

# REPORT OF 031023

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## 1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA\_WVS\_1P) products, which are the available few hours after the acquisition, on the high rate browse (BP) products and on the Module Stepping (MS) product.

## 2 - Summary

### 2.1 - Instrument Unavailability

No unavailabilities during the reported period.

### 2.2 - Browse Visual Inspection

No anomalies observed on available browse products

### 2.3 - Data Analysis

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

-Nominal Doppler behavior.

### 3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied.

Due to problems on the PCF analysis tool, the last available MS products can not have been controlled:

- ASA\_MS\_\_0PNPDK20031022\_185833\_000000152021\_00027\_08598\_0073.N1
- ASA\_MS\_\_0PNPDK20031022\_185953\_000000152021\_00027\_08598\_0074.N1

**Polarisation** **Start Time**

**MSM in V/V polarisation**

**MSM in H/H polarisation**

### 4 - Internal calibration Results

No anomalies observed.

#### 4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79281	-22.5368	-8.15906
	stdev	0.00522089	0.0577613	0.00270749
24	mean	-5.15001	-21.2122	-8.15906
	stdev	0.00909515	0.0516755	0.00270749



#### 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79586	-22.5406	-8.13814
	stdev	0.00548847	0.0625765	0.00249264
24	mean	-5.36902	-21.2753	-8.13814
	stdev	0.851361	0.0597542	0.00249264



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



### 5 - RAW data statistics

No anomalies observed.

#### 5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000366481
	stdev	3.60421e-07
MEAN Q	mean	0.000283921
	stdev	3.31731e-07



#### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114471
	stdev	0.00144412
STDEV Q	mean	0.114713
	stdev	0.00146217



#### 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 35 days

### 6.1 - Unbiased Doppler Error

#### Evolution of unbiased Doppler error (Real - Expected)

Ascending
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Descending
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### 6.2 - Absolute Doppler

#### Evolution of Absolute Doppler

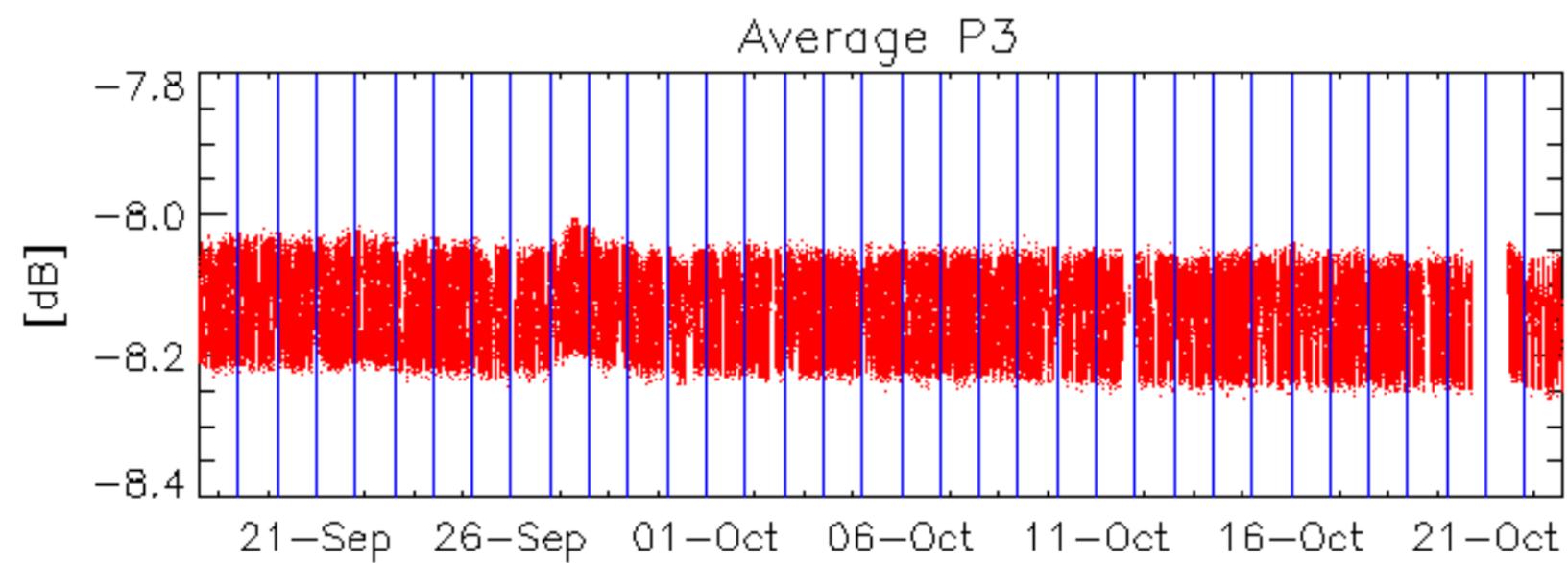
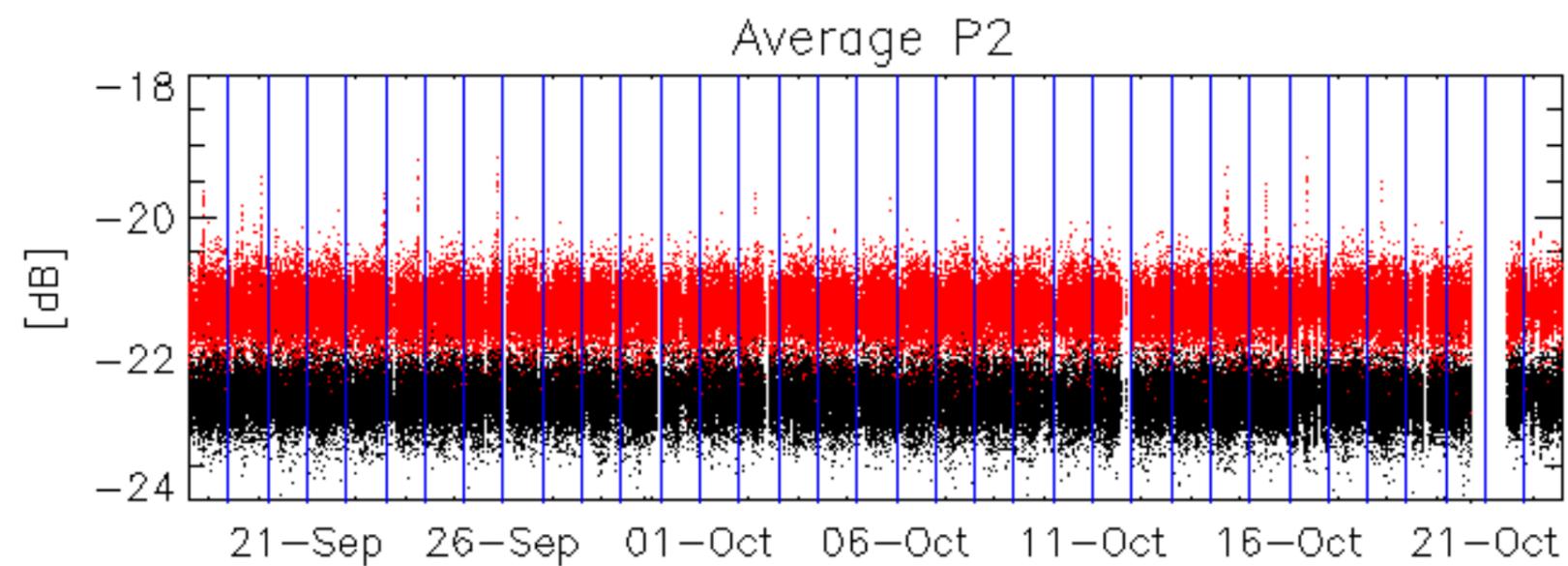
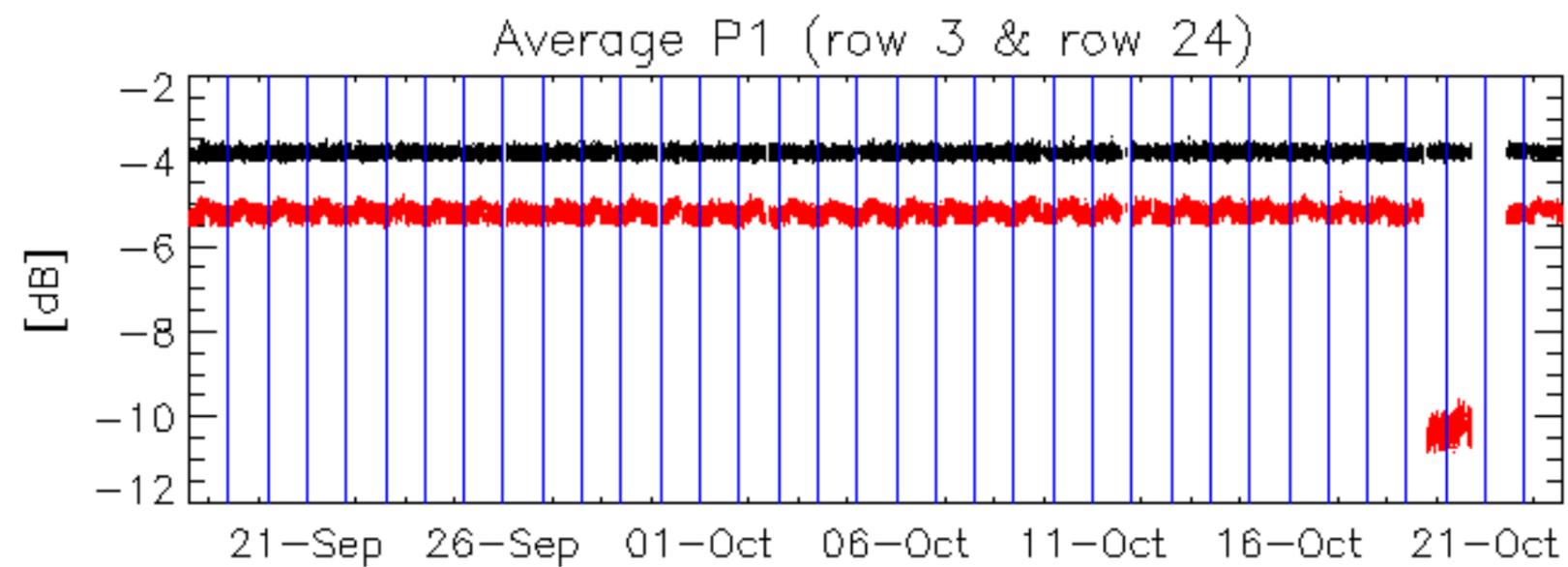
Ascending
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Descending
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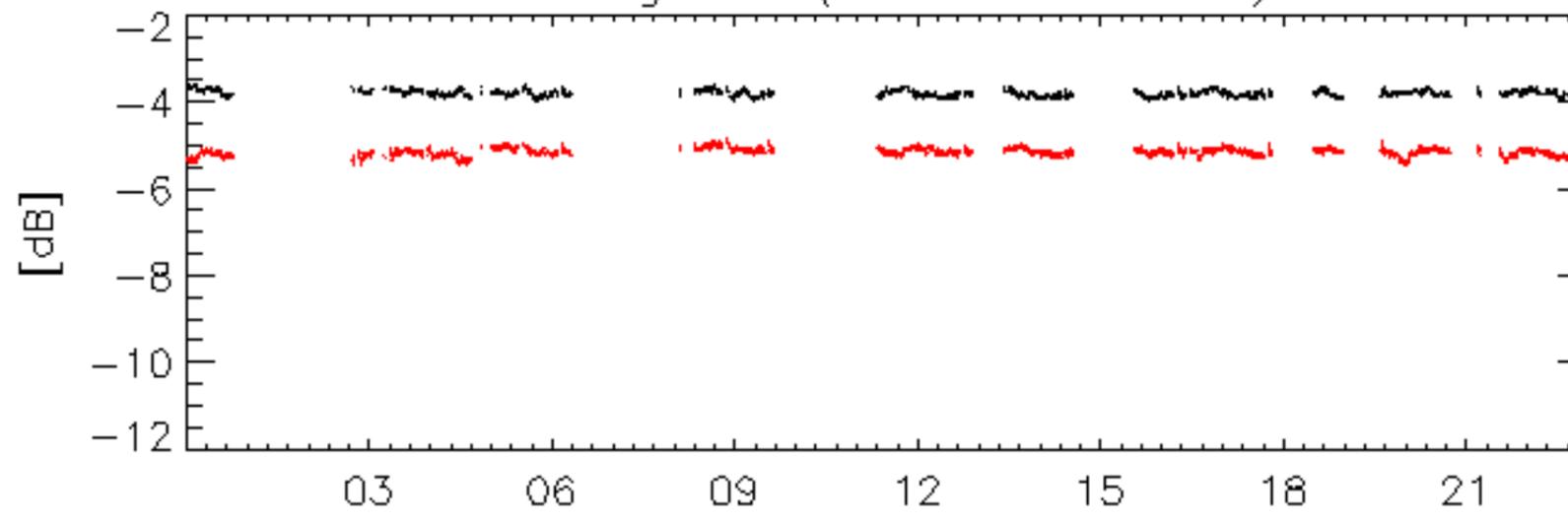
### 6.3 - Doppler evolution versus ANX

#### Evolution Doppler error versus ANX

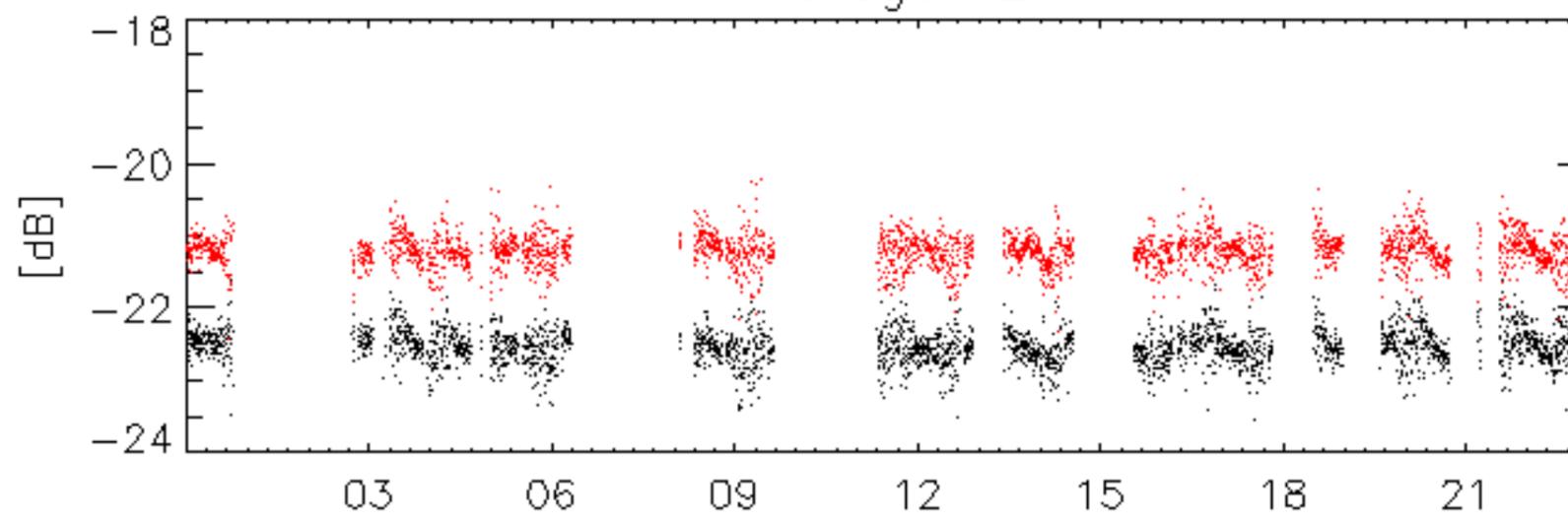




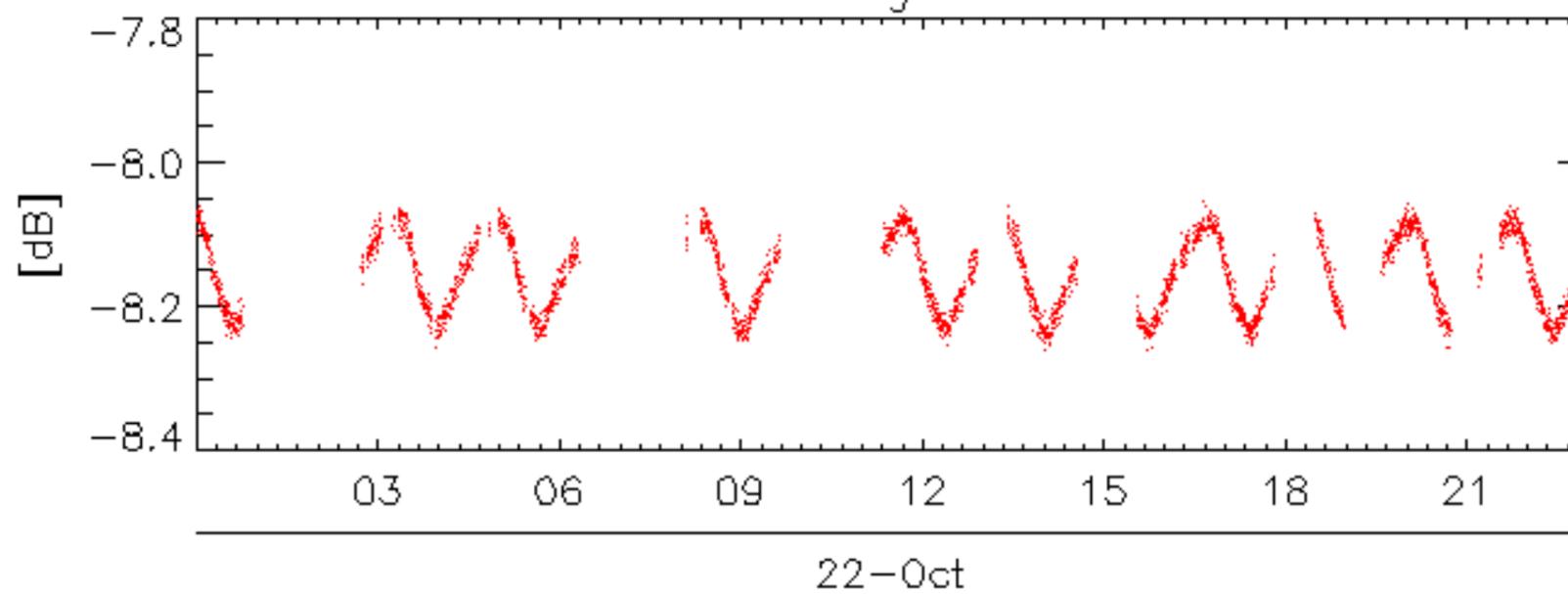
Average P1 (row 3 & row 24)



22-Oct  
Average P2

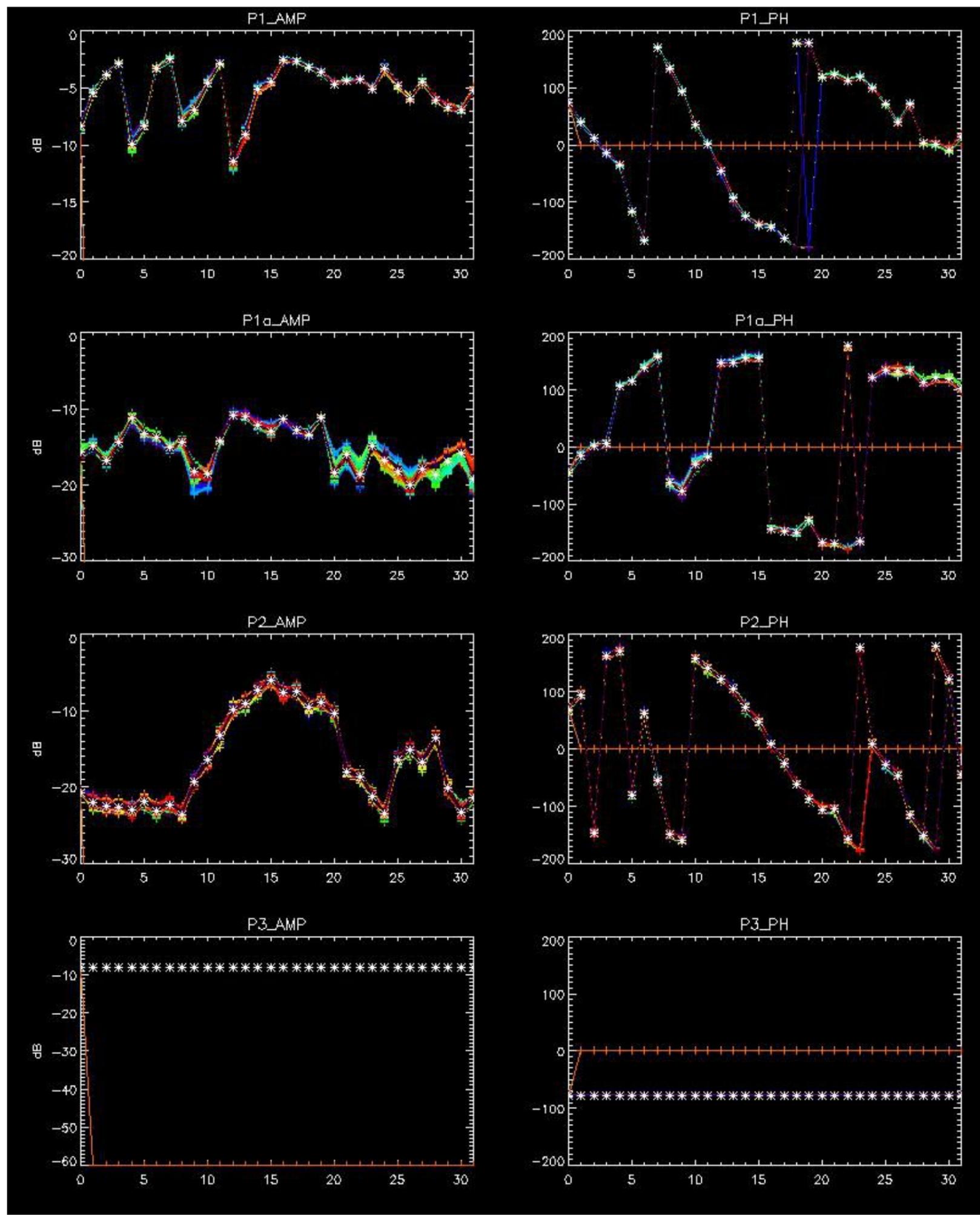


22-Oct  
Average P3



No anomalies observed on available browse products

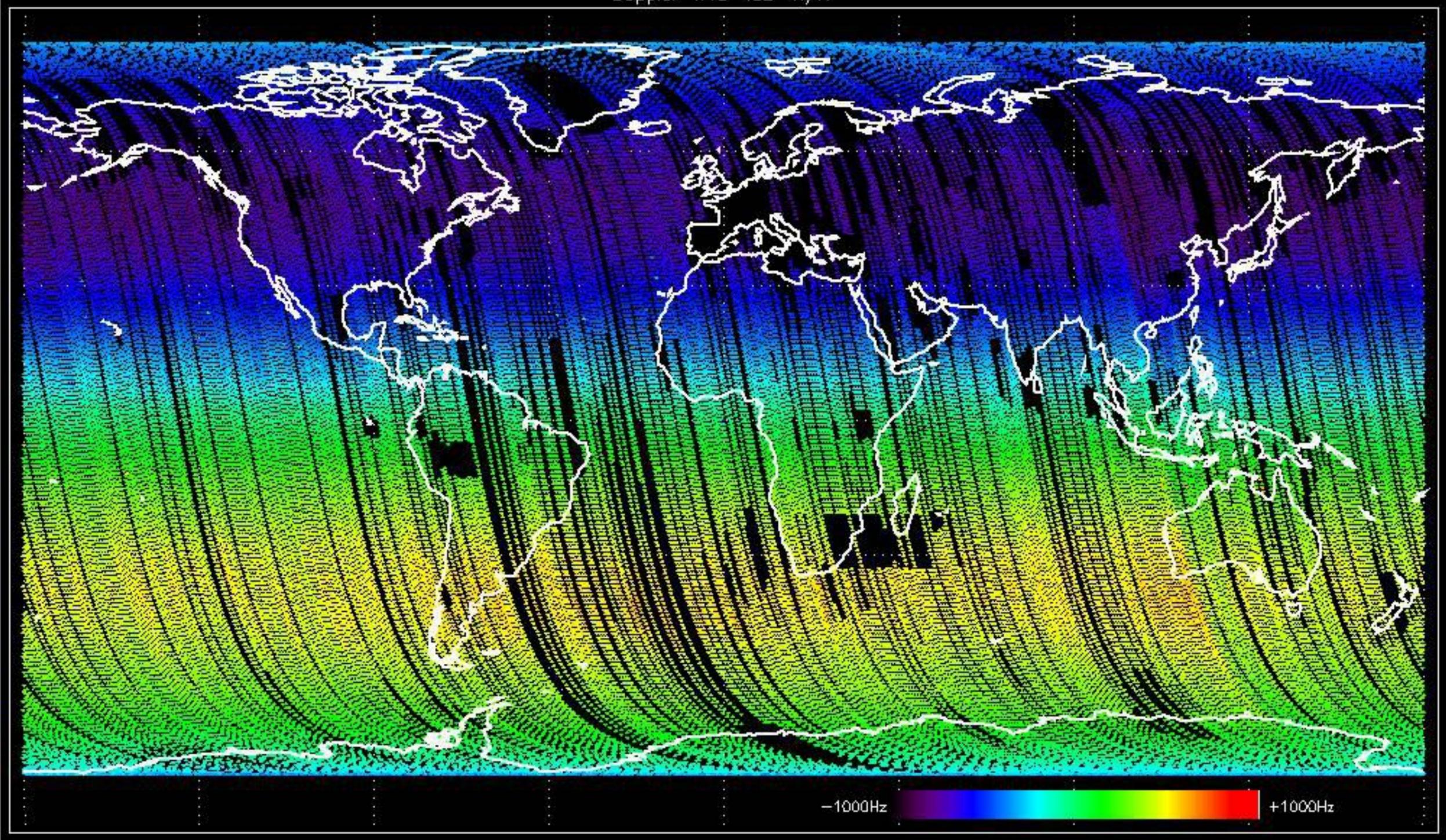
No anomalies observed.



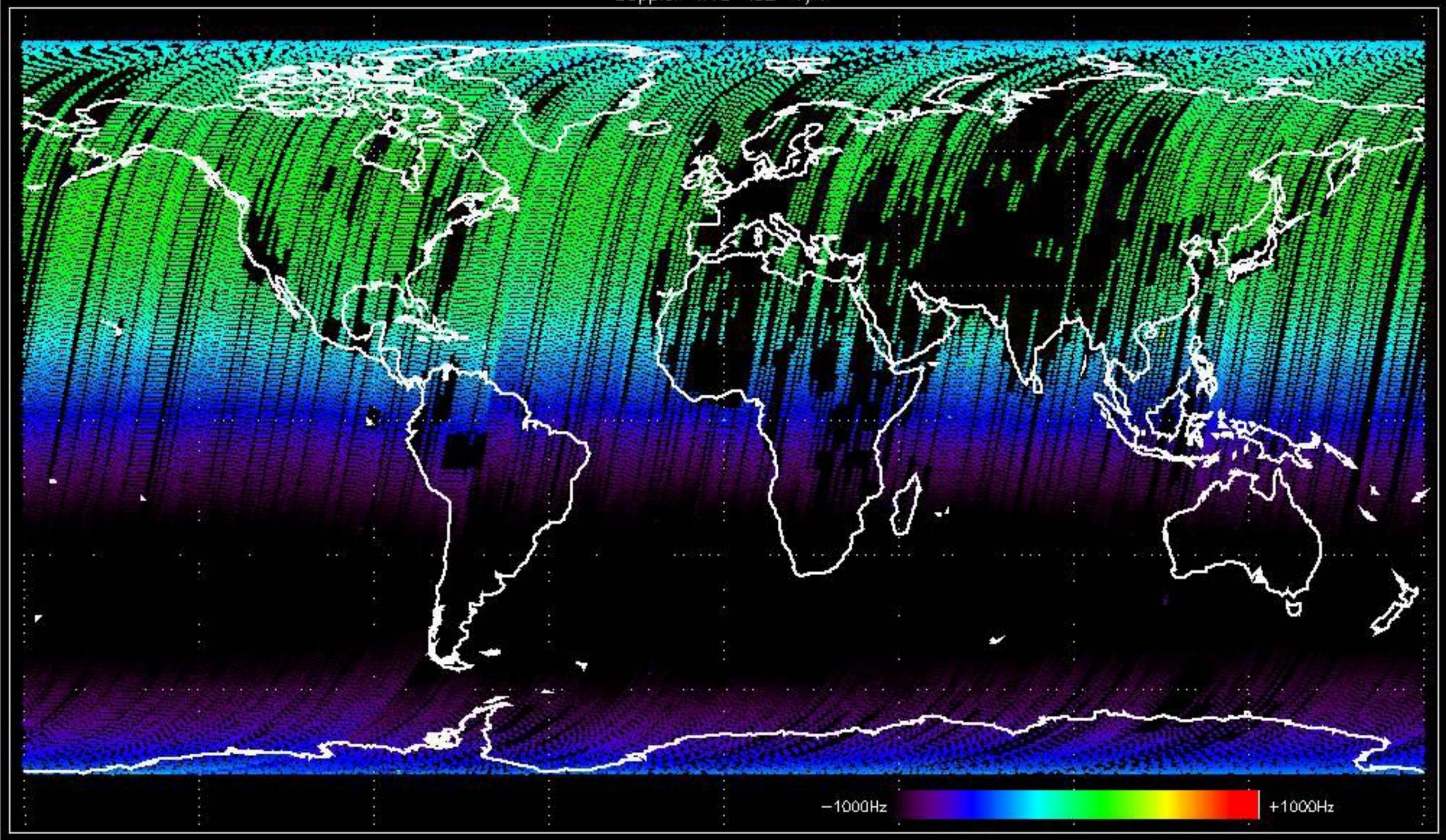
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- Nominal Doppler behavior.

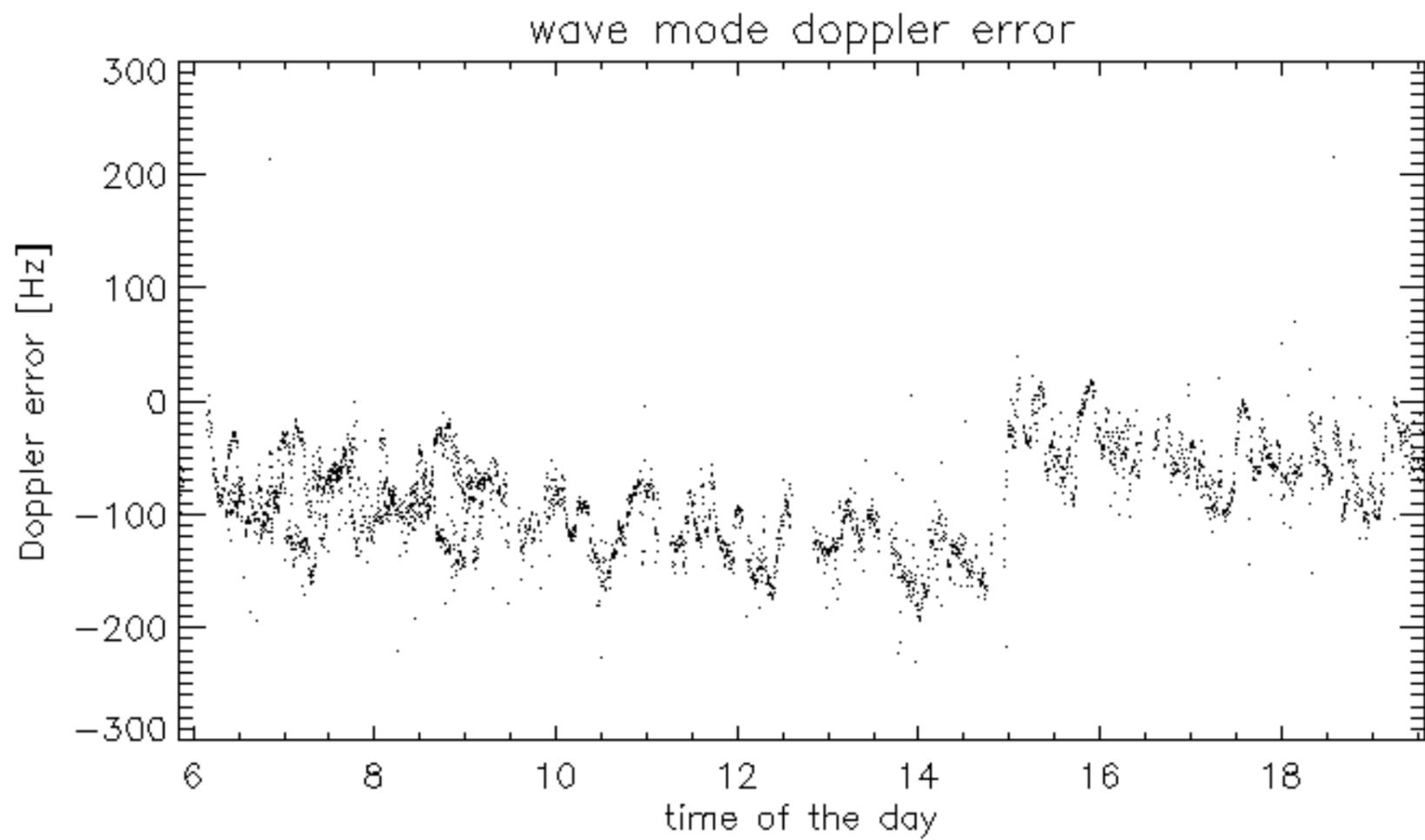
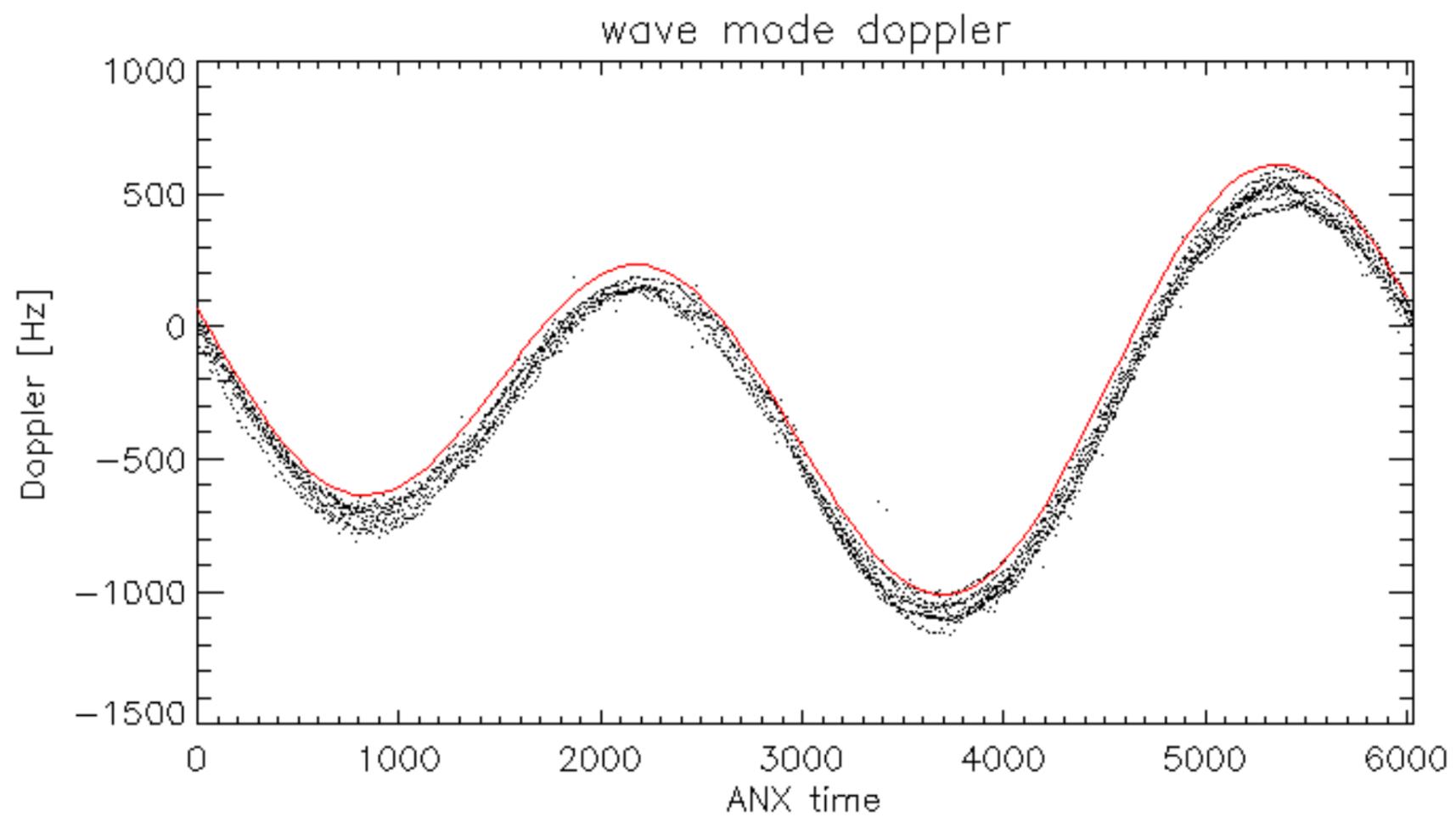
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Doppler 'WVS' 'IS2' 'H/H'

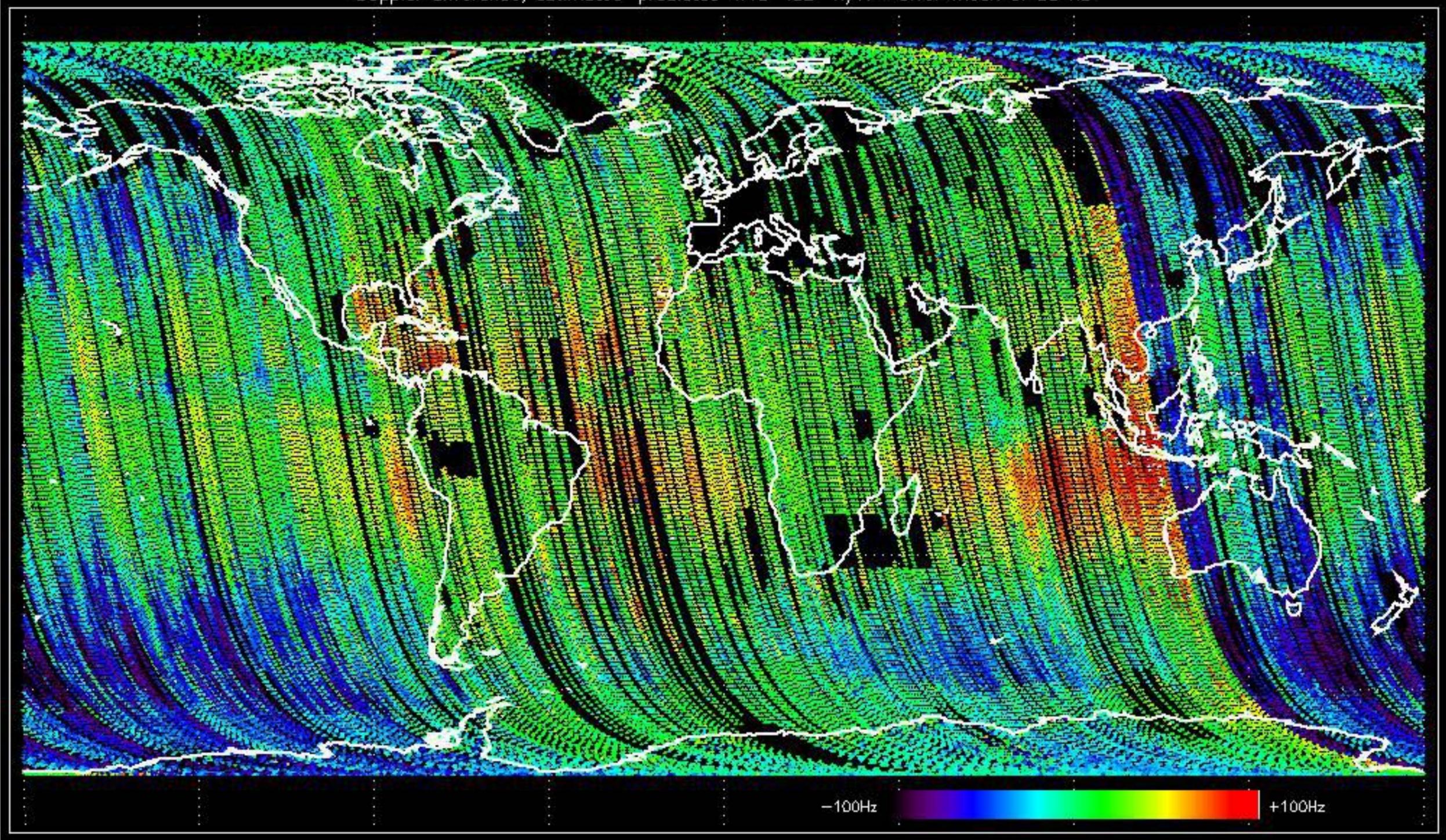


Doppler 'WVS' 'IS2' 'V/V'

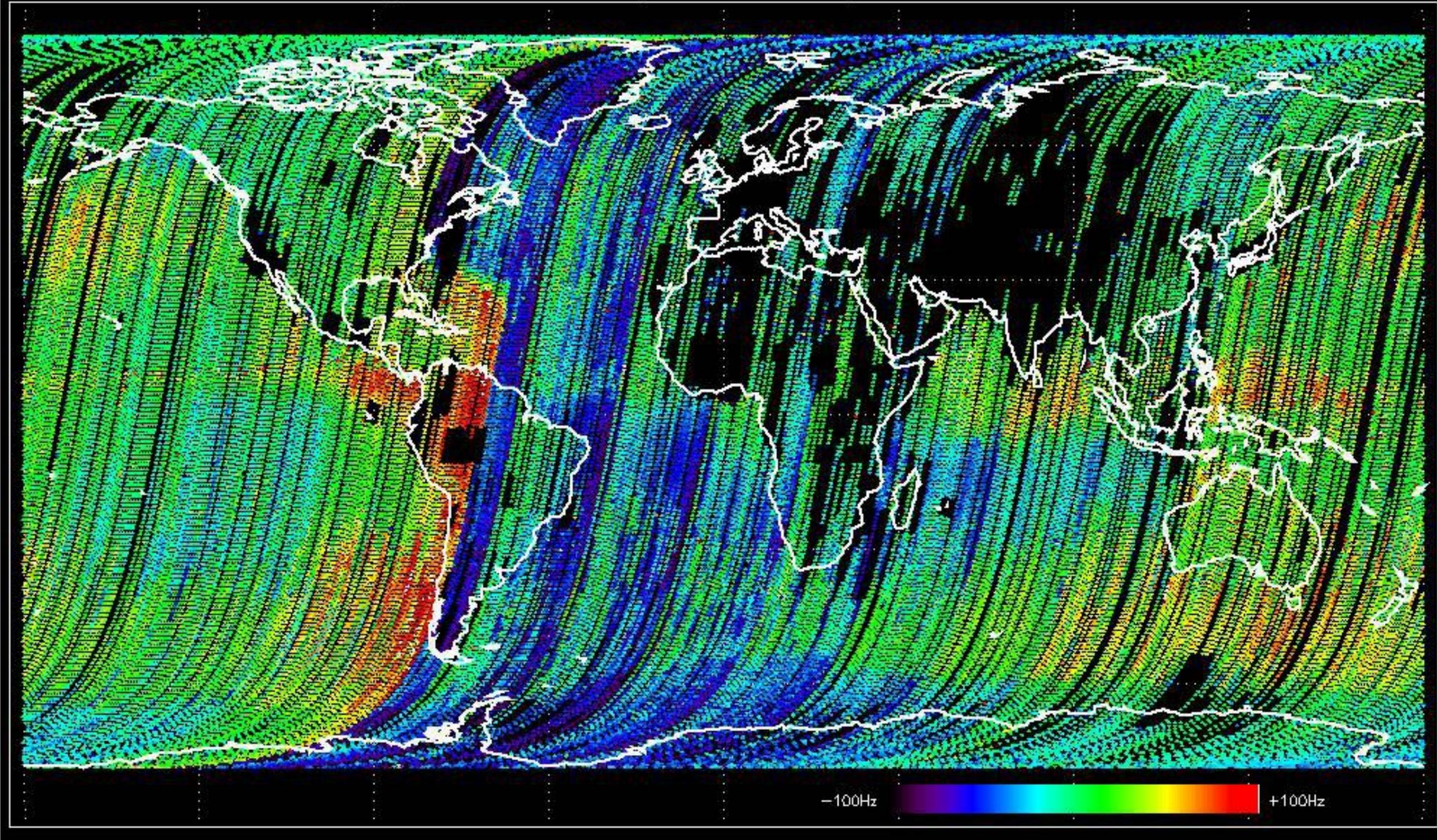




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



Doppler difference, estimated-predicted 'WS' 'IS2' 'V/V' -error mean of 53 Hz

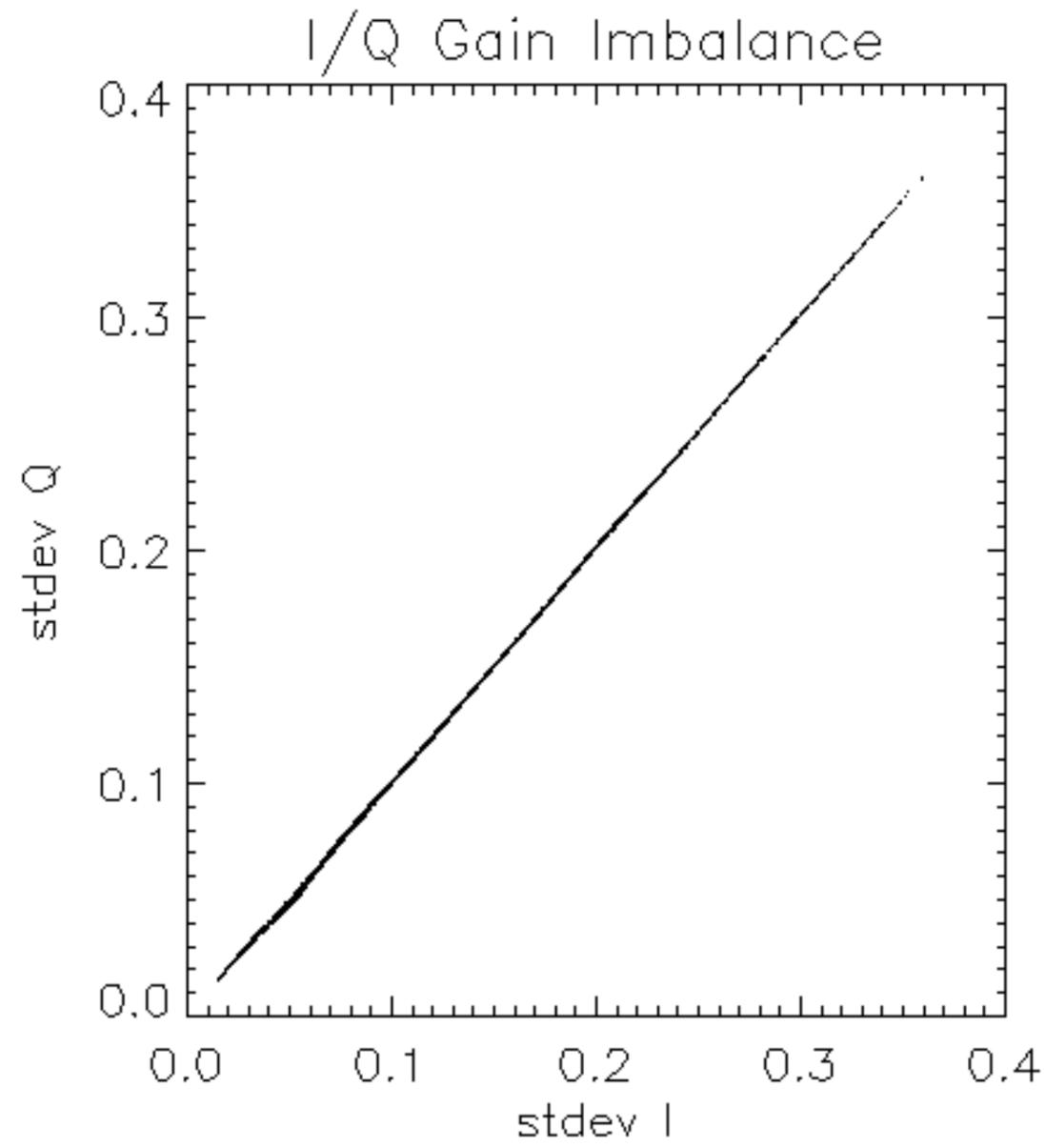


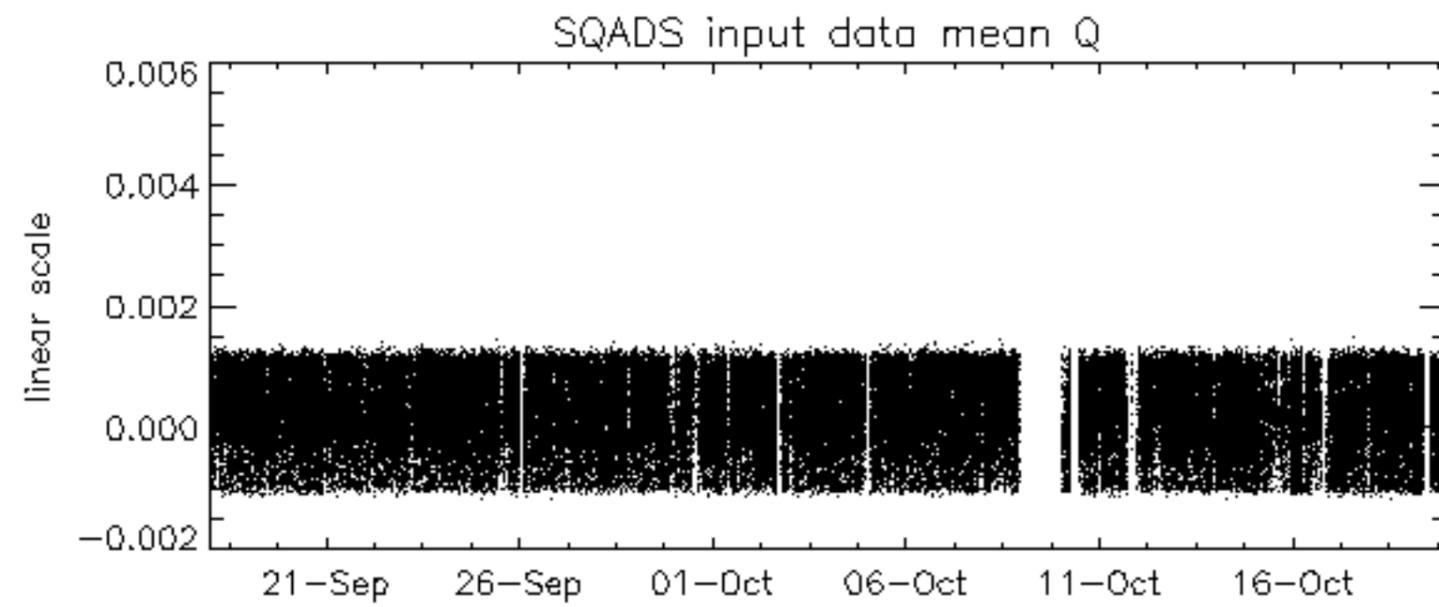
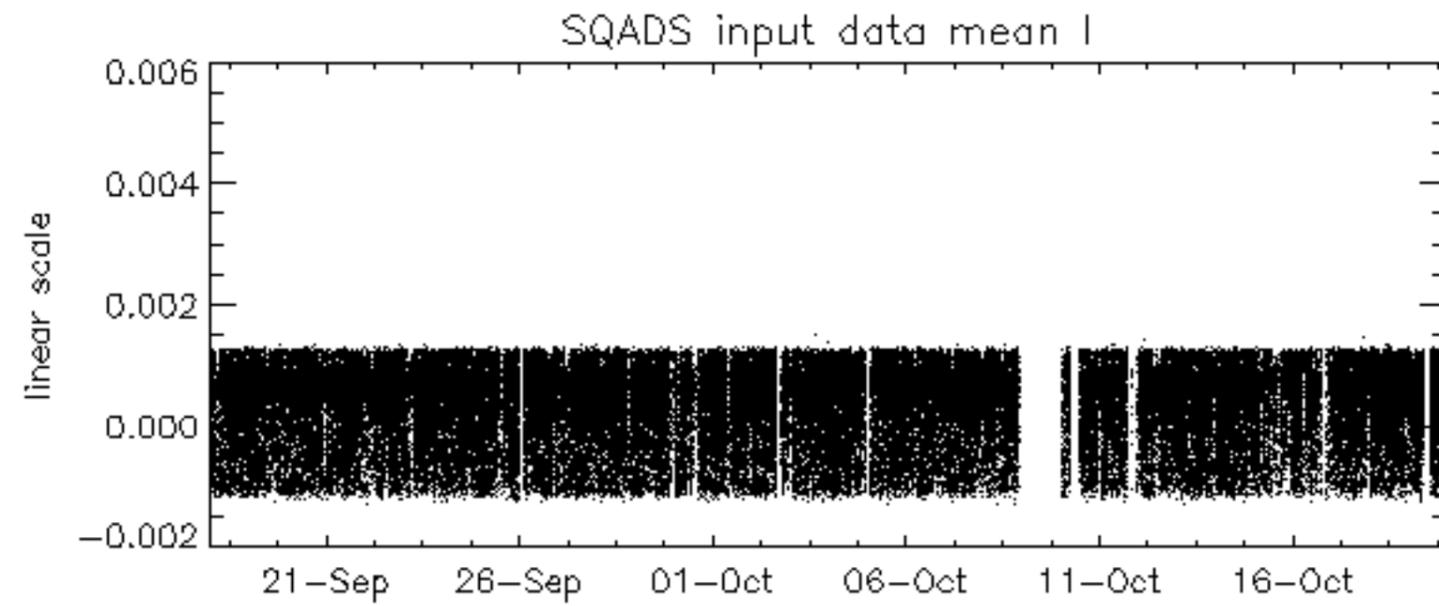
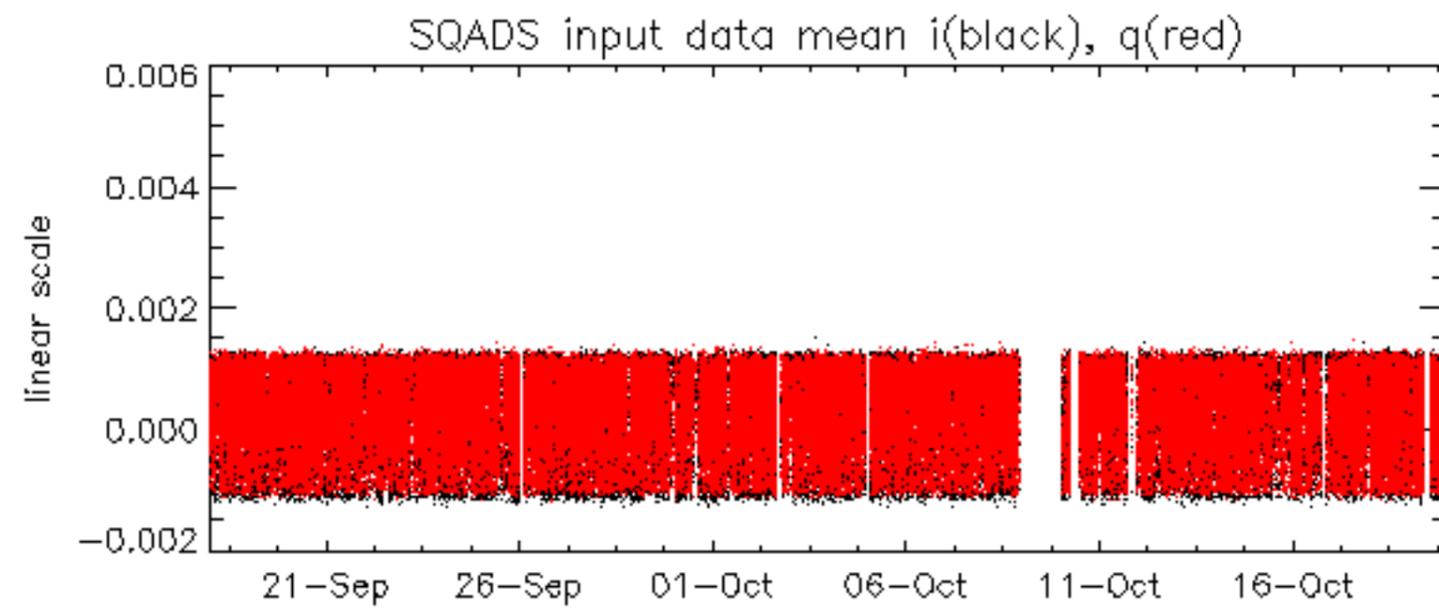
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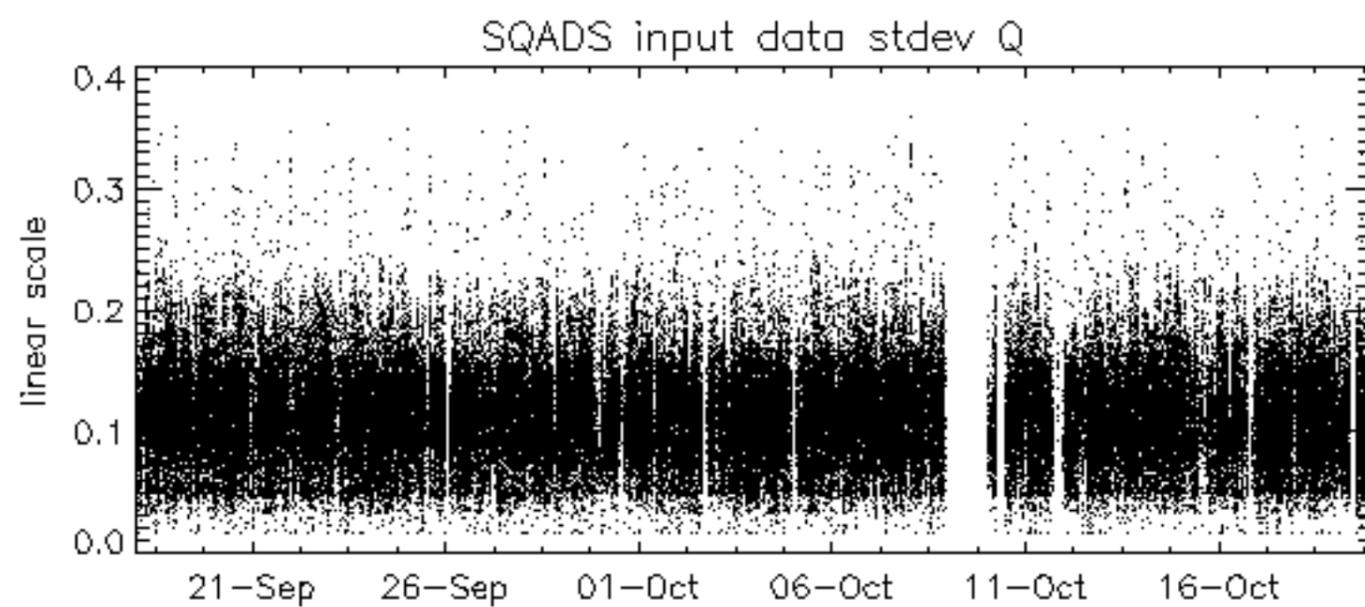
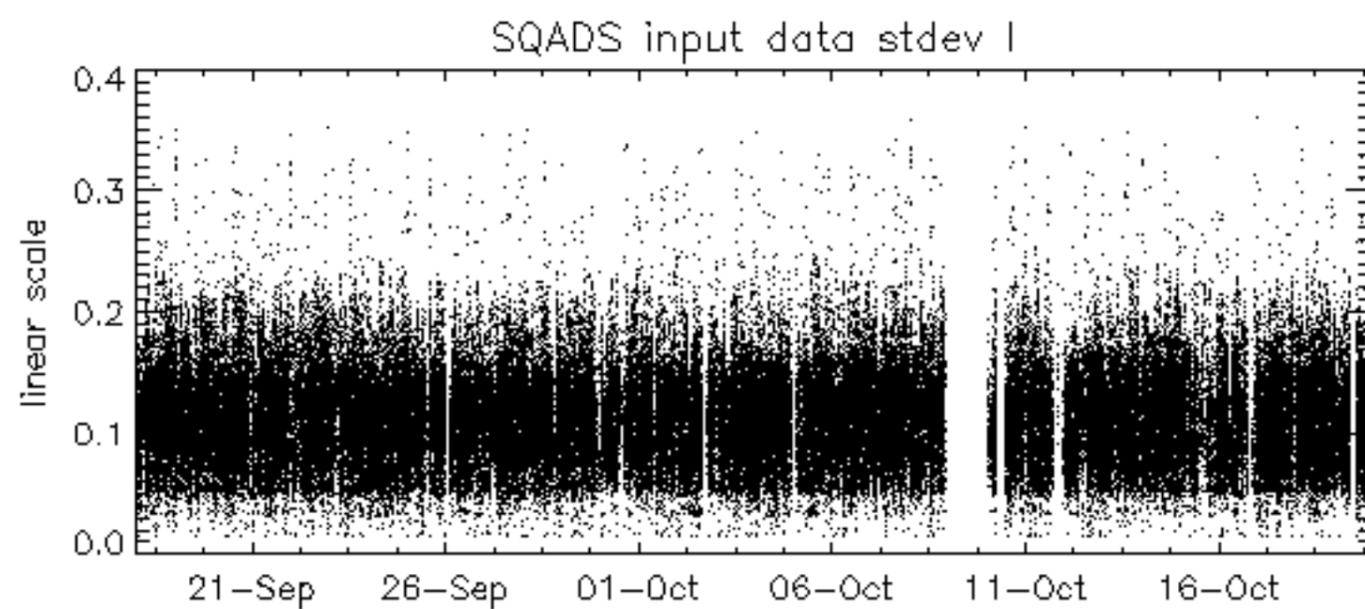
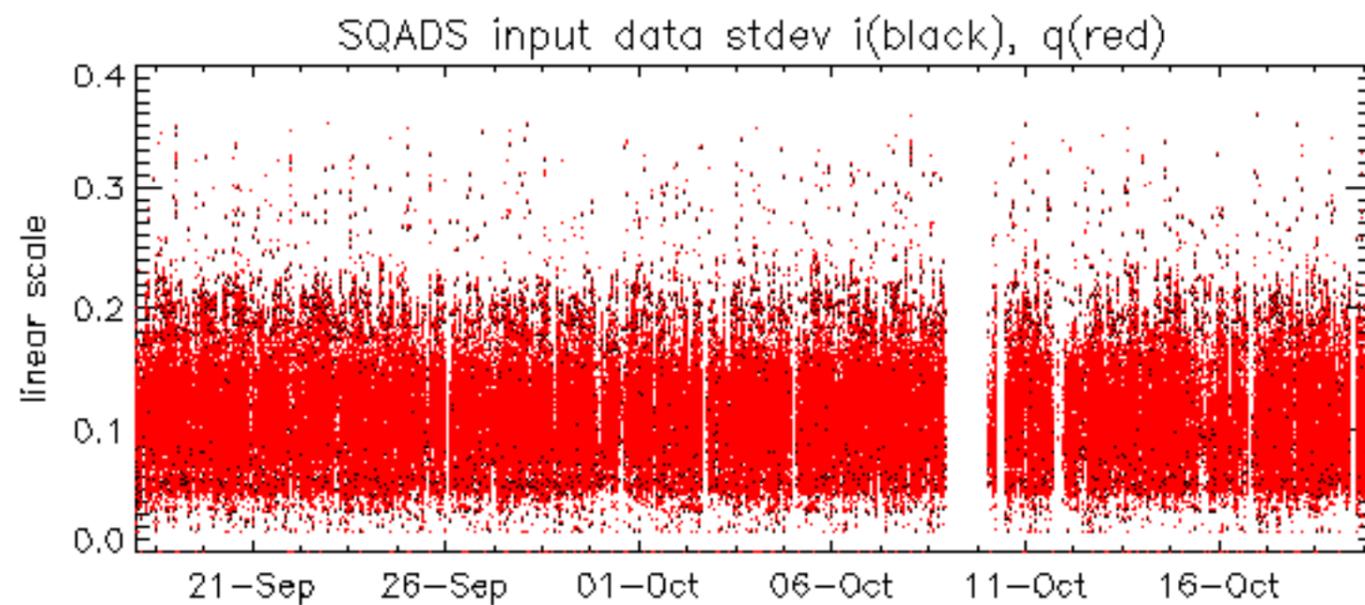
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No anomalies observed.







No unavailabilities during the reported period.