

PRELIMINARY REPORT OF 060321

last update on Tue Mar 21 16:34:06 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 2006-03-20 00:00:00 to 2006-03-21 16:34:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	46	57	7	0	16
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	46	57	7	0	16
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	46	57	7	0	16
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	57	7	0	16

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	53	30	18	57
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	53	30	18	57
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	53	30	18	57
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	53	30	18	57

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	20060319 095336
H	20060320 092159

MSM in V/V 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"/>

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)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-4.002409	0.009353	-0.003012
7	P1	-3.008834	0.008516	-0.027184
11	P1	-4.061450	0.019900	0.015025
15	P1	-6.087312	0.021342	-0.058792
19	P1	-3.294215	0.006662	-0.045141
22	P1	-4.459638	0.014404	-0.025914
26	P1	-4.183077	0.111030	0.191004
30	P1	-5.790059	0.167012	0.099487
3	P1	-16.983826	0.247954	0.056294
7	P1	-16.728027	0.101689	-0.108911
11	P1	-16.492550	0.327129	0.097185
15	P1	-13.051785	0.094055	-0.021845
19	P1	-13.942432	0.052654	-0.101829
22	P1	-15.574049	0.457848	-0.083876
26	P1	-15.743893	0.375084	0.000235
30	P1	-16.494282	0.322920	-0.137144

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.391127	0.086803	0.072802
7	P2	-22.363155	0.096357	0.121064
11	P2	-16.224400	0.100733	0.030165
15	P2	-7.163714	0.098529	-0.006031
19	P2	-9.131733	0.091334	-0.014203
22	P2	-17.943514	0.089184	-0.071284
26	P2	-16.213909	0.094732	-0.044990
30	P2	-19.648146	0.084590	-0.038898

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.193829	0.005791	-0.007263
7	P3	-8.193829	0.005791	-0.007263
11	P3	-8.193829	0.005791	-0.007263
15	P3	-8.193829	0.005791	-0.007263
19	P3	-8.193829	0.005791	-0.007263
22	P3	-8.193829	0.005791	-0.007263
26	P3	-8.193829	0.005791	-0.007263
30	P3	-8.193829	0.005791	-0.007261

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	-3.833936	2.801231	0.323844
7	P1	-2.819143	2.941097	0.398108
11	P1	-3.013901	2.961262	0.370220
15	P1	-3.658703	2.935676	0.400837
19	P1	-3.459389	2.844012	0.327744
22	P1	-5.256456	2.614676	0.310032
26	P1	-5.919607	2.801568	0.656475
30	P1	-5.264325	2.656691	0.434622
3	P1	-11.641782	1.843733	0.255915
7	P1	-10.035554	2.042040	0.272666
11	P1	-10.335319	2.035372	0.243978
15	P1	-10.881865	2.048177	0.249405
19	P1	-15.458814	1.510468	0.210743
22	P1	-20.324200	2.171632	0.083001

26	P1	-16.288136	2.036080	0.151748
30	P1	-18.290640	1.728367	0.488197

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.086775	1.939302	0.104352
7	P2	-22.535995	2.273154	-0.067744
11	P2	-11.266634	2.105371	0.179071
15	P2	-4.905479	2.734996	0.311476
19	P2	-6.913122	2.461859	0.300409
22	P2	-8.204627	2.308723	0.238158
26	P2	-23.905466	2.323795	-0.289298
30	P2	-22.039919	2.192750	-0.173068

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.022742	0.002519	0.005633
7	P3	-8.022806	0.002512	0.005409
11	P3	-8.022705	0.002529	0.005694
15	P3	-8.022856	0.002525	0.005481
19	P3	-8.022745	0.002526	0.005071
22	P3	-8.022808	0.002517	0.005516
26	P3	-8.022816	0.002519	0.005223
30	P3	-8.022696	0.002526	0.005543

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	0.000558061
	stdev	1.74443e-07
MEAN Q	mean	0.000516818
	stdev	2.20872e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138163
	stdev	0.00118687
STDEV Q	mean	0.138526
	stdev	0.00120488



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006032[901]

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_1PNPDE20060320_141119_000001602046_00096_21192_1254.N1	1	0
ASA_WSM_1PNPDE20060321_042632_000001842046_00105_21201_1778.N1	0	60
ASA_WSM_1PNPDE20060321_063926_000000852046_00106_21202_1792.N1	0	1
ASA_WSM_1PNPDK20060320_081910_000000862046_00093_21189_0874.N1	0	41





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

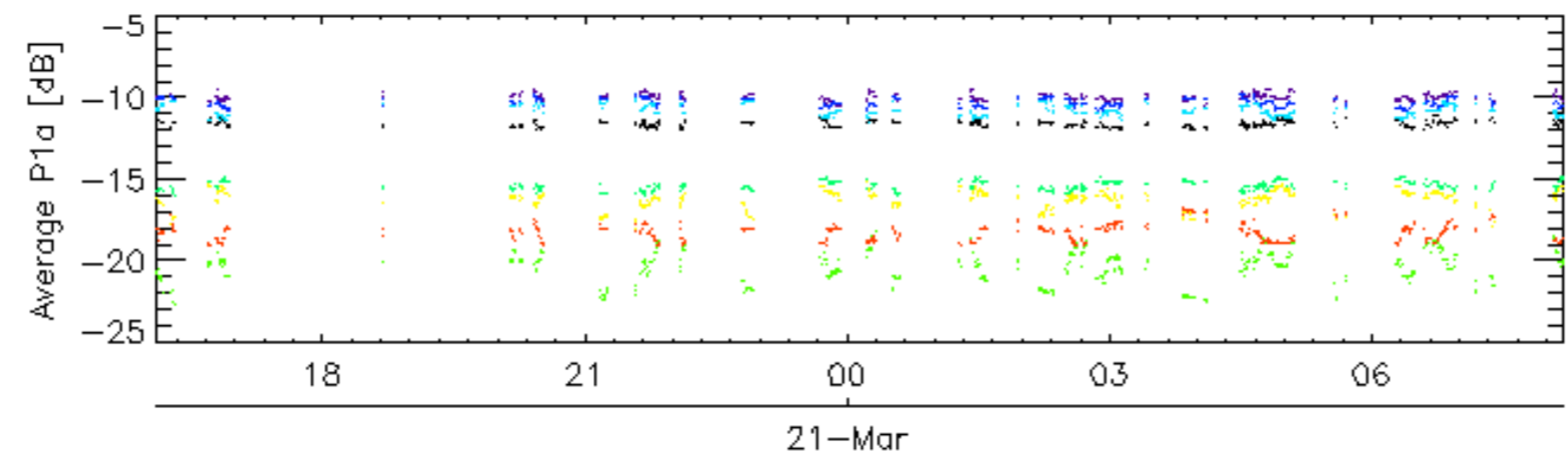
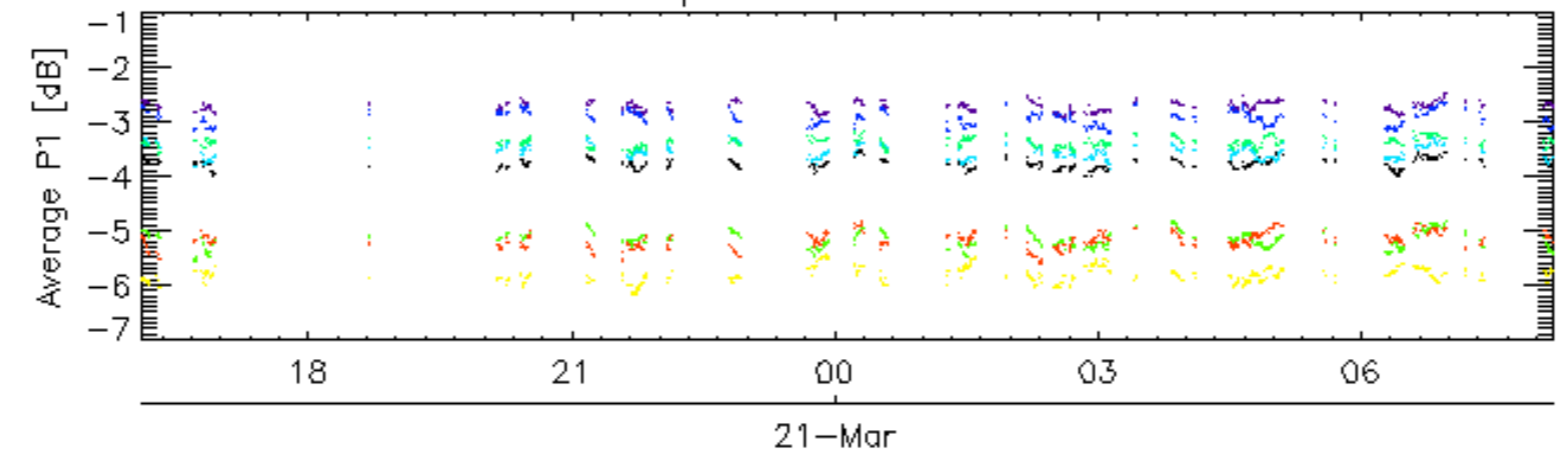
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

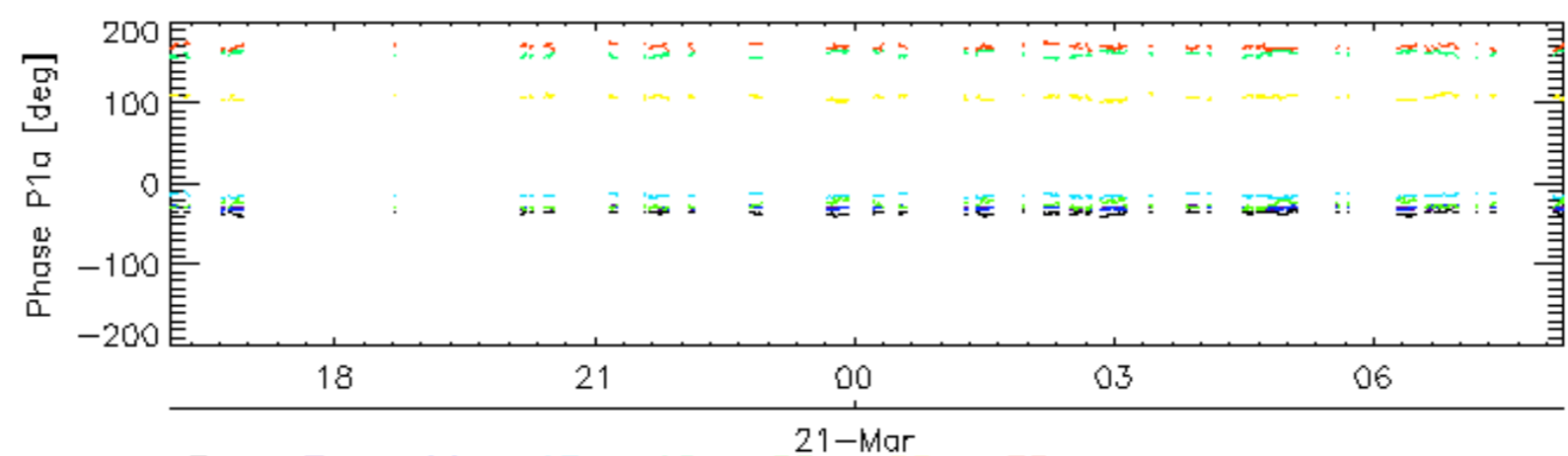
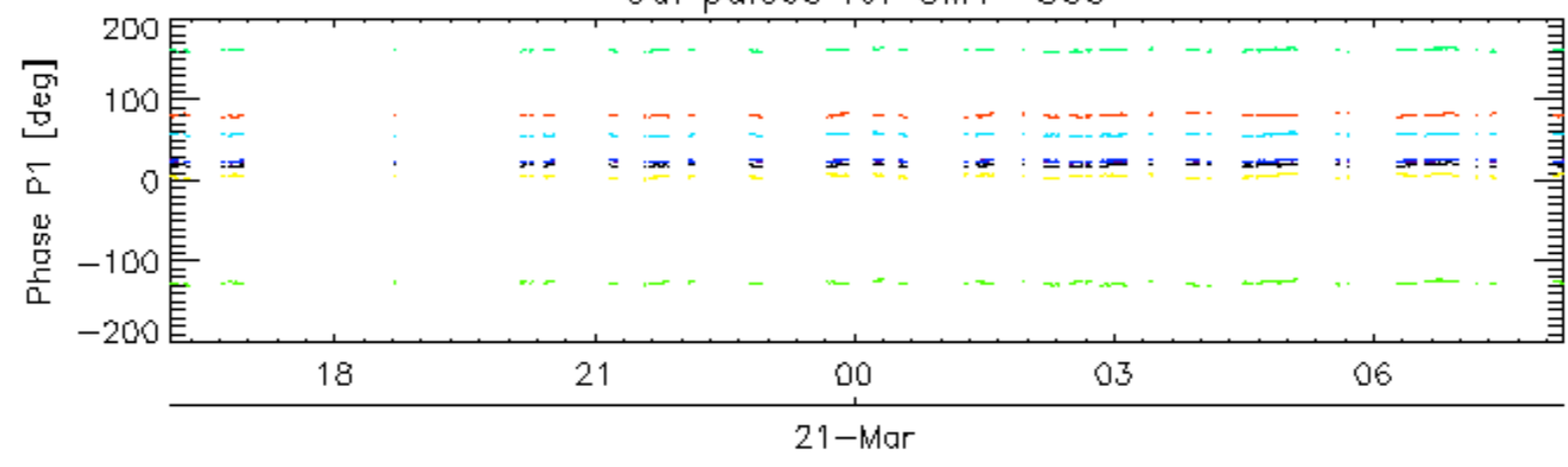
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

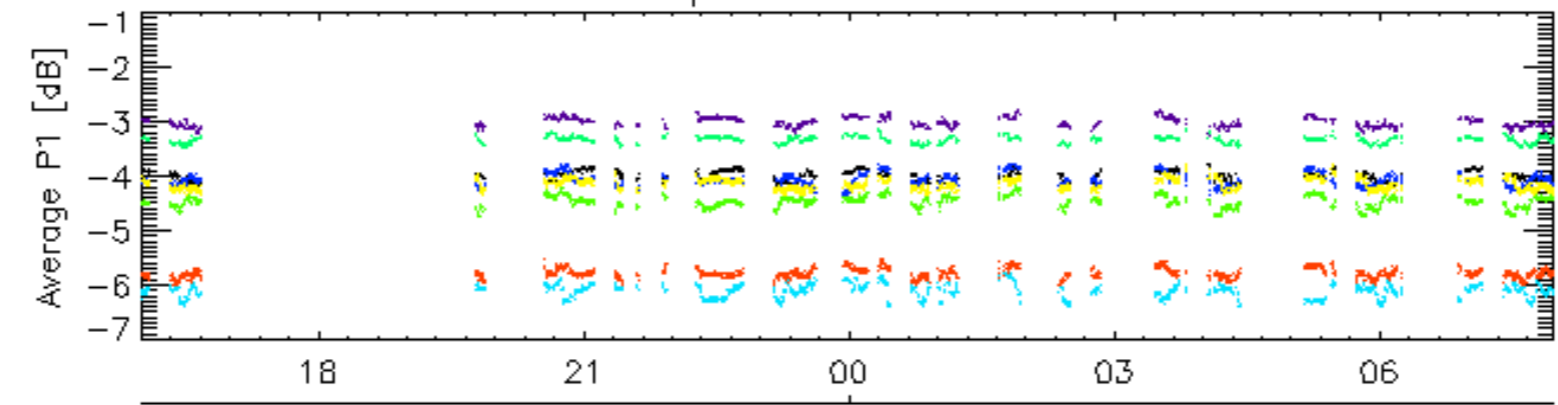


Cal pulses for GM1 SS3

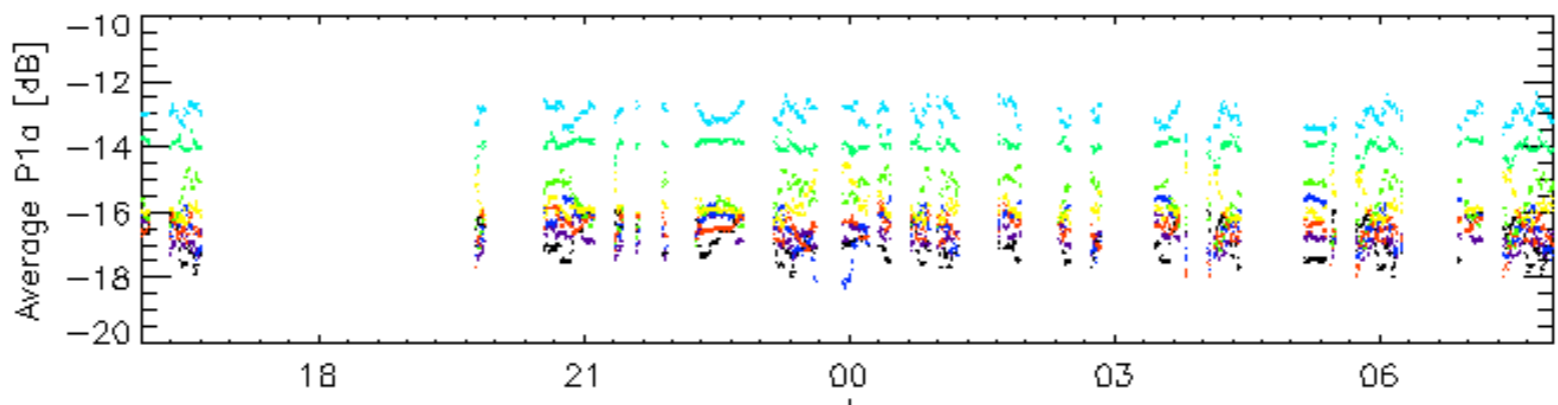


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

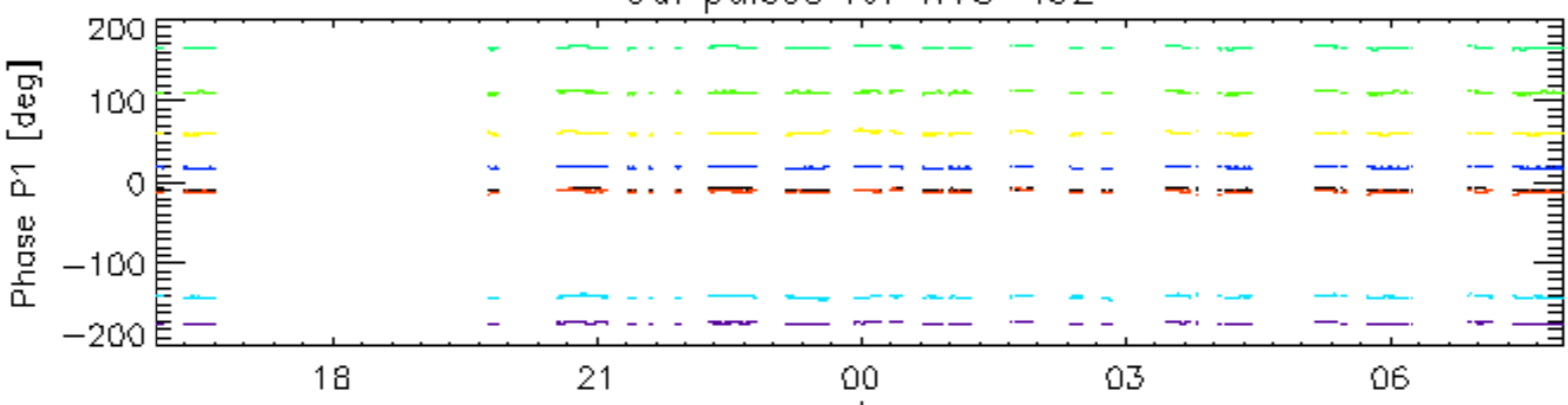


21-Mar

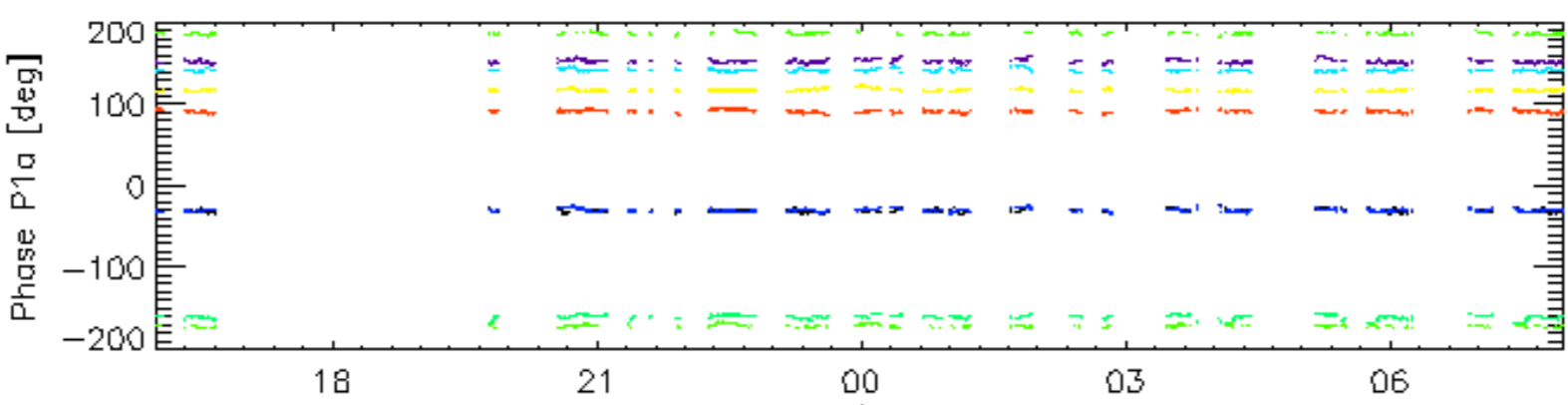


21-Mar

Cal pulses for WVS IS2

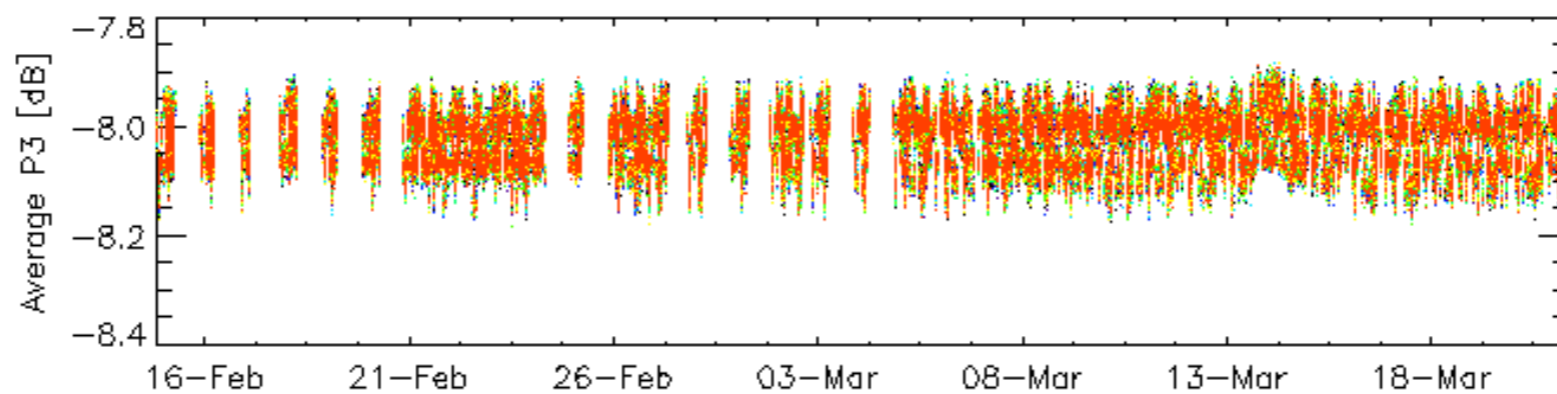
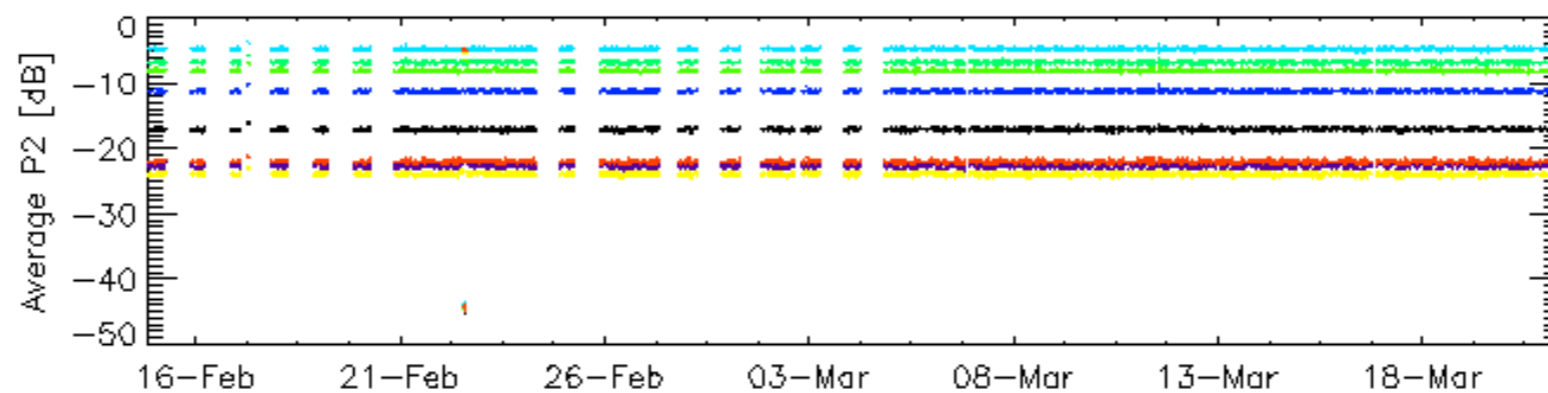
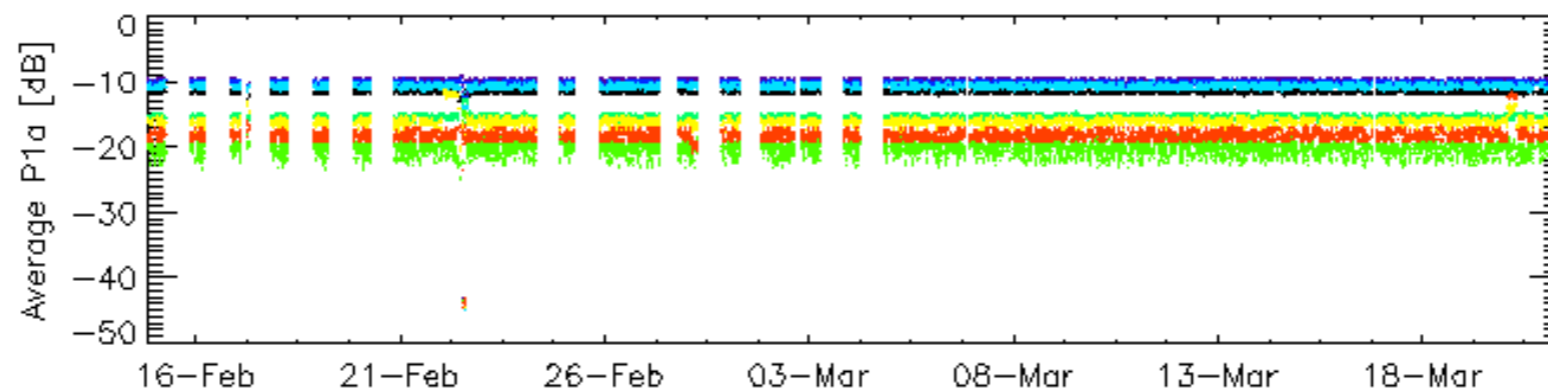
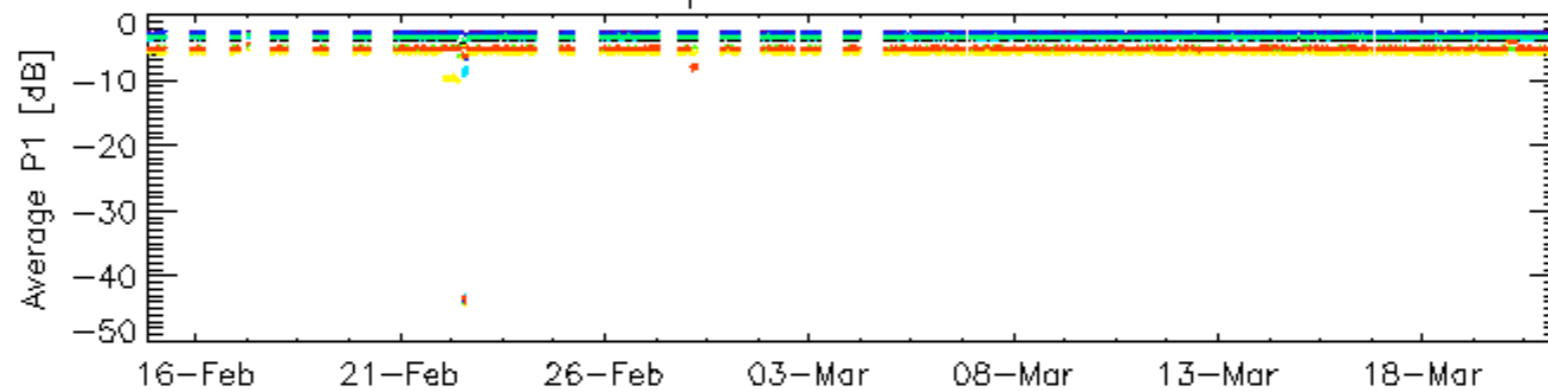


21-Mar



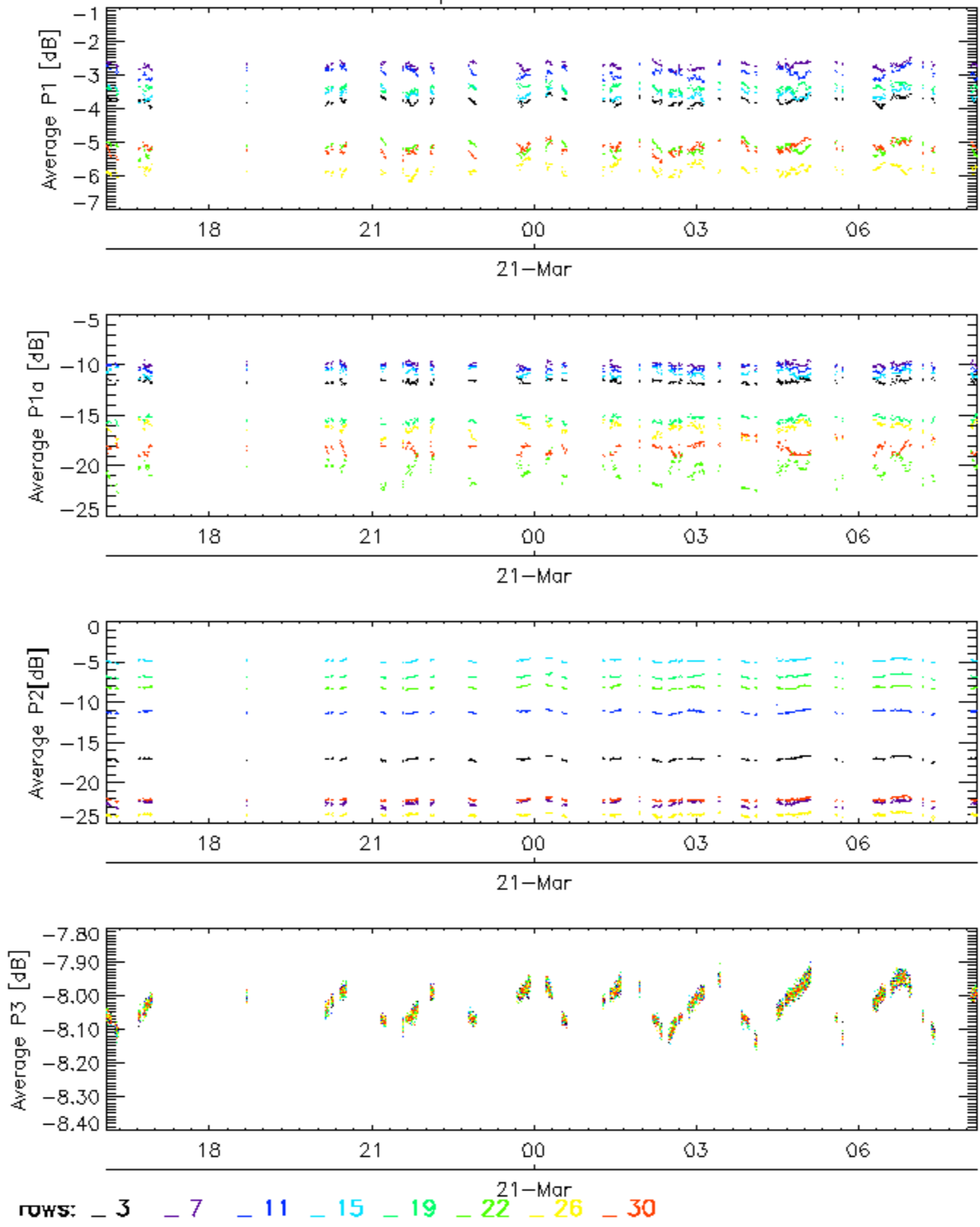
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

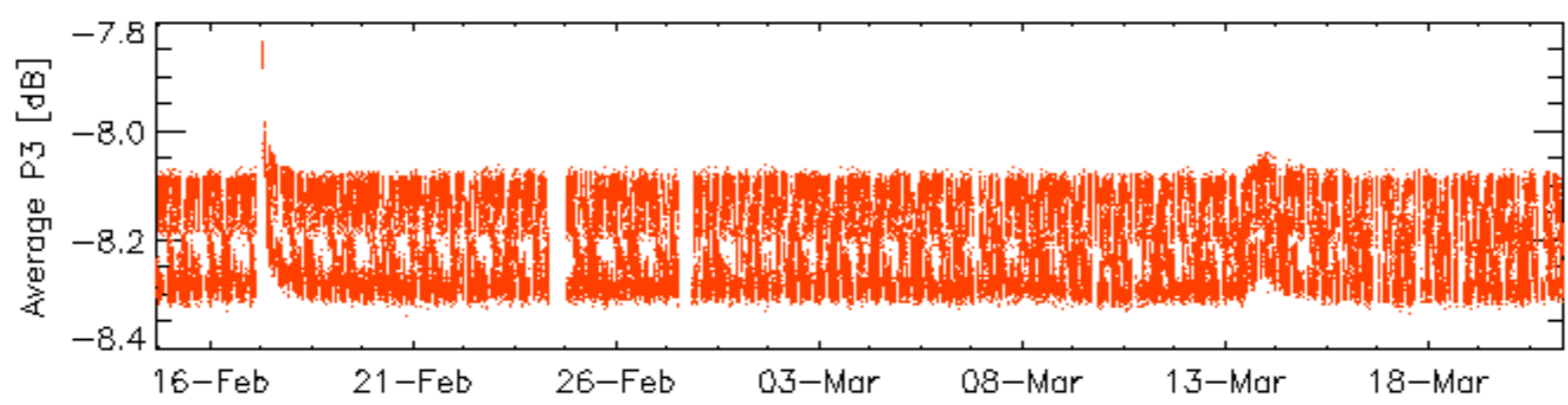
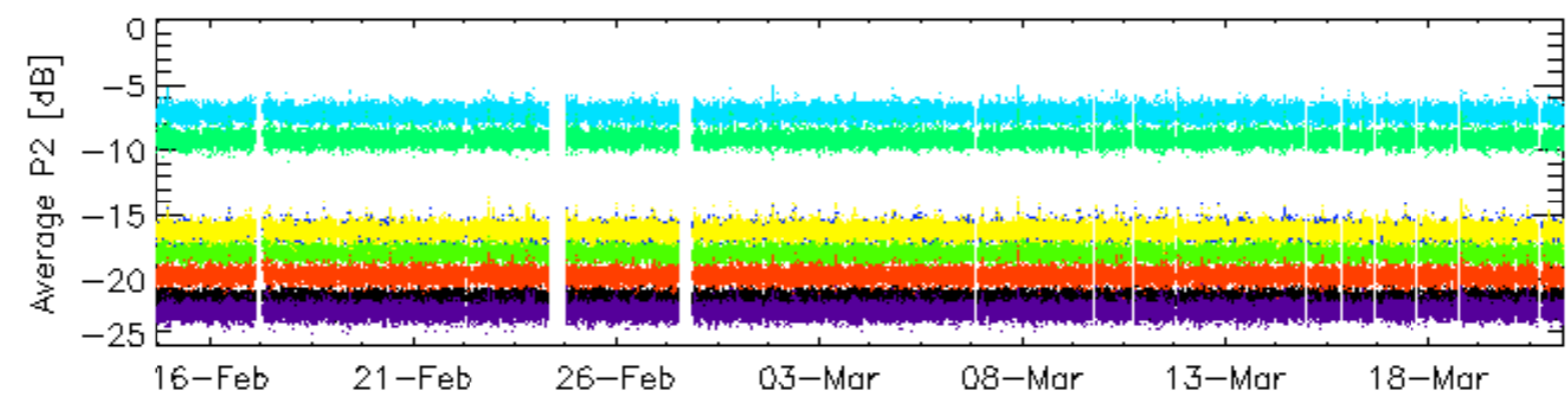
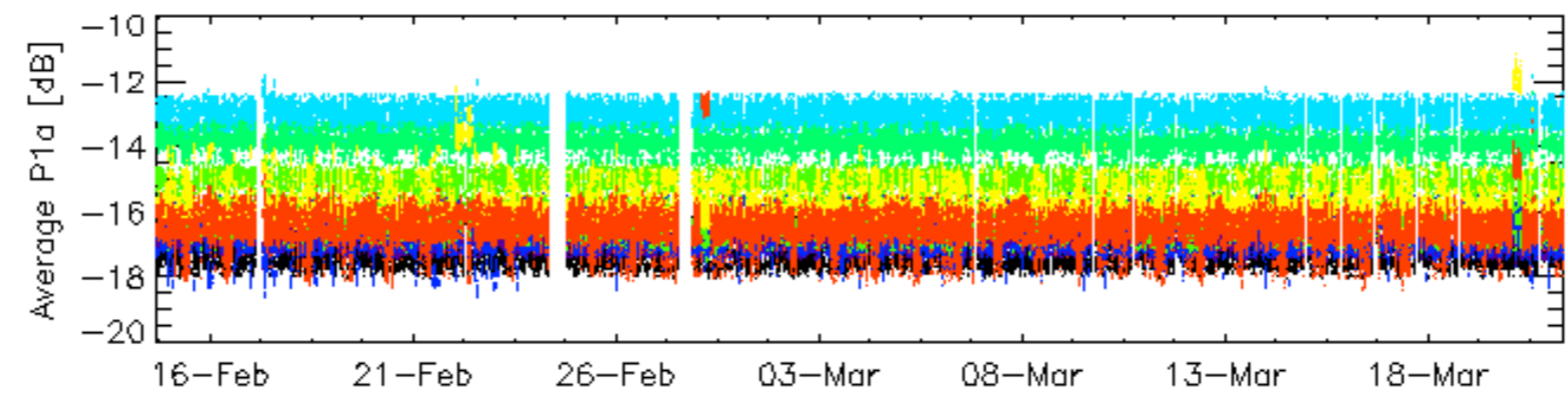
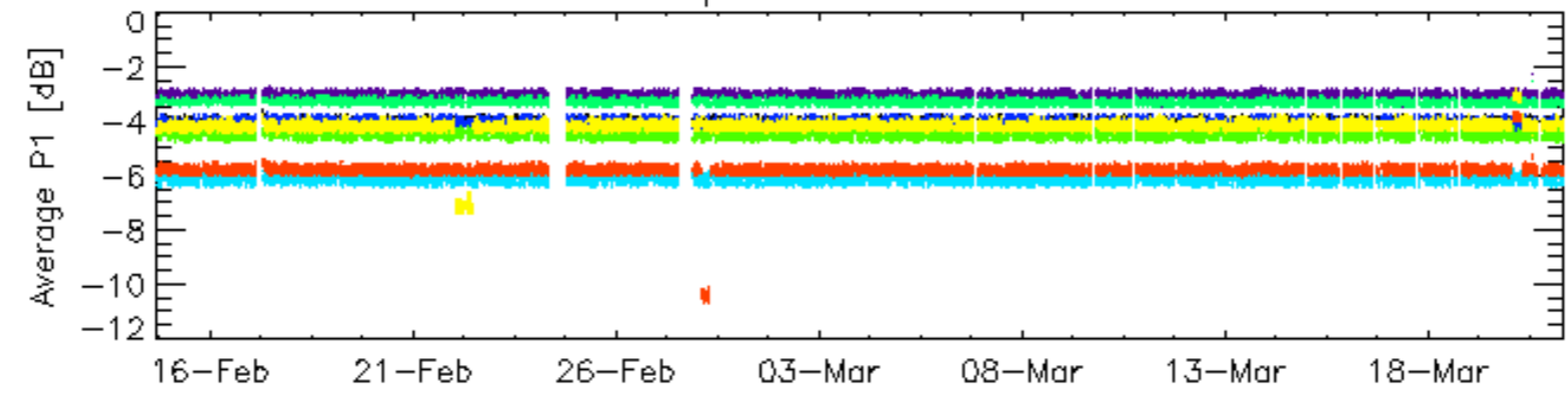


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

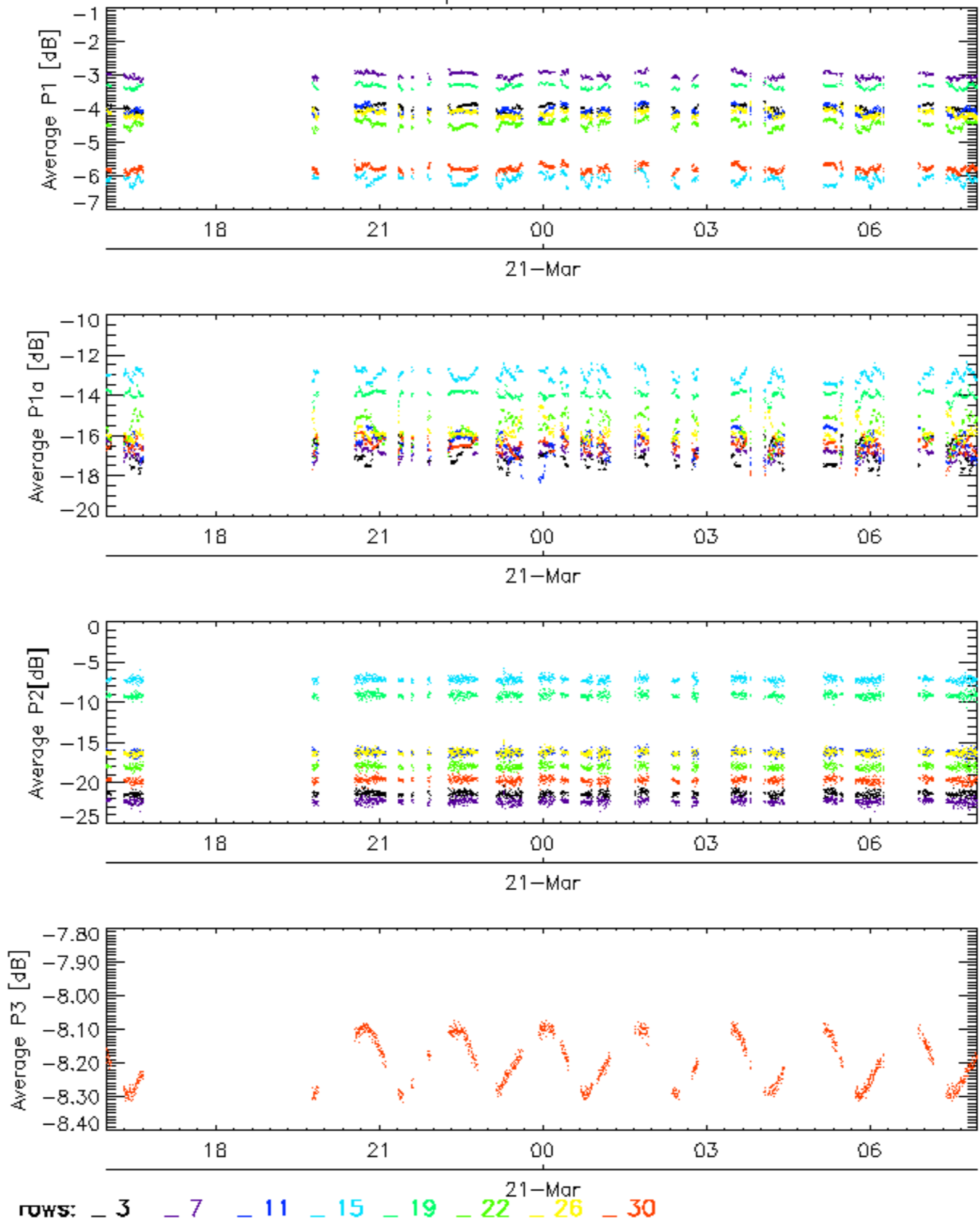


Cal pulses for WVS IS2



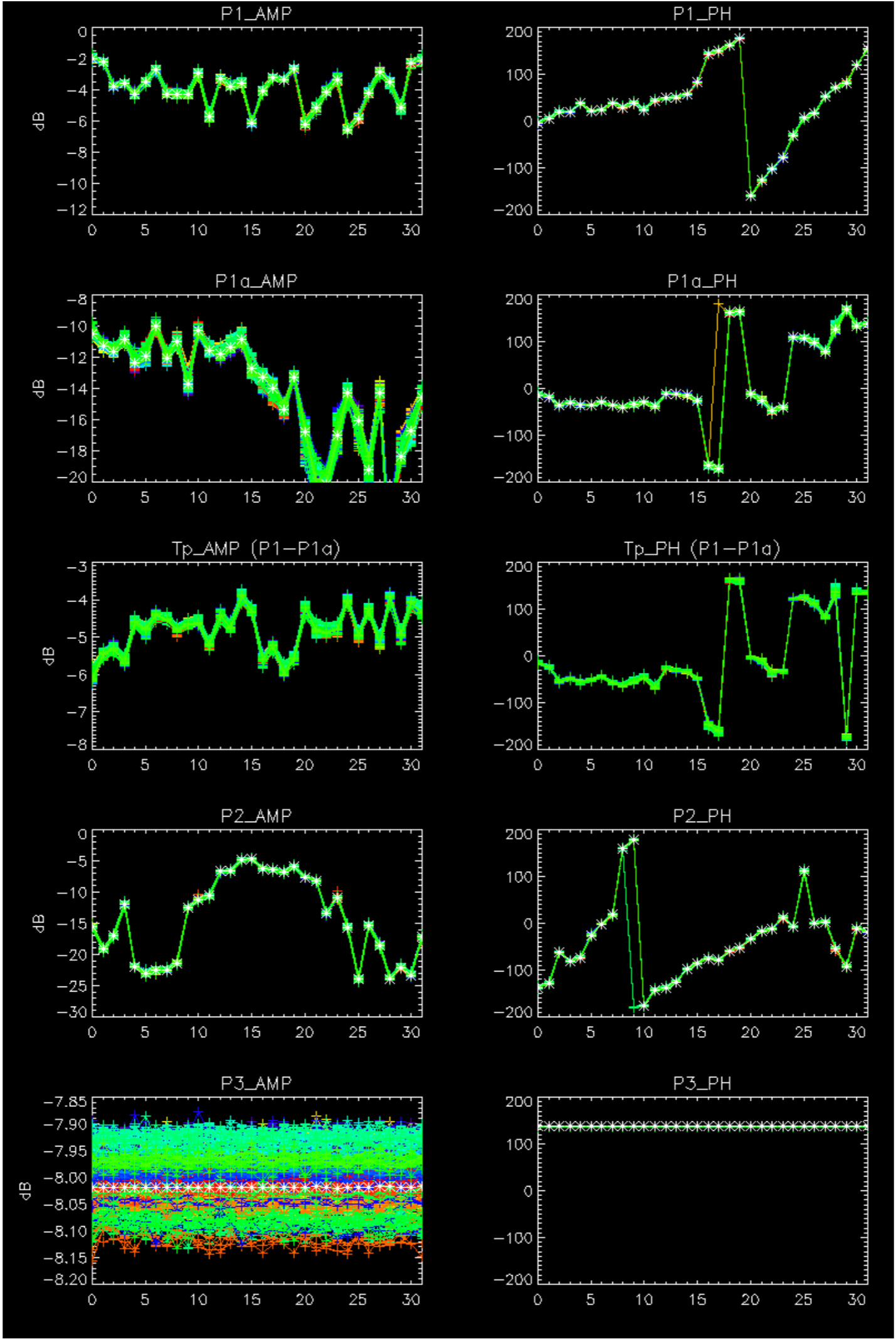
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

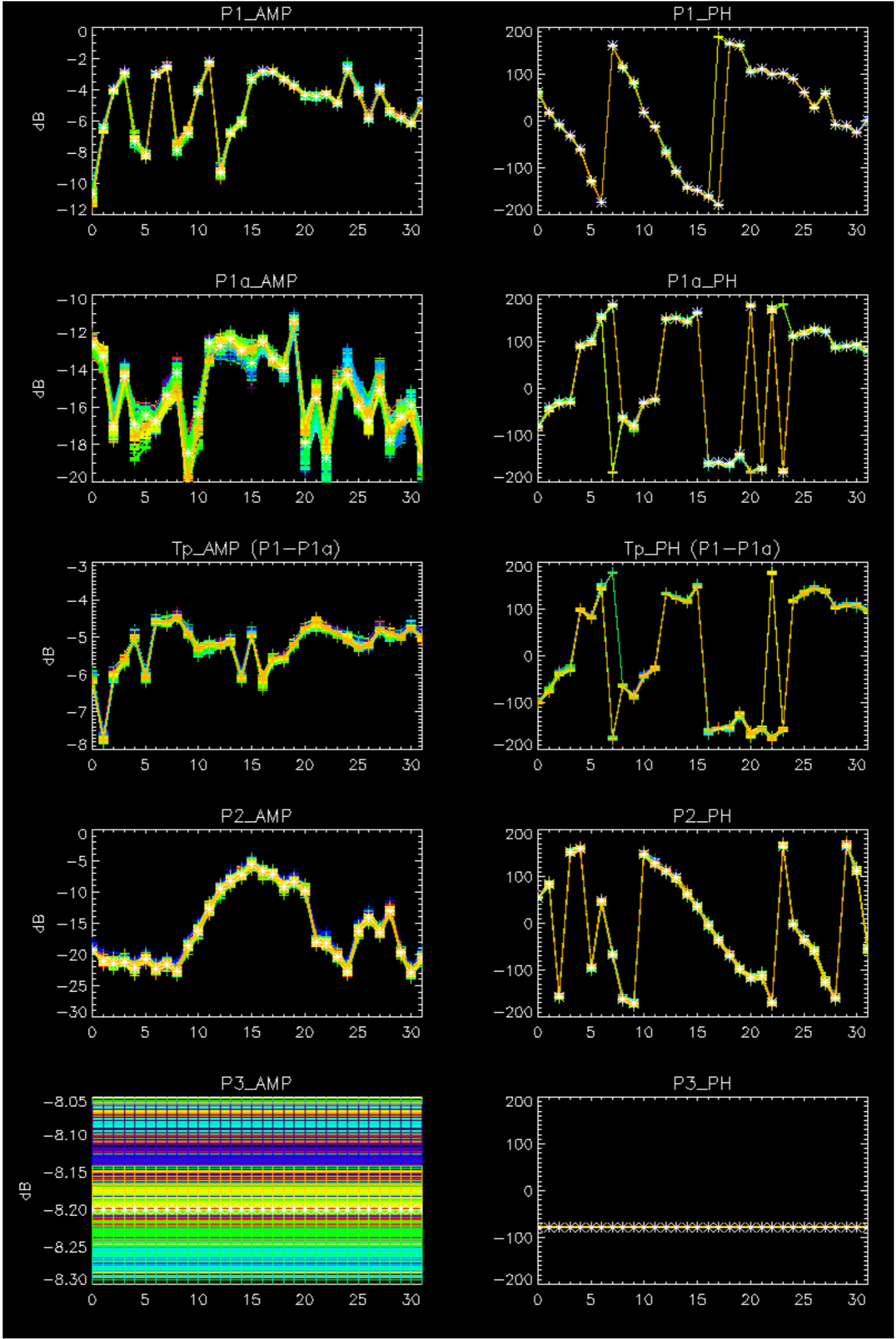
Cal pulses for WVS IS2



No anomalies observed on available browse products

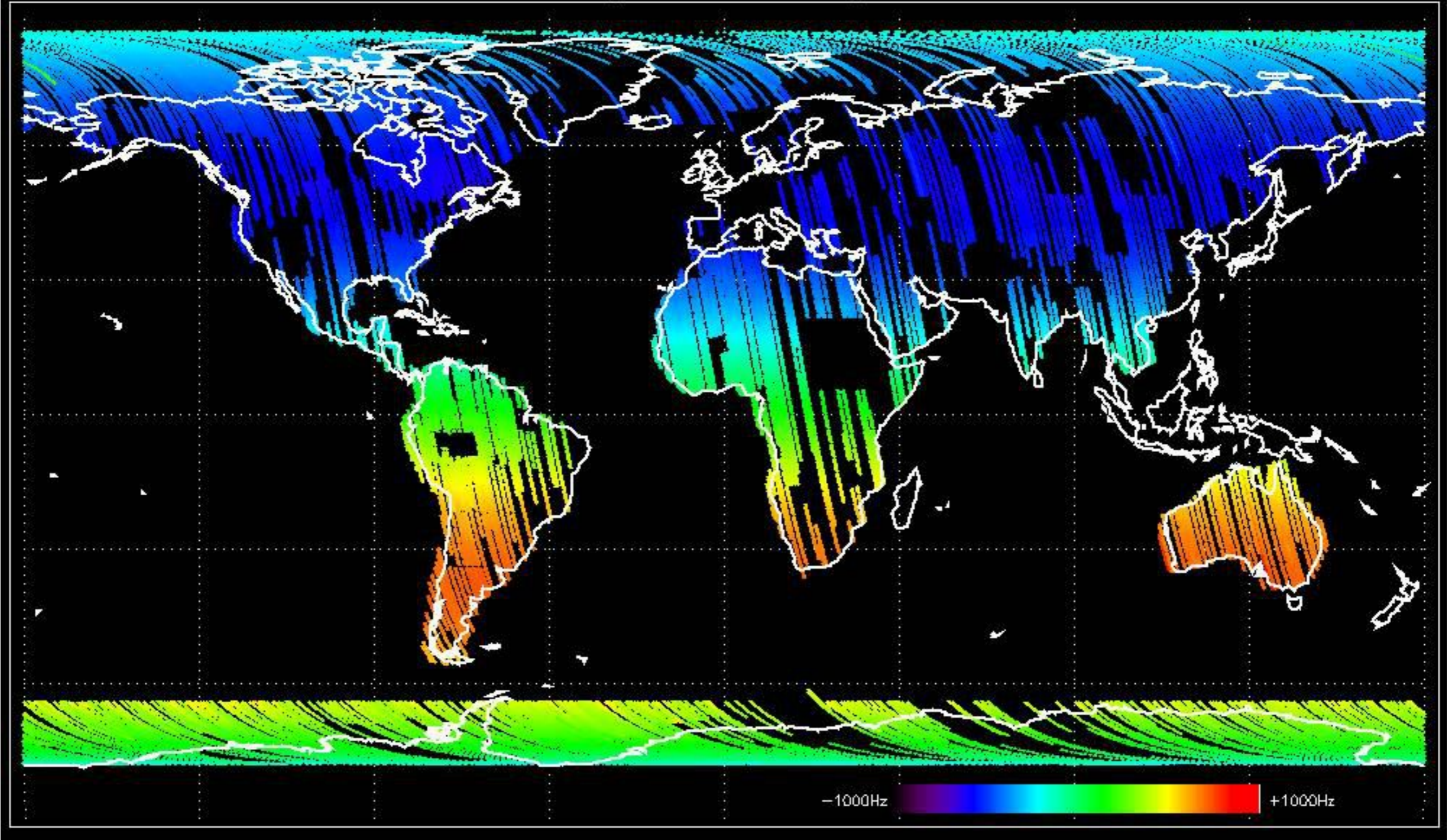
No anomalies observed.



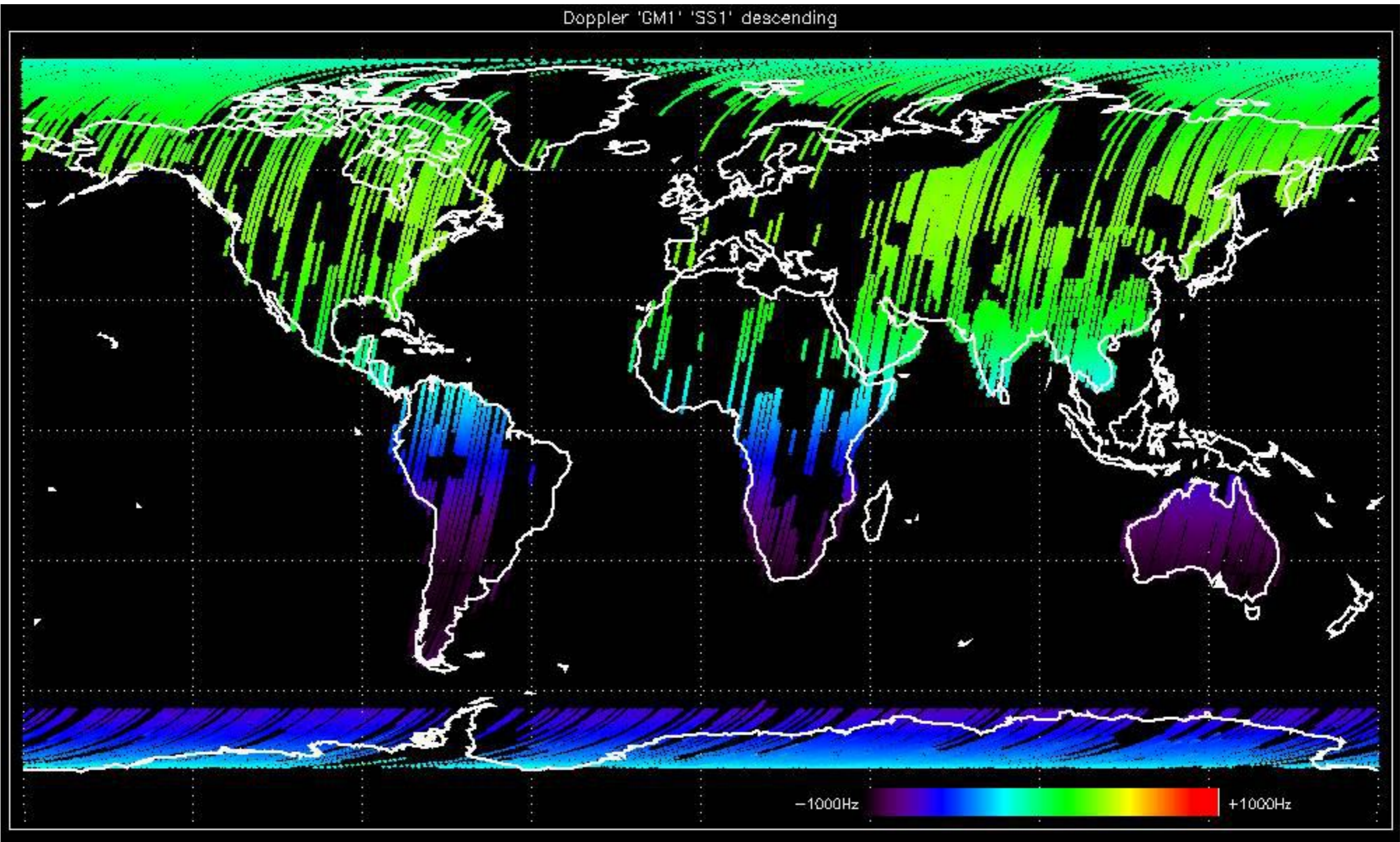


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

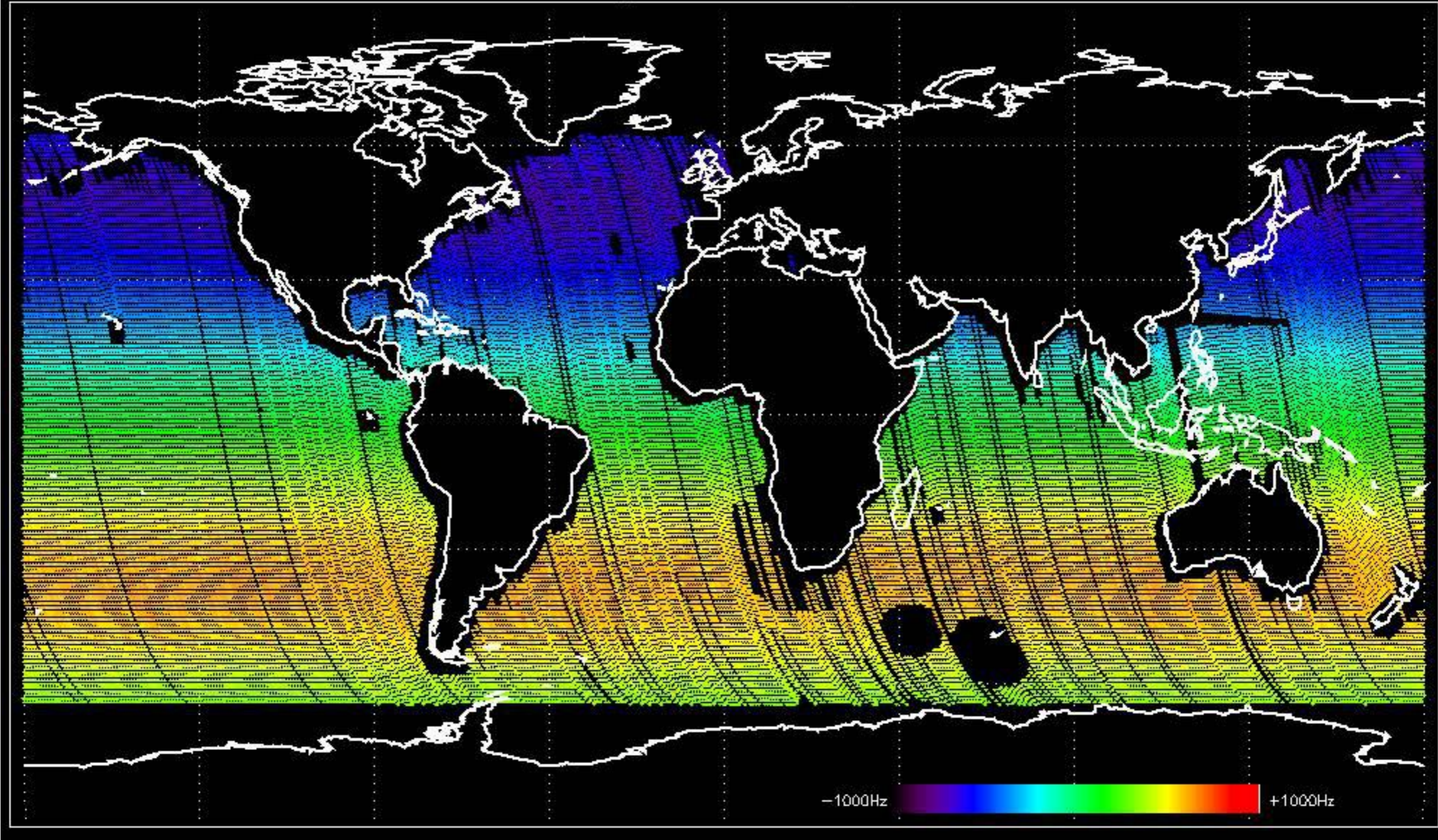
Doppler 'GM1' 'SS1' ascending



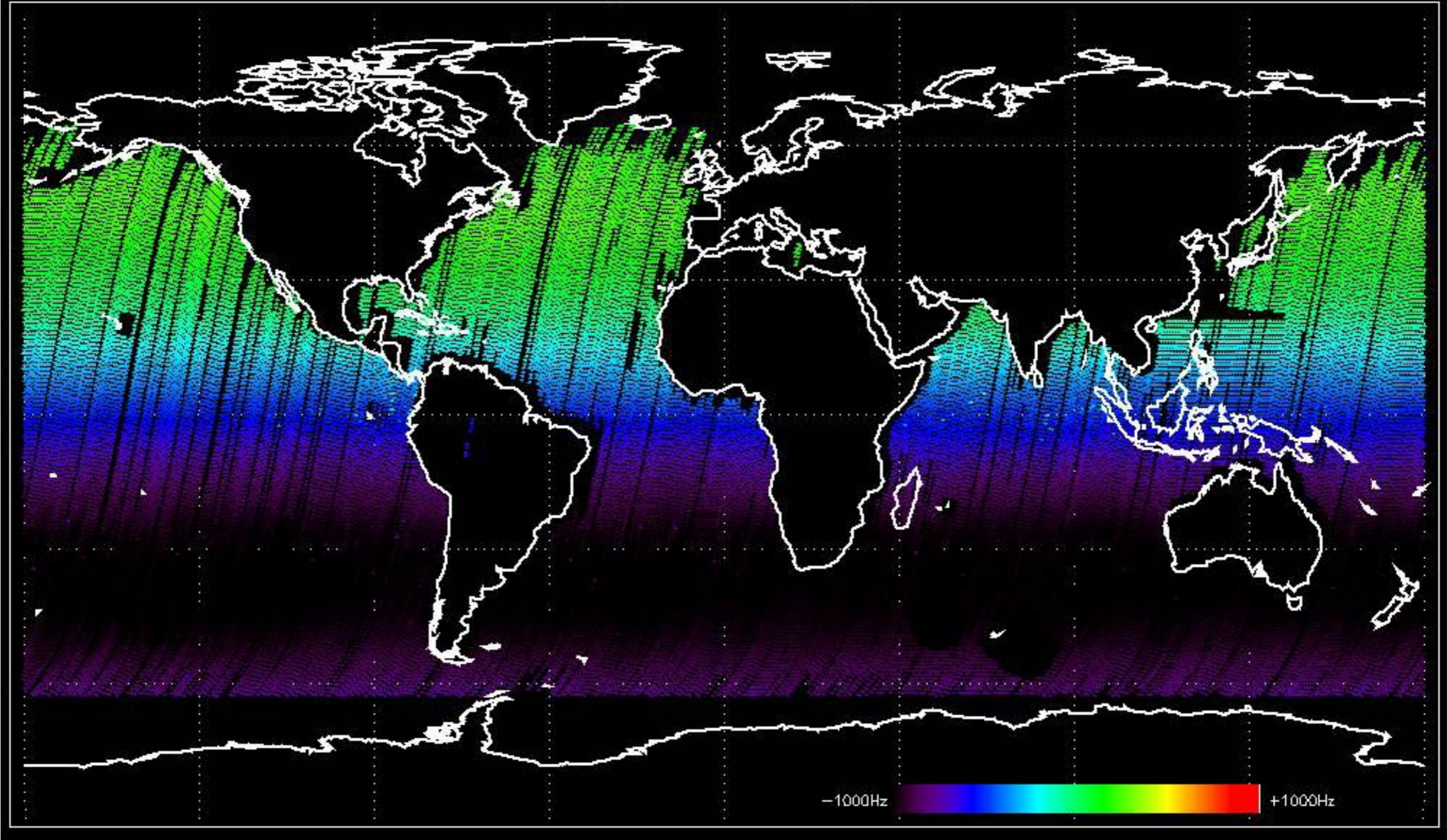
Doppler 'GM1' 'SS1' descending



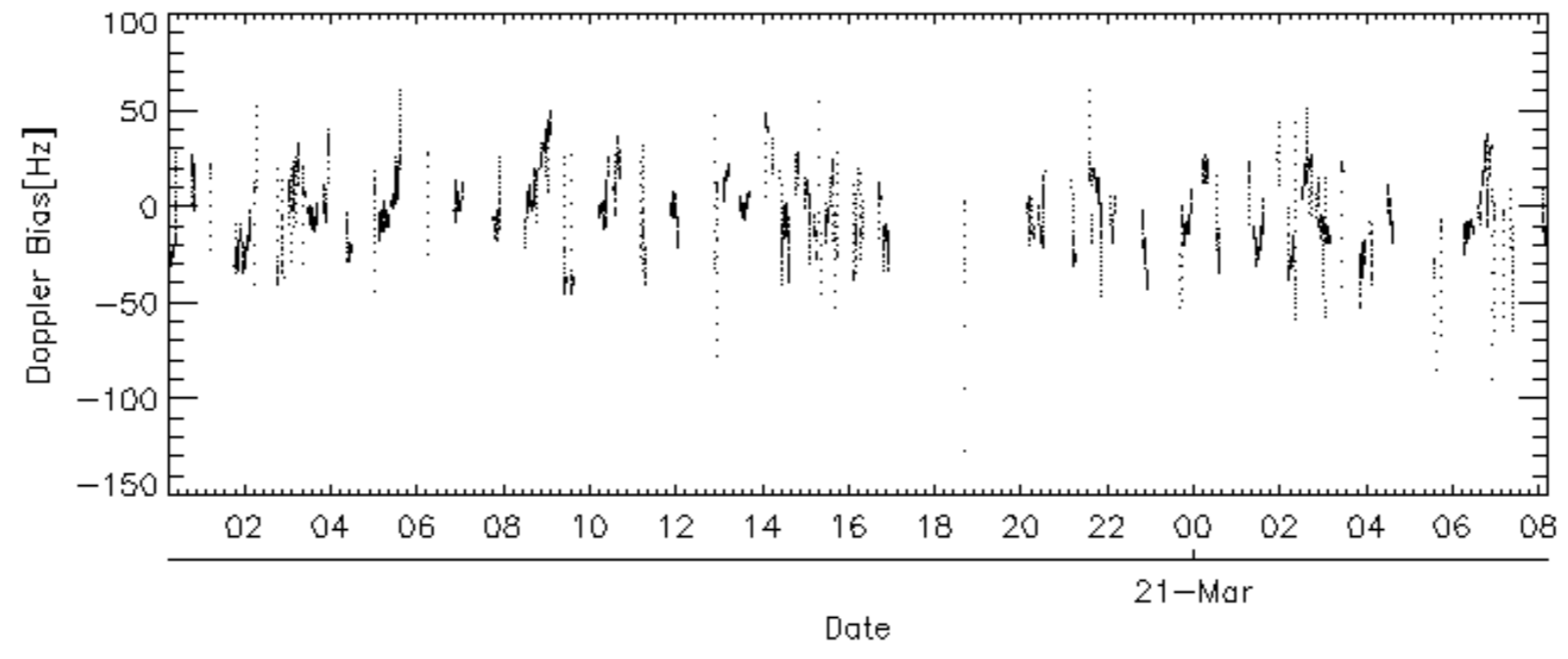
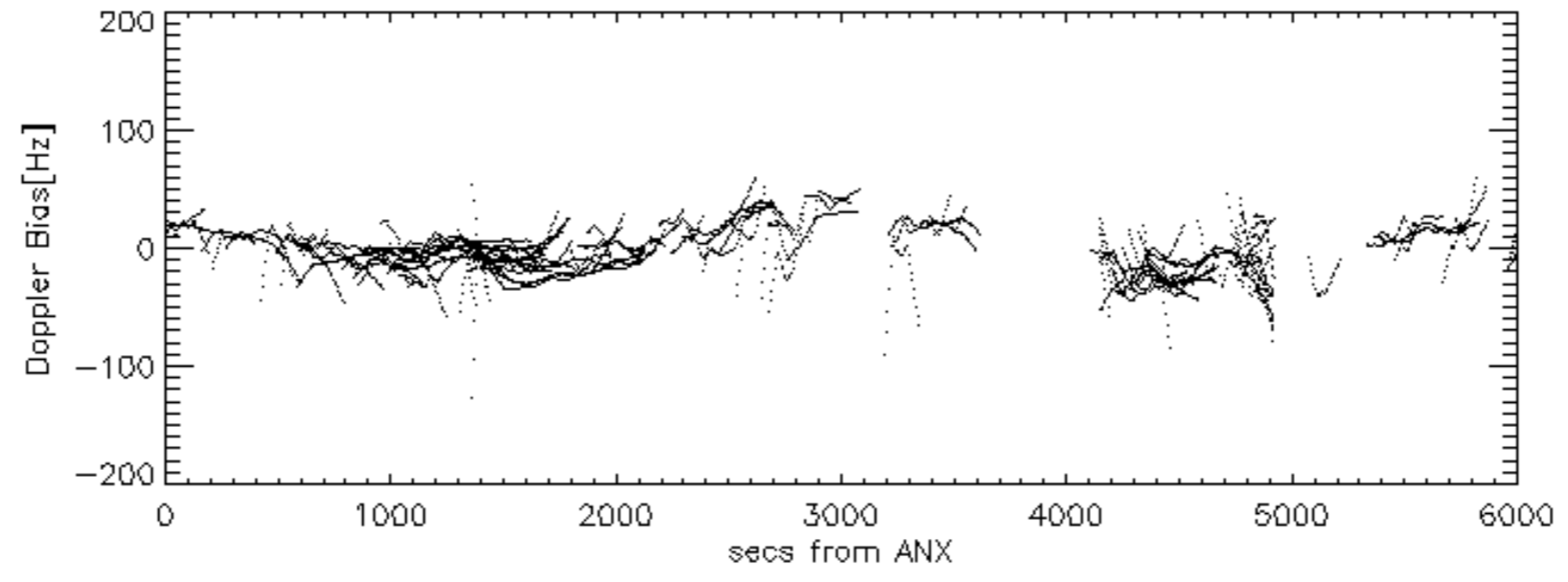
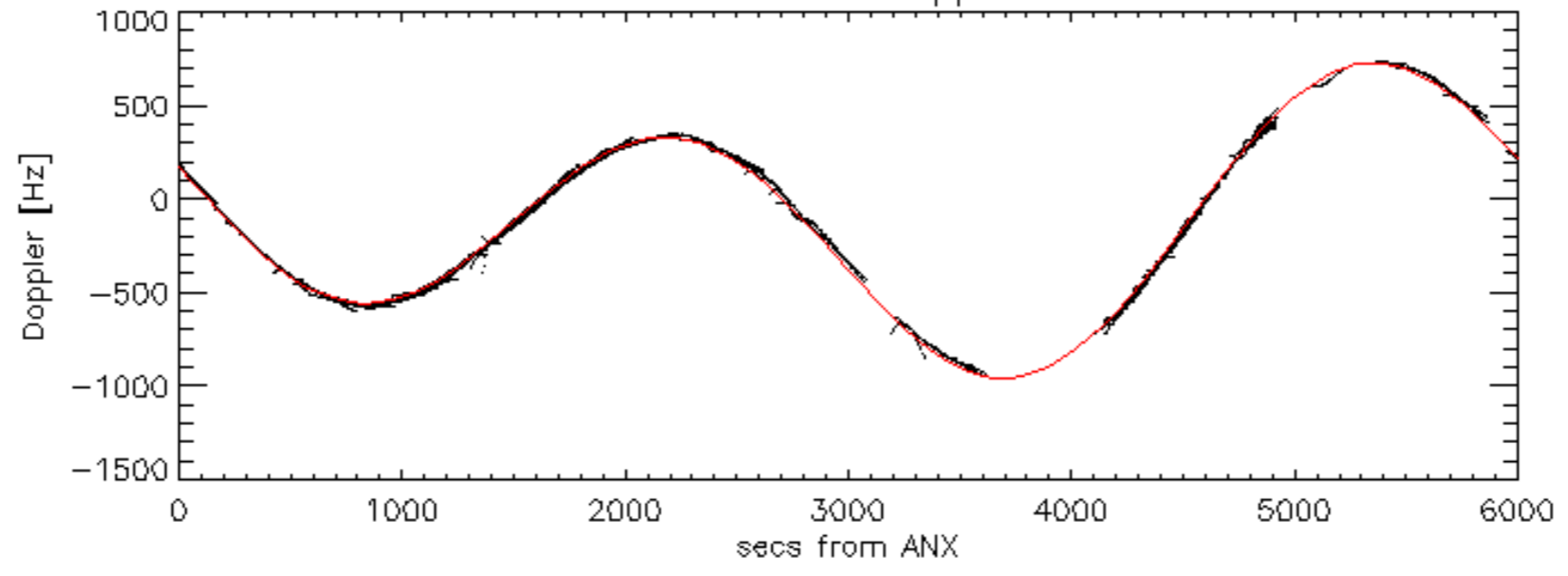
Doppler 'WVS' 'IS2' ascending

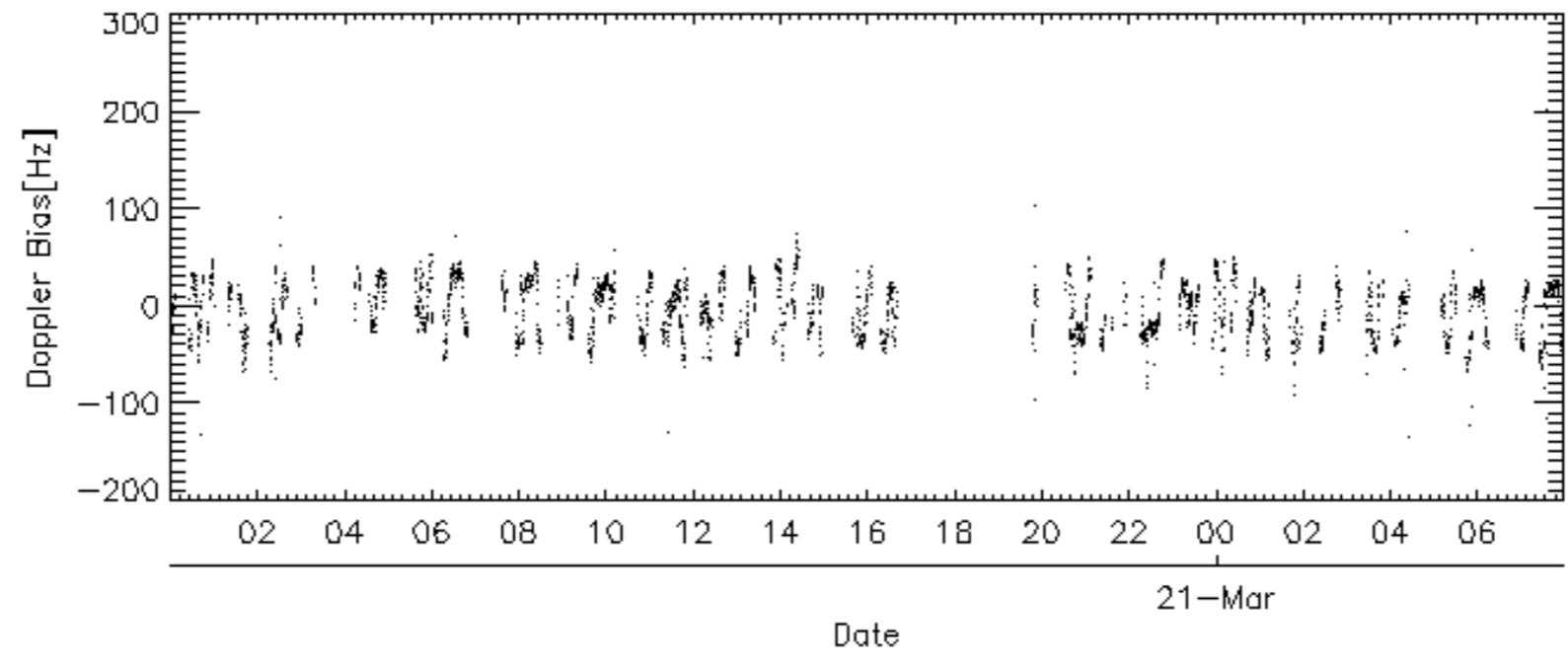
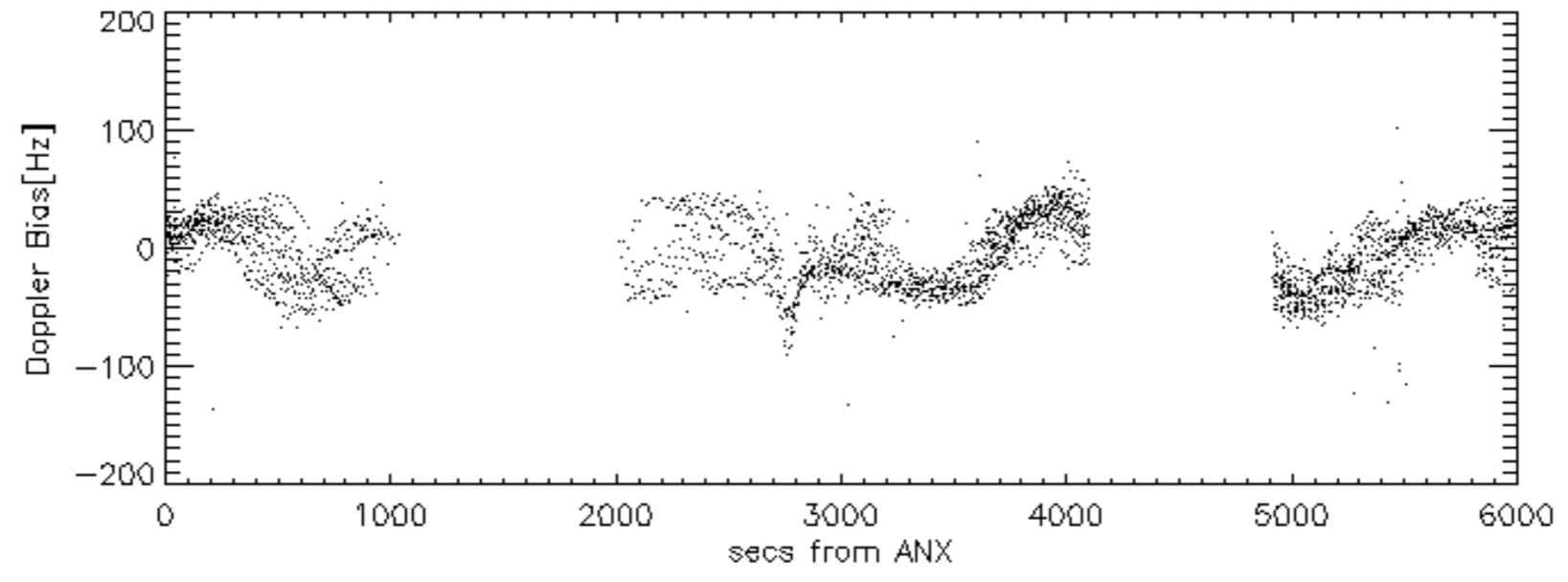
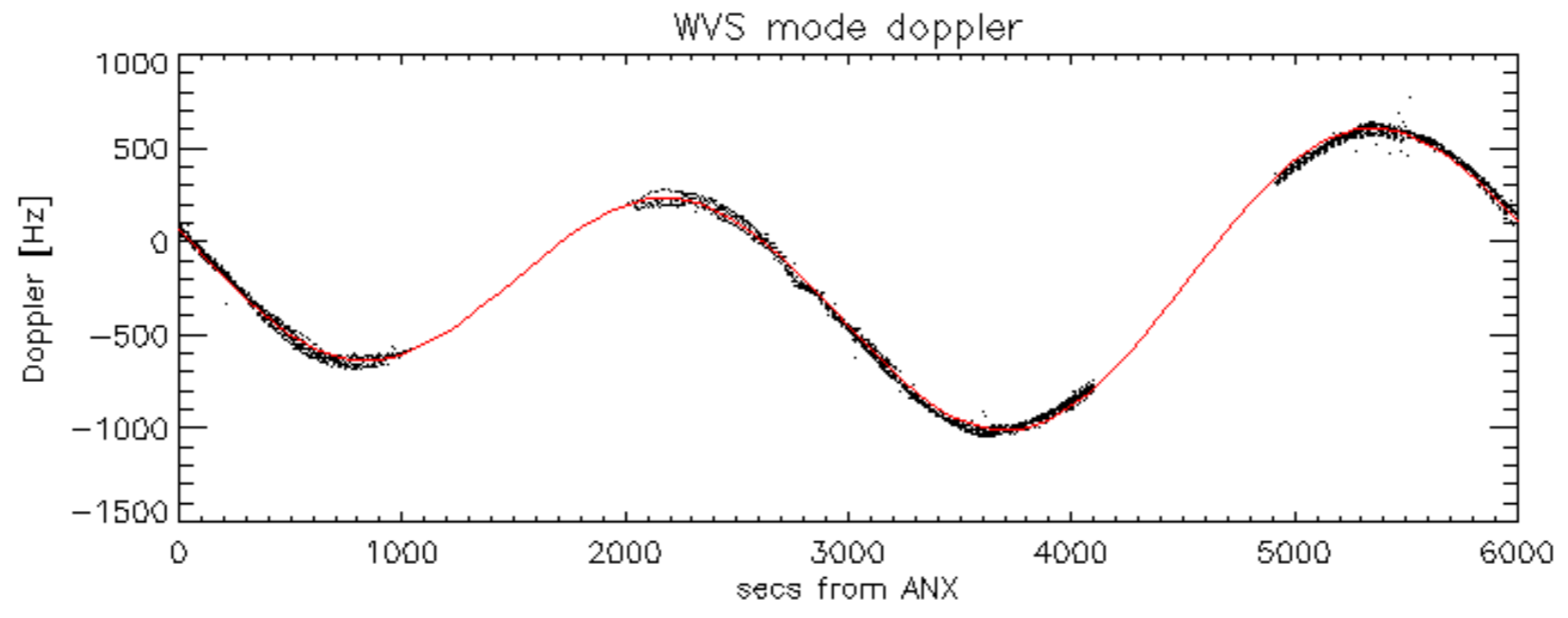


Doppler 'WVS' 'IS2' descending

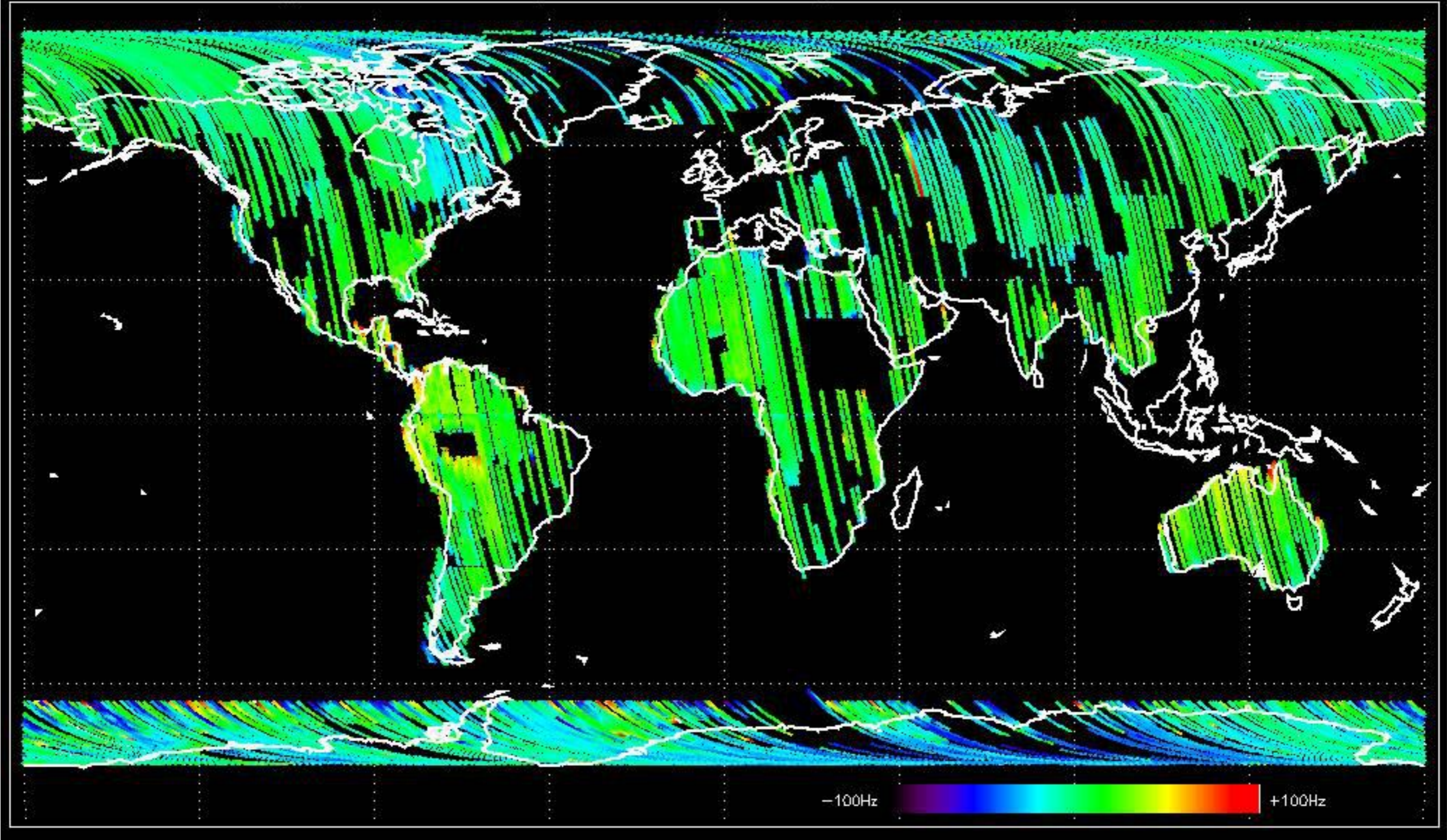


GM1 mode doppler

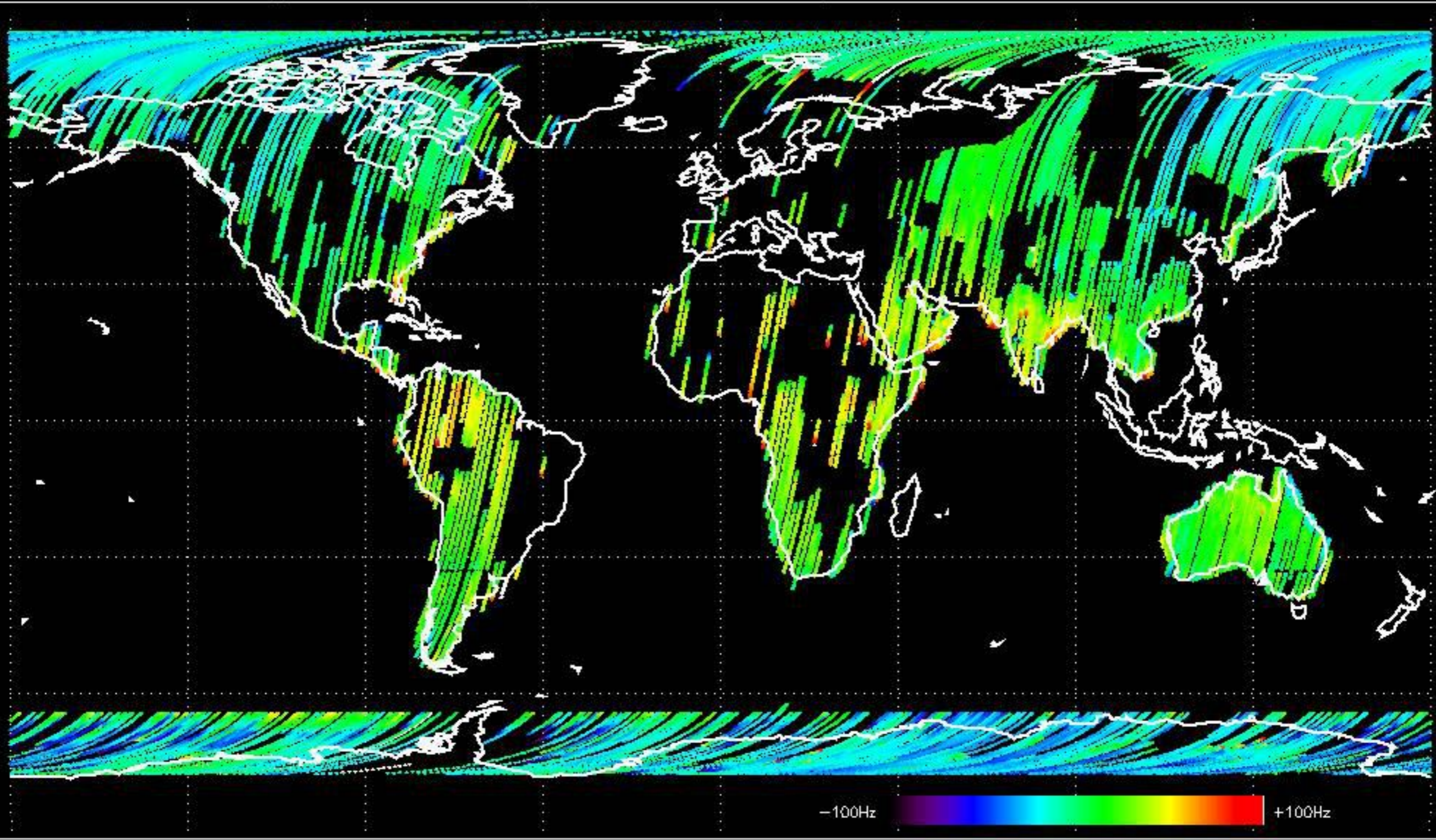




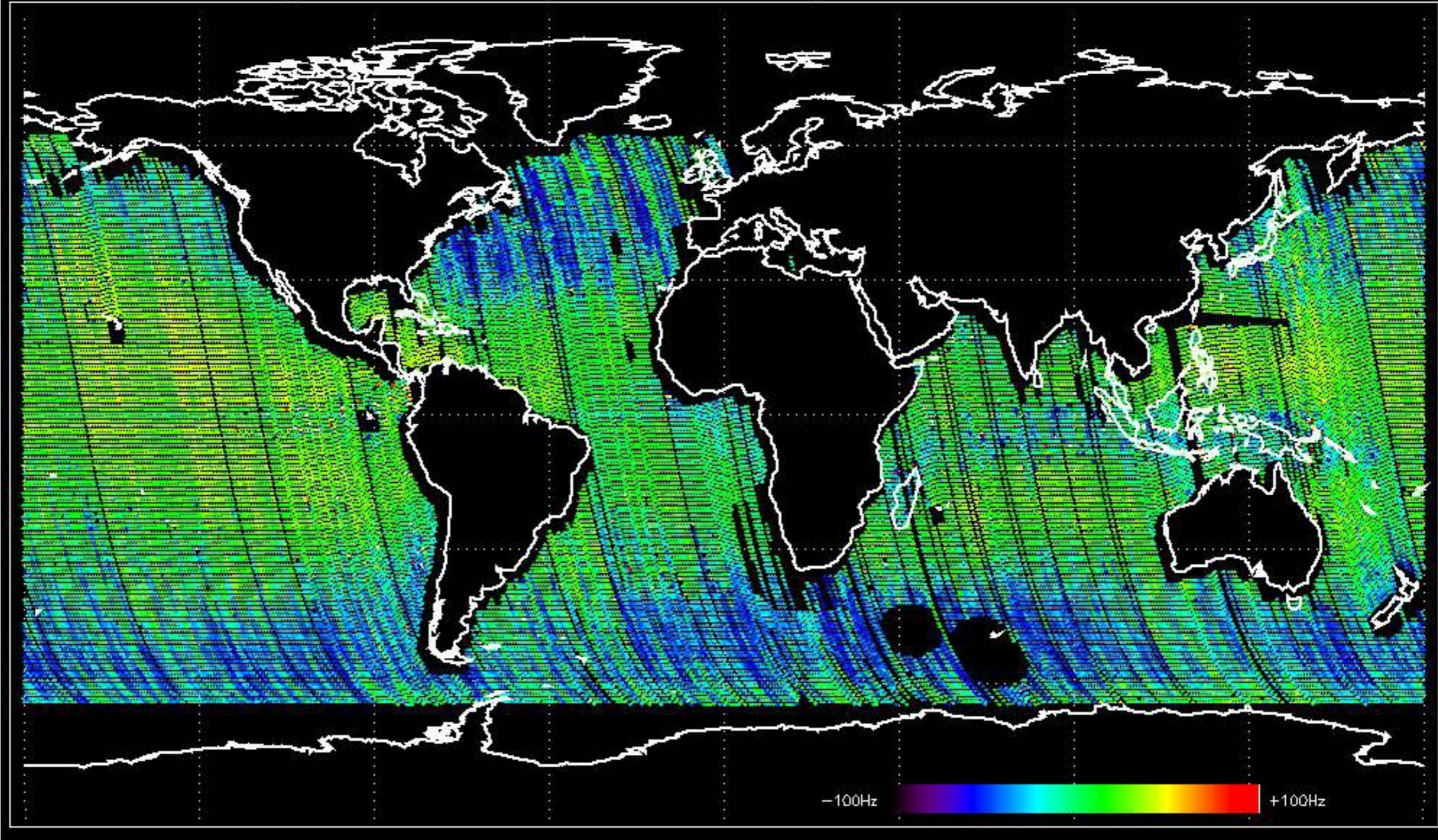
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.6797163 Hz



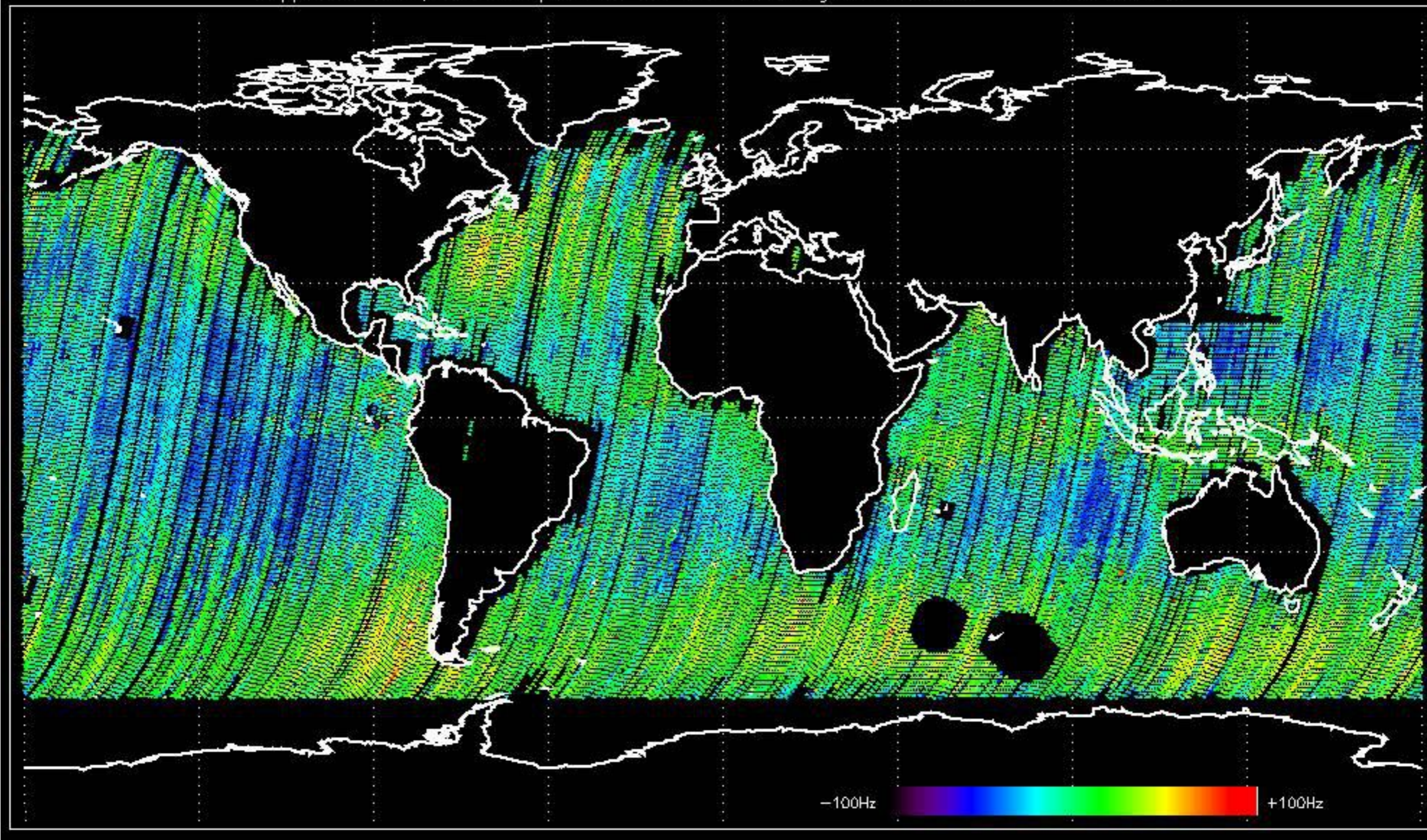
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.9948977 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.4024177 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.9747469 Hz

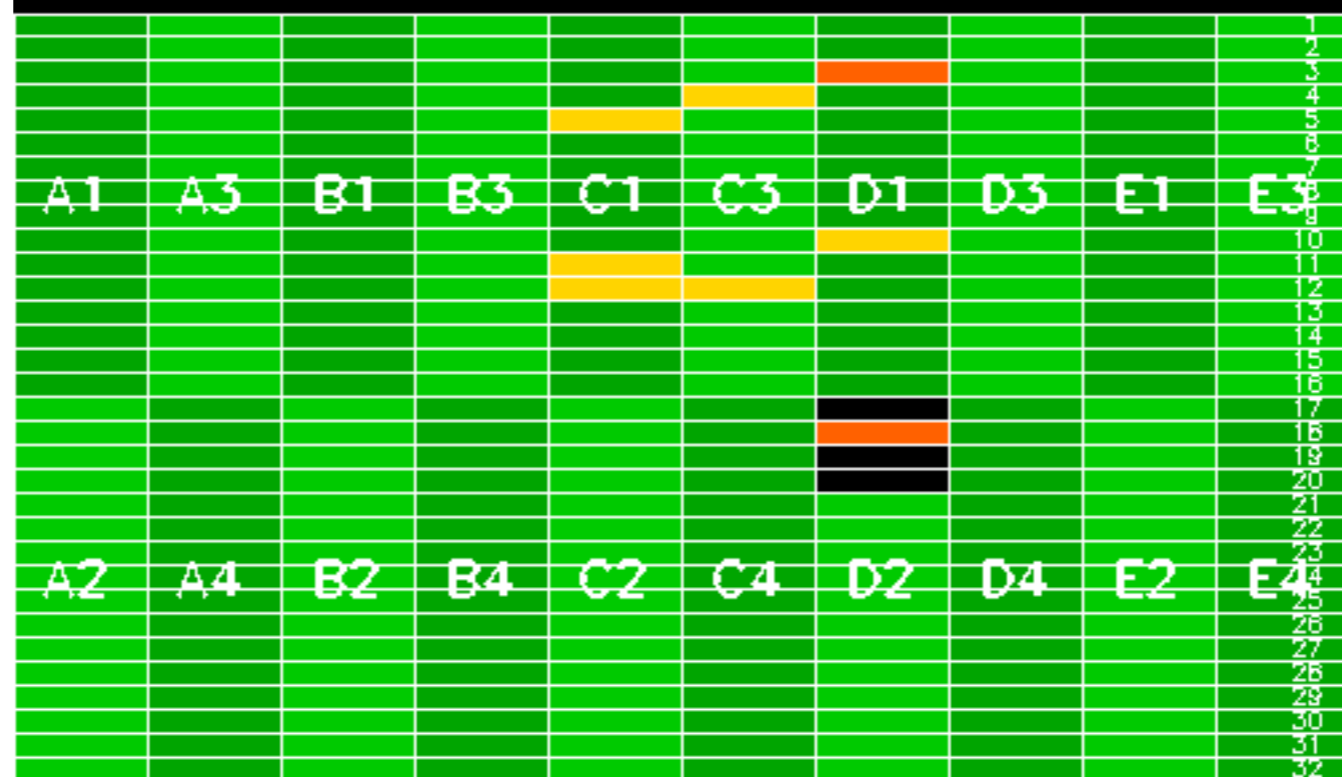


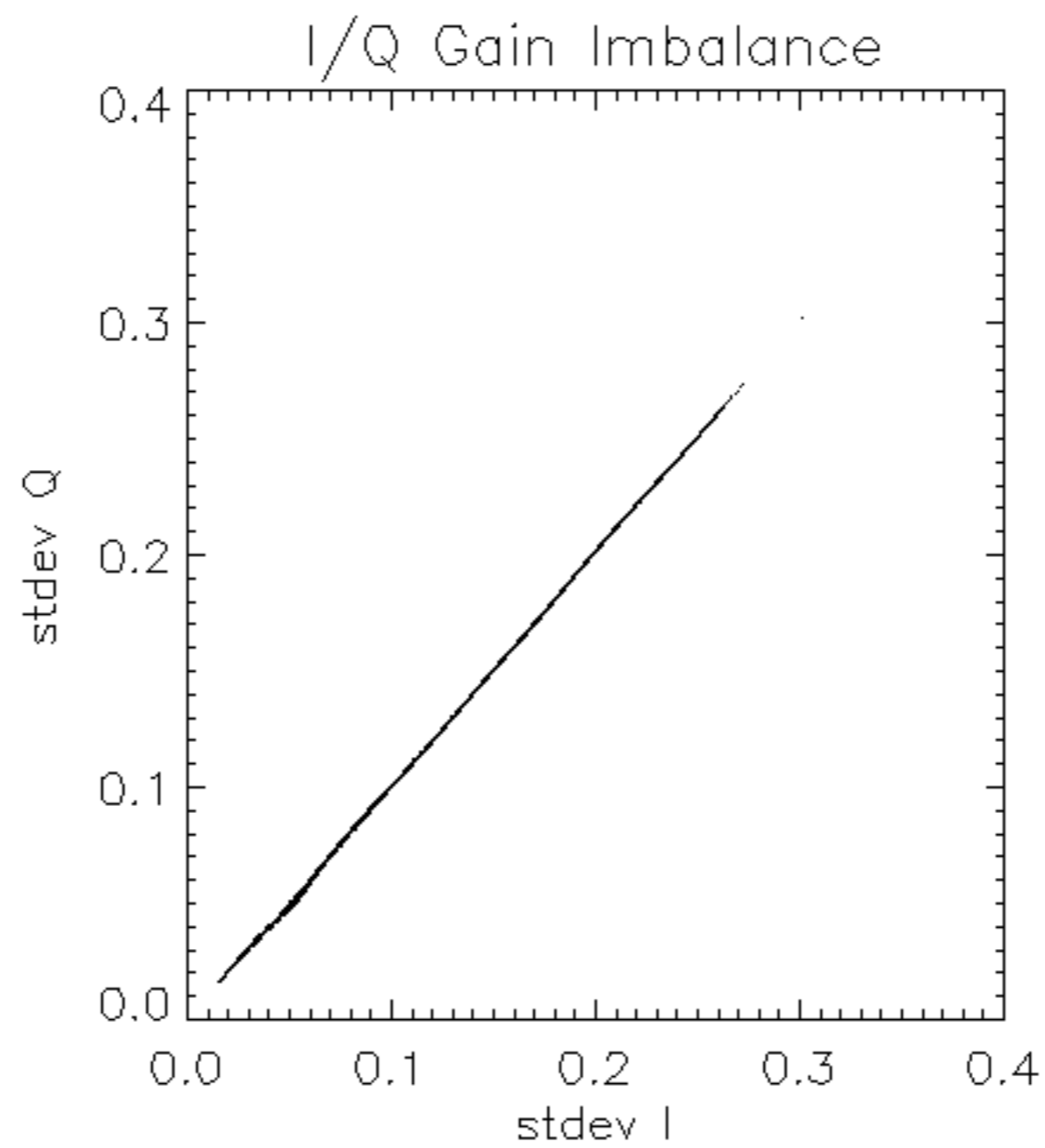
No anomalies observed on available MS products:

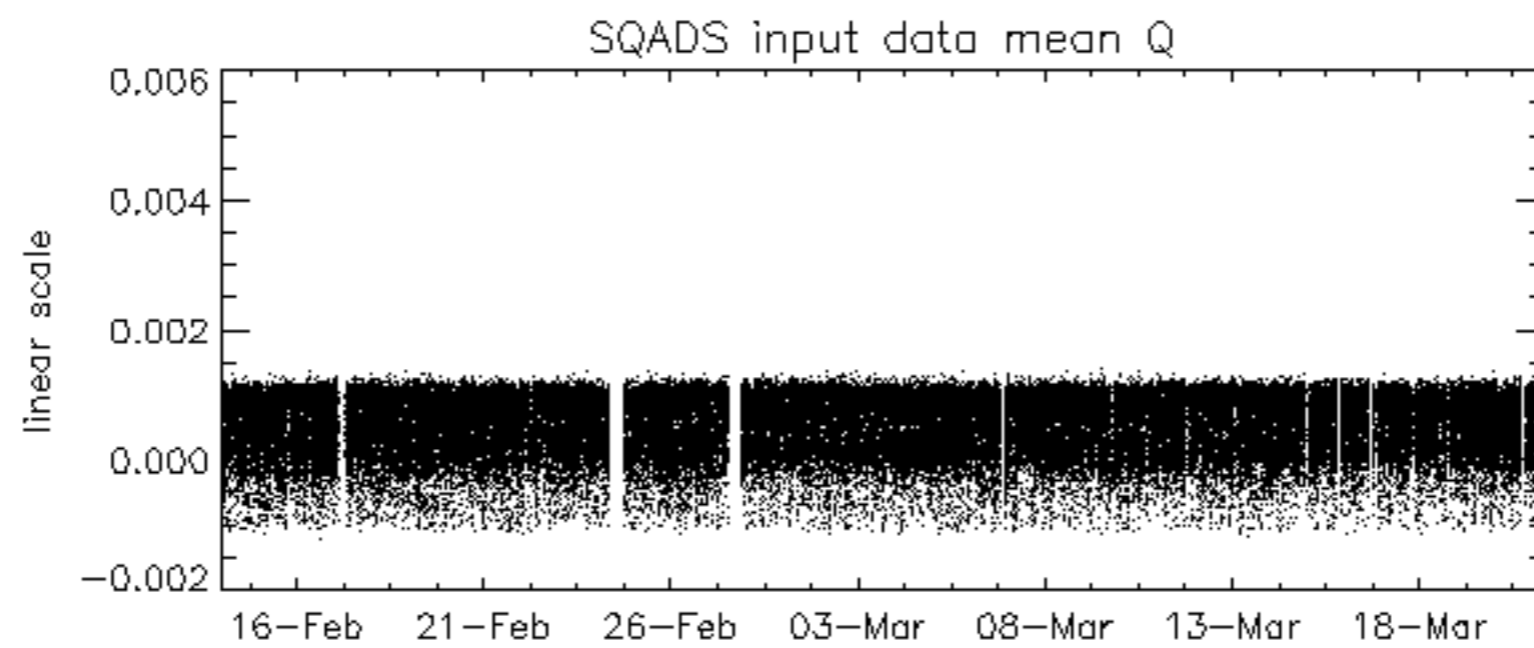
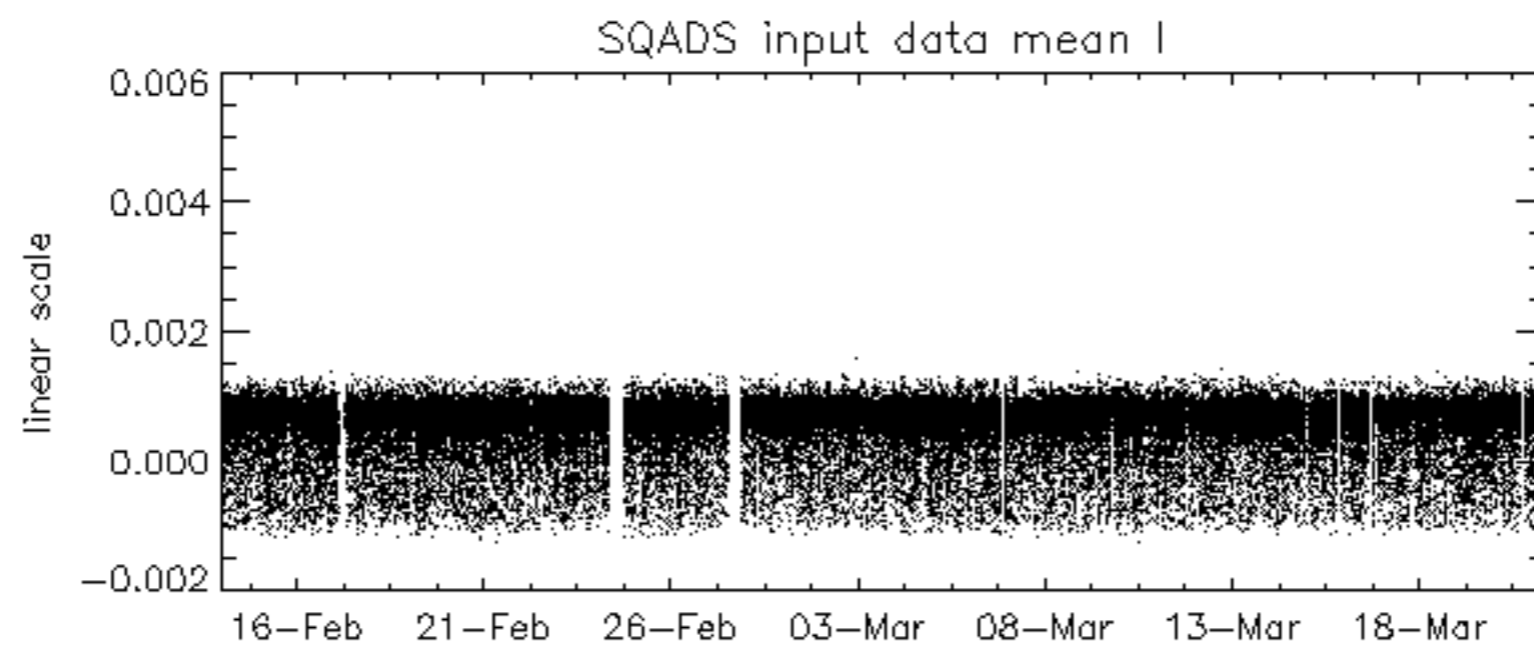
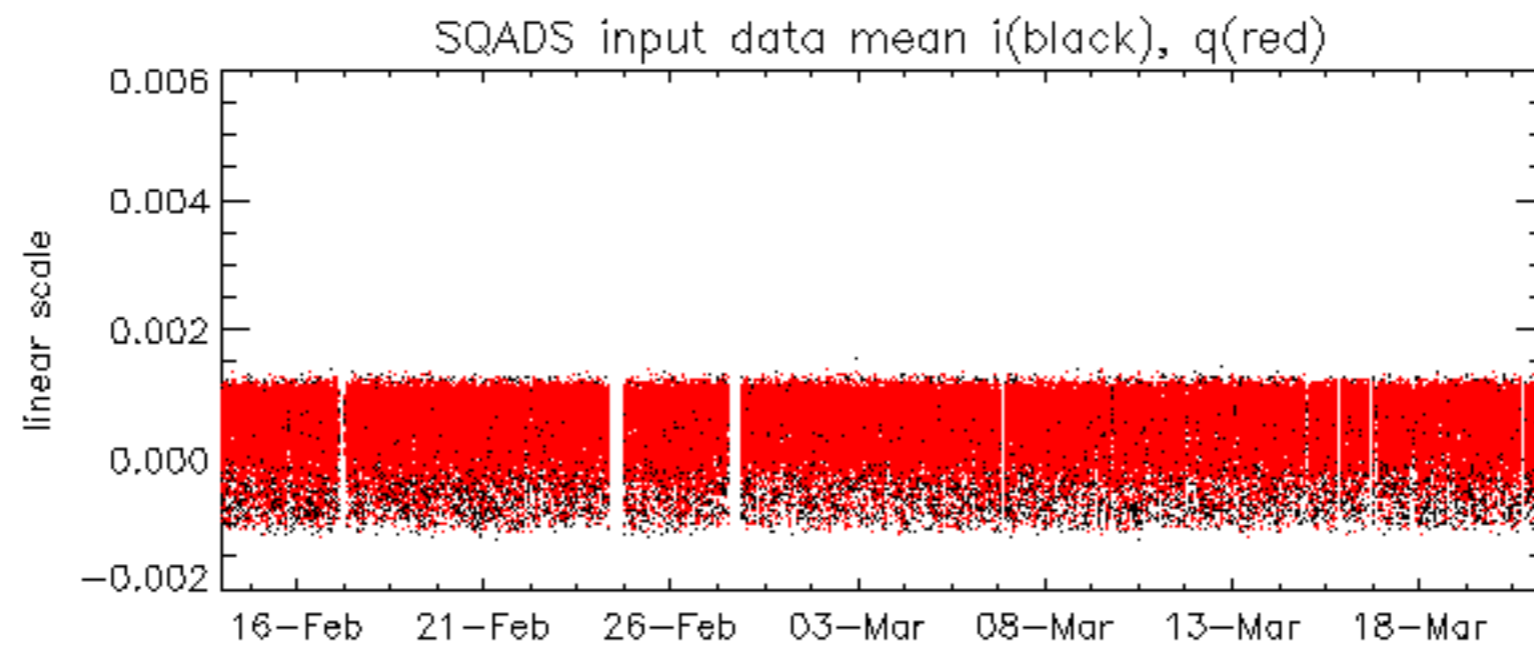
No anomalies observed.

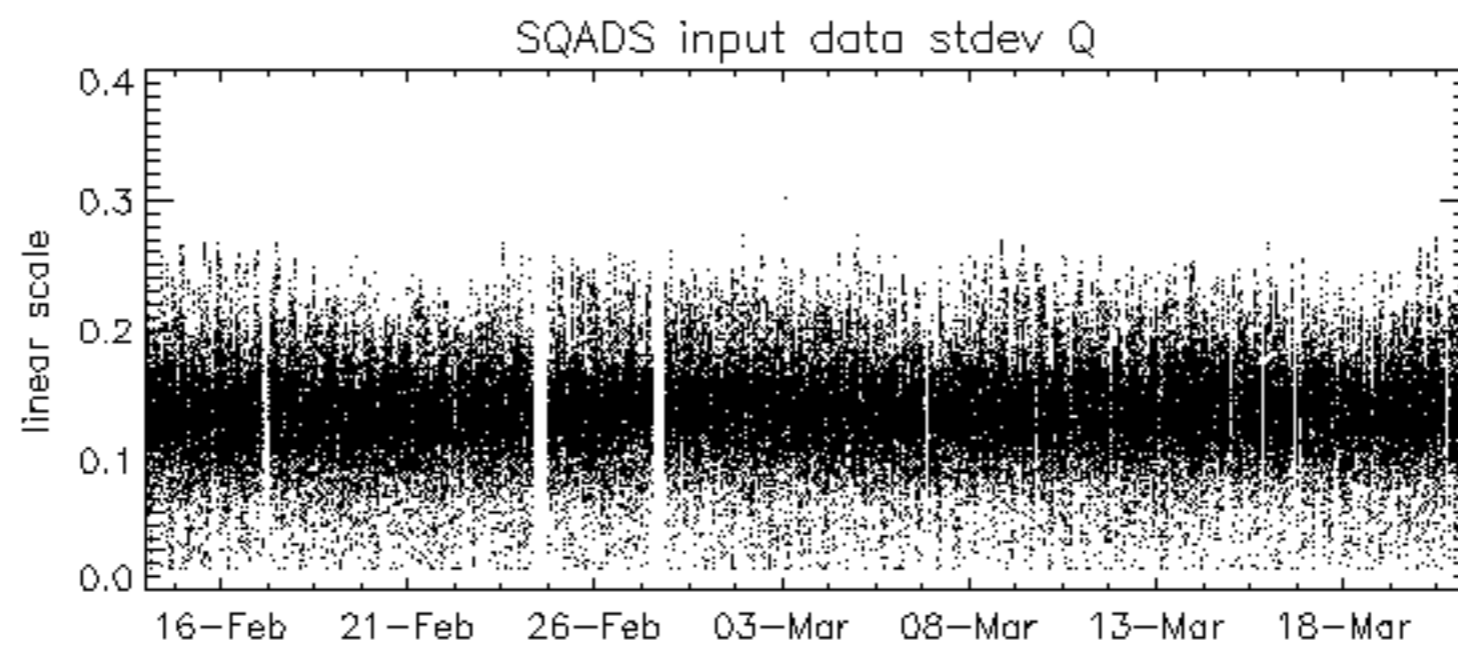
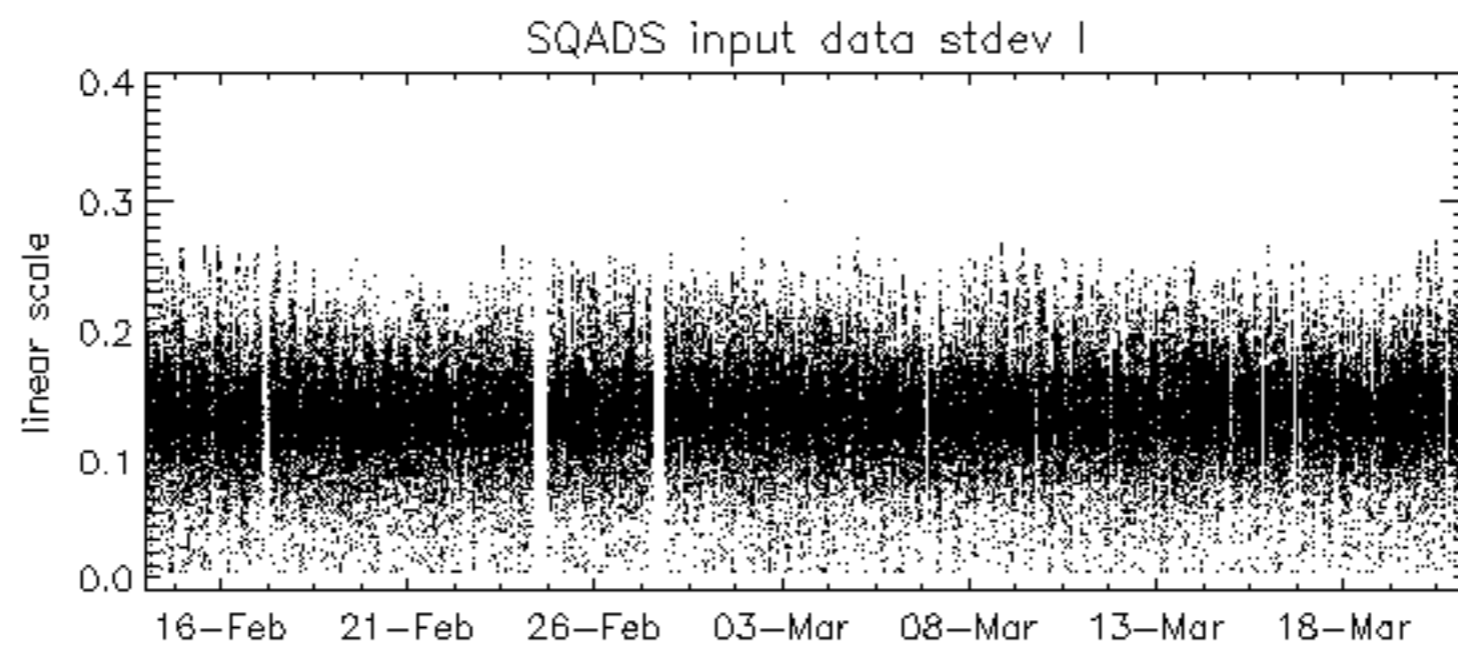
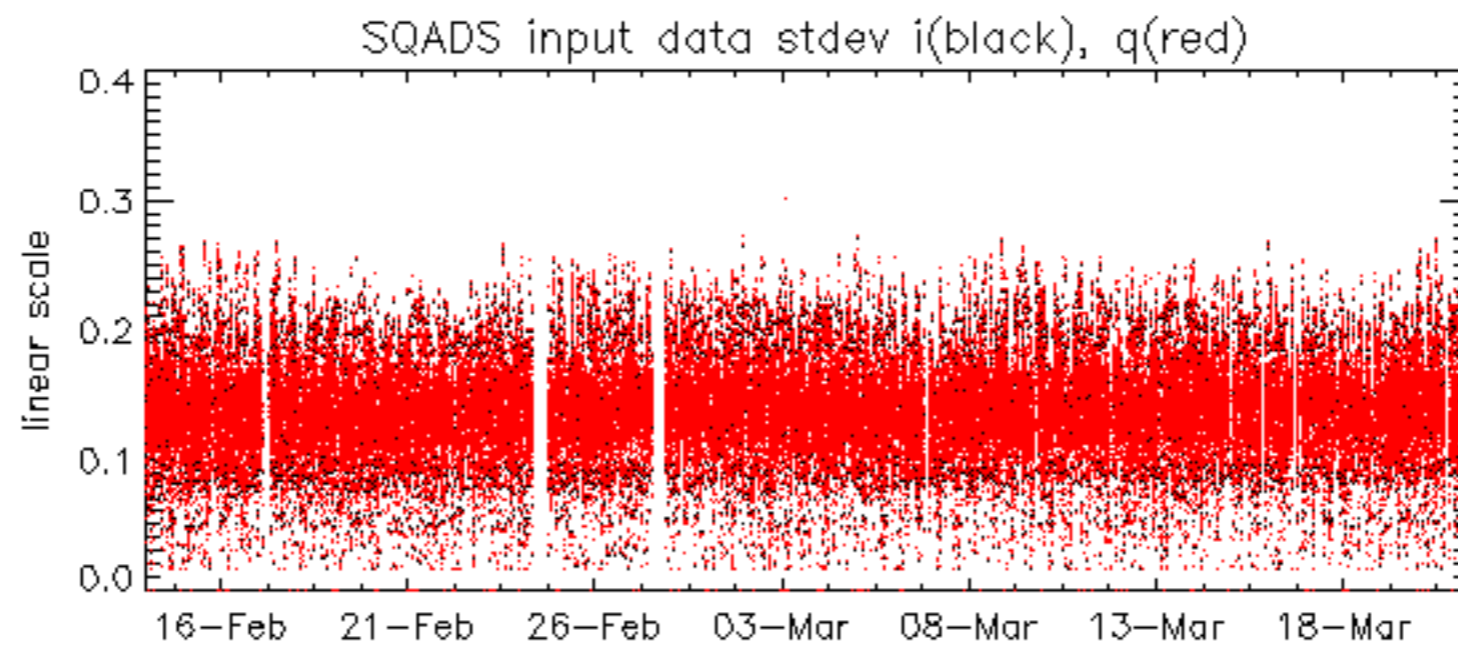
Reference: 2001-02-09 13:50:42 H RxGain

Test : 2006-03-20 09:21:59 H





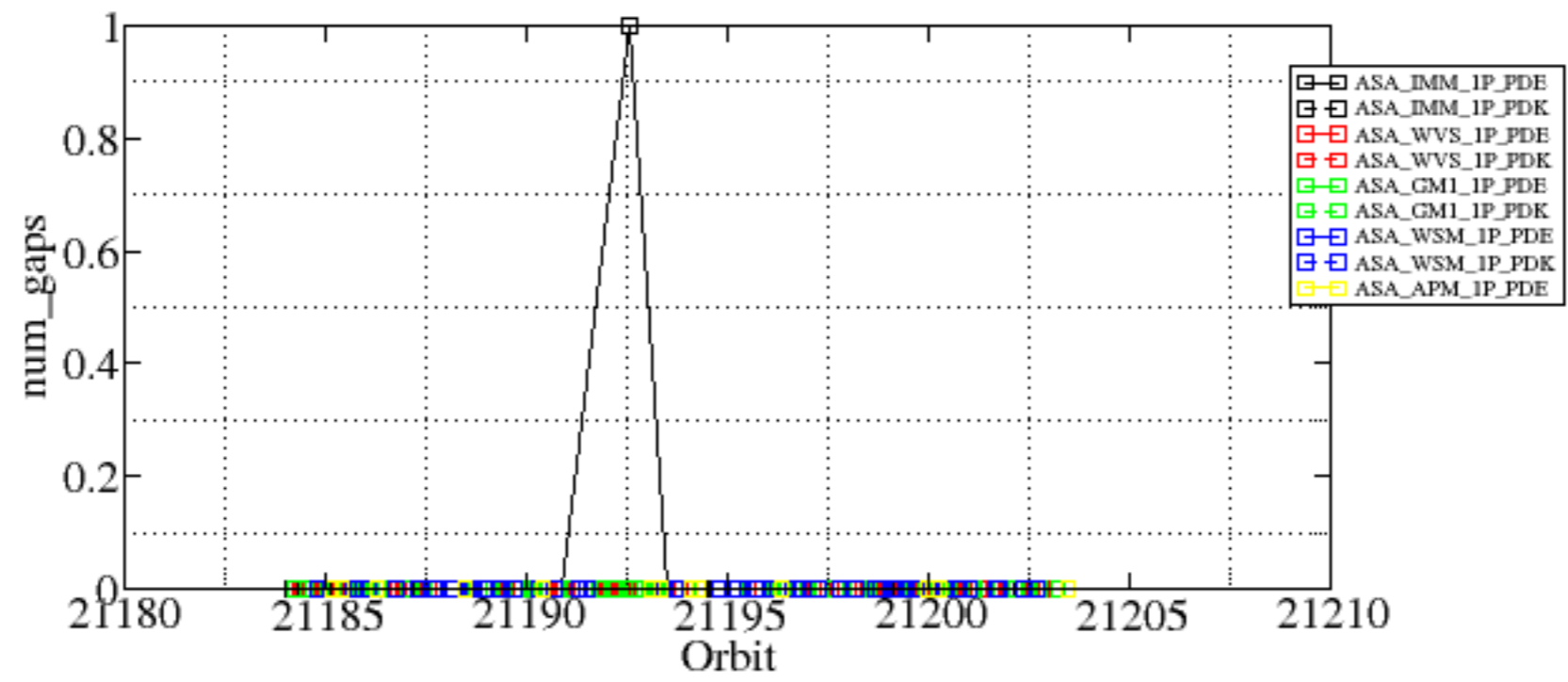


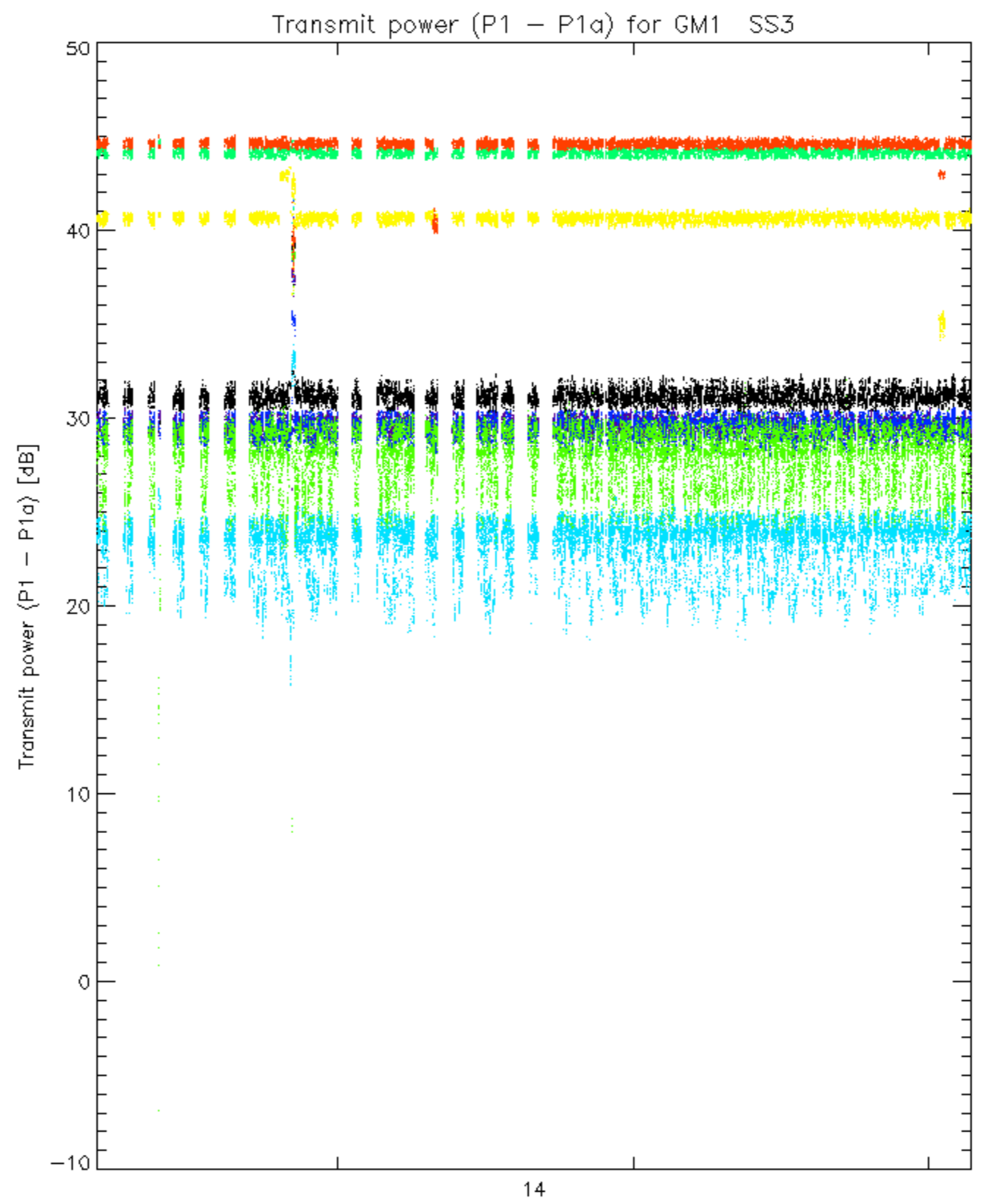


Summary of analysis for the last 3 days 2006032[901]

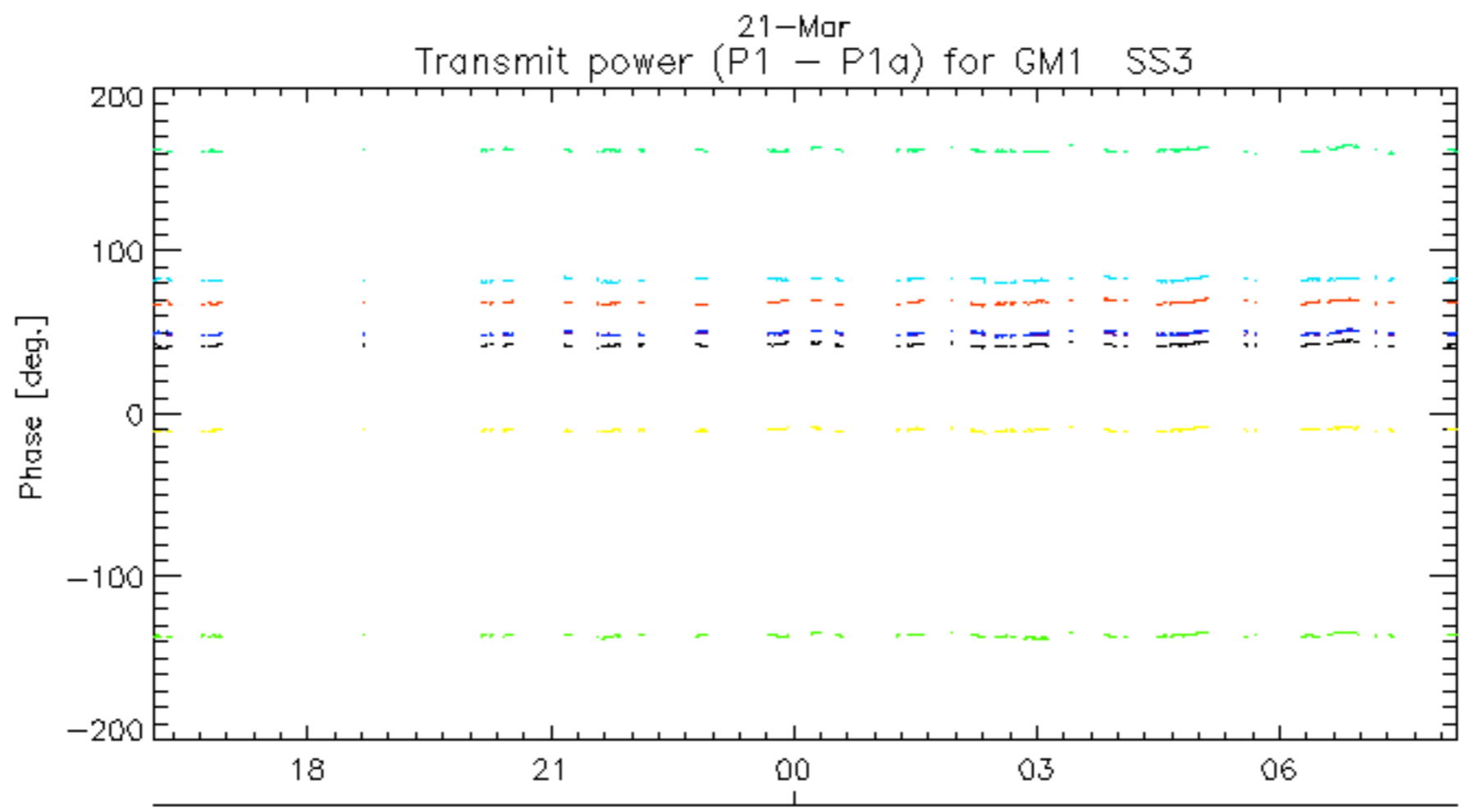
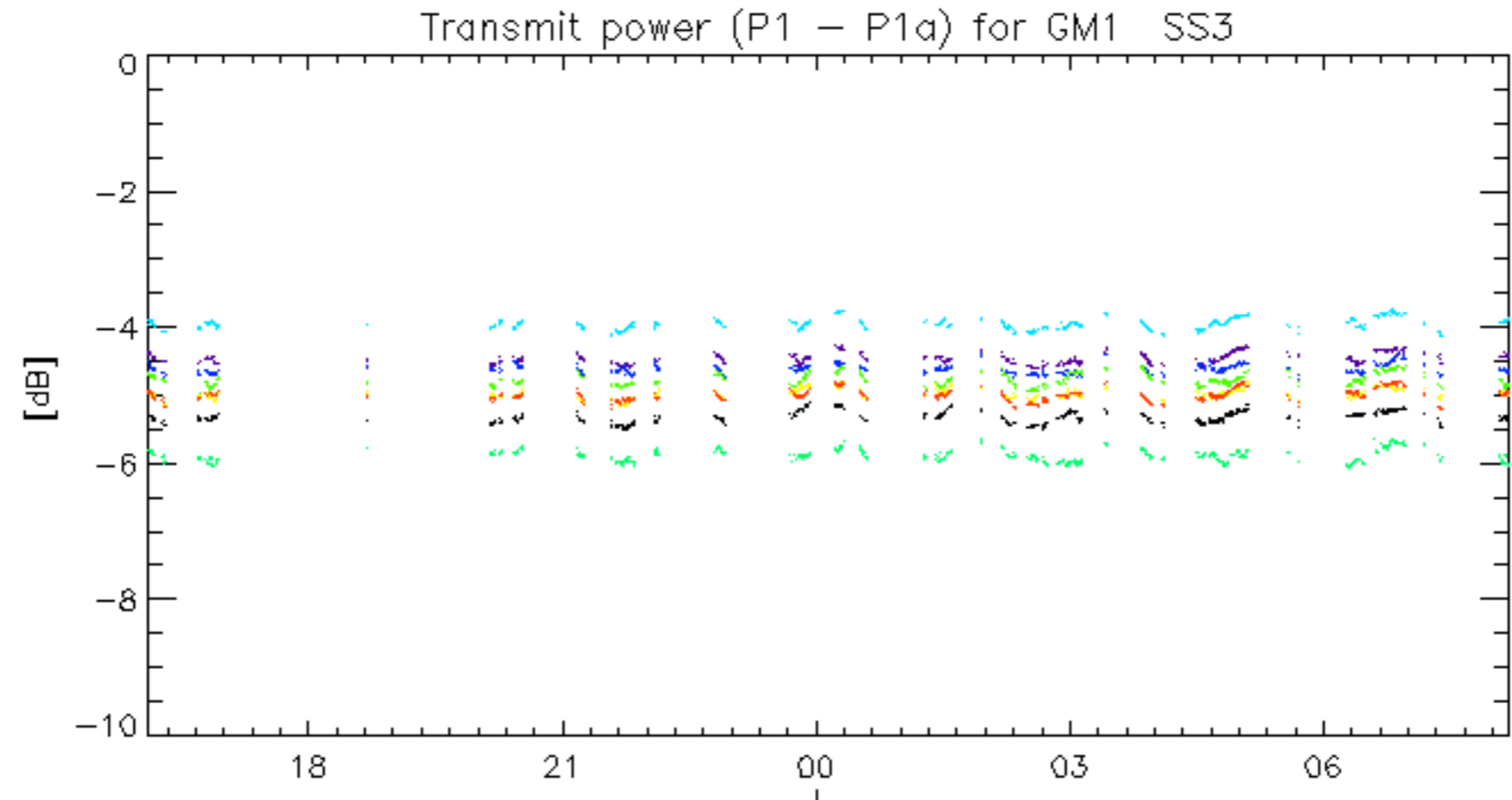
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060320_141119_000001602046_00096_21192_1254.N1	1	0
ASA_WSM_1PNPDE20060321_042632_000001842046_00105_21201_1778.N1	0	60
ASA_WSM_1PNPDE20060321_063926_000000852046_00106_21202_1792.N1	0	1
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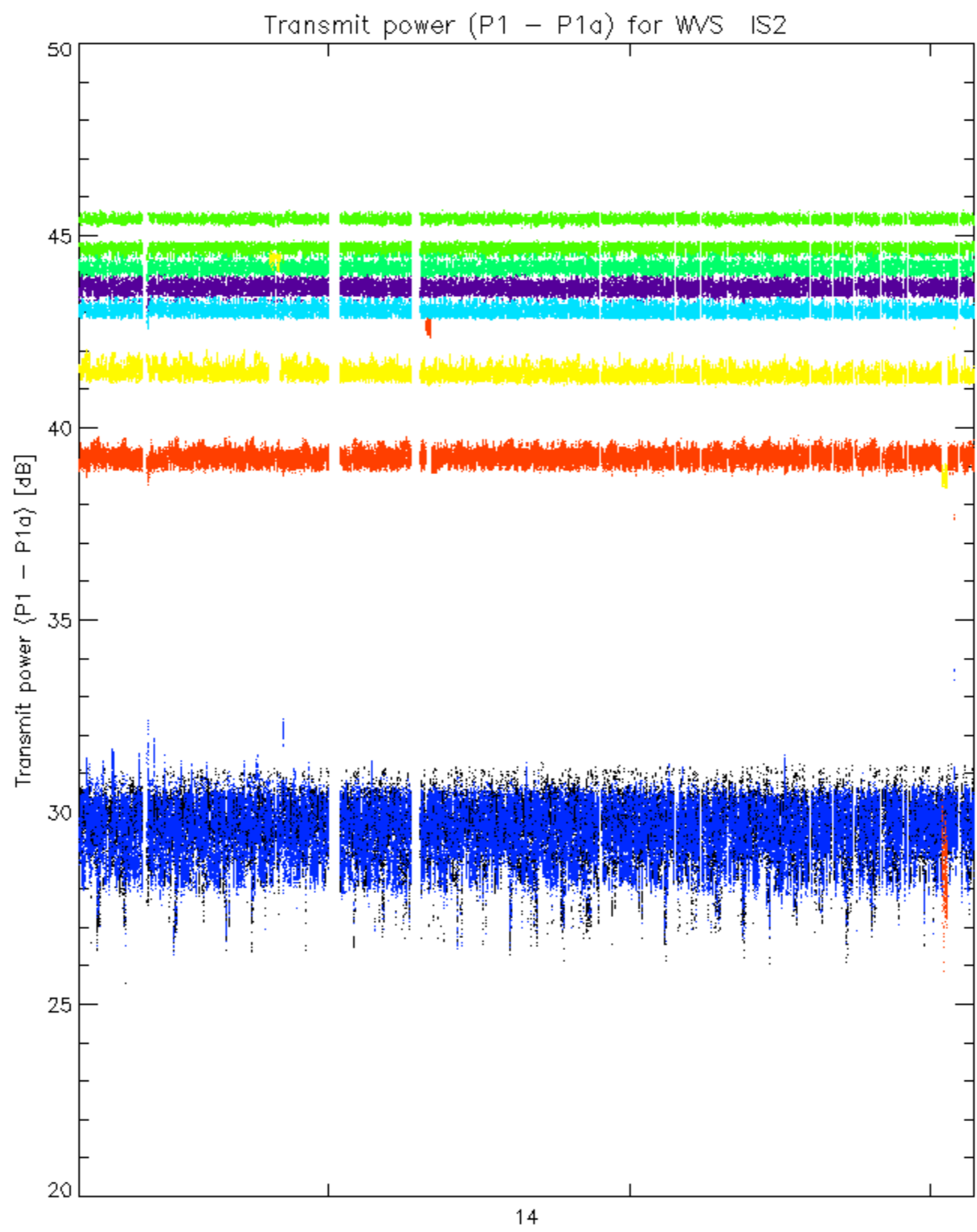




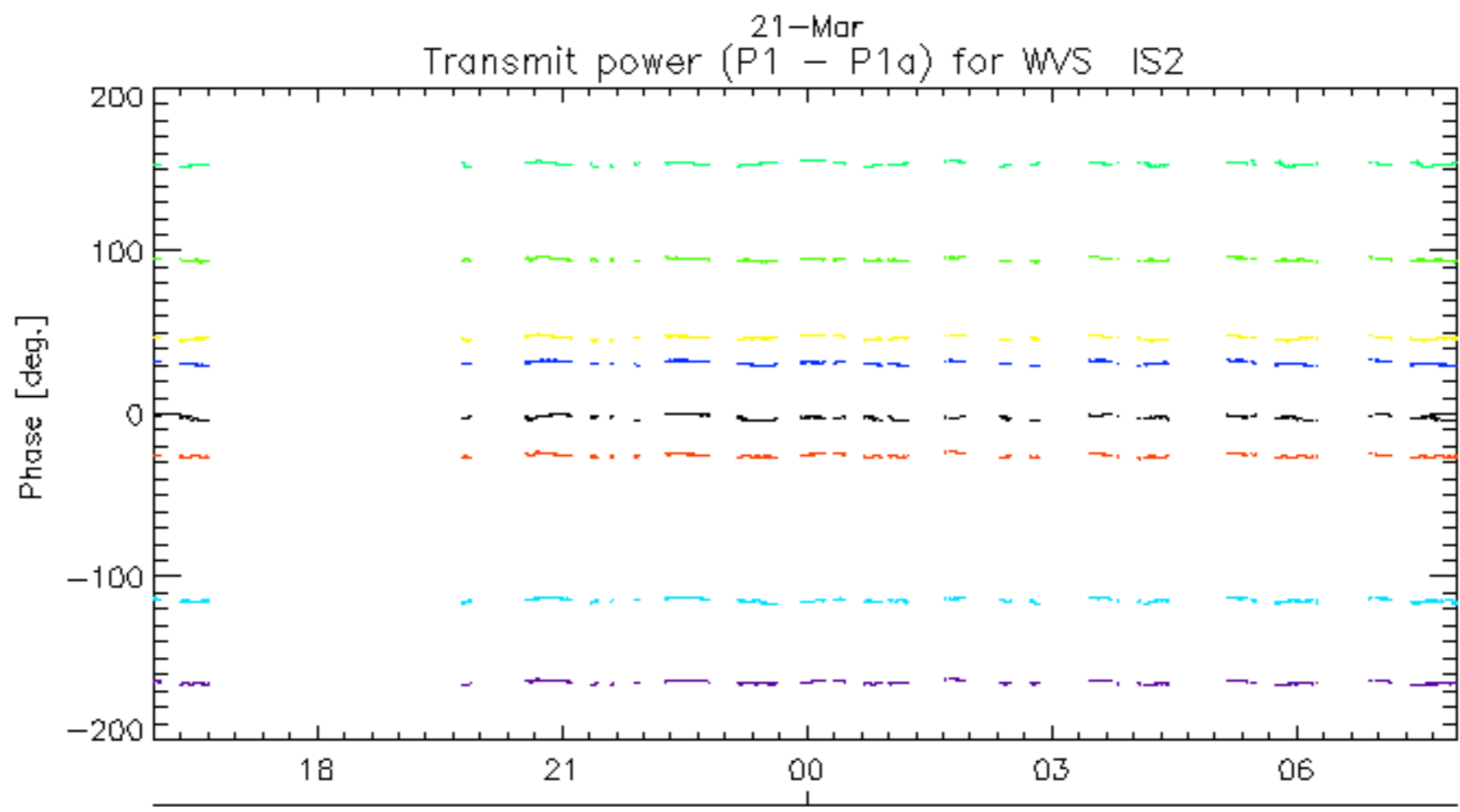
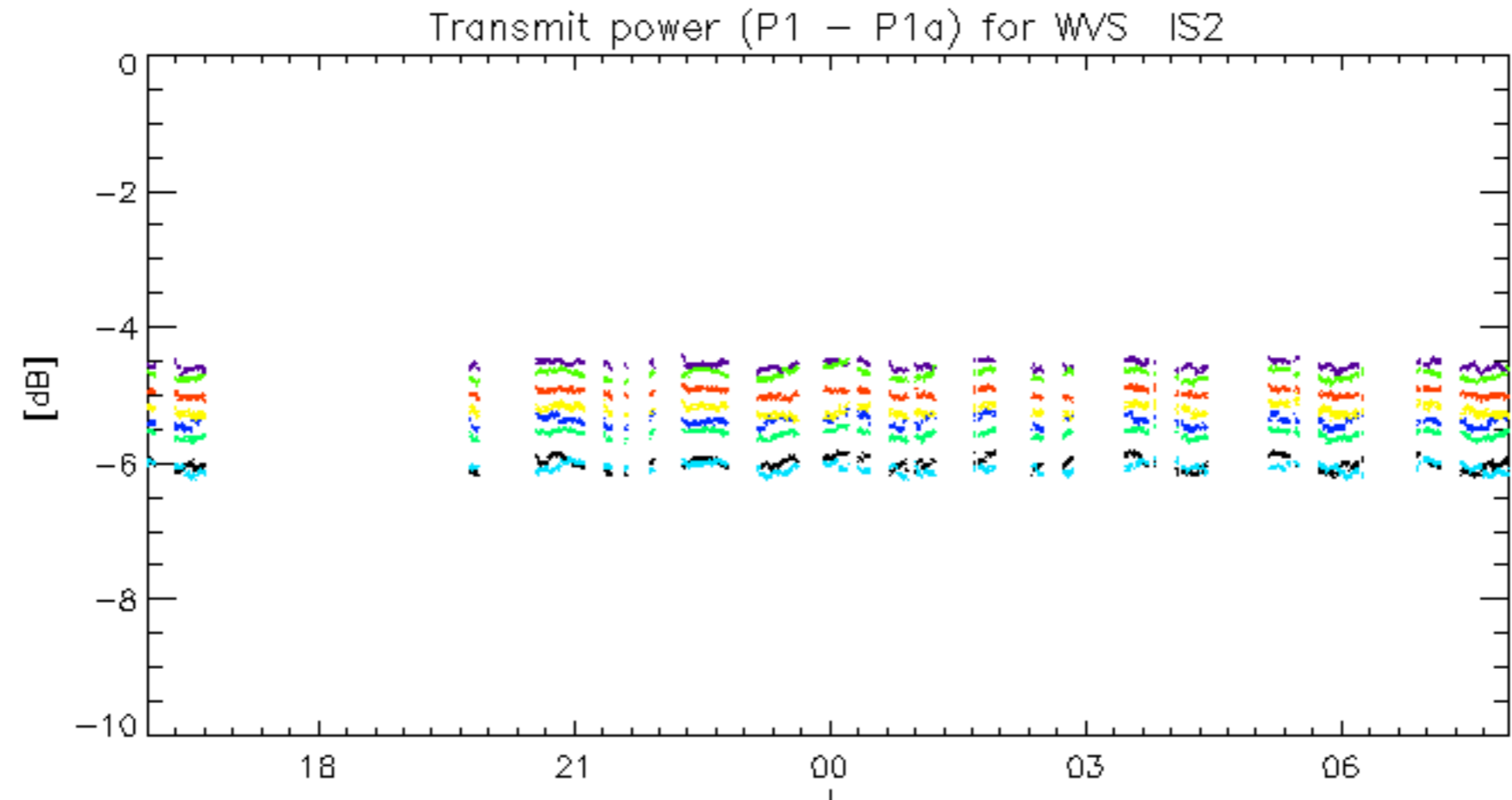
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.