

PRELIMINARY REPORT OF 070525

last update on Fri May 25 23:32:54 GMT 2007

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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 2007-05-24 00:00:00 to 2007-05-25 23:32:54

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	48	90	6	3	52
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	48	90	6	3	52
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	48	90	6	3	52
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	90	6	3	52

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	49	67	29	14	96
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	49	67	29	14	96
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	49	67	29	14	96
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	49	67	29	14	96

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	20070525 033420
H	20070524 040557

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	-15.254368	0.123925	-0.210474
7	P1a	-17.604601	0.071626	-0.043960
11	P1a	-17.756124	0.340197	-0.107795
15	P1a	-13.170350	0.153853	-0.118450
19	P1a	-15.444730	0.069708	-0.035836
22	P1a	-16.004097	0.331848	-0.026963
26	P1a	-14.955168	0.208394	-0.121871
30	P1a	-18.030542	0.426700	-0.396258

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.785594	0.009915	-0.003973
7	P1	-3.168708	0.008361	-0.037194
11	P1	-4.189103	0.018222	0.058519
15	P1	-6.473048	0.019263	-0.053869
19	P1	-3.778295	0.012006	-0.020861
22	P1	-4.737990	0.011642	0.039270
26	P1	-3.910480	0.017249	-0.032775
30	P1	-5.960837	0.009378	0.009322

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.647926	0.093385	0.014134
7	P2	-21.498787	0.093744	0.080825
11	P2	-15.274216	0.121278	0.042673
15	P2	-7.134166	0.091103	-0.003568
19	P2	-9.122945	0.082376	-0.007510
22	P2	-18.084929	0.077924	0.000962
26	P2	-16.658716	0.084526	-0.043025
30	P2	-19.240911	0.084123	0.059163

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.243915	0.004547	0.003443
7	P3	-8.243915	0.004547	0.003443
11	P3	-8.243915	0.004547	0.003443
15	P3	-8.243915	0.004547	0.003443
19	P3	-8.243915	0.004547	0.003443
22	P3	-8.243915	0.004547	0.003443
26	P3	-8.243893	0.004553	0.003580
30	P3	-8.243893	0.004553	0.003580

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	-11.556204	0.141796	-0.865645
7	P1a	-10.012618	0.103937	0.042746
11	P1a	-10.689370	0.060248	-0.046044
15	P1a	-10.762950	0.135136	0.081453
19	P1a	-15.874855	0.097028	-0.105198
22	P1a	-21.506393	1.324762	-0.151519
26	P1a	-15.569823	0.307158	-0.089720
30	P1a	-18.260096	0.405753	0.099651

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-7.822952	0.350625	1.654966
7	P1	-2.361490	0.053859	0.053546
11	P1	-2.867034	0.016117	0.009422
15	P1	-3.788500	0.033821	0.046459
19	P1	-3.610335	0.017962	-0.042058
22	P1	-4.940372	0.023143	0.035866
26	P1	-6.064229	0.020848	-0.047829
30	P1	-5.362042	0.030672	-0.061335

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.219028	0.091286	-0.065815
7	P2	-22.066994	0.178545	-0.036631
11	P2	-10.664056	0.057291	-0.057628
15	P2	-4.967148	0.046039	-0.094547
19	P2	-6.882991	0.045760	-0.041745
22	P2	-8.103353	0.063654	-0.028013
26	P2	-24.354784	0.115296	-0.061314
30	P2	-21.701185	0.099192	-0.007582

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091705	0.005220	-0.008505
7	P3	-8.091634	0.005216	-0.008437
11	P3	-8.091671	0.005207	-0.008892
15	P3	-8.091642	0.005213	-0.008819
19	P3	-8.091676	0.005219	-0.008587
22	P3	-8.091643	0.005220	-0.009052
26	P3	-8.091743	0.005221	-0.009090
30	P3	-8.091653	0.005215	-0.008870

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	0.000552128
	stdev	1.89590e-07
MEAN Q	mean	0.000512994
	stdev	2.36428e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136167
	stdev	0.00115399
STDEV Q	mean	0.136551
	stdev	0.00117099



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007052[345]

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_1PNPDE20070523_183932_000000852058_00228_27336_7371.N1	0	10
ASA_WSM_1PNPDE20070524_180905_000001292058_00242_27350_8687.N1	0	31
ASA_WSM_1PNPDE20070525_155729_000001402058_00255_27363_9917.N1	0	2







7 - Doppler Analysis

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days



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)


Acsending

<input type="checkbox"/>
Descending

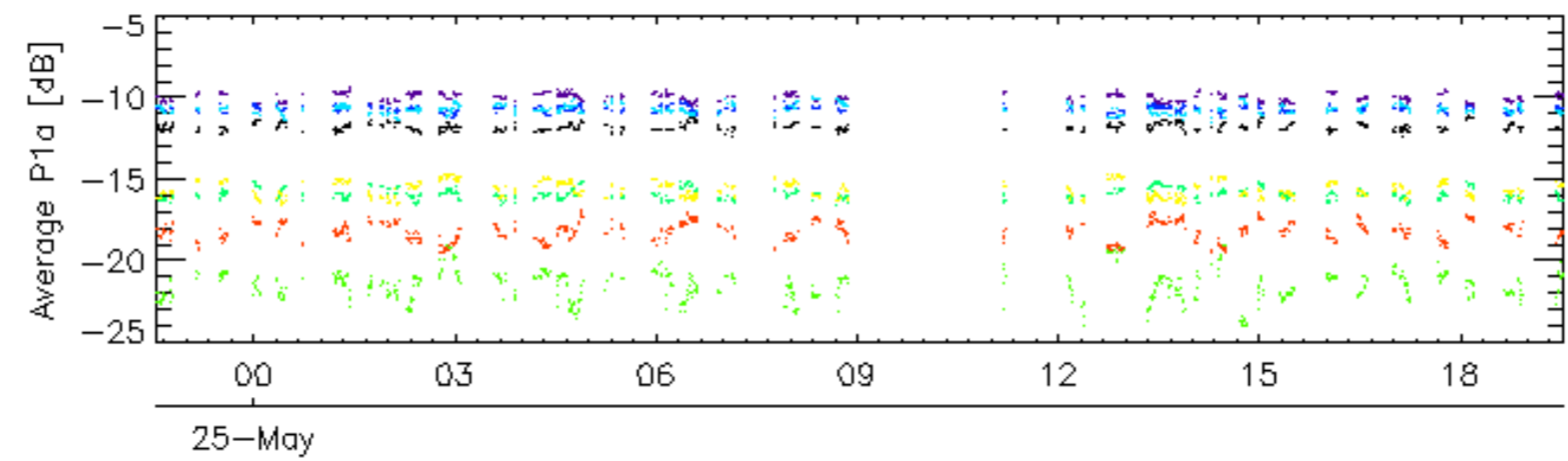
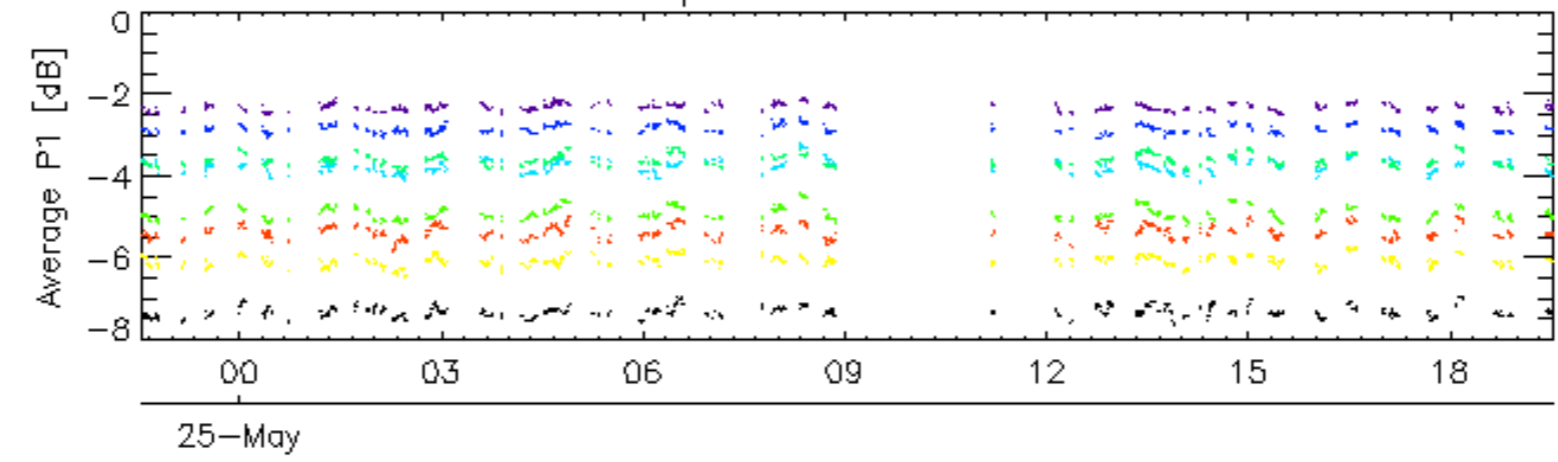
7.5 - Absolute Doppler for GM1

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

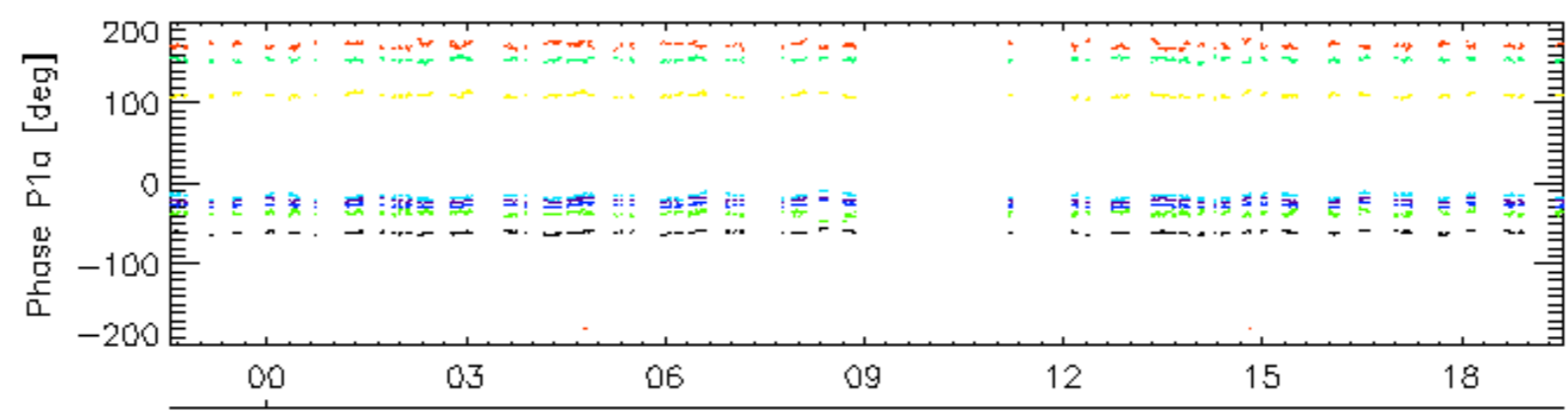
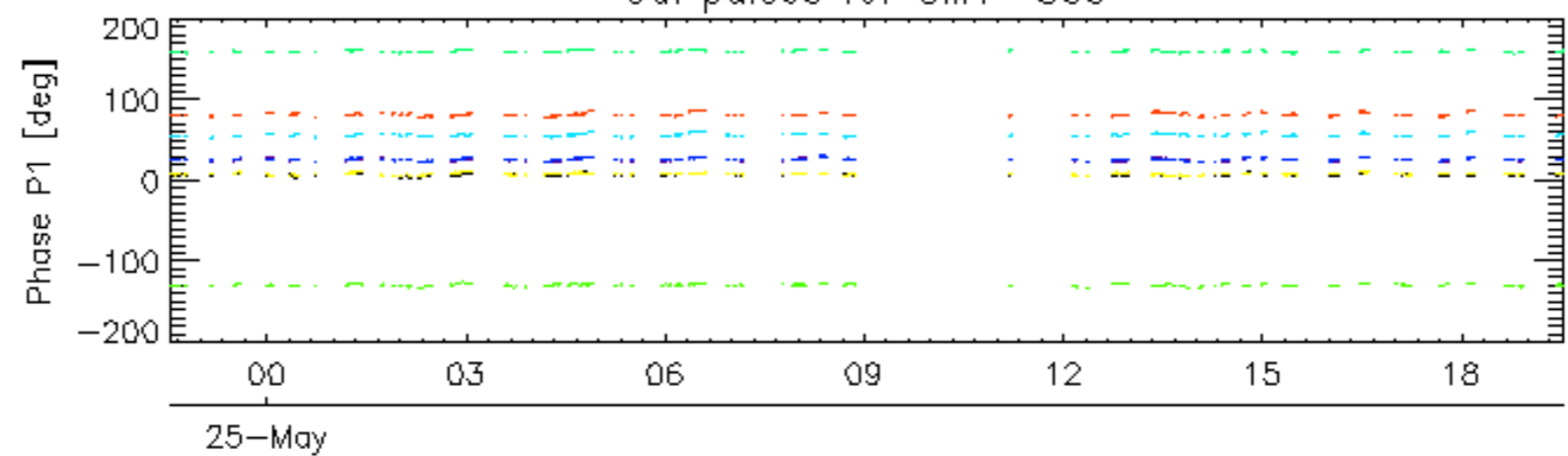
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

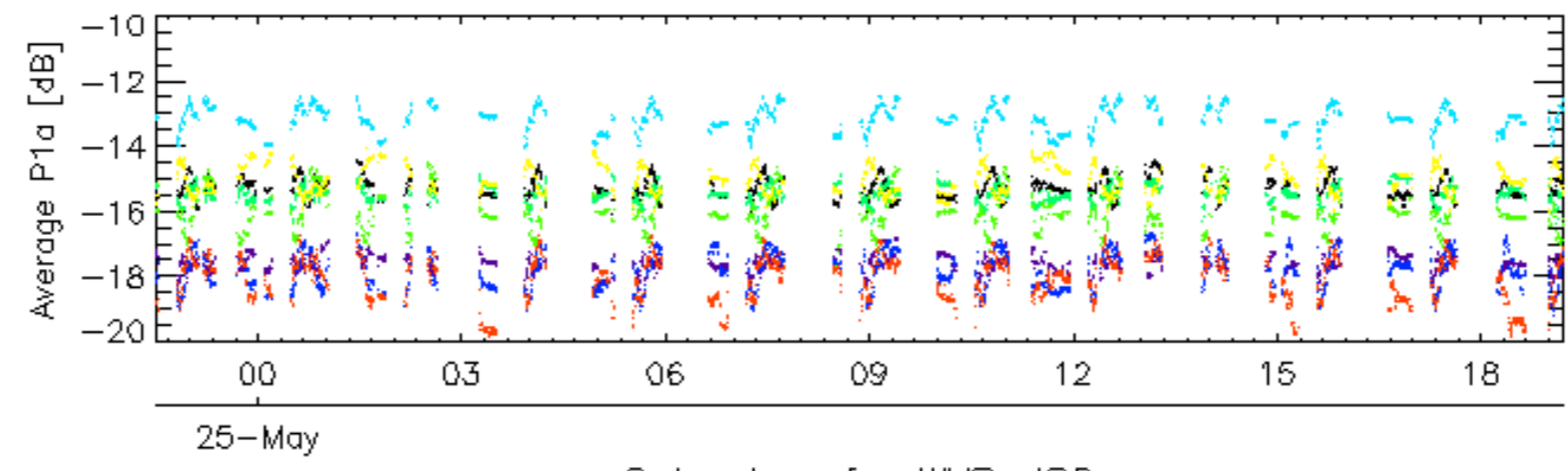
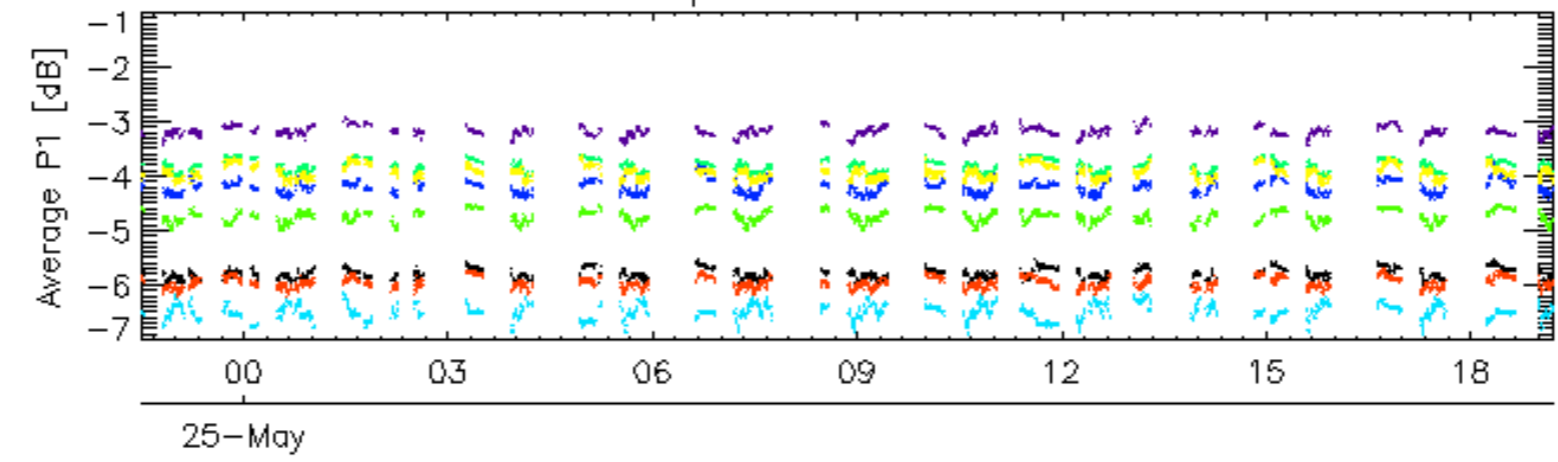


Cal pulses for GM1 SS3

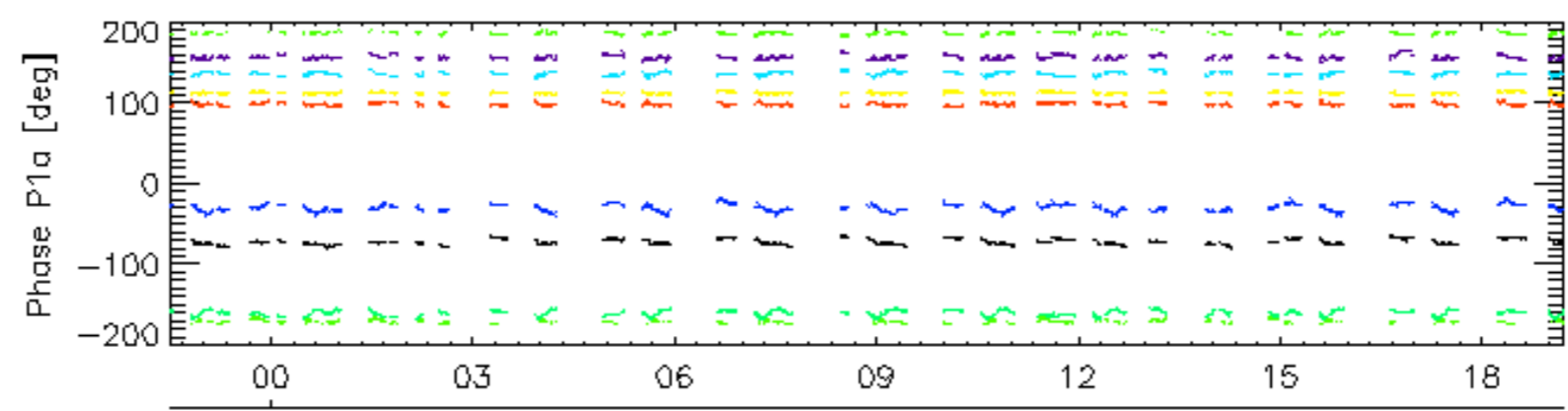
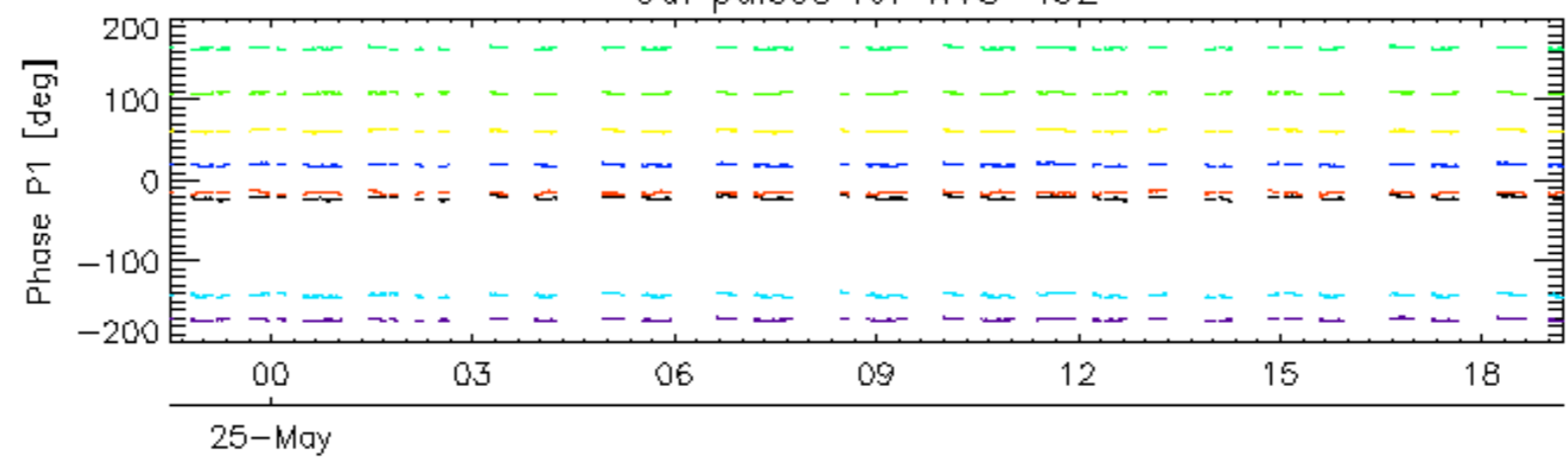


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

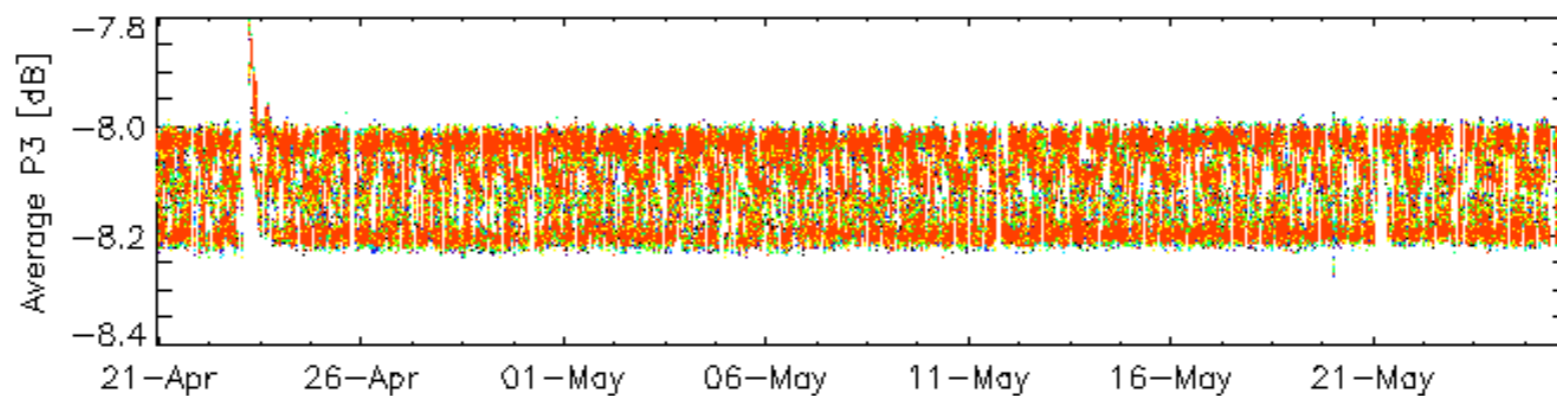
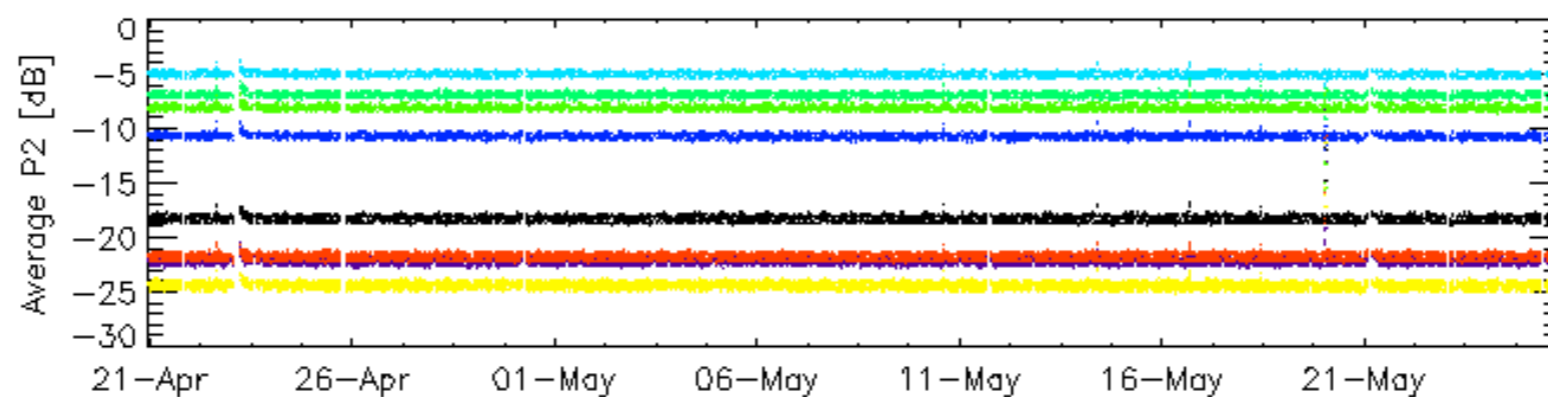
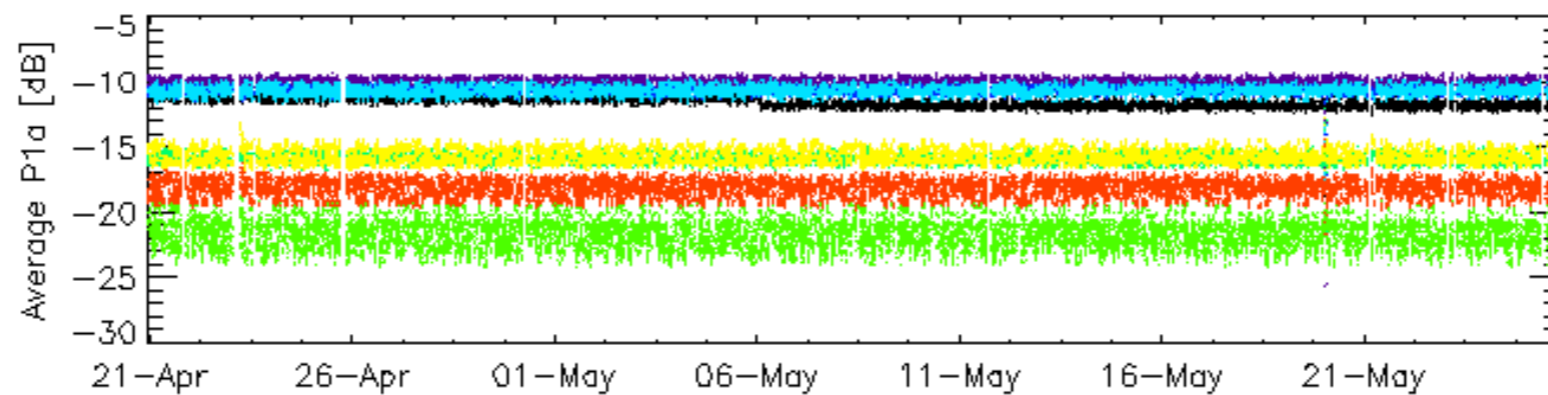
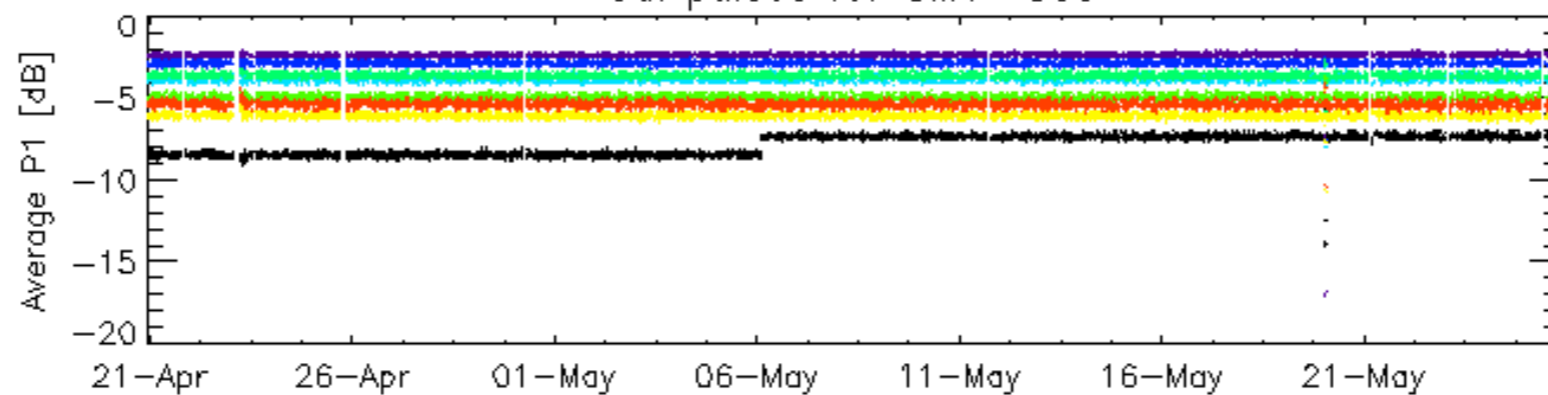


Cal pulses for WVS IS2



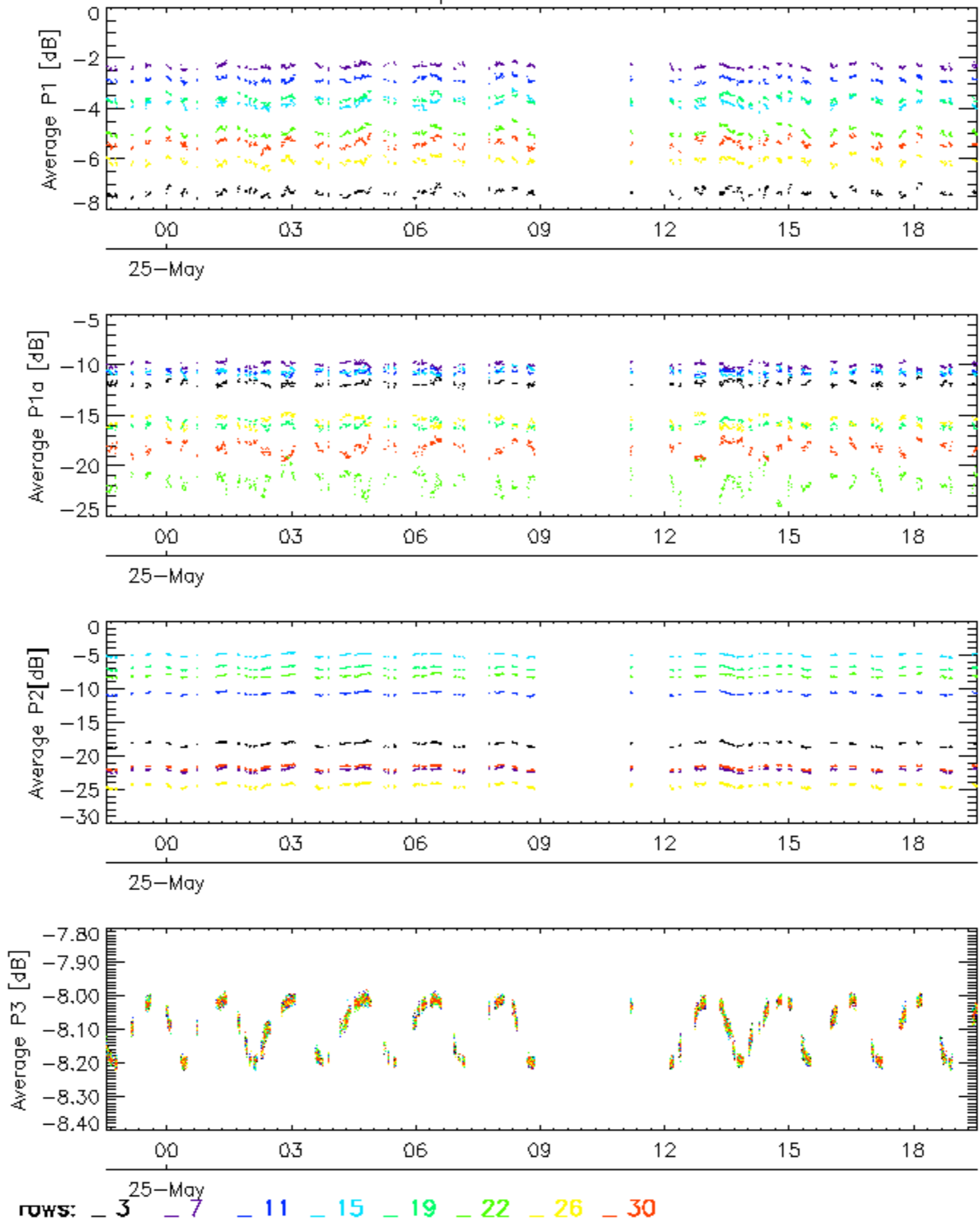
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

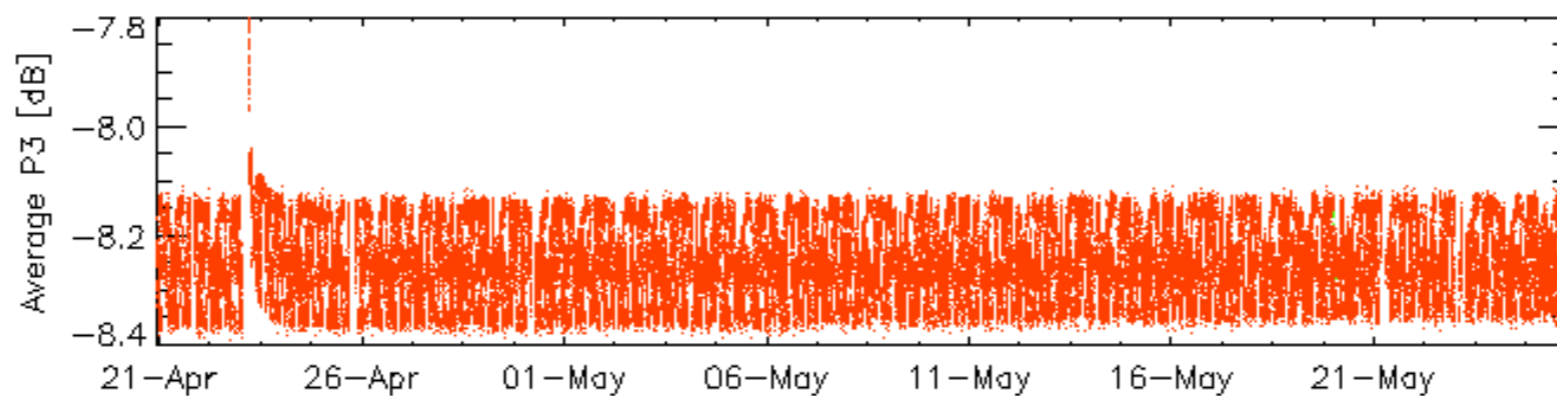
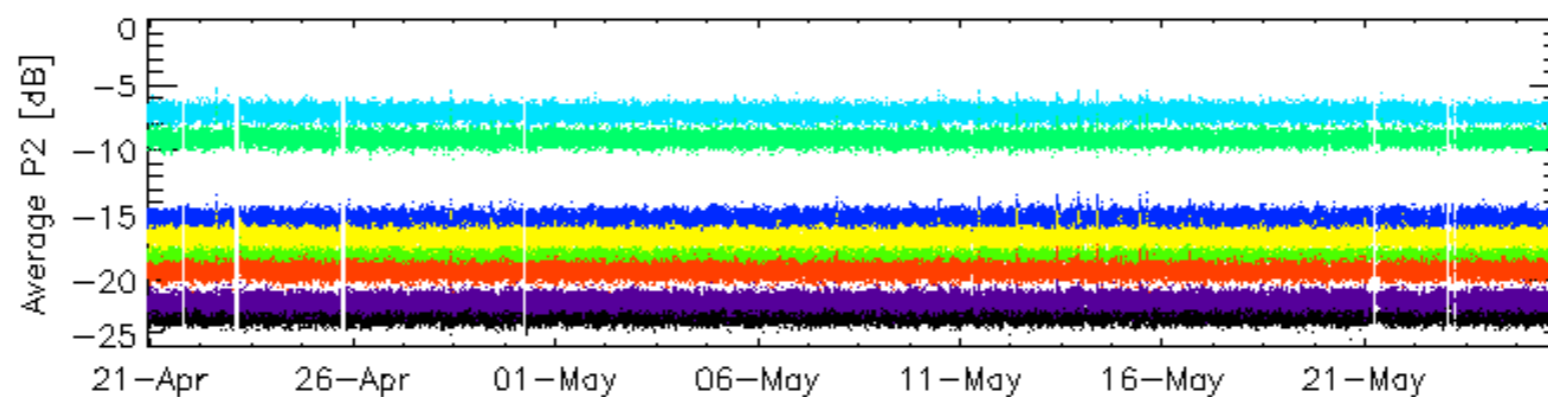
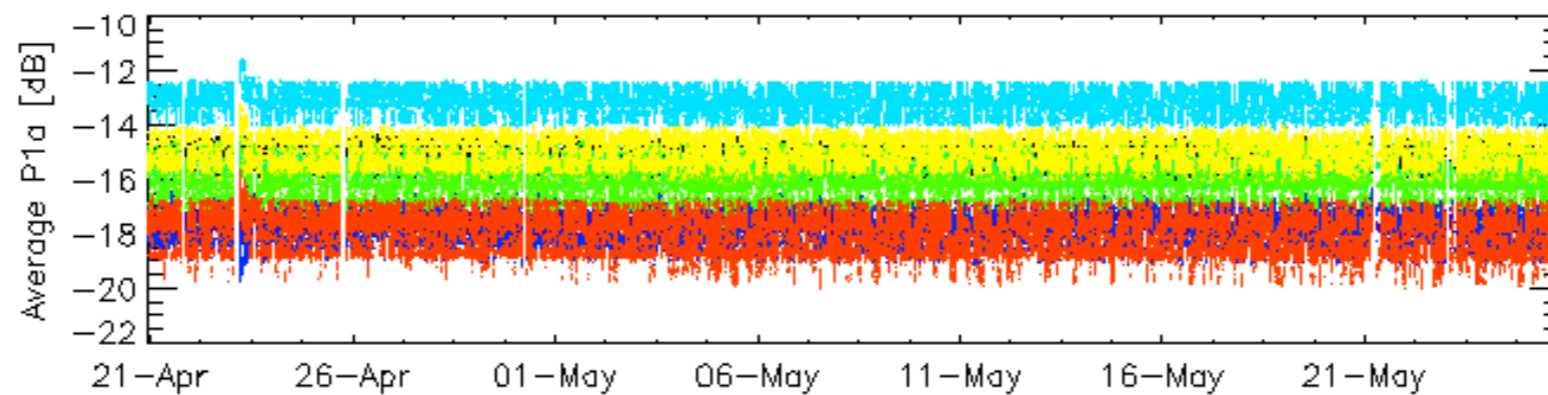
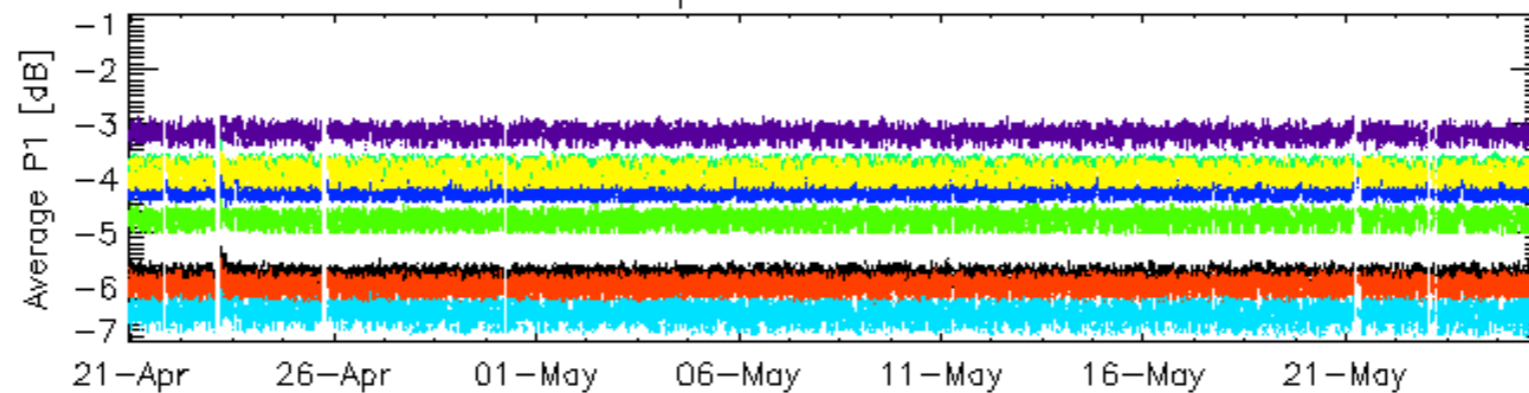


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

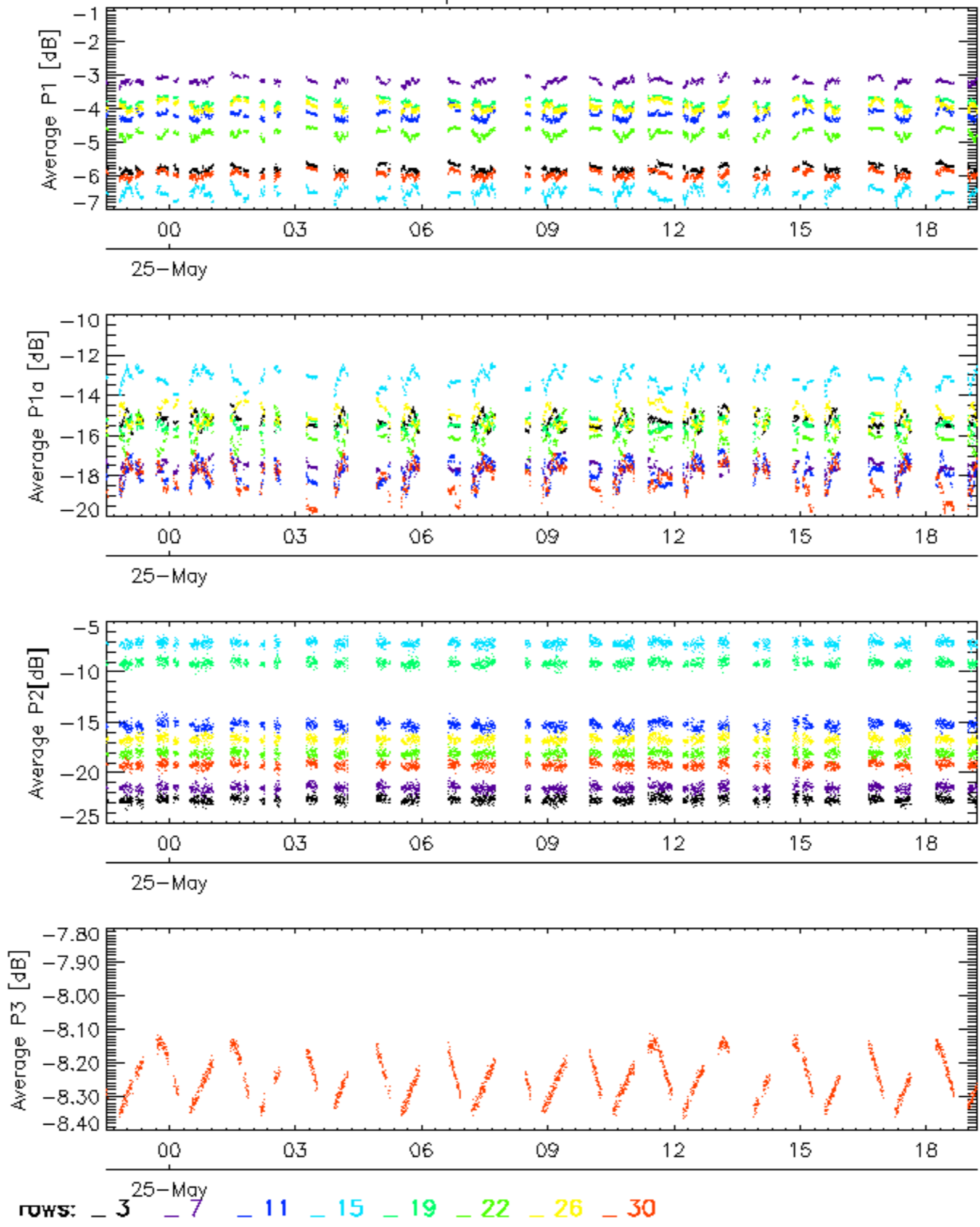


Cal pulses for WVS IS2

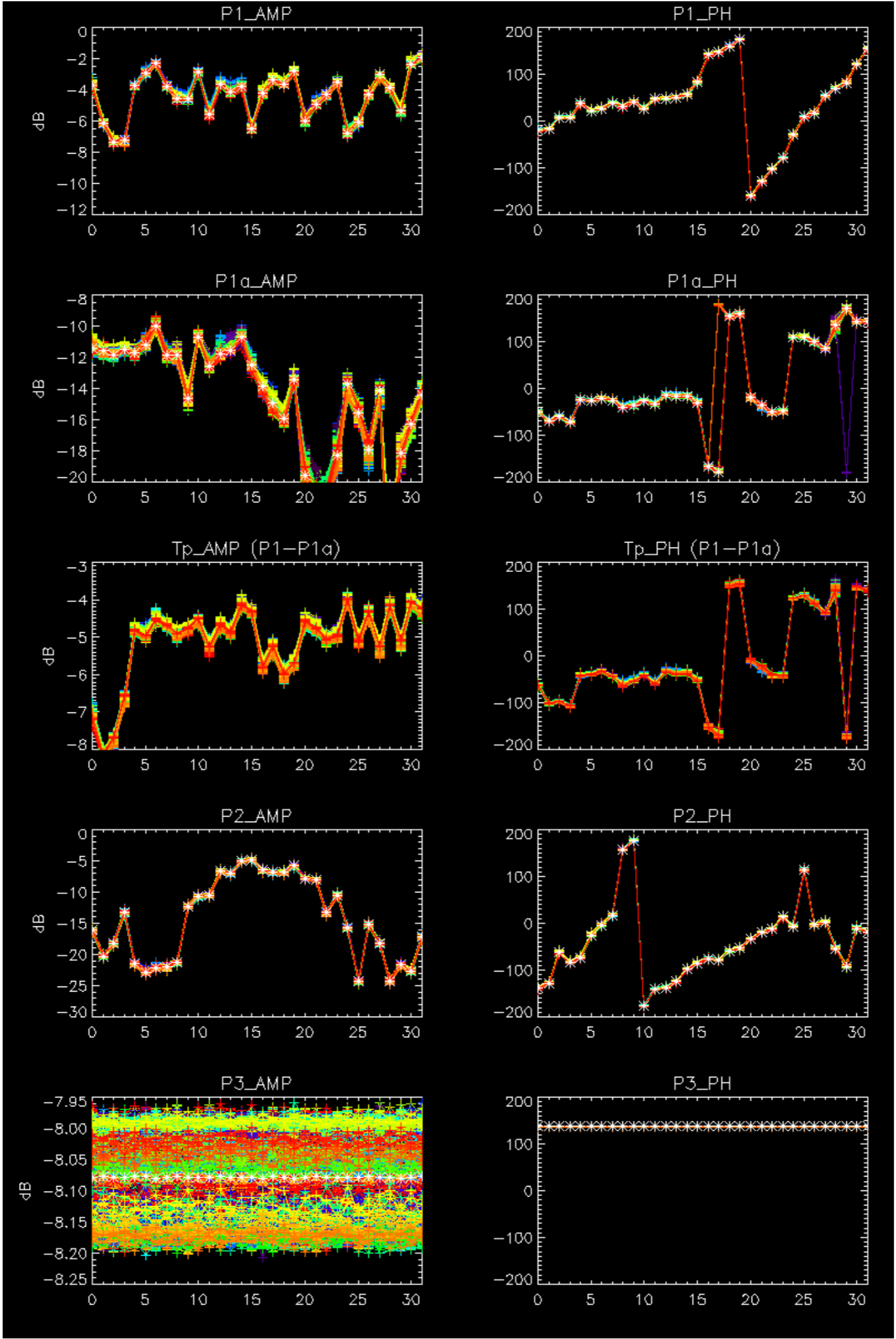


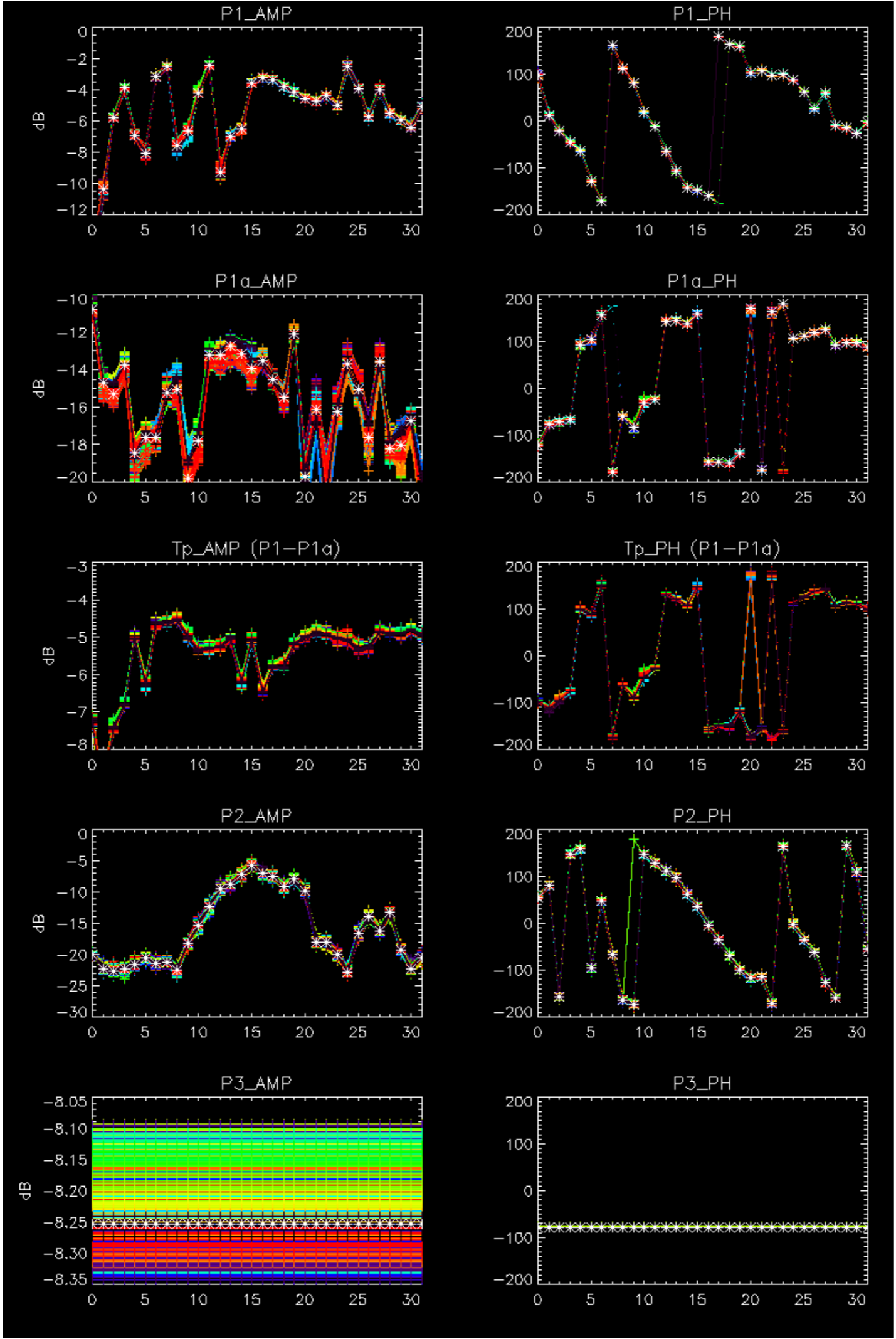
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



No anomalies observed.

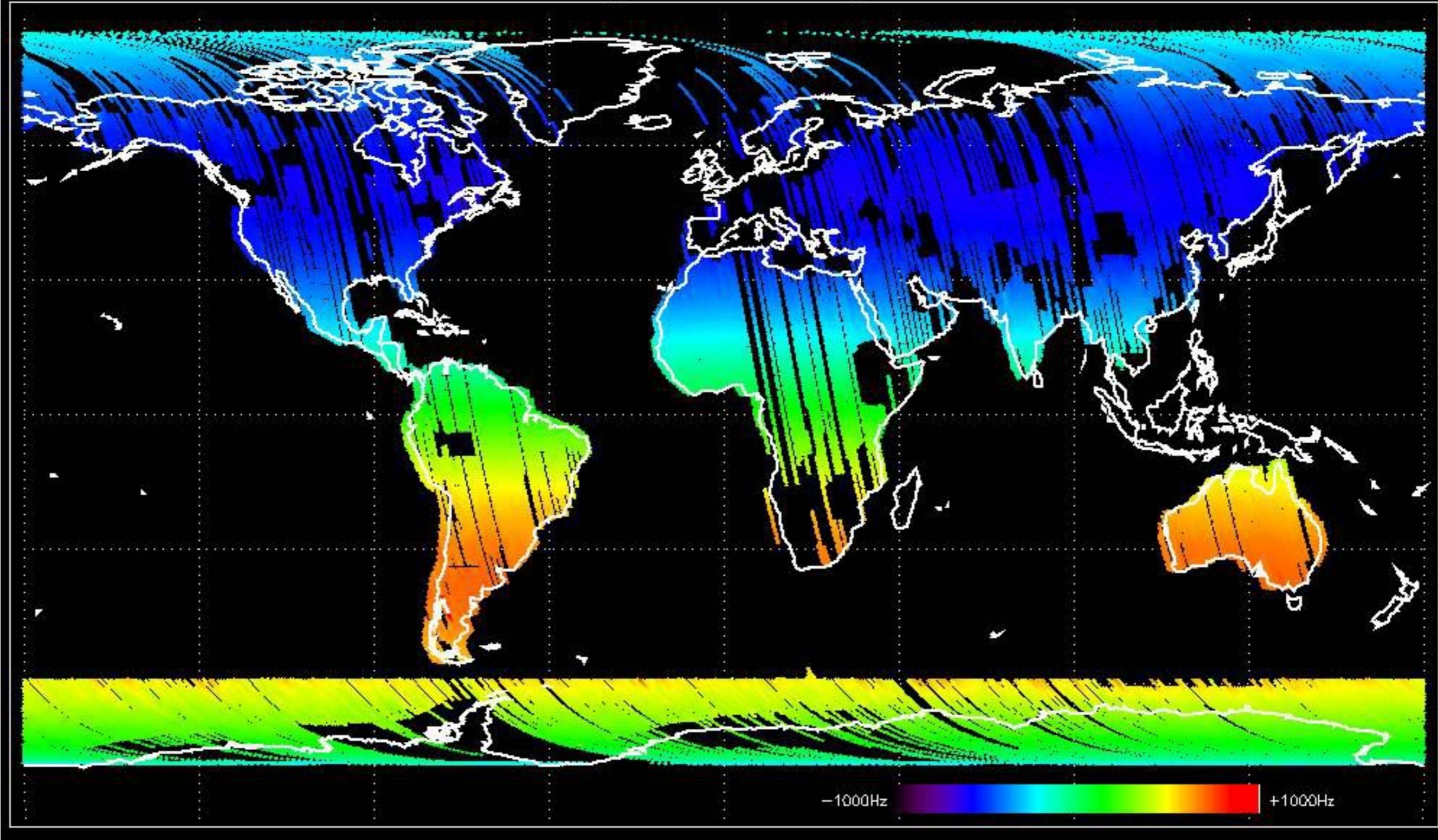




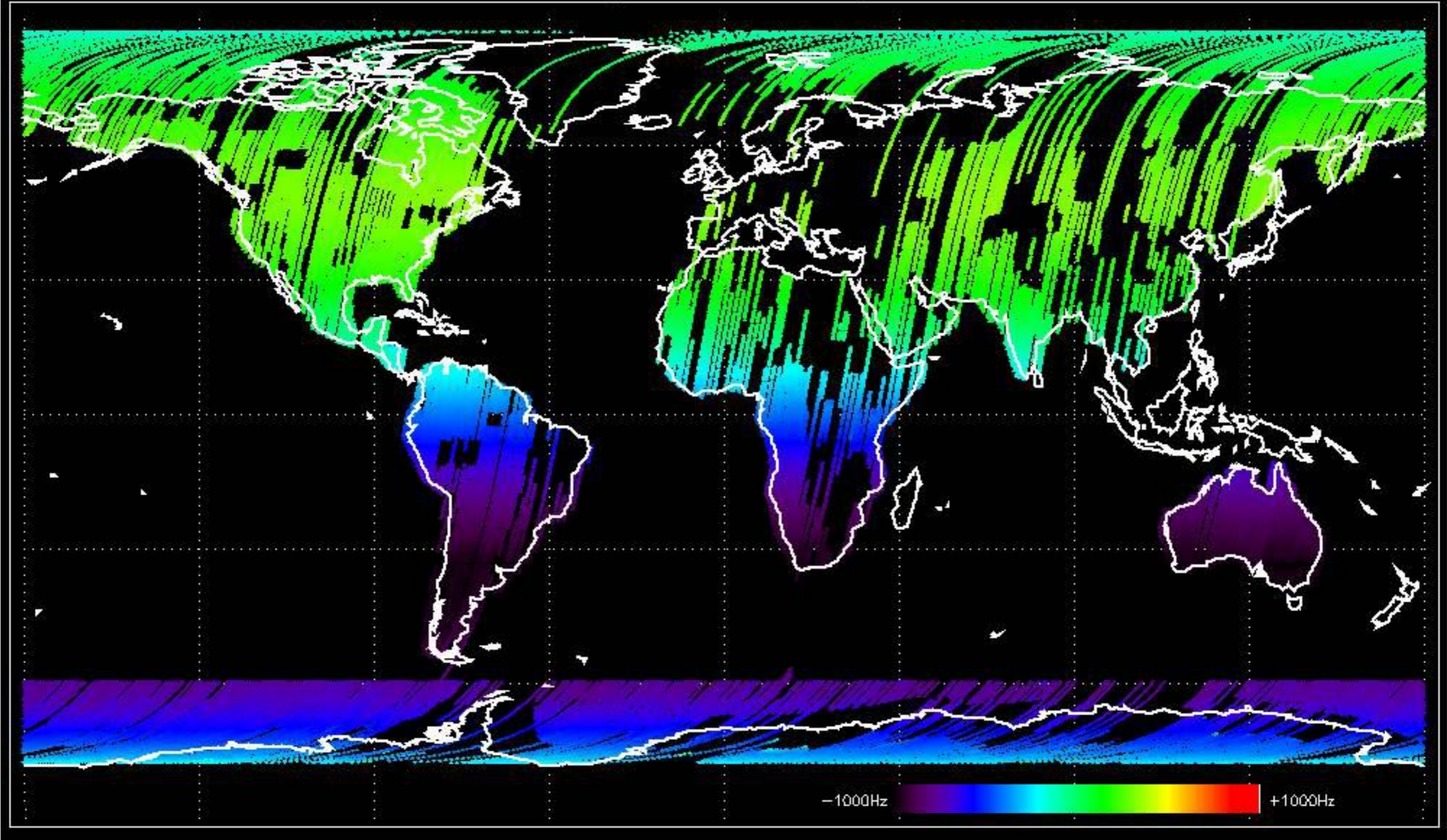
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days

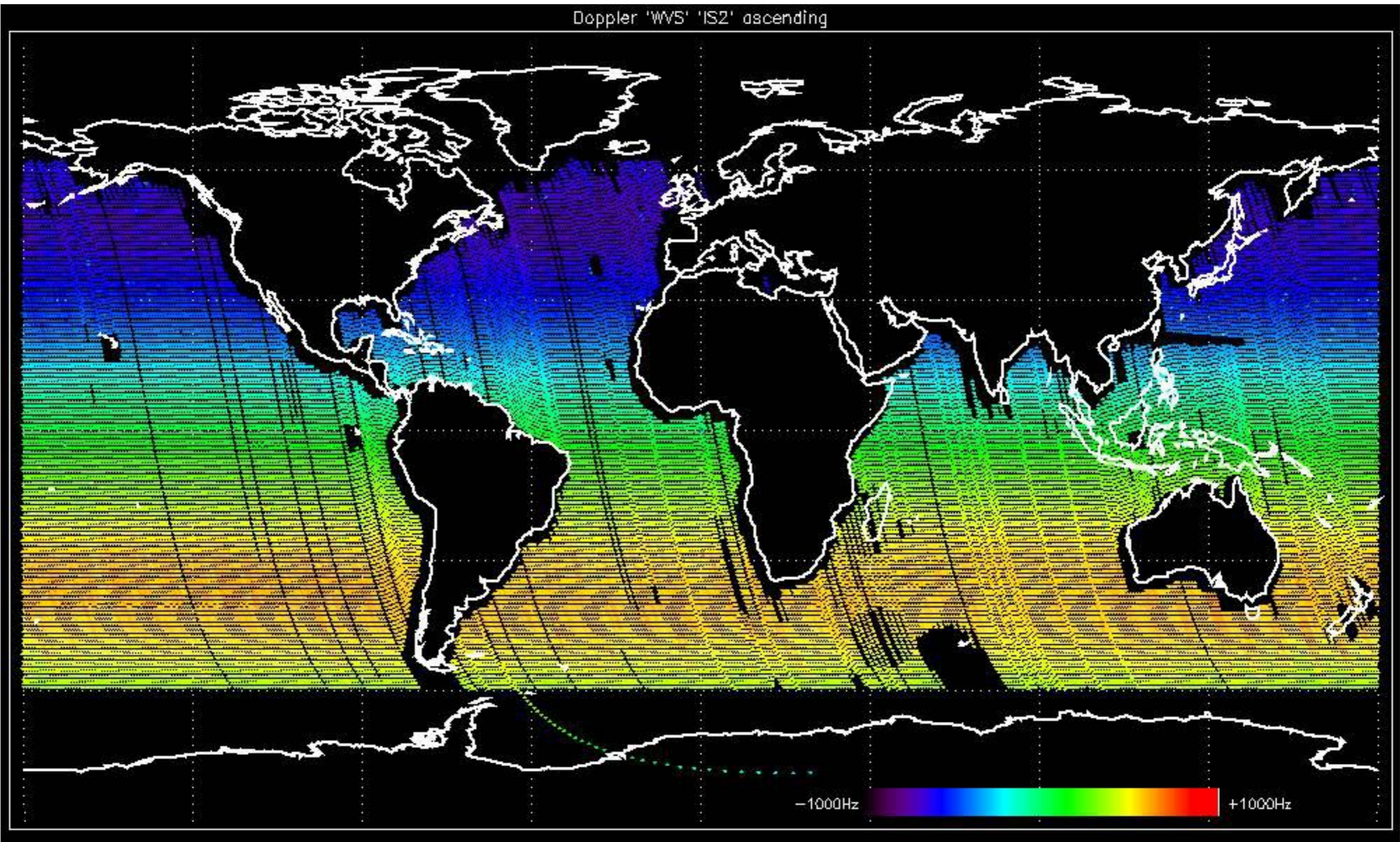
Doppler 'GM1' 'SS1' ascending



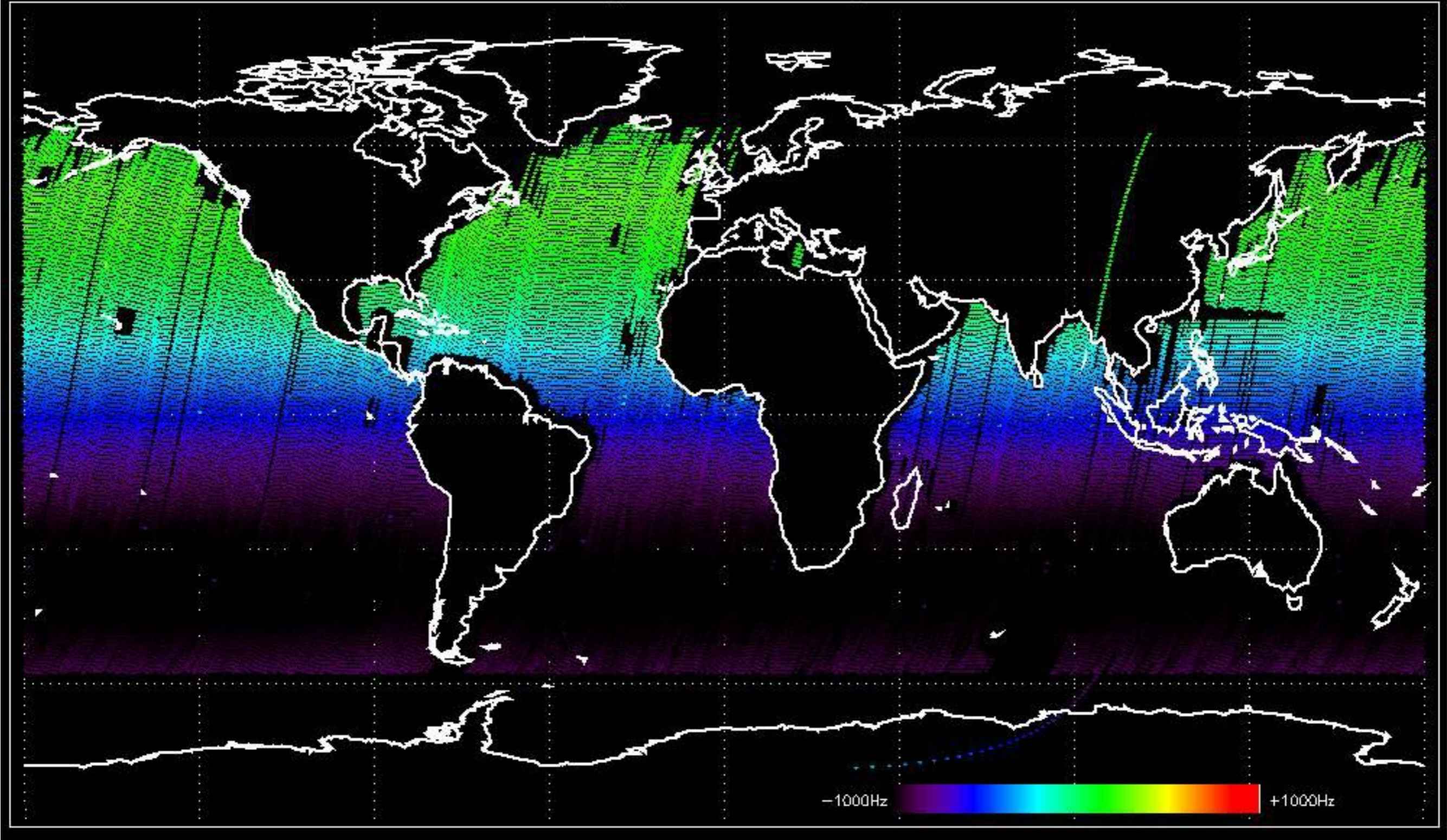
Doppler 'GM1' 'SS1' descending

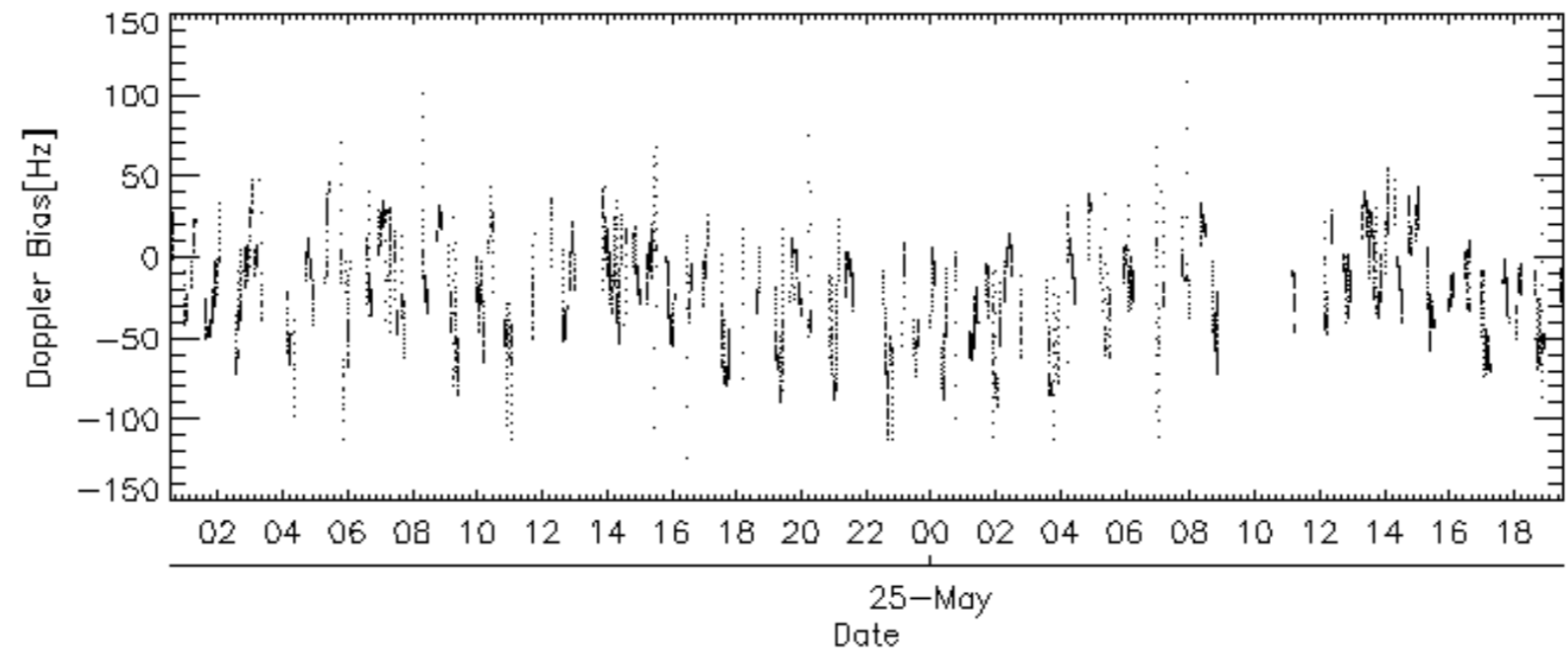
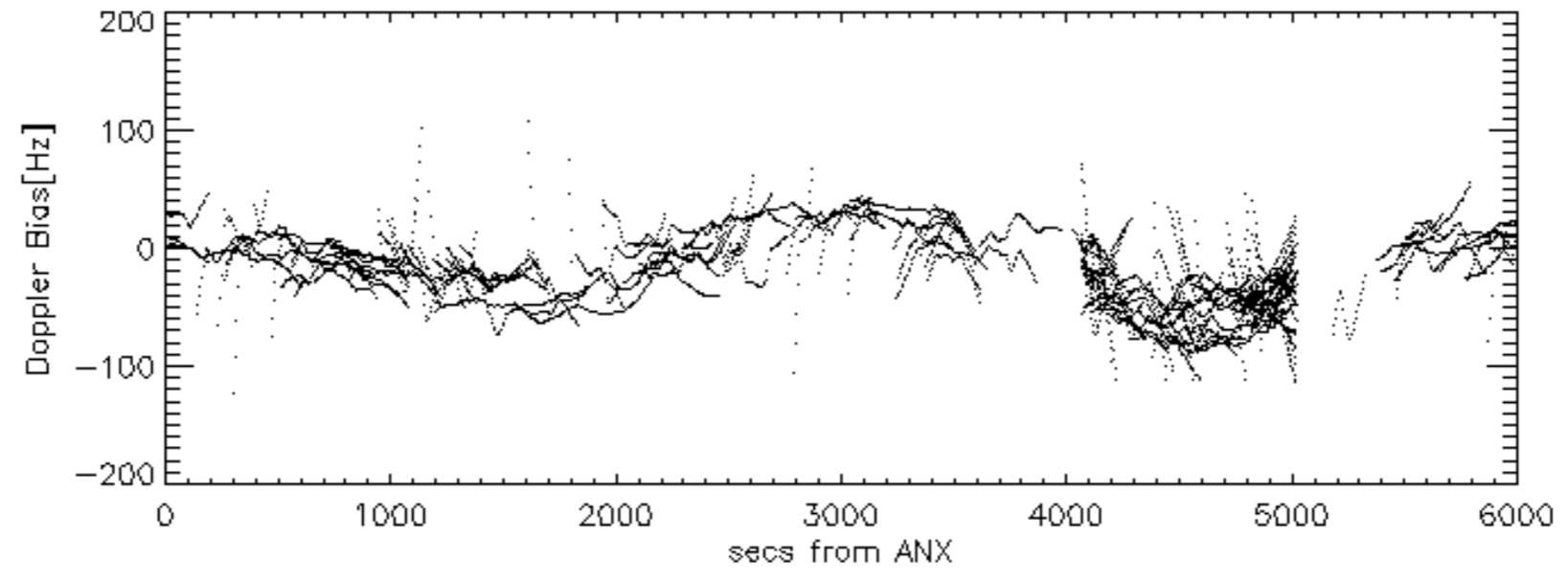
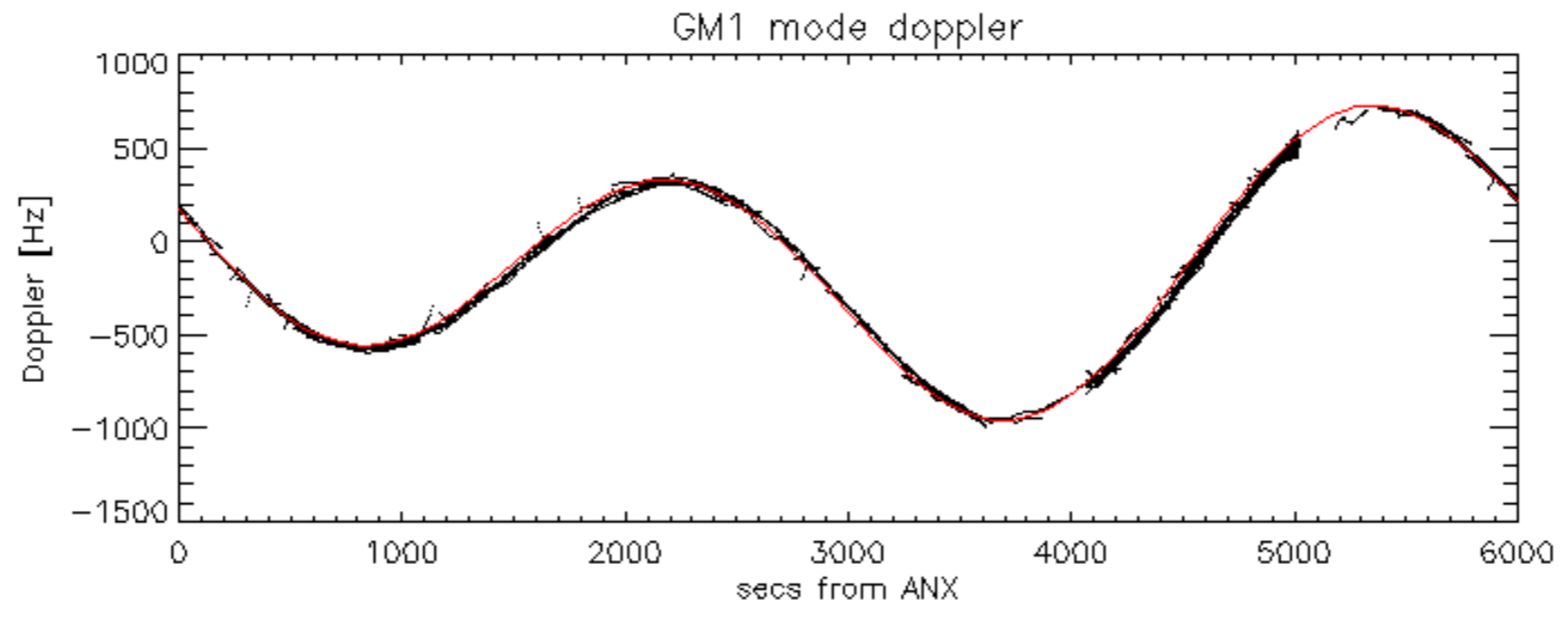


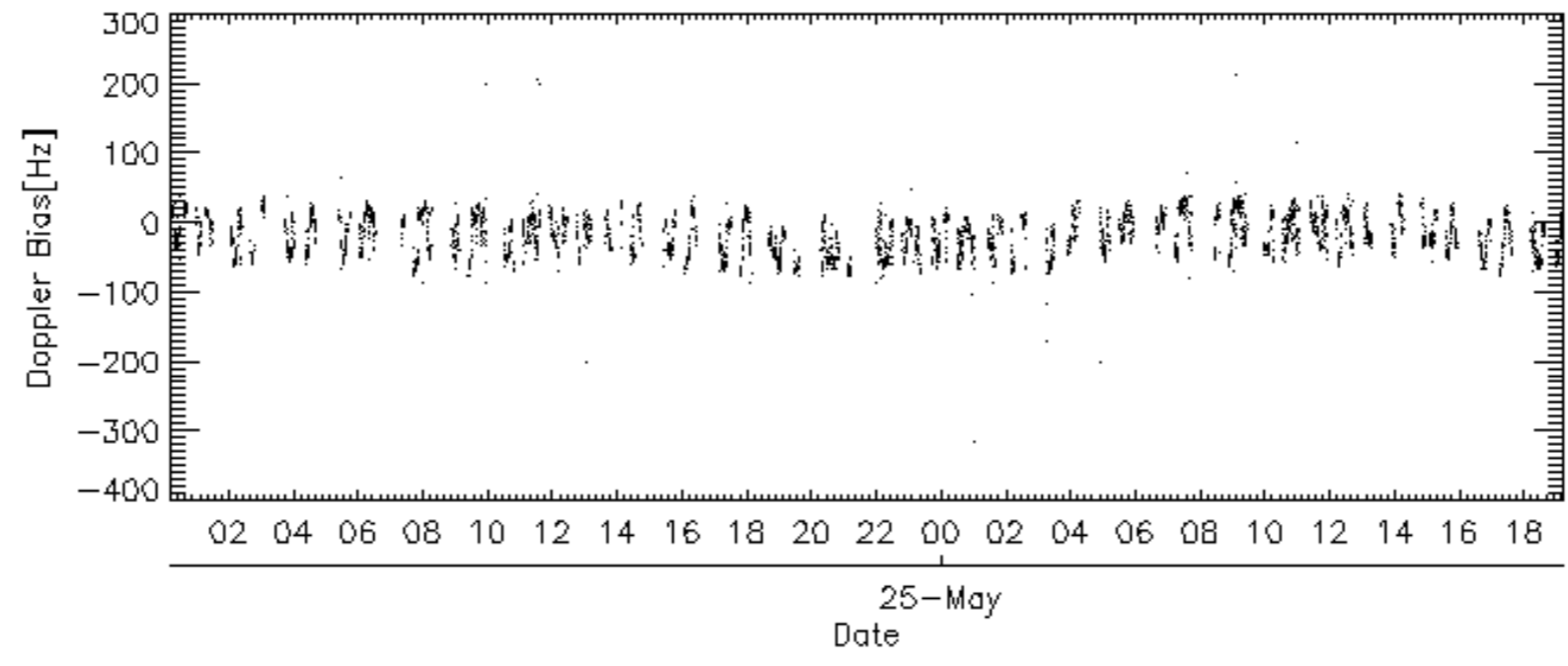
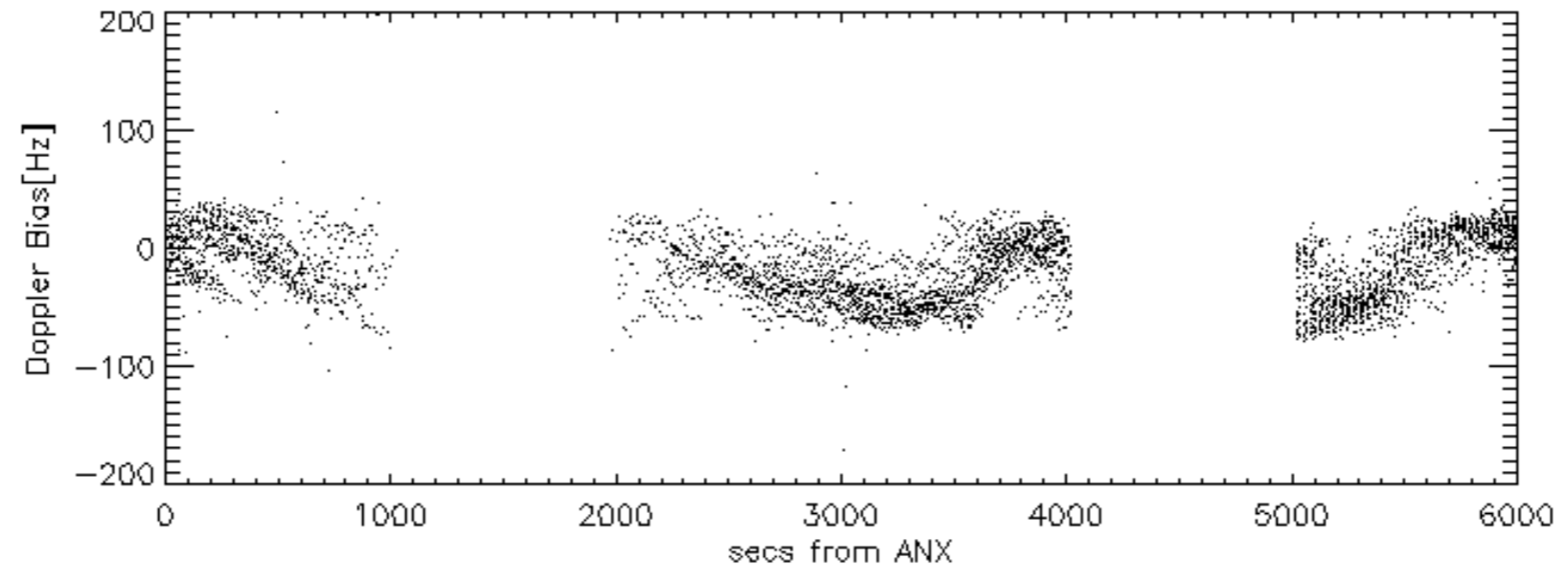
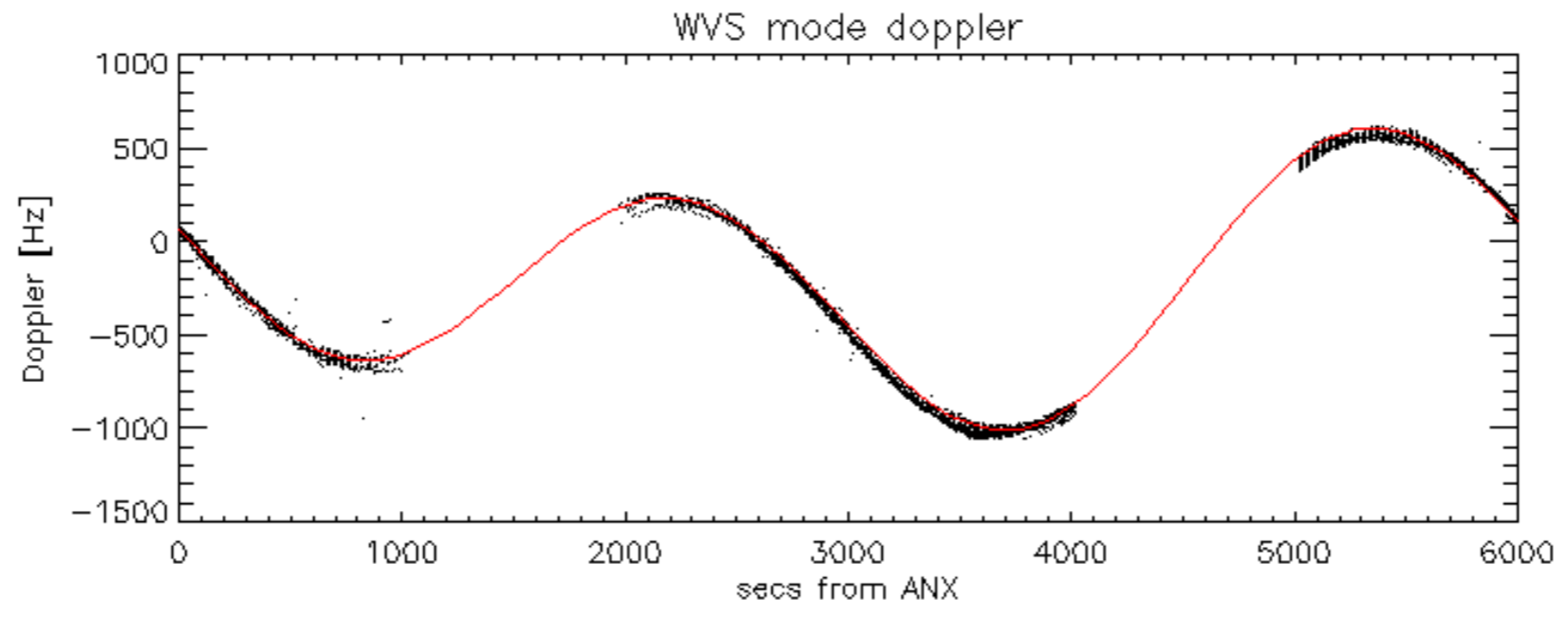
Doppler 'WVS' 'IS2' ascending



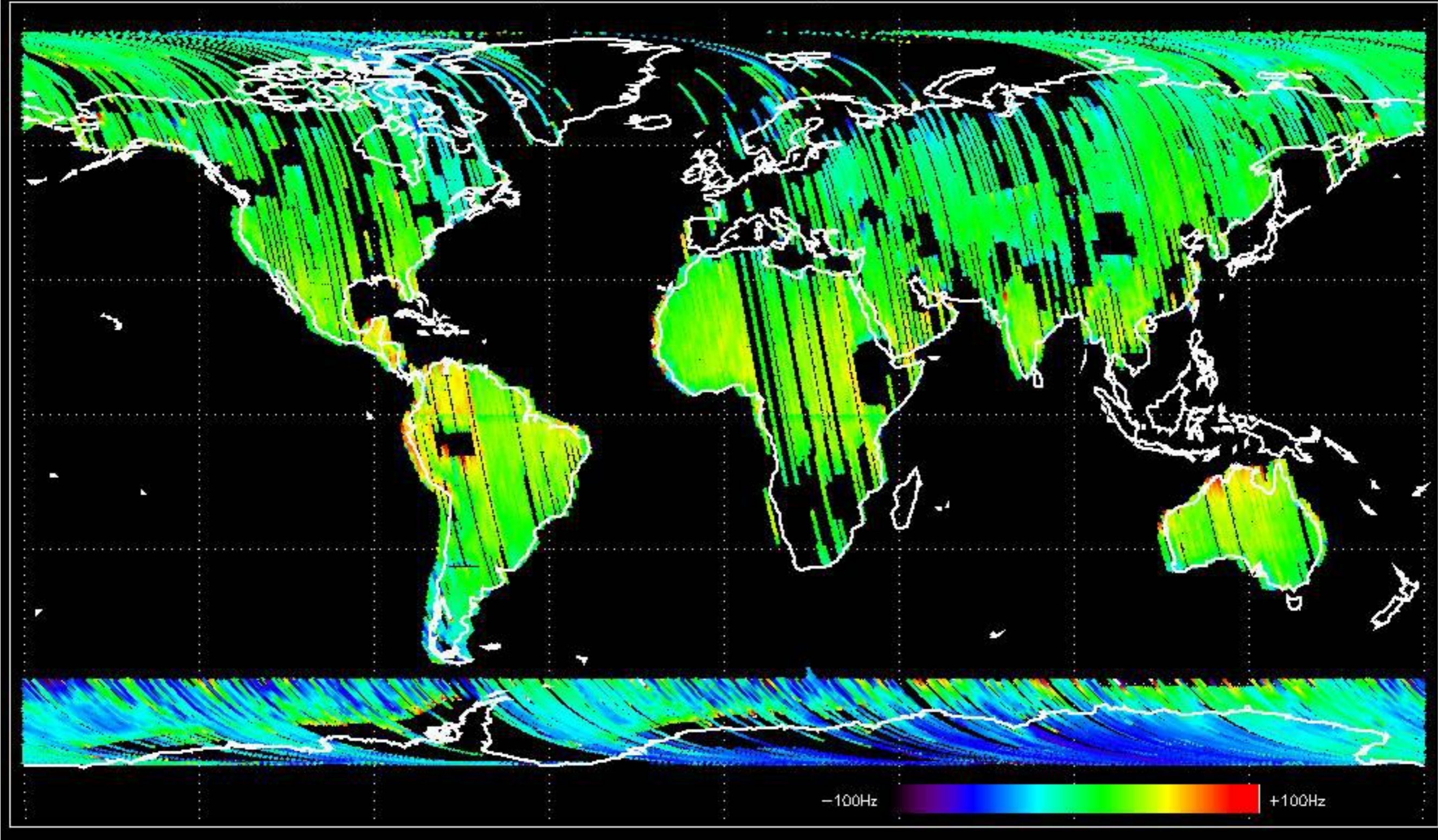
Doppler 'WVS' 'IS2' descending



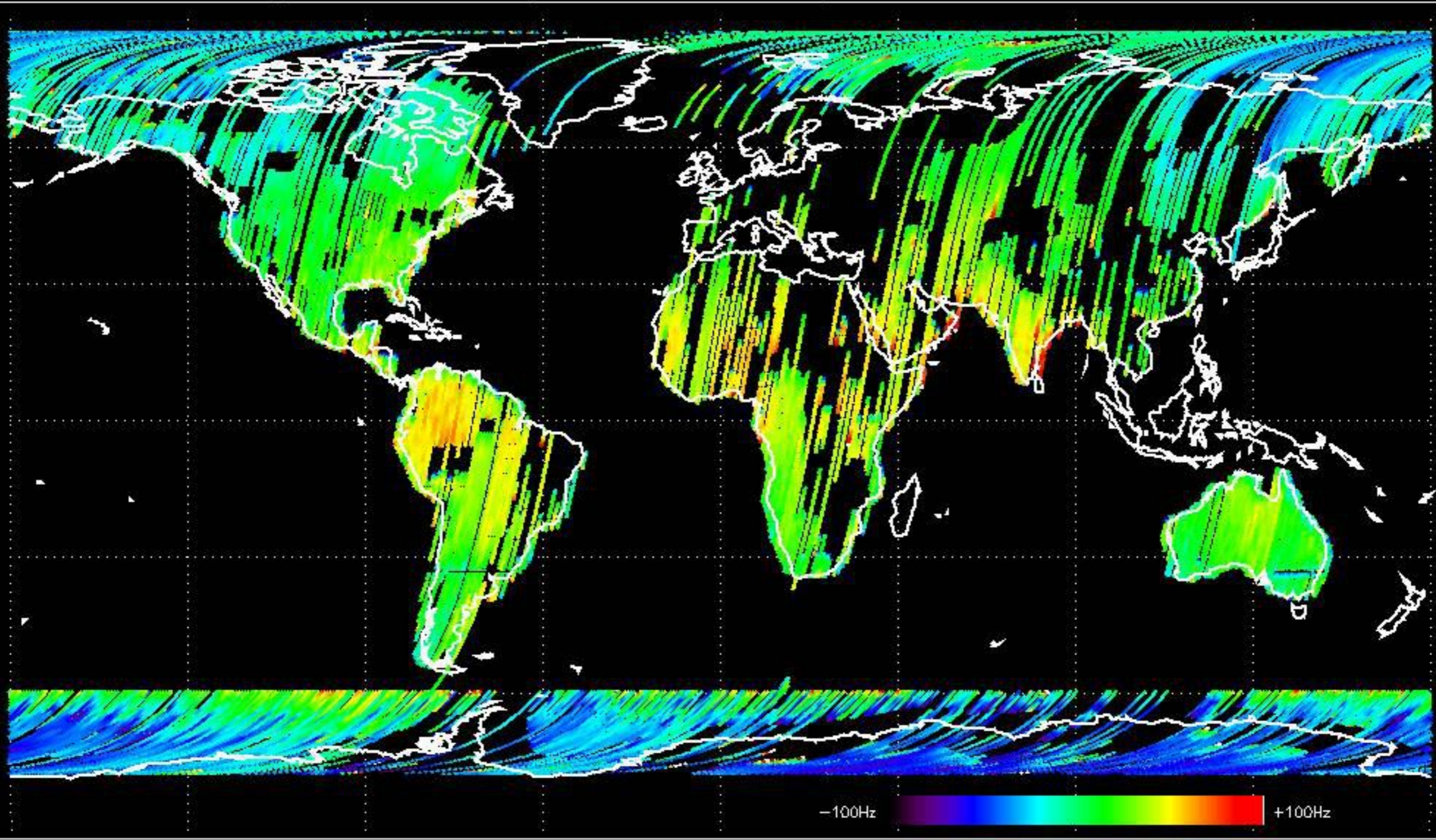




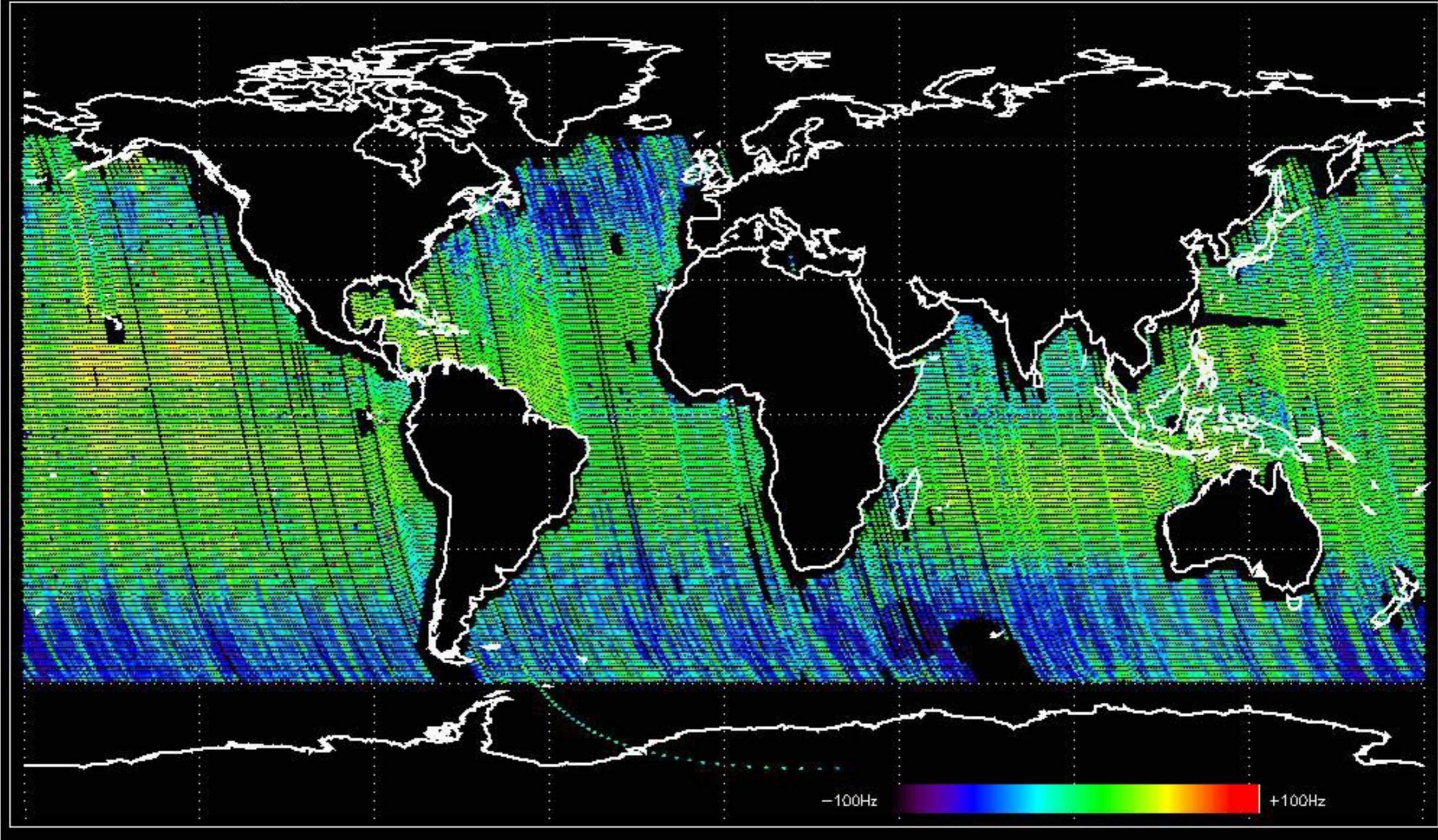
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.012735 Hz



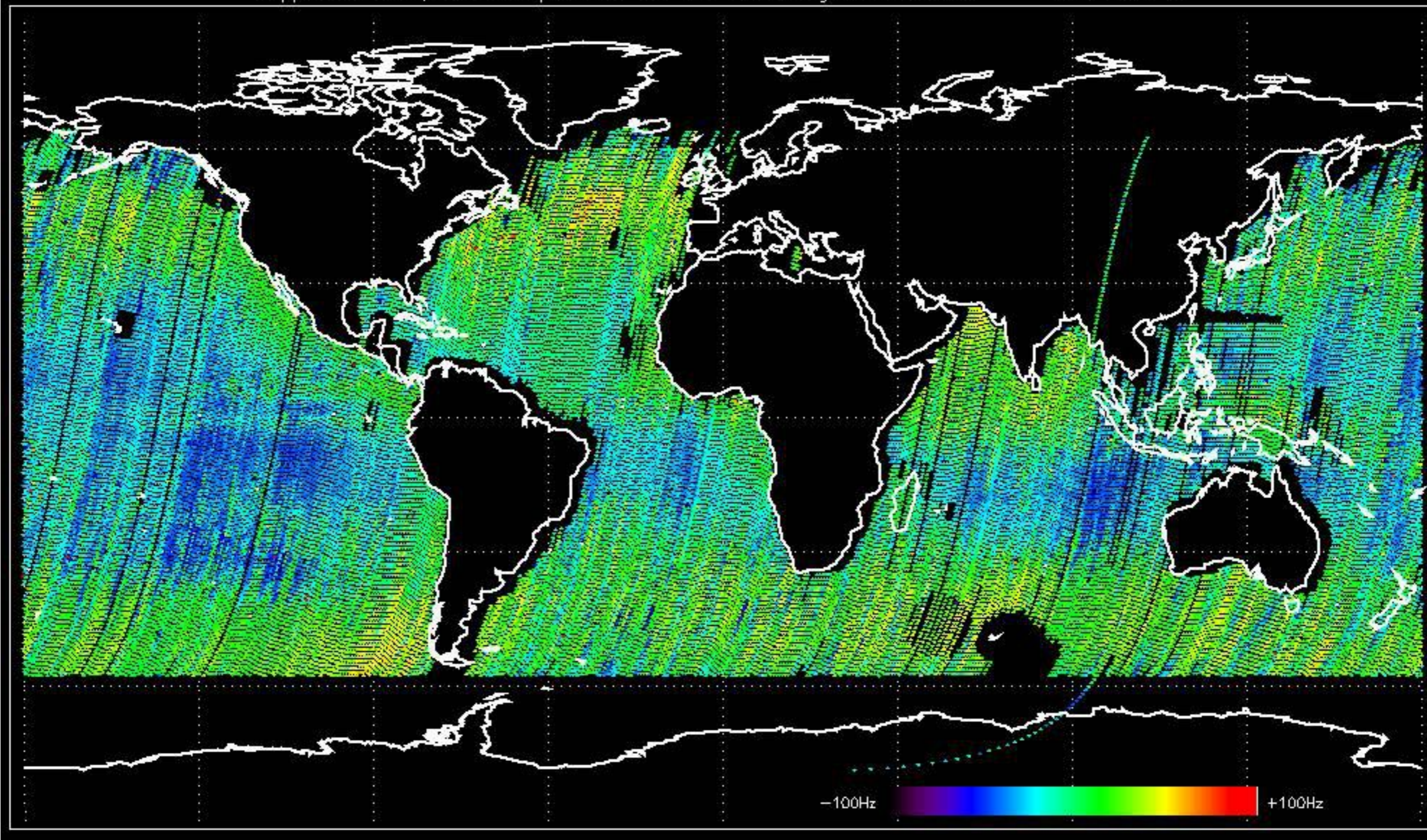
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.703752 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -14.358742 Hz

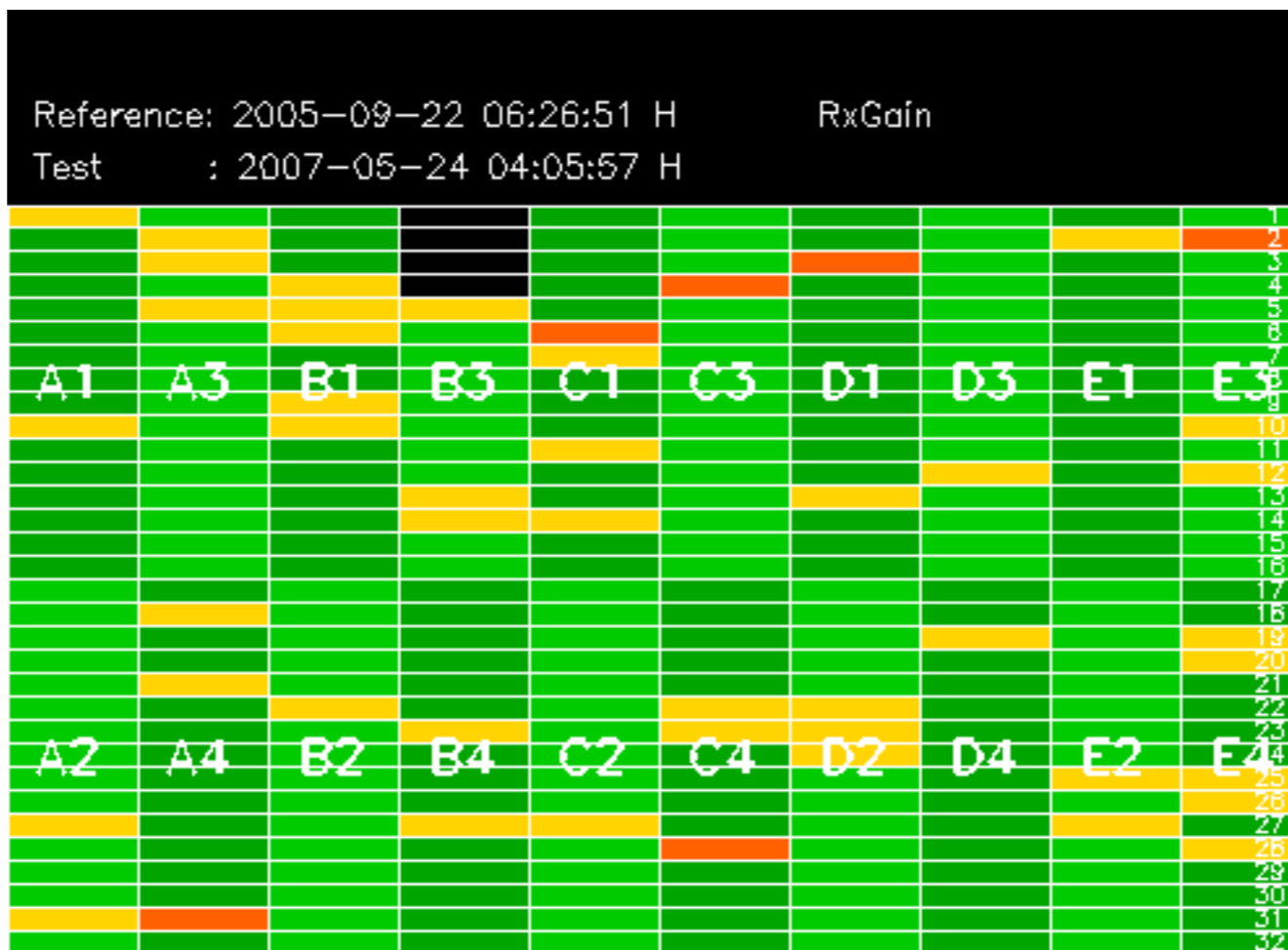


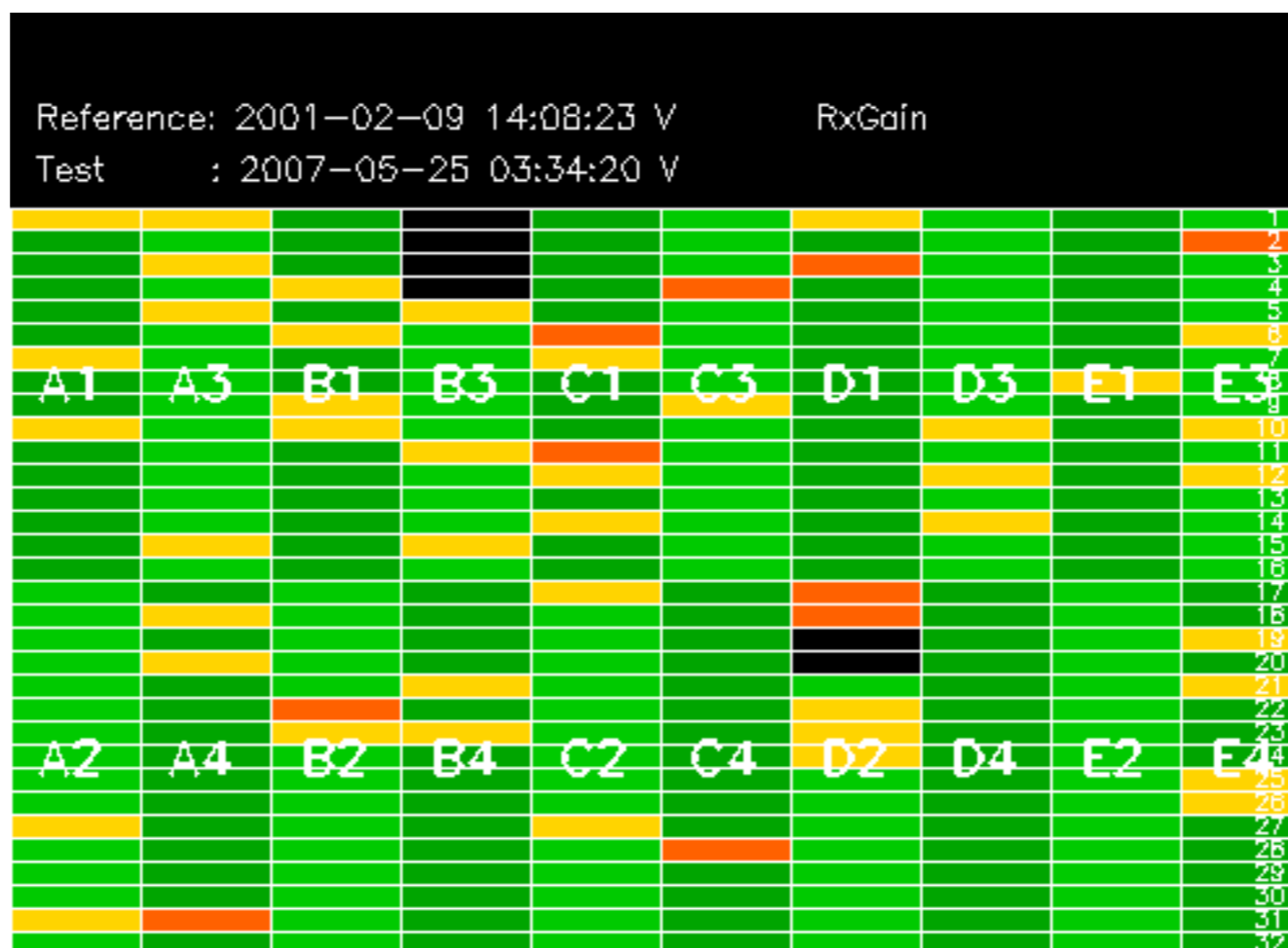
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.942163 Hz

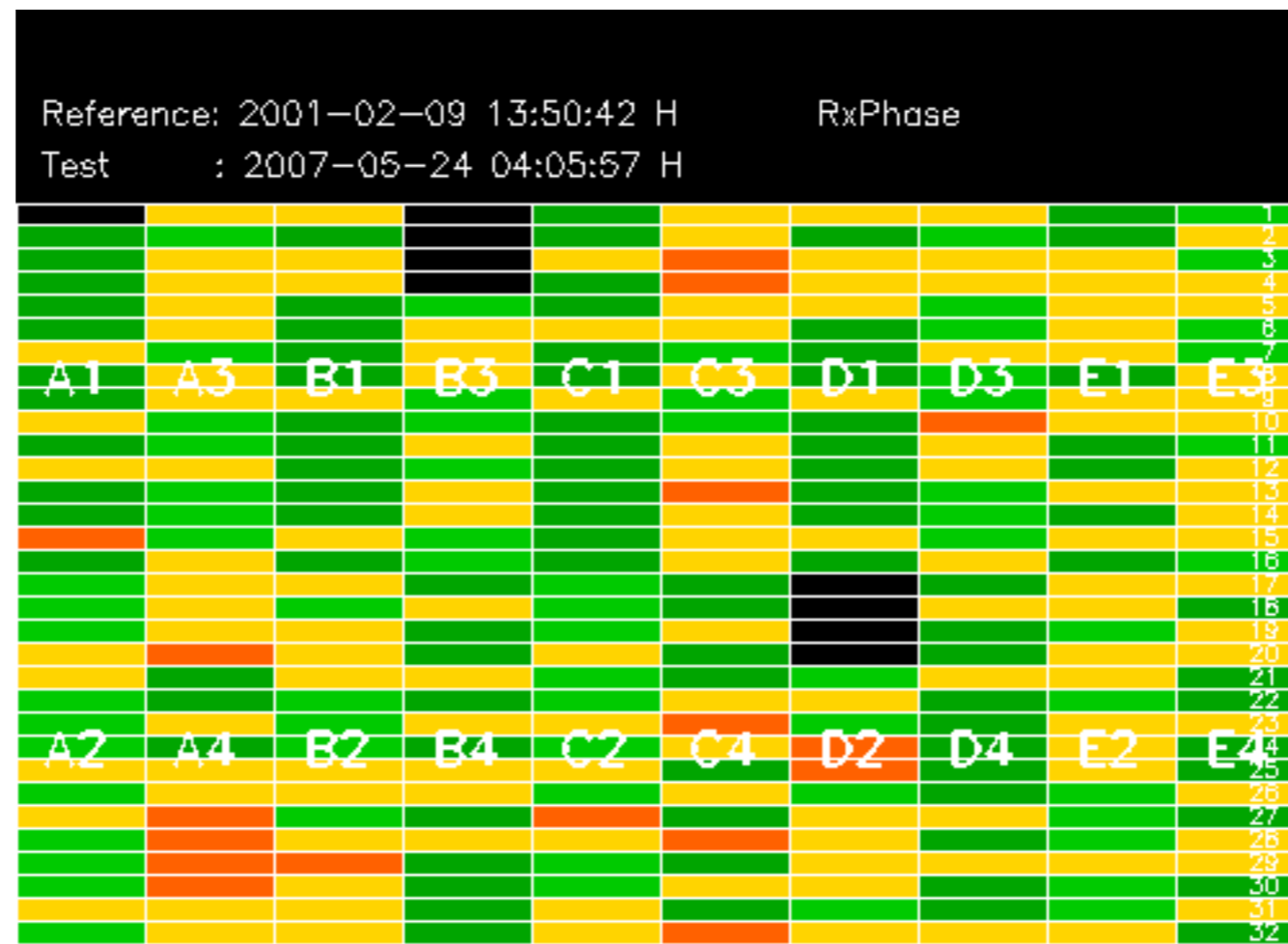


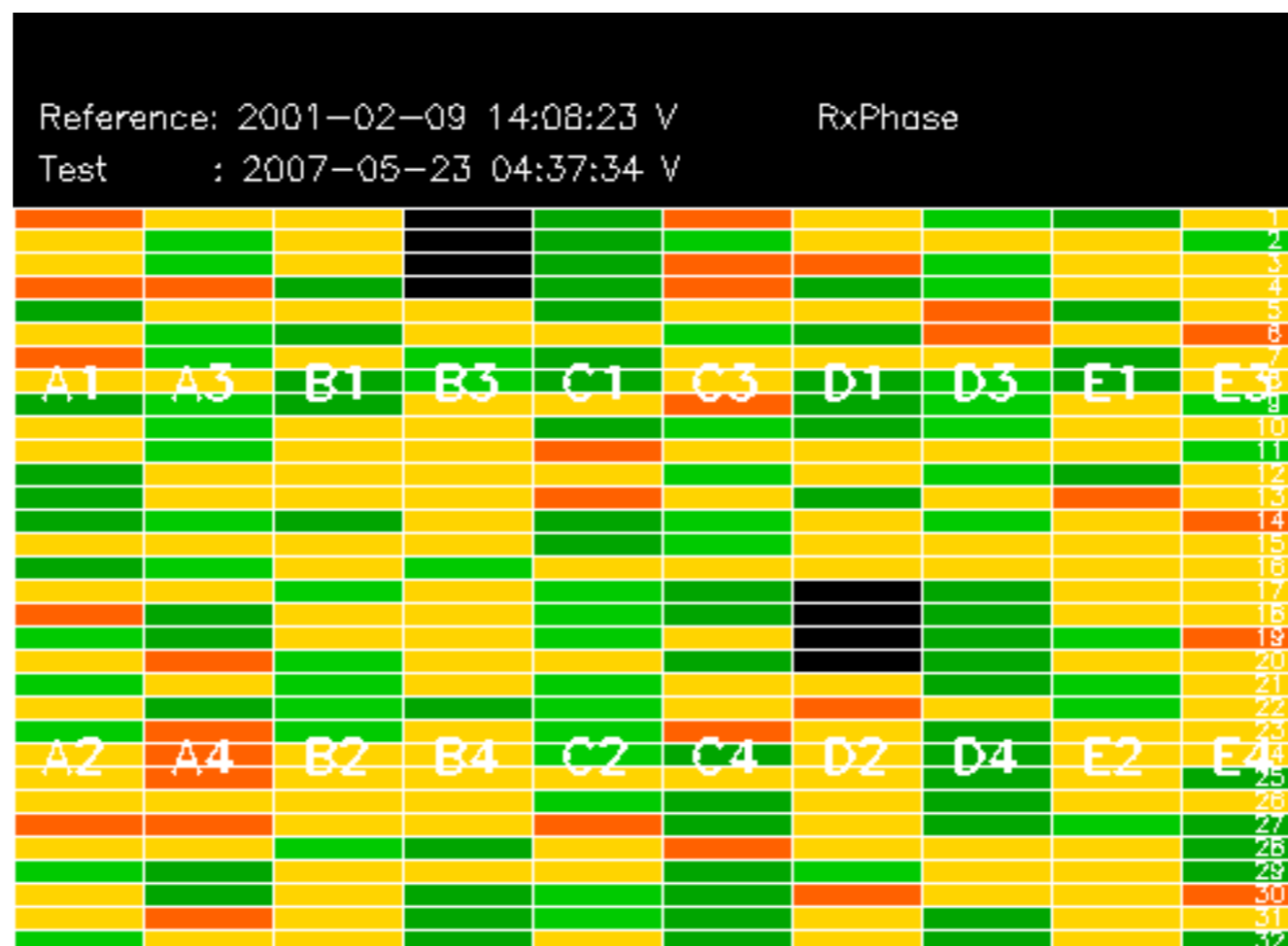
No anomalies observed on available MS products:

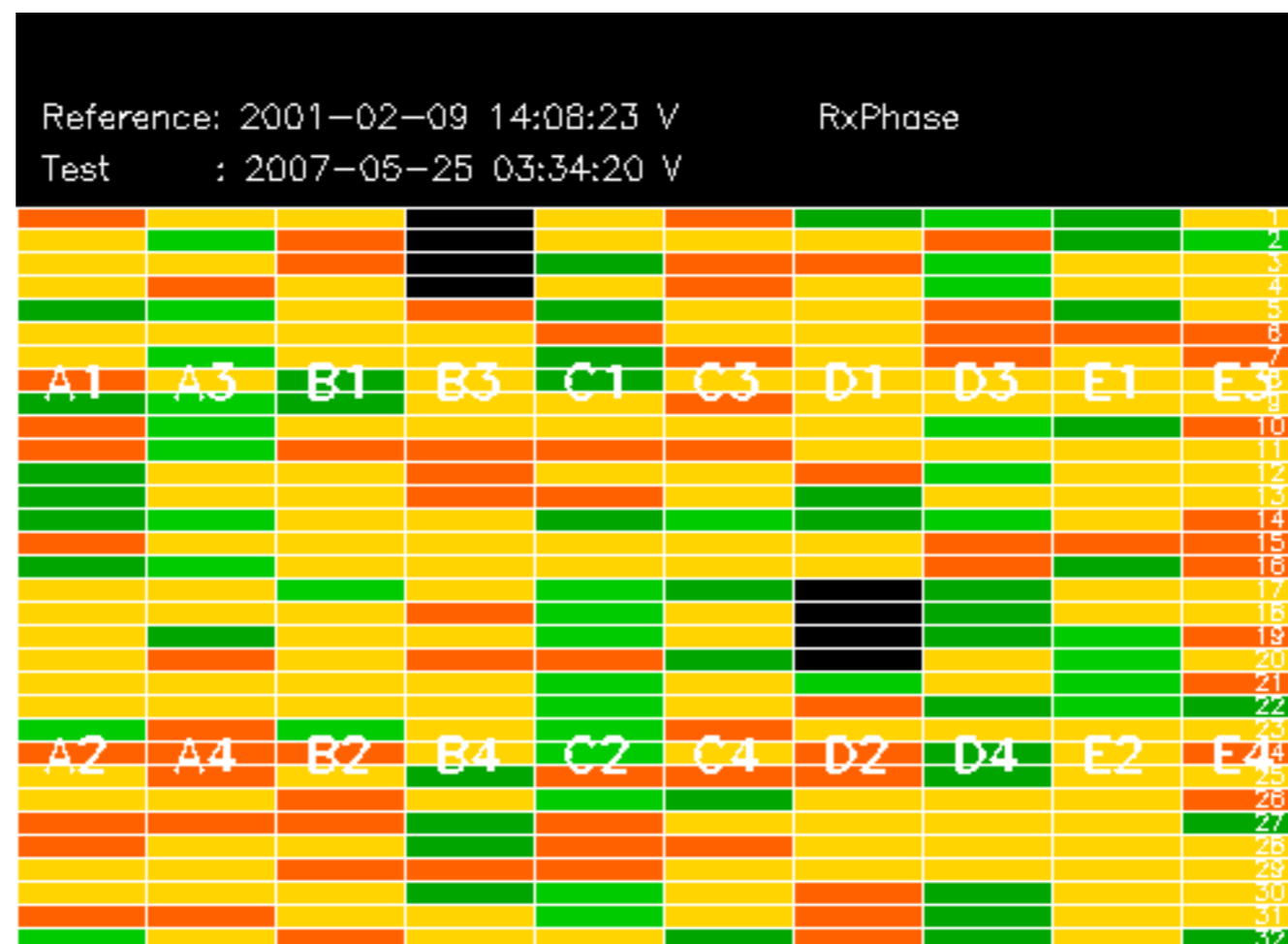
No anomalies observed.

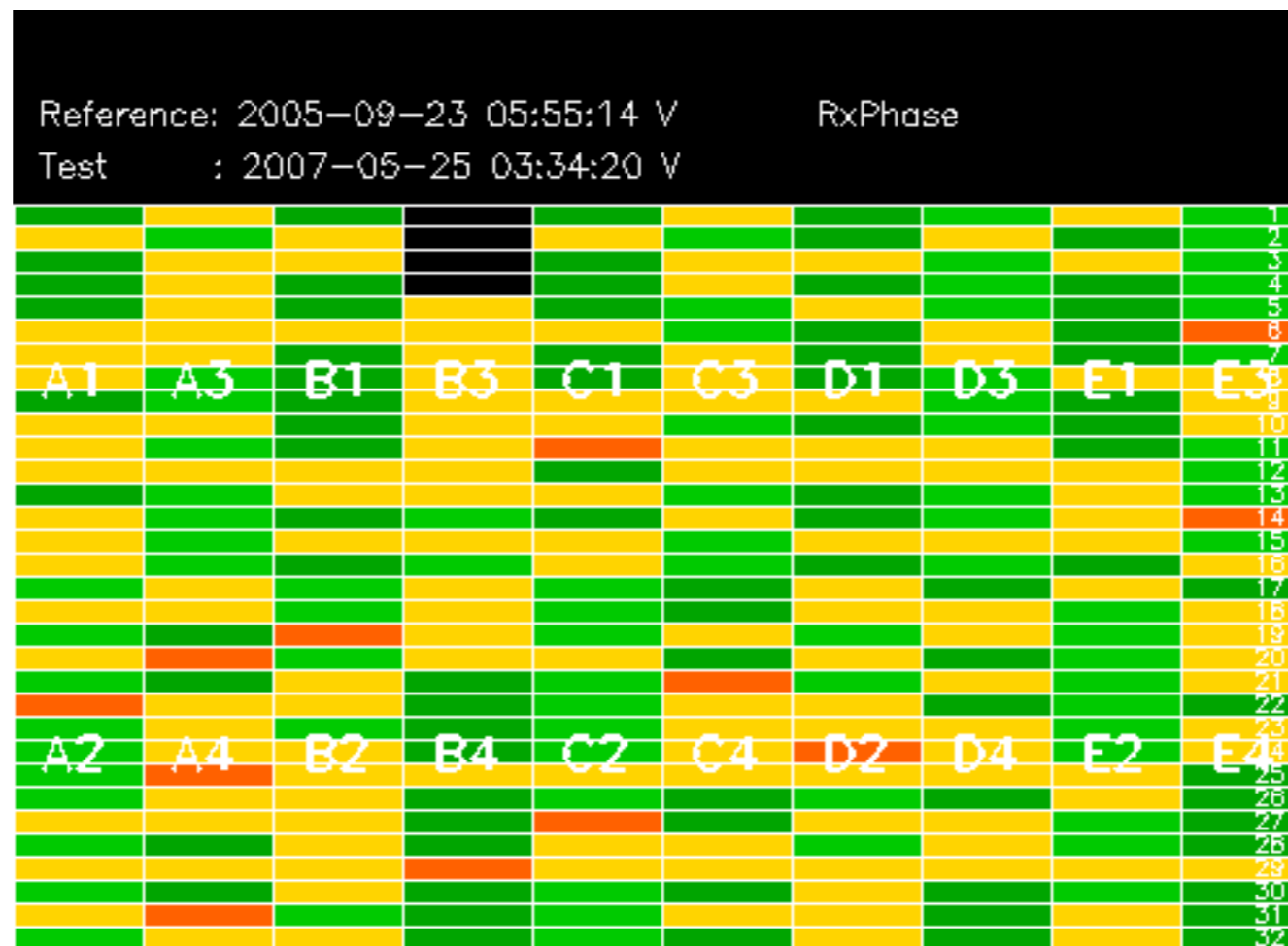


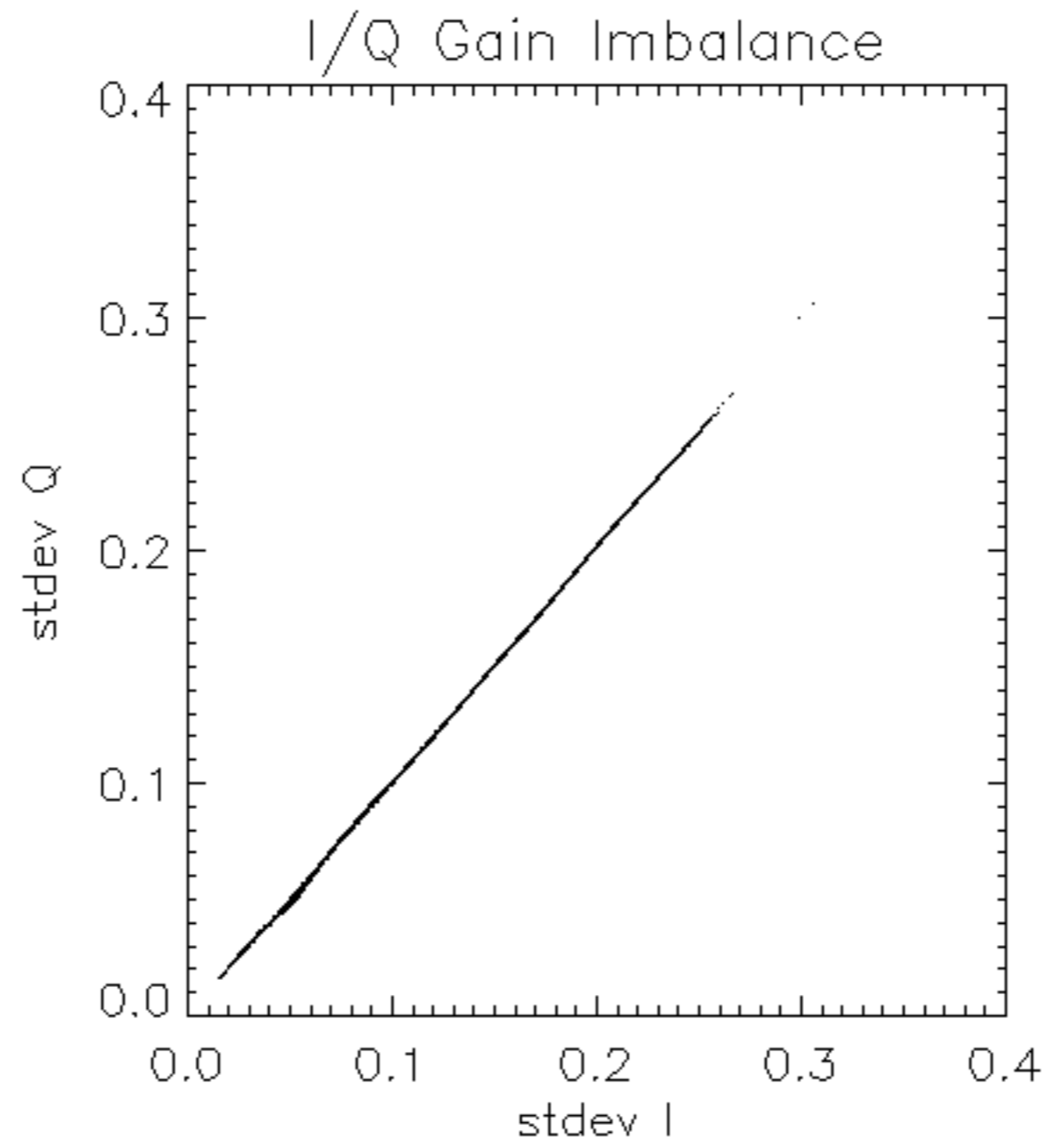


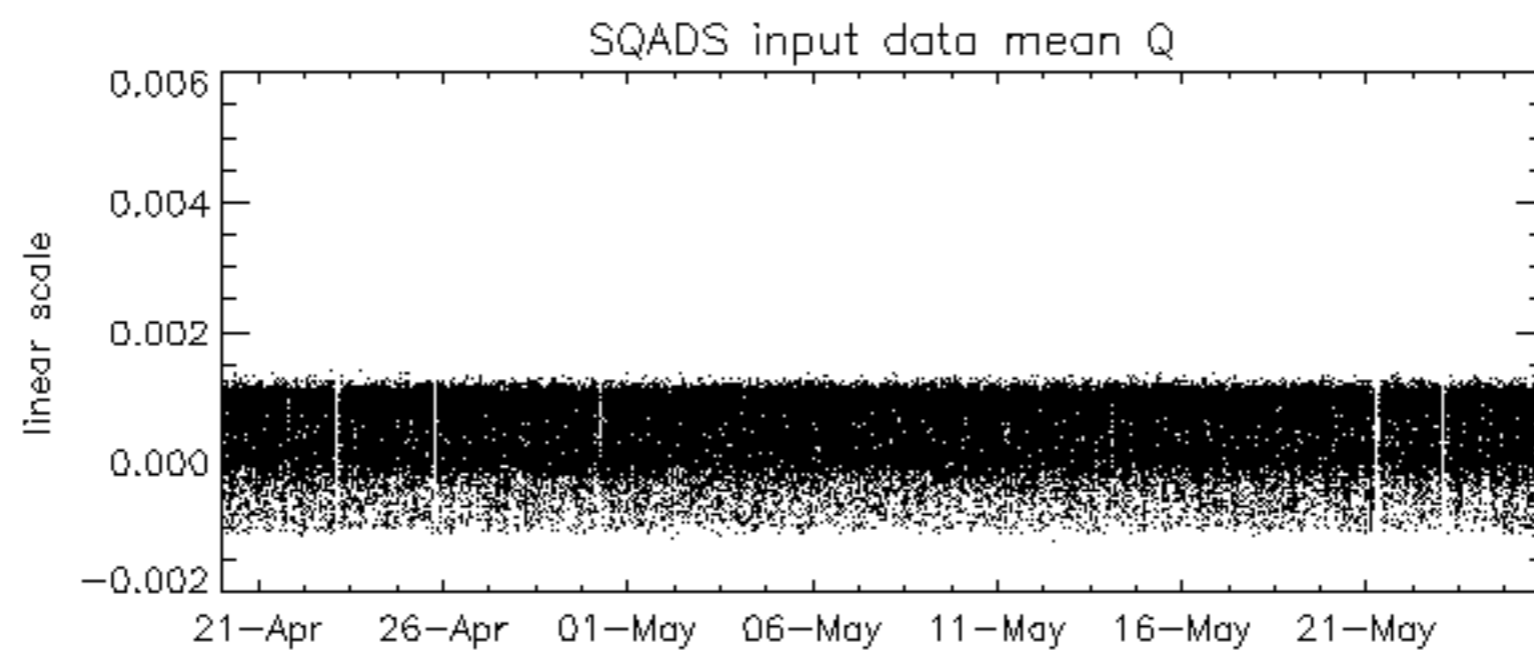
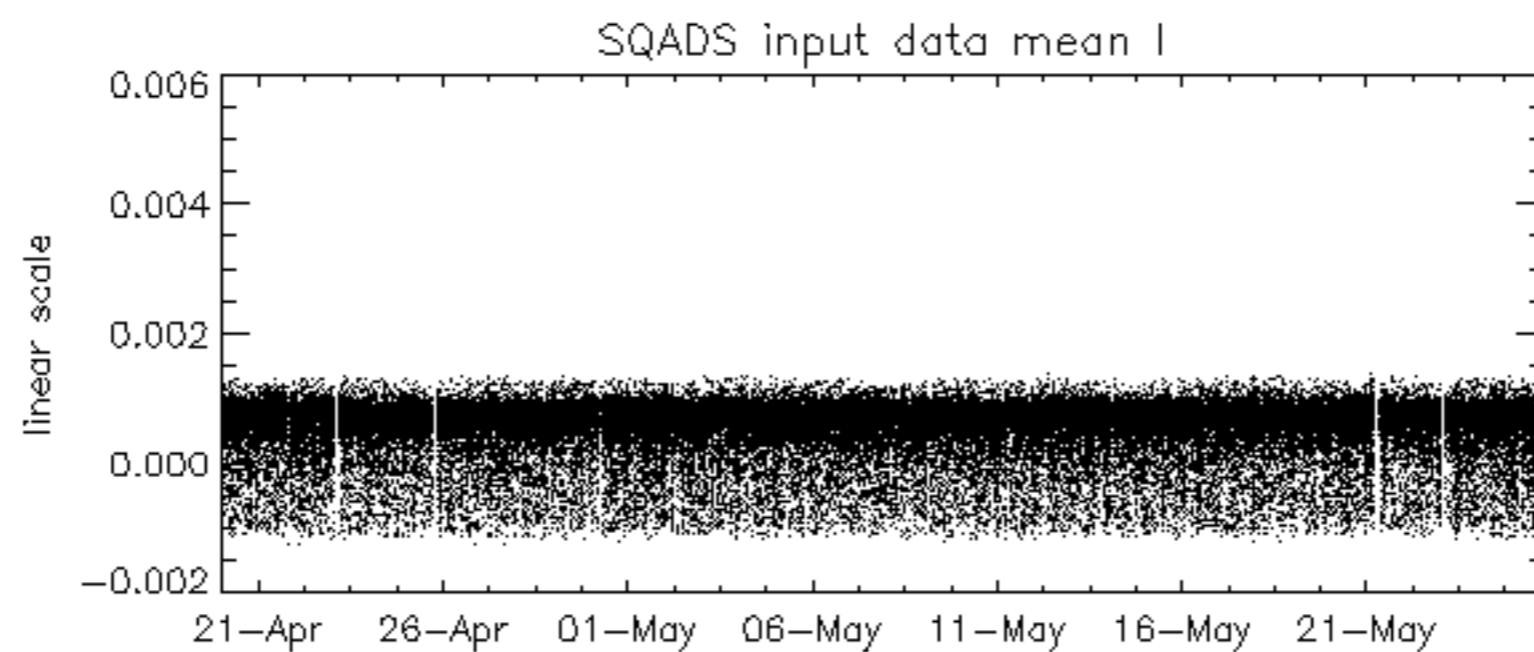
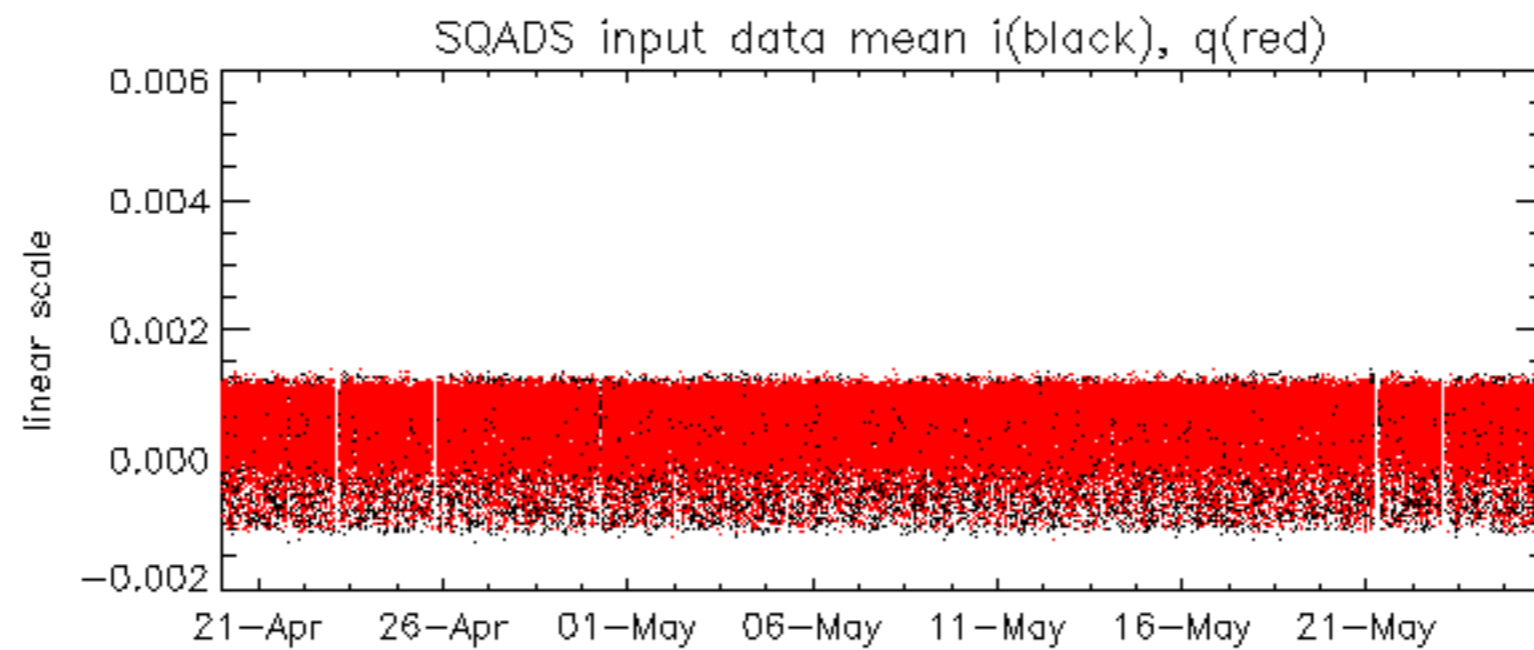


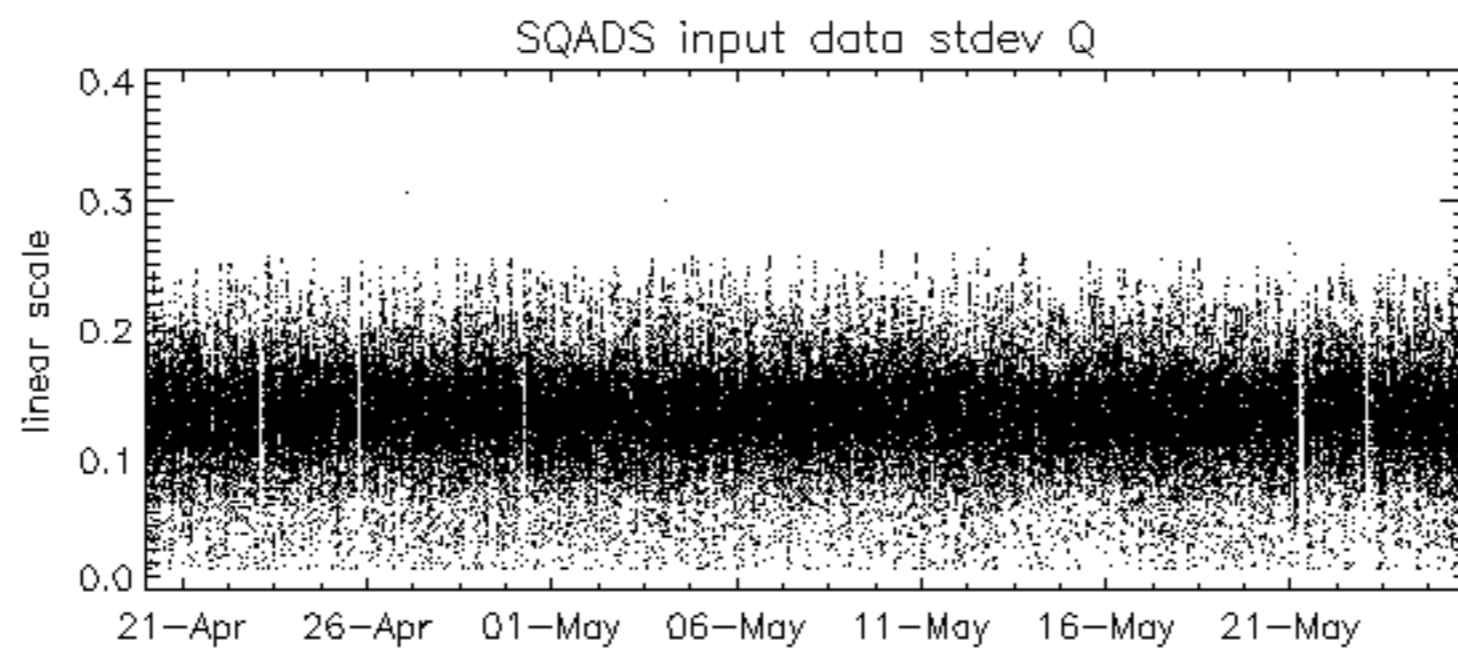
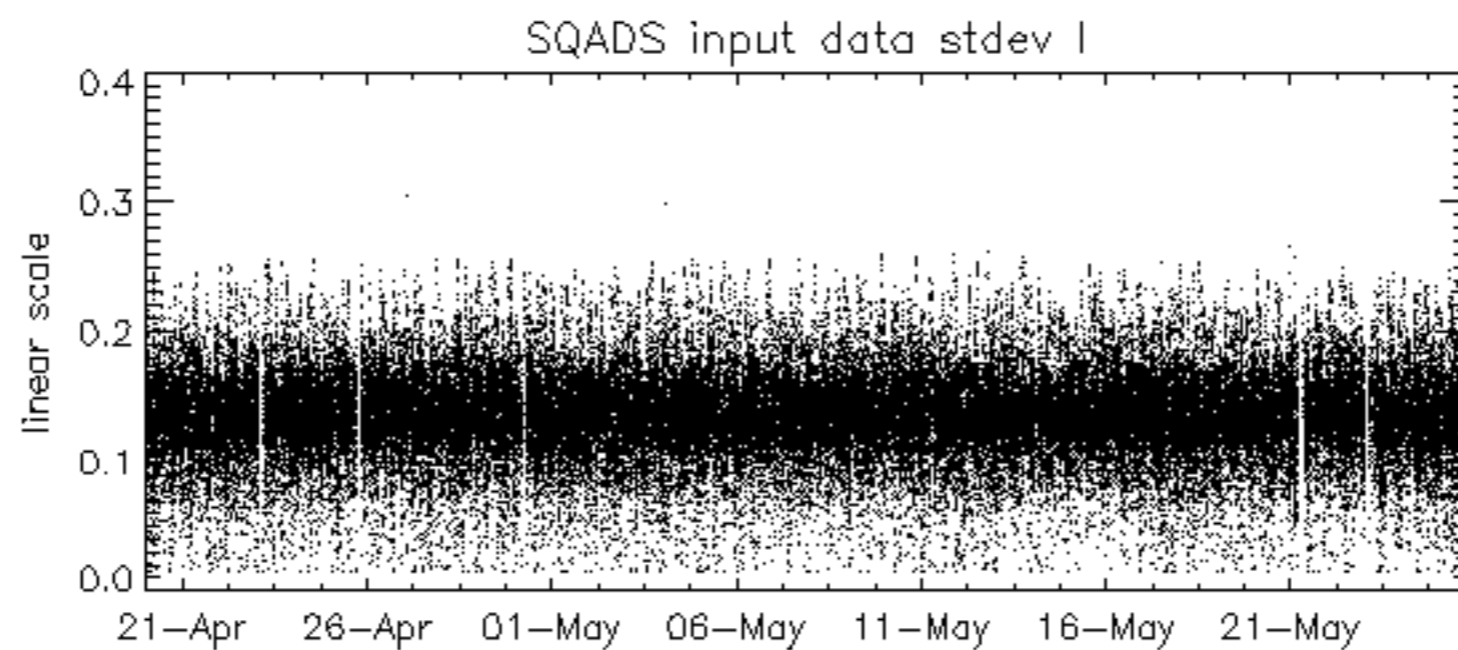
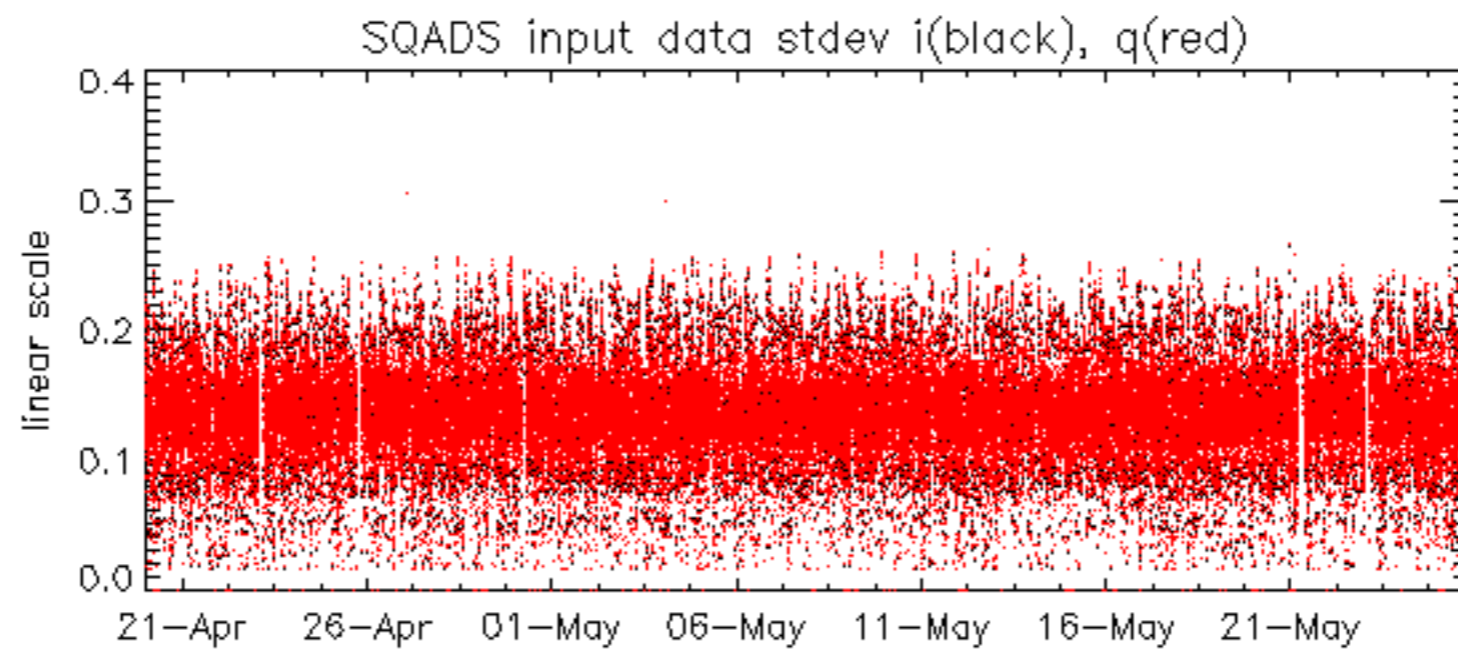








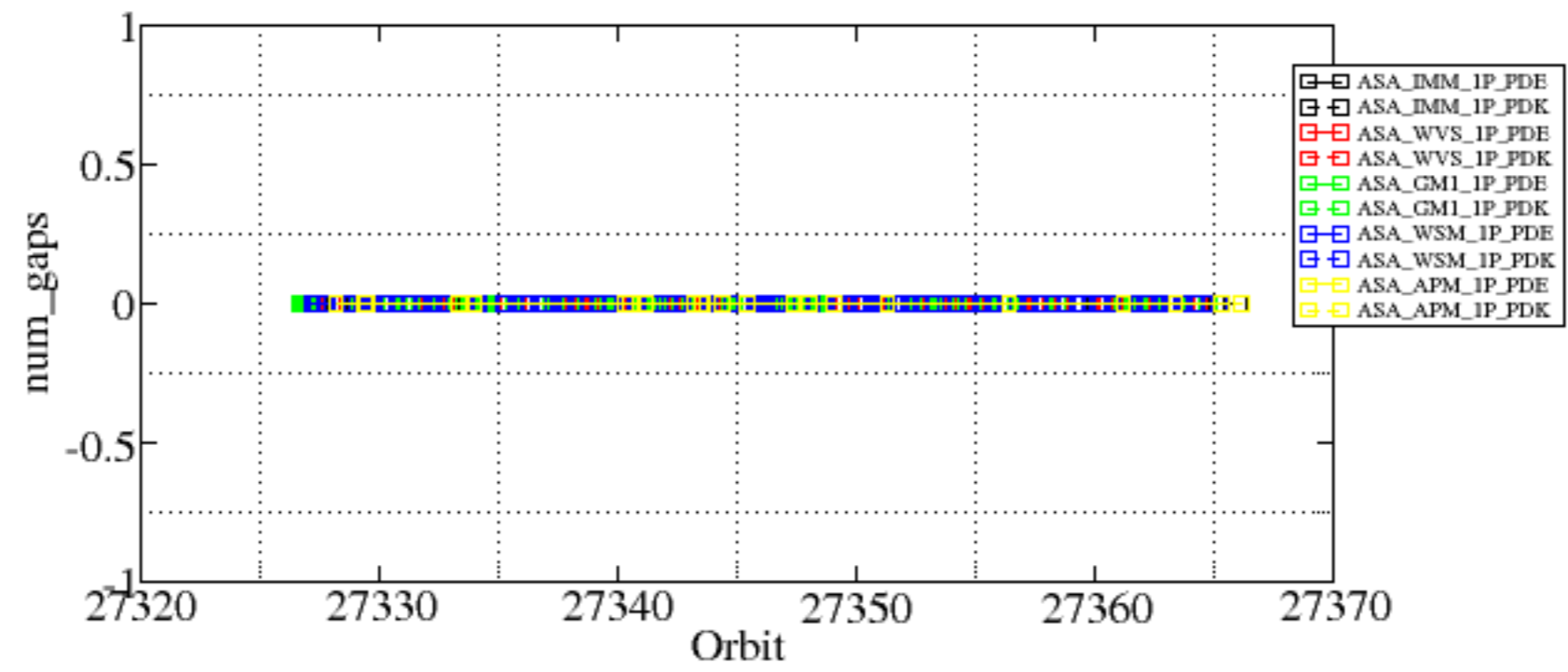


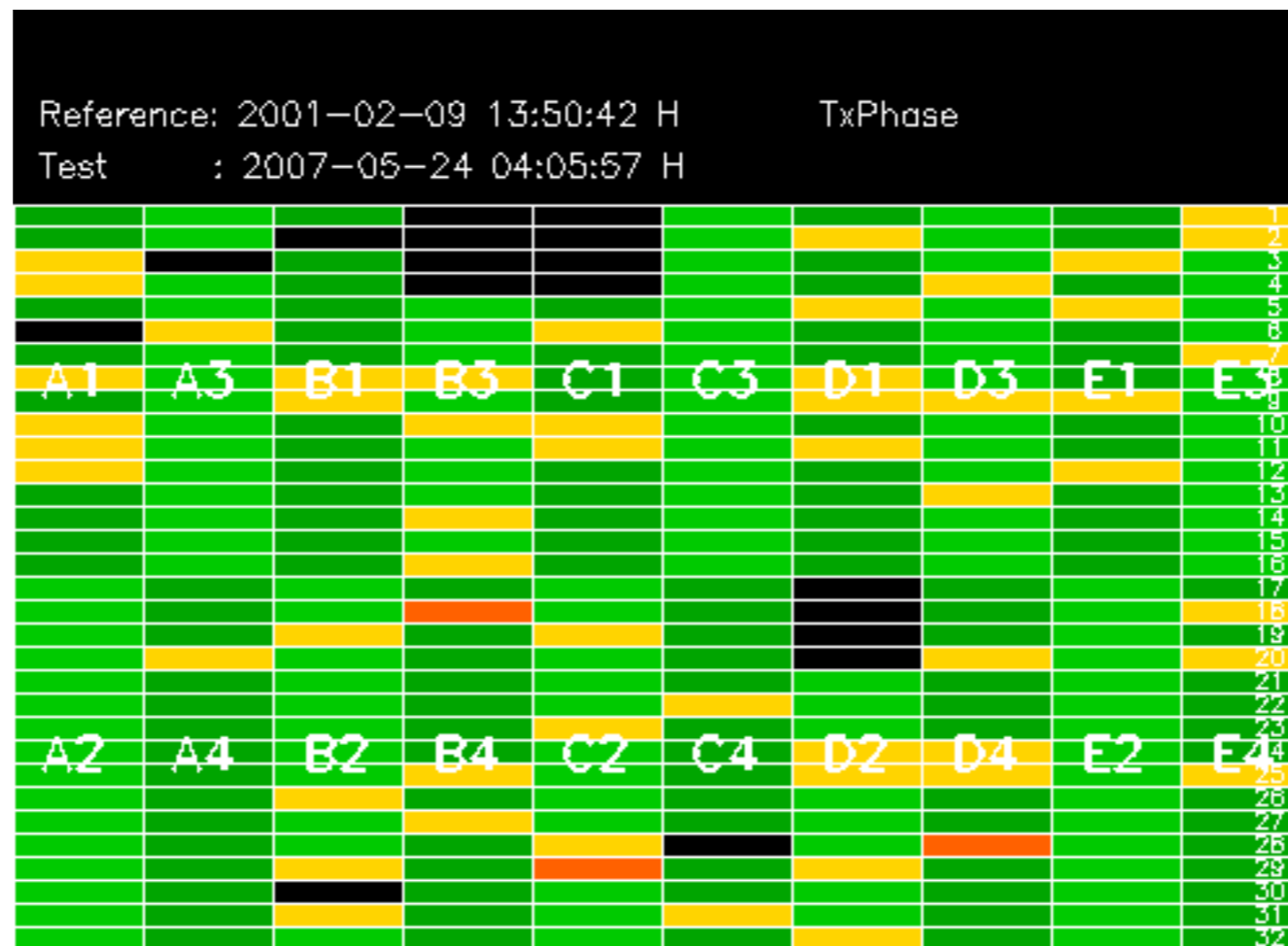


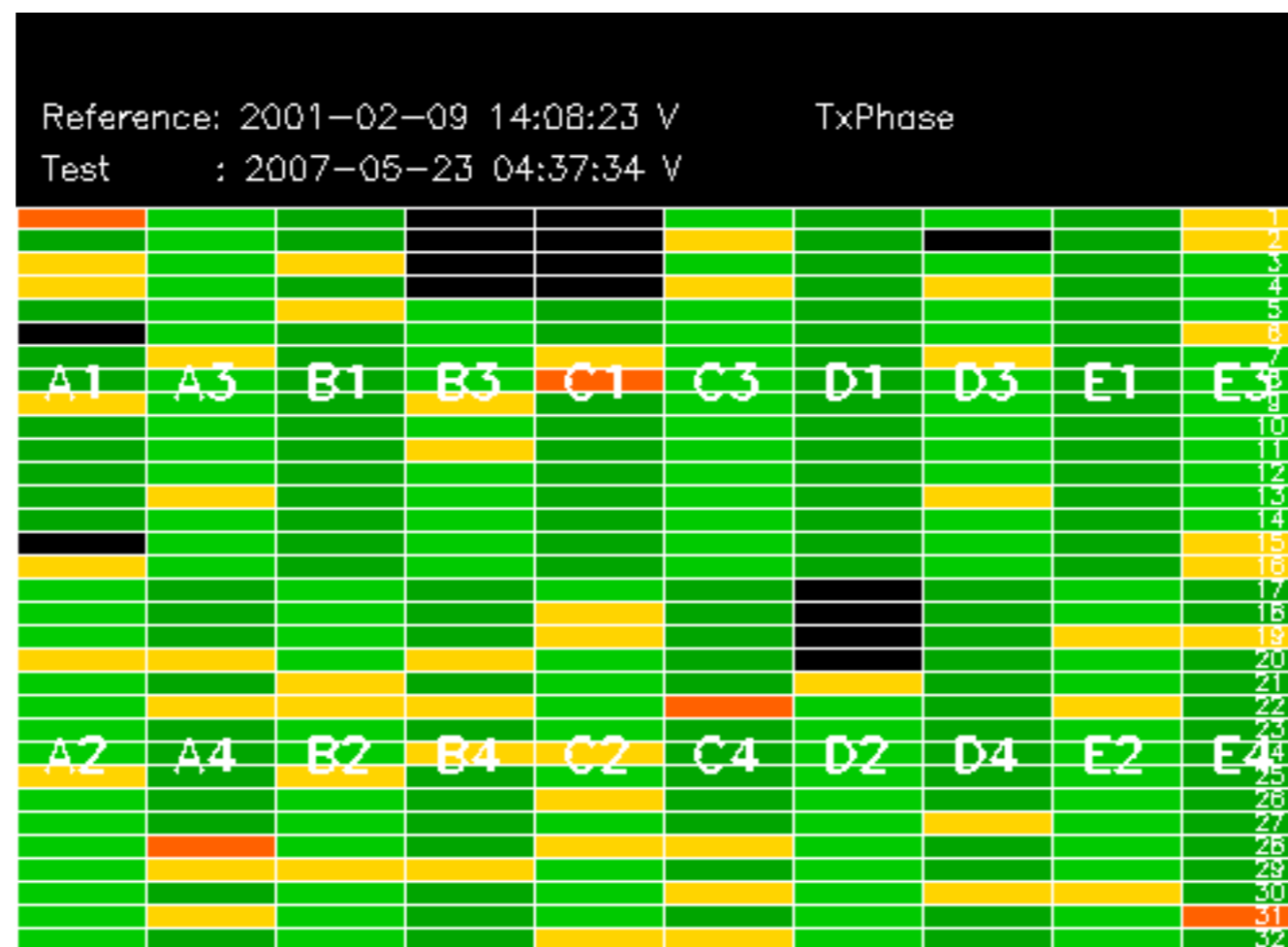
Summary of analysis for the last 3 days 2007052[345]

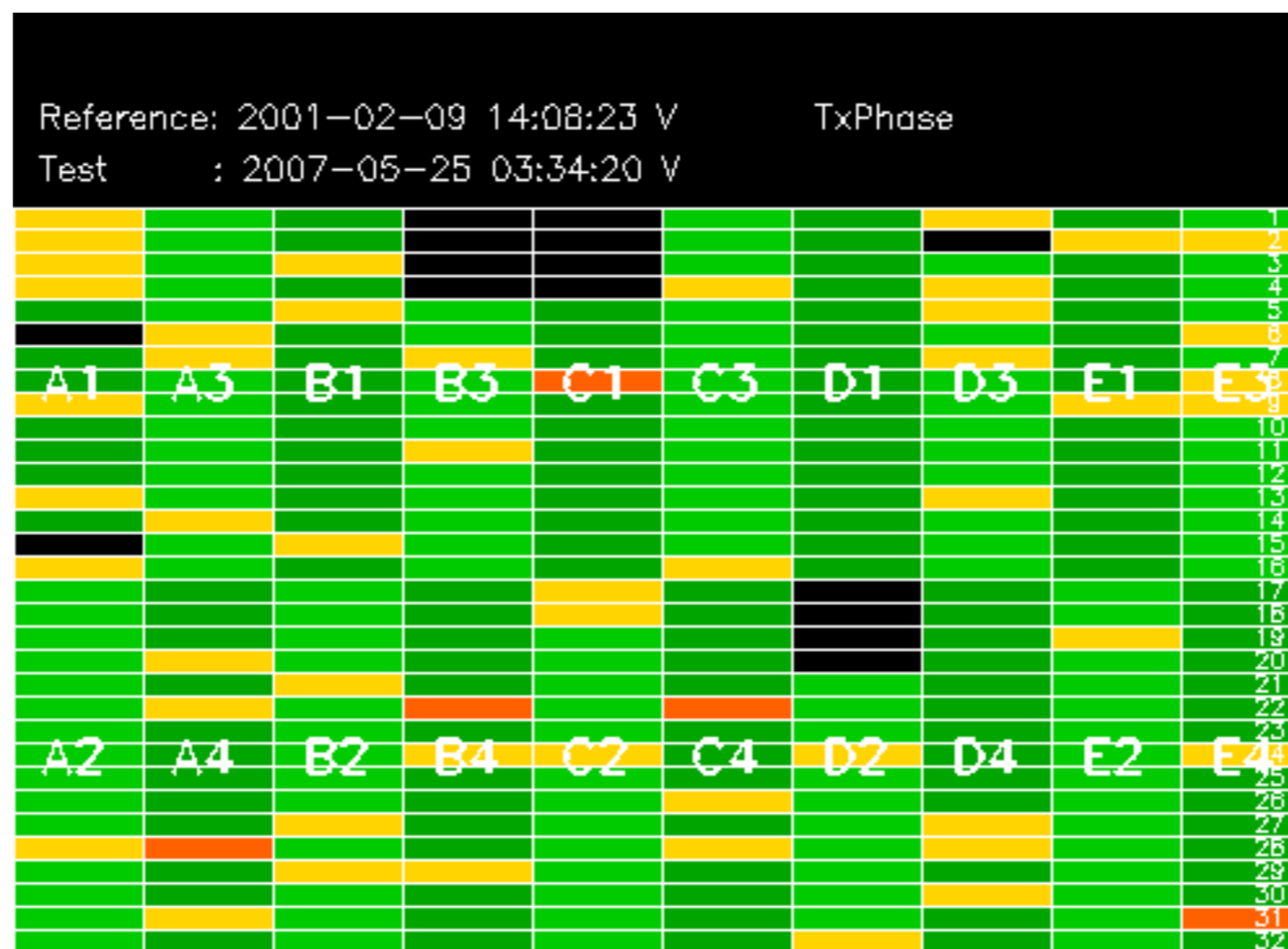
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

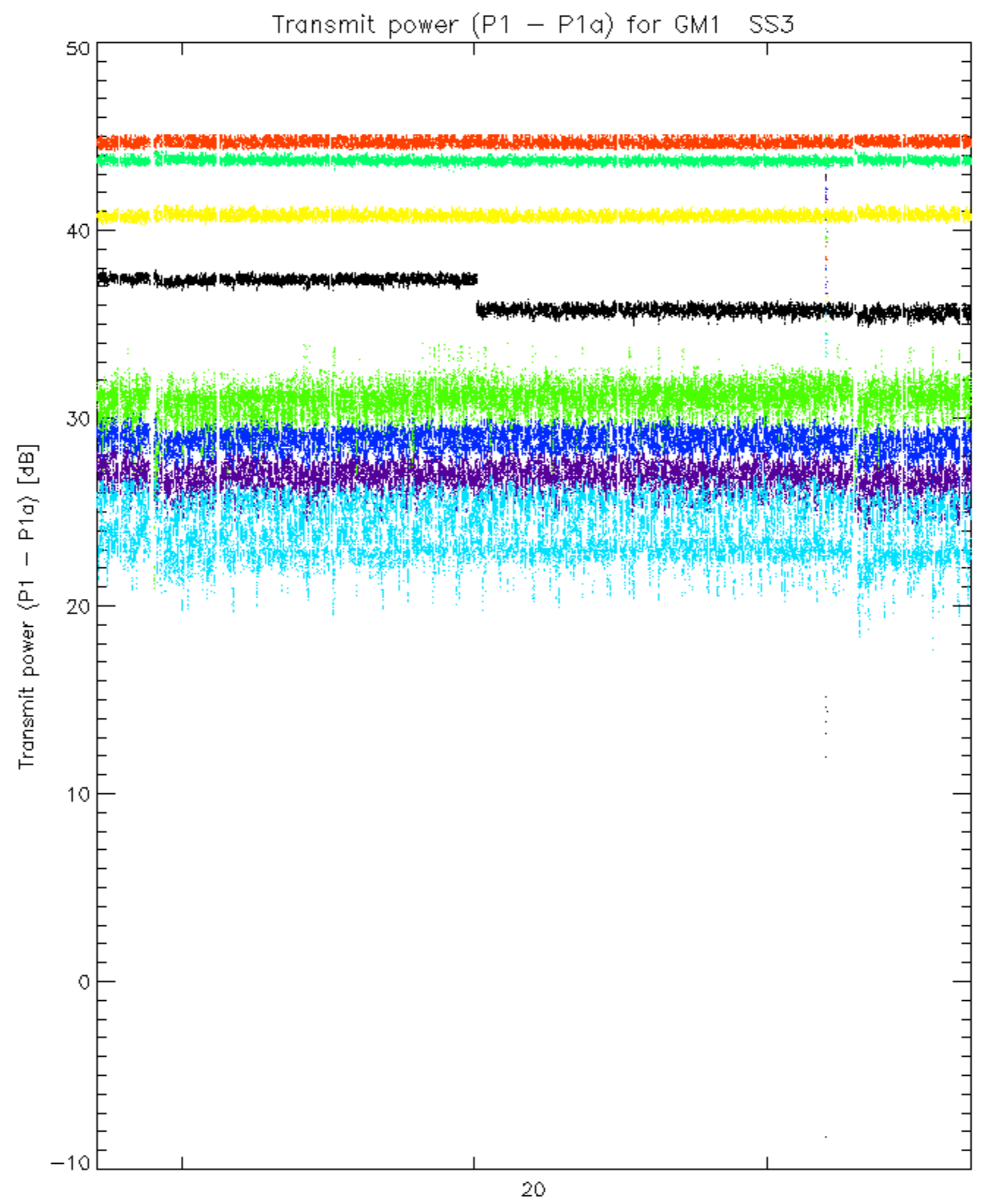
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20070523_183932_000000852058_00228_27336_7371.N1	0	10
ASA_WSM_1PNPDE20070524_180905_000001292058_00242_27350_8687.N1	0	31
ASA_WSM_1PNPDE20070525_155729_000001402058_00255_27363_9917.N1	0	2



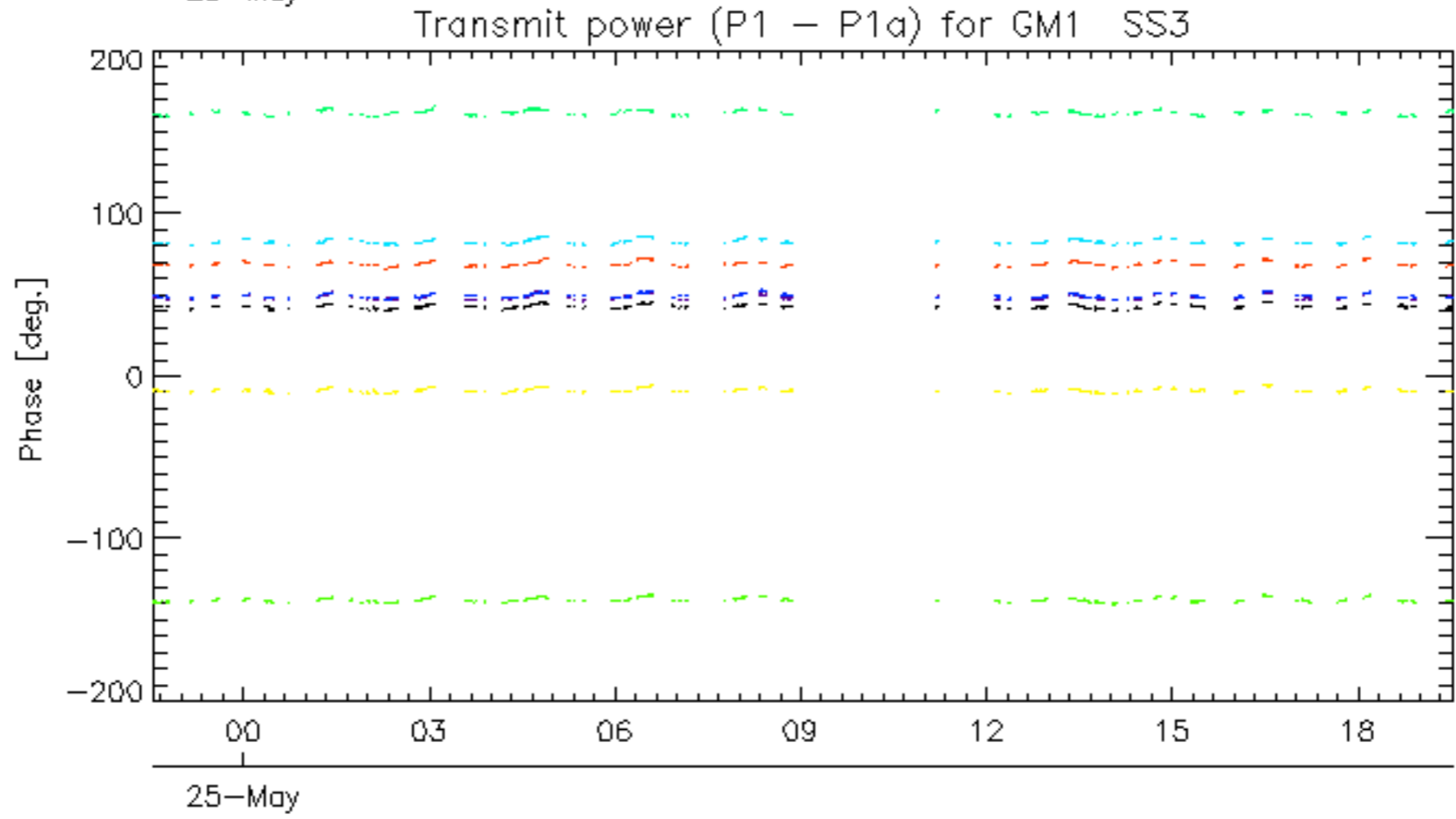
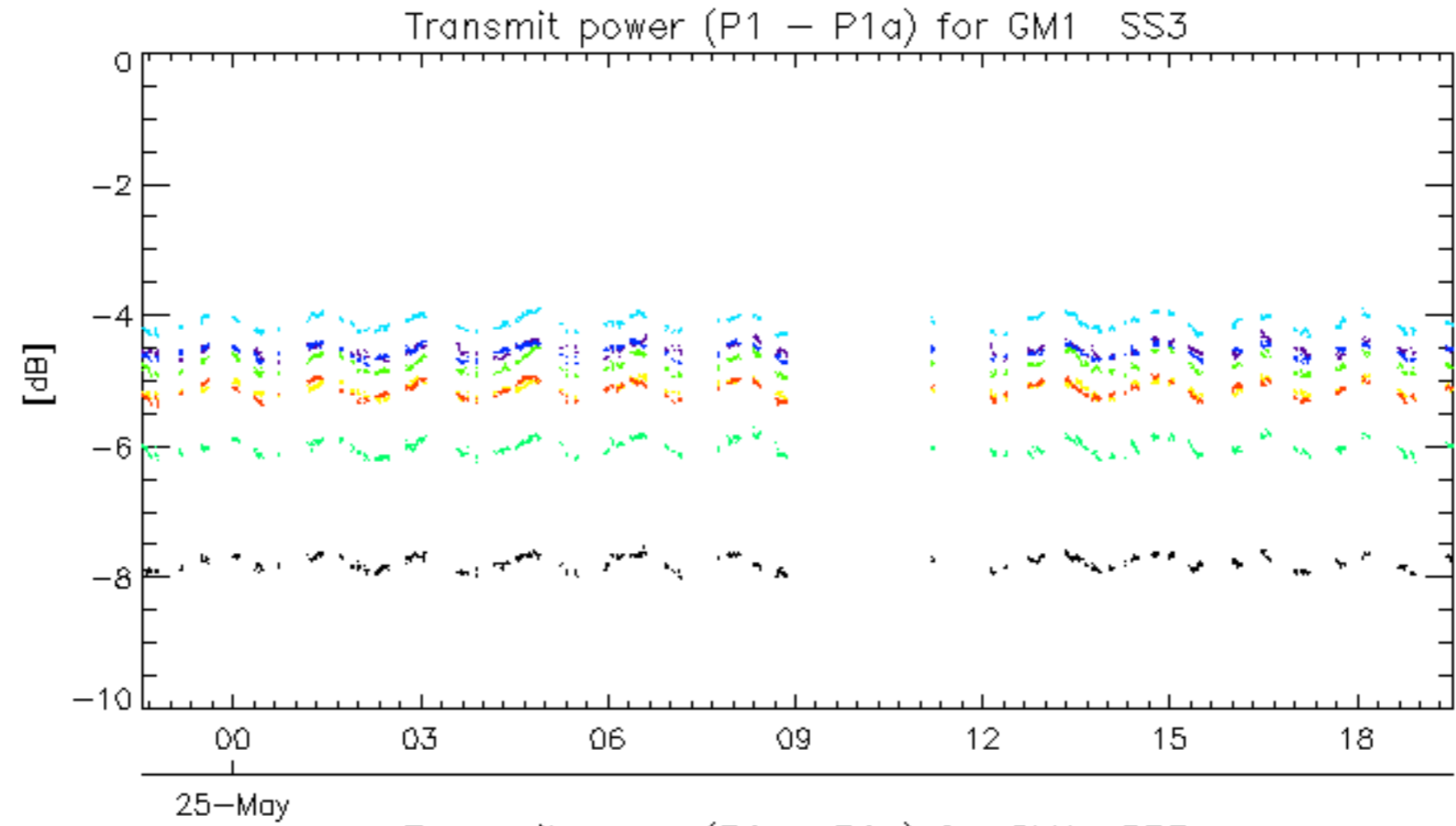




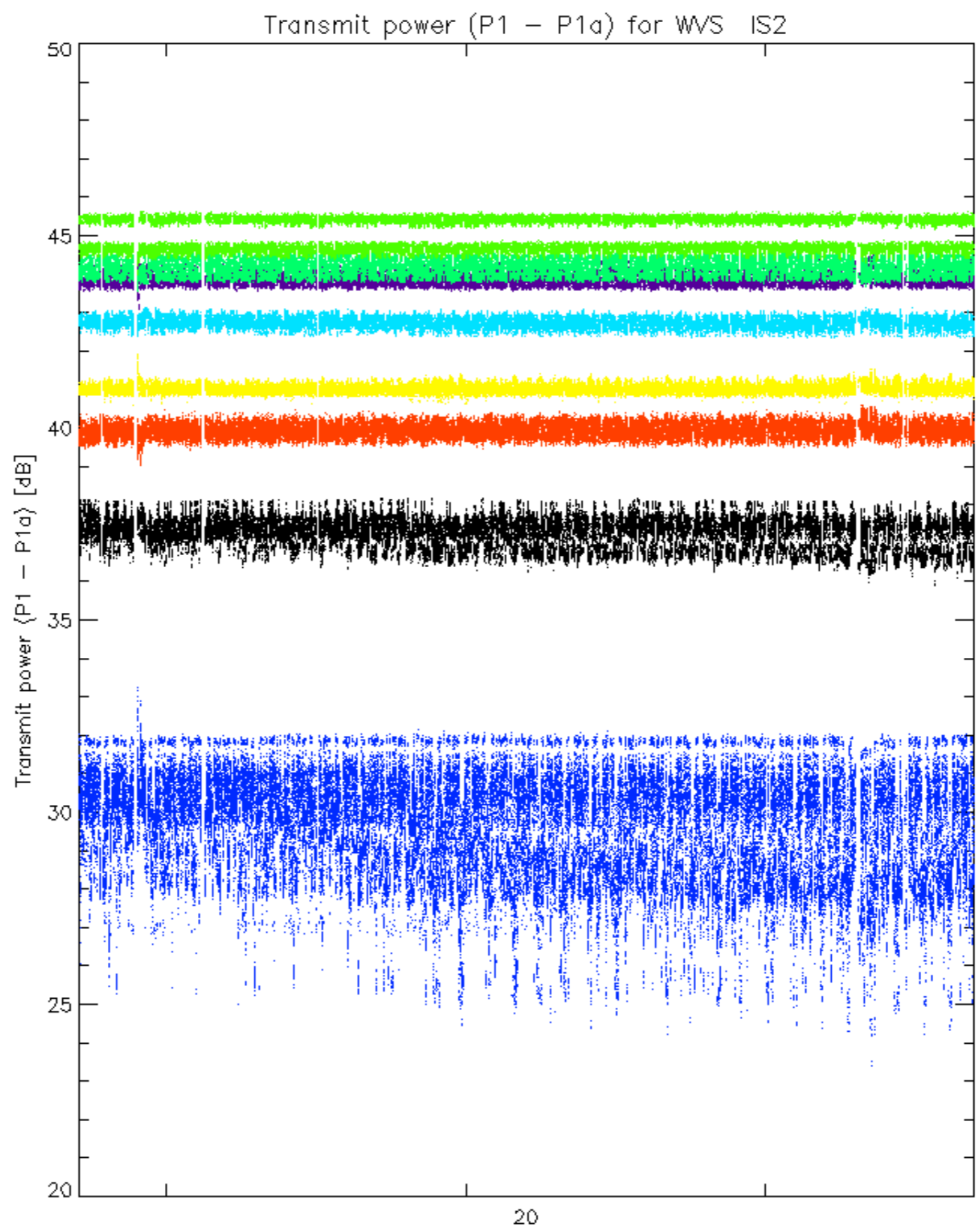




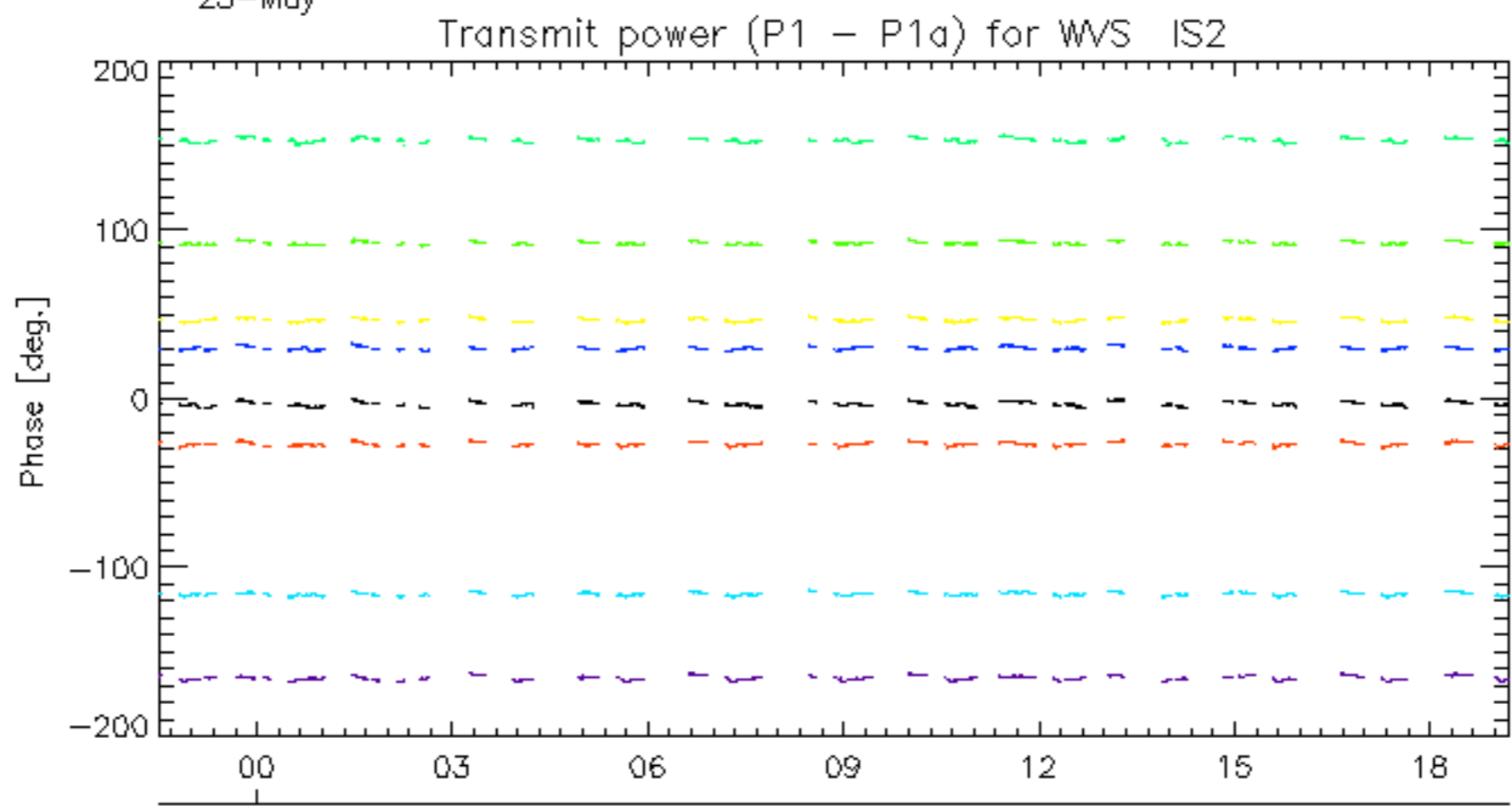
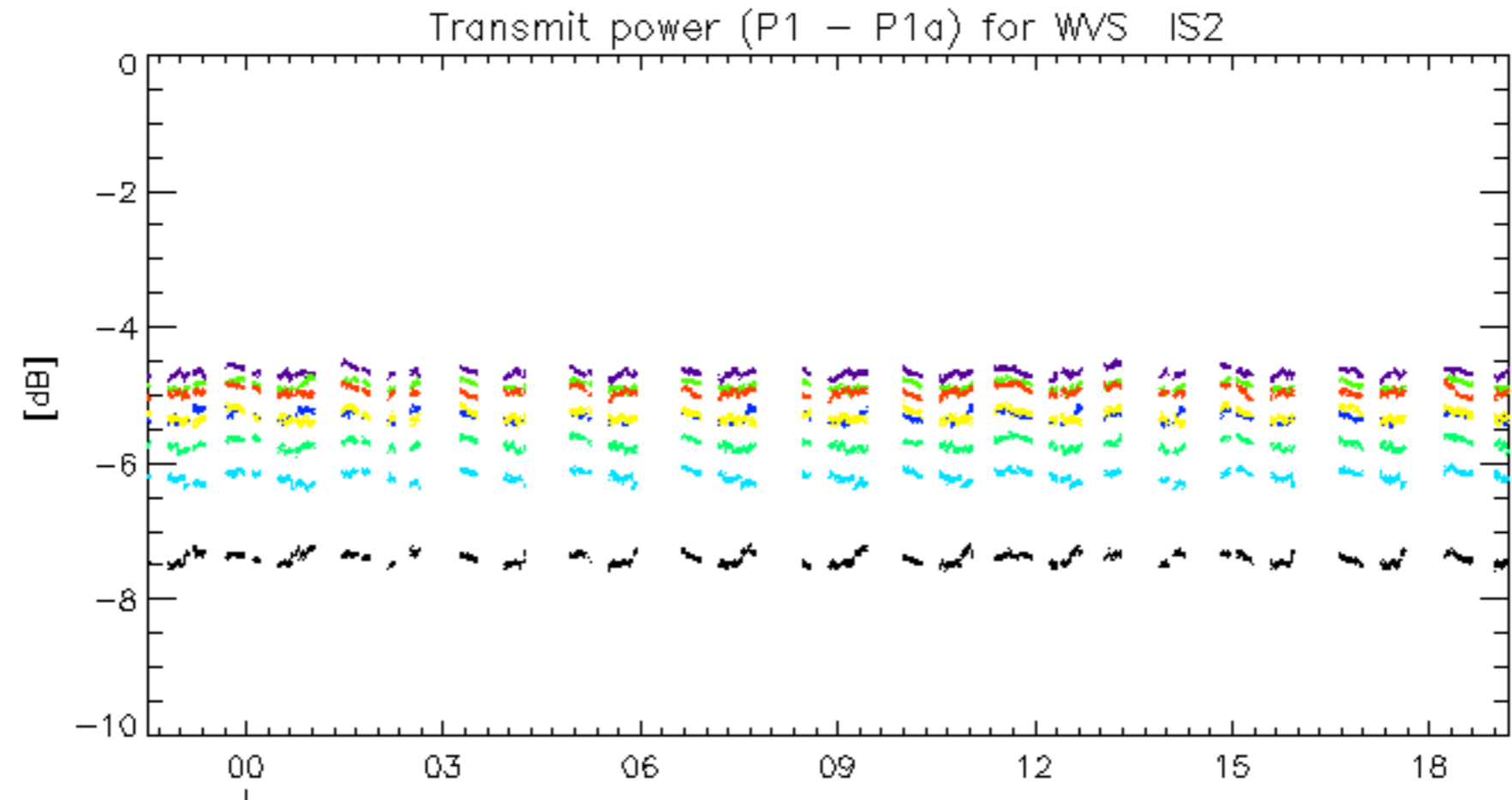
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.