

PRELIMINARY REPORT OF 070520

last update on Sun May 20 23:45:44 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 2007-05-19 00:00:00 to 2007-05-20 23:45:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	45	98	13	4	36
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	45	98	13	4	36
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	45	98	13	4	36
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	98	13	4	36

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	42	67	26	9	69
ASA_XCA_AXVIEC20070517_153558_20070204_165113_20071231_000000	42	67	26	9	69
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	42	67	26	9	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	67	26	9	69

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	20070519 064401
H	20070520 061224

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	-15.220084	0.131025	-0.272207
7	P1a	-17.598385	0.072213	-0.074519
11	P1a	-17.719307	0.344603	-0.247703
15	P1a	-13.147524	0.152171	-0.215317
19	P1a	-15.434532	0.067970	-0.097138
22	P1a	-15.992281	0.349107	-0.043005
26	P1a	-14.953270	0.212847	-0.030561
30	P1a	-17.970583	0.413059	-0.464913

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.784022	0.010025	-0.018242
7	P1	-3.165210	0.008561	-0.045201
11	P1	-4.193976	0.017048	0.053123
15	P1	-6.463669	0.019643	-0.087621
19	P1	-3.778049	0.012032	-0.008304
22	P1	-4.741771	0.011095	0.034071
26	P1	-3.909497	0.018084	-0.019711
30	P1	-5.962772	0.009317	0.007807

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.653461	0.093526	0.018897
7	P2	-21.509409	0.094017	0.096785
11	P2	-15.286229	0.122263	0.082635
15	P2	-7.133079	0.091324	-0.004103
19	P2	-9.121717	0.083130	-0.016871
22	P2	-18.085945	0.078118	-0.003524
26	P2	-16.651117	0.084872	-0.059504
30	P2	-19.250923	0.084303	0.054528

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.244964	0.004678	0.002495
7	P3	-8.244964	0.004678	0.002495
11	P3	-8.244964	0.004678	0.002495
15	P3	-8.244964	0.004678	0.002495
19	P3	-8.244964	0.004678	0.002495
22	P3	-8.244964	0.004678	0.002495
26	P3	-8.244945	0.004684	0.002667
30	P3	-8.244945	0.004684	0.002667

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	-11.475862	0.202992	-0.850001
7	P1a	-10.032154	0.211437	0.126261
11	P1a	-10.689880	0.100580	-0.022182
15	P1a	-10.786947	0.167166	0.107071
19	P1a	-15.858410	0.108926	-0.145525
22	P1a	-21.490152	1.388471	-0.049575
26	P1a	-15.560009	0.326947	-0.053506
30	P1a	-18.264963	0.431005	0.018565

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-7.981731	0.373529	1.631173
7	P1	-2.378836	0.130876	0.086776
11	P1	-2.872179	0.025782	0.024929
15	P1	-3.796423	0.040300	0.046053
19	P1	-3.605686	0.018623	-0.051478
22	P1	-4.945886	0.023974	0.034139
26	P1	-6.058337	0.027041	-0.057121
30	P1	-5.355610	0.035241	-0.047752

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.208323	0.097249	-0.057487
7	P2	-22.054214	0.272968	-0.048303
11	P2	-10.655764	0.063118	-0.049594
15	P2	-4.958943	0.045366	-0.078772
19	P2	-6.881569	0.045444	-0.028150
22	P2	-8.110230	0.105572	-0.008215
26	P2	-24.344019	0.183367	-0.076826
30	P2	-21.698824	0.128238	0.001252

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.092305	0.005165	-0.003200
7	P3	-8.092209	0.005167	-0.002720
11	P3	-8.092255	0.005158	-0.003213
15	P3	-8.092204	0.005164	-0.003427
19	P3	-8.092224	0.005171	-0.003271
22	P3	-8.092184	0.005167	-0.003396
26	P3	-8.092195	0.005171	-0.003709
30	P3	-8.092183	0.005164	-0.003573

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	0.000550450
	stdev	1.91764e-07
MEAN Q	mean	0.000510529
	stdev	2.37355e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136012
	stdev	0.00116998
STDEV Q	mean	0.136396
	stdev	0.00118691



5.3 - Gain imbalance I/Q





6 - Telemetry analysis

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

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
<input type="checkbox"/>	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)	
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	Ascending
<input type="checkbox"/>	
	Descending

7.5 - Absolute Doppler for GM1

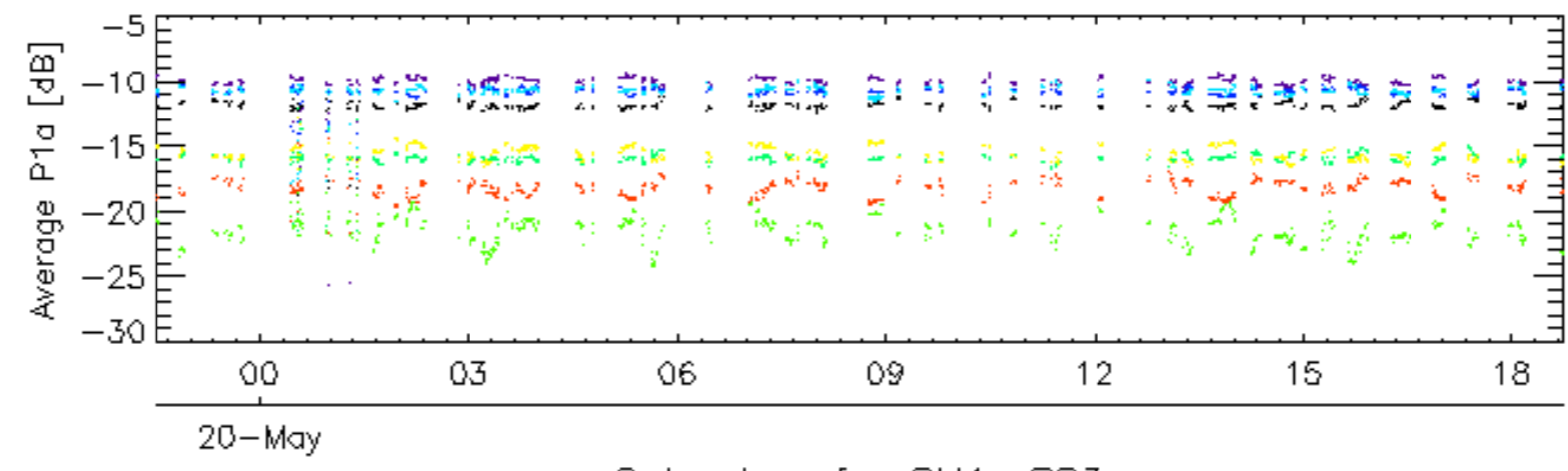
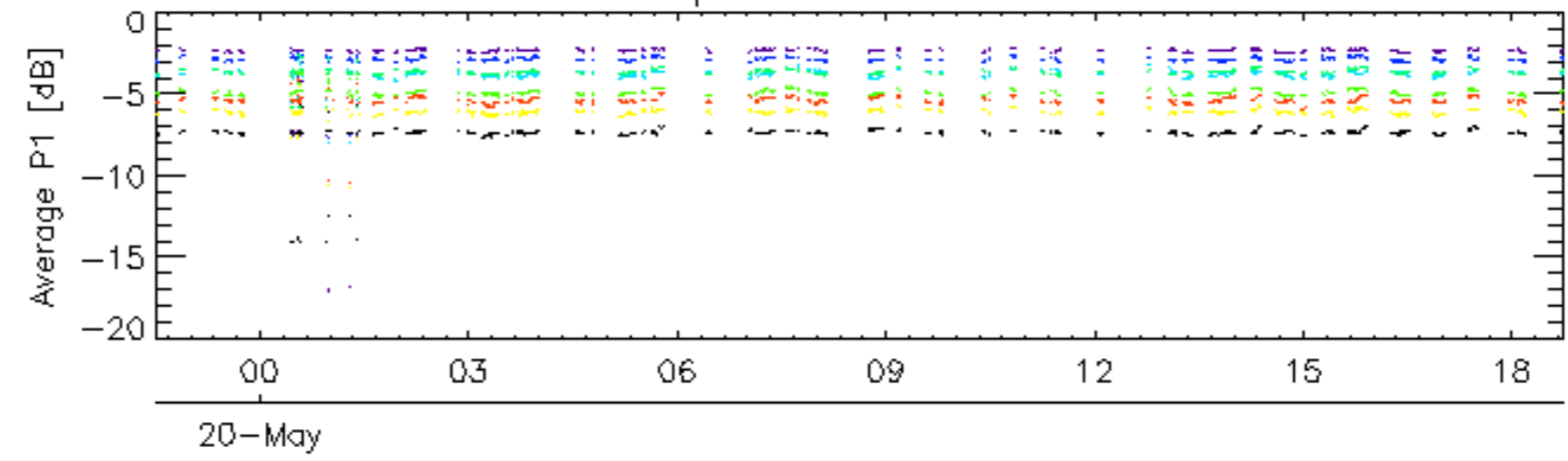
Evolution of Absolute Doppler	
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	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

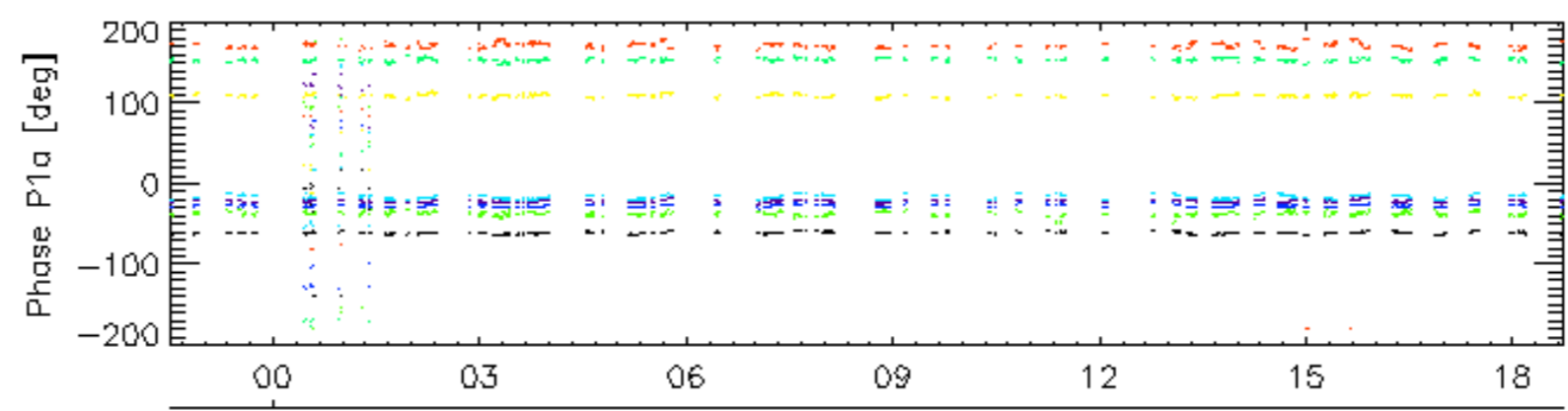
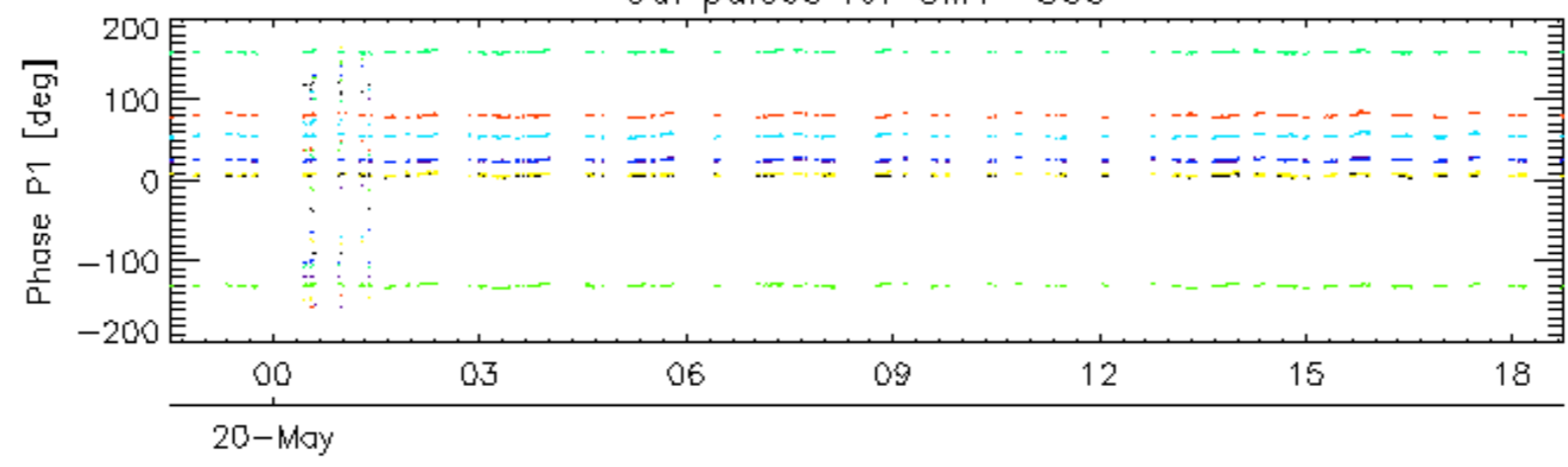
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

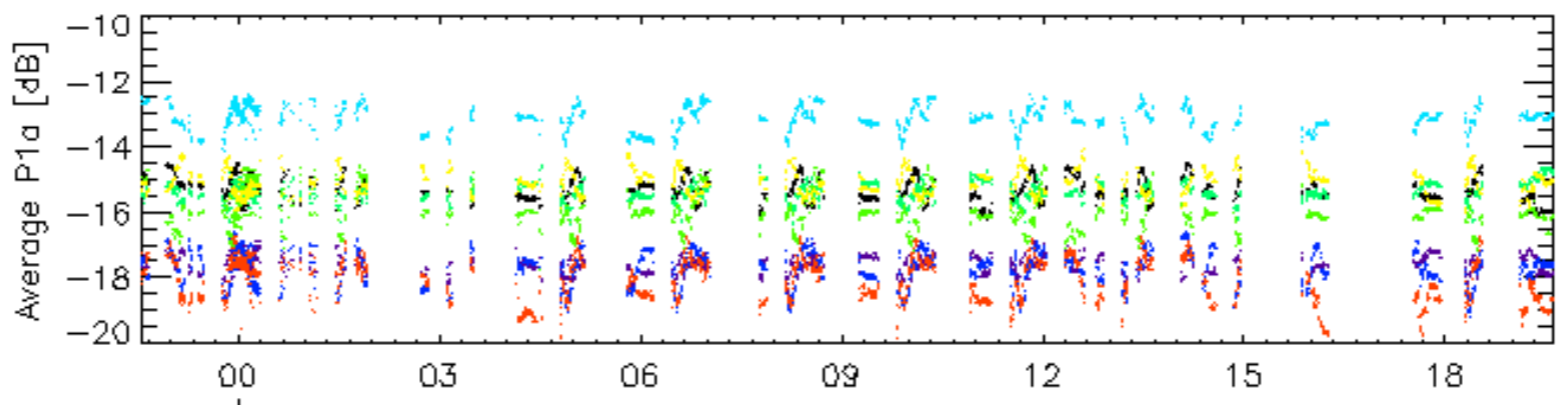
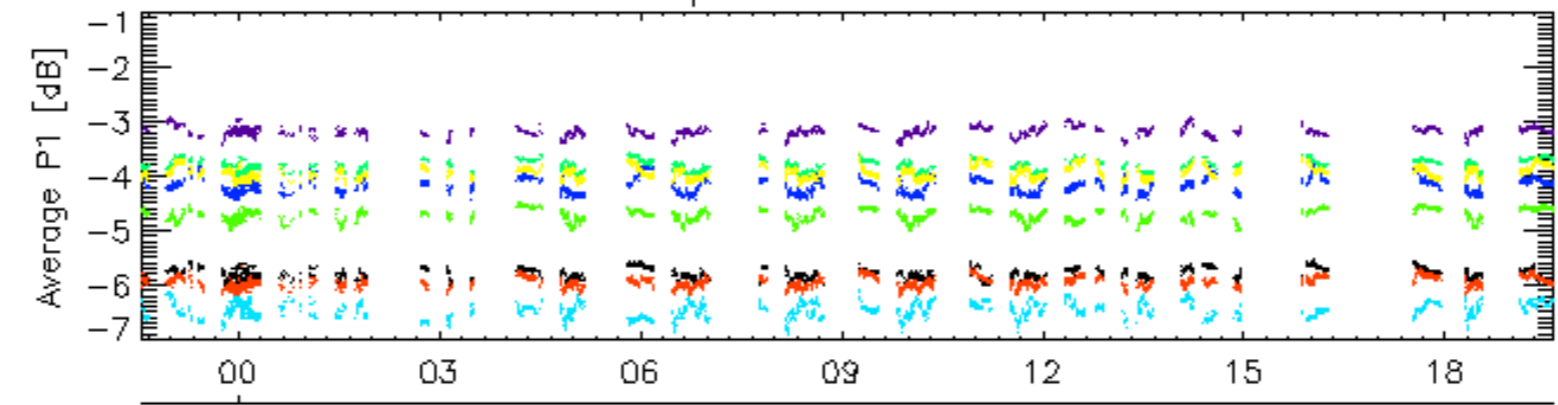


Cal pulses for GM1 SS3

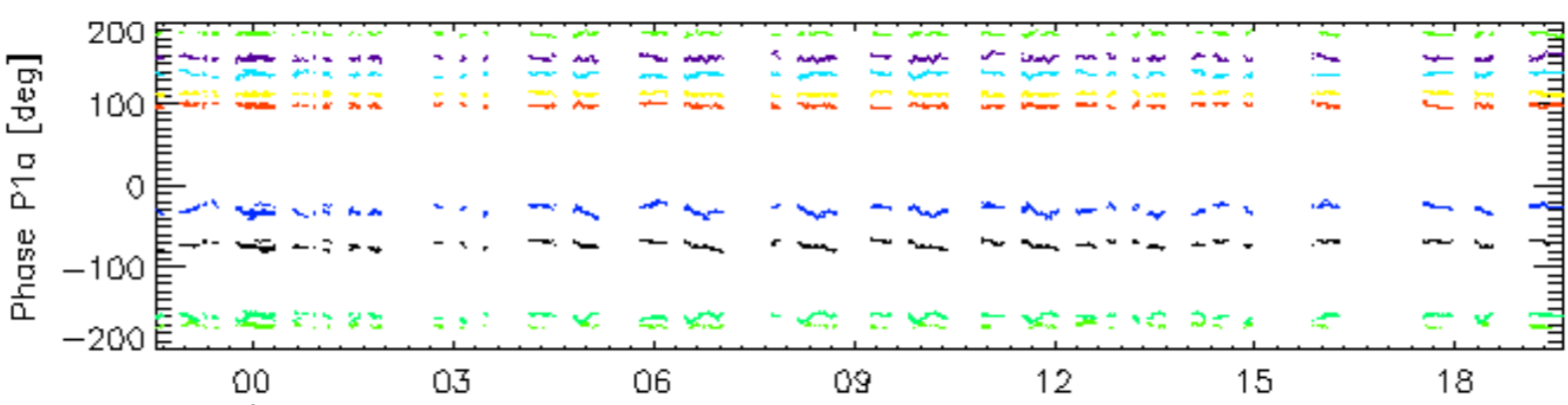
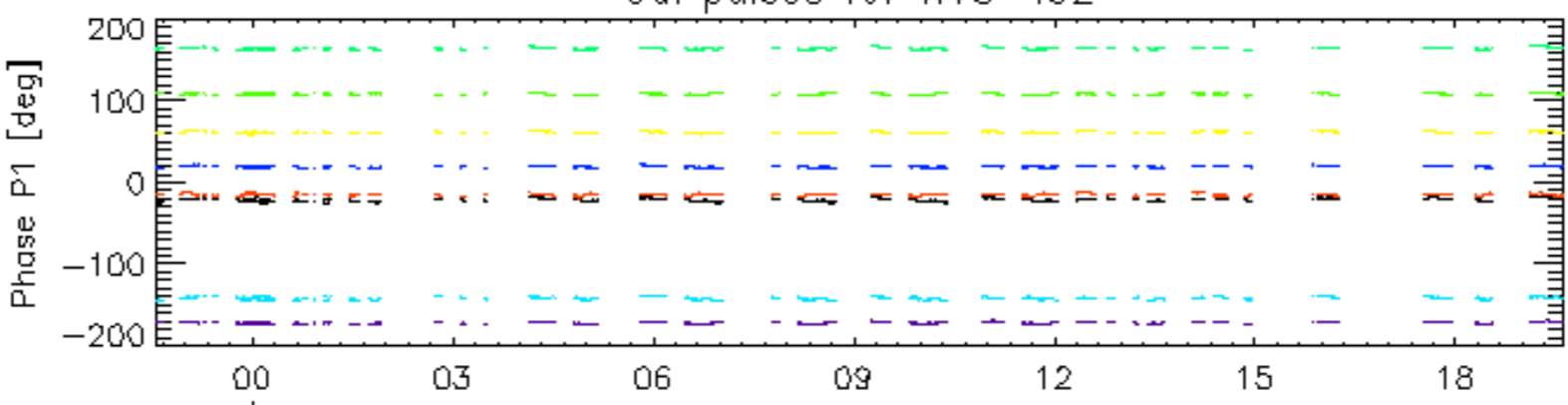


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

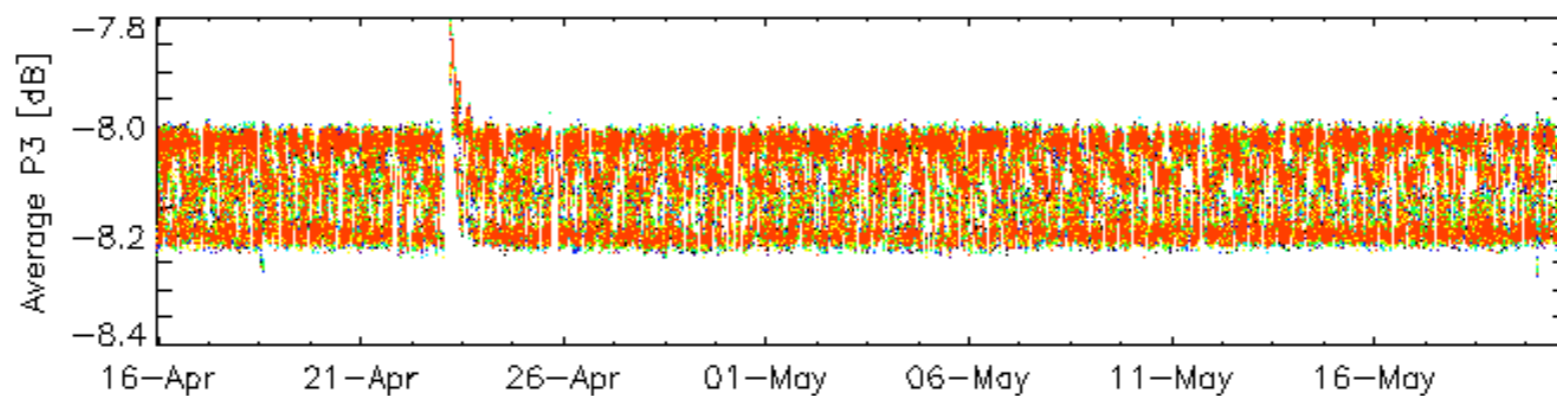
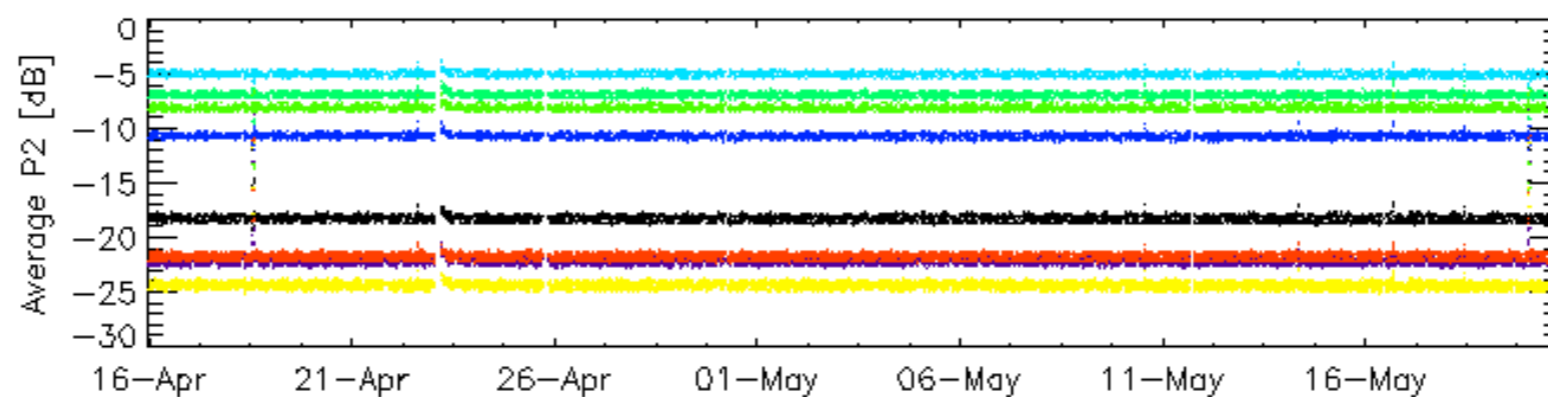
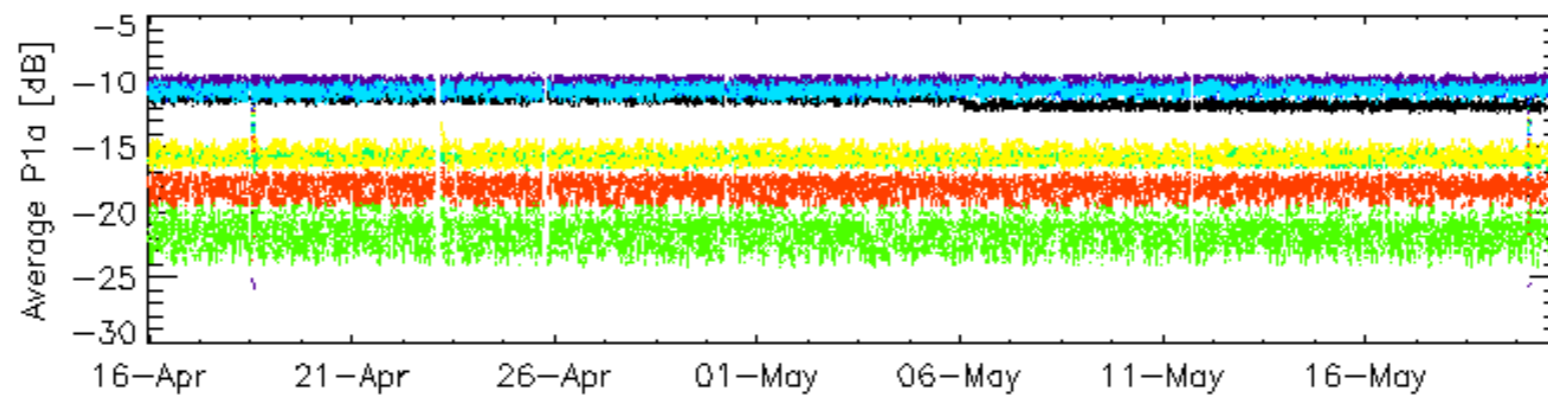
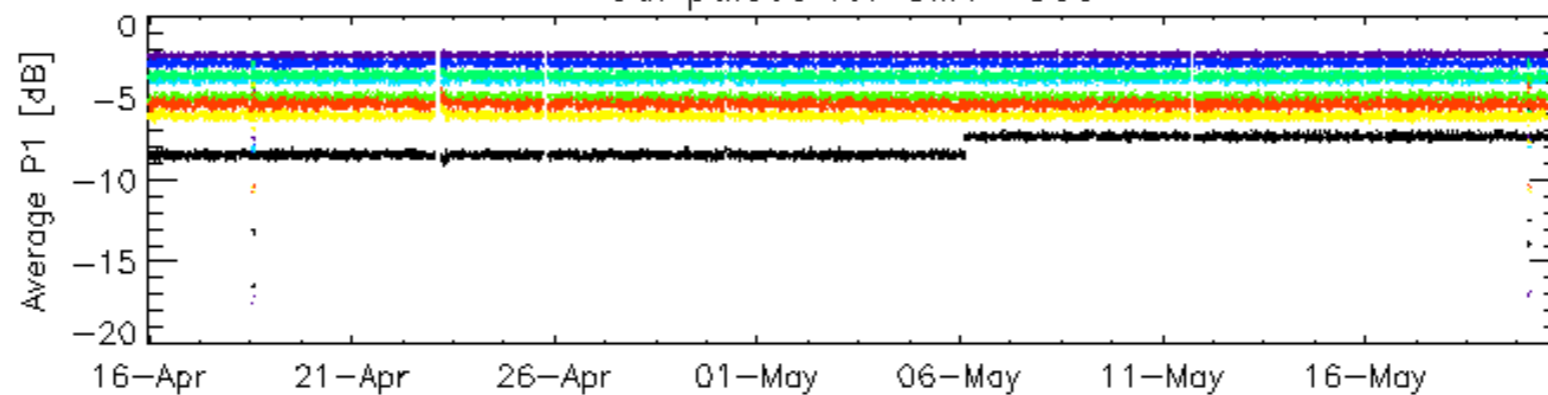


Cal pulses for WVS IS2



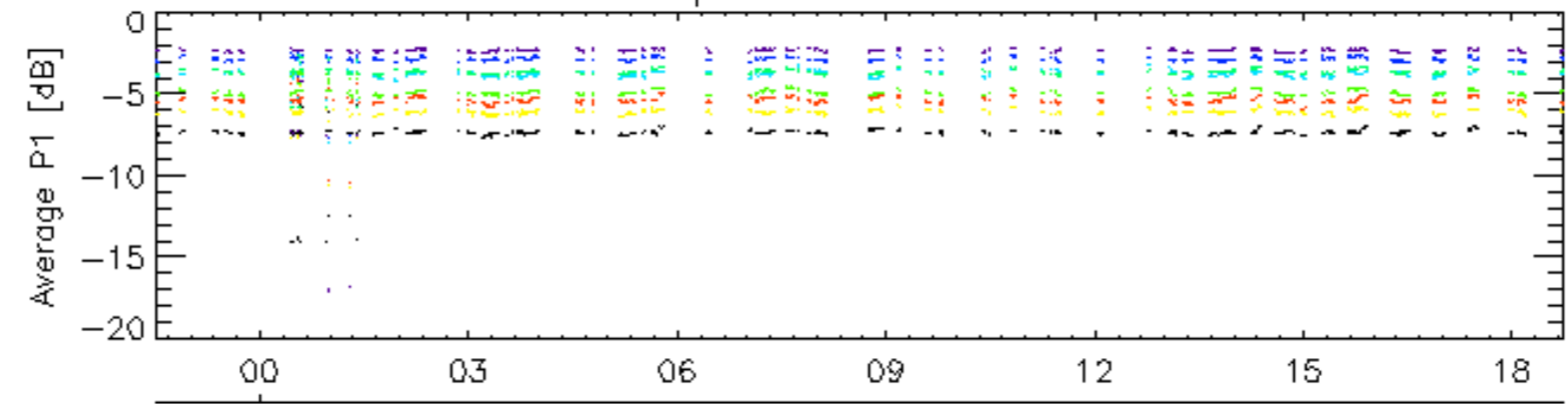
rows: 20-May
3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

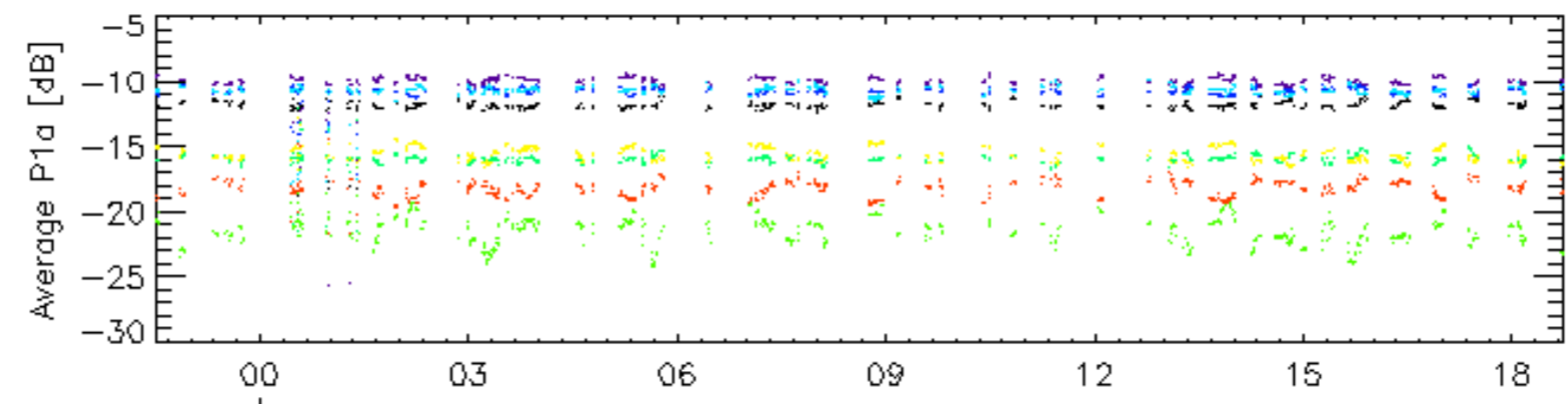


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

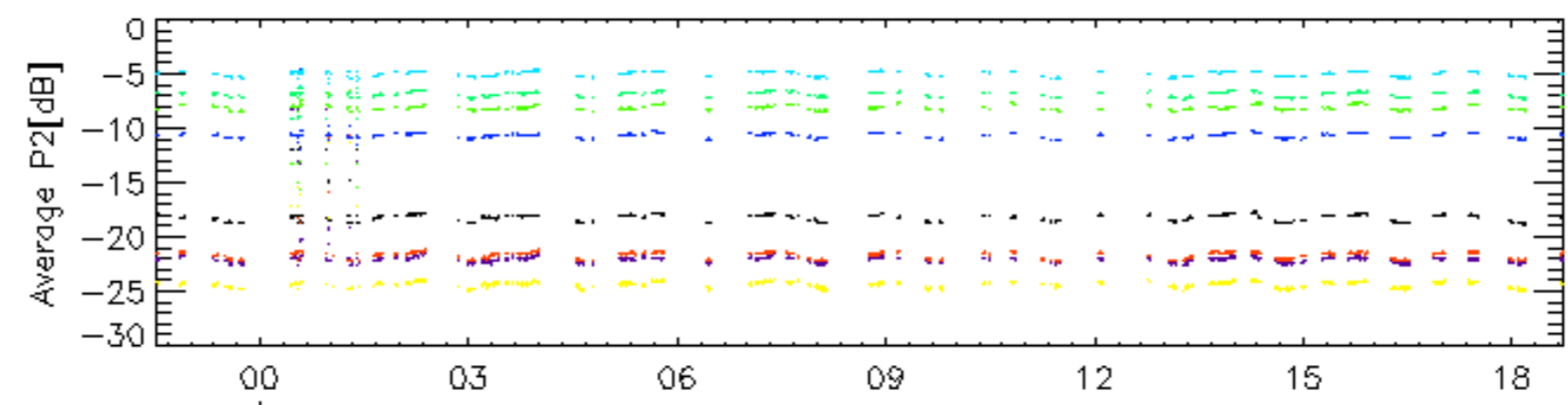
Cal pulses for GM1 SS3



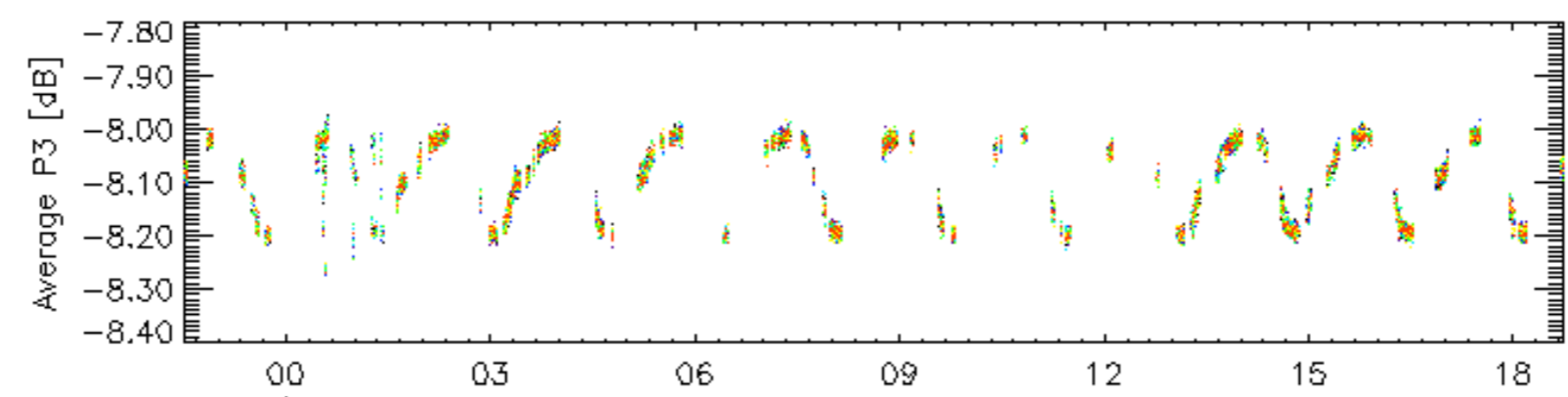
20-May



20-May

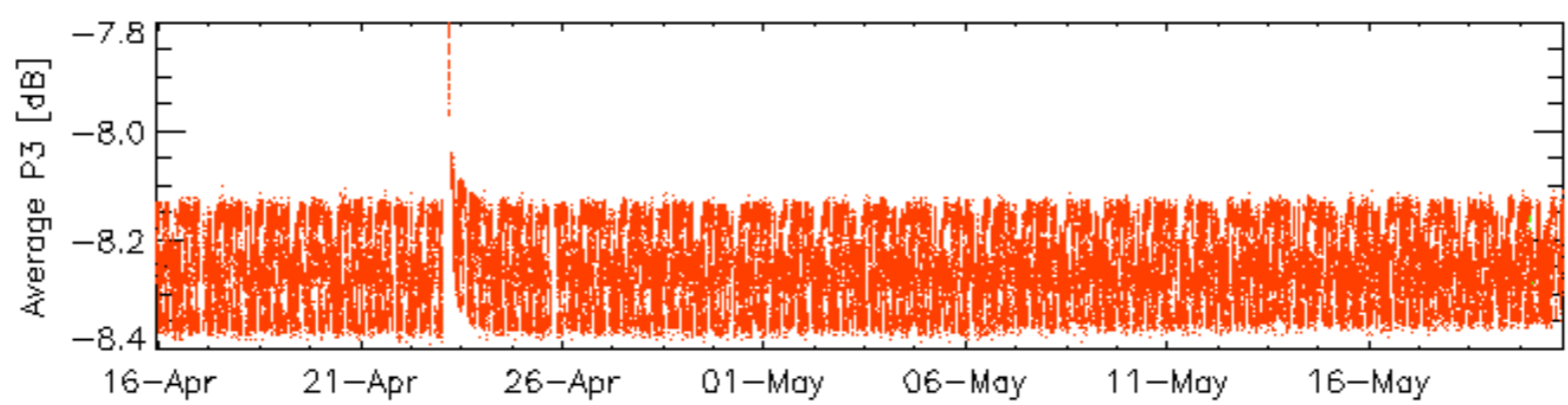
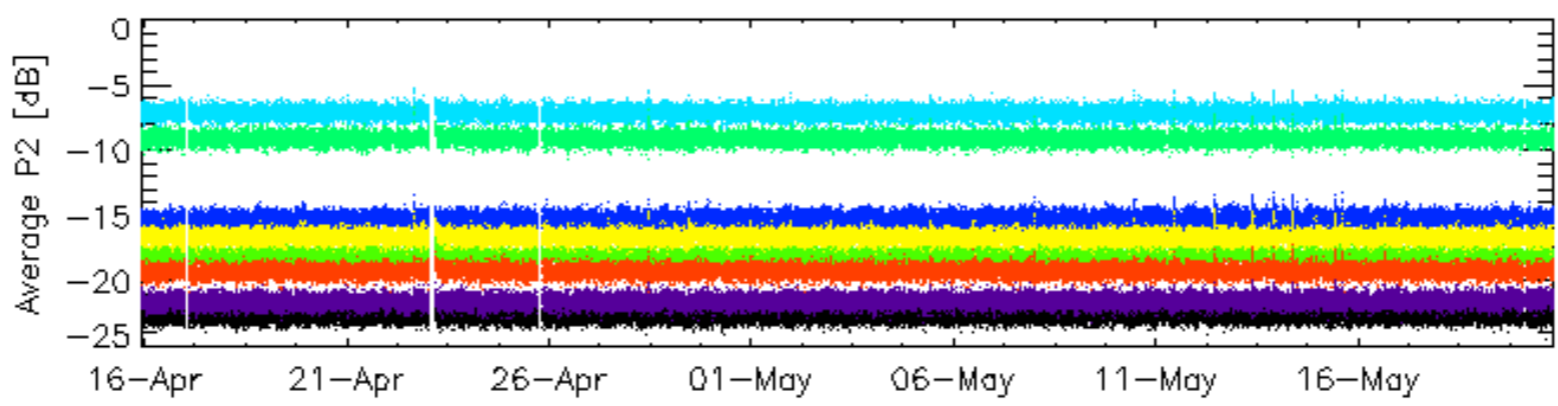
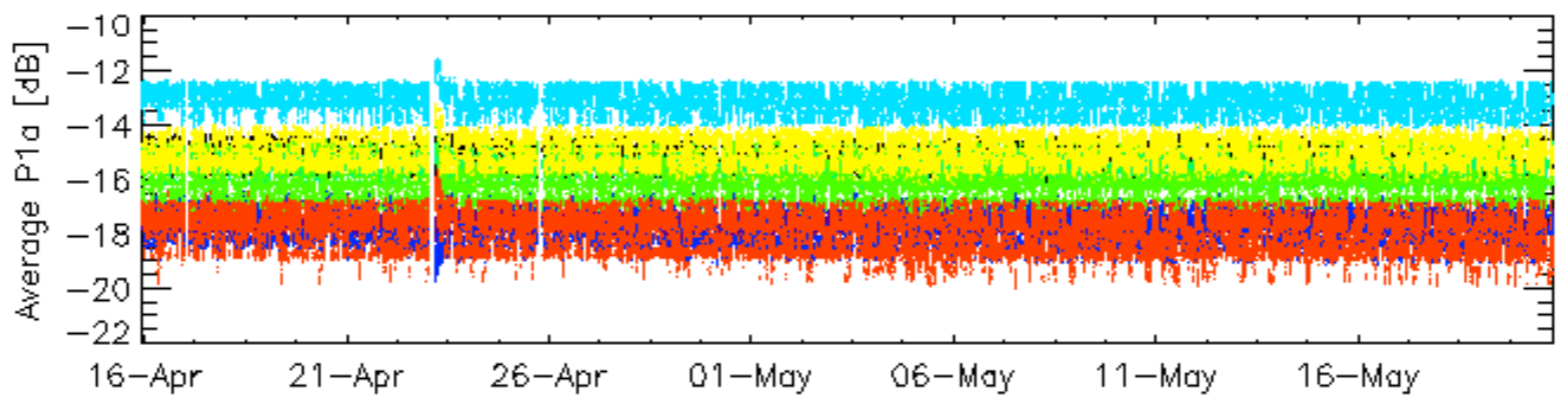
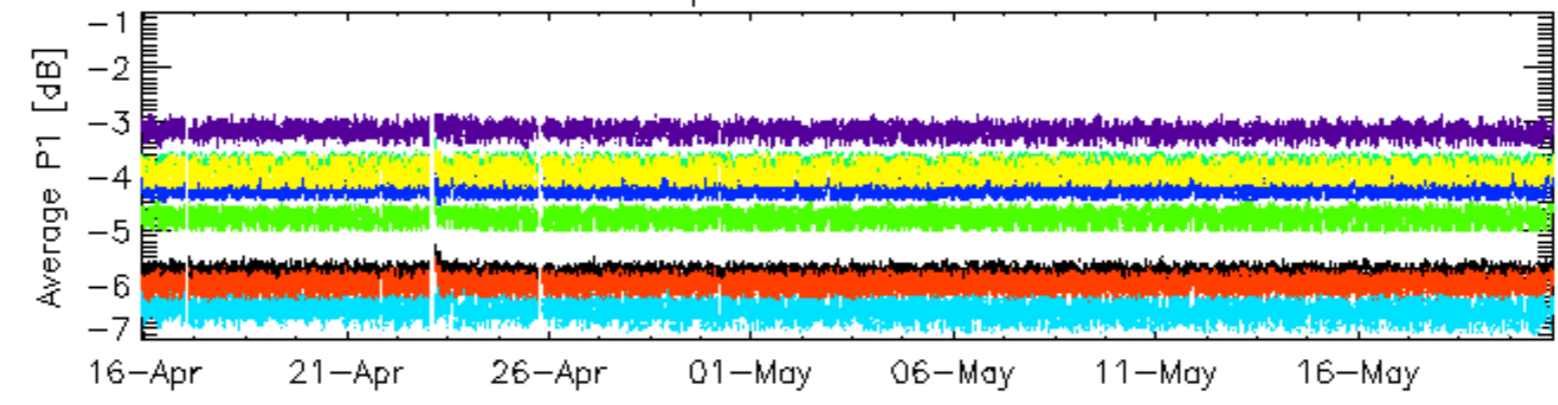


20-May



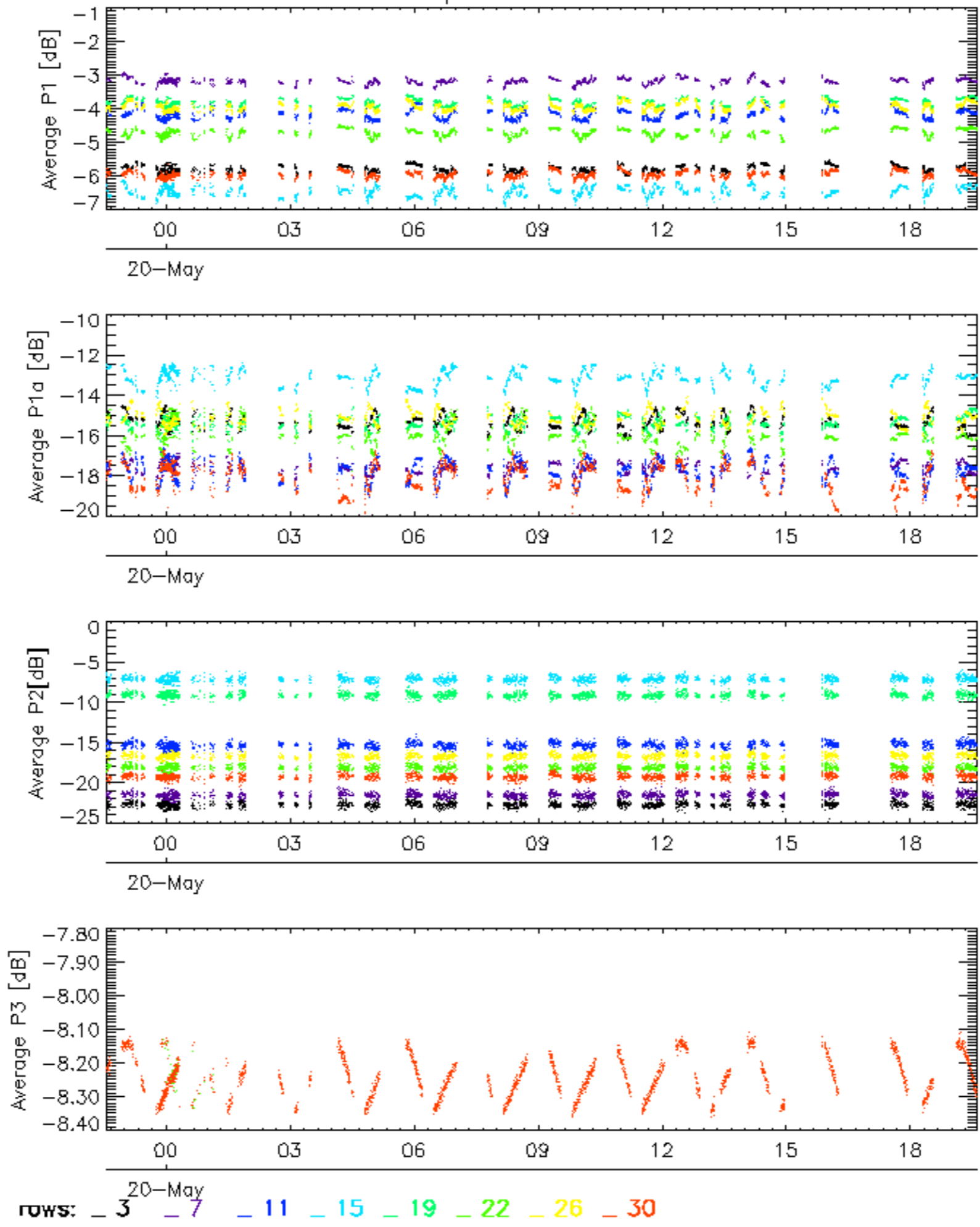
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

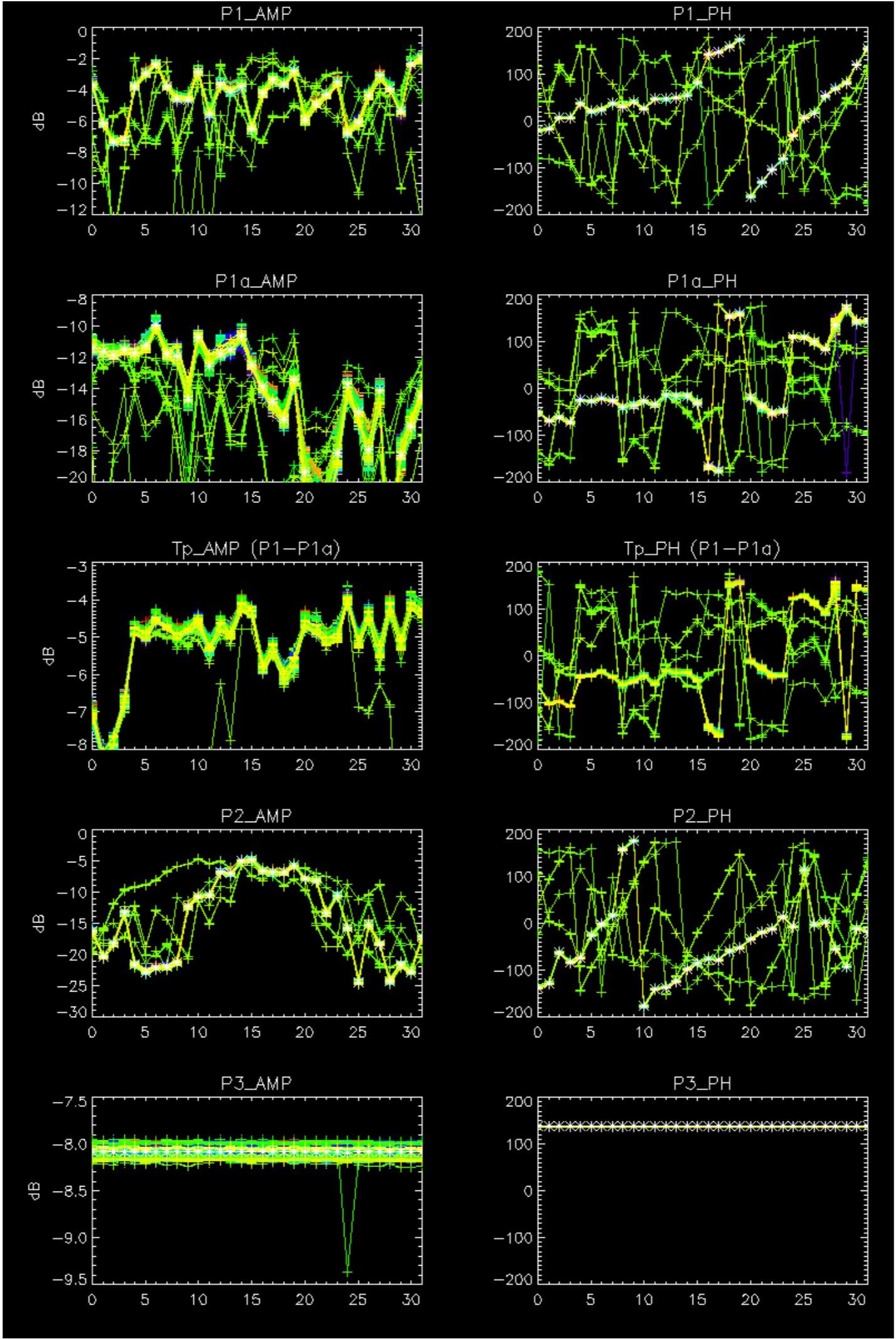


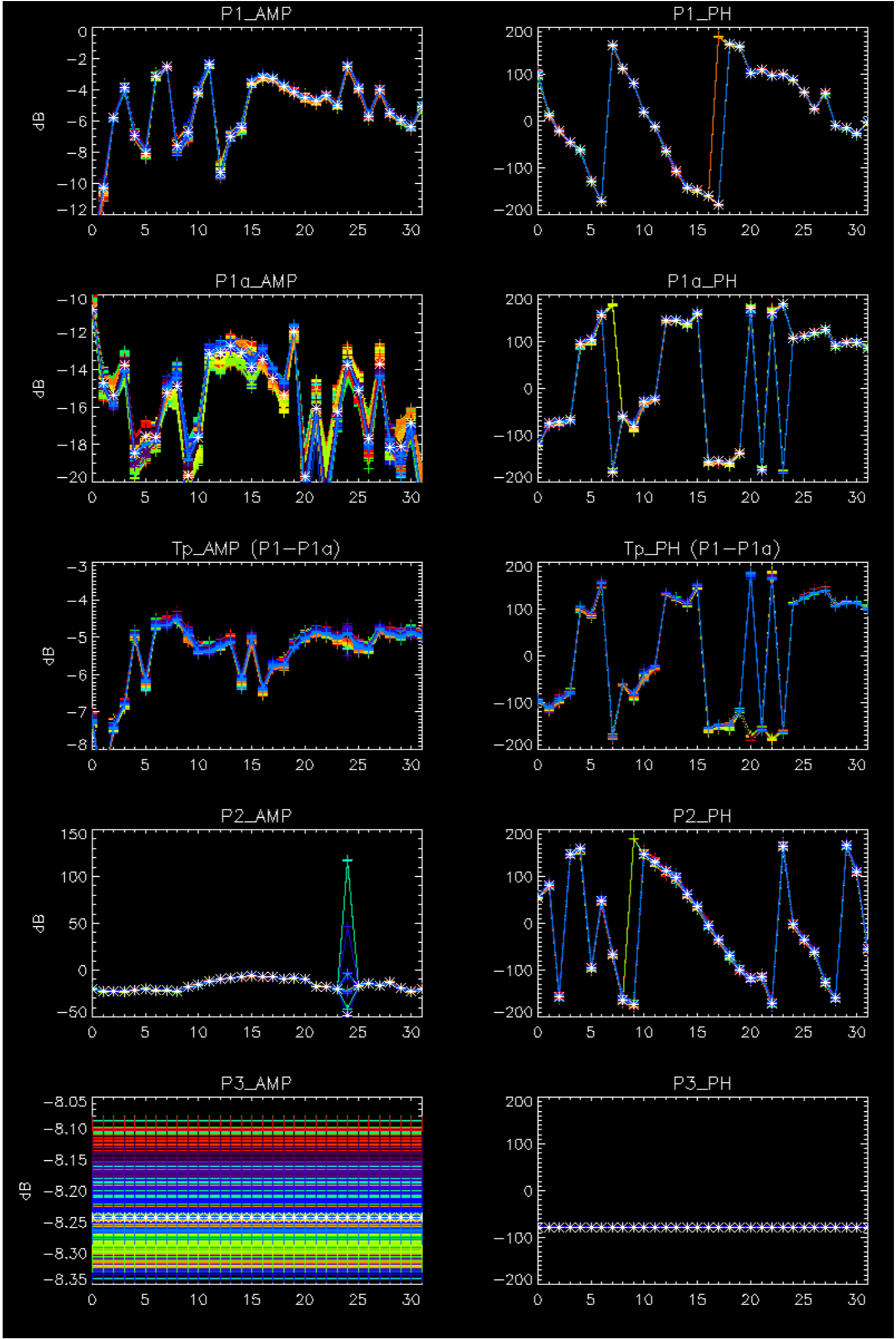
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



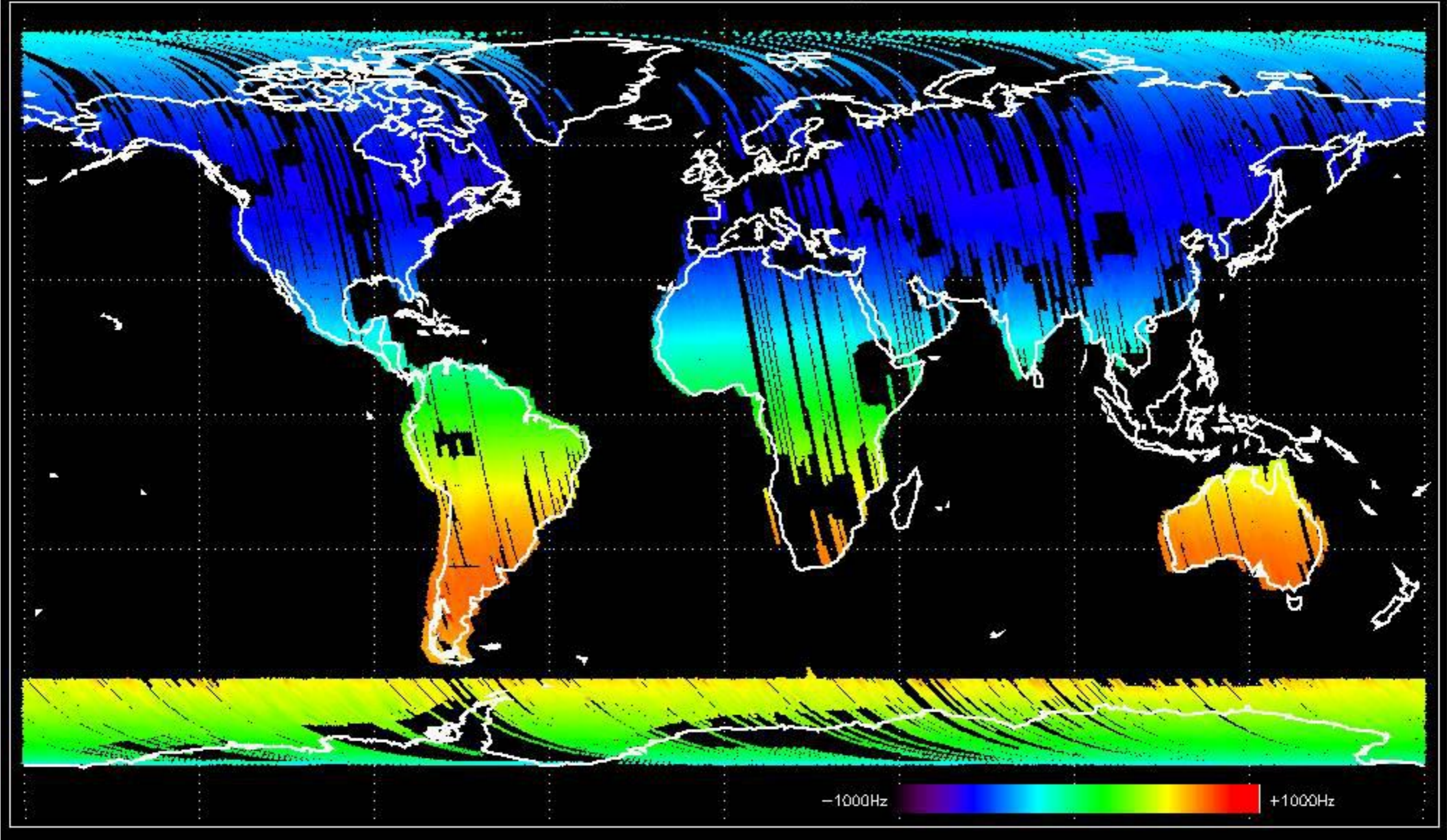
No anomalies observed.



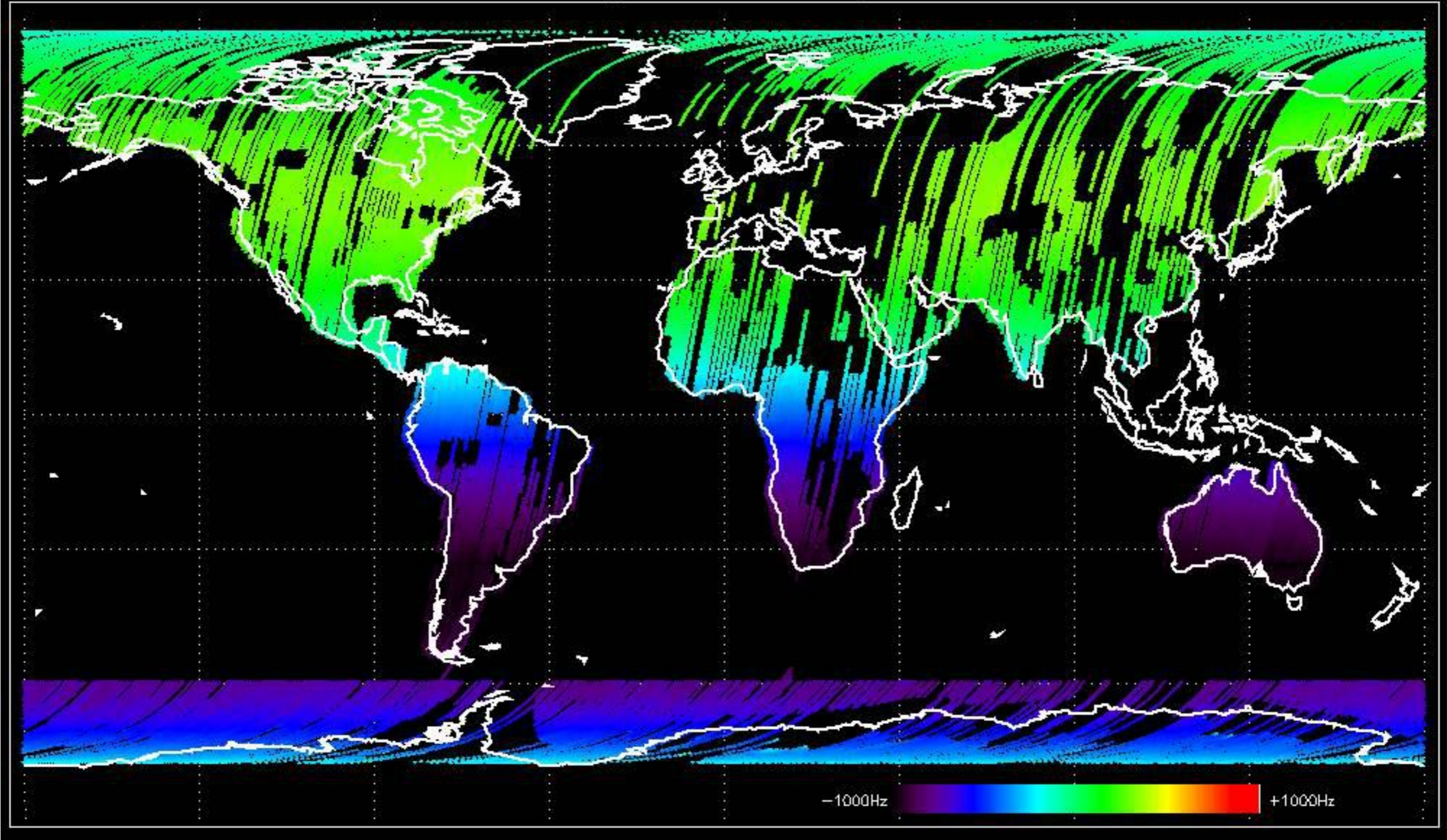


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

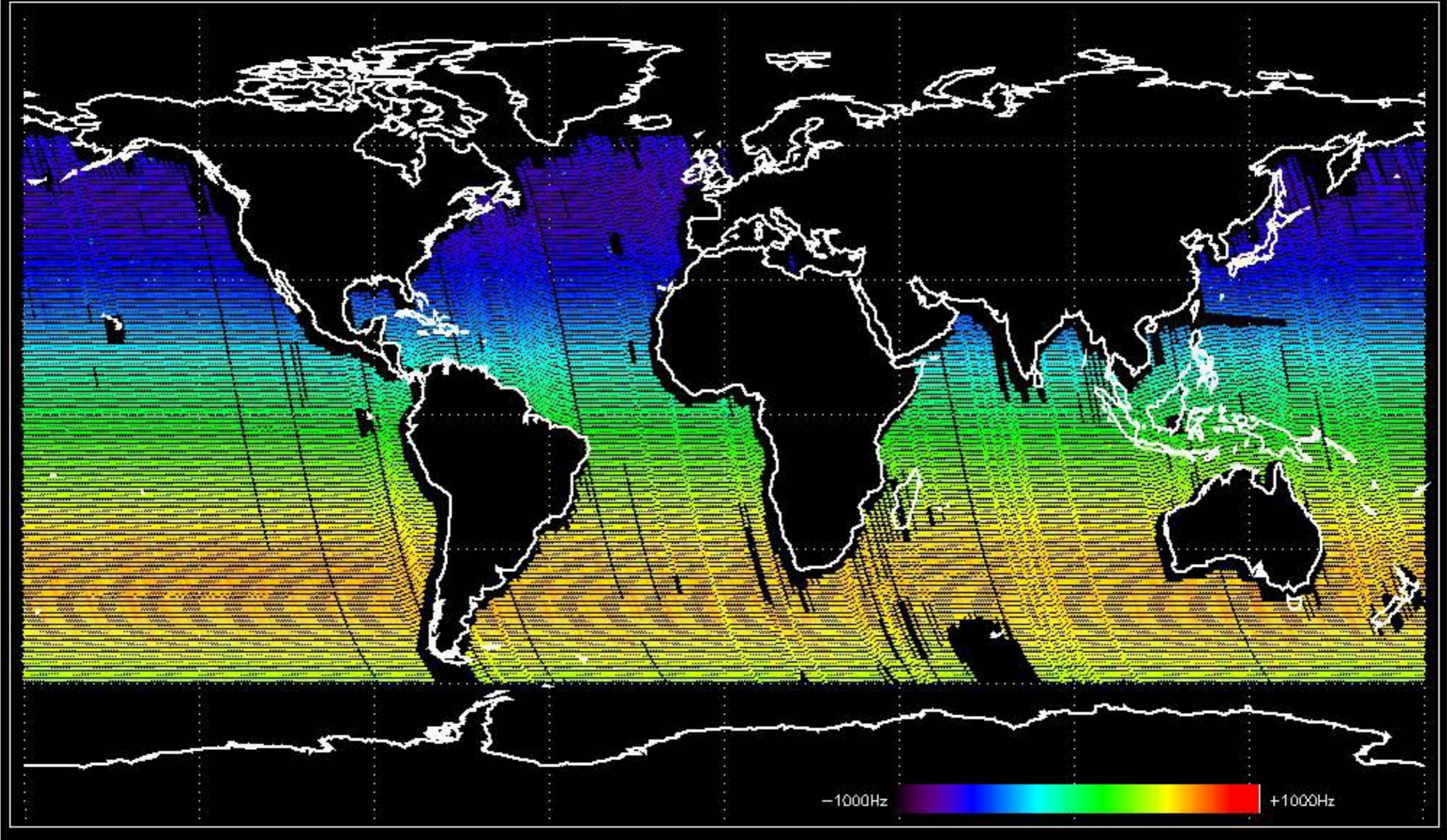
Doppler 'GM1' 'SS1' ascending



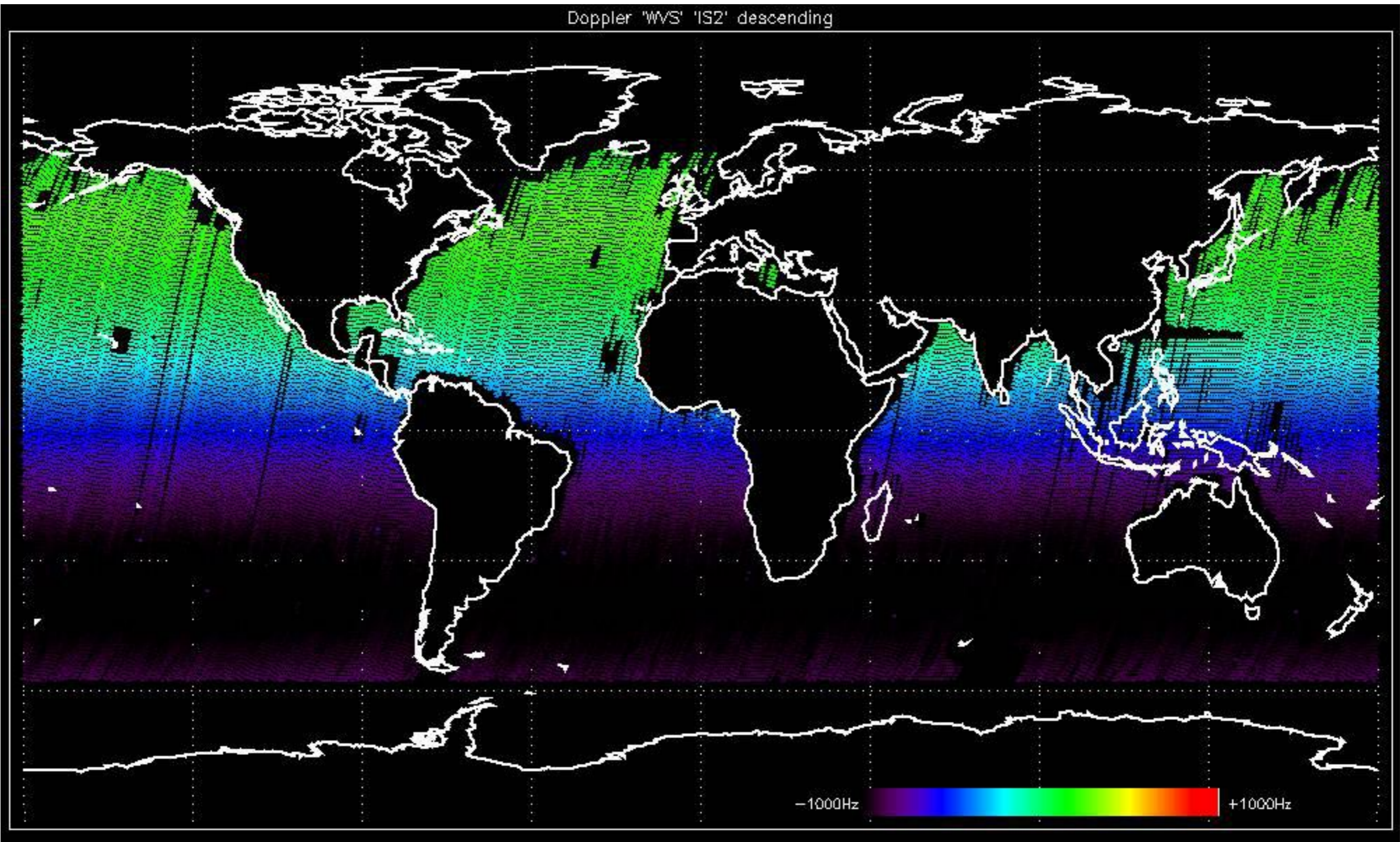
Doppler 'GM1' 'SS1' descending

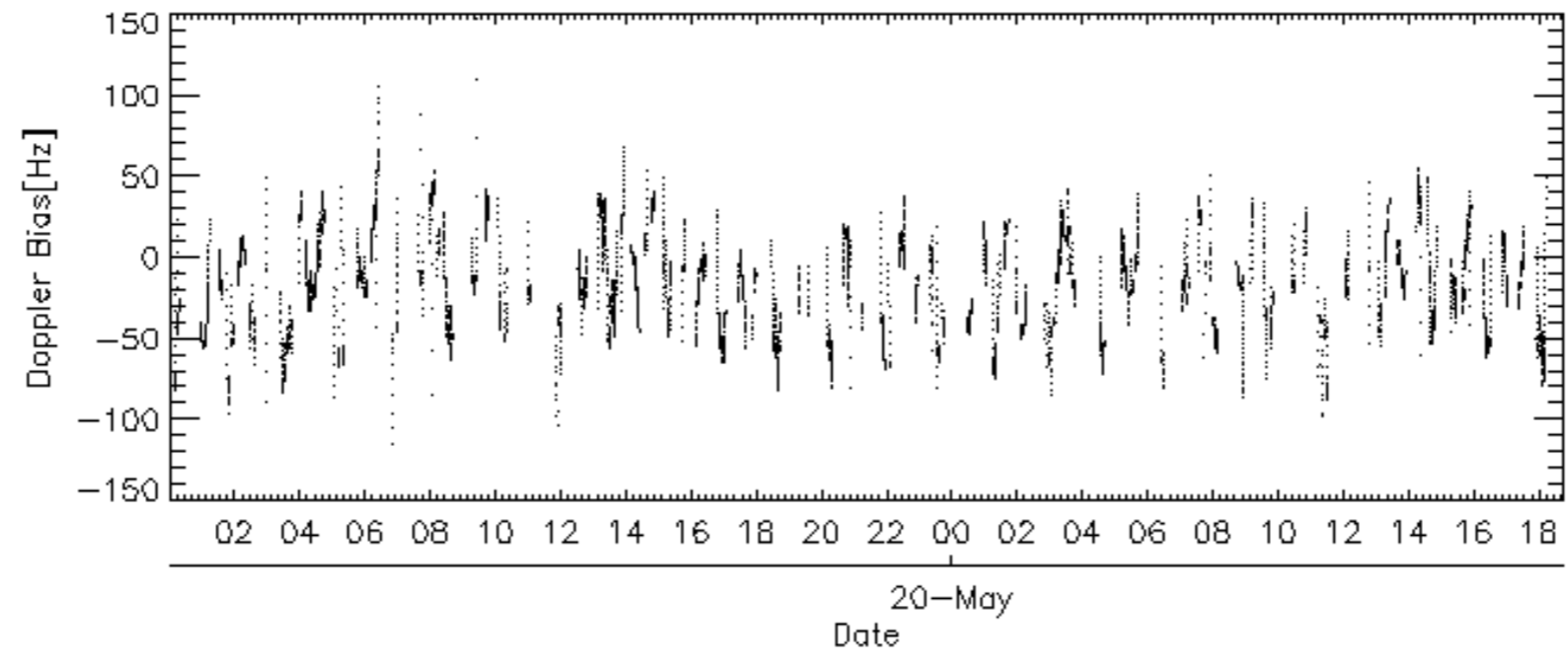
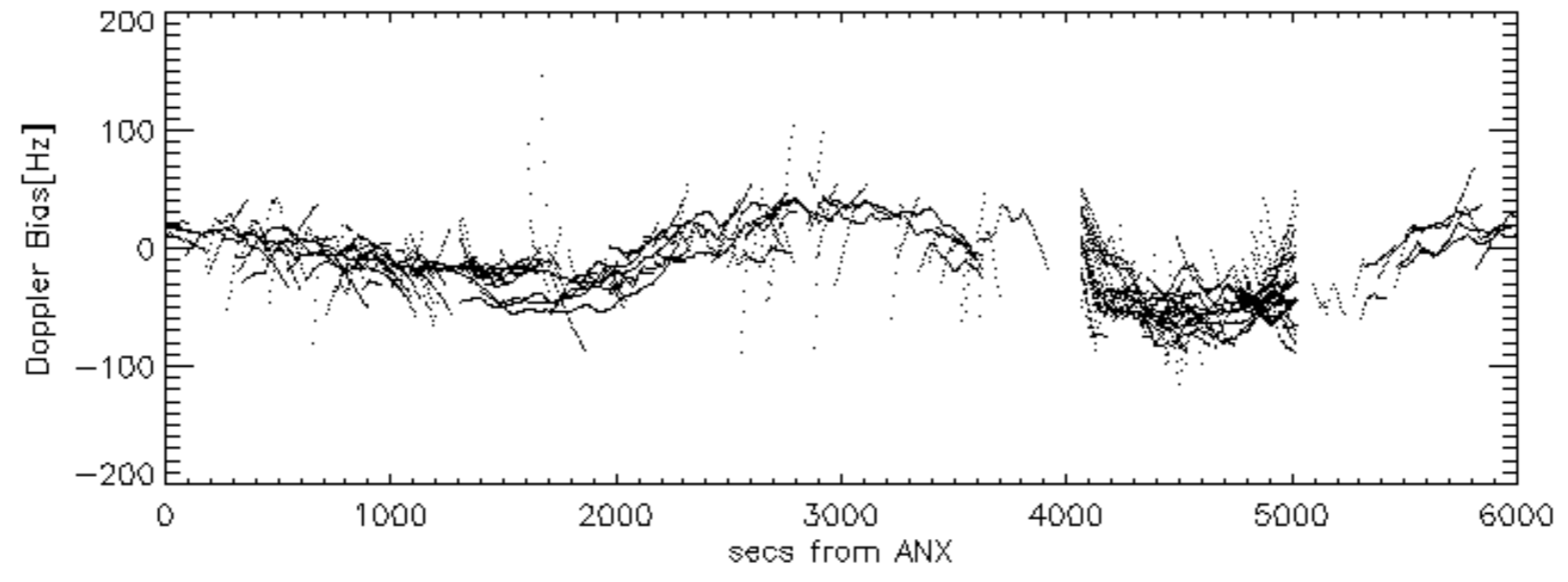
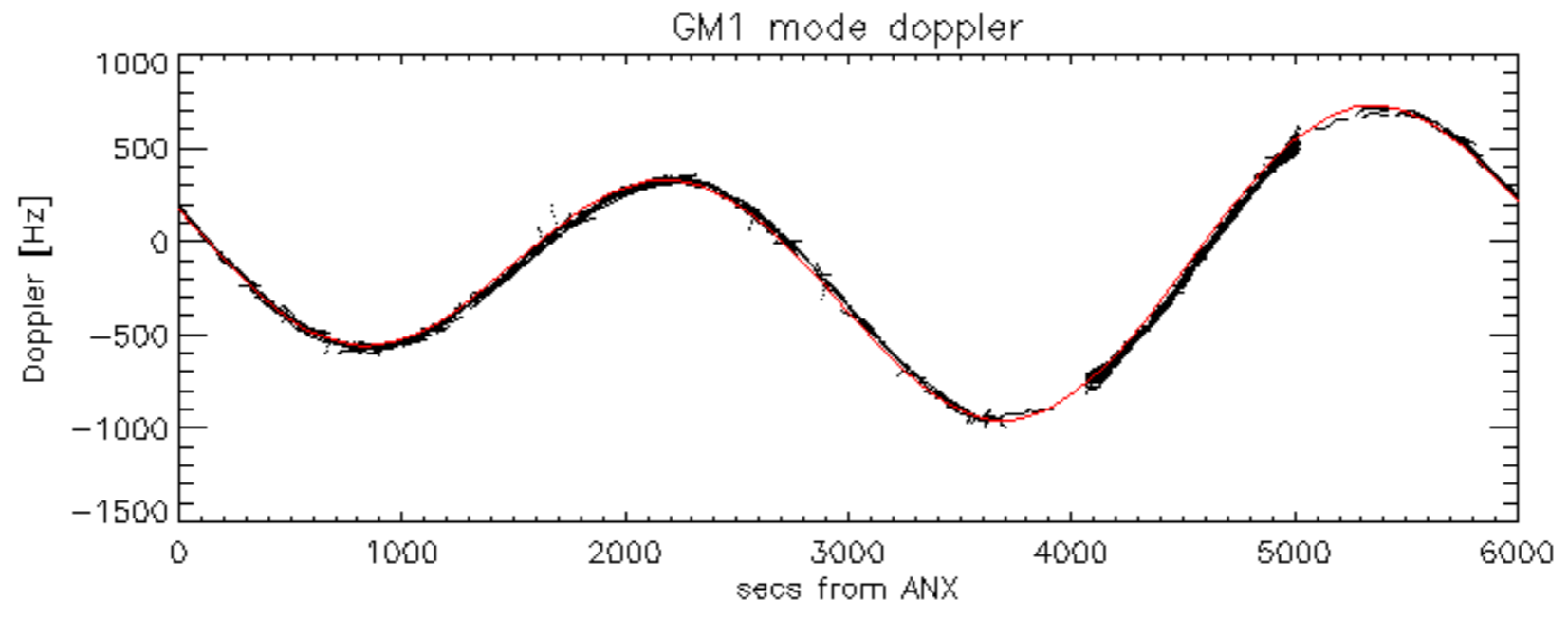


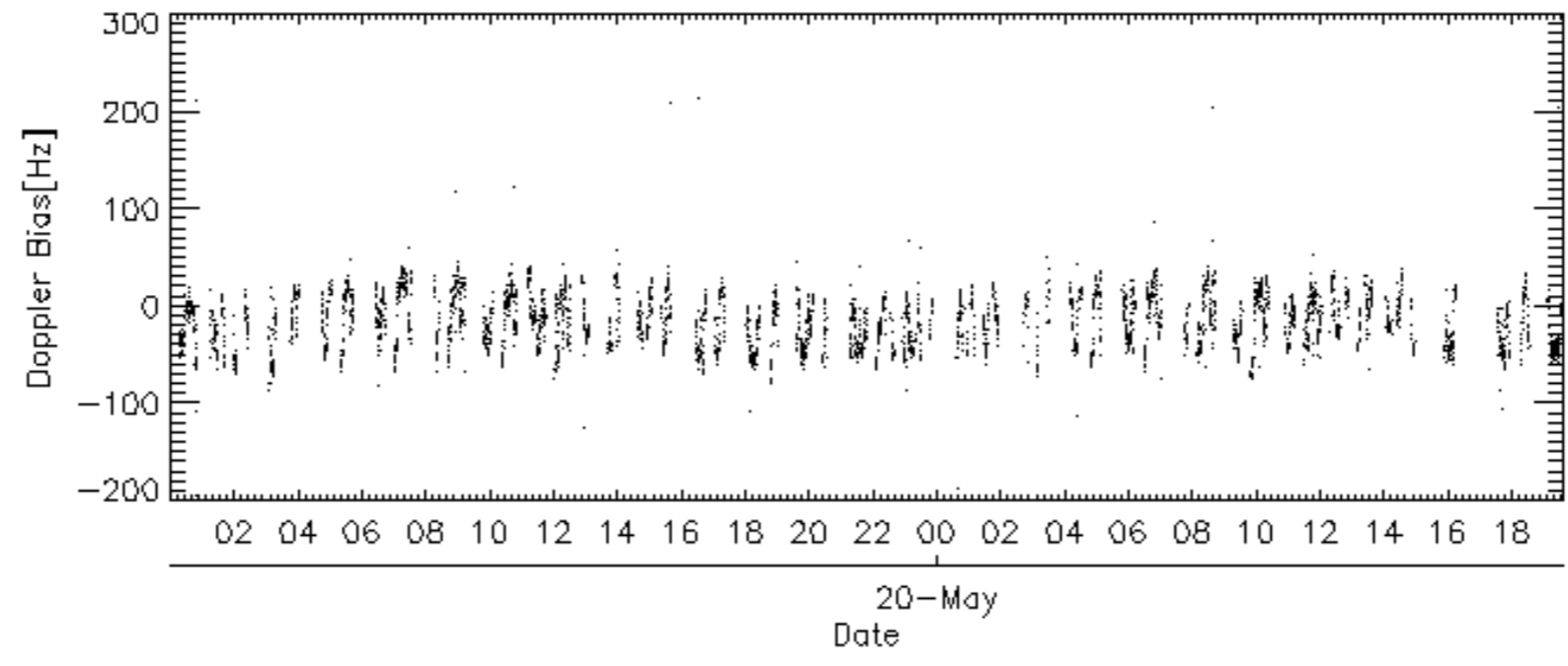
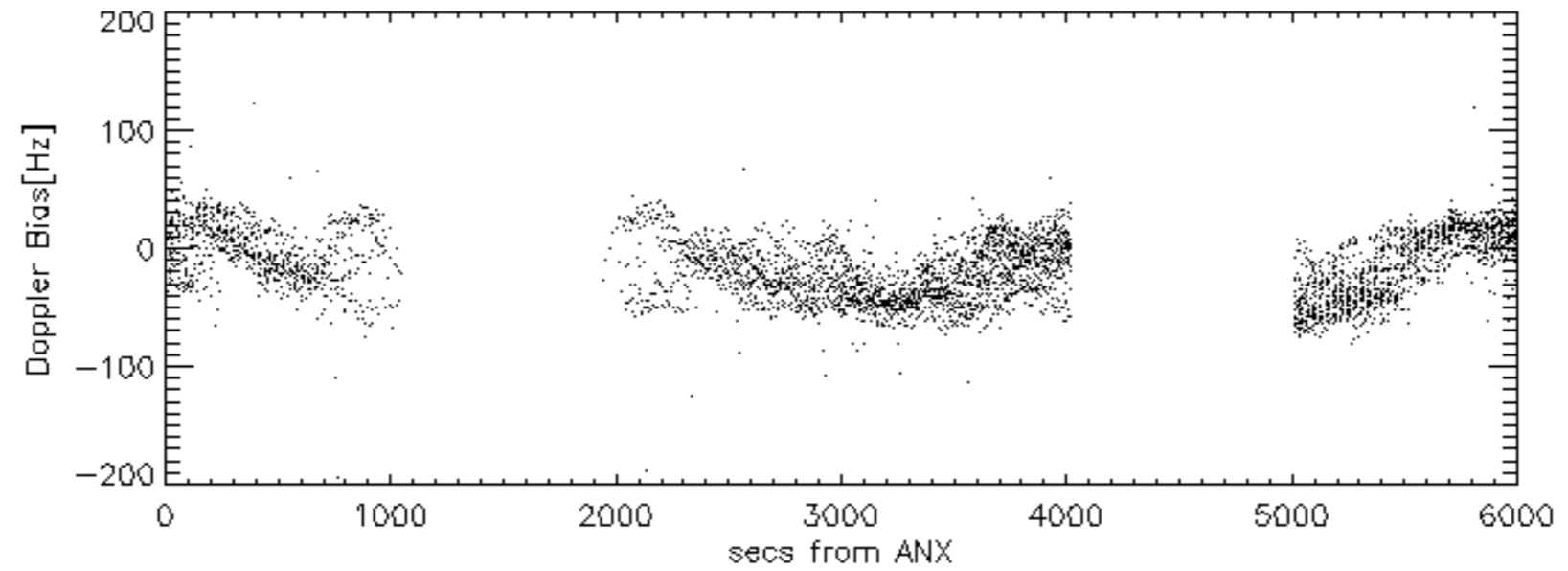
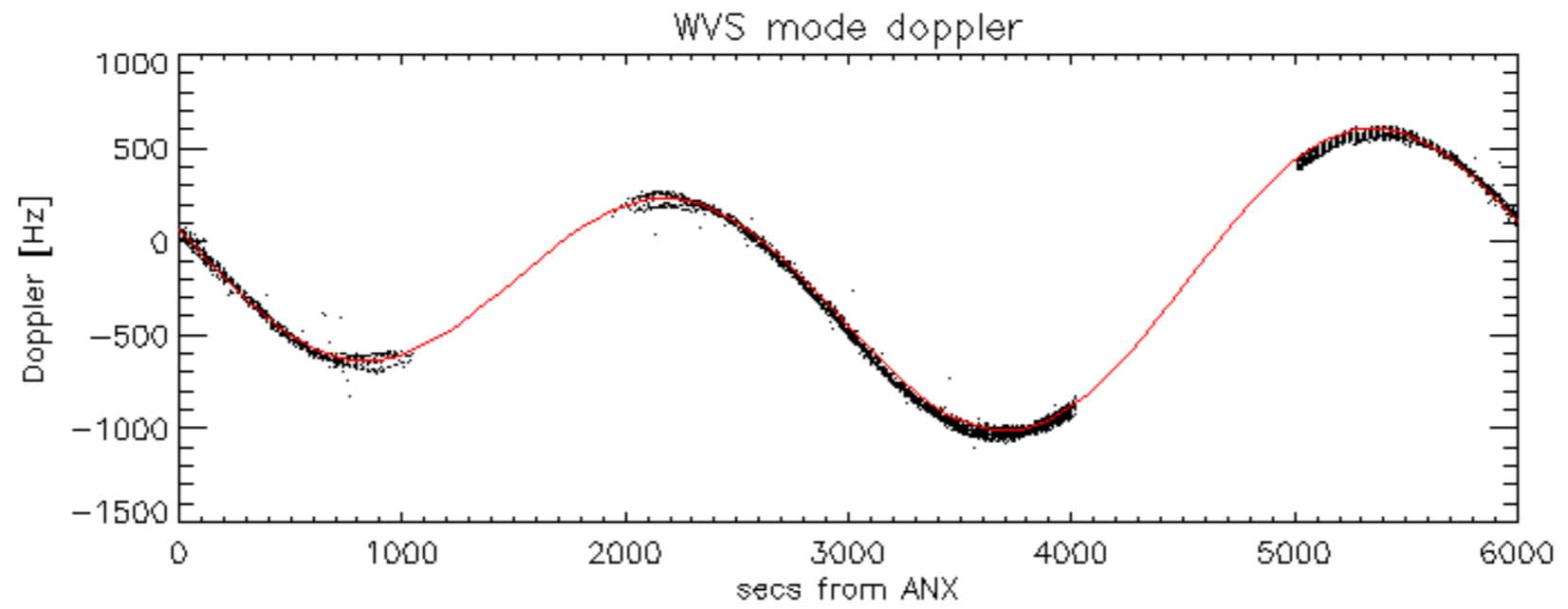
Doppler 'WVS' 'IS2' ascending



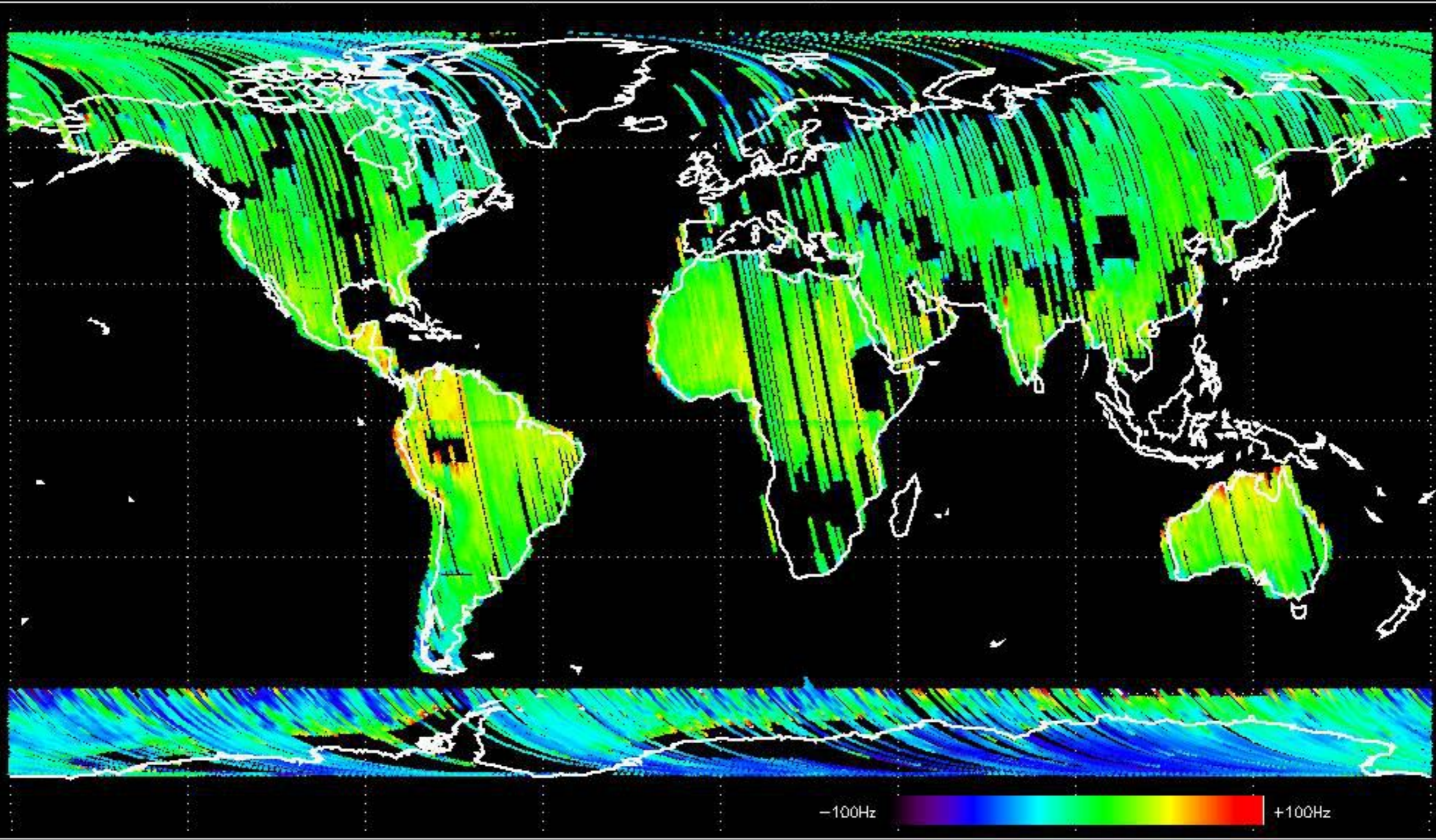
Doppler 'WVS' 'IS2' descending





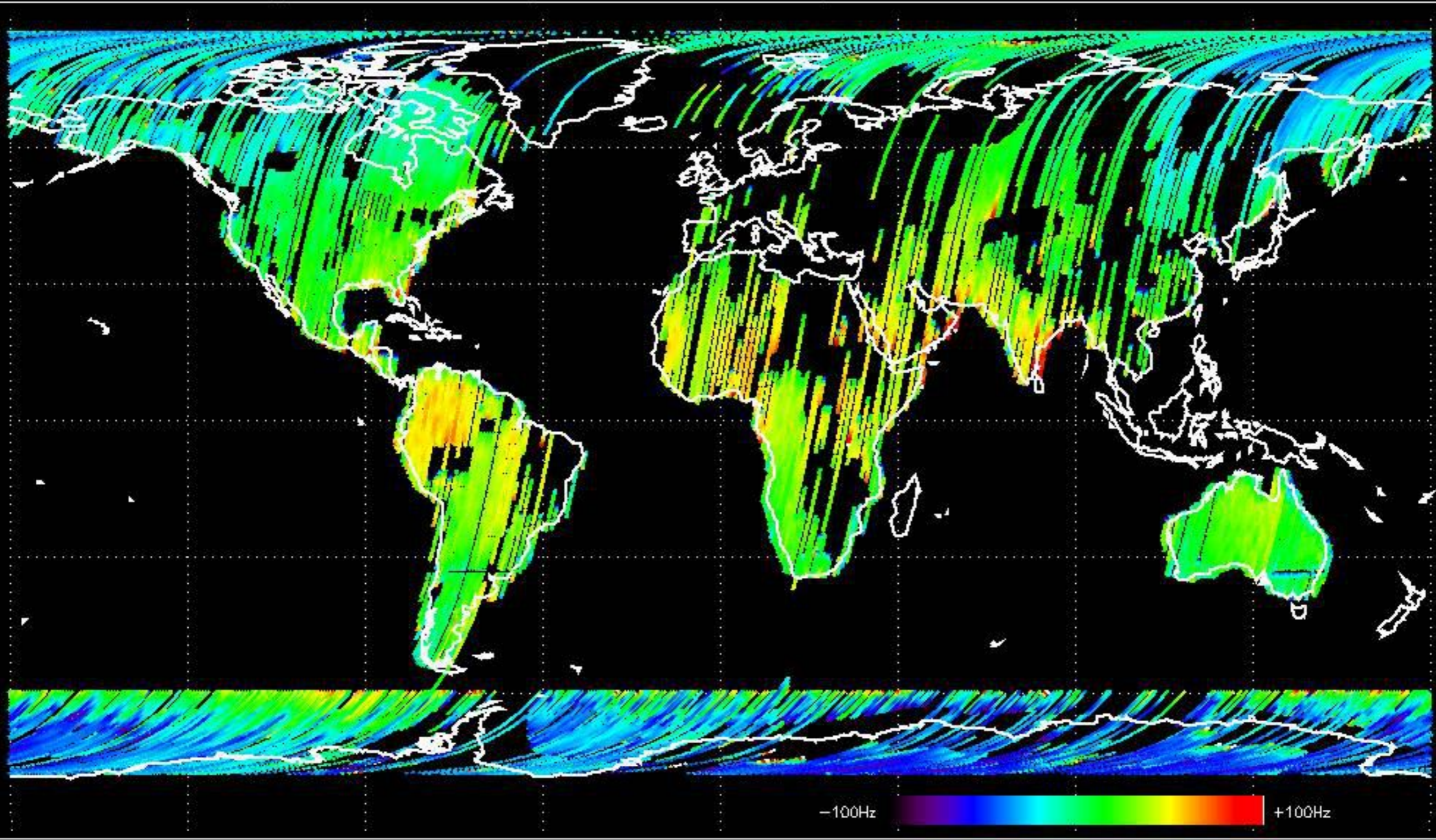


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.148237 Hz

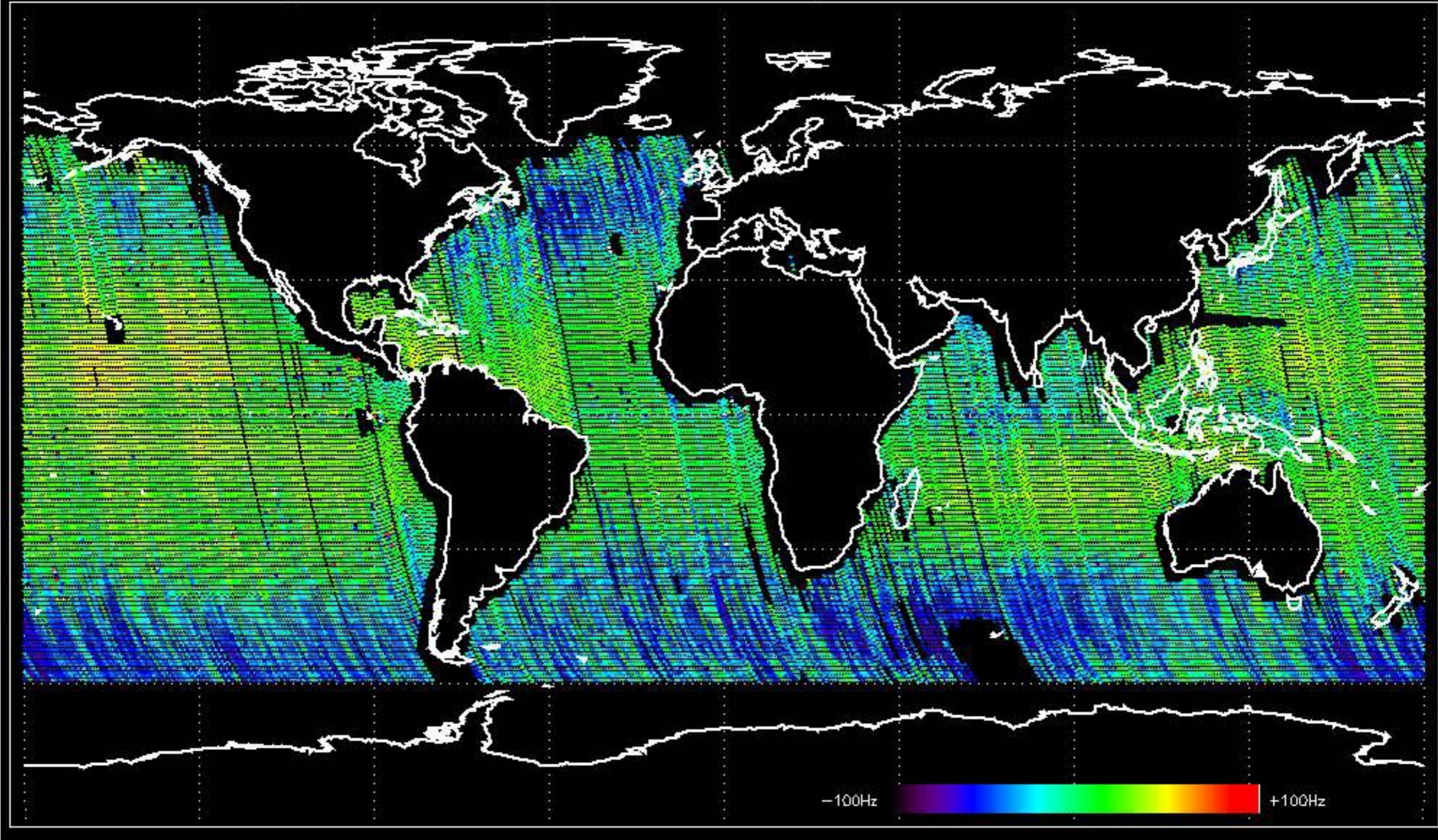


-100Hz +100Hz

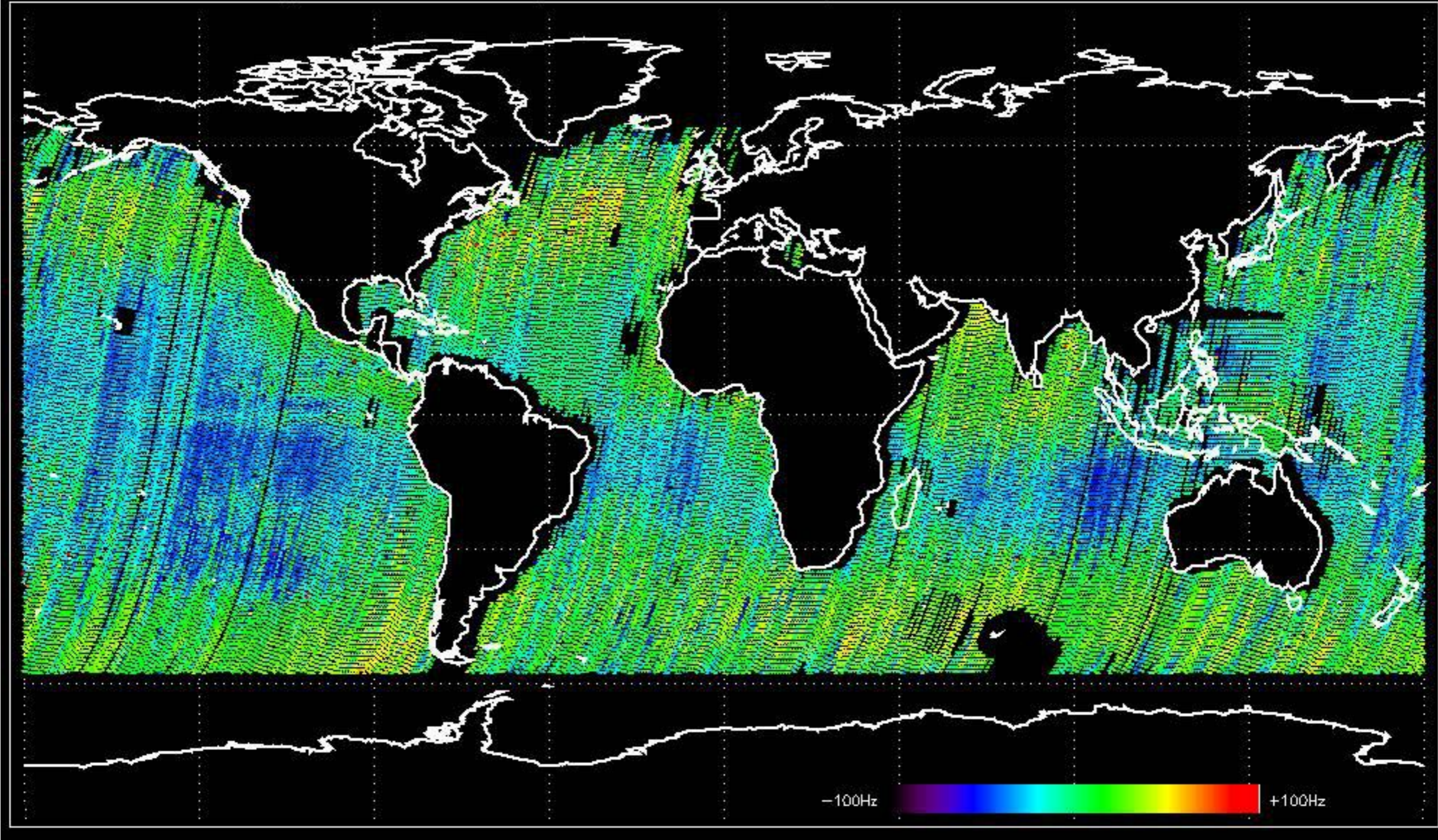
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.515830 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -15.040627 Hz

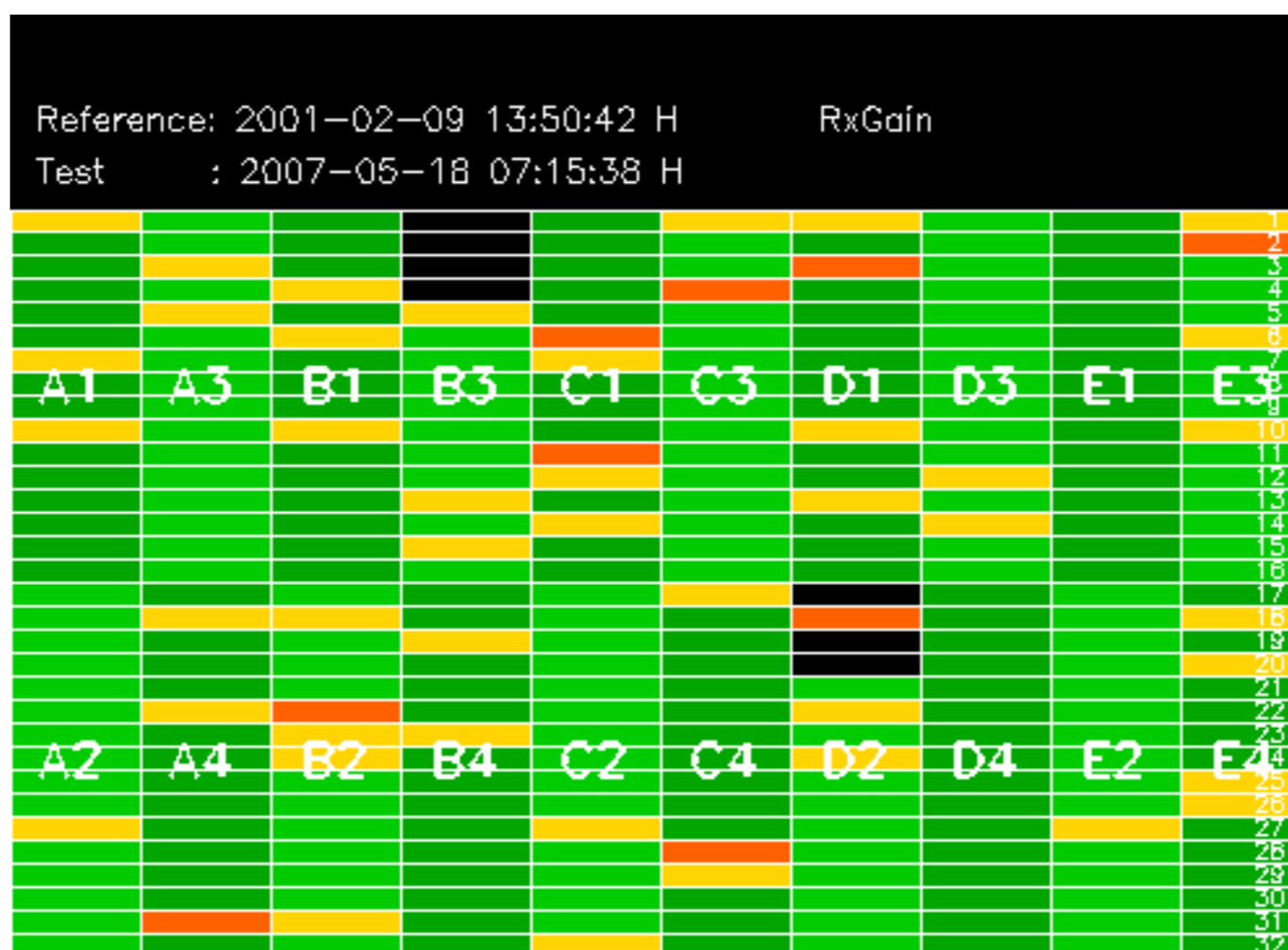


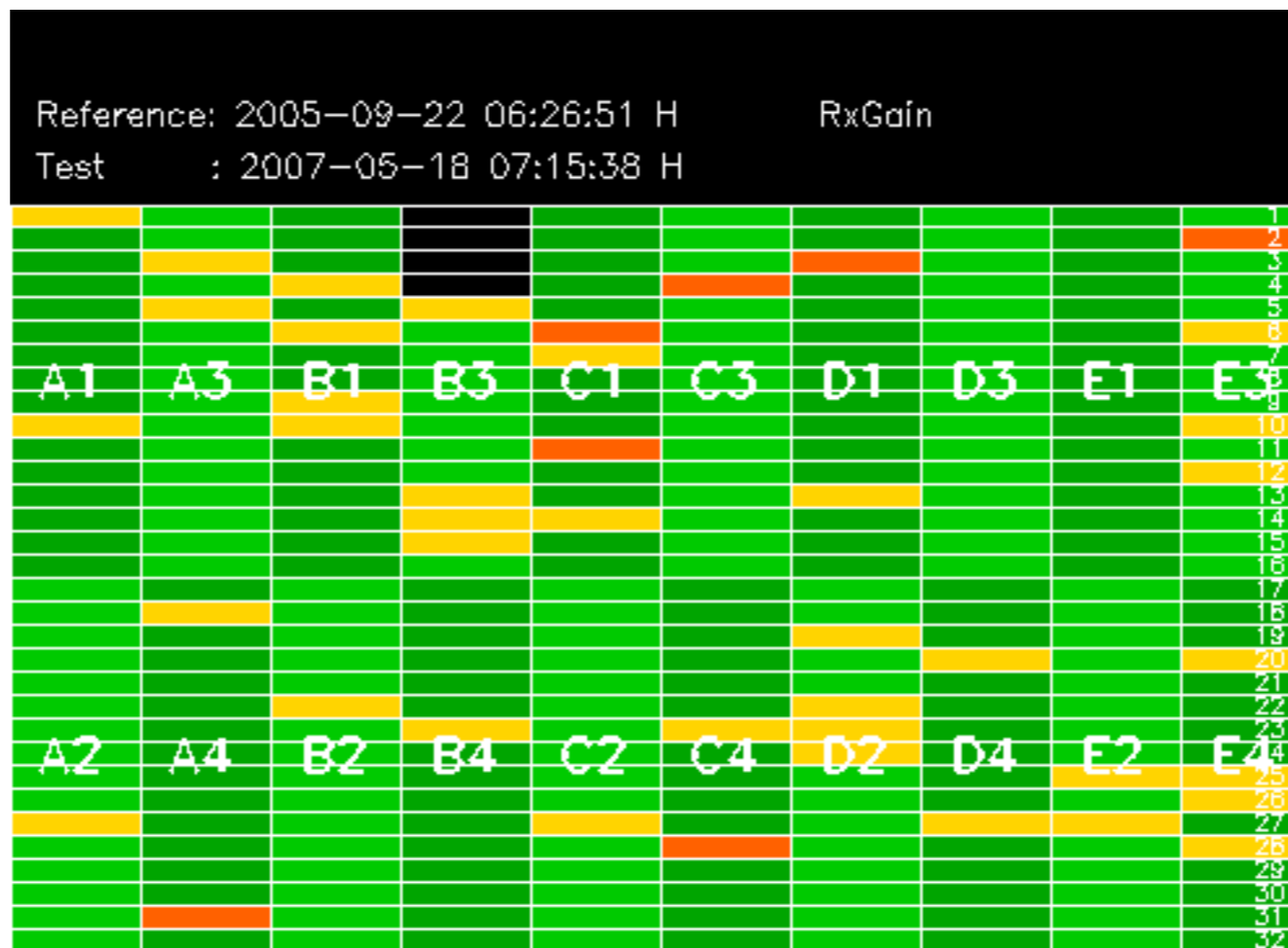
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.642356 Hz

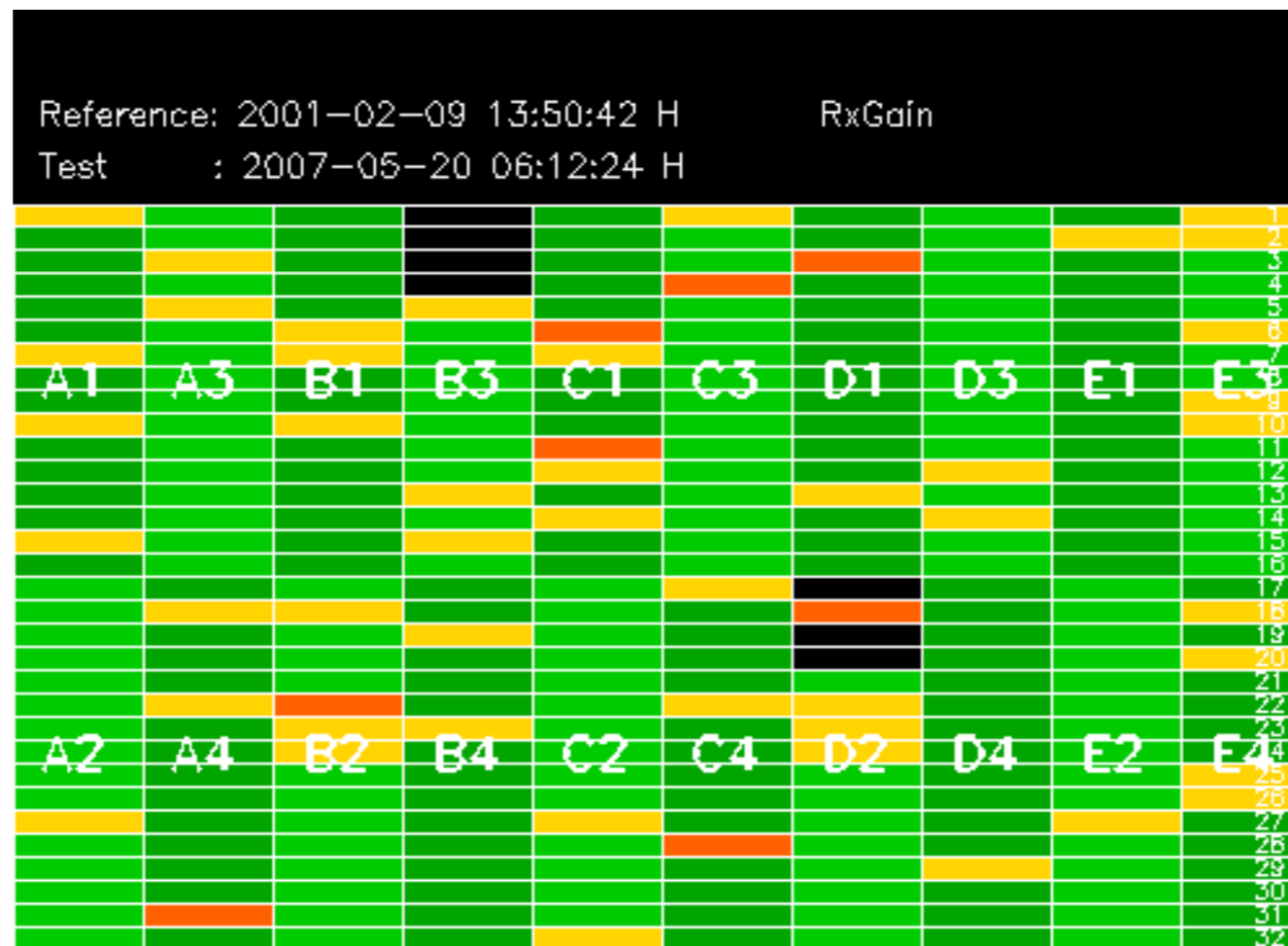


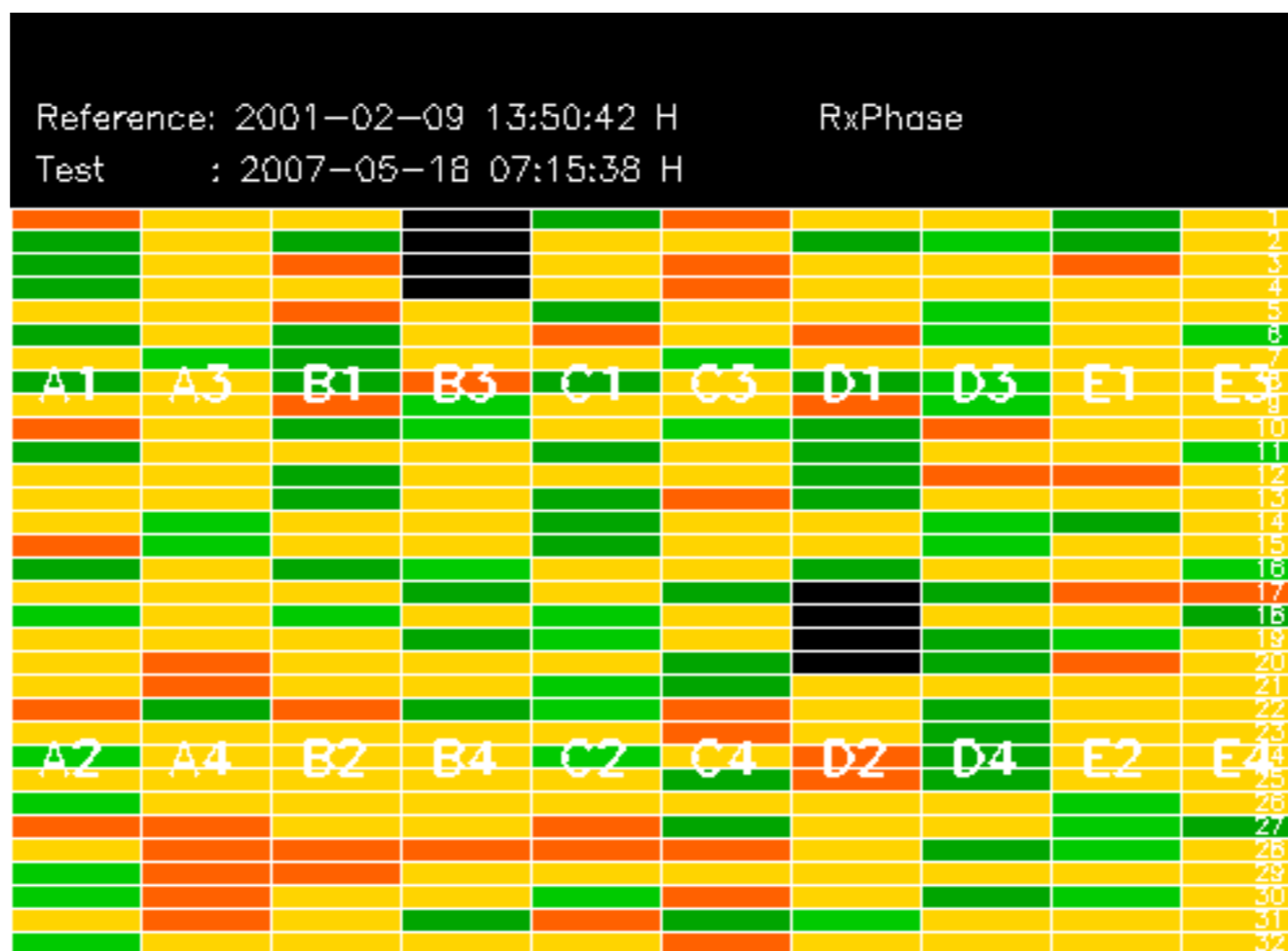
No anomalies observed on available MS products:

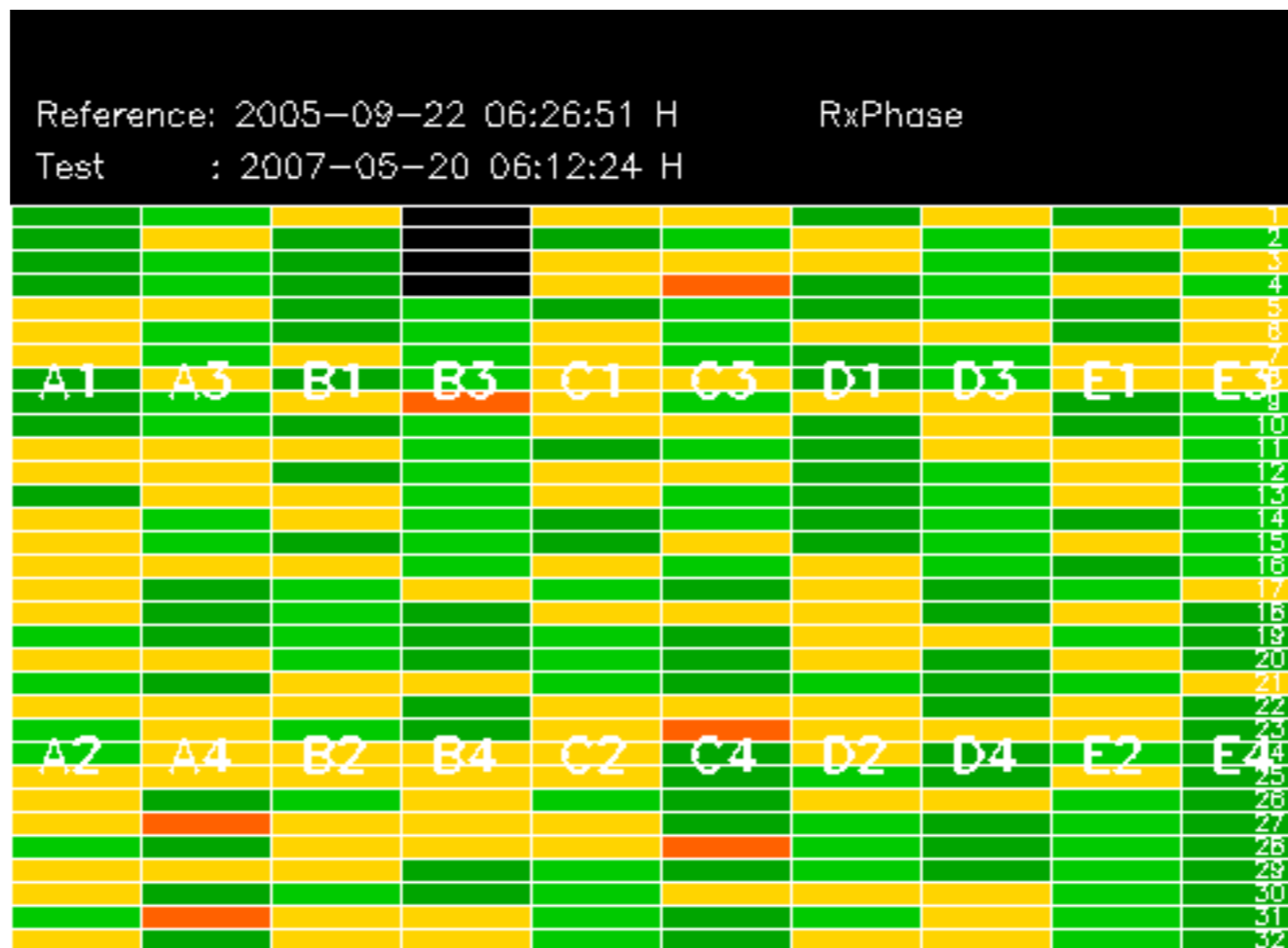
No anomalies observed.

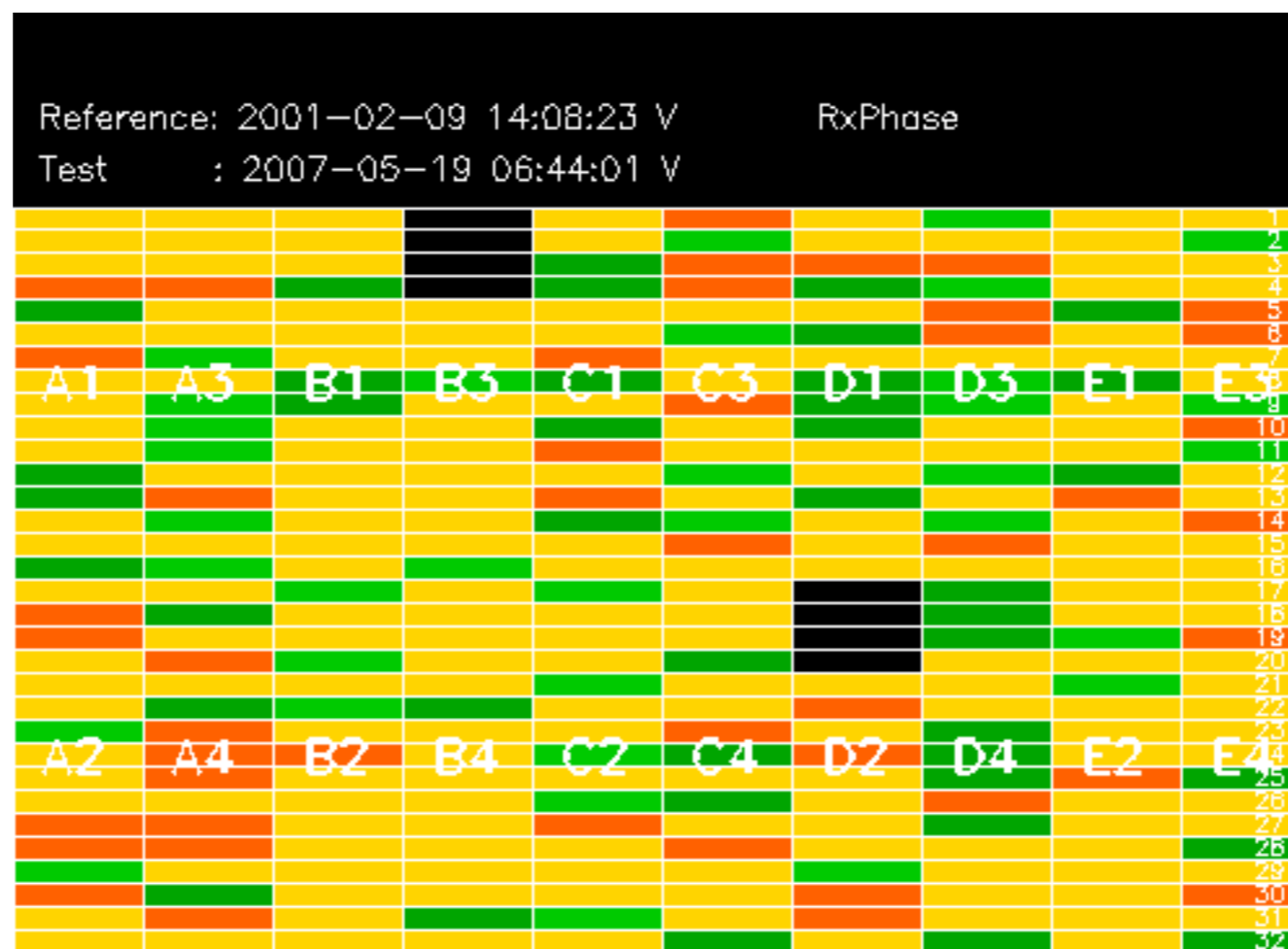


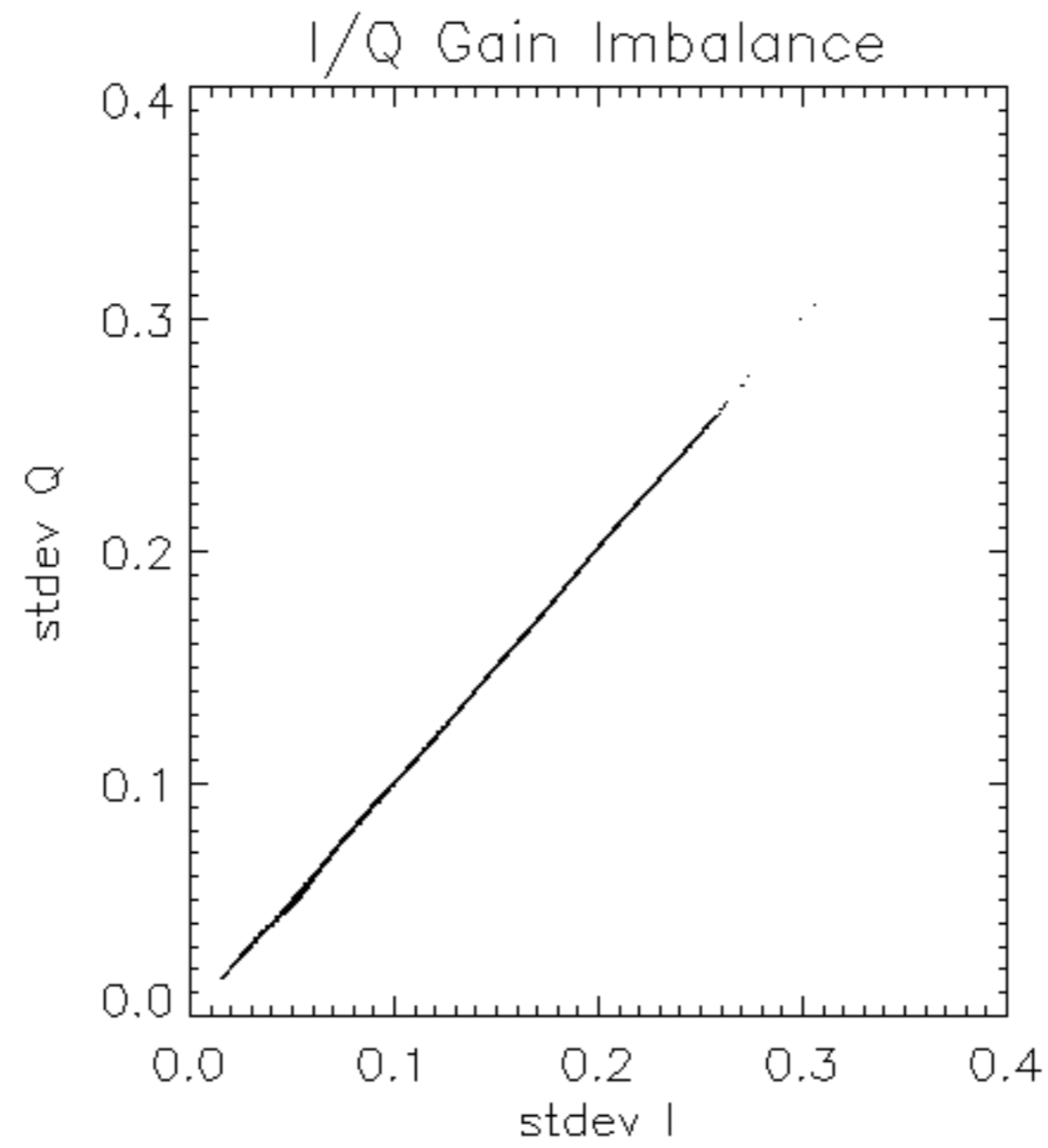


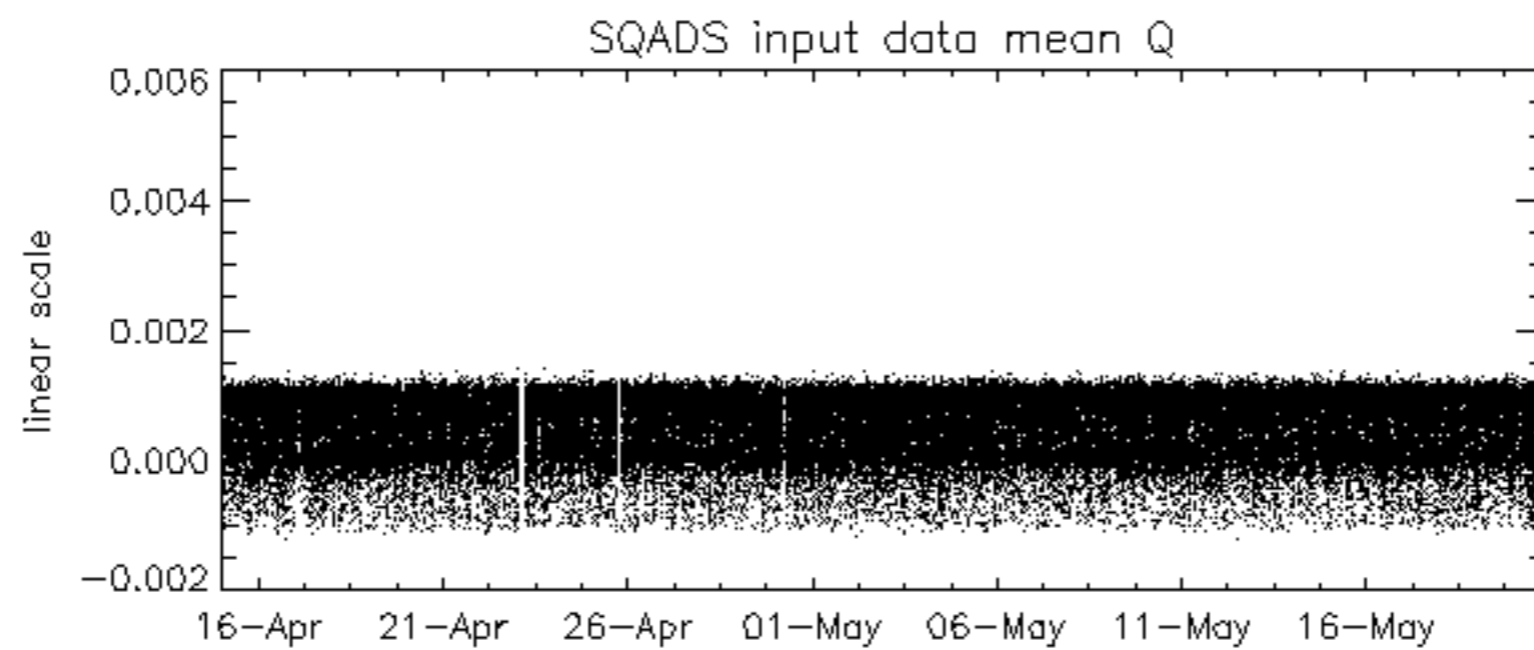
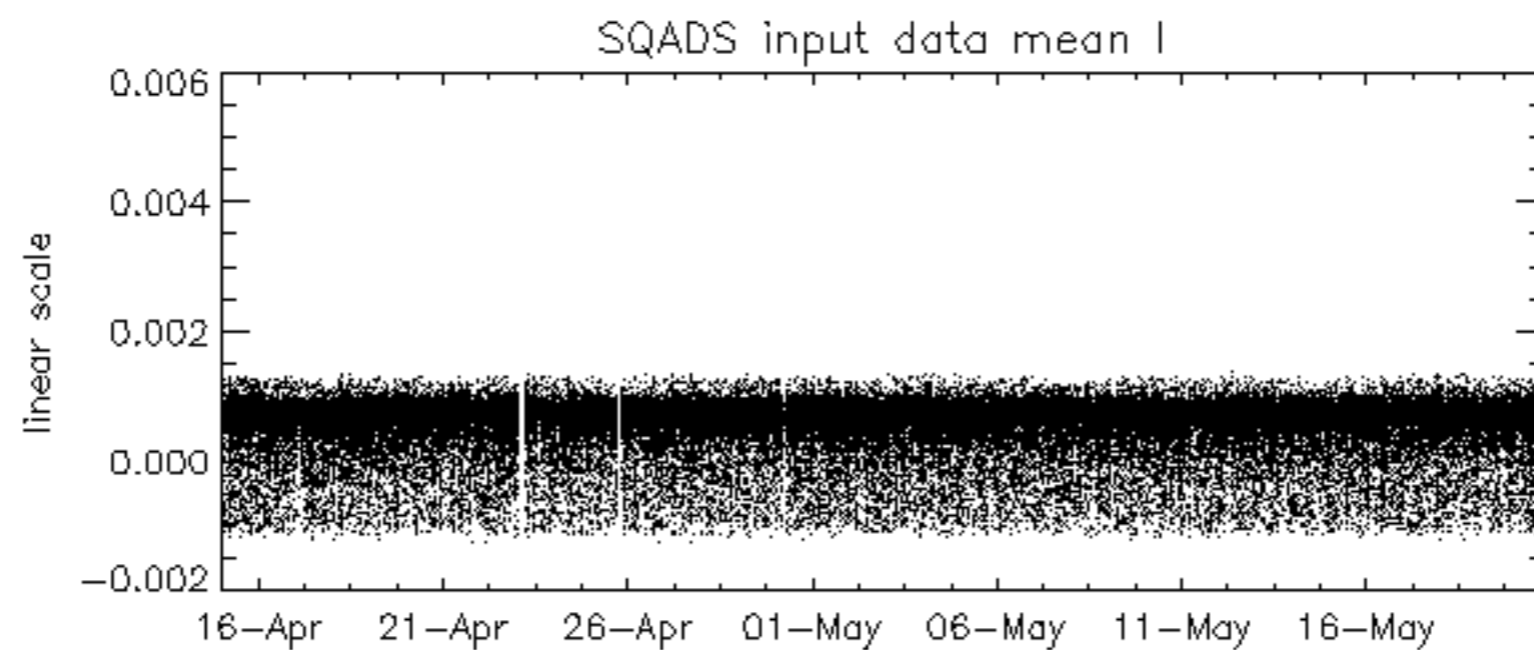
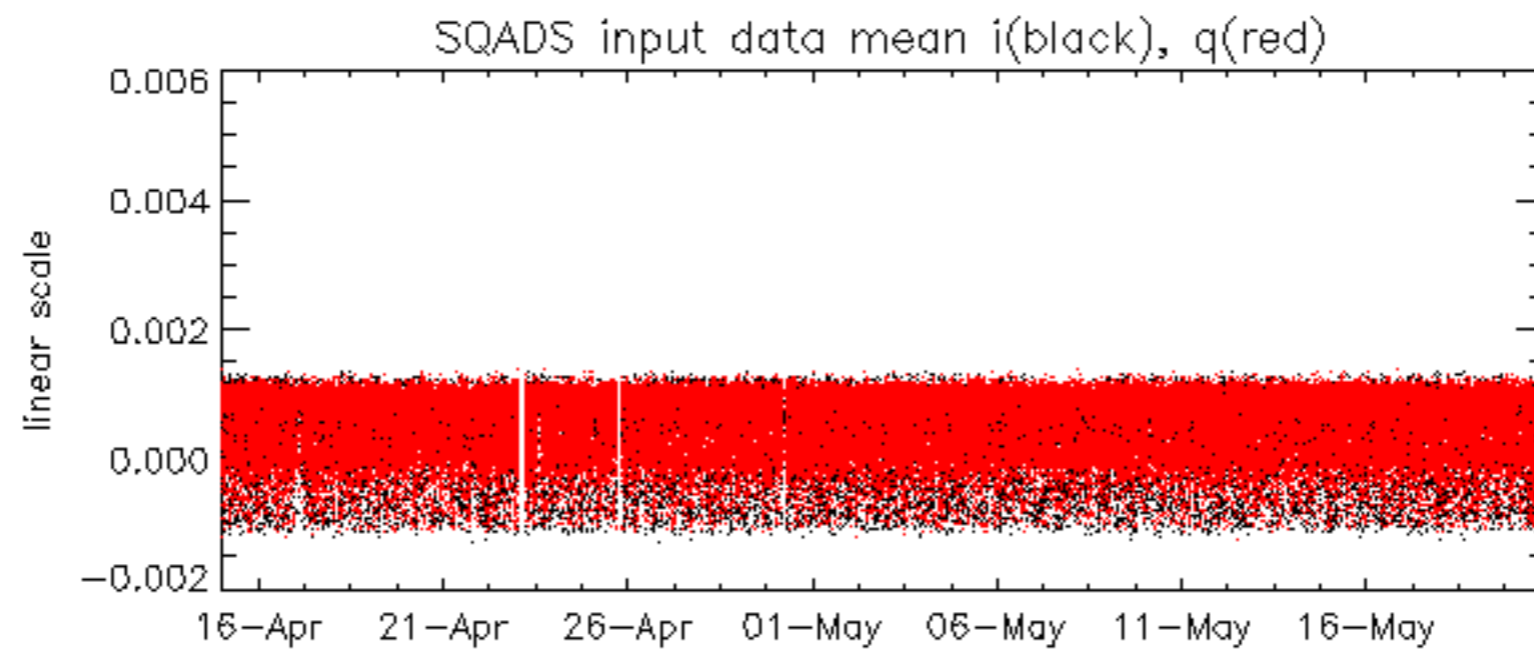


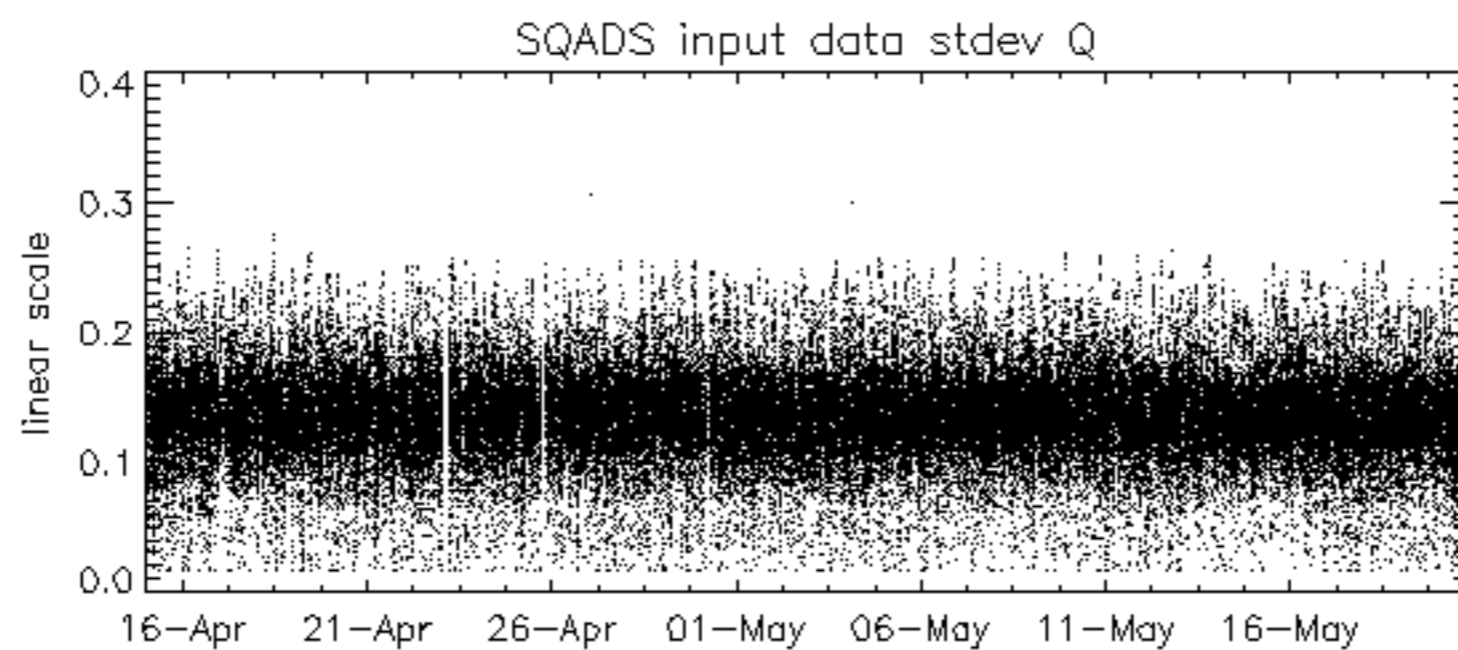
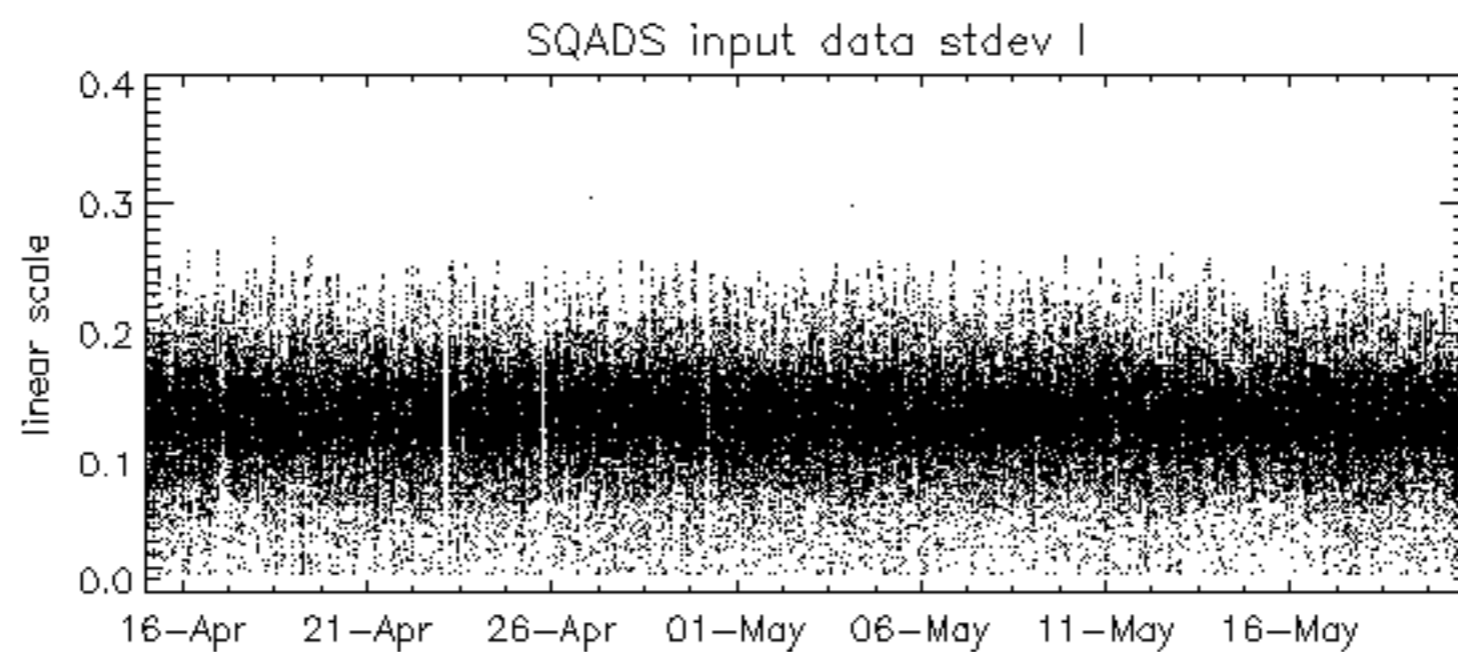
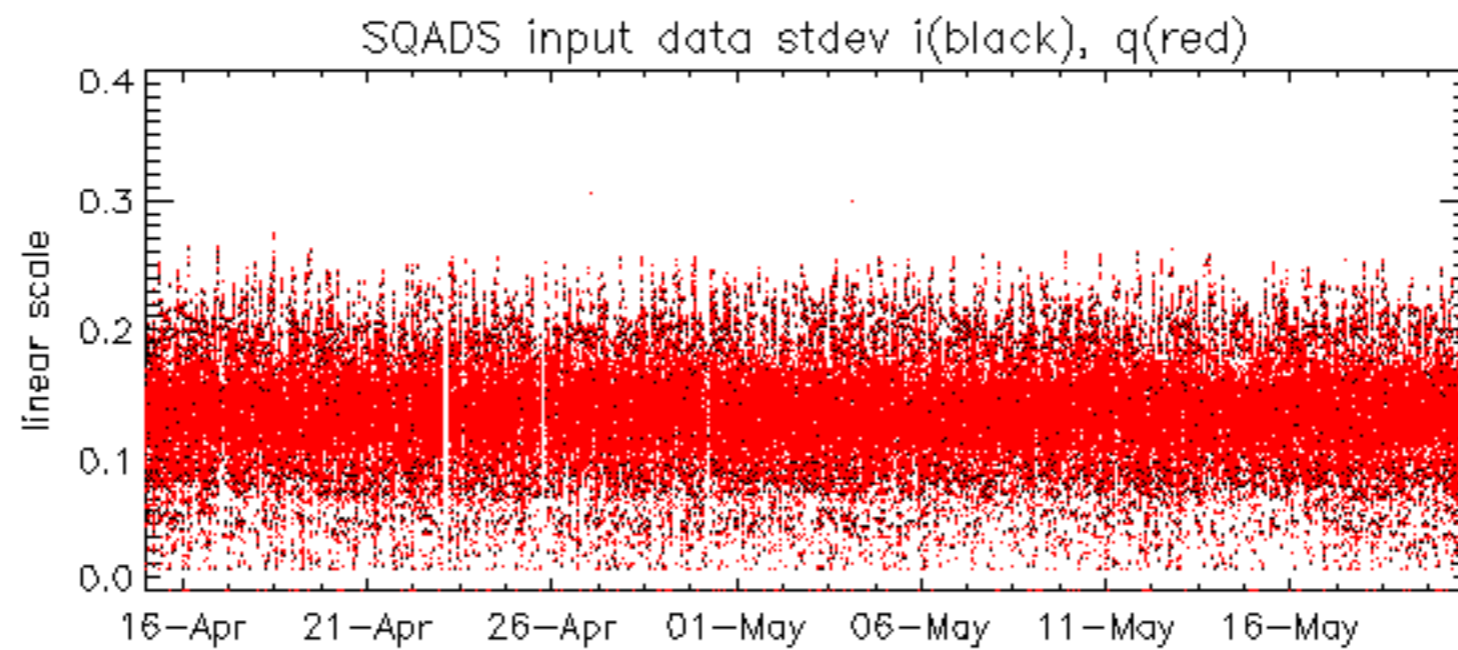


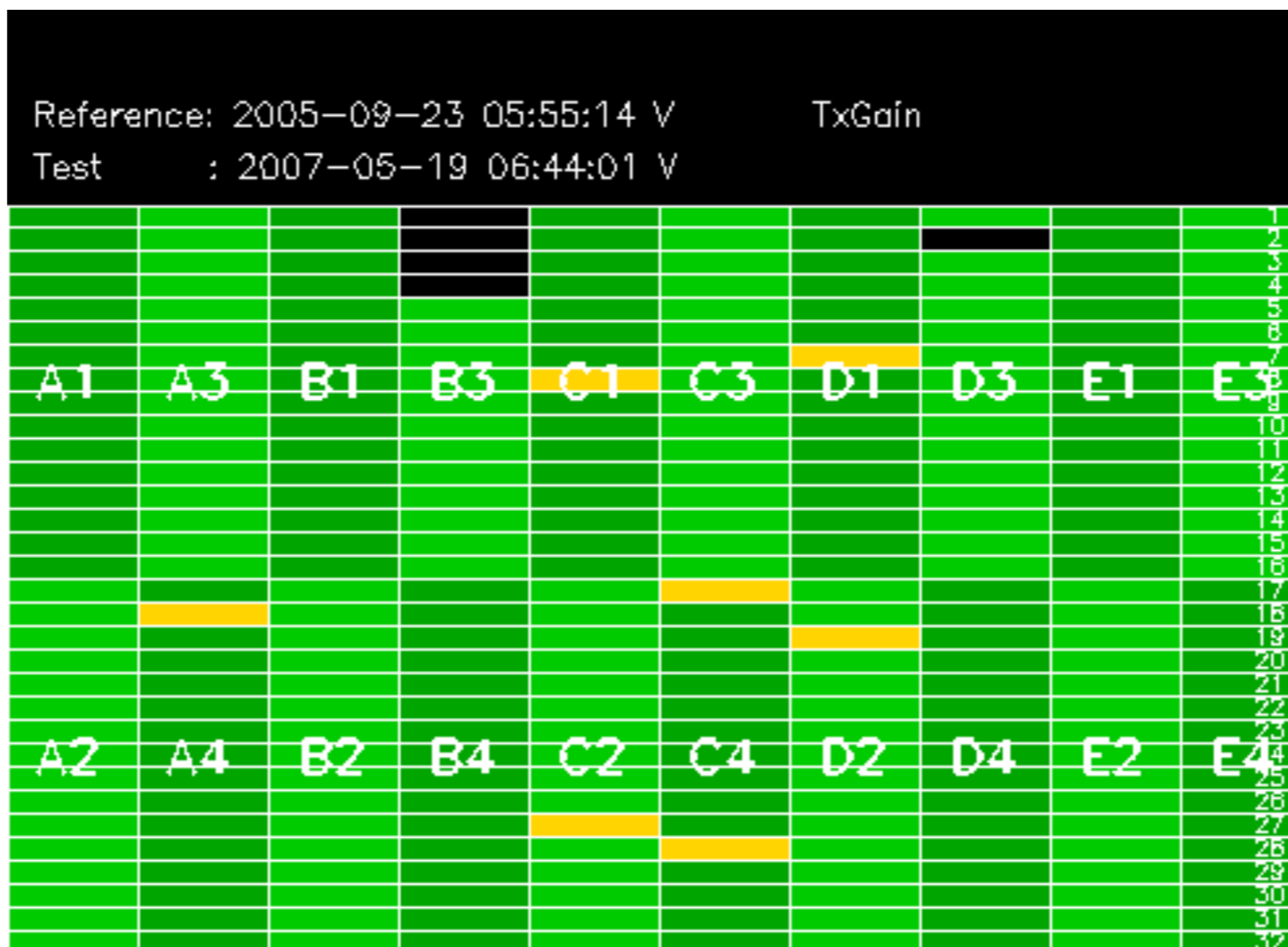








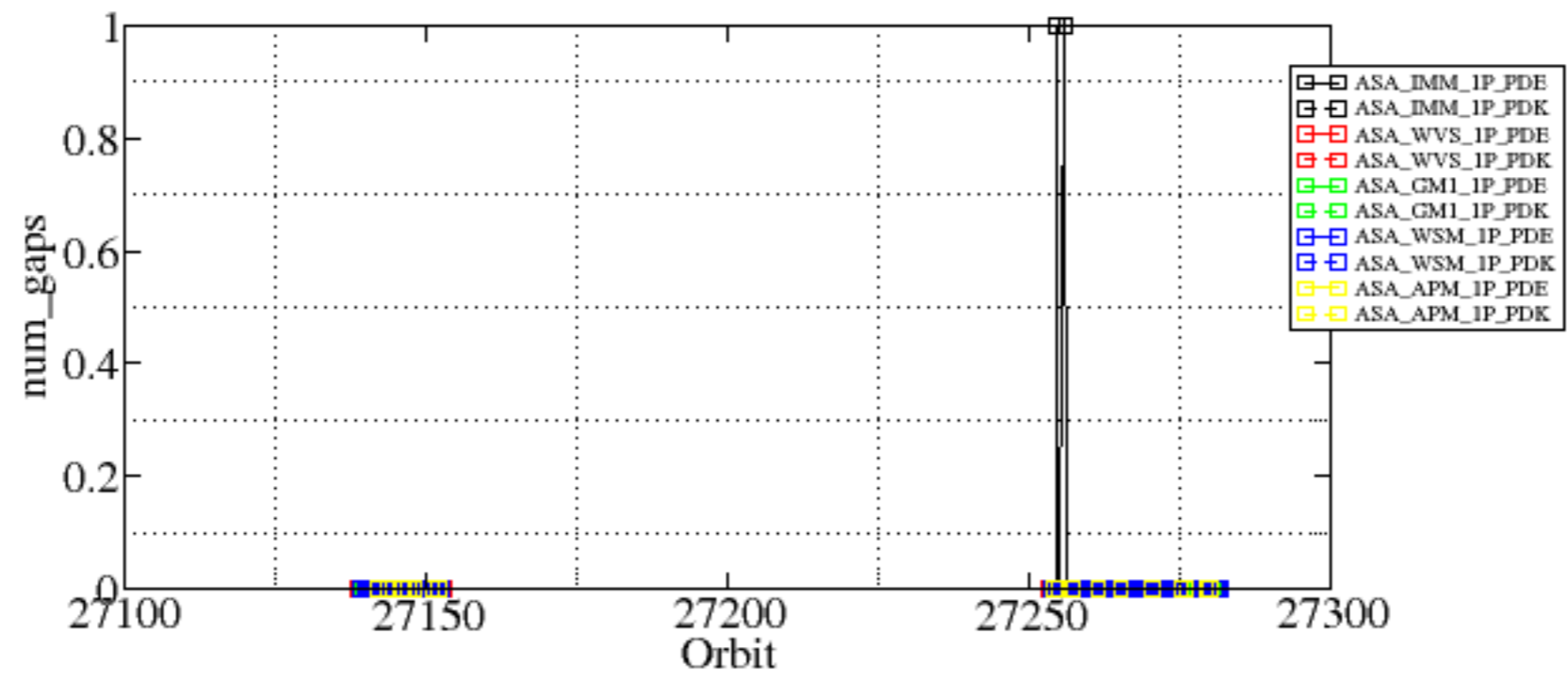


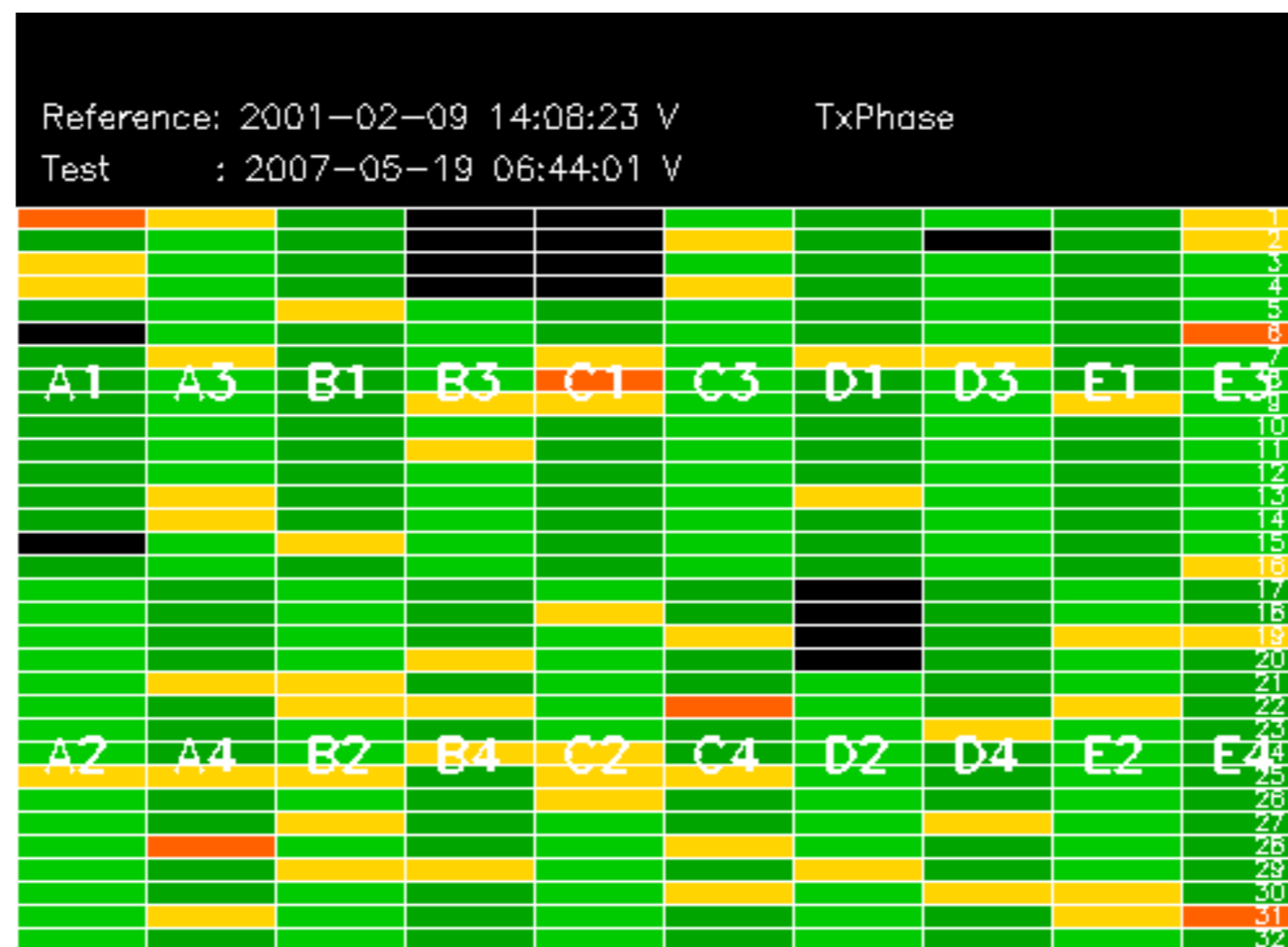


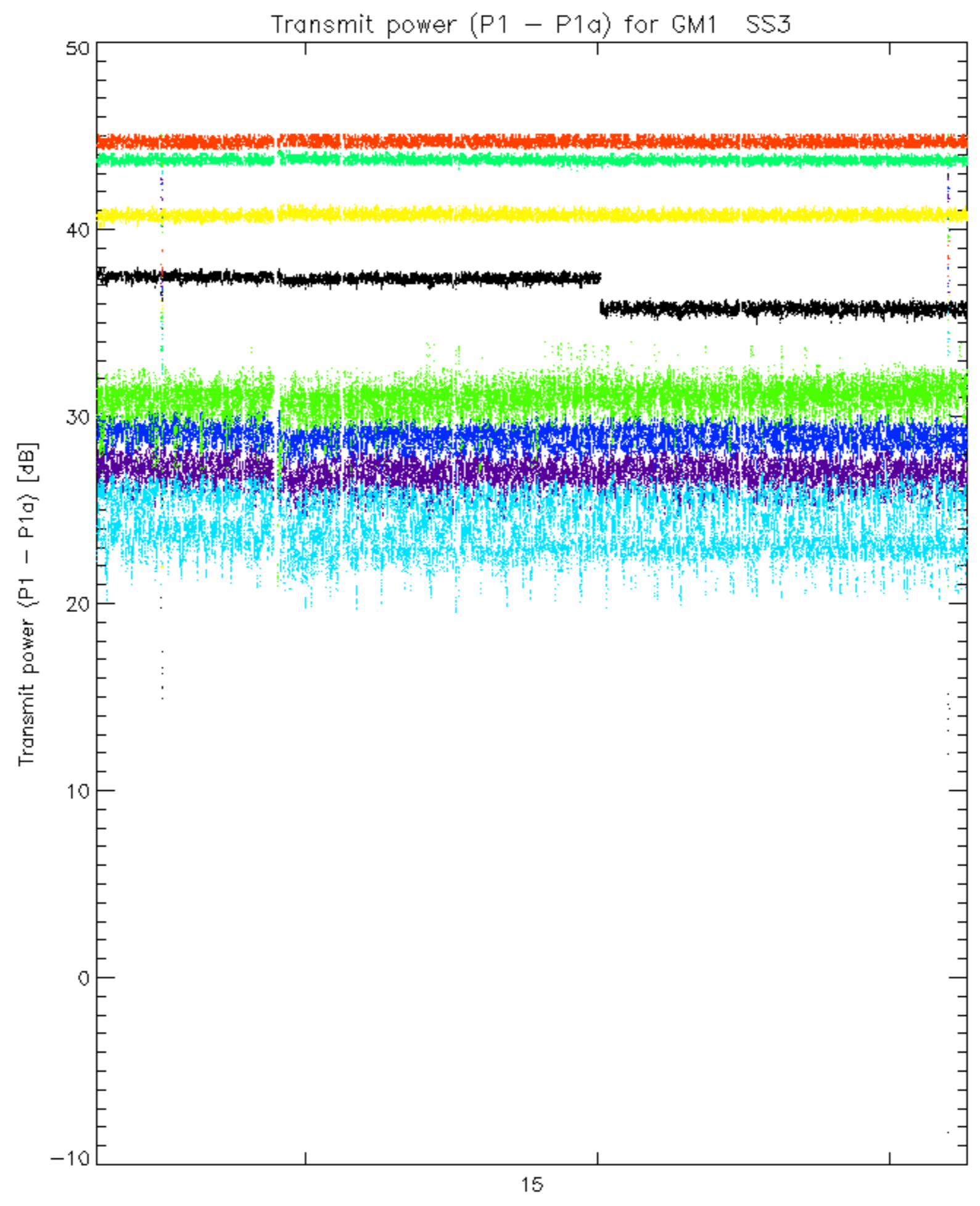
Summary of analysis for the last 3 days 2007051[890]

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

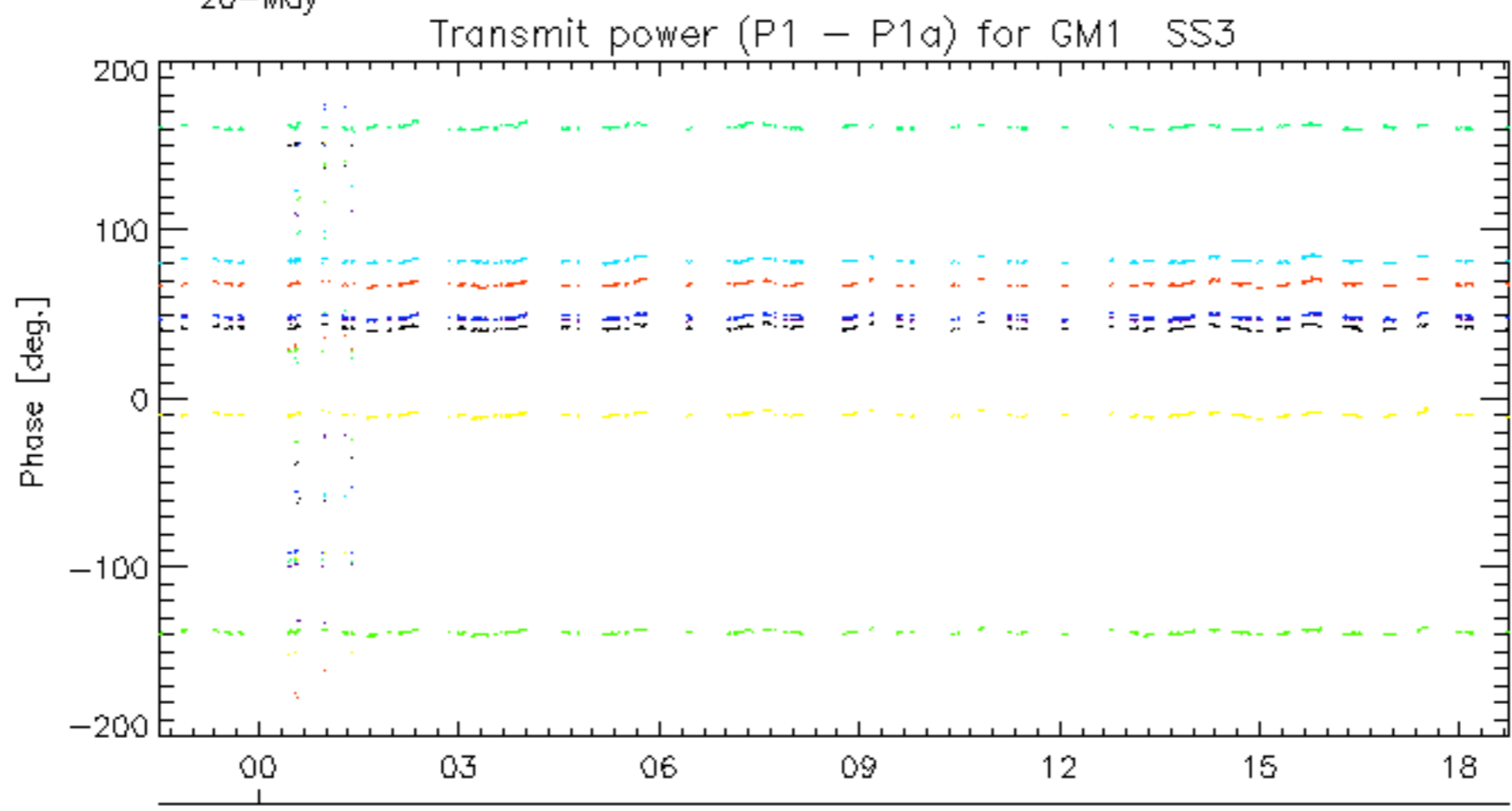
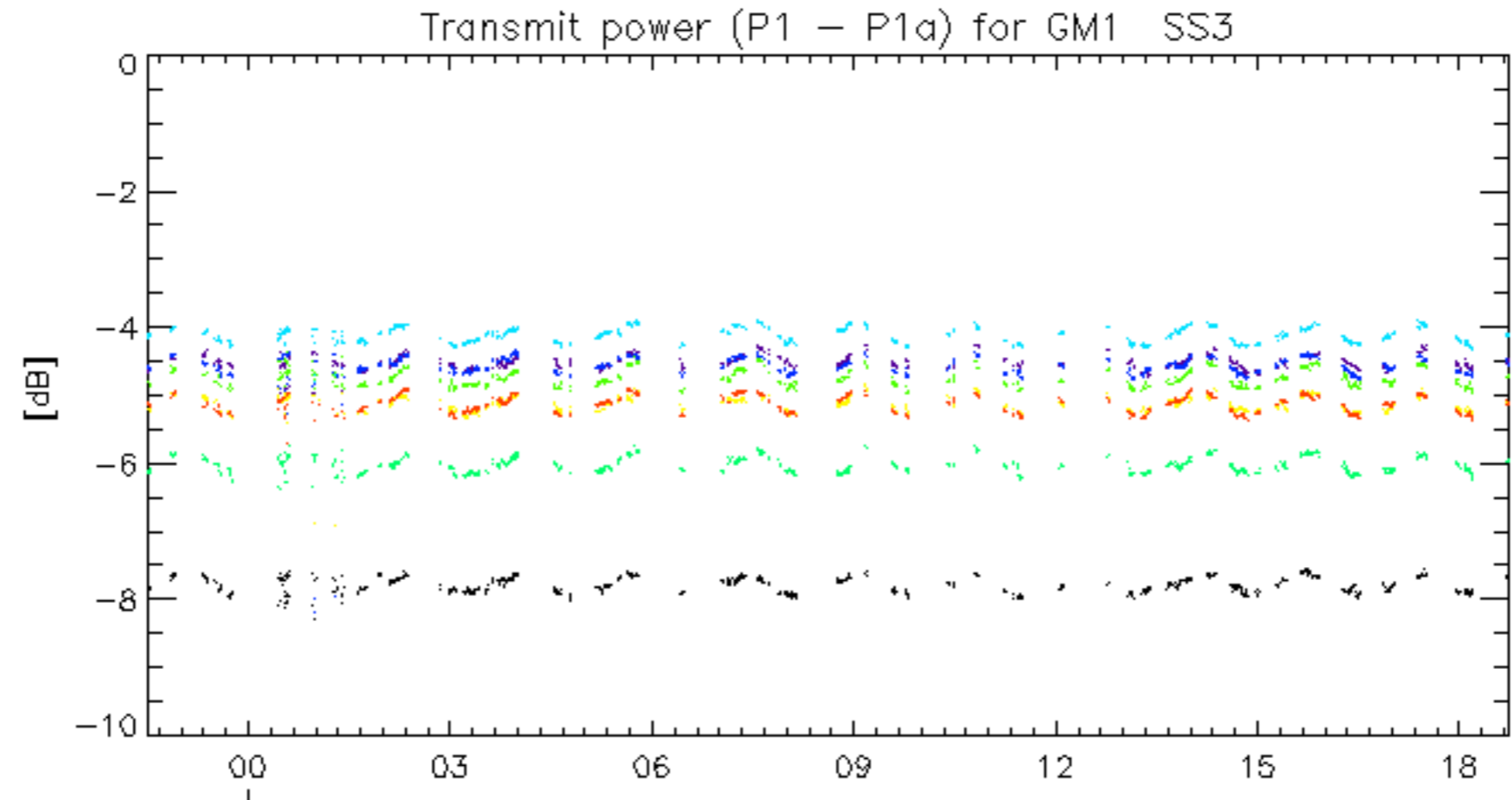
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070518_015652_000000362058_00146_27254_0357.N1	1	0
ASA_IMM_1PNPDE20070518_042631_000000762058_00147_27255_0576.N1	1	0
ASA_WSM_1PNPDE20070518_015027_000000852058_00146_27254_0388.N1	0	2
ASA_WSM_1PNPDE20070518_032509_000000672058_00147_27255_0392.N1	0	1
ASA_WSM_1PNPDE20070518_032509_000001472058_00147_27255_0992.N1	0	1
ASA_WSM_1PNPDE20070518_201722_000000672058_00157_27265_1371.N1	0	52
ASA_WSM_1PNPDE20070518_234323_000002442058_00159_27267_1774.N1	0	35
ASA_WSM_1PNPDE20070519_012058_000000852058_00160_27268_1922.N1	0	40
ASA_WSM_1PNPDE20070519_172249_000001772058_00170_27278_2607.N1	0	2
ASA_WSM_1PNPDE20070519_190232_000000972058_00171_27279_2642.N1	0	41



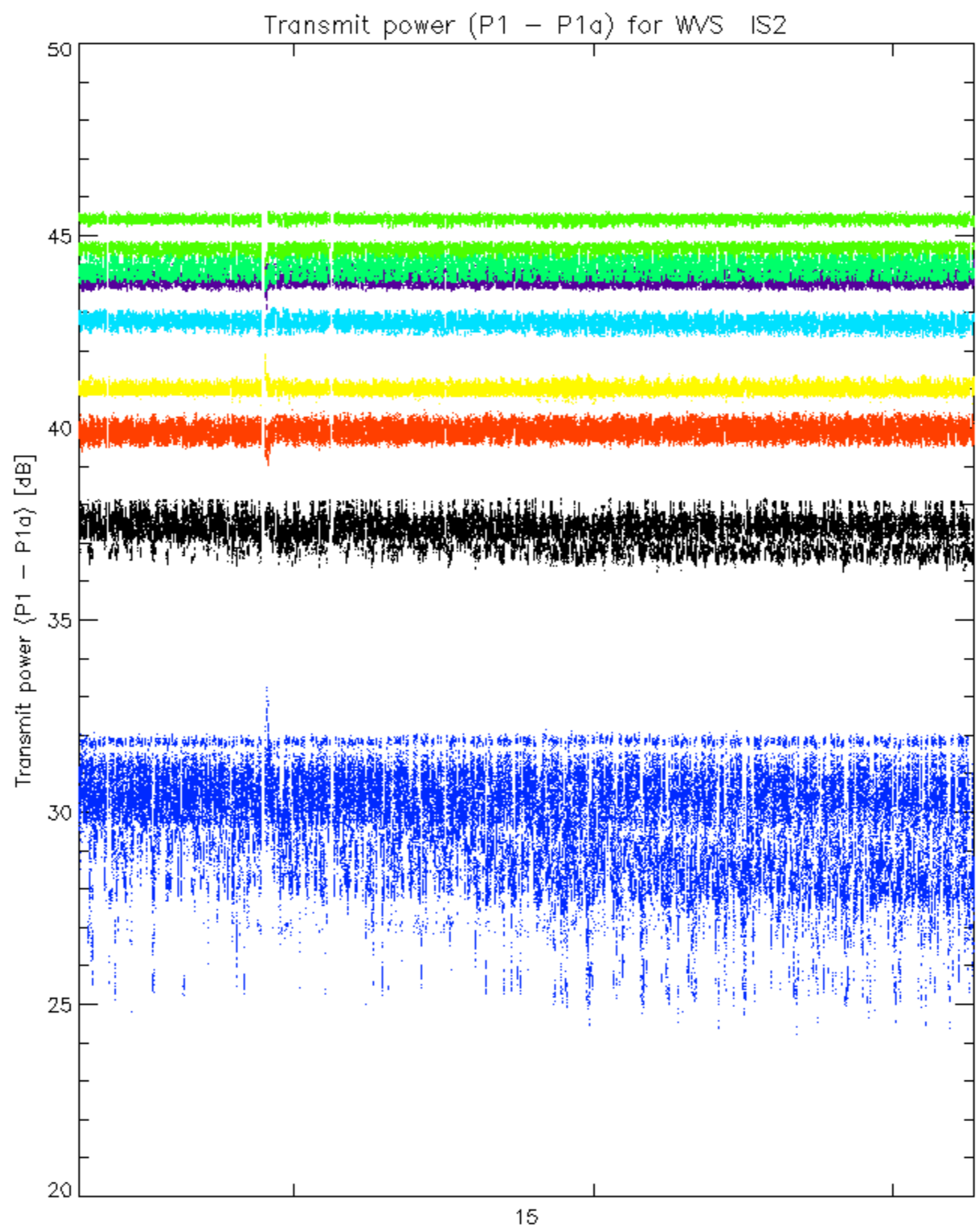




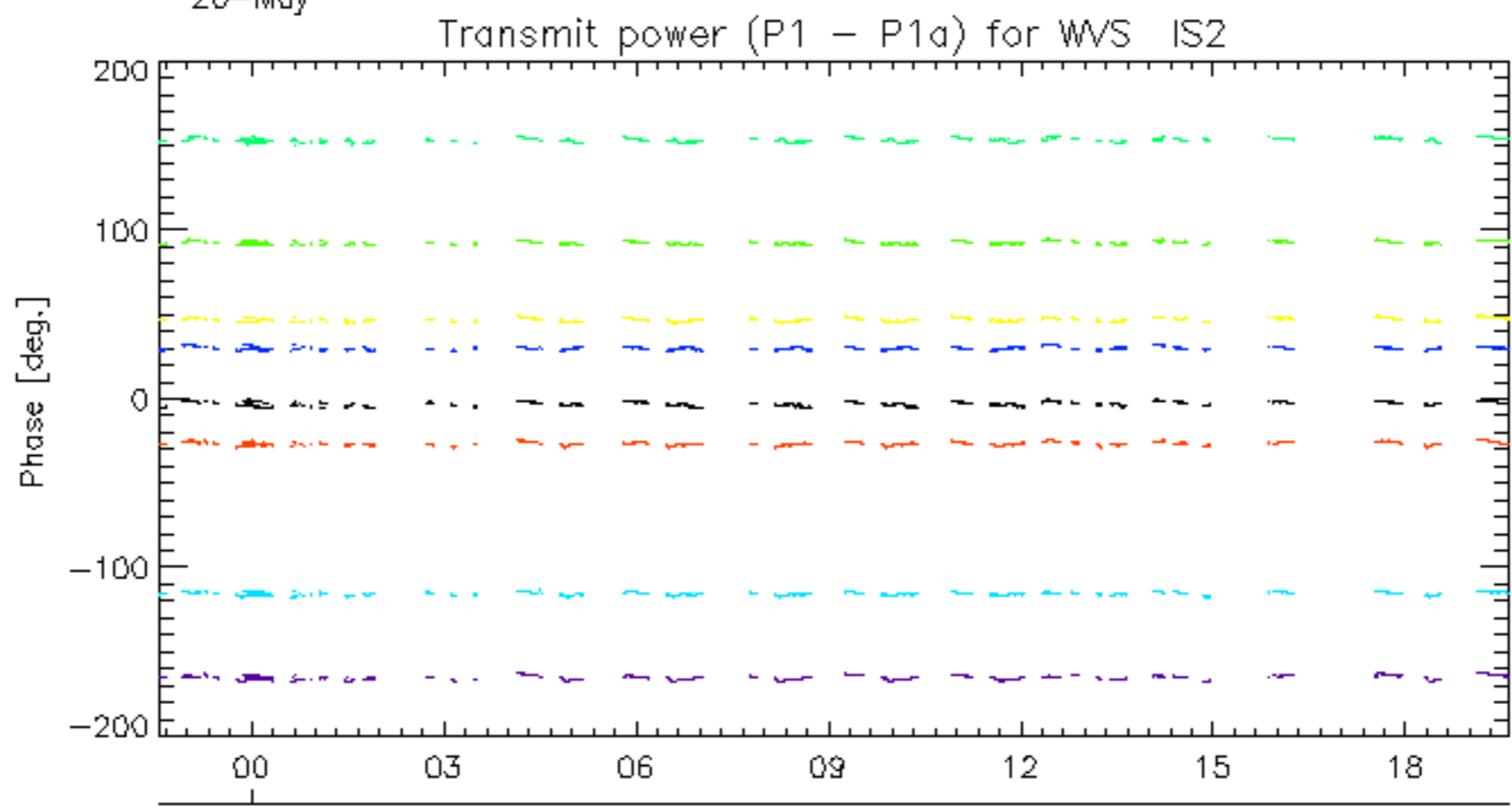
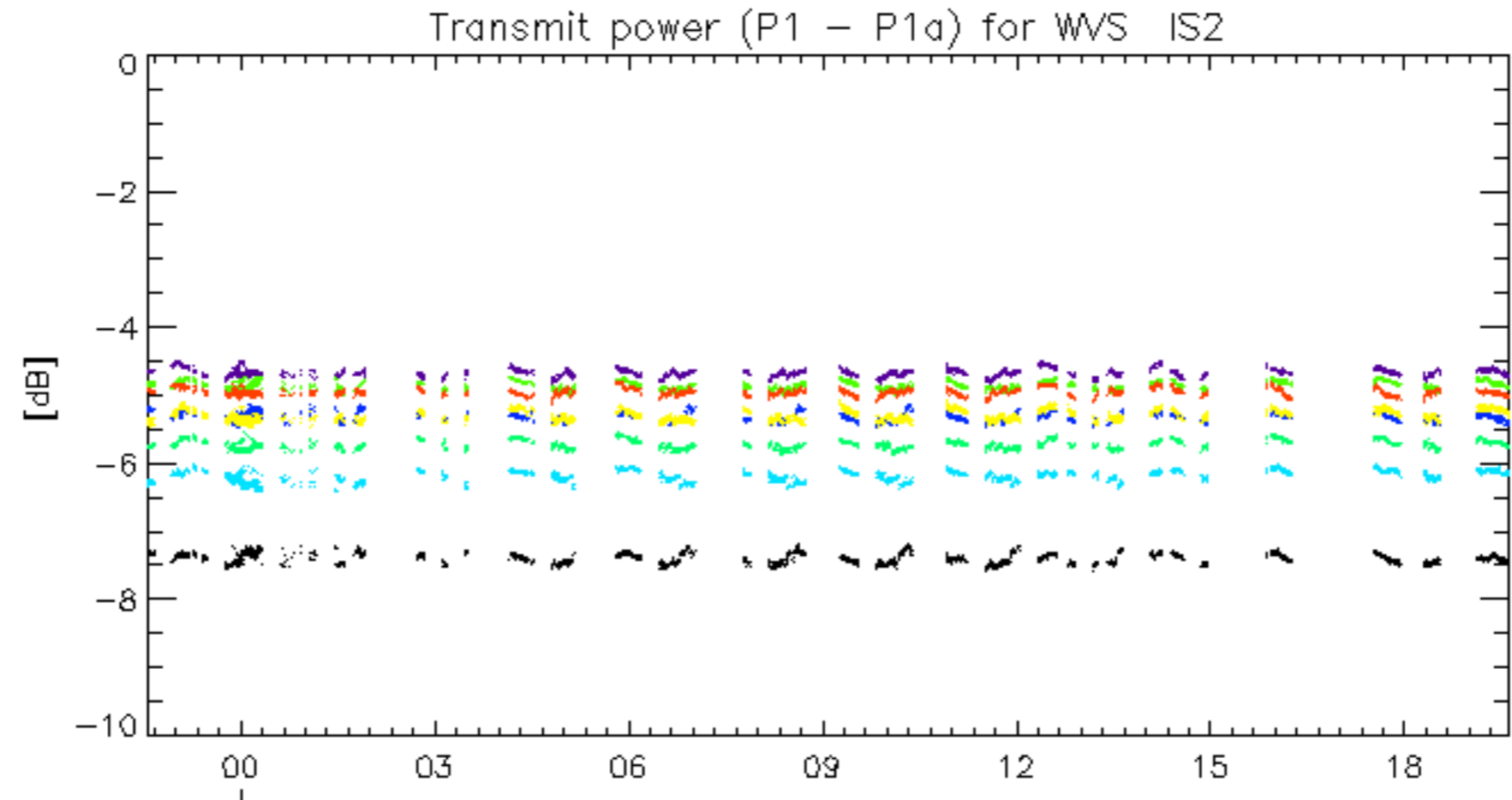
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.