

# PRELIMINARY REPORT OF 050715

last update on Fri Jul 15 06:50:01 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 2005-07-14 00:00:00 to 2005-07-15 06:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	24	29	14	3	8
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	24	29	14	3	8
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	24	29	14	3	8
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	24	29	14	3	8

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	20	29	22	1	23
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	20	29	22	1	23
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	20	29	22	1	23
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	20	29	22	1	23

## 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**

**MSM in V/V polarisation**

**MSM in H/H polarisation**

## 4 - Internal calibration Results

### 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)
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#### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
-----	-------	-----------	------------	-----------------

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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**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)
-----	-------	-----------	------------	-----------------

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
-----	-------	-----------	------------	-----------------

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
-----	-------	-----------	------------	-----------------

**4.3 - cal pulses monitoring (all rows)**

**4.3.1 - Evolution for WVS**

**4.3.2 - Evolution for GM1**

## 5 - RAW data statistics

### 5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	
	stdev	
MEAN Q	mean	
	stdev	



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	
	stdev	
STDEV Q	mean	
	stdev	



### 5.3 - Gain imbalance I/Q



## 6 - Telemetry analysis

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

## 7.3 - Doppler evolution versus ANX for WVS

### Evolution Doppler error versus ANX

<input type="checkbox"/>
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## 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

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

## 7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

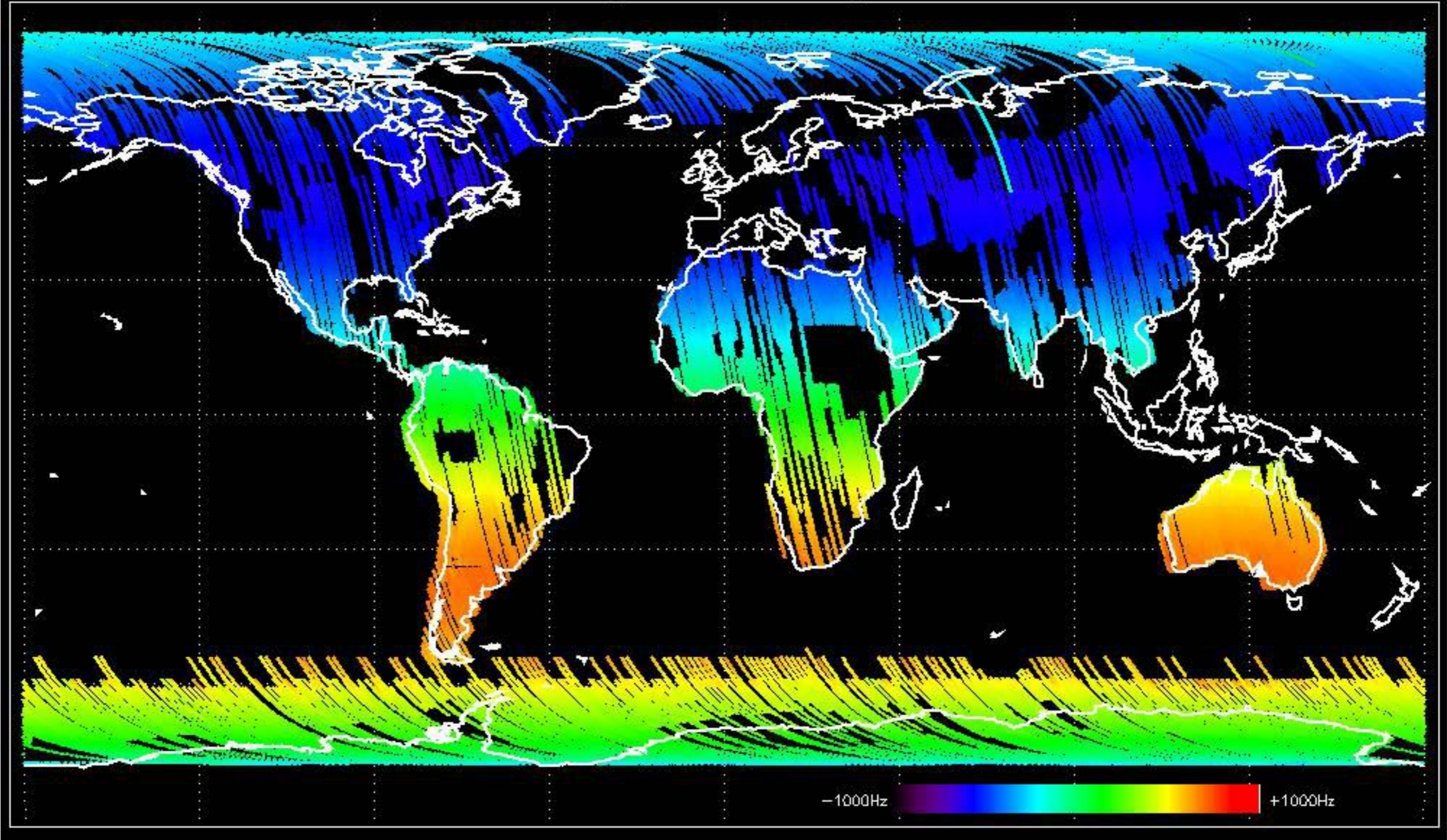


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



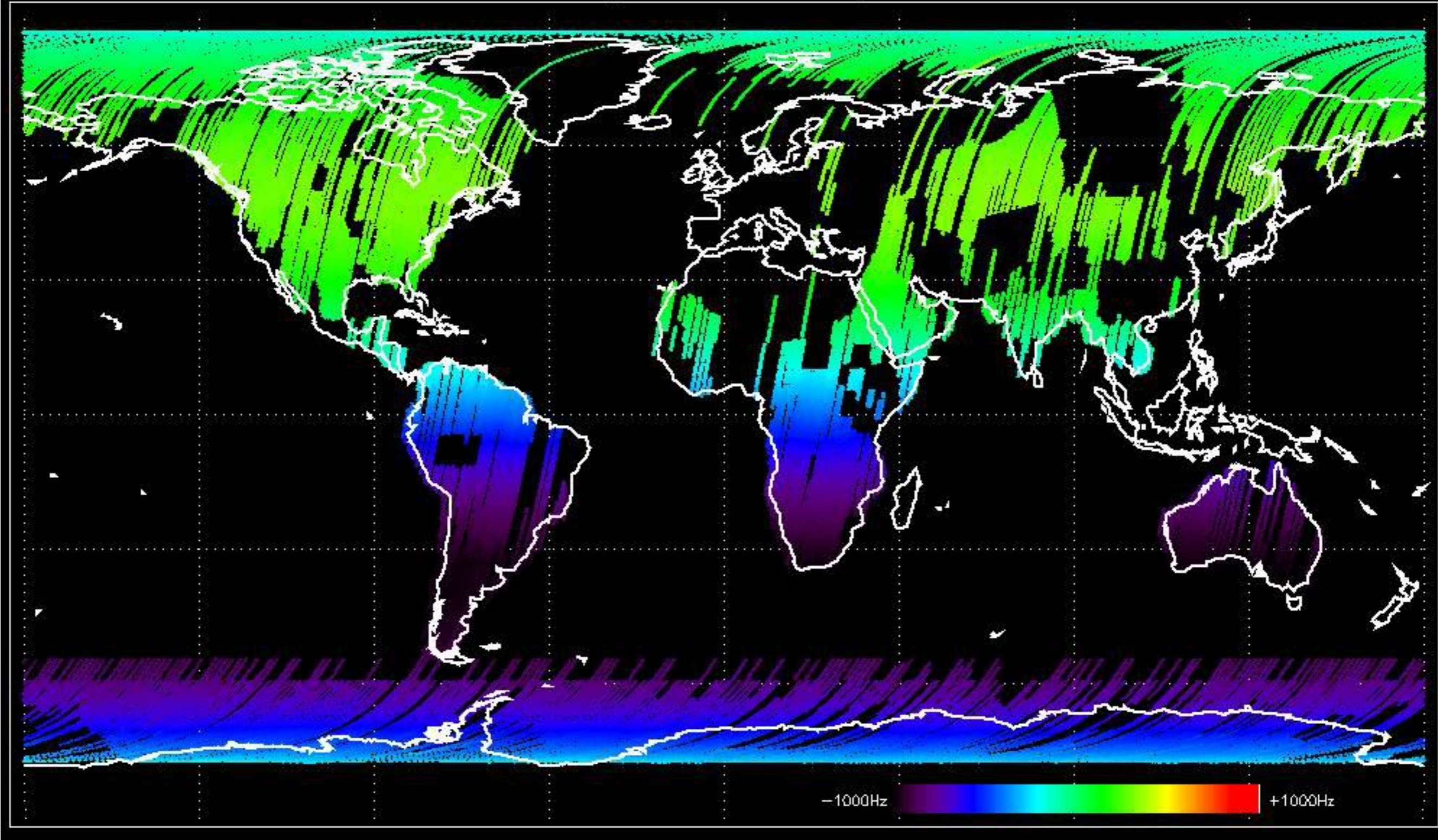


Doppler 'GM1' 'SS1' ascending



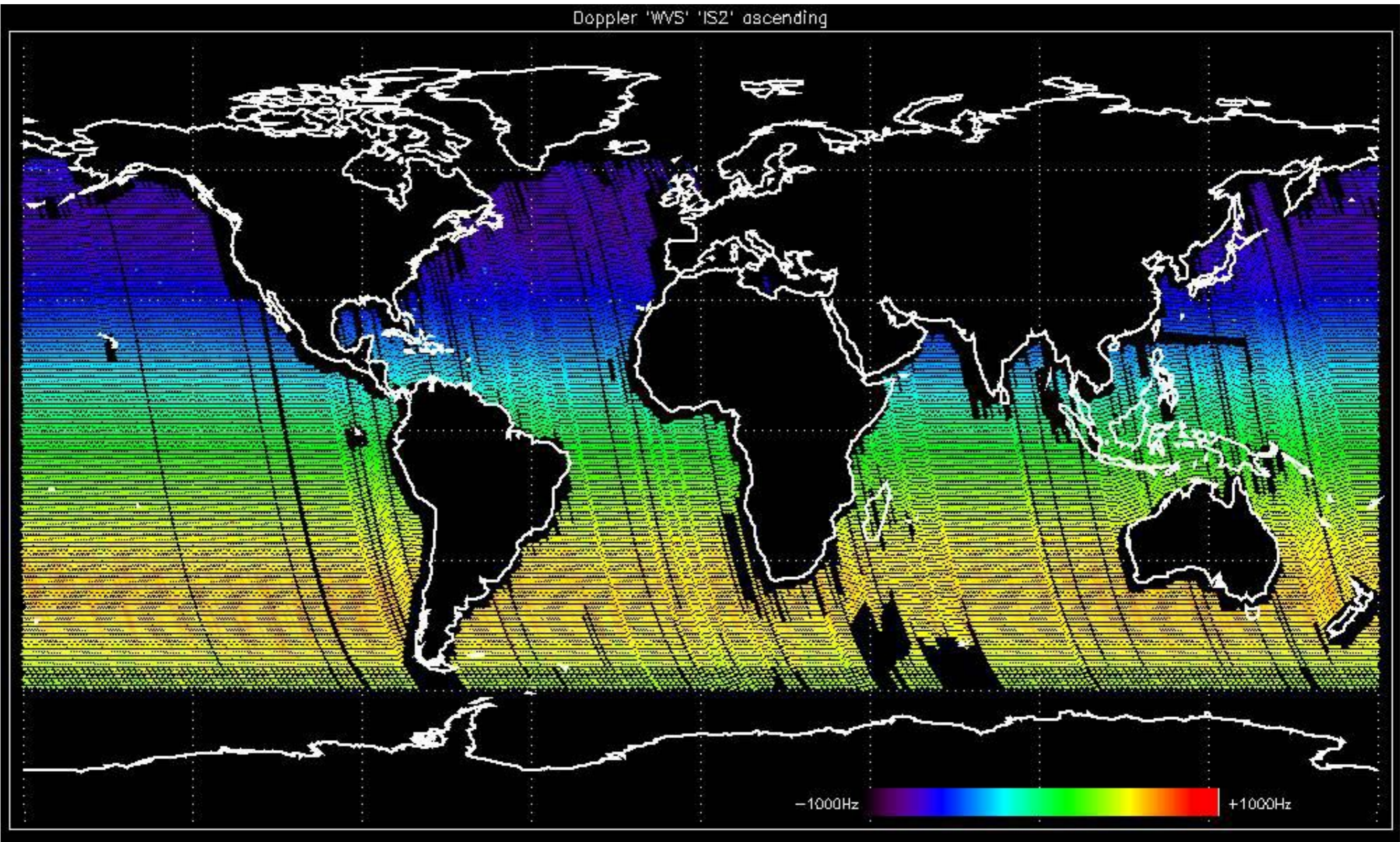


Doppler 'GM1' 'SS1' descending



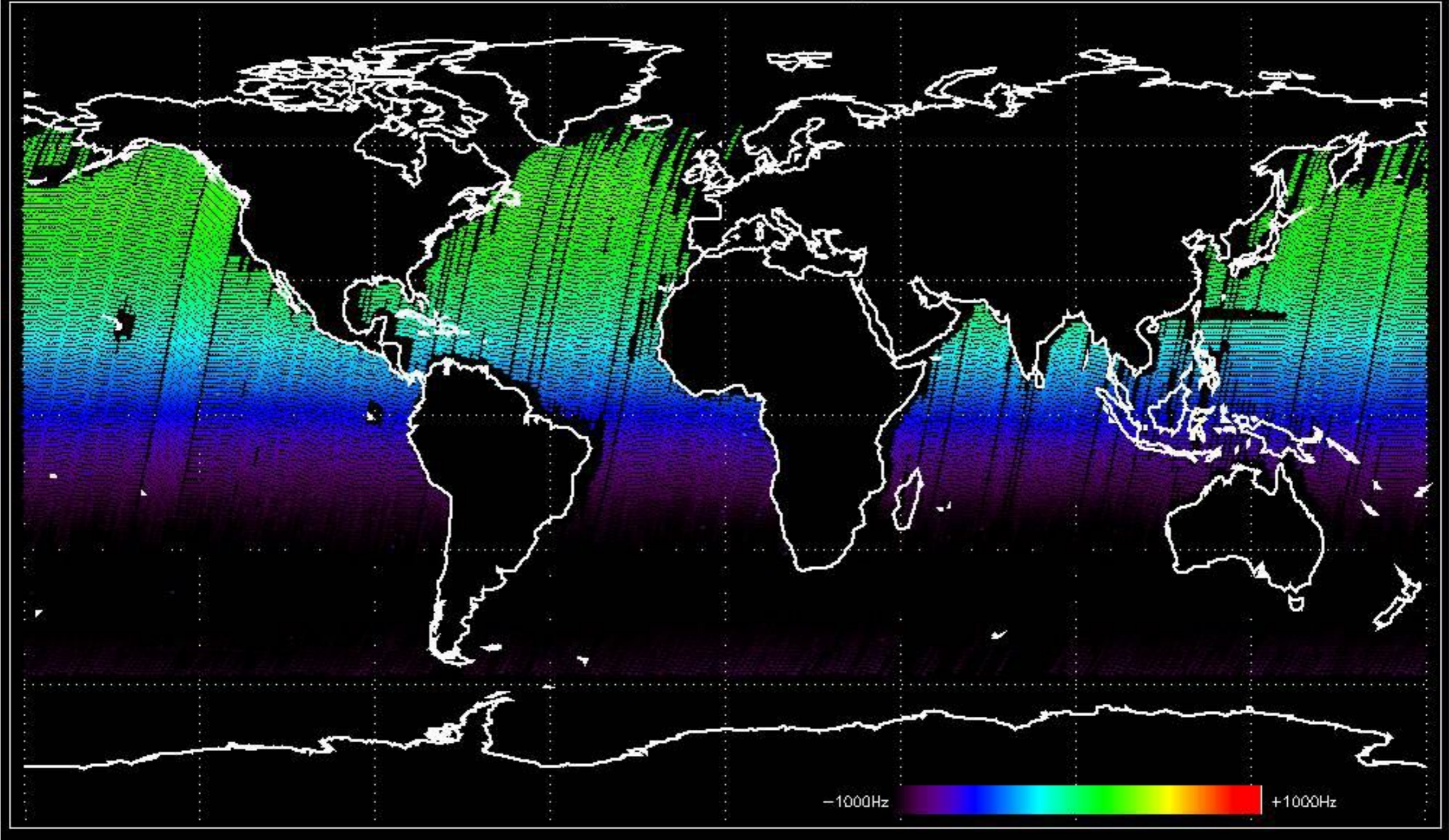


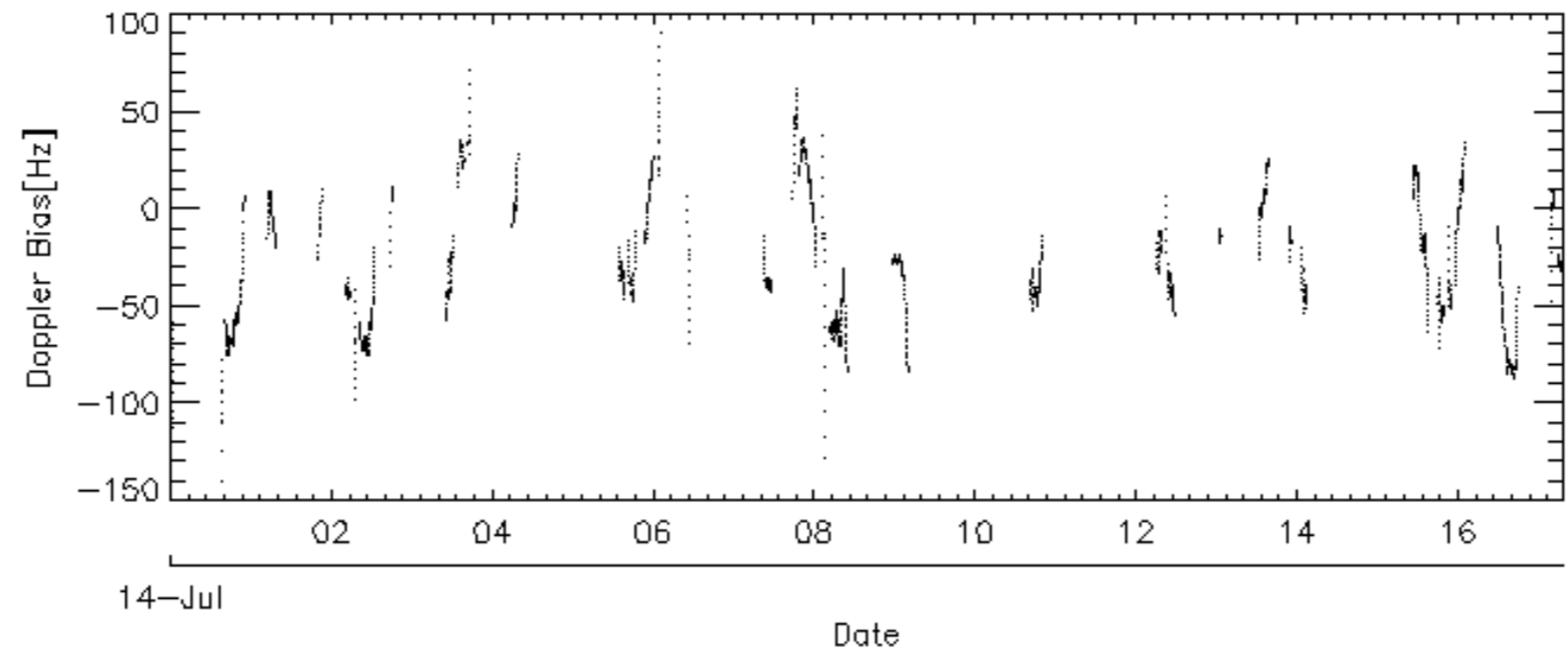
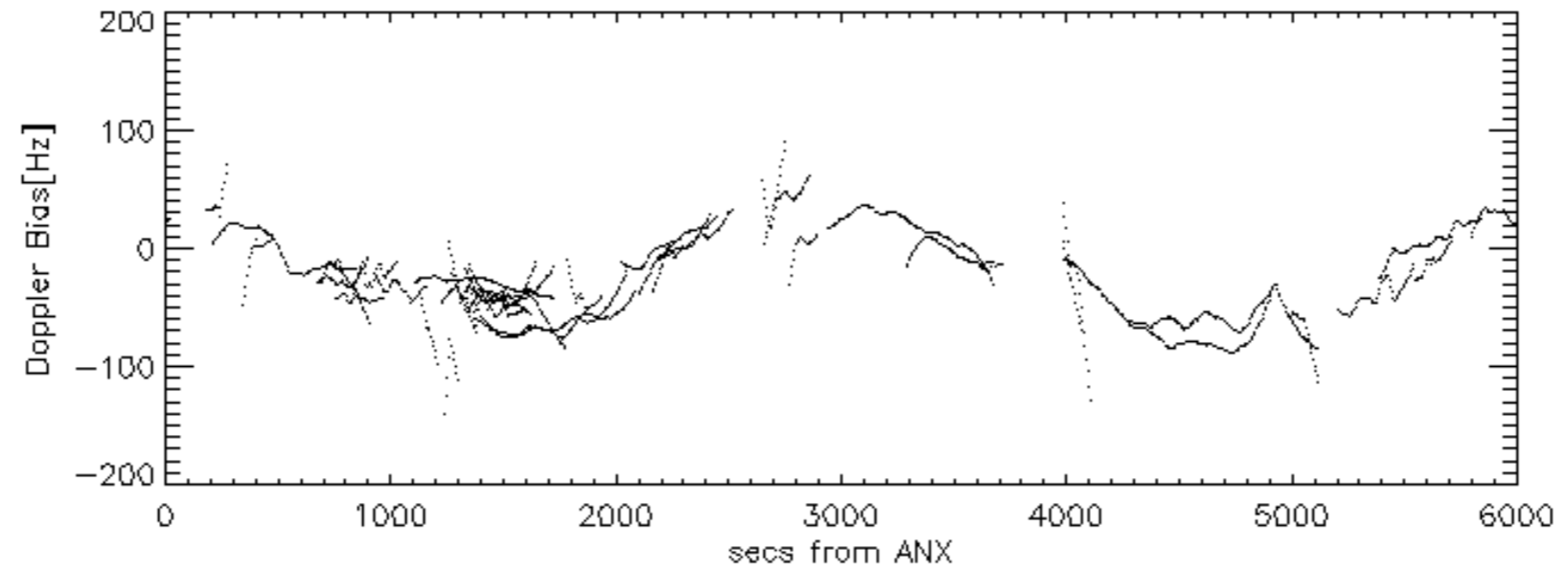
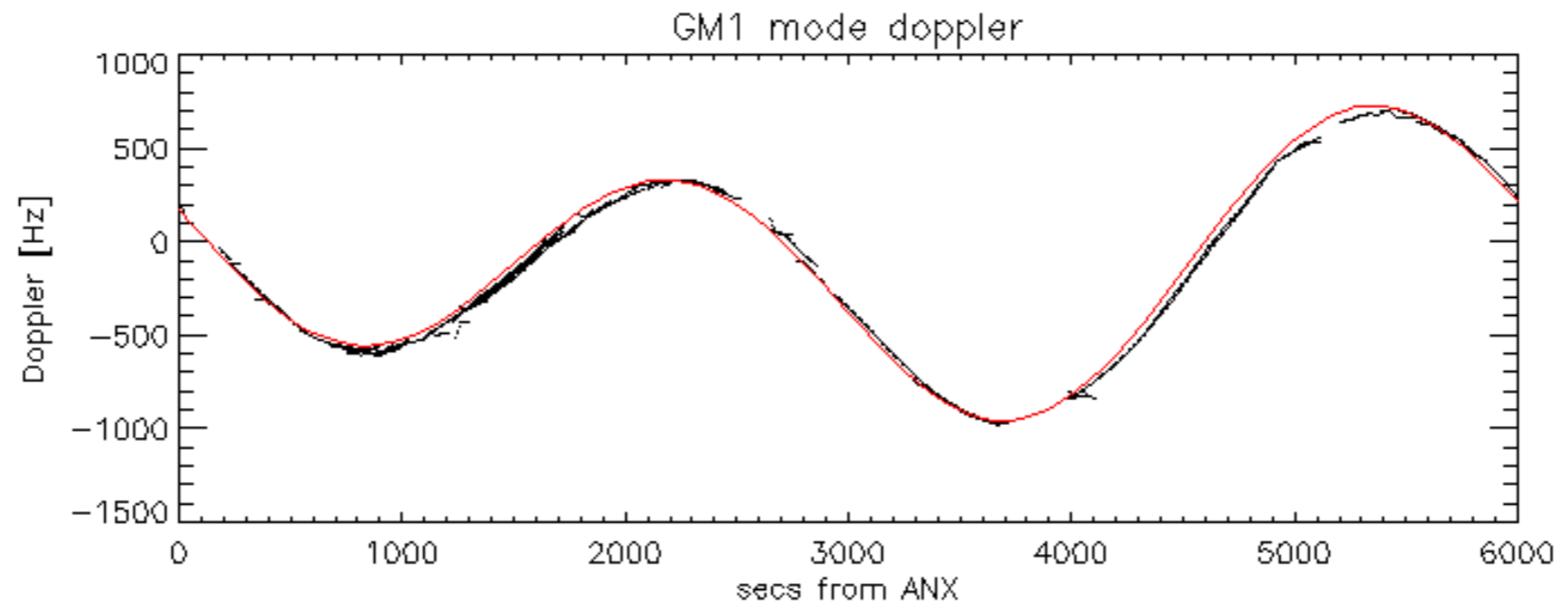
Doppler 'WVS' 'IS2' ascending

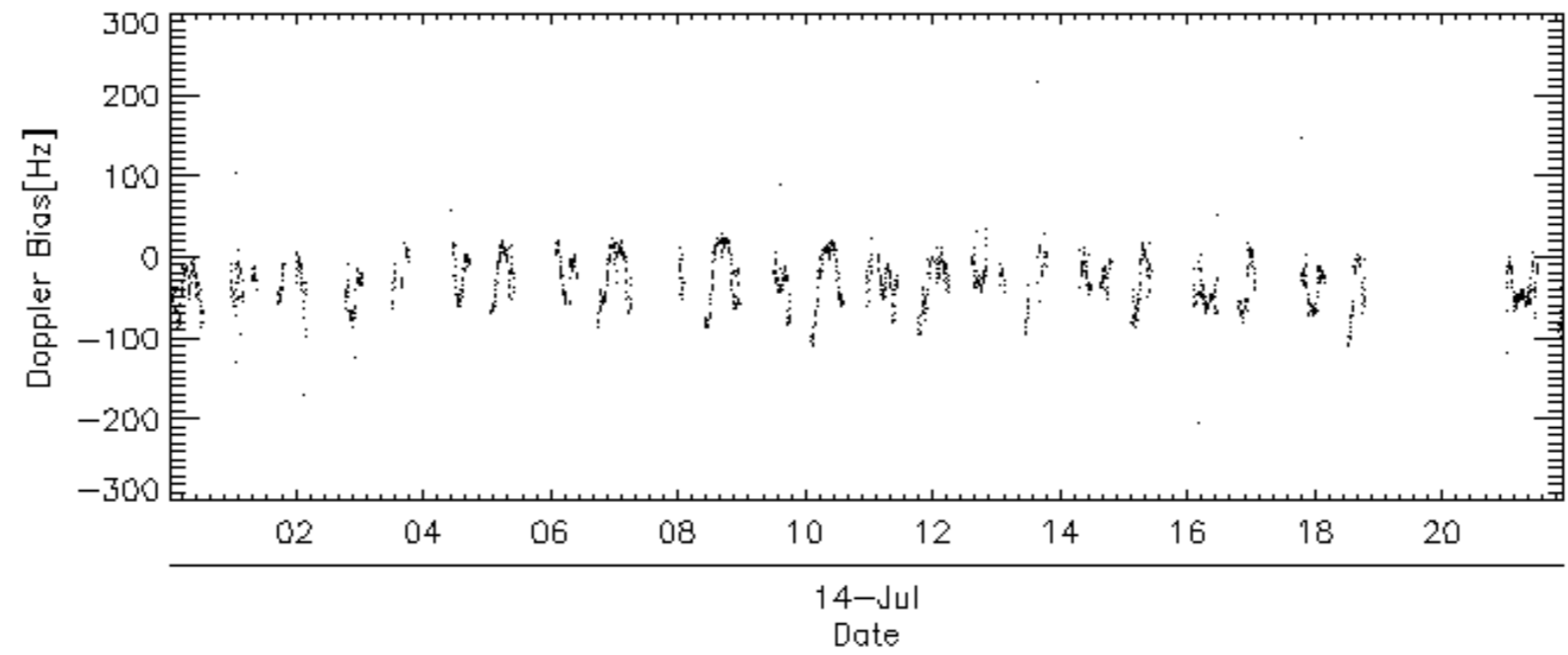
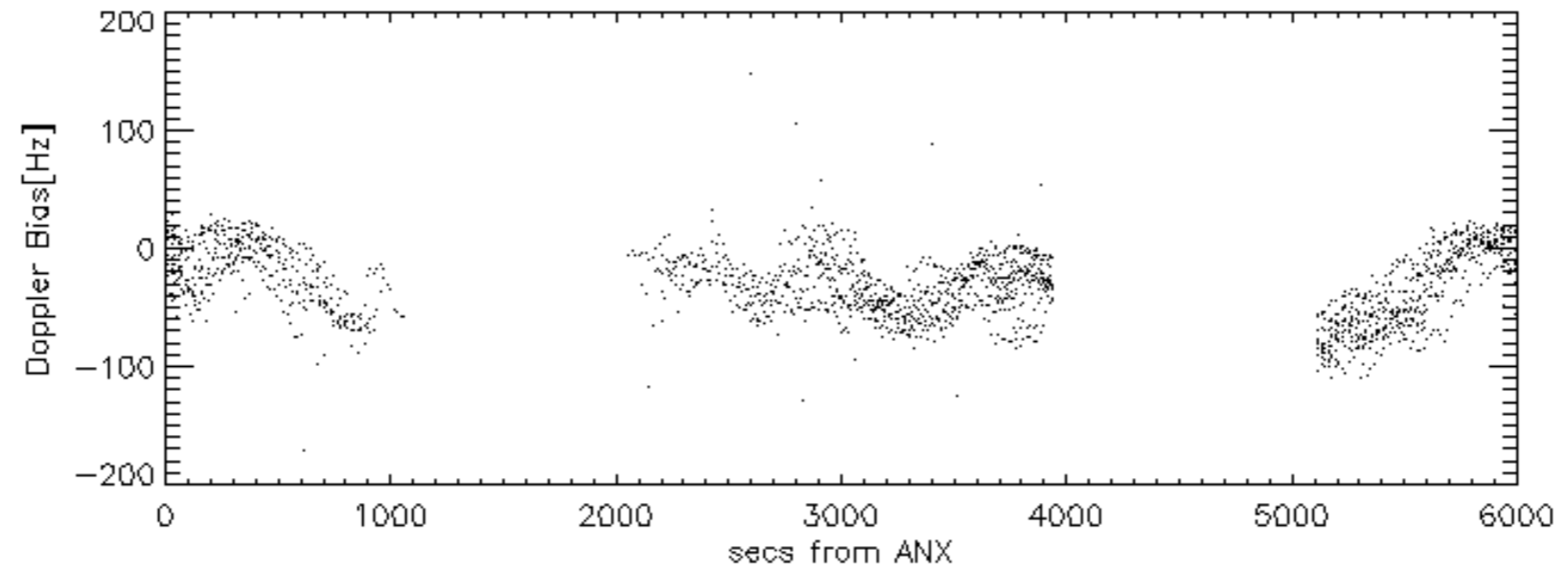
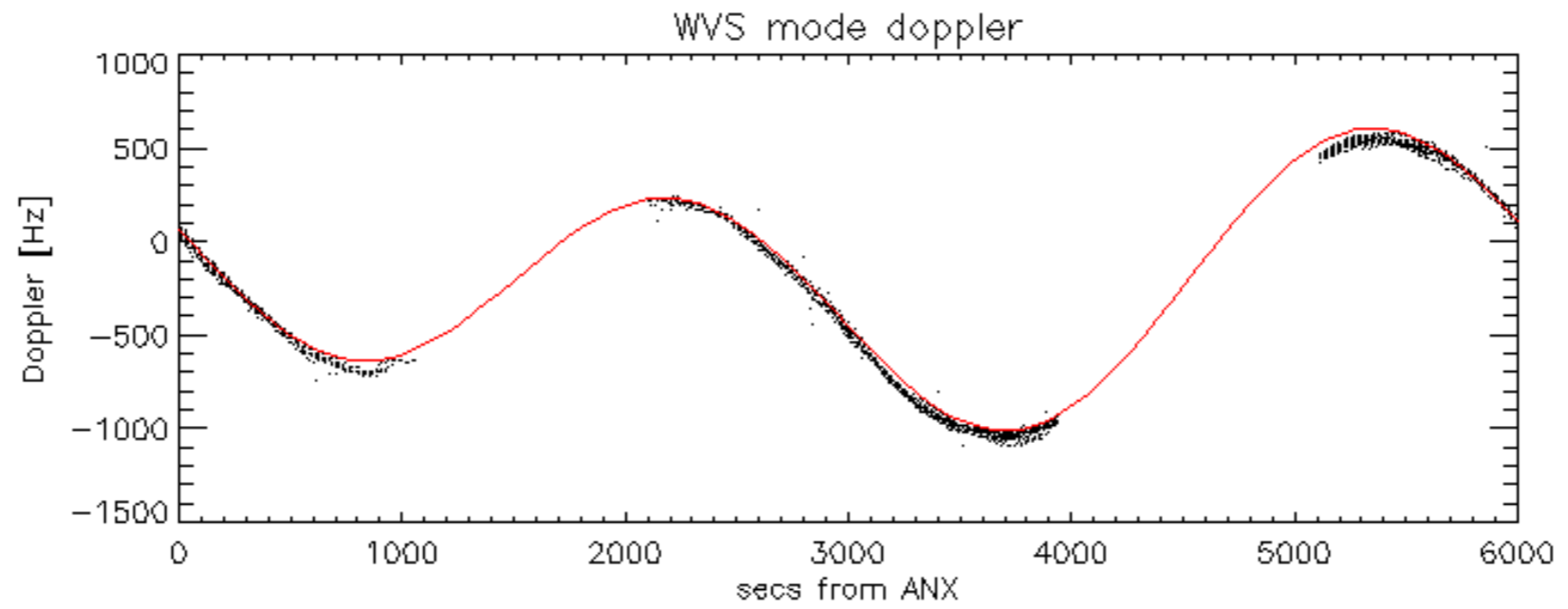




Doppler 'WVS' 'IS2' descending

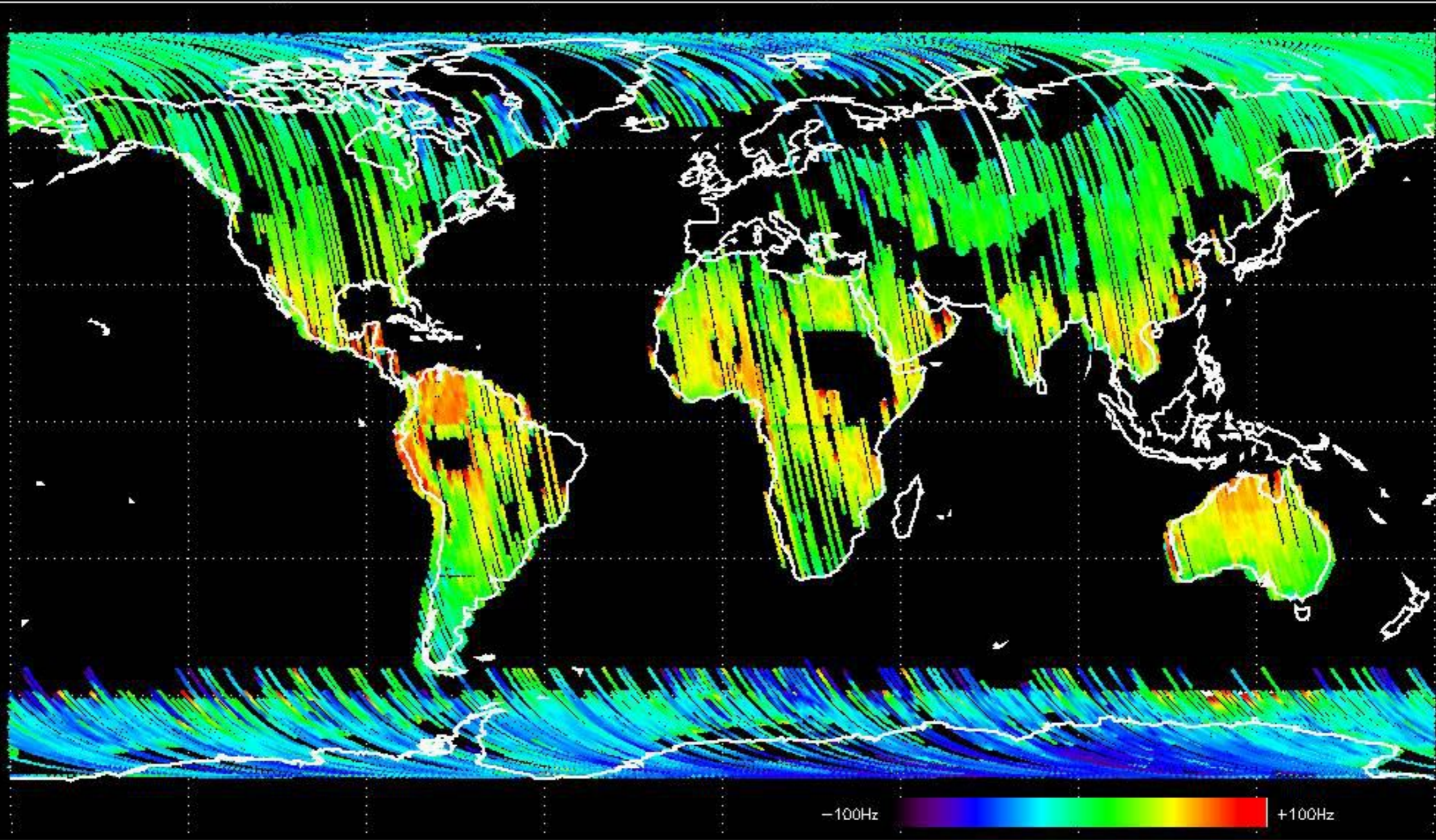






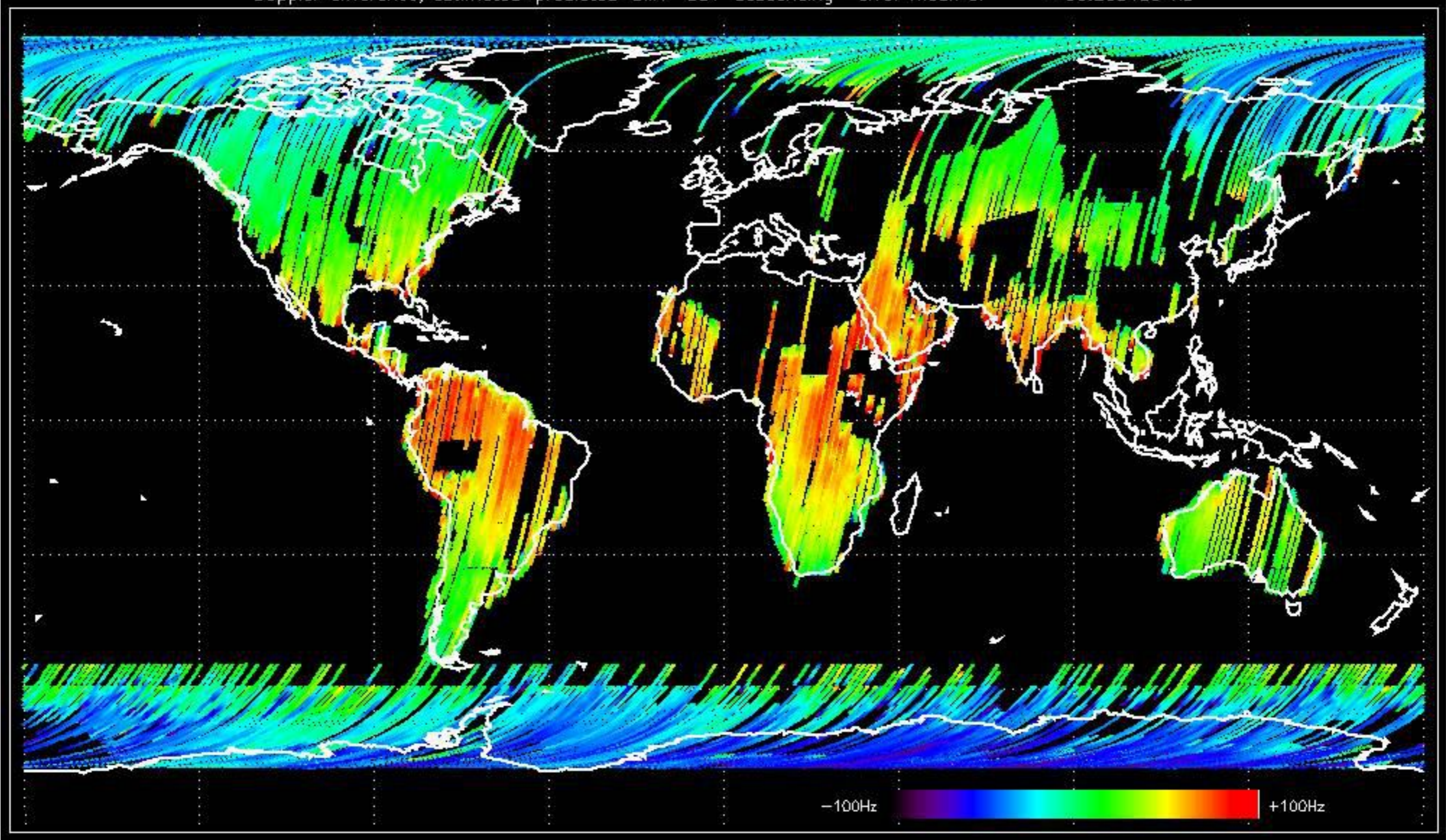


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.027913 Hz



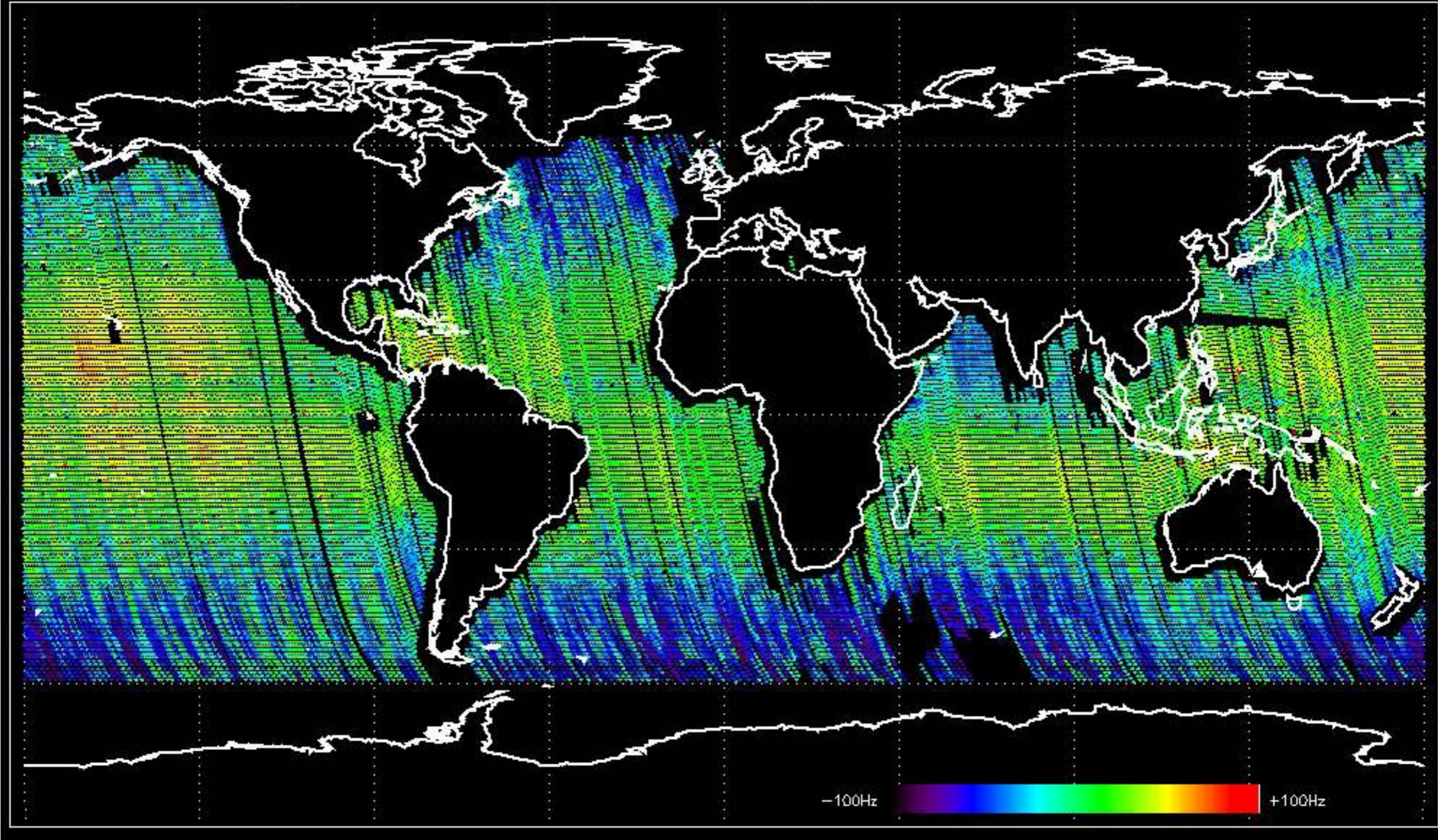


Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.208435 Hz



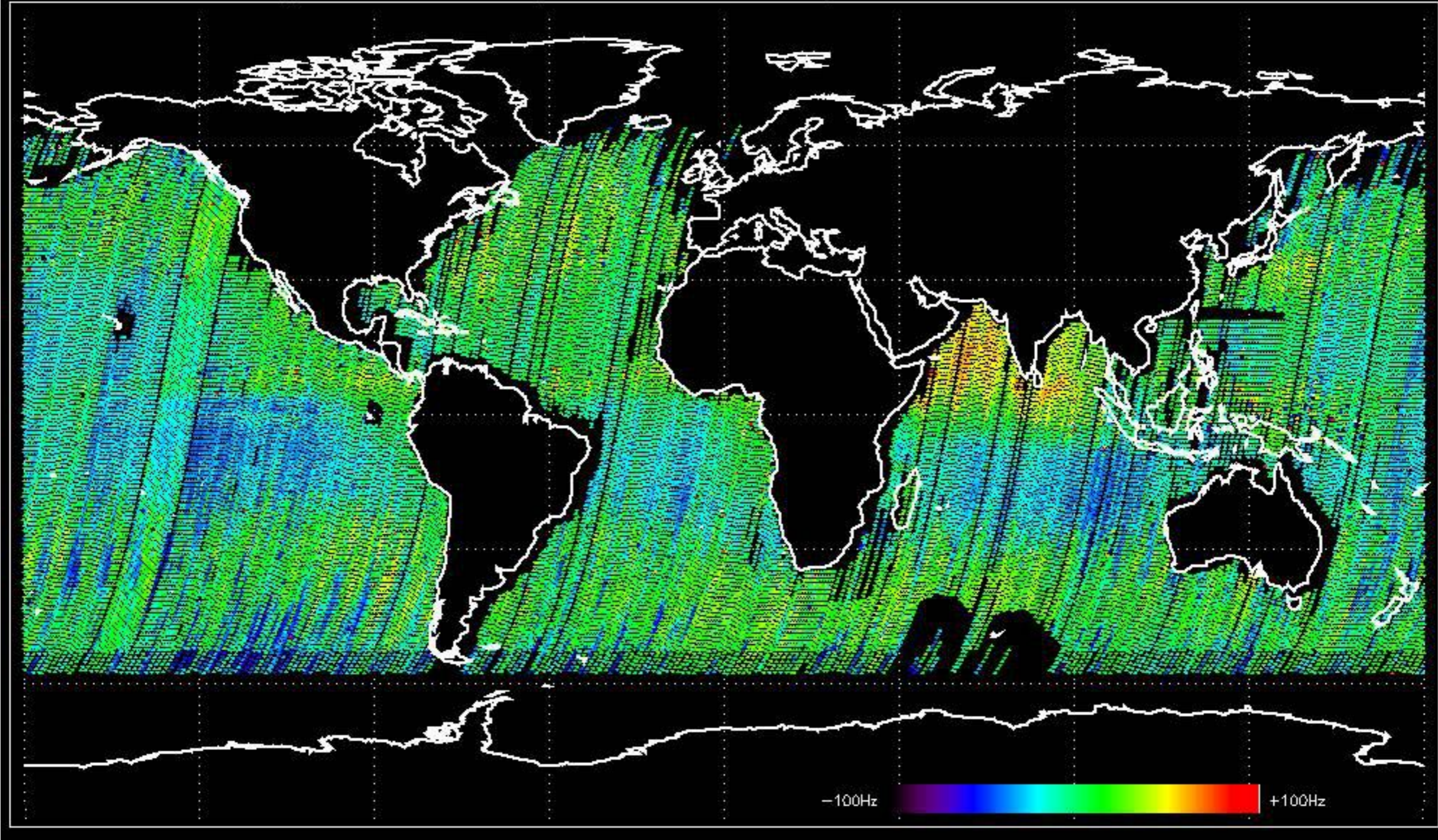


Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.322325 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.791922 Hz





No anomalies observed on available MS products:

No unavailabilities during the reported period.