

# PRELIMINARY REPORT OF 060910

last update on Sun Sep 10 16:34:17 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 2006-09-09 00:00:00 to 2006-09-10 16:34:17

PDHS-K
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AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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**PDHS-E**

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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### 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"/>
<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	-3.941963	0.009629	0.001436

7	P1	-3.065924	0.040501	0.063869
11	P1	-4.079152	0.069521	0.132731
15	P1	-6.206130	0.101513	0.134336
19	P1	-3.499875	0.047758	-0.146658
22	P1	-4.565588	0.025658	0.005549
26	P1	-3.934747	0.020366	-0.045082
30	P1	-5.784636	0.140010	-0.116764
3	P1	-16.564812	0.263073	-0.134451
7	P1	-16.822224	0.665983	-0.305315
11	P1	-16.807959	0.317099	0.086410
15	P1	-12.934742	0.143610	0.025936
19	P1	-14.587654	0.424414	-0.294448
22	P1	-15.772983	0.559576	0.383607
26	P1	-15.193064	0.205353	-0.129225
30	P1	-16.965534	0.405289	0.199134

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.845985	0.083154	0.088162
7	P2	-21.861540	0.098192	-0.019763
11	P2	-15.747802	0.110253	-0.012115
15	P2	-7.096974	0.097612	0.011121
19	P2	-9.113596	0.090894	-0.011975
22	P2	-18.127565	0.085213	0.020654
26	P2	-16.400434	0.092092	-0.018772
30	P2	-19.473471	0.089976	0.008218

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175548	0.004094	-0.014673
7	P3	-8.175548	0.004094	-0.014673
11	P3	-8.175548	0.004094	-0.014673
15	P3	-8.175548	0.004094	-0.014673
19	P3	-8.175548	0.004094	-0.014673
22	P3	-8.175548	0.004094	-0.014673
26	P3	-8.175605	0.004093	-0.014480
30	P3	-8.175605	0.004093	-0.014480

#### 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	-3.839578	0.022371	-0.015360
7	P1	-2.484180	0.275967	0.082553
11	P1	-2.908914	0.150464	0.192424
15	P1	-3.675648	0.152991	0.149641
19	P1	-3.453448	0.078102	-0.111713
22	P1	-5.091304	0.035874	-0.039776
26	P1	-5.869362	0.029268	0.025287
30	P1	-5.197620	0.082622	-0.054875
3	P1	-11.630880	0.069492	-0.005442
7	P1	-9.921499	0.199682	-0.036675
11	P1	-10.325174	0.086078	-0.019508
15	P1	-10.855532	0.180614	-0.091899
19	P1	-15.664536	3.455928	-0.647306
22	P1	-20.847435	1.718269	0.234520
26	P1	-16.018343	0.412655	0.300836
30	P1	-18.010963	0.810538	-0.134034

#### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.437075	0.076634	0.082657
7	P2	-22.221786	0.197437	0.077693
11	P2	-10.916593	0.056957	0.061770
15	P2	-4.870002	0.040706	0.041052
19	P2	-6.852330	0.040762	0.013748
22	P2	-8.170652	0.063554	0.059116

26	P2	-24.165138	0.131152	-0.018623
30	P2	-21.962835	0.079285	0.012322

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018465	0.003623	-0.014399
7	P3	-8.018310	0.003626	-0.014146
11	P3	-8.018266	0.003636	-0.013774
15	P3	-8.018301	0.003643	-0.013796
19	P3	-8.018414	0.003649	-0.013955
22	P3	-8.018501	0.003614	-0.014136
26	P3	-8.018370	0.003632	-0.014763
30	P3	-8.018281	0.003629	-0.014451

## 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	0.000548228
	stdev	1.78456e-07
MEAN Q	mean	0.000528550
	stdev	2.16593e-07



## 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135973
	stdev	0.00108995
STDEV Q	mean	0.136317
	stdev	0.00110611



## 5.3 - Gain imbalance I/Q



## 6 - Telemetry analysis

Summary of analysis for the last 3 days 2006090[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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## 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

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

Ascending

<input type="checkbox"/>
--------------------------

Descending

### 7.3 - Doppler evolution versus ANX for WVS

### 7.4 - Unbiased Doppler Error for GM1

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

<input type="checkbox"/>
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Descending

### 7.5 - Absolute Doppler for GM1

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

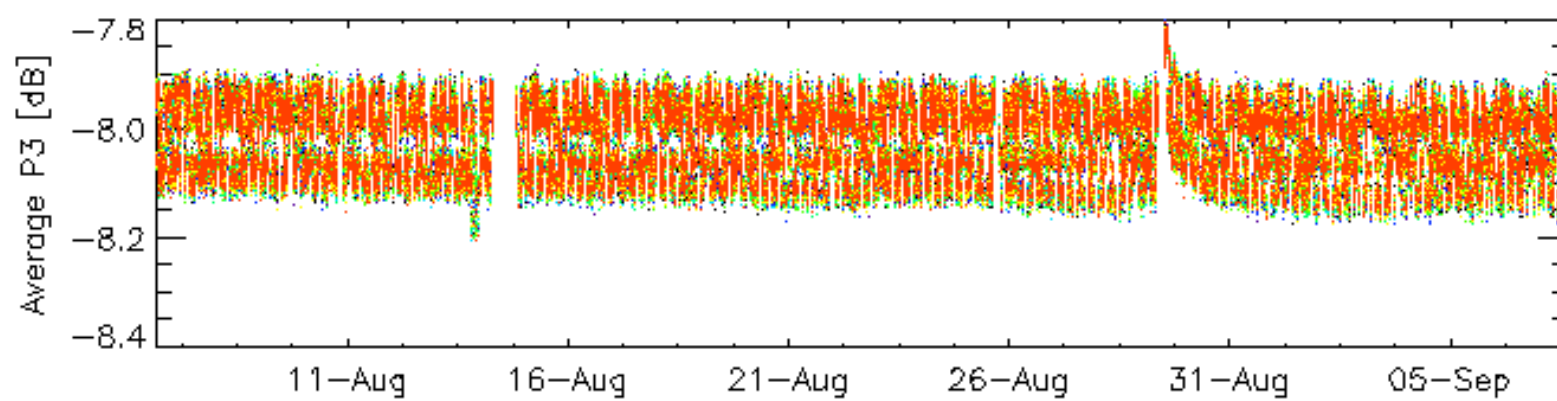
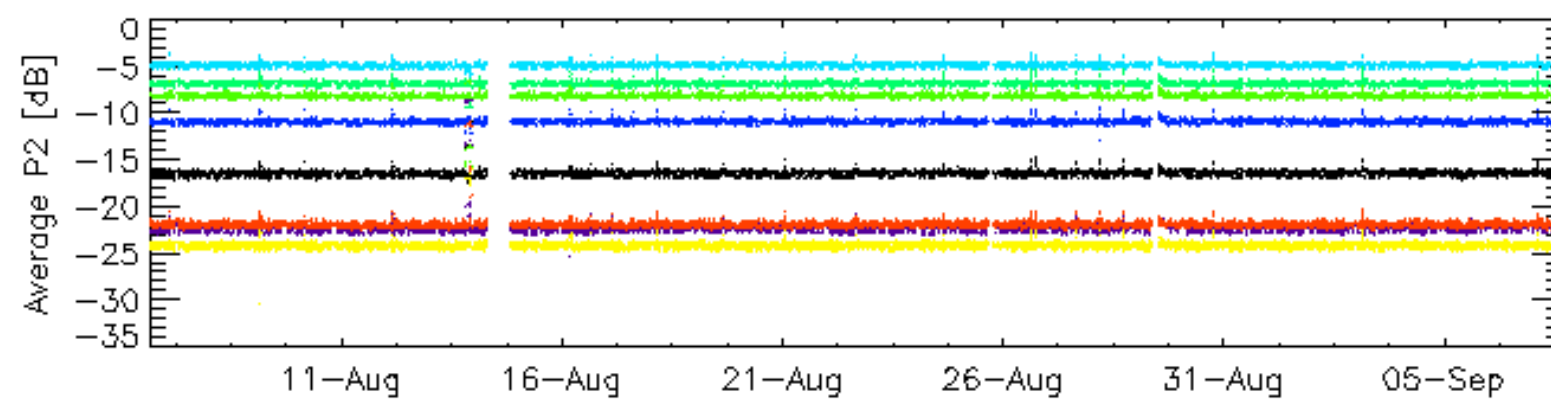
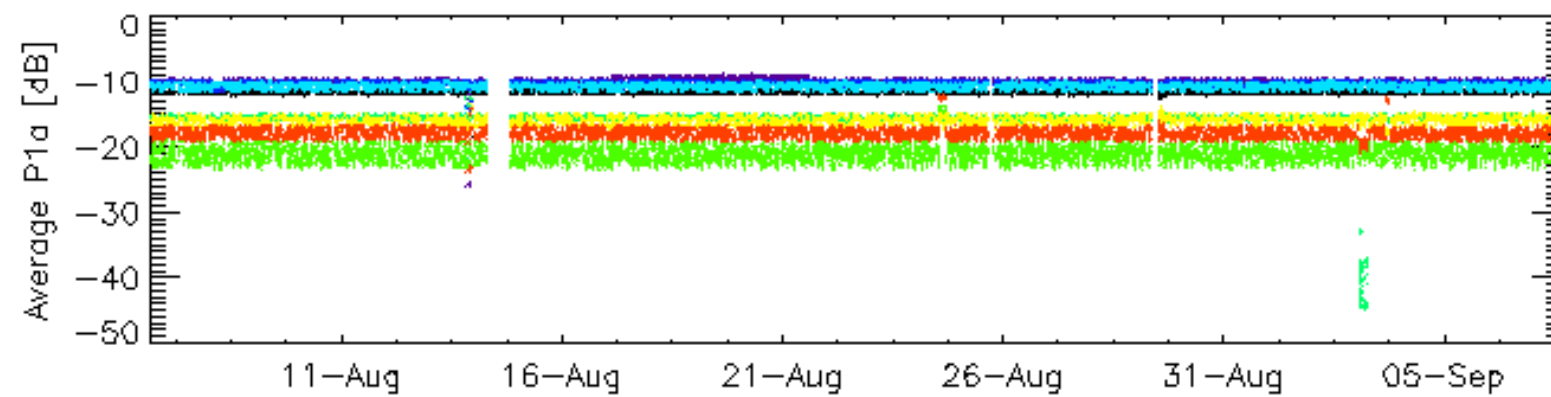
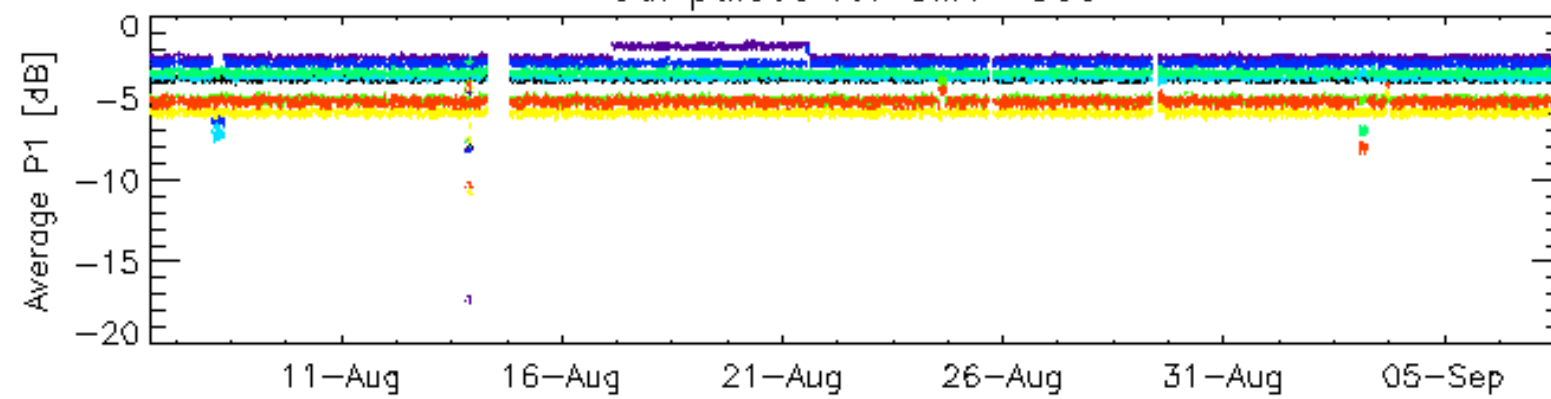
<input type="checkbox"/>
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Descending

### 7.6 - Doppler evolution versus ANX for GM1

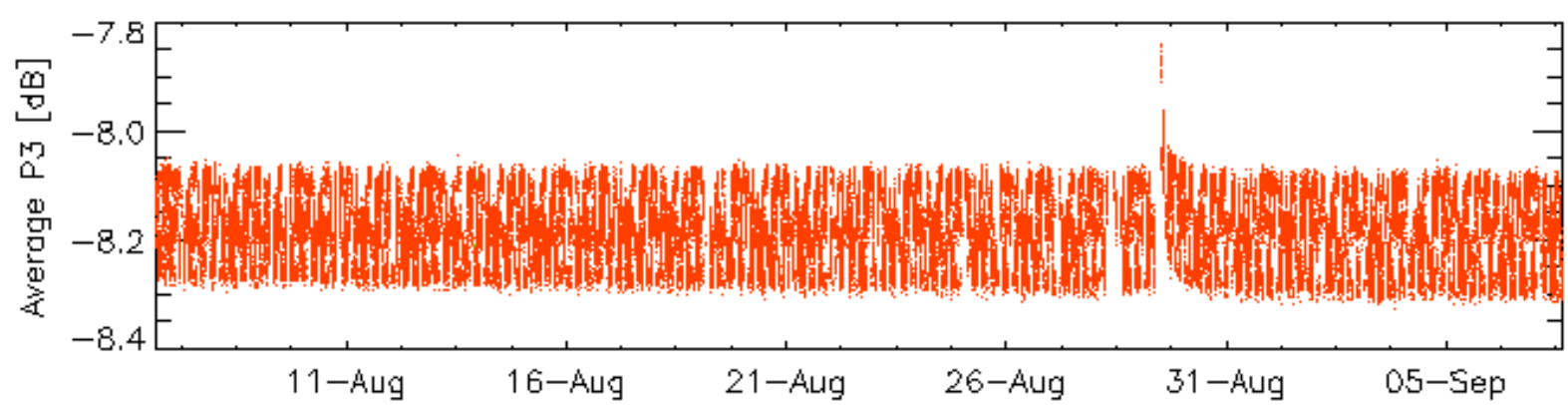
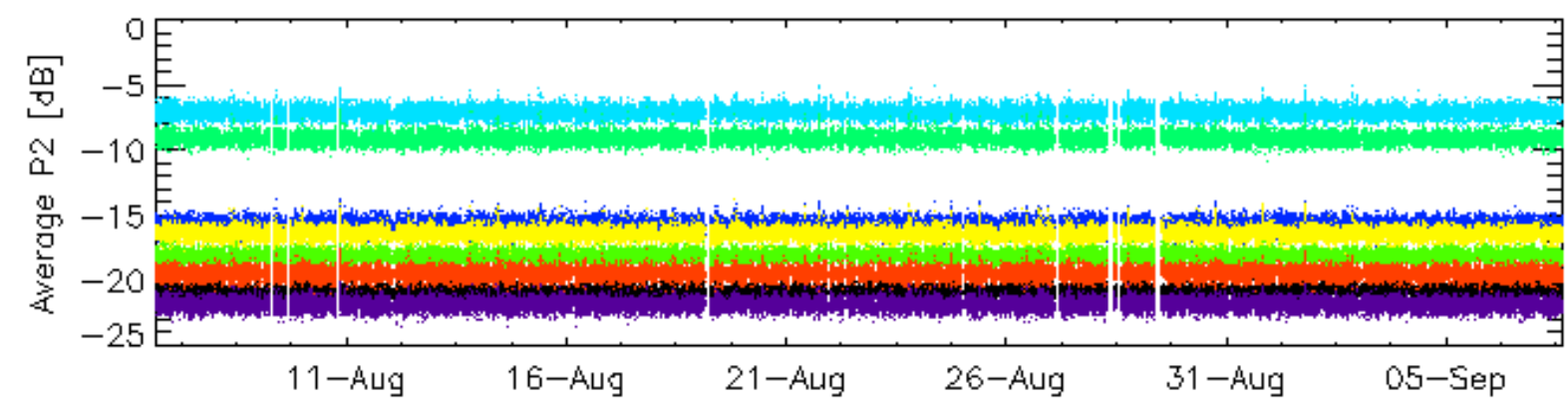
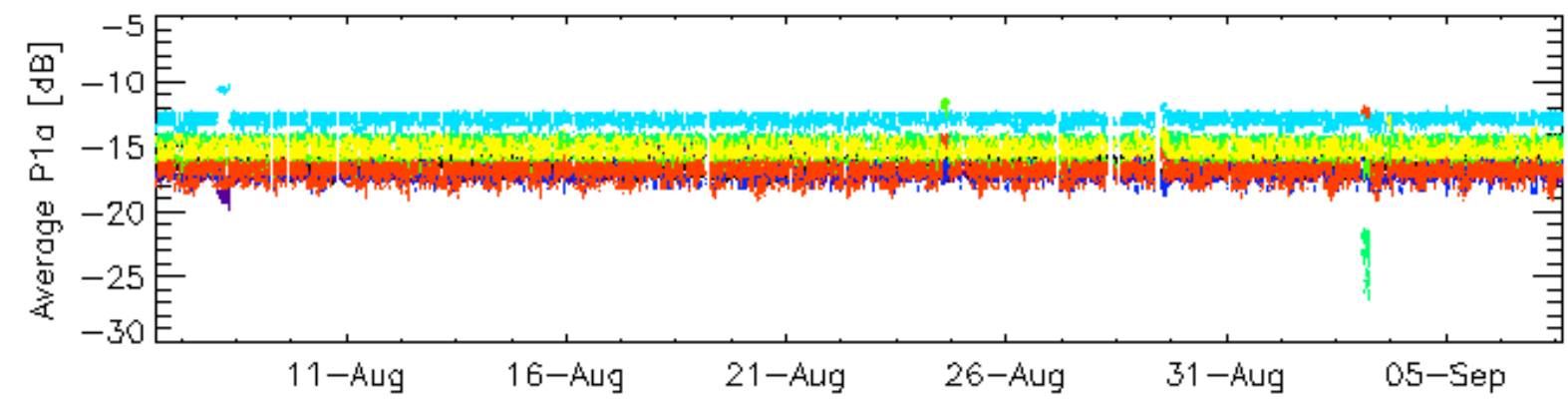
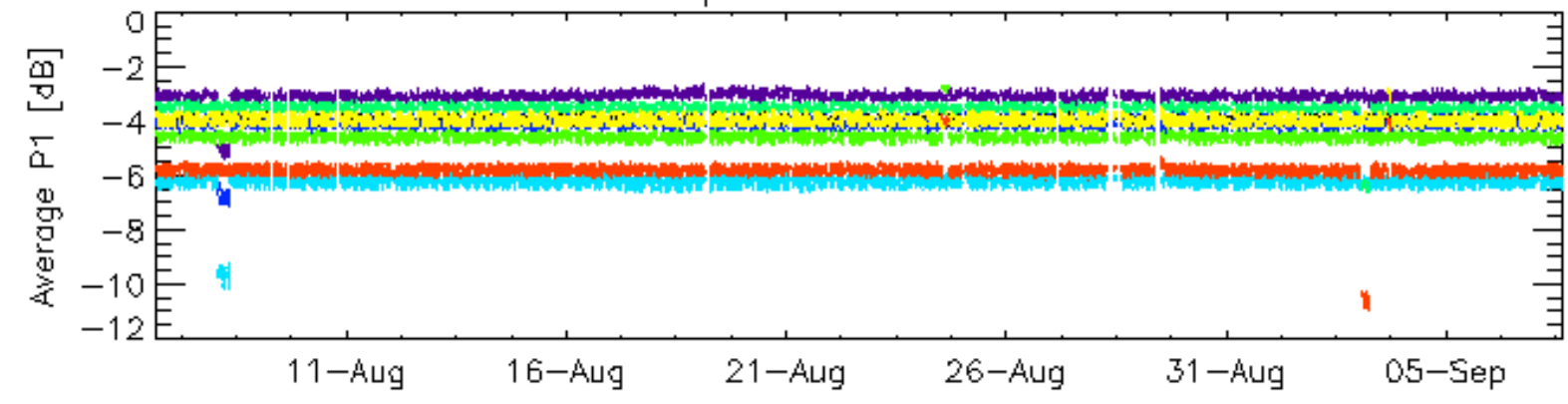


### Cal pulses for GM1 SS3



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

Cal pulses for WVS IS2



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

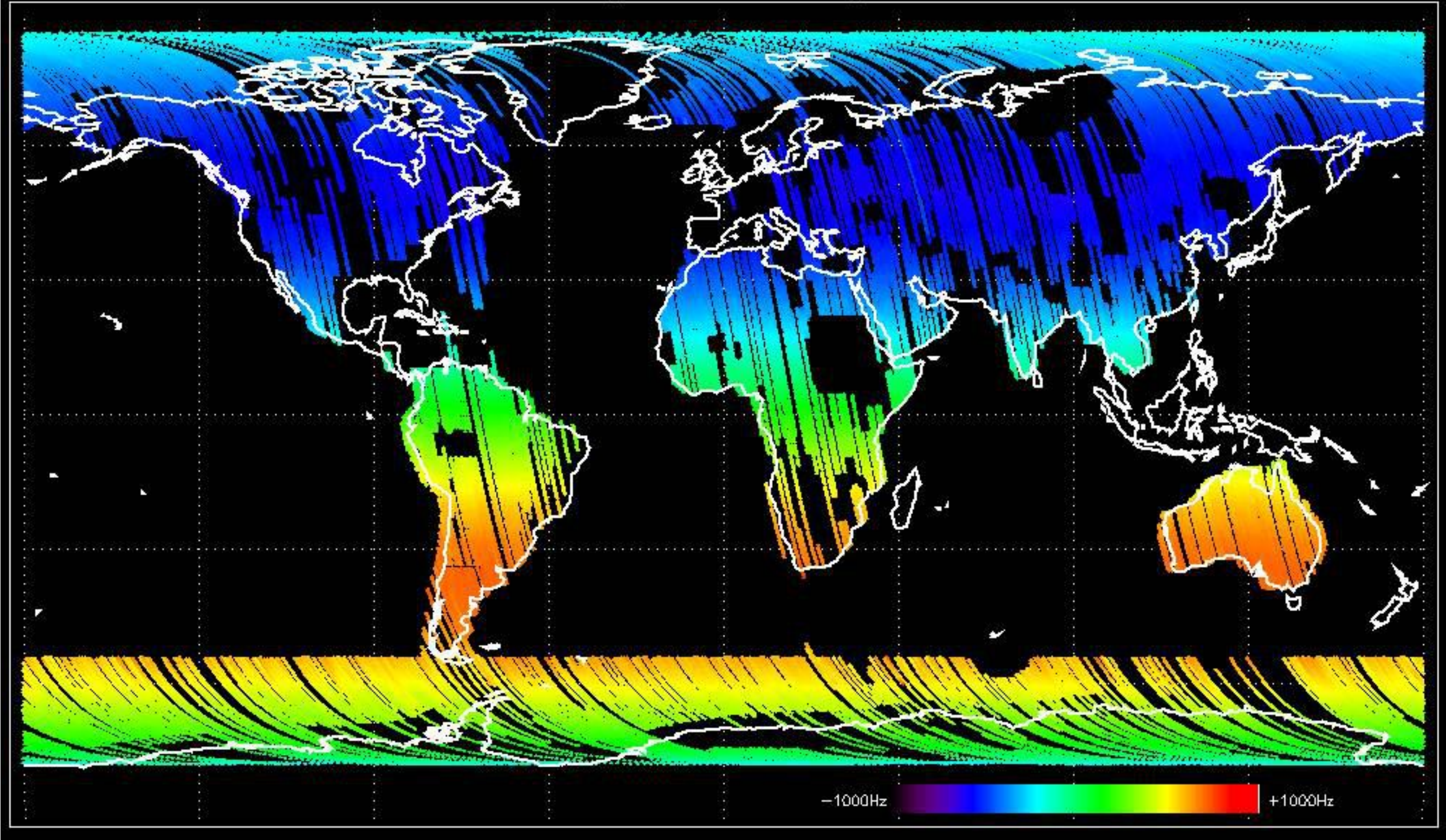
No anomalies observed.

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



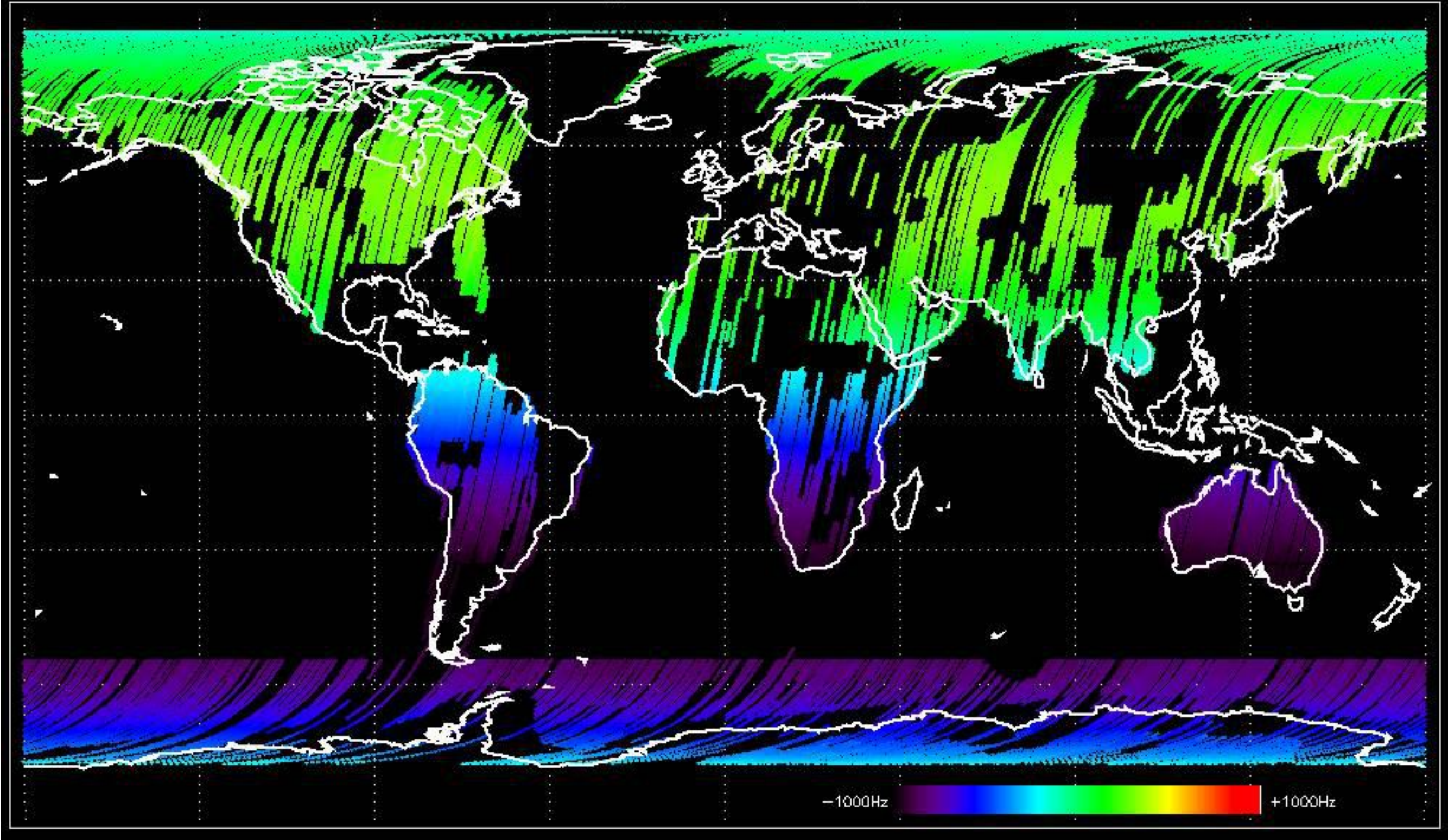


Doppler 'GM1' 'SS1' ascending



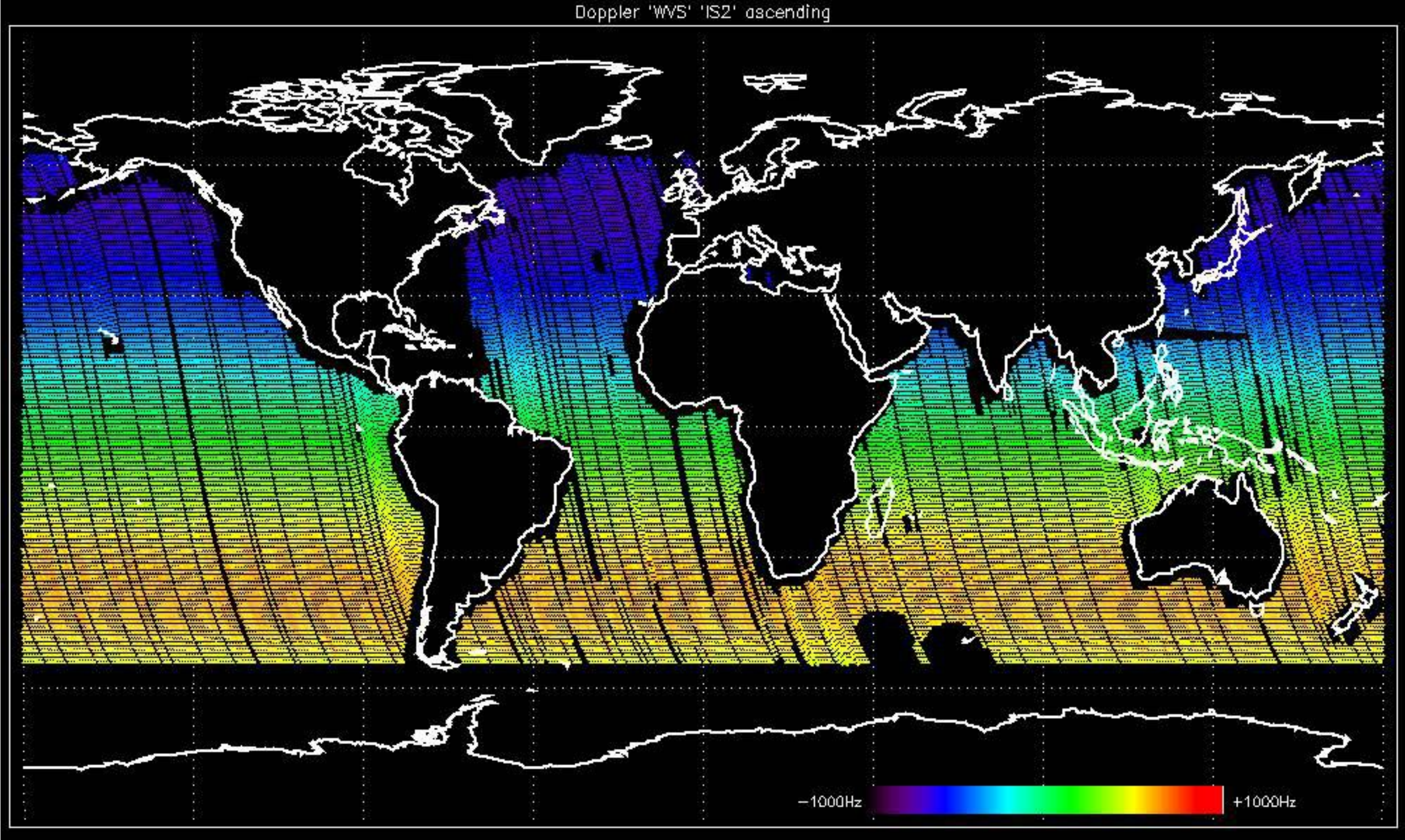


Doppler 'GM1' 'SS1' descending



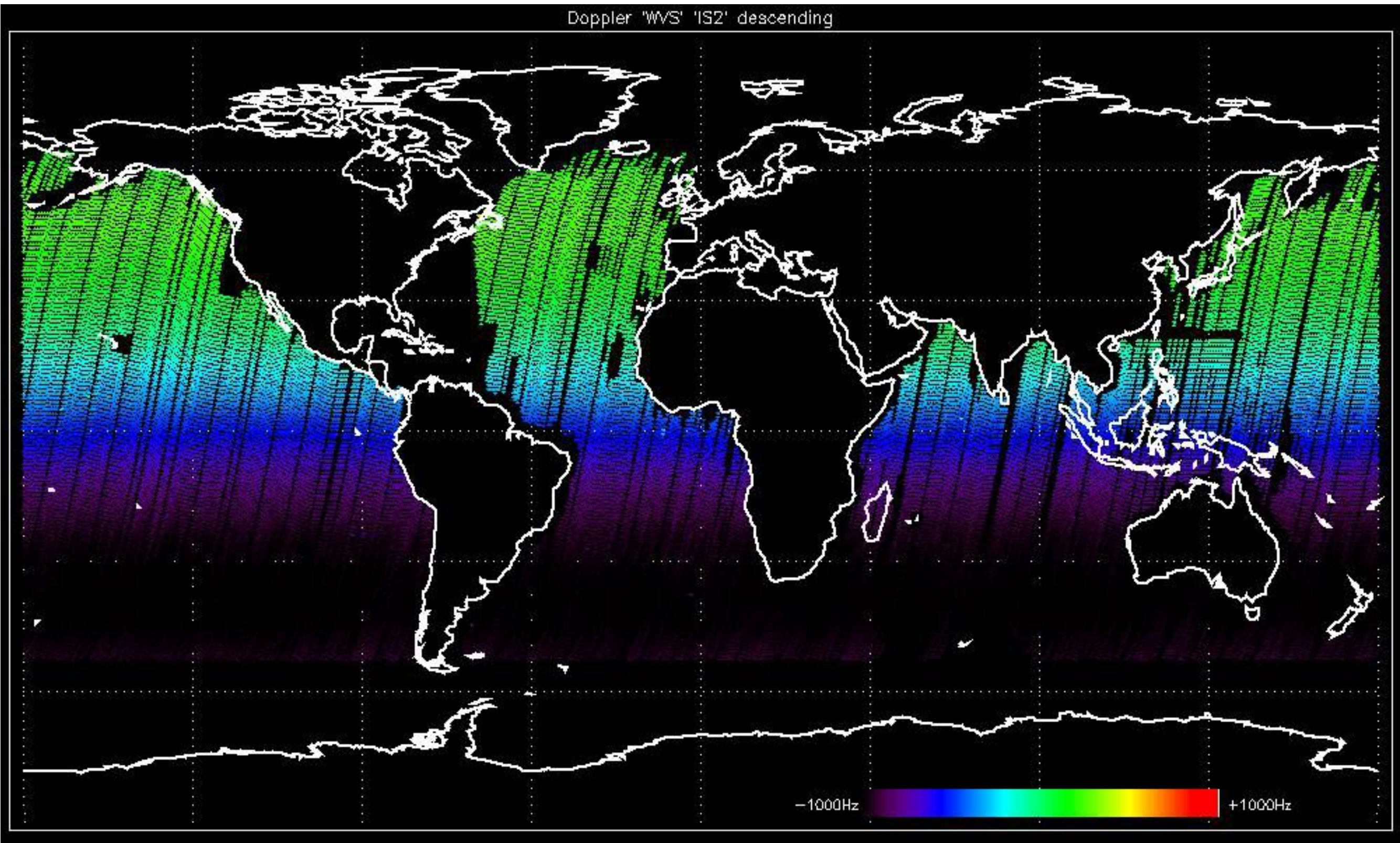


Doppler 'WVS' 'IS2' ascending



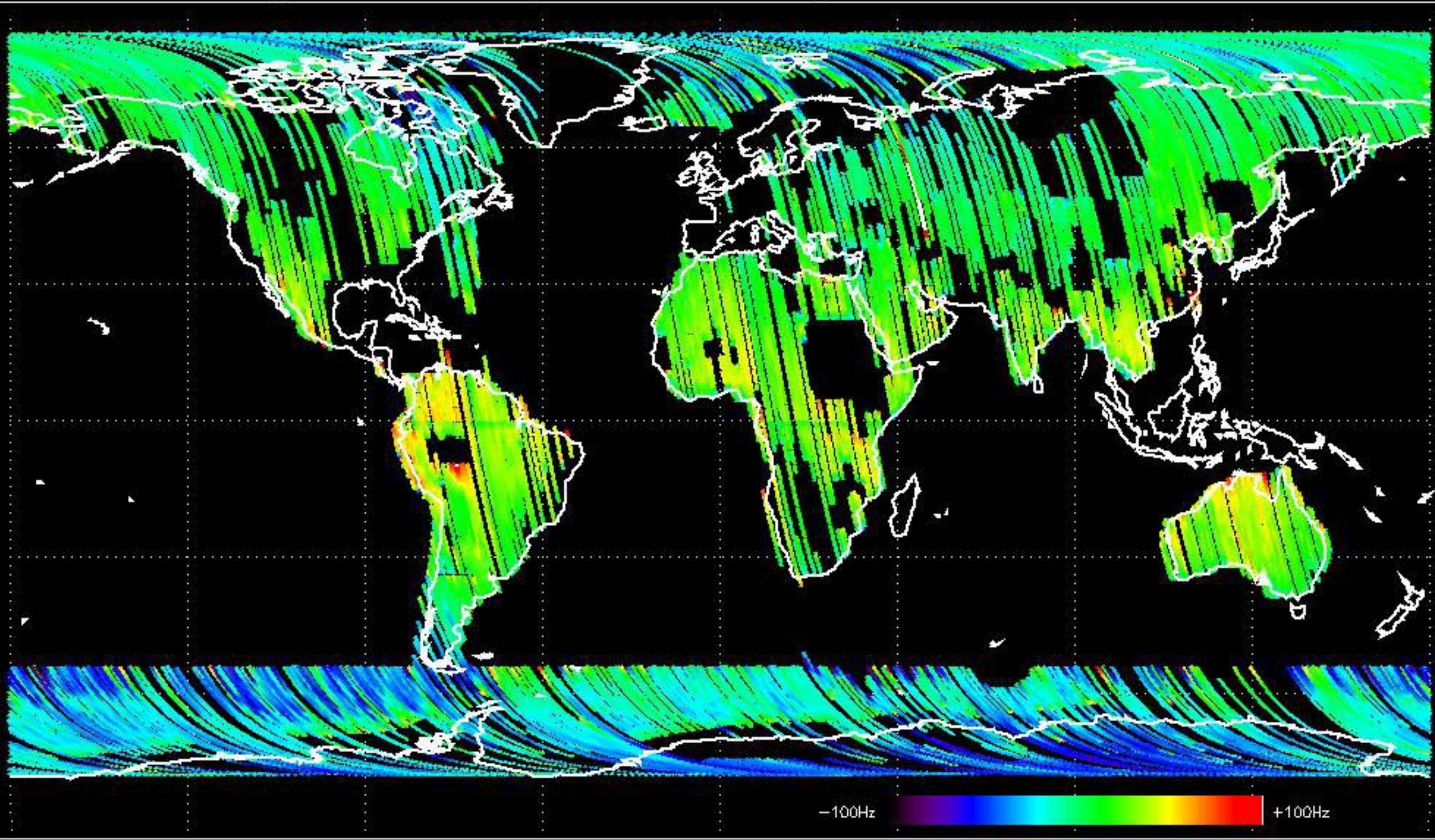


Doppler 'WVS' 'IS2' descending



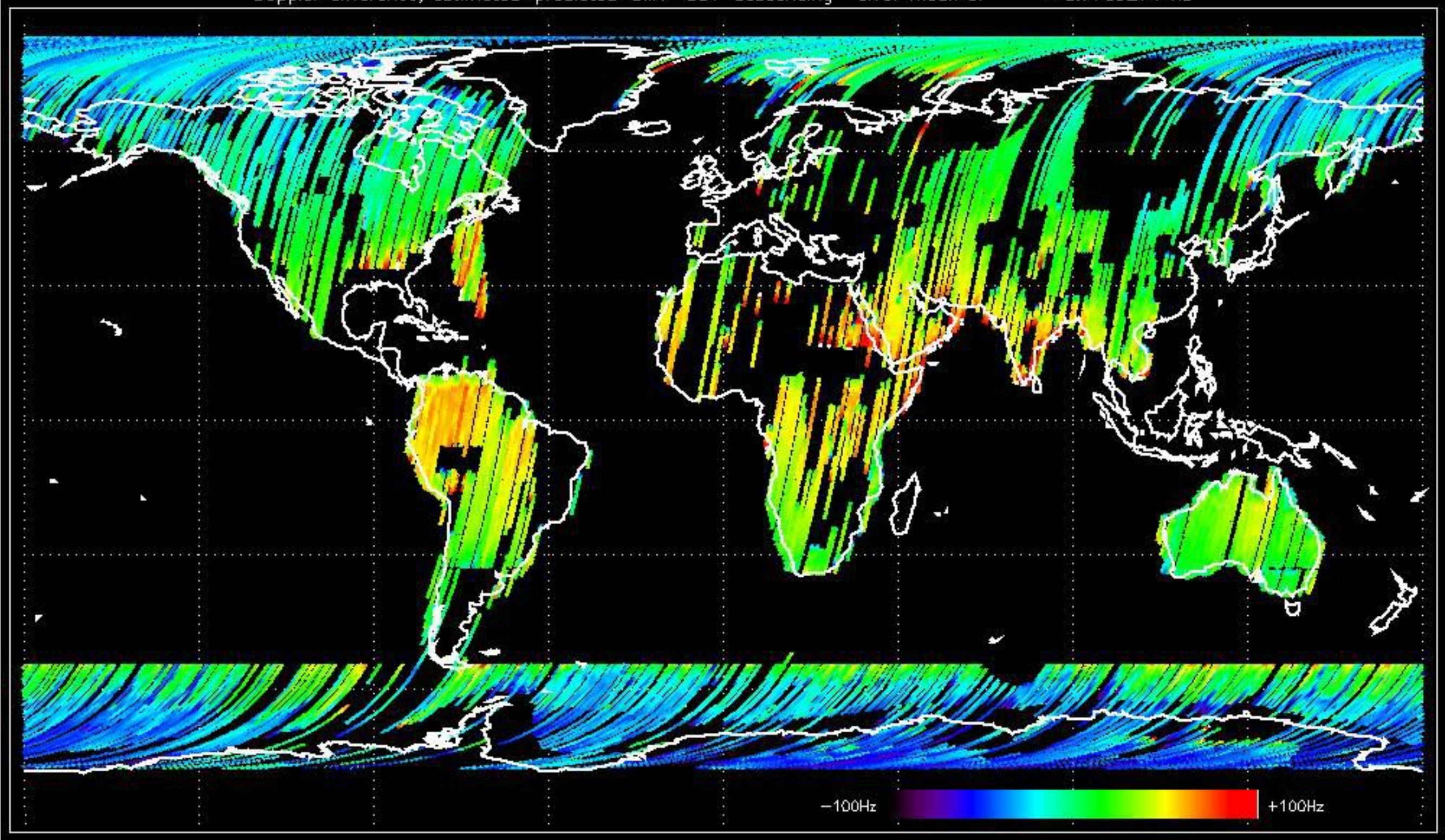


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.848522 Hz



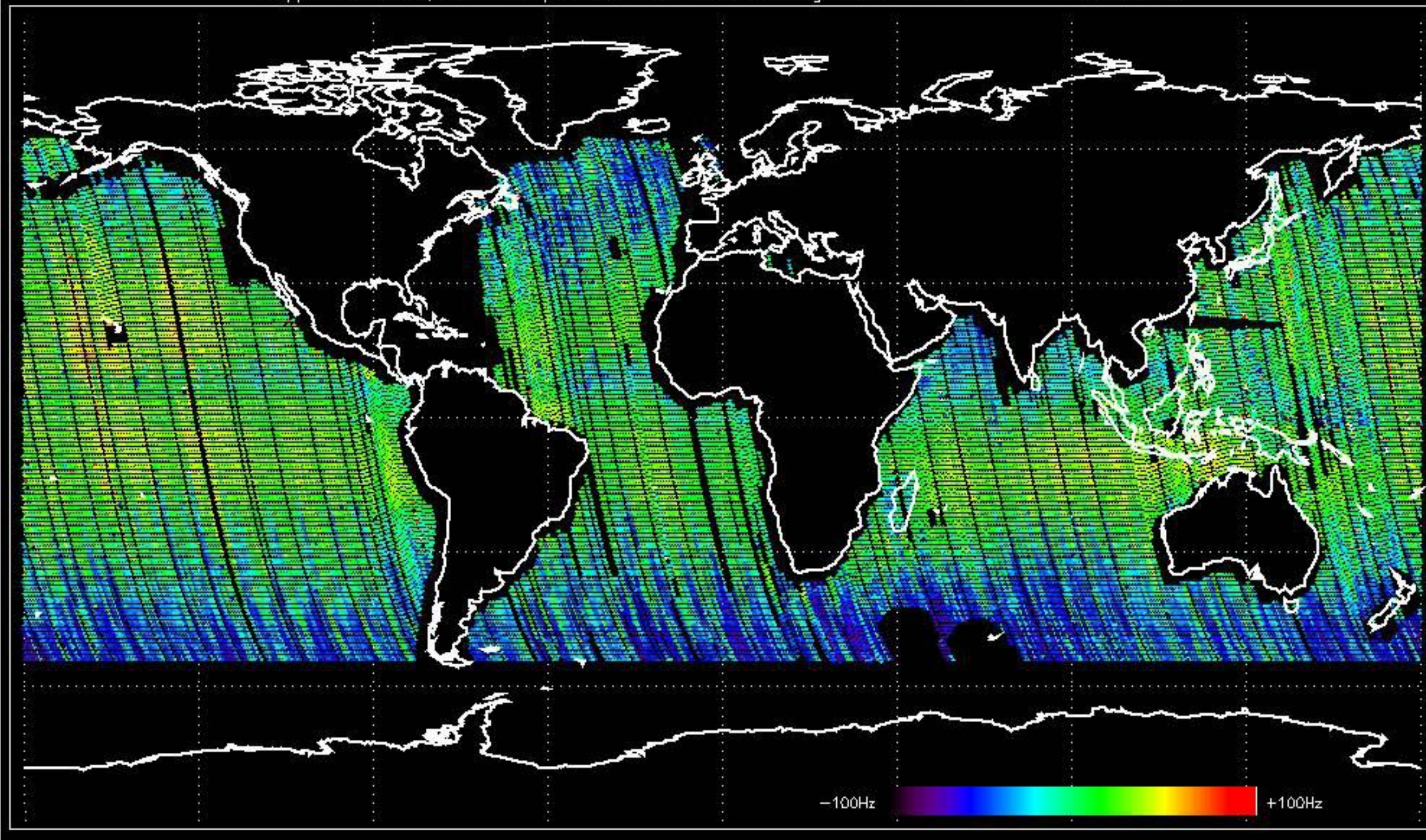


Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.7709274 Hz



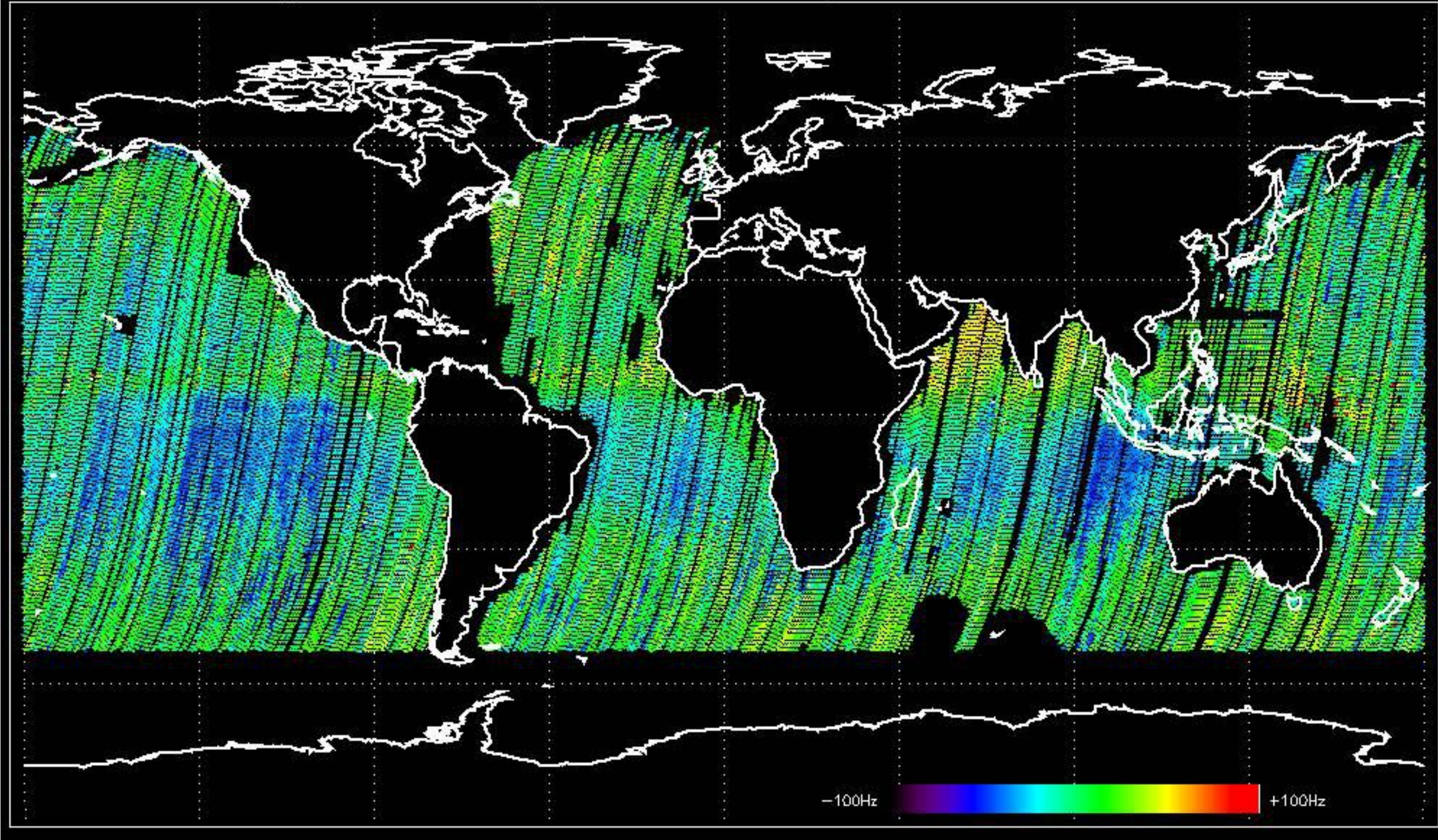


Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.1233101 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.6633236 Hz





No anomalies observed on available MS products:

No anomalies observed.



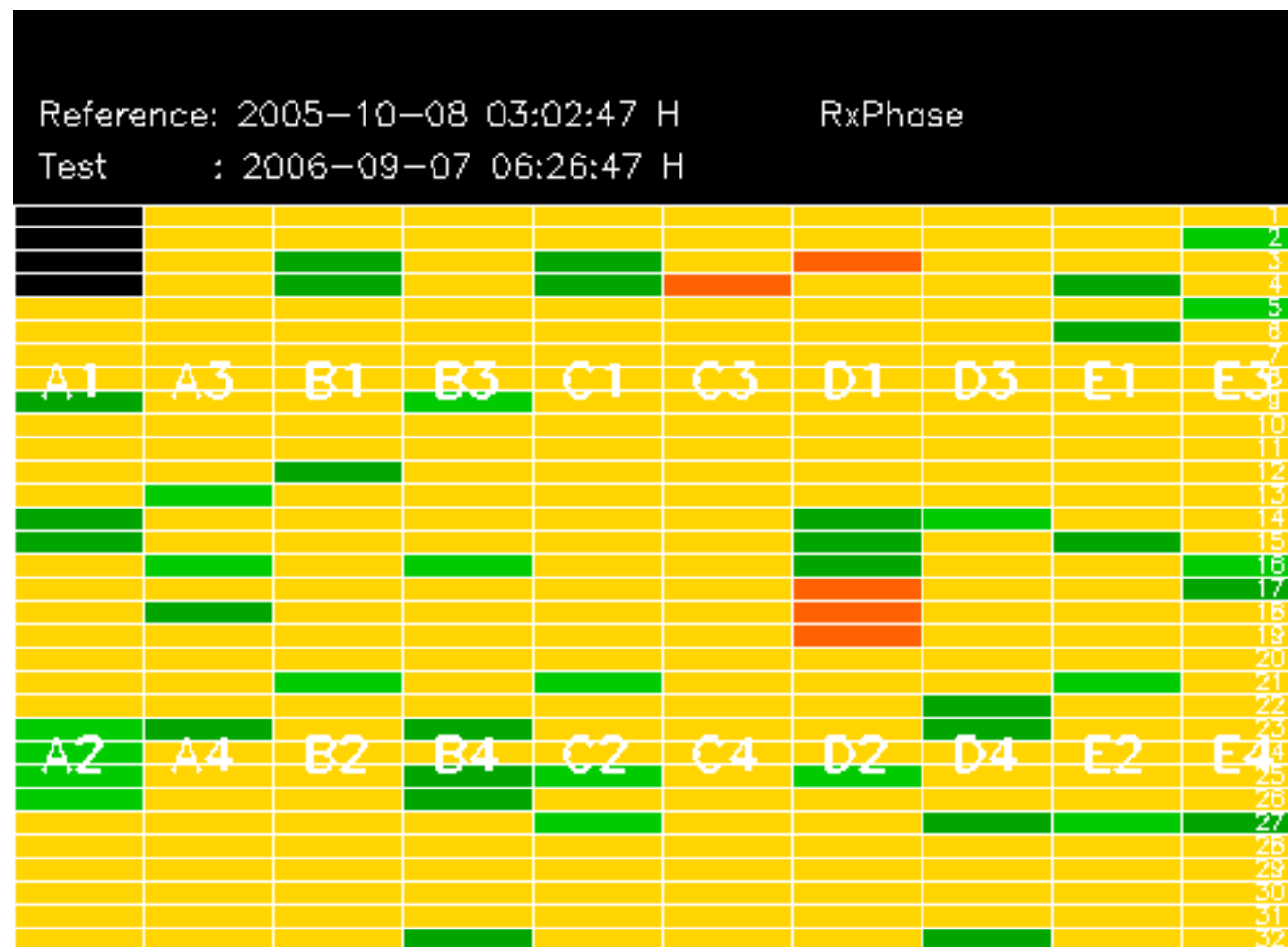






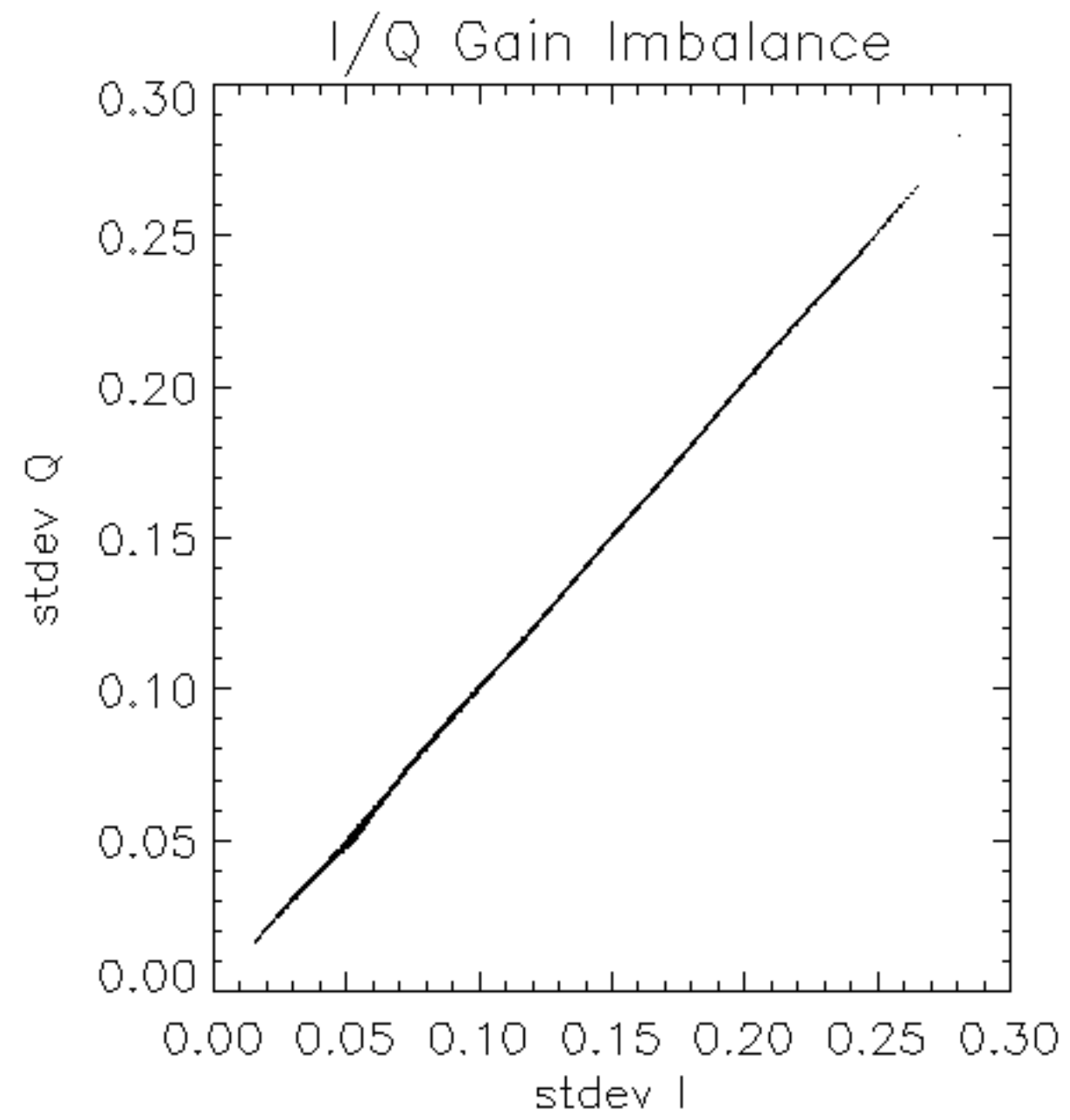




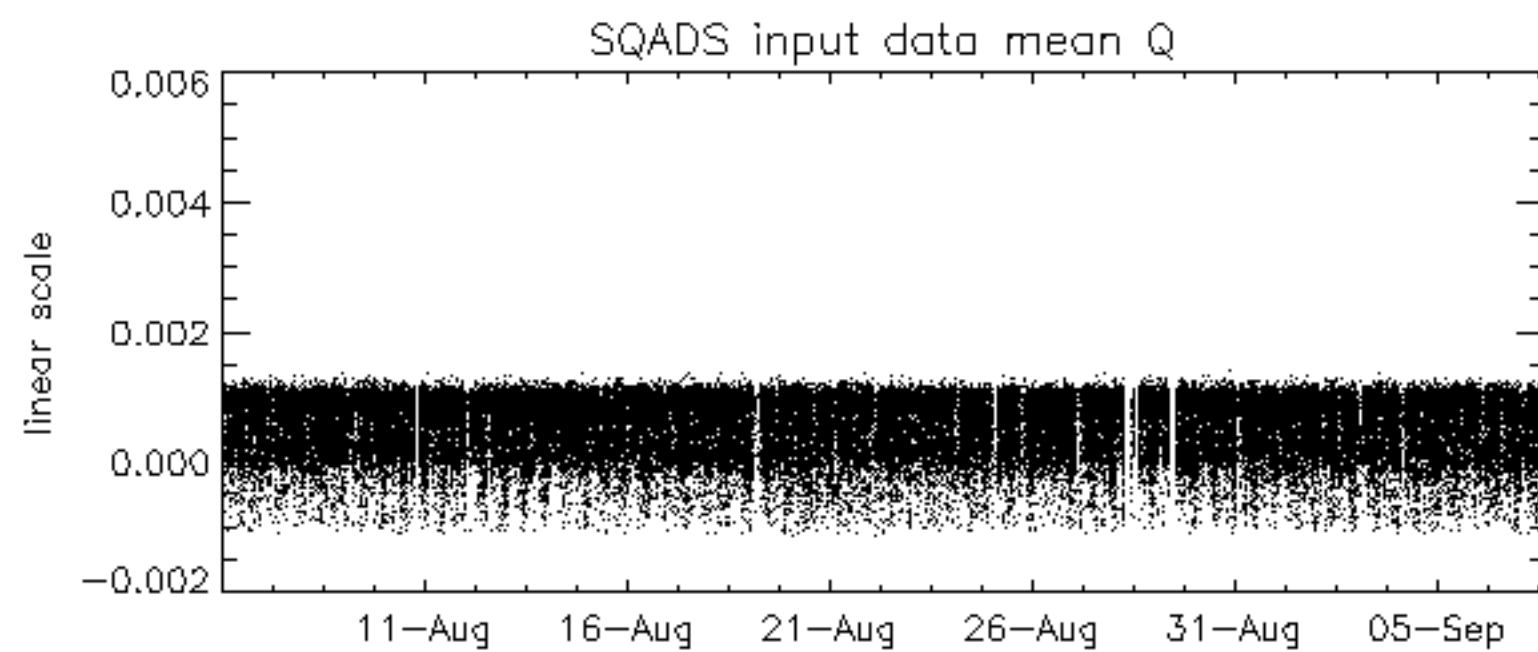
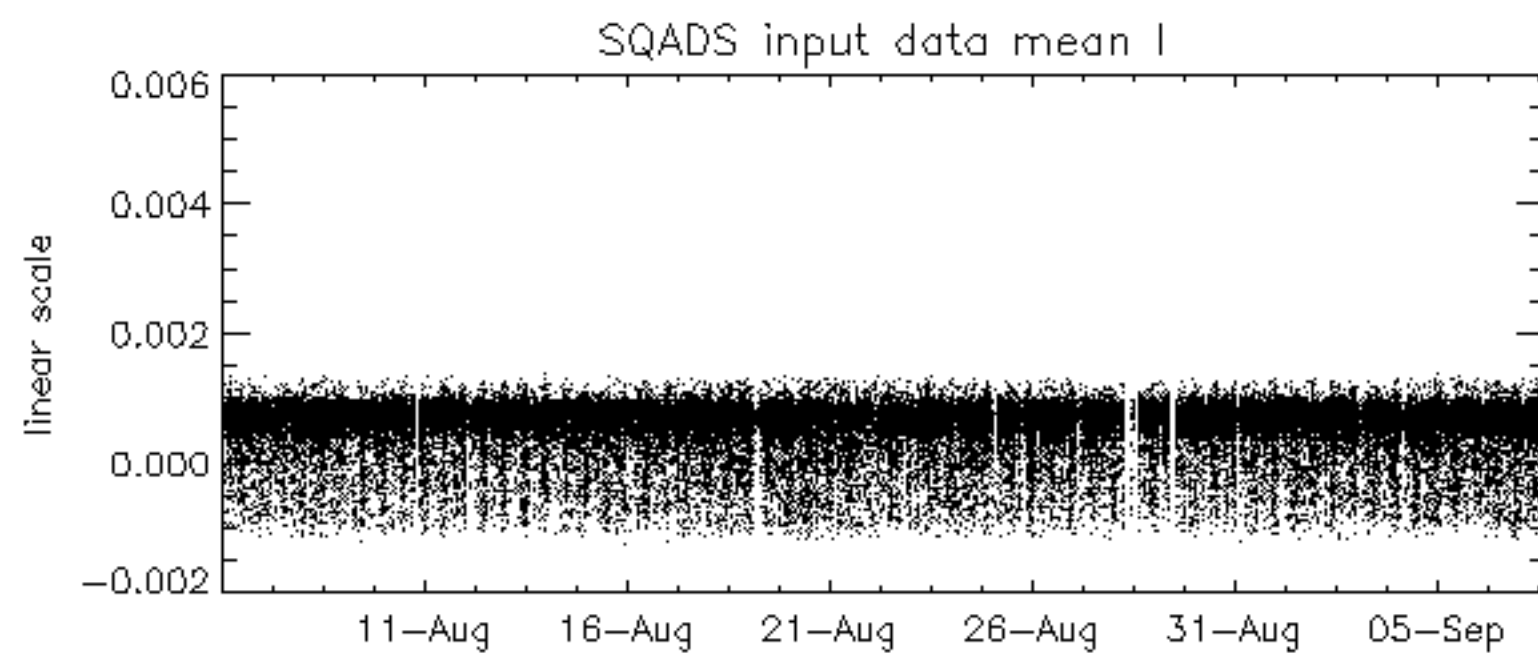
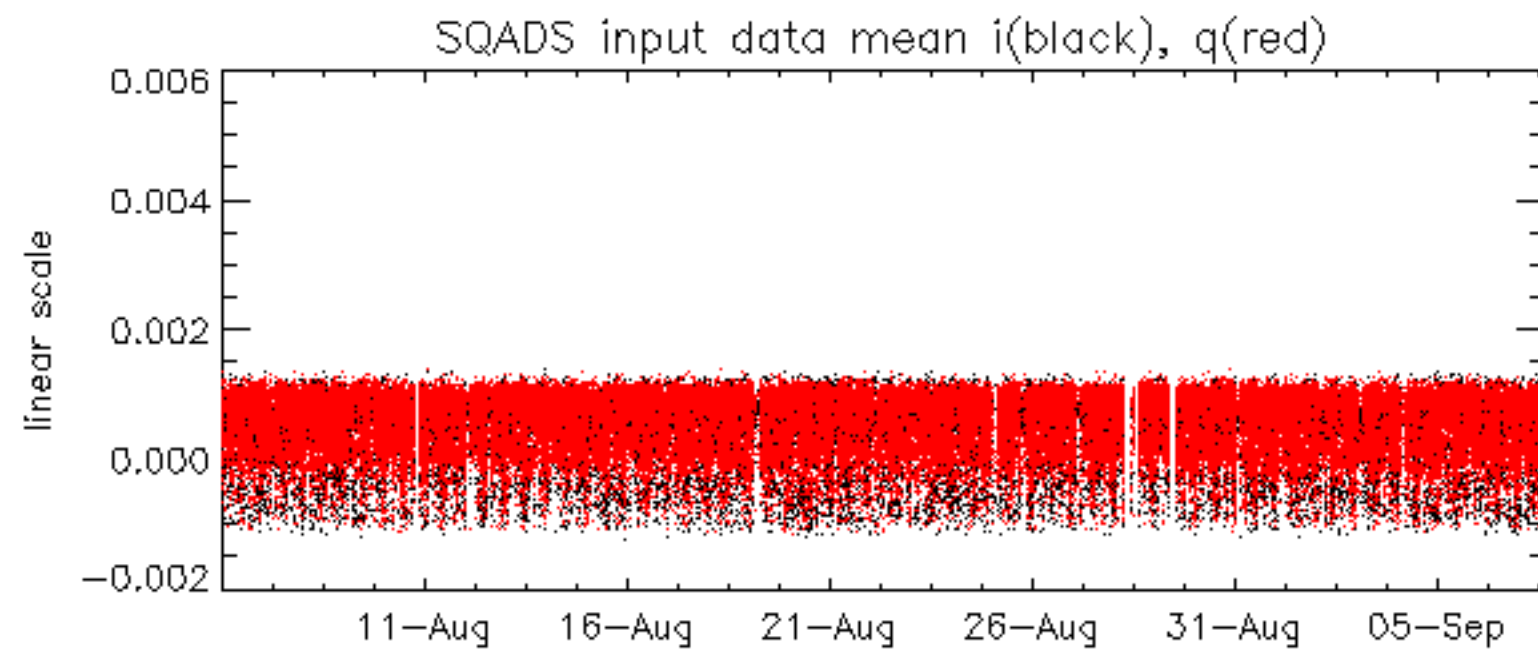


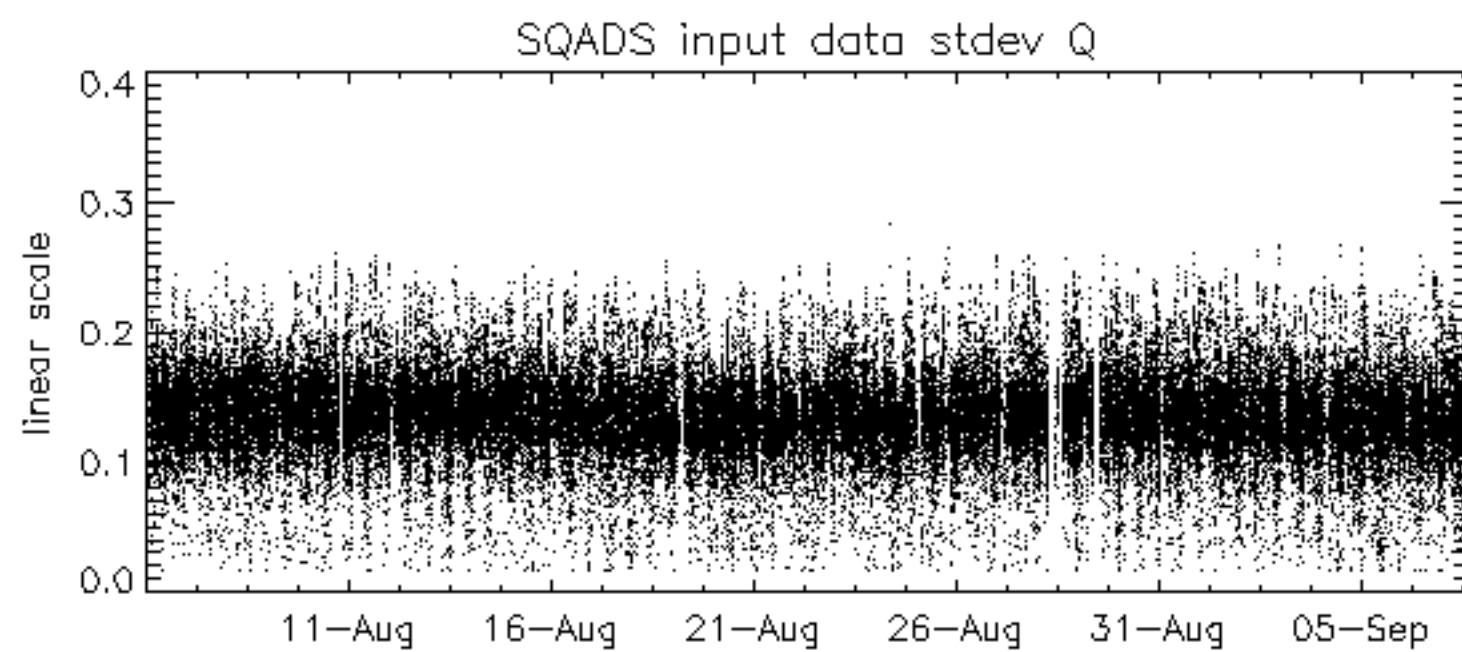
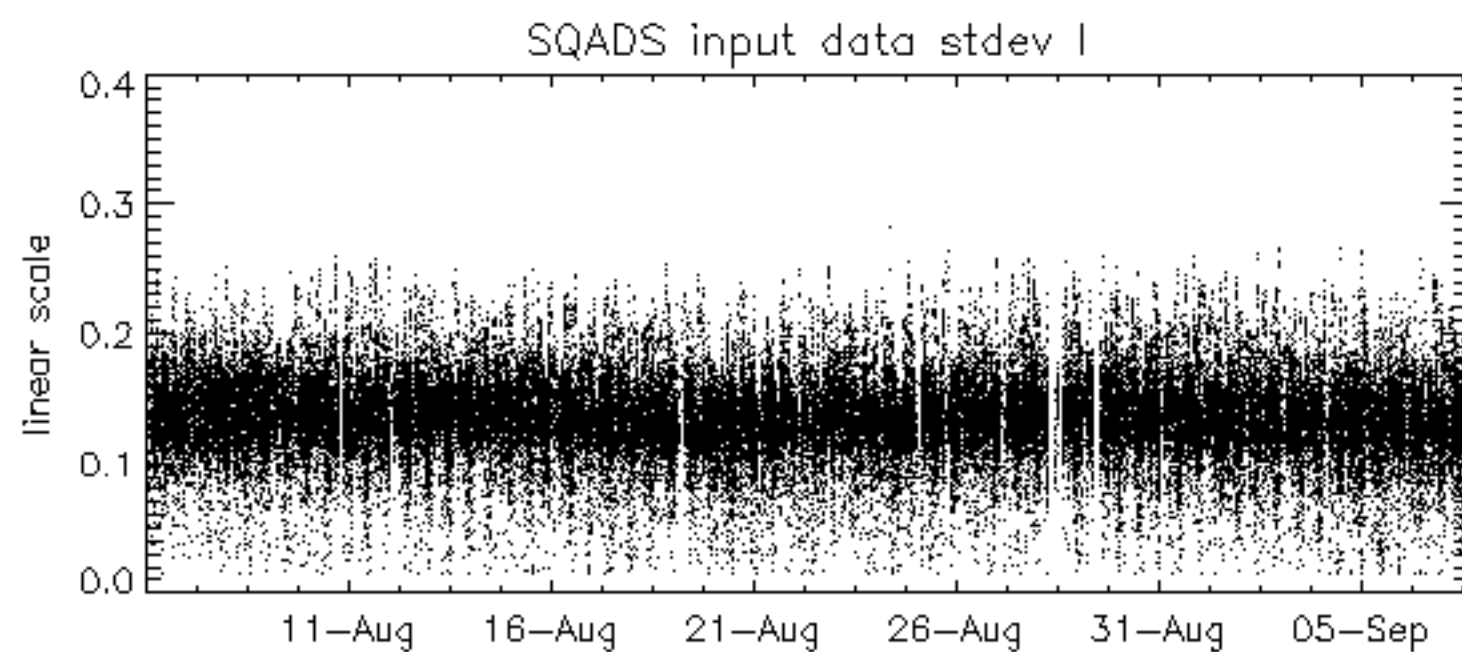
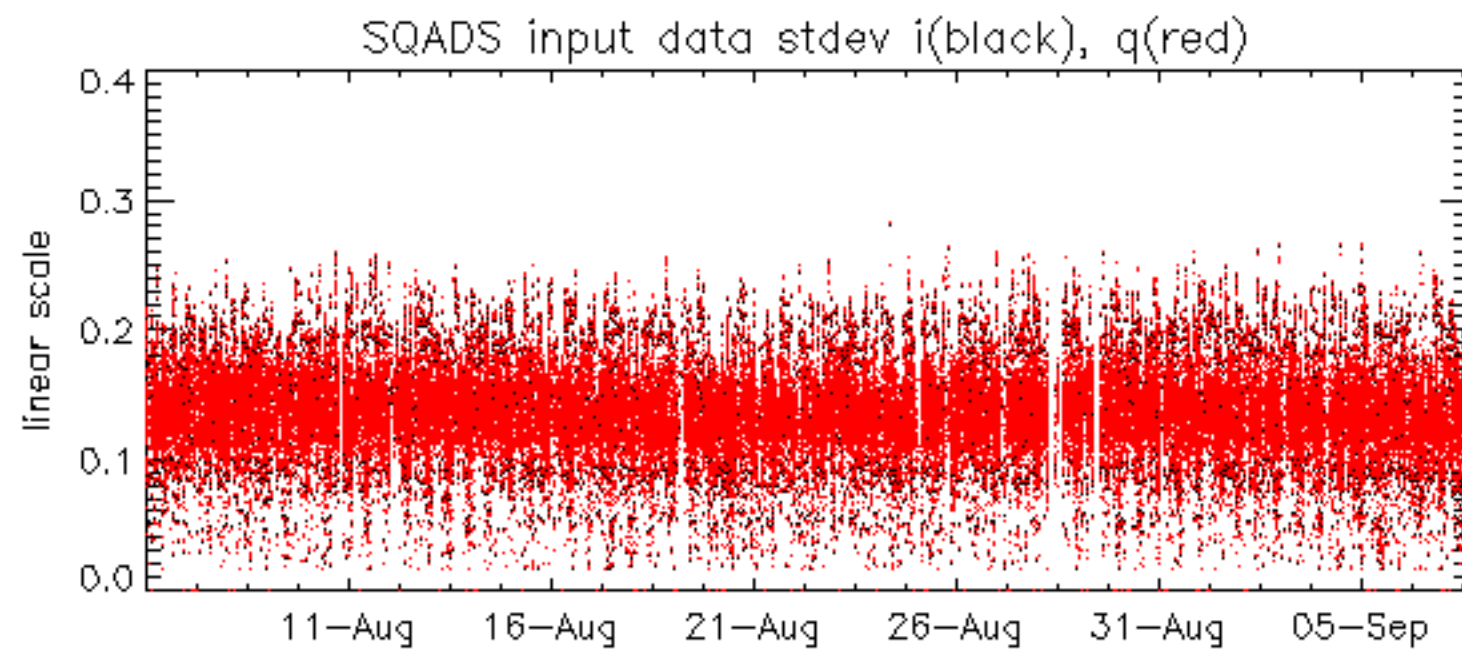




















Summary of analysis for the last 3 days 2006090[890]

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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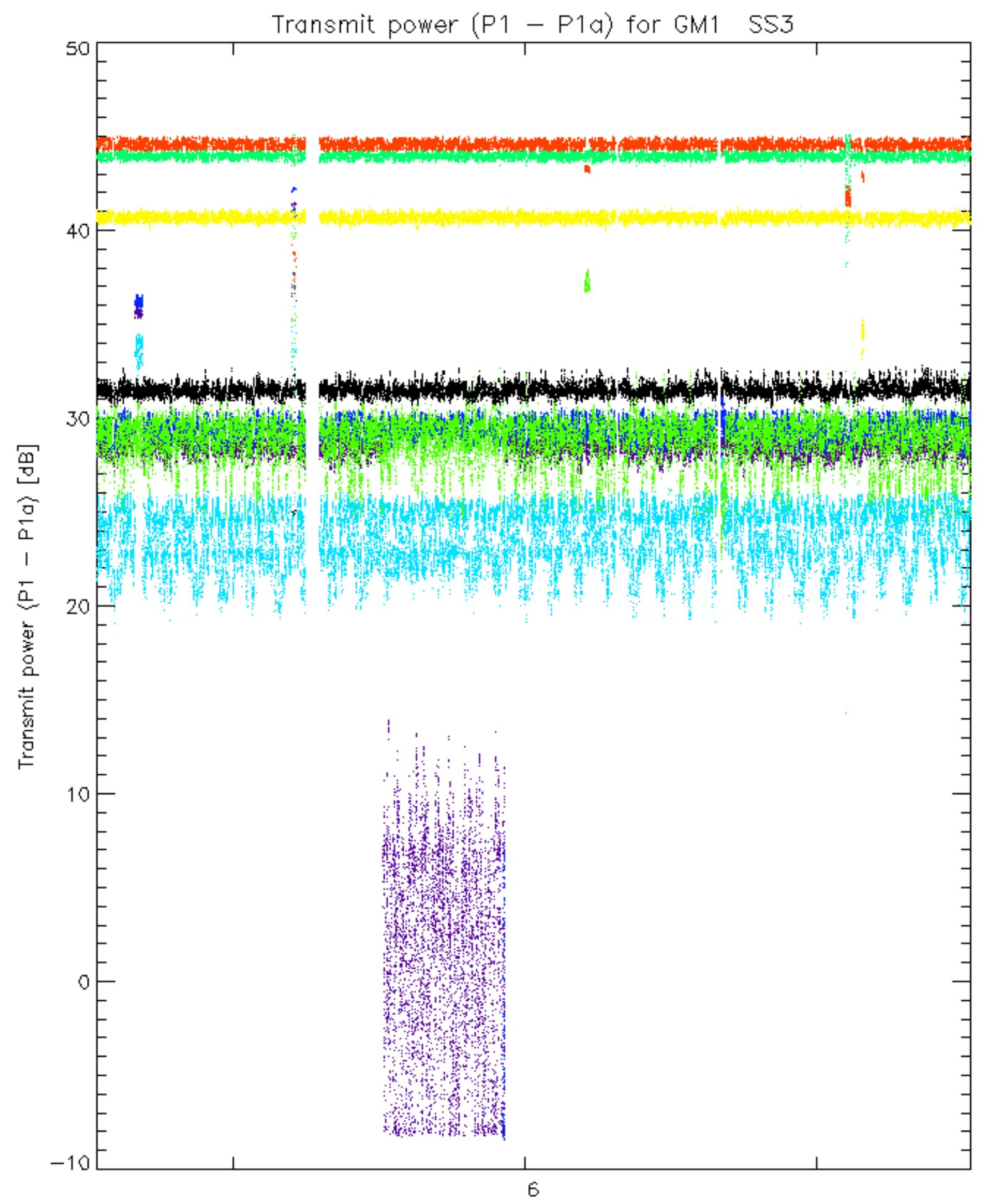




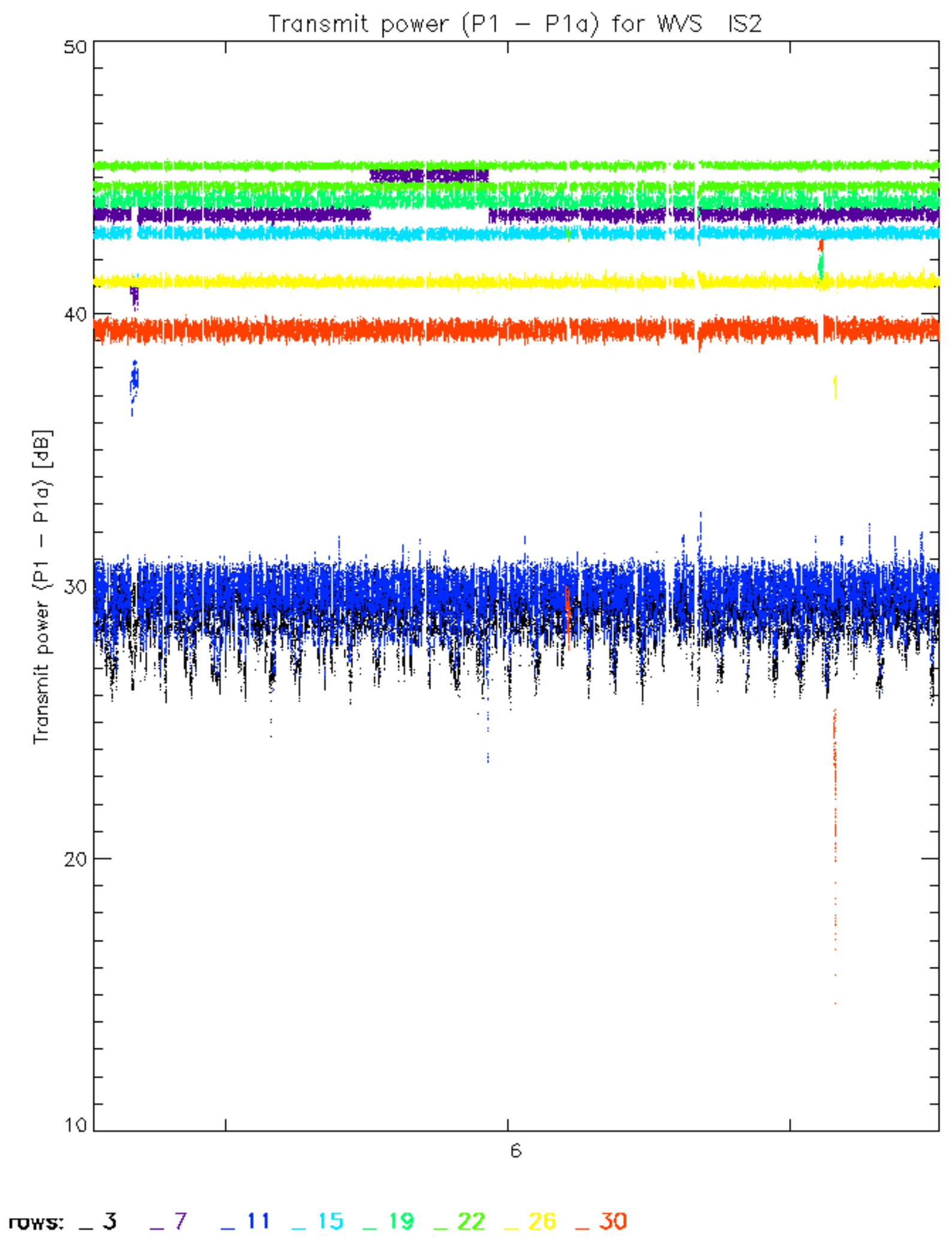








rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30



No unavailabilities during the reported period.