

# REPORT OF 031017

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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.

Sub-system	Start	Stop	Planned
ASAR	YYYY-MM-DD hh:mm:ss	YYYY-MM-DD hh:mm:ss	---

### 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. No anomalies observed on available MS products:











Polarisation	Start Time
V	20031016 203740
H	20031016 203600

#### 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	-3.79602	-22.5633	-8.14839
	stdev	0.00521146	0.0700596	0.00256426
10	mean	-6.88357	-19.3082	-8.14839
	stdev	0.0291635	0.0645150	0.00256426



### 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79716	-22.5379	-8.13396
	stdev	0.00545845	0.0631301	0.00247694
10	mean	-6.89478	-19.3187	-8.13396
	stdev	0.0265820	0.0608936	0.00247694



### 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	0.000360834
	stdev	3.62518e-07
MEAN Q	mean	0.000290216
	stdev	3.26761e-07



## 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114885
	stdev	0.00143743
STDEV Q	mean	0.115129
	stdev	0.00145538



## 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 60 days

### 6.1 - Unbiased Doppler Error

Evolution of unbiased Doppler error (Real - Expected)
Ascending
Descending

### 6.2 - Absolute Doppler

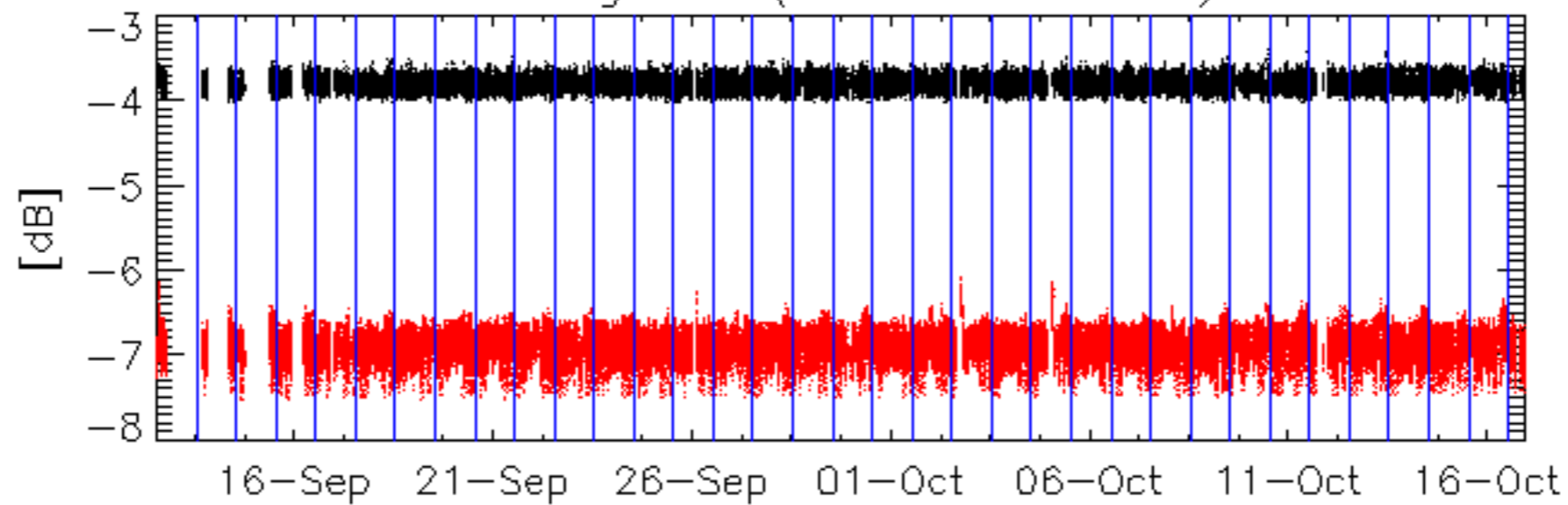
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

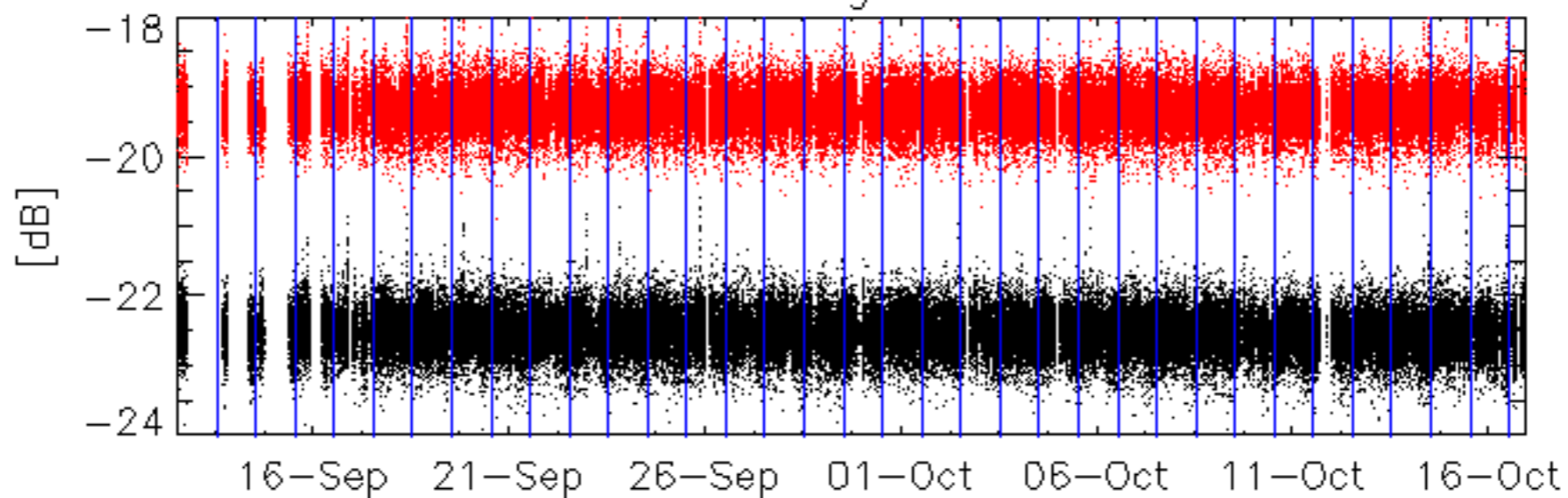
Evolution Doppler error versus ANX



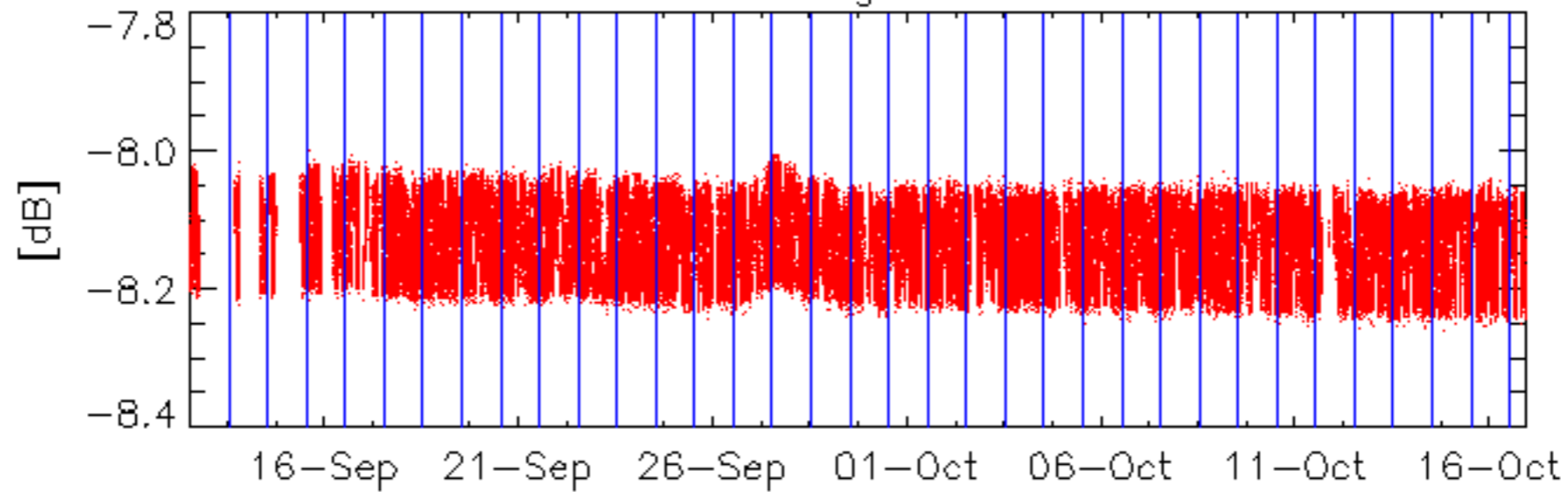
Average P1 (row 3 & row 10)



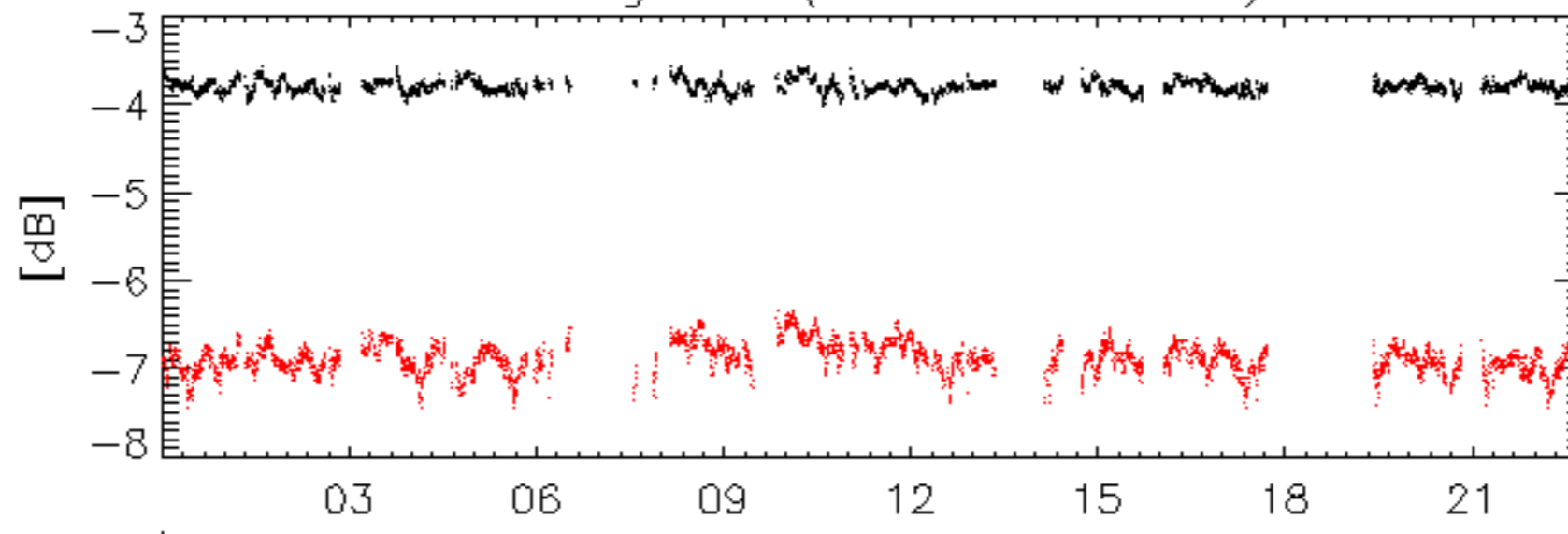
Average P2



Average P3

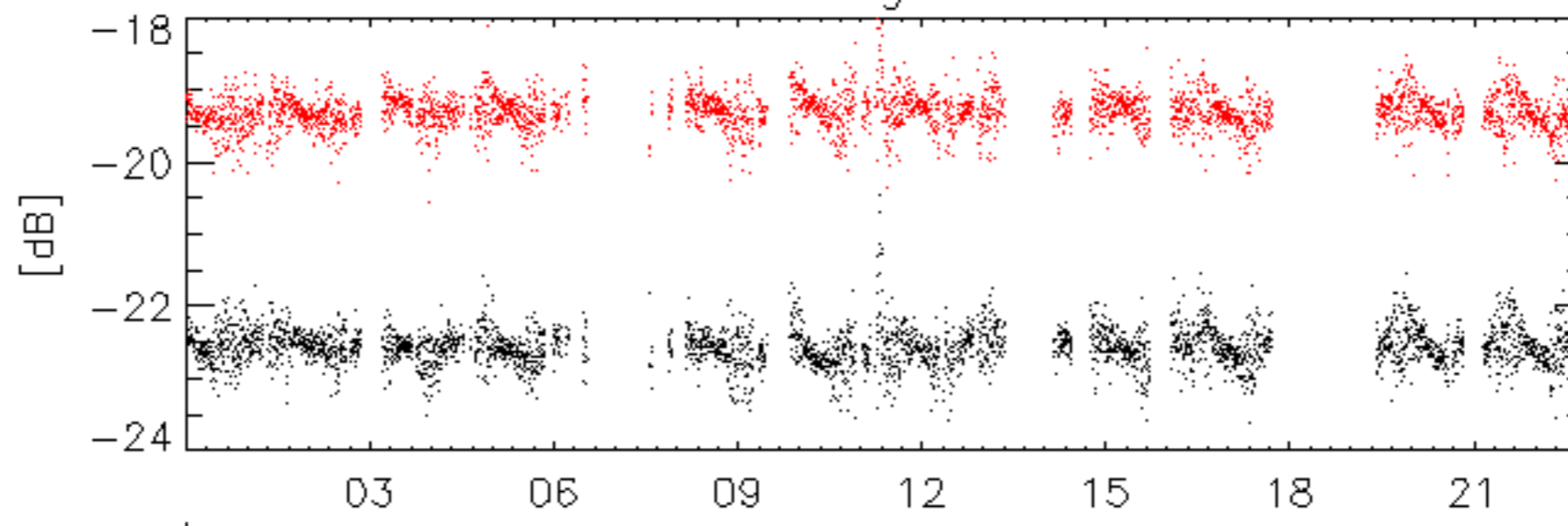


Average P1 (row 3 & row 10)



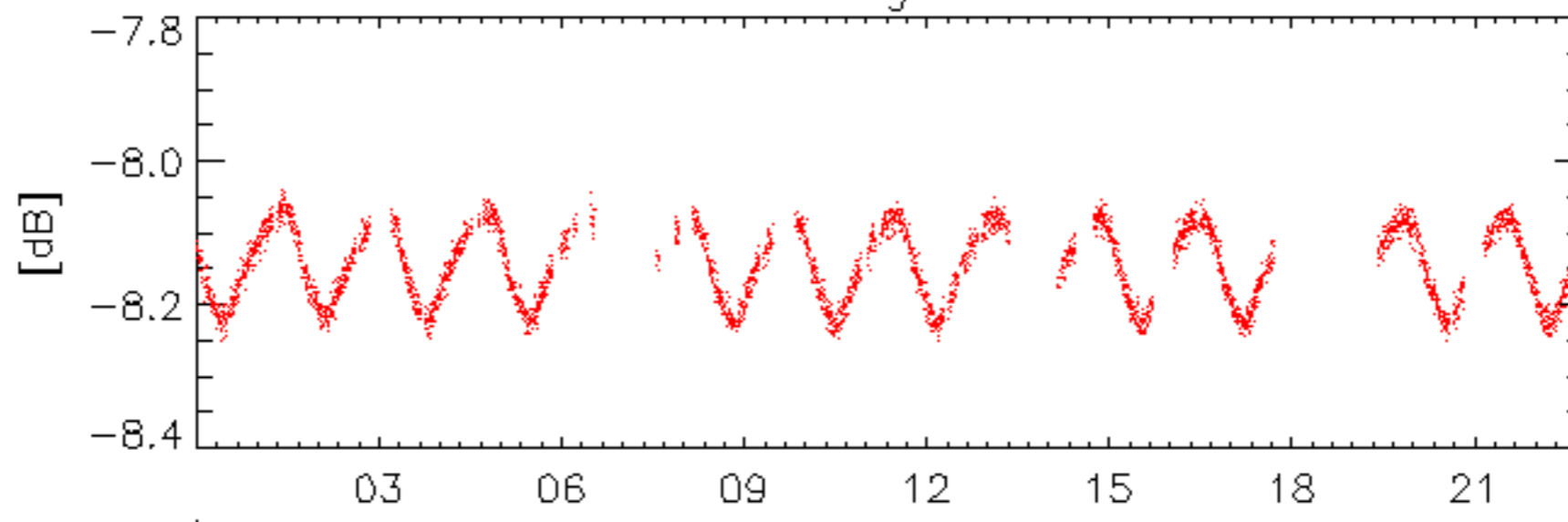
16-Oct

Average P2



16-Oct

Average P3

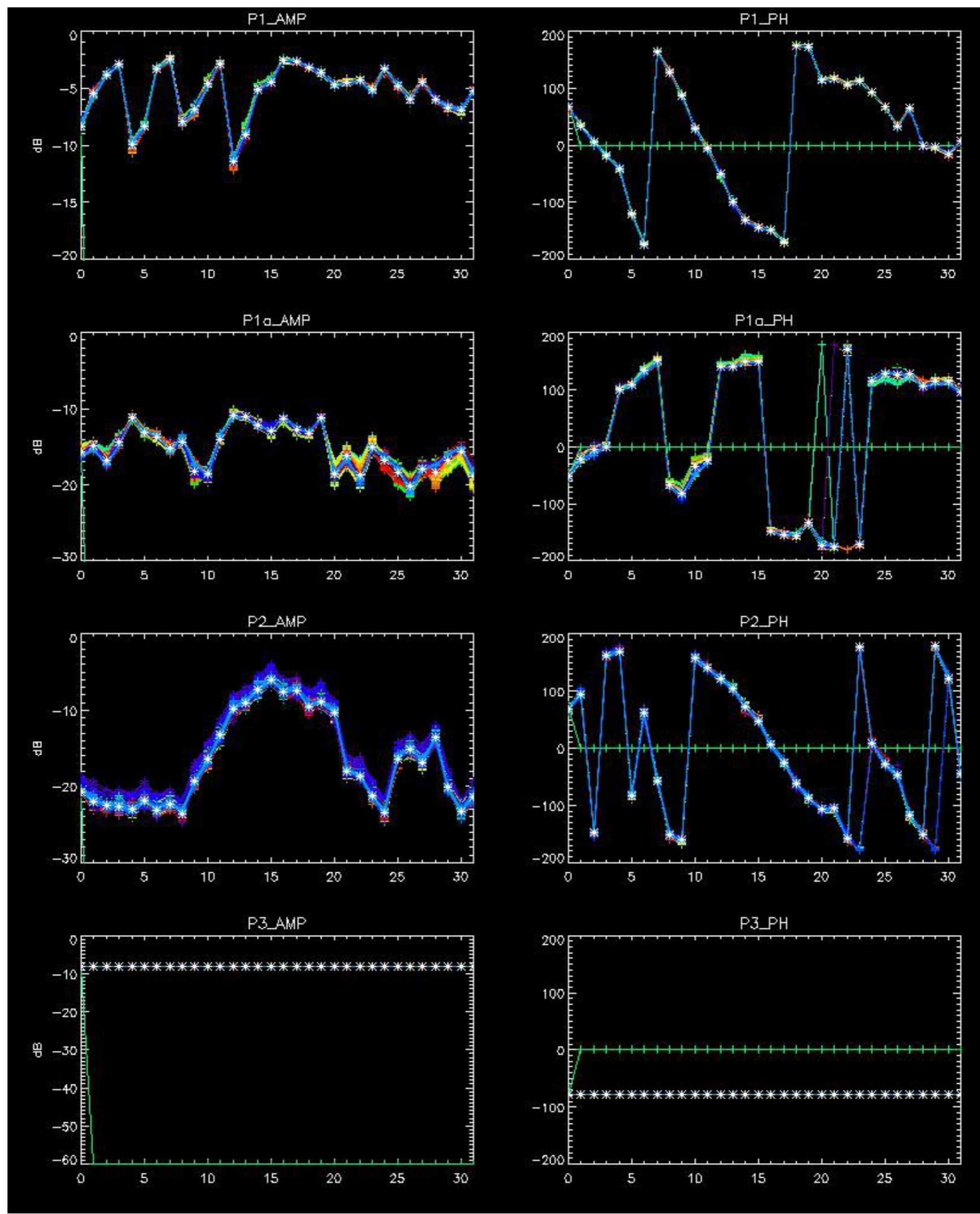


16-Oct

No anomalies observed on available browse products



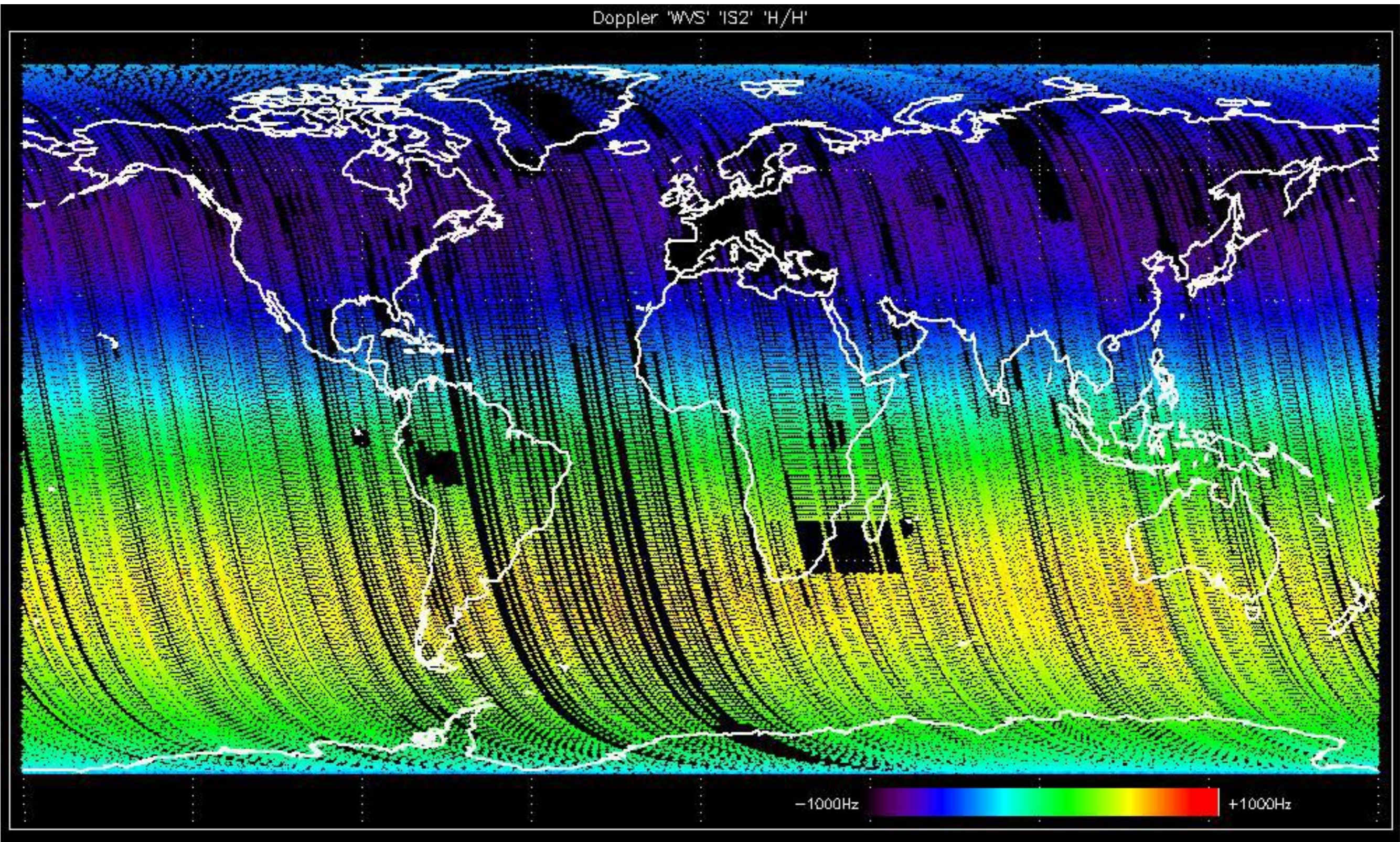
No anomalies observed.



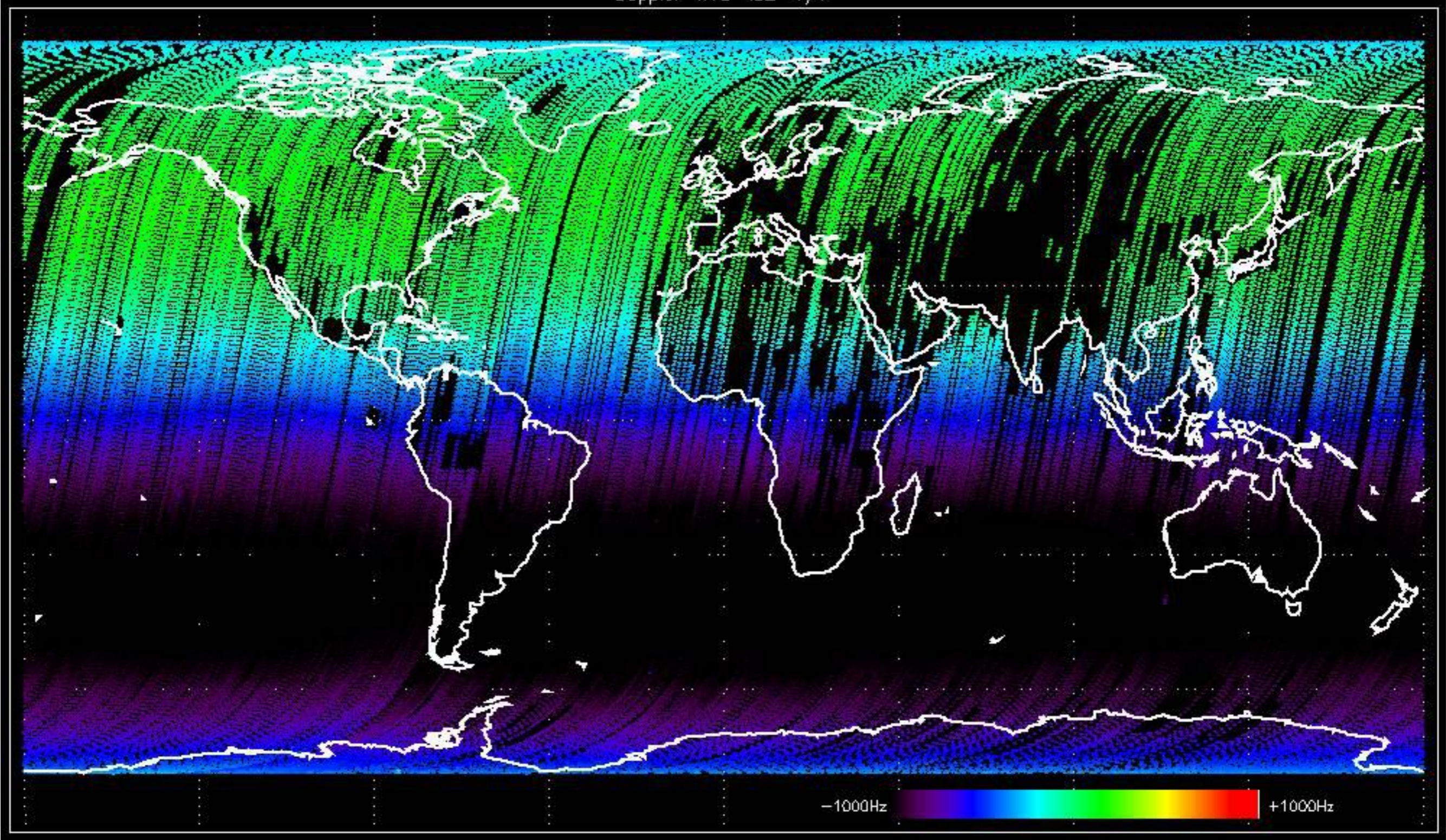
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

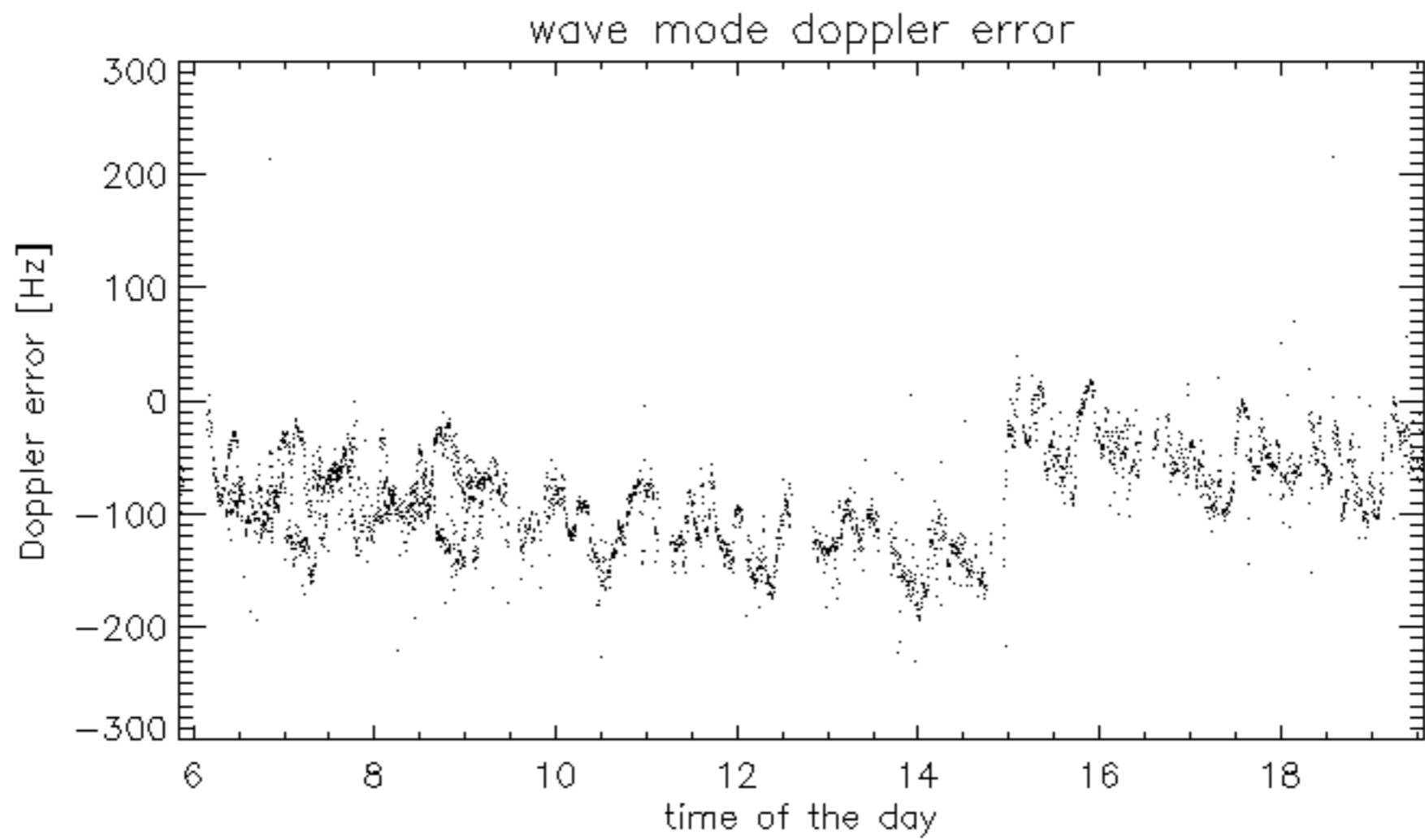
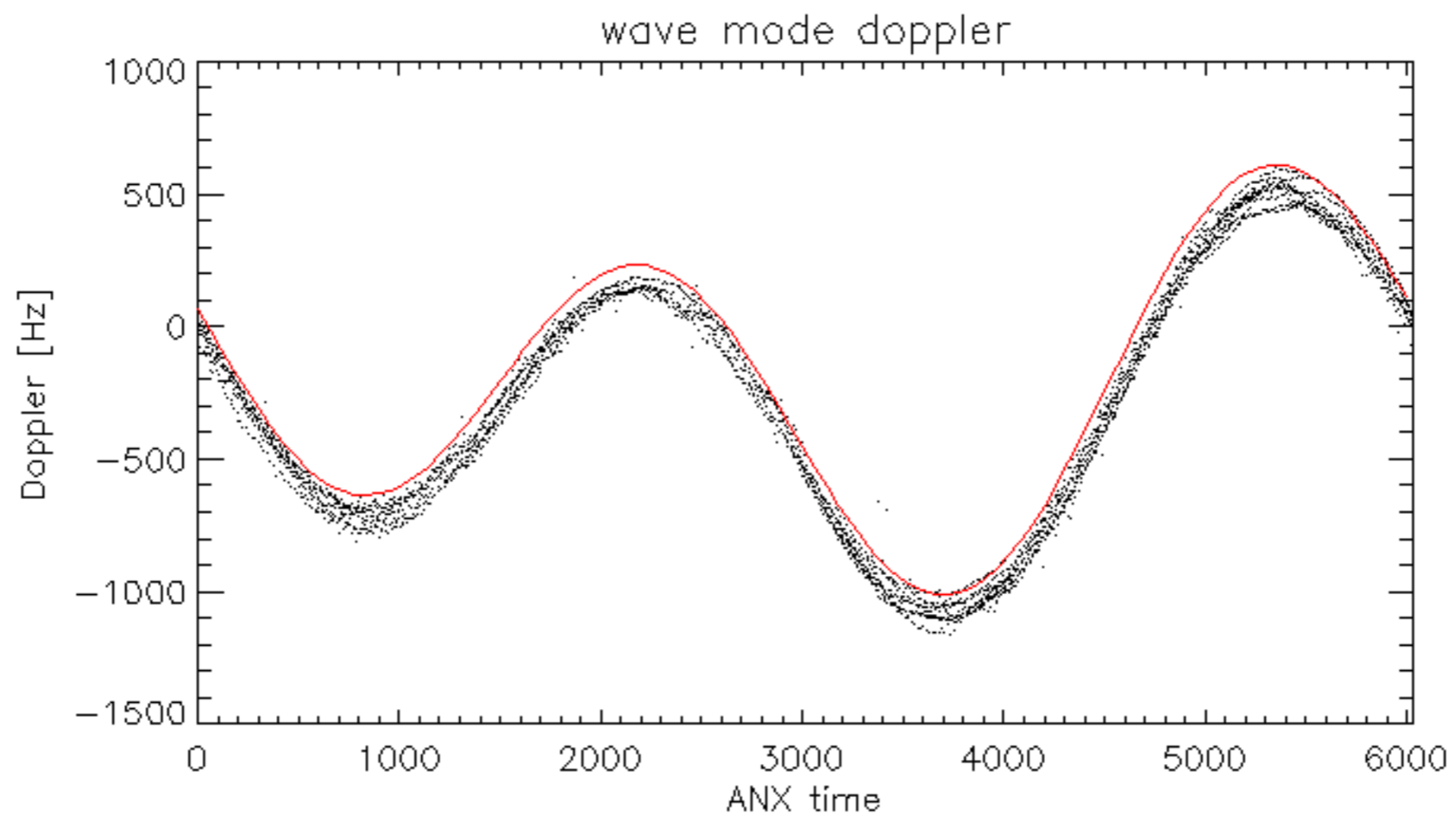
No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 60 days

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

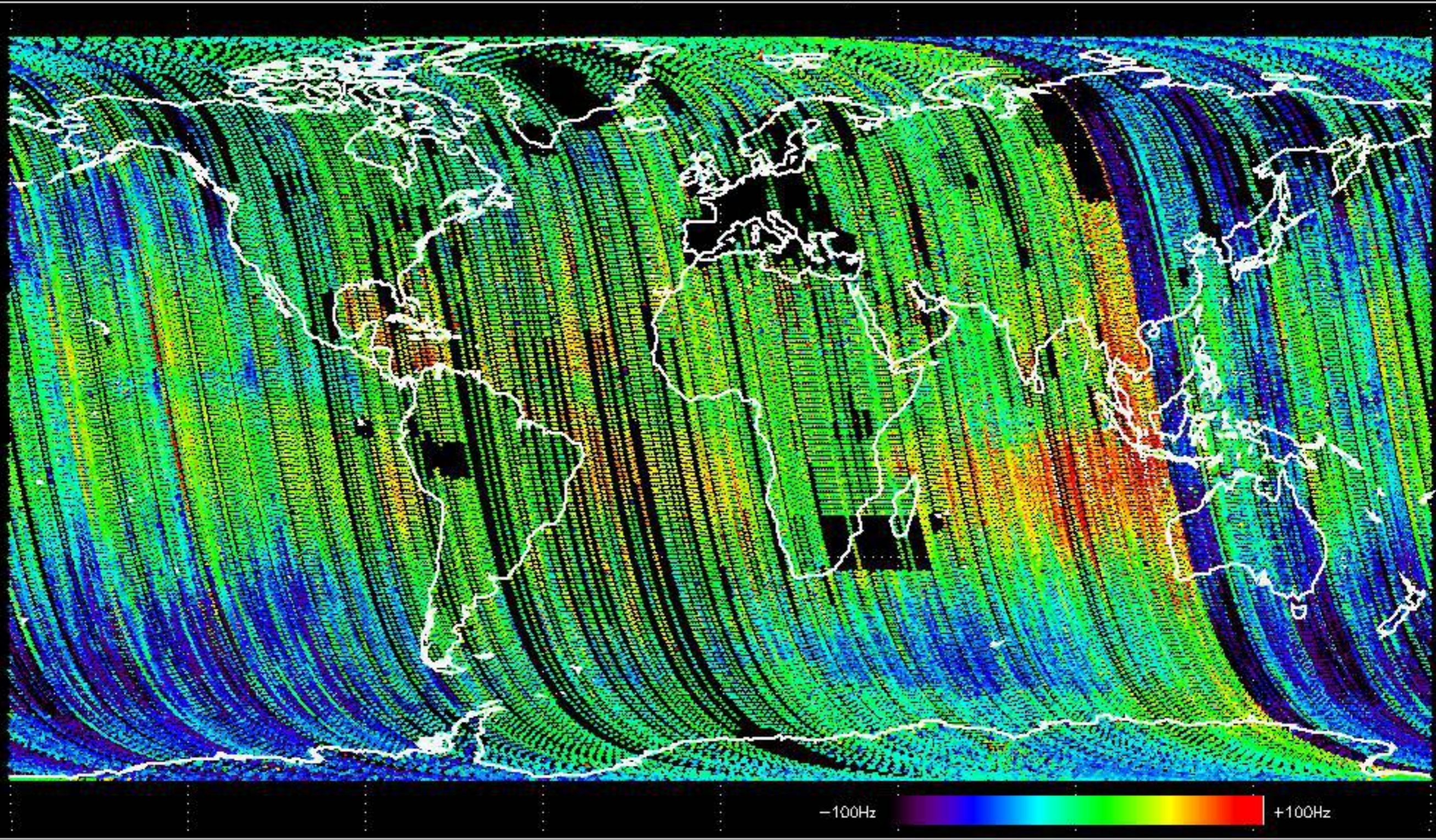


Doppler 'WVS' 'IS2' 'V/V'





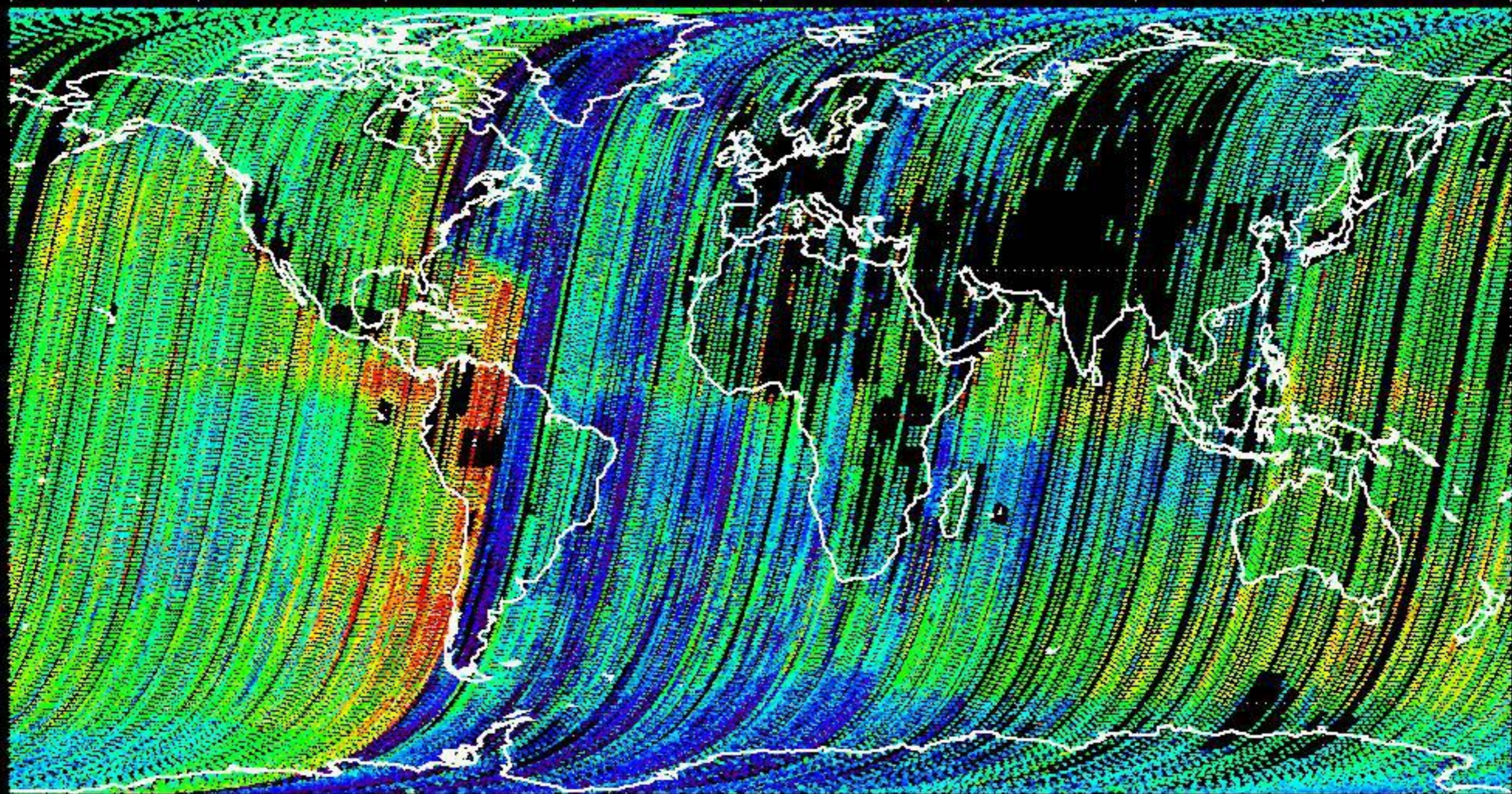
Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



-100Hz +100Hz



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



The MS mode provides an internal health check on an individual module basis.  
The purpose of this mode is to identify to identify any malfunctioning modules and  
to identify modules for which calibration offsets are to be applied.  
No anomalies observed on available MS products:

No anomalies observed.



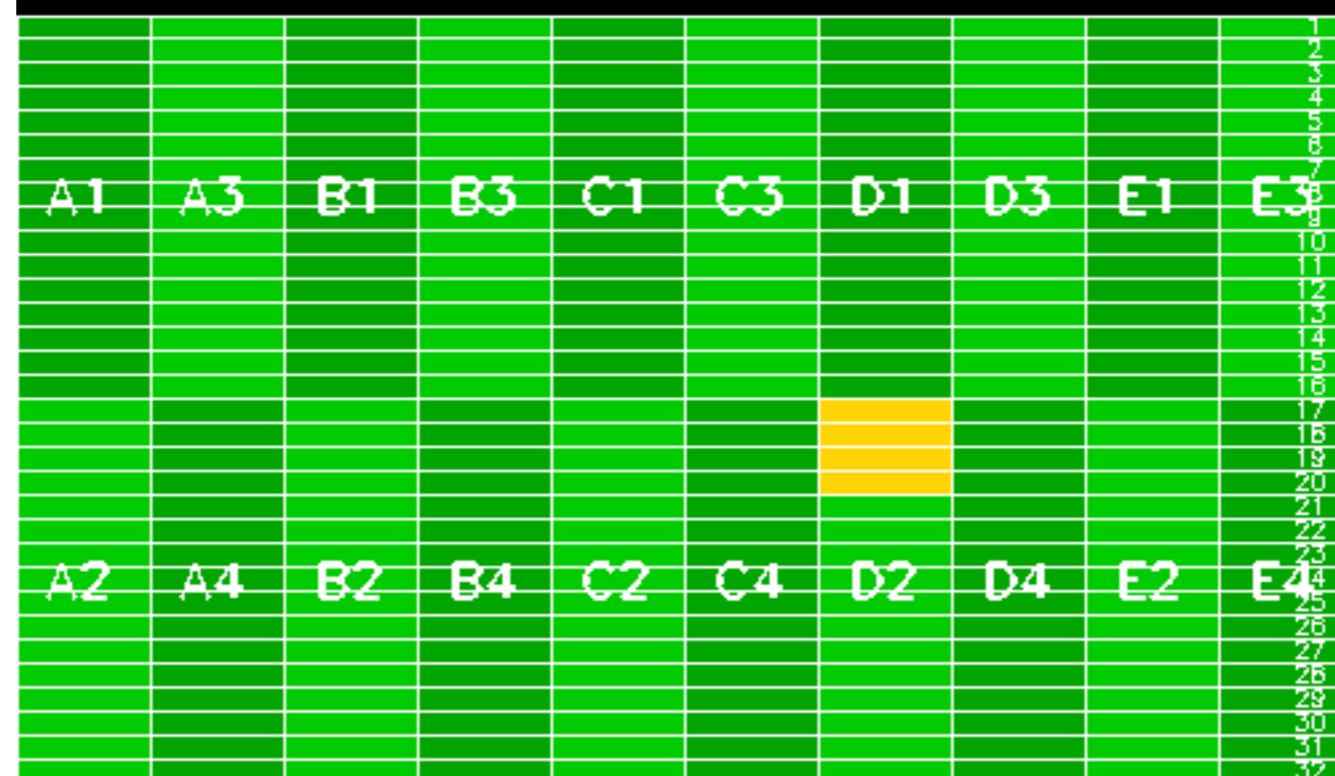


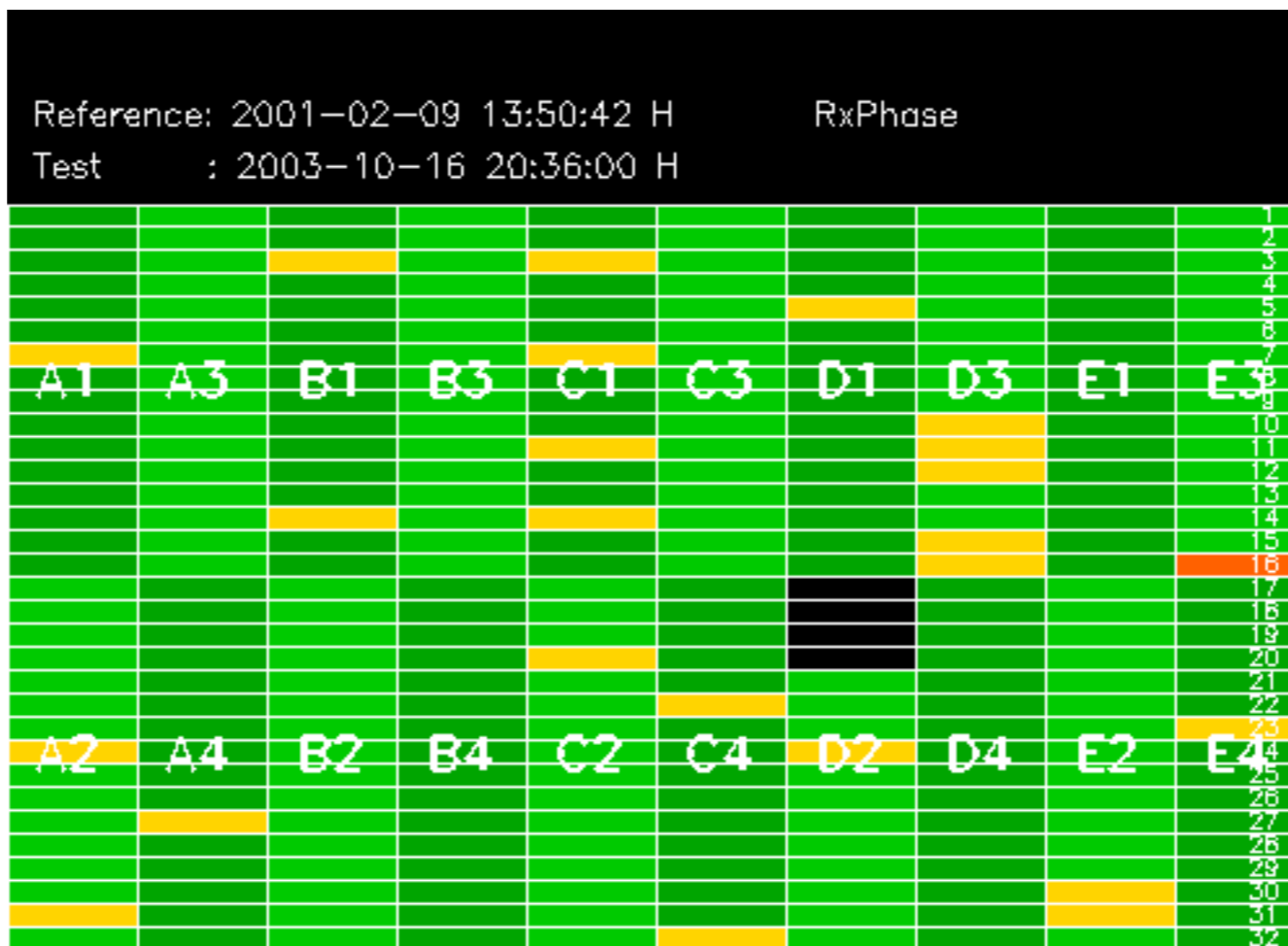


Reference: 2003-06-12 14:10:32 V

RxGain

Test : 2003-10-16 20:37:40 V



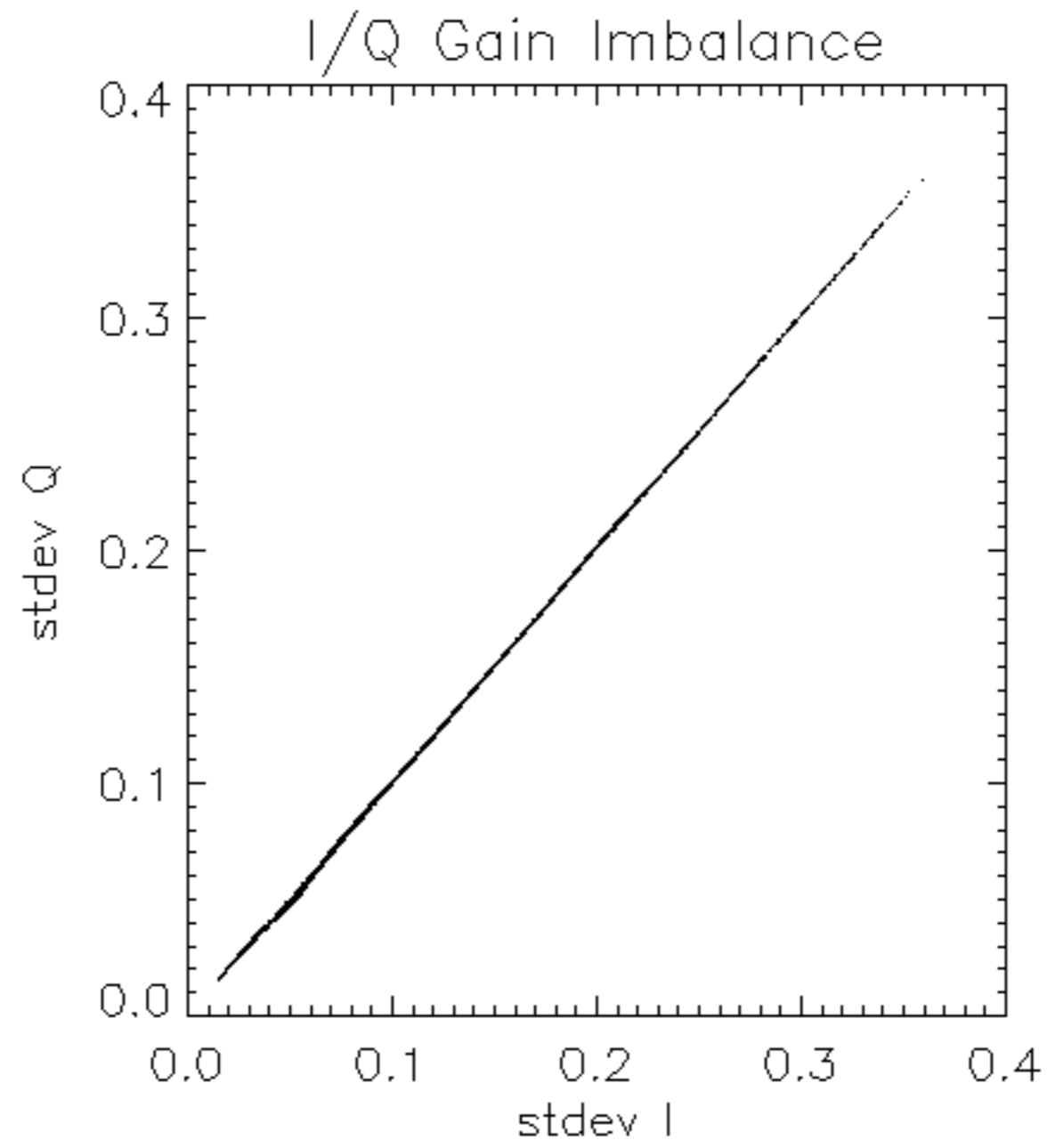


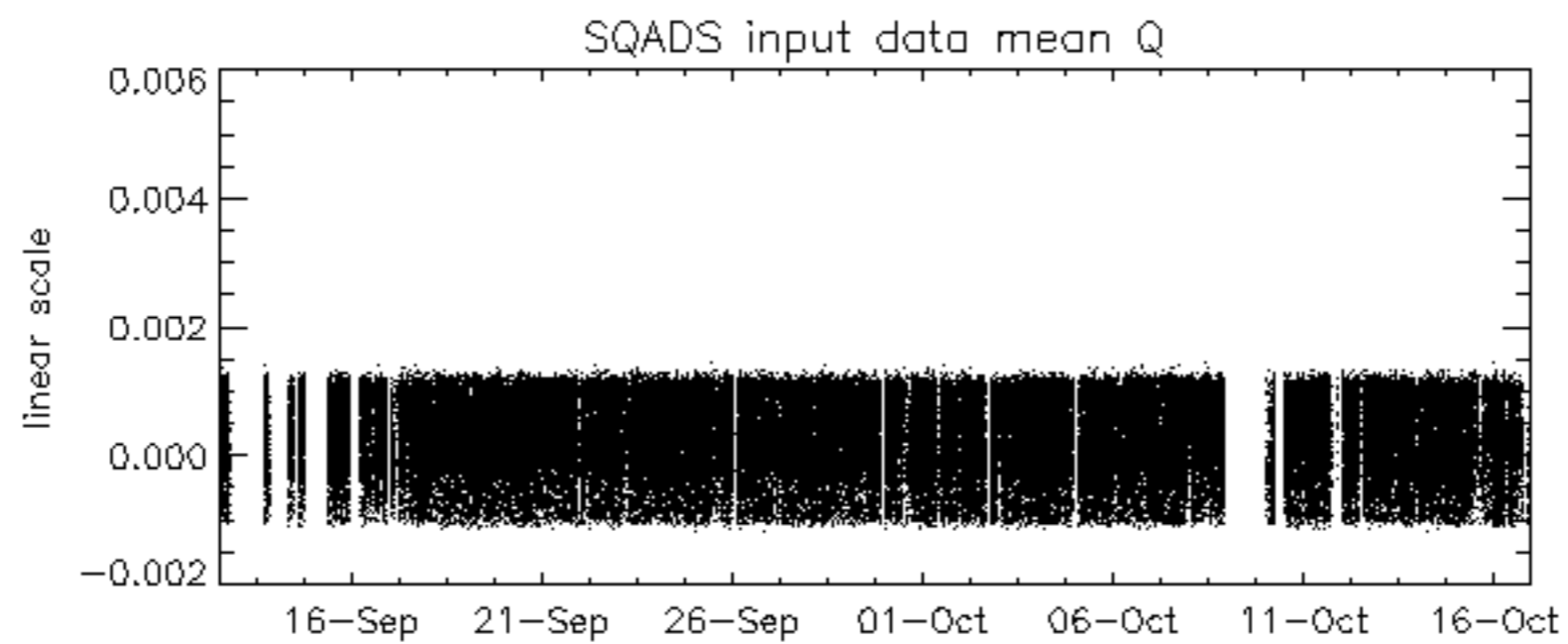
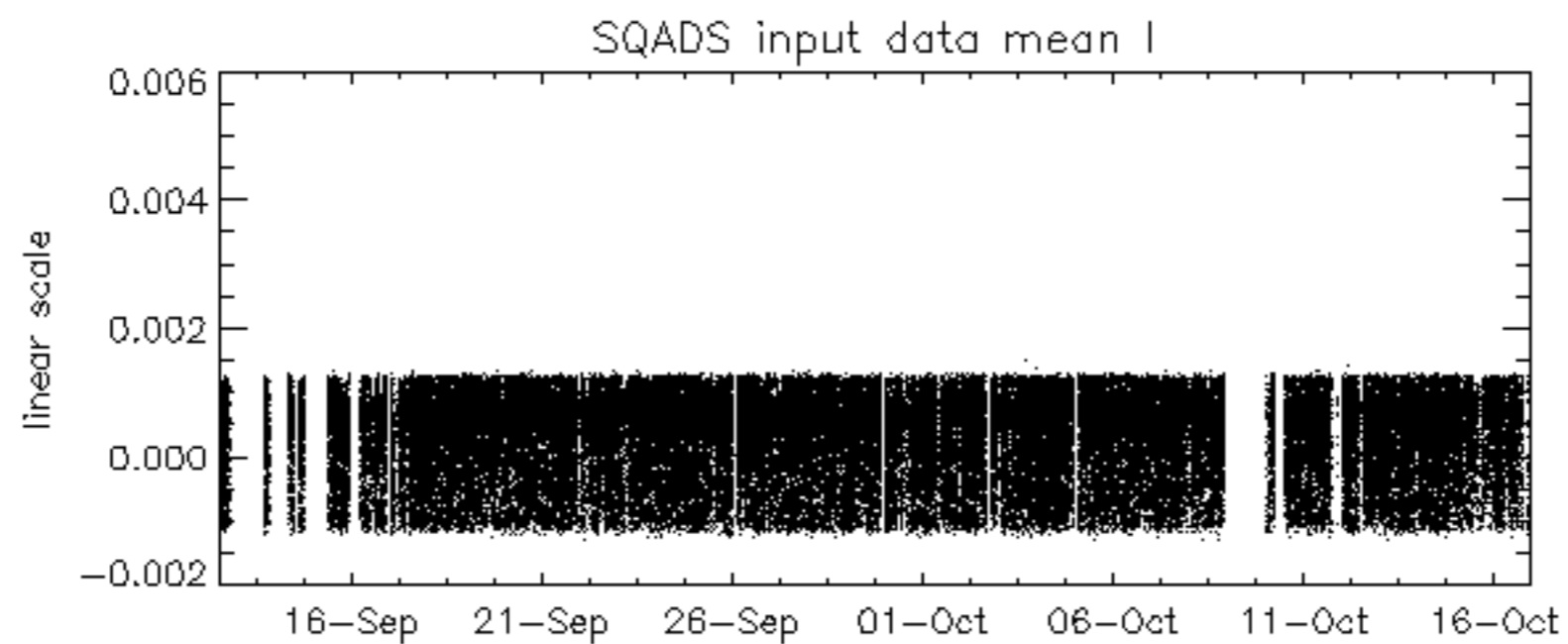
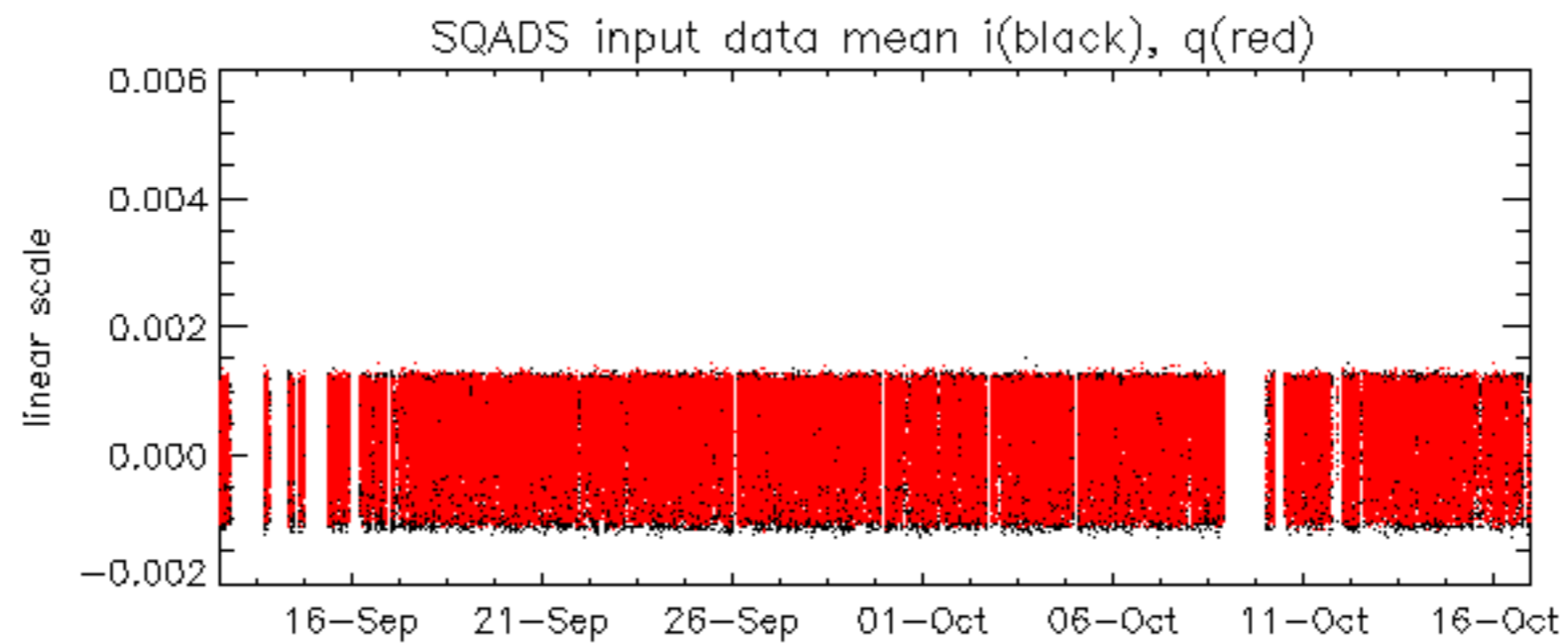


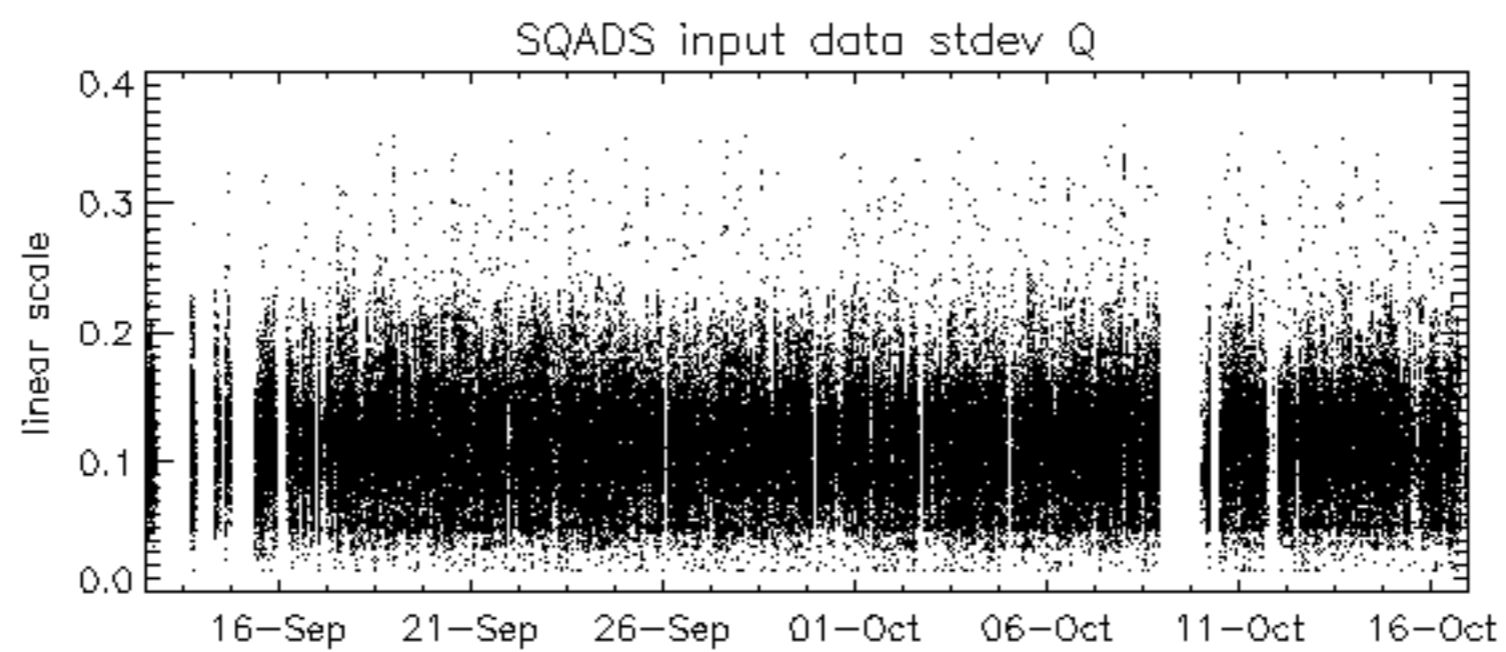
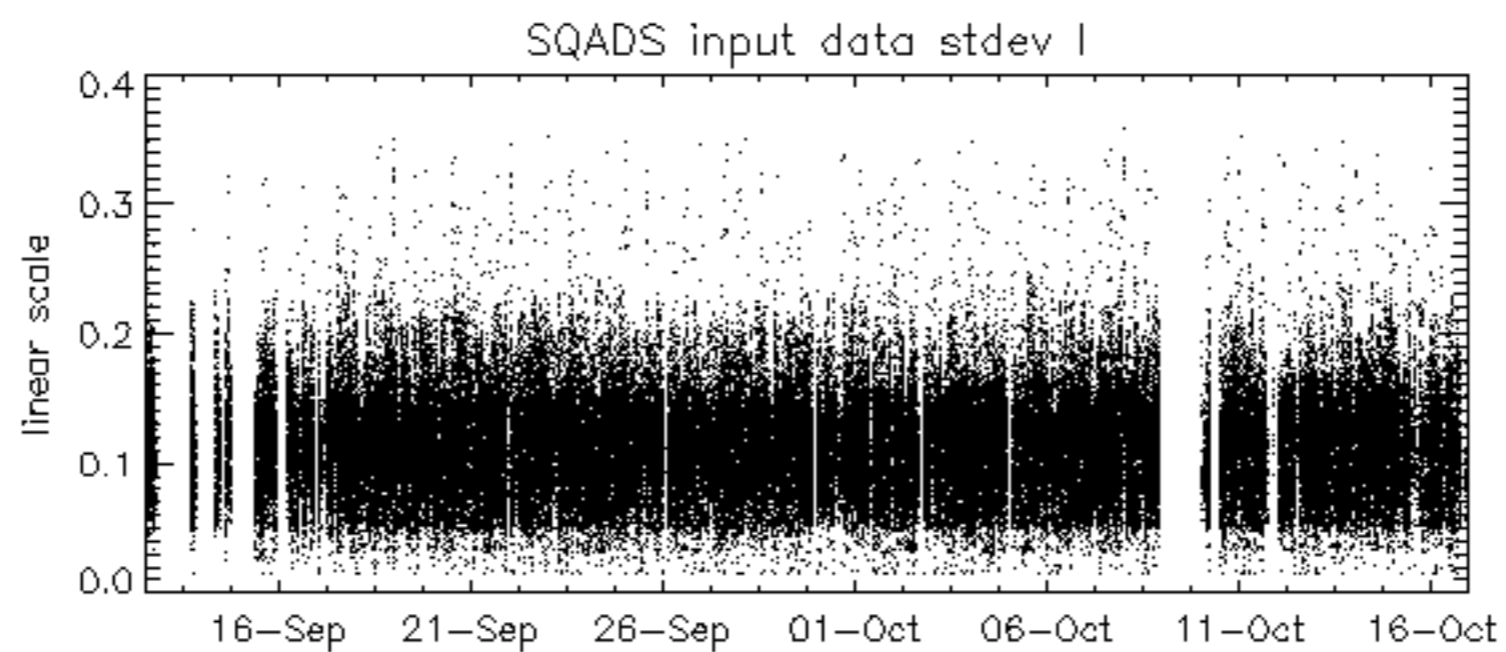
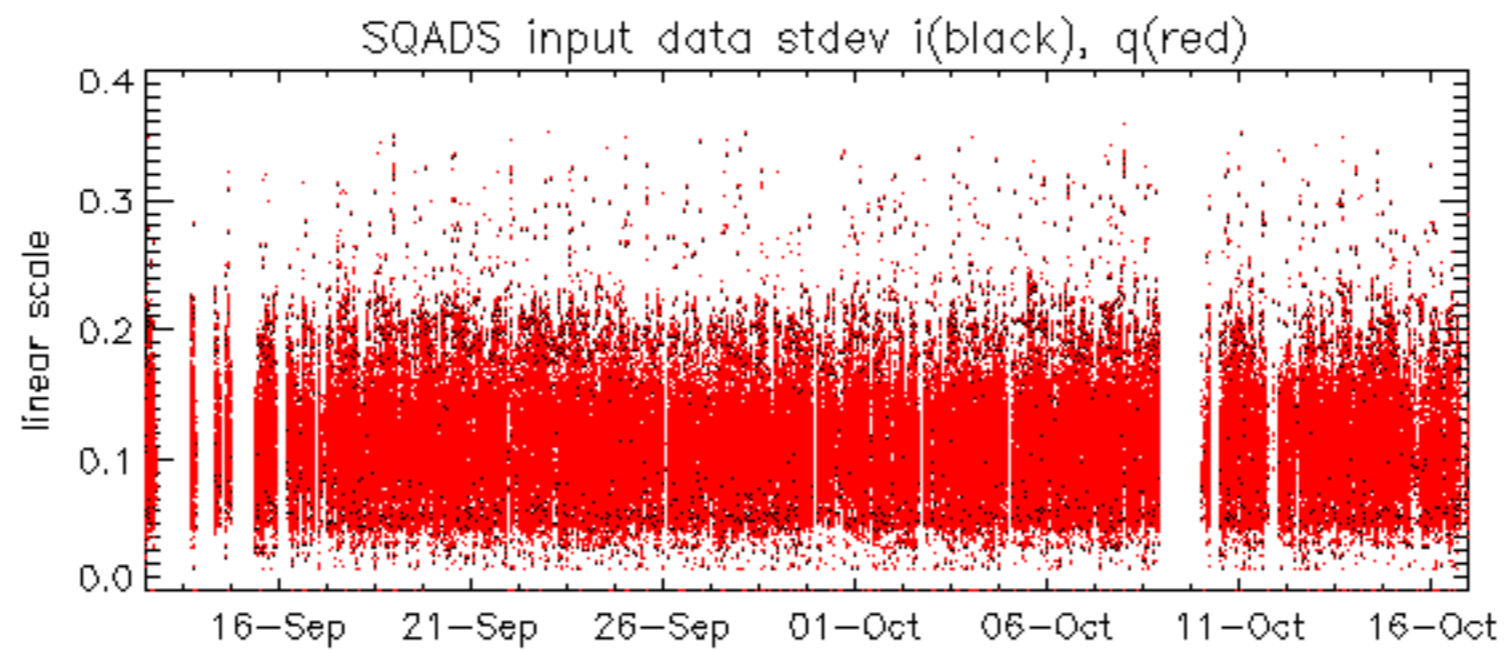






























No unavailabilities during the reported period.