

# REPORT OF 040319

last update on Fri Mar 19 15:40:30 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	20040317 201704
H	20040317 201544

#### 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

⊗

## 4.2 - Cyclic statistics



### P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.615493	0.006005	0.045355
7	P1	-3.330262	0.012672	0.087981
11	P1	-4.795567	0.263886	0.436067
15	P1	-4.993320	0.048419	-0.087239
19	P1	-3.346873	0.072879	-0.075888
22	P1	-4.545016	0.070595	-0.062994
24	P1	-5.106088	0.090917	-0.024213
28	P1	-4.574956	0.076610	-0.100683

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.382687	0.081636	-0.027290
7	P2	-22.903837	0.130044	-0.015134
11	P2	-16.034754	0.157877	0.047374
15	P2	-7.179830	0.089981	0.019409
19	P2	-9.478157	0.163625	0.002546
22	P2	-17.682152	0.102517	0.047513
24	P2	-21.038700	0.111872	-0.032130
28	P2	-16.597340	0.087282	-0.003782

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.128542	0.002993	0.006524
7	P3	-8.128541	0.002993	0.006506
11	P3	-8.128542	0.002993	0.006505
15	P3	-8.128550	0.002993	0.006535
19	P3	-8.128560	0.002992	0.006595
22	P3	-8.128572	0.002993	0.006686
24	P3	-8.128576	0.002994	0.006717

### 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	0.000470913
	stdev	2.34737e-07
MEAN Q	mean	0.000494188
	stdev	2.60040e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127408
	stdev	0.00111719
STDEV Q	mean	0.127640
	stdev	0.00112993



### 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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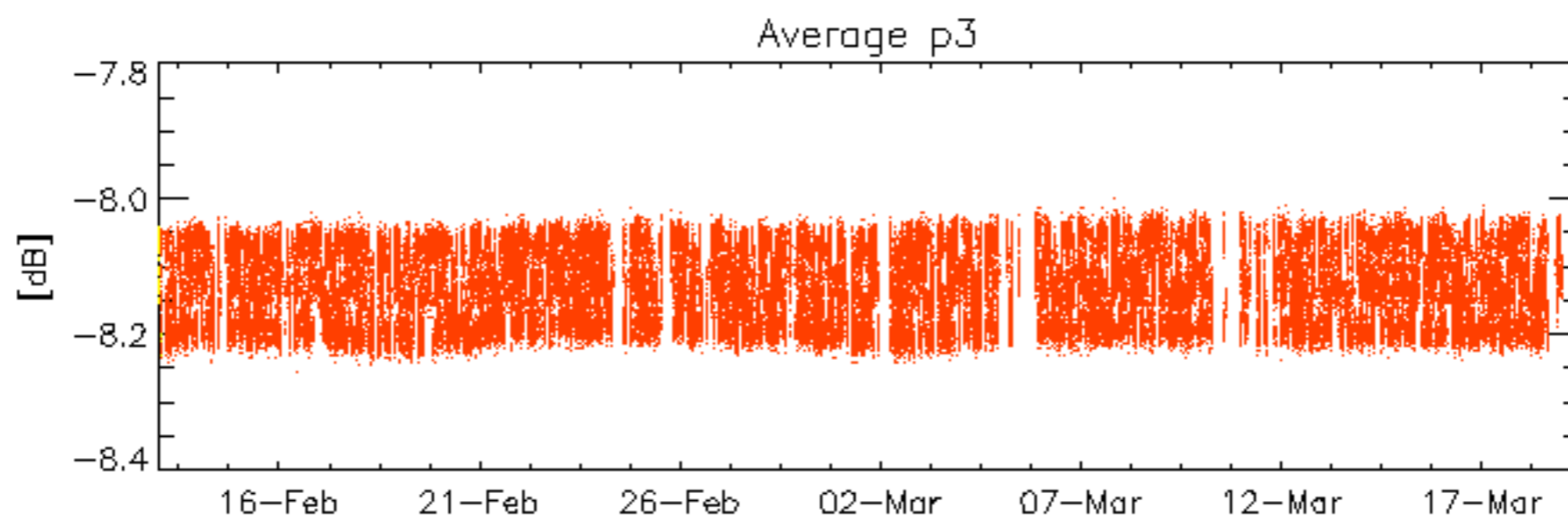
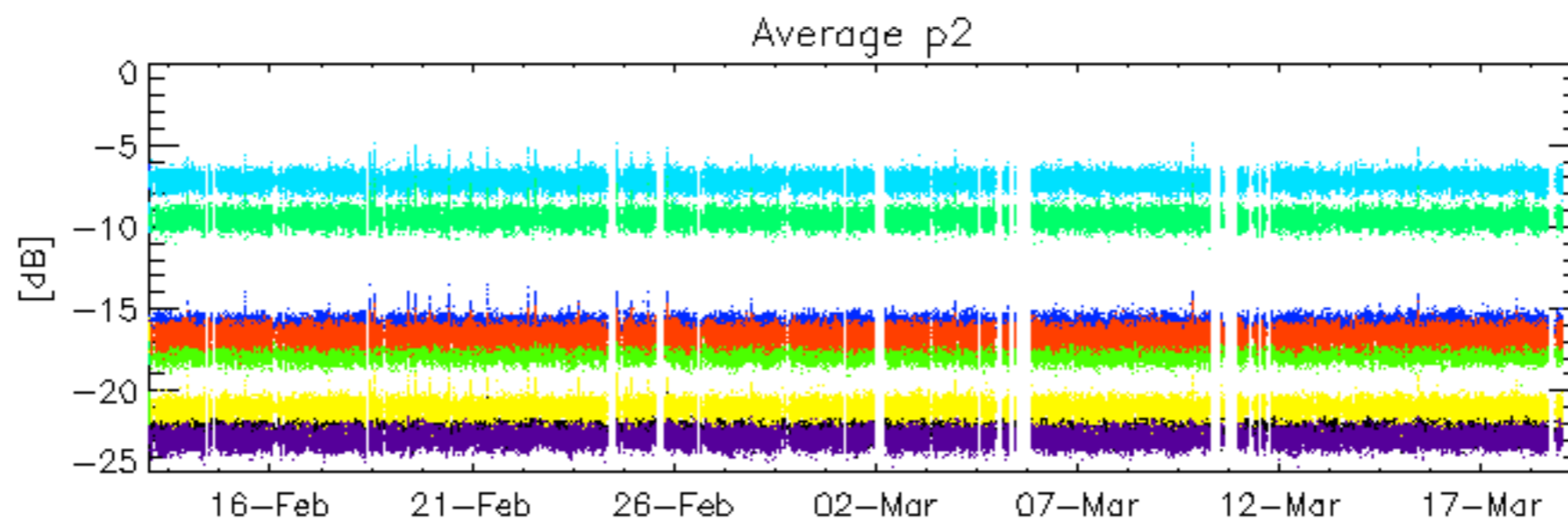
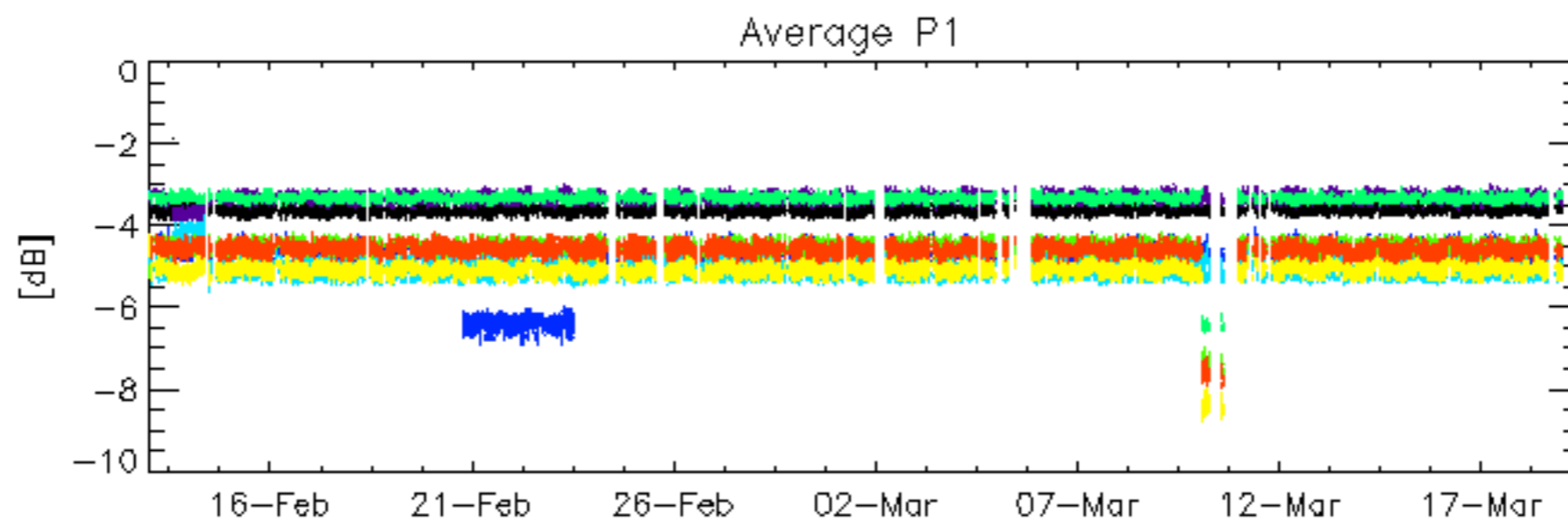
### 6.3 - Doppler evolution versus ANX

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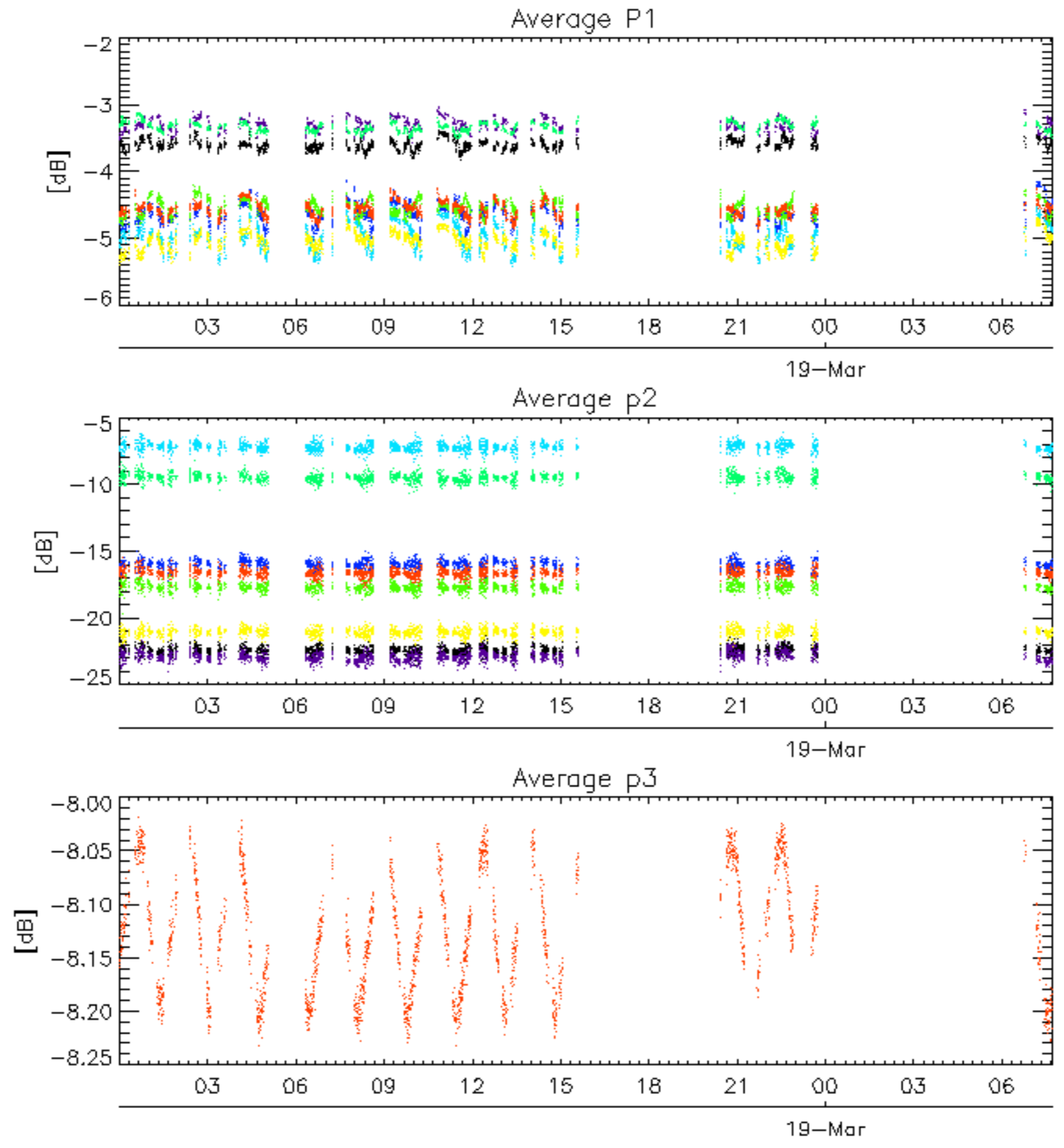
⊗
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<b>Evolution Doppler error versus ANX</b>
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⊗
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rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 28

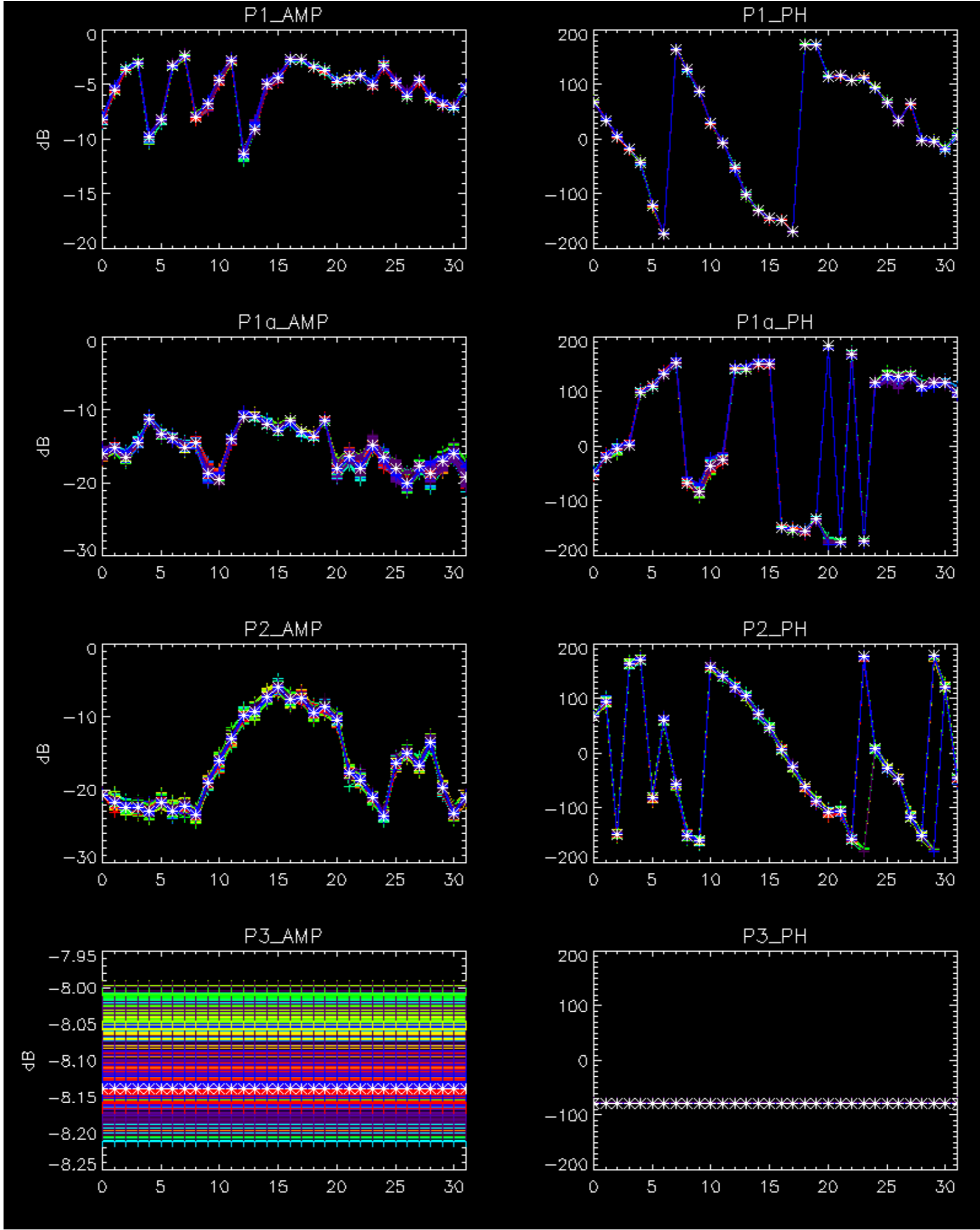


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 28

No anomalies observed on available browse products



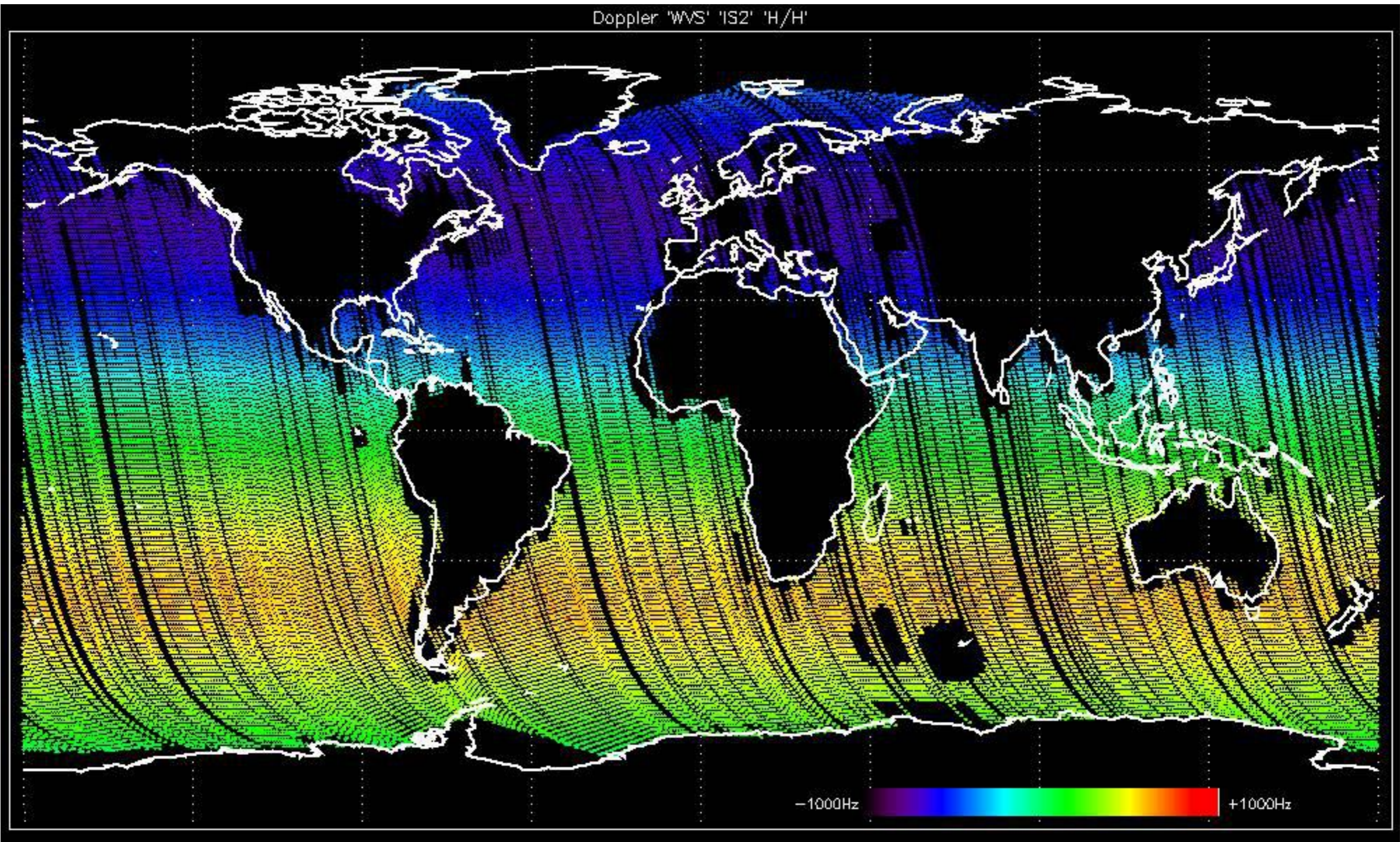
No anomalies observed.



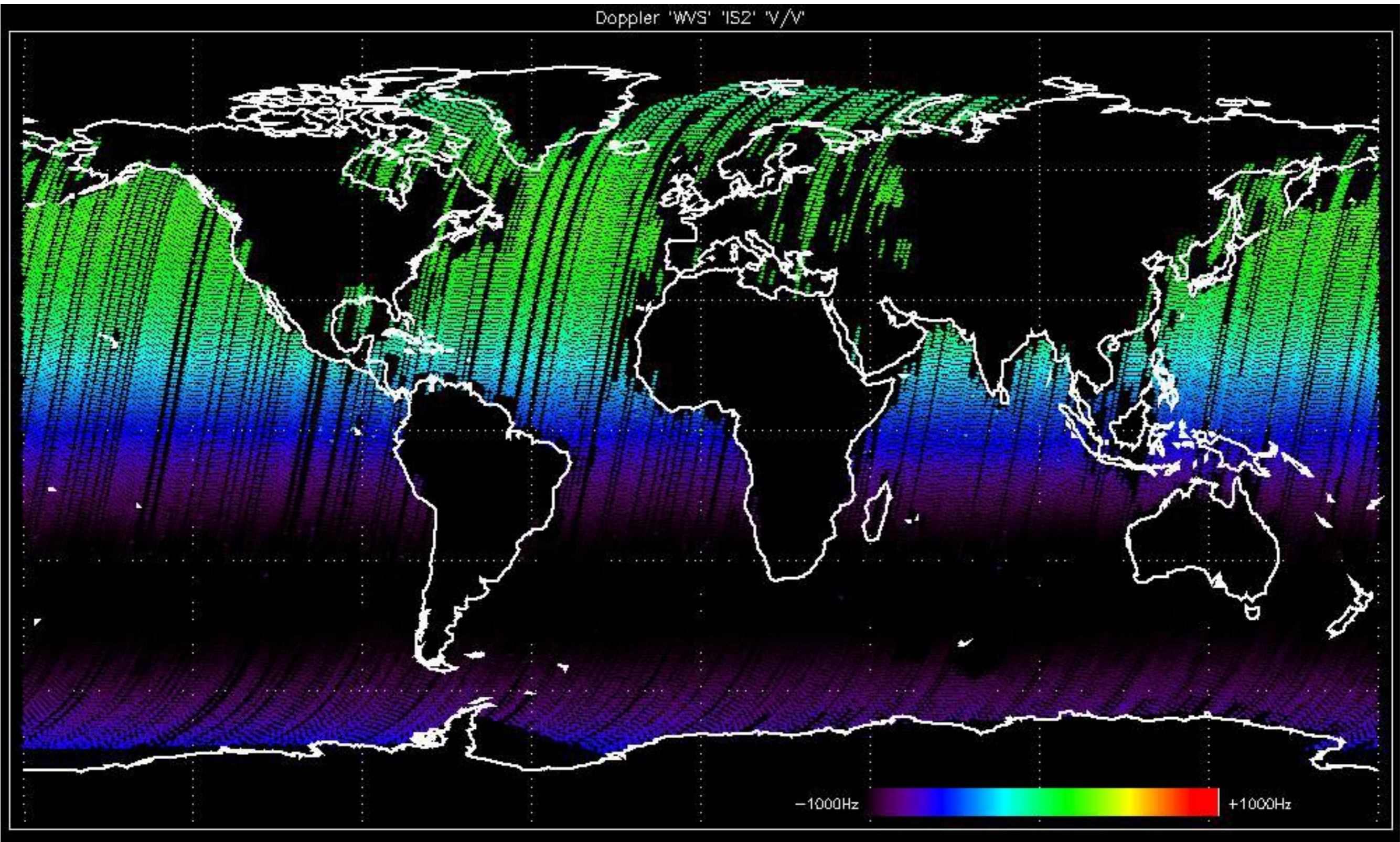
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

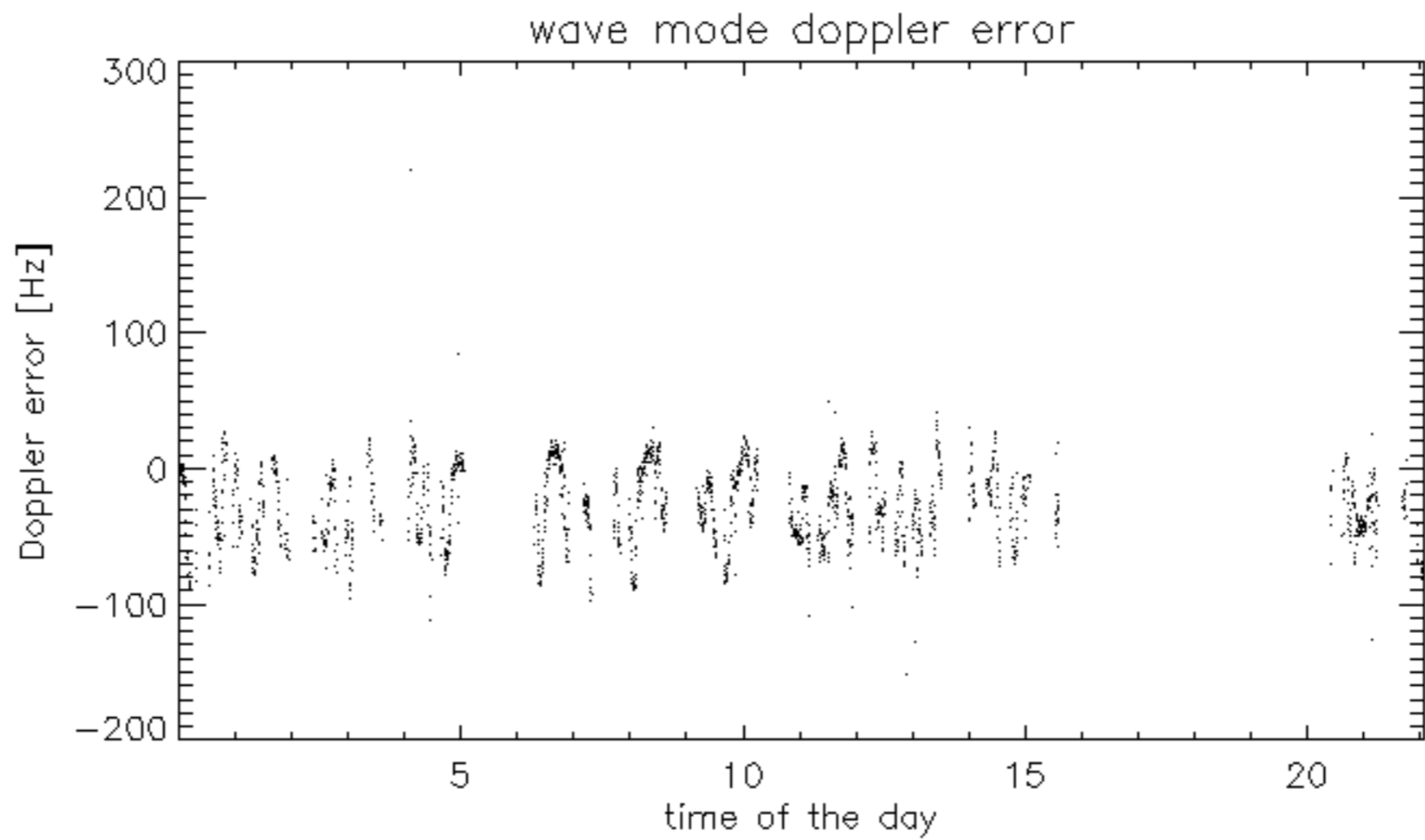
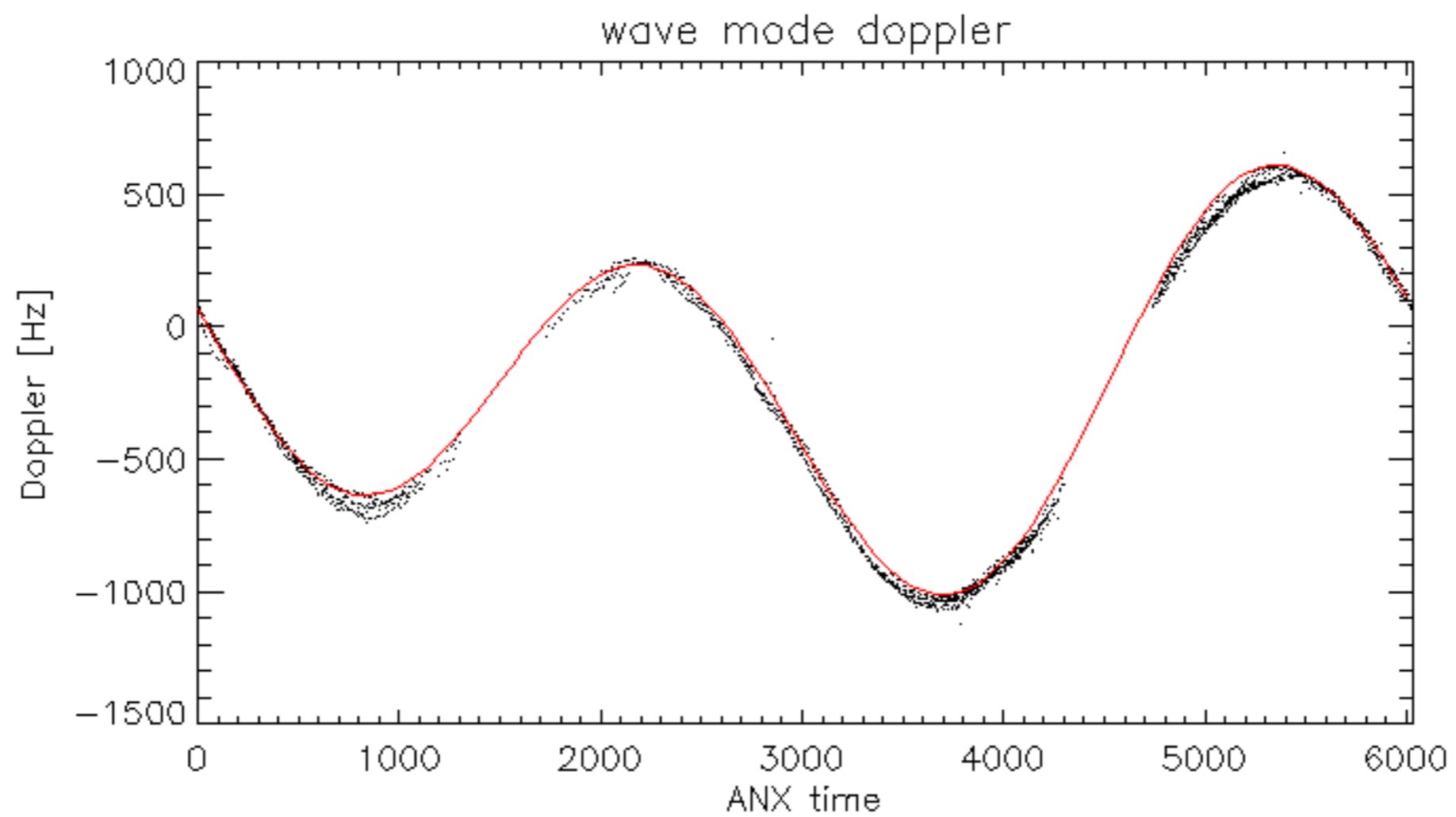


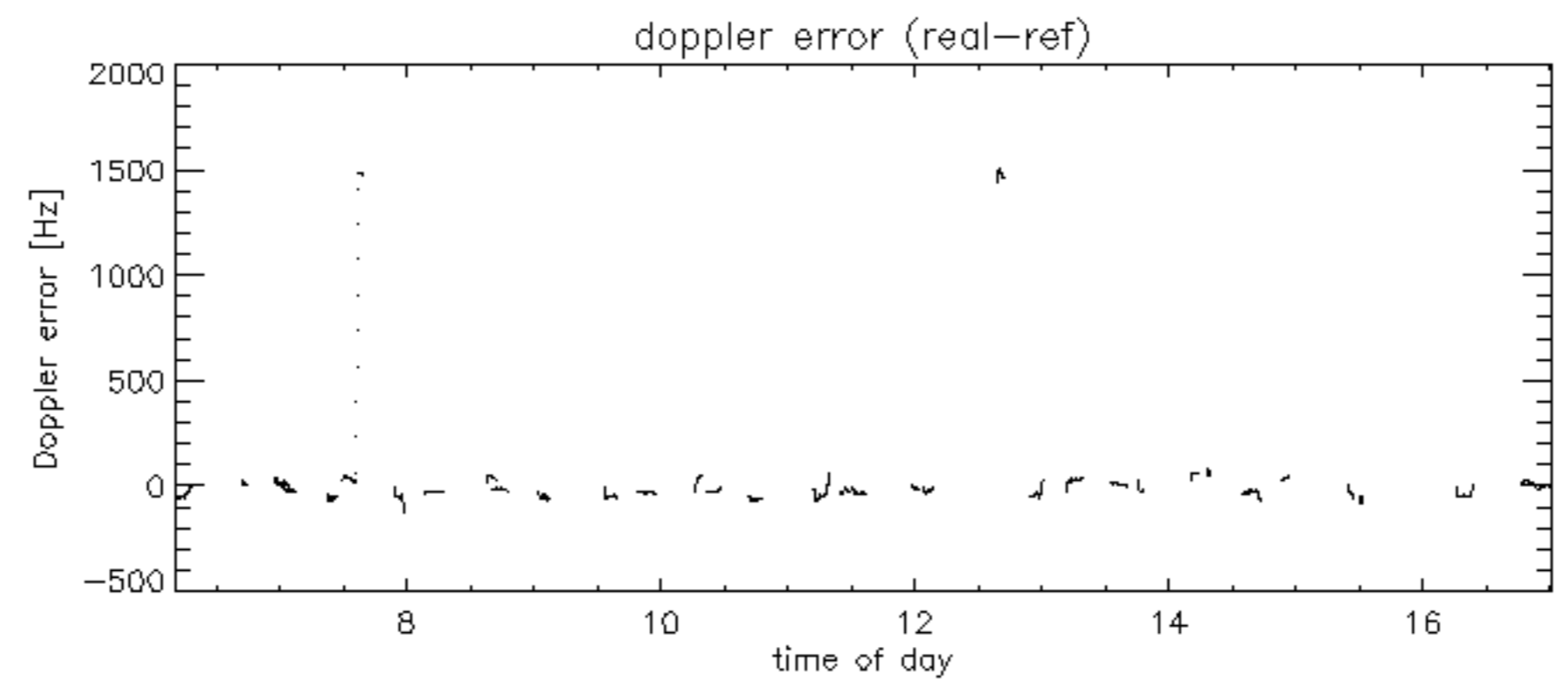
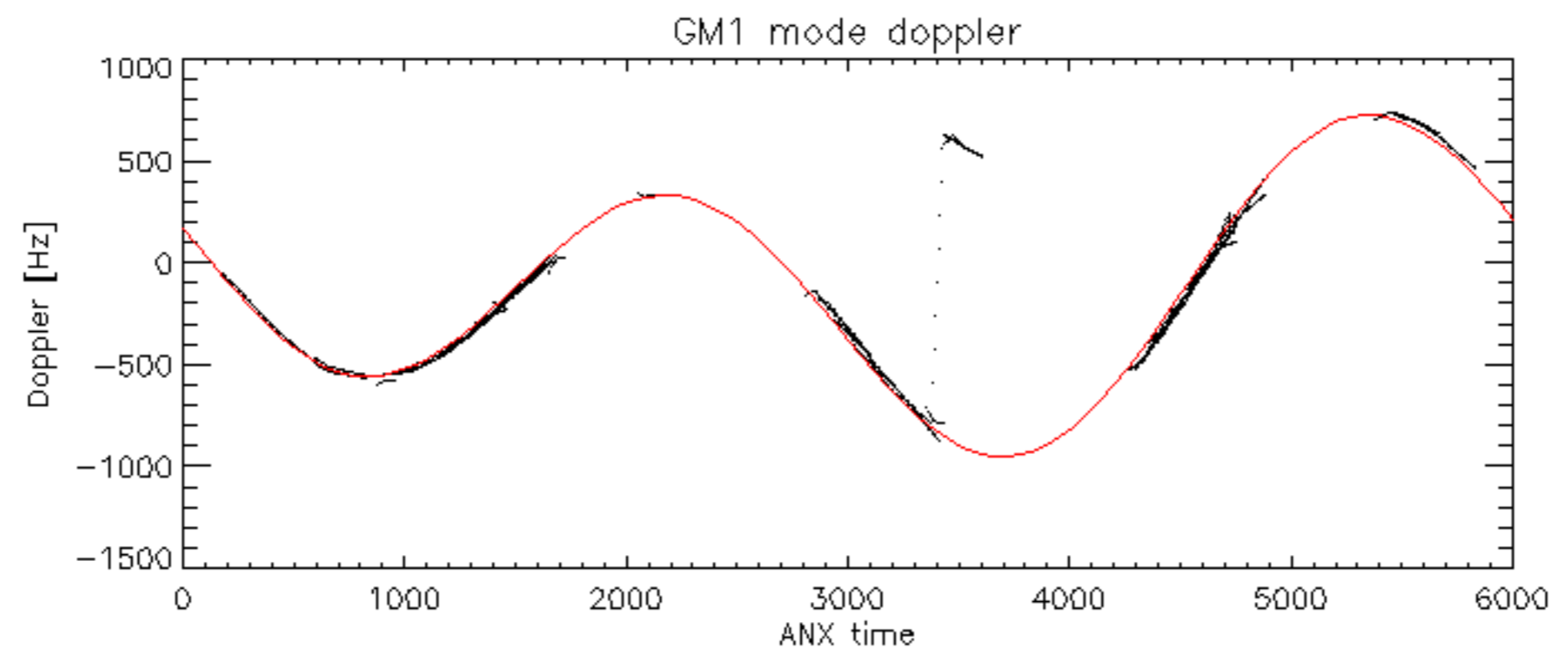
Doppler 'WVS' 'IS2' 'H/H'



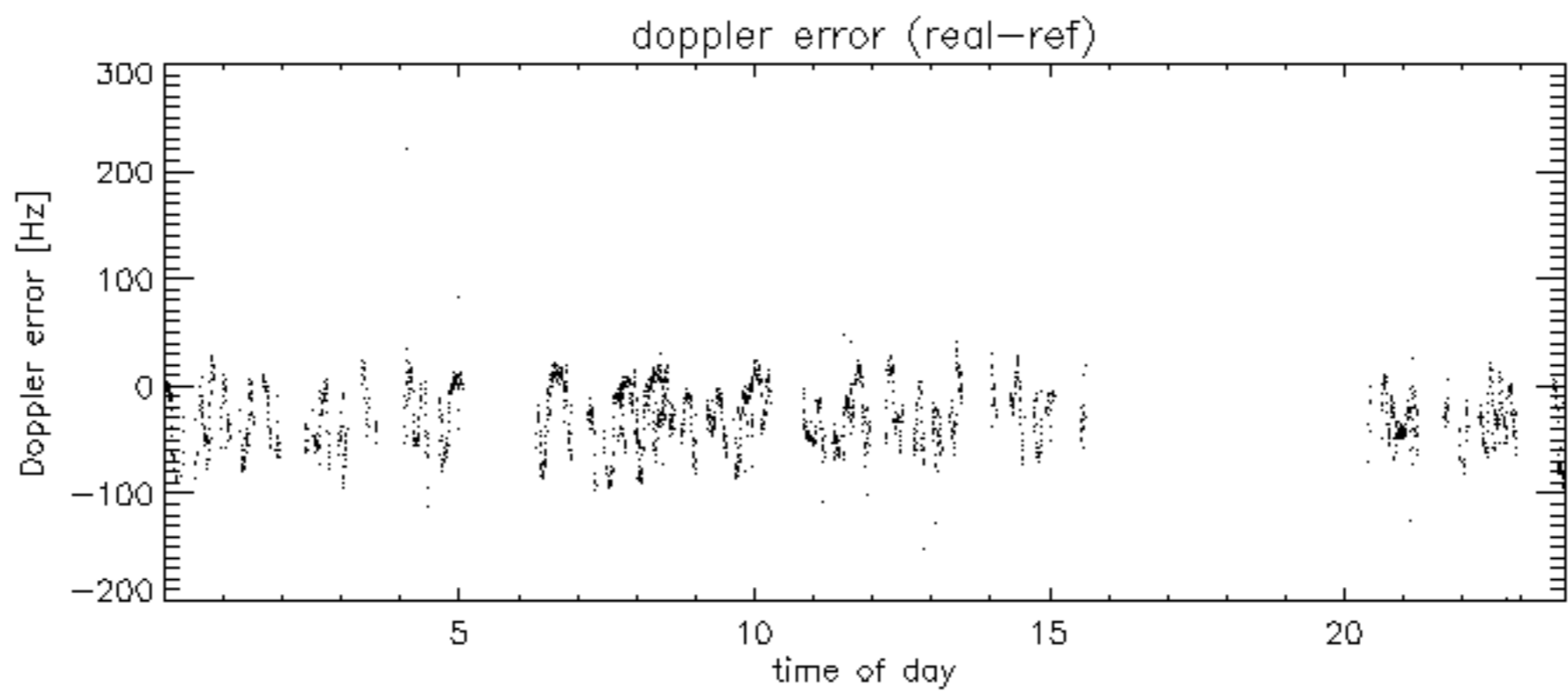
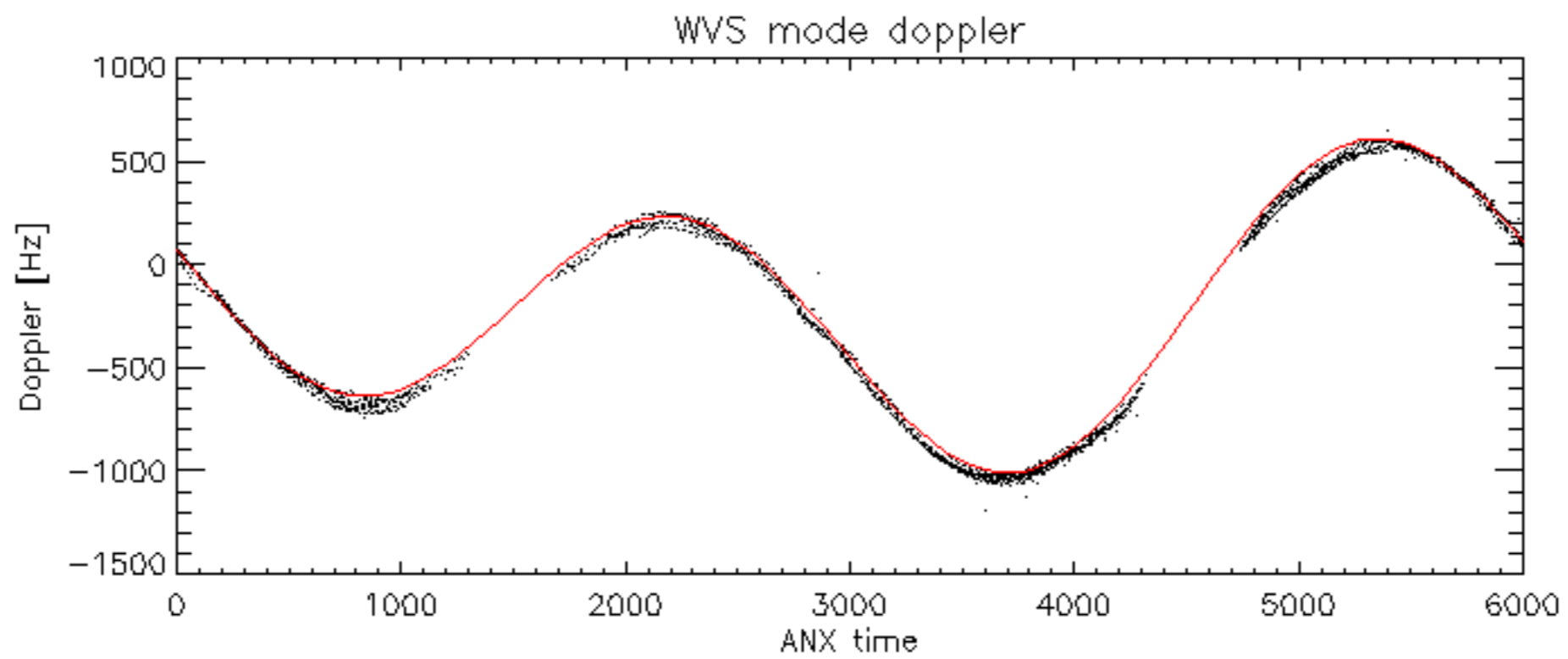
Doppler 'WVS' 'ISZ' 'V/V'



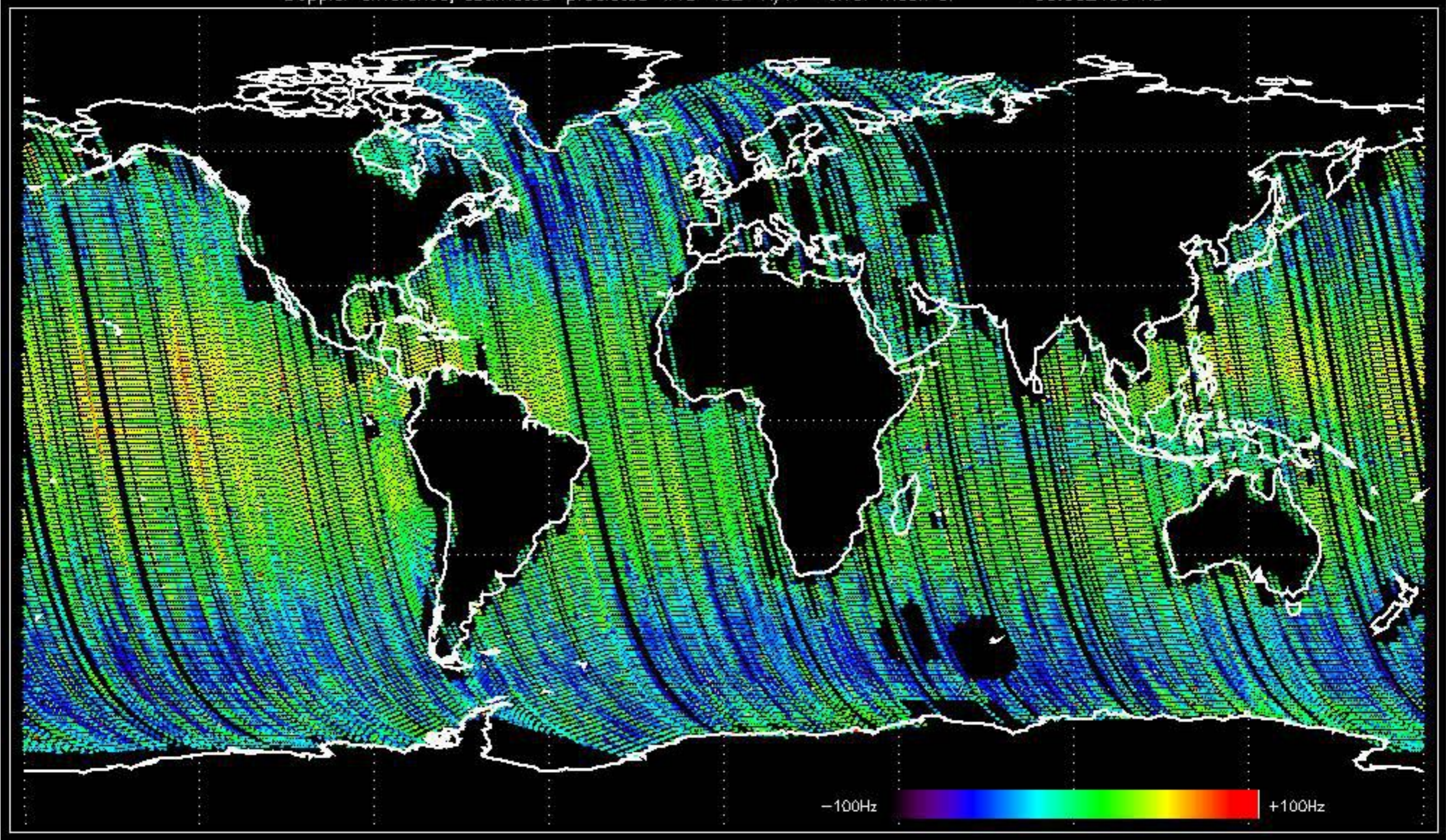




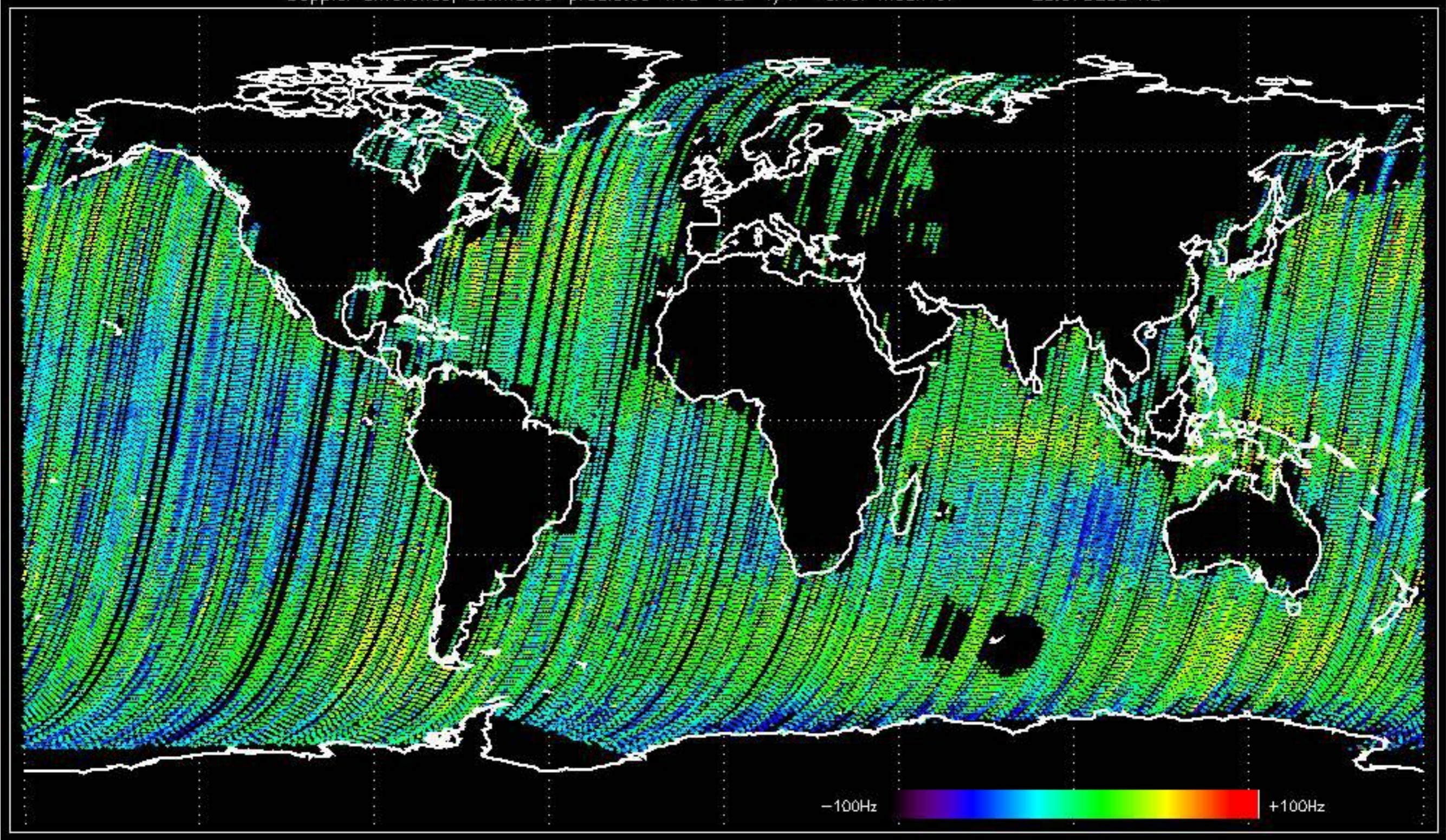




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -30.602400 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -28.073238 Hz



-100Hz +100Hz

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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.









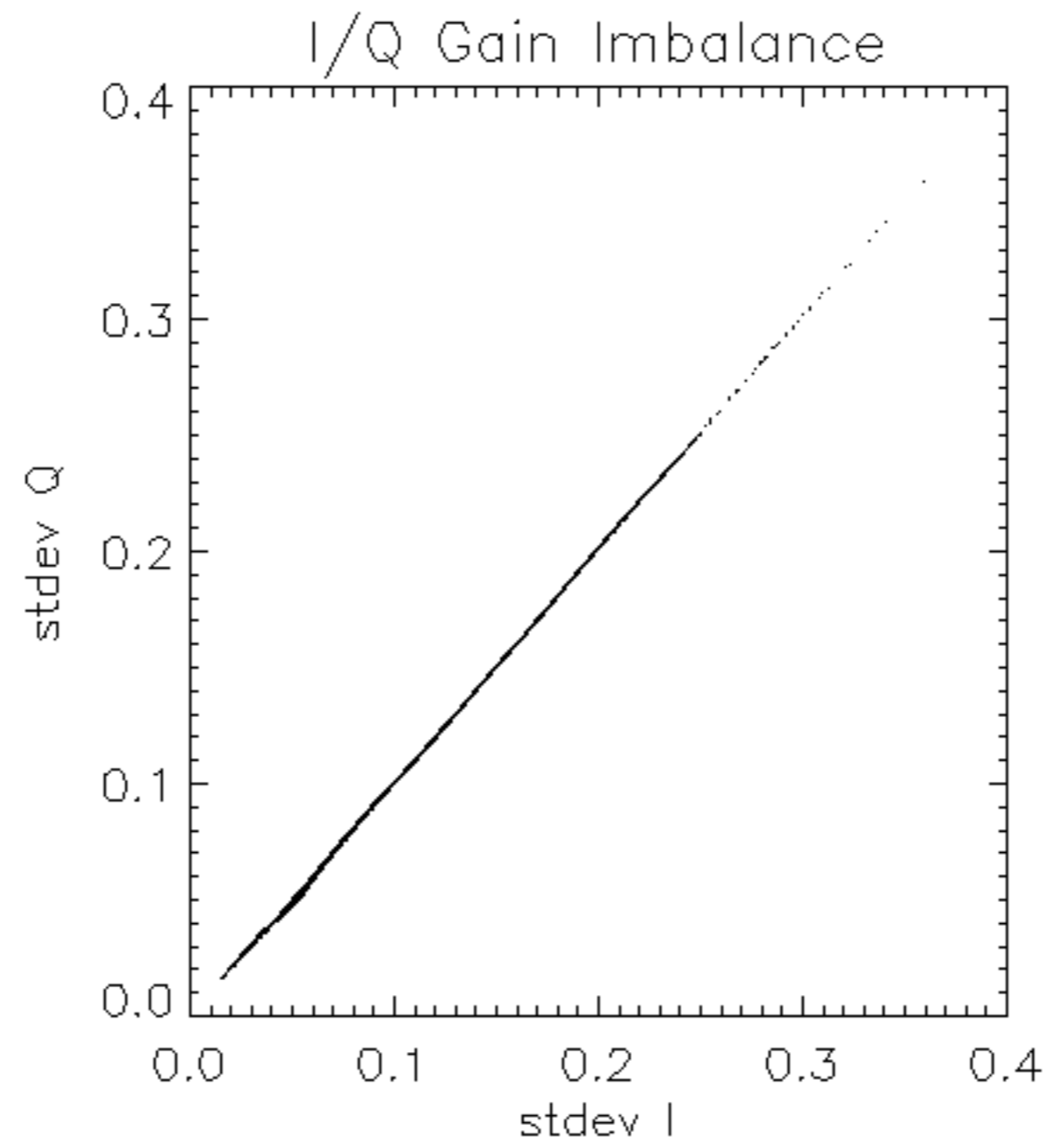


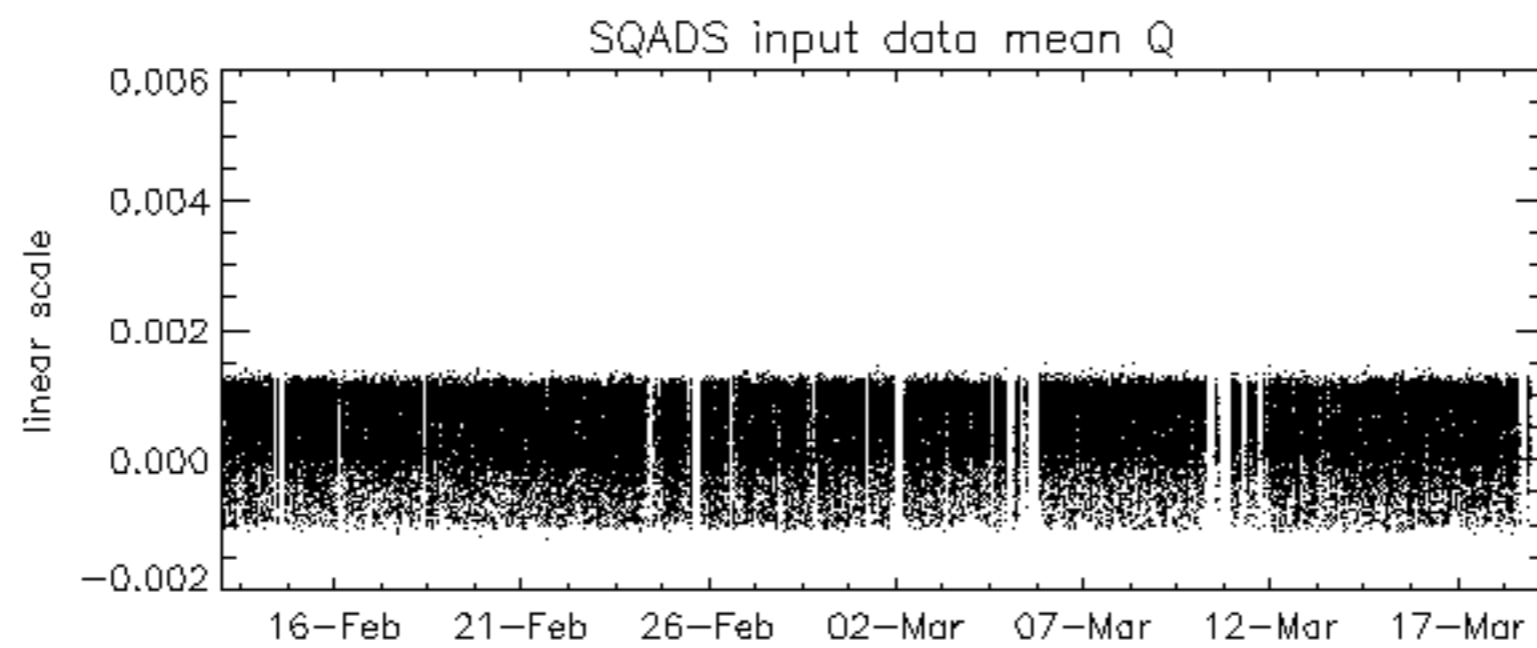
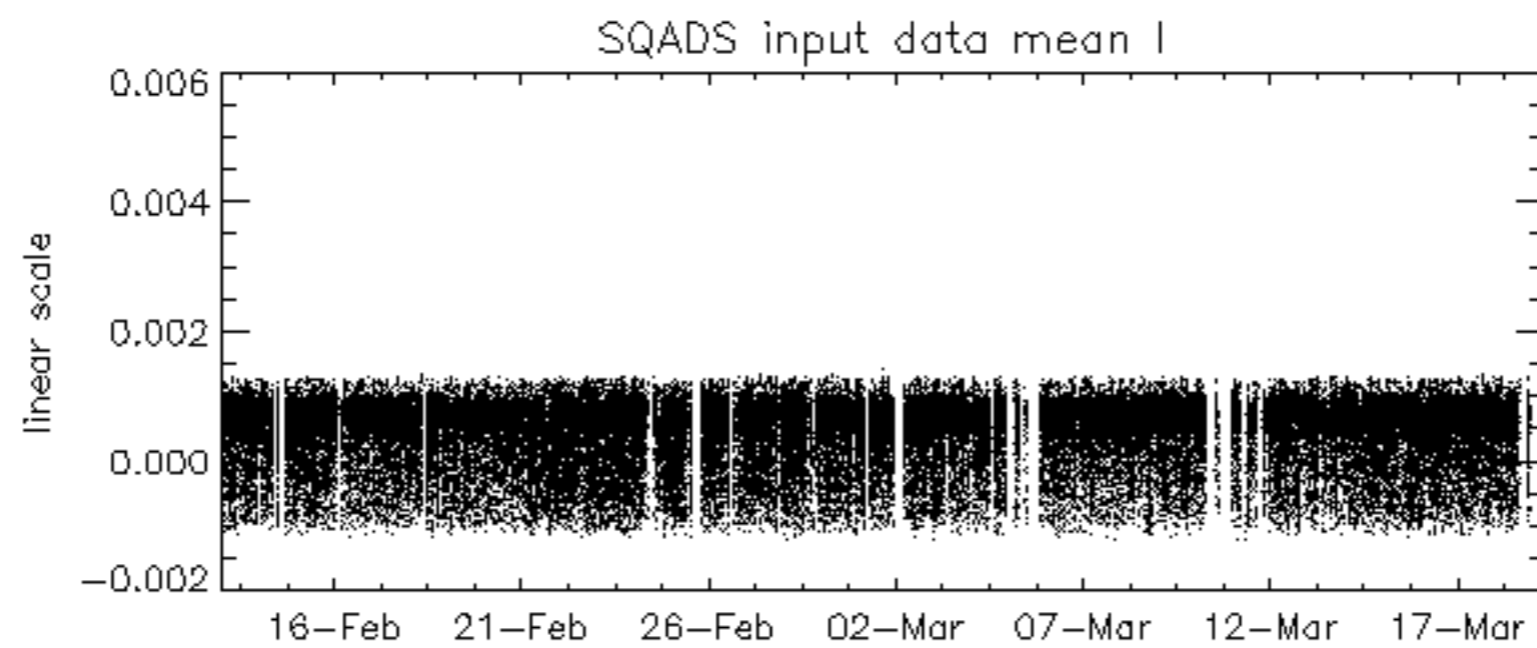
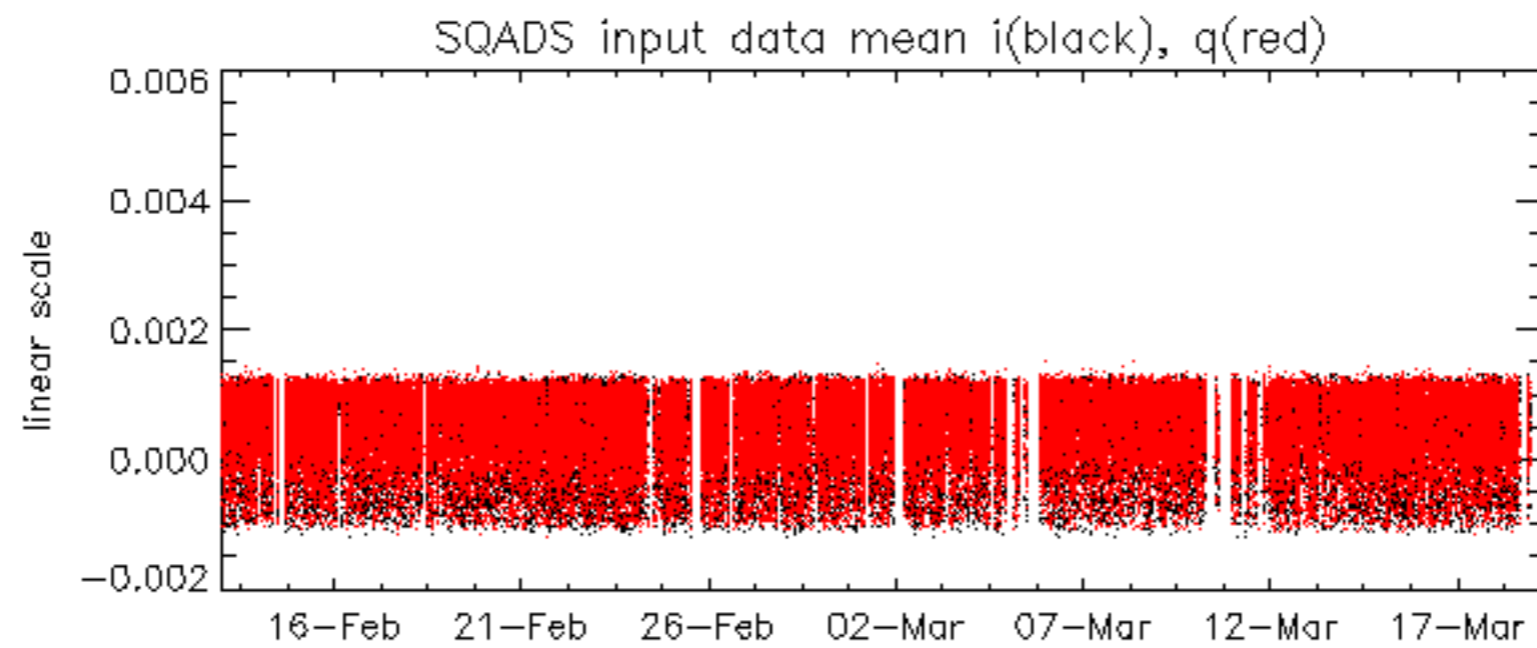


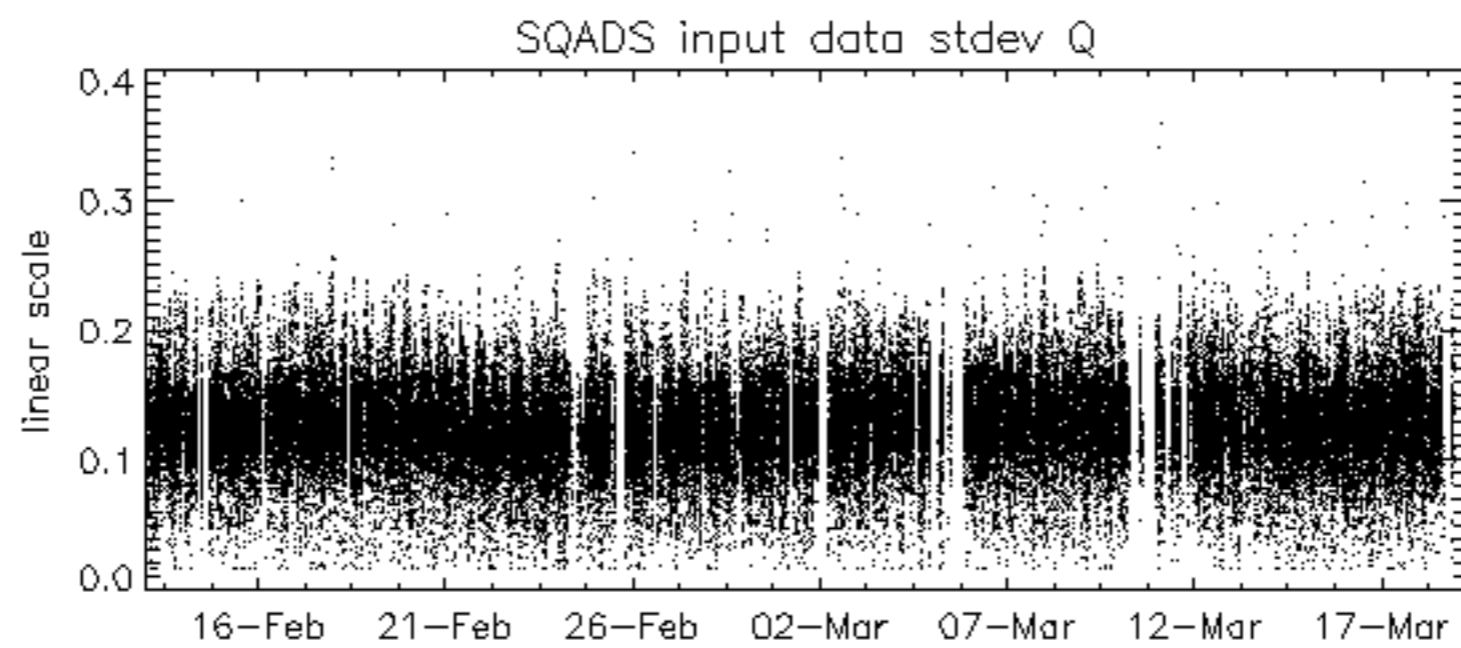
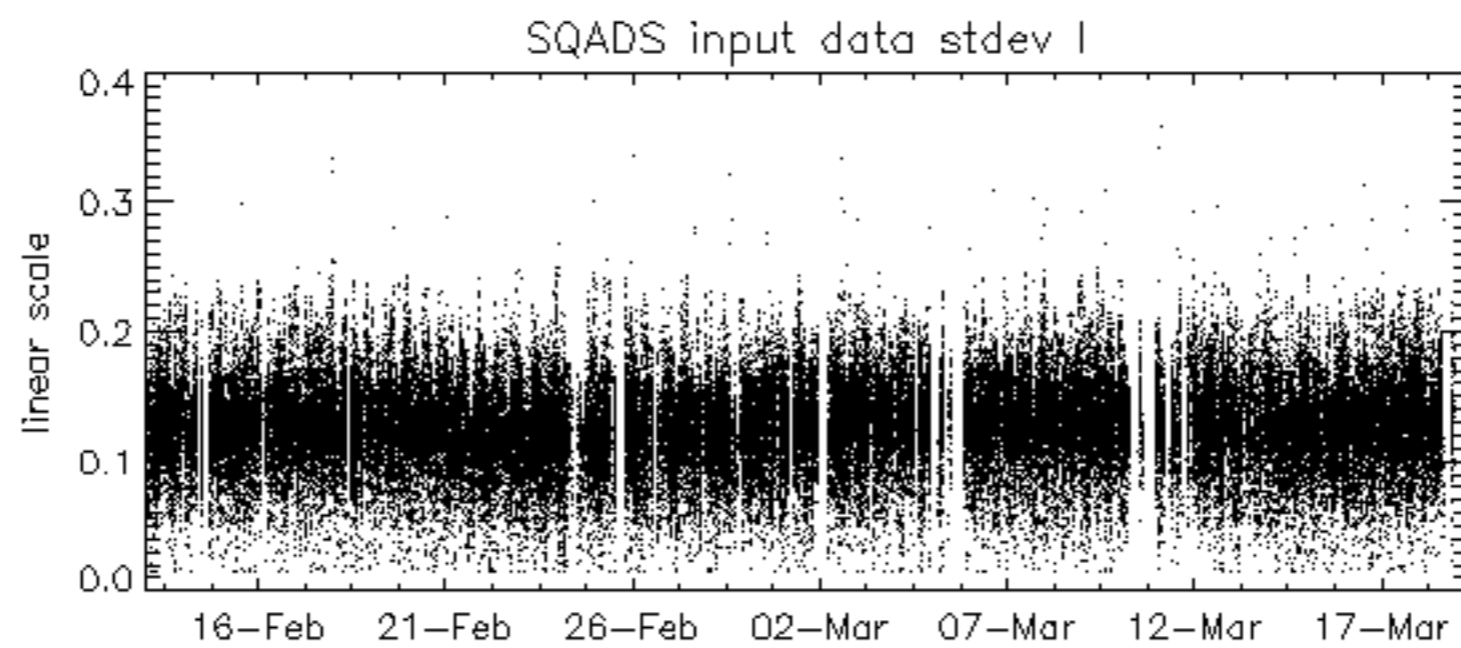
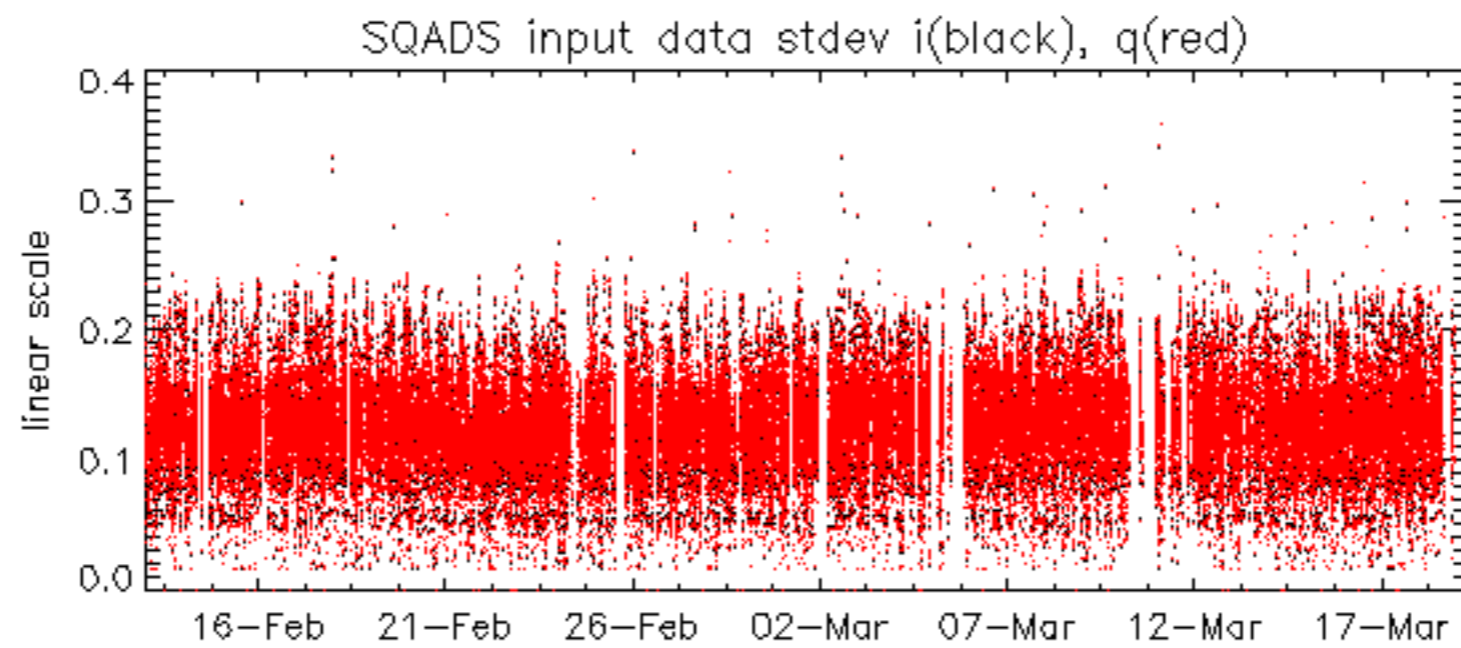
















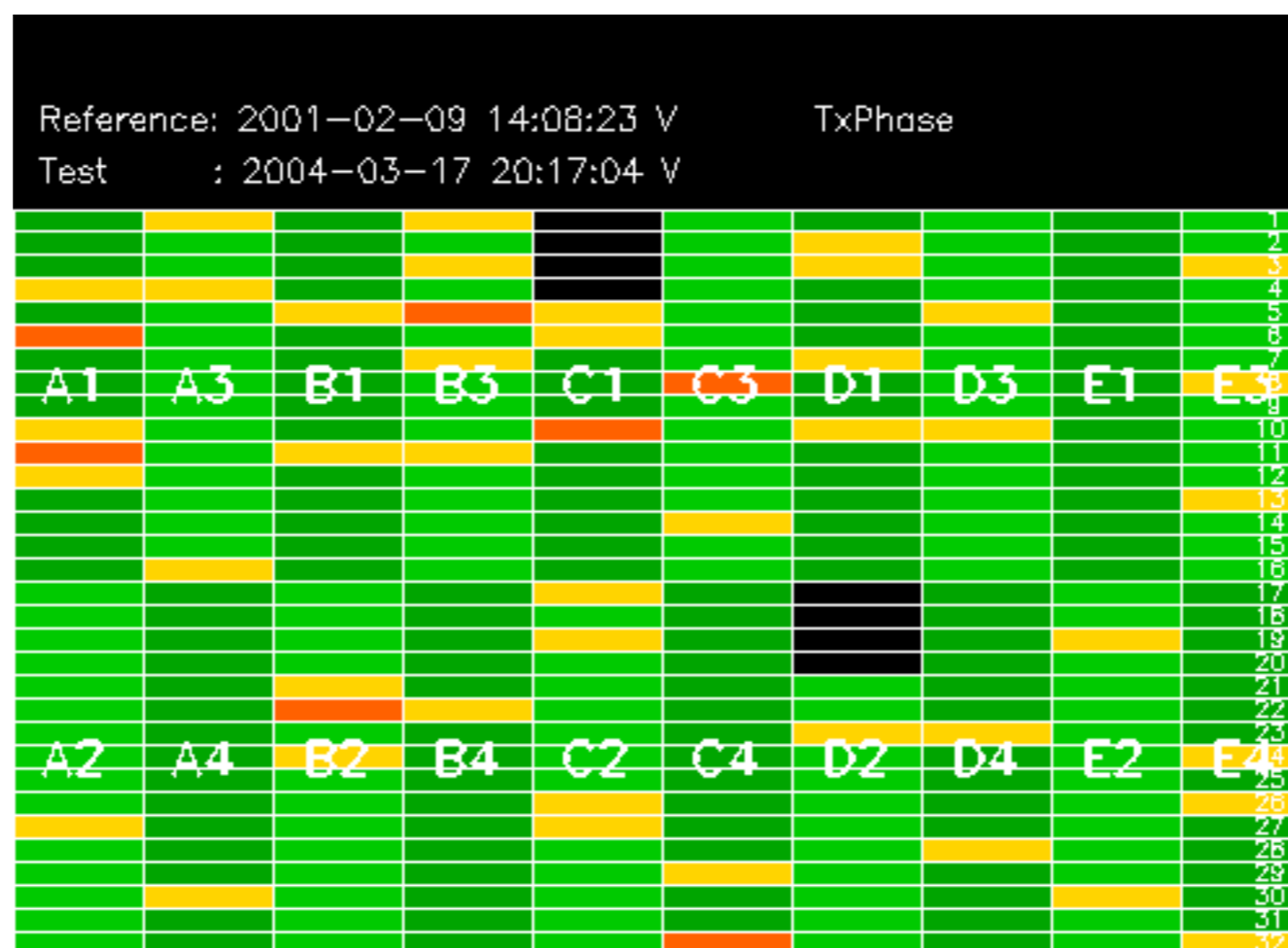
















No unavailabilities during the reported period.