

PRELIMINARY REPORT OF 070527

last update on Sun May 27 23:09:17 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 2007-05-26 00:00:00 to 2007-05-27 23:09:17

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	37	78	8	1	26
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	37	78	8	1	26
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	37	78	8	1	26
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	78	8	1	26

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	44	62	57	11	62
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	44	62	57	11	62
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	44	62	57	11	62
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	62	57	11	62

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	20070527 023106
H	20070527 134926

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	-15.262682	0.121439	-0.183304
7	P1a	-17.606905	0.071284	-0.042401
11	P1a	-17.765331	0.344301	-0.093461
15	P1a	-13.175791	0.158424	-0.101343
19	P1a	-15.448208	0.070134	-0.041981
22	P1a	-16.003061	0.329360	0.008617
26	P1a	-14.954543	0.208278	-0.092737
30	P1a	-18.044046	0.429029	-0.357197

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.785392	0.010033	0.005442
7	P1	-3.168933	0.008384	-0.029876
11	P1	-4.186987	0.018821	0.062981
15	P1	-6.475459	0.019518	-0.053916
19	P1	-3.778511	0.011957	-0.019253
22	P1	-4.736824	0.011726	0.038939
26	P1	-3.910708	0.016968	-0.026707
30	P1	-5.959827	0.009484	0.017215

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.645157	0.093540	0.029876
7	P2	-21.493599	0.093570	0.078383
11	P2	-15.269611	0.121082	0.043198
15	P2	-7.133568	0.091068	0.002386
19	P2	-9.121000	0.082396	0.009625
22	P2	-18.082090	0.078605	0.023554
26	P2	-16.659348	0.084507	-0.026989
30	P2	-19.235188	0.084257	0.065918

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.242441	0.004625	0.008781
7	P3	-8.242441	0.004625	0.008781
11	P3	-8.242441	0.004625	0.008781
15	P3	-8.242441	0.004625	0.008781
19	P3	-8.242441	0.004625	0.008781
22	P3	-8.242441	0.004625	0.008781
26	P3	-8.242414	0.004631	0.008930
30	P3	-8.242414	0.004631	0.008930

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	-11.593596	0.136924	-0.818480
7	P1a	-10.008462	0.103964	0.021255
11	P1a	-10.692760	0.060644	-0.055408
15	P1a	-10.758132	0.133337	0.050811
19	P1a	-15.879870	0.097464	-0.075707
22	P1a	-21.503607	1.326833	-0.155277
26	P1a	-15.561176	0.311404	-0.060695
30	P1a	-18.265791	0.399811	0.114770

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-7.758332	0.338104	1.602745
7	P1	-2.357479	0.054459	0.052190
11	P1	-2.866858	0.016147	0.004389
15	P1	-3.788445	0.034105	0.033336
19	P1	-3.611680	0.018245	-0.030103
22	P1	-4.938904	0.023226	0.035073
26	P1	-6.064815	0.021527	-0.033283
30	P1	-5.363617	0.031498	-0.047384

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.218338	0.094272	-0.047172
7	P2	-22.061279	0.182047	-0.021795
11	P2	-10.661537	0.060020	-0.027205
15	P2	-4.965930	0.047618	-0.073271
19	P2	-6.879489	0.048064	-0.022591
22	P2	-8.098790	0.066346	0.000590
26	P2	-24.351643	0.117122	-0.047744
30	P2	-21.696222	0.100899	0.012311

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.089483	0.005607	0.000433
7	P3	-8.089347	0.005605	0.000611
11	P3	-8.089421	0.005594	0.000018
15	P3	-8.089418	0.005593	0.000068
19	P3	-8.089416	0.005608	0.000458
22	P3	-8.089408	0.005602	-0.000047
26	P3	-8.089438	0.005612	0.000045
30	P3	-8.089359	0.005597	0.000068

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	0.000551354
	stdev	1.89399e-07
MEAN Q	mean	0.000515094
	stdev	2.35570e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136146
	stdev	0.00114423
STDEV Q	mean	0.136528
	stdev	0.00116122



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007052[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_GM1_1PNPDK20070526_185316_000003922058_00271_27379_4817.N1	0	13
ASA_WSM_1PNPDE20070525_155729_000001402058_00255_27363_9917.N1	0	2
ASA_WSM_1PNPDE20070526_184608_000001832058_00271_27379_2294.N1	0	57
ASA_WSM_1PNPDE20070526_184608_000002442058_00271_27379_2312.N1	0	57
ASA_WSM_1PNPDE20070527_145124_000000852058_00283_27391_2341.N1	0	31
ASA_WSM_1PNPDE20070527_181431_000001522058_00285_27393_2398.N1	0	57





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

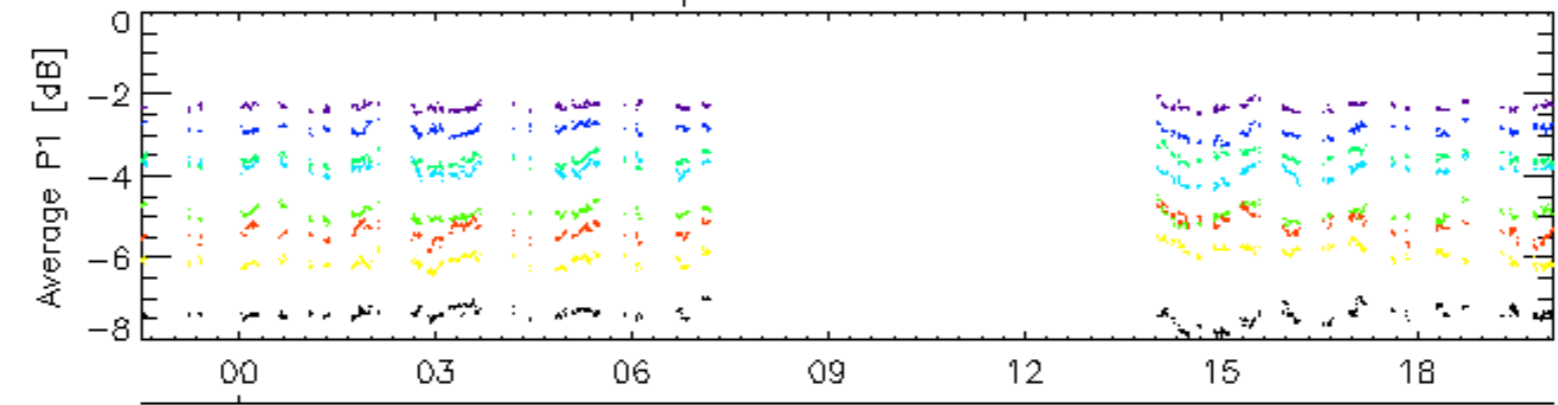
7.5 - Absolute Doppler for GM1

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

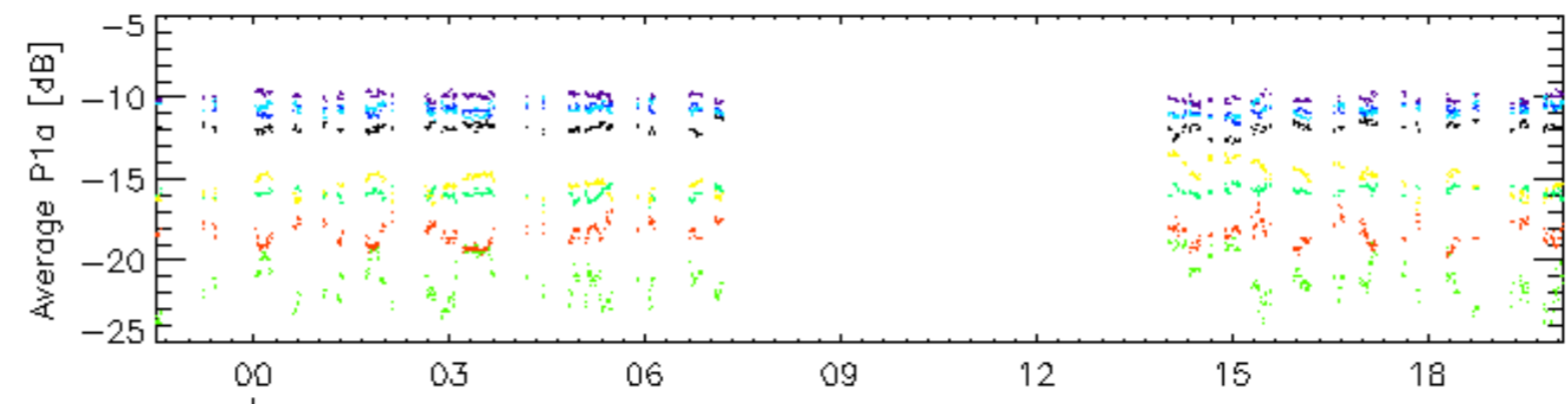
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

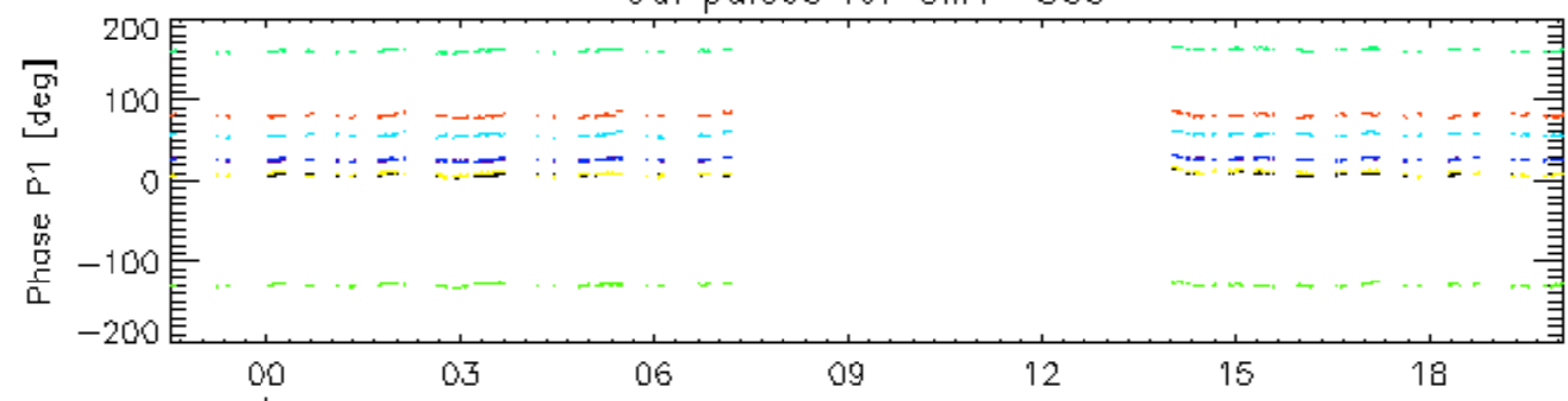


27-May

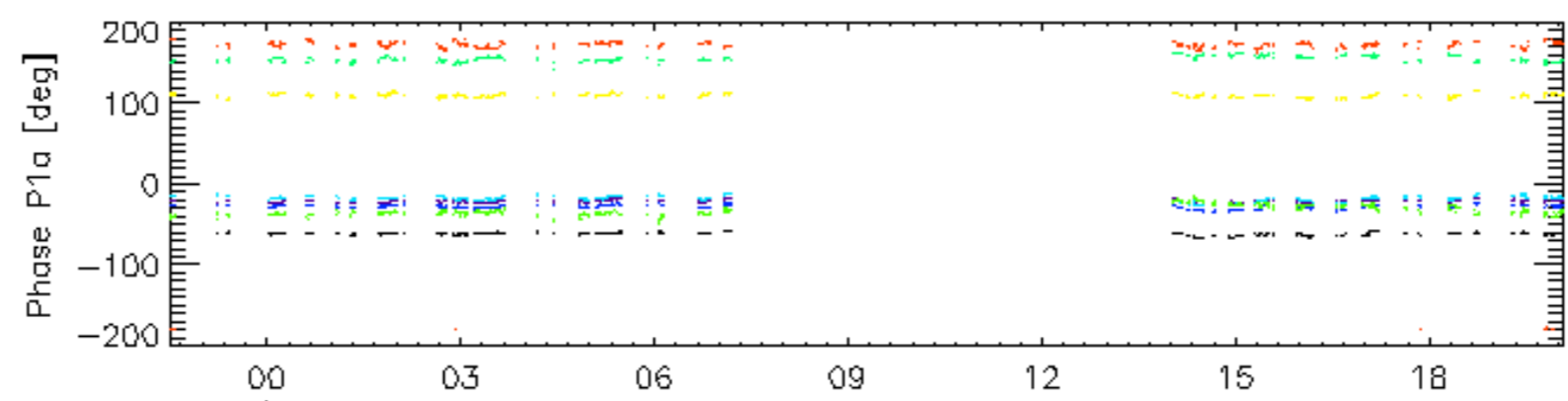


27-May

Cal pulses for GM1 SS3

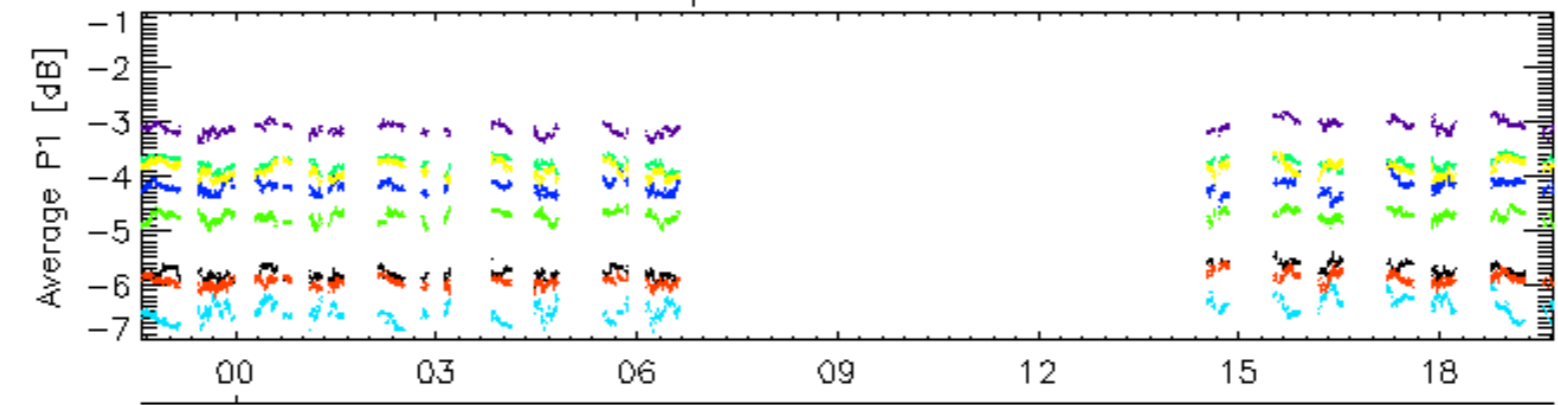


27-May

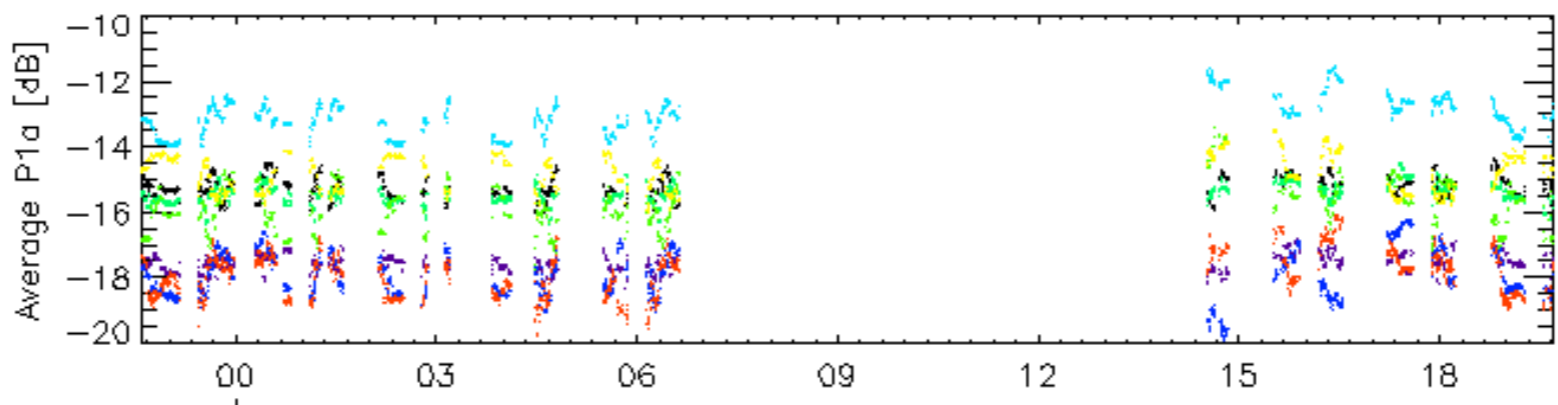


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

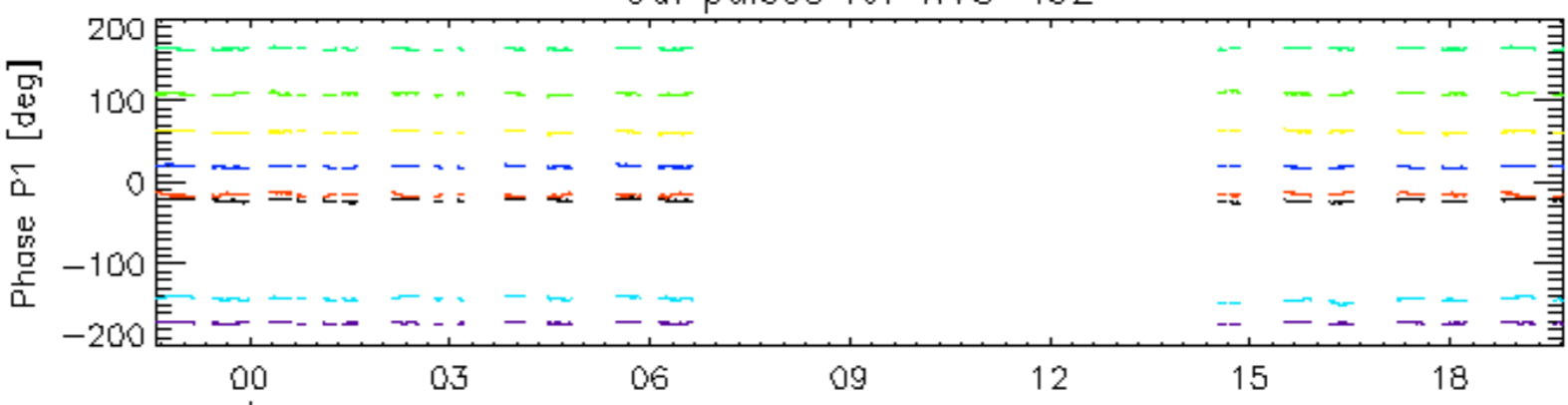


27-May

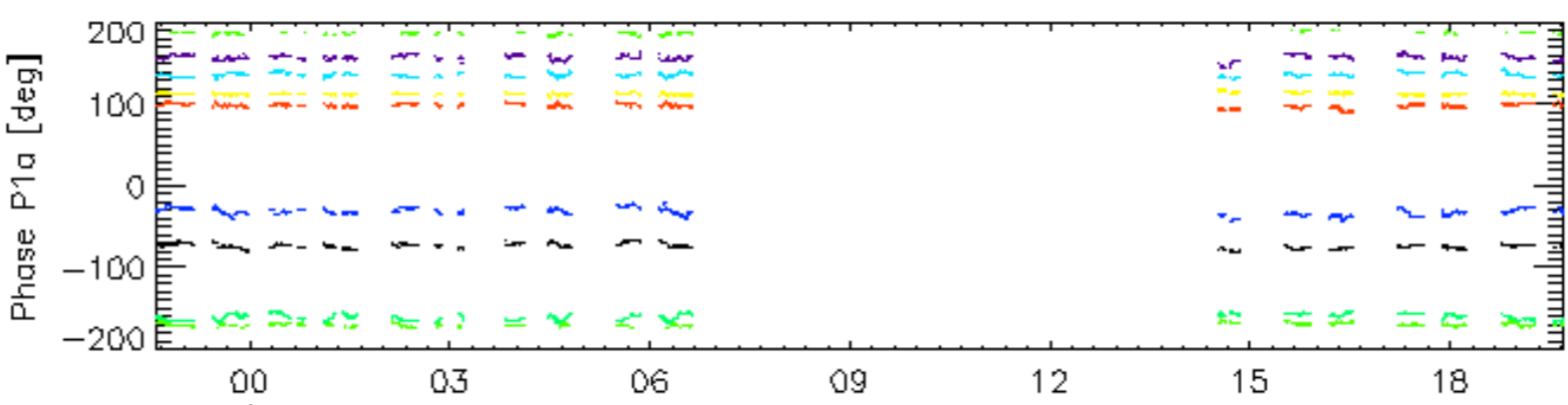


27-May

Cal pulses for WVS IS2

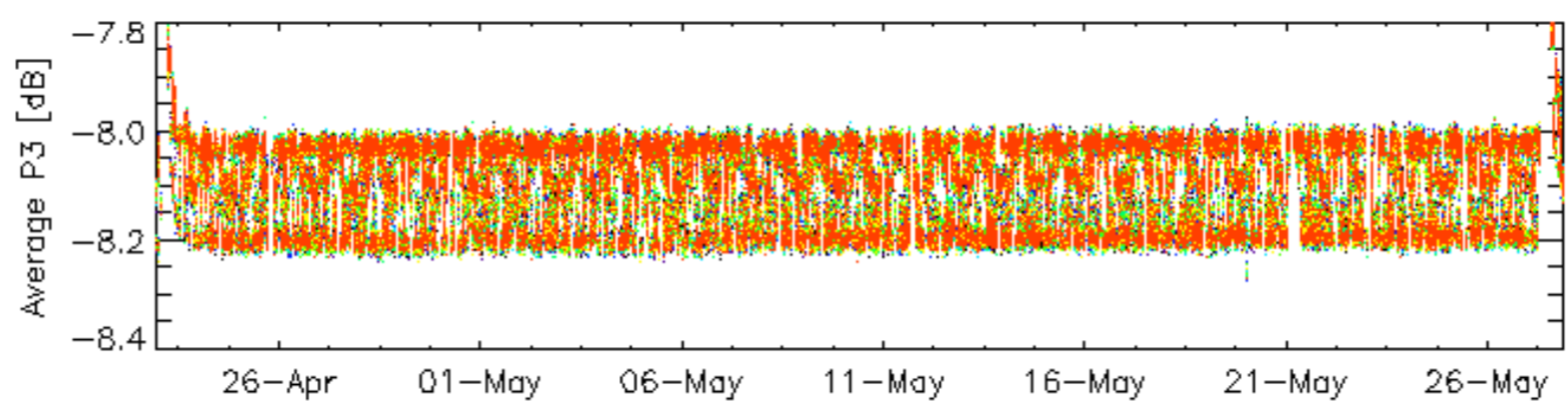
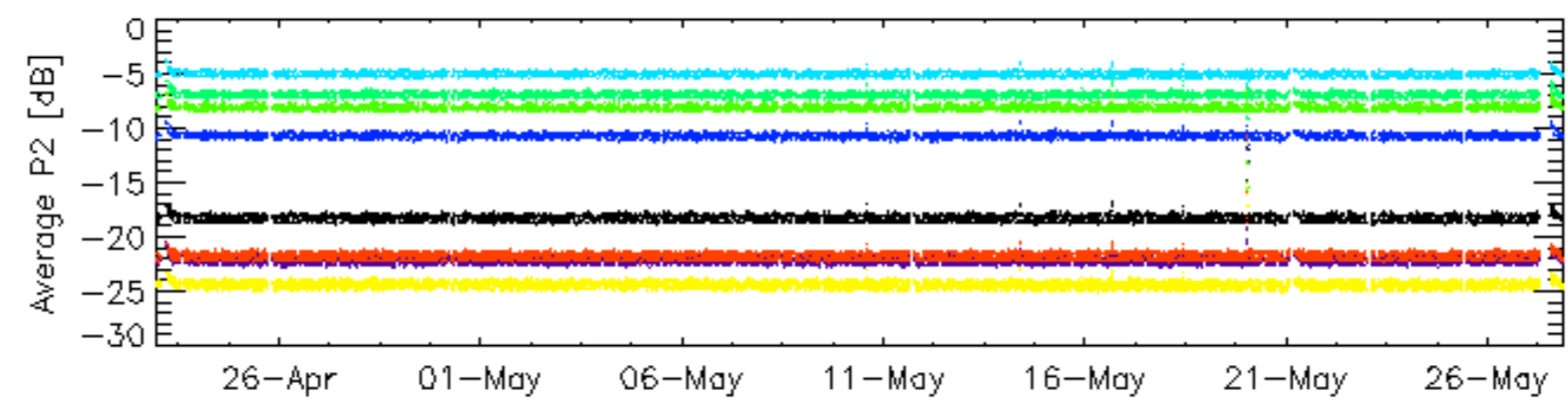
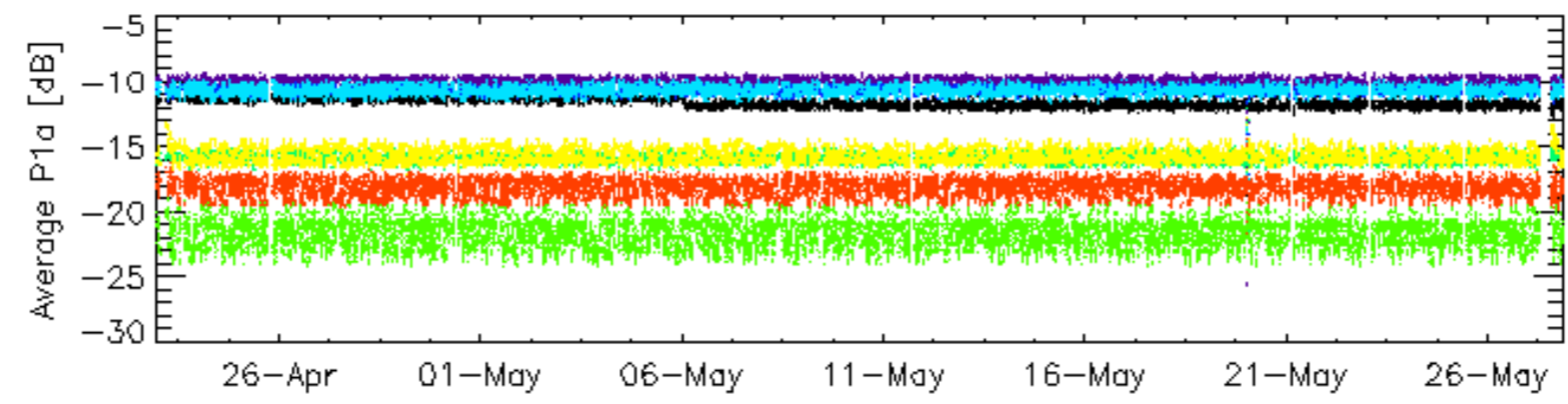
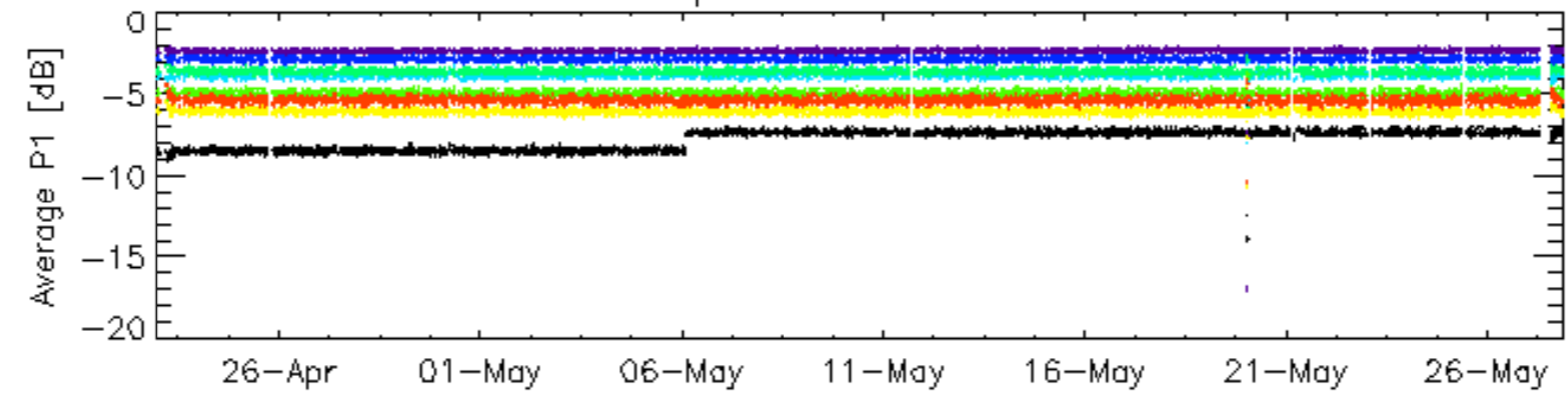


27-May



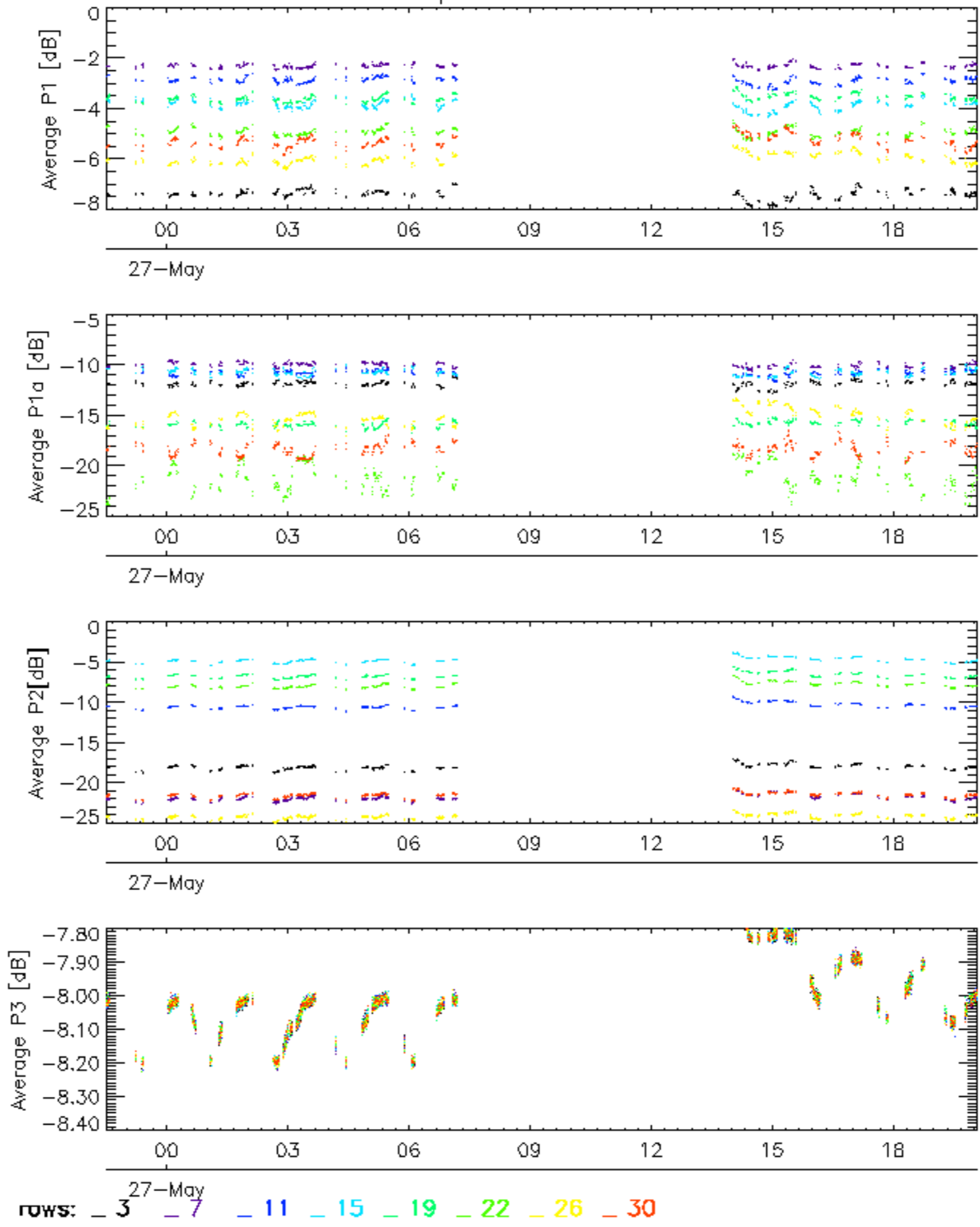
rows: ^{27-May} 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

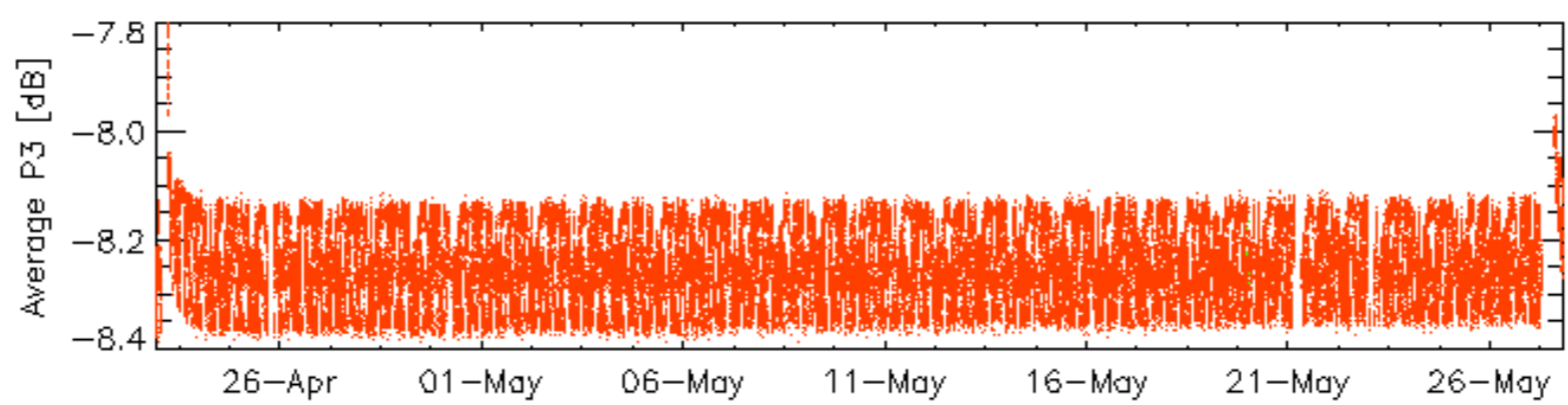
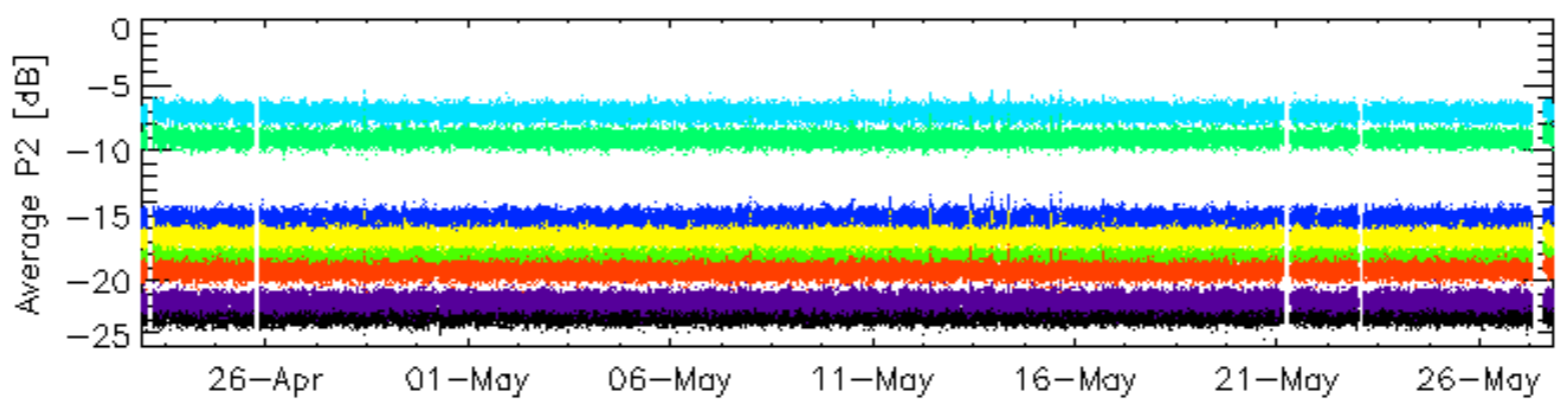
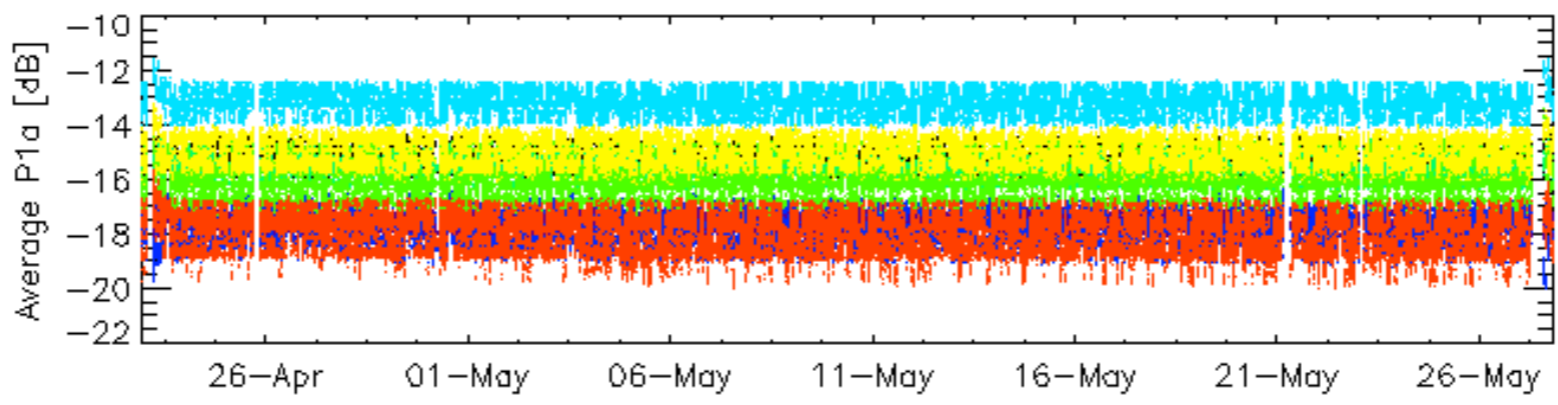
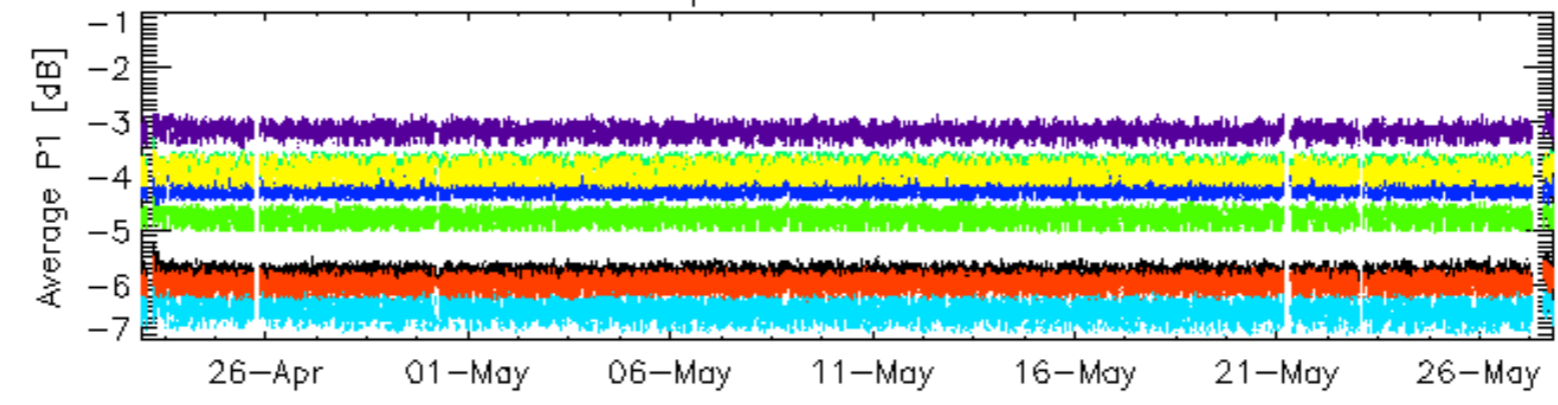


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

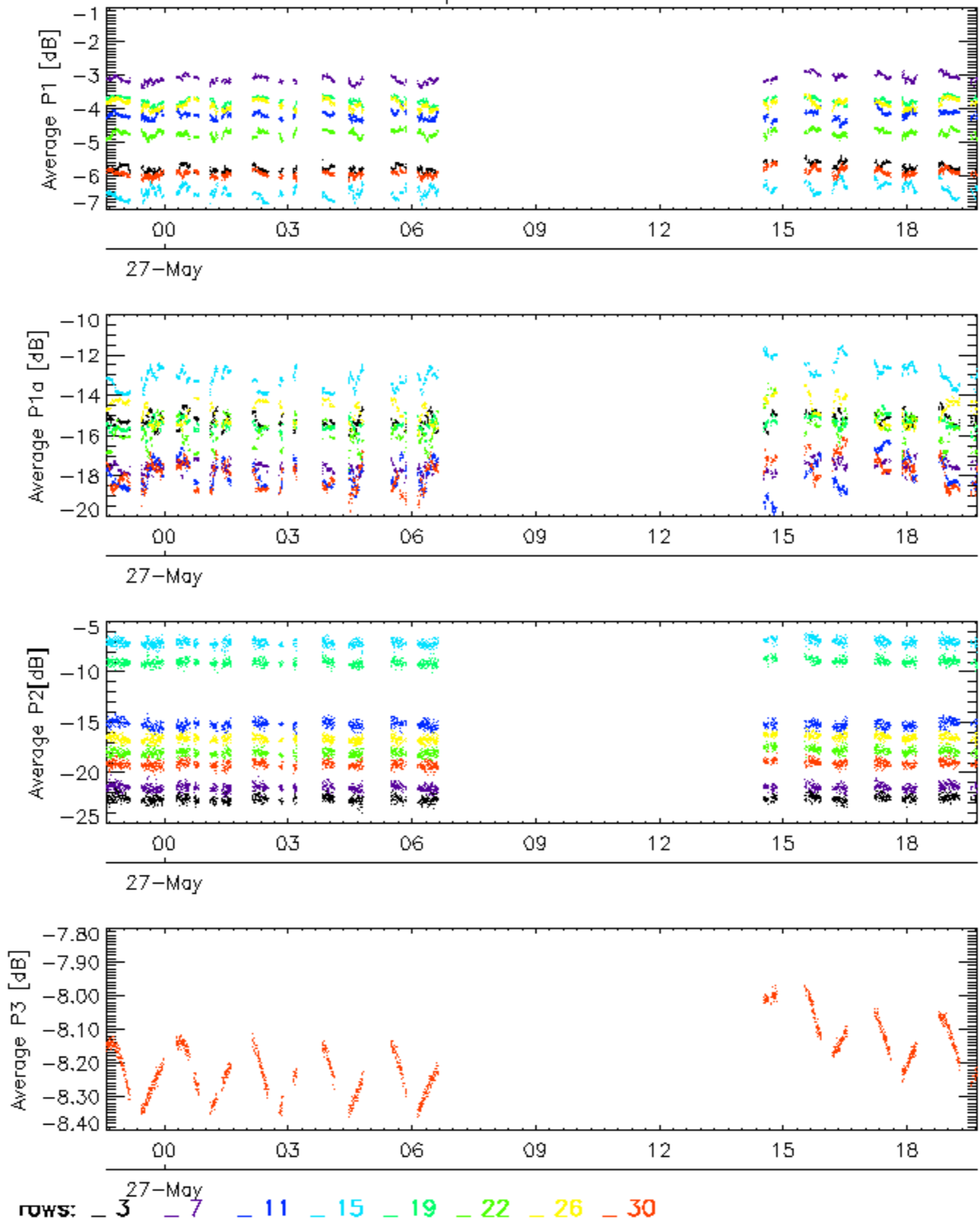


Cal pulses for WVS IS2

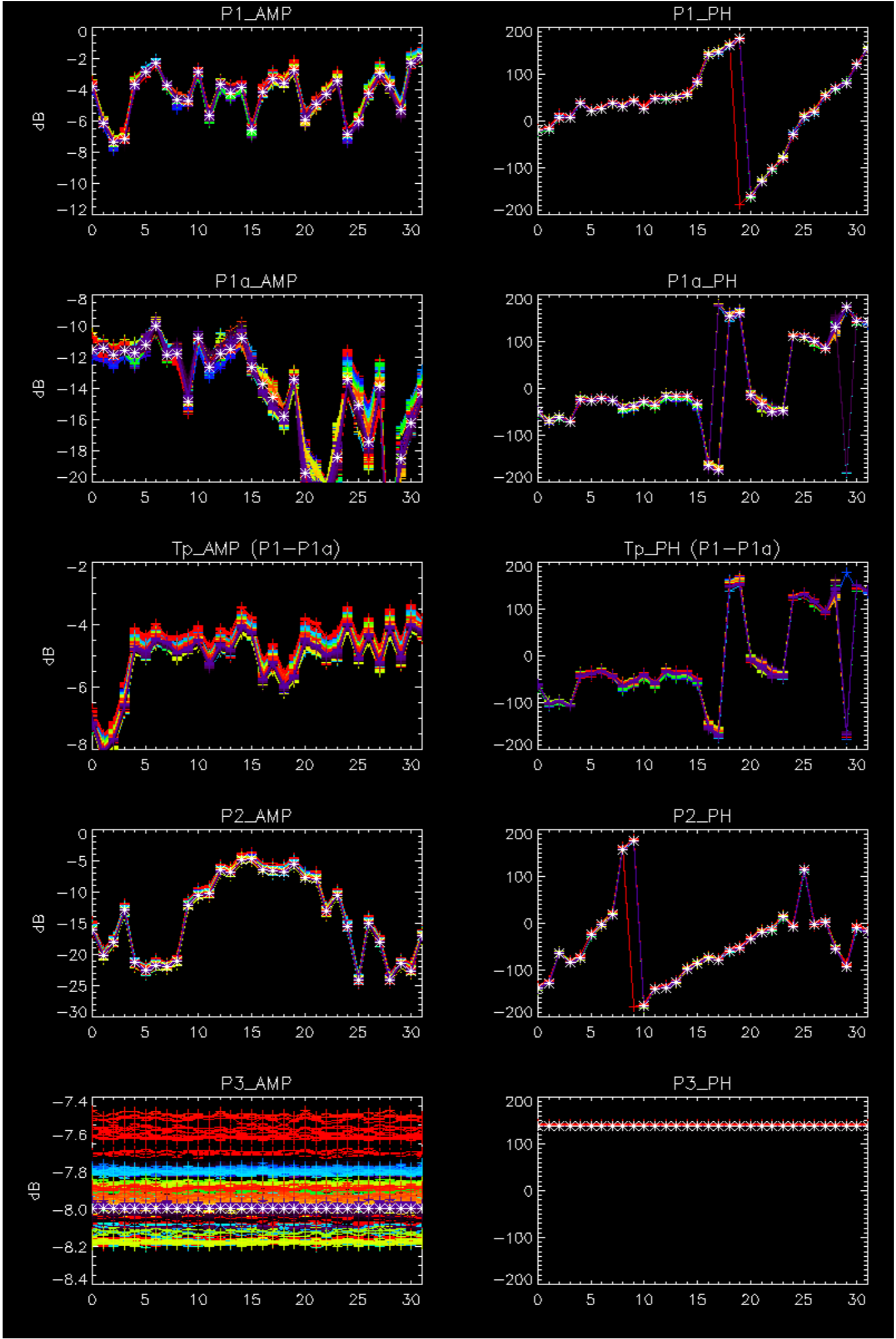


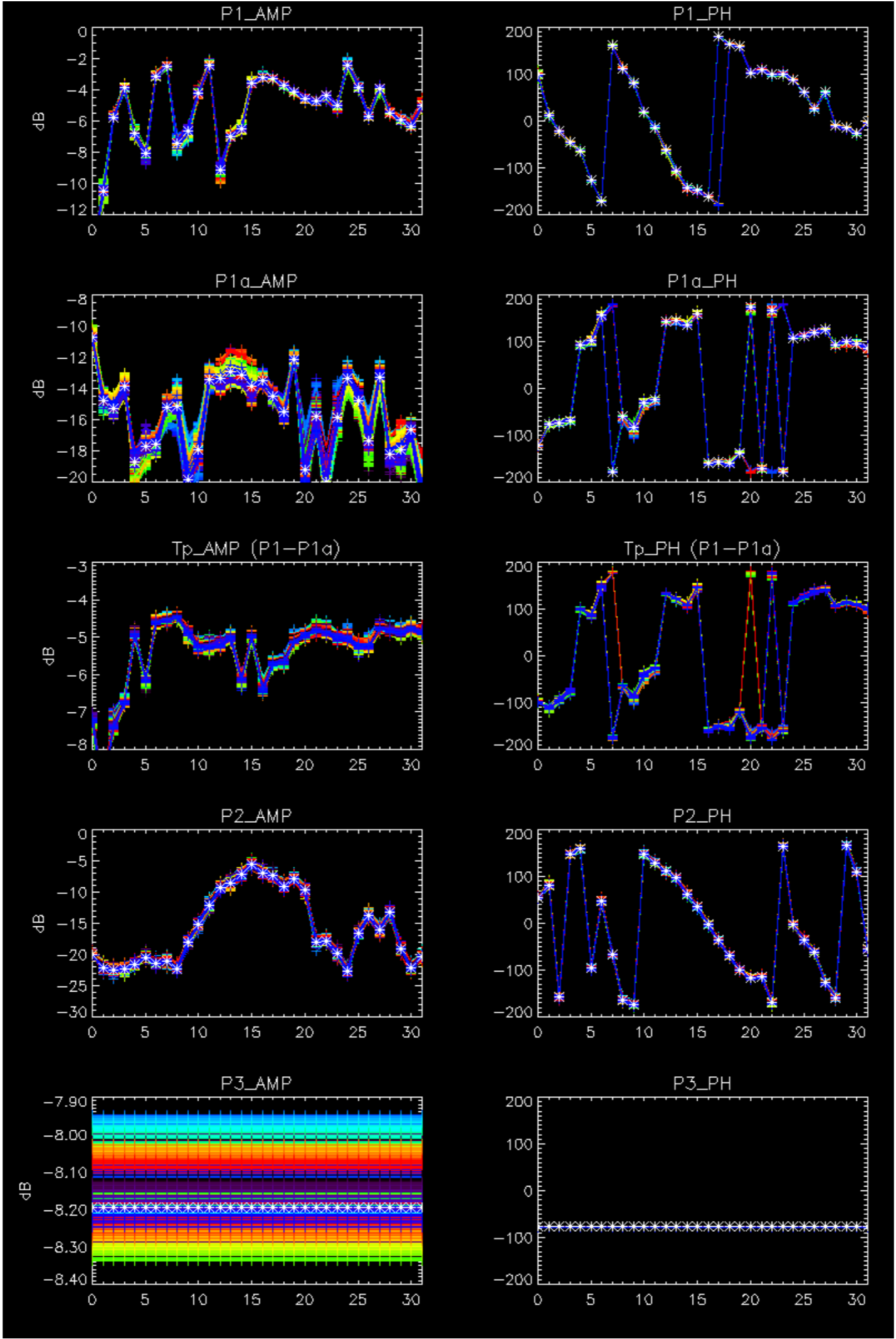
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



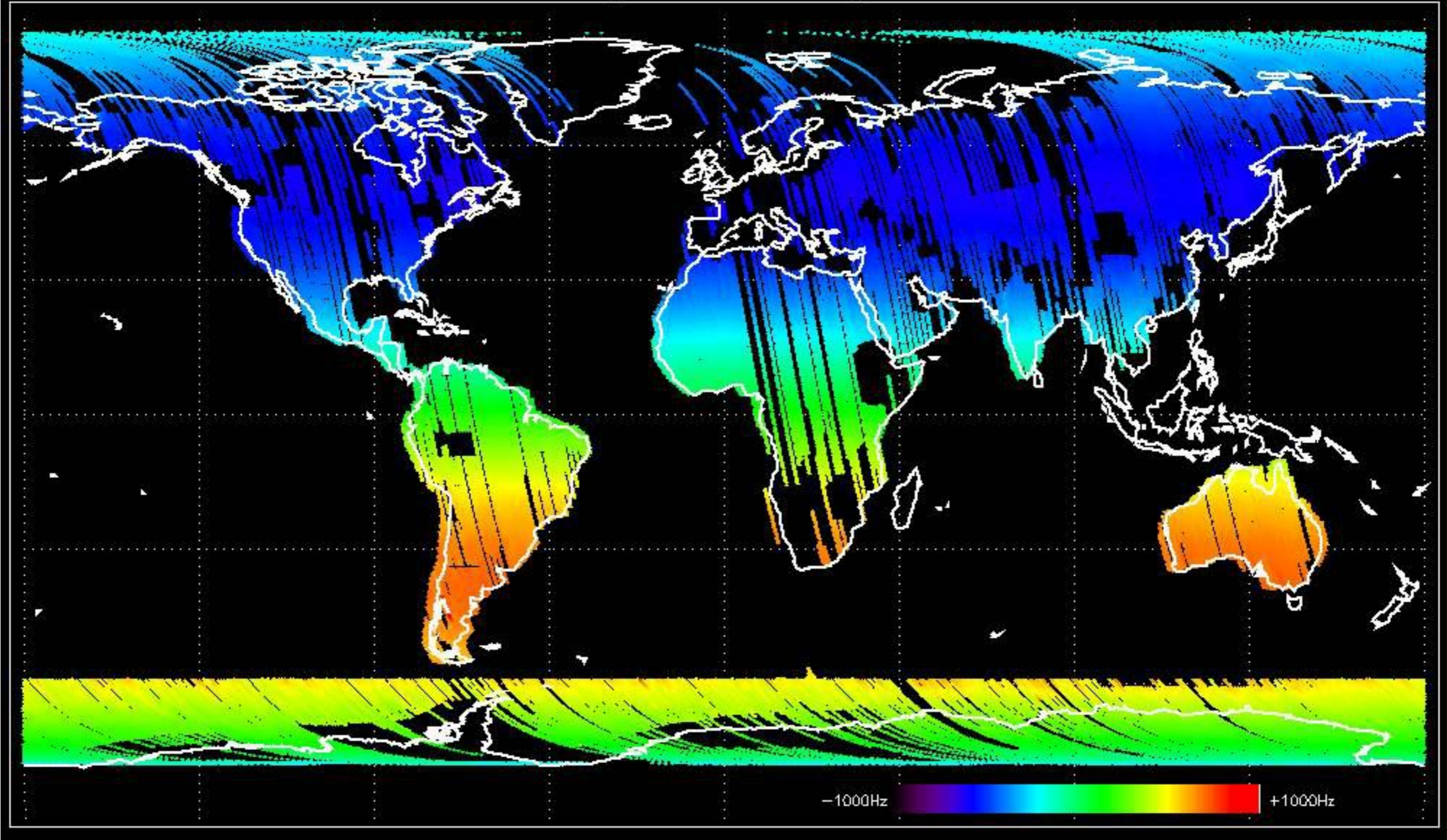
No anomalies observed.



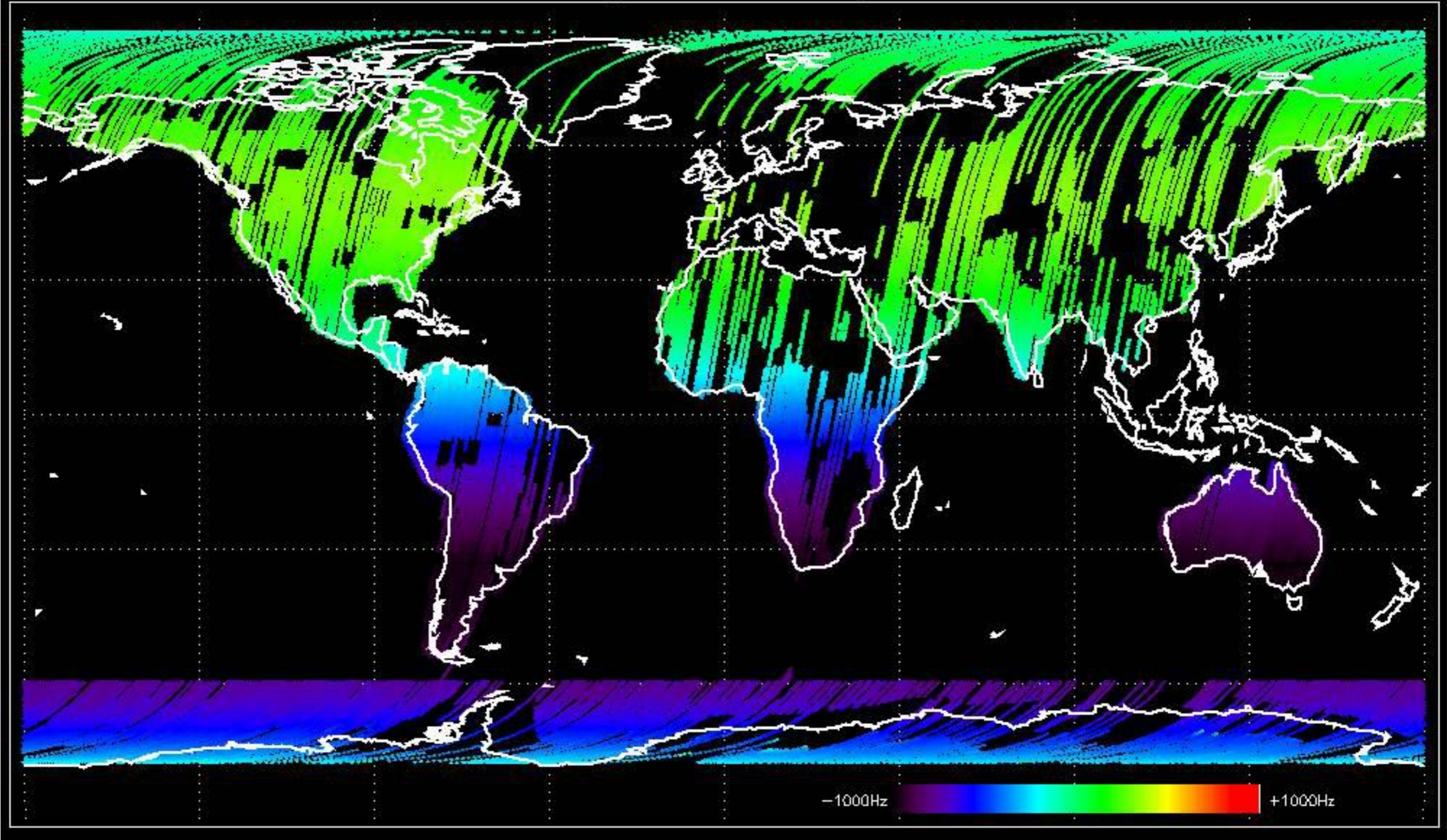


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

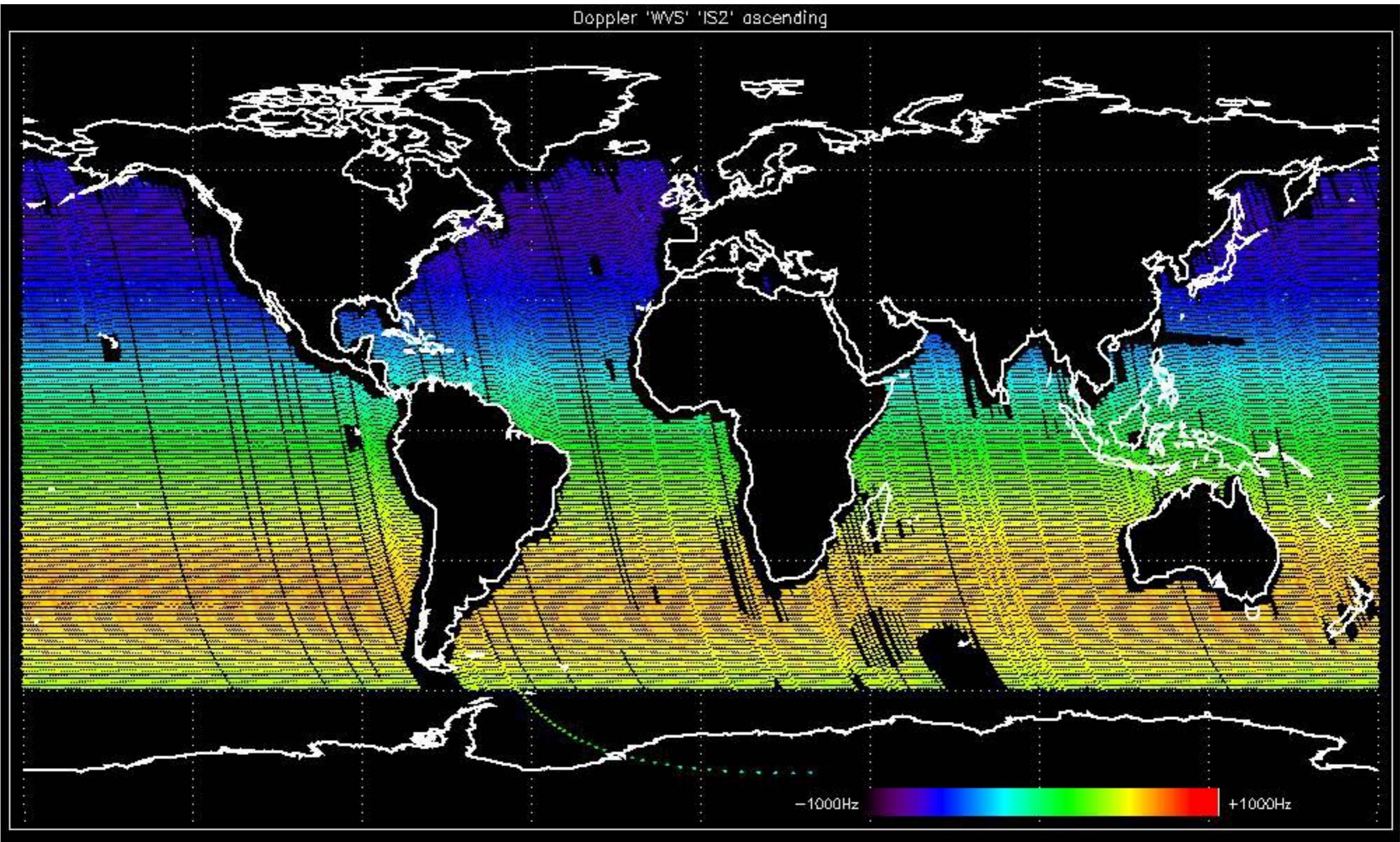
Doppler 'GM1' 'SS1' ascending



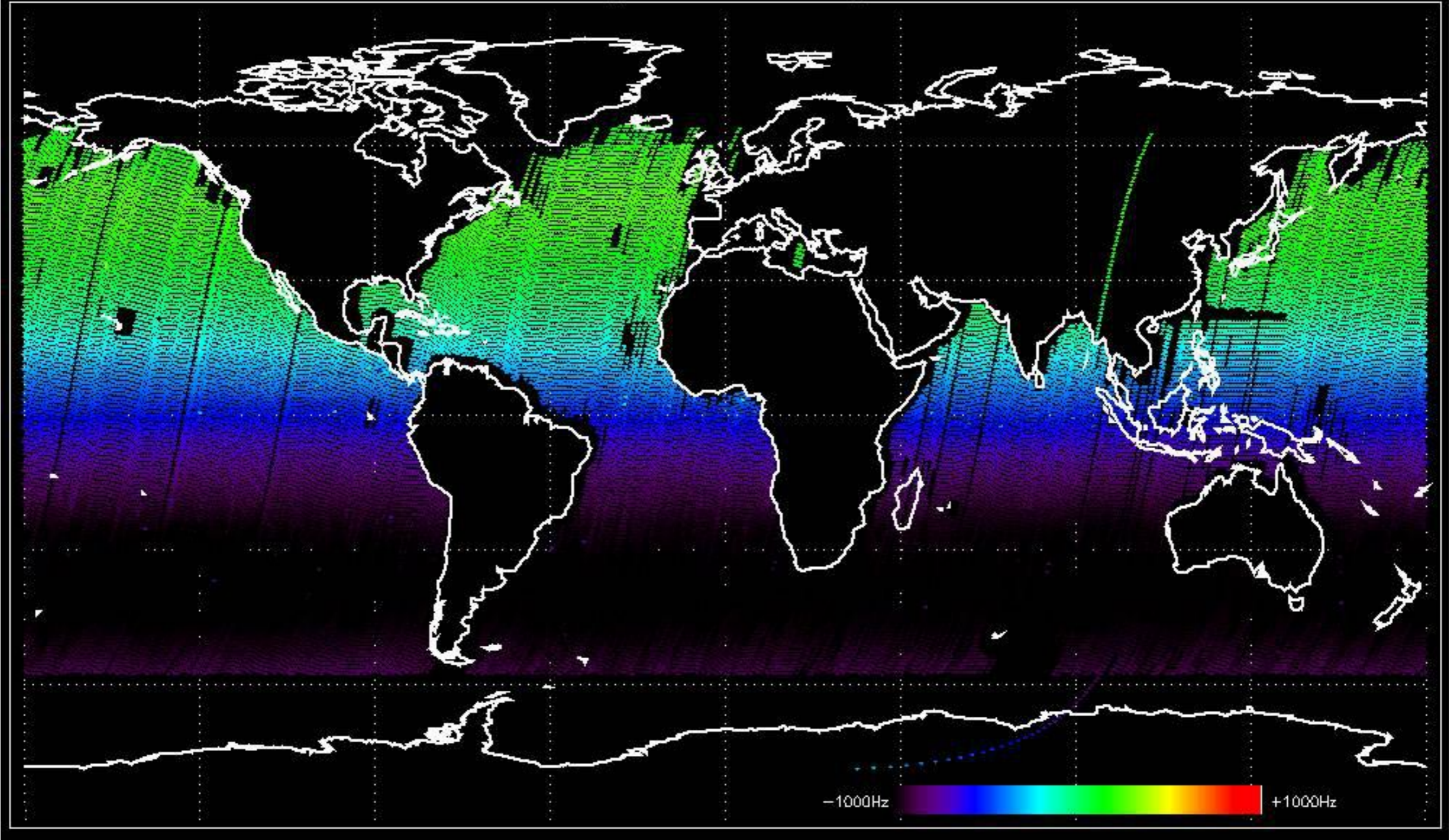
Doppler 'GM1' 'SS1' descending

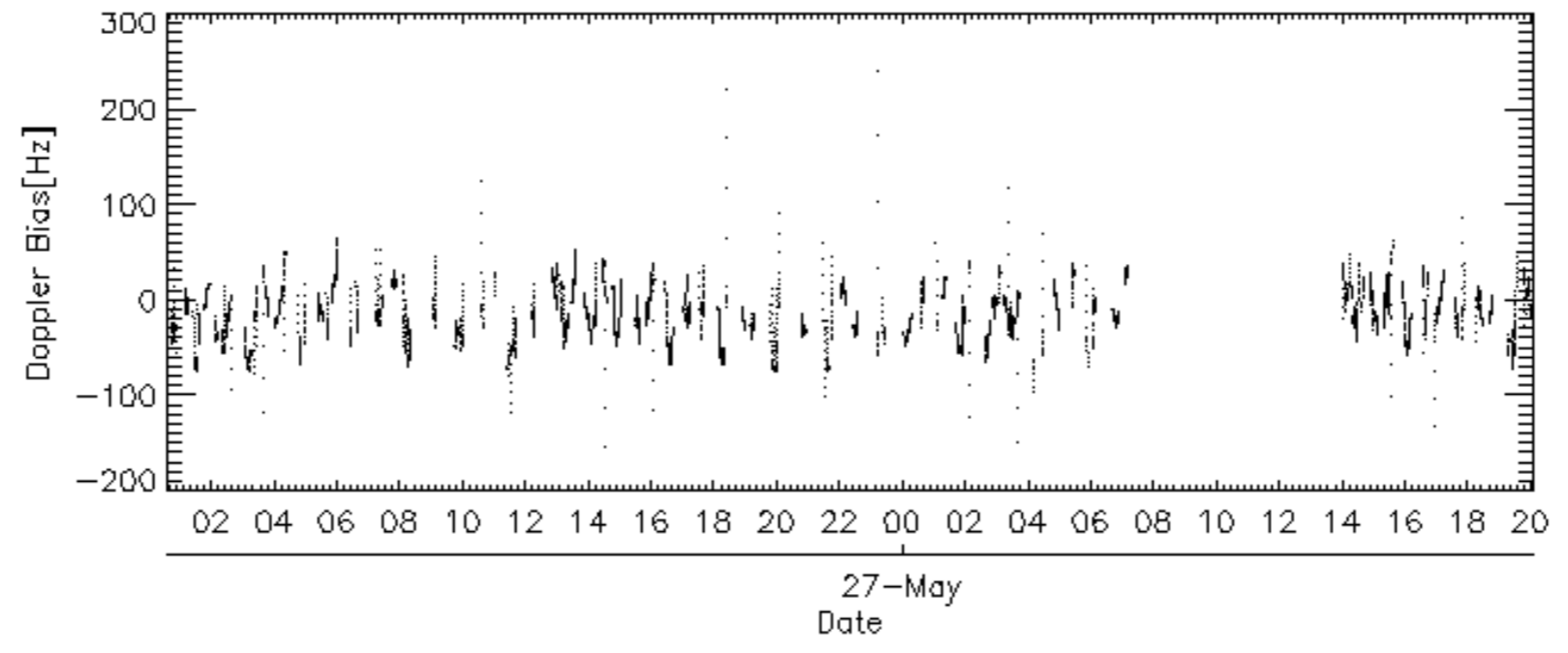
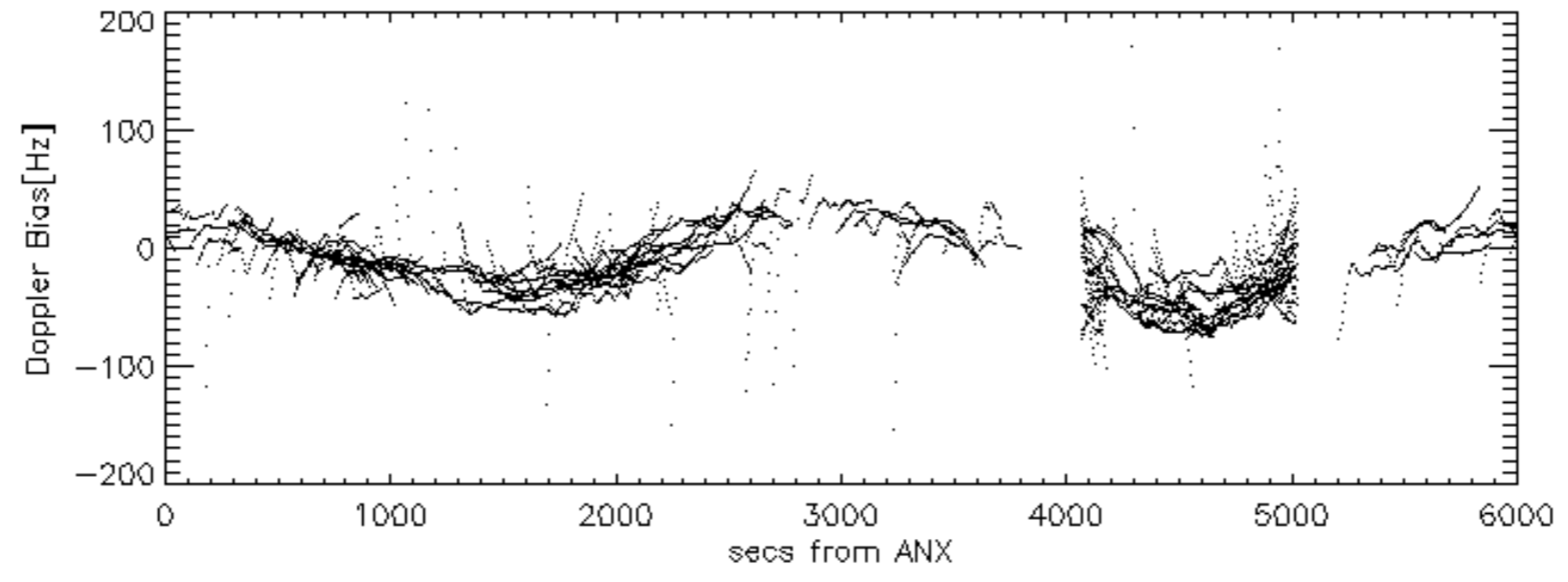
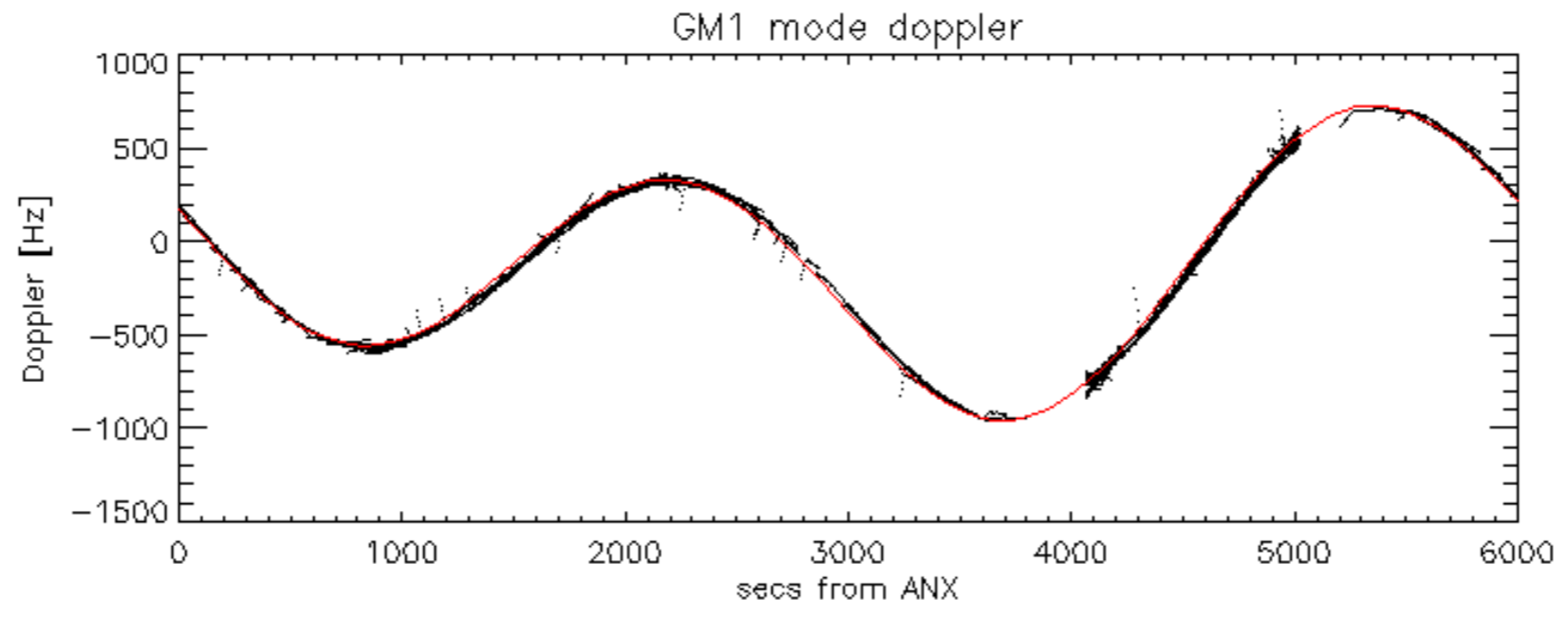


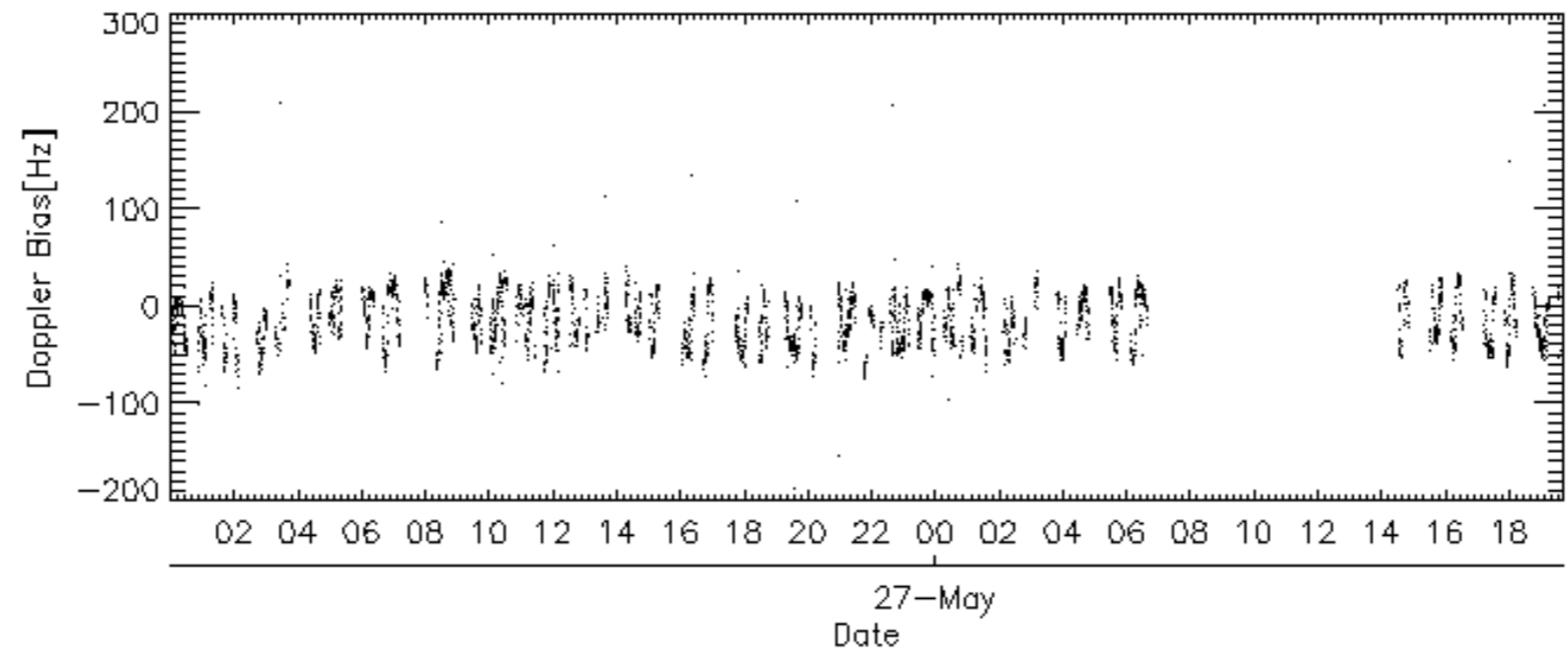
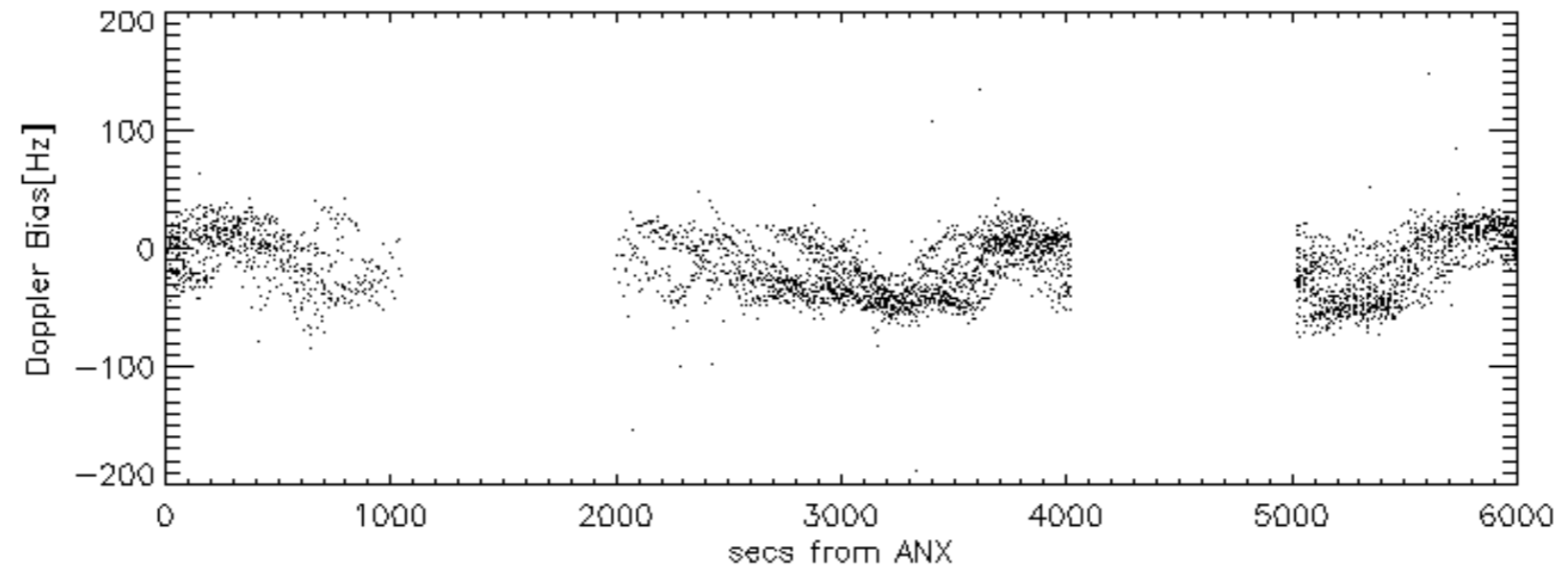
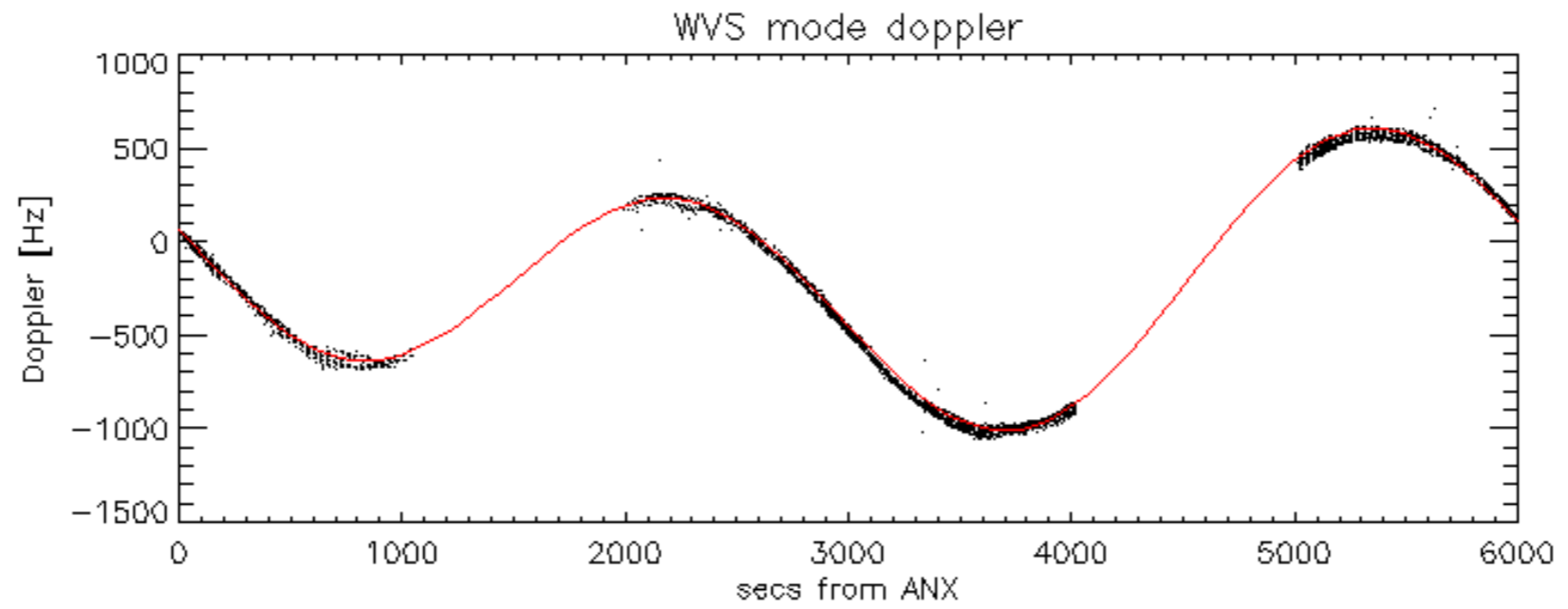
Doppler 'WVS' 'IS2' ascending



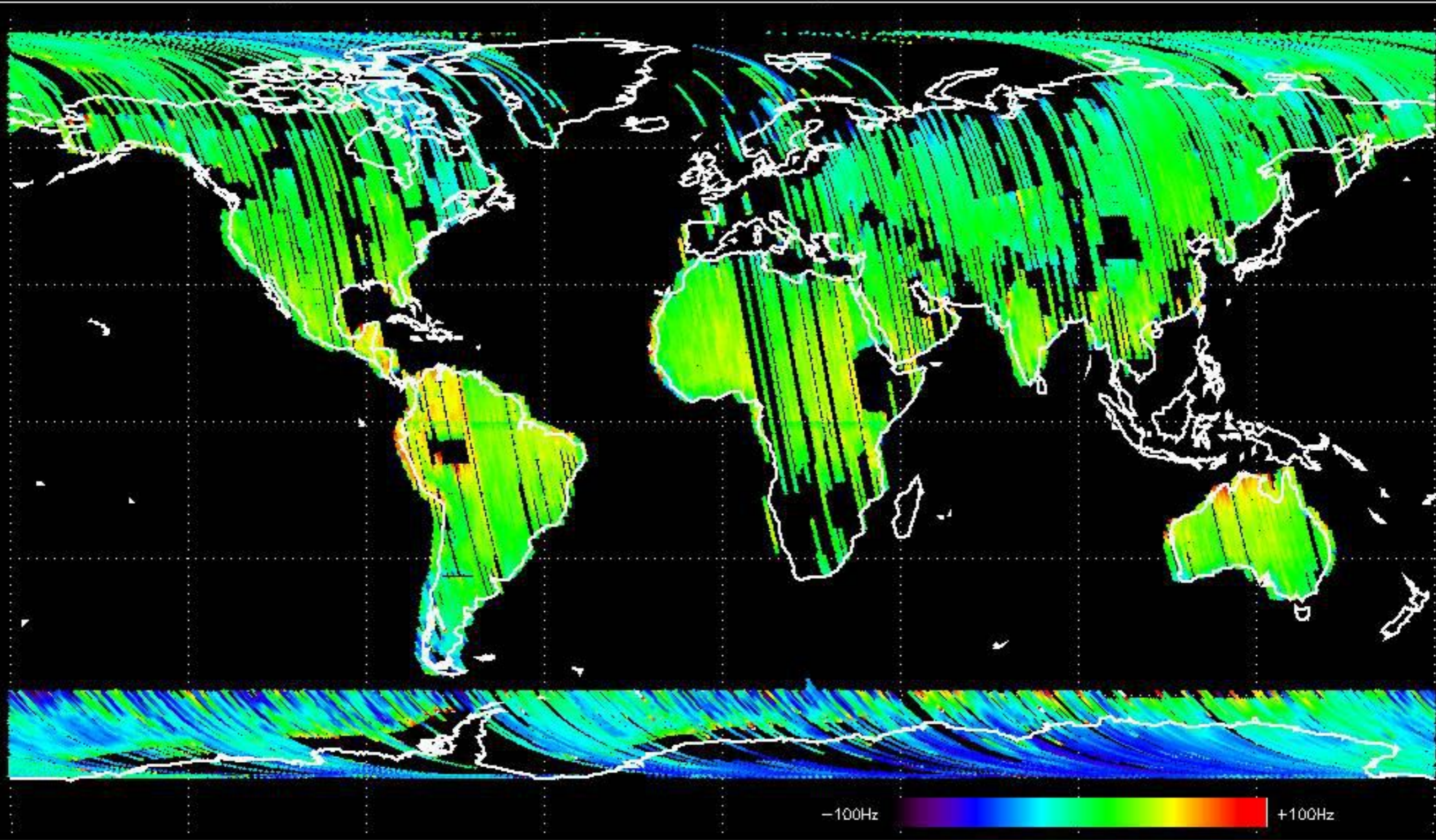
Doppler 'WVS' 'IS2' descending



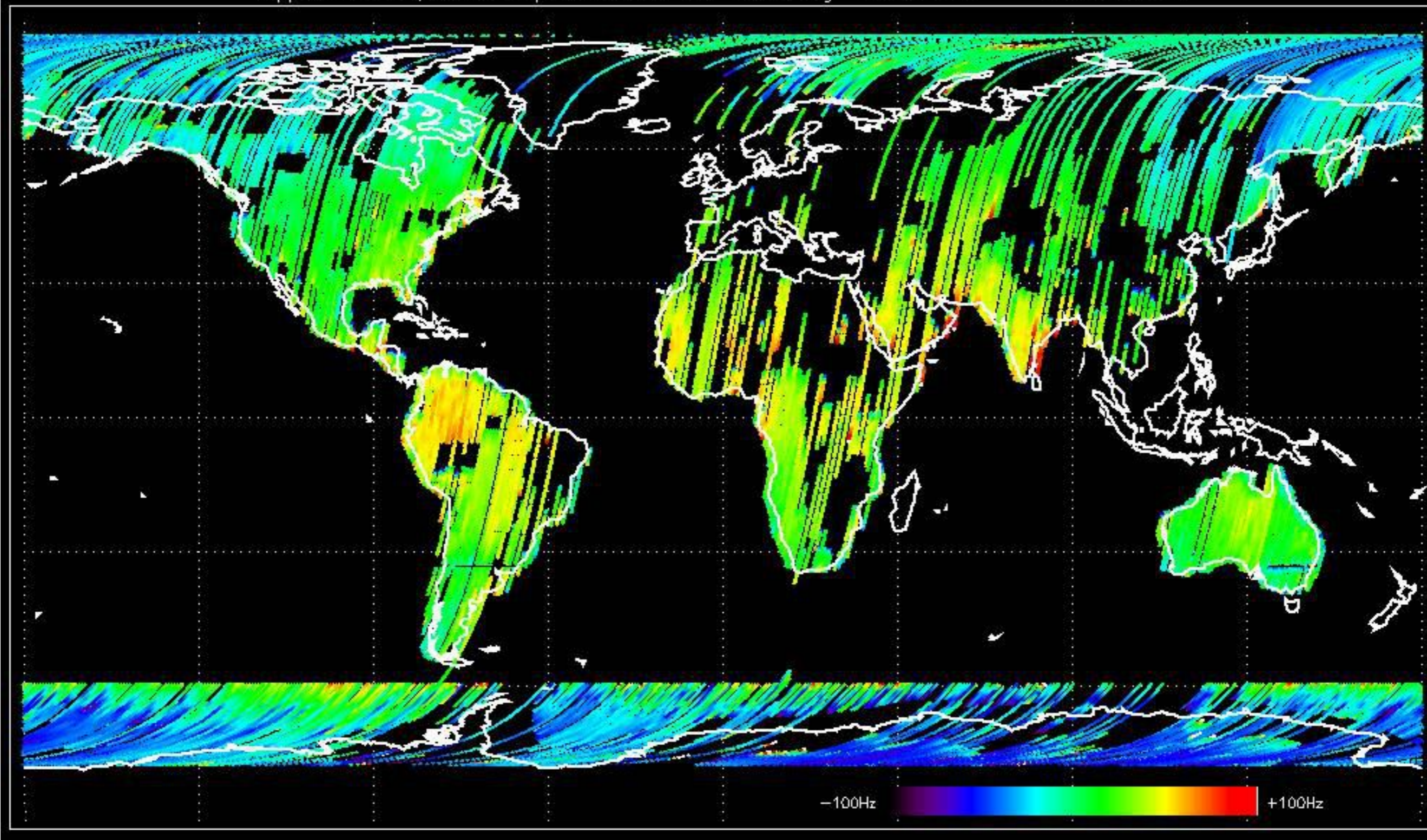




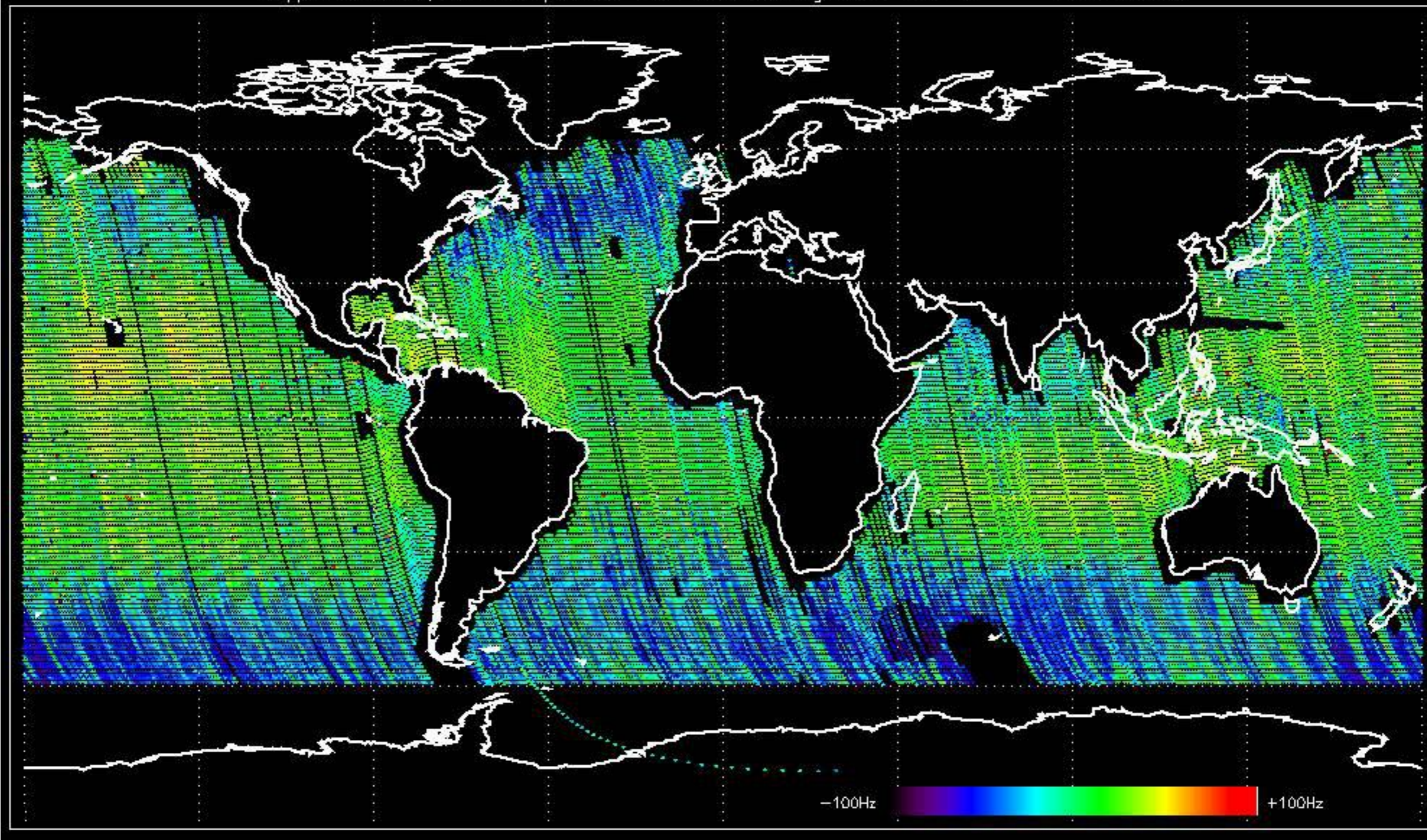
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -21.394959 Hz



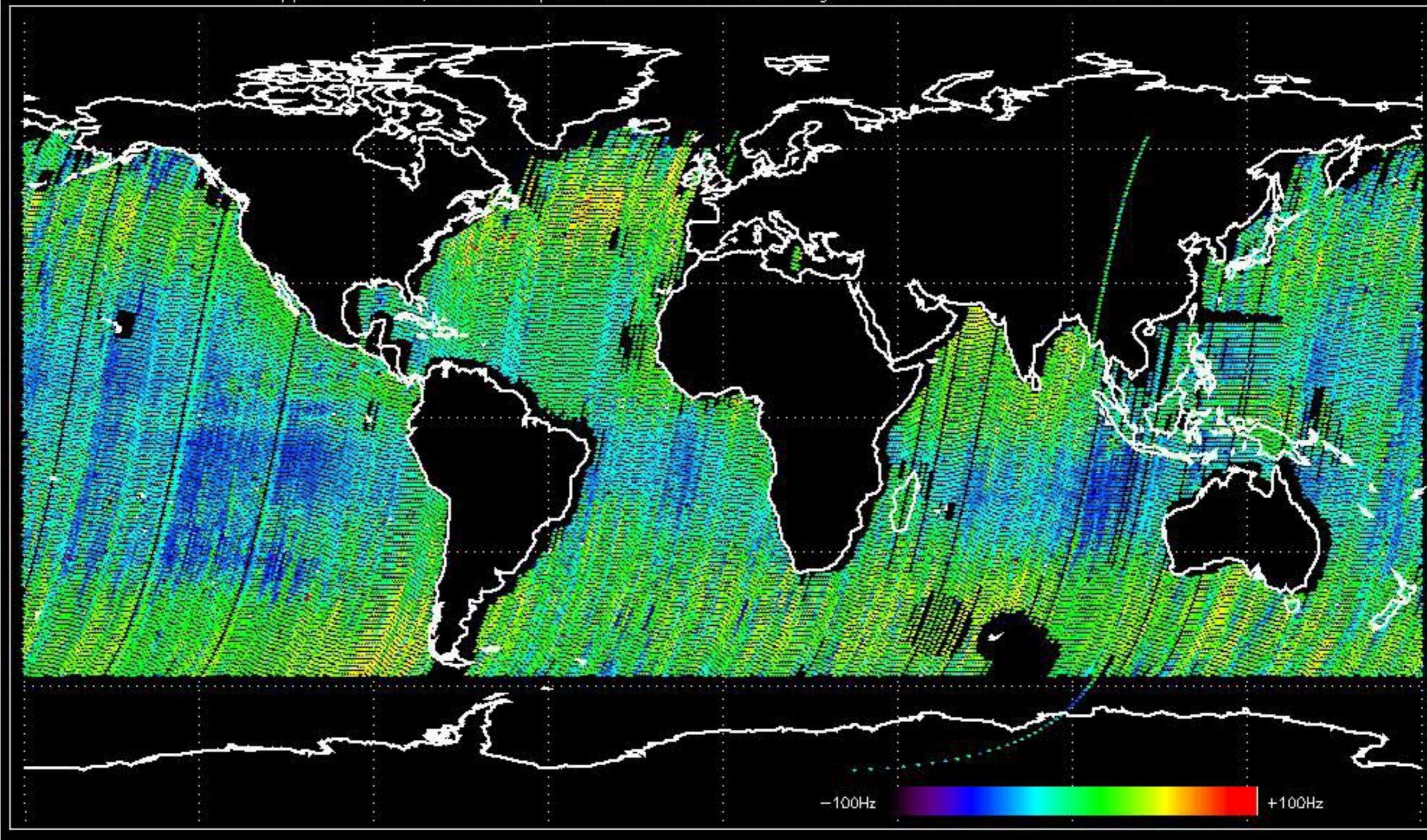
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.782606 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -14.292025 Hz

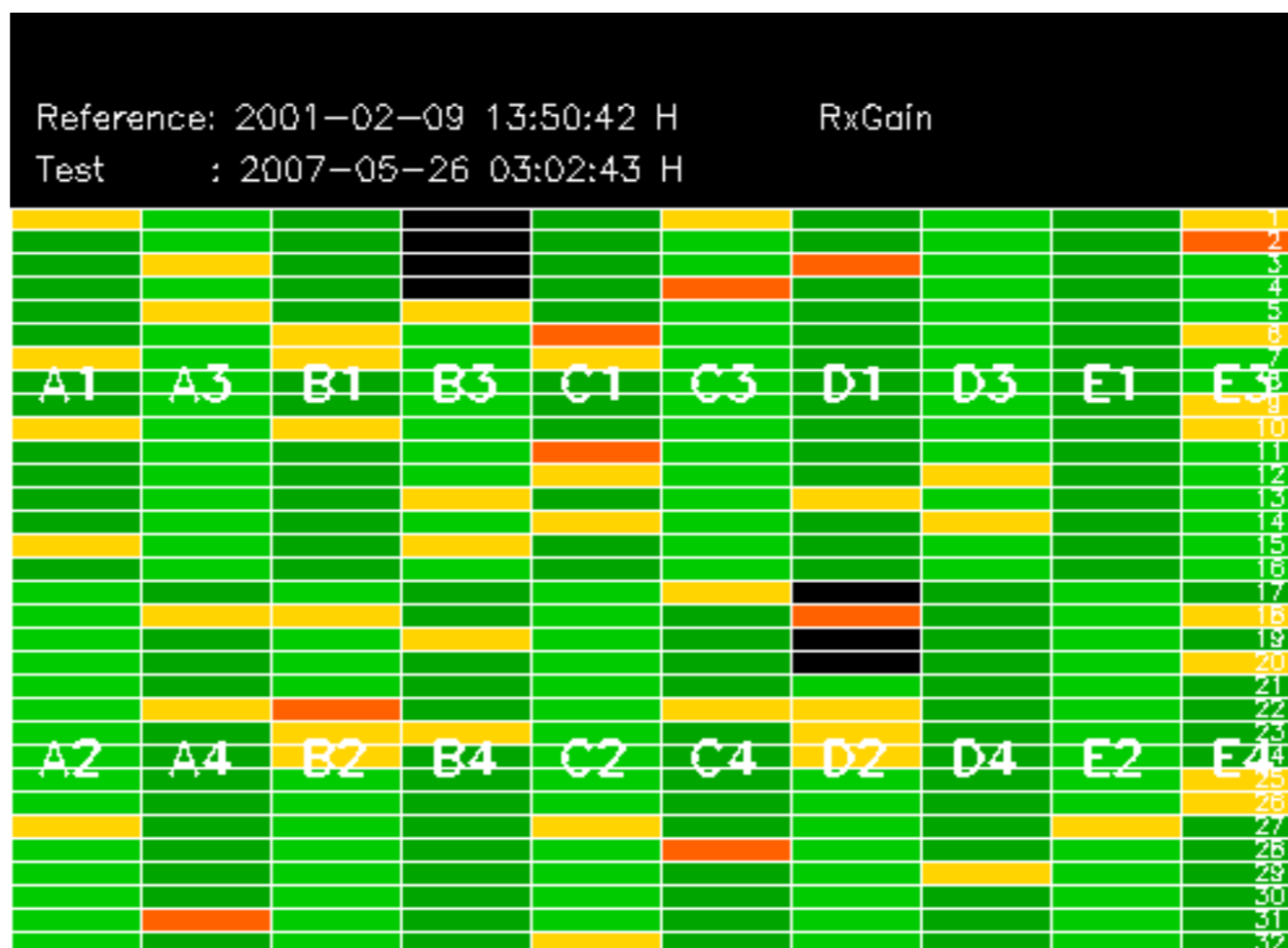


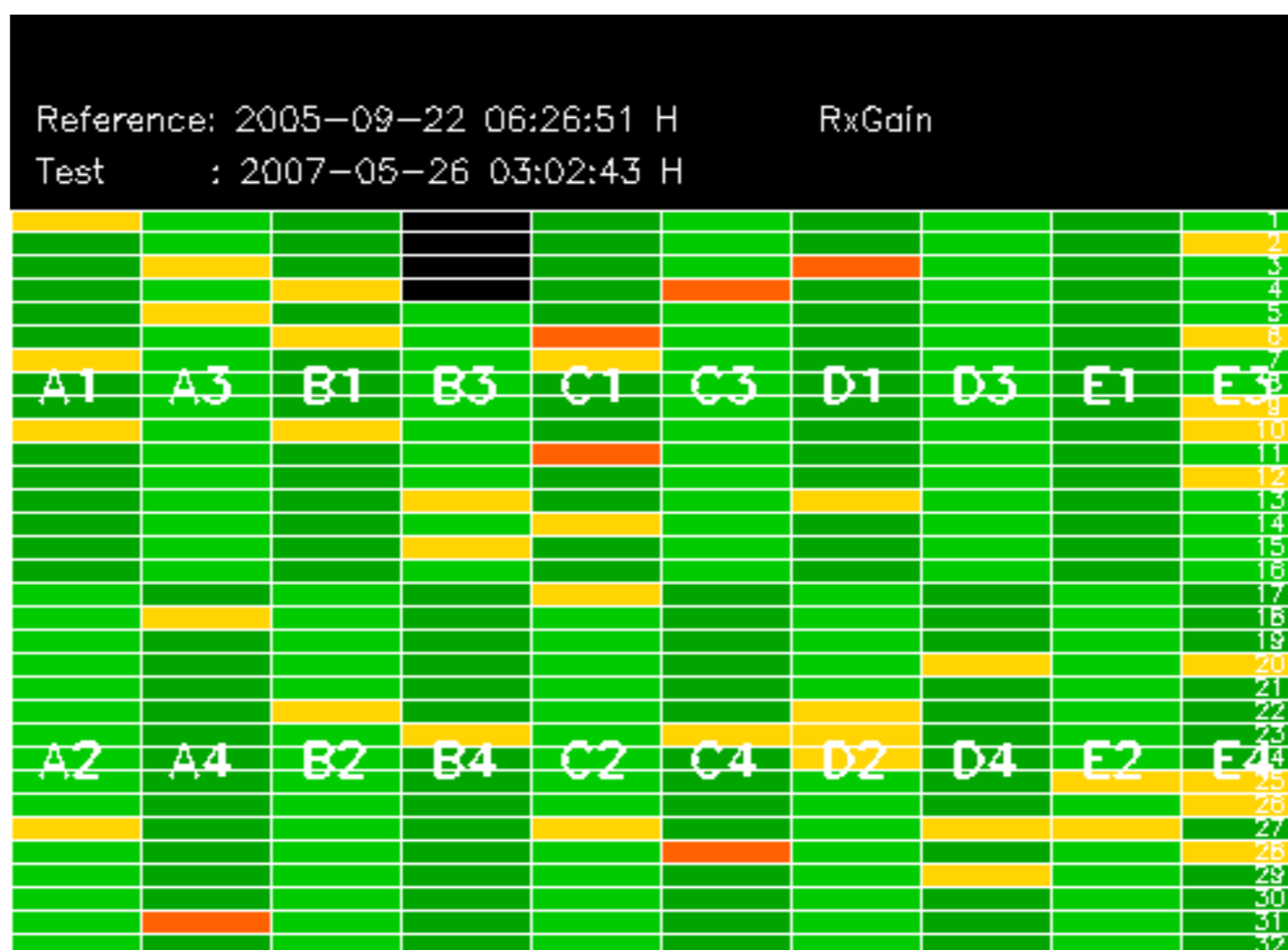
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.935968 Hz

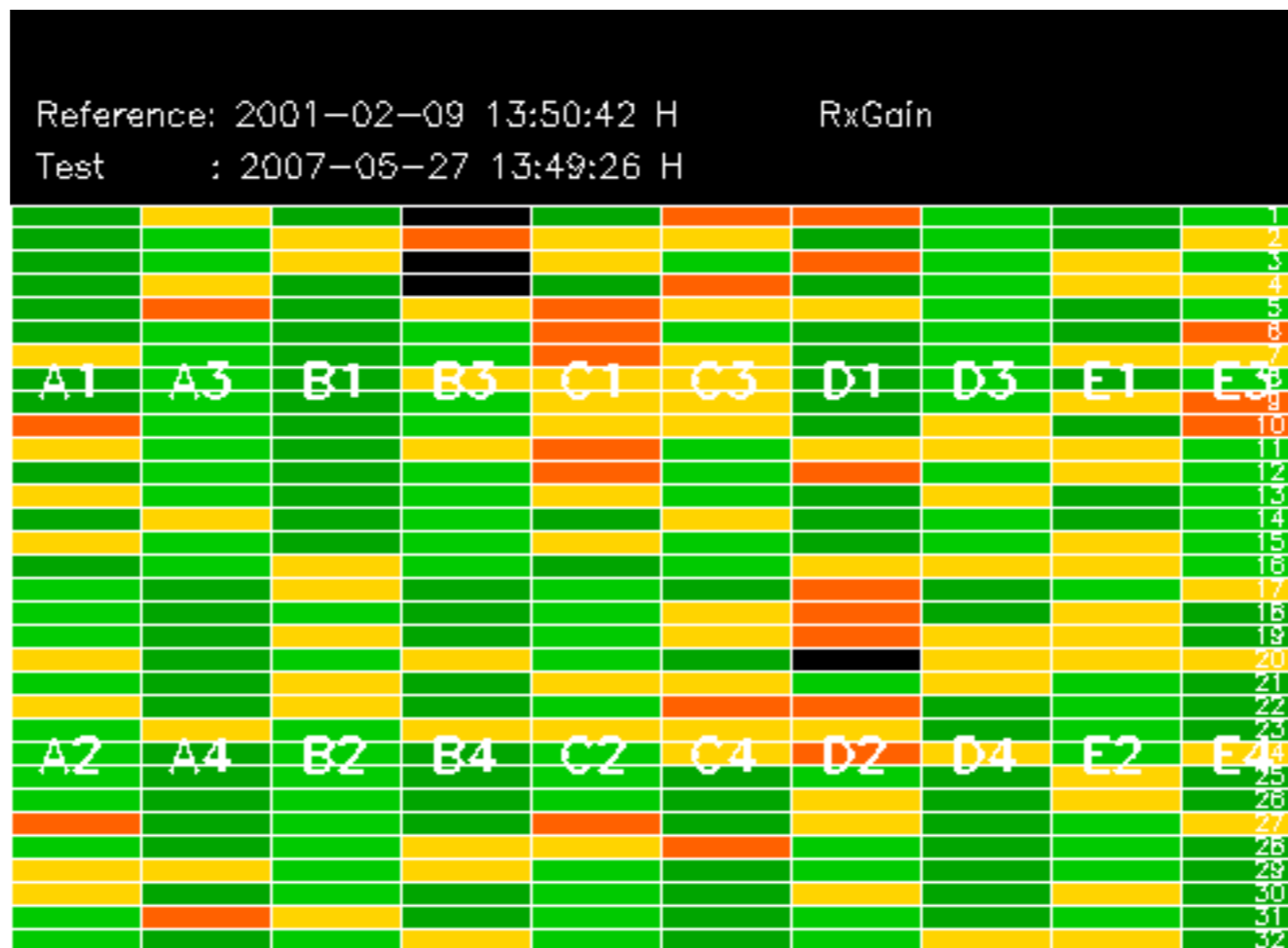


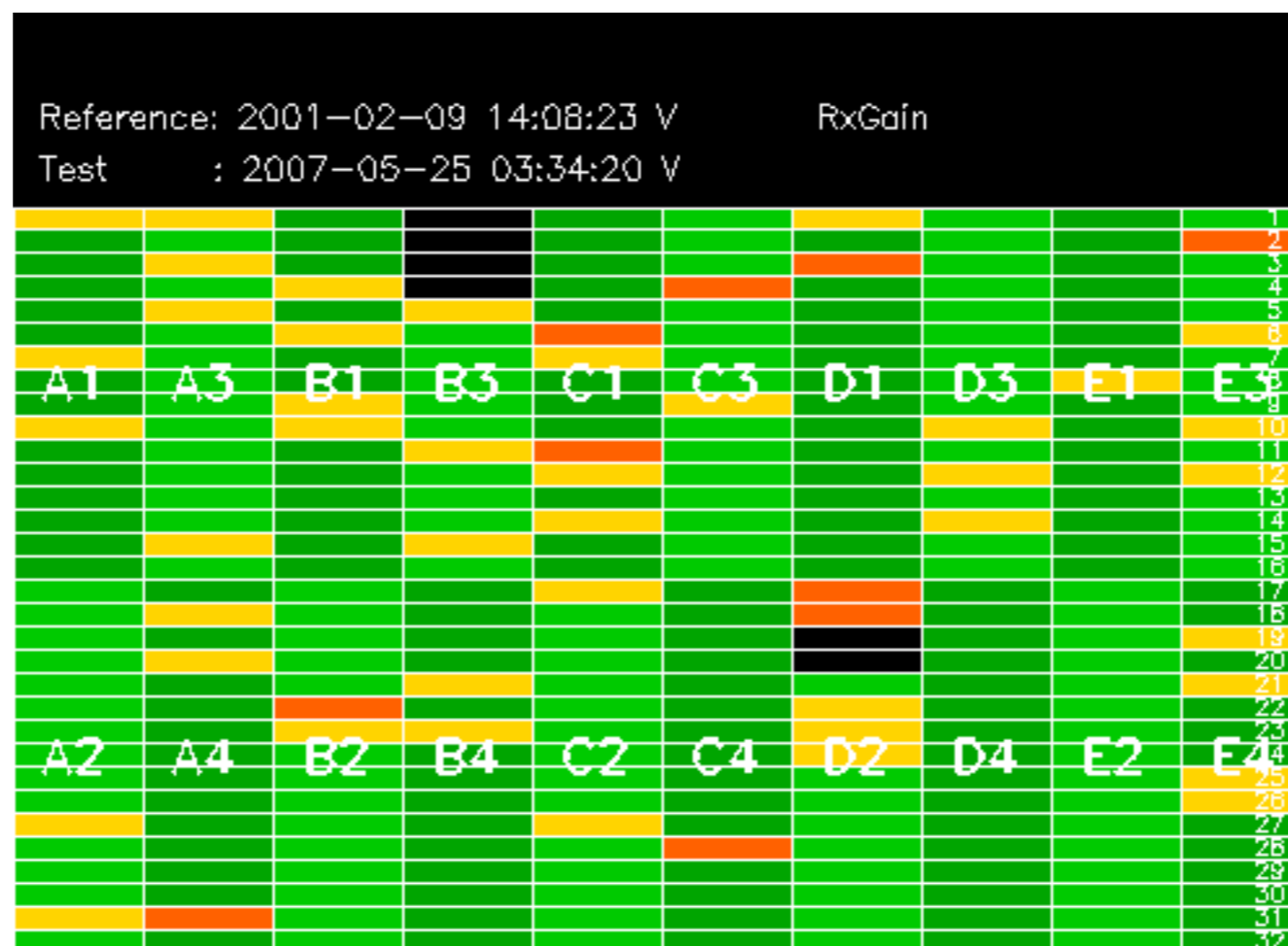
No anomalies observed on available MS products:

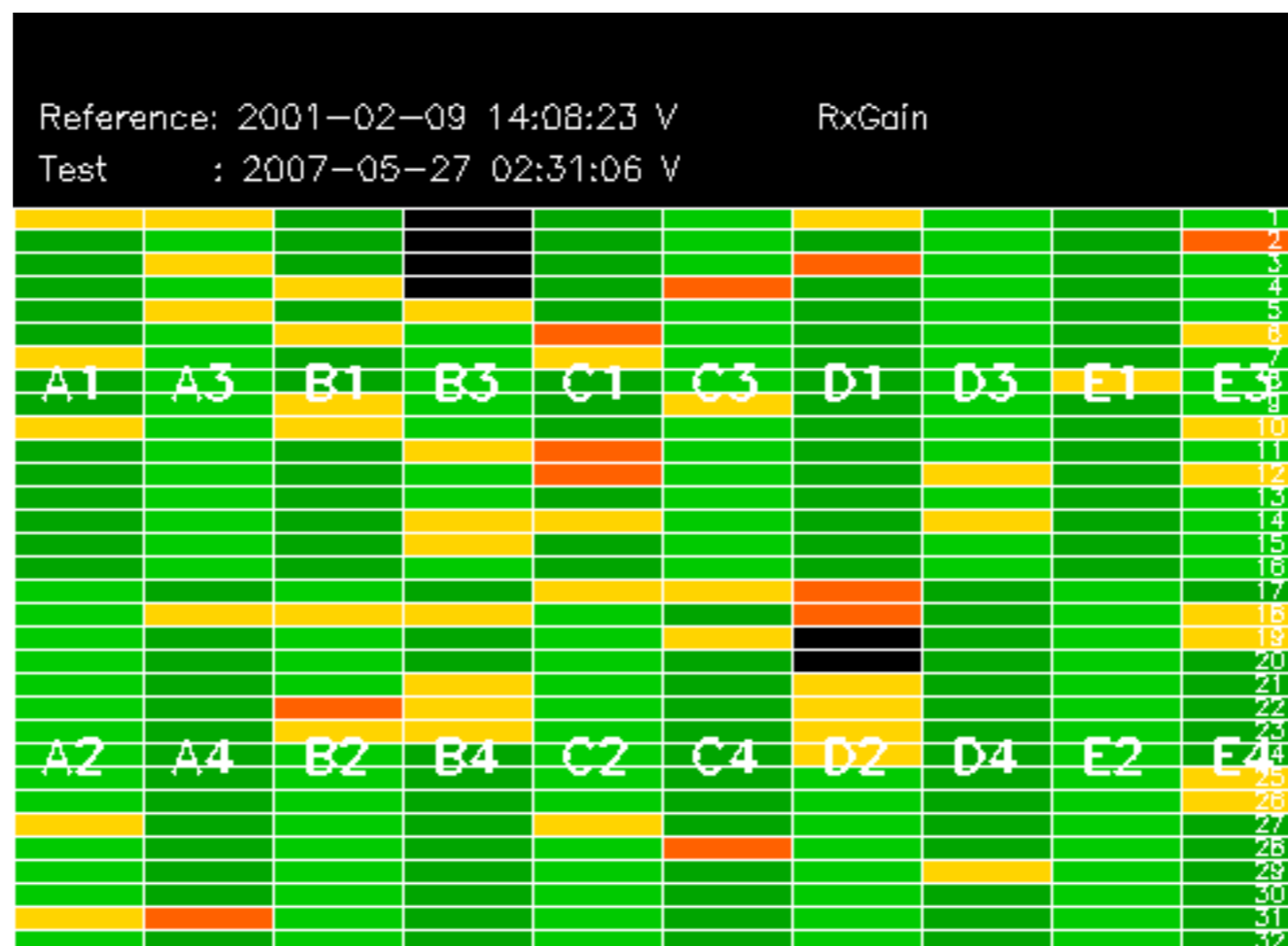
No anomalies observed.

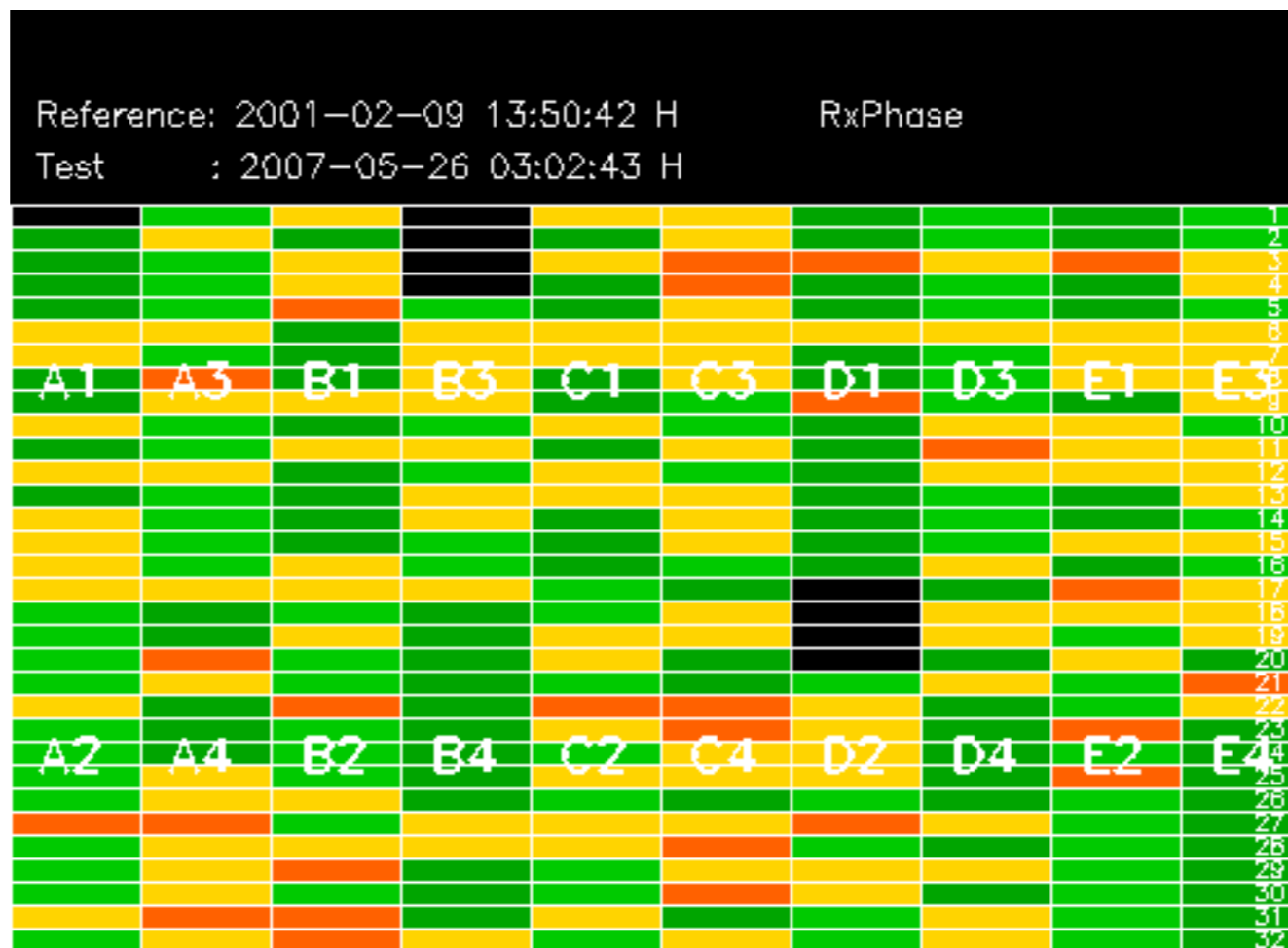


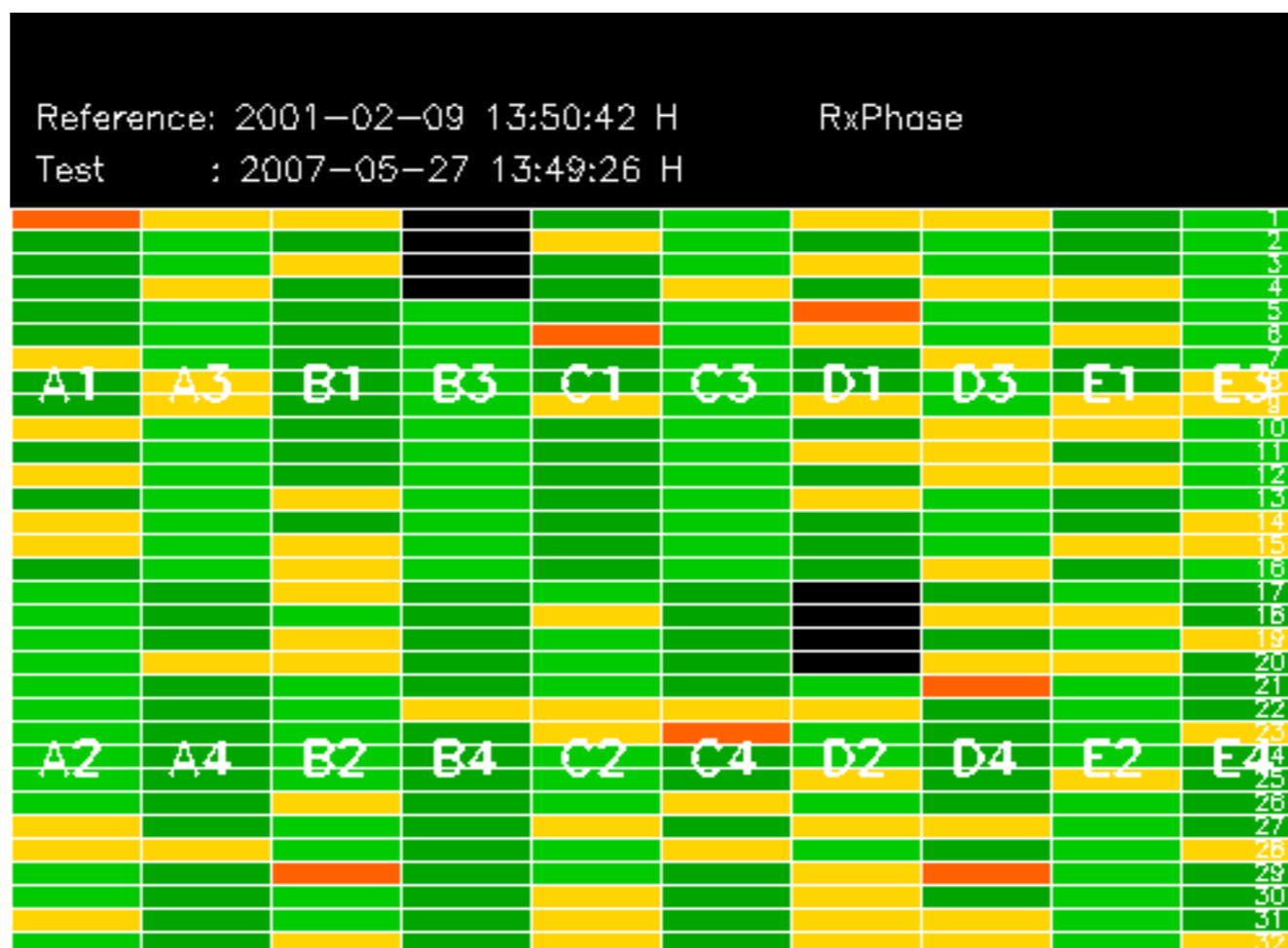


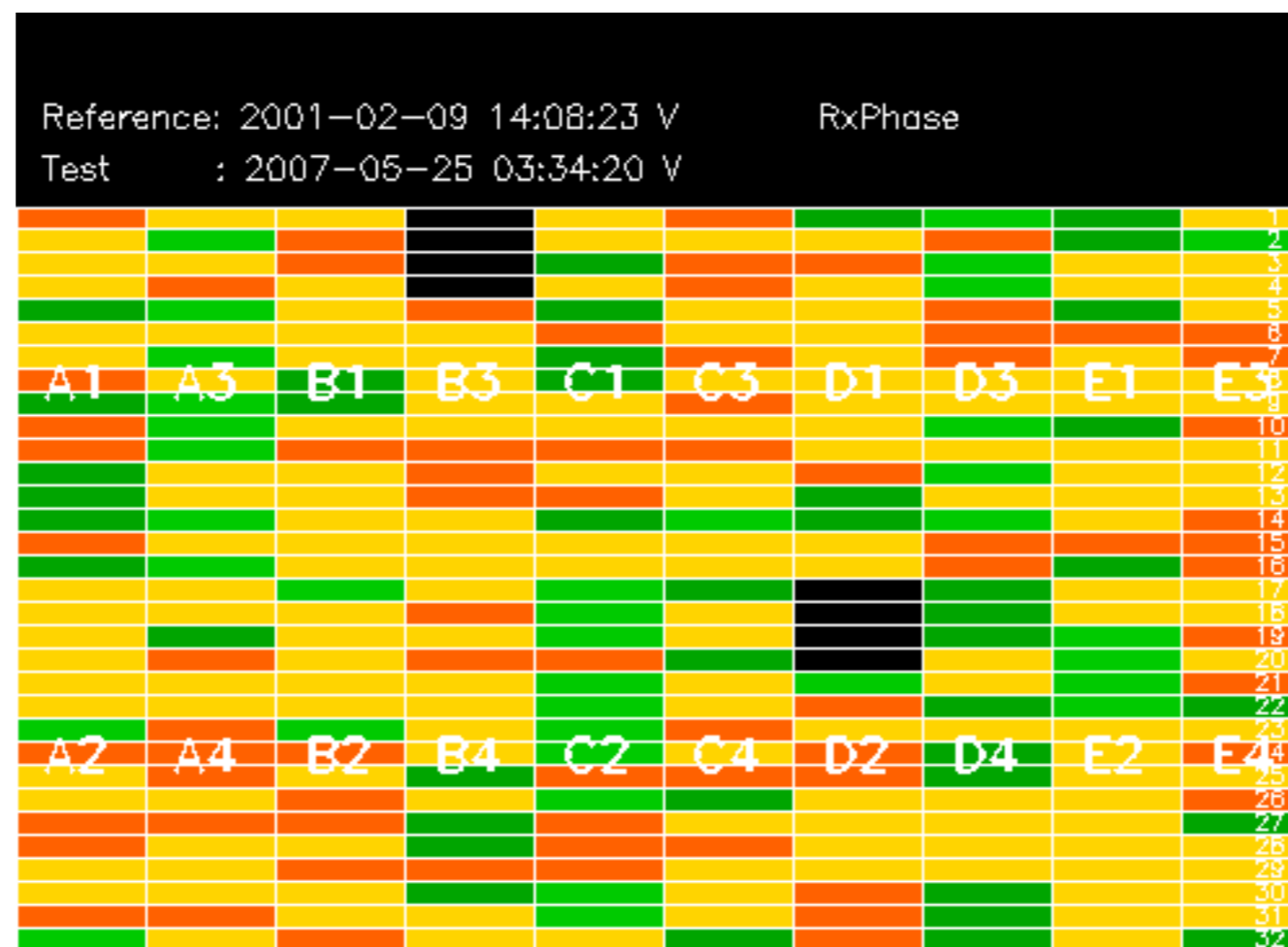


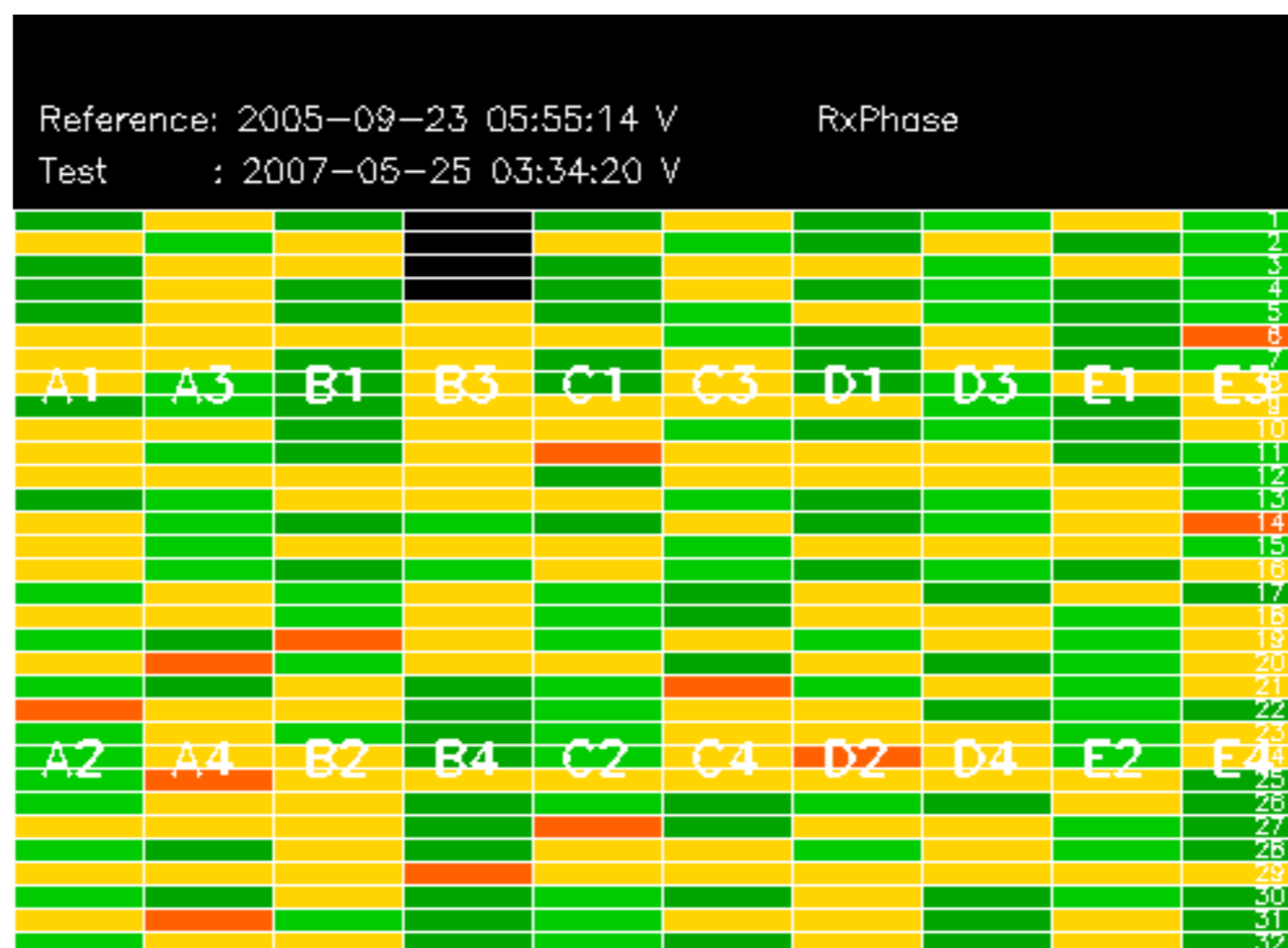


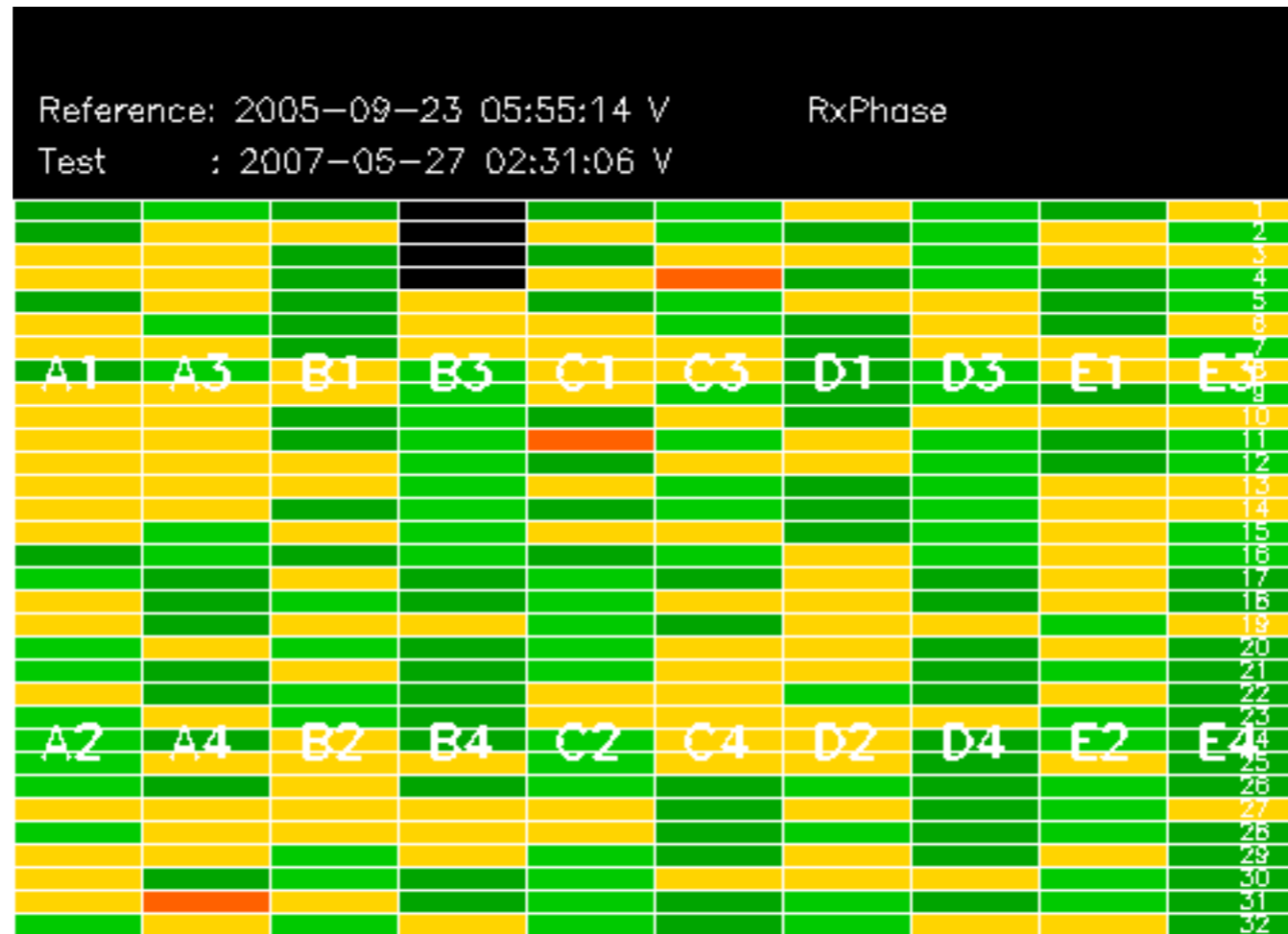


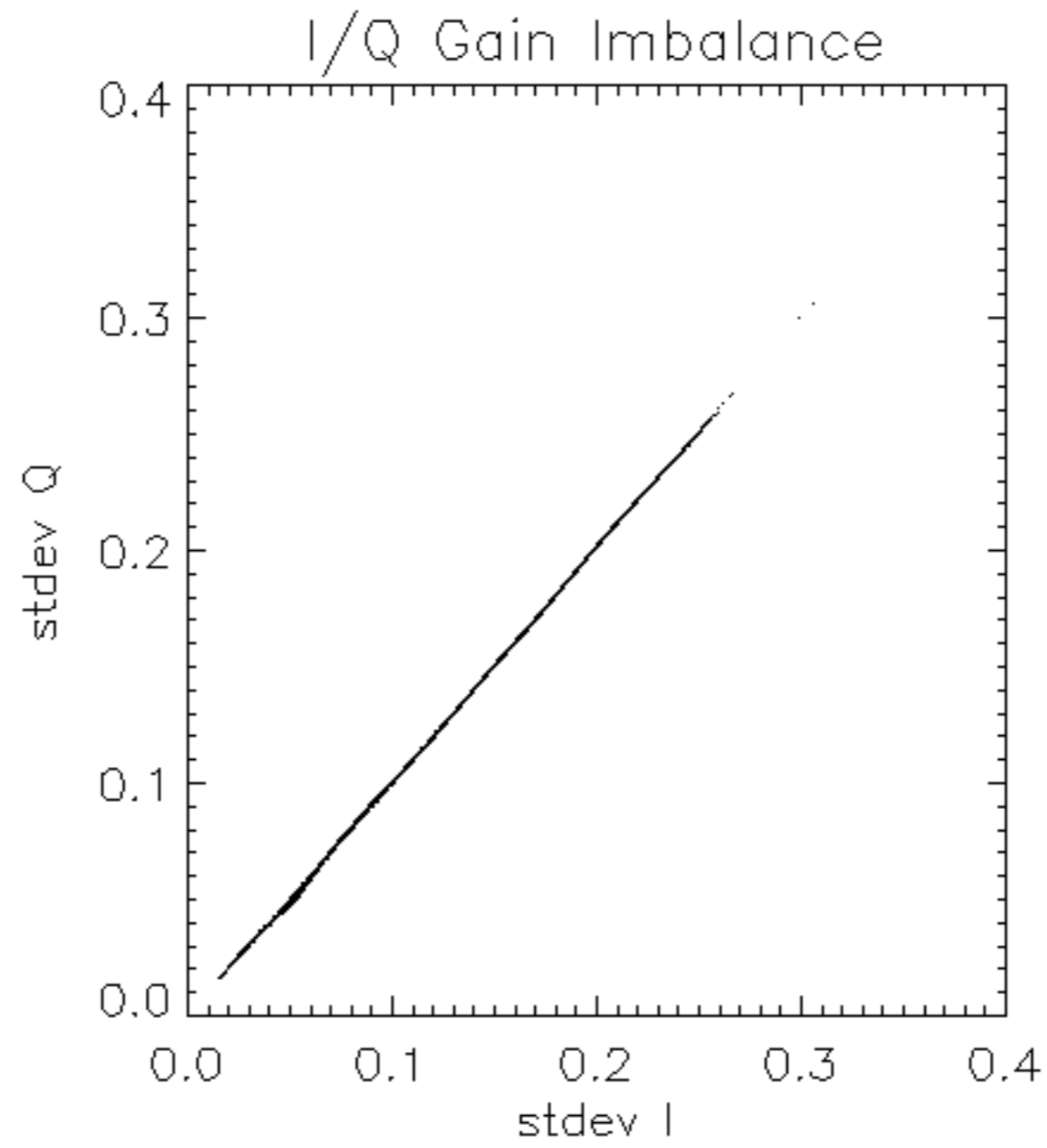


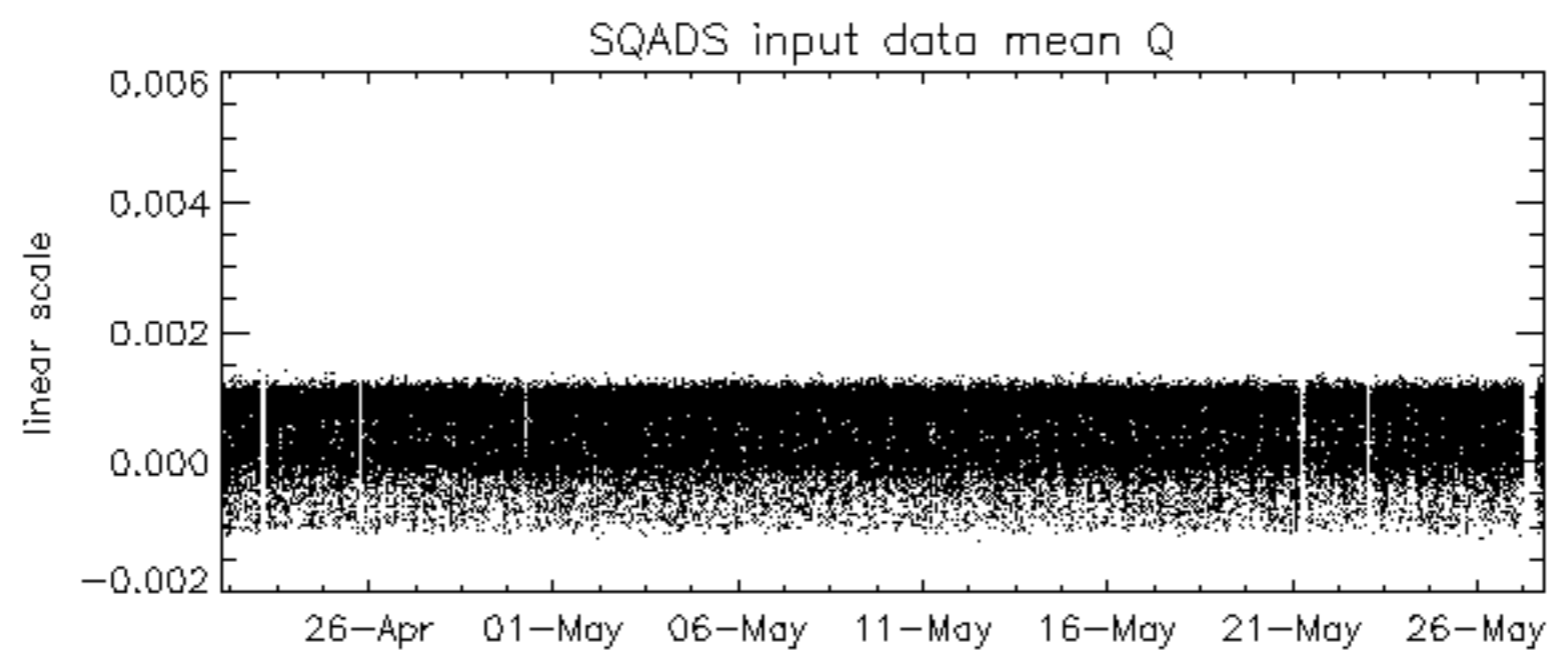
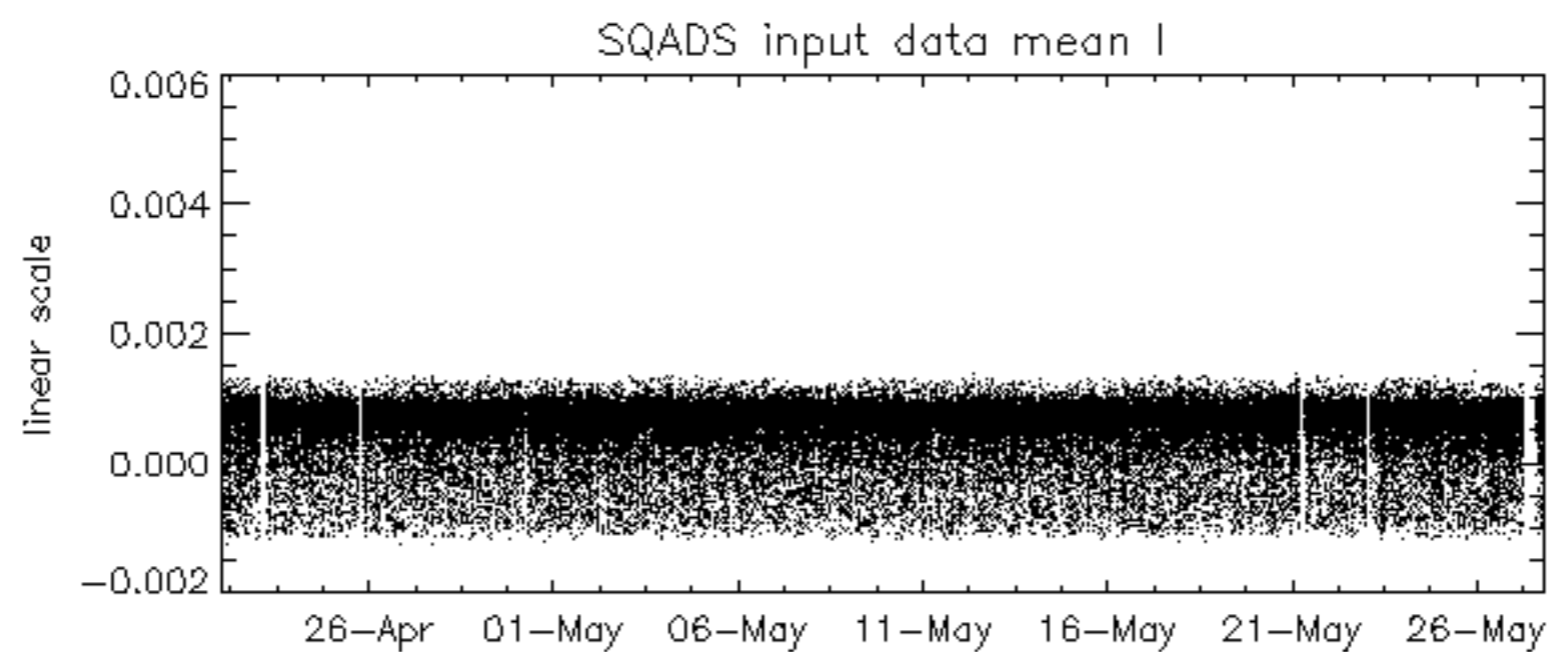
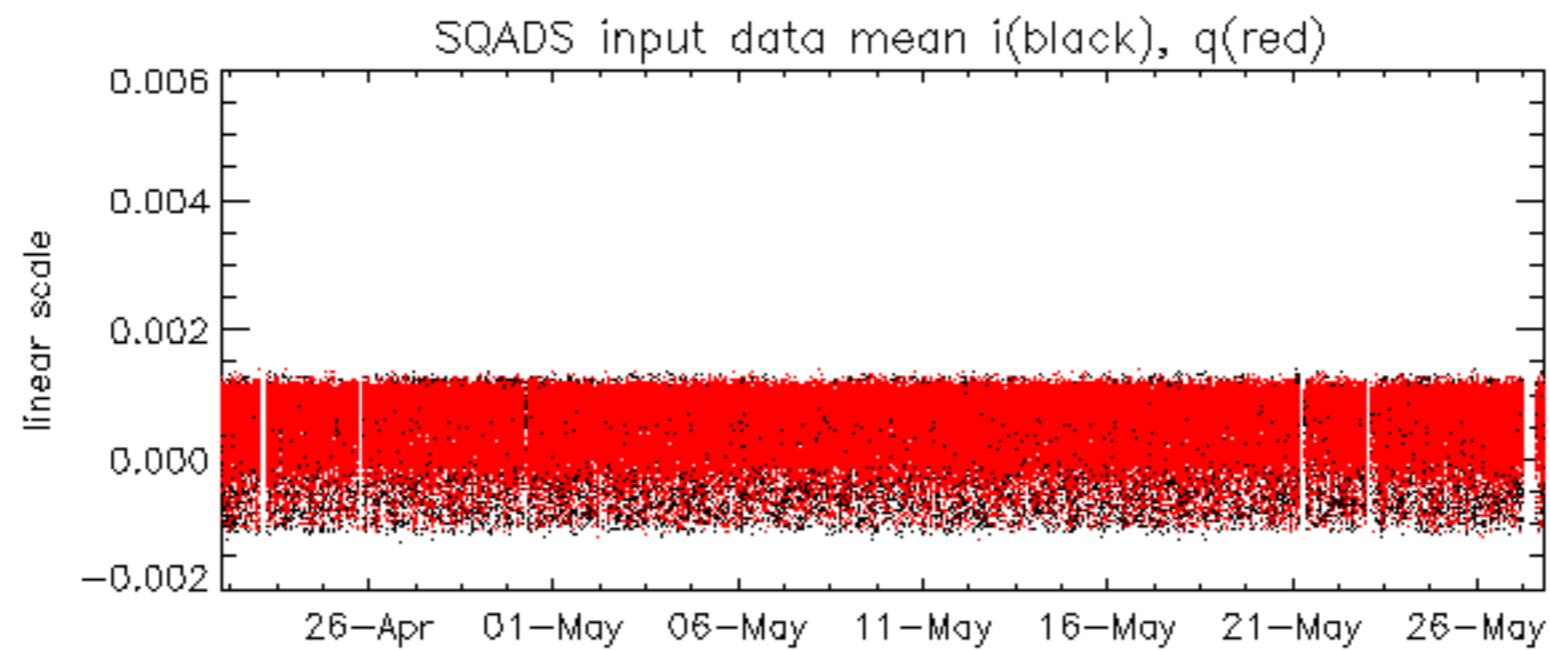


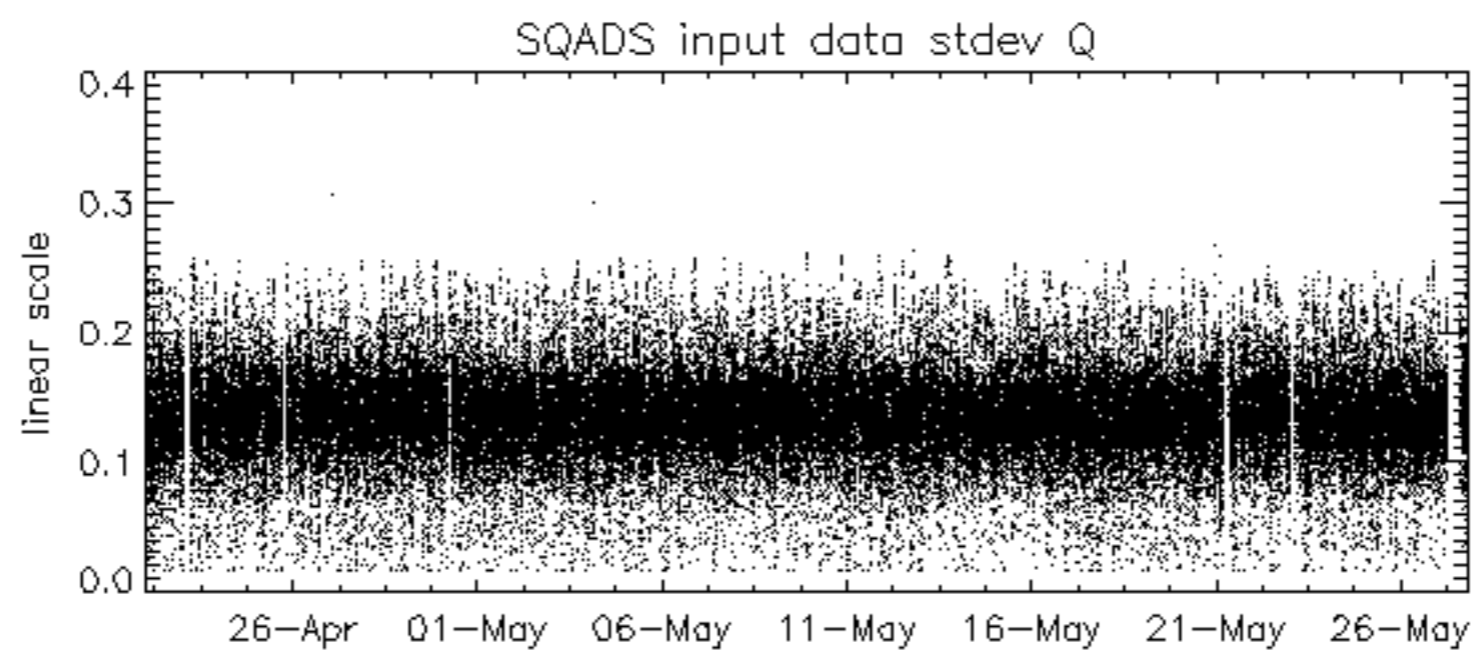
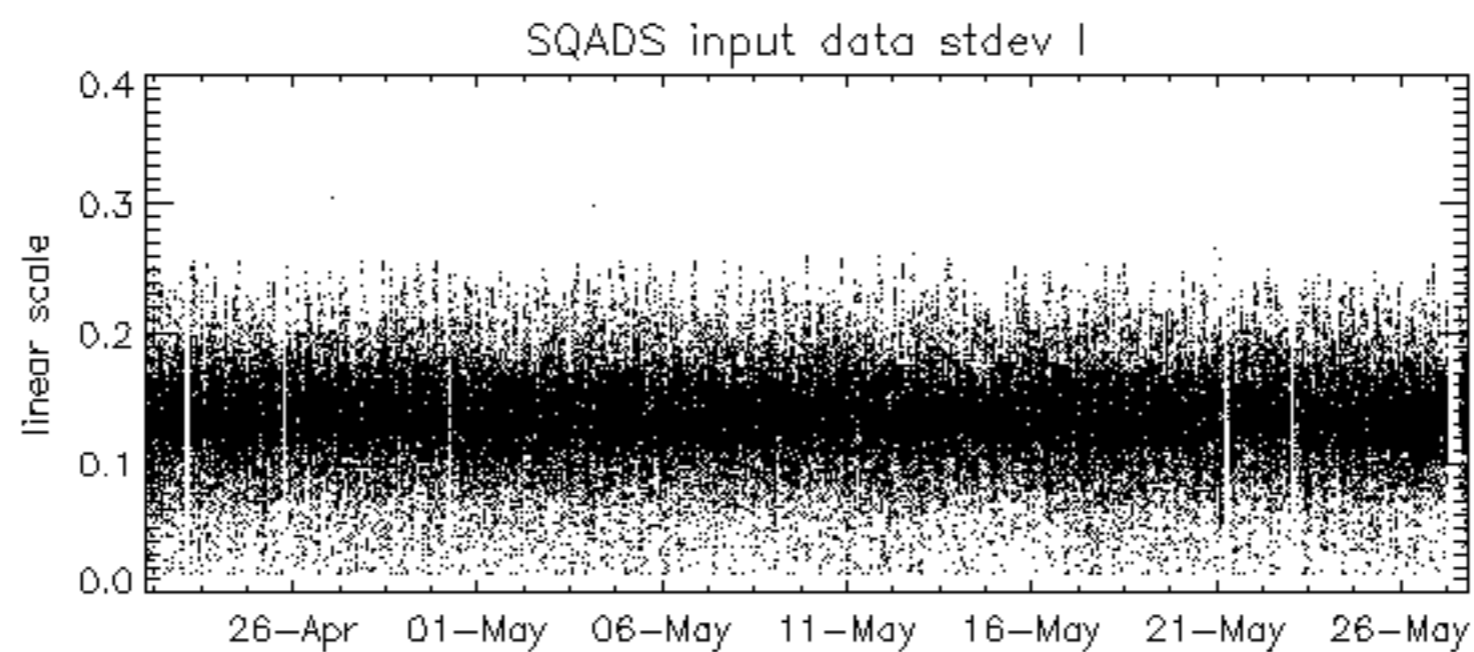
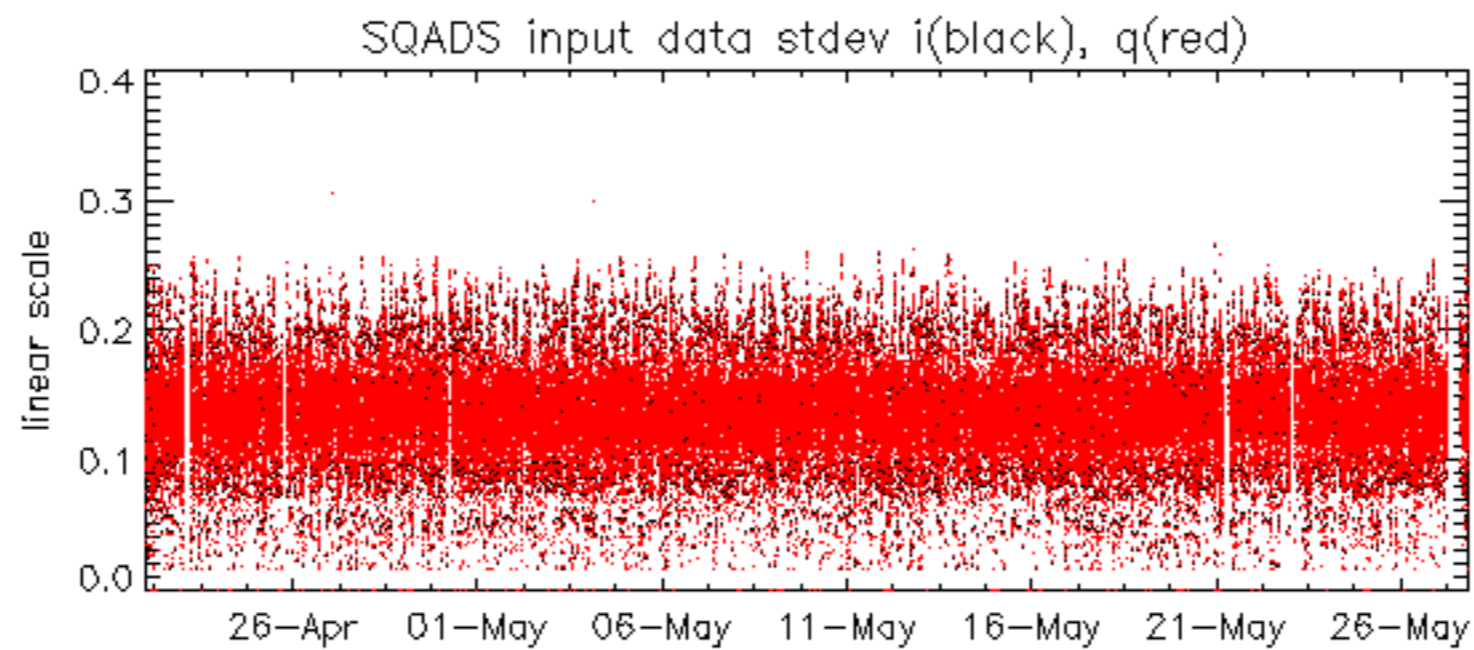




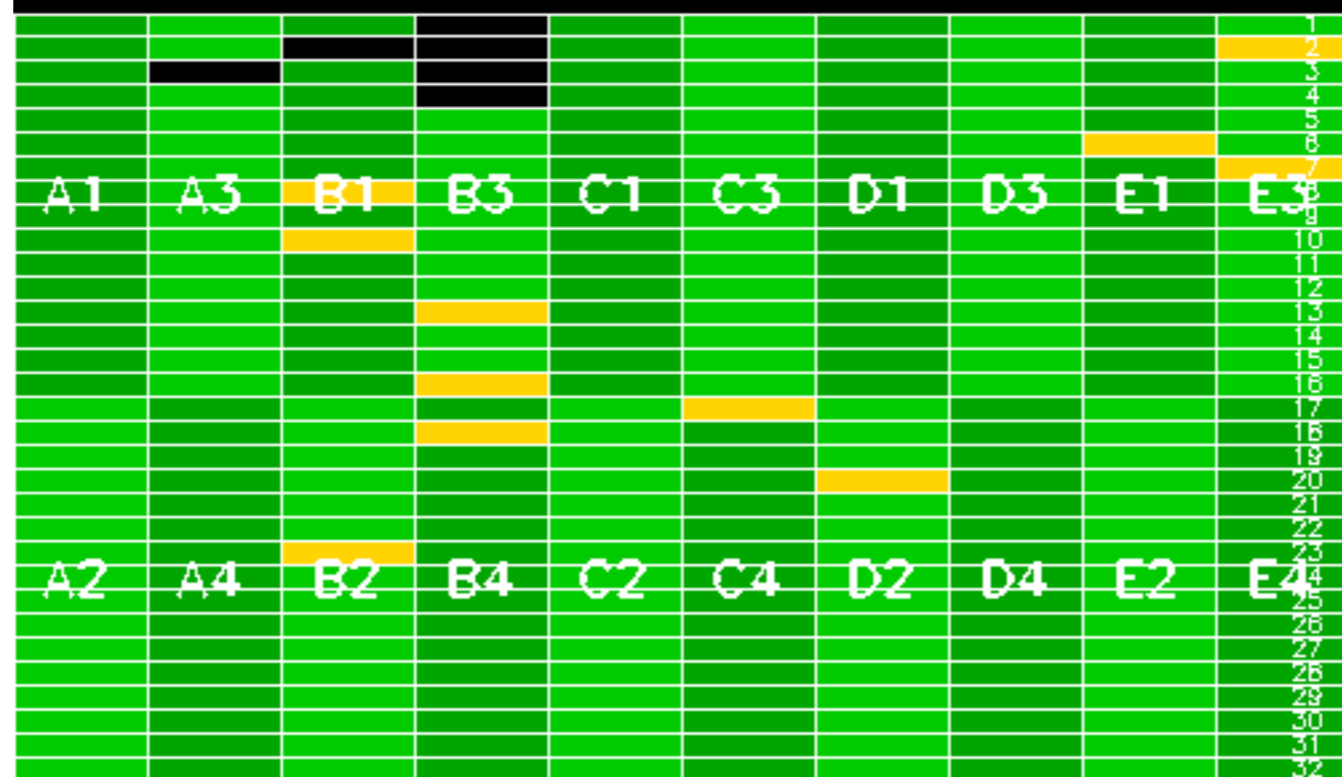


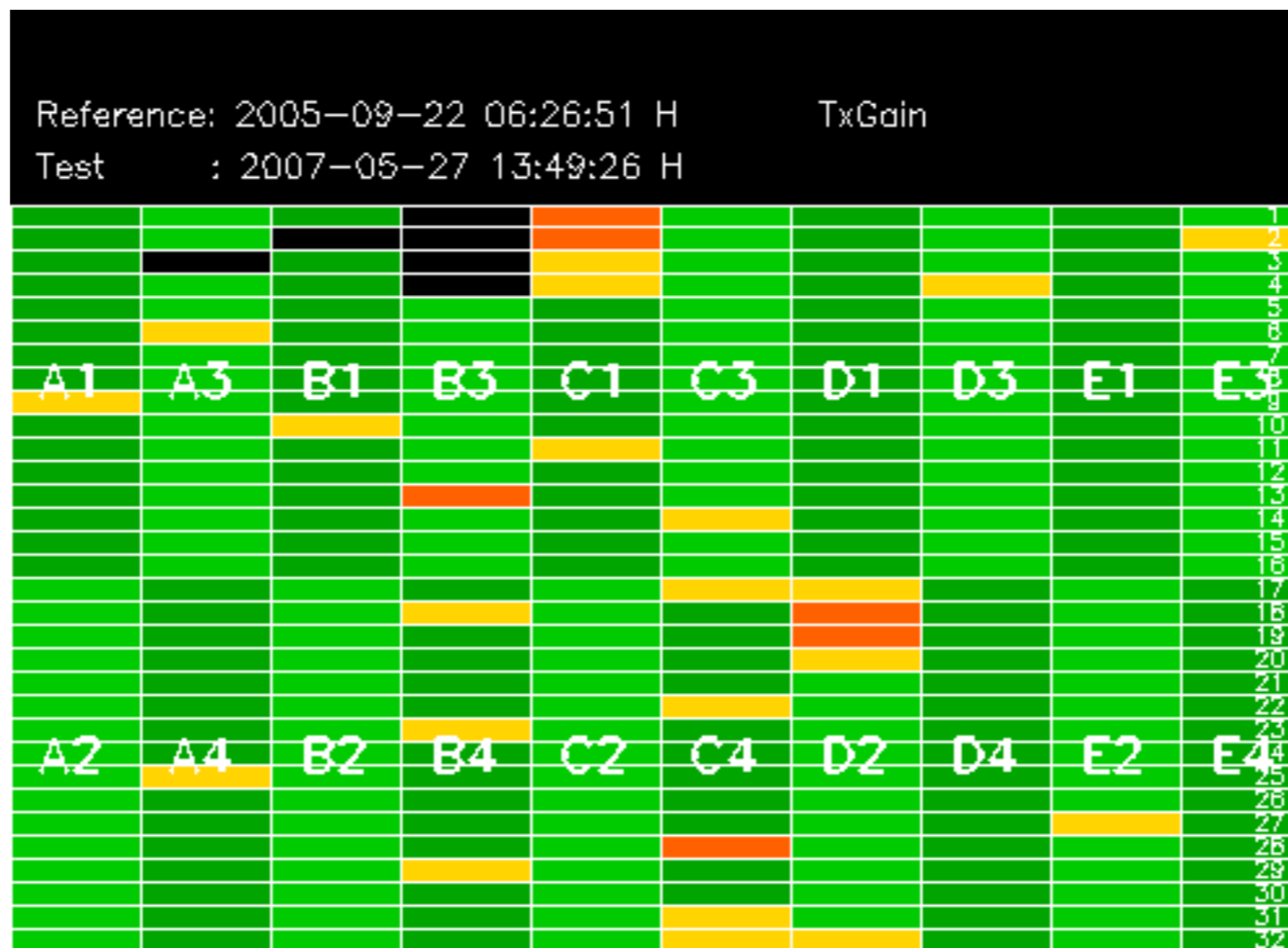






Reference: 2005-09-22 06:26:51 H TxGain
 Test : 2007-05-26 03:02:43 H

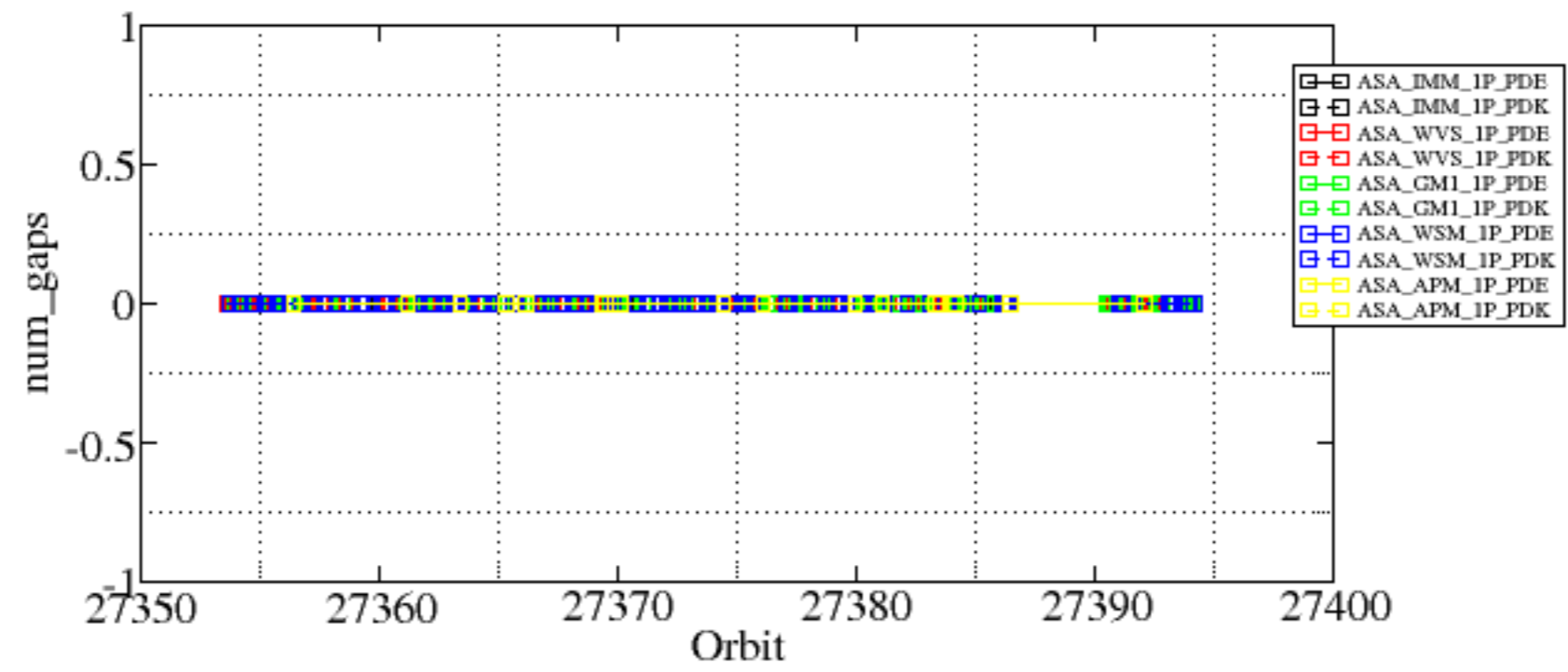


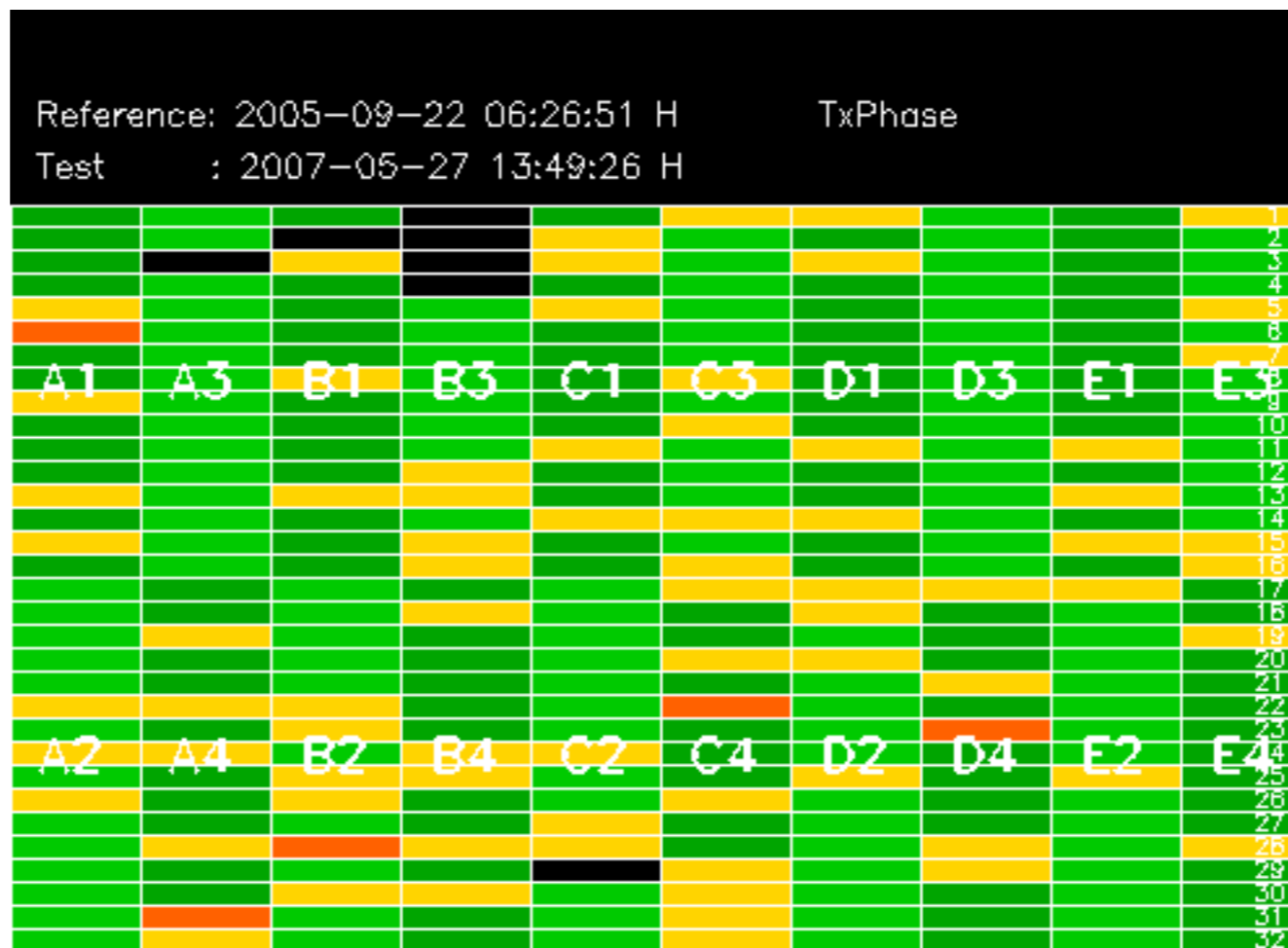


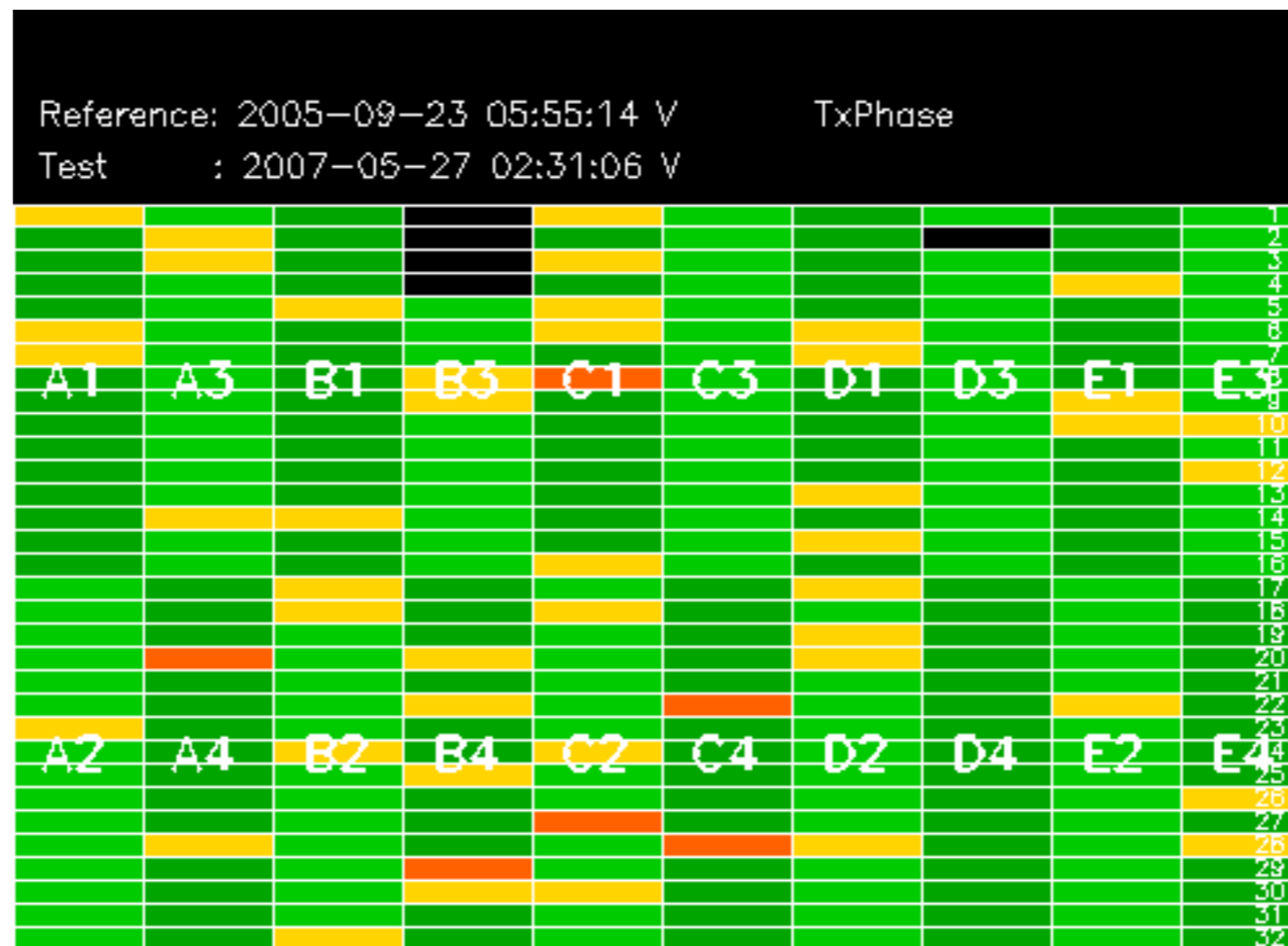
Summary of analysis for the last 3 days 2007052[567]

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

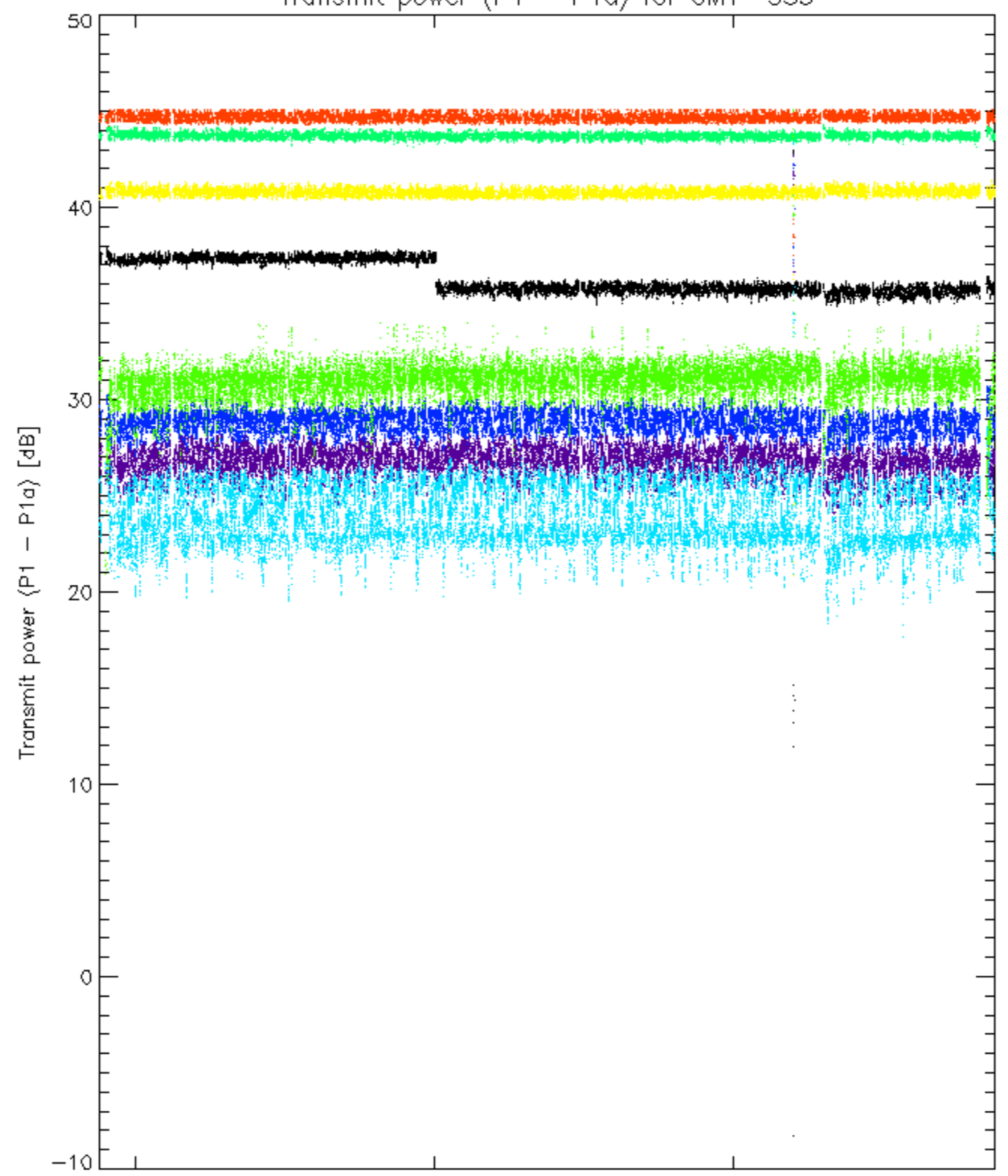
Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20070526_185316_000003922058_00271_27379_4817.N1	0	13
ASA_WSM_1PNPDE20070525_155729_000001402058_00255_27363_9917.N1	0	2
ASA_WSM_1PNPDE20070526_184608_000001832058_00271_27379_2294.N1	0	57
ASA_WSM_1PNPDE20070526_184608_000002442058_00271_27379_2312.N1	0	57
ASA_WSM_1PNPDE20070527_145124_000000852058_00283_27391_2341.N1	0	31
ASA_WSM_1PNPDE20070527_181431_000001522058_00285_27393_2398.N1	0	57



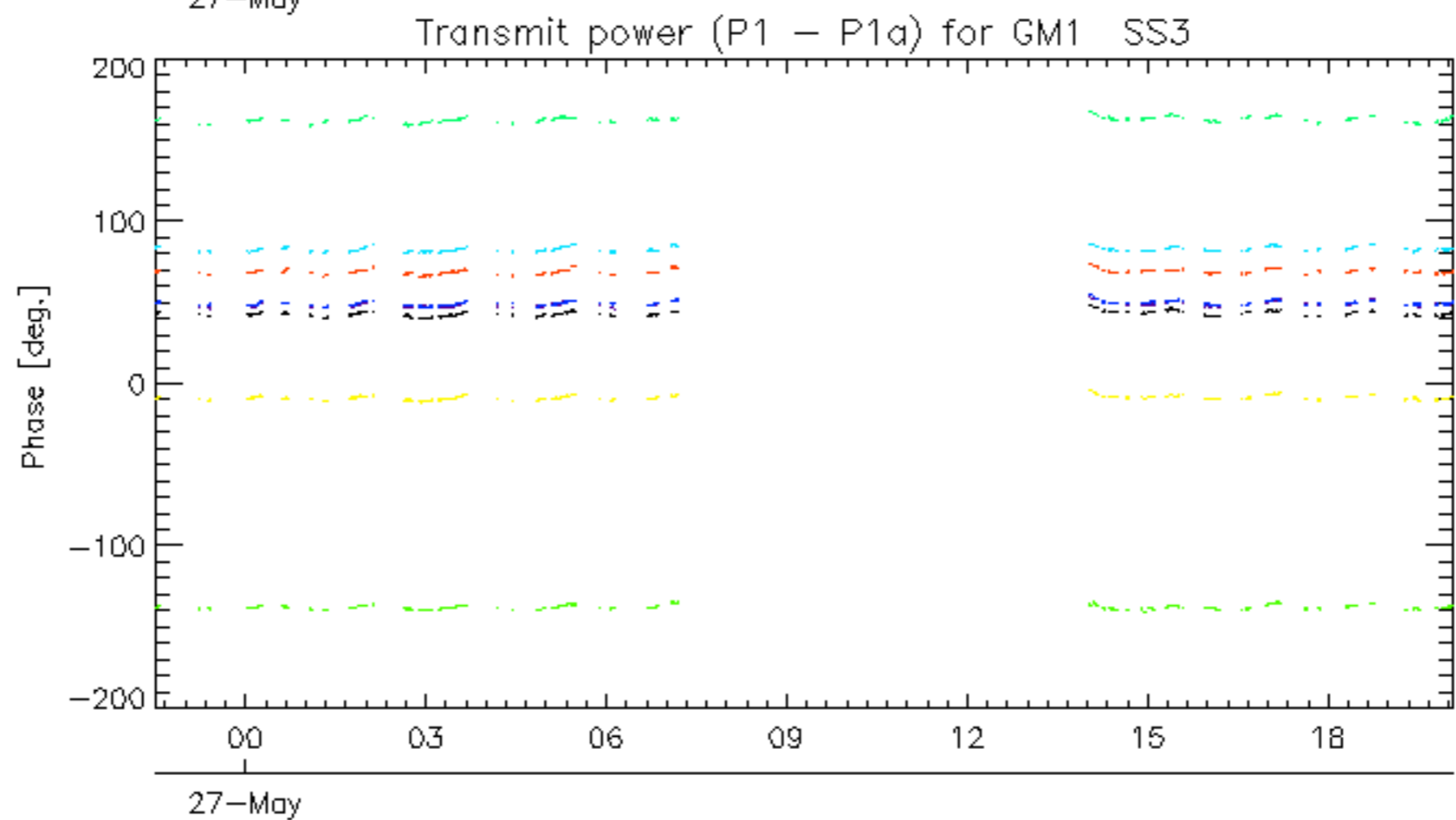
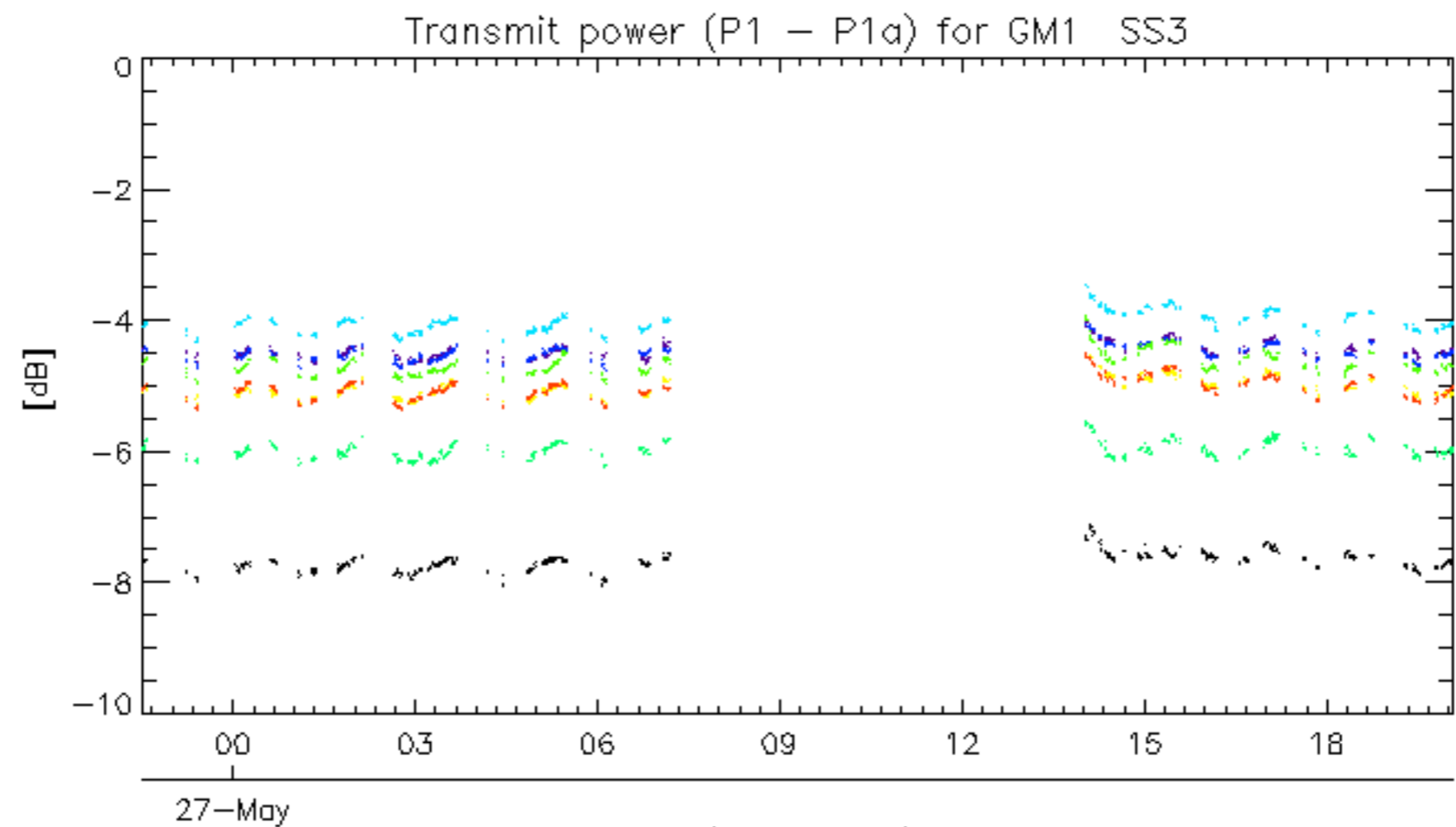




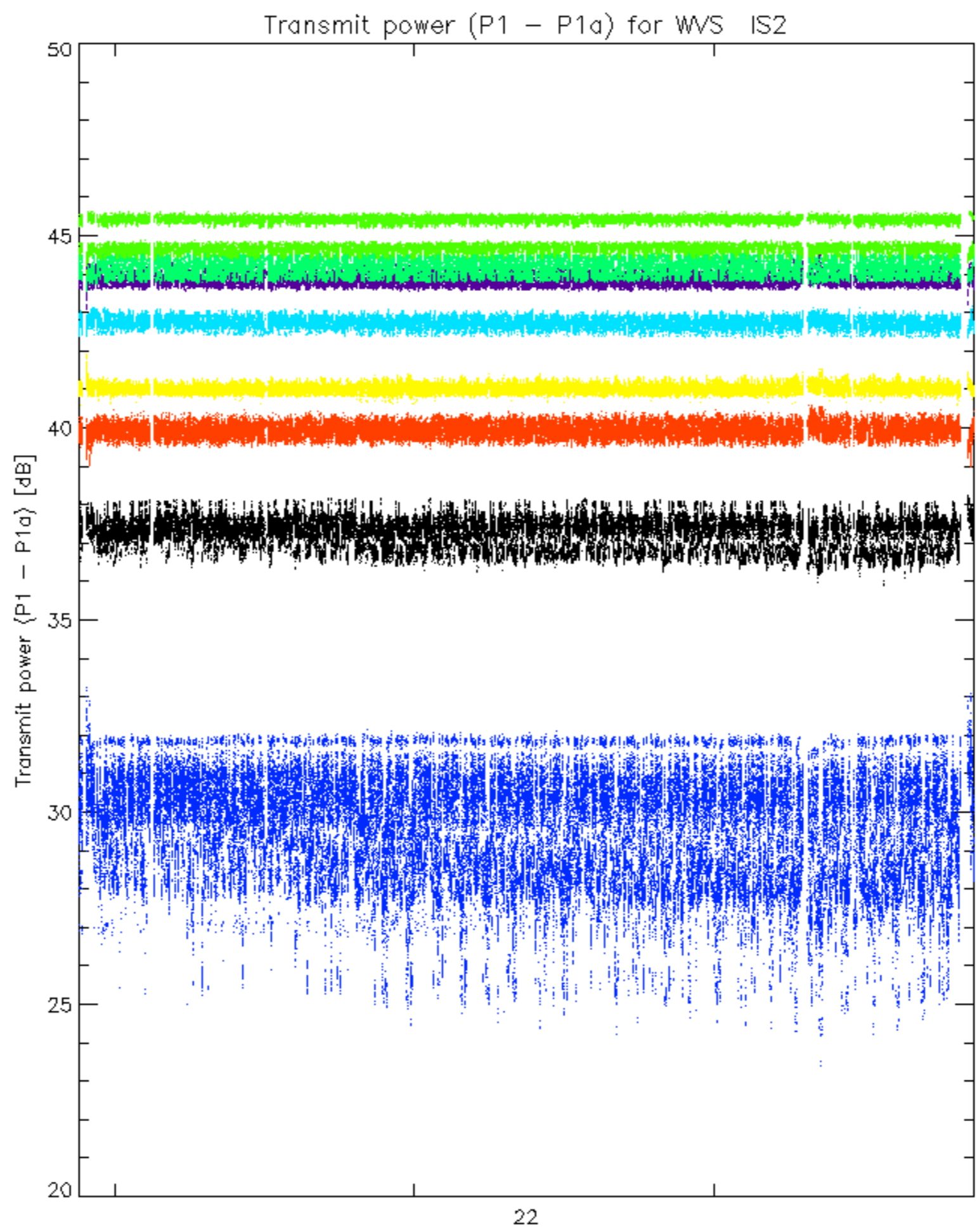
Transmit power (P1 - P1a) for GM1 SS3



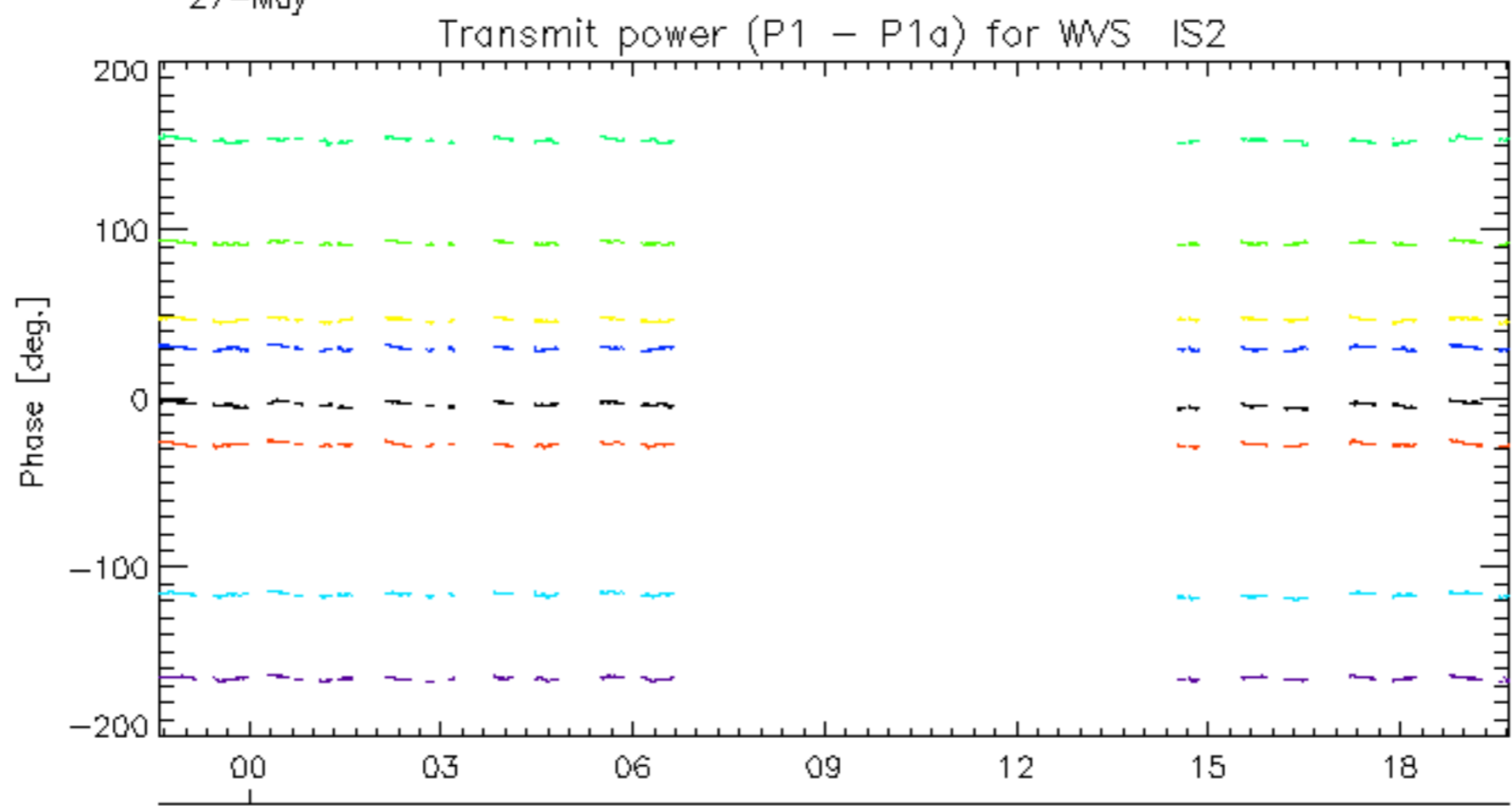
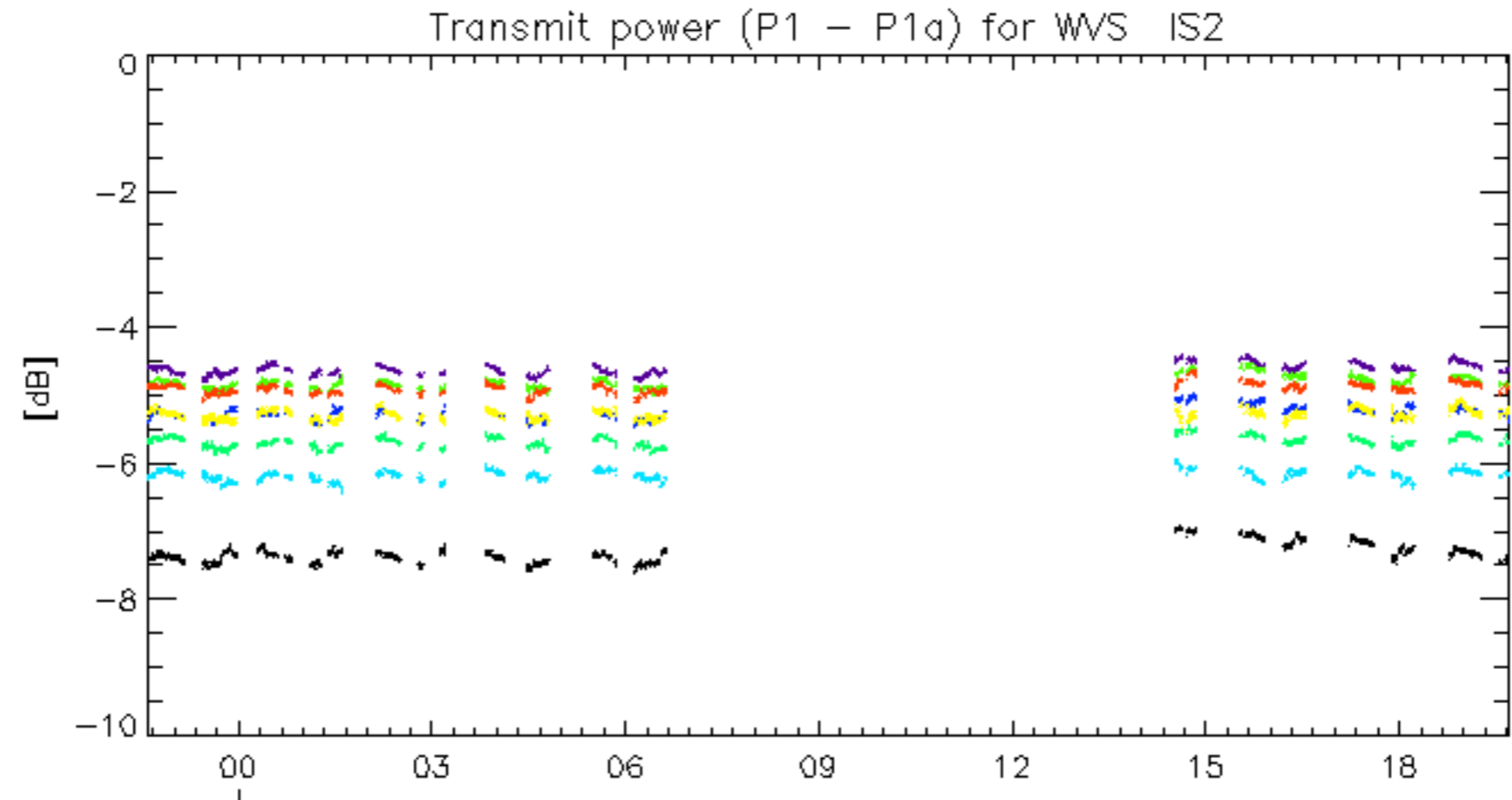
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.