

PRELIMINARY REPORT OF 050510

last update on Tue May 10 10:50:01 GMT 2005

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2005-05-09 00:00:00 to 2005-05-10 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	14	3	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	14	3	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	14	3	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	14	3	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	20	11	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	20	11	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	20	11	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	20	11	0

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	20050506 055519
H	20050505 062656

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

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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	-3.347556	0.006905	-0.009738
7	P1	-3.111823	0.013206	0.001800
11	P1	-4.661411	0.027228	0.026352
15	P1	-5.559323	0.044901	0.094196
19	P1	-3.717550	0.004111	-0.030017
22	P1	-4.583045	0.013017	-0.048775
26	P1	-4.886795	0.019494	0.039491
30	P1	-7.147034	0.028324	0.039016
3	P1	-15.736925	0.082507	0.147341
7	P1	-15.509117	0.093075	0.036633
11	P1	-21.243055	0.236748	-0.176734
15	P1	-11.449159	0.033472	0.121651
19	P1	-14.330135	0.033078	-0.056678
22	P1	-15.908520	0.335978	-0.198591
26	P1	-17.629318	0.192099	-0.043739
30	P1	-17.871799	0.273465	-0.008723

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.051029	0.081818	-0.034878
7	P2	-22.229086	0.102989	-0.035118
11	P2	-14.152676	0.105662	0.161252
15	P2	-7.089713	0.090966	-0.072576
19	P2	-9.650882	0.093720	0.001703
22	P2	-16.885855	0.094955	-0.023831
26	P2	-16.480516	0.095034	-0.052855
30	P2	-18.823669	0.082920	0.010990

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.167917	0.003845	-0.008636

7	P3	-8.167917	0.003845	-0.008636
11	P3	-8.167917	0.003845	-0.008641
15	P3	-8.167917	0.003845	-0.008641
19	P3	-8.167917	0.003845	-0.008641
22	P3	-8.167917	0.003845	-0.008641
26	P3	-8.167917	0.003845	-0.008641
30	P3	-8.167917	0.003845	-0.008638

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	-2.764968	0.011931	-0.044804
7	P1	-2.995246	0.030667	0.039042
11	P1	-3.970521	0.017795	0.043252
15	P1	-3.532422	0.023178	0.030313
19	P1	-3.625651	0.014659	-0.019616
22	P1	-5.665850	0.049196	0.046830
26	P1	-7.313384	0.024174	-0.005164
30	P1	-6.282185	0.059561	0.037466
3	P1	-10.770745	0.044689	-0.109518
7	P1	-10.402159	0.152896	-0.061576
11	P1	-12.554644	0.102728	0.037530
15	P1	-11.654337	0.069916	0.100710
19	P1	-15.618317	0.062409	-0.021980
22	P1	-25.295307	2.117794	-1.008342
26	P1	-15.653834	0.313367	-0.099344
30	P1	-20.189734	1.217549	-0.247402

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.768223	0.037625	-0.063766
7	P2	-22.275663	0.046591	0.080336
11	P2	-10.052988	0.055465	0.109022
15	P2	-5.072963	0.037800	-0.075233
19	P2	-6.897214	0.052413	-0.042059
22	P2	-7.103126	0.035909	-0.025144
26	P2	-23.909800	0.037068	-0.052874
30	P2	-21.936604	0.040451	-0.045886

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.005296	0.003538	0.004054
7	P3	-8.005322	0.003526	0.004317
11	P3	-8.005255	0.003537	0.004105
15	P3	-8.005357	0.003537	0.004171
19	P3	-8.005421	0.003538	0.004595
22	P3	-8.005296	0.003520	0.004020
26	P3	-8.005282	0.003531	0.004300
30	P3	-8.005302	0.003547	0.003921

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	0.000465538
	stdev	2.22362e-07
MEAN Q	mean	0.000484713
	stdev	2.38319e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127801
	stdev	0.00105233
STDEV Q	mean	0.128054
	stdev	0.00106322



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005050[890]

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
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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)	
<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

7.4 - Unbiased Doppler Error for GM1

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

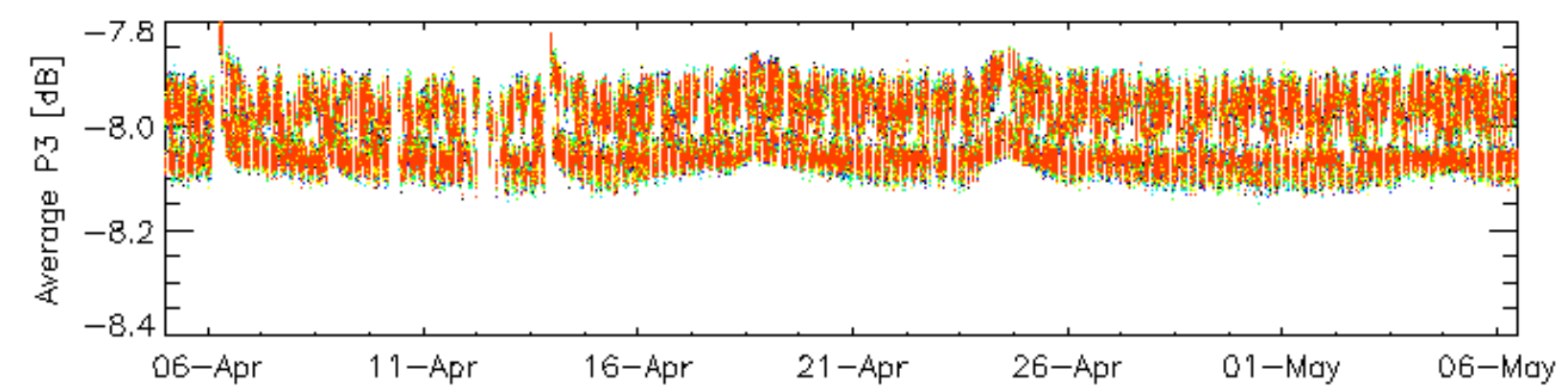
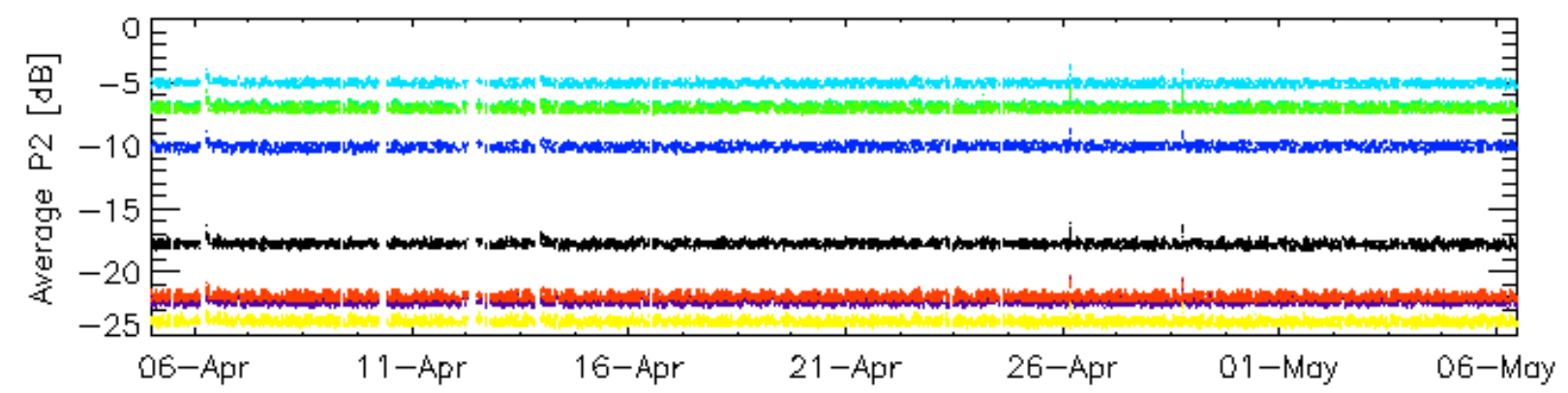
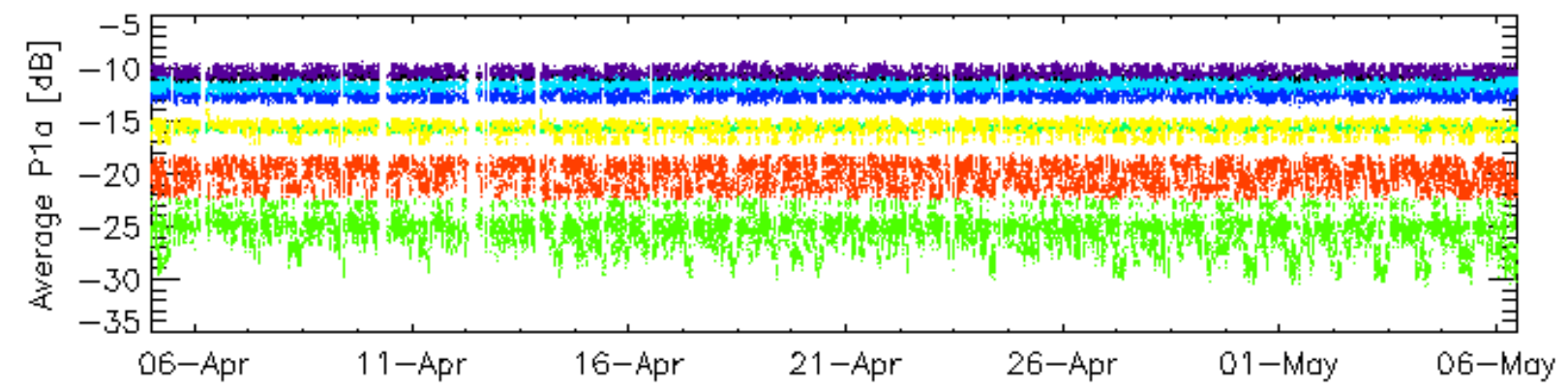
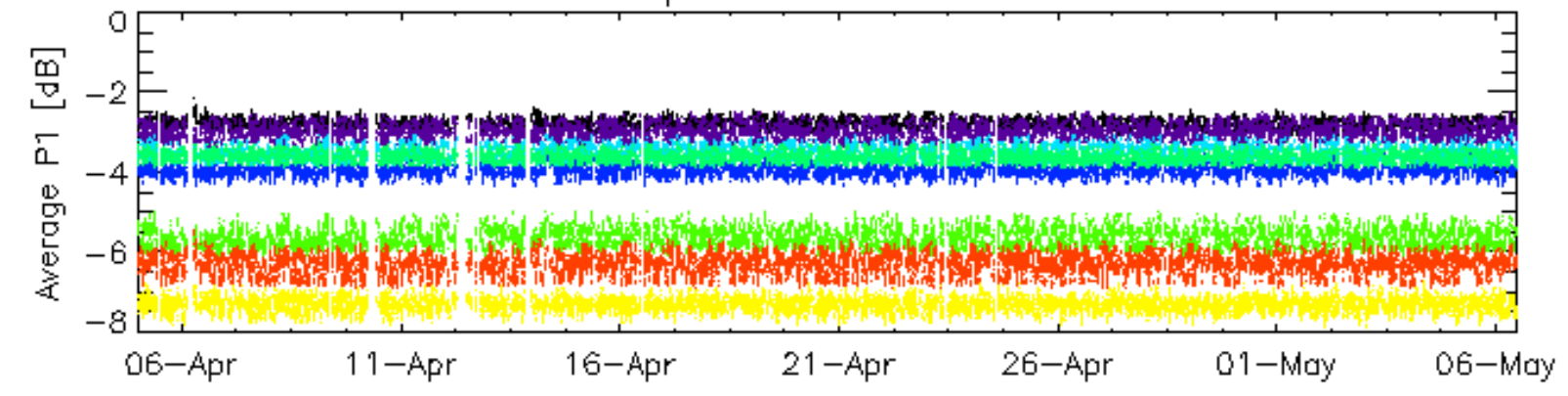
7.5 - Absolute Doppler for GM1

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

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

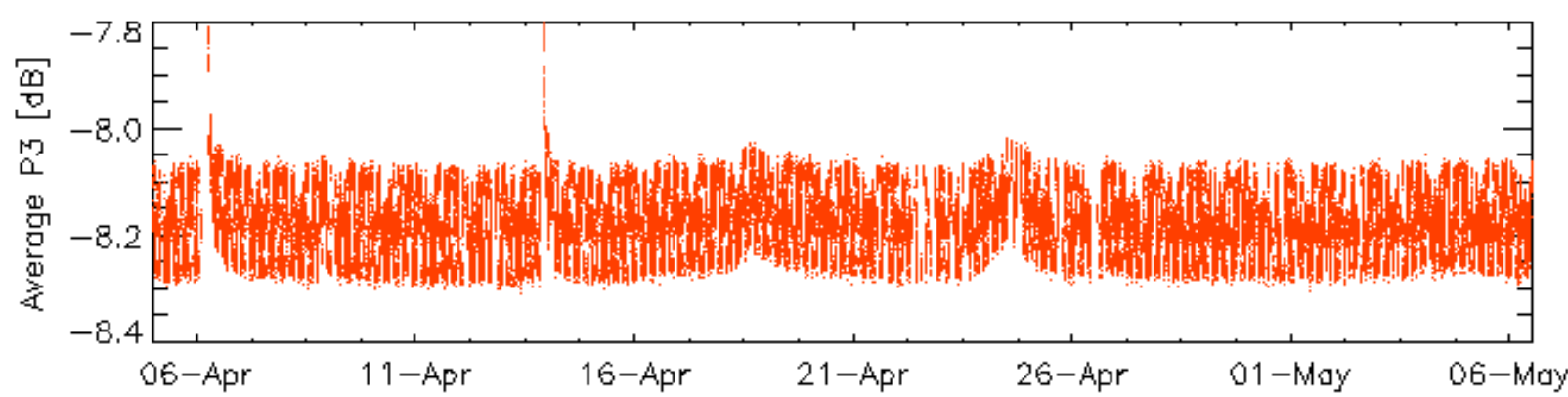
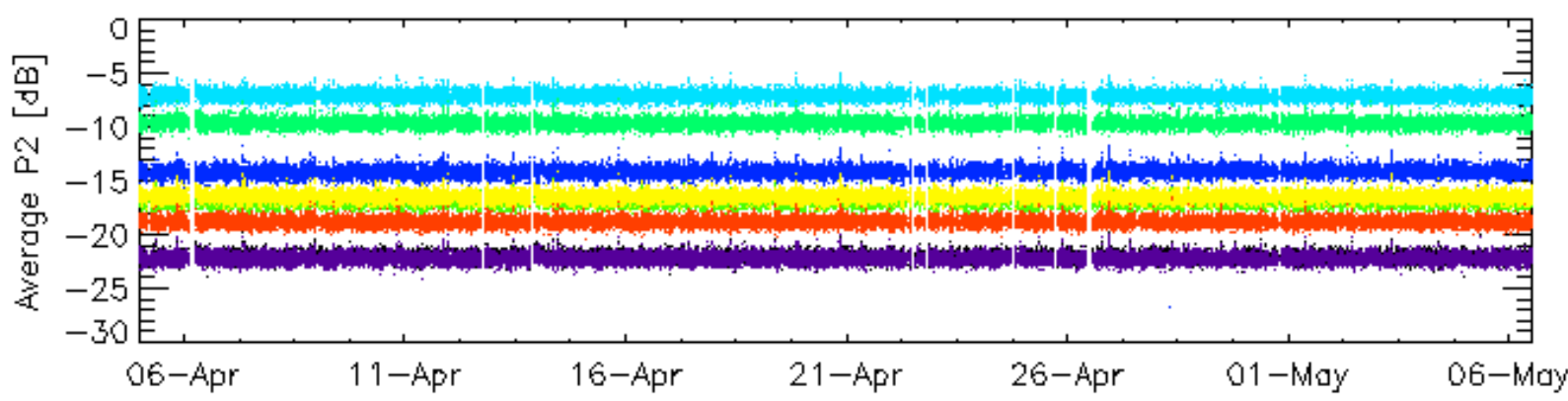
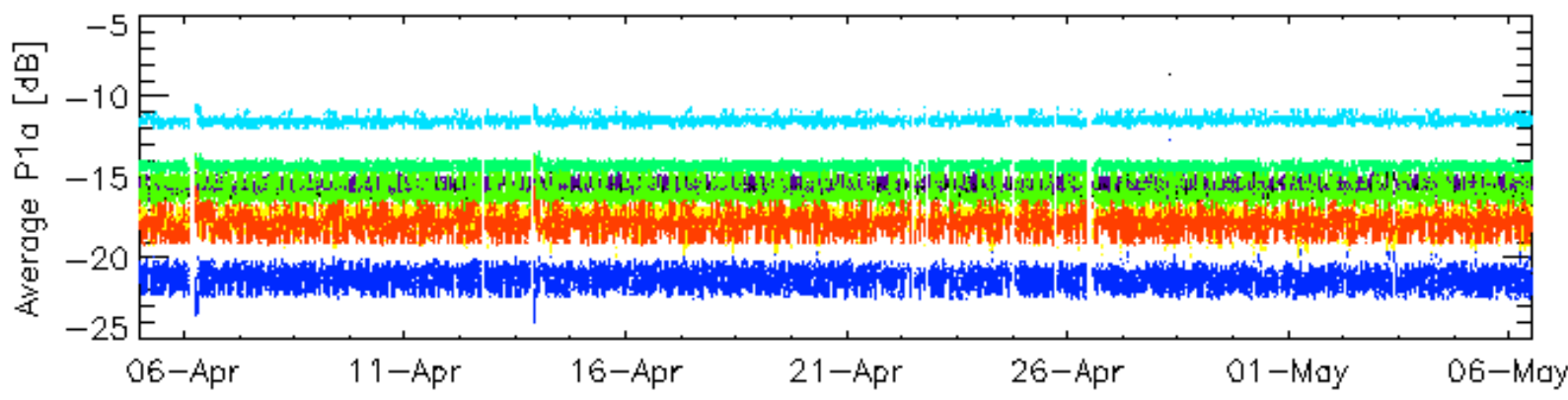
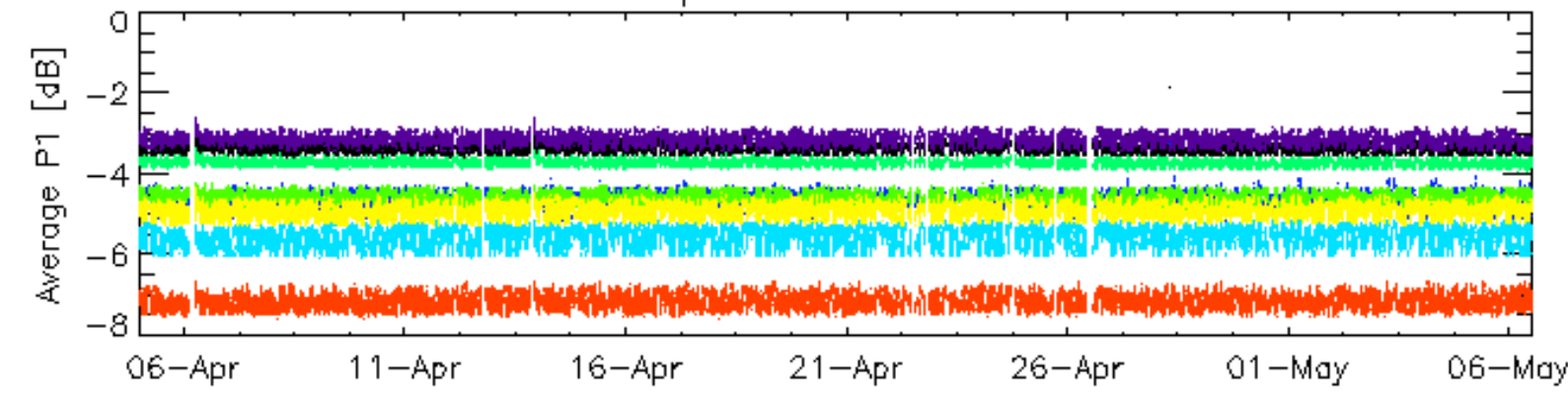
7.6 - Doppler evolution versus ANX for GM1

Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2

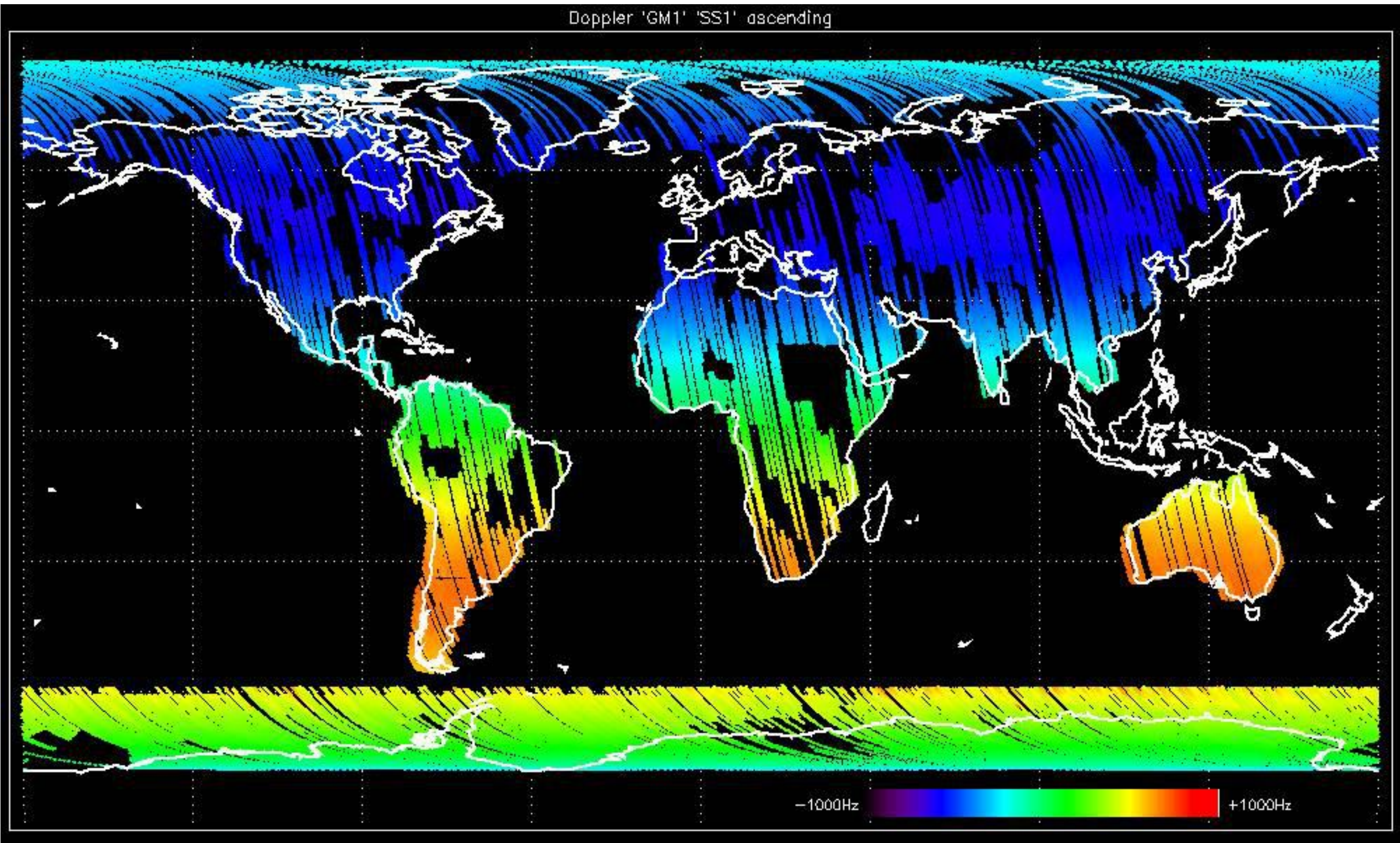


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

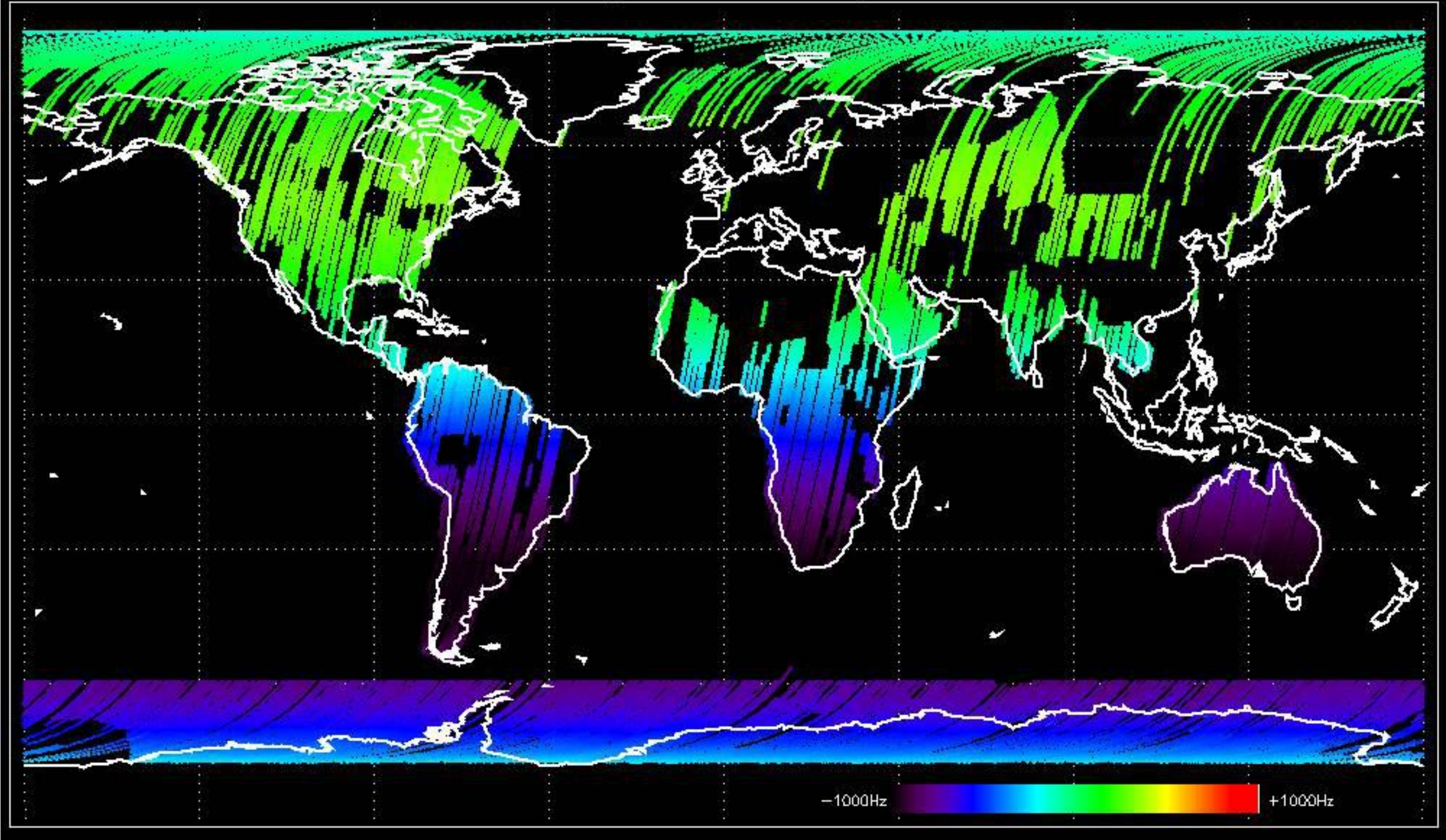
No anomalies observed.

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

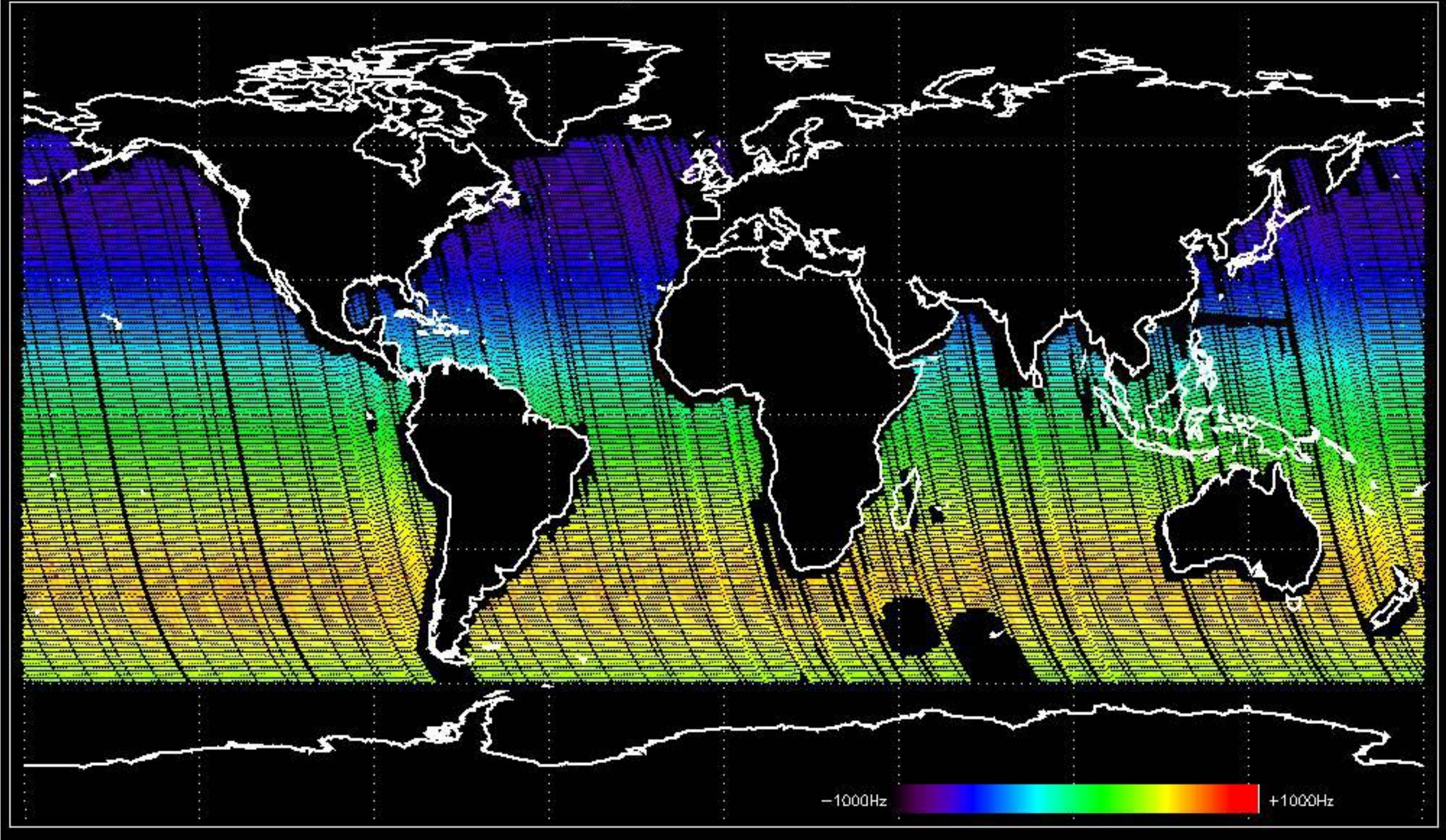
Doppler 'GM1' 'SS1' ascending



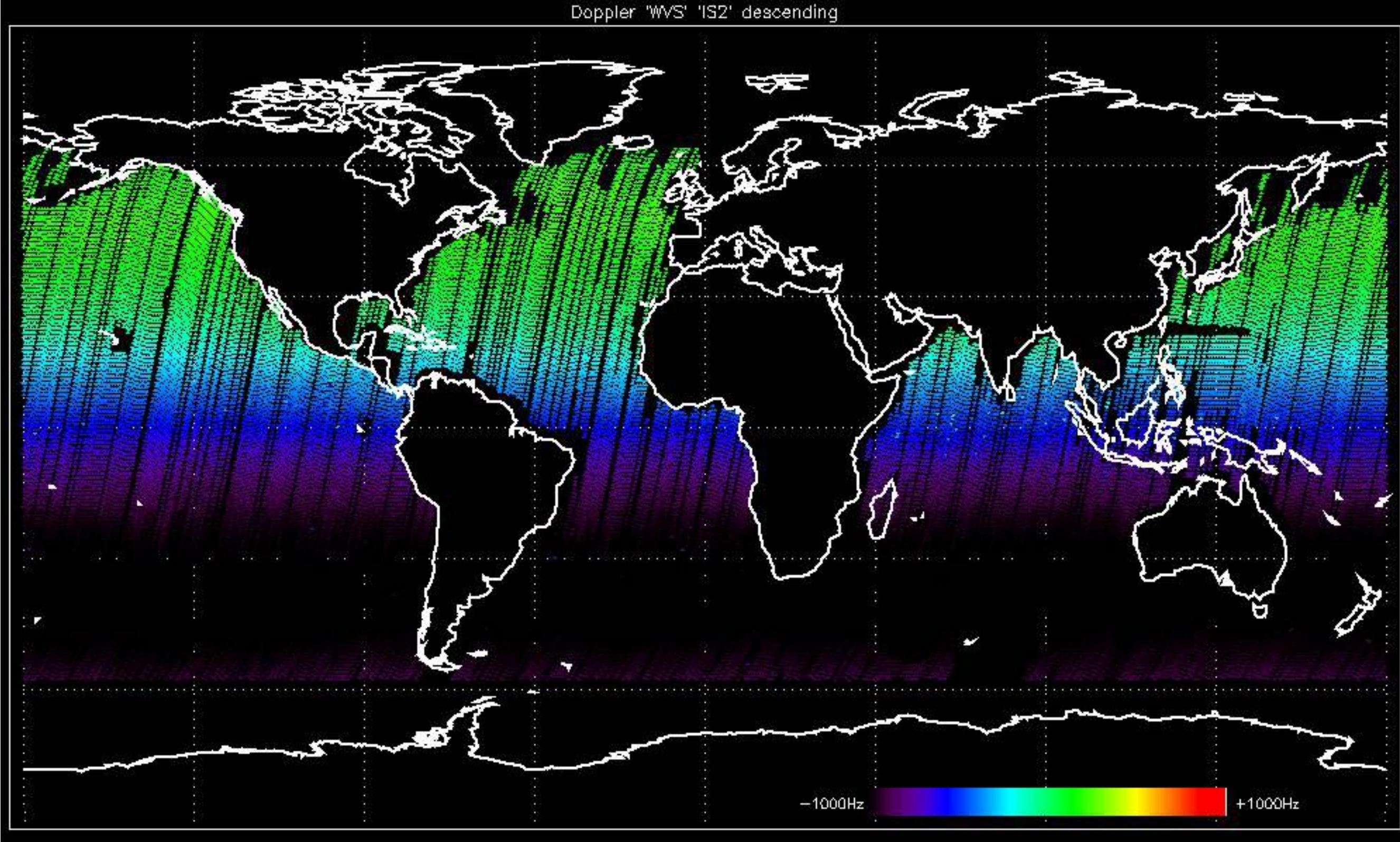
Doppler 'GM1' 'SS1' descending



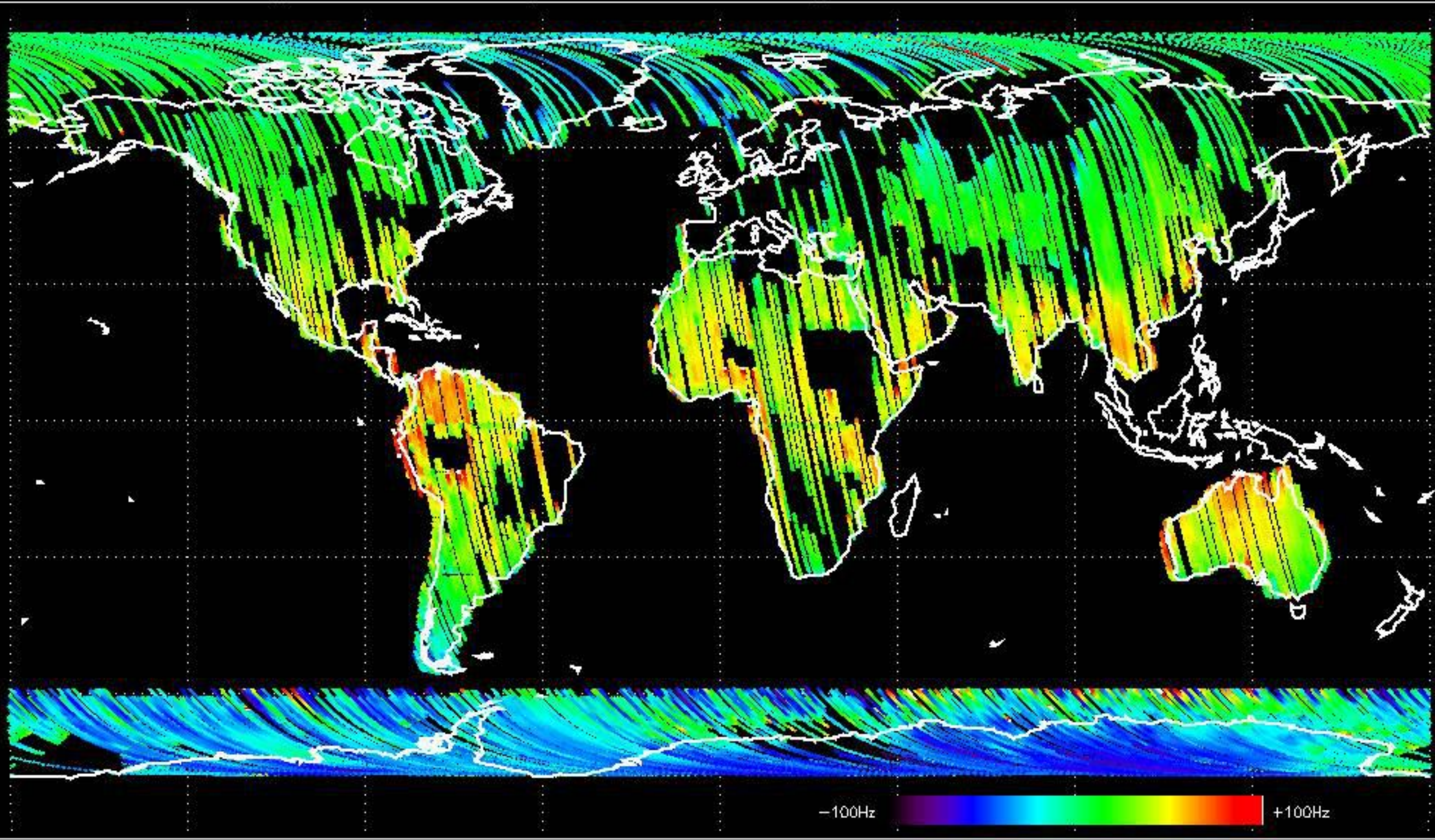
Doppler 'WVS' 'IS2' ascending



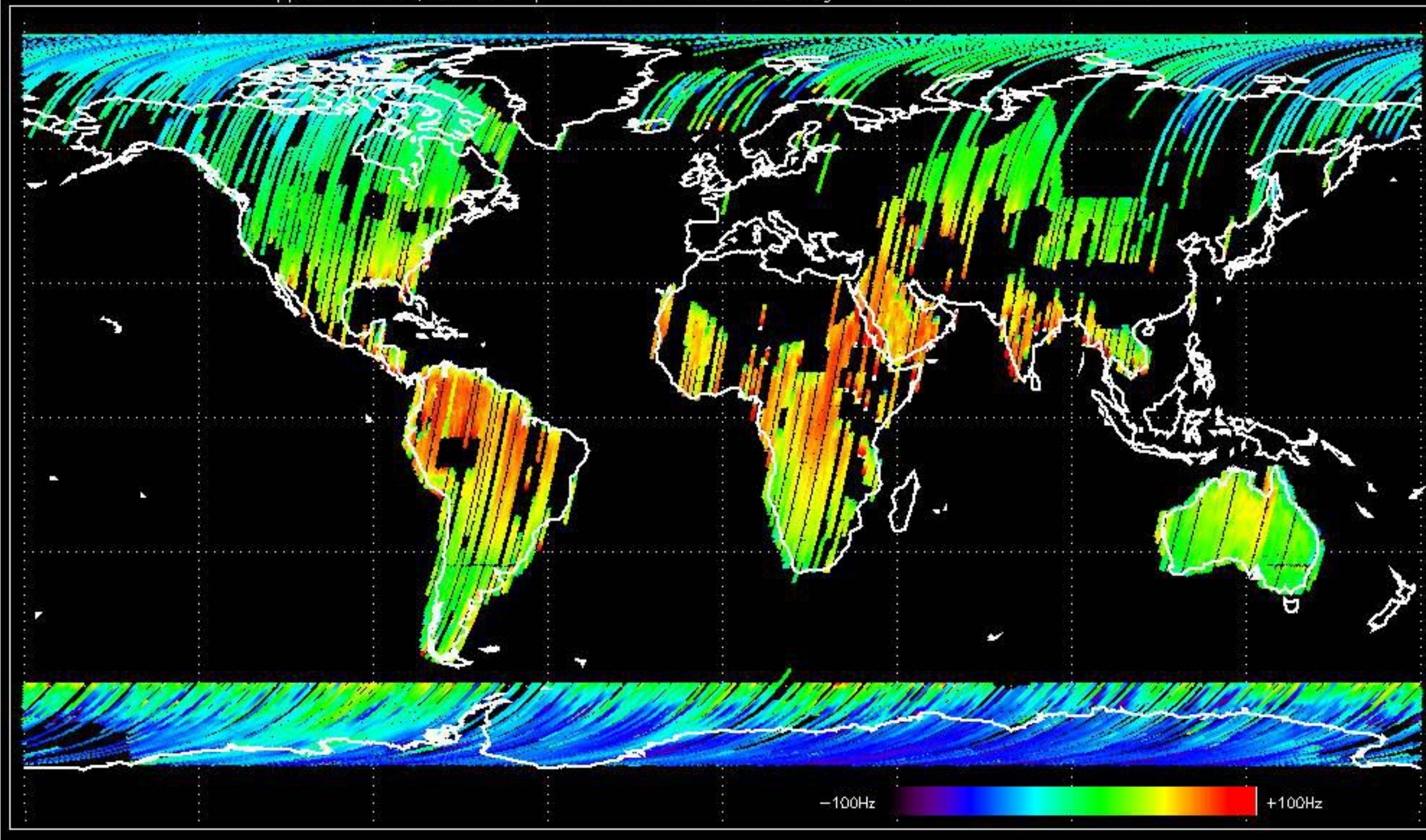
Doppler 'WVS' 'IS2' descending



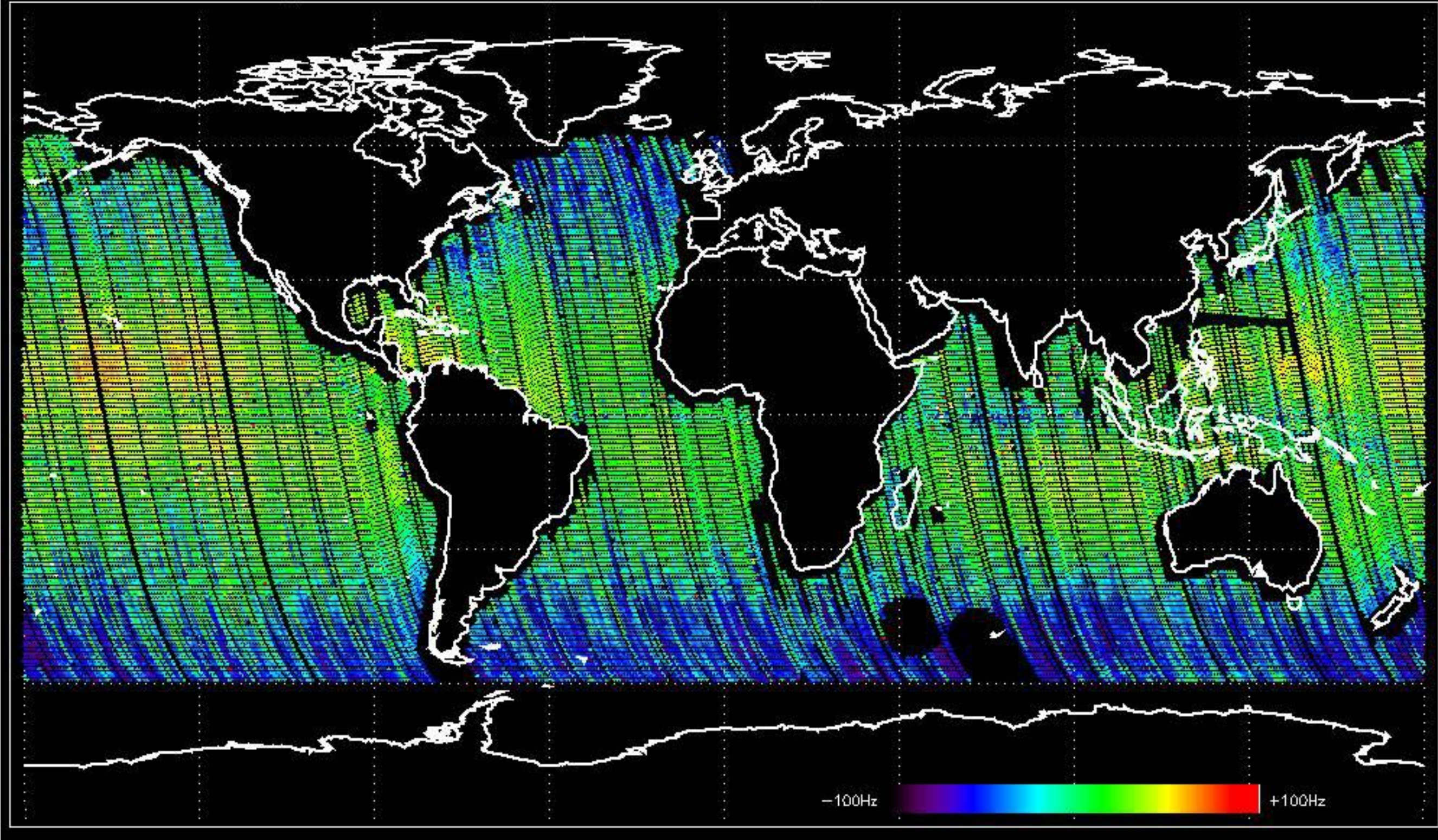
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -40.723215 Hz



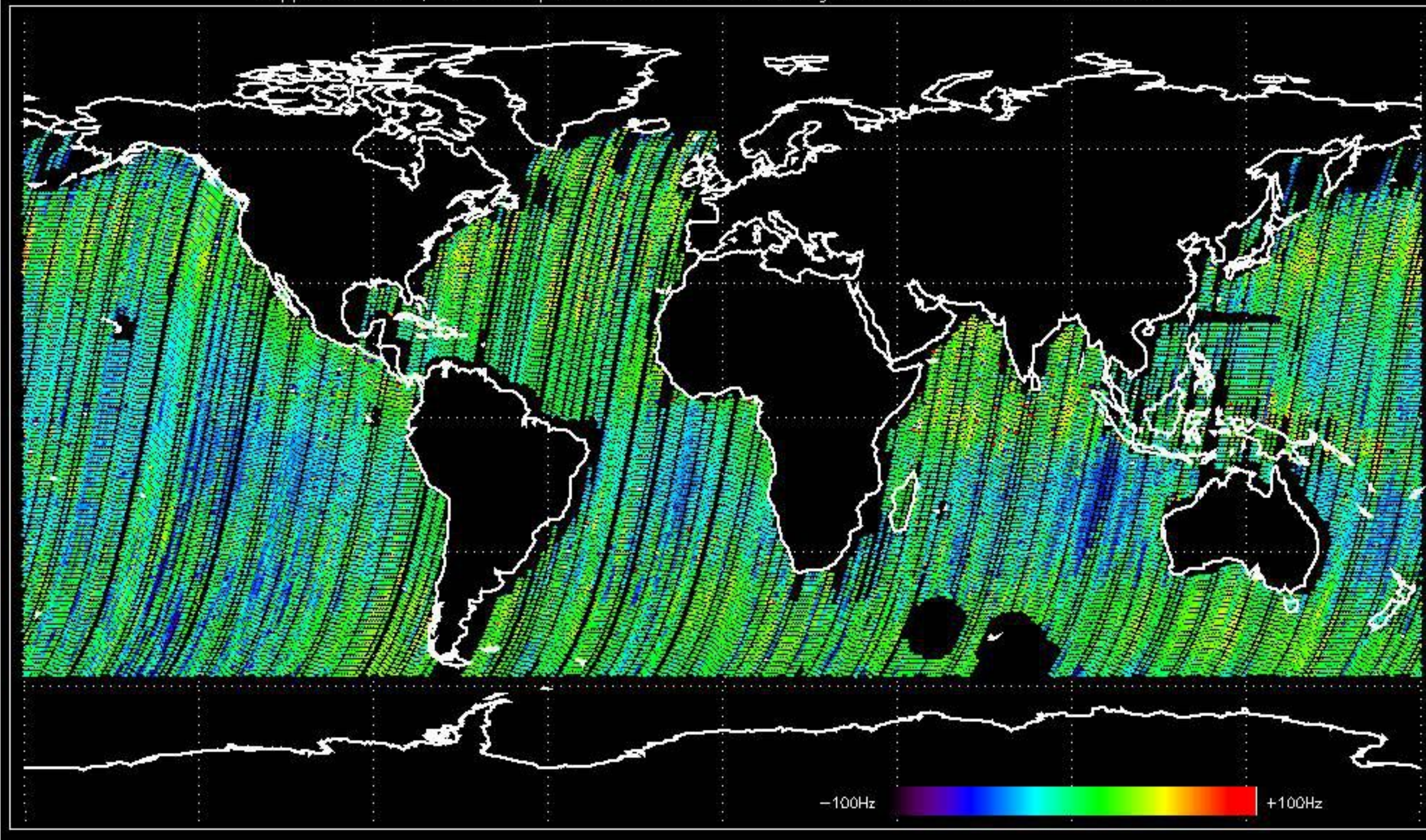
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -32.080307 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.653849 Hz

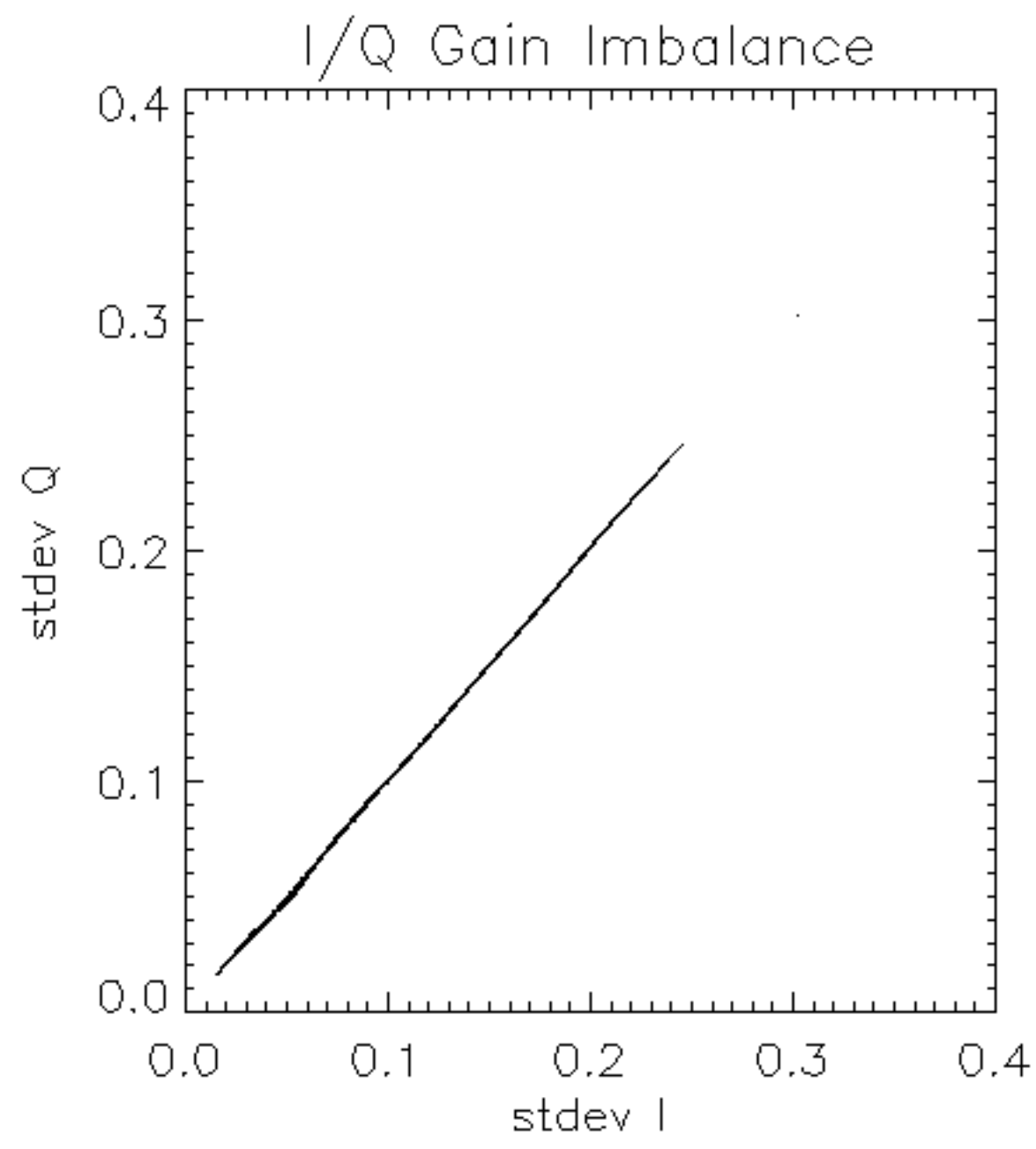


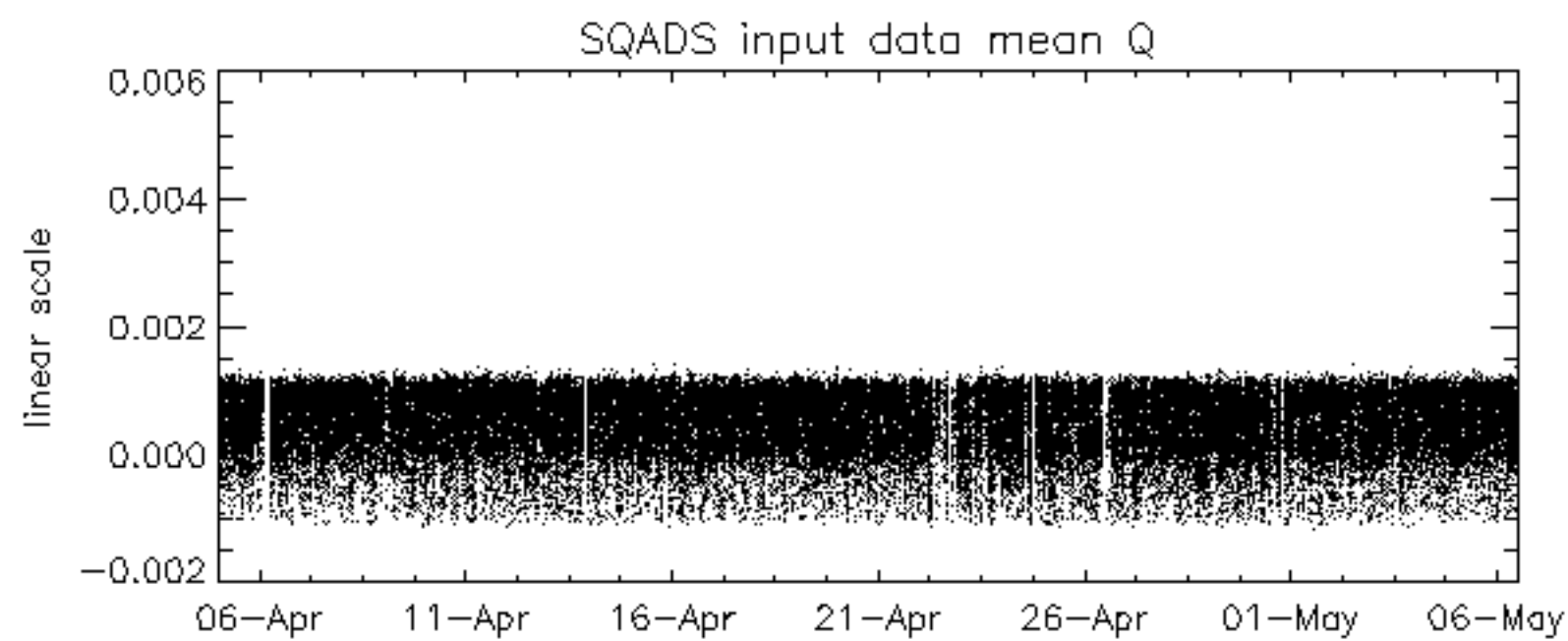
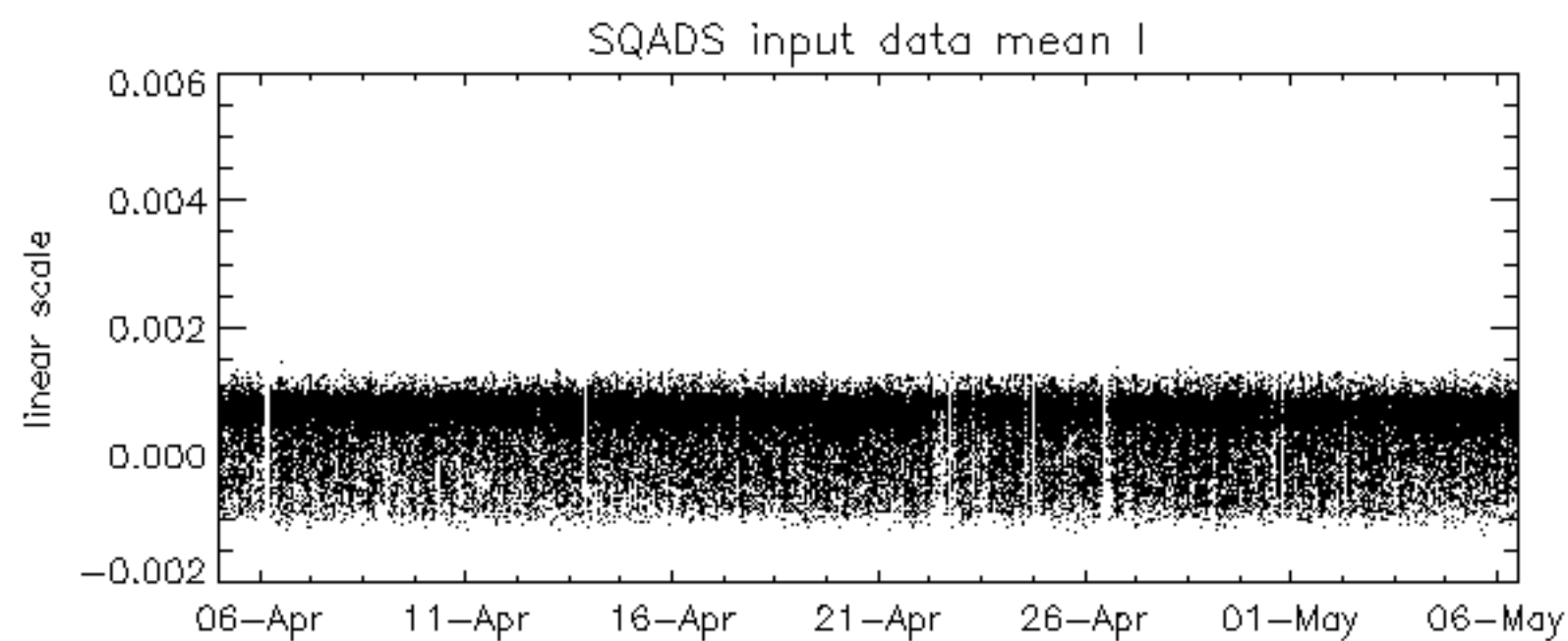
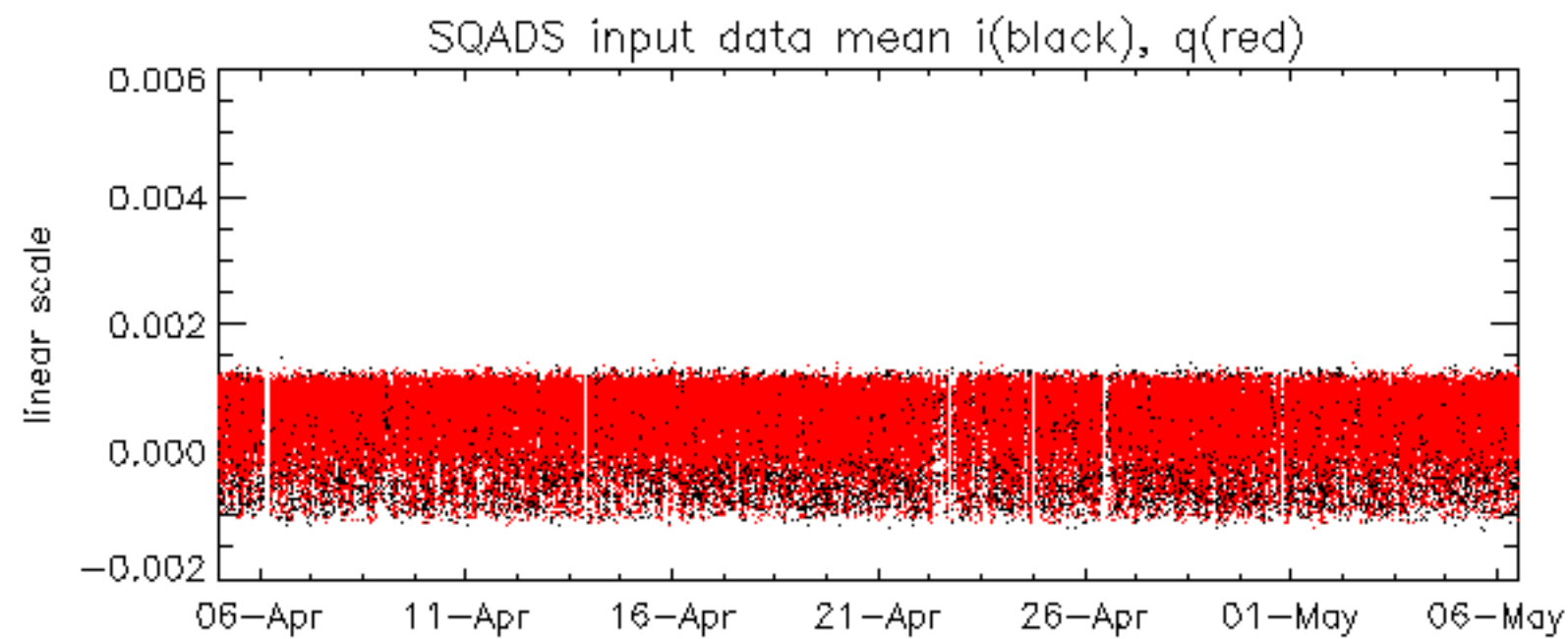
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.663311 Hz

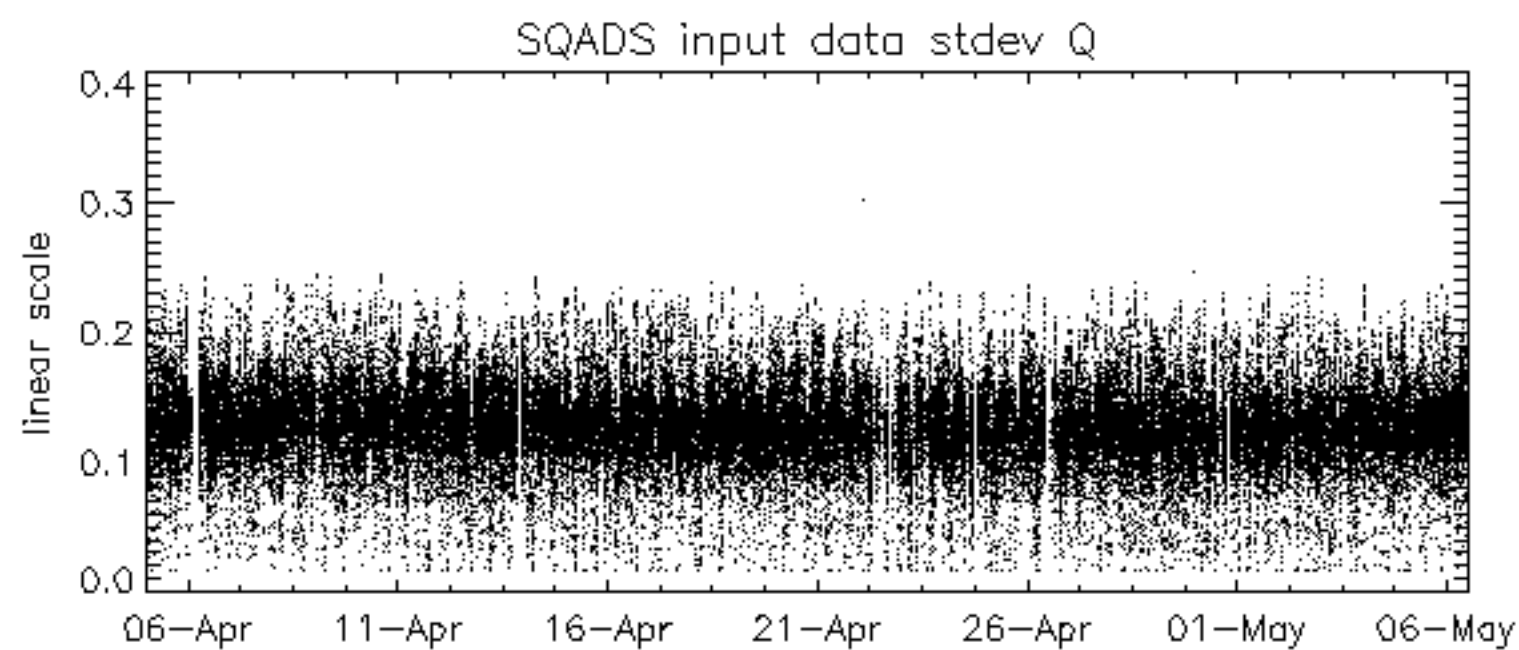
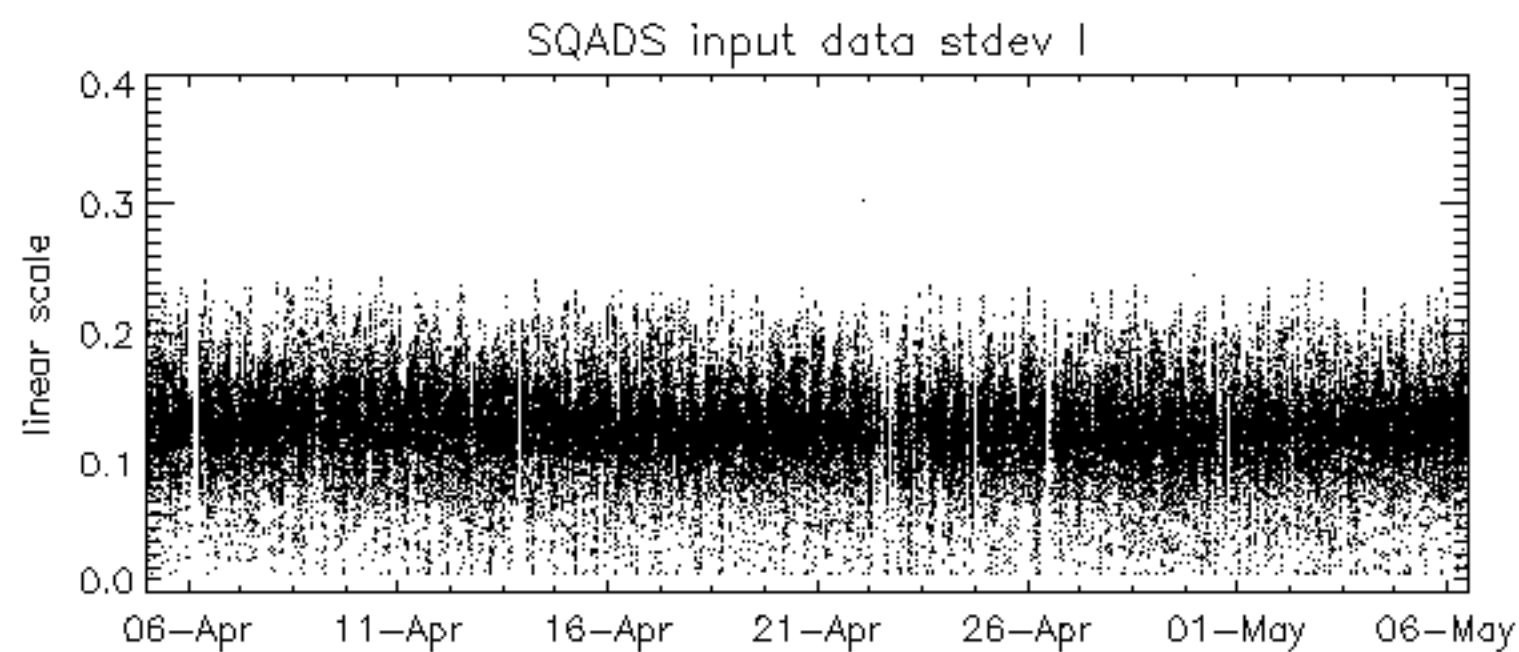
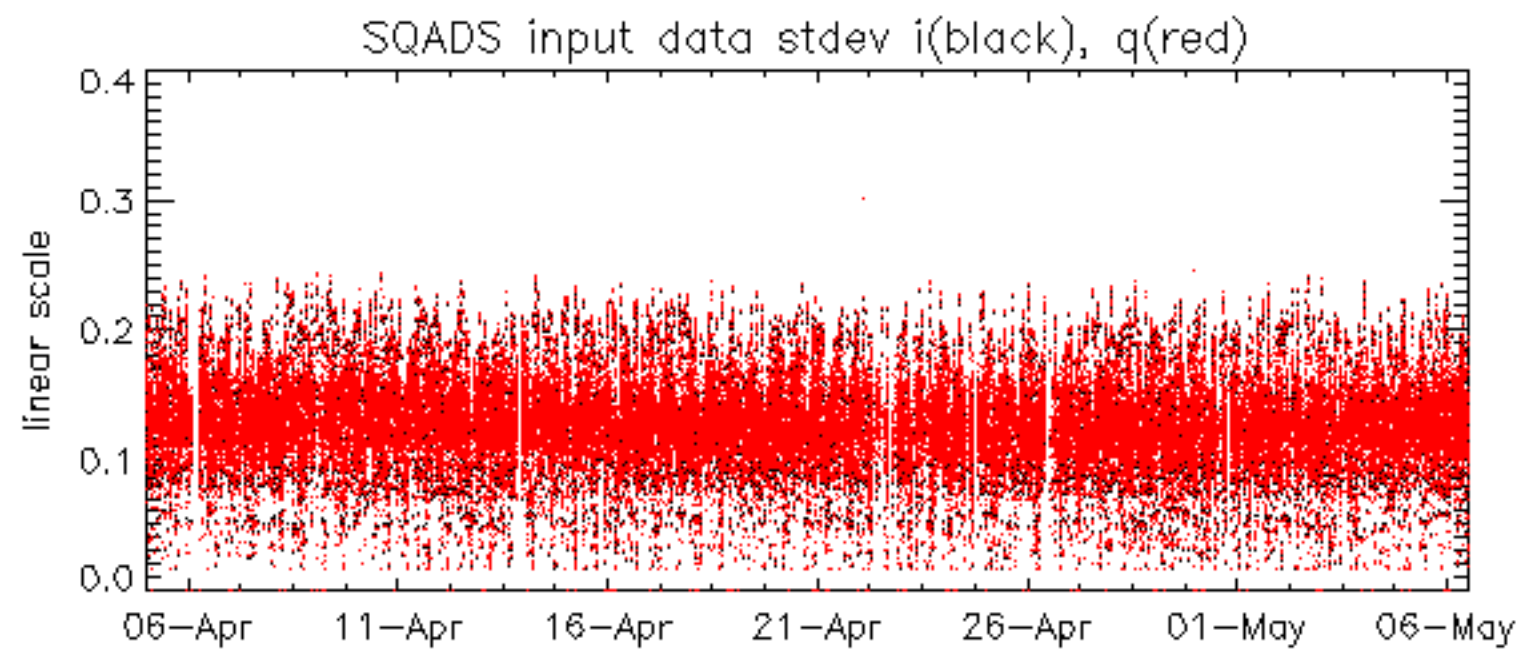


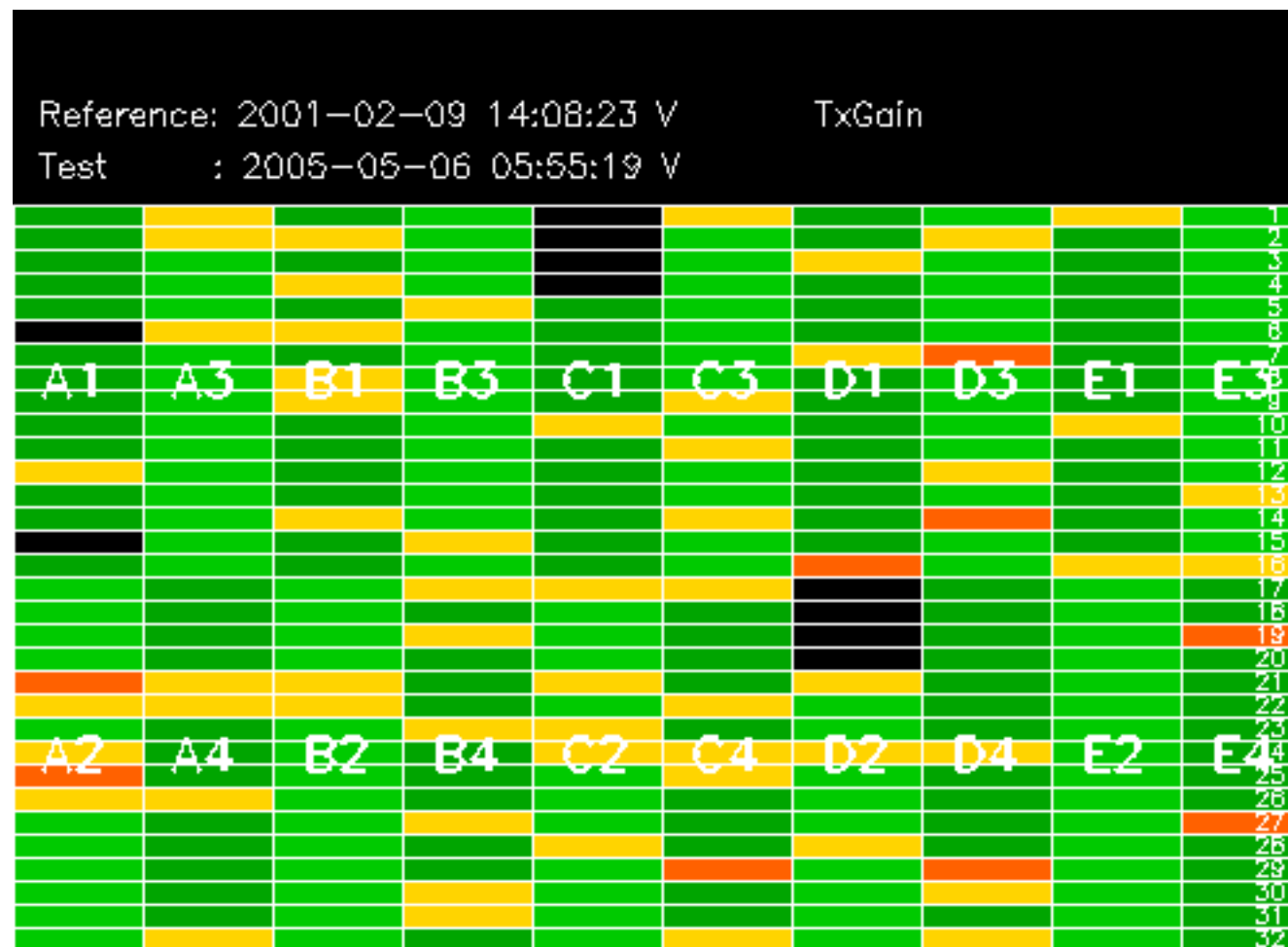
No anomalies observed on available MS products:

No anomalies observed.





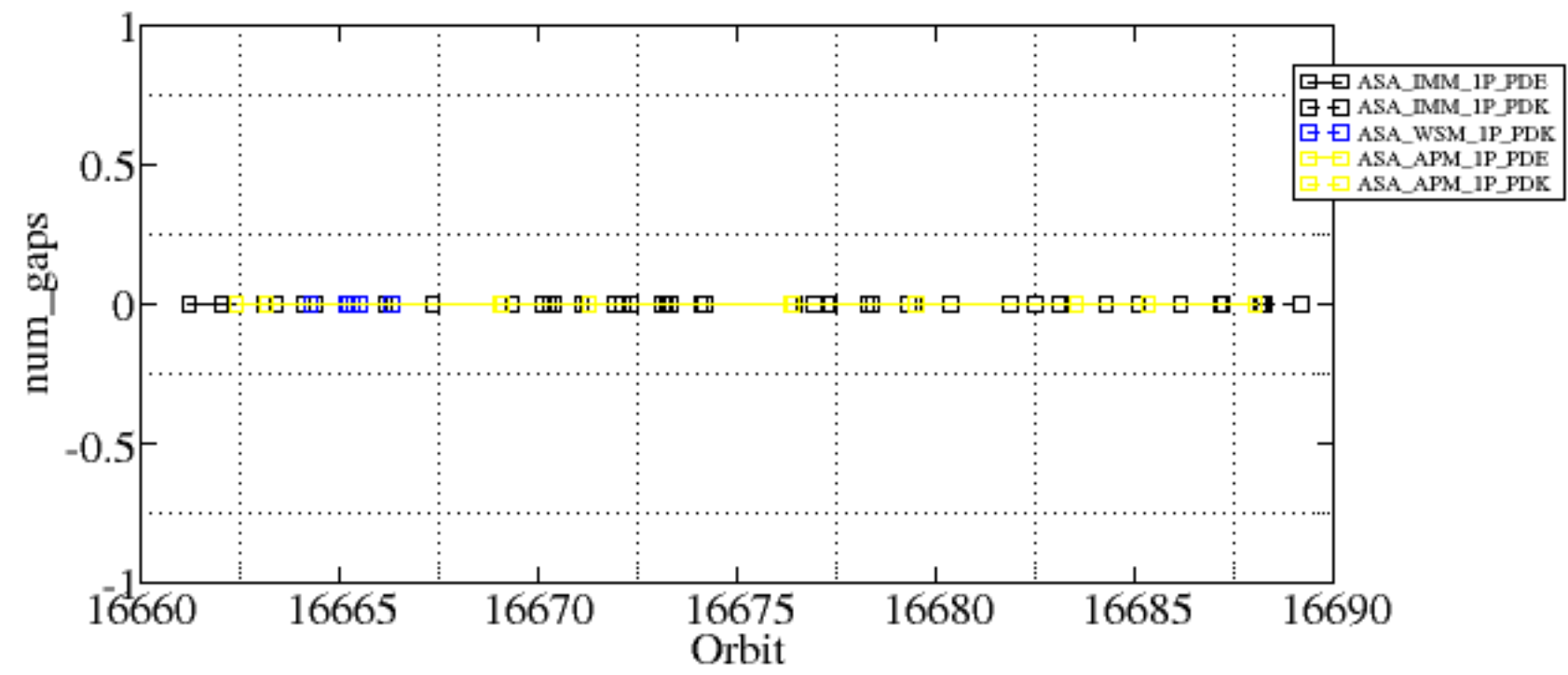


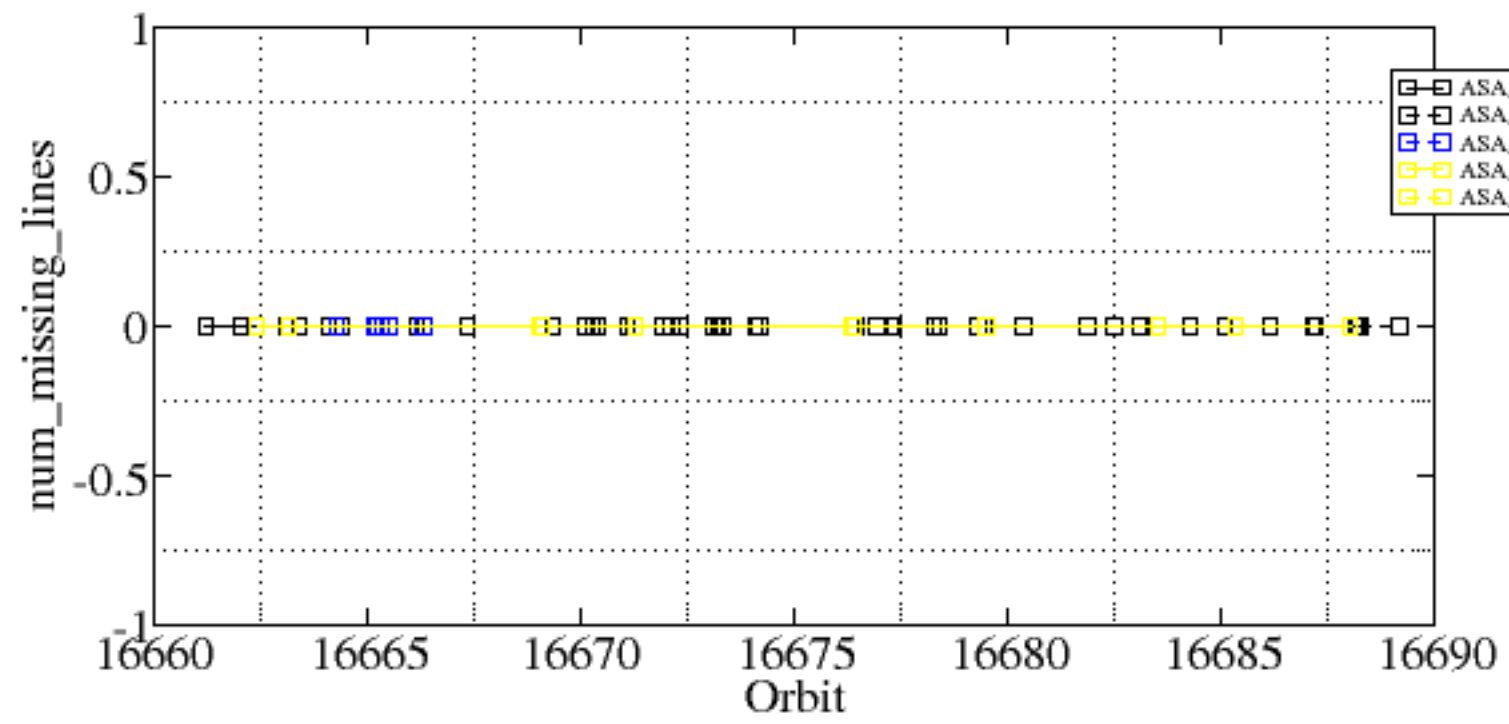


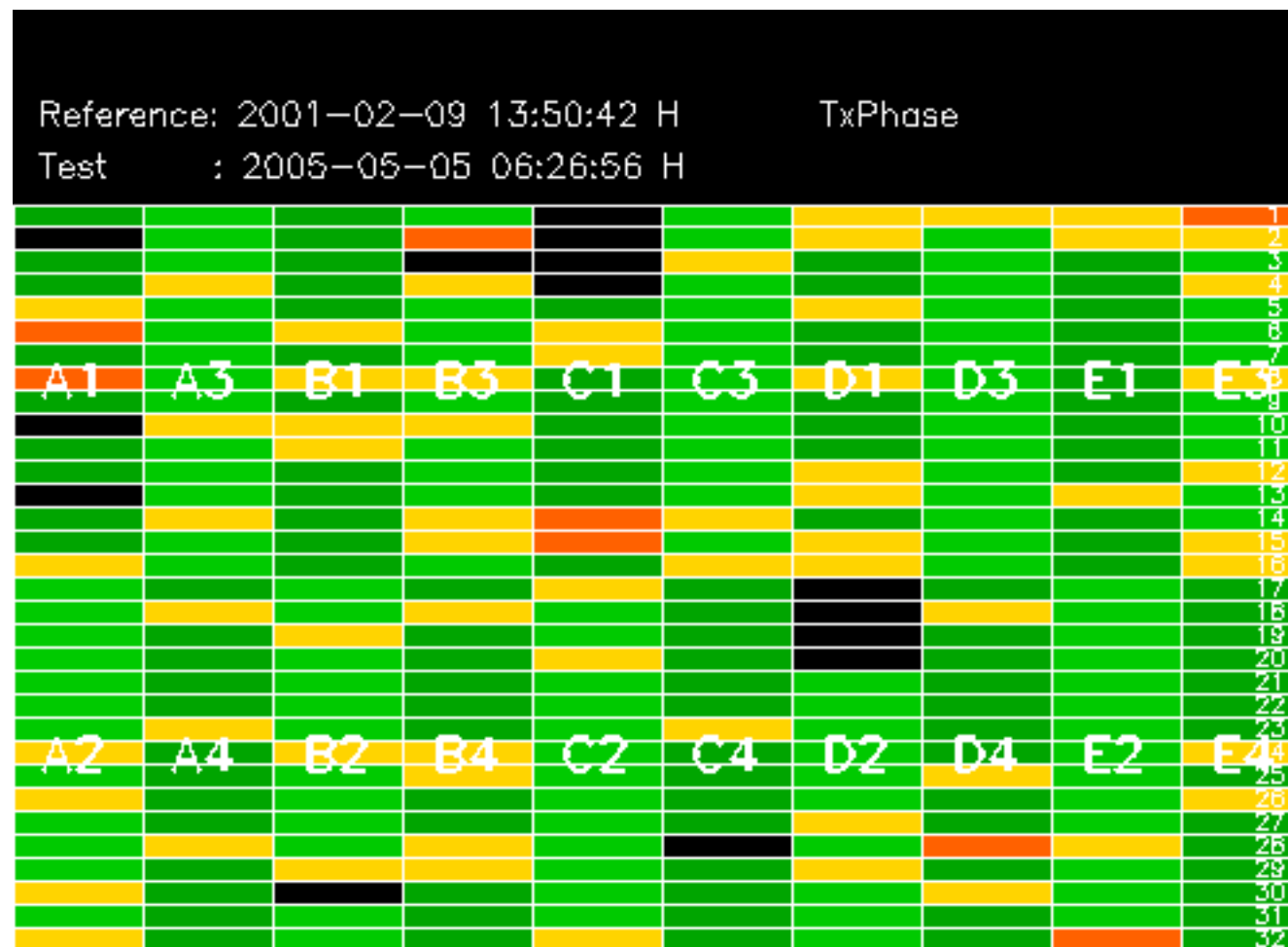
Summary of analysis for the last 3 days 2005050[890]

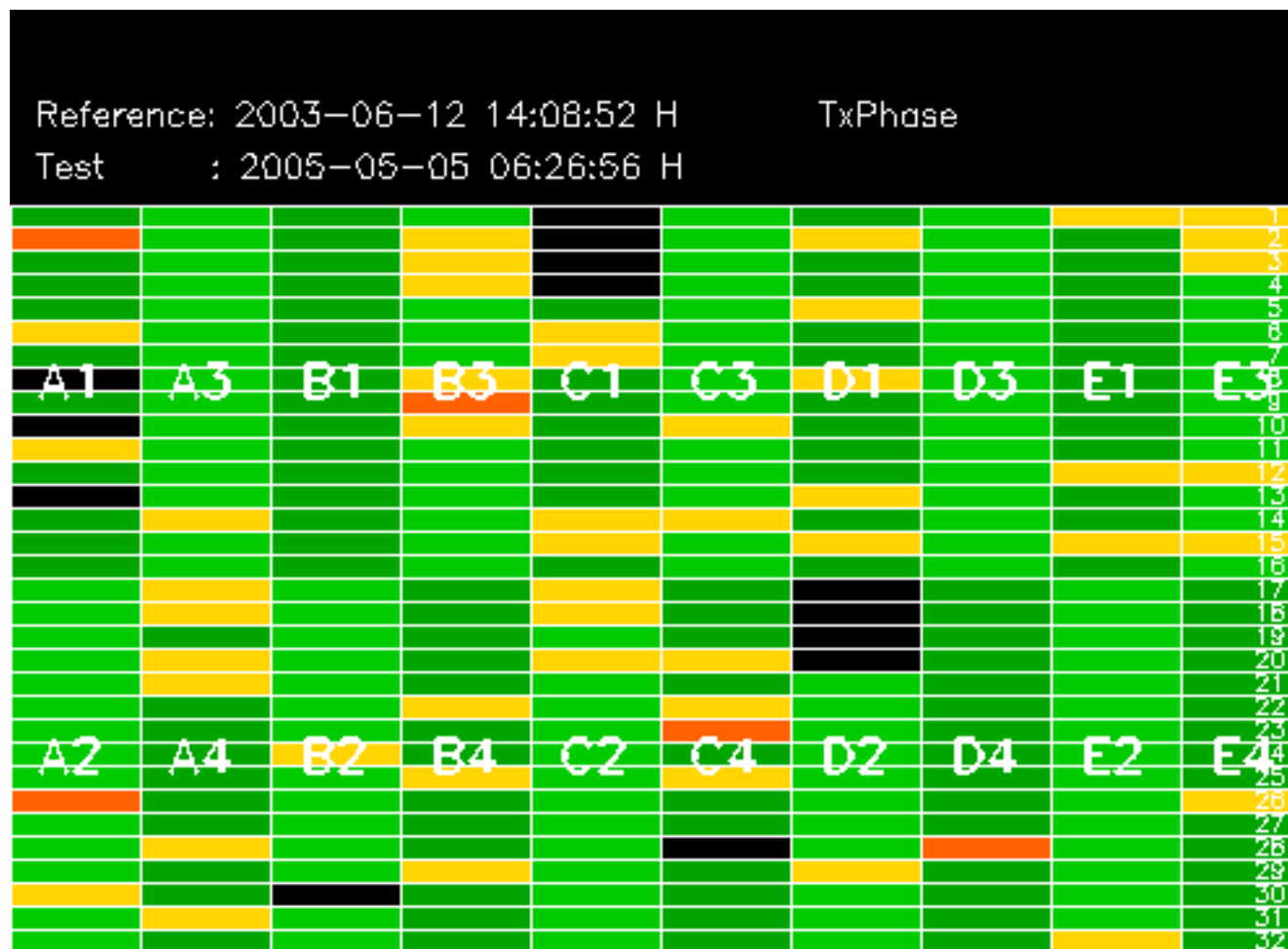
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

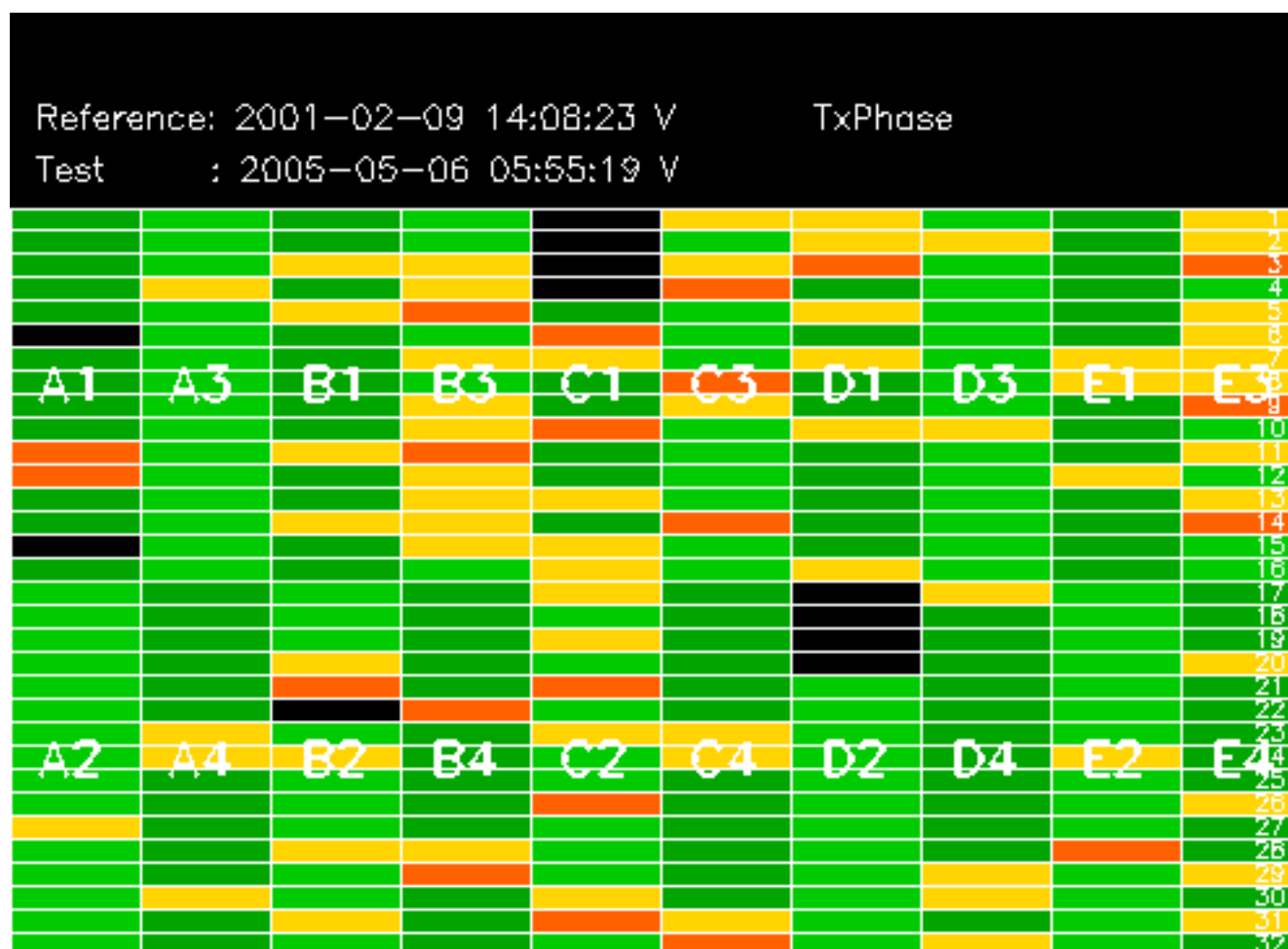
Filename	num_gaps	num_missing_lines
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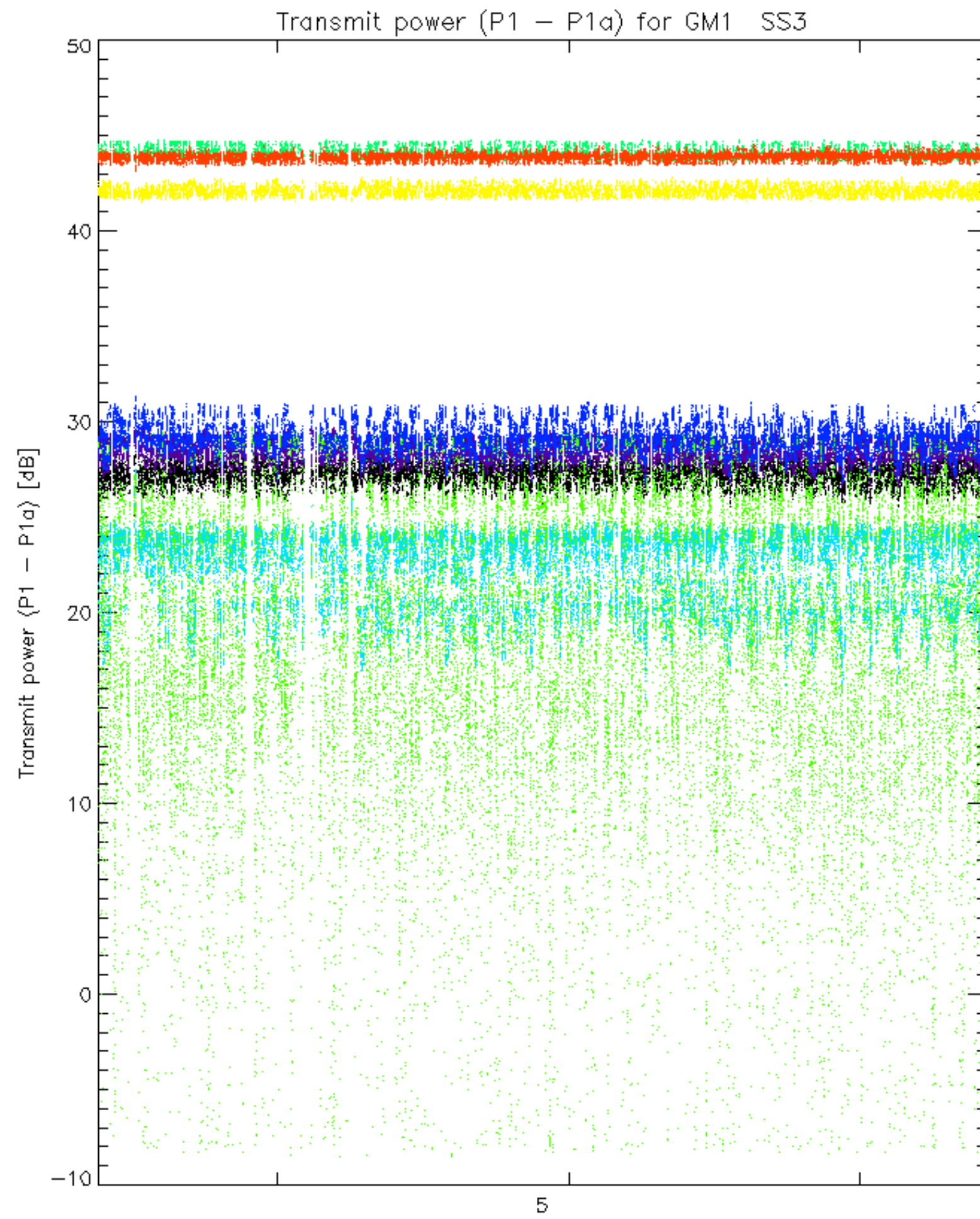




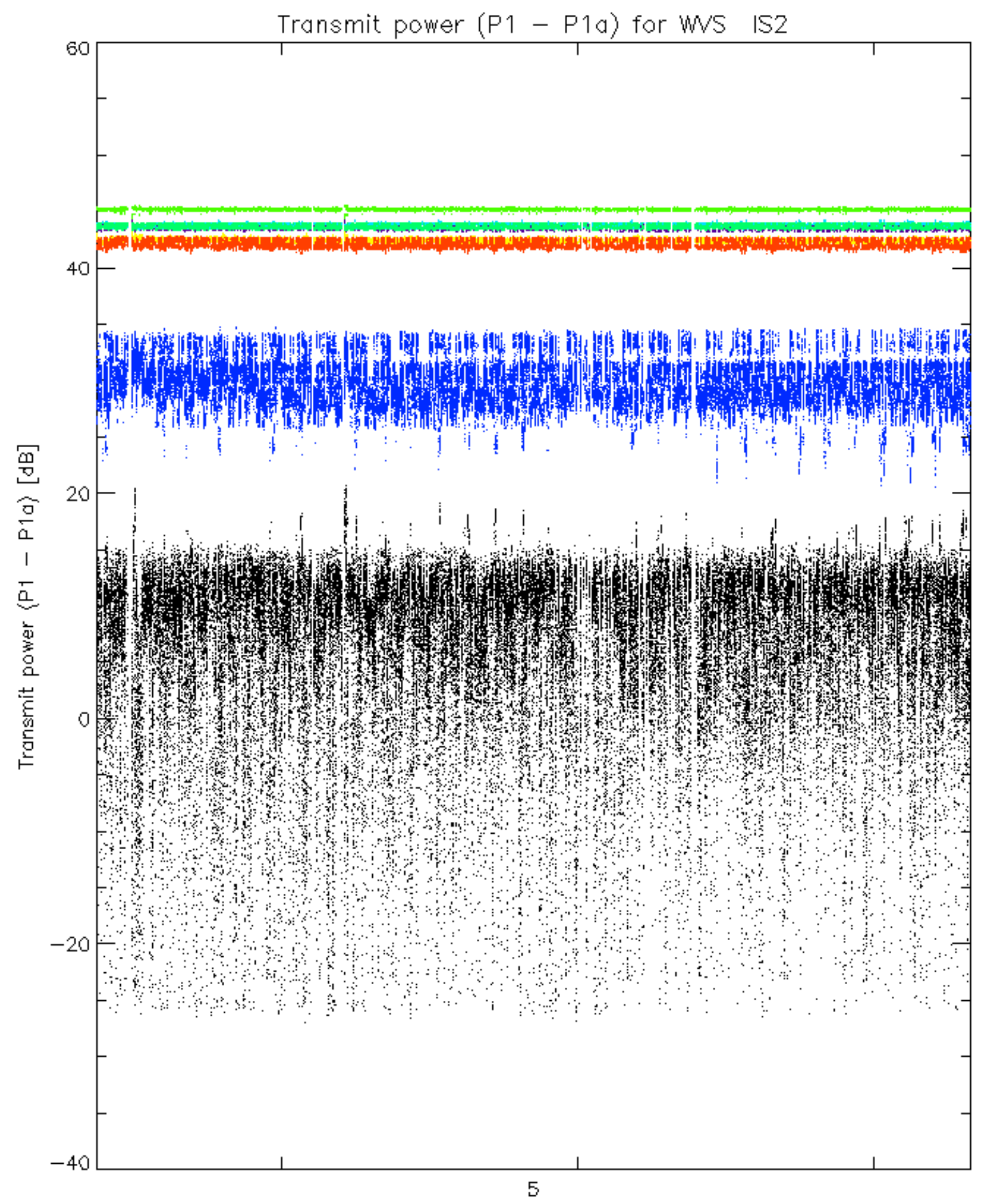








rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.