

PRELIMINARY REPORT OF 060319

last update on Sun Mar 19 16:31:50 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 2006-03-18 00:00:00 to 2006-03-19 16:31:50

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	32	48	6	0	26
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	32	48	6	0	26
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	32	48	6	0	26
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	32	48	6	0	26

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	47	46	30	15	56
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	47	46	30	15	56
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	47	46	30	15	56
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	46	30	15	56

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	20060319 095336
H	20060318 084438

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
<input type="checkbox"/>

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	-4.002654	0.009352	-0.002768
7	P1	-3.007725	0.008574	-0.031984
11	P1	-4.062096	0.020129	0.023269
15	P1	-6.085609	0.021187	-0.053225
19	P1	-3.292213	0.006624	-0.037643
22	P1	-4.459033	0.014597	-0.021010
26	P1	-4.191909	0.104451	0.144220
30	P1	-5.801188	0.145682	0.022130
3	P1	-16.984346	0.247768	0.035847
7	P1	-16.722239	0.101245	-0.129800
11	P1	-16.495703	0.326066	0.075408
15	P1	-13.055387	0.094595	-0.019174
19	P1	-13.939165	0.053196	-0.105096
22	P1	-15.574984	0.461295	-0.054932
26	P1	-15.767442	0.298326	-0.077776
30	P1	-16.503933	0.302579	-0.175660

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.396769	0.087038	0.085245
7	P2	-22.369745	0.096082	0.117271
11	P2	-16.225718	0.100861	0.041216
15	P2	-7.164133	0.098717	-0.001118
19	P2	-9.132129	0.091509	-0.000209
22	P2	-17.941526	0.089247	-0.062530
26	P2	-16.212297	0.094991	-0.035051
30	P2	-19.648077	0.084649	-0.032522

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194023	0.005854	-0.004408
7	P3	-8.194023	0.005854	-0.004408
11	P3	-8.194023	0.005854	-0.004408
15	P3	-8.194023	0.005854	-0.004408
19	P3	-8.194023	0.005854	-0.004408
22	P3	-8.194023	0.005854	-0.004408
26	P3	-8.194023	0.005854	-0.004408
30	P3	-8.194024	0.005854	-0.004407

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	-3.835828	2.911929	0.288495
7	P1	-2.824287	3.056820	0.359111
11	P1	-3.016285	3.077882	0.329293
15	P1	-3.661071	3.051307	0.352916
19	P1	-3.462557	2.956167	0.282036
22	P1	-5.258488	2.717494	0.272943
26	P1	-5.937158	2.890157	0.523821
30	P1	-5.277345	2.750468	0.344908
3	P1	-11.640264	1.915263	0.239552
7	P1	-10.036396	2.121349	0.243518
11	P1	-10.335658	2.114137	0.204370
15	P1	-10.882407	2.125507	0.212528
19	P1	-15.462999	1.566552	0.165691
22	P1	-20.314070	2.216215	0.090992
26	P1	-16.309366	2.059325	0.061557
30	P1	-18.347744	1.489026	0.202037

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.093094	2.014604	0.109249
7	P2	-22.540989	2.358702	-0.062075
11	P2	-11.270223	2.187207	0.169363
15	P2	-4.908129	2.841713	0.275136
19	P2	-6.916728	2.557917	0.264432
22	P2	-8.207145	2.398855	0.210104
26	P2	-23.901466	2.414069	-0.263349
30	P2	-22.038206	2.278376	-0.150740

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.022969	0.002509	0.007613
7	P3	-8.023007	0.002500	0.007596
11	P3	-8.022937	0.002513	0.007803
15	P3	-8.023080	0.002512	0.007564
19	P3	-8.022936	0.002512	0.007211
22	P3	-8.023008	0.002509	0.007548
26	P3	-8.023046	0.002506	0.007424
30	P3	-8.022901	0.002515	0.007796

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	0.000556582
	stdev	1.75643e-07
MEAN Q	mean	0.000515788
	stdev	2.21195e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138117
	stdev	0.00118907
STDEV Q	mean	0.138479
	stdev	0.00120703



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006031[789]

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_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDE20060318_005019_000002372046_00059_21155_1081.N1	1	0
ASA_WSM_1PNPDE20060318_160549_000002022046_00069_21165_1344.N1	0	34







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)


Ascending


Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

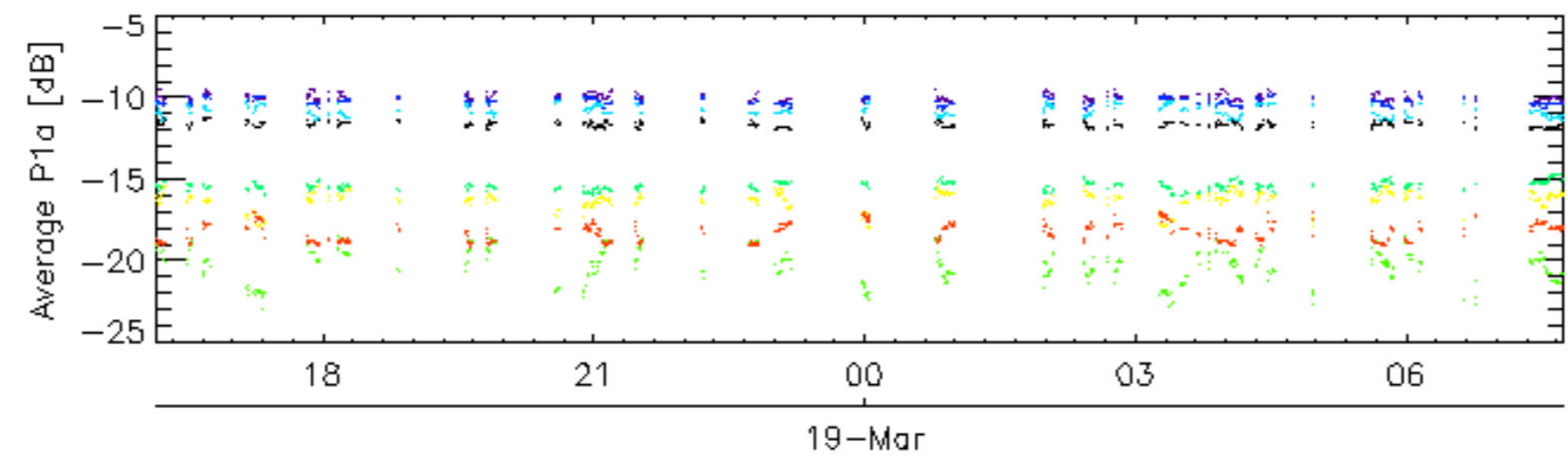
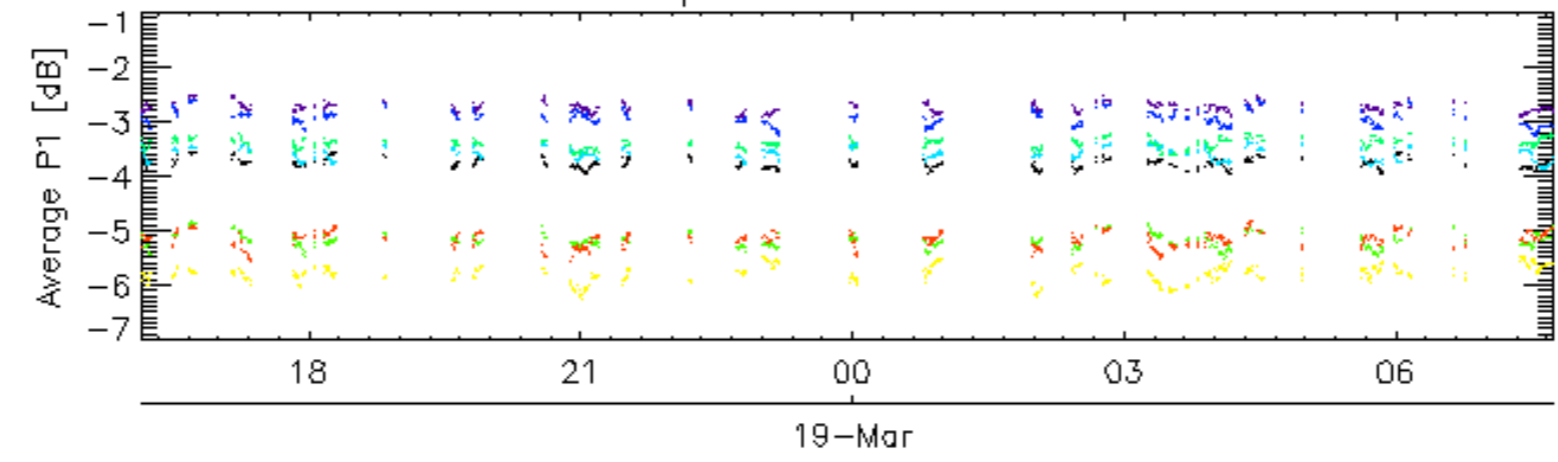
Ascending

Descending

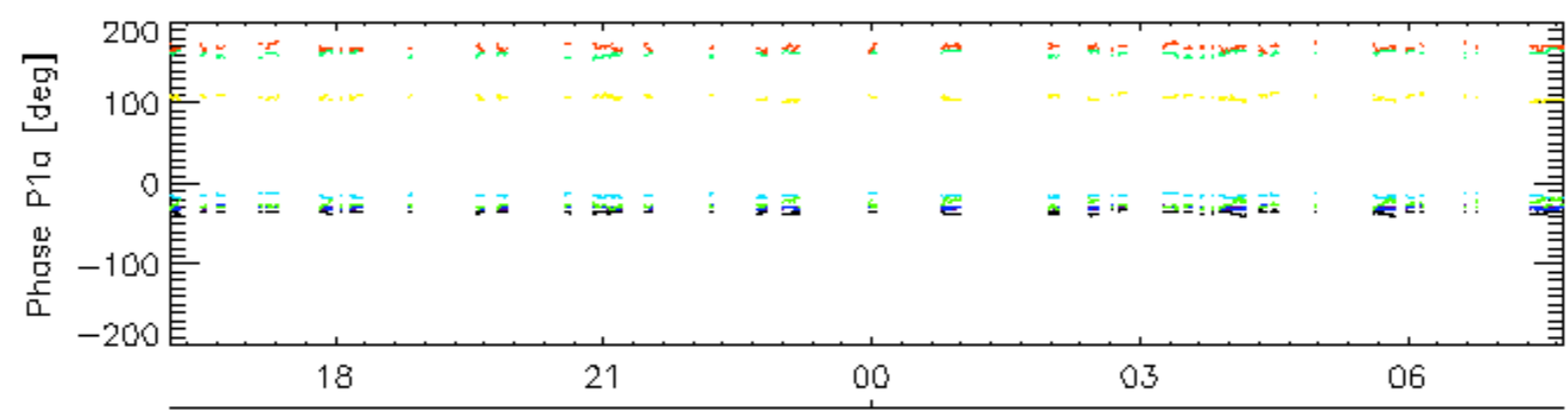
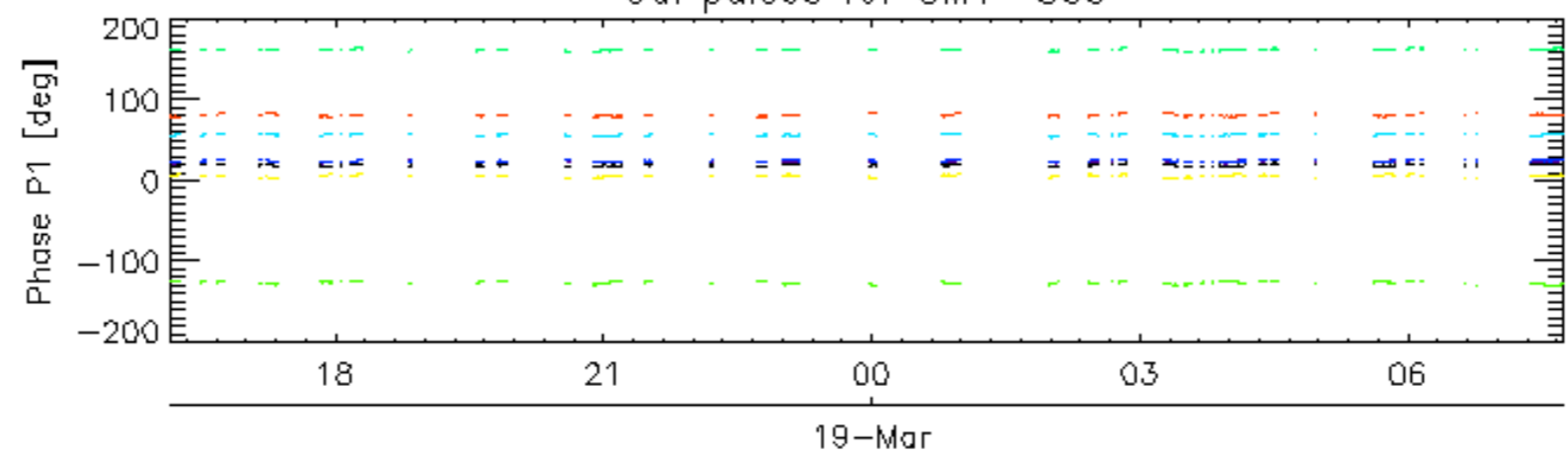
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

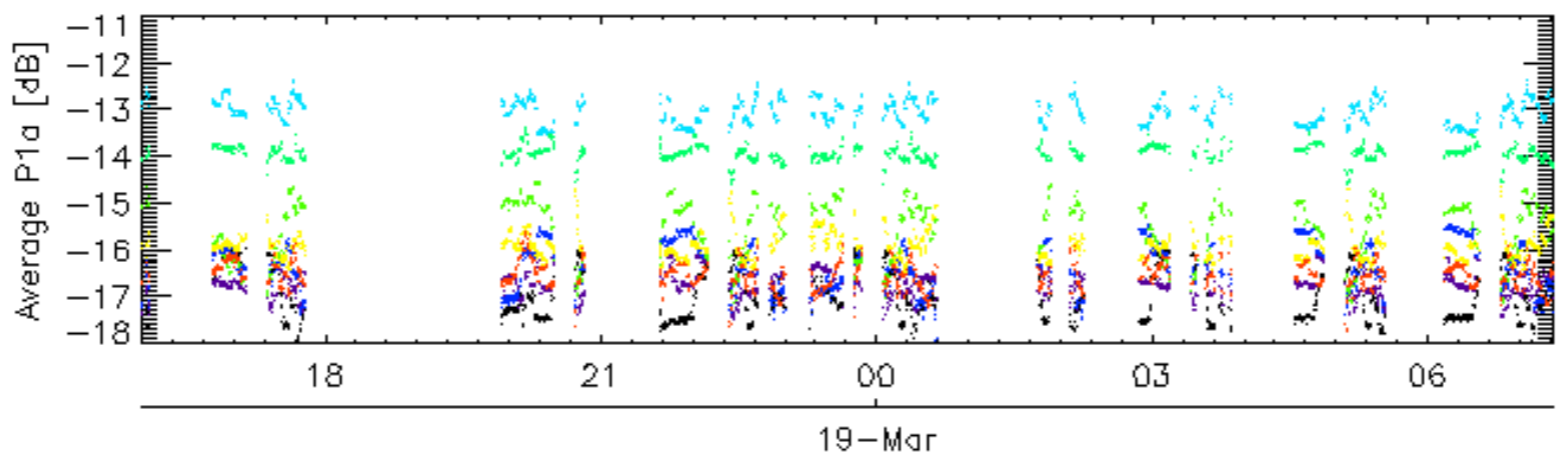
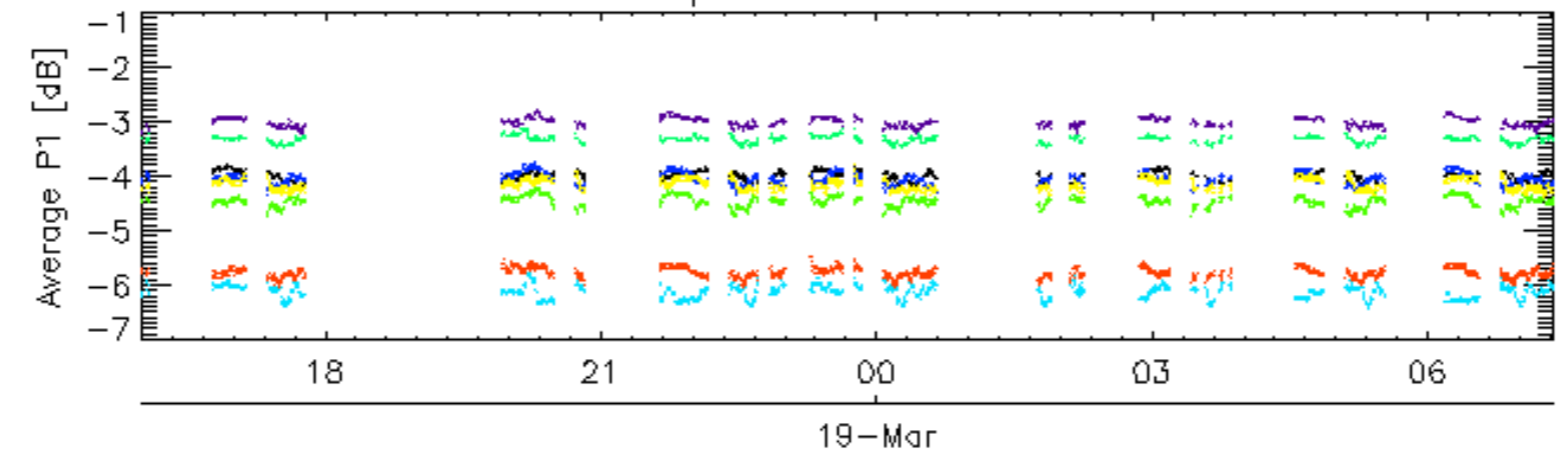


Cal pulses for GM1 SS3

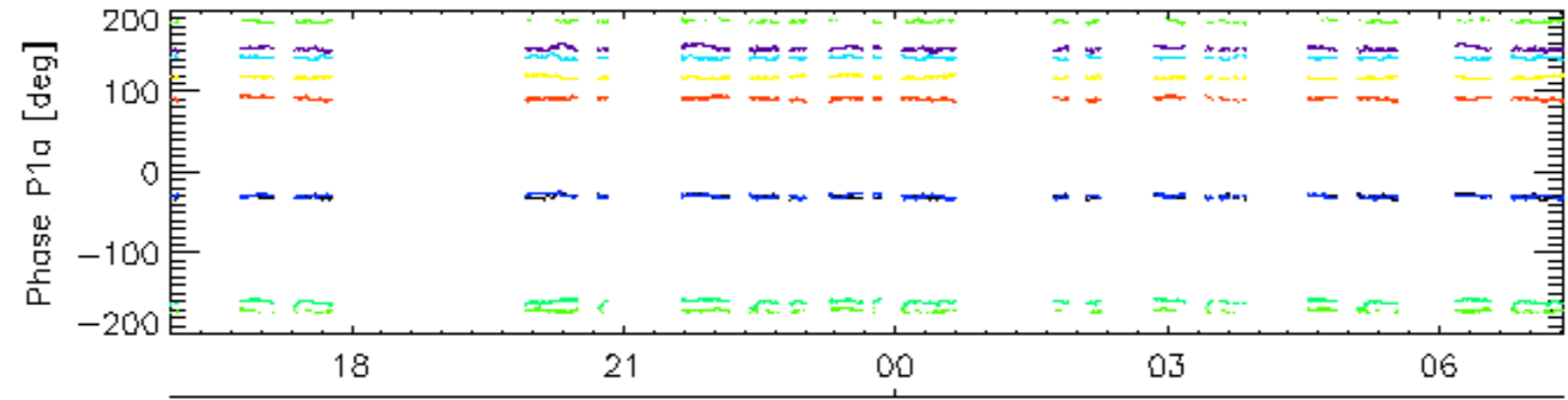
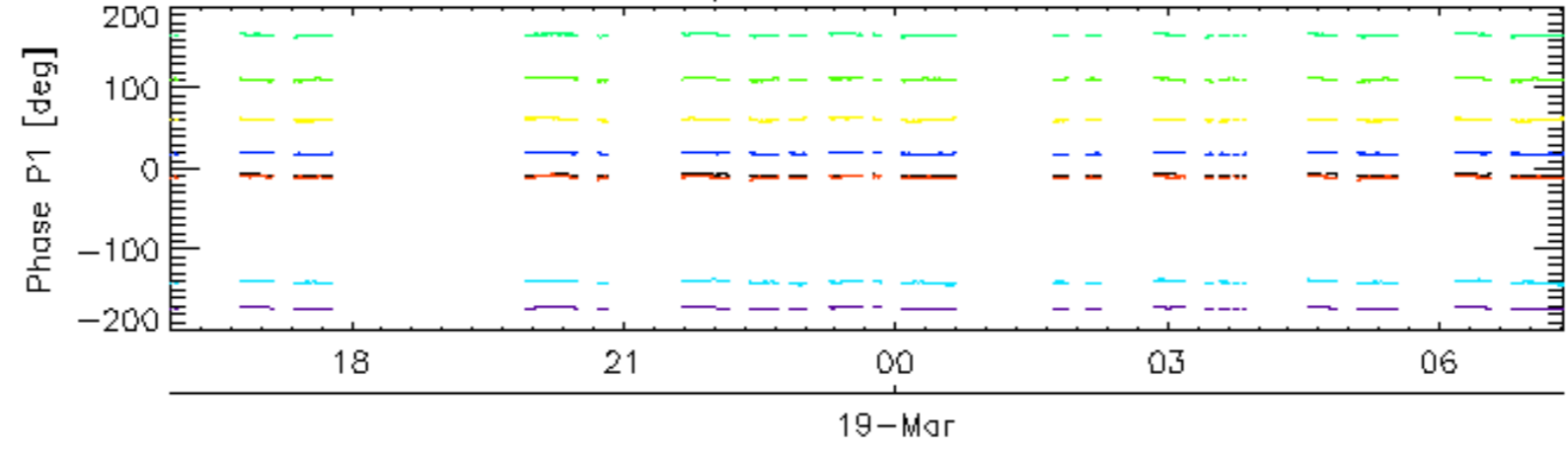


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

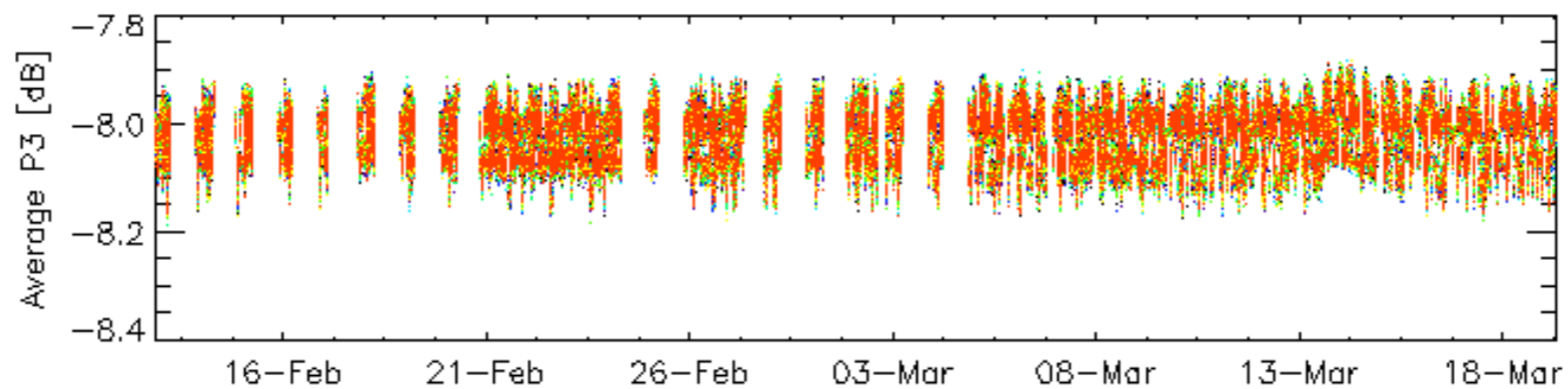
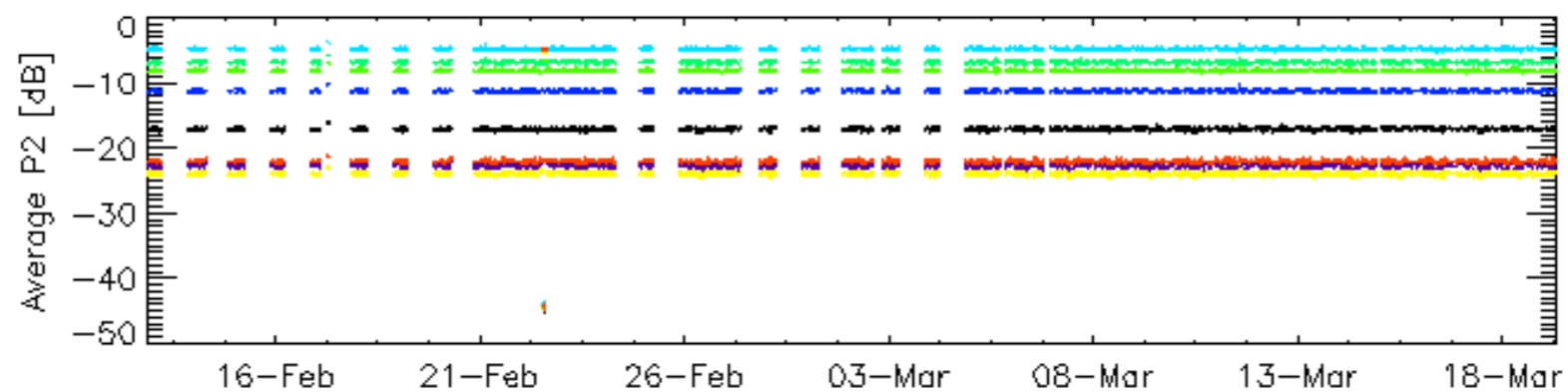
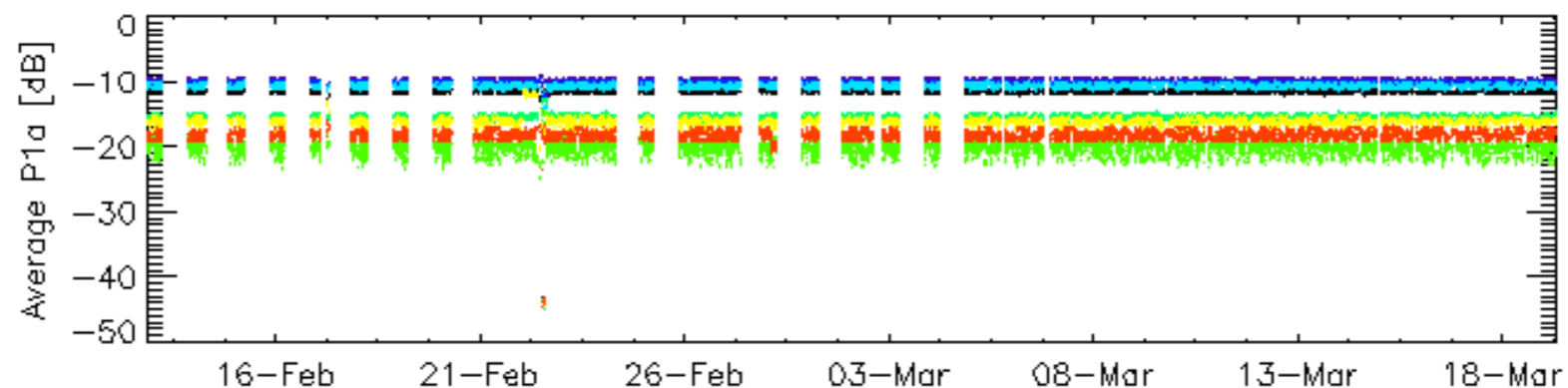
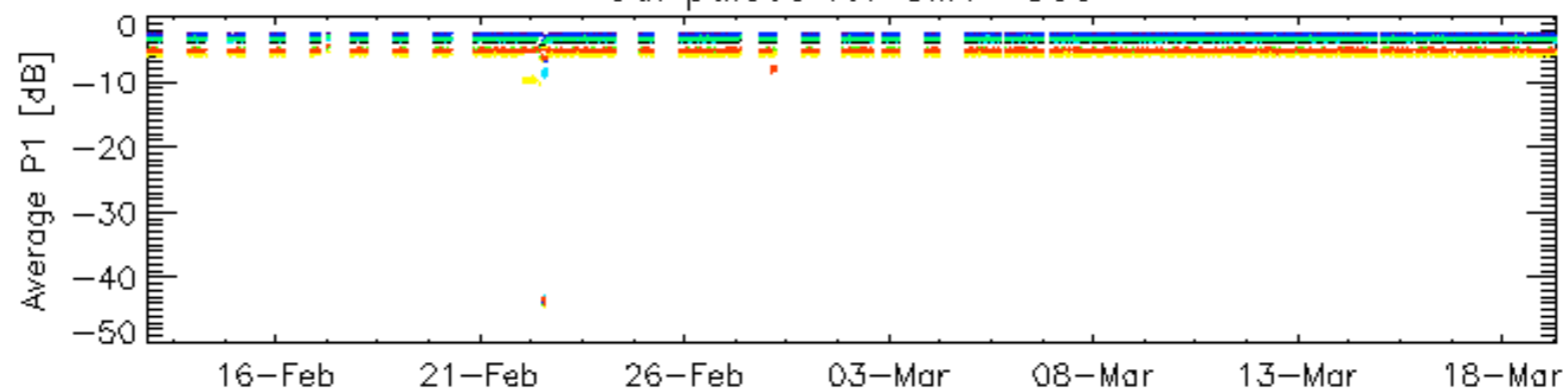


Cal pulses for WVS IS2



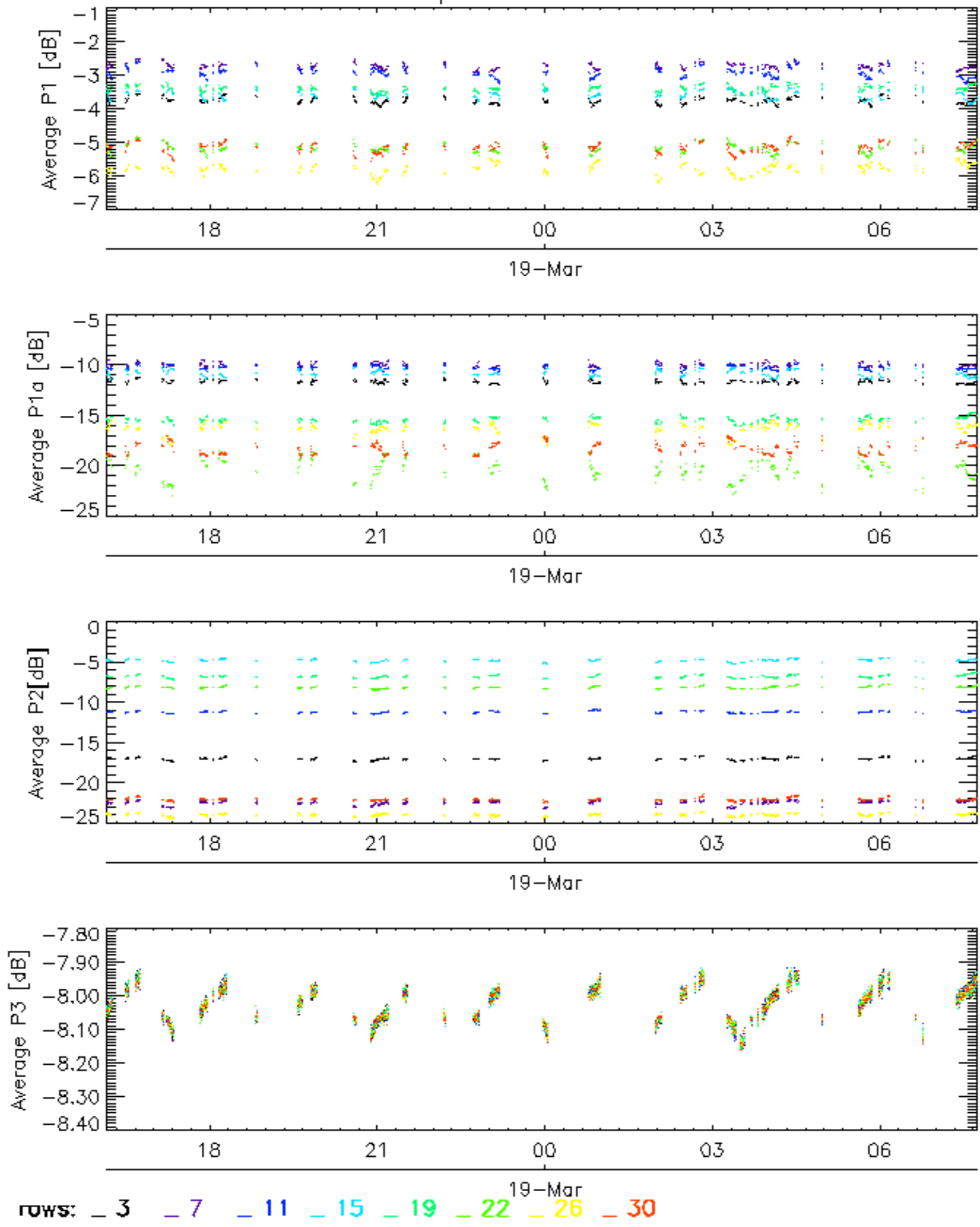
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 19-Mar

Cal pulses for GM1 SS3

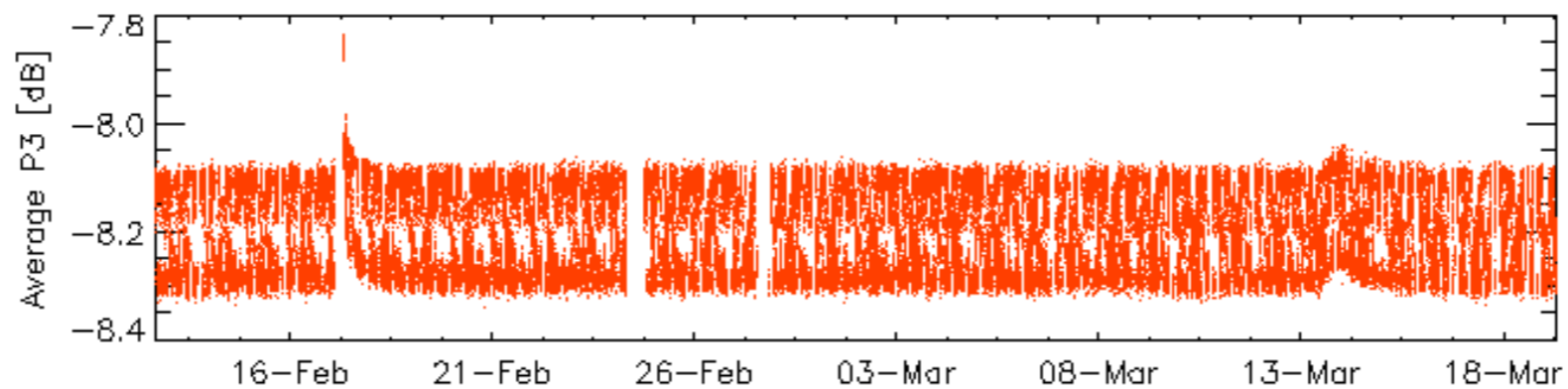
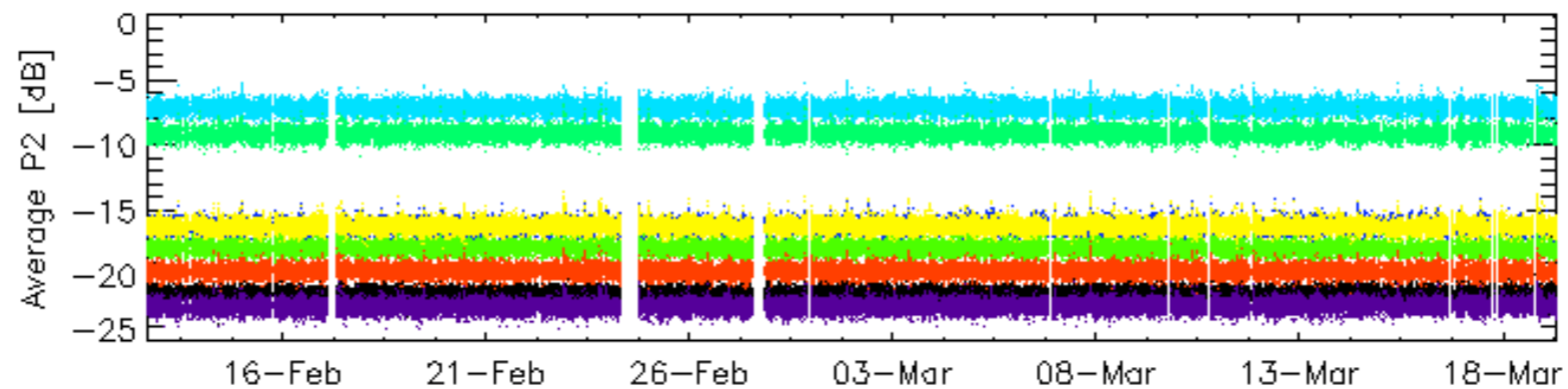
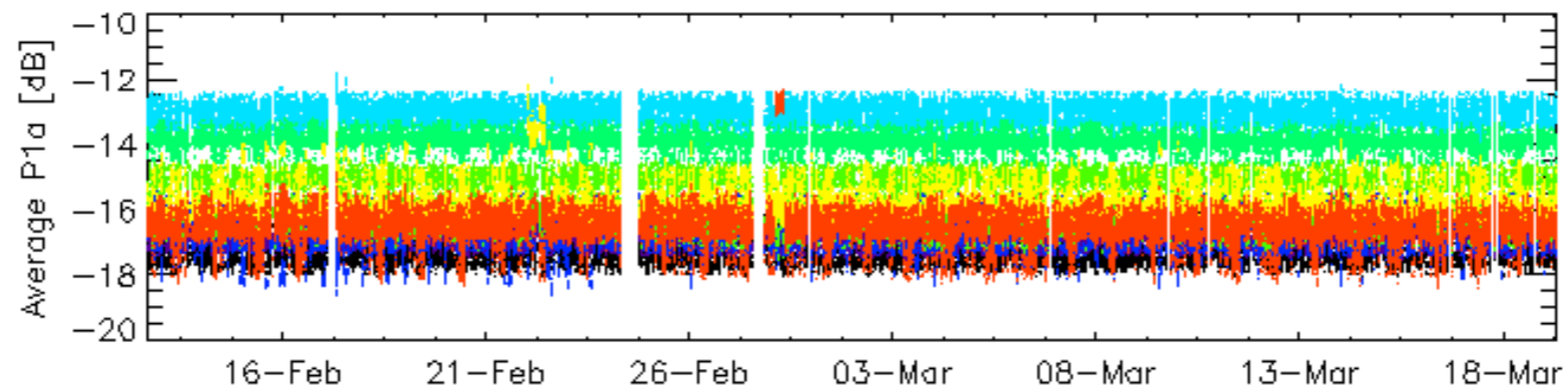
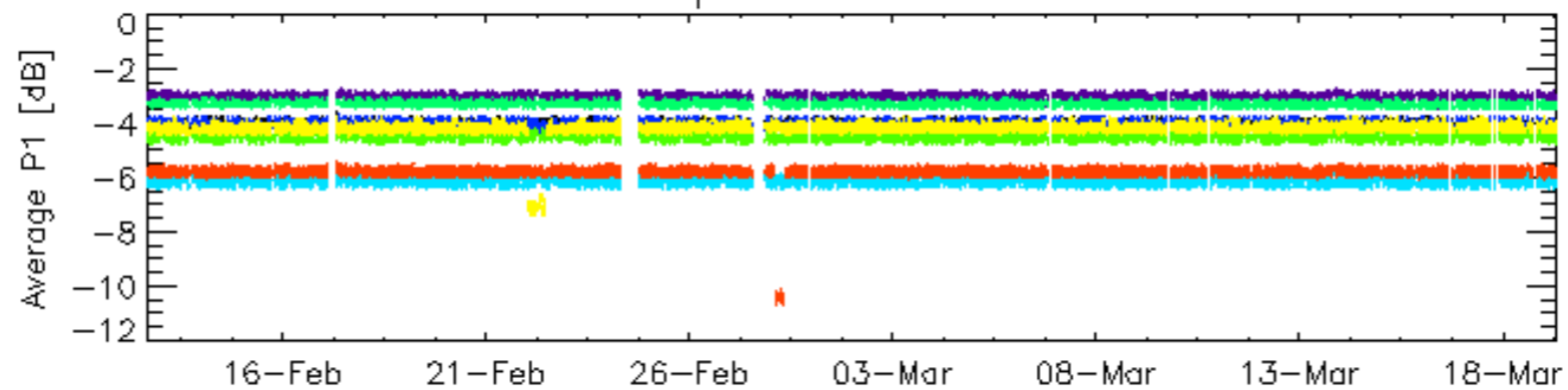


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

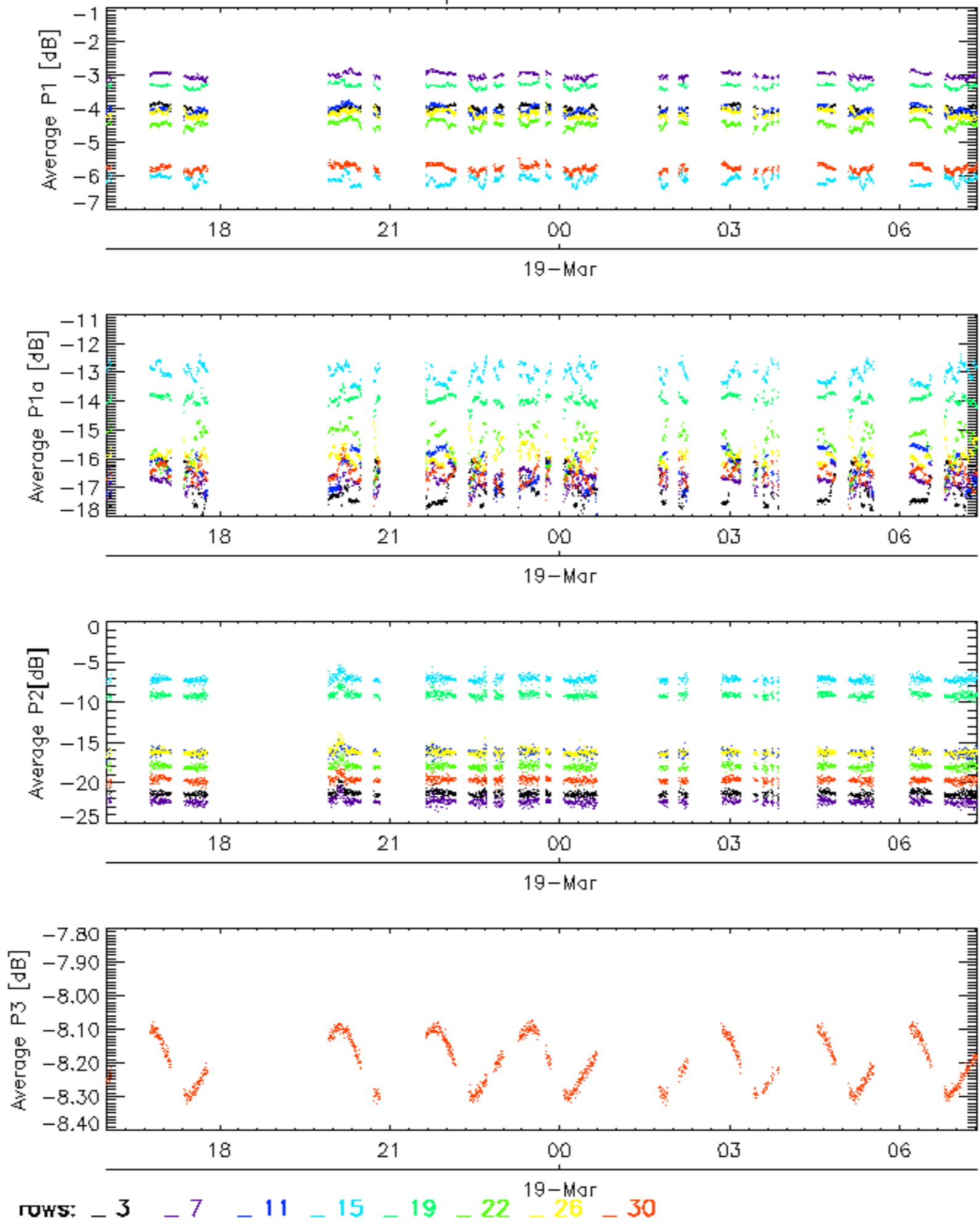


Cal pulses for WVS IS2

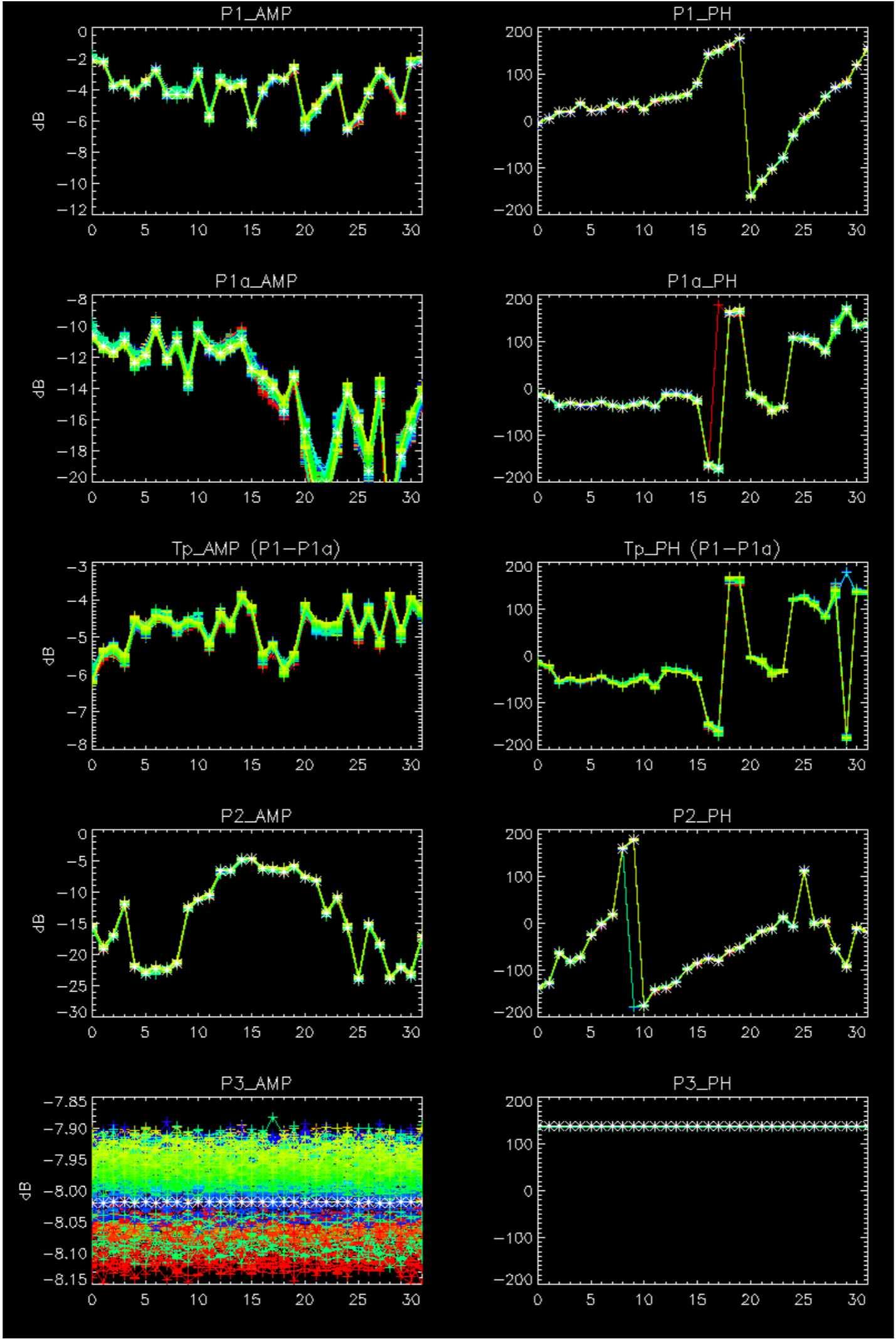


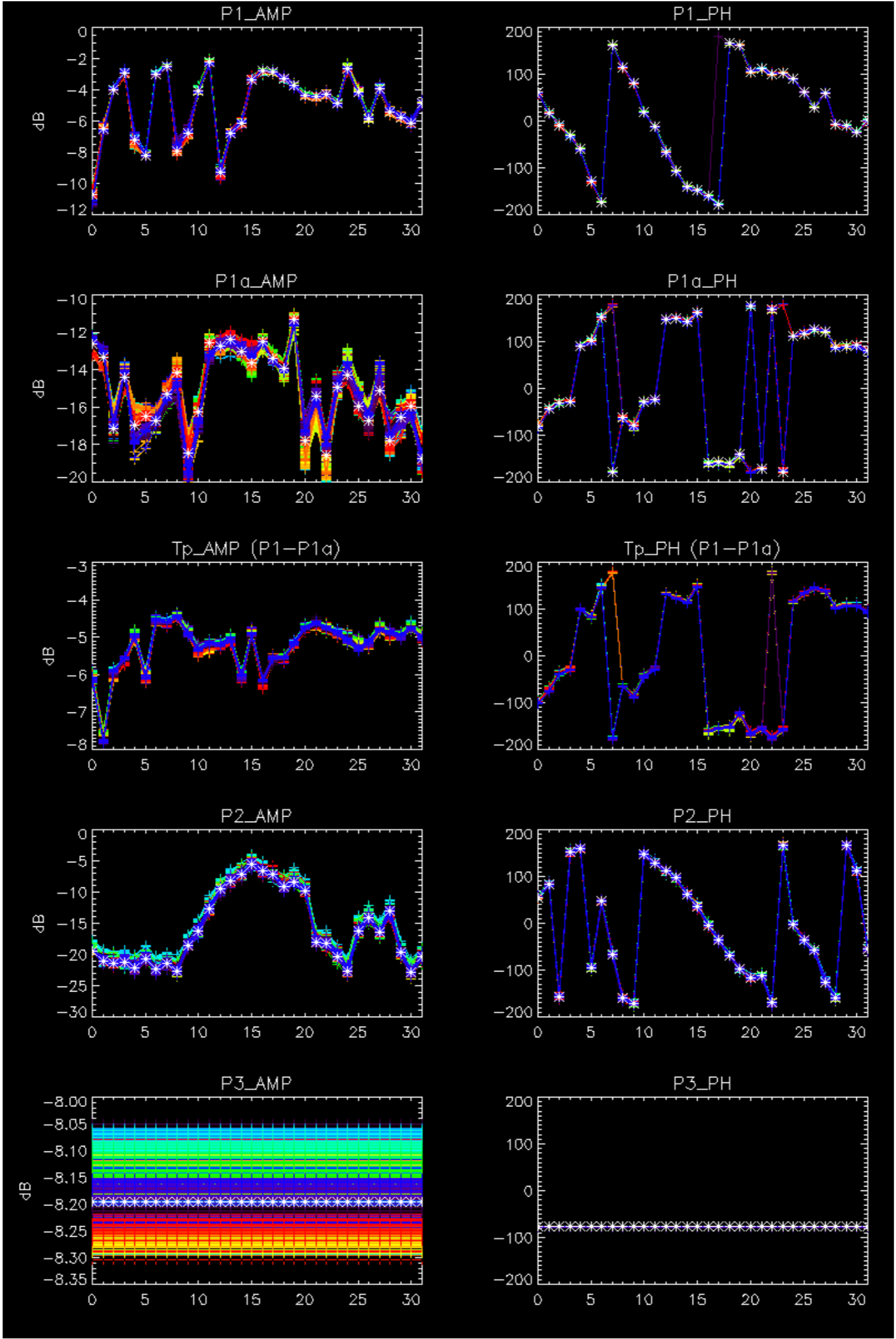
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for WVS IS2



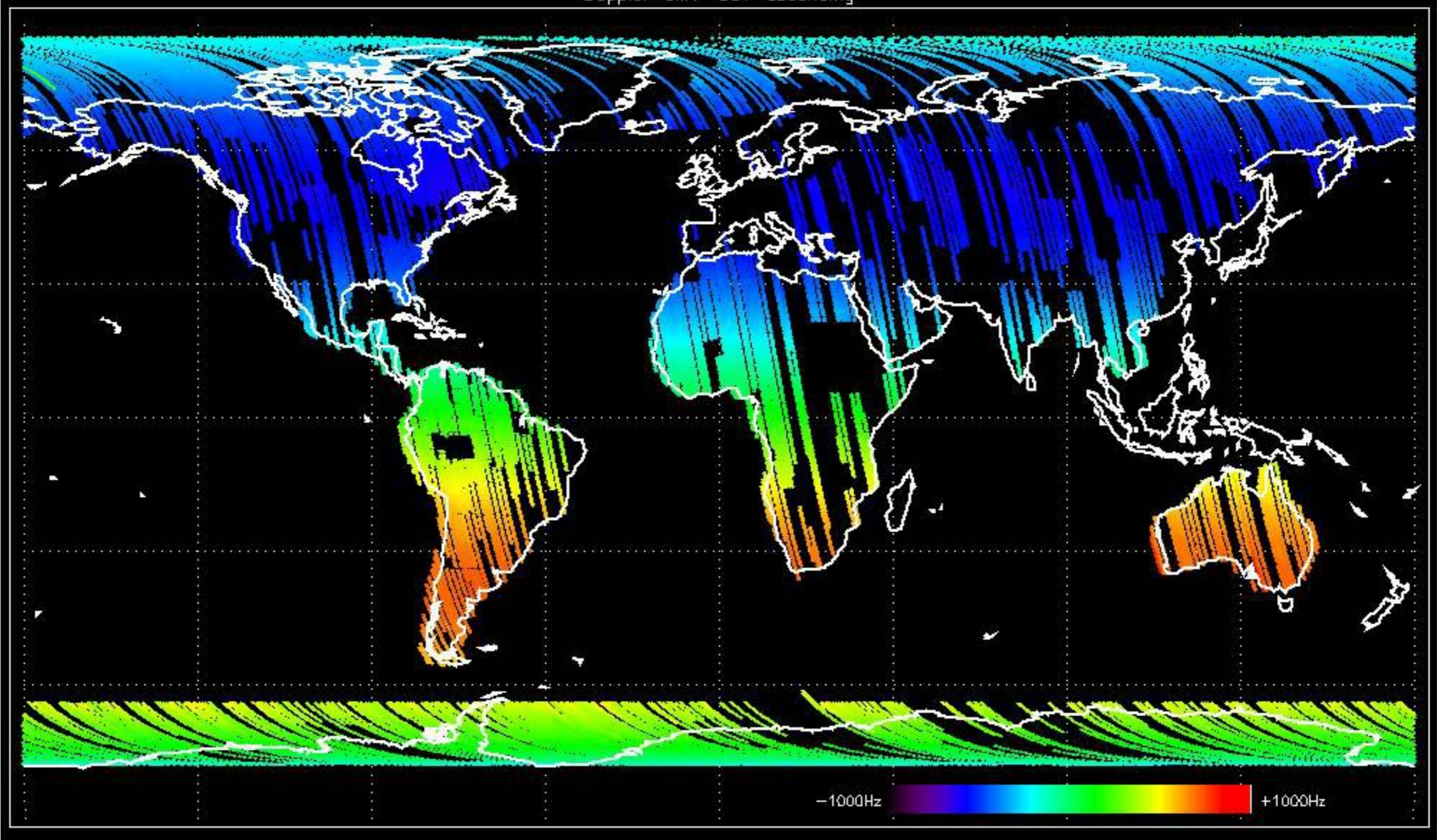
No anomalies observed.



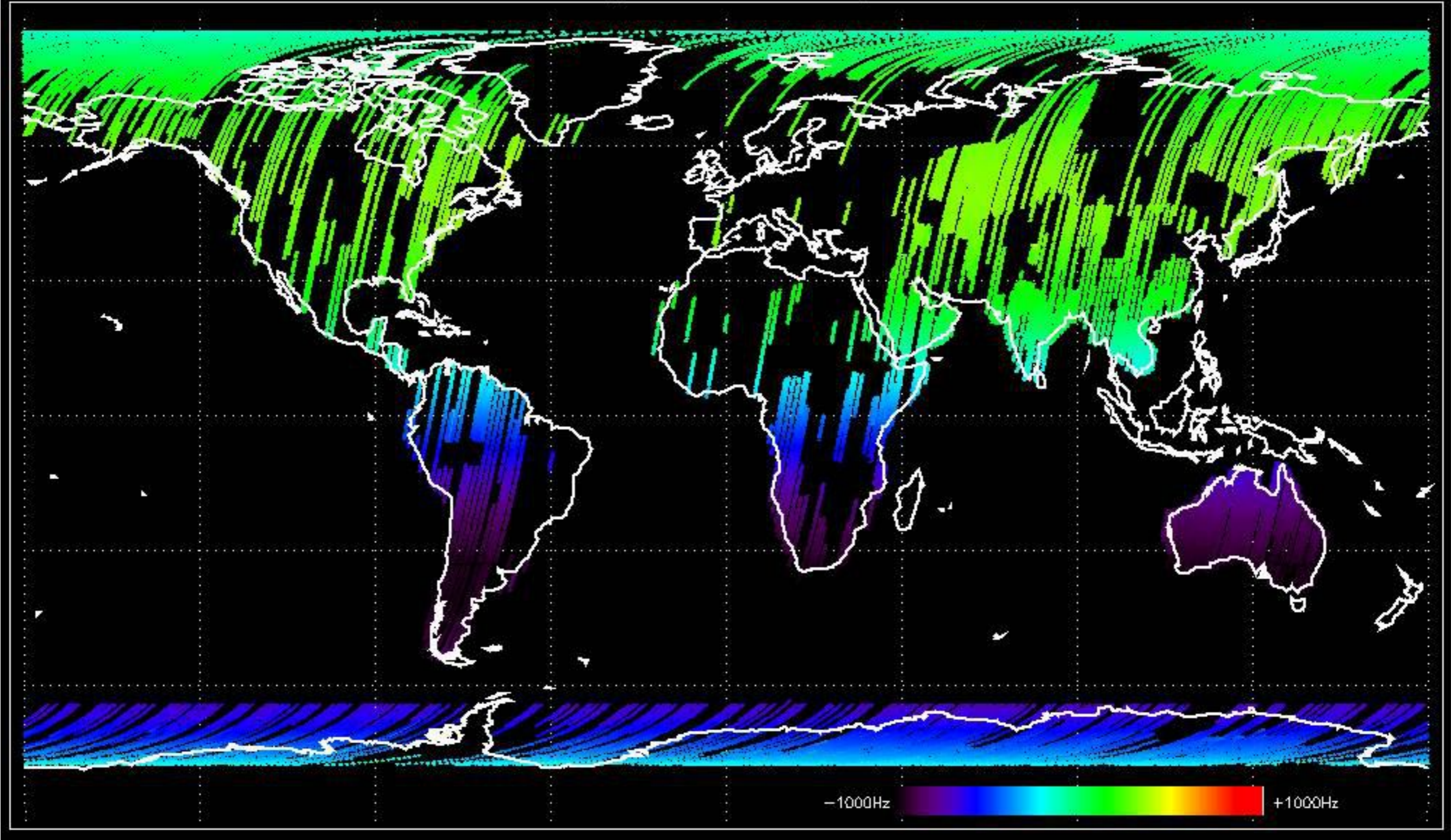


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

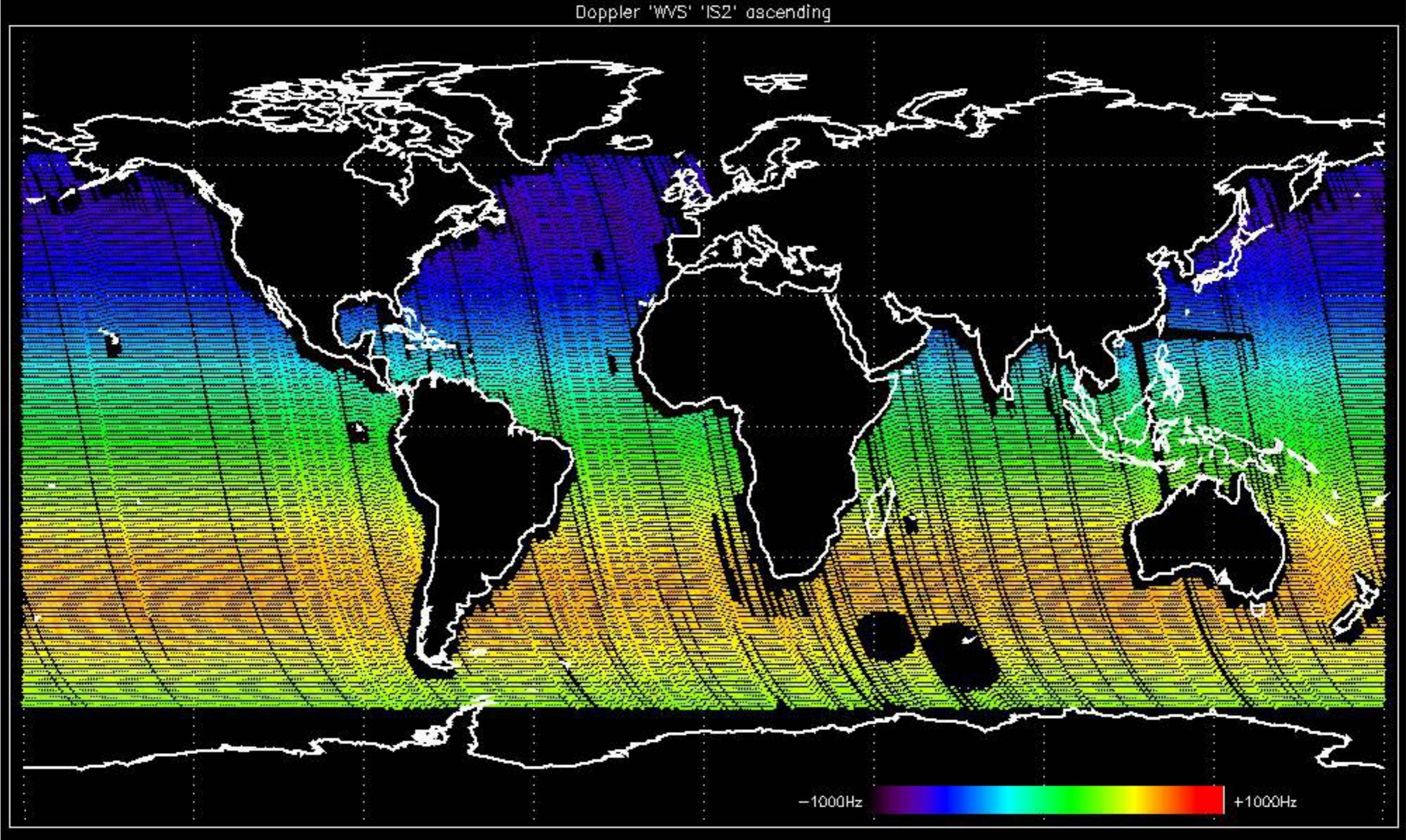
Doppler 'GM1' 'SS1' ascending



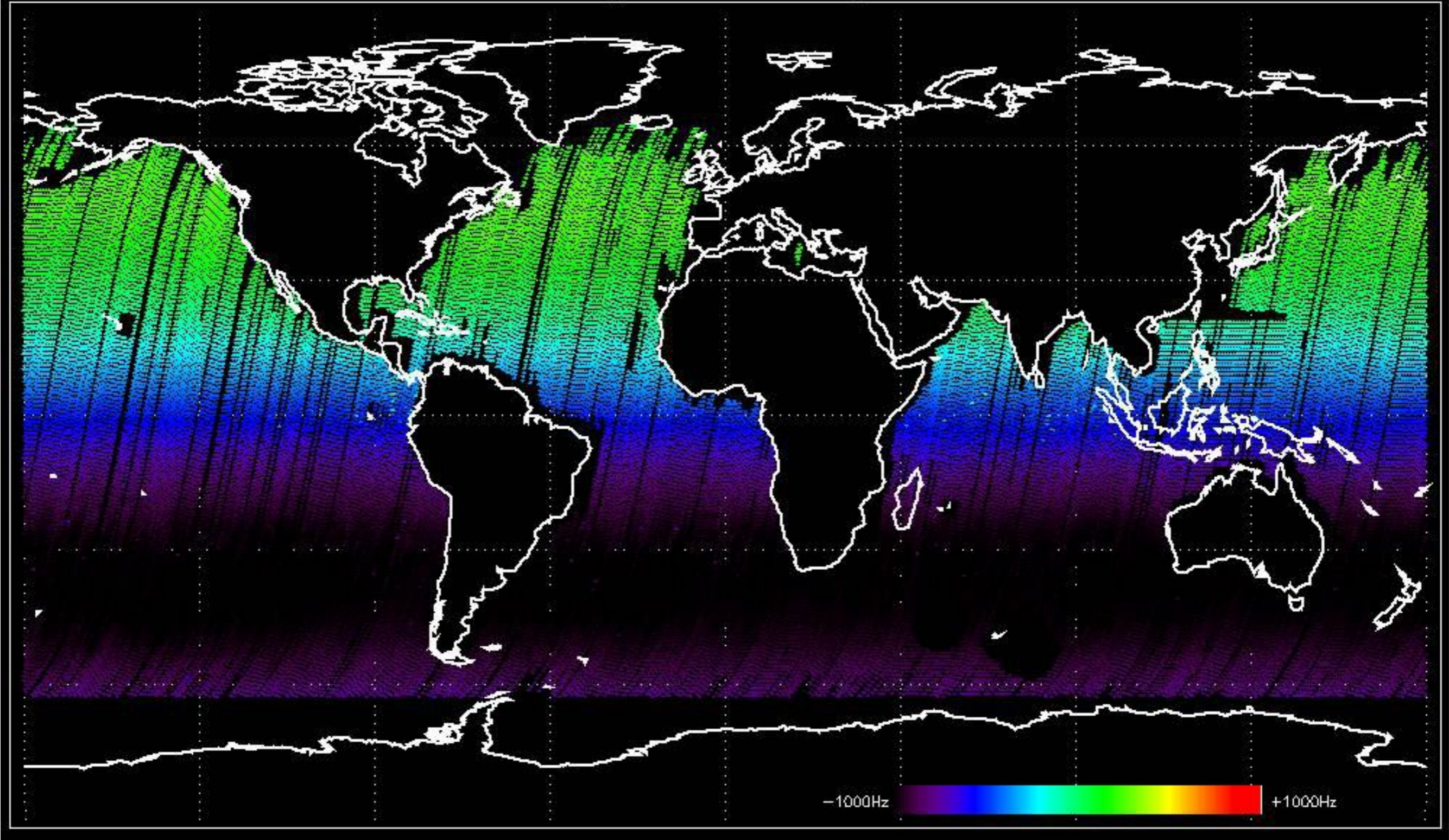
Doppler 'GM1' 'SS1' descending



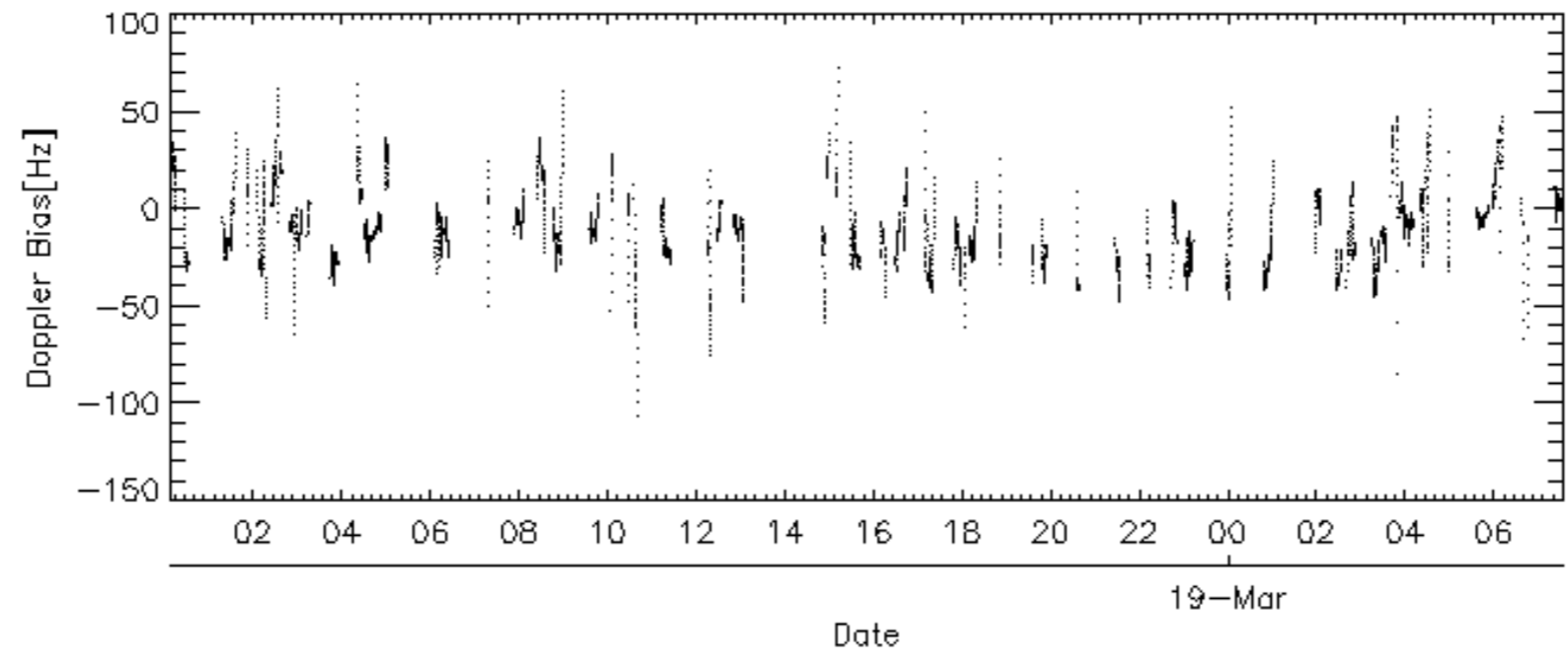
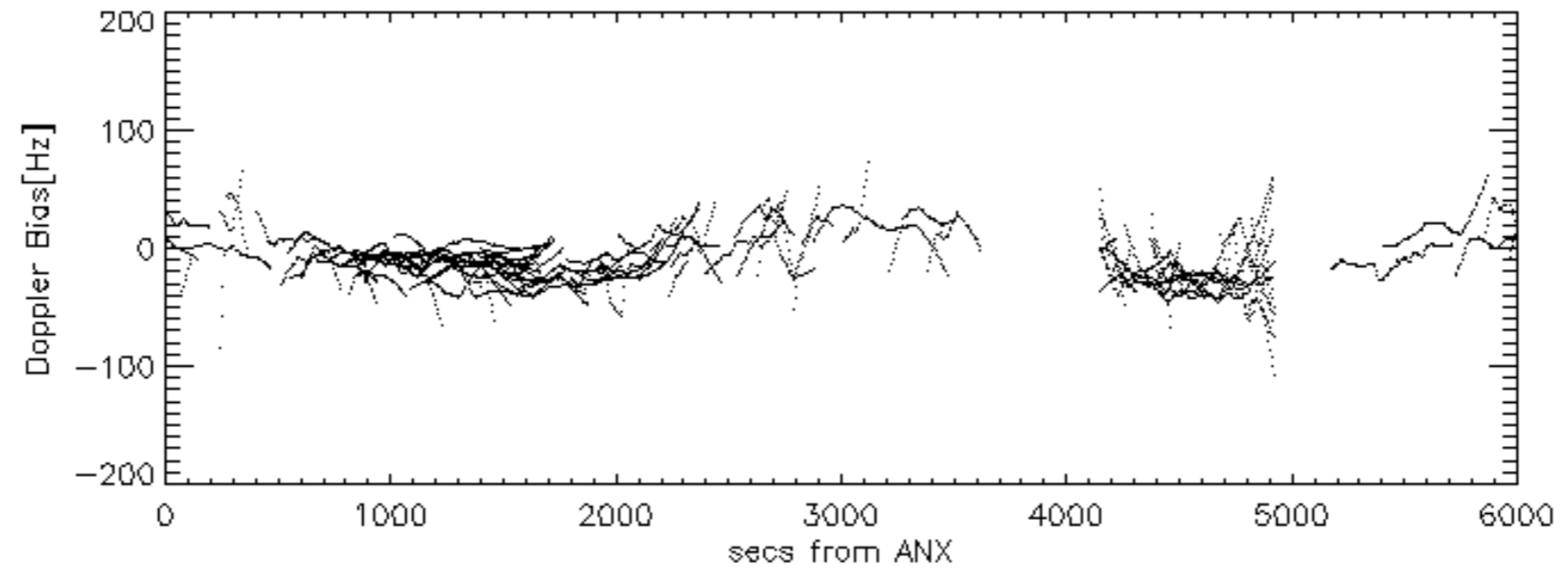
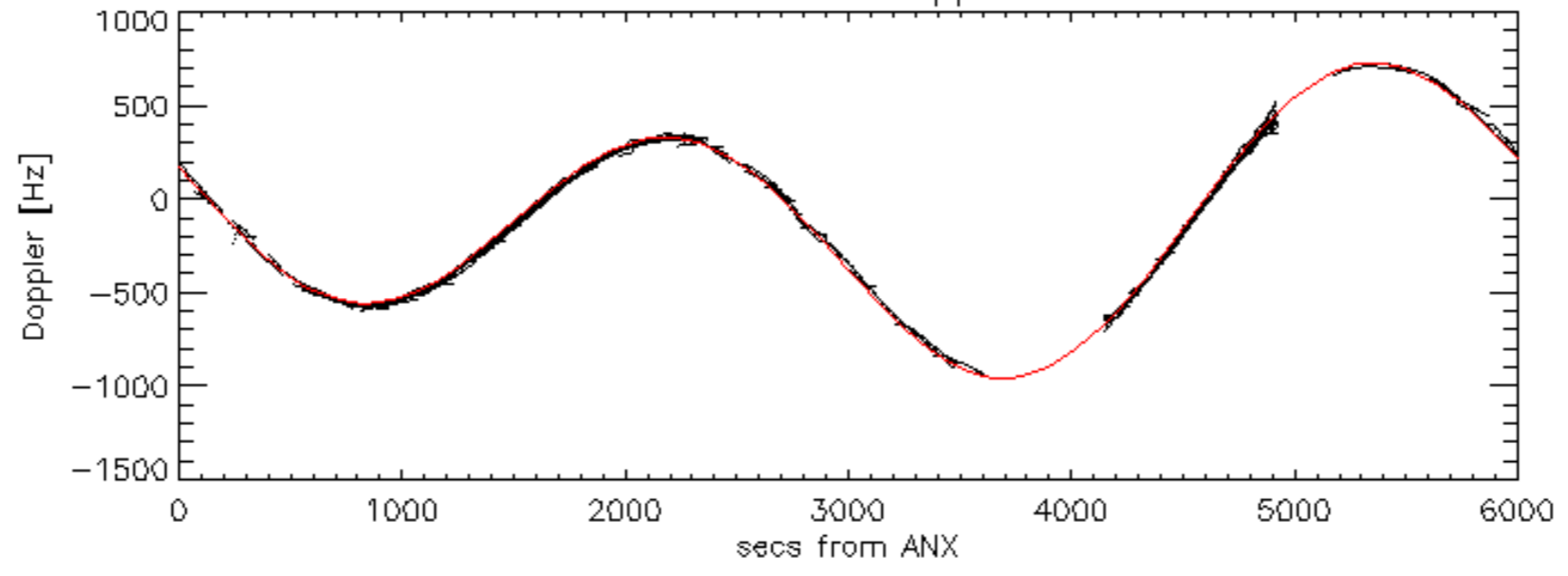
Doppler 'WVS' 'IS2' ascending

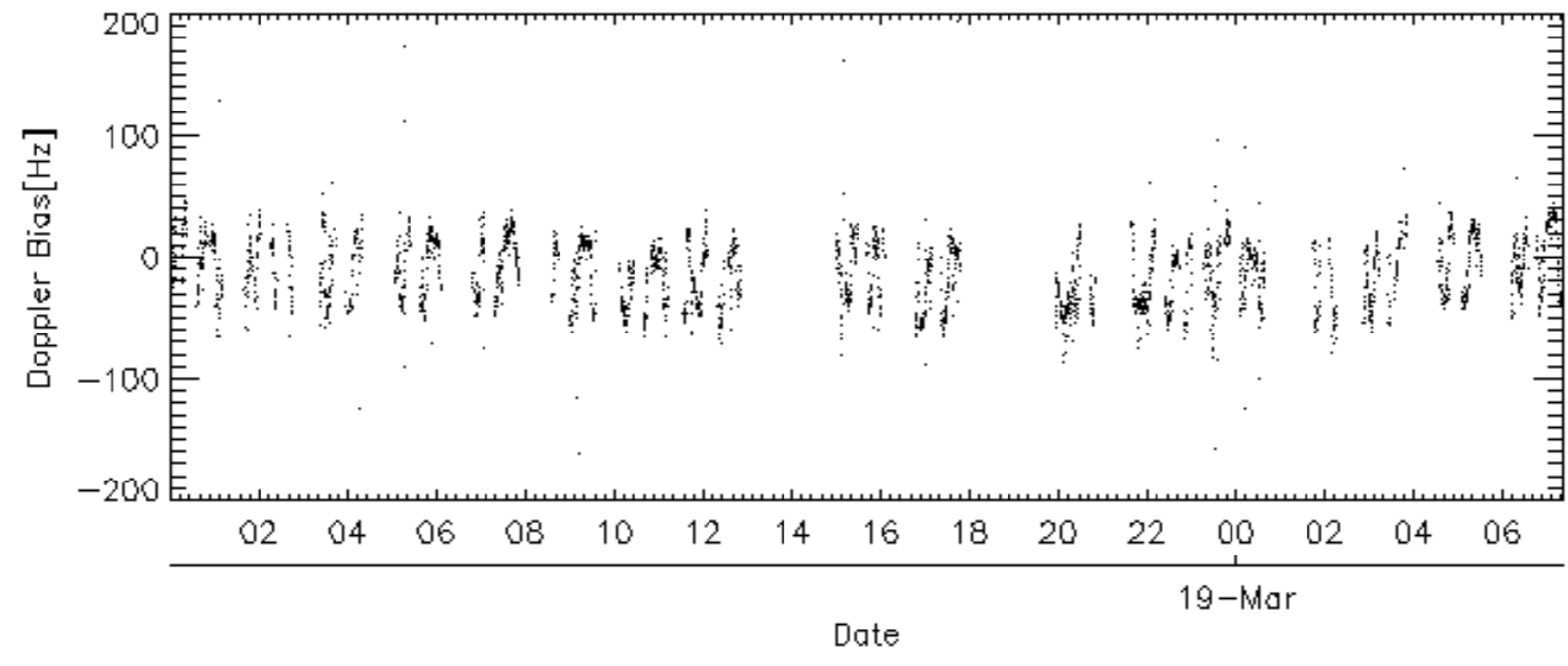
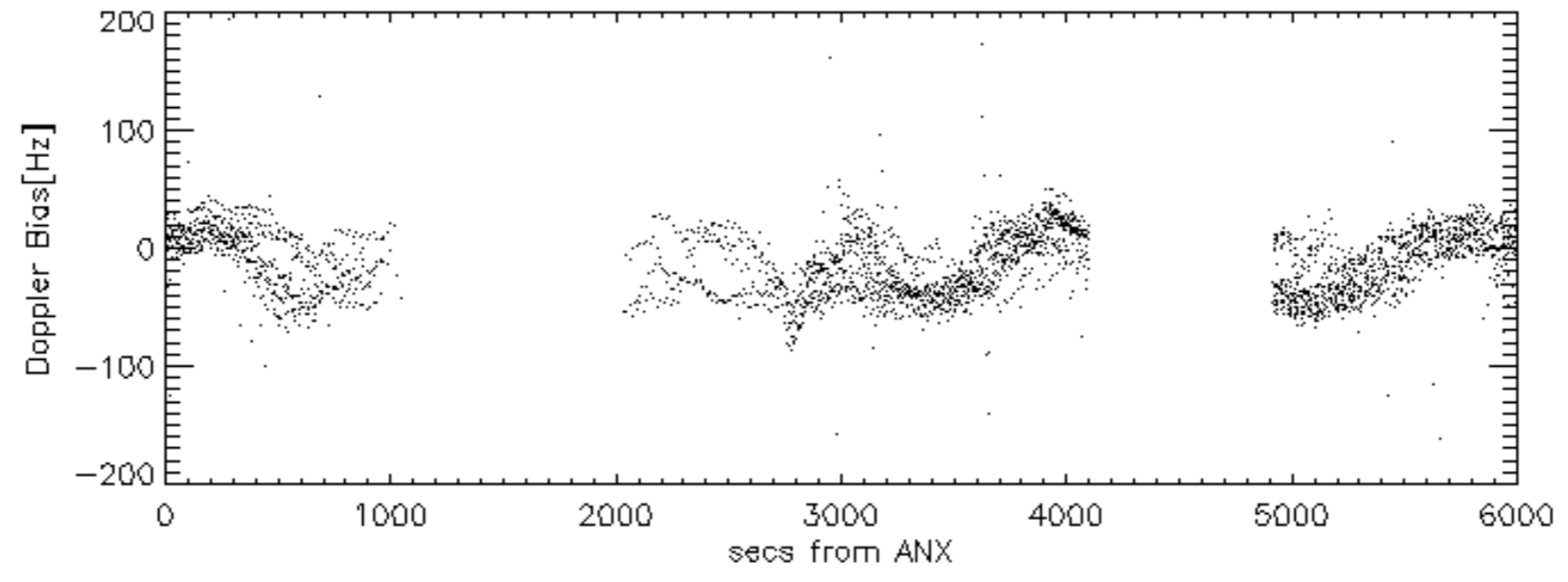
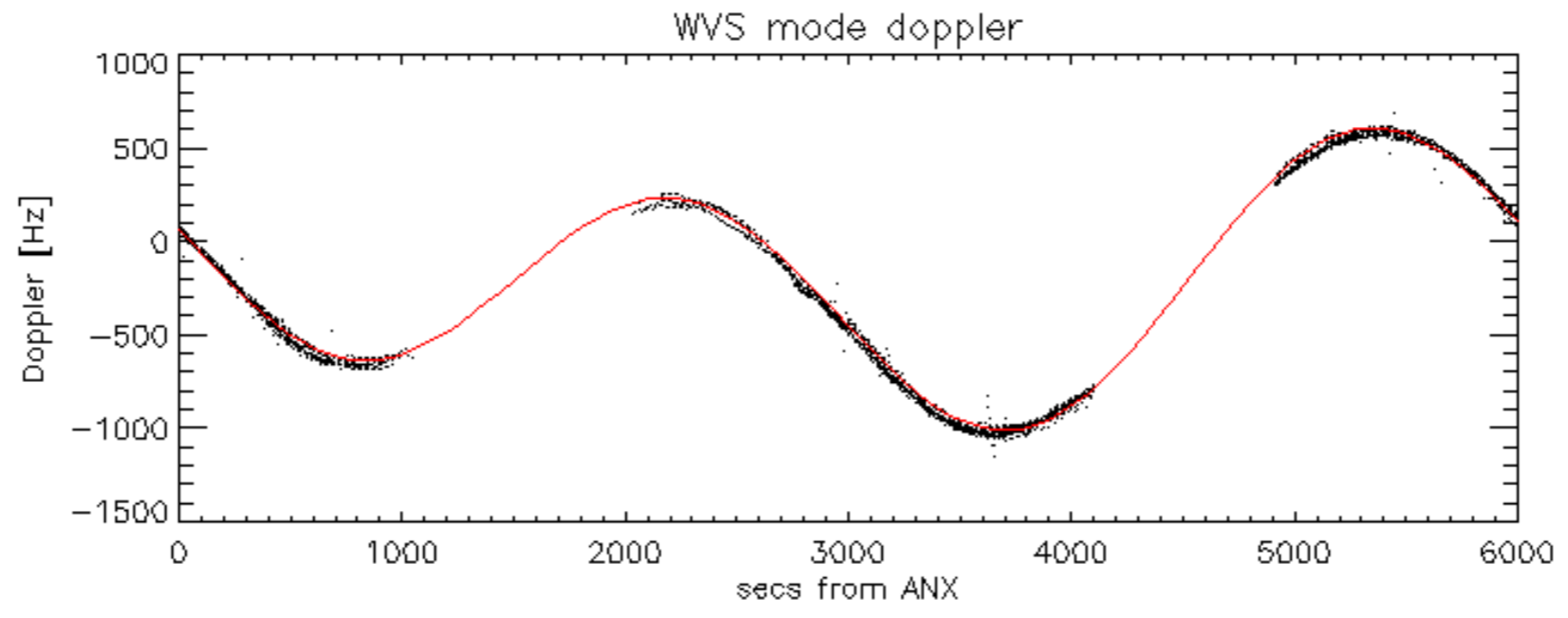


Doppler 'WVS' 'IS2' descending

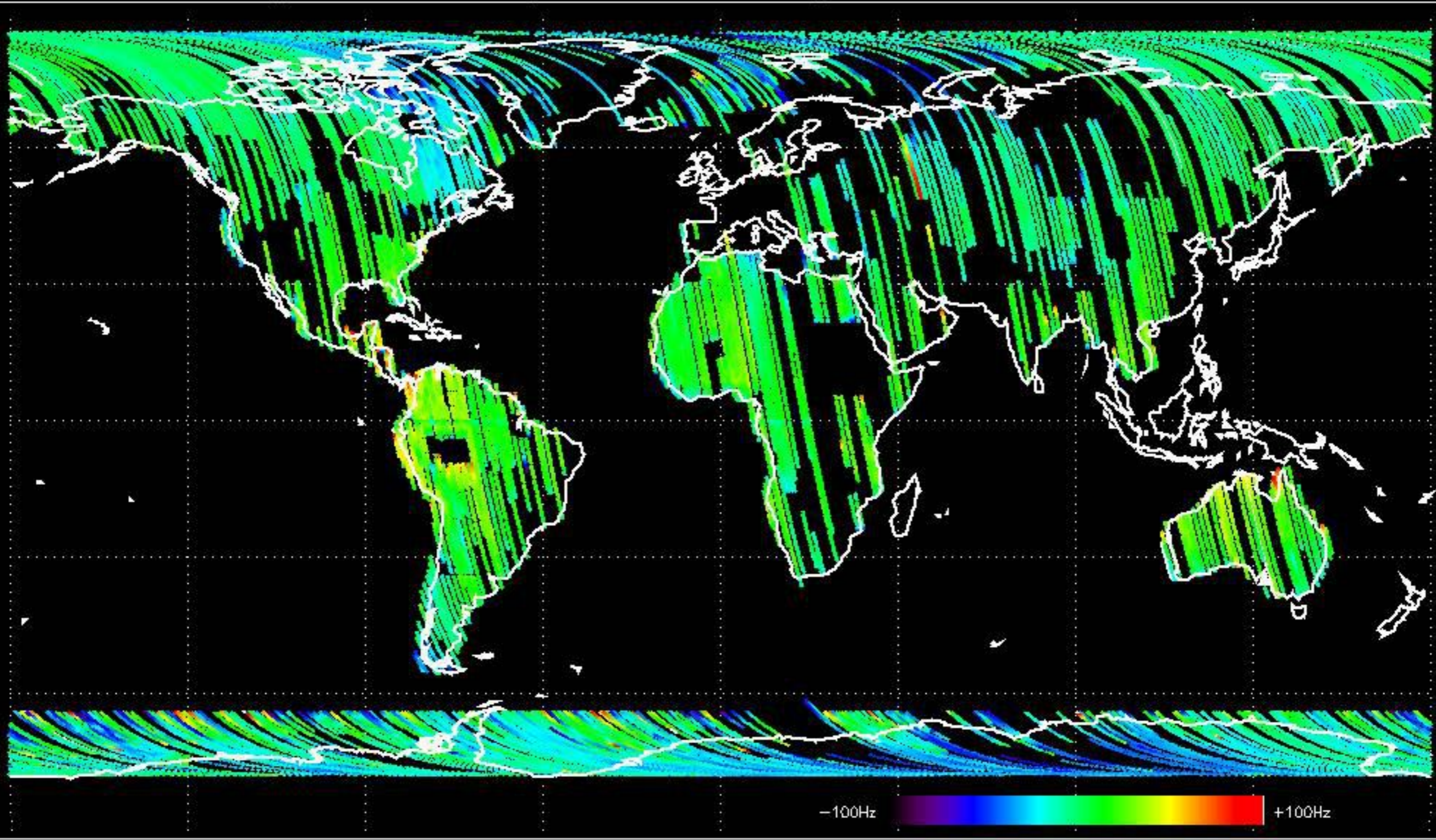


GM1 mode doppler

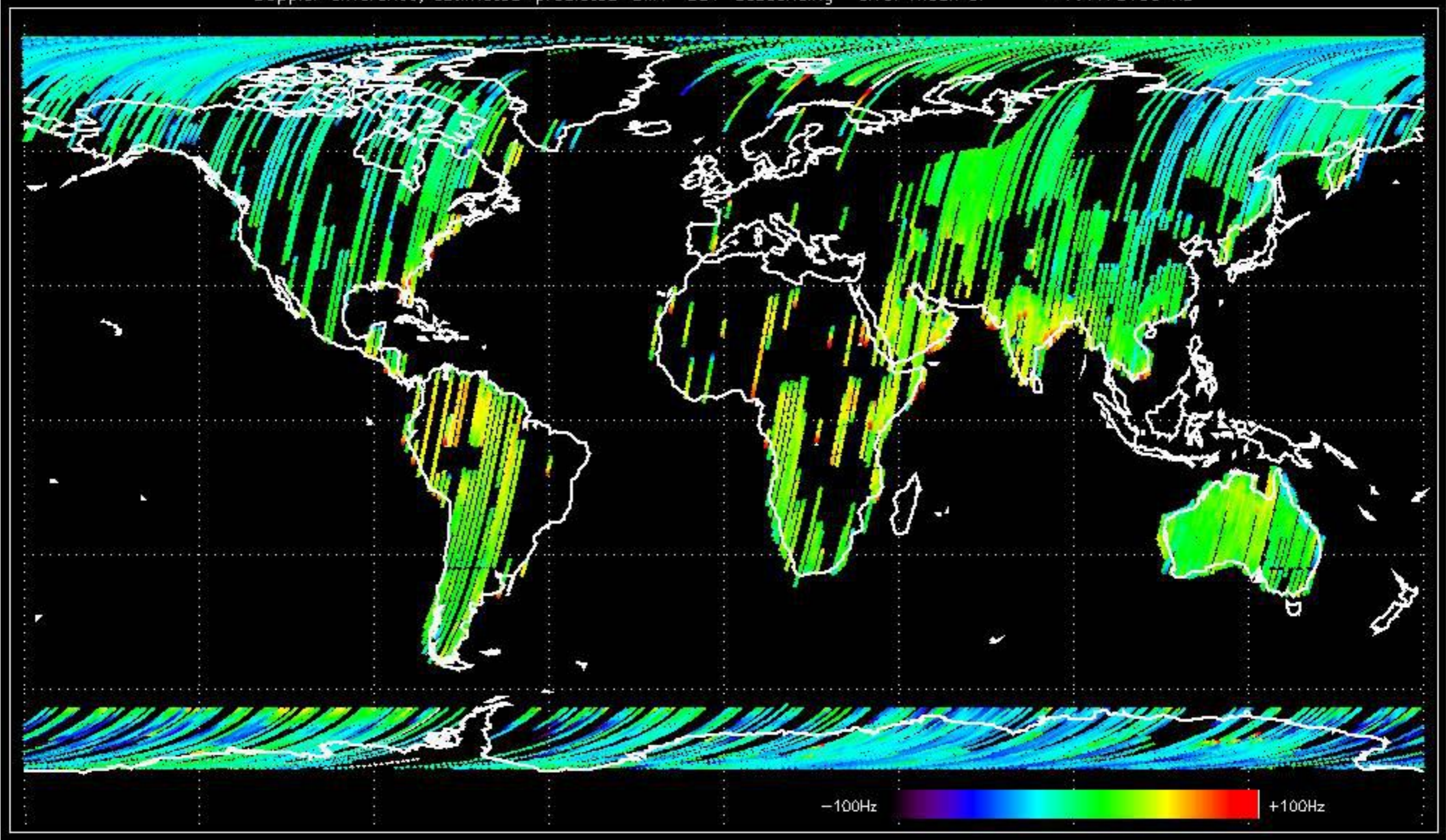




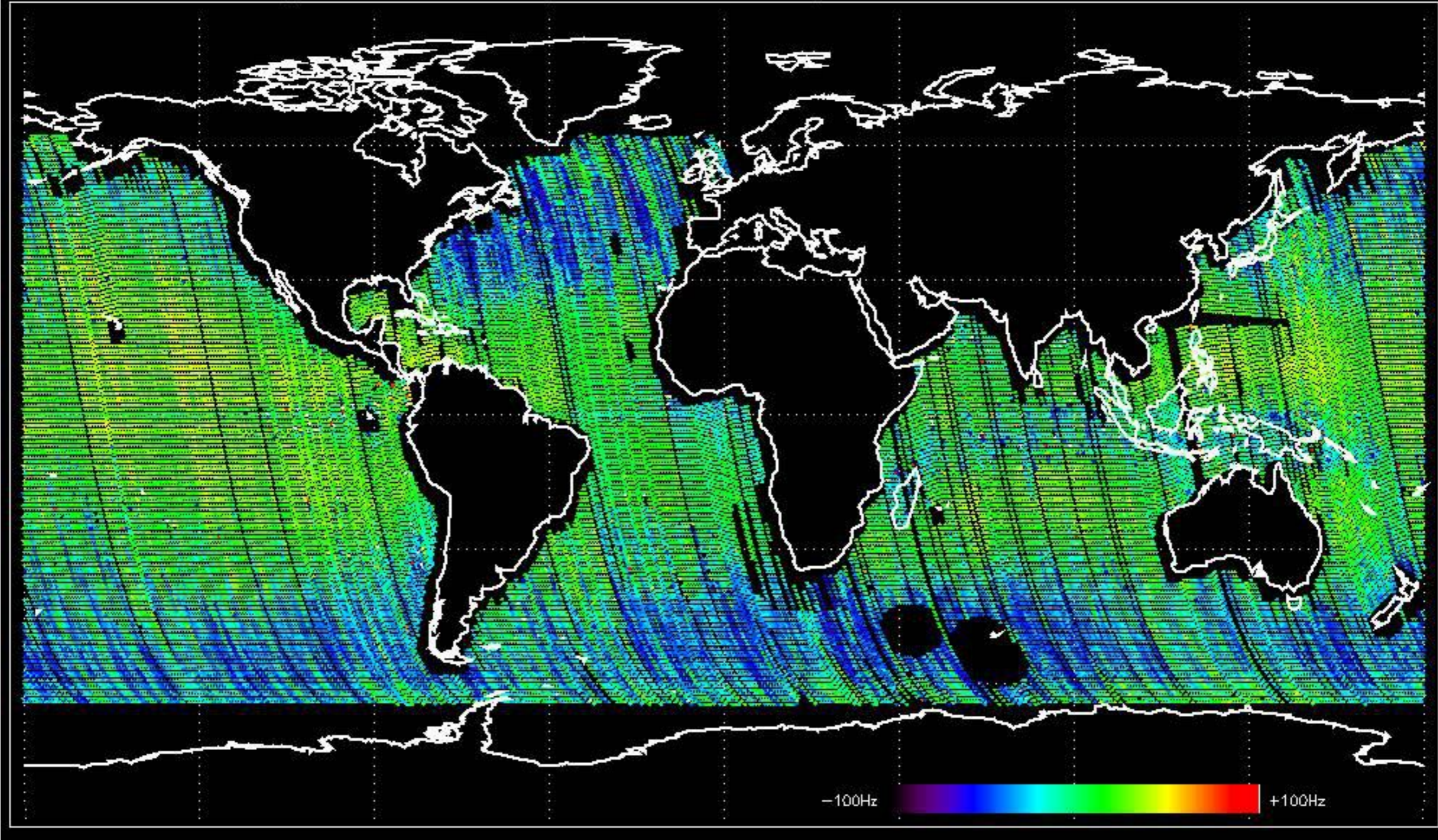
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -9.1425474 Hz



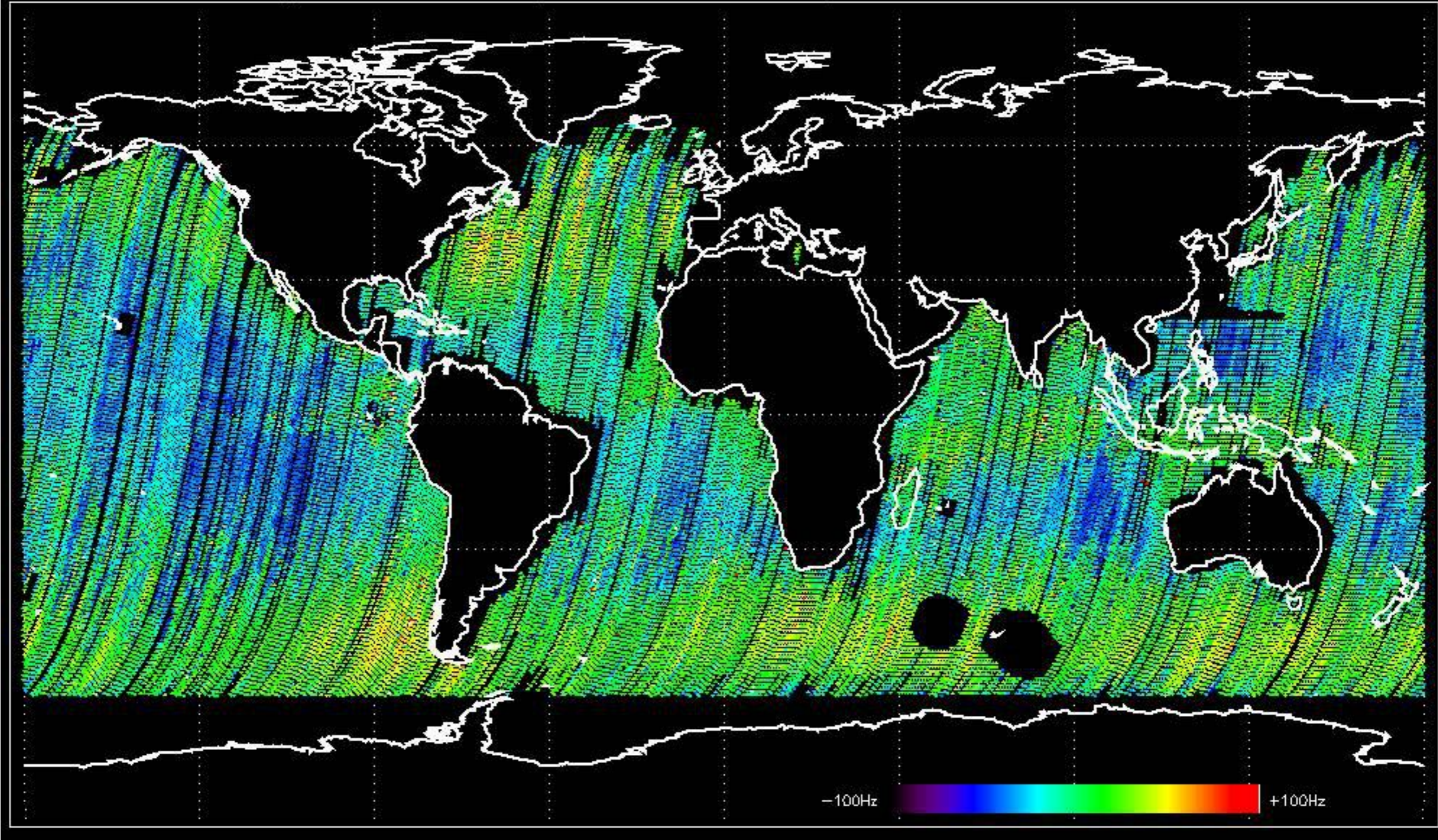
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.4175193 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5856491 Hz

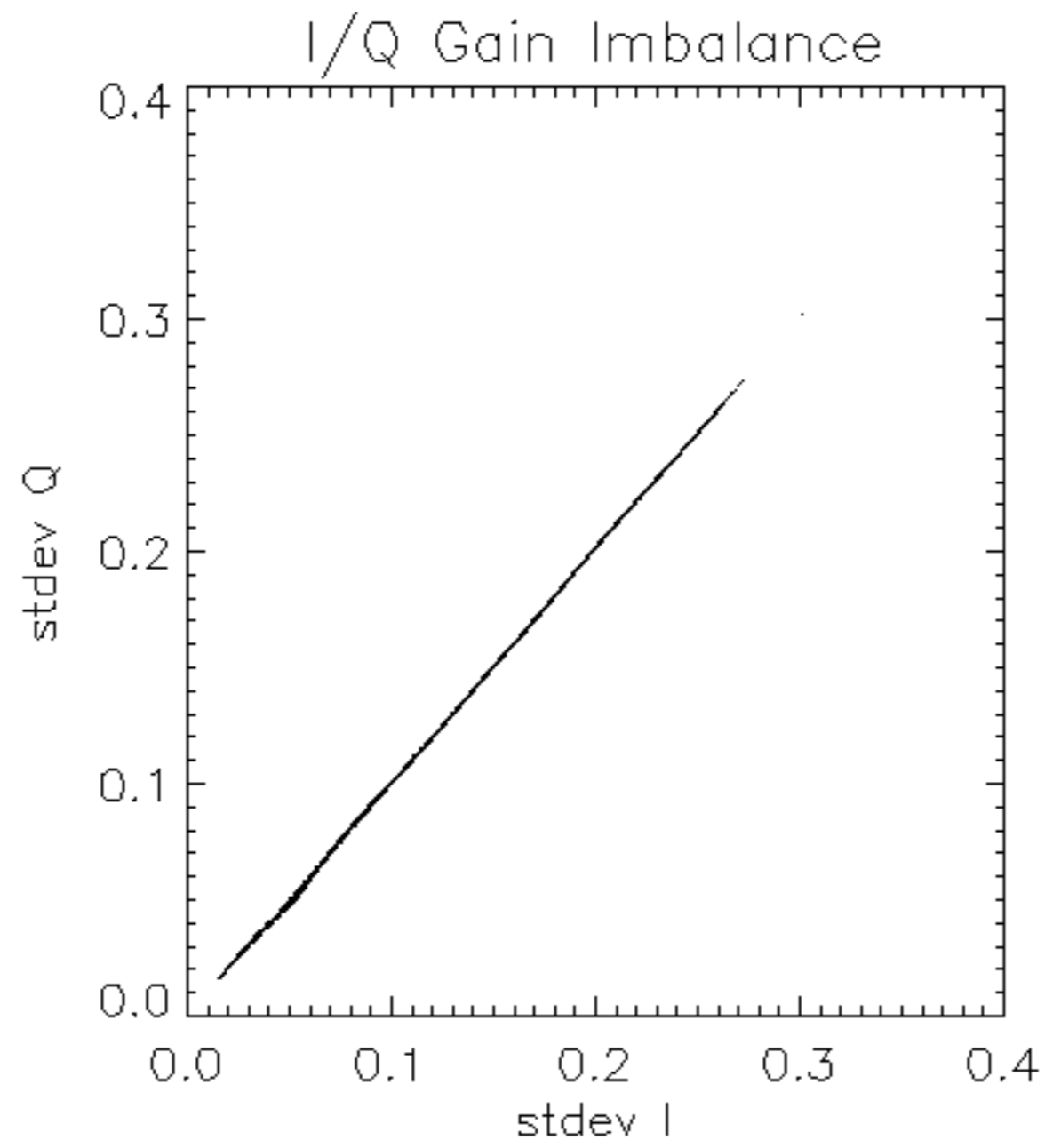


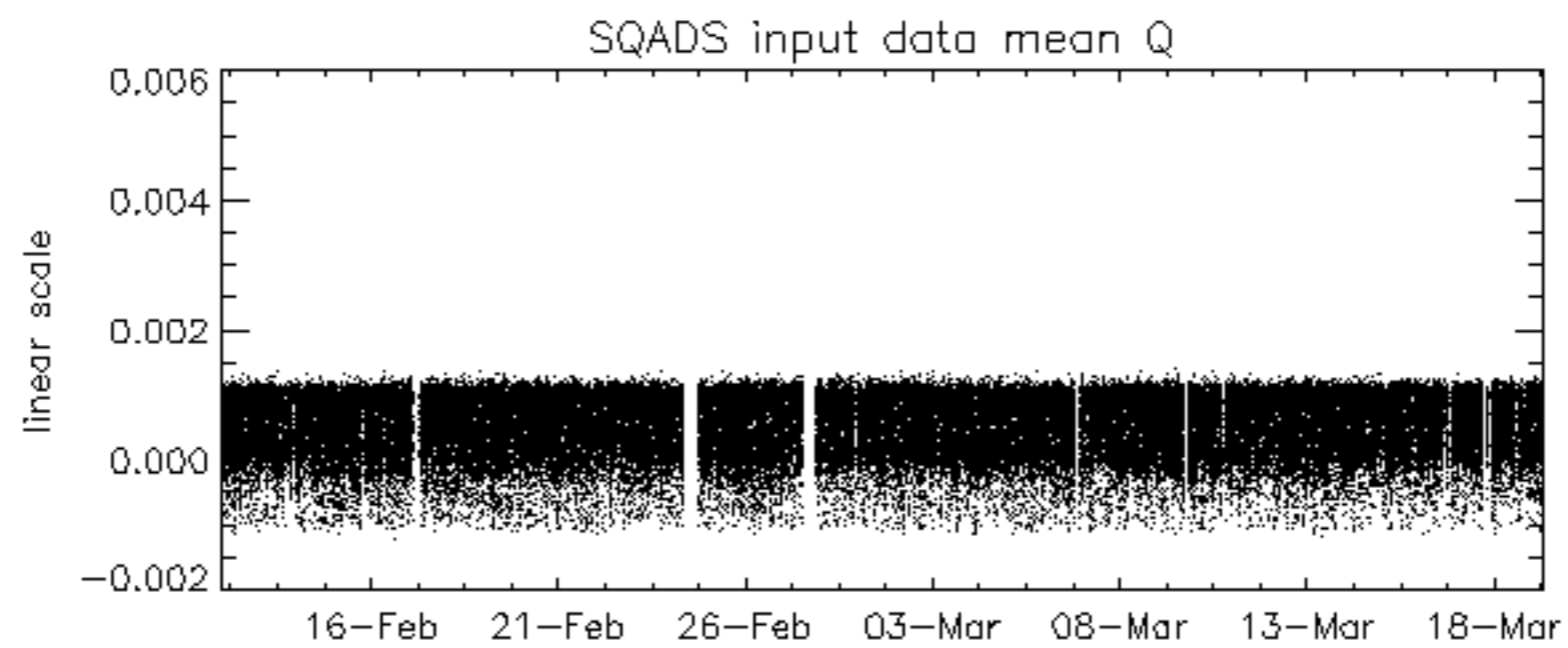
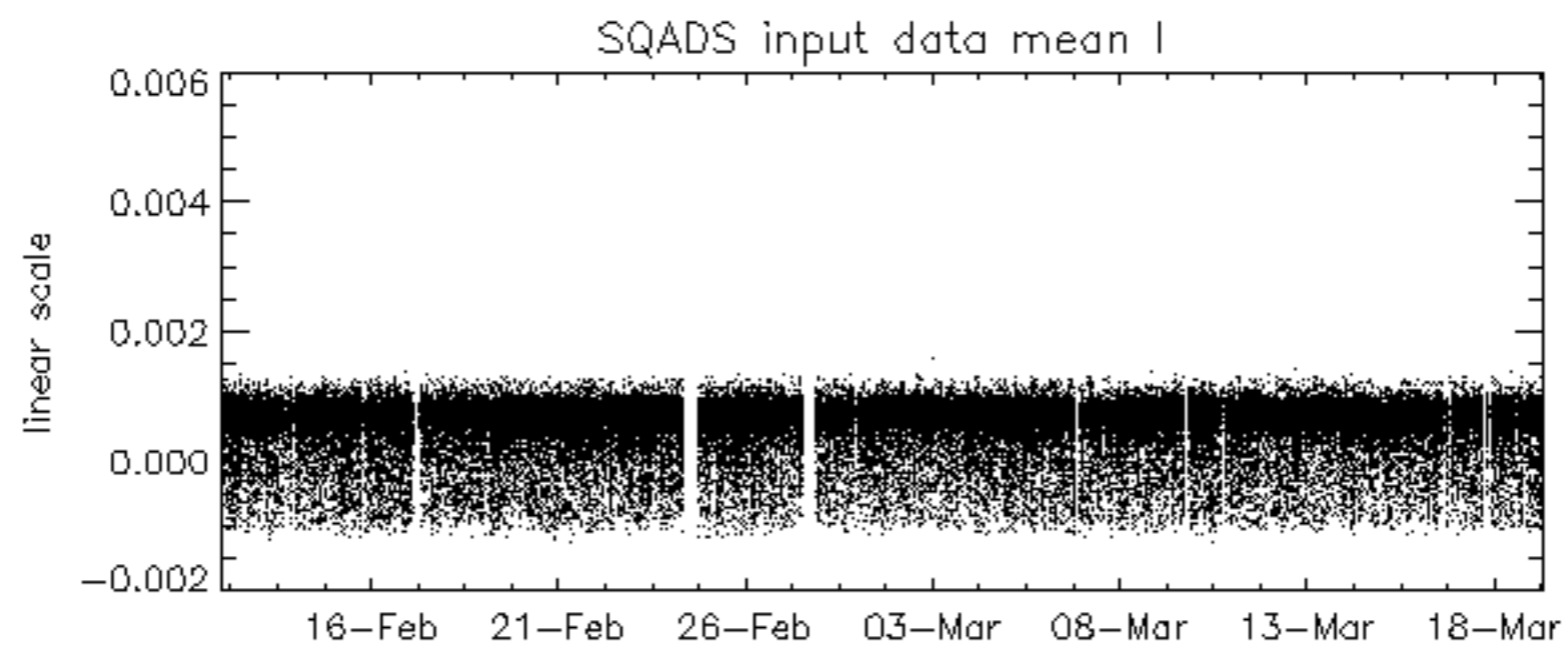
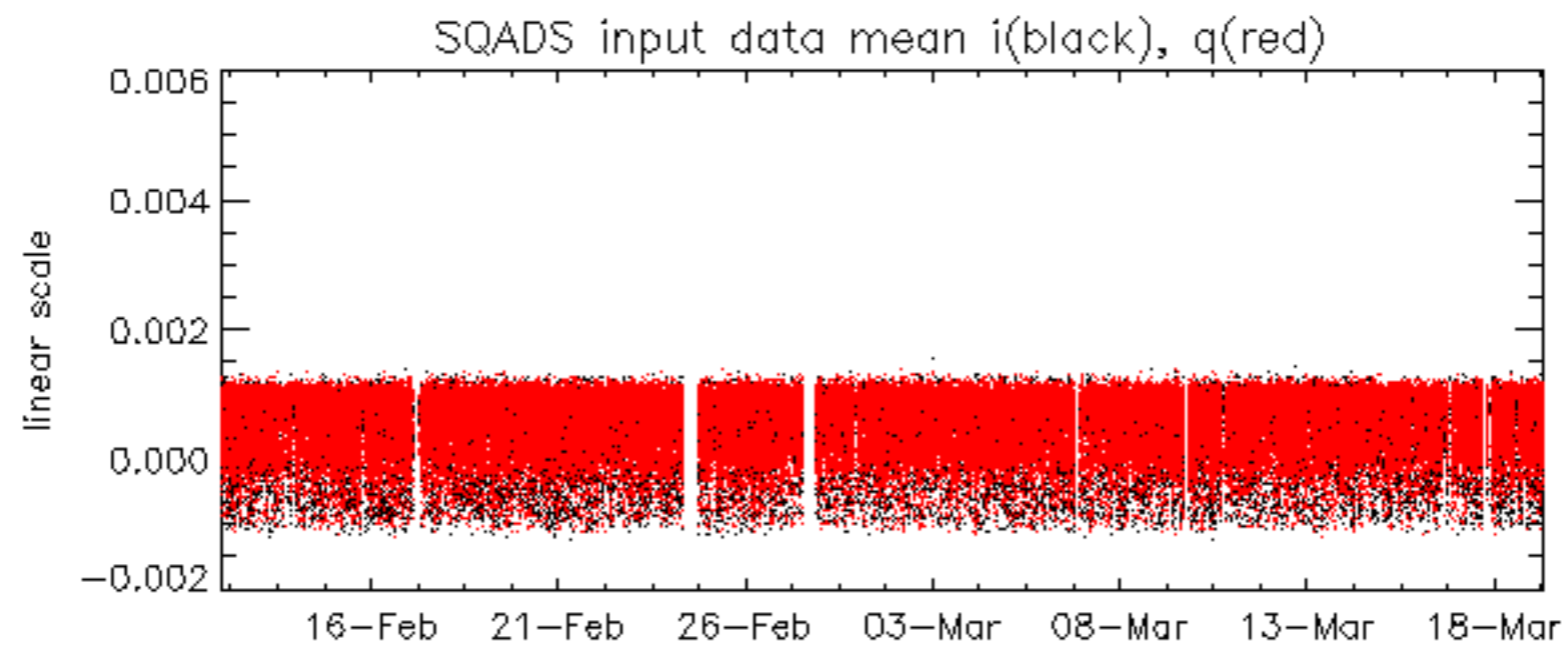
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.8161694 Hz

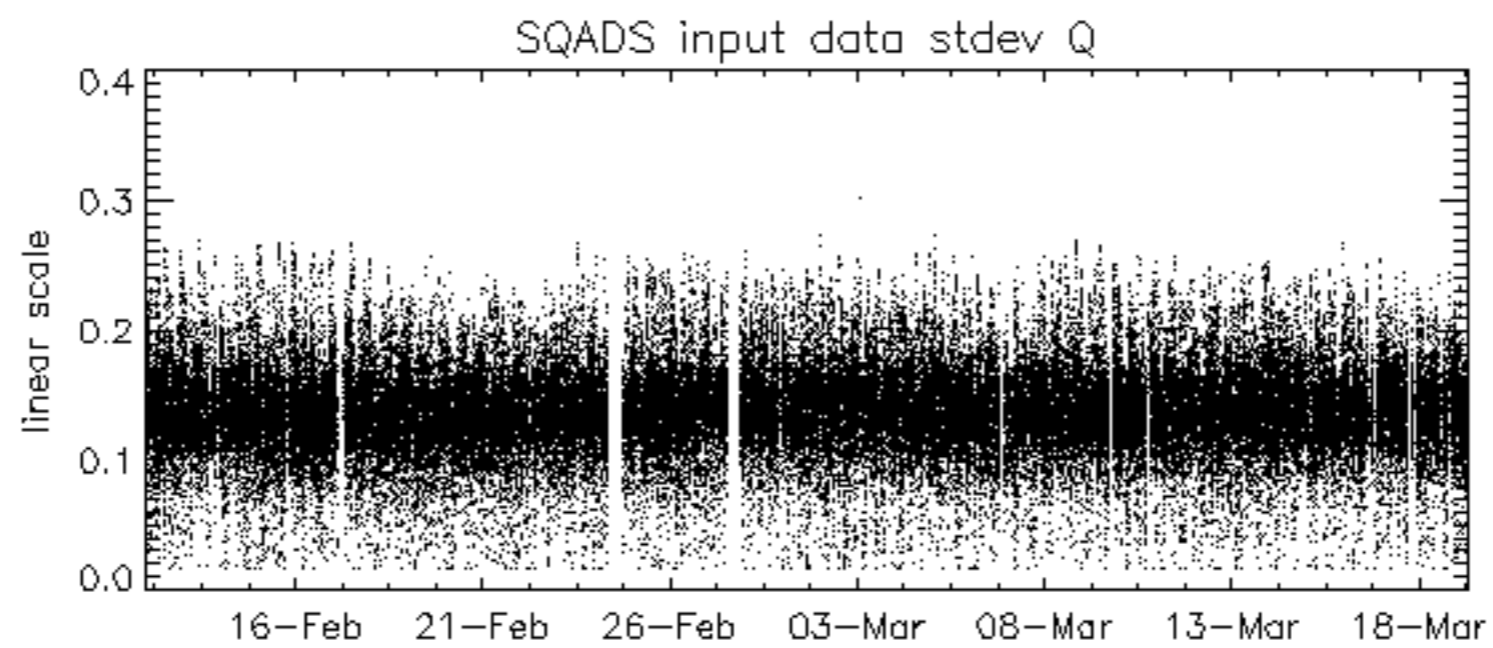
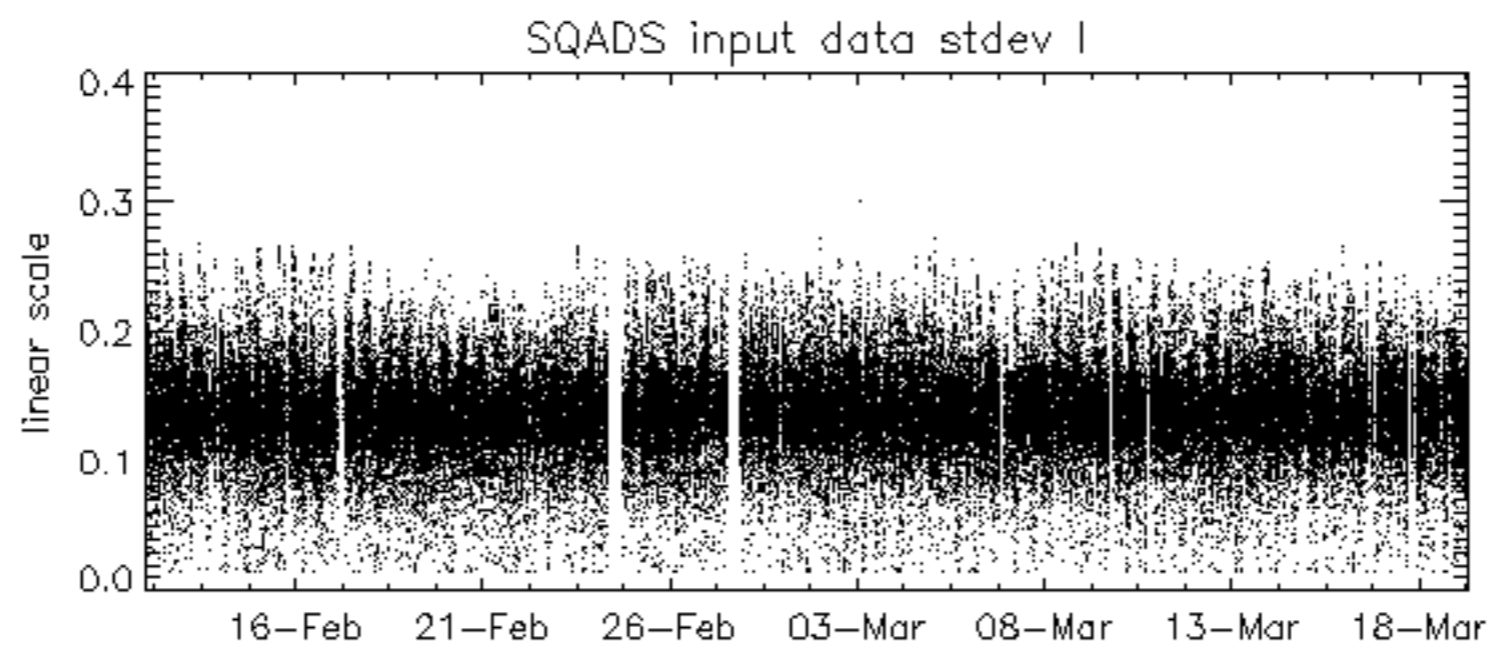
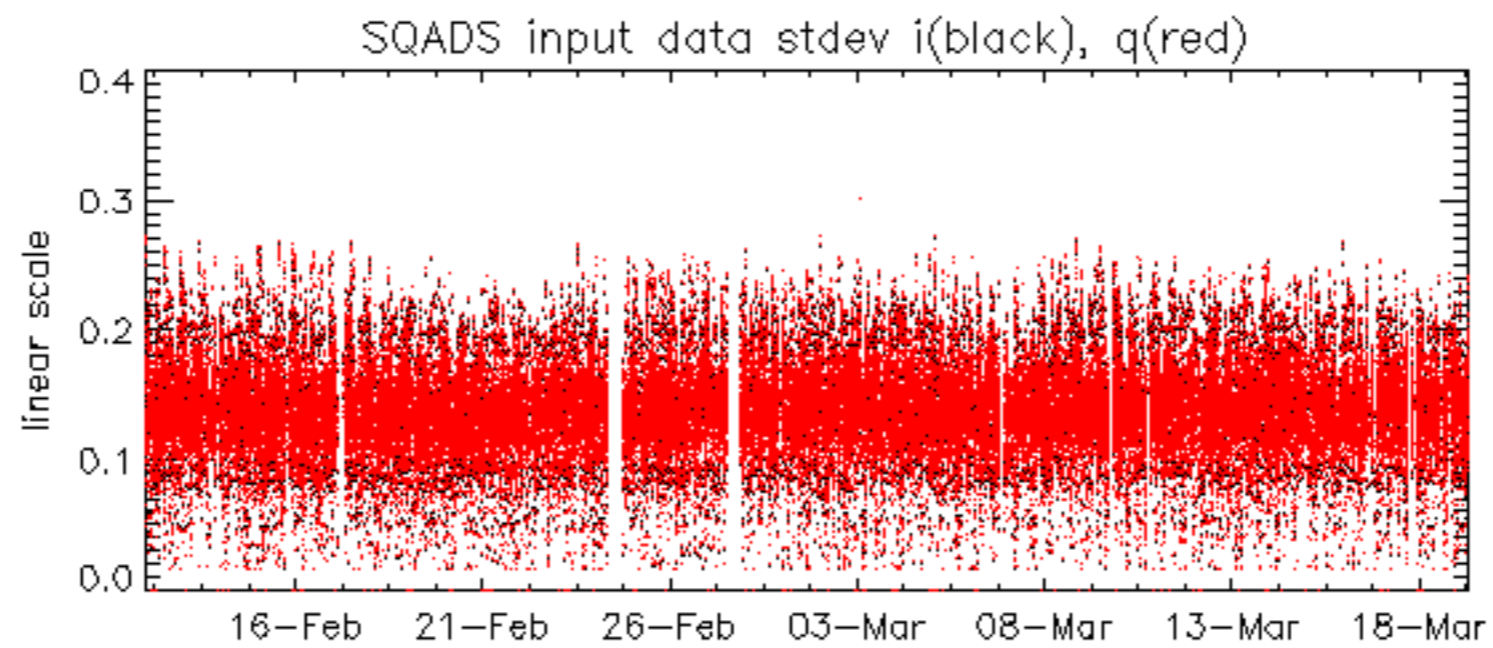


No anomalies observed on available MS products:

No anomalies observed.



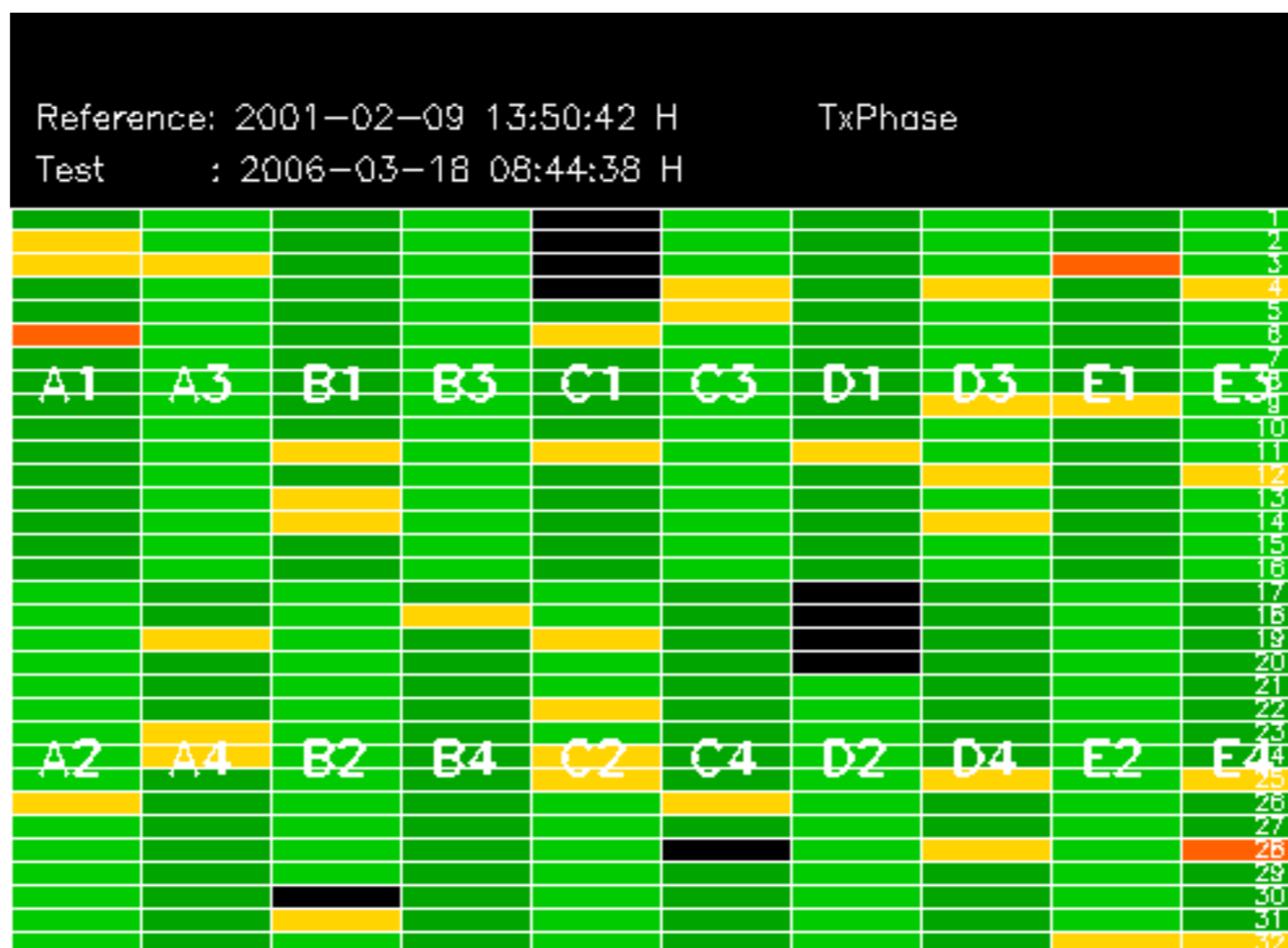


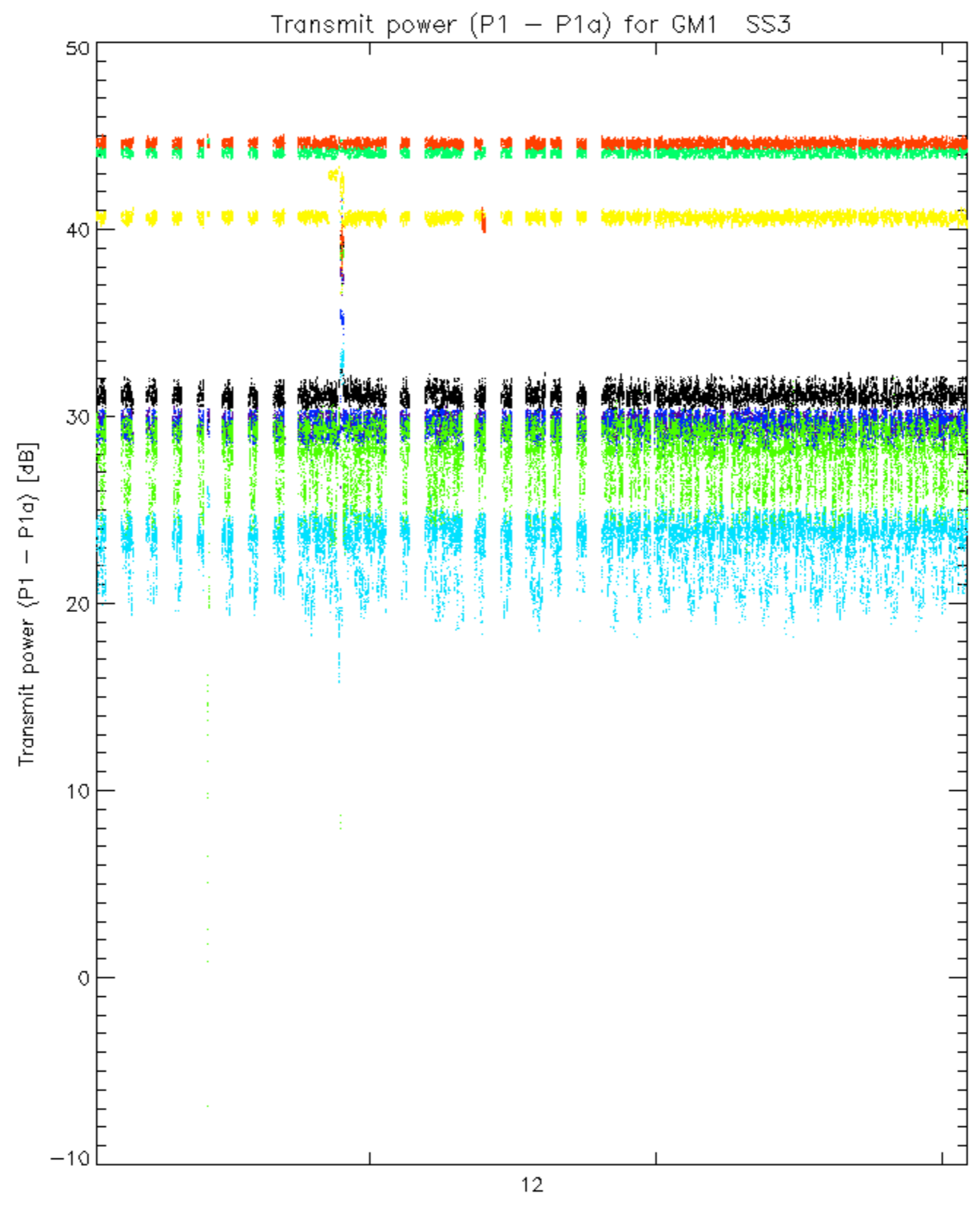


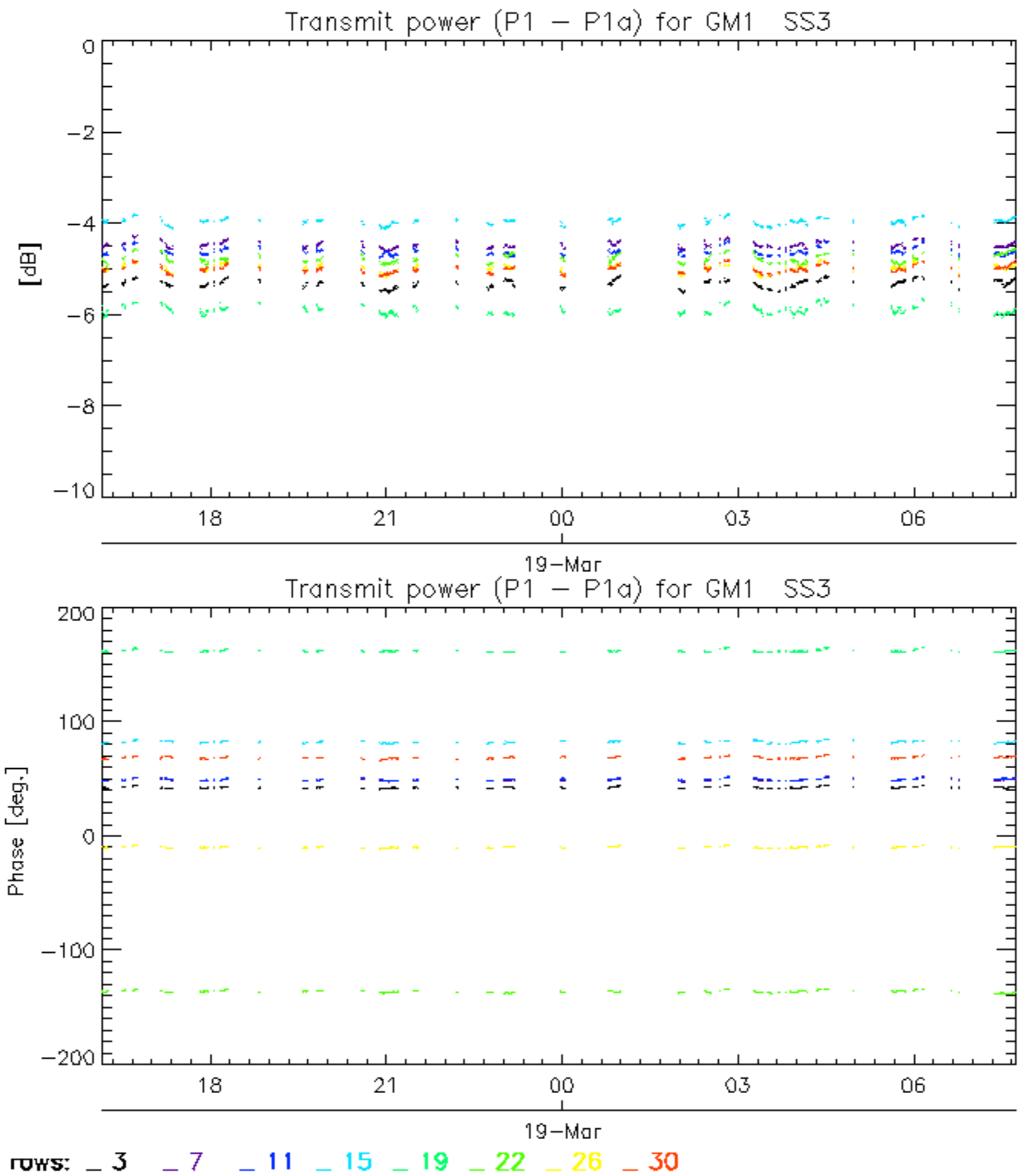
Summary of analysis for the last 3 days 2006031[789]

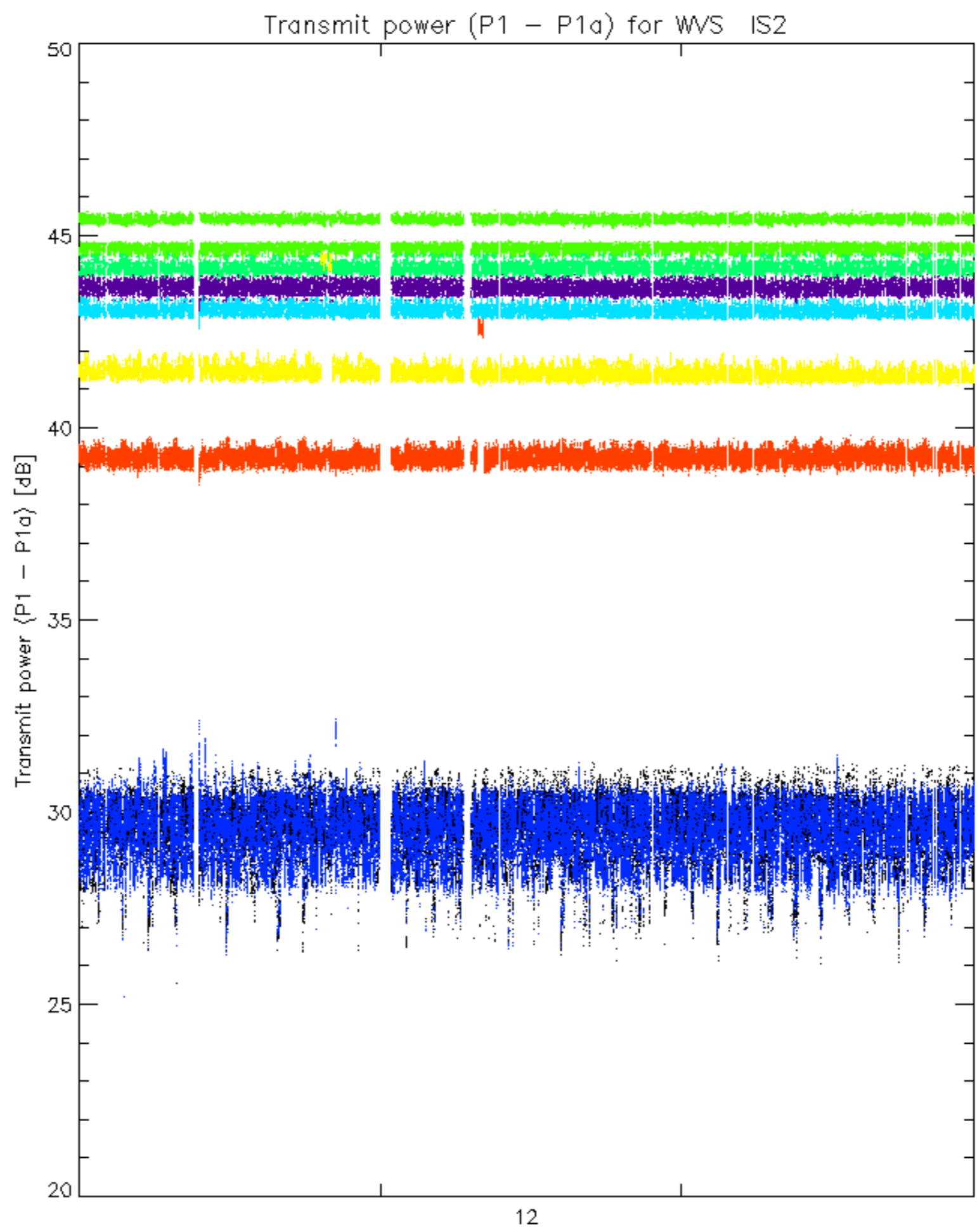
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDE20060318_005019_000002372046_00059_21155_1081.N1	1	0
ASA_WSM_1PNPDE20060318_160549_000002022046_00069_21165_1344.N1	0	34

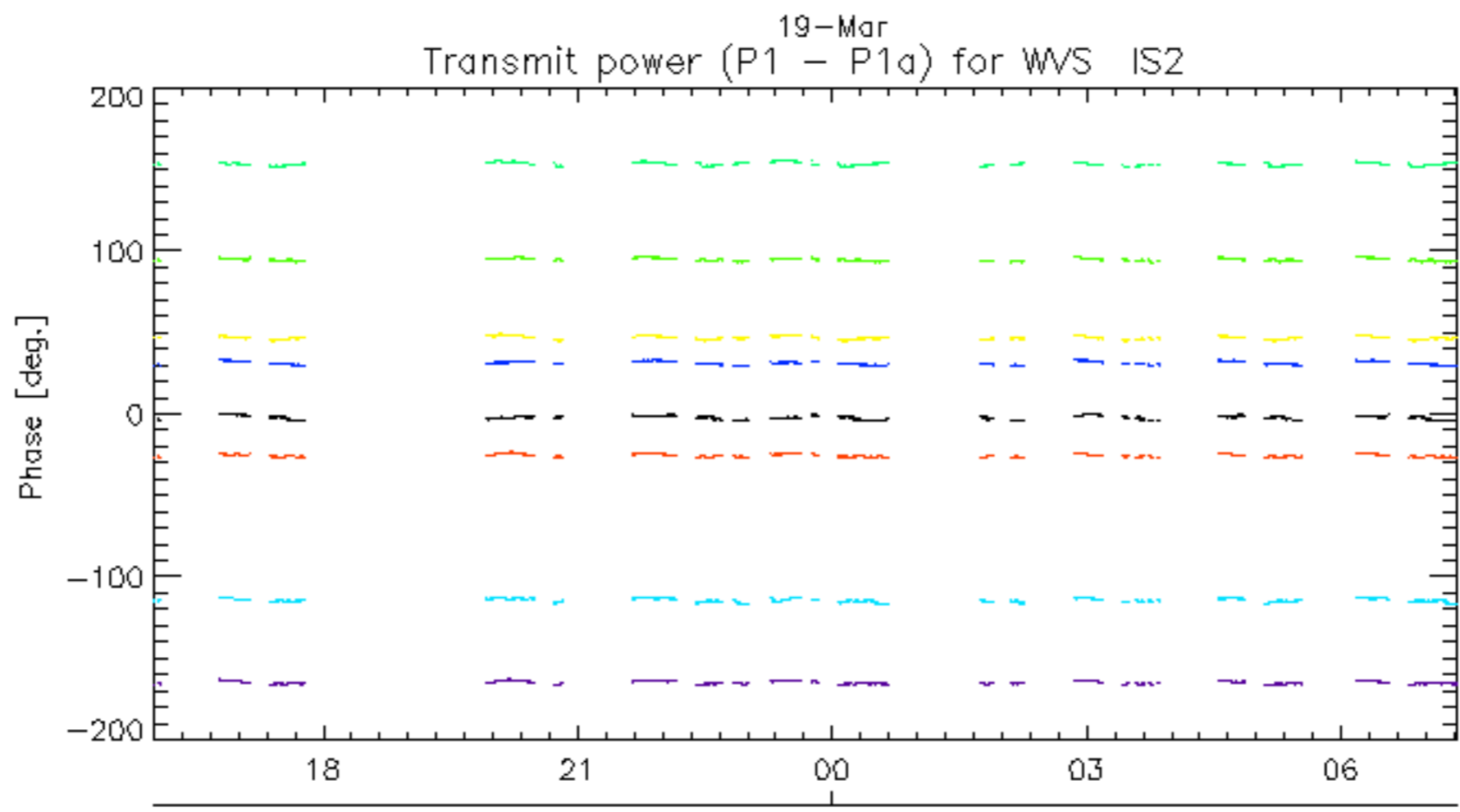
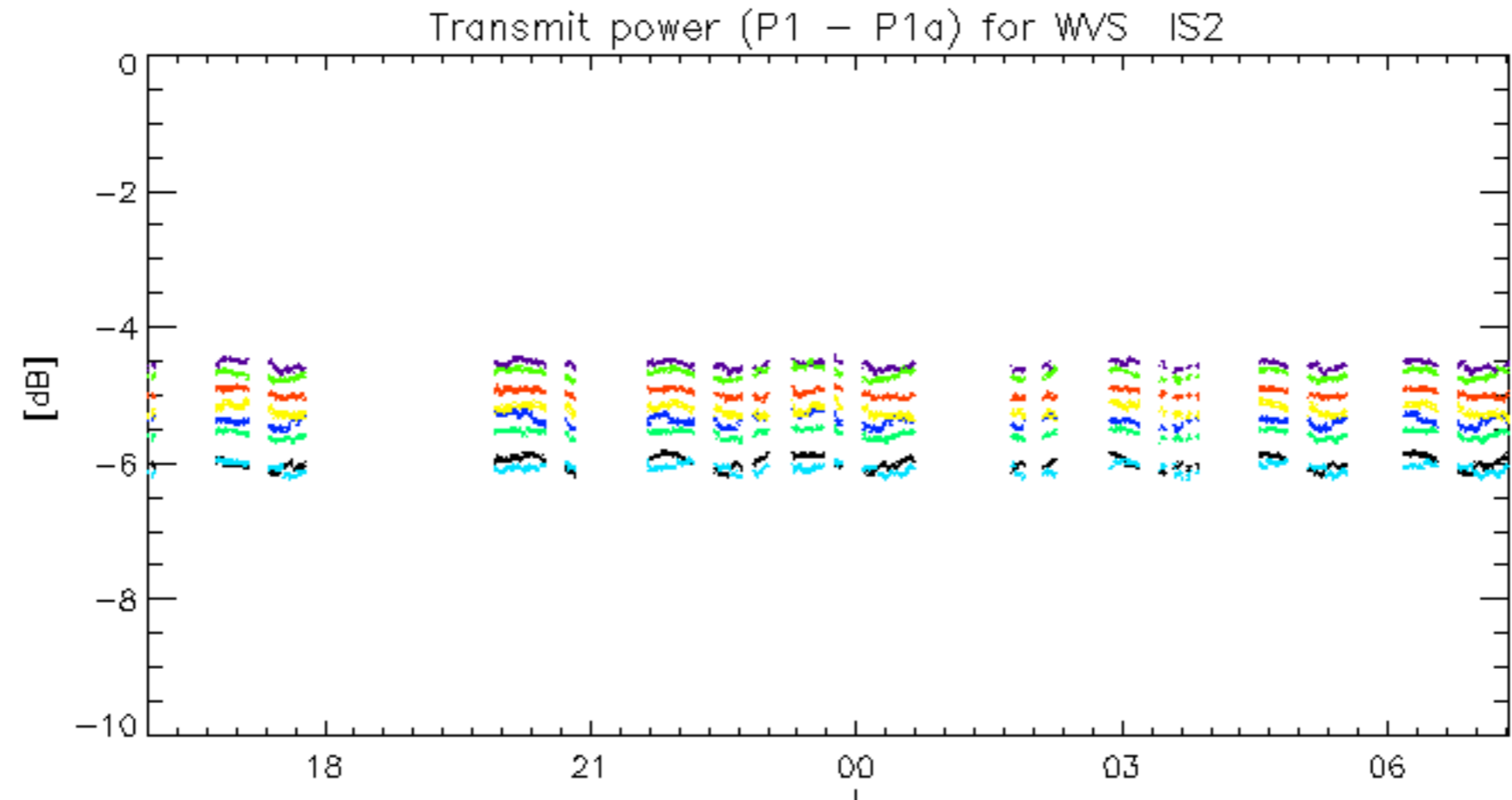








rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.