

# REPORT OF 040203

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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 MS product available for 02-FEB-2004.

| Polarisation | Start Time      |
|--------------|-----------------|
| V            | 20040201 185047 |
| H            | 20040201 184927 |

#### MSM in V/V polarisation

| Pre-launch Reference     | DDS-B (2003-06-12) reference |
|--------------------------|------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |

#### MSM in H/H polarisation

| Pre-launch Reference     | DDS-B (2003-06-12) reference |
|--------------------------|------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |
| <input type="checkbox"/> | <input type="checkbox"/>     |

### 4 - Internal calibration Results

No anomalies observed.

#### 4.1 - Daily statistics

| row | stat  | AveP1      | AveP2     | AveP3      |
|-----|-------|------------|-----------|------------|
| 3   | mean  | -3.66747   | -22.4544  | -8.14786   |
|     | stdev | 0.00616966 | 0.0686392 | 0.00278102 |

|    |       |           |           |            |
|----|-------|-----------|-----------|------------|
| 24 | mean  | -5.10952  | -21.1085  | -8.14786   |
|    | stdev | 0.0132377 | 0.0660334 | 0.00278102 |



## 4.2 - Cyclic statistics

| row | stat  | AveP1      | AveP2     | AveP3      |
|-----|-------|------------|-----------|------------|
| 3   | mean  | -3.68748   | -22.4910  | -8.15062   |
|     | stdev | 0.00700017 | 0.0710825 | 0.00318075 |
| 24  | mean  | -5.23408   | -21.1264  | -8.15062   |
|     | stdev | 0.556313   | 0.0651685 | 0.00318075 |



## 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  | 0.000425032 |
|         | stdev | 2.94749e-07 |
| MEAN Q  | mean  | 0.000333695 |
|         | stdev | 3.44783e-07 |



### 5.2 - Input stdev I/Q

| channel | stat  | DSS-B      |
|---------|-------|------------|
| STDEV I | mean  | 0.117208   |
|         | stdev | 0.00138120 |

|         |       |            |
|---------|-------|------------|
| STDEV Q | mean  | 0.117439   |
|         | stdev | 0.00139586 |



### 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 |

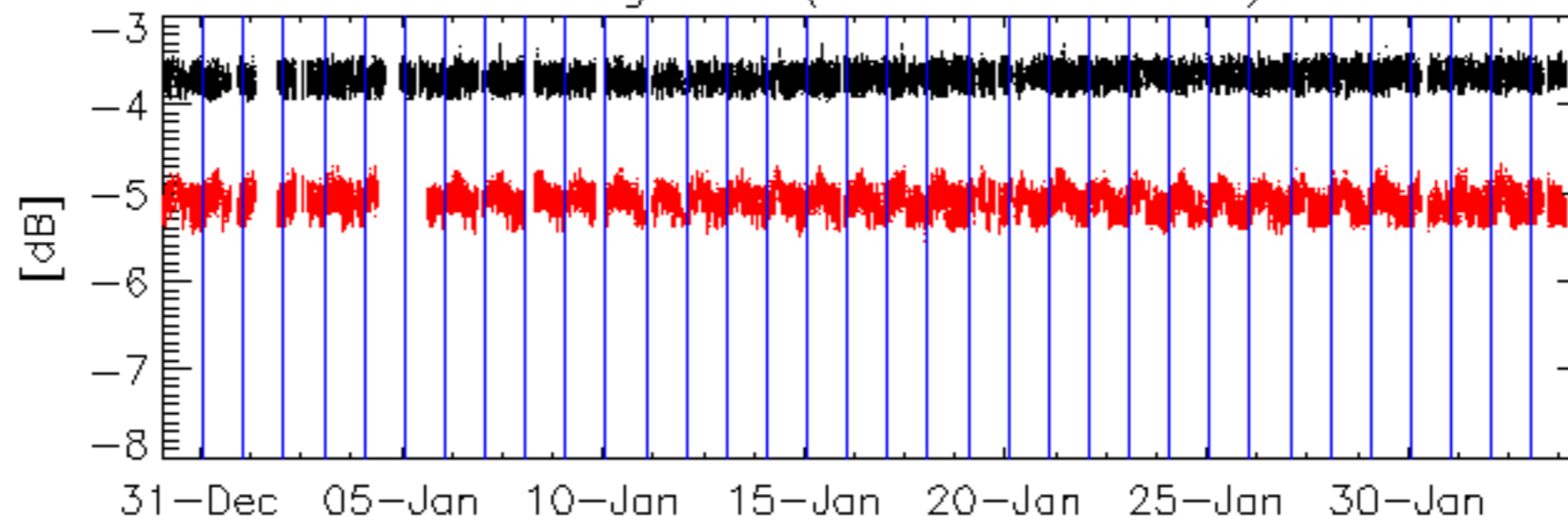
### 6.3 - Doppler evolution versus ANX

#### Evolution Doppler error versus ANX

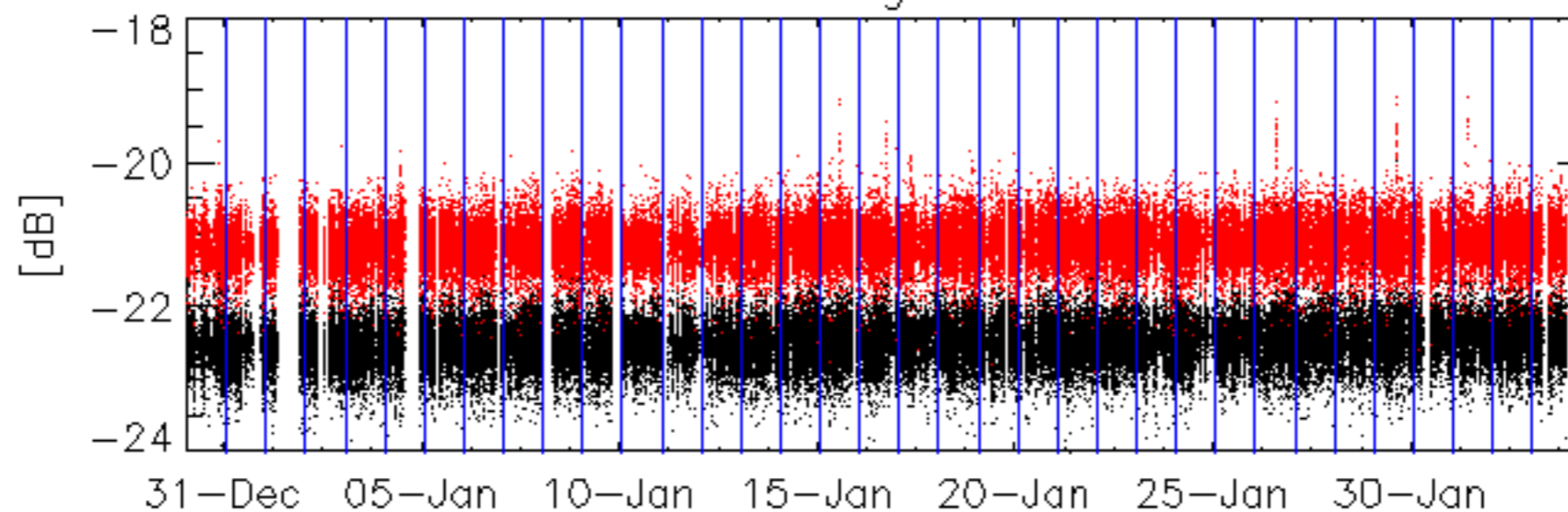




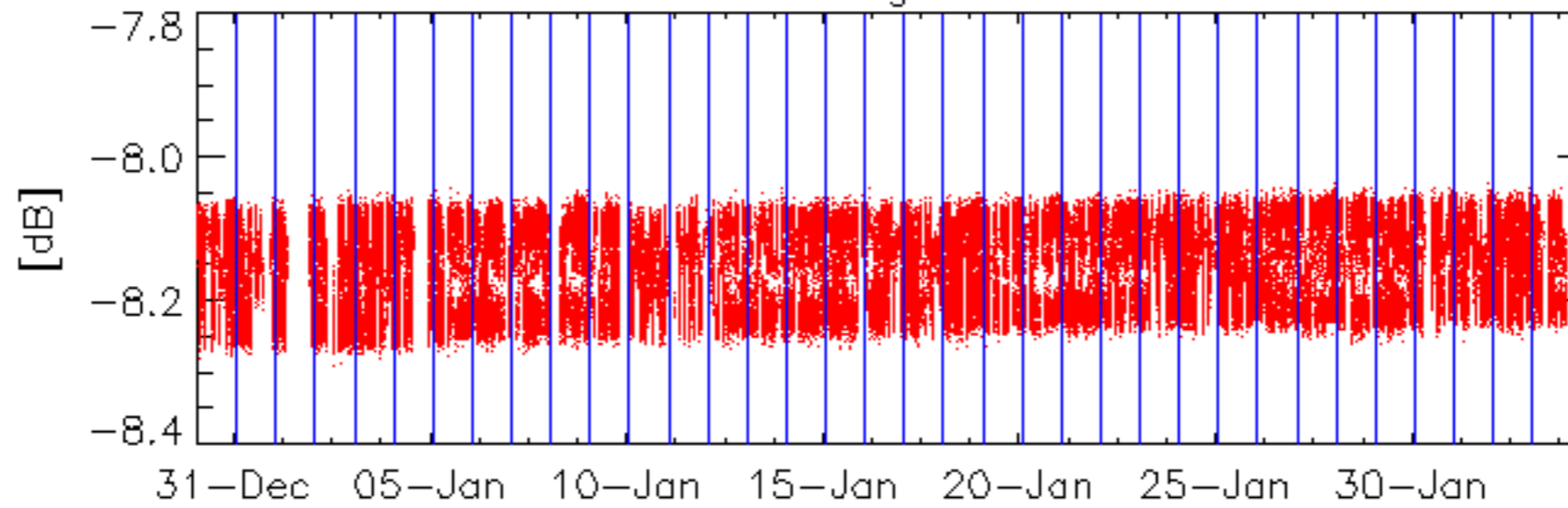
Average P1 (row 3 & row 24)



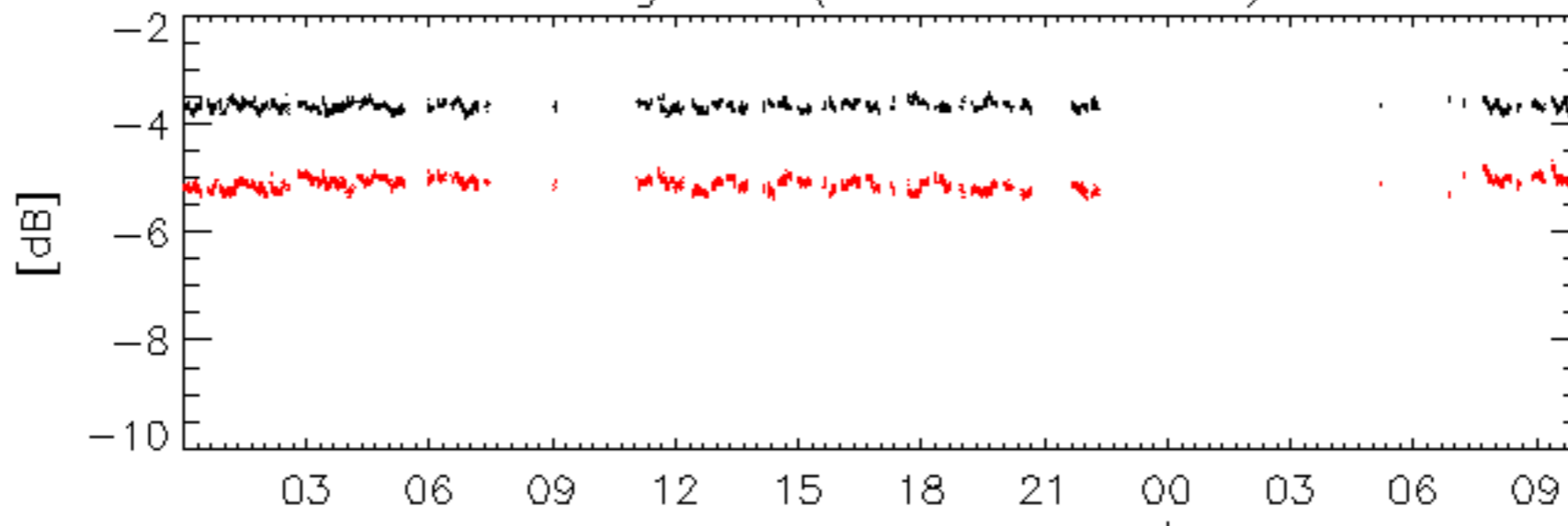
Average P2



Average P3

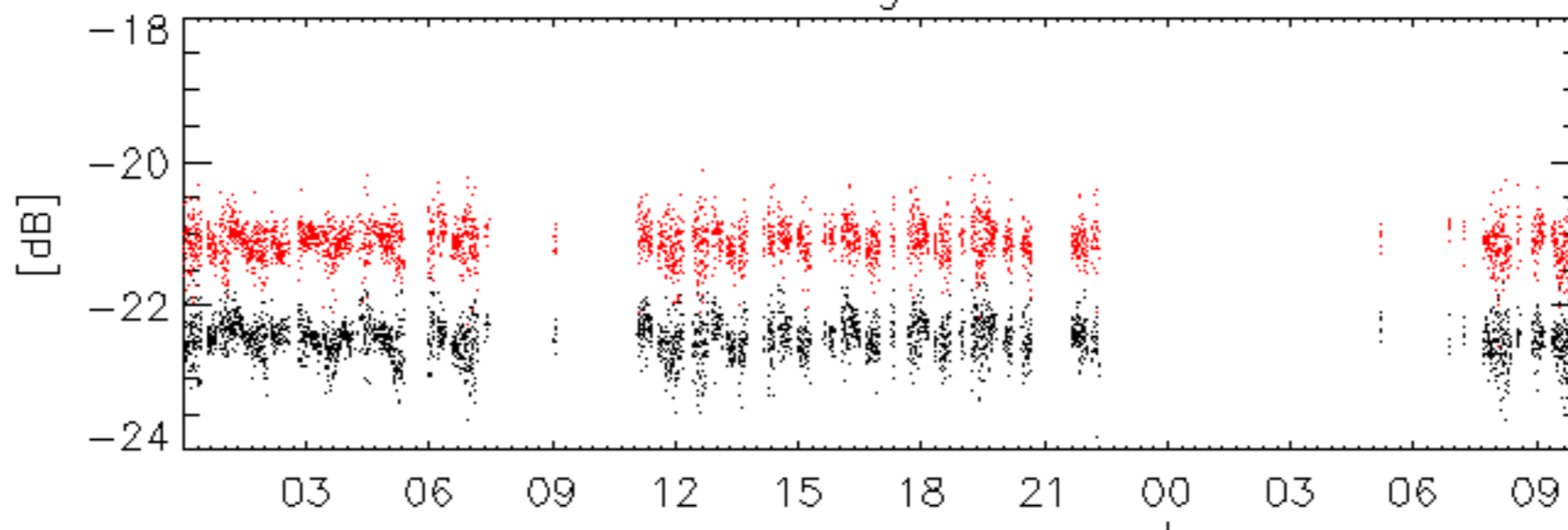


Average P1 (row 3 & row 24)



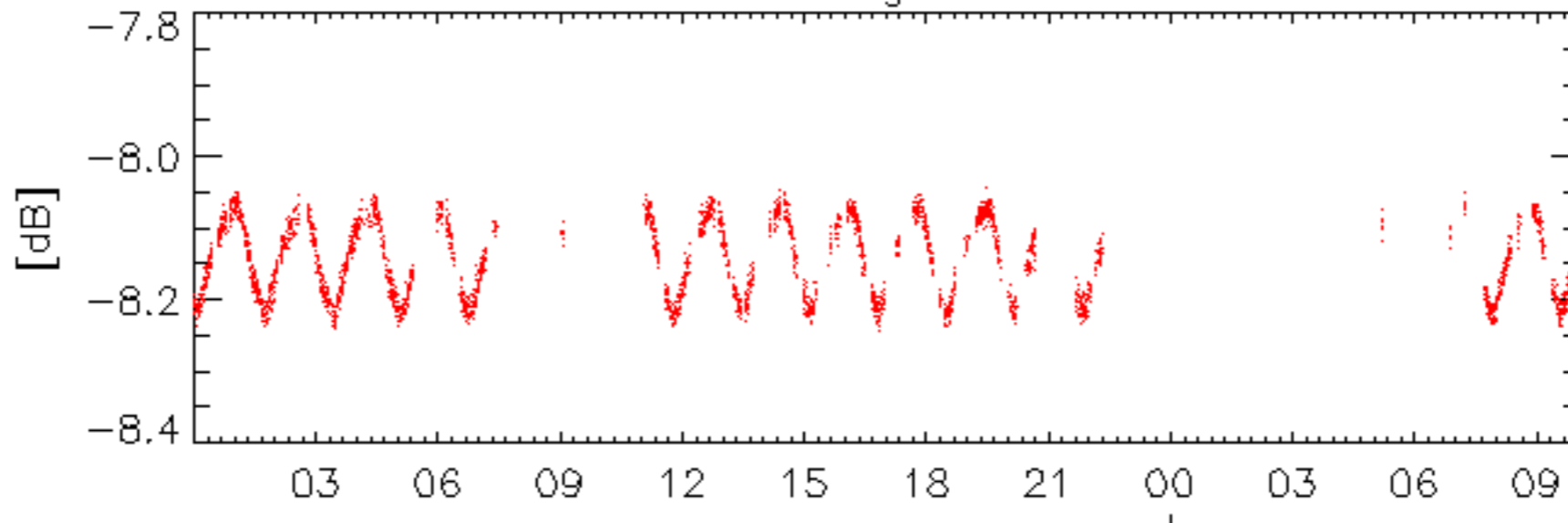
03-Feb

Average P2



03-Feb

Average P3

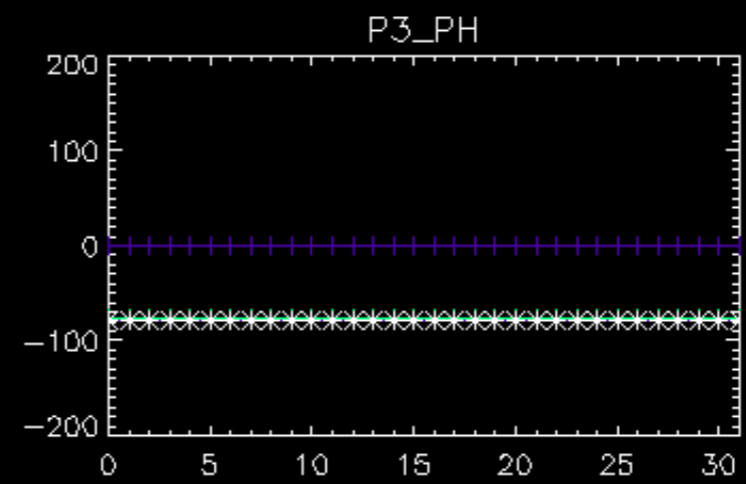
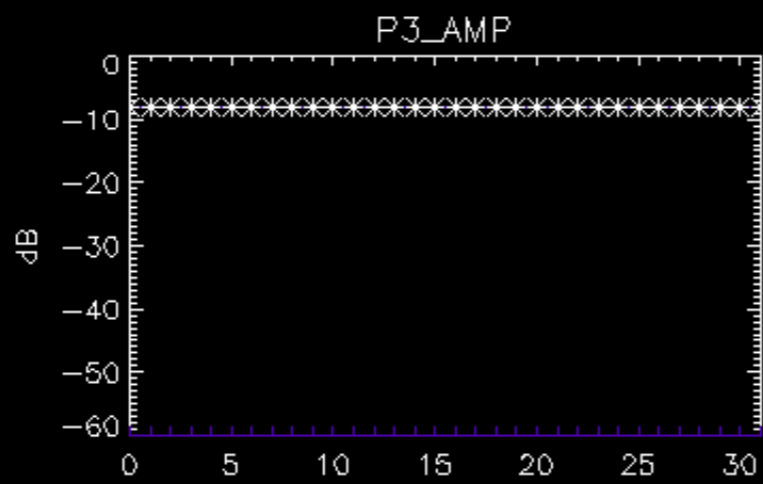
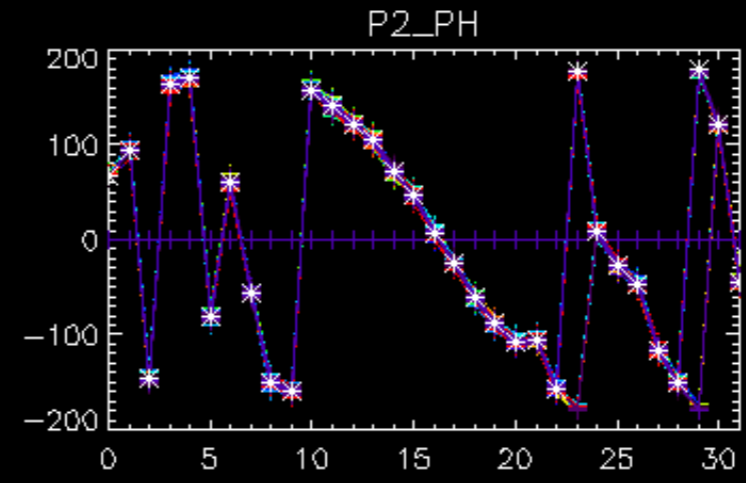
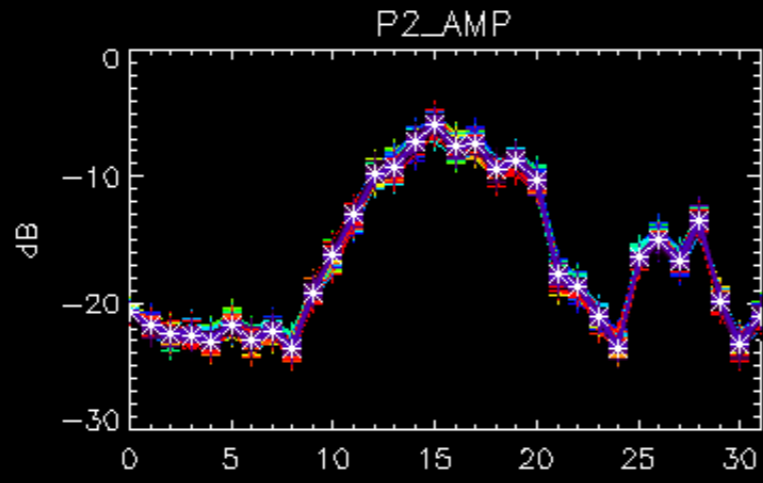
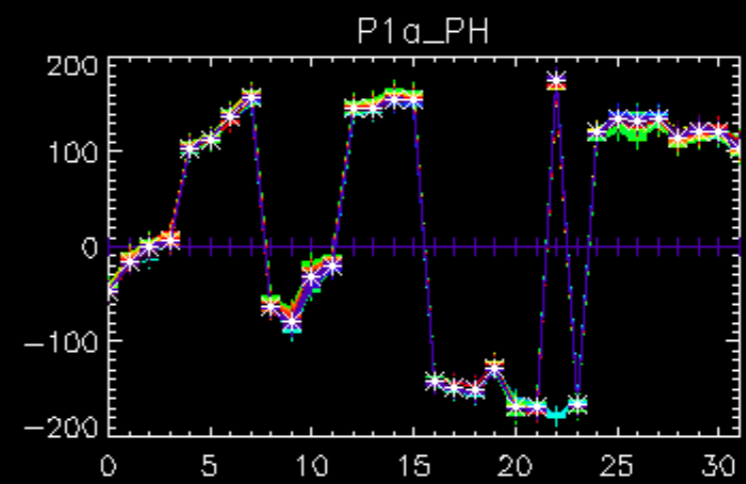
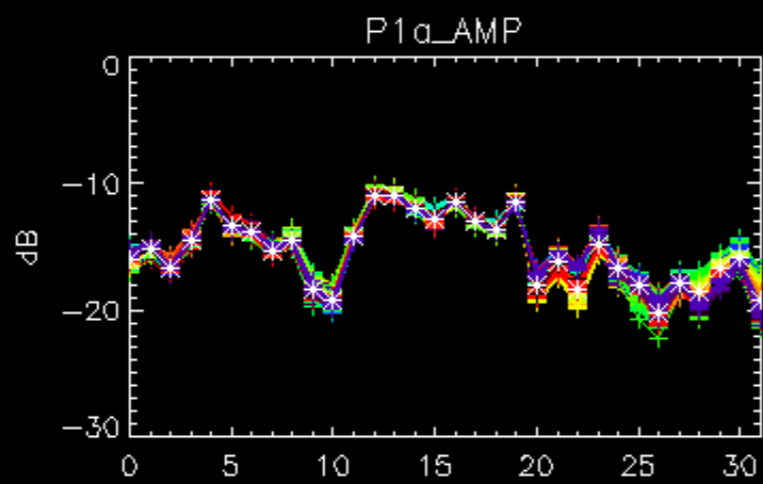
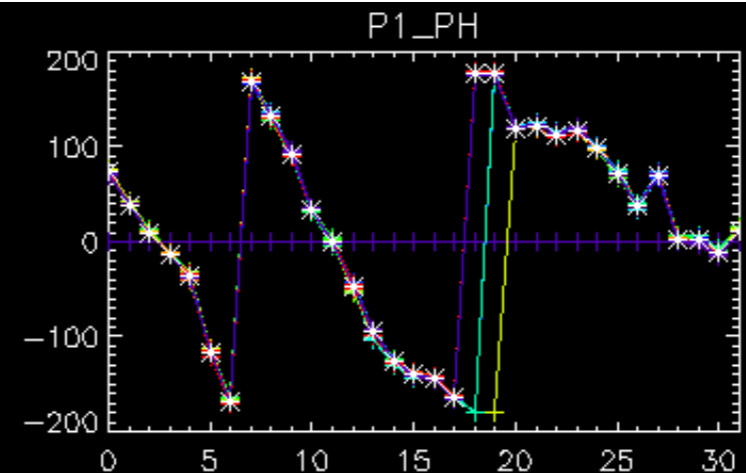
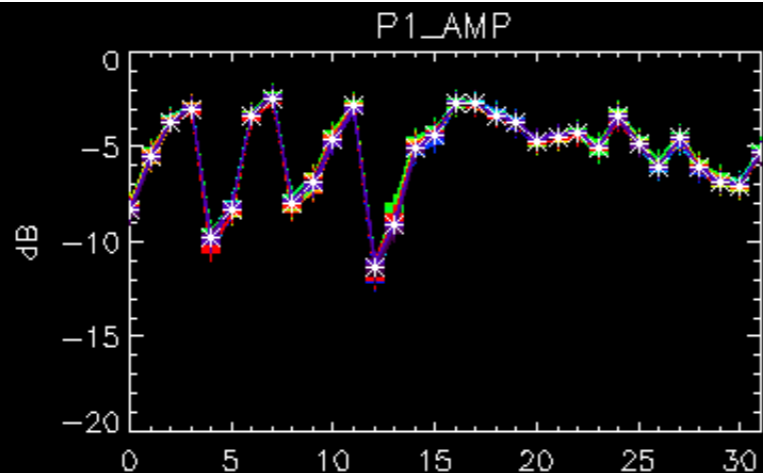


03-Feb

No anomalies observed on available browse products.



No anomalies observed.

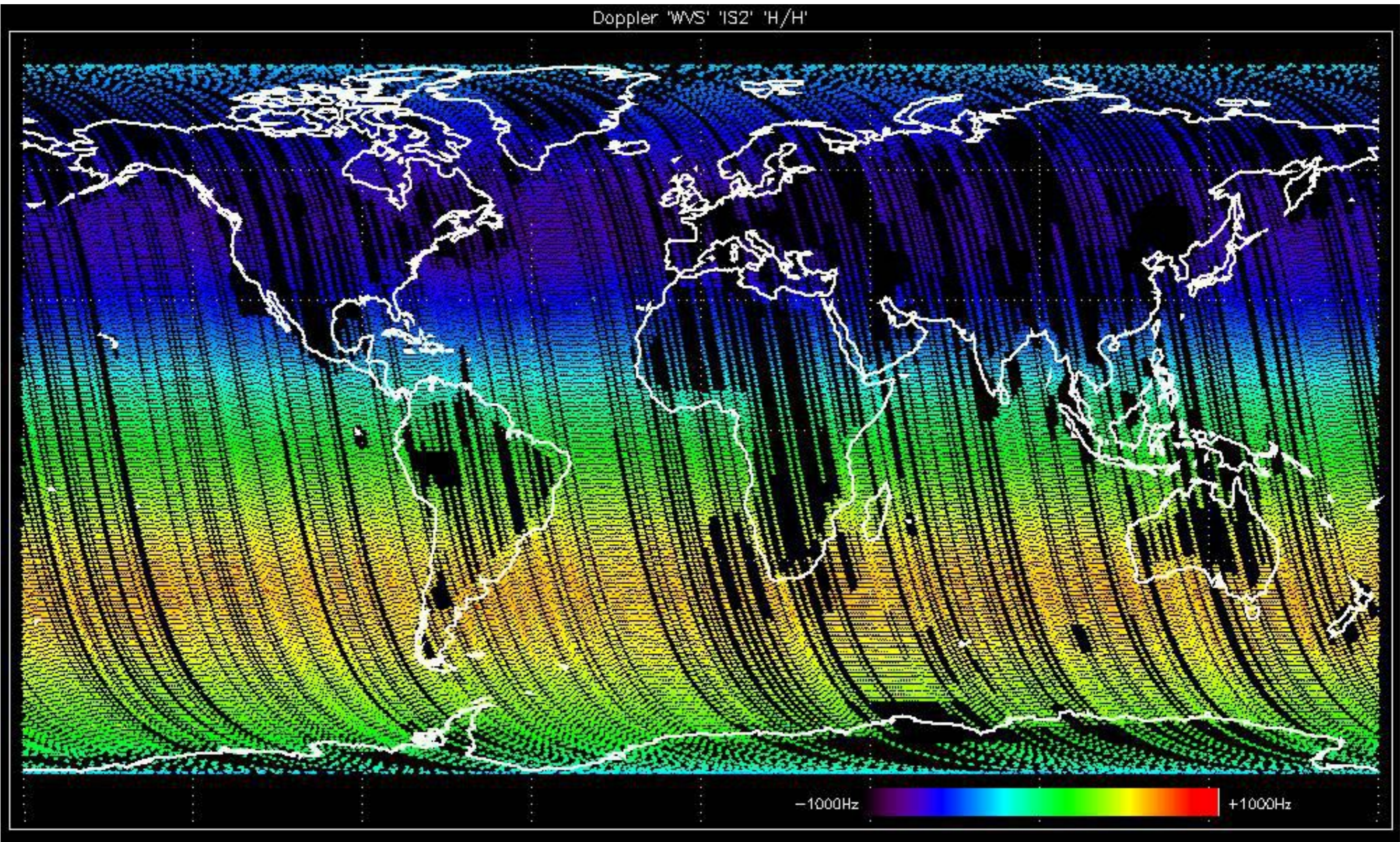


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

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

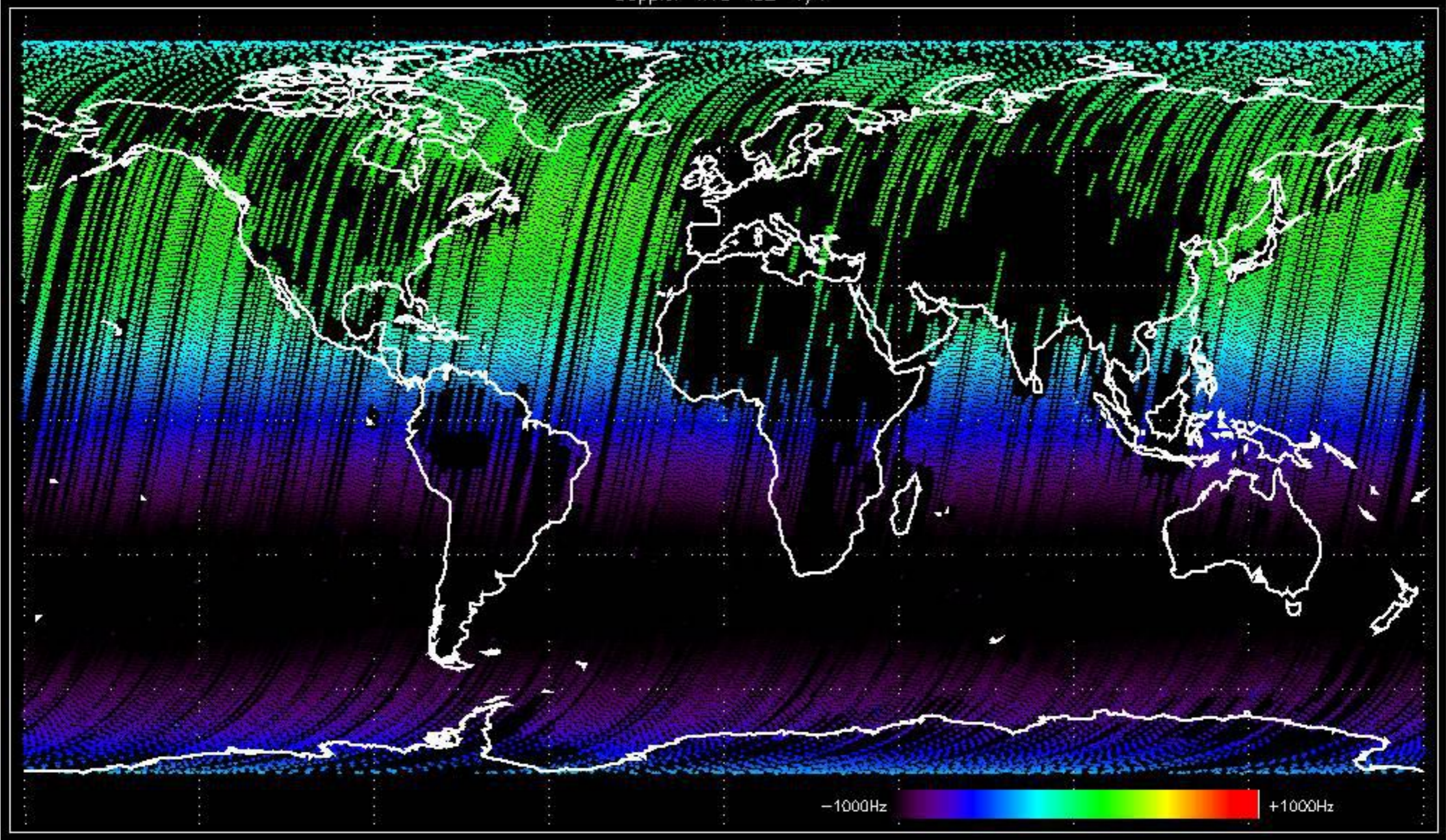


Doppler 'WVS' 'IS2' 'H/H'

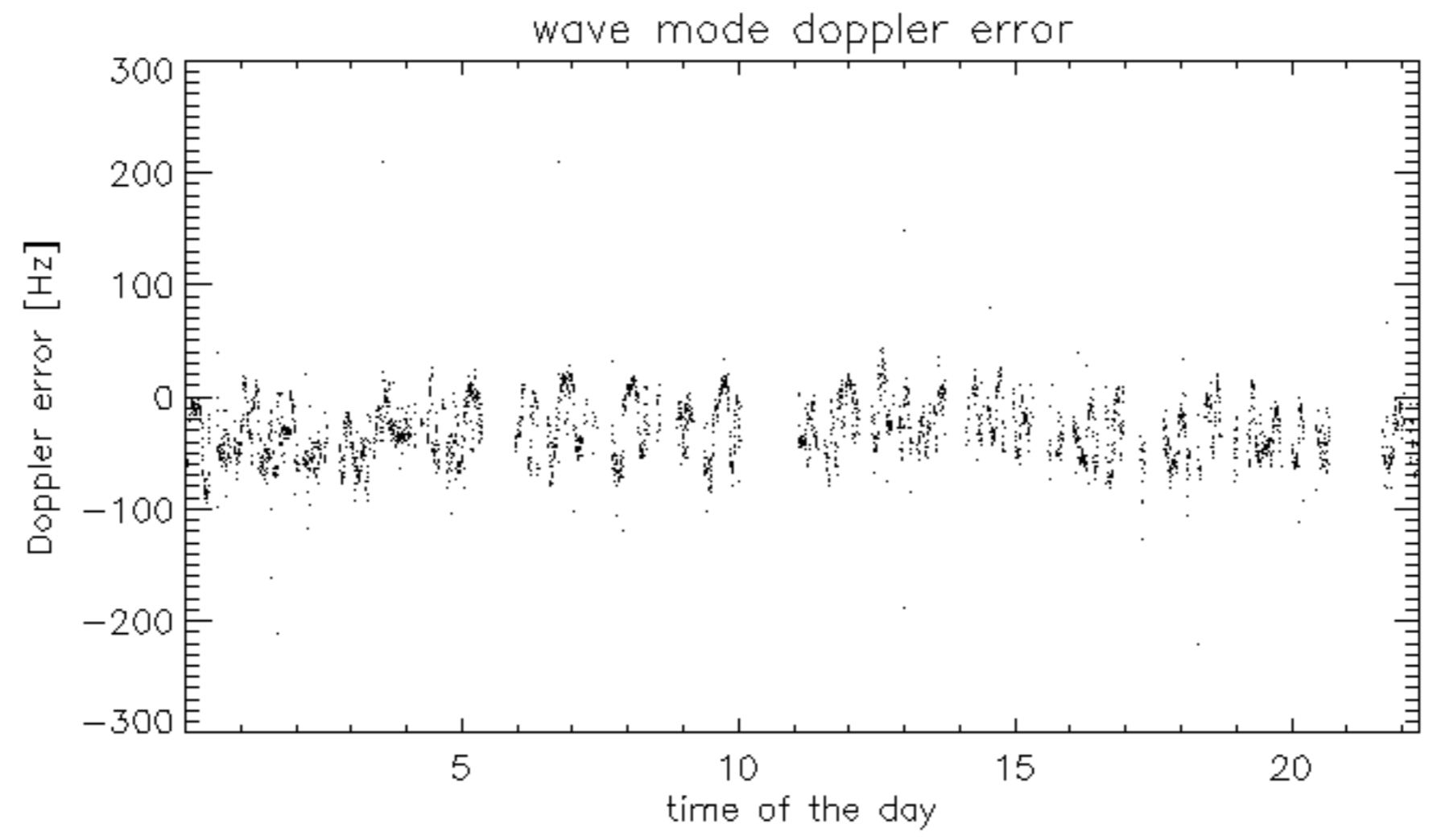
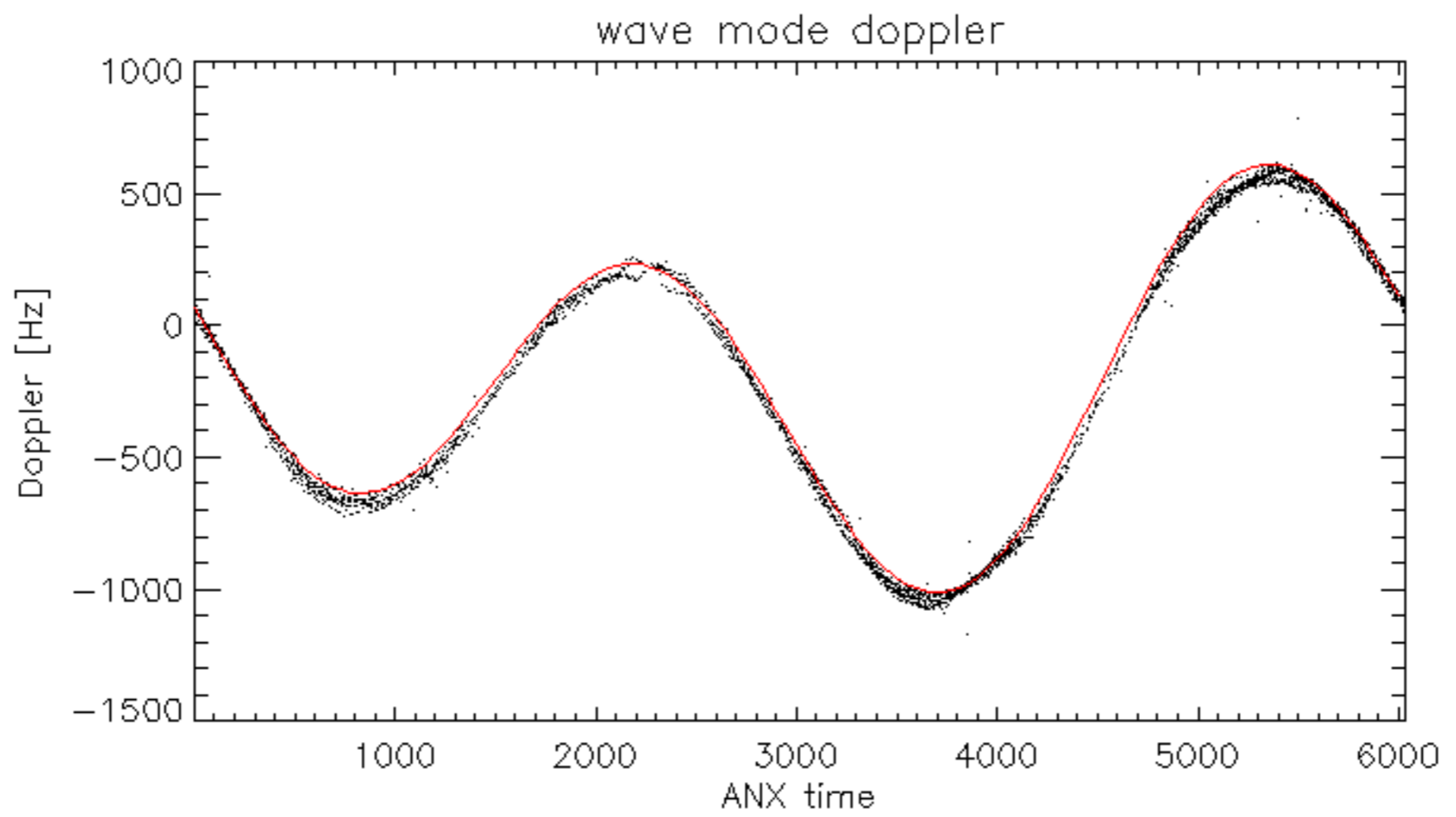




Doppler 'WVS' 'ISZ' 'V/V'

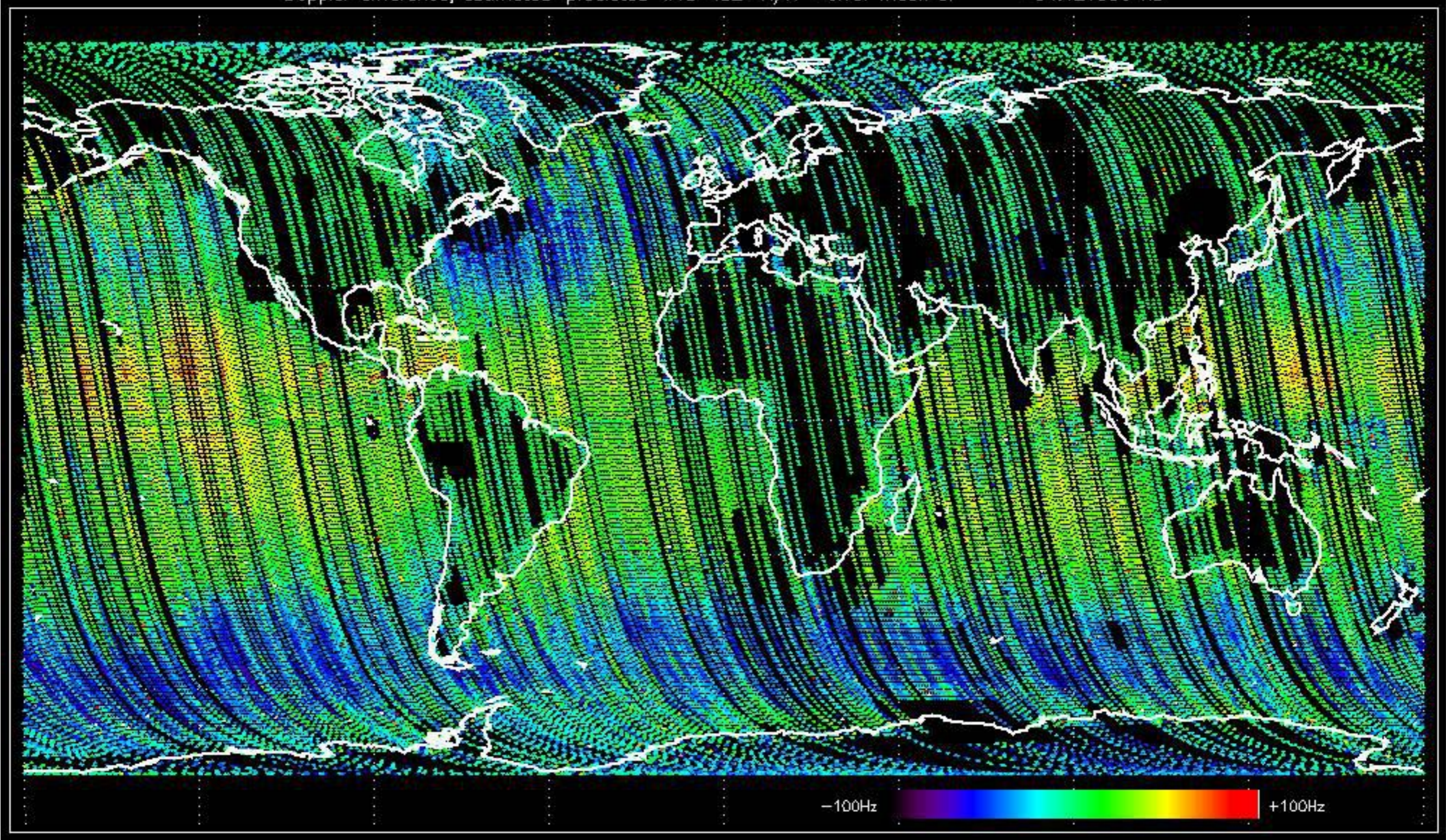






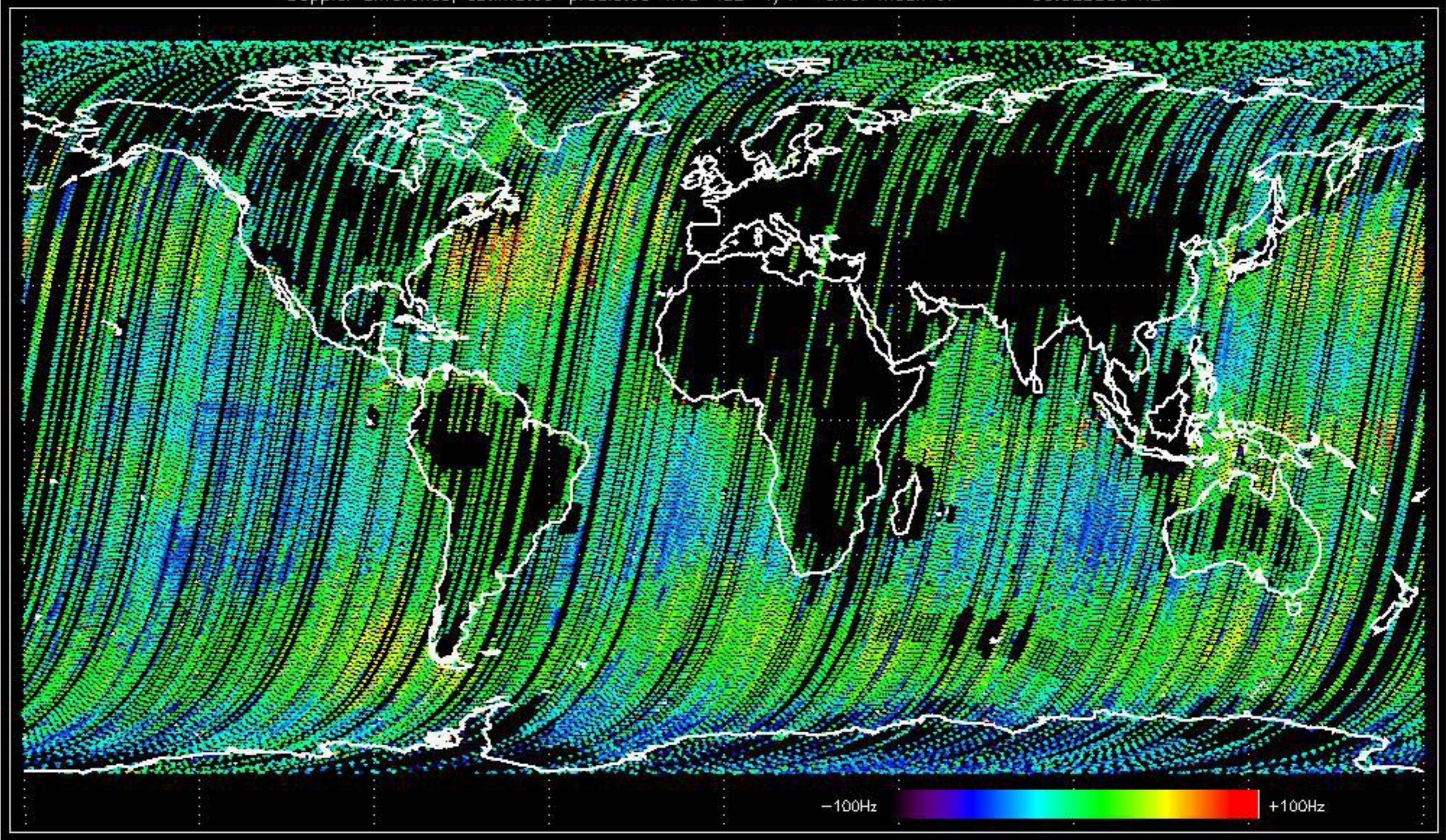


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -34.421006 Hz





Doppler difference, estimated-predicted 'wvs' 'IS2' 'v/v' -error mean of -33.629886 Hz



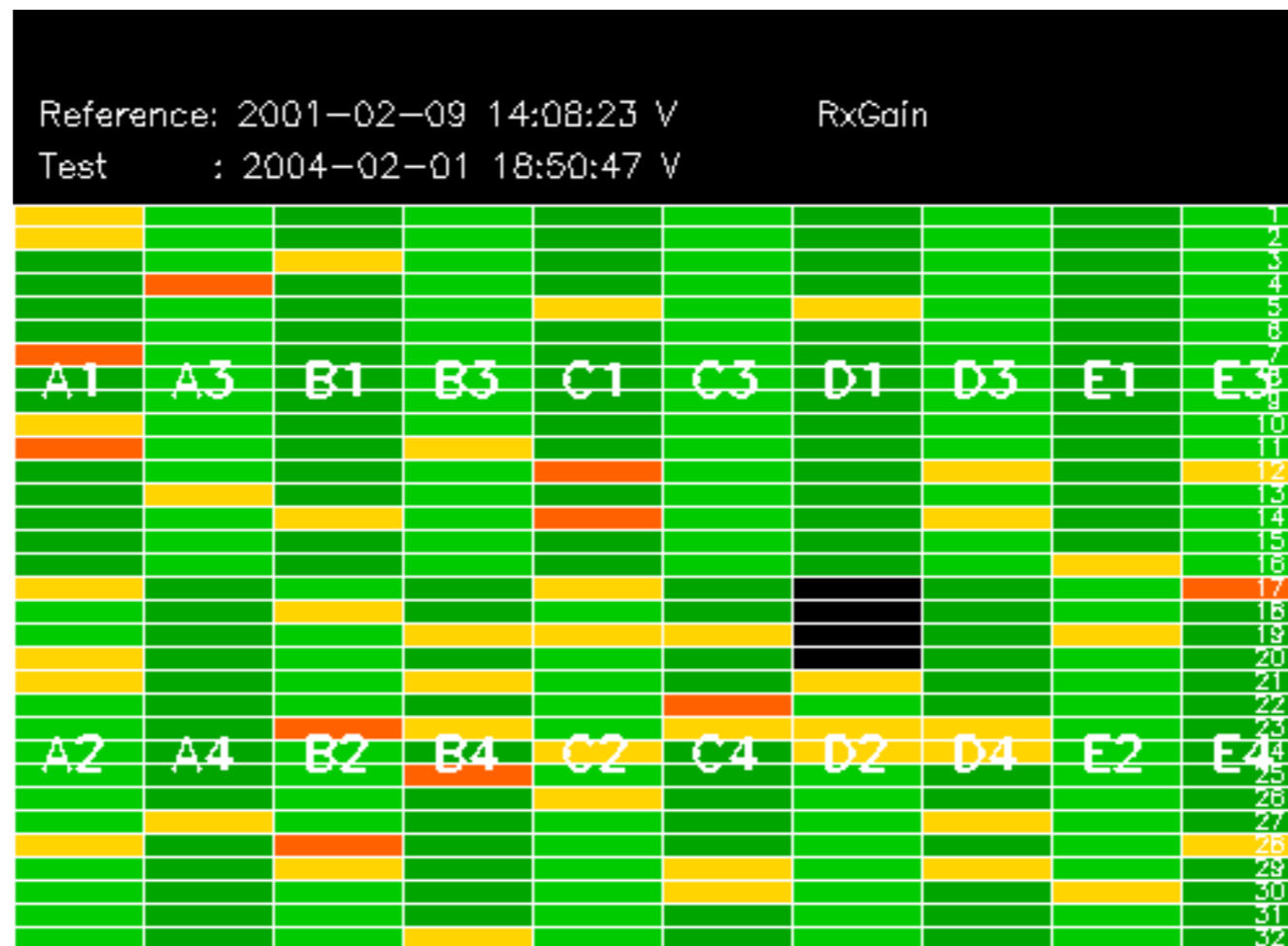


The MS mode provides an internal health check on an individual module basis.  
The purpose of this mode is to identify any malfunctioning modules and  
to identify modules for which calibration offsets are to be applied.  
No MS product available for 02-FEB-2004.

No anomalies observed.









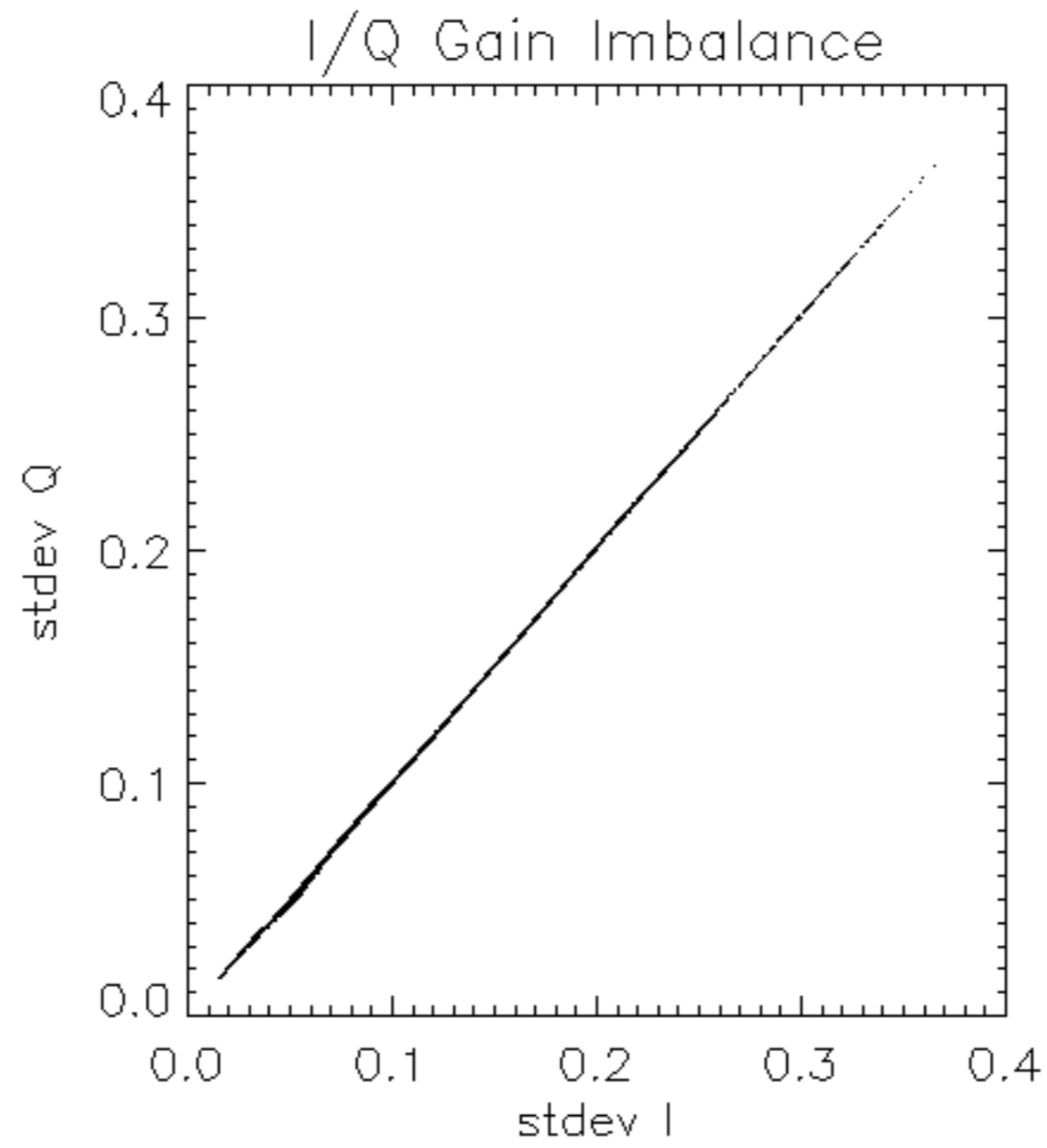


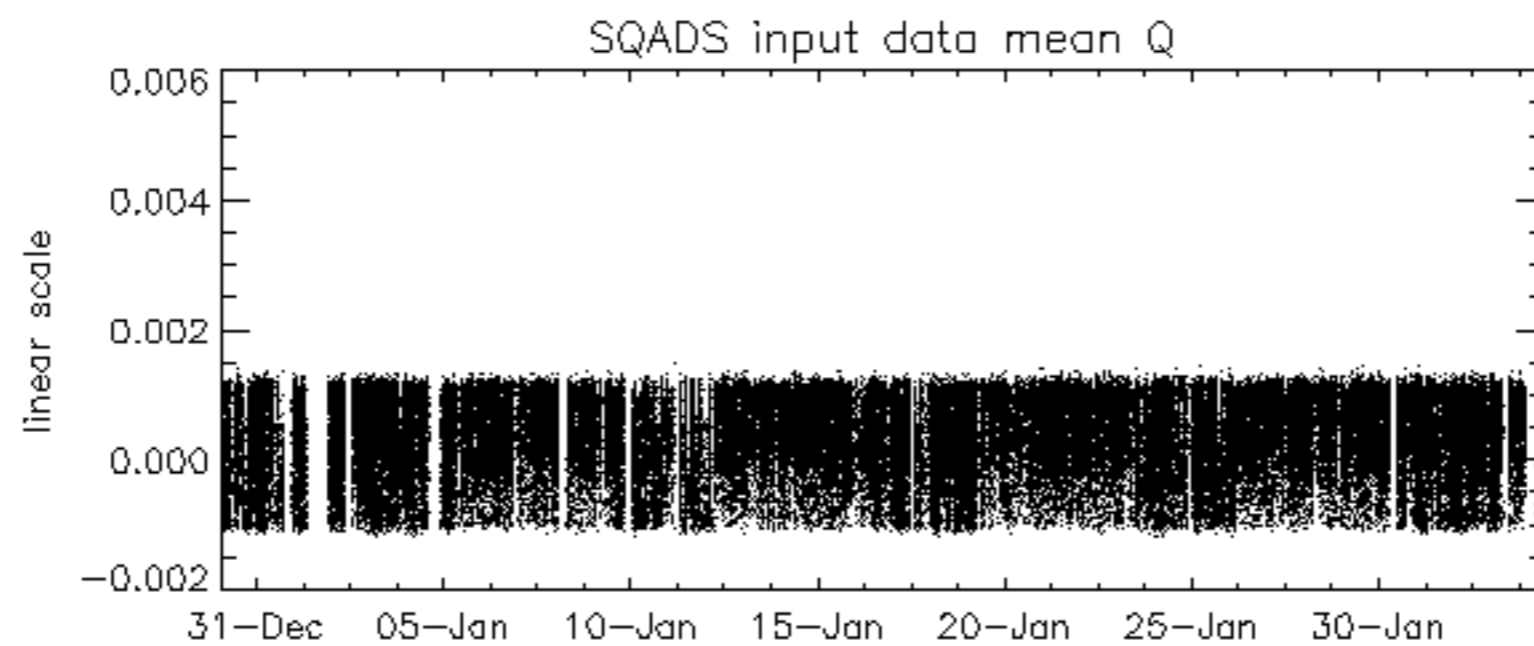
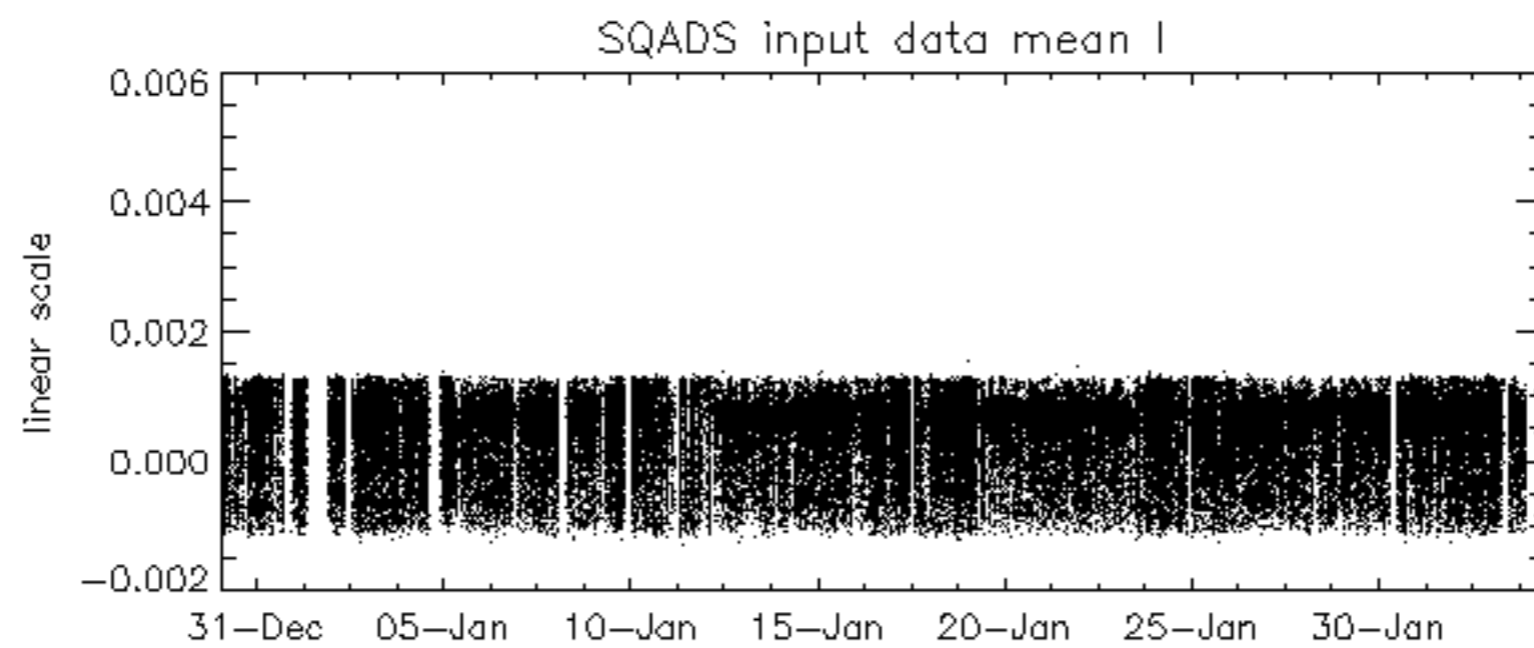
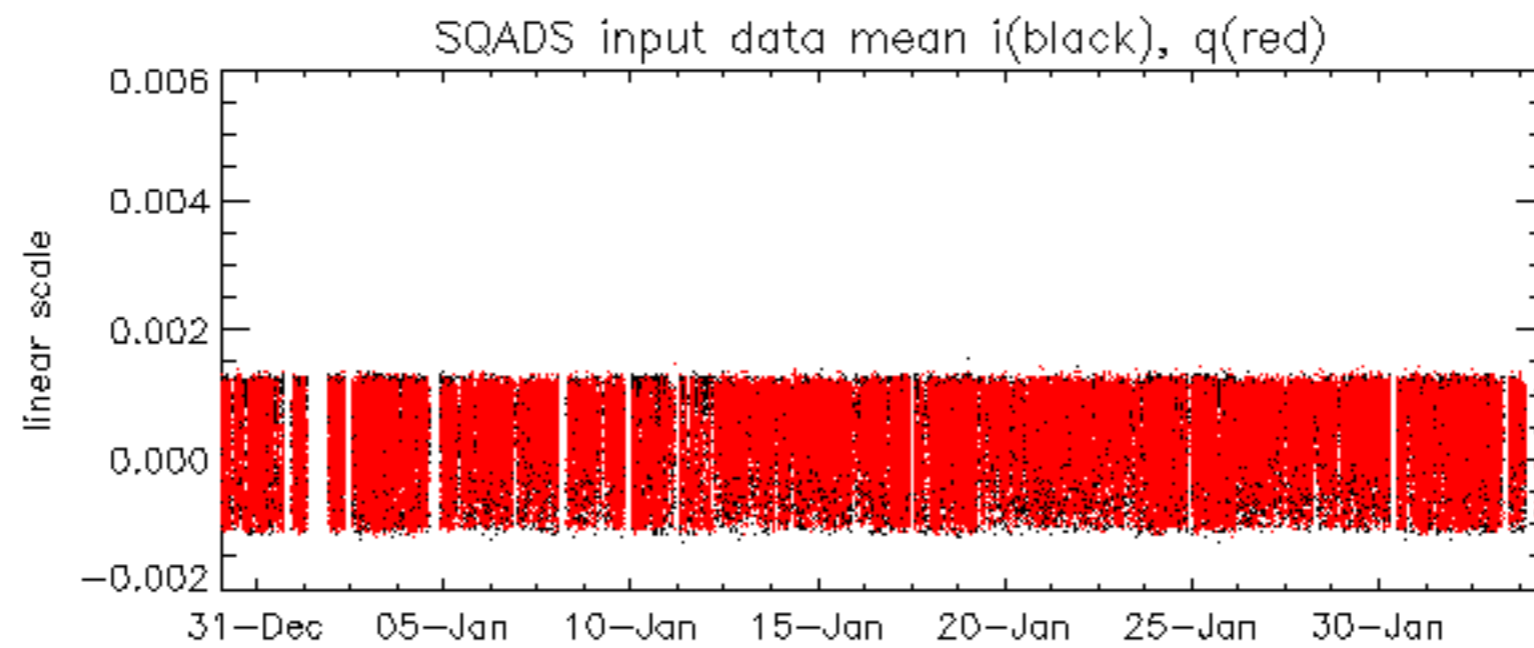


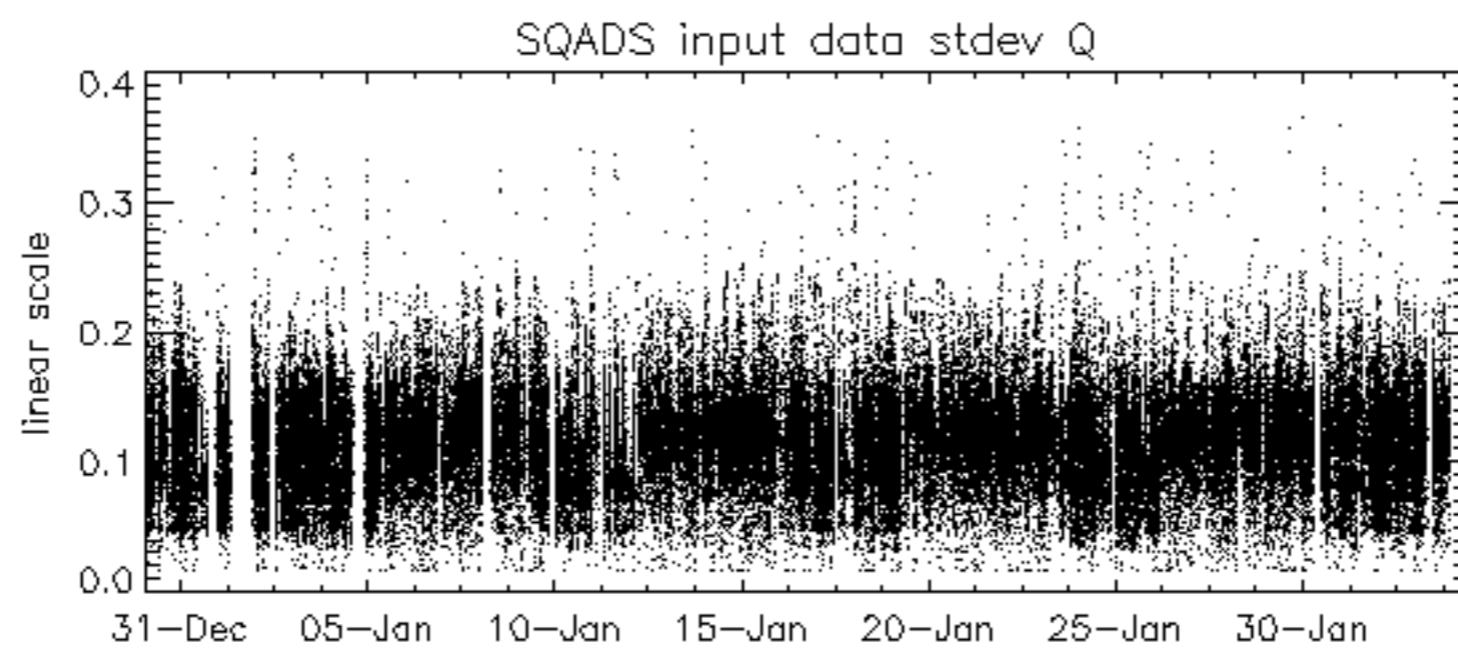
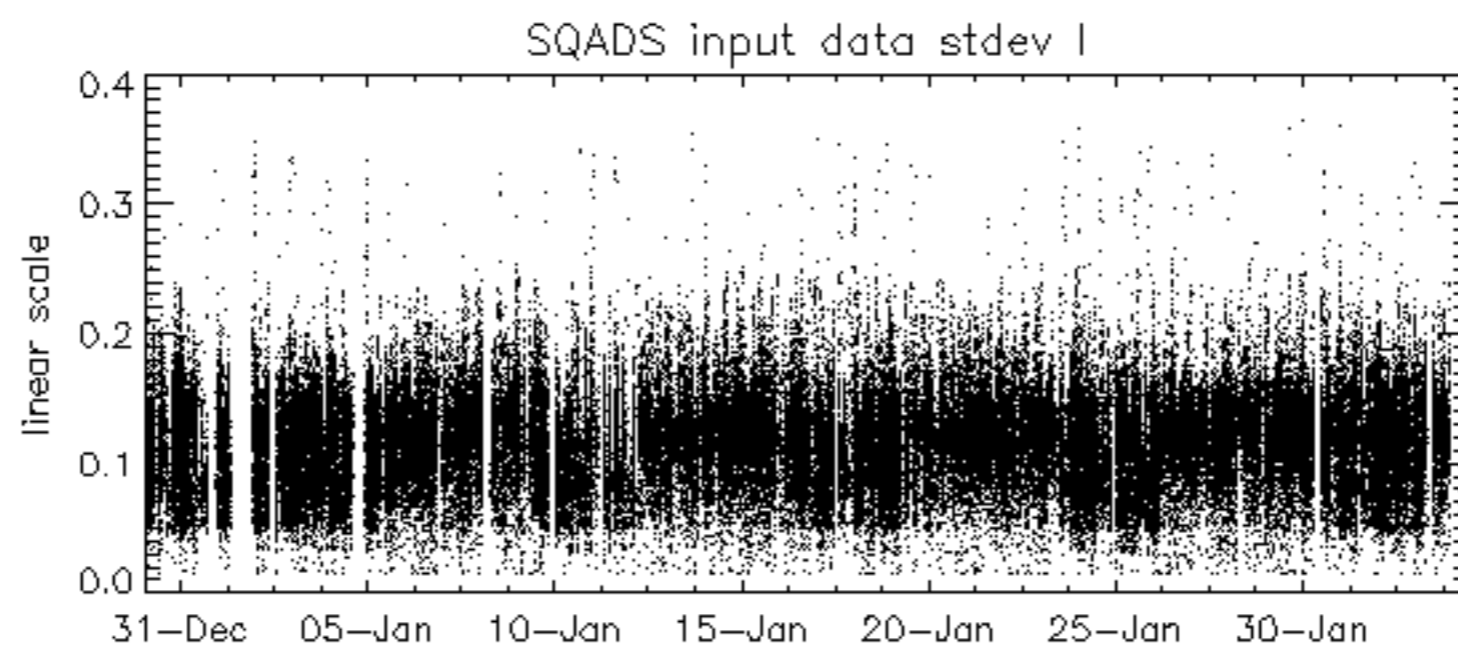
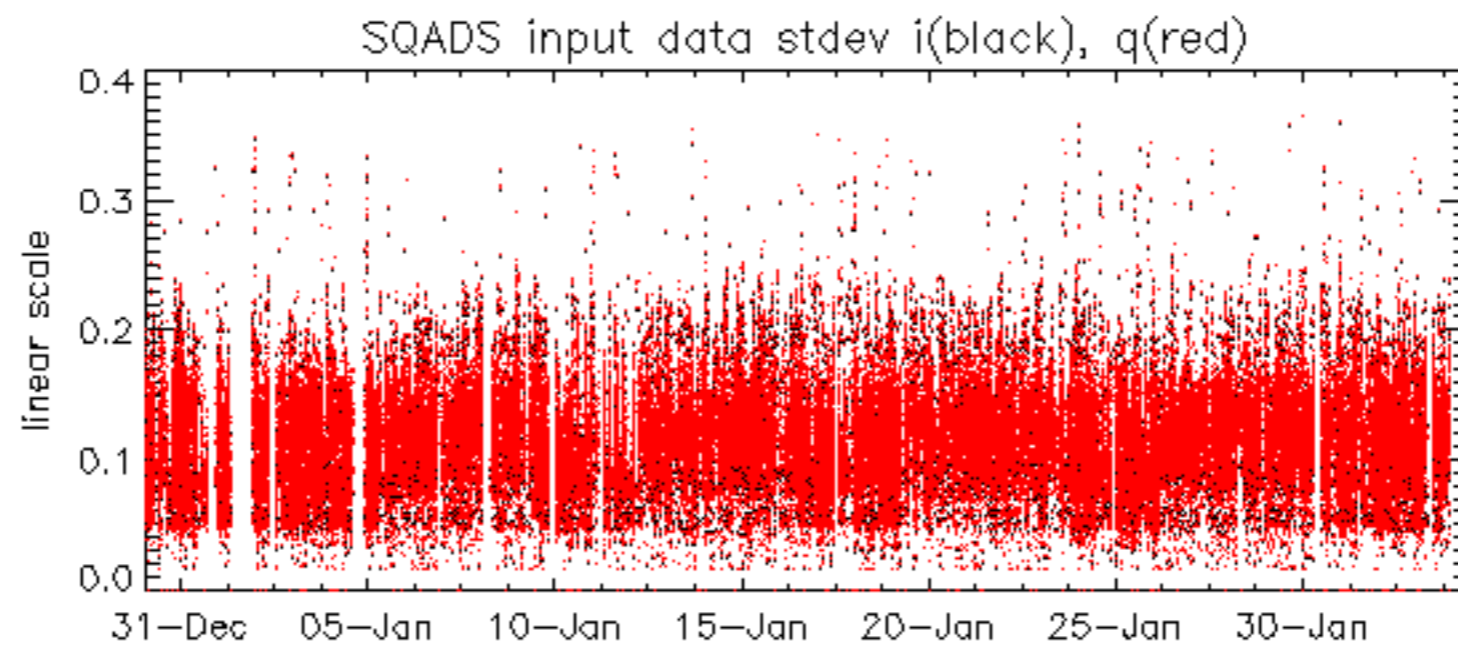






























No unavailabilities during the reported period.