

PRELIMINARY REPORT OF 050220

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Tue Feb 22 08:47:13 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 2005-02-21 00:00:00 to 2005-02-22 08:47:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	25	0	0	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	25	0	0	5
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	27	25	0	0	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	25	0	0	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	43	6	6	1
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	38	43	6	6	1
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	38	43	6	6	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	43	6	6	1

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

The MS product acquired in 18-FEB-2005 is corrupted

Polarisation	Start Time
V	20050219 204905
H	20050218 143818

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

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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	-3.384659	0.008581	0.045254
7	P1	-3.081799	0.007635	-0.013018
11	P1	-4.675496	0.019369	-0.030613
15	P1	-5.653993	0.030603	0.001372
19	P1	-3.666059	0.004151	-0.007242
22	P1	-4.542484	0.013747	0.042617
26	P1	-4.942954	0.013935	-0.009469
30	P1	-7.160892	0.017386	-0.037314
3	P1	-15.929136	0.089543	-0.099365
7	P1	-15.514435	0.059972	-0.003121
11	P1	-20.893303	0.252258	-0.089611
15	P1	-11.589710	0.028828	0.040719
19	P1	-14.206182	0.025532	-0.100943
22	P1	-15.815554	0.352689	0.207678
26	P1	-17.602934	0.226475	-0.017572
30	P1	-17.921488	0.400235	-0.011391

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.171295	0.085153	0.149789
7	P2	-22.365005	0.104275	0.130565
11	P2	-14.581924	0.101098	0.173454
15	P2	-7.079926	0.094267	0.047194
19	P2	-9.672326	0.093517	0.047698
22	P2	-16.988350	0.093444	0.110686
26	P2	-16.468920	0.091100	0.042262
30	P2	-18.900459	0.079238	0.033719

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175038	0.005687	0.025788
7	P3	-8.175038	0.005687	0.025788
11	P3	-8.175038	0.005687	0.025788
15	P3	-8.175038	0.005687	0.025788
19	P3	-8.175038	0.005687	0.025788
22	P3	-8.175038	0.005687	0.025788
26	P3	-8.174931	0.005686	0.025544
30	P3	-8.174931	0.005686	0.025544

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-2.767419	0.020182	0.083992
7	P1	-2.986038	0.081066	-0.039402
11	P1	-3.968940	0.024344	-0.035012
15	P1	-3.542708	0.023513	-0.035433
19	P1	-3.592992	0.014310	0.017642
22	P1	-5.710801	0.054616	-0.068416
26	P1	-7.311906	0.031758	0.051502
30	P1	-6.252062	0.042057	0.064561
3	P1	-10.755385	0.096077	0.027936
7	P1	-10.210624	0.199004	-0.151047
11	P1	-12.560666	0.129416	-0.033525
15	P1	-11.753470	0.083564	0.029005
19	P1	-15.577394	0.056121	0.023497
22	P1	-24.230709	1.428131	-0.395425

26	P1	-15.583514	0.237219	0.214731
30	P1	-20.110201	0.934391	-0.273653

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.880116	0.047285	0.135575
7	P2	-22.422638	0.136416	0.061546
11	P2	-10.351125	0.055729	0.239775
15	P2	-4.997564	0.020735	0.039291
19	P2	-6.861914	0.031133	0.078919
22	P2	-7.166034	0.052445	0.116805
26	P2	-23.871164	0.103711	0.035893
30	P2	-21.936571	0.061719	0.043411

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.007719	0.002522	0.029639
7	P3	-8.007783	0.002529	0.029909
11	P3	-8.007759	0.002534	0.029668
15	P3	-8.007720	0.002529	0.029291
19	P3	-8.007776	0.002543	0.029939
22	P3	-8.007797	0.002526	0.029794
26	P3	-8.007642	0.002529	0.029432
30	P3	-8.007779	0.002530	0.029195

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	0.000466563
	stdev	2.18436e-07
MEAN Q	mean	0.000536564
	stdev	2.30906e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128764
	stdev	0.000979312
STDEV Q	mean	0.129006
	stdev	0.000989899



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005021[890]

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_WSM_1PNPDE20050218_183642_000001282034_00457_15541_5968.N1	0	68







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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)


Acsending

<input type="checkbox"/>
Descending

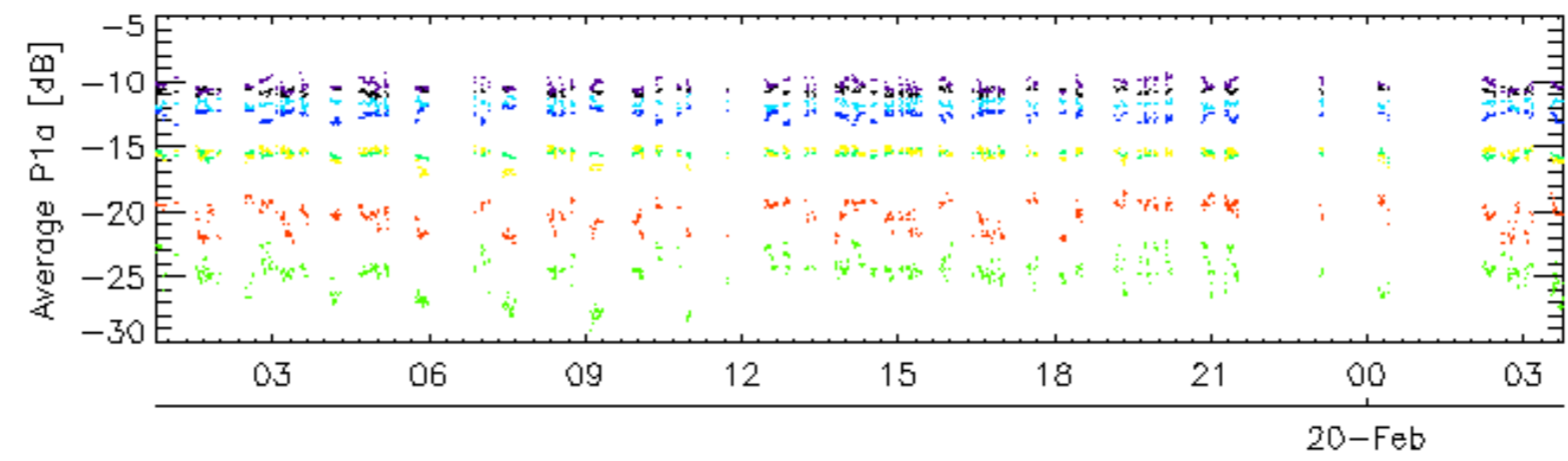
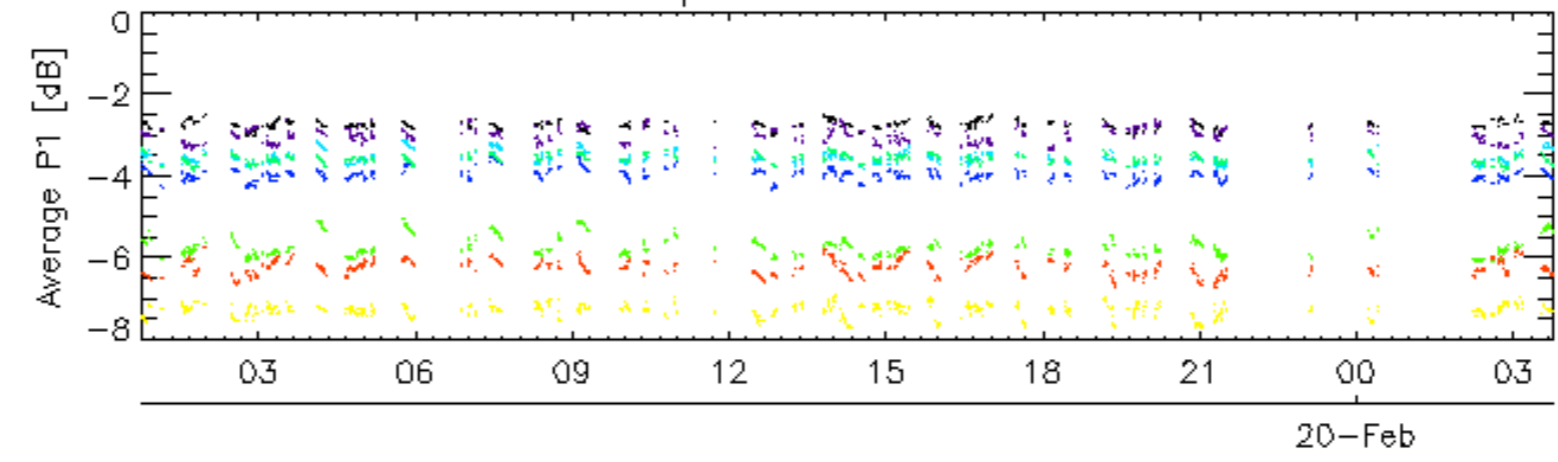
7.5 - Absolute Doppler for GM1

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

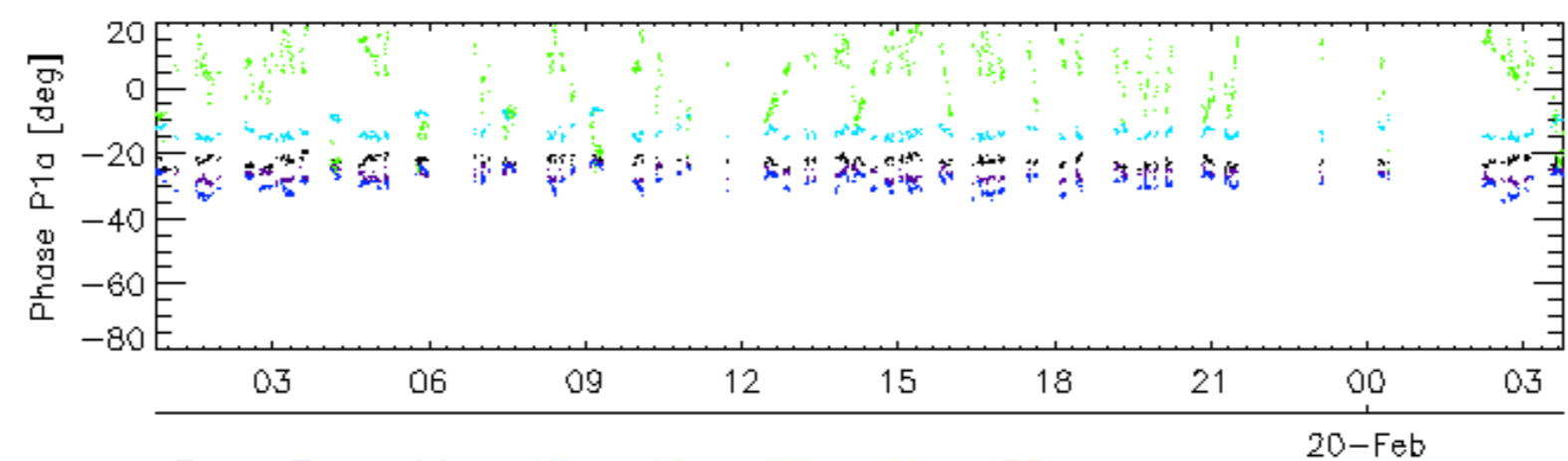
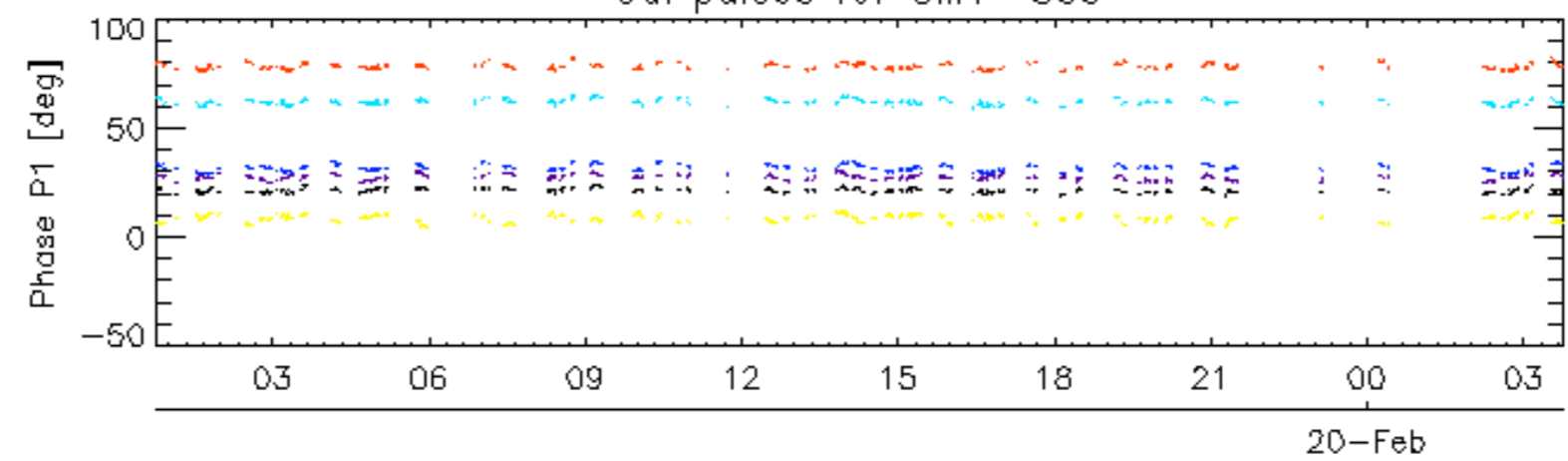
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

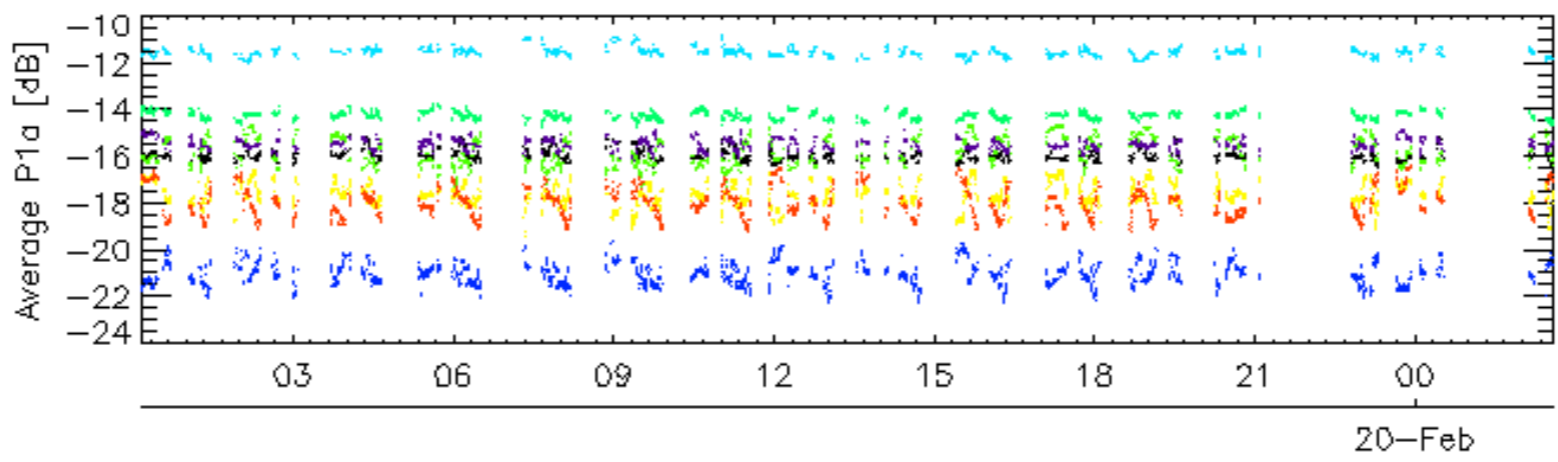
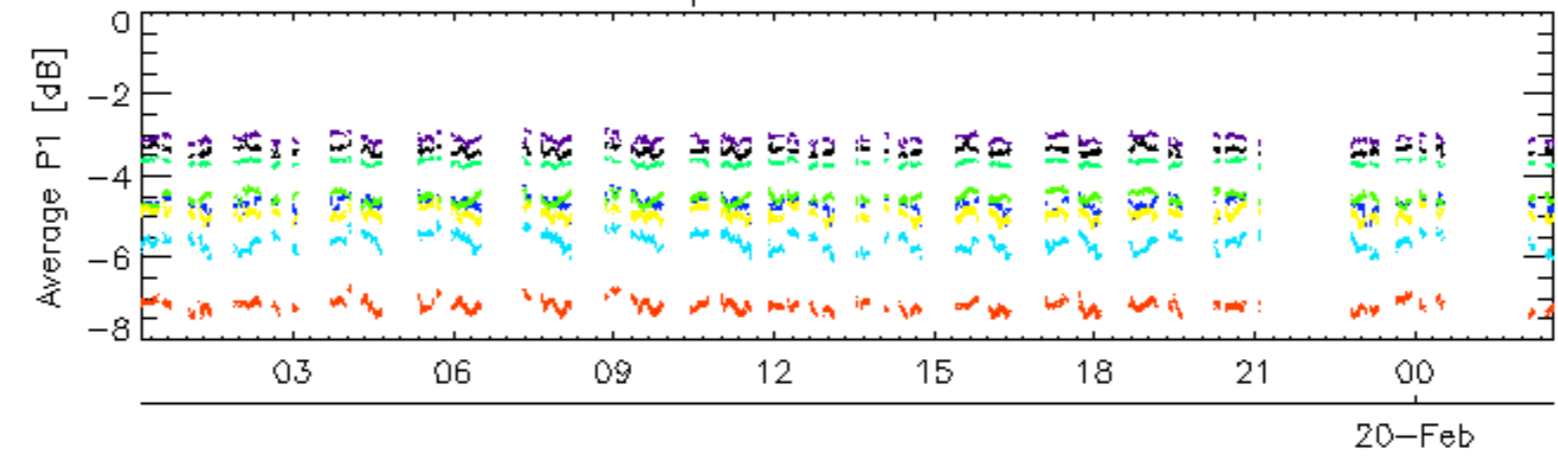


Cal pulses for GM1 SS3

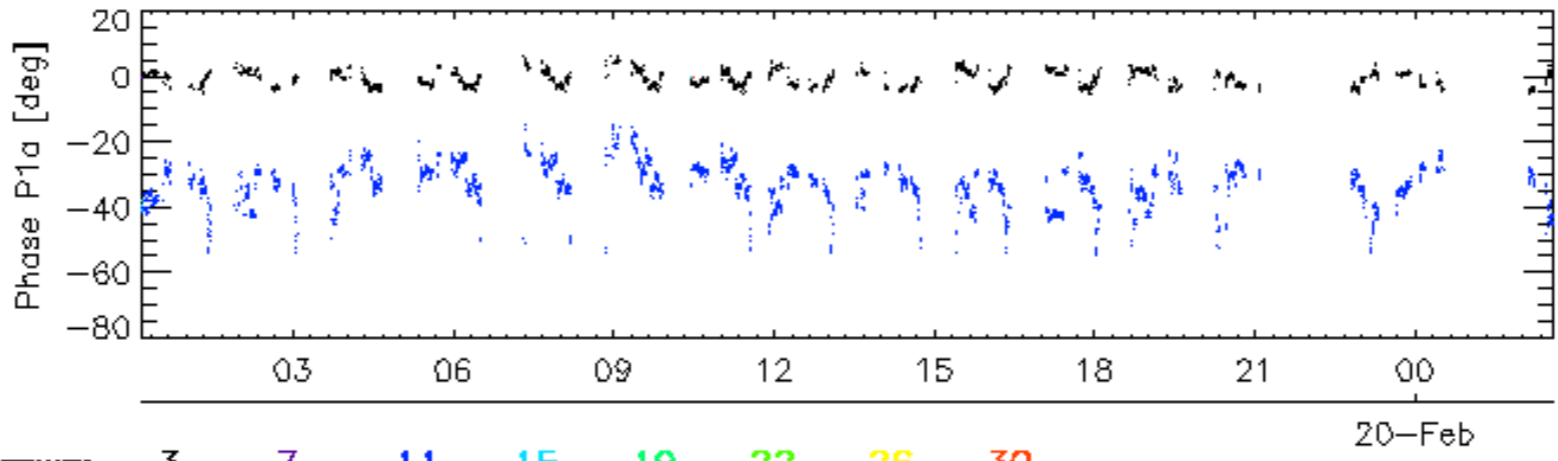
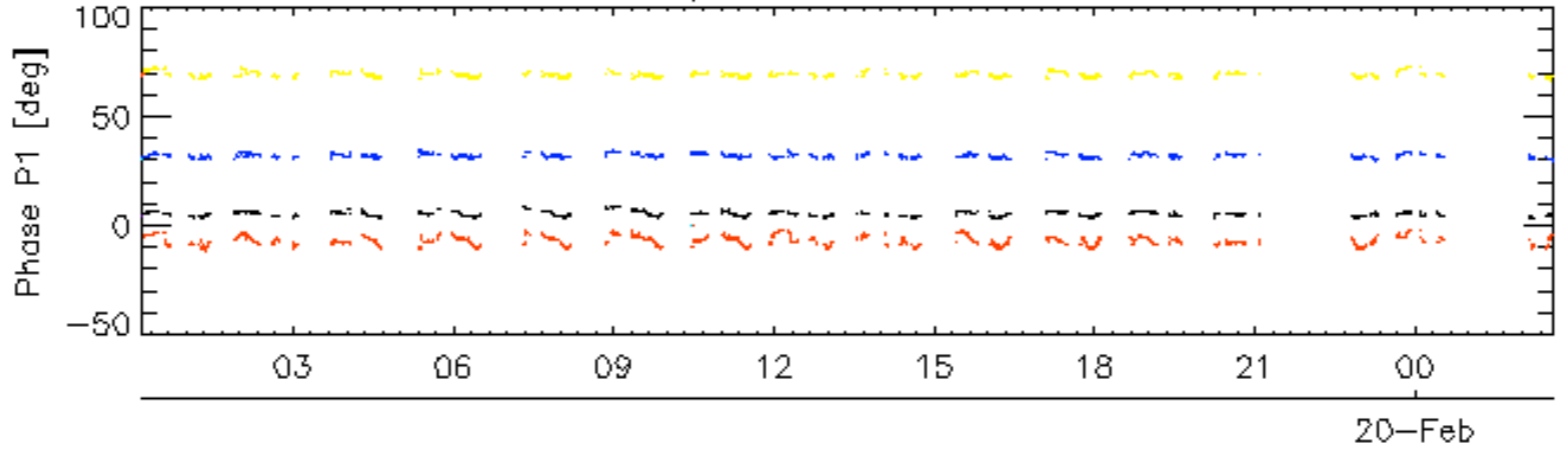


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

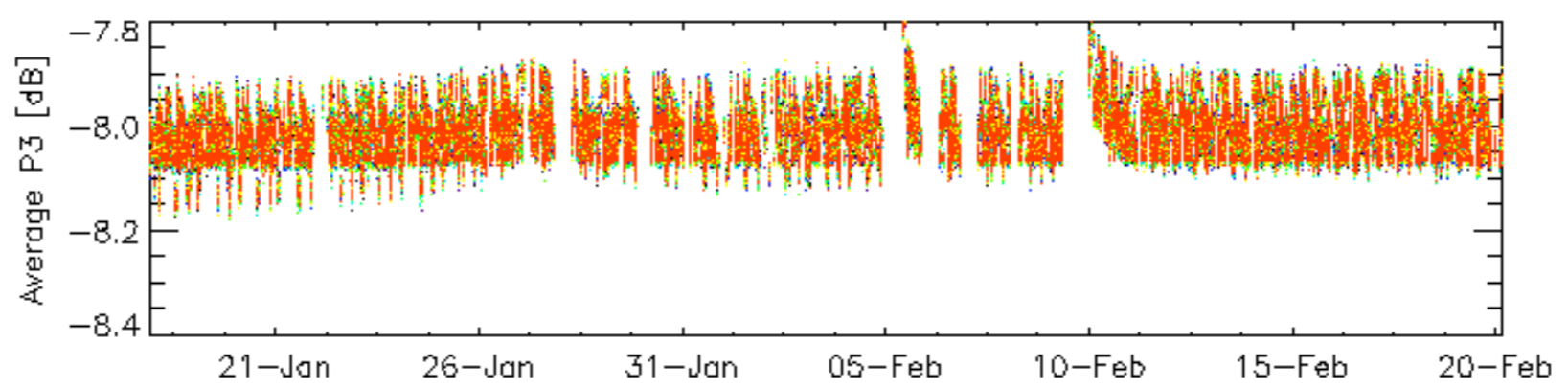
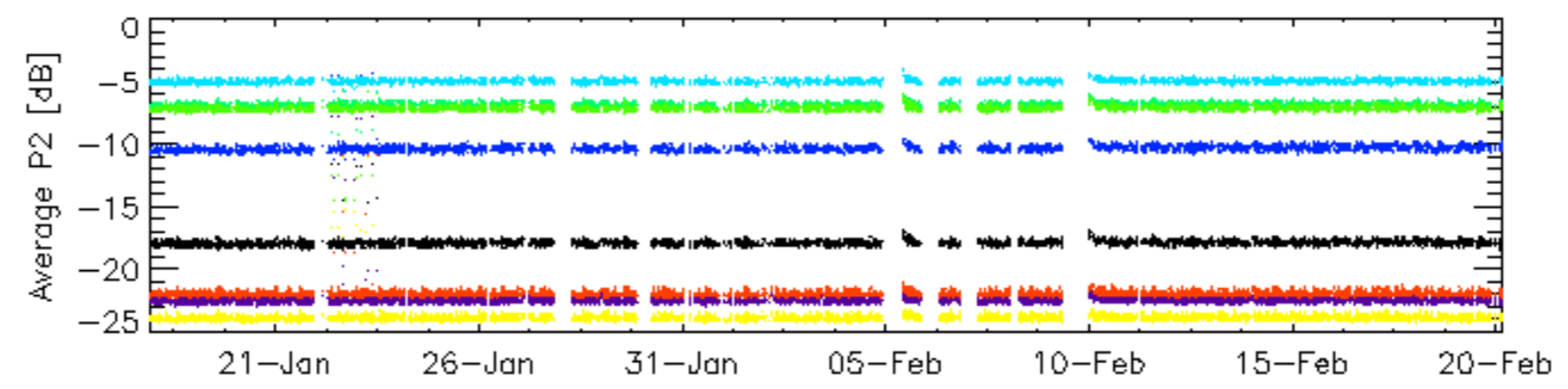
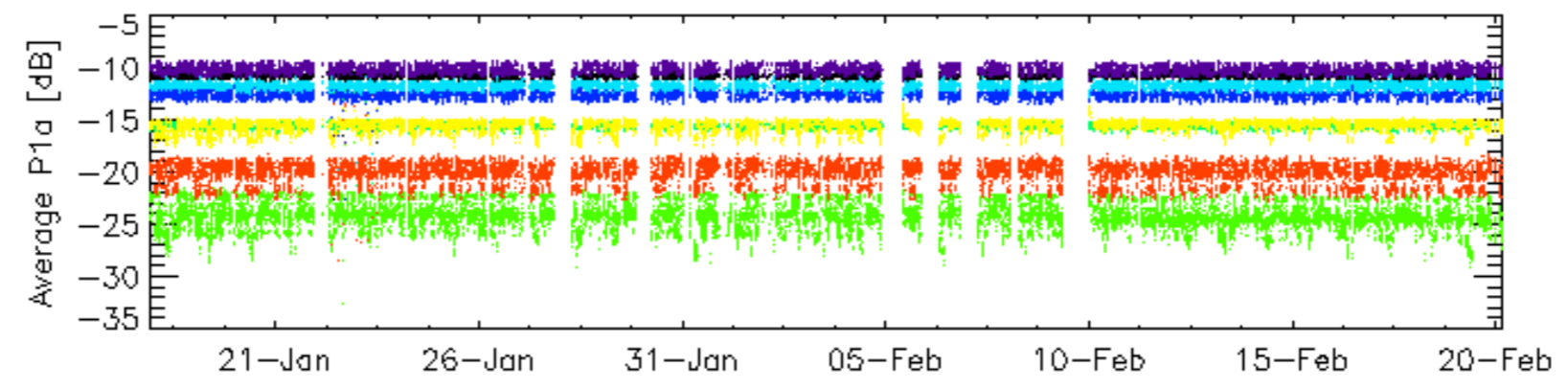
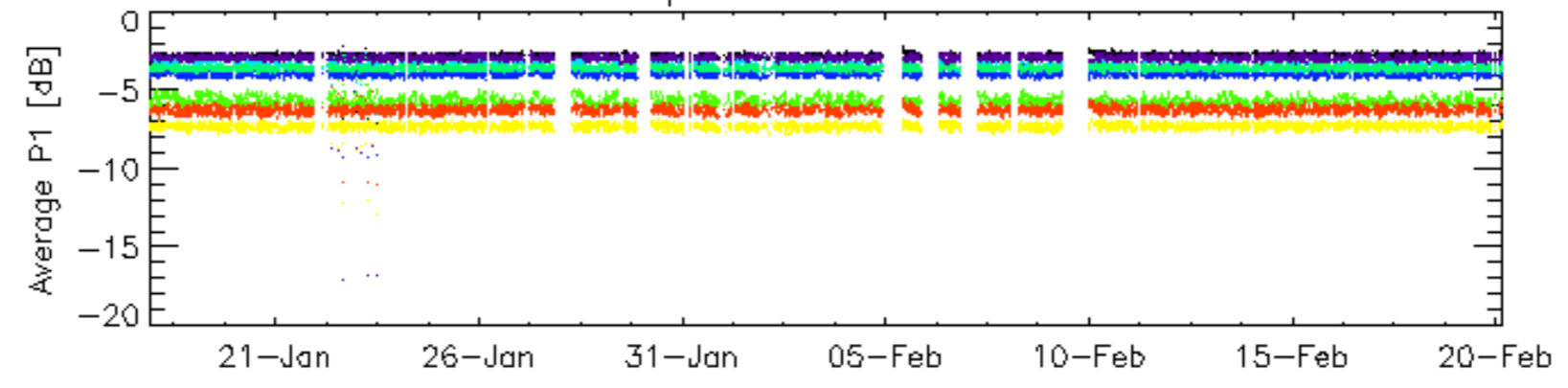


Cal pulses for WVS IS2



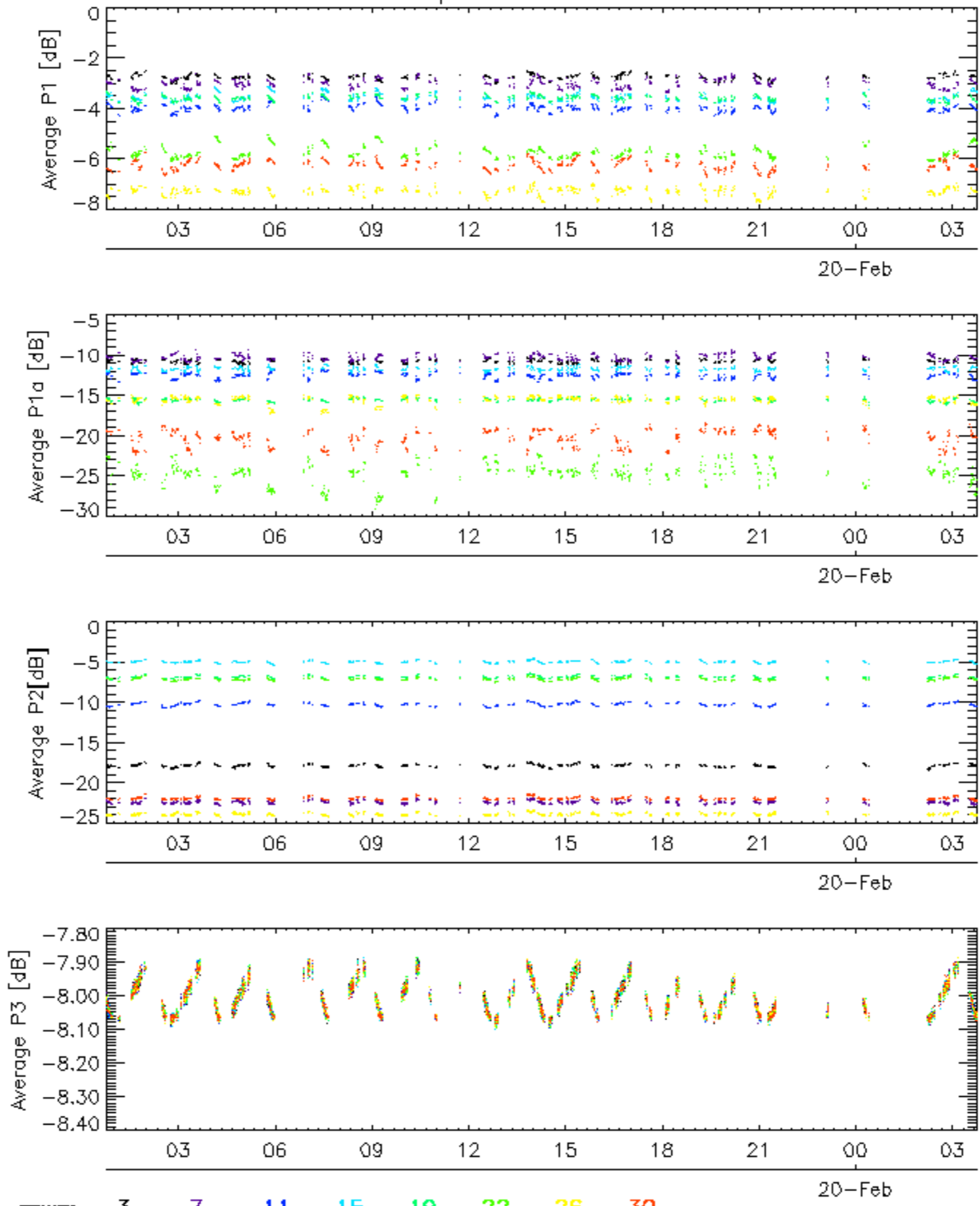
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

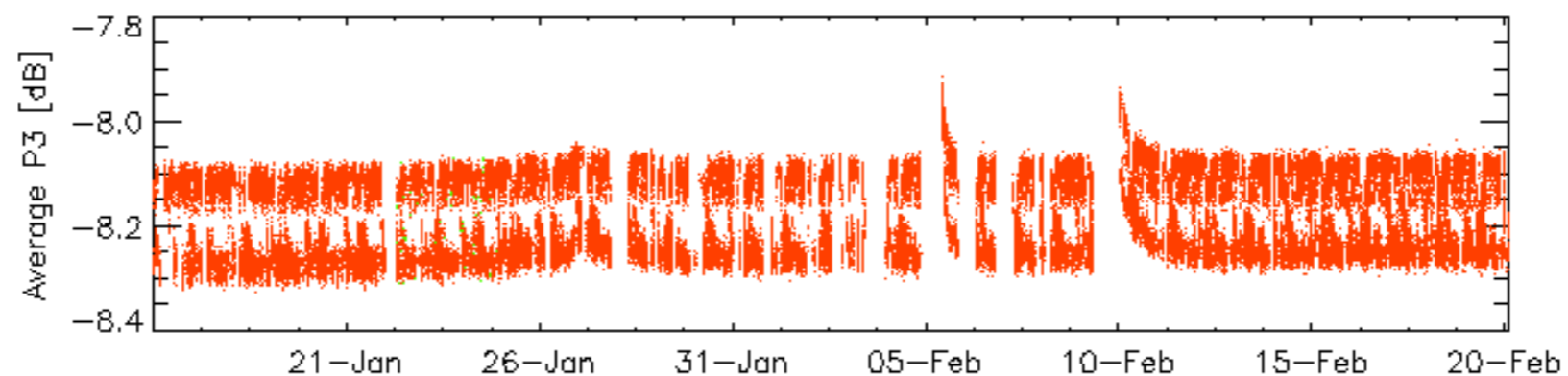
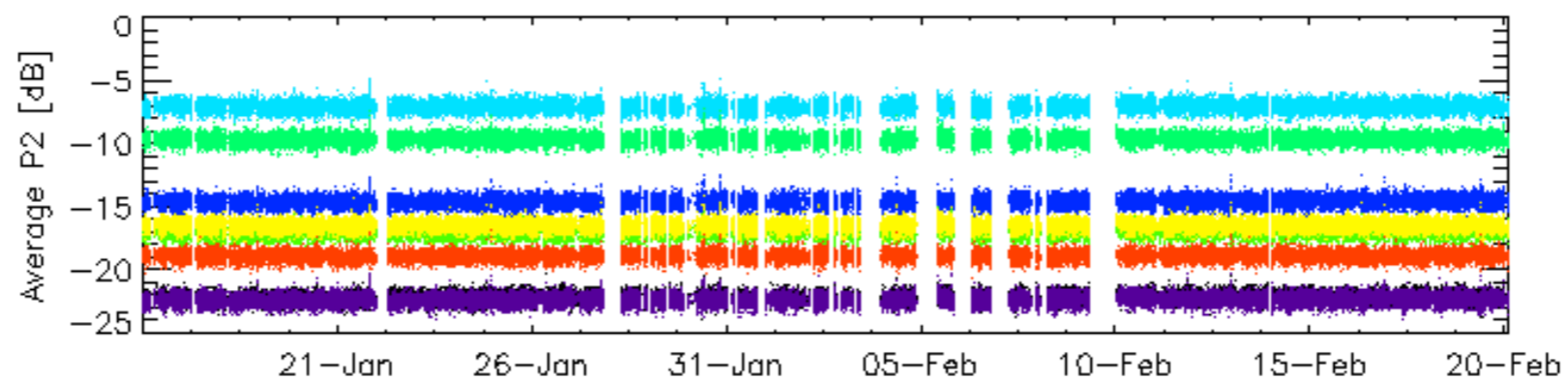
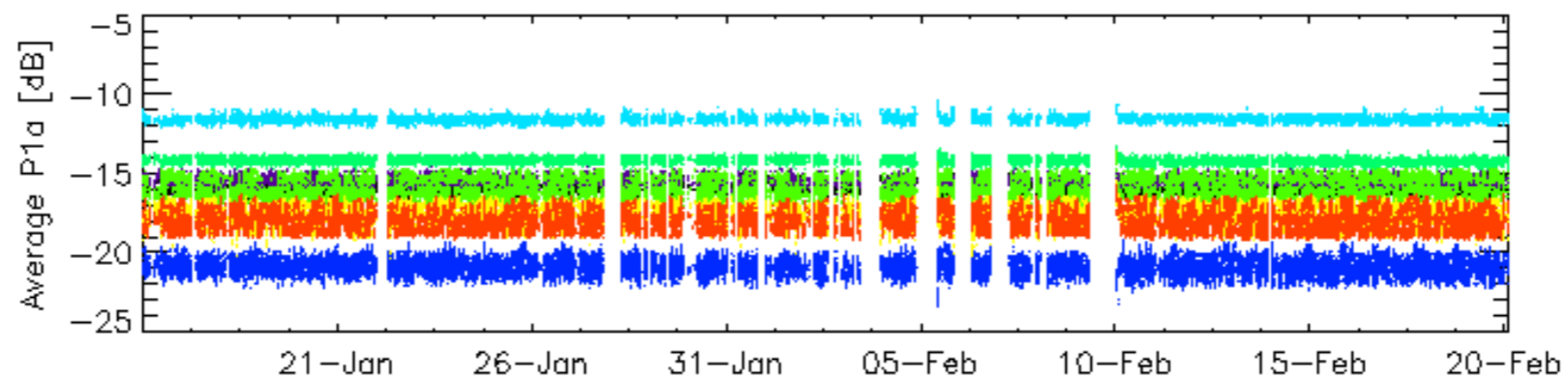
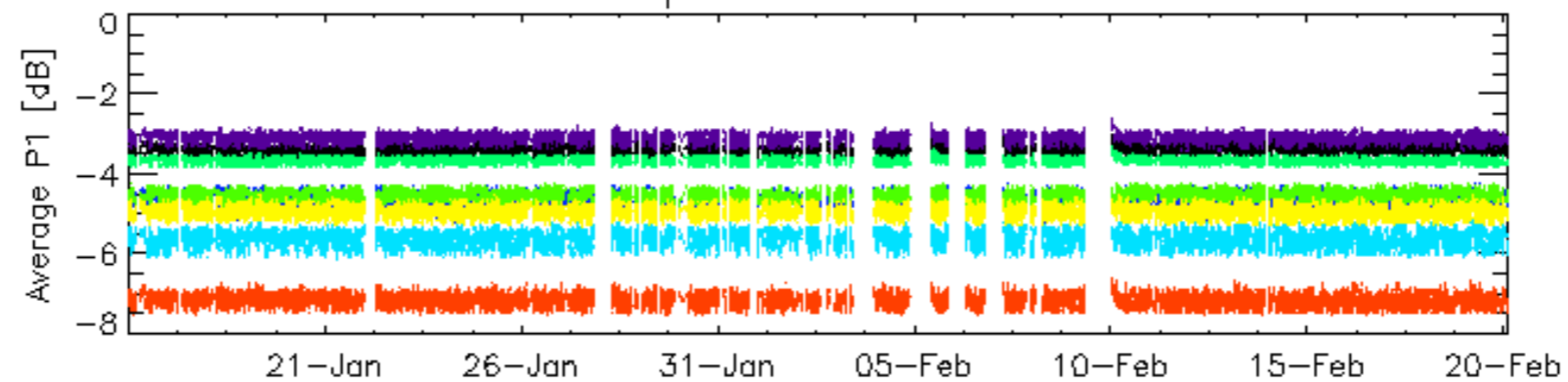


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

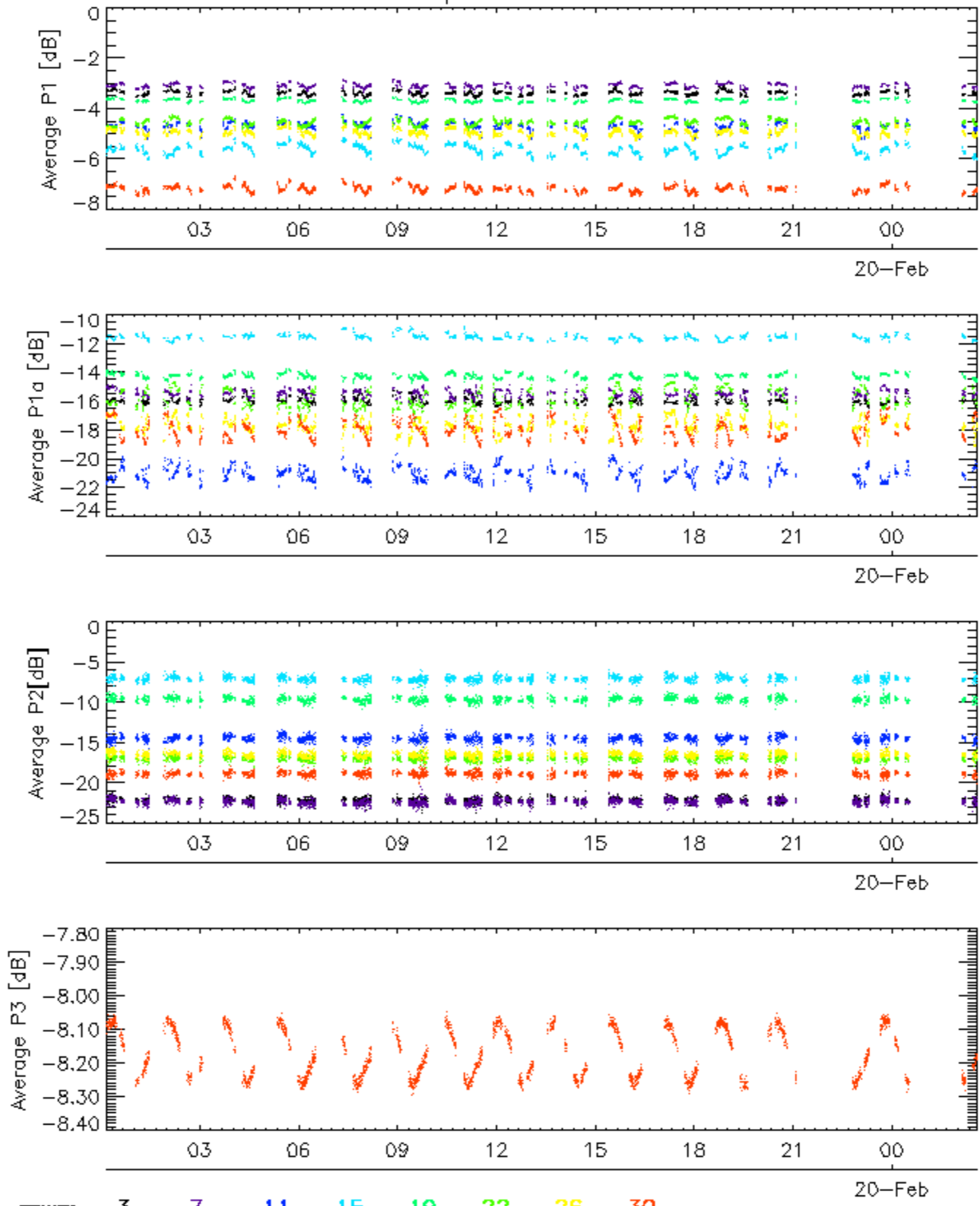


Cal pulses for WVS IS2

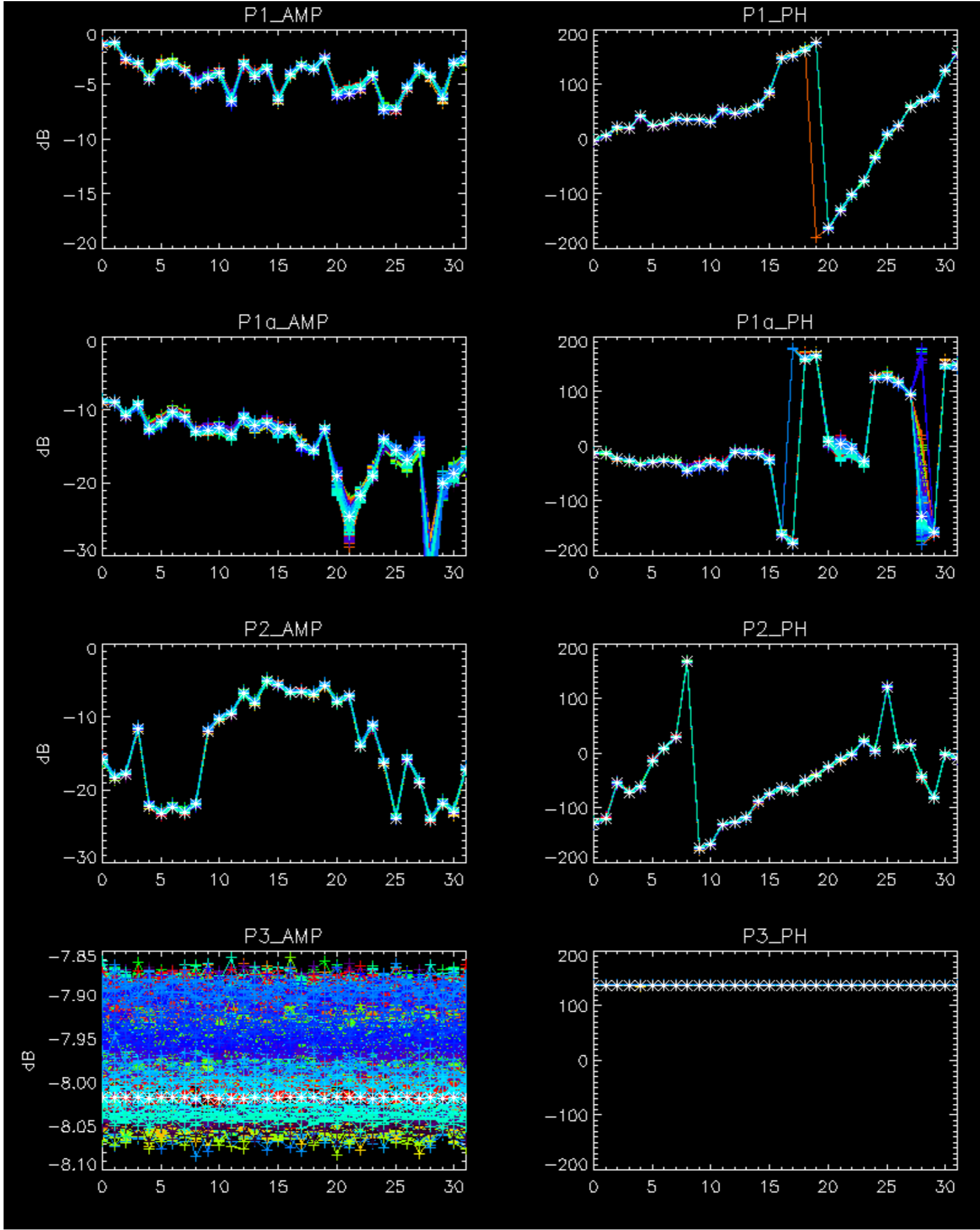


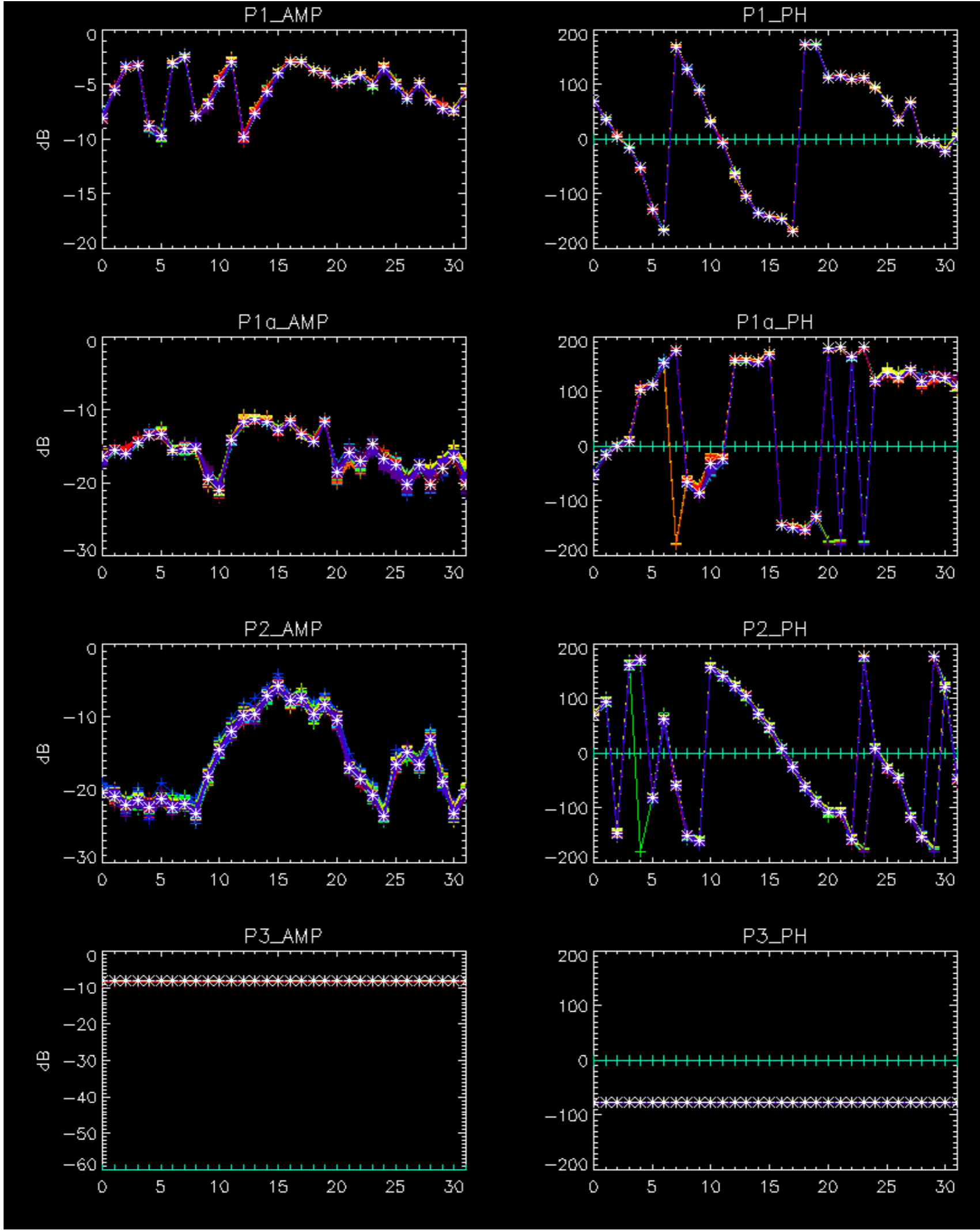
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



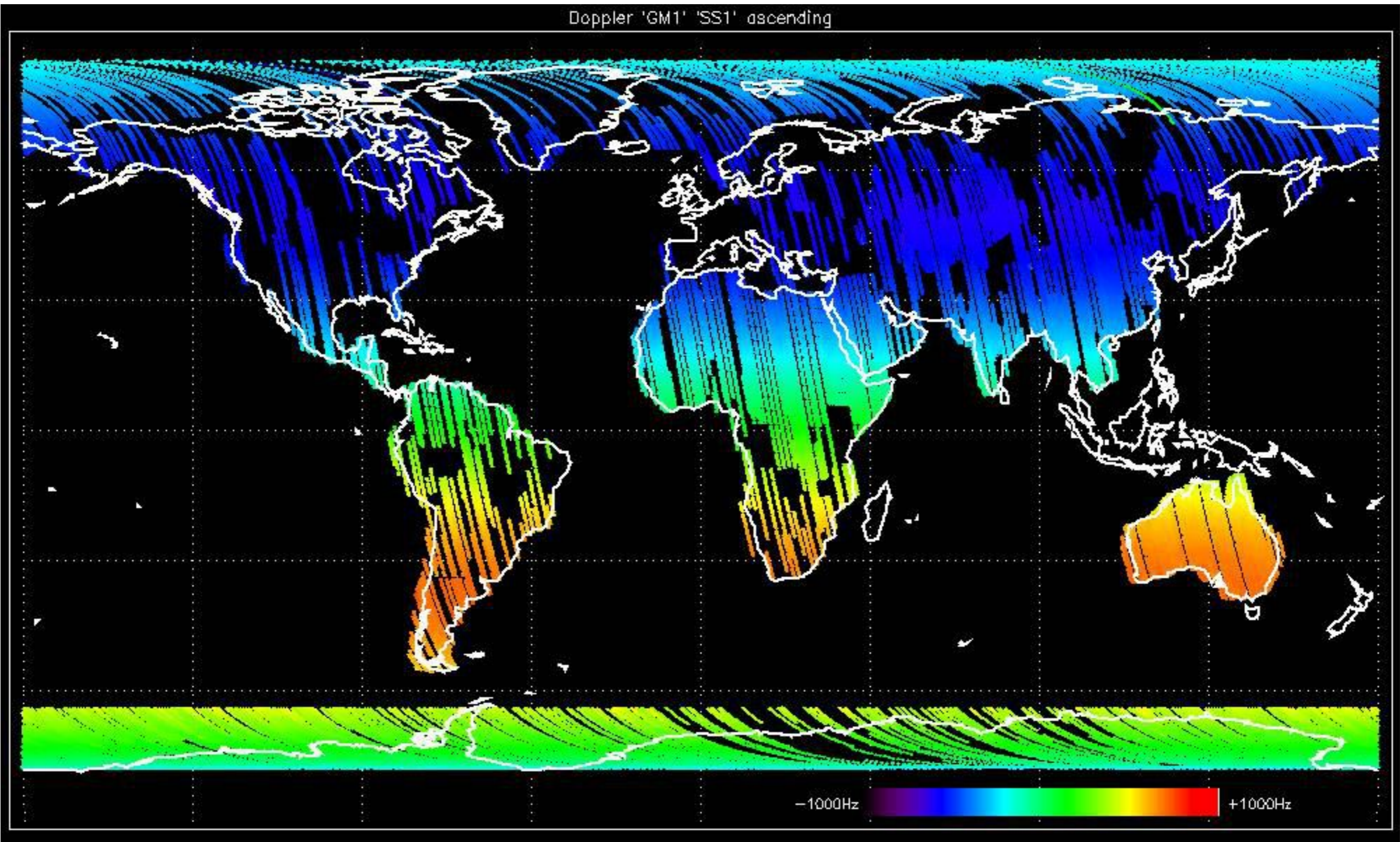
No anomalies observed.



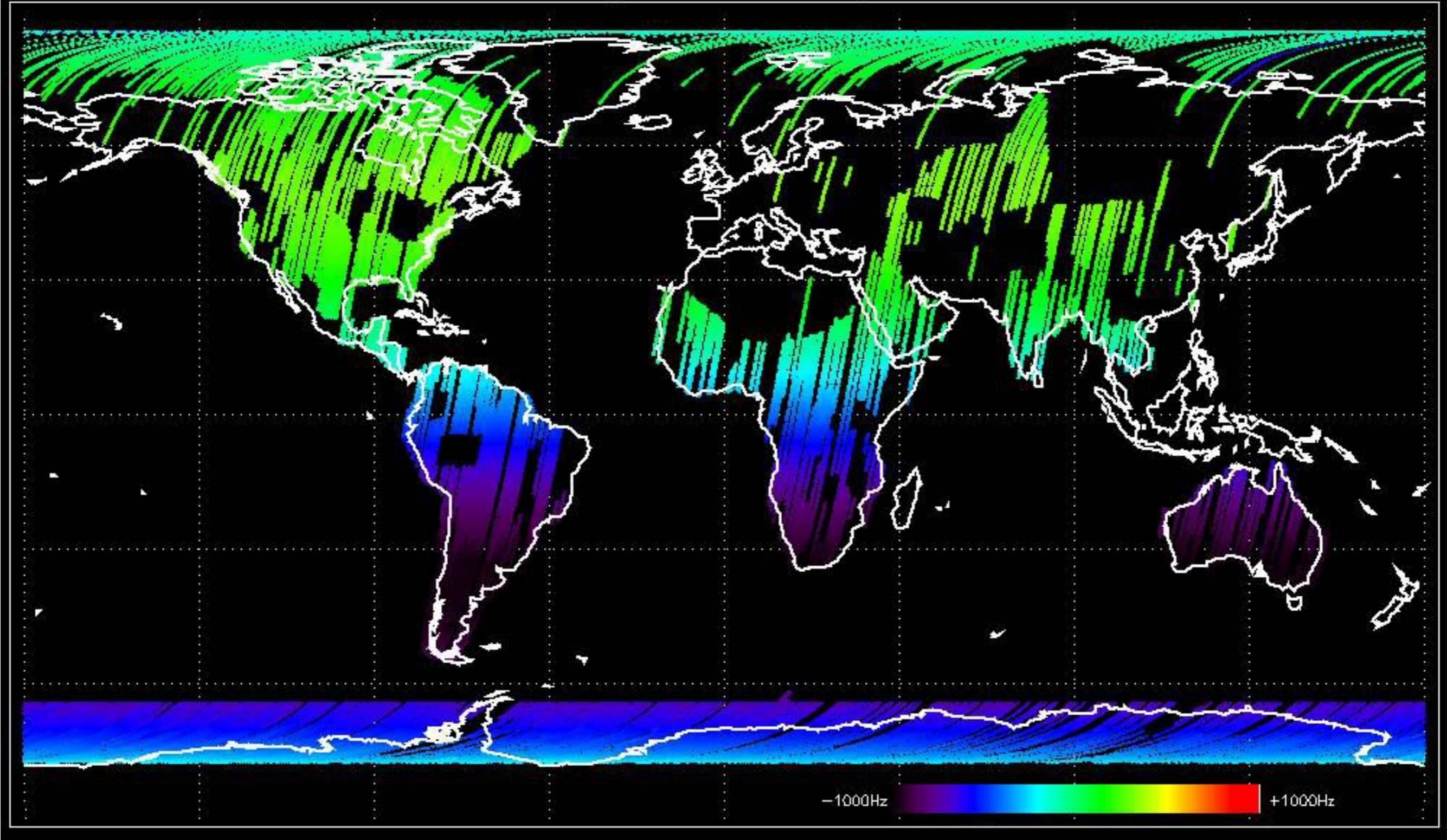


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

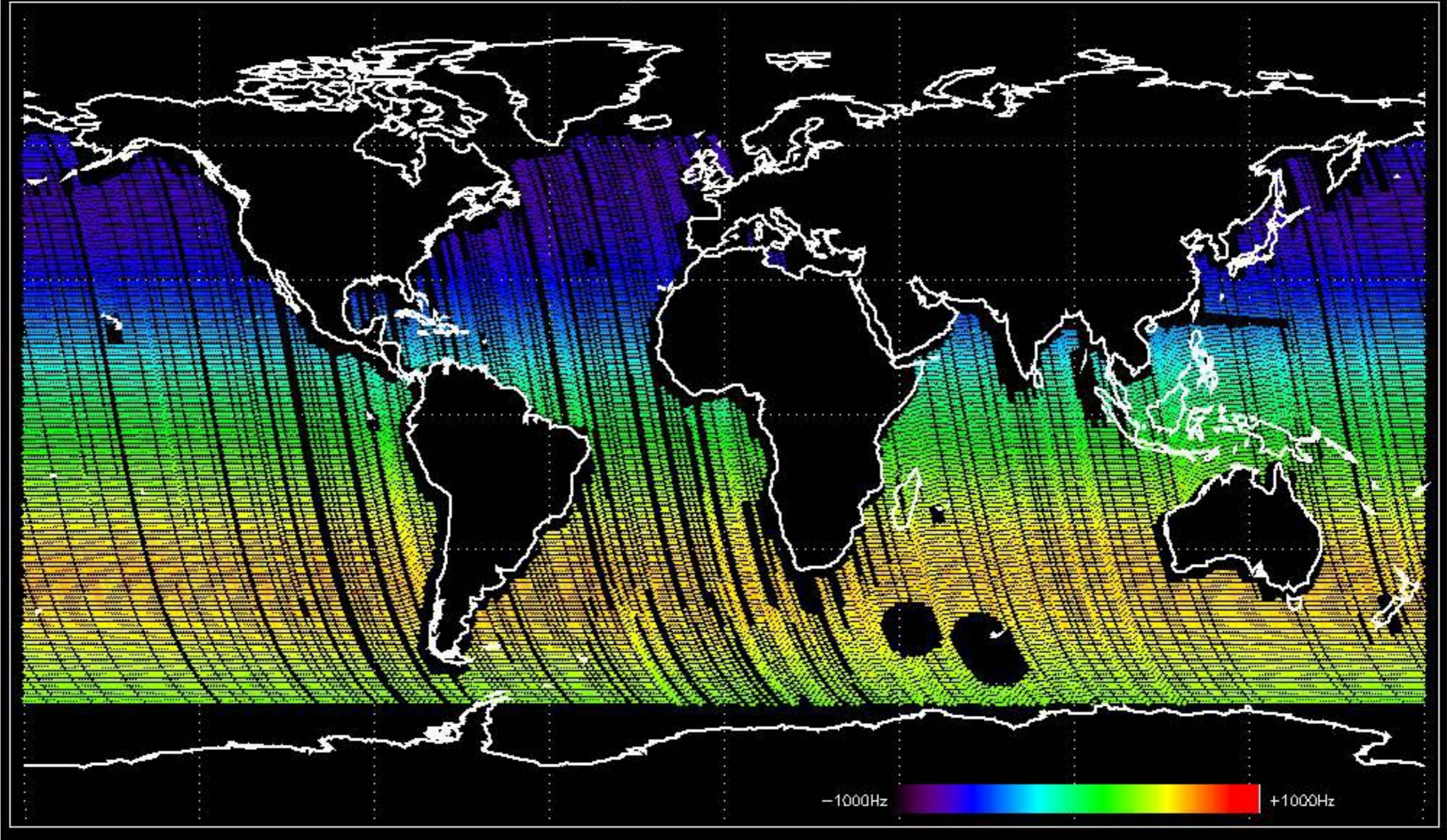
Doppler 'GM1' 'SS1' ascending



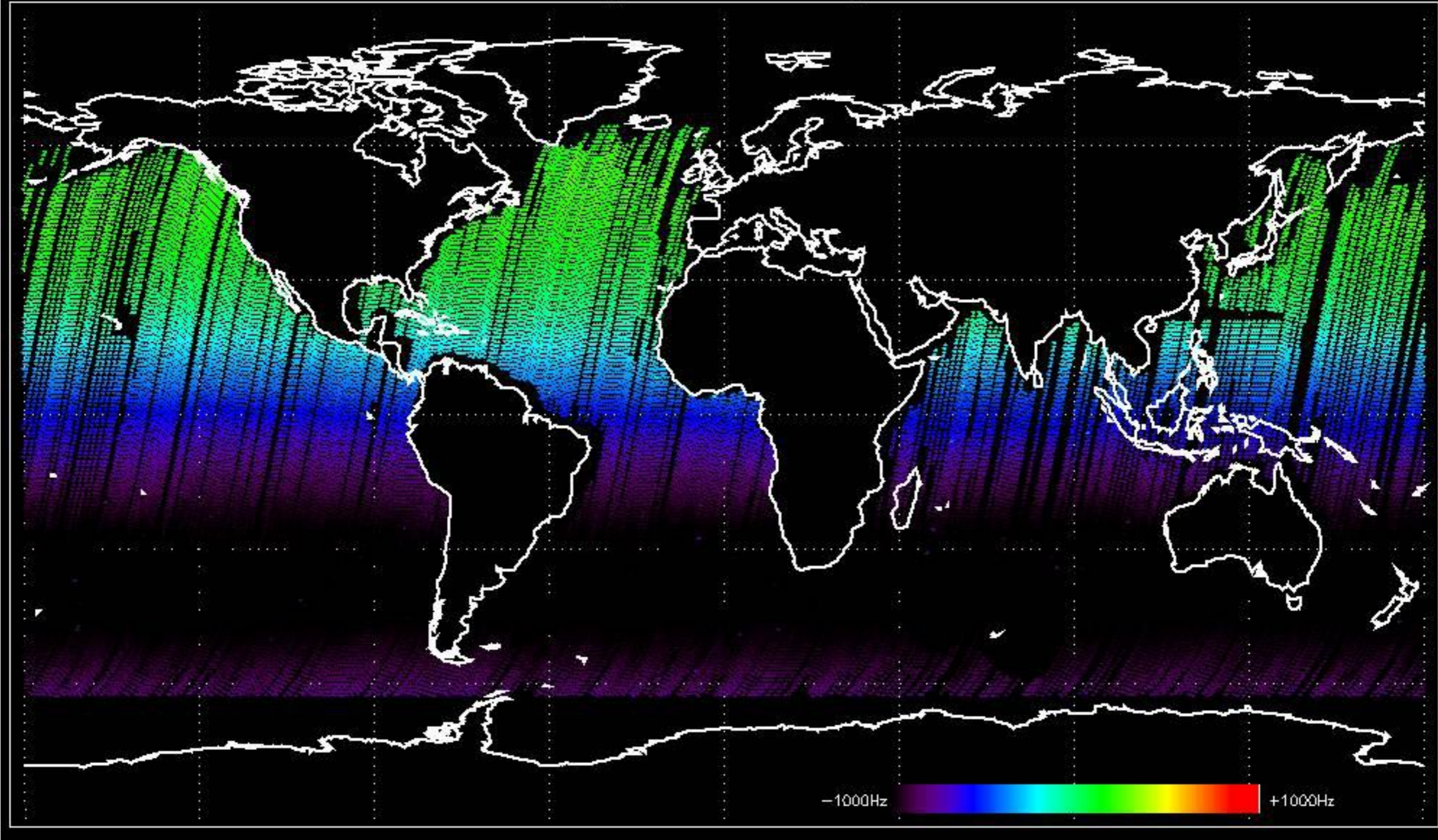
Doppler 'GM1' 'SS1' descending



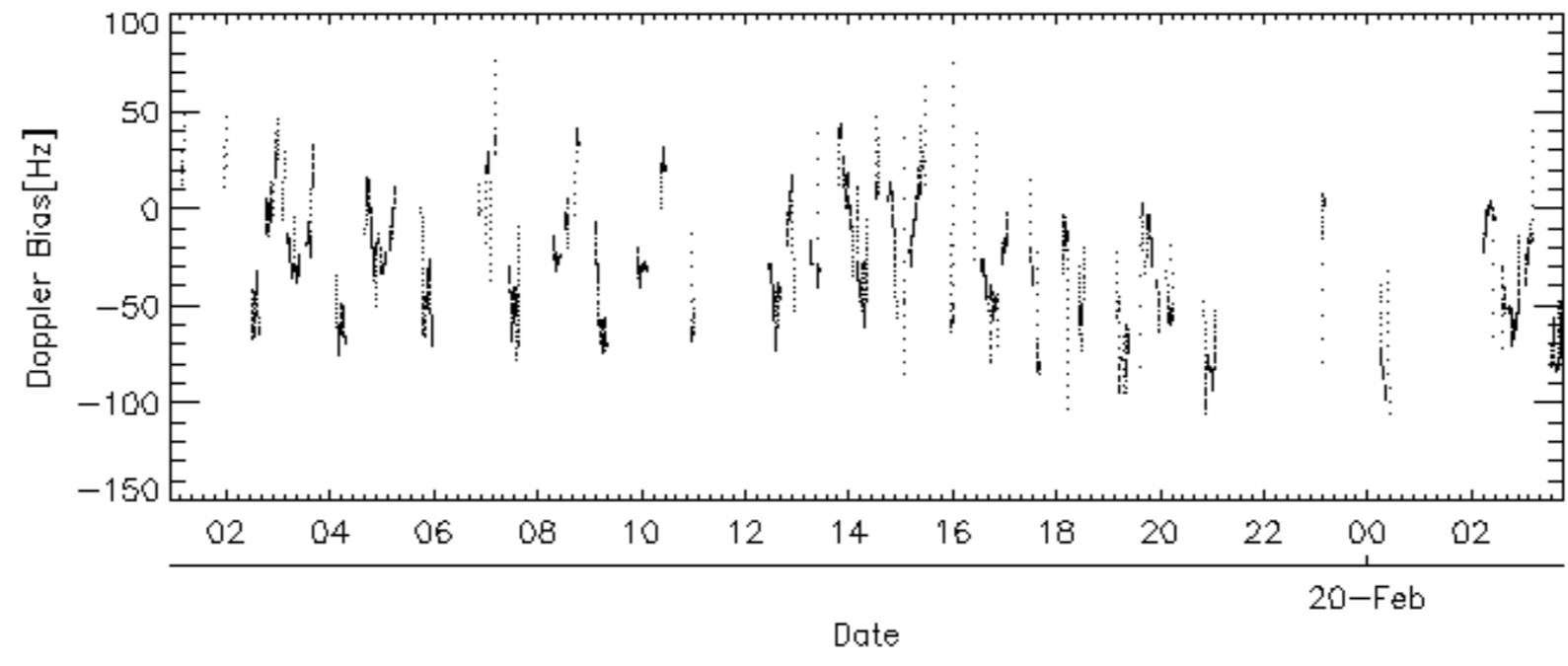
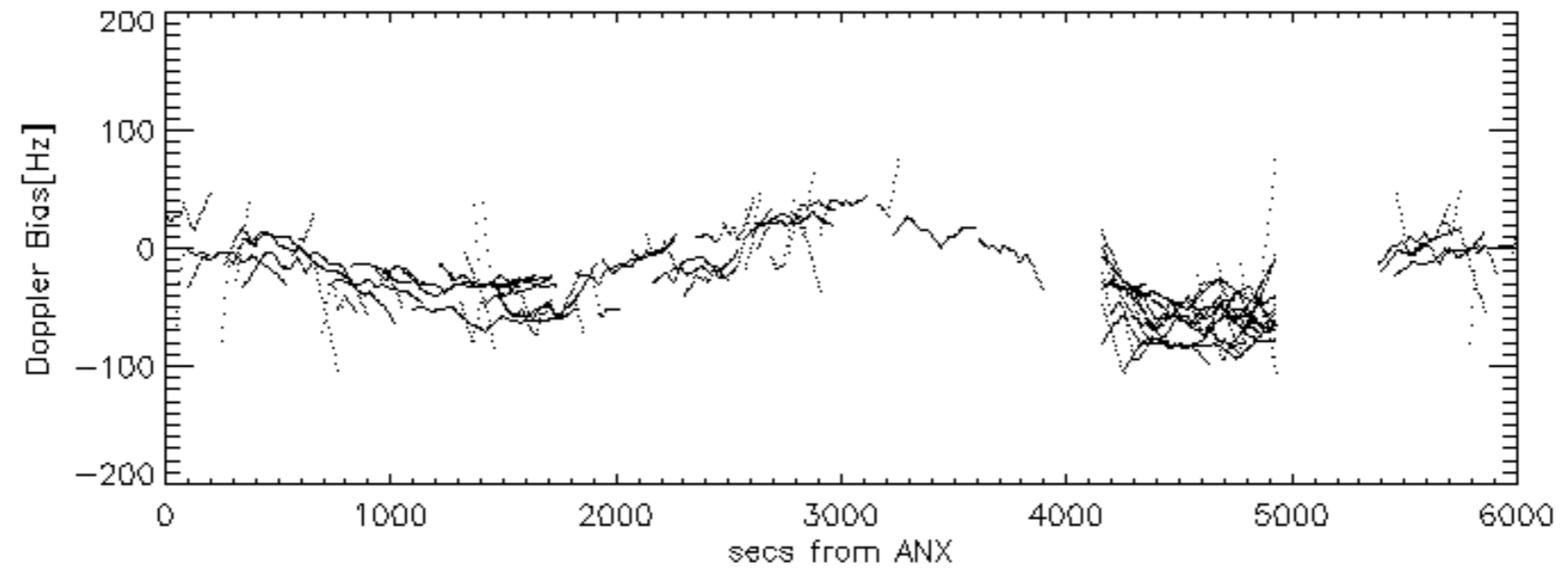
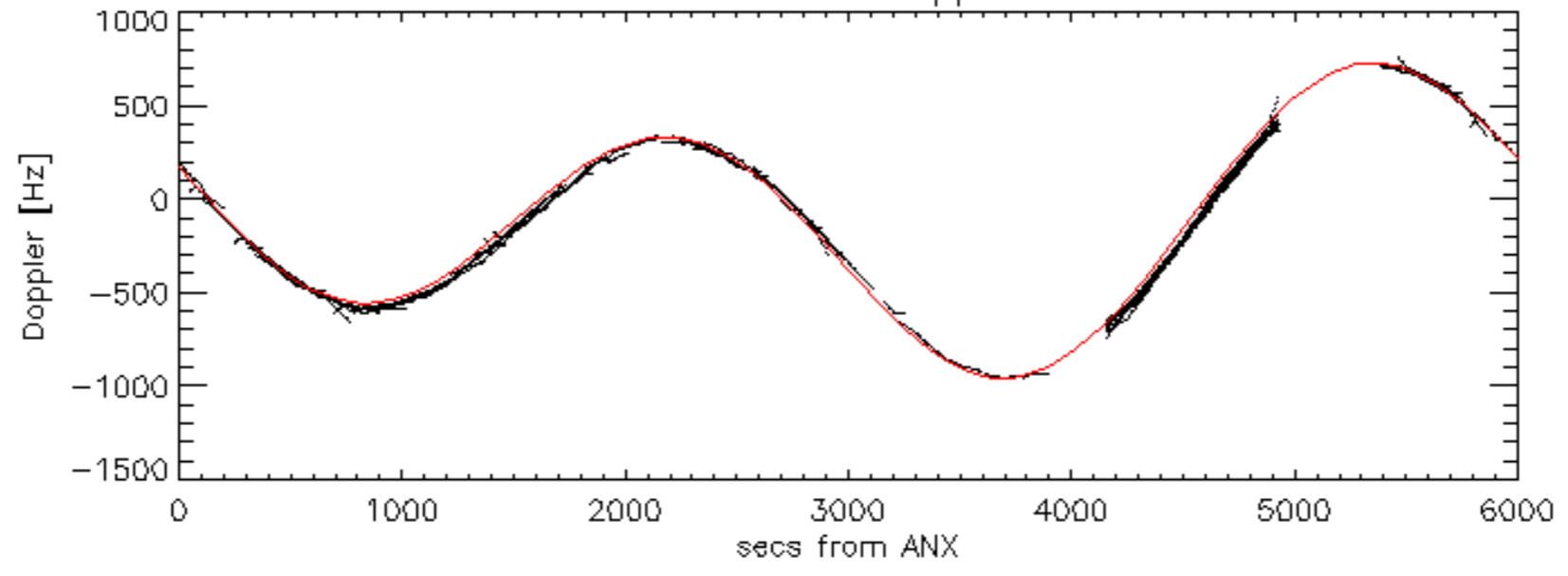
Doppler 'WVS' 'IS2' ascending

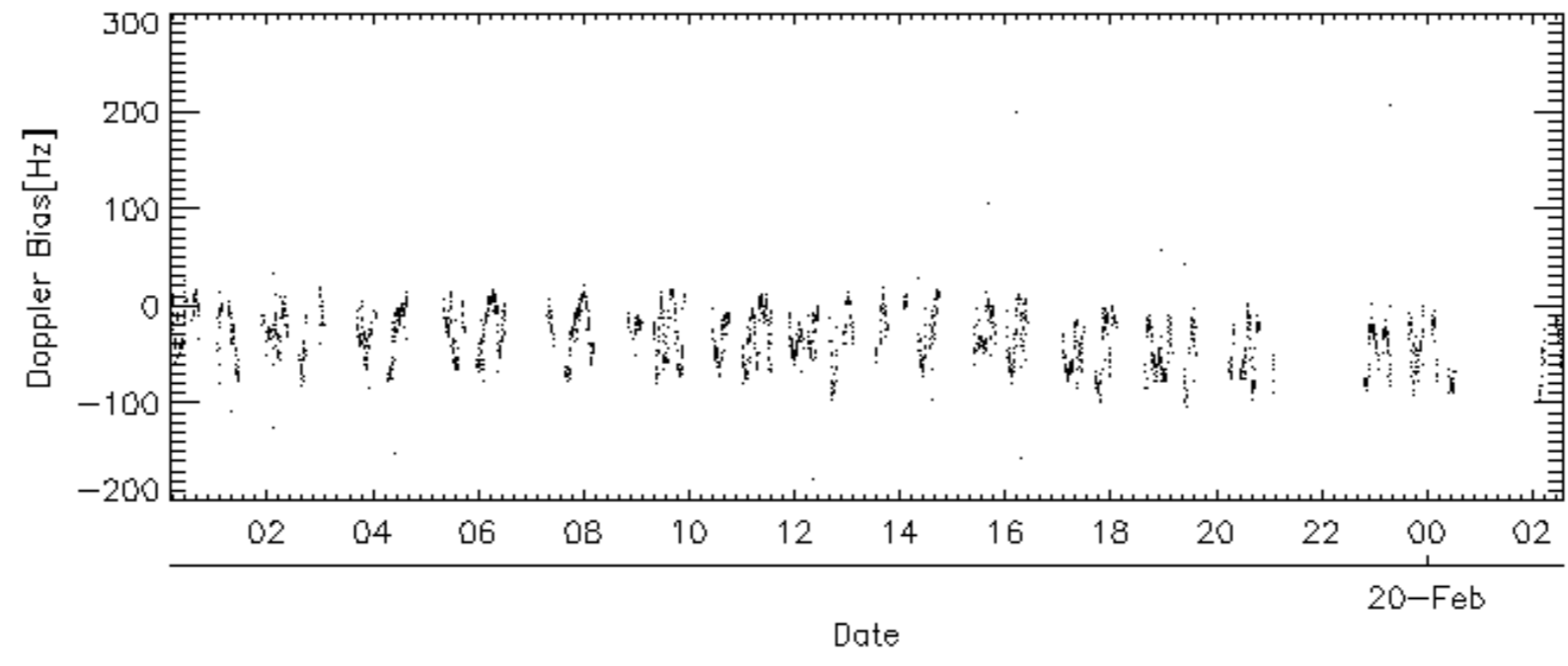
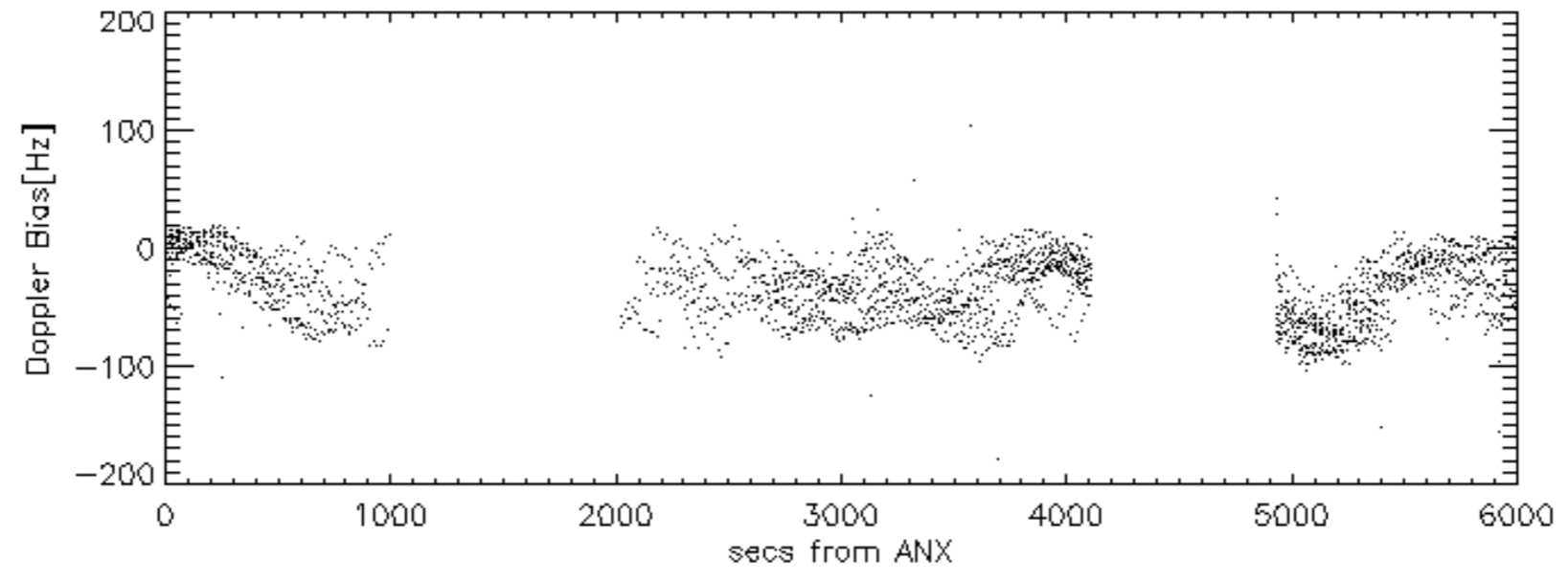
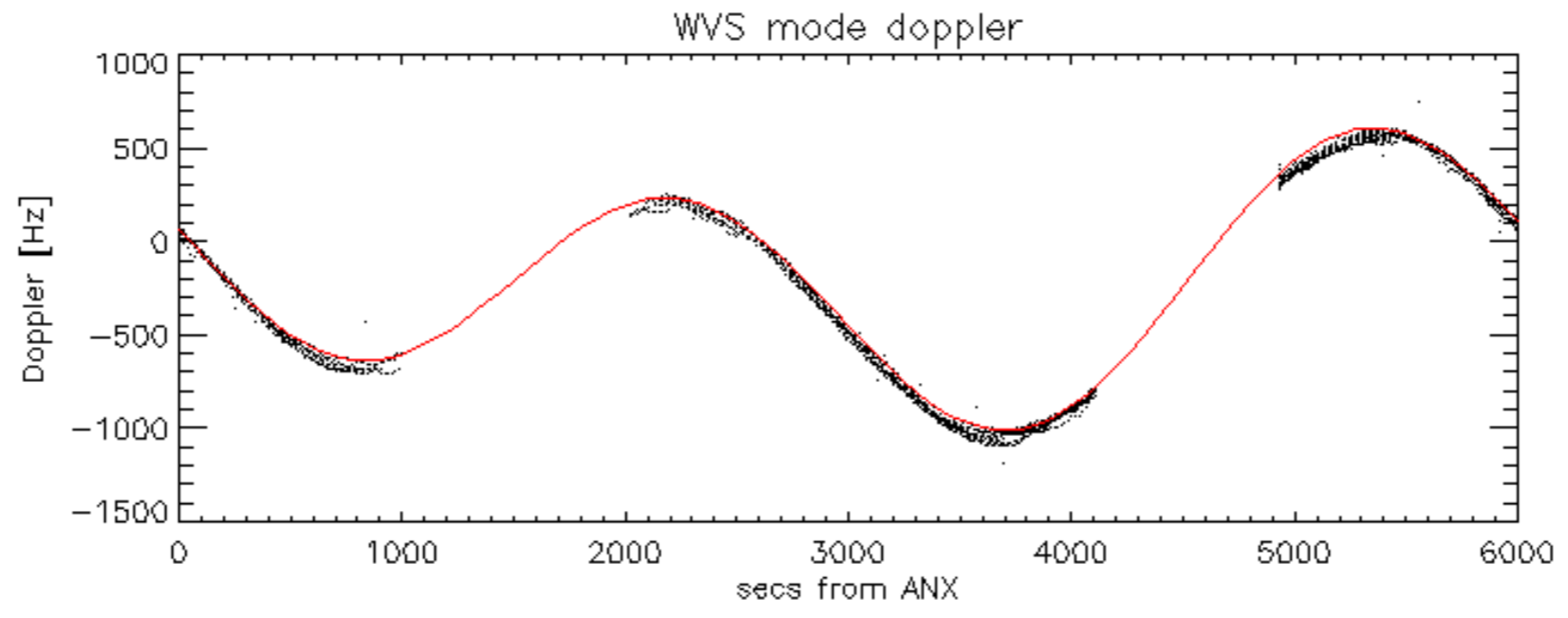


Doppler 'WVS' 'IS2' descending

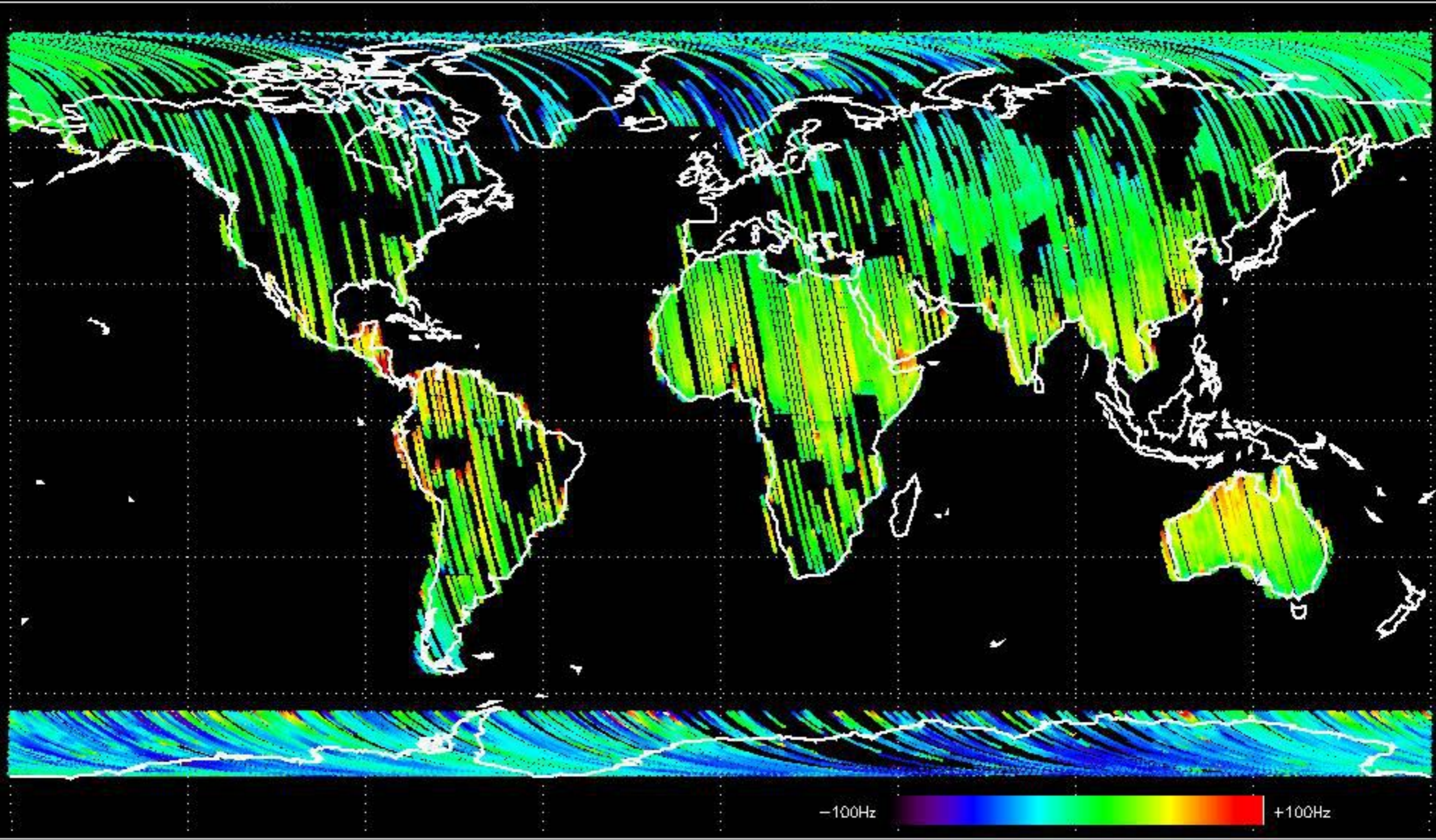


GM1 mode doppler

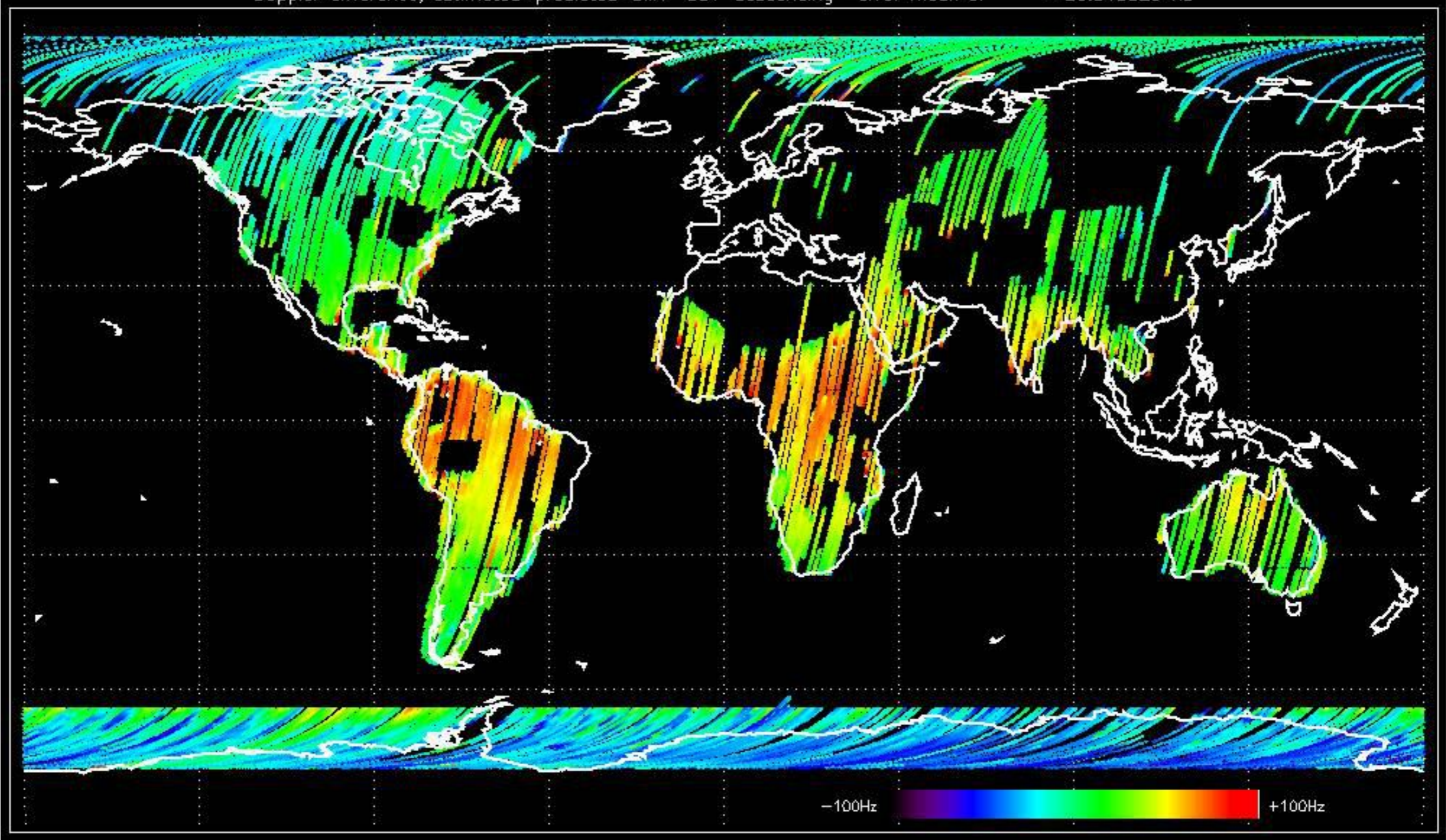




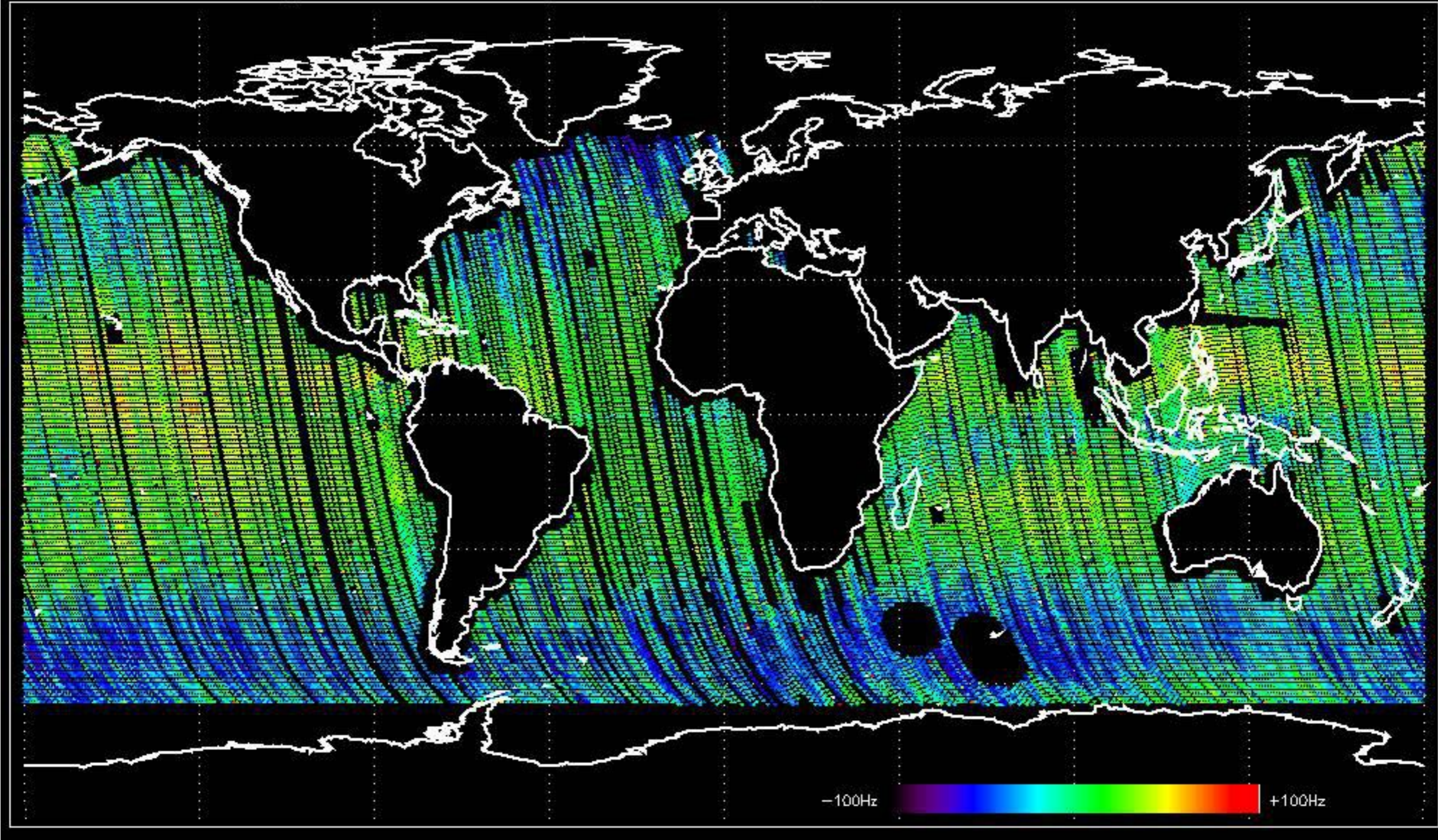
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.567600 Hz



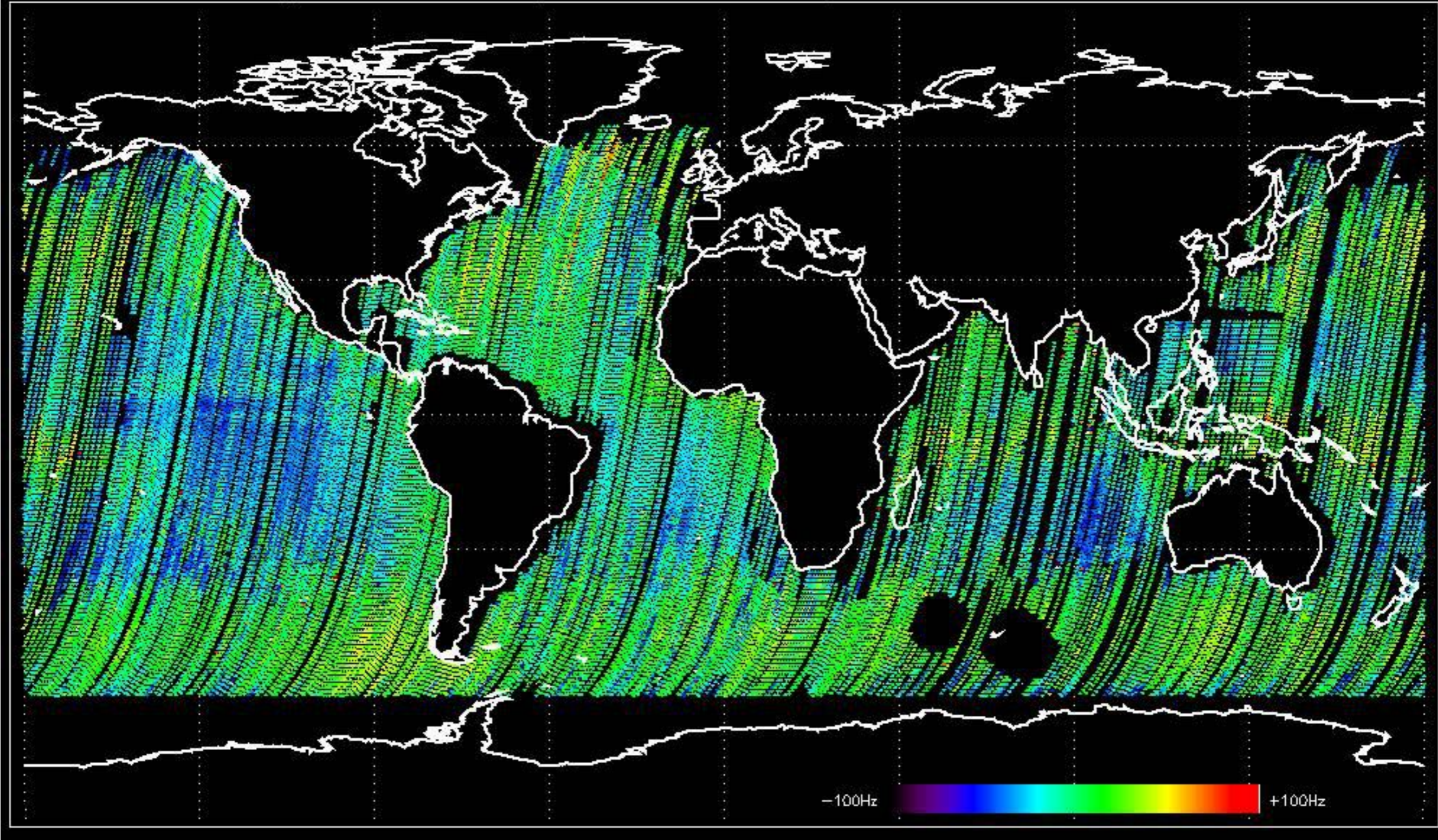
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.343329 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -33.191325 Hz

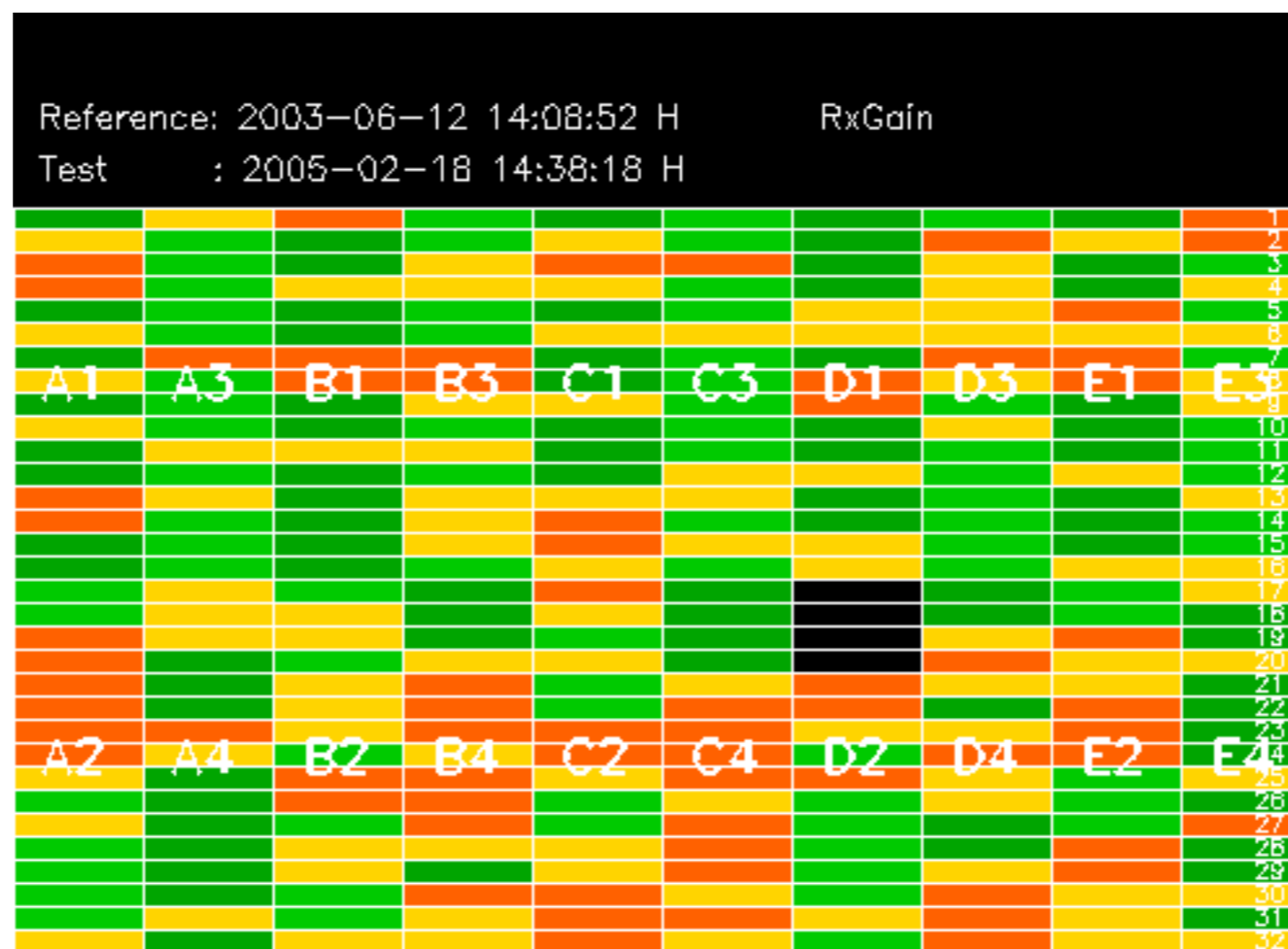


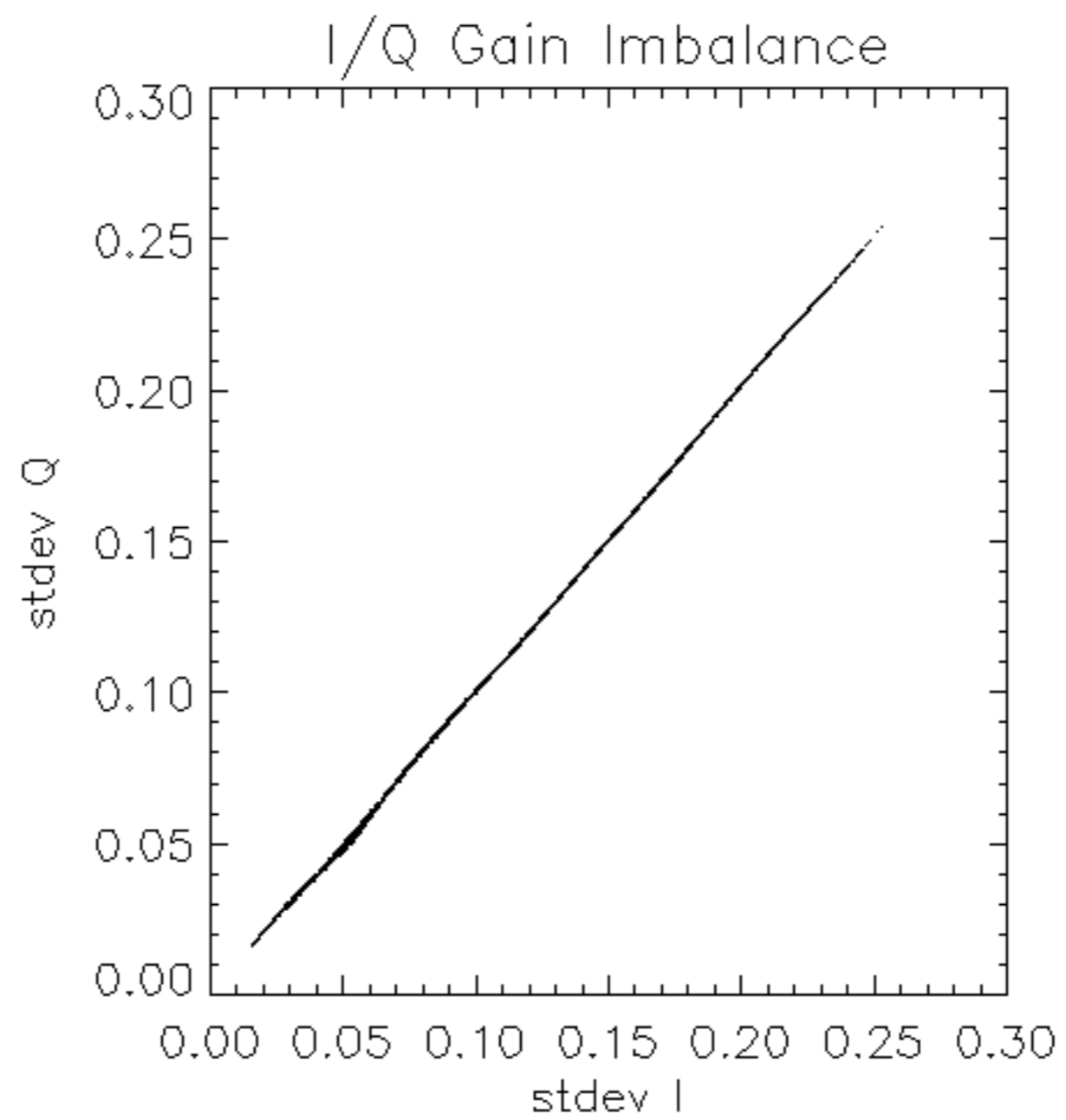
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.696290 Hz

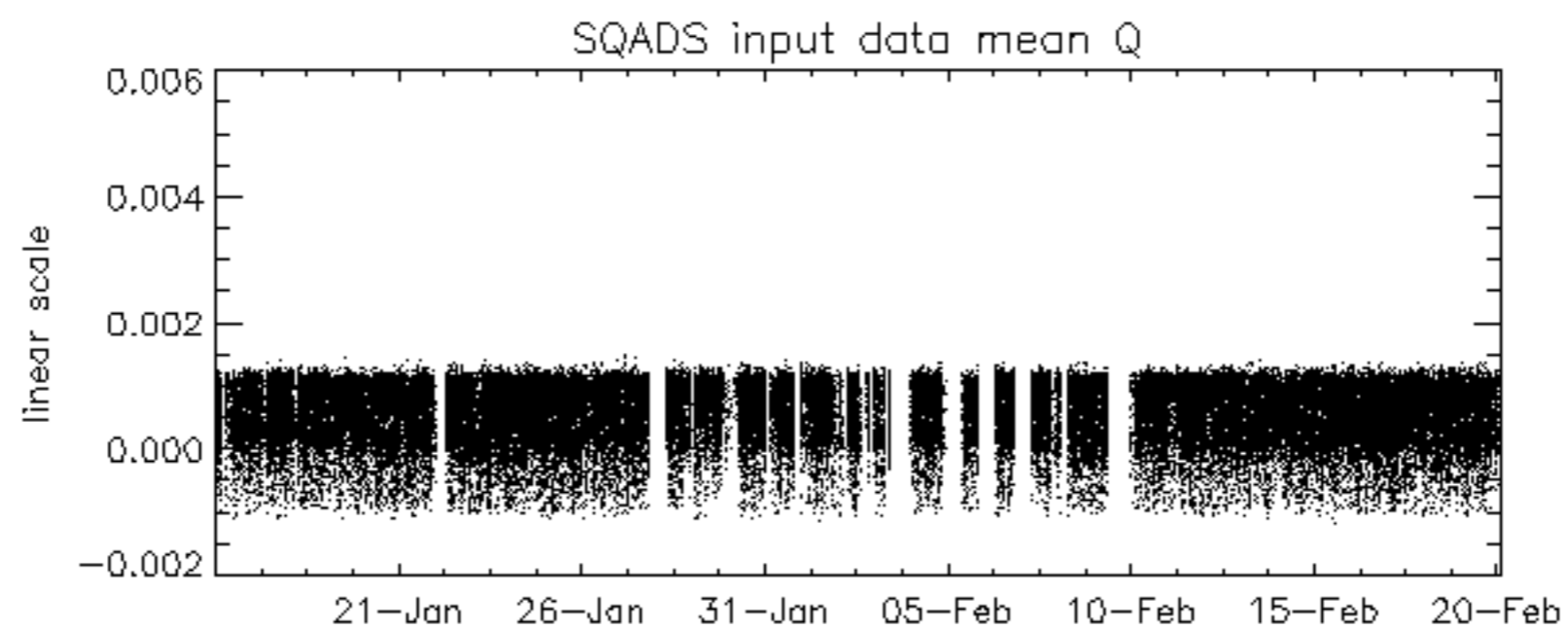
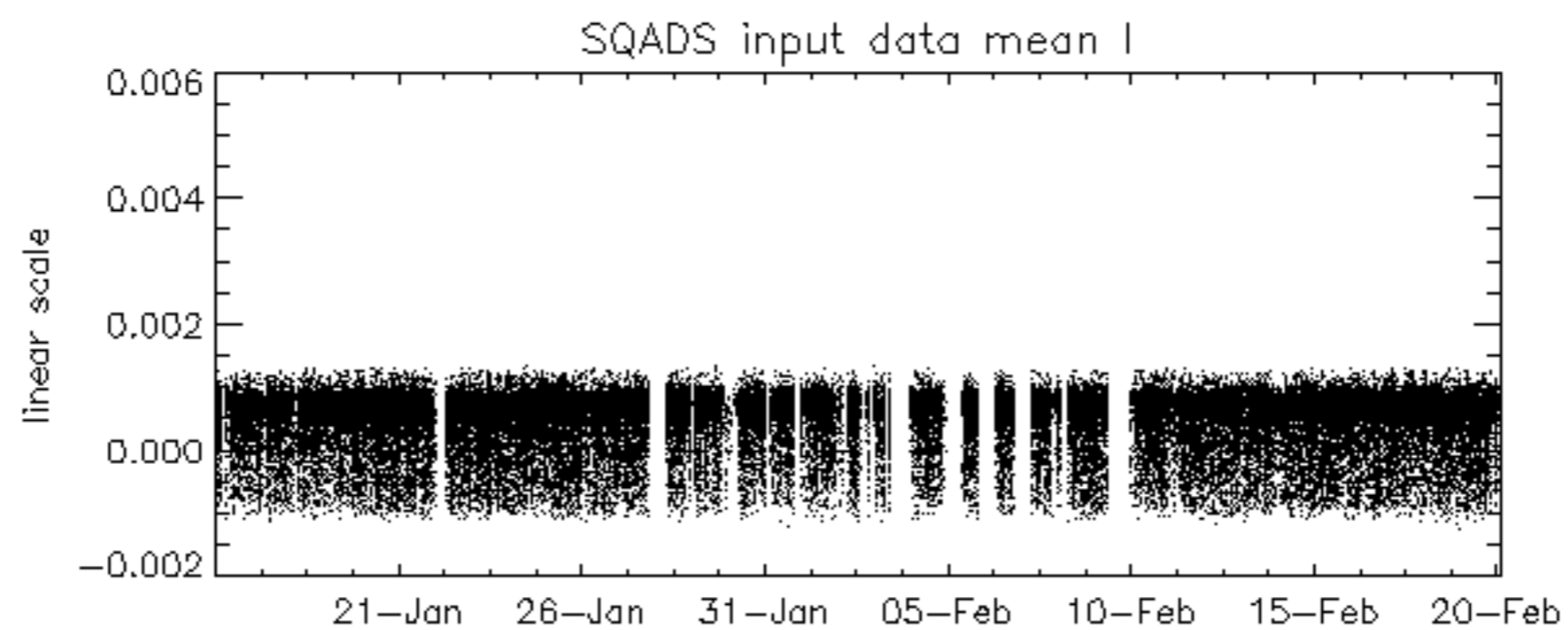
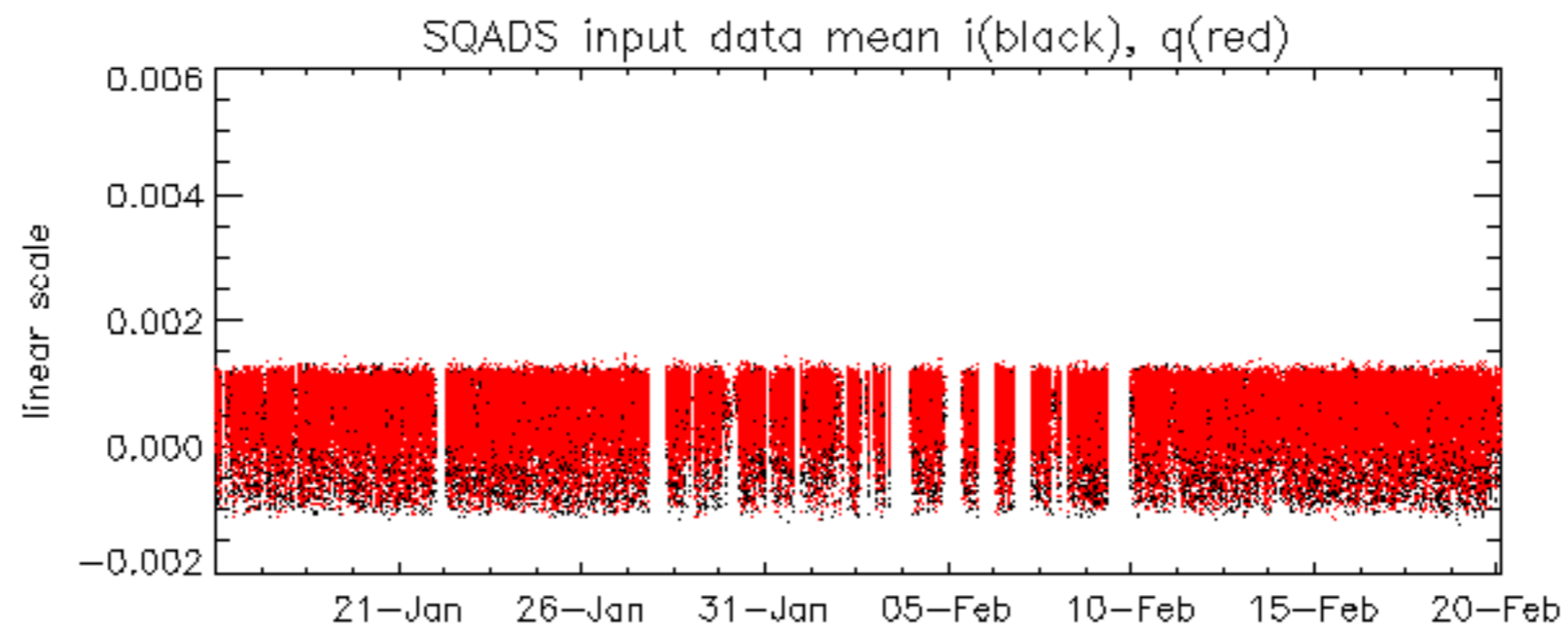


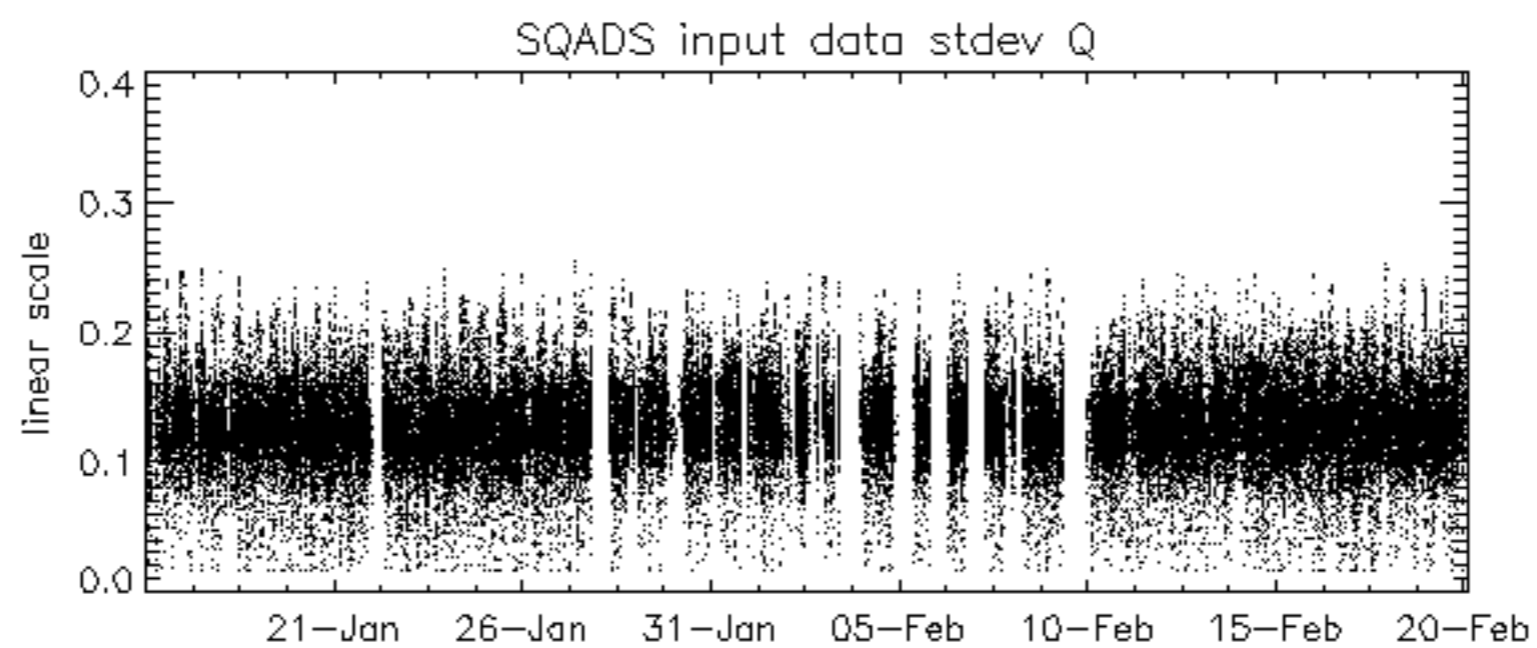
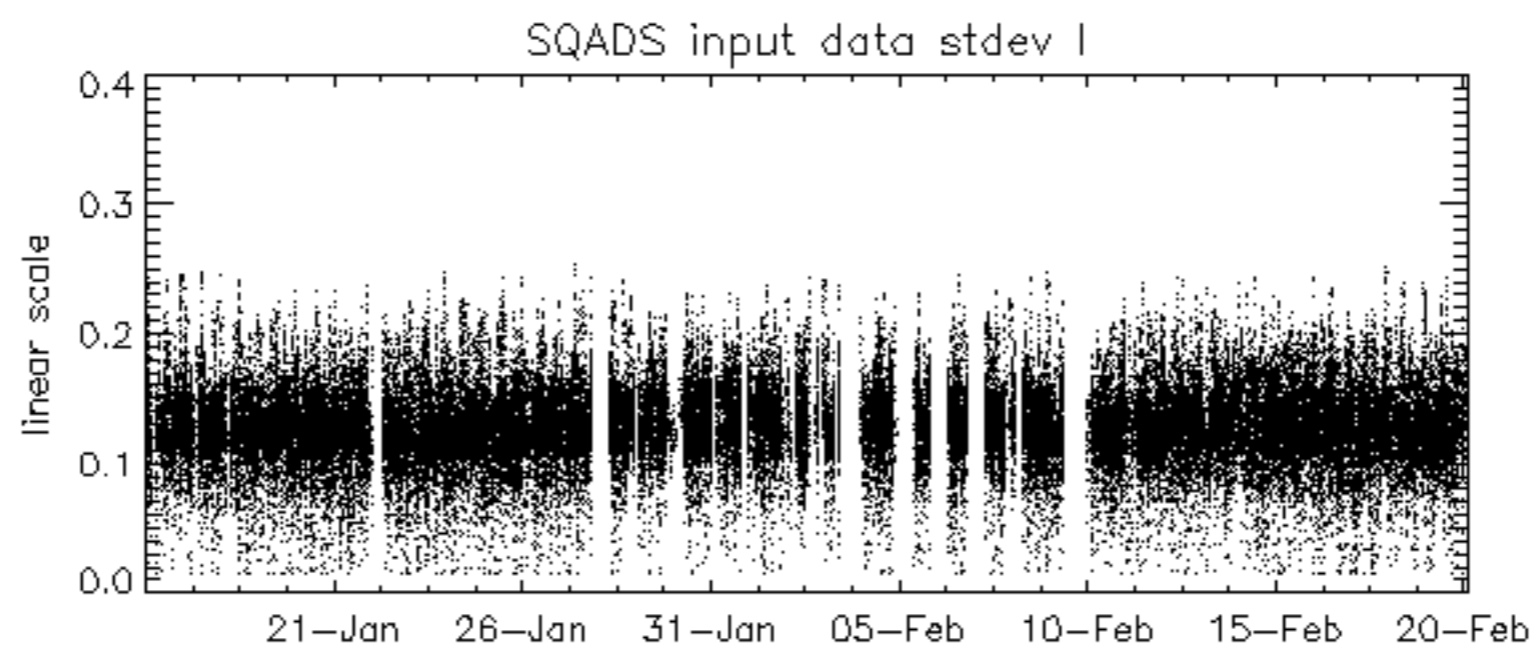
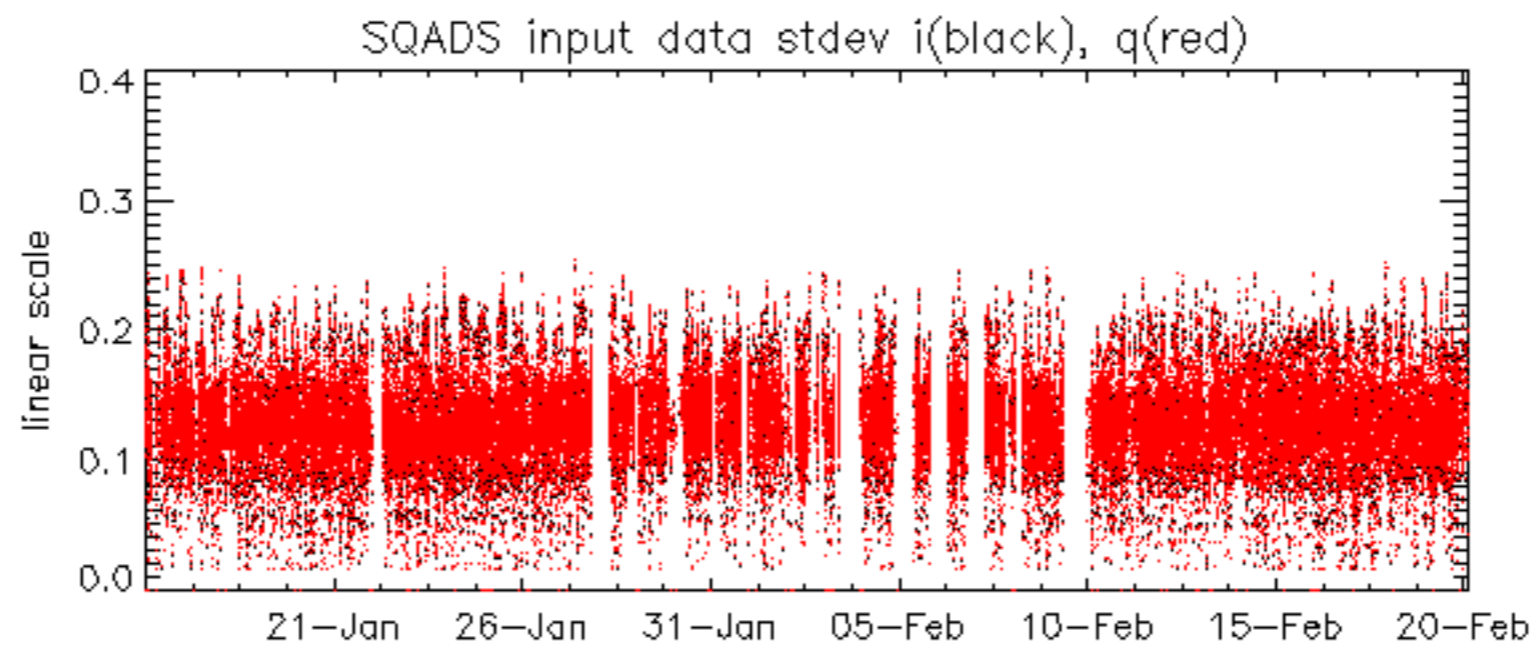
The MS product aquired in 18-FEB-2005 is corrupted

No anomalies observed.







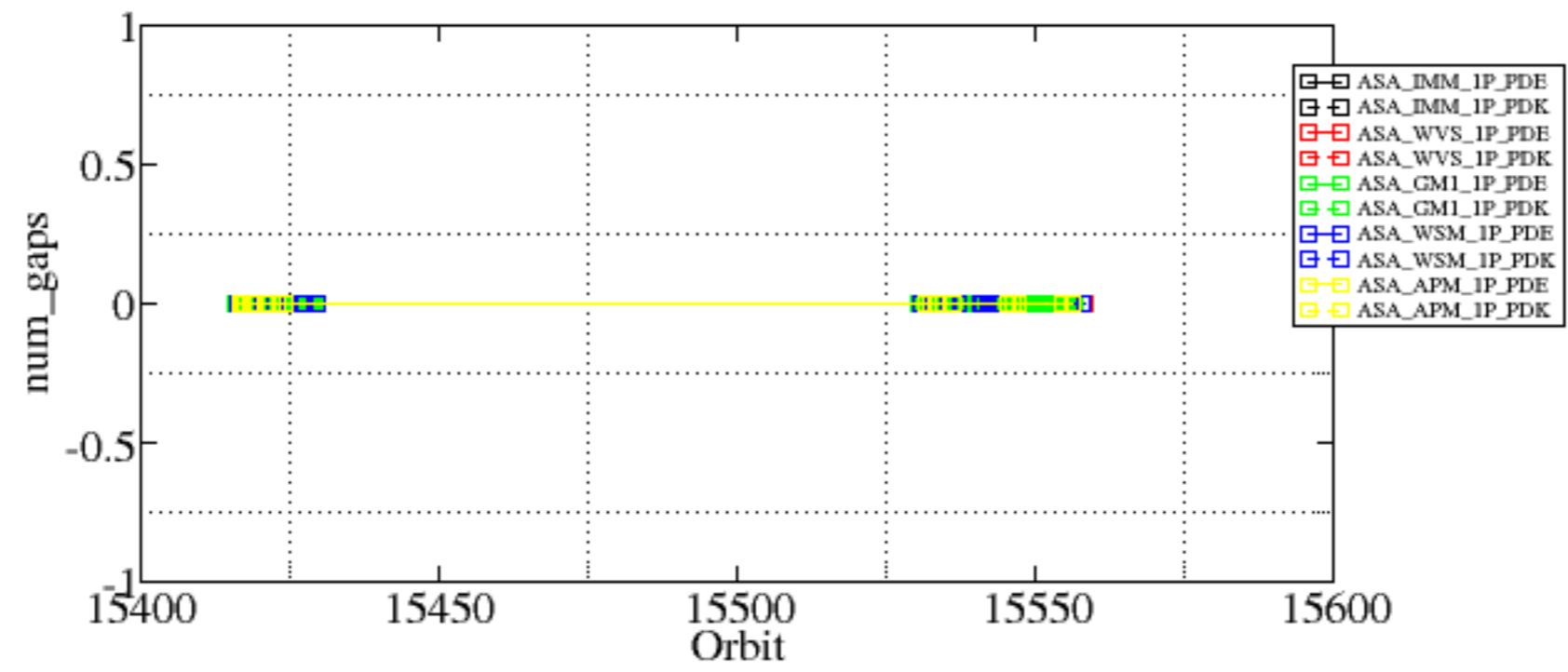


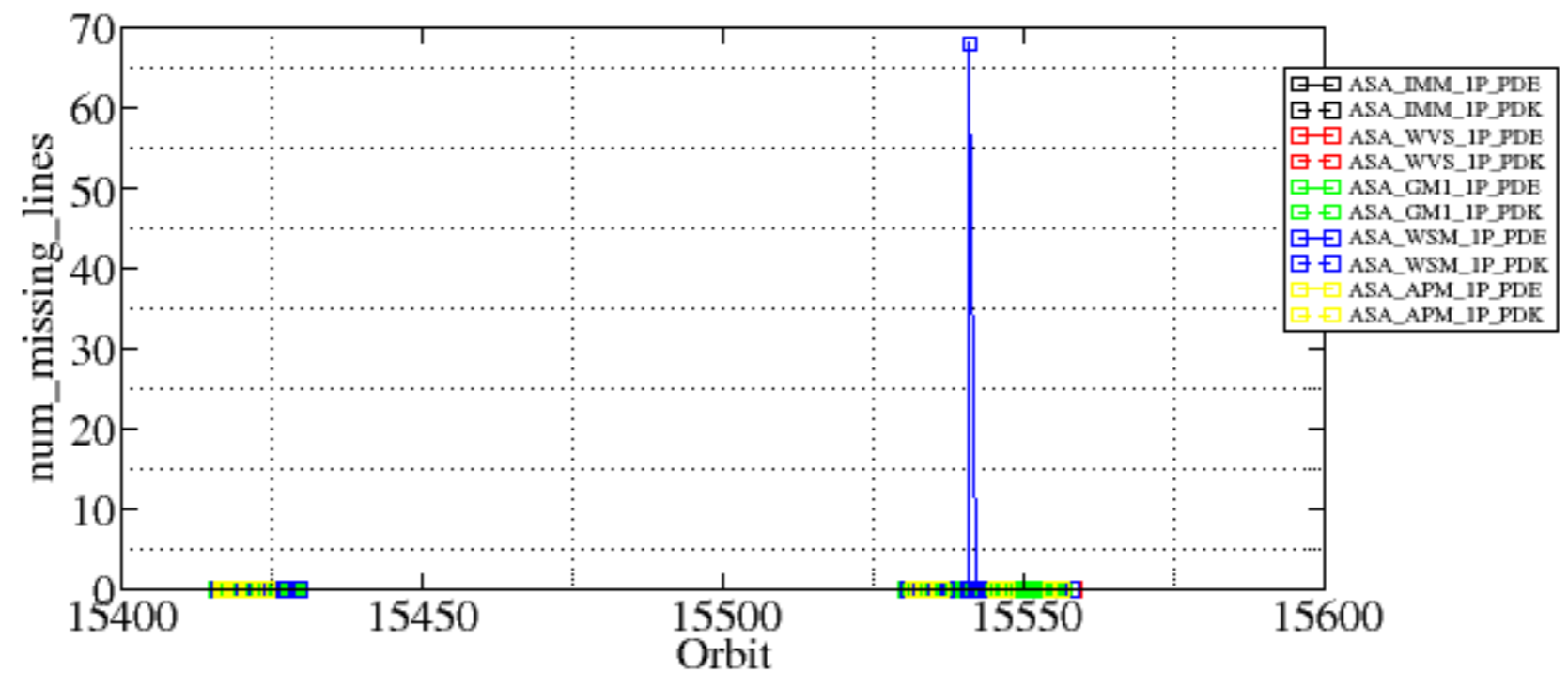


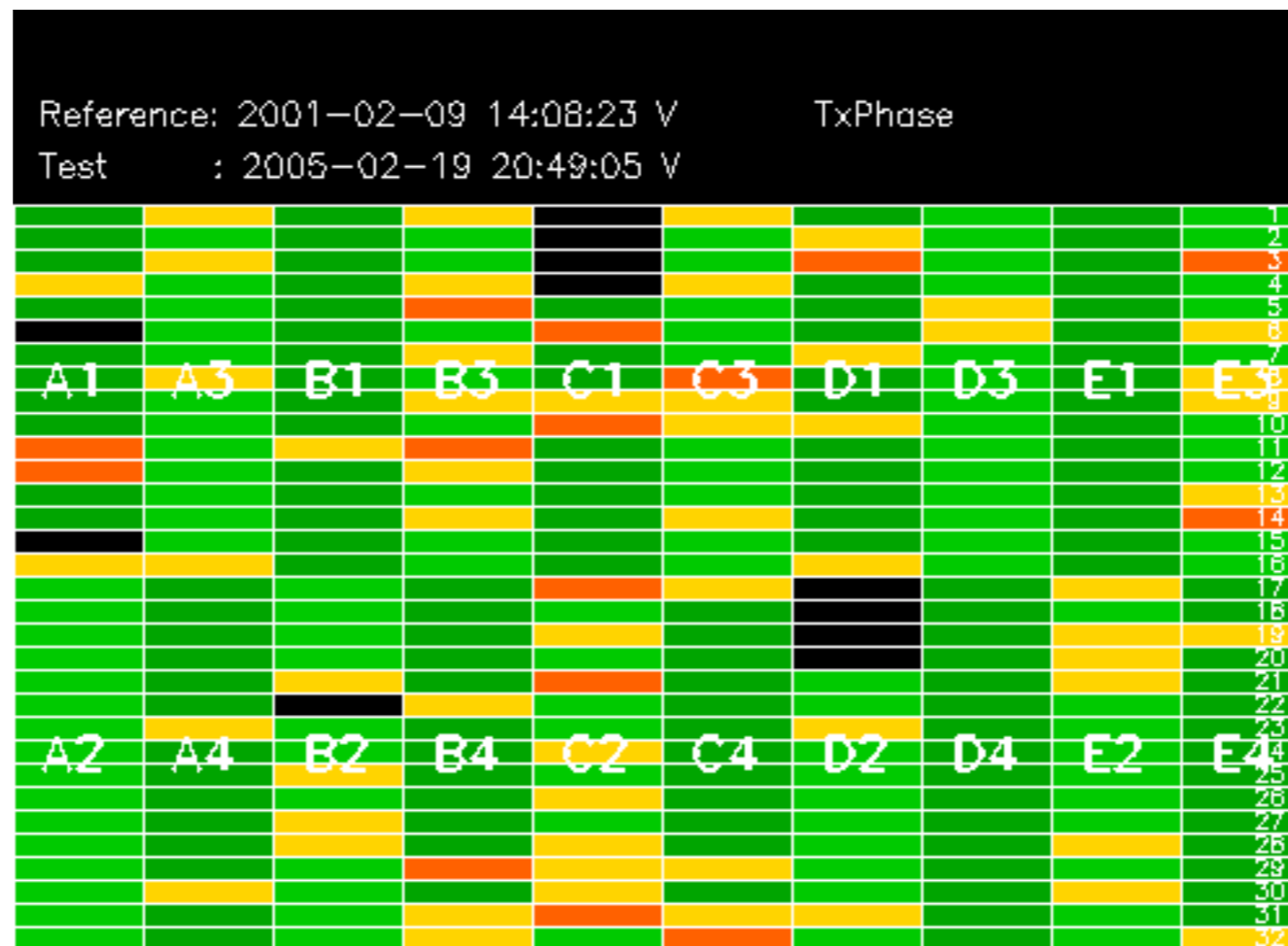
Summary of analysis for the last 3 days 2005021[890]

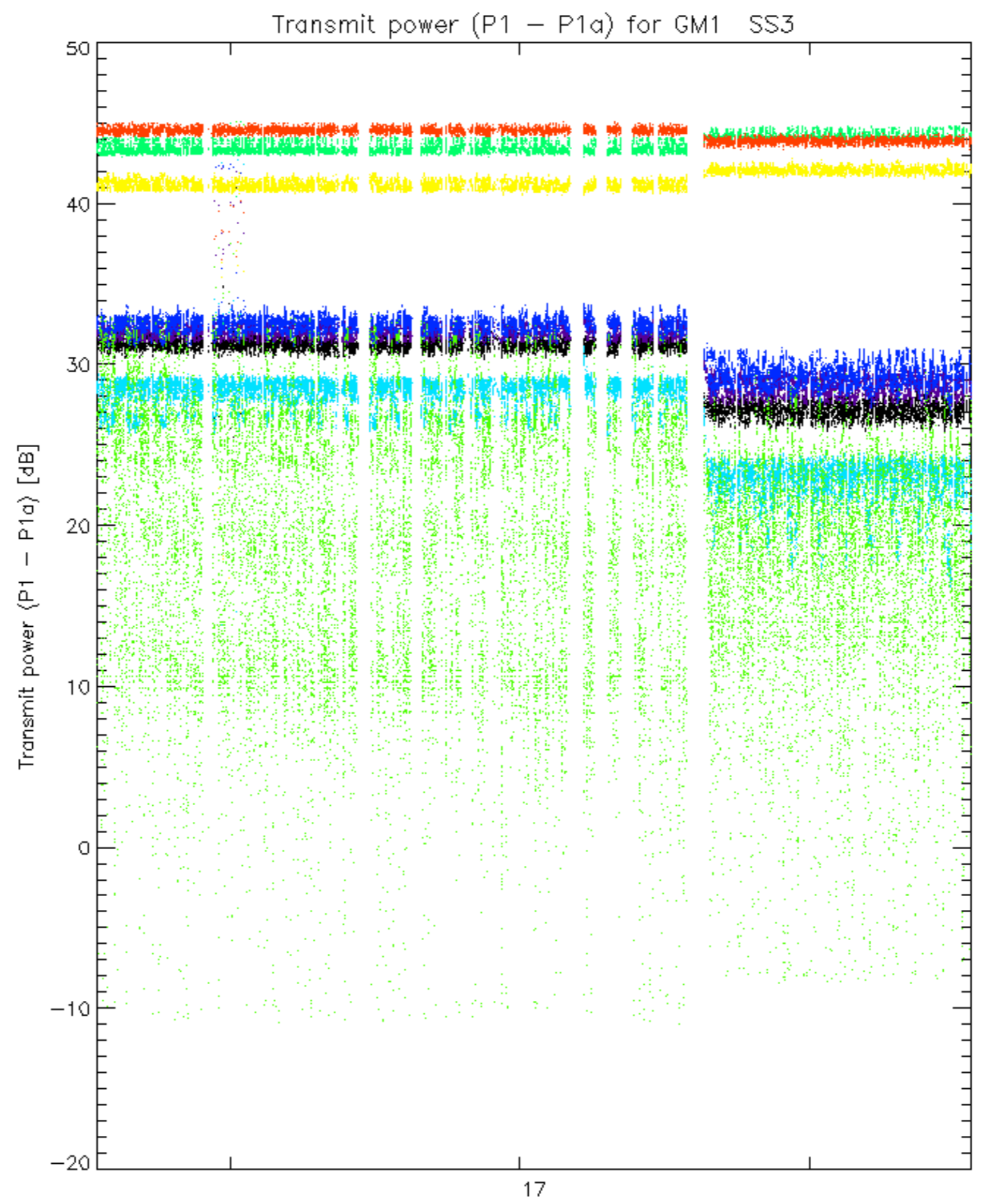
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050218_183642_000001282034_00457_15541_5968.N1	0	68

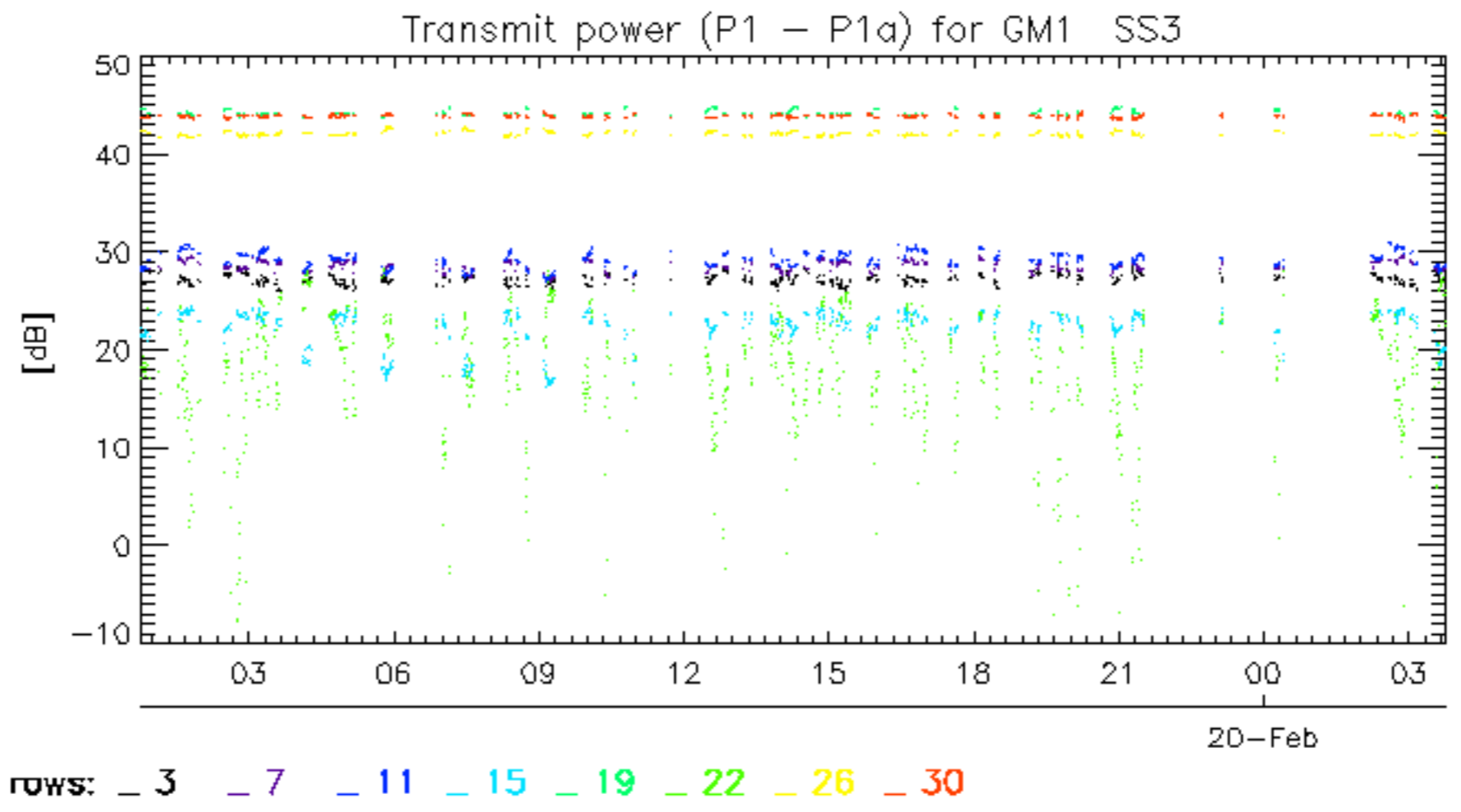


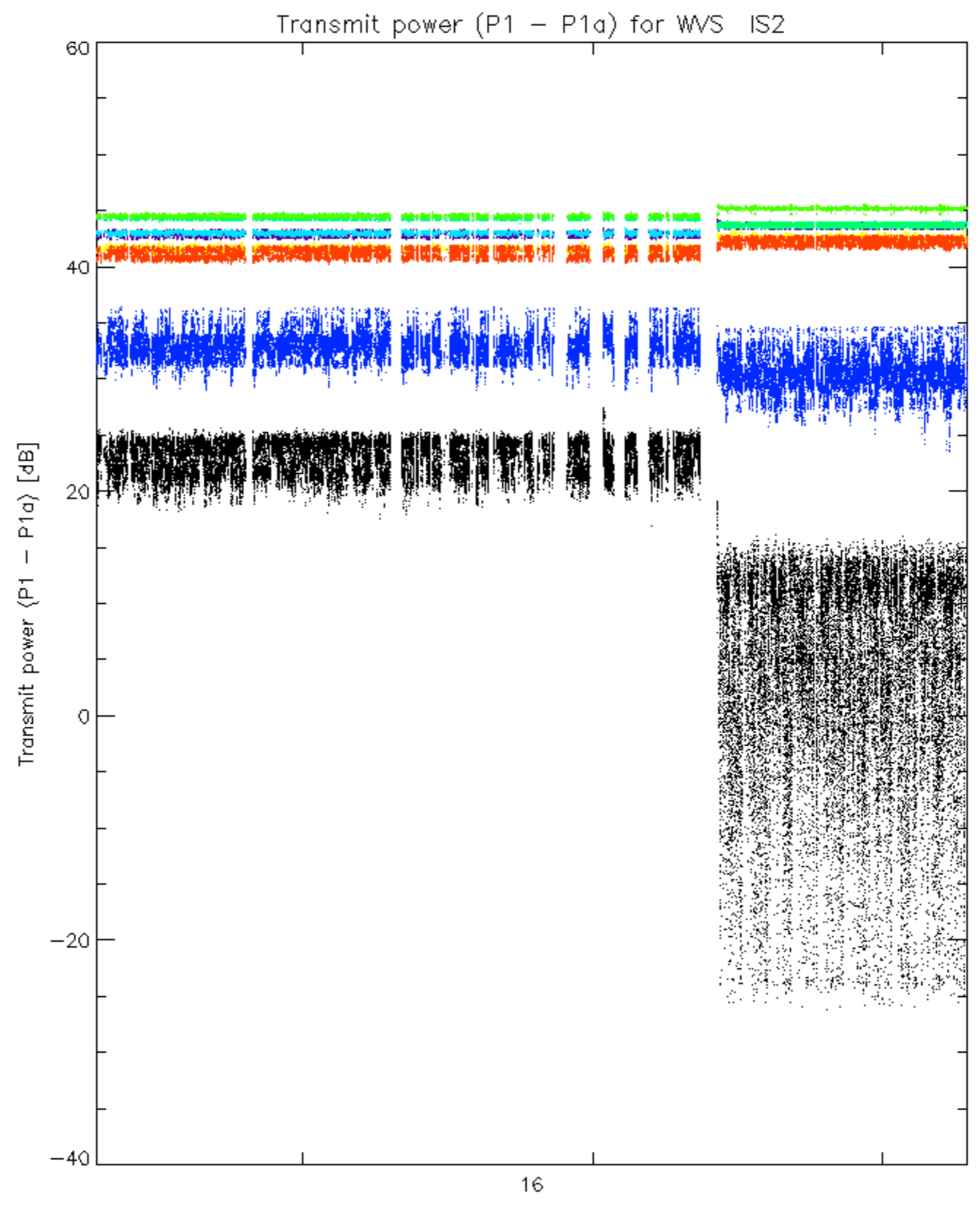




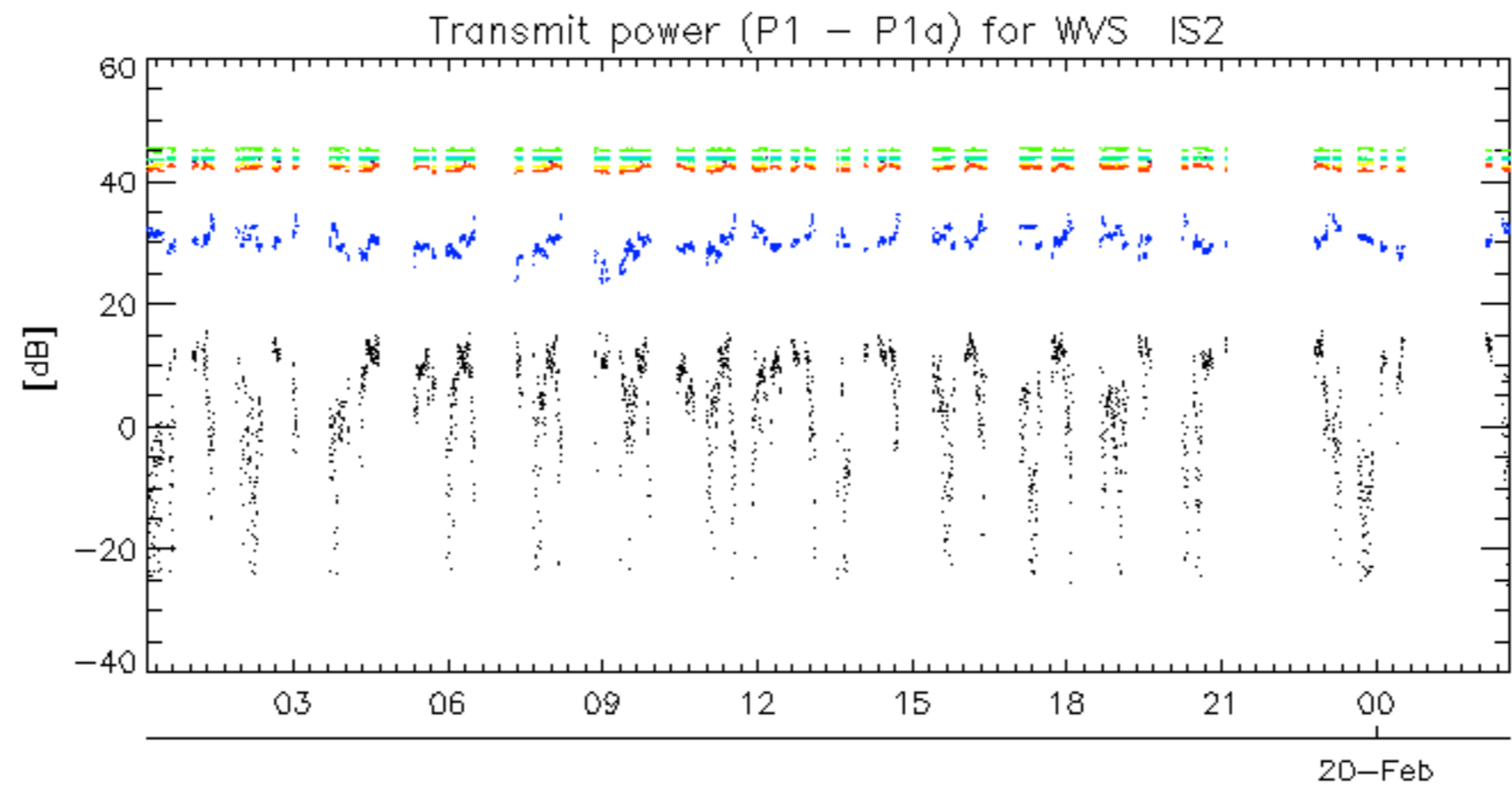


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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No unavailabilities during the reported period.