

# REPORT OF 040115

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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 unavailability during the reported period.

### 2.2 - Browse Visual Inspection

No anomaly observed on available browse products.

### 2.3 - Data Analysis

### 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\_\_0PNPDK20040114\_195535\_000000152023\_00228\_09801\_0141.N1
- ASA\_MS\_\_0PNPDK20040114\_195655\_000000152023\_00228\_09801\_0140.N1

Polarisation	Start Time
V	20040114 195655
H	20040114 195535

#### 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	-3.69762	-22.5196	-8.15980
	stdev	0.00710483	0.0790334	0.00332510

24	mean	-5.07136	-21.1292	-8.15980
	stdev	0.0135762	0.0702505	0.00332510



## 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.75038	-22.5485	-8.16051
	stdev	0.0870979	0.0691442	0.00355315
24	mean	-5.21877	-21.1755	-8.16051
	stdev	0.566559	0.0622403	0.00355315



## 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	0.000430168
	stdev	3.02306e-07
MEAN Q	mean	0.000303705
	stdev	3.65449e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.115550
	stdev	0.00139215

STDEV Q	mean	0.115791
	stdev	0.00140670



### 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

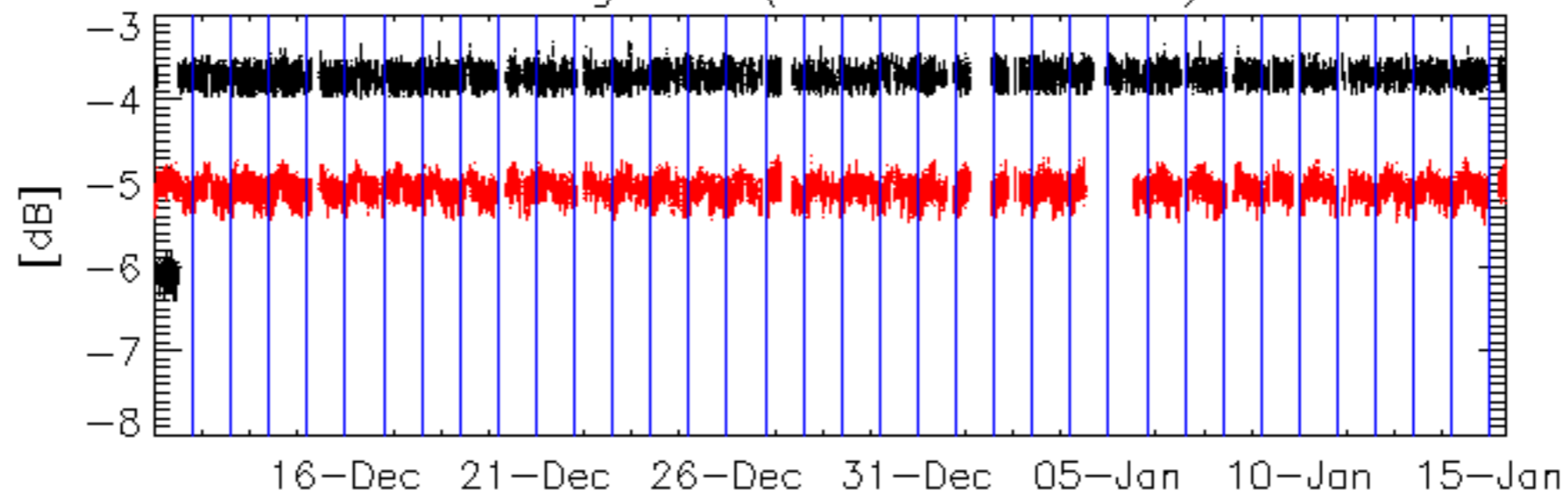
### 6.3 - Doppler evolution versus ANX

#### Evolution Doppler error versus ANX

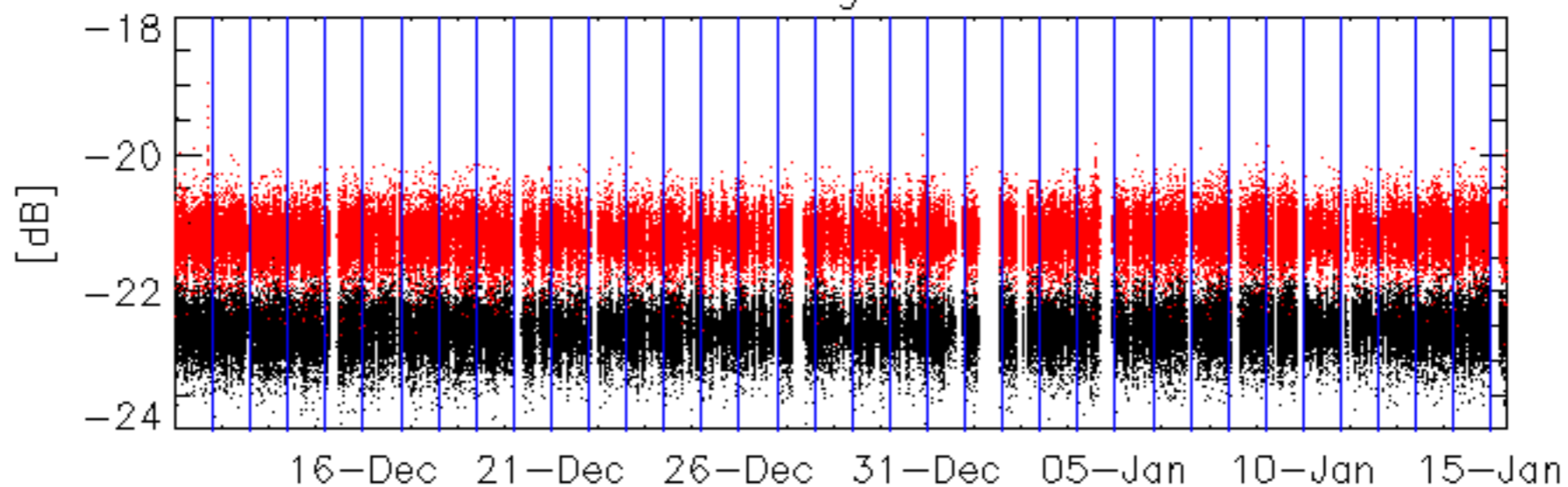




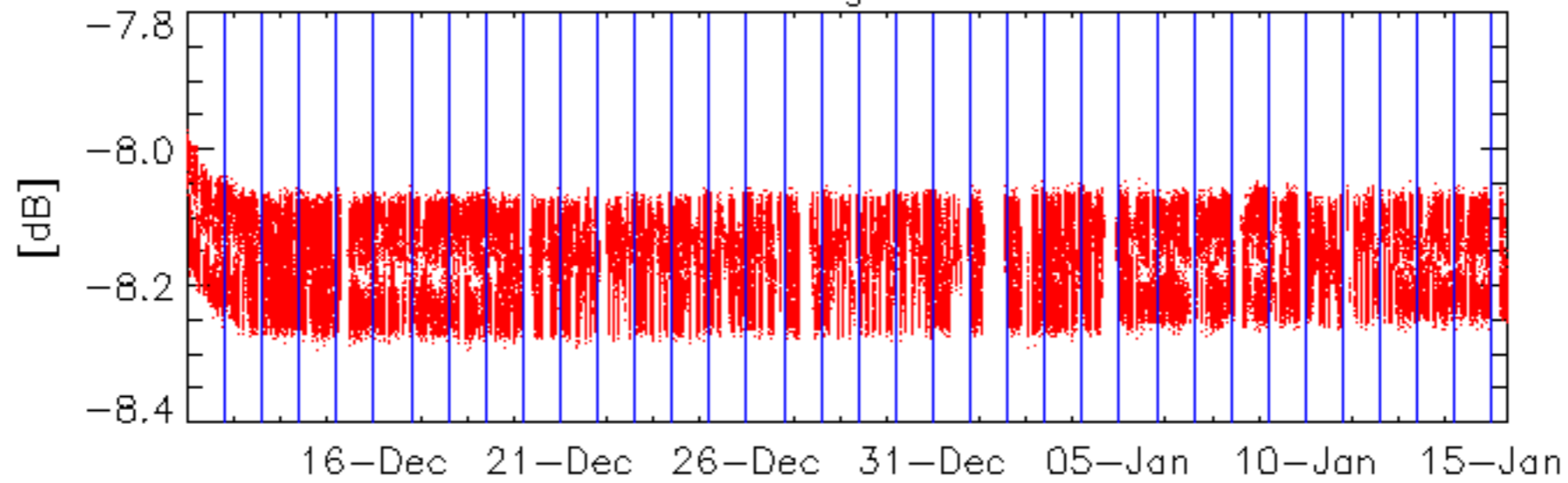
Average P1 (row 3 & row 24)



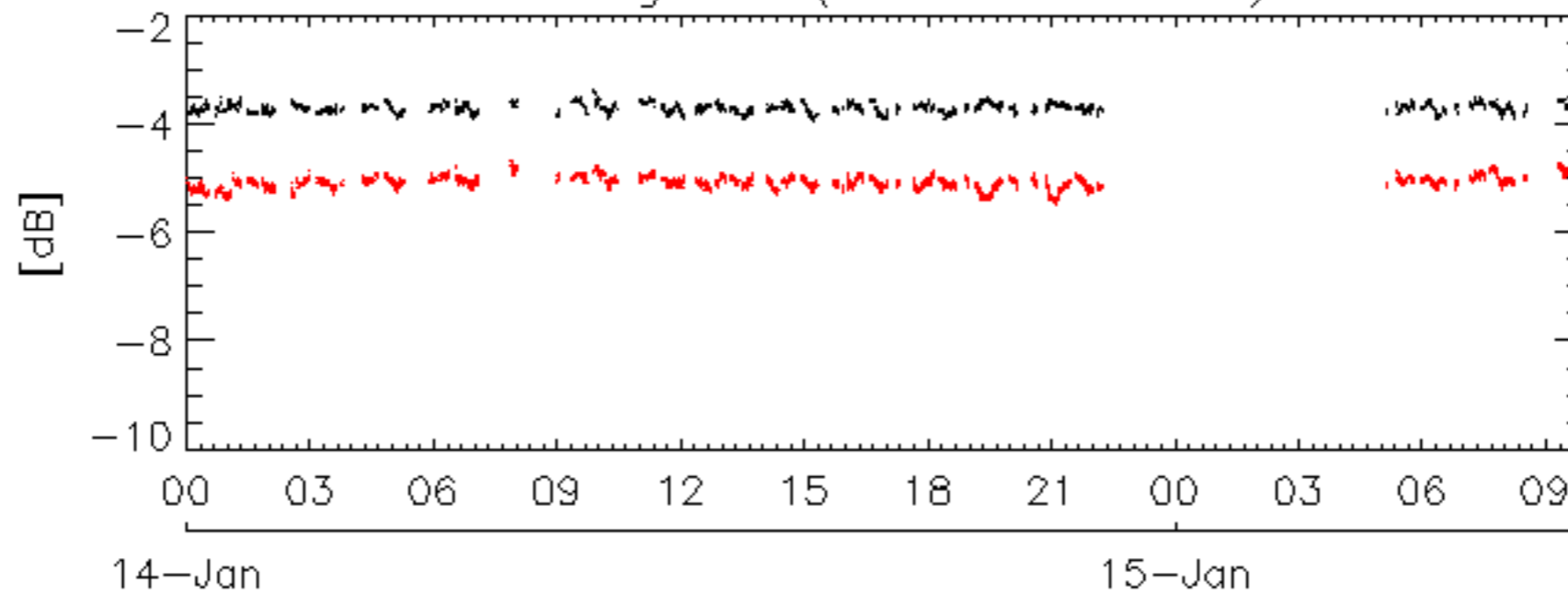
Average P2



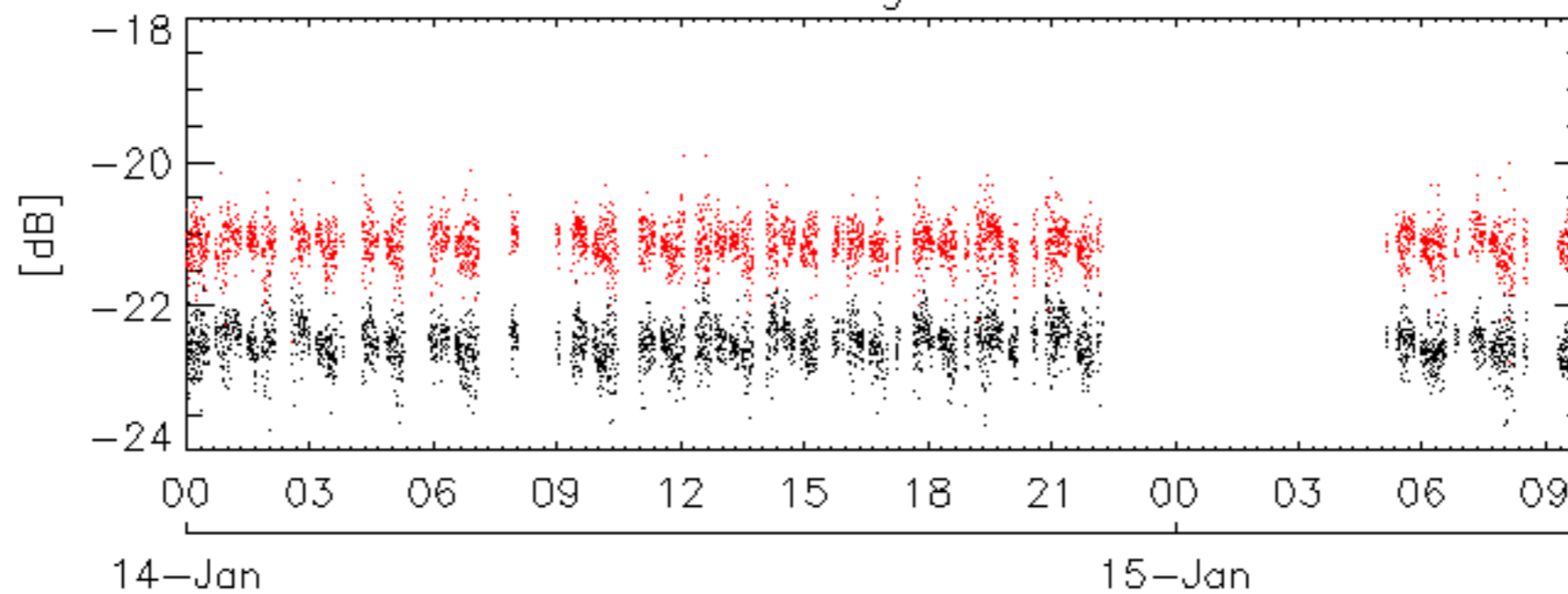
Average P3



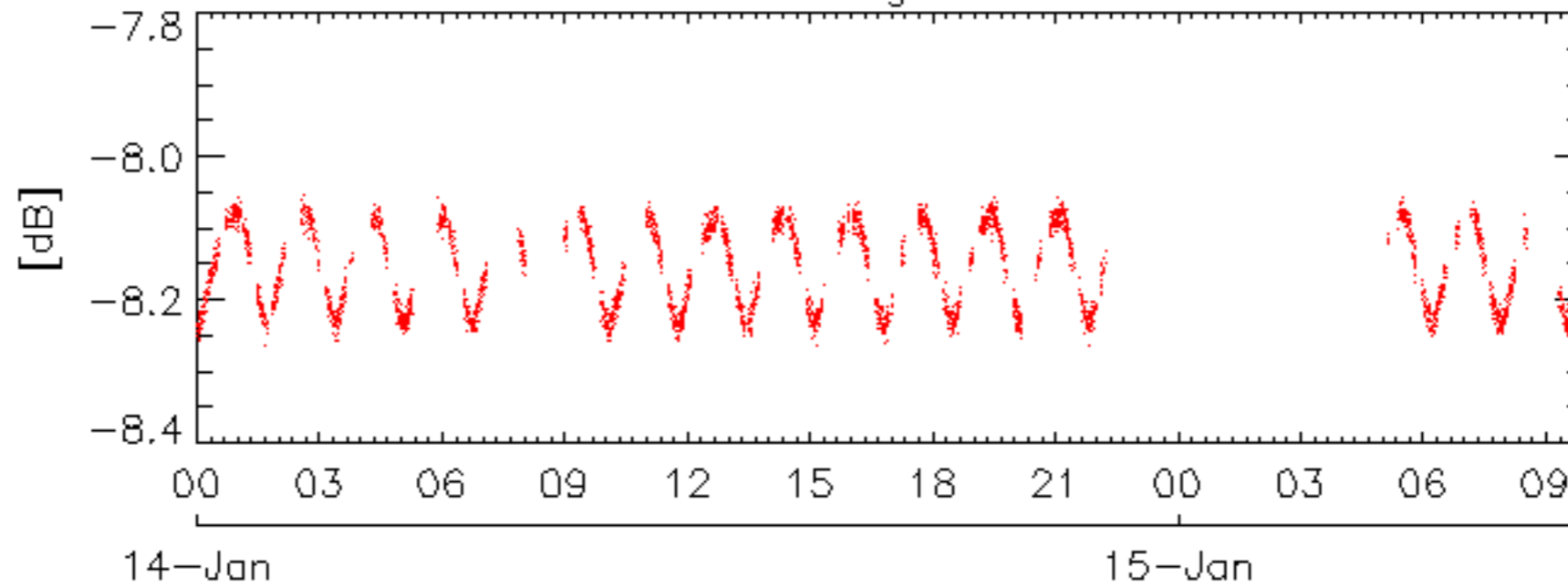
Average P1 (row 3 & row 24)



Average P2



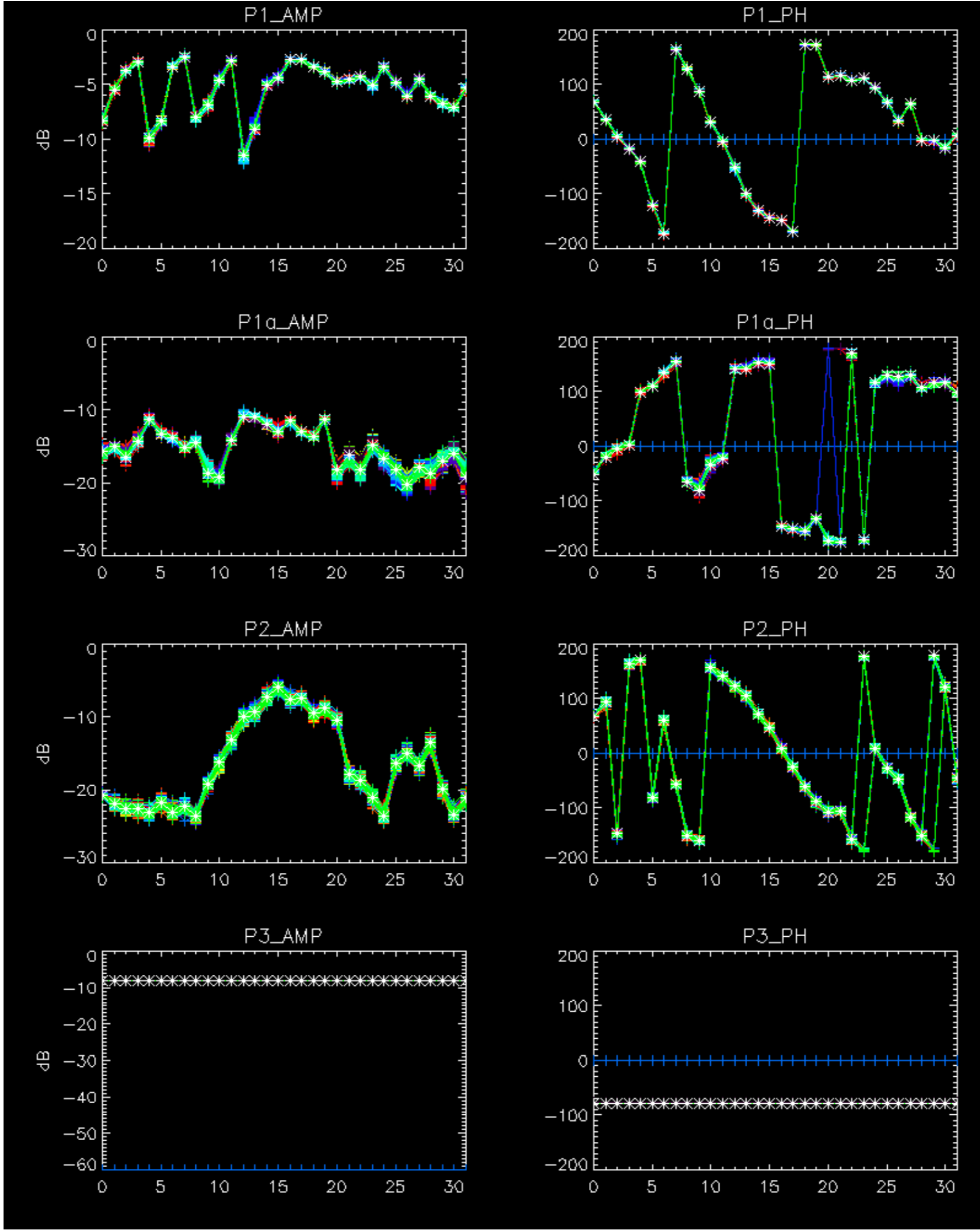
Average P3



No anomaly observed on available browse products.



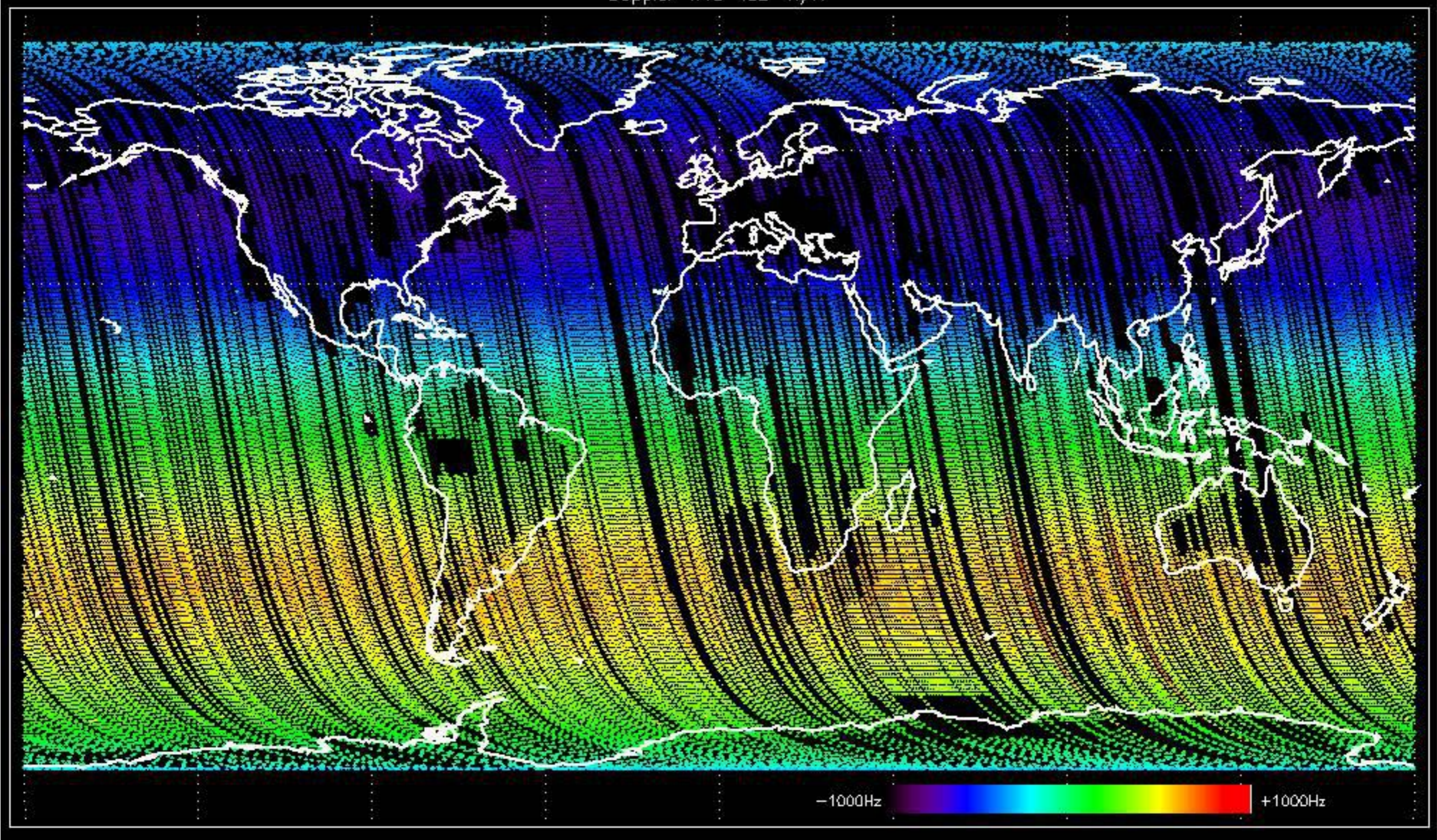
No anomalies observed.



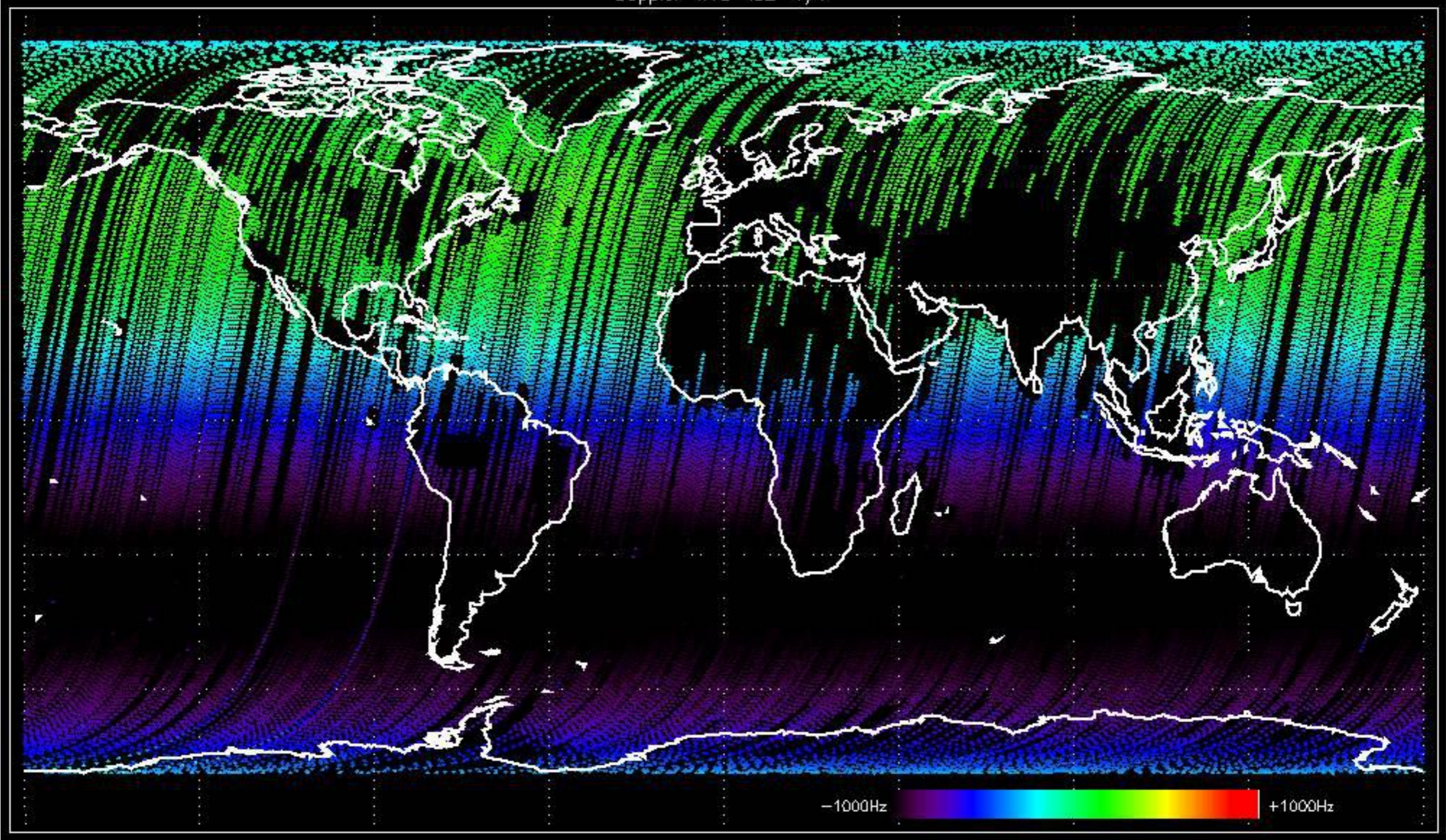


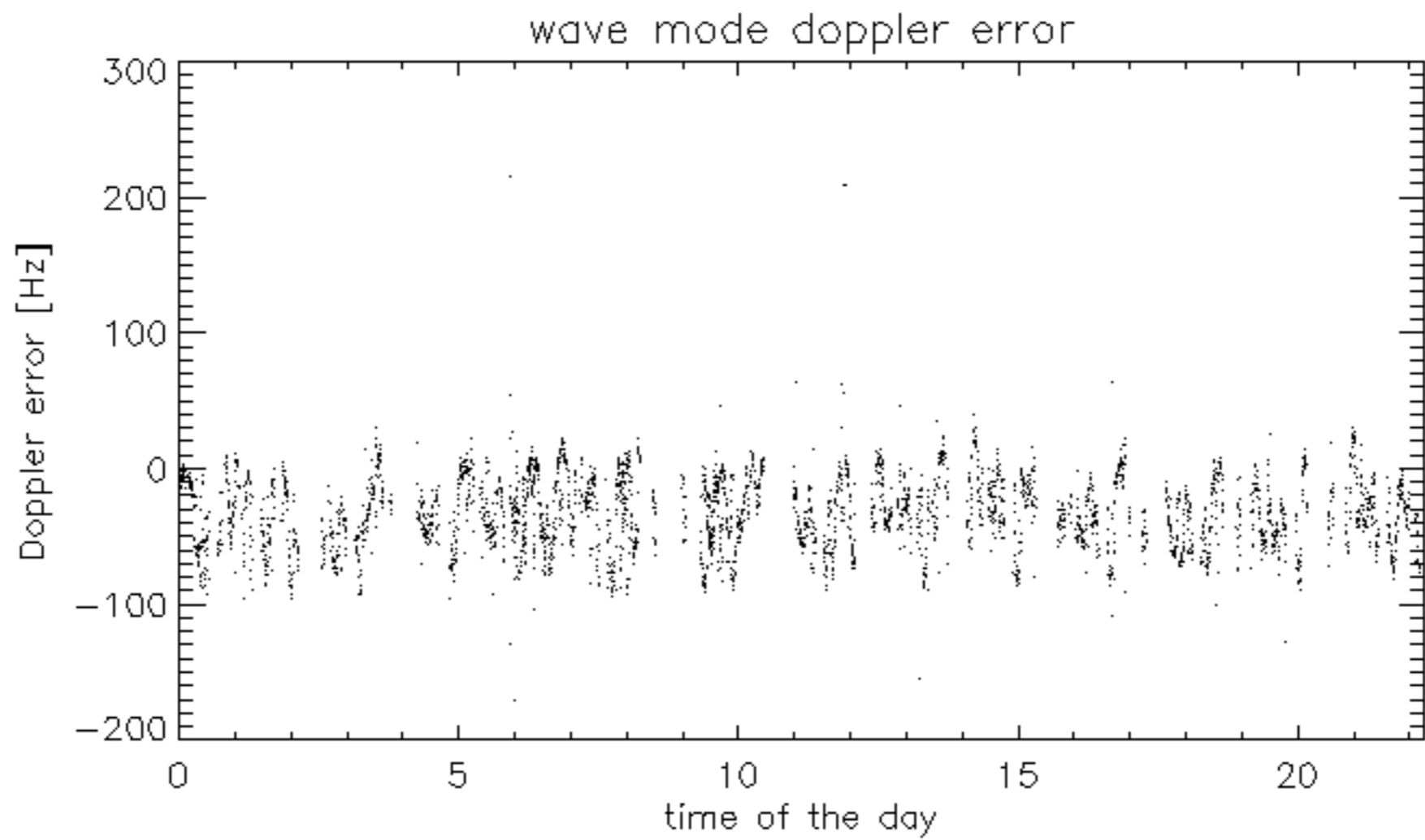
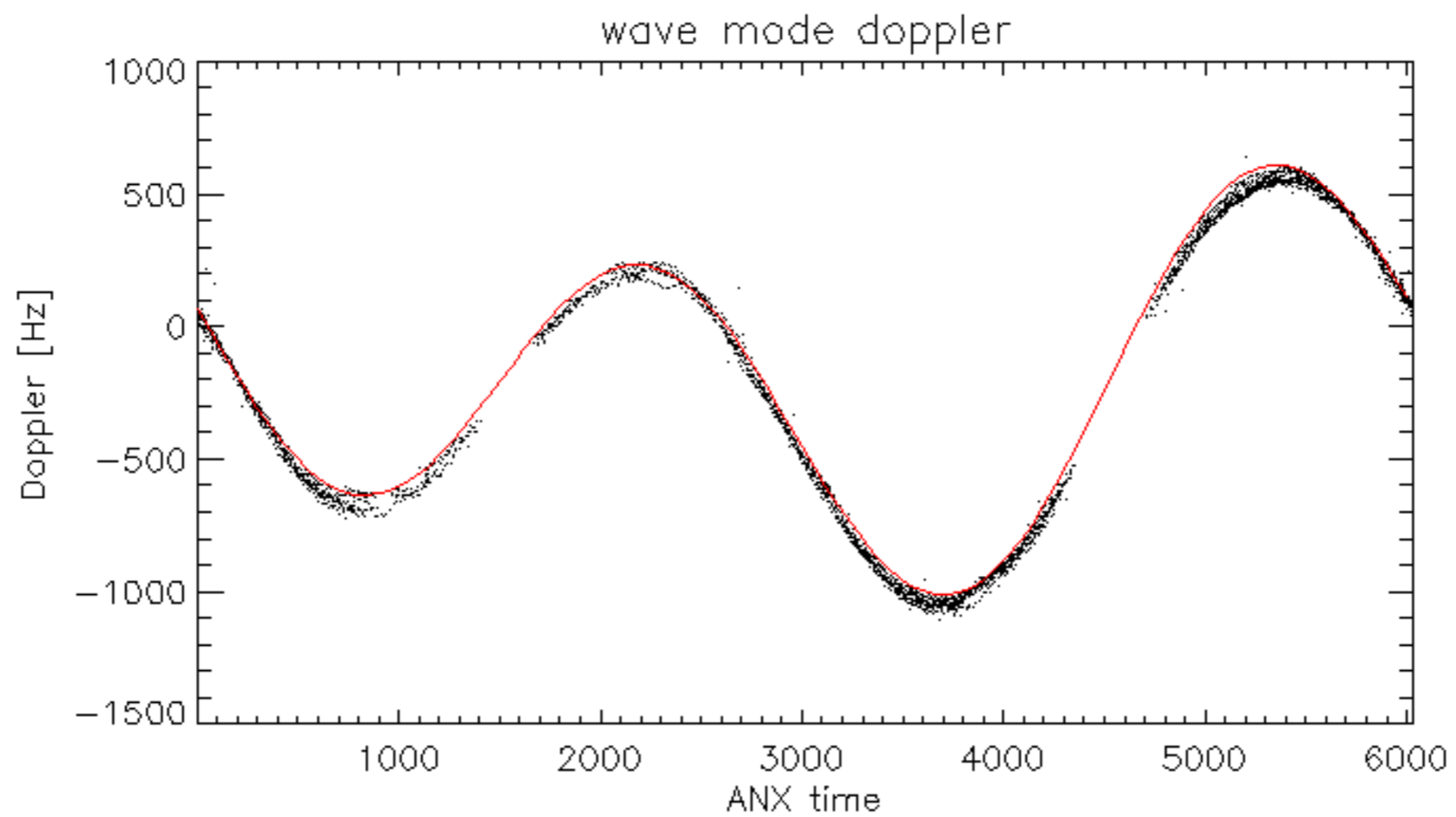
No anomalies observed in Doppler evolution.  
Doppler analysis performed over the last 35 days.

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

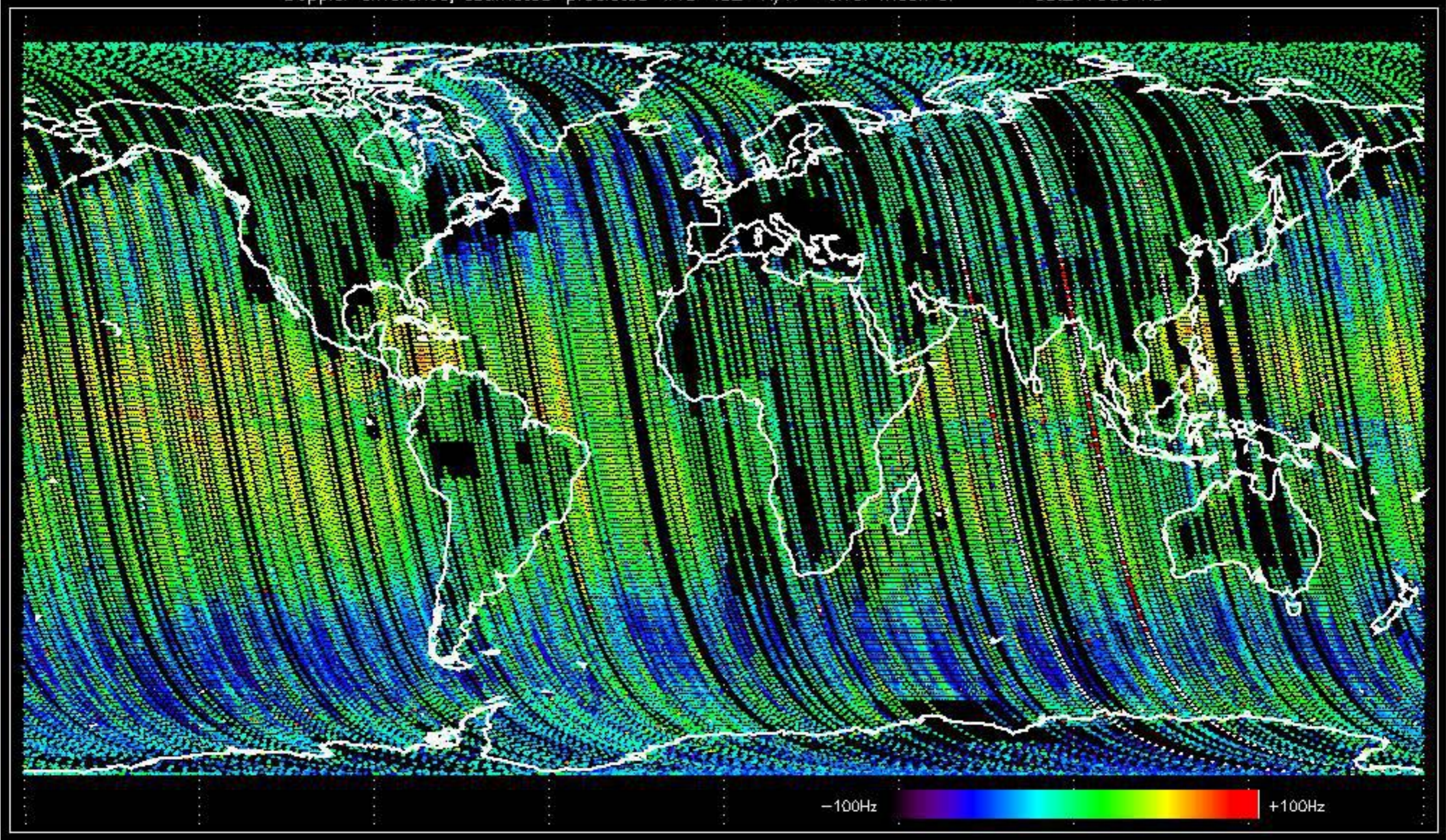


Doppler 'WVS' 'ISZ' 'V/V'



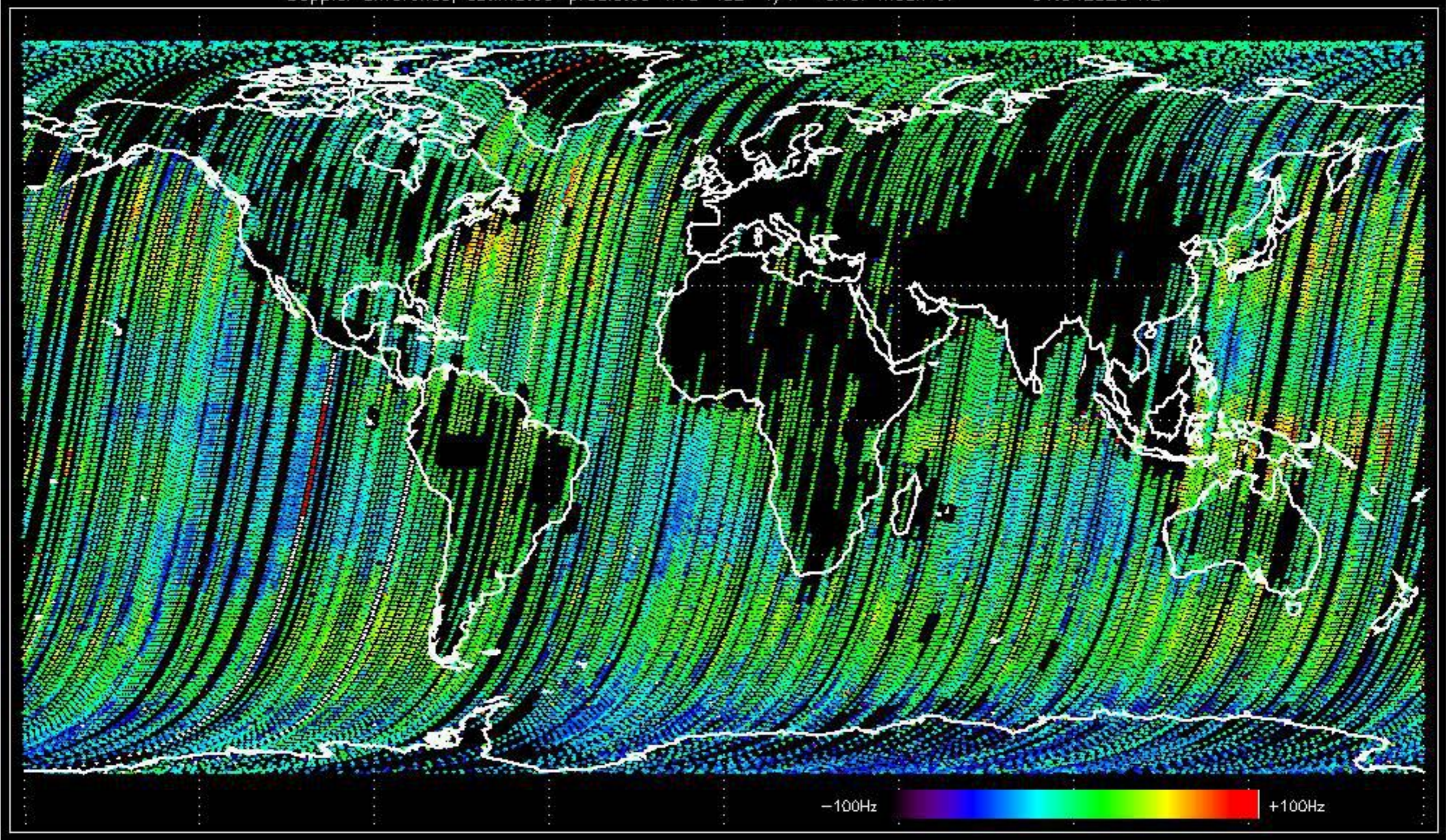


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -33.277389 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -31.542920 Hz



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- ASA\_MS\_\_0PNPDK20040114\_195655\_000000152023\_00228\_09801\_0140.N1

No anomalies observed.









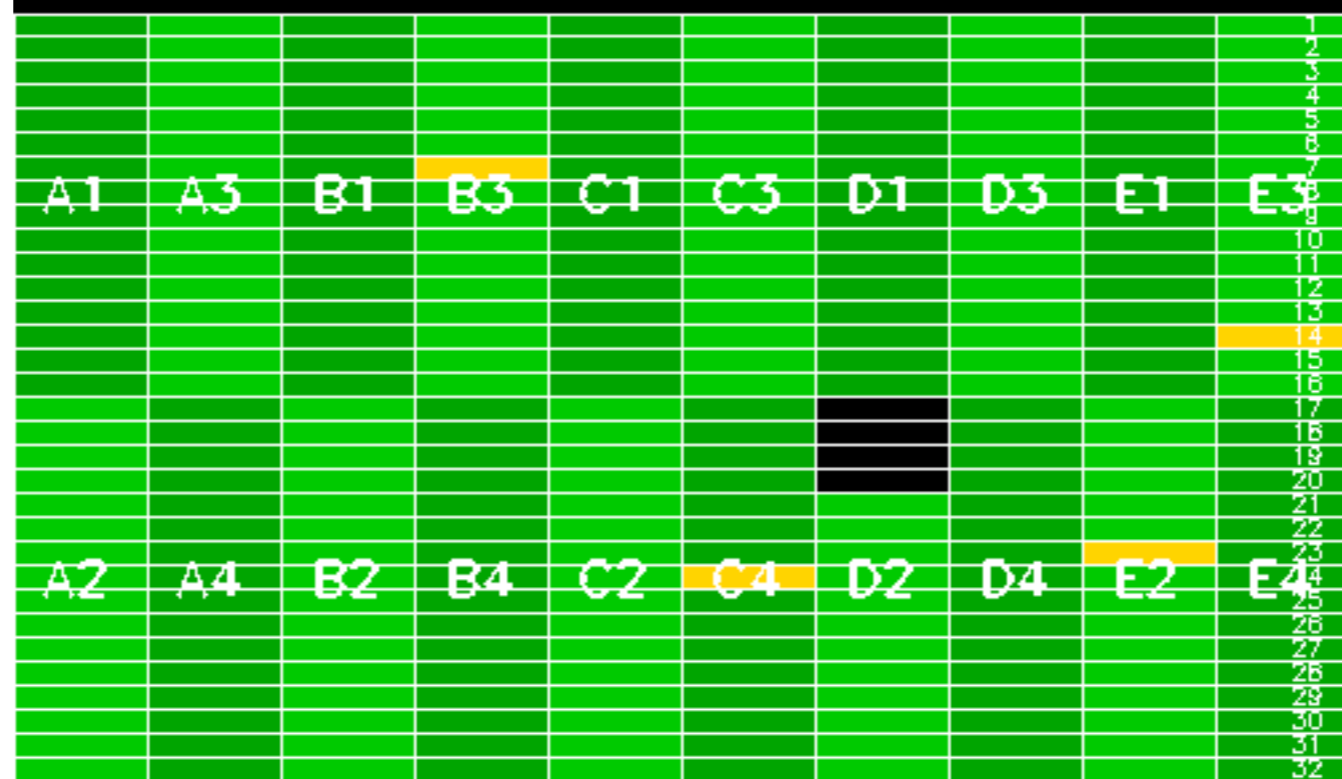


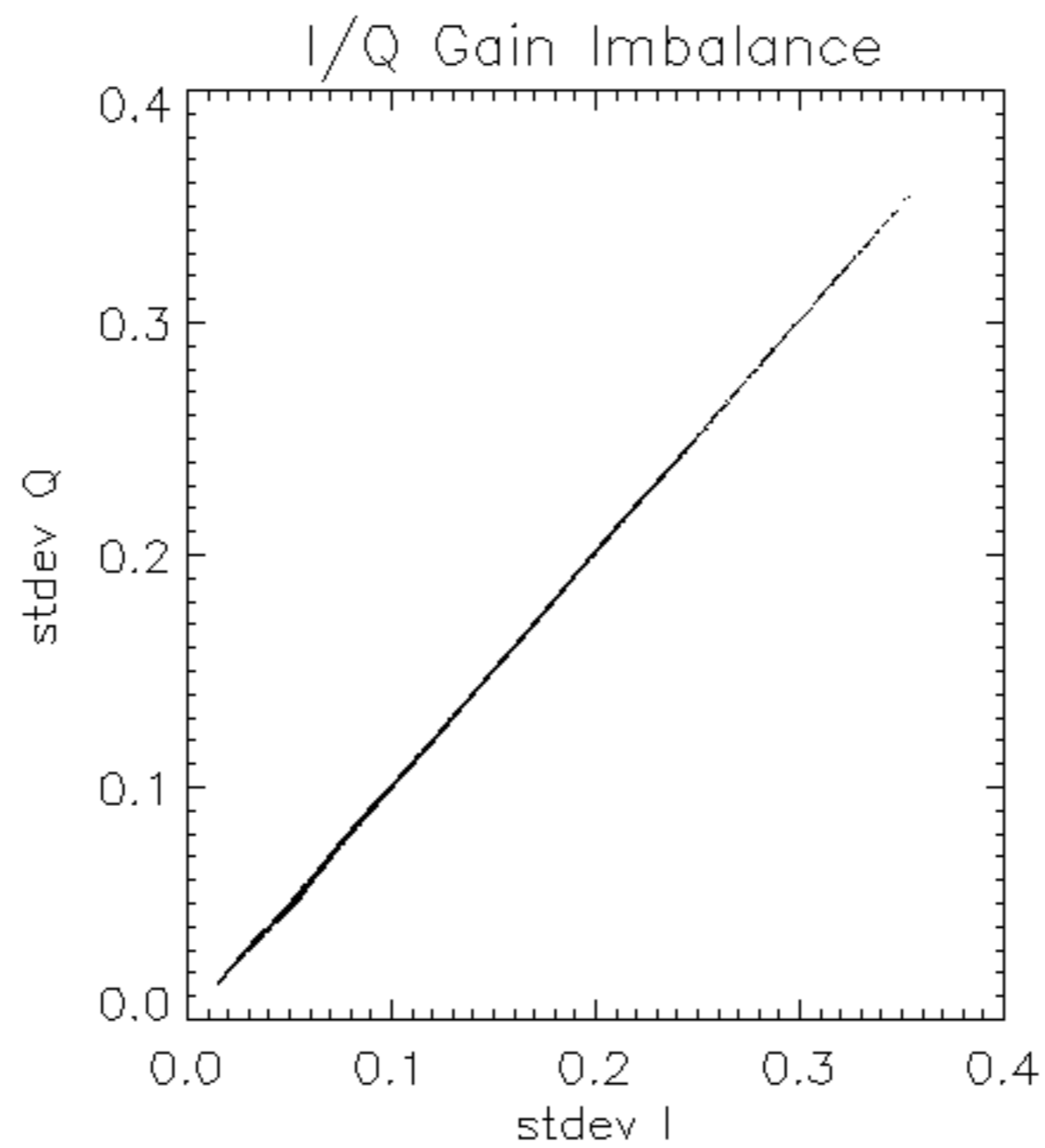


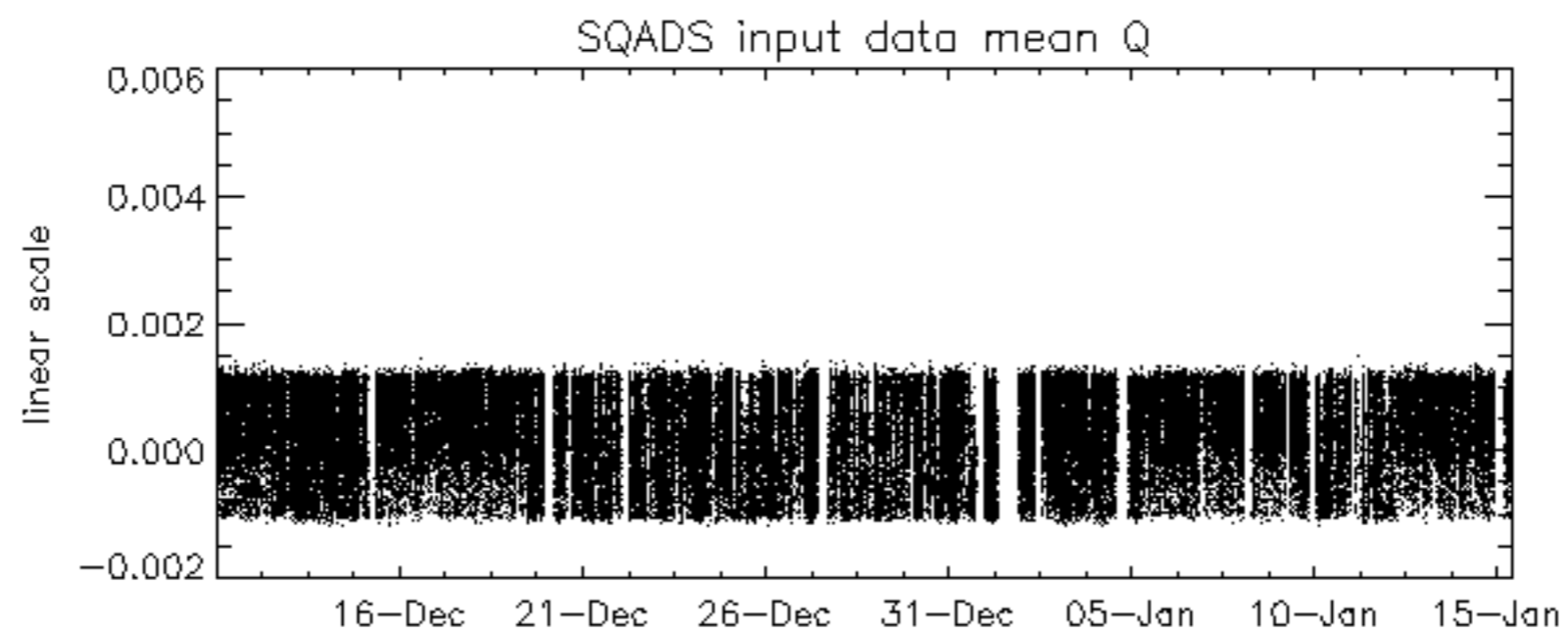
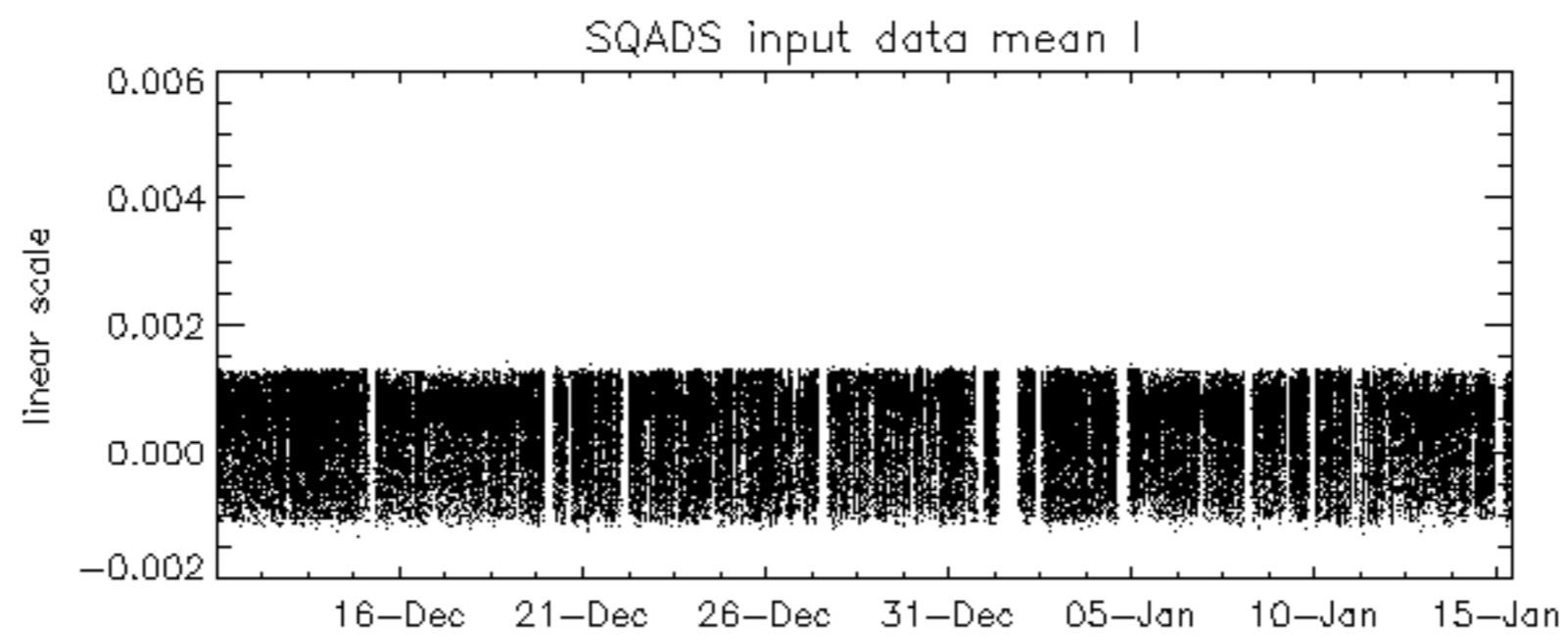
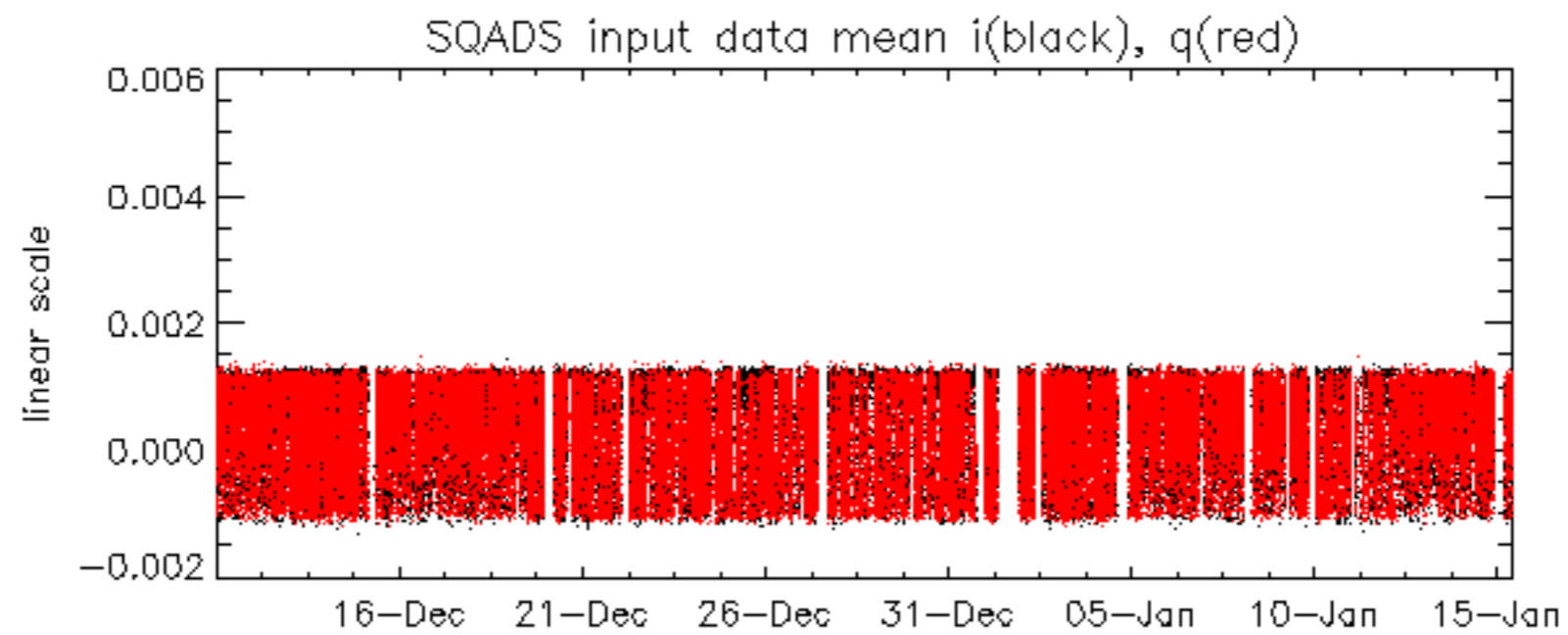


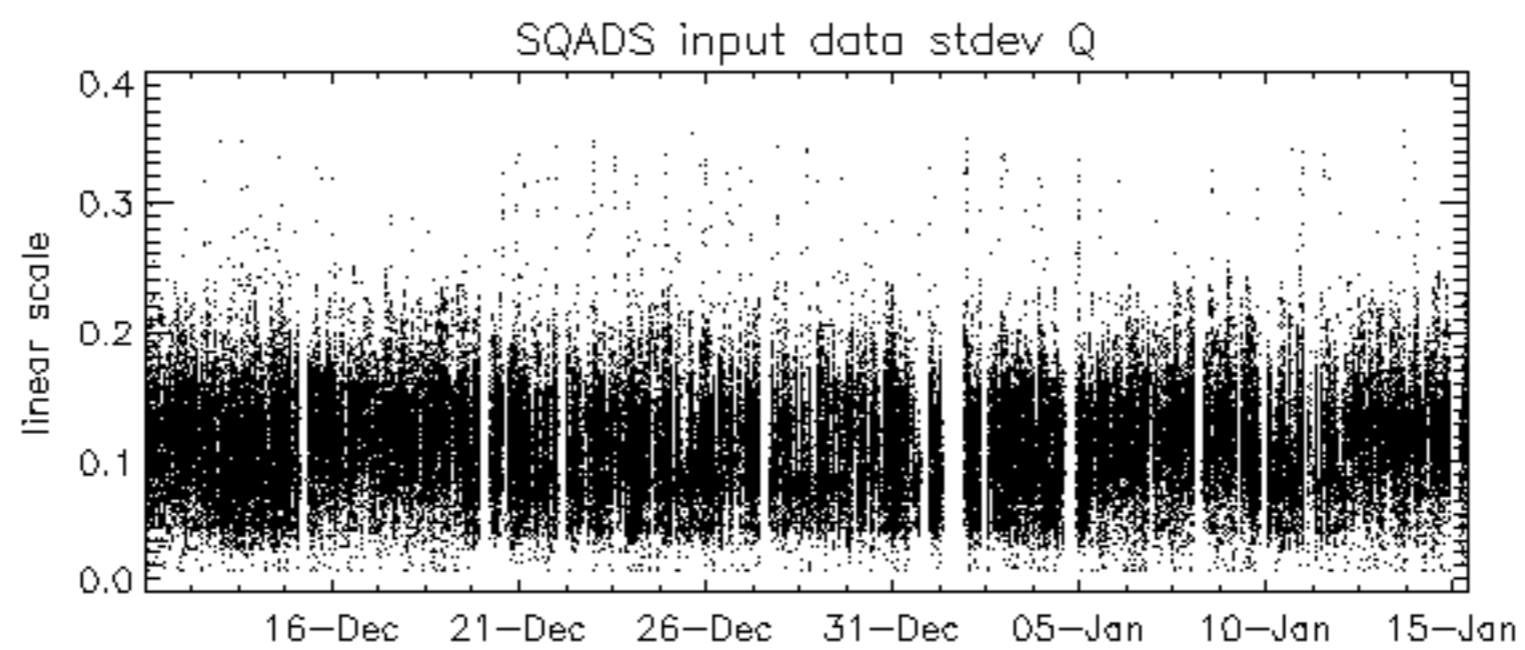
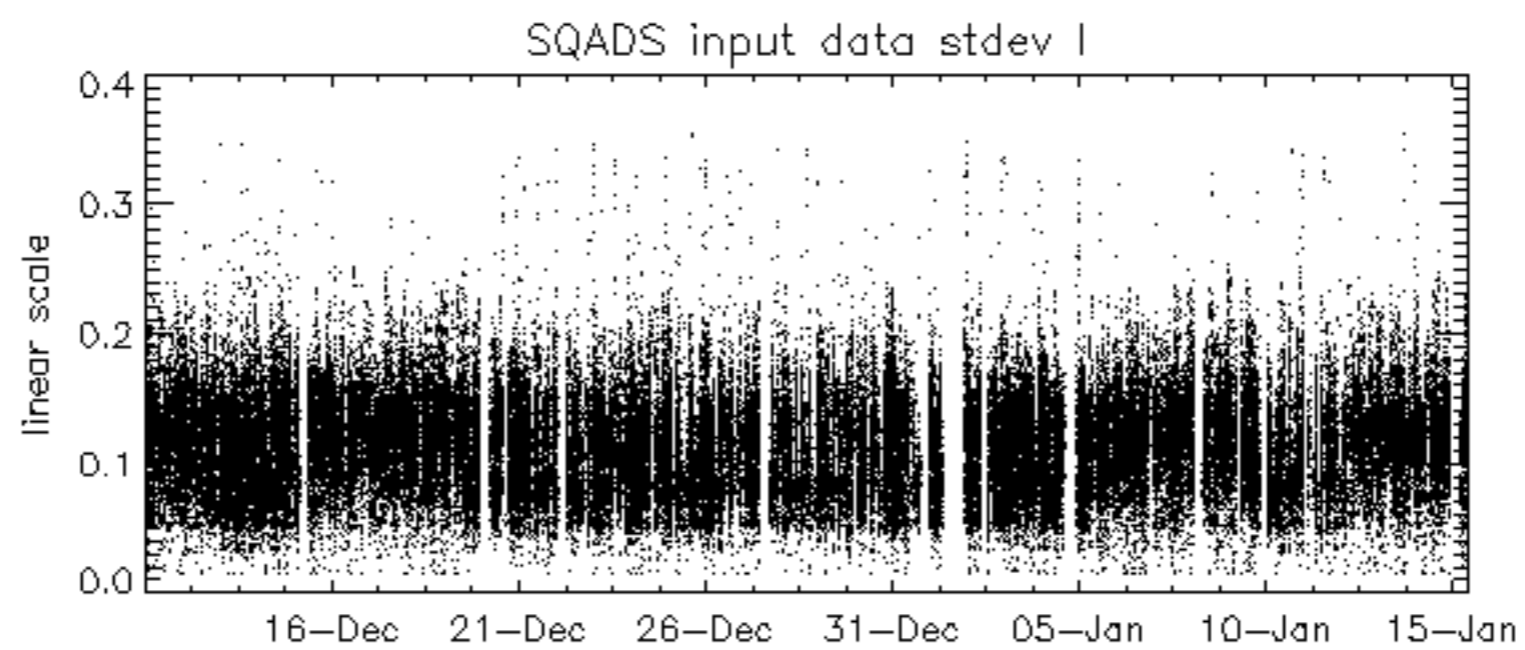
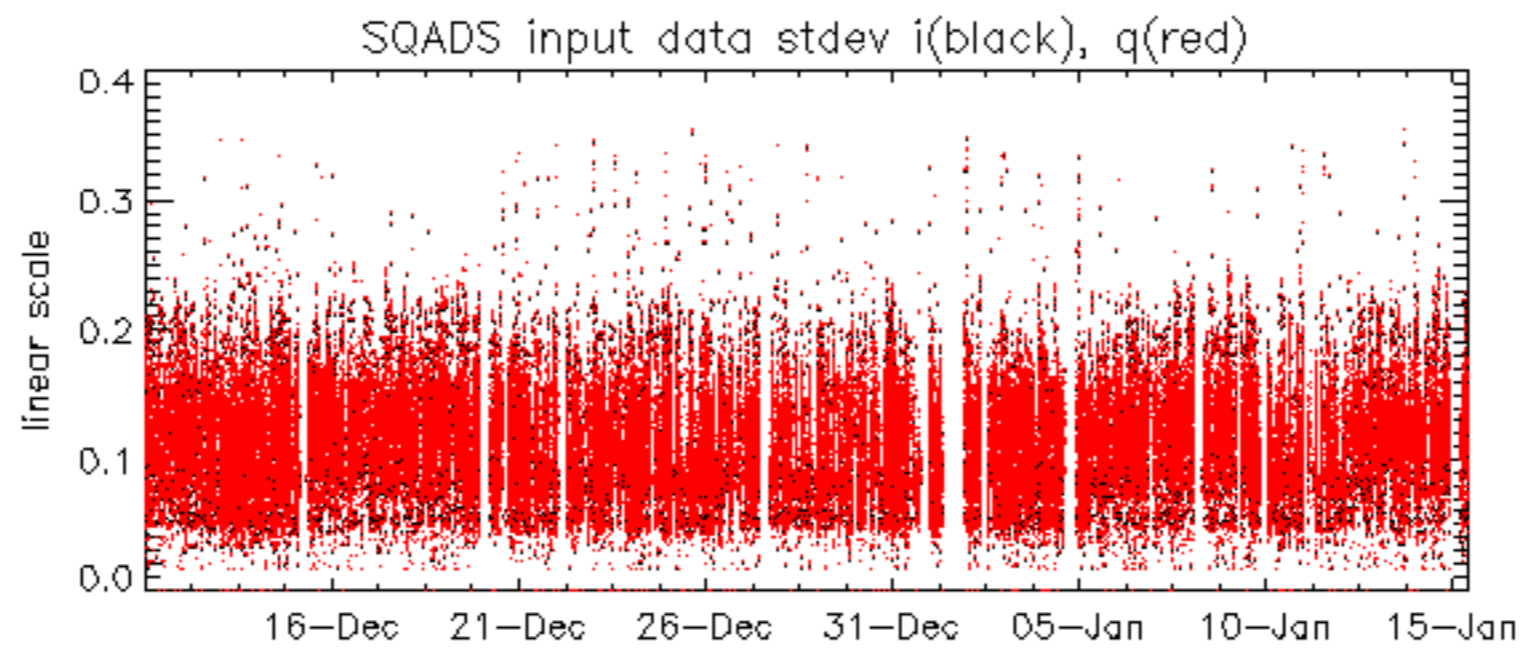


Reference: 2003-06-12 14:10:32 V RxPhase  
 Test : 2004-01-14 19:56:55 V



























No unavailability during the reported period.