

# REPORT OF 031104

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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.

No anomalies observed on available MS products:

- ASA\_MS\_\_0PNPDK20031103\_192130\_000000152021\_00199\_08770\_0101.N1
- ASA\_MS\_\_0PNPDK20031103\_192250\_000000152021\_00199\_08770\_0102.N1

Polarisation	Start Time
V	20031103 192250
H	20031103 192130

#### 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	-3.75930	-22.4948	-8.11562
	stdev	0.00521720	0.0758325	0.00265229
24	mean	-5.13151	-21.1792	-8.11562
	stdev	0.0116783	0.0773347	0.00265229



## 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79133	-22.5435	-8.14545
	stdev	0.00545030	0.0630026	0.00260377
24	mean	-5.35737	-21.2571	-8.14545
	stdev	0.893373	0.0601397	0.00260377



## 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	0.000370582
	stdev	3.58724e-07
MEAN Q	mean	0.000273932
	stdev	3.39792e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
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STDEV I	mean	0.113817
	stdev	0.00143484
STDEV Q	mean	0.114060
	stdev	0.00145195



### 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed on 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

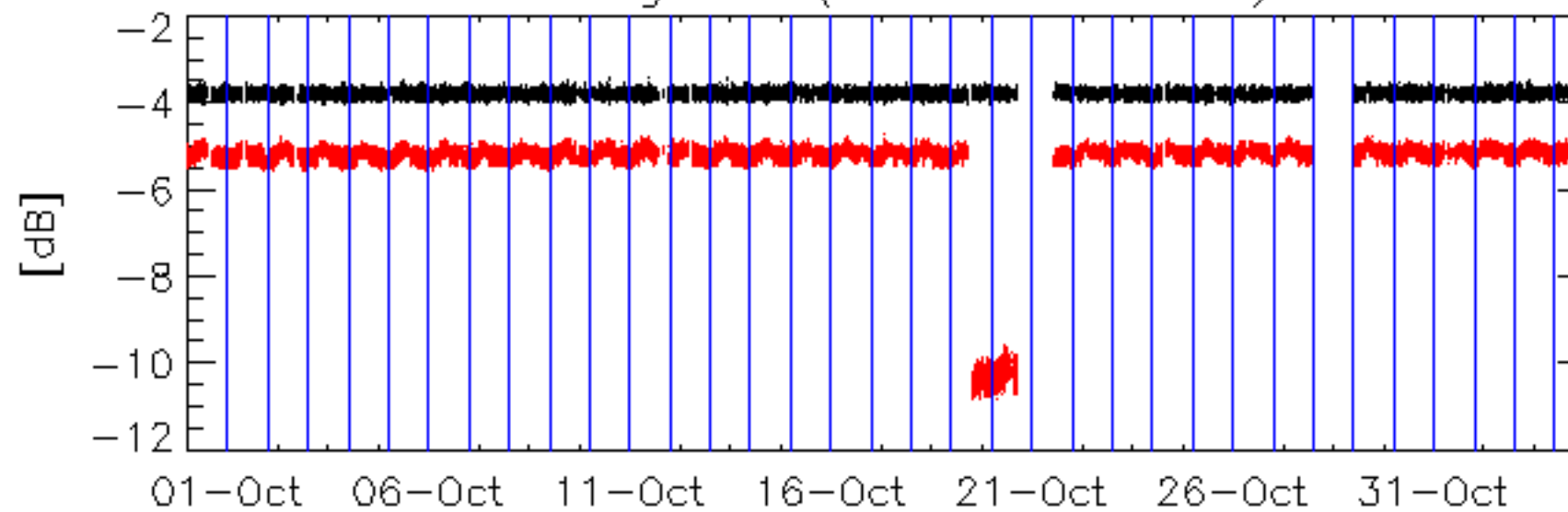
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

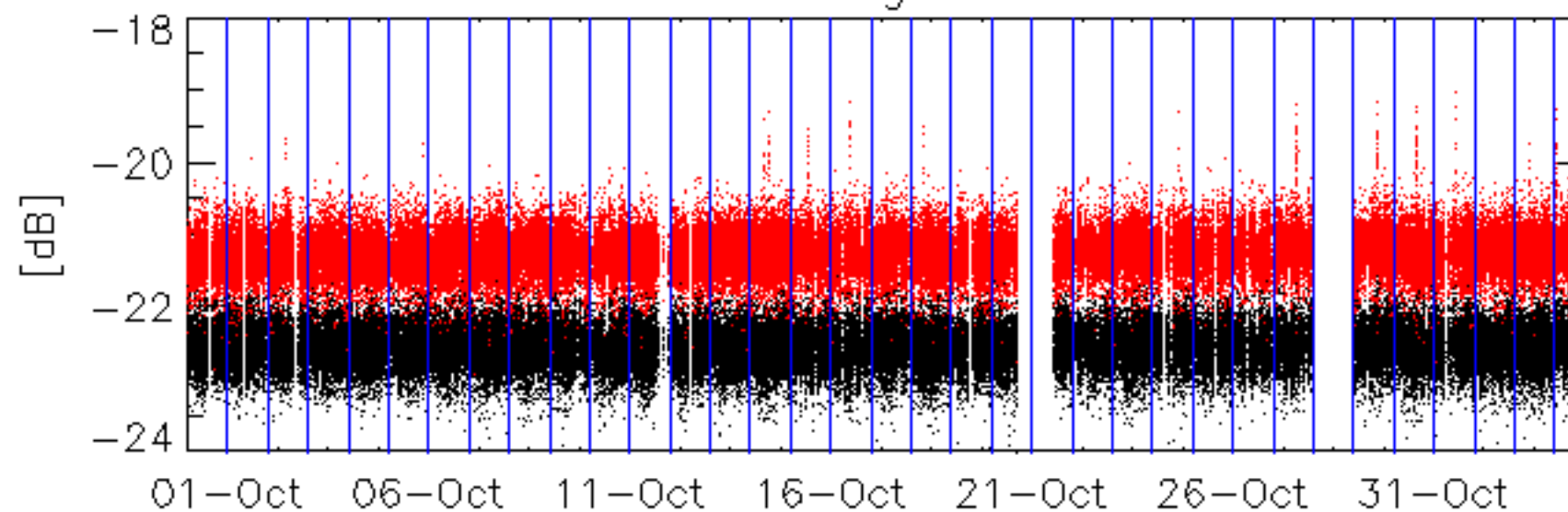
Evolution Doppler error versus ANX



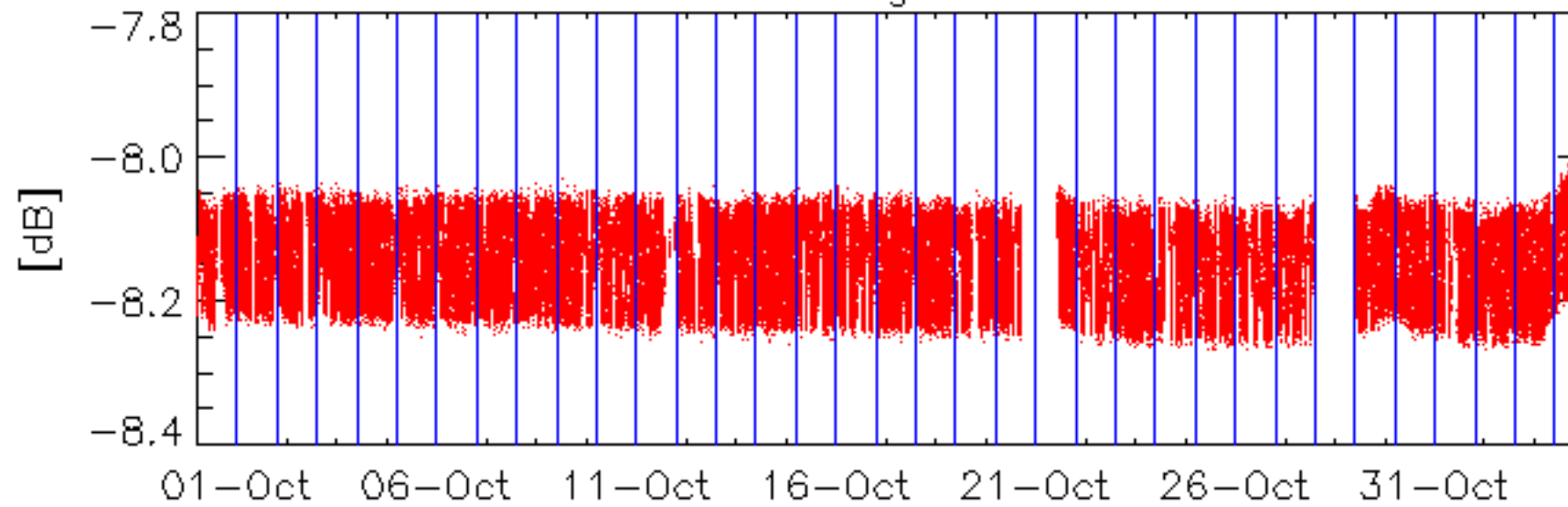

Average P1 (row 3 & row 24)



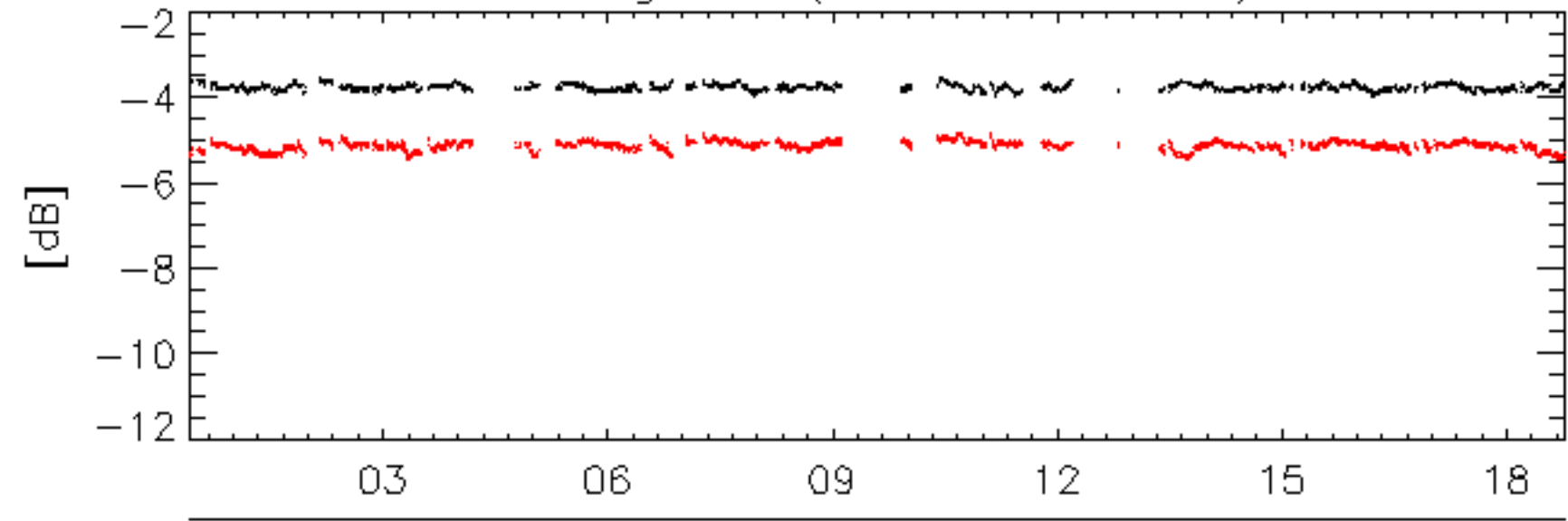
Average P2



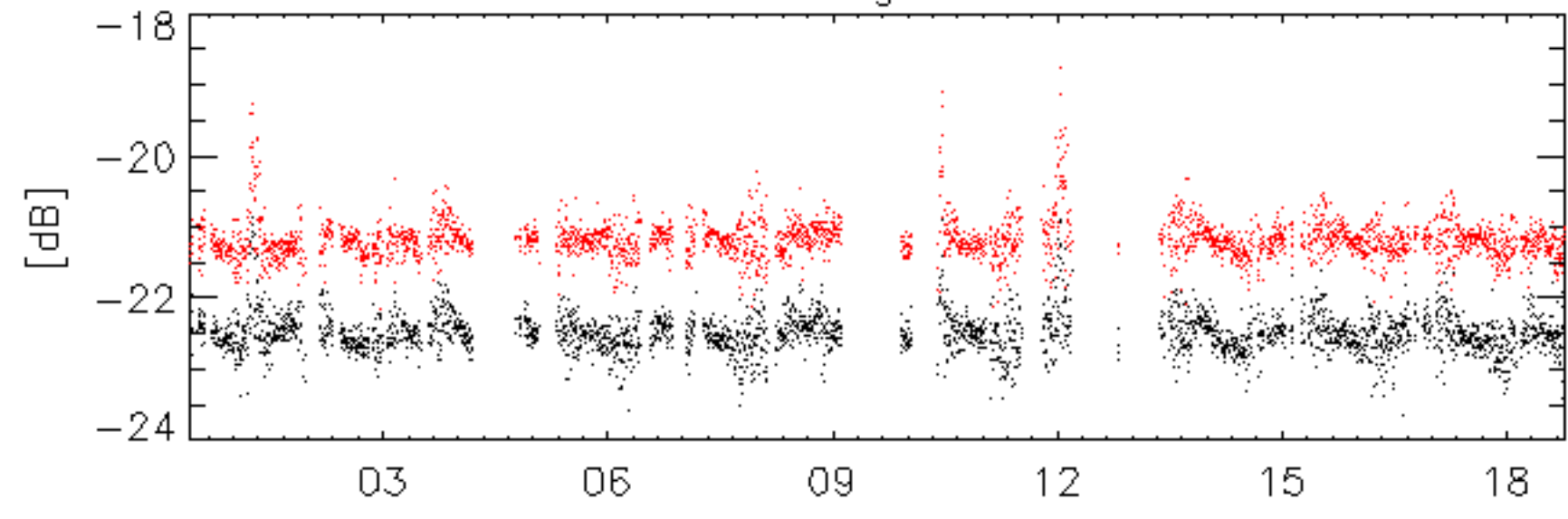
Average P3



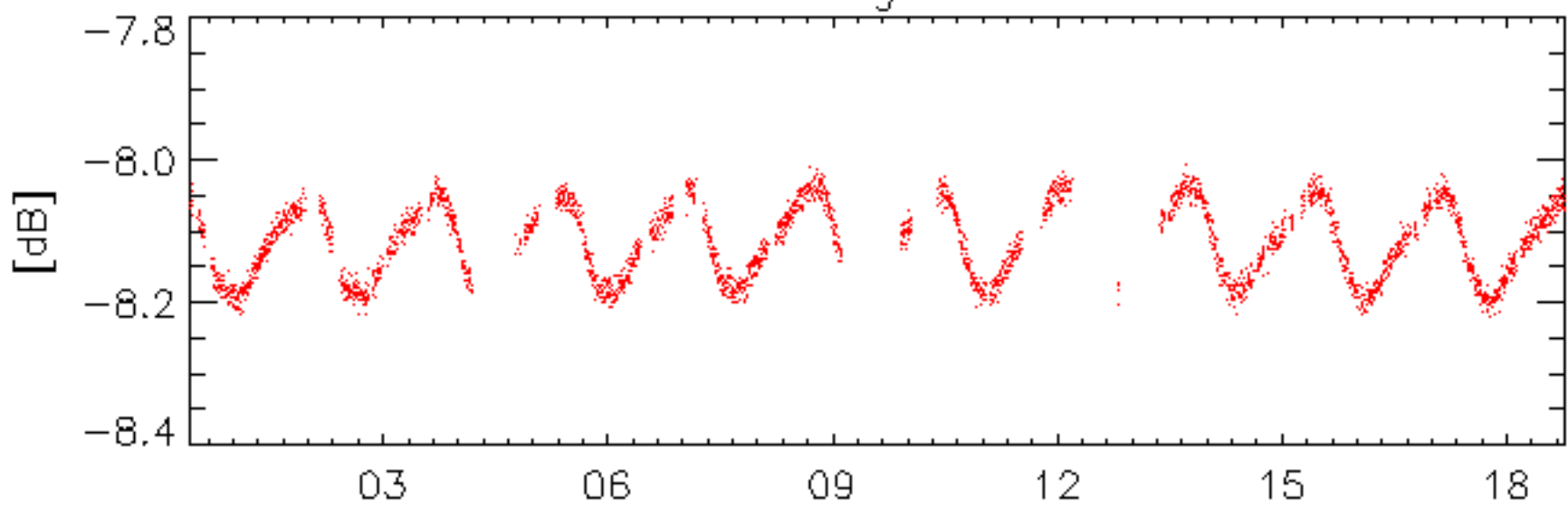
Average P1 (row 3 & row 24)



03-Nov  
Average P2



03-Nov  
Average P3

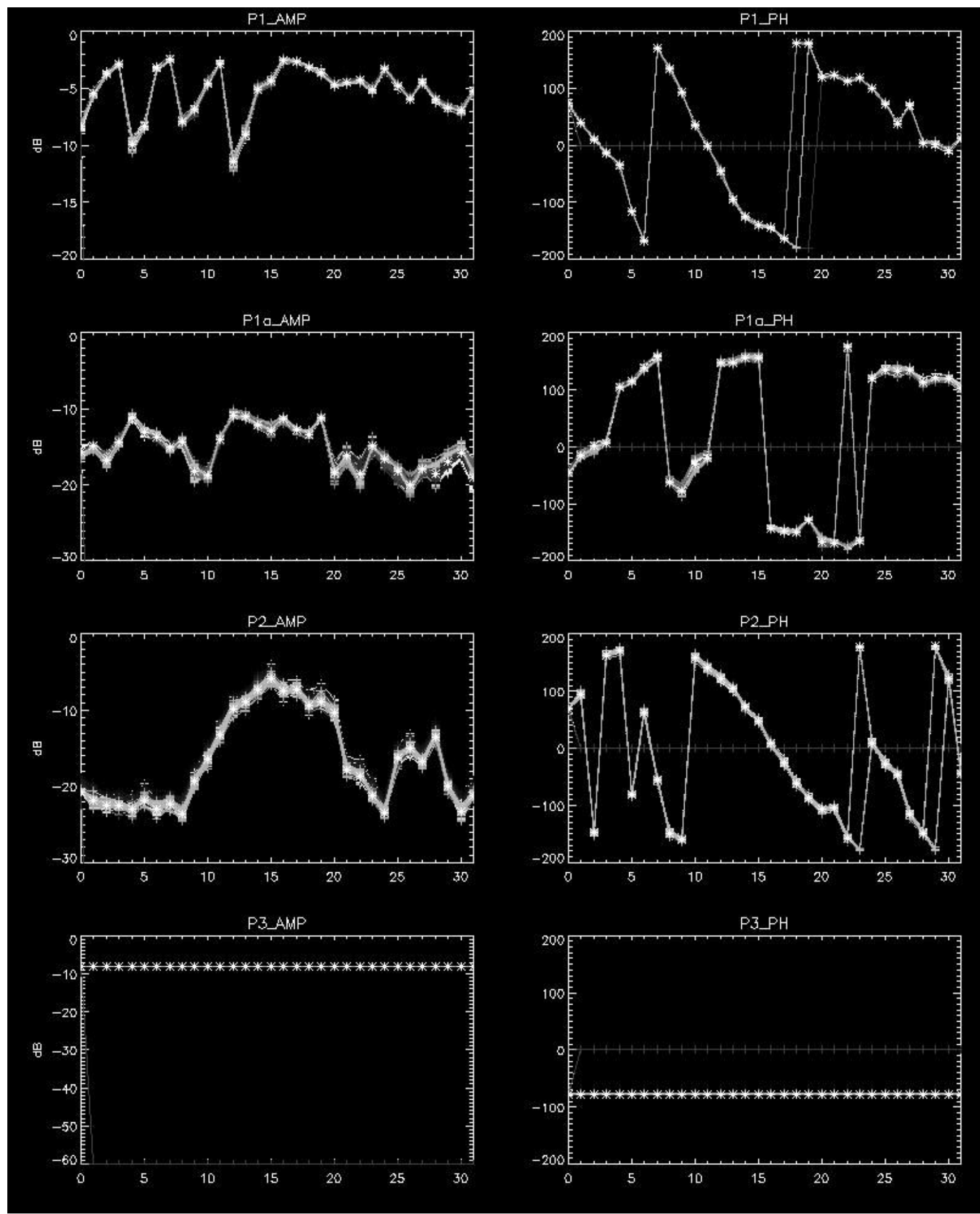


03-Nov

No anomalies observed on available browse products.



No anomalies observed.

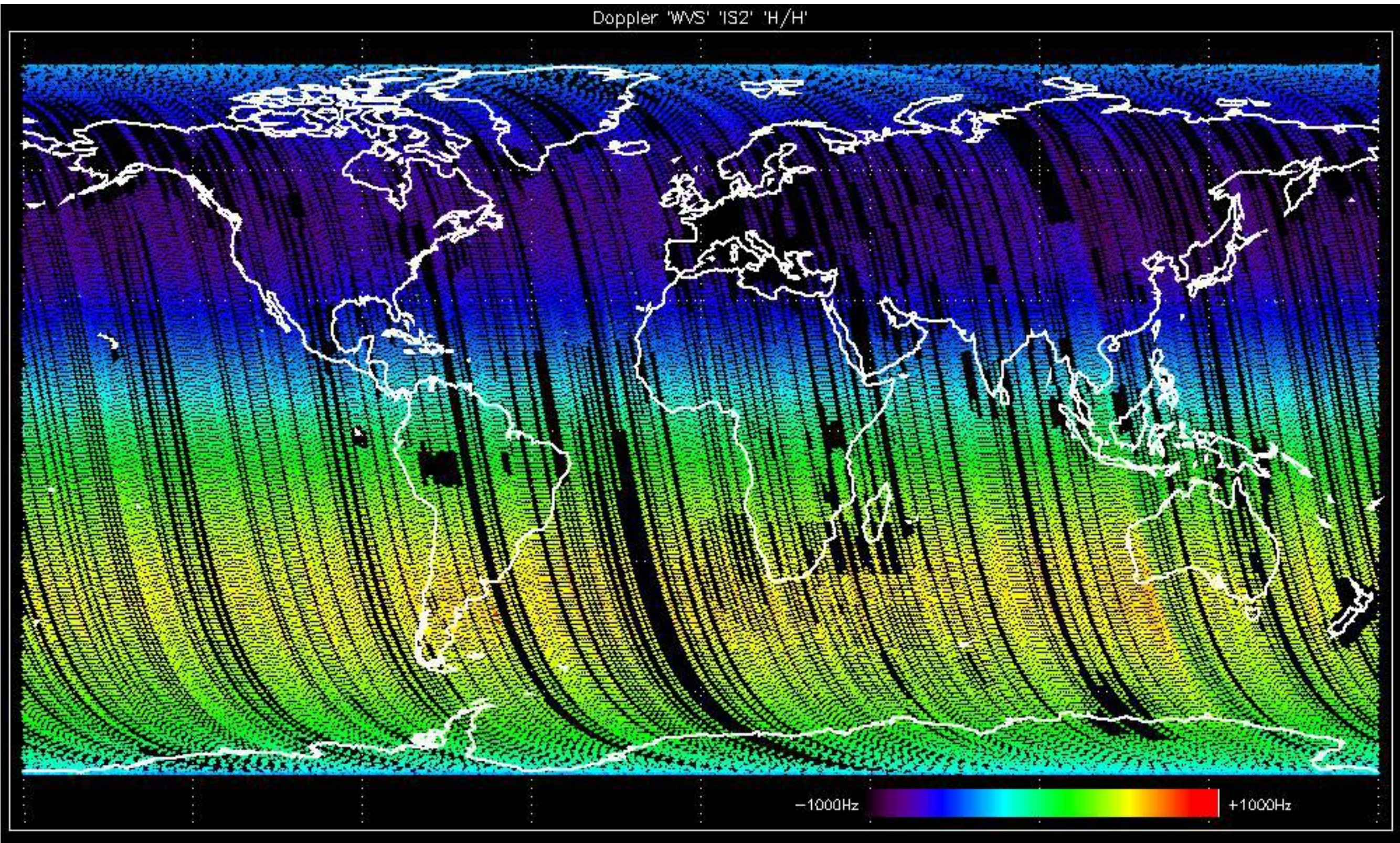


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- Stable raw data statistics.
- Nominal Doppler behavior.

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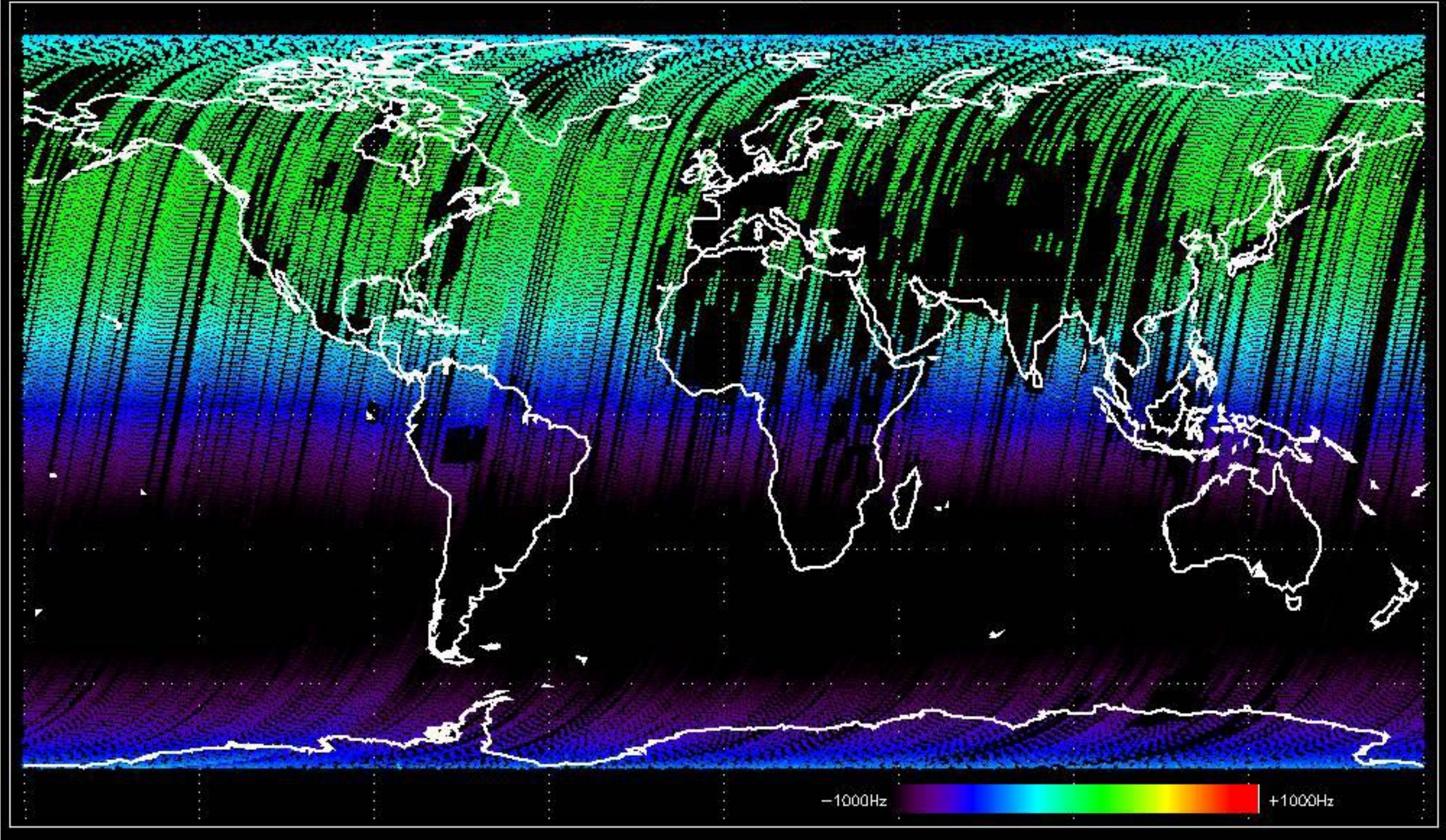


Doppler 'WVS' 'IS2' 'H/H'

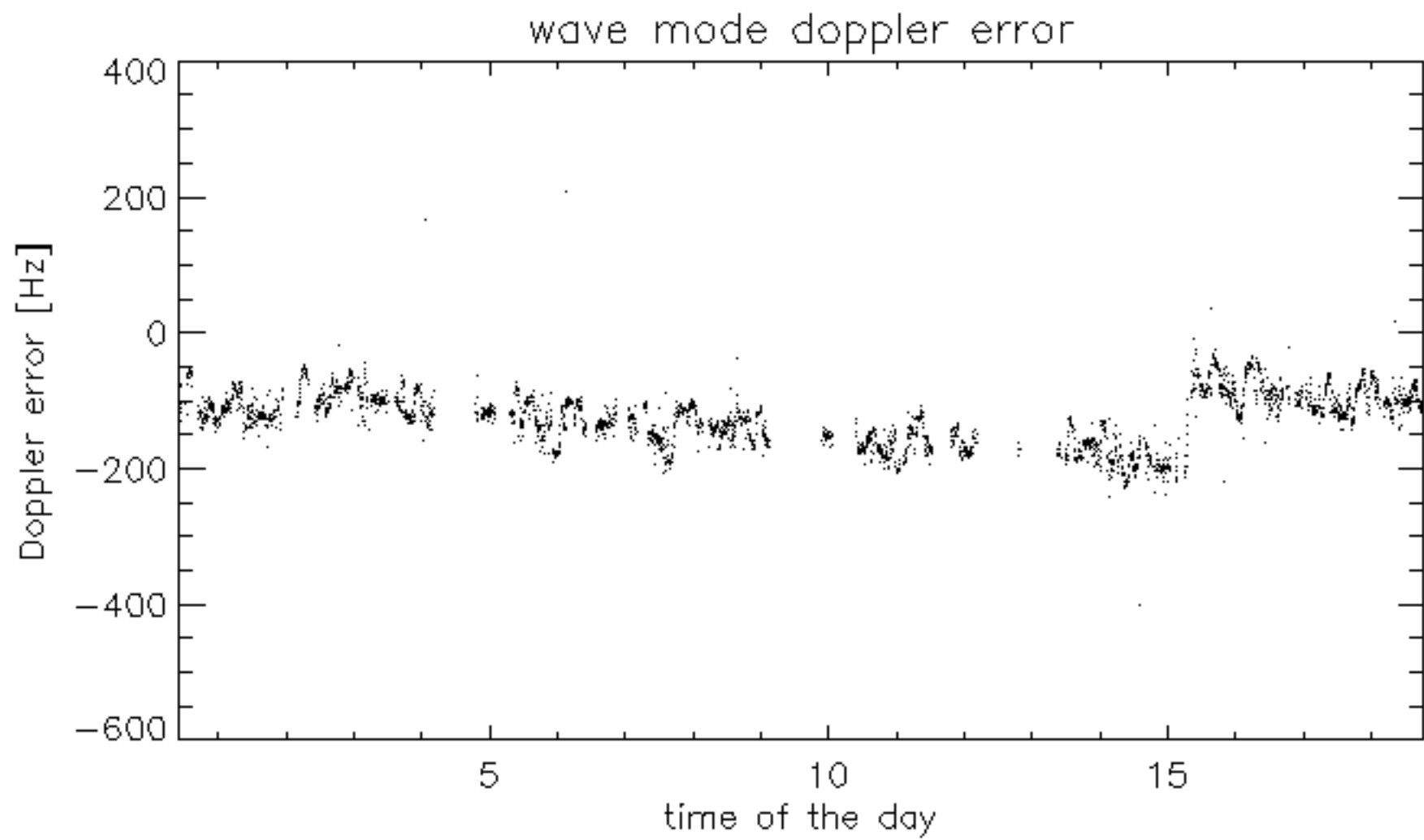
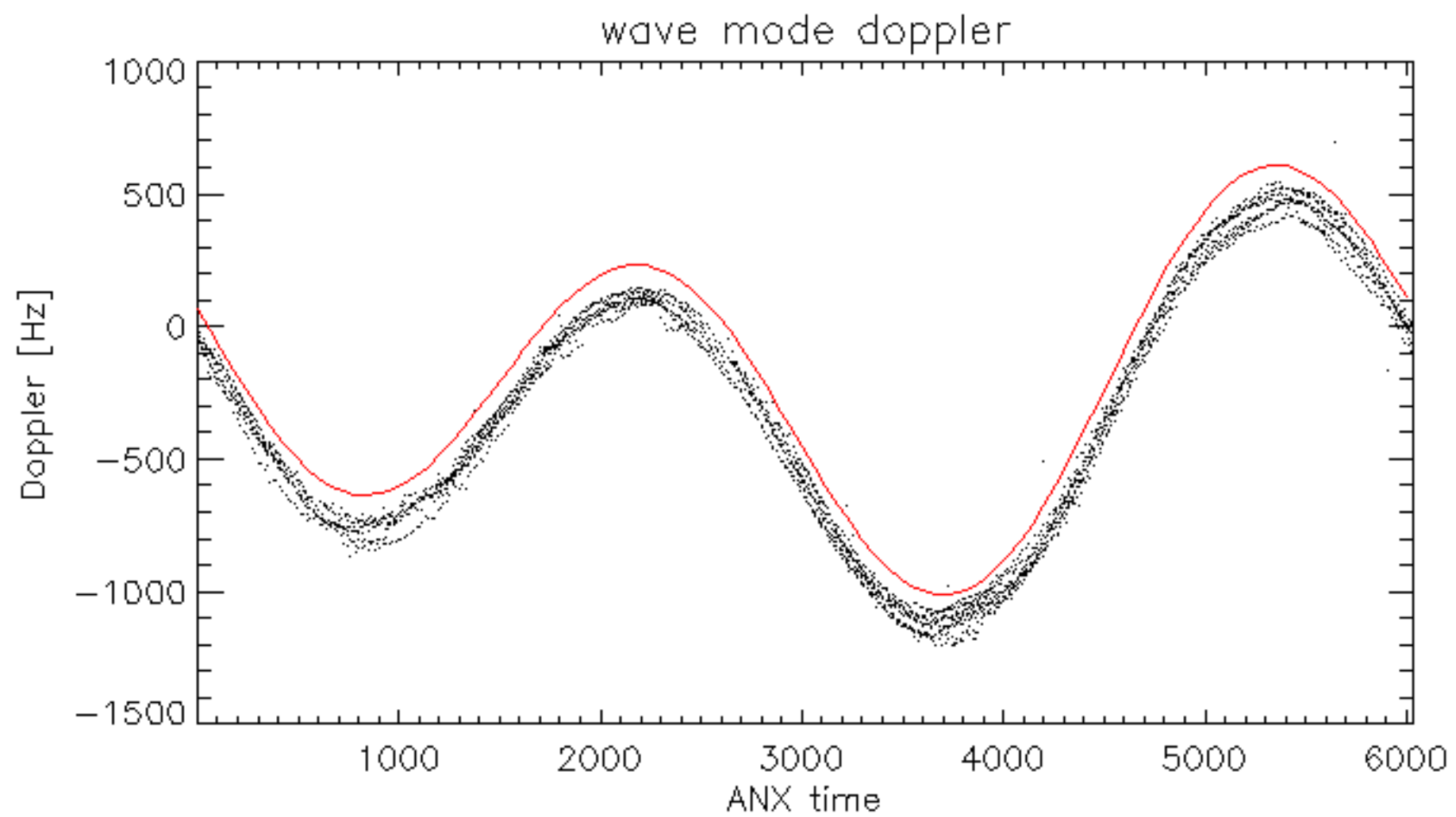




Doppler 'WVS' 'IS2' 'V/V'

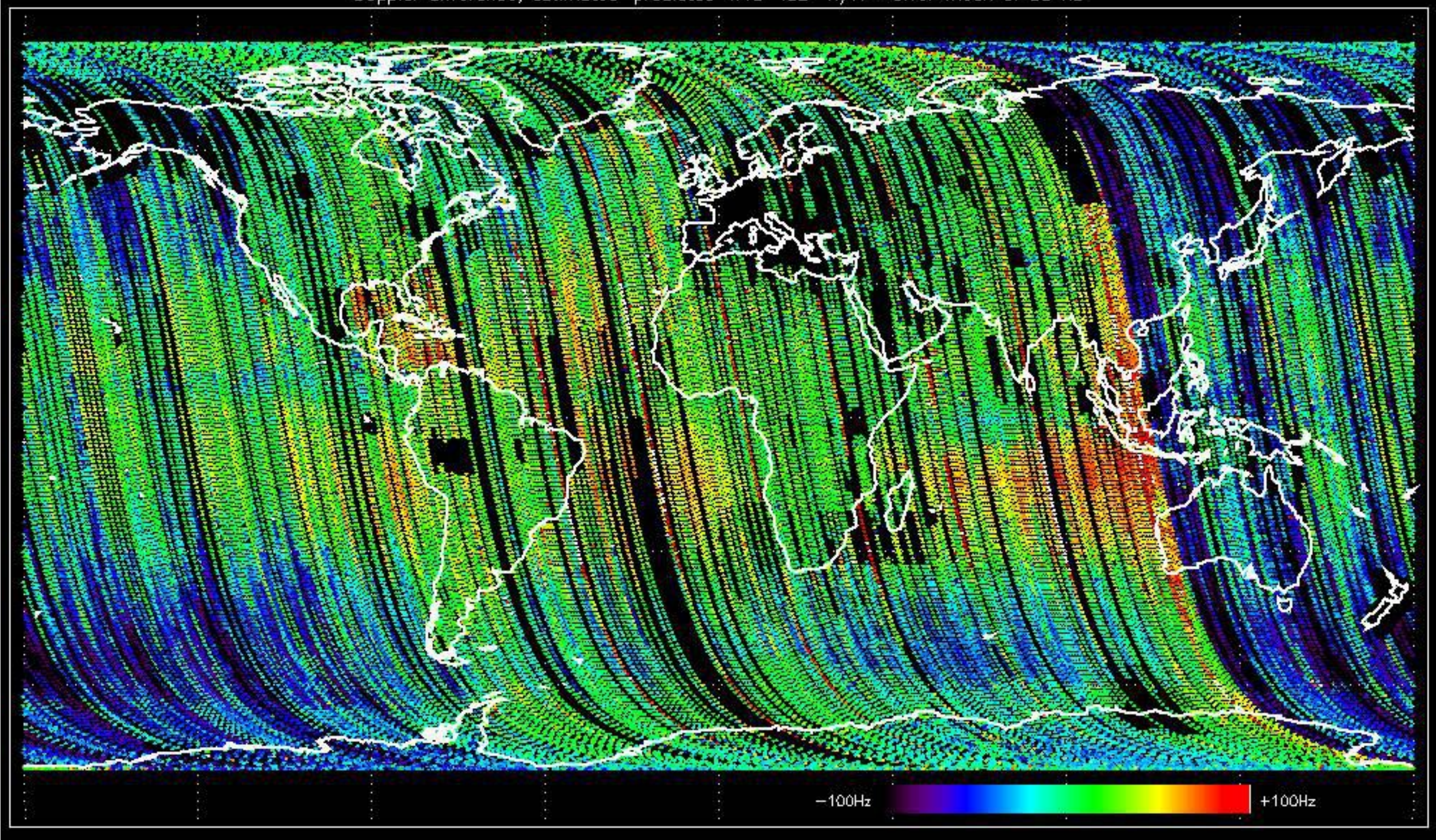






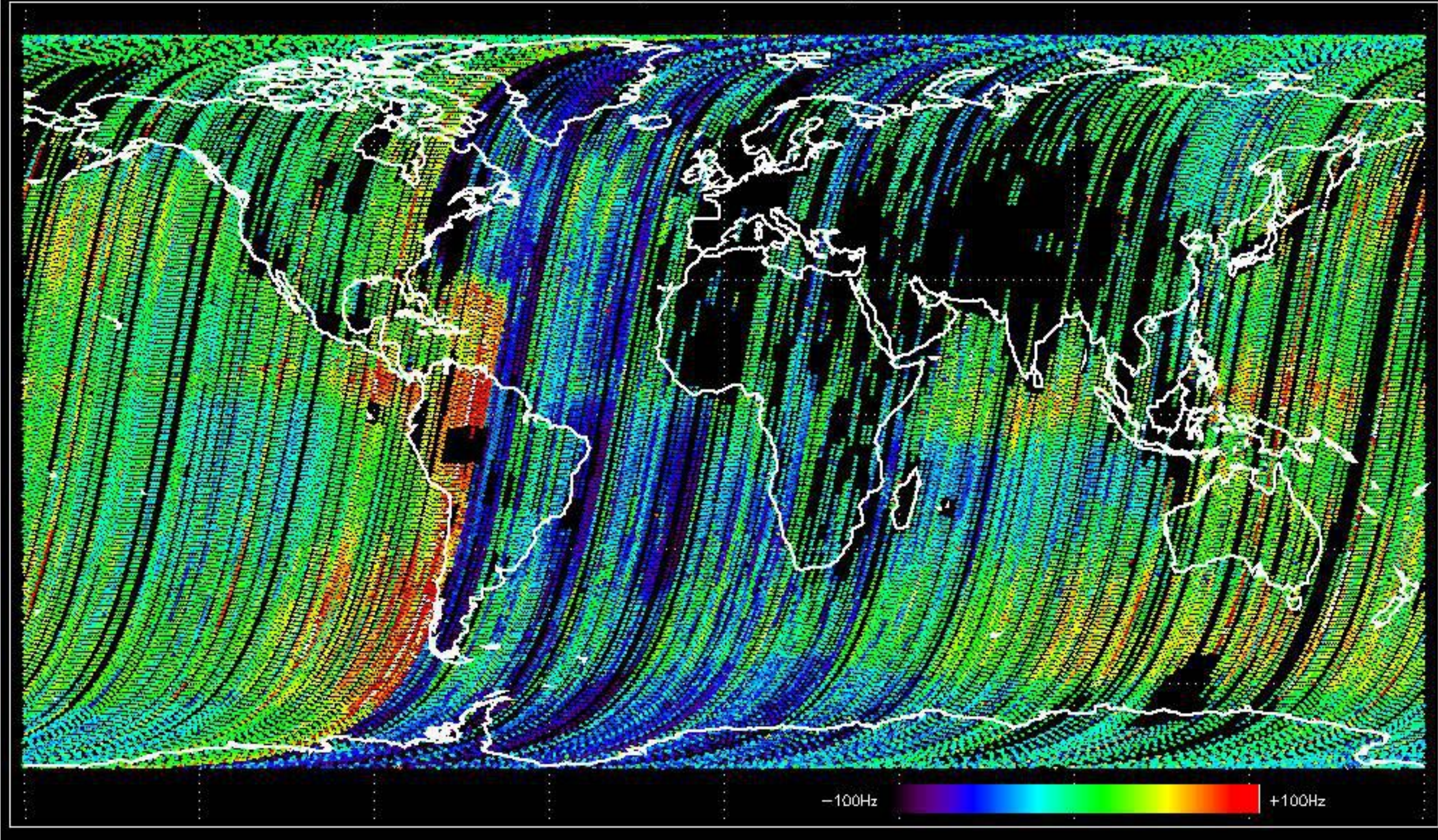


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz





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





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

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- ASA\_MS\_\_0PNPDK20031103\_192130\_000000152021\_00199\_08770\_0101.N1
- ASA\_MS\_\_0PNPDK20031103\_192250\_000000152021\_00199\_08770\_0102.N1

No anomalies observed.









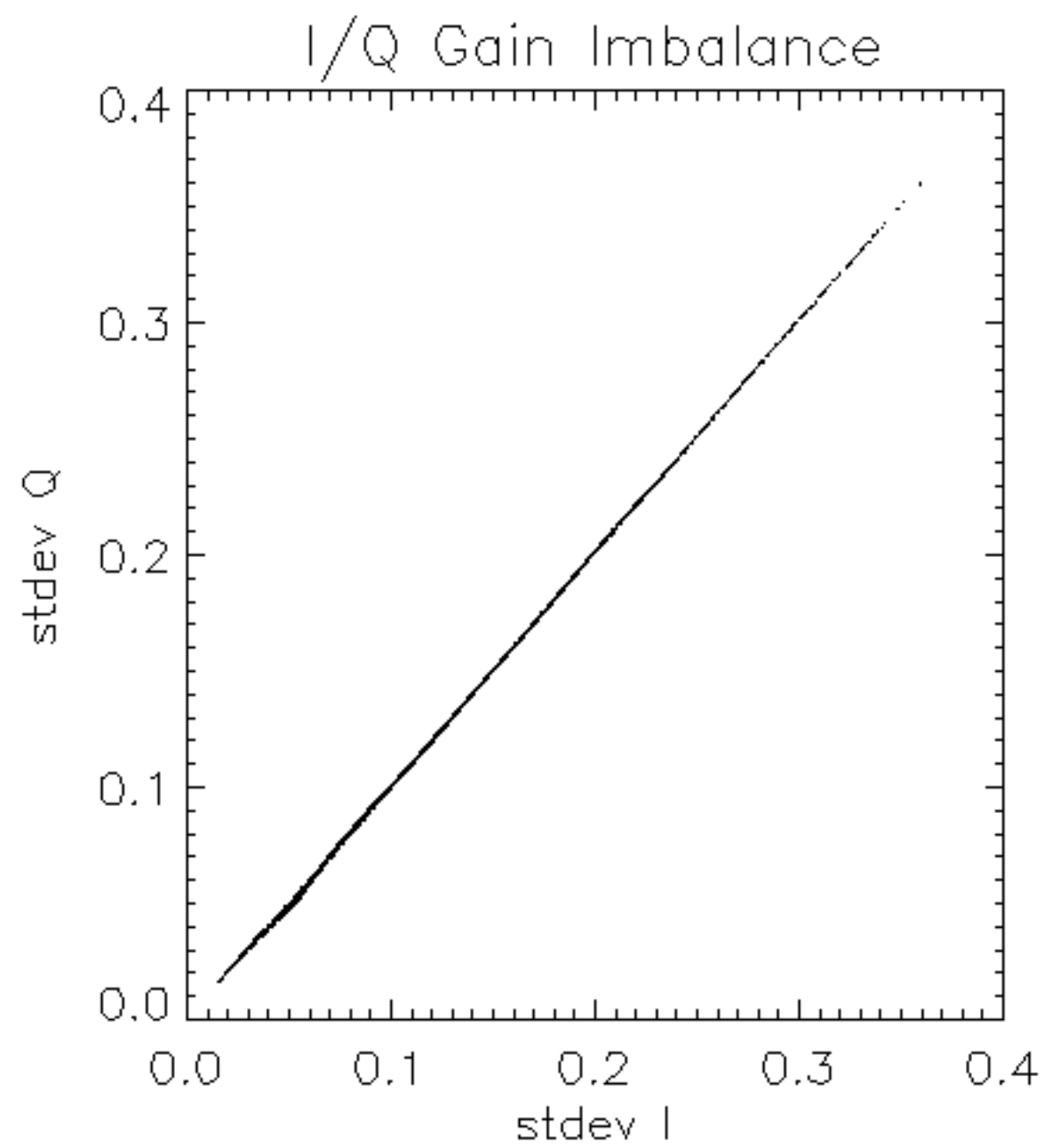


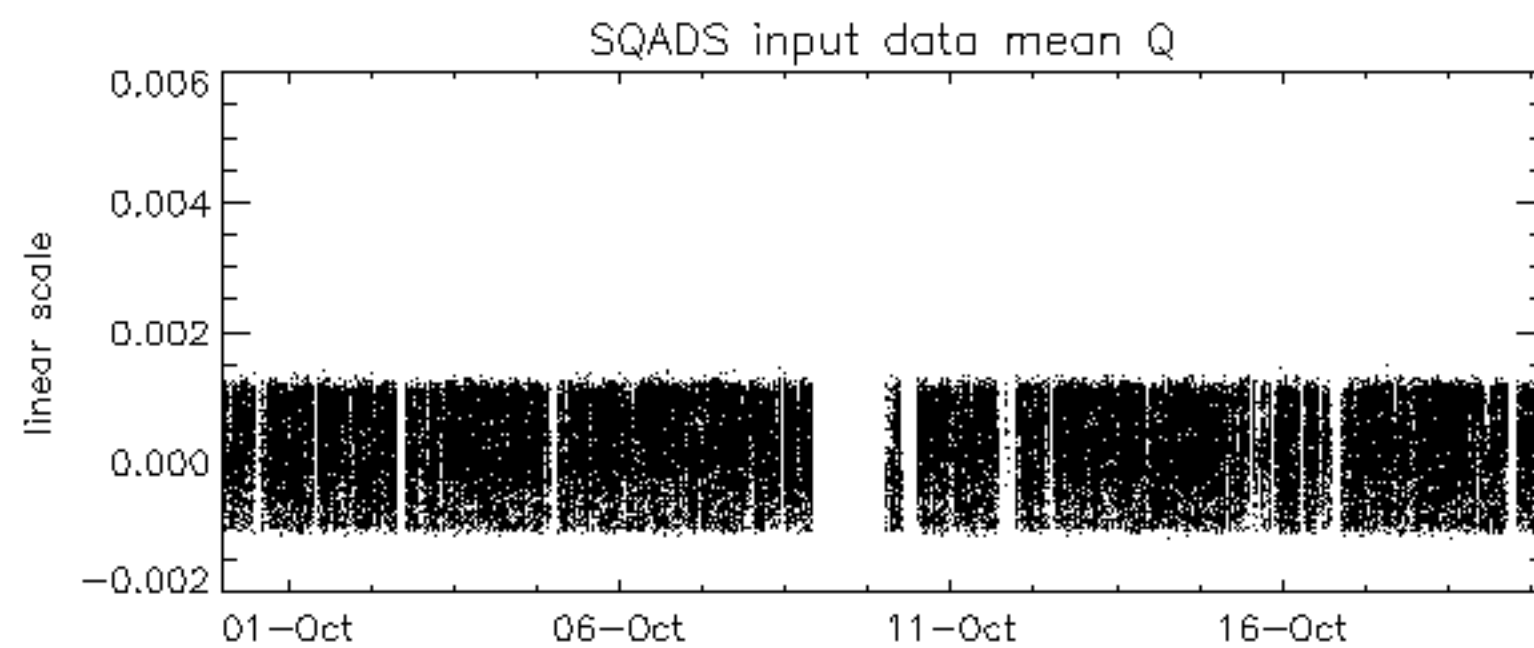
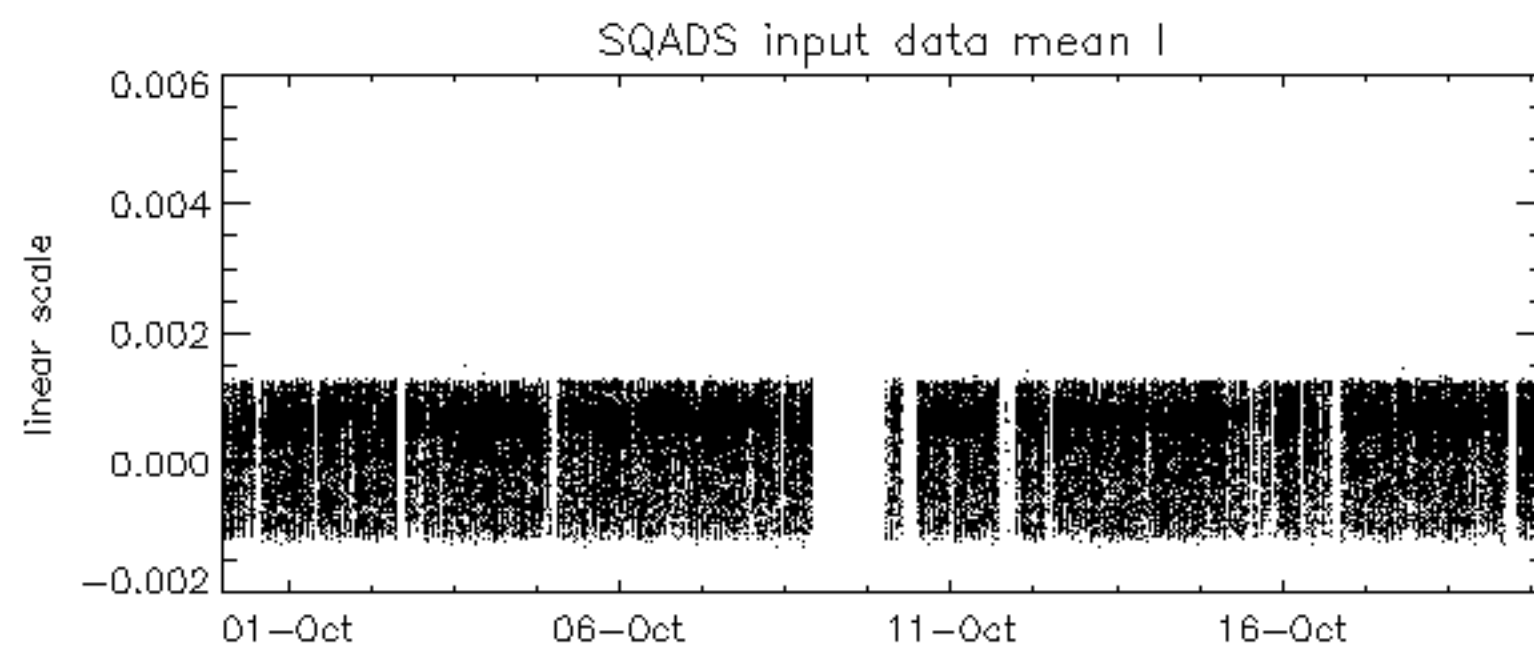
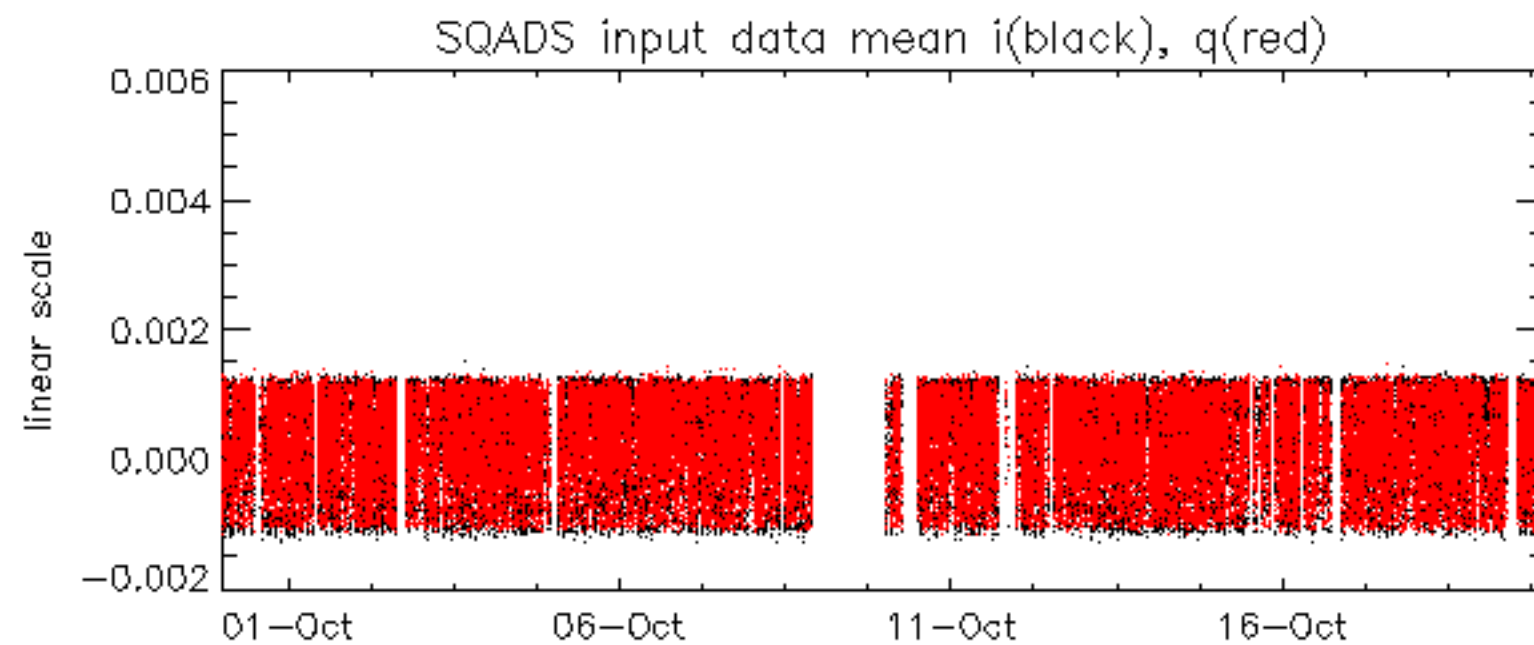


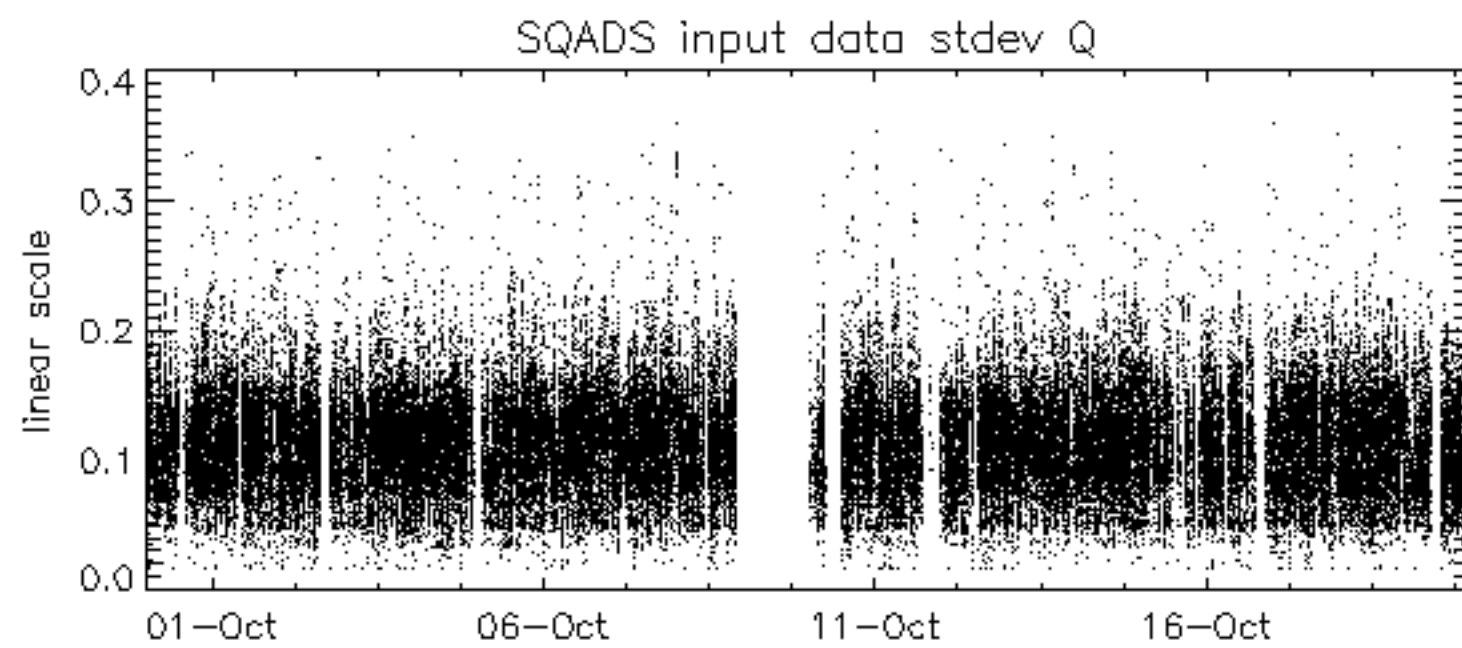
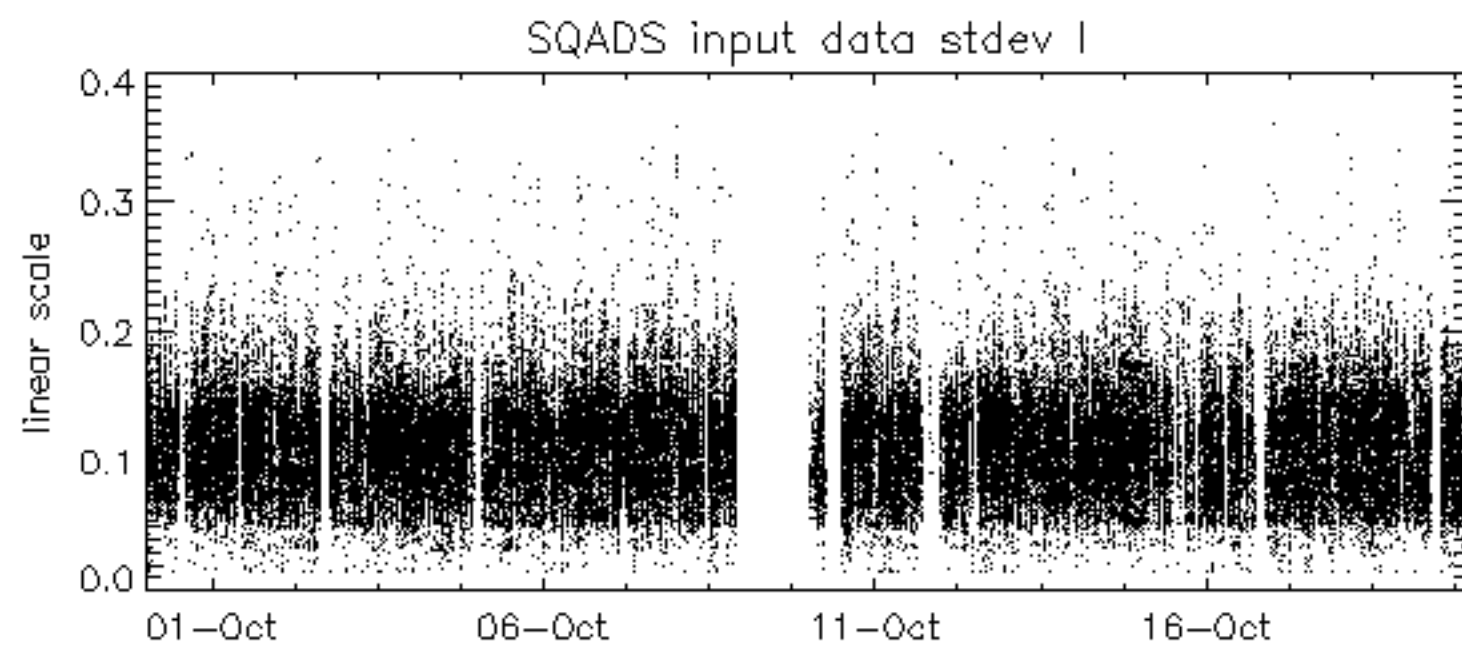
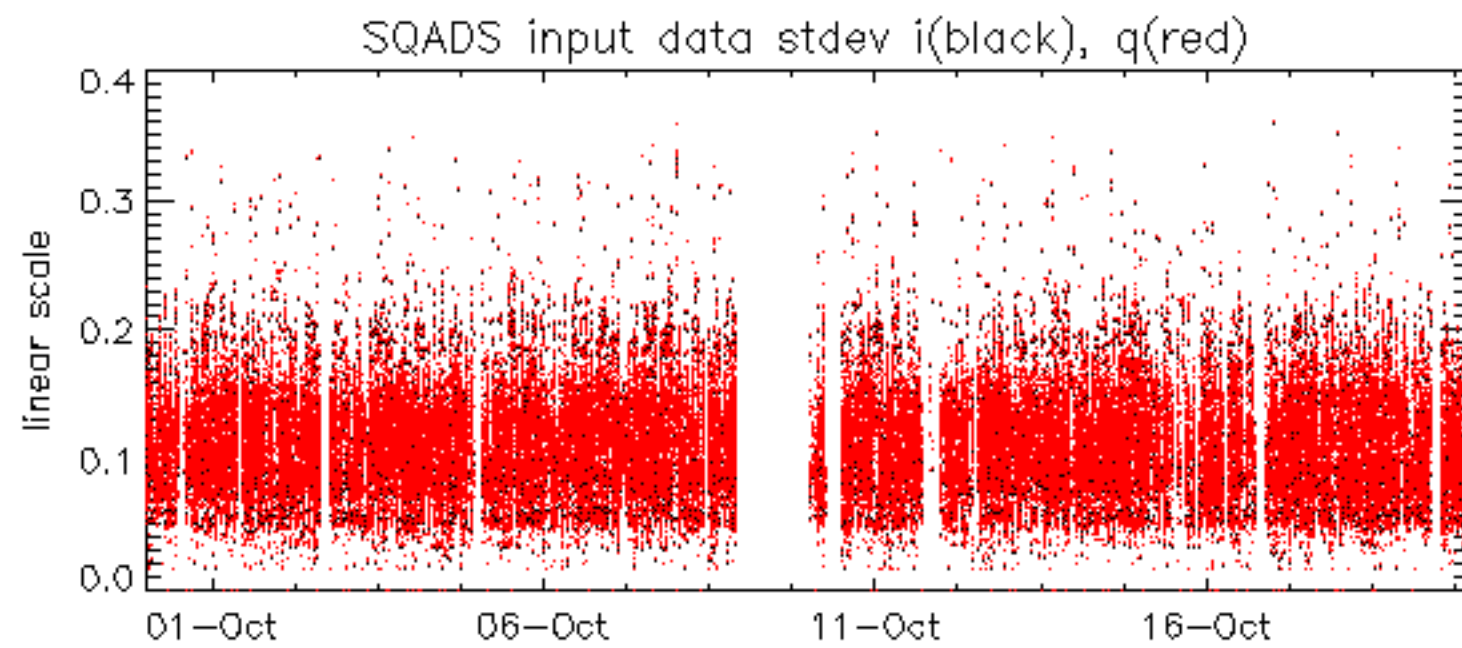






























No unavailabilities during the reported period.