

# REPORT OF 040331

last update on Wed Mar 31 14:17:17 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	20040330 200825
H	20040330 200705

#### 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	-3.600221	0.005722	0.045881
7	P1	-3.308445	0.009842	0.046825
11	P1	-4.637405	0.019061	0.018402
15	P1	-5.001503	0.036781	0.019539
19	P1	-3.352238	0.071796	0.026764
22	P1	-4.541193	0.070029	0.046861
24	P1	-5.084800	0.090482	0.083681
28	P1	-4.587092	0.074723	-0.003662

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.390965	0.079916	-0.016763
7	P2	-22.894554	0.128150	0.010526
11	P2	-15.992755	0.166740	0.073762
15	P2	-7.174738	0.088358	0.034664
19	P2	-9.497279	0.179389	0.034870
22	P2	-17.675047	0.102286	0.062128
24	P2	-21.027449	0.117494	-0.027186
28	P2	-16.599781	0.083808	-0.015178

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.127418	0.003014	0.002292
7	P3	-8.127405	0.003015	0.002203
11	P3	-8.127401	0.003016	0.002183
15	P3	-8.127411	0.003015	0.002217
19	P3	-8.127426	0.003014	0.002310
22	P3	-8.127443	0.003015	0.002411
24	P3	-8.127446	0.003015	0.002425

### 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	0.000481334
	stdev	2.32843e-07
MEAN Q	mean	0.000494545
	stdev	2.63251e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128048
	stdev	0.00115361
STDEV Q	mean	0.128292
	stdev	0.00116712



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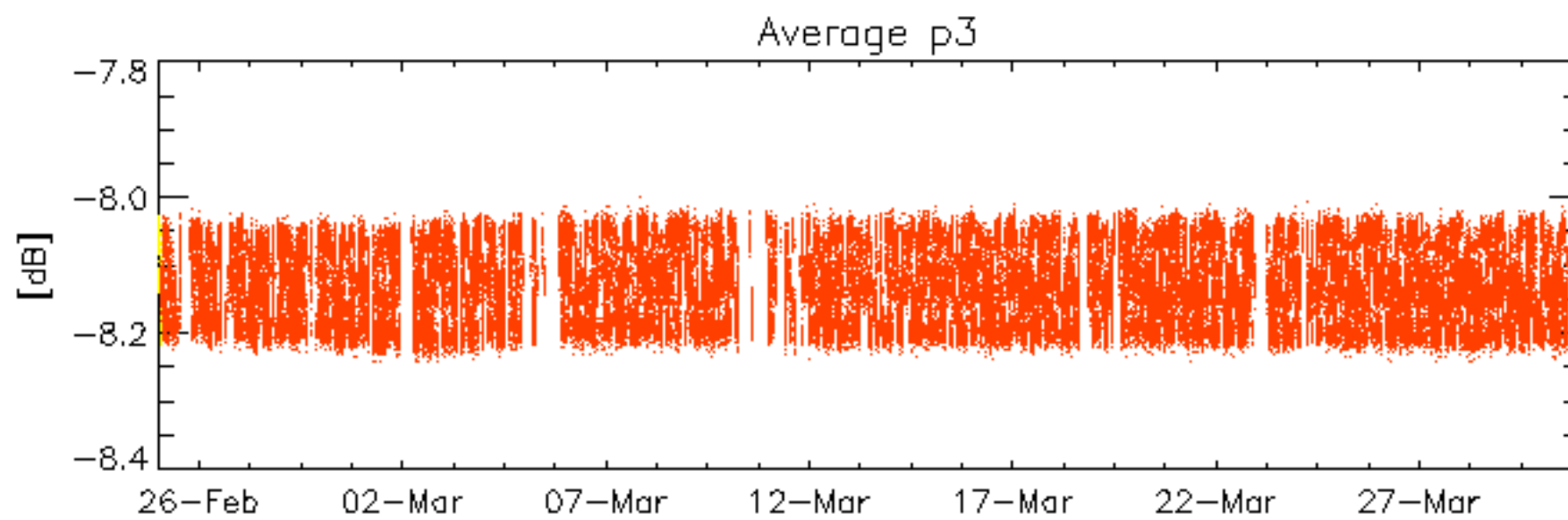
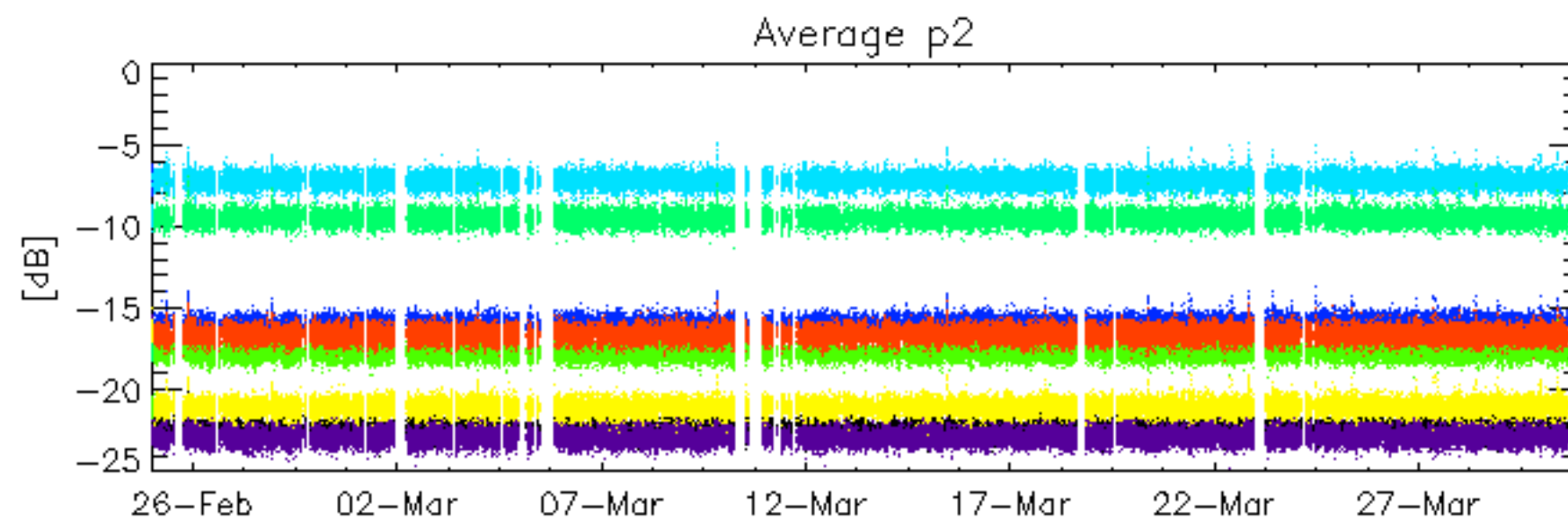
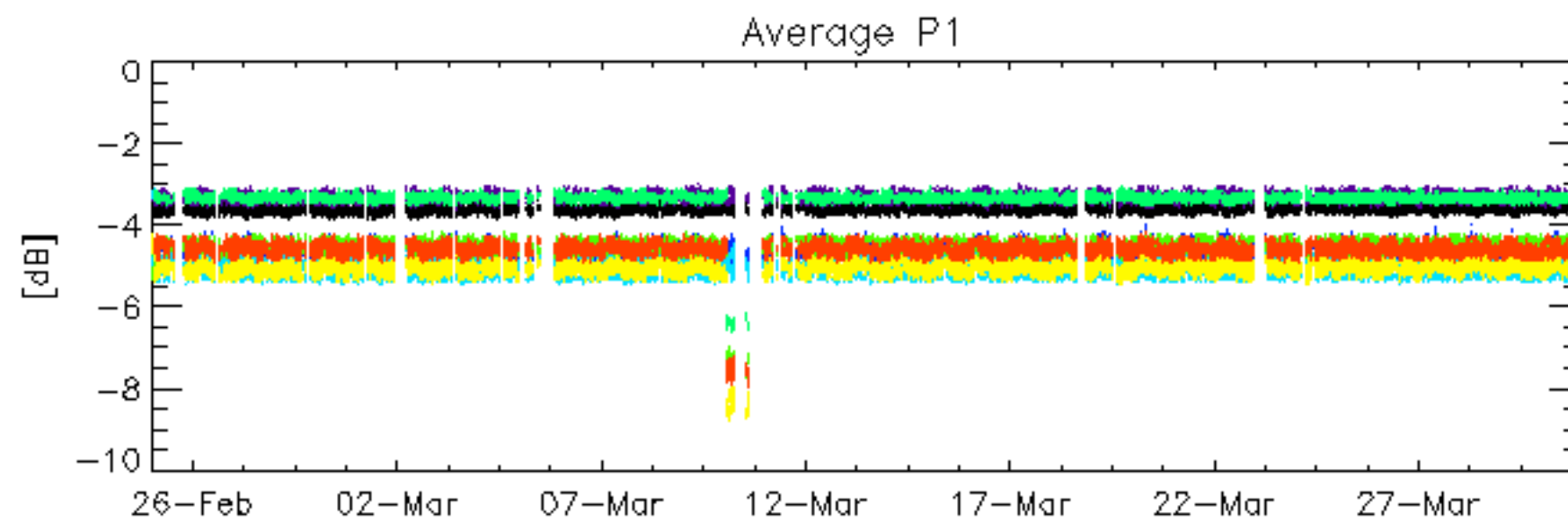
### 6.3 - Doppler evolution versus ANX

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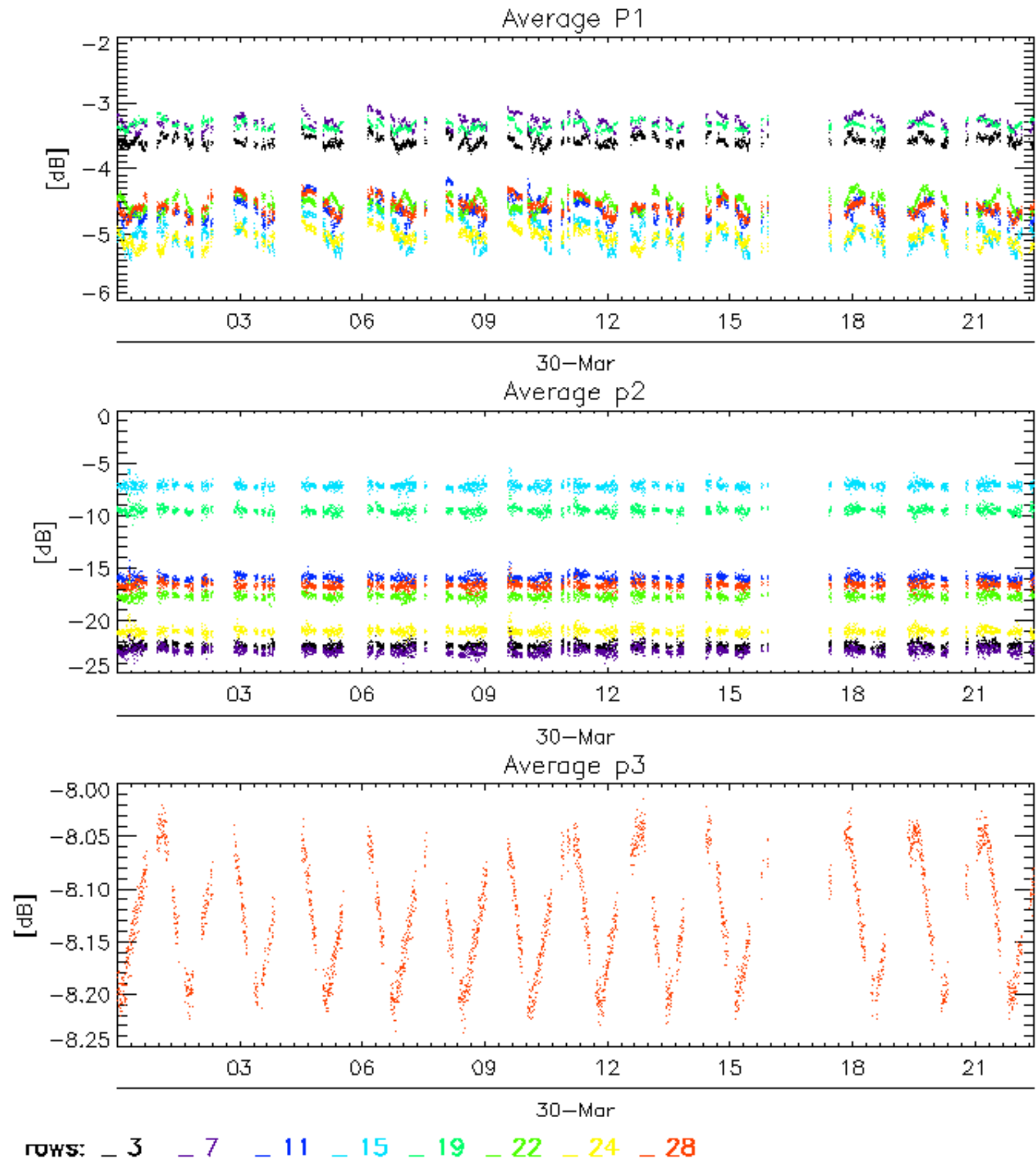
⊗
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<b>Evolution Doppler error versus ANX</b>
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⊗
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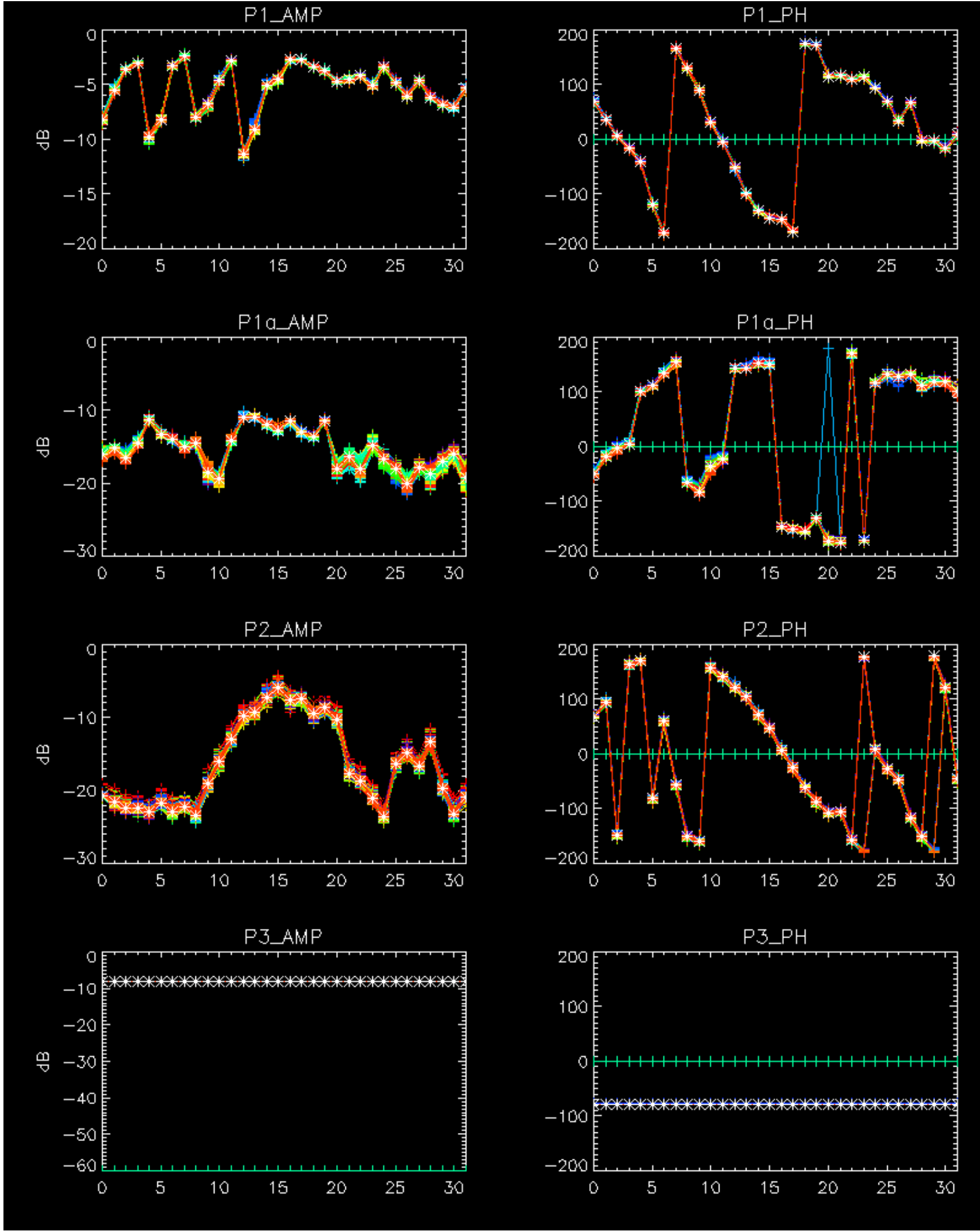
rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 28



No anomalies observed on available browse products



No anomalies observed.

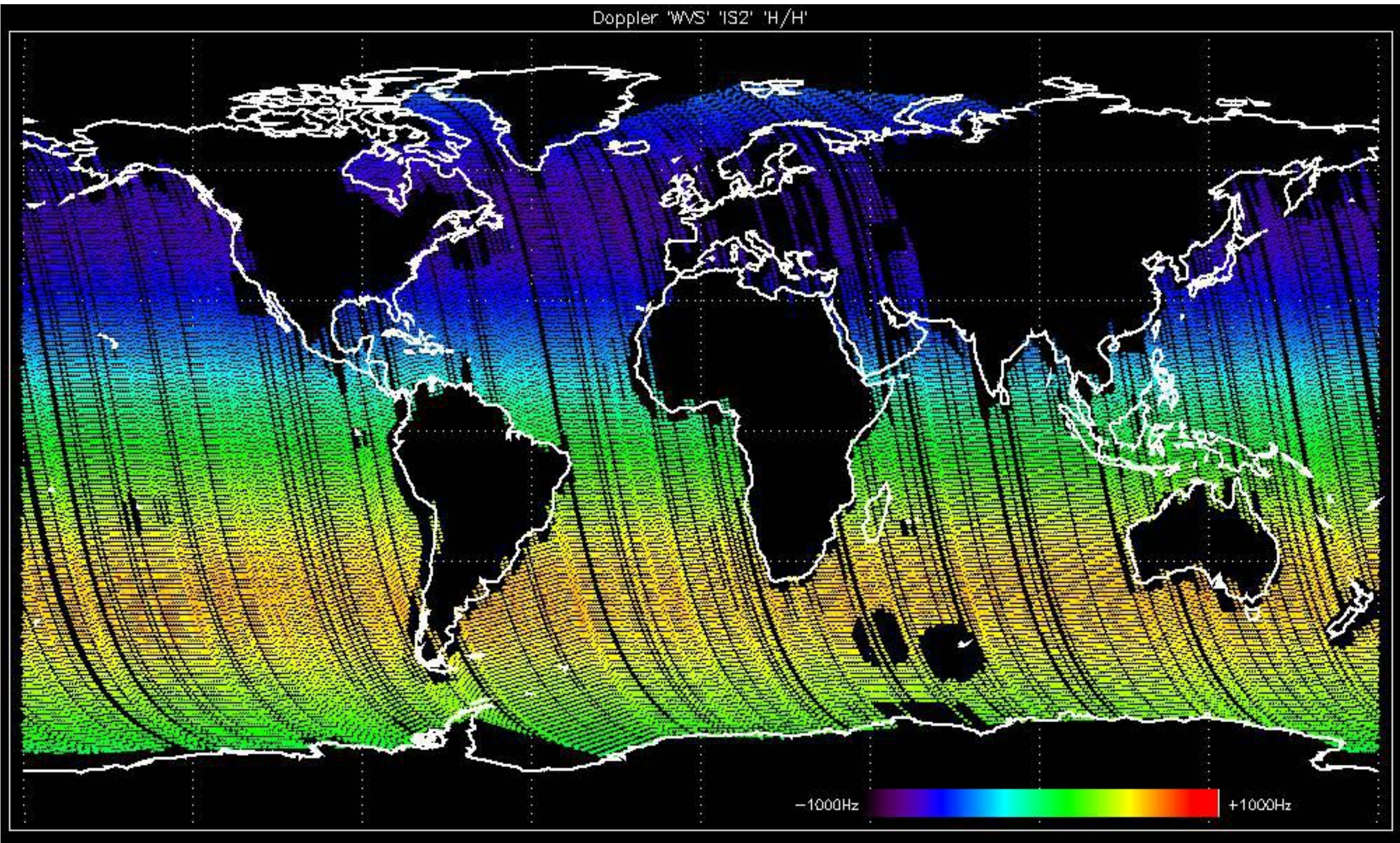


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



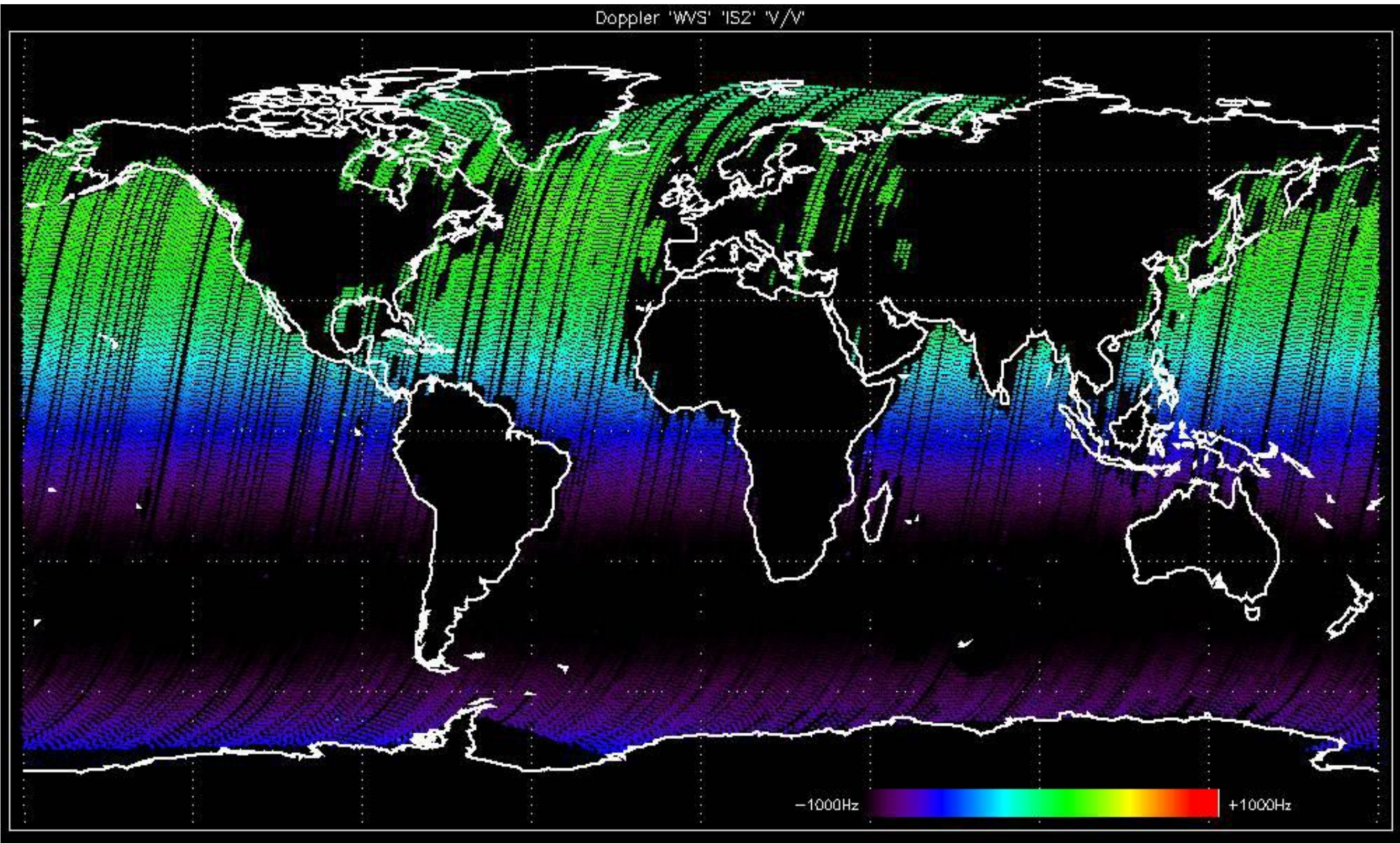


Doppler 'WVS' 'IS2' 'H/H'

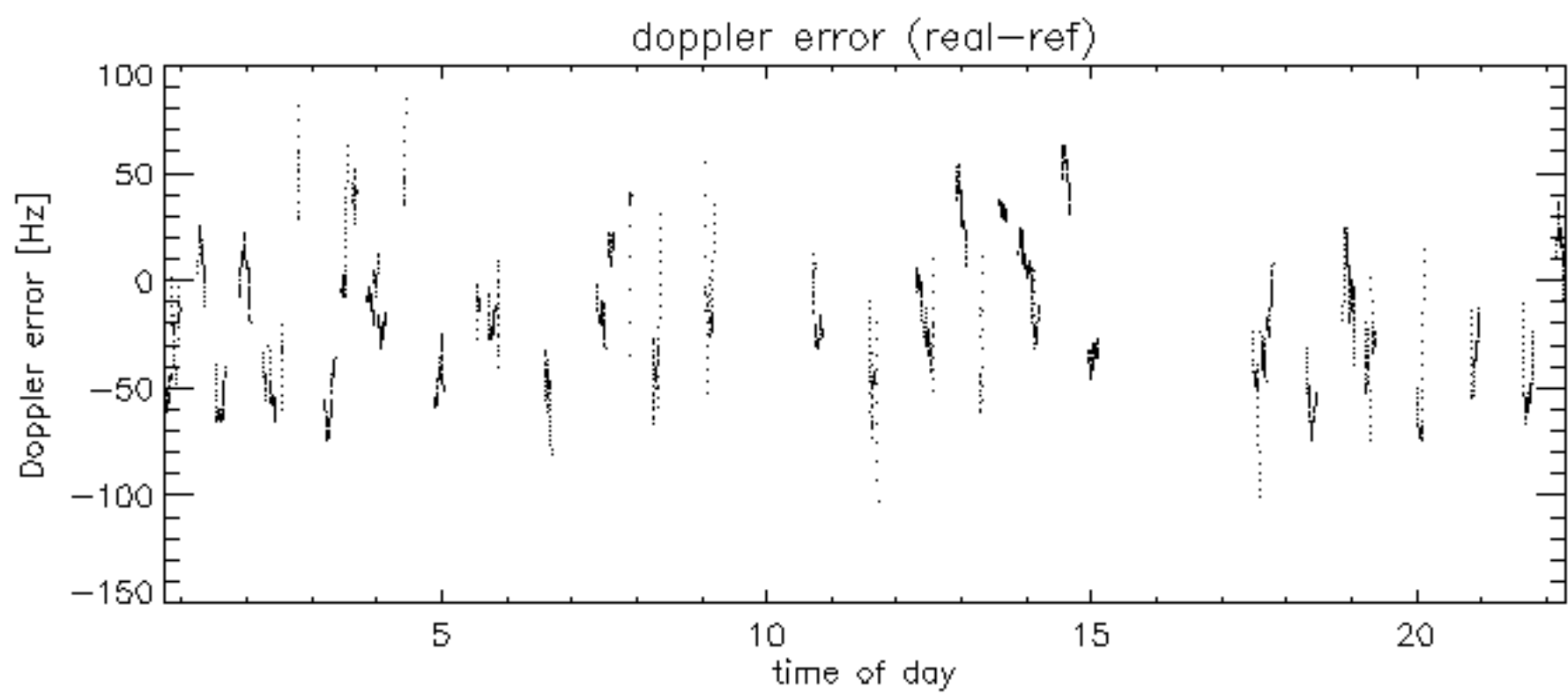
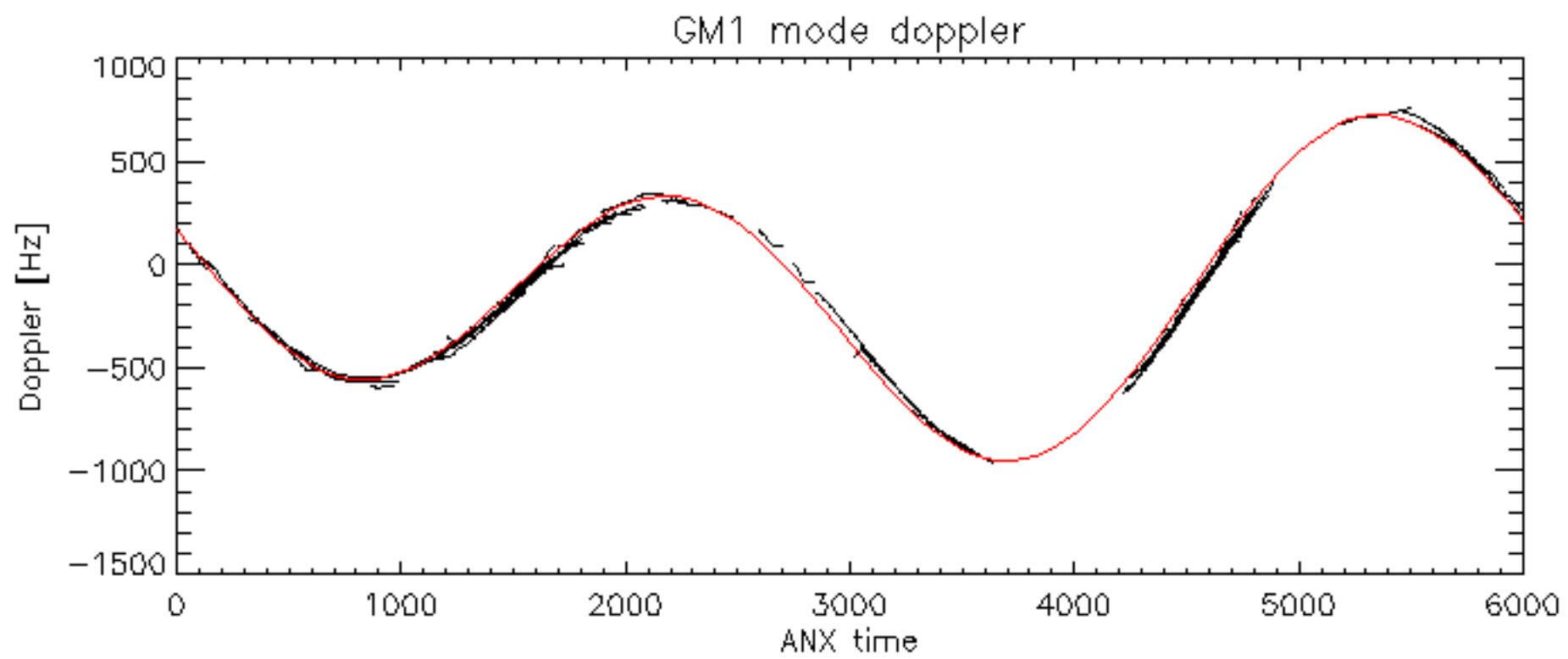


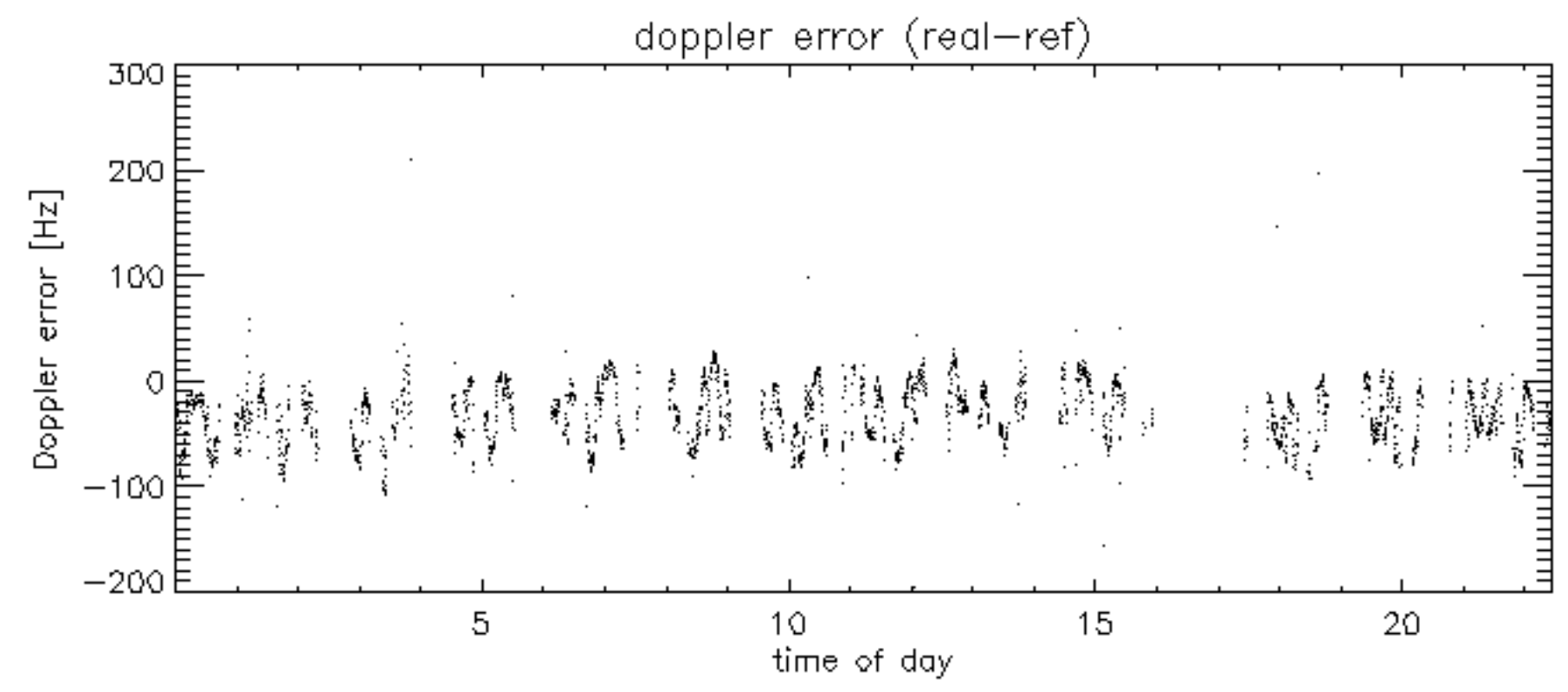
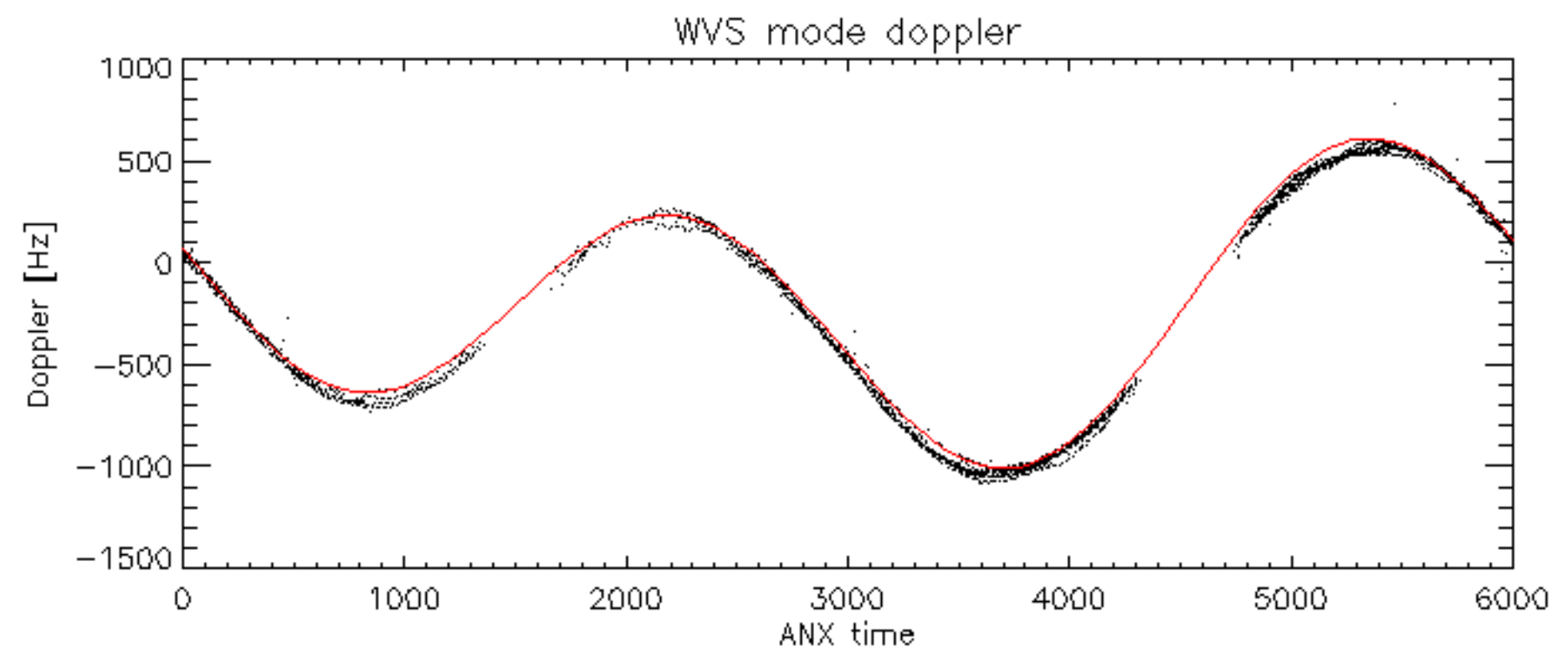


Doppler 'WVS' 'IS2' 'V/V'



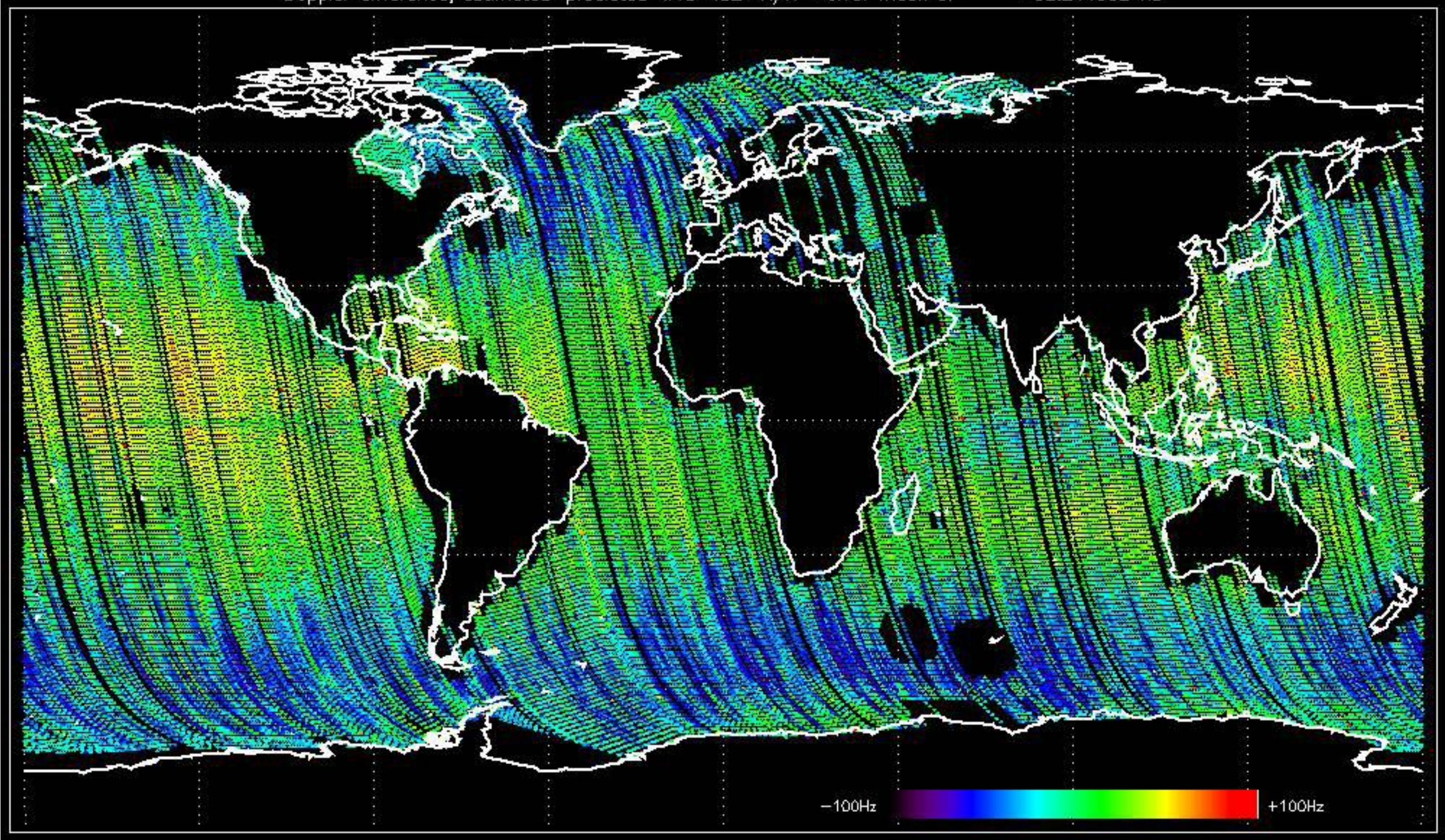






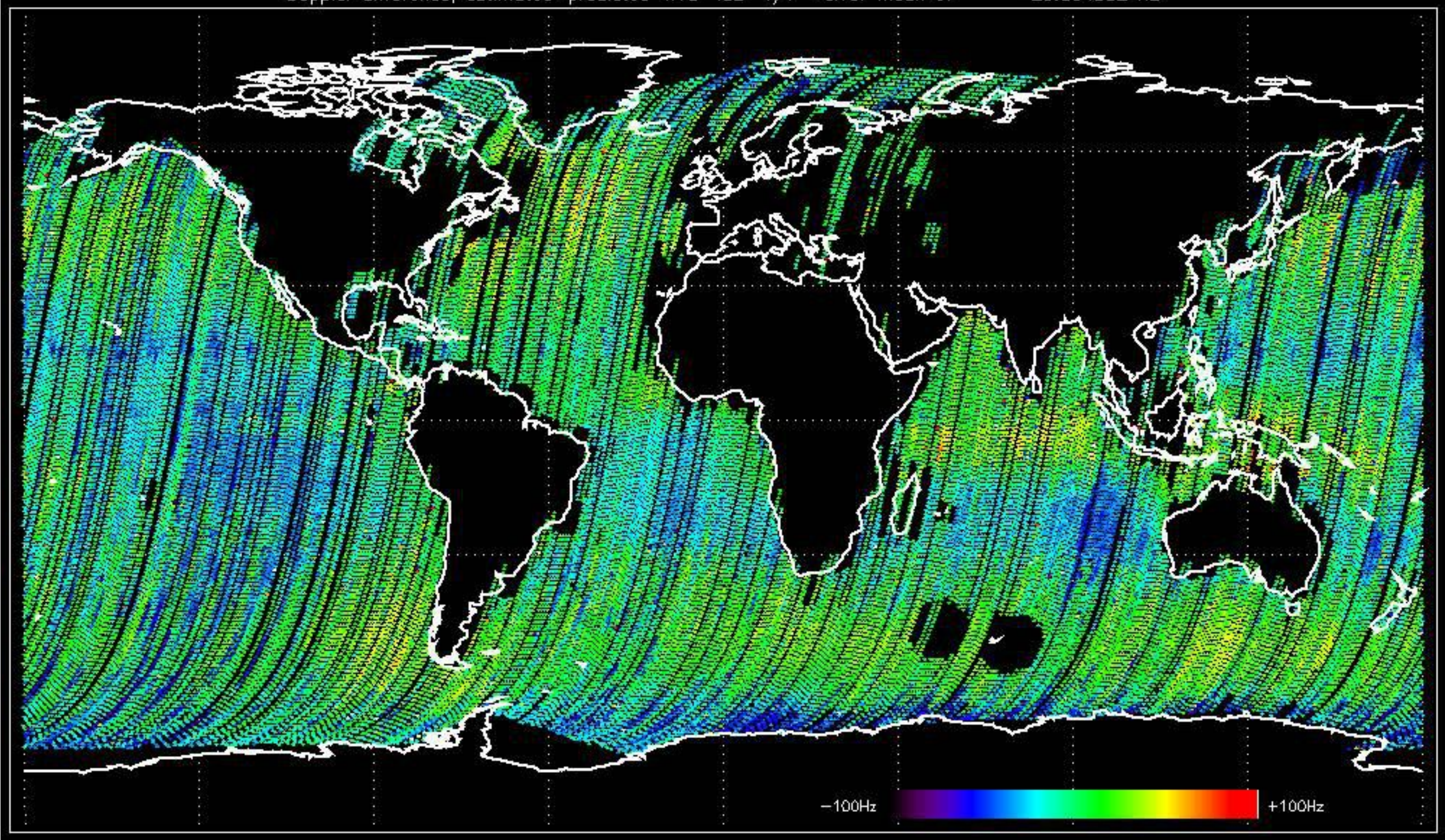


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -32.244502 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -29.804952 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.









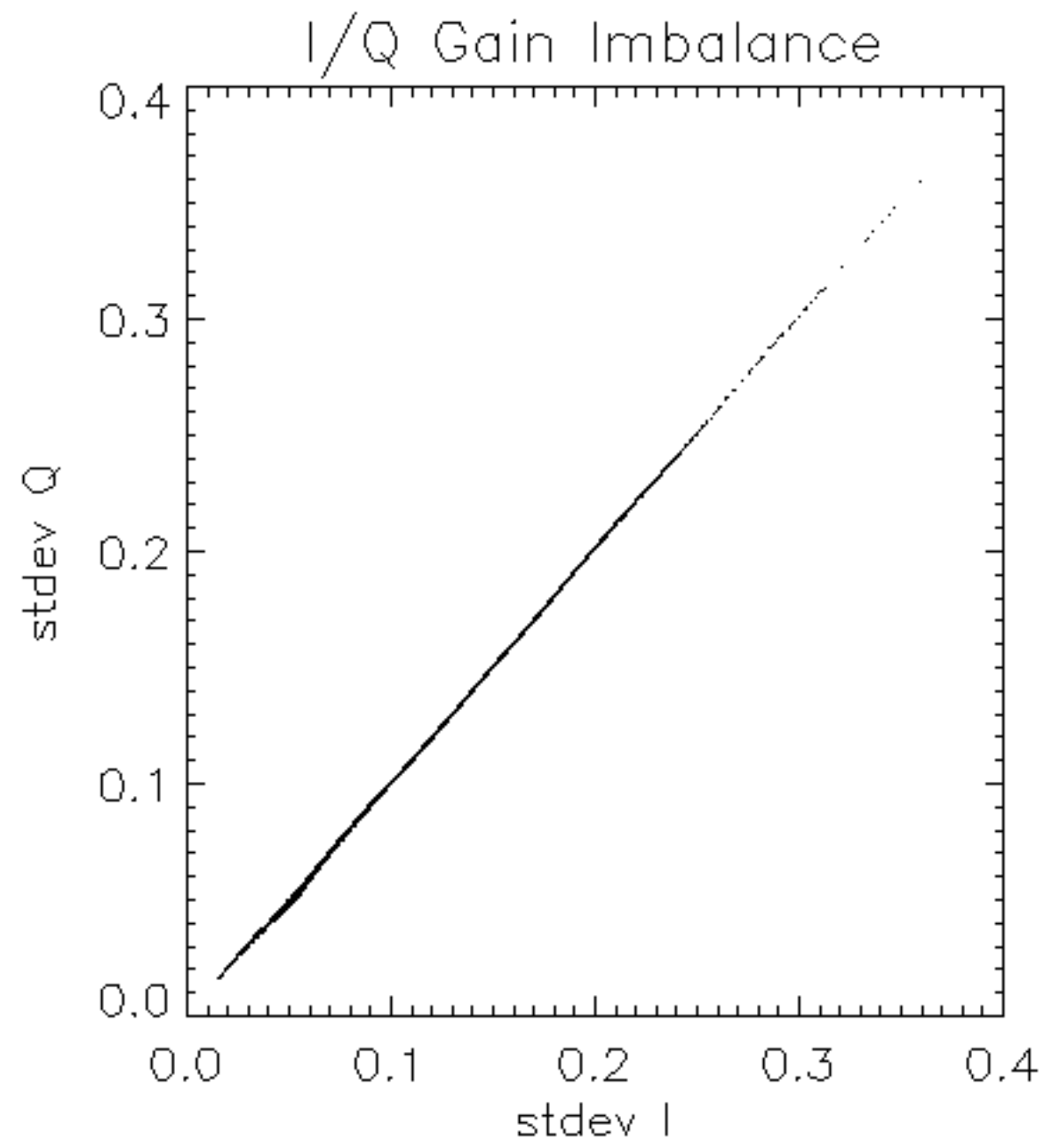


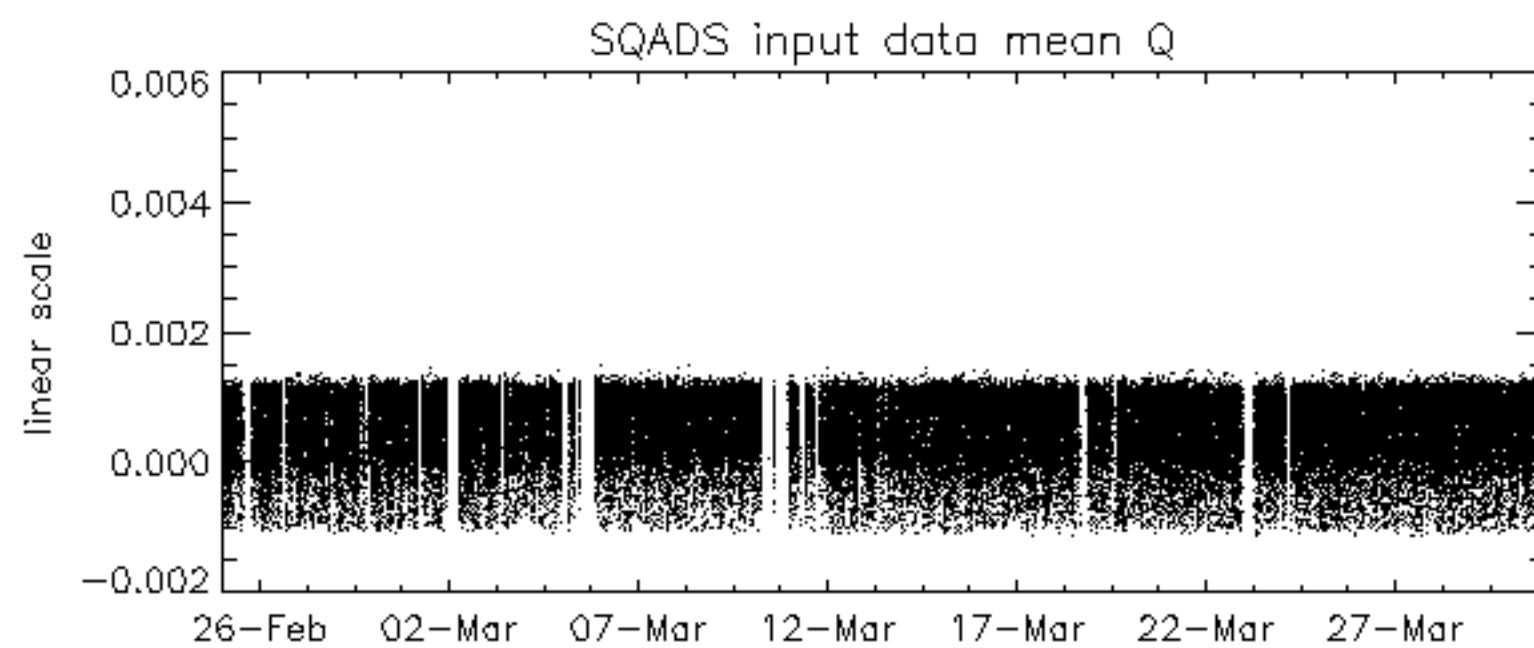
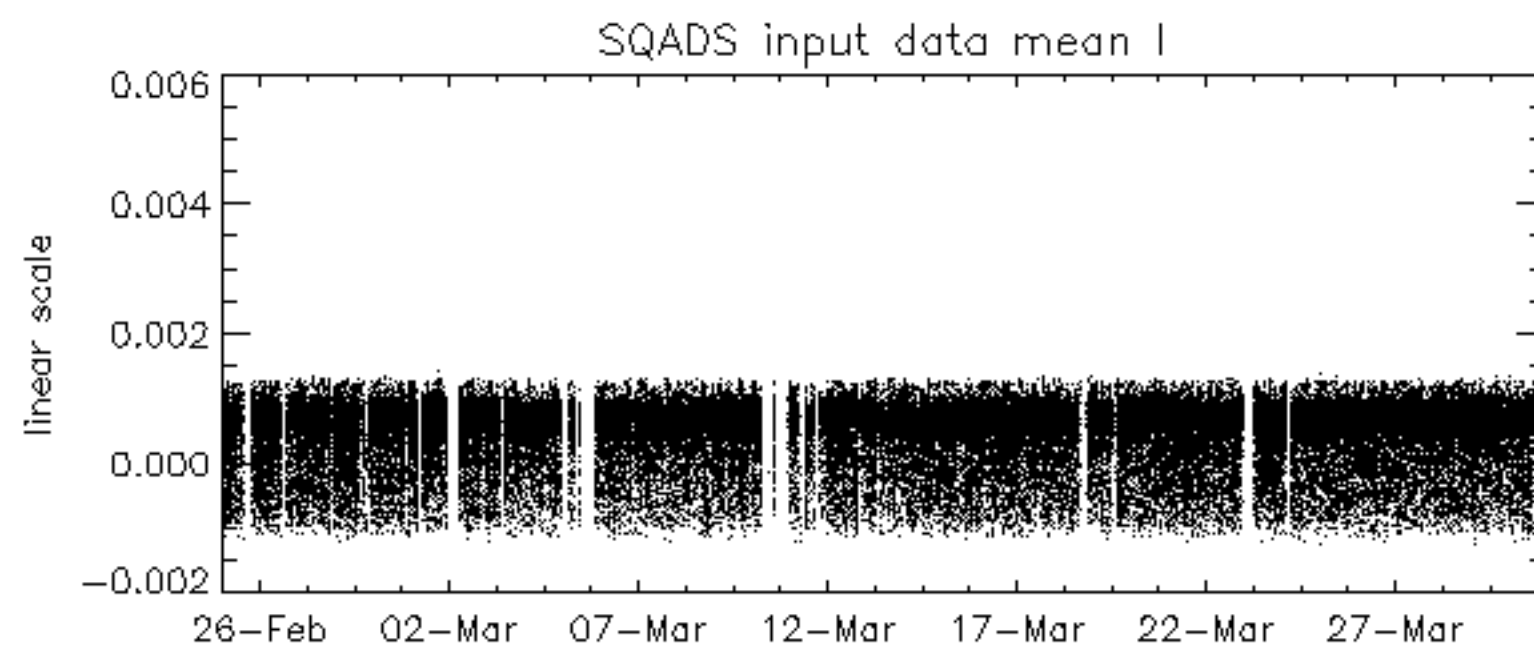
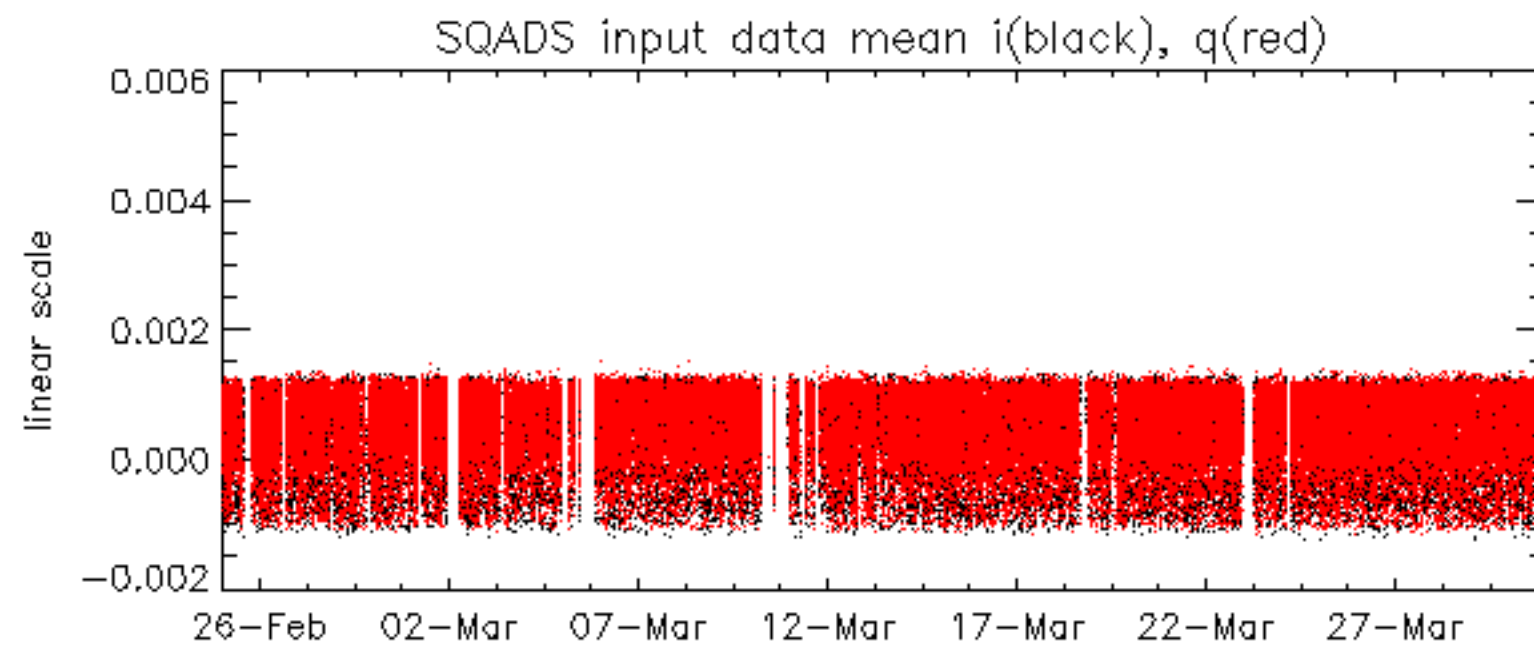


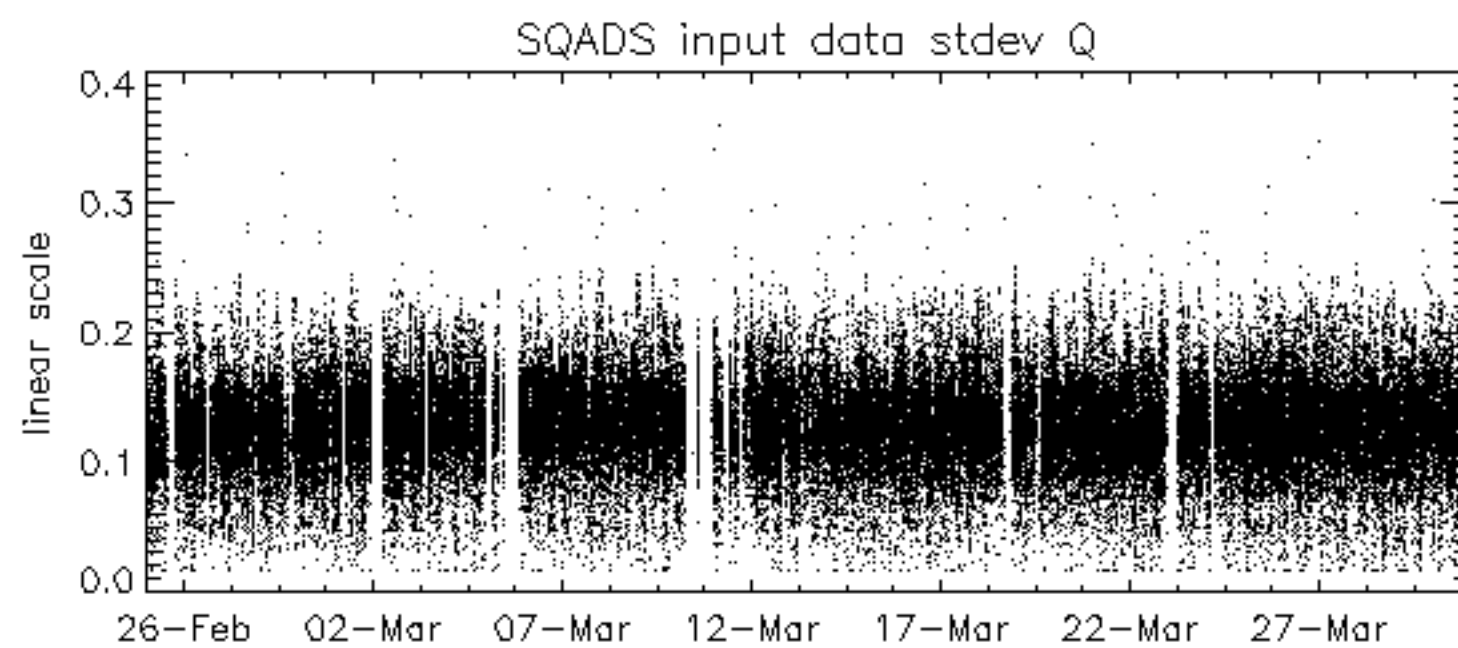
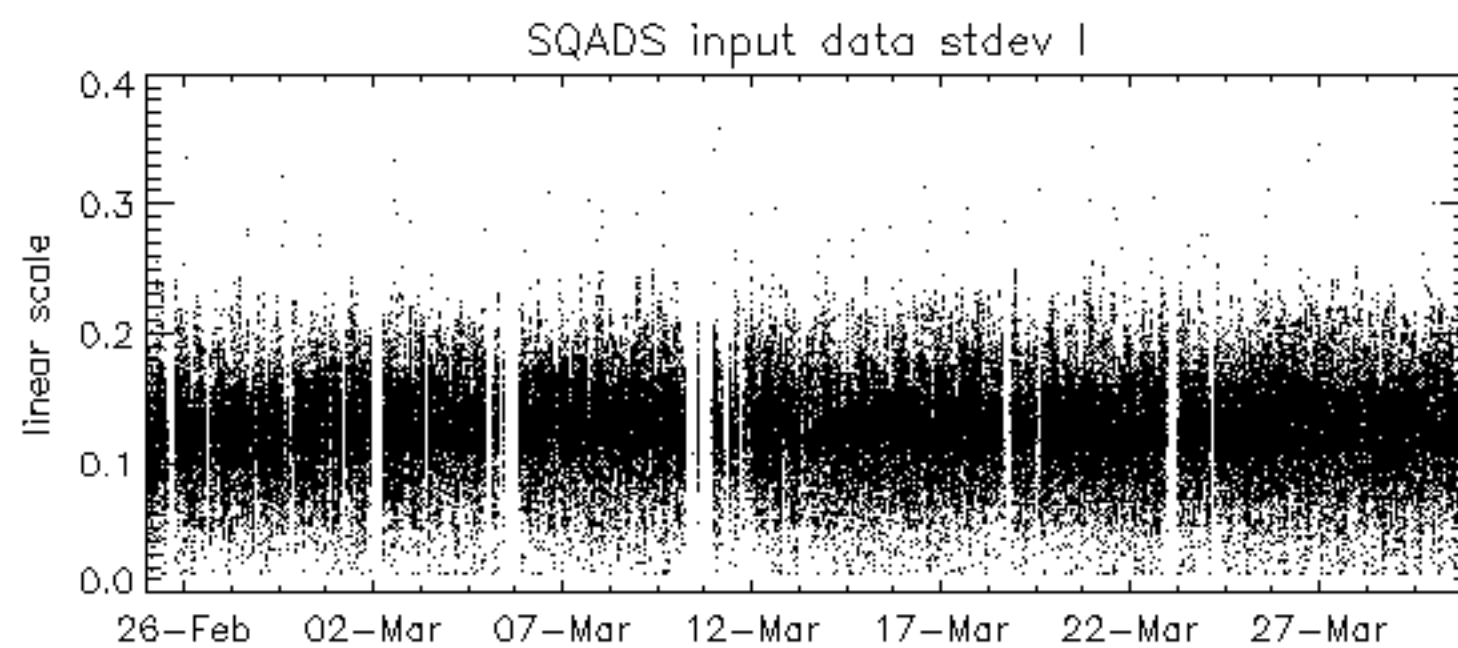
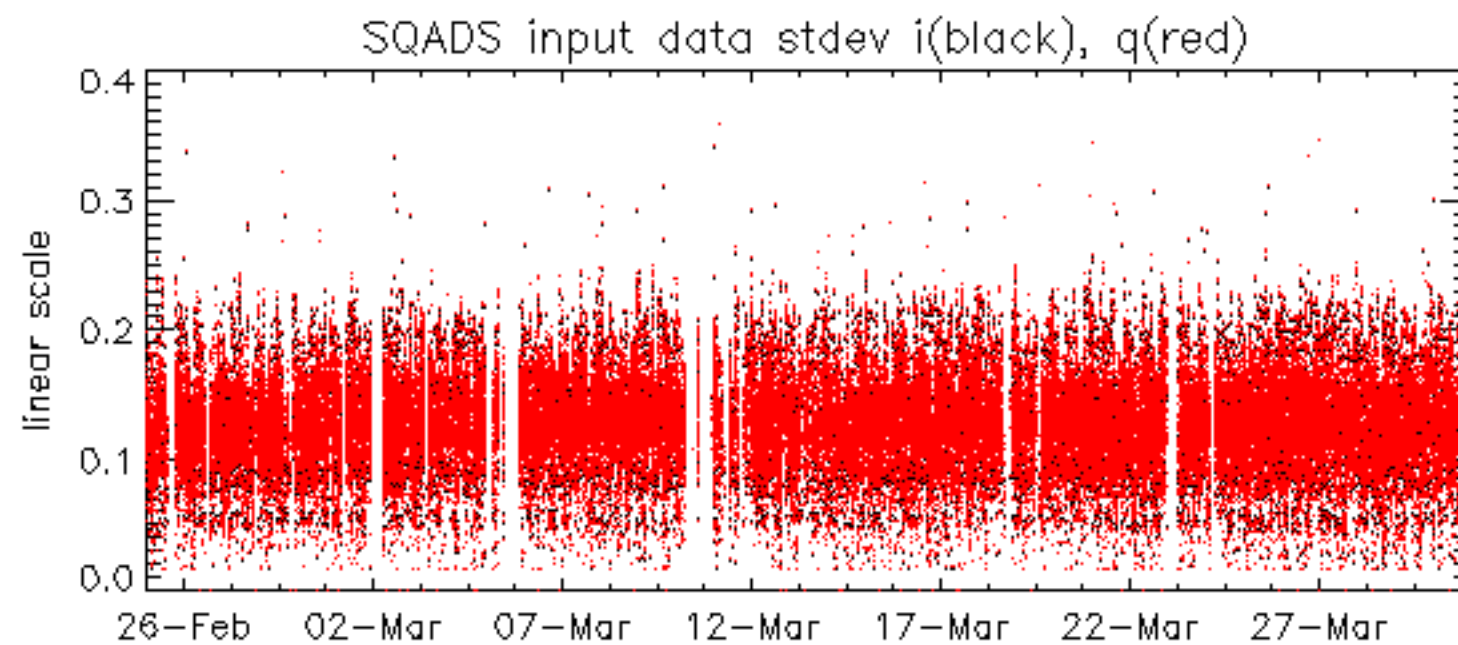














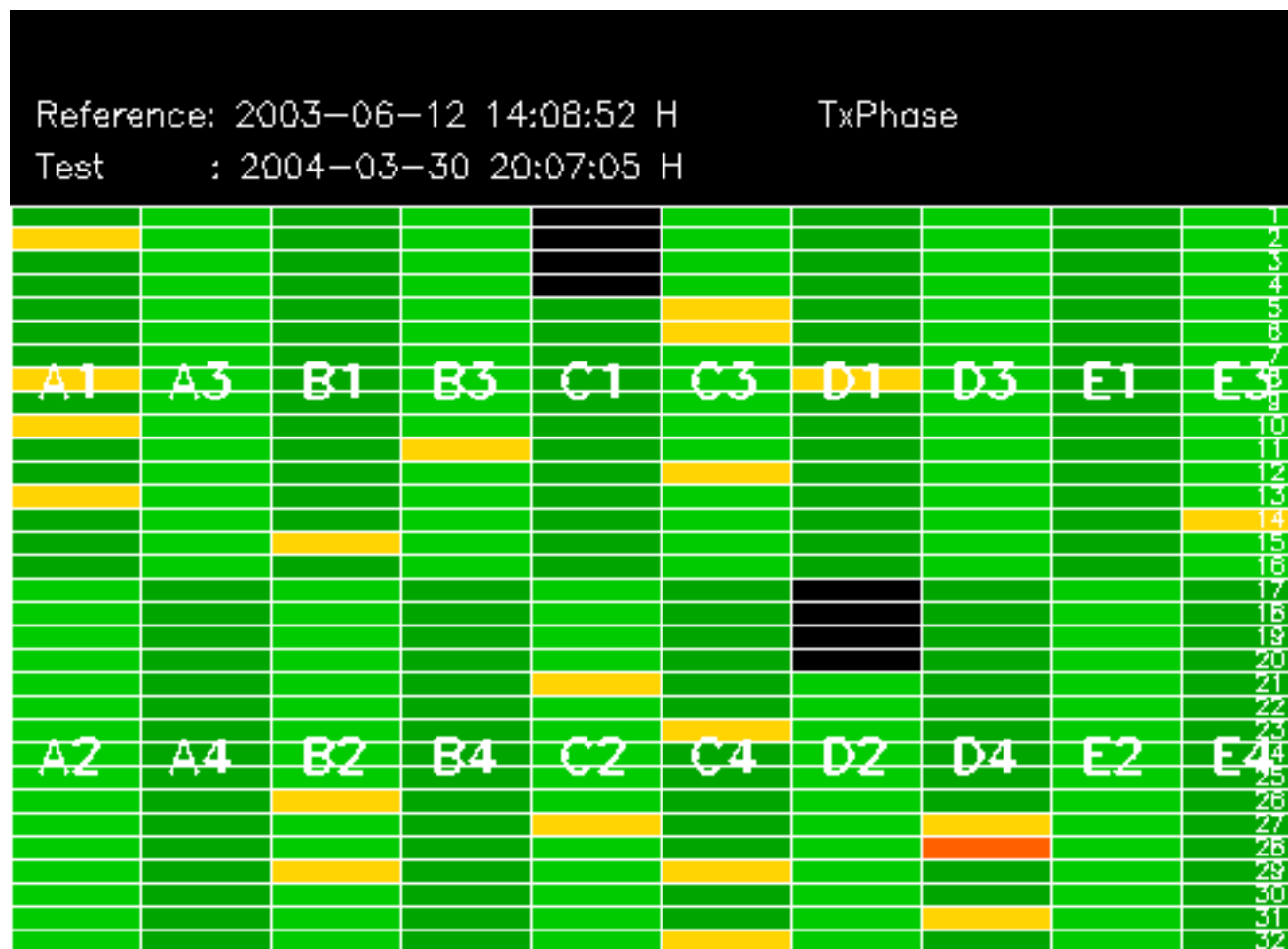


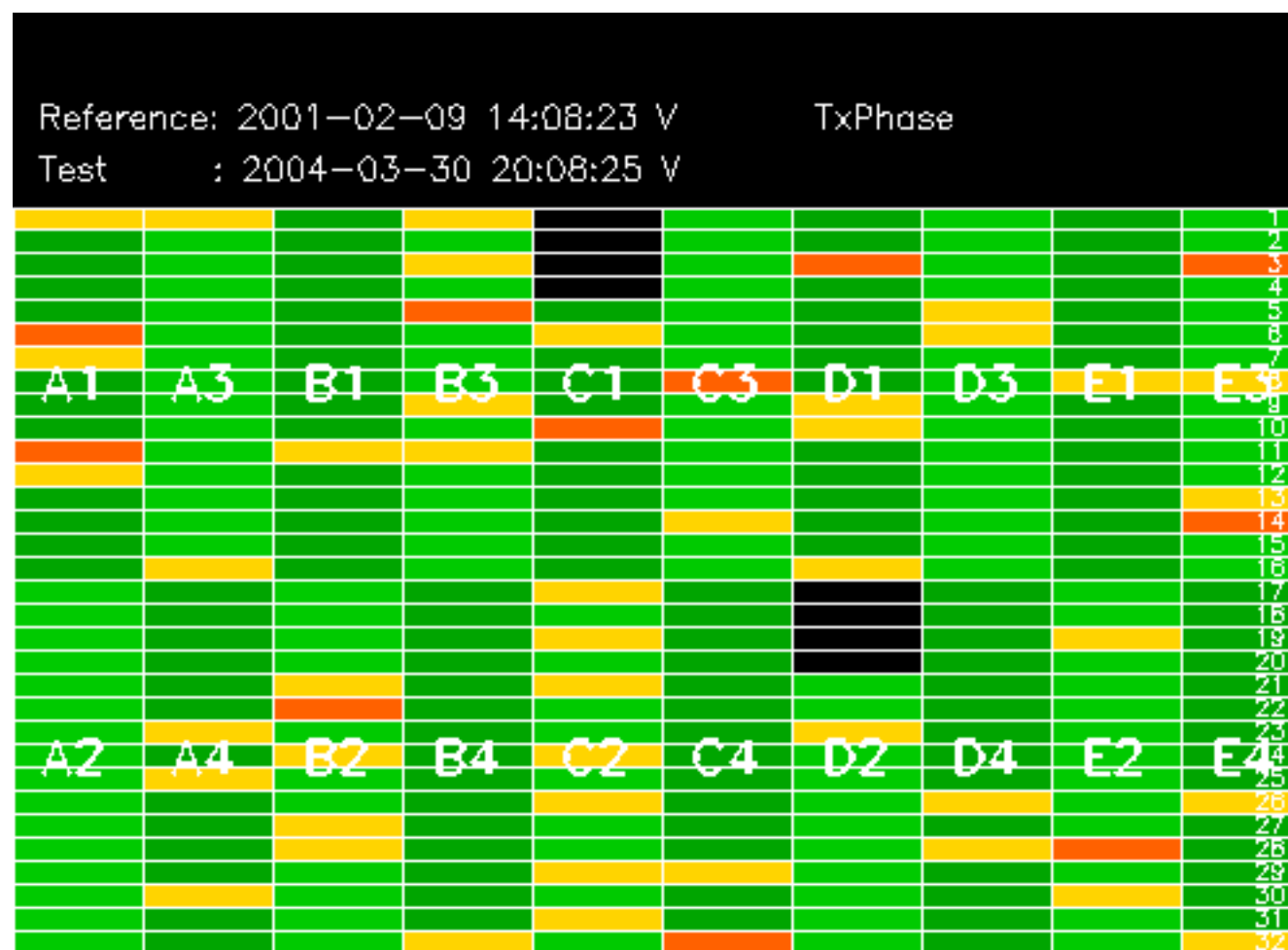














No unavailabilities during the reported period.