

PRELIMINARY REPORT OF 060911

last update on Mon Sep 11 16:33:36 GMT 2006

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 2006-09-10 00:00:00 to 2006-09-11 16:33:36

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	0	0	0	1	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	0	0	0	1	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	0	0	0	1	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	0	0	0	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

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	20060906 170159
H	20060907 062647

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"/>

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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

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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	-3.941914	0.009645	0.001410
7	P1	-3.065990	0.041496	0.070831
11	P1	-4.079541	0.071321	0.148691
15	P1	-6.206940	0.104309	0.153315
19	P1	-3.501578	0.048914	-0.149348
22	P1	-4.565992	0.026205	0.009031
26	P1	-3.935166	0.020393	-0.046560
30	P1	-5.785159	0.144232	-0.124740
3	P1	-16.565290	0.263084	-0.144296
7	P1	-16.813354	0.681362	-0.398107
11	P1	-16.807579	0.317089	0.092610
15	P1	-12.932543	0.143979	0.013384
19	P1	-14.591592	0.435822	-0.296028
22	P1	-15.770909	0.565014	0.406955
26	P1	-15.193986	0.204398	-0.136348
30	P1	-16.963314	0.407734	0.204039

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.844896	0.083156	0.089254
7	P2	-21.861917	0.098029	-0.019072
11	P2	-15.747373	0.110119	-0.016776
15	P2	-7.096828	0.097469	0.011273
19	P2	-9.113903	0.090966	-0.010941
22	P2	-18.127512	0.085091	0.022171
26	P2	-16.400578	0.092184	-0.019296
30	P2	-19.473045	0.089861	0.005909

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175807	0.004110	-0.014189
7	P3	-8.175807	0.004110	-0.014189
11	P3	-8.175807	0.004110	-0.014189
15	P3	-8.175807	0.004110	-0.014189
19	P3	-8.175807	0.004110	-0.014189
22	P3	-8.175807	0.004110	-0.014189

26	P3	-8.175861	0.004109	-0.013965
30	P3	-8.175861	0.004109	-0.013965

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	-3.840116	0.022795	-0.012993
7	P1	-2.482115	0.283963	0.075879
11	P1	-2.910184	0.154581	0.220354
15	P1	-3.677719	0.156639	0.179031
19	P1	-3.454287	0.080140	-0.116627
22	P1	-5.091276	0.036453	-0.043725
26	P1	-5.869746	0.029681	0.030459
30	P1	-5.197495	0.084167	-0.061103
3	P1	-11.631018	0.070455	-0.005070
7	P1	-9.920370	0.204664	-0.048294
11	P1	-10.326751	0.087057	-0.009987
15	P1	-10.858068	0.180848	-0.082611
19	P1	-15.668254	3.558486	-0.683927
22	P1	-20.845041	1.726435	0.239484
26	P1	-16.015741	0.411914	0.311243
30	P1	-18.008545	0.824148	-0.163960

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.435369	0.076922	0.078513
7	P2	-22.219963	0.199862	0.072298

11	P2	-10.914908	0.057454	0.055685
15	P2	-4.869942	0.040521	0.044610
19	P2	-6.852086	0.040808	0.013351
22	P2	-8.170379	0.064592	0.062846
26	P2	-24.164873	0.133459	-0.022234
30	P2	-21.962492	0.080400	0.011115

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018736	0.003616	-0.013833
7	P3	-8.018579	0.003623	-0.013665
11	P3	-8.018500	0.003632	-0.013345
15	P3	-8.018559	0.003642	-0.013337
19	P3	-8.018690	0.003645	-0.013418
22	P3	-8.018778	0.003610	-0.013569
26	P3	-8.018641	0.003628	-0.014301
30	P3	-8.018547	0.003624	-0.013962

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	0.000546908
	stdev	1.79392e-07
MEAN Q	mean	0.000527394
	stdev	2.16998e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135855
	stdev	0.00109498
STDEV Q	mean	0.136199
	stdev	0.00111114



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006091[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	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.3 - Doppler evolution versus ANX for WVS

7.4 - Unbiased Doppler Error for GM1

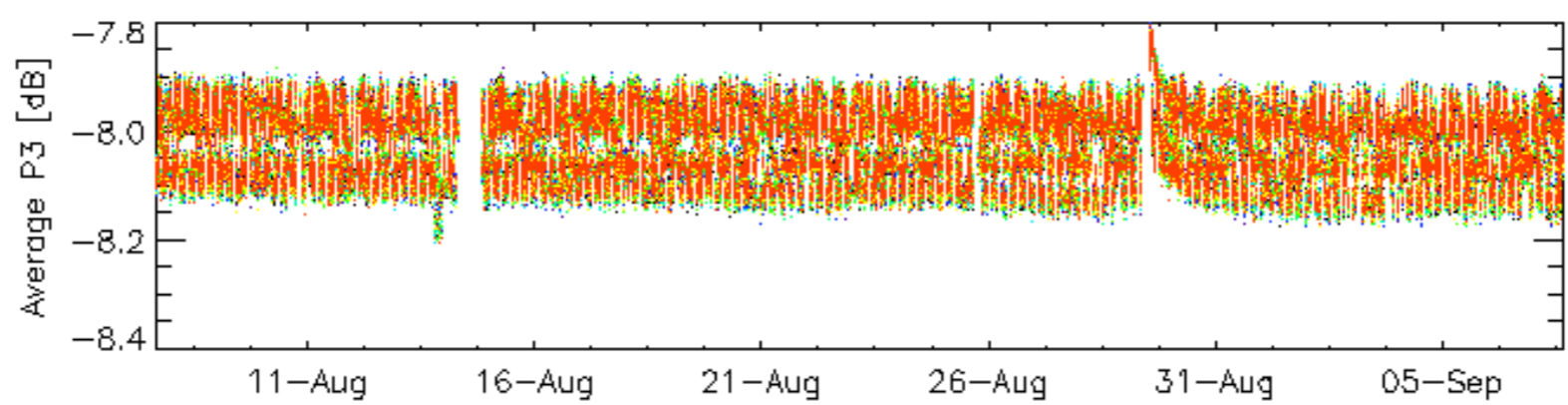
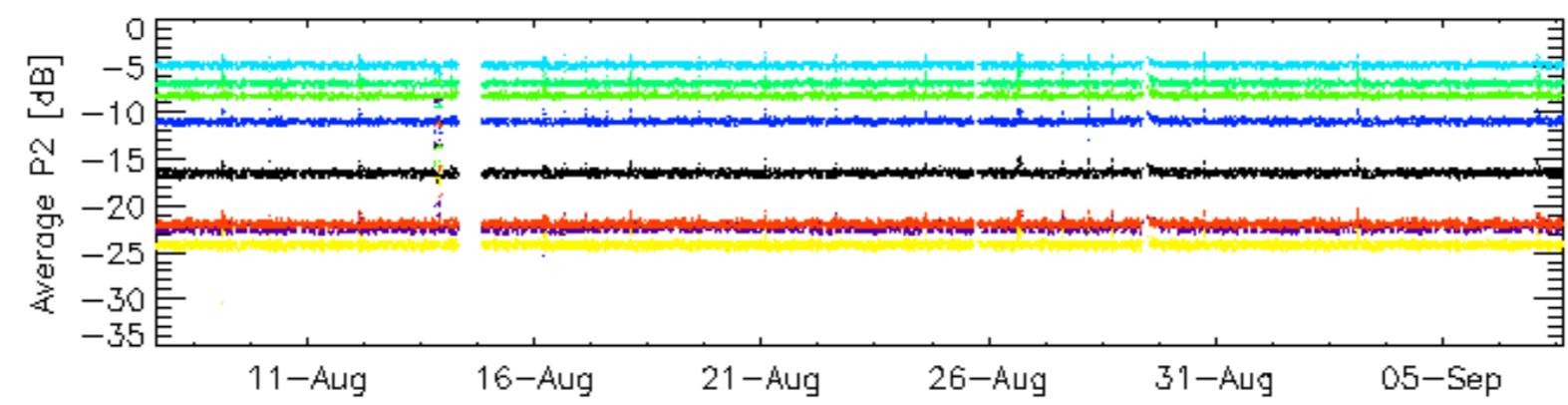
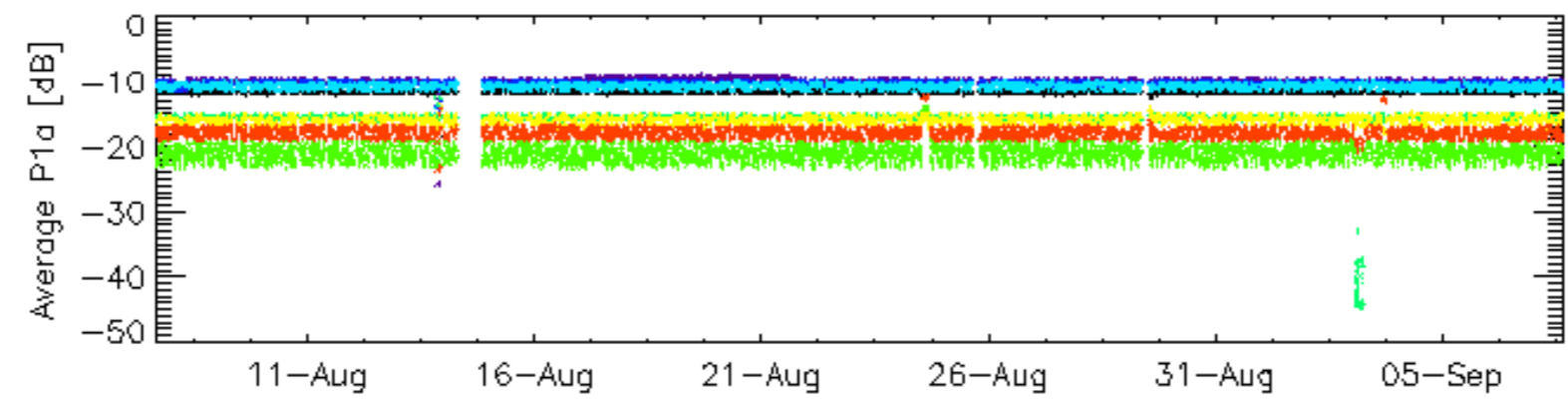
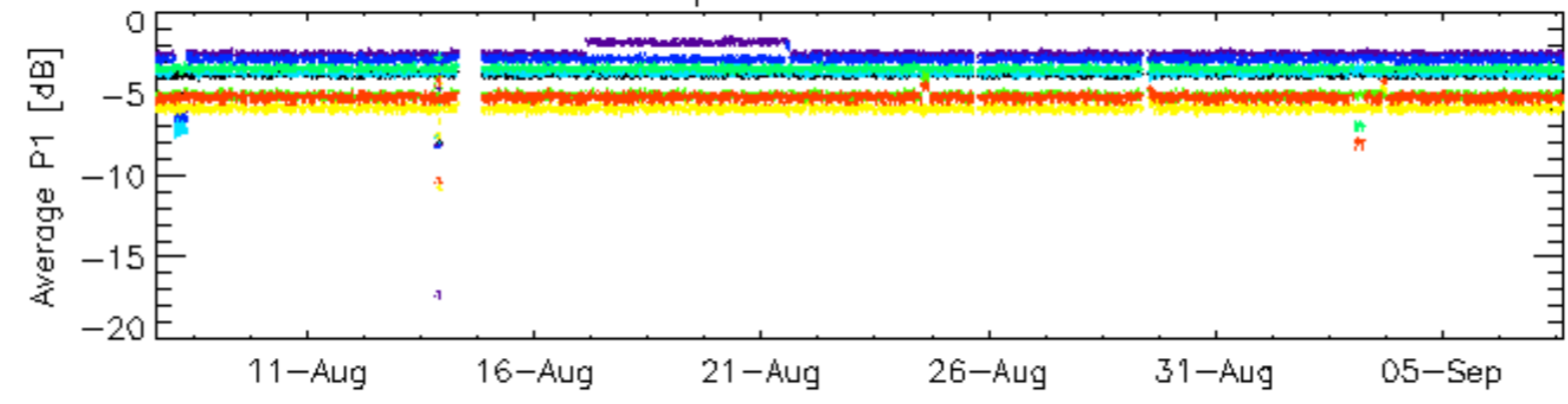
Evolution of unbiased Doppler error (Real - Expected)	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.5 - Absolute Doppler for GM1

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

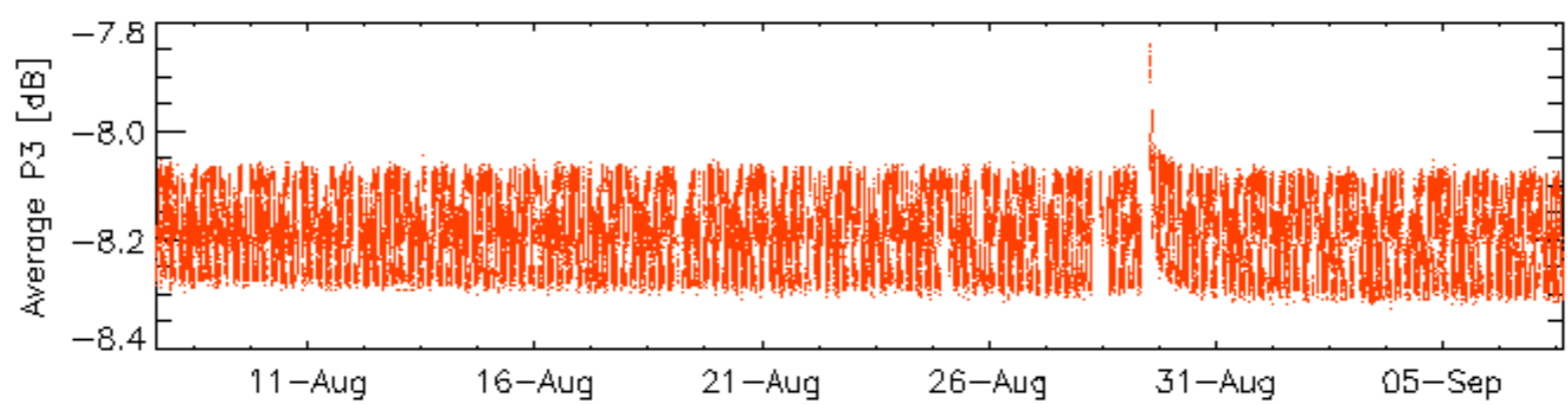
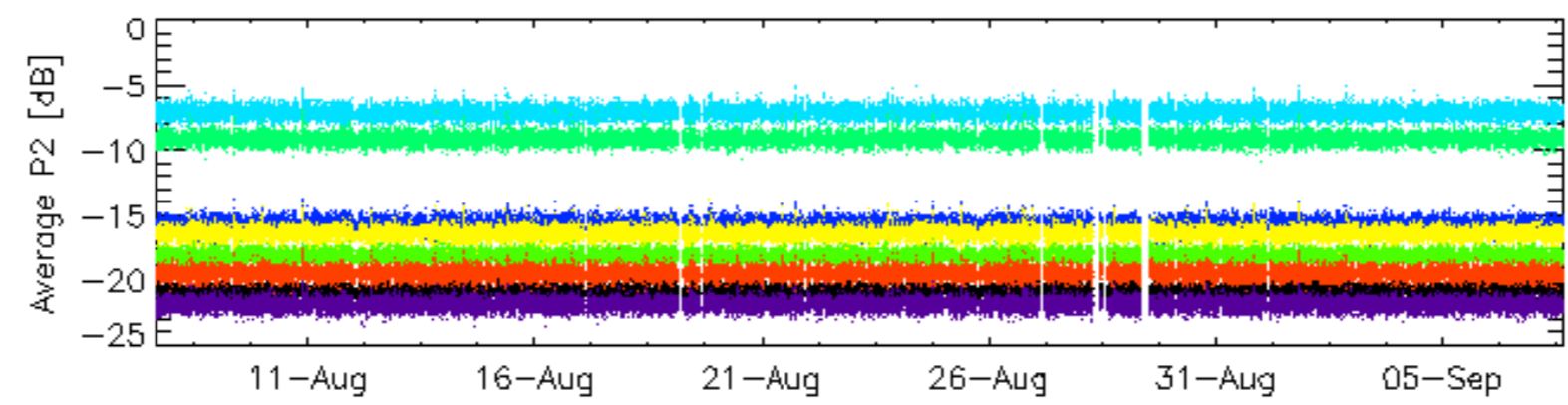
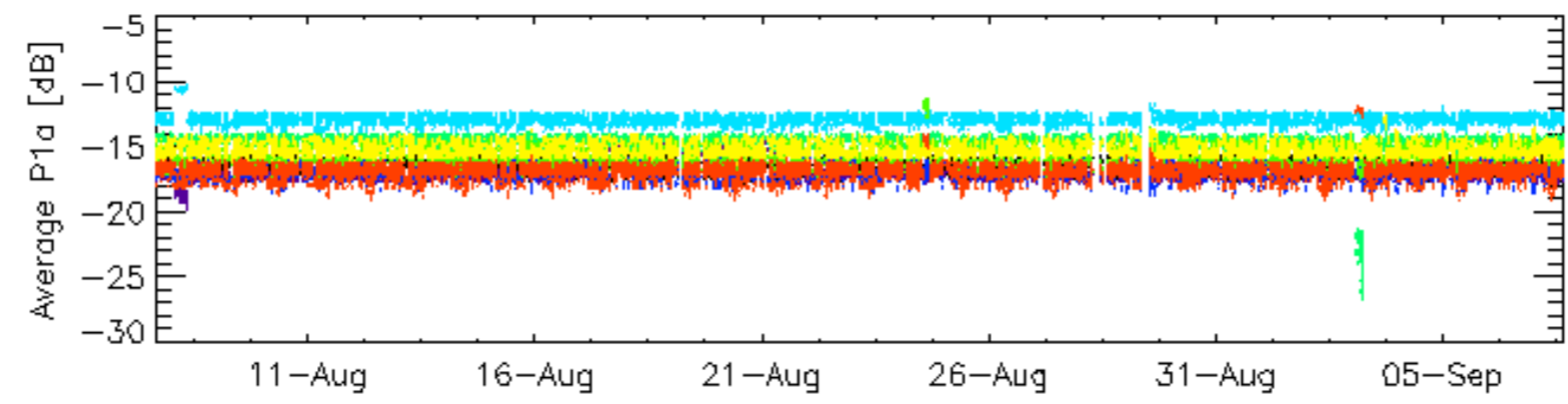
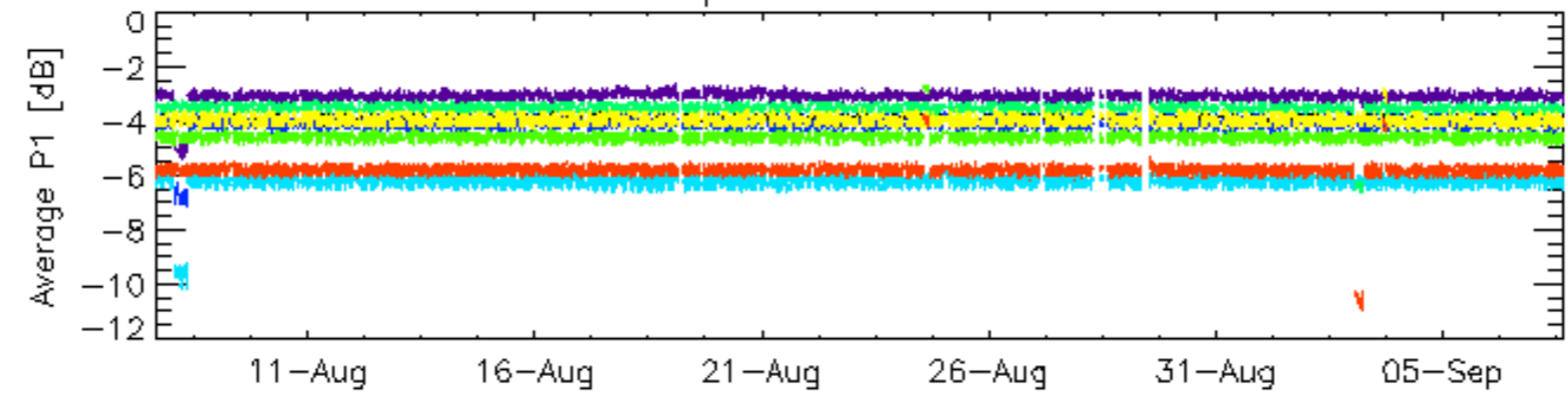
7.6 - Doppler evolution versus ANX for GM1

Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2

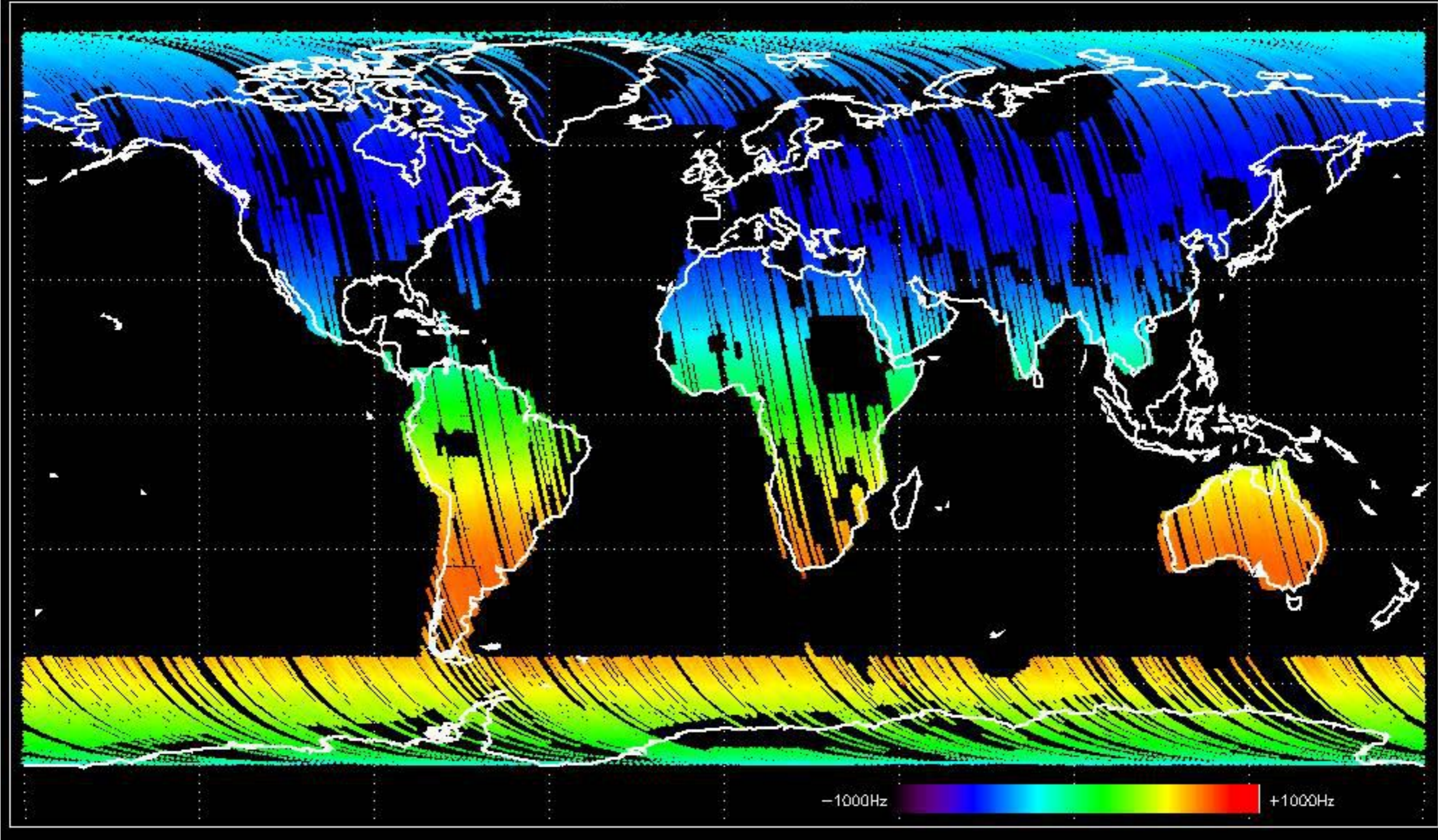


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

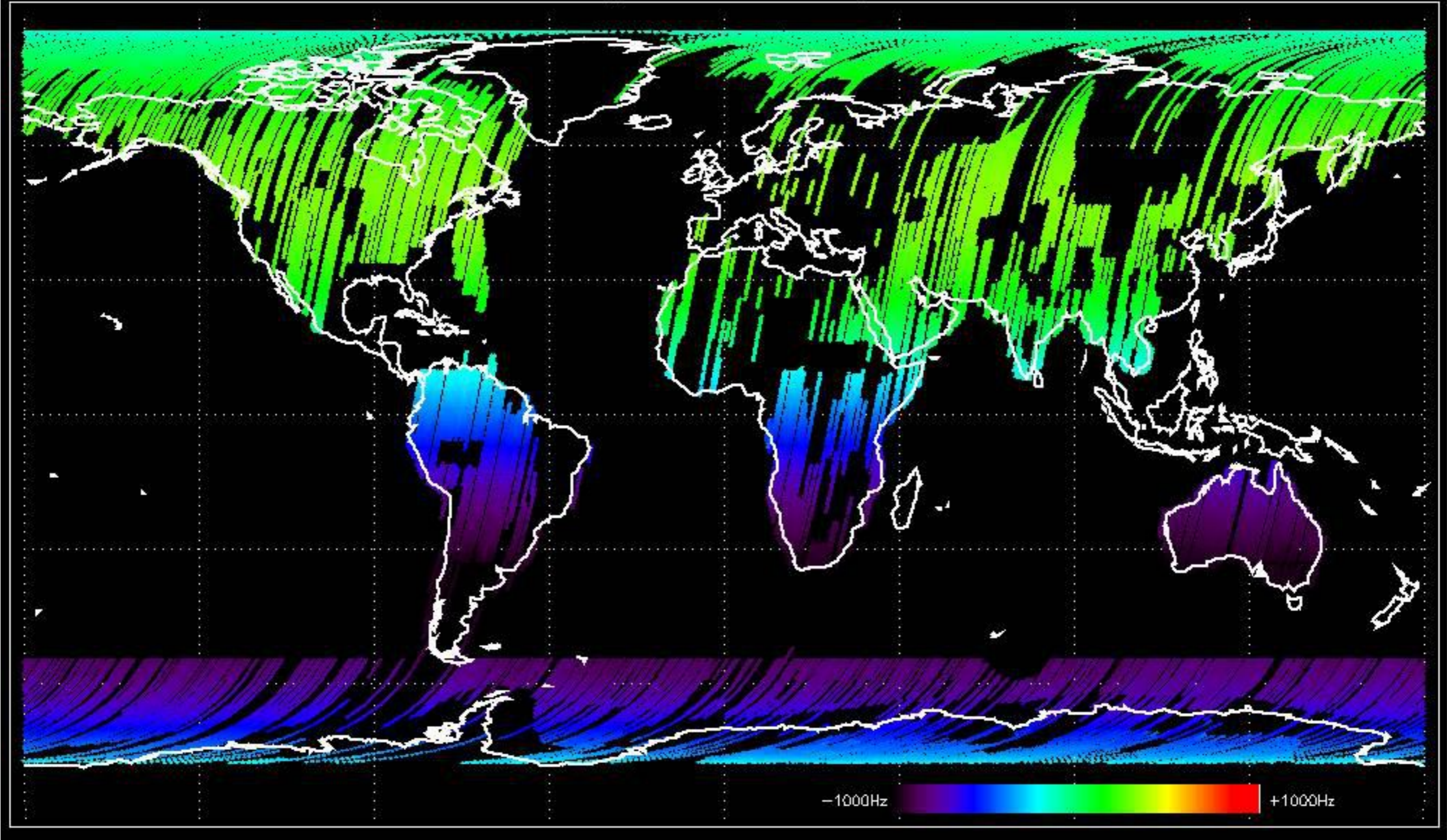
No anomalies observed.

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

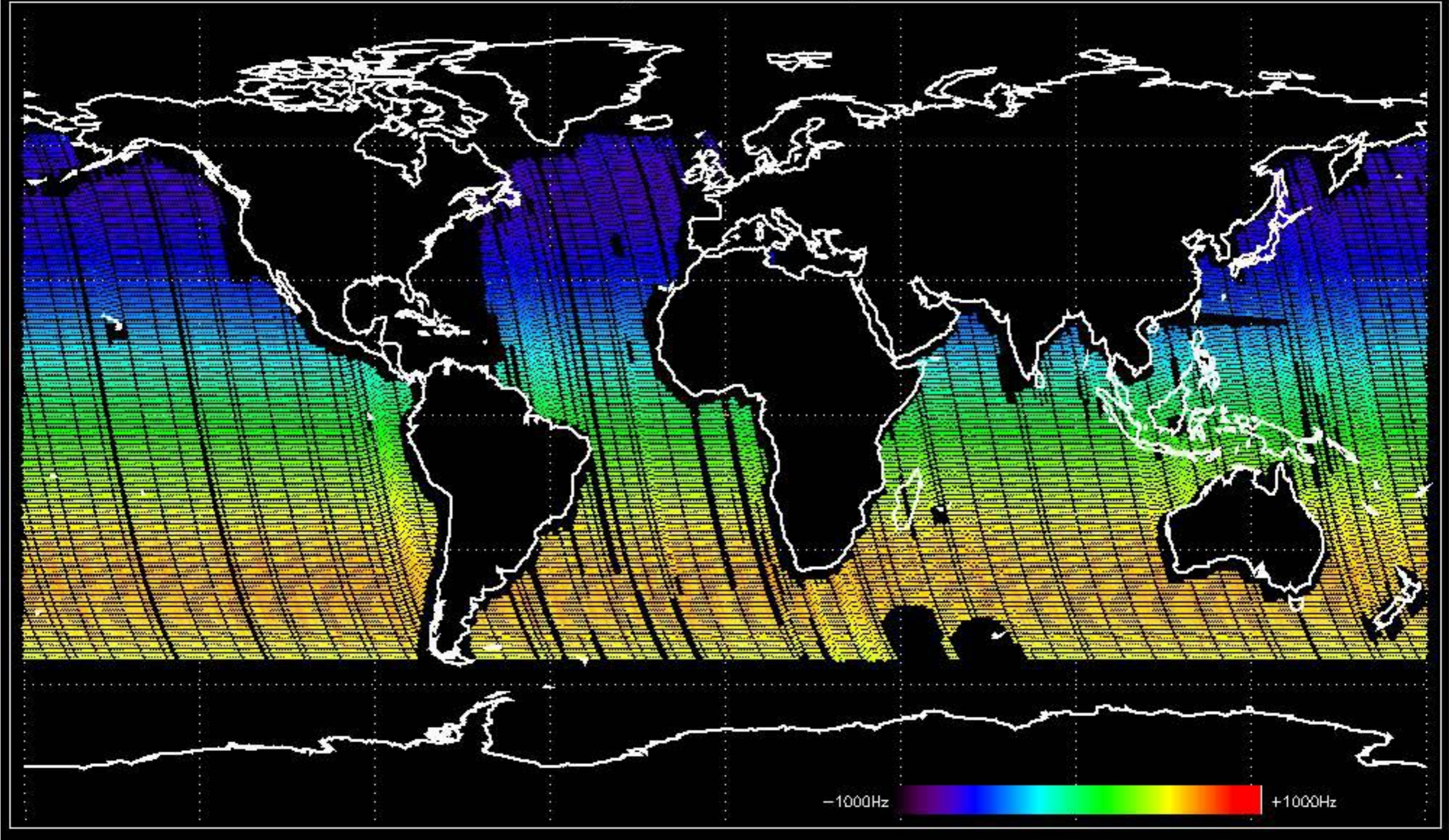
Doppler 'GM1' 'SS1' ascending



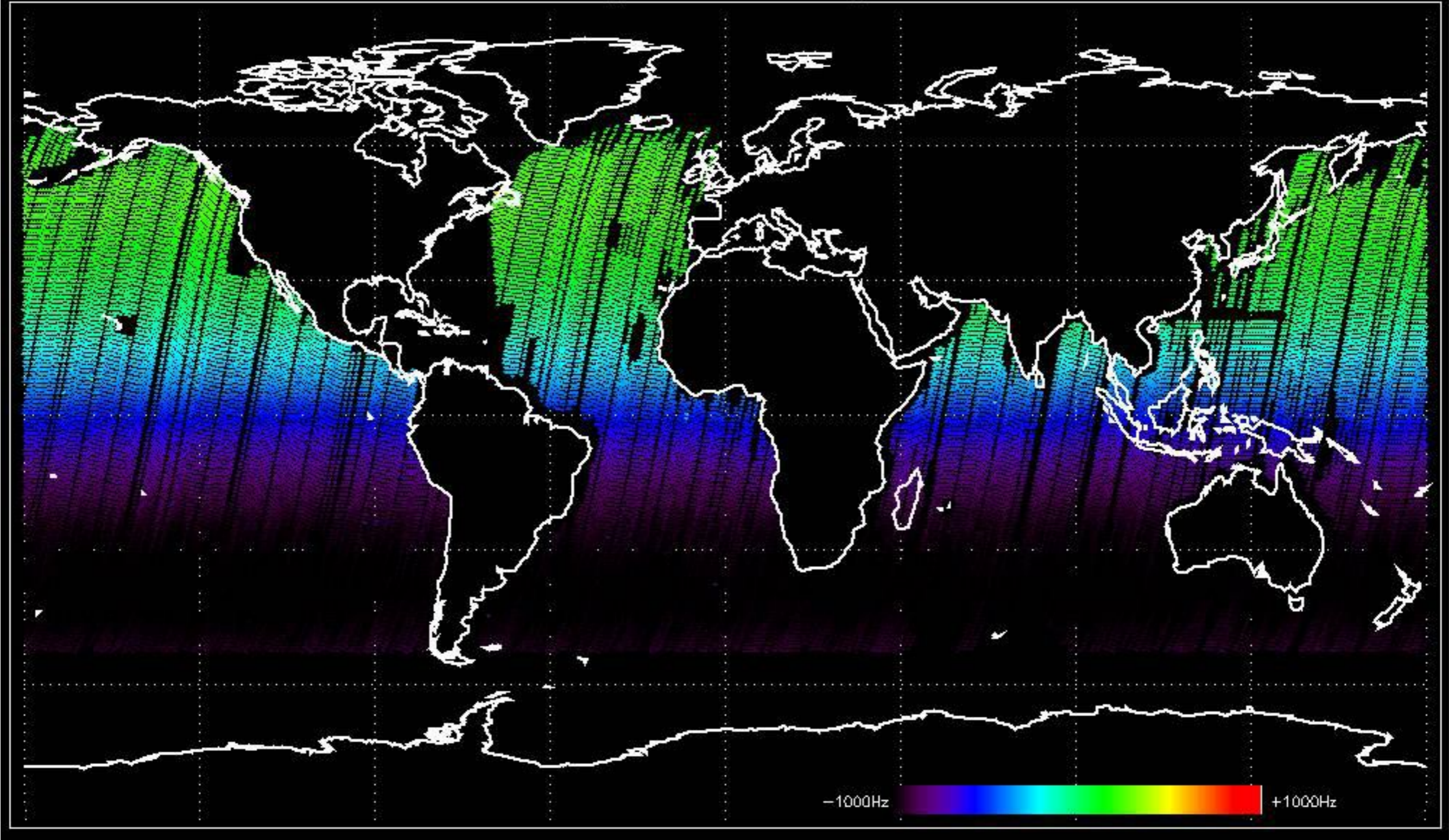
Doppler 'GM1' 'SS1' descending



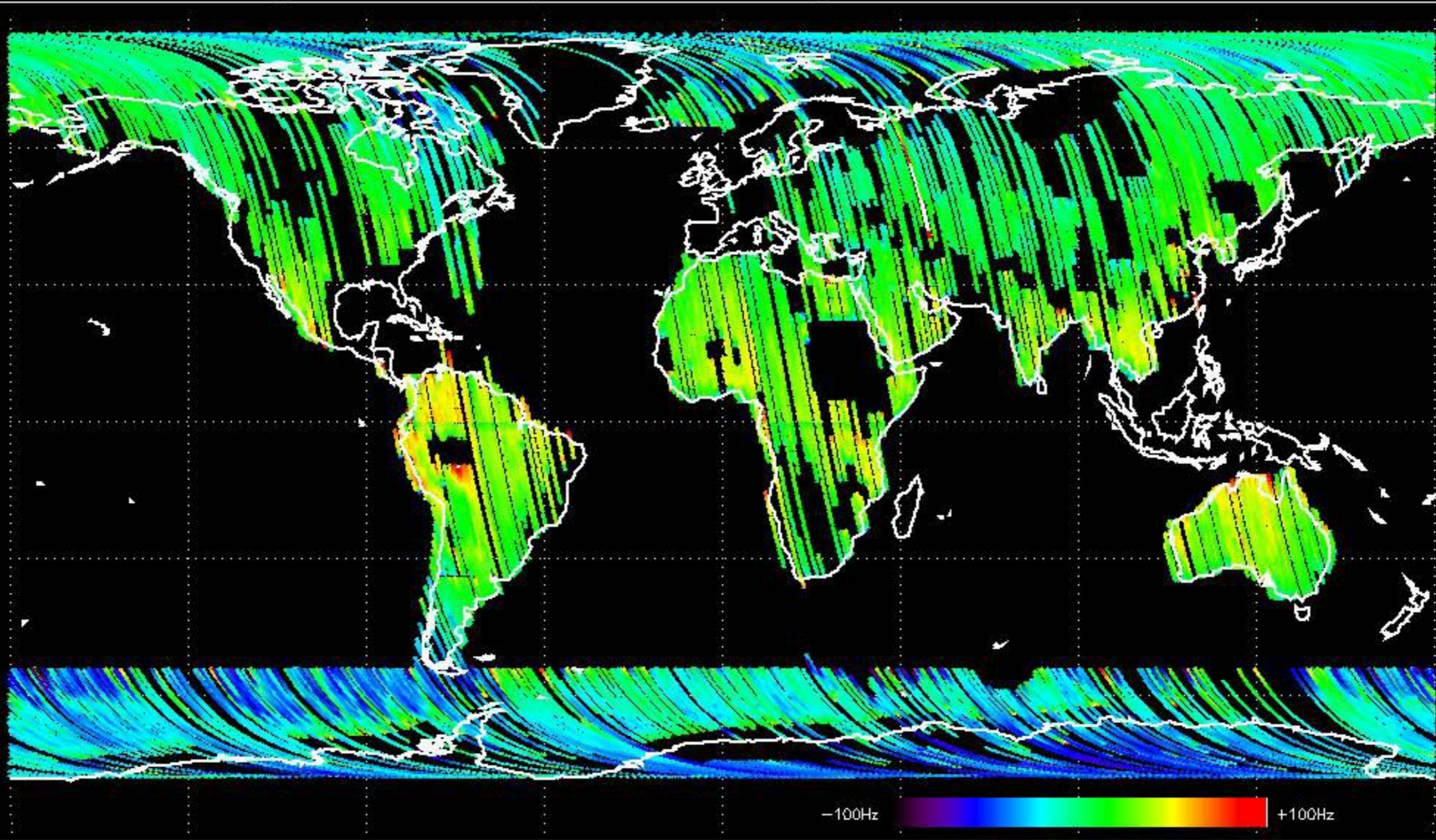
Doppler 'WVS' 'IS2' ascending



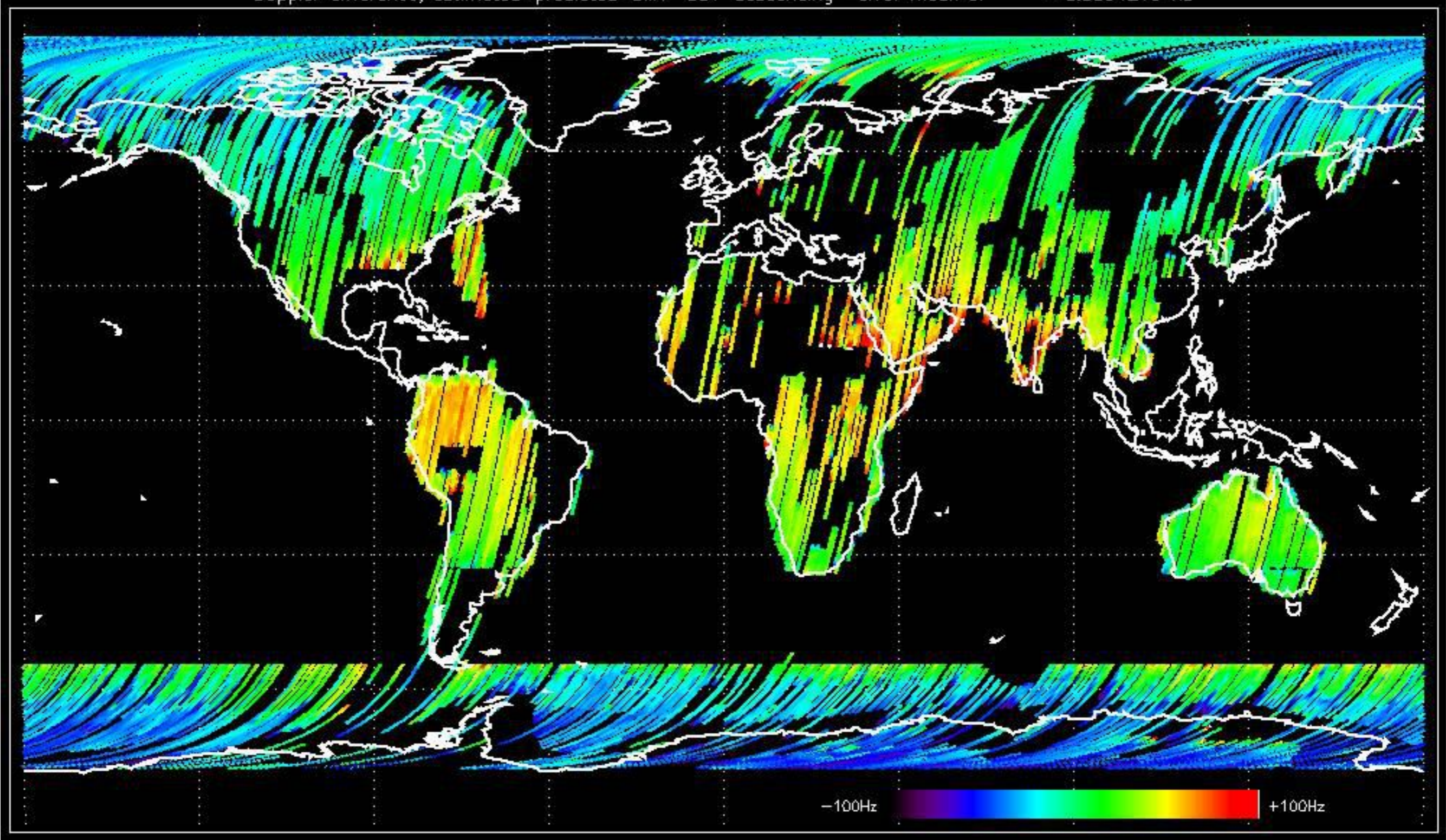
Doppler 'WVS' 'IS2' descending



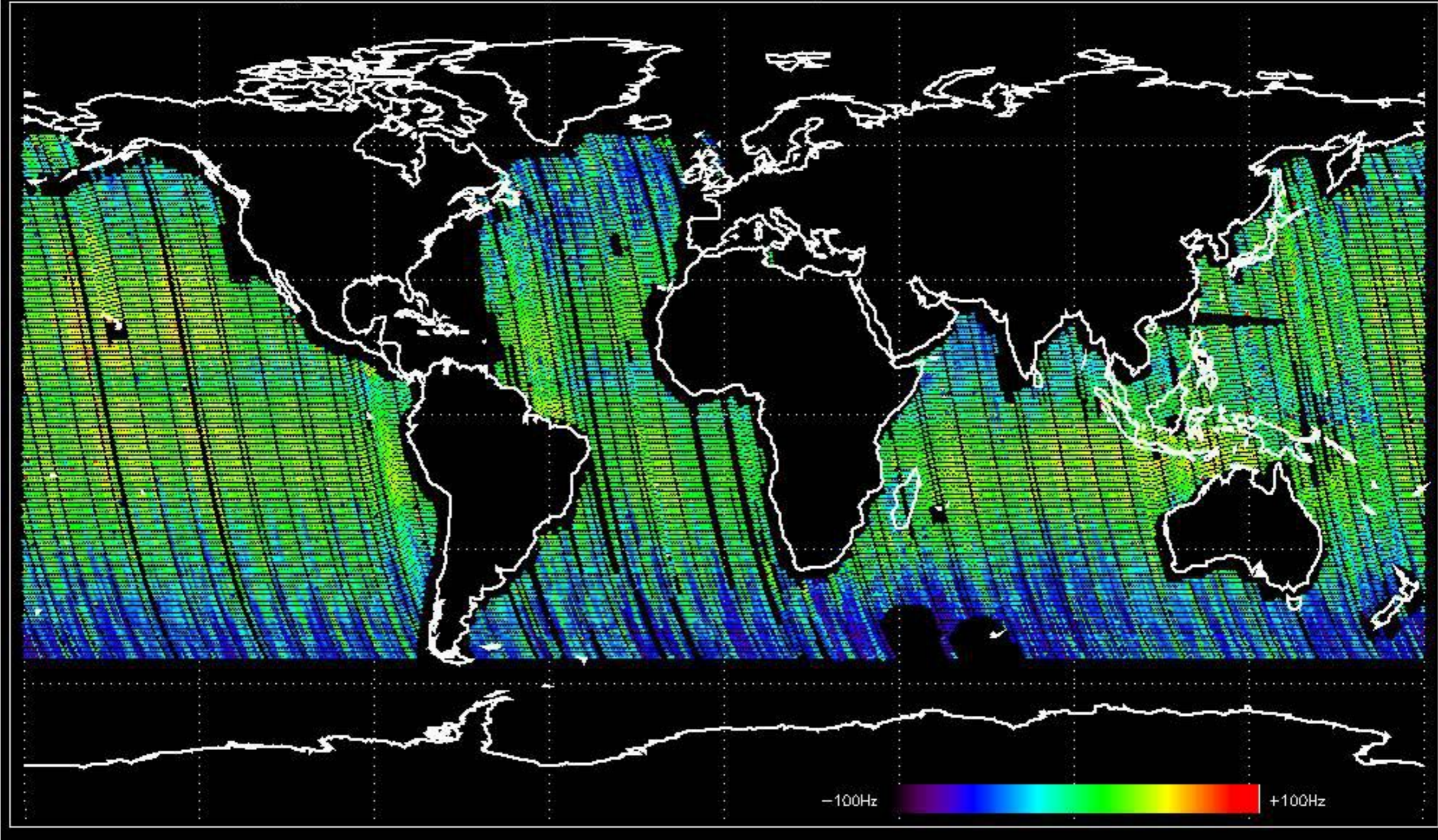
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.872573 Hz



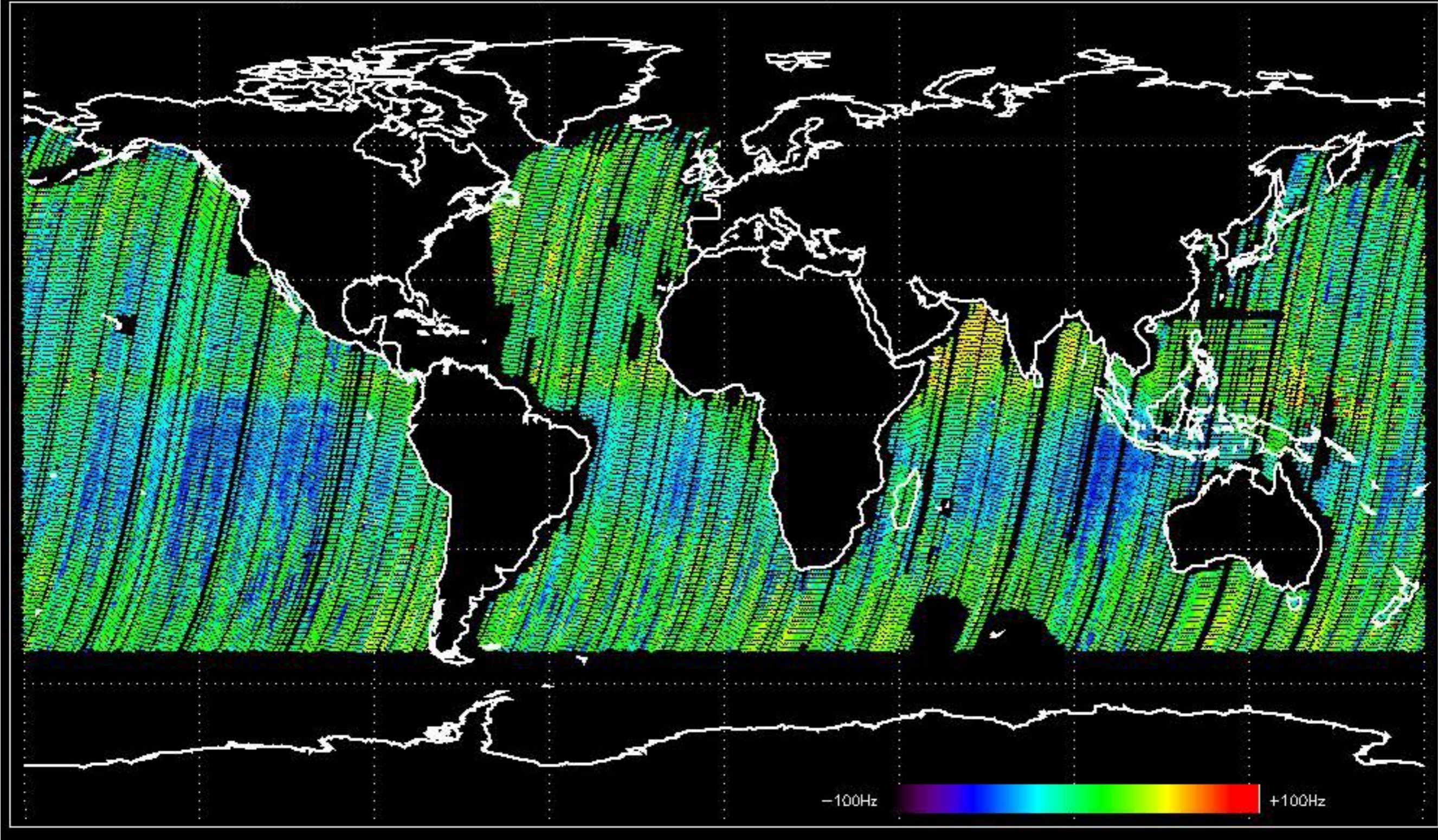
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.9391213 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.3756827 Hz

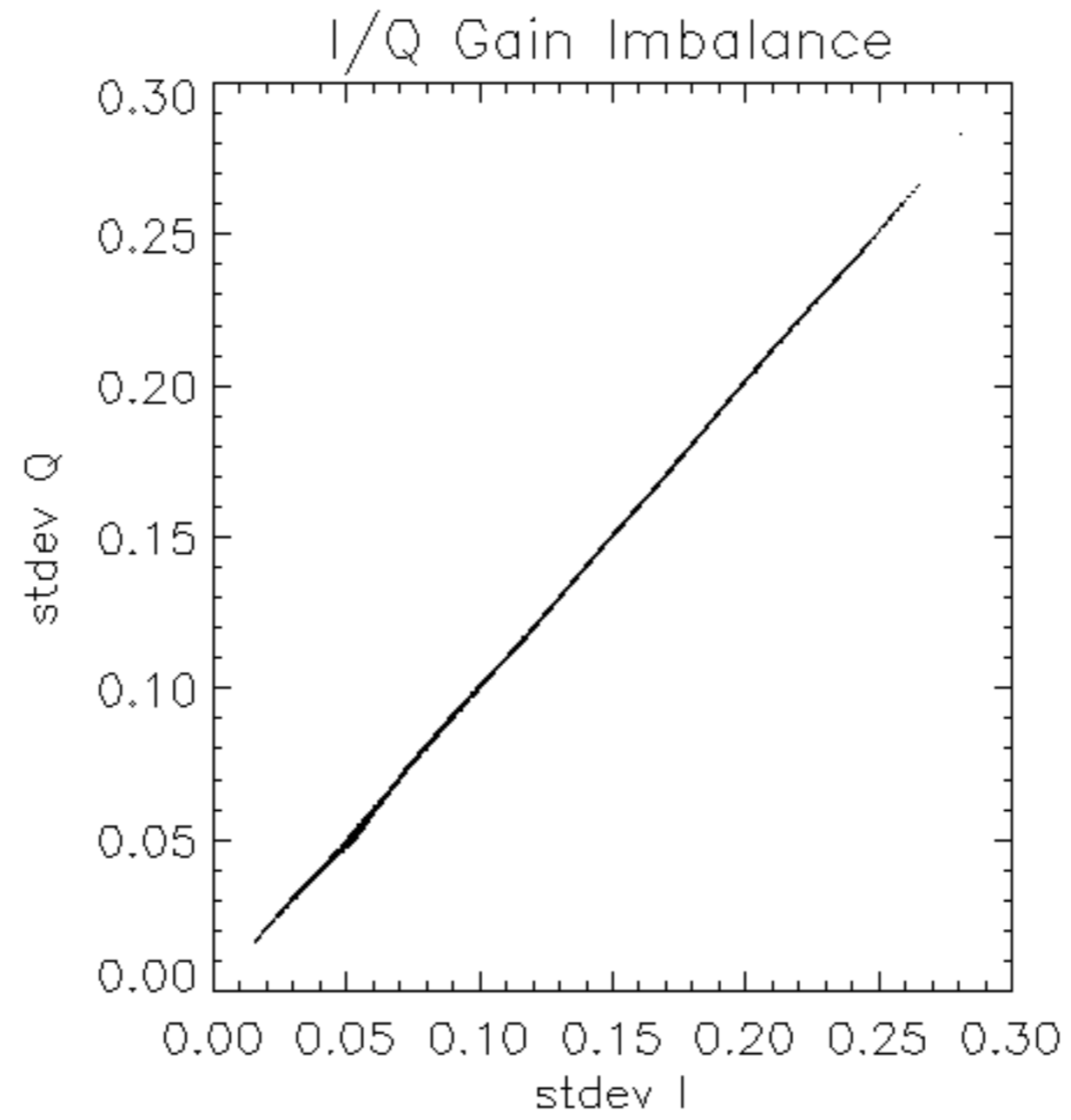


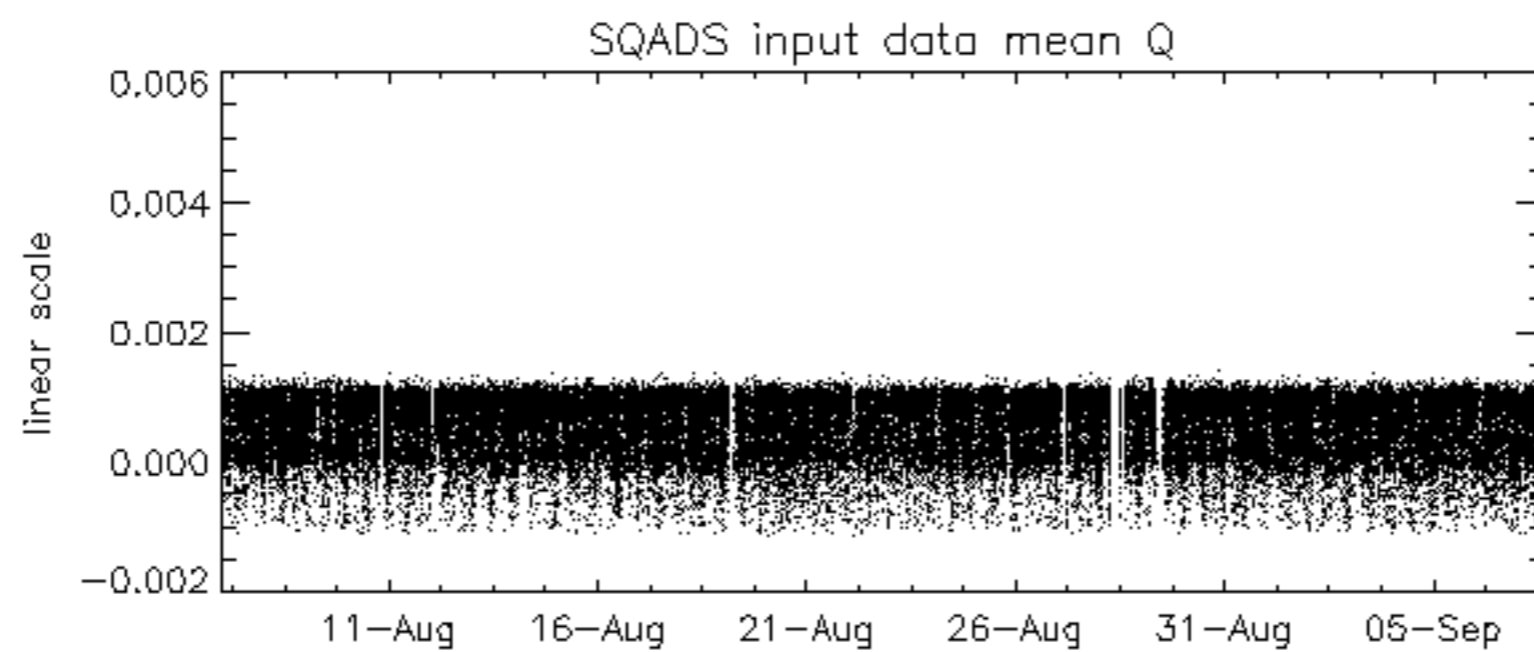
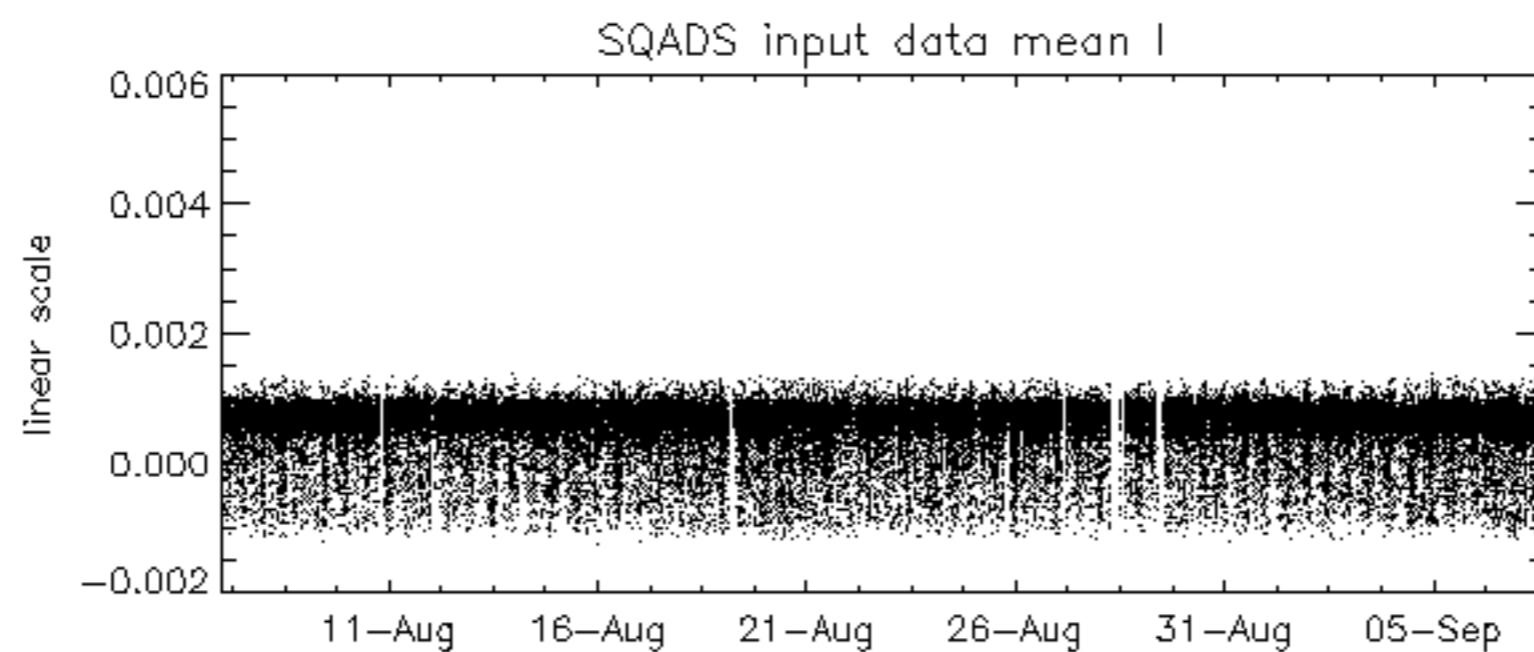
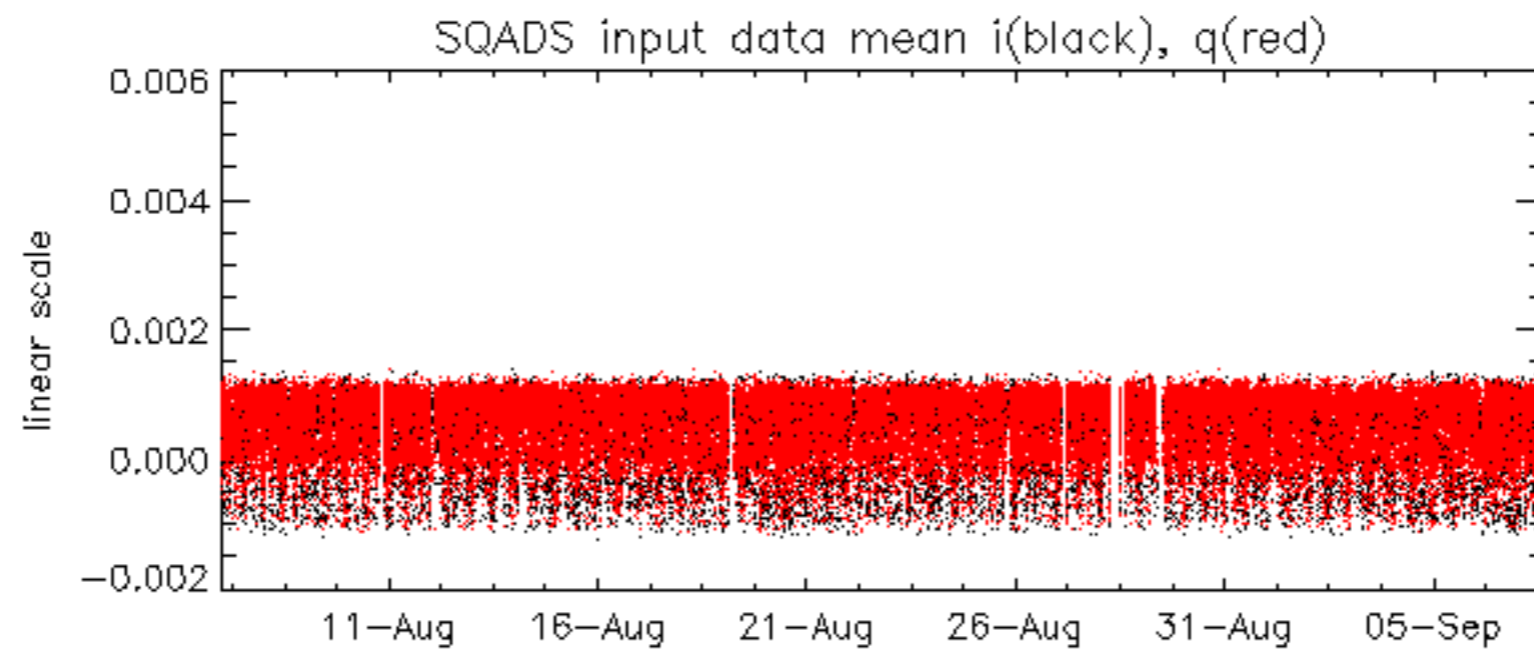
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.7006607 Hz

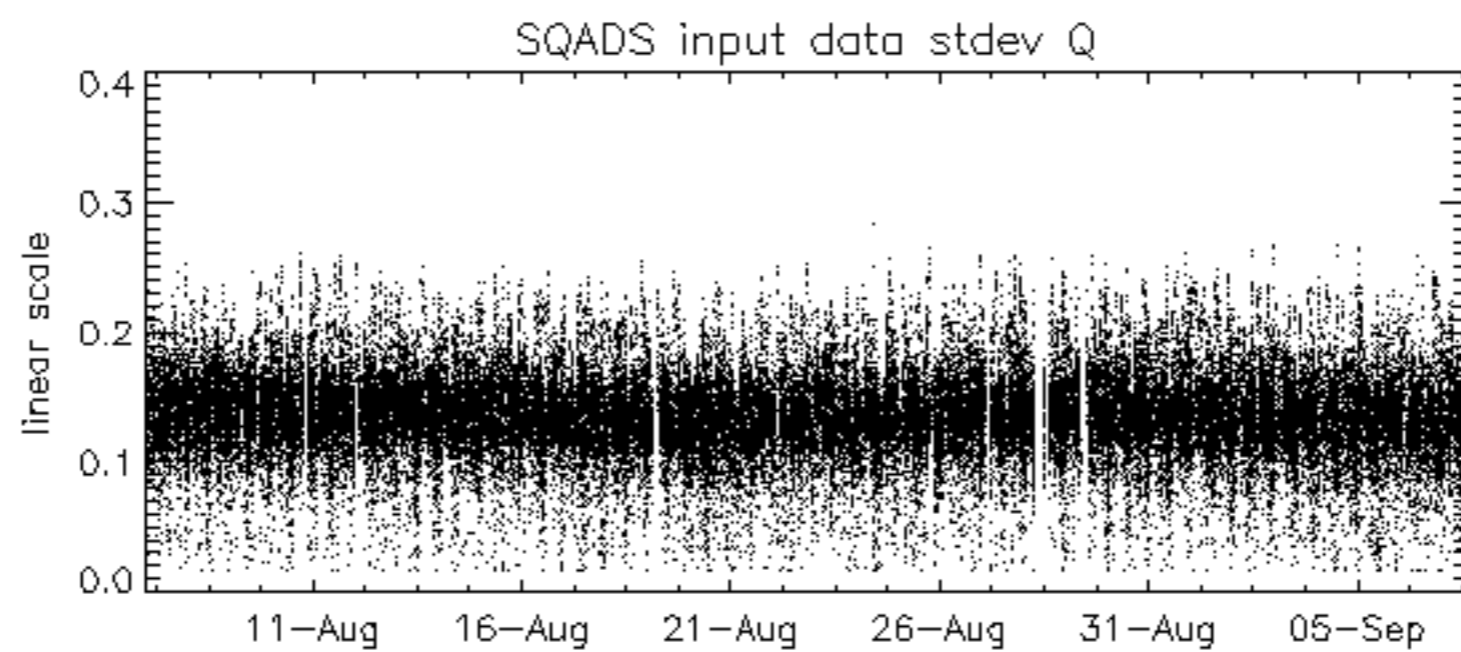
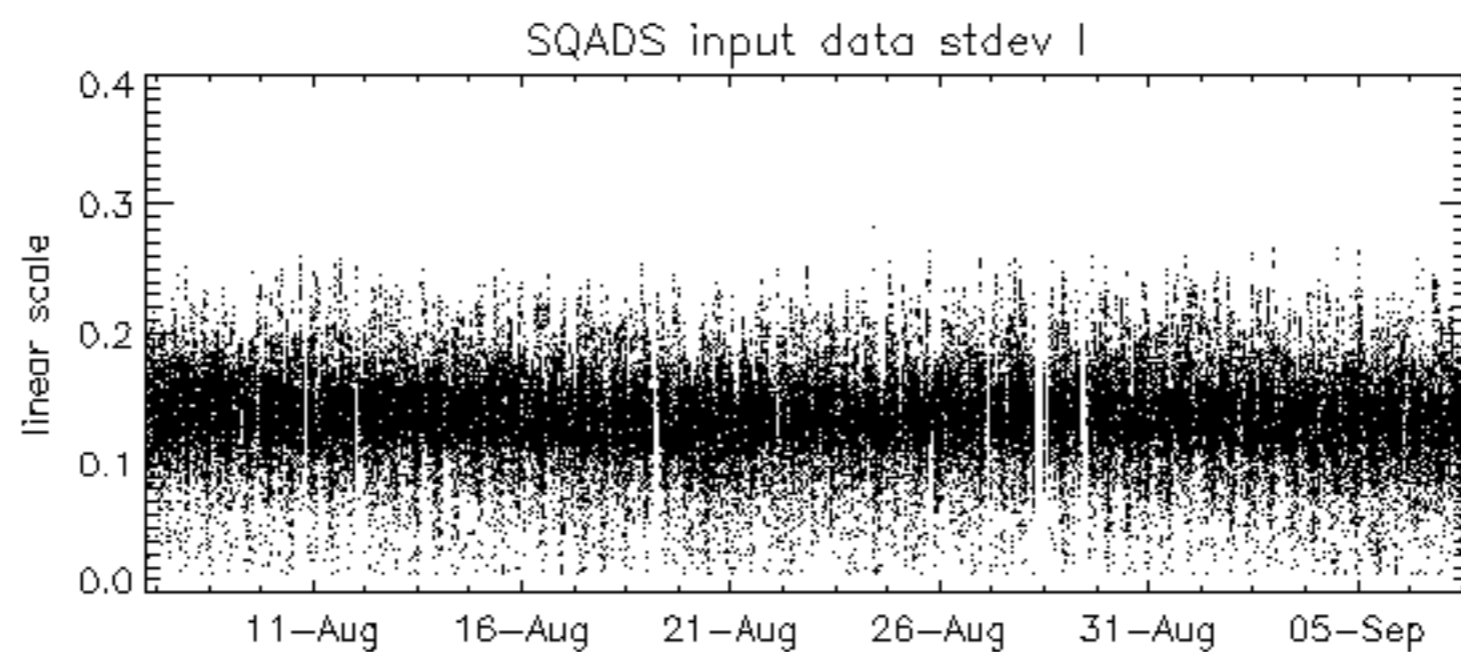
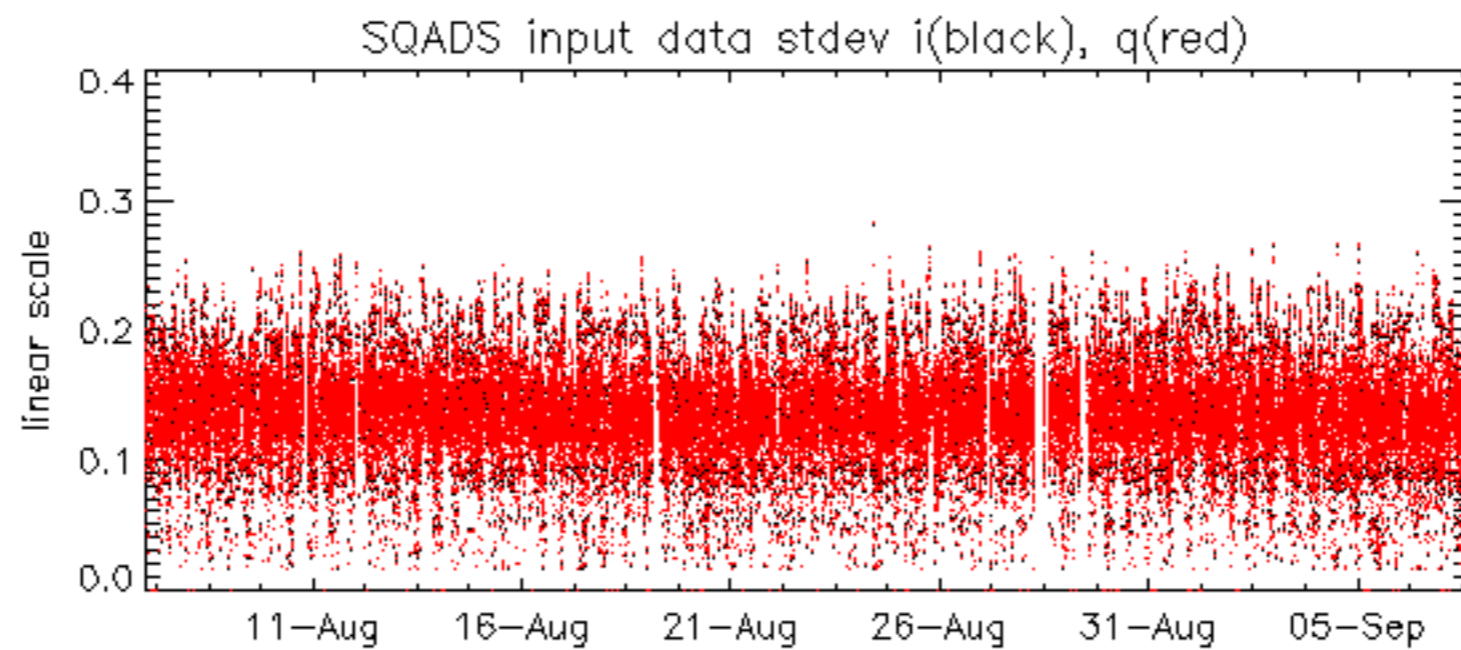


No anomalies observed on available MS products:

No anomalies observed.



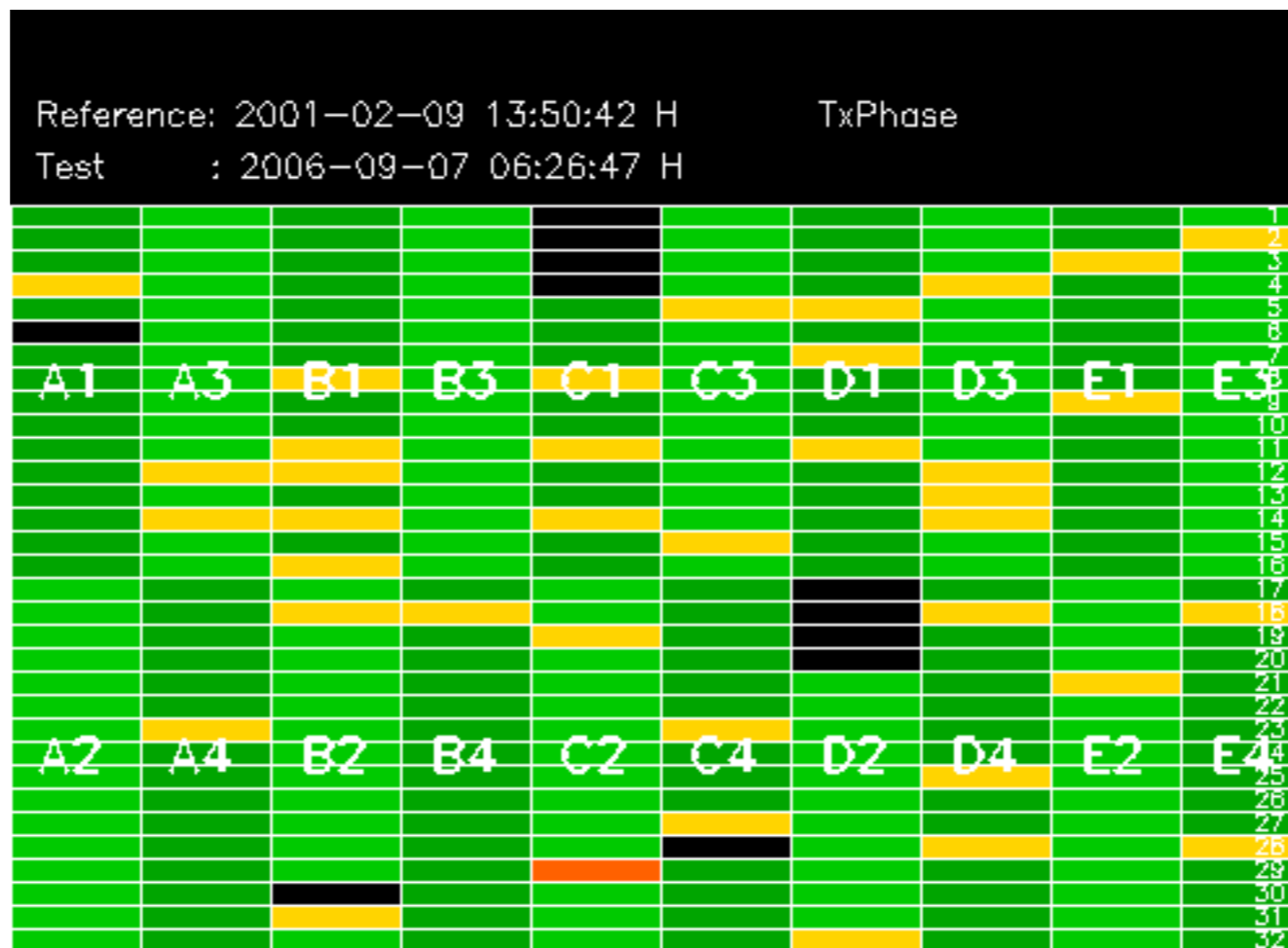


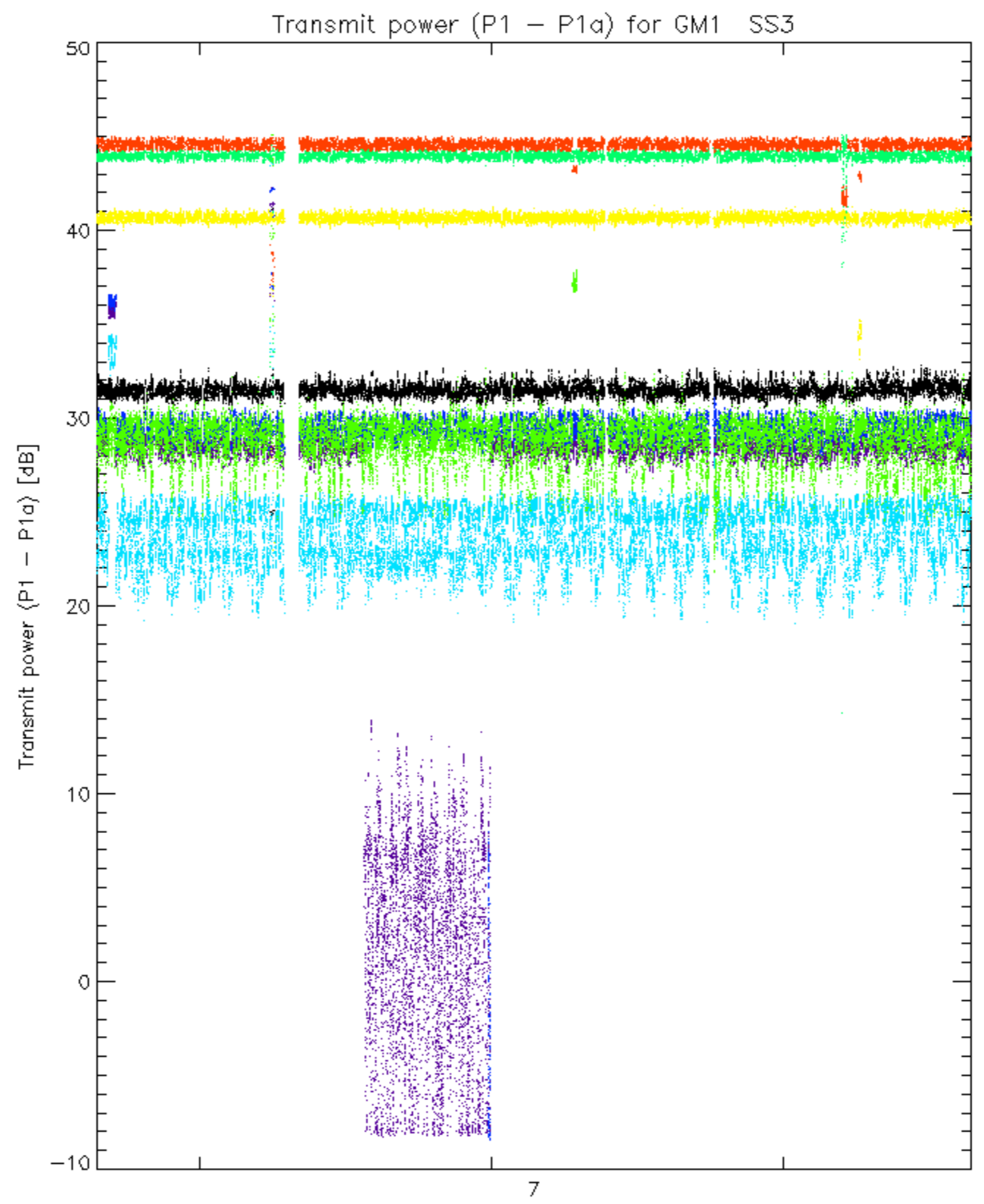


Summary of analysis for the last 3 days 2006091[901]

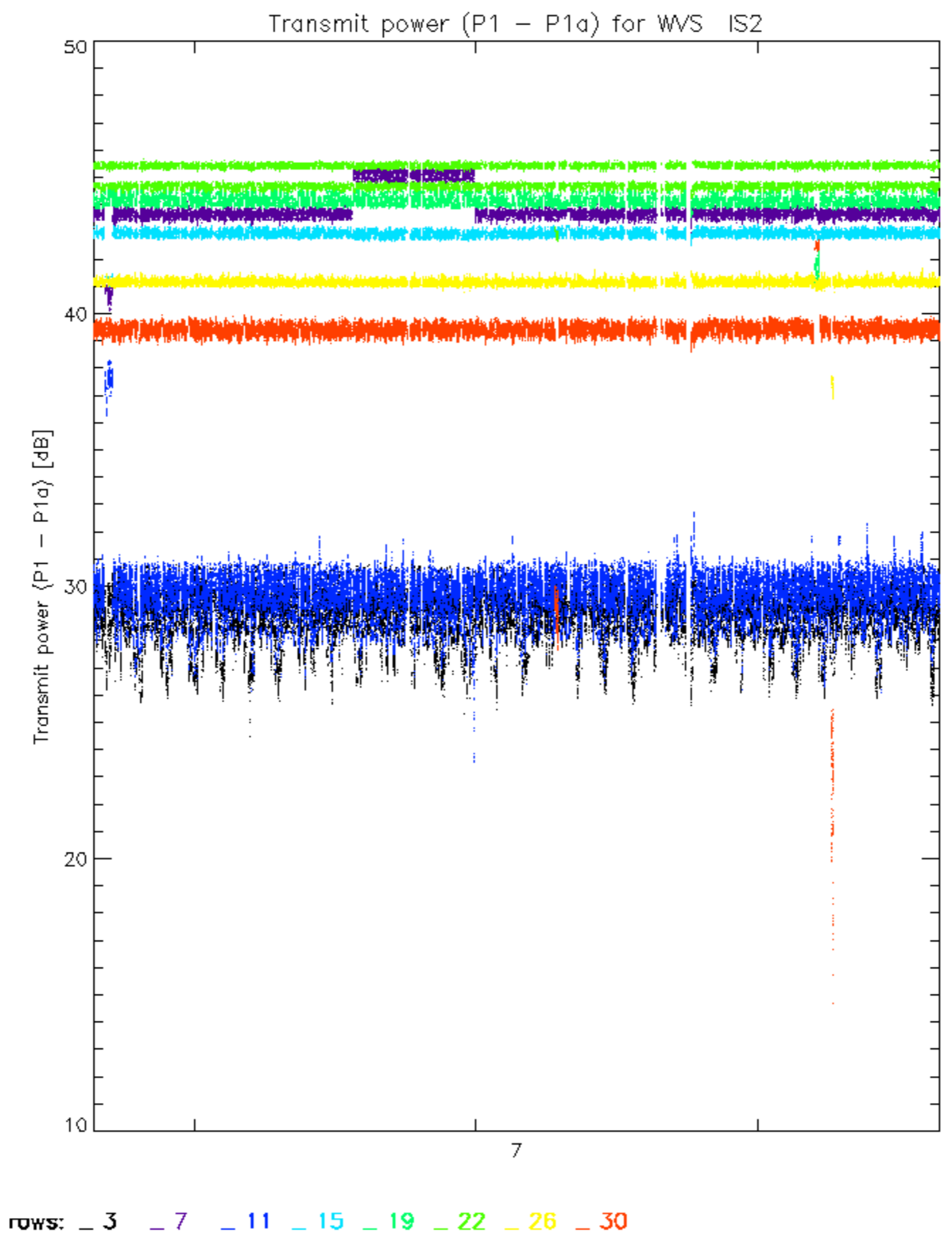
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines





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



No unavailabilities during the reported period.