

# REPORT OF 031215

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

- P1 and P3 pulses back to nominal values.
- 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\_\_0PNPDK20031214\_192942\_000000152022\_00285\_09357\_0075.N1
- ASA\_MS\_\_0PNPDK20031214\_193102\_000000152022\_00285\_09357\_0074.N1

Polarisation	Start Time
V	20031214 193102
H	20031214 192942

#### 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
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3	mean	-3.72502	-22.5717	-8.16434
	stdev	0.00757093	0.0637028	0.00334719
24	mean	-5.07412	-21.2051	-8.16434
	stdev	0.0154285	0.0559416	0.00334719



## 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.77082	-22.5594	-8.14709
	stdev	0.0771241	0.0709111	0.00516139
24	mean	-5.10155	-21.2288	-8.14709
	stdev	0.0138723	0.0641153	0.00516139



## 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	0.000339234
	stdev	1.09798e-05
MEAN Q	mean	0.000180599
	stdev	1.09849e-05



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
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STDEV I	mean	0.114728
	stdev	0.00154823
STDEV Q	mean	0.114980
	stdev	0.00156417



### 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed in 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

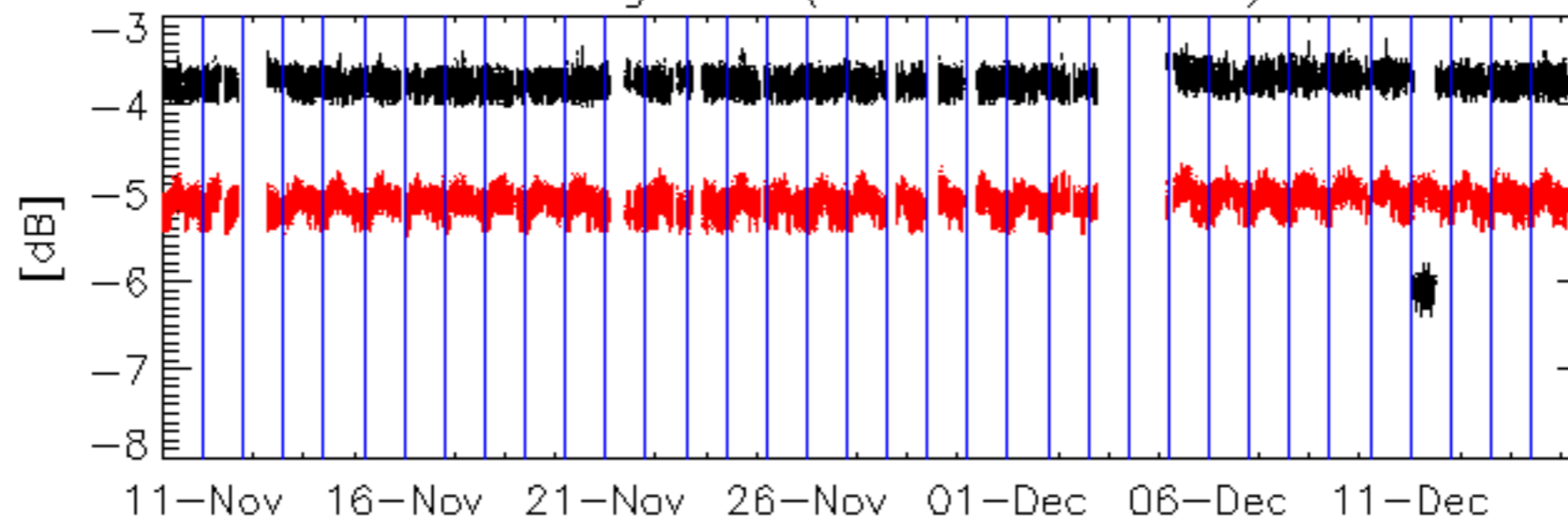
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

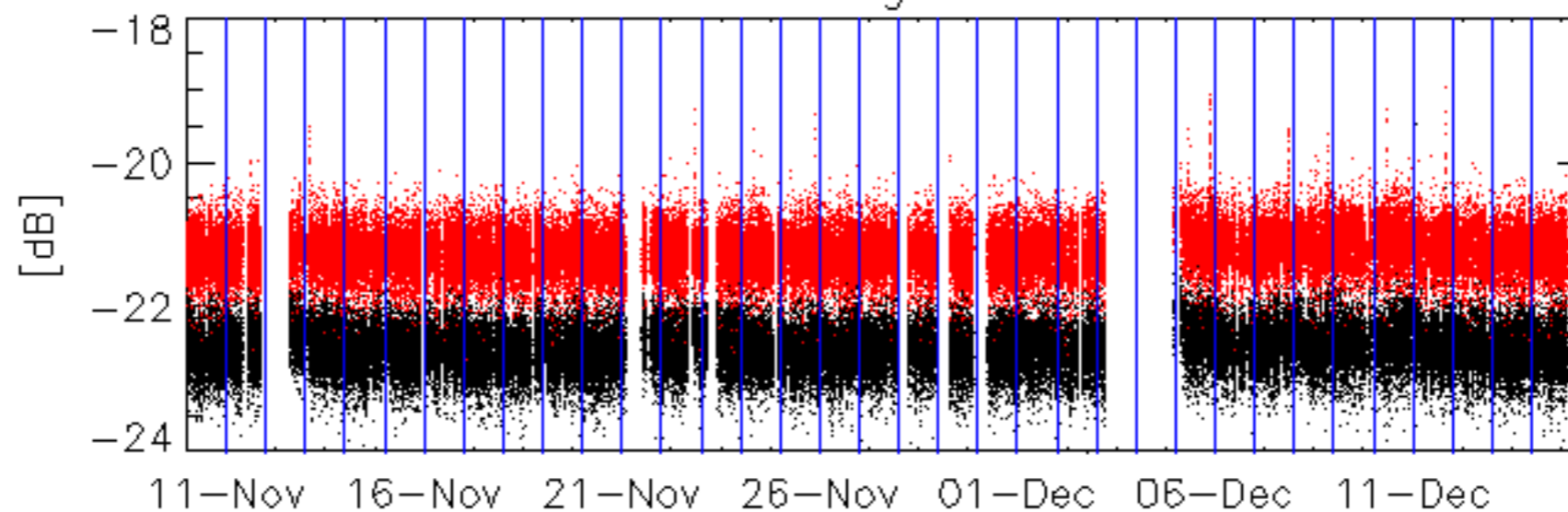
Evolution Doppler error versus ANX



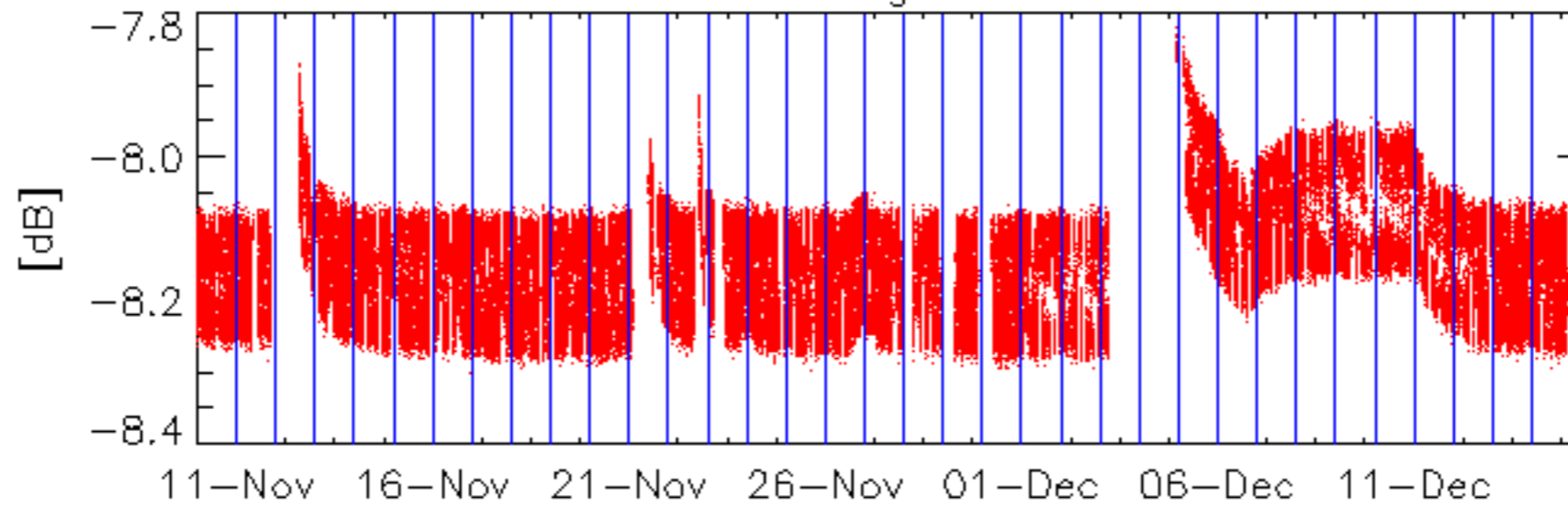

Average P1 (row 3 & row 24)

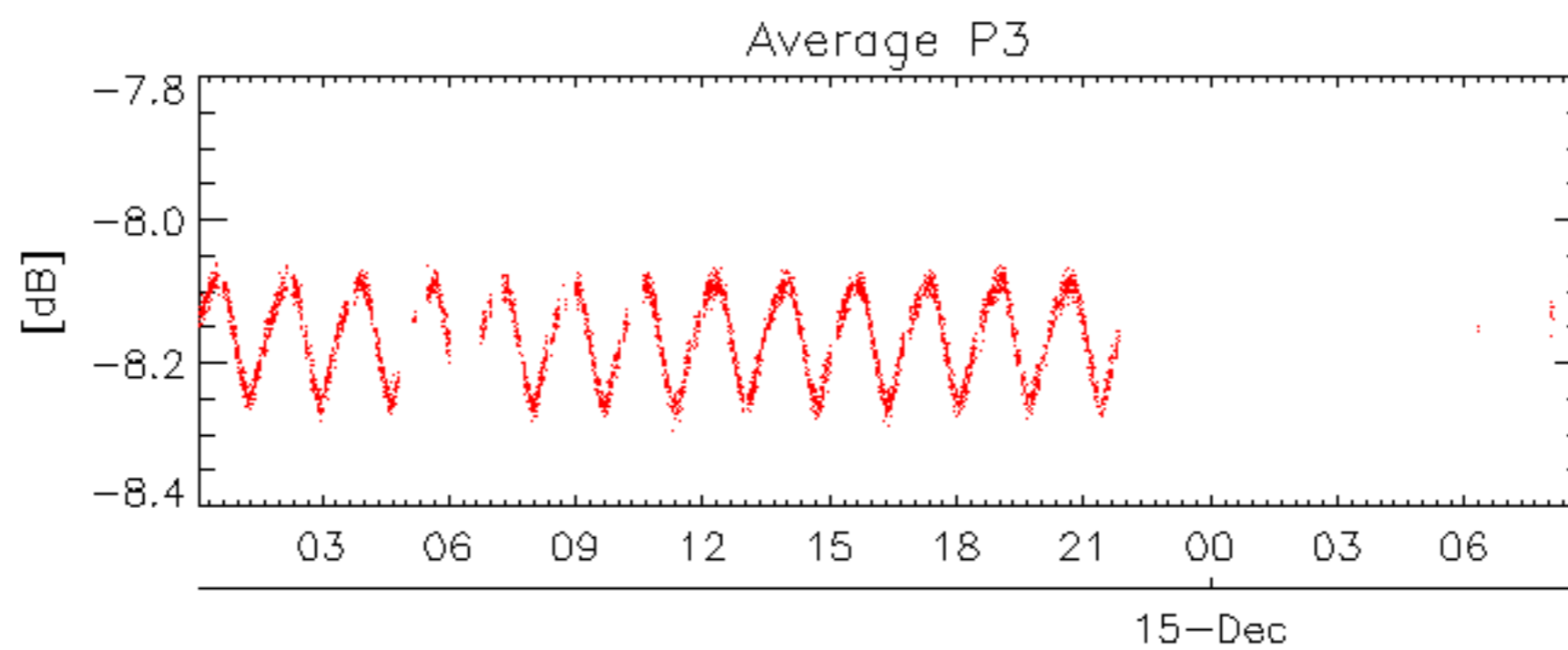
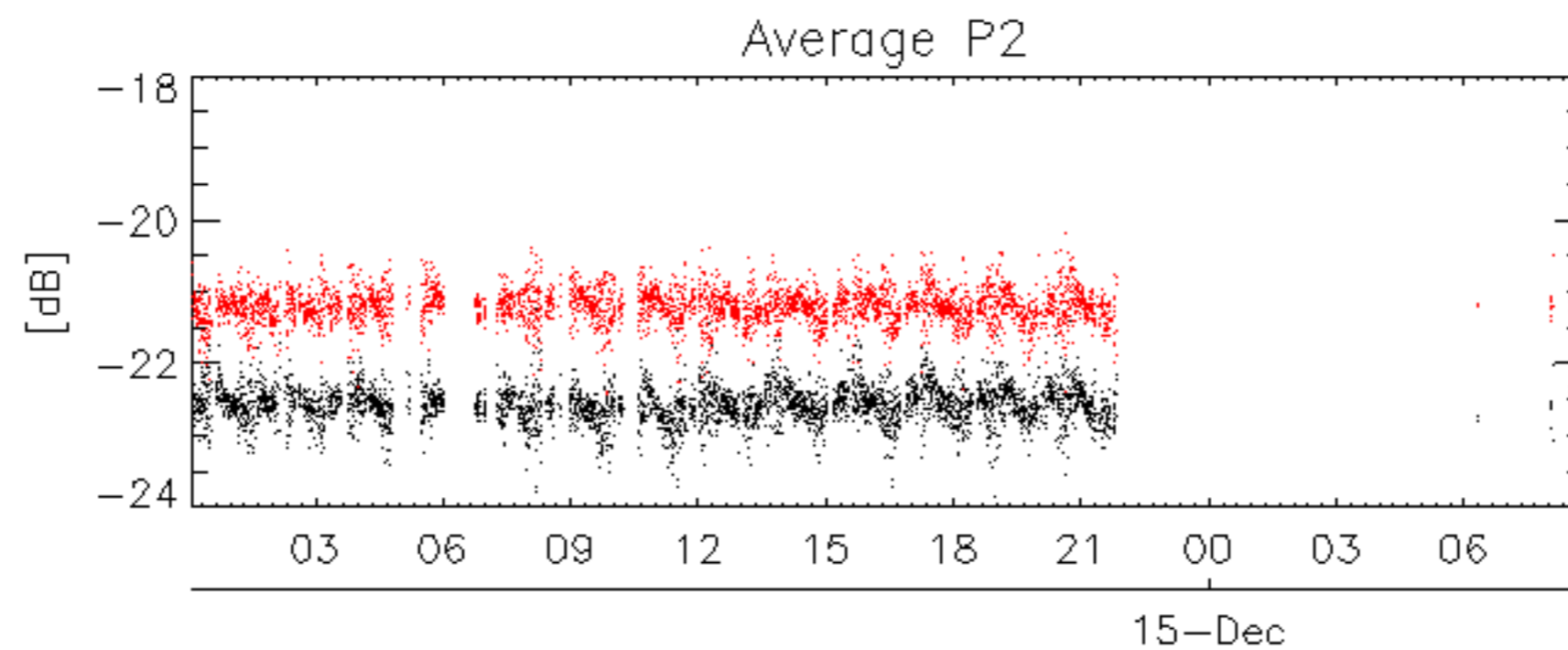
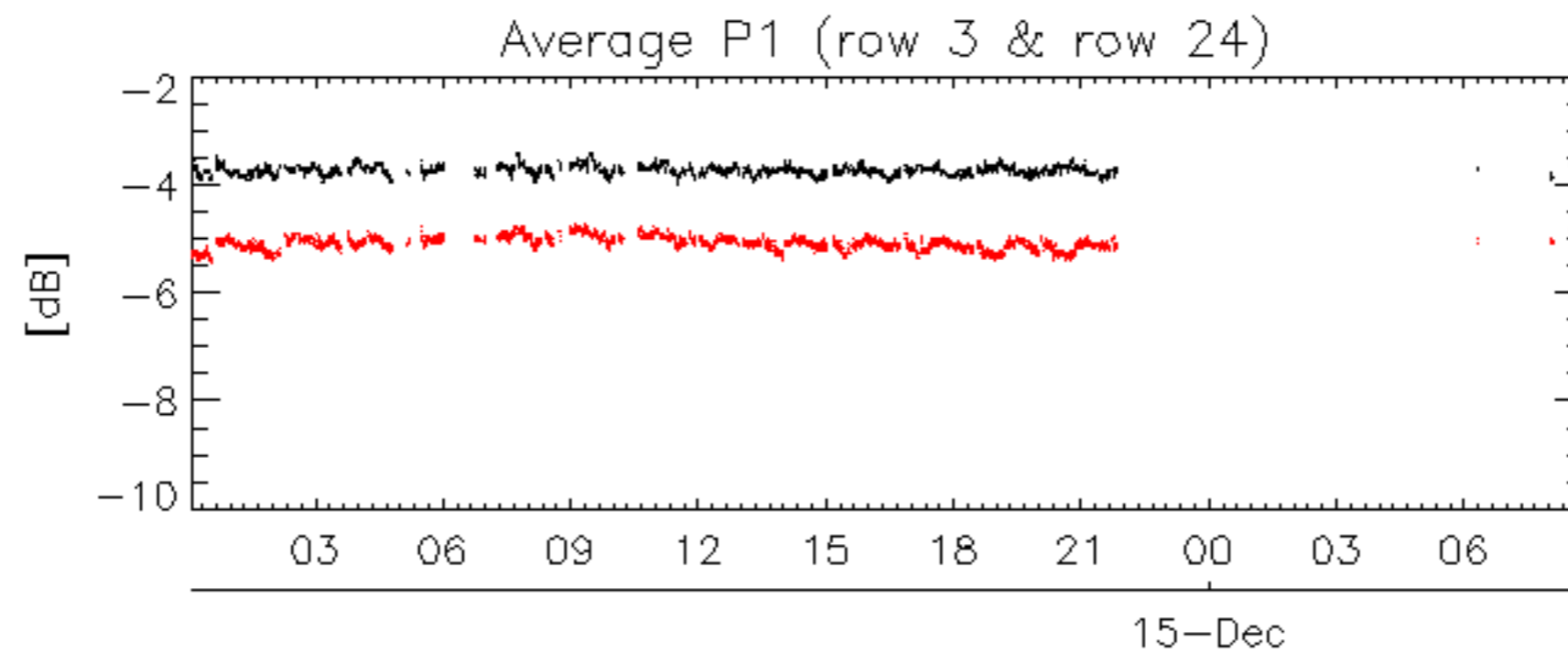


Average P2



Average P3

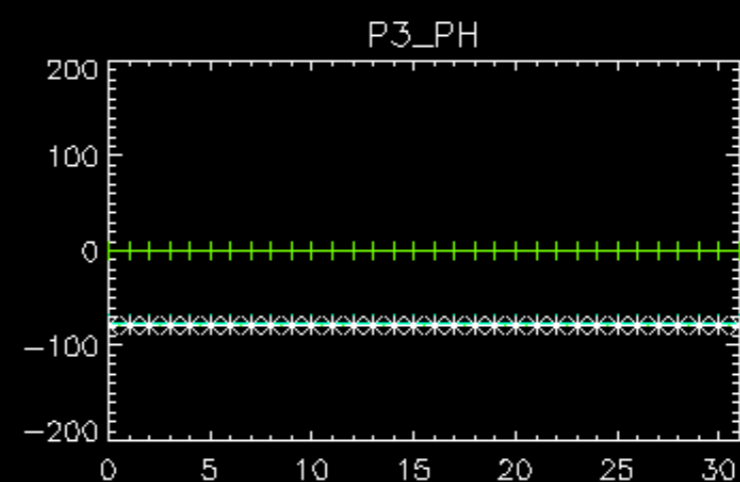
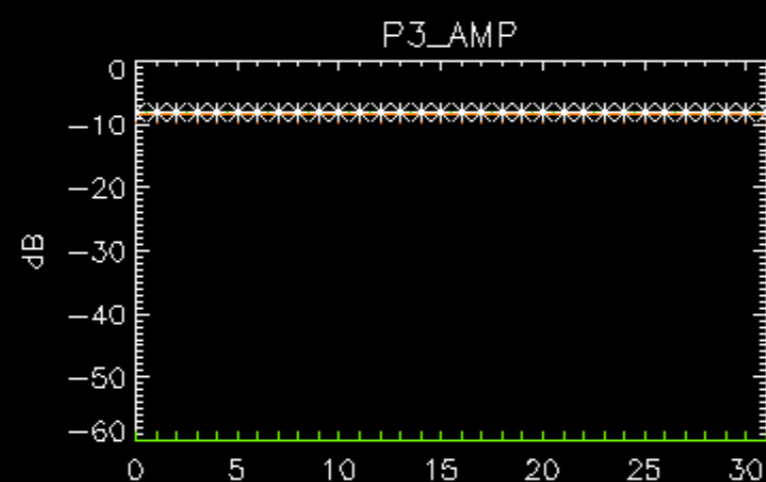
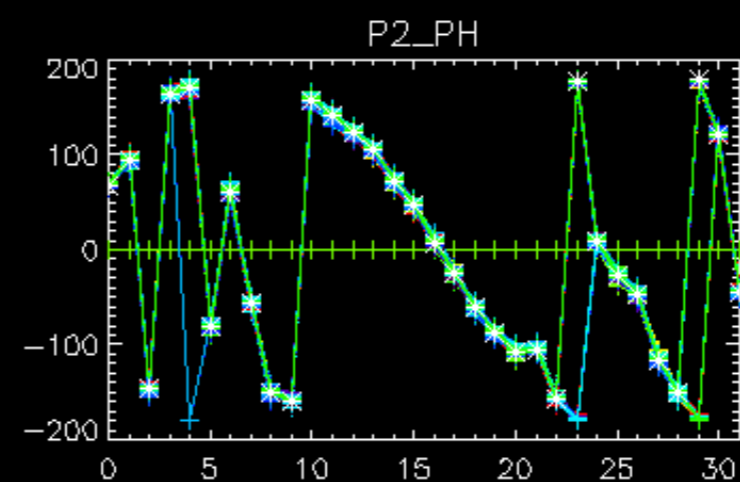
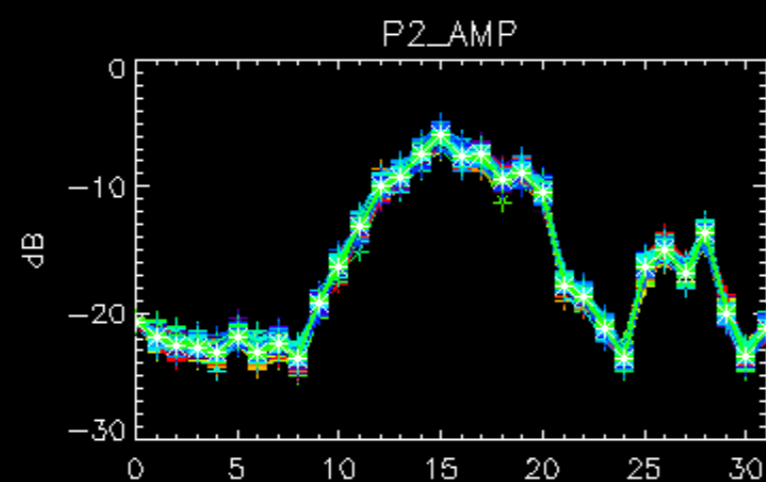
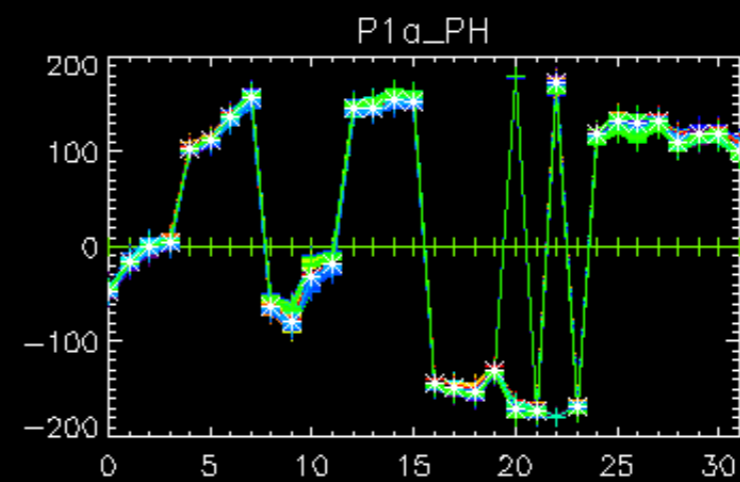
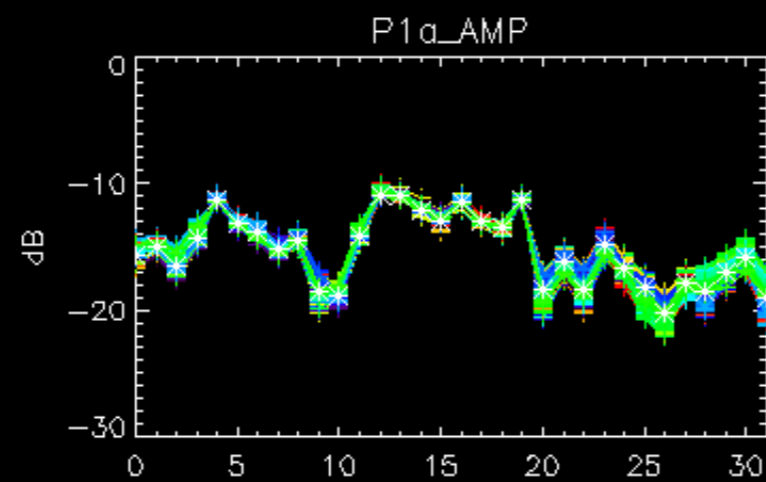
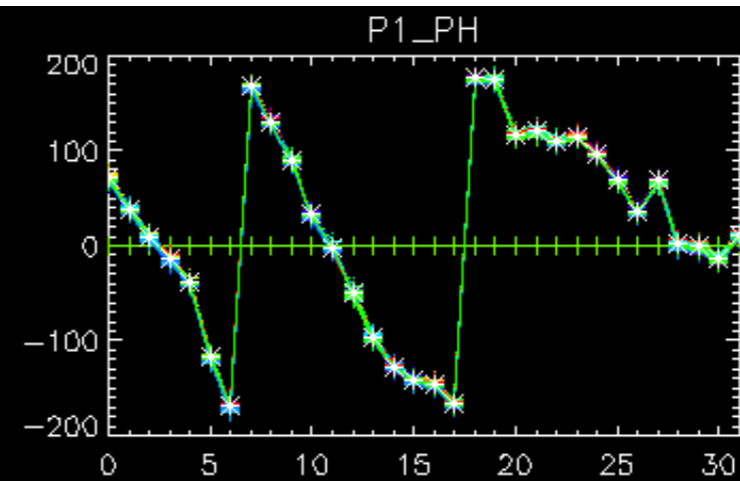
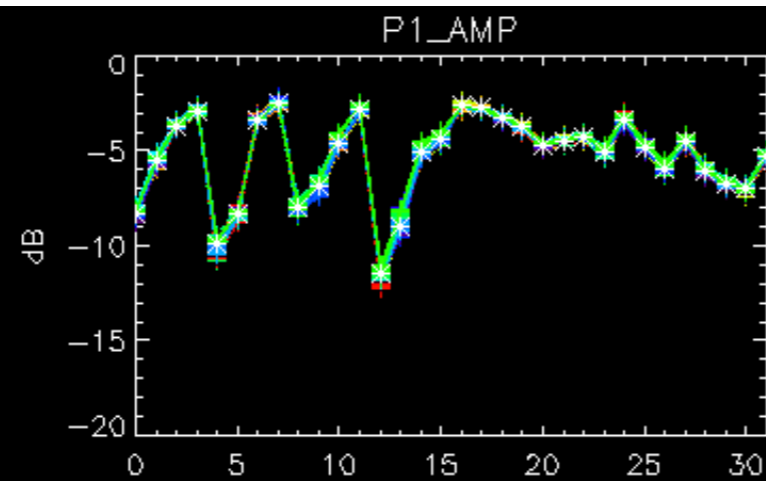




No anomalies observed on available browse products.



No anomalies observed.

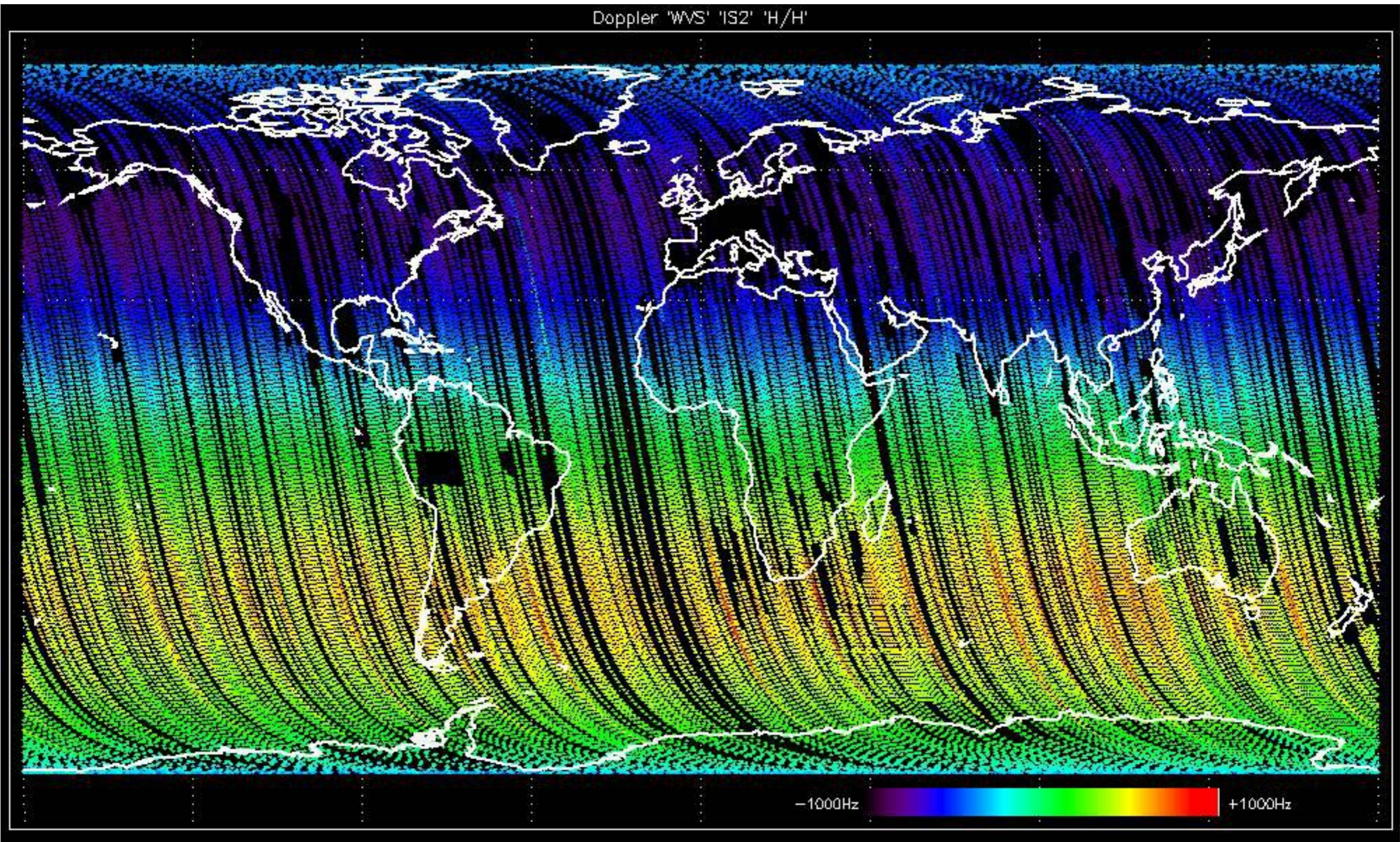


- P1 and P3 pulses back to nominal values.
- Stable raw data statistics.
- Nominal Doppler behavior.

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

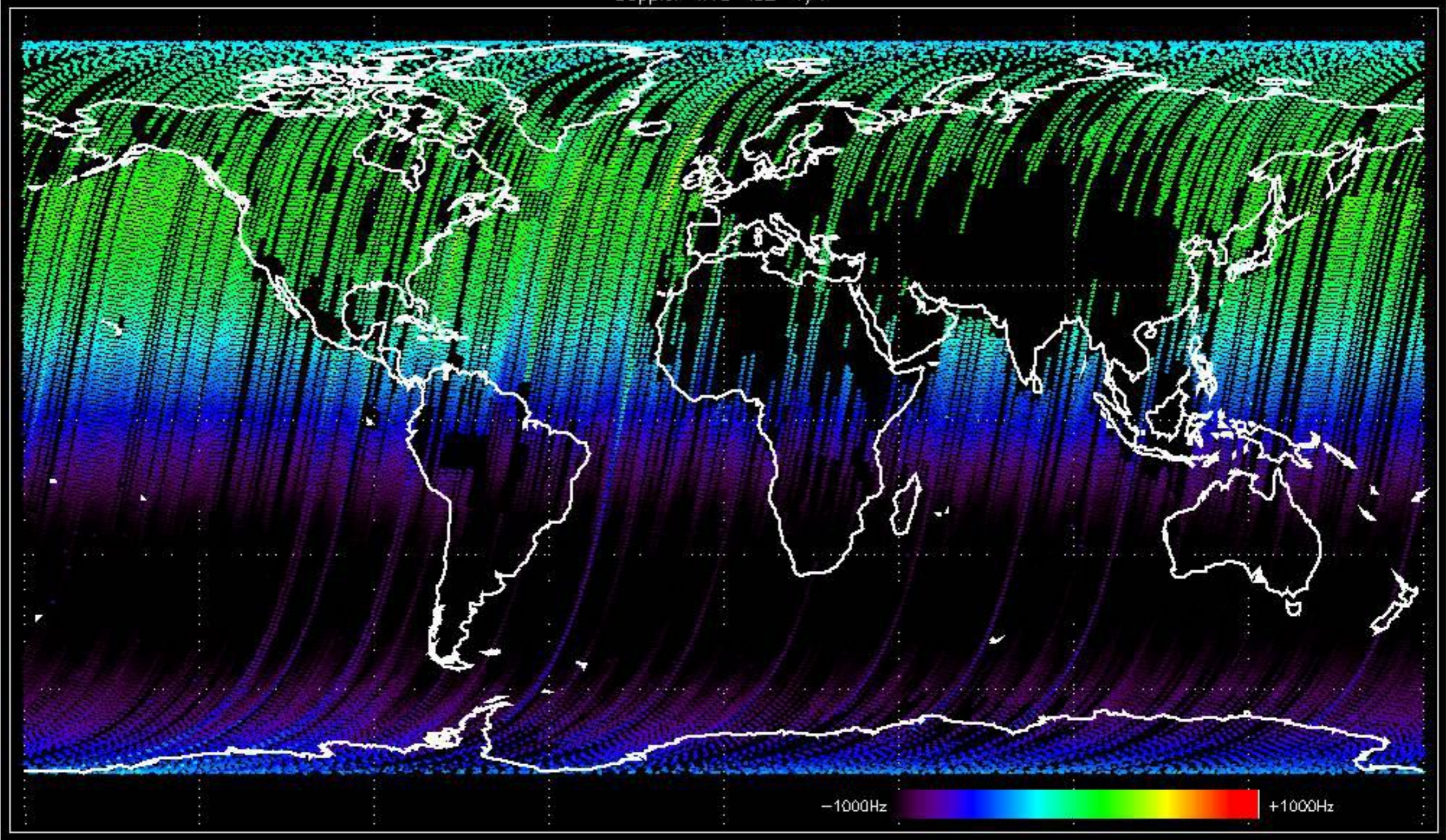


Doppler 'WVS' 'IS2' 'H/H'

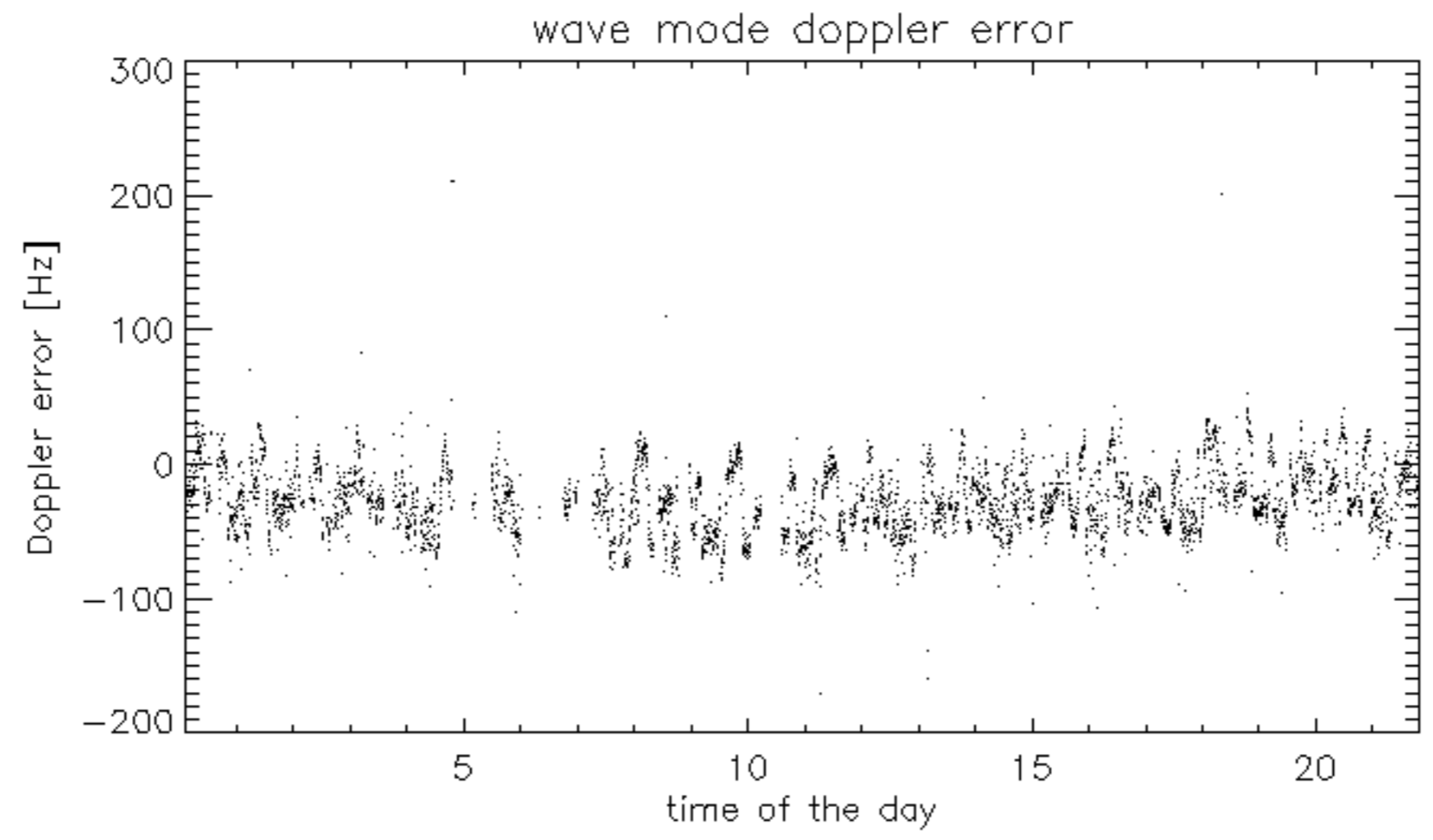
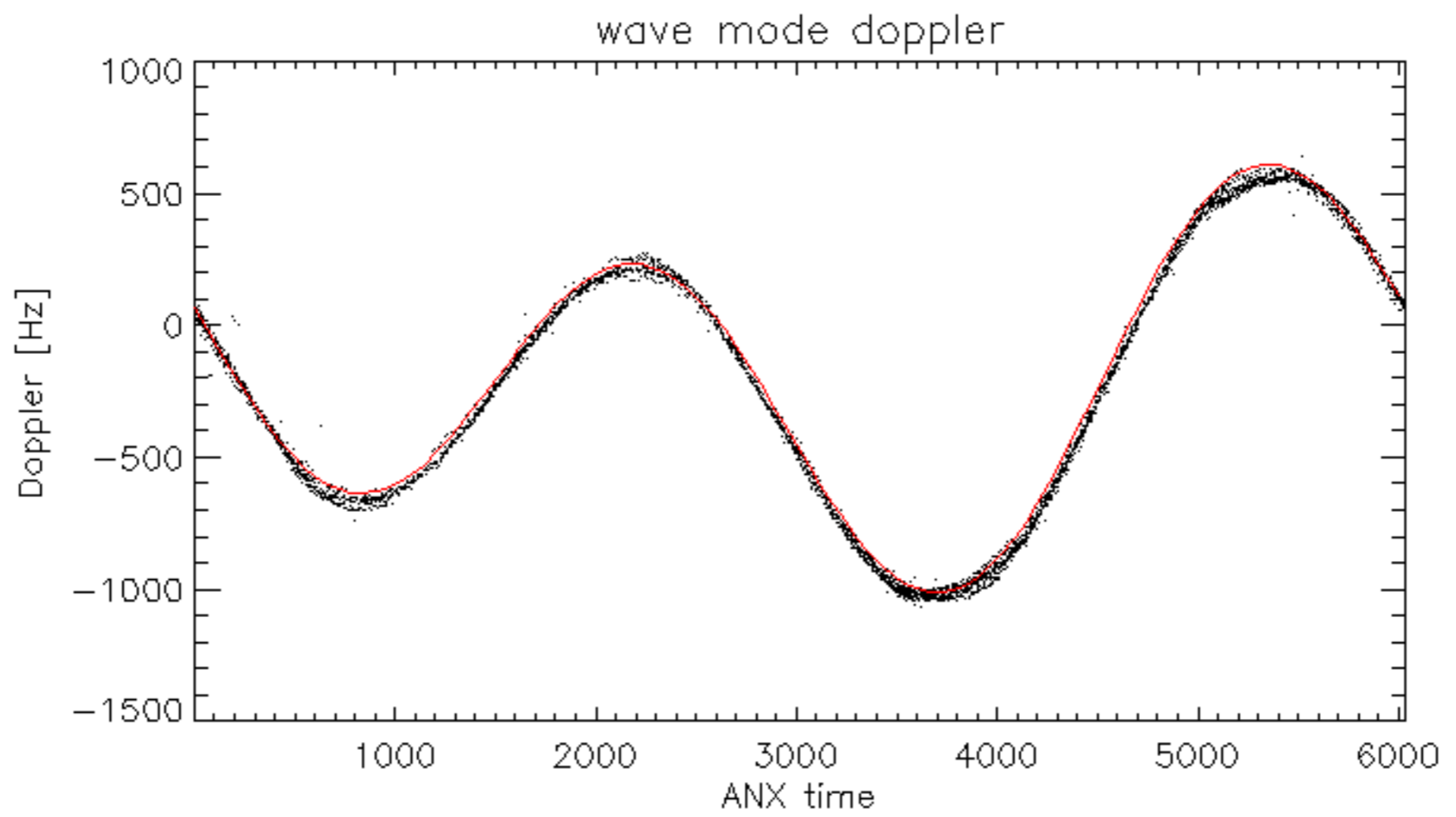




Doppler 'WVS' 'ISZ' 'V/V'

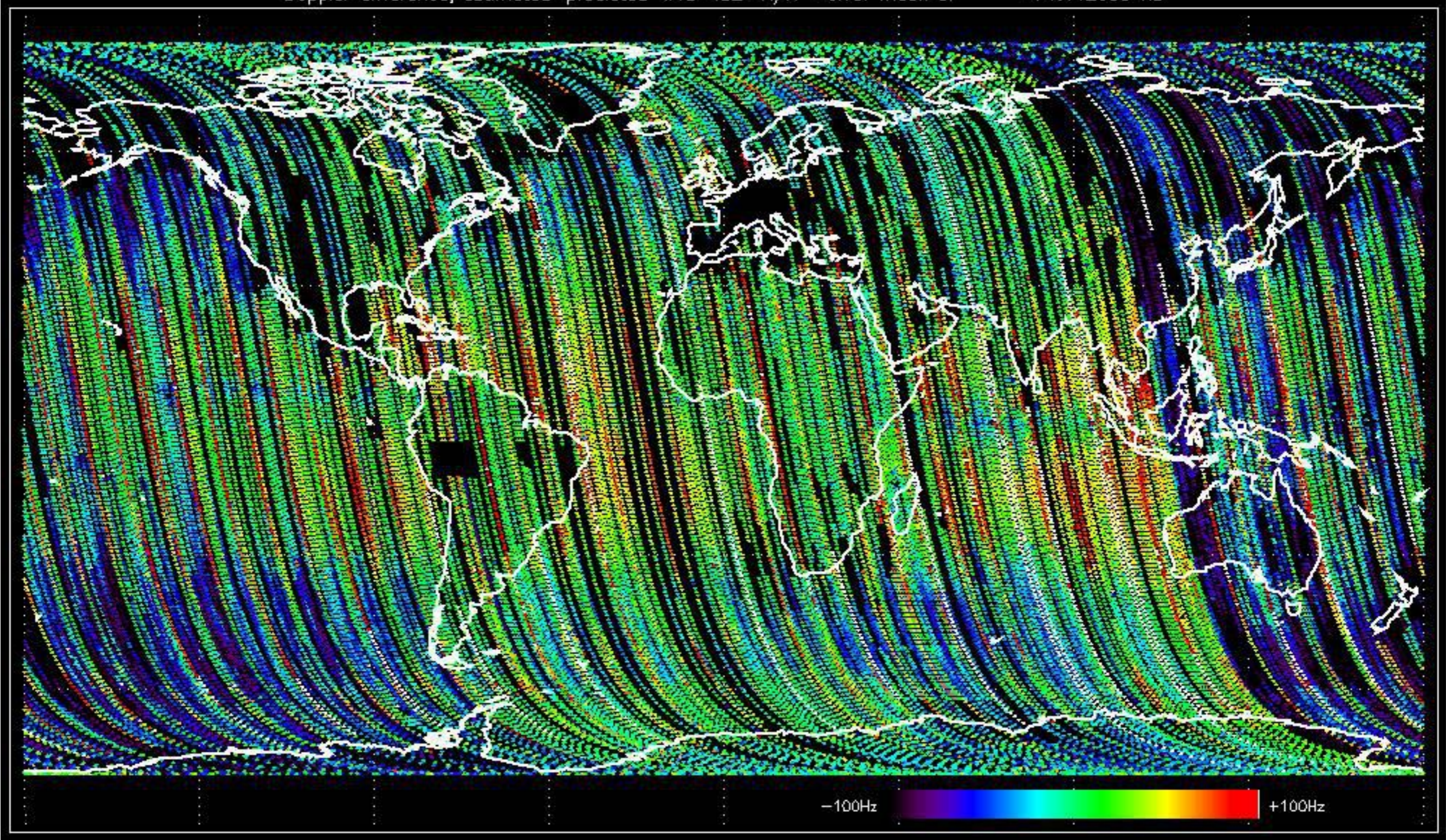






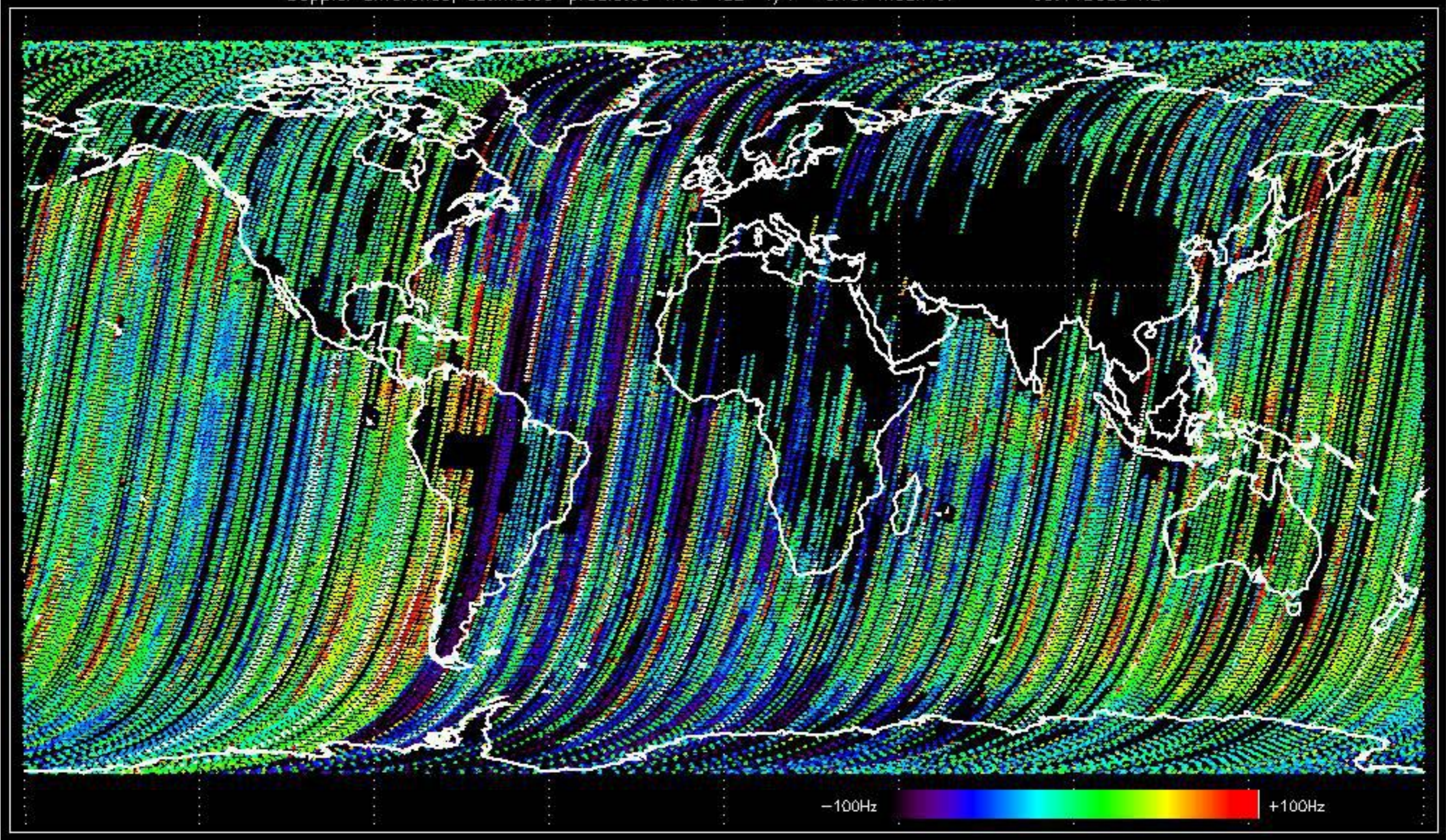


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -71.442690 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -65.118685 Hz





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to identify modules for which calibration offsets are to be applied.

No anomalies observed on available MS products:

- ASA\_MS\_\_0PNPDK20031214\_192942\_000000152022\_00285\_09357\_0075.N1
- ASA\_MS\_\_0PNPDK20031214\_193102\_000000152022\_00285\_09357\_0074.N1

No anomalies observed.









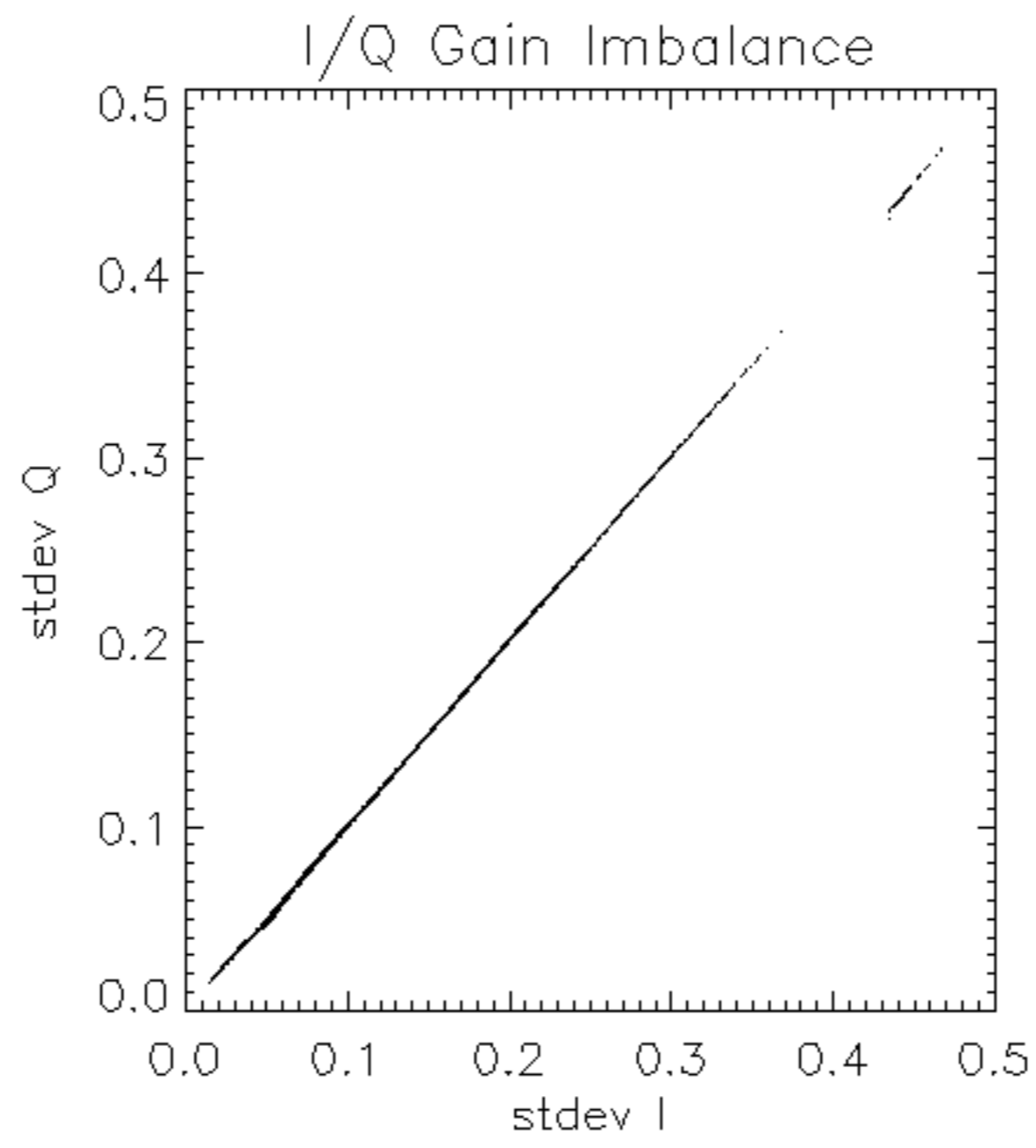


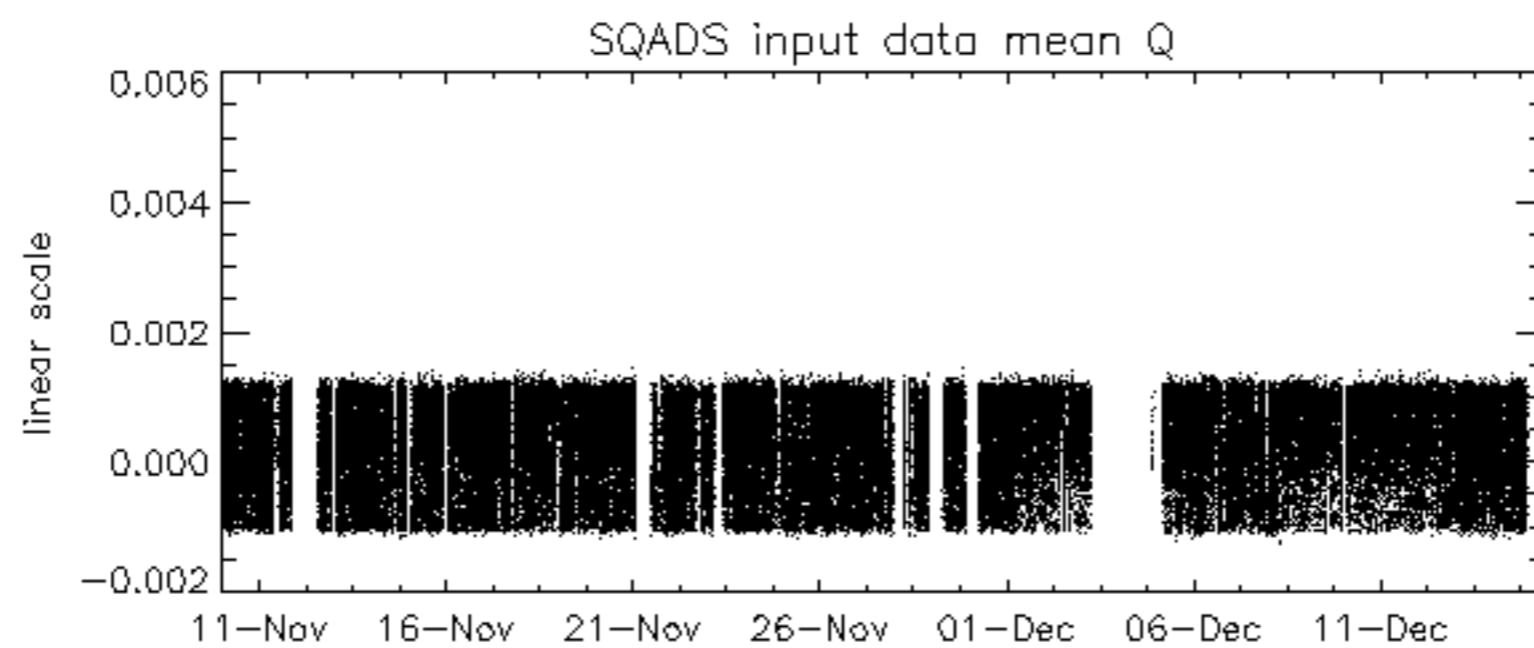
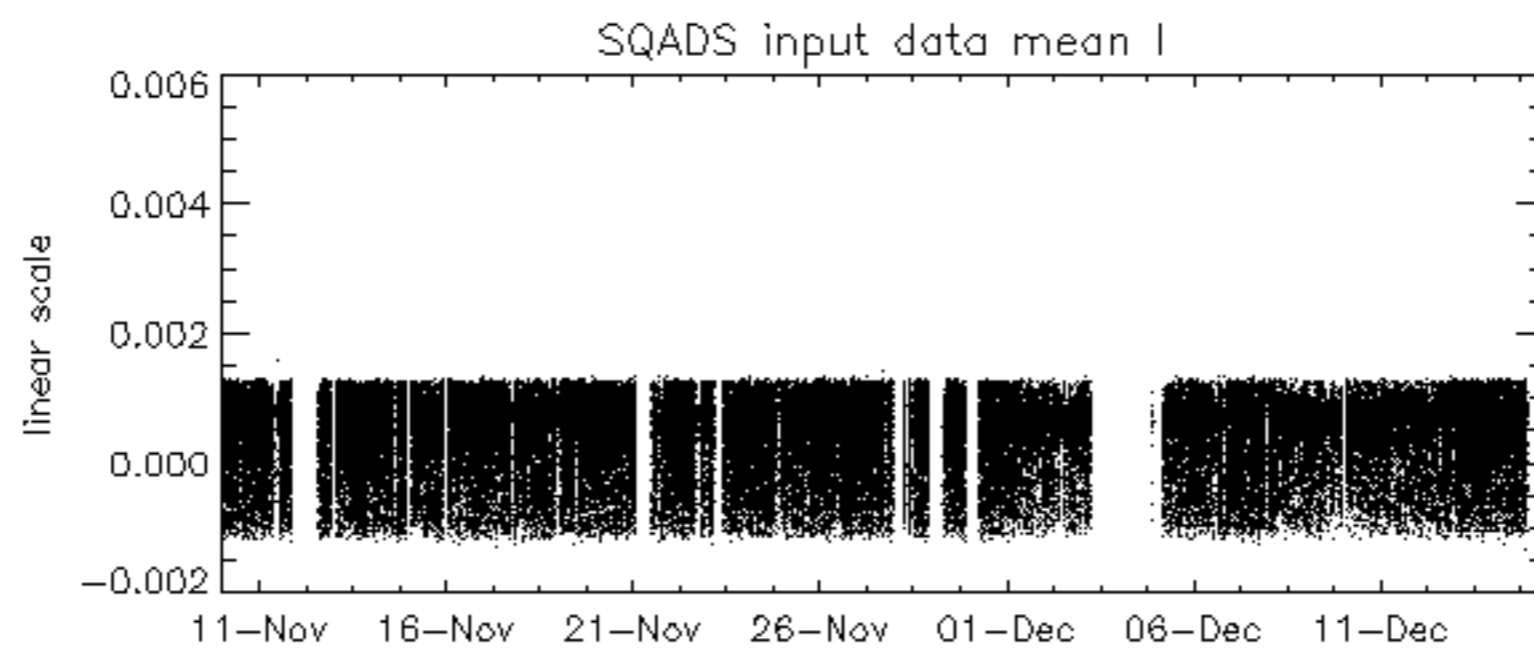
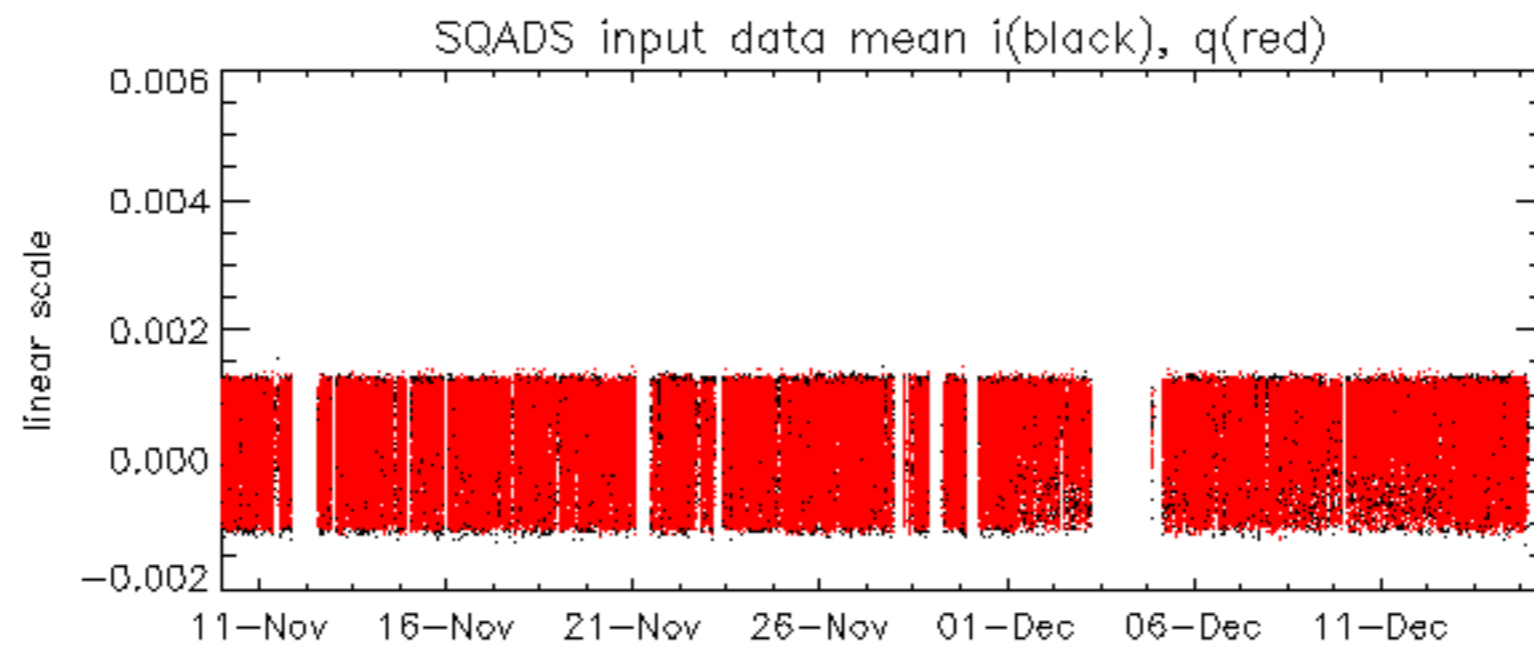


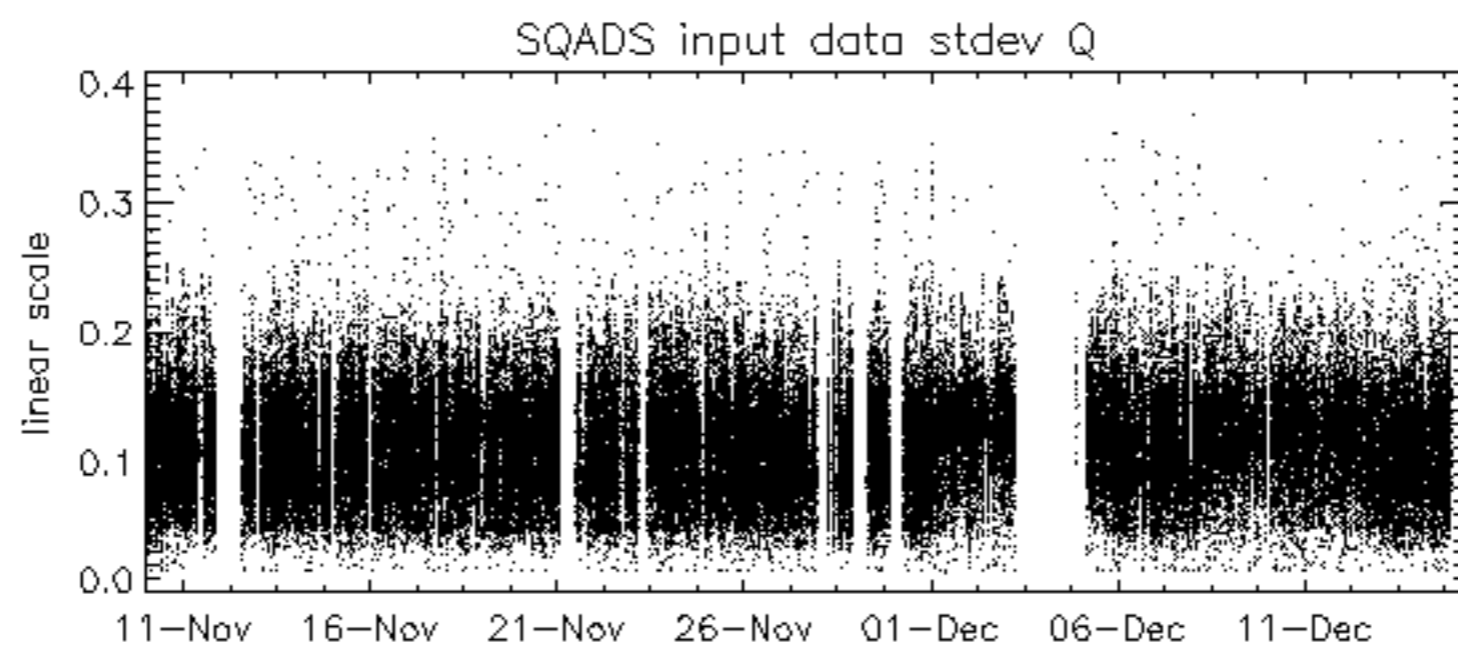
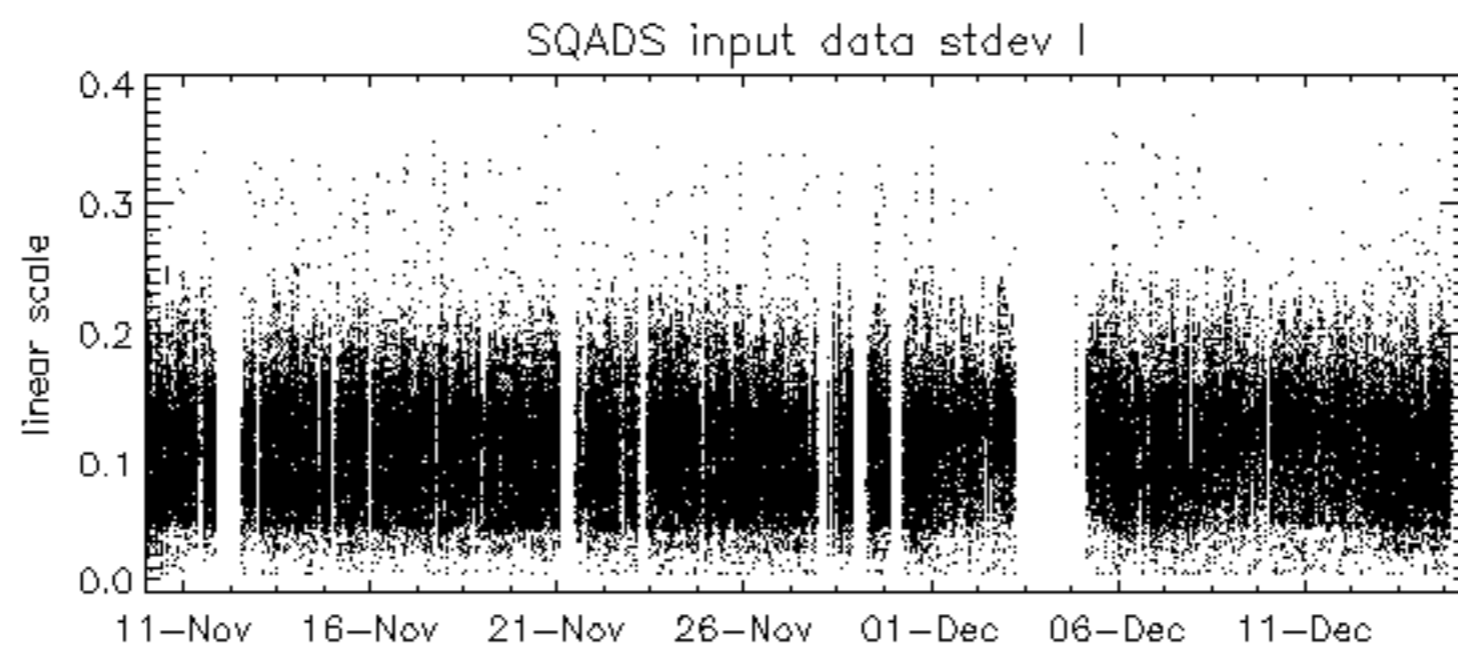
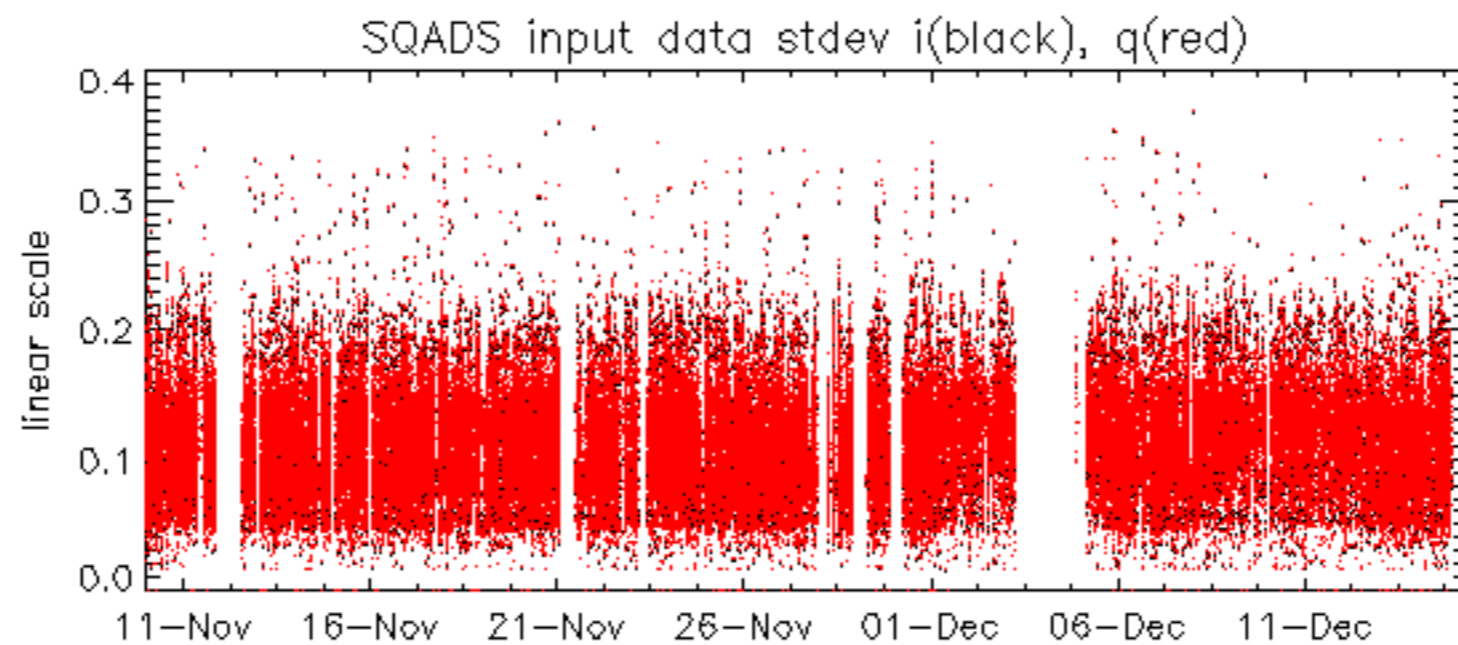
















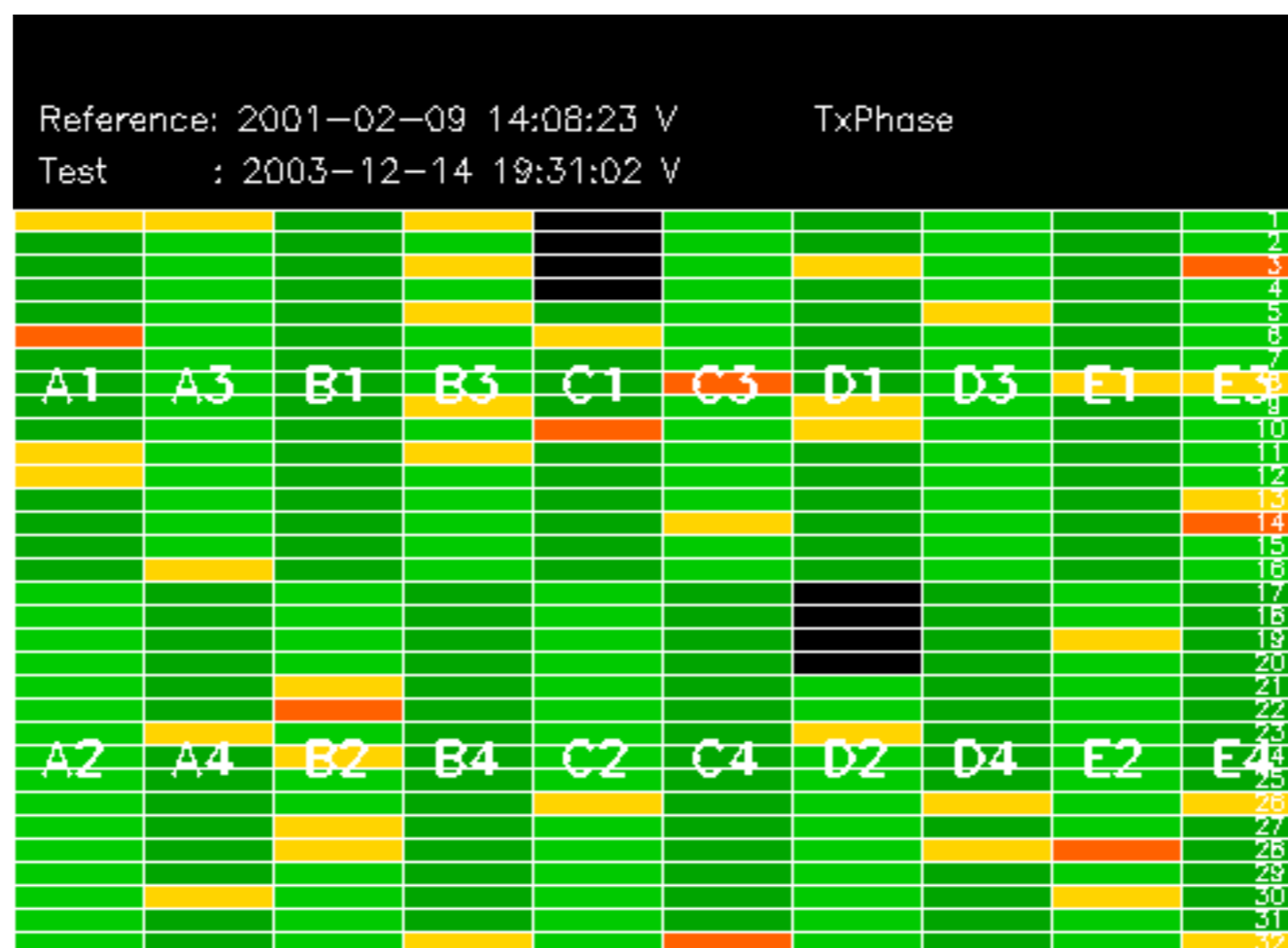














No unavailabilities during the reported period.