

# PRELIMINARY REPORT OF 060815

last update on Tue Aug 15 11:00:01 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 2006-08-14 00:00:00 to 2006-08-15 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	4	0	0	0	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	4	0	0	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	4	0	0	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	4	0	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	14	0	0	0	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	14	0	0	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	14	0	0	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	14	0	0	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**

**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)
-----	-------	-----------	------------	-----------------

#### 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)
-----	-------	-----------	------------	-----------------

**4.2.2 - Evolution for GM1**

Evolution of cal pulses for GM1
---------------------------------

**P1a Cyclic statistics**

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

**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"/>	
	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

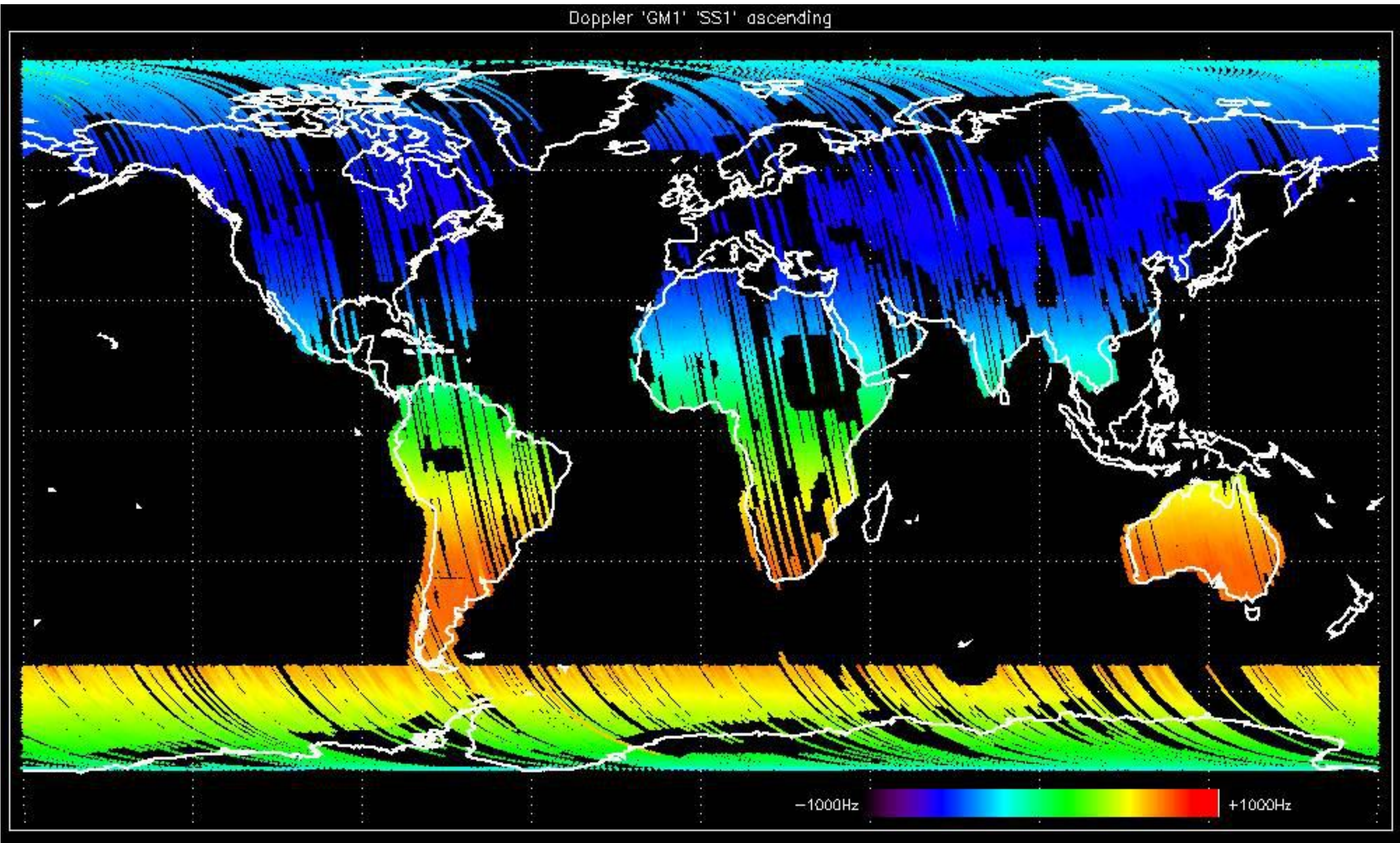
## 7.6 - Doppler evolution versus ANX for GM1

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



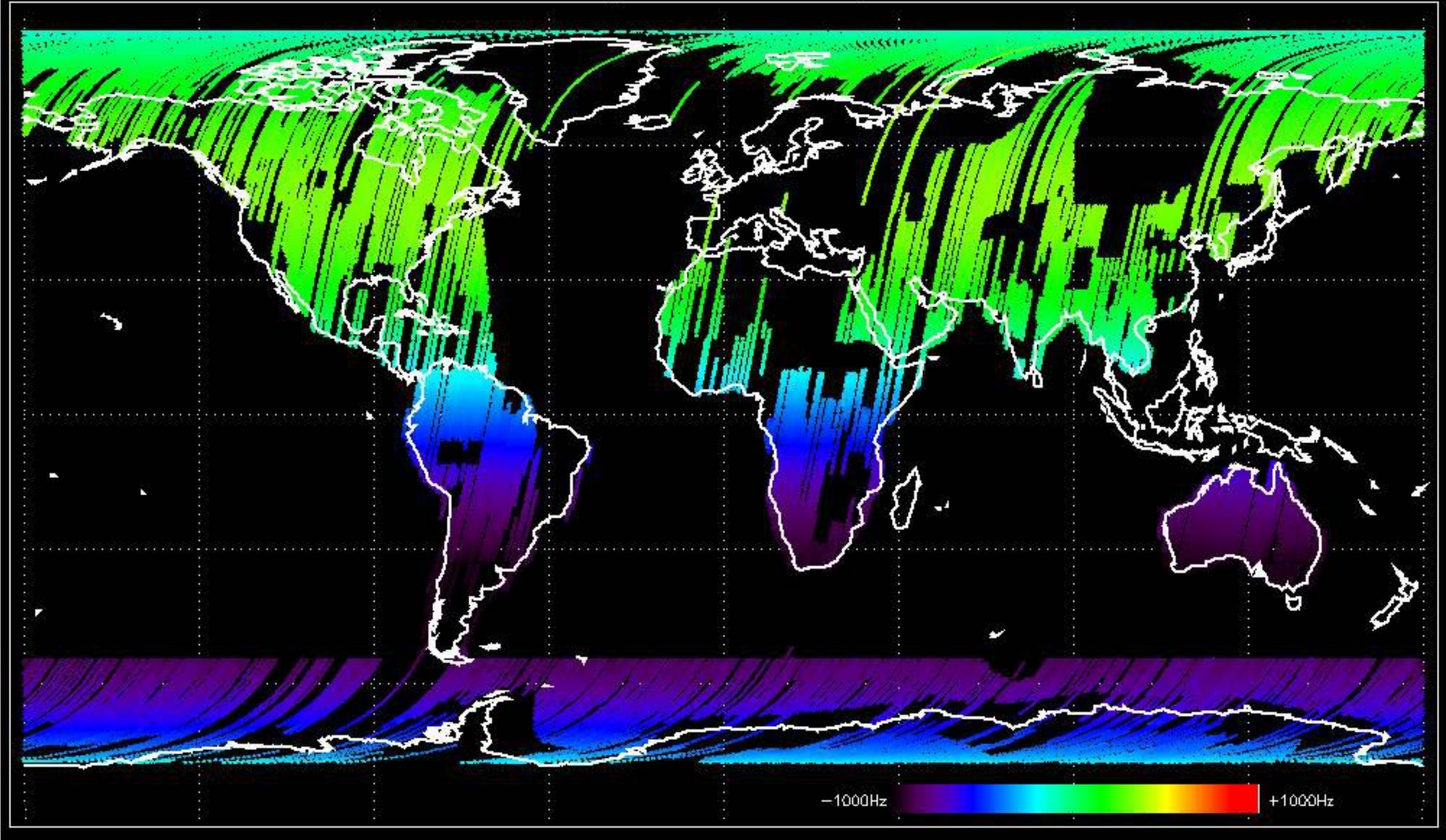


Doppler 'GM1' 'SS1' ascending



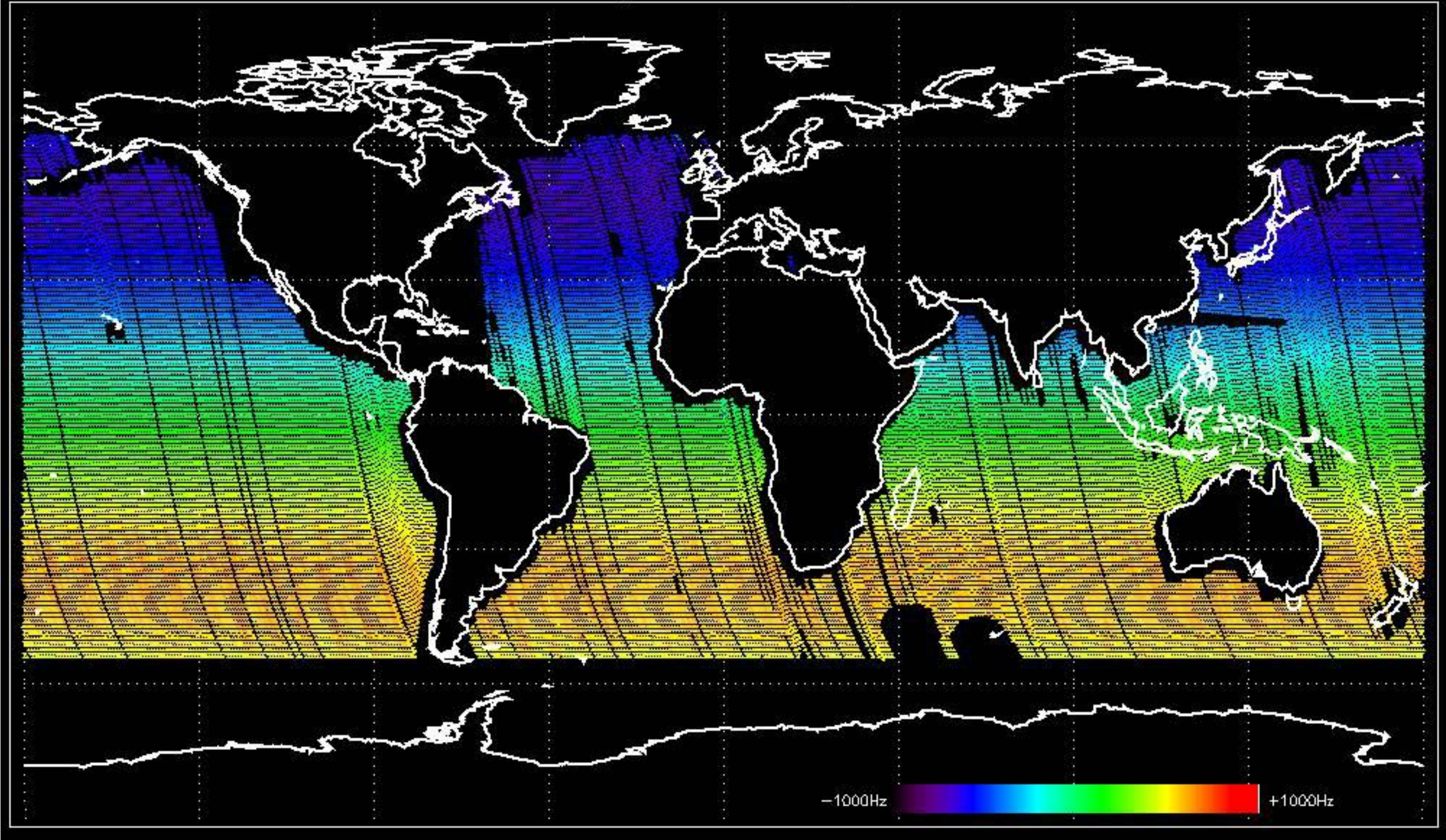


Doppler 'GM1' 'SS1' descending



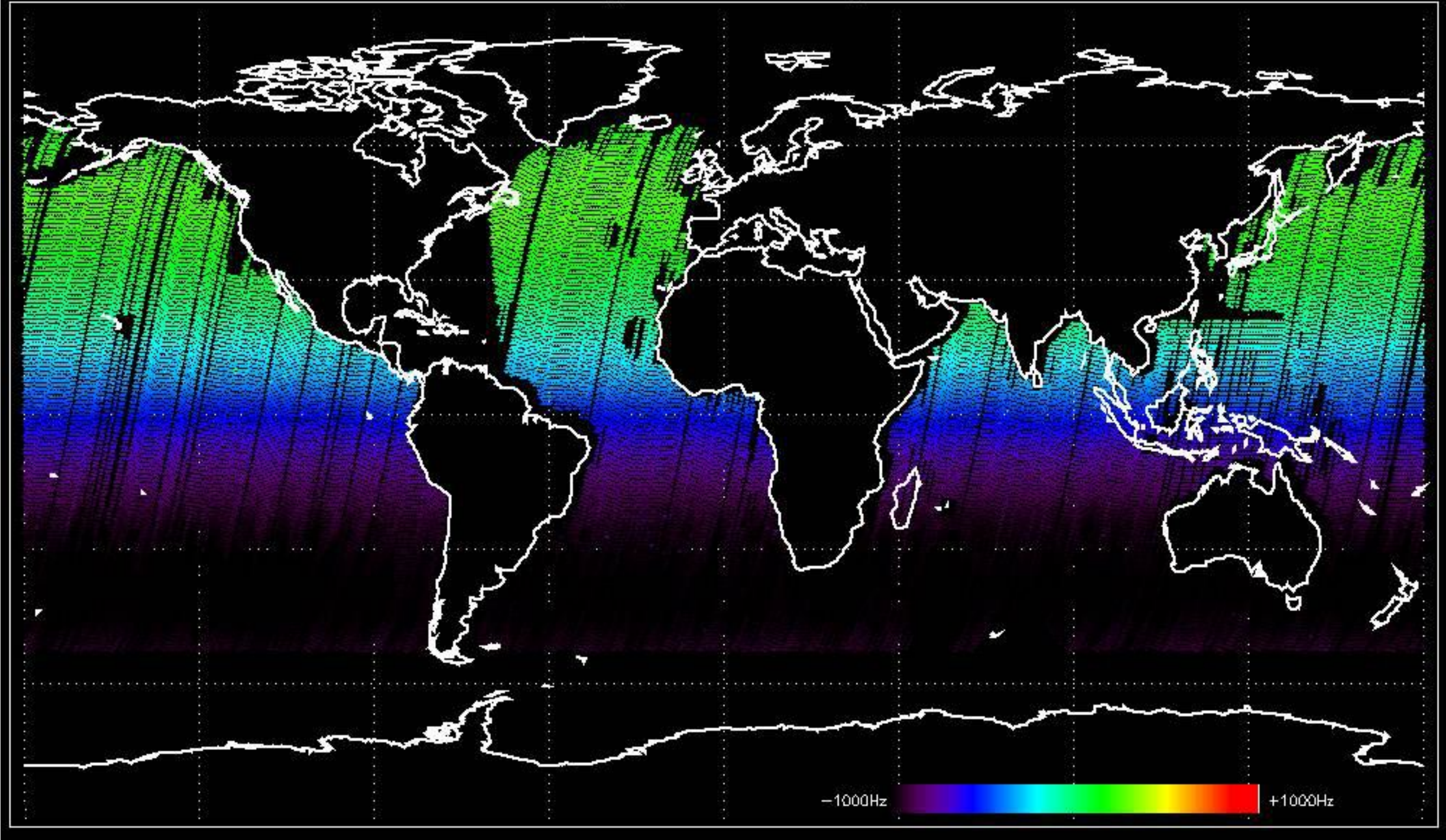


Doppler 'WVS' 'IS2' ascending



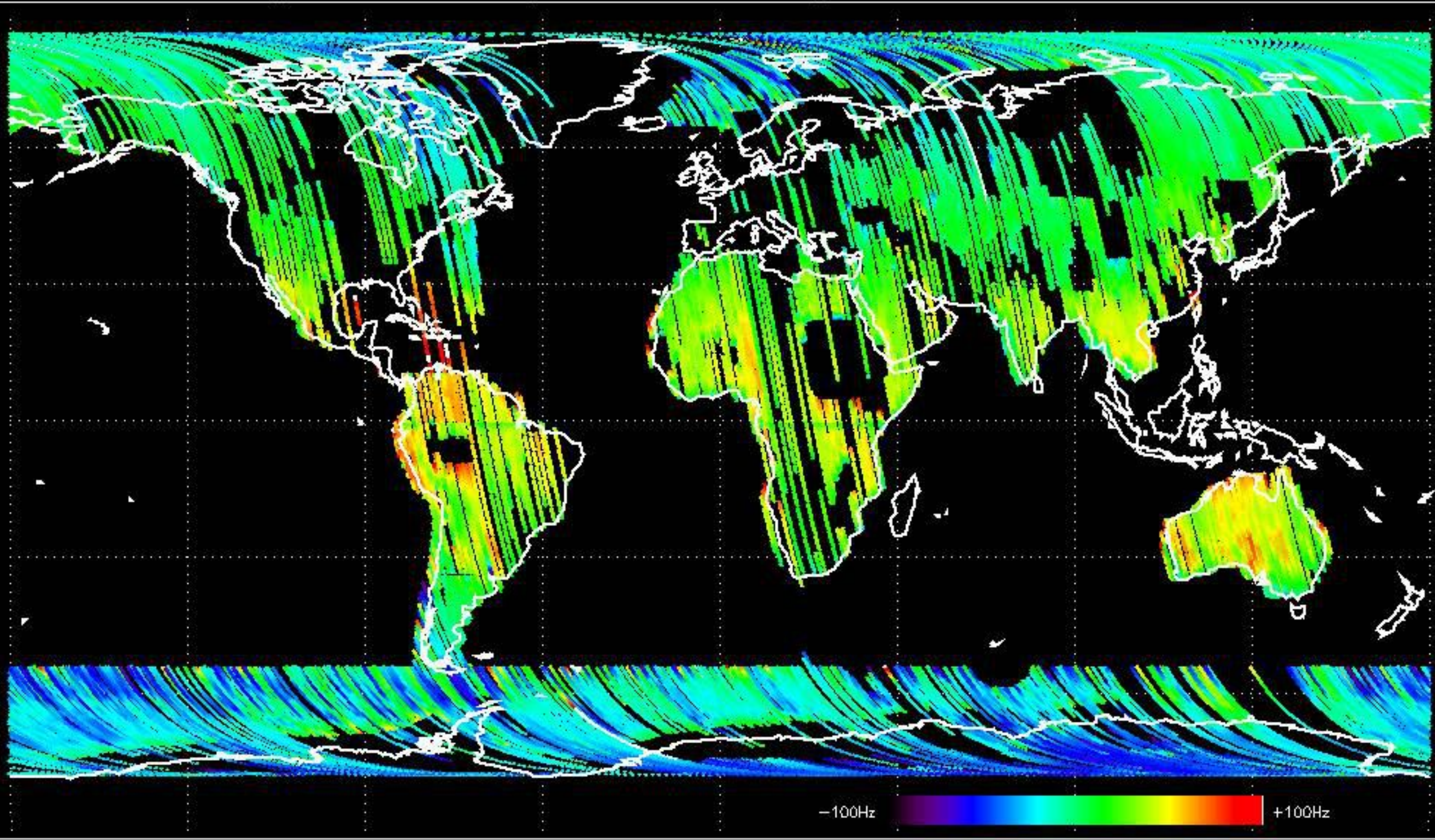


Doppler 'WVS' 'IS2' descending



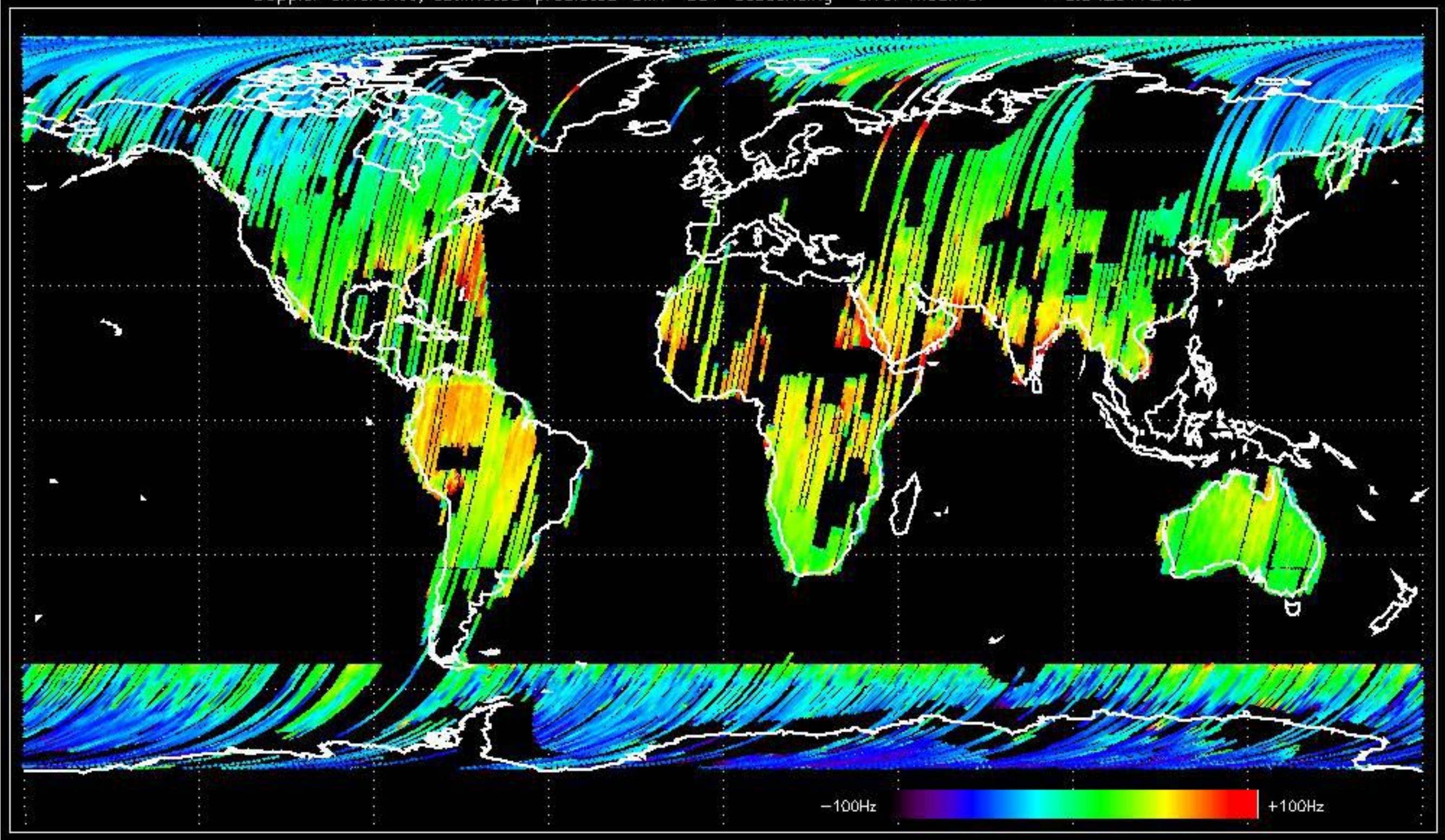


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.692665 Hz



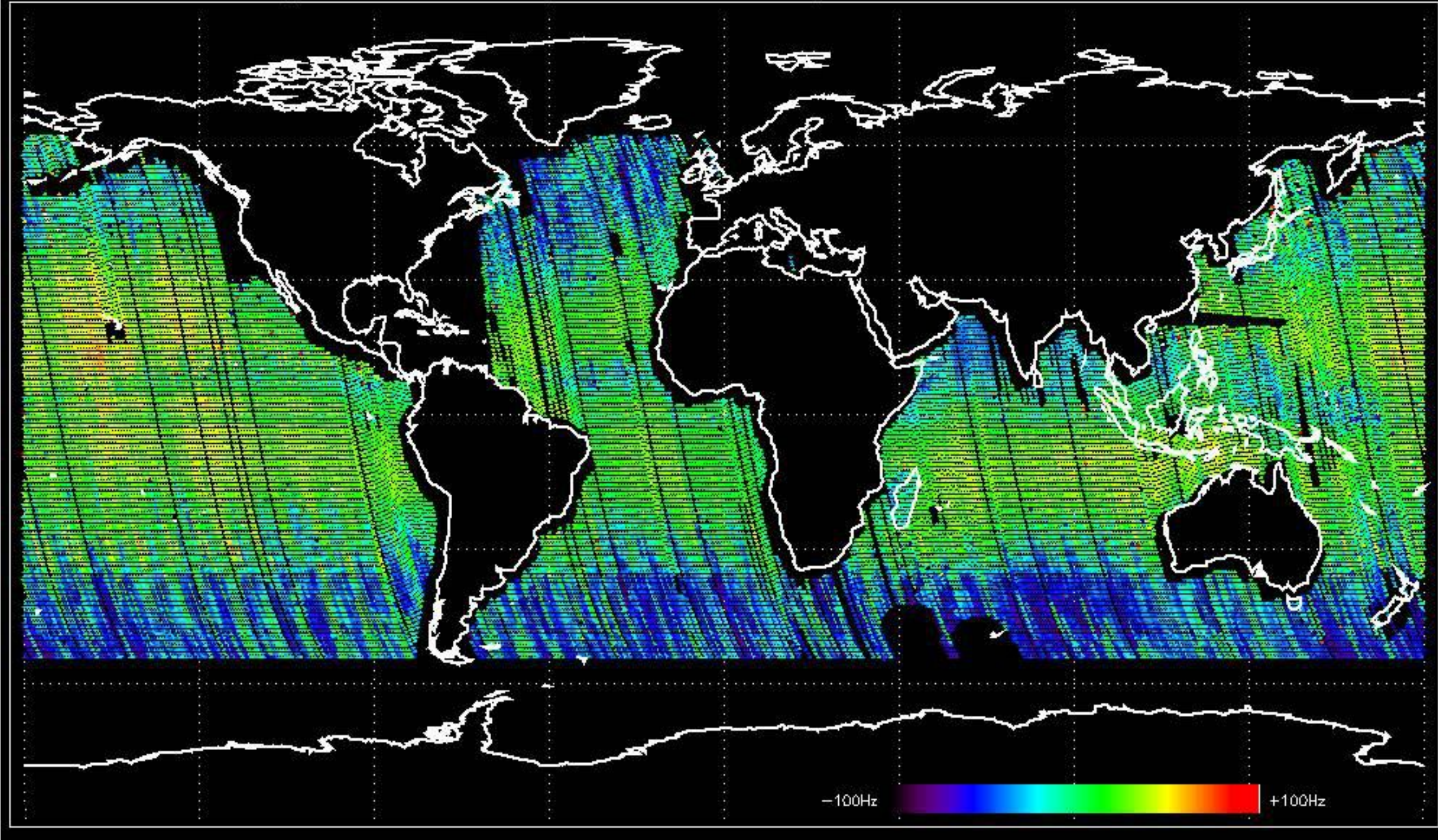


Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.3429172 Hz



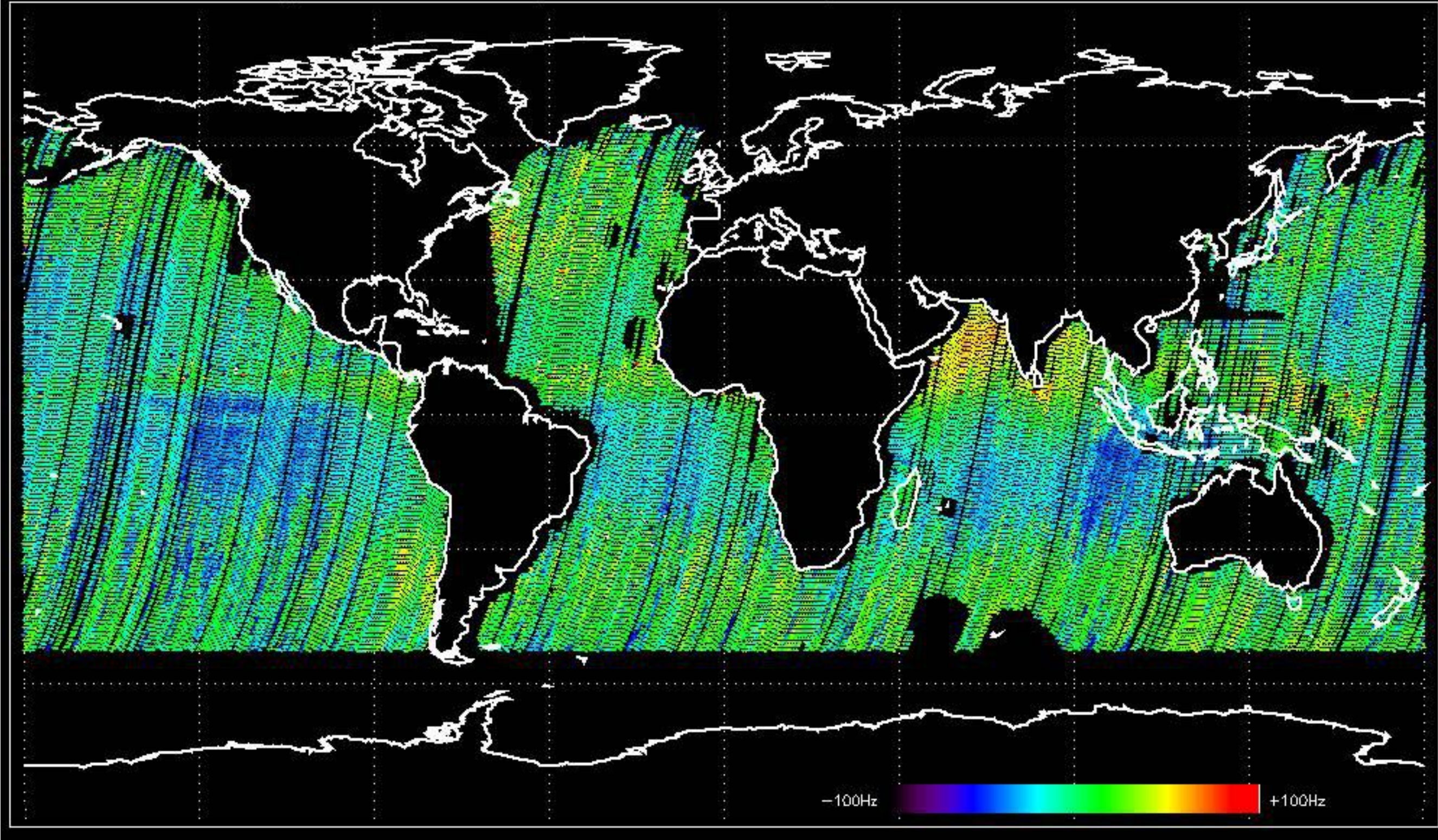


Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.2746080 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.7775903 Hz





No anomalies observed on available MS products:

No unavailabilities during the reported period.