

# REPORT OF 031028

1. [Introduction](#)
2. [Summary](#)
  - [Instrument Unavailability](#)
  - [Browse Visual Inspection](#)
  - [Module Stepping Results](#)
  - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
  - [Daily statistics \(row 3 and 24\)](#)
  - [Cyclic statistics \(row 3 and 24\)](#)
  - [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. [Wave Doppler analysis](#)
  - [Unbiased Doppler Error](#)
  - [Absolute Doppler](#)
  - [Doppler evolution versus ANX](#)

## 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 internal problem on QC tools MS results can not be shown for the last products received:

- ASA\_MS\_\_0PNPDK20031027\_194458\_000000152021\_00099\_08670\_0088.N1

- ASA\_MS\_\_0PNPDK20031027\_194618\_000000152021\_00099\_08670\_0087.N1

However no anomaly have been noticed

**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	-3.78938	-22.5348	-8.15447
	stdev	0.00550906	0.0695771	0.00254217
24	mean	-5.13911	-21.2125	-8.15447
	stdev	0.0141390	0.0682600	0.00254217



#### 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79527	-22.5419	-8.14234
	stdev	0.00548343	0.0622391	0.00254609
24	mean	-5.36504	-21.2685	-8.14234
	stdev	0.866099	0.0591555	0.00254609



#### 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	0.000364674
	stdev	3.60365e-07
MEAN Q	mean	0.000280330
	stdev	3.35010e-07



#### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.113998
	stdev	0.00141999
STDEV Q	mean	0.114239
	stdev	0.00143706



#### 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

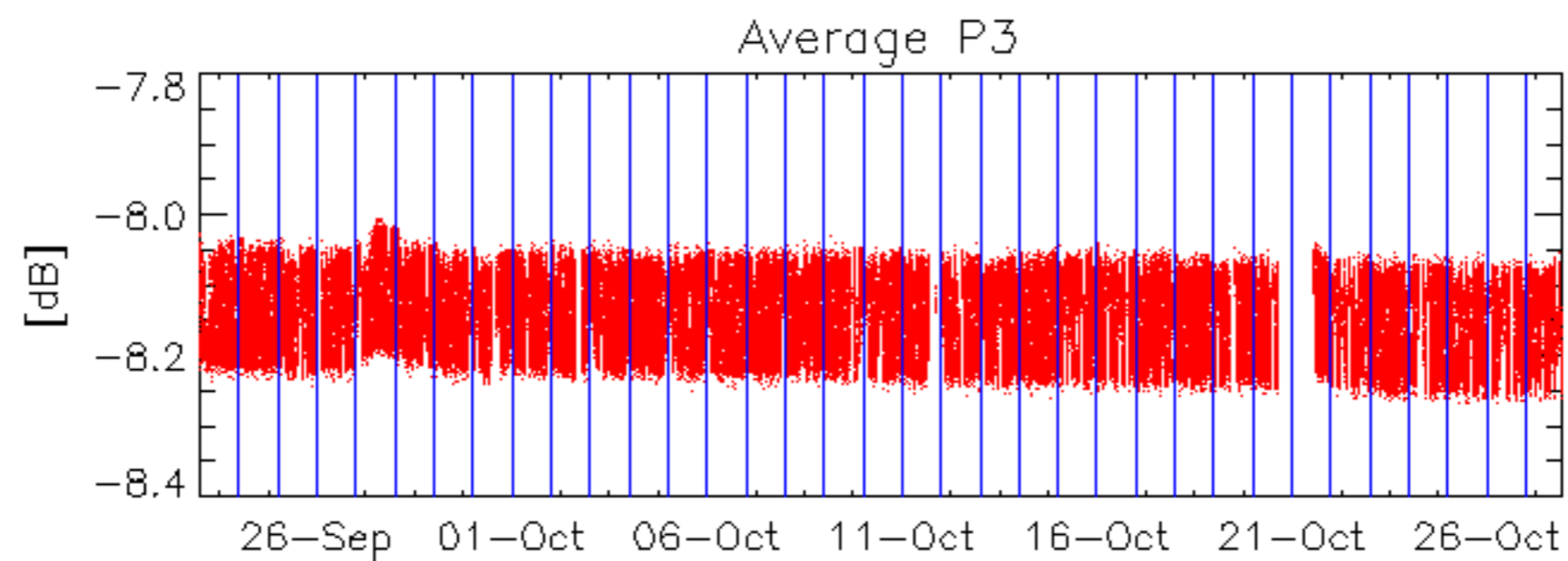
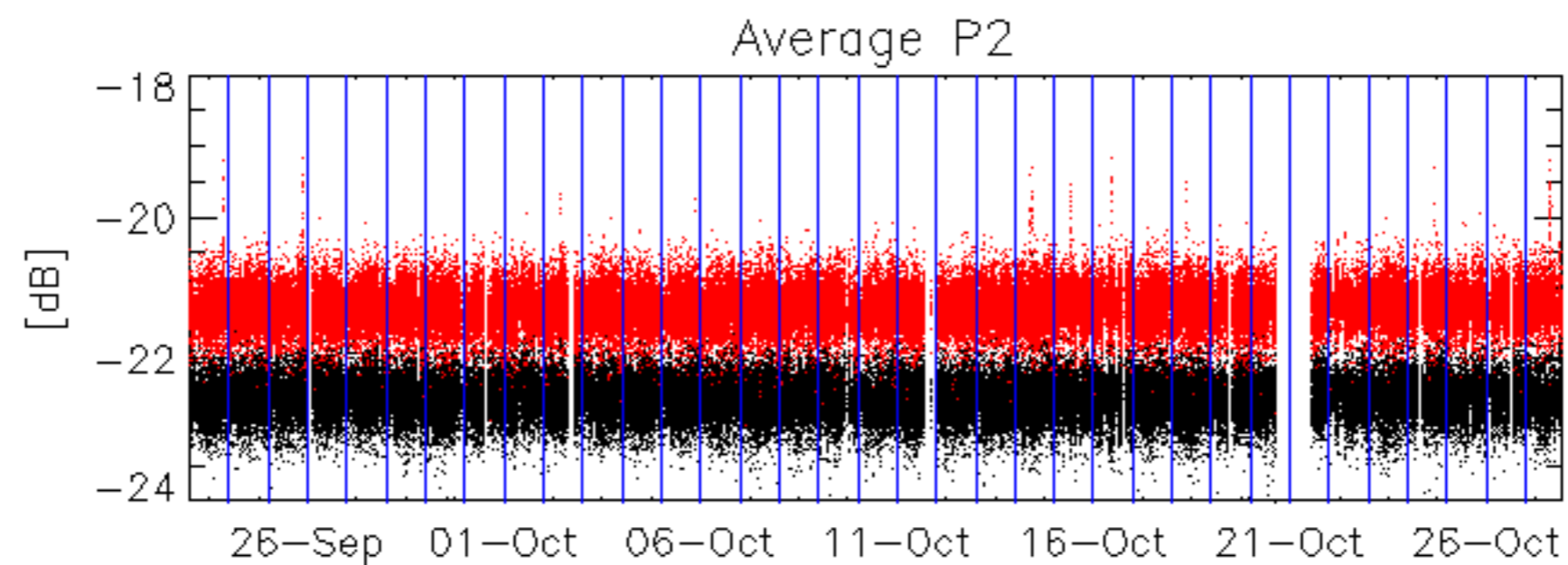
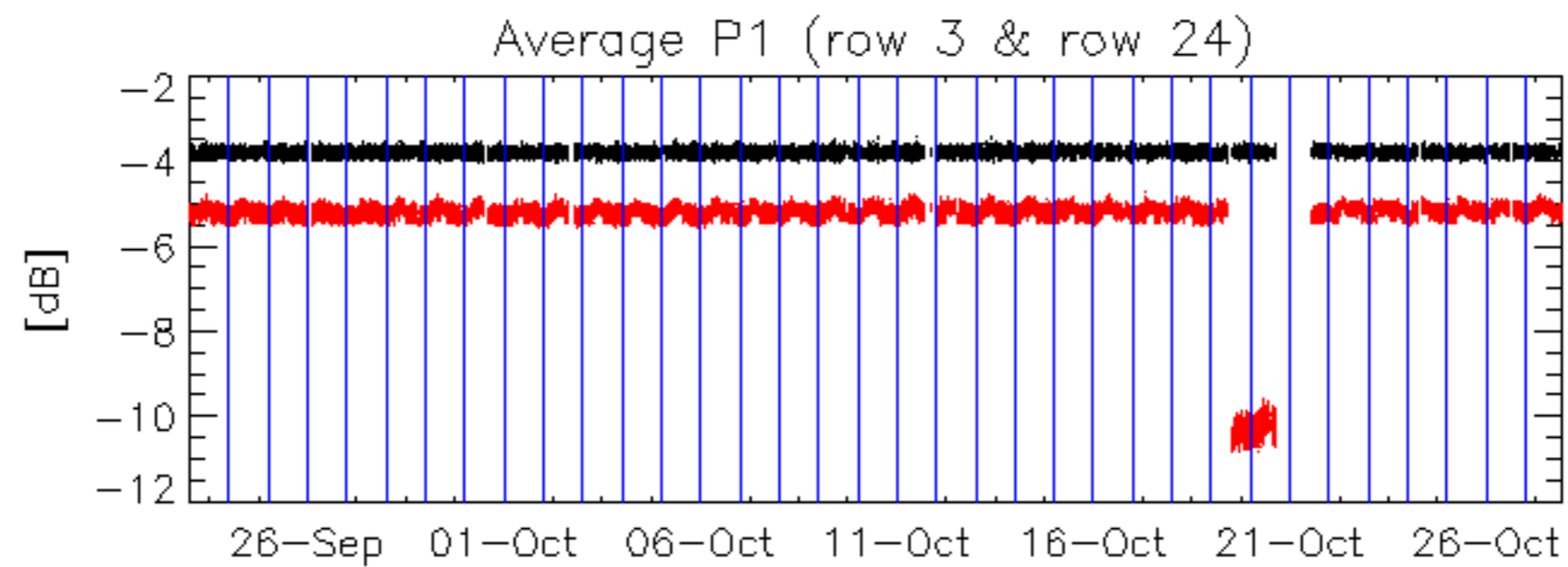
Ascending
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Descending
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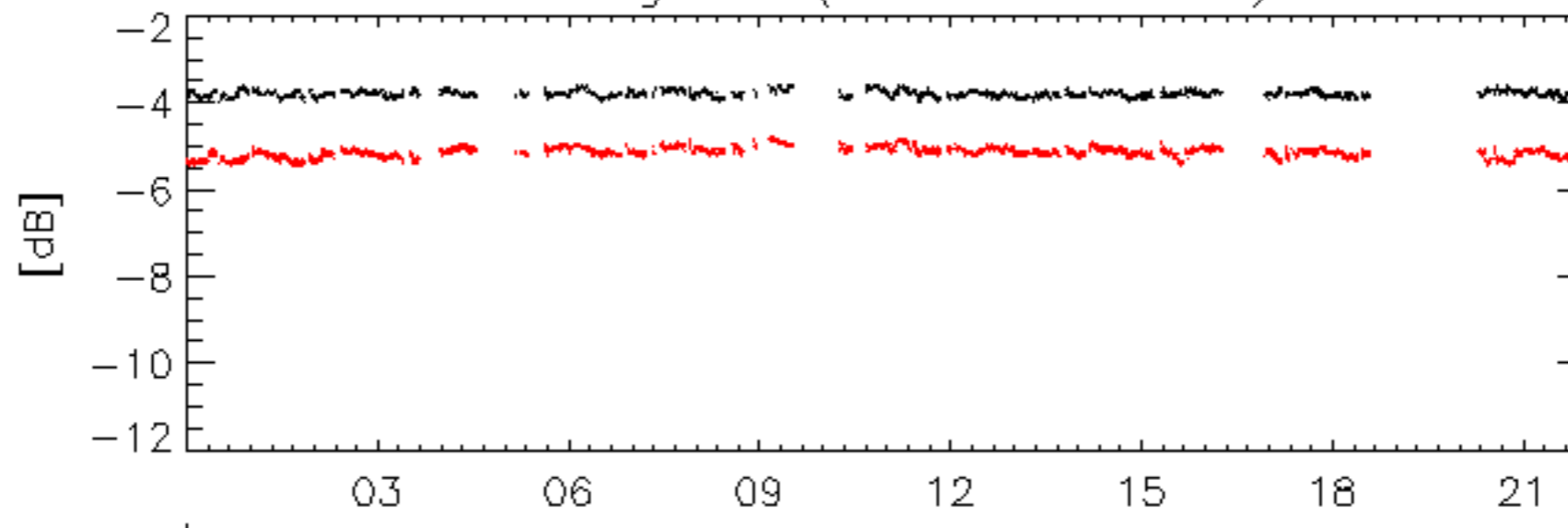
### 6.3 - Doppler evolution versus ANX

#### Evolution Doppler error versus ANX



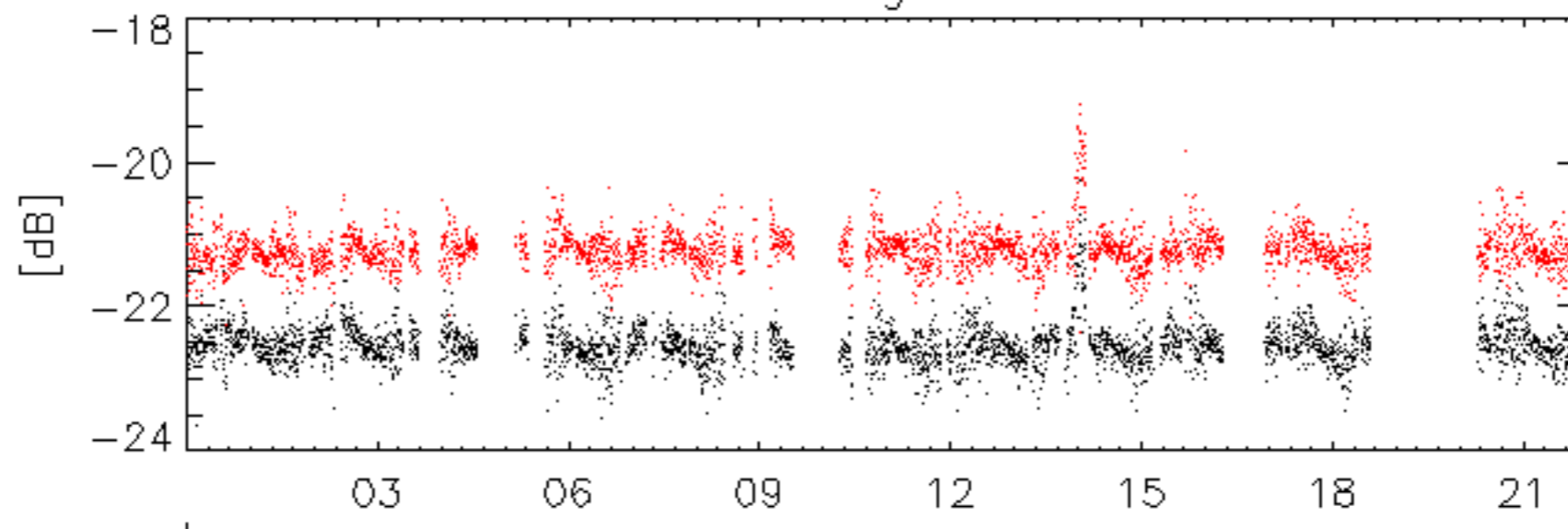


Average P1 (row 3 & row 24)



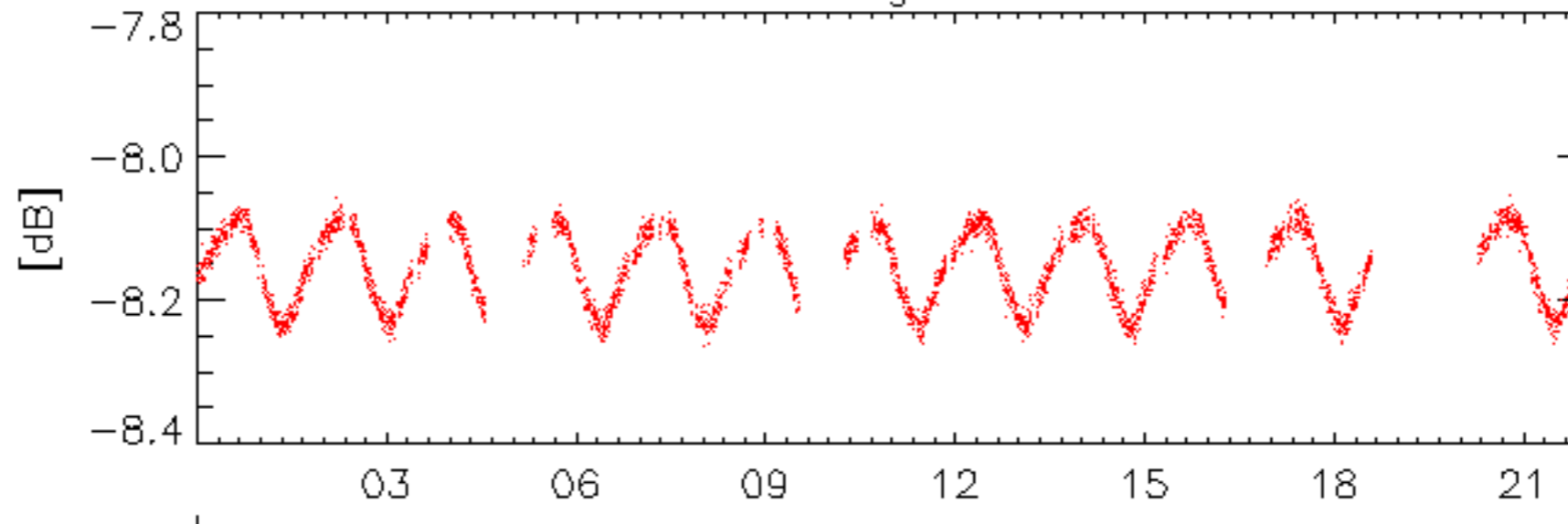
27-Oct

Average P2



27-Oct

Average P3

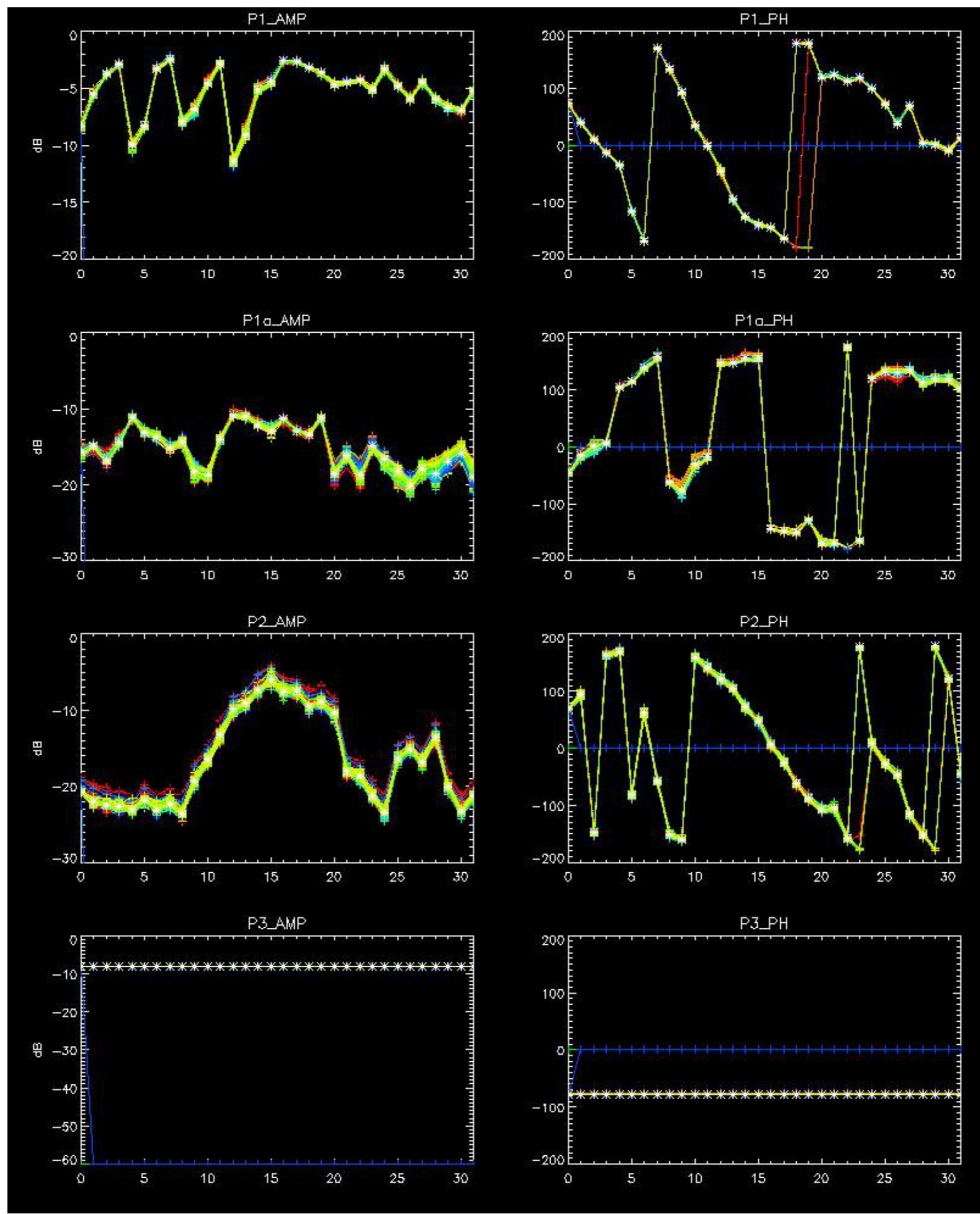


27-Oct

No anomalies observed on available browse products

No anomalies observed.



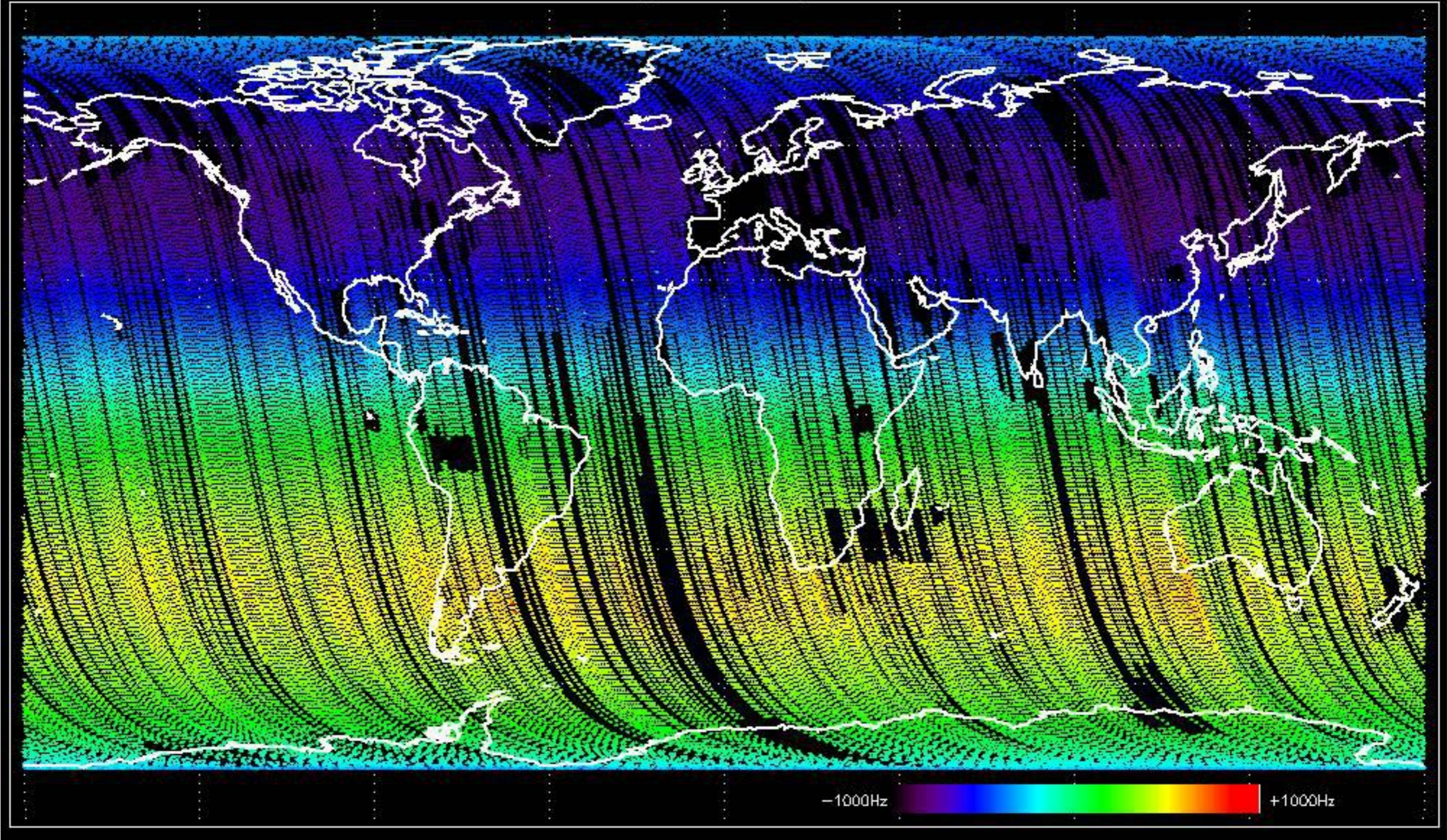


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

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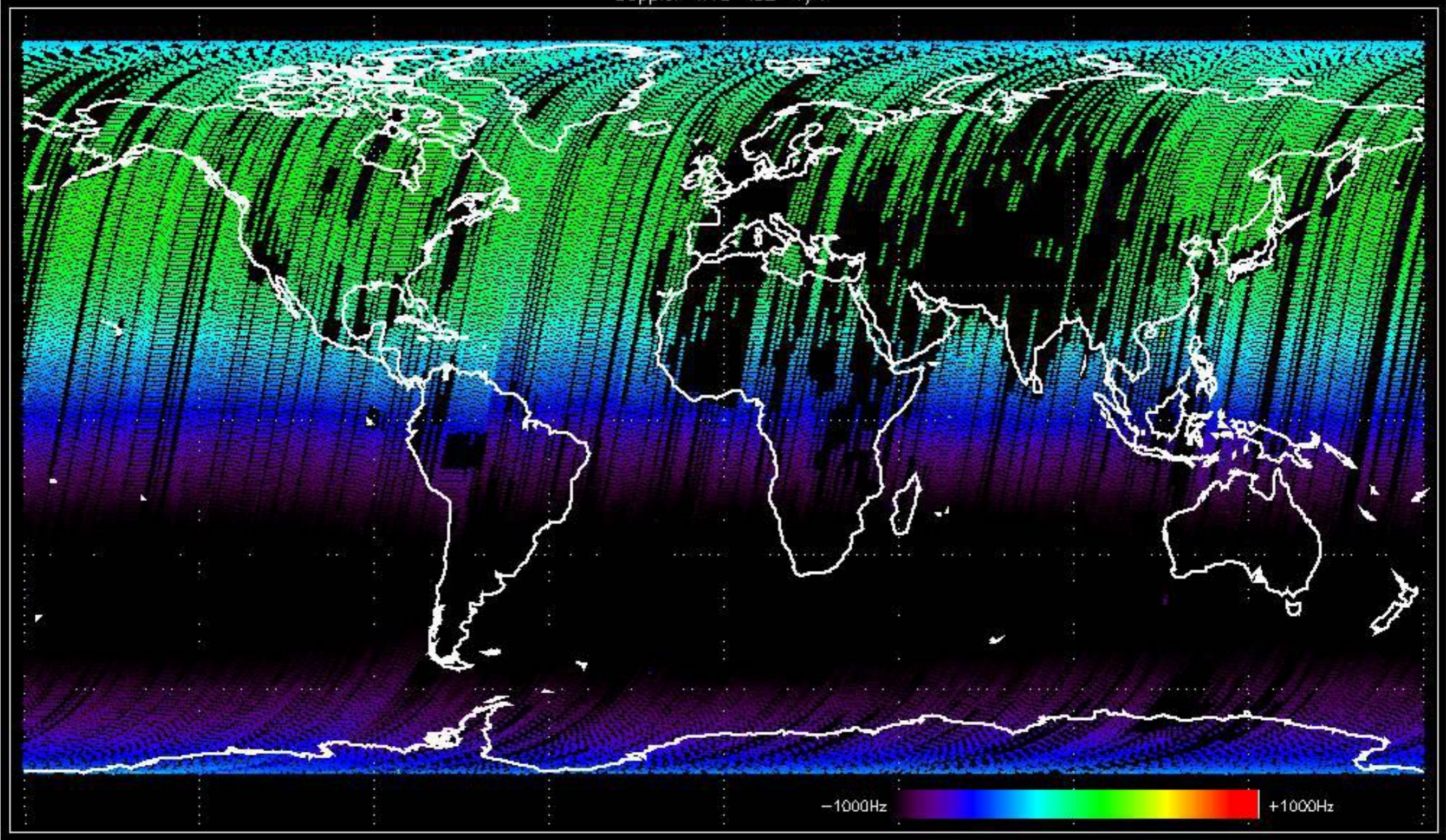


Doppler 'WVS' 'IS2' 'H/H'

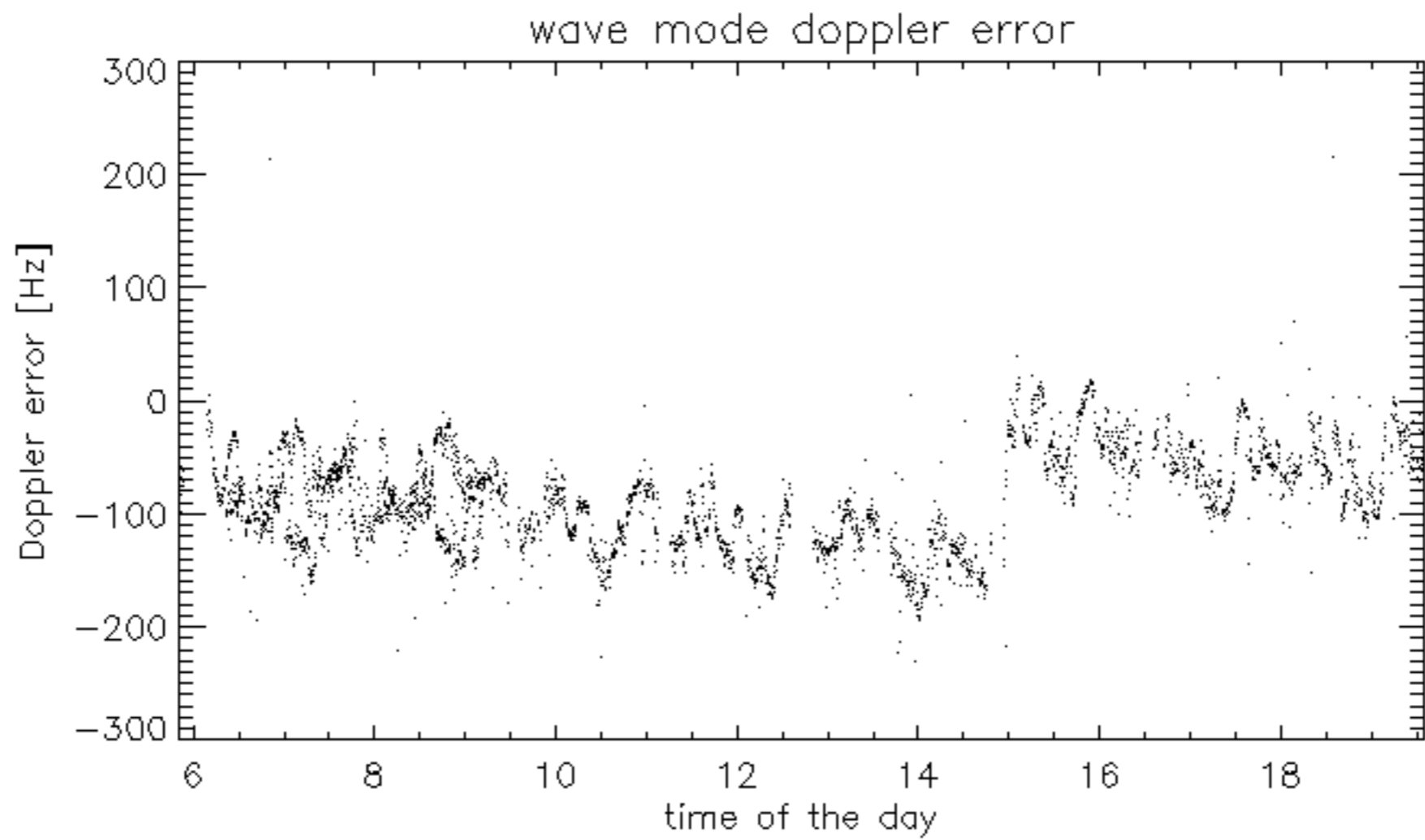
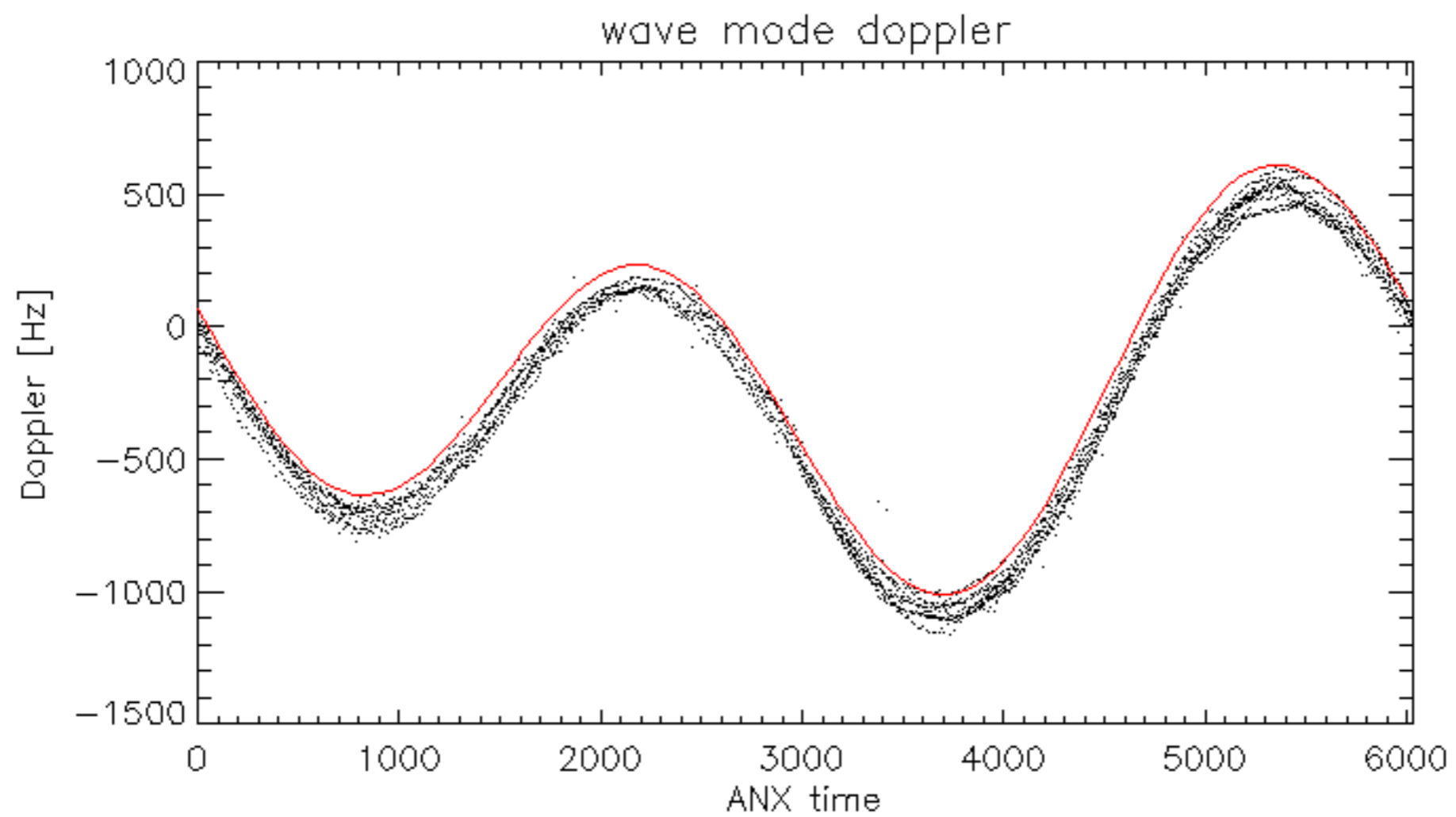




Doppler 'WVS' 'IS2' 'V/V'

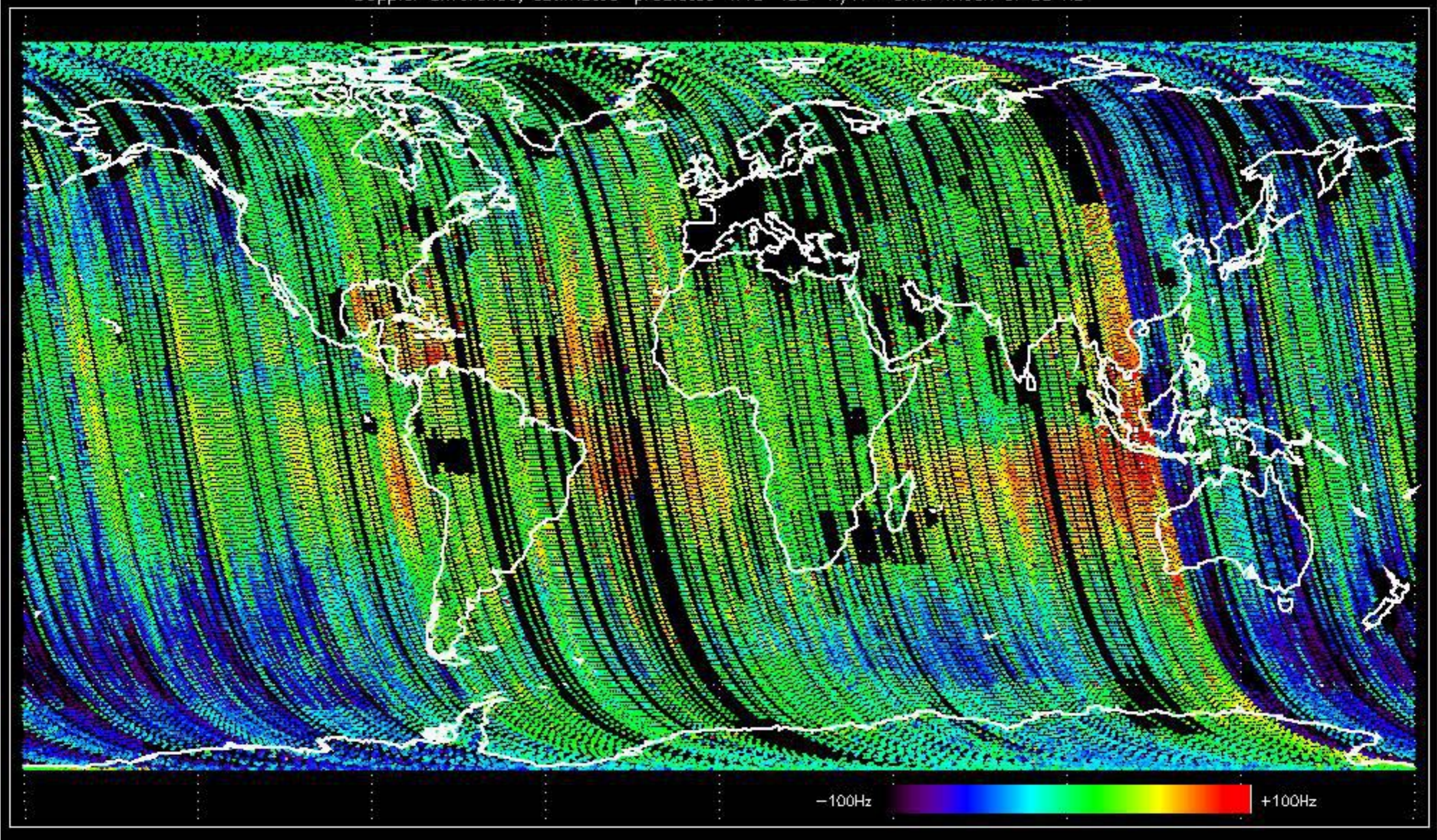






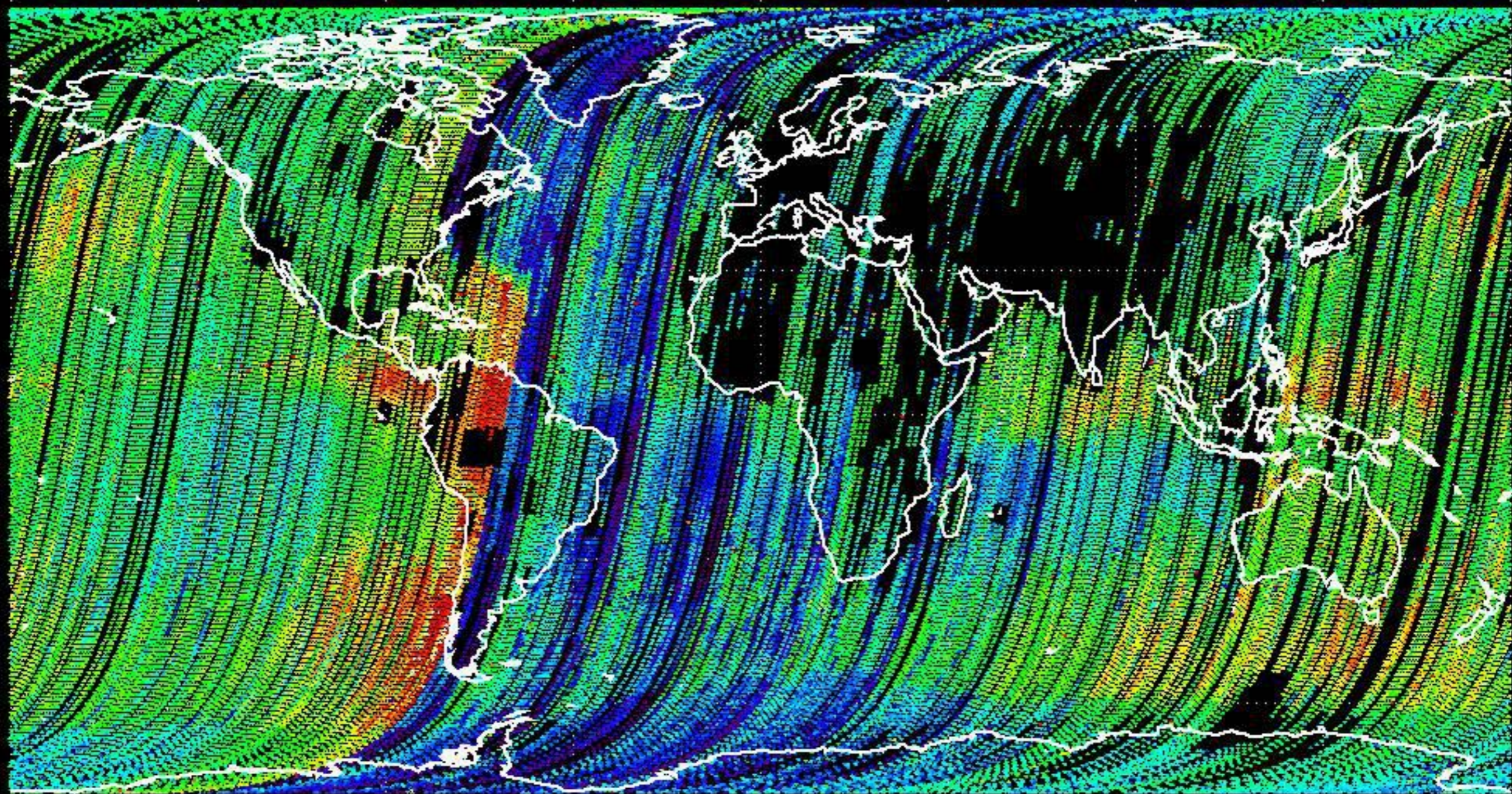


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz





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



-100Hz

+100Hz

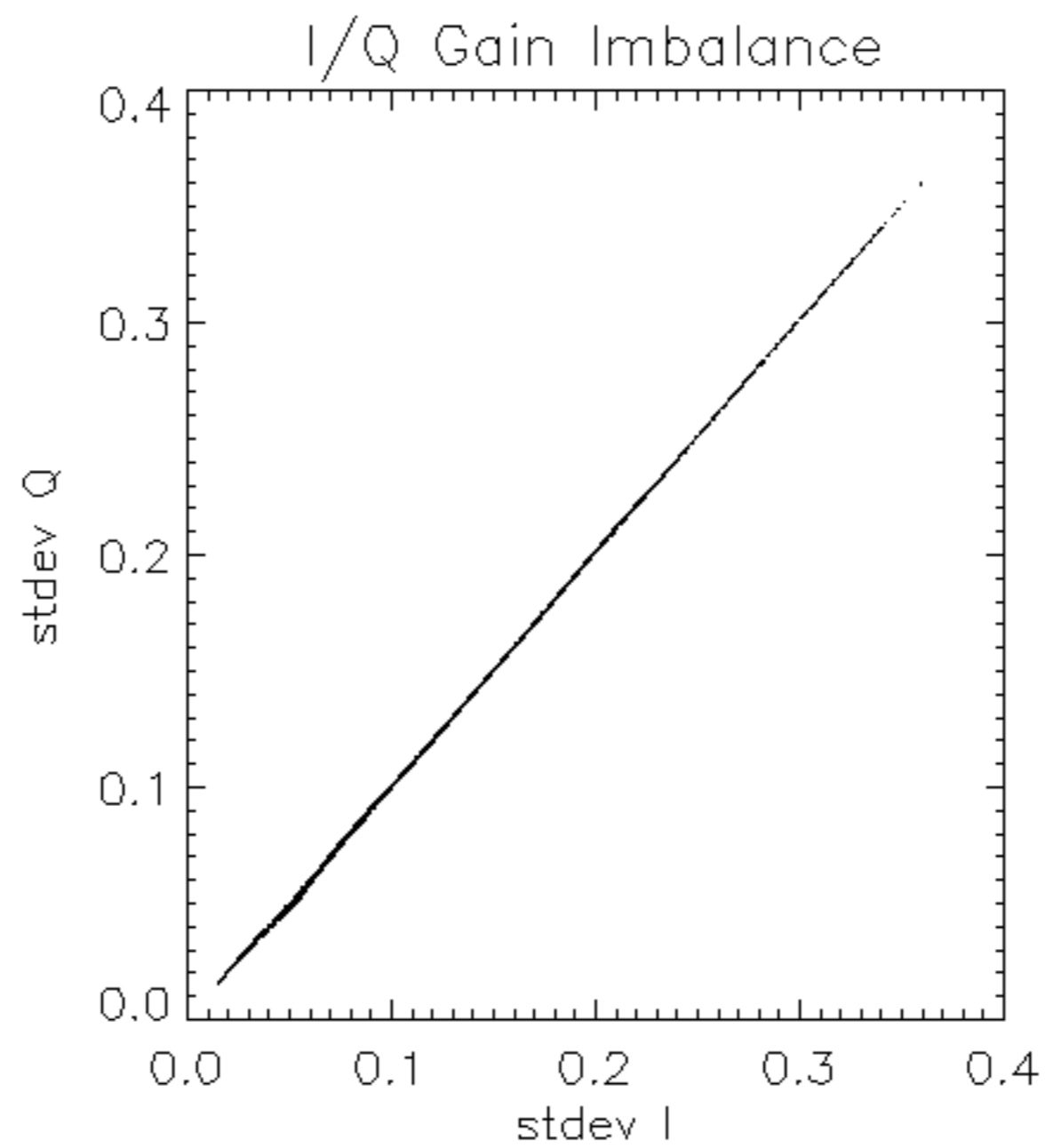


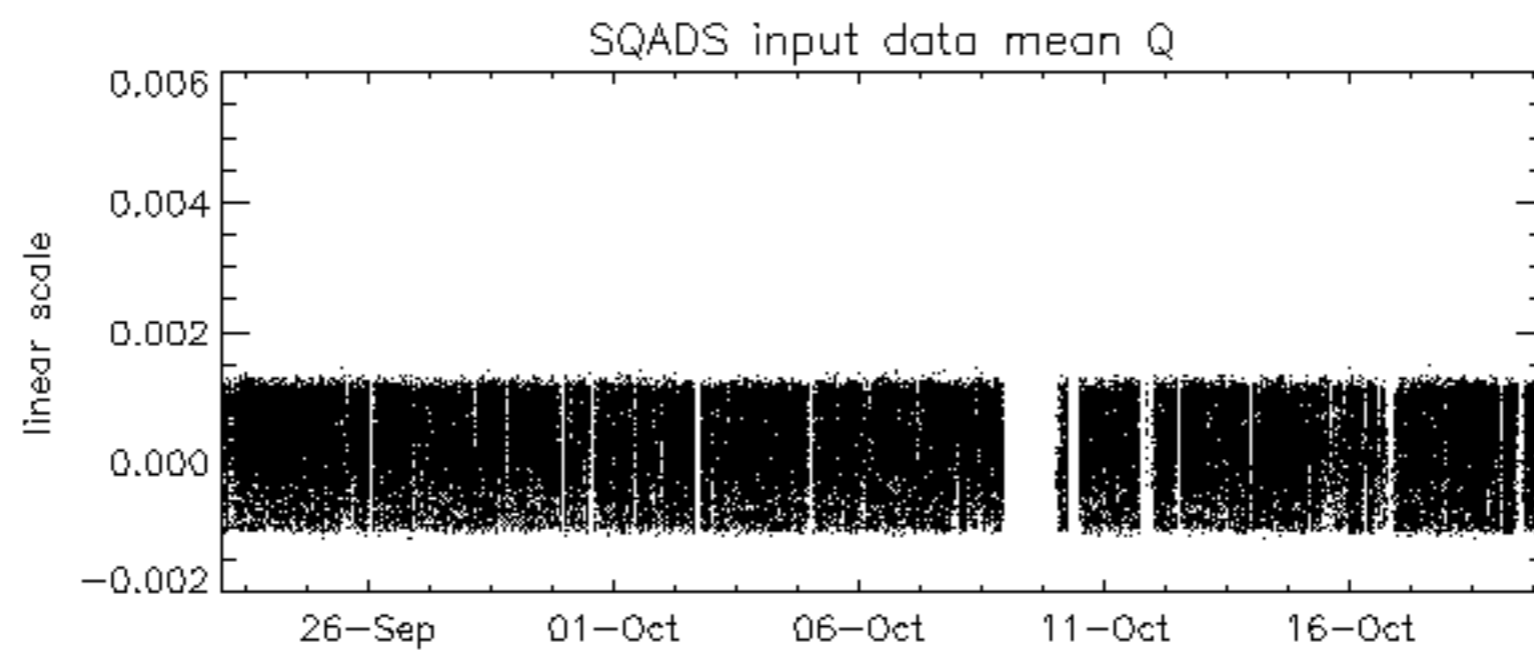
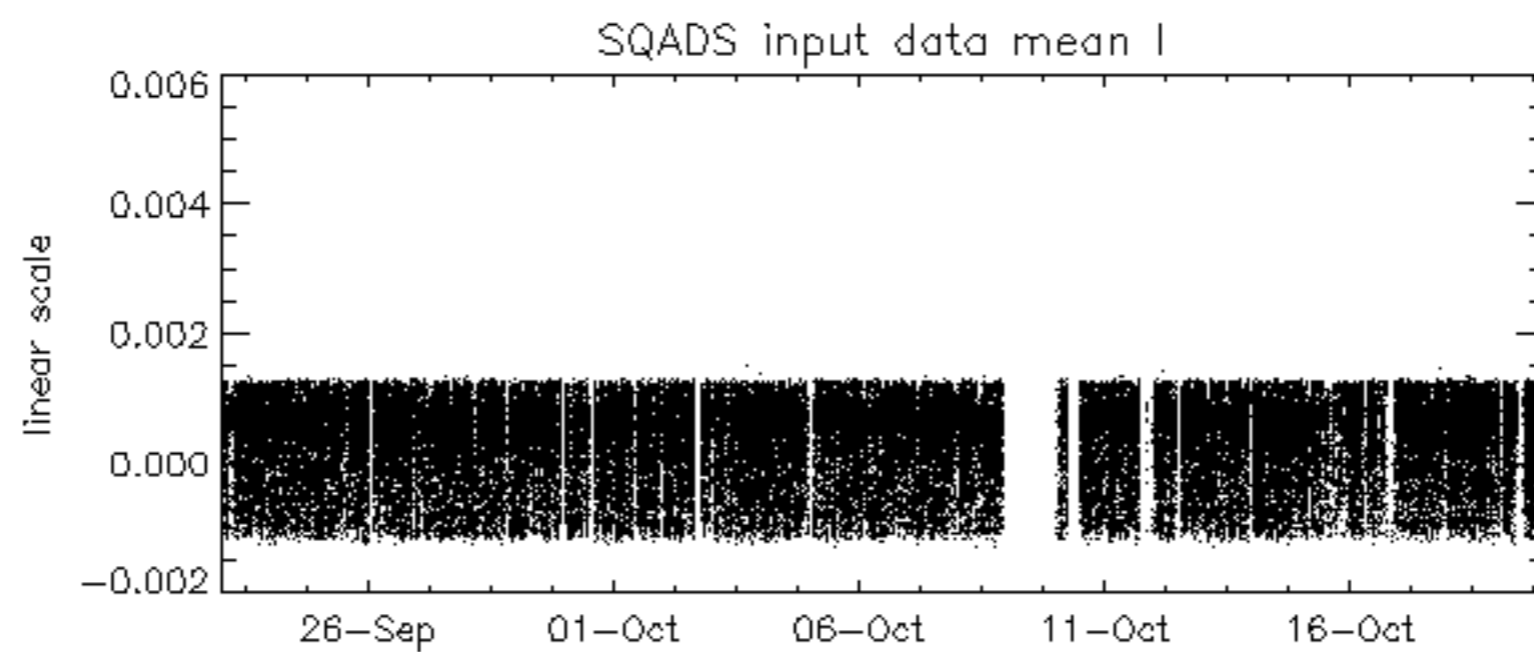
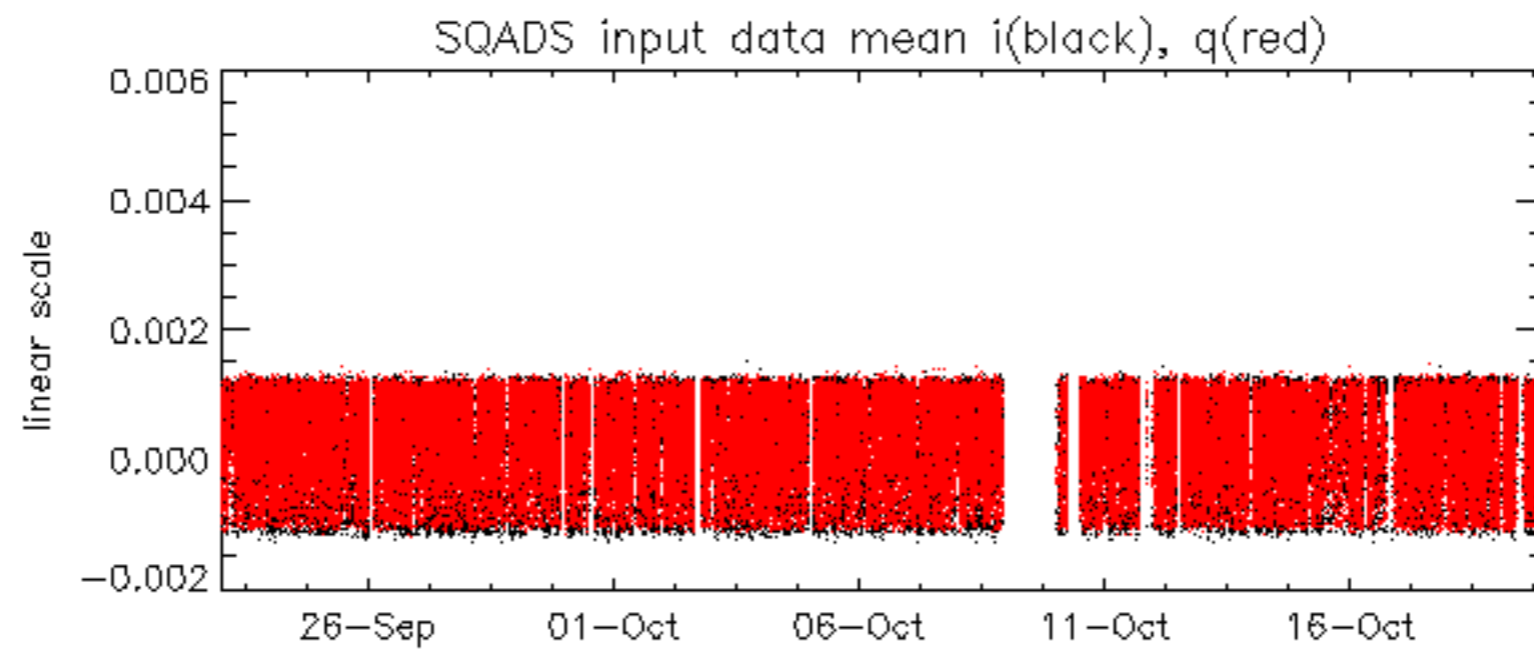
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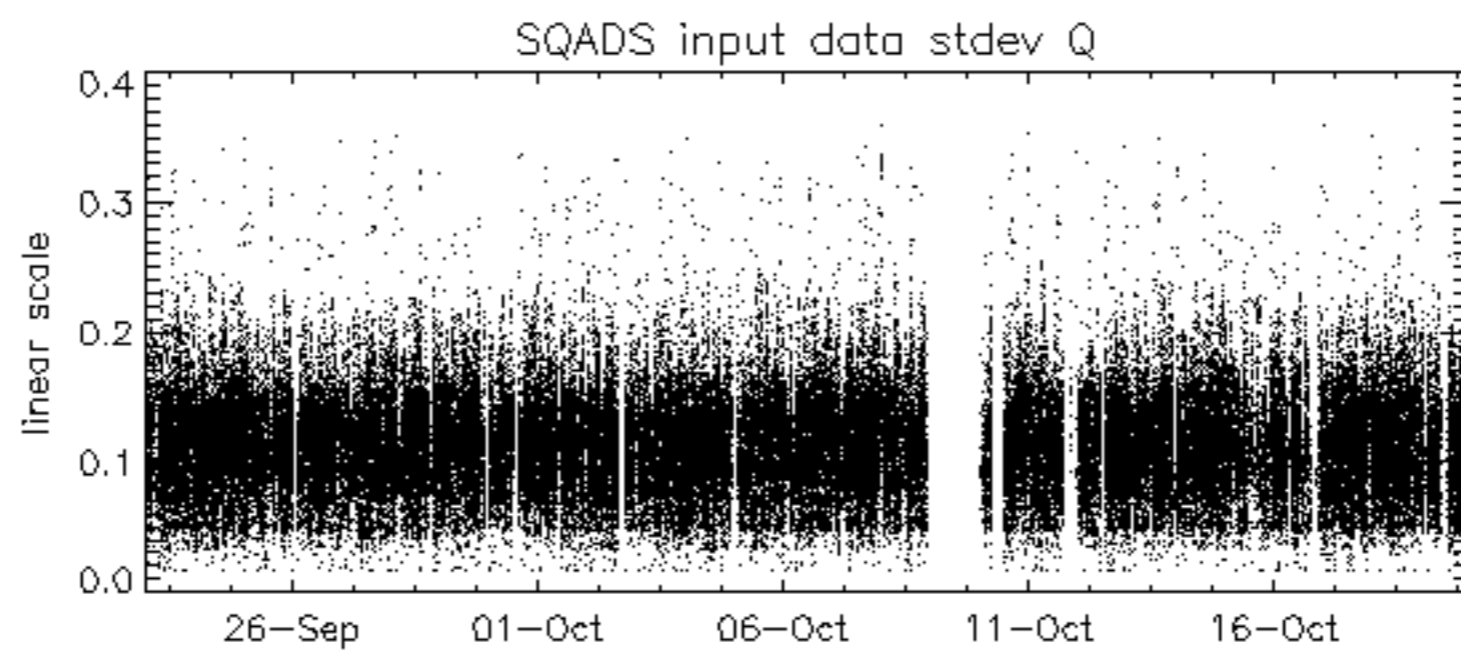
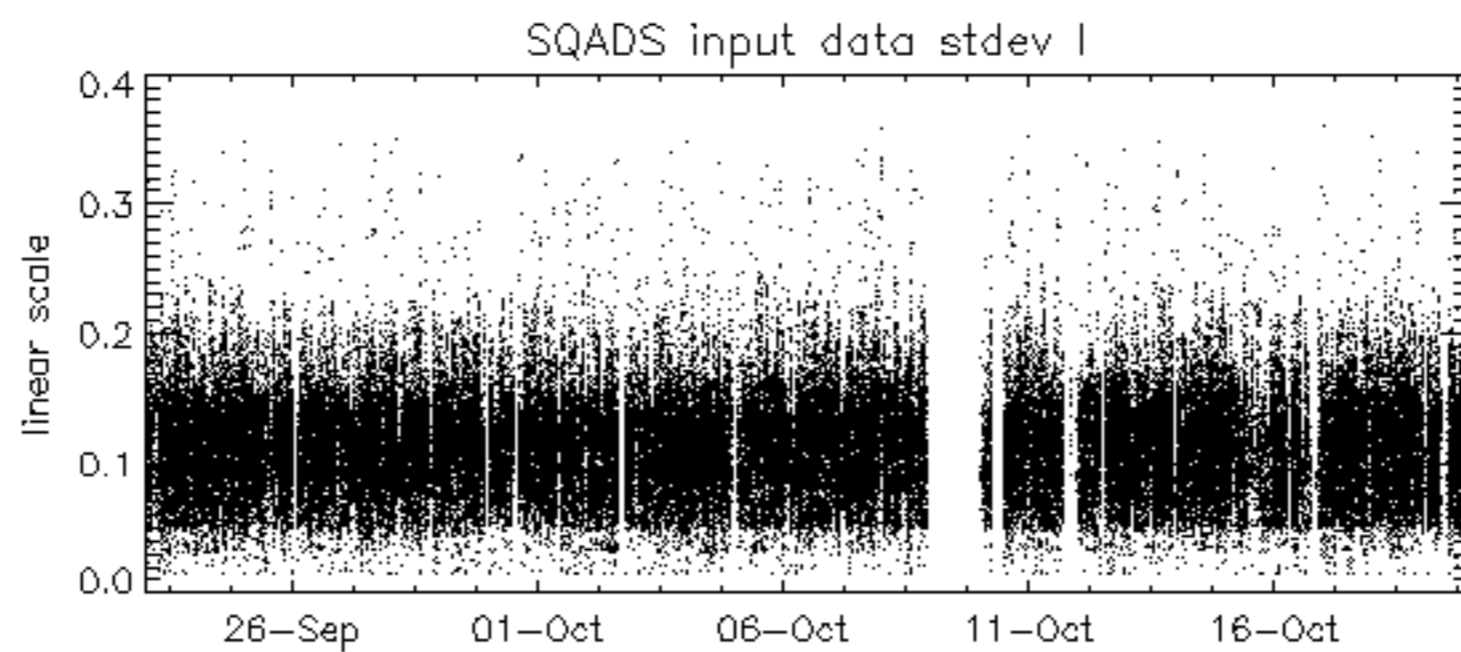
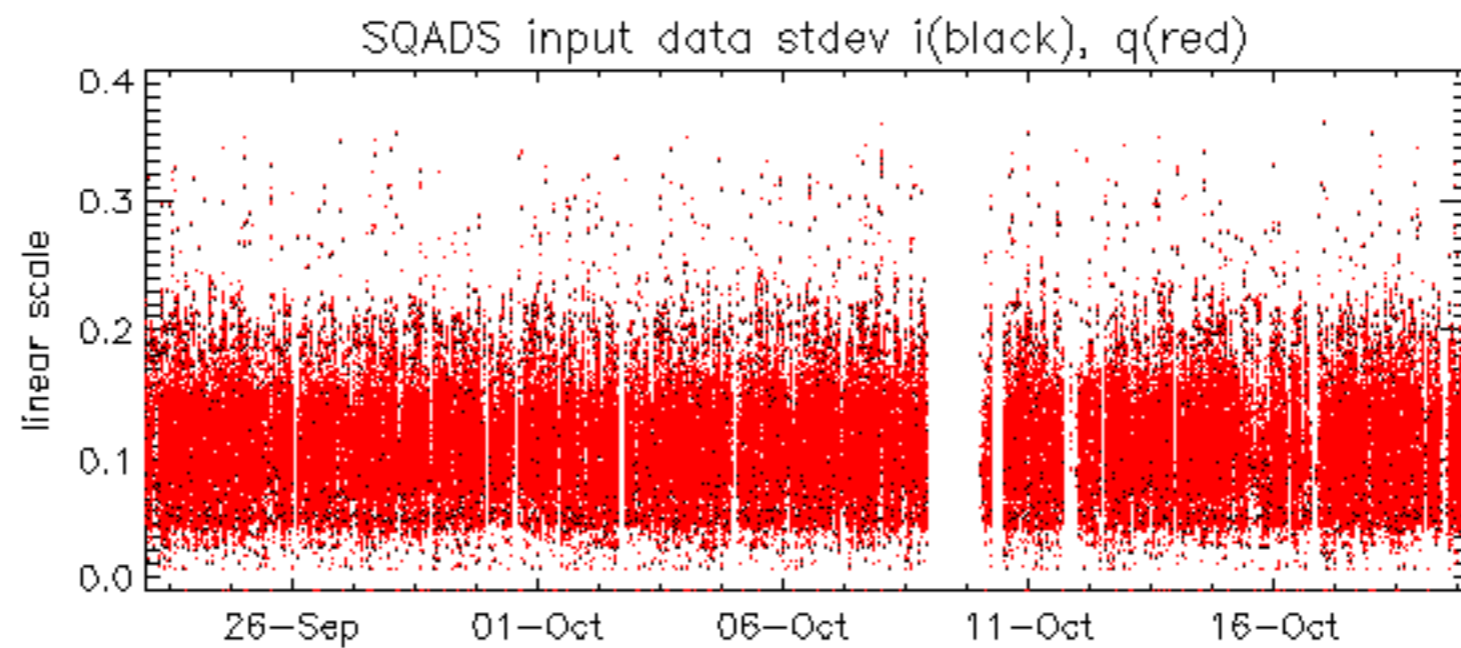
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However no anomaly have been noticed

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