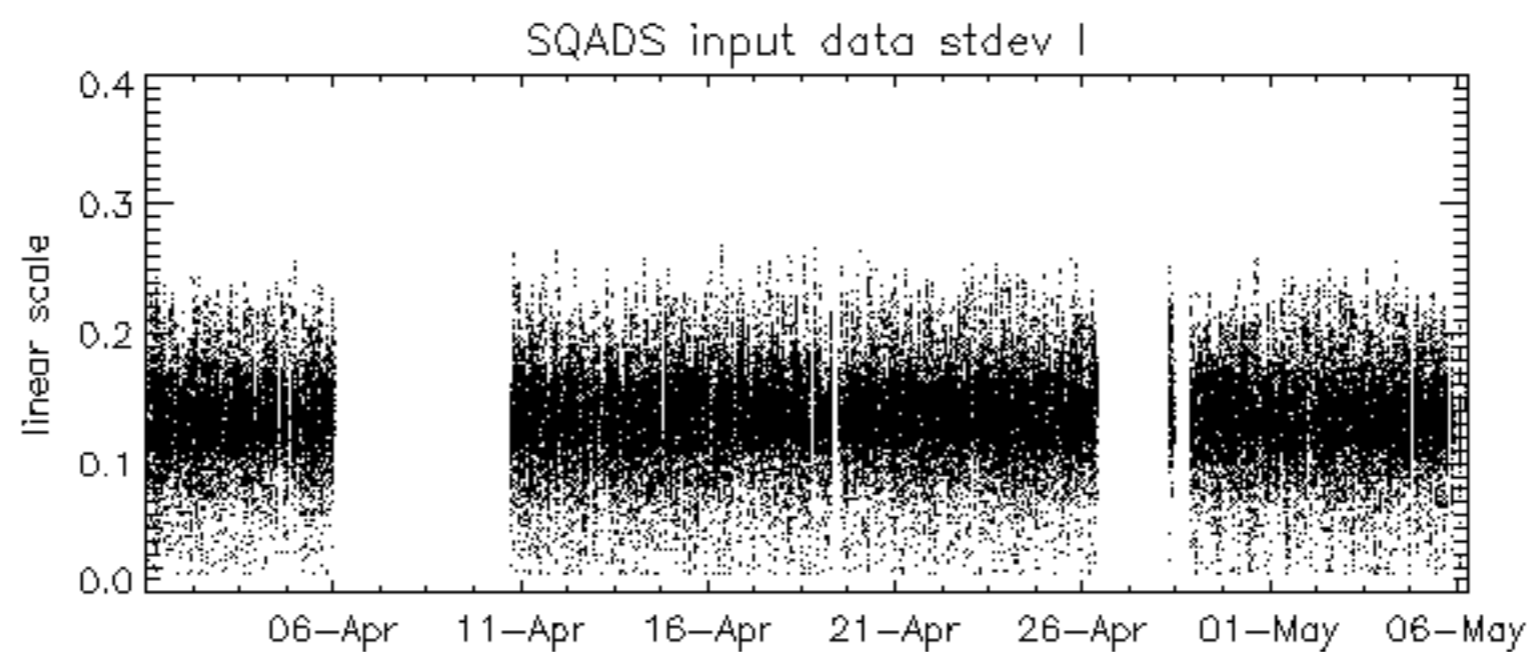
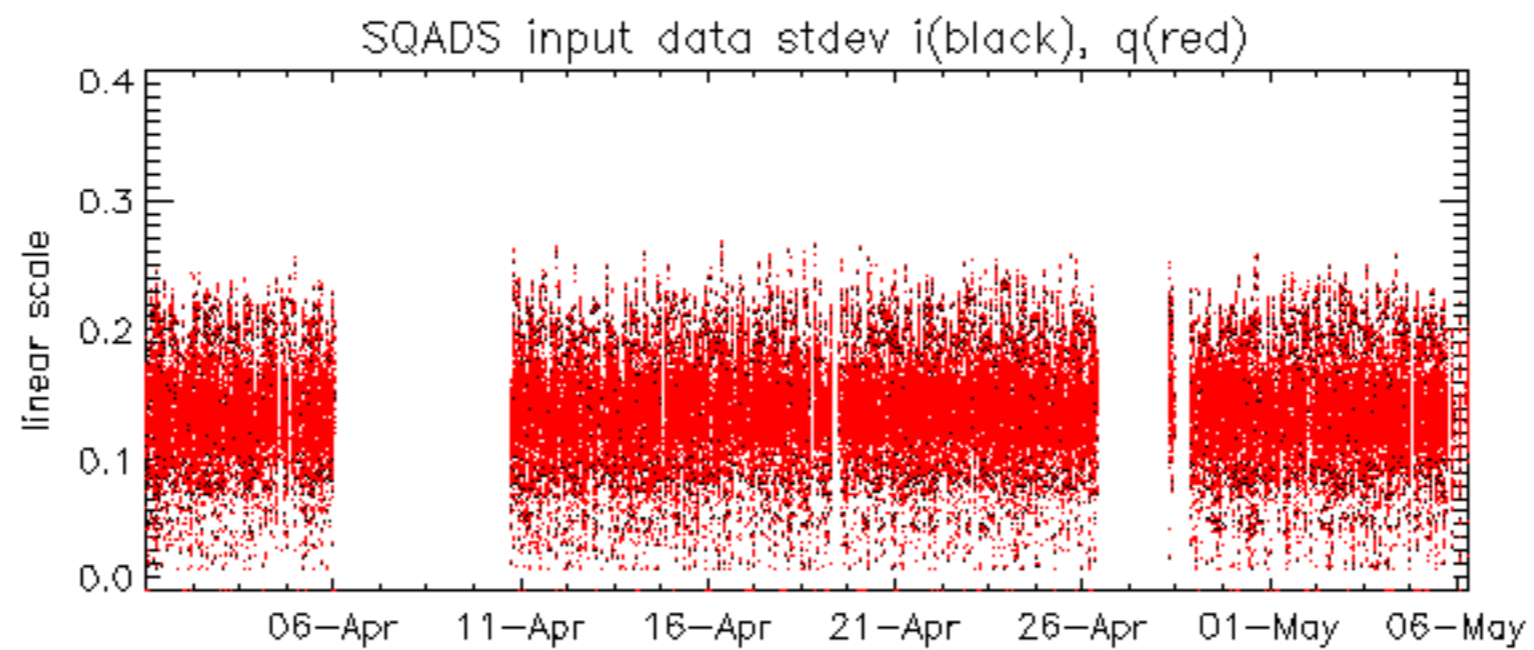


No anomalies observed on available MS products:

No anomalies observed.



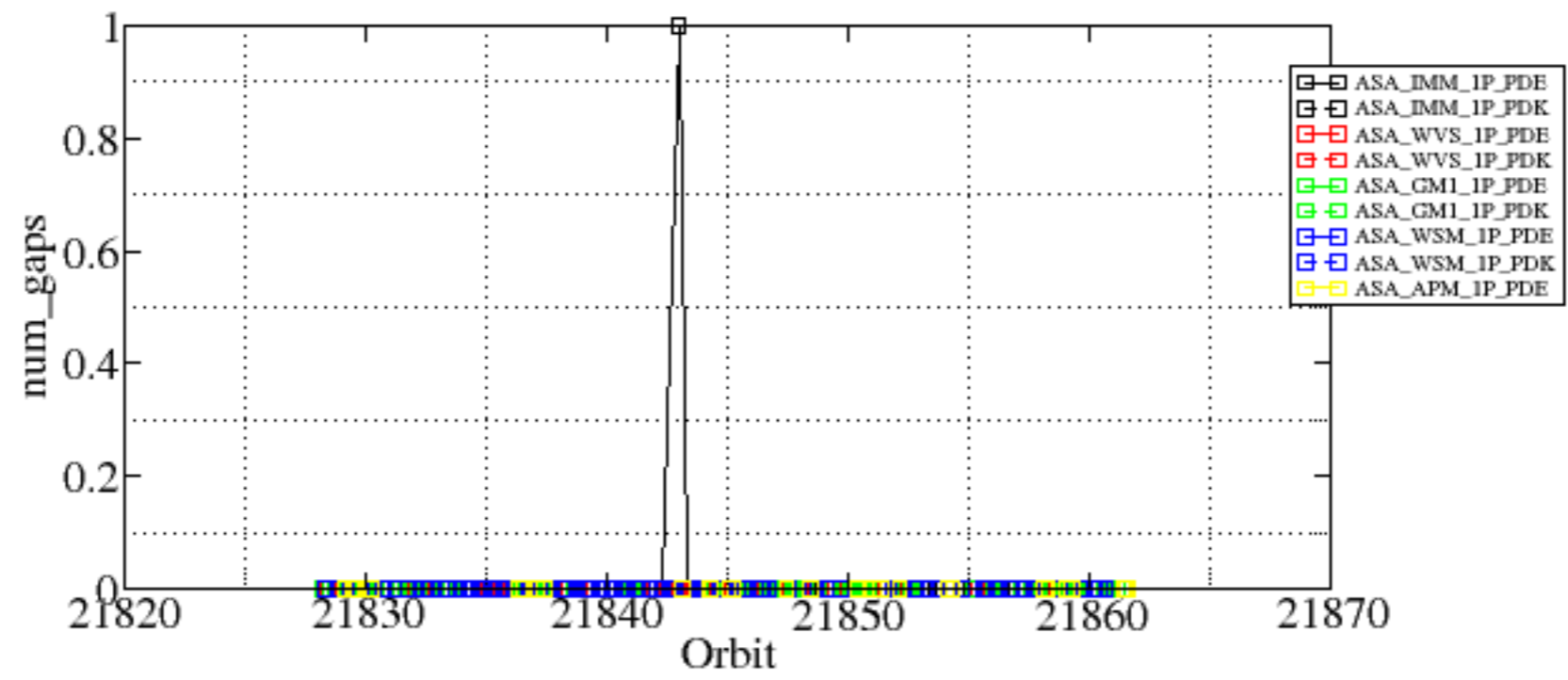




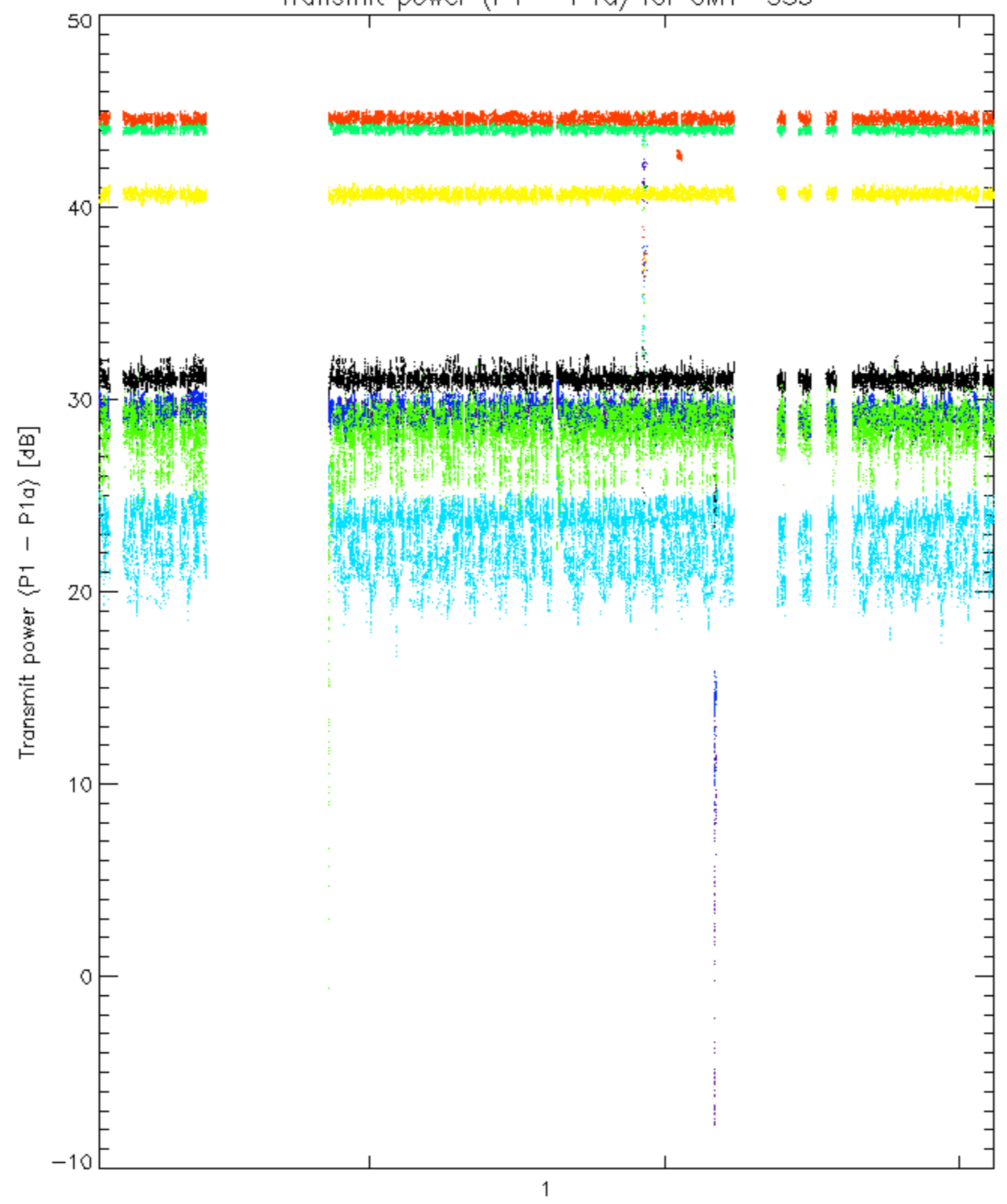
Summary of analysis for the last 3 days 2006050[456]

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

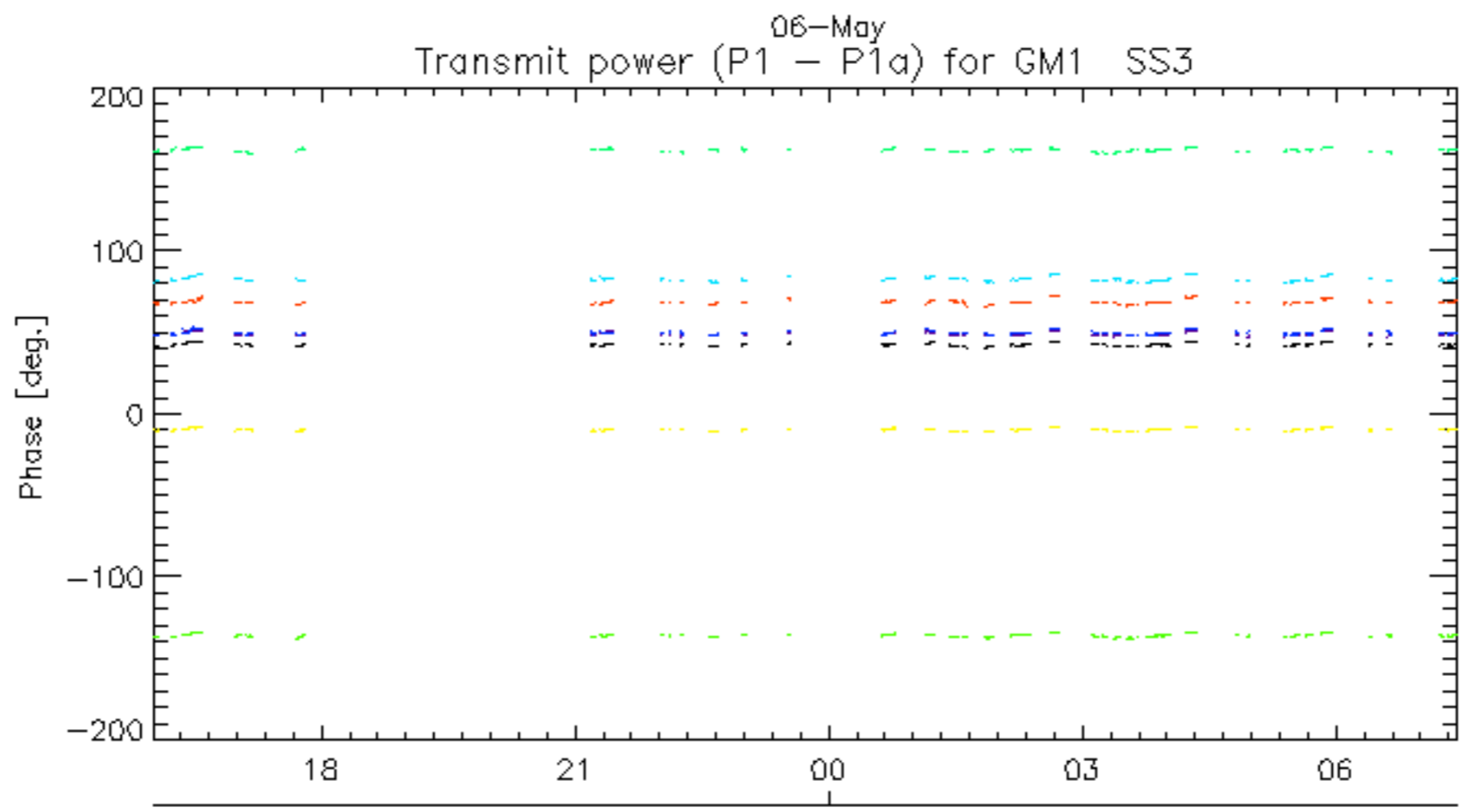
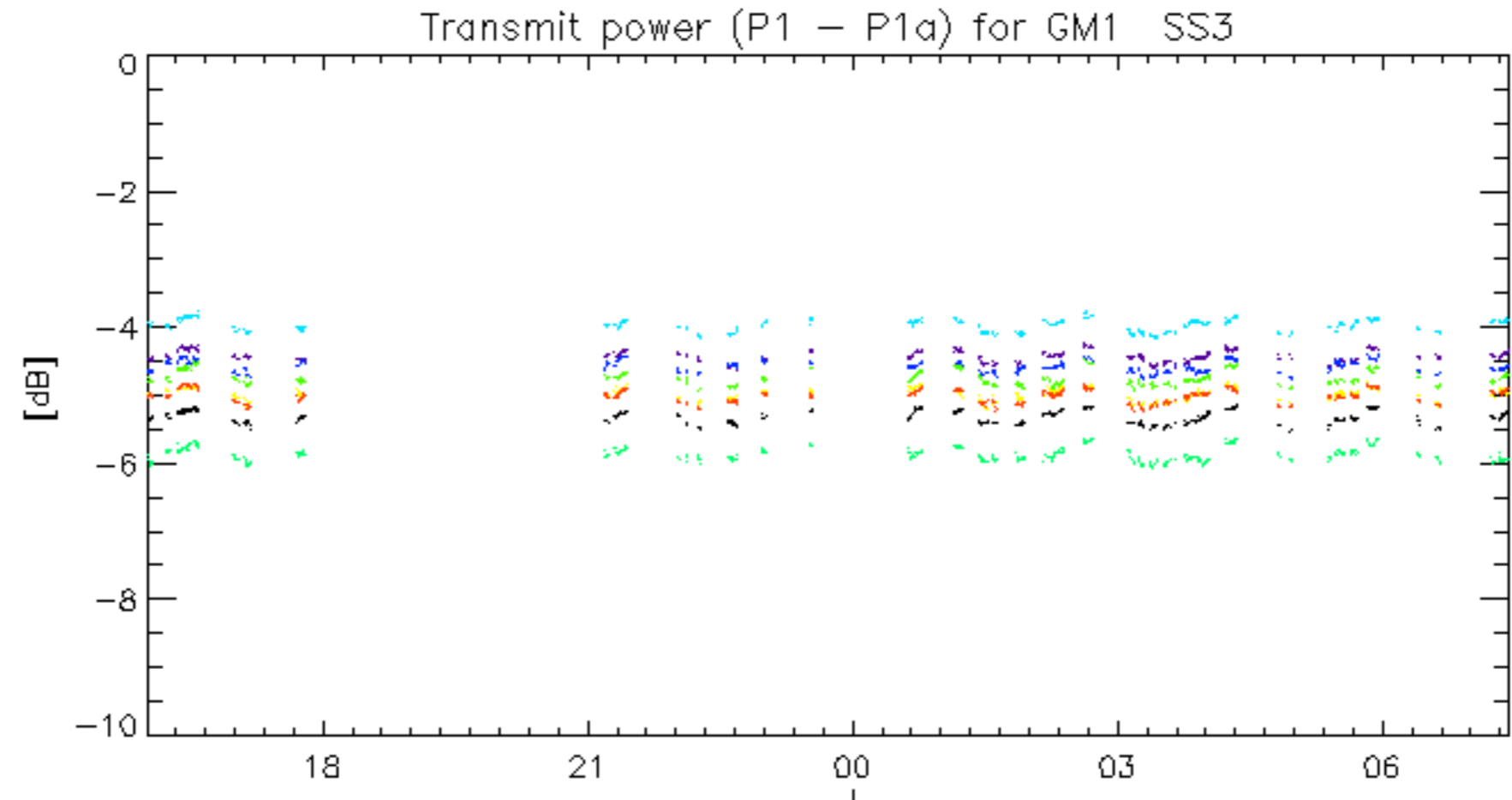
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060505_004234_000001742047_00245_21842_4113.N1	1	0
ASA_WSM_1PNPDE20060504_180901_000000862047_00242_21839_7952.N1	0	31
ASA_WSM_1PNPDE20060504_230834_000001222047_00245_21842_8010.N1	0	31



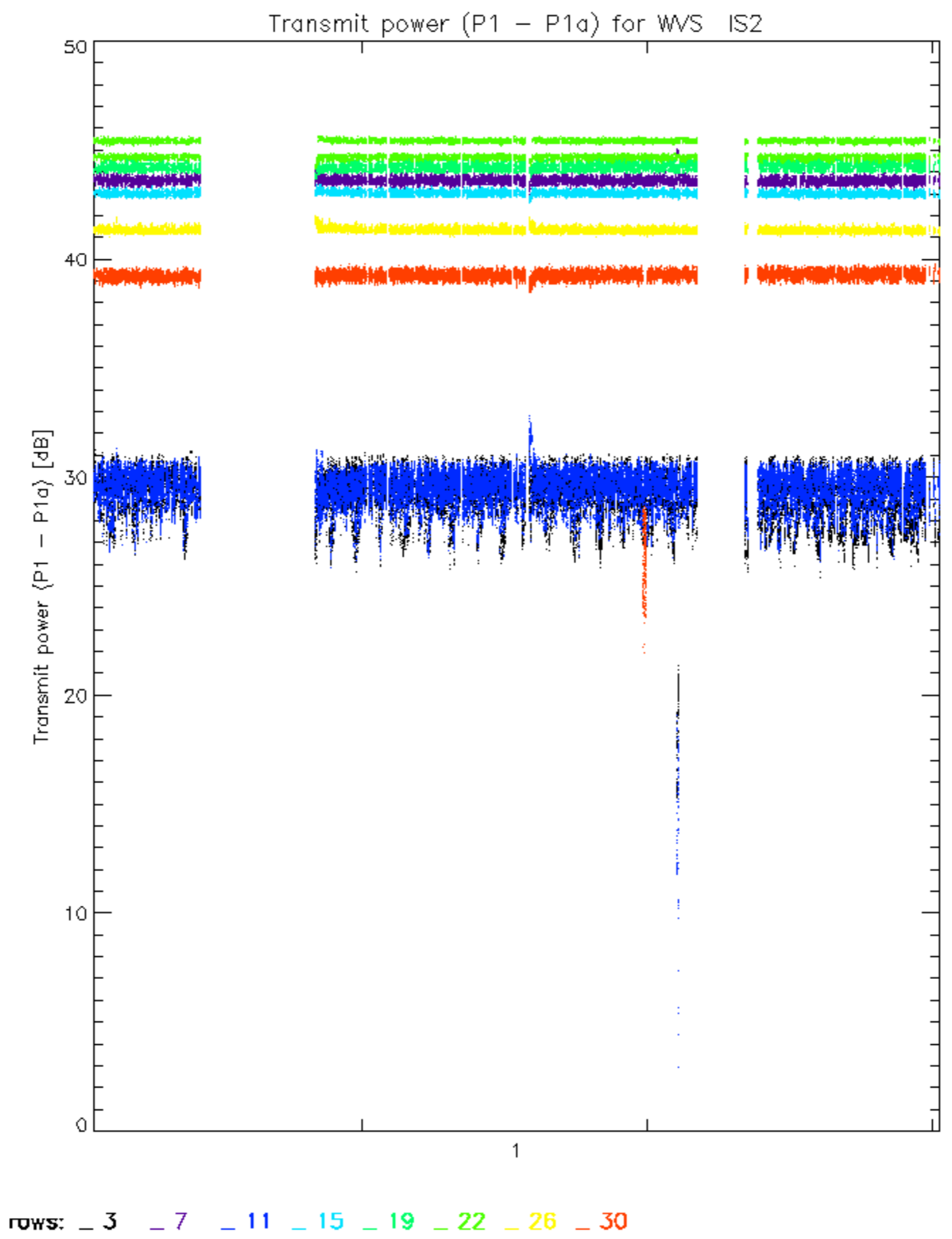
Transmit power (P1 - P1a) for GM1 SS3

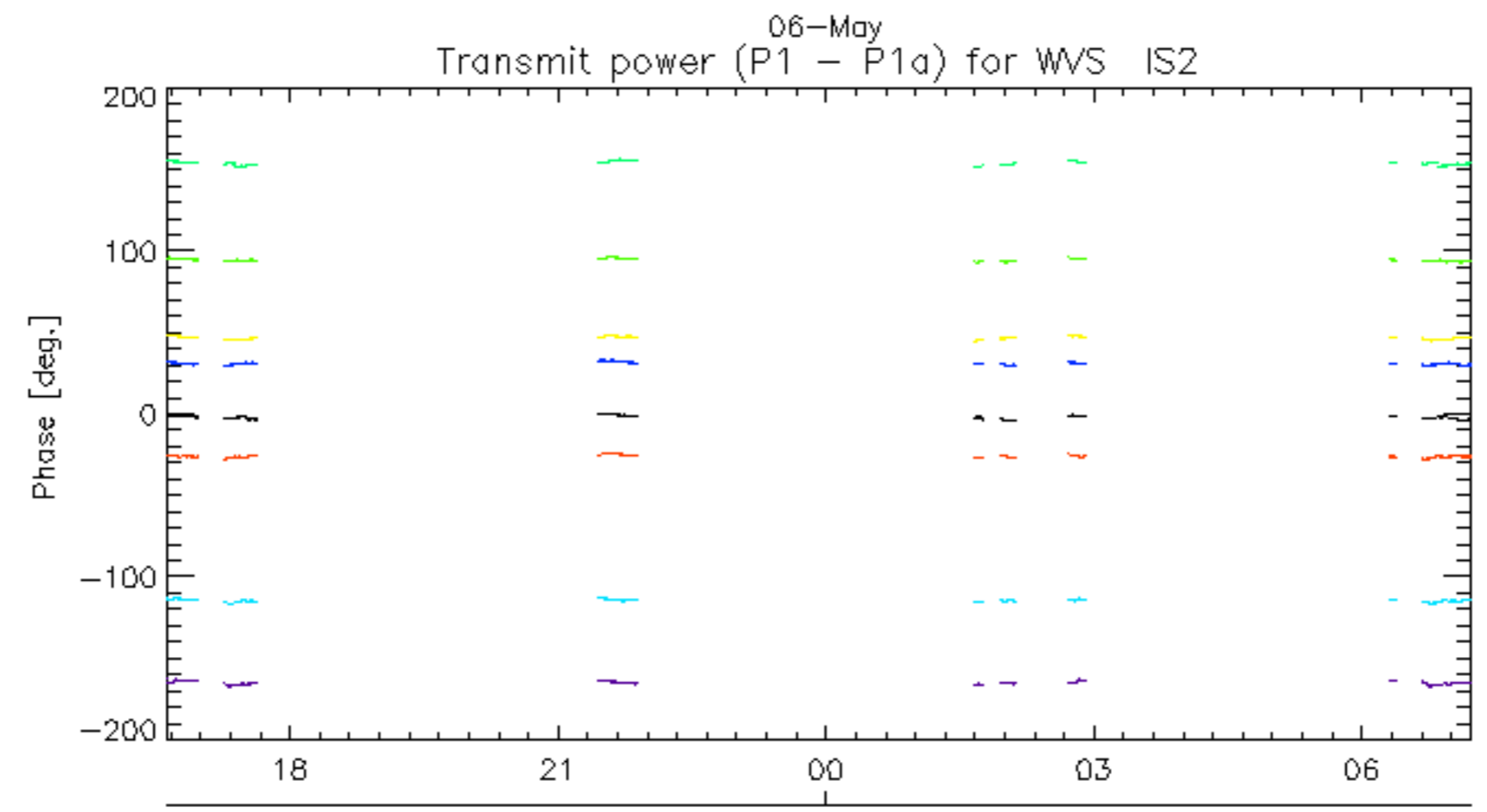
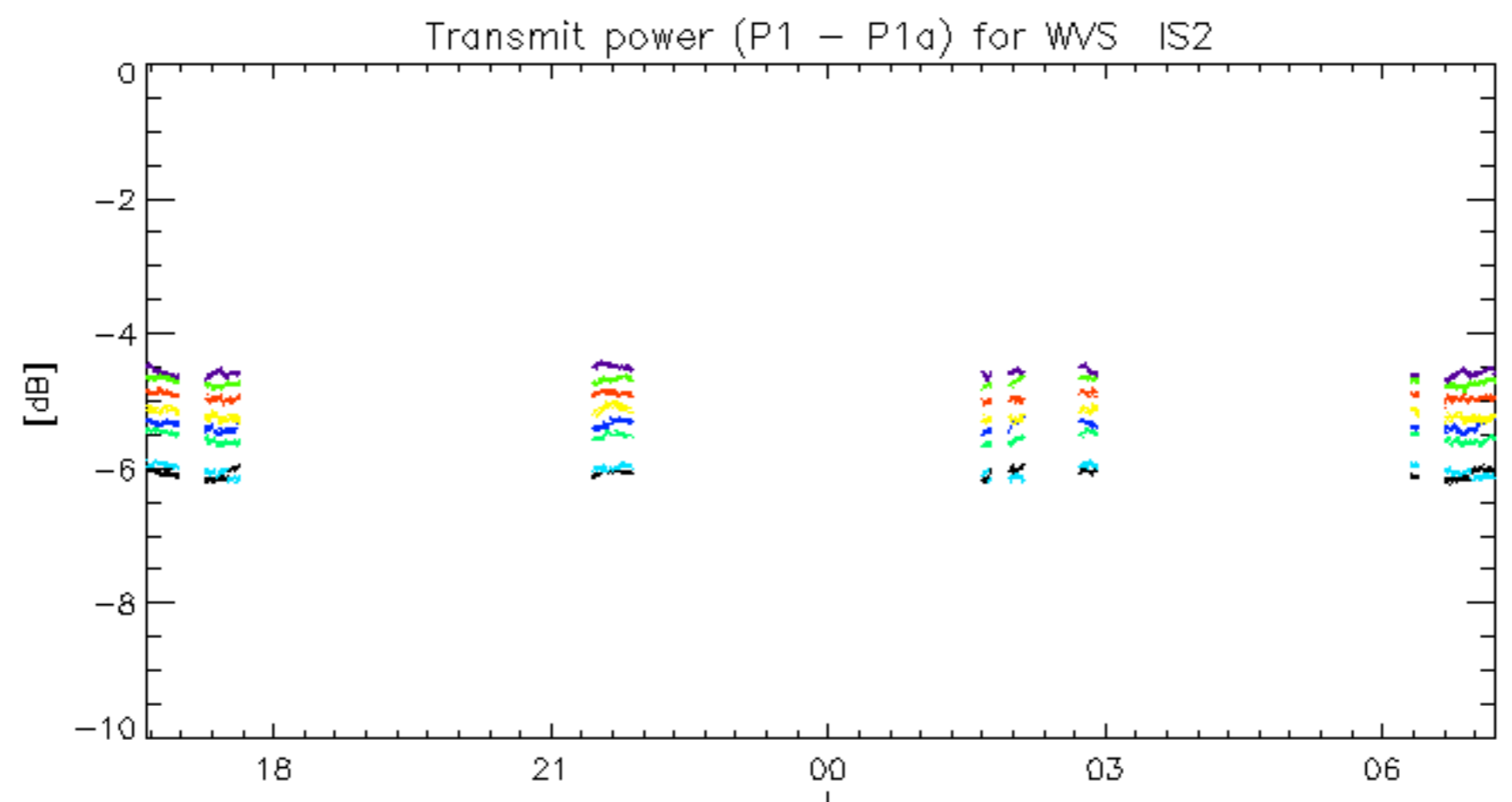


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.