

REPORT OF 030909

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 visual anomalies 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__0PNPDK20030908_203020_000000152019_00400_07969_0052.N1
- ASA_MS__0PNPDK20030908_203200_000000152019_00400_07969_0051.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	20030908 203200
H	20030908 203020

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 on calibration pulses.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80156	-22.5174	-8.11470
	stdev	0.00631940	0.0621702	0.00250415
10	mean	-6.89149	-19.2942	-8.11470
	stdev	0.0269127	0.0648454	0.00250415



4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80482	-22.5319	-8.10781
	stdev	0.00581364	0.0604530	0.00238155
10	mean	-6.89886	-19.3275	-8.10781
	stdev	0.0238078	0.0597806	0.00238155



4.3 - cal pulses monitoring (all rows)



5 - RAW data statistics

No anomalies observed on input raw data statistics.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000415062
	stdev	3.27834e-07
MEAN Q	mean	0.000294993

stdev	3.23087e-07
-------	-------------



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114674
	stdev	0.00148246
STDEV Q	mean	0.114863
	stdev	0.00150320



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 acquisition.

6.1 - Unbiased Doppler Error

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

6.2 - Absolute Doppler

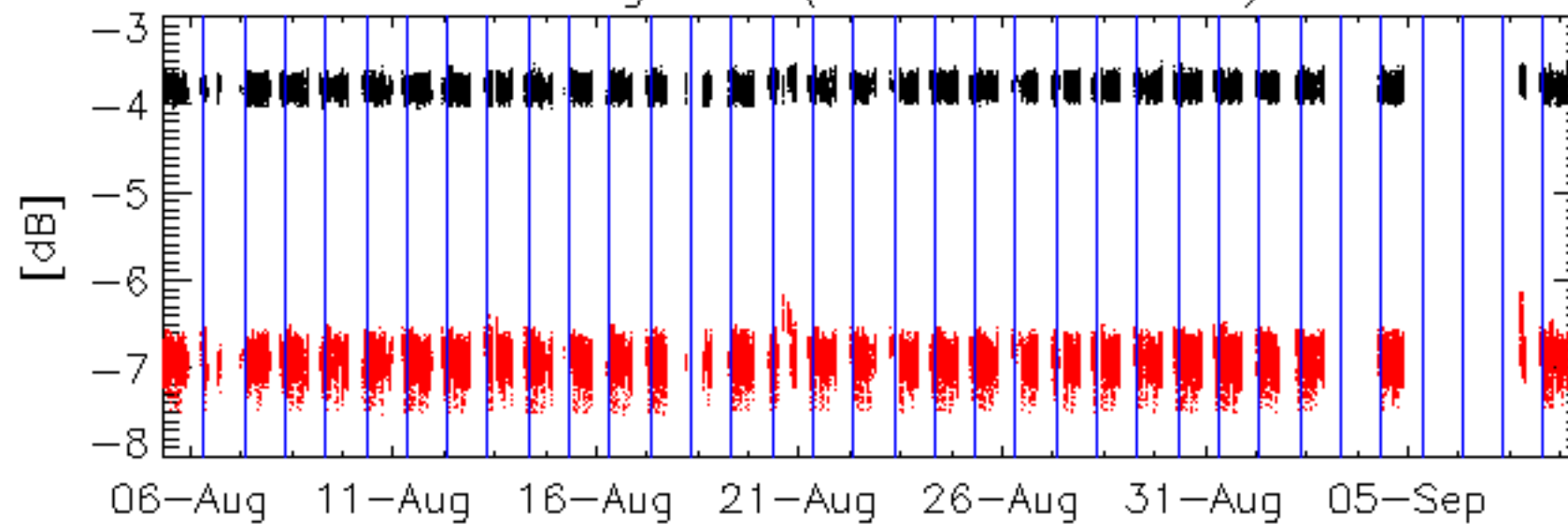
Evolution of Absolute Doppler
Ascending
Descending

6.3 - Doppler evolution versus ANX

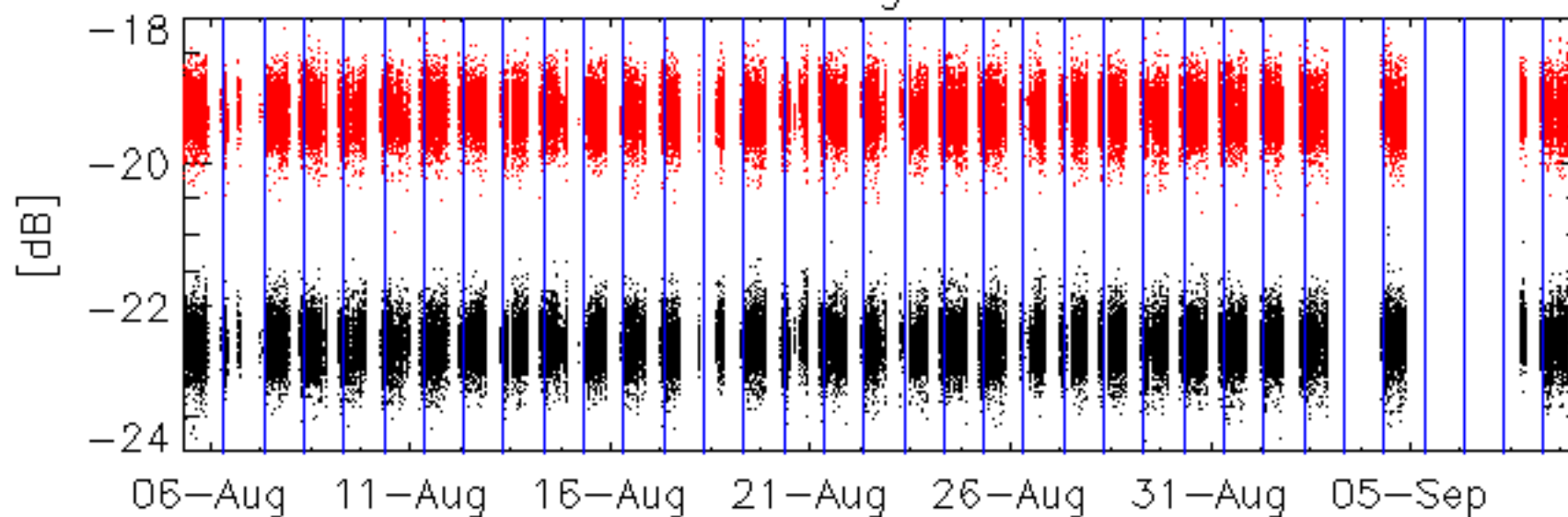
Evolution Doppler error versus ANX



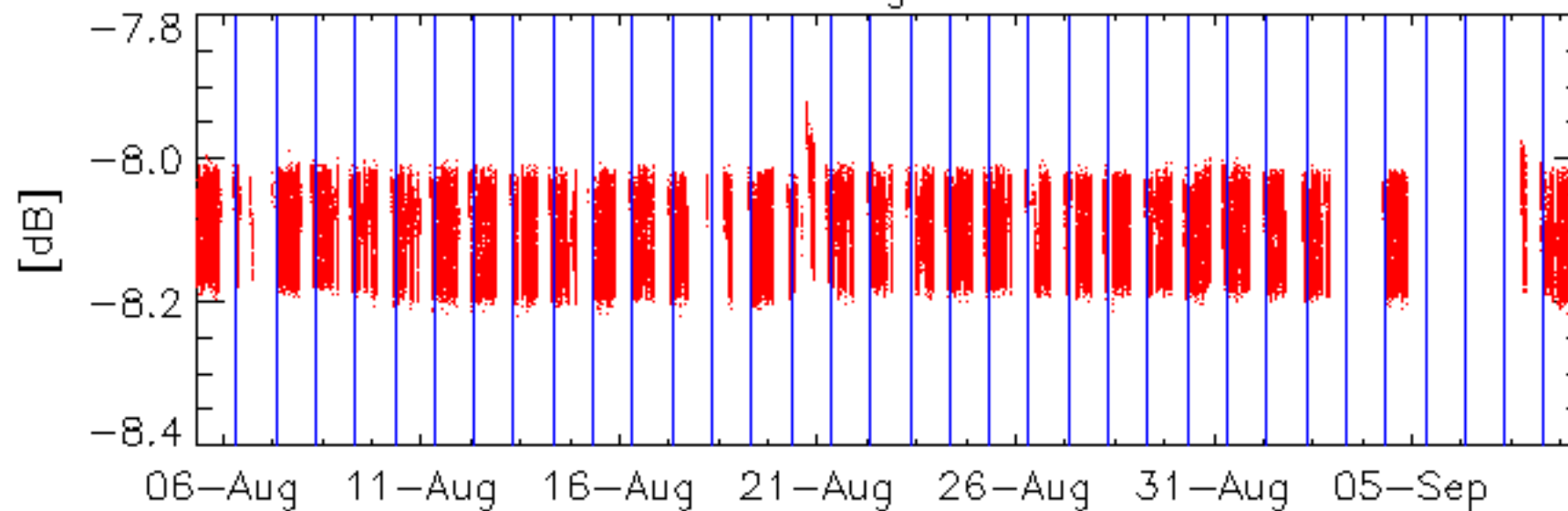
Average P1 (row 3 & row 10)

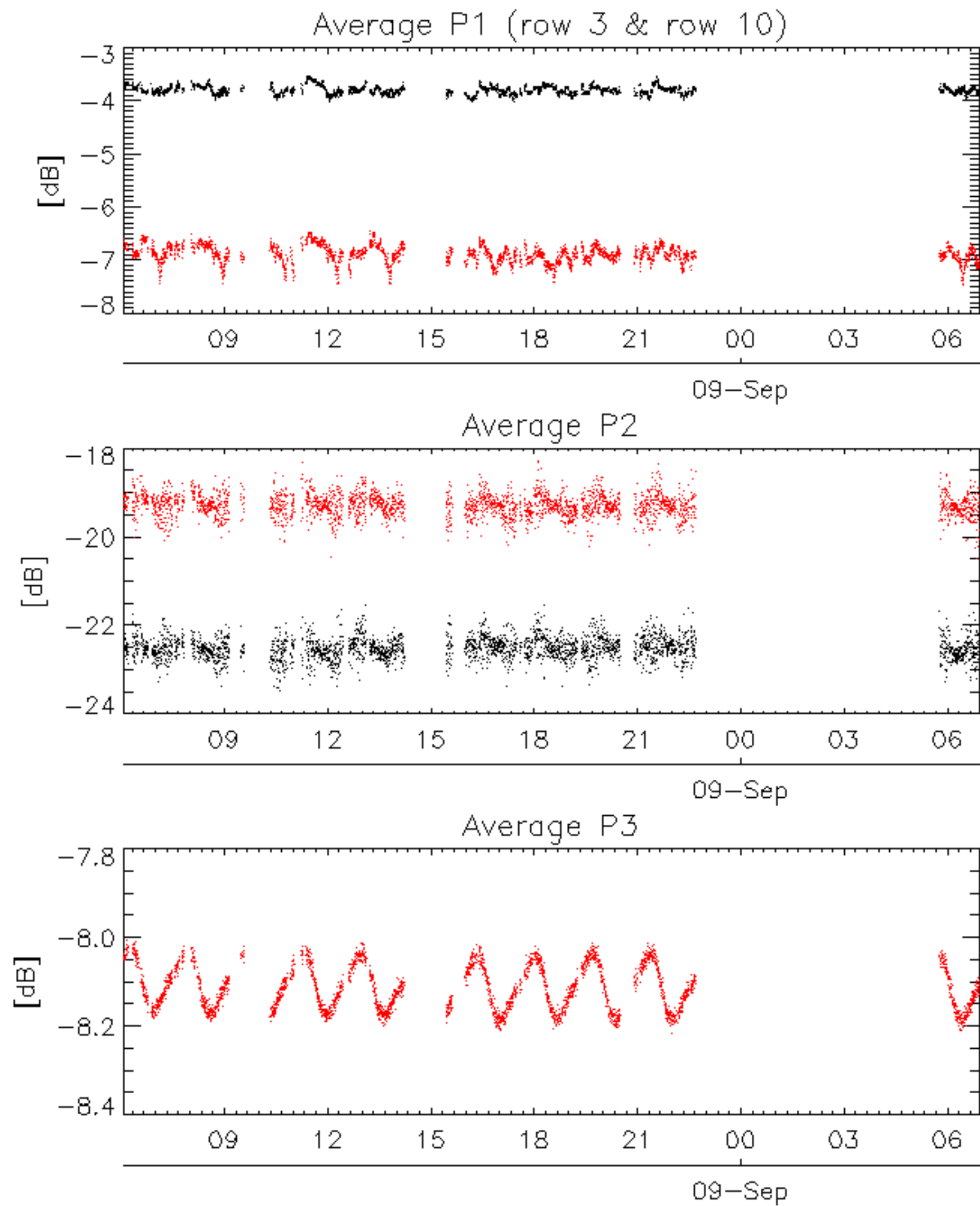


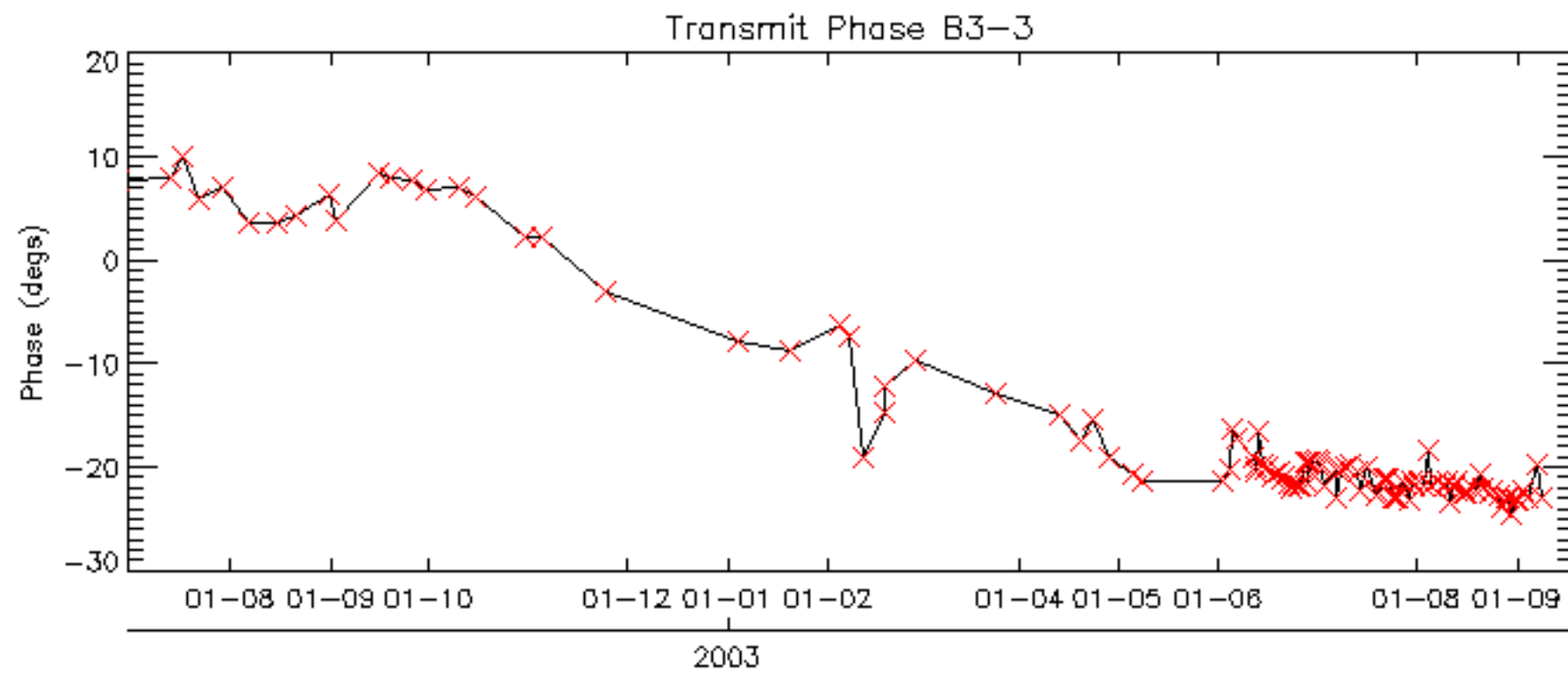
Average P2



Average P3

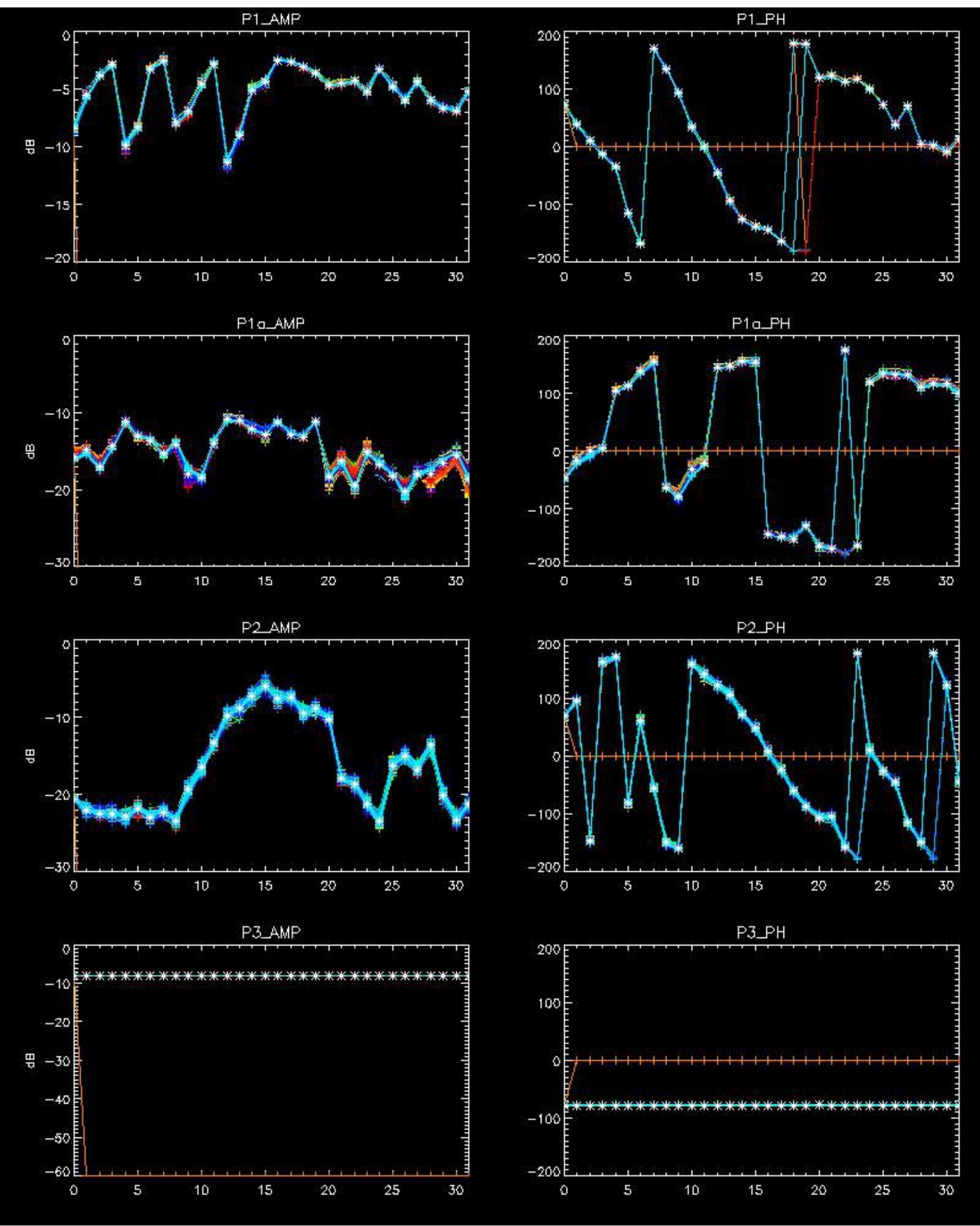






No visual anomalies on available Browse products.

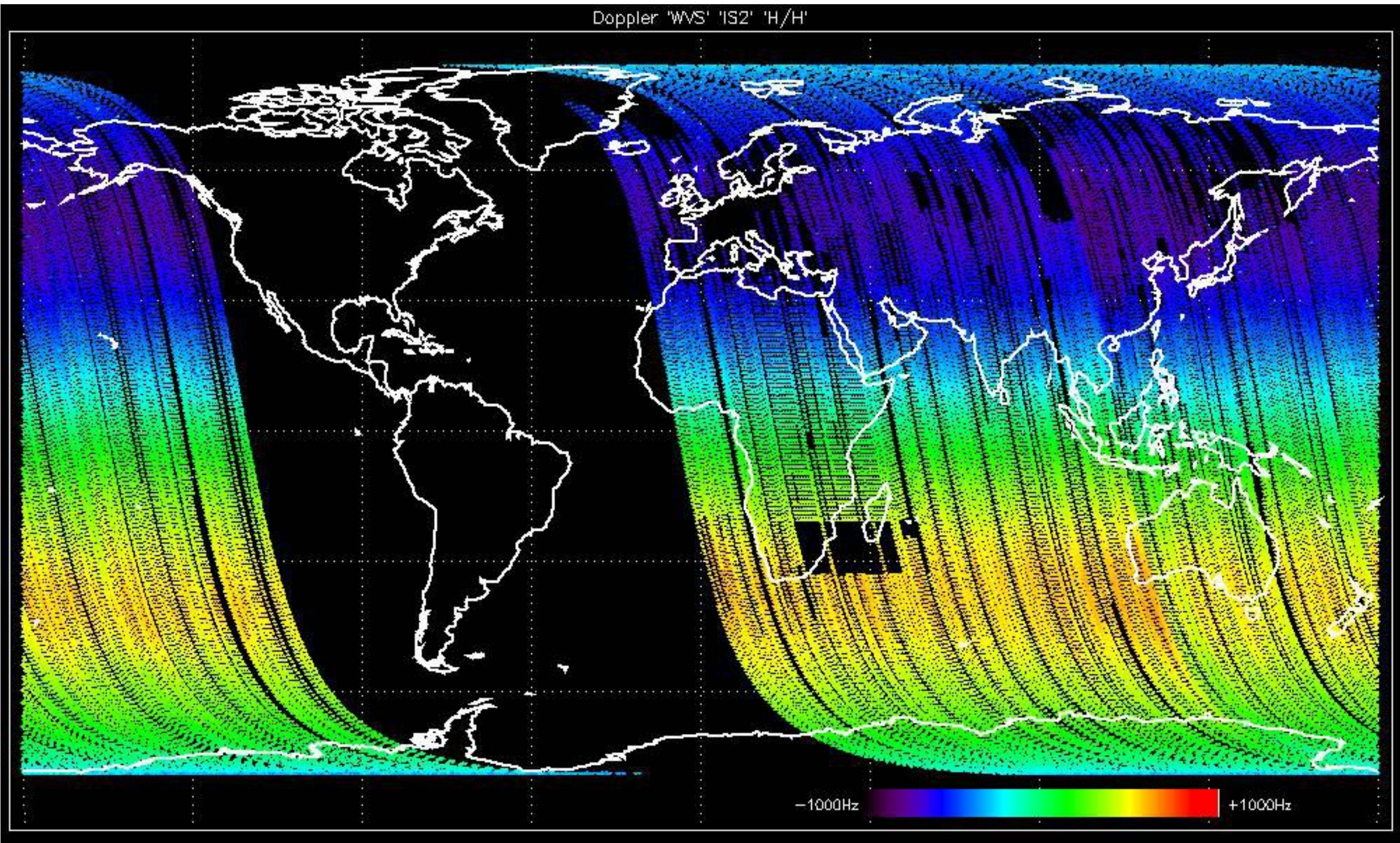
No anomalies observed on calibration pulses.



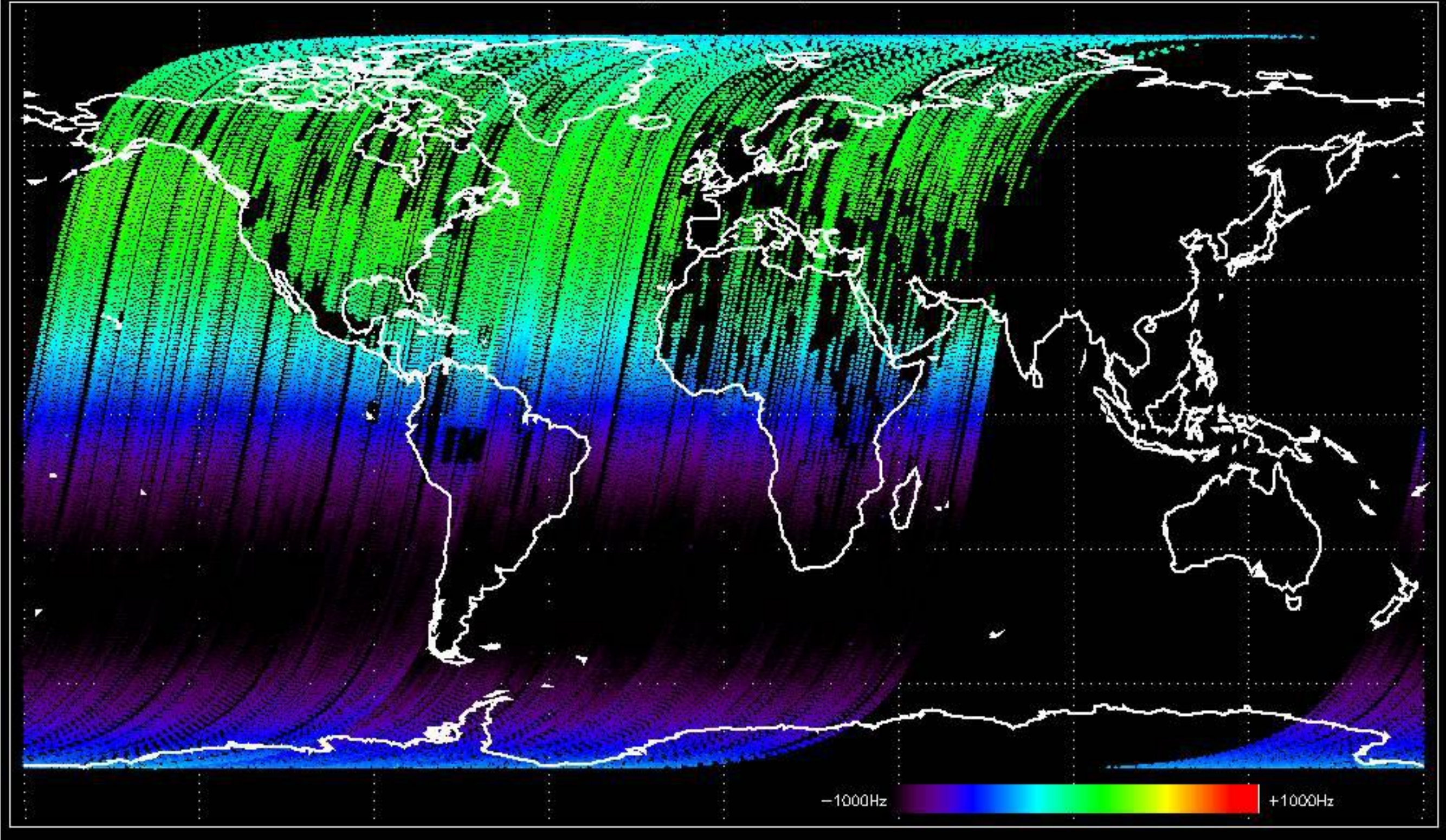
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

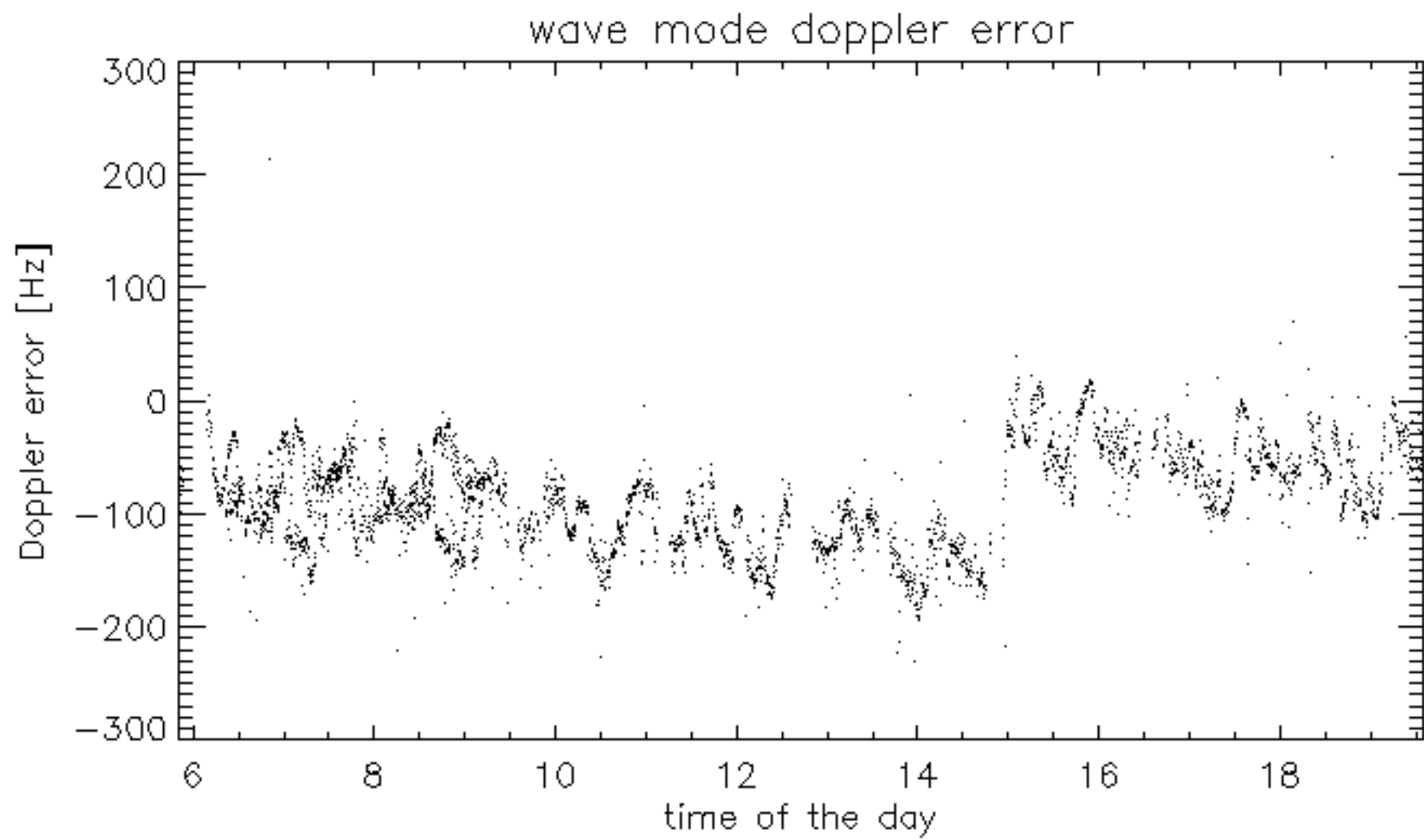
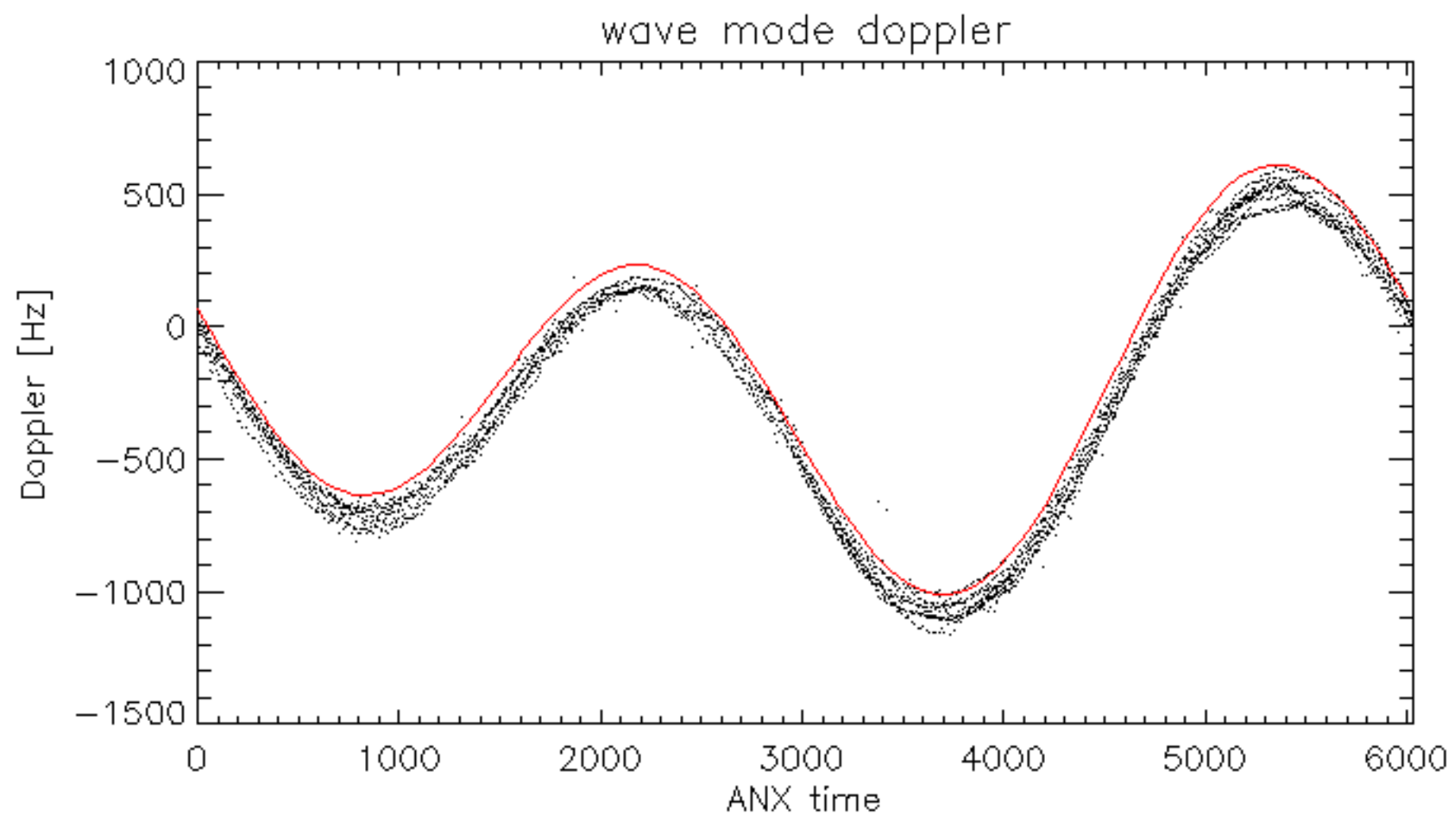
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days
Data gap over South-Africa/Madagascar is due to MS acquisition.

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

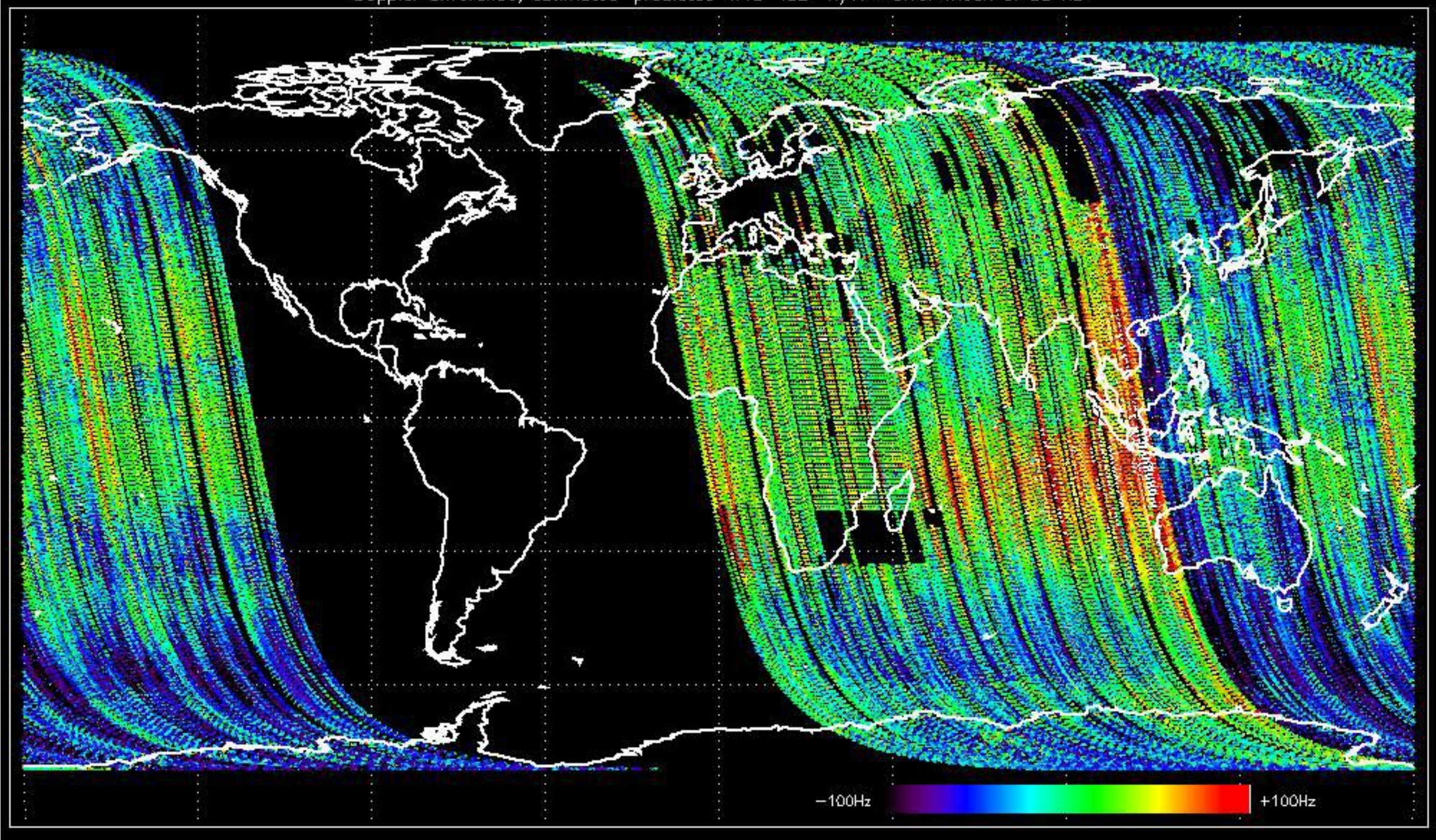


Doppler 'WVS' 'IS2' 'V/V'

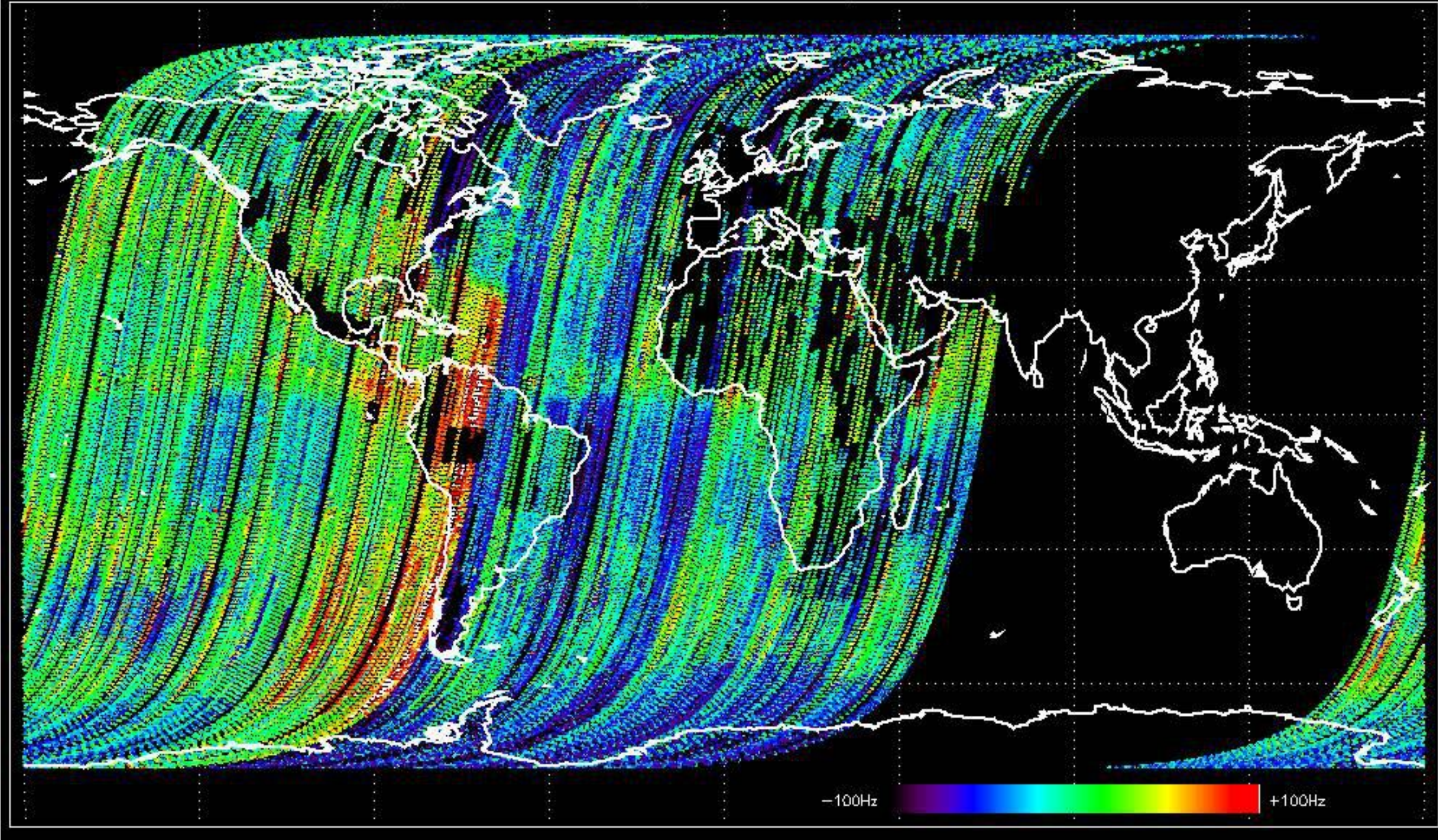




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



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

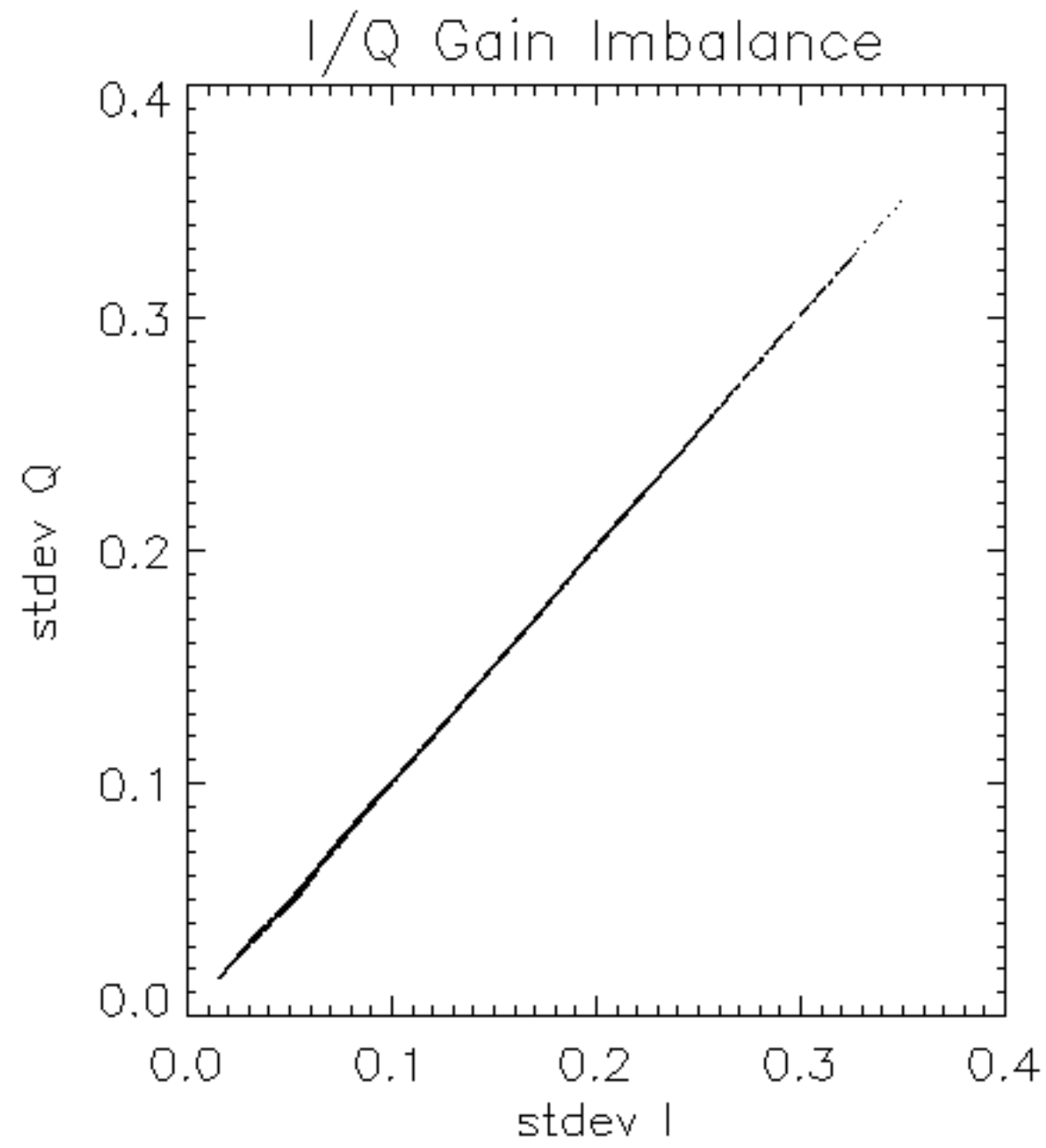


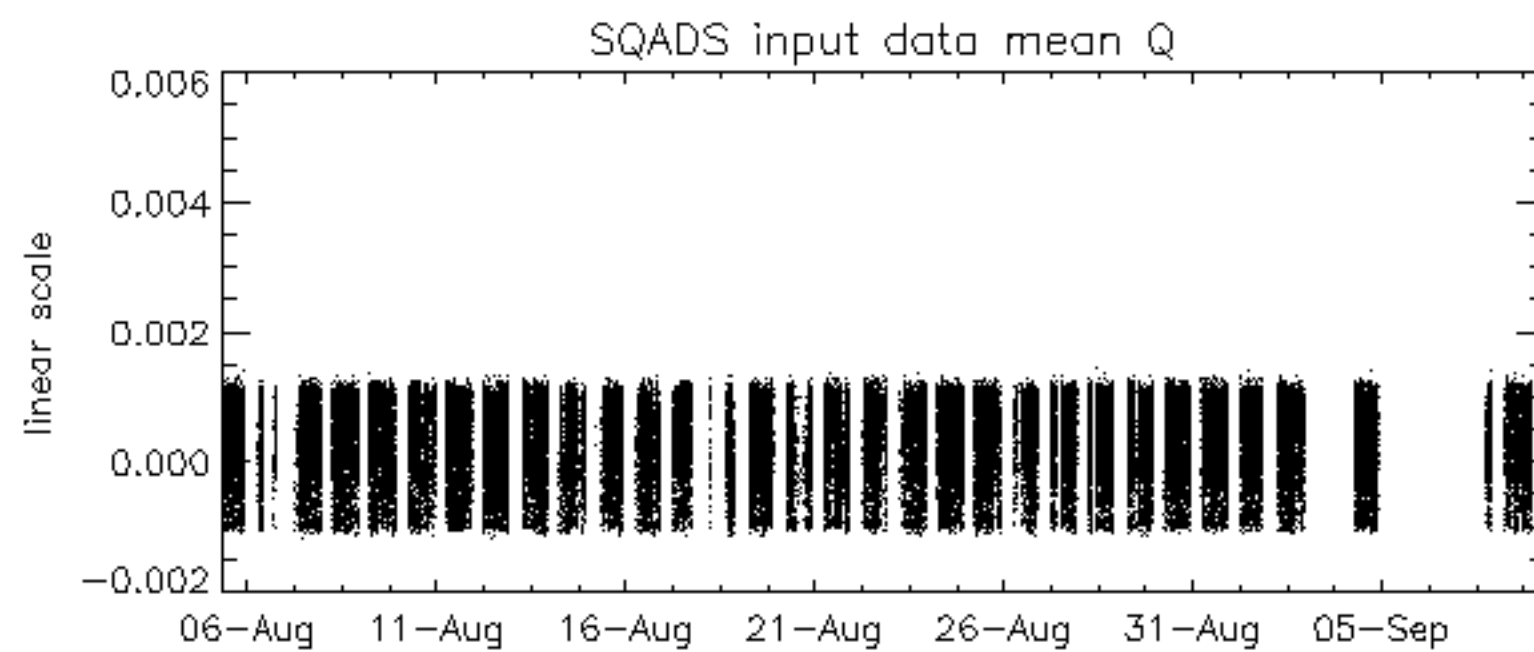
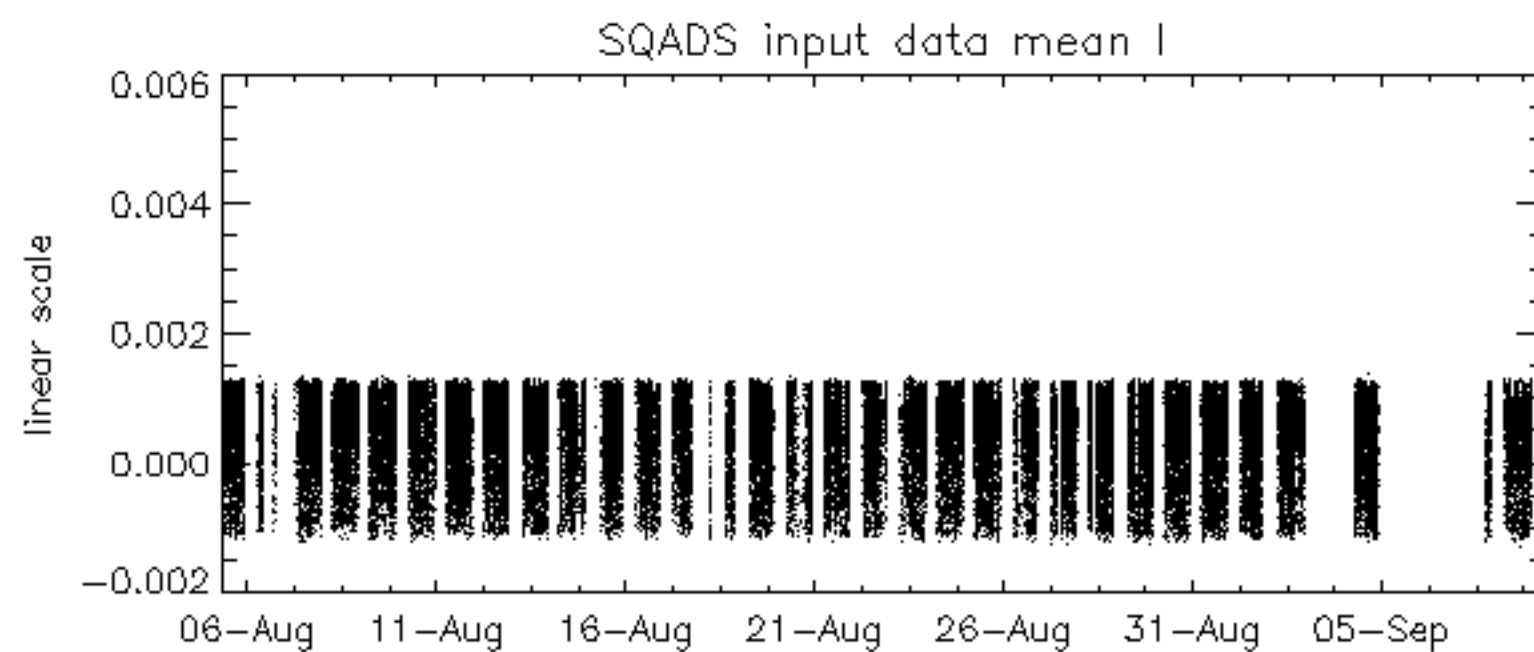
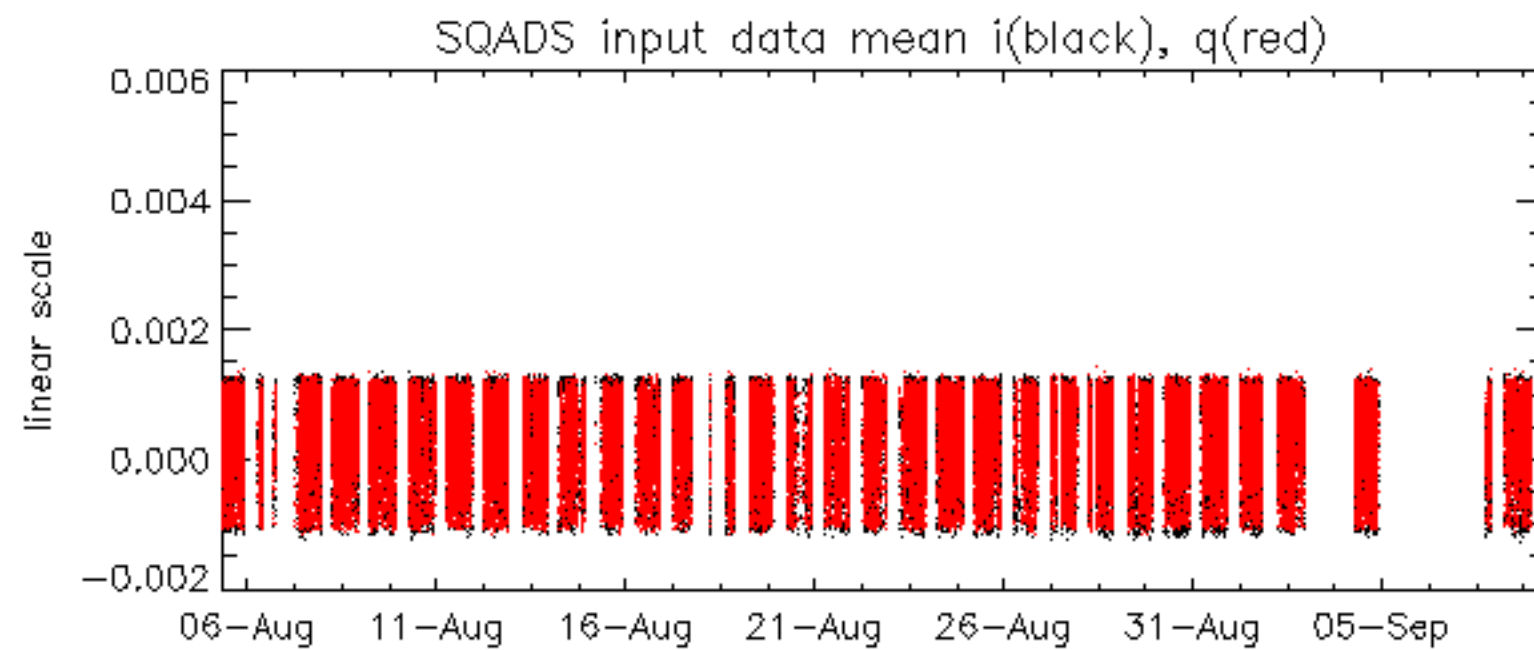
No anomalies observed on available MS products:

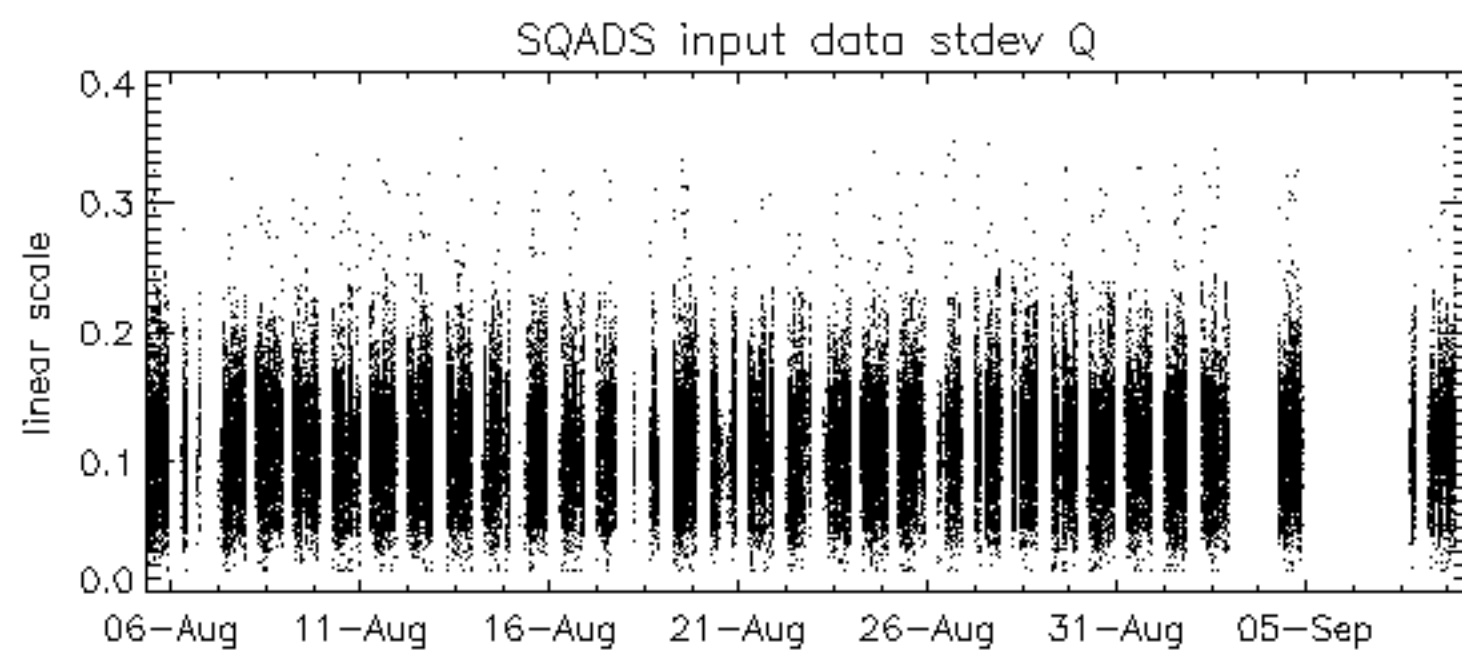
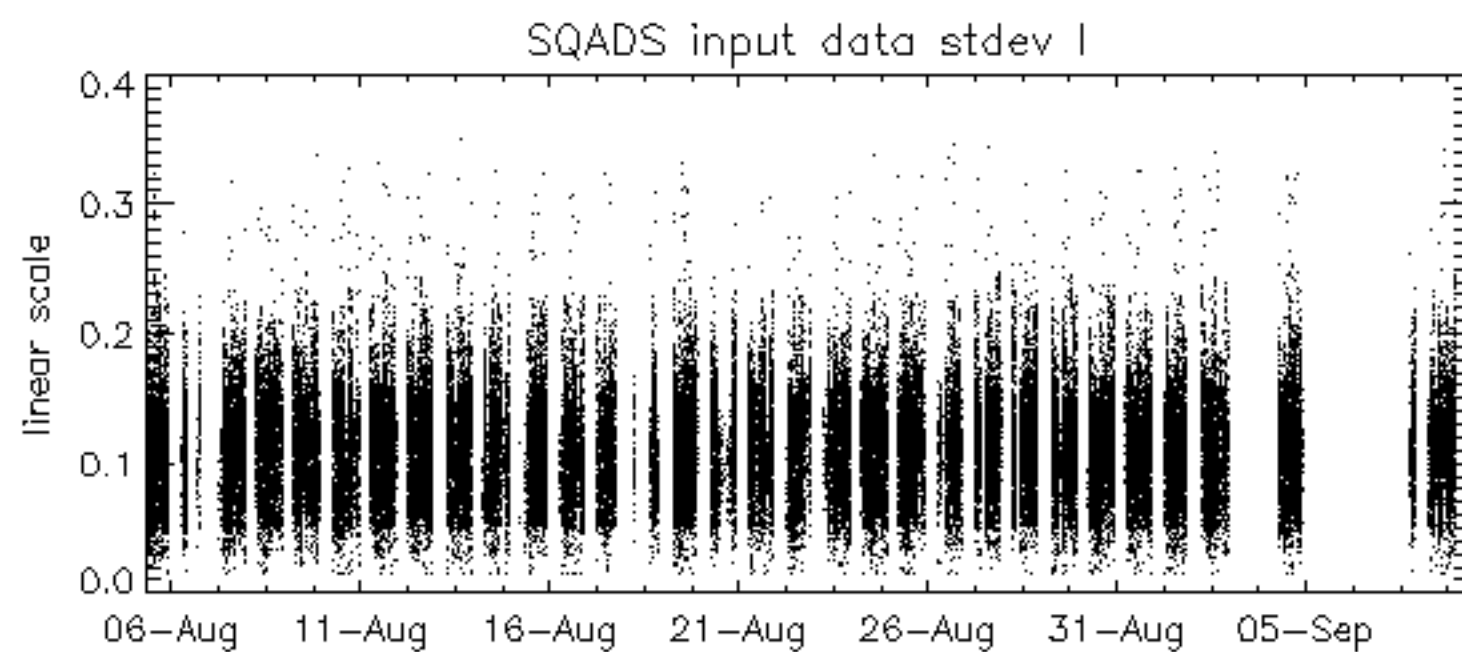
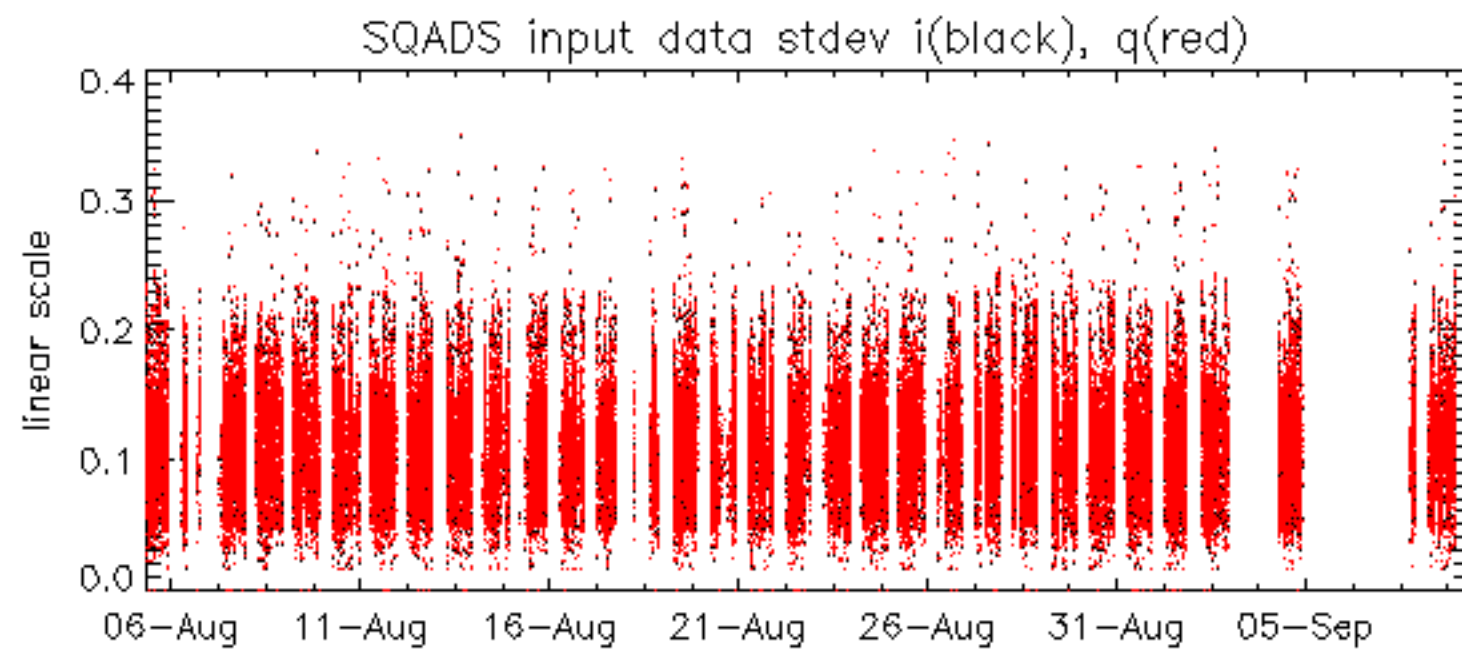
- ASA_MS__0PNPDK20030908_203020_000000152019_00400_07969_0052.N1
- ASA_MS__0PNPDK20030908_203200_000000152019_00400_07969_0051.N1

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 on input raw data statistics.







No unavailabilities during the reported period.