

PRELIMINARY REPORT OF 060317

last update on Fri Mar 17 16:29:55 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 2006-03-16 00:00:00 to 2006-03-17 16:29:55

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	44	51	8	1	27
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	44	51	8	1	27
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	51	8	1	27
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	51	8	1	27

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	56	35	12	53
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	56	35	12	53
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	56	35	12	53
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	56	35	12	53

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	20060317 055503
H	20060316 062640

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	-4.002716	0.009396	-0.000301
7	P1	-3.006270	0.008669	-0.030487
11	P1	-4.063321	0.020342	0.027883
15	P1	-6.083269	0.021441	-0.050550
19	P1	-3.290215	0.006601	-0.035383
22	P1	-4.458810	0.014764	-0.013638
26	P1	-4.194708	0.103625	0.120177
30	P1	-5.801834	0.144834	0.004029
3	P1	-16.982439	0.248013	0.018286
7	P1	-16.714493	0.102061	-0.128372
11	P1	-16.496765	0.325395	0.060884
15	P1	-13.057274	0.095089	-0.004236
19	P1	-13.934247	0.054100	-0.105462
22	P1	-15.579182	0.463400	-0.017257
26	P1	-15.768503	0.301384	-0.048491
30	P1	-16.499899	0.304458	-0.139909

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.402874	0.086975	0.096003
7	P2	-22.376040	0.095360	0.108290
11	P2	-16.227421	0.100227	0.043287
15	P2	-7.164657	0.098865	0.006655
19	P2	-9.133336	0.091109	0.005011
22	P2	-17.939955	0.089187	-0.049222
26	P2	-16.211372	0.094515	-0.024441
30	P2	-19.647392	0.084299	-0.029753

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194085	0.005927	-0.000674
7	P3	-8.194085	0.005927	-0.000674
11	P3	-8.194085	0.005927	-0.000674
15	P3	-8.194085	0.005927	-0.000674
19	P3	-8.194085	0.005927	-0.000674
22	P3	-8.194085	0.005927	-0.000674
26	P3	-8.194085	0.005927	-0.000674
30	P3	-8.194086	0.005927	-0.000674

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	-3.837906	3.021602	0.235591
7	P1	-2.828302	3.171725	0.302687
11	P1	-3.017762	3.193624	0.268499
15	P1	-3.662135	3.166130	0.287054
19	P1	-3.464929	3.067539	0.230973
22	P1	-5.259630	2.819600	0.217317
26	P1	-5.943596	2.997532	0.437284
30	P1	-5.283665	2.852825	0.290247
3	P1	-11.639277	1.986285	0.200054
7	P1	-10.036600	2.200446	0.193729
11	P1	-10.334351	2.193194	0.134704
15	P1	-10.879929	2.202575	0.146320
19	P1	-15.466400	1.622377	0.134580
22	P1	-20.313055	2.260363	0.123538

26	P1	-16.316715	2.123492	0.124858
30	P1	-18.352449	1.529354	0.147601

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.101305	2.089488	0.125567
7	P2	-22.547401	2.444035	-0.039629
11	P2	-11.275010	2.268486	0.160162
15	P2	-4.911772	2.947297	0.234184
19	P2	-6.920960	2.652849	0.222853
22	P2	-8.210094	2.488315	0.175343
26	P2	-23.897459	2.503170	-0.222515
30	P2	-22.037350	2.362963	-0.123759

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.023273	0.002478	0.010200
7	P3	-8.023292	0.002475	0.010090
11	P3	-8.023217	0.002484	0.010334
15	P3	-8.023401	0.002478	0.009849
19	P3	-8.023287	0.002483	0.009851
22	P3	-8.023341	0.002476	0.009978
26	P3	-8.023385	0.002475	0.010243
30	P3	-8.023226	0.002480	0.010209

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	0.000555571
	stdev	1.75876e-07
MEAN Q	mean	0.000514788
	stdev	2.21458e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138073
	stdev	0.00119040
STDEV Q	mean	0.138434
	stdev	0.00120833



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006031[567]

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_1PNPDE20060315_004510_000001932046_00016_21112_0858.N1	1	0
ASA_IMM_1PNPDE20060315_155429_000000372046_00026_21122_0885.N1	1	0
ASA_IMM_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDK20060315_124554_000000702046_00024_21120_0330.N1	1	0
ASA_WVS_1PNPDE20060315_003528_000000002046_00016_21112_0236.N1	1	0

ASA_WSM_1PNPDE20060315_030808_000001832046_00018_21114_0795.N1	0	1
ASA_WSM_1PNPDE20060315_160013_000001282046_00026_21122_0852.N1	0	70



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	
<input type="checkbox"/>	

7.4 - Unbiased Doppler Error for GM1

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

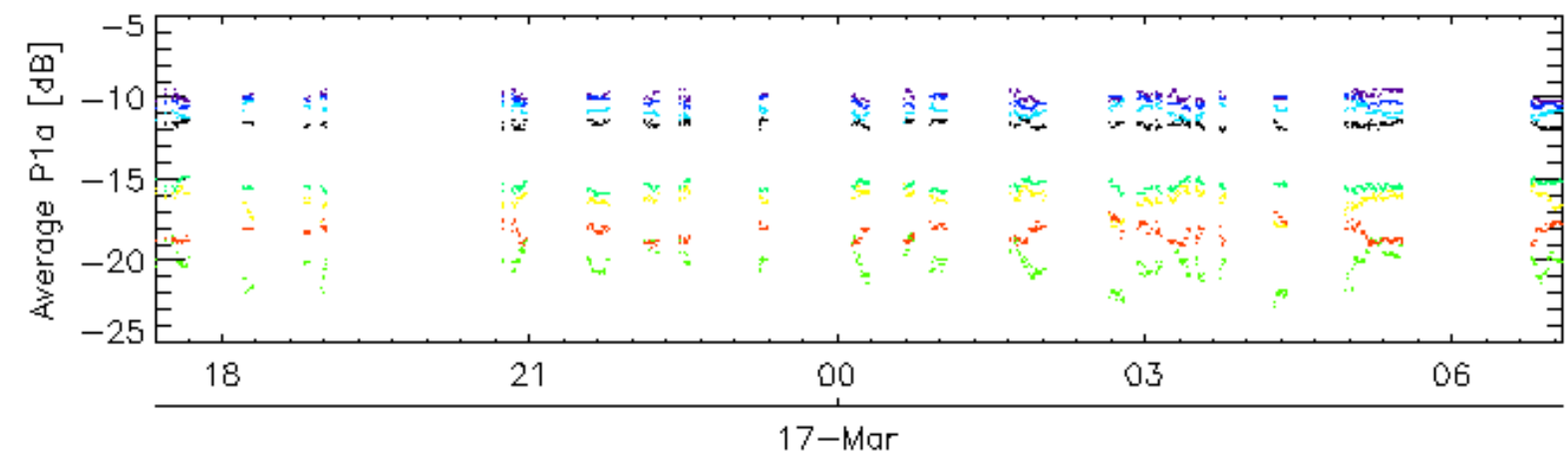
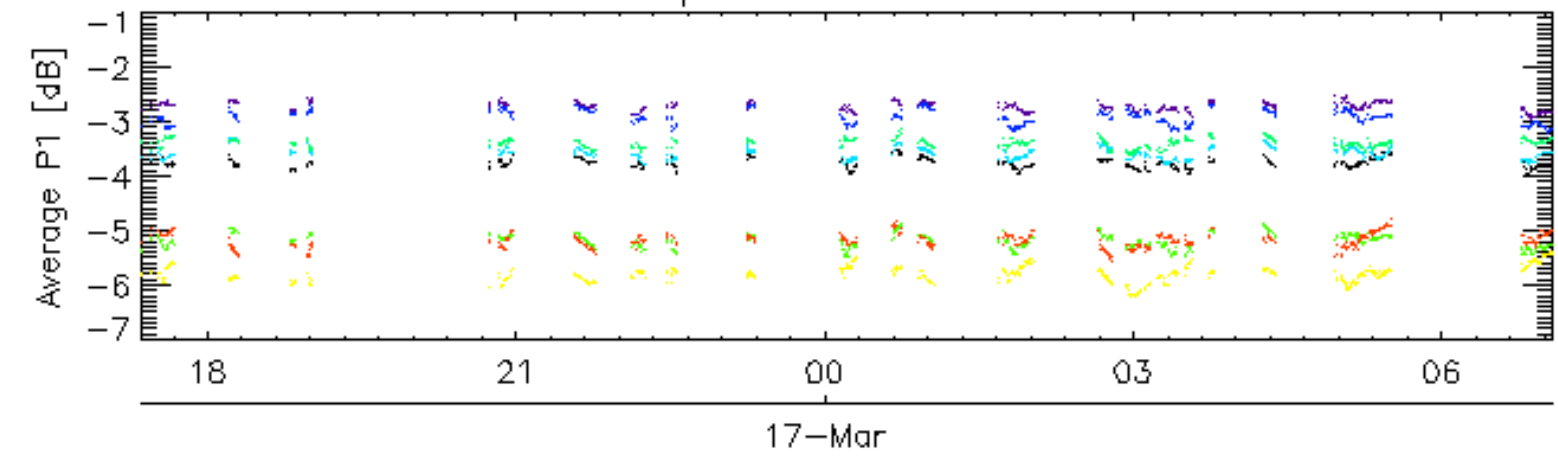
7.5 - Absolute Doppler for GM1

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

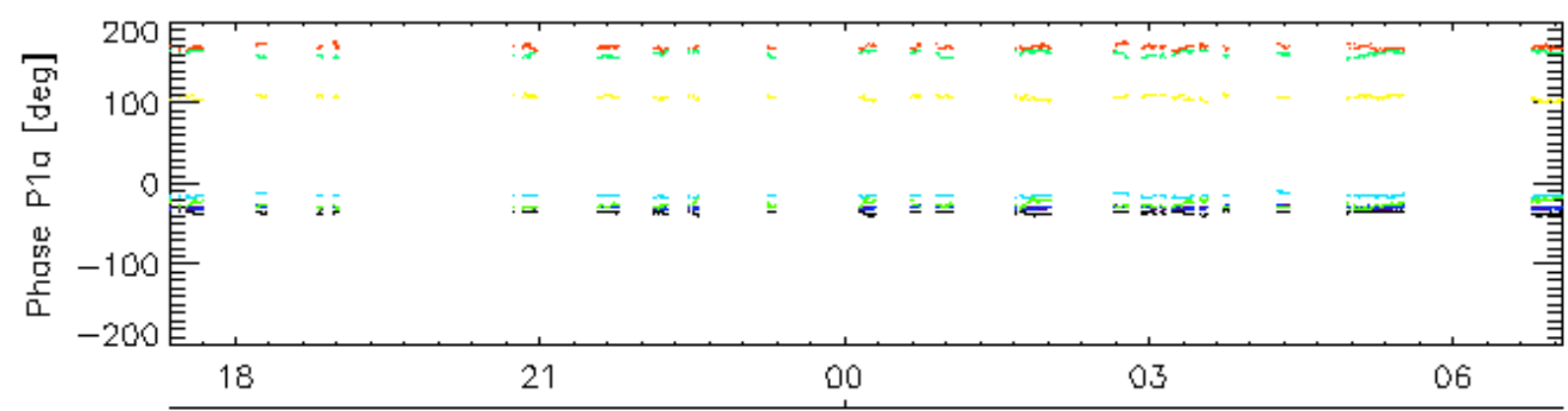
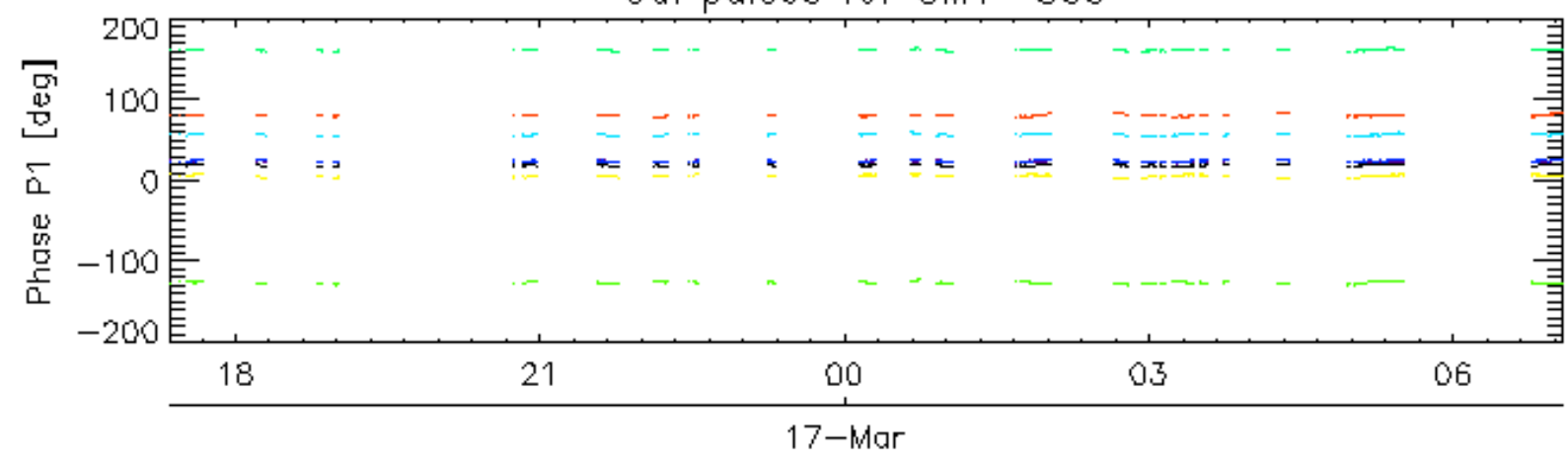
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

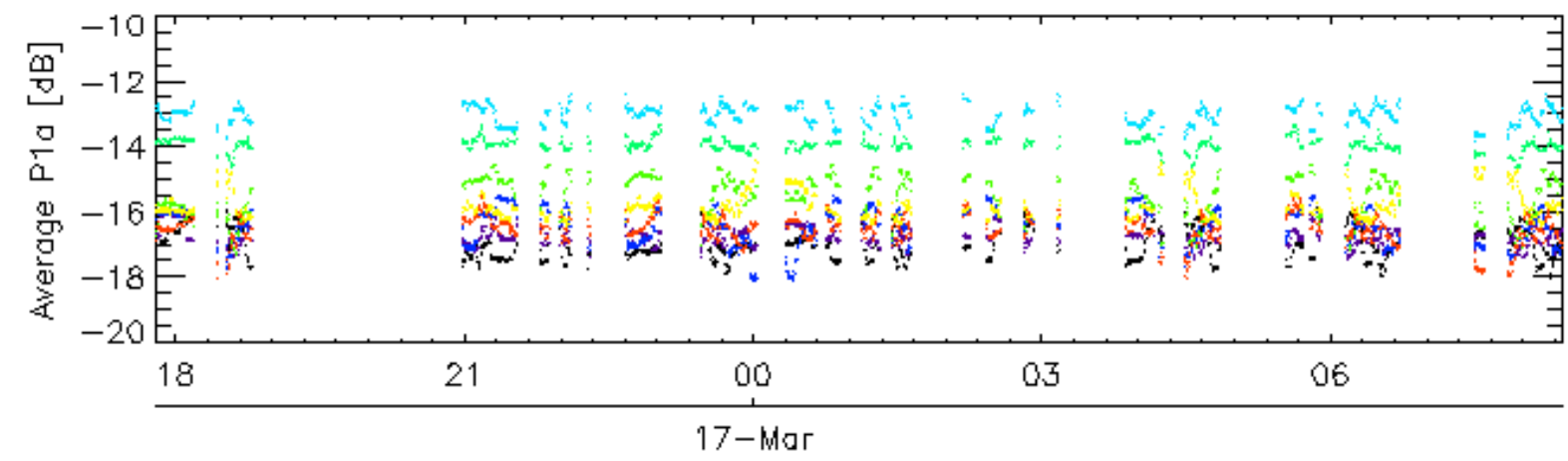
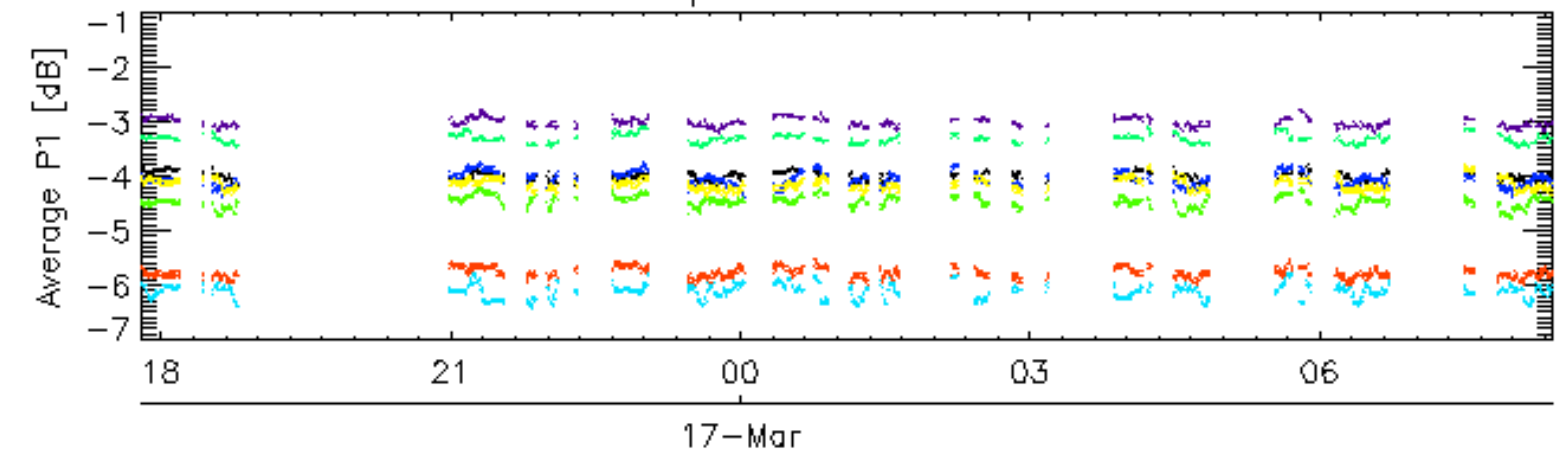


Cal pulses for GM1 SS3

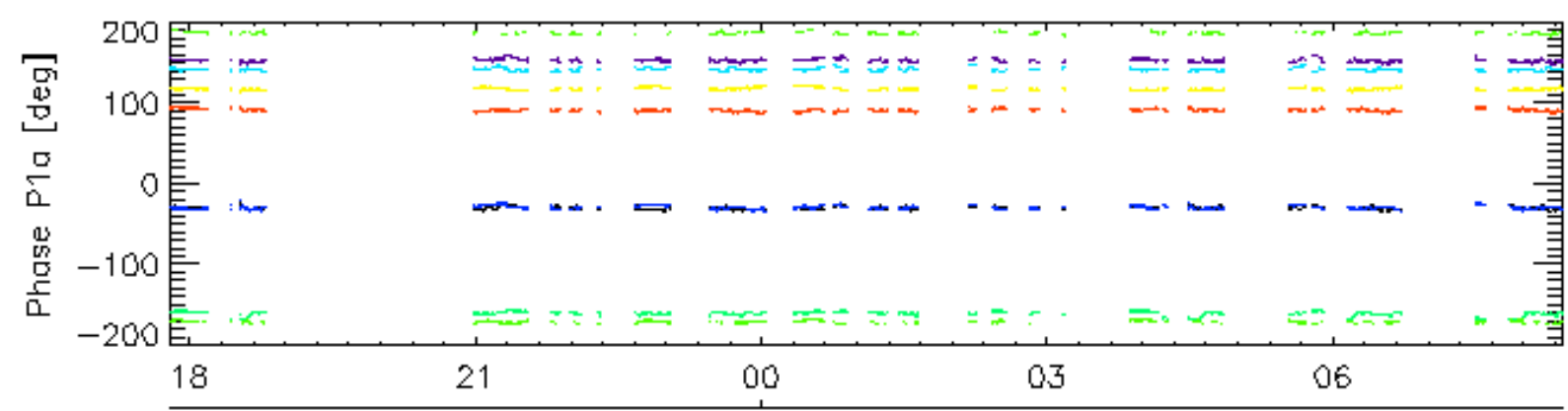
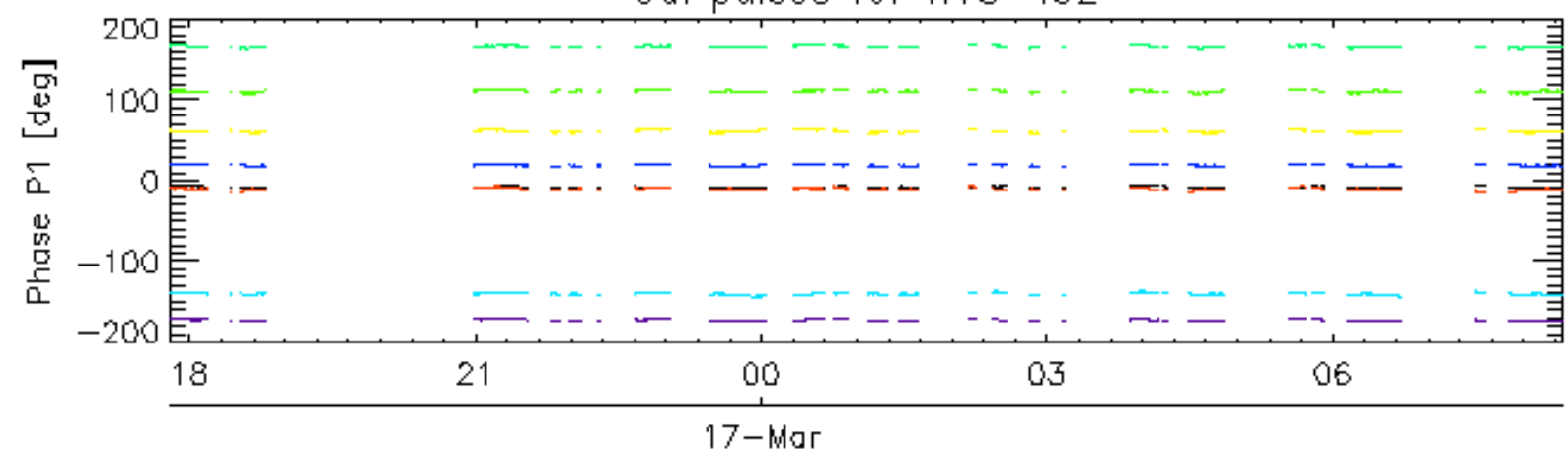


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

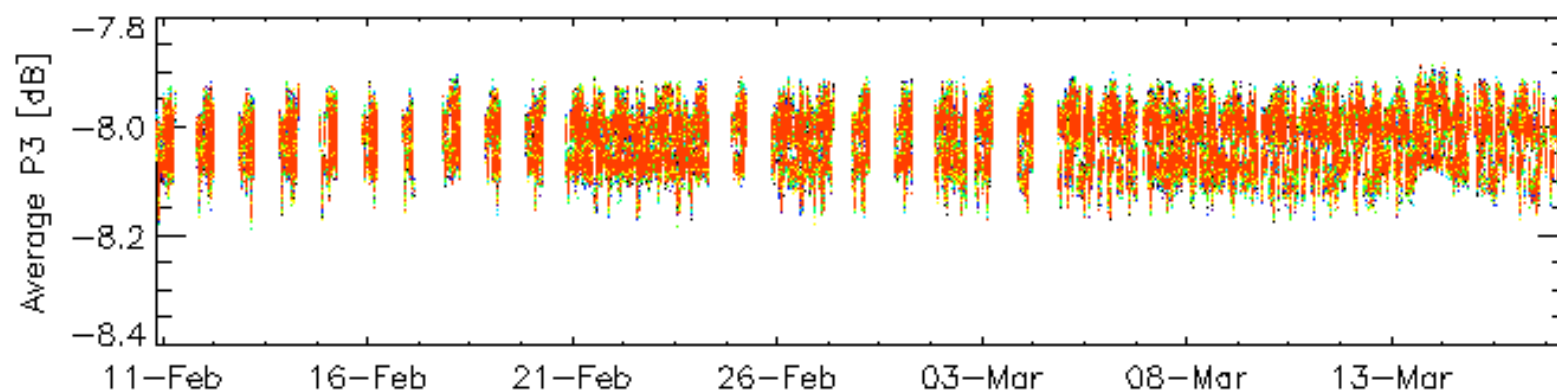
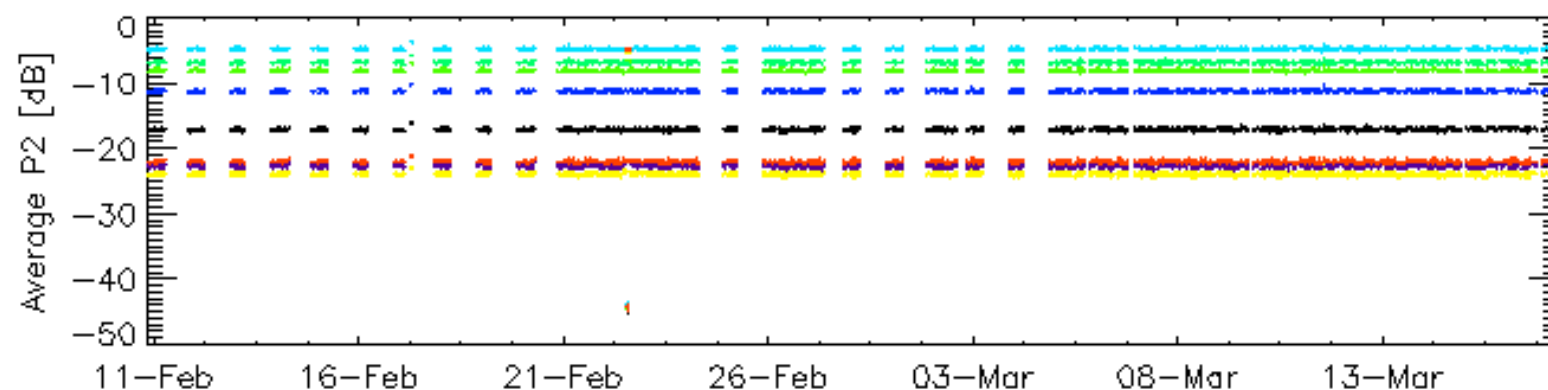
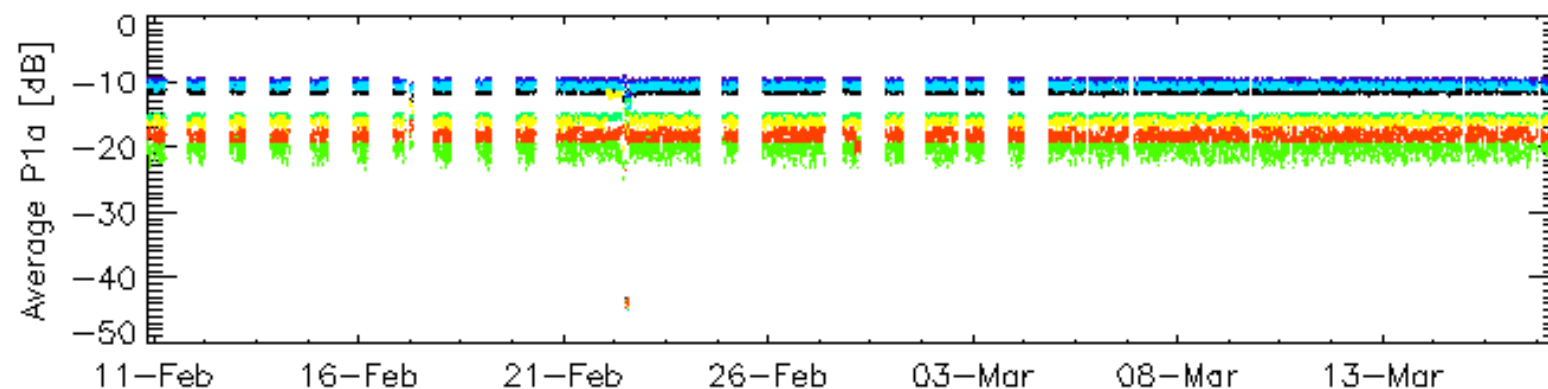
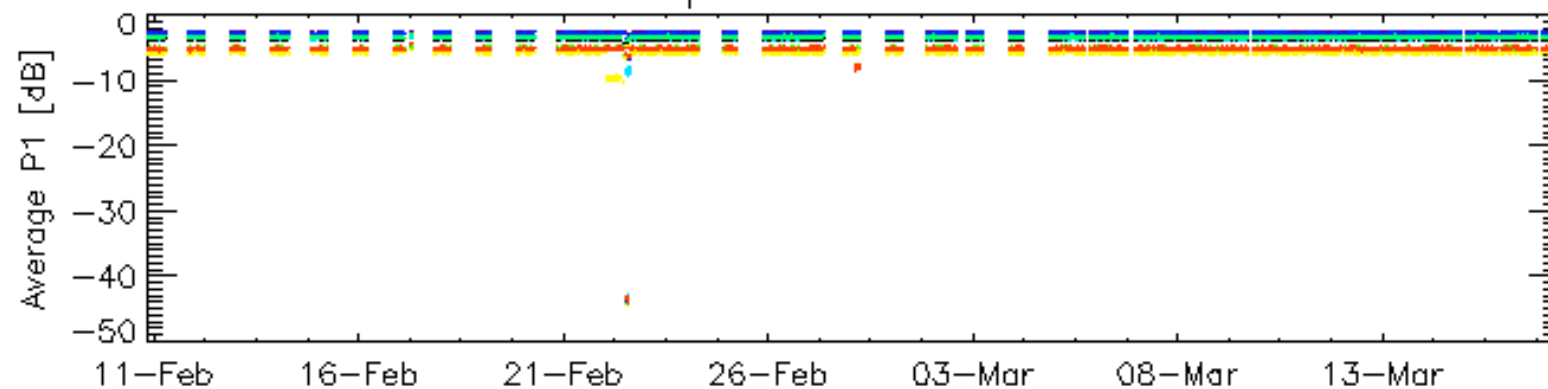


Cal pulses for WVS IS2



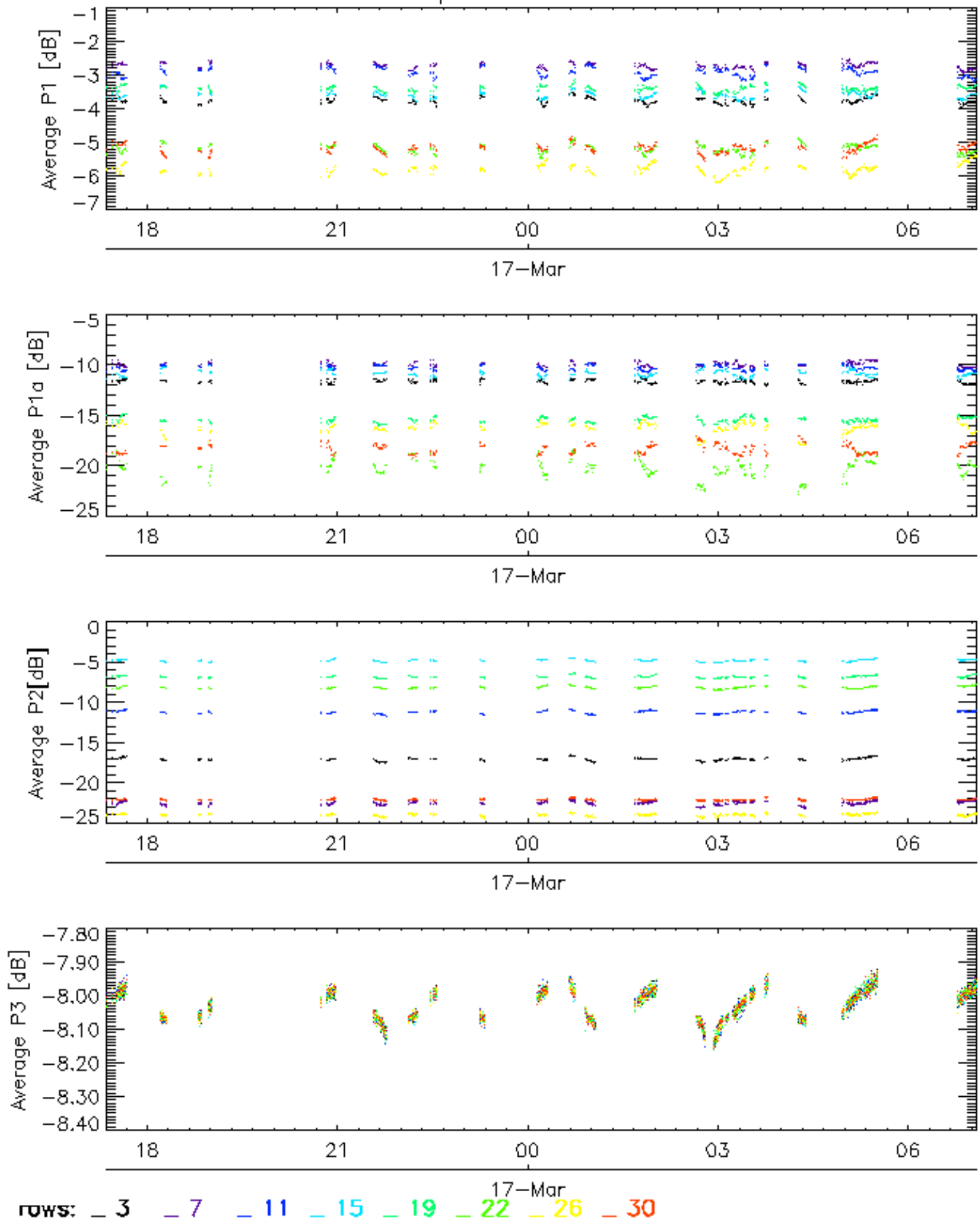
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

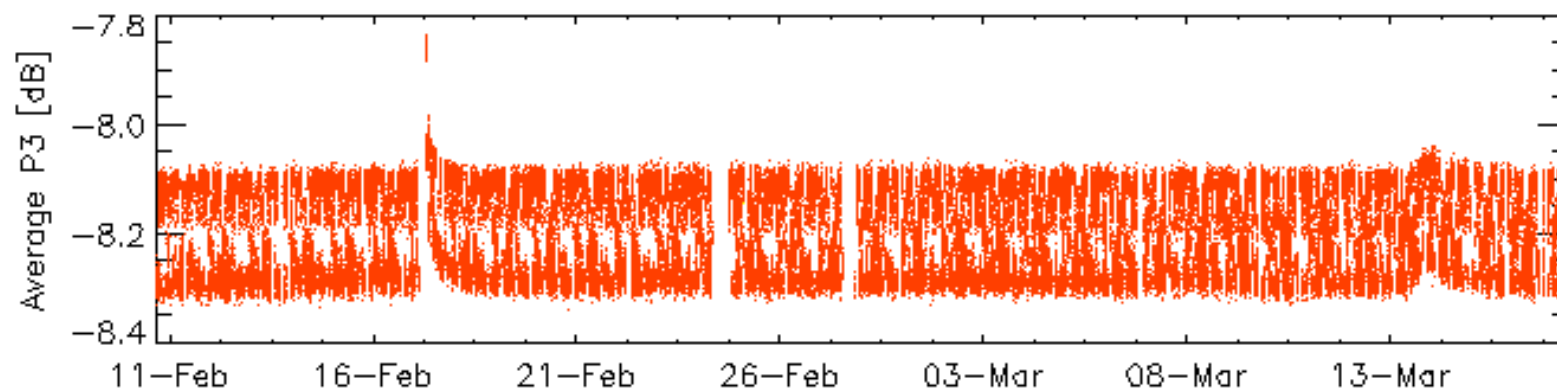
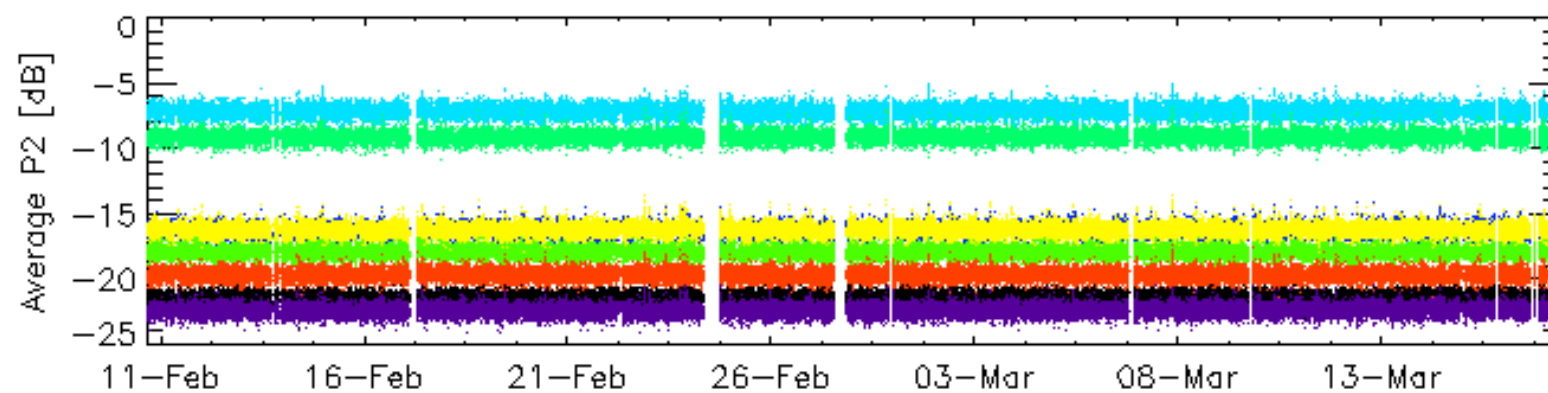
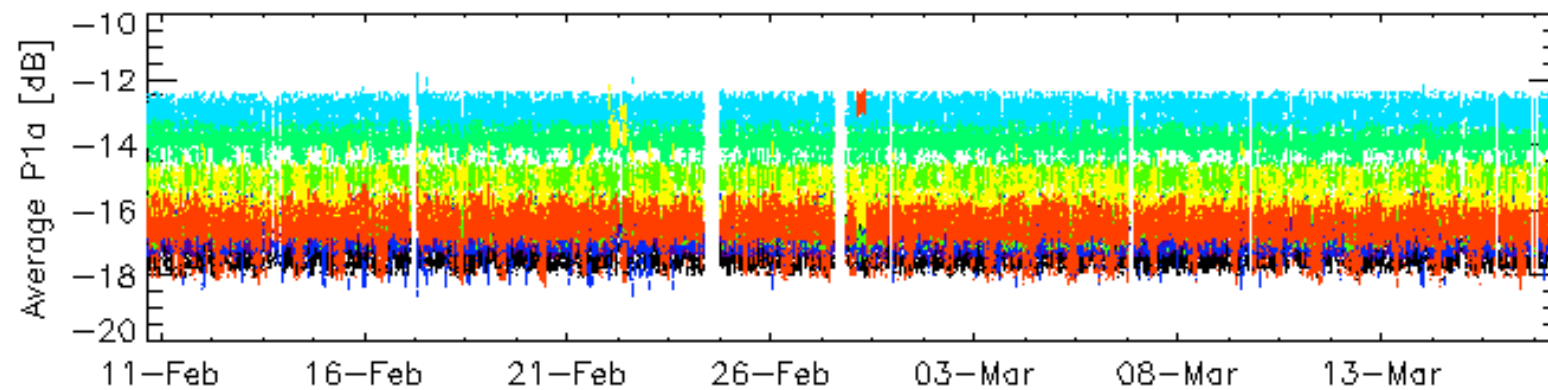
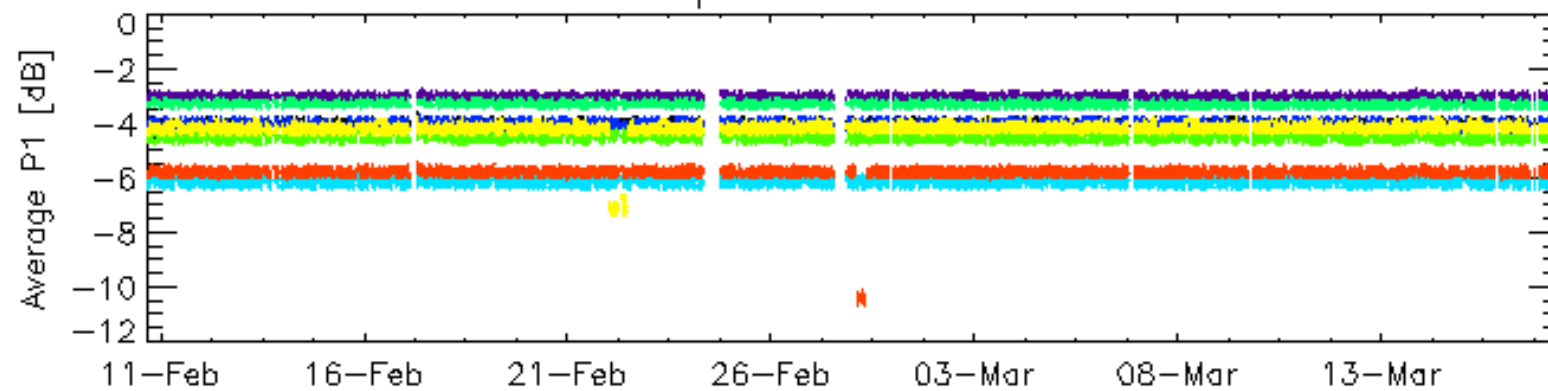


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

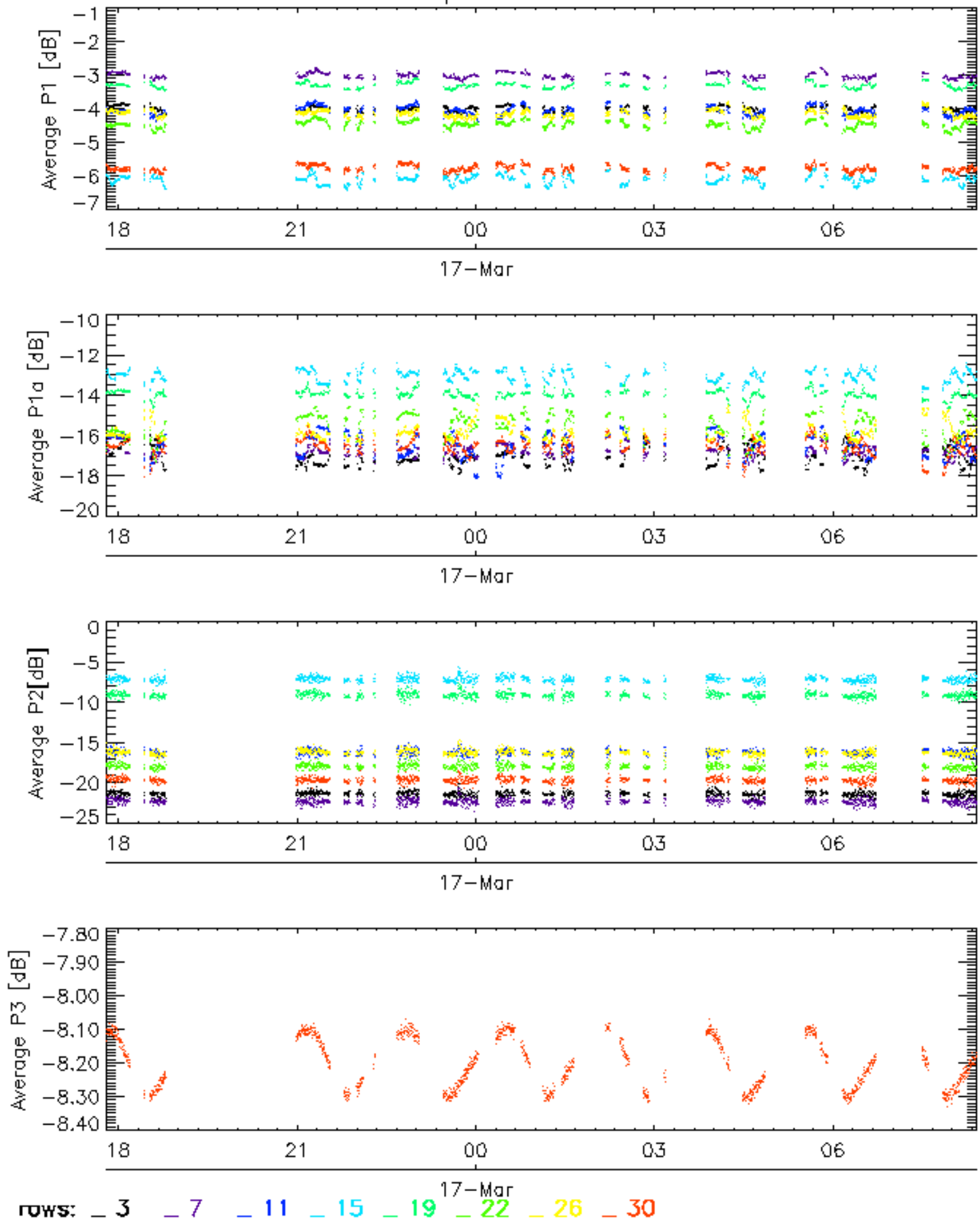


Cal pulses for WVS IS2



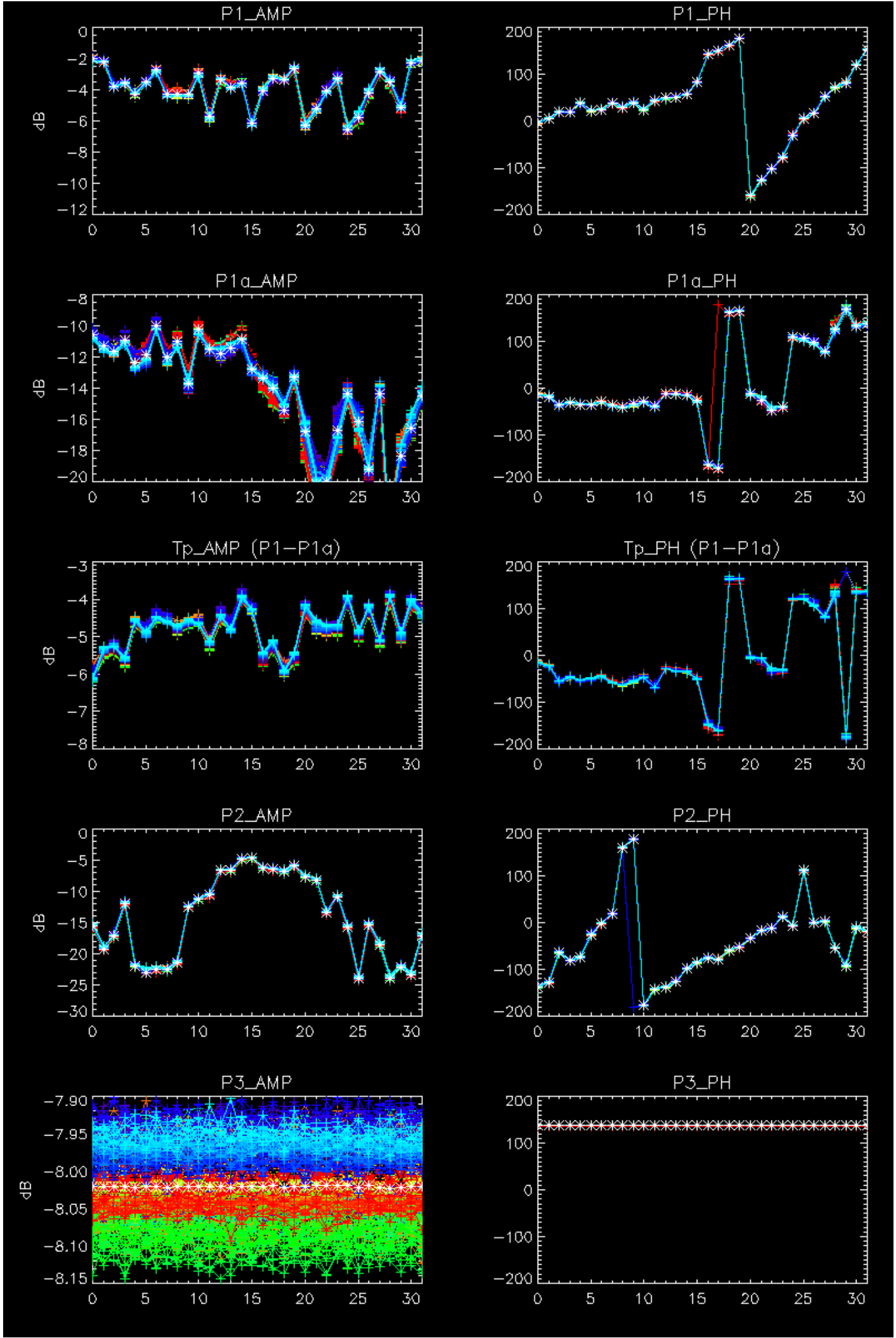
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

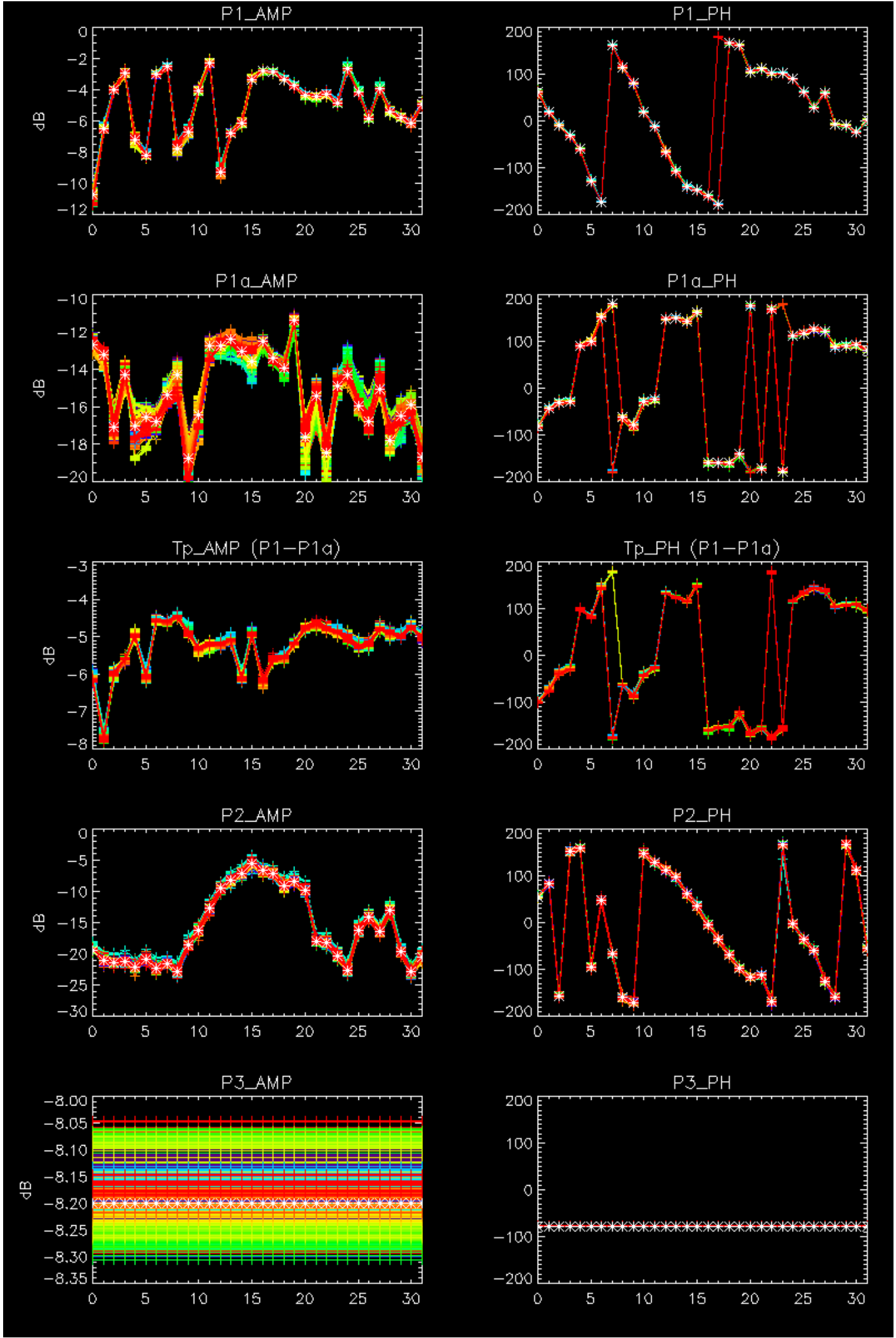
Cal pulses for WVS IS2



No anomalies observed on available browse products

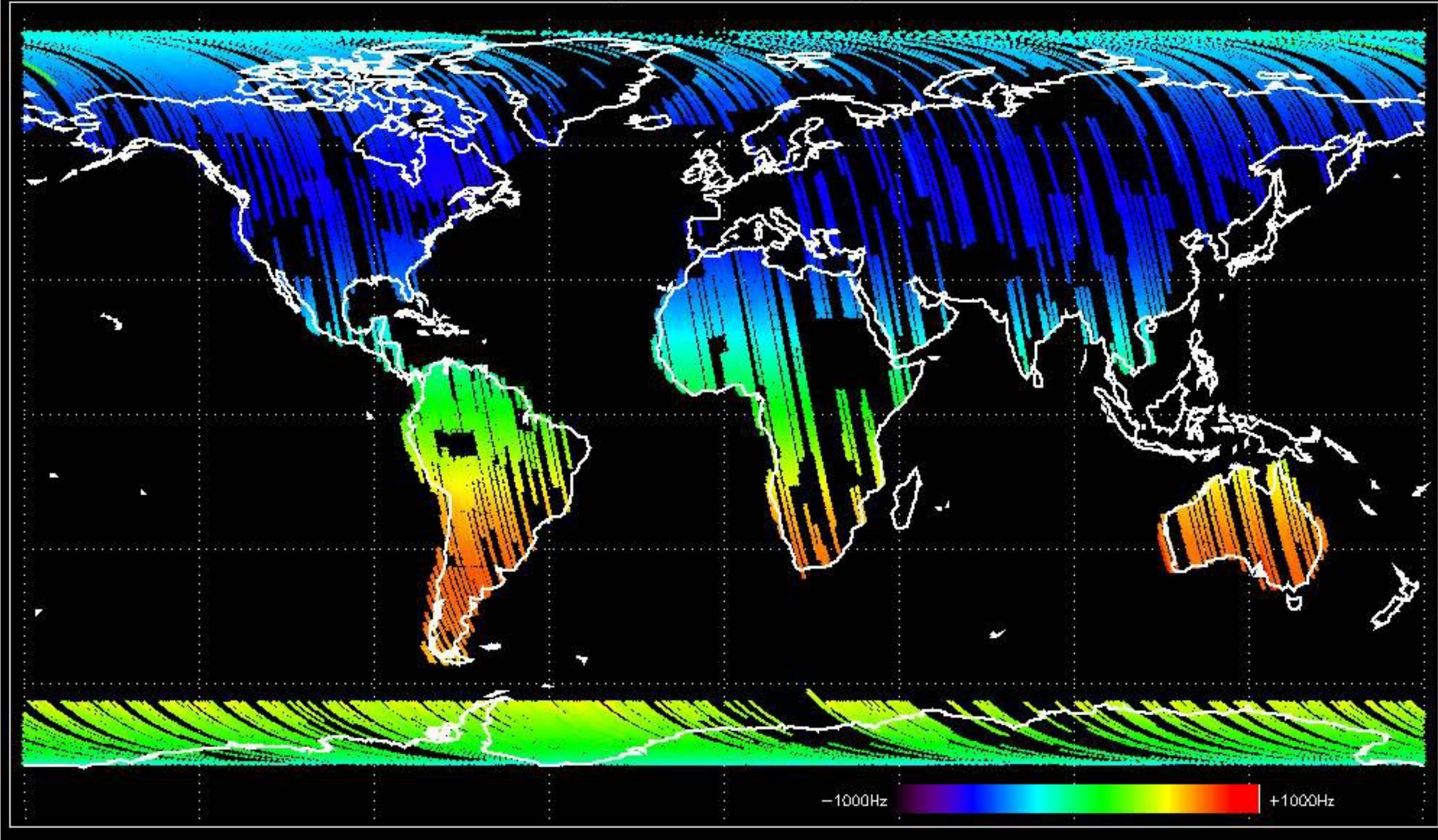
No anomalies observed.



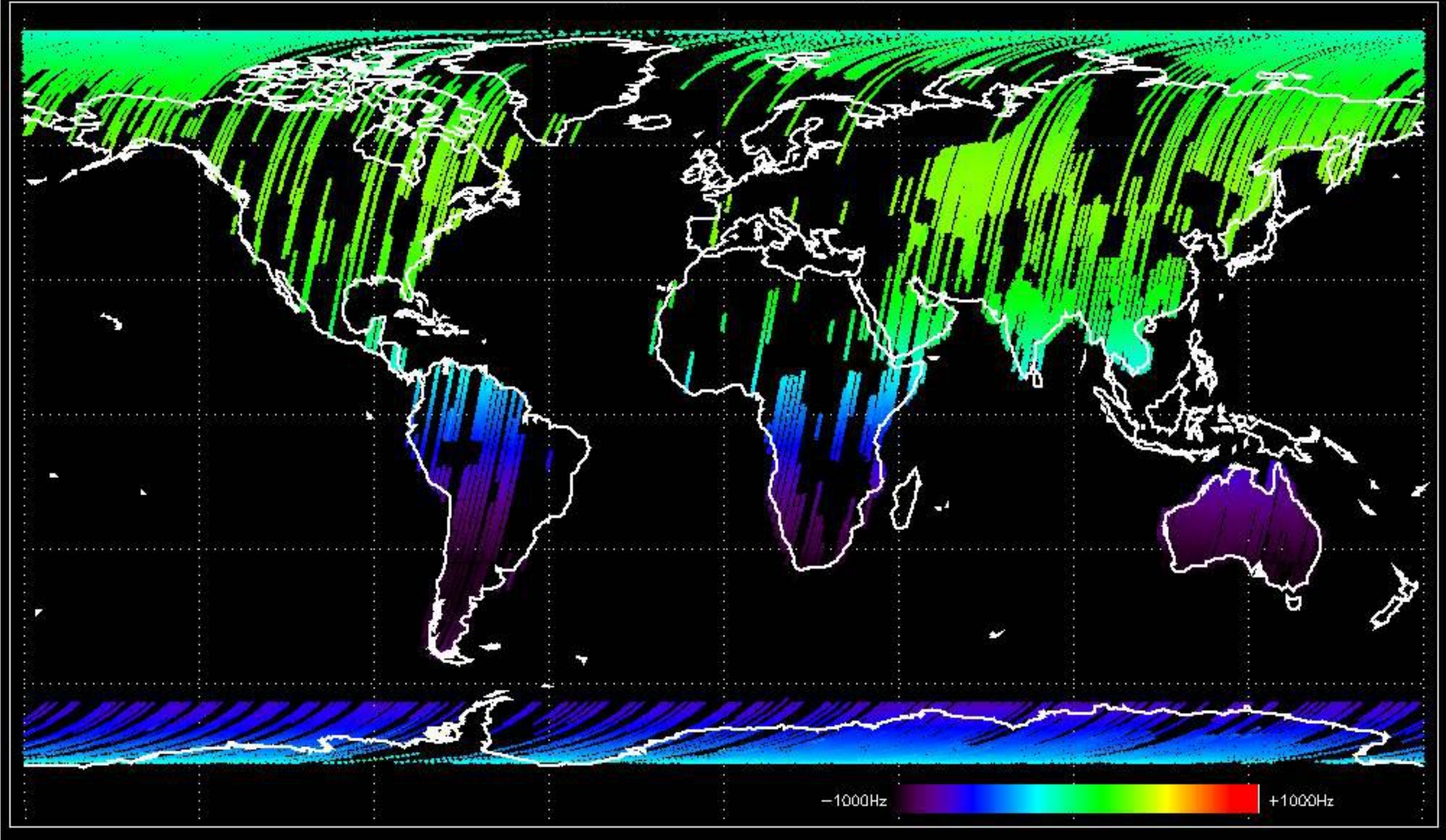


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

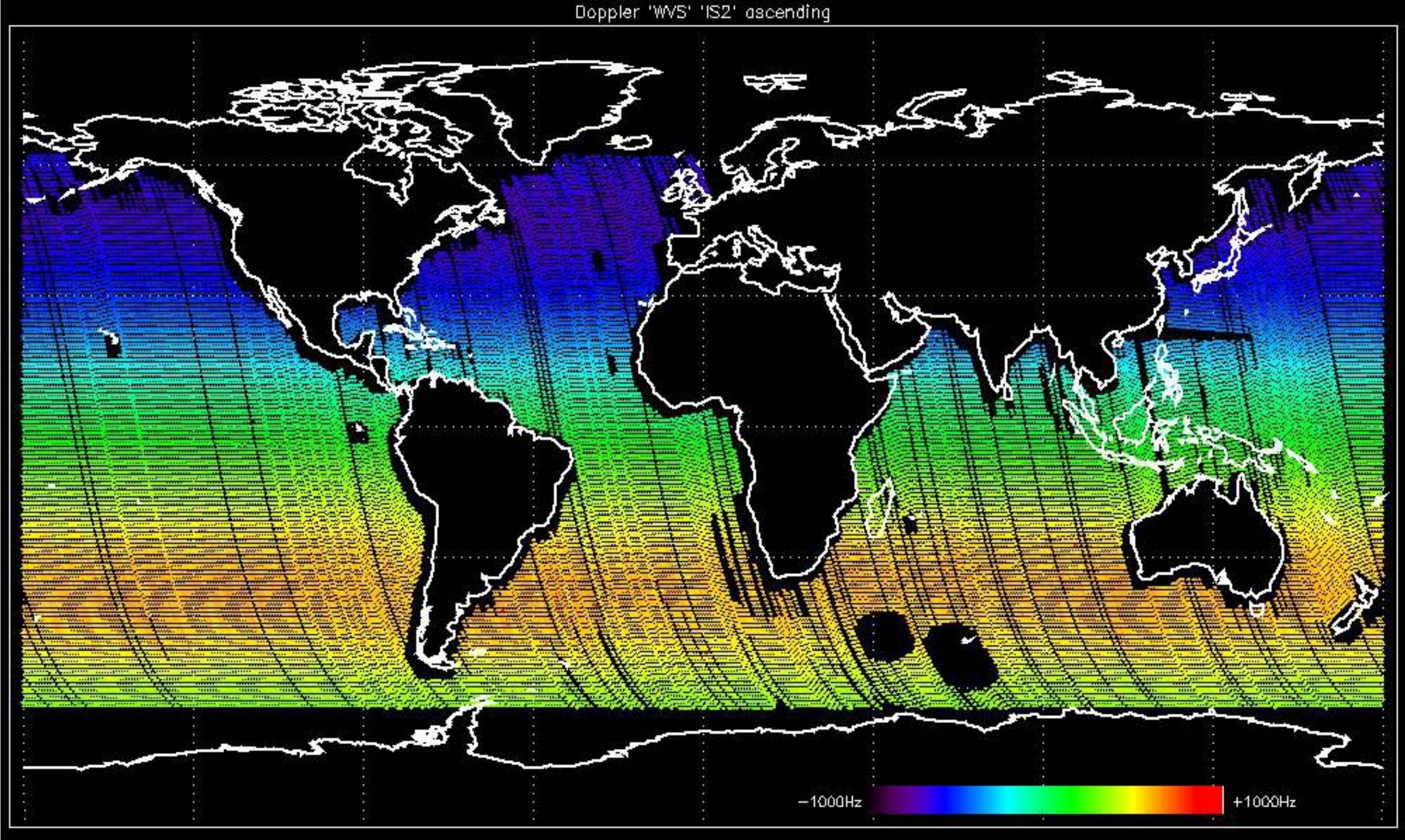
Doppler 'GM1' 'SS1' ascending



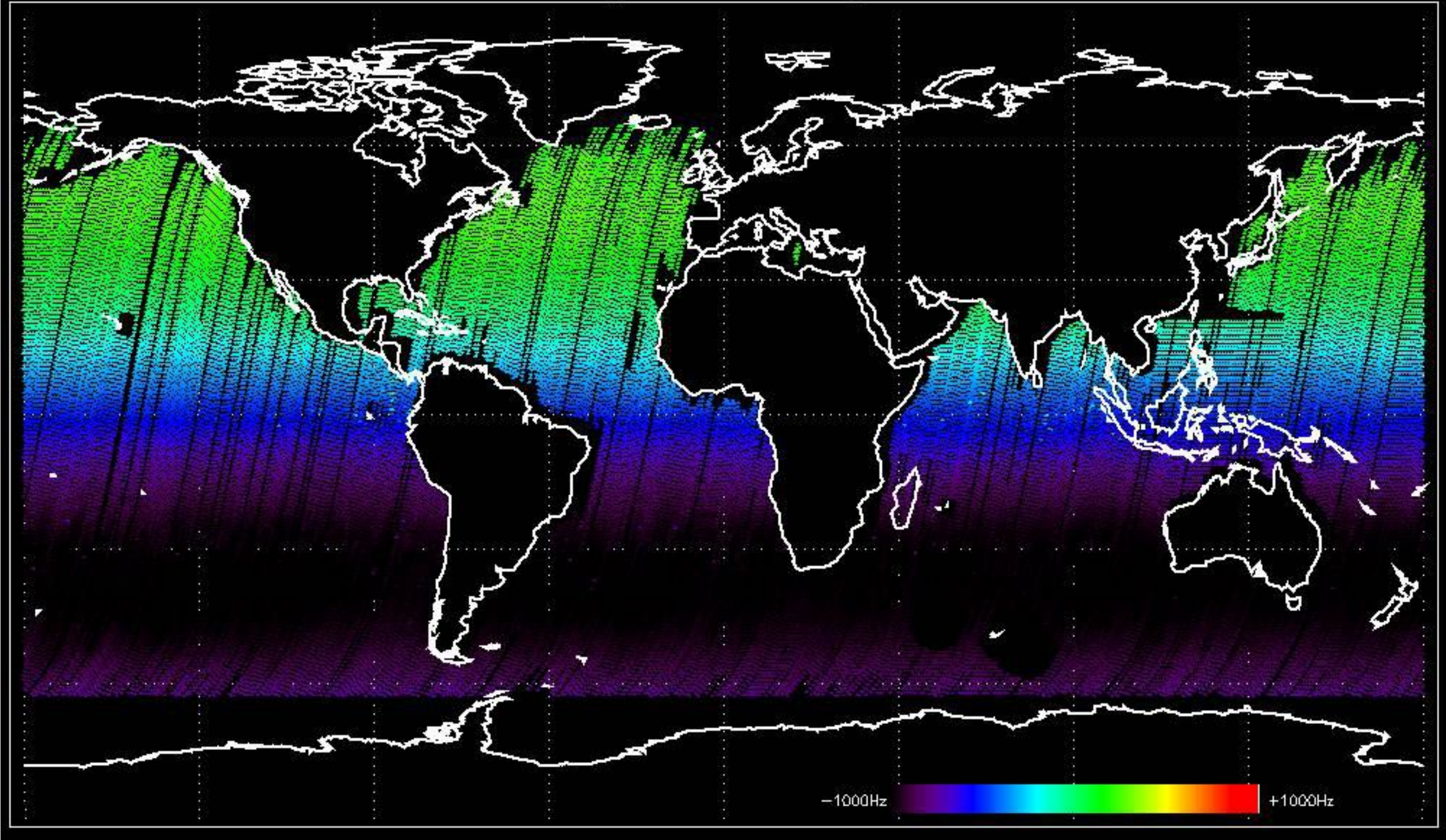
Doppler 'GM1' 'SS1' descending



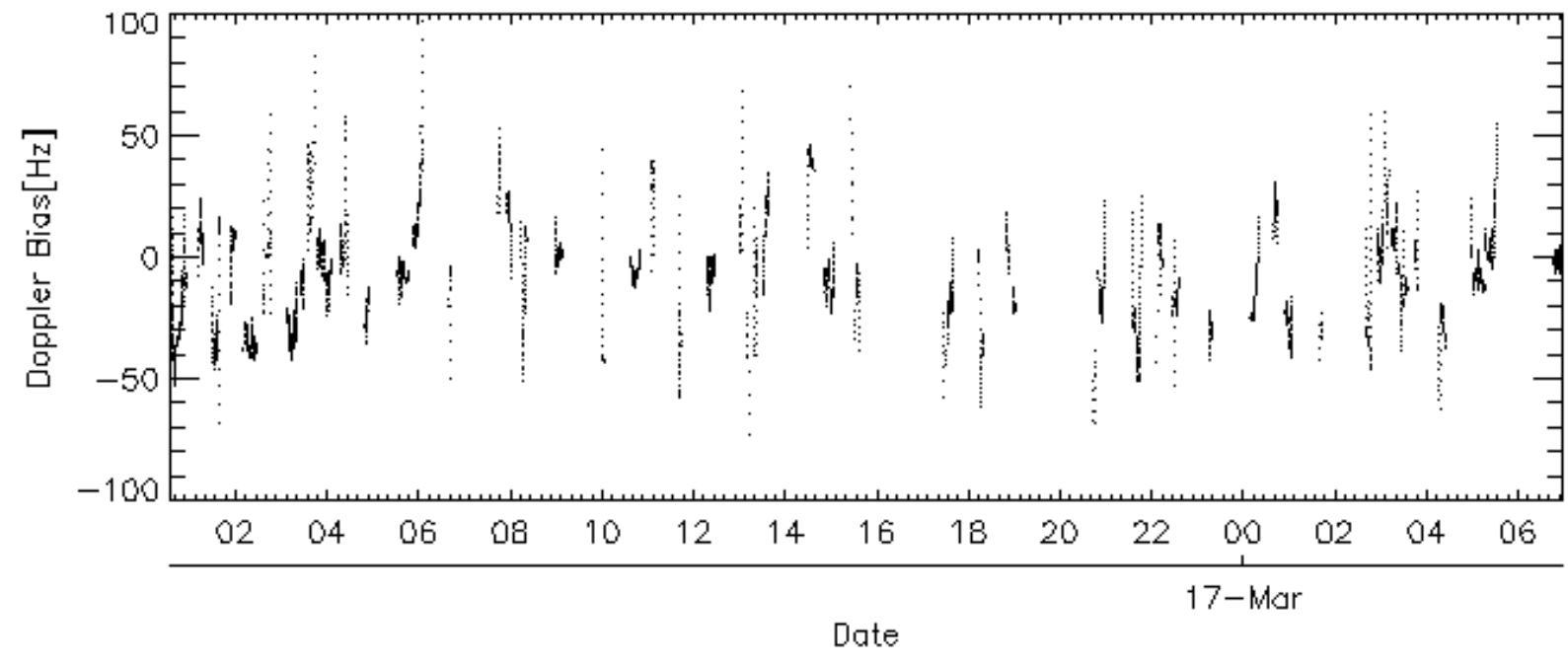
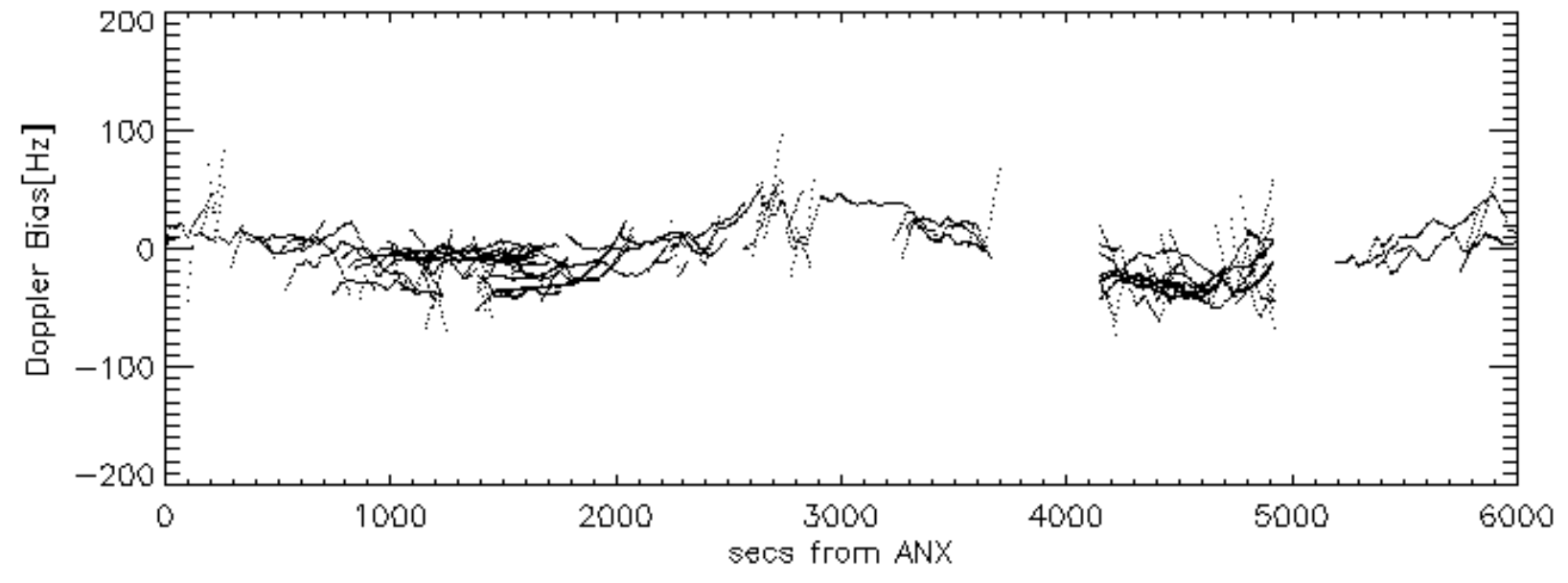
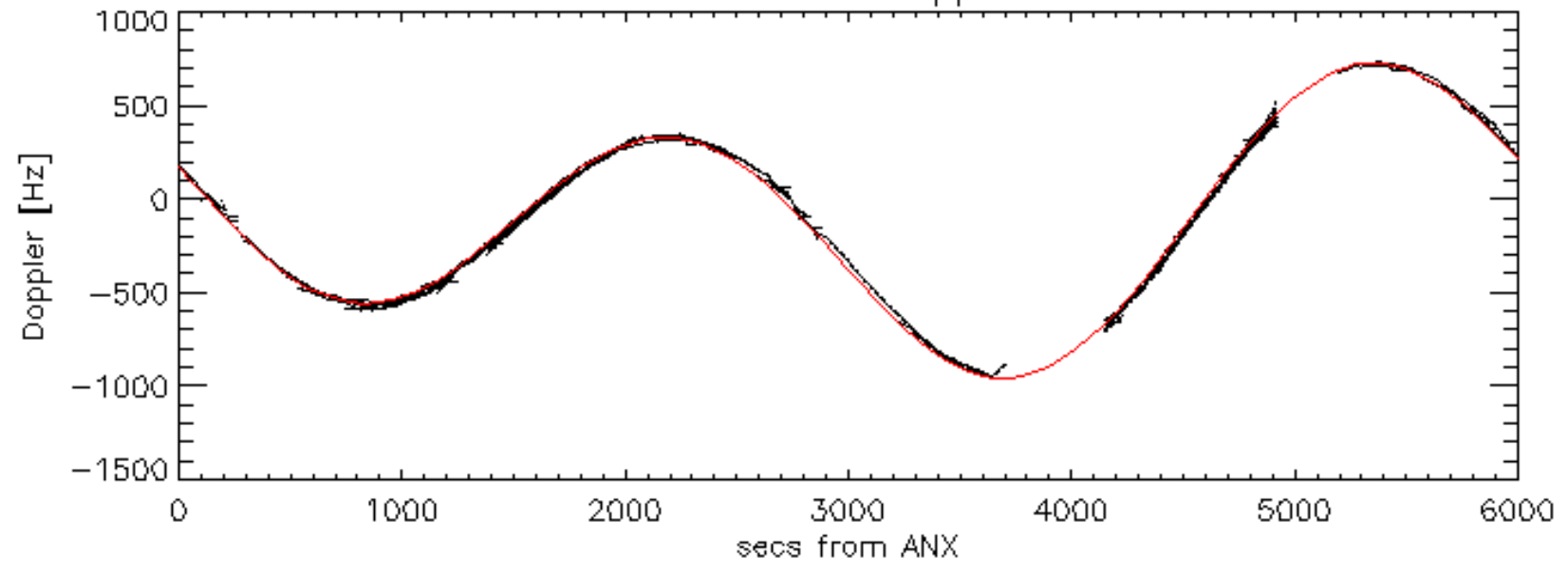
Doppler 'WVS' 'IS2' ascending



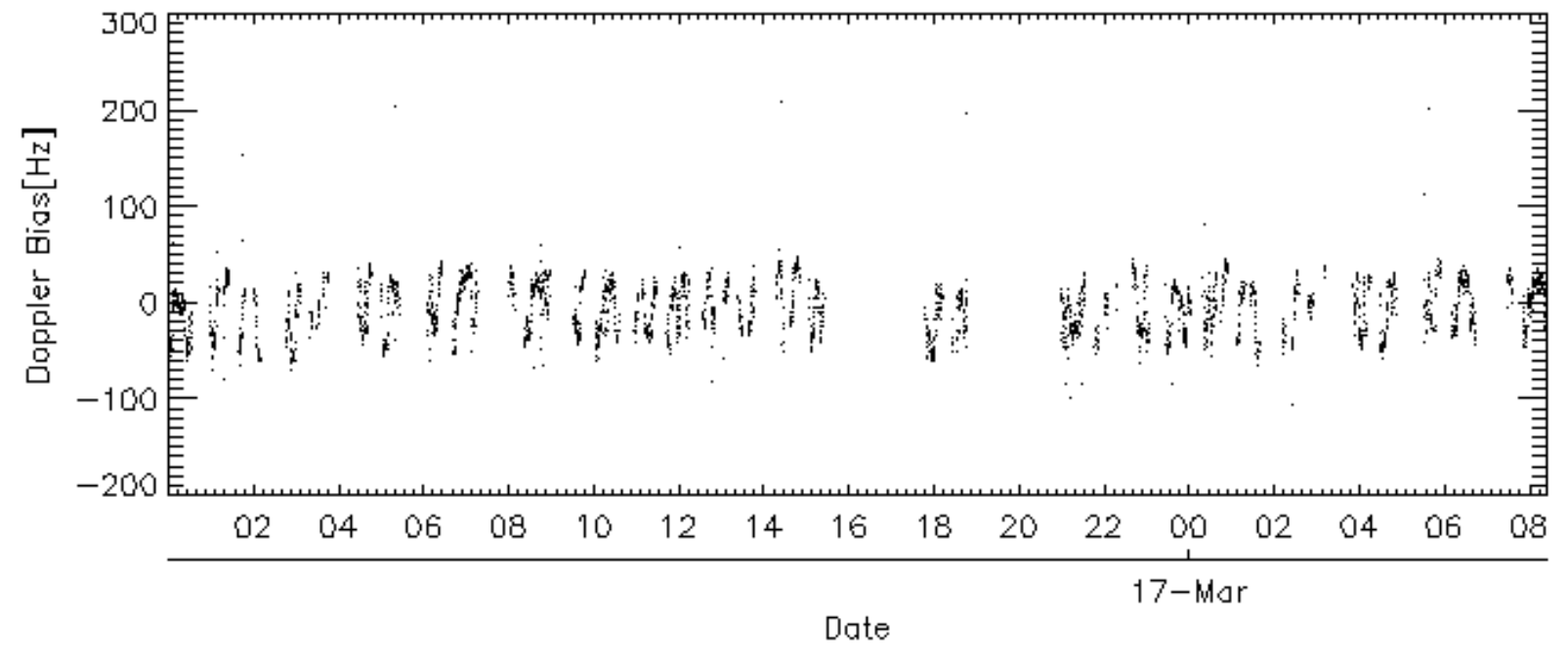
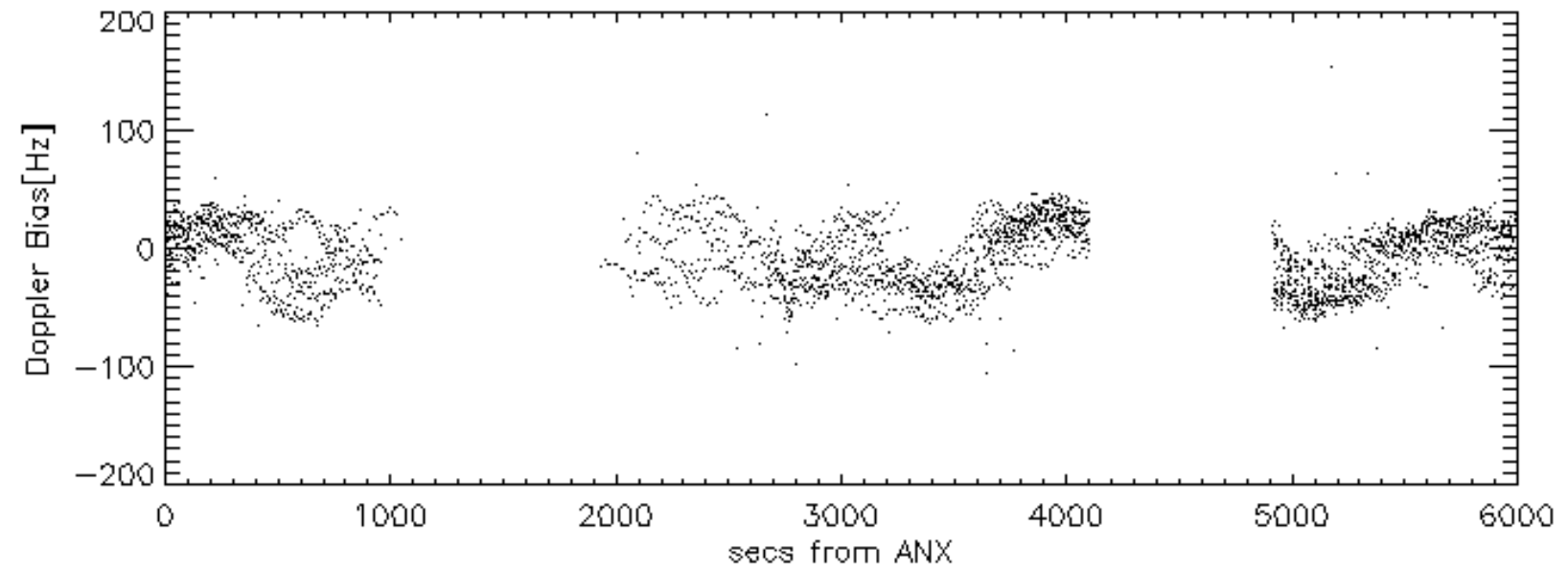
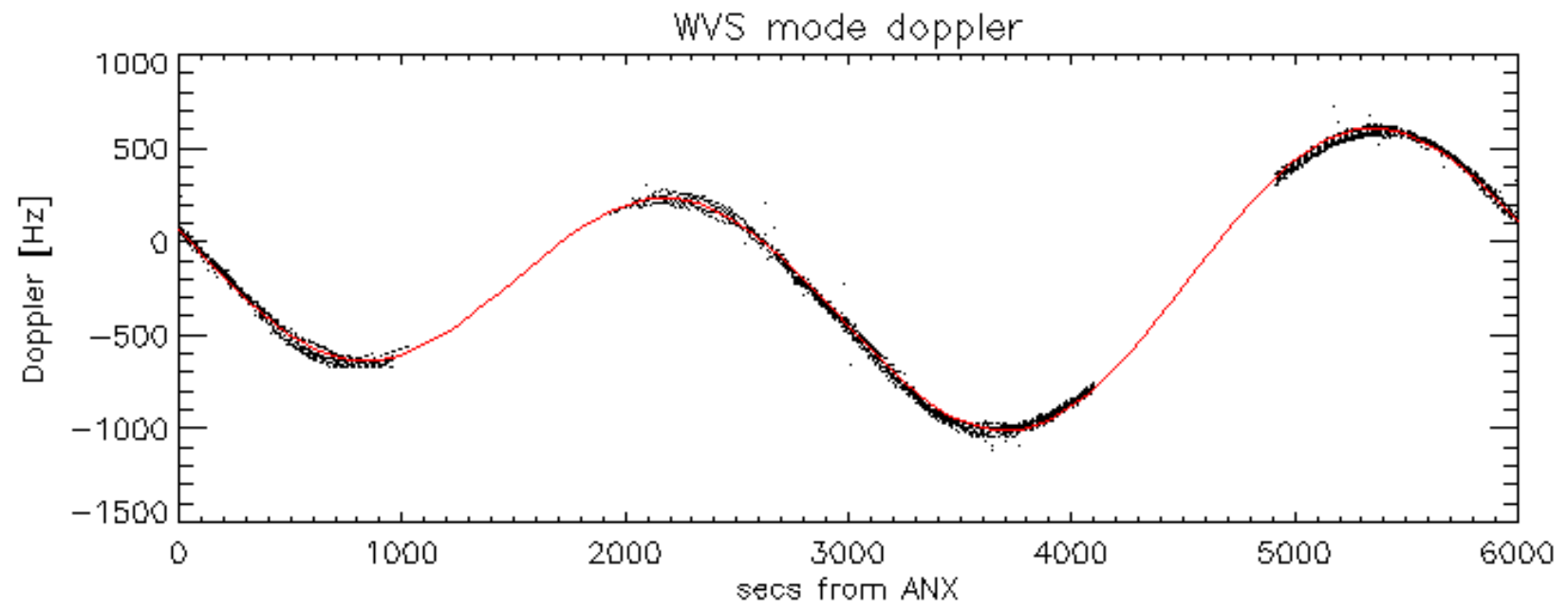
Doppler 'WVS' 'IS2' descending



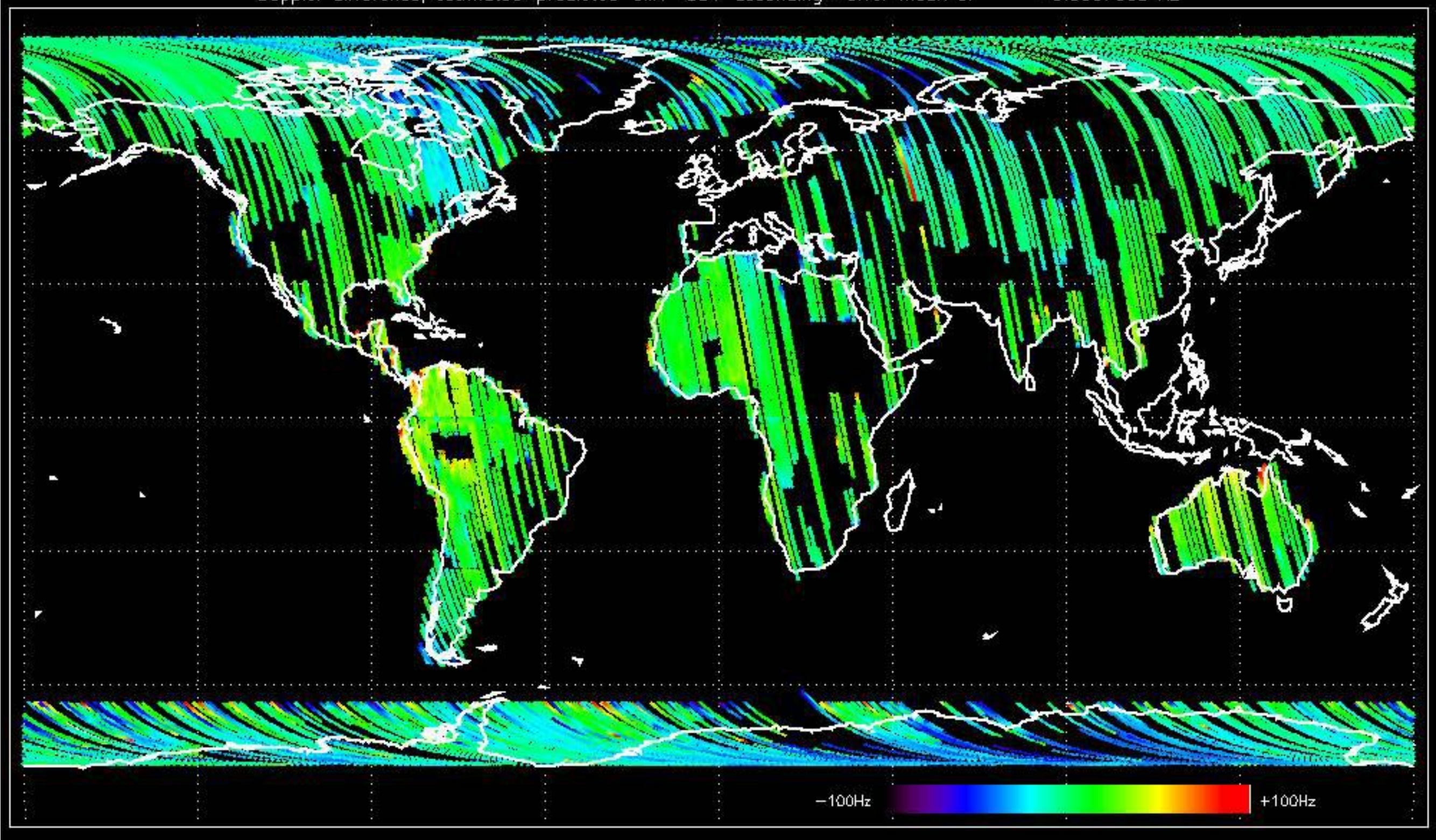
GM1 mode doppler



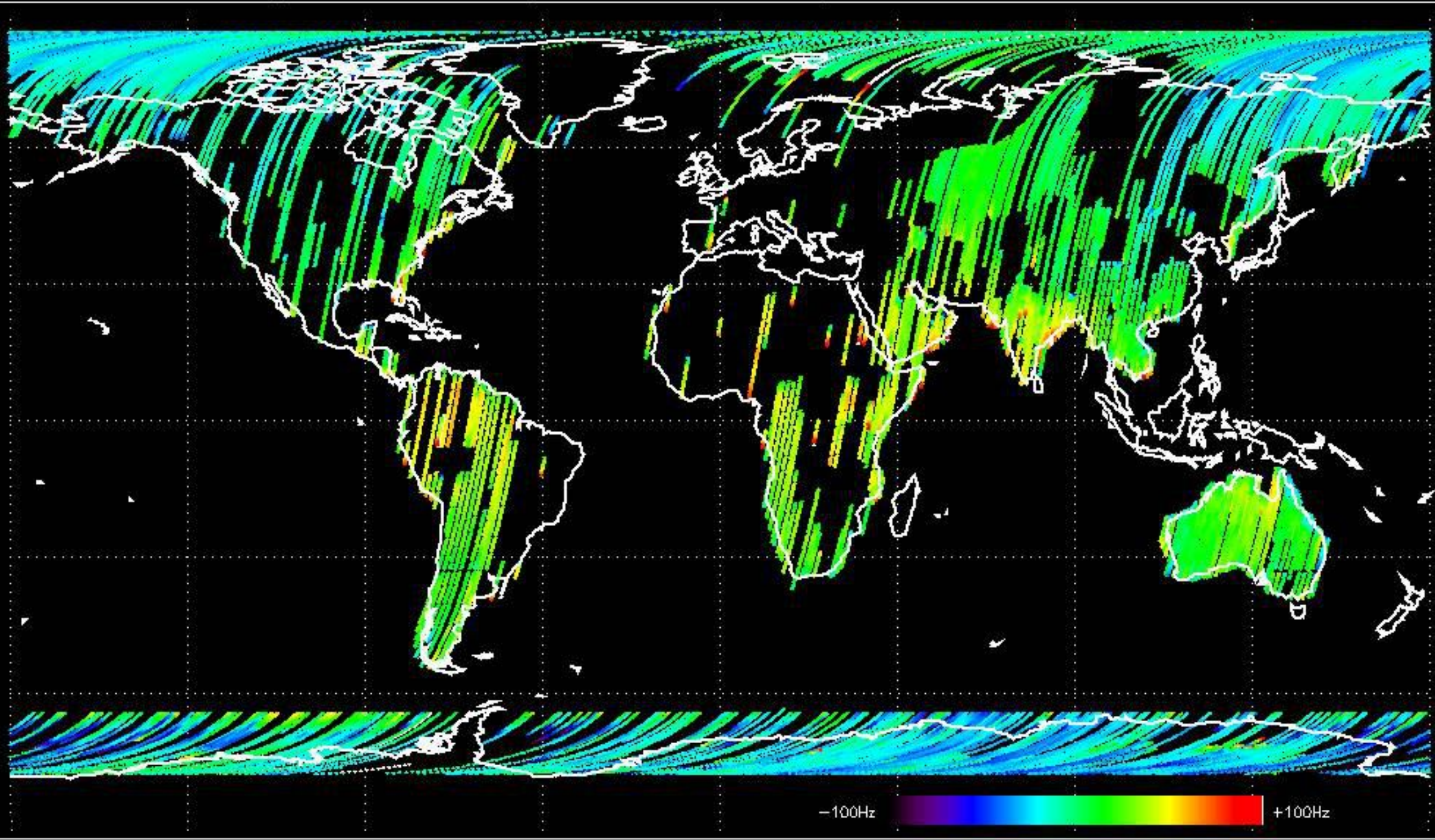
17-Mar



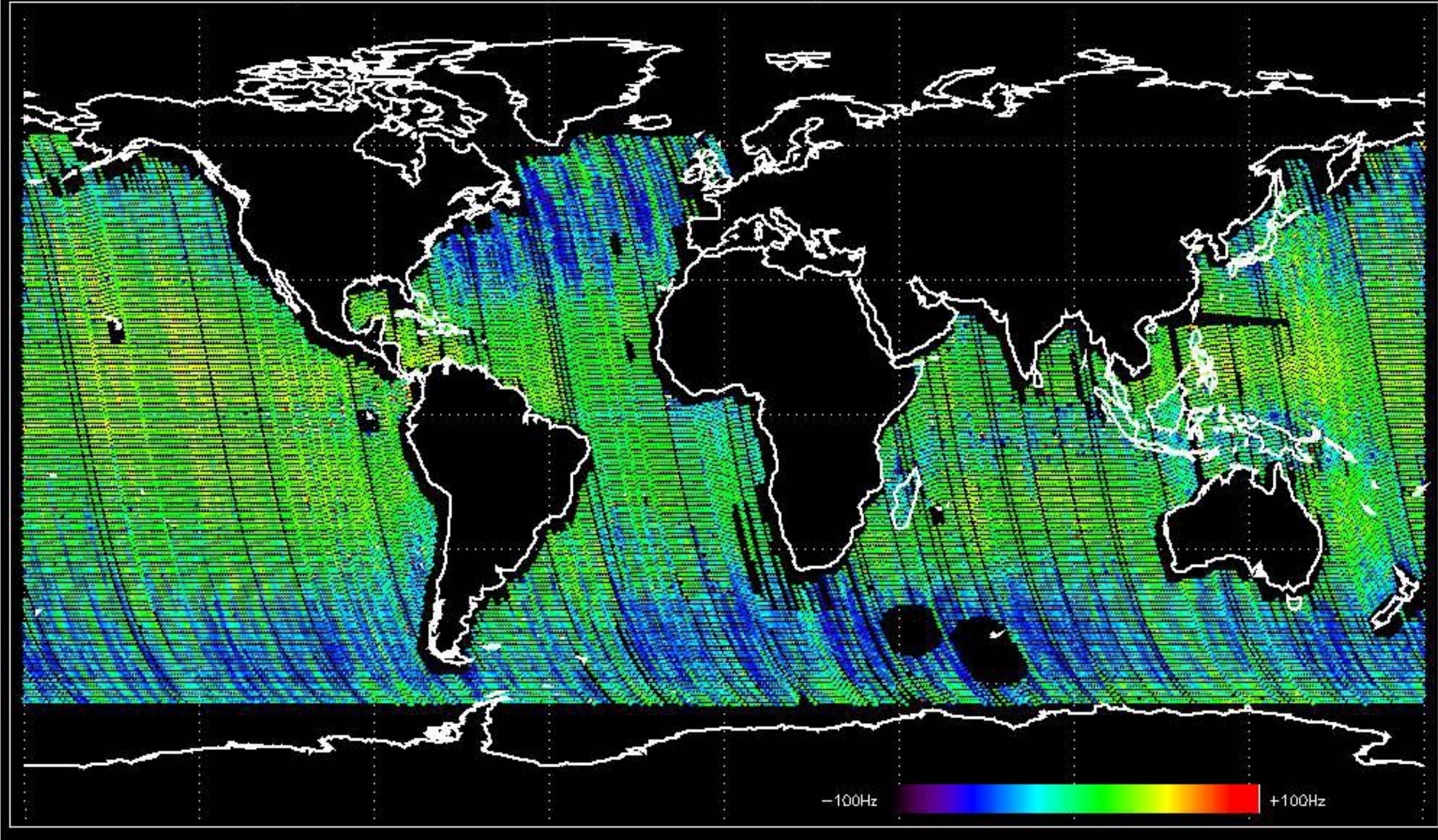
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -9.3057908 Hz



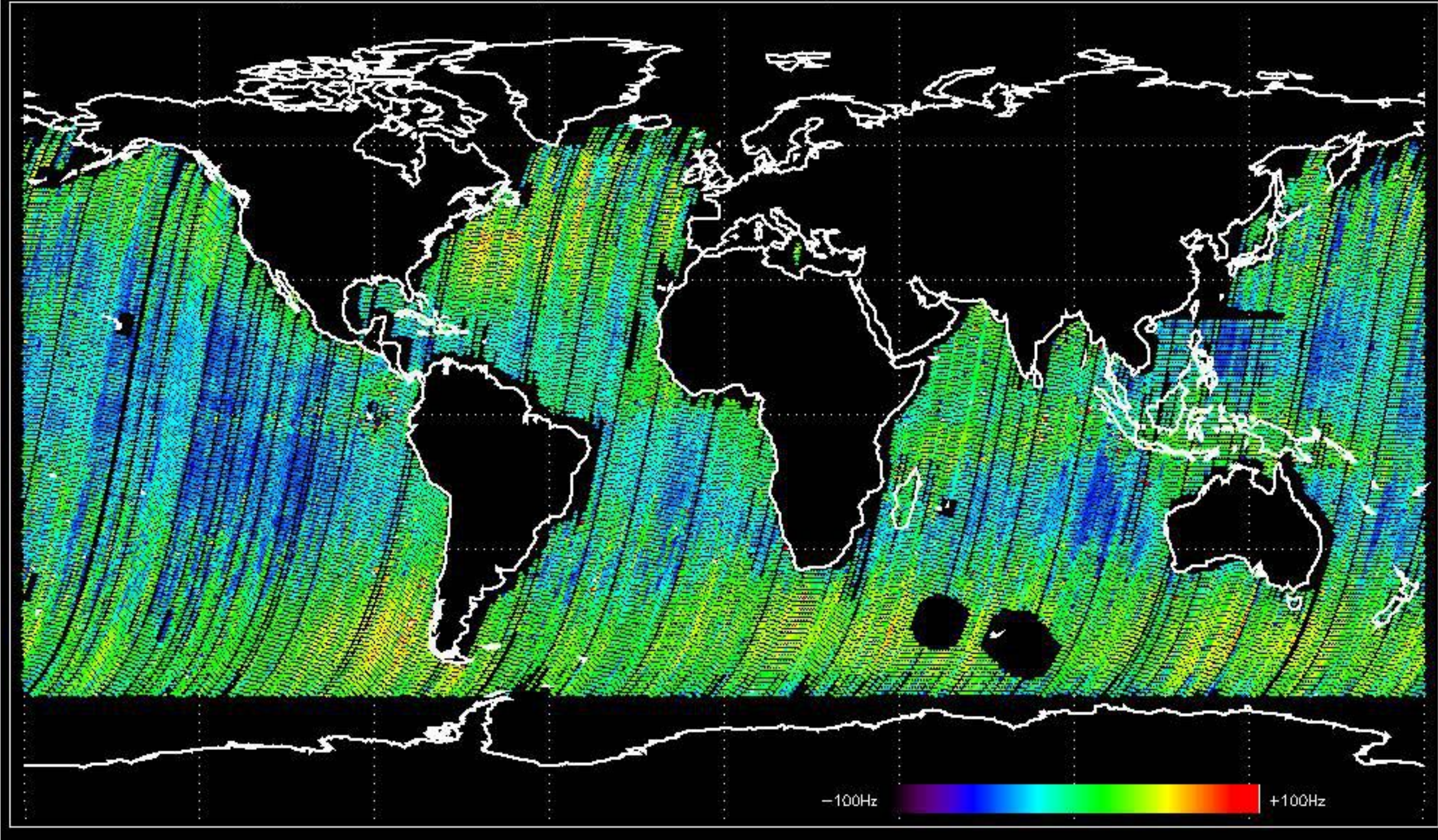
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.6755249 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.4871427 Hz

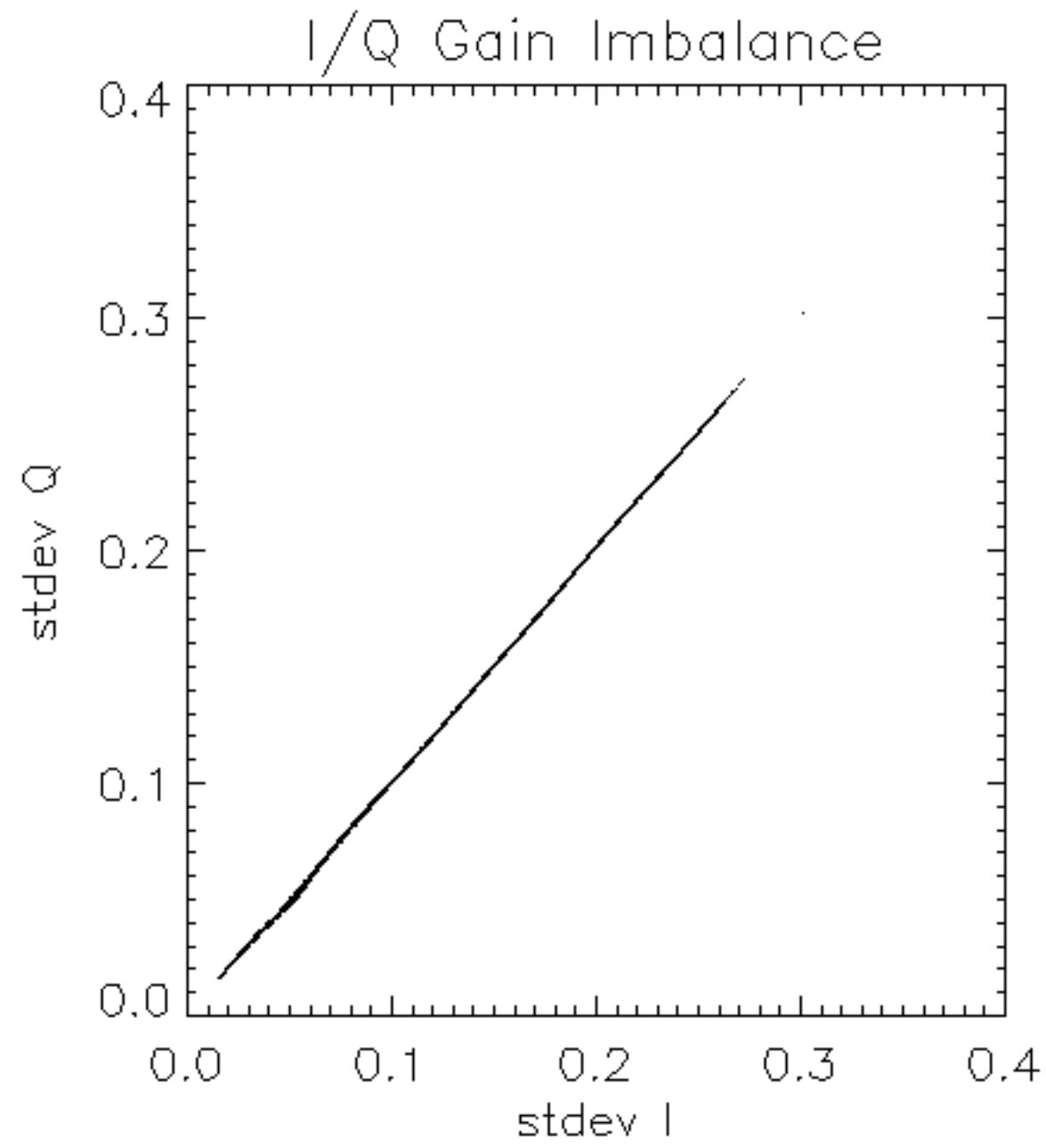


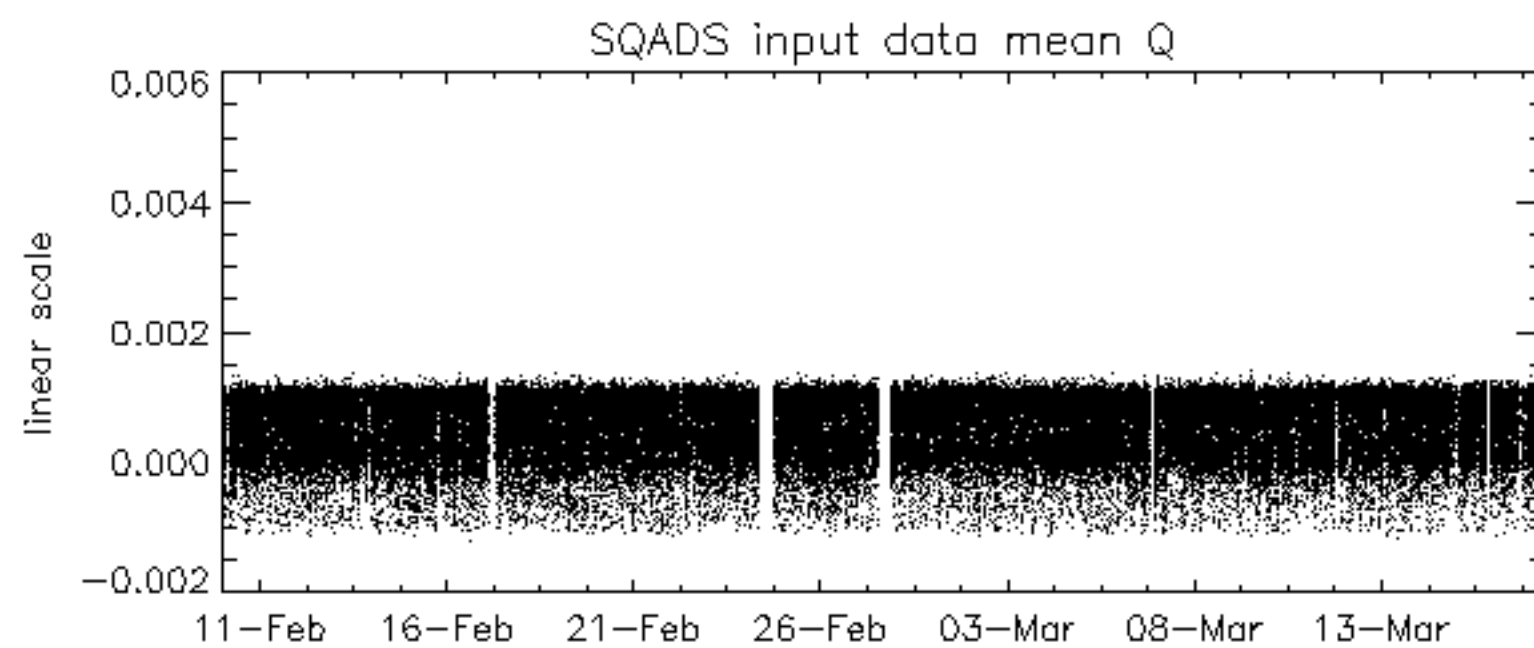
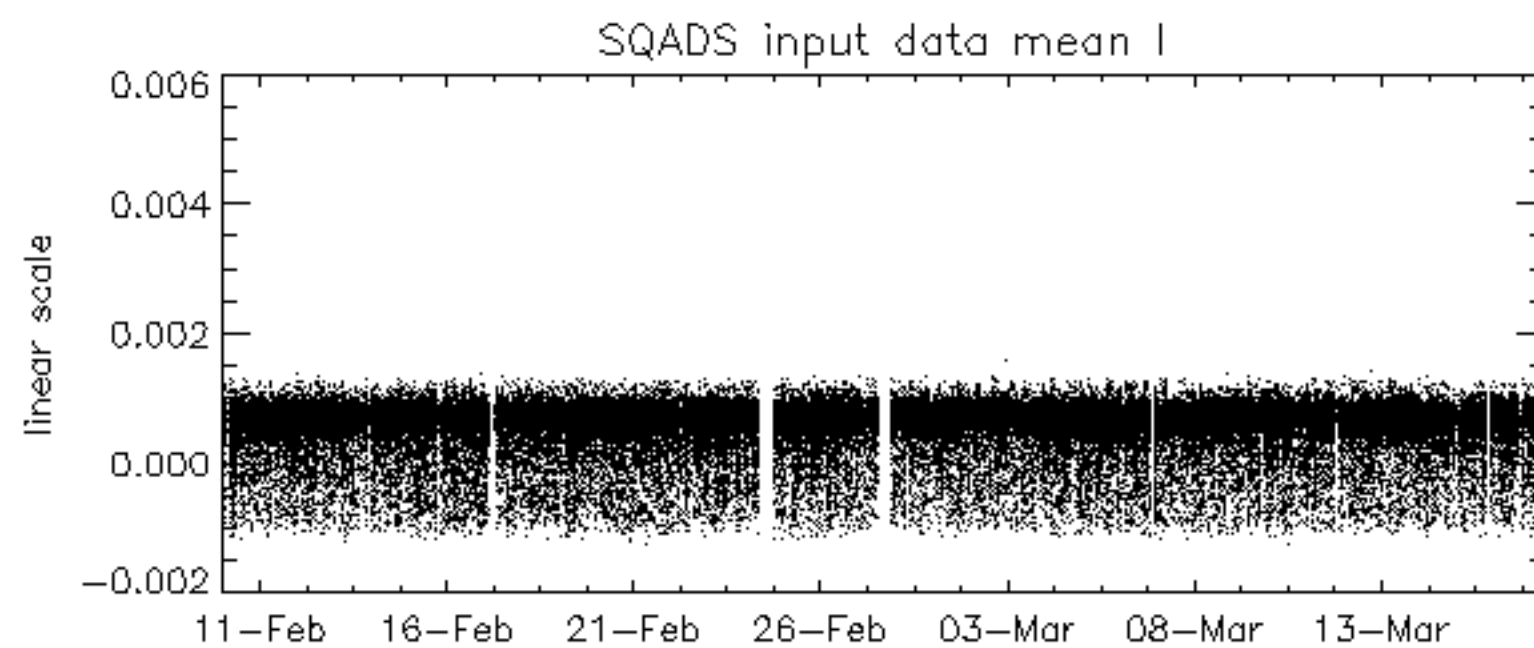
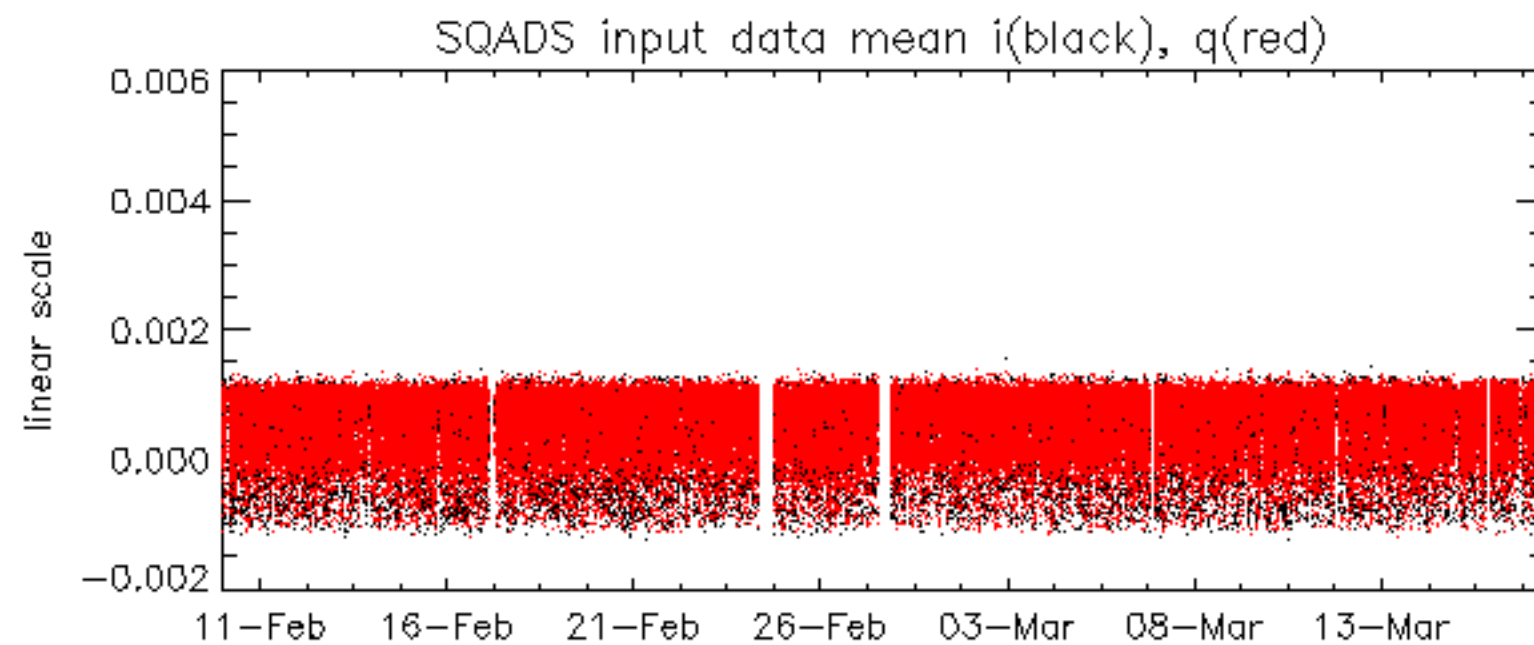
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.5944434 Hz

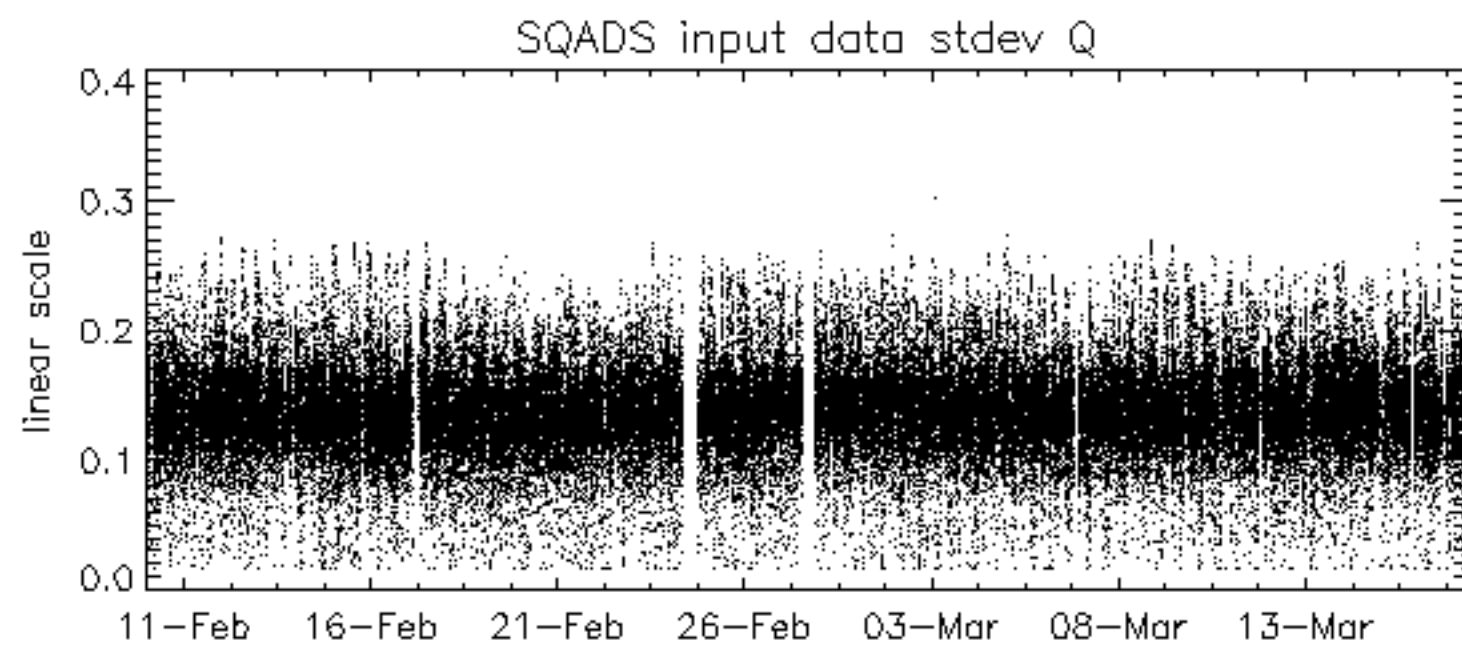
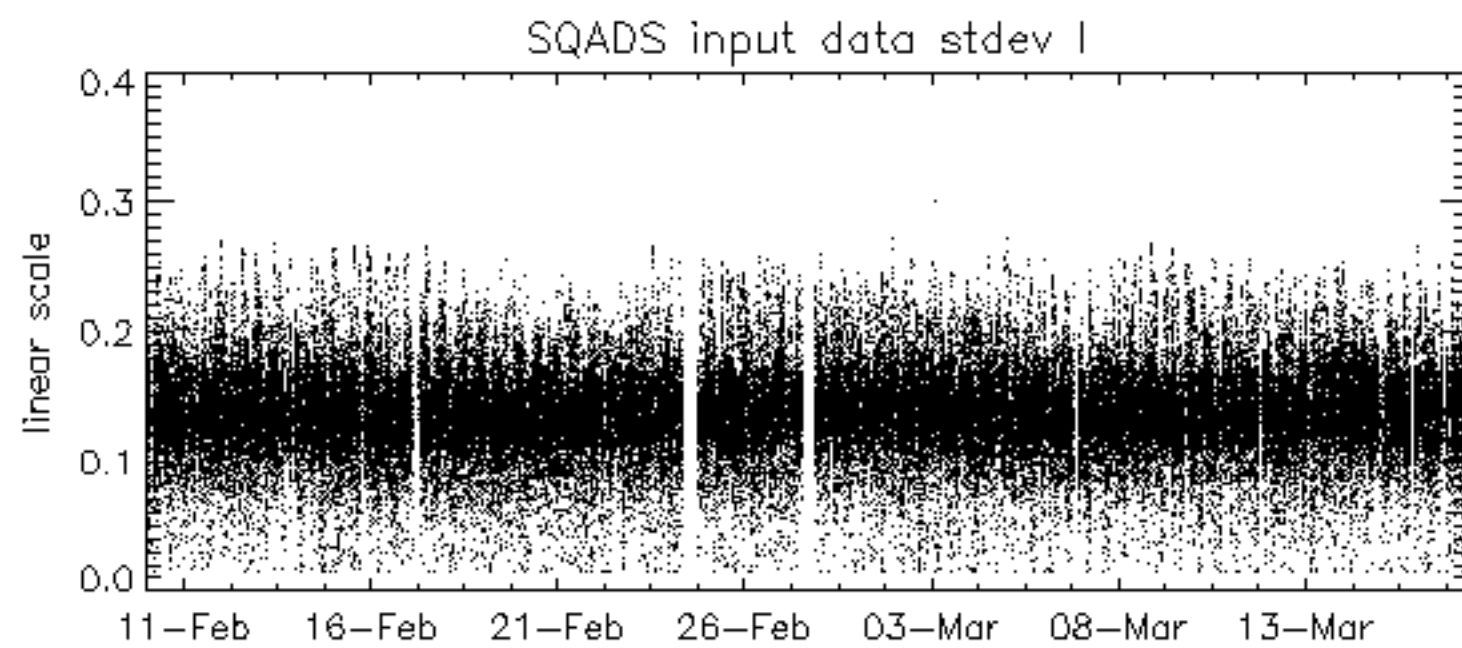
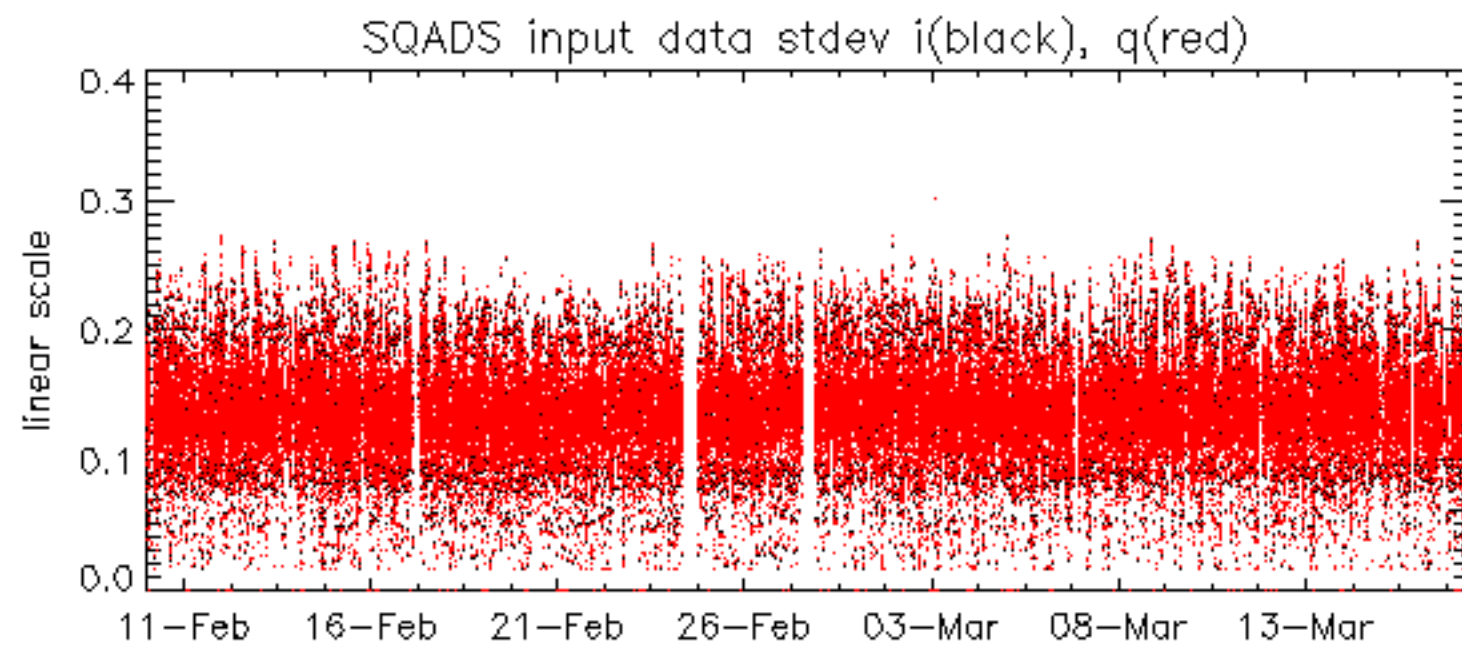


No anomalies observed on available MS products:

No anomalies observed.



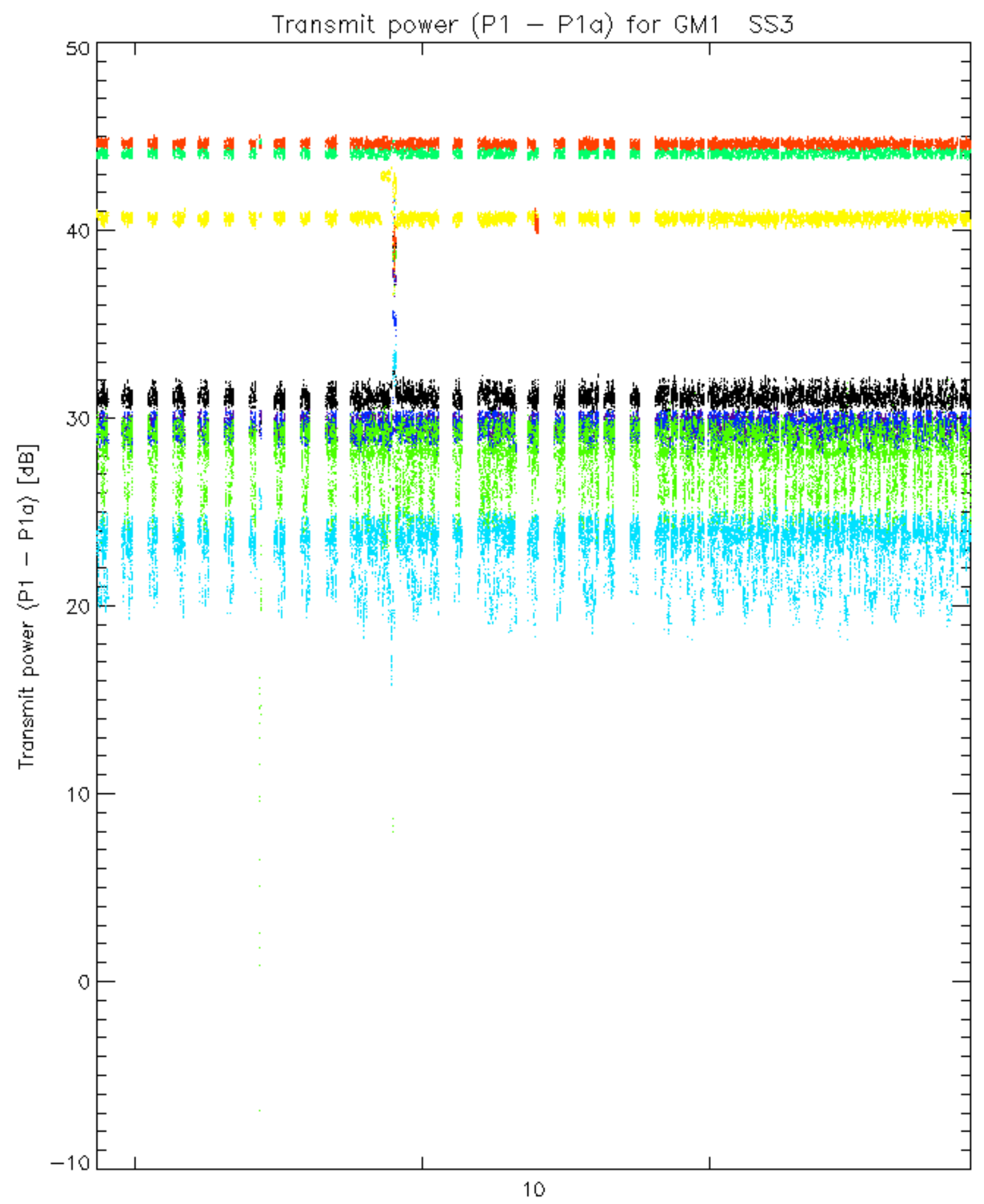


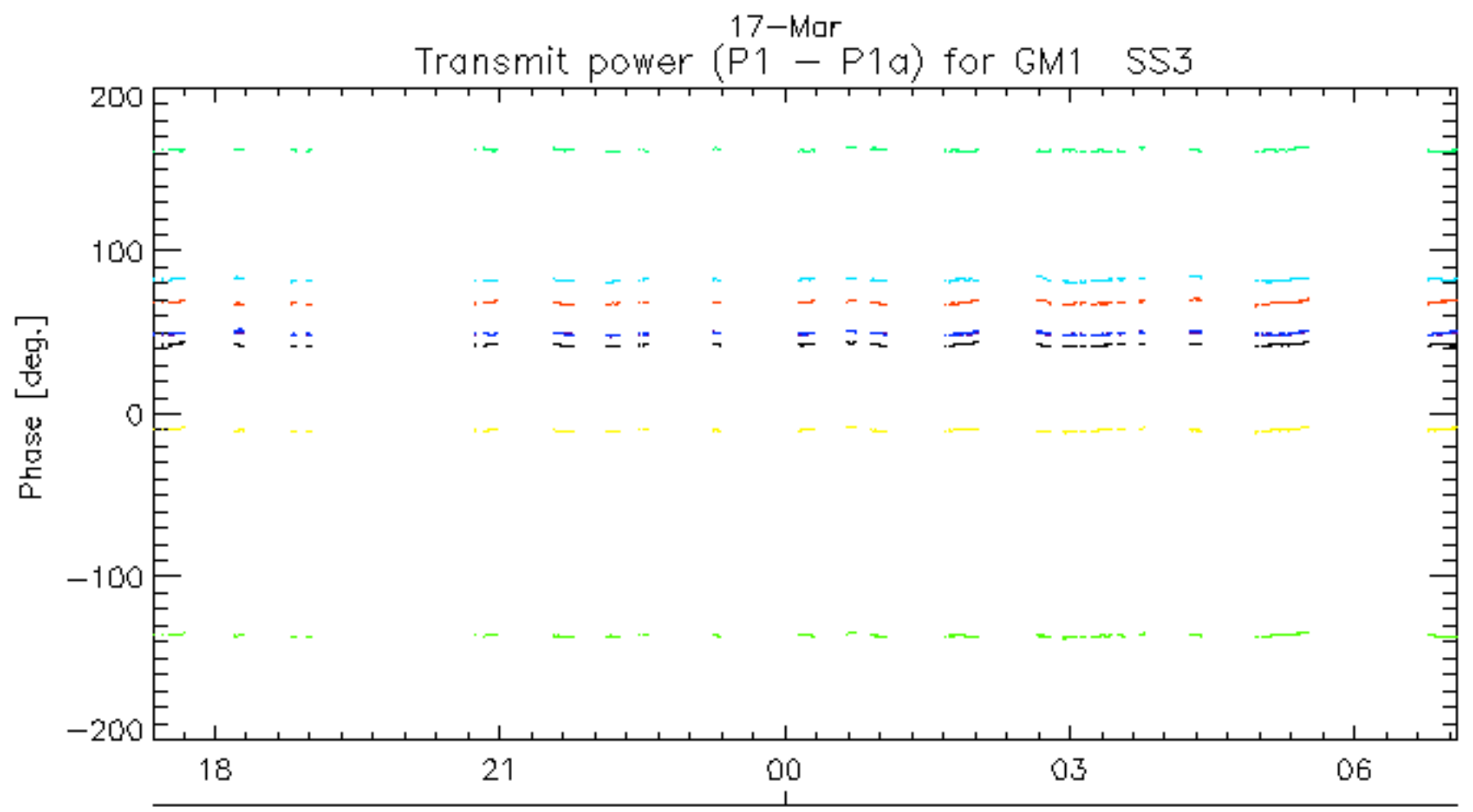
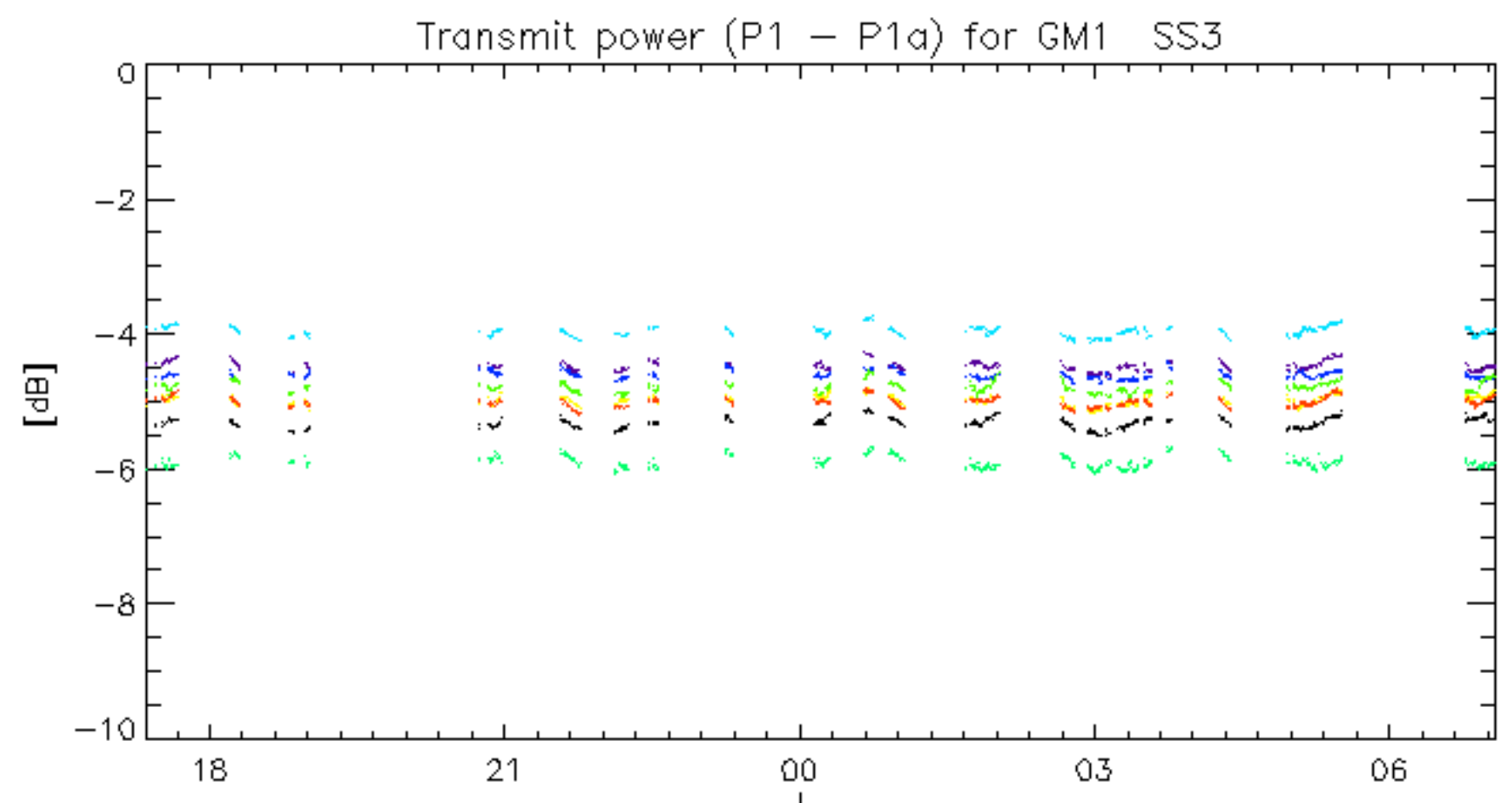


Summary of analysis for the last 3 days 2006031[567]

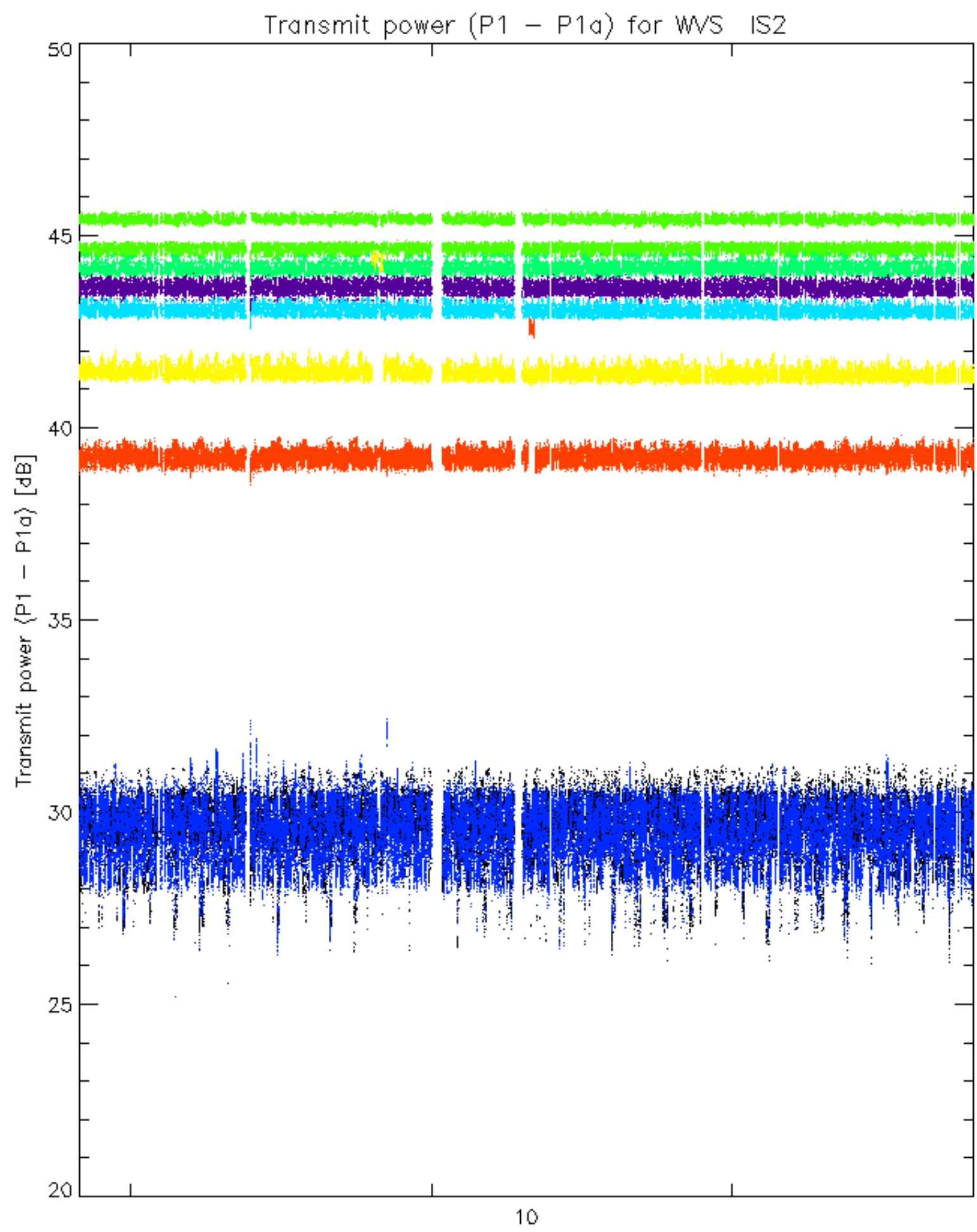
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060315_004510_000001932046_00016_21112_0858.N1	1	0
ASA_IMM_1PNPDE20060315_155429_000000372046_00026_21122_0885.N1	1	0
ASA_IMM_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDK20060315_124554_000000702046_00024_21120_0330.N1	1	0
ASA_WVS_1PNPDE20060315_003528_00000002046_00016_21112_0236.N1	1	0
ASA_WSM_1PNPDE20060315_030808_000001832046_00018_21114_0795.N1	0	1
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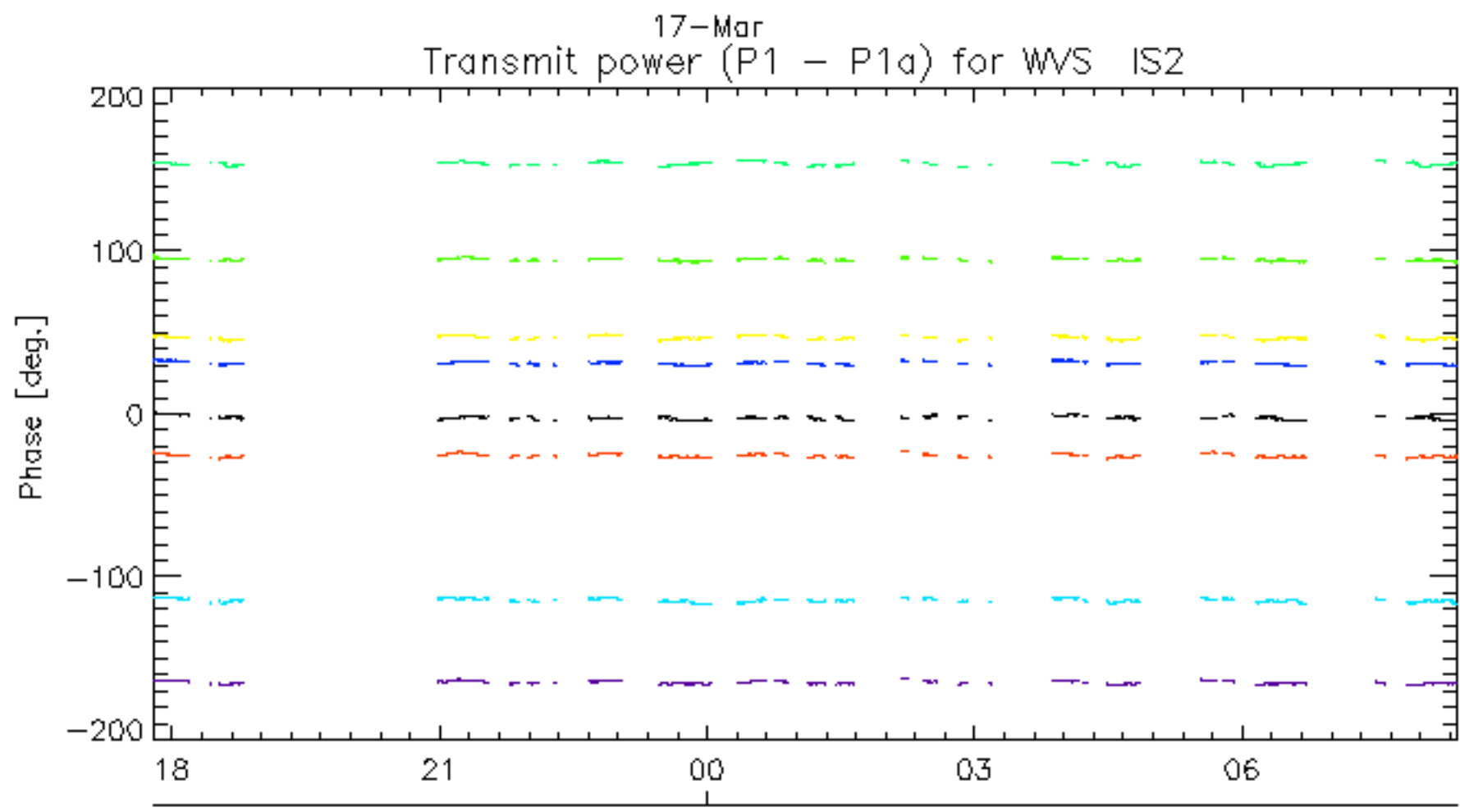
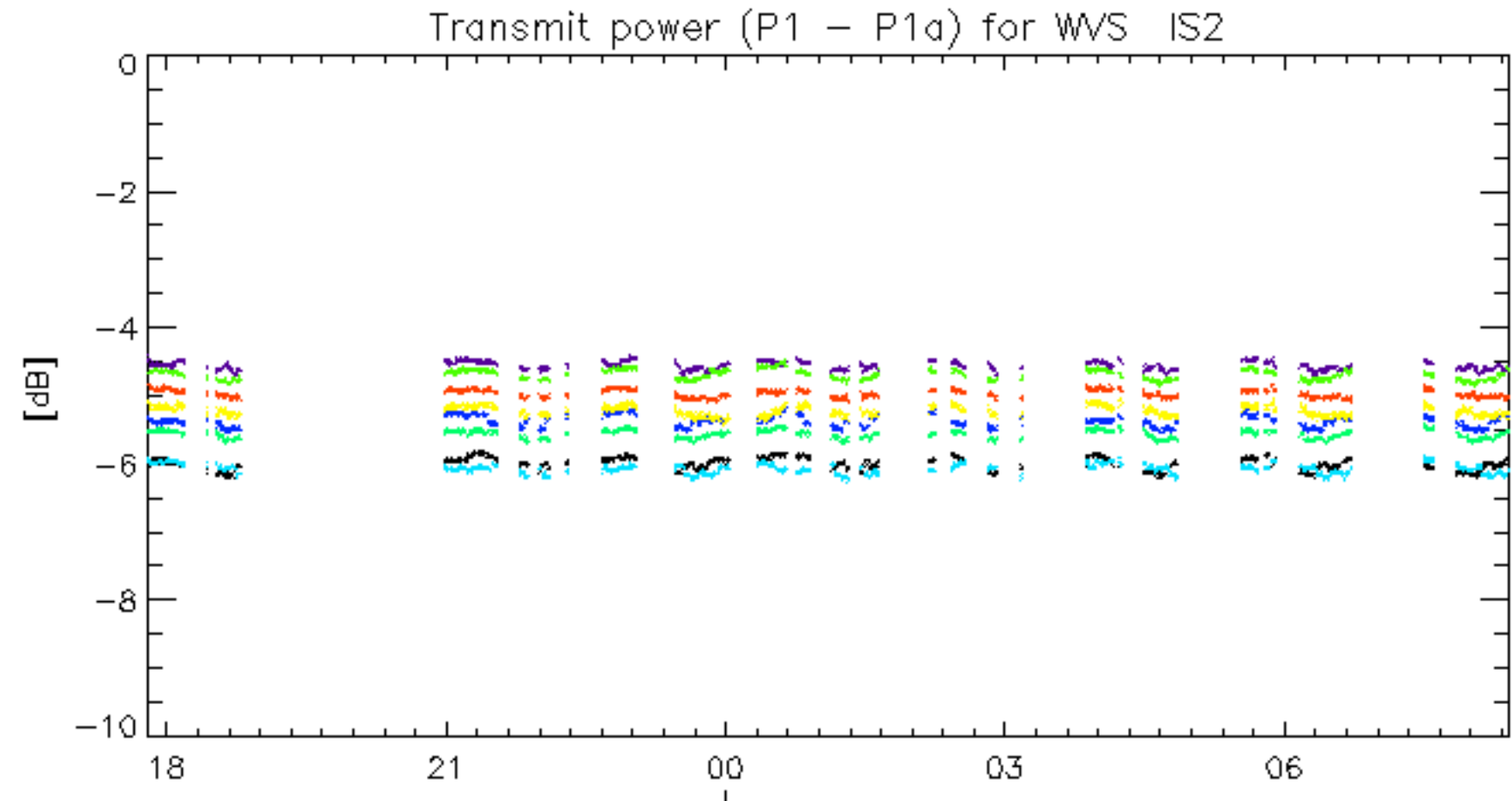




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No unavailabilities during the reported period.