

# REPORT OF 031022

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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

ASAR was unavailable from 20-OCT-2003 15:37:47 to 21-OCT-2003 13:32:33.

### 2.2 - Browse Visual Inspection

No anomalies observed on available browse products

### 2.3 - Data Analysis

- Back to nominal operations
- 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. No anomalies observed on available MS products:

- ASA\_MS\_\_0PNPDK20031021\_193330\_000000152021\_00013\_08584\_0072.N1
- ASA\_MS\_\_0PNPDK20031021\_193450\_000000152021\_00013\_08584\_0071.N1

Polarisation	Start Time
V	20031021 193450
H	20031021 193330

#### MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
⊗	⊗
⊗	⊗
⊗	⊗
⊗	⊗

#### MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
⊗	⊗
⊗	⊗
⊗	⊗
⊗	⊗

### 4 - Internal calibration Results

No anomalies observed.

#### 4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.75999	-22.4736	-8.13806
	stdev	0.00559968	0.0548586	0.00263480
24	mean	-5.23884	-21.2293	-8.13806
	stdev	0.0109357	0.0532509	0.00263480



## 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79616	-22.5406	-8.13724
	stdev	0.00548882	0.0626731	0.00248587
24	mean	-5.36951	-21.2768	-8.13724
	stdev	0.847468	0.0598519	0.00248587



## 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	0.000365861
	stdev	3.60550e-07
MEAN Q	mean	0.000284241
	stdev	3.31063e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114557
	stdev	0.00144696
STDEV Q	mean	0.114800
	stdev	0.00146509



### 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
Descending

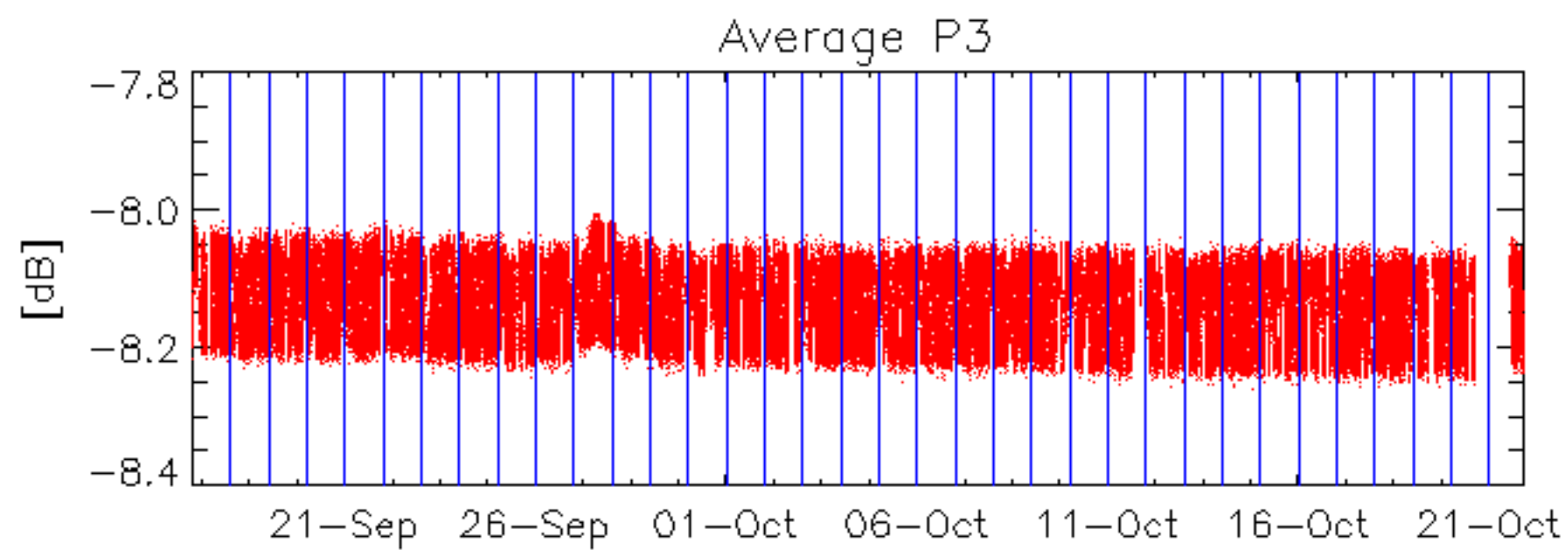
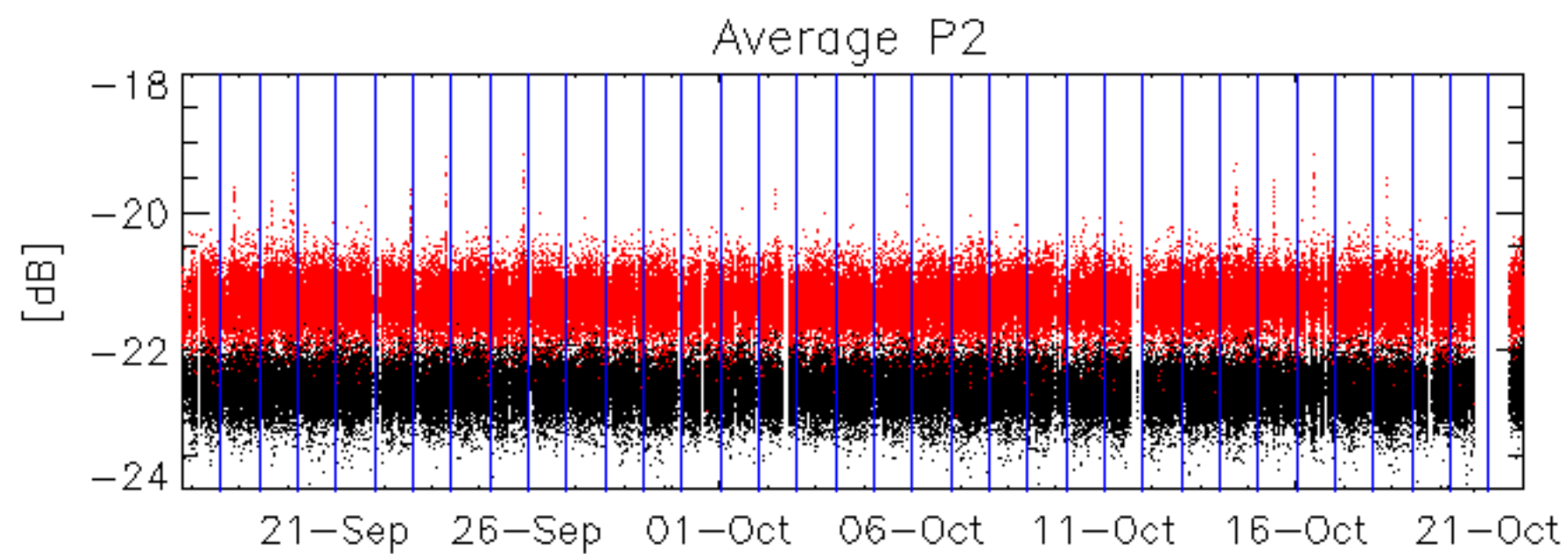
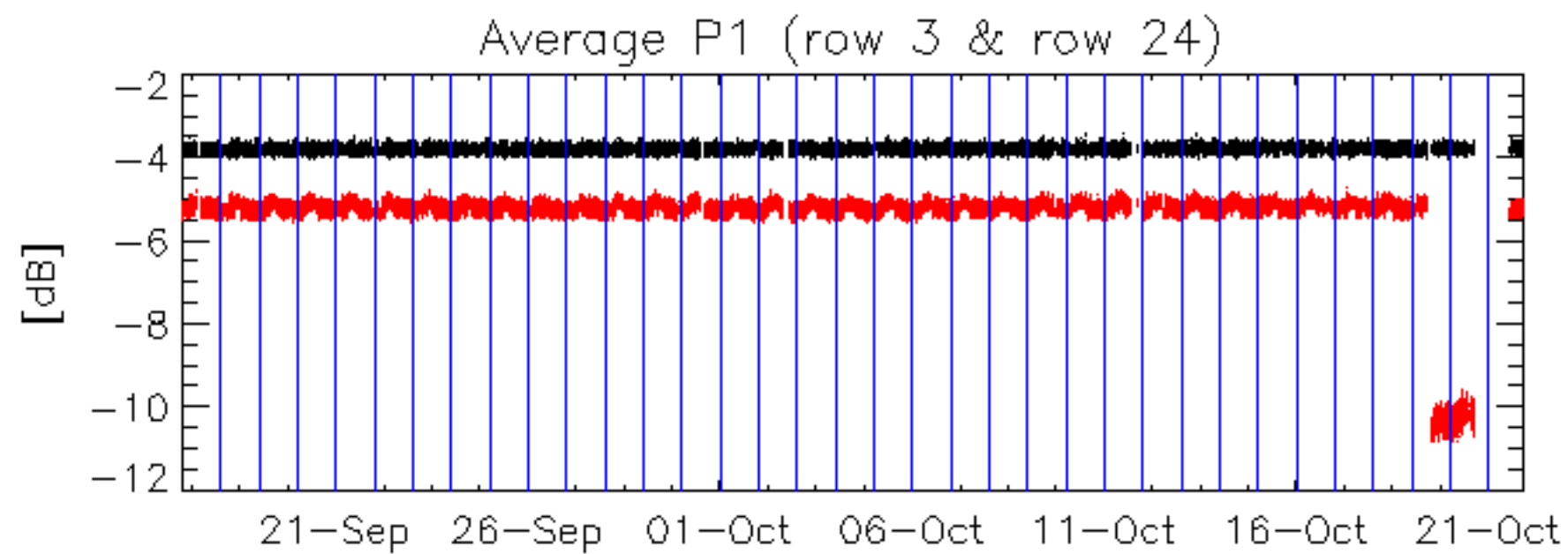
### 6.2 - Absolute Doppler

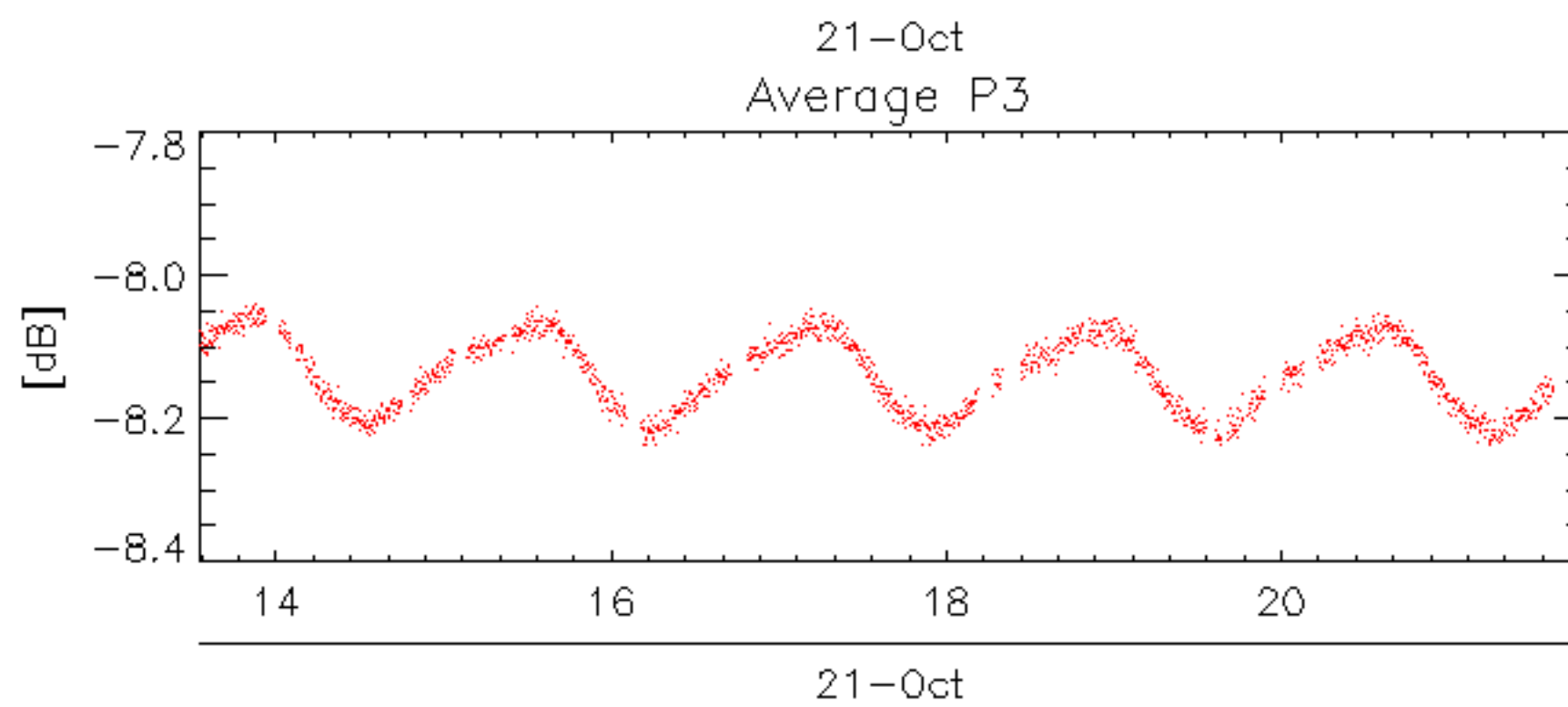
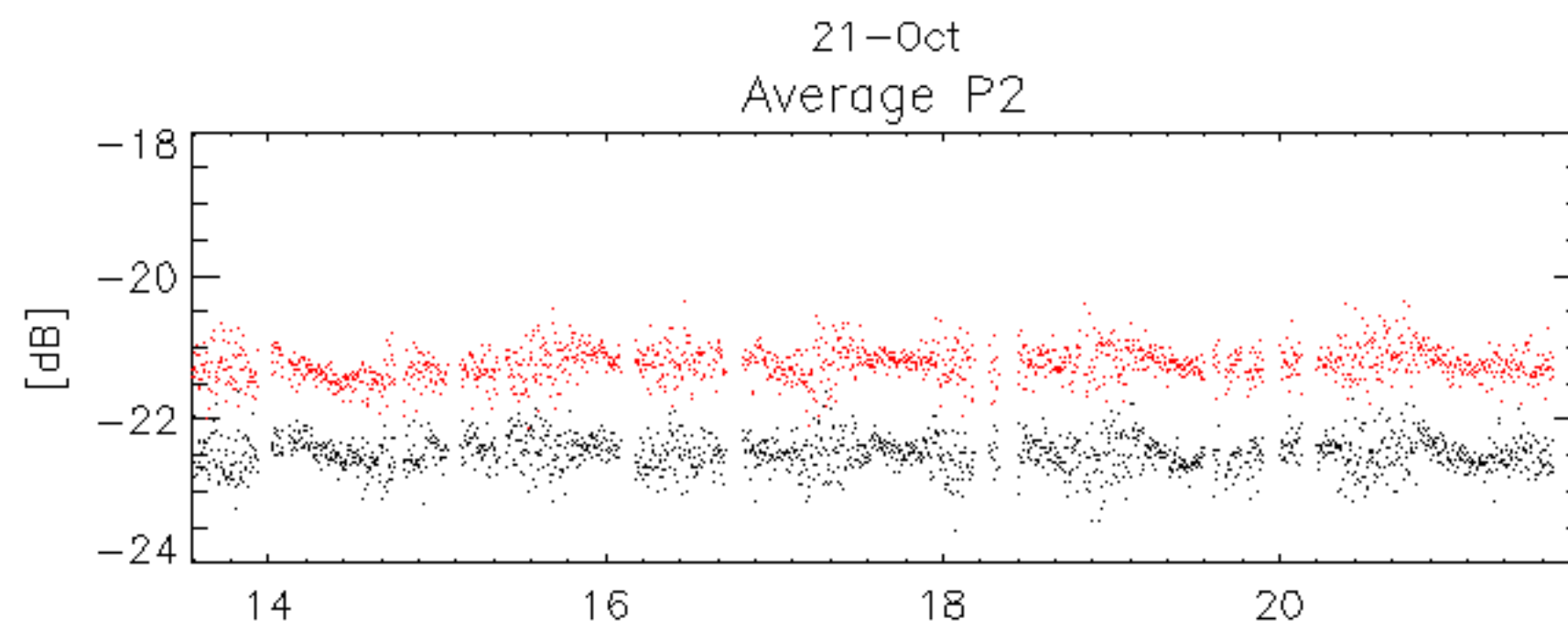
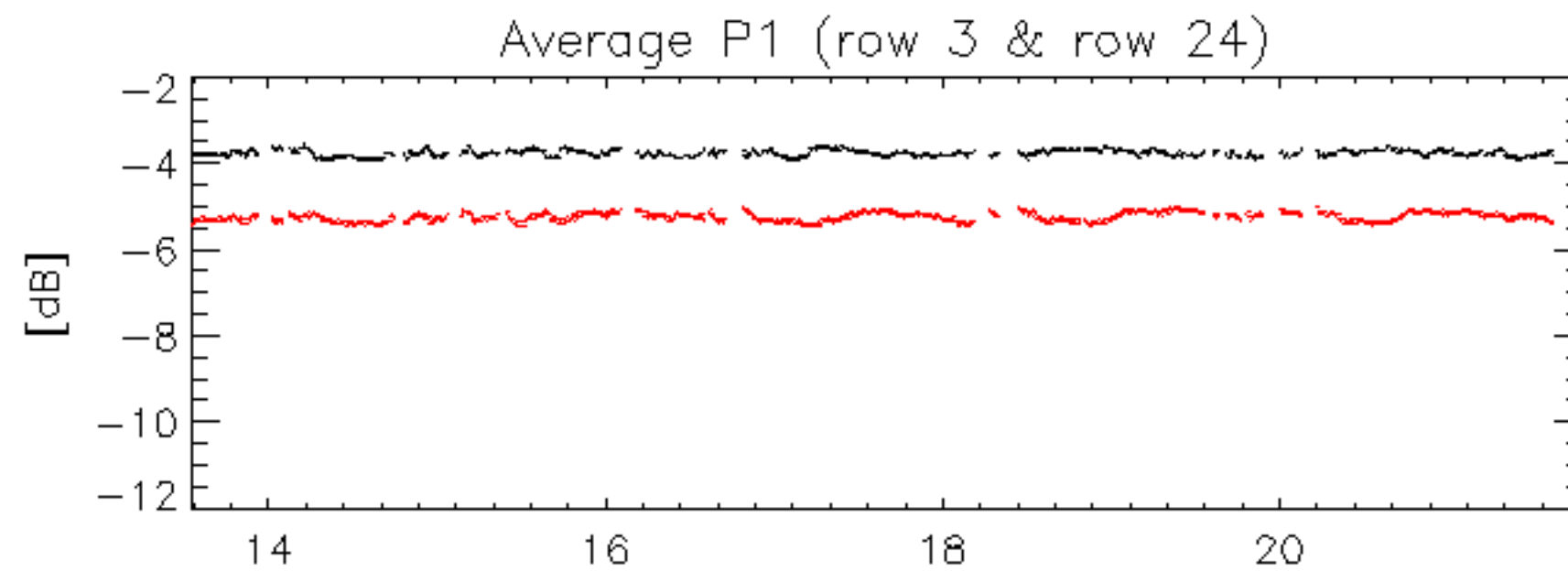
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX
<input type="checkbox"/>



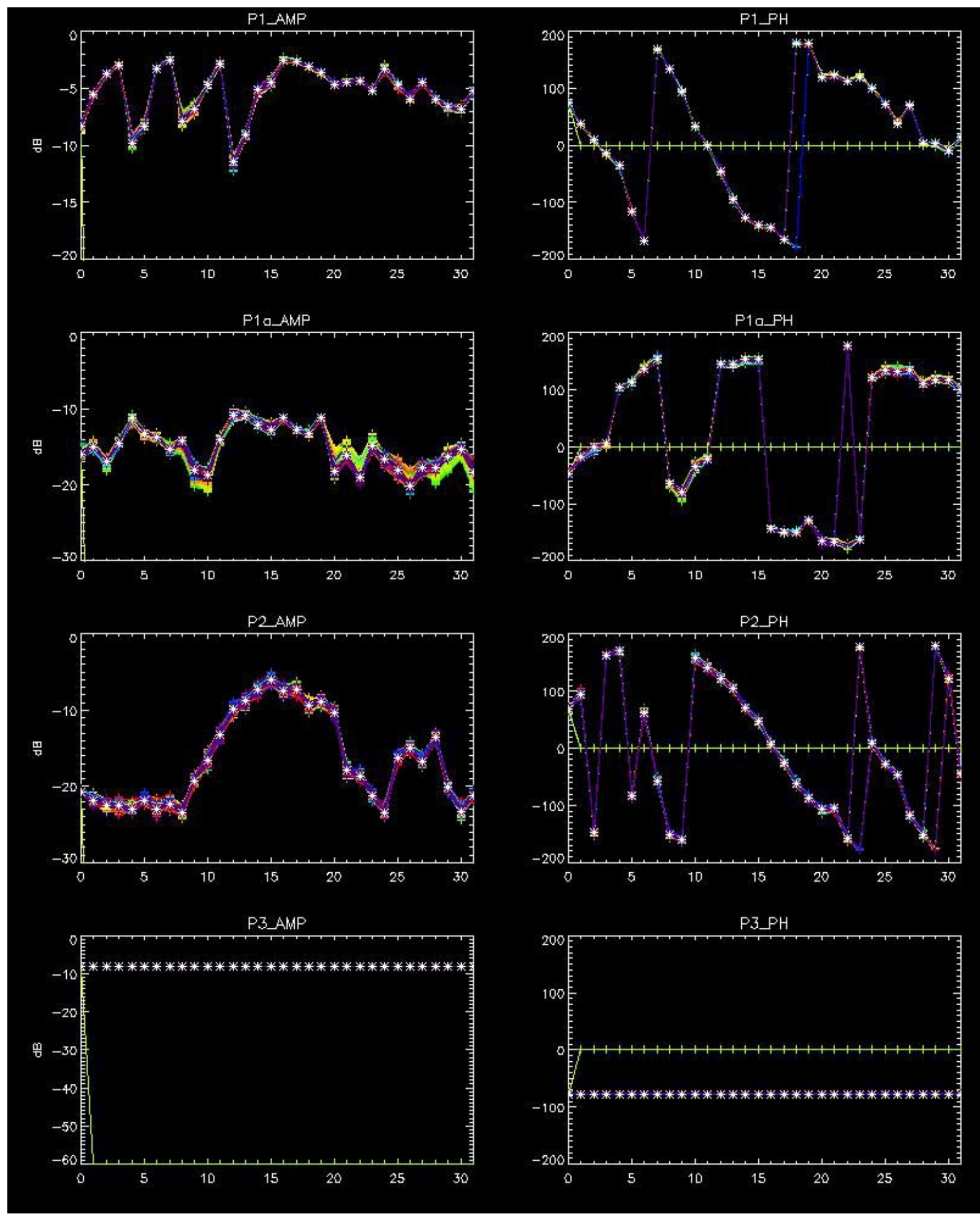




No anomalies observed on available browse products



No anomalies observed.

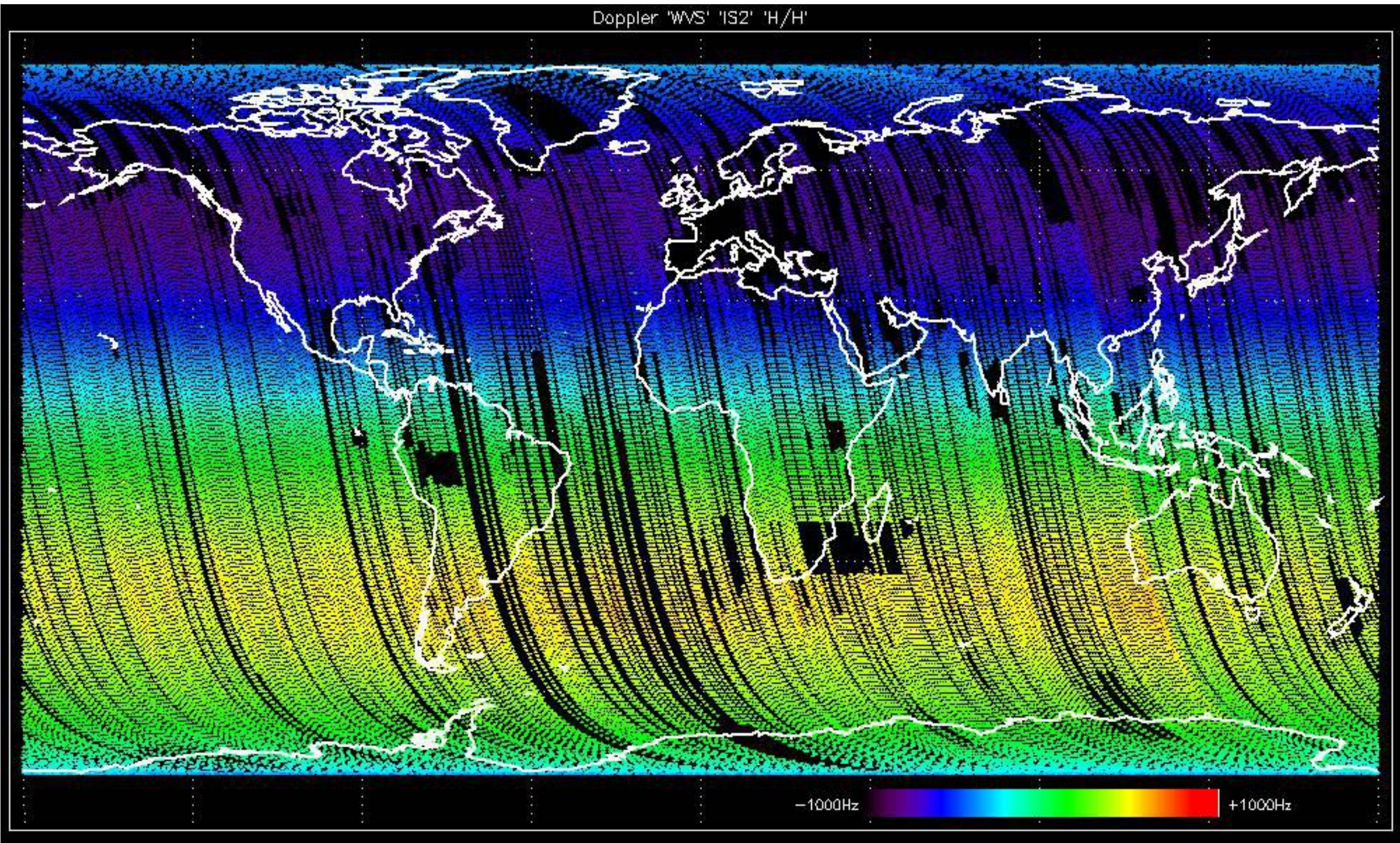


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- Stable raw data statistics.
- Nominal Doppler behavior.

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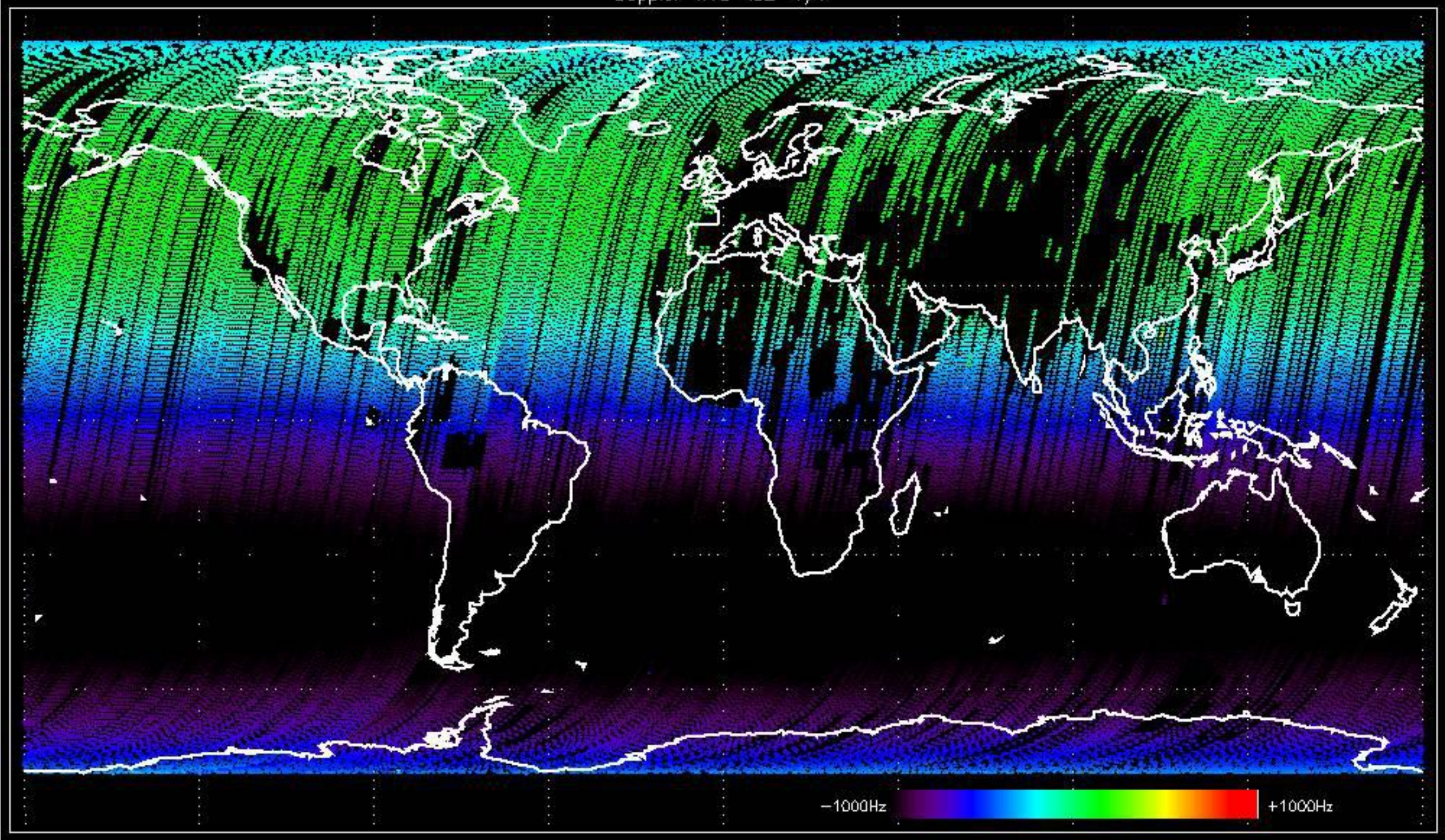


Doppler 'WVS' 'IS2' 'H/H'

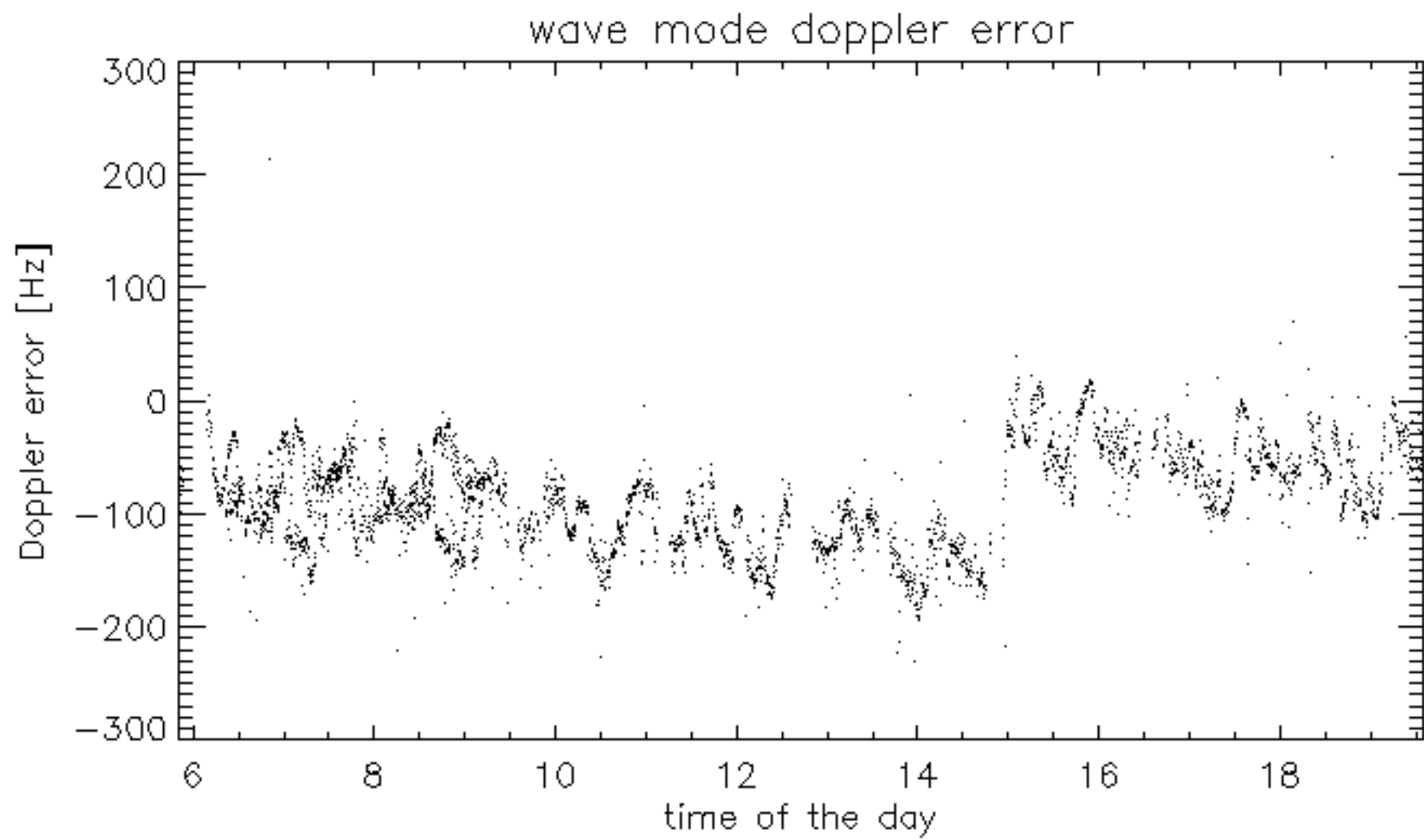
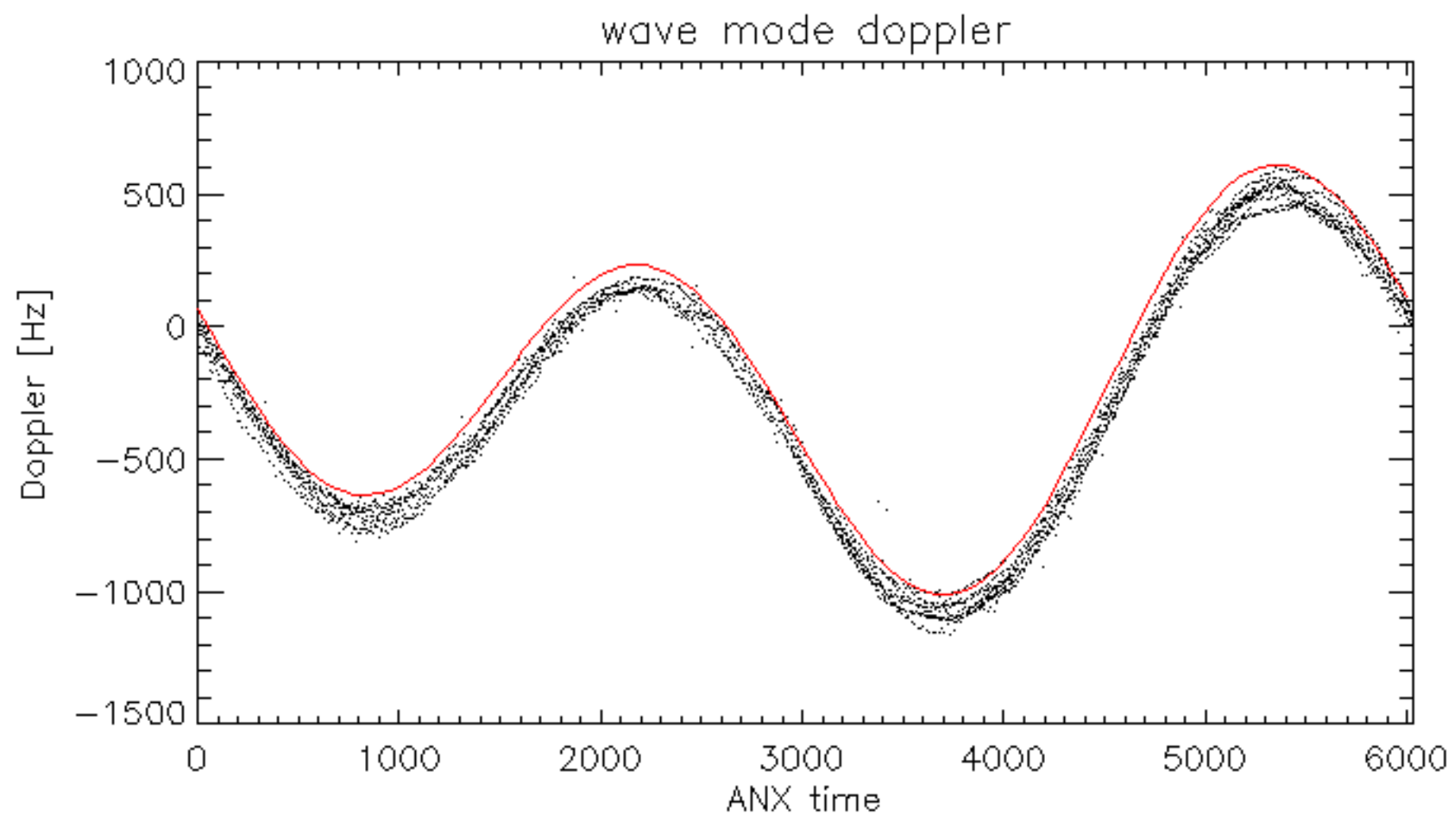




Doppler 'WVS' 'ISZ' 'V/V'

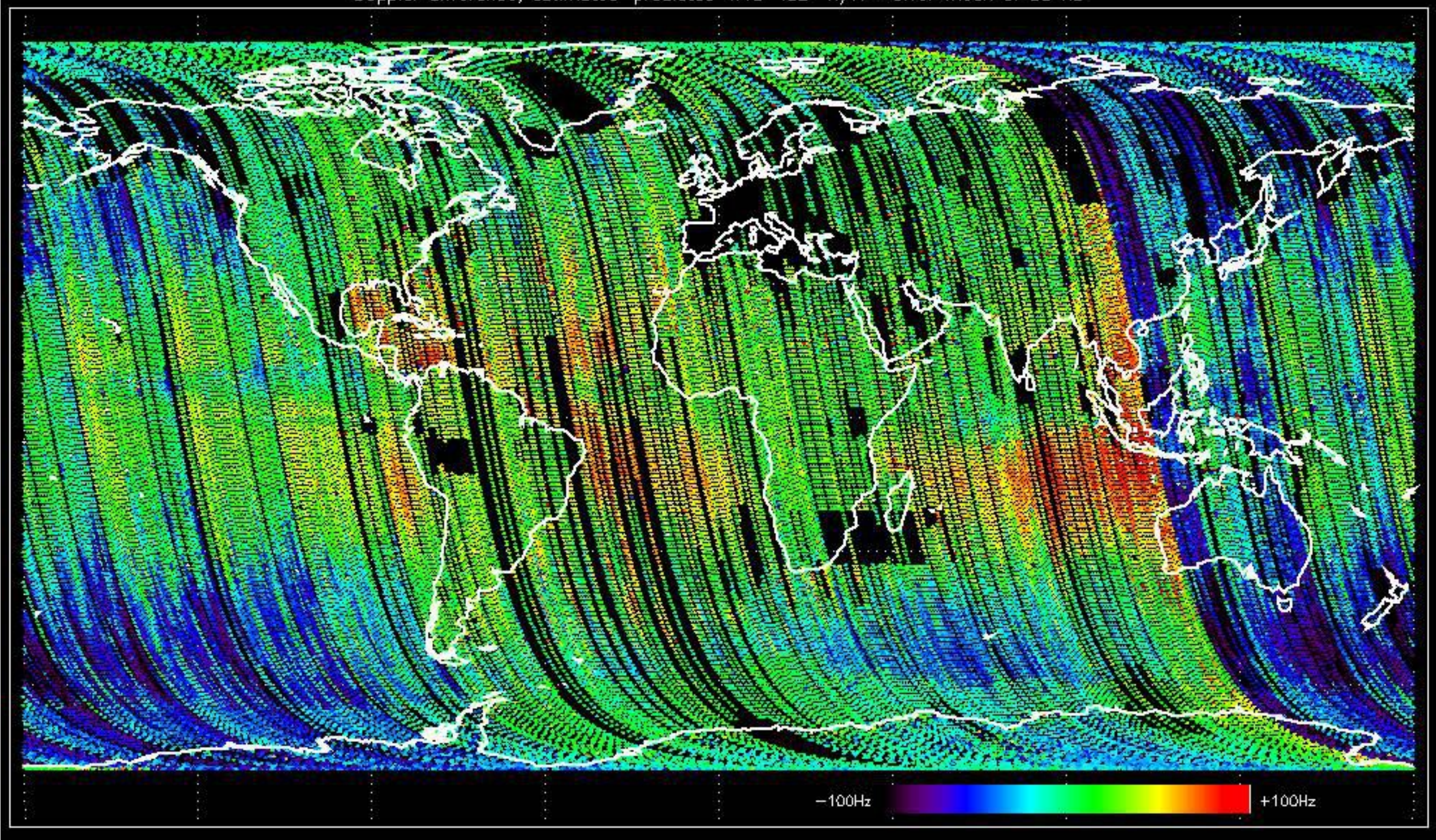






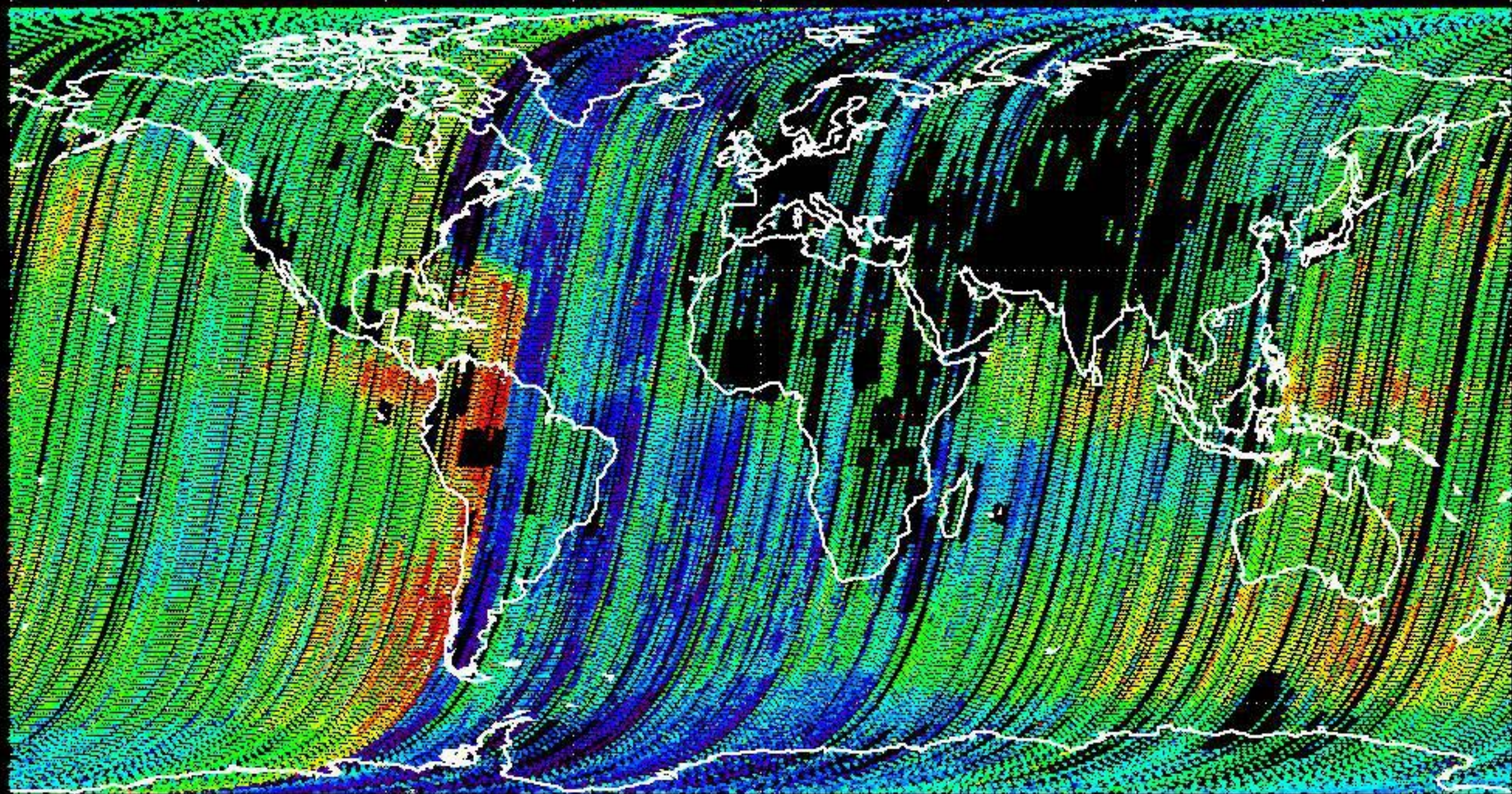


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz





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



-100Hz

+100Hz



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No anomalies observed.









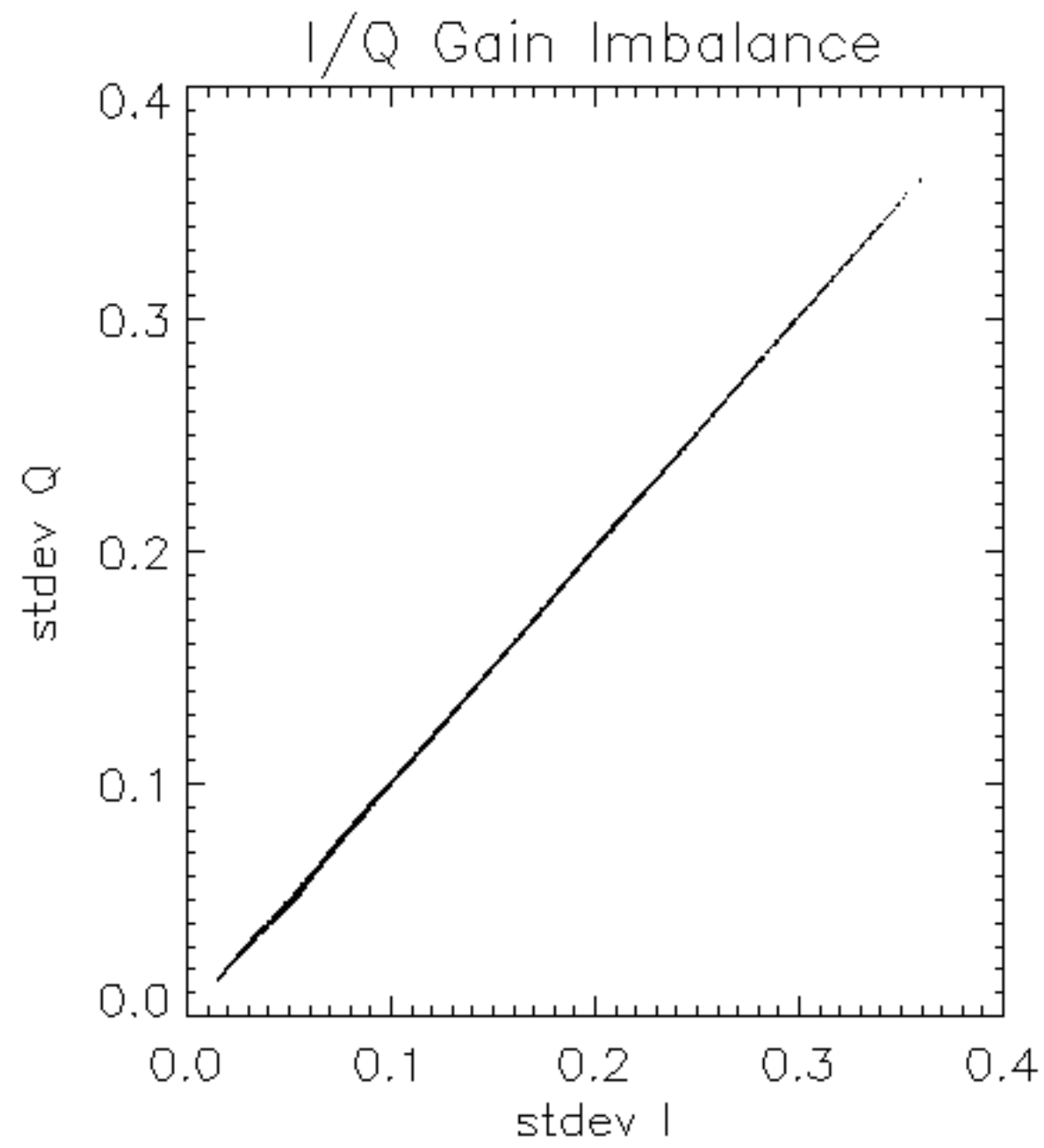


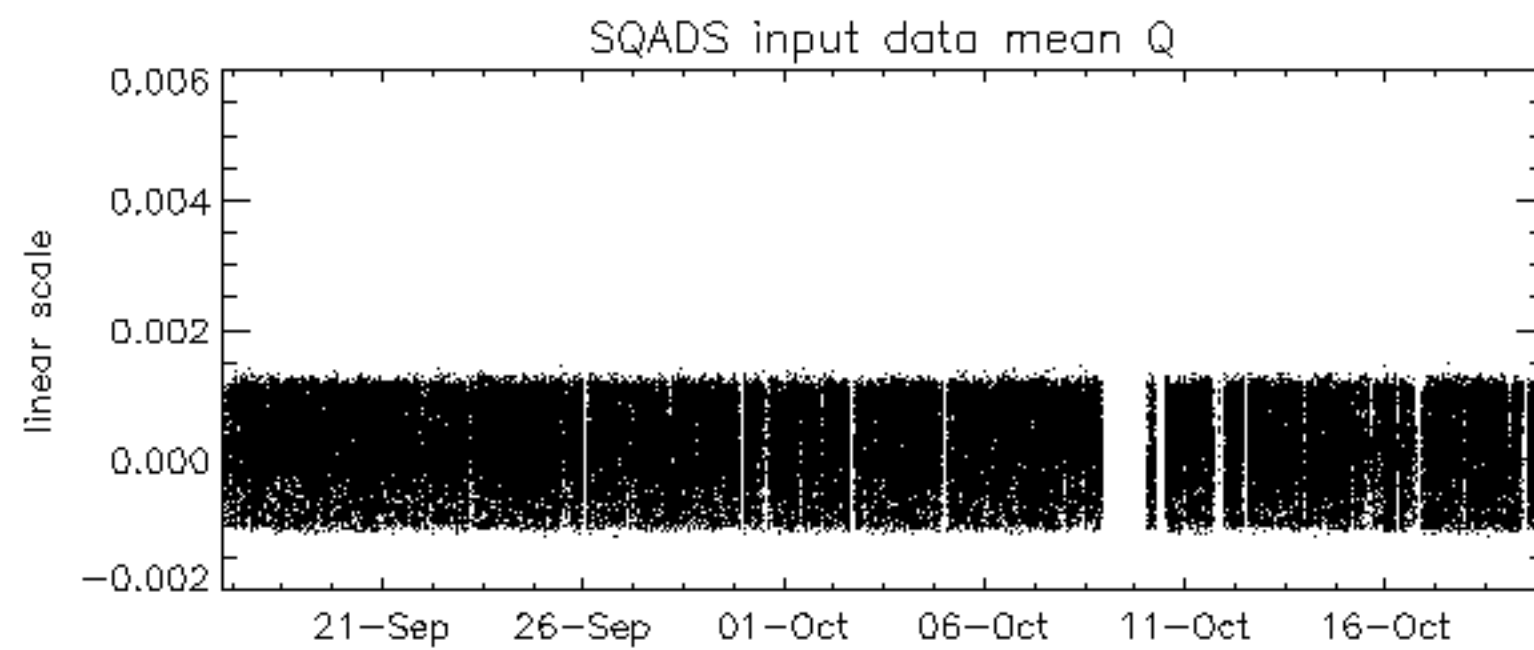
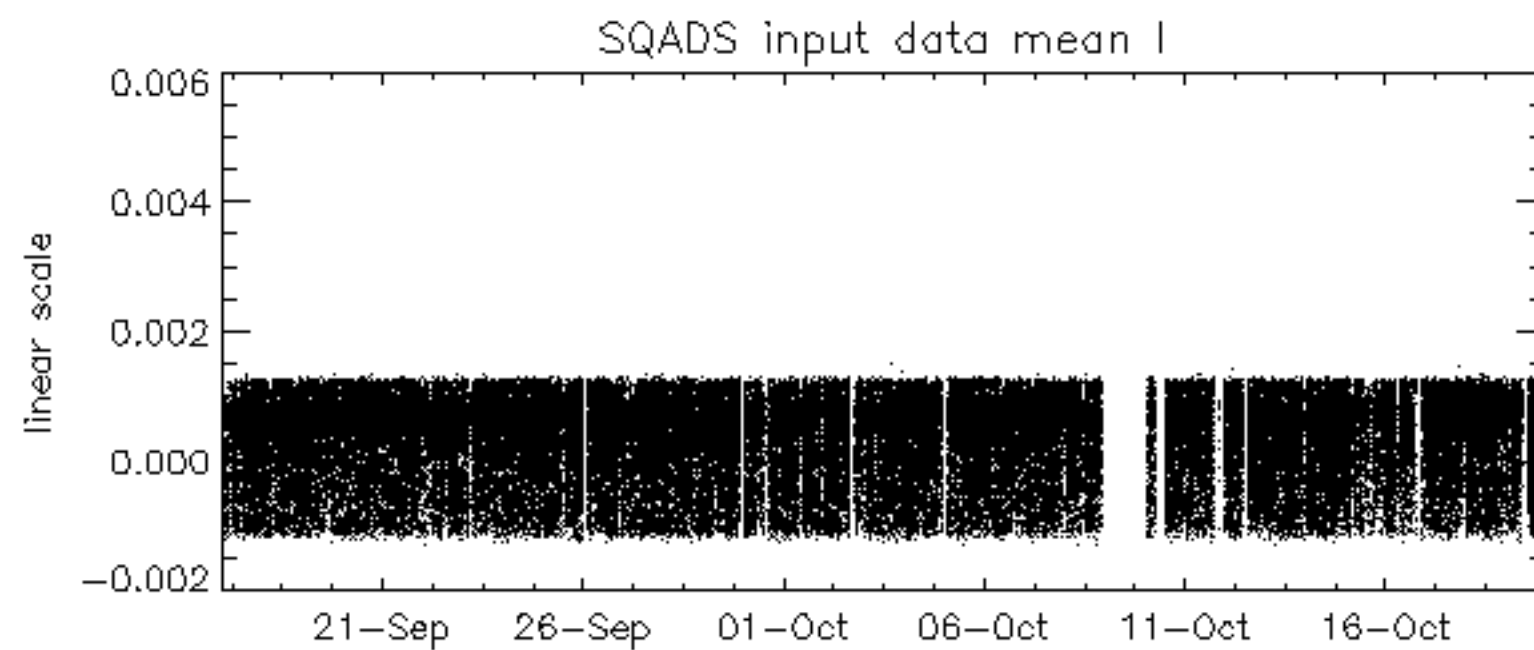
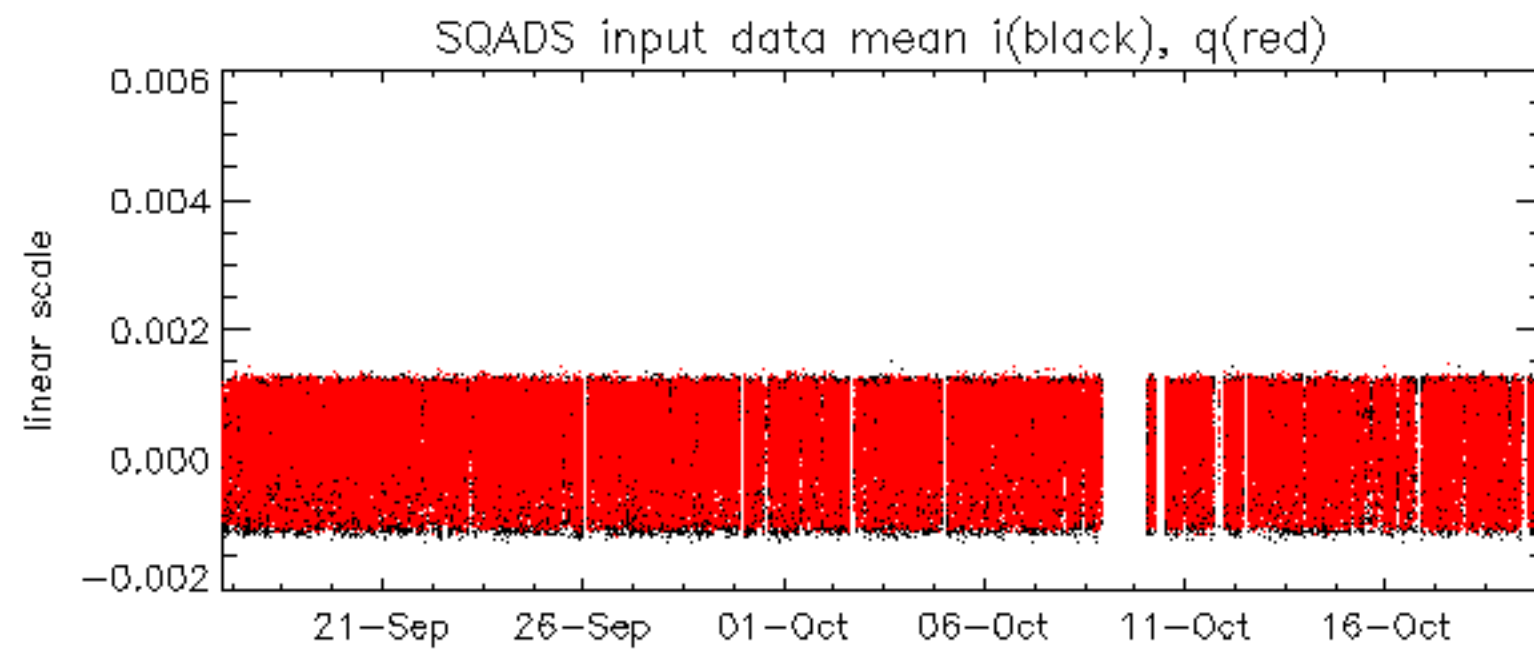


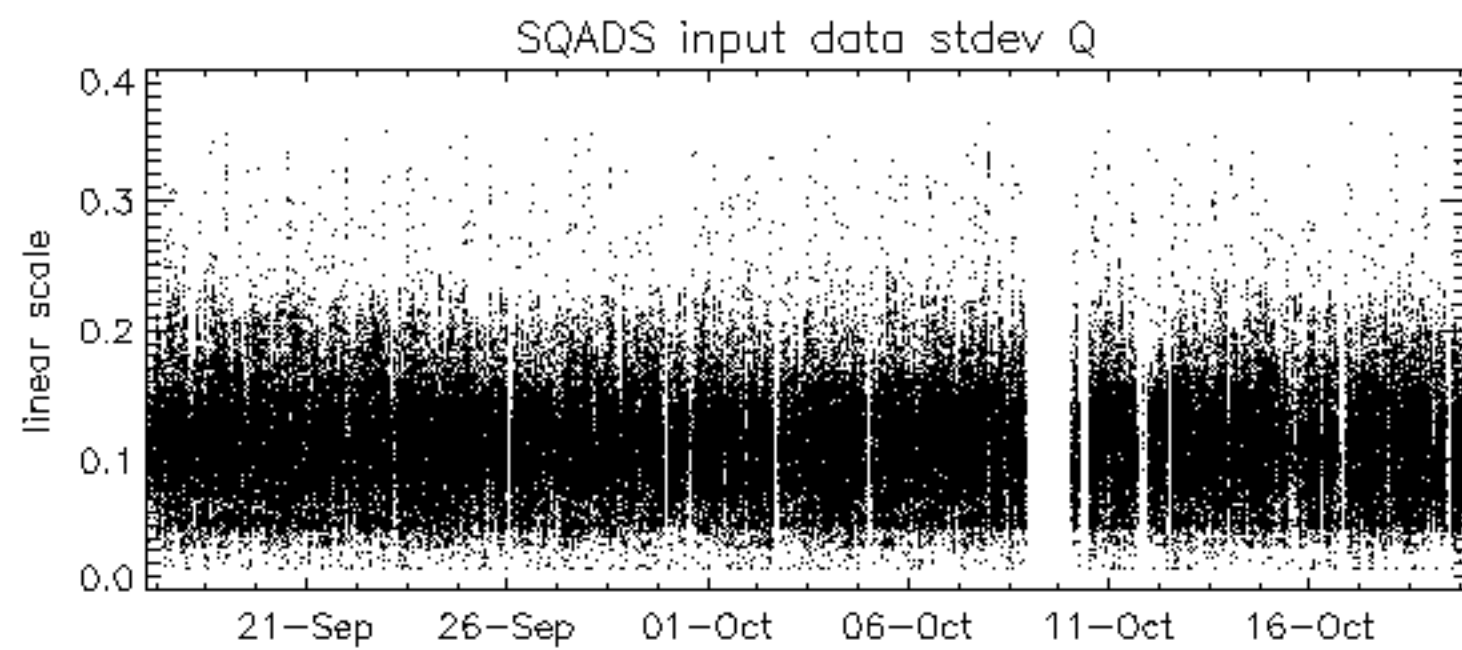
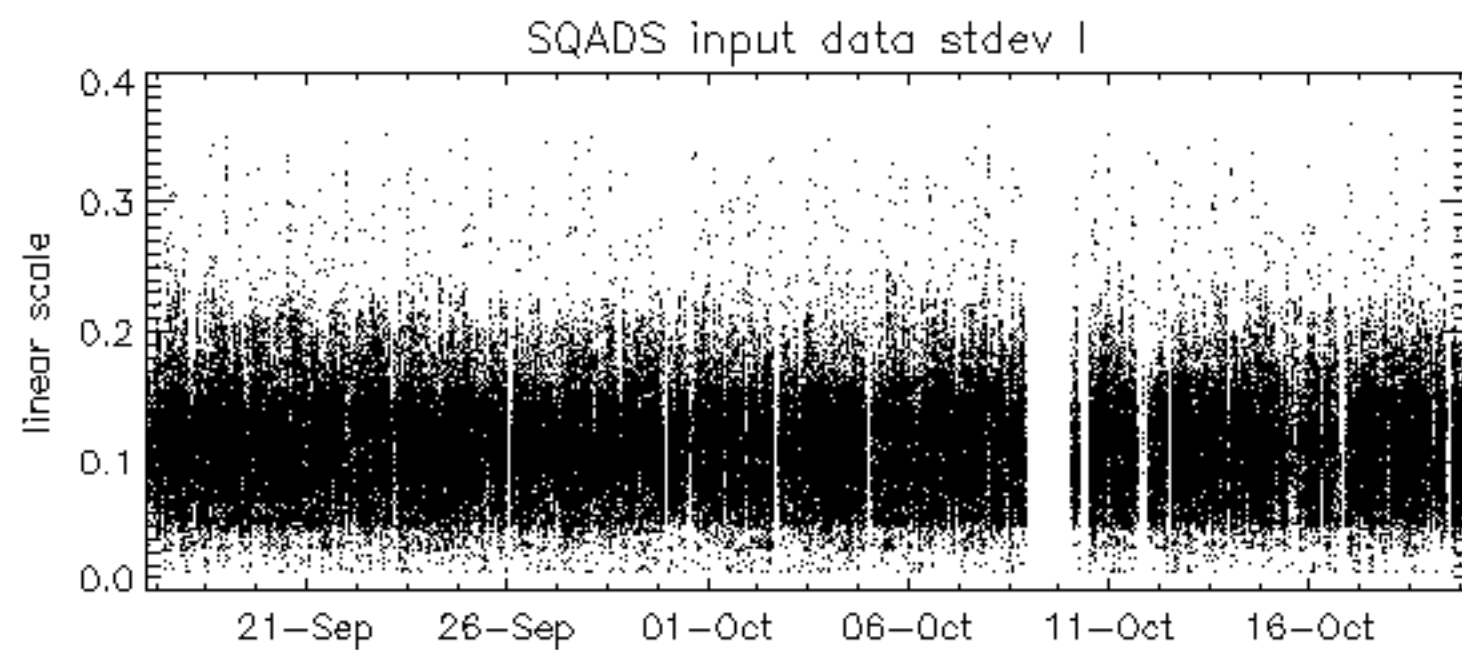
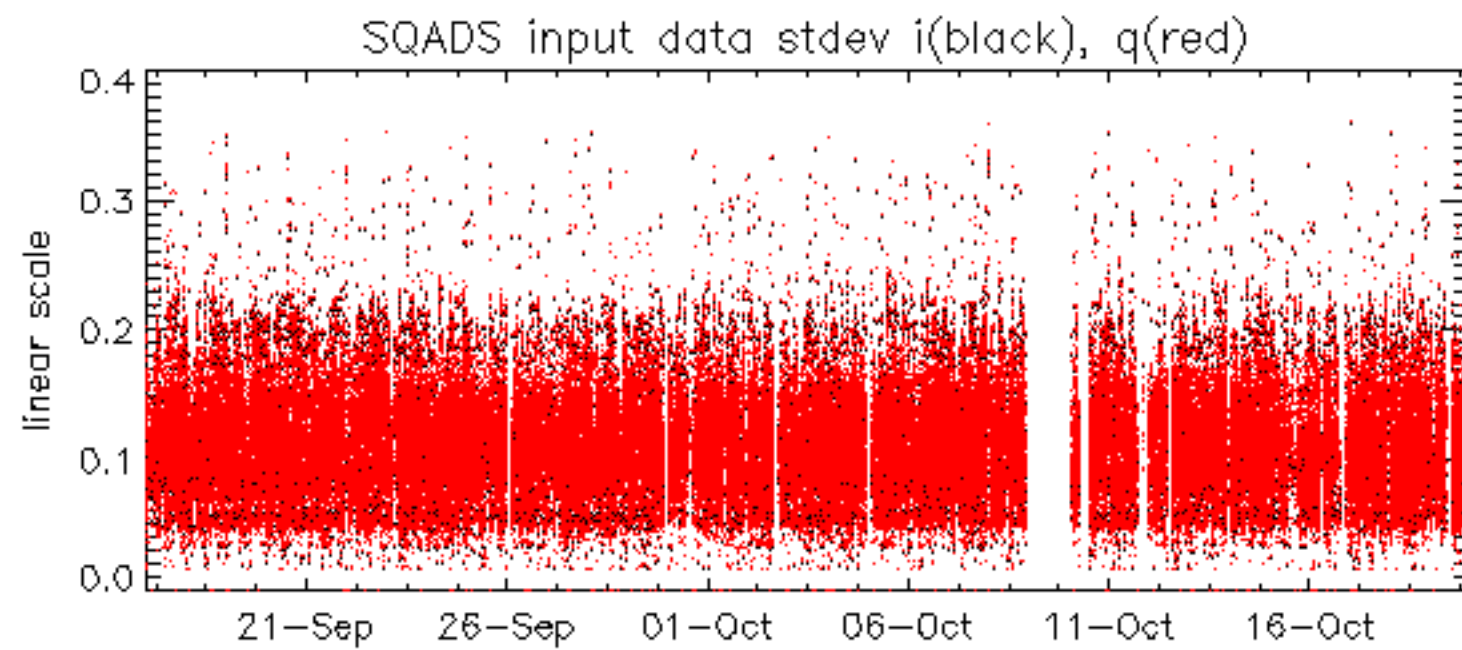






























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