

# REPORT OF 030904

1. [Introduction](#)
2. [Summary](#)
  - [Instrument Unavailability](#)
  - [Browse Visual Inspection](#)
  - [Module Stepping Results](#)
  - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
  - [Daily statistics \(row 3 and 10\)](#)
  - [Cyclic statistics \(row 3 and 10\)](#)
  - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
  - [raw data mean I and Q](#)
  - [raw data stdev I and Q](#)
  - [raw gain imbalance](#)
6. [Wave Doppler analysis](#)
  - [Unbiased Doppler Error](#)
  - [Absolute Doppler](#)
  - [Doppler evolution versus ANX](#)

## 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

- Due to a problem at Kiruna station data from 02-SEP-2003 22:12:38 to 04-SEP-2003 06:29:13 are missing.
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

## 3 - Module Stepping Mode

At creation time of the current report no new MS products are available.  
Results below are the ones of the previous available products.

Polarisation	Start Time
V	20030902 202030
H	20030902 201850

### 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

Data available since 04-SEP-2003 06:29:13  
No anomalies observed on calibration pulses.

#### 4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80080	-22.5472	-8.12077
	stdev	0.00584606	0.0613820	0.00183532
10	mean	-6.86123	-19.2818	-8.12077
	stdev	0.0287156	0.0713561	0.00183532



#### 4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80663	-22.5382	-8.10727
	stdev	0.00573599	0.0606654	0.00233393
10	mean	-6.89885	-19.3304	-8.10727
	stdev	0.0236947	0.0599298	0.00233393



#### 4.3 - cal pulses monitoring (all rows)



### 5 - RAW data statistics

No anomalies observed.  
 Nominal values of the raw data statistics.  
 I and Q channel are well balanced.

#### 5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000420902
	stdev	3.26238e-07
MEAN Q	mean	0.000291208
	stdev	3.23389e-07



## 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114479
	stdev	0.00149495
STDEV Q	mean	0.114662
	stdev	0.00151654



## 5.3 - Gain imbalance I/Q



## 6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.

Doppler analysis performed over the last 60 days.

Empty box with no data on ascending passes over South-Africa/Madagascar is due to MSM acquisitions

### 6.1 - Unbiased Doppler Error

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

### 6.2 - Absolute Doppler

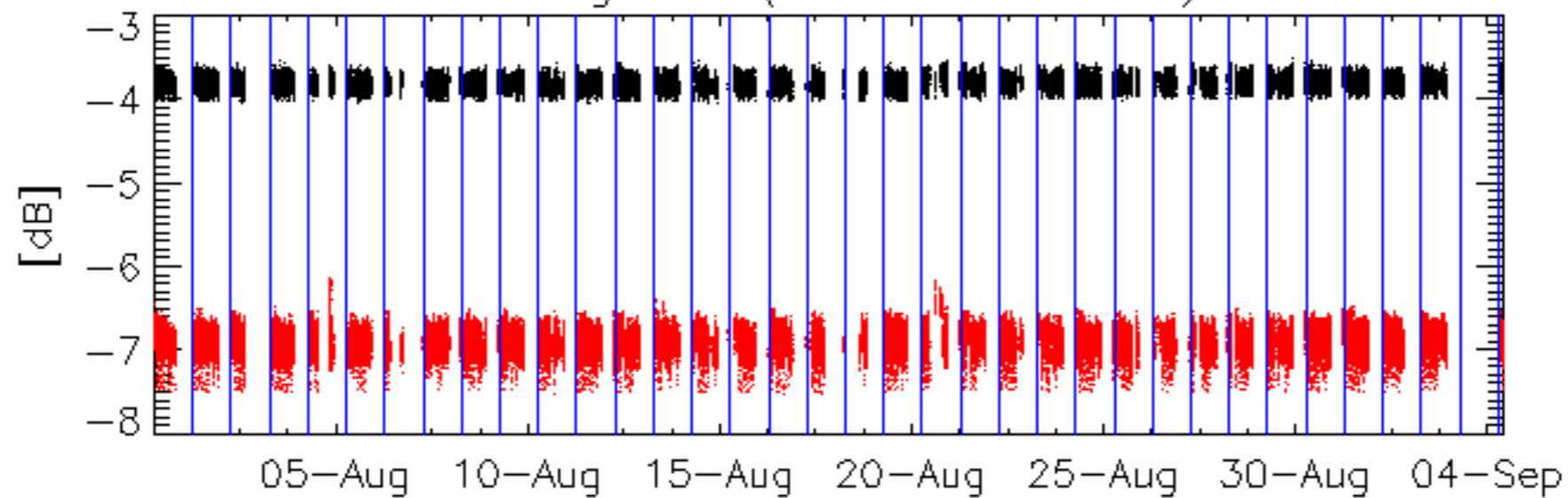
Evolution of Absolute Doppler
Ascending
Descending

### 6.3 - Doppler evolution versus ANX

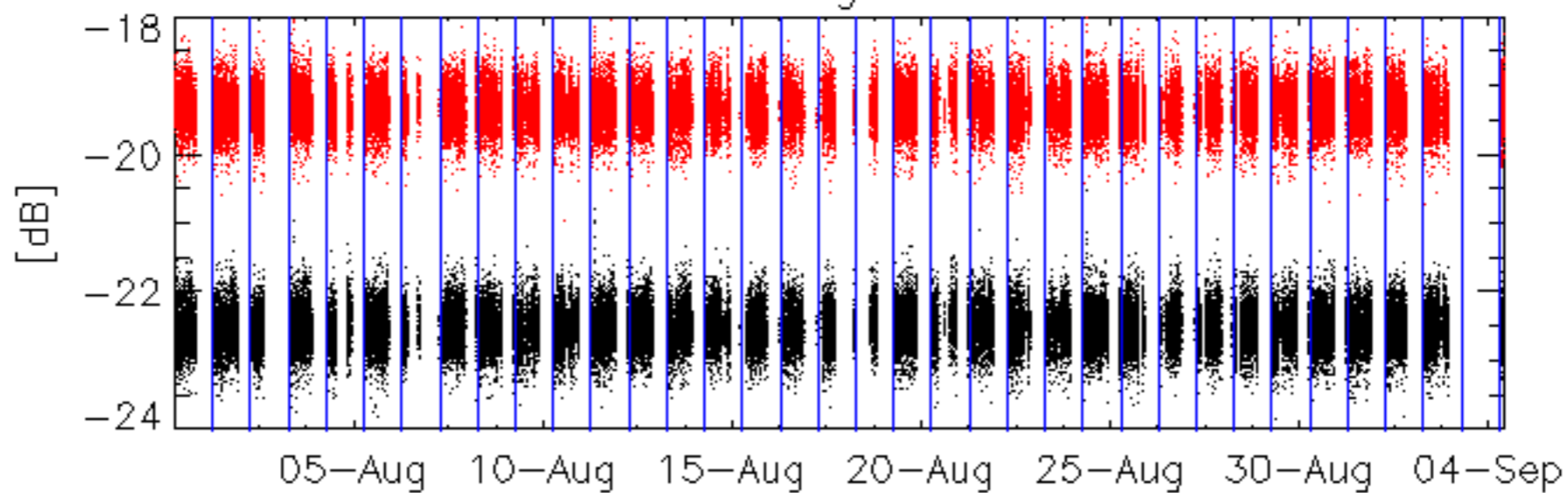
Evolution Doppler error versus ANX



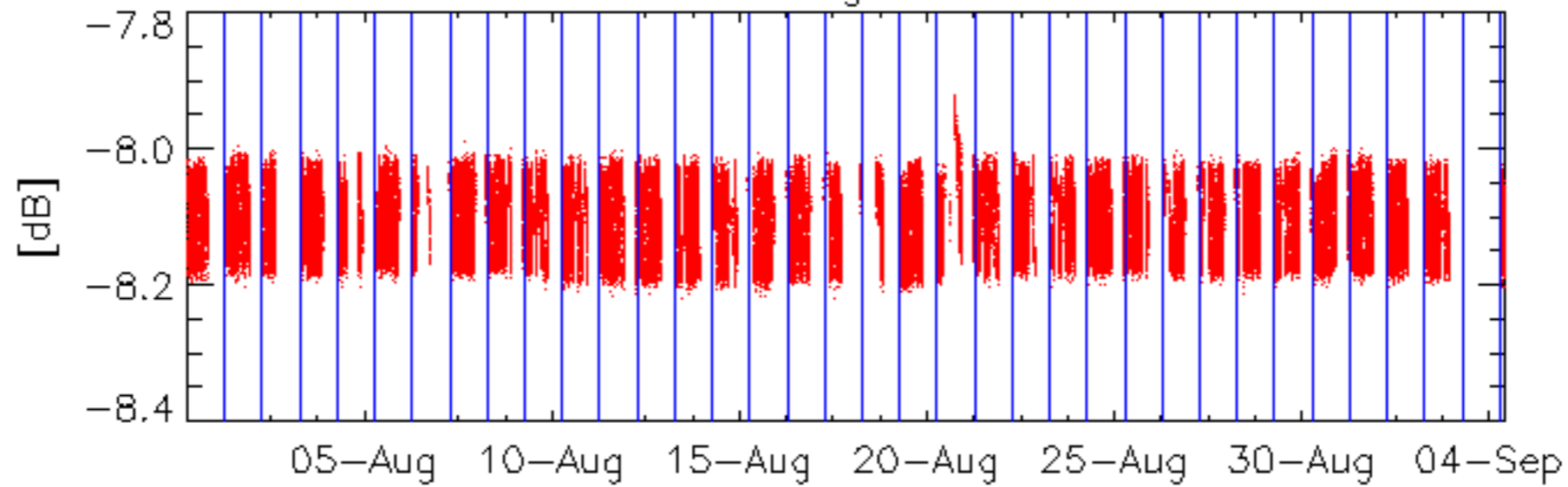
Average P1 (row 3 & row 10)



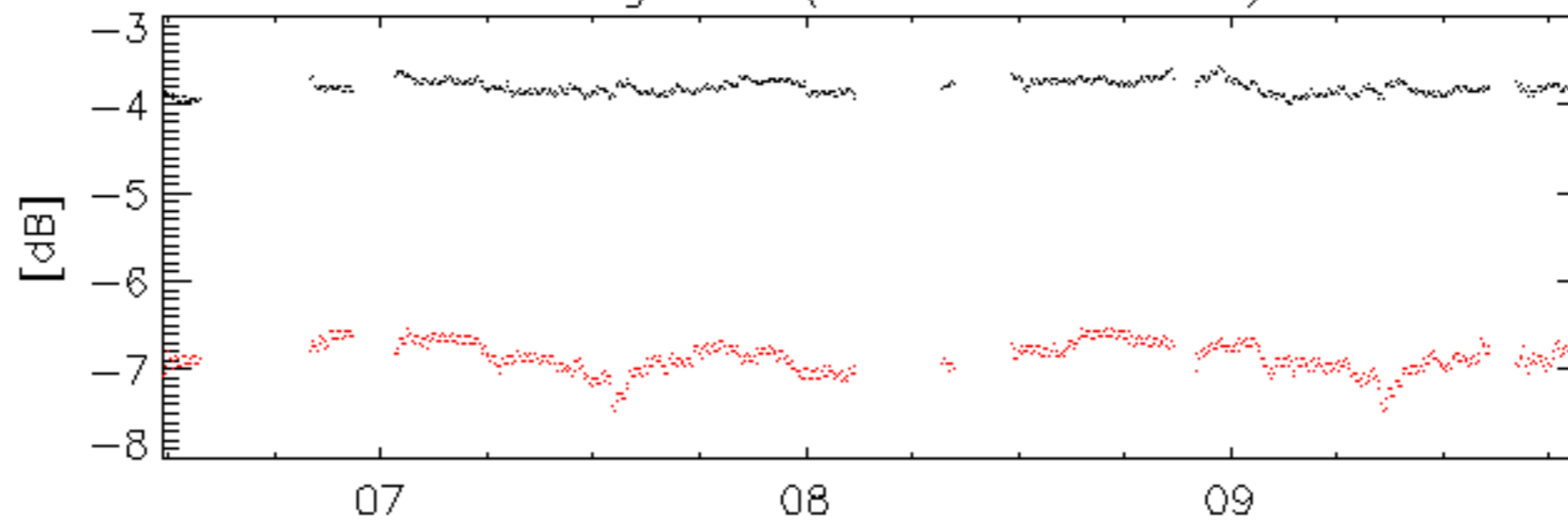
Average P2



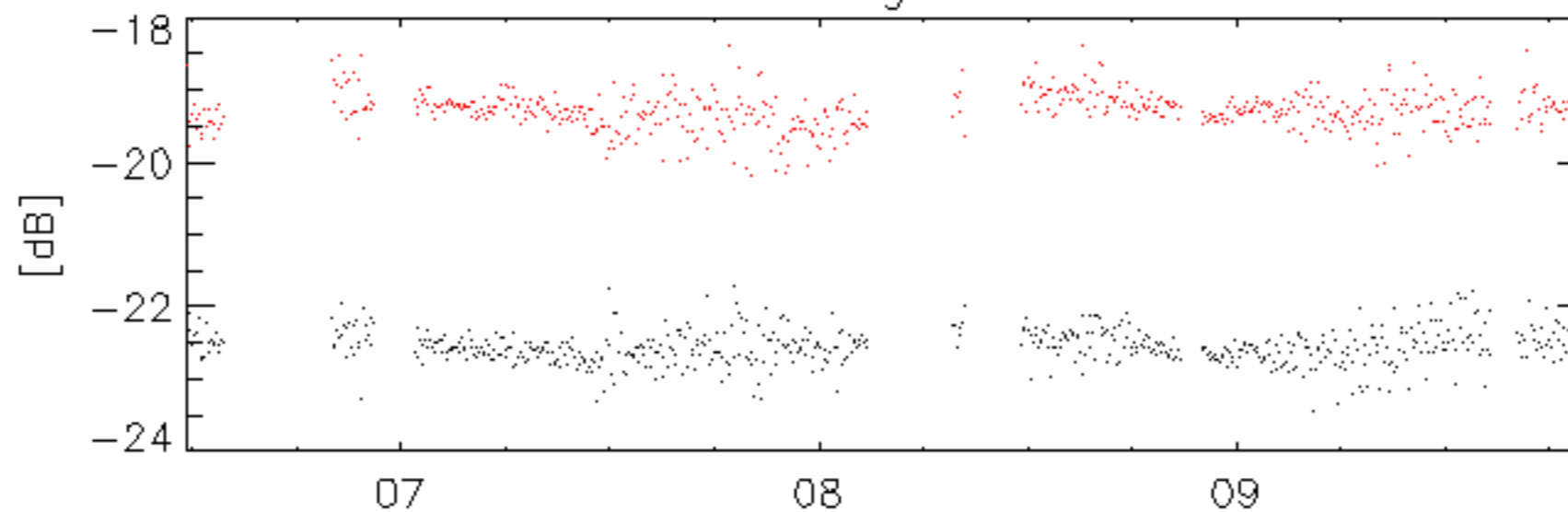
Average P3



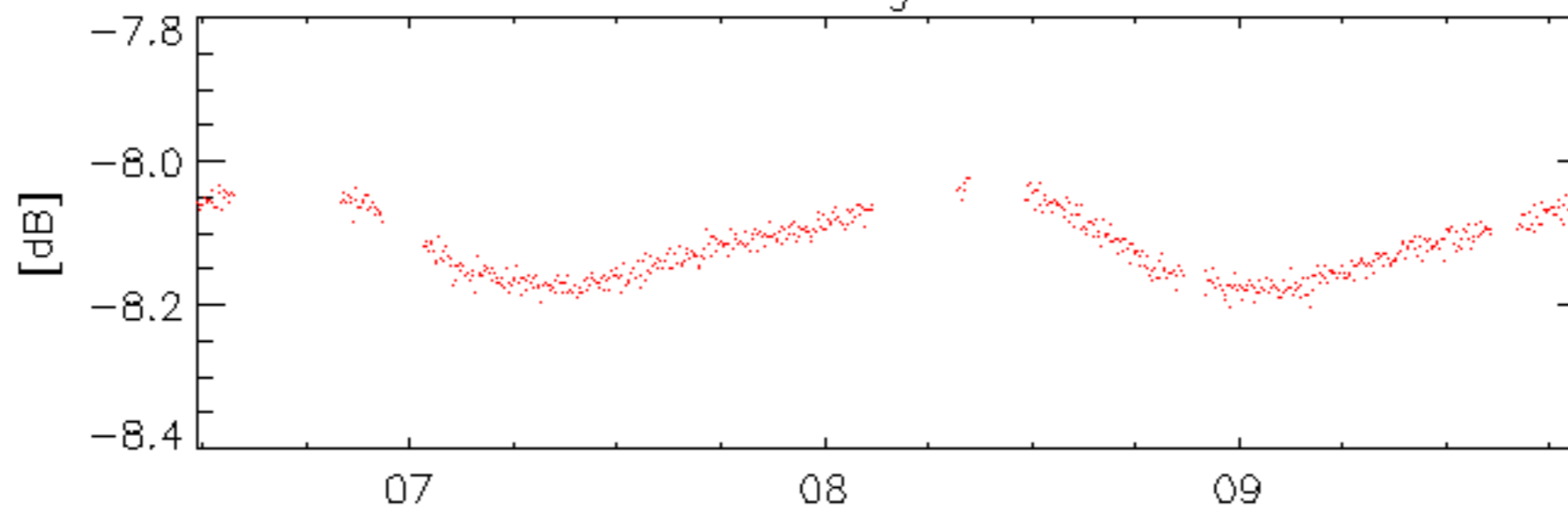
Average P1 (row 3 & row 10)



04-Sep  
Average P2



04-Sep  
Average P3



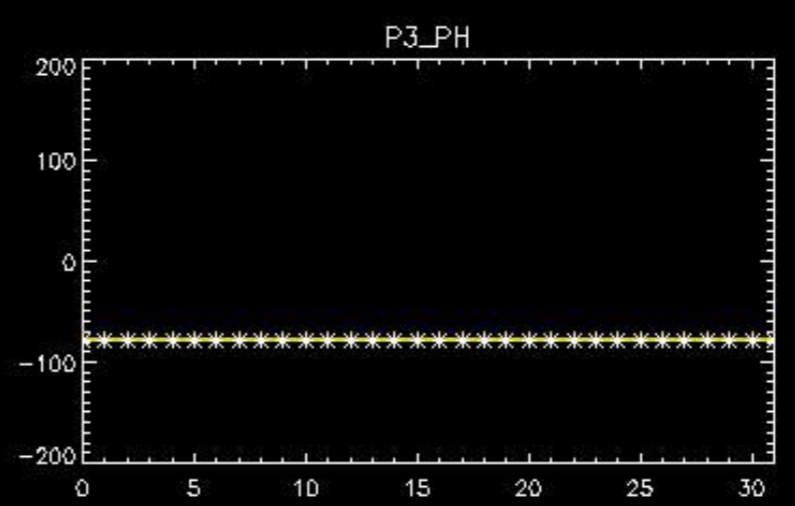
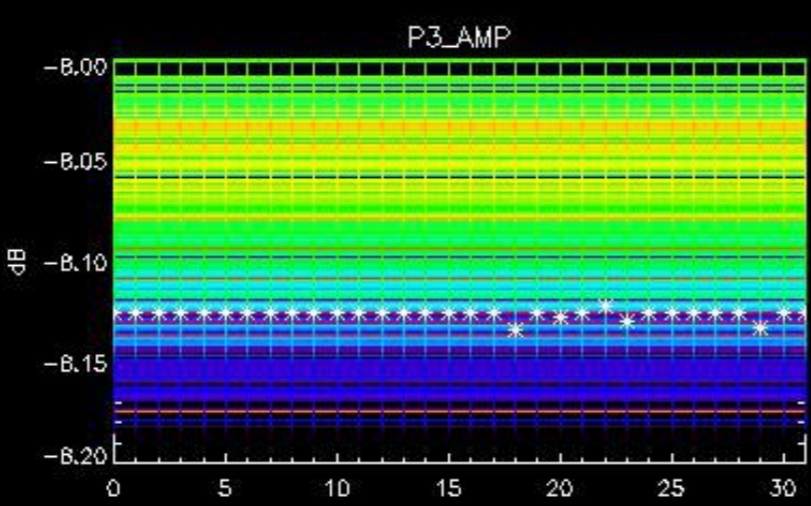
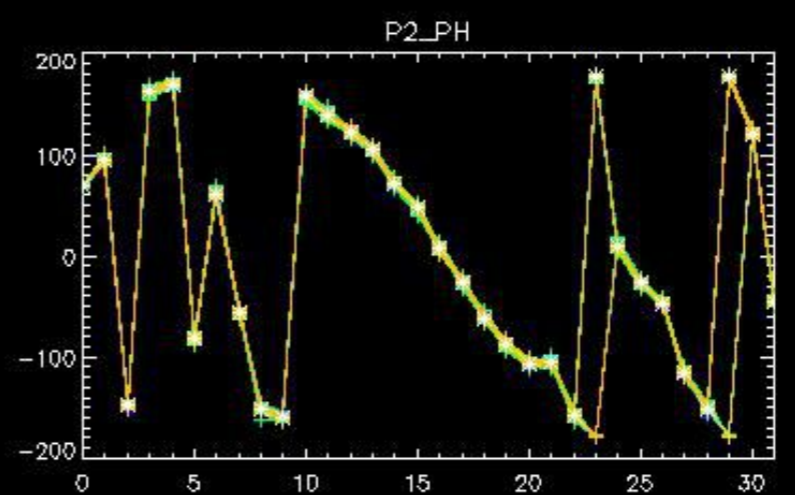
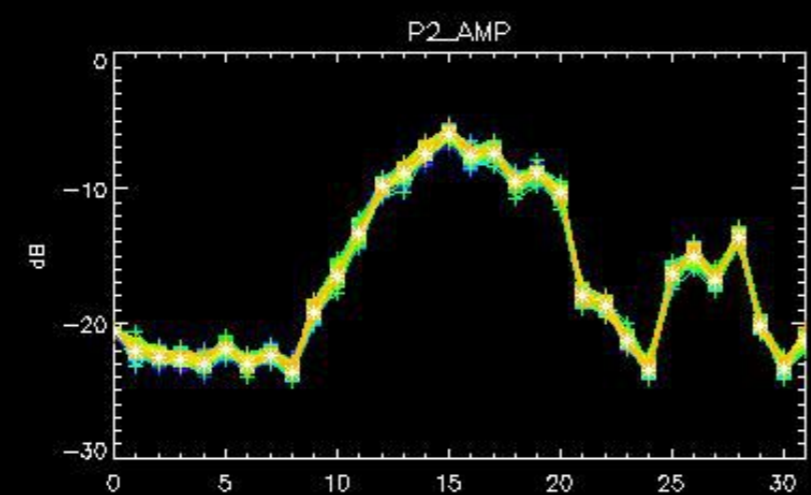
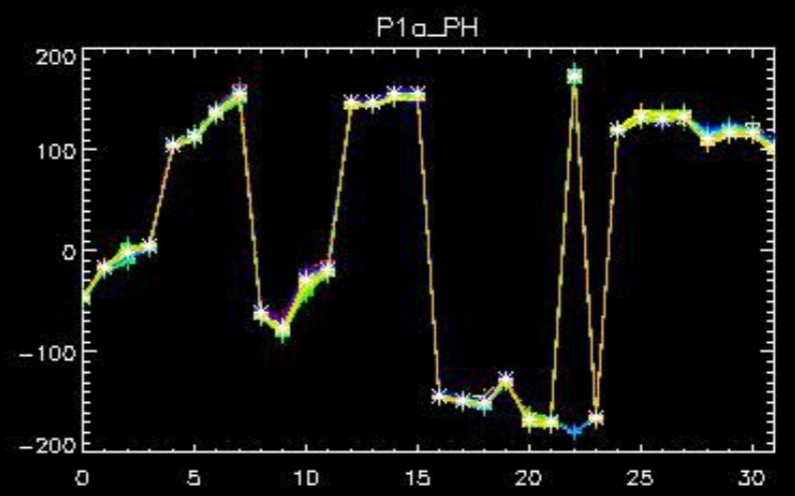
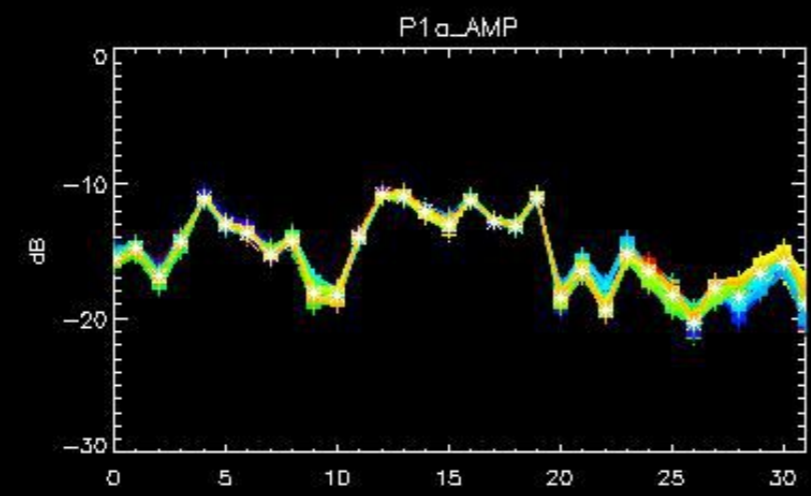
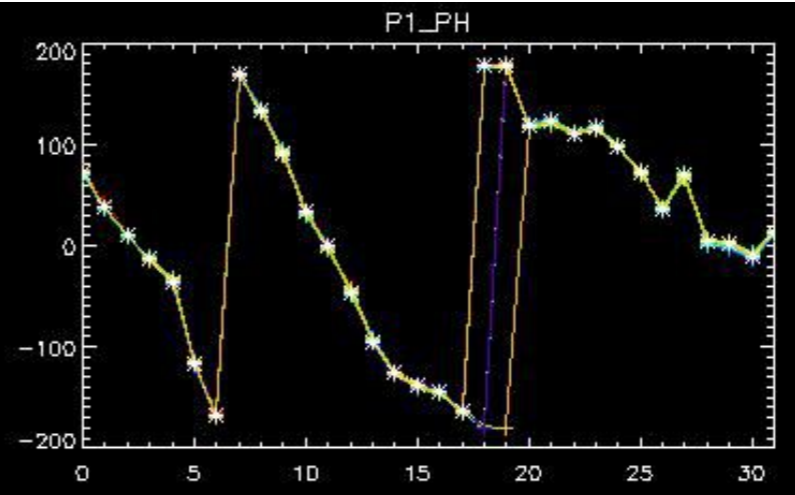
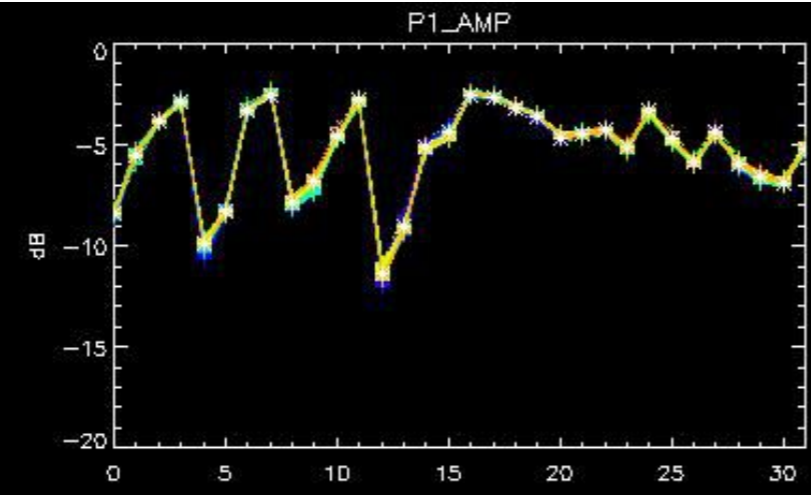
04-Sep

No anomalies observed on available browse products



Data available since 04-SEP-2003 06:29:13  
No anomalies observed on calibration pulses.

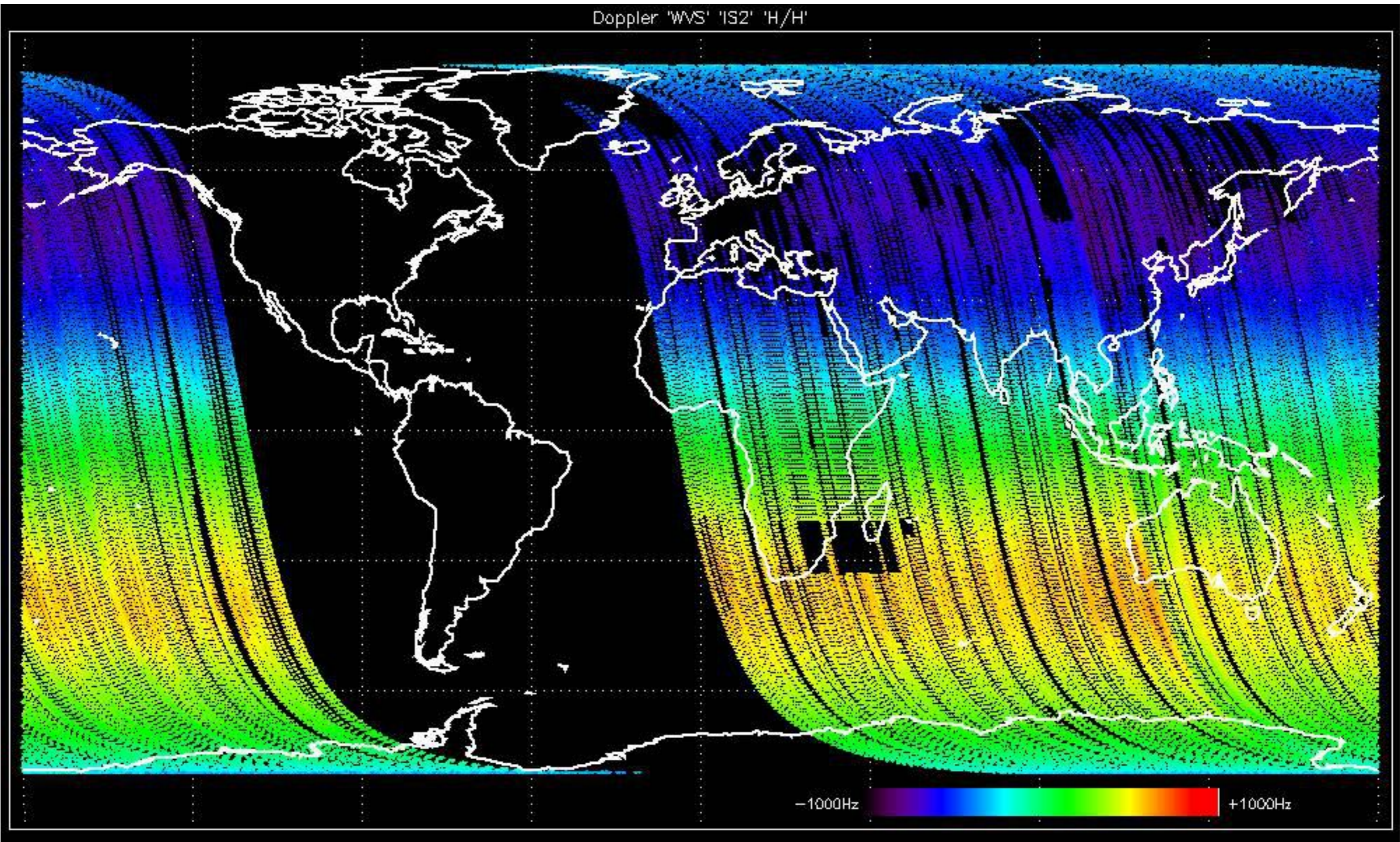




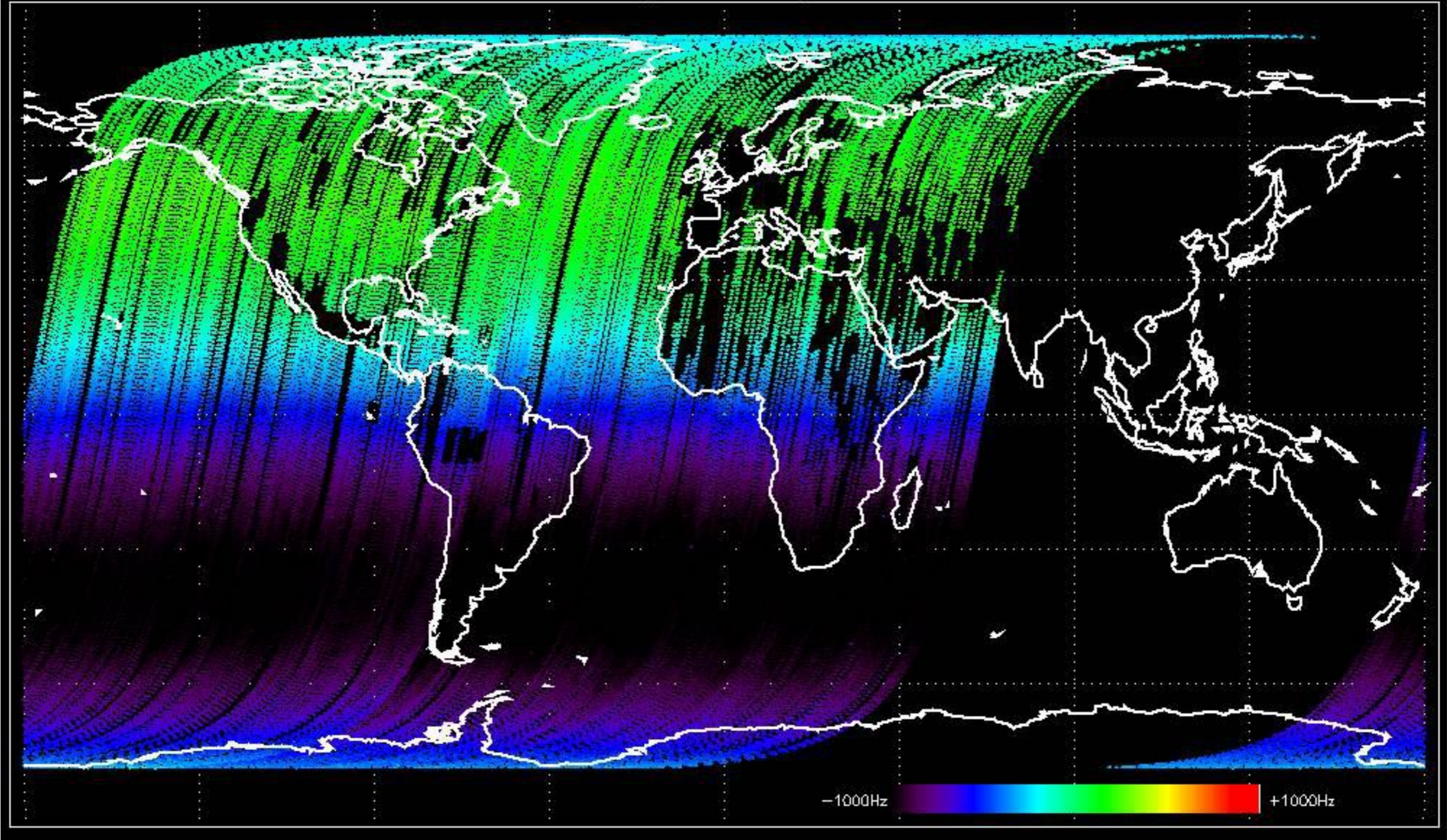
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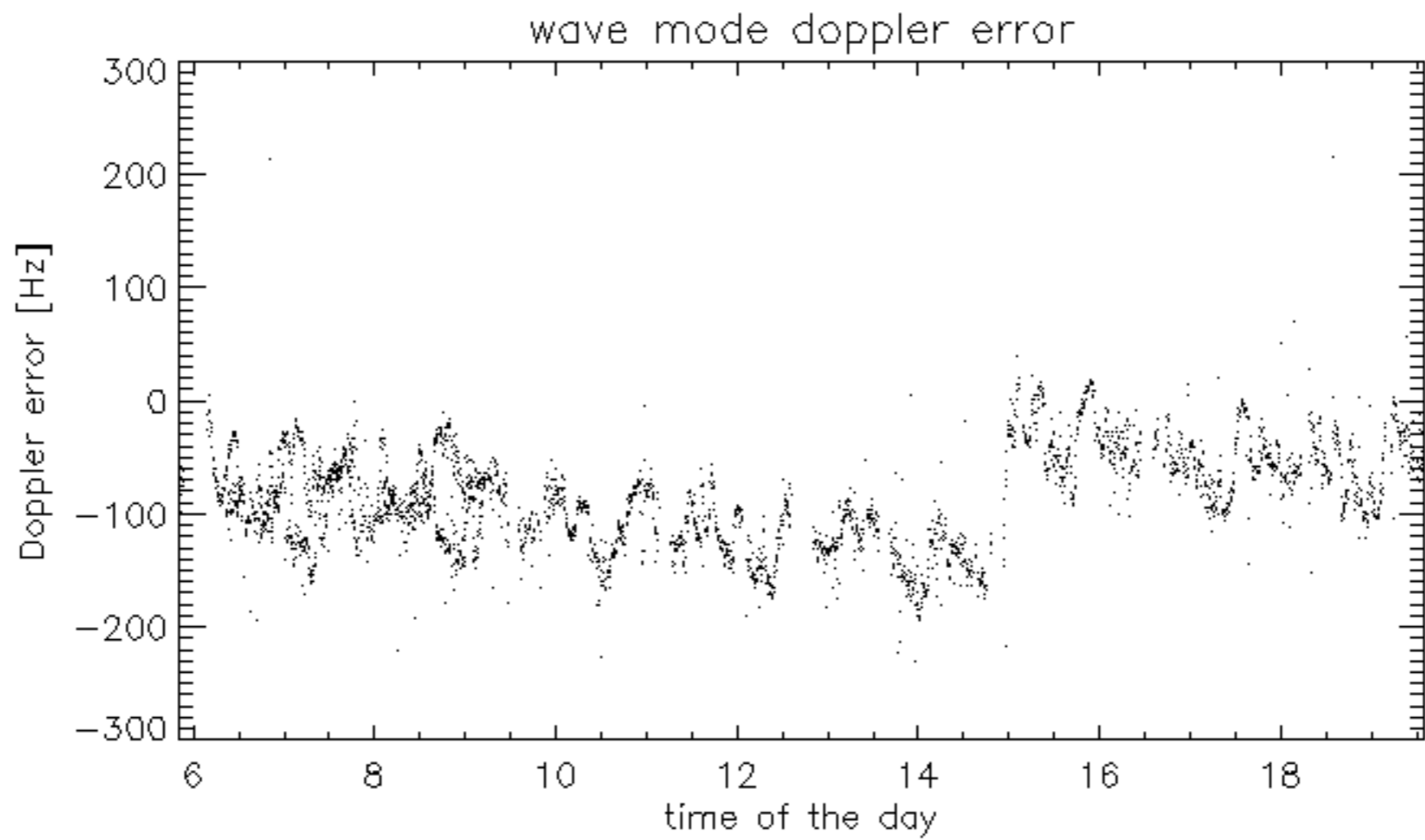
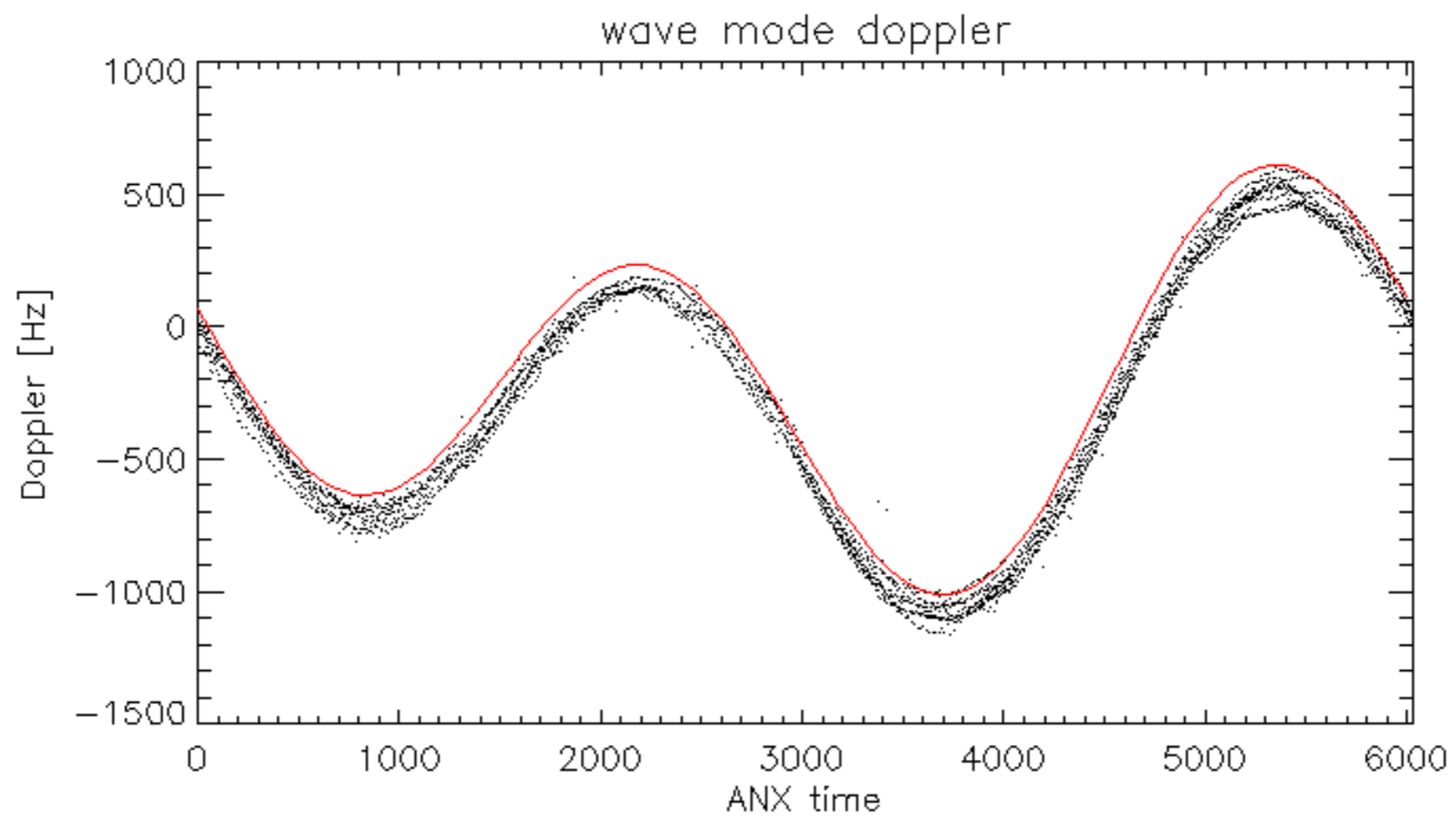
No anomalies observed Doppler evolution.  
Doppler analysis performed over the last 60 days.  
Empty box with no data on ascending passes over South-Africa/Madagascar is due to MSM acquisitions

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

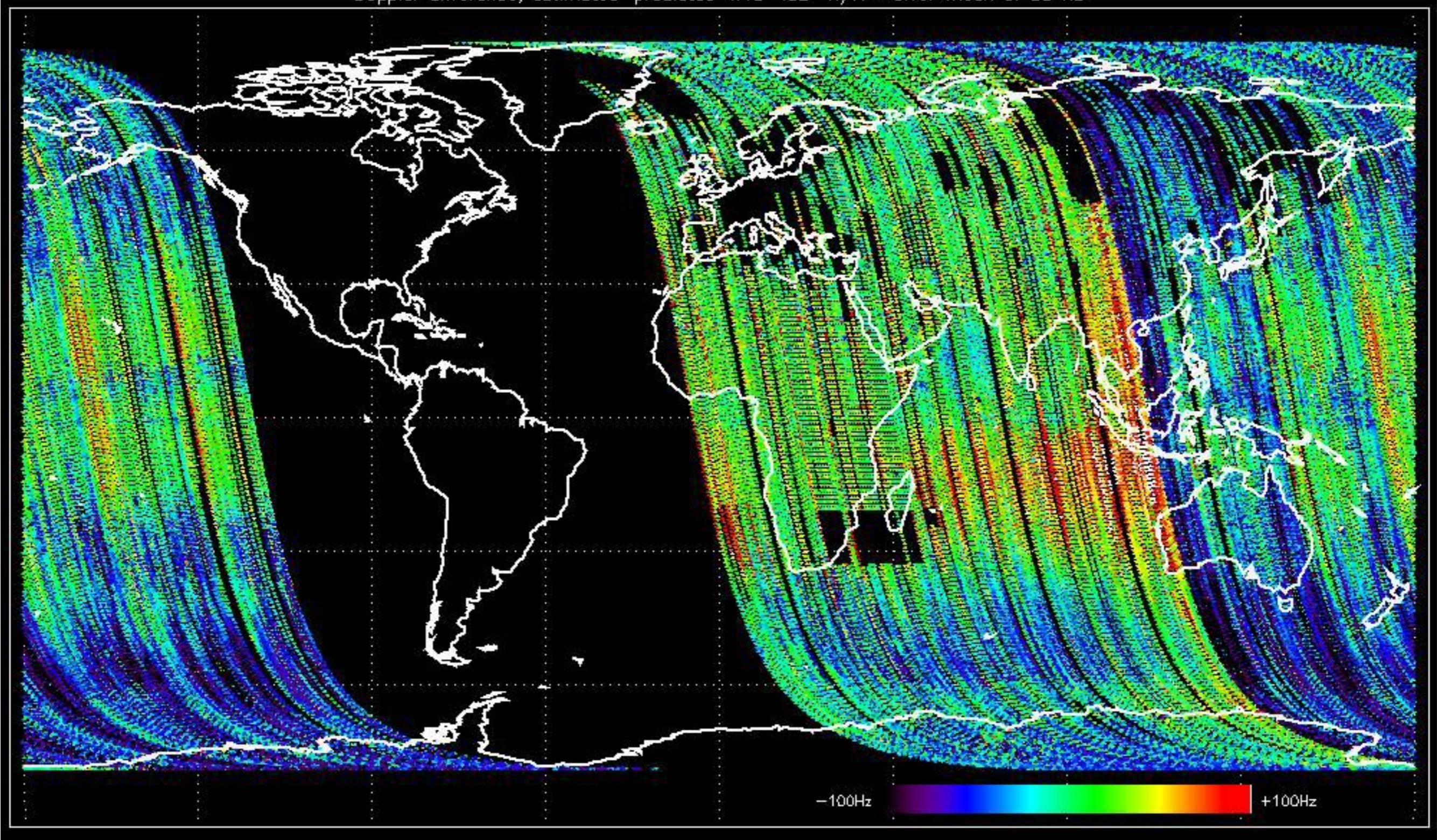


Doppler 'WVS' 'ISZ' 'V/V'



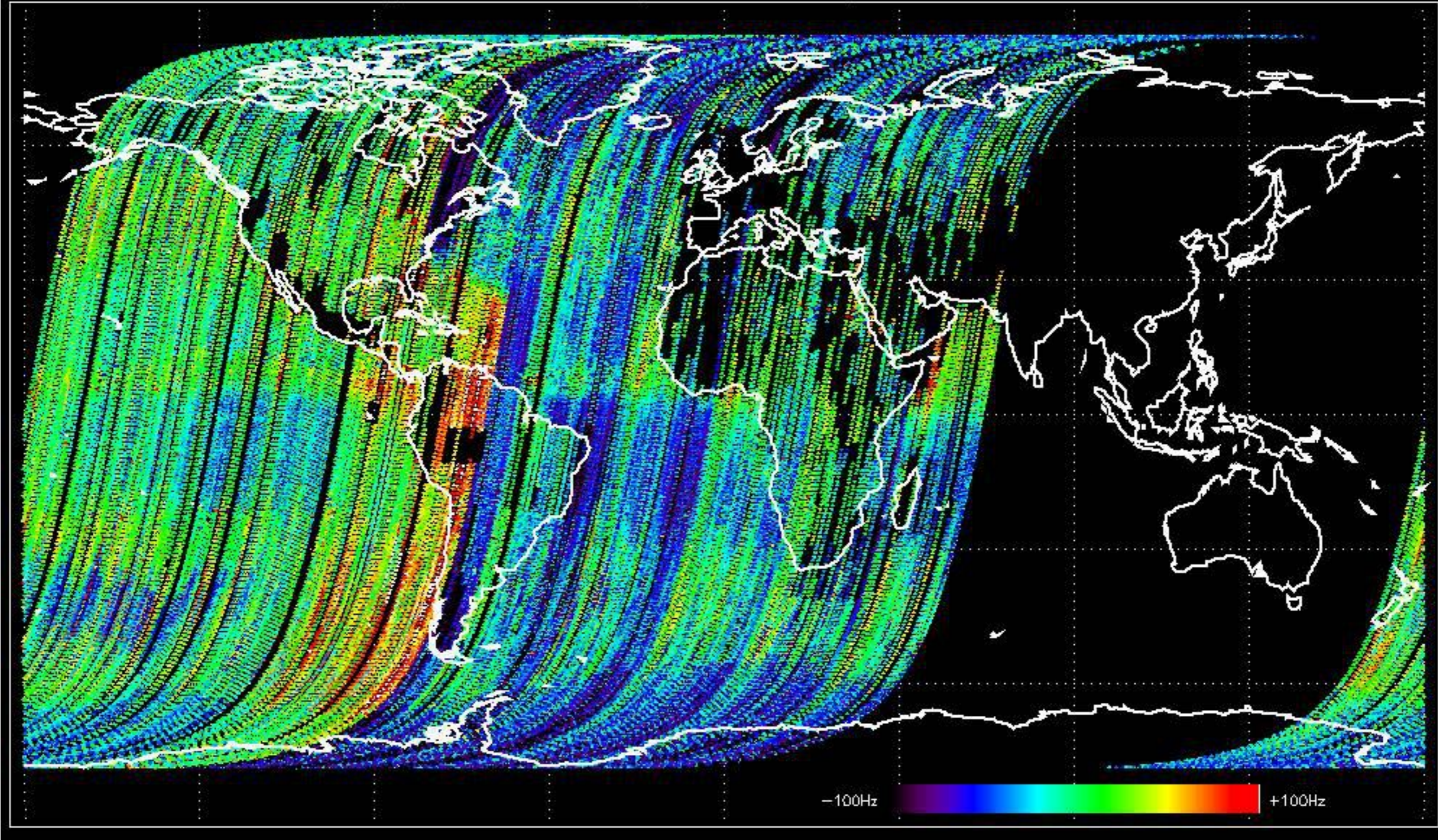


Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz





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



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No anomalies observed.  
Nominal values of the raw data statistics.  
I and Q channel are well balanced.









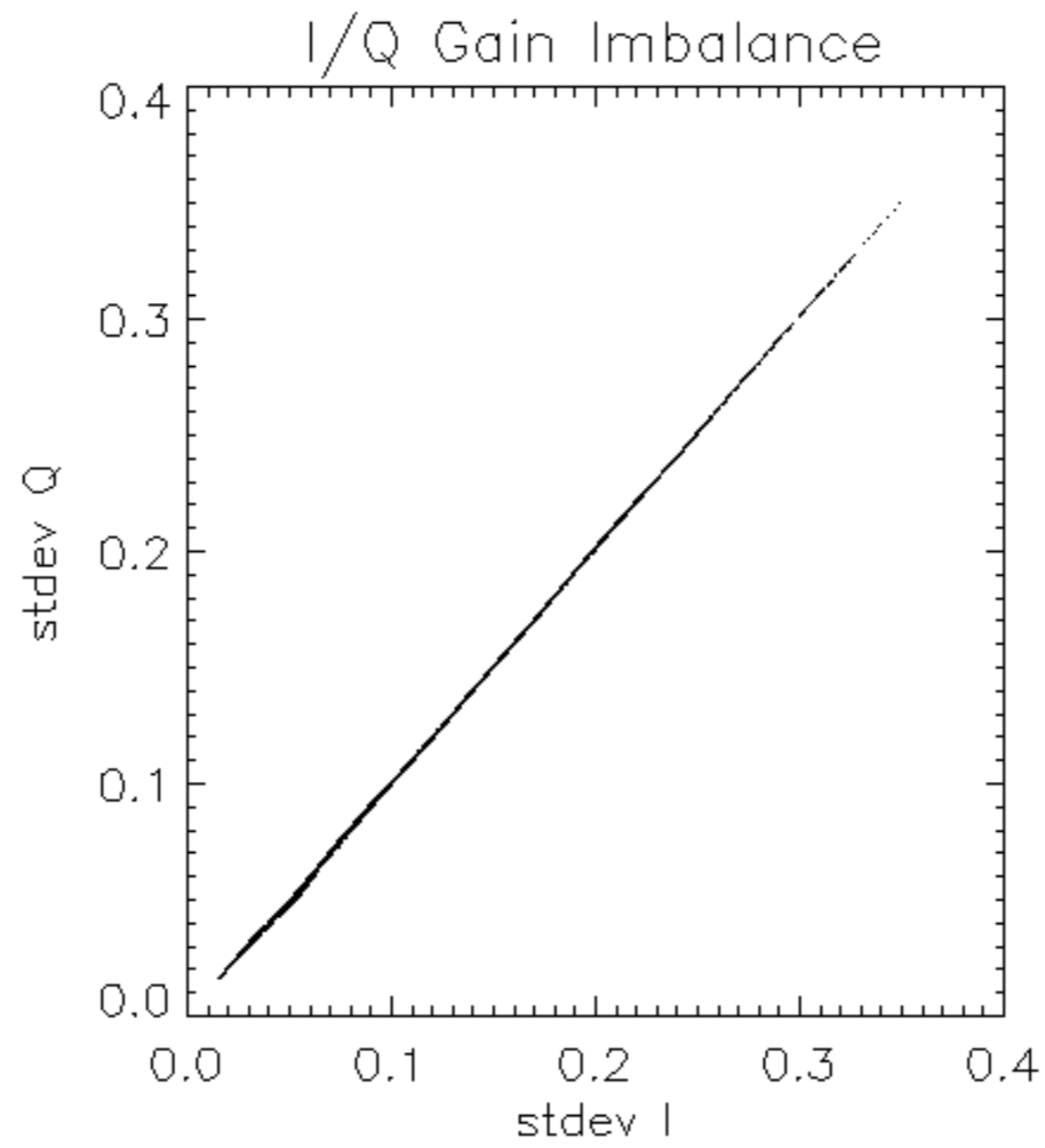


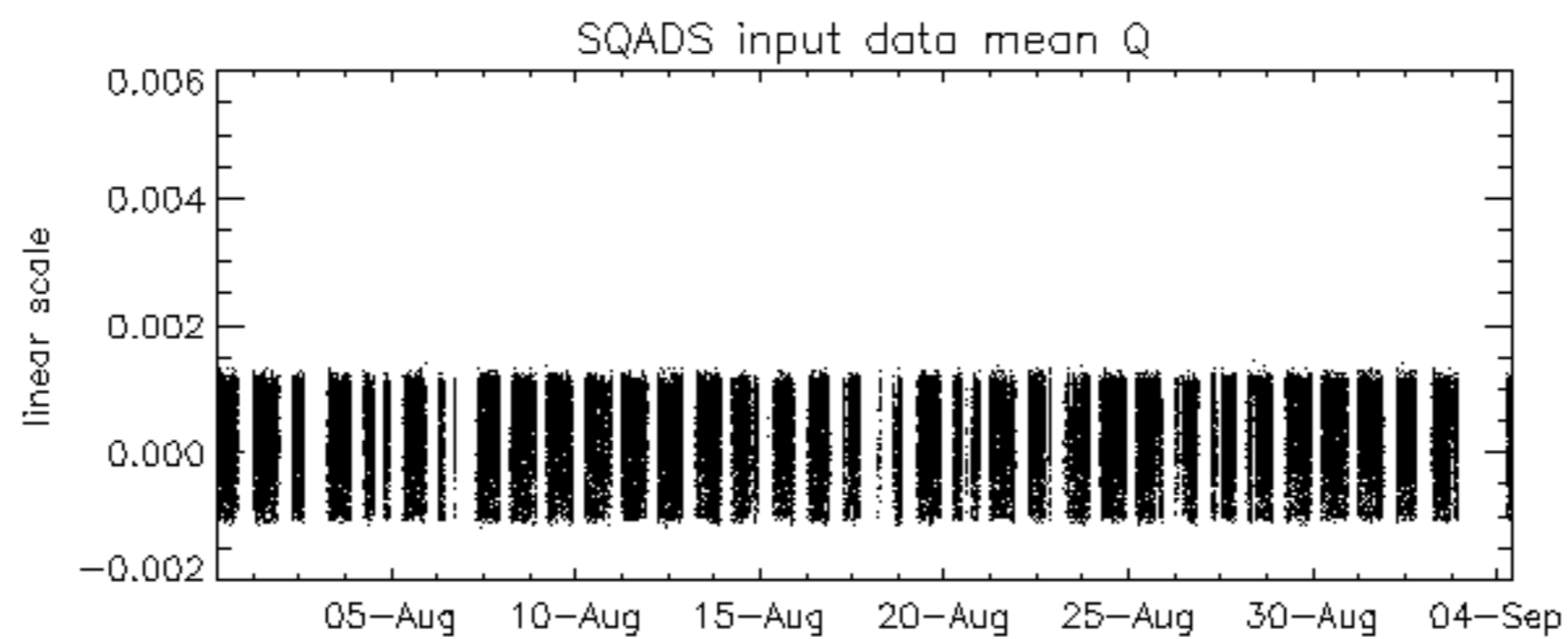
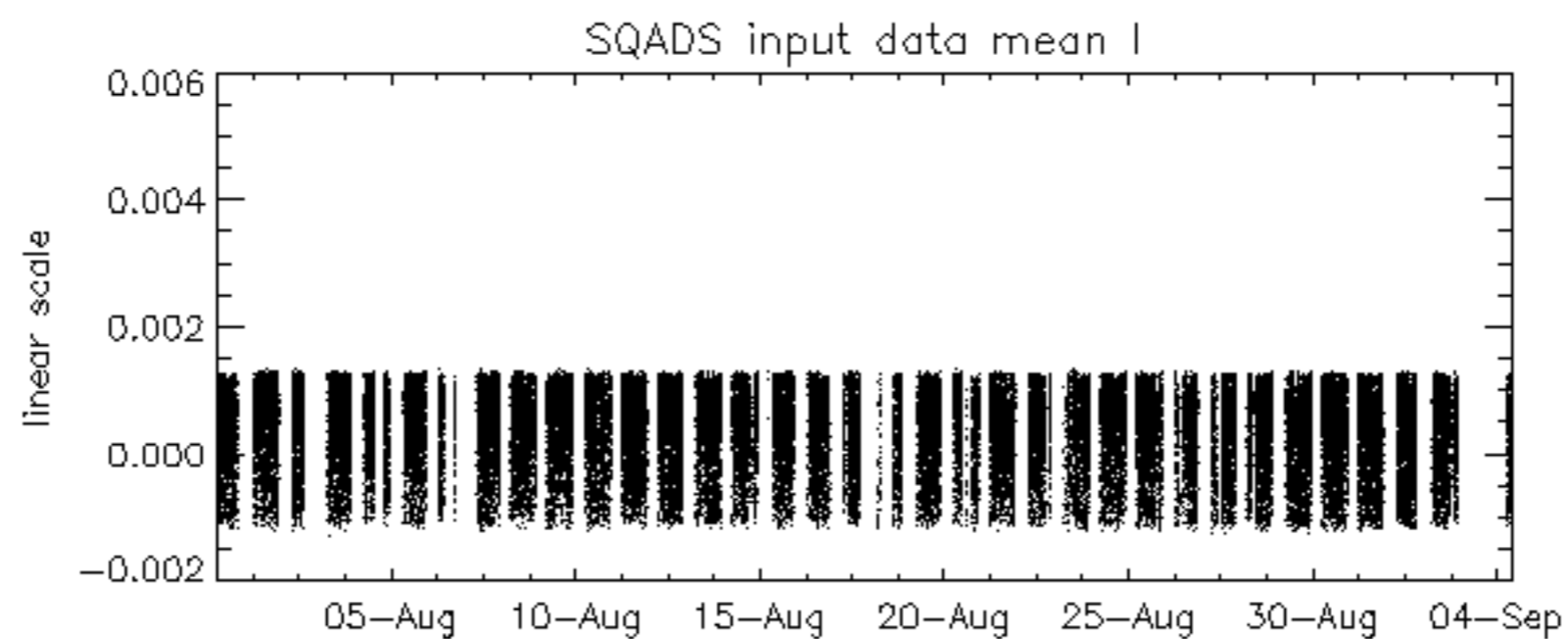
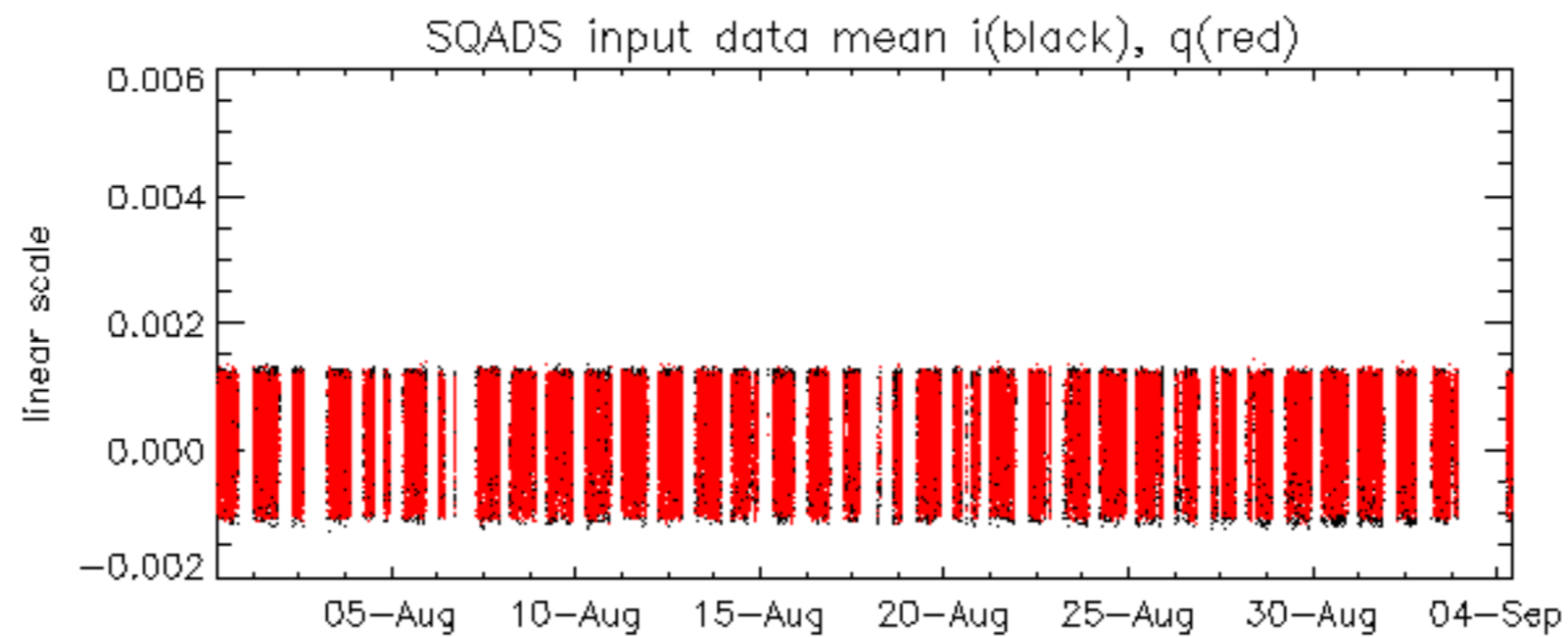


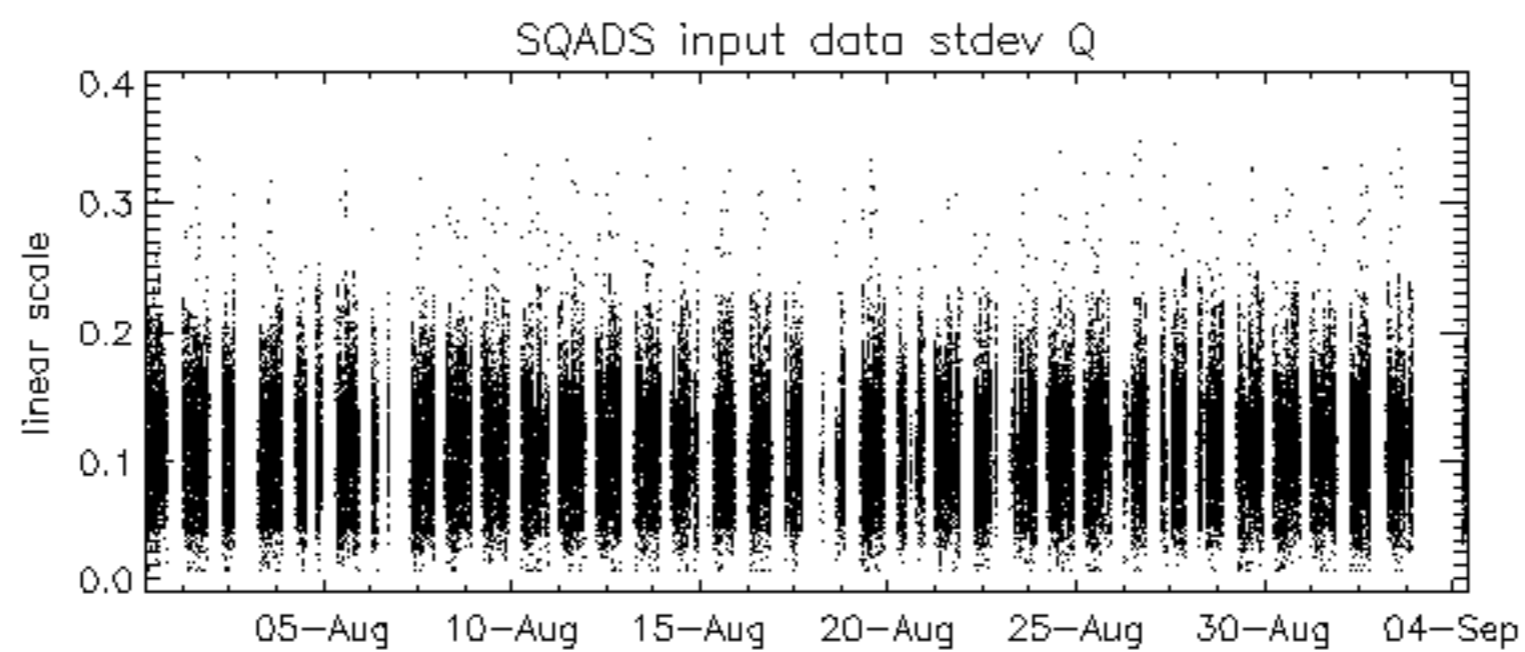
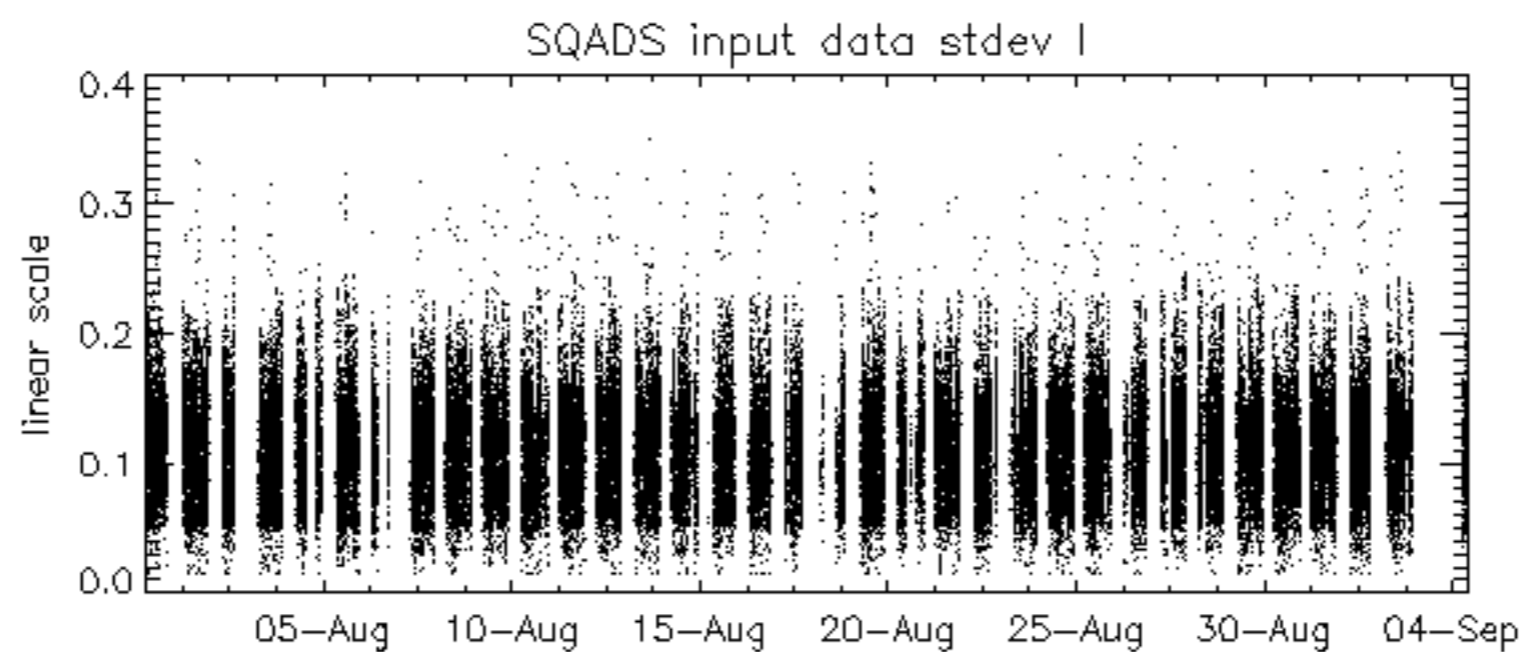
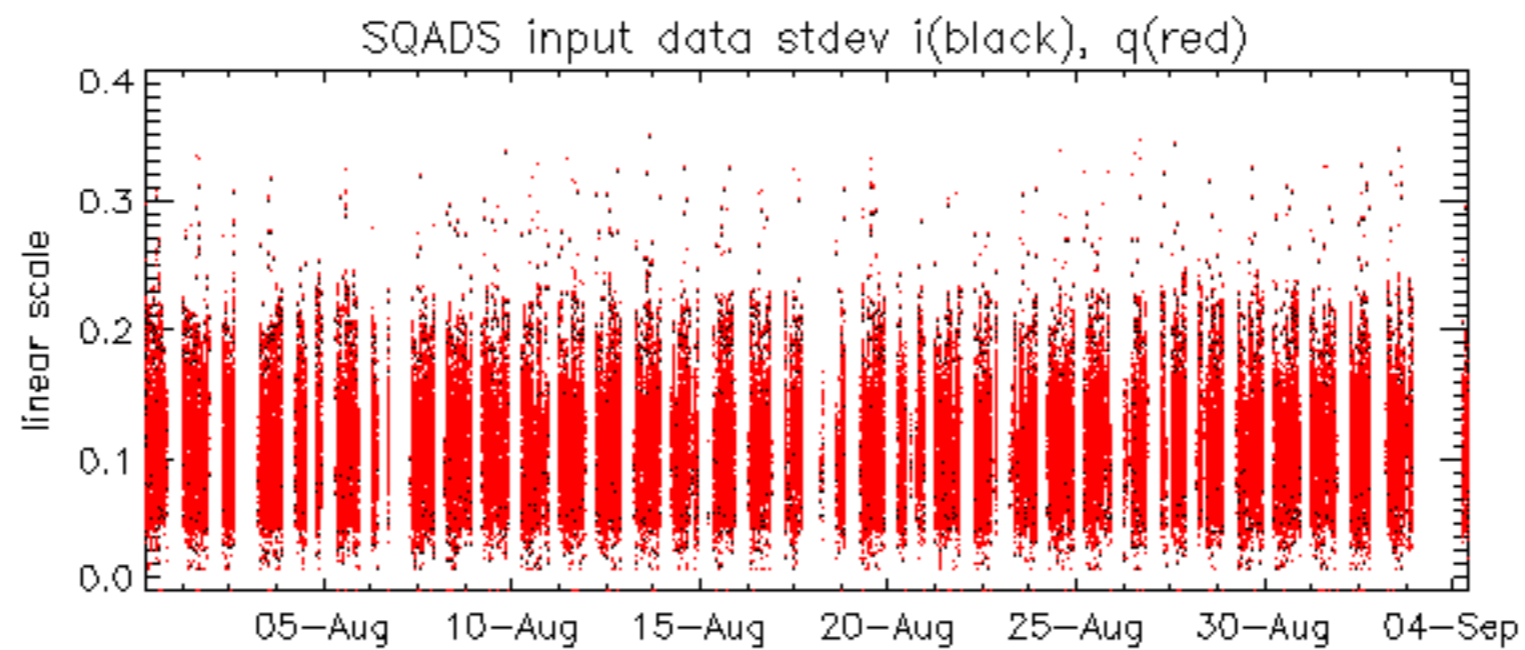






























No unavailabilities during the reported period.