

PRELIMINARY REPORT OF 070329

last update on Thu Mar 29 18:01:03 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 2007-03-28 00:00:00 to 2007-03-29 18:01:03

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	23	47	3	2	21
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	41	79	3	3	38
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	41	79	3	3	38
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	18	32	0	1	17
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	79	3	3	38

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20070222_190441_20070204_165113_20071231_000000	30	37	20	6	27
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	47	65	33	7	55
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	47	65	33	7	55
ASA_CON_AXVIEC20070328_163753_20070329_000000_20070330_120000	17	28	13	1	28
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	65	33	7	55

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	20070329 100802
H	20070328 071827

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

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-15.103012	0.126323	0.079380
7	P1a	-17.487368	0.101949	-0.114306
11	P1a	-17.266766	0.344331	0.012403
15	P1a	-12.883976	0.087991	0.020785
19	P1a	-15.168735	0.077115	-0.066844
22	P1a	-15.524220	0.554029	-0.487640
26	P1a	-15.092799	0.428475	-0.198679
30	P1a	-17.413183	0.292879	-0.231879

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.745853	0.010586	-0.028257
7	P1	-3.136060	0.008508	-0.011997
11	P1	-4.173073	0.015041	-0.056987
15	P1	-6.373281	0.016656	0.025197
19	P1	-3.776868	0.007544	-0.027035
22	P1	-4.685439	0.044499	-0.116447
26	P1	-3.928626	0.038125	-0.039501
30	P1	-5.926110	0.066982	-0.129678

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.644236	0.093784	0.032193
7	P2	-21.602064	0.082742	0.039326
11	P2	-15.493410	0.102443	0.159882
15	P2	-7.082652	0.094678	-0.051200
19	P2	-9.108639	0.083974	-0.015292
22	P2	-18.092062	0.078618	0.030996
26	P2	-16.561642	0.086166	-0.057619
30	P2	-19.317774	0.082362	0.088147

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.234052	0.006456	0.003765
7	P3	-8.234052	0.006456	0.003765
11	P3	-8.234052	0.006456	0.003765
15	P3	-8.234052	0.006456	0.003765
19	P3	-8.234052	0.006456	0.003765
22	P3	-8.234052	0.006456	0.003765
26	P3	-8.233984	0.006458	0.004026
30	P3	-8.233984	0.006458	0.004026

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	-11.098615	0.052701	-0.082927
7	P1a	-10.070946	0.131609	-0.006776
11	P1a	-10.680174	0.062690	-0.018876
15	P1a	-10.933526	0.143789	0.114919
19	P1a	-15.719283	0.071879	-0.136360
22	P1a	-20.920401	1.507435	-0.205917
26	P1a	-15.266186	0.323774	-0.142339
30	P1a	-18.374210	0.692884	0.037926

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.414398	0.039310	-0.051469
7	P1	-2.425619	0.022122	-0.001594
11	P1	-2.919791	0.019066	0.020009
15	P1	-3.847355	0.039156	0.000595
19	P1	-3.563823	0.011226	-0.036933
22	P1	-5.028780	0.032046	0.050330

26	P1	-5.959285	0.051589	-0.067209
30	P1	-5.277949	0.030951	-0.041931

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.107374	0.037675	-0.038225
7	P2	-21.959455	0.061878	-0.044740
11	P2	-10.634709	0.033579	0.027622
15	P2	-4.835298	0.031834	-0.050023
19	P2	-6.815770	0.033833	-0.028214
22	P2	-8.079417	0.034198	-0.009518
26	P2	-24.290232	0.042271	0.013094
30	P2	-21.718542	0.044536	0.036782

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.063206	0.004058	-0.018273
7	P3	-8.063123	0.004055	-0.018421
11	P3	-8.063226	0.004056	-0.018672
15	P3	-8.063332	0.004061	-0.018389
19	P3	-8.063190	0.004066	-0.017819
22	P3	-8.063271	0.004063	-0.018671
26	P3	-8.063048	0.004042	-0.018316
30	P3	-8.063188	0.004049	-0.018536

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	0.000642253
	stdev	2.62875e-07
MEAN Q	mean	0.000350377
	stdev	2.77093e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.103355
	stdev	0.00239469
STDEV Q	mean	0.103322
	stdev	0.00245115



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007032[789]

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_1PNPDE20070328_143307_000000372056_00425_26531_0306.N1	1	0
ASA_WVS_1PNPDK20070329_111415_000000602056_00438_26544_8744.N1	0	16
ASA_GM1_1PNPDK20070328_172929_000005192056_00427_26533_7340.N1	0	7
ASA_WSM_1PNPDE20070327_004727_000000852056_00403_26509_7928.N1	0	26
ASA_WSM_1PNPDE20070327_140944_000000862056_00411_26517_8651.N1	0	22

ASA_WSM_1PNPDE20070327_150733_000000862056_00412_26518_8655.N1	0	33
ASA_WSM_1PNPDE20070327_183104_000000852056_00414_26520_8729.N1	0	16
ASA_WSM_1PNPDE20070328_001649_000002022056_00417_26523_9211.N1	0	26
ASA_WSM_1PNPDE20070328_234612_000002022056_00431_26537_0915.N1	0	27
ASA_WSM_1PNPDE20070329_022250_000000862056_00433_26539_1185.N1	0	44
ASA_WSM_1PNPDK20070329_140622_000000862056_00440_26546_8981.N1	0	15



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)	
<input type="checkbox"/>	Ascending
<input type="checkbox"/>	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**7.4 - Unbiased Doppler Error for GM1****Evolution of unbiased Doppler error (Real - Expected)**

Acsending

Descending

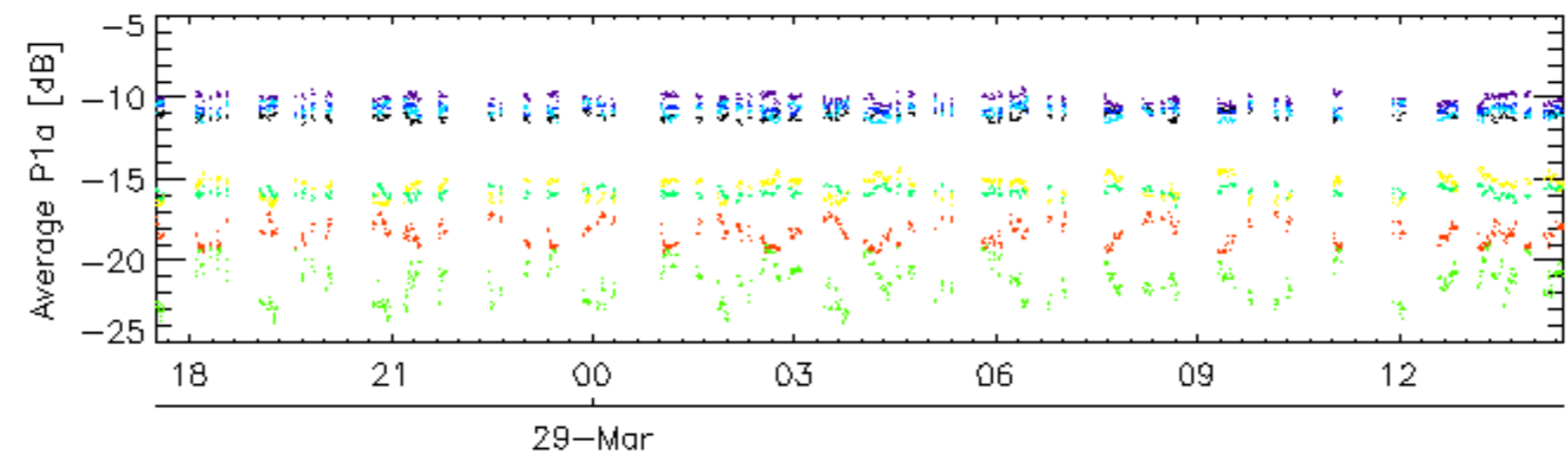
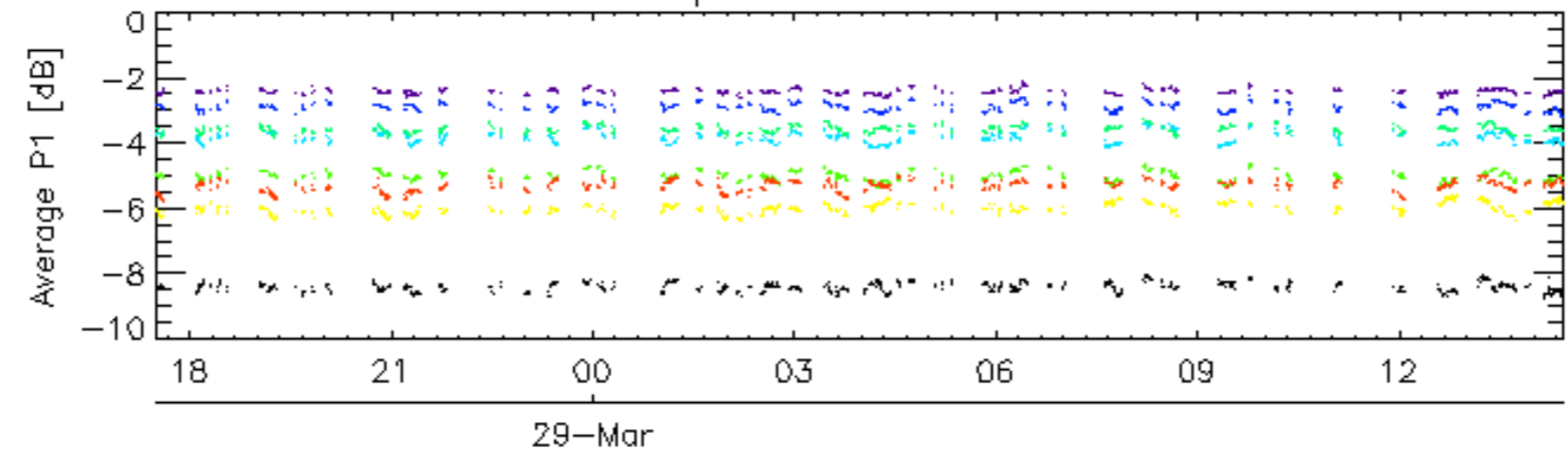
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

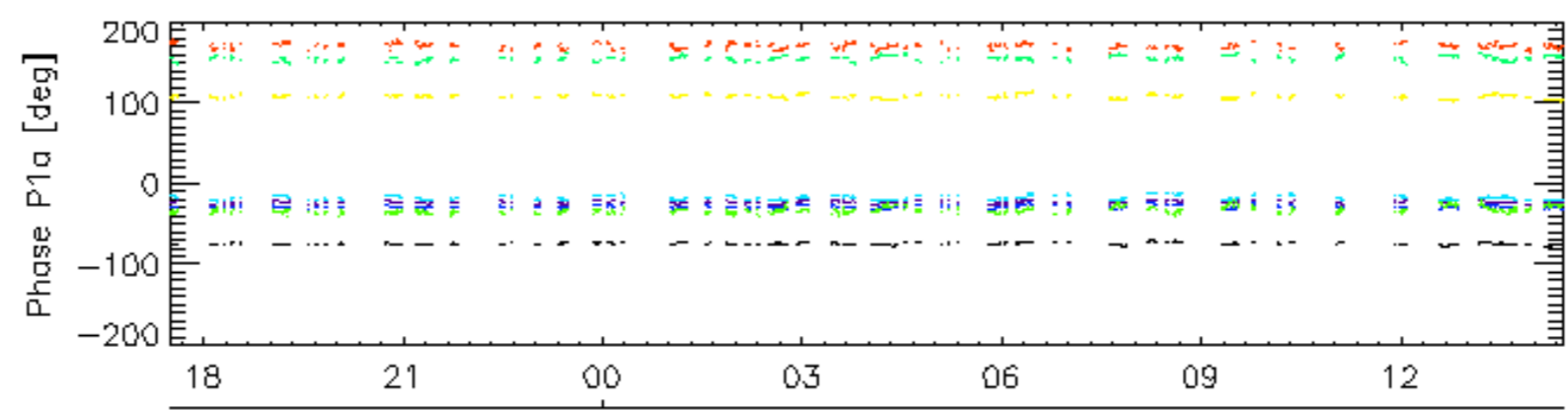
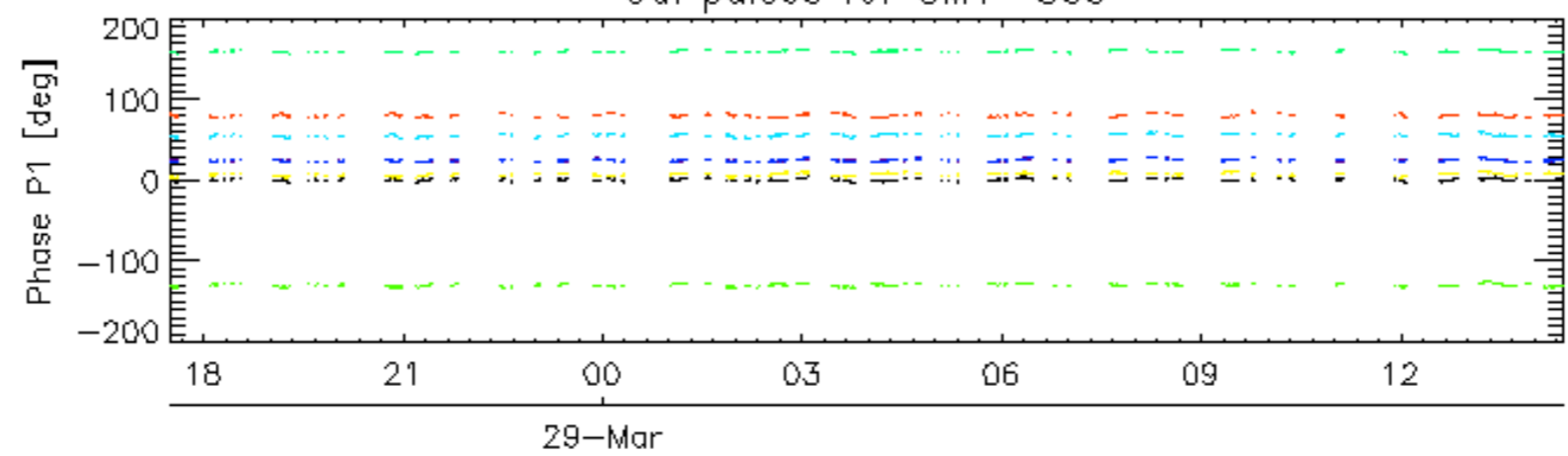
Descending

7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

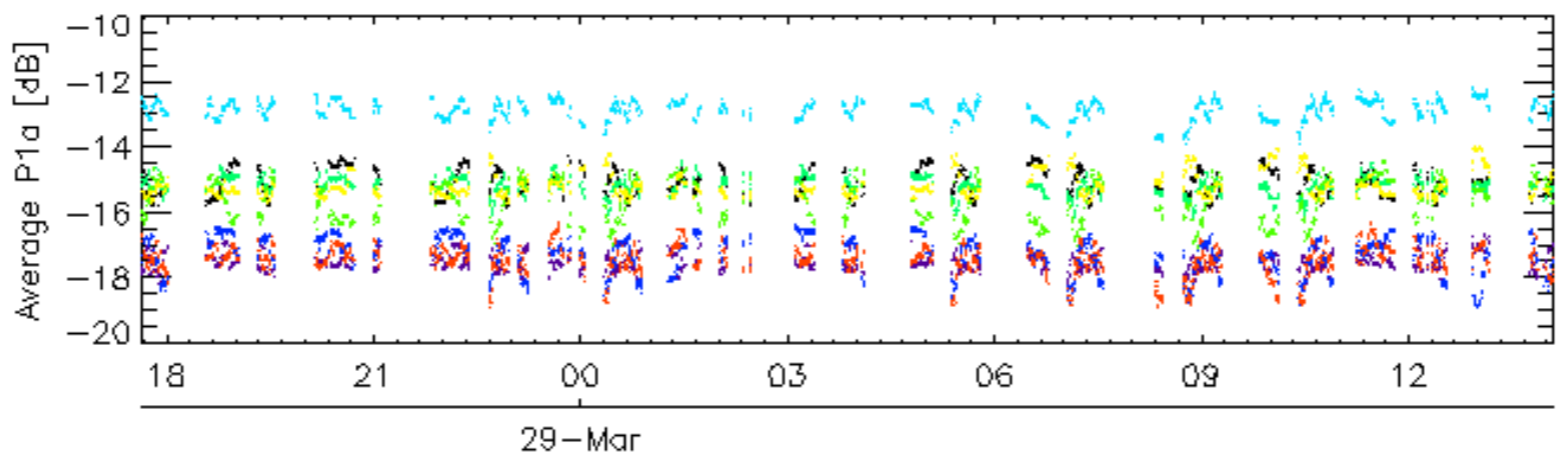
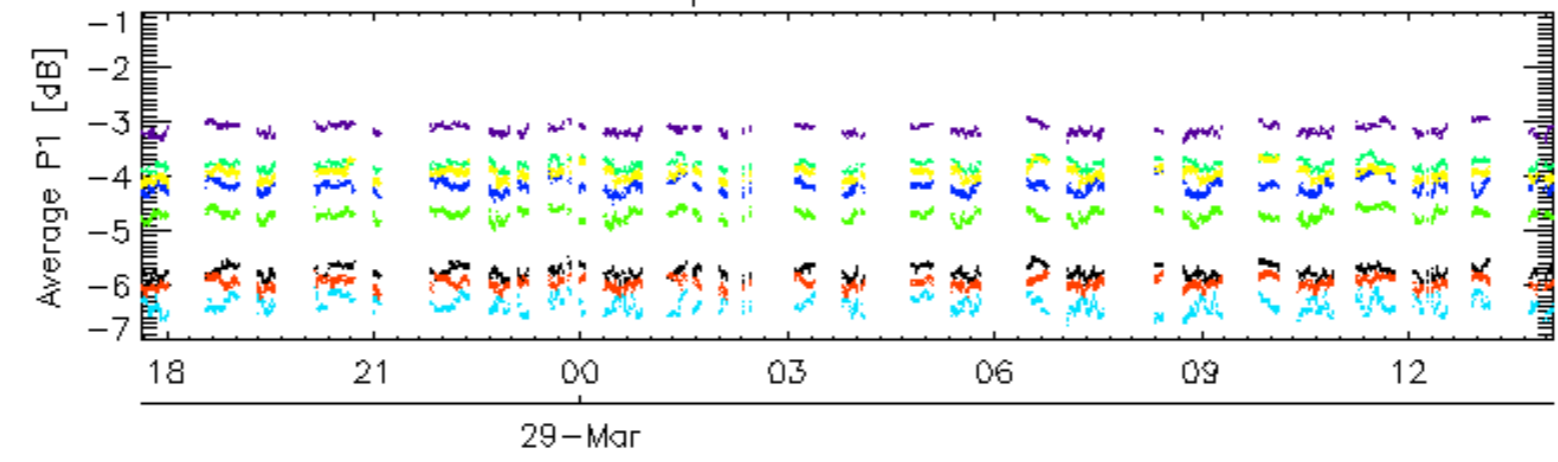


Cal pulses for GM1 SS3

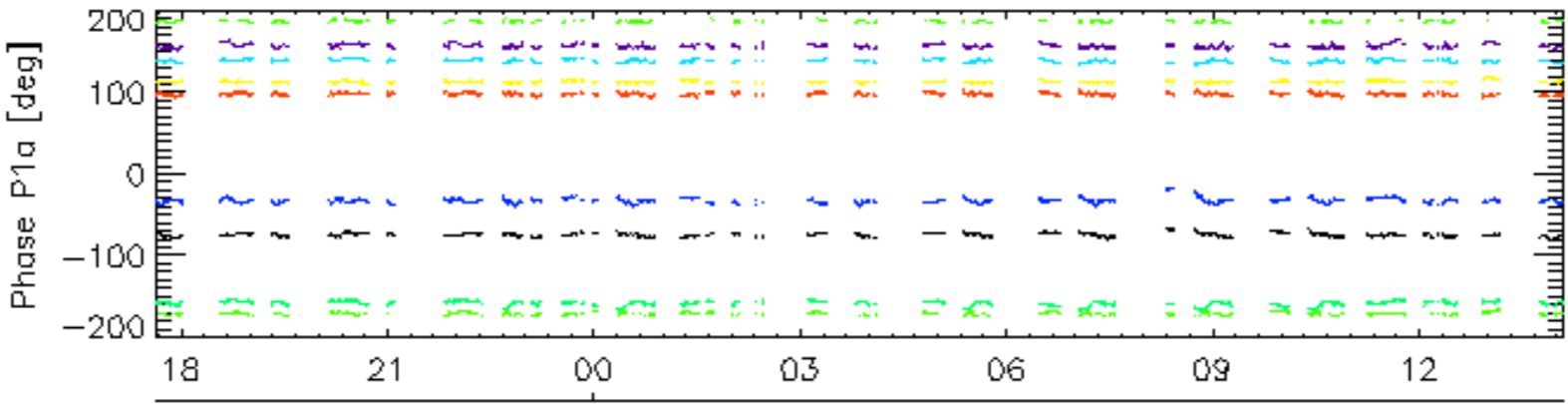
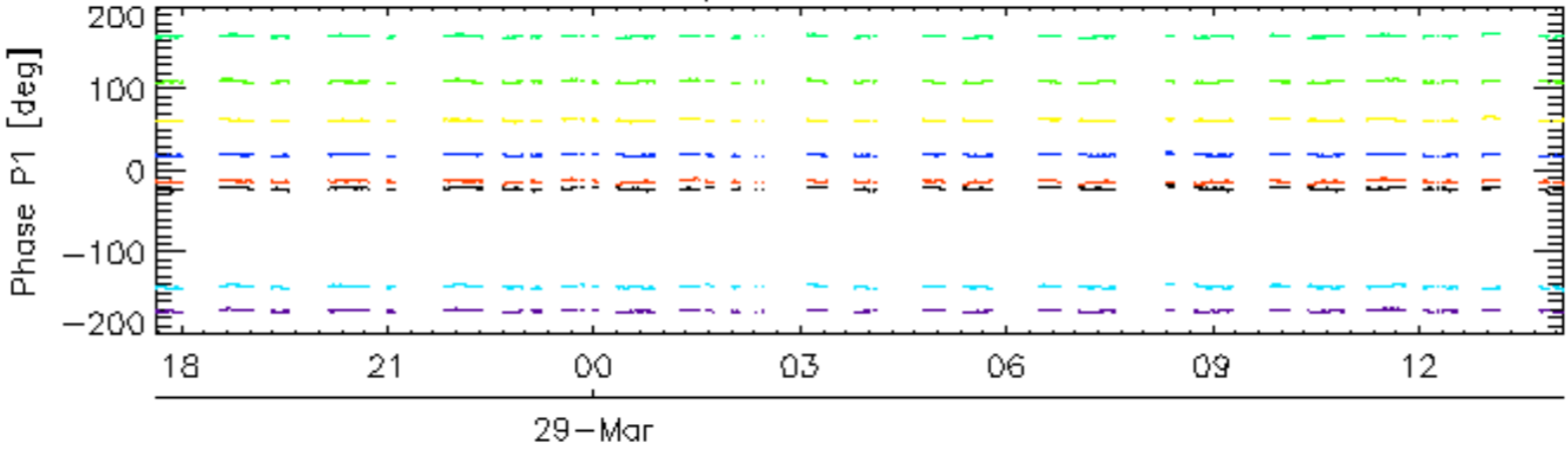


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

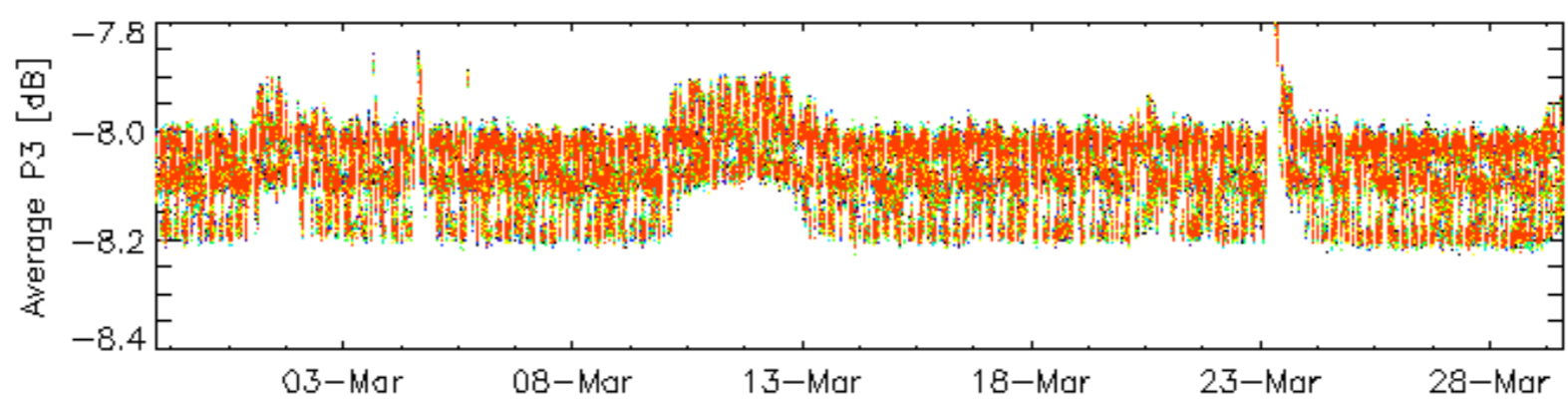
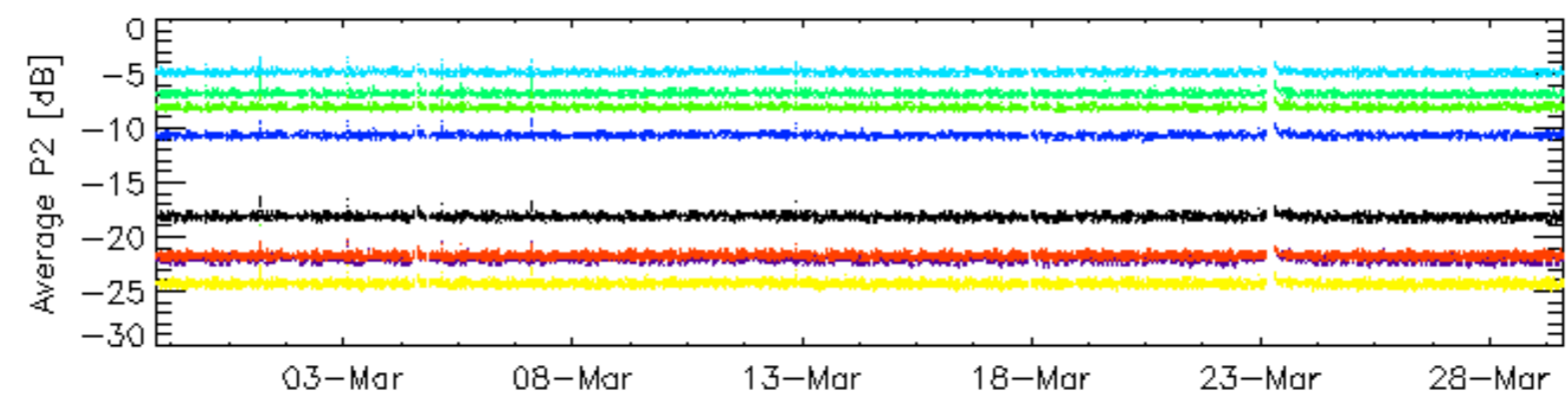
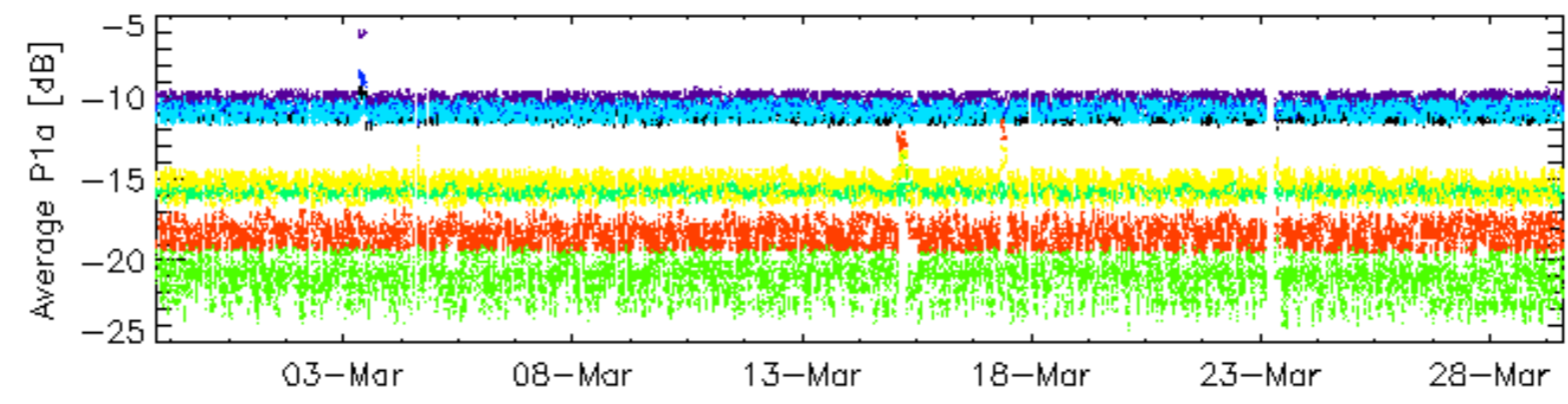
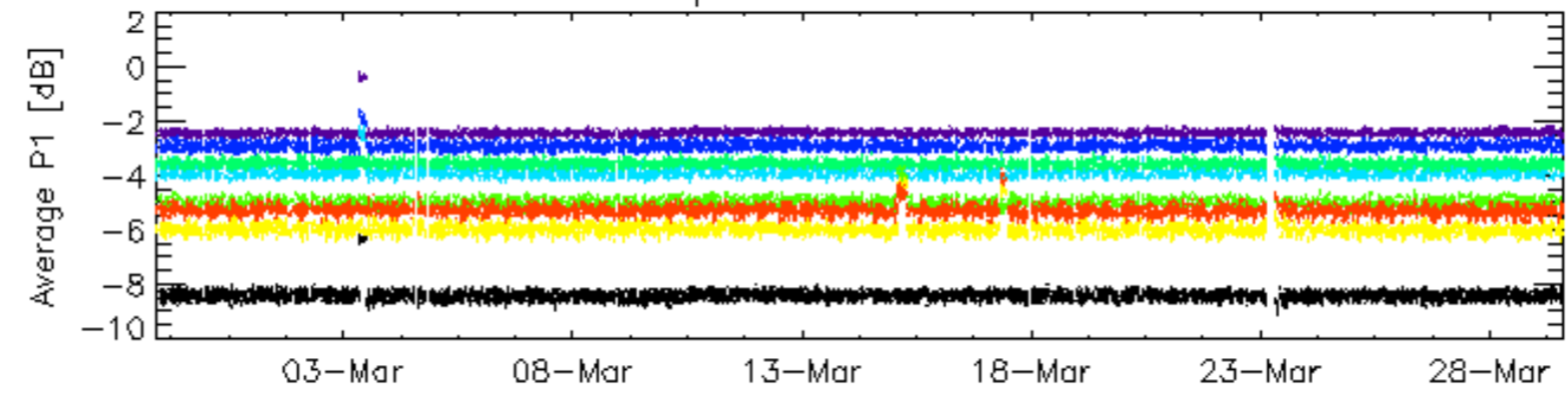


Cal pulses for WVS IS2



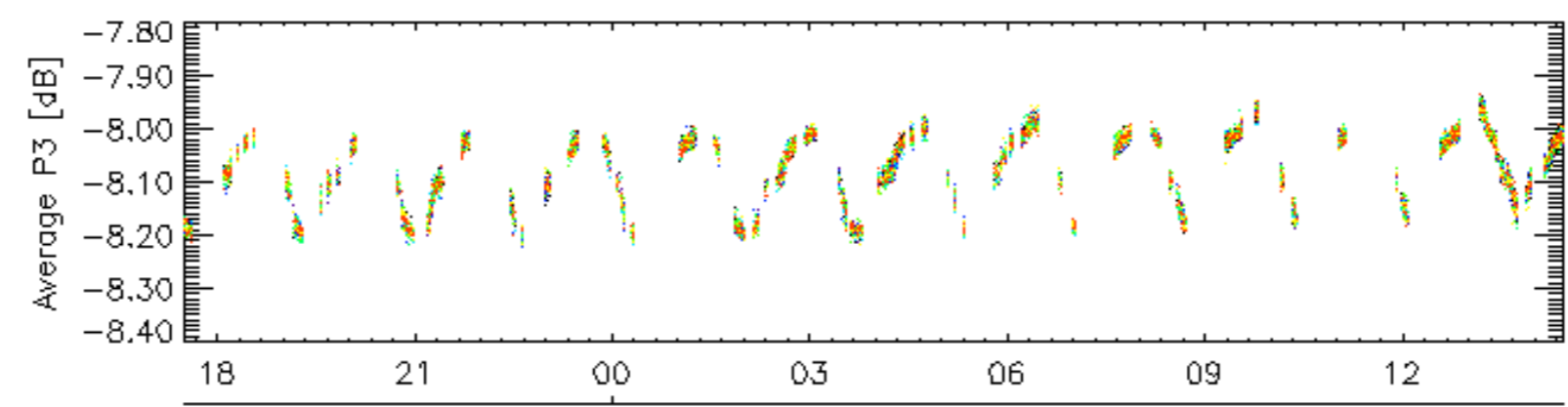
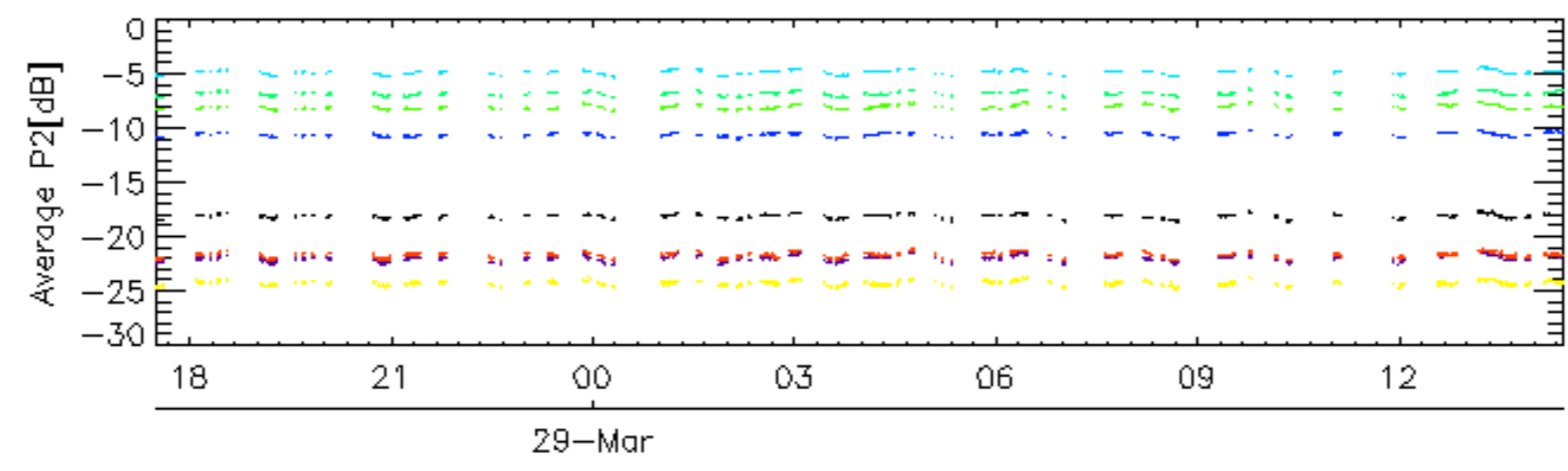
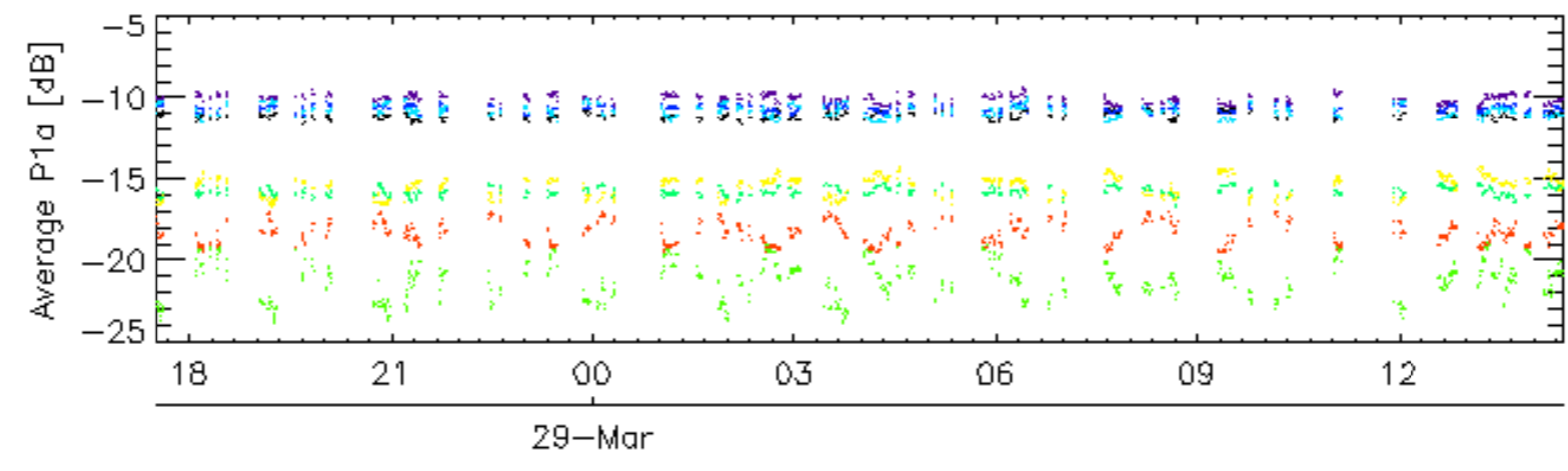
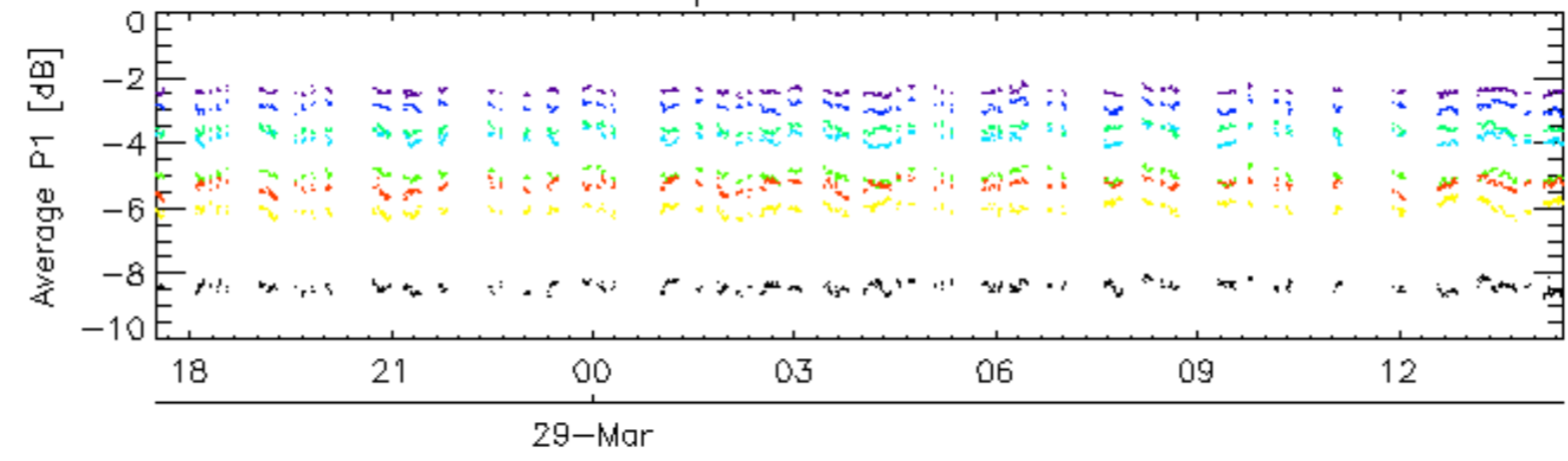
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



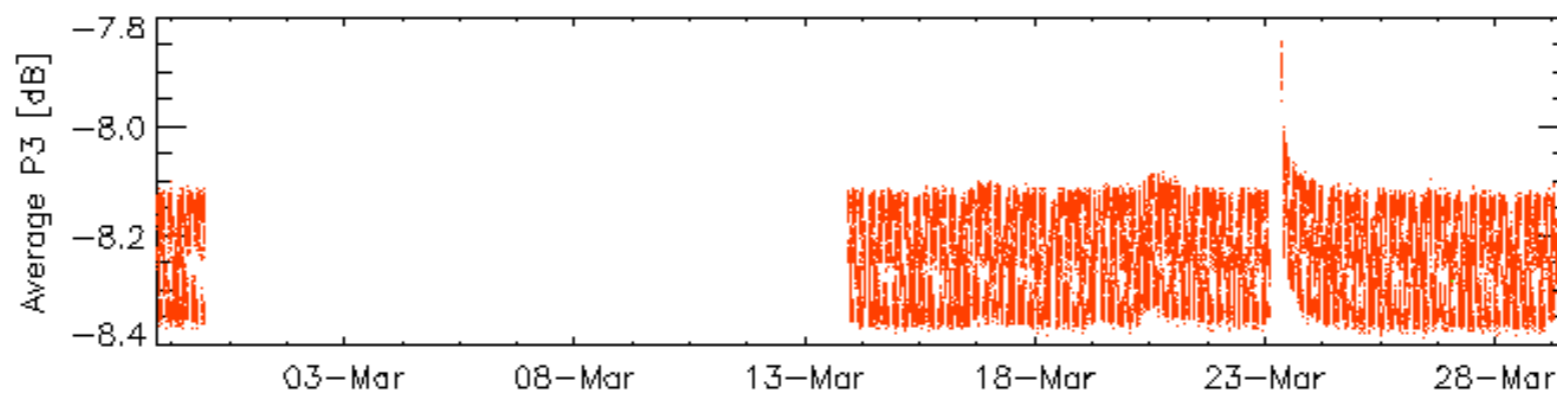
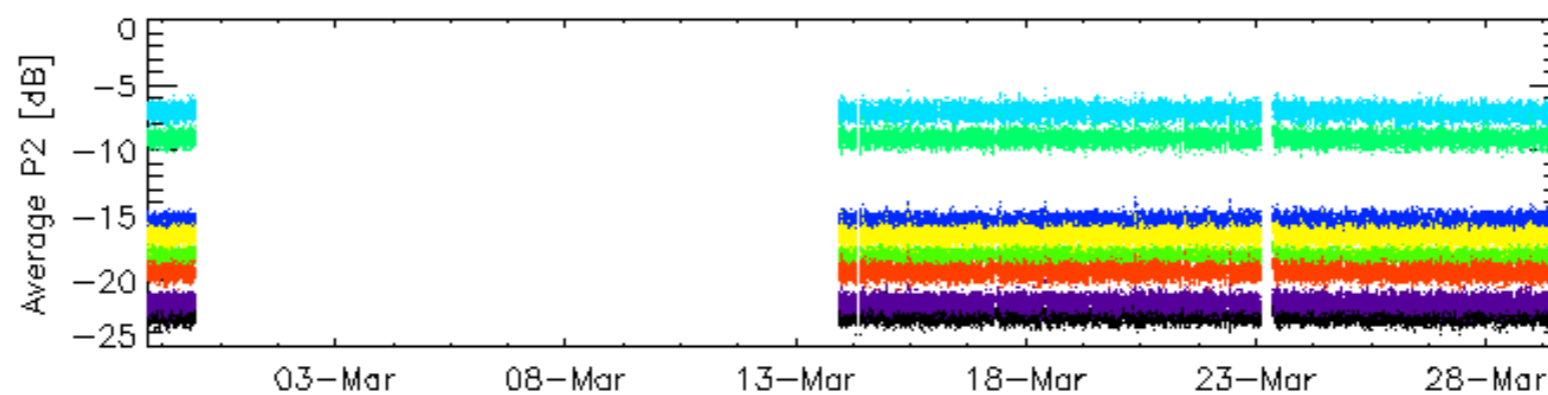
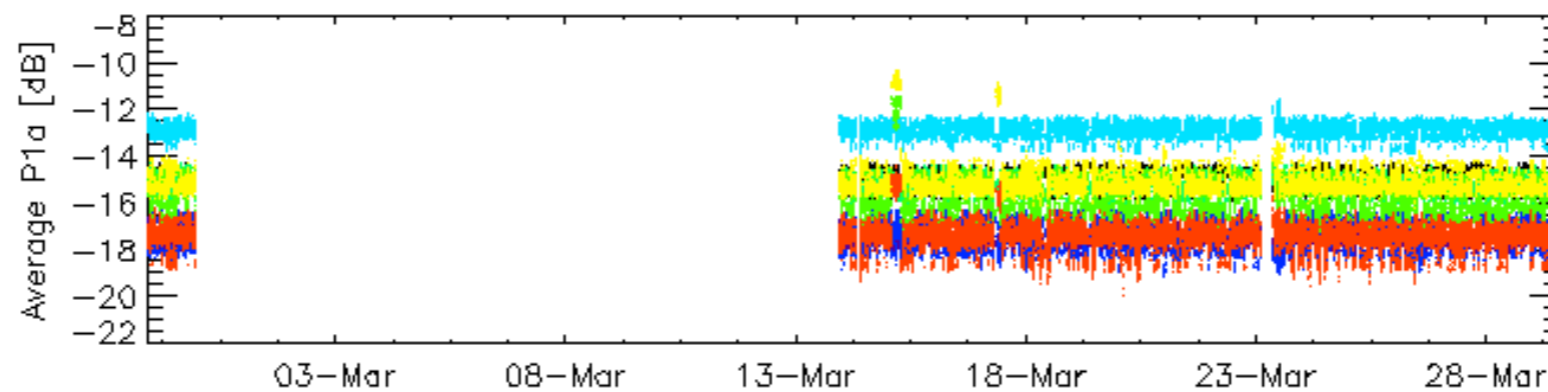
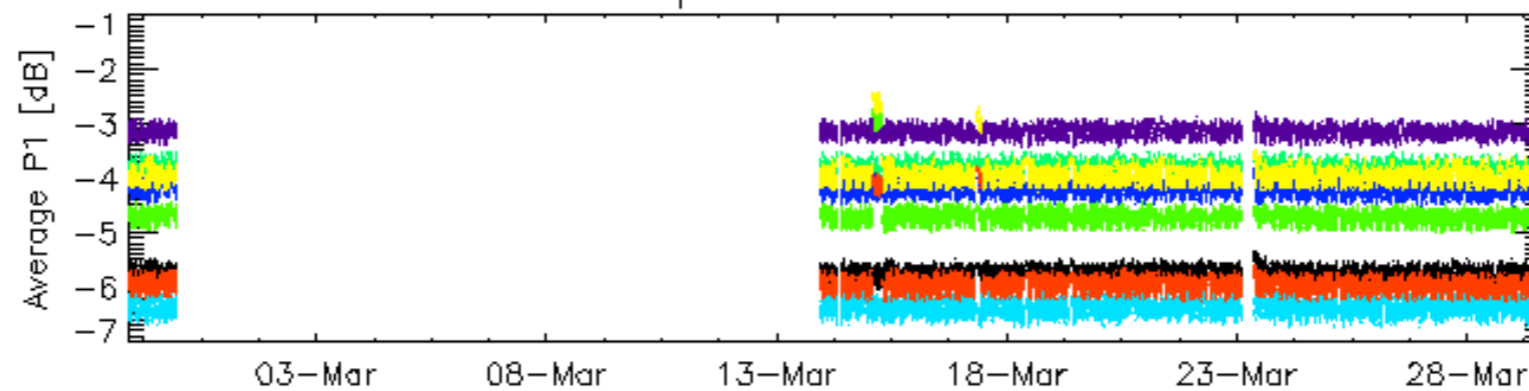
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



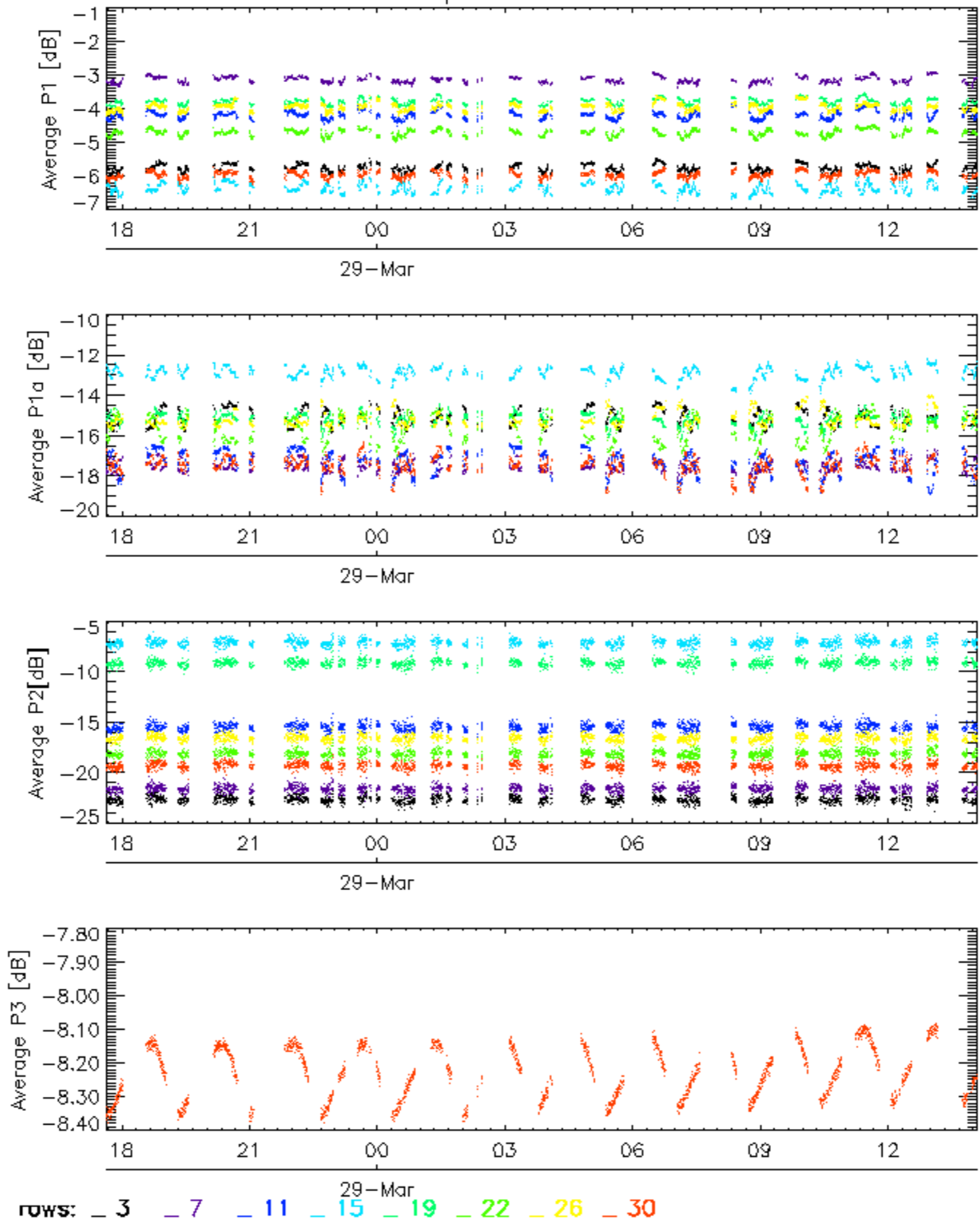
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



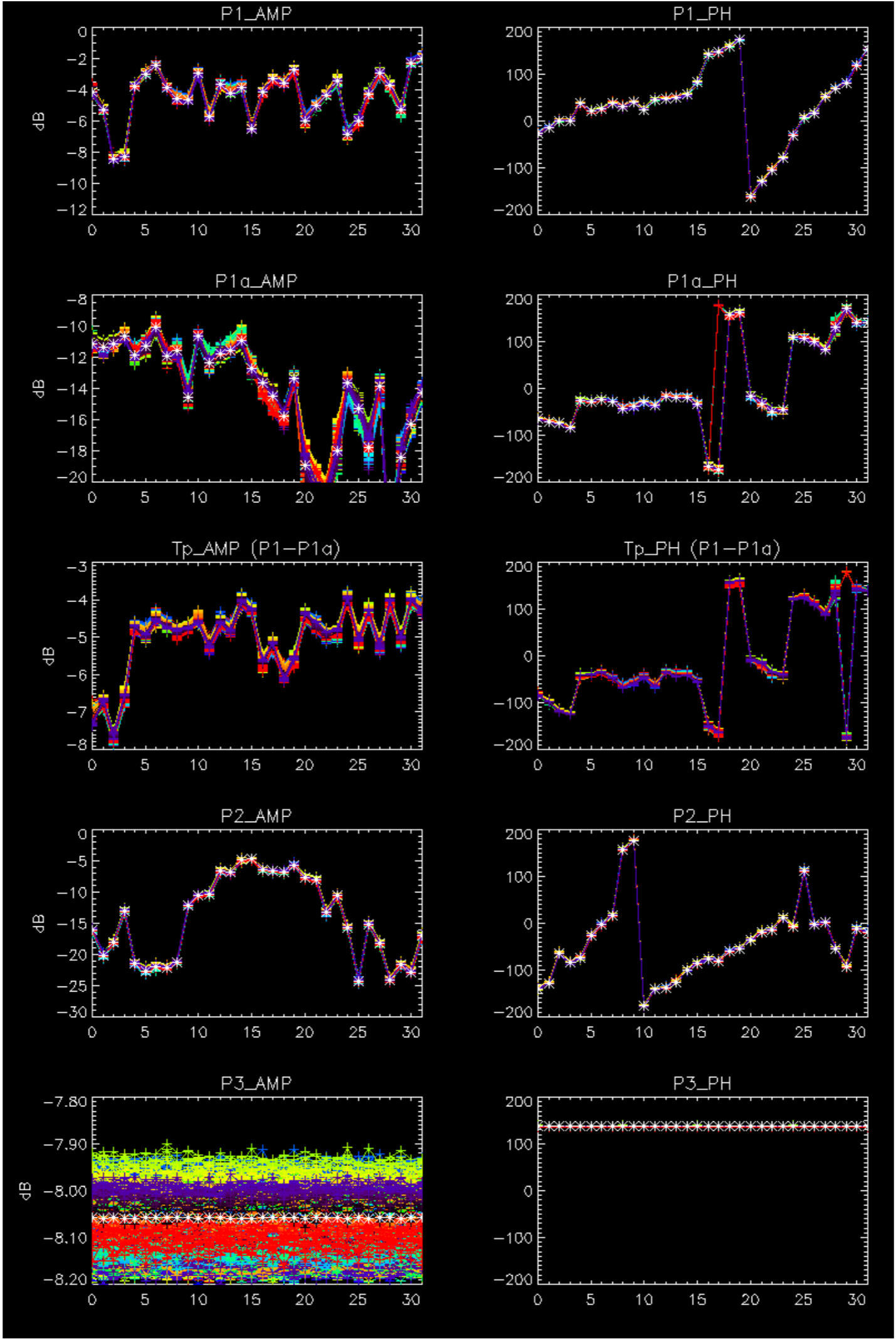
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

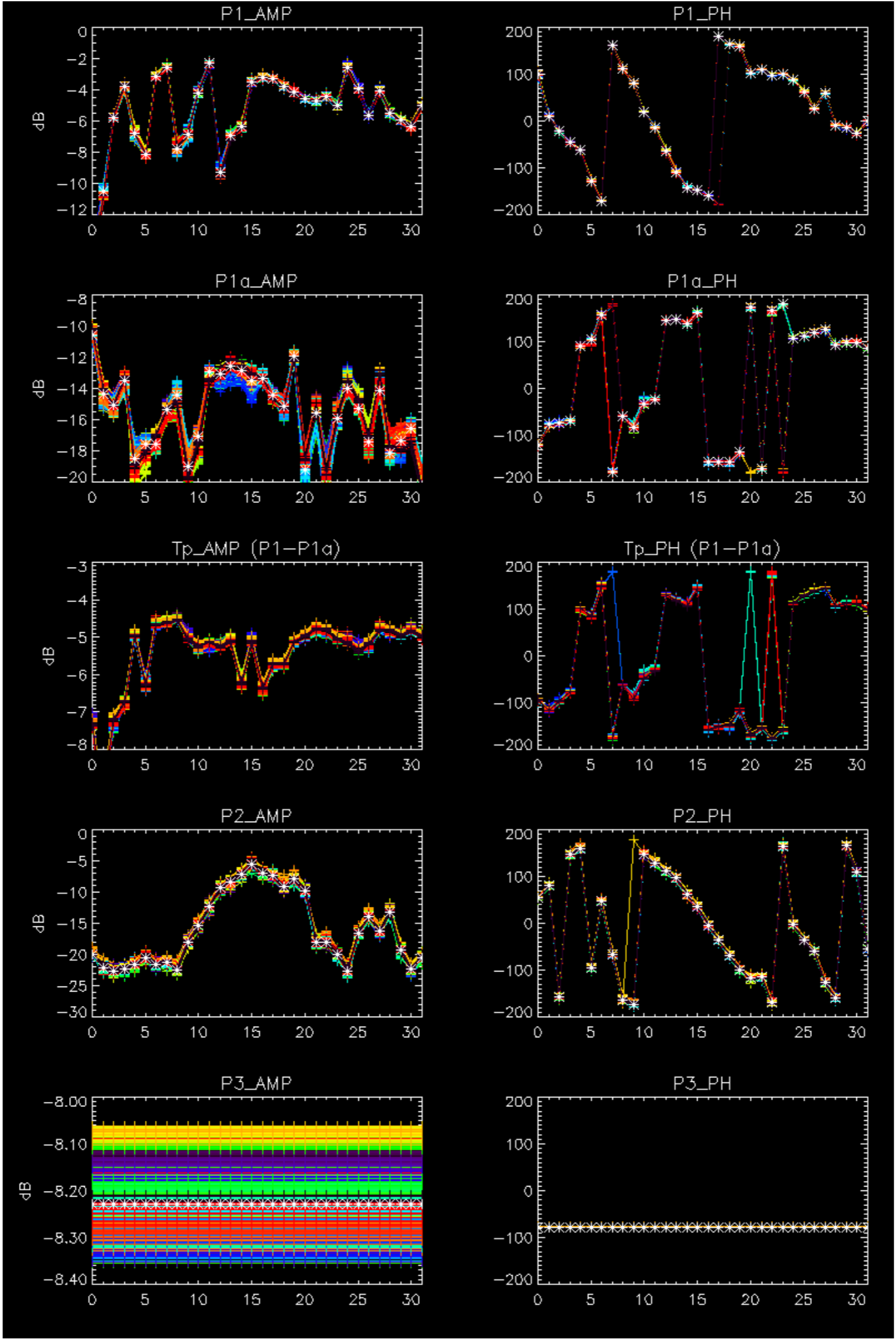
Cal pulses for WVS IS2



No anomalies observed on available browse products

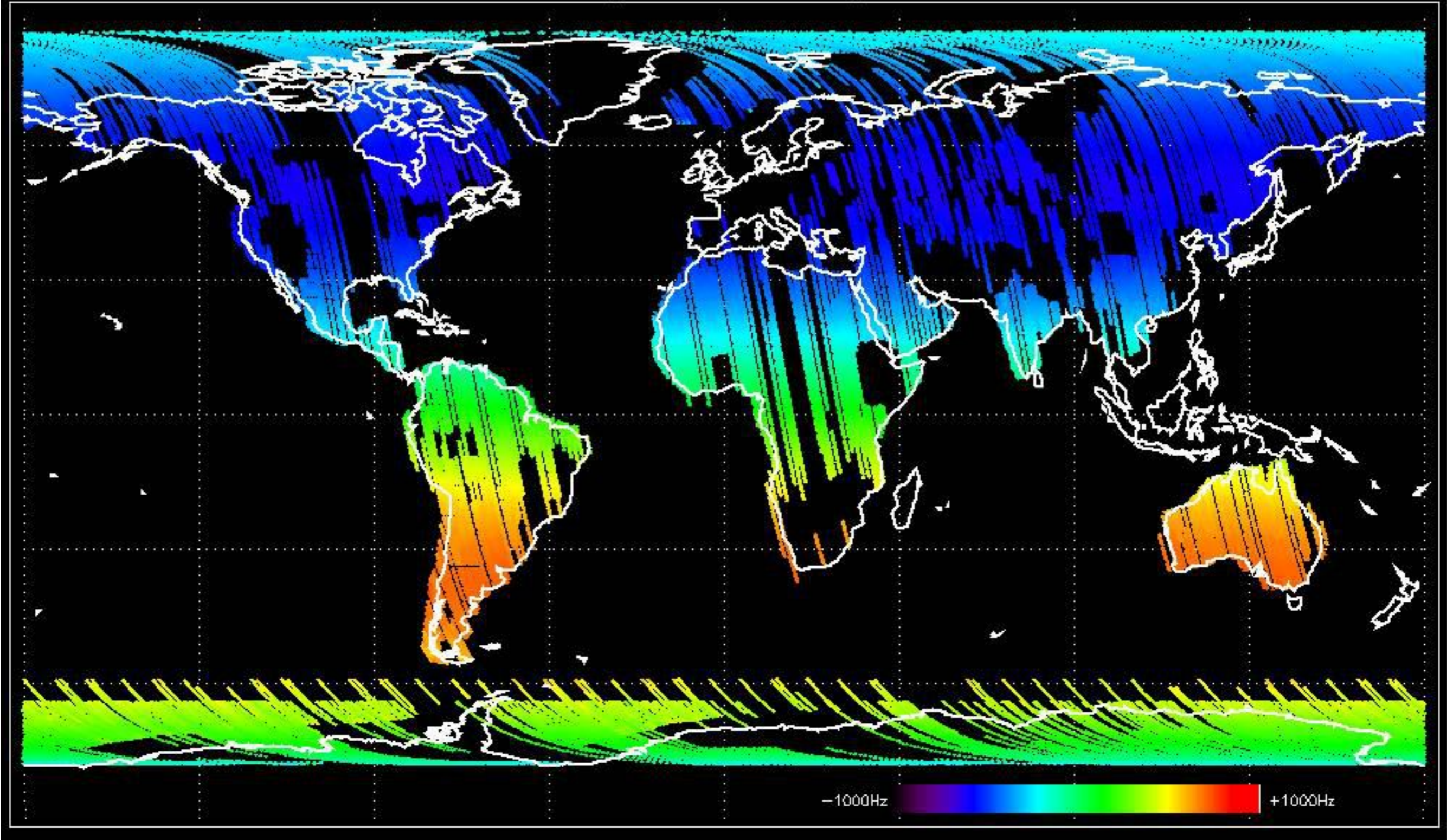
No anomalies observed.



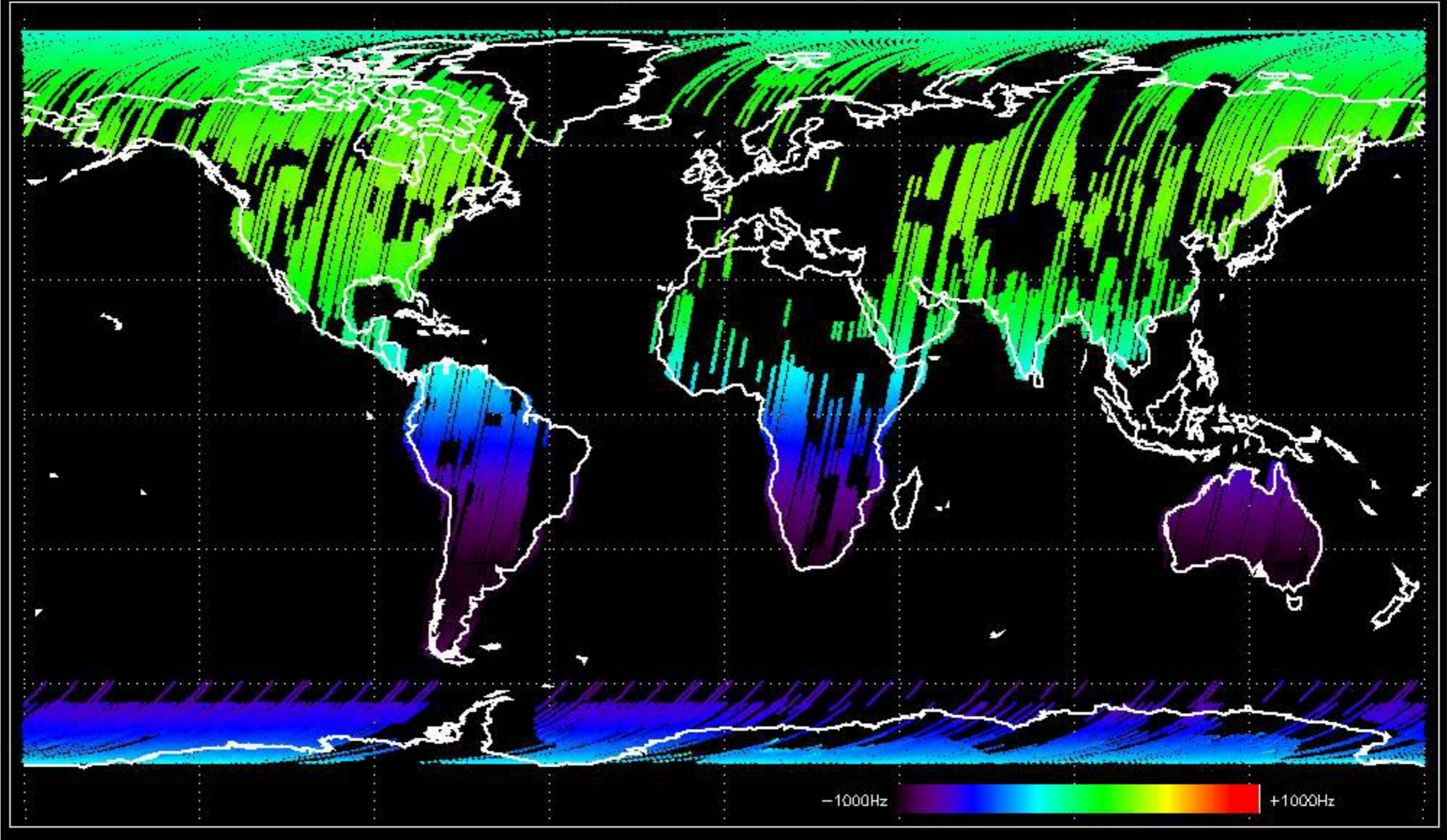


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

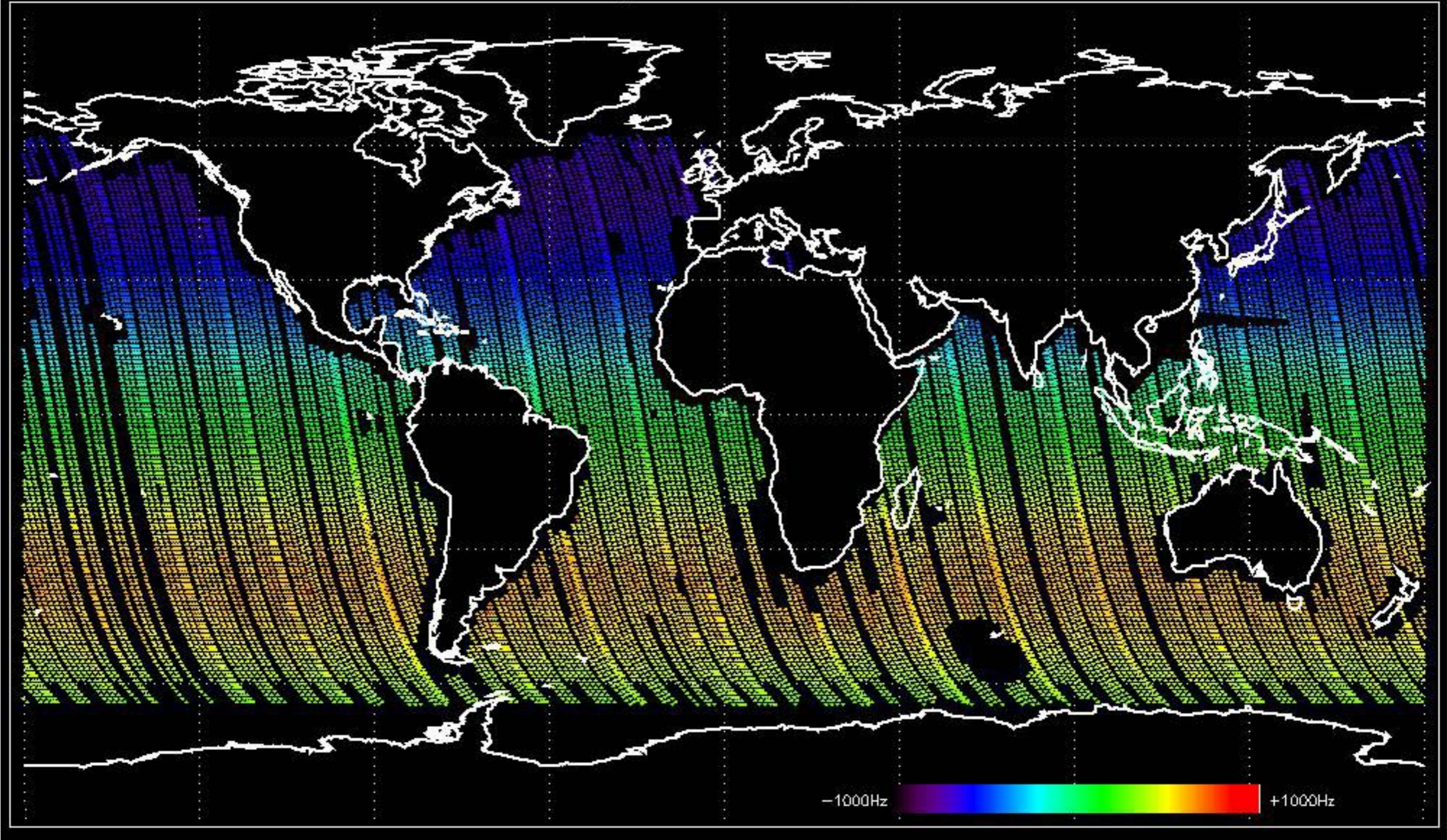
Doppler 'GM1' 'SS1' ascending



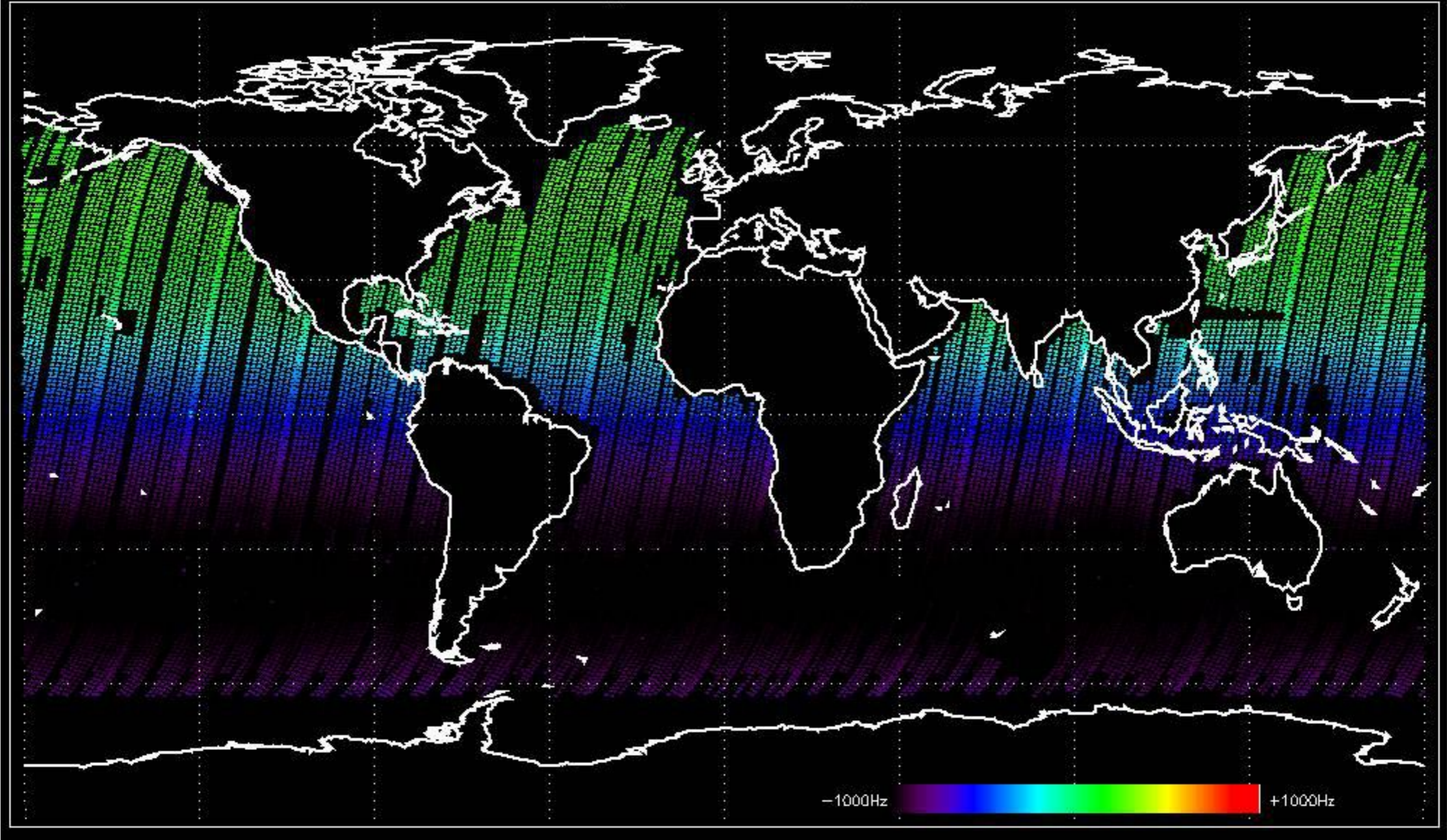
Doppler 'GM1' 'SS1' descending



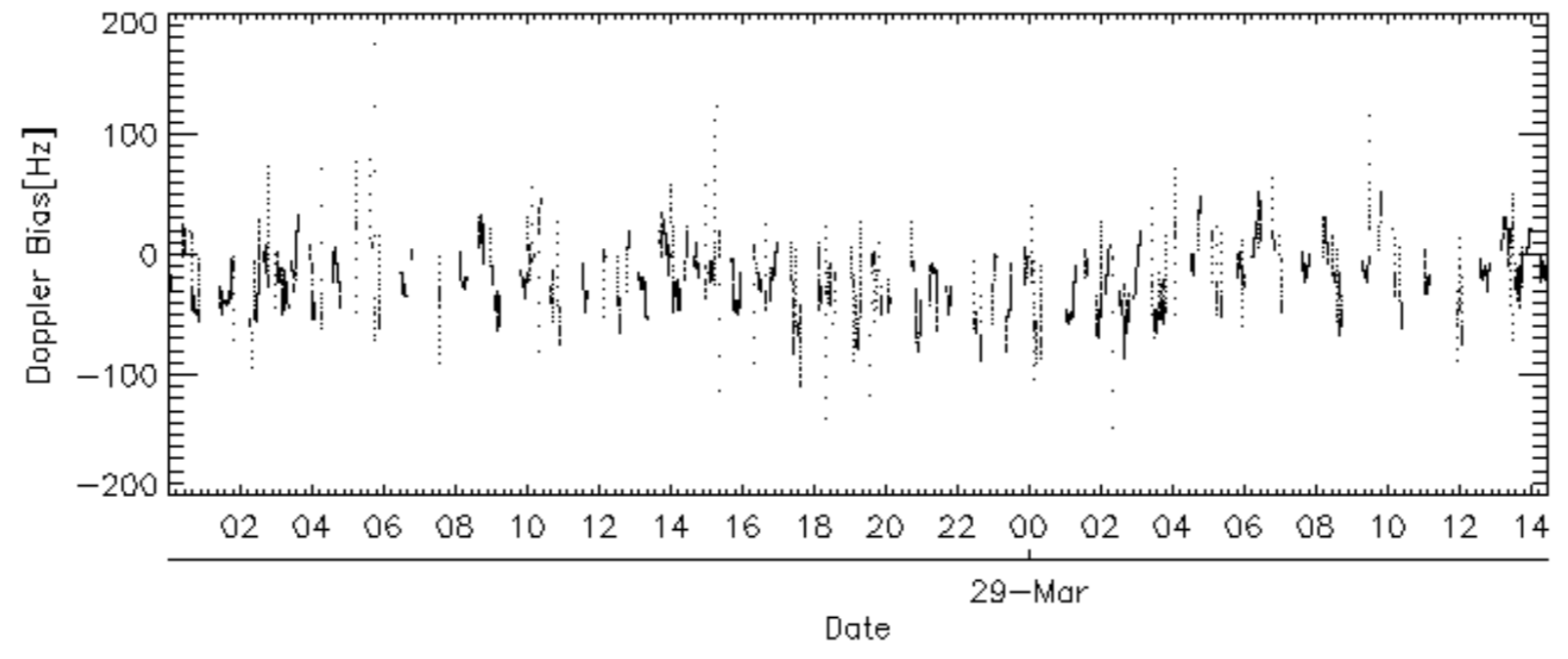
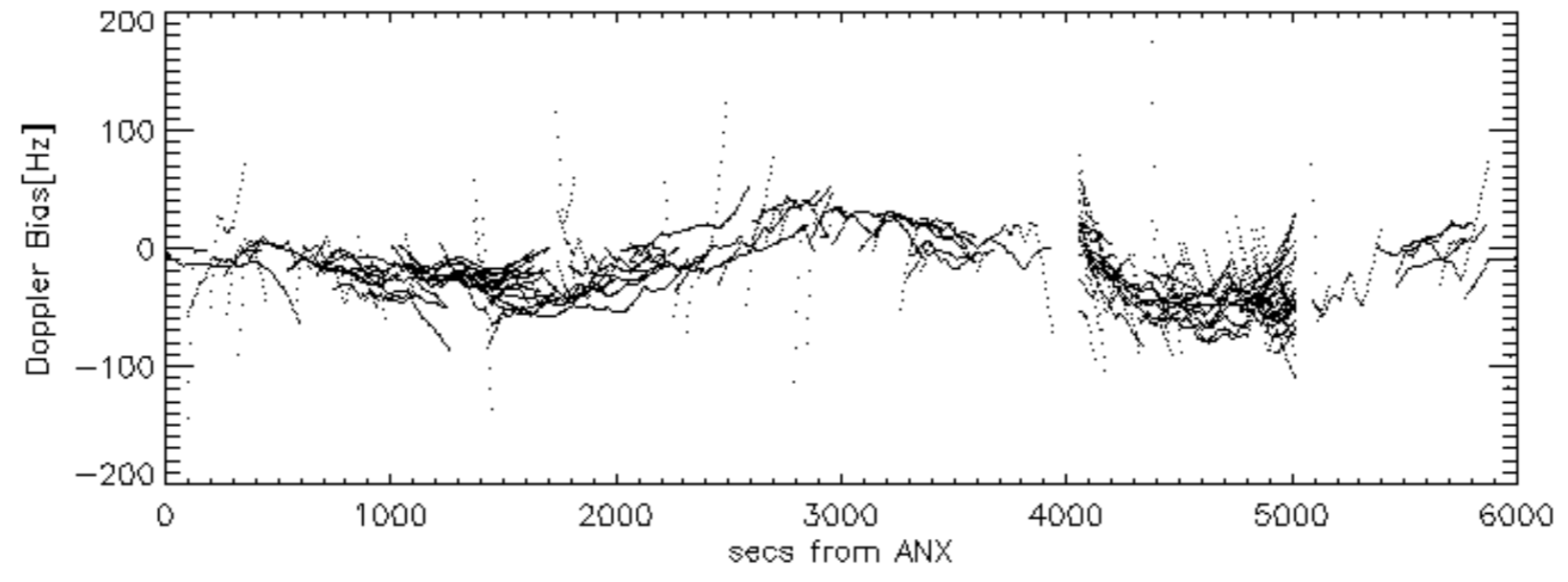
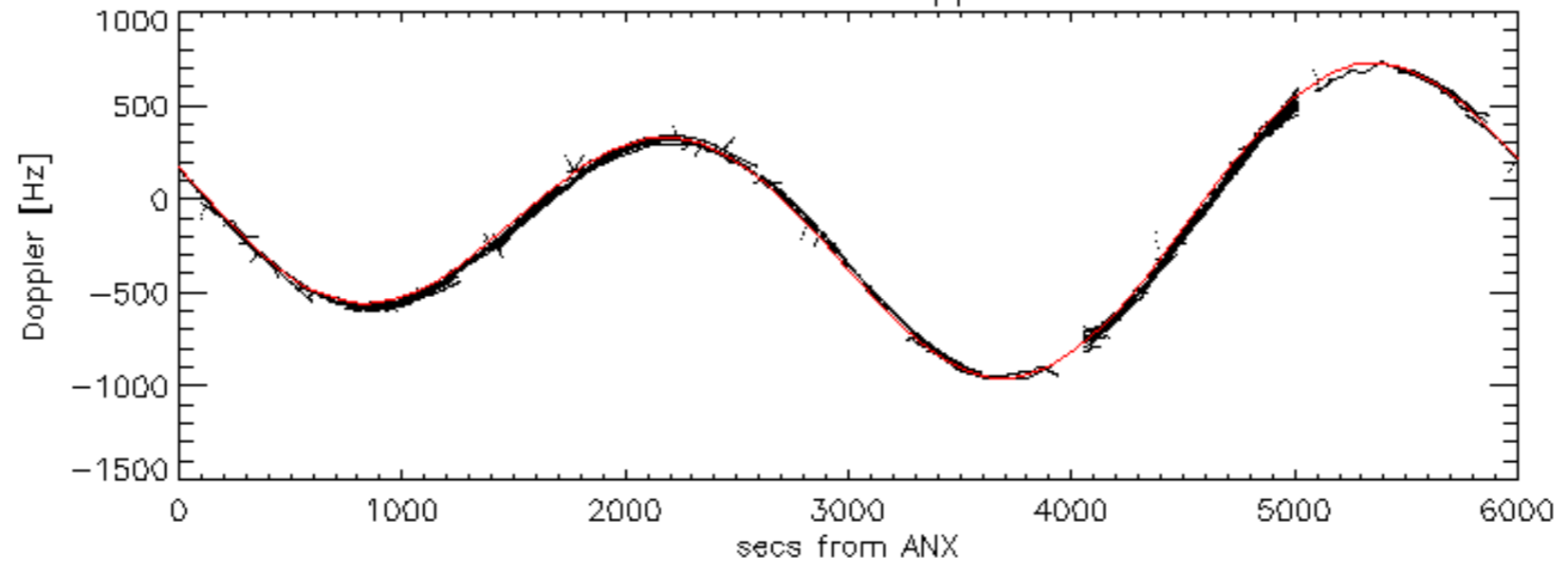
Doppler 'WVS' 'IS2' ascending

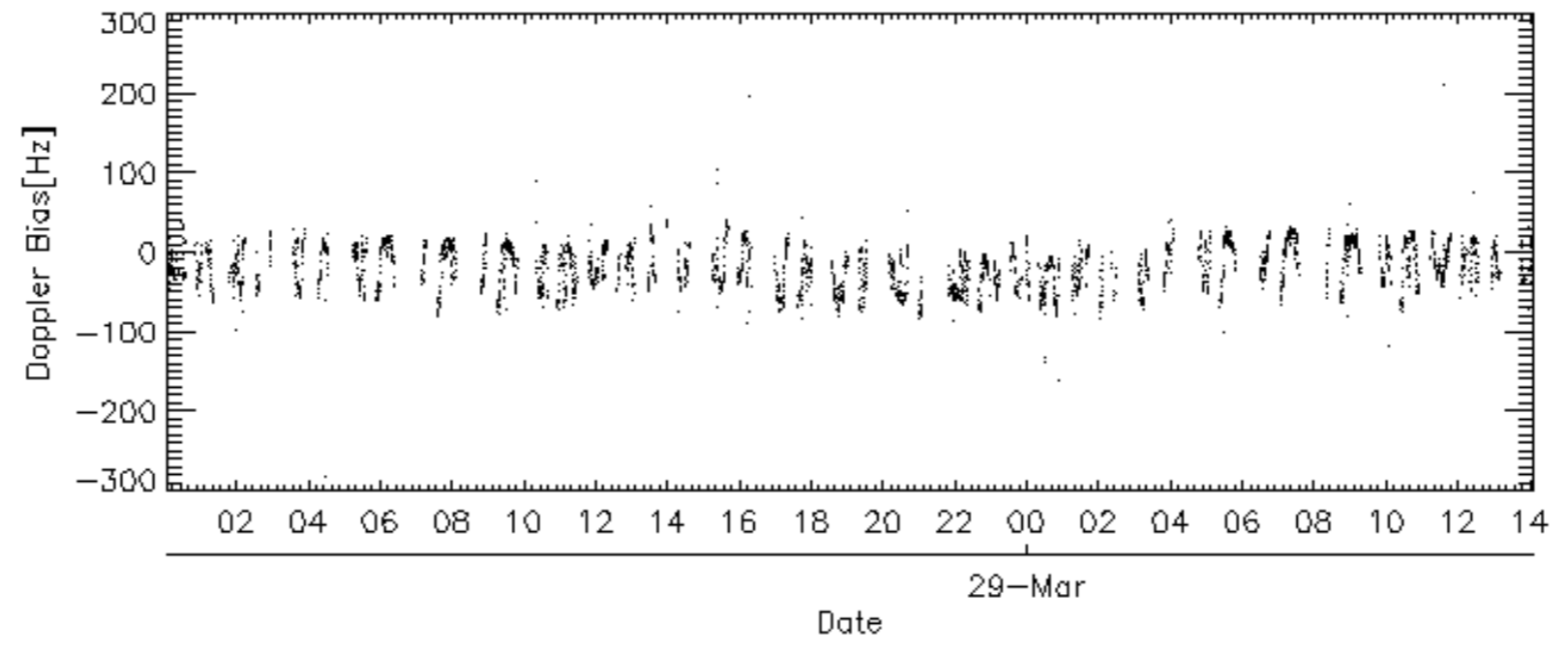
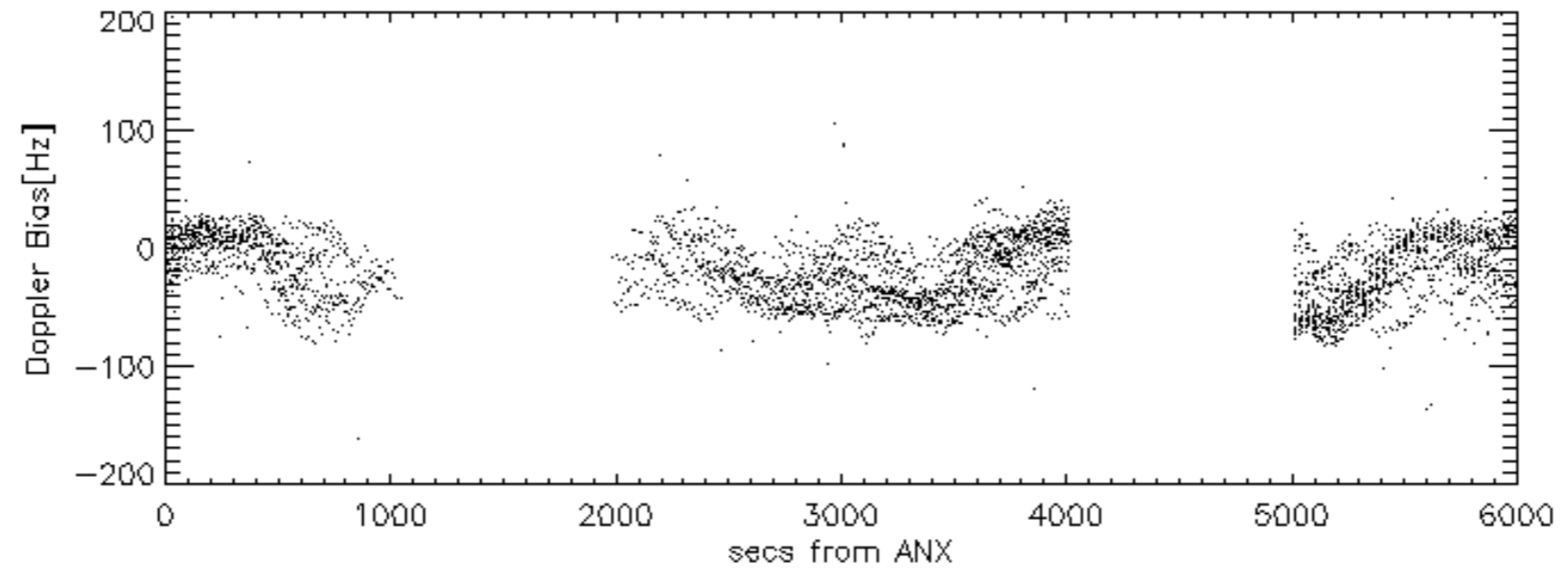
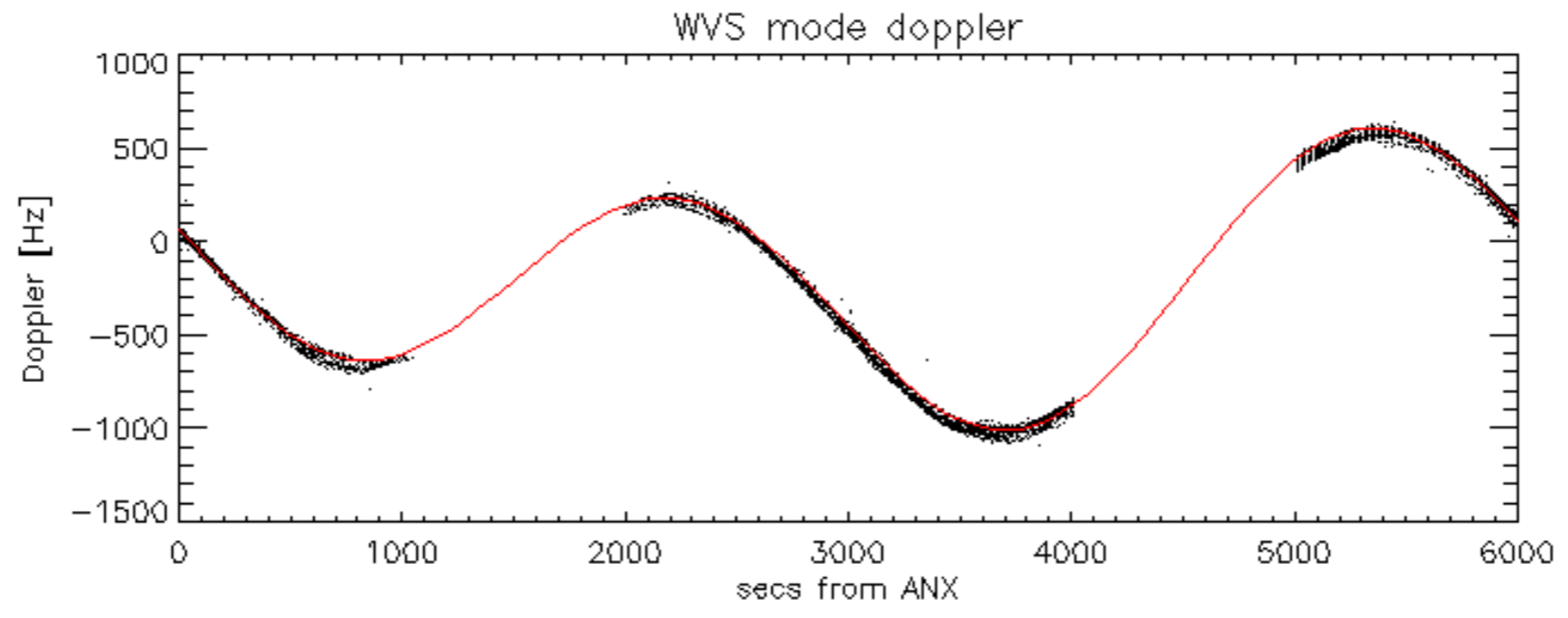


Doppler 'WVS' 'IS2' descending

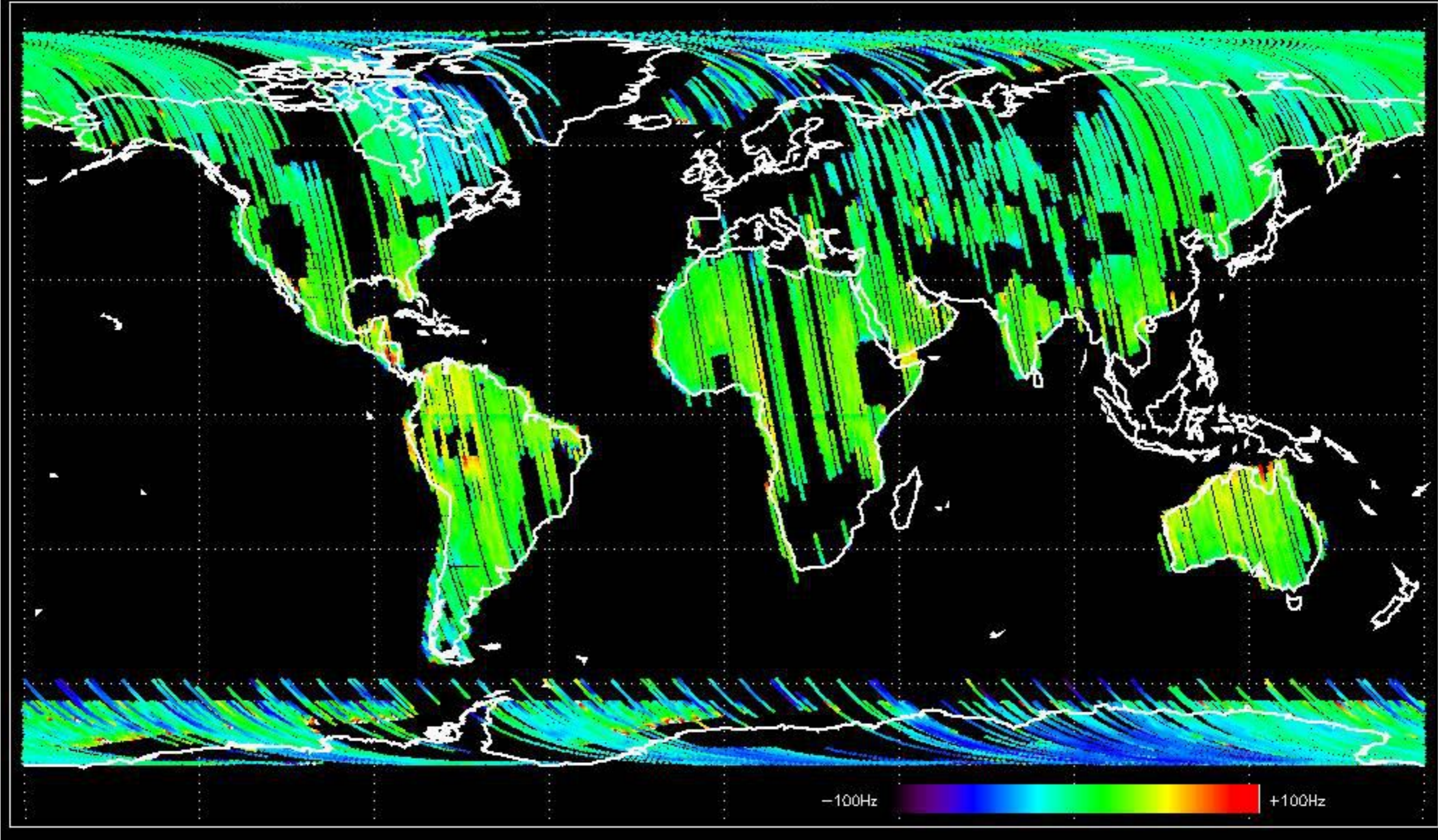


GM1 mode doppler

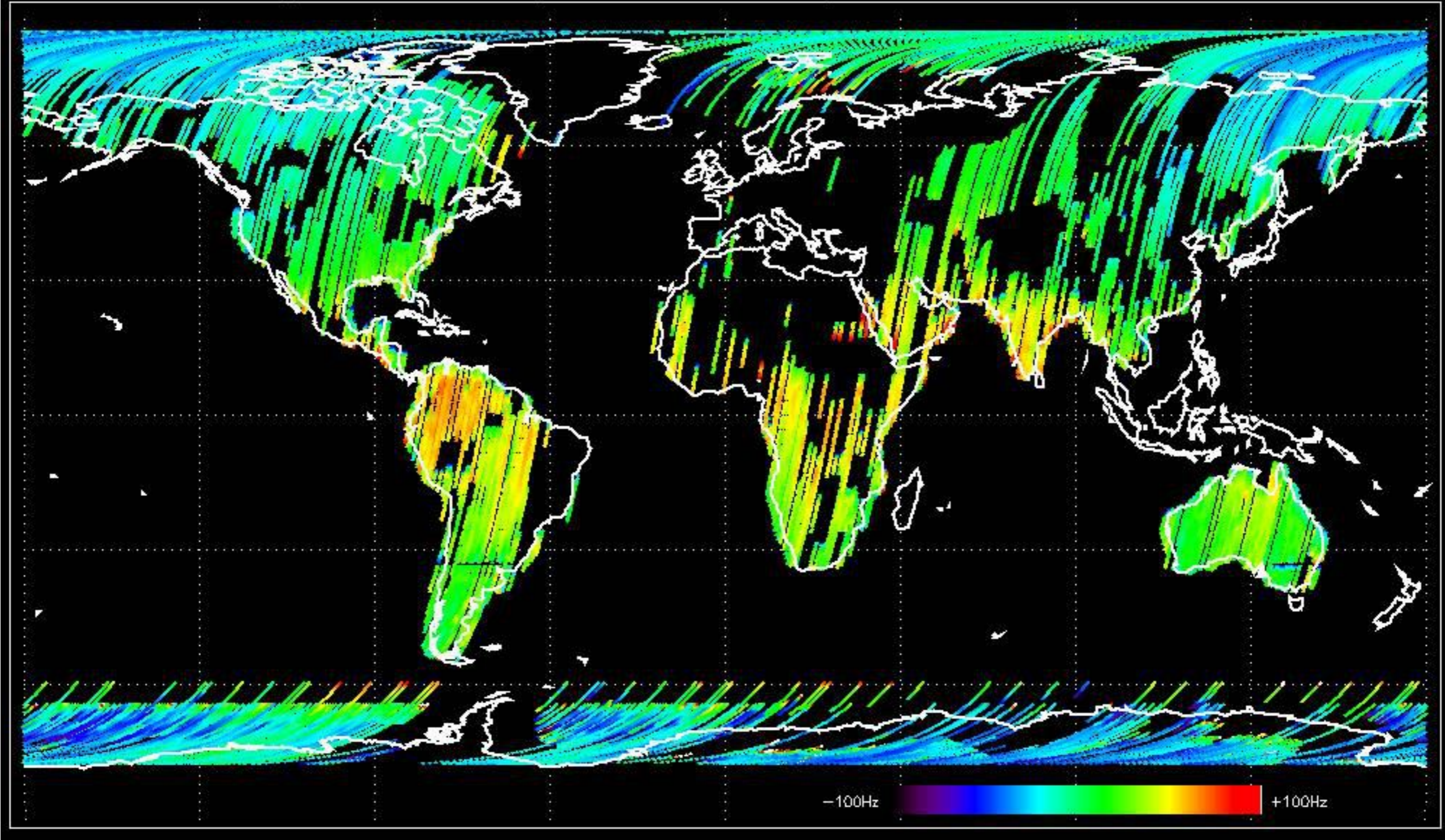




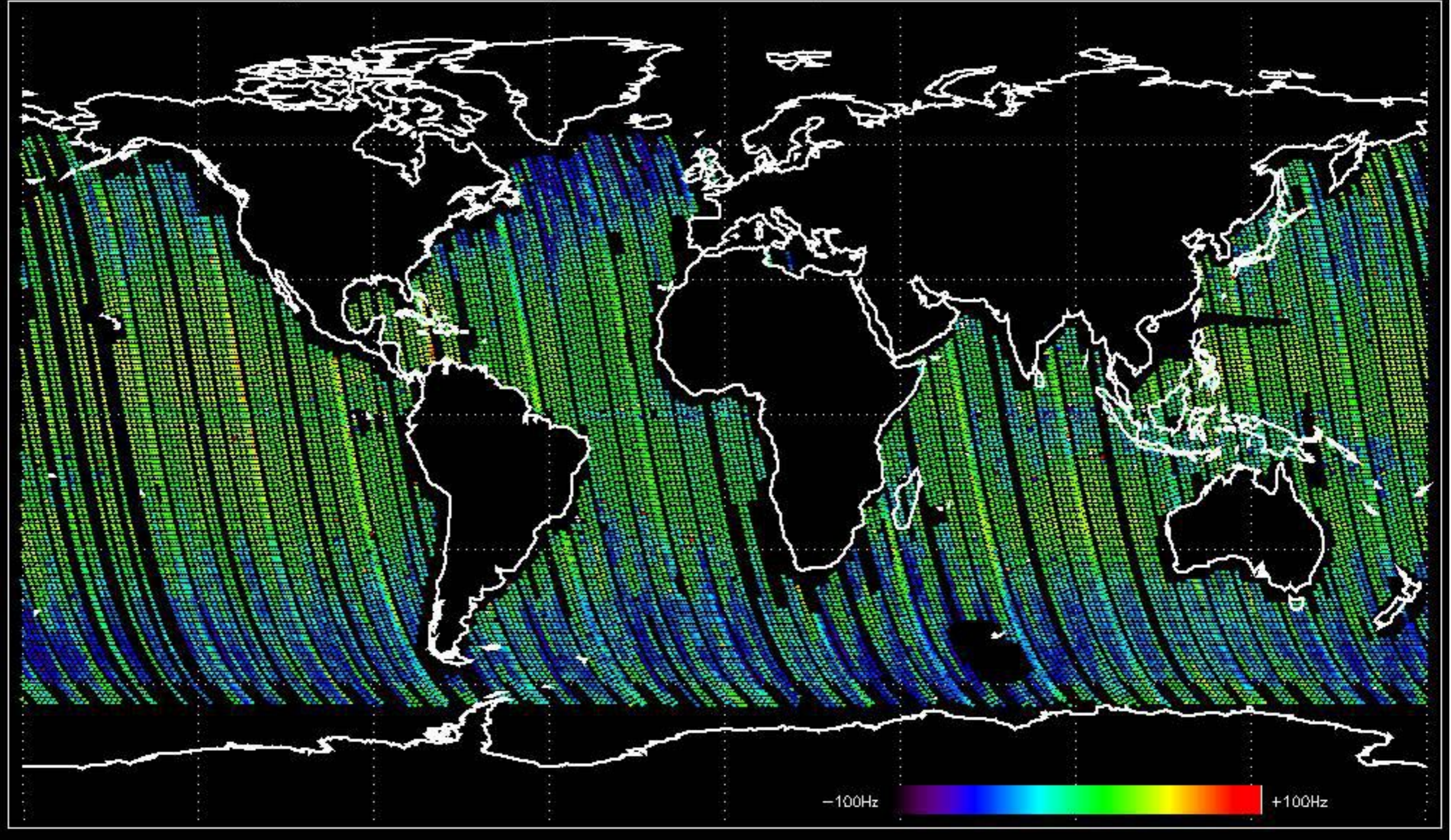
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -21.019074 Hz



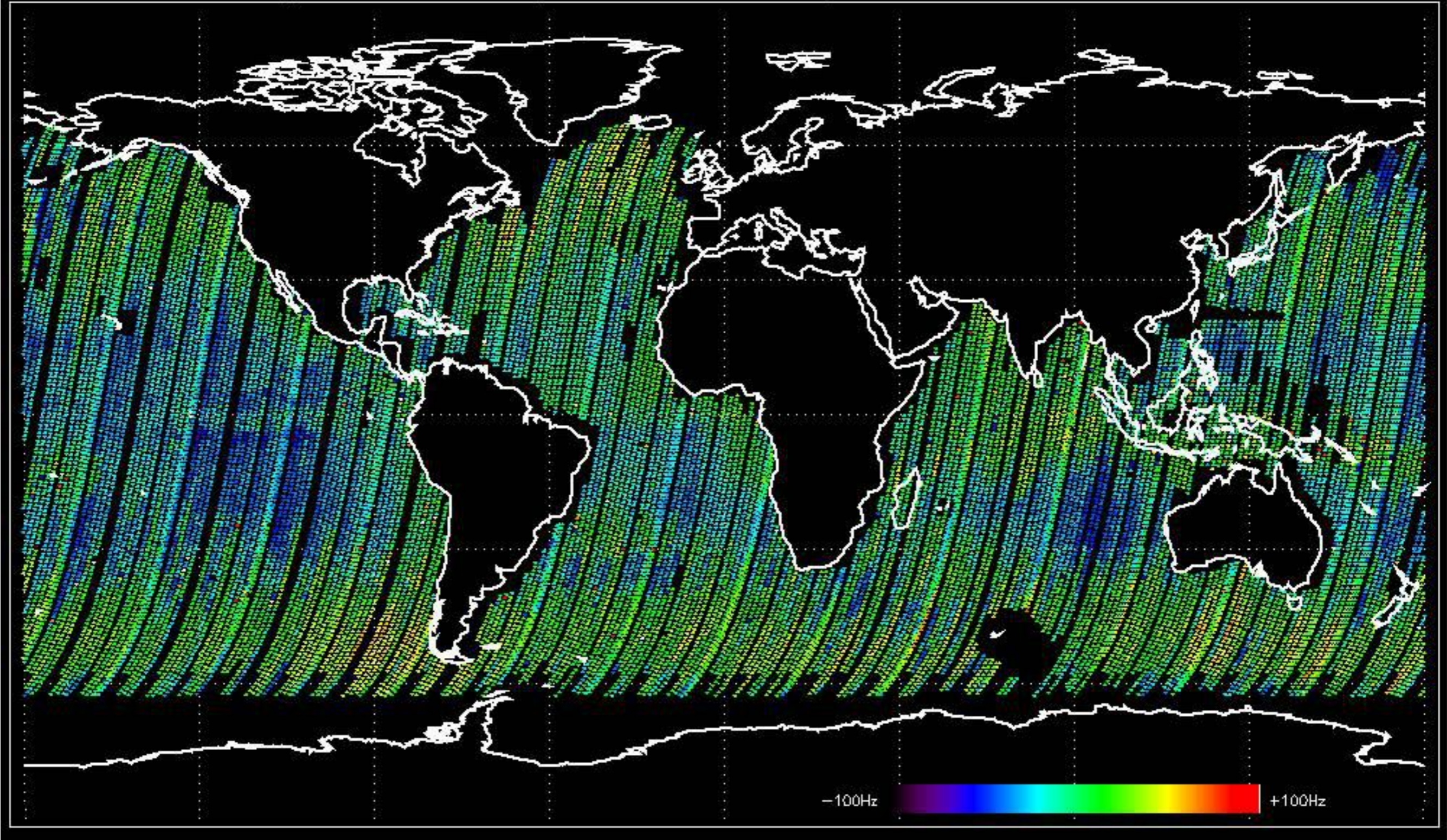
Doppler difference, estimated—predicted 'GM1' 'SS1' descending —error mean of -16.096928 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -15.934247 Hz

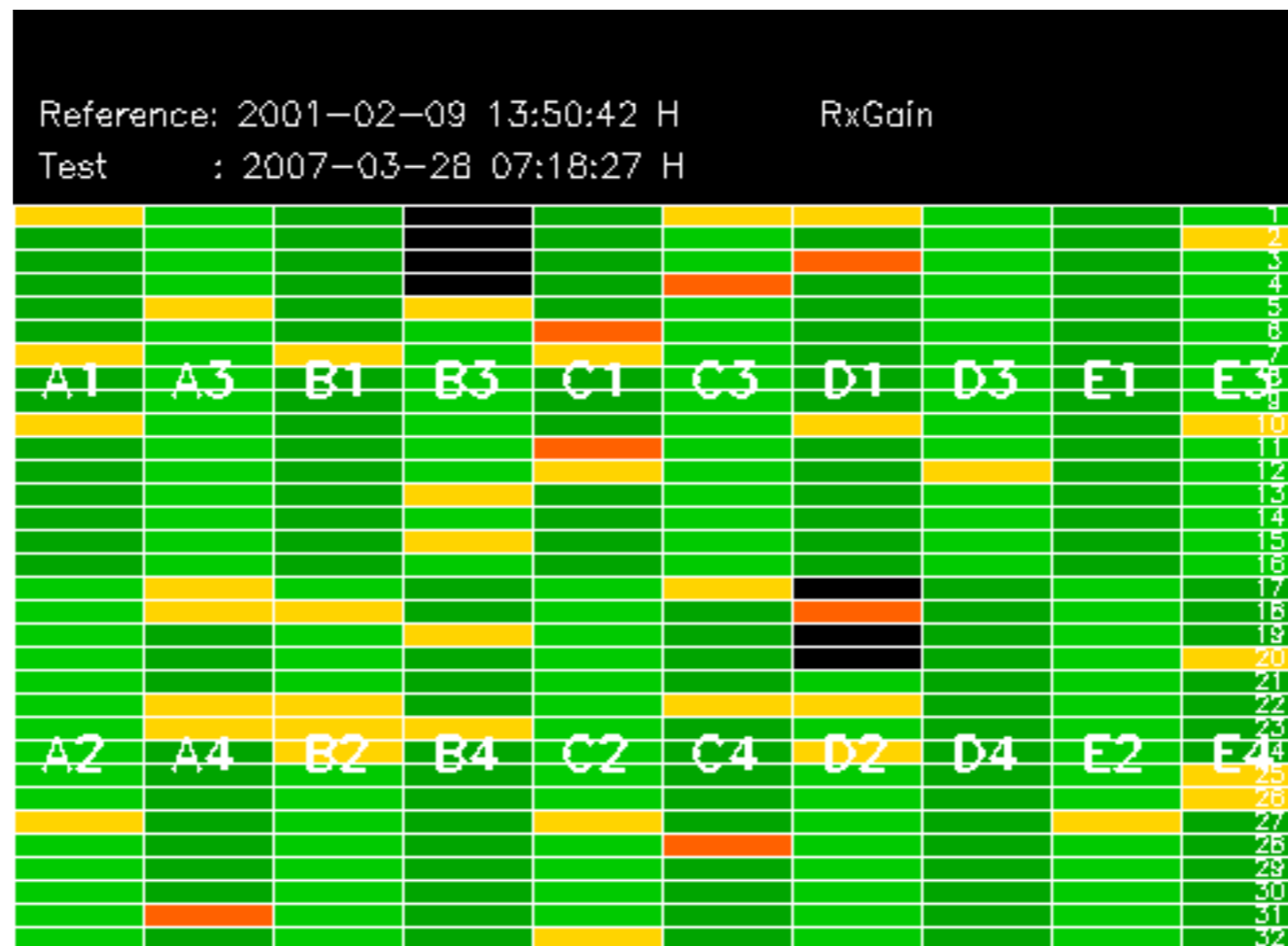


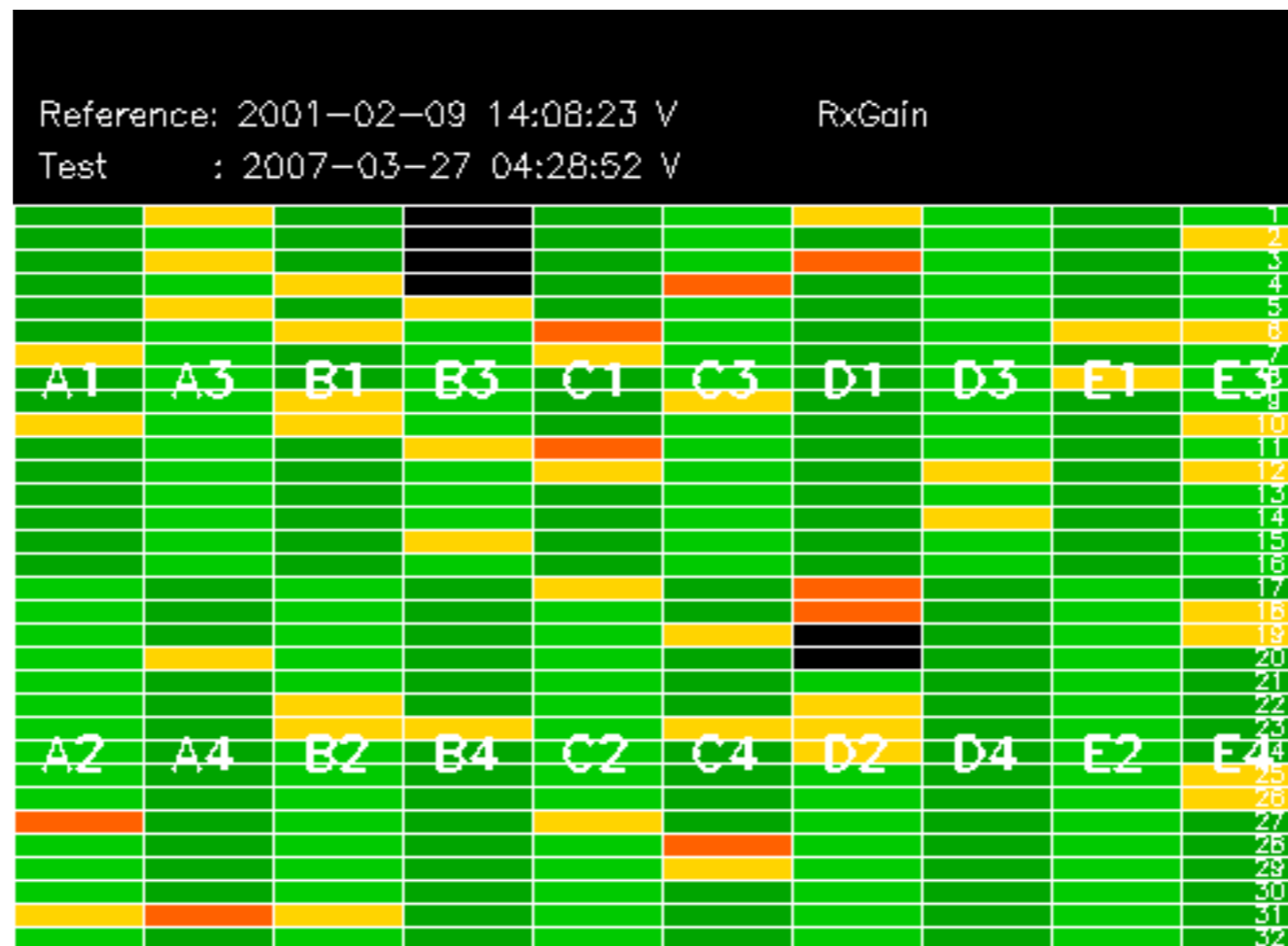
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -15.703292 Hz

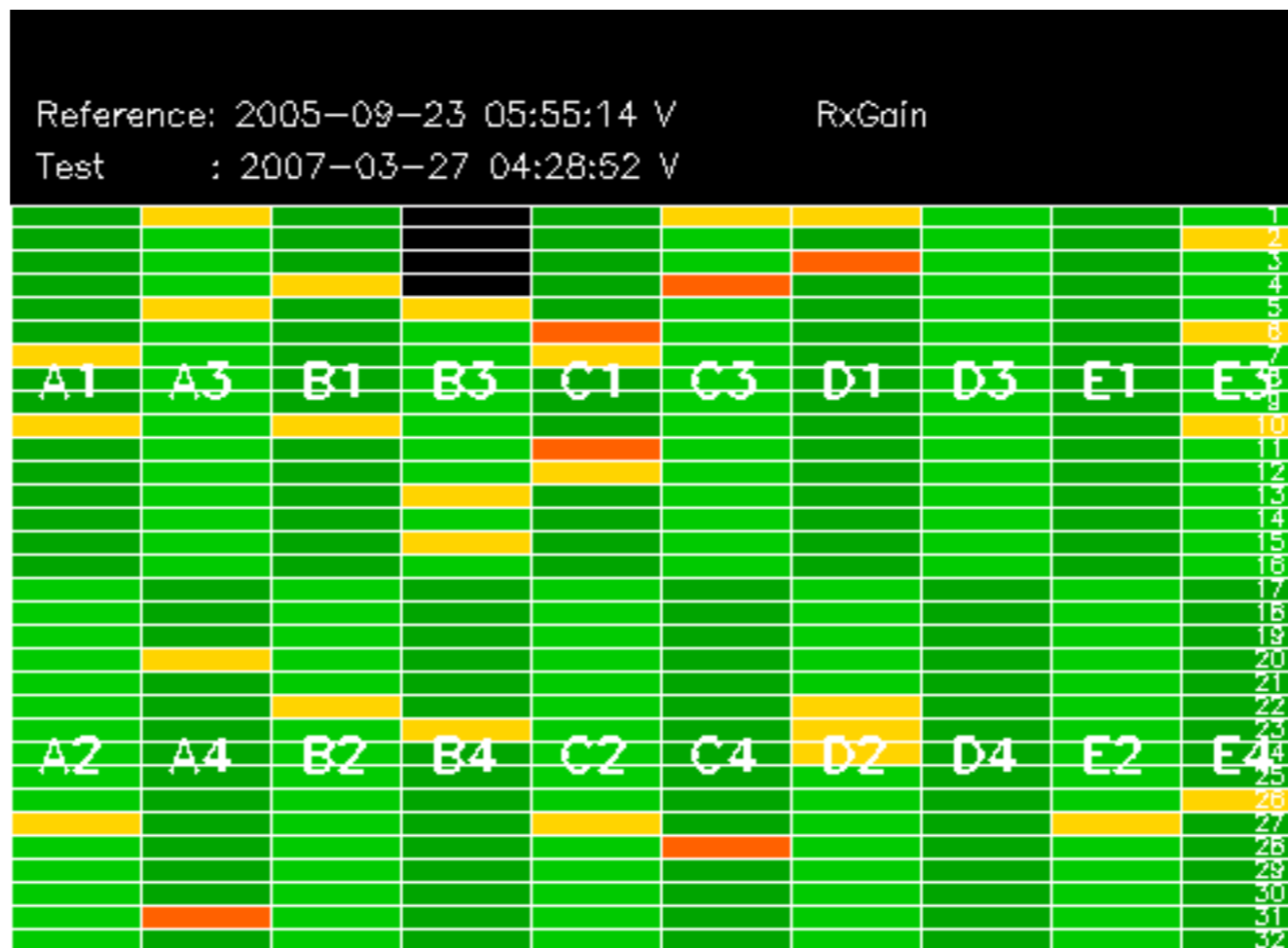


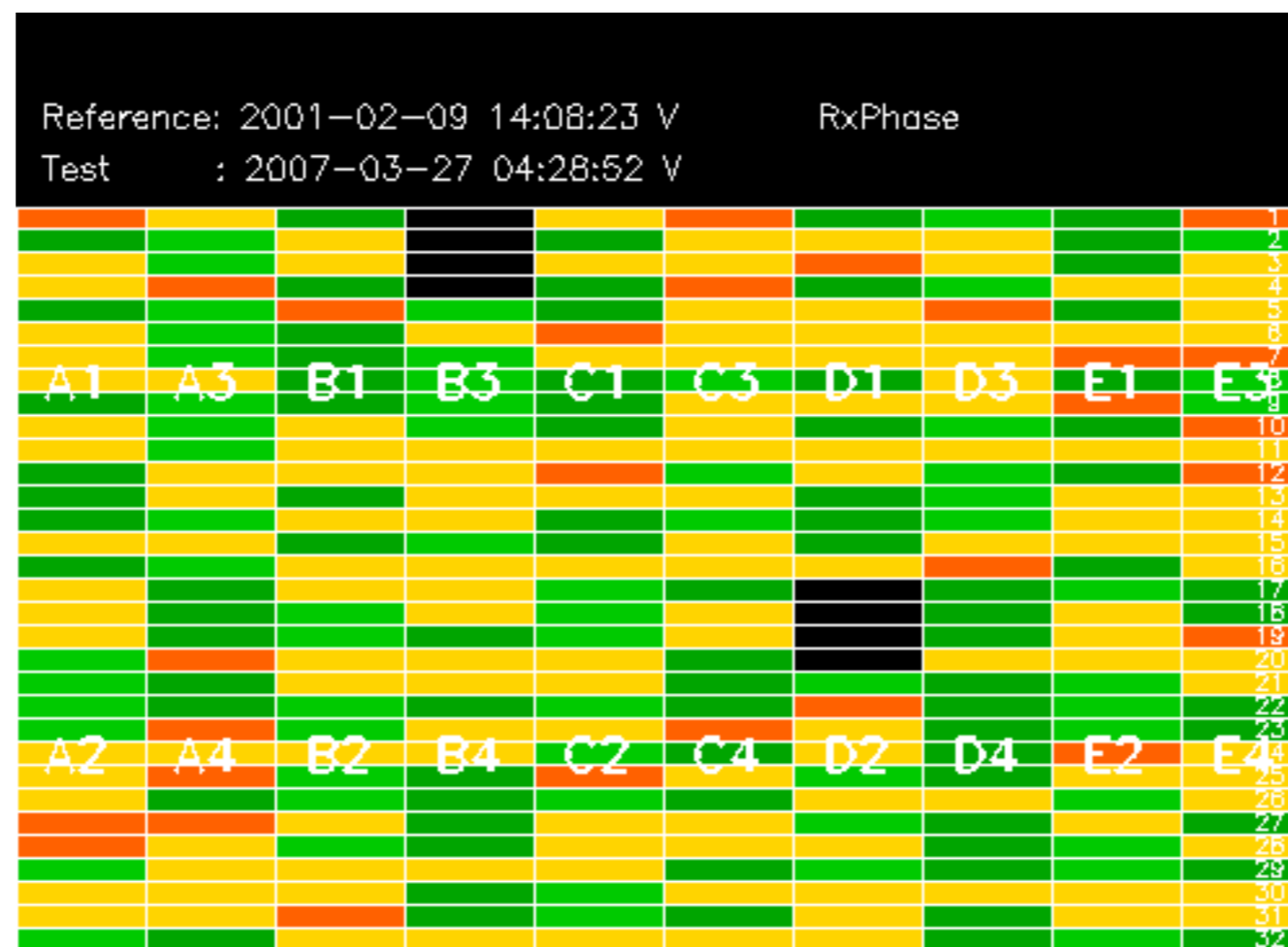
No anomalies observed on available MS products:

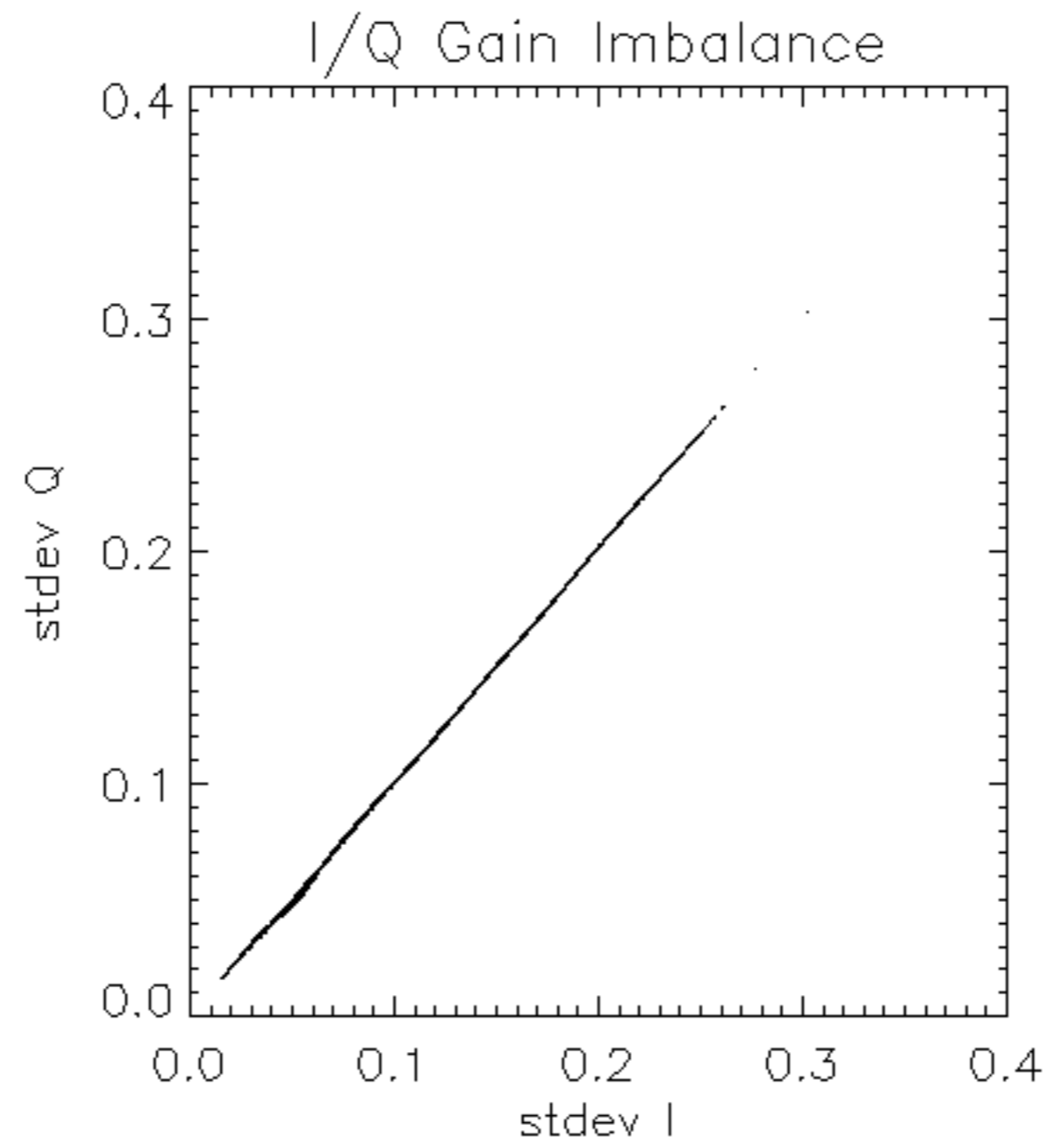
No anomalies observed.

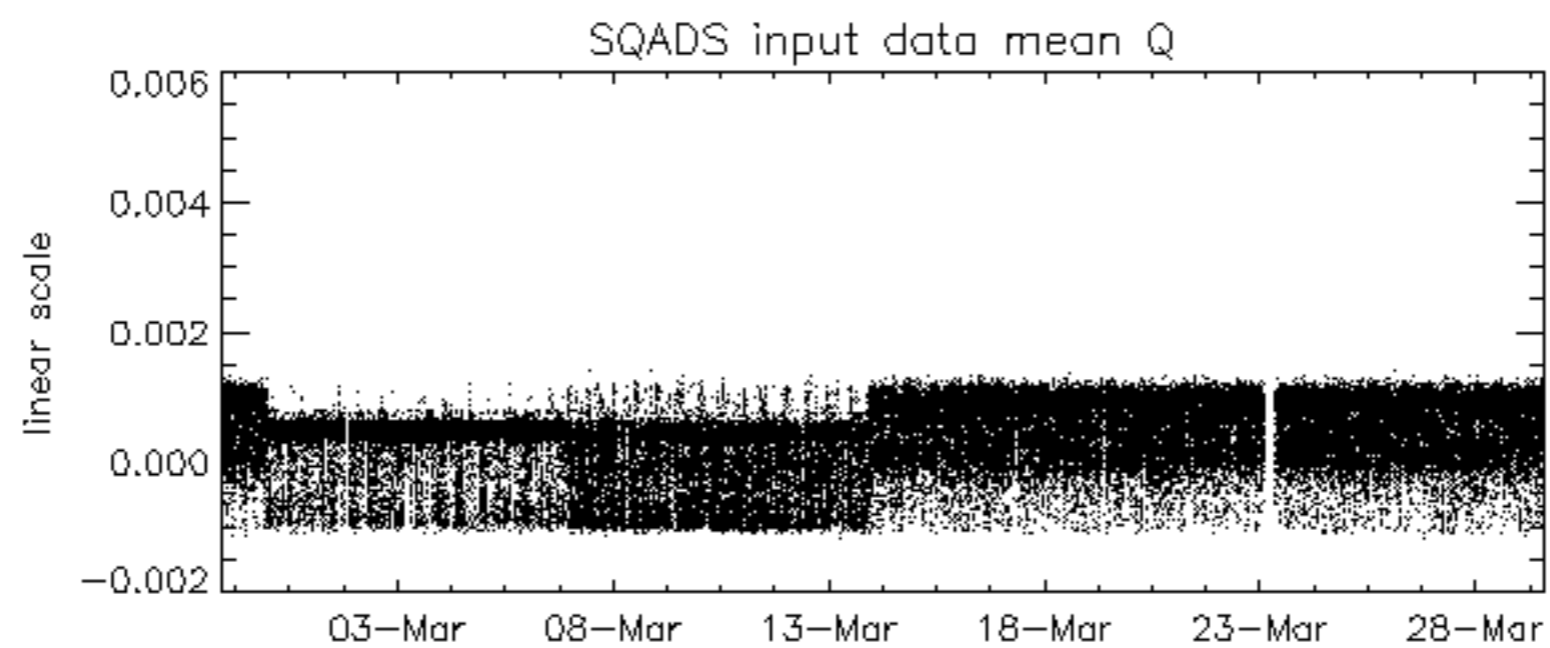
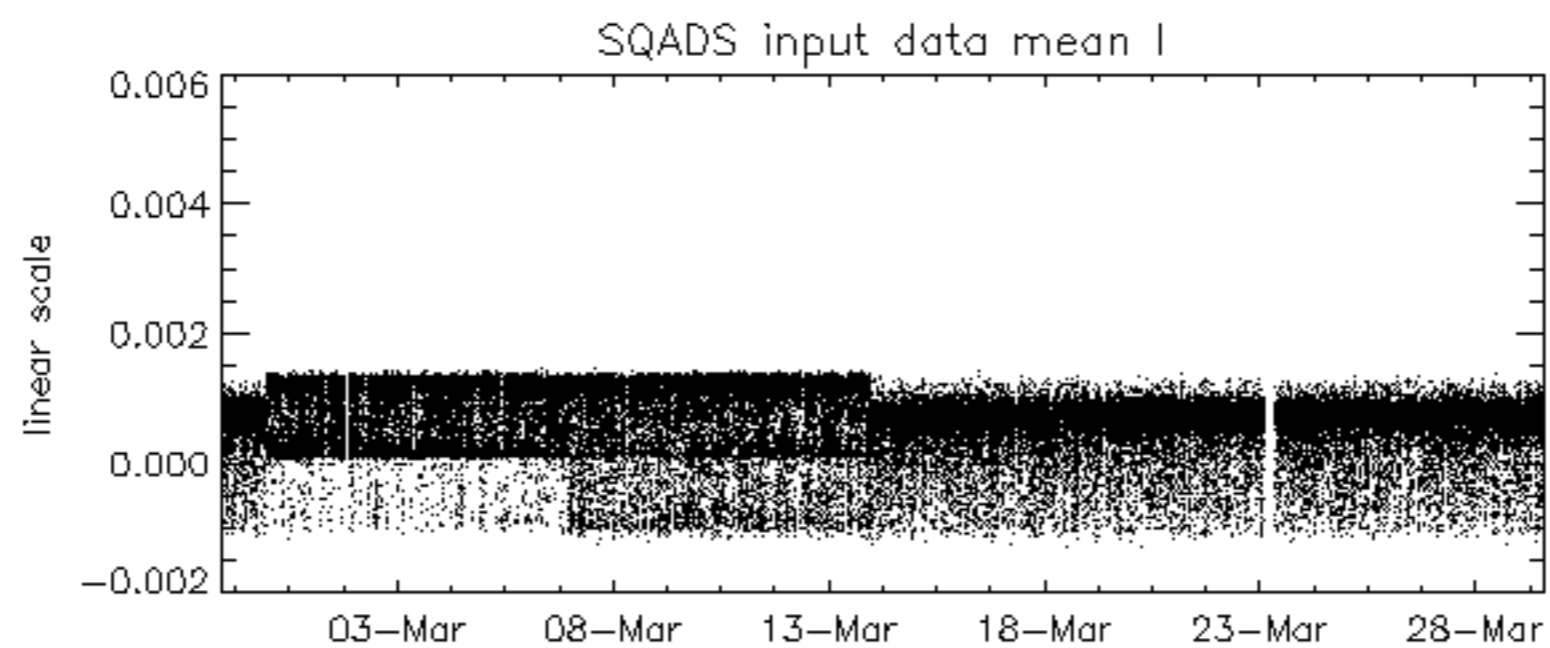
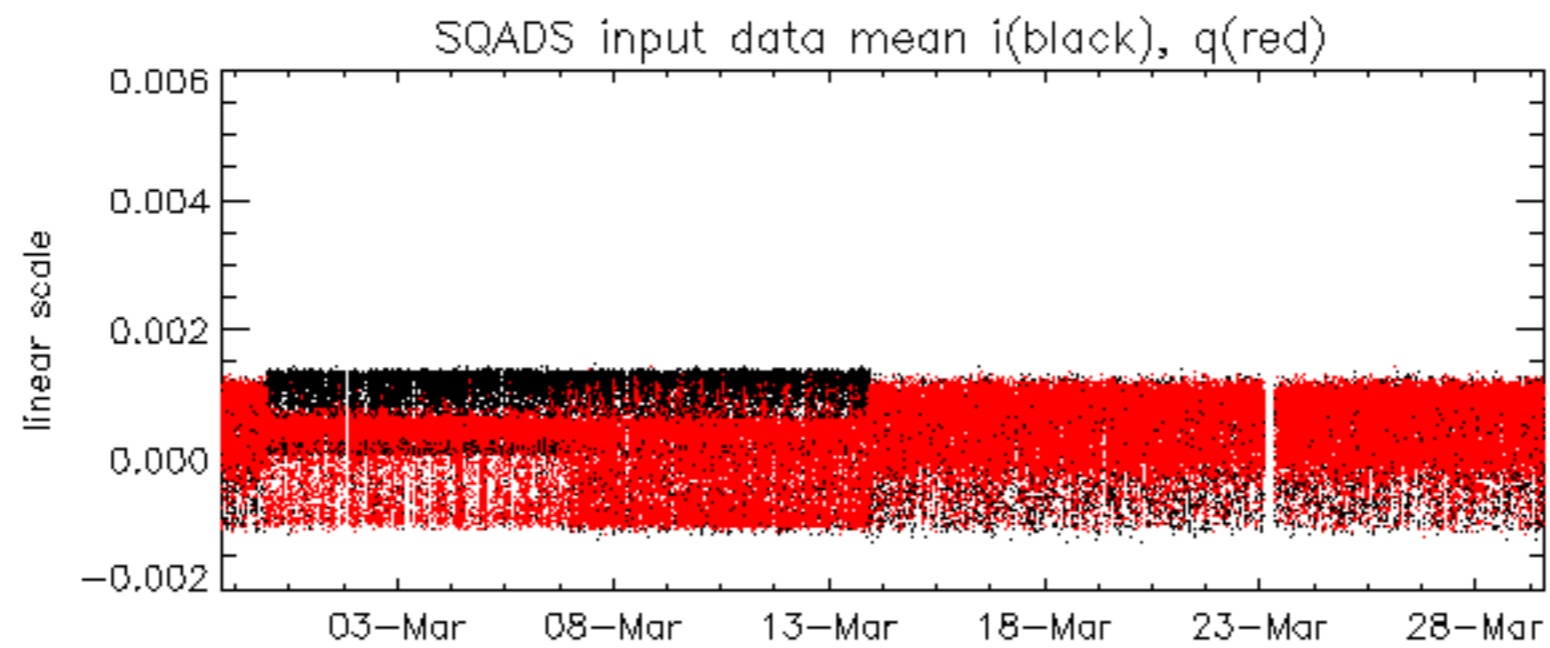


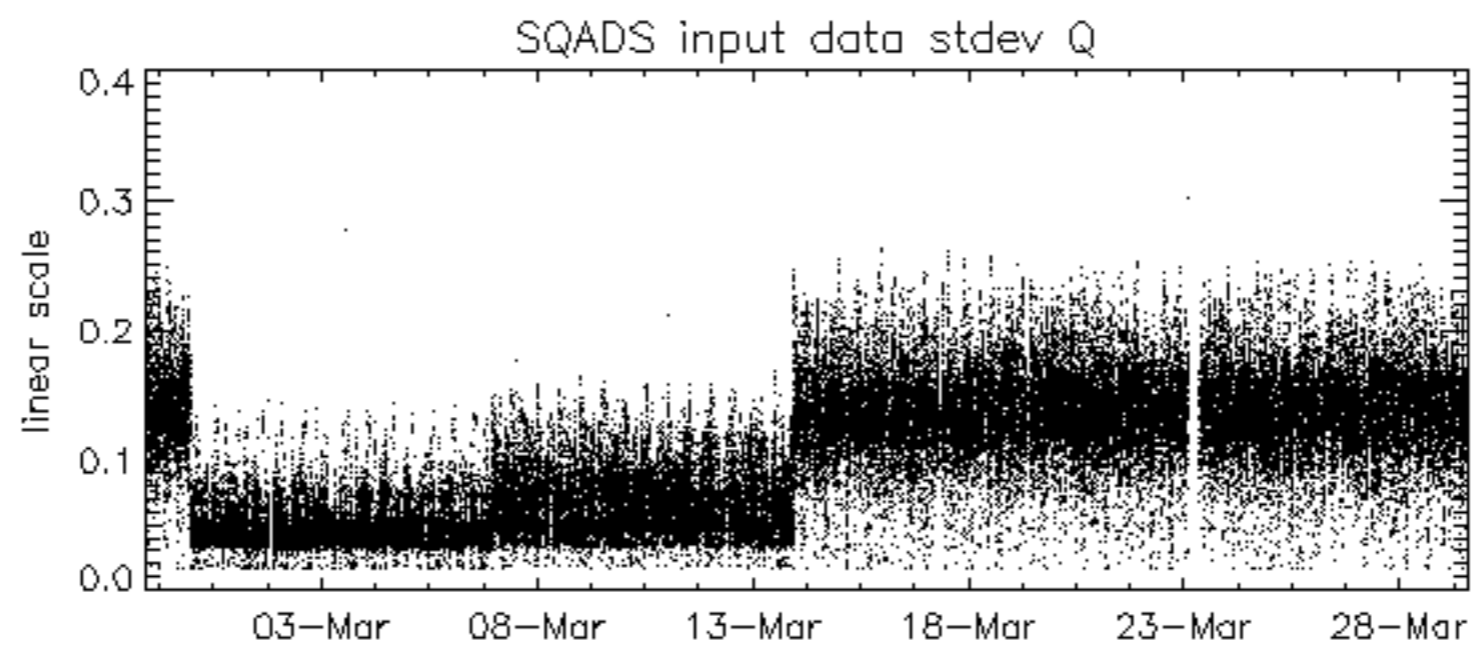
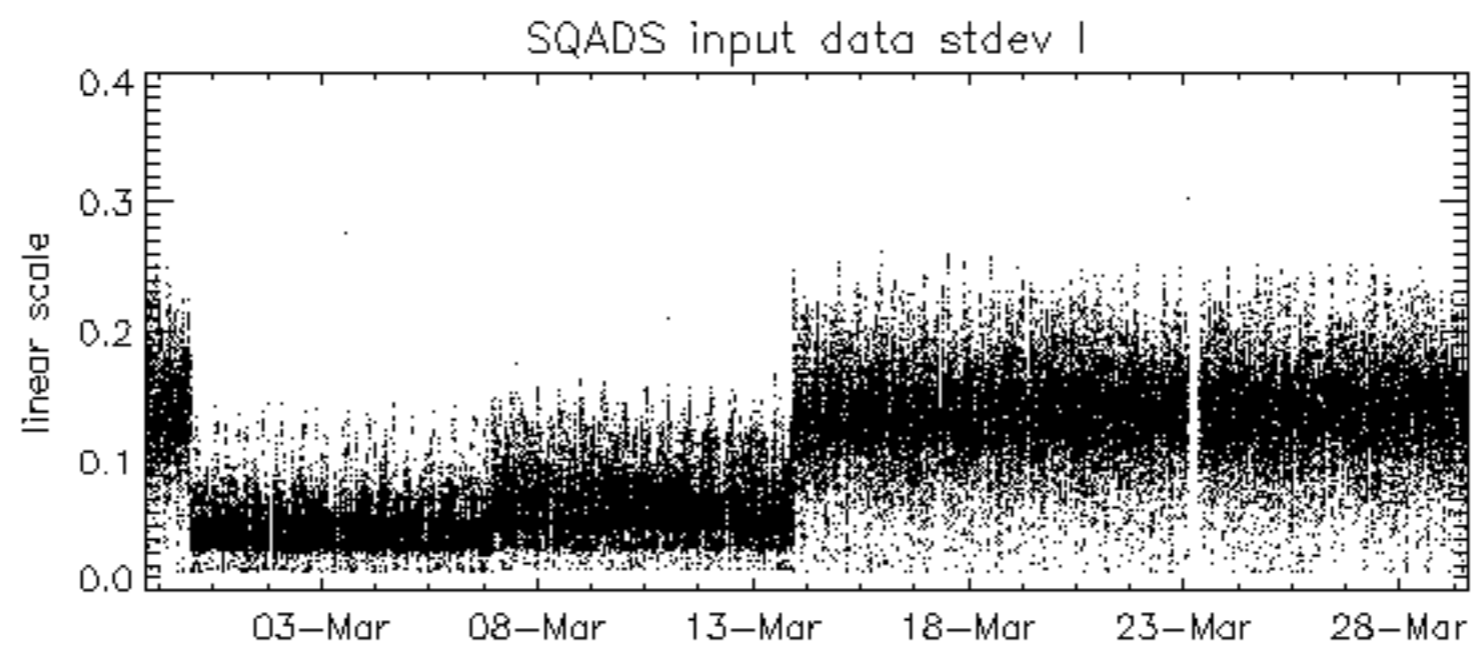
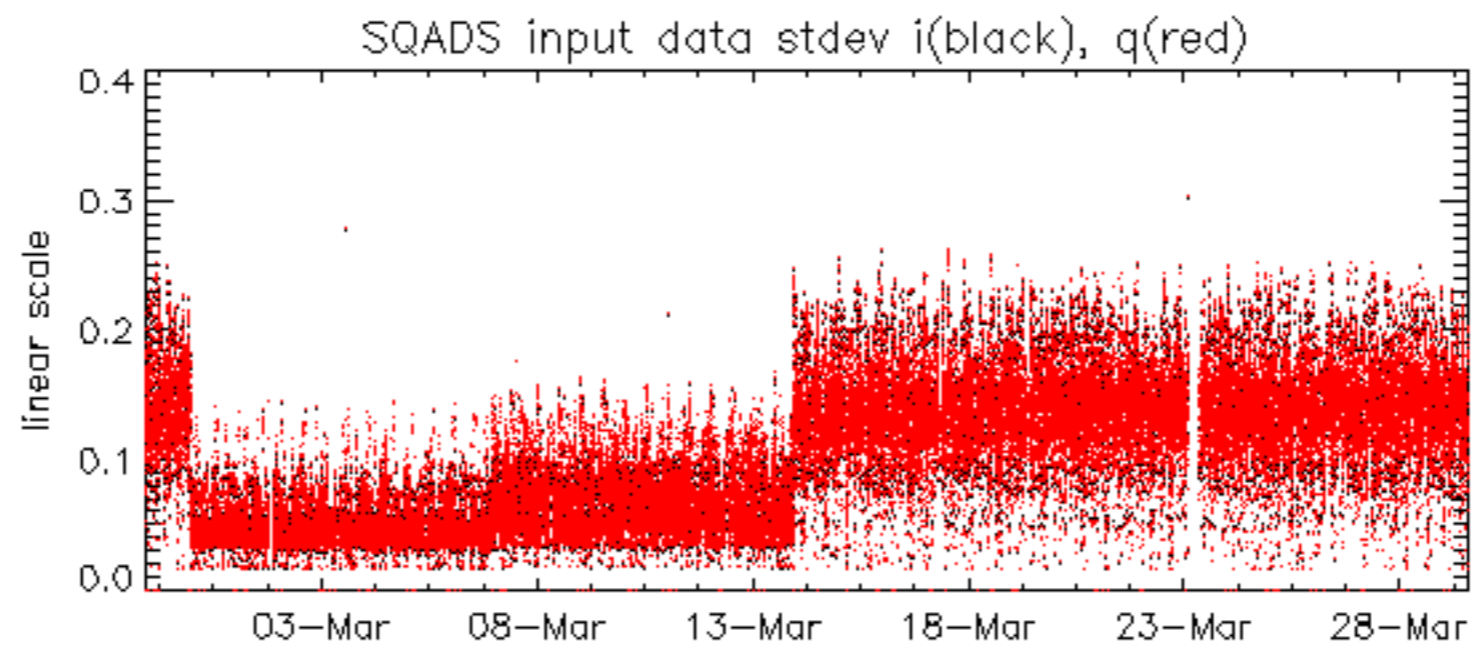








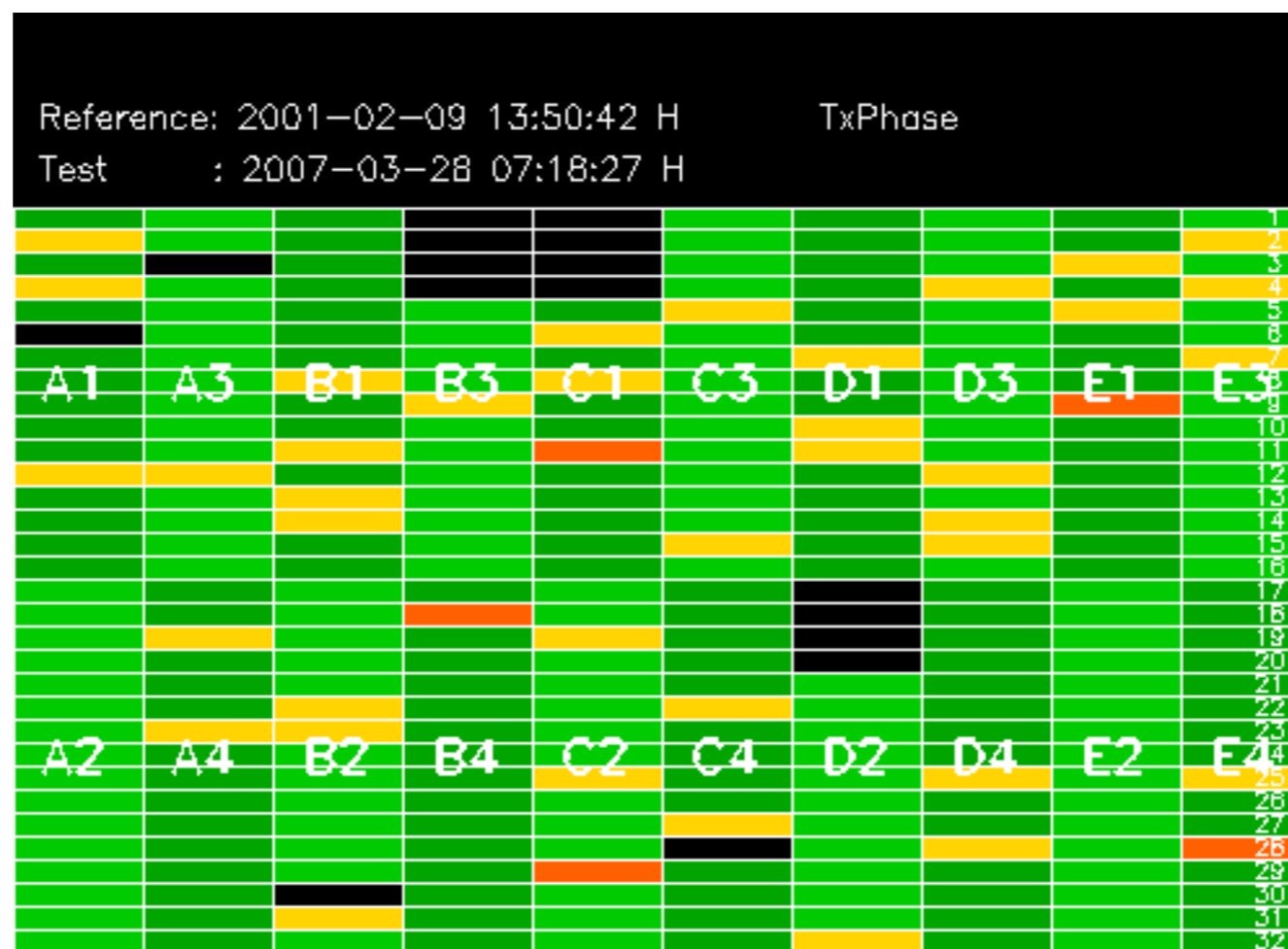


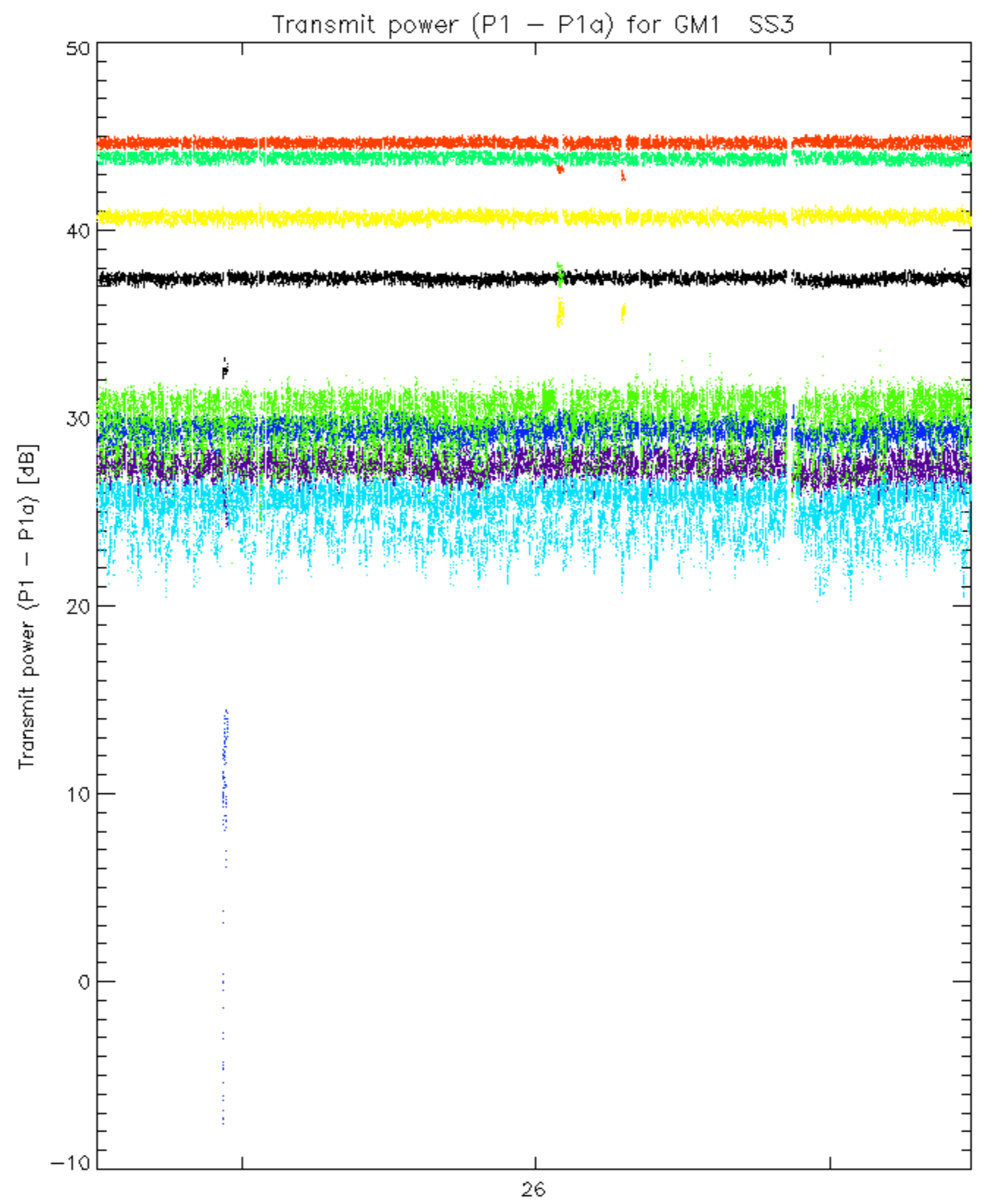


Summary of analysis for the last 3 days 2007032[789]

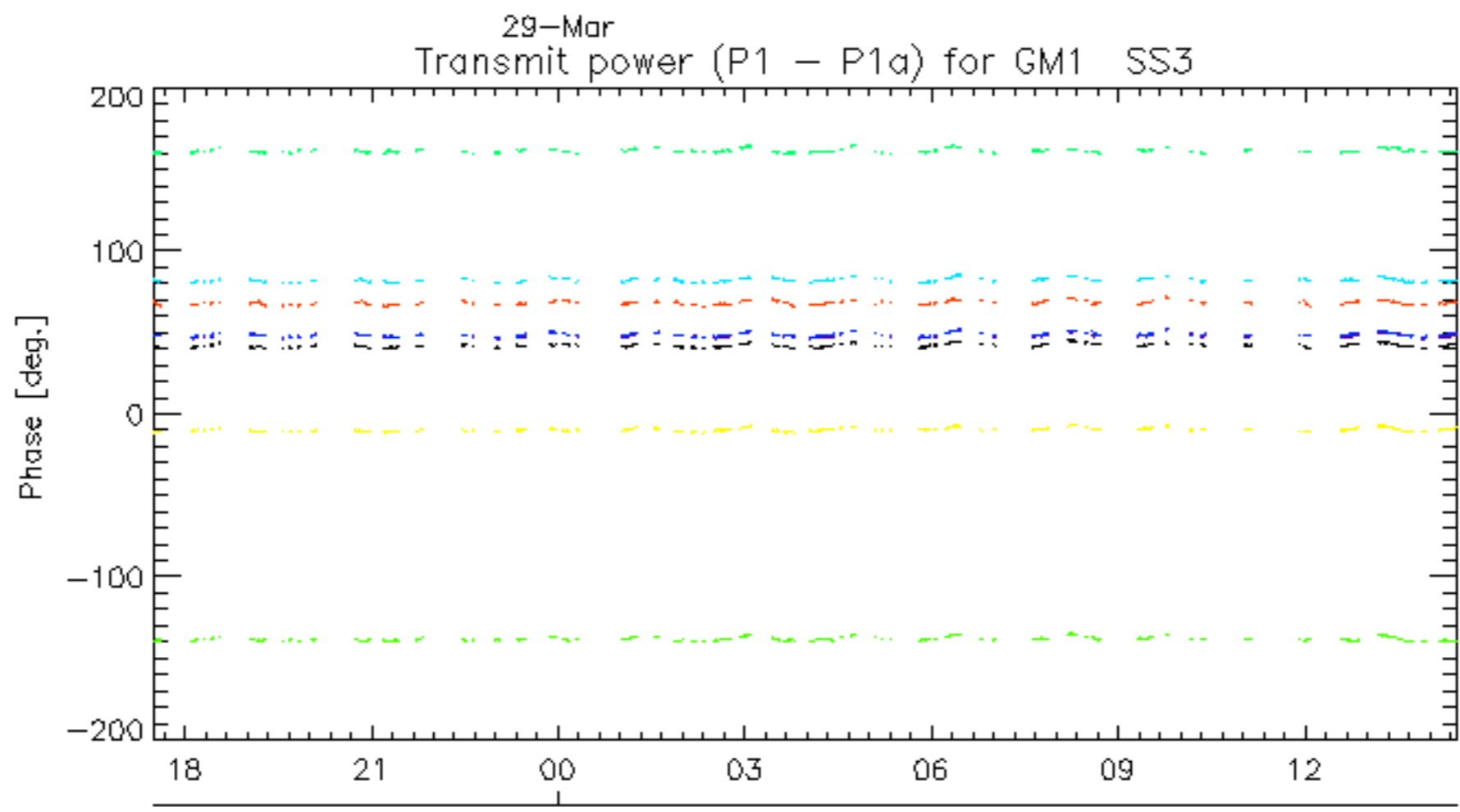
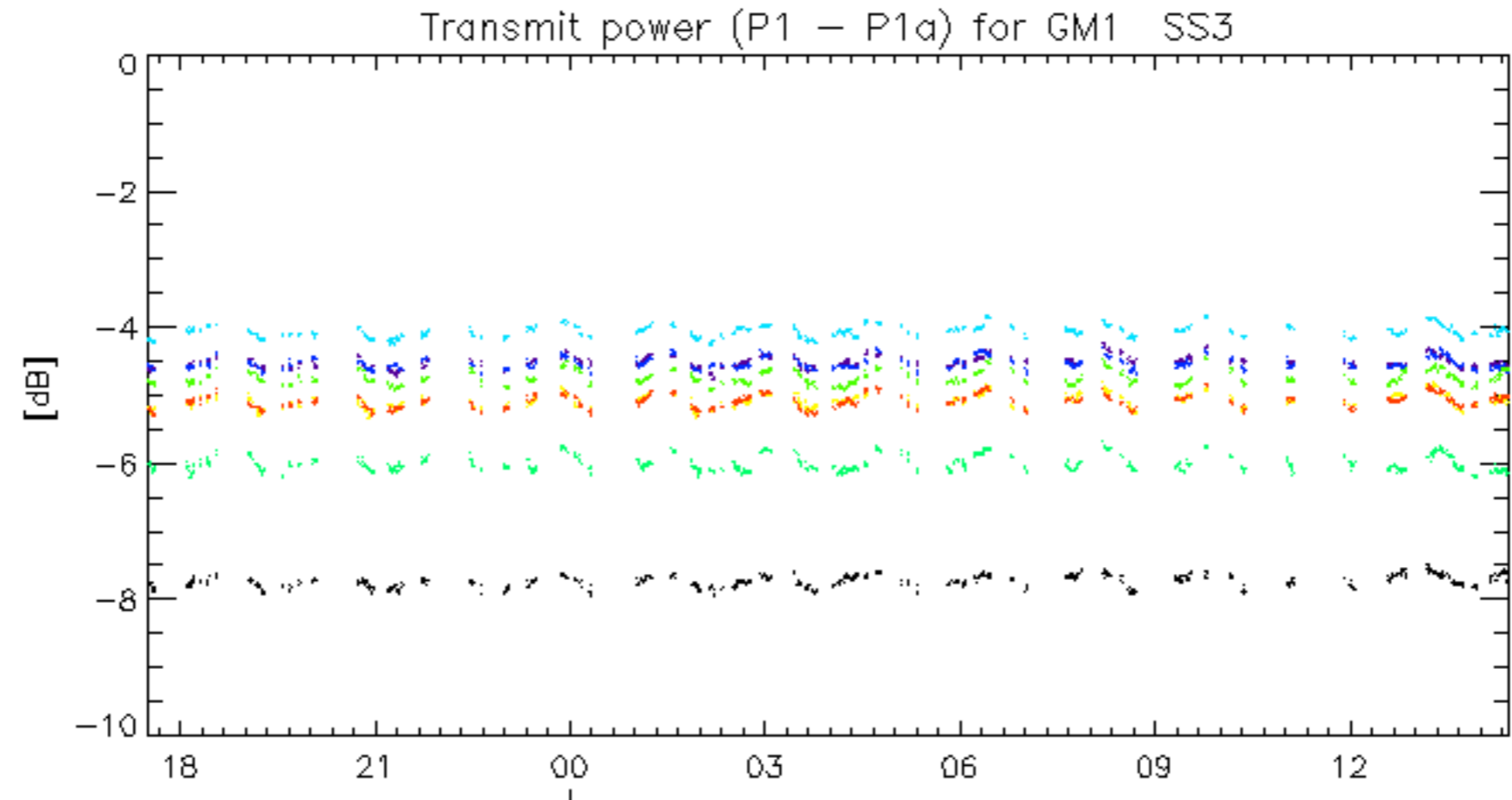
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070328_143307_000000372056_00425_26531_0306.N1	1	0
ASA_WVS_1PNPDK20070329_111415_000000602056_00438_26544_8744.N1	0	16
ASA_GM1_1PNPDK20070328_172929_000005192056_00427_26533_7340.N1	0	7
ASA_WSM_1PNPDE20070327_004727_000000852056_00403_26509_7928.N1	0	26
ASA_WSM_1PNPDE20070327_140944_000000862056_00411_26517_8651.N1	0	22
ASA_WSM_1PNPDE20070327_150733_000000862056_00412_26518_8655.N1	0	33
ASA_WSM_1PNPDE20070327_183104_000000852056_00414_26520_8729.N1	0	16
ASA_WSM_1PNPDE20070328_001649_000002022056_00417_26523_9211.N1	0	26
ASA_WSM_1PNPDE20070328_234612_000002022056_00431_26537_0915.N1	0	27
ASA_WSM_1PNPDE20070329_022250_000000862056_00433_26539_1185.N1	0	44
ASA_WSM_1PNPDK20070329_140622_000000862056_00440_26546_8981.N1	0	15

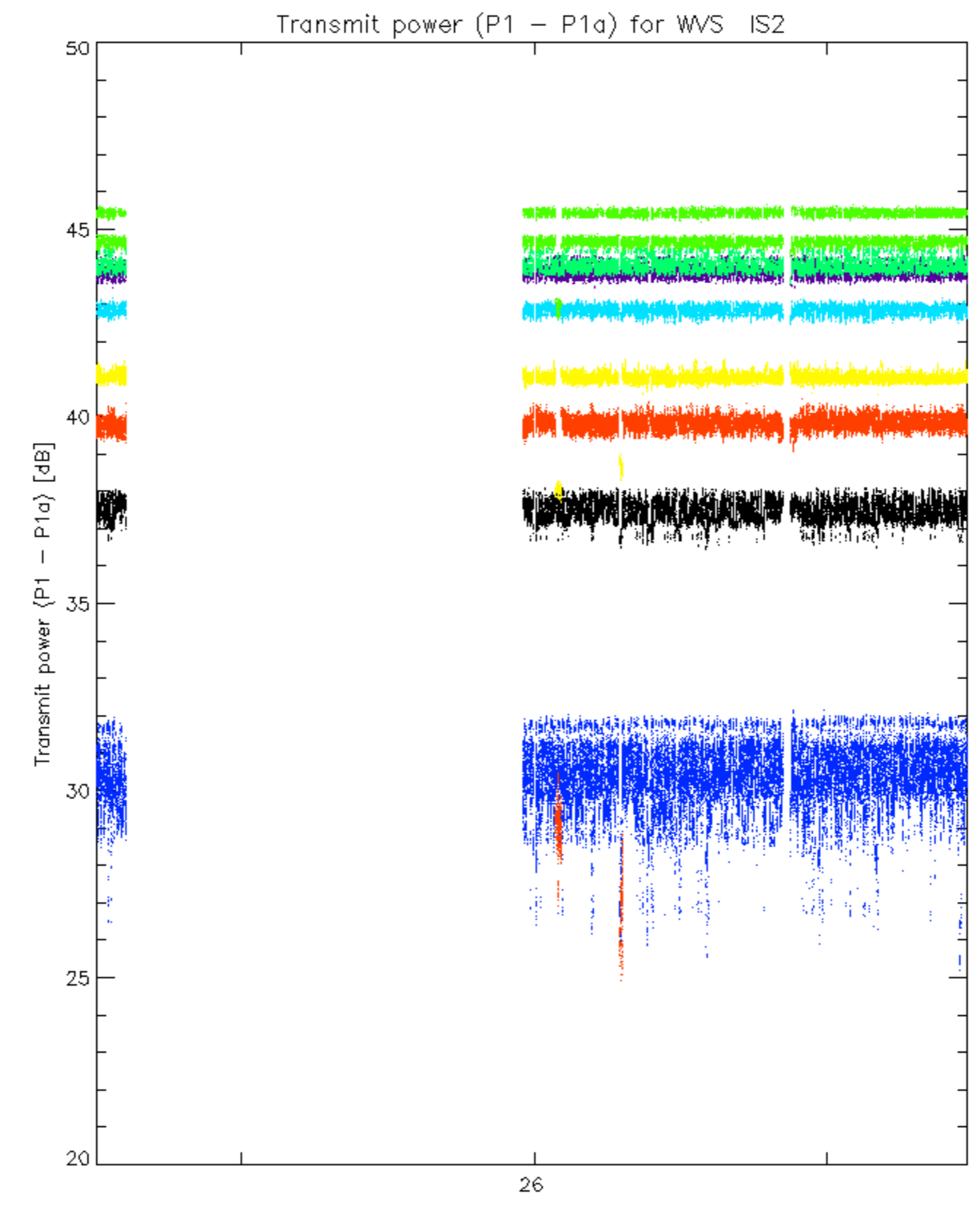




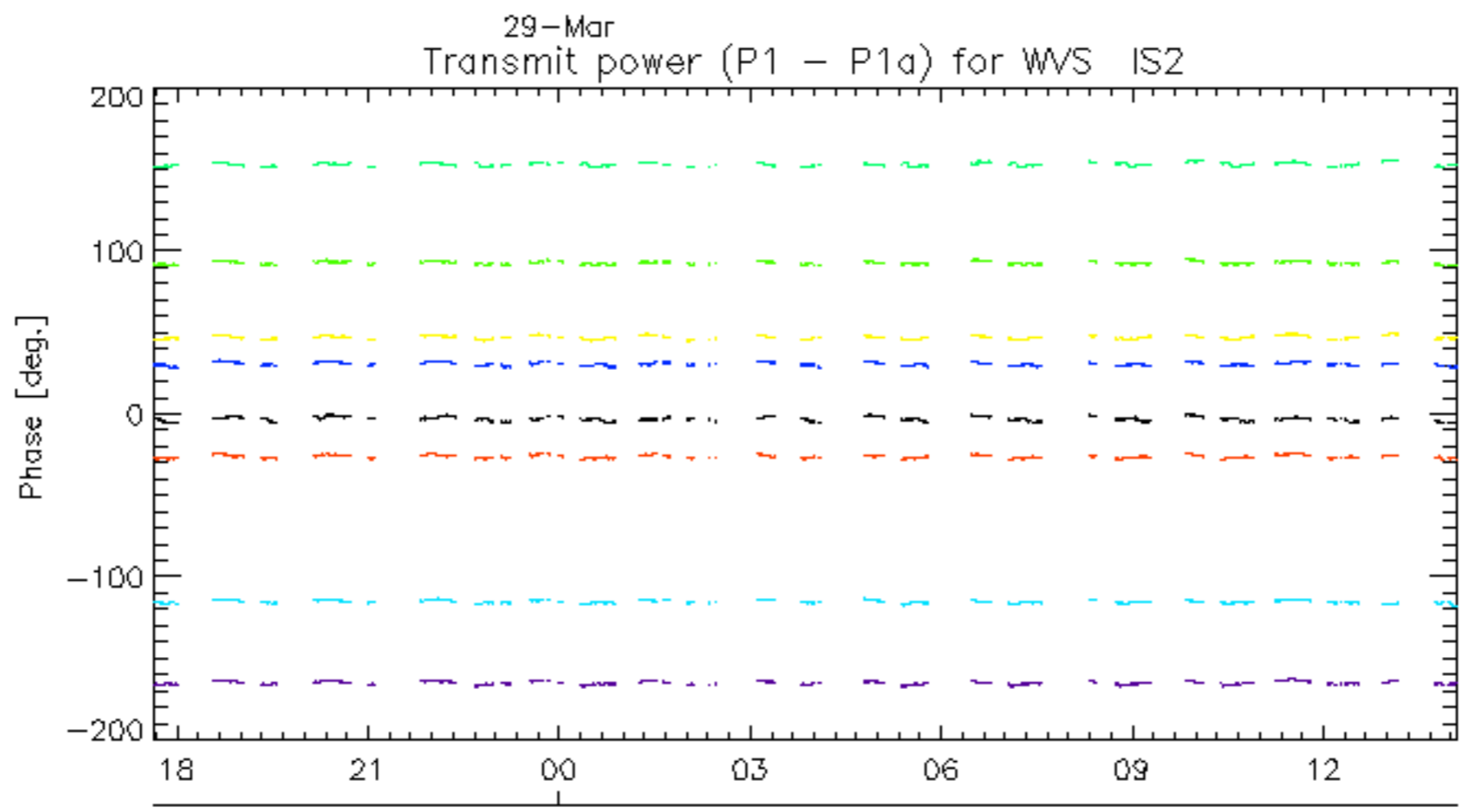
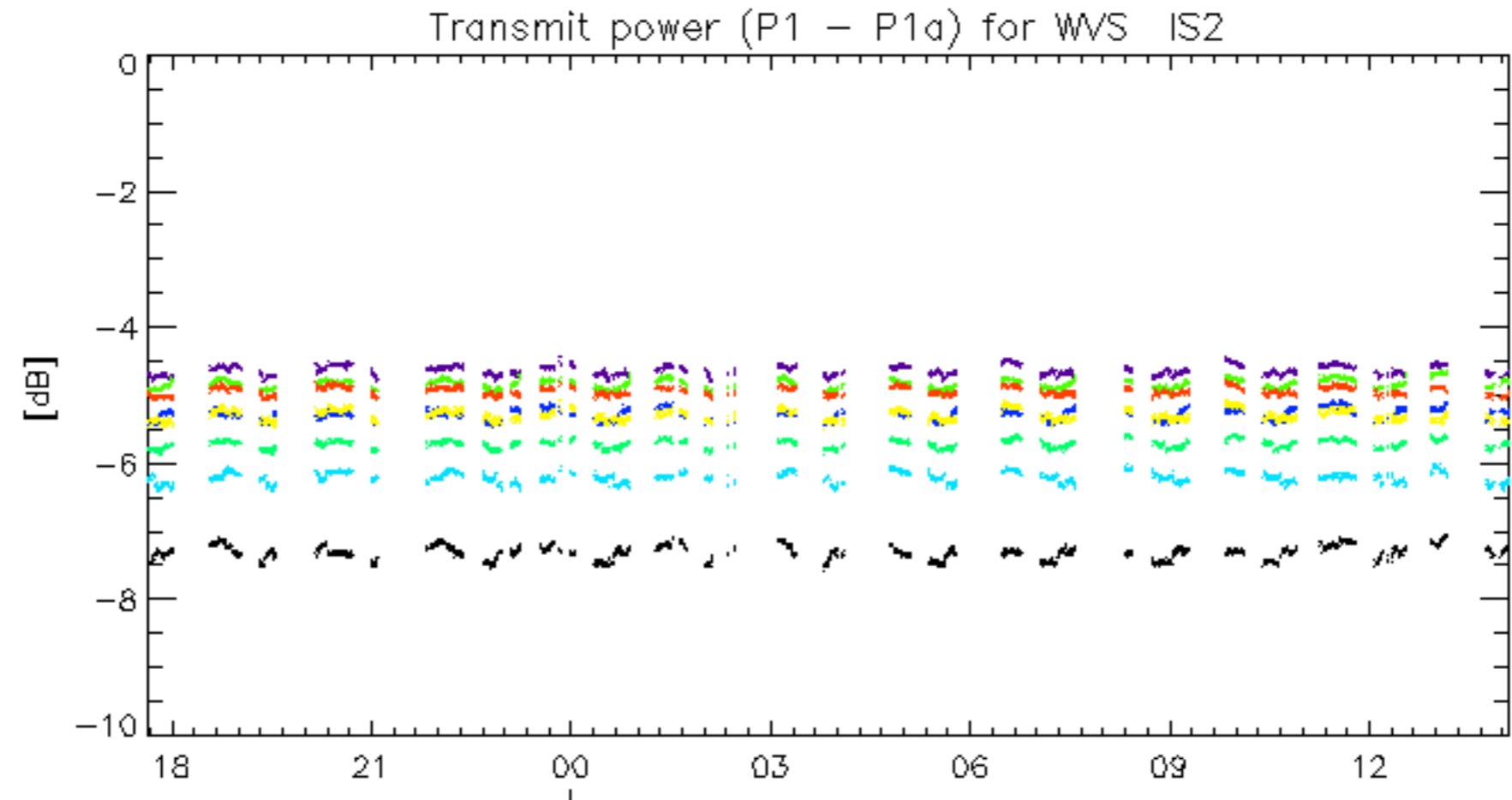
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.