

PRELIMINARY REPORT OF 060209

last update on Thu Feb 9 16:39:57 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 2006-02-08 00:00:00 to 2006-02-09 16:39:57

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	0	11	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	0	11	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	0	11	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	0	11	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	45	50	7	35
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	45	50	7	35
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	45	50	7	35
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	45	50	7	35

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	20060208 170154
H	20060209 062642

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	-4.016946	0.008170	0.050961
7	P1	-3.001607	0.013111	-0.006116
11	P1	-4.093906	0.022311	0.017708
15	P1	-6.059245	0.017714	0.006687
19	P1	-3.255619	0.006496	-0.013042
22	P1	-4.475614	0.018935	0.021144
26	P1	-4.199014	0.013105	0.049279
30	P1	-5.771044	0.010400	0.007207
3	P1	-16.913961	0.265720	0.079556
7	P1	-16.642305	0.126544	-0.113162
11	P1	-16.595726	0.302849	0.004402
15	P1	-13.184909	0.112220	0.134157
19	P1	-13.888988	0.071913	-0.021465
22	P1	-15.816484	0.566847	0.221416
26	P1	-15.763286	0.250581	0.058810
30	P1	-16.581242	0.316613	0.056441

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.563206	0.093102	0.159846
7	P2	-22.440952	0.096765	0.100737
11	P2	-16.277021	0.102625	0.091650
15	P2	-7.198645	0.103582	0.054571
19	P2	-9.161980	0.097447	0.033669
22	P2	-17.940554	0.094297	-0.001923
26	P2	-16.214947	0.101236	0.021319
30	P2	-19.642445	0.084959	0.028583

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.204748	0.007458	0.030350
7	P3	-8.204748	0.007458	0.030350
11	P3	-8.204748	0.007458	0.030350
15	P3	-8.204748	0.007458	0.030350
19	P3	-8.204748	0.007458	0.030350
22	P3	-8.204748	0.007458	0.030350
26	P3	-8.204748	0.007458	0.030350
30	P3	-8.204748	0.007458	0.030350

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	-3.731419	0.011264	-0.033342
7	P1	-2.743626	0.007467	0.010482
11	P1	-2.877147	0.012675	-0.060528
15	P1	-3.487288	0.020163	-0.083018
19	P1	-3.379081	0.012277	-0.018103
22	P1	-5.136586	0.021528	-0.061292
26	P1	-5.849849	0.017225	0.011223
30	P1	-5.234606	0.028577	0.049493
3	P1	-11.538861	0.041677	-0.045343
7	P1	-9.919773	0.047738	-0.033962
11	P1	-10.114676	0.053476	-0.165814
15	P1	-10.655799	0.095187	-0.126365
19	P1	-15.460453	0.061650	0.034268
22	P1	-20.482700	1.260157	0.450175

26	P1	-16.669727	0.350683	0.456044
30	P1	-18.198746	0.331005	-0.129264

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.349031	0.037734	0.226800
7	P2	-22.785847	0.069061	0.219435
11	P2	-11.386576	0.024945	0.141561
15	P2	-4.892446	0.028273	0.067427
19	P2	-6.900696	0.025113	0.053655
22	P2	-8.184442	0.025639	0.014648
26	P2	-23.957218	0.025847	0.017587
30	P2	-22.087852	0.019098	0.012621

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.042269	0.002718	0.038592
7	P3	-8.042188	0.002723	0.038367
11	P3	-8.042160	0.002722	0.038819
15	P3	-8.042270	0.002733	0.038524
19	P3	-8.042333	0.002726	0.038810
22	P3	-8.042261	0.002720	0.038636
26	P3	-8.042241	0.002729	0.038460
30	P3	-8.042248	0.002736	0.039043

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	0.000566646
	stdev	1.64123e-07
MEAN Q	mean	0.000526955
	stdev	2.10078e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140021
	stdev	0.00115083
STDEV Q	mean	0.140384
	stdev	0.00117043



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006020[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_1PNPDE20060208_155358_000001592045_00025_20620_2377.N1	1	0
ASA_IMM_1PNPDE20060208_194758_000000622045_00028_20623_2412.N1	2	1556
ASA_IMM_1PNPDK20060208_124556_000000692045_00024_20619_0769.N1	1	0
ASA_WSM_1PNPDE20060208_202937_000000672045_00028_20623_4225.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

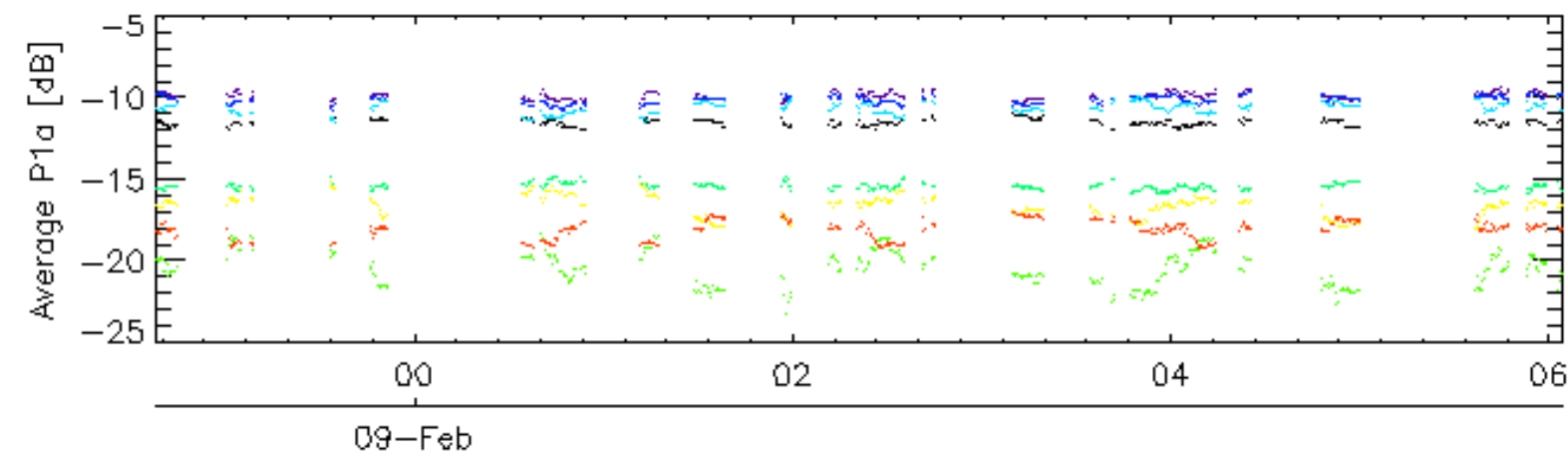
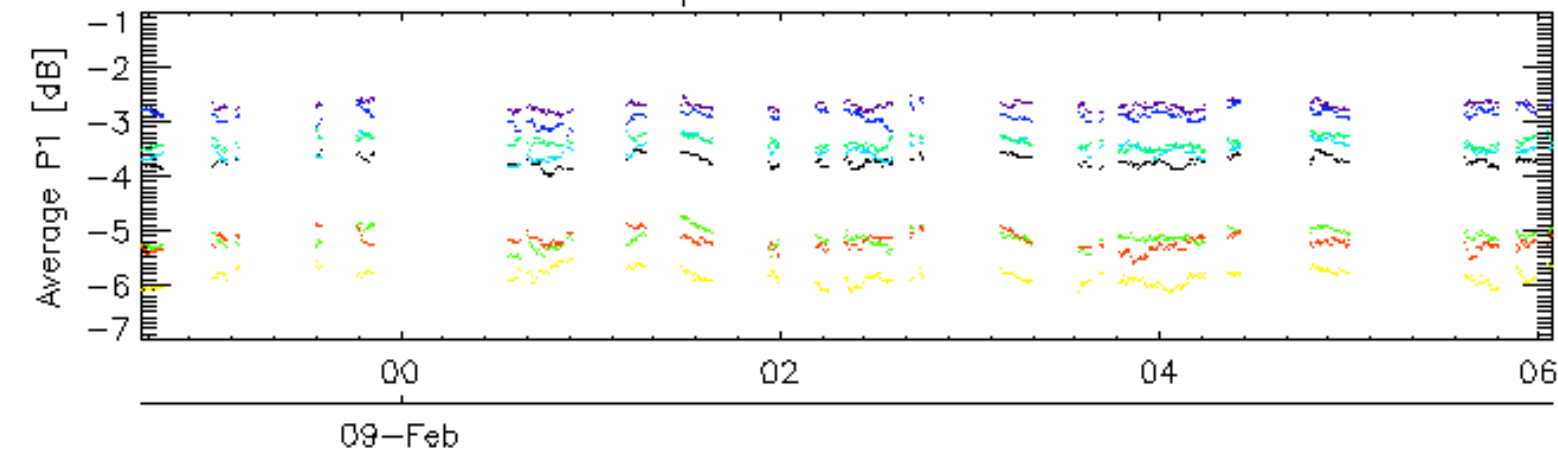
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

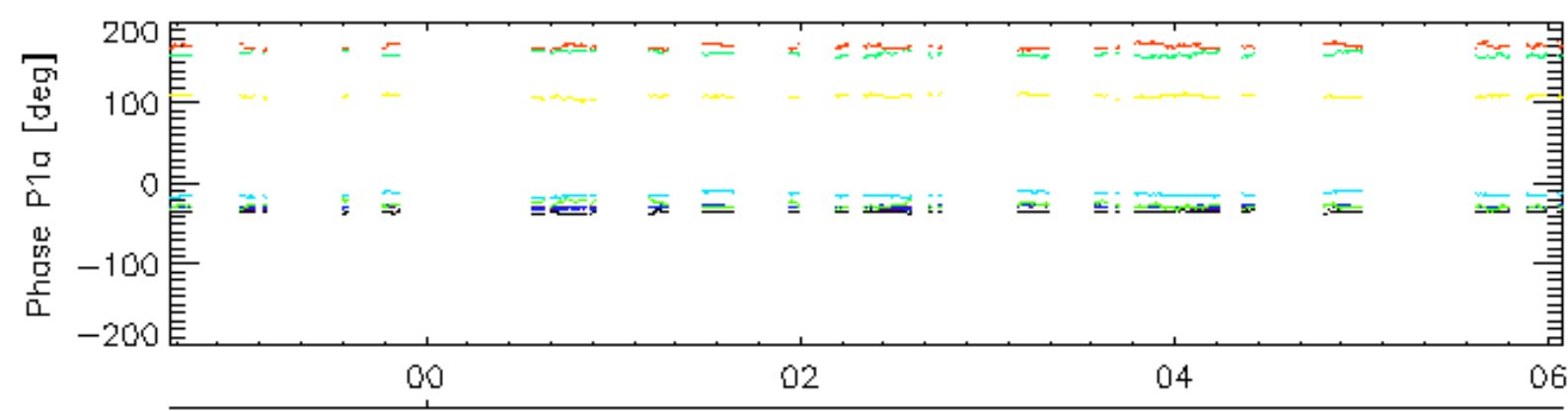
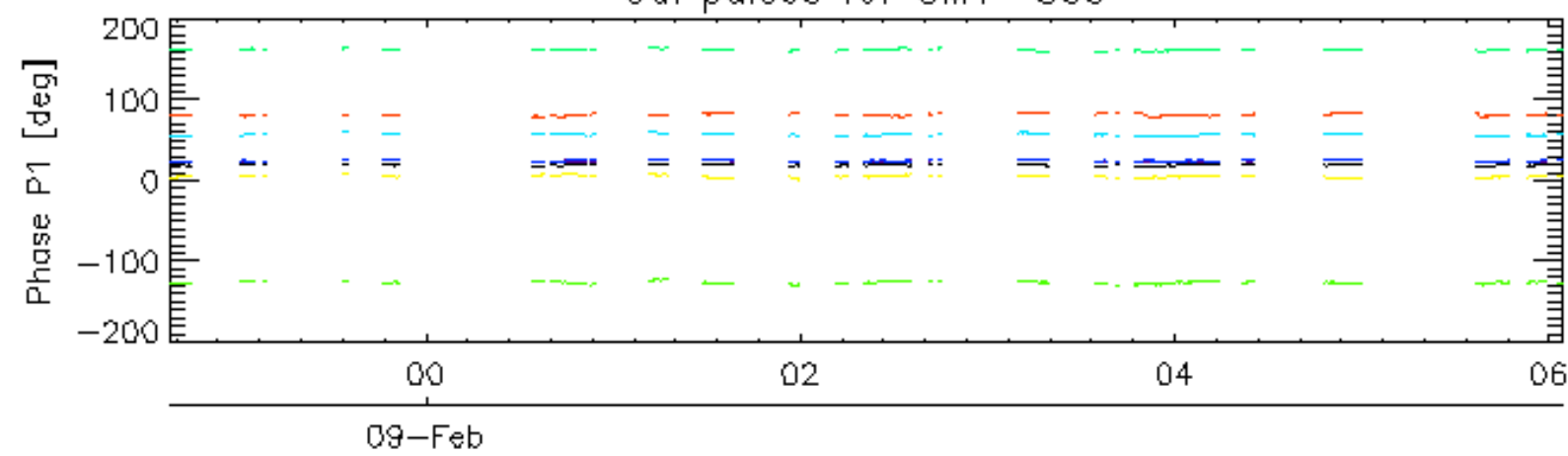
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

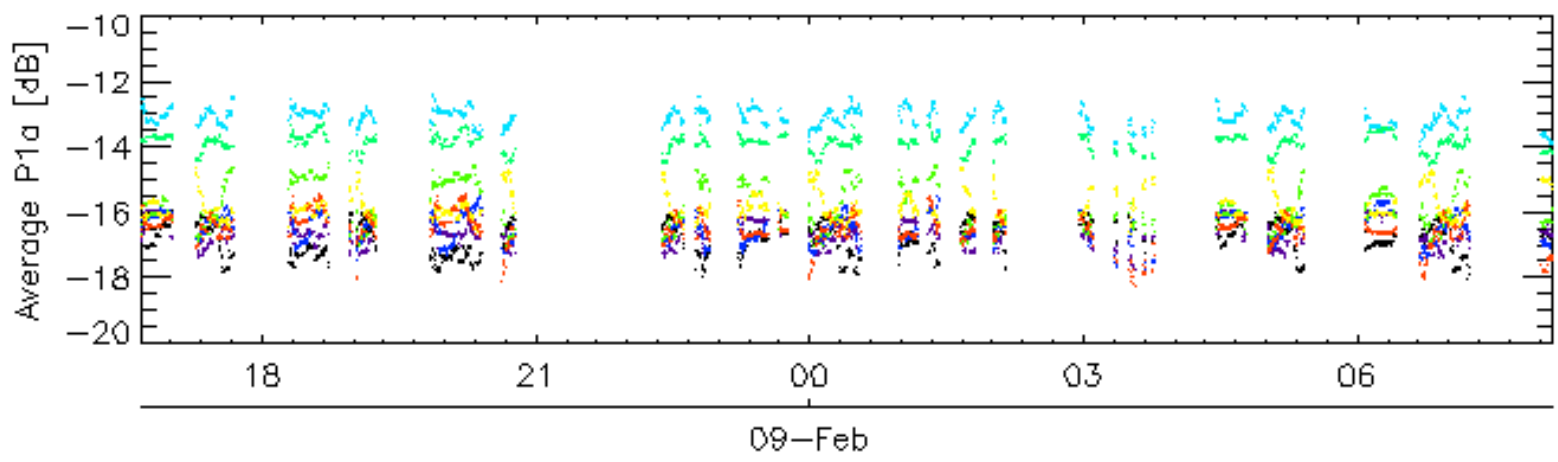
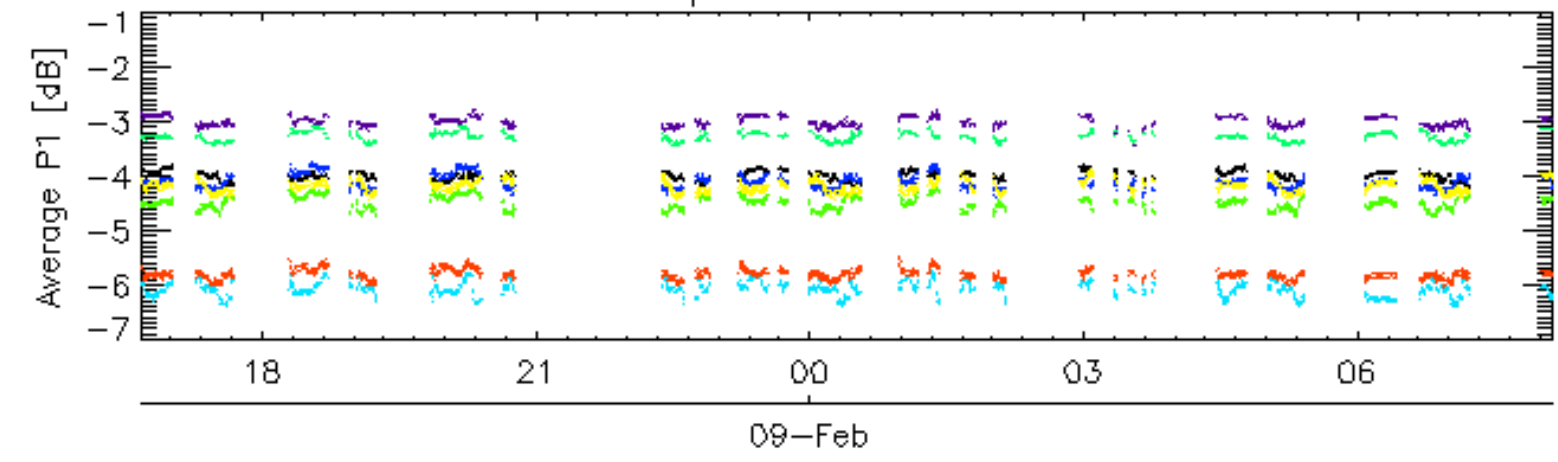


Cal pulses for GM1 SS3

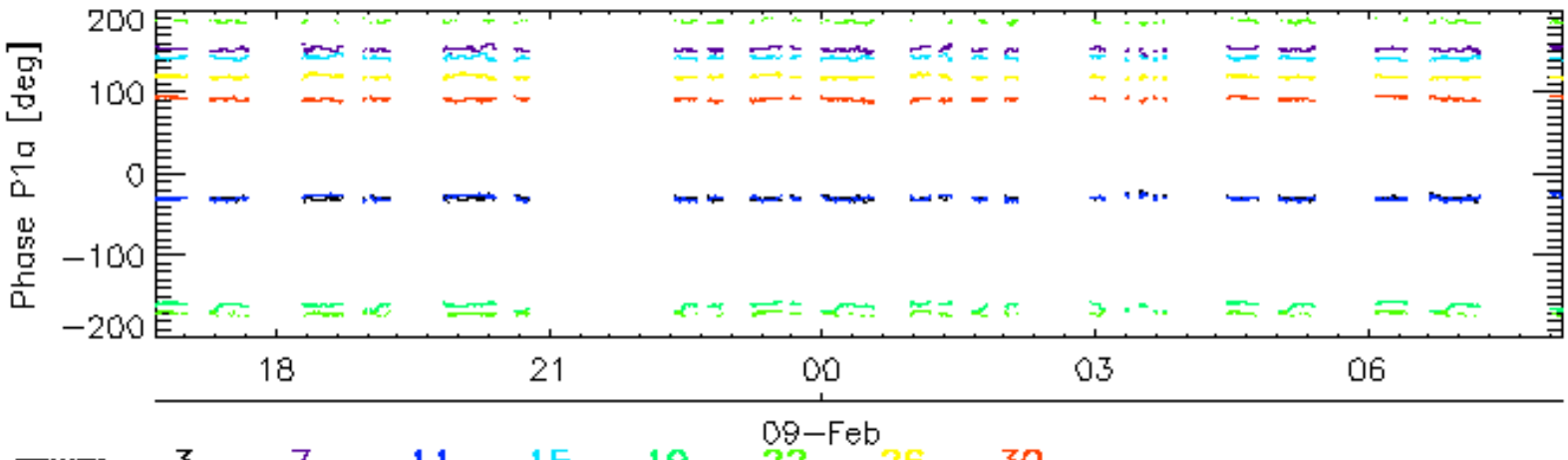
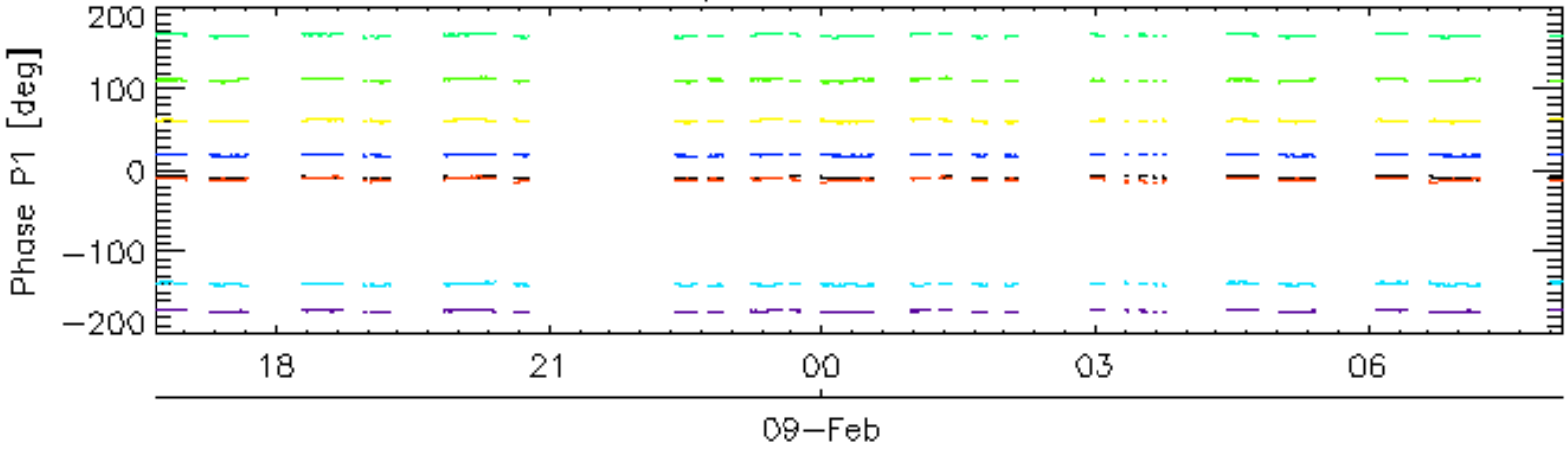


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

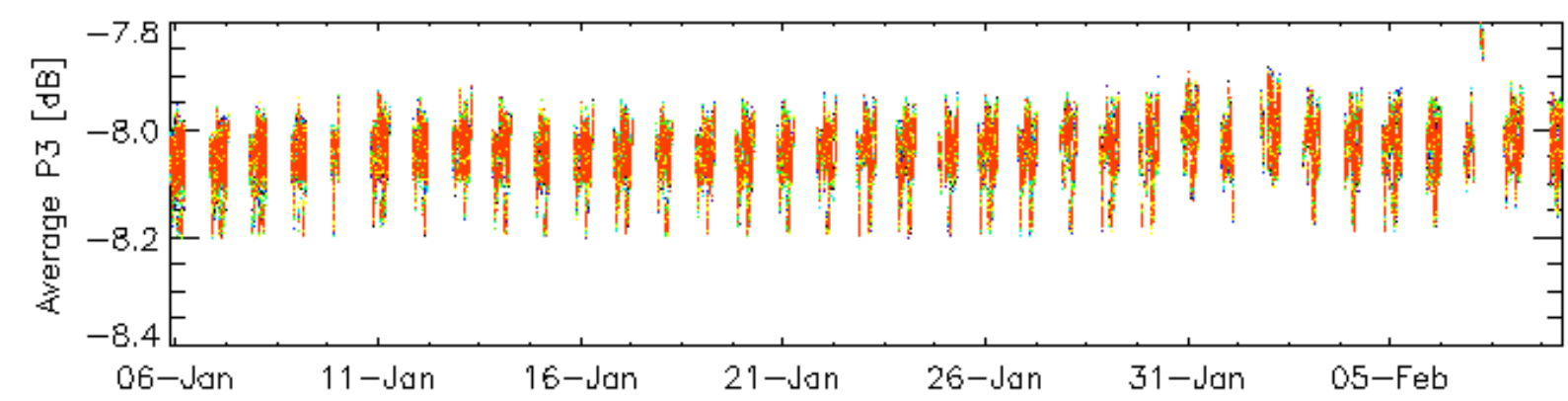
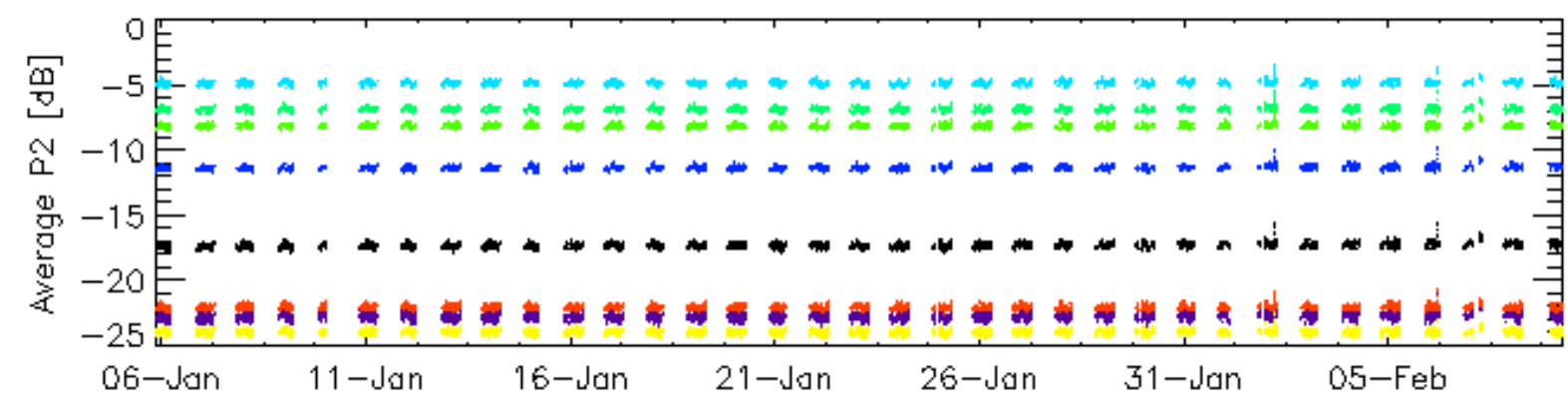
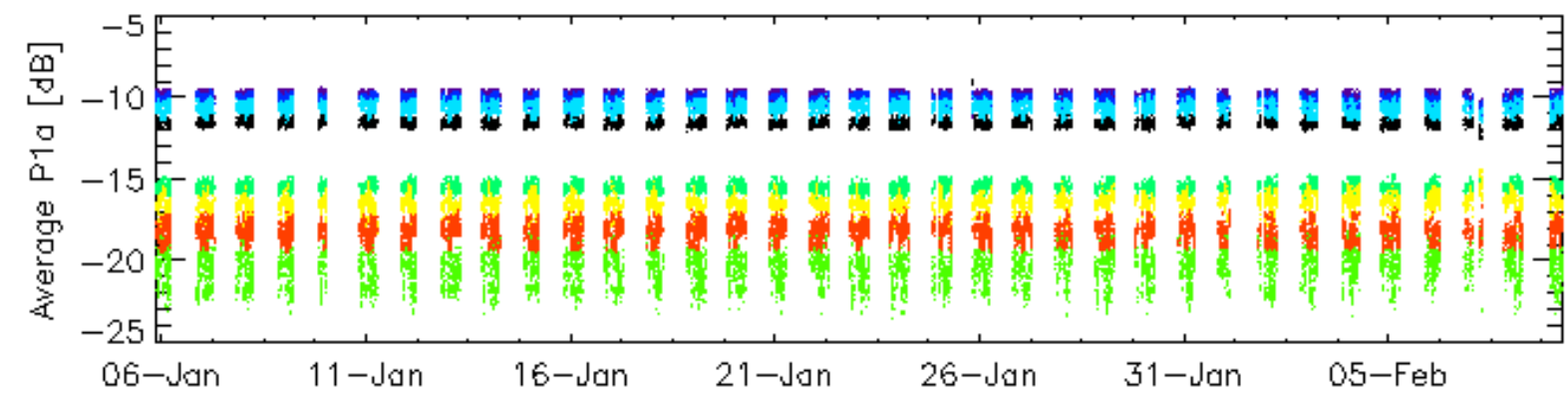
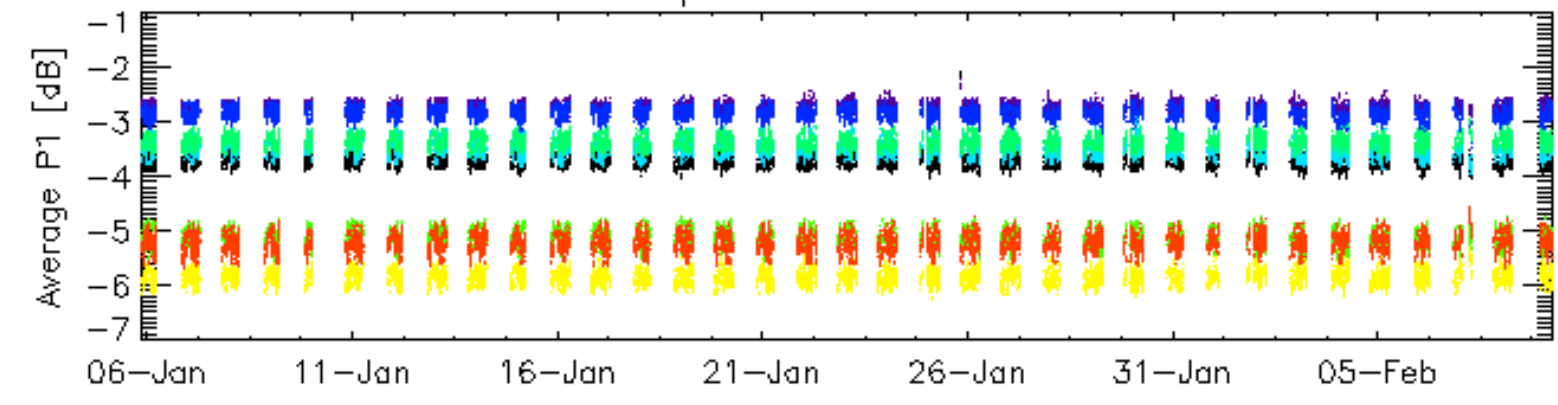


Cal pulses for WVS IS2



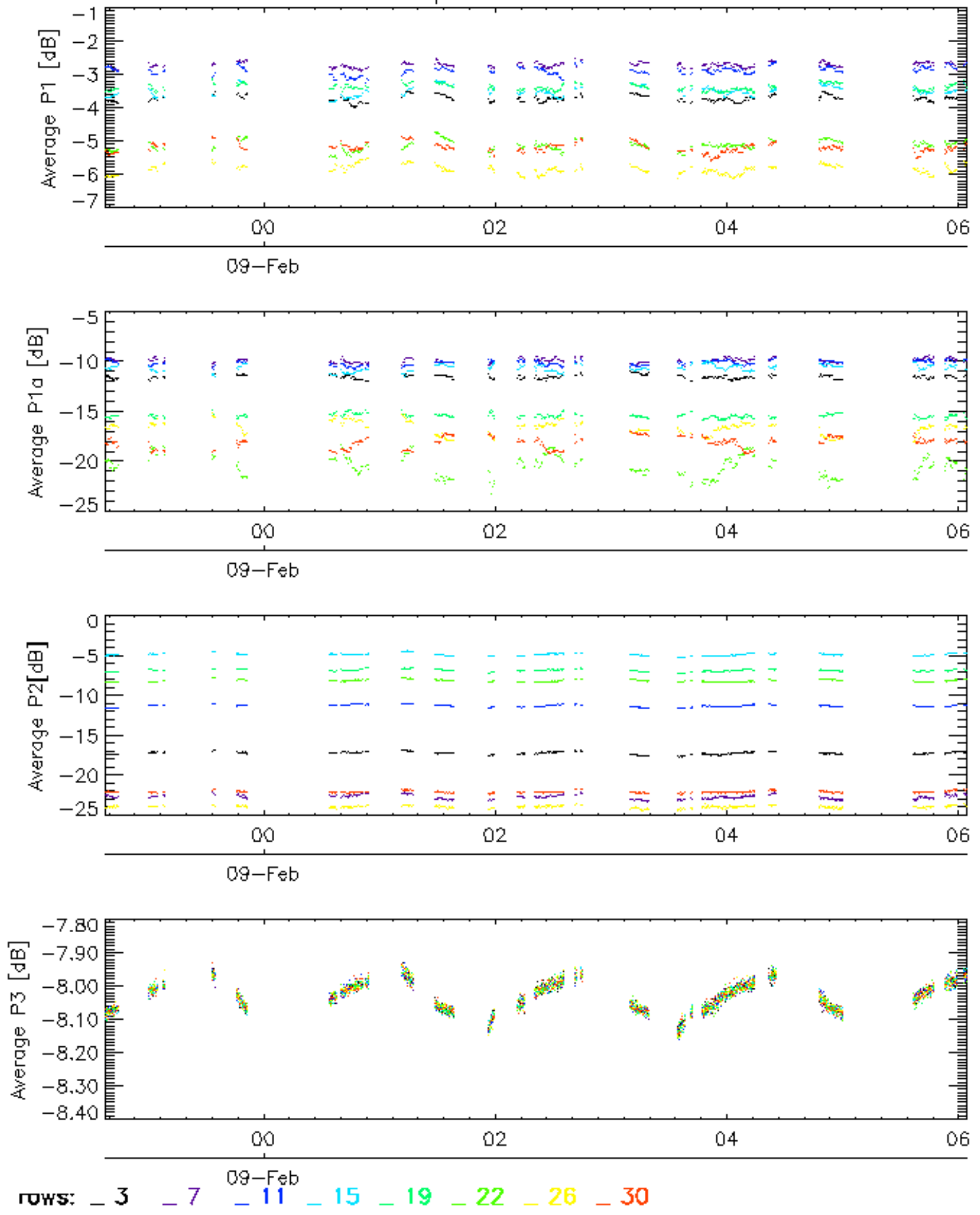
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

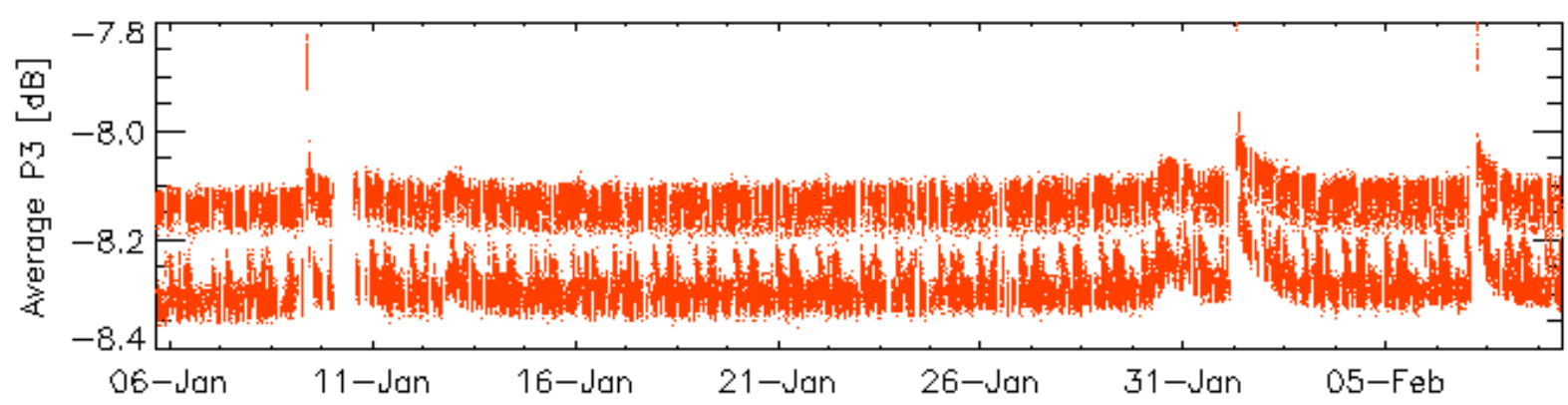
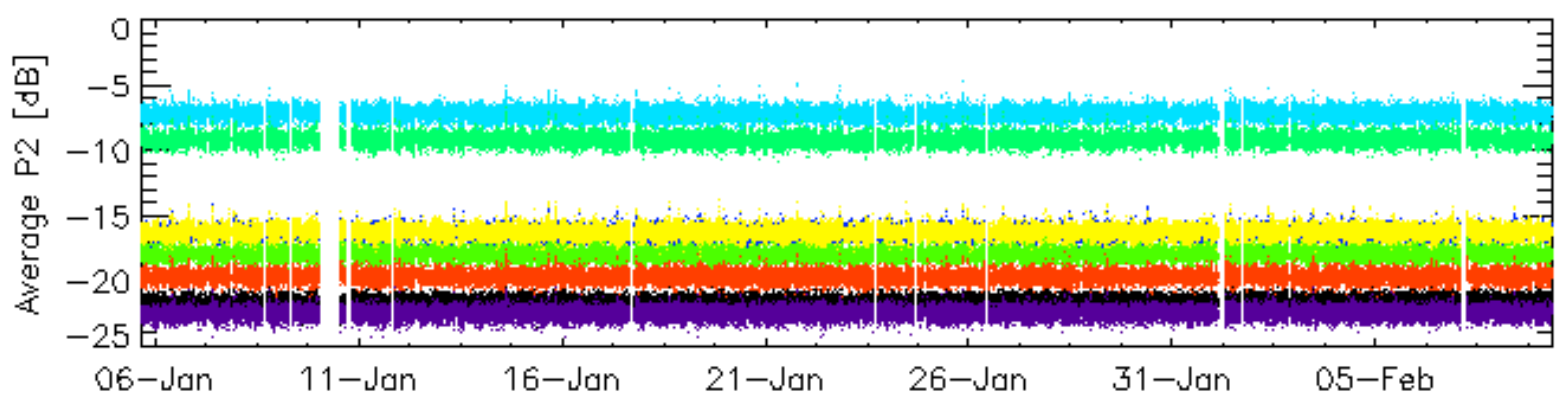
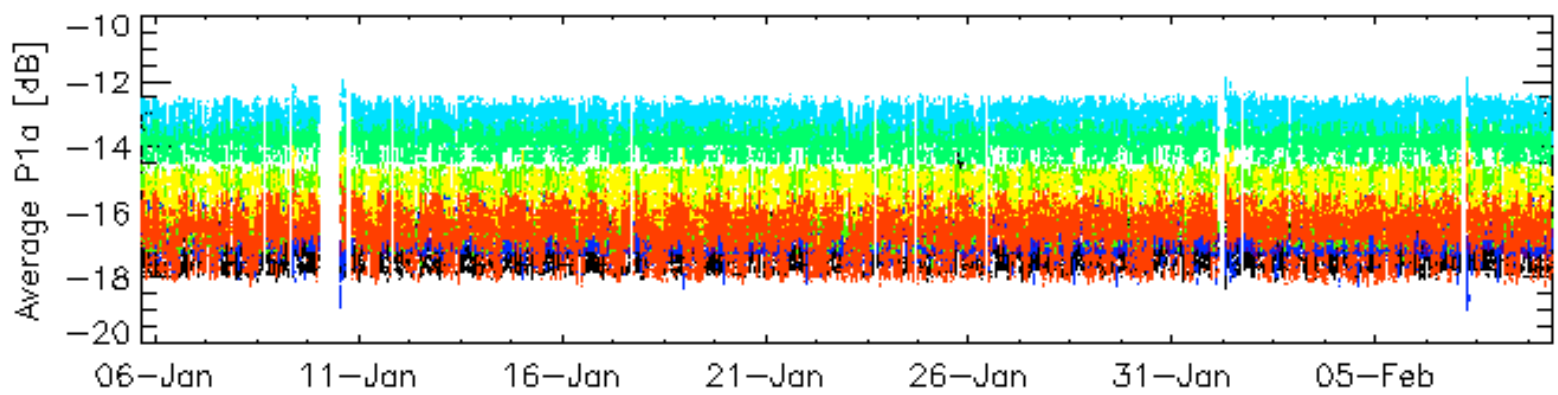
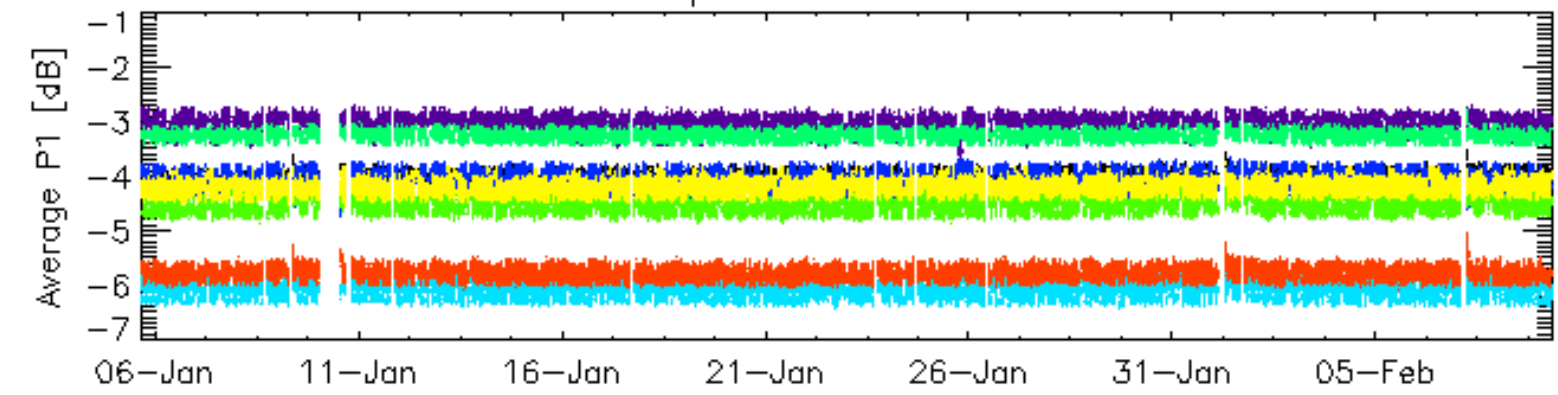


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

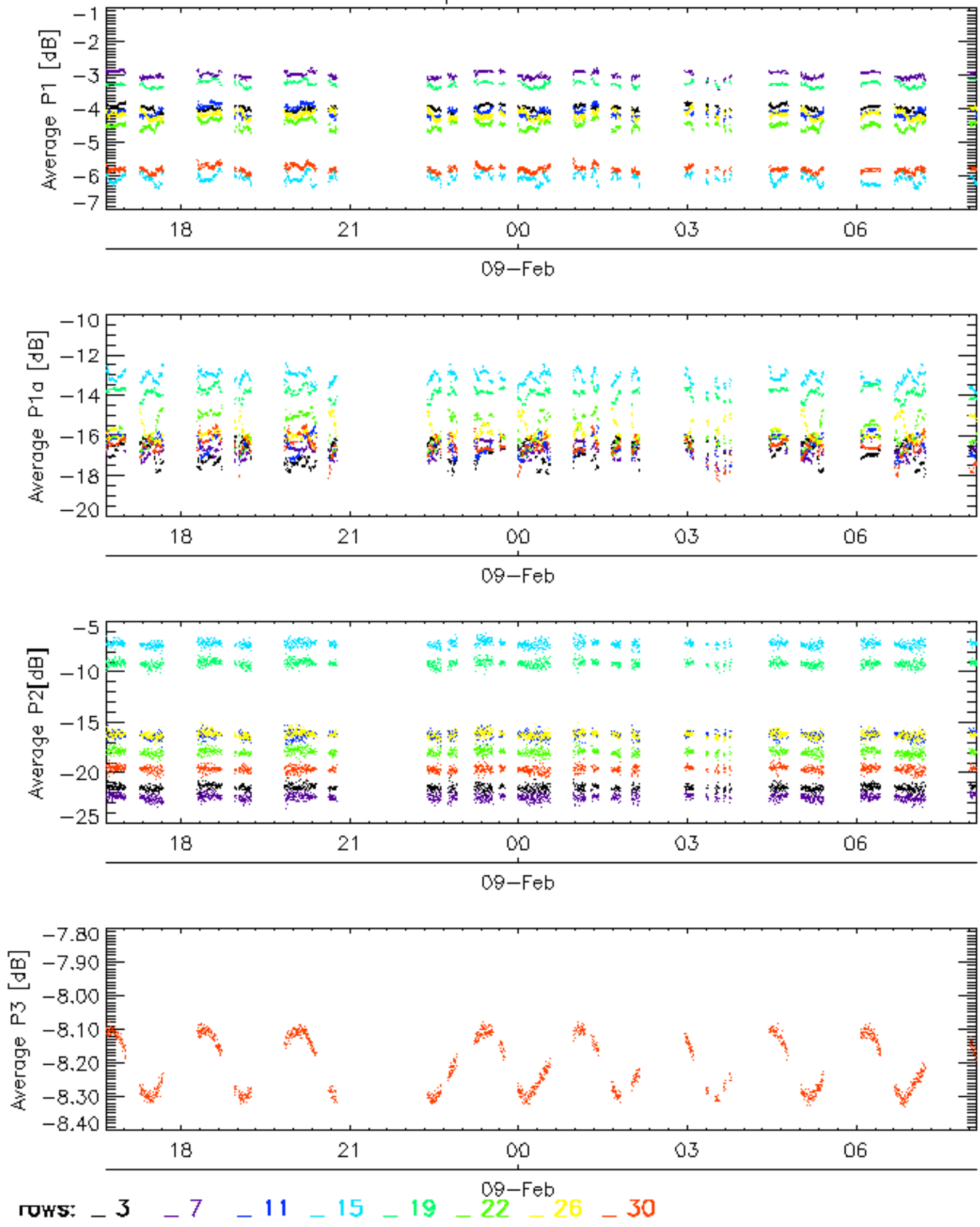


Cal pulses for WVS IS2



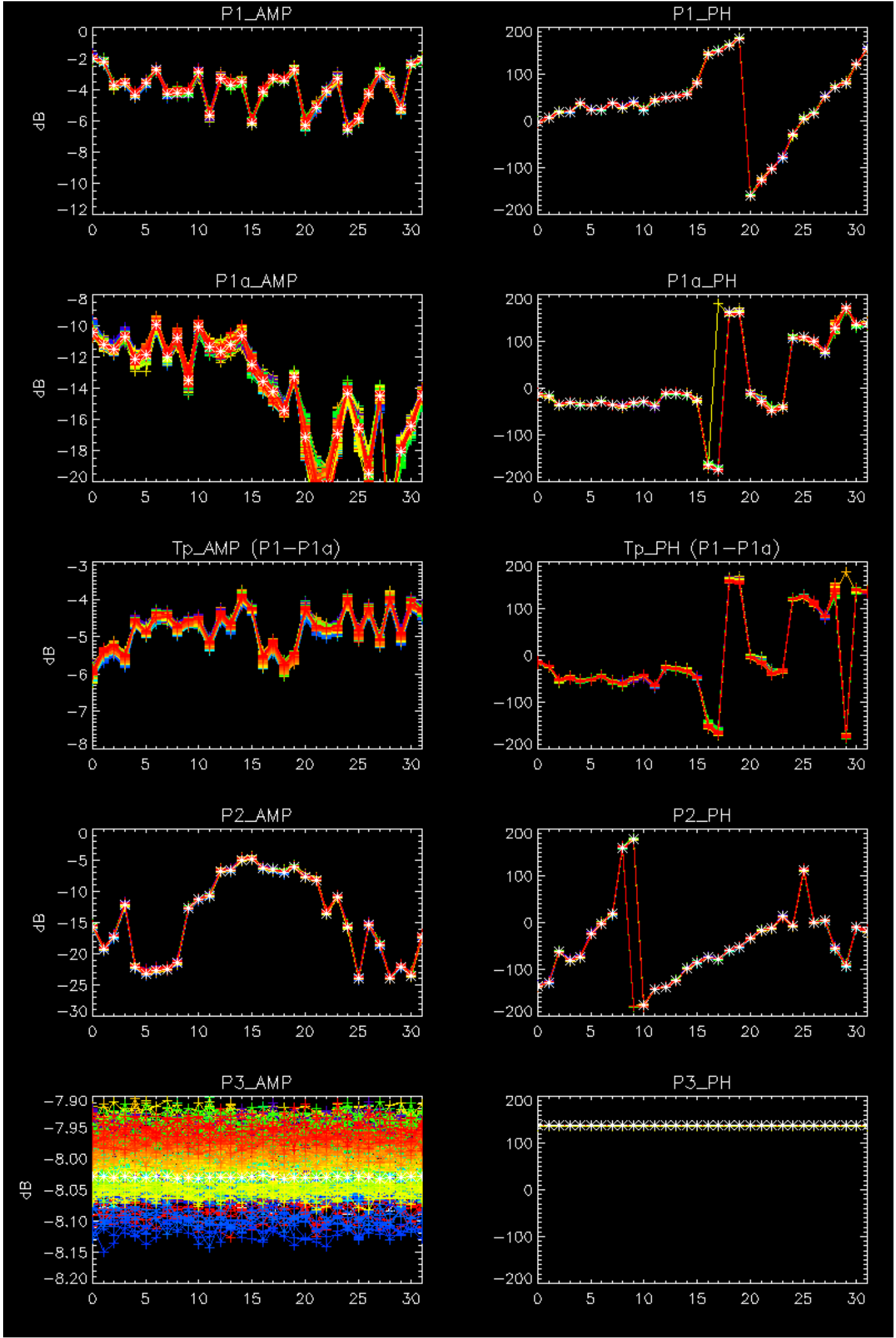
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

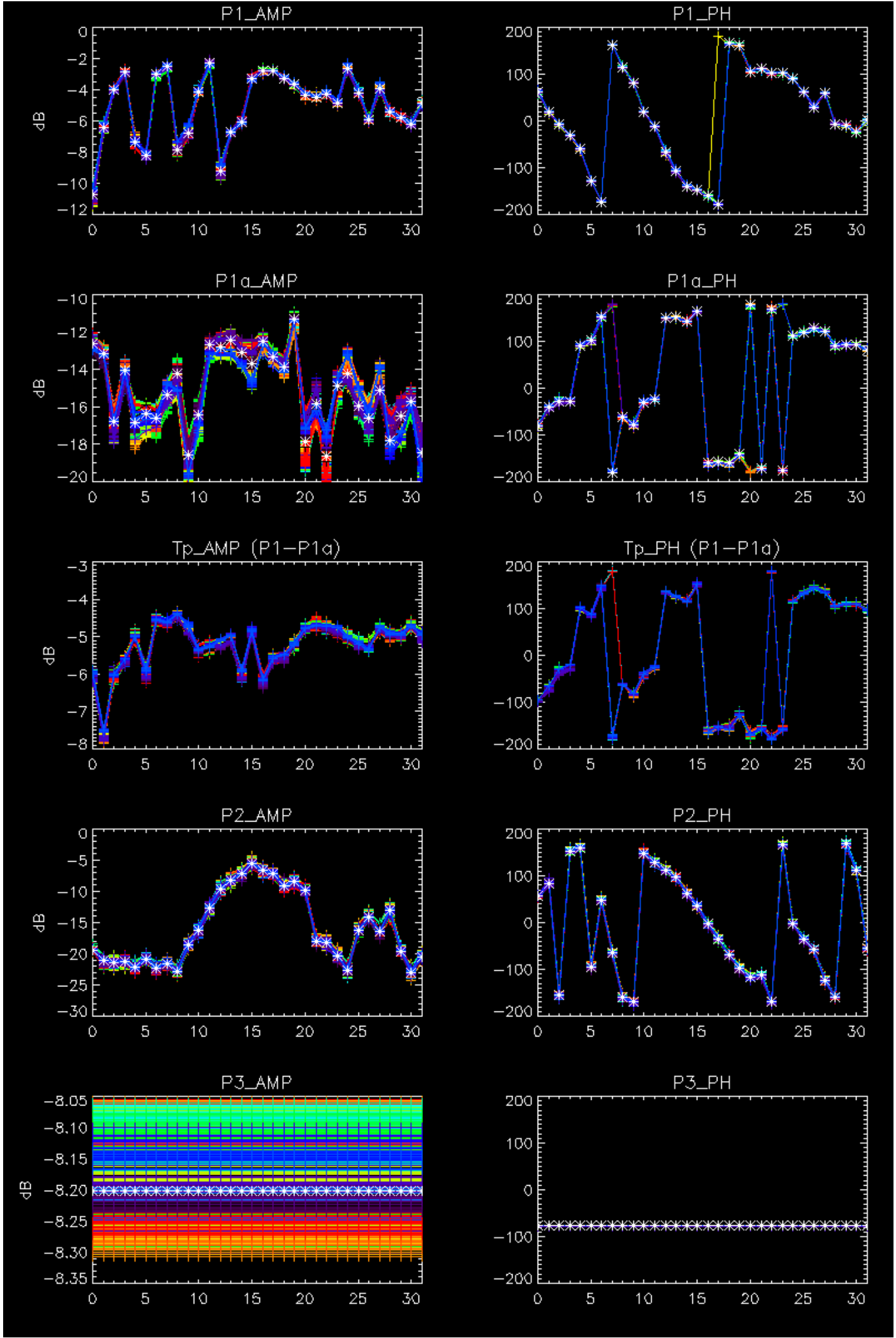
Cal pulses for WVS IS2



No anomalies observed on available browse products

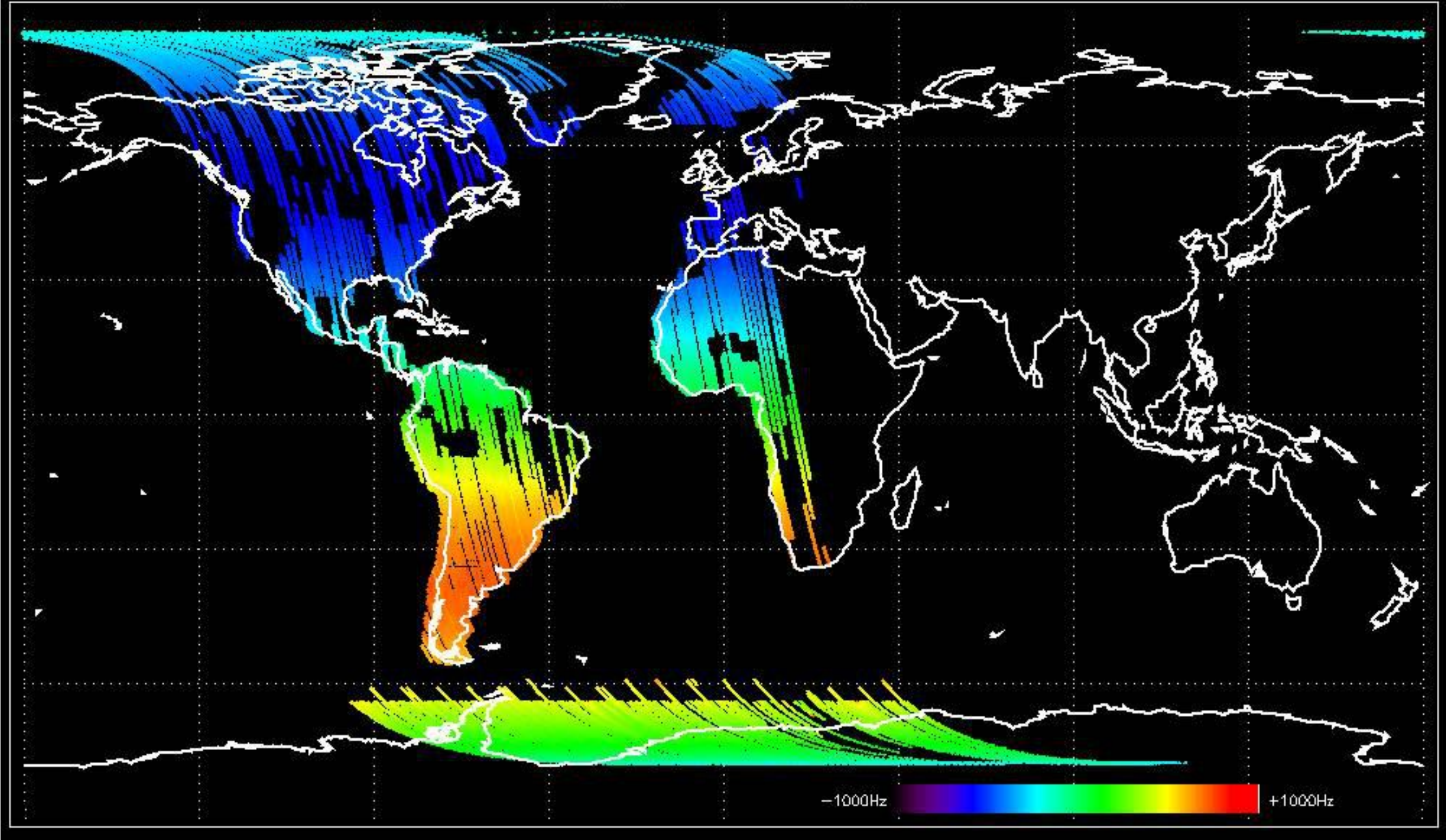
No anomalies observed.



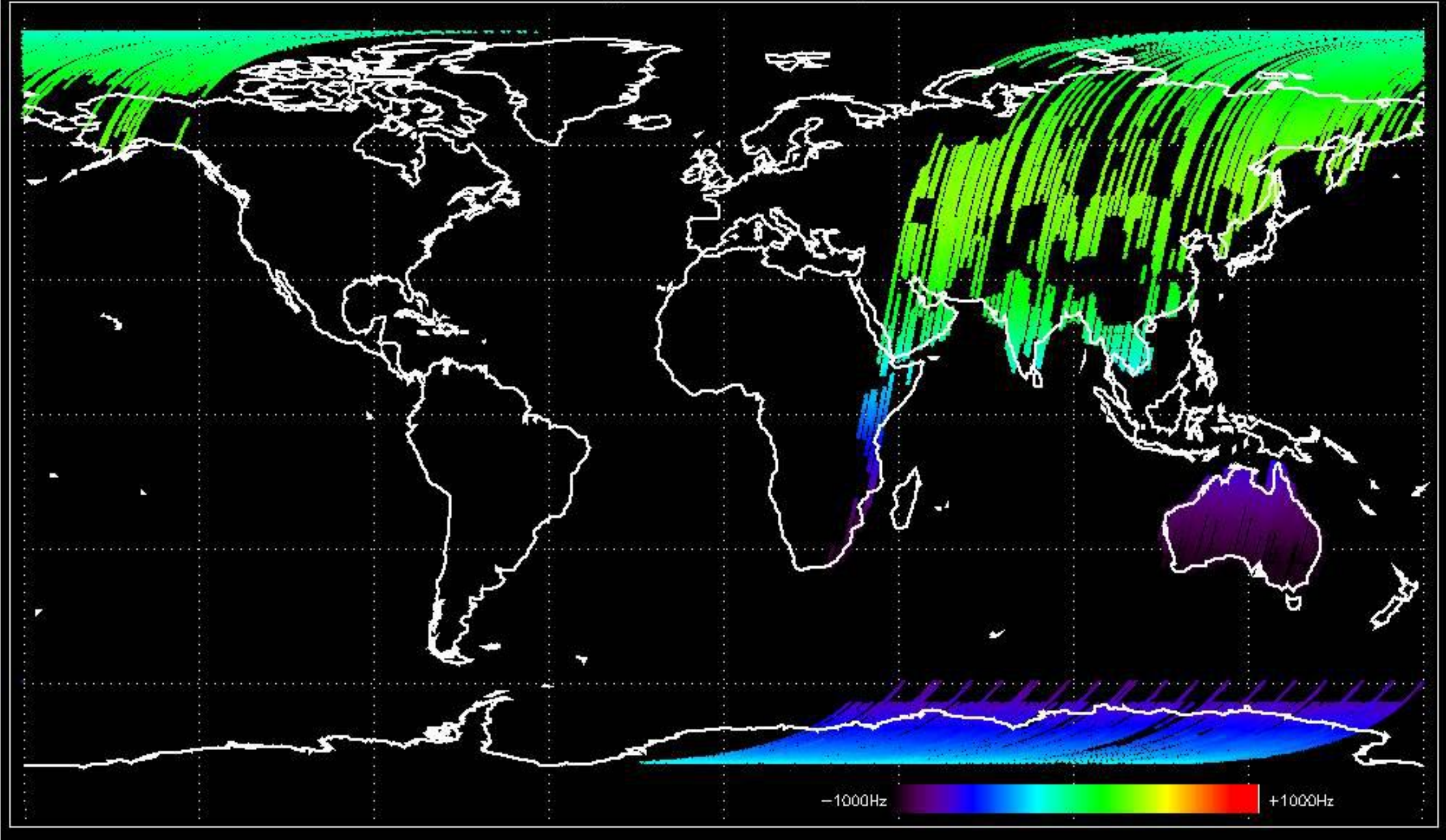


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

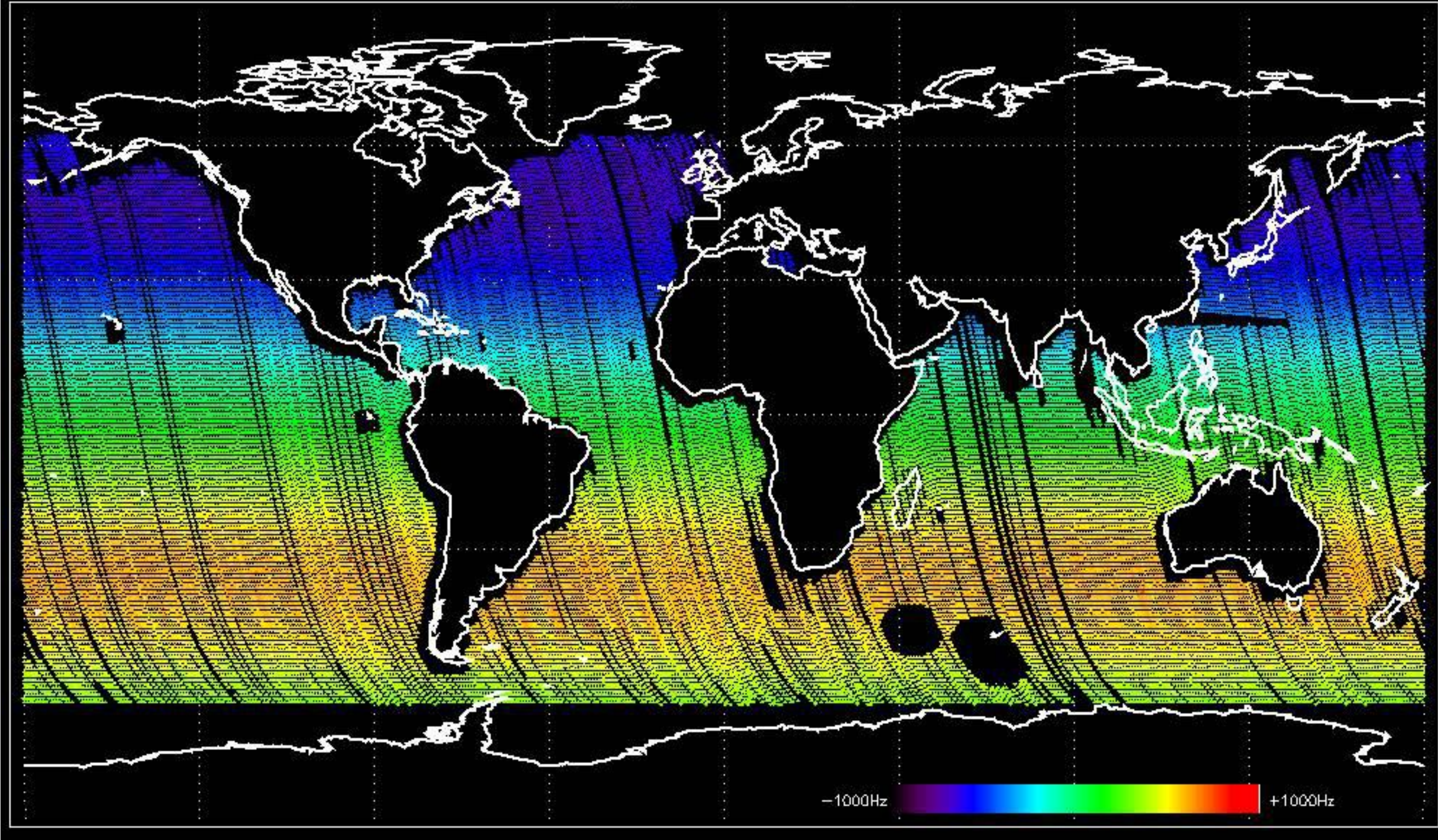
Doppler 'GM1' 'SS1' ascending



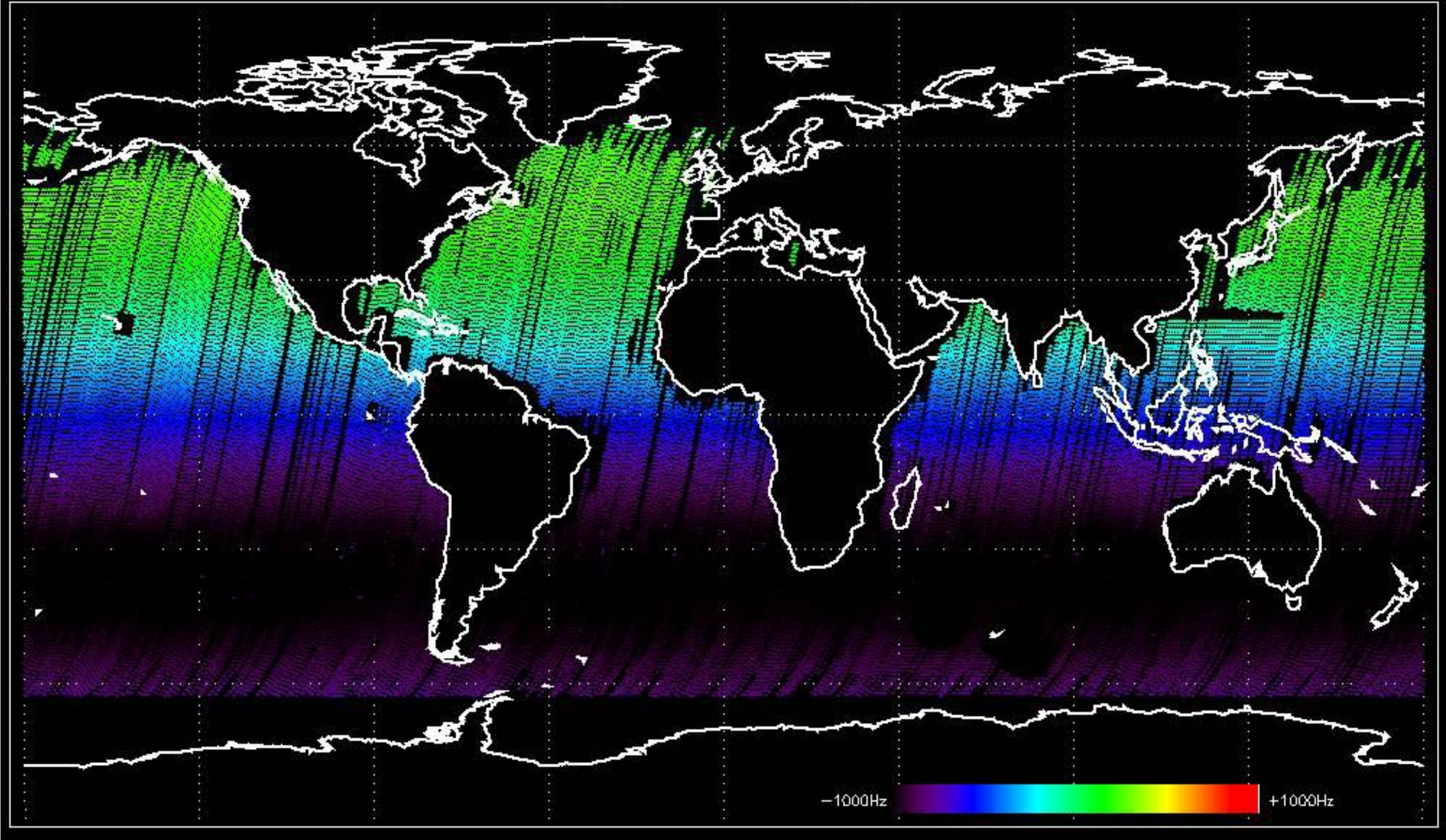
Doppler 'GM1' 'SS1' descending



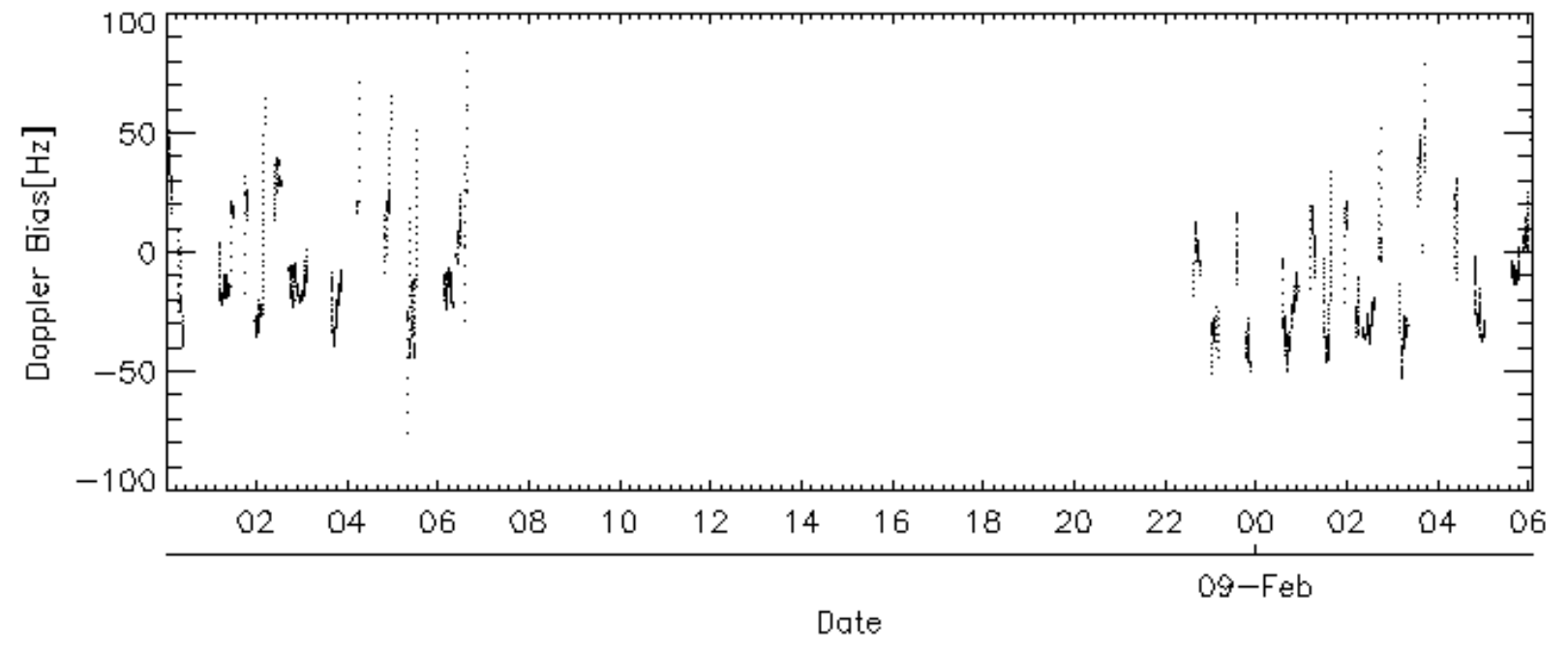
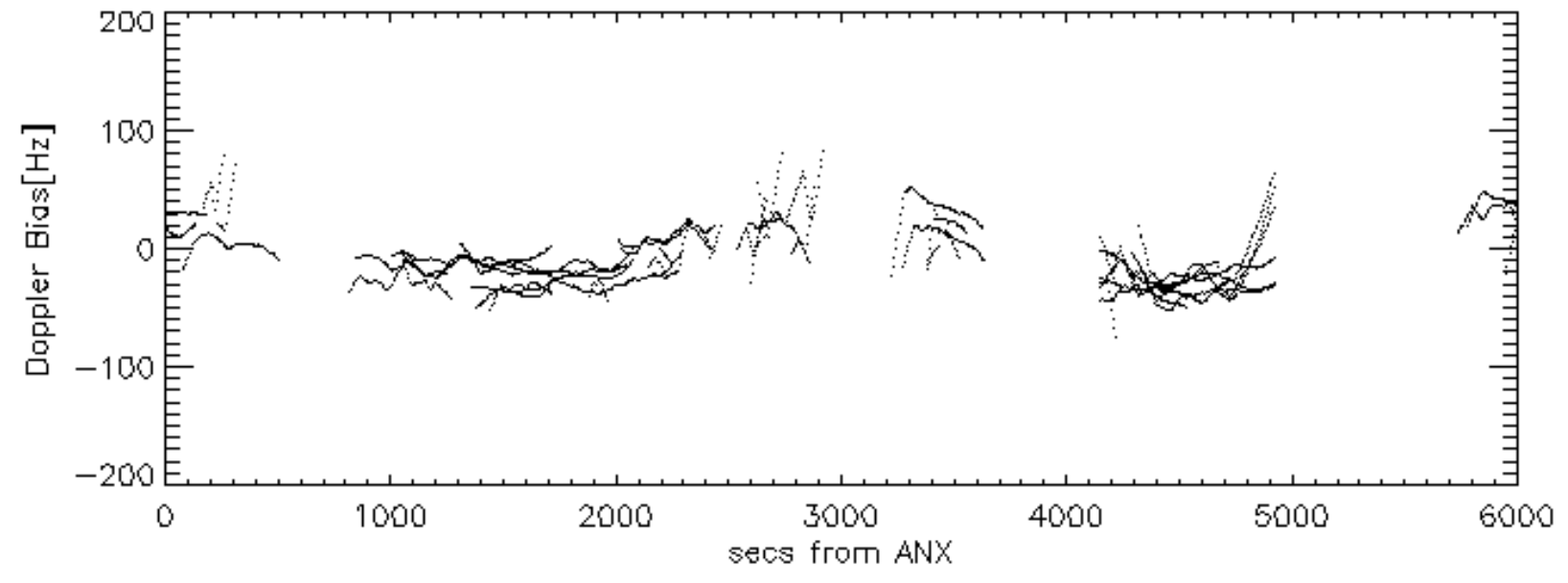
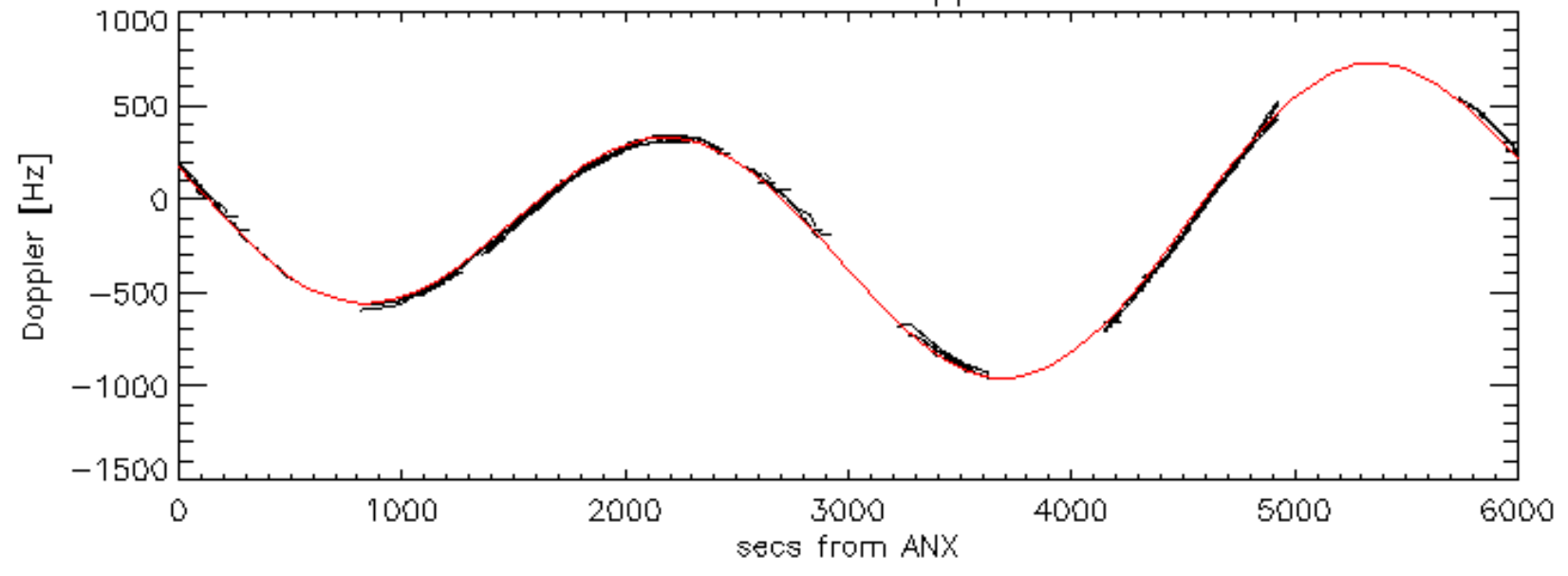
Doppler 'WVS' 'IS2' ascending

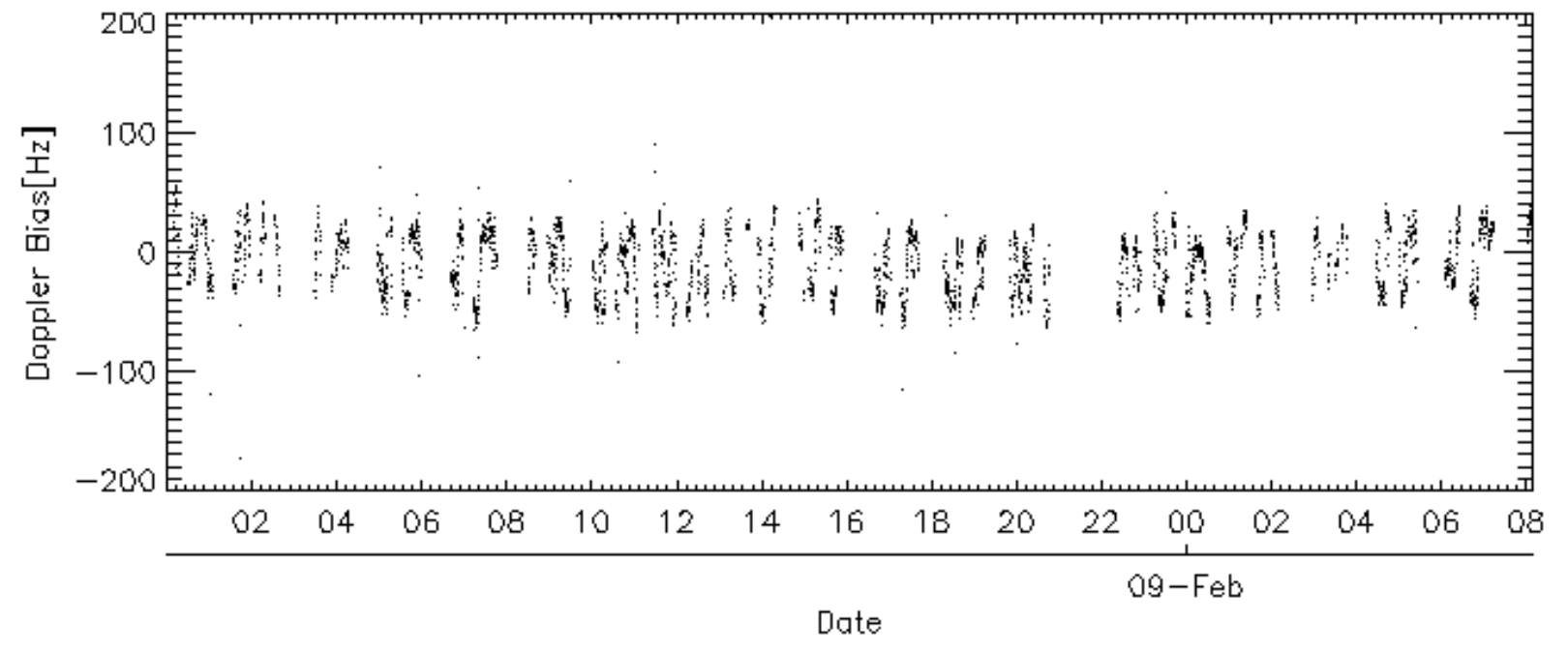
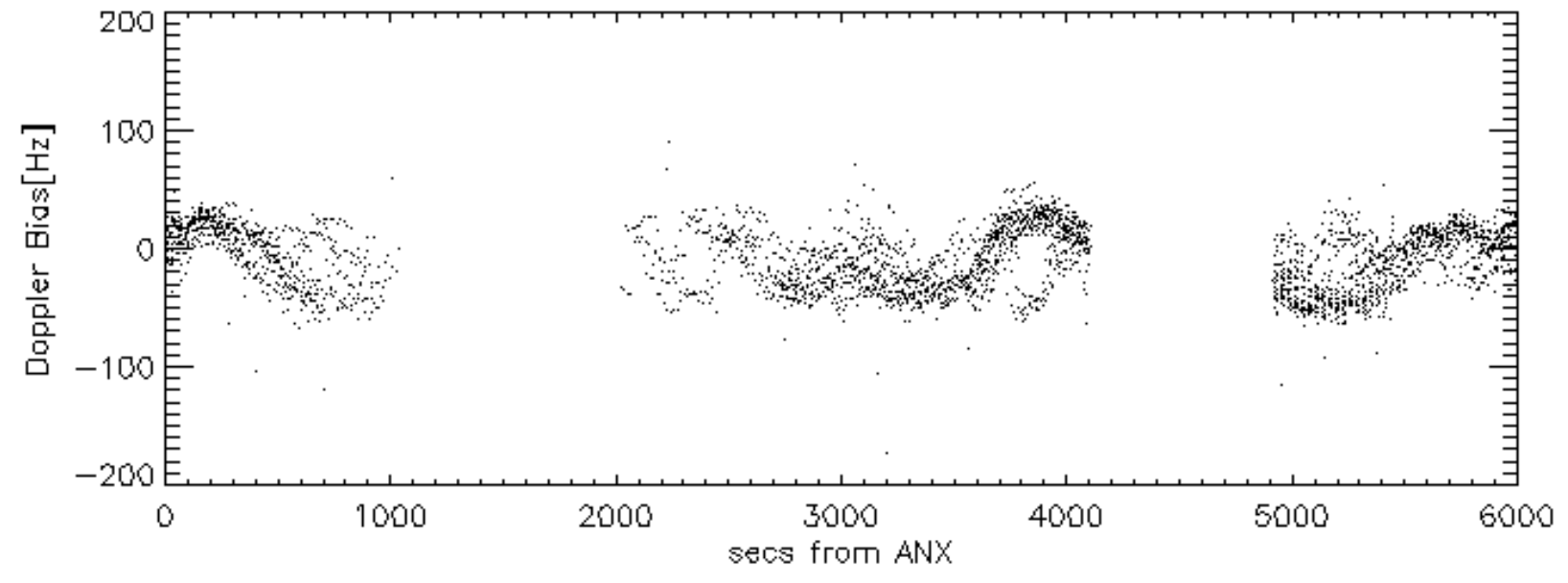
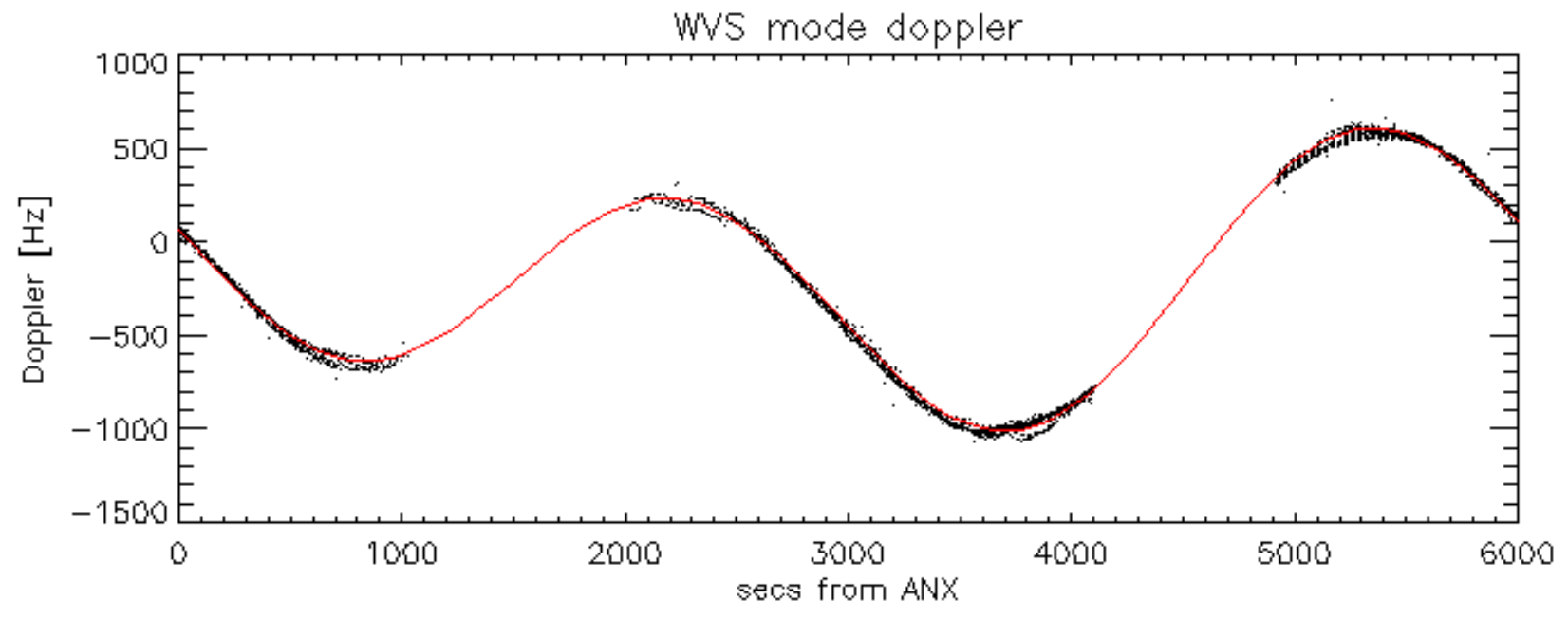


Doppler 'WVS' 'IS2' descending

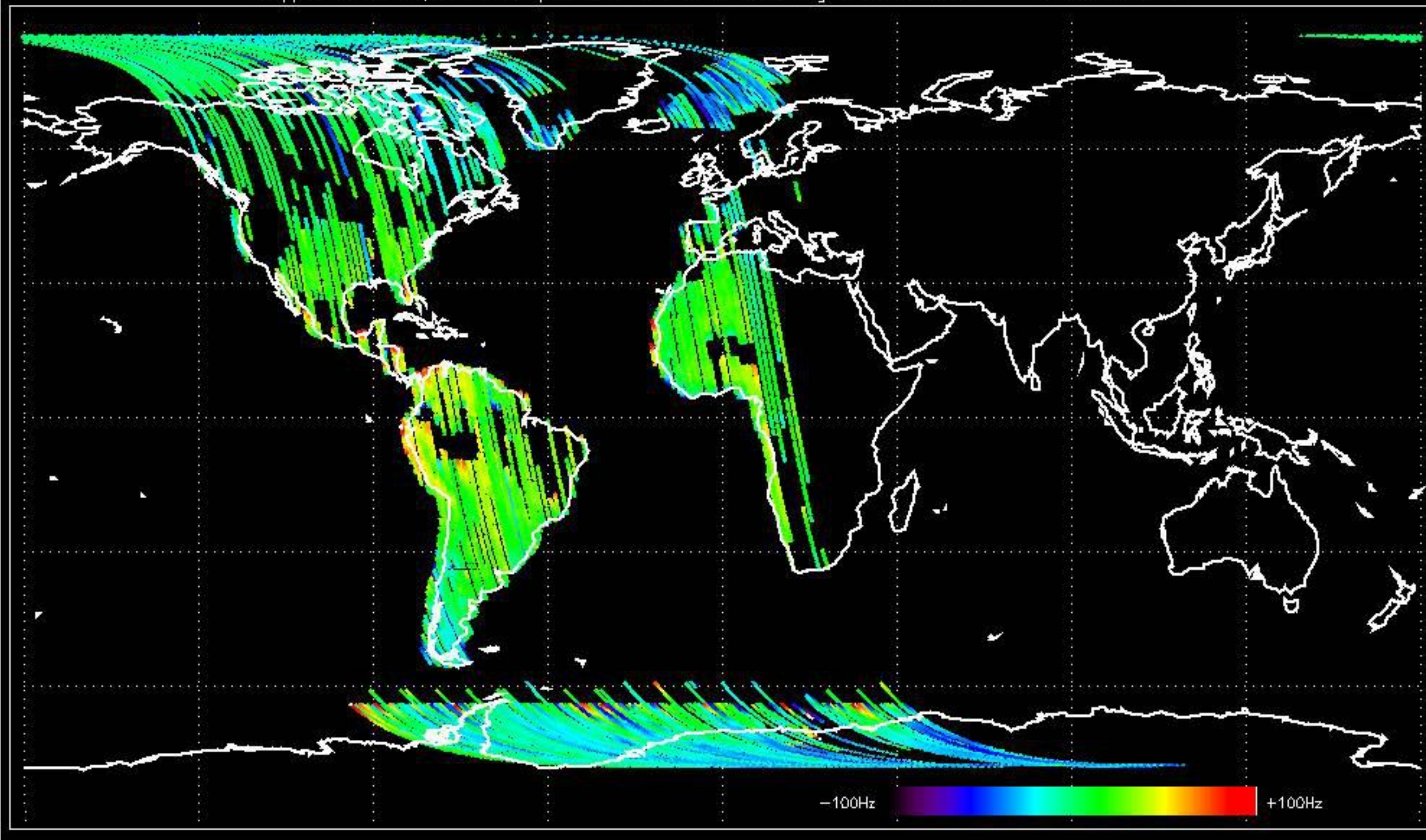


GM1 mode doppler

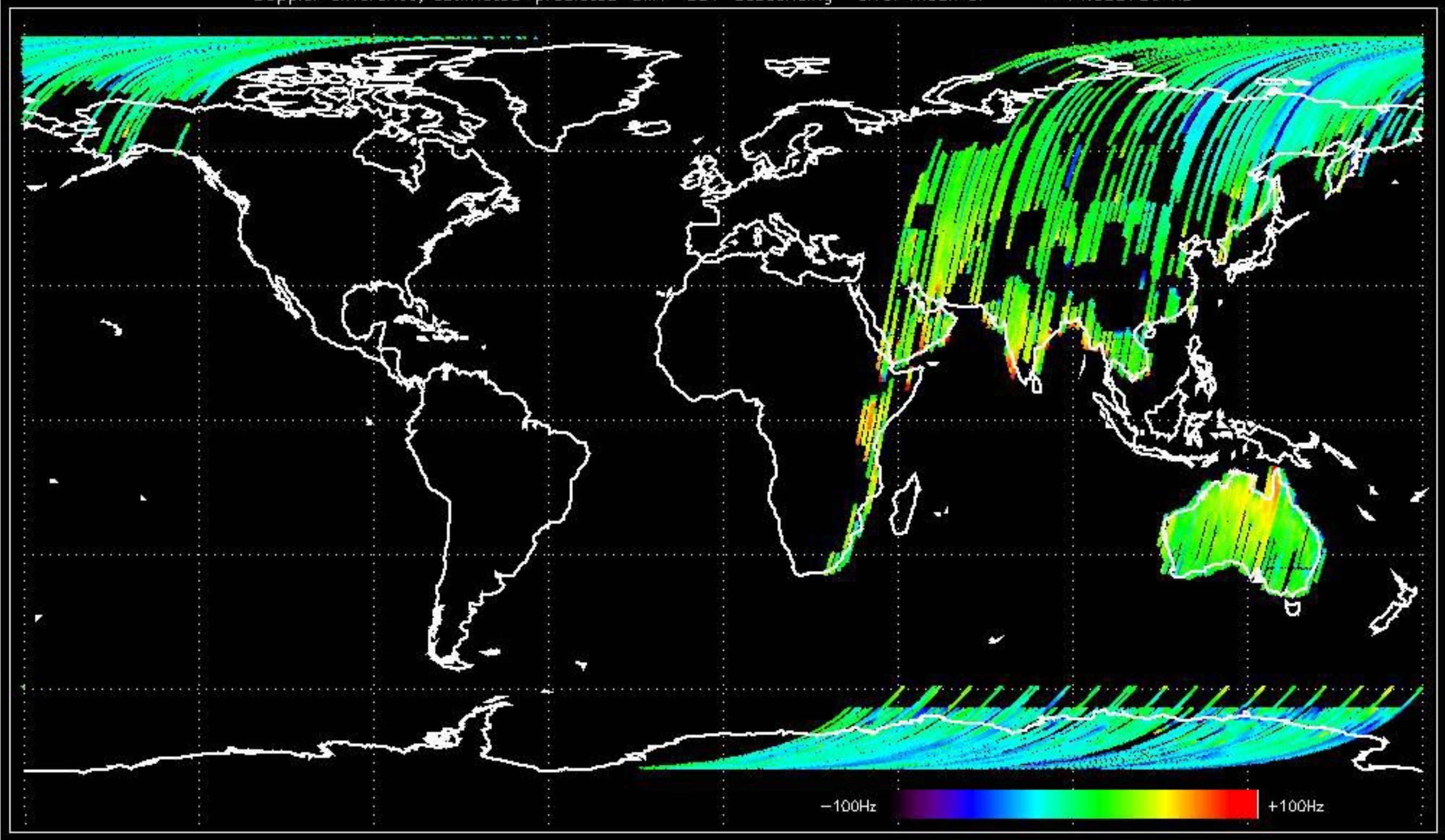




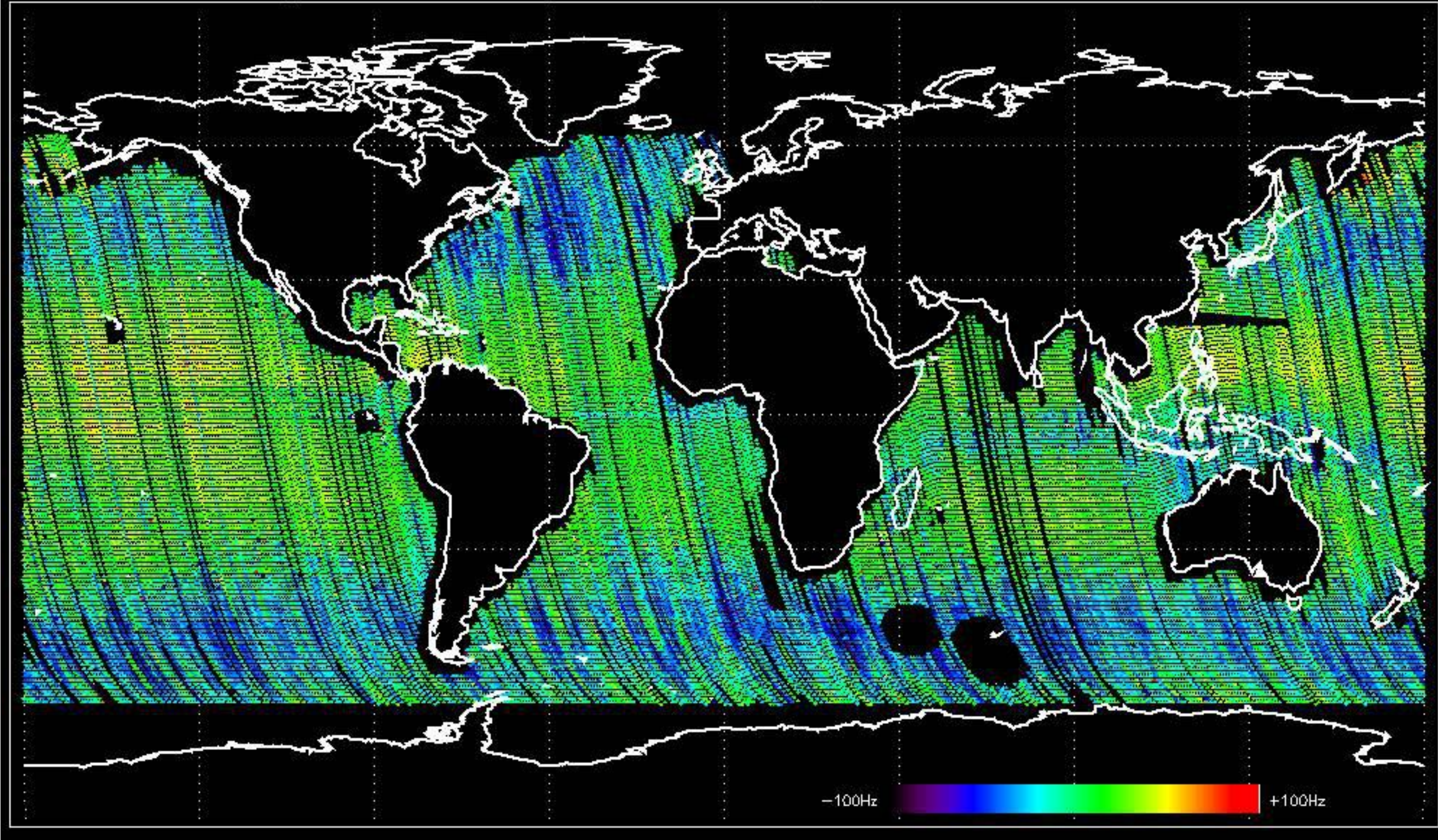
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -10.795376 Hz



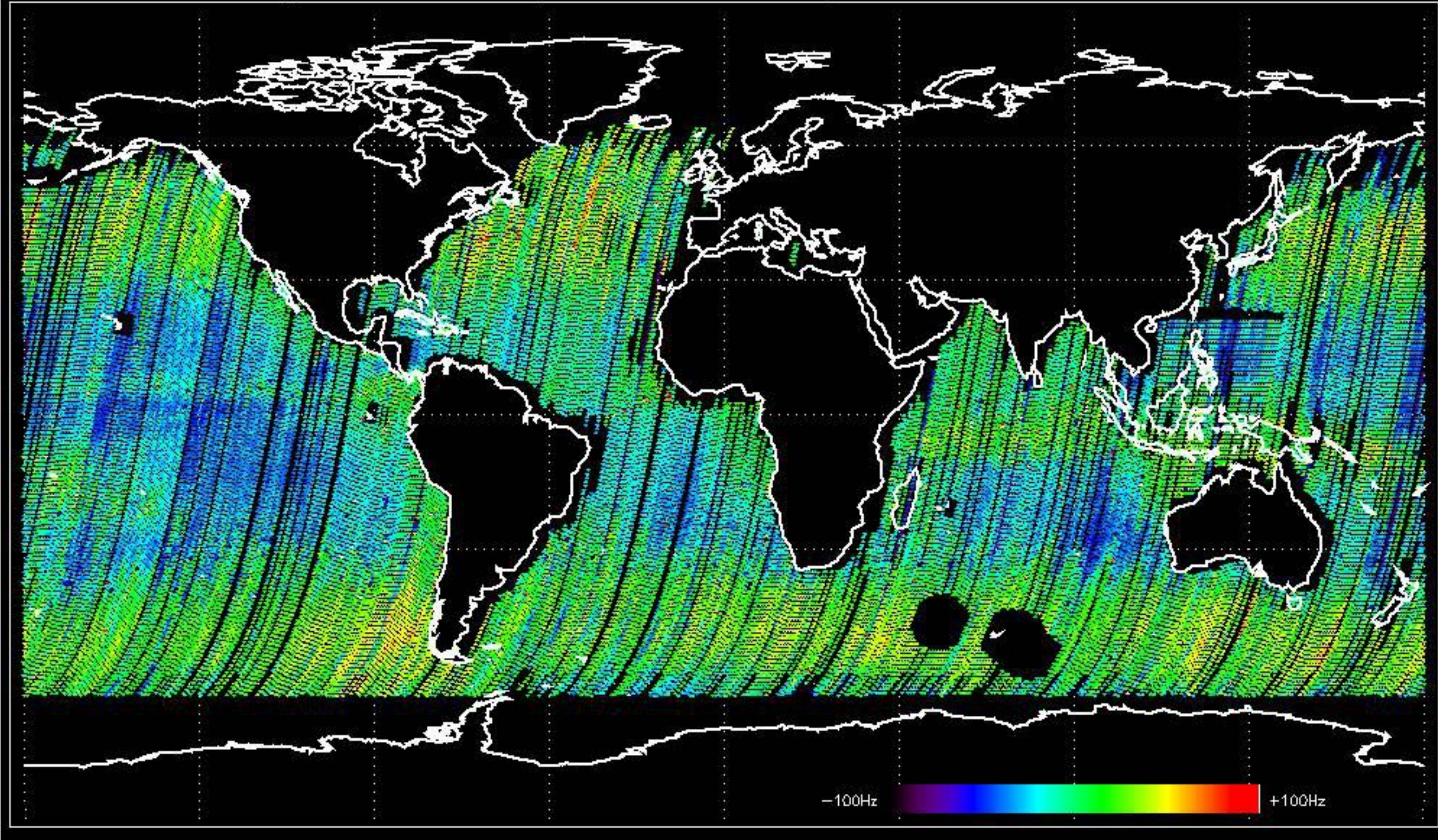
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.635706 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.1806539 Hz

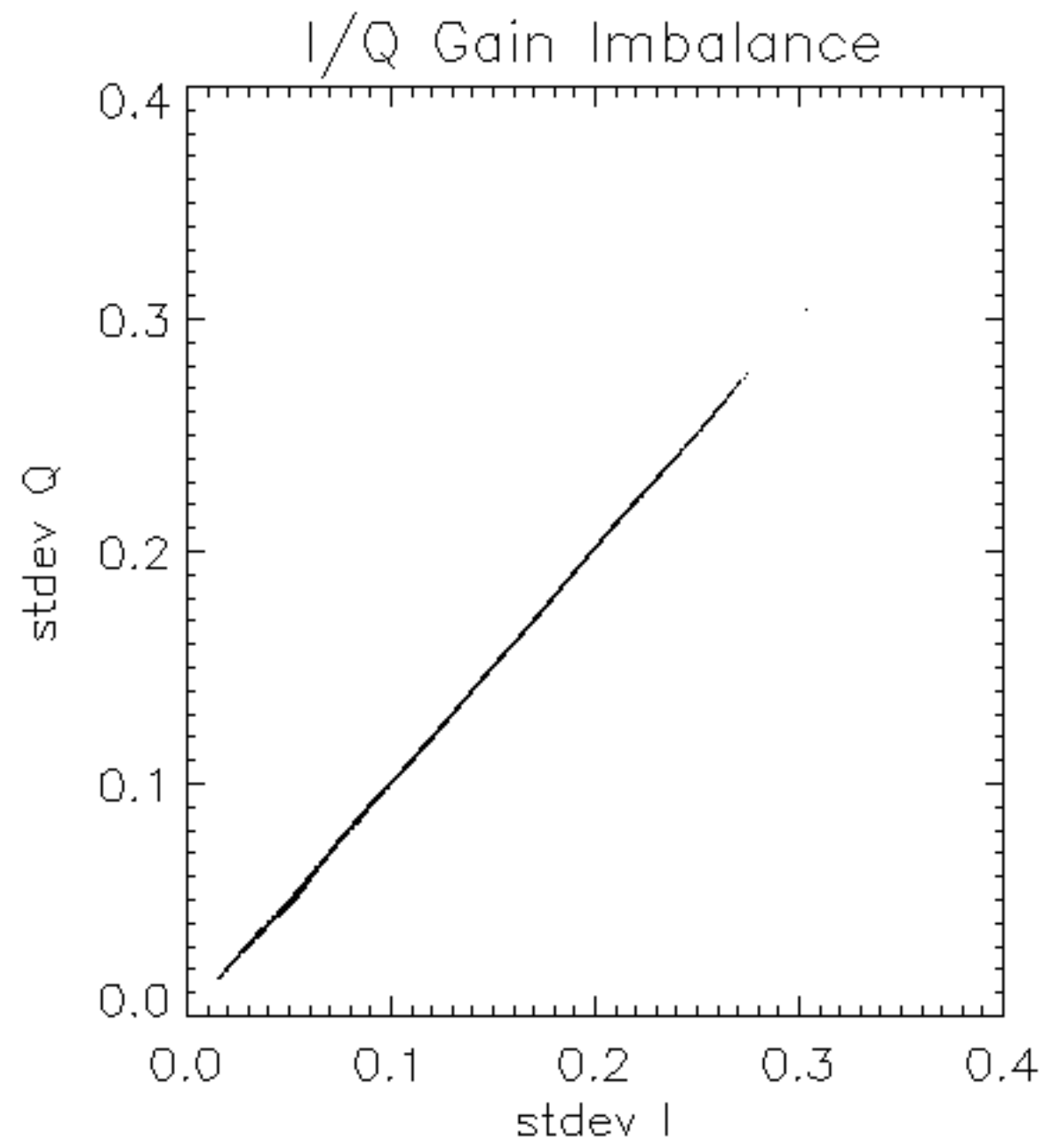


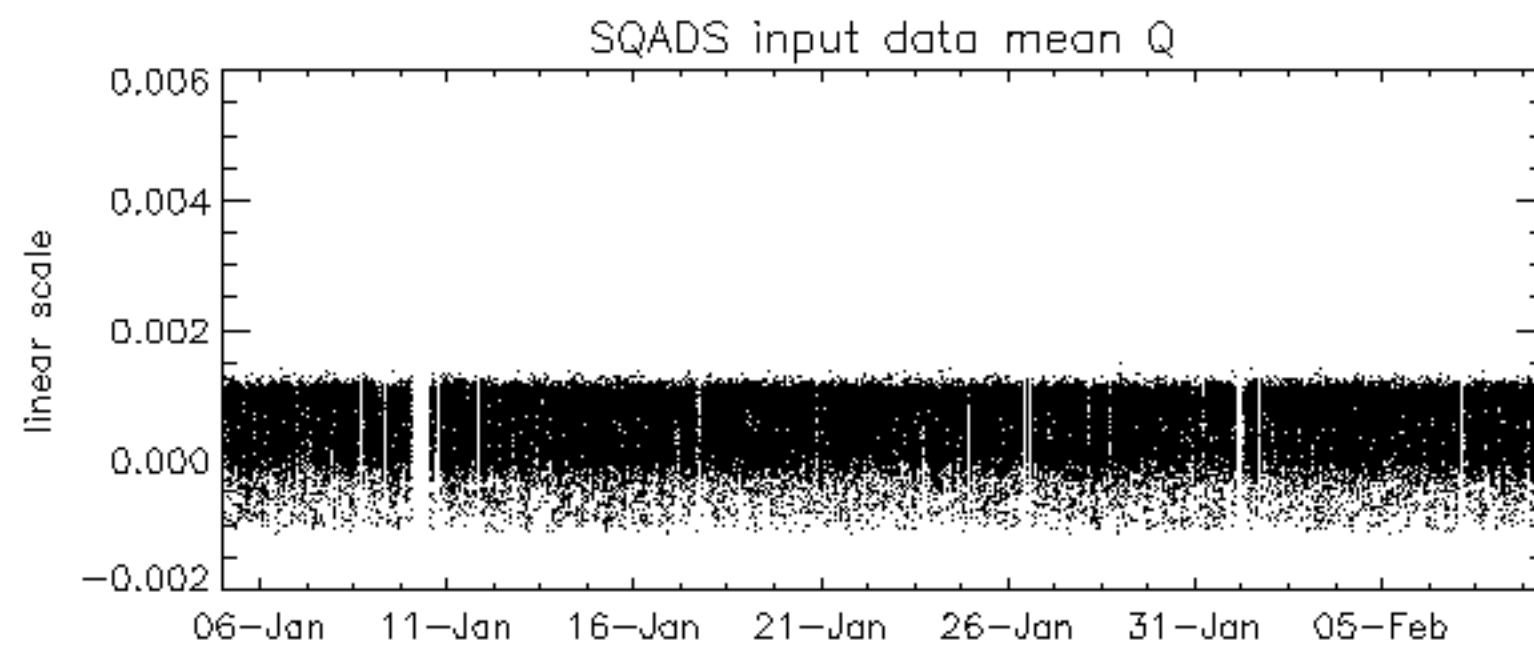
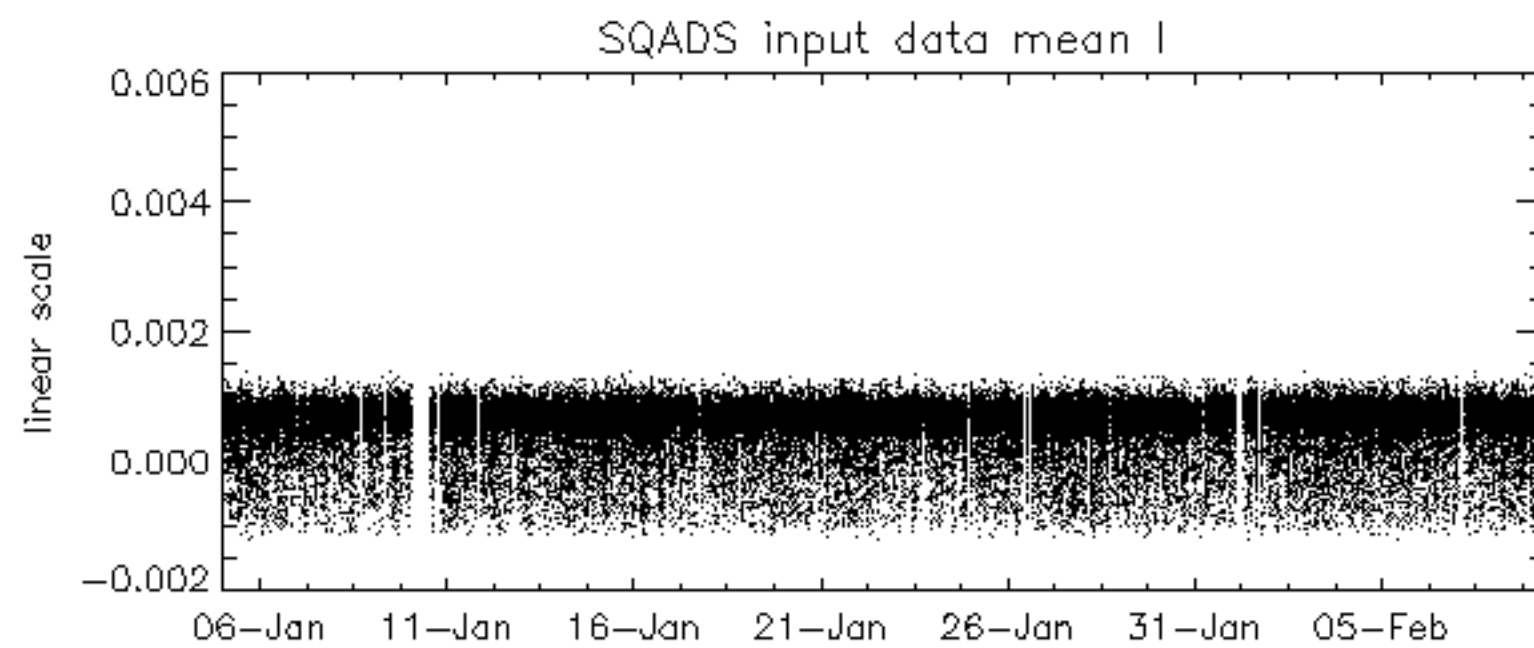
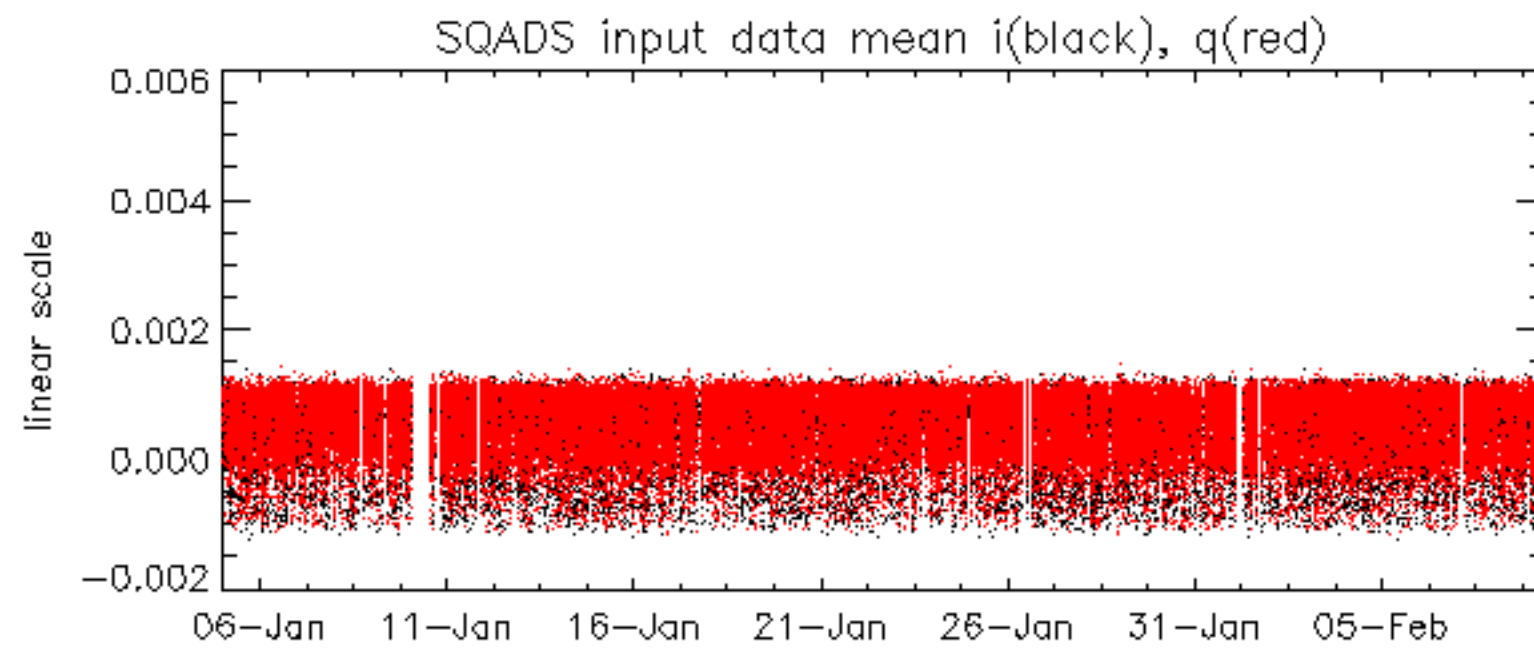
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.291320 Hz

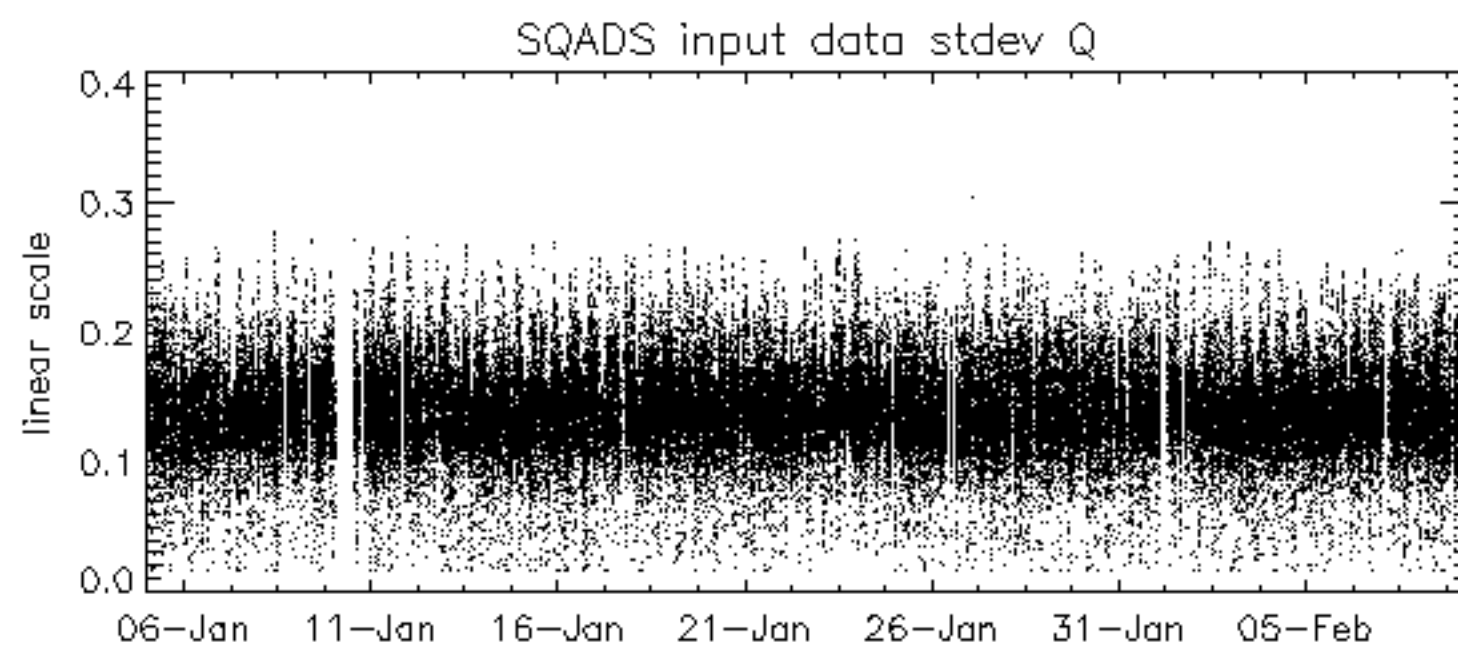
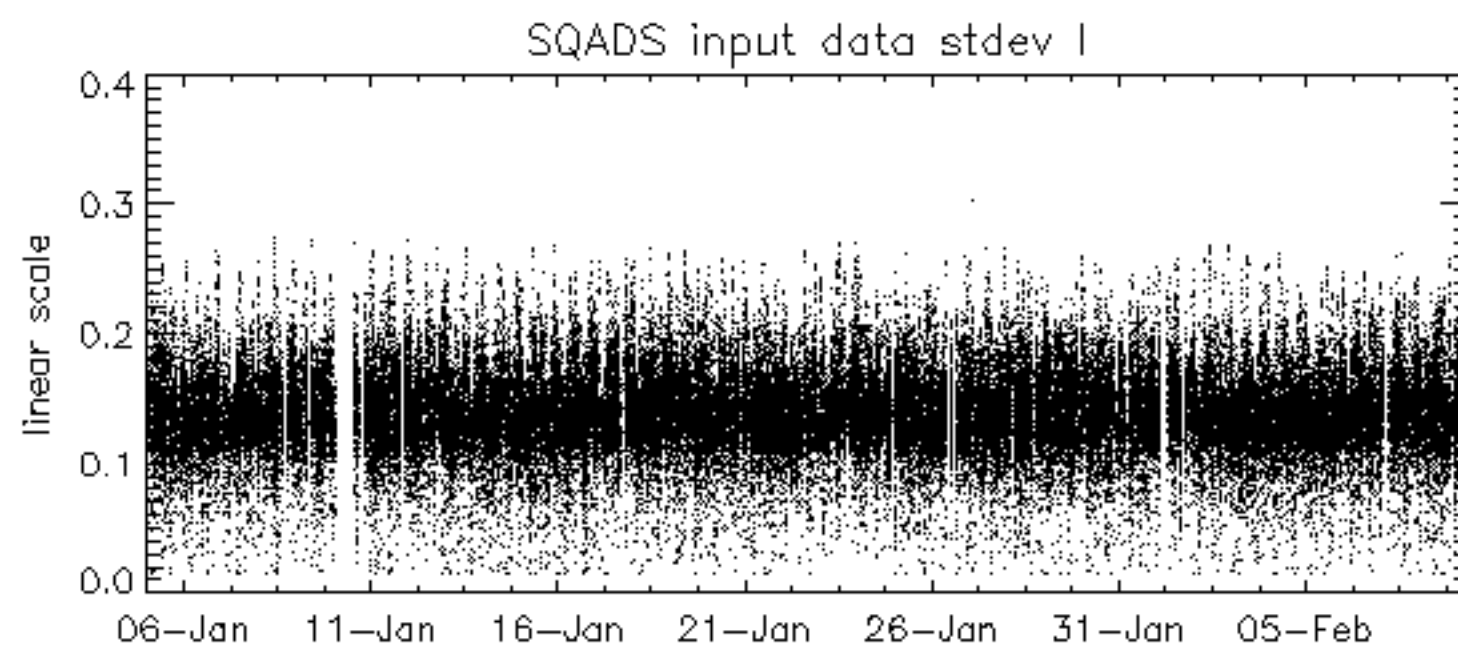
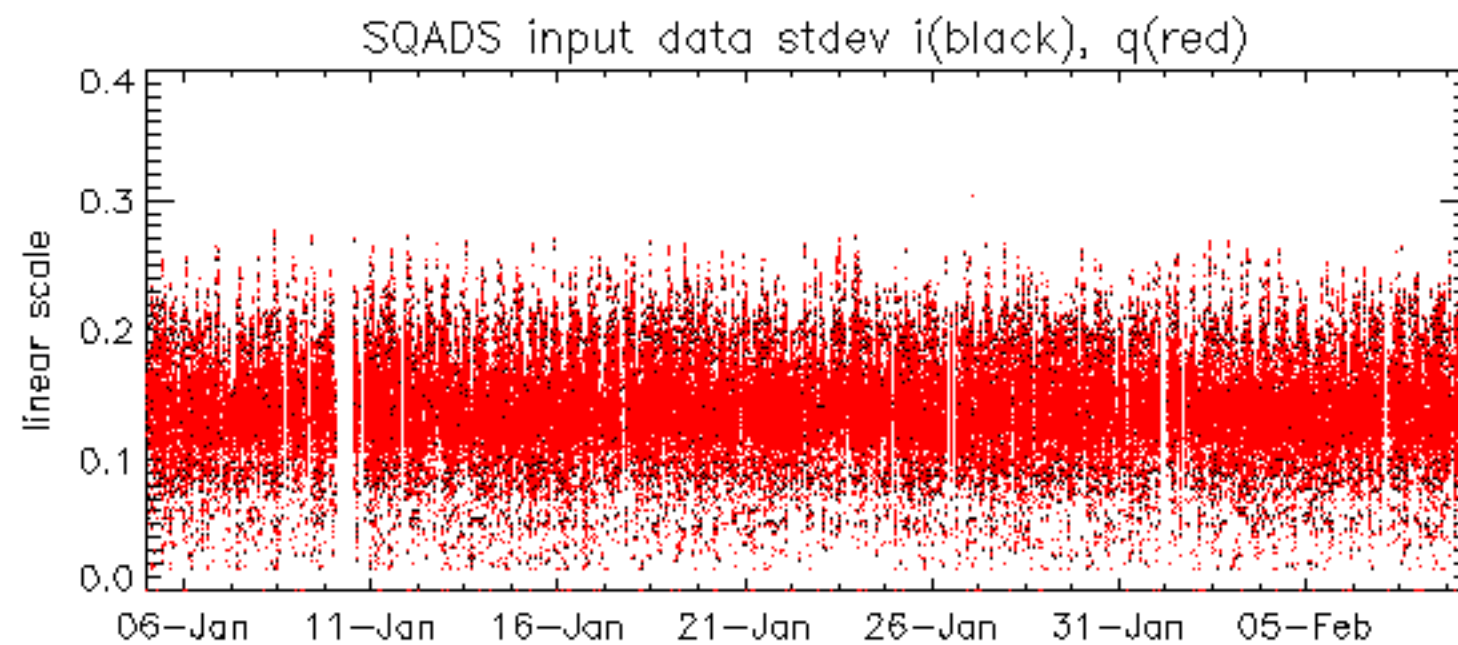


No anomalies observed on available MS products:

No anomalies observed.



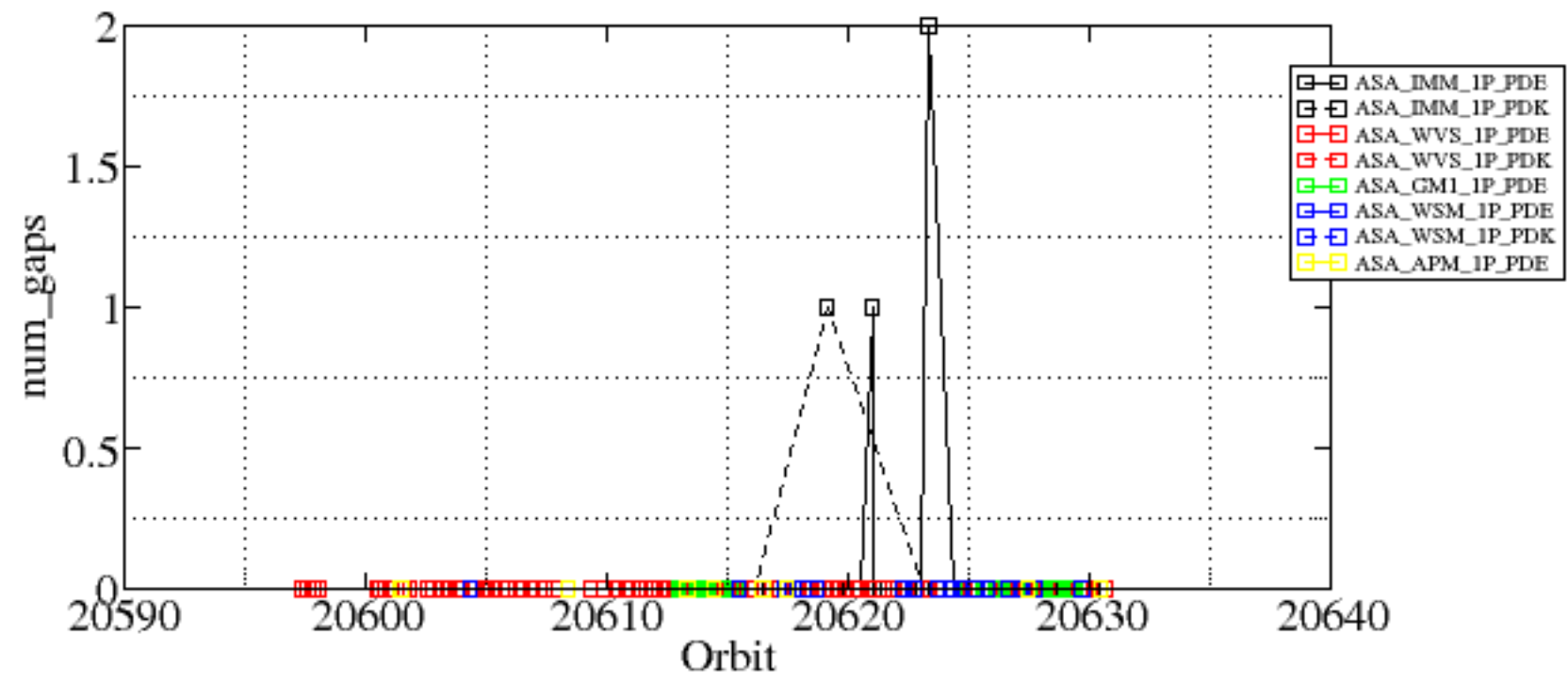




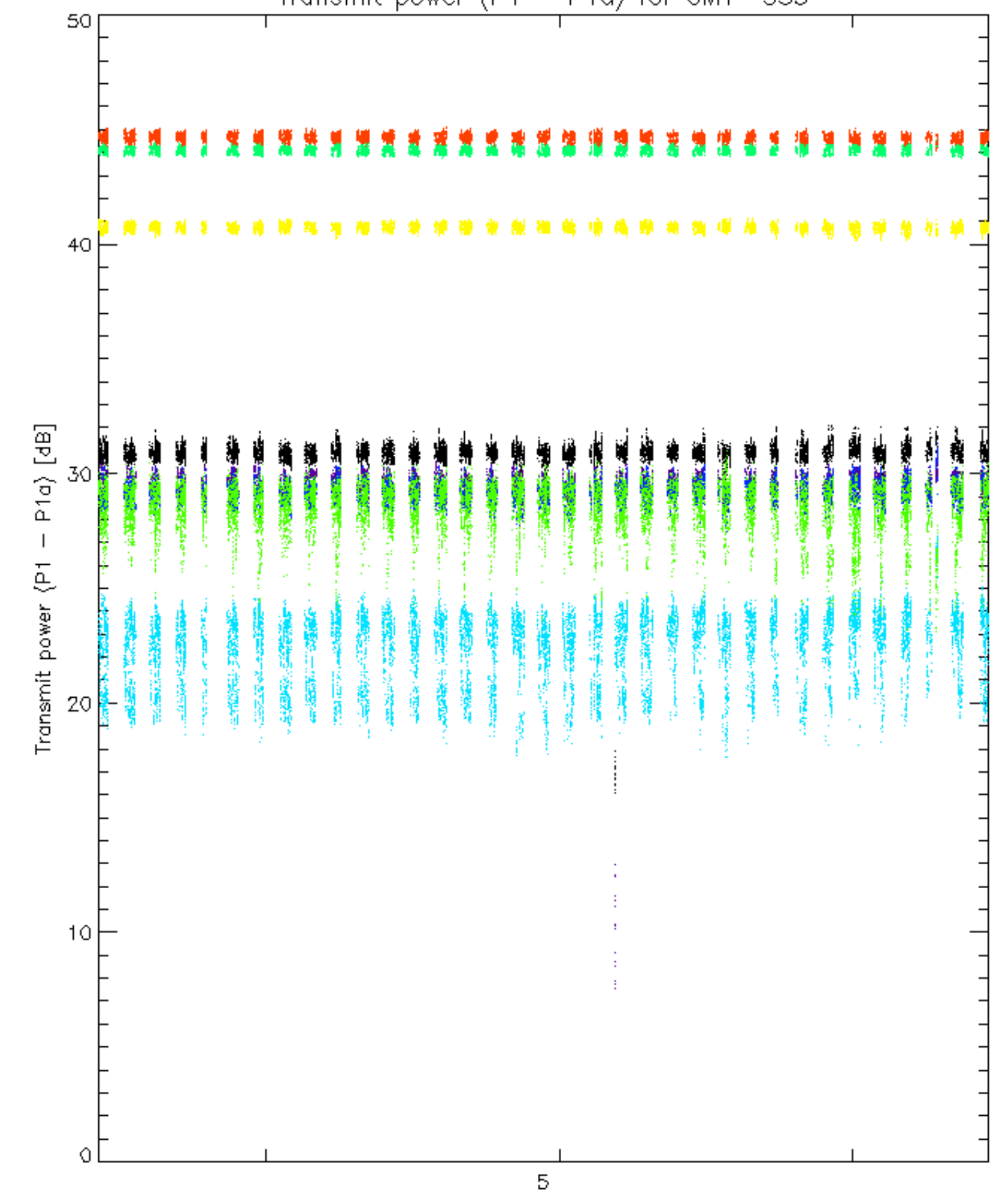
Summary of analysis for the last 3 days 2006020[789]

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

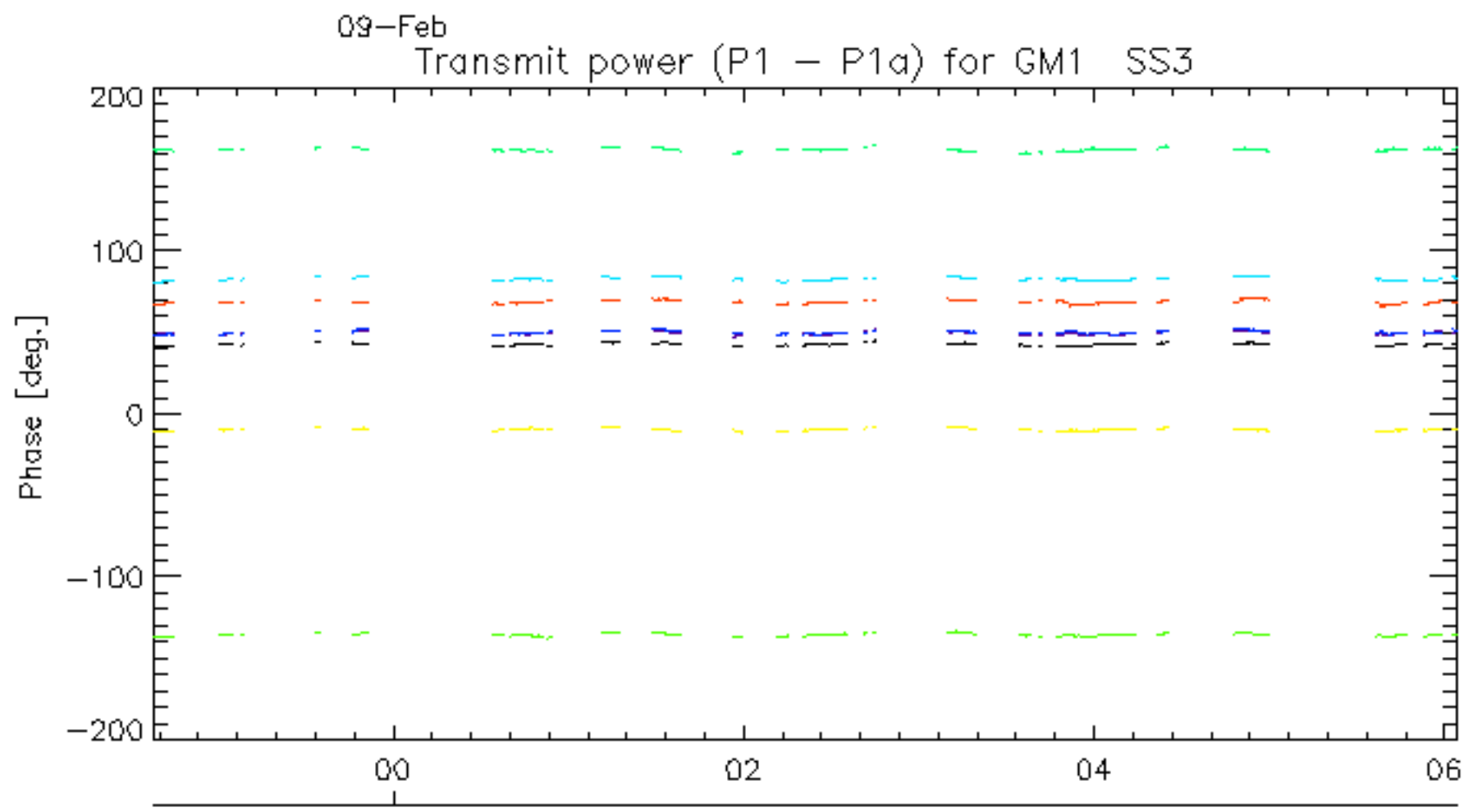
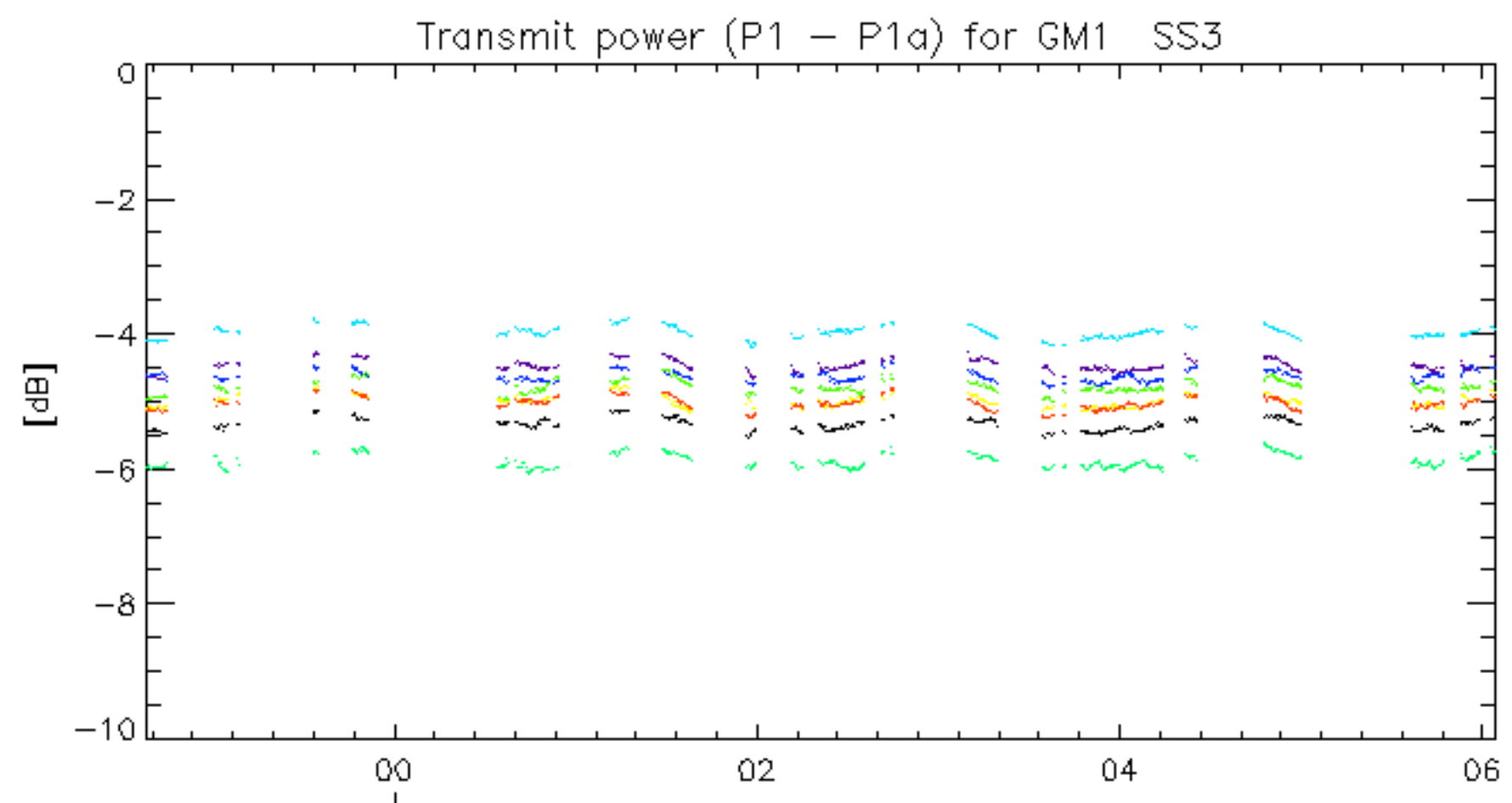
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060208_155358_000001592045_00025_20620_2377.N1	1	0
ASA_IMM_1PNPDE20060208_194758_000000622045_00028_20623_2412.N1	2	1556
ASA_IMM_1PNPDK20060208_124556_000000692045_00024_20619_0769.N1	1	0
ASA_WSM_1PNPDE20060208_202937_000000672045_00028_20623_4225.N1	0	41



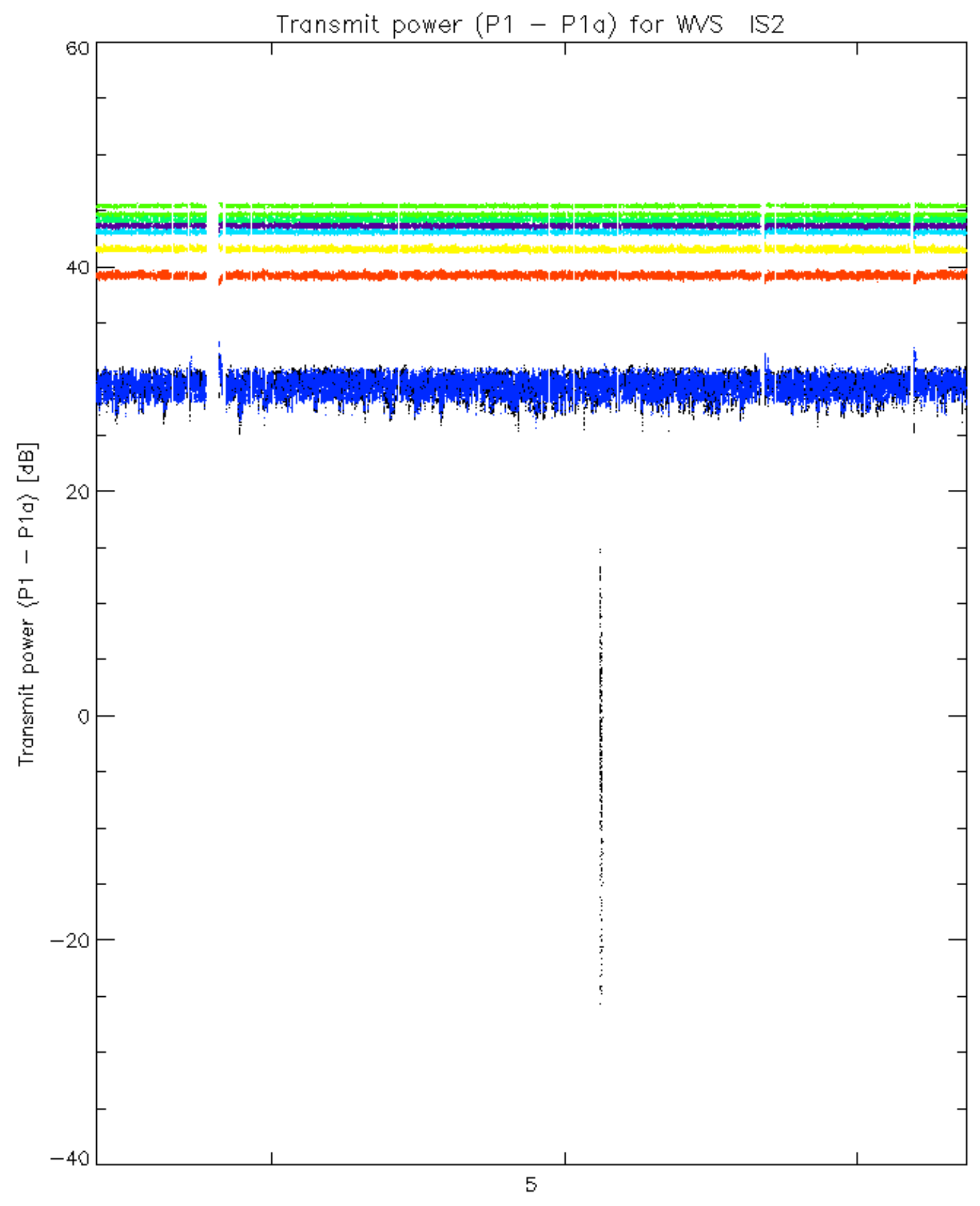
Transmit power (P1 - P1a) for GM1 SS3



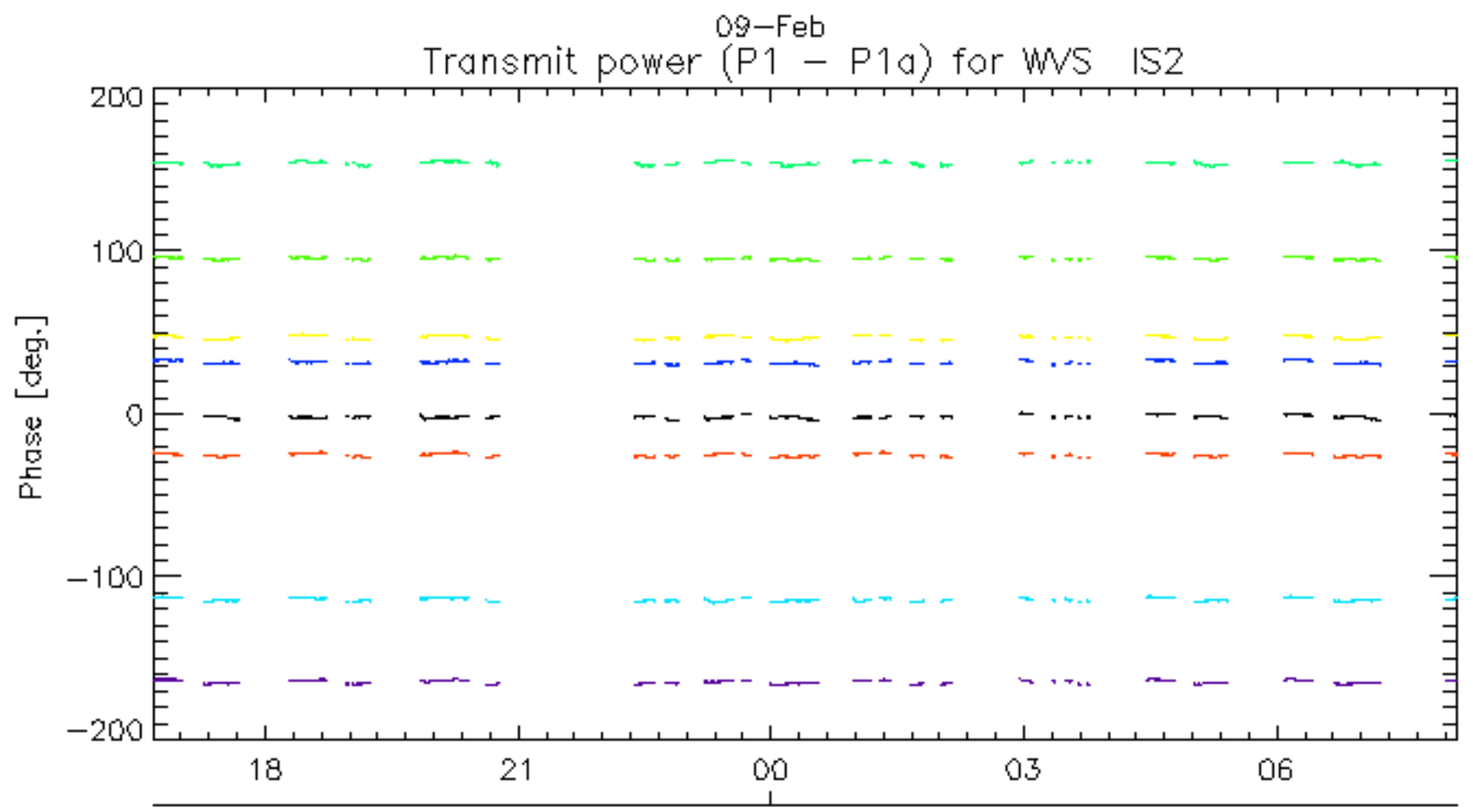
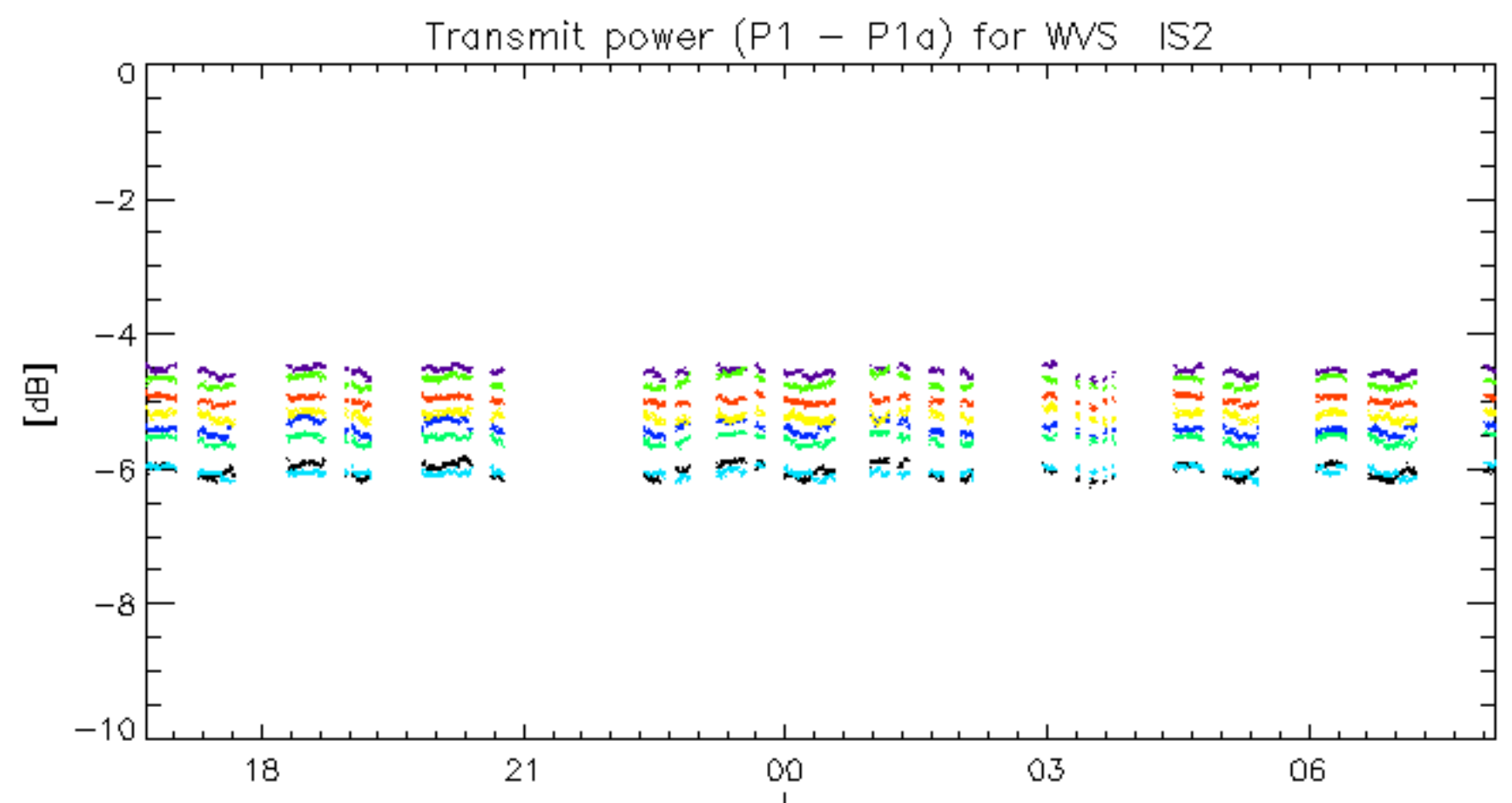
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.