

PRELIMINARY REPORT OF 061031

last update on Tue Oct 31 11:00:01 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 2006-10-30 00:00:00 to 2006-10-31 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	5	0	6	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	33	5	0	6	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	5	0	6	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	5	0	6	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	0	0	1	0	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	0	0	1	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	0	0	1	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	0	0	1	0	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	20061030 084156
H	20061028 030246

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

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	-3.952070	0.009772	-0.025175
7	P1	-3.096887	0.015505	-0.086198
11	P1	-4.104960	0.024480	-0.051233
15	P1	-6.228711	0.015670	-0.106847
19	P1	-3.588120	0.073739	-0.137865
22	P1	-4.643814	0.145571	-0.183875
26	P1	-4.005699	0.140802	-0.041137
30	P1	-5.888461	0.268806	-0.136332
3	P1	-16.592972	0.215425	0.203787
7	P1	-17.142502	0.166000	-0.141008
11	P1	-17.055126	0.418416	-0.123877
15	P1	-12.904728	0.112451	-0.315536
19	P1	-14.777430	0.402804	-0.418687
22	P1	-15.653612	0.486785	-0.362136
26	P1	-15.081264	0.257951	-0.043821
30	P1	-17.050133	0.685065	-0.521566

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.831755	0.089065	-0.040359
7	P2	-21.754524	0.097391	0.063504
11	P2	-15.706130	0.110302	0.103797
15	P2	-7.079388	0.109485	-0.078330
19	P2	-9.139360	0.102527	-0.092950
22	P2	-18.160820	0.097040	-0.125461
26	P2	-16.451342	0.107448	-0.147254
30	P2	-19.464983	0.093289	-0.029790

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.207574	0.007149	-0.053217

7	P3	-8.207574	0.007149	-0.053217
11	P3	-8.207574	0.007149	-0.053217
15	P3	-8.207574	0.007149	-0.053217
19	P3	-8.207574	0.007149	-0.053217
22	P3	-8.207574	0.007149	-0.053217
26	P3	-8.207355	0.007158	-0.053403
30	P3	-8.207355	0.007158	-0.053403

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	-3.931941	0.242930	0.135772
7	P1	-2.656280	1.547154	0.620244
11	P1	-2.915963	0.186410	0.255581
15	P1	-3.706406	0.165654	0.237355
19	P1	-3.526374	0.196094	-0.283939
22	P1	-5.075699	0.142842	-0.094341
26	P1	-6.005037	0.375795	-0.409919
30	P1	-5.299234	0.241911	-0.364457
3	P1	-11.770089	0.584820	0.379426
7	P1	-10.195247	1.949870	0.805779
11	P1	-10.454663	0.514500	0.658690
15	P1	-10.930080	0.672621	0.907672
19	P1	-15.785091	3.560616	-1.198078
22	P1	-21.076460	1.708018	-1.165895
26	P1	-15.899931	0.491475	-0.845713
30	P1	-18.009754	0.582489	0.606967

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.358799	0.345592	-0.498455
7	P2	-21.978661	2.023221	-1.197527
11	P2	-10.852188	0.298174	-0.416771
15	P2	-4.906283	0.036497	-0.264657
19	P2	-6.885975	0.071318	-0.242147
22	P2	-8.272136	0.611193	0.077578
26	P2	-24.110262	1.555245	-0.926122
30	P2	-21.850782	0.778159	-0.507982

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.064570	0.003123	-0.078353
7	P3	-8.064491	0.003097	-0.078422
11	P3	-8.064355	0.003094	-0.078434
15	P3	-8.064457	0.003092	-0.077727
19	P3	-8.064442	0.003086	-0.077951
22	P3	-8.064334	0.003100	-0.079137
26	P3	-8.064056	0.003075	-0.081586
30	P3	-8.064085	0.003077	-0.080509

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	0.000560334
	stdev	1.66310e-07
MEAN Q	mean	0.000521903
	stdev	2.15574e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138049
	stdev	0.00111453
STDEV Q	mean	0.138421
	stdev	0.00113218



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006103[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

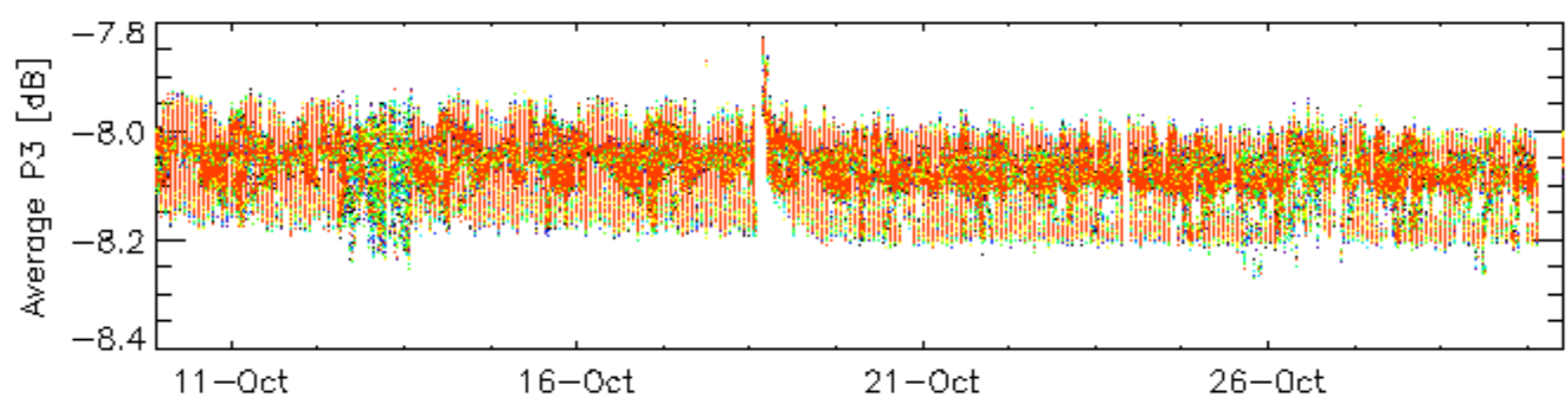
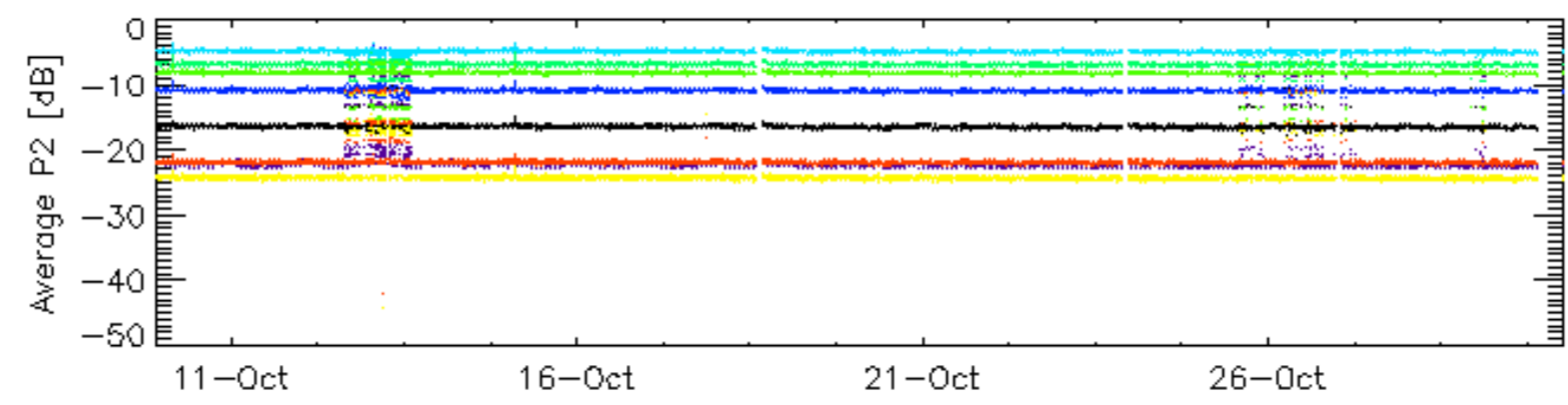
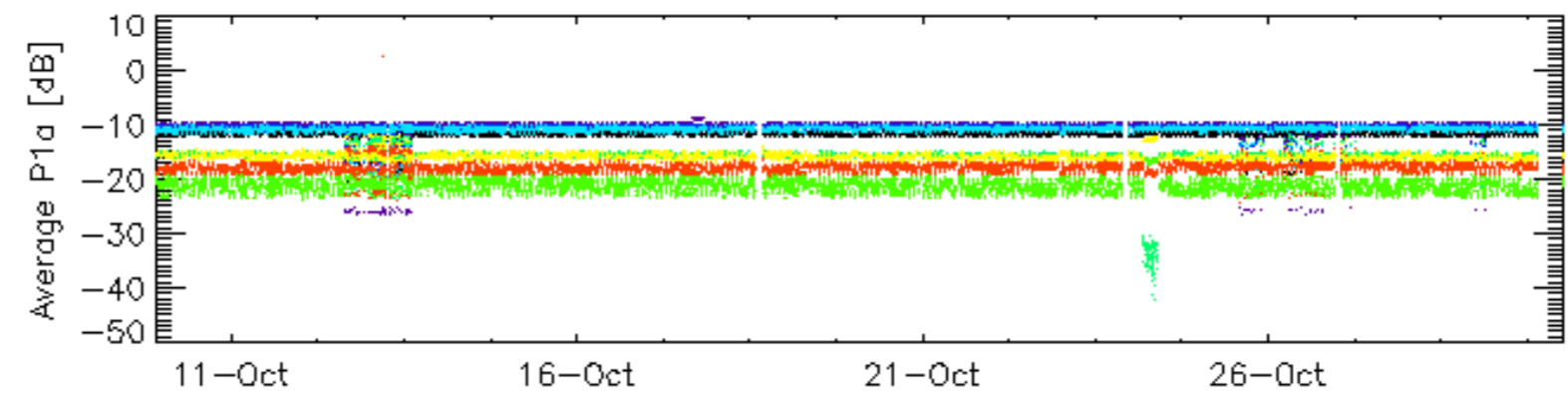
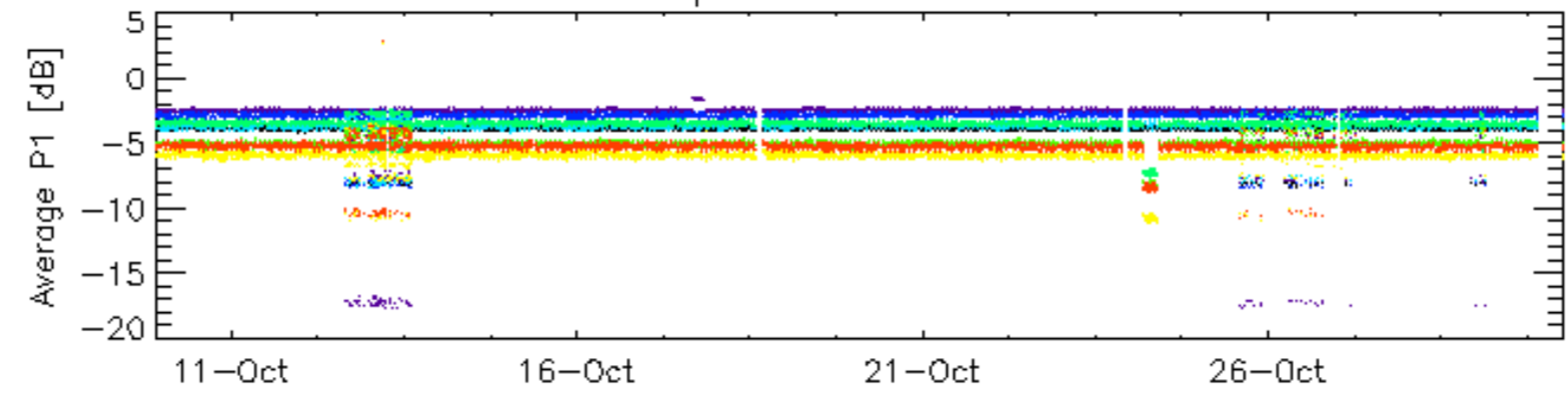
Evolution of Absolute Doppler

Ascending

Descending

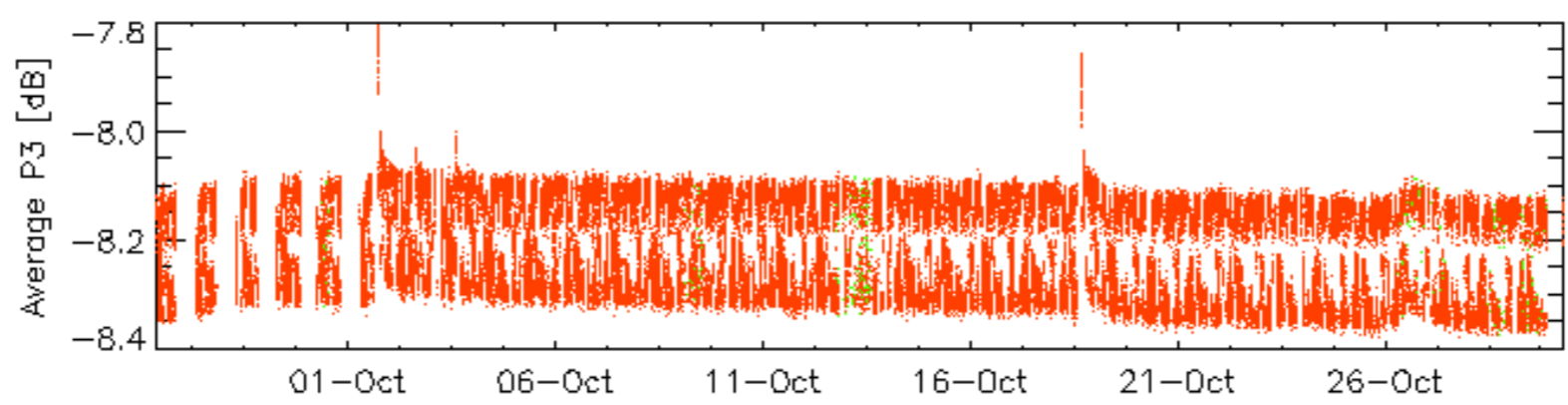
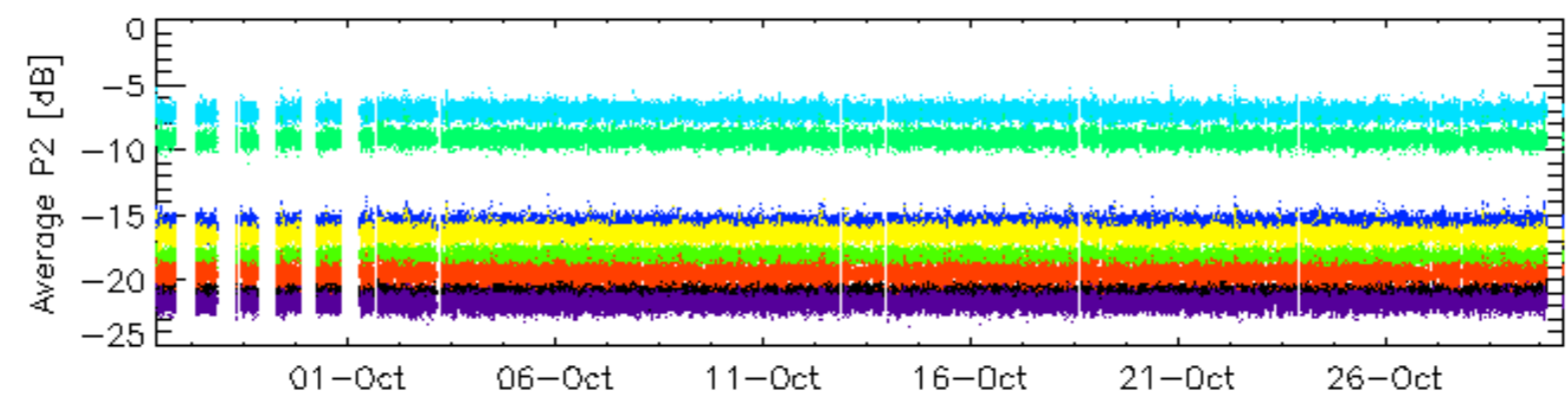
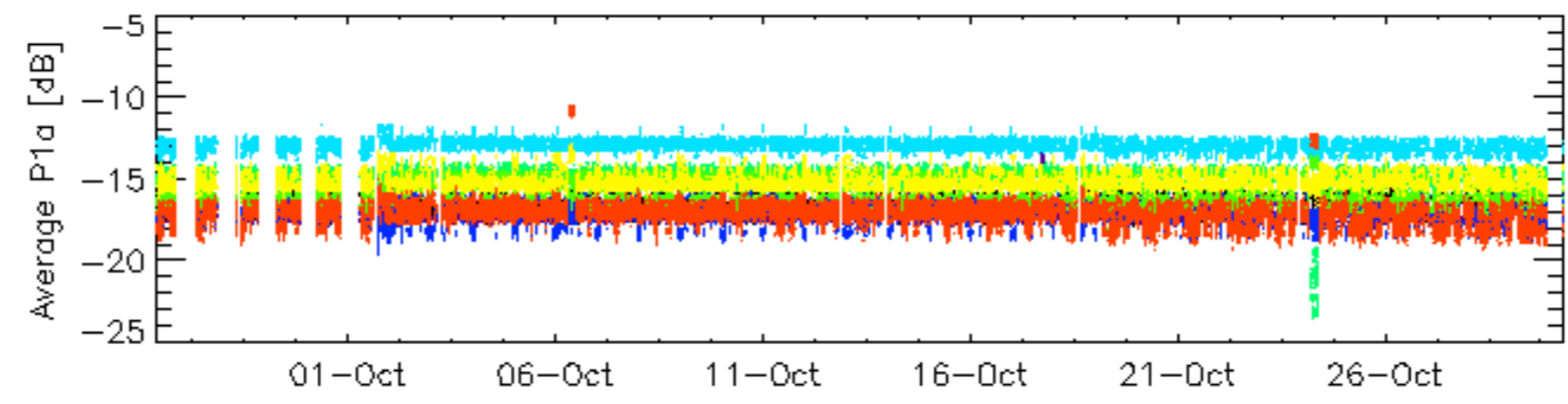
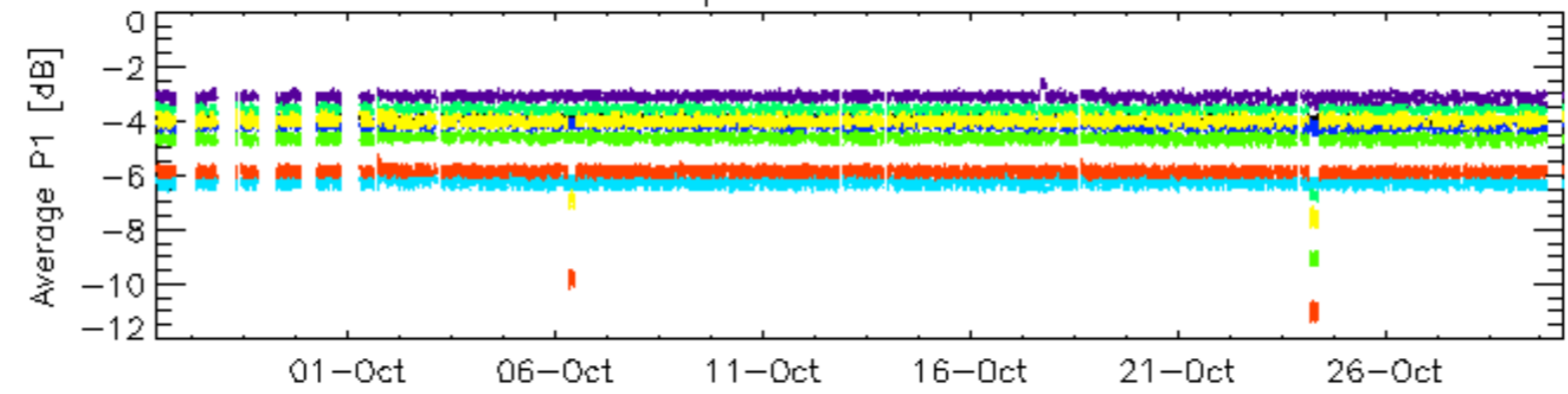
7.6 - Doppler evolution versus ANX for GM1

Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2

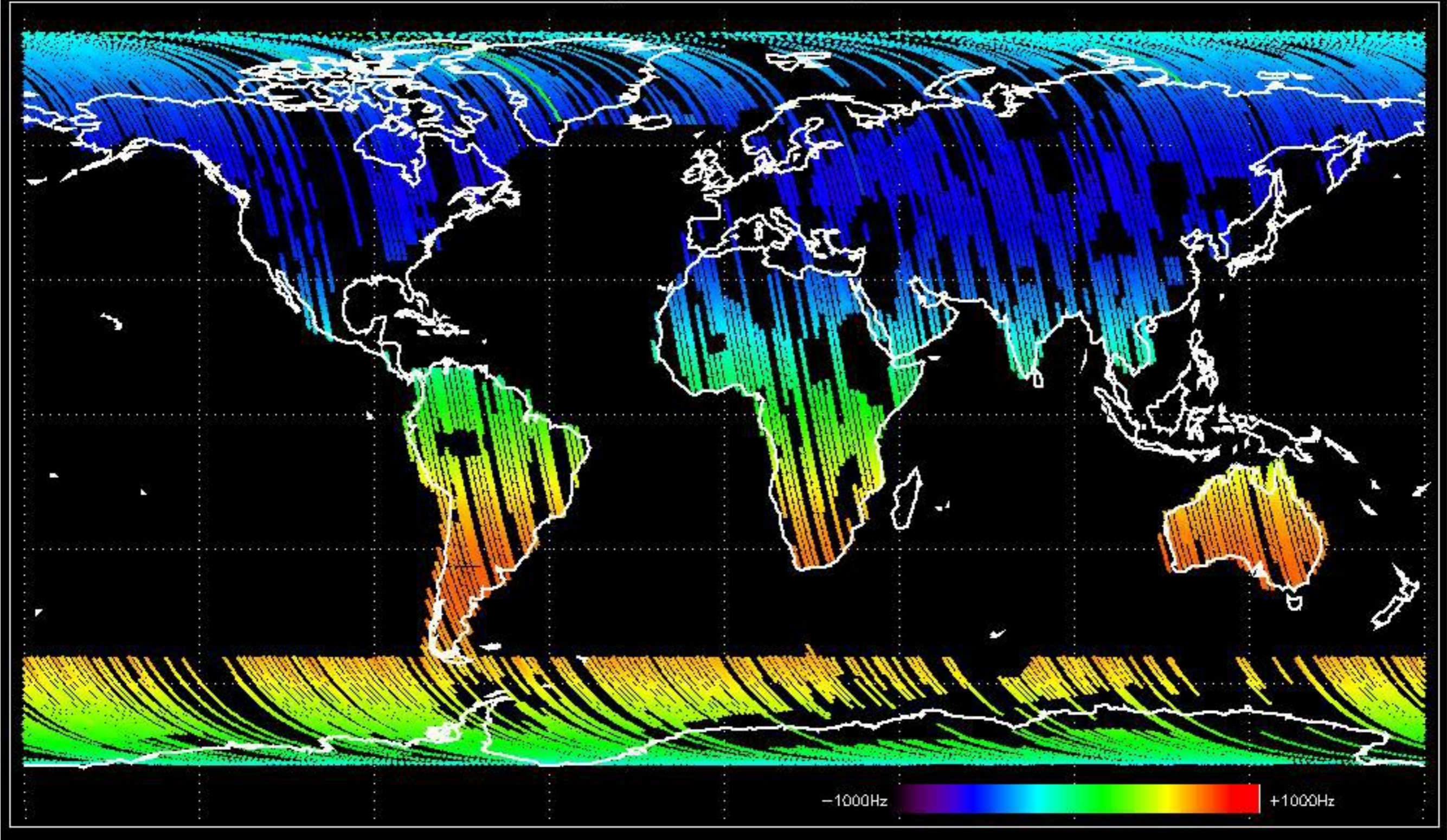


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

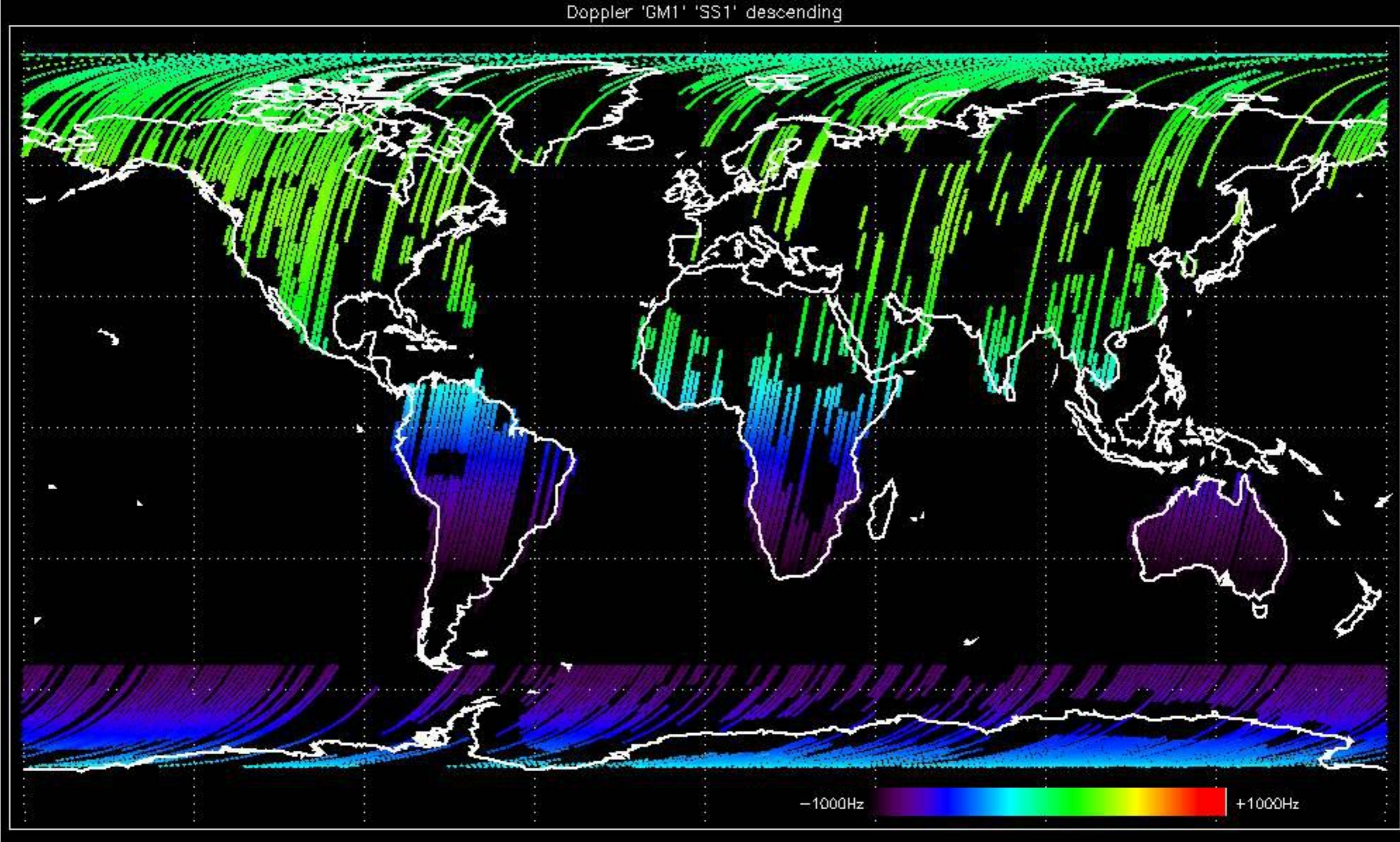
No anomalies observed.

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

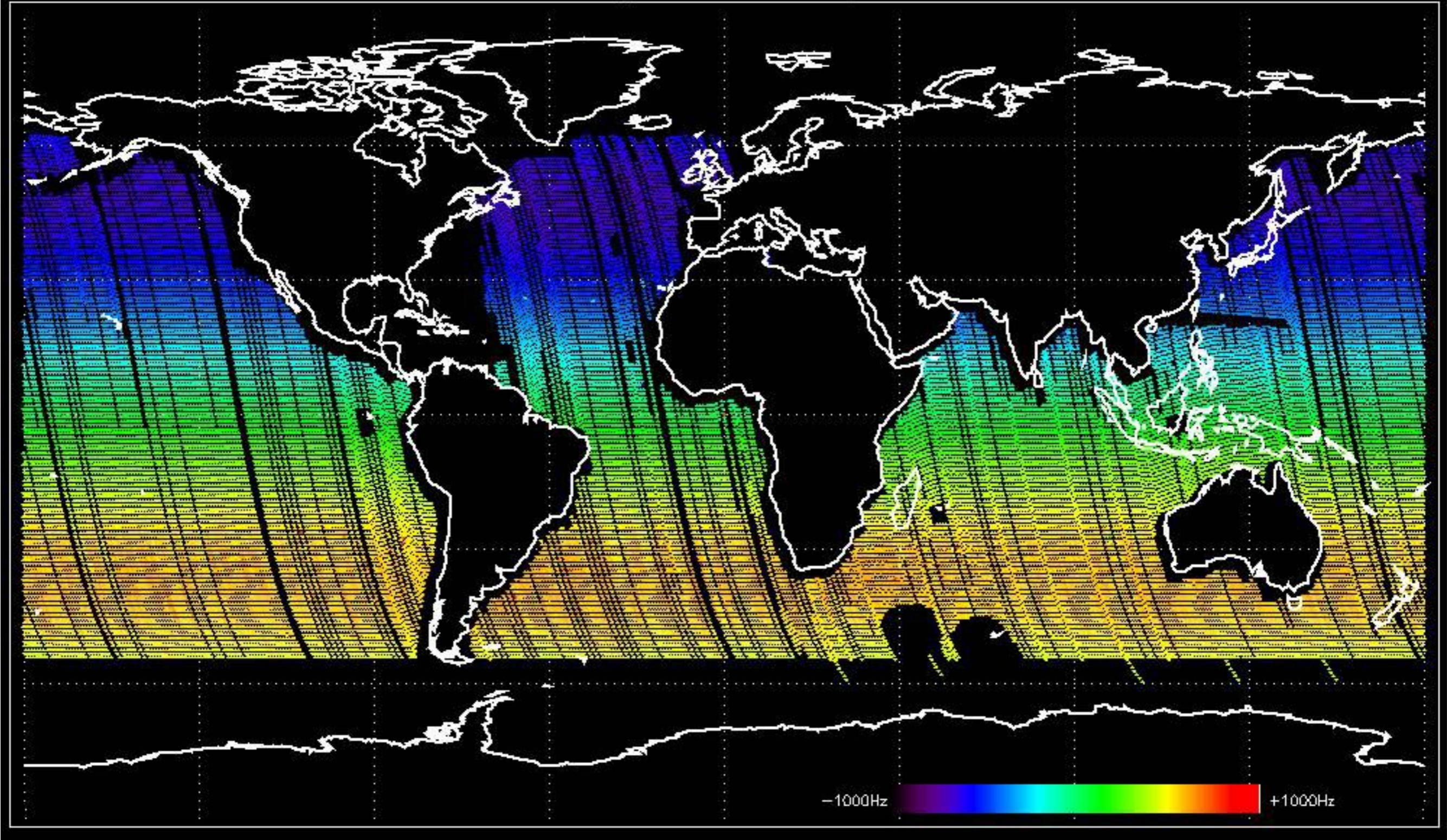
Doppler 'GM1' 'SS1' ascending



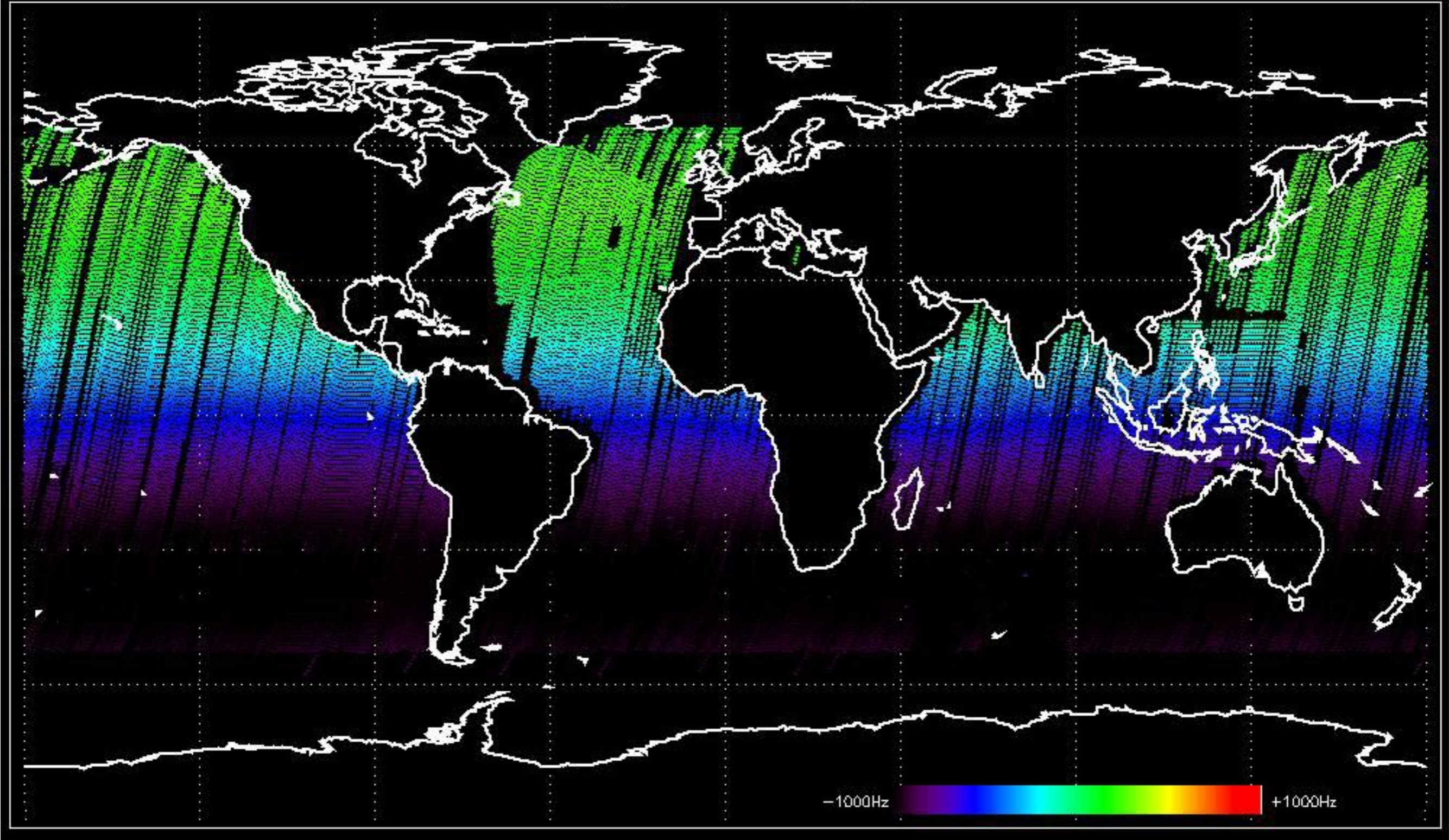
Doppler 'GM1' 'SS1' descending

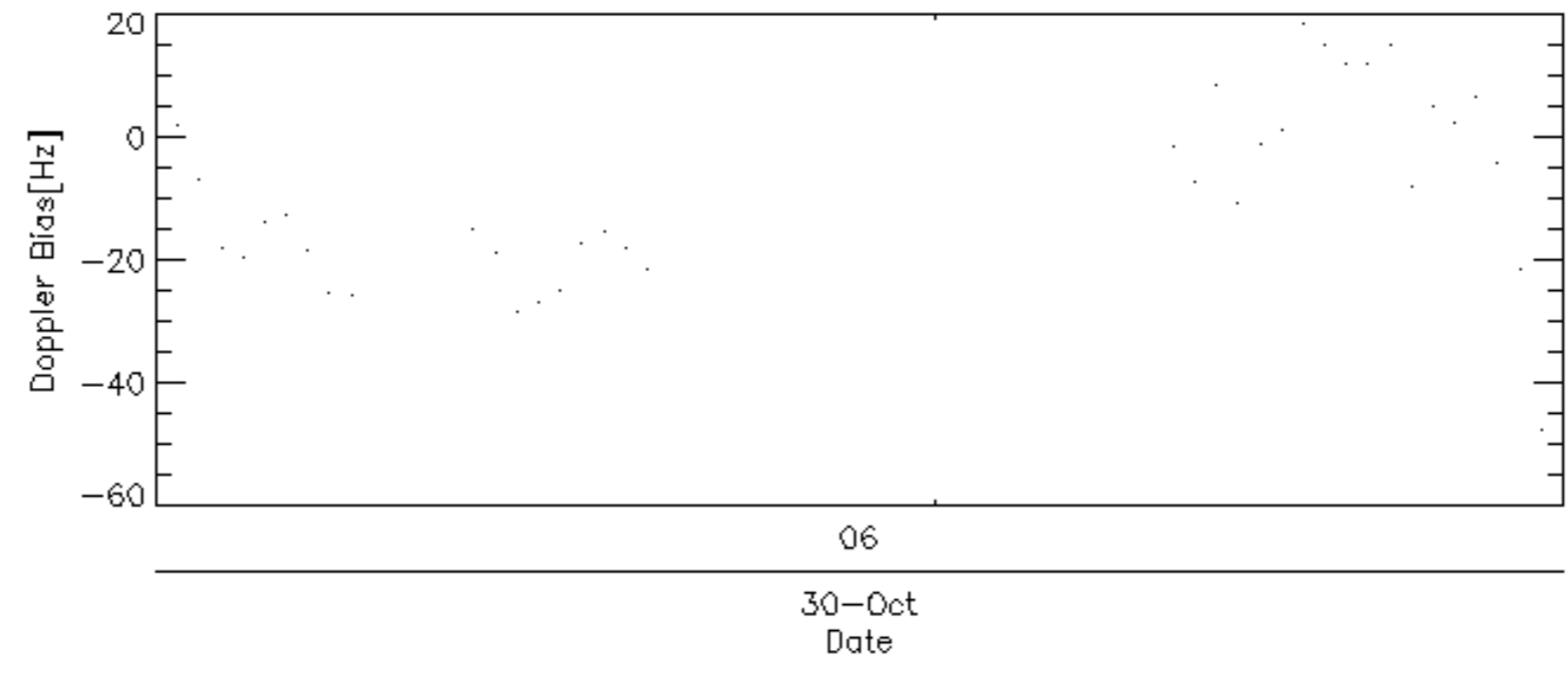
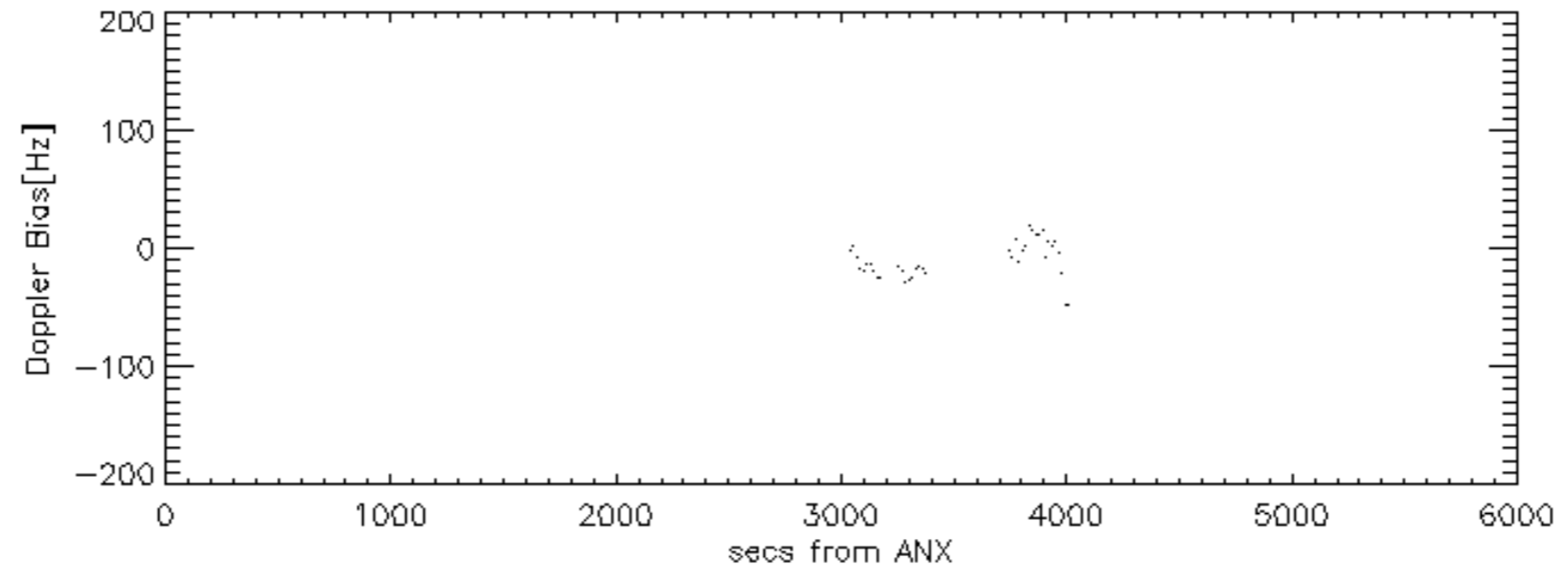
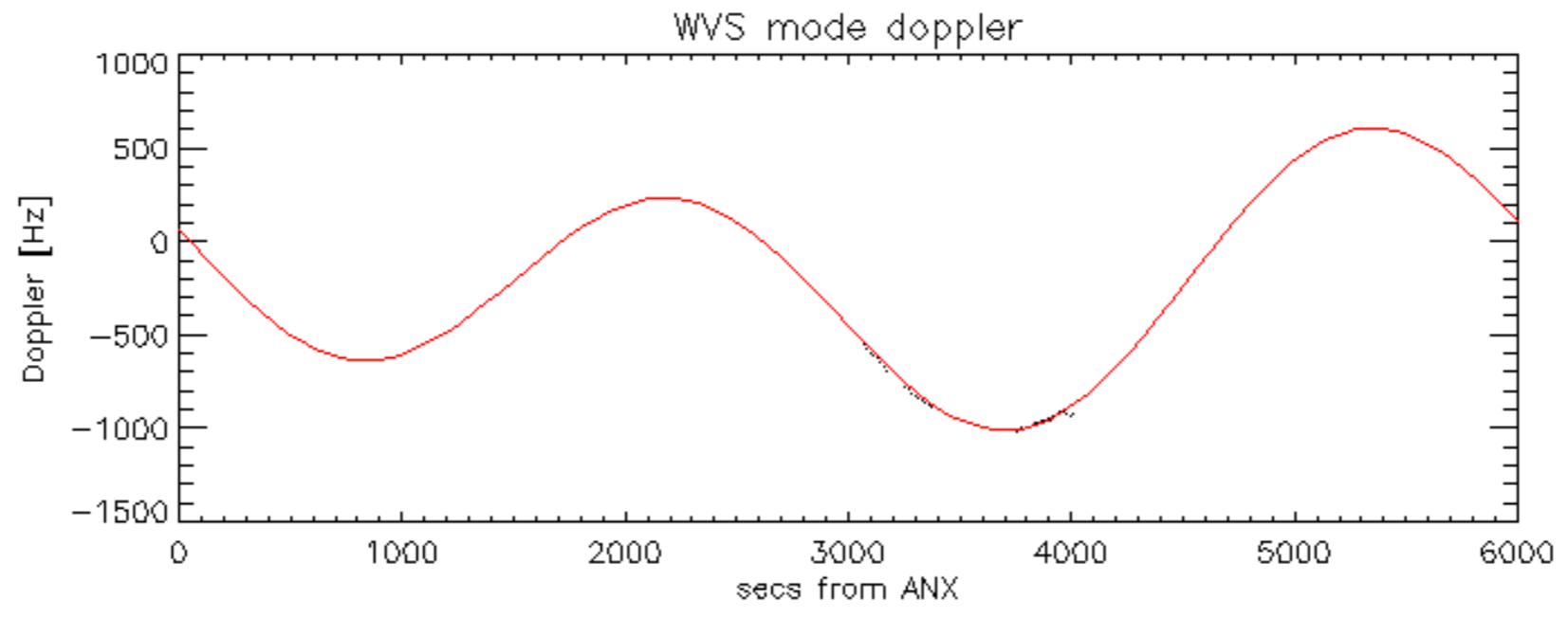


Doppler 'WVS' 'IS2' ascending

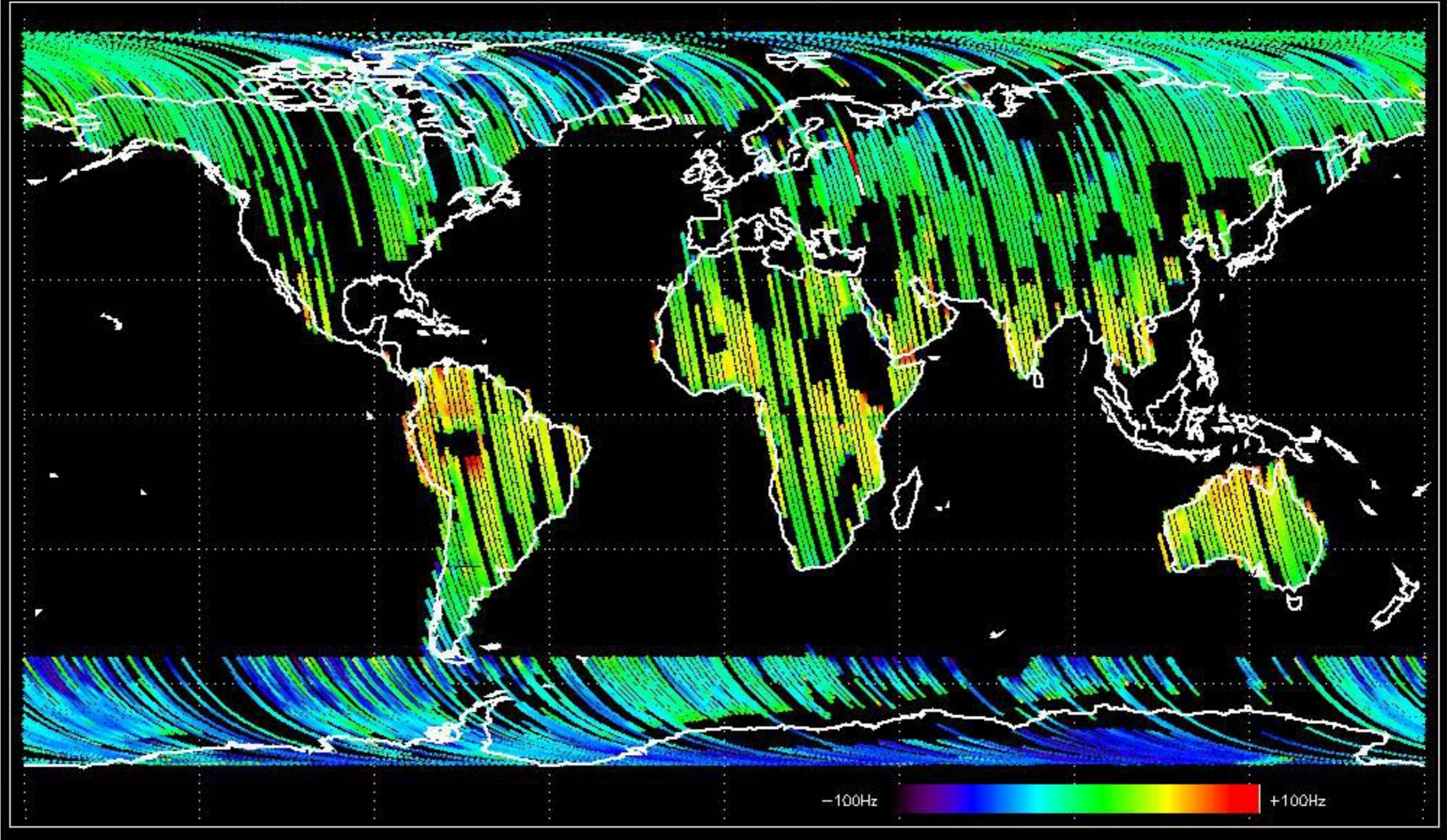


Doppler 'WVS' 'IS2' descending

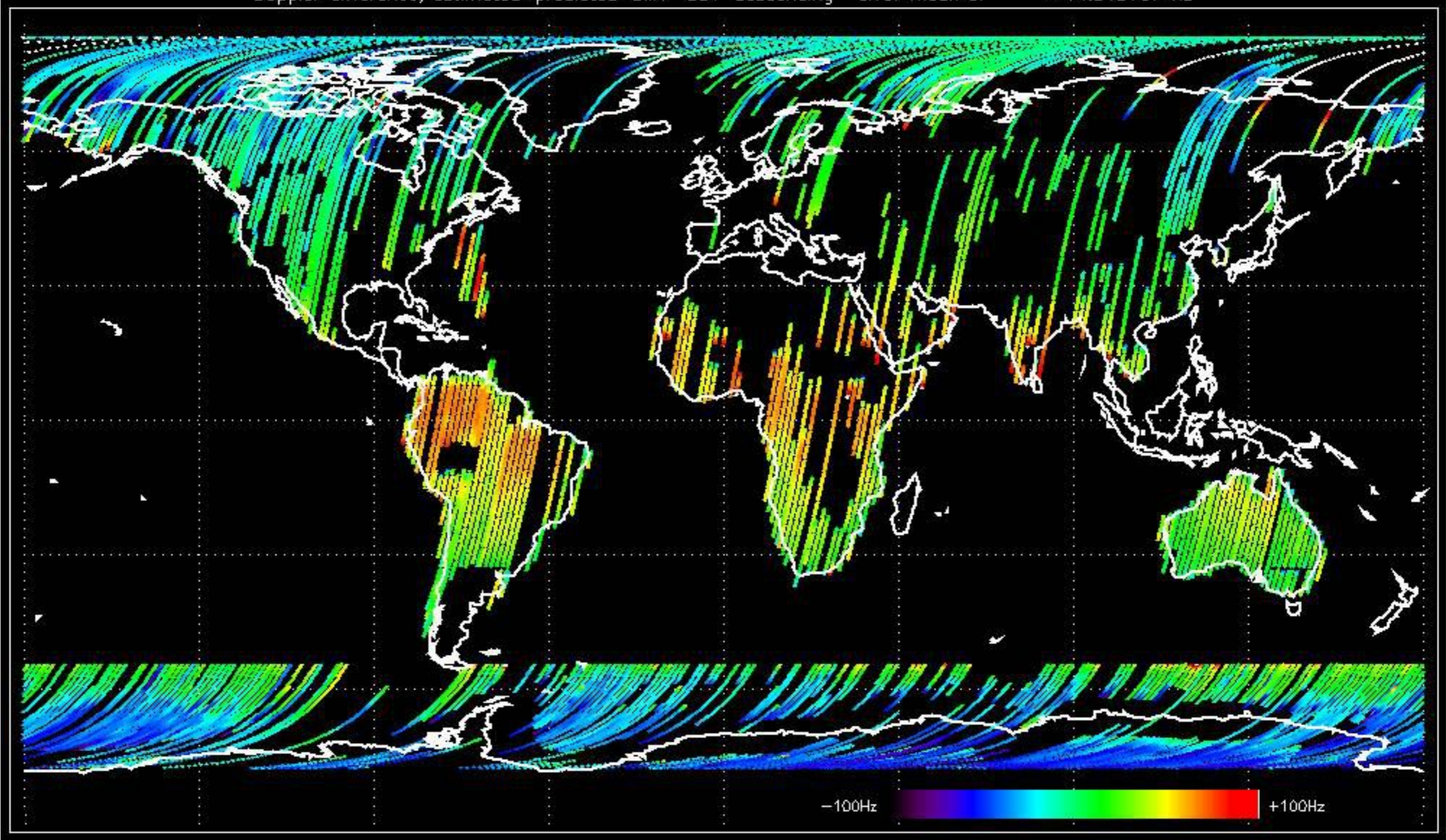




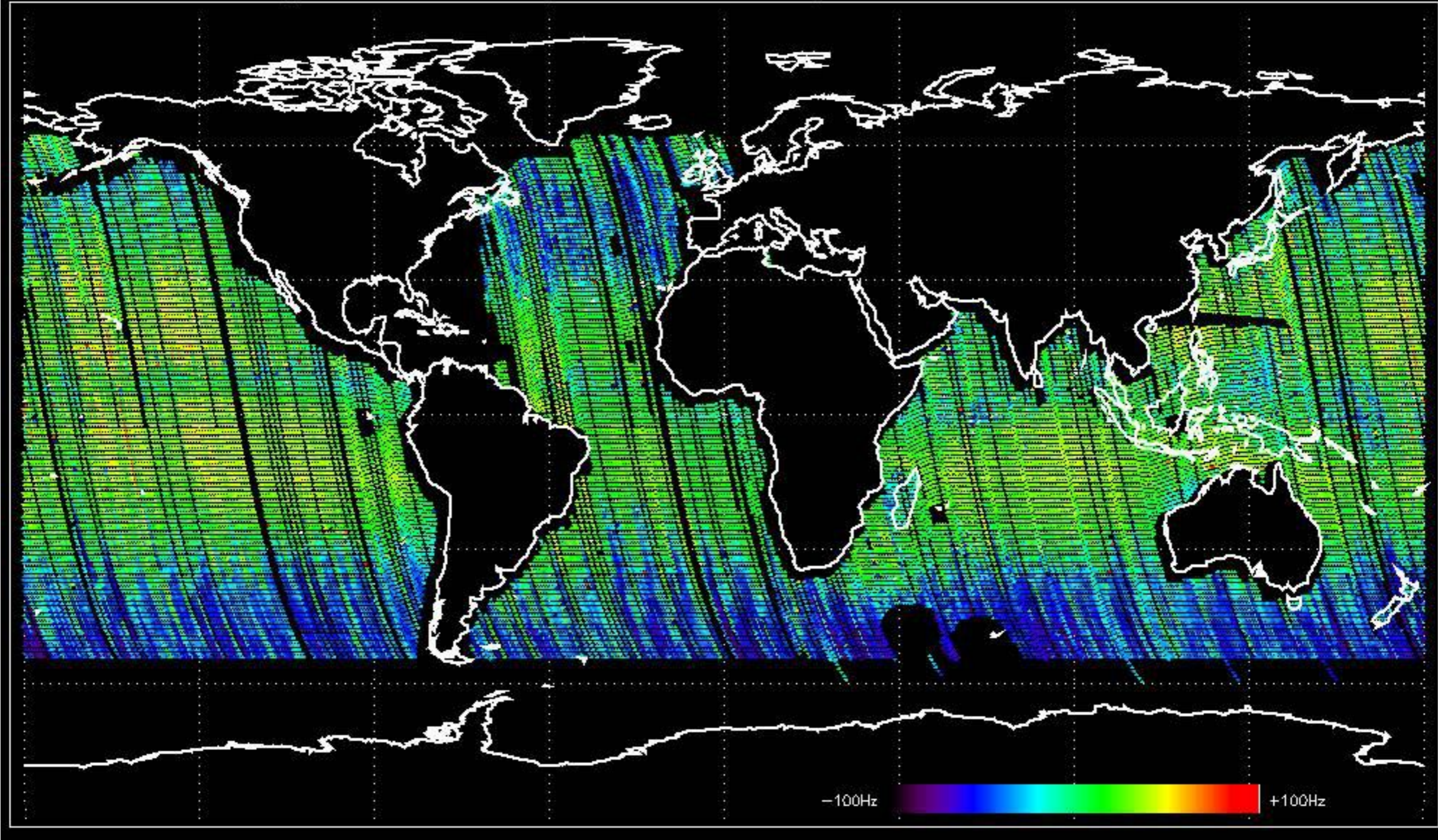
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.386624 Hz



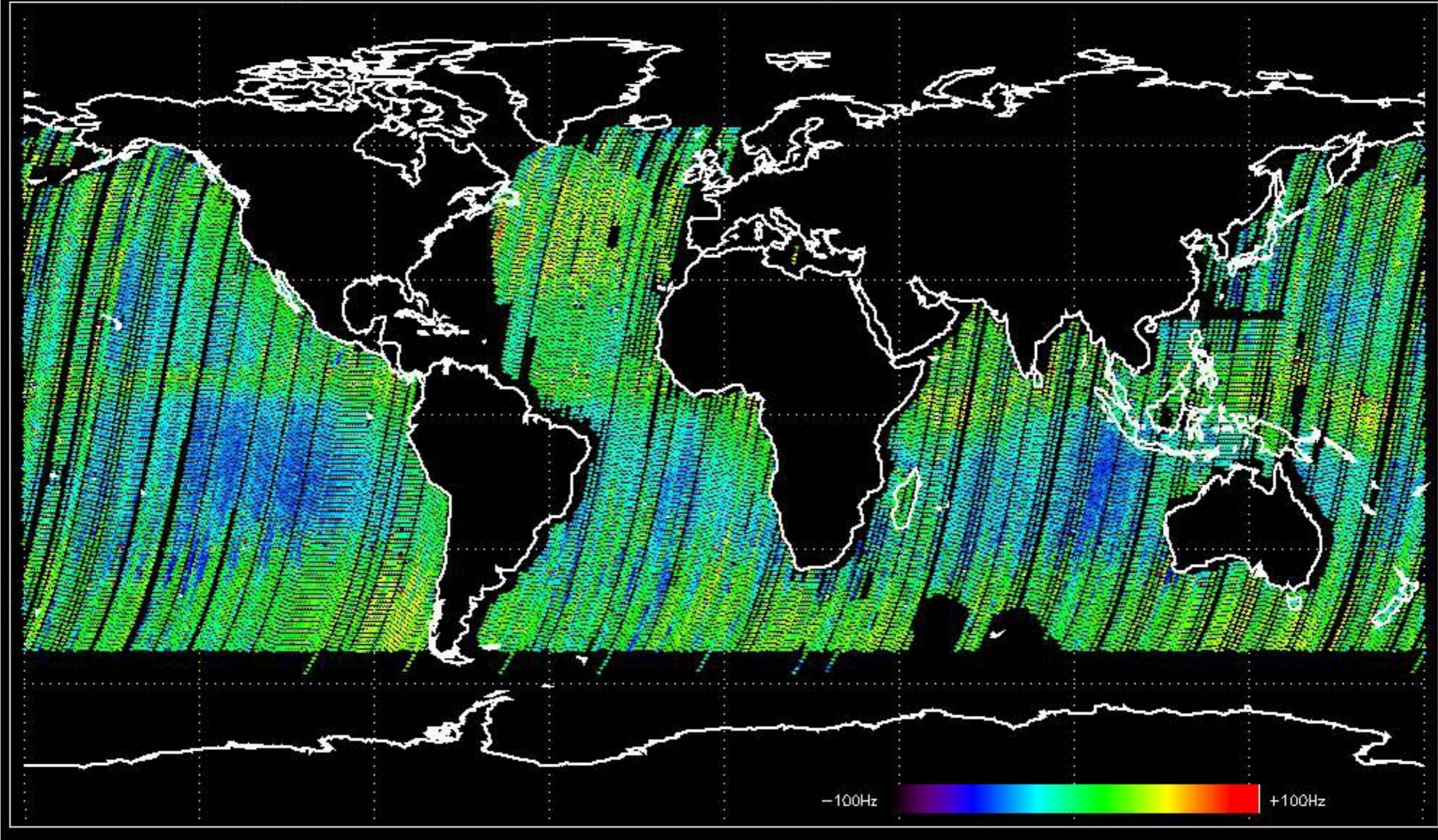
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.545167 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -4.6380465 Hz

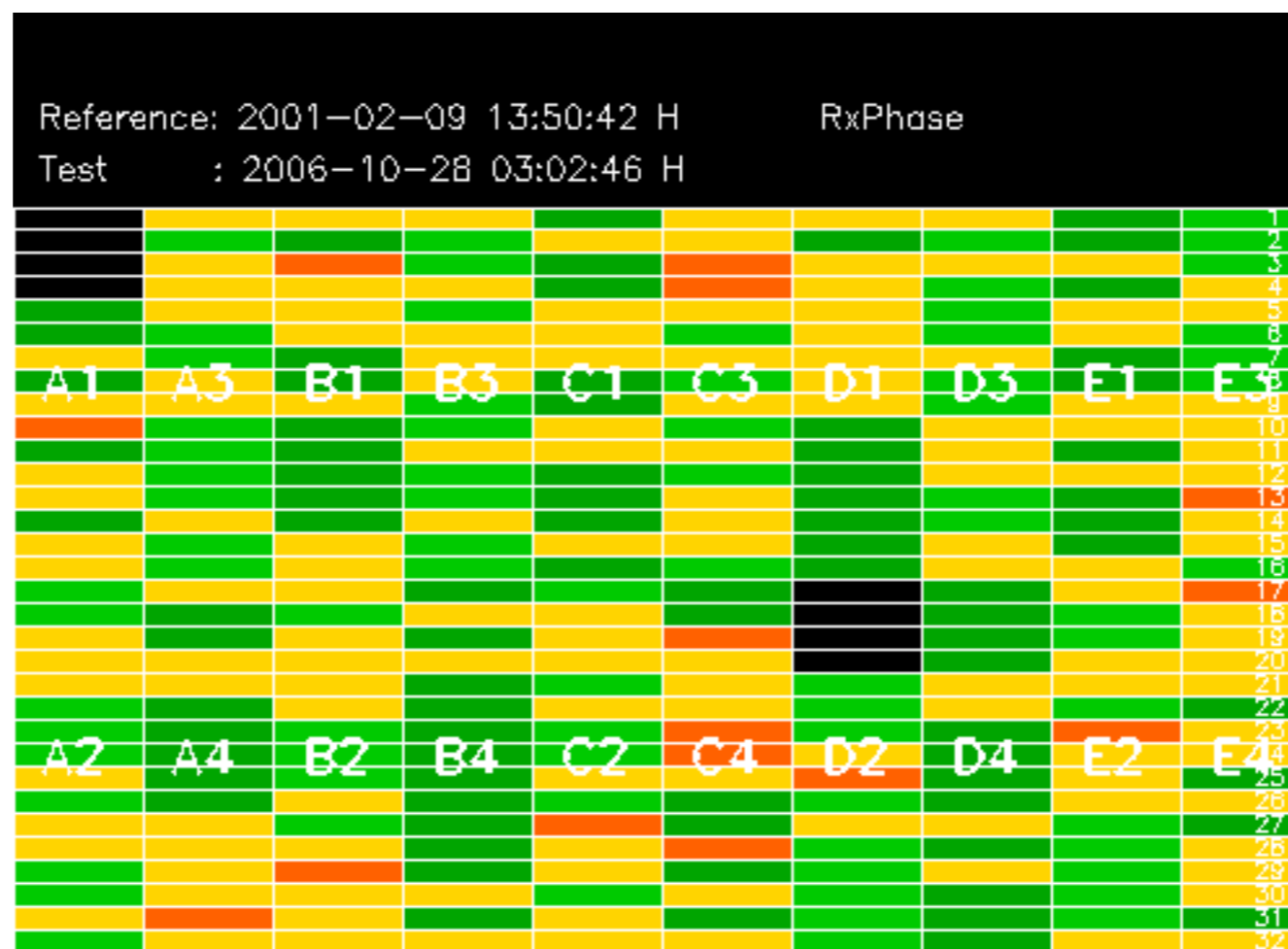


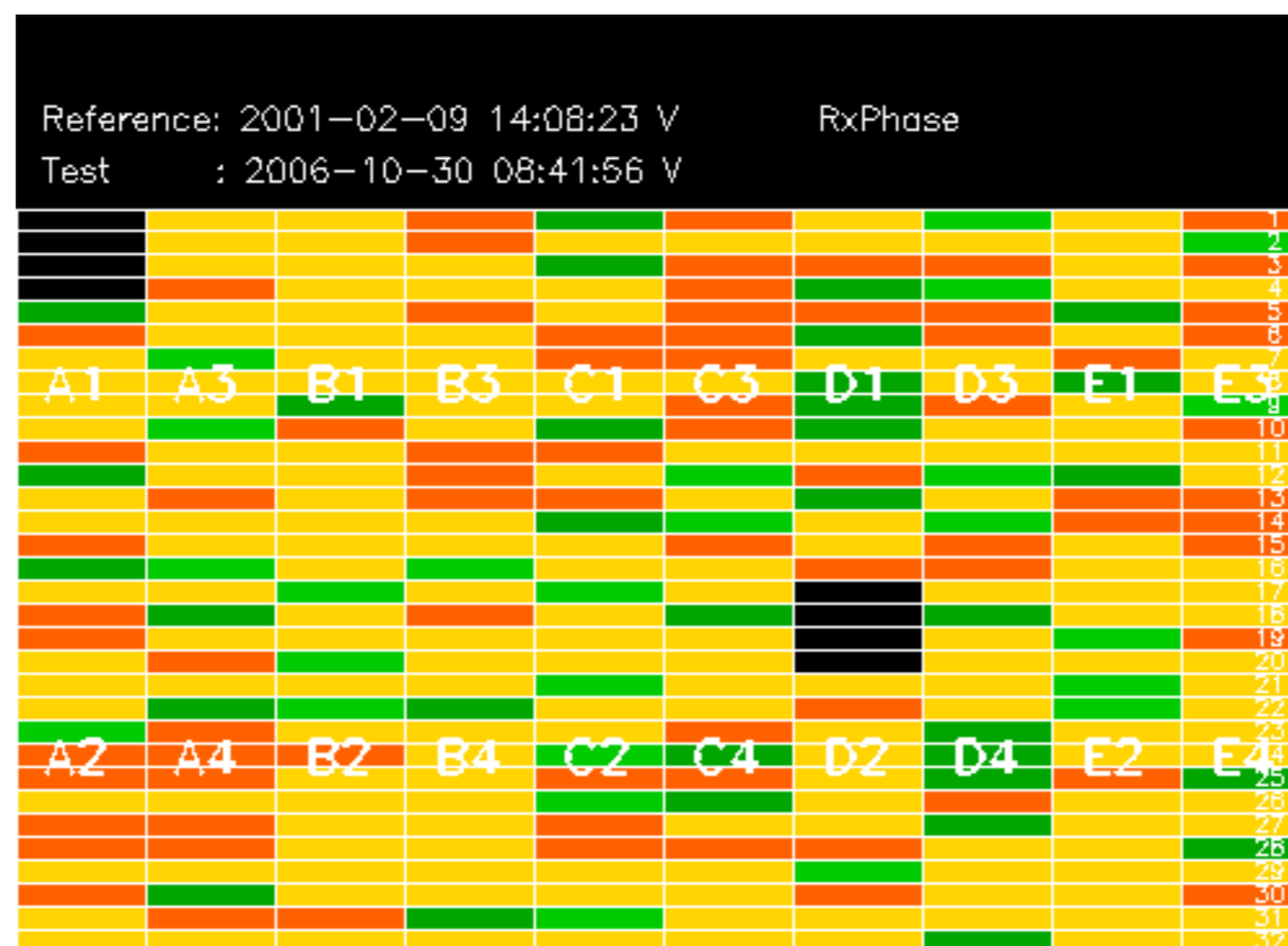
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.321229 Hz

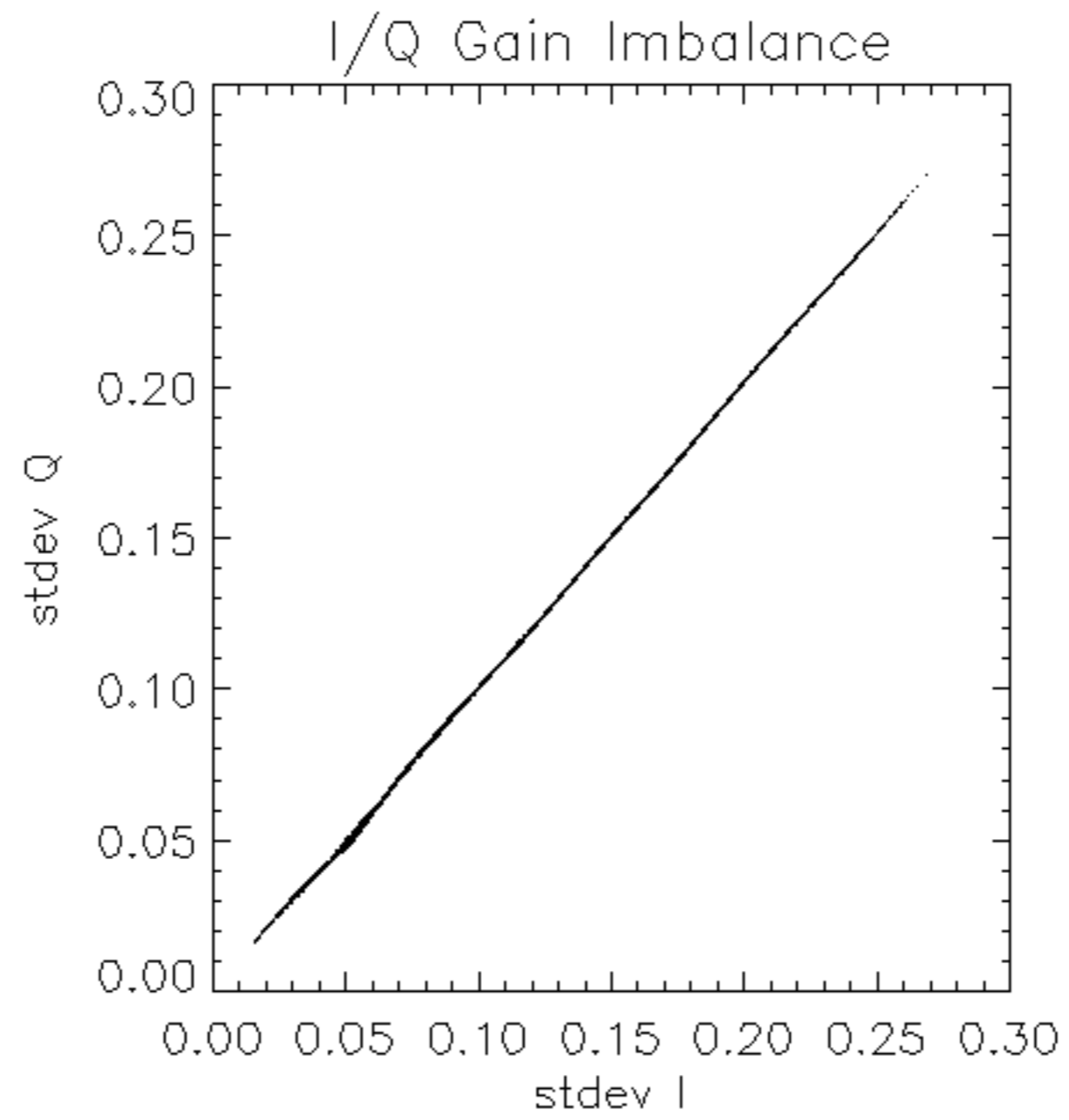


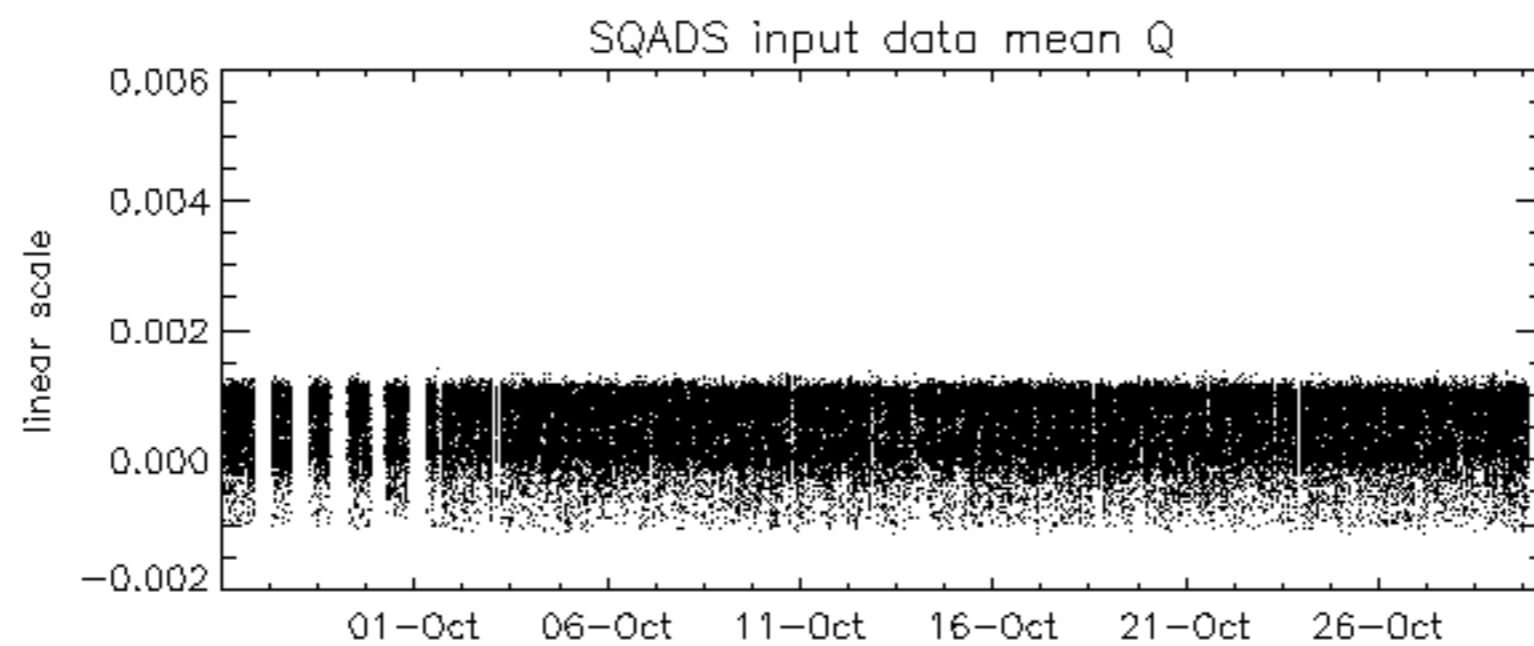
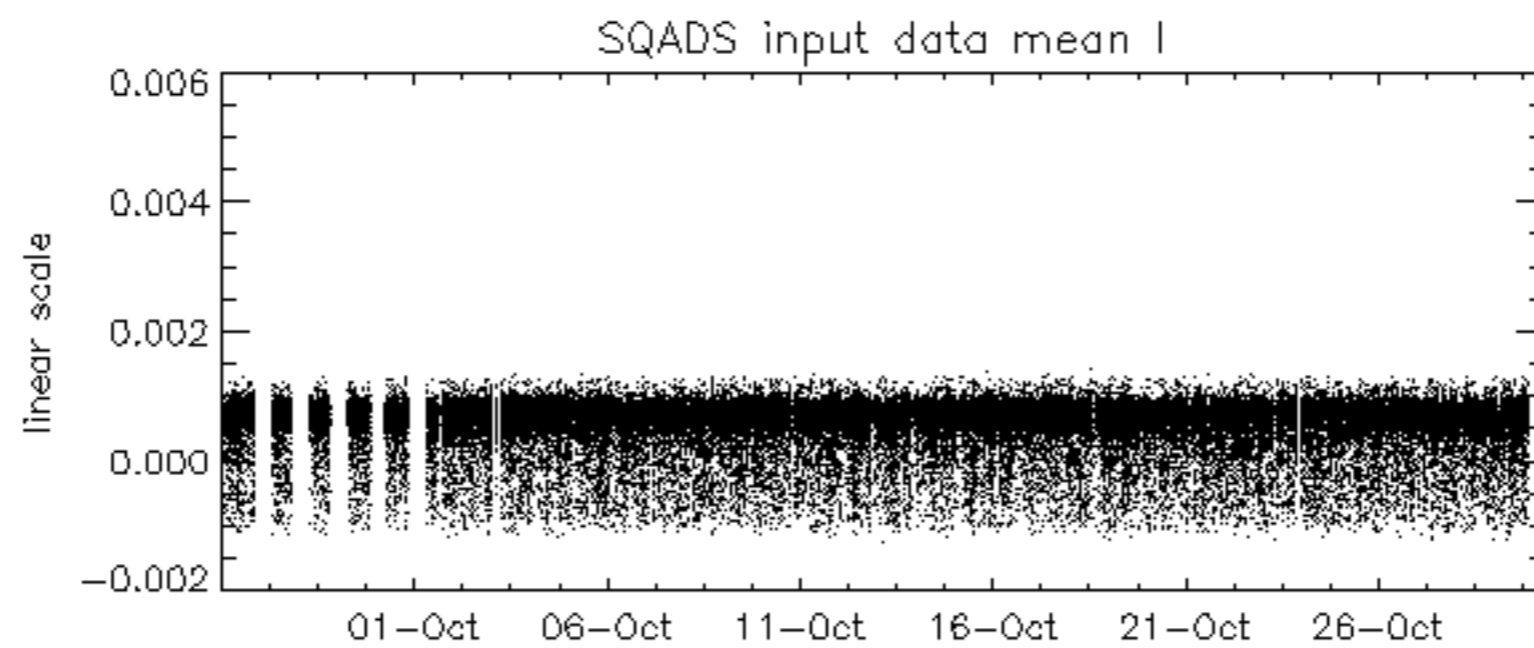
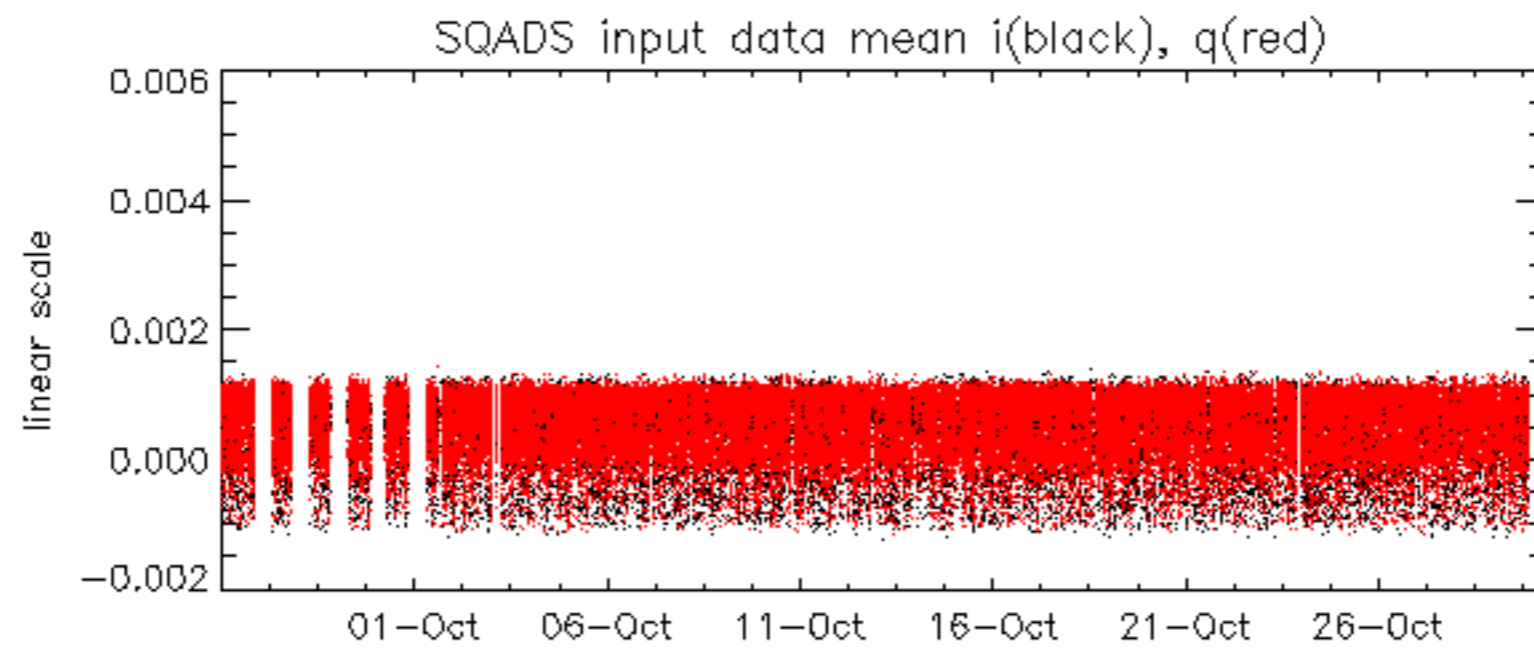
No anomalies observed on available MS products:

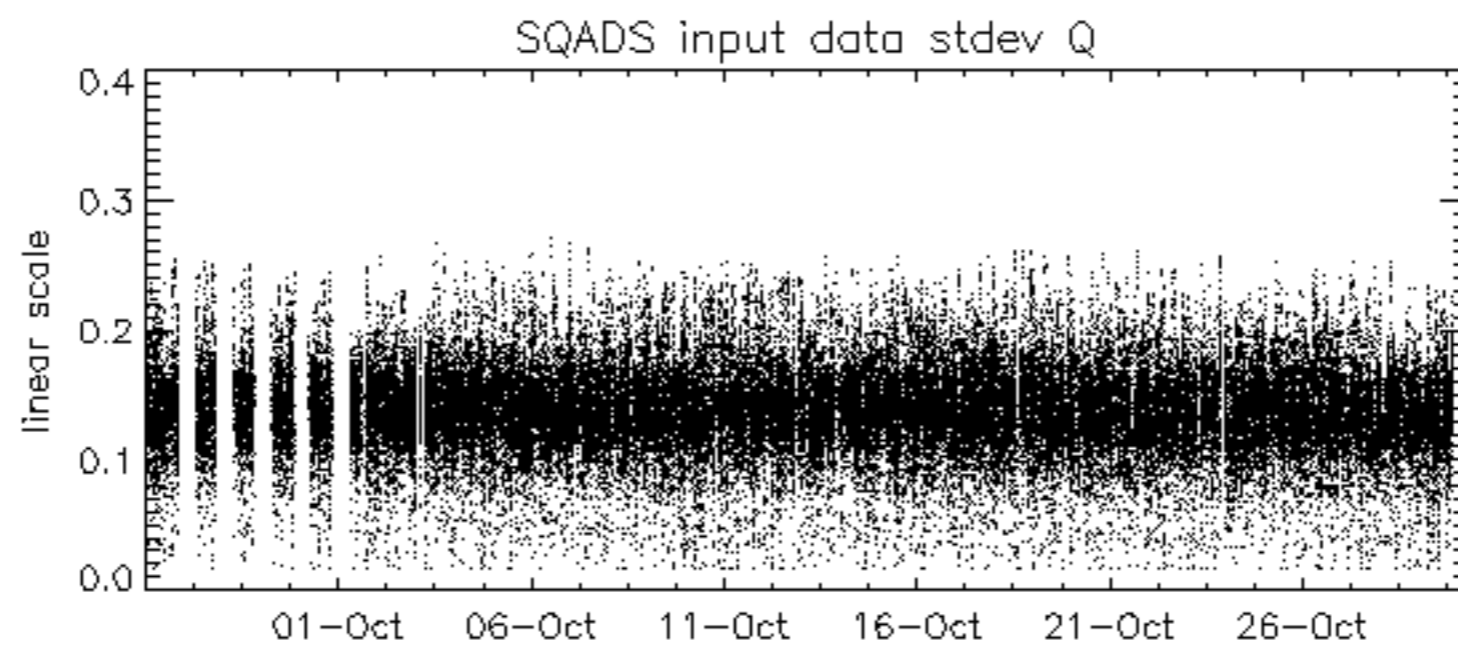
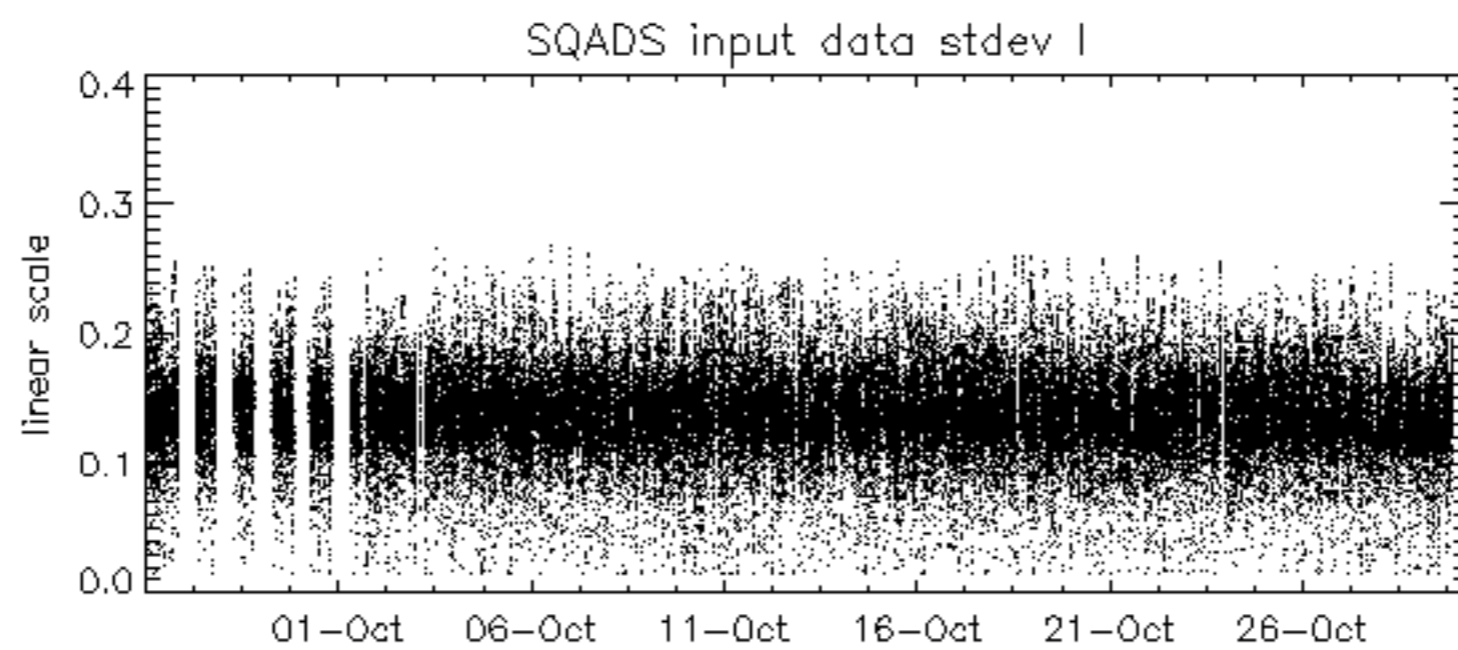
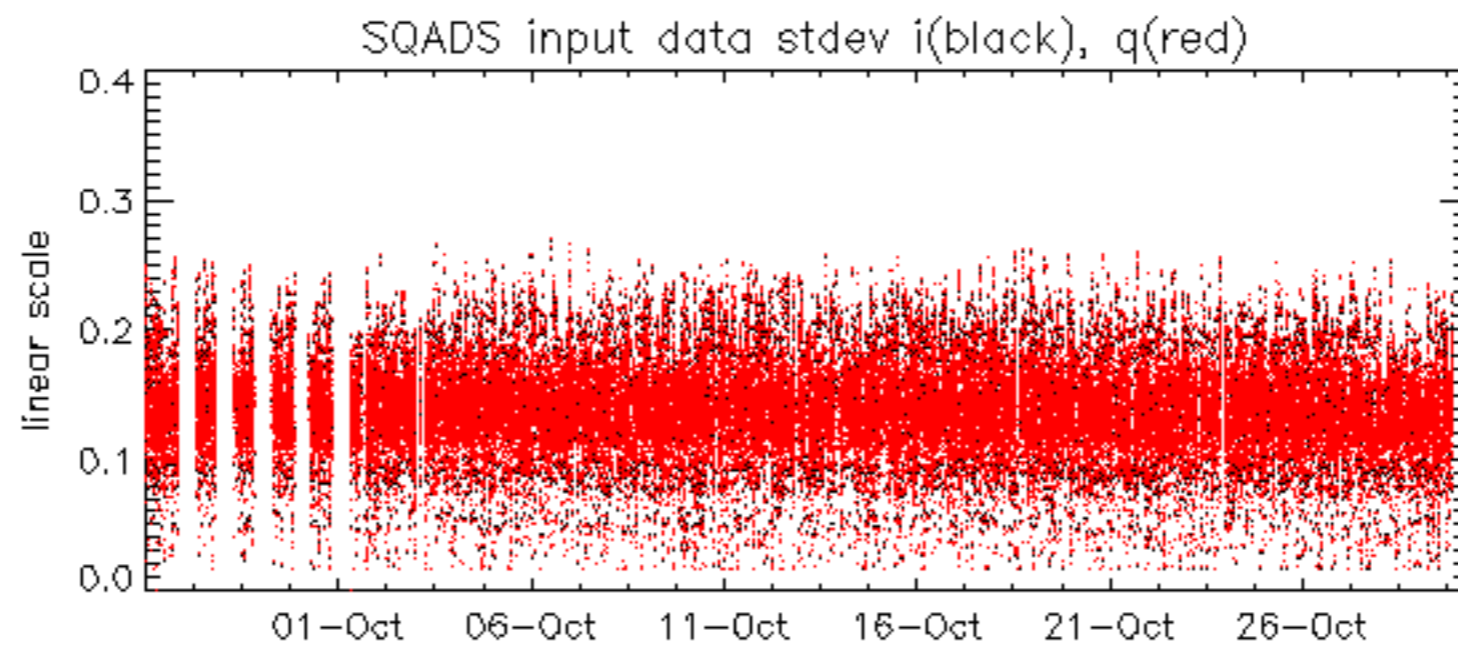
No anomalies observed.







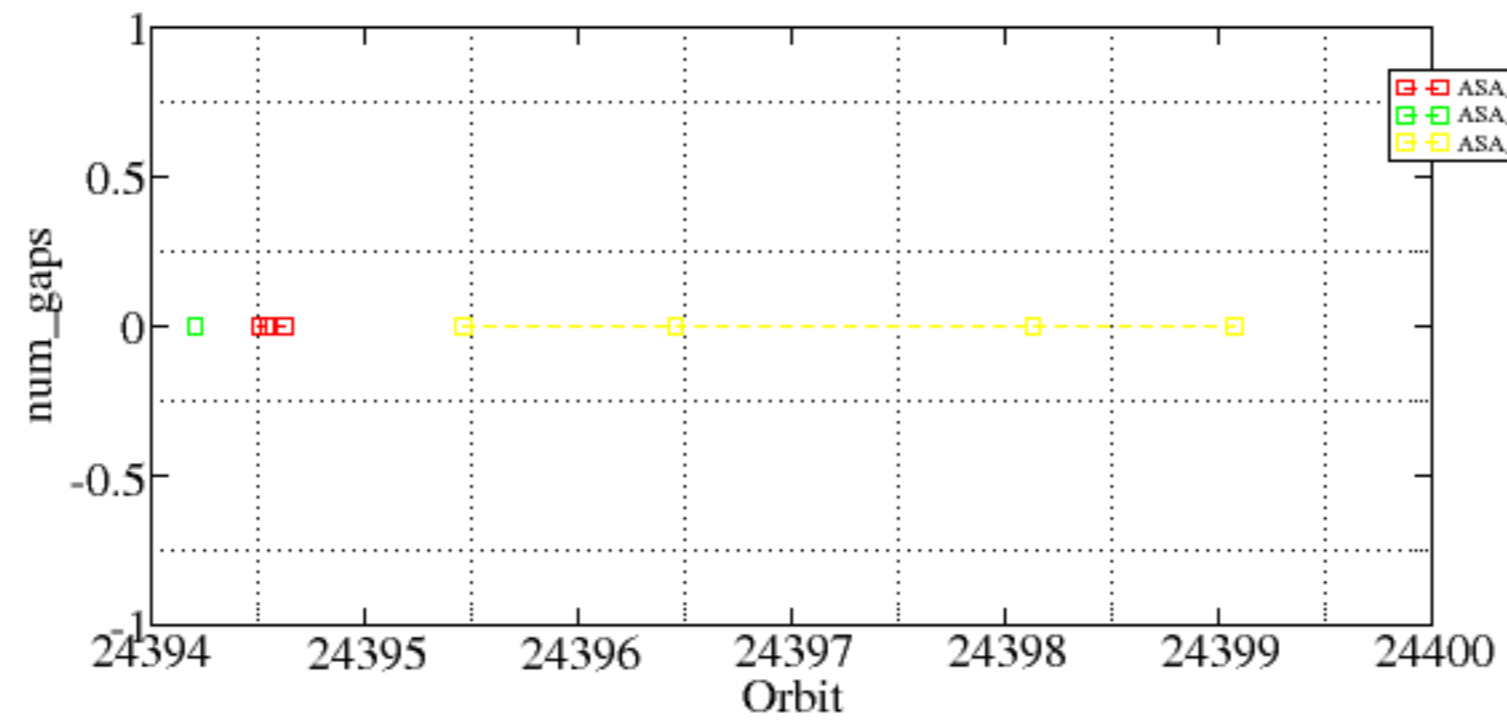


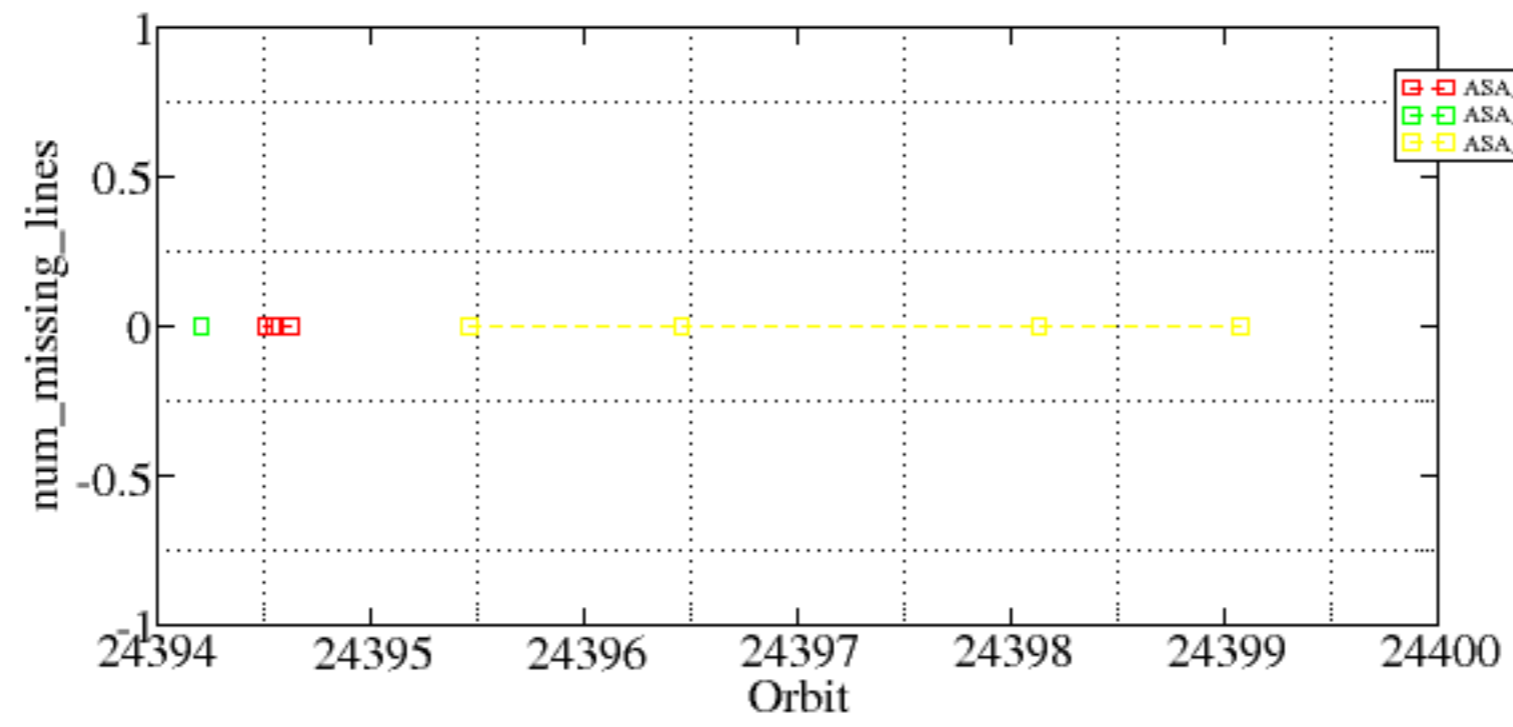


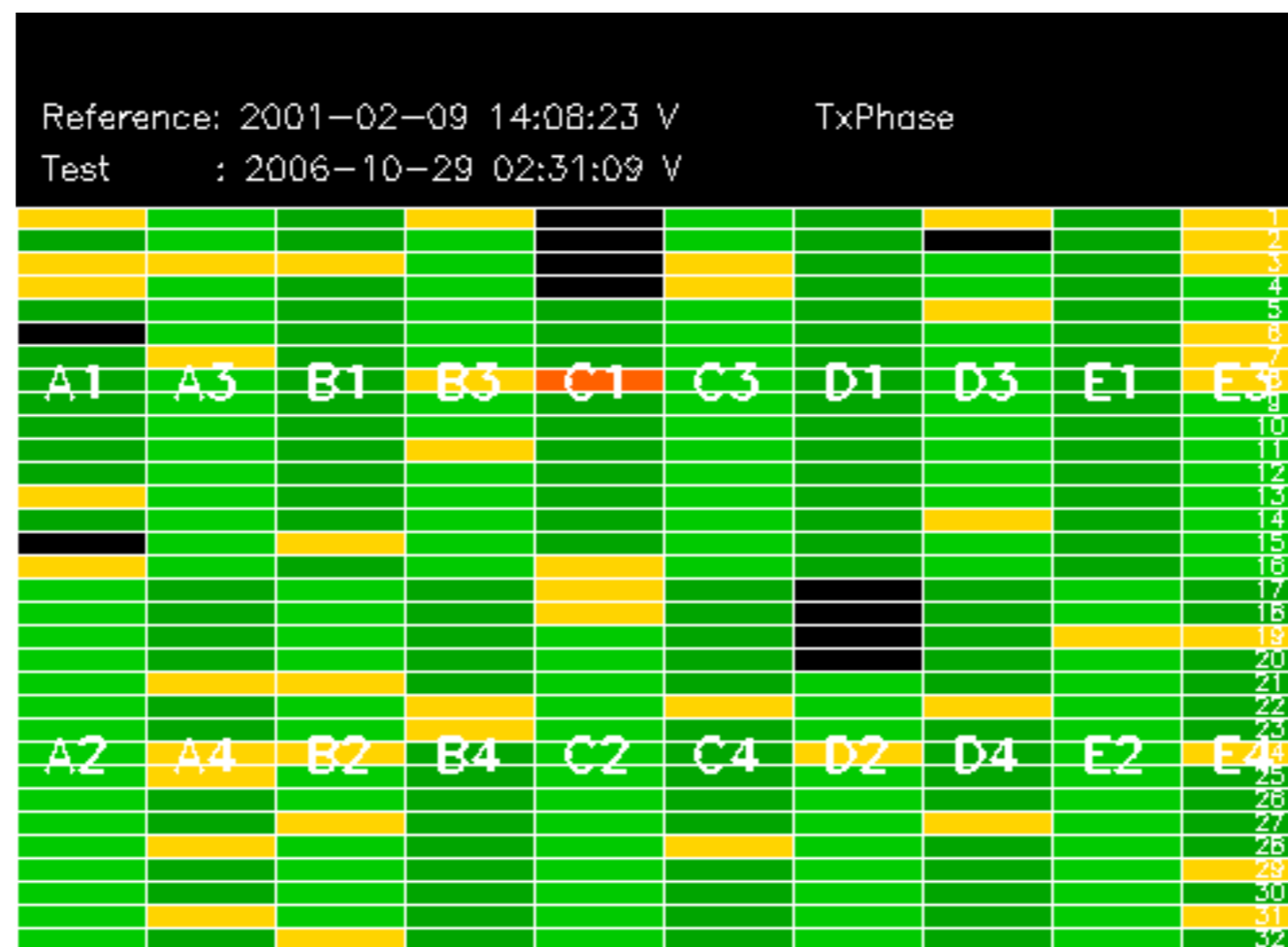
Summary of analysis for the last 3 days 2006103[901]

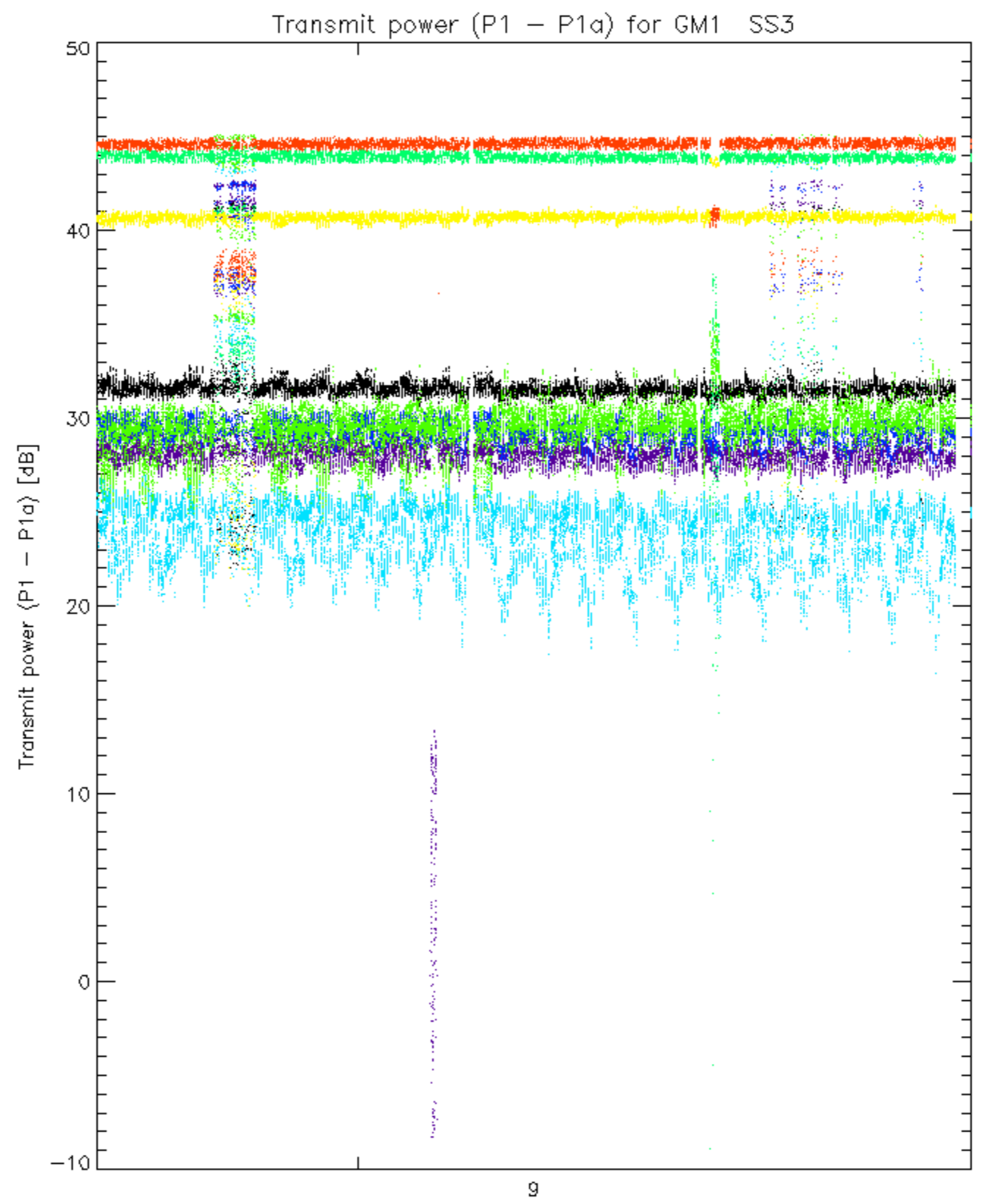
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

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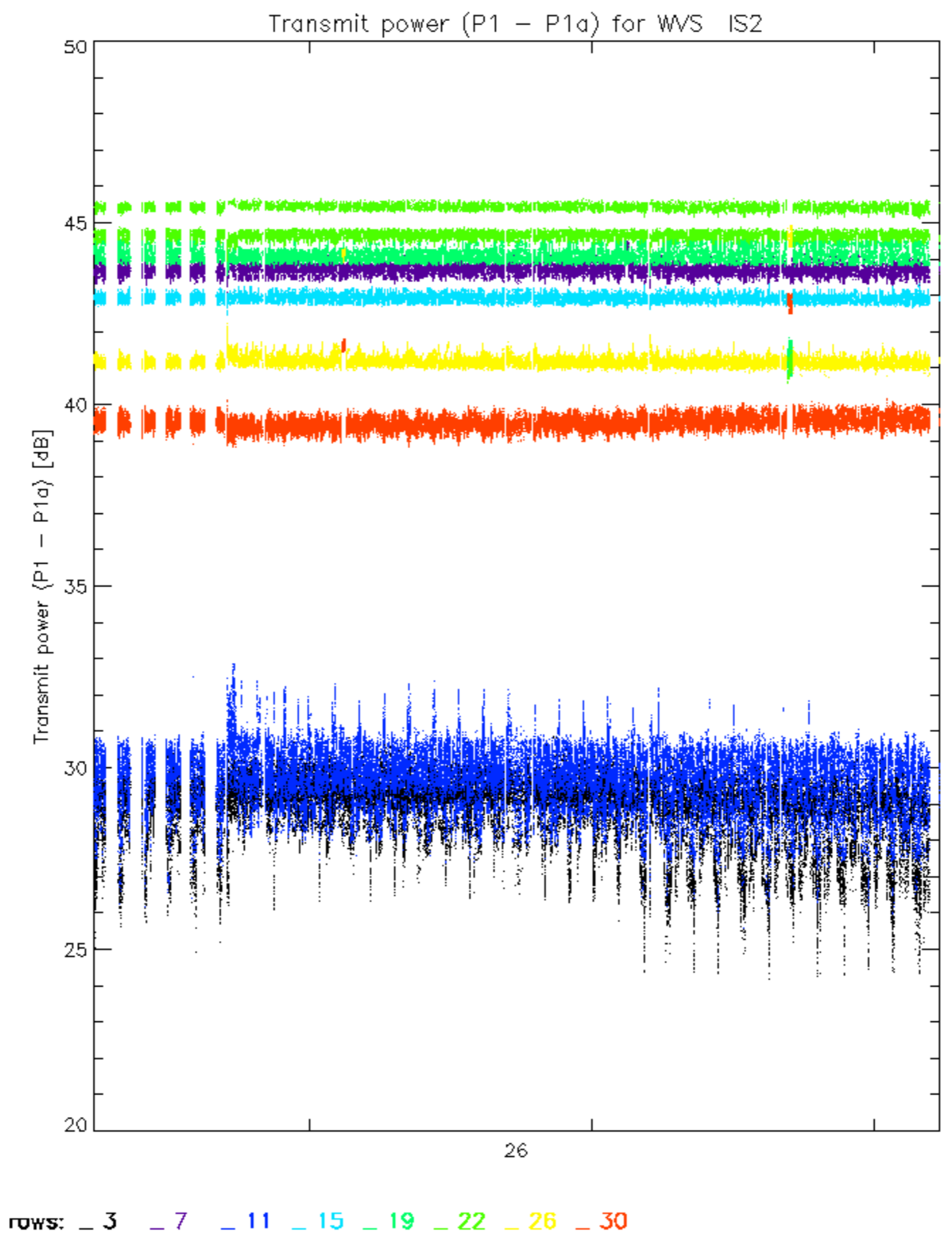









rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



No unavailabilities during the reported period.