

PRELIMINARY REPORT OF 050512

last update on Thu May 12 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 2005-05-11 00:00:00 to 2005-05-12 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	10	2	5
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	10	2	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	10	2	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	10	2	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	0	0	22	6	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	0	0	22	6	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	0	0	22	6	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	0	0	22	6	0

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	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

<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	-3.348039	0.006863	-0.008395
7	P1	-3.111984	0.013288	0.003248
11	P1	-4.660110	0.027531	0.022110
15	P1	-5.554982	0.045444	0.081380
19	P1	-3.719292	0.003967	-0.023527
22	P1	-4.585479	0.012910	-0.041206
26	P1	-4.885529	0.019358	0.037851
30	P1	-7.144566	0.028687	0.028935
3	P1	-15.727245	0.082062	0.107096
7	P1	-15.507605	0.093871	0.033404
11	P1	-21.243158	0.231432	-0.211029
15	P1	-11.447215	0.032299	0.131567
19	P1	-14.332261	0.033109	-0.053073
22	P1	-15.921742	0.332447	-0.142596
26	P1	-17.629147	0.188657	-0.054595
30	P1	-17.870752	0.262870	-0.018396

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.053068	0.080929	-0.027172
7	P2	-22.232048	0.102206	-0.020914
11	P2	-14.149286	0.104434	0.168043
15	P2	-7.093204	0.089777	-0.062196
19	P2	-9.653333	0.092733	0.019312
22	P2	-16.887991	0.093661	-0.014177
26	P2	-16.483948	0.093857	-0.038894
30	P2	-18.824057	0.082396	0.016156

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.169136	0.003608	-0.002272

7	P3	-8.169136	0.003608	-0.002272
11	P3	-8.169133	0.003608	-0.002278
15	P3	-8.169133	0.003608	-0.002278
19	P3	-8.169133	0.003608	-0.002278
22	P3	-8.169133	0.003608	-0.002278
26	P3	-8.169133	0.003608	-0.002278
30	P3	-8.169135	0.003608	-0.002275

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

<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	-2.766930	0.011746	-0.039762
7	P1	-2.993555	0.030531	0.034799
11	P1	-3.969359	0.017879	0.044229
15	P1	-3.529346	0.023349	0.013503
19	P1	-3.627941	0.014699	-0.005875
22	P1	-5.661787	0.049669	0.026084
26	P1	-7.315175	0.023775	0.007697
30	P1	-6.282980	0.059762	0.052614
3	P1	-10.770220	0.044305	-0.138206
7	P1	-10.404317	0.152931	-0.058615
11	P1	-12.554726	0.103543	0.047066
15	P1	-11.646797	0.067515	0.064426
19	P1	-15.622682	0.063184	0.007638
22	P1	-25.329126	2.128143	-0.973577
26	P1	-15.666181	0.313782	-0.026570
30	P1	-20.196404	1.218795	-0.252814

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.771250	0.036649	-0.055367
7	P2	-22.275784	0.046582	0.099316
11	P2	-10.052411	0.054865	0.128095
15	P2	-5.078340	0.037162	-0.050146
19	P2	-6.901107	0.052064	-0.021304
22	P2	-7.106291	0.034738	-0.006397
26	P2	-23.912819	0.036861	-0.041494
30	P2	-21.939619	0.039803	-0.032332

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.006076	0.003439	0.011027
7	P3	-8.006120	0.003426	0.011406
11	P3	-8.006078	0.003435	0.011242
15	P3	-8.006175	0.003434	0.011340
19	P3	-8.006210	0.003434	0.011749
22	P3	-8.006072	0.003417	0.010930
26	P3	-8.006063	0.003433	0.011386
30	P3	-8.006098	0.003449	0.010983

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	0.000462795
	stdev	2.23485e-07
MEAN Q	mean	0.000482588
	stdev	2.39928e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127456
	stdev	0.00105409
STDEV Q	mean	0.127709
	stdev	0.00106479



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005051[012]

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_1PNPDK20050511_090620_000000542037_00122_16709_4142.N1	1	0



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

7.2 - Absolute Doppler for WVS

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

7.5 - Absolute Doppler for GM1

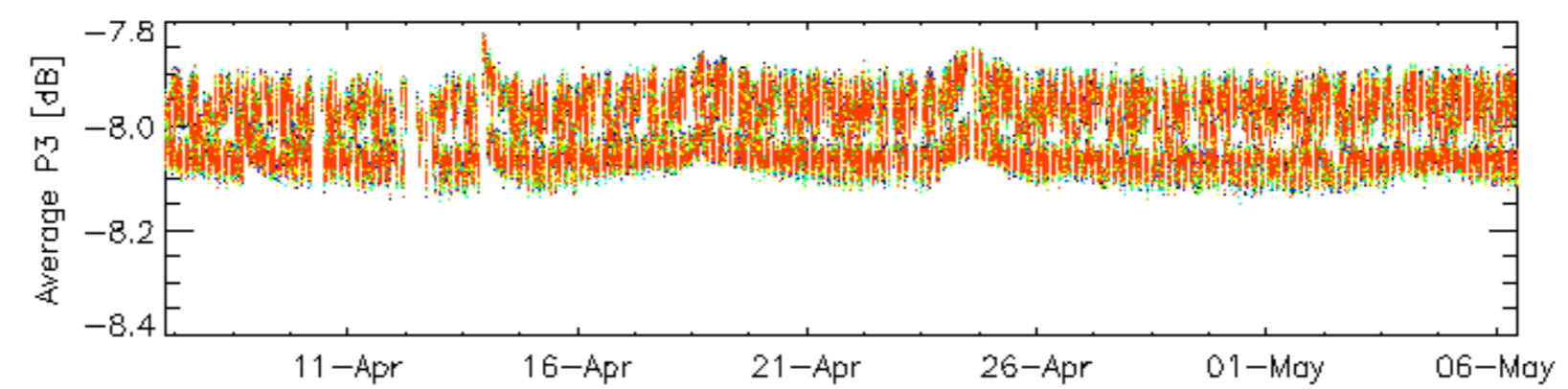
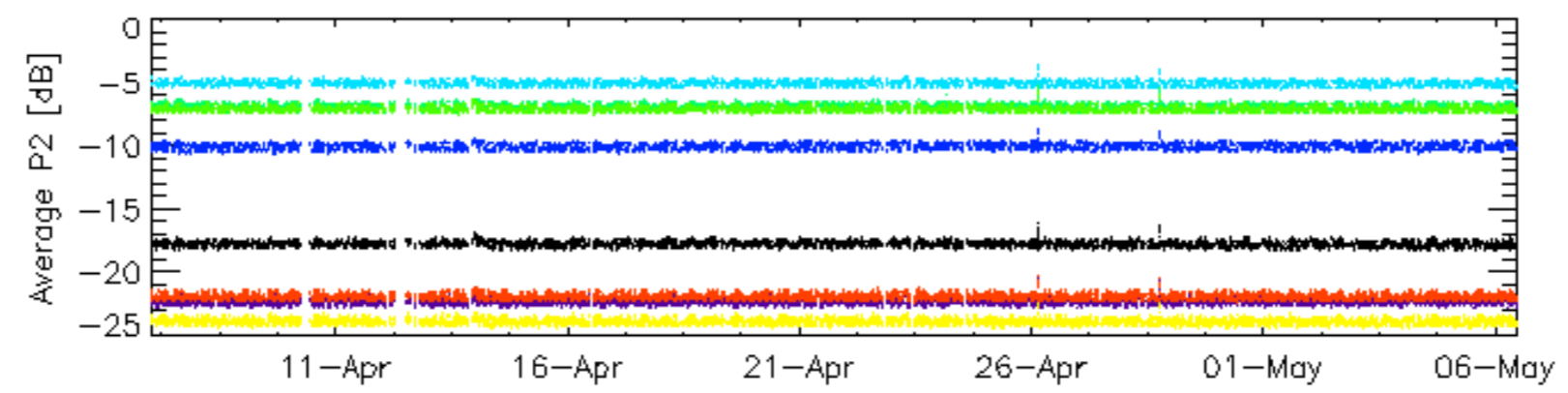
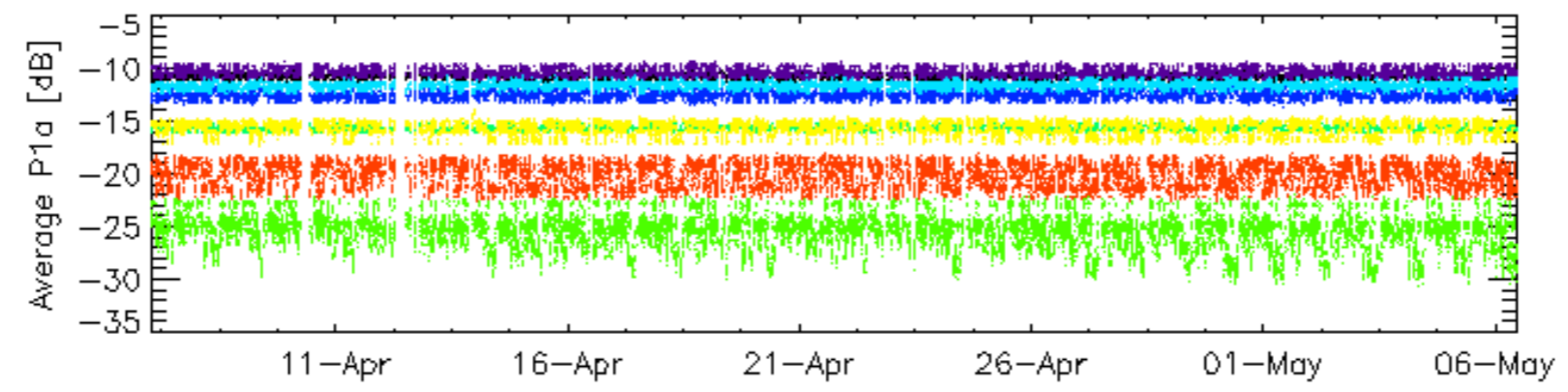
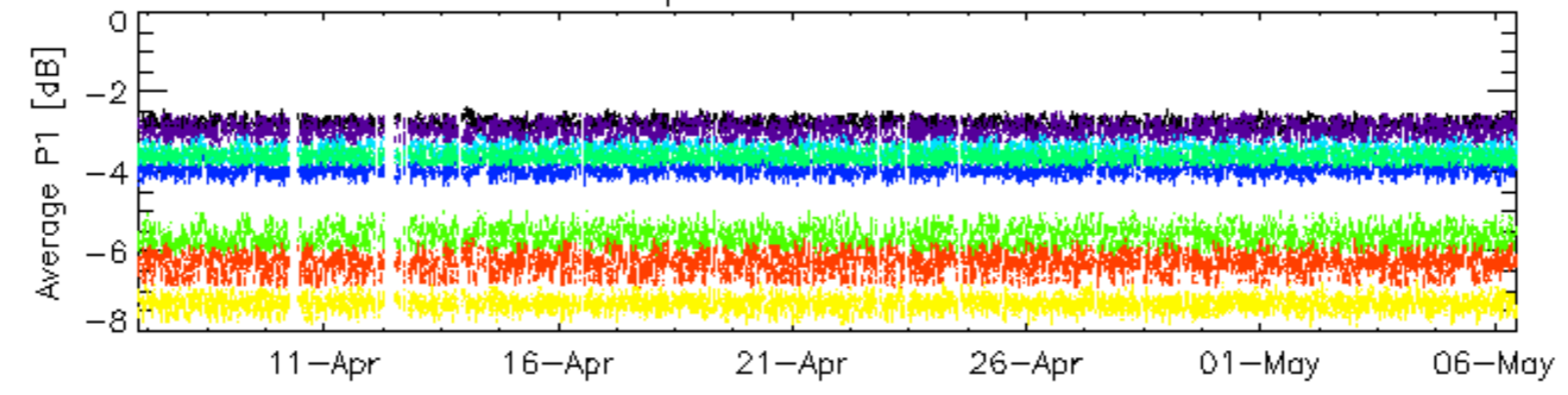
Evolution of Absolute Doppler

Ascending

Descending

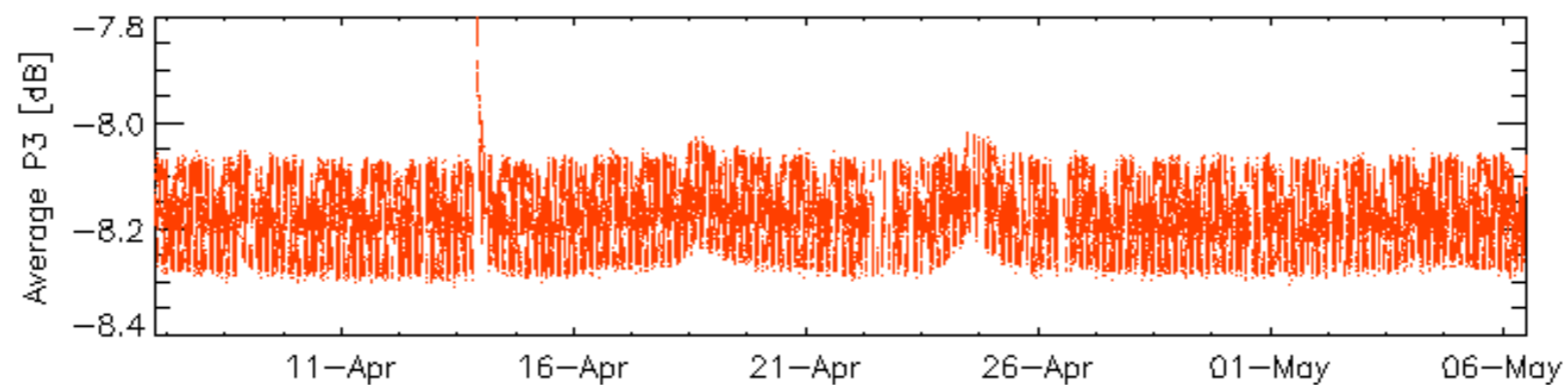
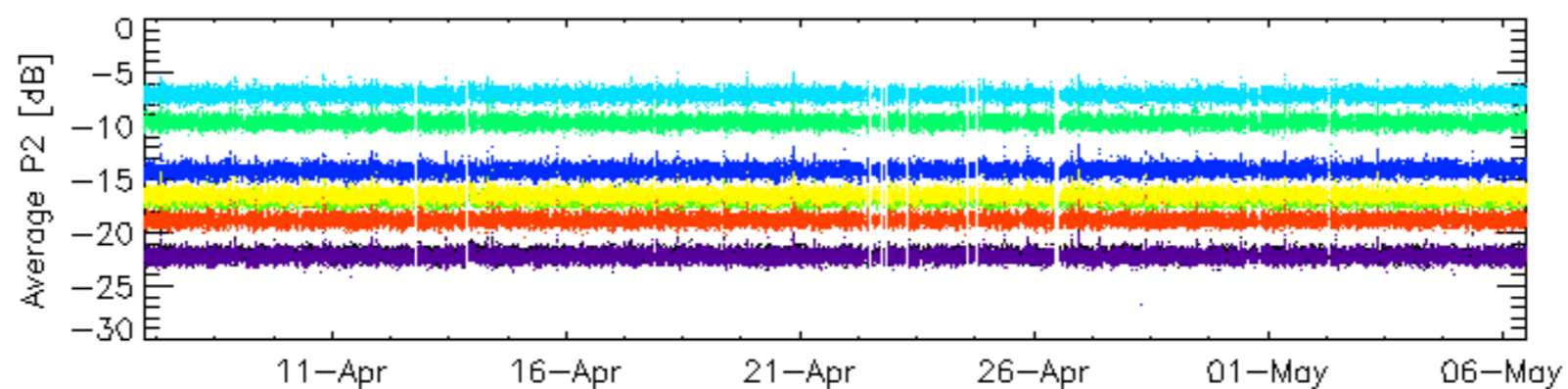
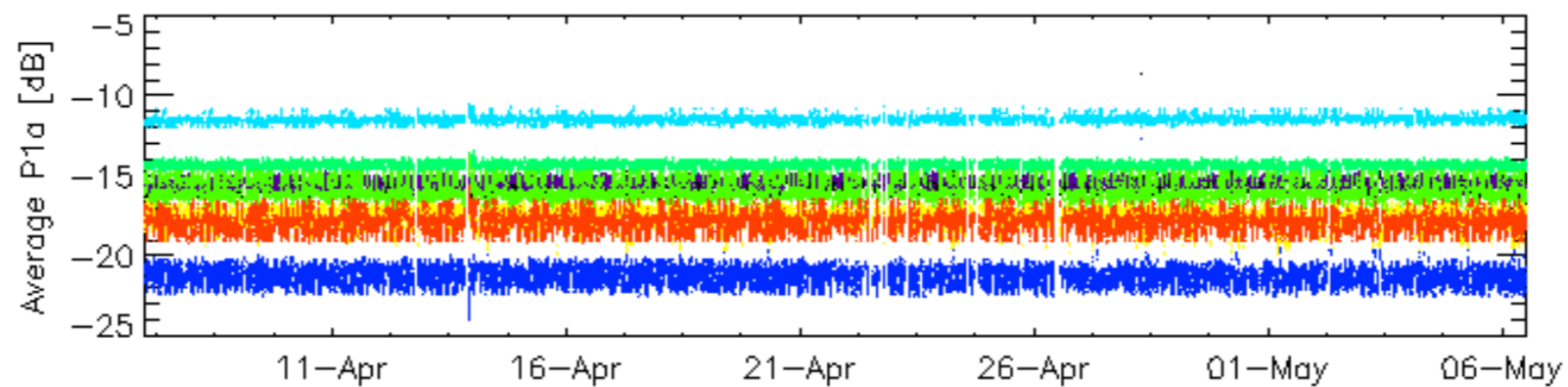
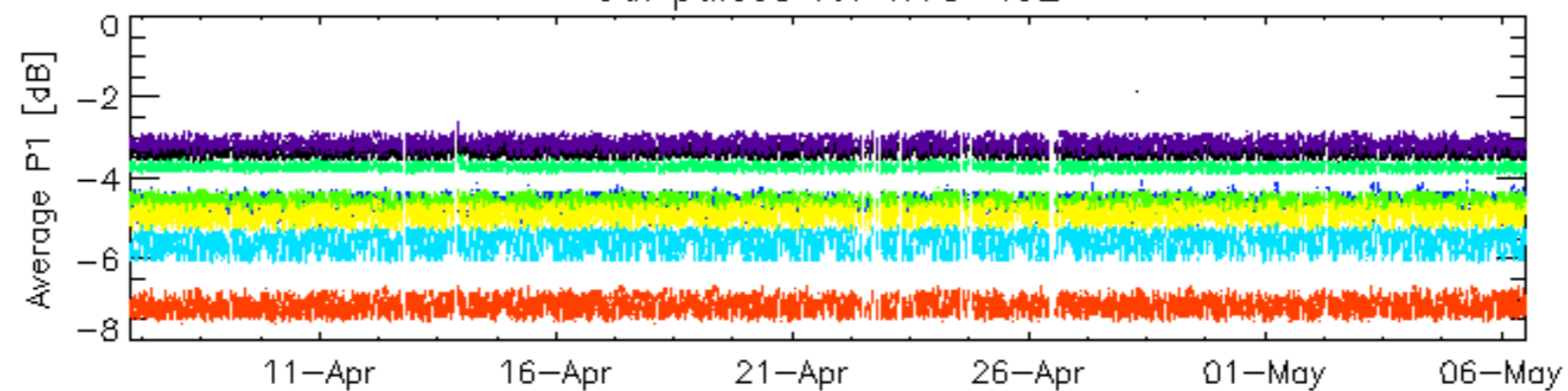
7.6 - Doppler evolution versus ANX for GM1

Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2



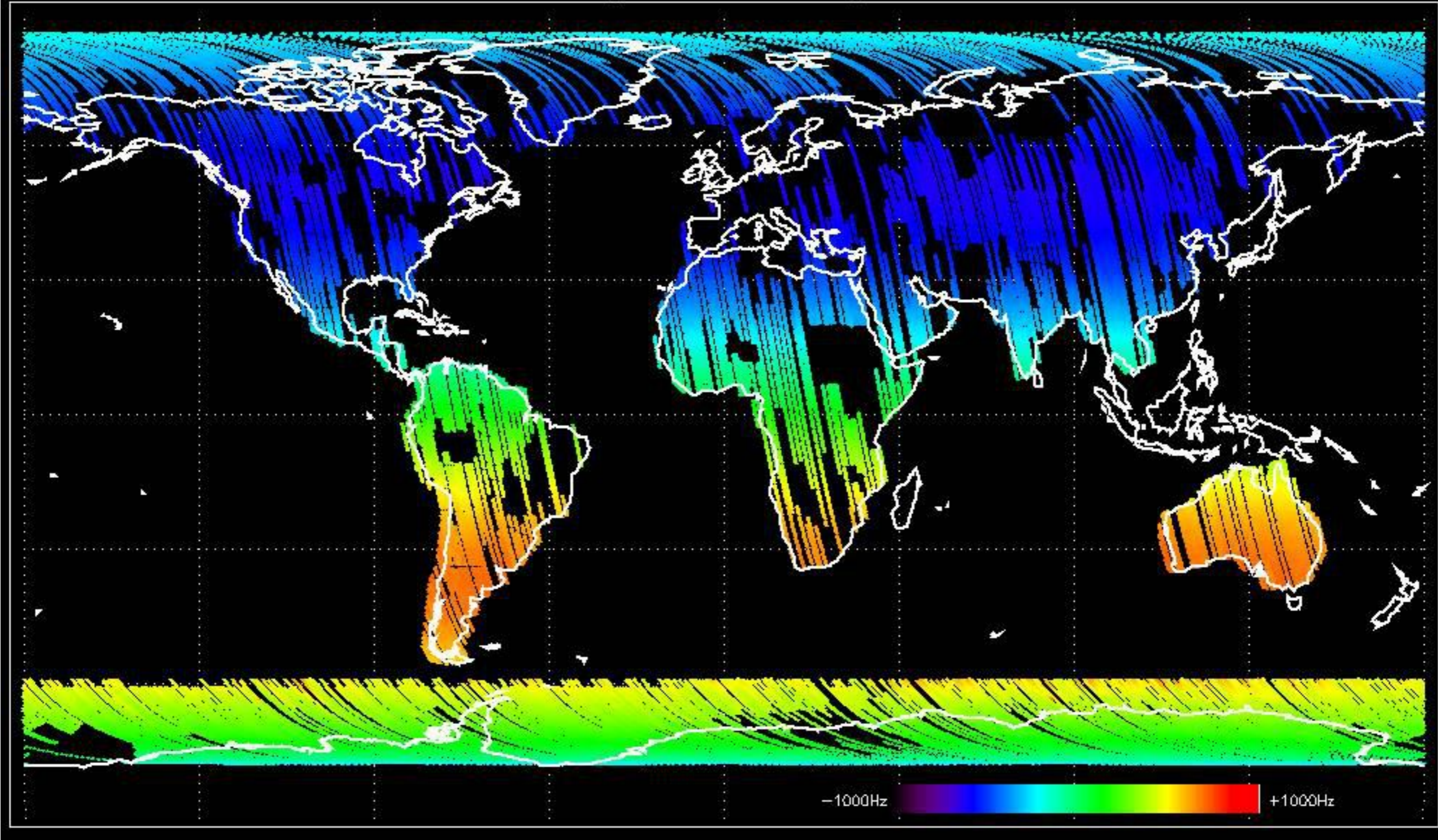
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No anomalies observed on available browse products

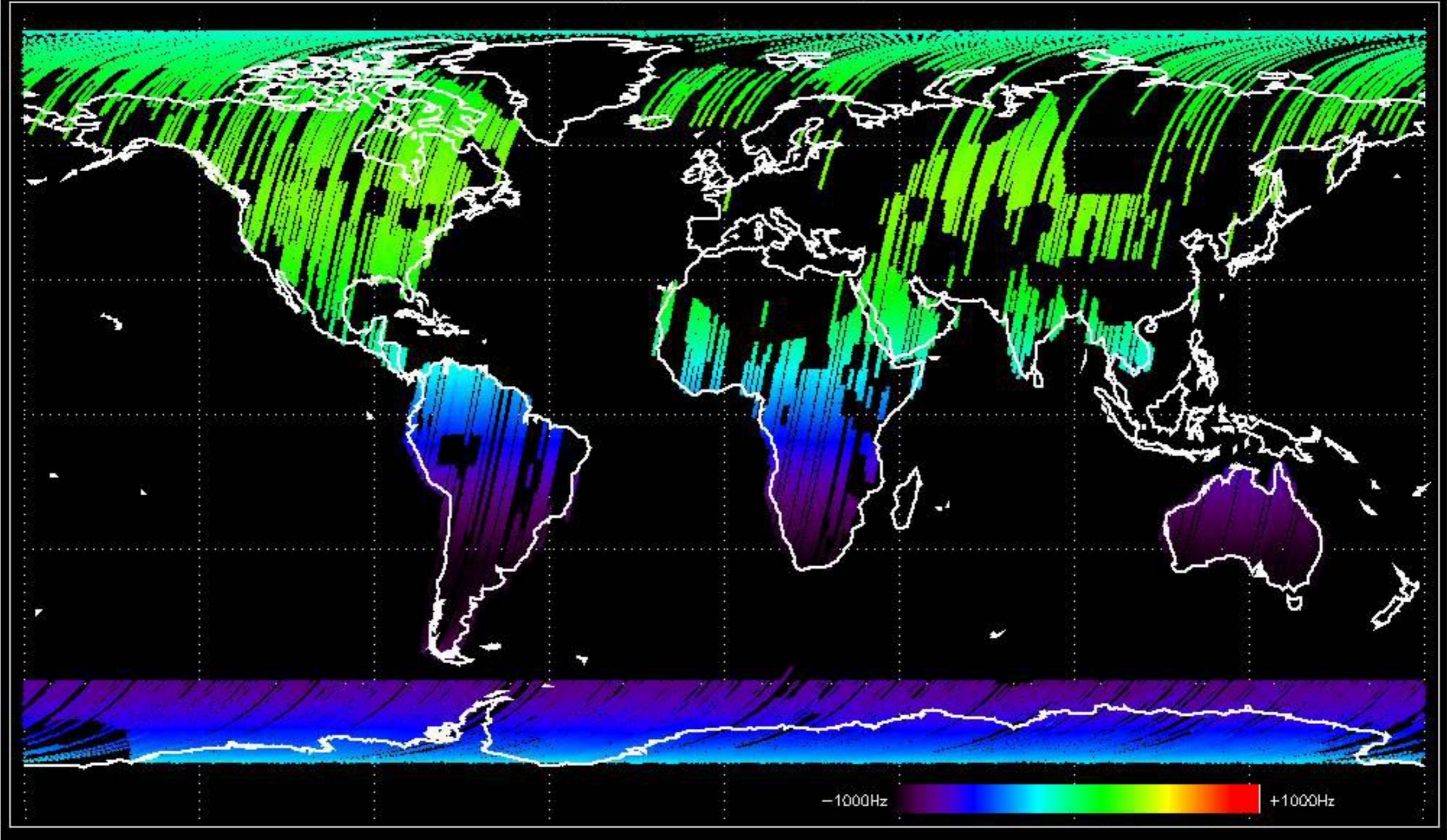
No anomalies observed.

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

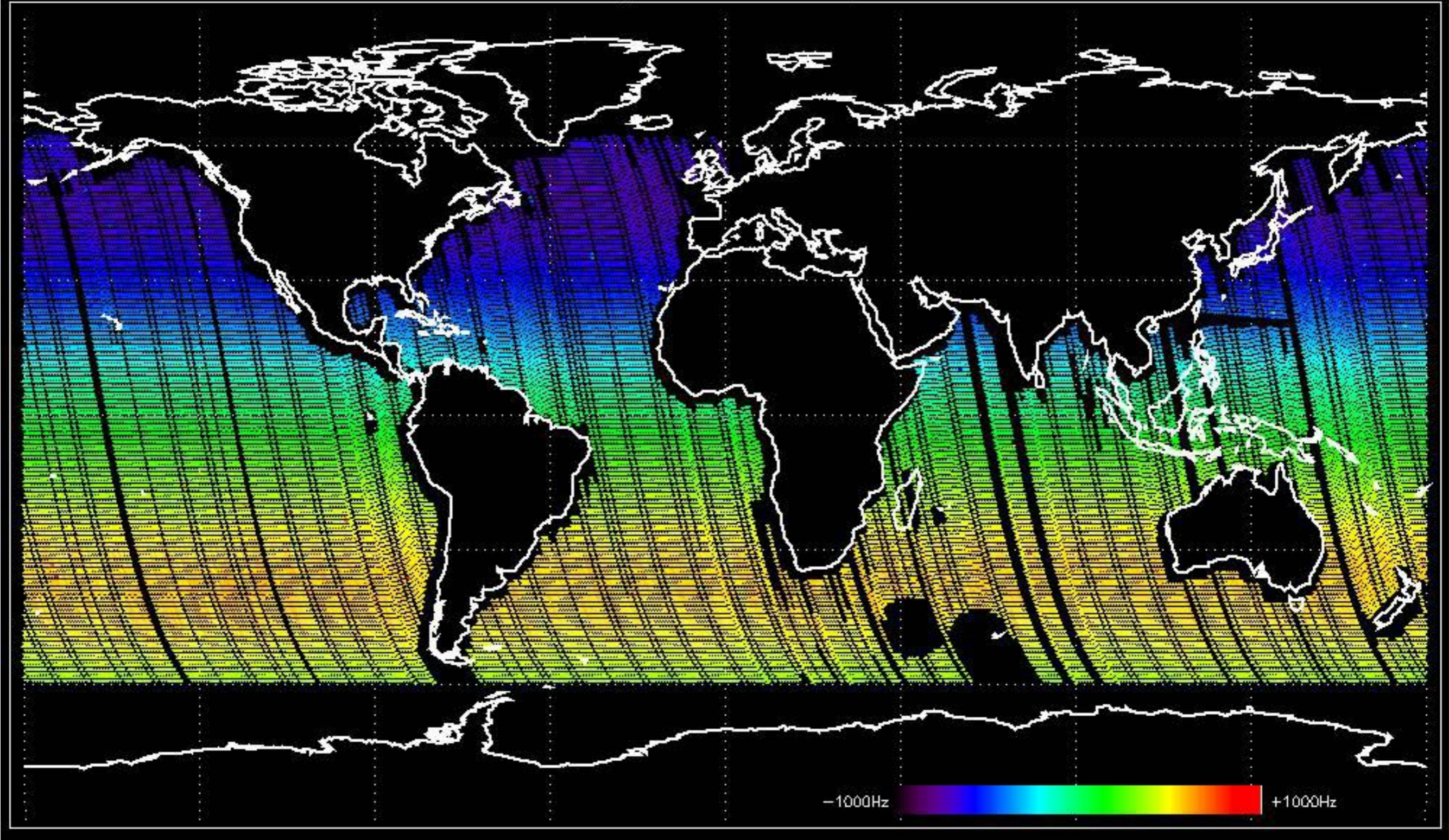
Doppler 'GM1' 'SS1' ascending



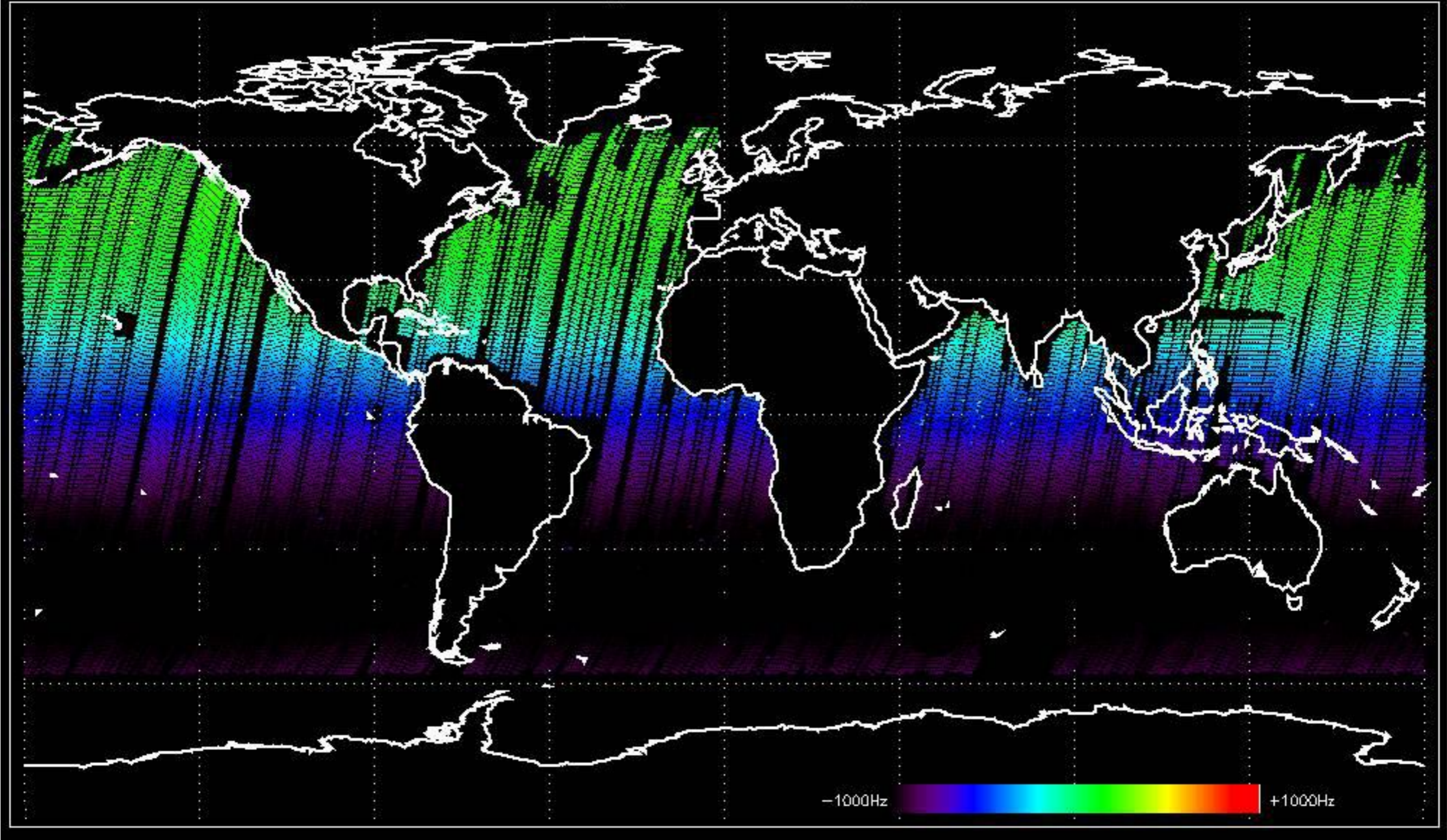
Doppler 'GM1' 'SS1' descending



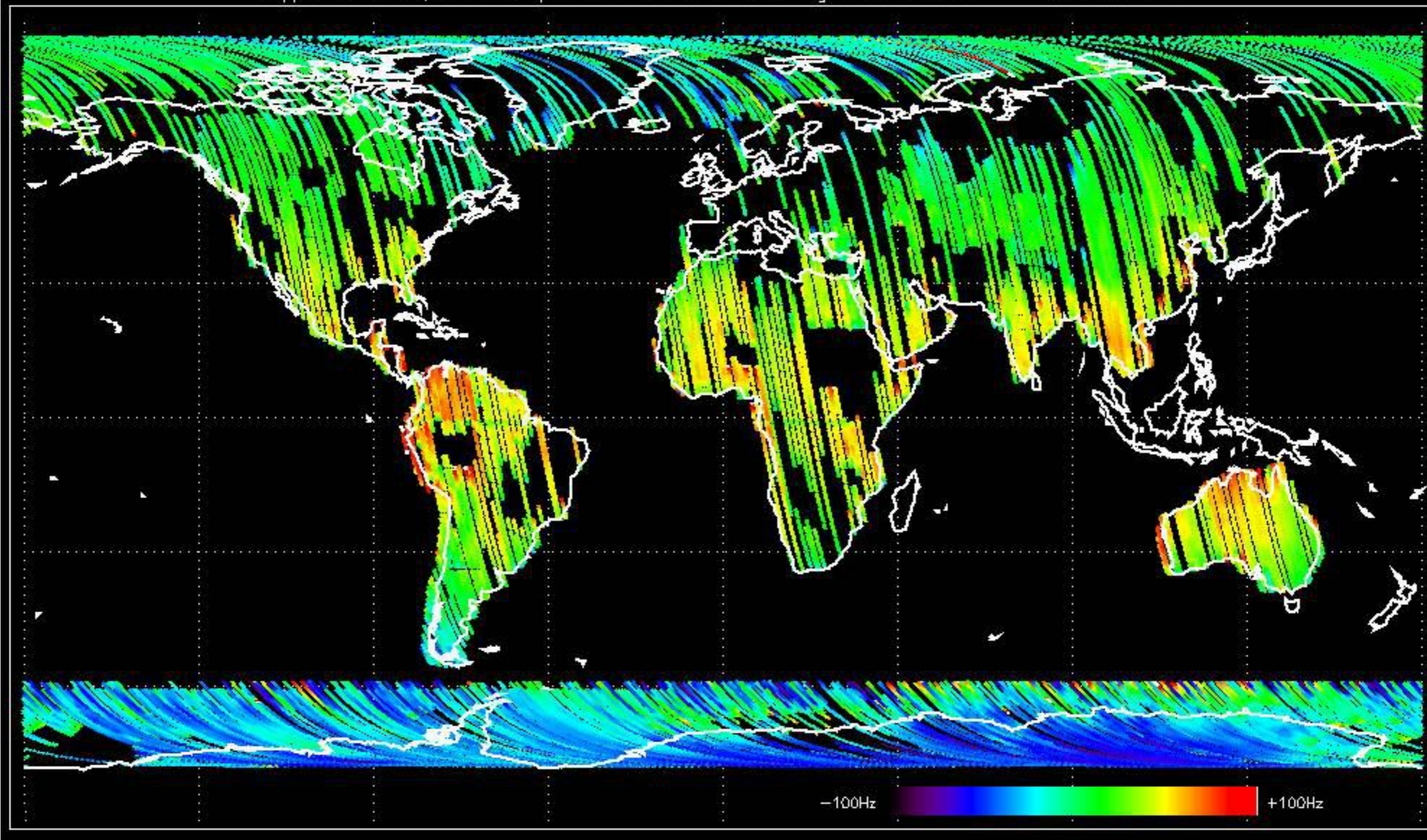
Doppler 'WVS' 'IS2' ascending



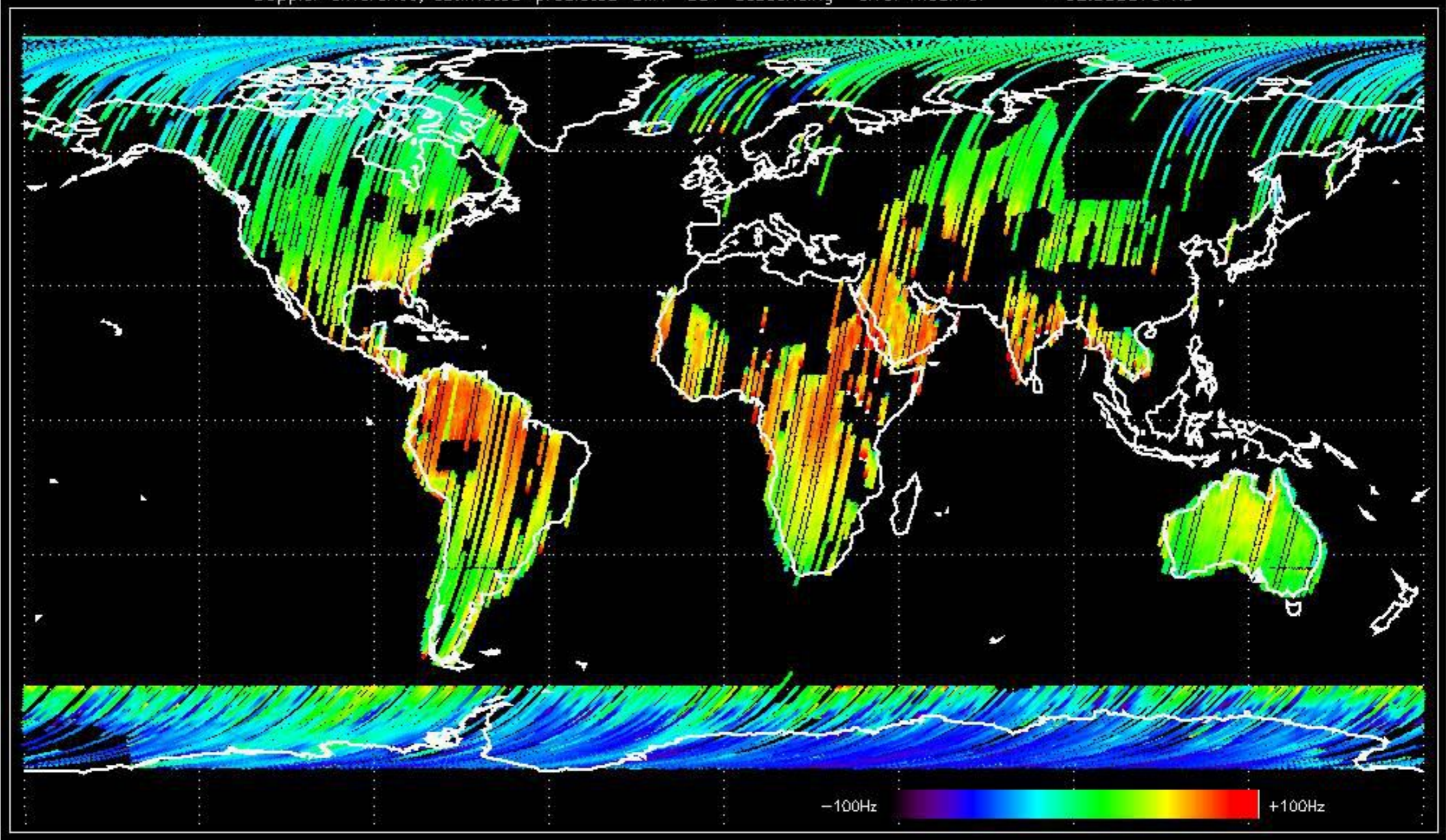
Doppler 'WVS' 'IS2' descending



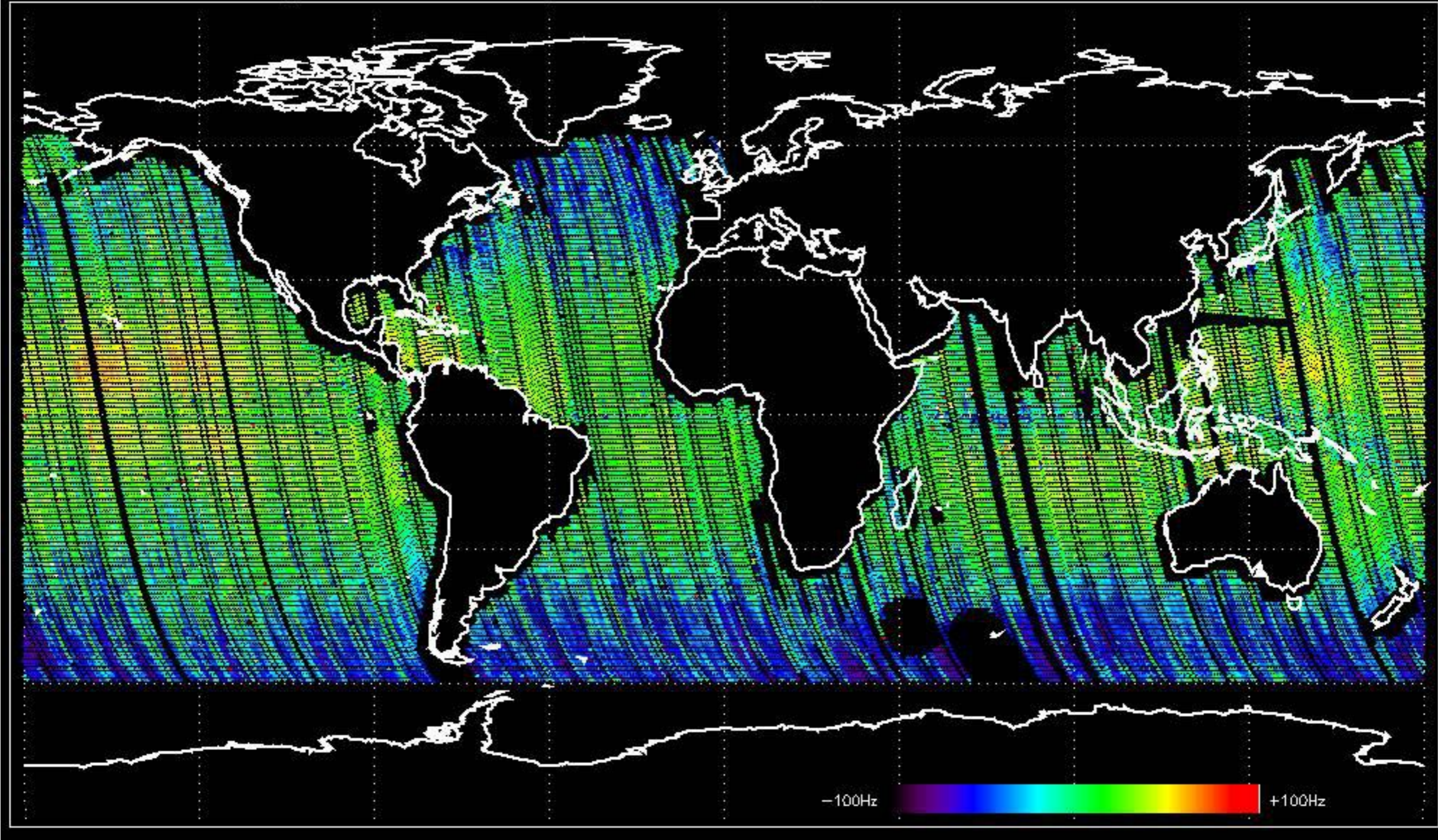
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -40.823982 Hz



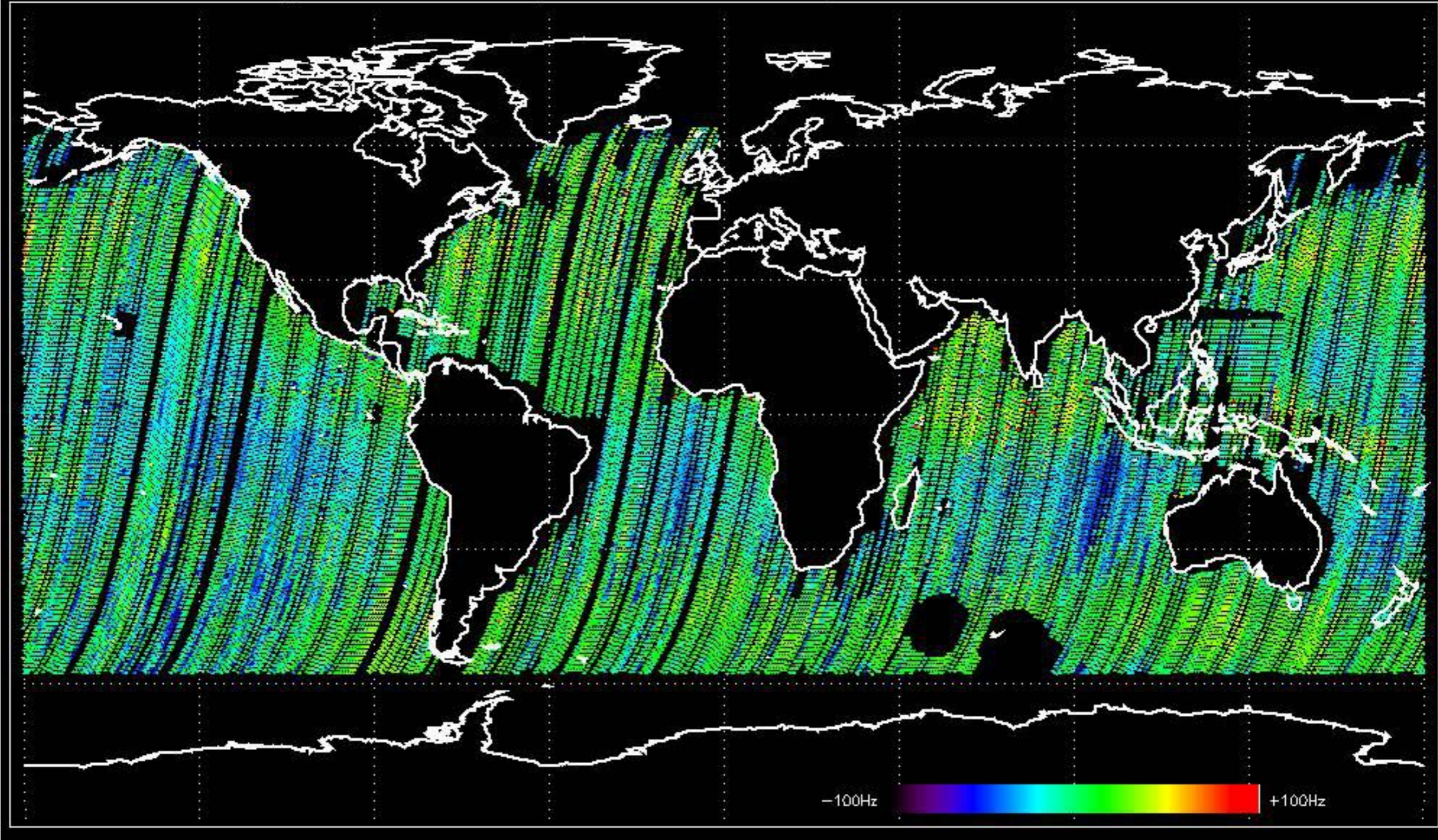
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -32.385579 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.508709 Hz

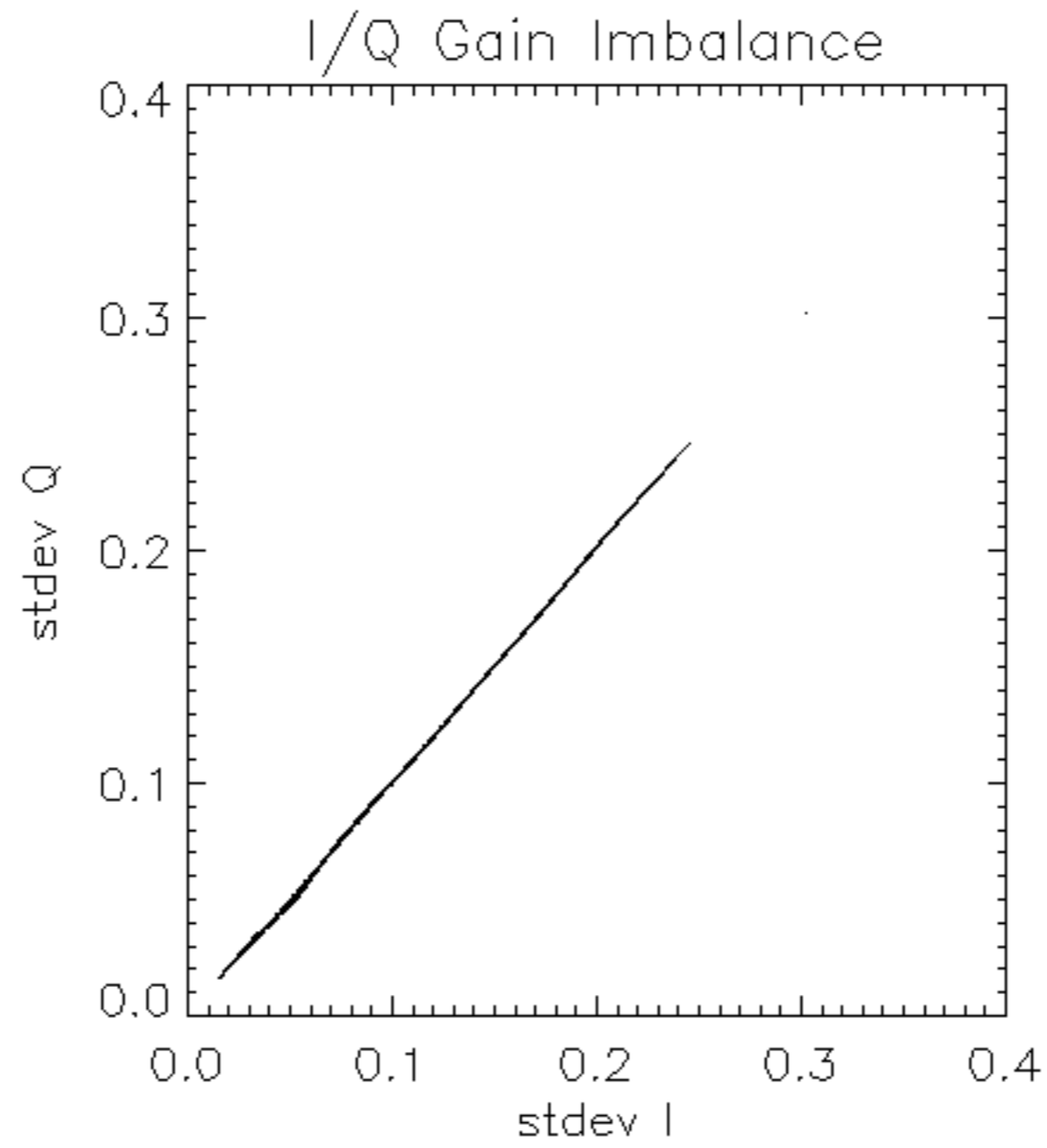


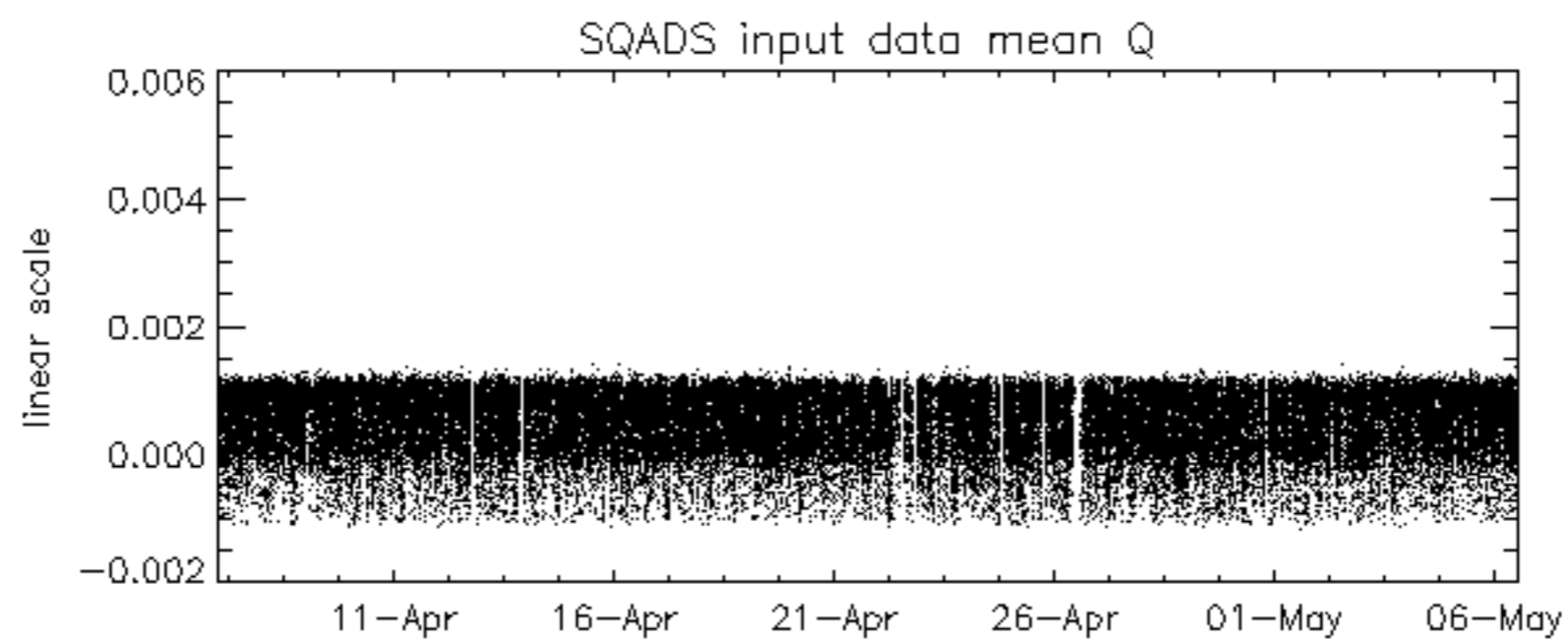
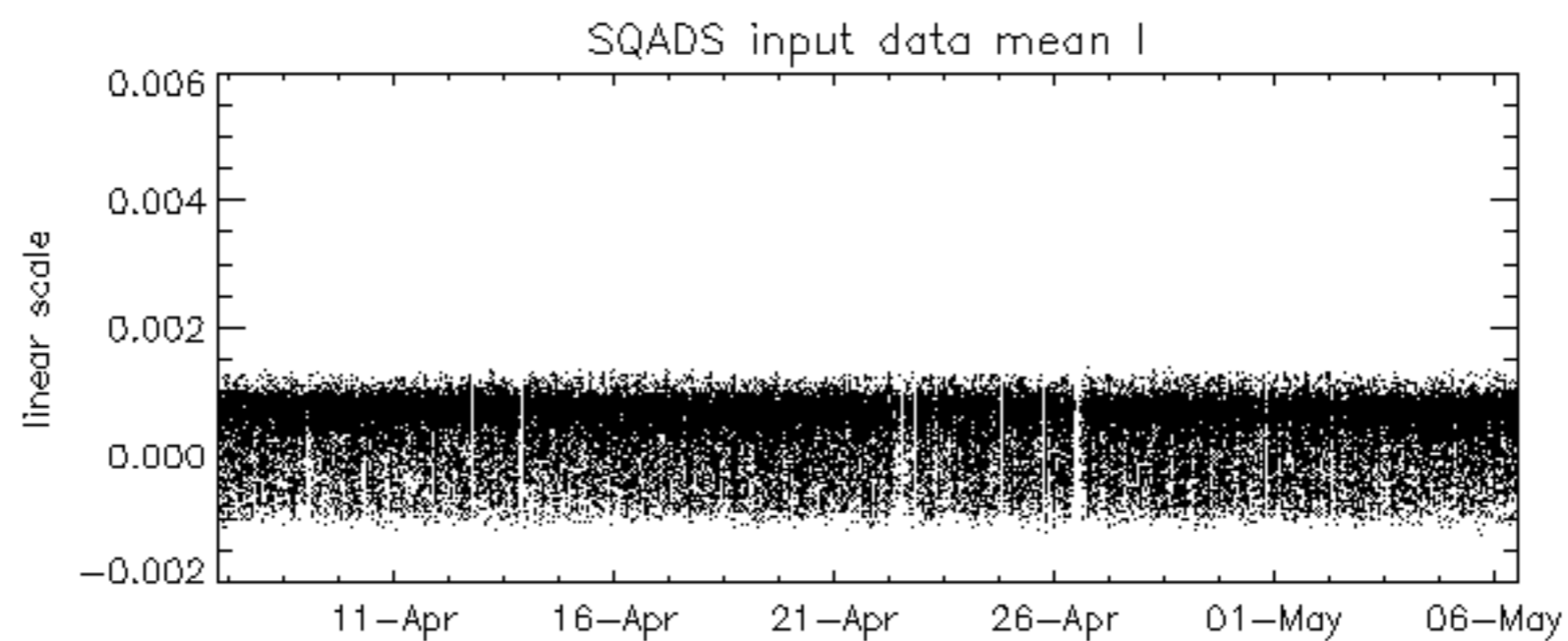
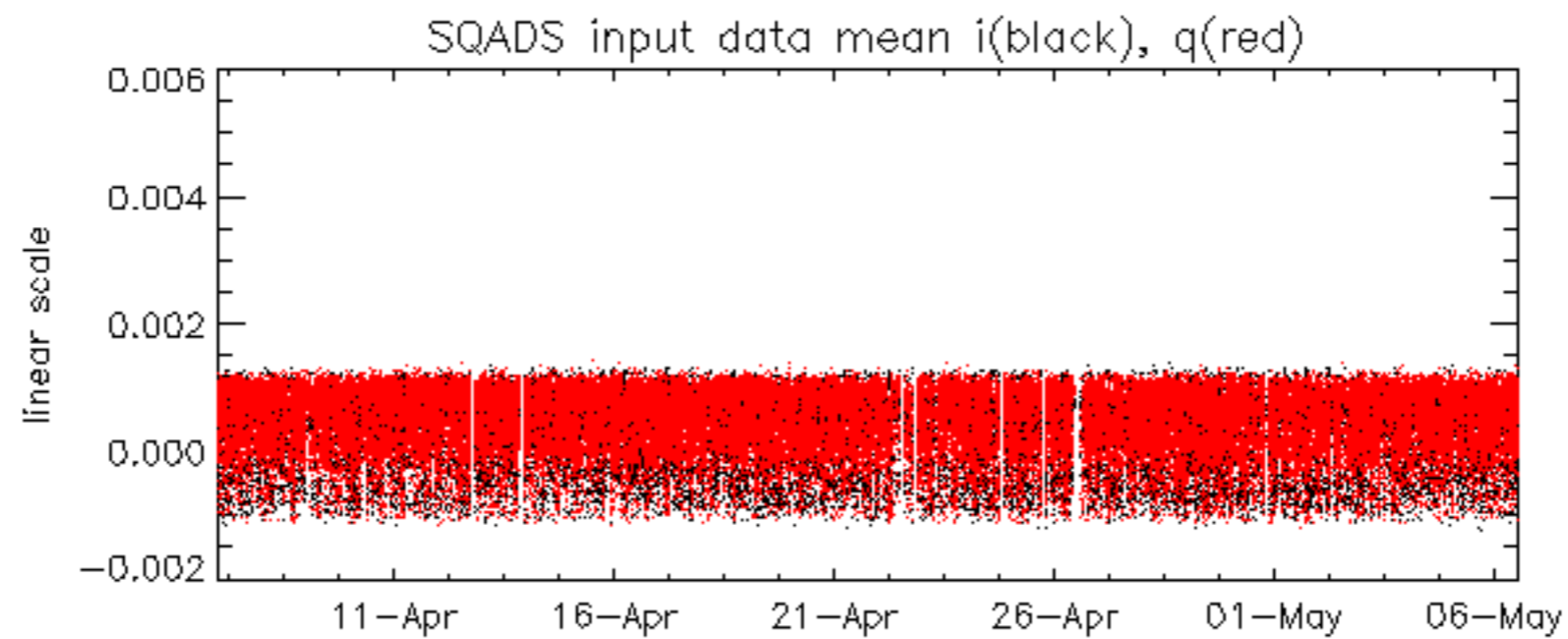
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.648276 Hz

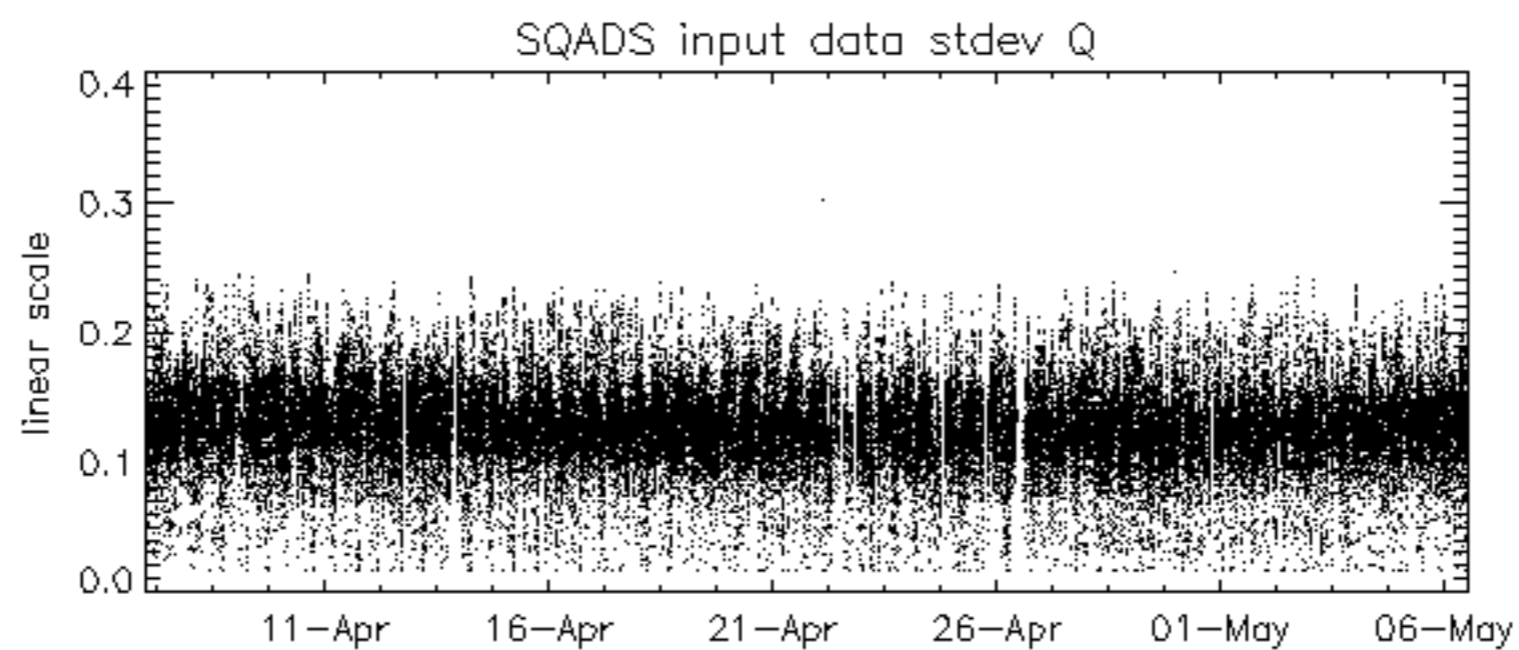
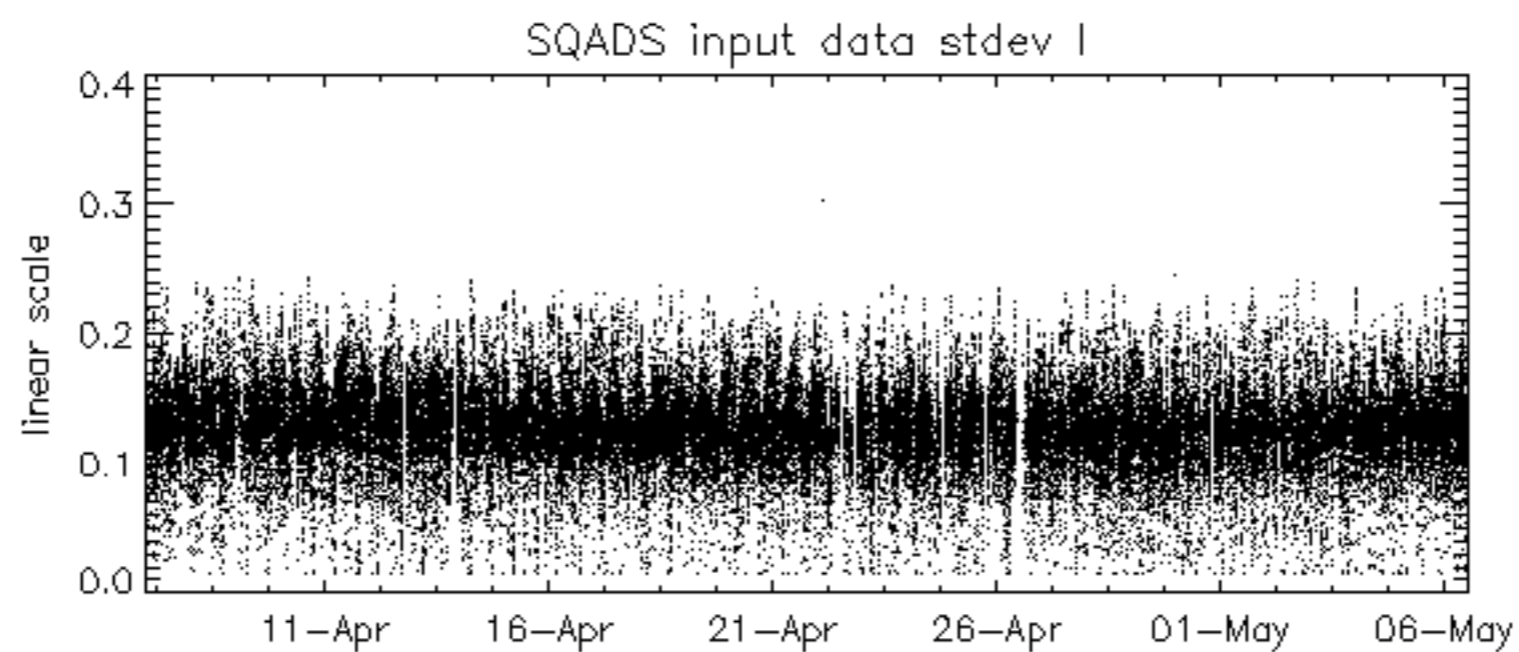
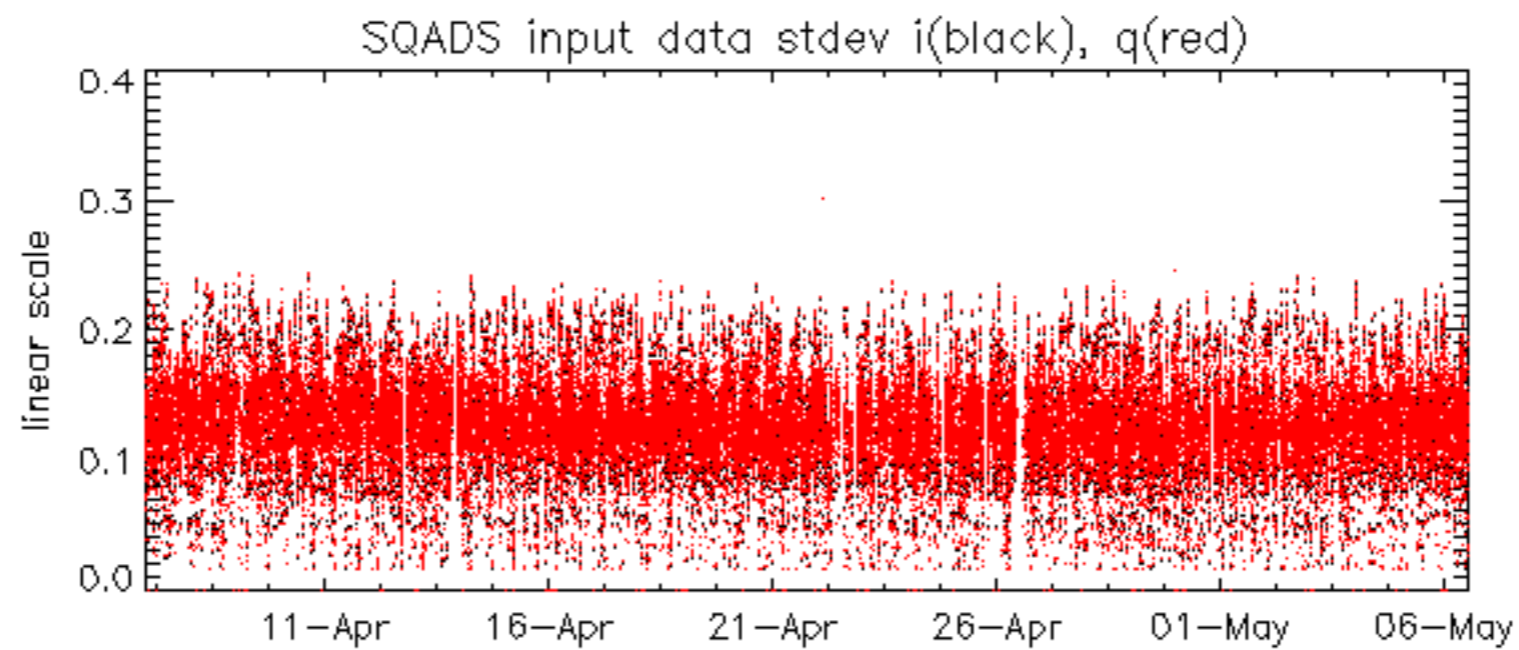


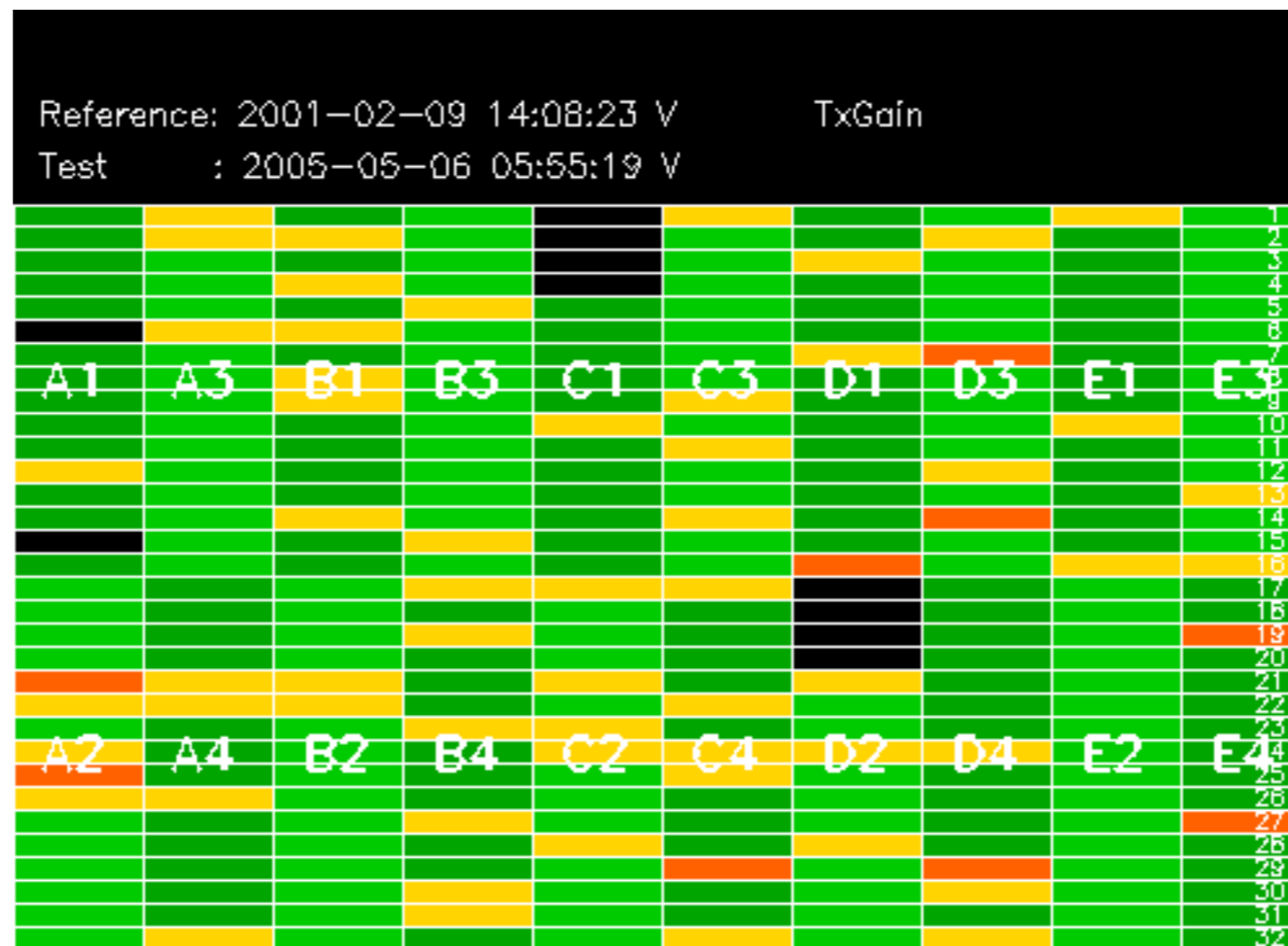
No anomalies observed on available MS products:

No anomalies observed.





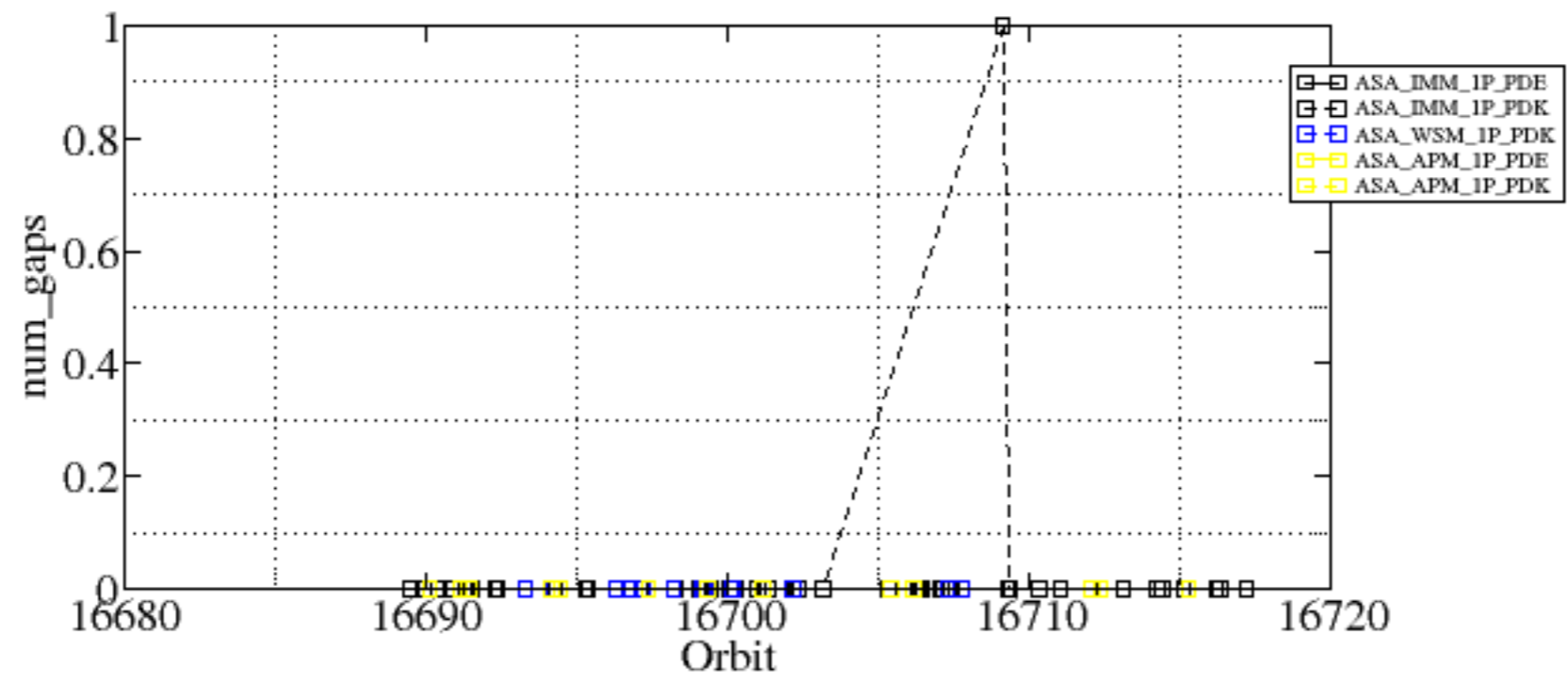


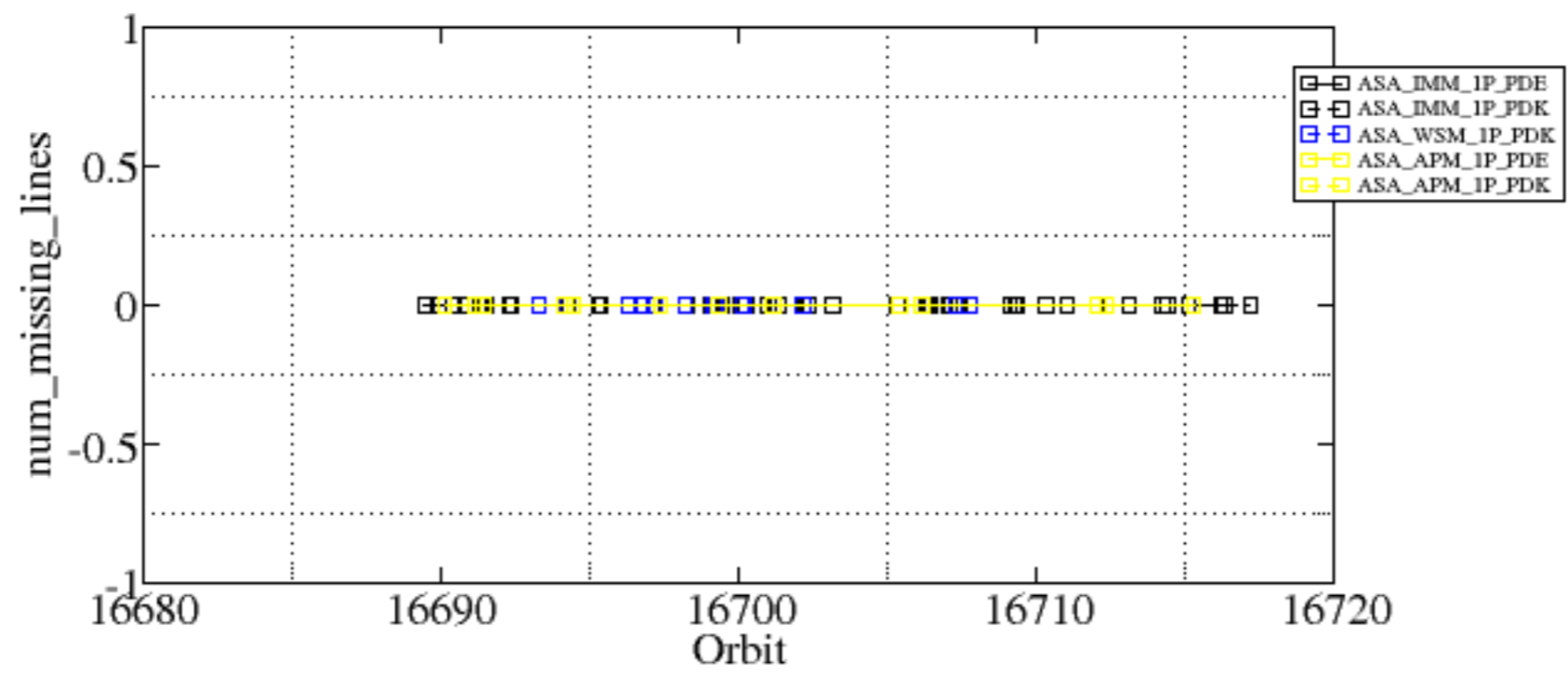


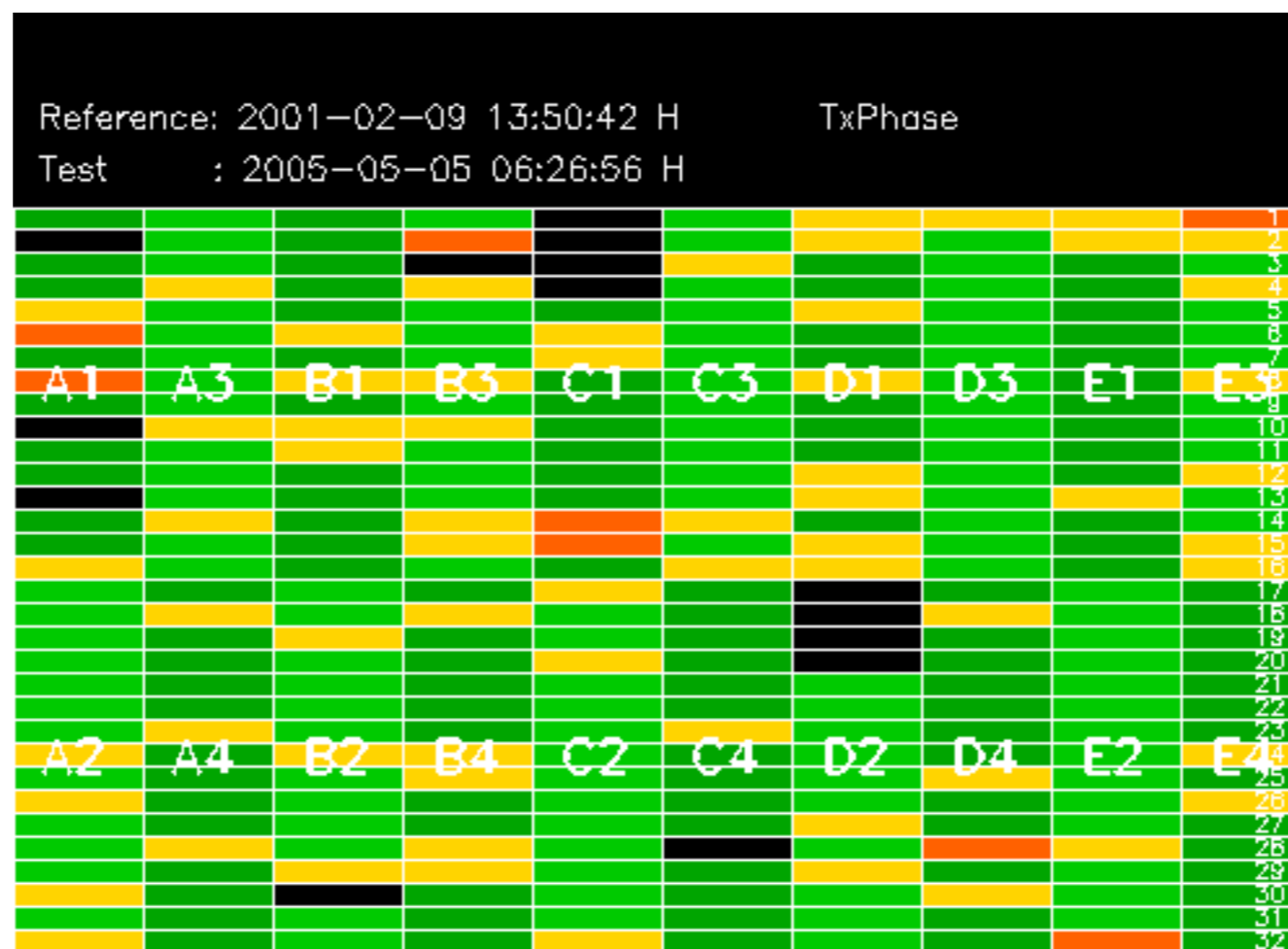
Summary of analysis for the last 3 days 2005051[012]

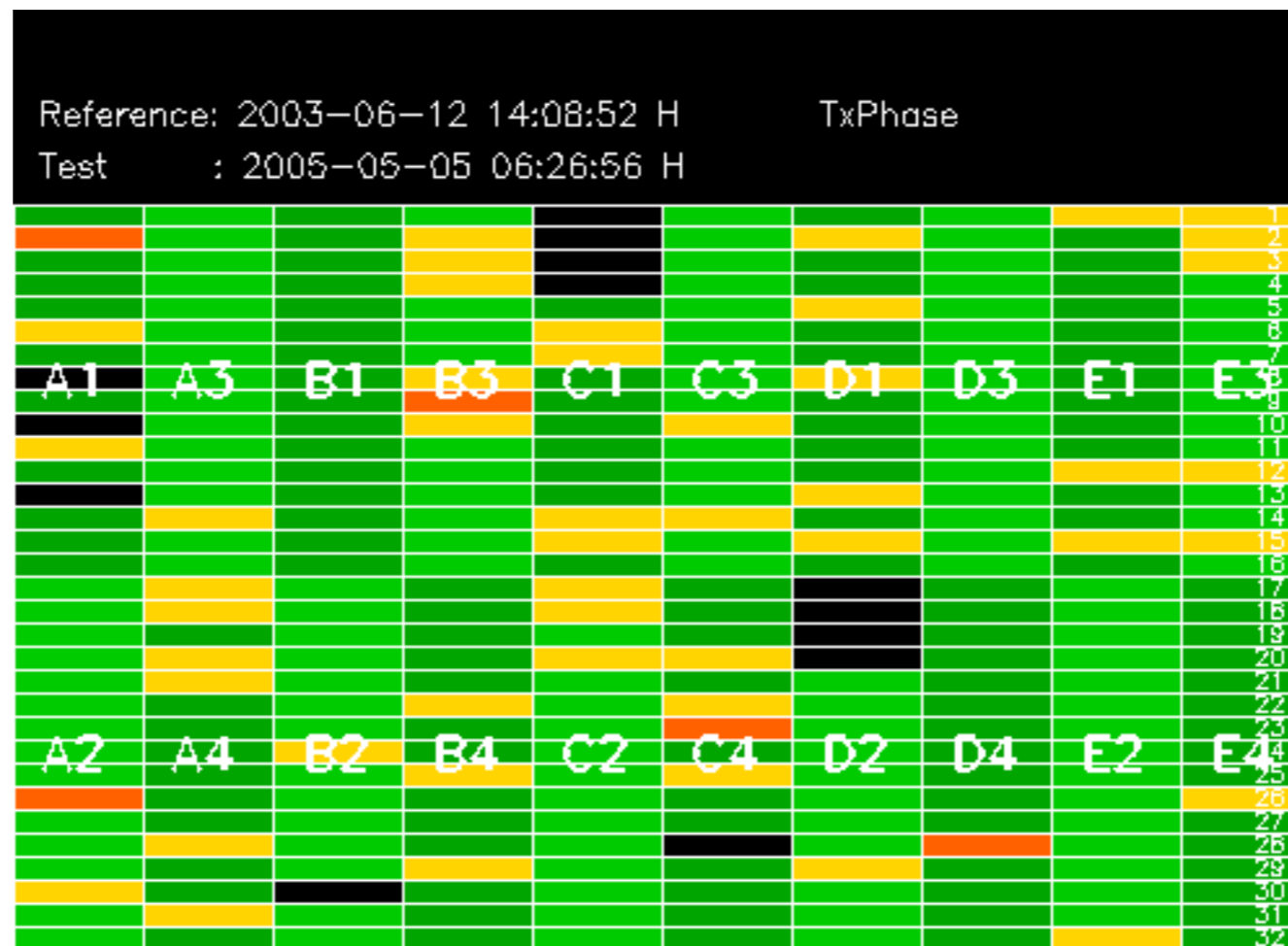
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

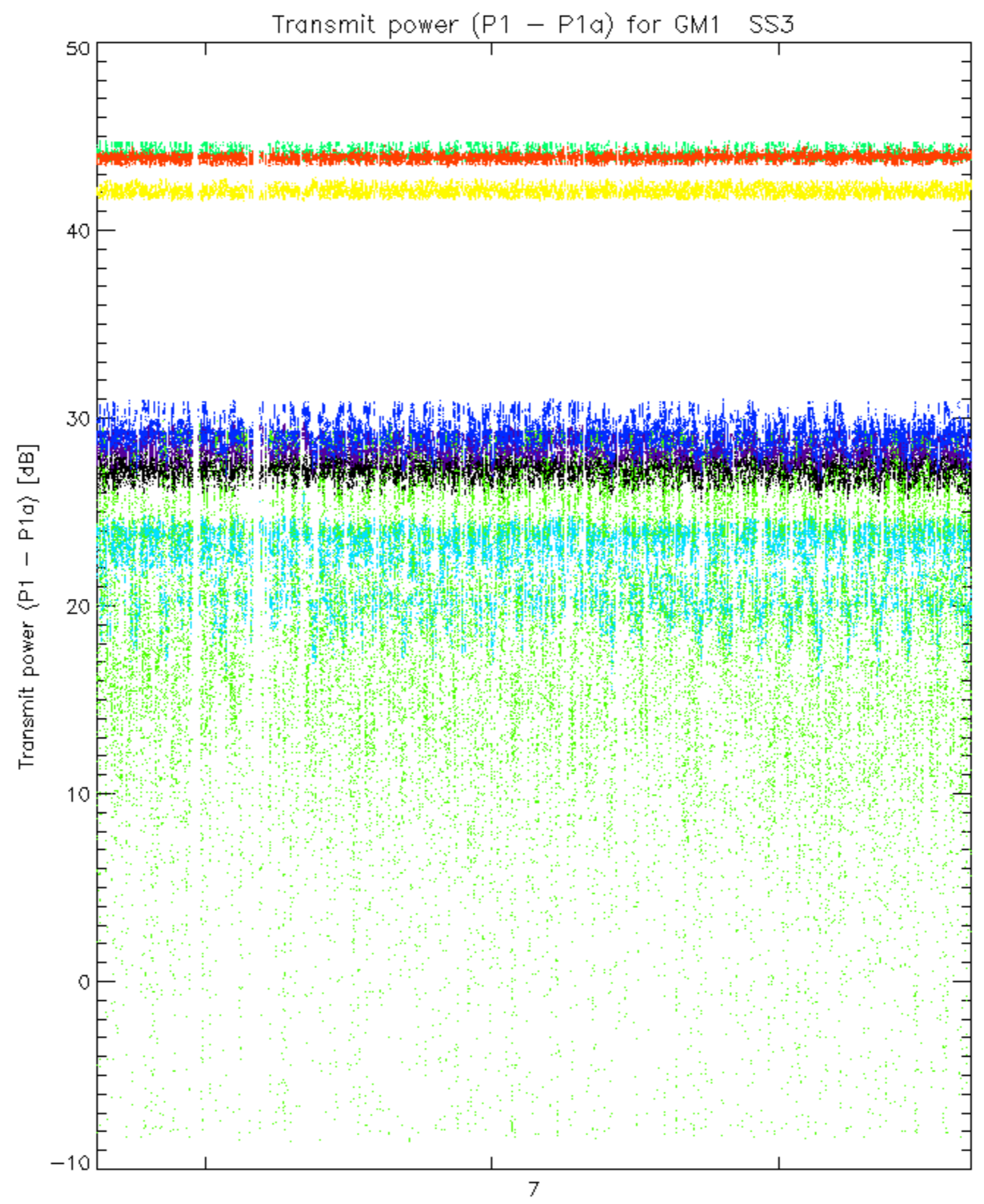
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050511_090620_00000542037_00122_16709_4142.N1	1	0



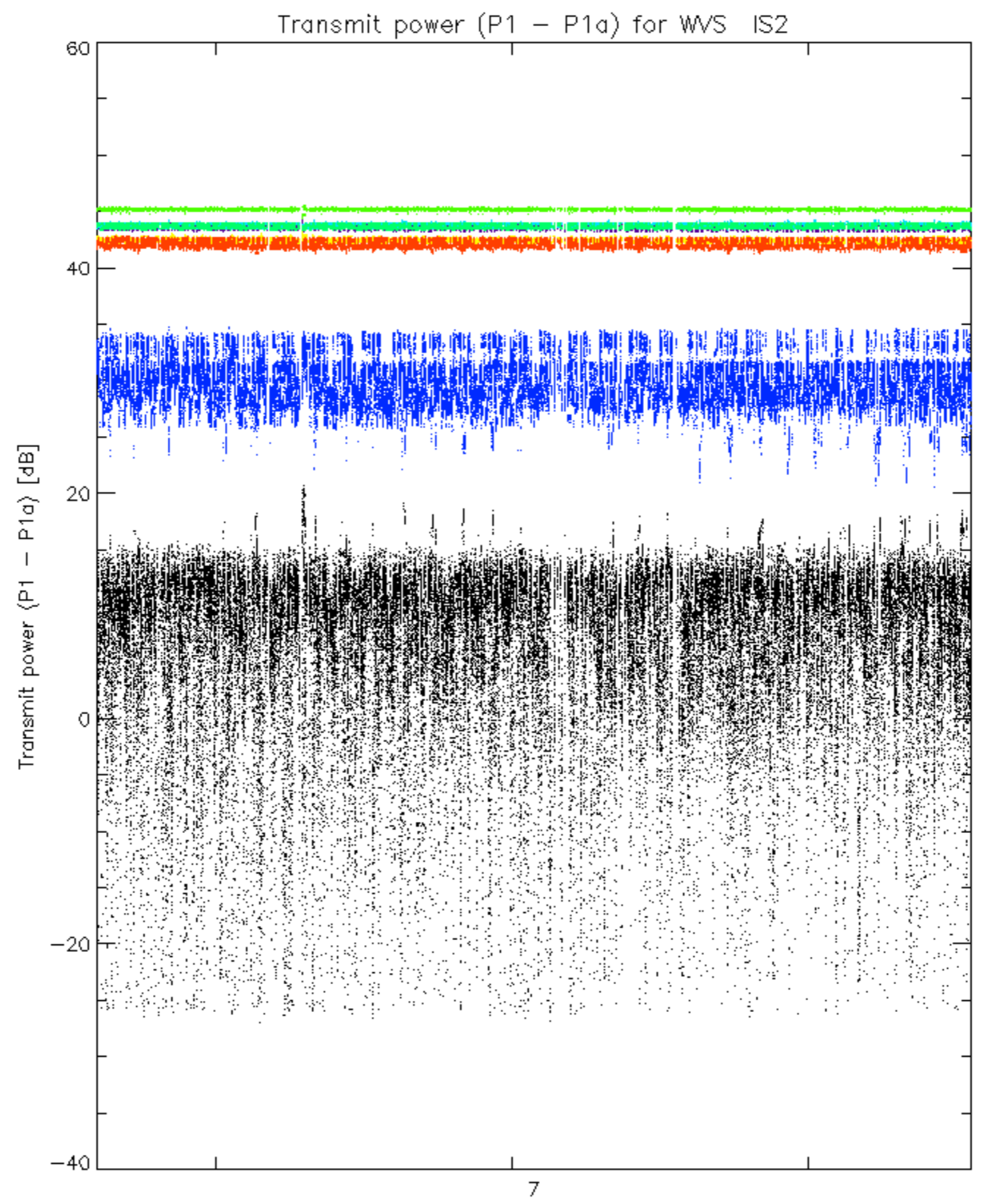








rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.