

PRELIMINARY REPORT OF 050218

last update on Fri Feb 18 10:50:01 GMT 2005

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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 2005-02-17 00:00:00 to 2005-02-18 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	14	0	2	6	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	14	0	2	6	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	14	0	2	6	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	14	0	2	6	4

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	44	46	4	8	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	44	46	4	8	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	44	46	4	8	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	44	46	4	8	4

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	20050217 100807
H	20050216 071832

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)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.386832	0.008613	0.048393
7	P1	-3.080914	0.007691	-0.012882
11	P1	-4.673231	0.019039	-0.031189
15	P1	-5.653008	0.030440	-0.002716
19	P1	-3.665453	0.004180	-0.002110
22	P1	-4.545412	0.013830	0.044344
26	P1	-4.942609	0.013765	-0.007467
30	P1	-7.157979	0.017341	-0.039421
3	P1	-15.922925	0.091983	-0.103287
7	P1	-15.513678	0.060986	-0.014252
11	P1	-20.887709	0.245775	-0.082447
15	P1	-11.591016	0.028437	0.045012
19	P1	-14.199907	0.025402	-0.088168
22	P1	-15.831308	0.357291	0.227849
26	P1	-17.599218	0.222383	-0.010219
30	P1	-17.920992	0.391280	0.003787

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.179878	0.085511	0.160230
7	P2	-22.372431	0.105254	0.140816
11	P2	-14.592753	0.100910	0.167397
15	P2	-7.082173	0.094760	0.052525
19	P2	-9.674761	0.093905	0.051370
22	P2	-16.994122	0.093735	0.116568
26	P2	-16.471130	0.091776	0.050325
30	P2	-18.901426	0.079380	0.033203

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.176416	0.005765	0.030364
7	P3	-8.176416	0.005765	0.030364
11	P3	-8.176416	0.005765	0.030364
15	P3	-8.176416	0.005765	0.030364
19	P3	-8.176416	0.005765	0.030364
22	P3	-8.176416	0.005765	0.030364
26	P3	-8.176319	0.005765	0.030168
30	P3	-8.176319	0.005765	0.030168

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	-2.771174	0.020901	0.085130
7	P1	-2.982460	0.085909	-0.027774
11	P1	-3.967234	0.025110	-0.034635
15	P1	-3.540303	0.024014	-0.030076
19	P1	-3.593104	0.014470	0.022104
22	P1	-5.706261	0.055485	-0.059248
26	P1	-7.315259	0.032561	0.045323
30	P1	-6.256079	0.042535	0.058620
3	P1	-10.756611	0.100493	0.028330
7	P1	-10.200566	0.203664	-0.130128
11	P1	-12.562300	0.132464	-0.054876
15	P1	-11.755431	0.085803	0.024422
19	P1	-15.577829	0.057372	0.027164
22	P1	-24.204390	1.440180	-0.332500
26	P1	-15.588310	0.242791	0.250624
30	P1	-20.081272	0.911074	-0.165779

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.884533	0.048949	0.148820
7	P2	-22.425539	0.147183	0.061326
11	P2	-10.362330	0.055924	0.239749
15	P2	-4.998627	0.020898	0.045270
19	P2	-6.864071	0.031592	0.090267
22	P2	-7.170436	0.054935	0.124099
26	P2	-23.872078	0.111972	0.041549
30	P2	-21.939451	0.065022	0.038479

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.008367	0.002532	0.034582
7	P3	-8.008423	0.002543	0.034989
11	P3	-8.008372	0.002544	0.034875
15	P3	-8.008361	0.002540	0.034278
19	P3	-8.008464	0.002554	0.034721
22	P3	-8.008459	0.002539	0.034699
26	P3	-8.008284	0.002543	0.034350
30	P3	-8.008403	0.002544	0.034124

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	0.000468486
	stdev	2.17478e-07
MEAN Q	mean	0.000537780
	stdev	2.30862e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128965
	stdev	0.000979568
STDEV Q	mean	0.129209
	stdev	0.000990328



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005021[678]

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_WSM_1PNPDE20050216_025620_000001282034_00419_15503_5630.N1	0	38



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

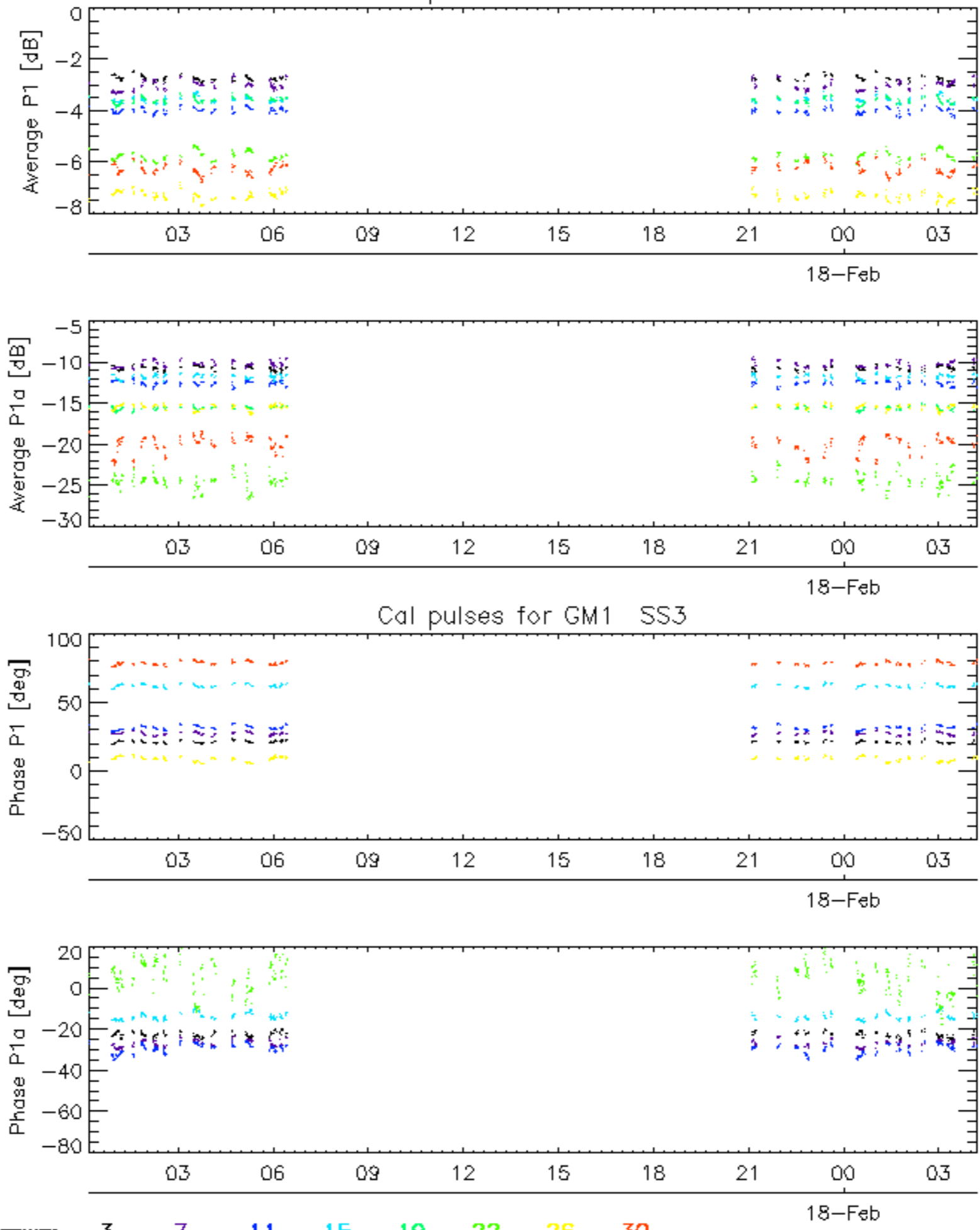
Ascending

Descending

7.6 - Doppler evolution versus ANX for GM1

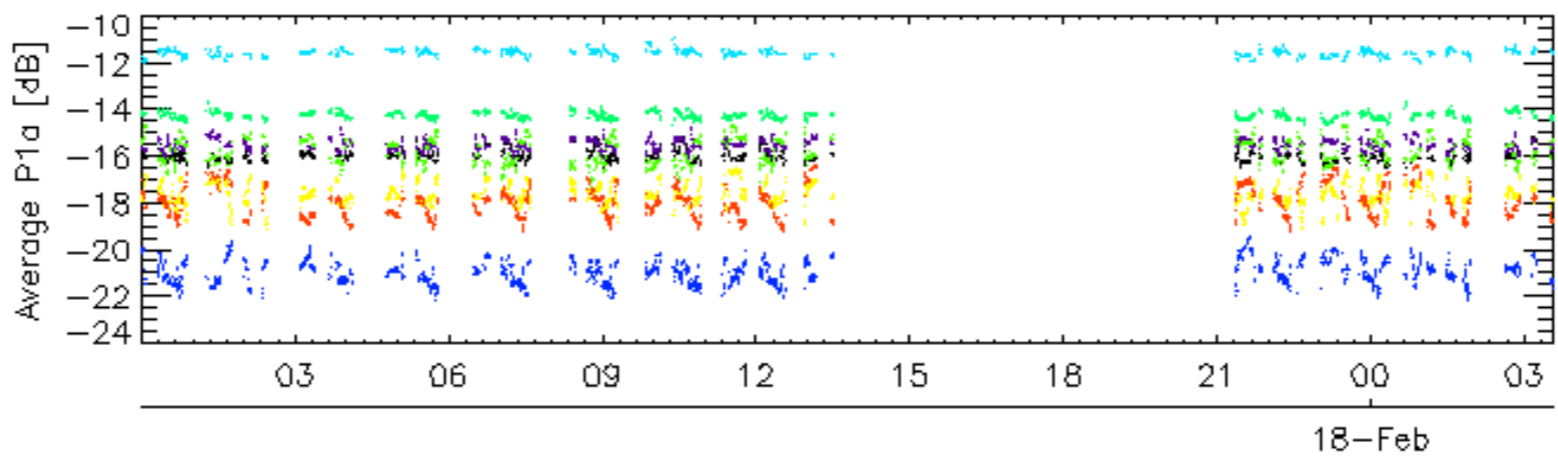
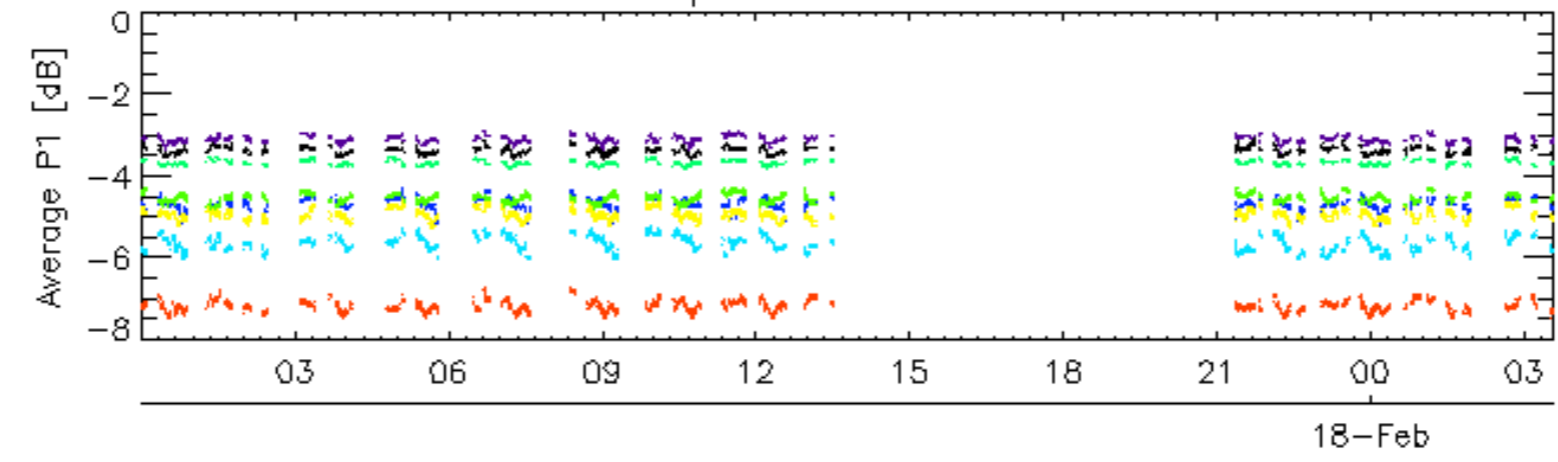
Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

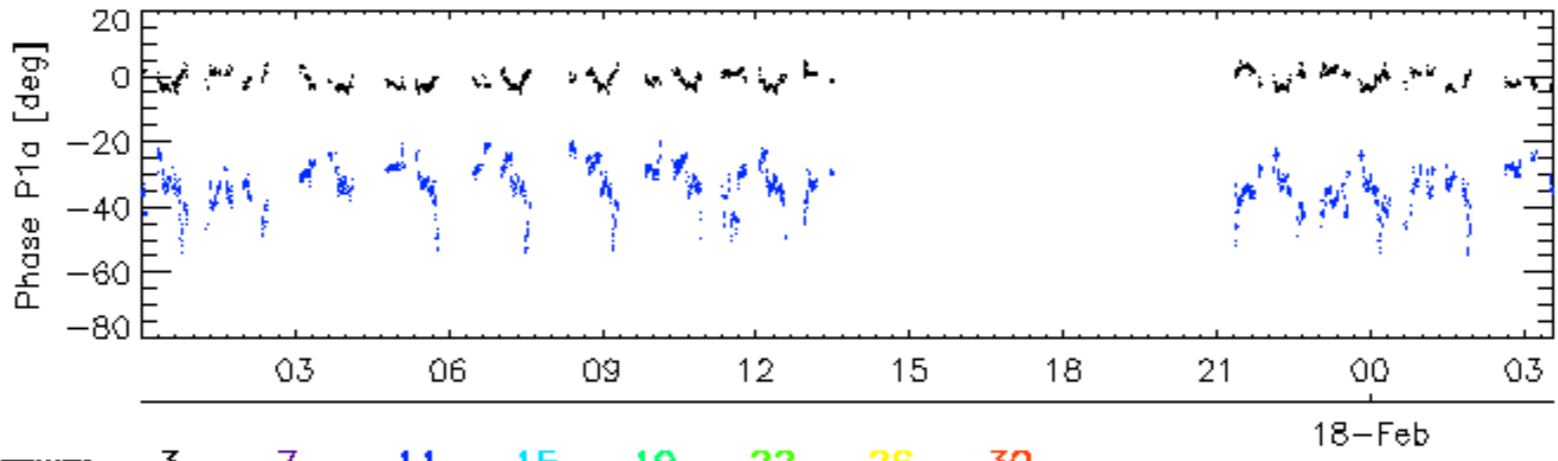
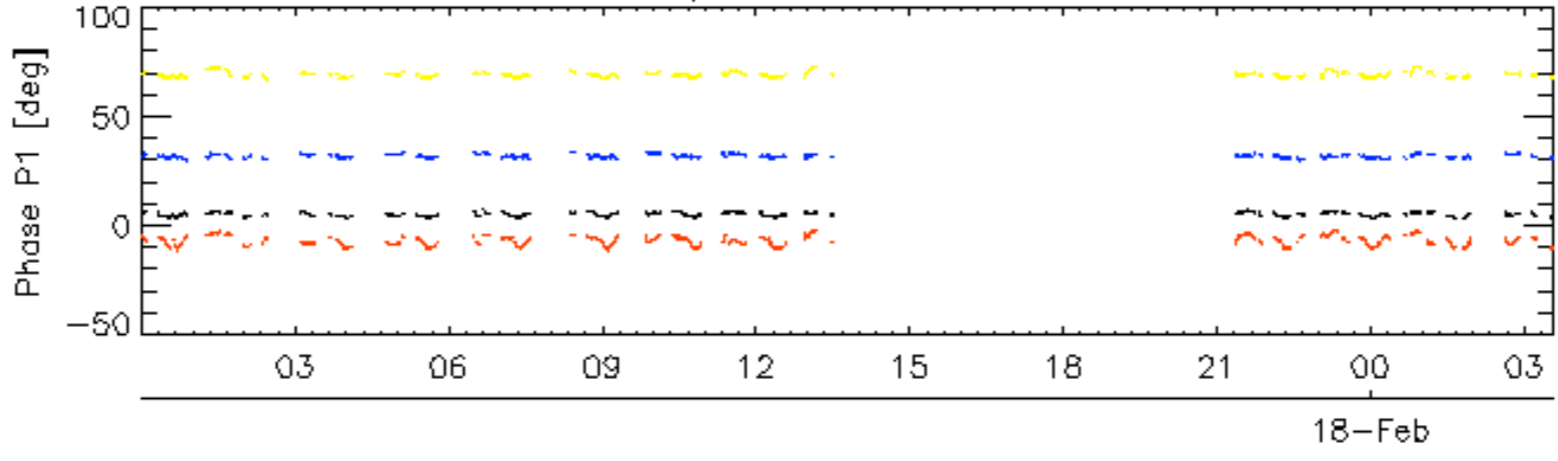


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

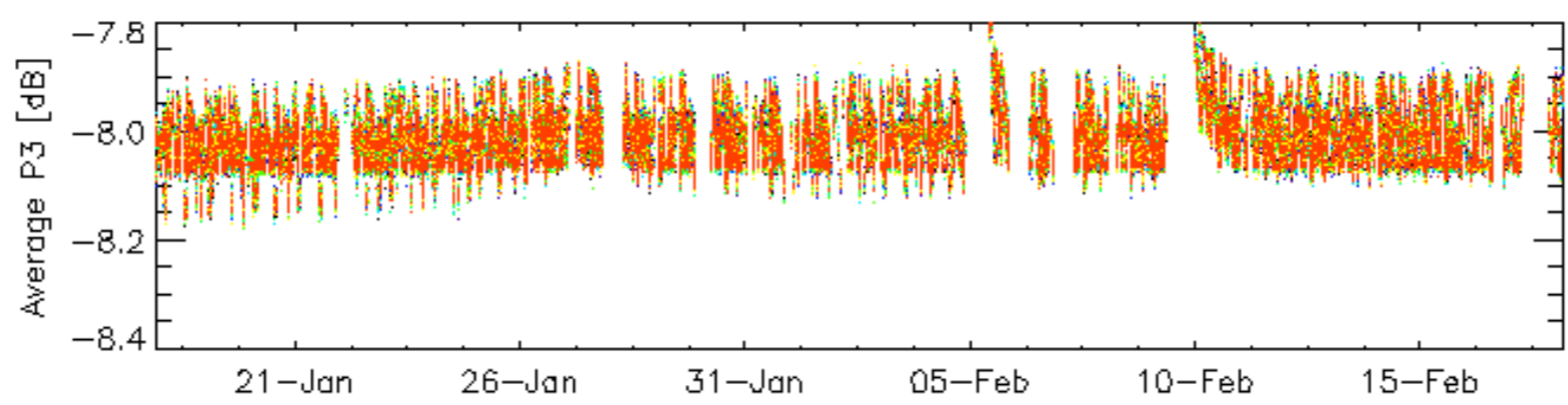
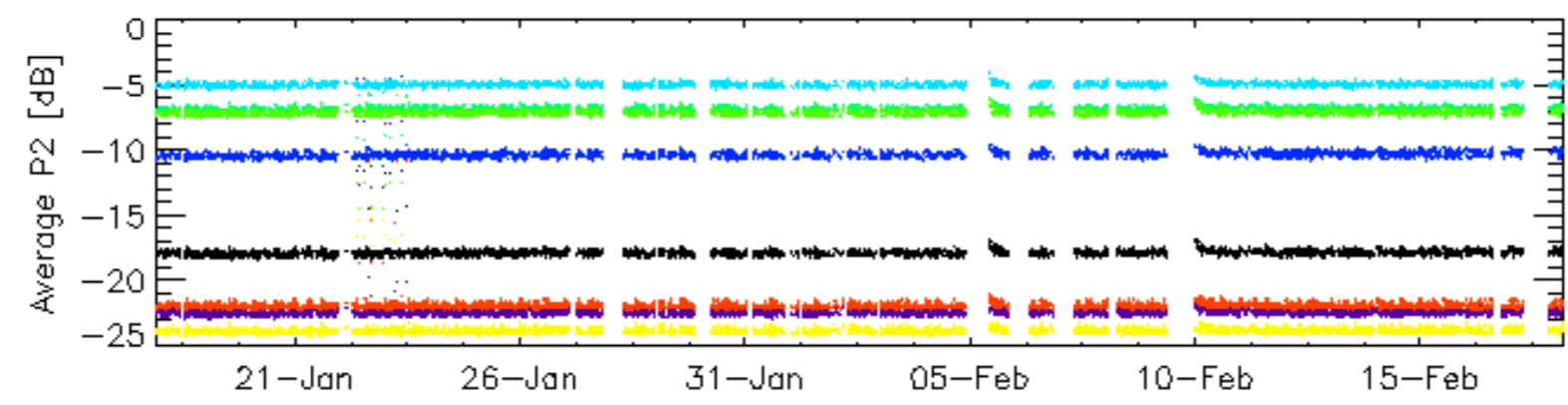
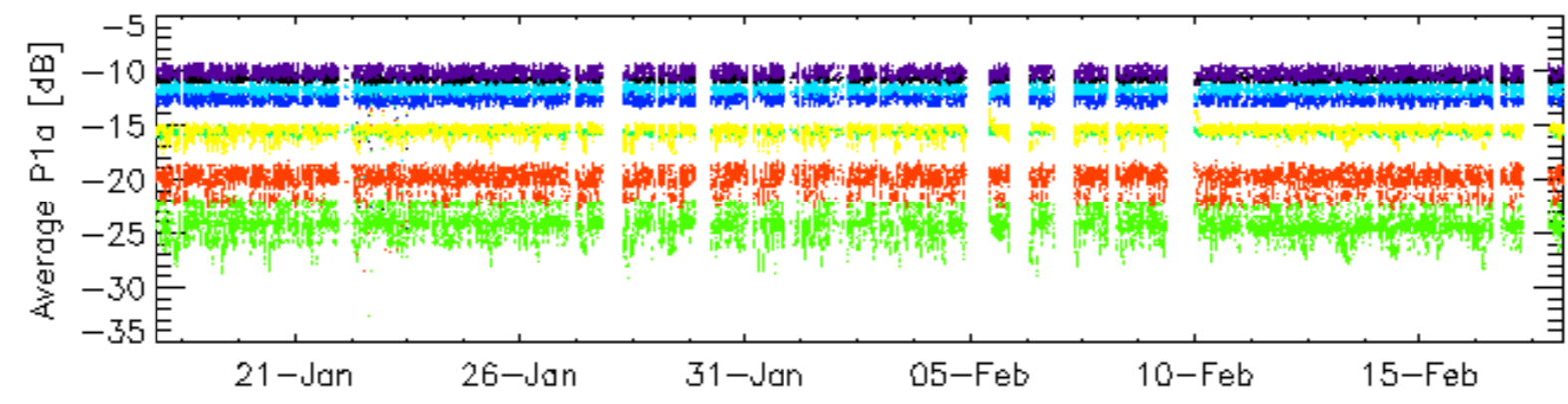
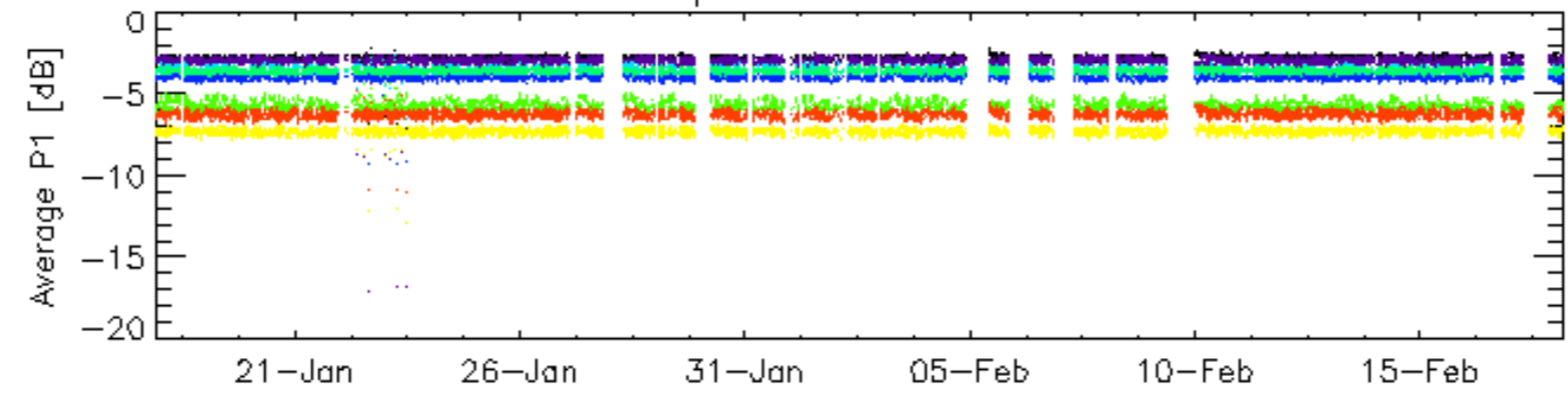


Cal pulses for WVS IS2



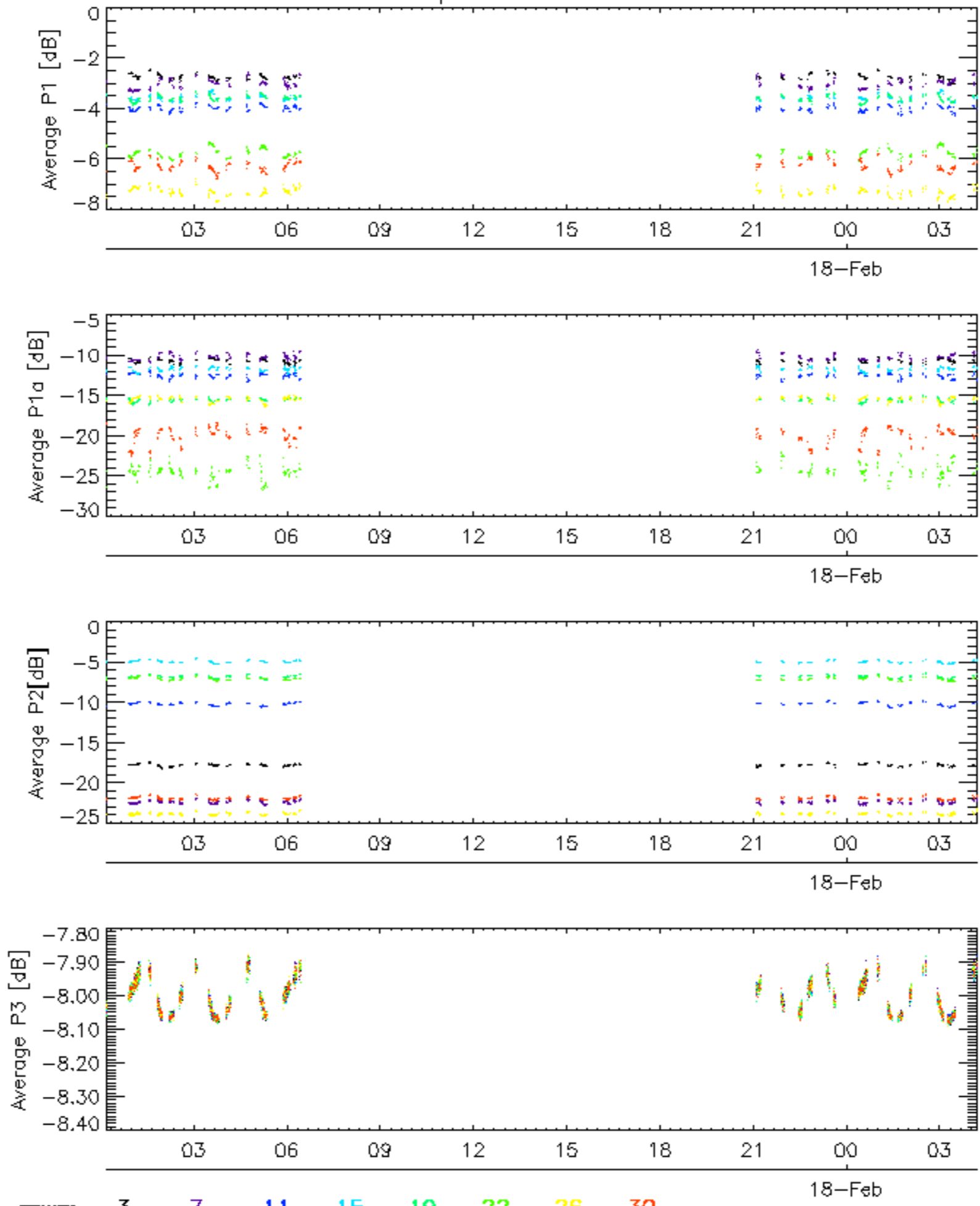
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

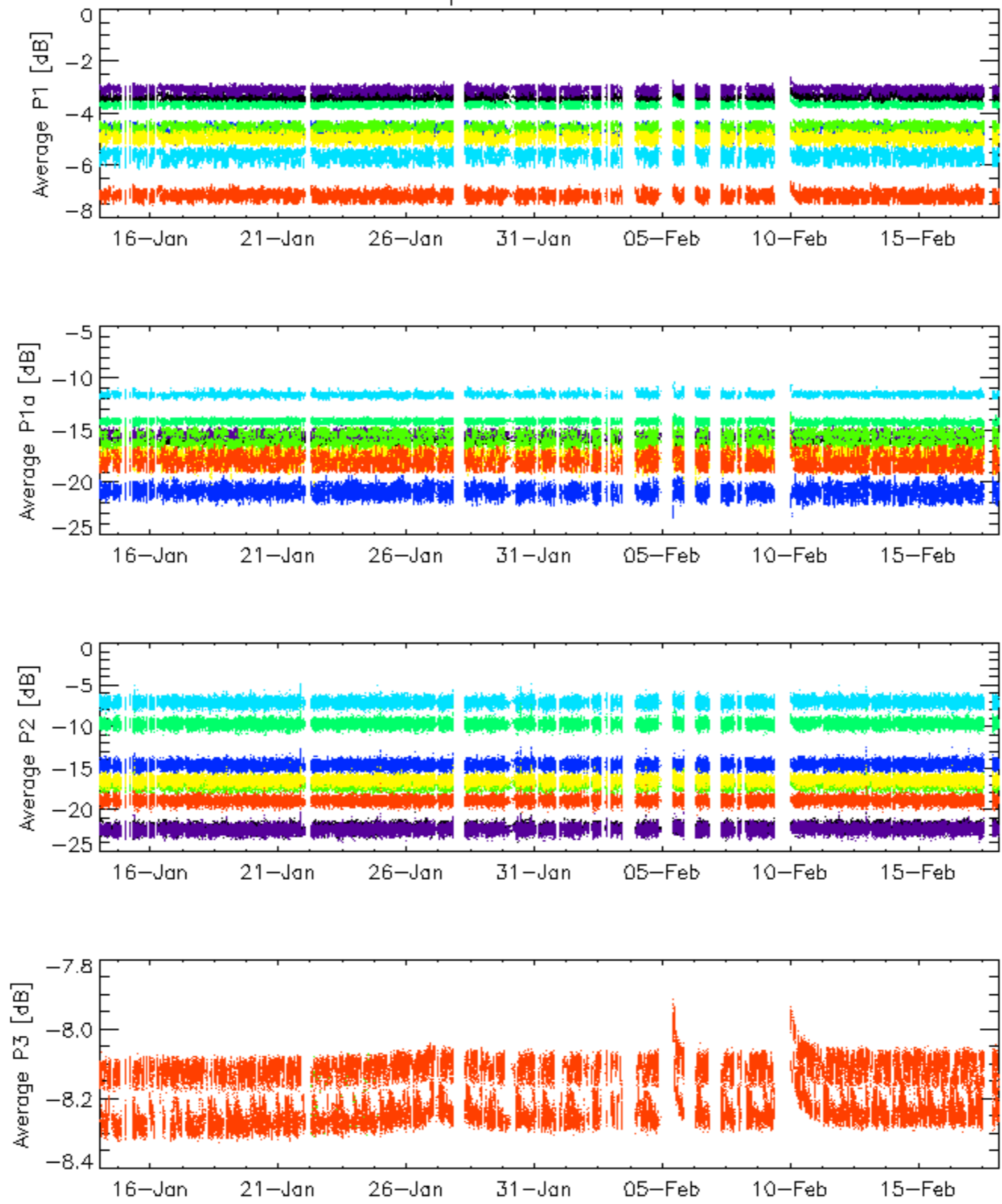


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

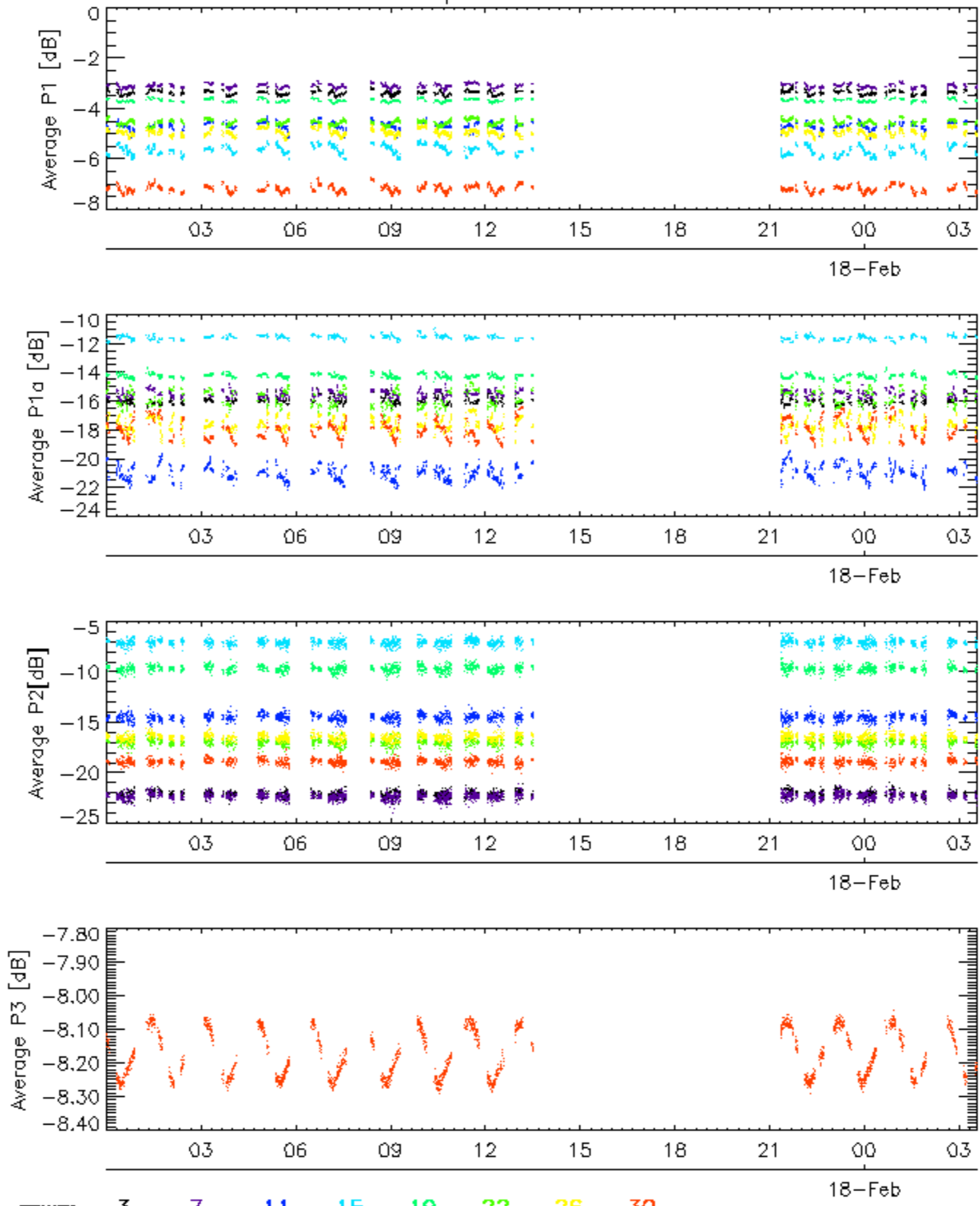


Cal pulses for WVS IS2

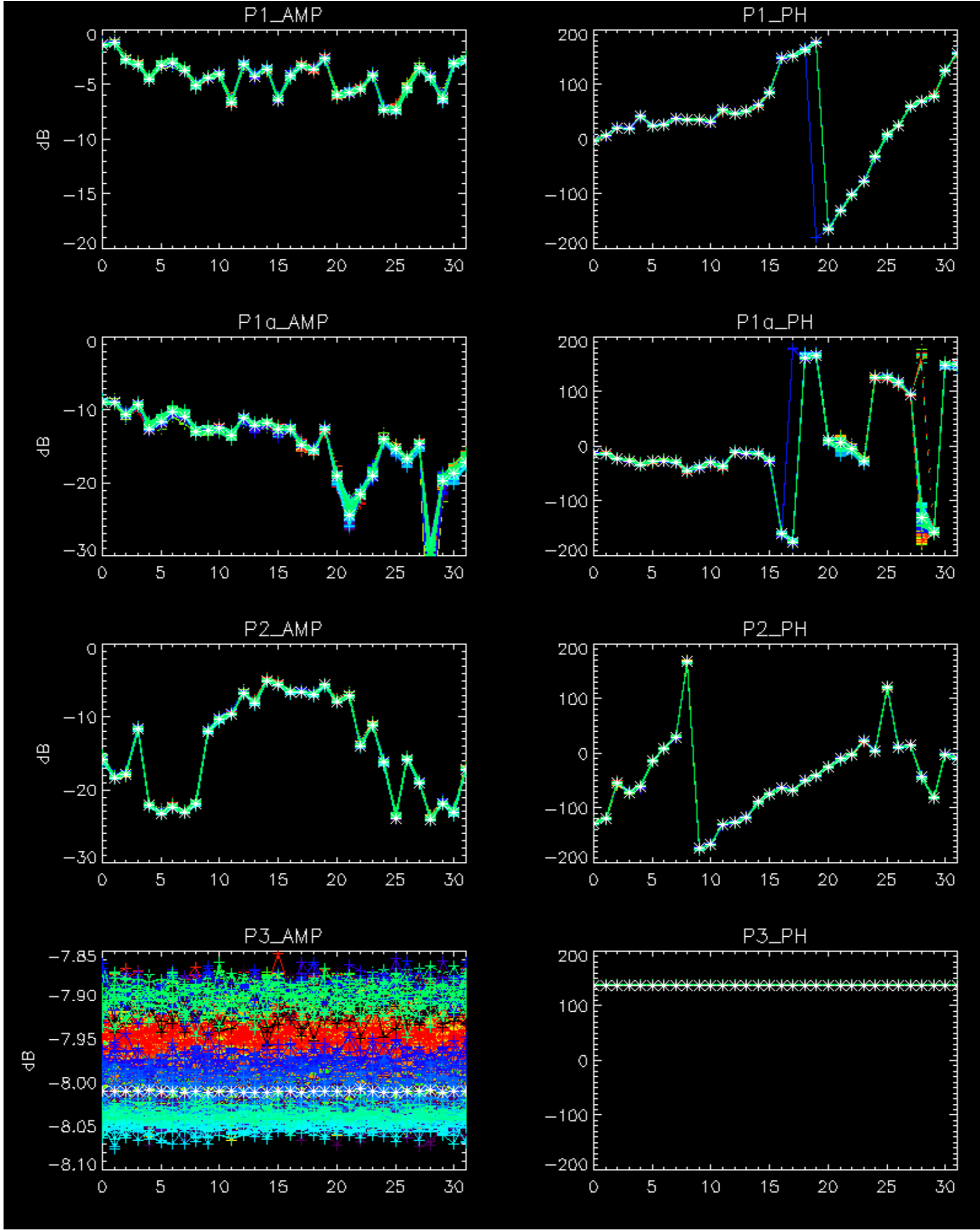


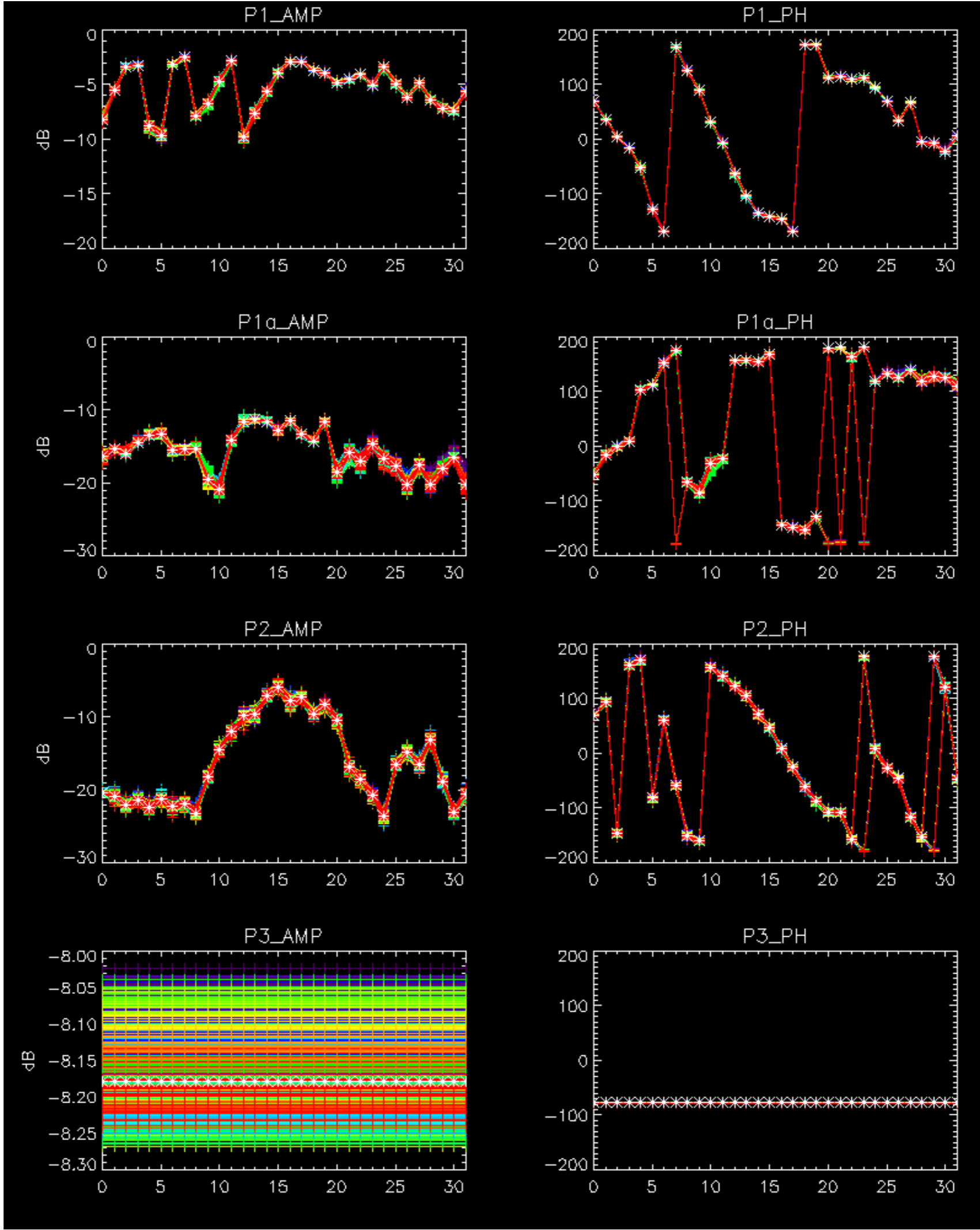
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



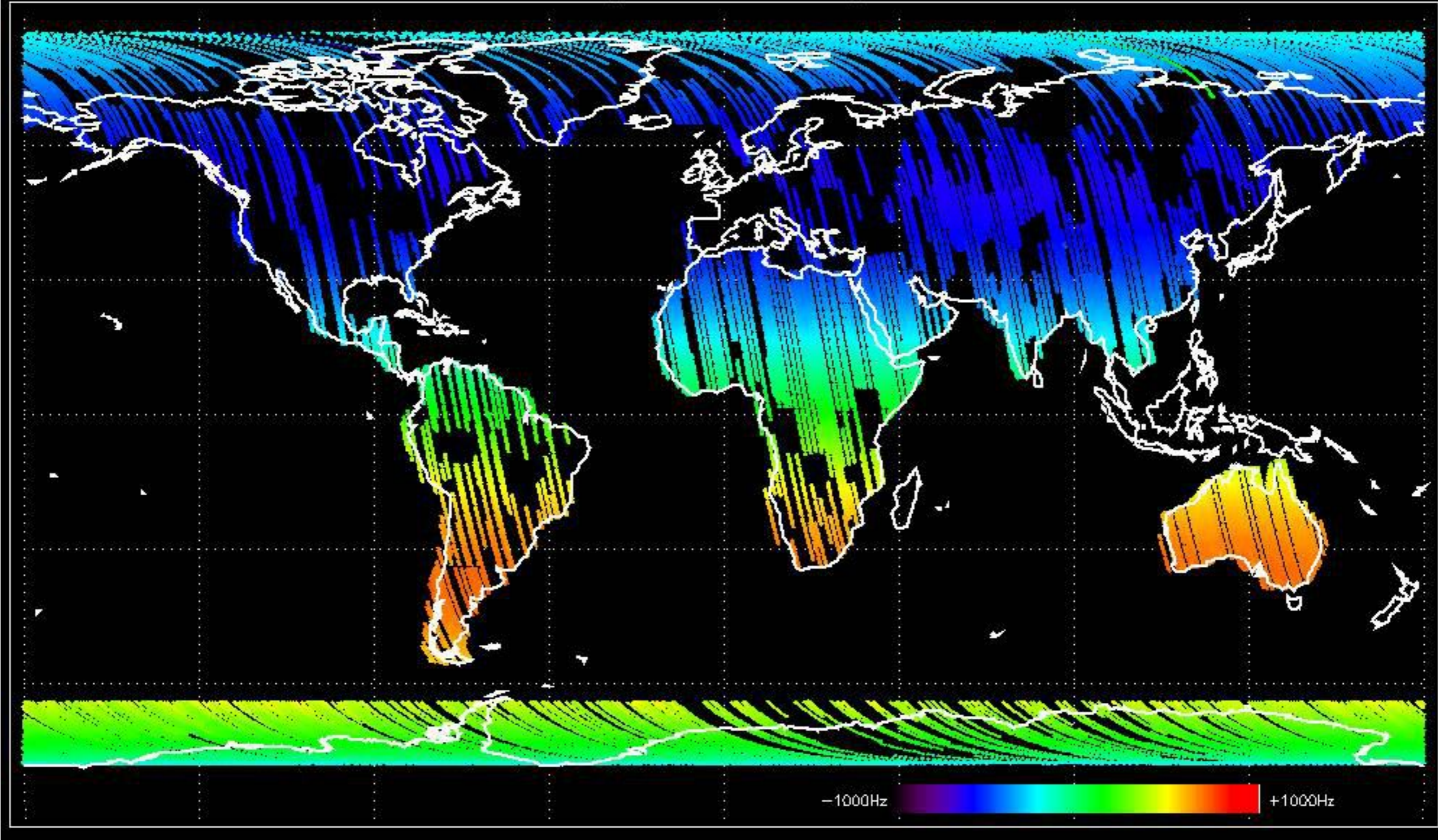
No anomalies observed.



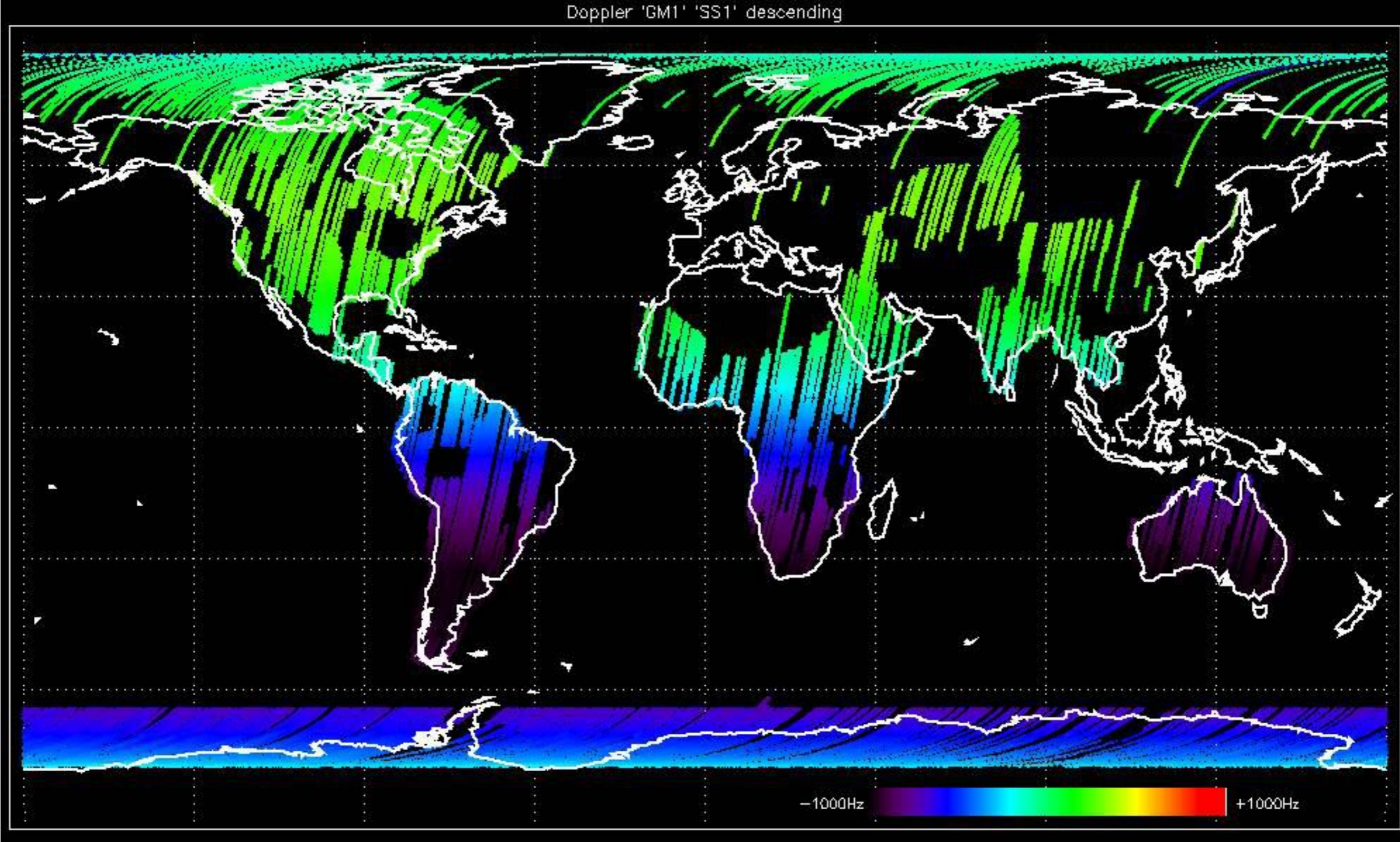


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

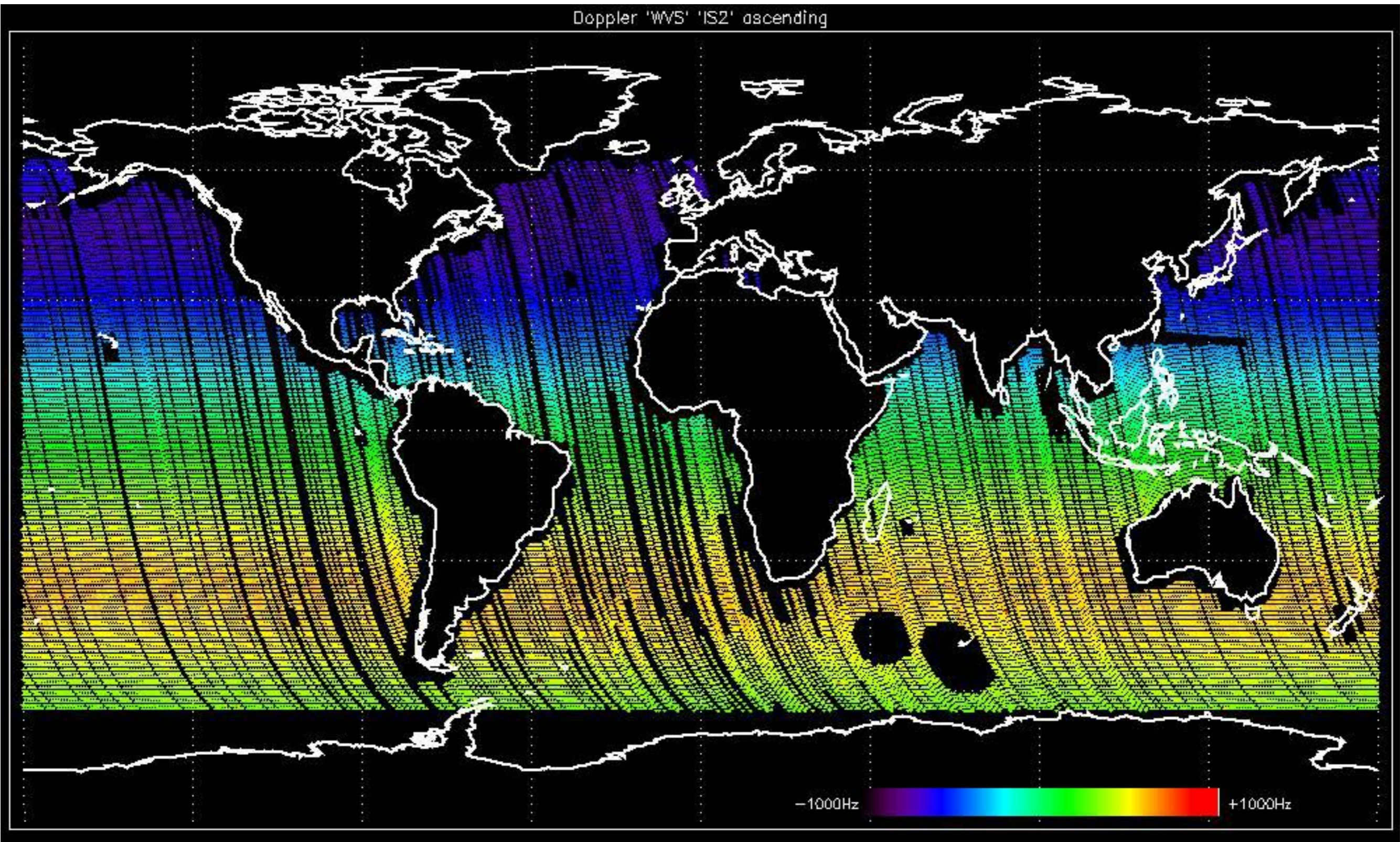
Doppler 'GM1' 'SS1' ascending



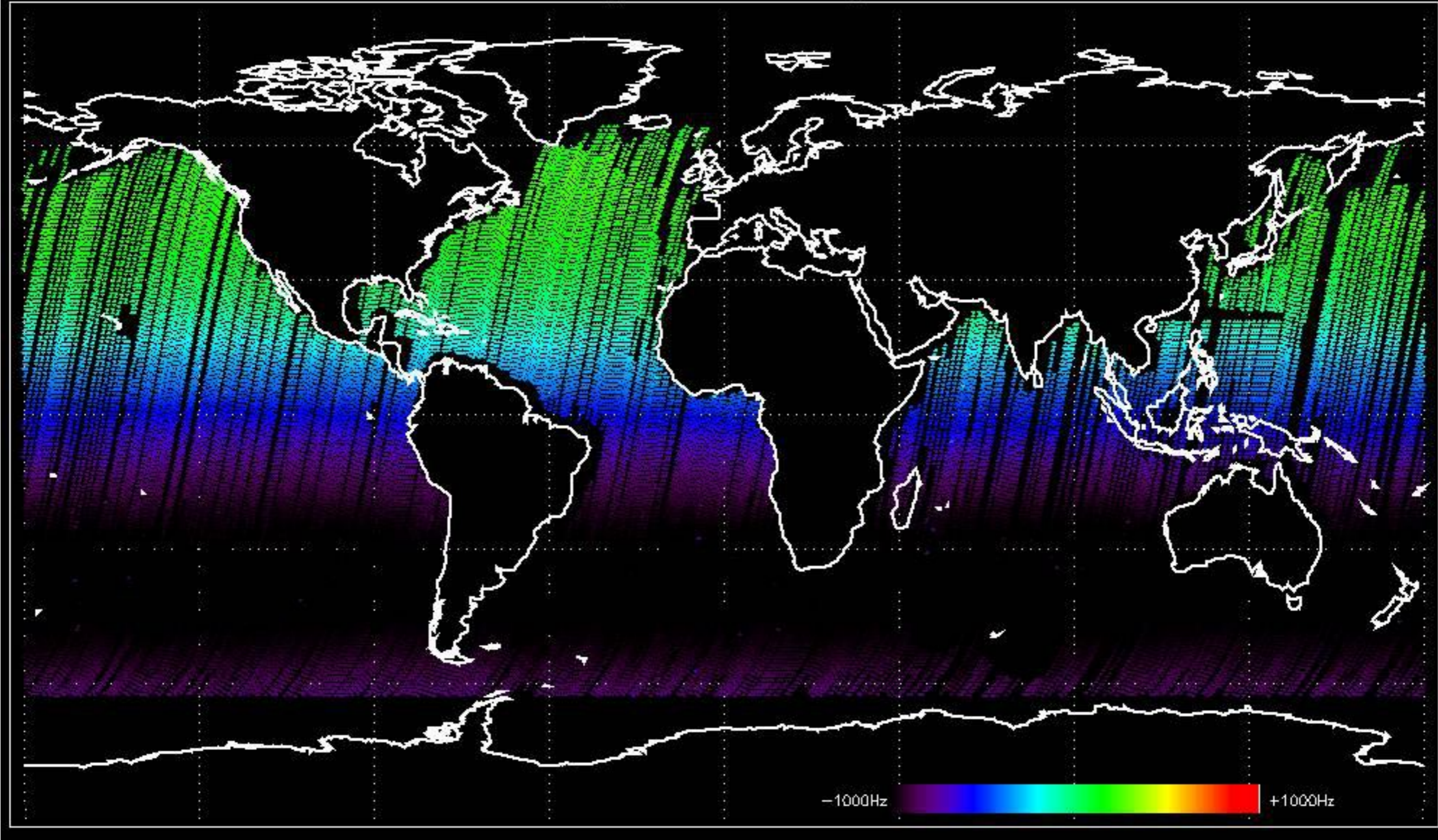
Doppler 'GM1' 'SS1' descending



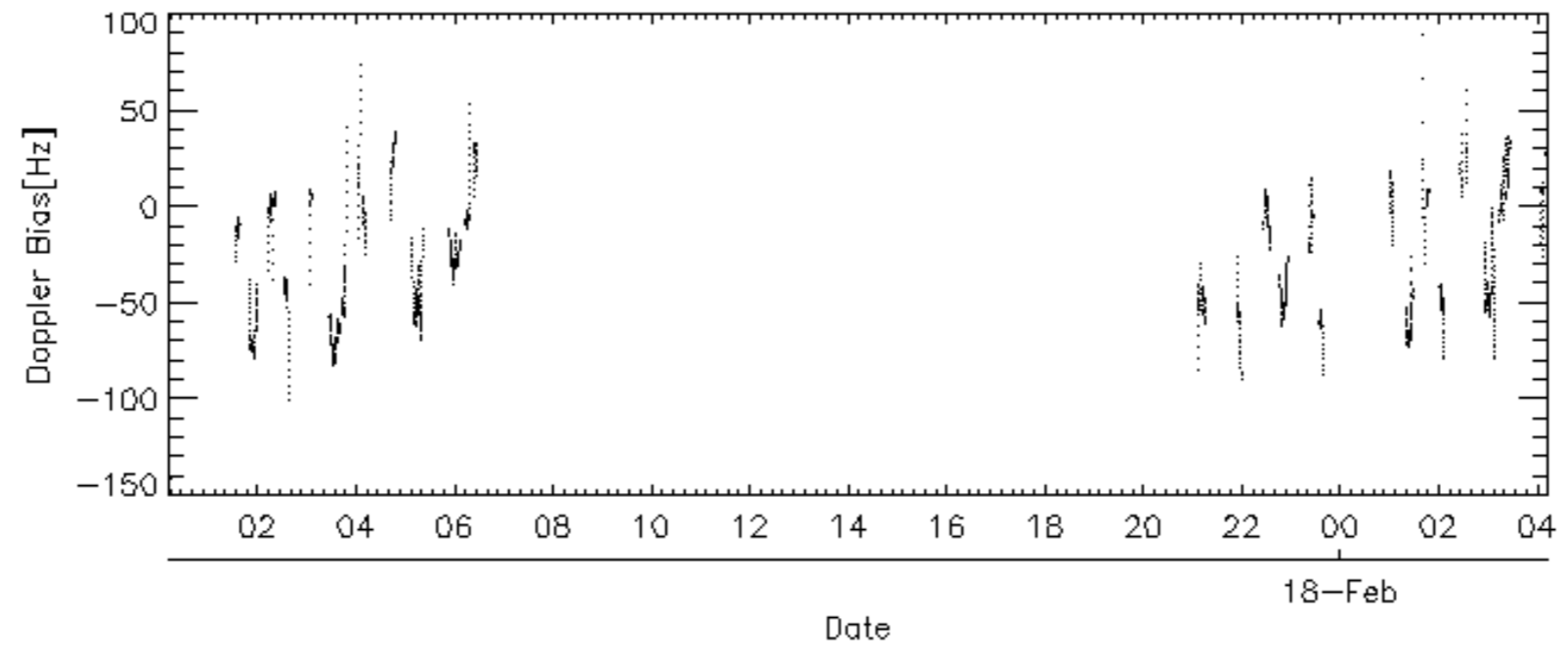
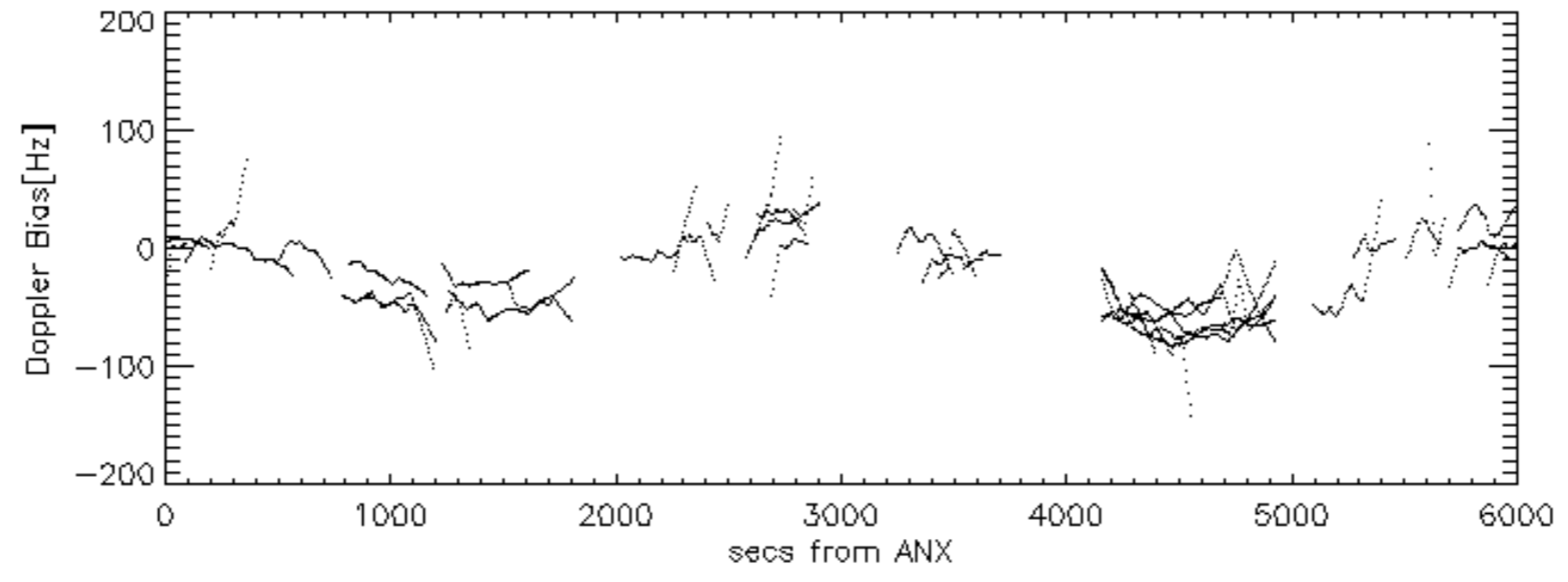
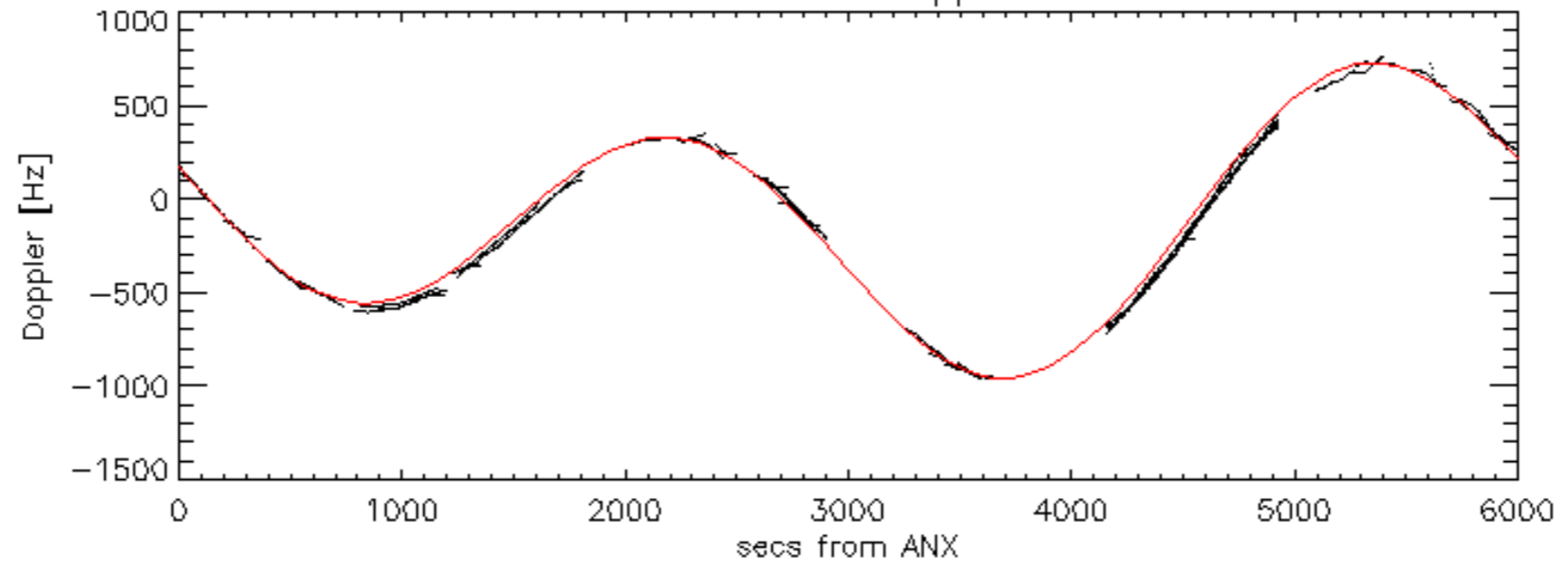
Doppler 'WVS' 'IS2' ascending

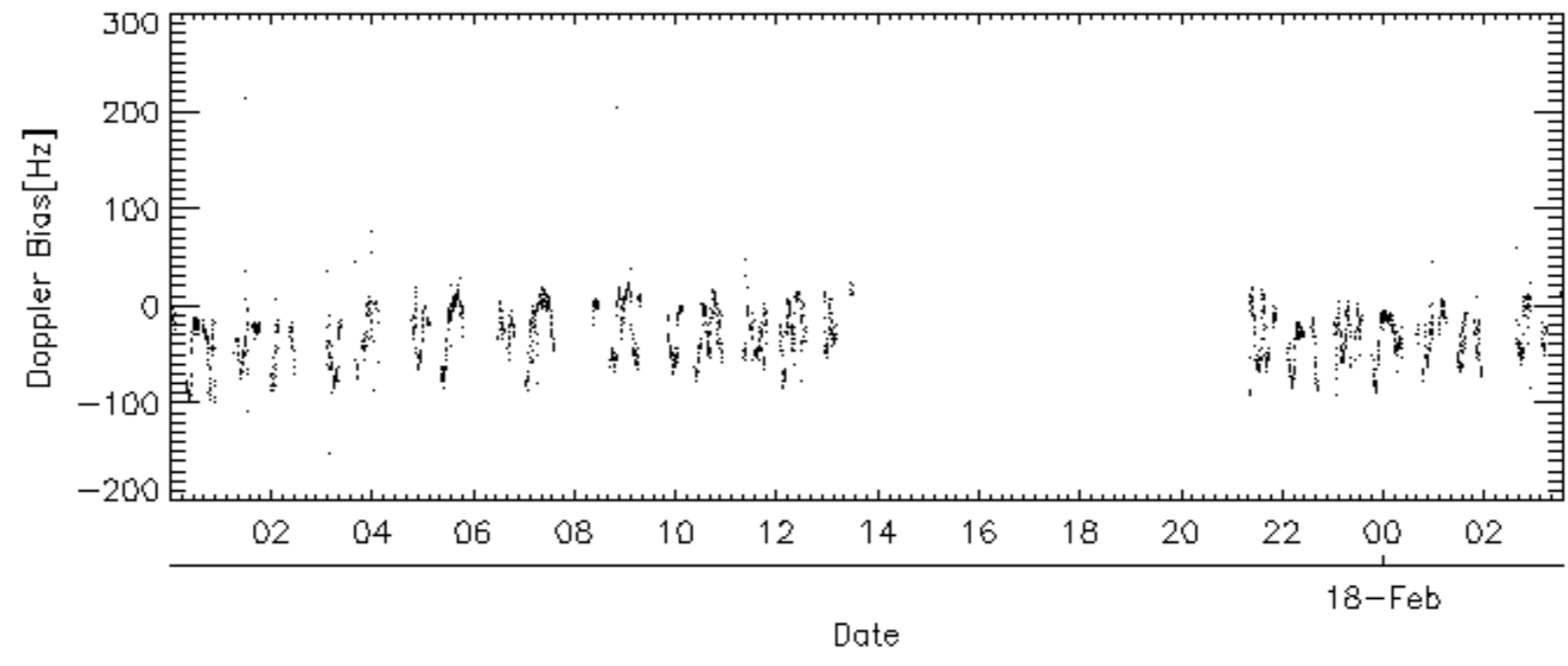
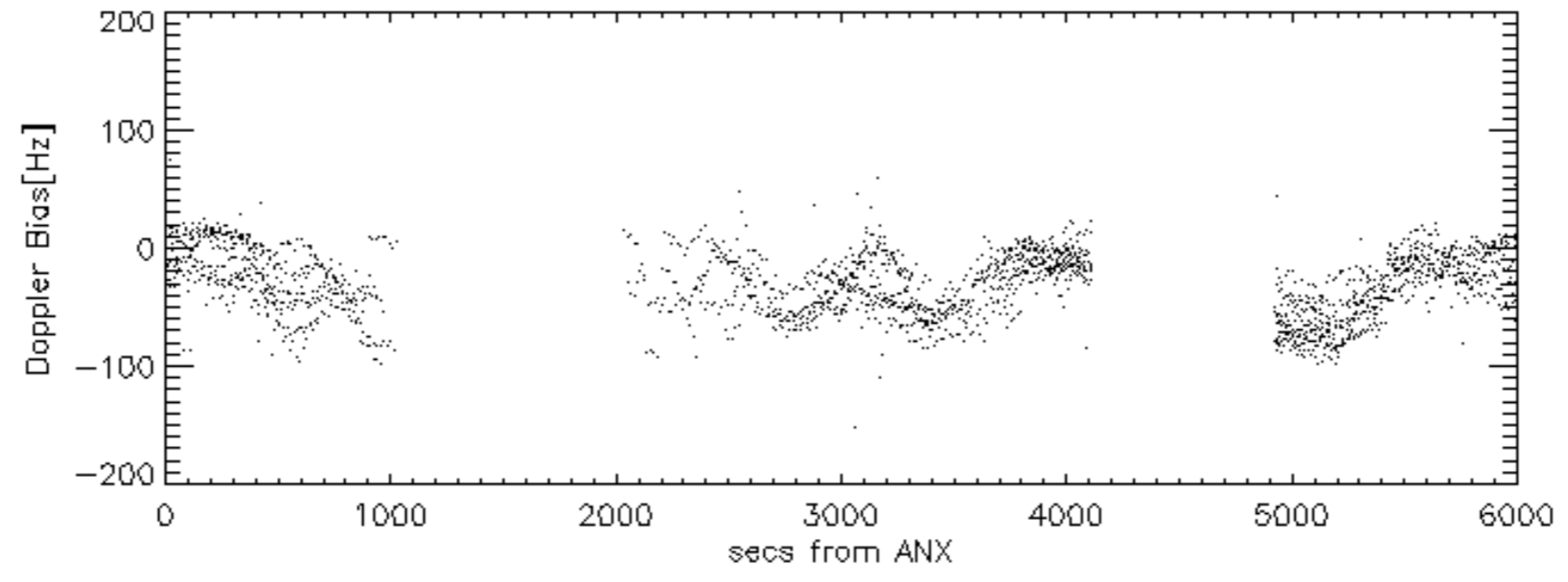
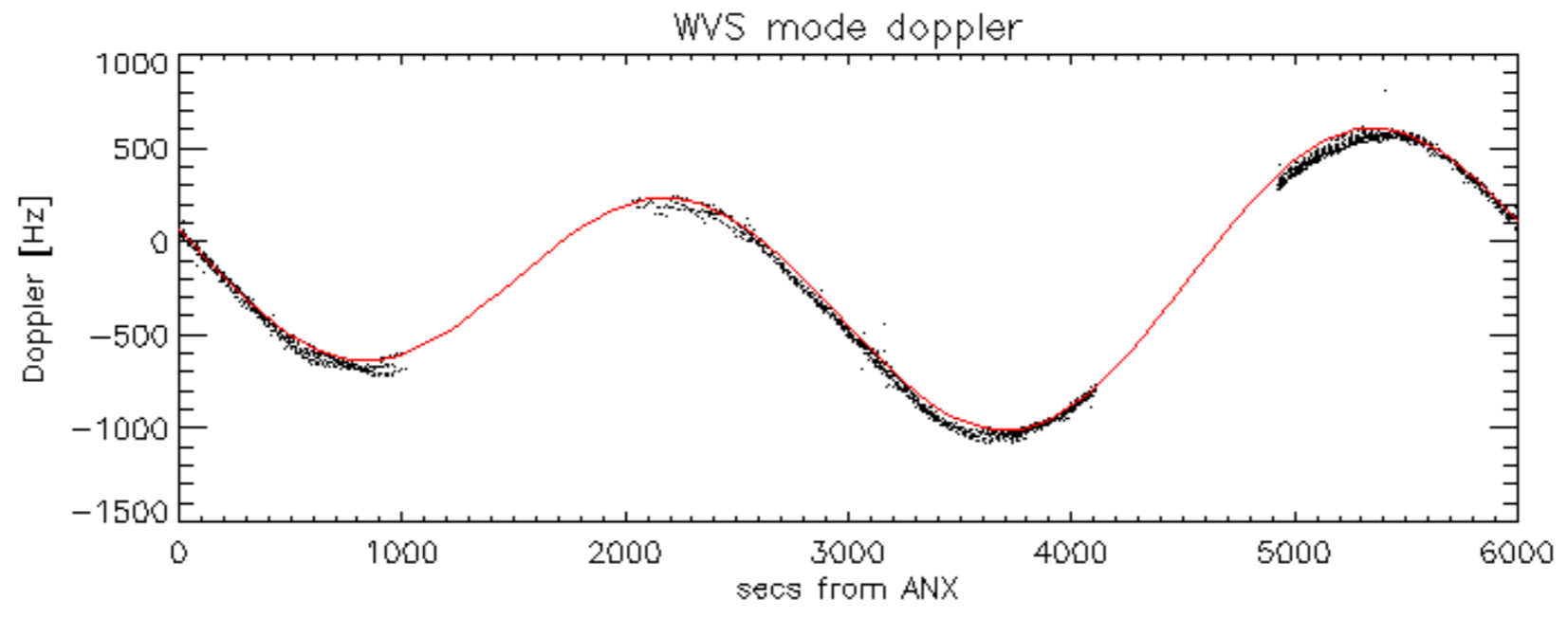


Doppler 'WVS' 'IS2' descending

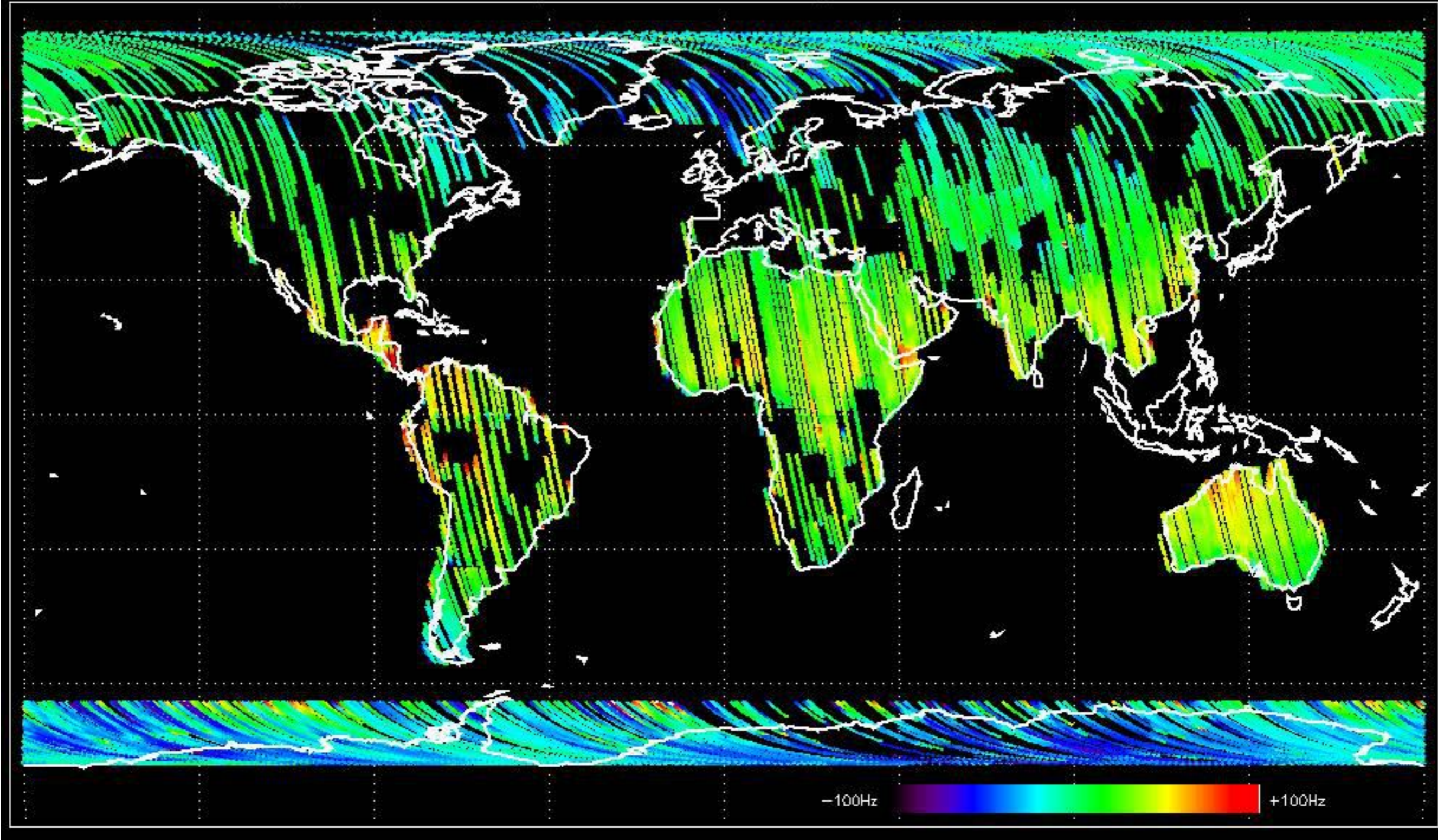


GM1 mode doppler

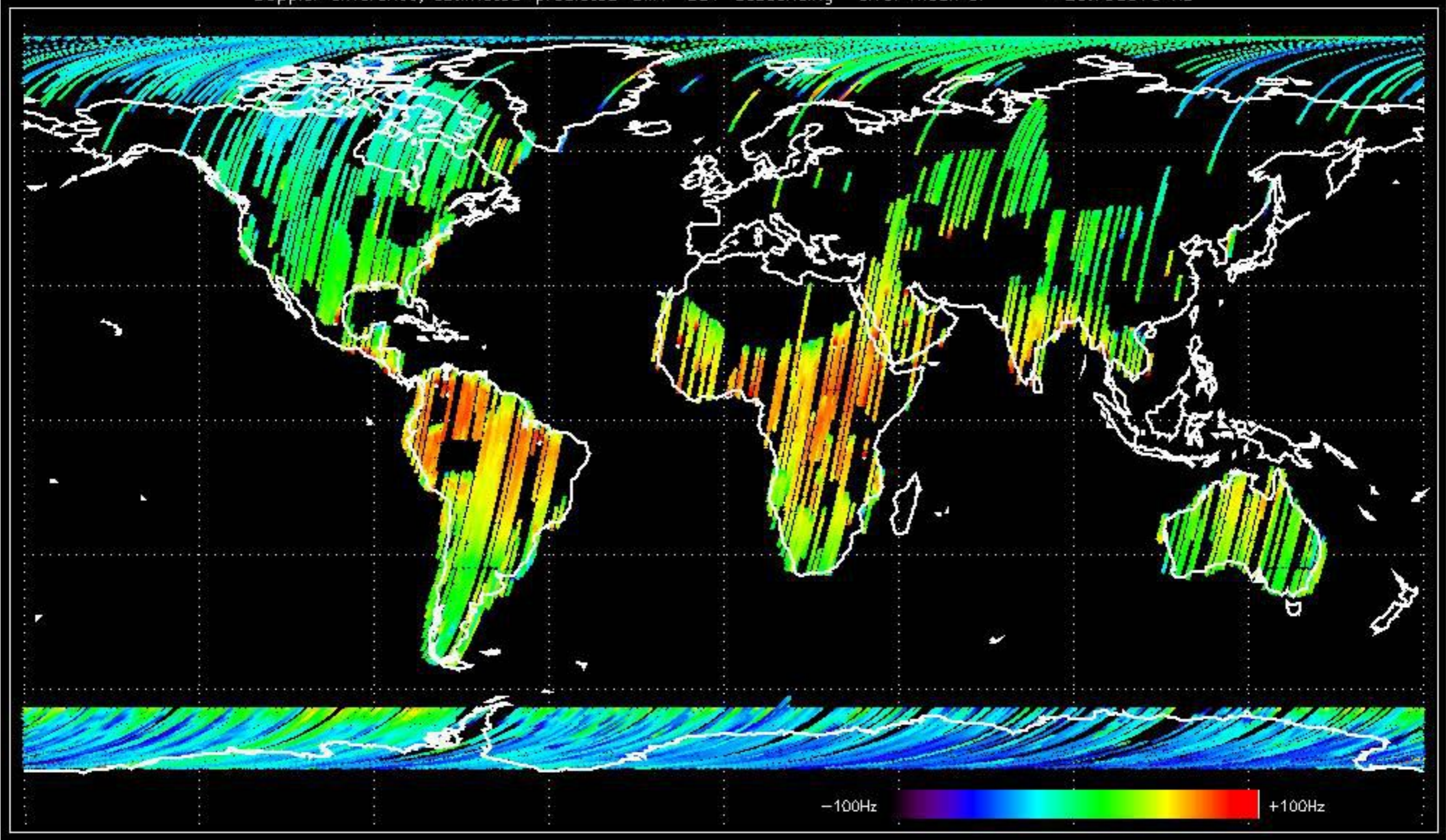




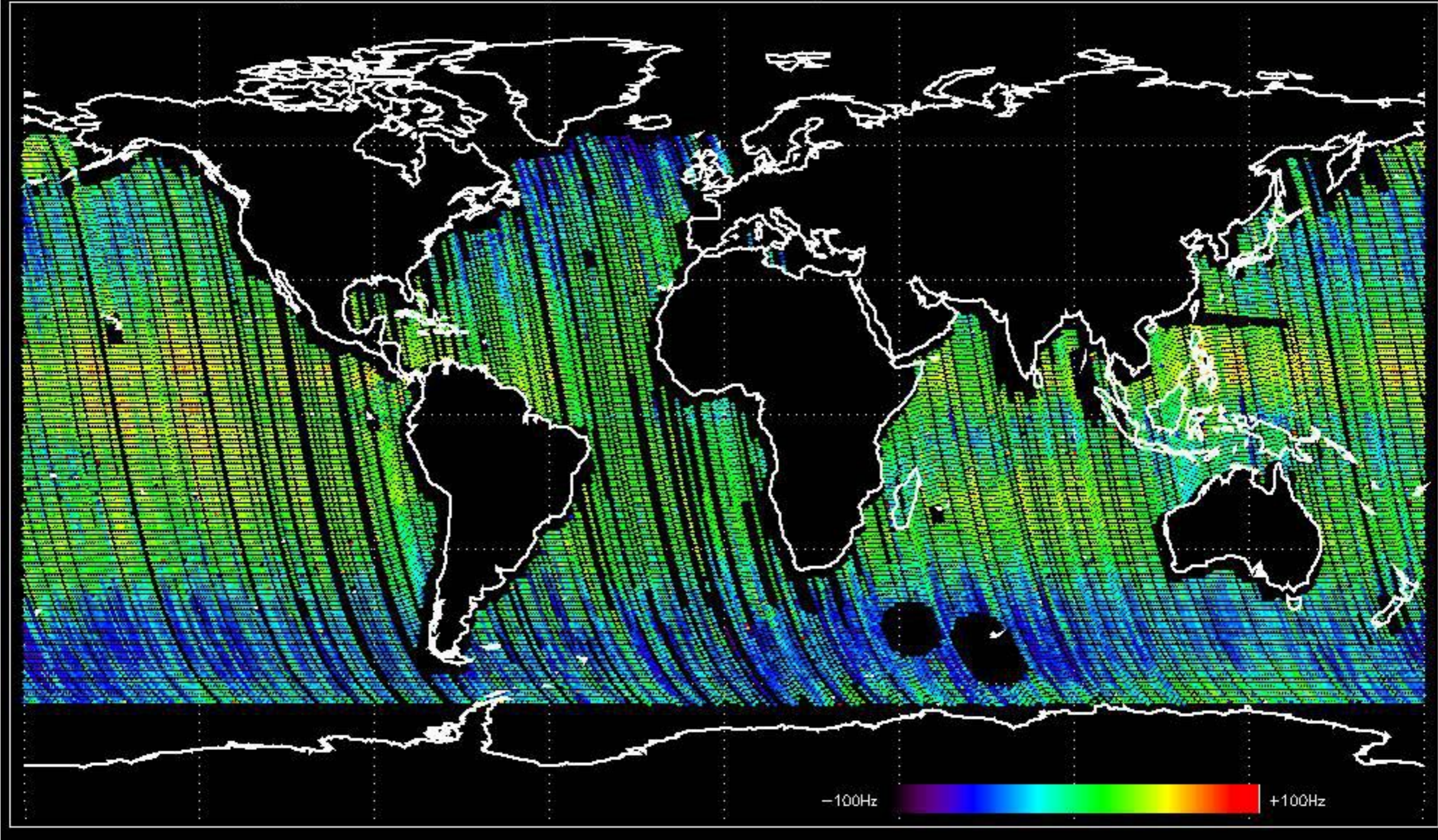
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.653664 Hz



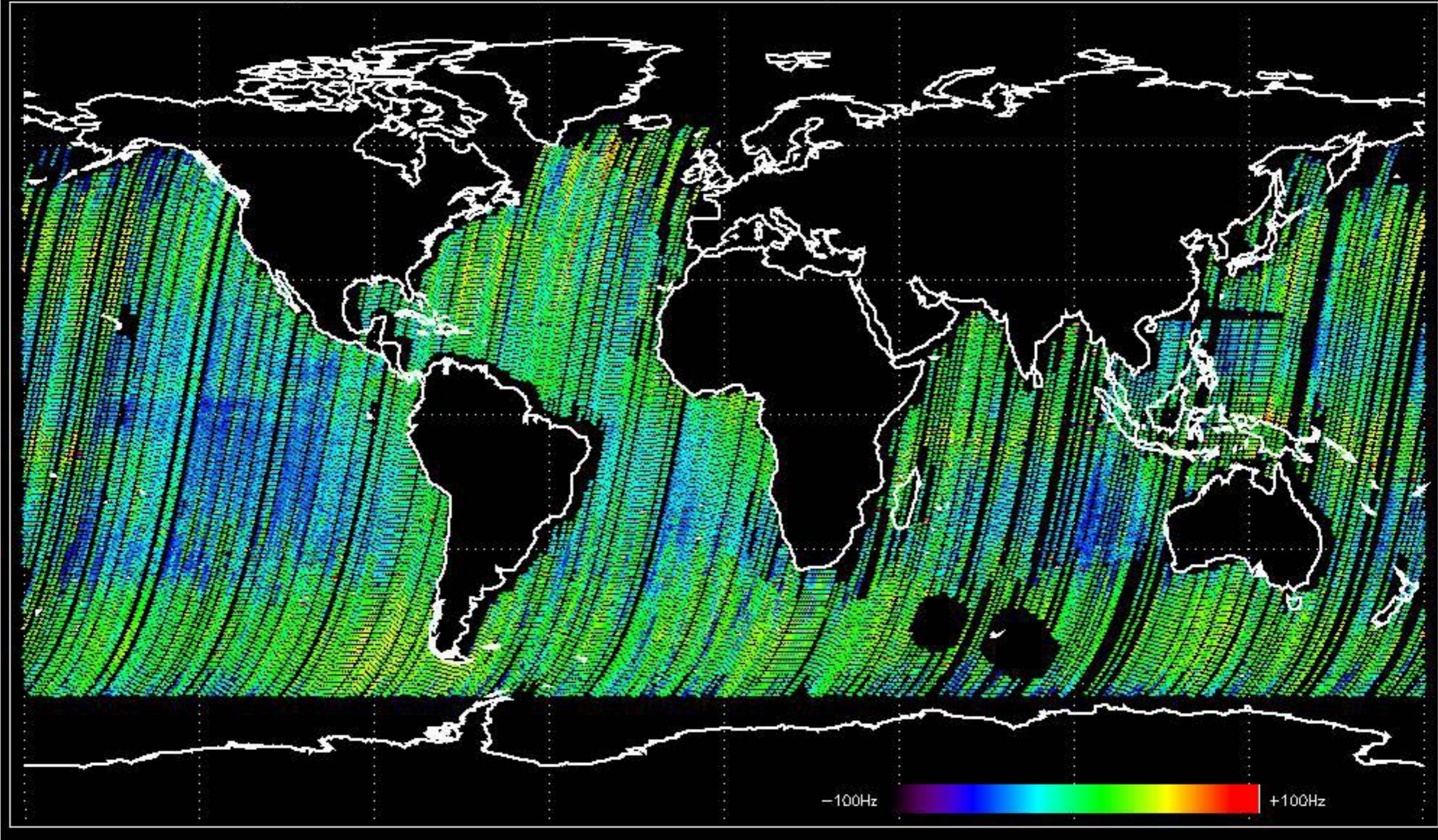
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.795979 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -33.694777 Hz

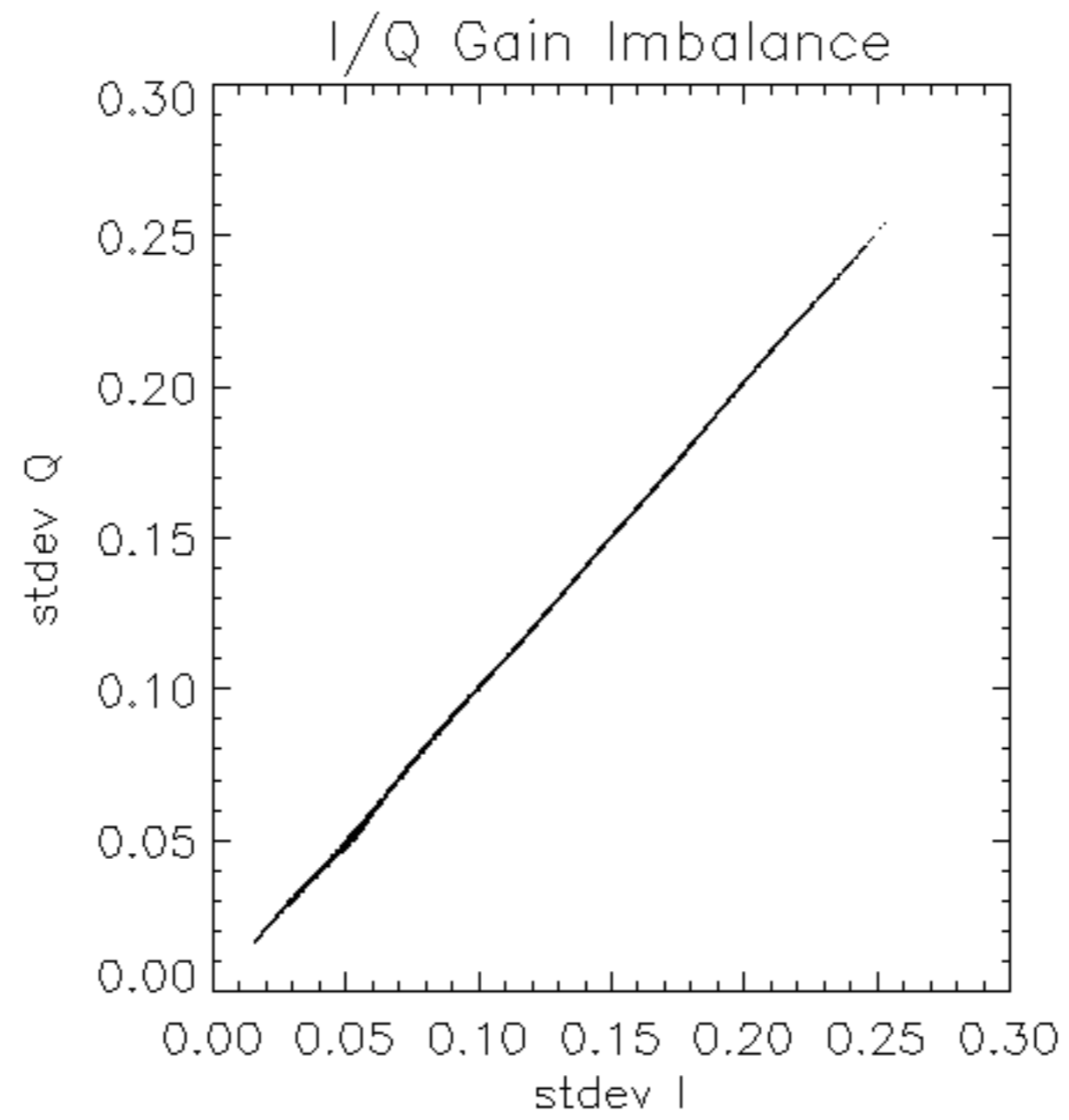


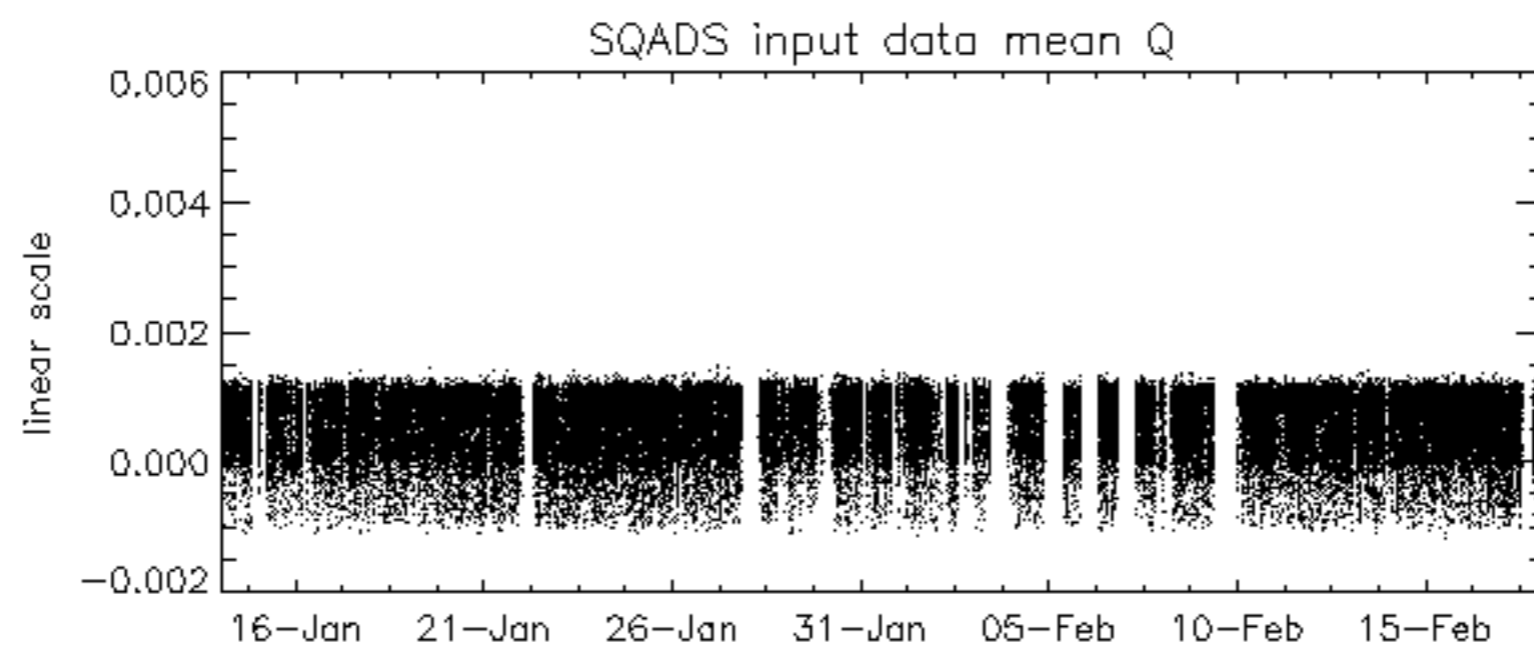
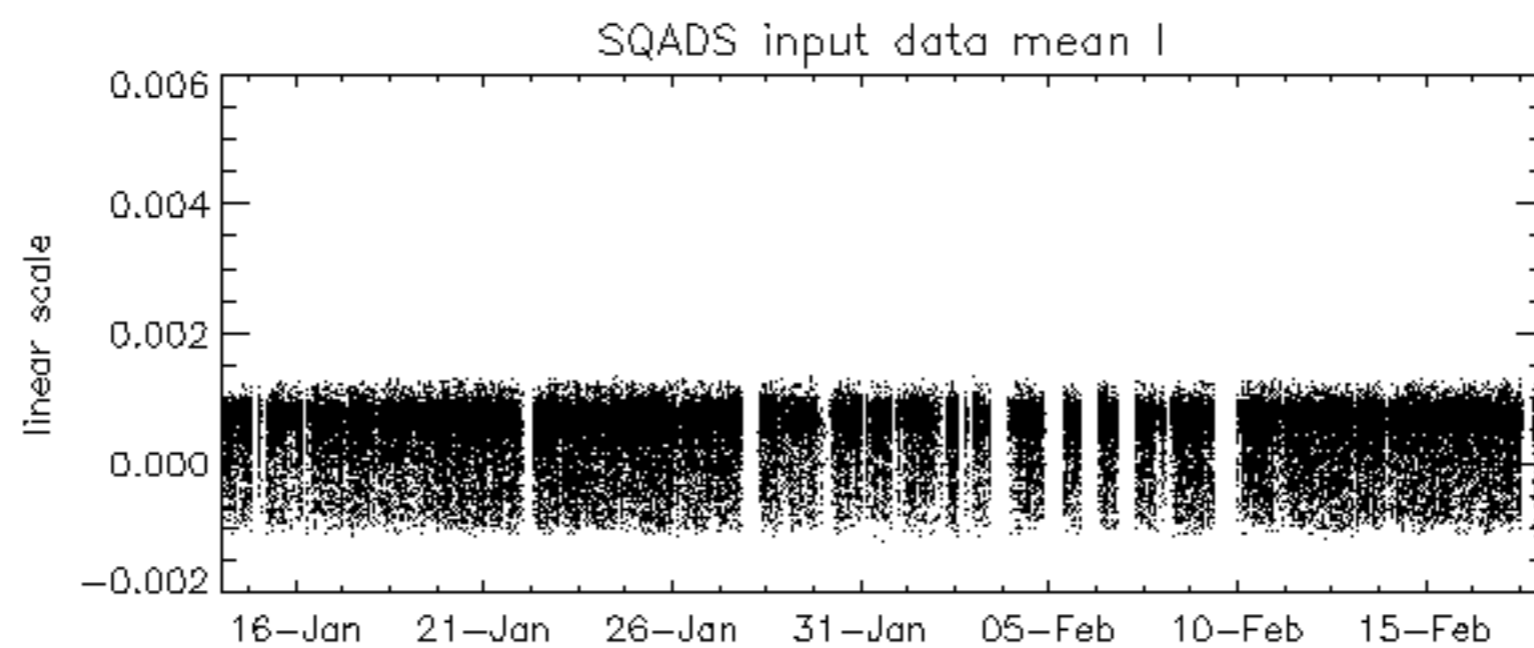
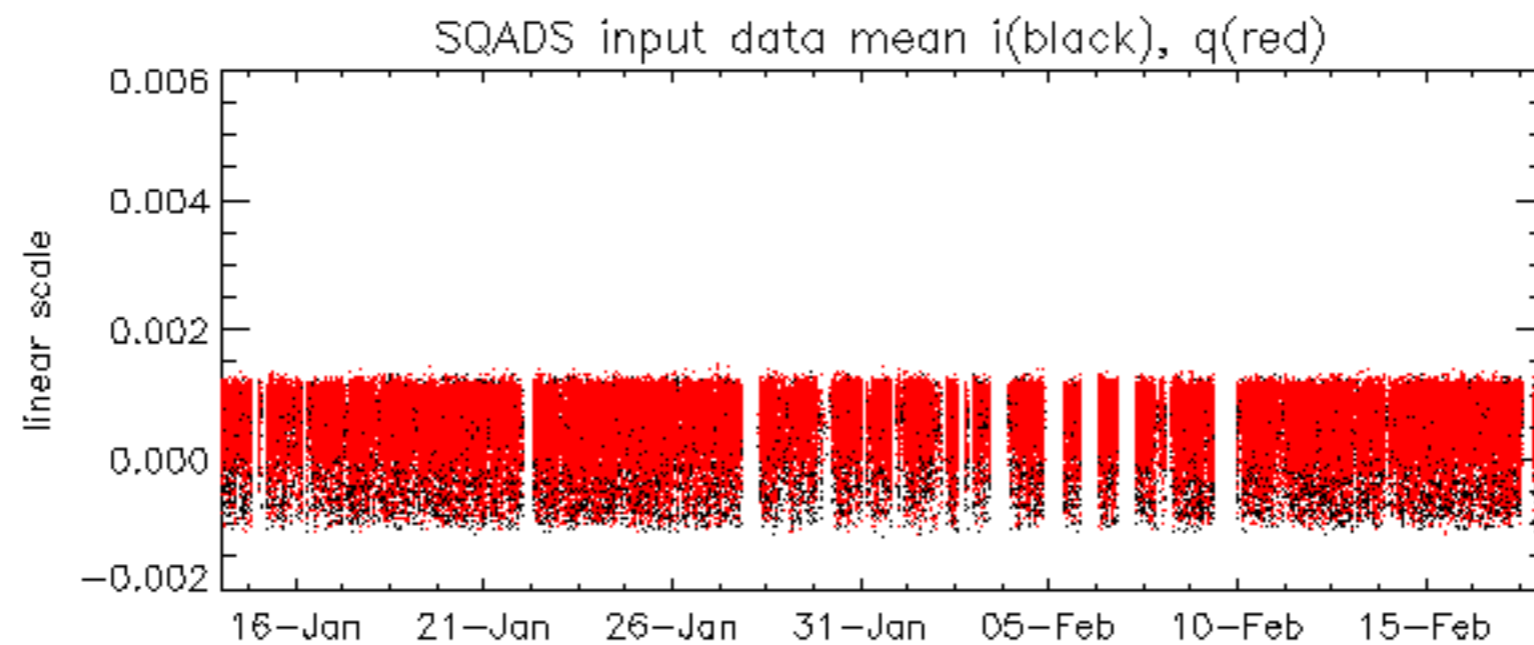
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -34.116925 Hz

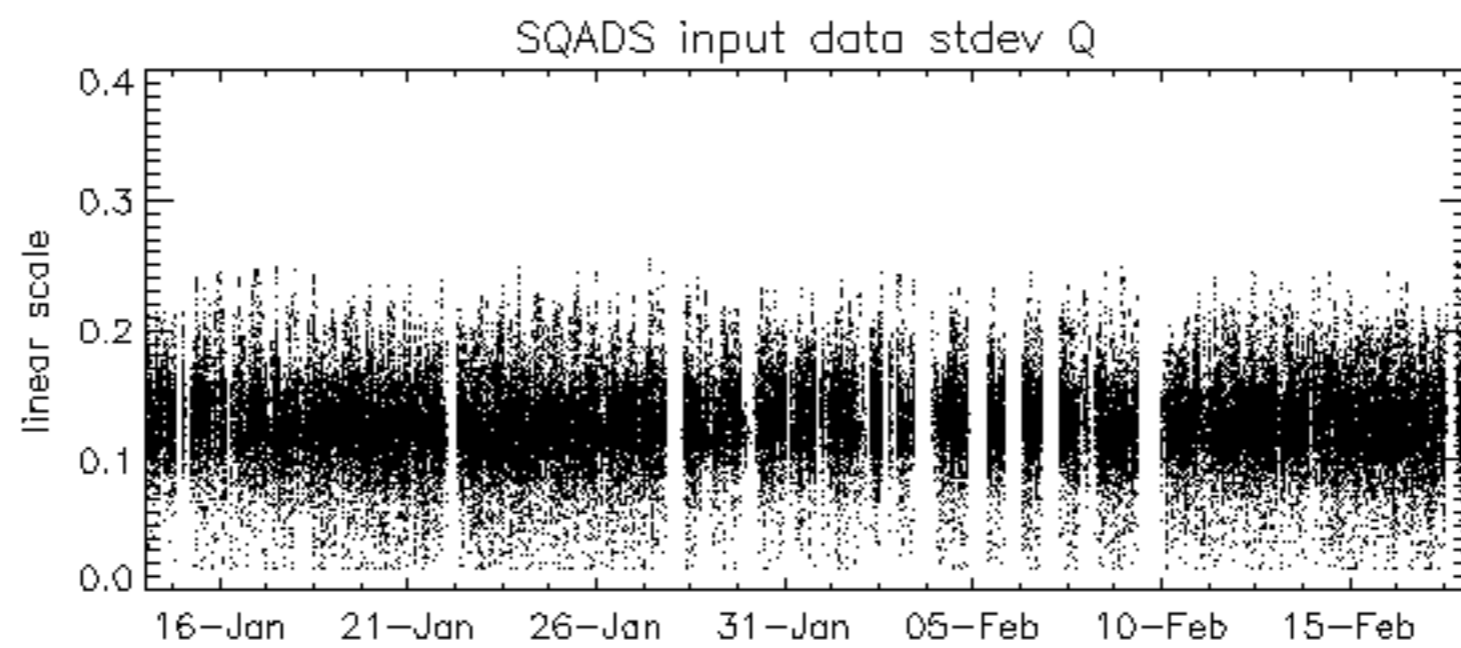
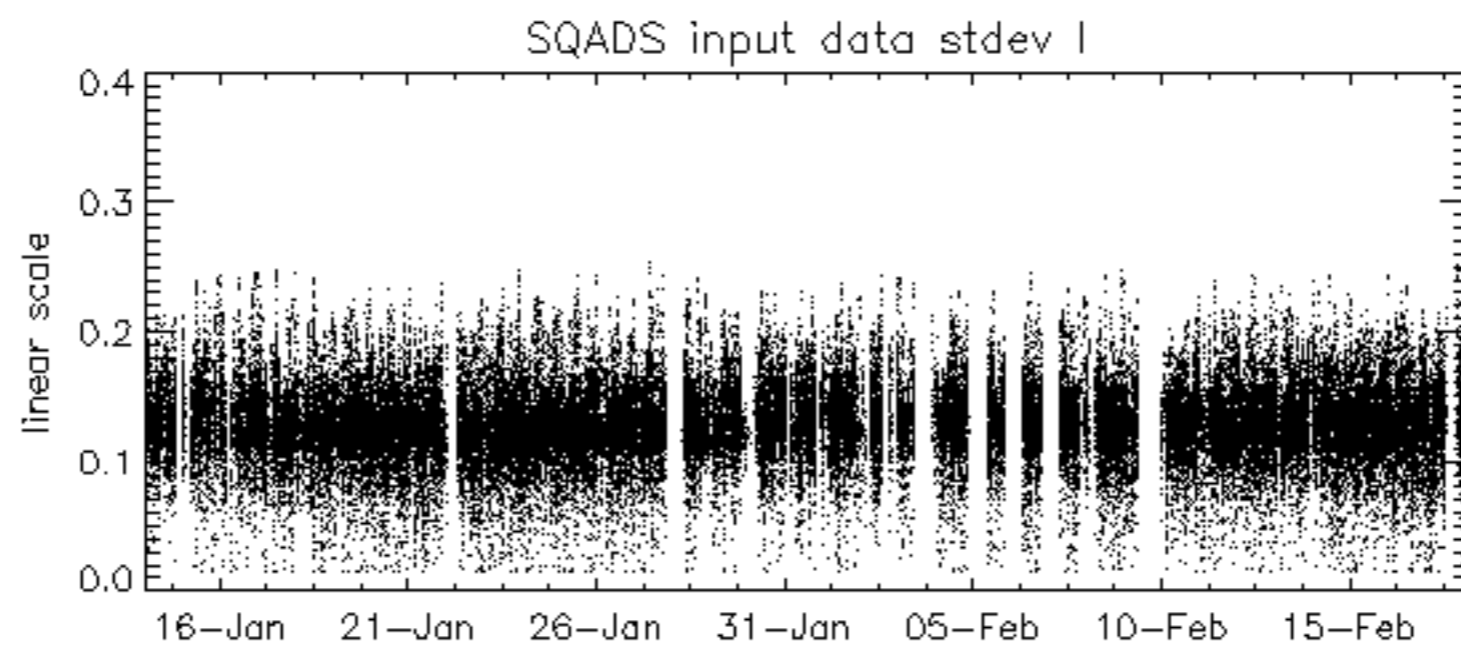
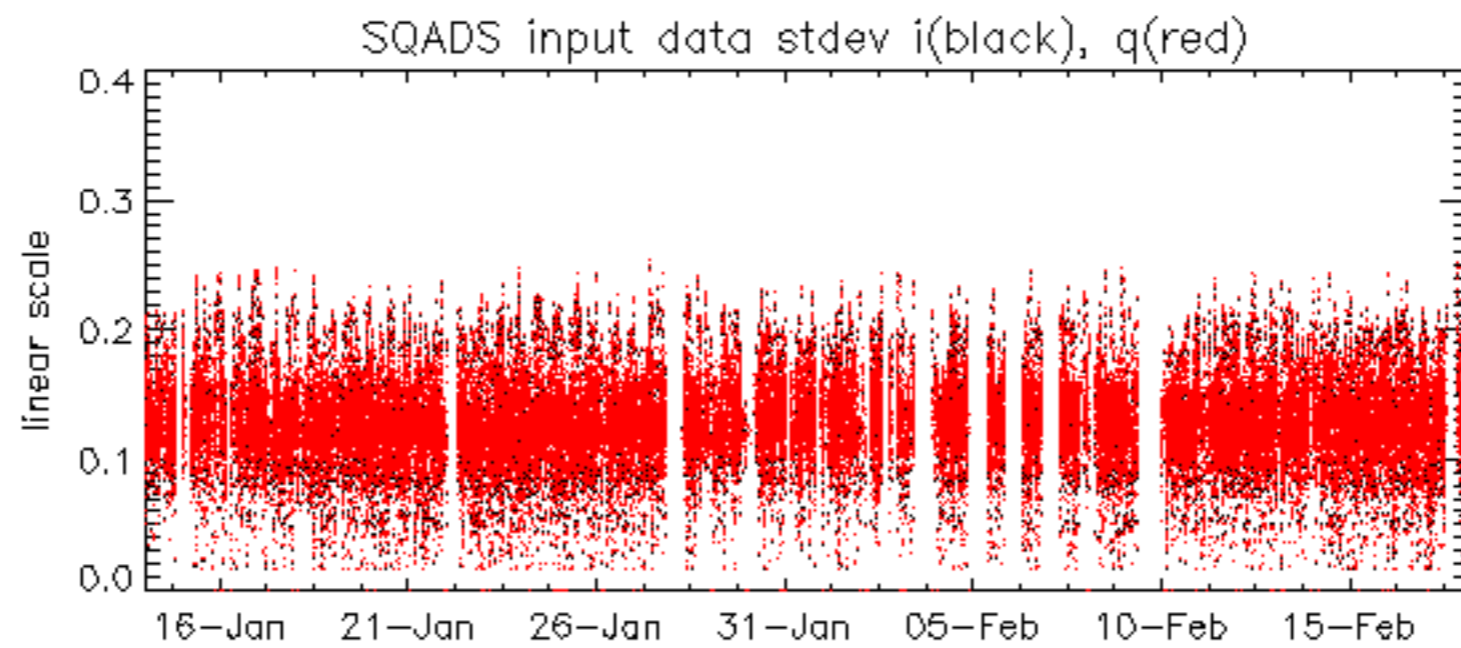


No anomalies observed on available MS products:

No anomalies observed.



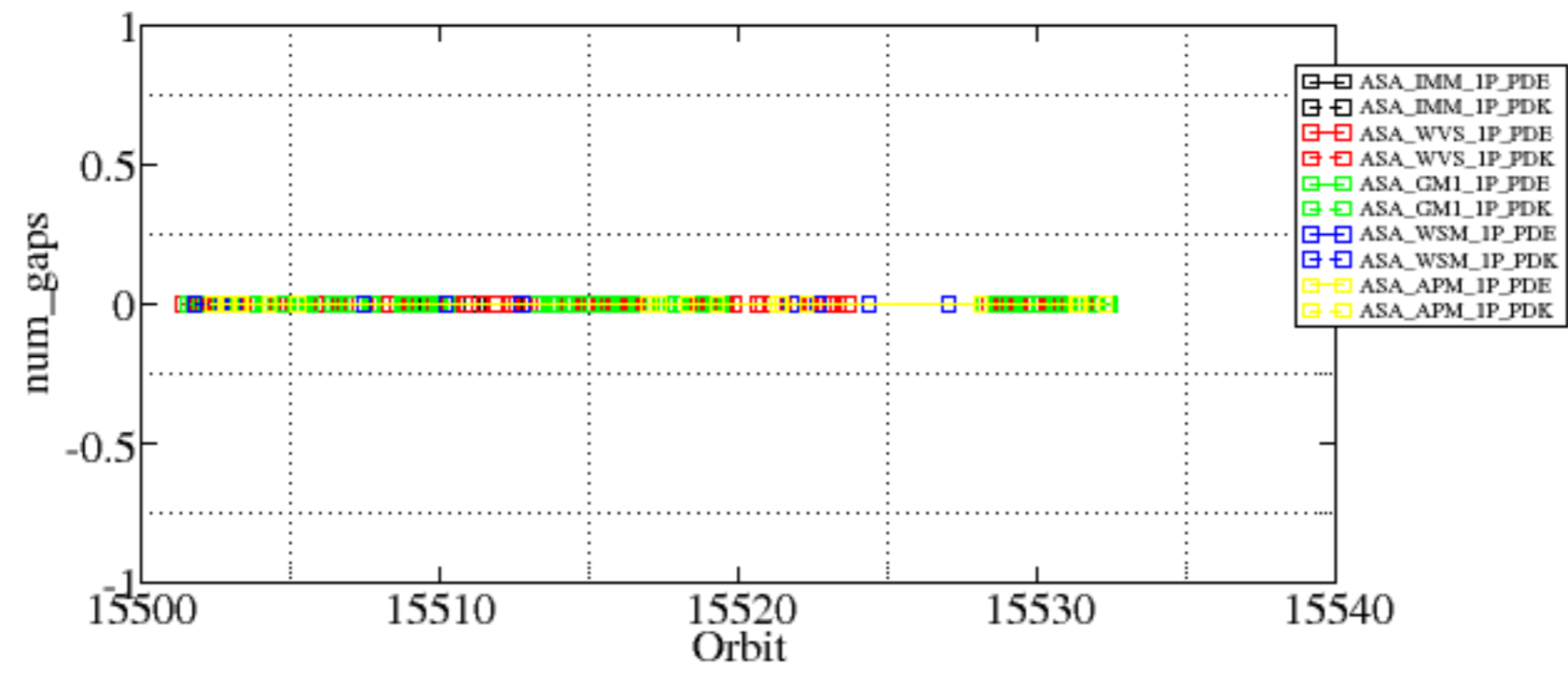


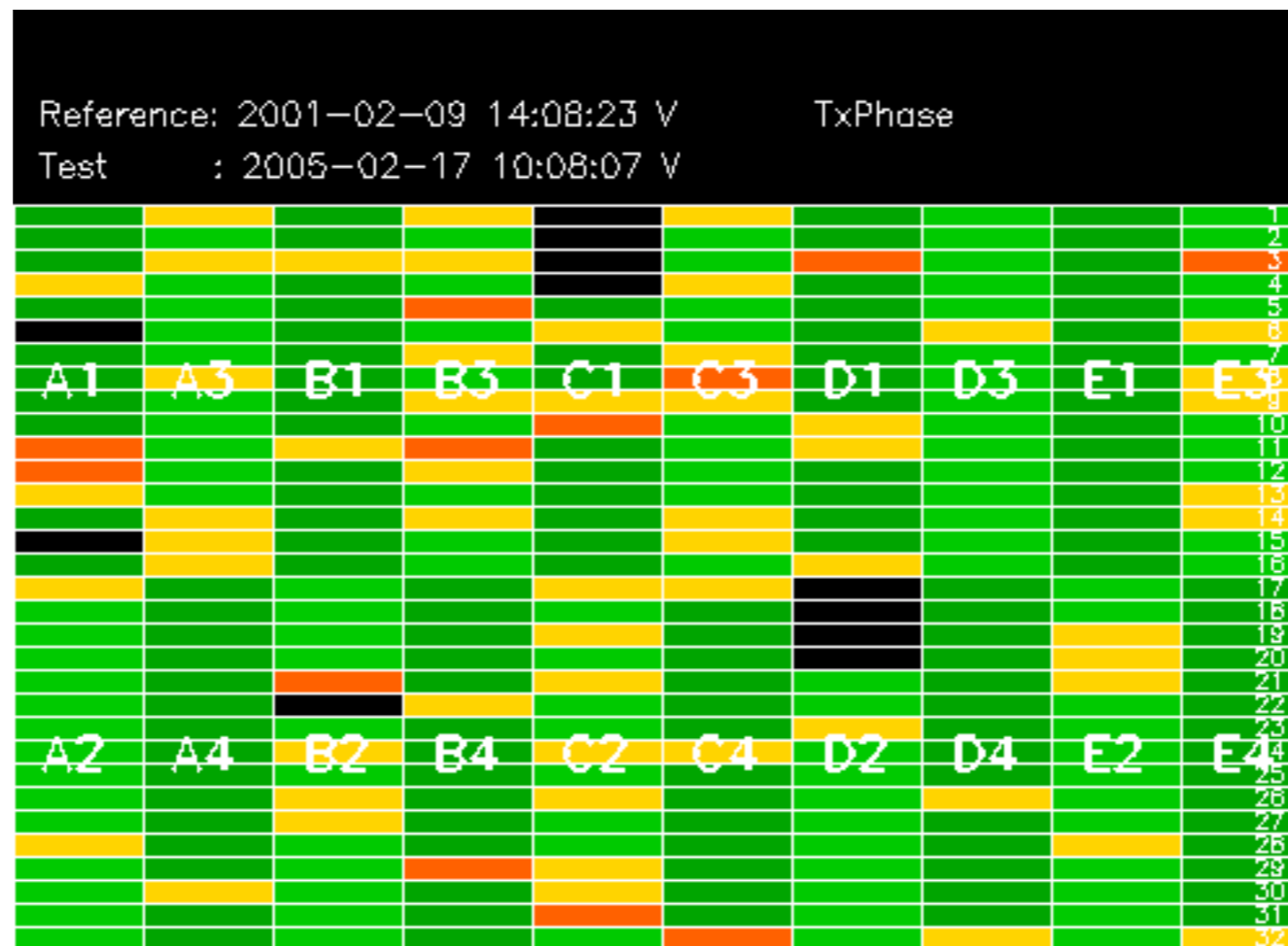


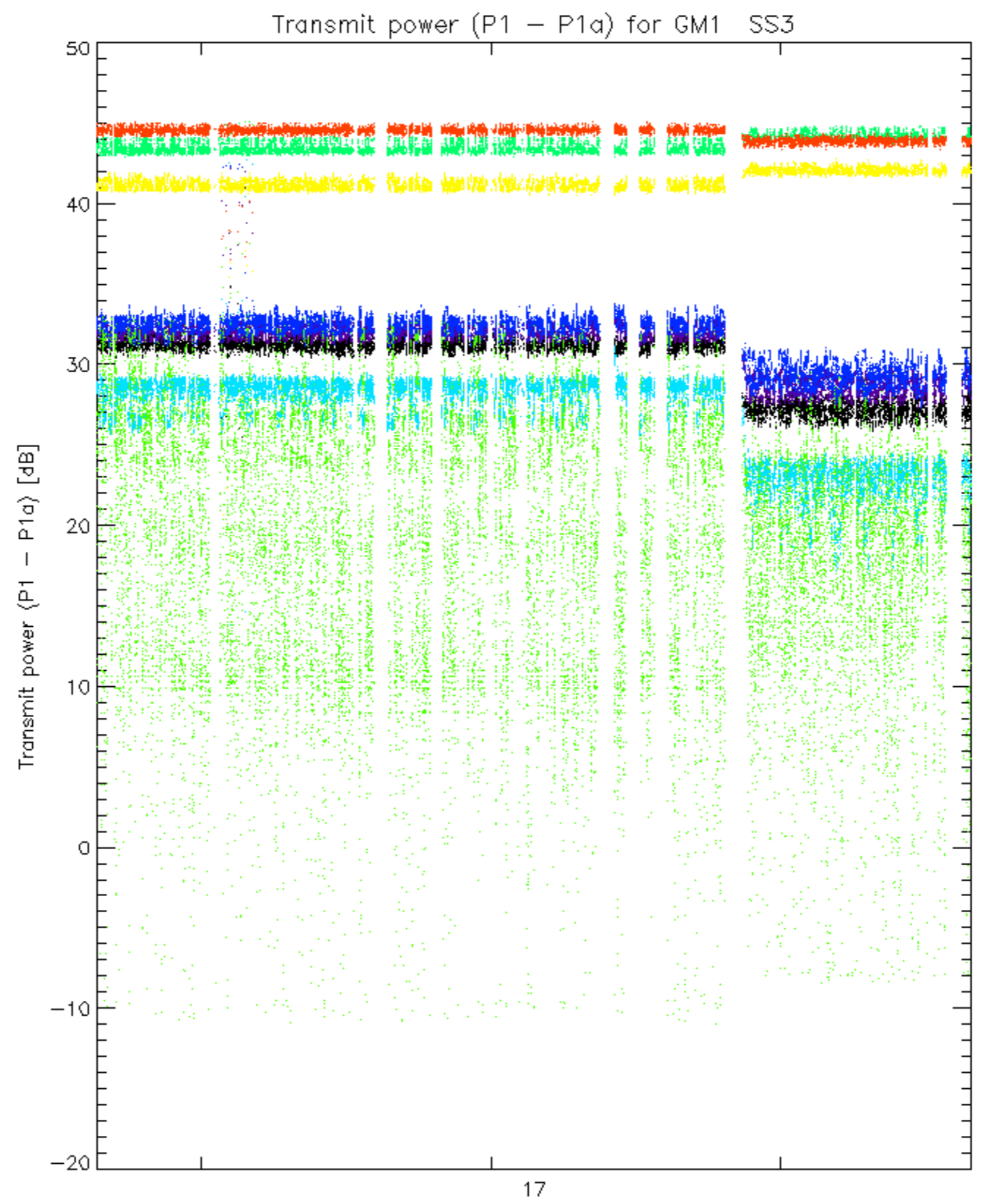
Summary of analysis for the last 3 days 2005021[678]

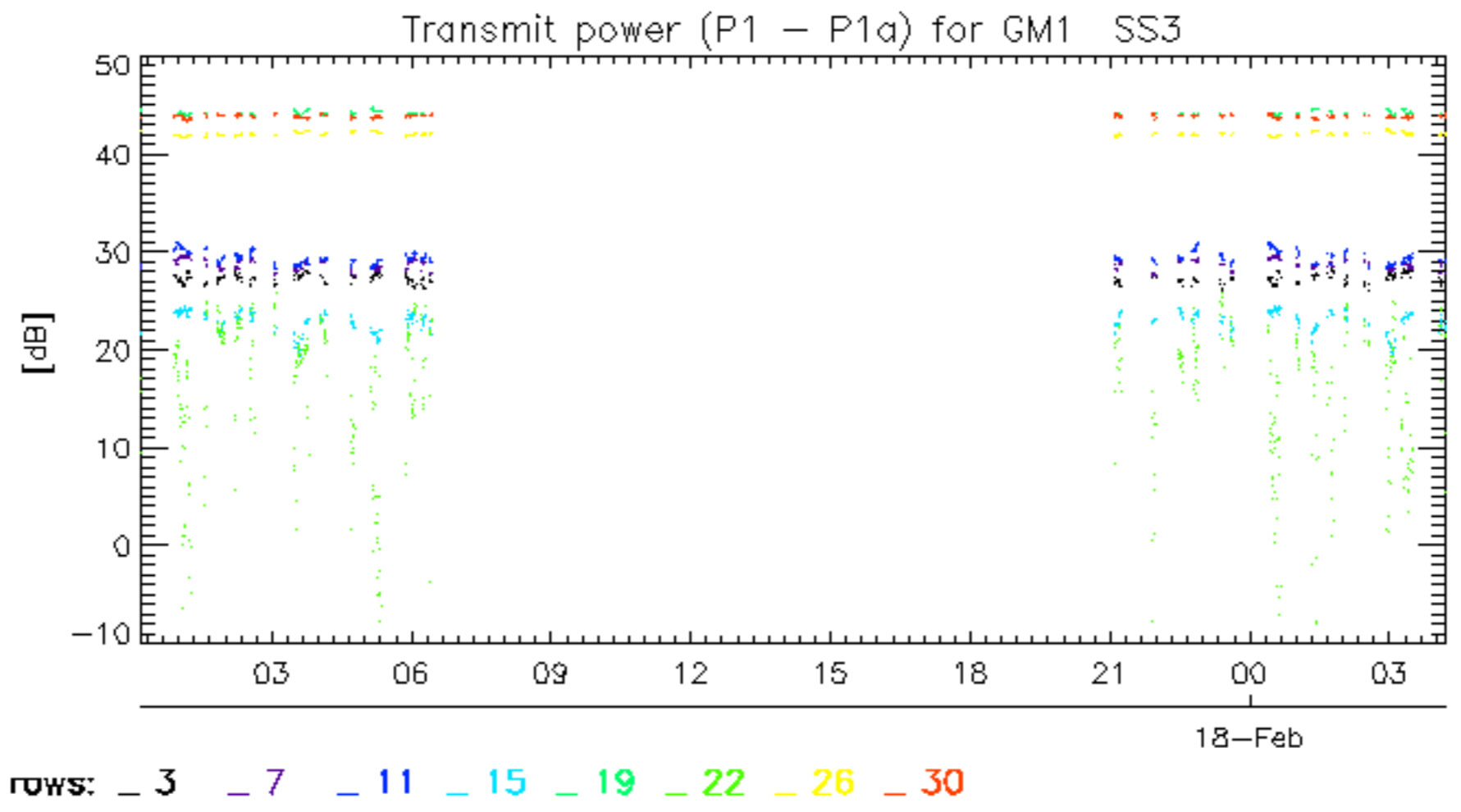
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

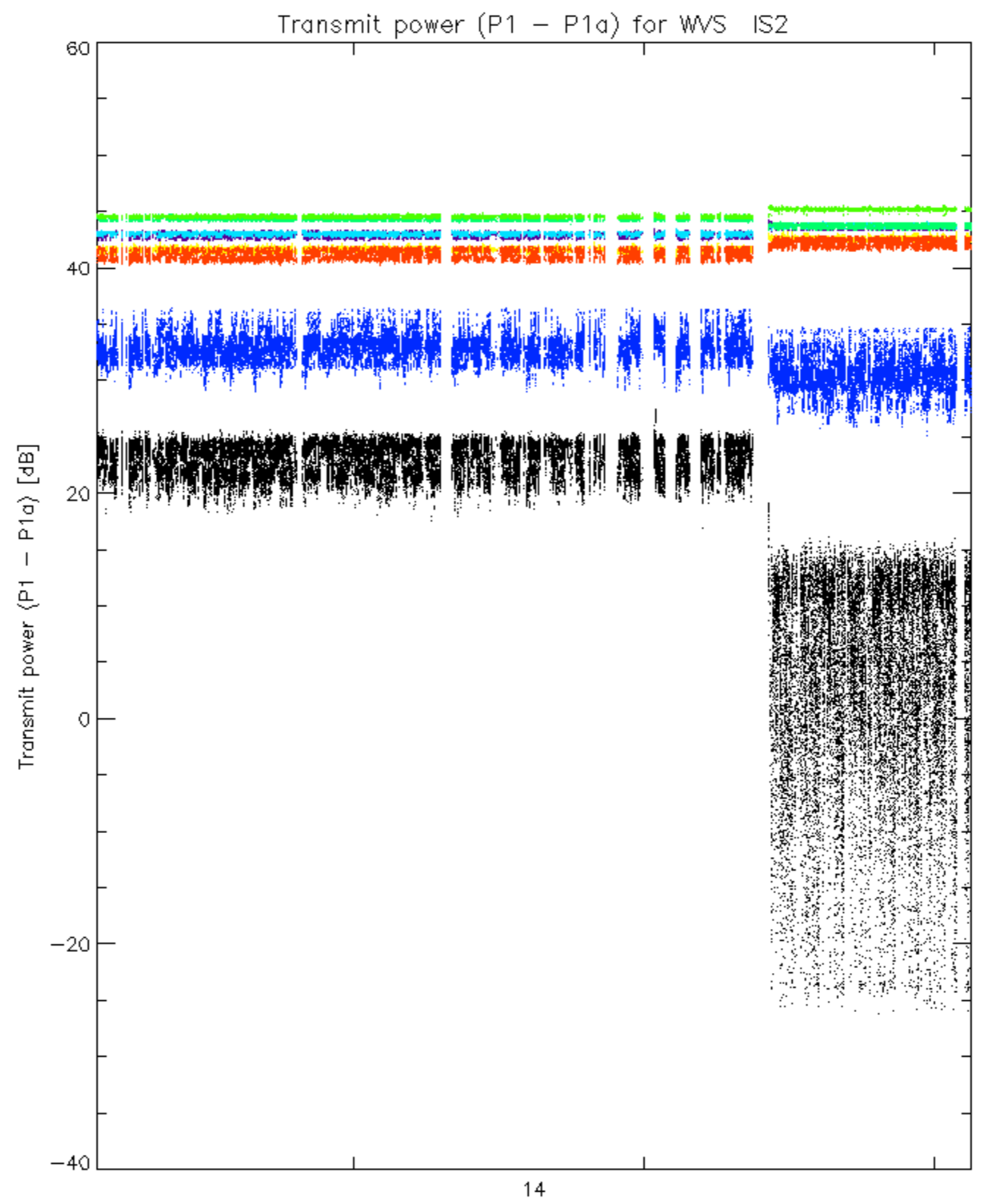
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050216_025620_000001282034_00419_15503_5630.N1	0	38



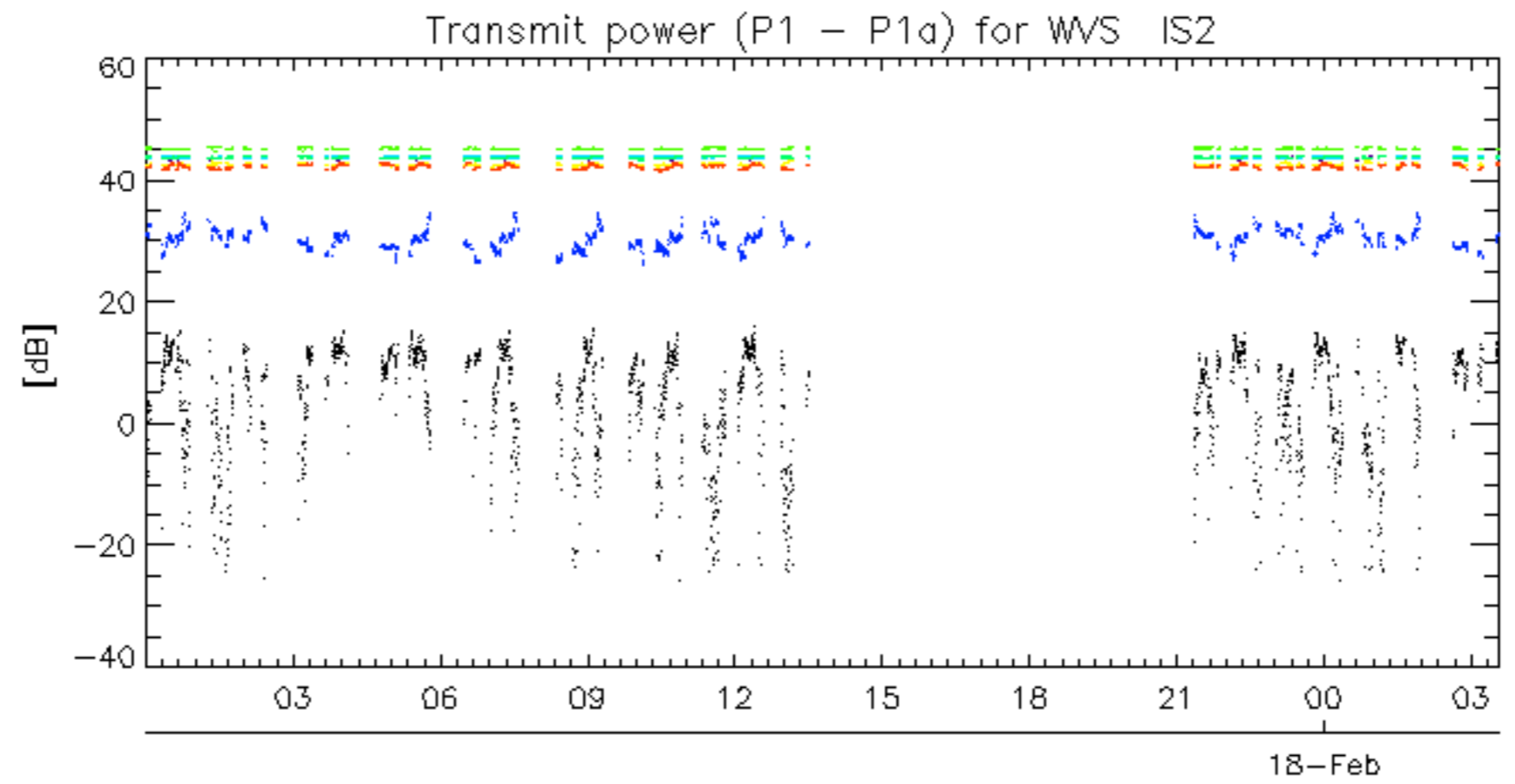








rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.