

REPORT OF 030905

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

Due to a payload all the Envisat instrument are off since 04-SEP-2003 till 22:52:52

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:

- ASA_MS__0PNPDK20030904_191536_000000152019_00342_07911_0044.N1
- ASA_MS__0PNPDK20030904_191716_000000152019_00342_07911_0043.N1

The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.



Polarisation	Start Time
V	20030904 191716
H	20030904 191536

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80022	-22.4995	-8.11233
	stdev	0.00593296	0.0640609	0.00240448
10	mean	-6.89895	-19.3138	-8.11233
	stdev	0.0230926	0.0654118	0.00240448



4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80626	-22.5362	-8.10745
	stdev	0.00574527	0.0607202	0.00234583
10	mean	-6.89947	-19.3302	-8.10745
	stdev	0.0236200	0.0600077	0.00234583



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	0.000419996
	stdev	3.26149e-07
MEAN Q	mean	0.000291689
	stdev	3.23089e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114528
	stdev	0.00149573
STDEV Q	mean	0.114713
	stdev	0.00151712



5.3 - Gain imbalance I/Q



6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.
 Doppler analysis performed over the last 60 days
 Data gap over South-Africa/Madagascar is due to MS product acquisition

6.1 - Unbiased Doppler Error

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

6.2 - Absolute Doppler

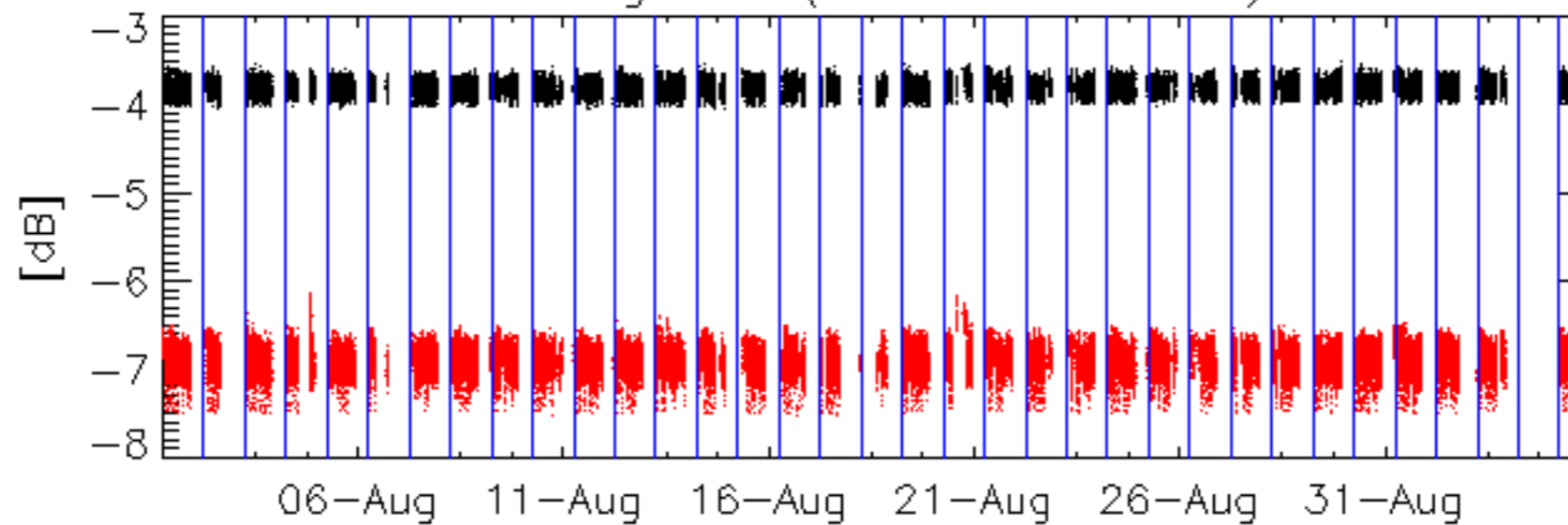
Evolution of Absolute Doppler
Ascending
Descending

6.3 - Doppler evolution versus ANX

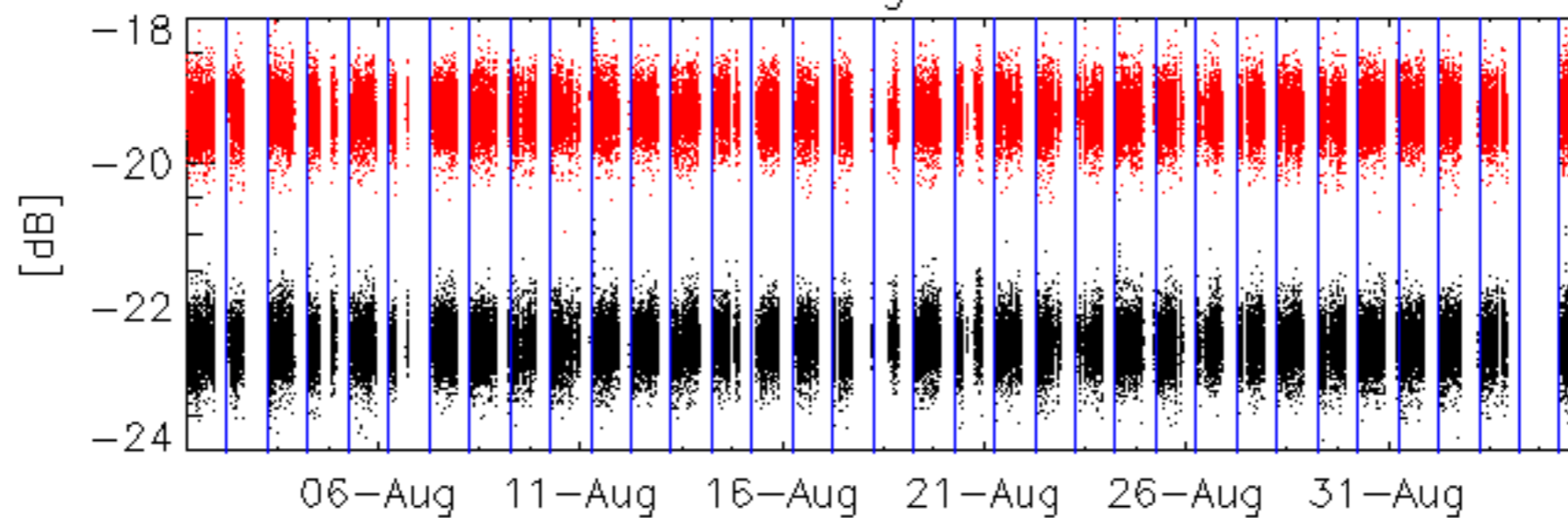
Evolution Doppler error versus ANX



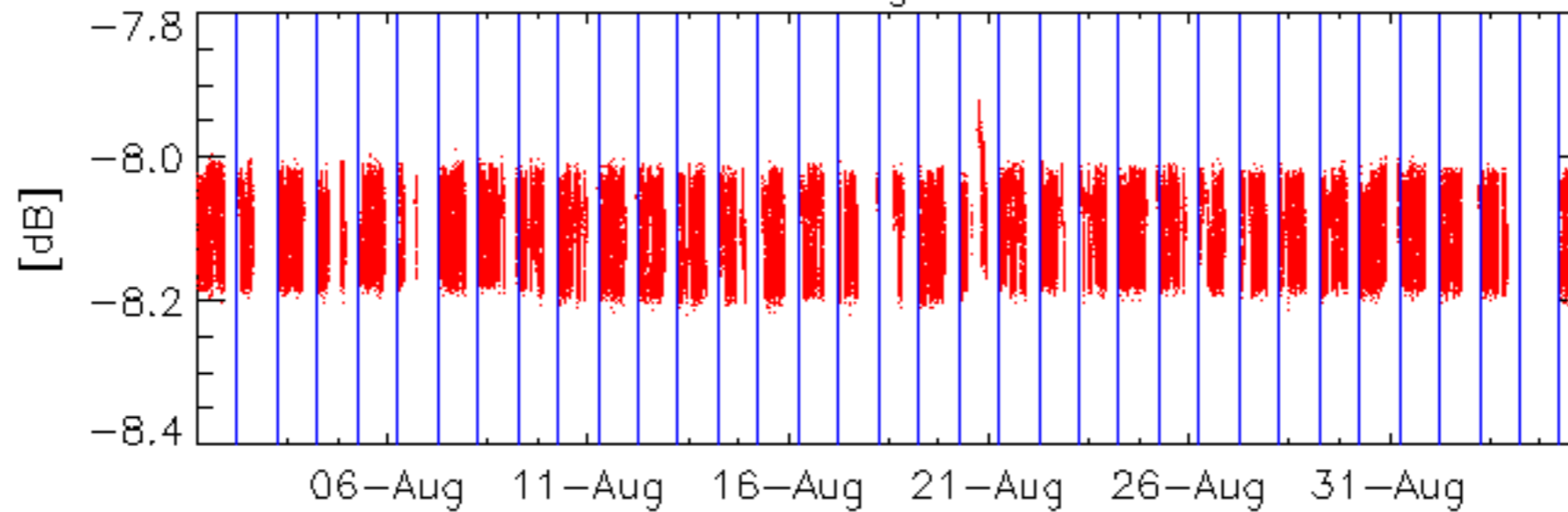
Average P1 (row 3 & row 10)



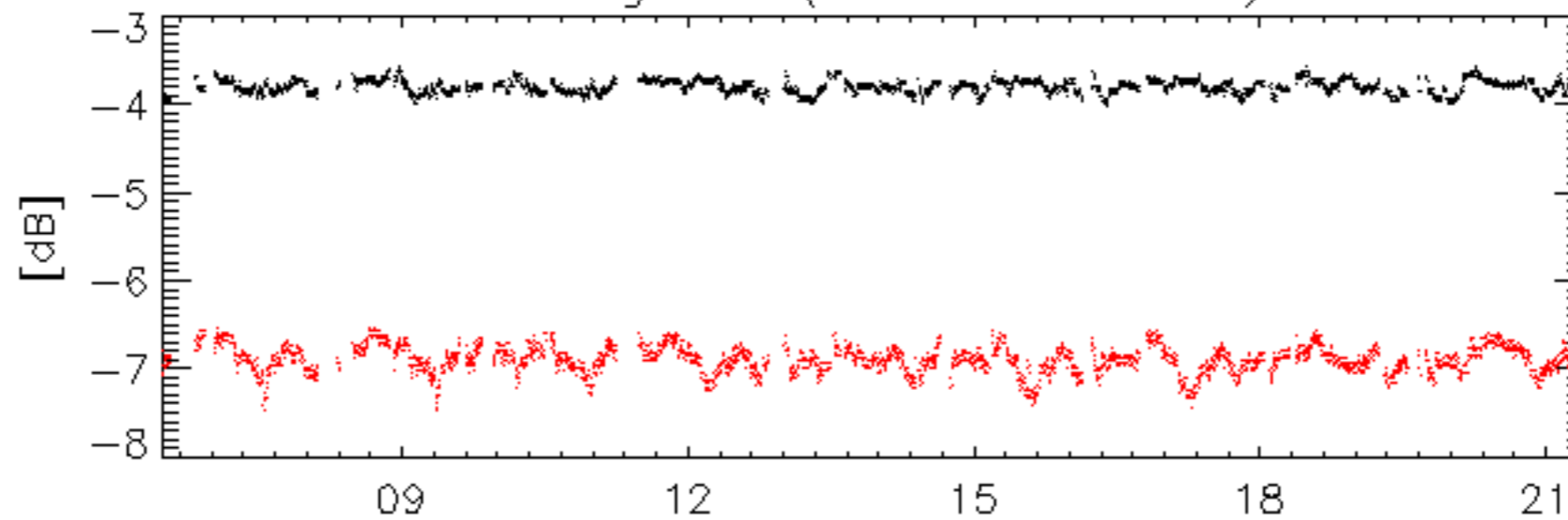
Average P2



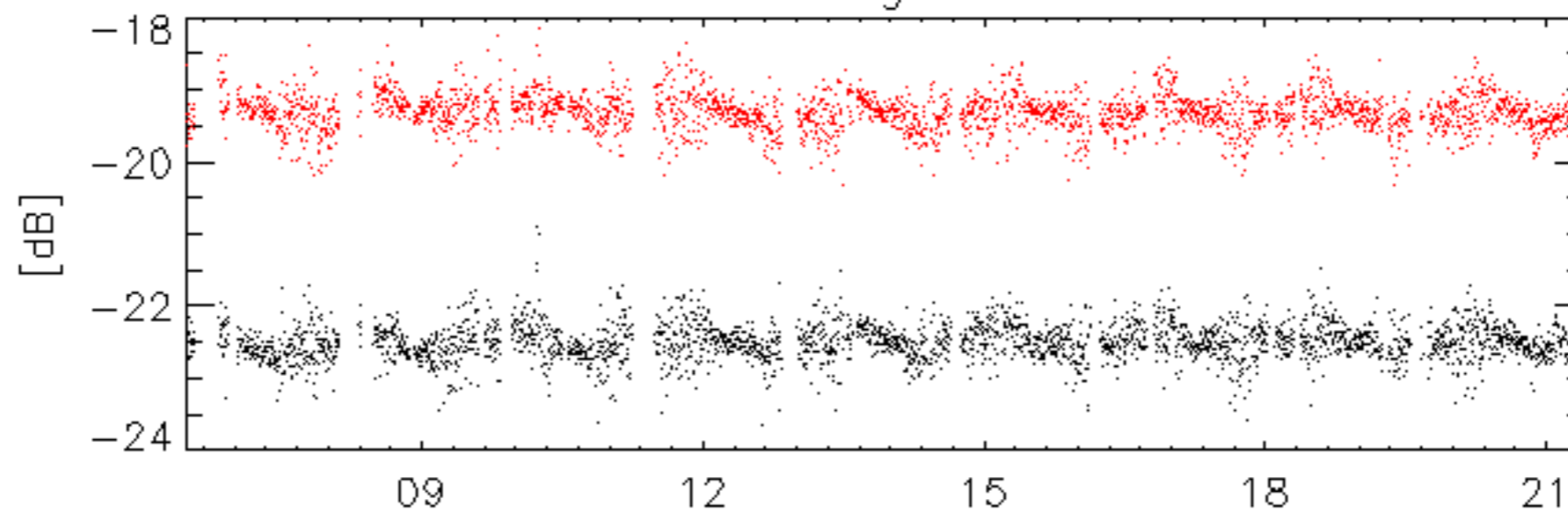
Average P3



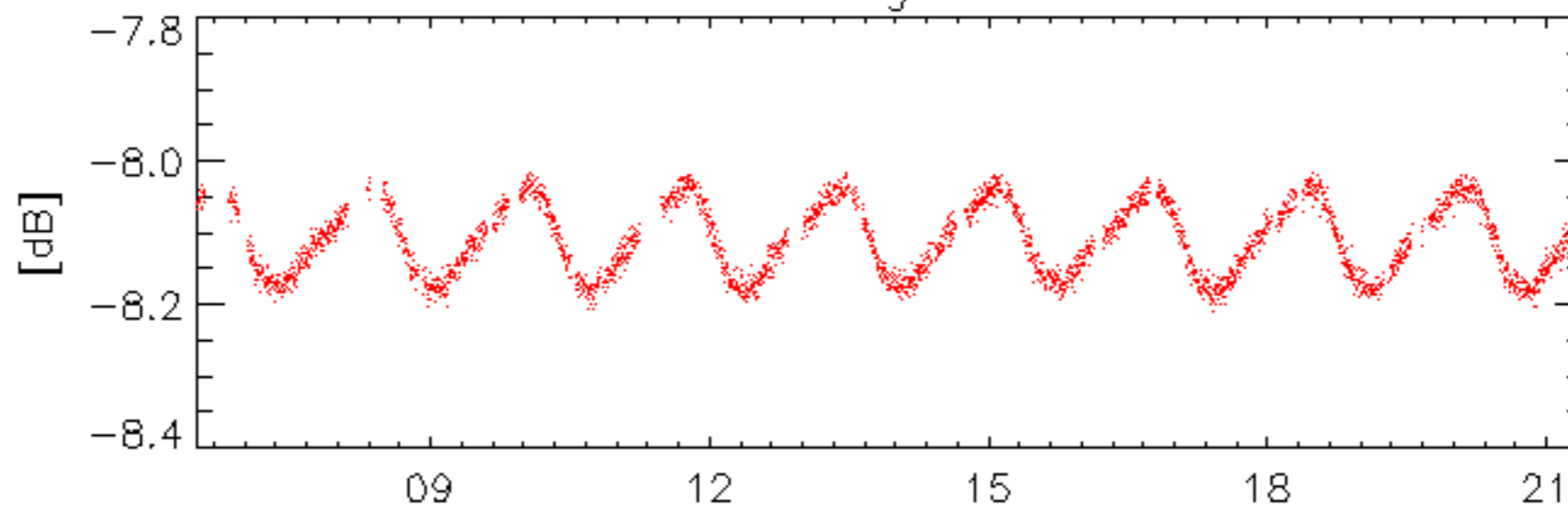
Average P1 (row 3 & row 10)



04-Sep
Average P2



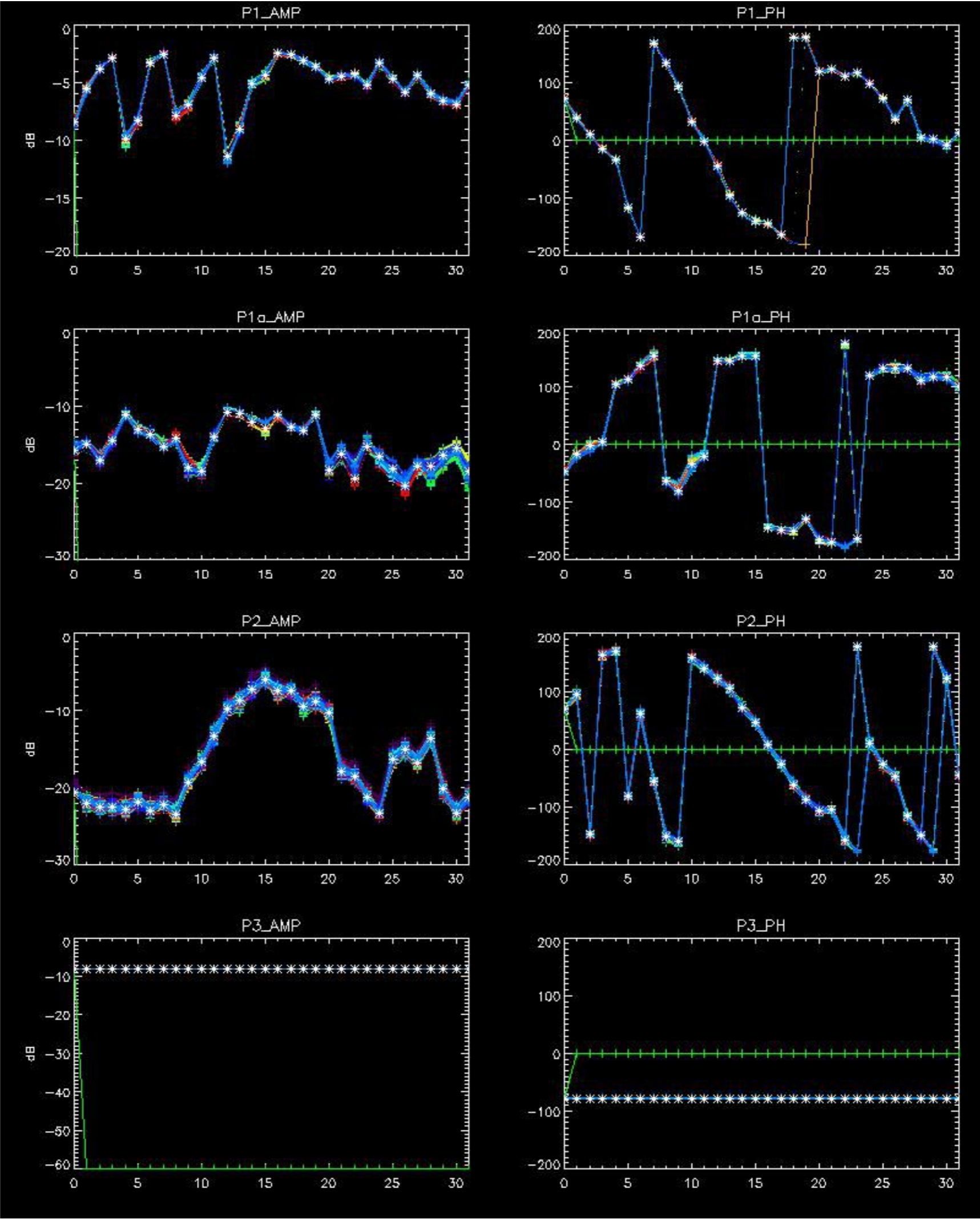
04-Sep
Average P3



04-Sep

No anomalies observed on available browse products

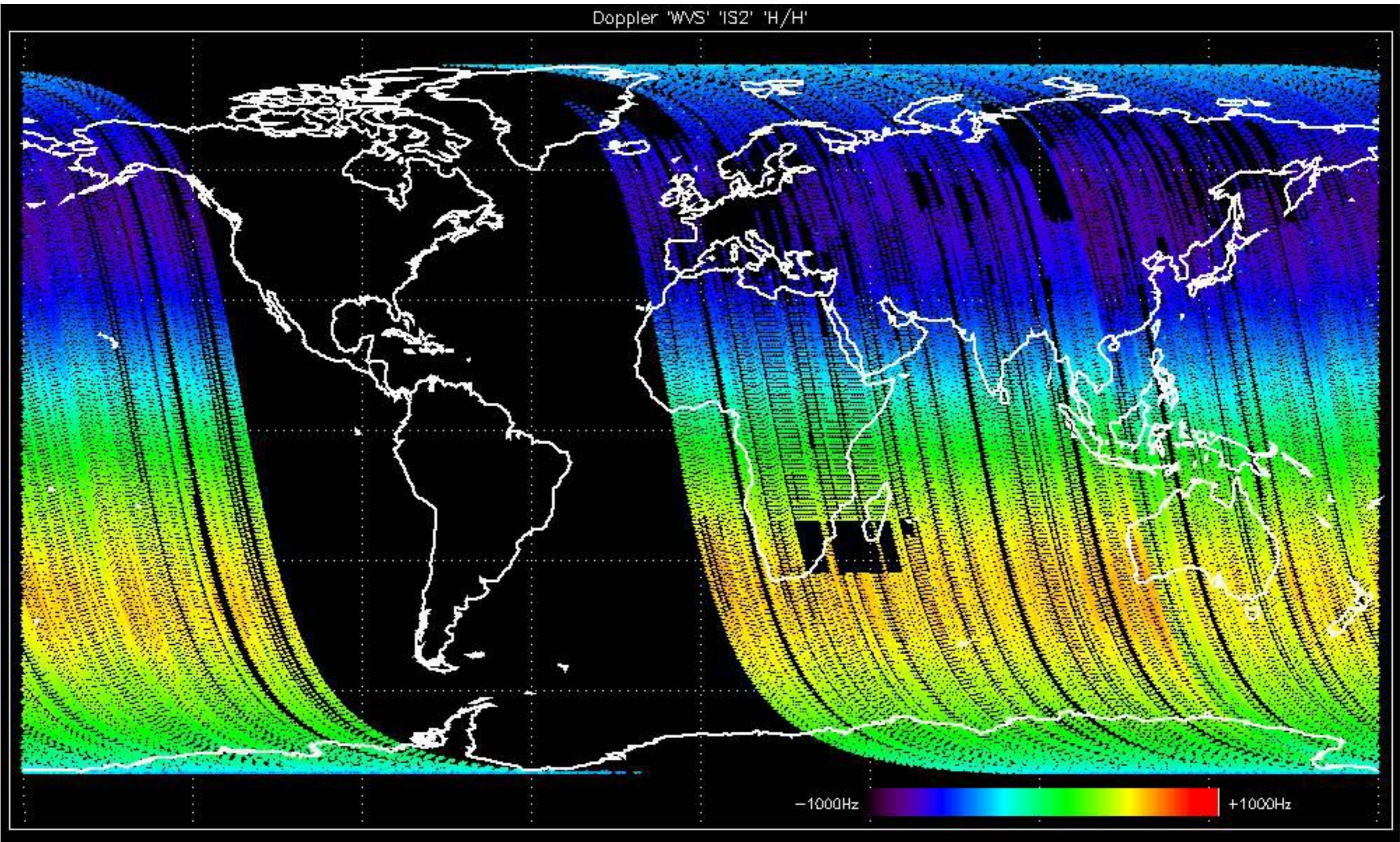
No anomalies observed.



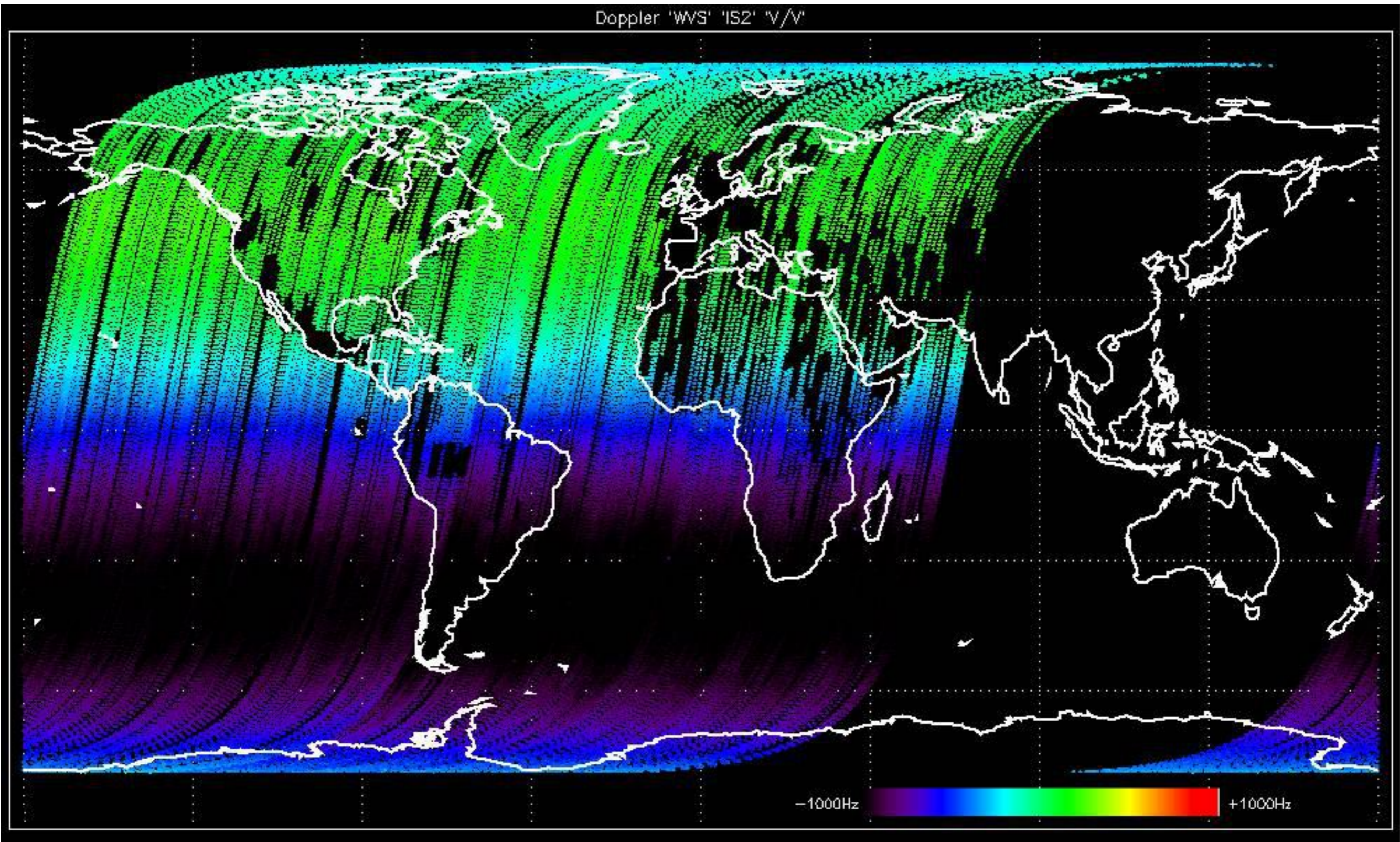
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

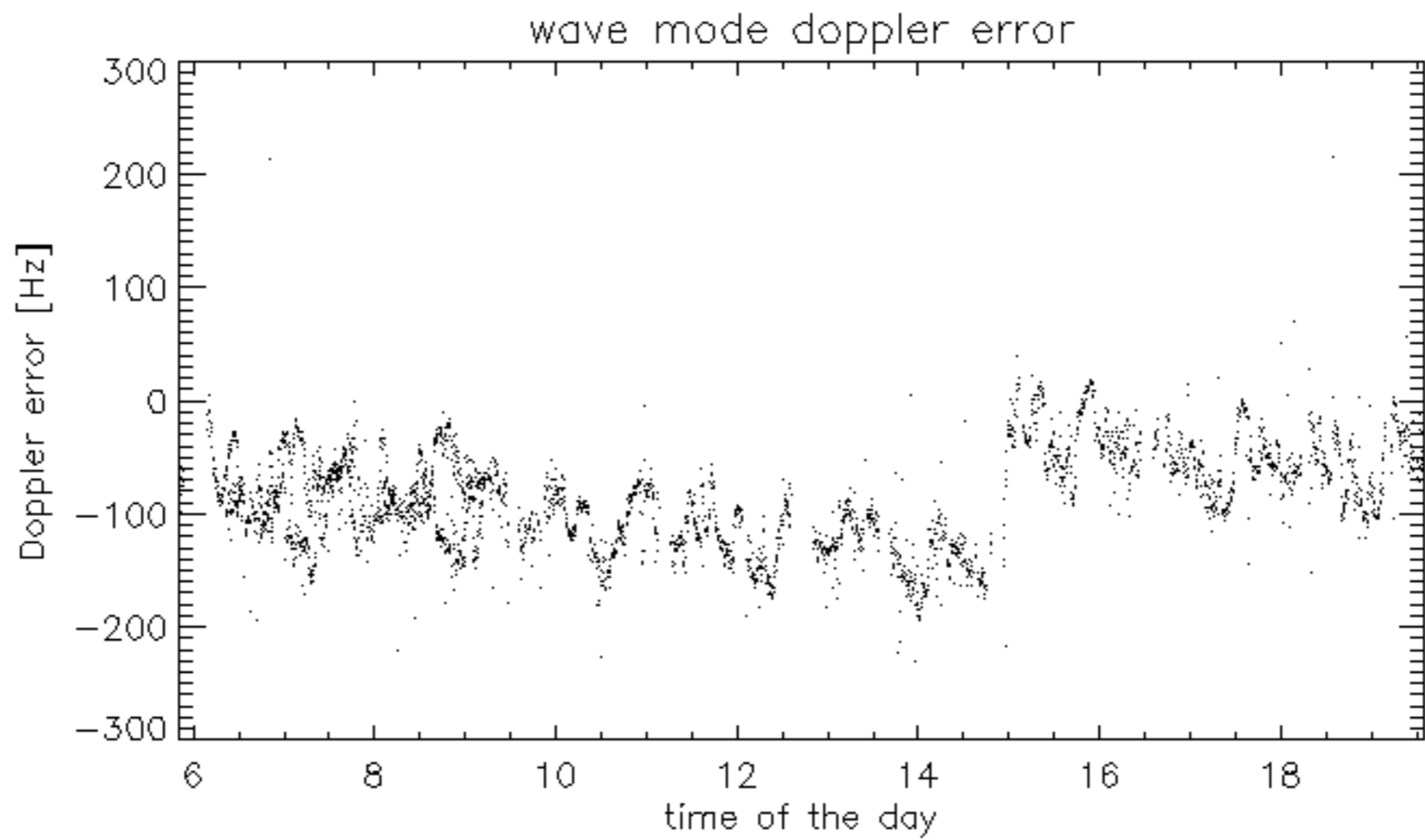
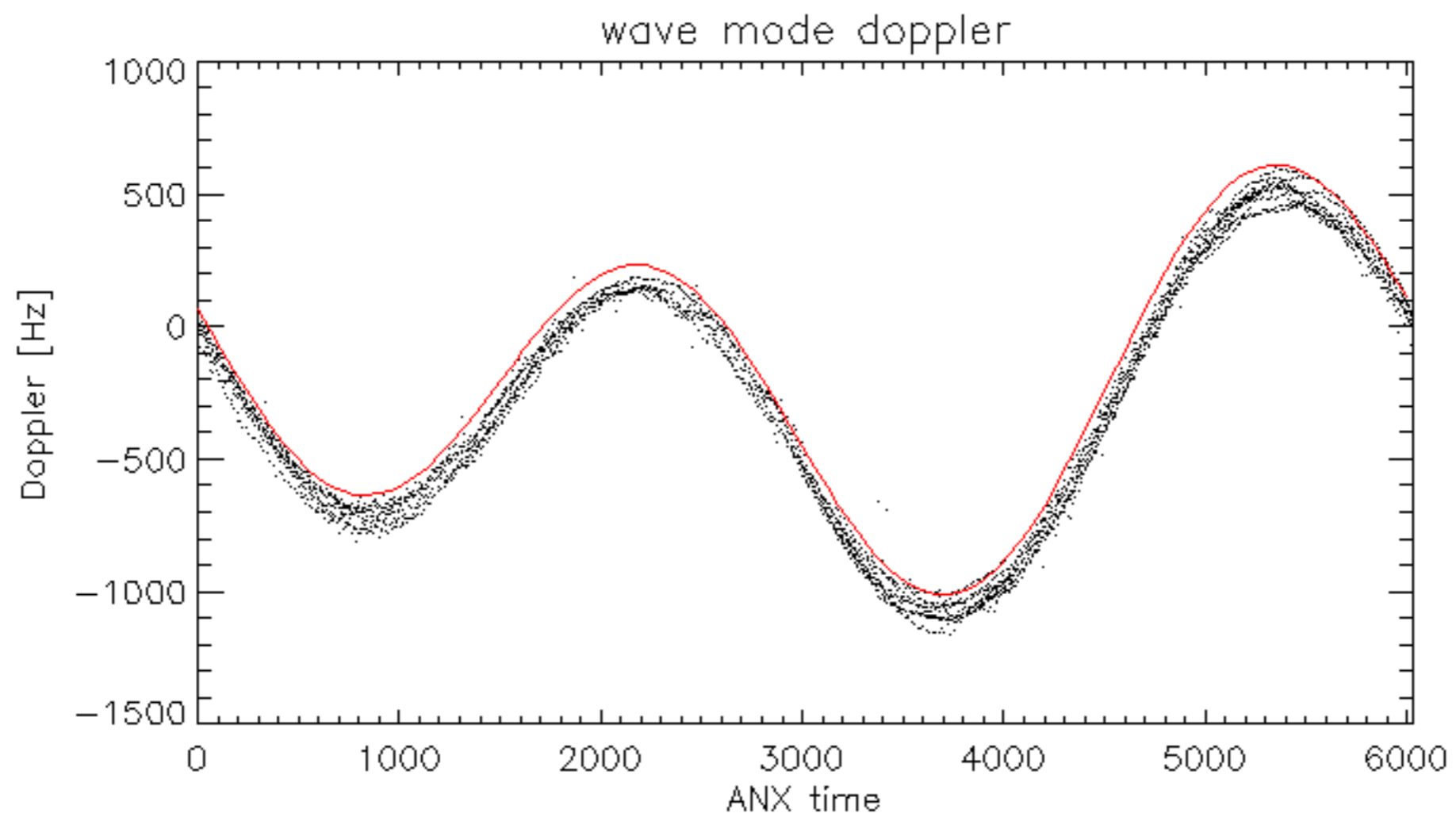
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days
Data gap over South-Africa/Madagascar is due to MS product acquisition

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

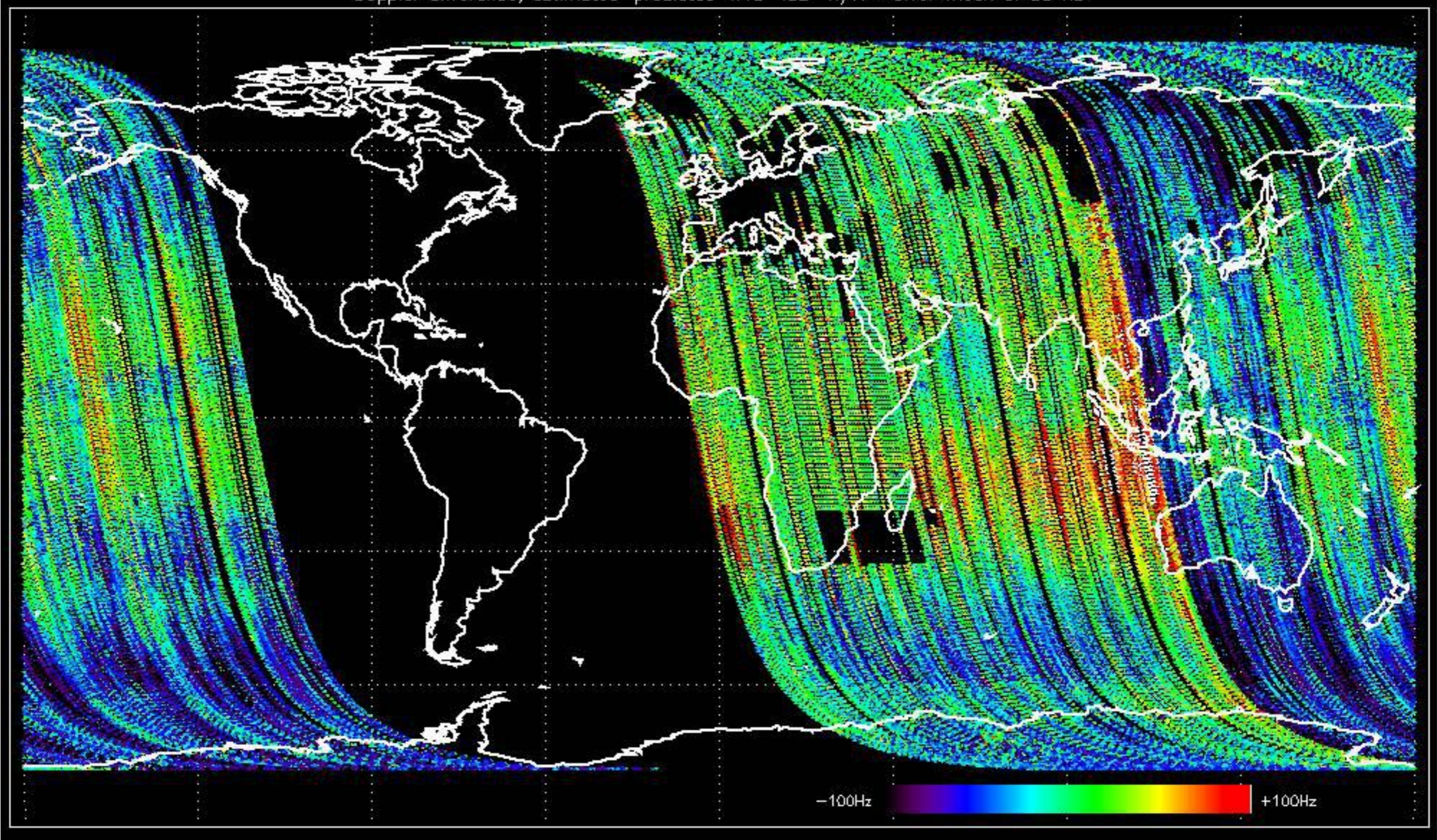


Doppler 'WVS' 'ISZ' 'V/V'

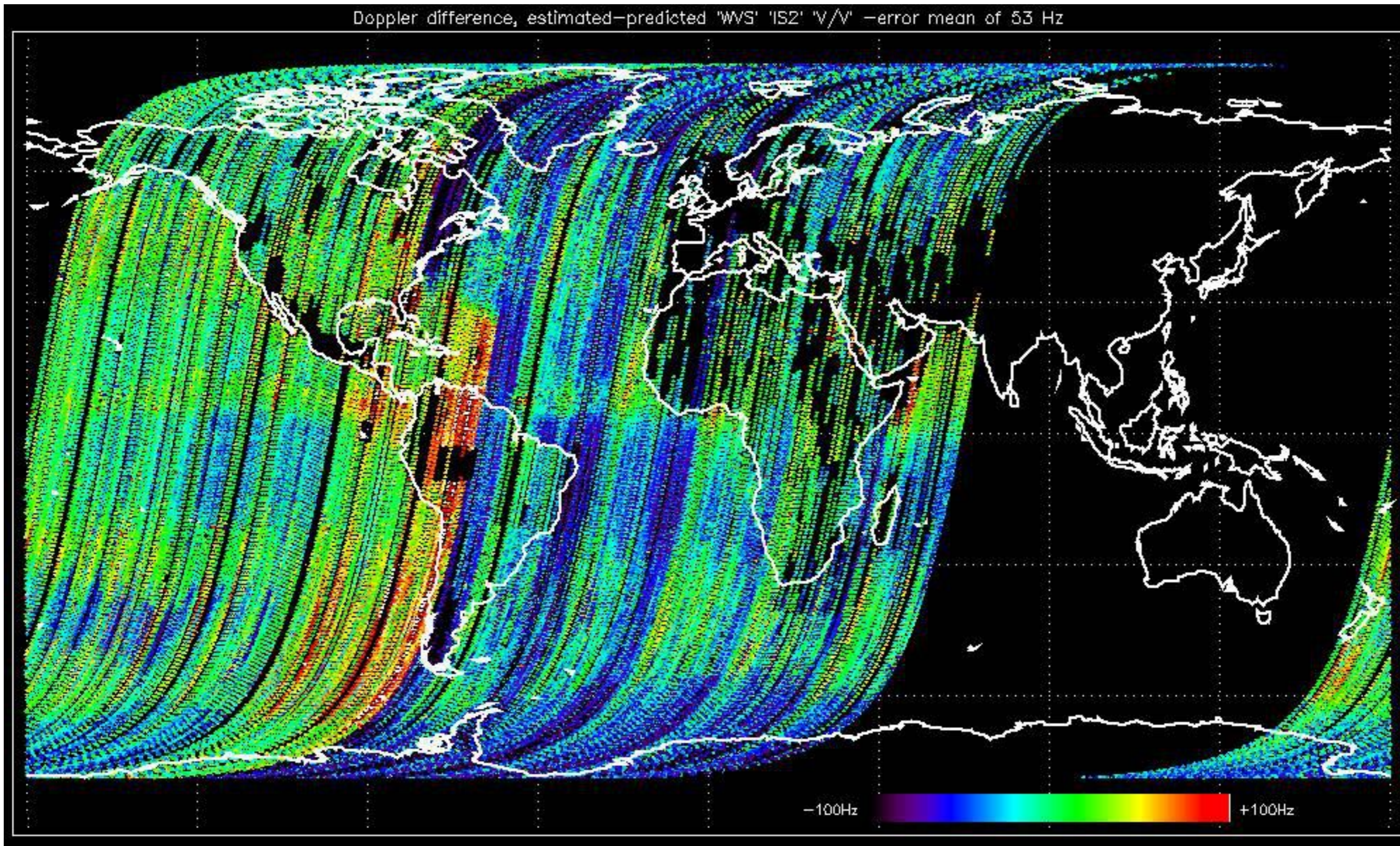




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



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



No anomalies observed on available MS products:

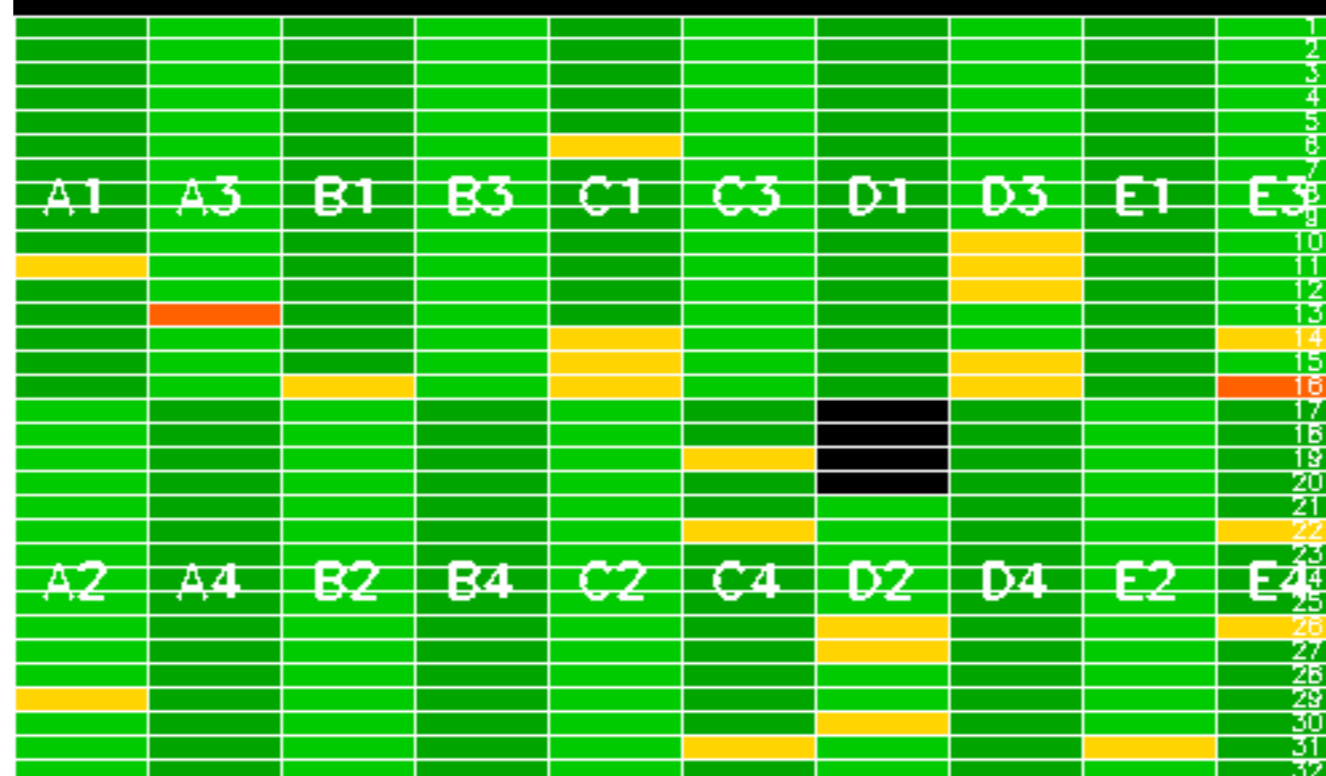
- ASA_MS__0PNPDK20030904_191536_000000152019_00342_07911_0044.N1
- ASA_MS__0PNPDK20030904_191716_000000152019_00342_07911_0043.N1

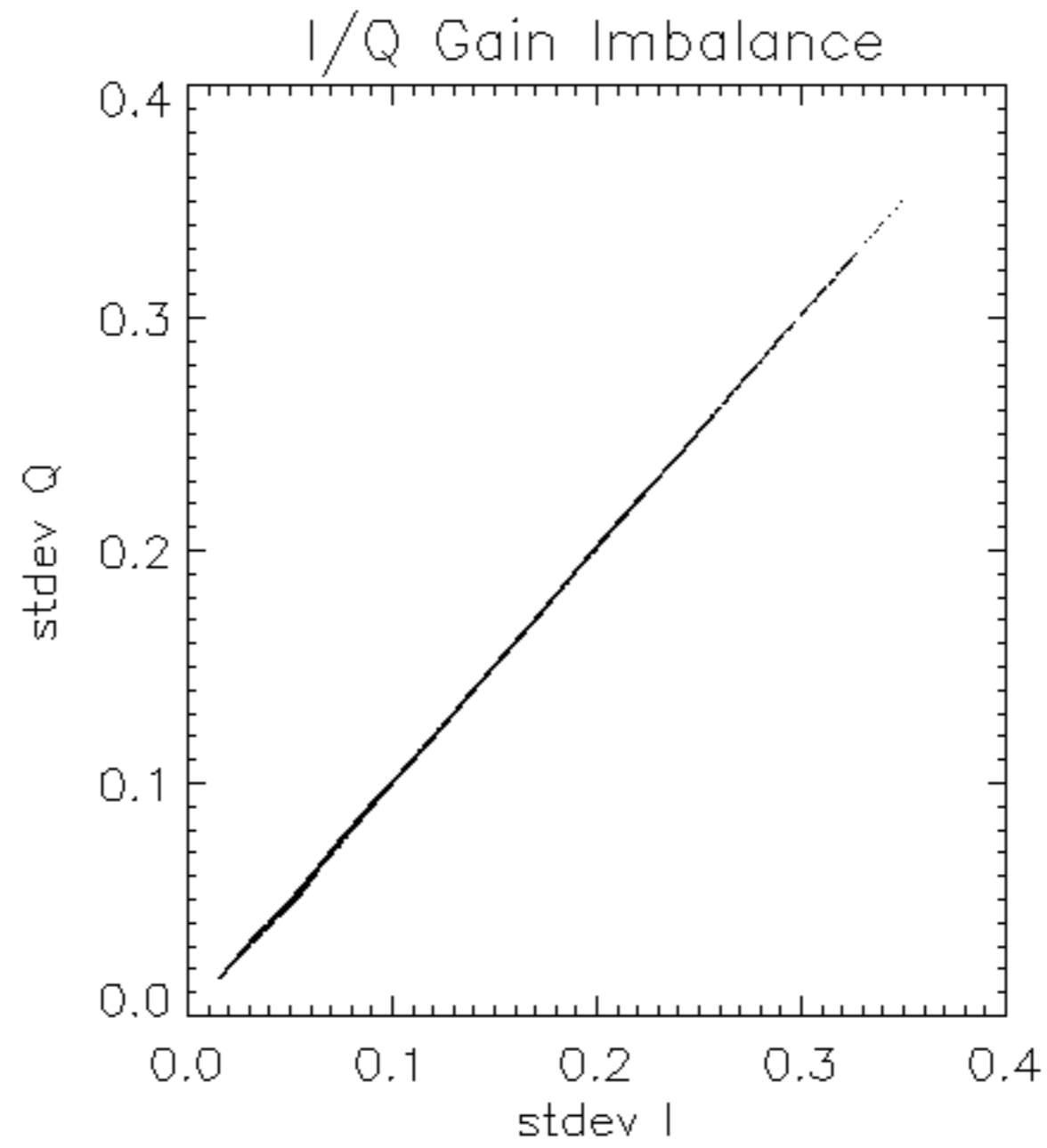
The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.

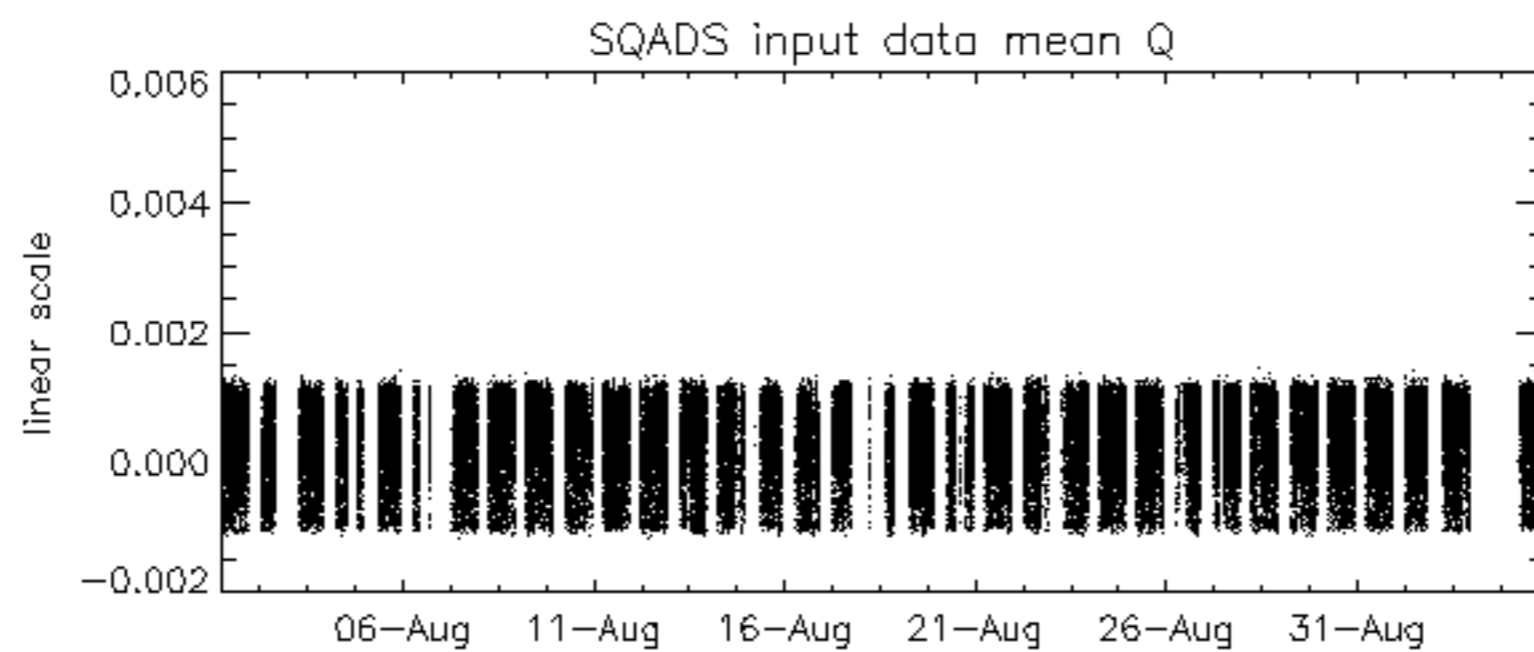
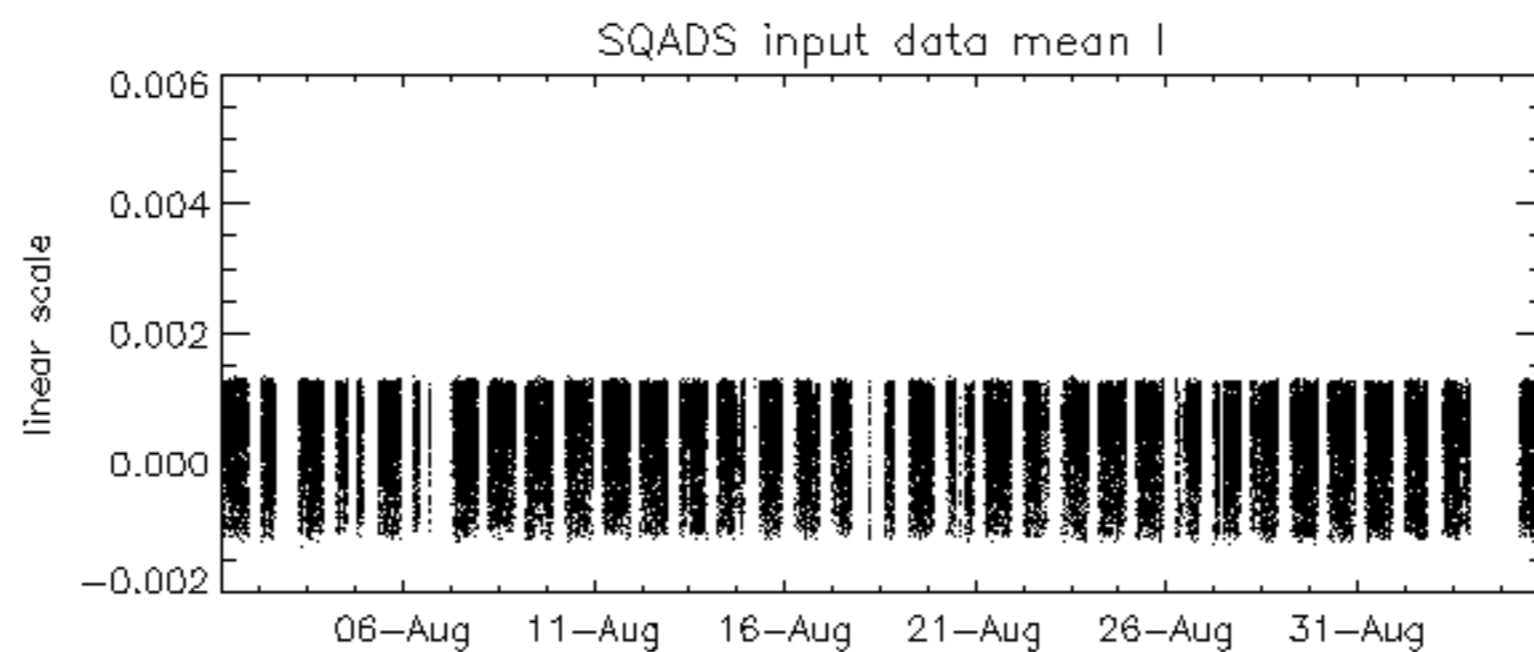
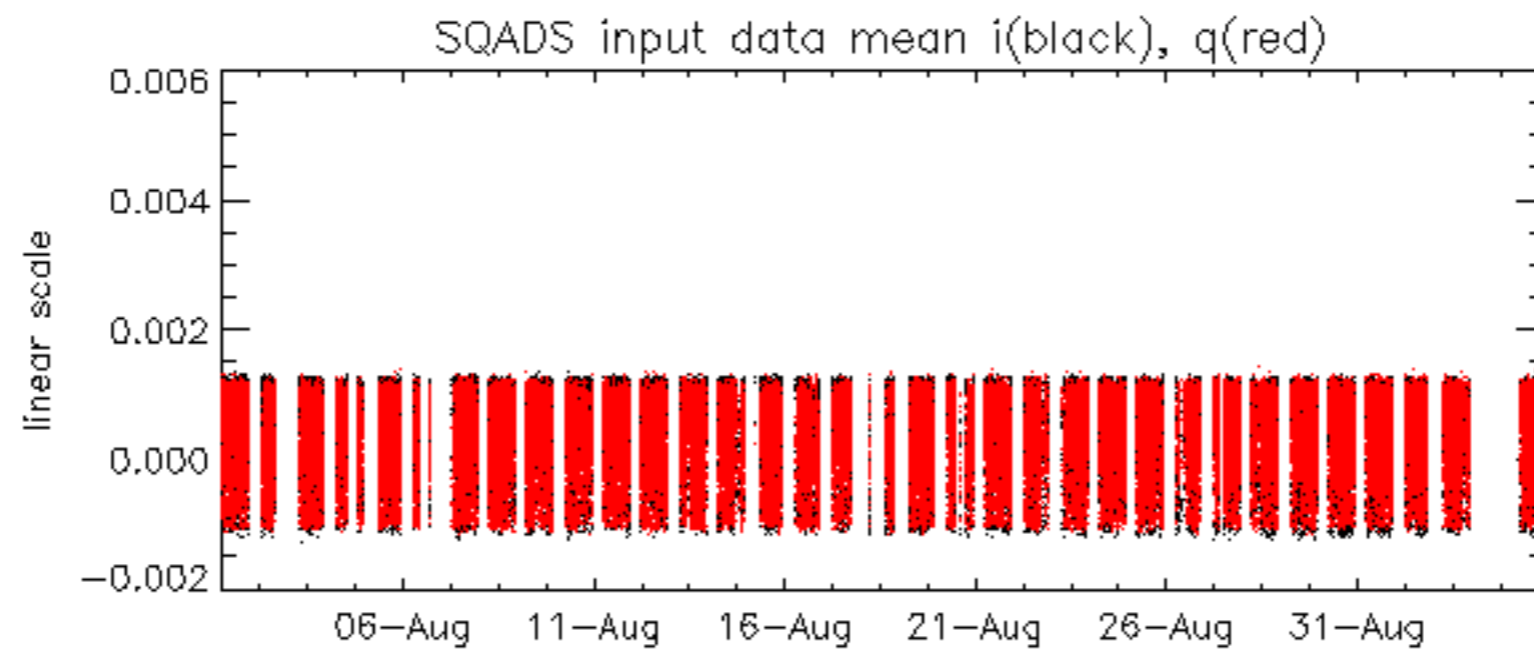
No anomalies observed.

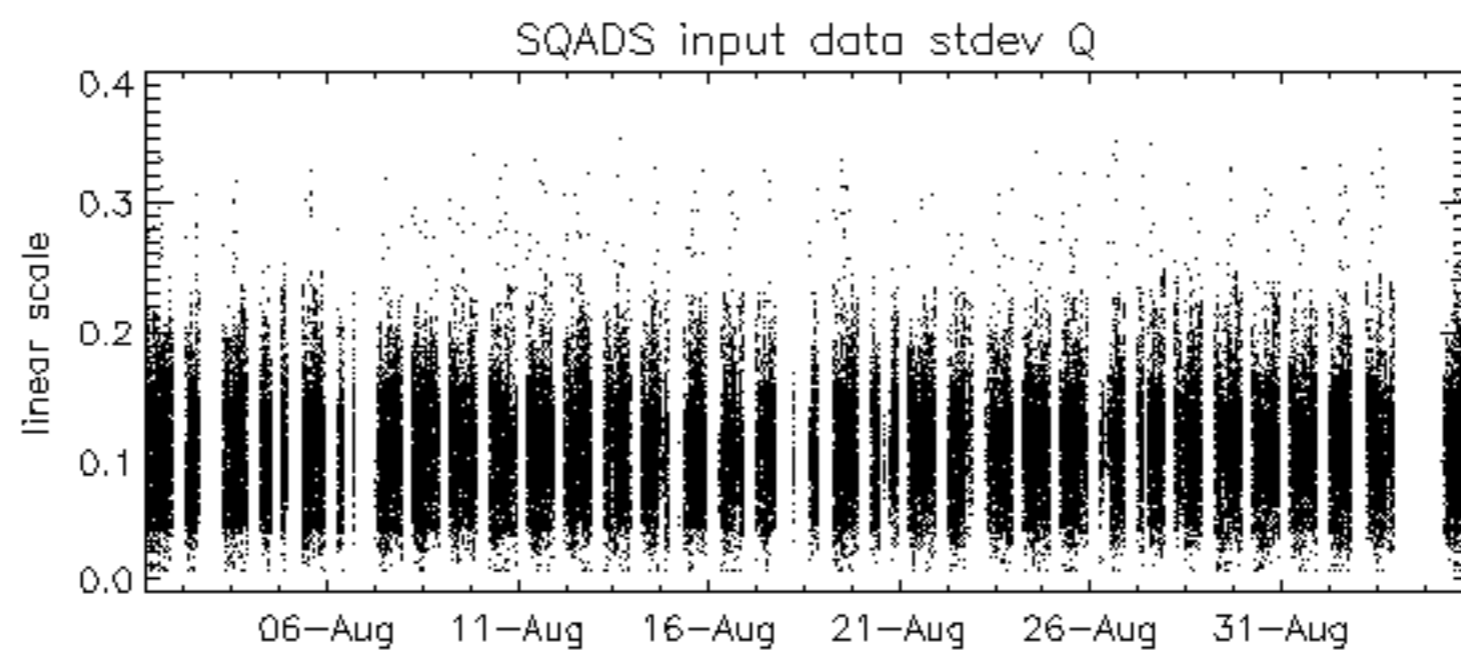
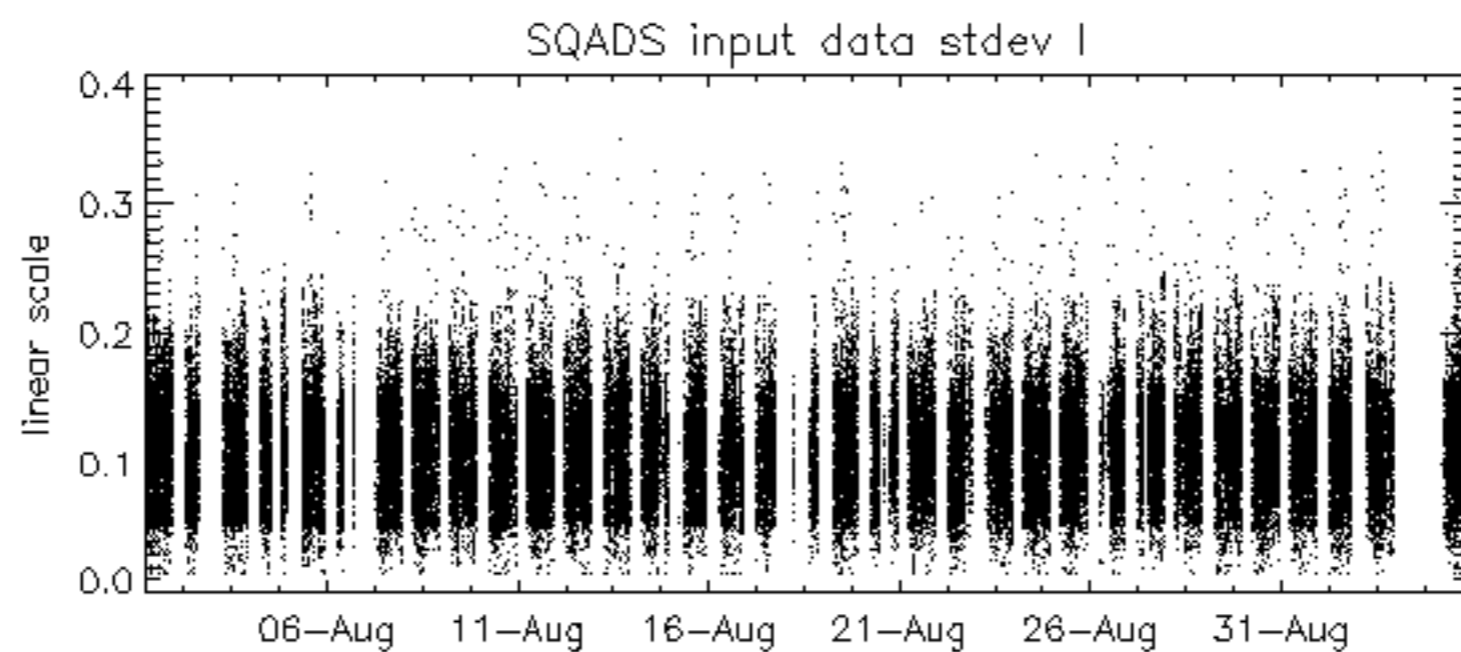
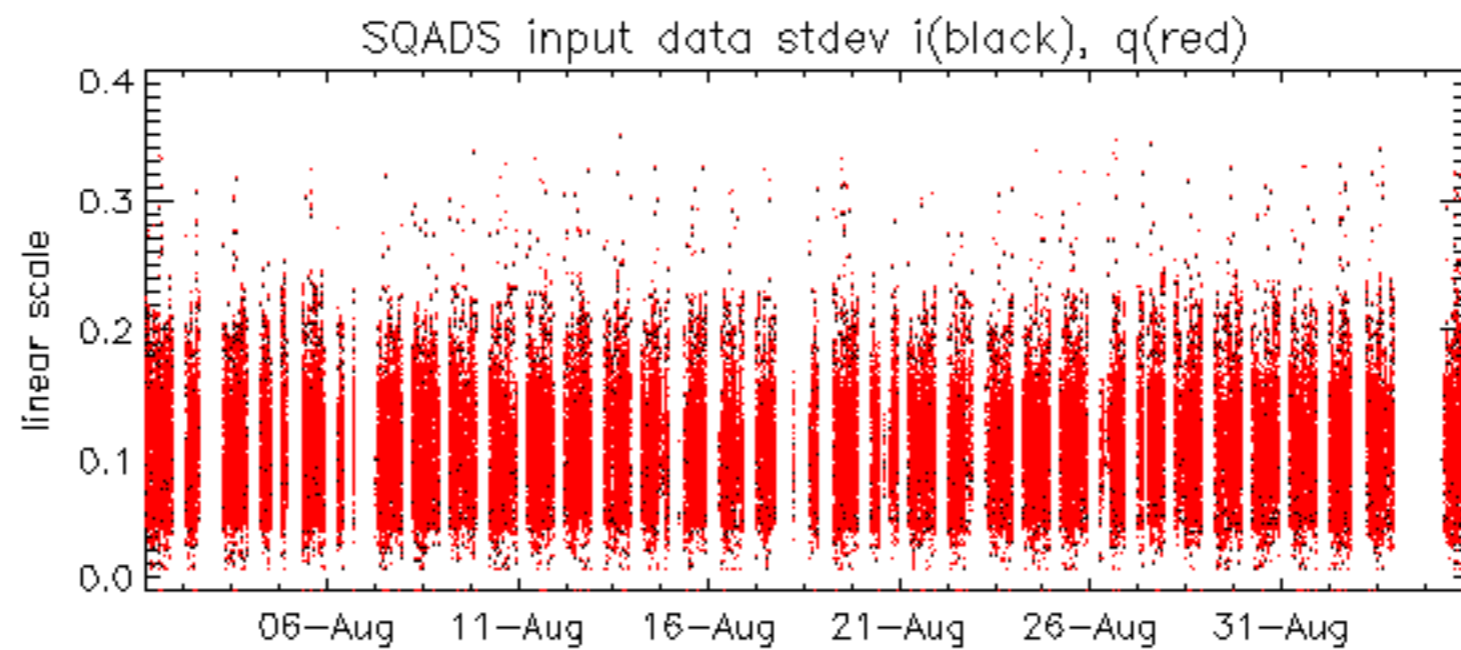
Reference: 2001-02-09 14:08:23 V RxPhase

Test : 2003-09-04 19:17:16 V









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