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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.

Sub-system	Start	Stop	Planned
ASAR	YYYY-MM-DD hh:mm:ss	YYYY-MM-DD hh:mm:ss	---

### 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

No anomalies observed on available MS products:











Polarisation	Start Time
V	20030810 190251
H	20030810 190111

#### 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
3	mean	-3.81406	-22.5573	-8.11412
	stdev	0.00613942	0.0636102	0.00234877
10	mean	-6.89266	-19.3336	-8.11412
	stdev	0.0227155	0.0611719	0.00234877



#### 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.86373	-22.5667	-8.10297
	stdev	0.0873404	0.0628726	0.00255813
10	mean	-6.97708	-19.3254	-8.10297
	stdev	0.413854	0.0617108	0.00255813



#### 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	0.000478390
	stdev	3.03686e-07
MEAN Q	mean	0.000308439
	stdev	3.20124e-07



## 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.115554
	stdev	0.00161516
STDEV Q	mean	0.115685
	stdev	0.00164564



## 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 60 days

### 6.1 - Unbiased Doppler Error

Evolution of unbiased Doppler error (Real - Expected)
Ascending
Descending

### 6.2 - Absolute Doppler

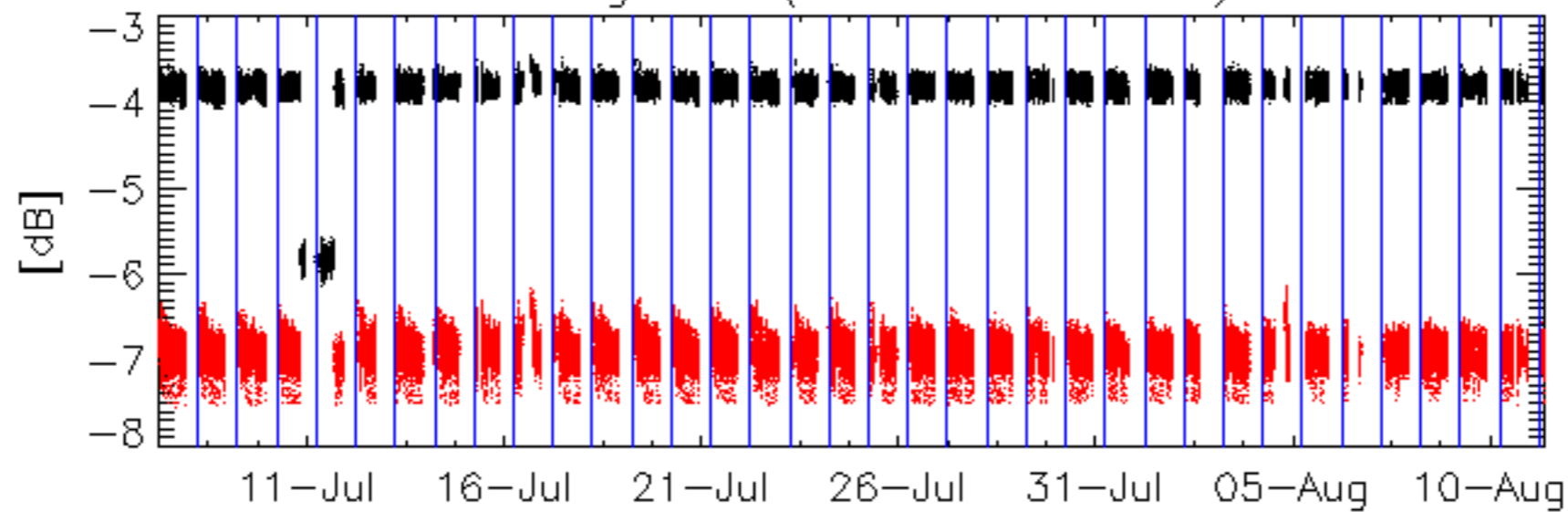
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

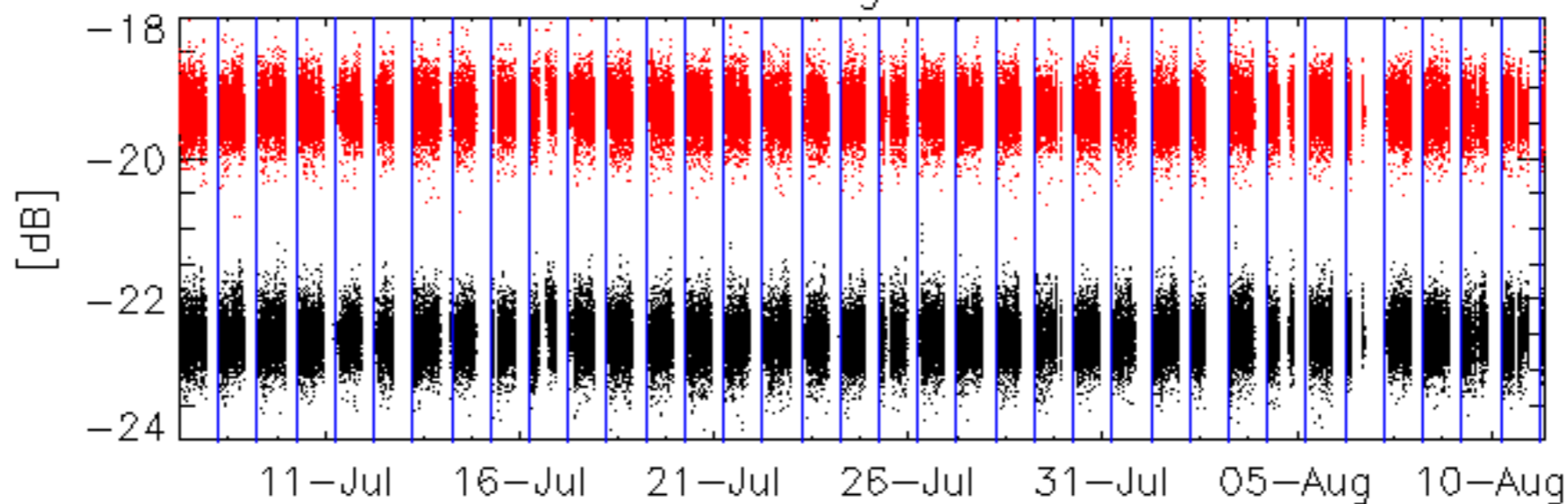
**Evolution Doppler error versus ANX**



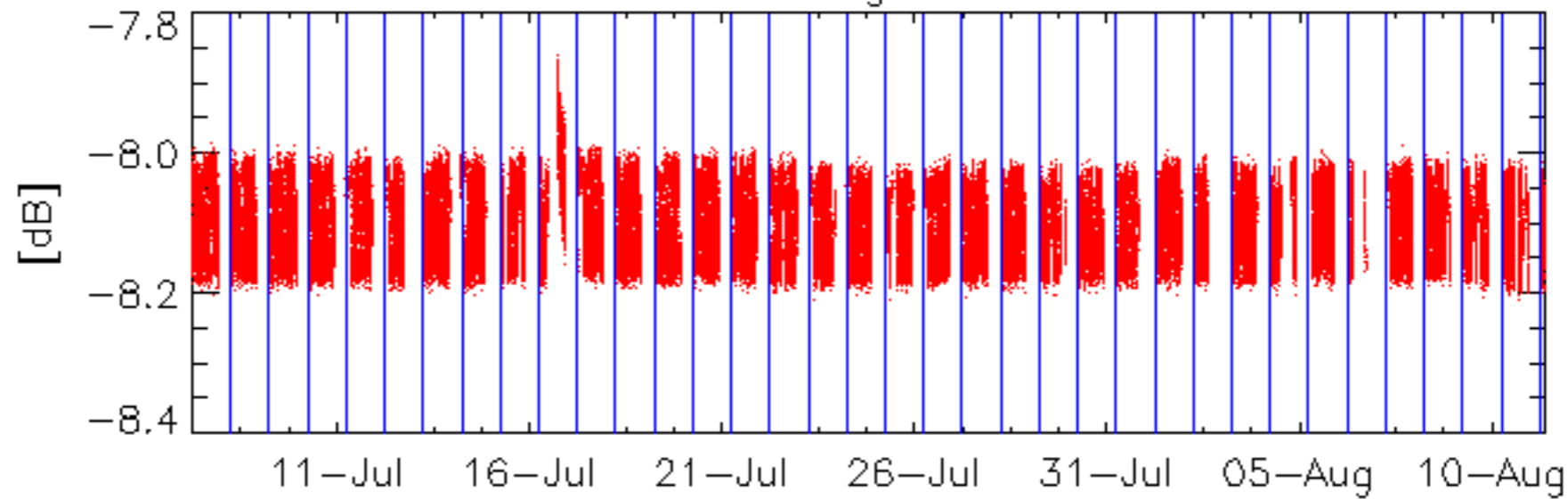
Average P1 (row 3 & row 10)



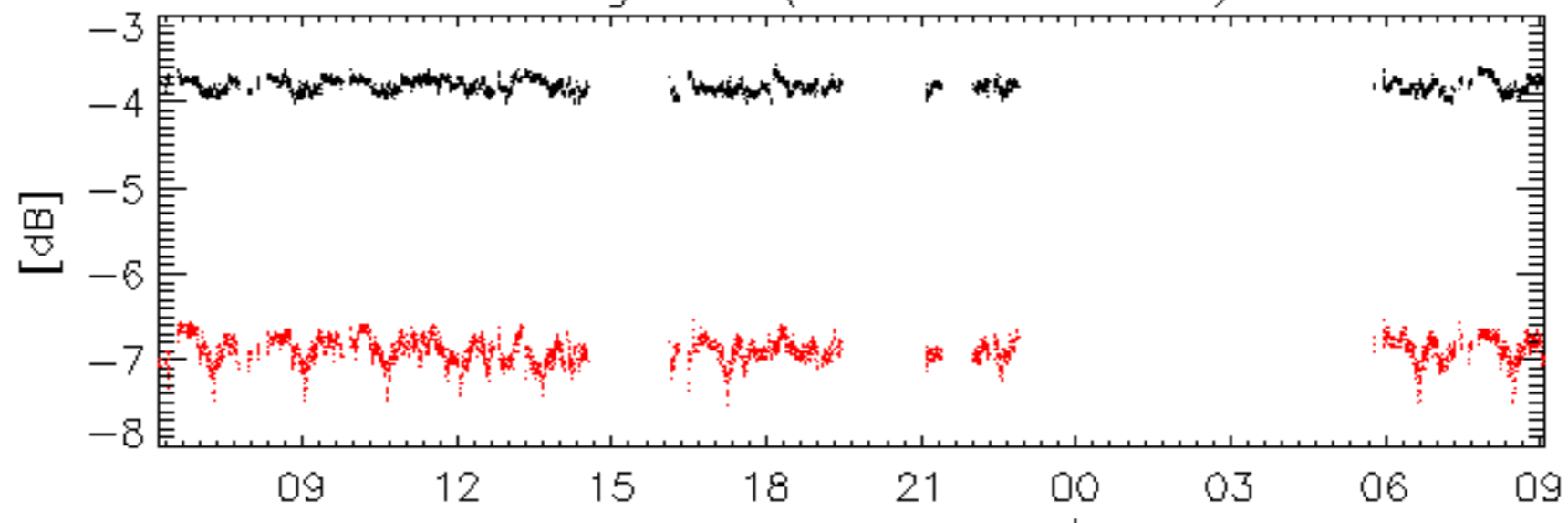
Average P2



Average P3

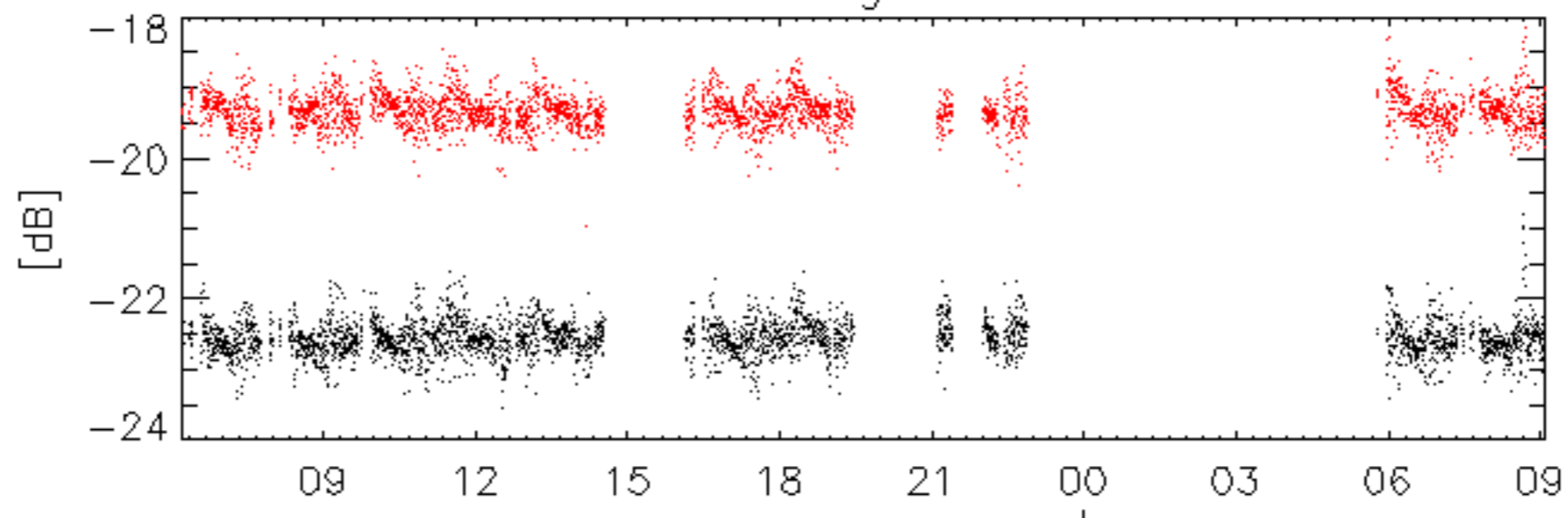


Average P1 (row 3 & row 10)



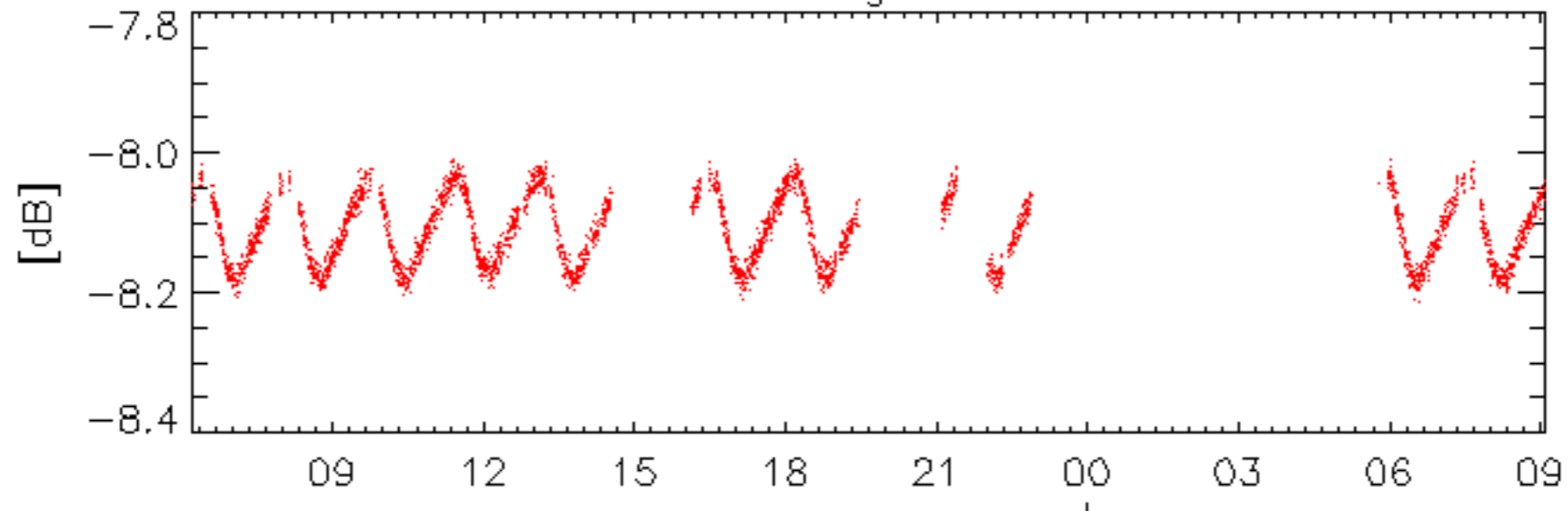
11-Aug

Average P2

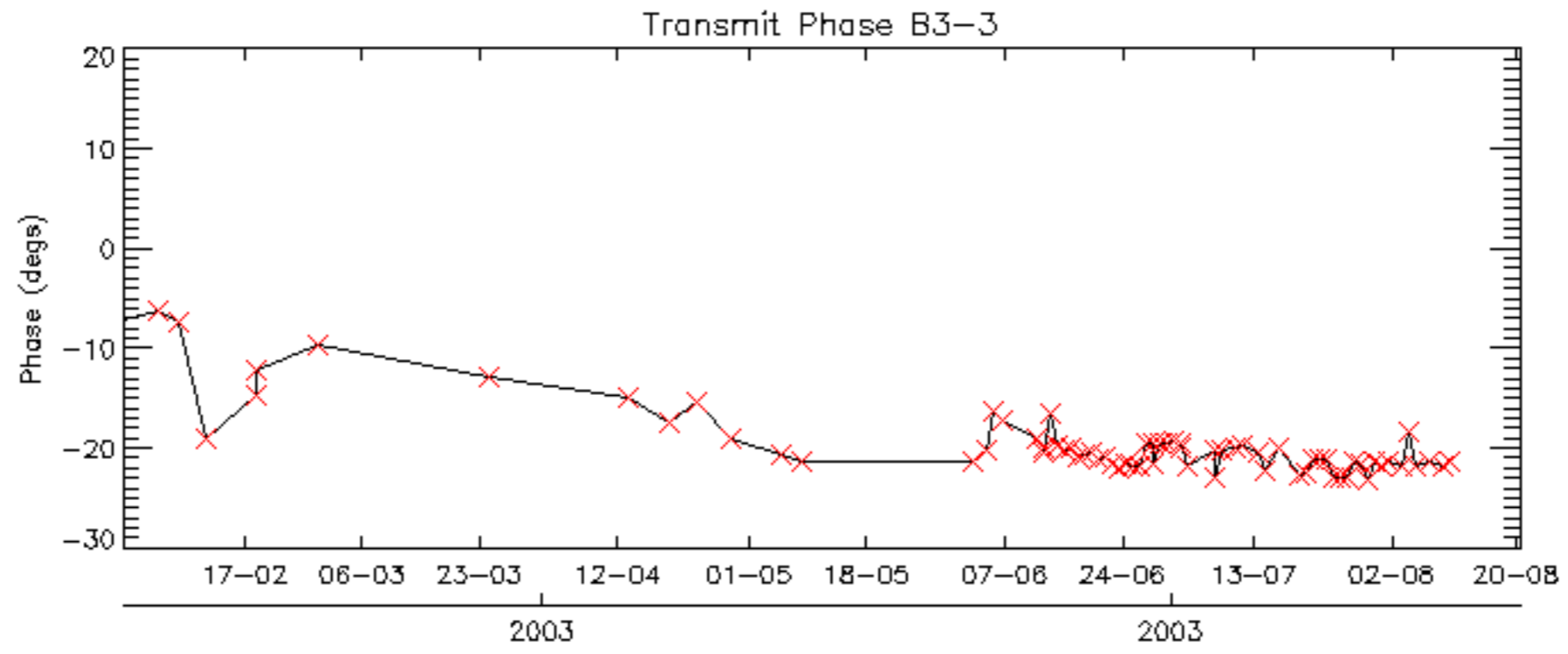


11-Aug

Average P3



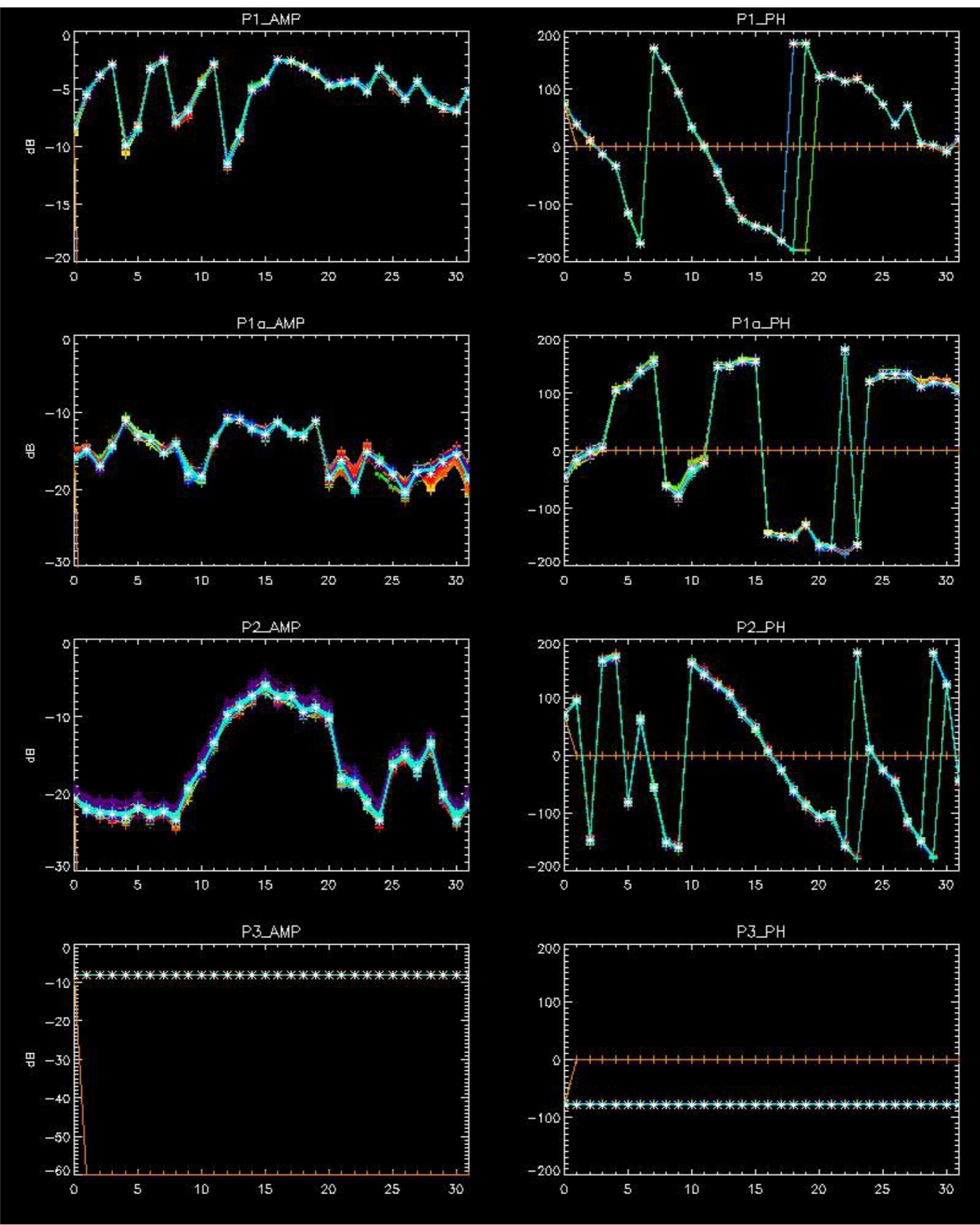
11-Aug





No anomalies observed on available browse products

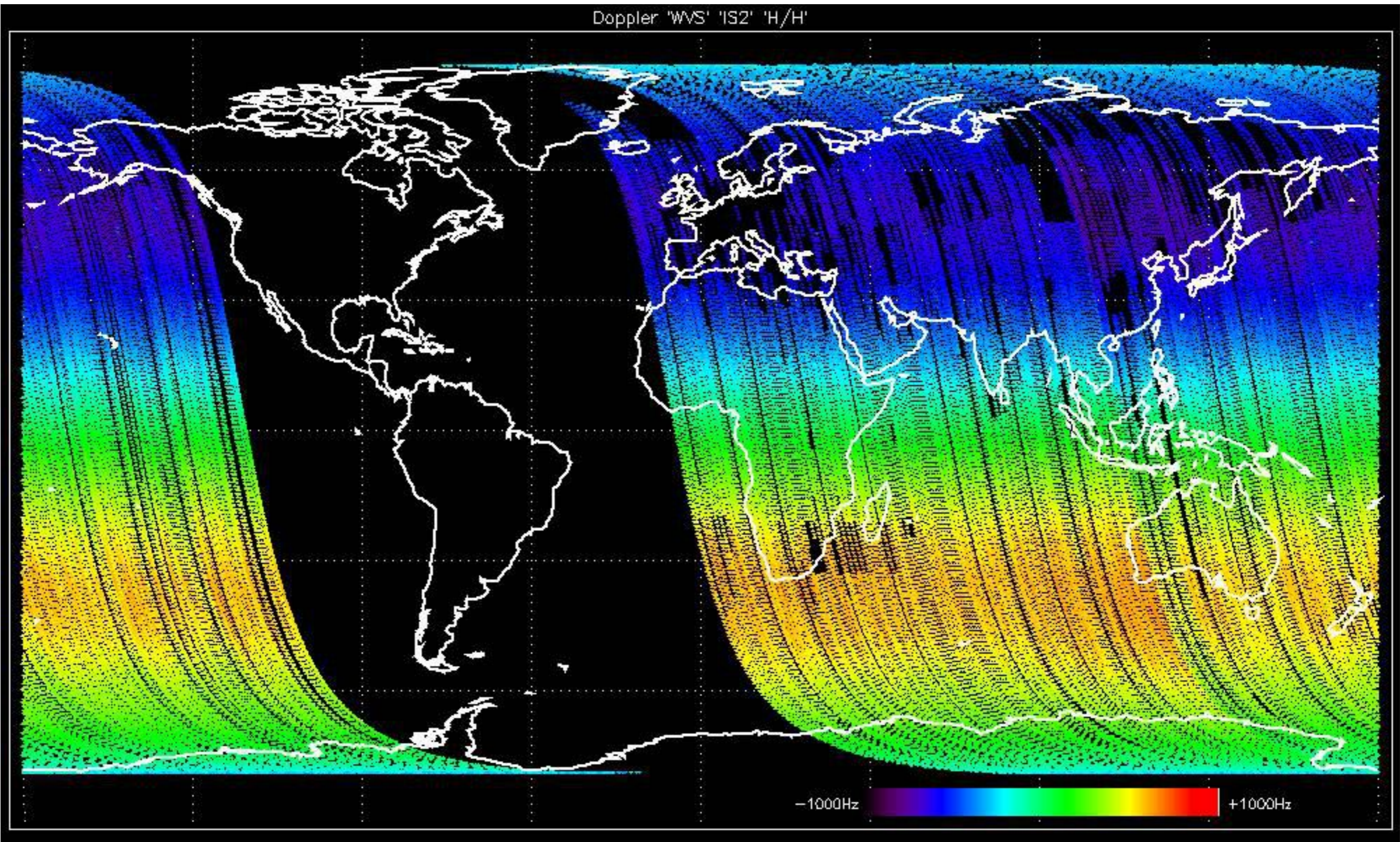
No anomalies observed.



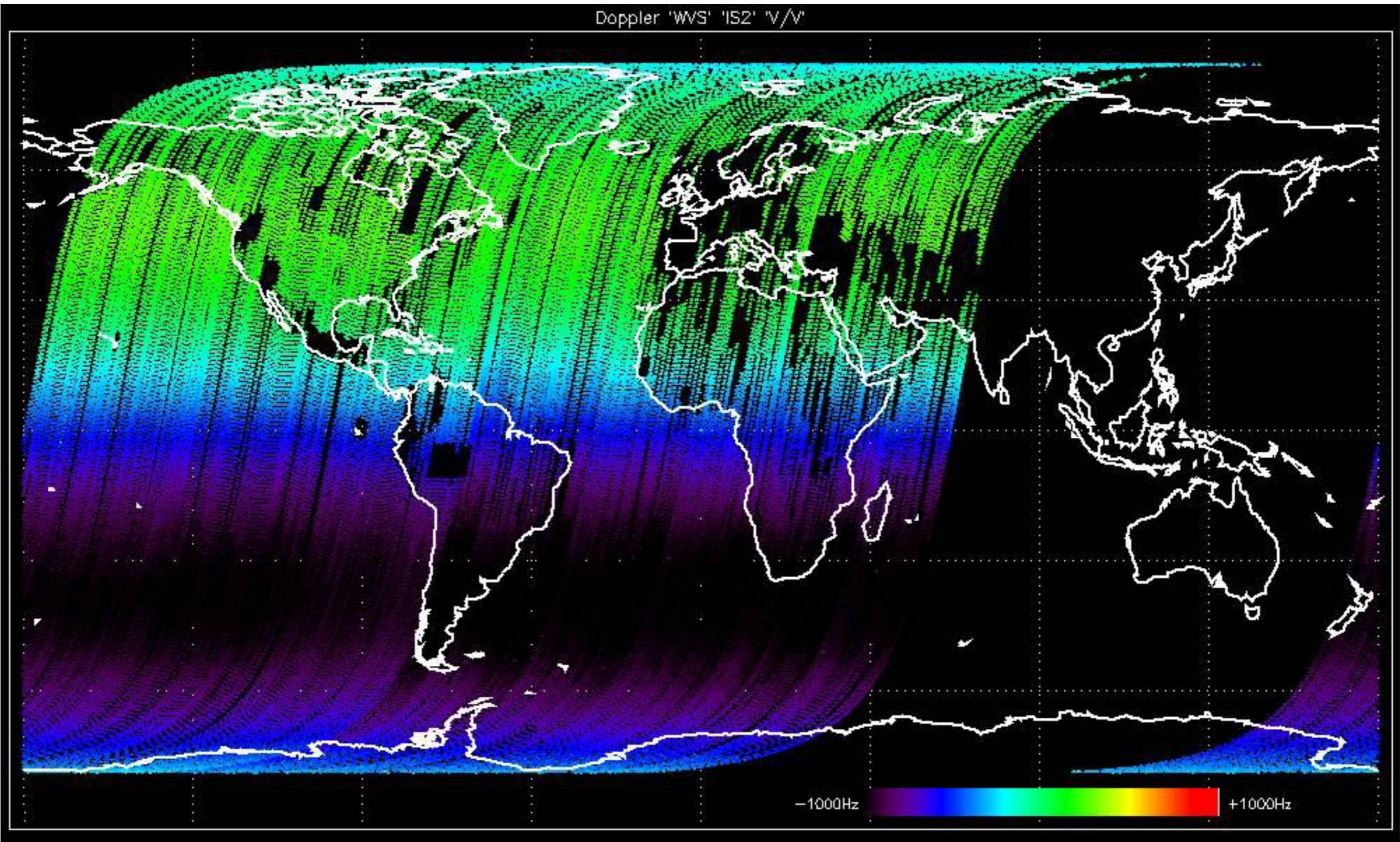
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

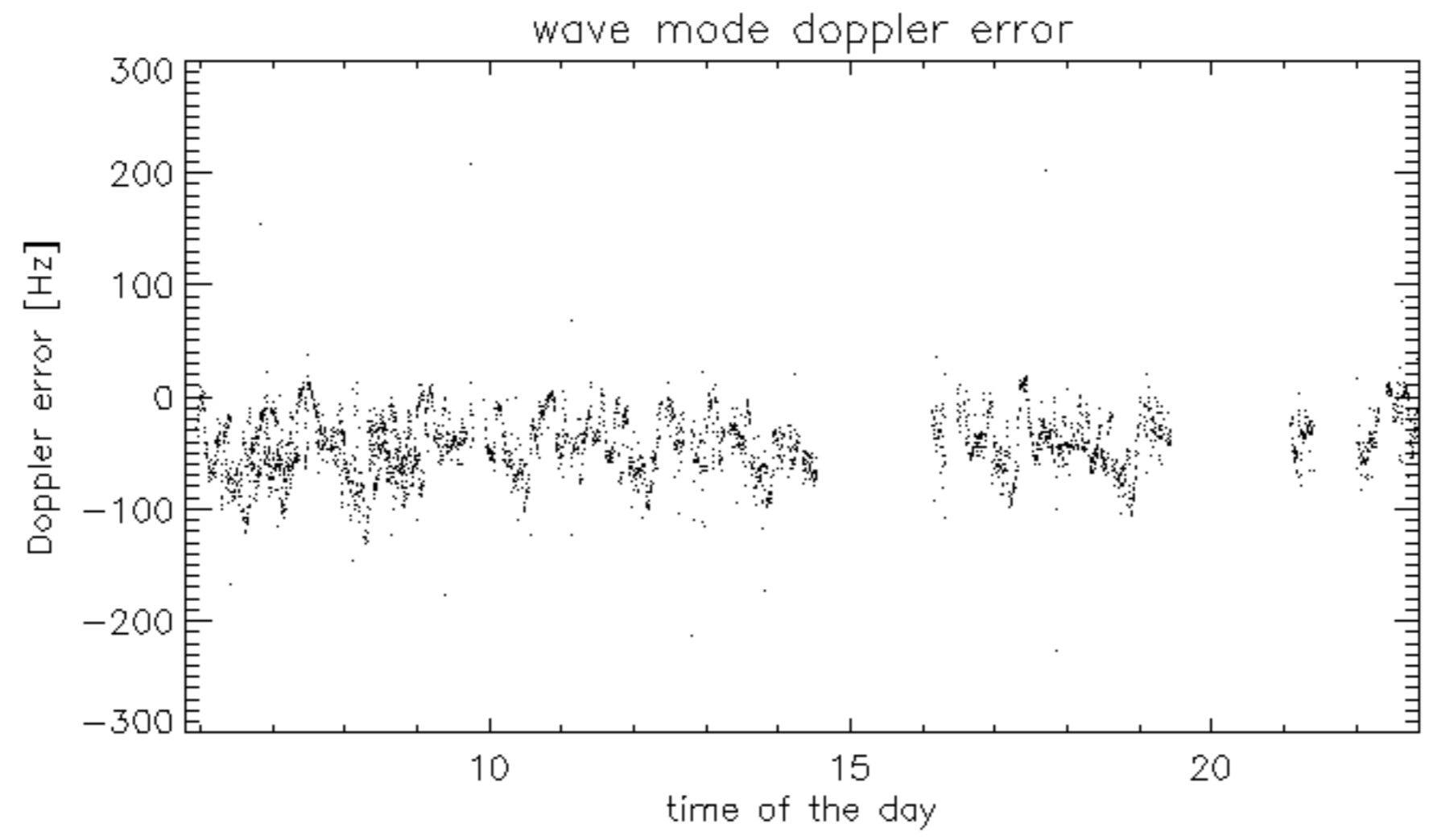
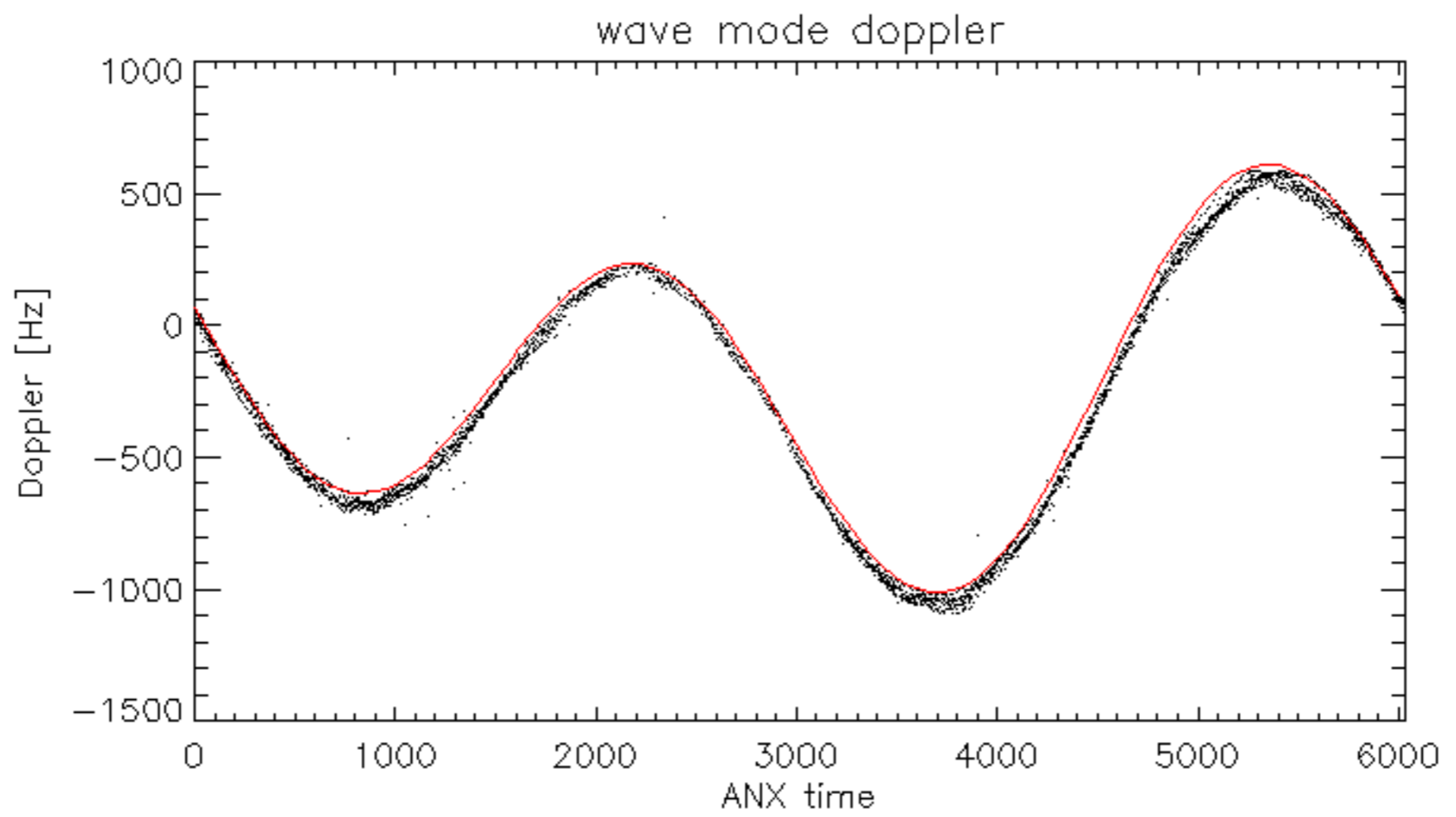
No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 60 days

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



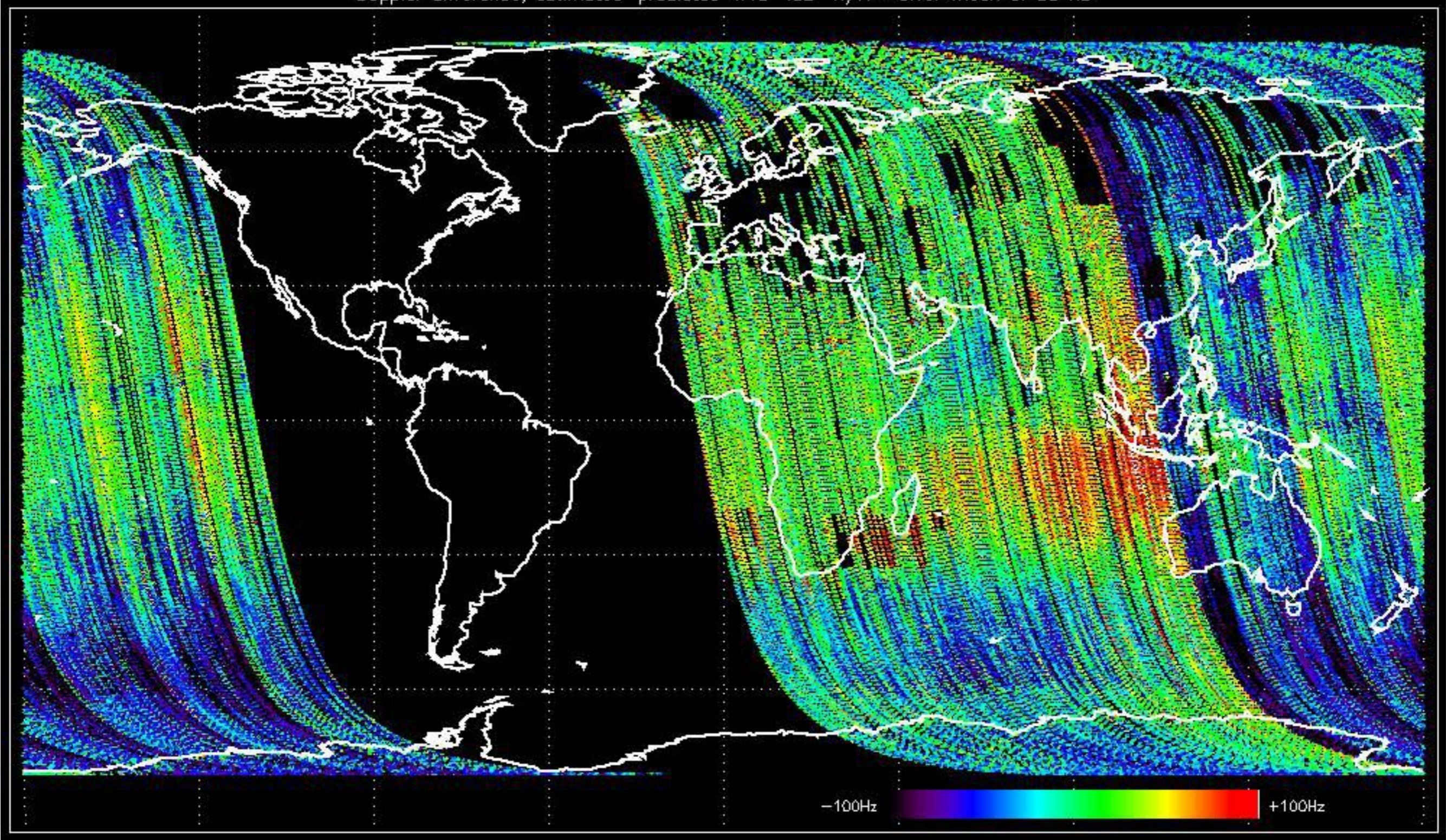
Doppler 'WVS' 'IS2' 'V/V'



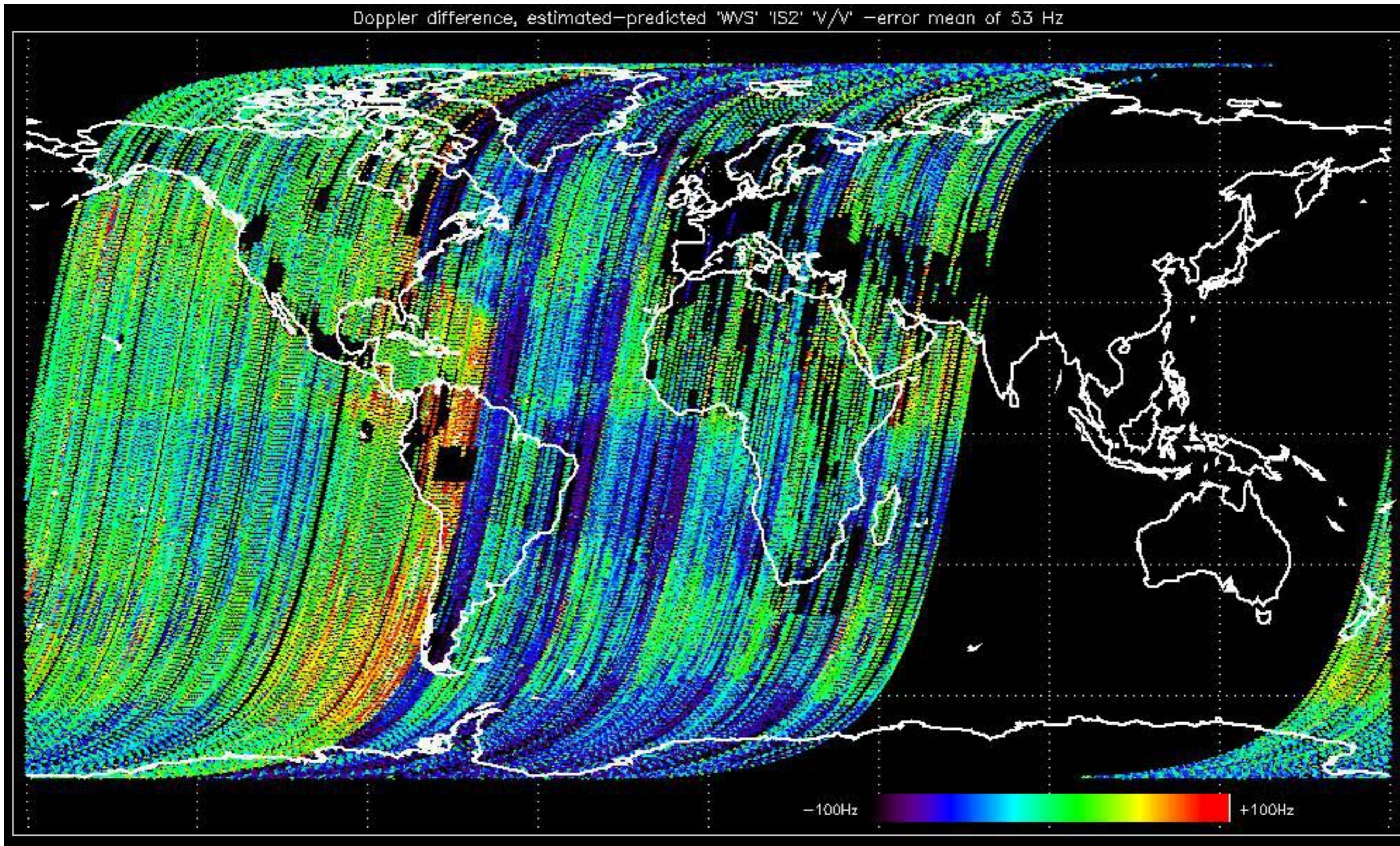




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



Doppler difference, estimated-predicted 'WS' 'IS2' 'V/V' -error mean of 53 Hz



No anomalies observed on available MS products:

No anomalies observed.









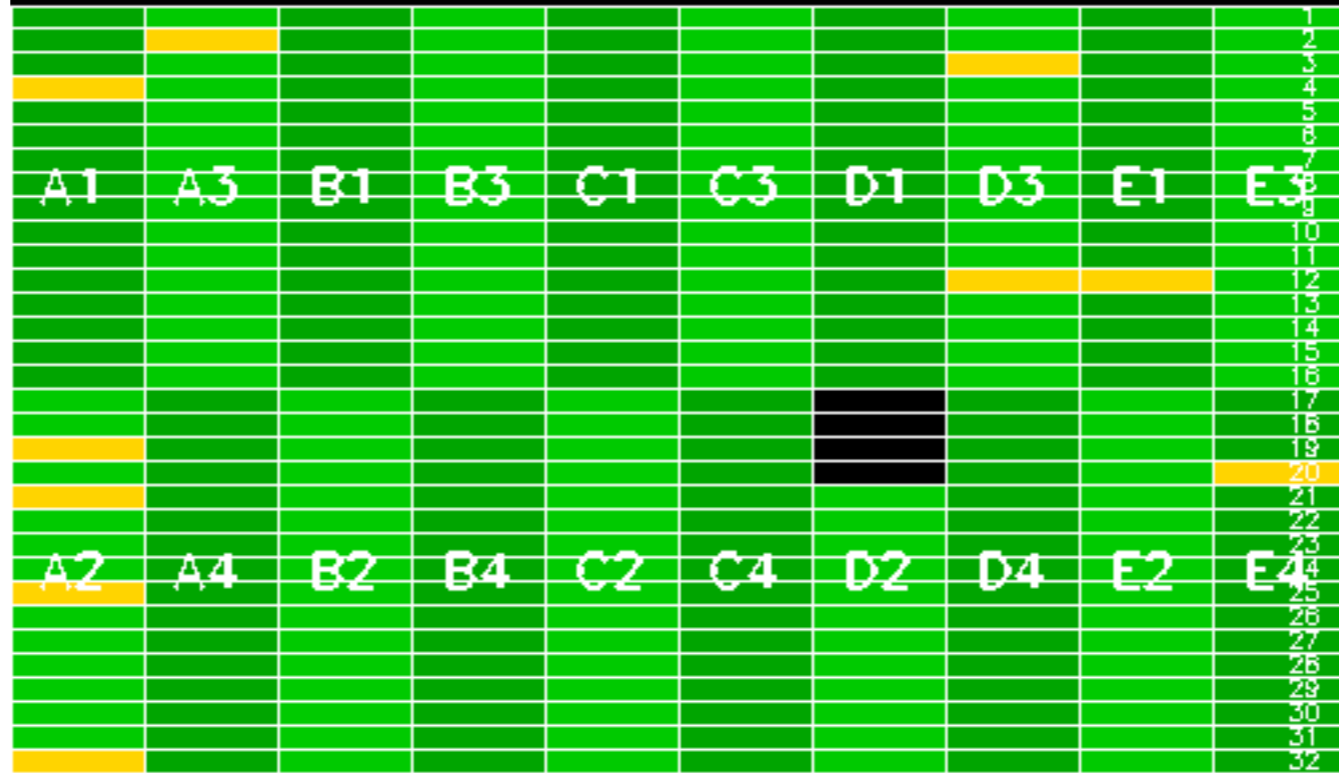


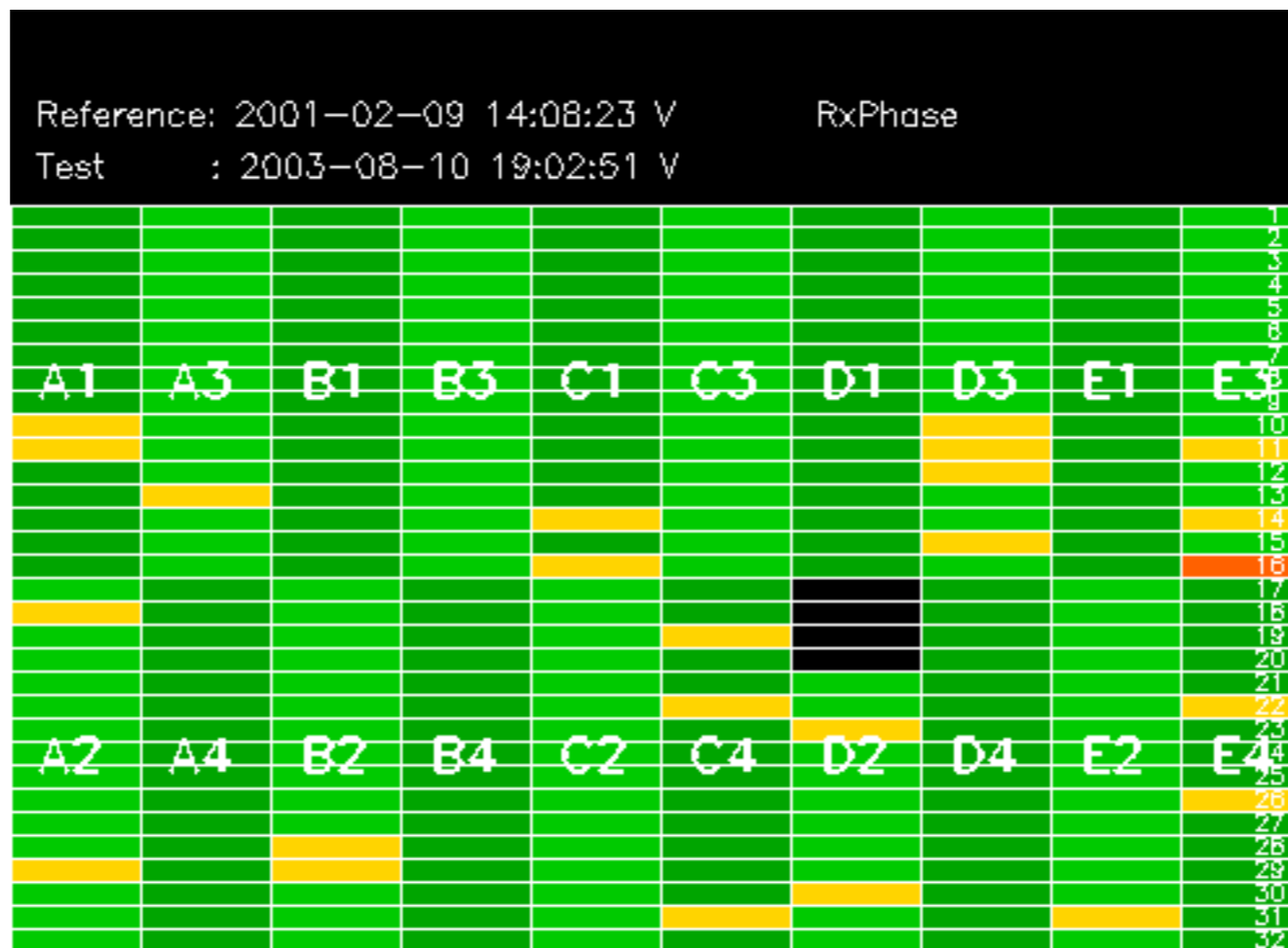


Reference: 2003-06-12 14:08:52 H

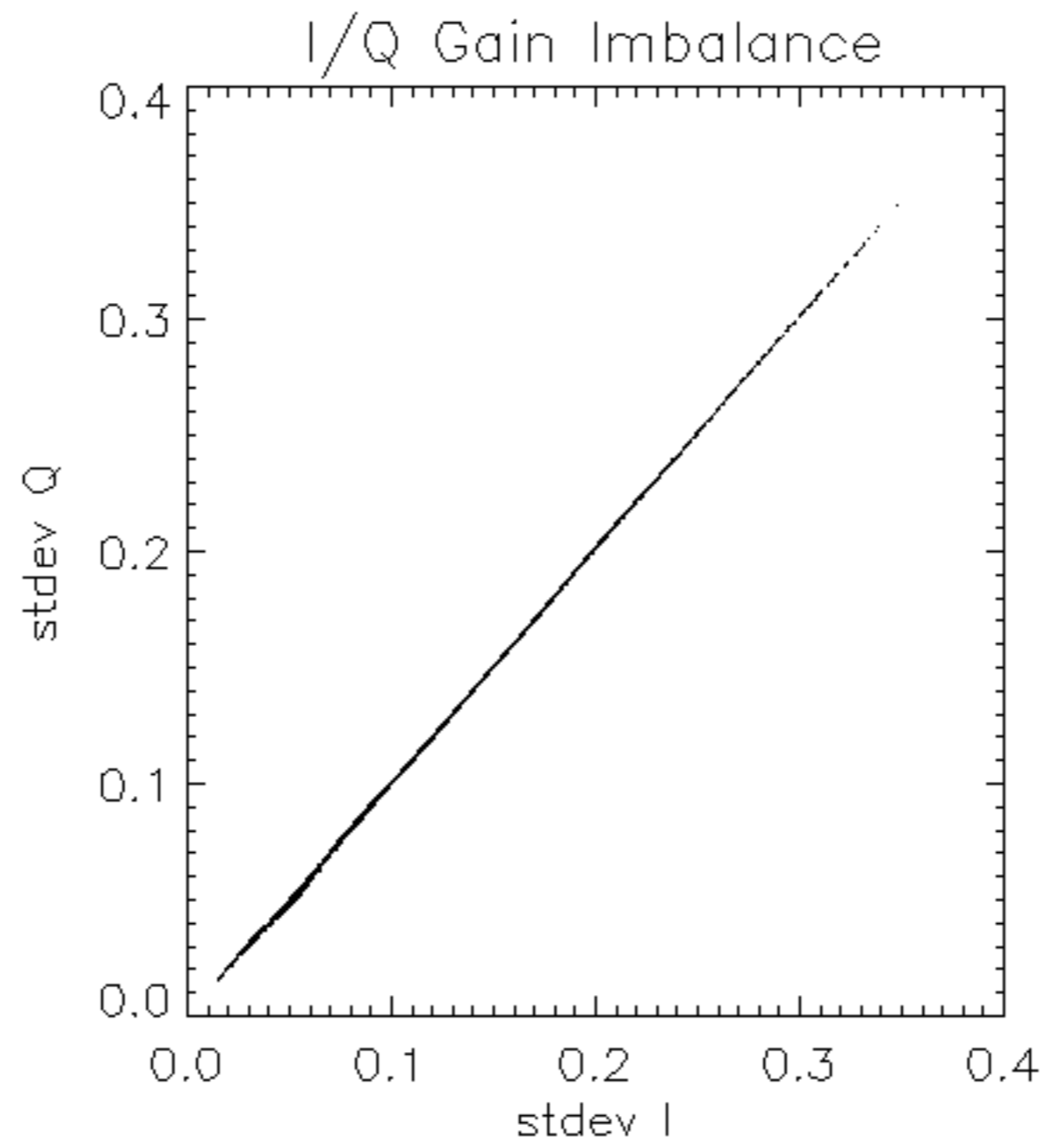
RxPhase

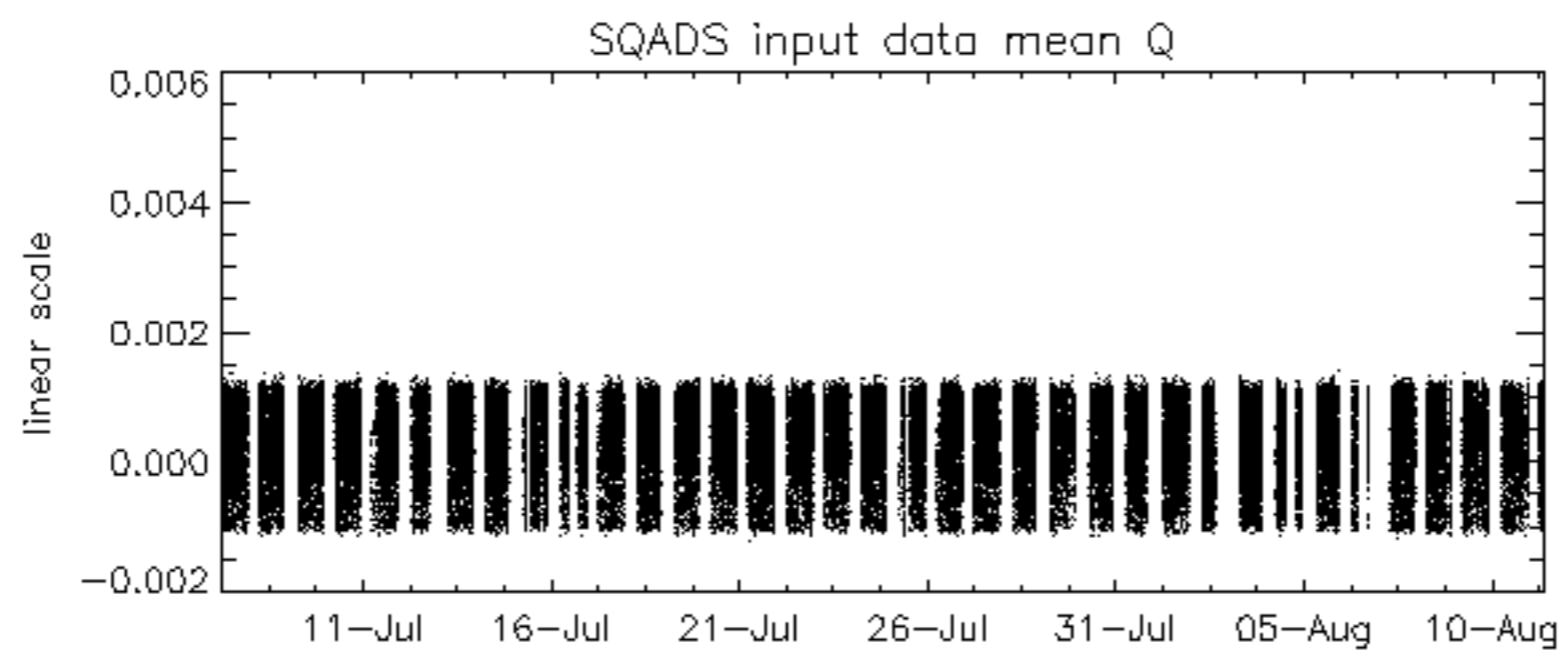
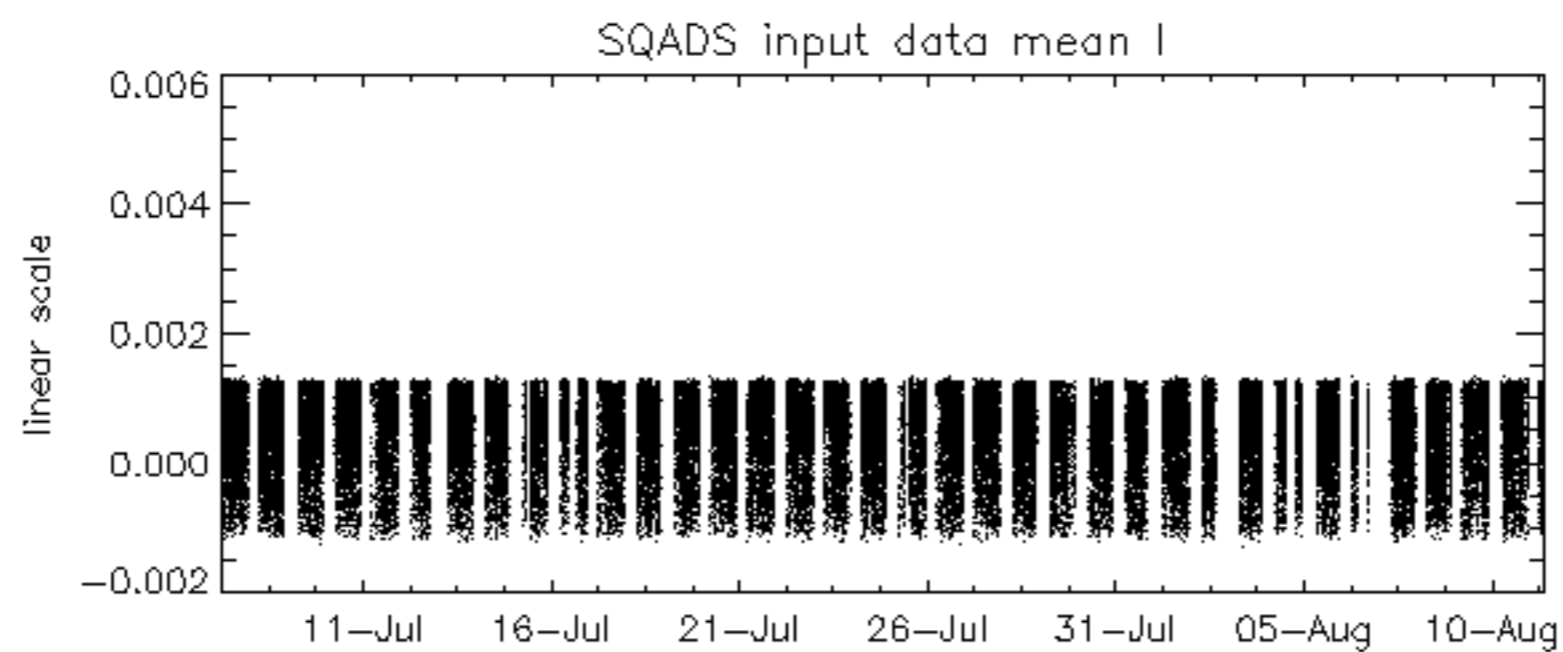
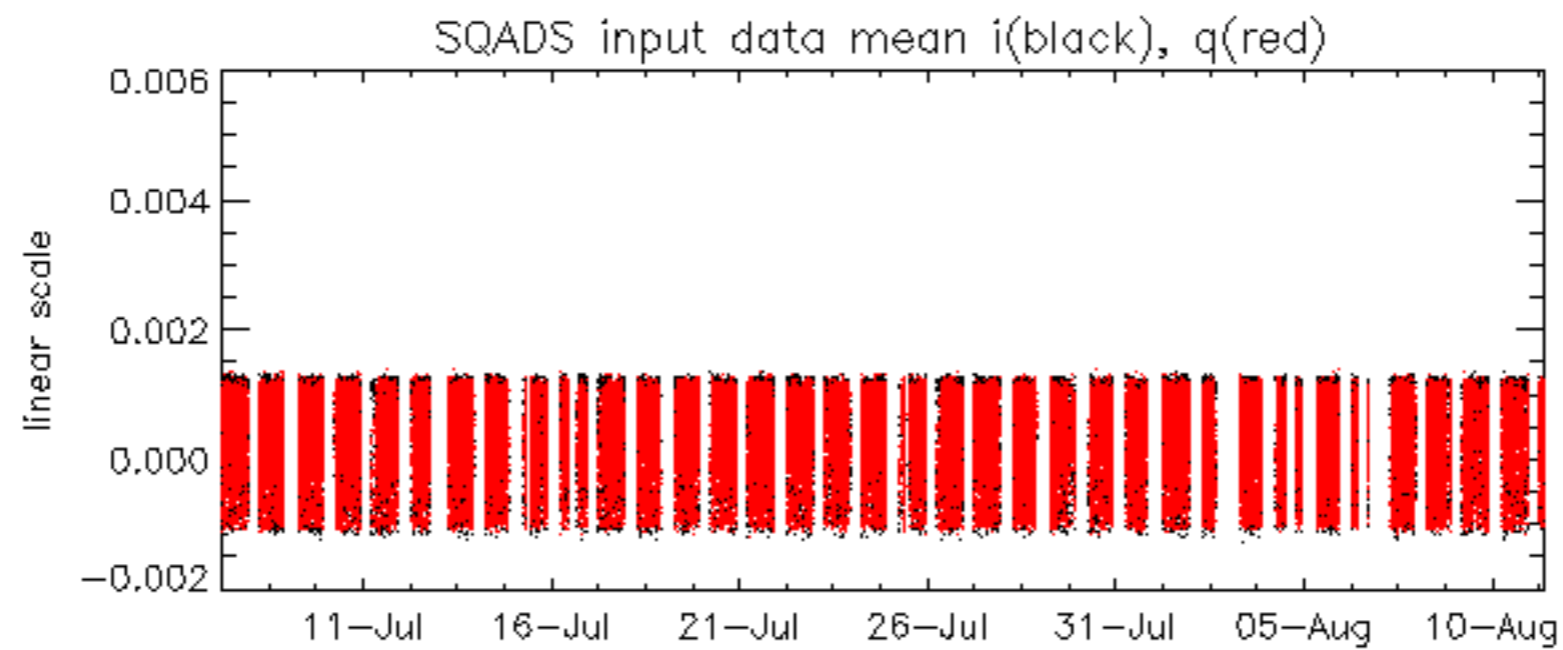
Test : 2003-08-10 19:01:11 H

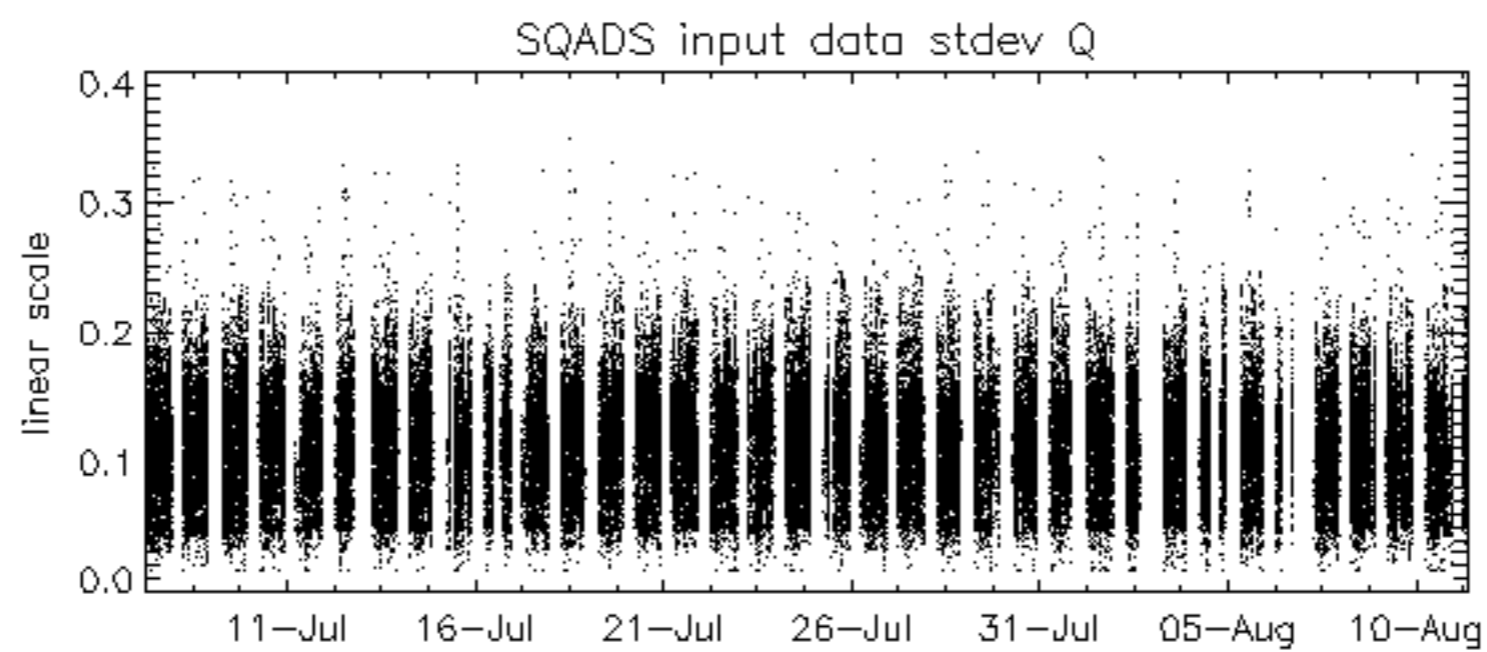
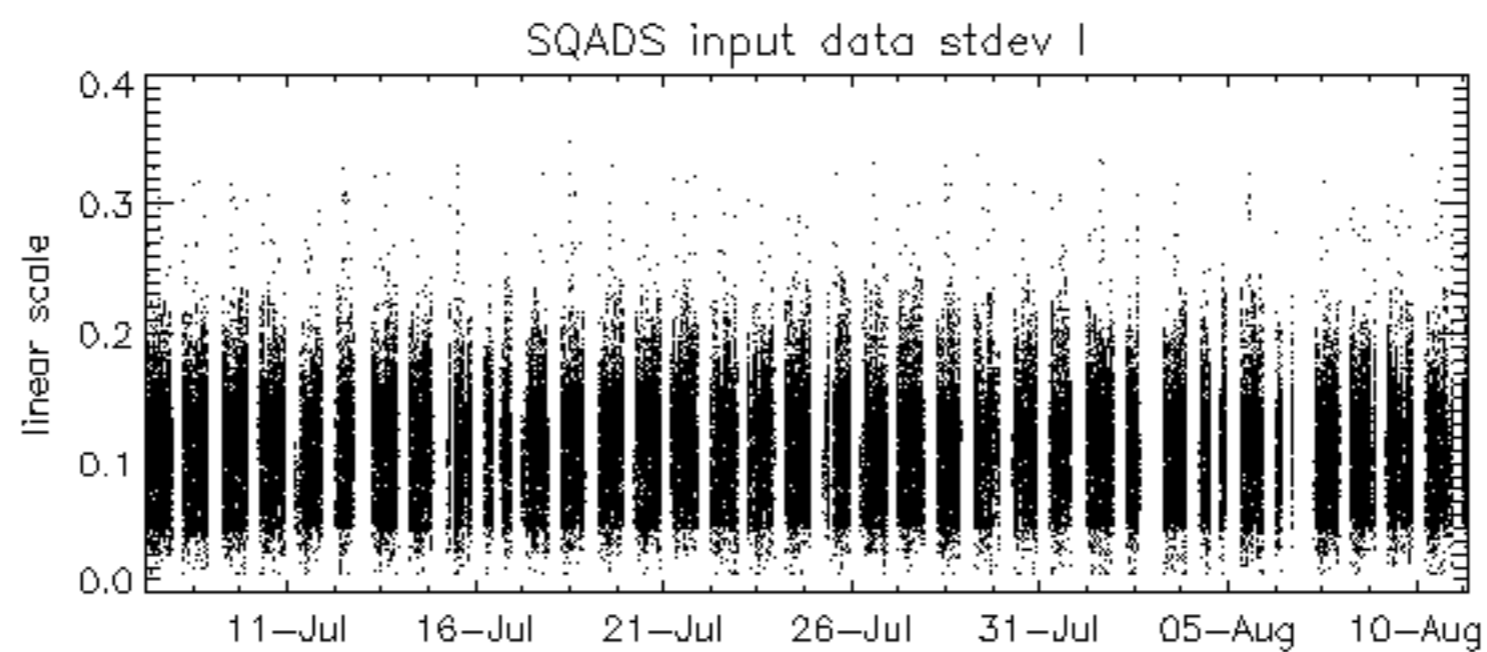
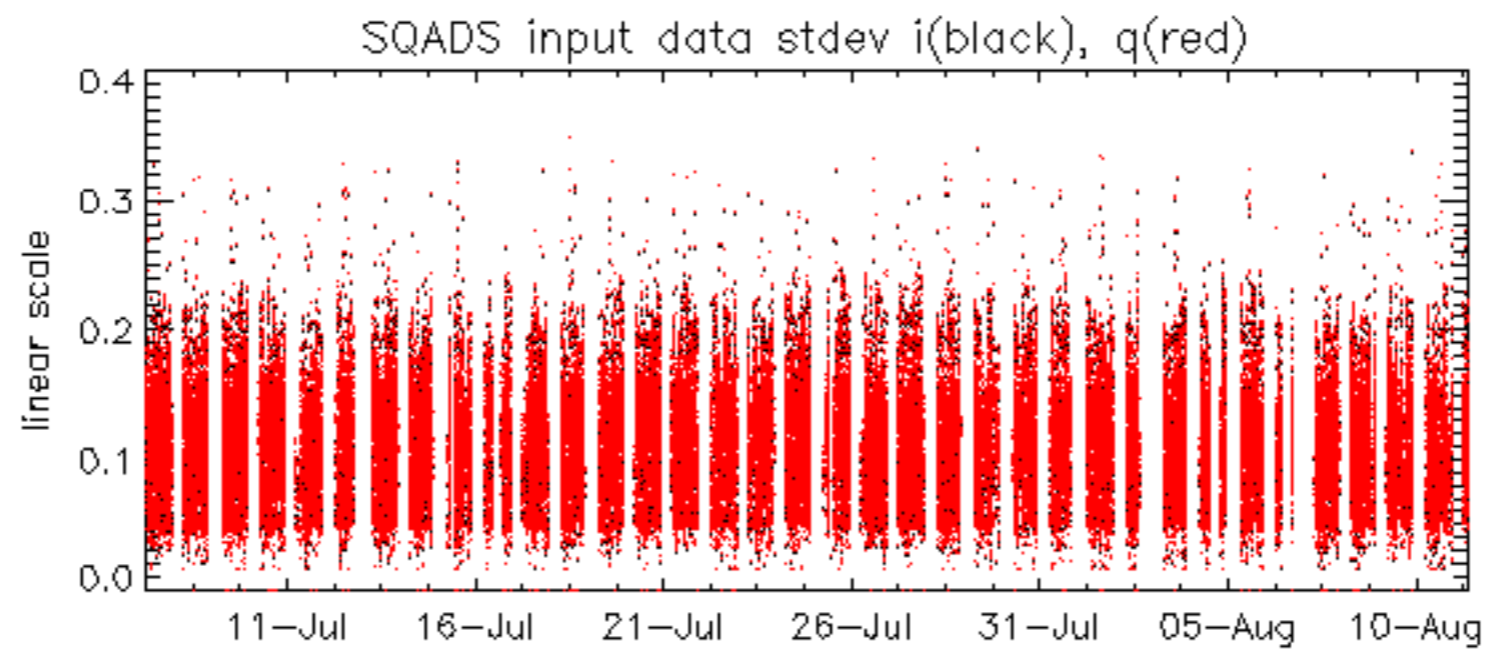












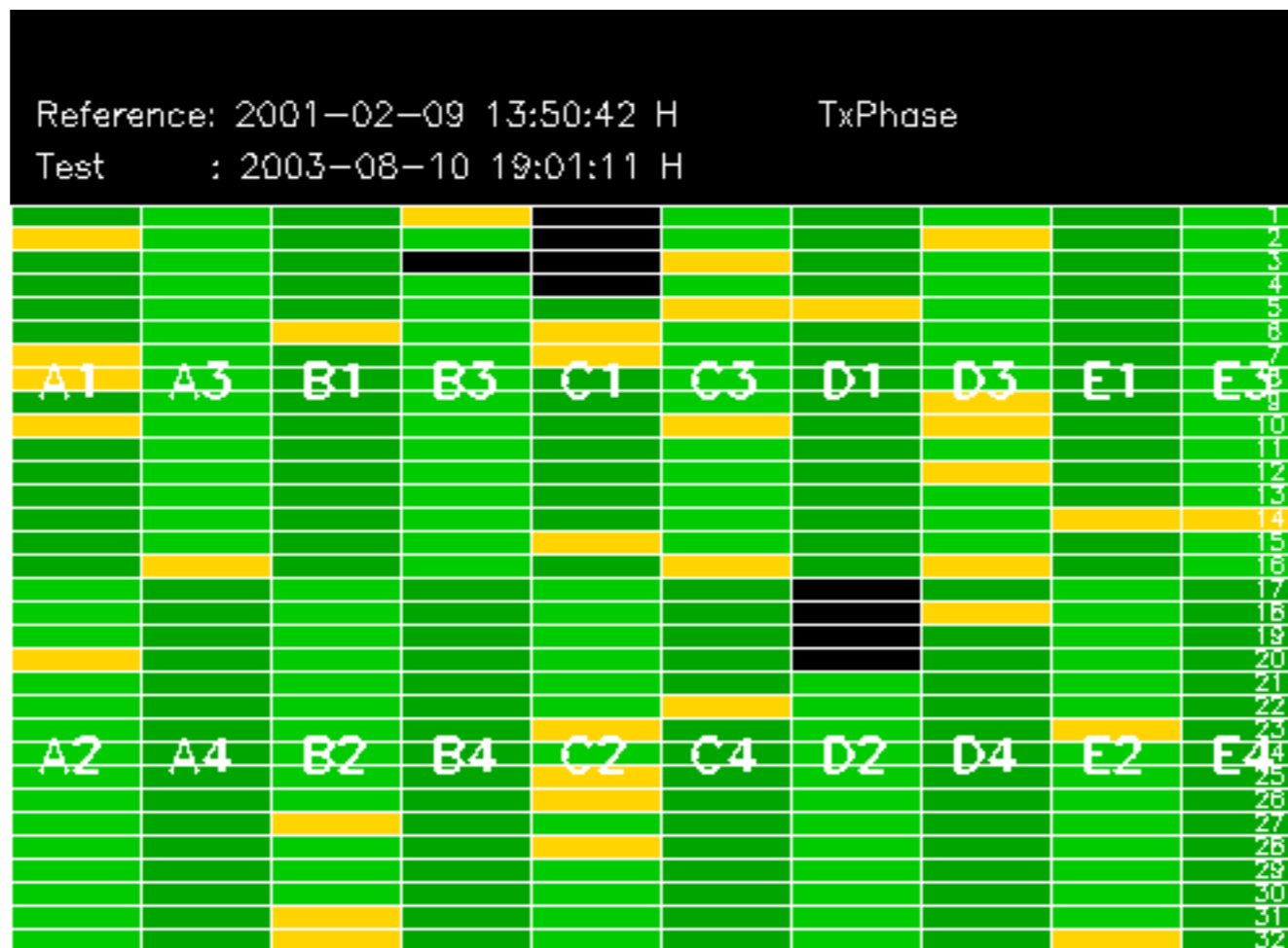


















No unavailabilities during the reported period.