

PRELIMINARY REPORT OF 050211

last update on Fri Feb 11 11:48:05 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 2005-02-10 00:00:00 to 2005-02-11 11:48:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	35	7	5	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	35	7	5	2
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	27	35	7	5	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	35	7	5	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	41	4	7	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	38	41	4	7	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	38	41	4	7	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	41	4	7	4

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	20050211 063526
H	20050210 070703

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	-3.397377	0.008538	0.047770
7	P1	-3.078531	0.007920	-0.001387
11	P1	-4.660738	0.019294	-0.043046
15	P1	-5.642665	0.034129	-0.025560
19	P1	-3.662863	0.004454	0.003754
22	P1	-4.554514	0.014430	0.036102
26	P1	-4.939738	0.012949	0.003226
30	P1	-7.146397	0.016900	-0.032366
3	P1	-15.906346	0.099810	-0.000528
7	P1	-15.510056	0.068249	-0.062163
11	P1	-20.865372	0.245371	-0.192058
15	P1	-11.600951	0.060990	0.106362
19	P1	-14.180229	0.024789	-0.024078
22	P1	-15.882879	0.379651	0.256138
26	P1	-17.606890	0.215689	0.092637
30	P1	-17.922077	0.357037	-0.000787

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.215168	0.086227	0.168430
7	P2	-22.404093	0.109820	0.155410
11	P2	-14.631052	0.102591	0.187036
15	P2	-7.096823	0.097004	0.063465
19	P2	-9.684307	0.096279	0.064716
22	P2	-17.021914	0.094952	0.139151
26	P2	-16.481705	0.094070	0.065286
30	P2	-18.904867	0.080561	0.041052

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.181779	0.006083	0.037096
7	P3	-8.181779	0.006083	0.037096
11	P3	-8.181779	0.006083	0.037096
15	P3	-8.181779	0.006083	0.037096
19	P3	-8.181779	0.006083	0.037096
22	P3	-8.181779	0.006083	0.037096
26	P3	-8.181705	0.006085	0.037055
30	P3	-8.181705	0.006085	0.037055

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	-2.789521	0.019572	0.073062
7	P1	-2.965447	0.077963	-0.049637
11	P1	-3.958585	0.029764	-0.033585
15	P1	-3.531111	0.027692	-0.030246
19	P1	-3.597635	0.013792	0.015895
22	P1	-5.690417	0.060586	-0.056428
26	P1	-7.083999	0.162343	-0.996914
30	P1	-6.278012	0.043224	0.079974
3	P1	-10.760556	0.092440	0.037235
7	P1	-10.160612	0.192171	-0.104595
11	P1	-12.550139	0.128523	-0.032884
15	P1	-11.764109	0.080175	0.021620
19	P1	-15.587232	0.054048	0.058902
22	P1	-24.088459	1.565206	-0.202942

26	P1	-15.356486	0.416950	-0.961518
30	P1	-20.004822	0.843916	-0.168896

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.921125	0.048552	0.141977
7	P2	-22.456837	0.131752	0.147037
11	P2	-10.428162	0.053153	0.235563
15	P2	-5.009868	0.021694	0.052763
19	P2	-6.886943	0.032994	0.097524
22	P2	-7.197843	0.051193	0.122081
26	P2	-23.892960	0.098412	0.085119
30	P2	-21.950035	0.058379	0.045615

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.016271	0.002577	0.042913
7	P3	-8.016344	0.002582	0.042795
11	P3	-8.016336	0.002585	0.043214
15	P3	-8.016299	0.002577	0.042986
19	P3	-8.016353	0.002597	0.043049
22	P3	-8.016356	0.002577	0.042927
26	P3	-8.016248	0.002589	0.042992
30	P3	-8.016353	0.002582	0.042744

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	0.000472280
	stdev	2.15596e-07
MEAN Q	mean	0.000544907
	stdev	2.29321e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129015
	stdev	0.000970795
STDEV Q	mean	0.129251
	stdev	0.000982042



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005021[901]

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
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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

✕

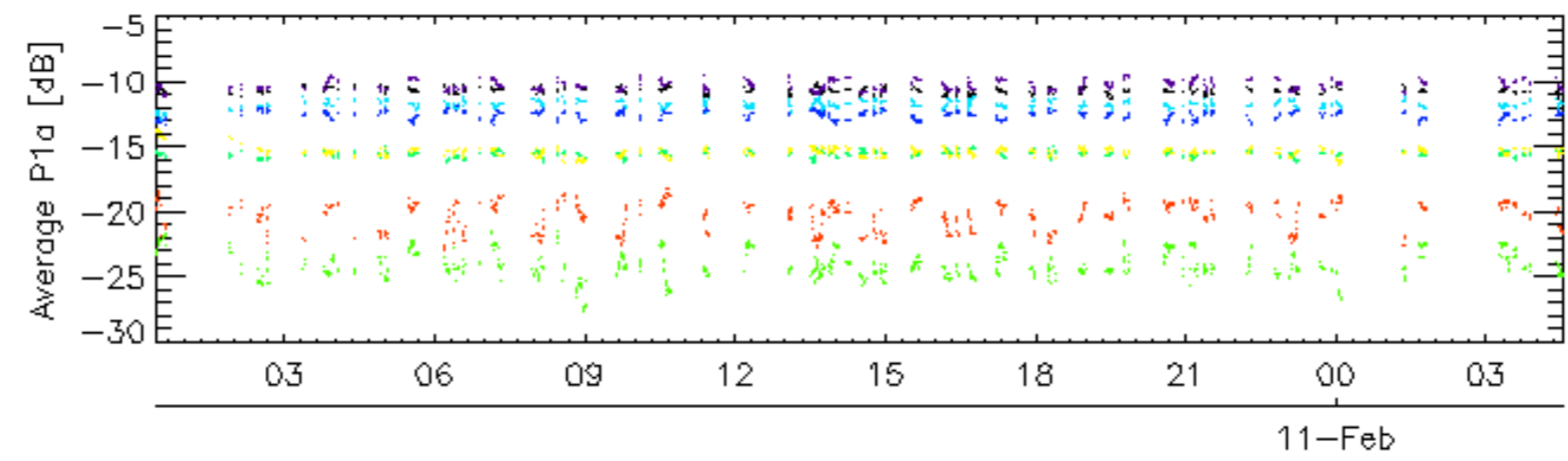
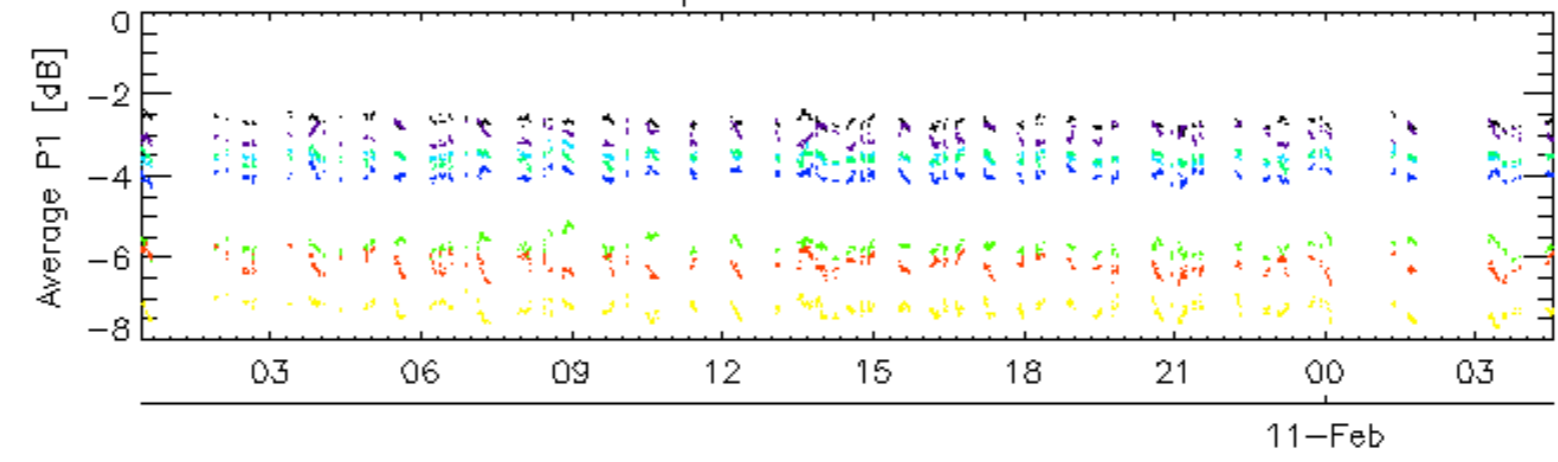
Descending

7.6 - Doppler evolution versus ANX for GM1

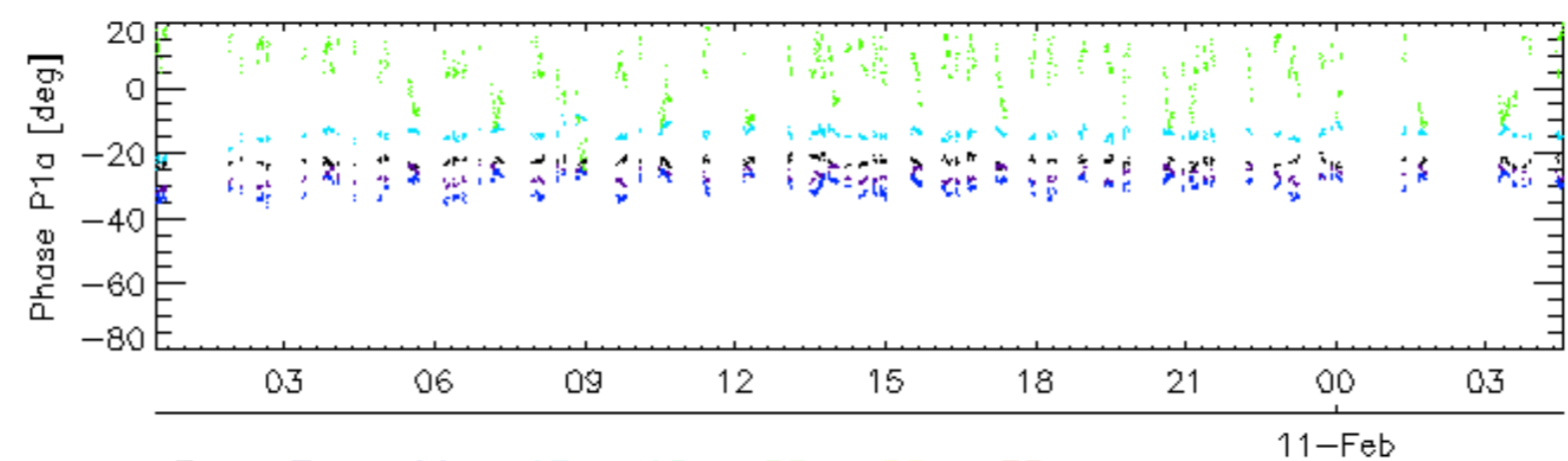
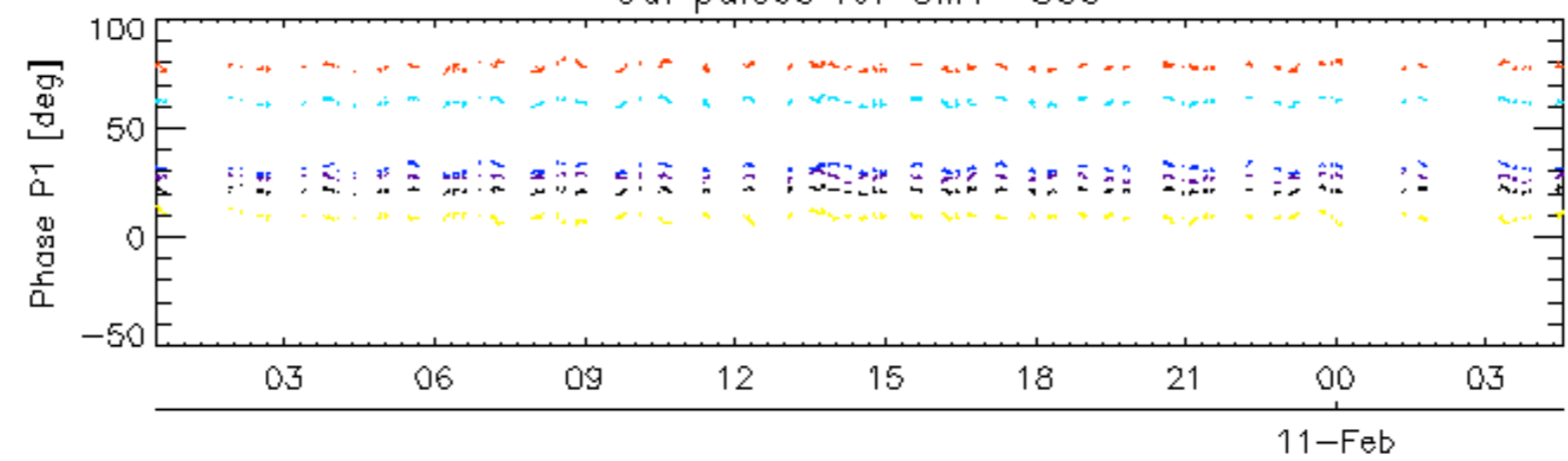
Evolution Doppler error versus ANX

✕

Cal pulses for GM1 SS3

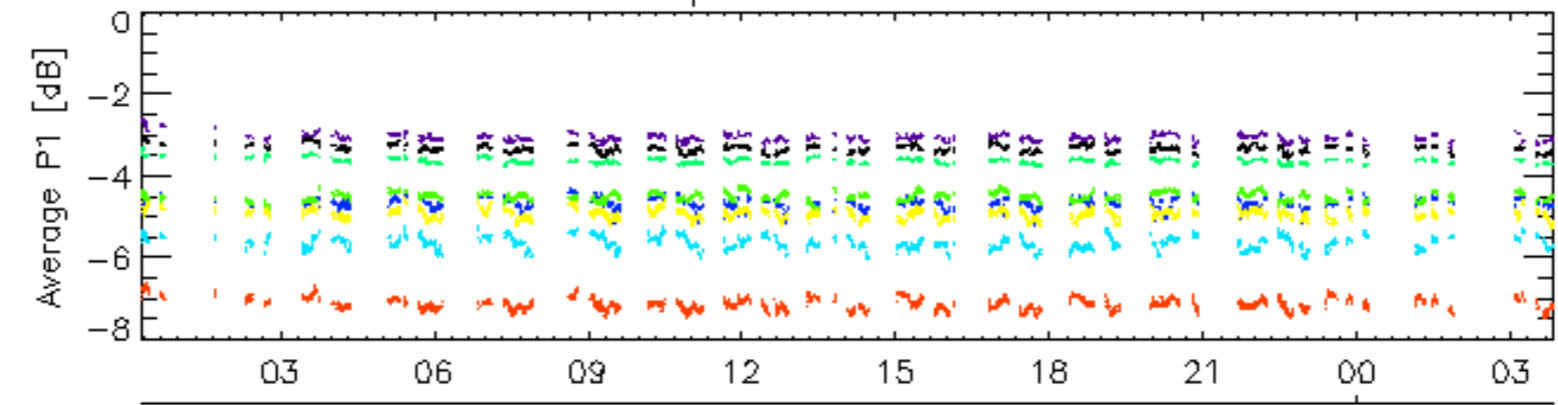


Cal pulses for GM1 SS3

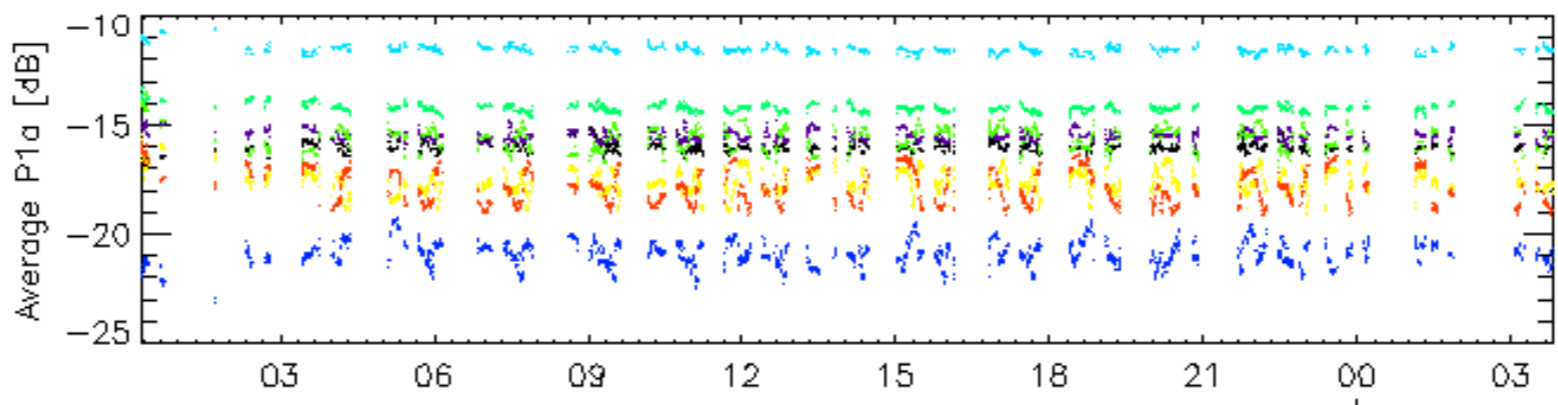


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

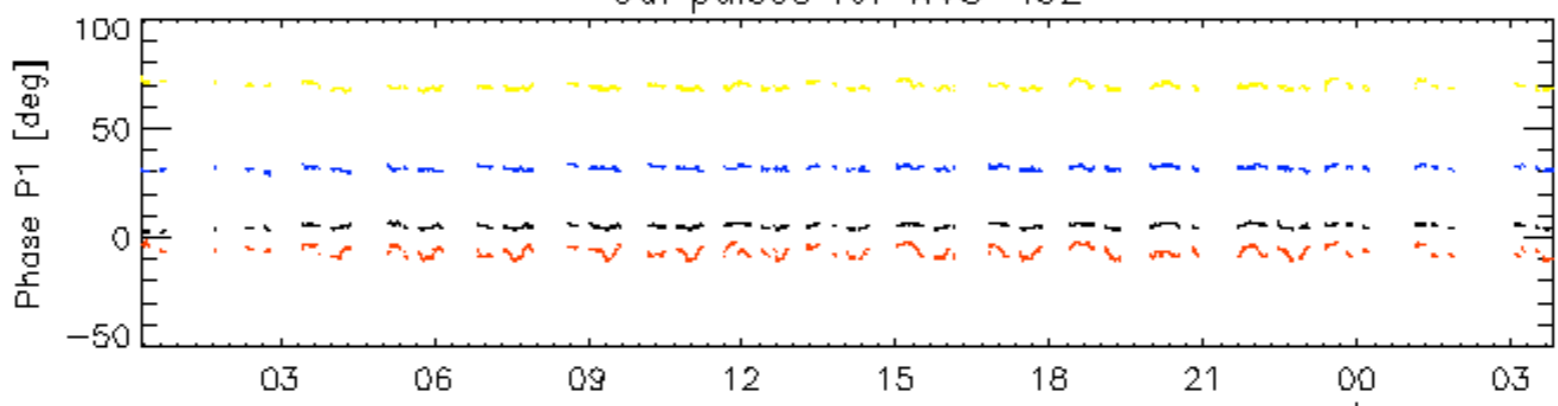


11-Feb

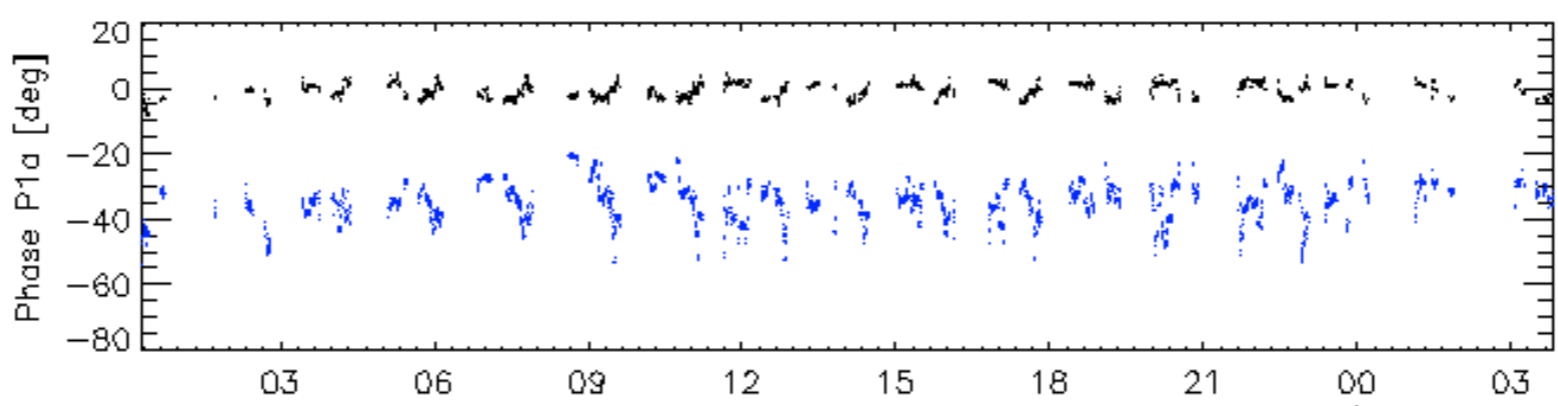


11-Feb

Cal pulses for WVS IS2



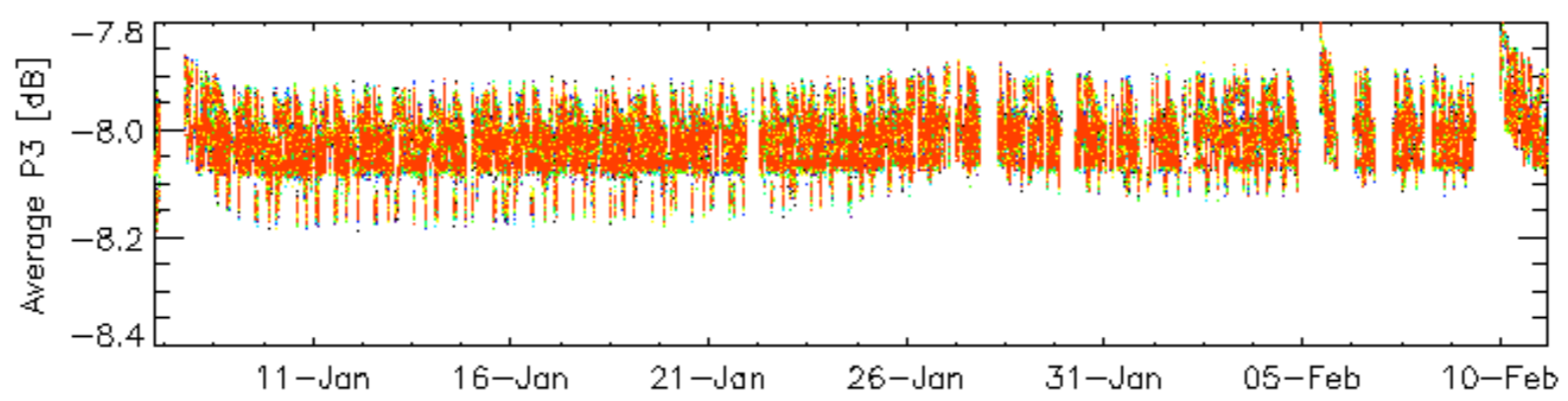
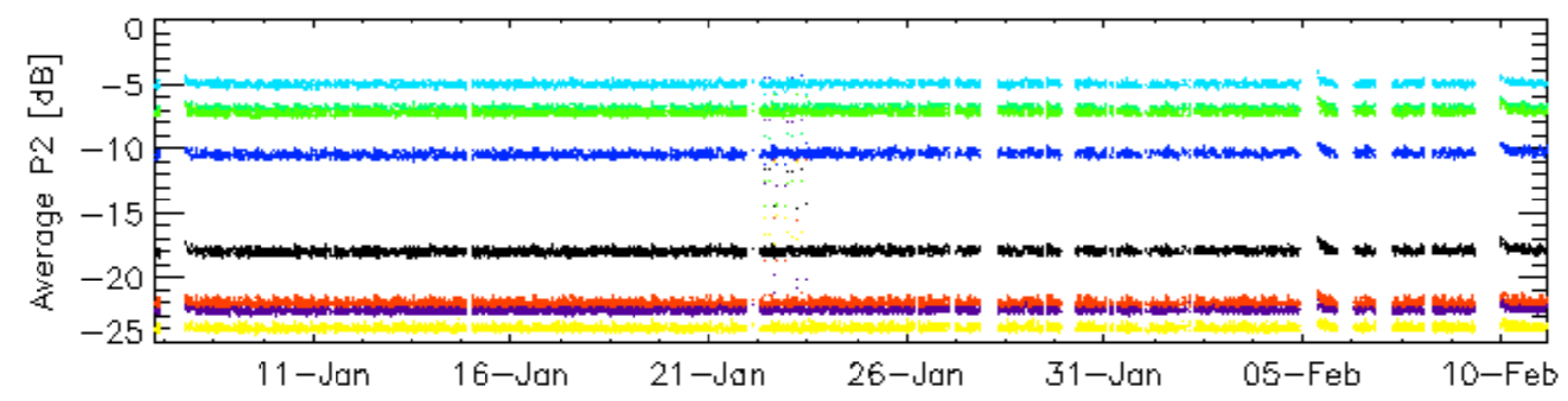
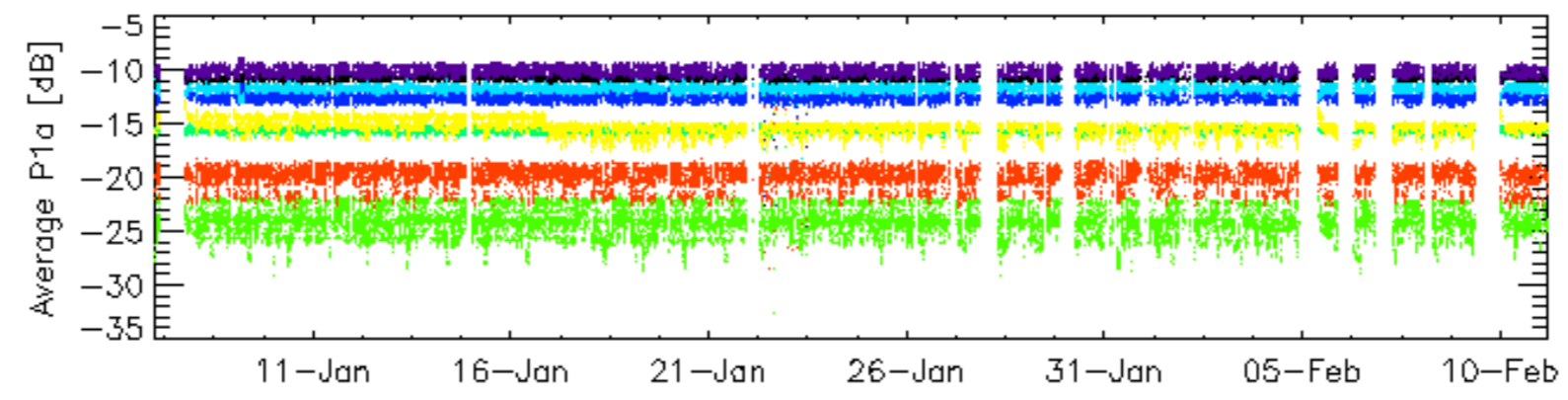
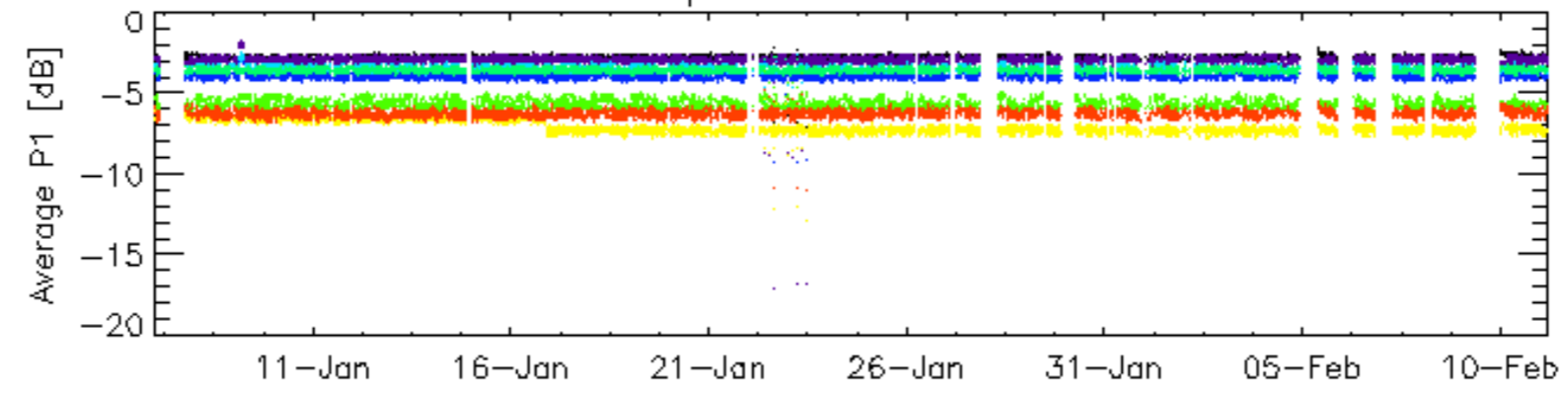
11-Feb



11-Feb

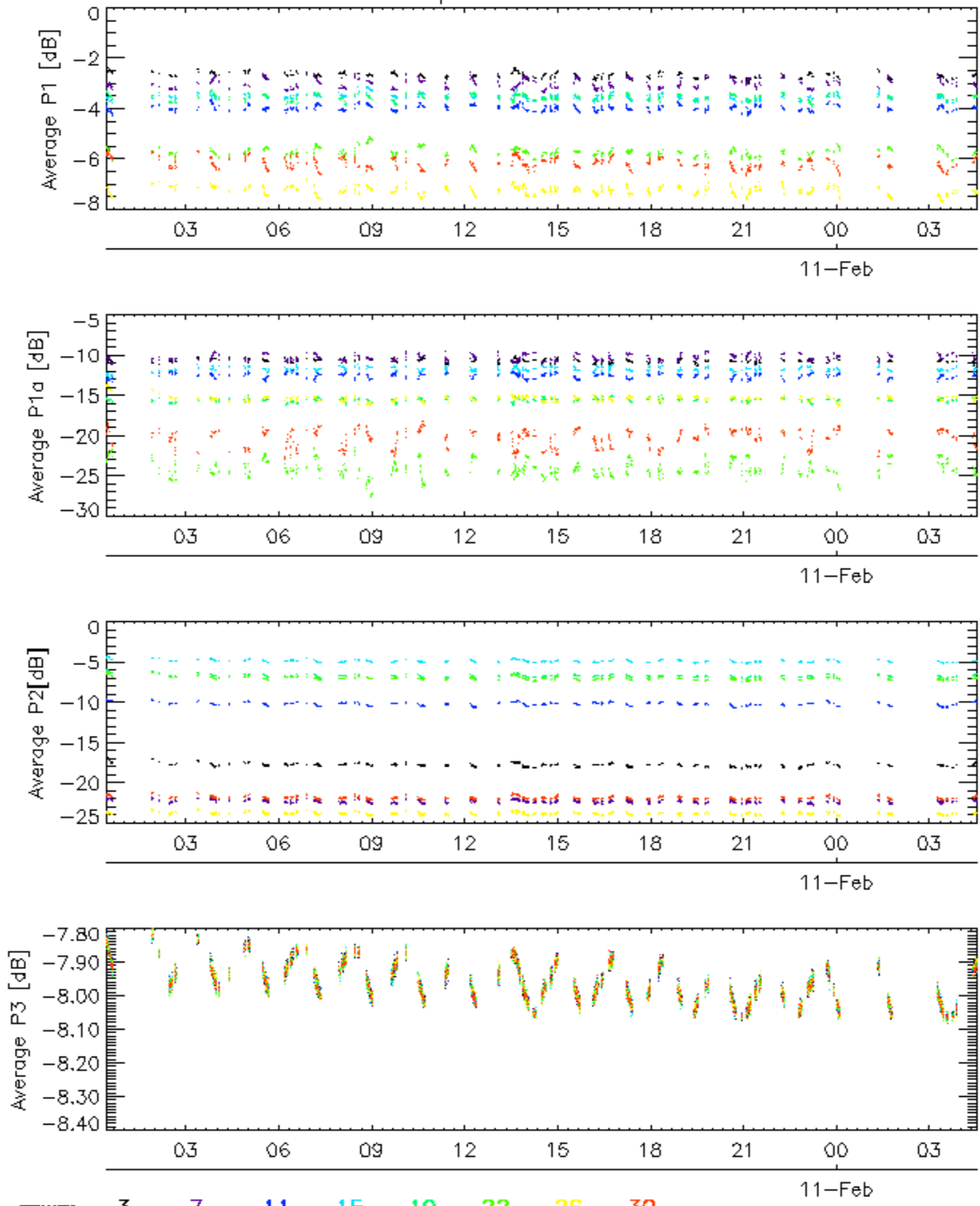
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

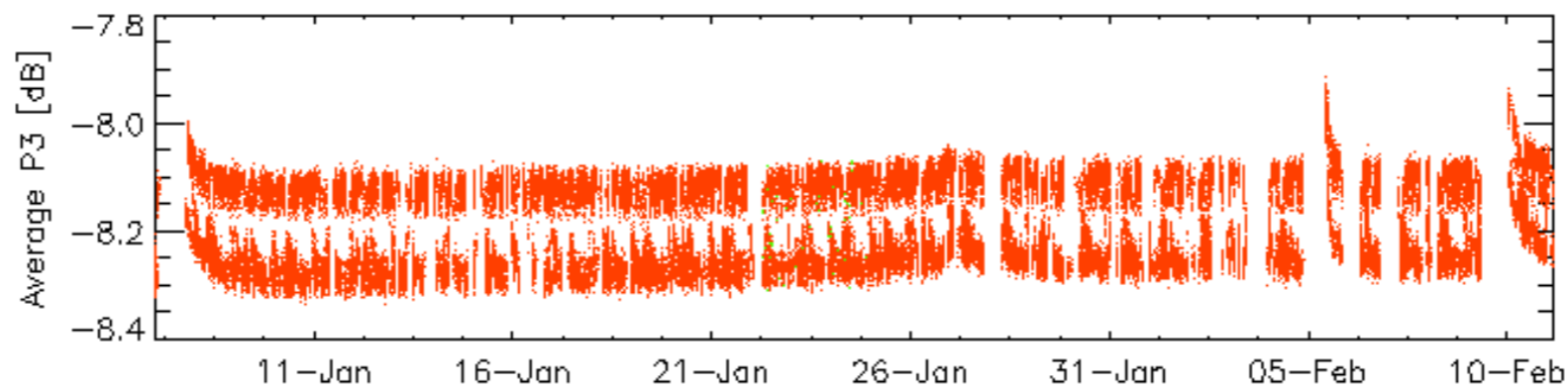
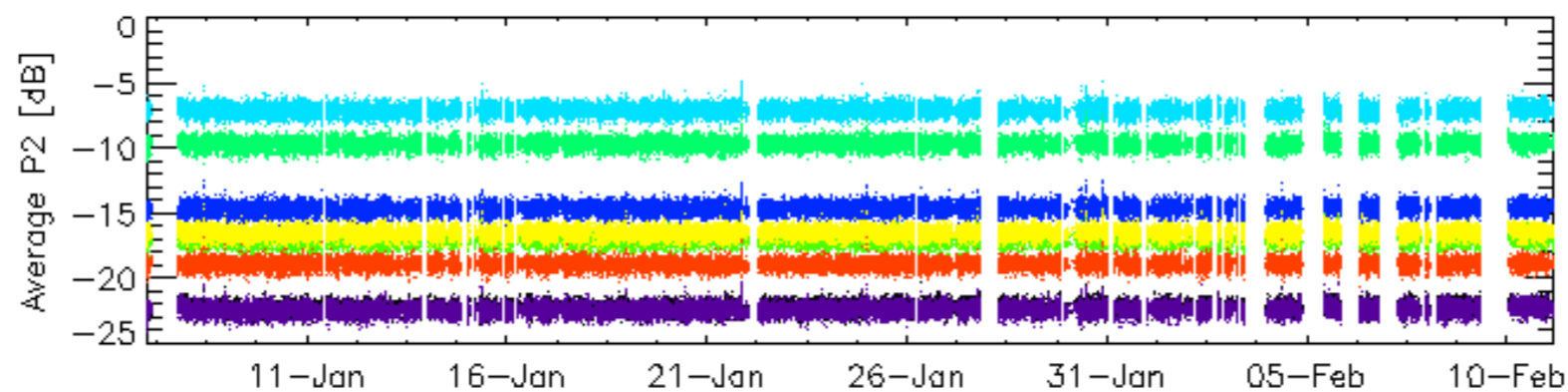
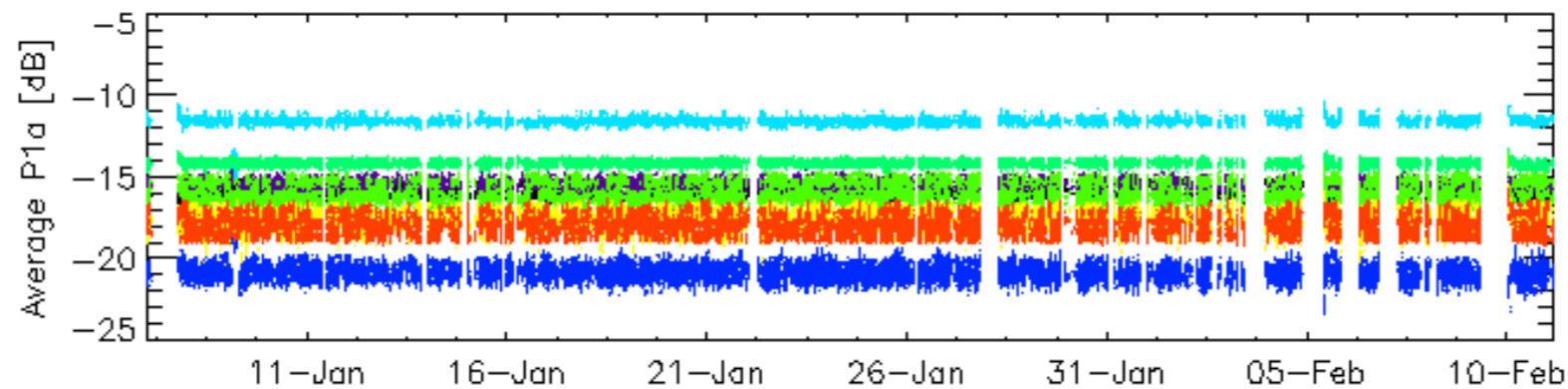
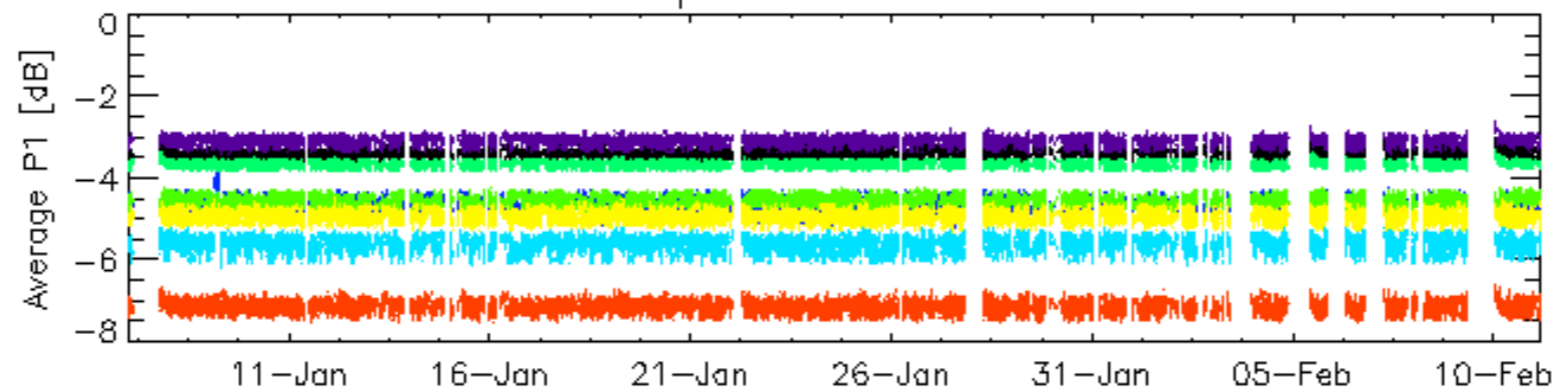


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

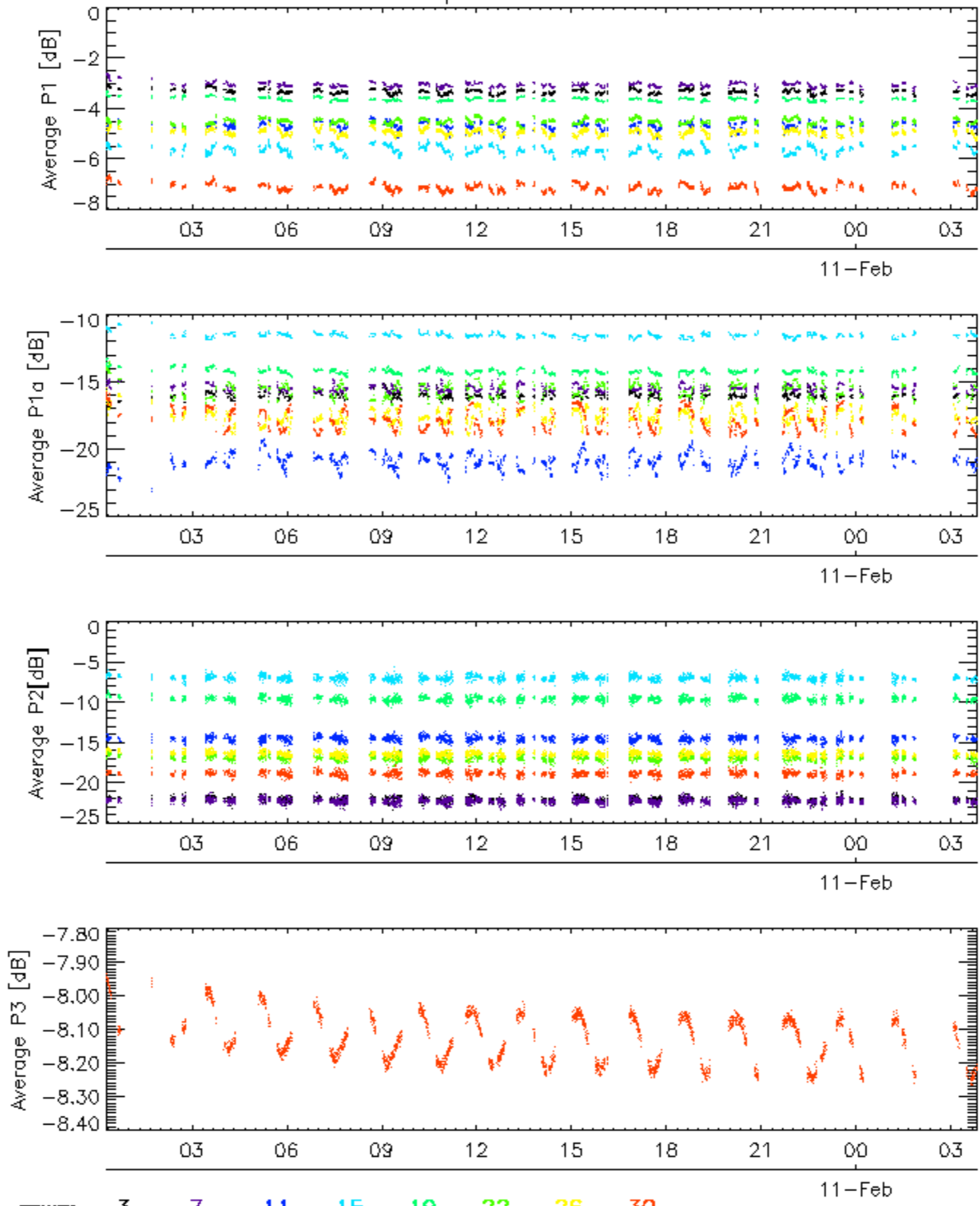


Cal pulses for WVS IS2



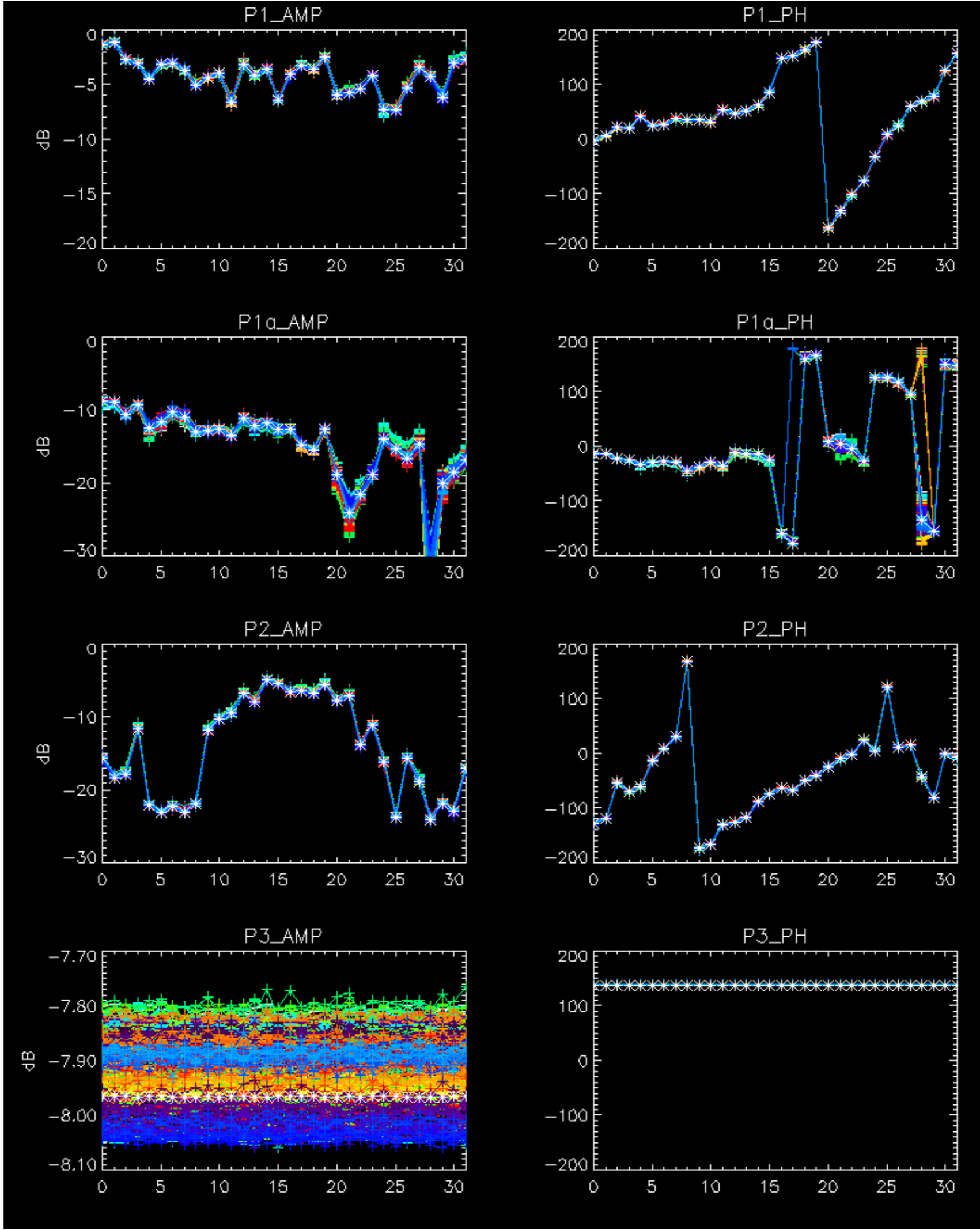
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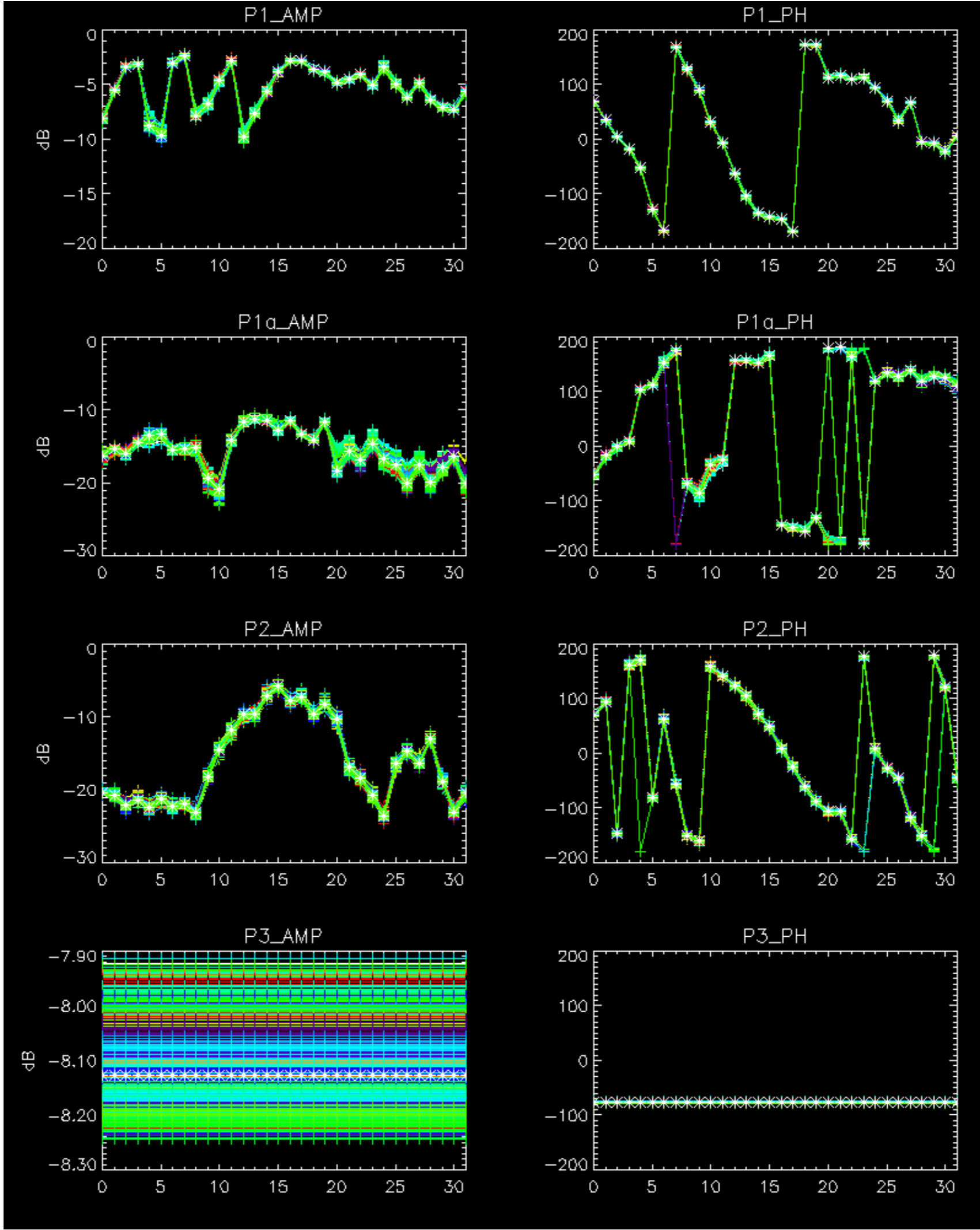
Cal pulses for WVS IS2



No anomalies observed on available browse products

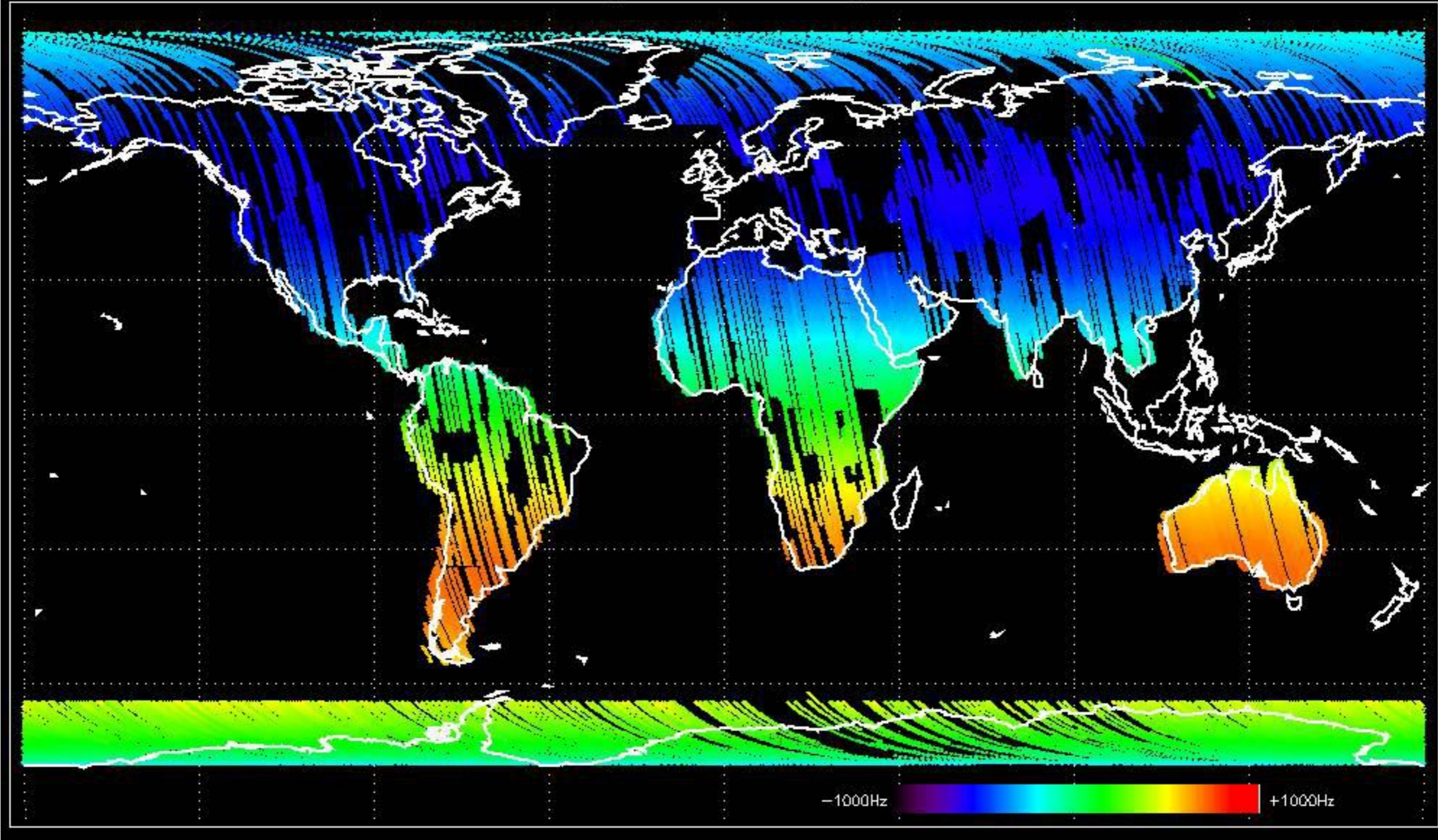
No anomalies observed.



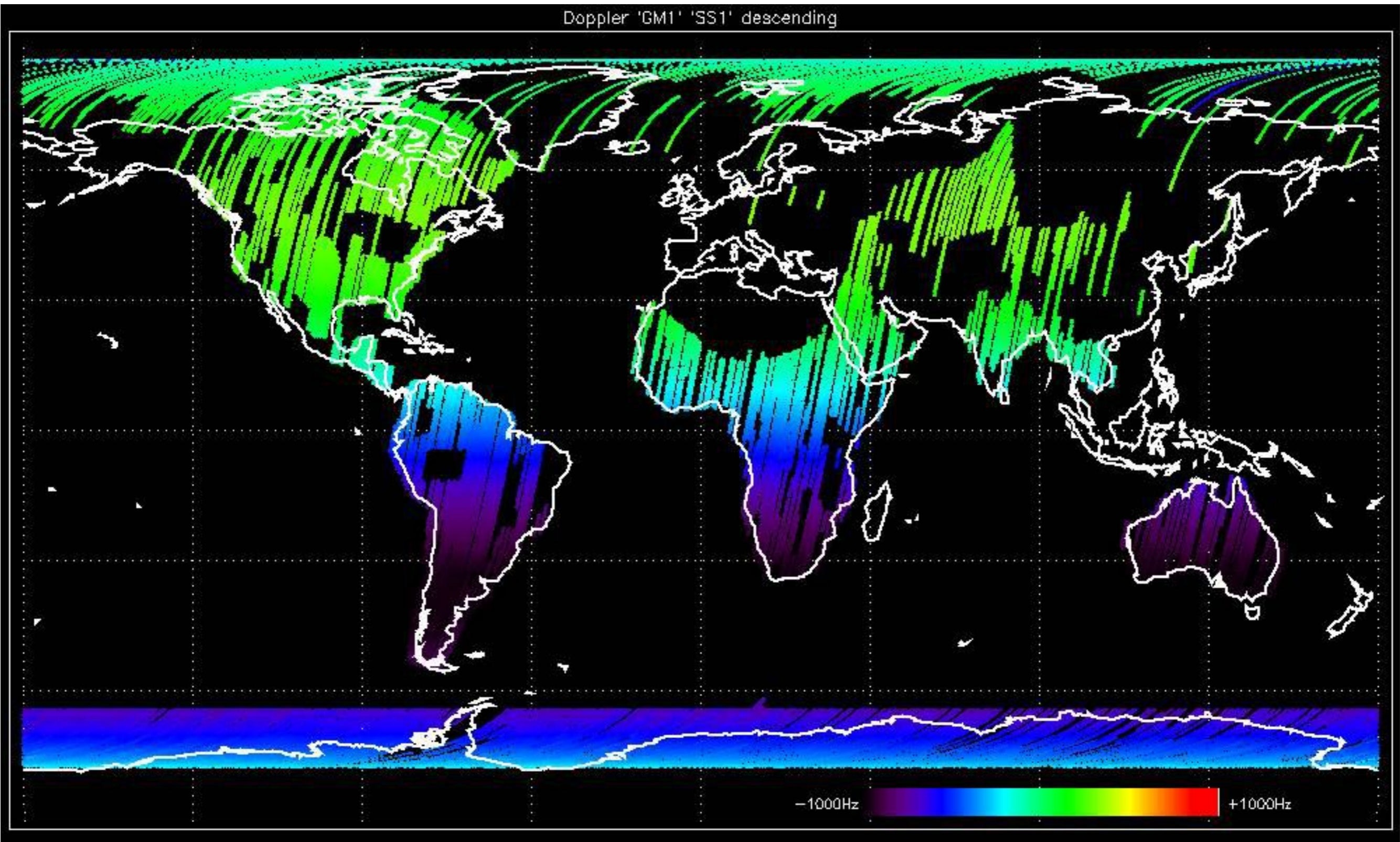


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

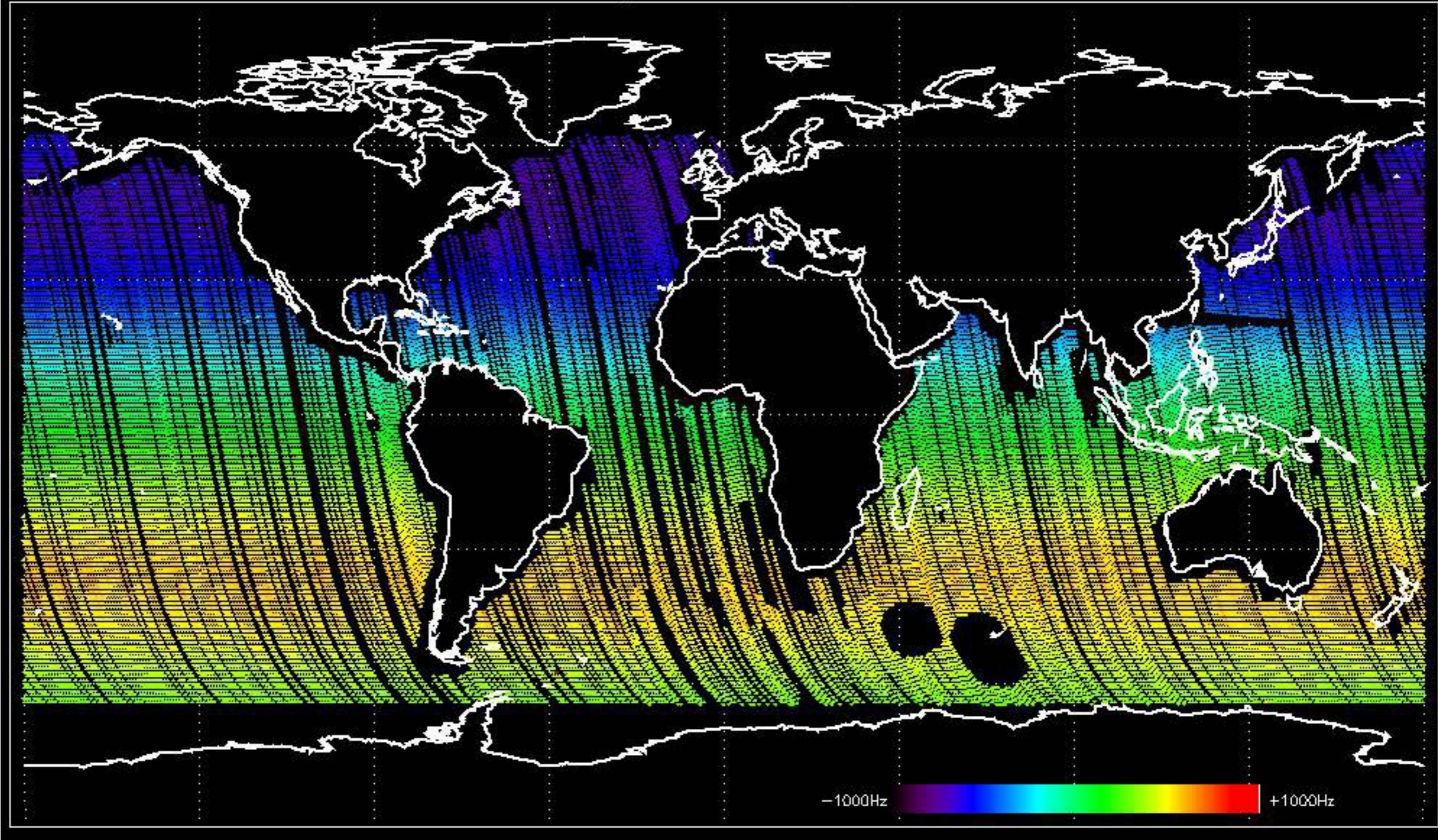
Doppler 'GM1' 'SS1' ascending



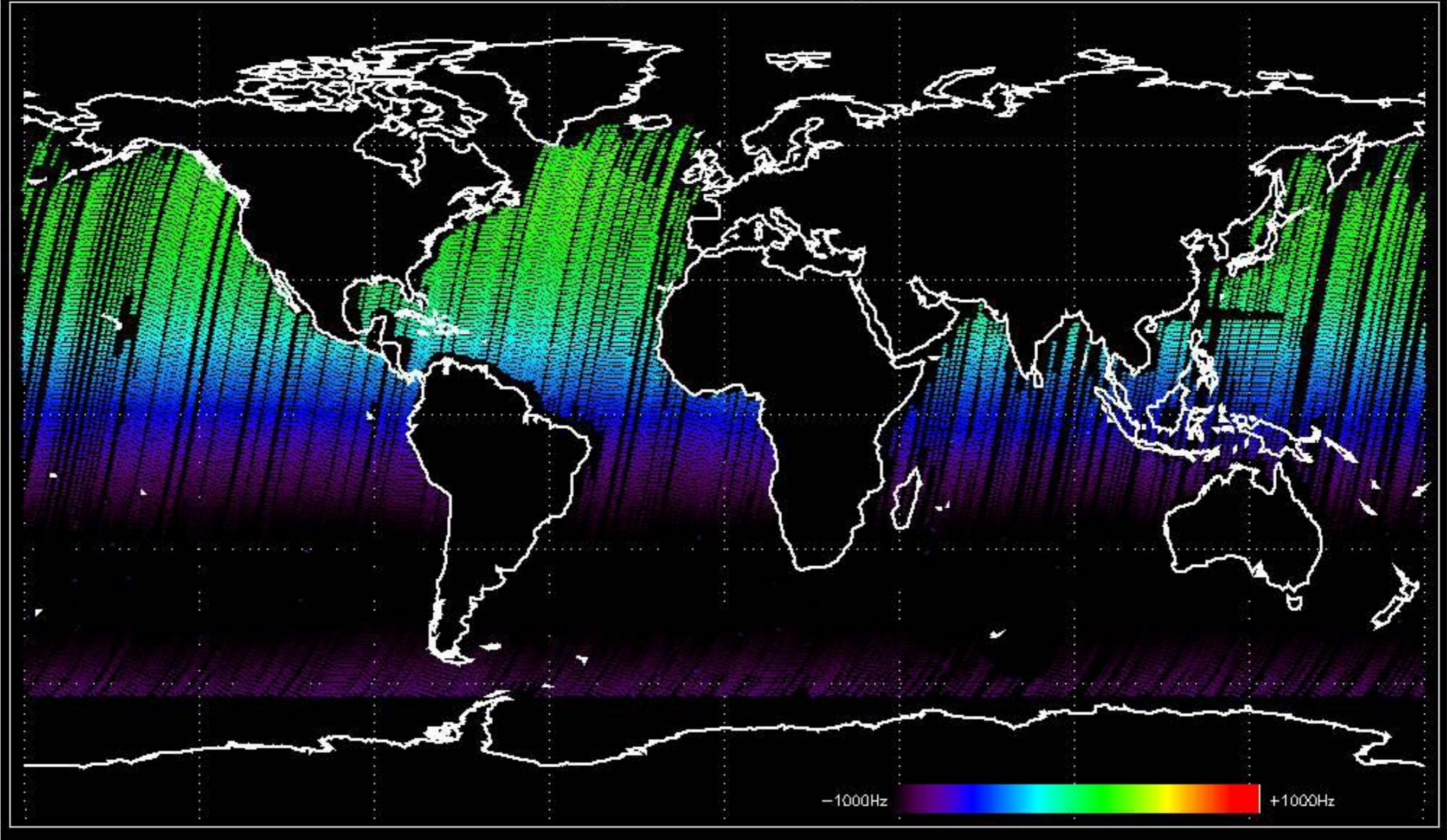
Doppler 'GM1' 'SS1' descending

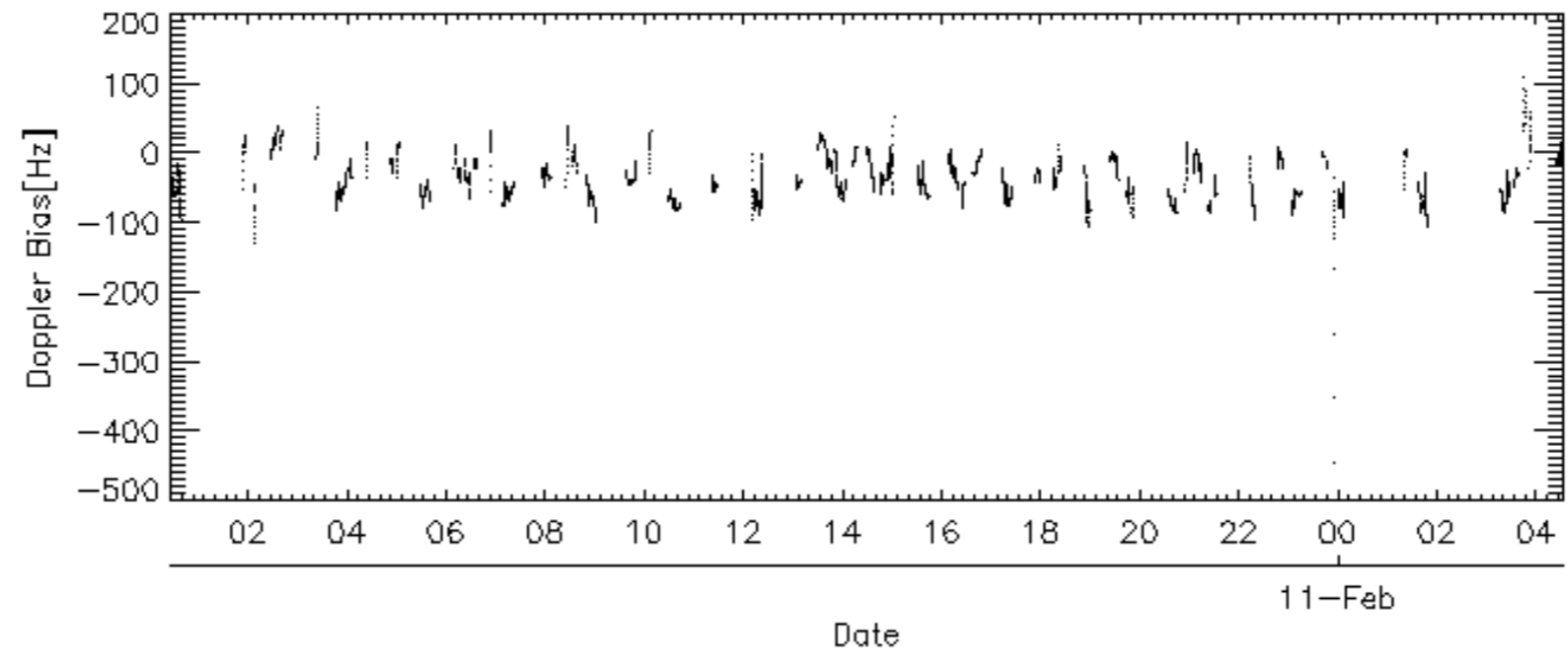
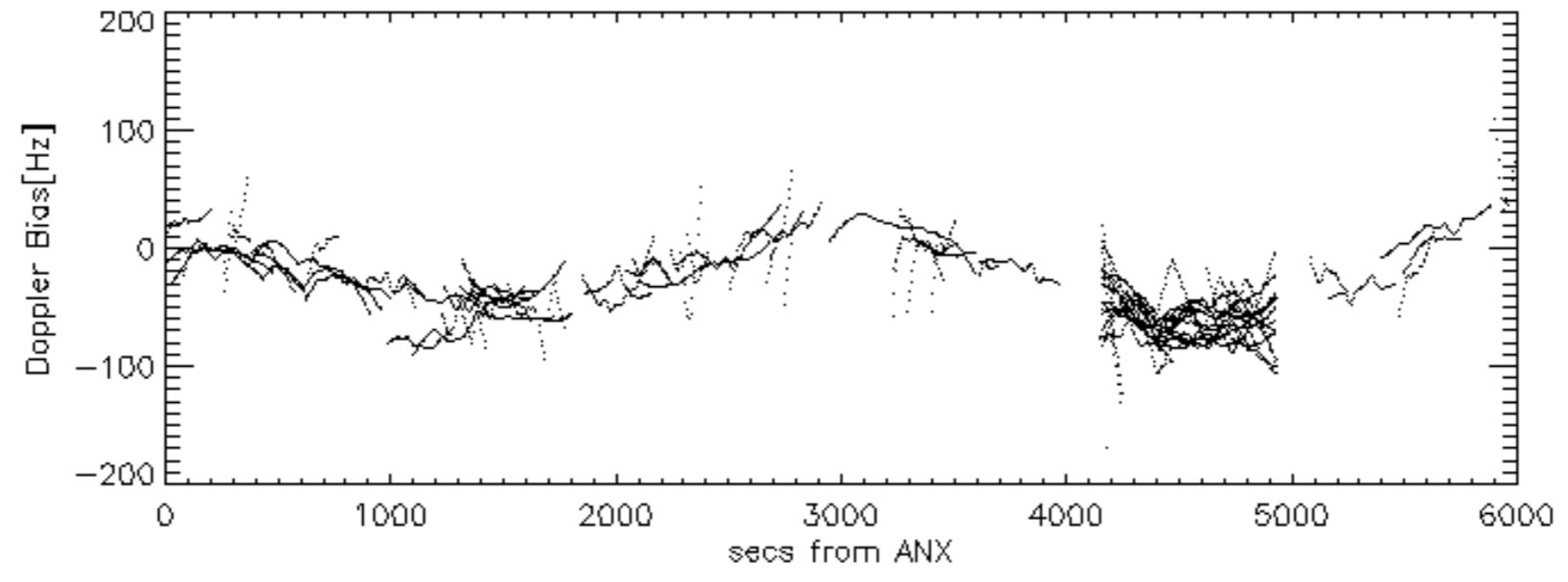
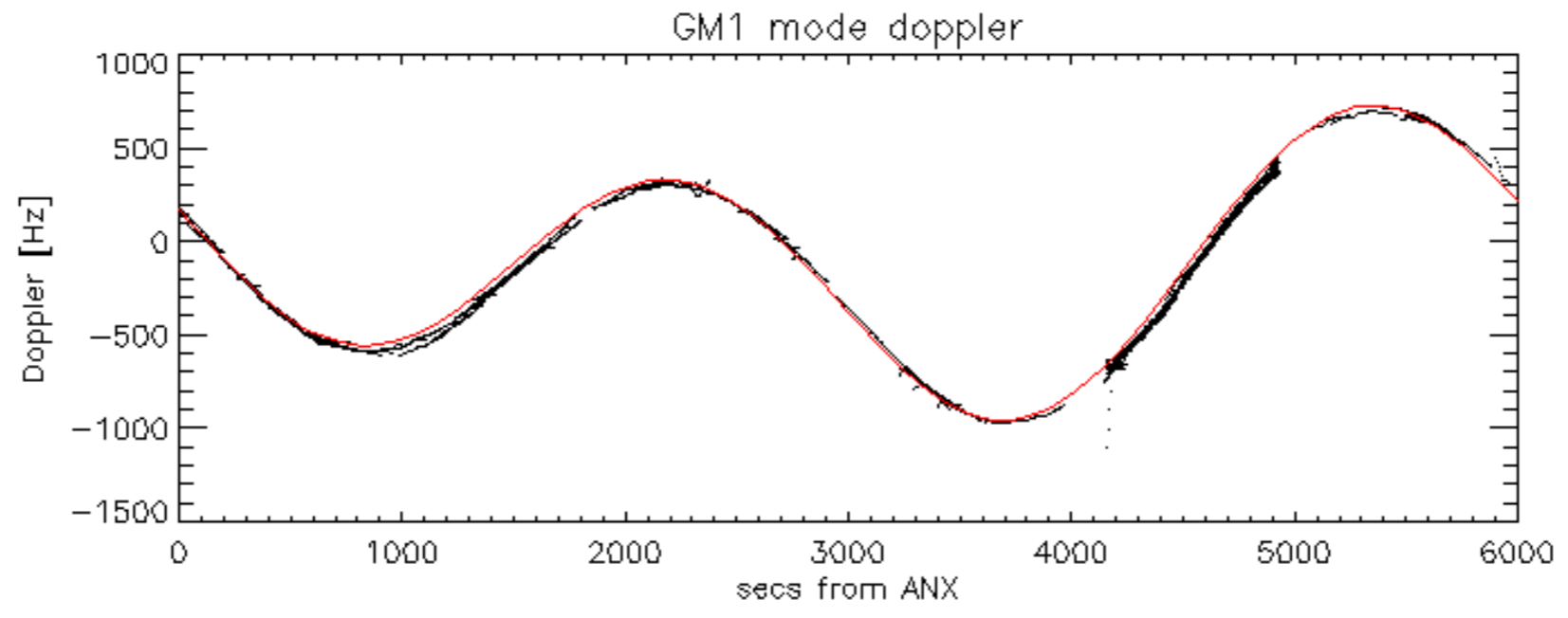


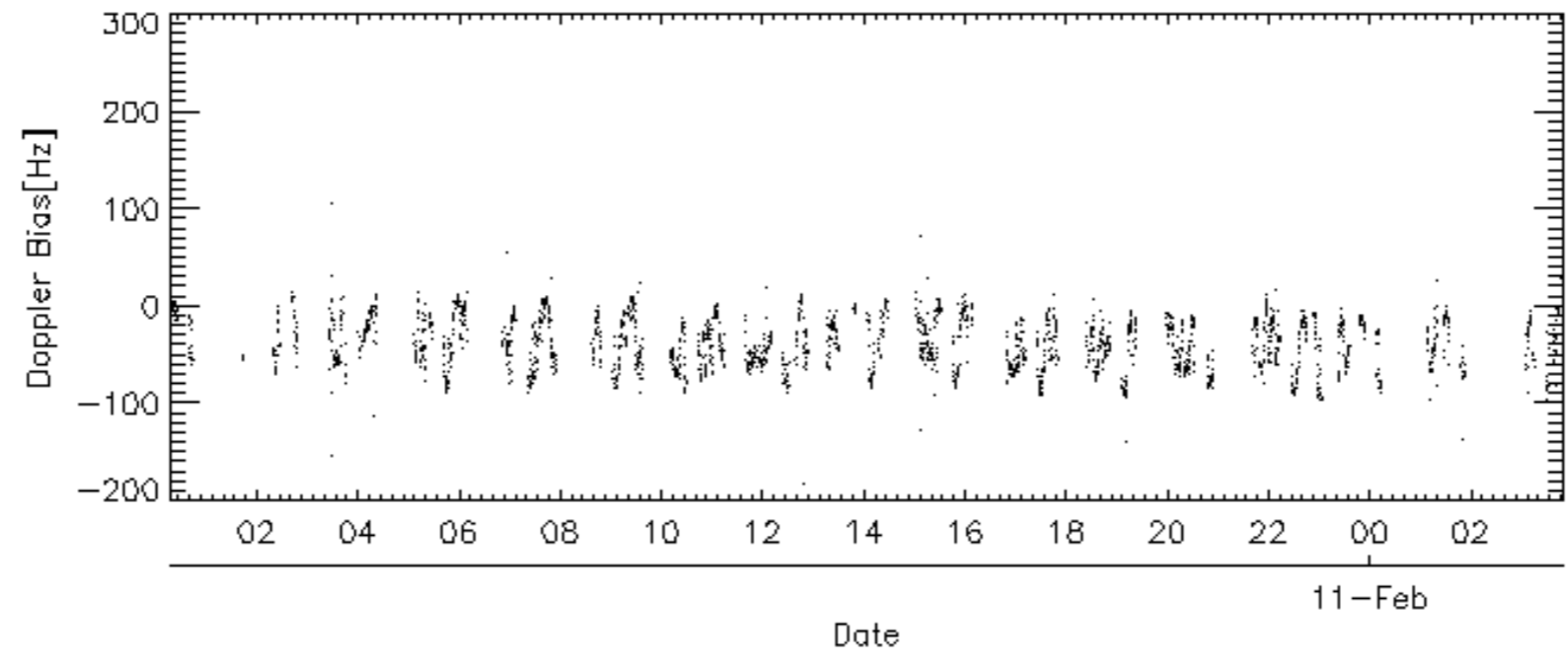
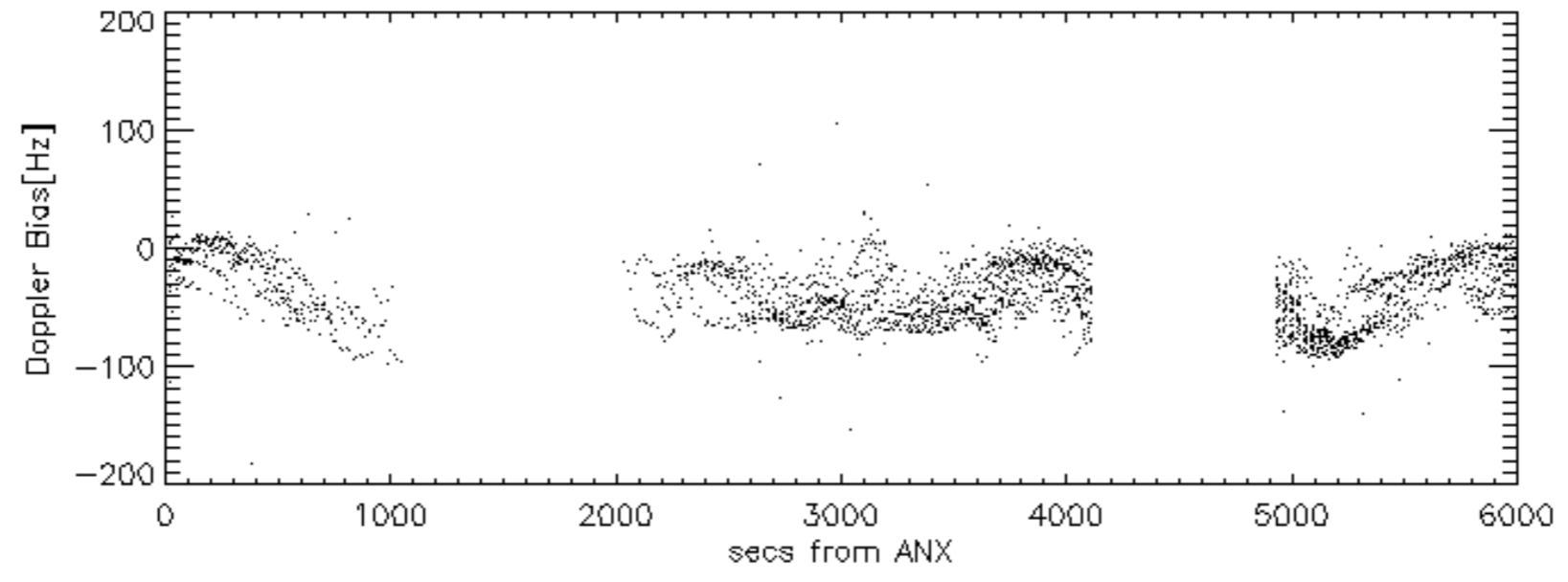
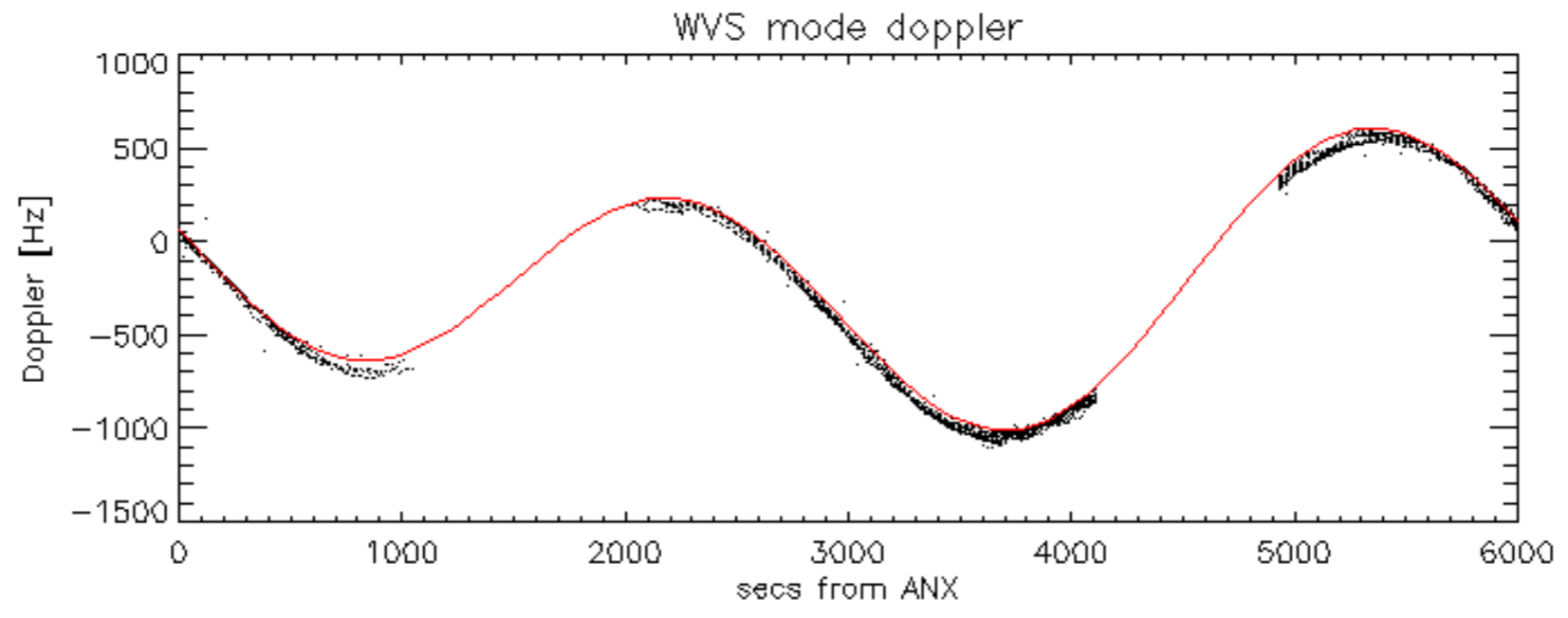
Doppler 'WVS' 'IS2' ascending



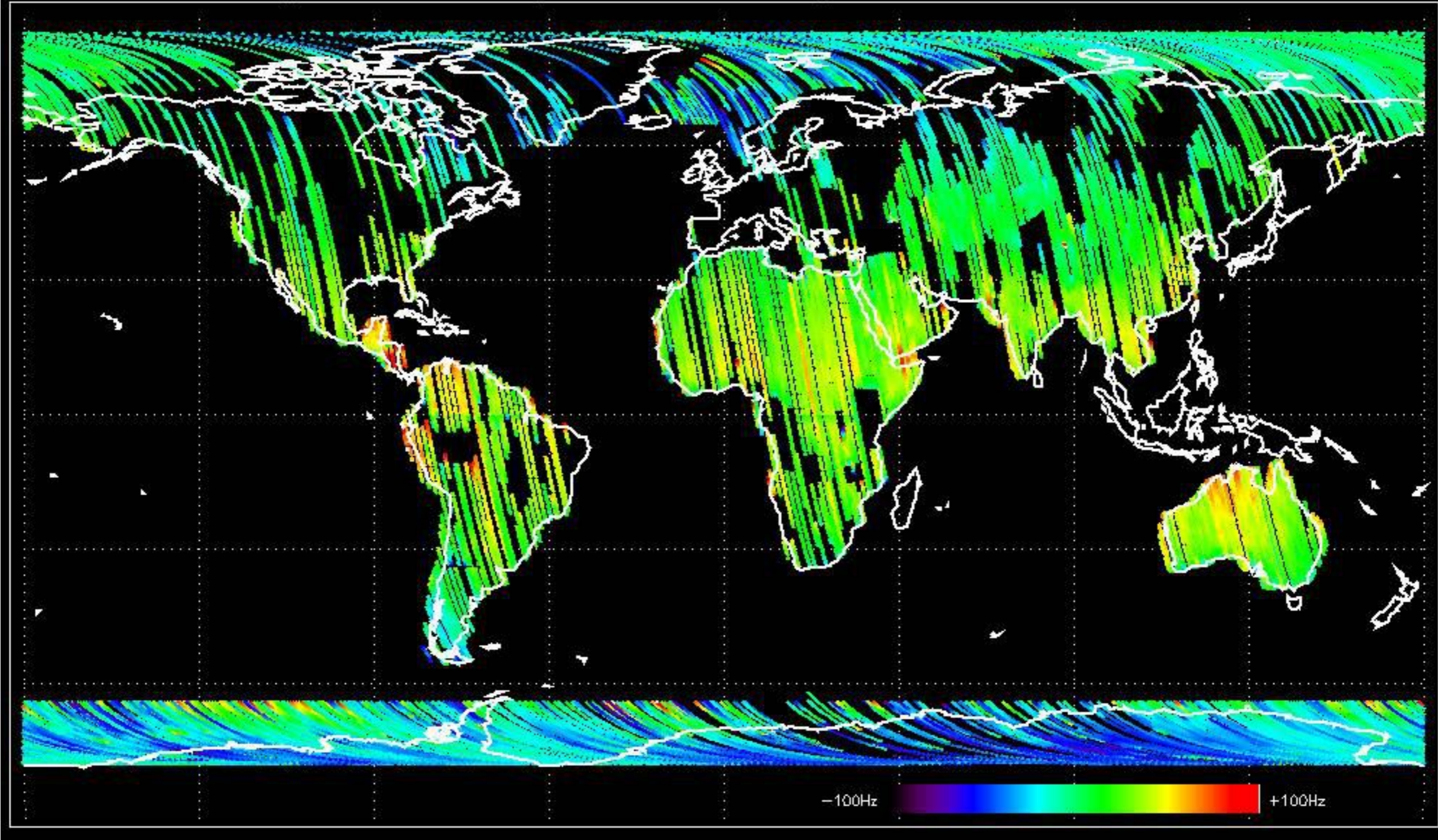
Doppler 'WVS' 'IS2' descending



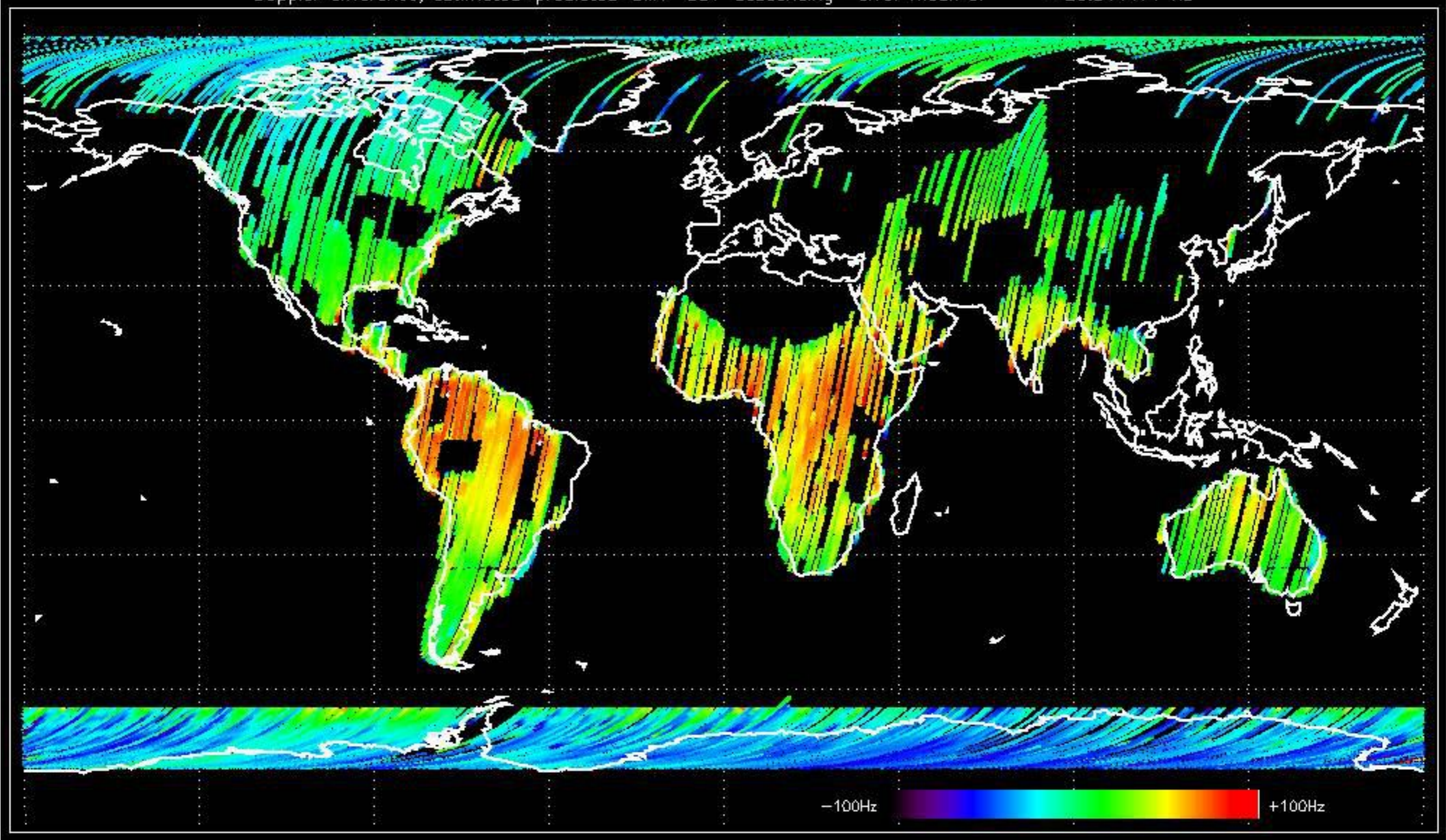




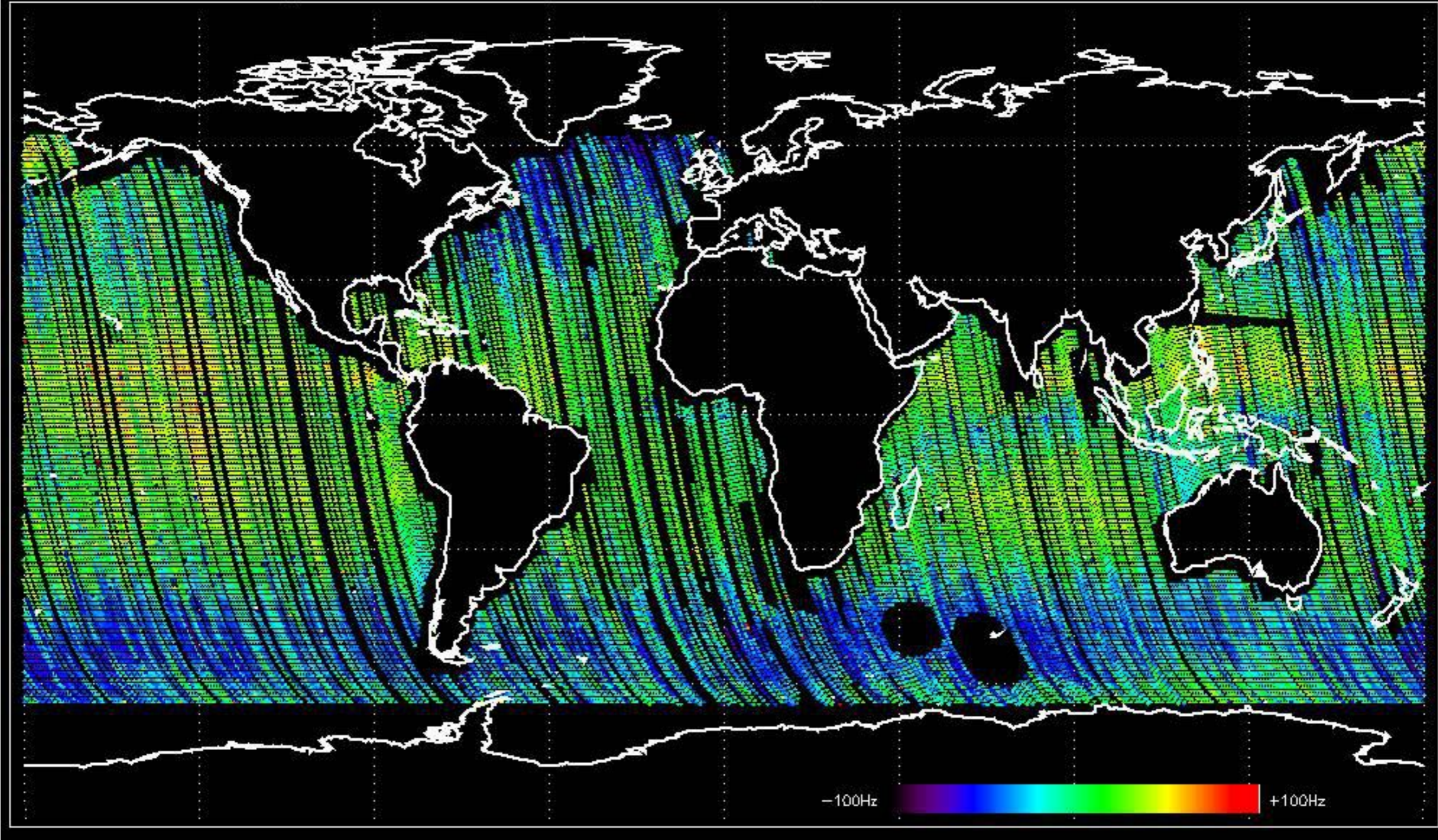
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.971464 Hz



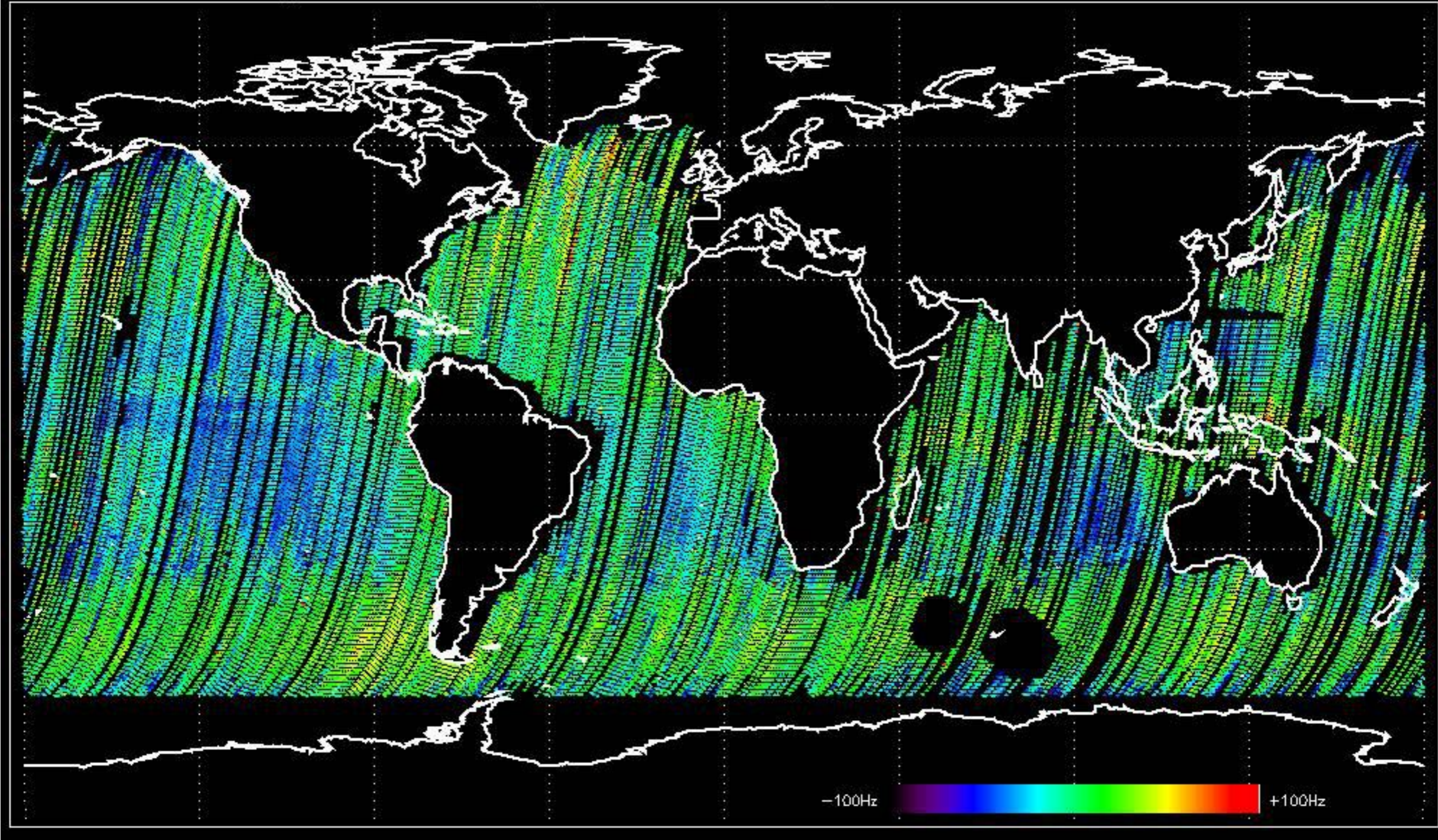
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -29.944471 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -35.130859 Hz

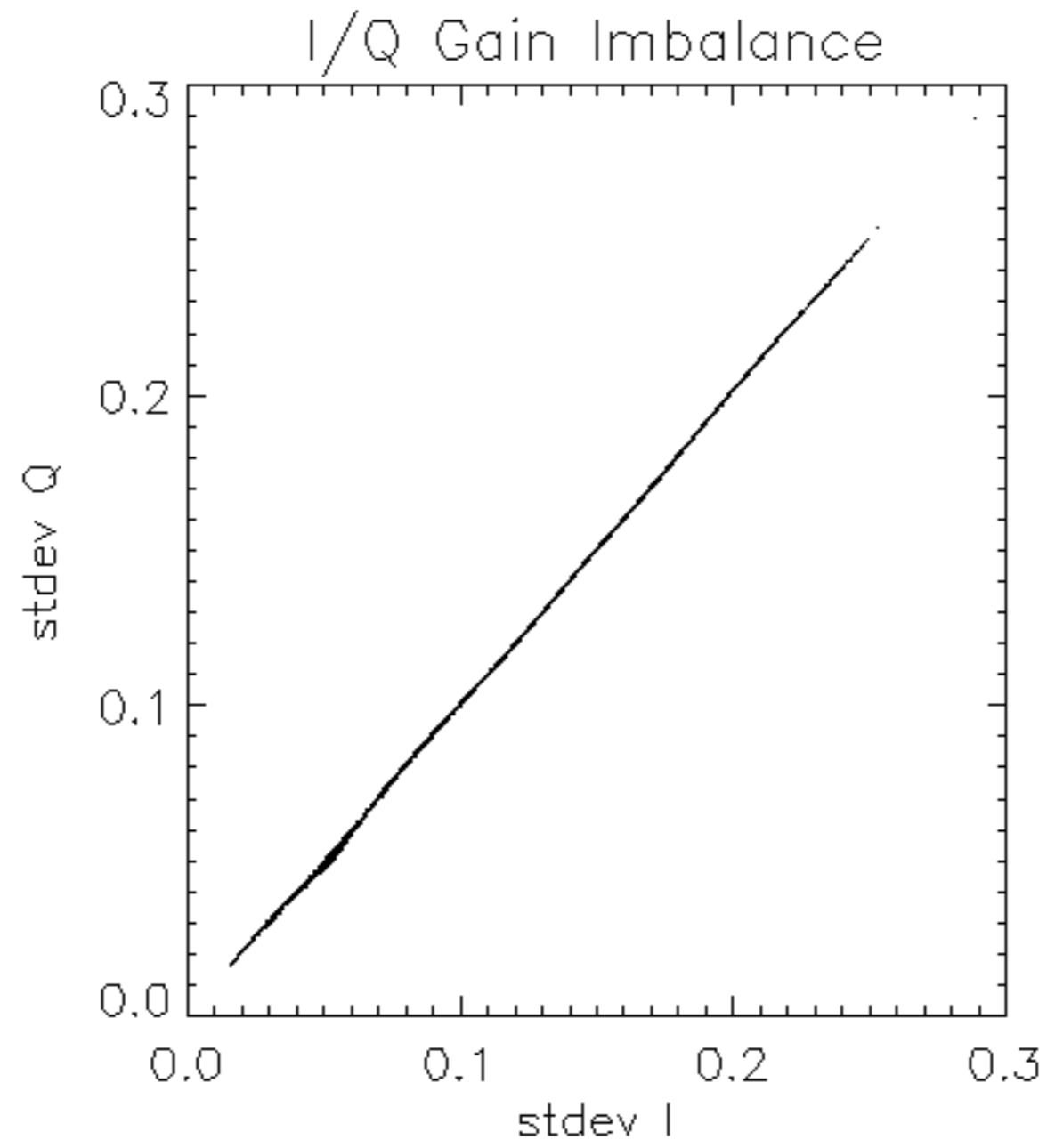


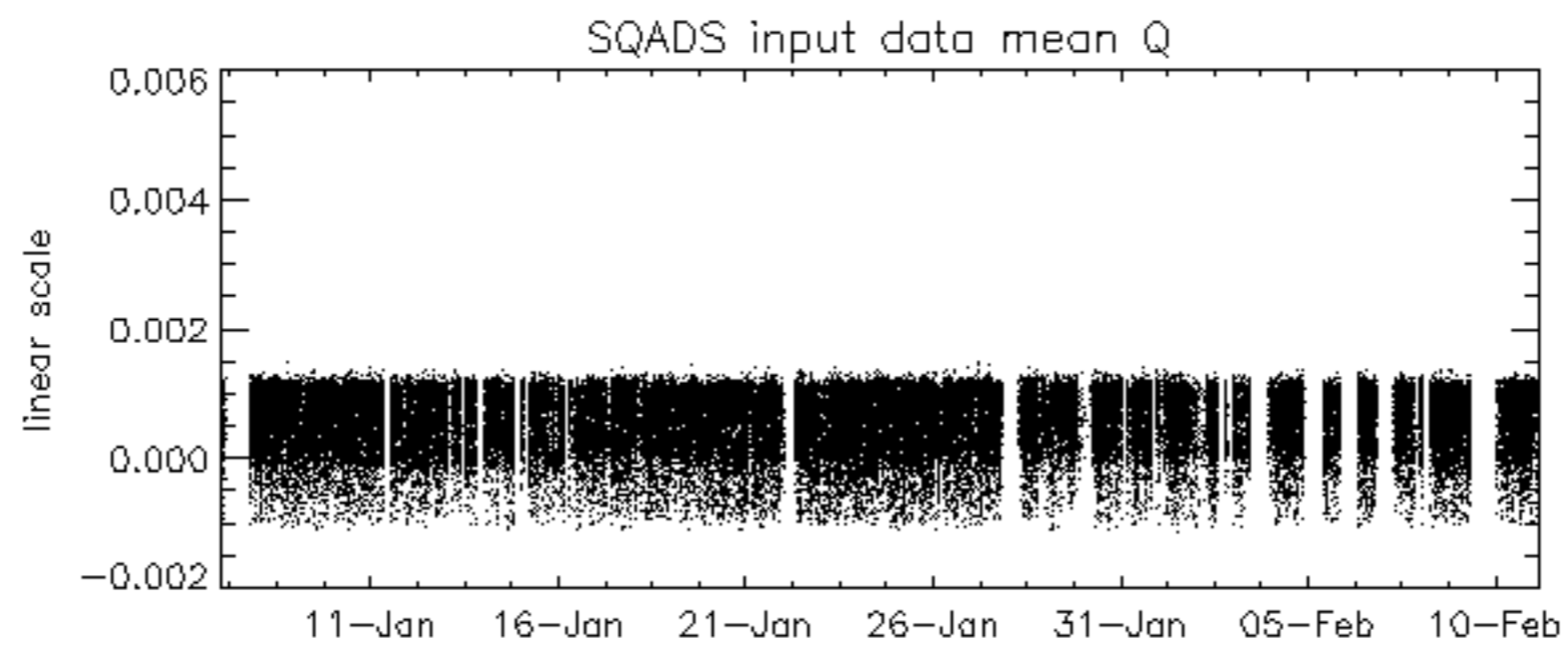
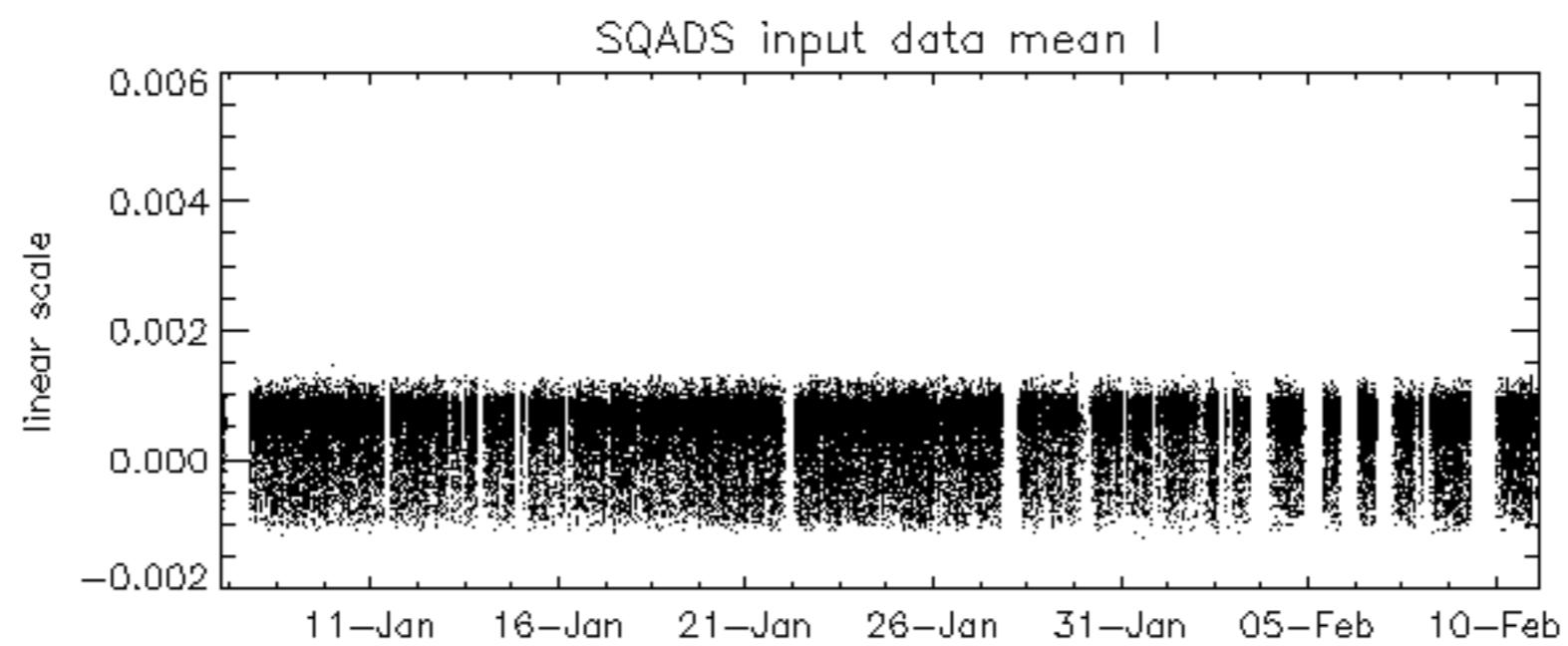
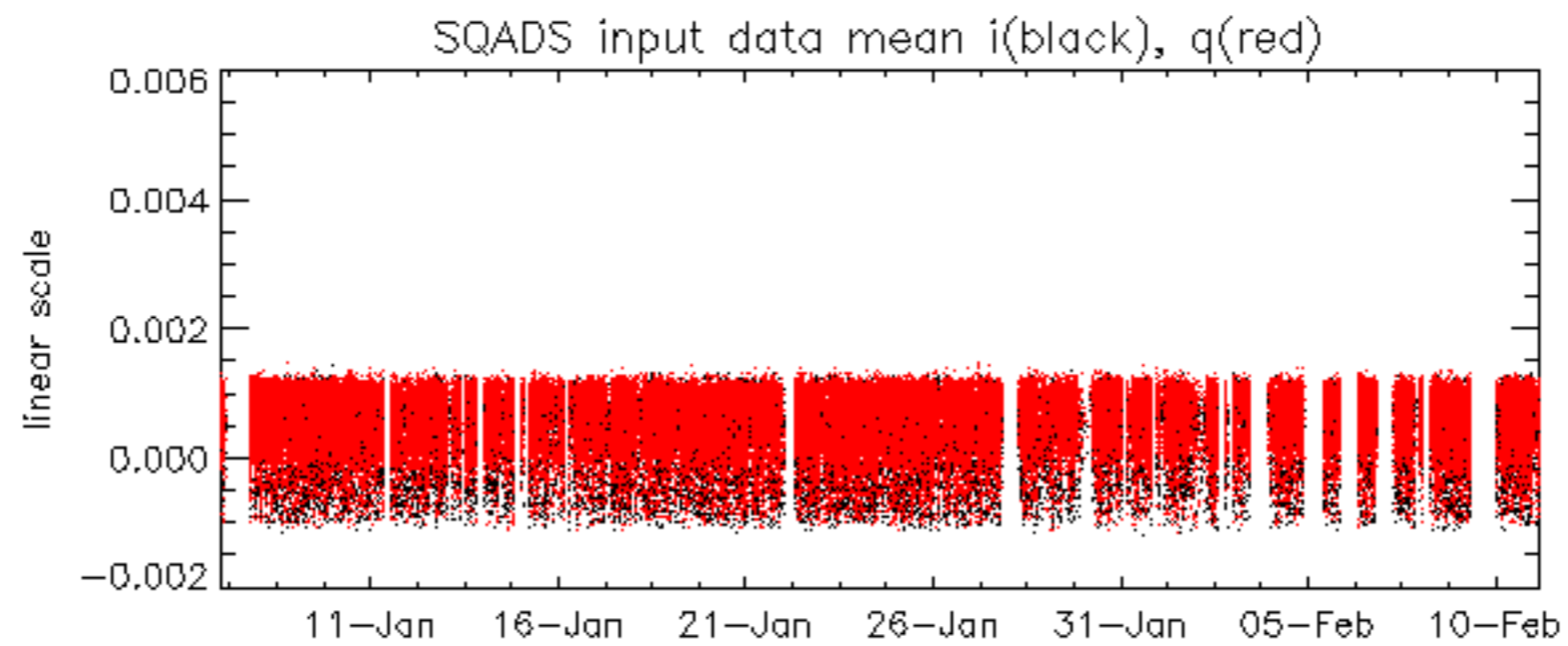
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.247162 Hz

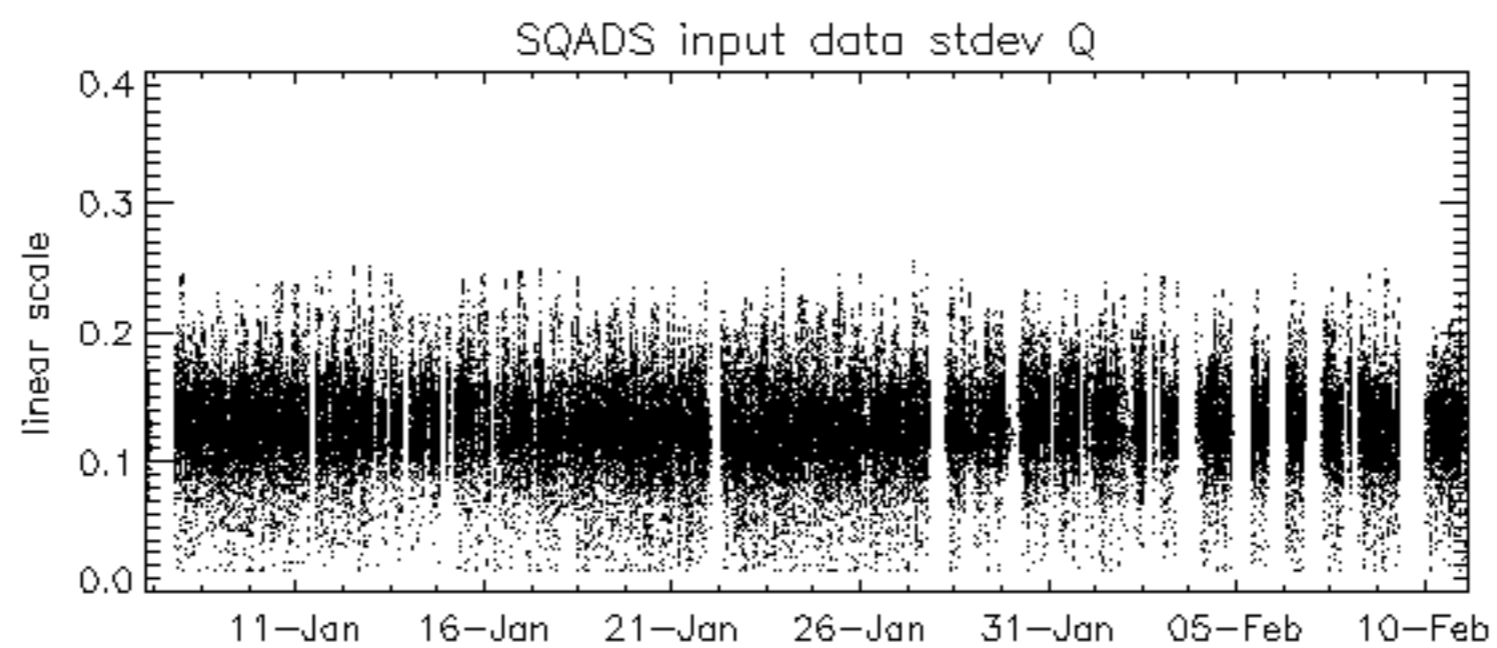
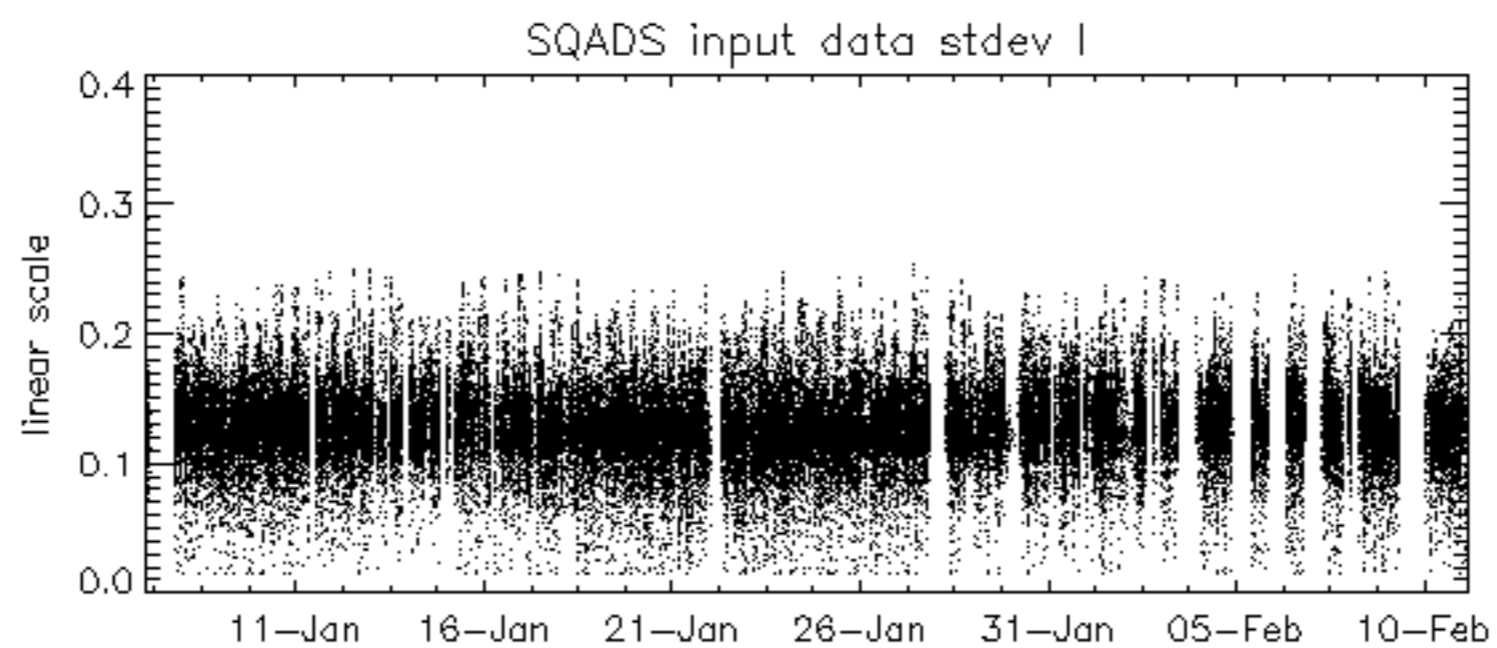
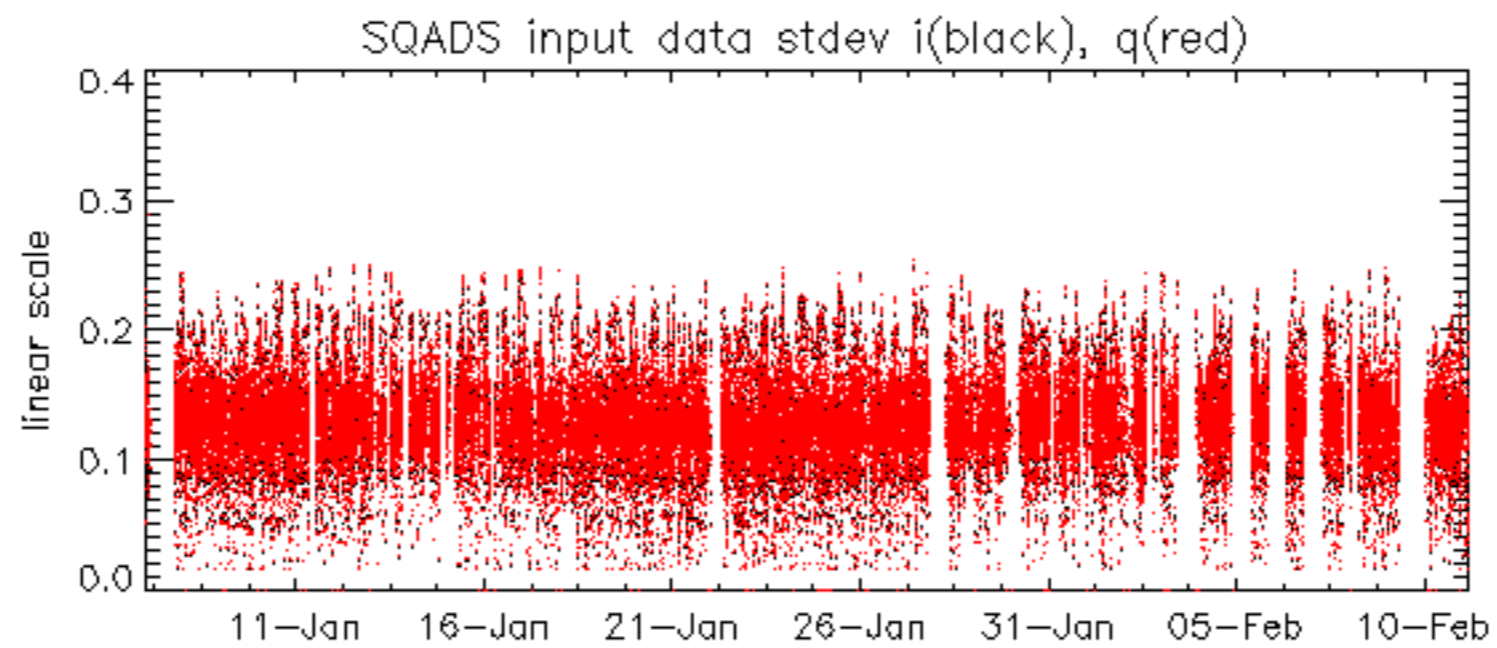


No anomalies observed on available MS products:

No anomalies observed.



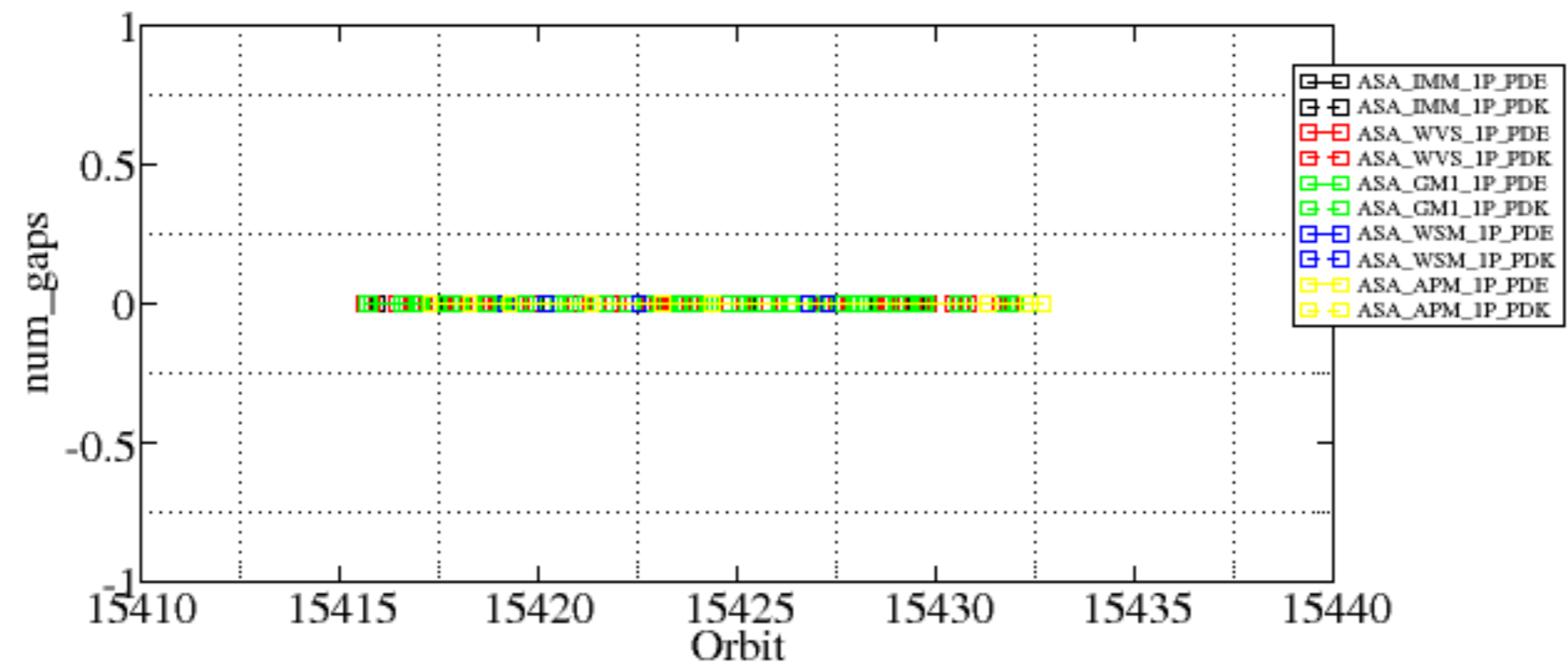


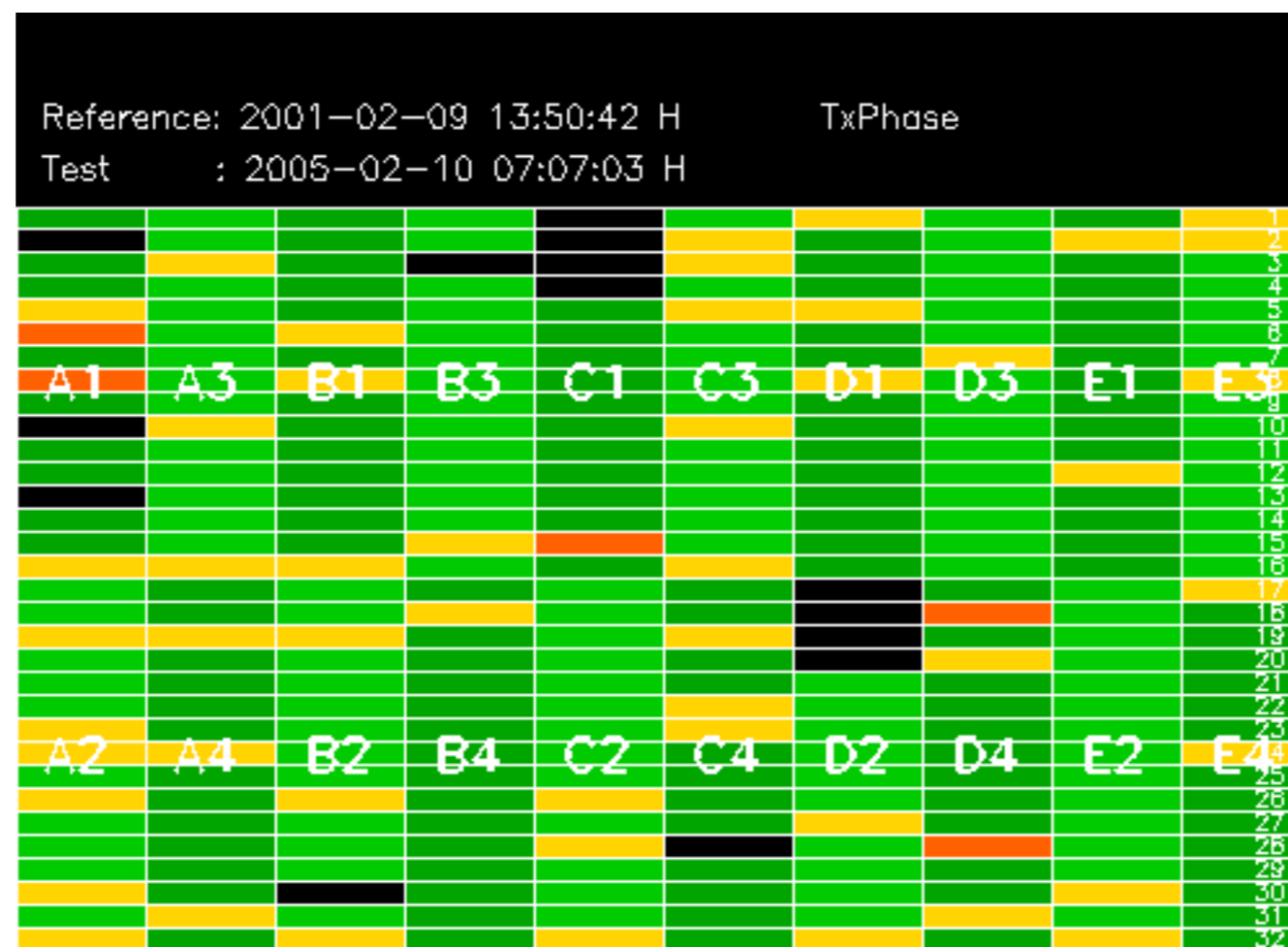


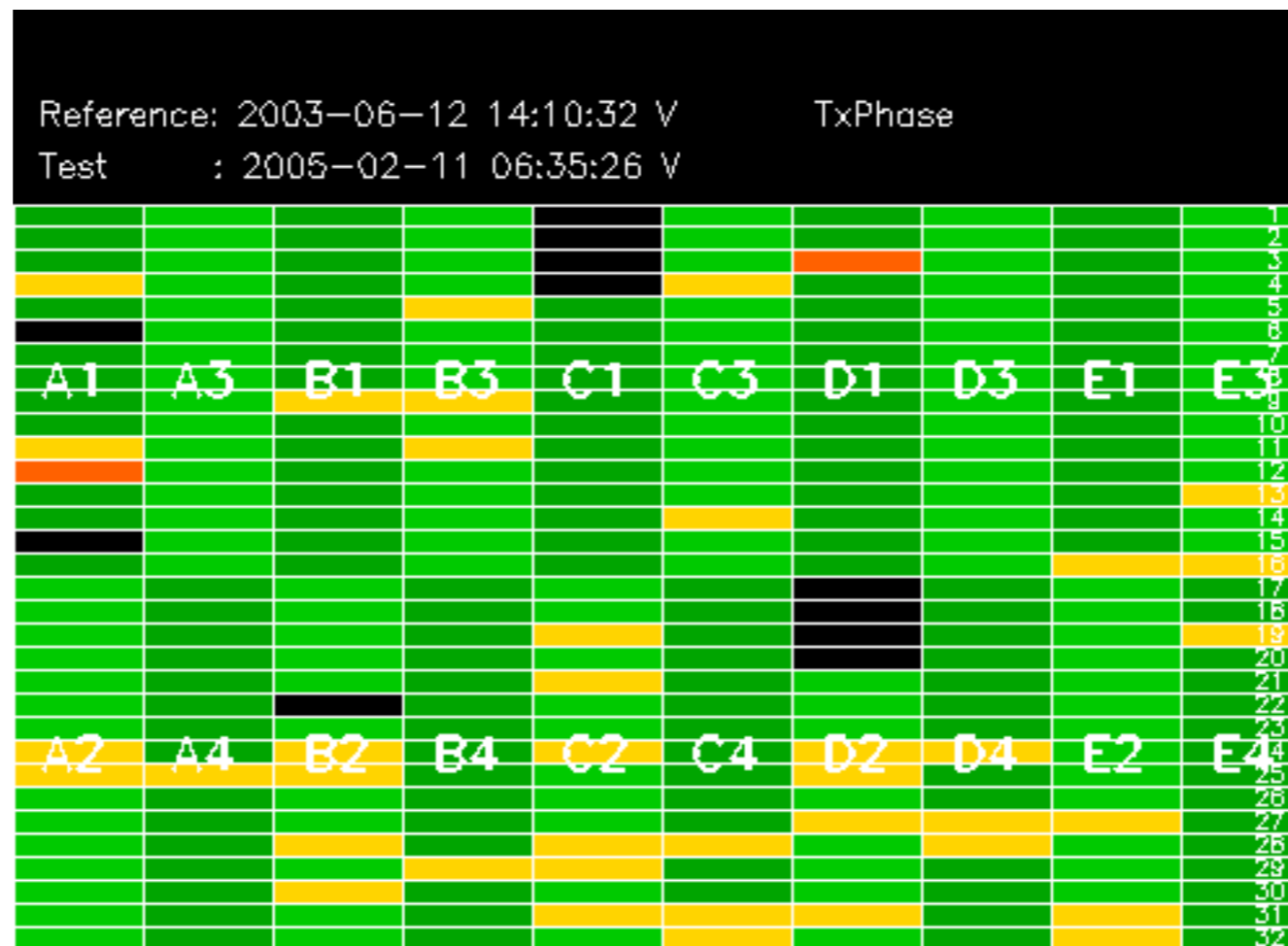
Summary of analysis for the last 3 days 2005021[901]

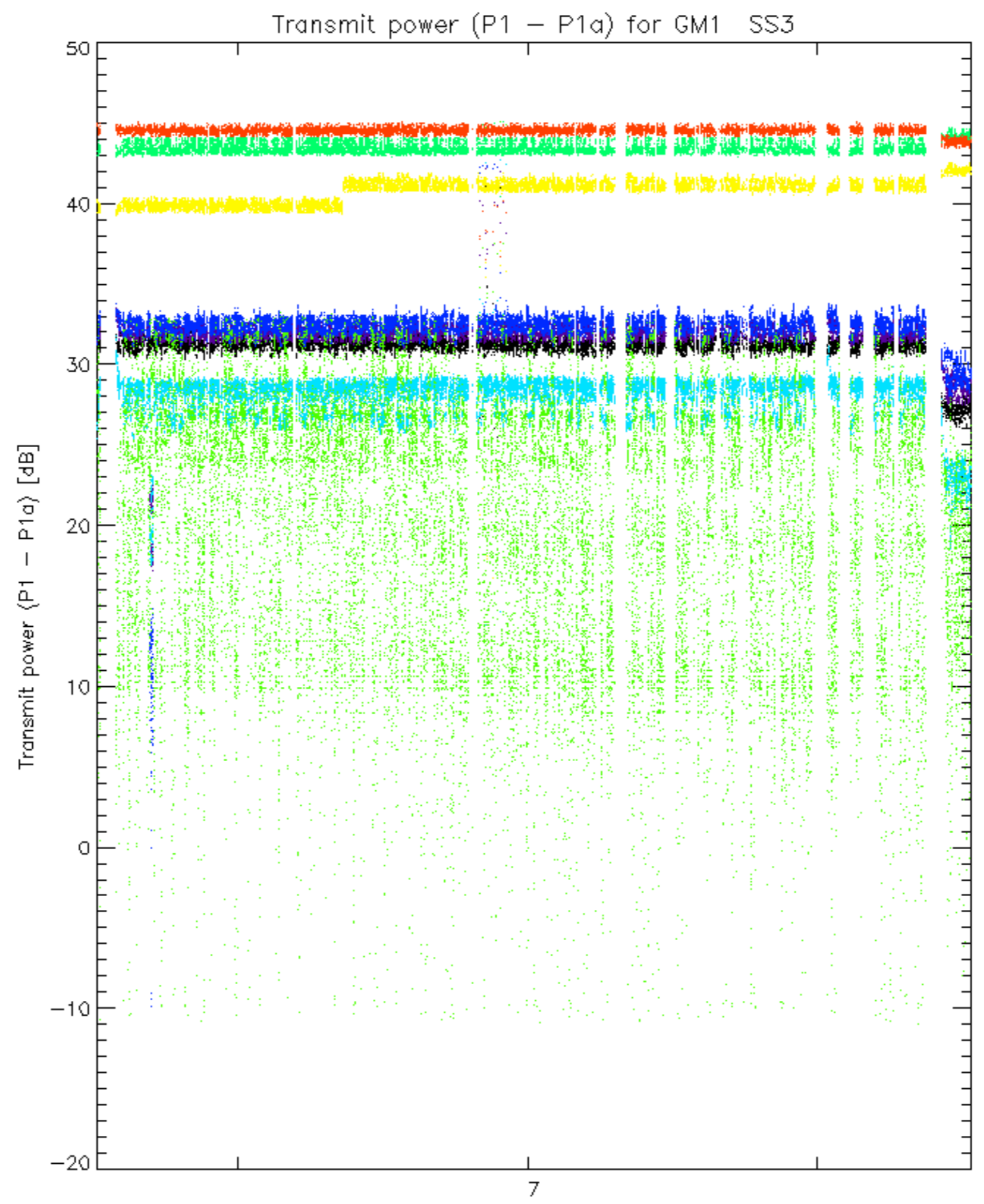
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

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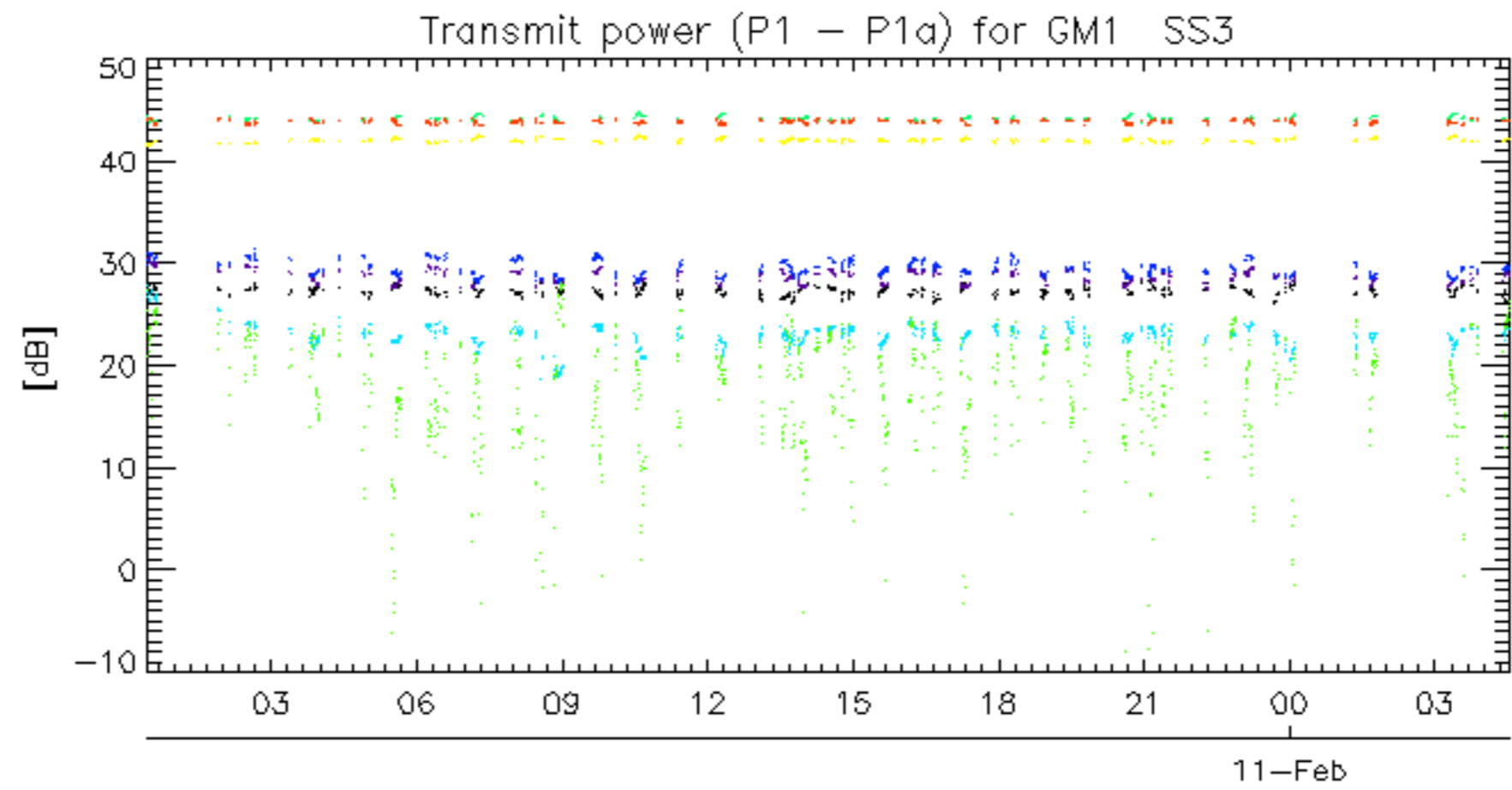




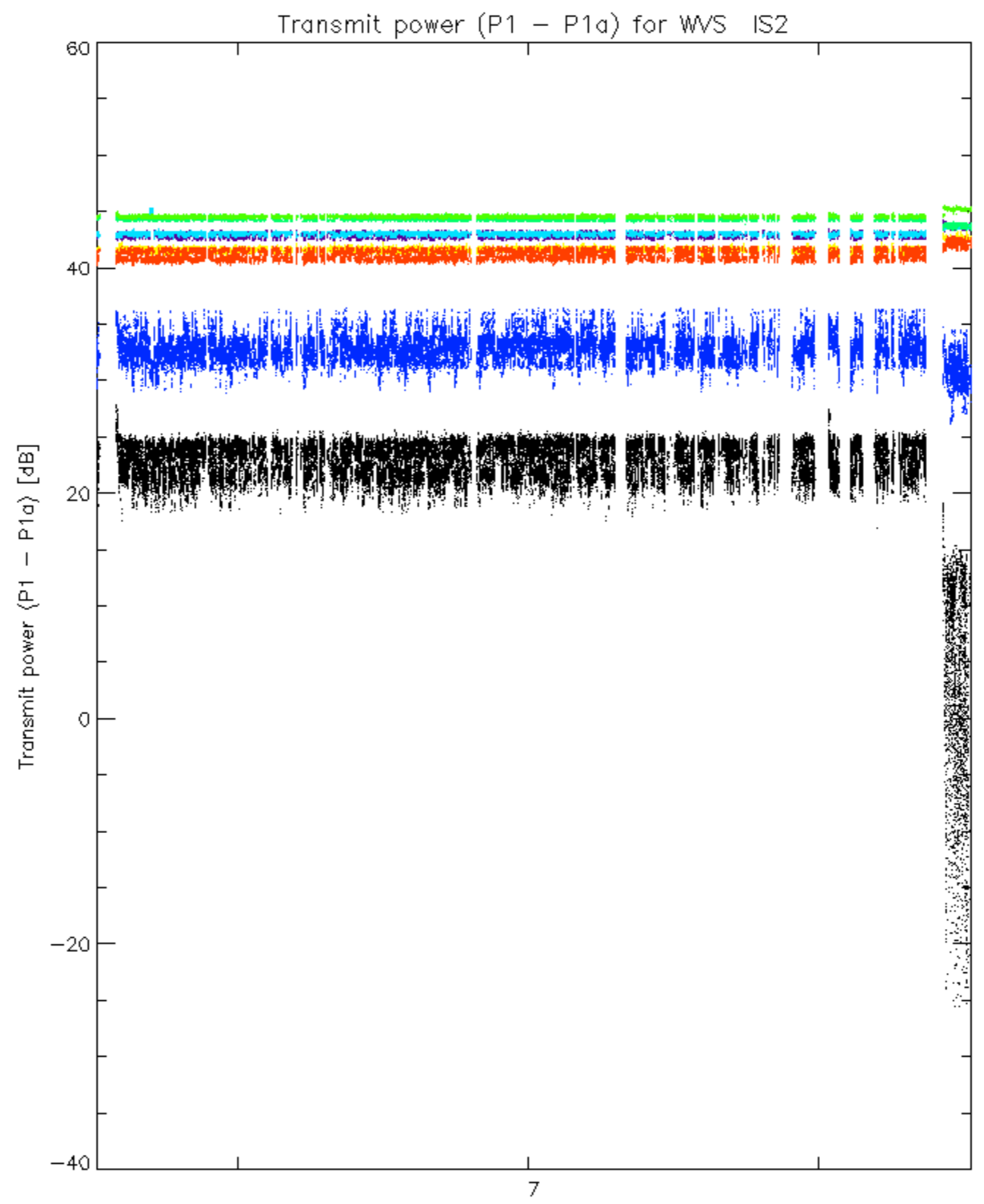




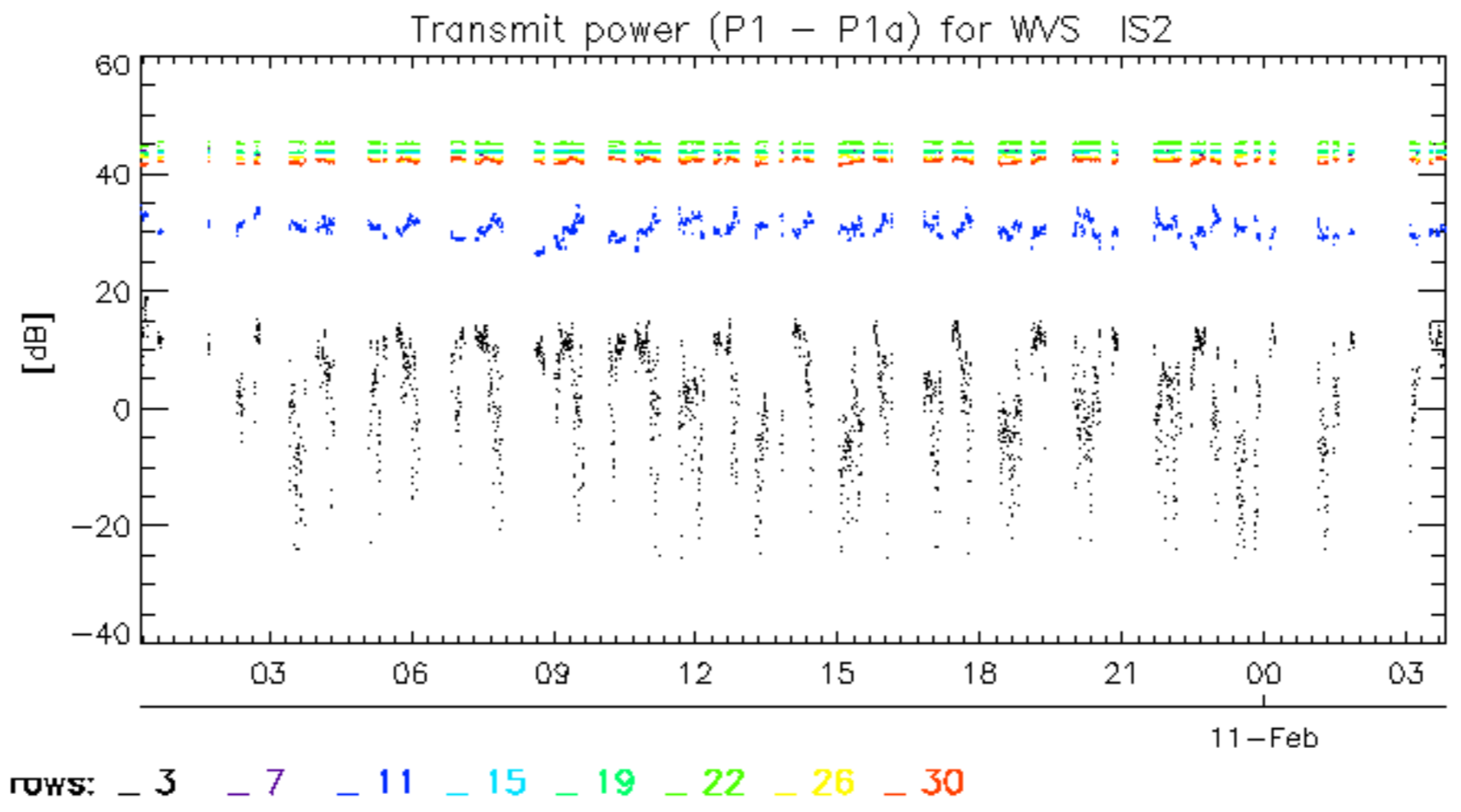
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.