

# REPORT OF 031219

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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 instrument unavailabilities for 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\_\_0PNPDK20031218\_190351\_000000152022\_00342\_09414\_0083.N1
- ASA\_MS\_\_0PNPDK20031218\_190511\_000000152022\_00342\_09414\_0082.N1

Polarisation	Start Time
V	20031218 190511
H	20031218 190351

#### 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	-3.72580	-22.5624	-8.16438
	stdev	0.00750924	0.0778476	0.00423805
24	mean	-5.08824	-21.2003	-8.16438
	stdev	0.0122162	0.0686613	0.00423805



## 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.76919	-22.5630	-8.14916
	stdev	0.0788509	0.0718997	0.00523295
24	mean	-5.09584	-21.2244	-8.14916
	stdev	0.0136747	0.0652876	0.00523295



## 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	0.000341286
	stdev	1.12136e-05
MEAN Q	mean	0.000198793
	stdev	1.12226e-05



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
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STDEV I	mean	0.115735
	stdev	0.00152909
STDEV Q	mean	0.115982
	stdev	0.00154460



### 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

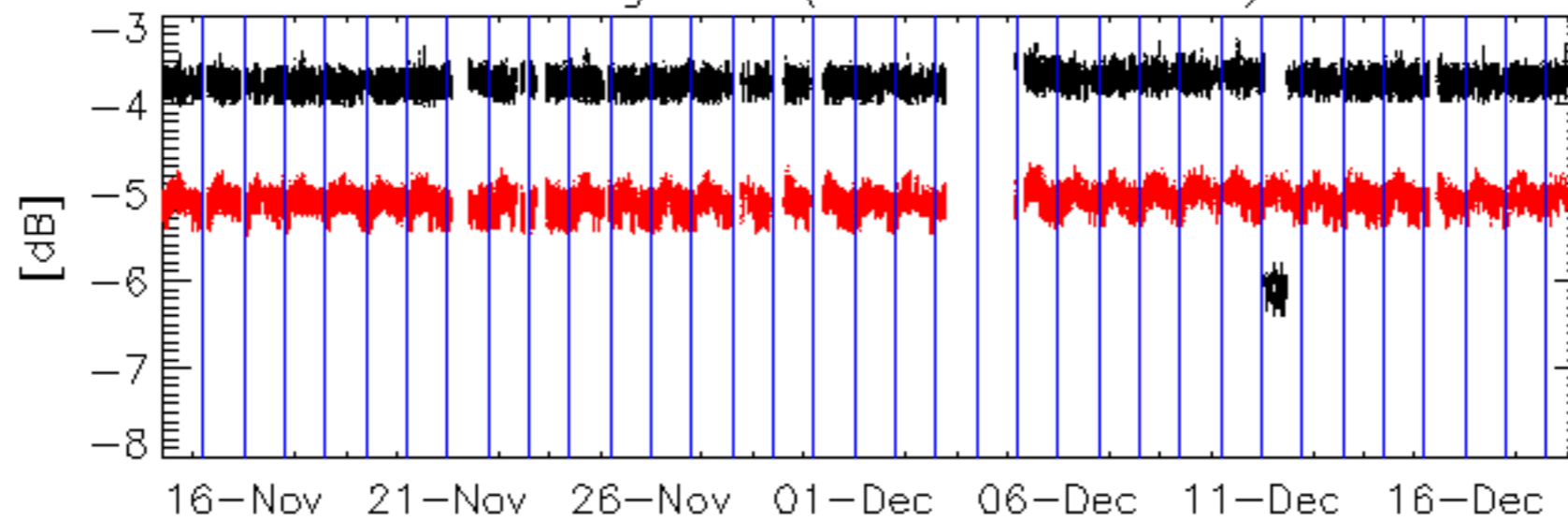
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

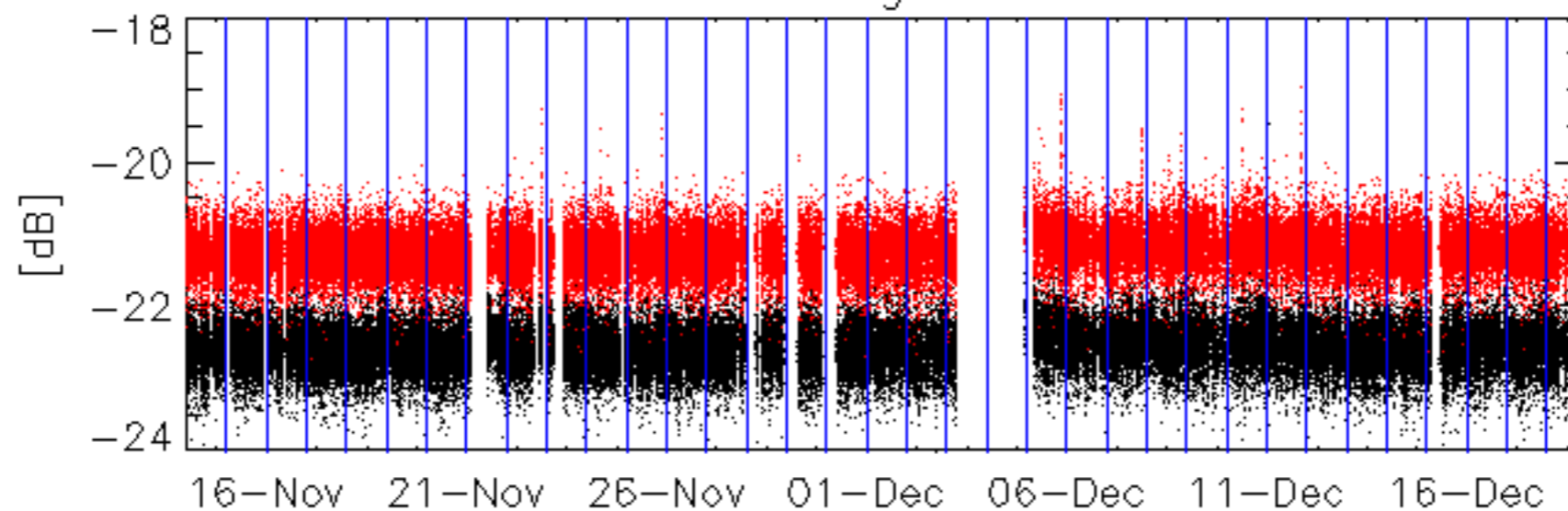
Evolution Doppler error versus ANX



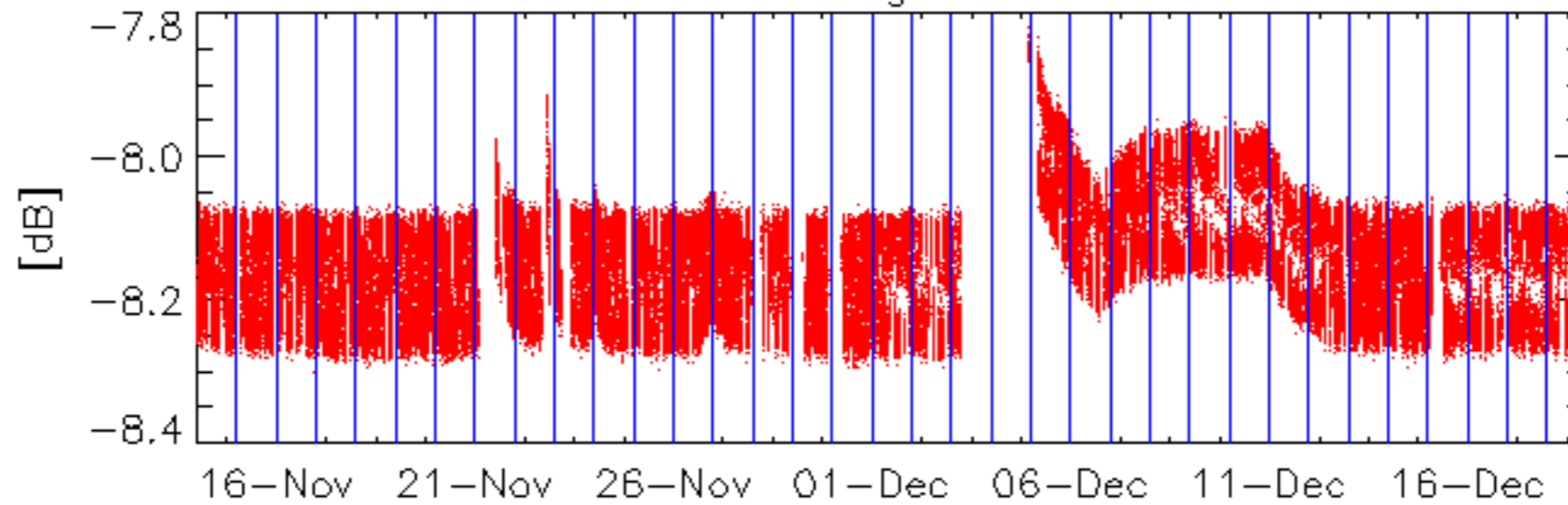

Average P1 (row 3 & row 24)



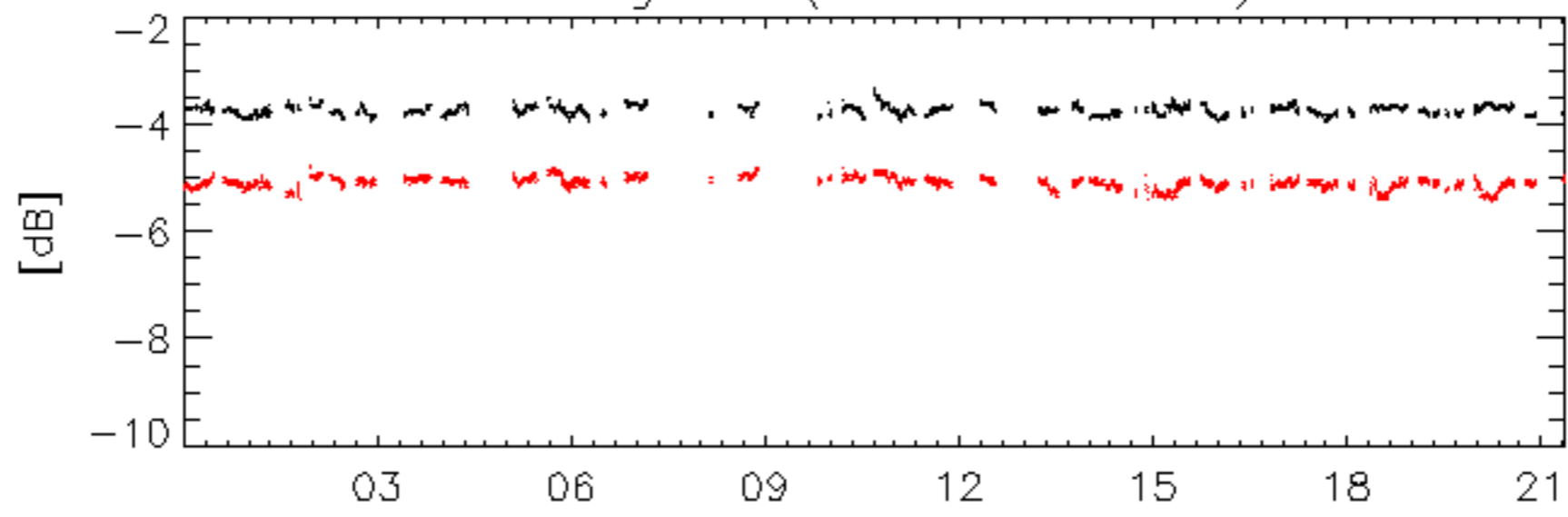
Average P2



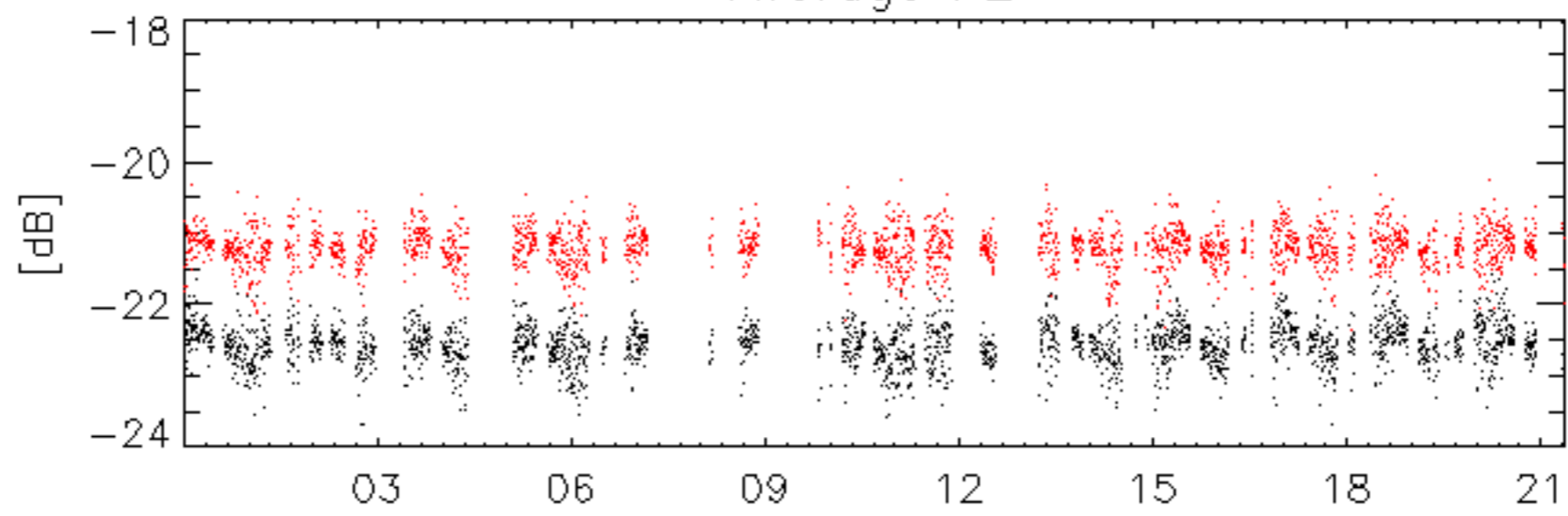
Average P3



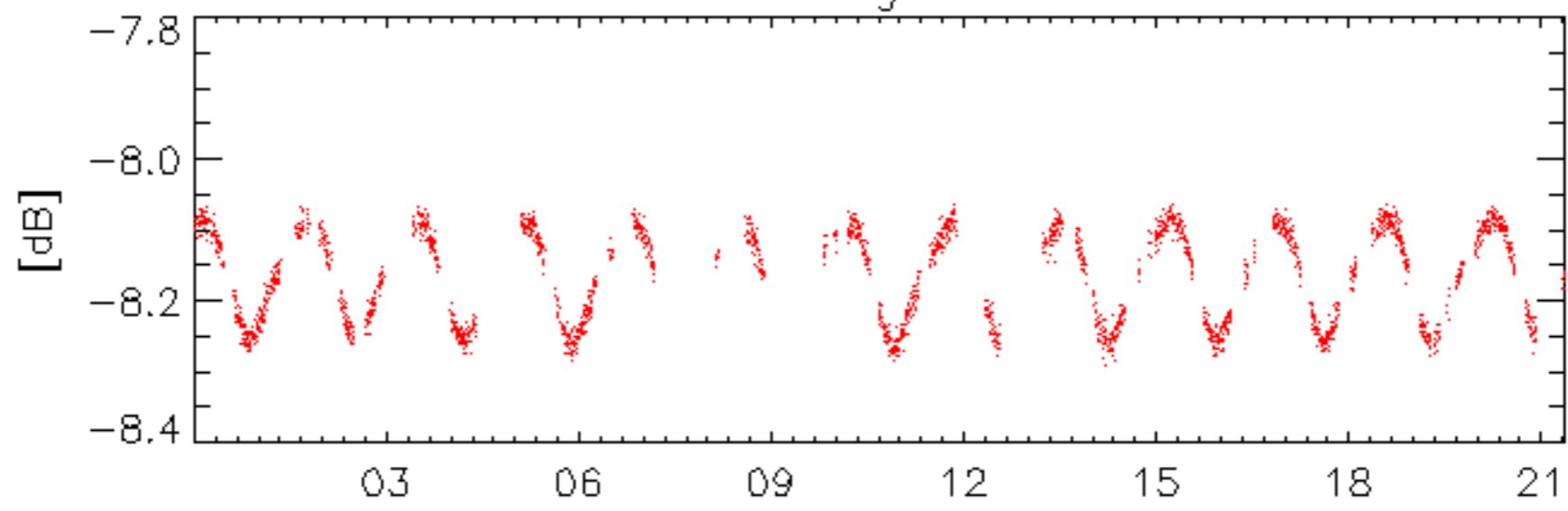
Average P1 (row 3 & row 24)



18-Dec  
Average P2



18-Dec  
Average P3

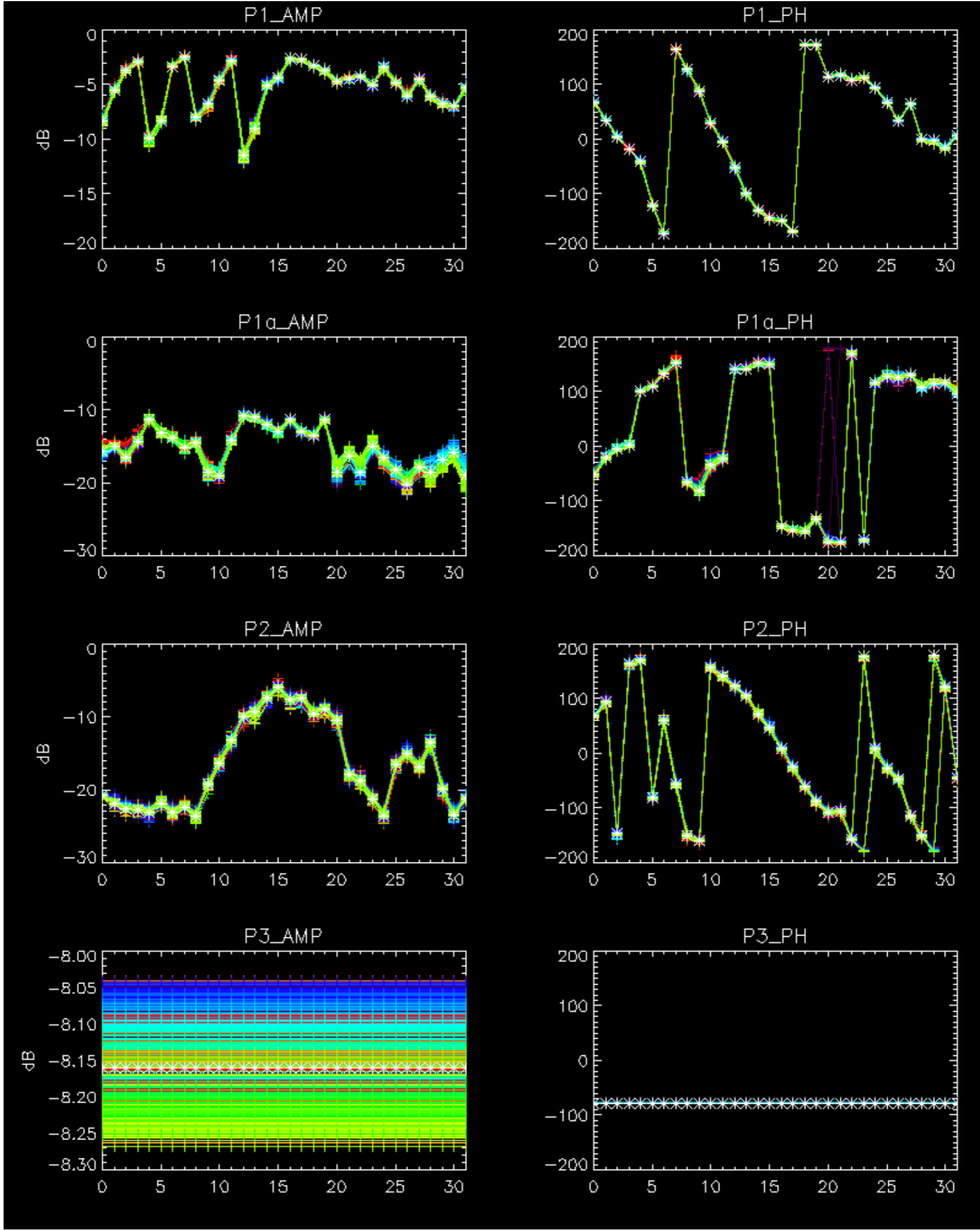


18-Dec

No anomalies observed on available browse products



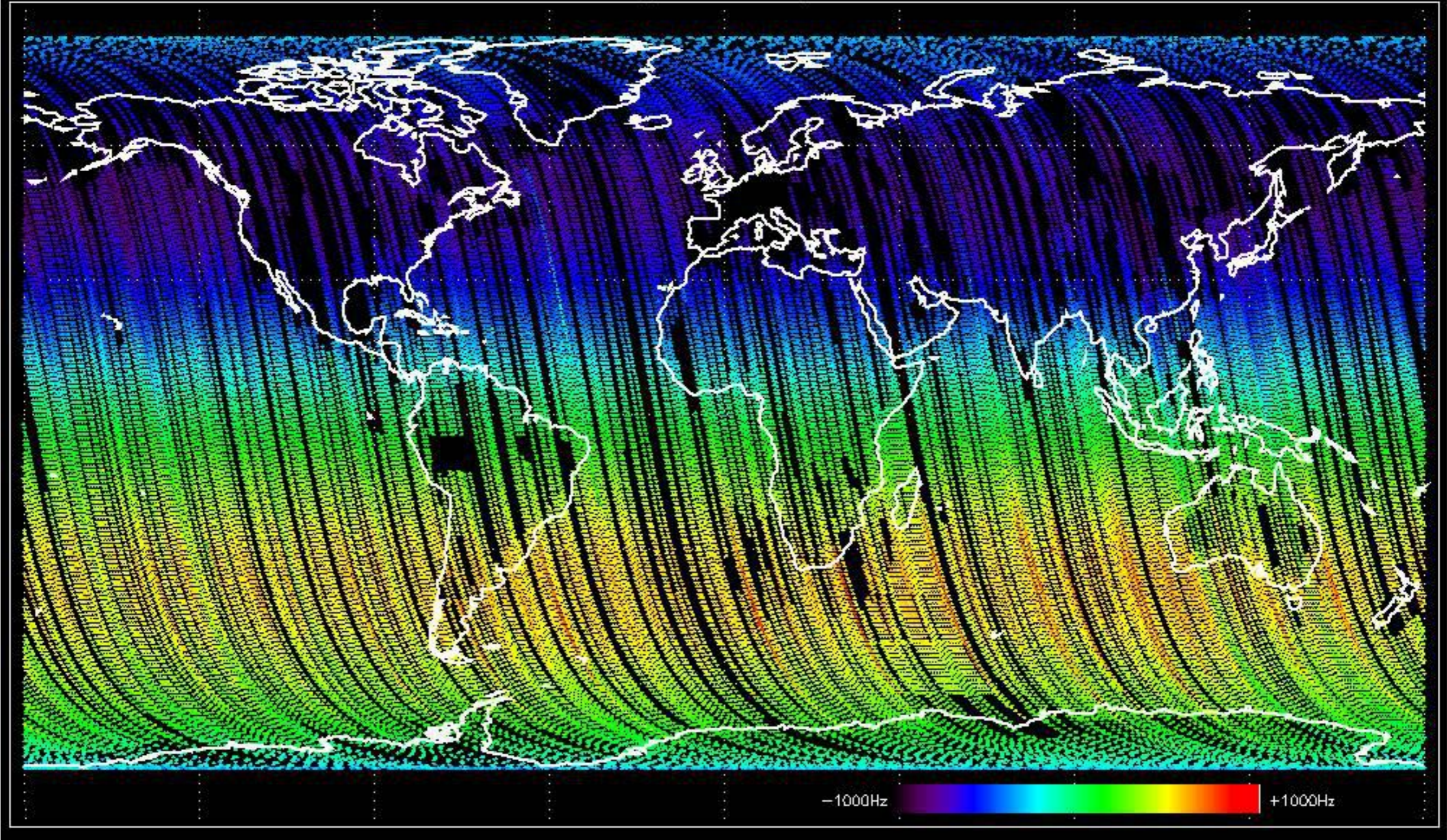
No anomalies observed.



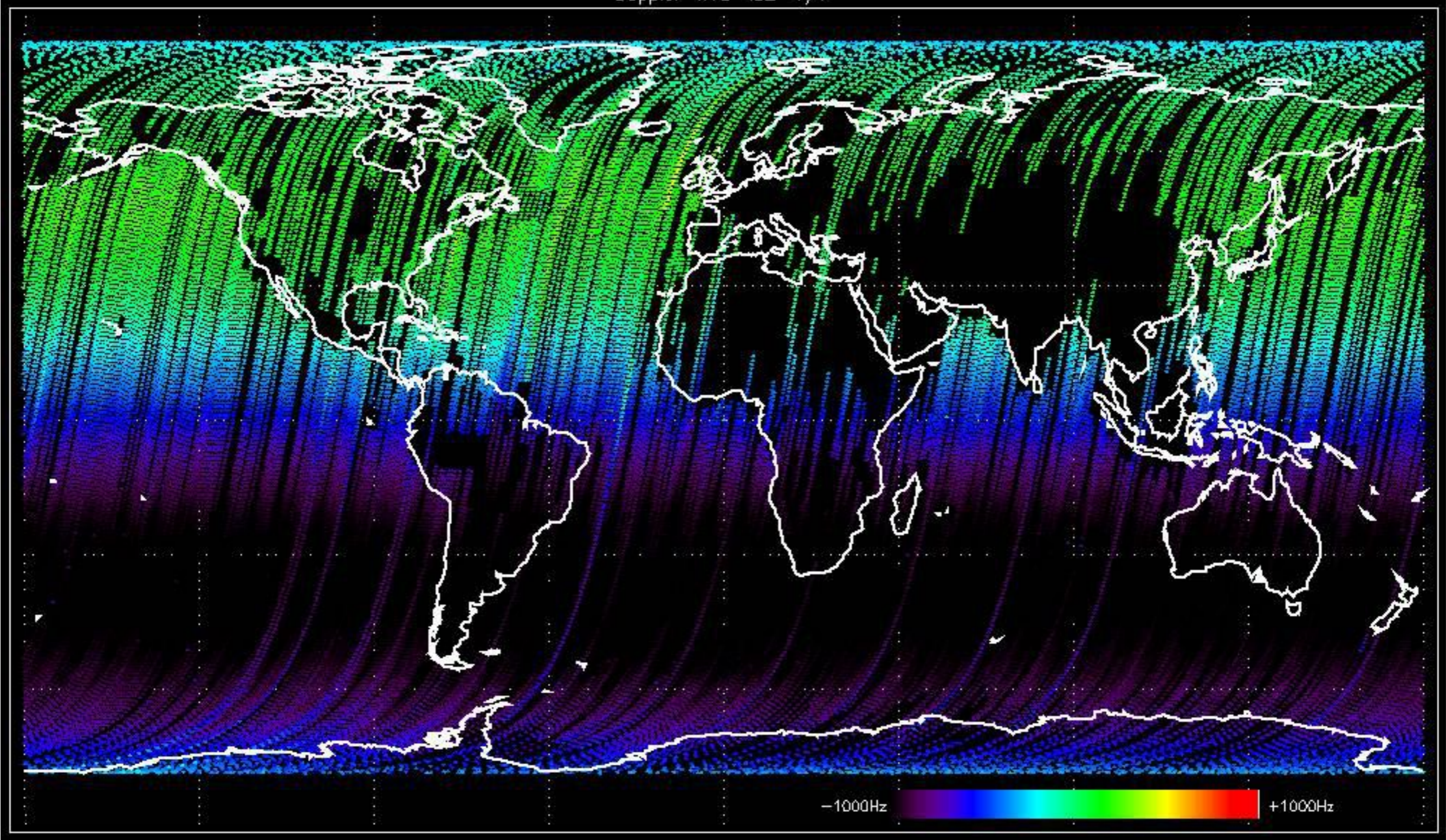
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

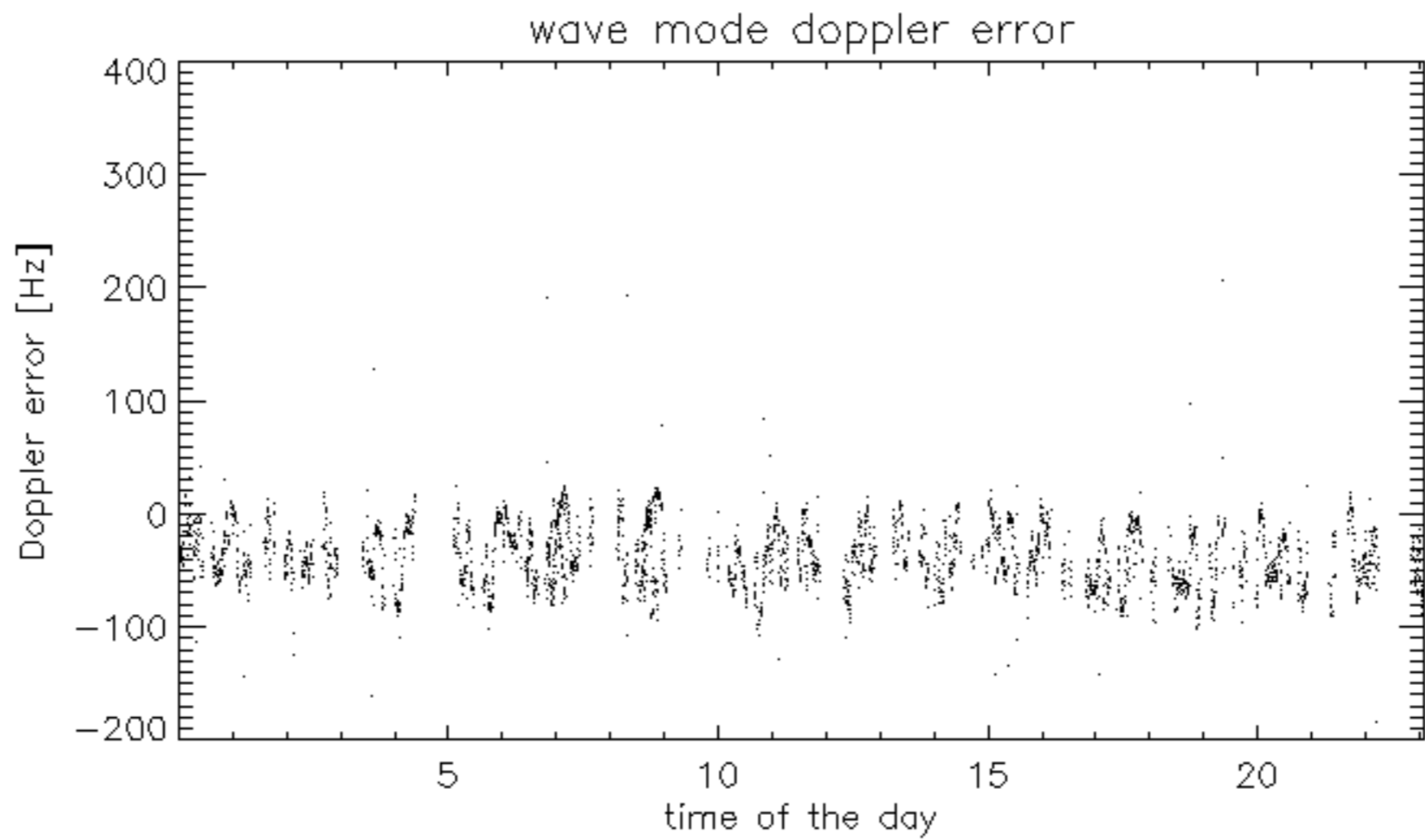
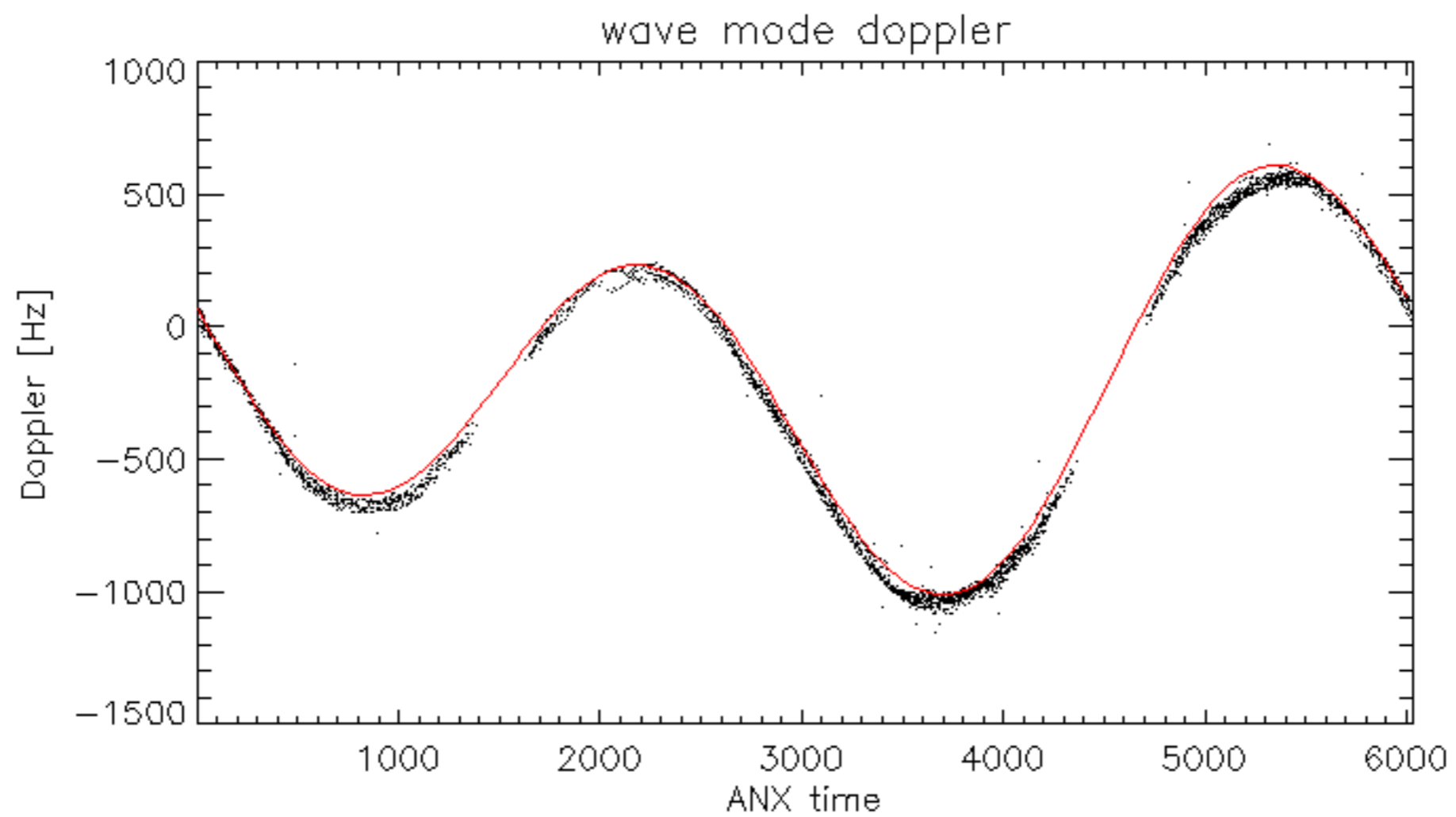
No anomalies observed in Doppler evolution.  
Doppler analysis performed over the last 35 days.

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

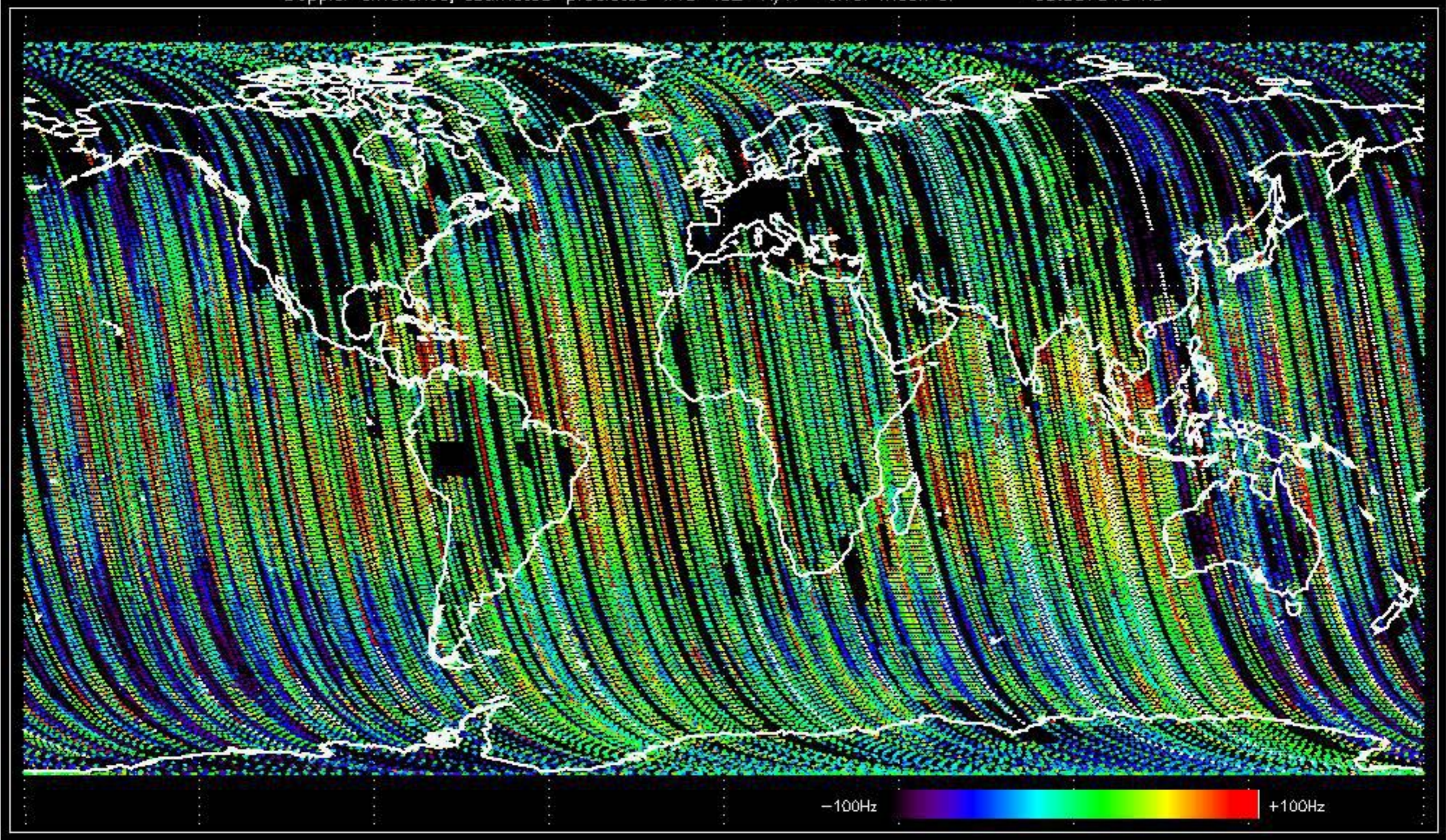


Doppler 'WS' 'IS2' 'V/V'



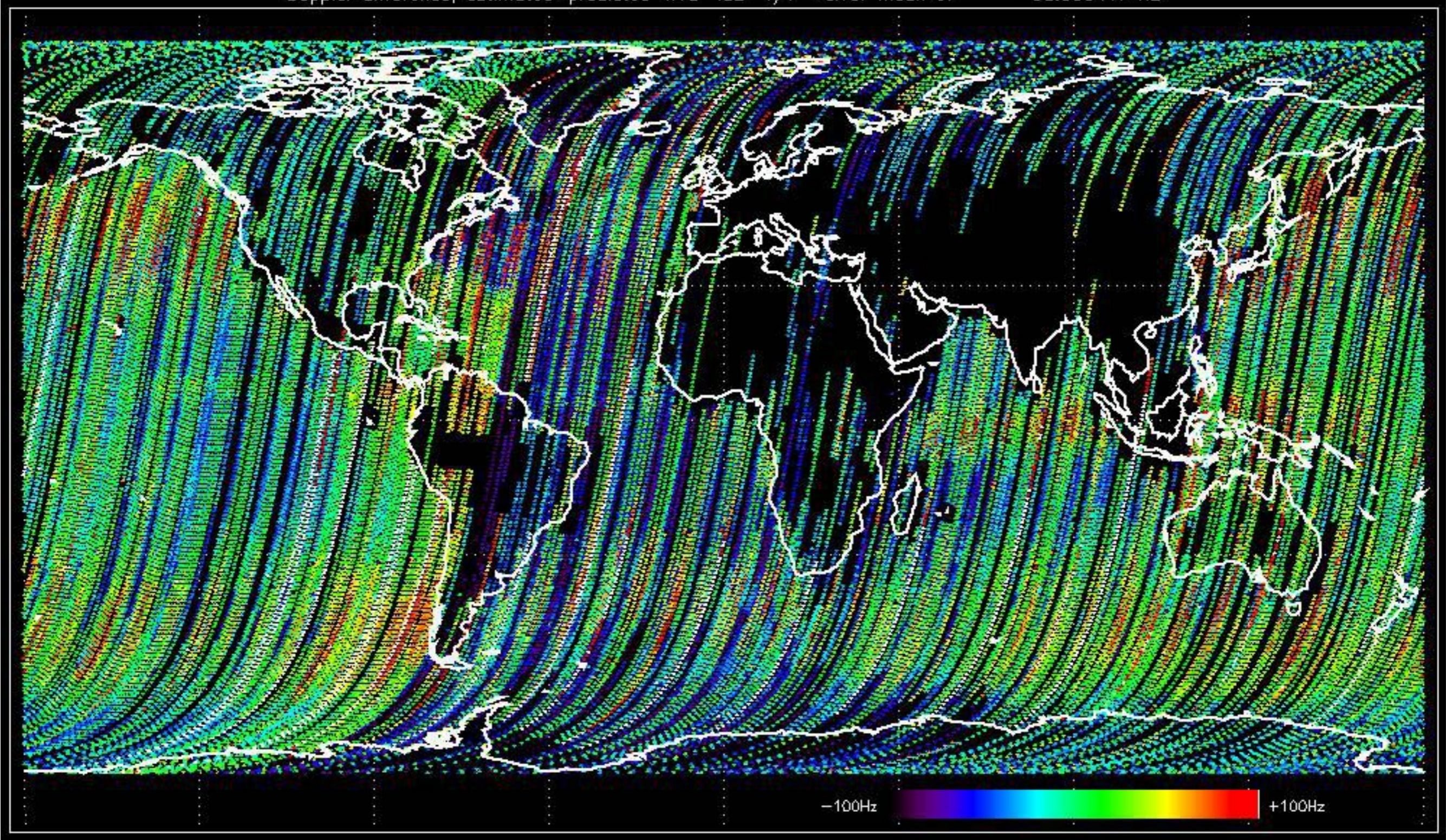


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -65.337848 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -58.966447 Hz



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- ASA\_MS\_\_0PNPDK20031218\_190511\_000000152022\_00342\_09414\_0082.N1

No anomalies observed.









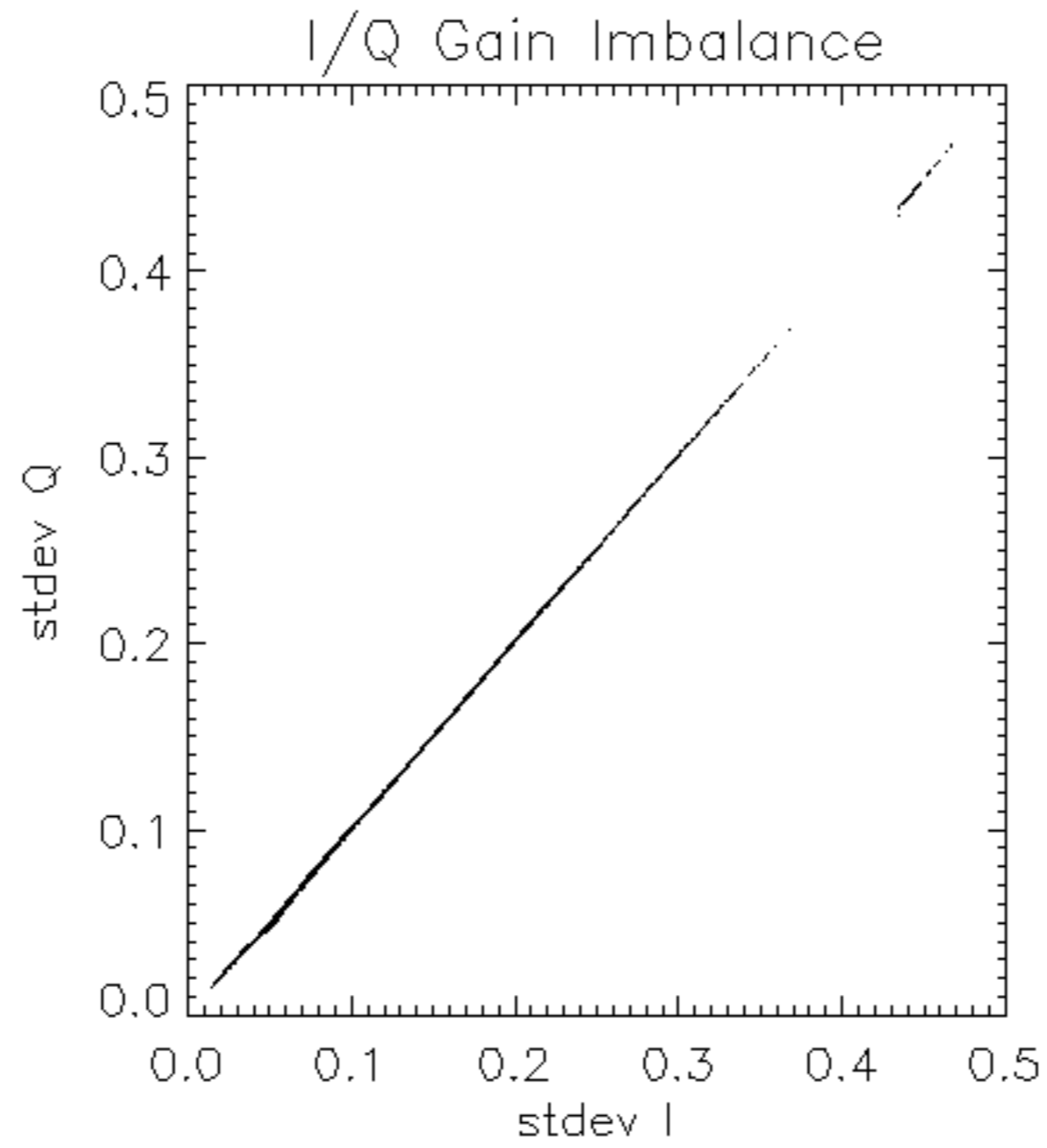


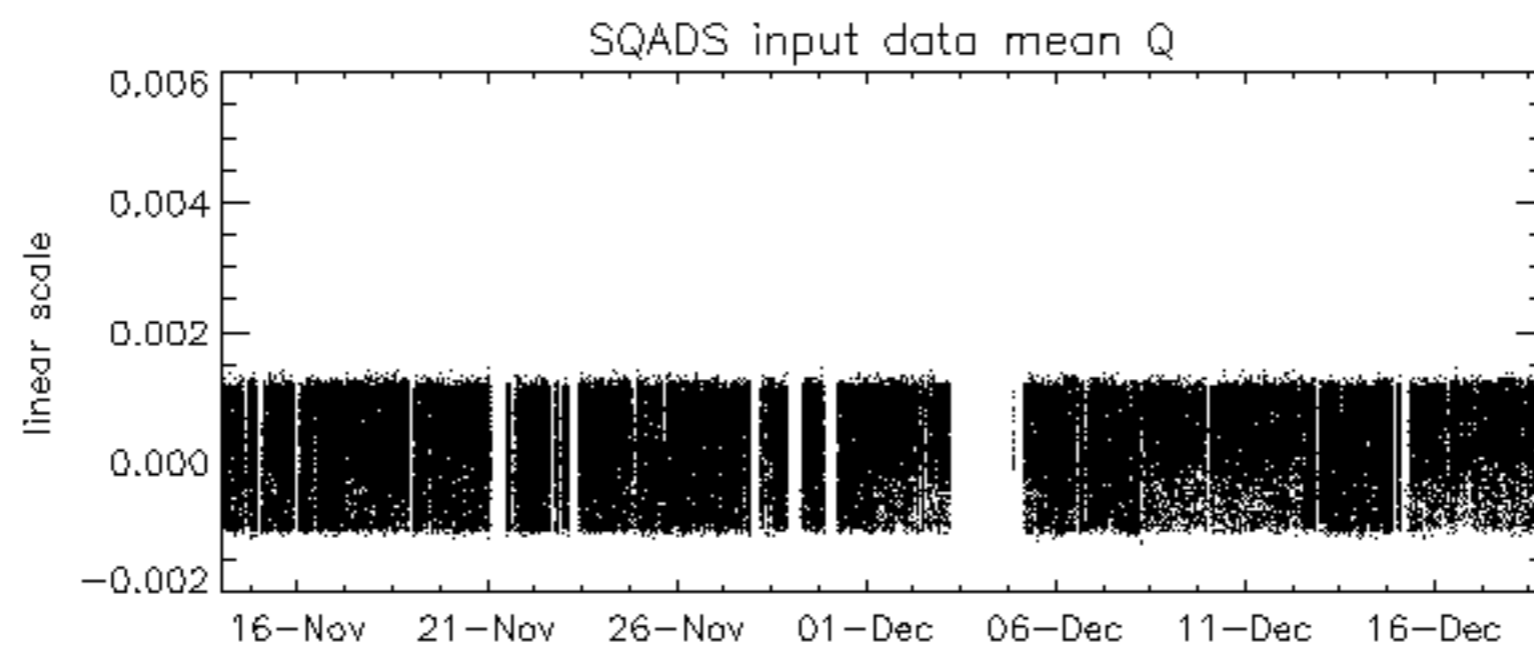
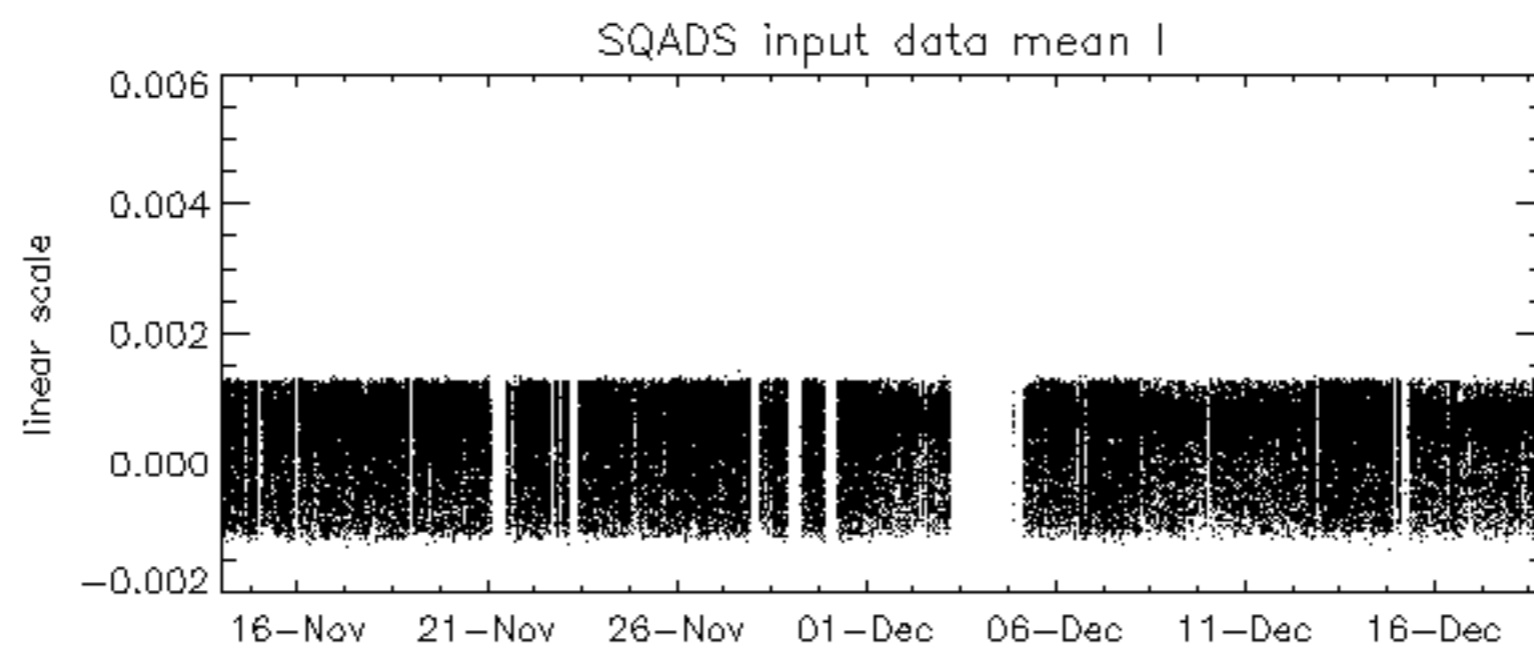
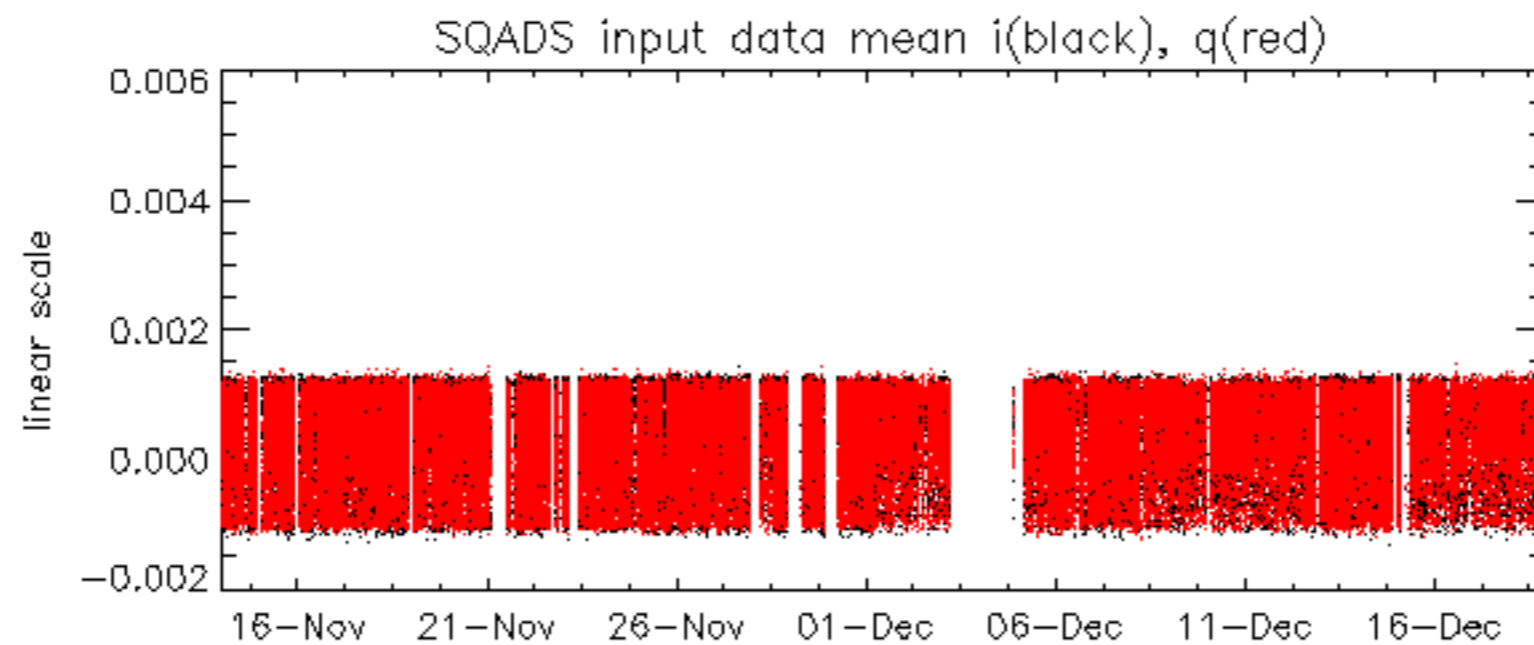


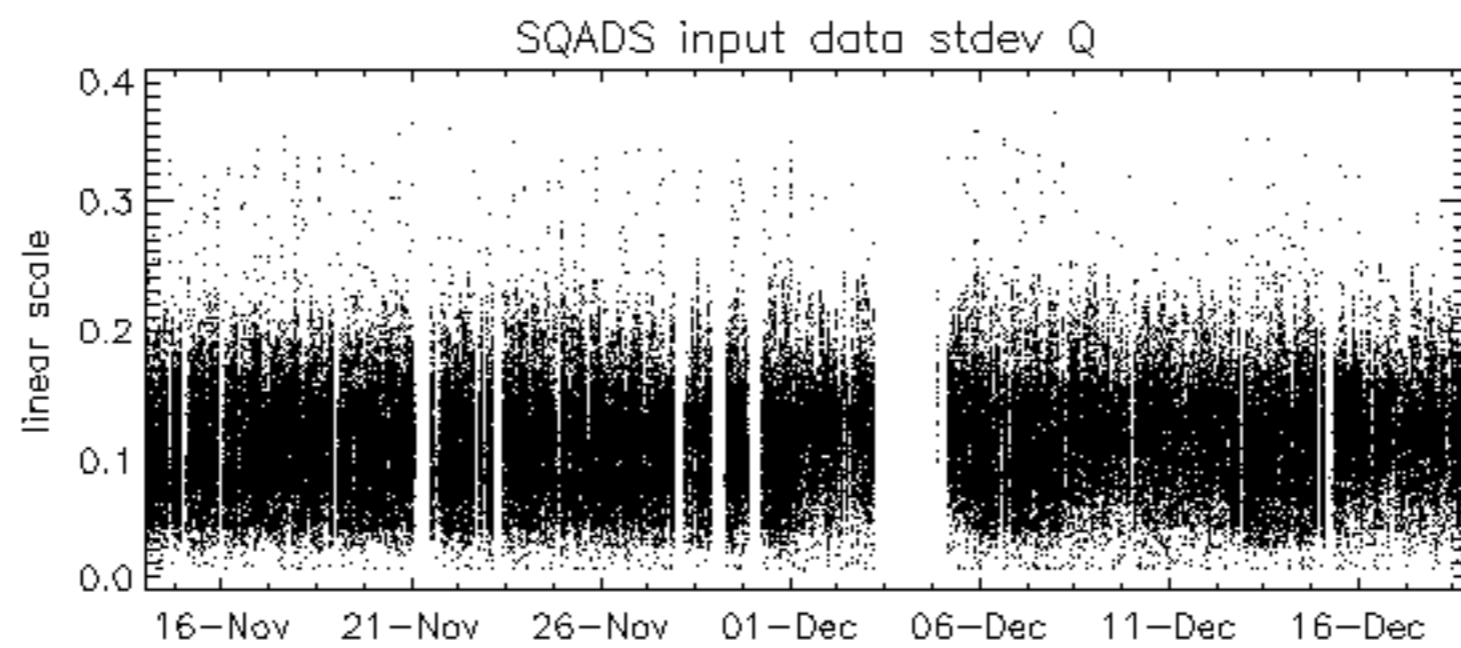
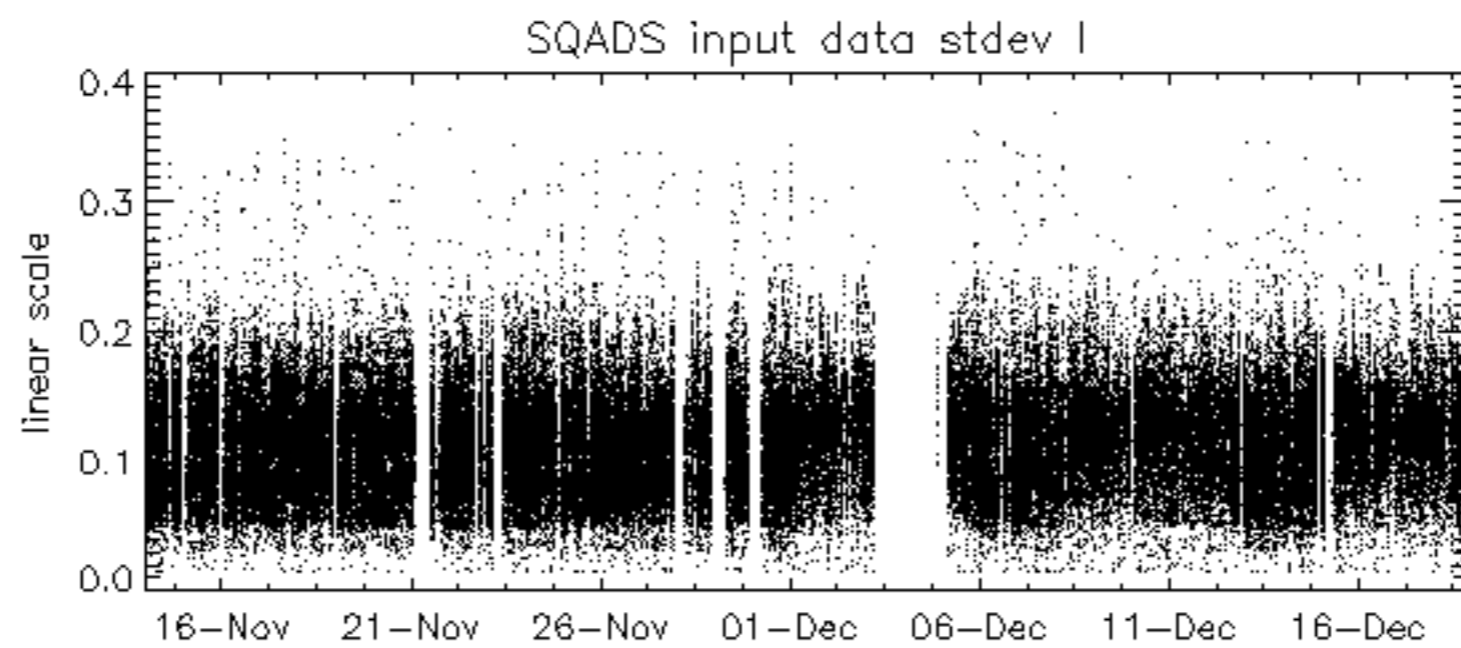
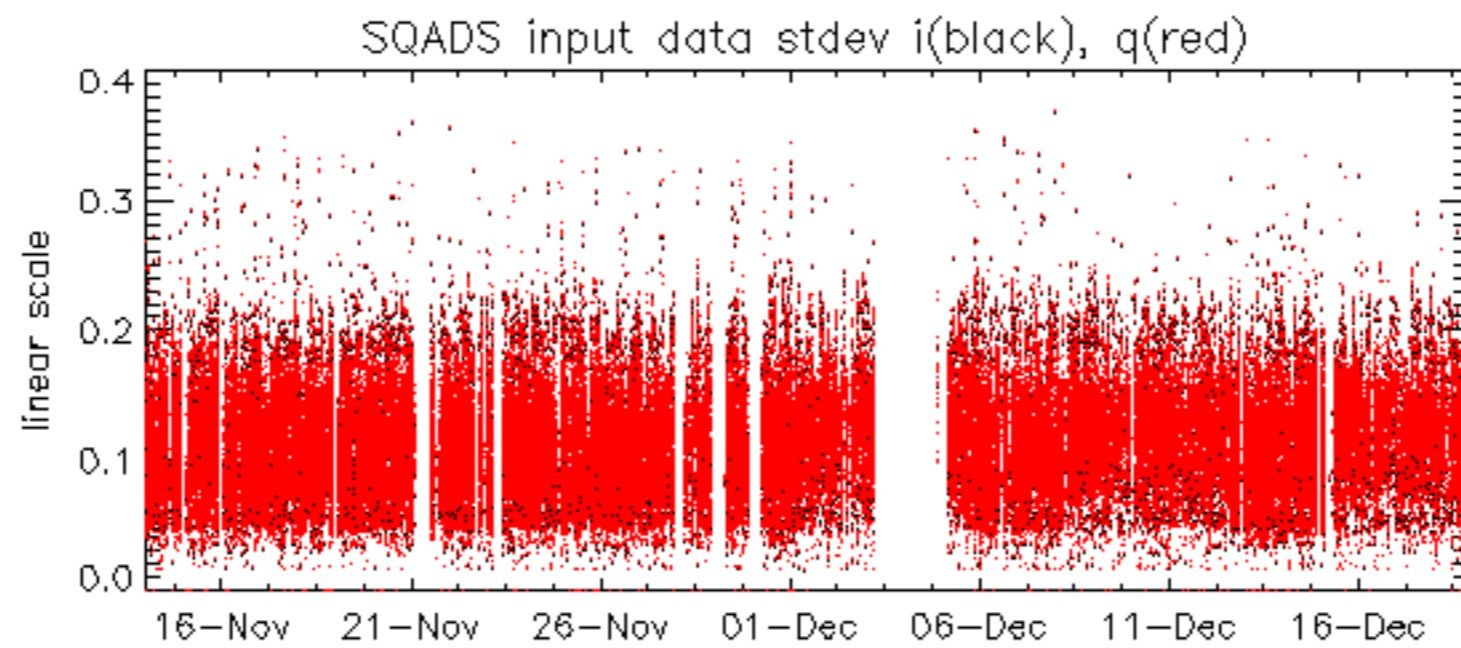






























No instrument unavailabilities for the reported period.