

# REPORT OF 040323

last update on Tue Mar 23 14:24:10 GMT 2004

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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:

Polarisation	Start Time
V	20040322 191935
H	20040322 191815

#### 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

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## 4.2 - Cyclic statistics



### P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.609980	0.006007	0.050915
7	P1	-3.318354	0.009407	0.045605
11	P1	-4.795404	0.261688	0.647091
15	P1	-5.008809	0.034202	0.020813
19	P1	-3.348107	0.072700	-0.037732
22	P1	-4.545935	0.070388	-0.027124
24	P1	-5.101747	0.090681	0.015664
28	P1	-4.579318	0.075822	-0.068748

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.381891	0.081847	-0.024422
7	P2	-22.894747	0.129389	-0.021787
11	P2	-16.020962	0.156533	0.045083
15	P2	-7.175711	0.091437	0.017199
19	P2	-9.483328	0.173132	-0.001927
22	P2	-17.675783	0.104296	0.041848
24	P2	-21.034056	0.115573	-0.036607
28	P2	-16.594307	0.087391	-0.009501

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.127913	0.003003	0.008188
7	P3	-8.127905	0.003003	0.008157
11	P3	-8.127901	0.003003	0.008133
15	P3	-8.127899	0.003003	0.008112
19	P3	-8.127884	0.003004	0.008033
22	P3	-8.127882	0.003004	0.008030
24	P3	-8.127892	0.003003	0.008087

### 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	0.000469580
	stdev	2.36428e-07
MEAN Q	mean	0.000488787
	stdev	2.61121e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127366
	stdev	0.00113421
STDEV Q	mean	0.127601
	stdev	0.00114707



### 5.3 - Gain imbalance I/Q



## 6 - Doppler Analysis

### 6.1 - Unbiased Doppler Error

<b>Evolution of unbiased Doppler error (Real - Expected)</b>
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Ascending
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Descending
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### 6.2 - Absolute Doppler

<b>Evolution of Absolute Doppler</b>
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Ascending
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Descending
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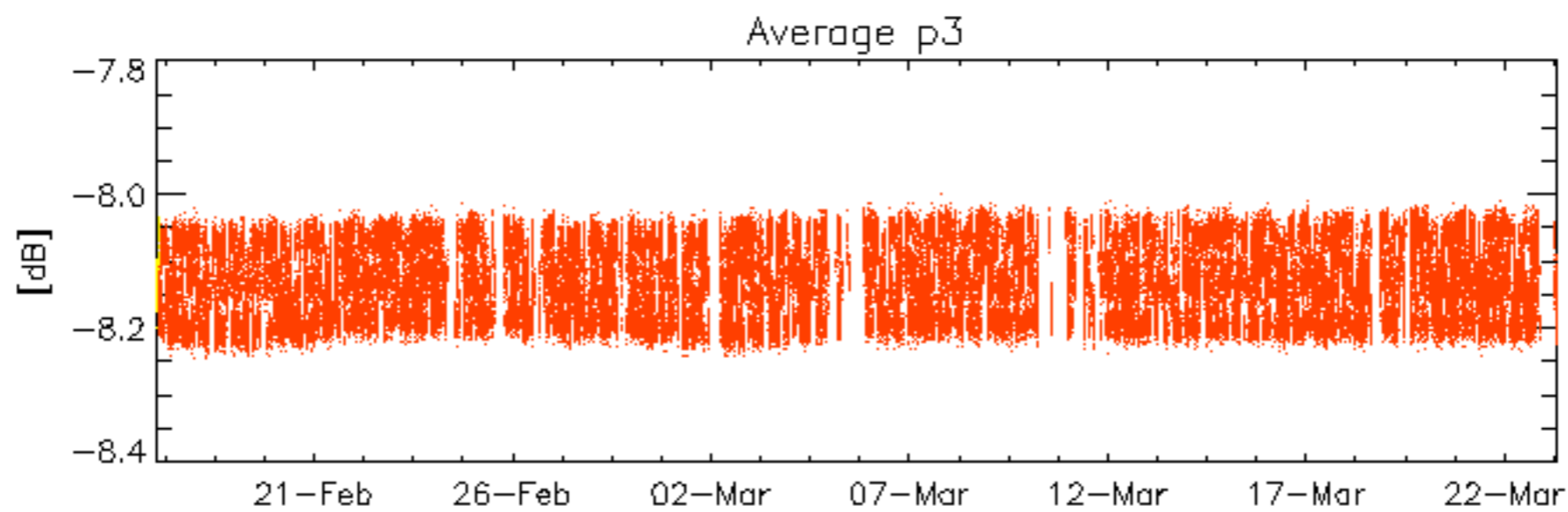
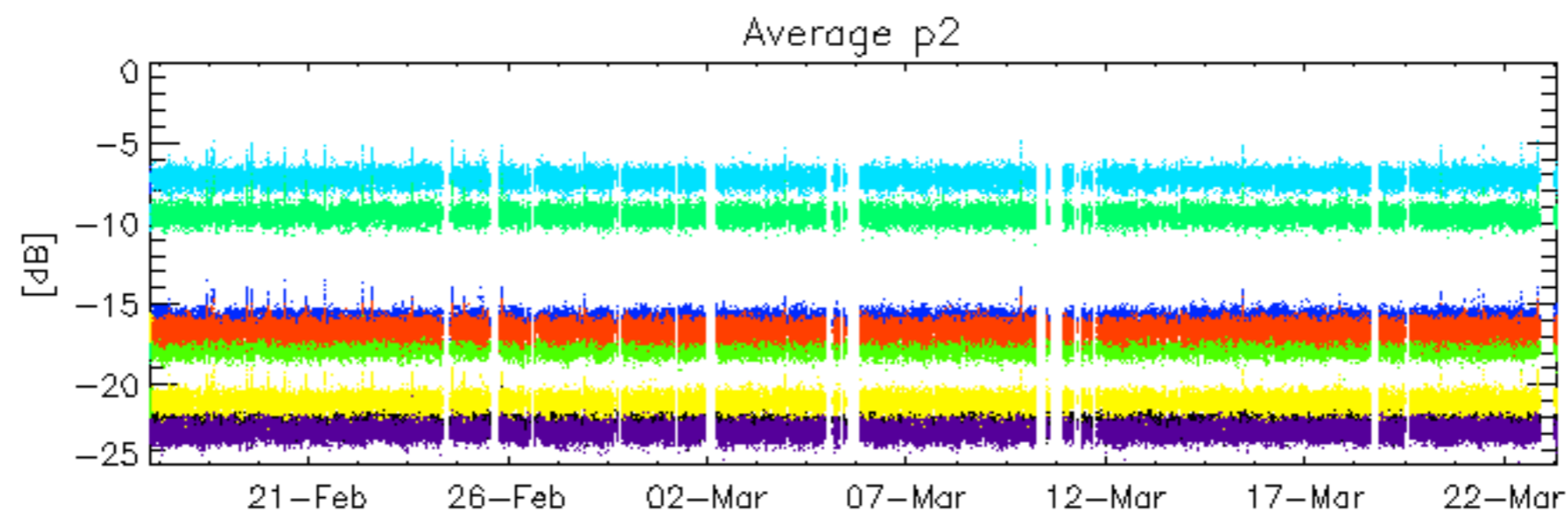
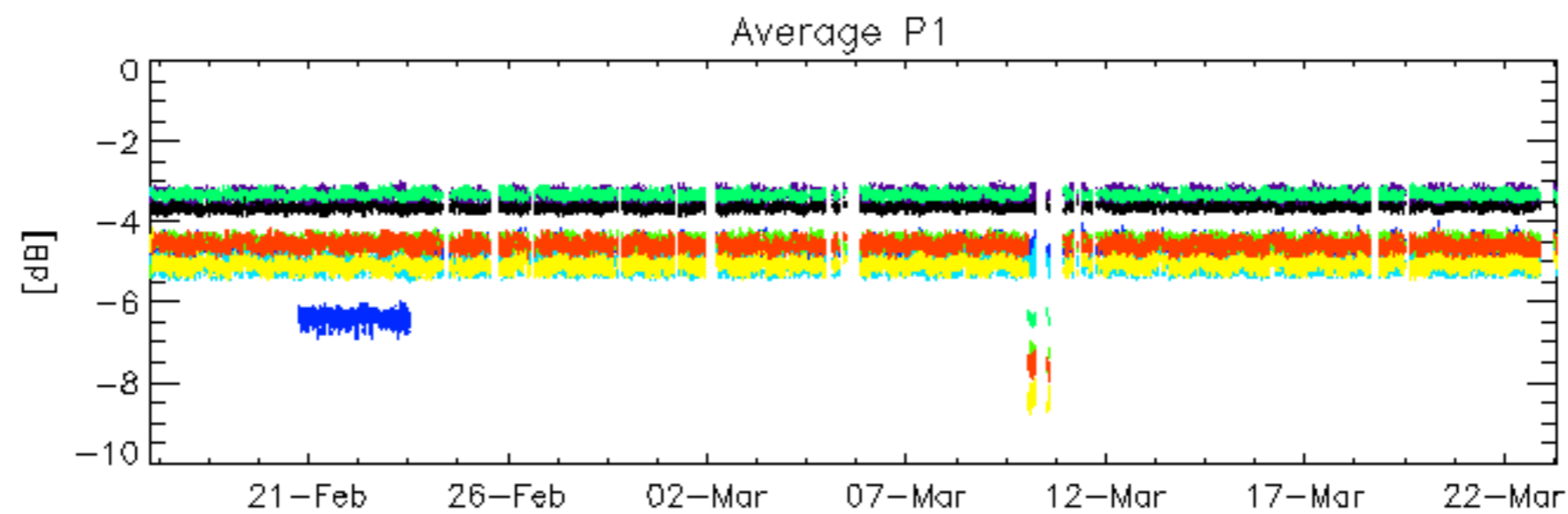
### 6.3 - Doppler evolution versus ANX

<b>Evolution Doppler error versus ANX</b>
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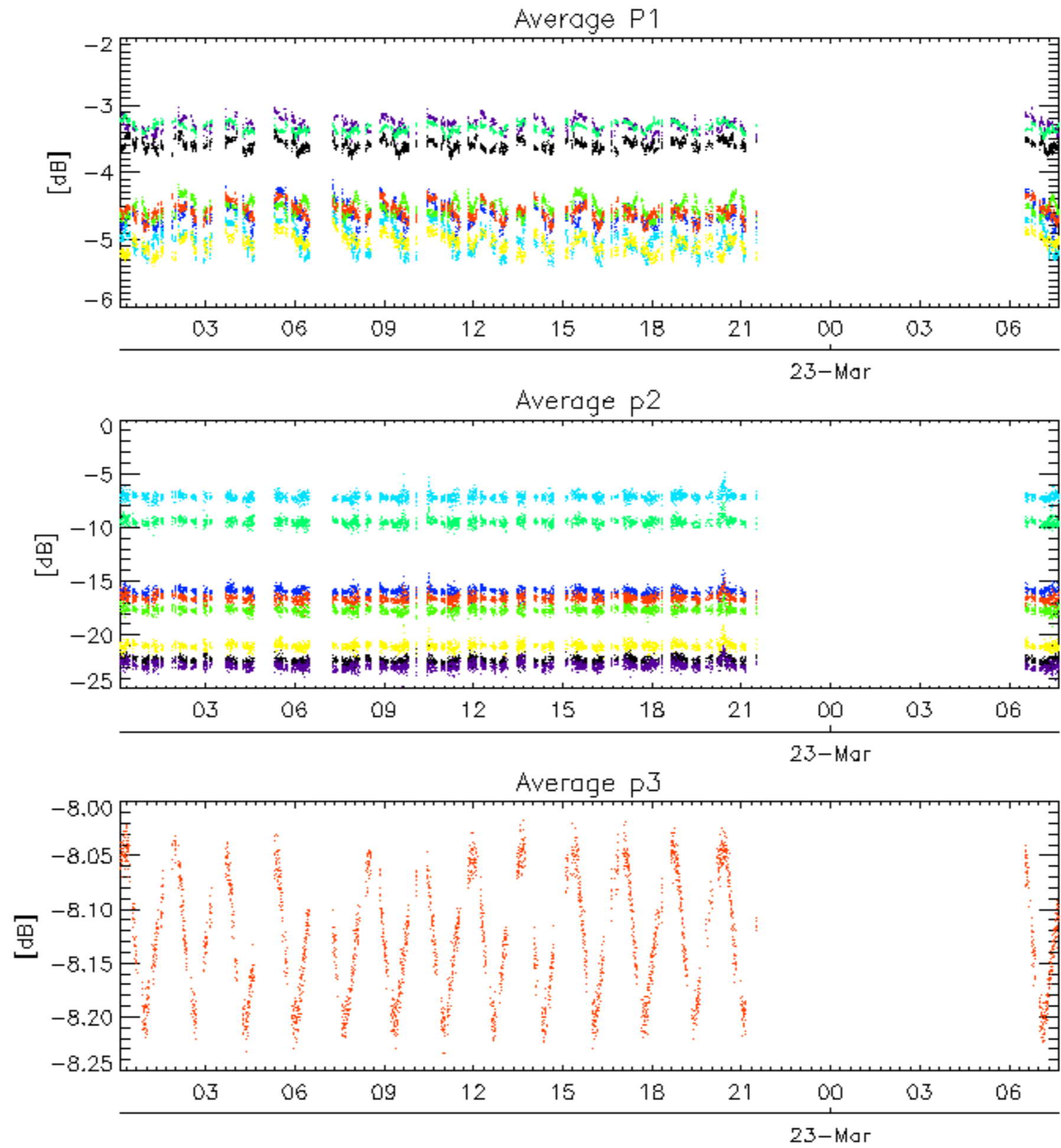
⊗
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<b>Evolution Doppler error versus ANX</b>
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⊗
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rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 28

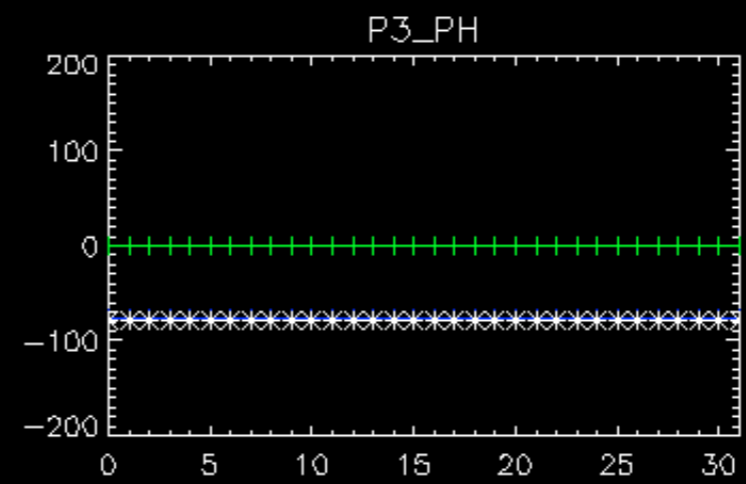
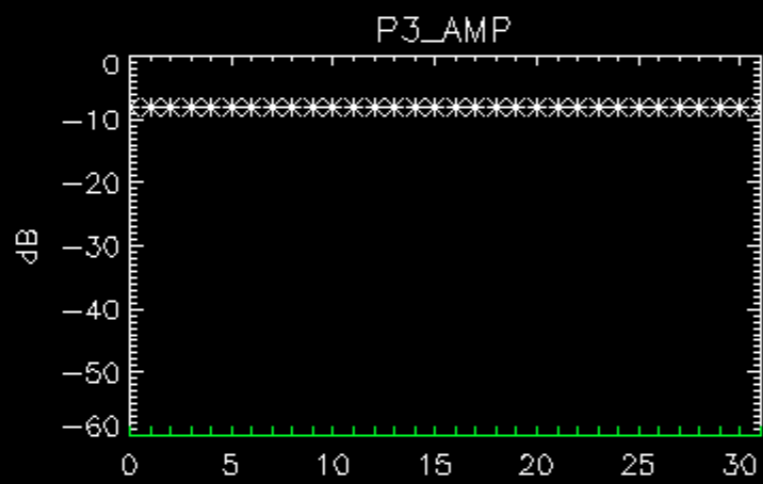
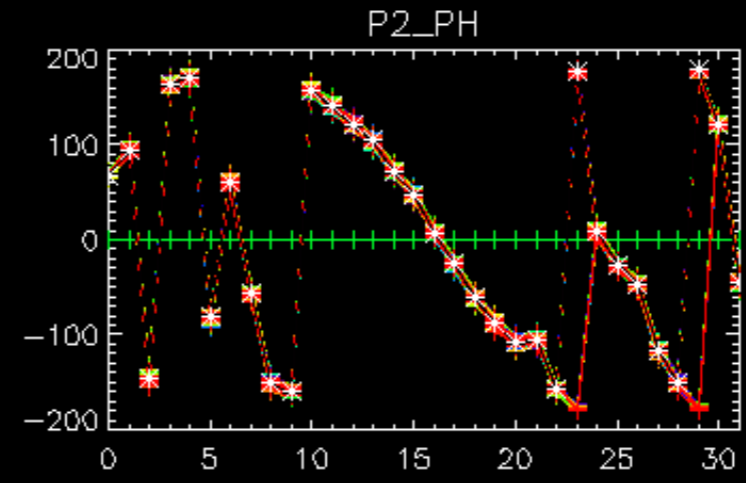
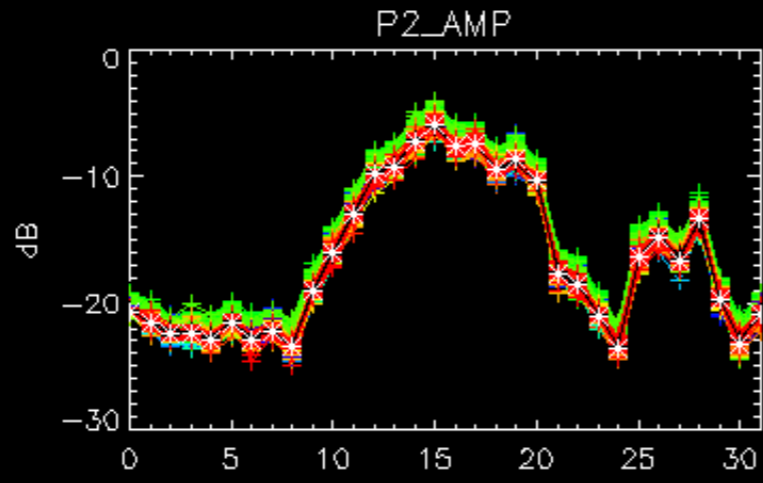
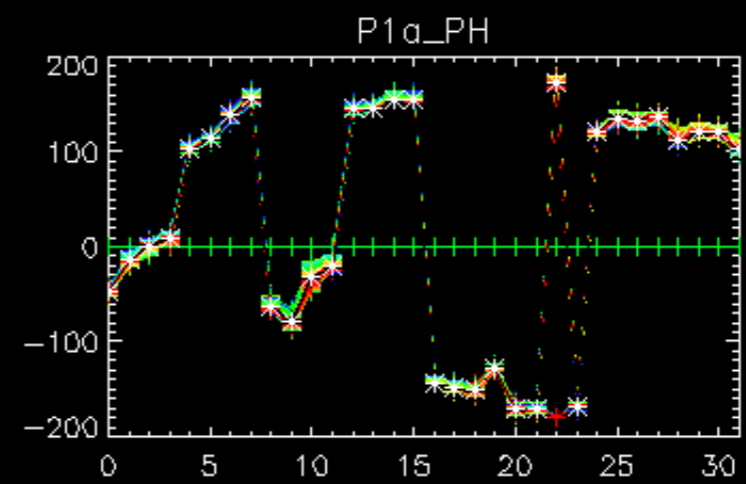
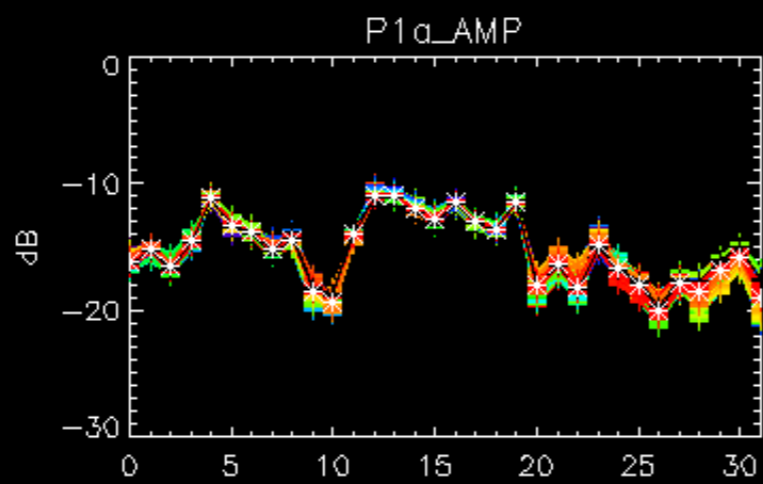
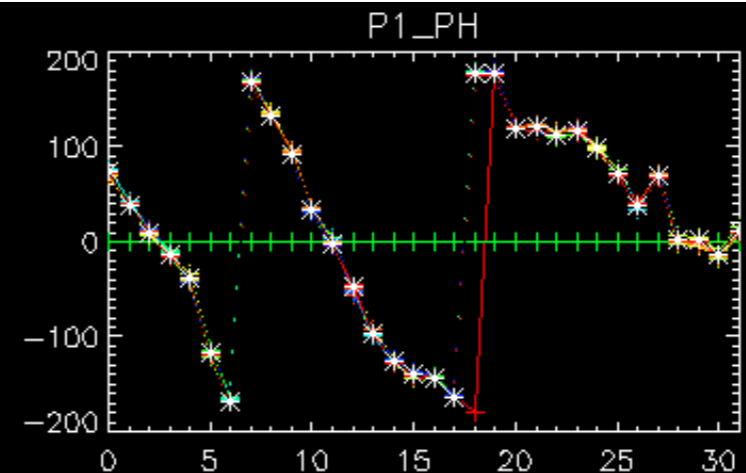
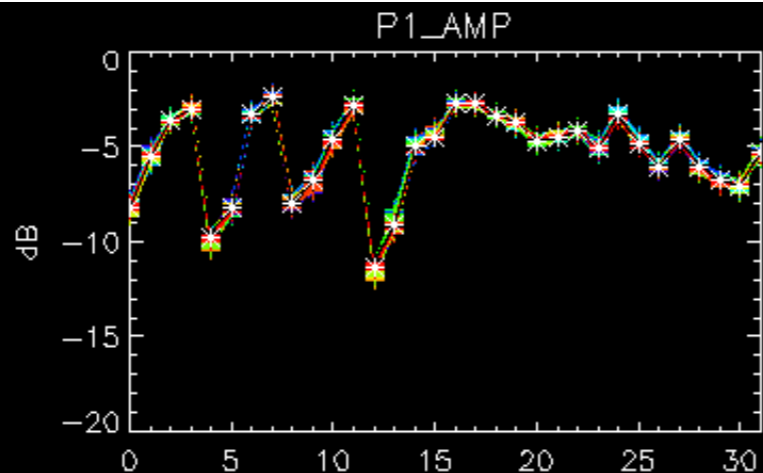


rows: **3** **7** **11** **15** **19** **22** **24** **28**

No anomalies observed on available browse products



No anomalies observed.

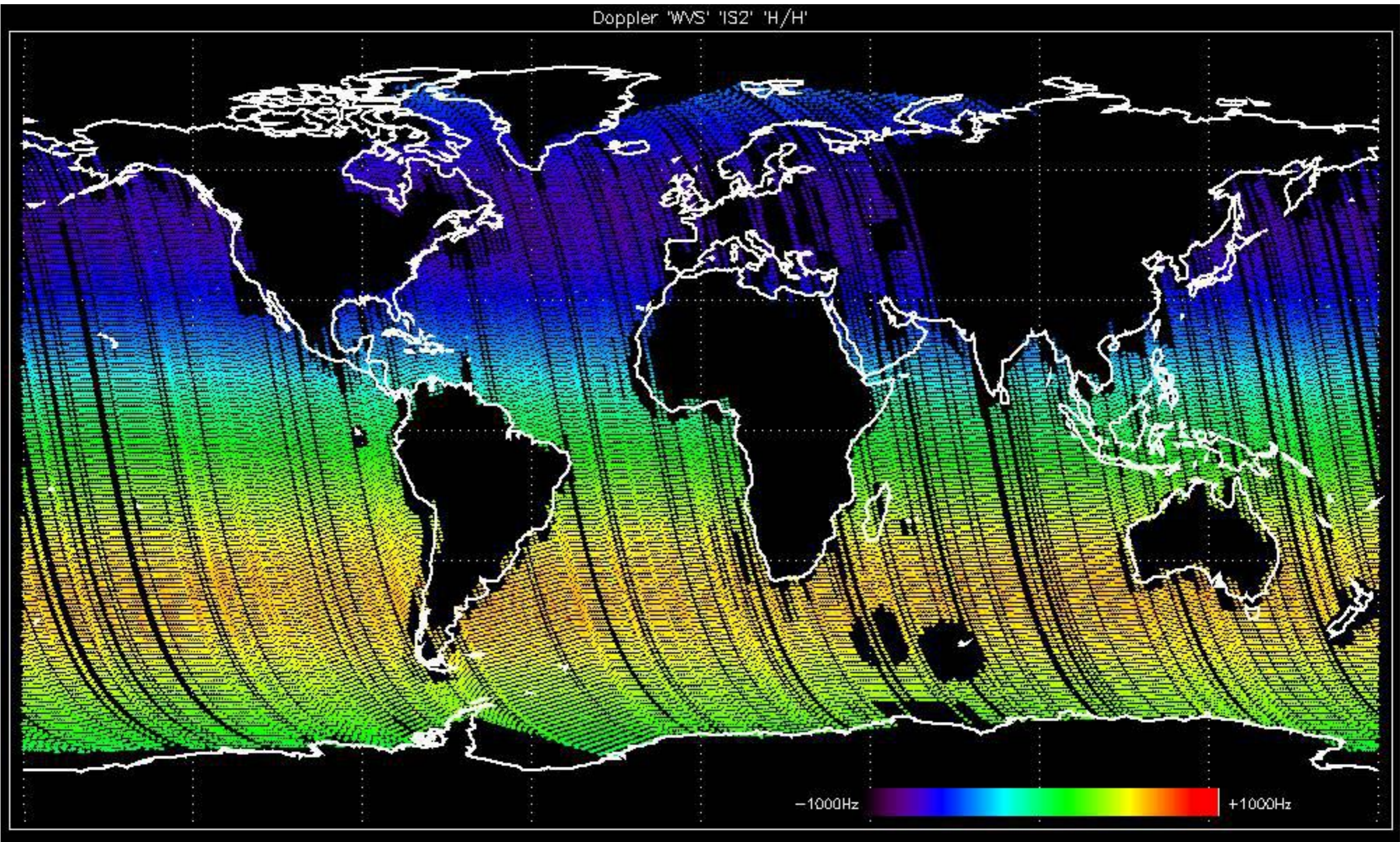


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



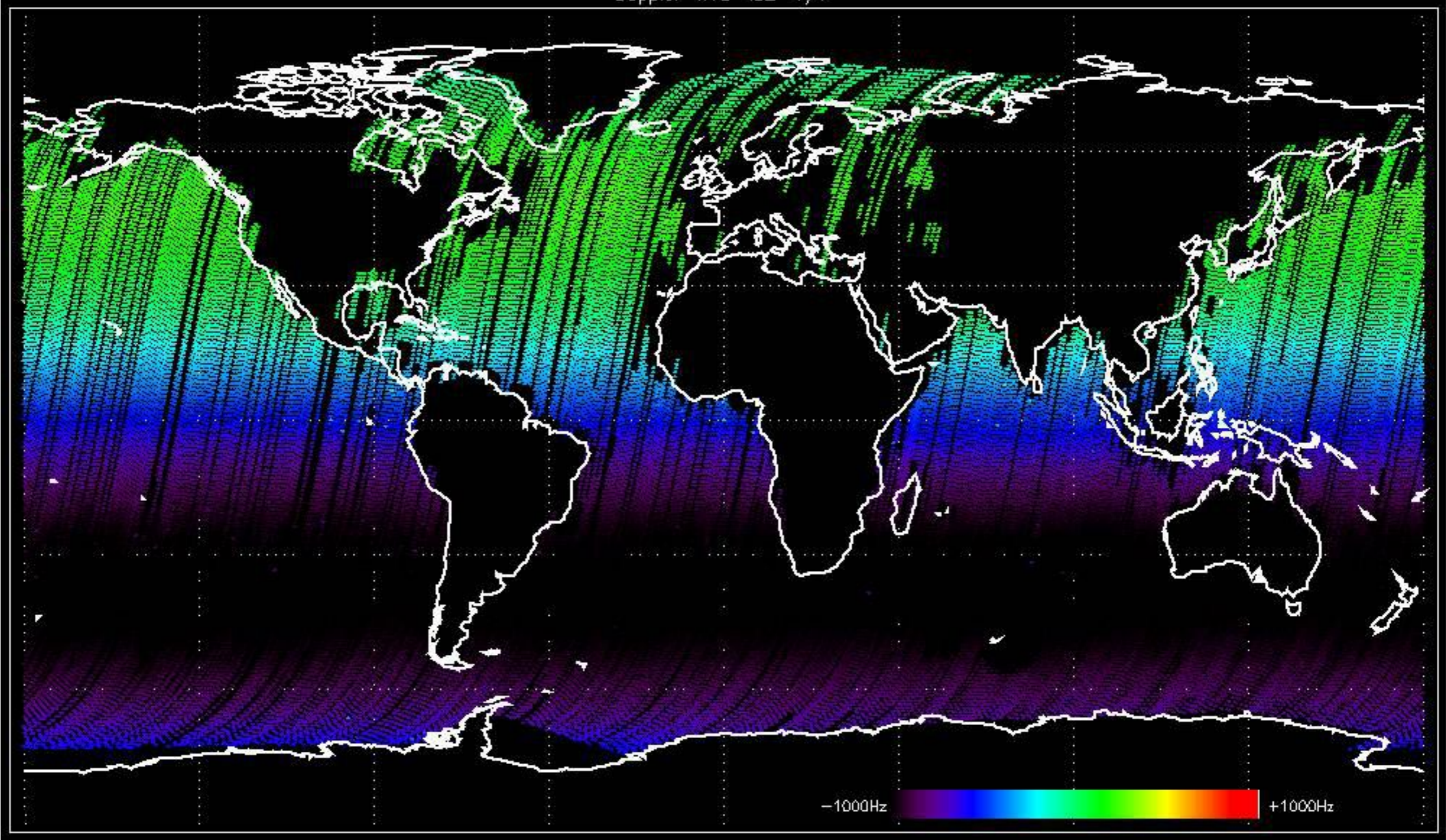


Doppler 'WVS' 'IS2' 'H/H'

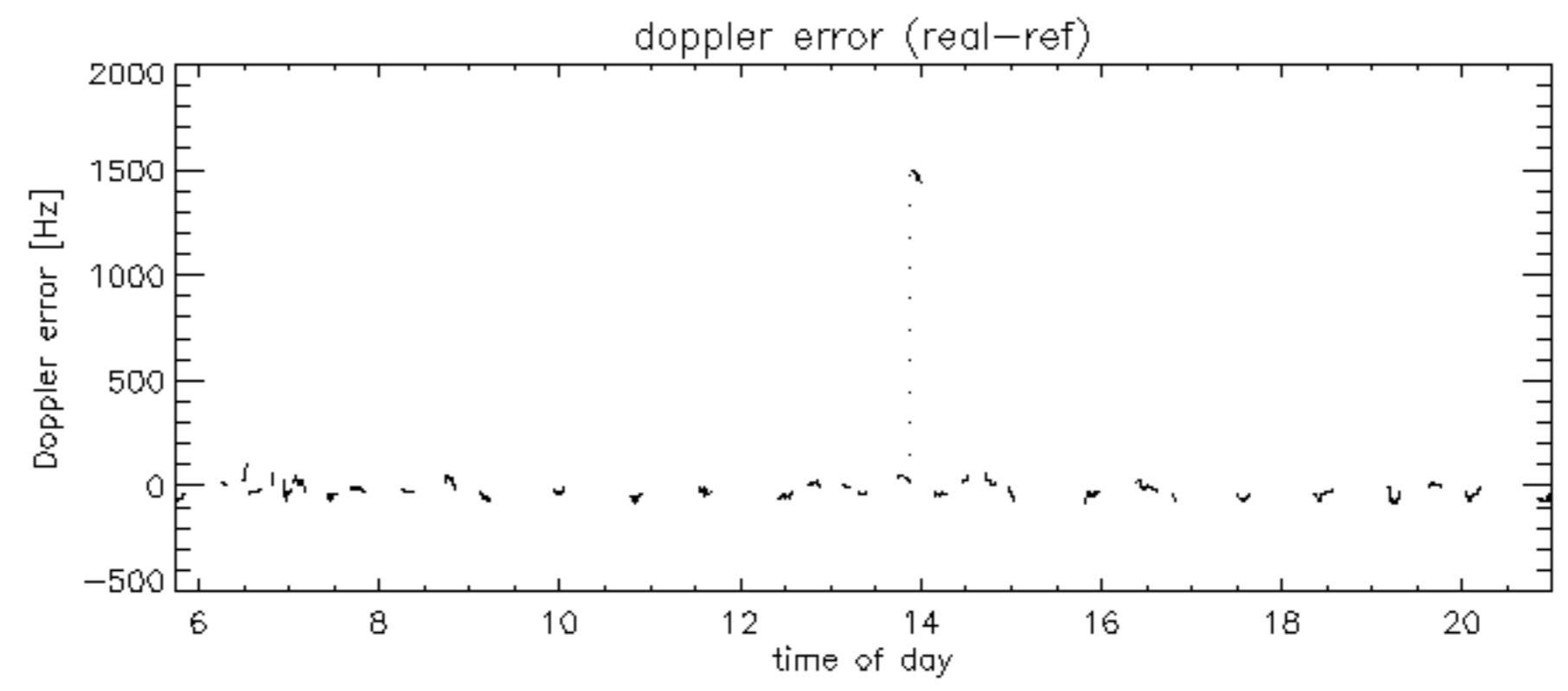
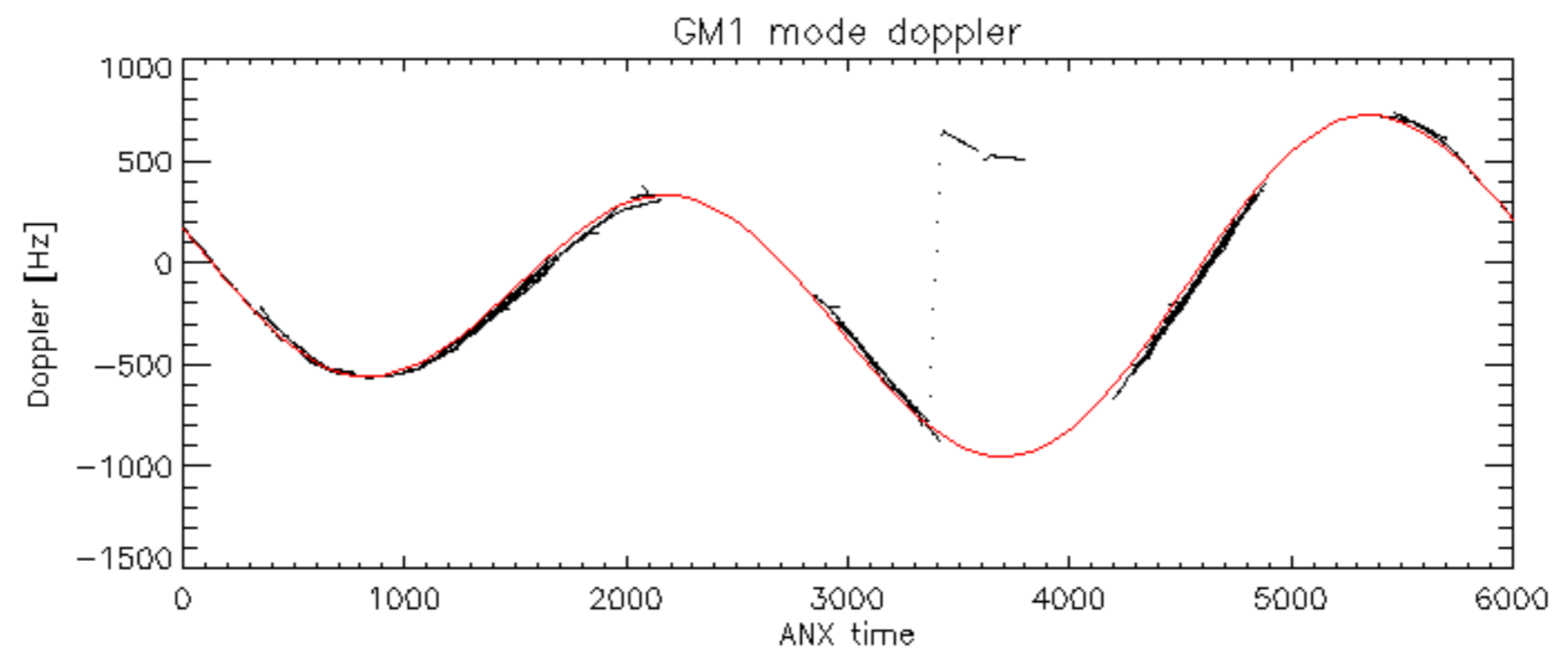


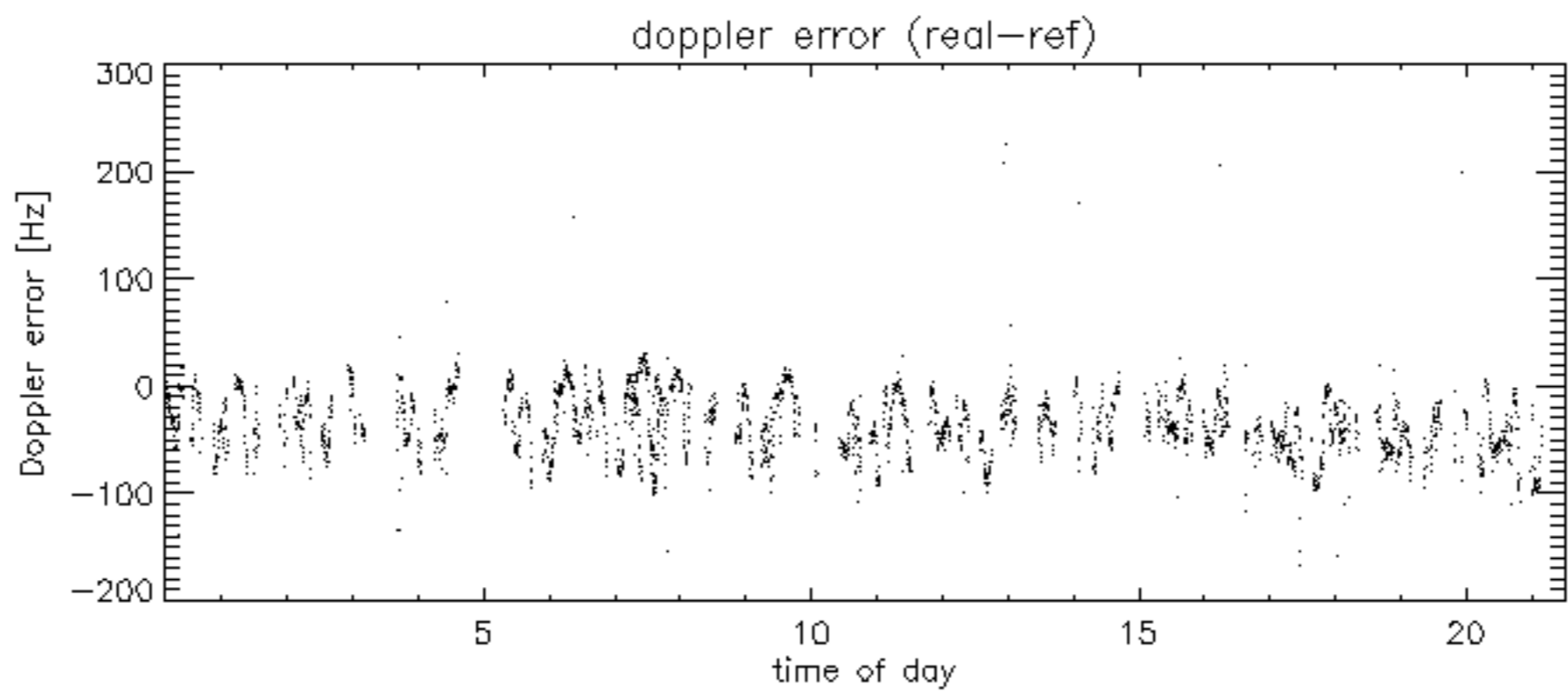
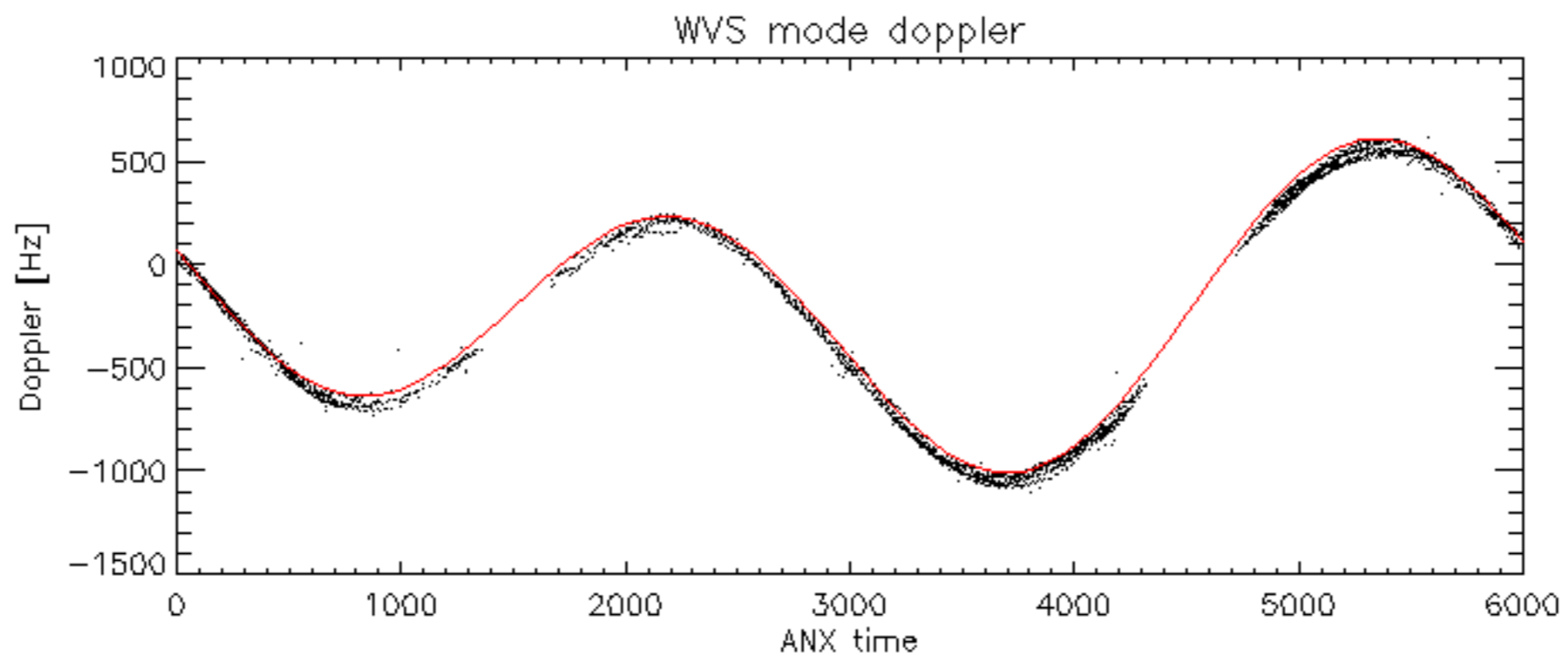


Doppler 'WVS' 'ISZ' 'V/V'



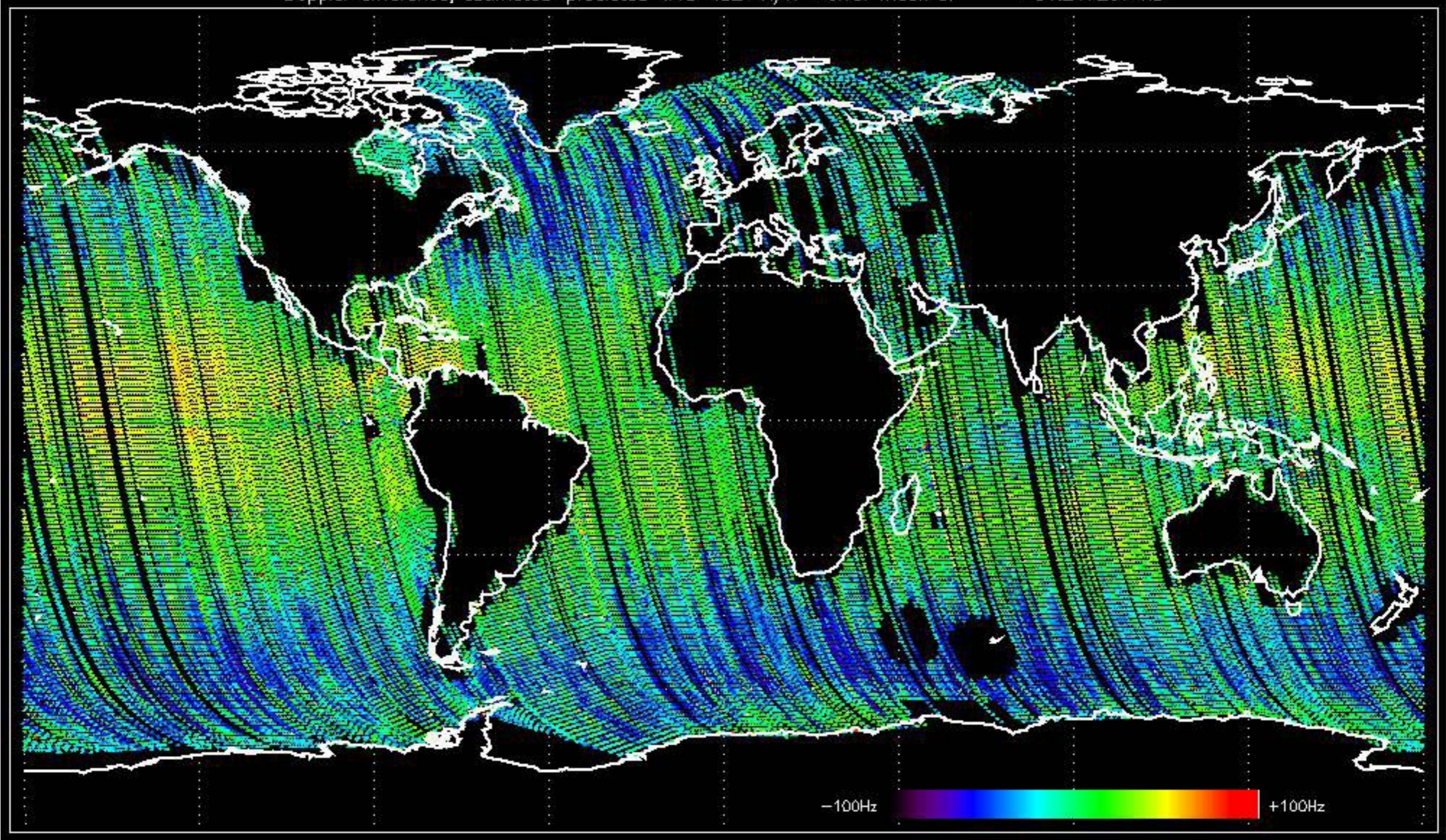






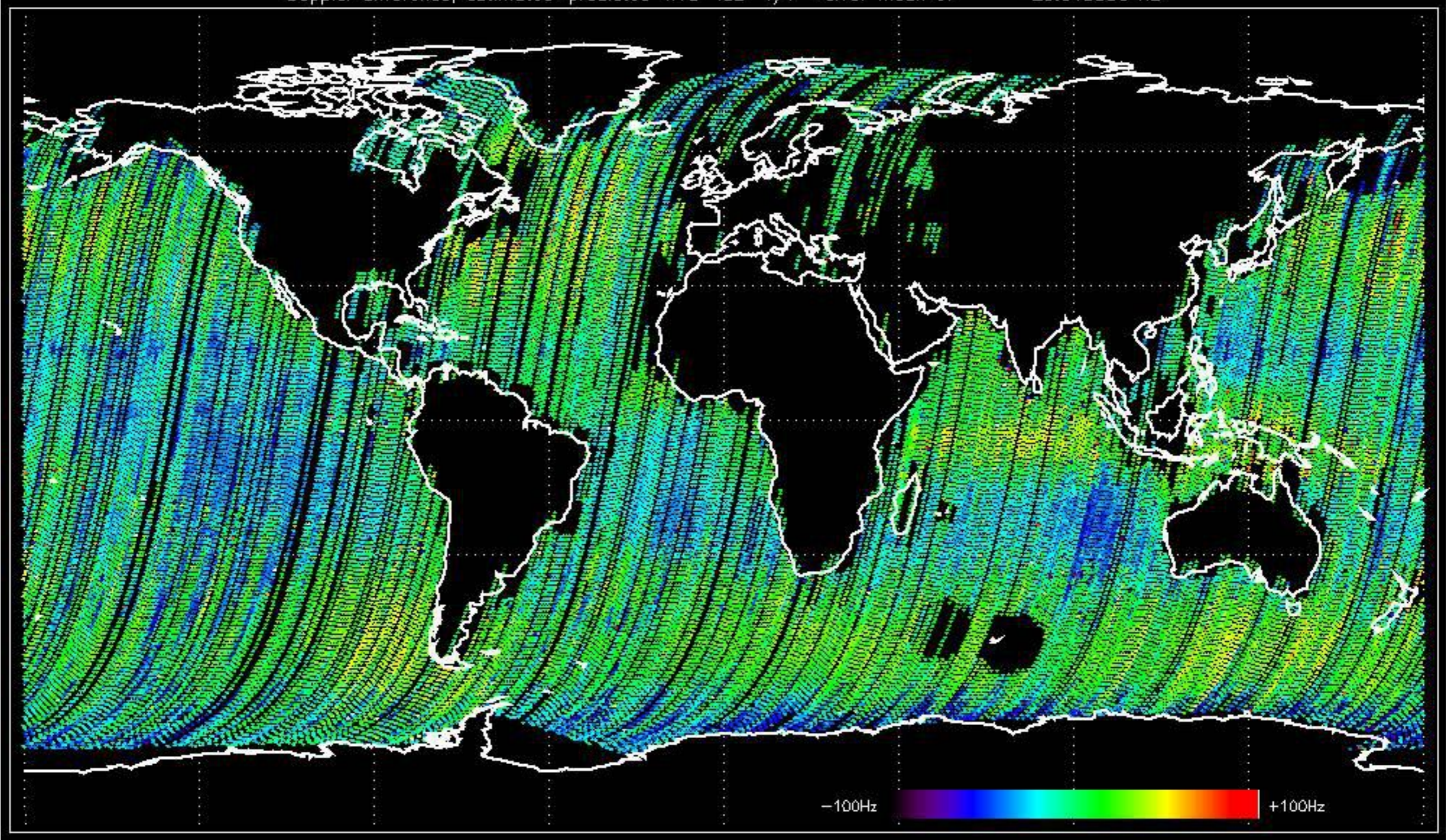


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -31.247267 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -29.013536 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.









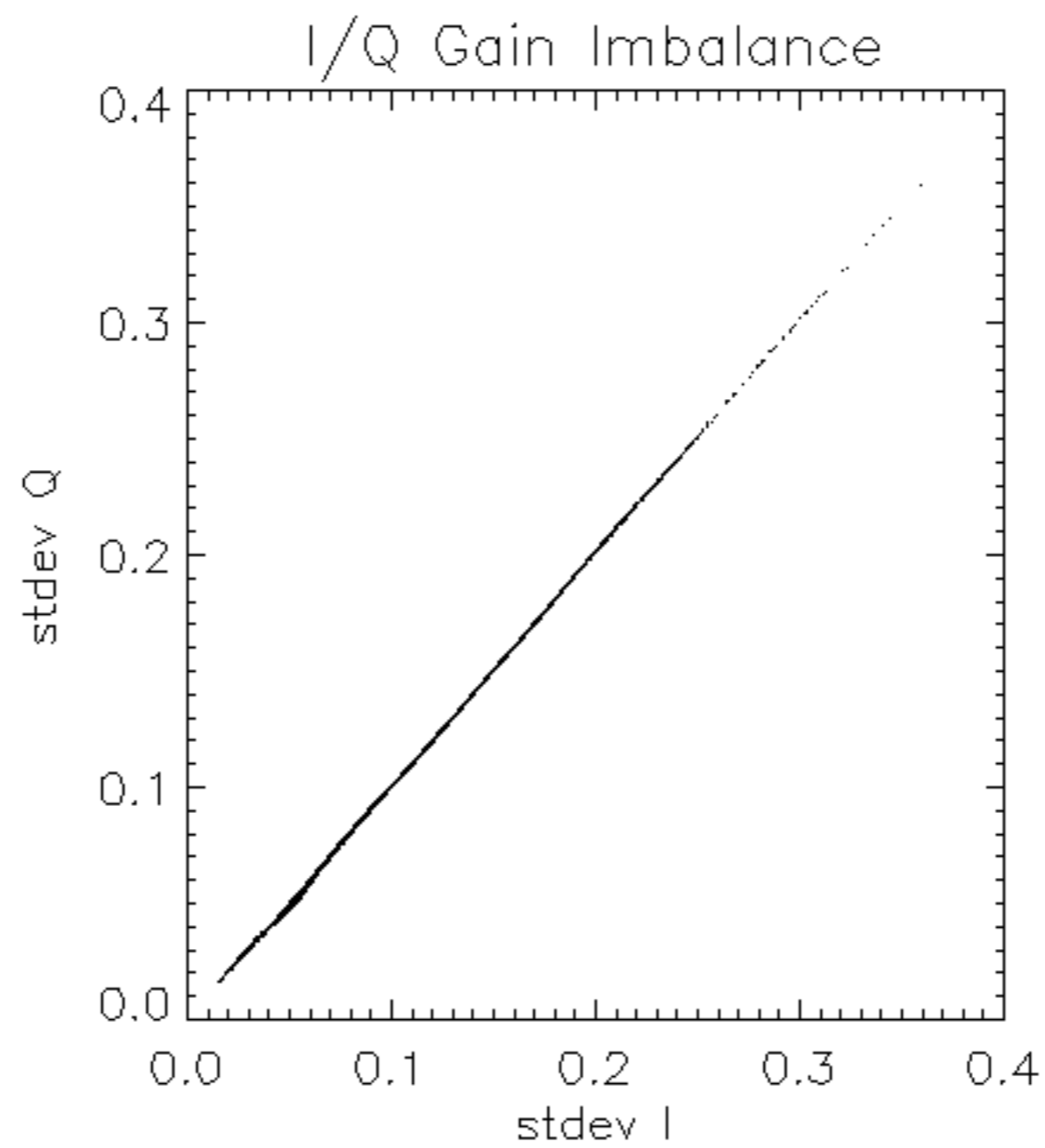


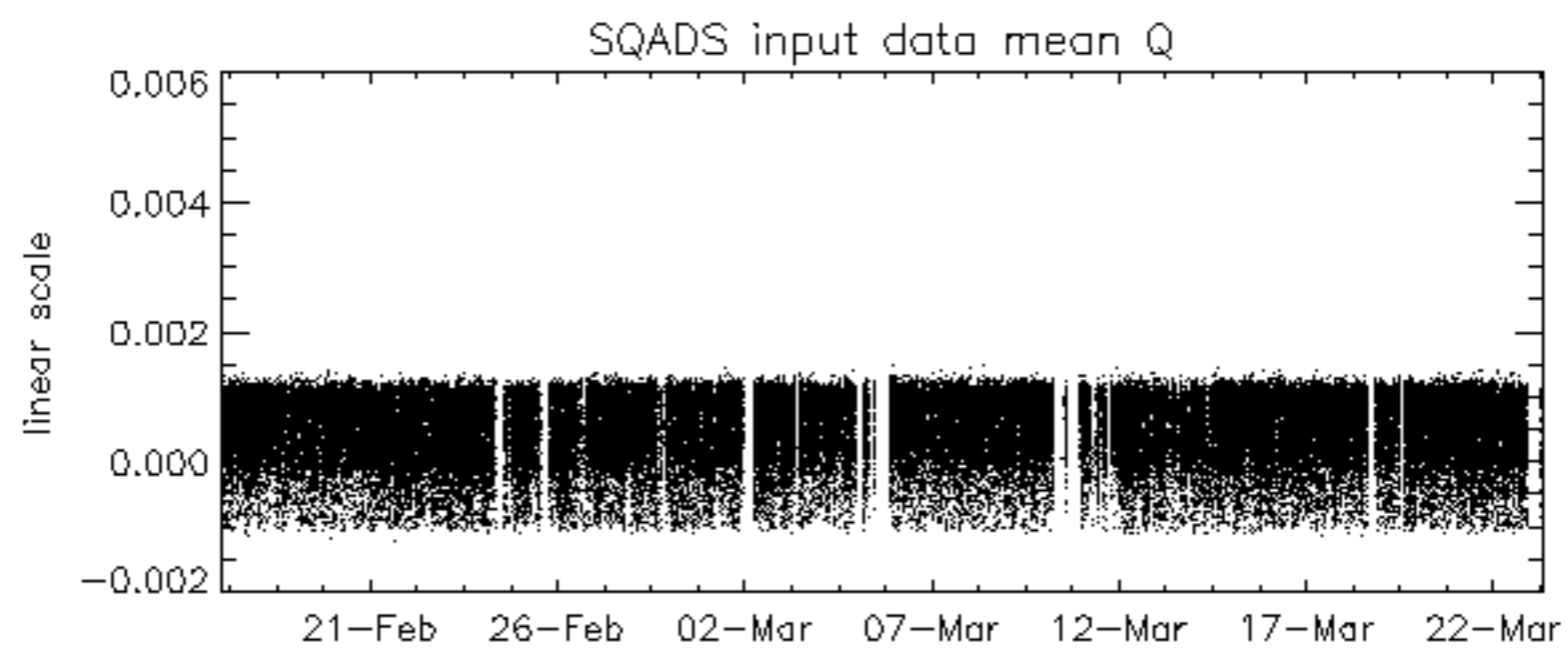
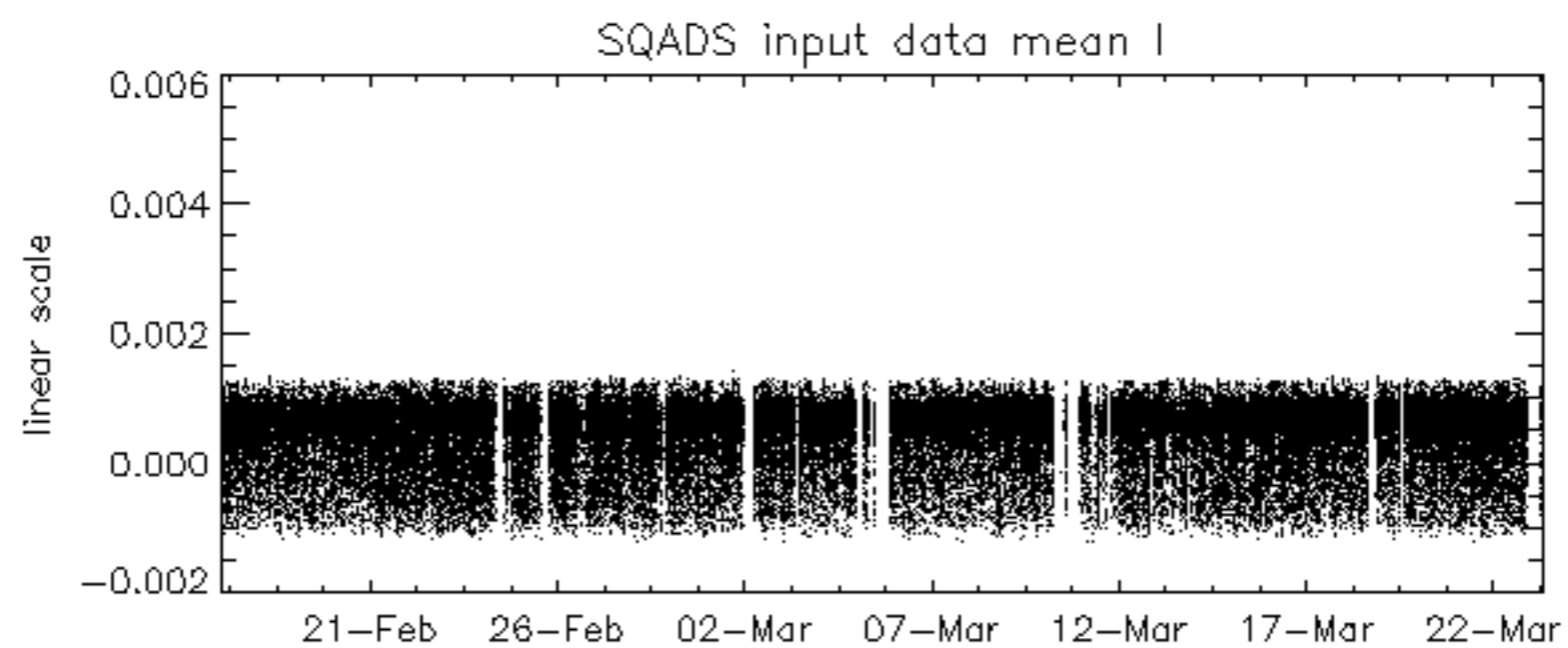
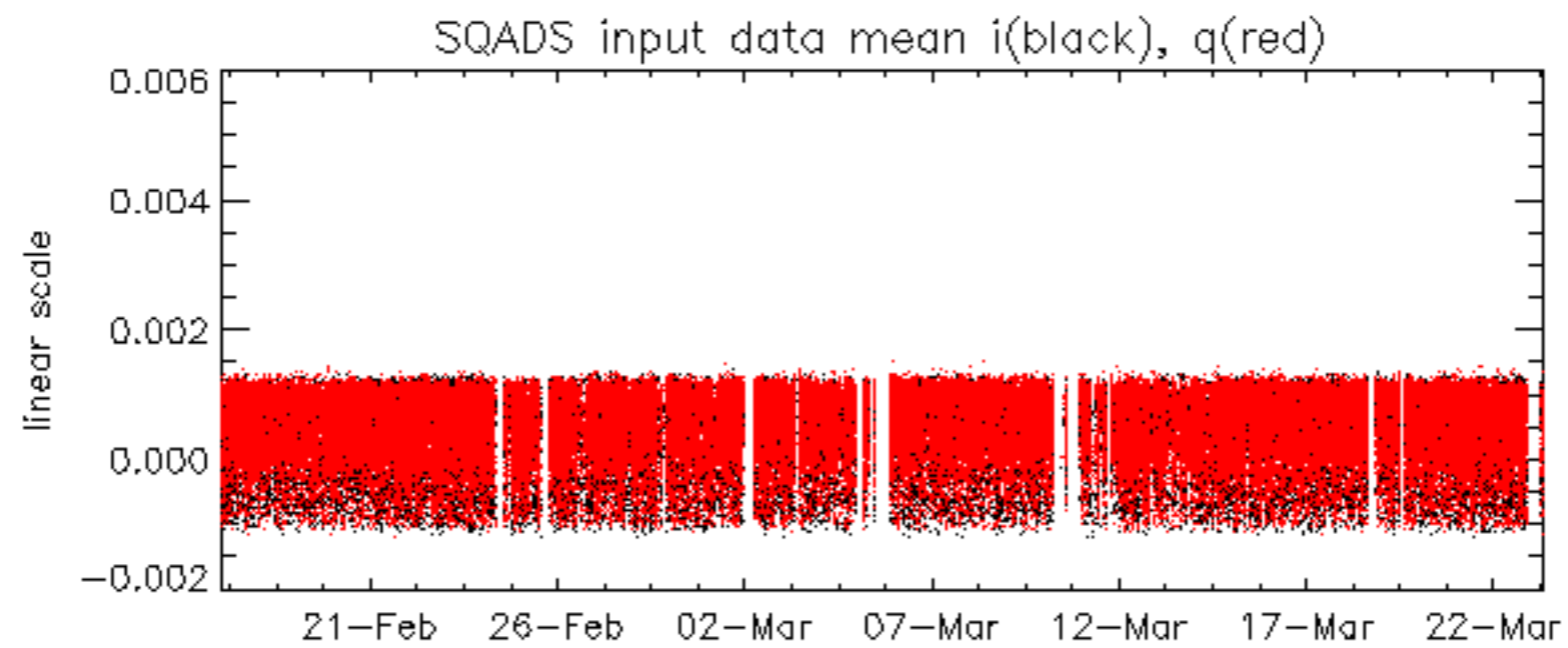


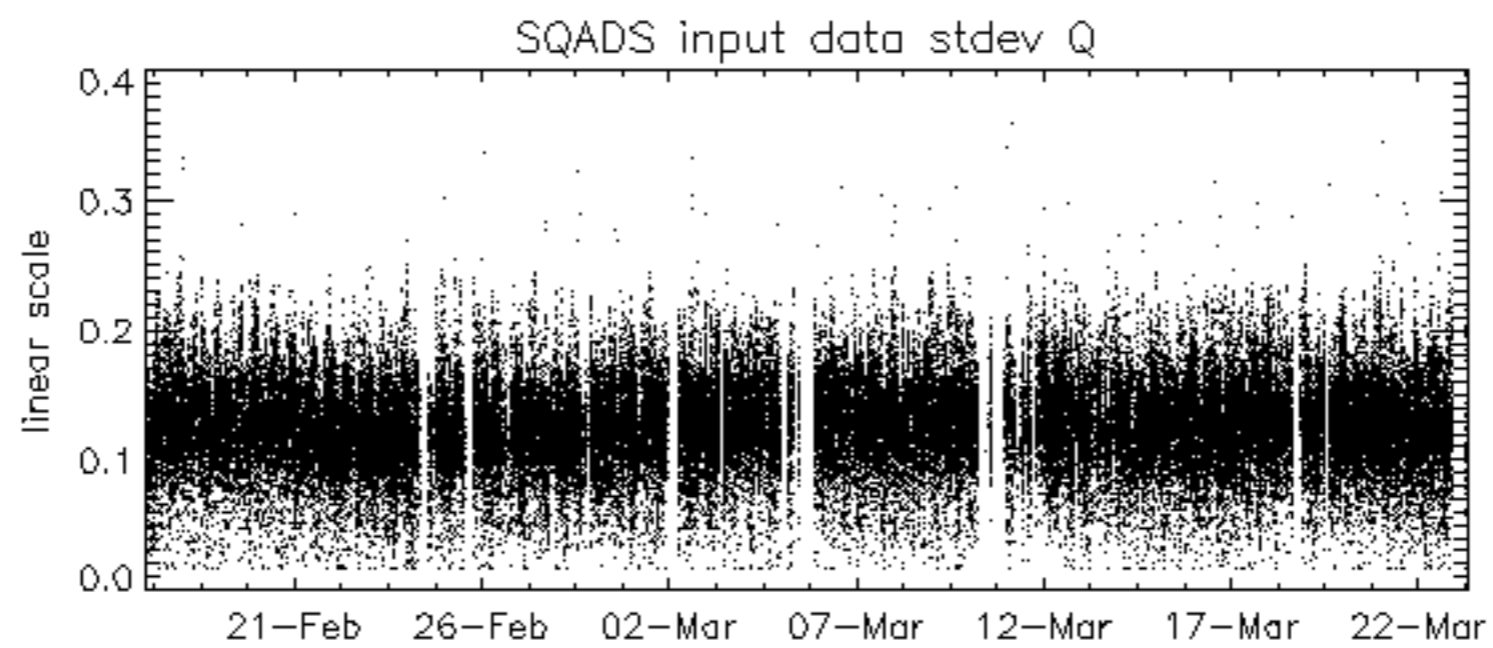
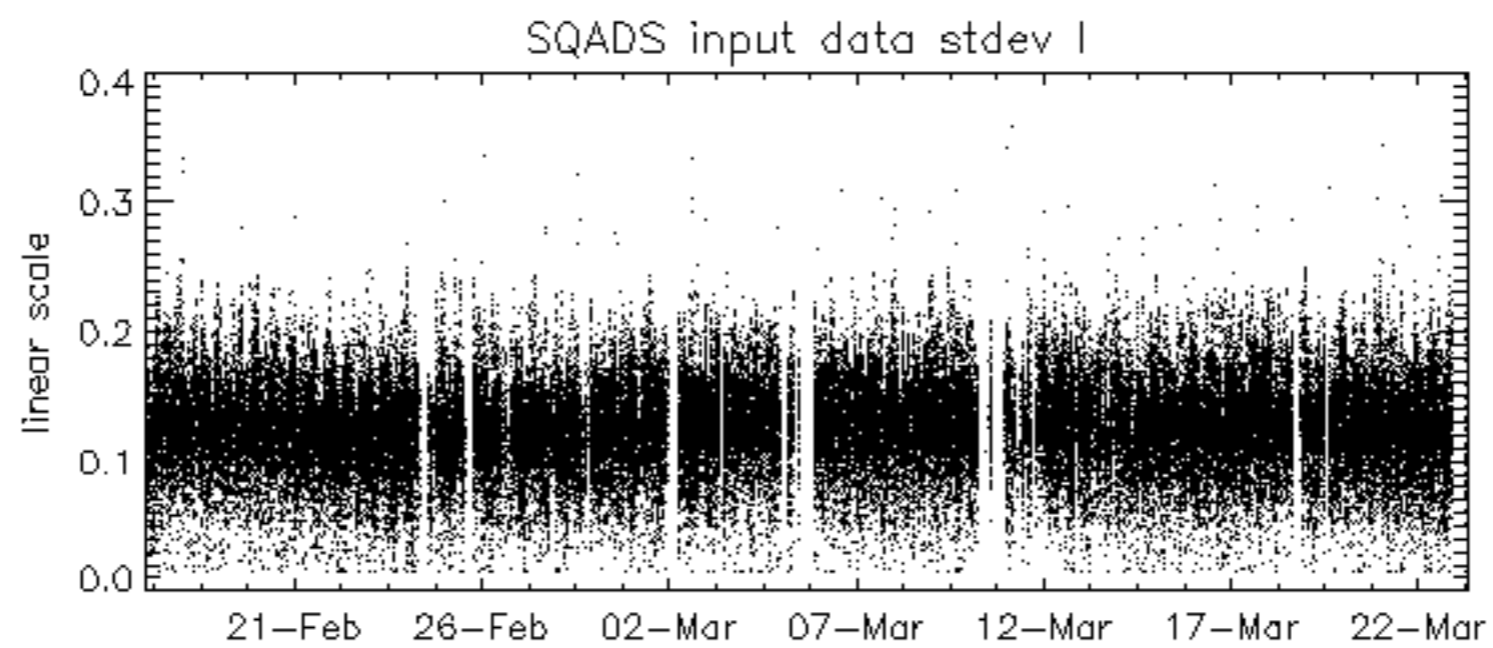
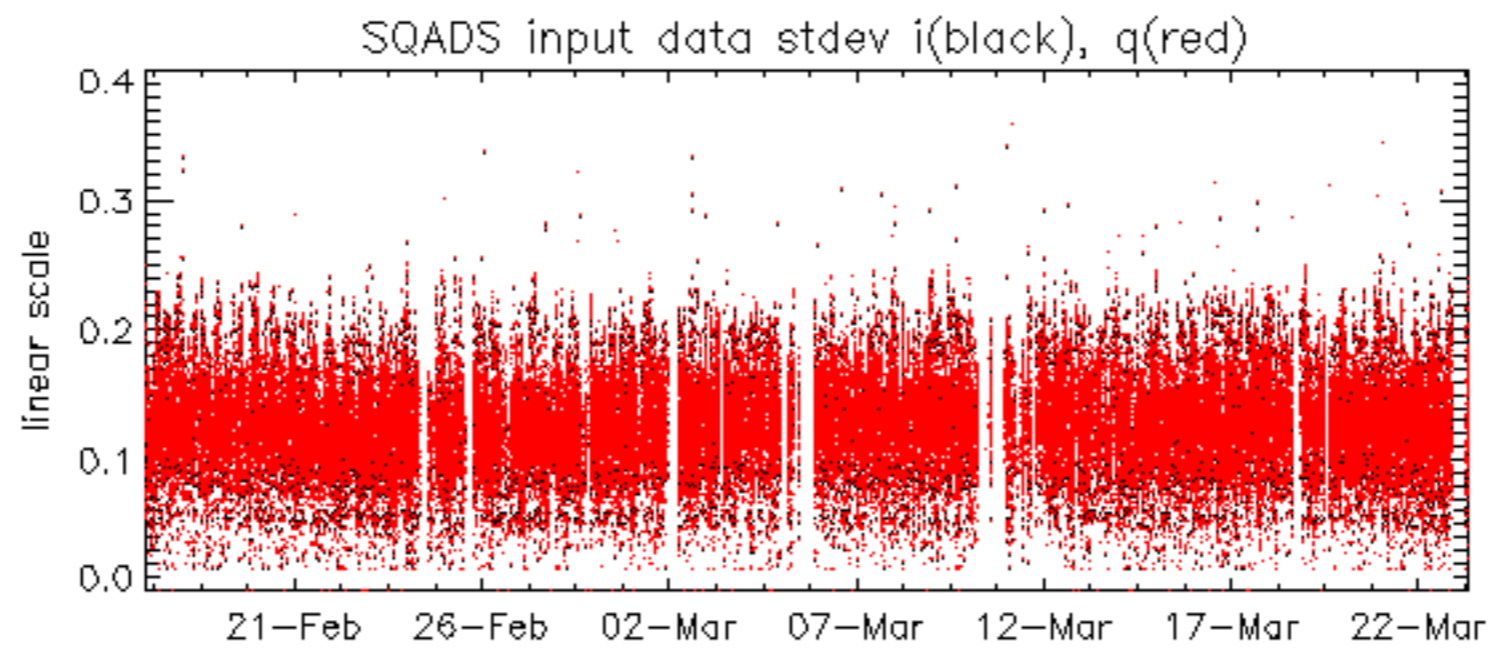






























No unavailabilities during the reported period.