

REPORT OF 030910

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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

Instrument unavailability as described below:

Sub-system	Start	Stop	Planned
ASAR	09-SEP-2003 13:17:16	09-SEP-2003 15:55:50	no

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.

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

3 - Module Stepping Mode

No anomalies observed on available MS products:









- ASA_MS__0PNPDK20030909_195843_000000152019_00414_07983_0053.N1
- ASA_MS__0PNPDK20030909_200023_000000152019_00414_07983_0054.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	20030909 200023
H	20030909 195843

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.

The instrument temperature change from pre-op to operational mode causes the variation visible on P3 pulse.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.77960	-22.4984	-8.09465
	stdev	0.00676293	0.0685104	0.00519858
10	mean	-6.85359	-19.2978	-8.09465
	stdev	0.0481236	0.0614446	0.00519858



4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.80341	-22.5307	-8.10755
	stdev	0.00588582	0.0606156	0.00248751
10	mean	-6.89630	-19.3263	-8.10755
	stdev	0.0248919	0.0598222	0.00248751



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	0.000412777
	stdev	3.29558e-07

MEAN Q	mean	0.000295143
	stdev	3.23236e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114725
	stdev	0.00147356
STDEV Q	mean	0.114917
	stdev	0.00149400



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

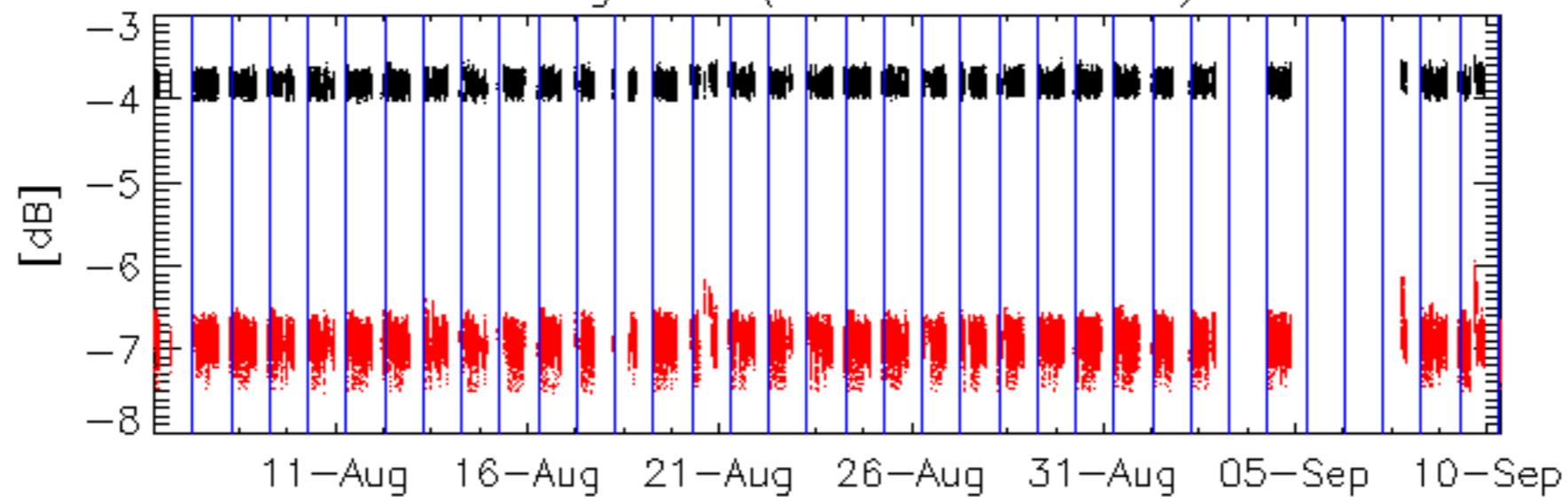
Descending

6.3 - Doppler evolution versus ANX

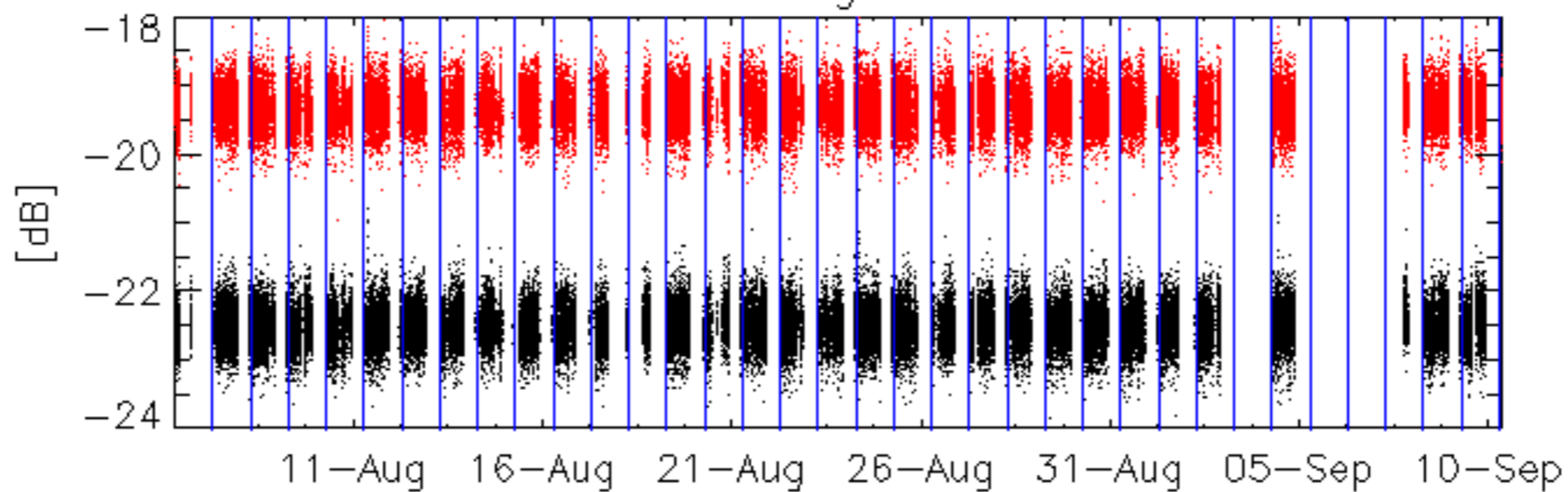
Evolution Doppler error versus ANX



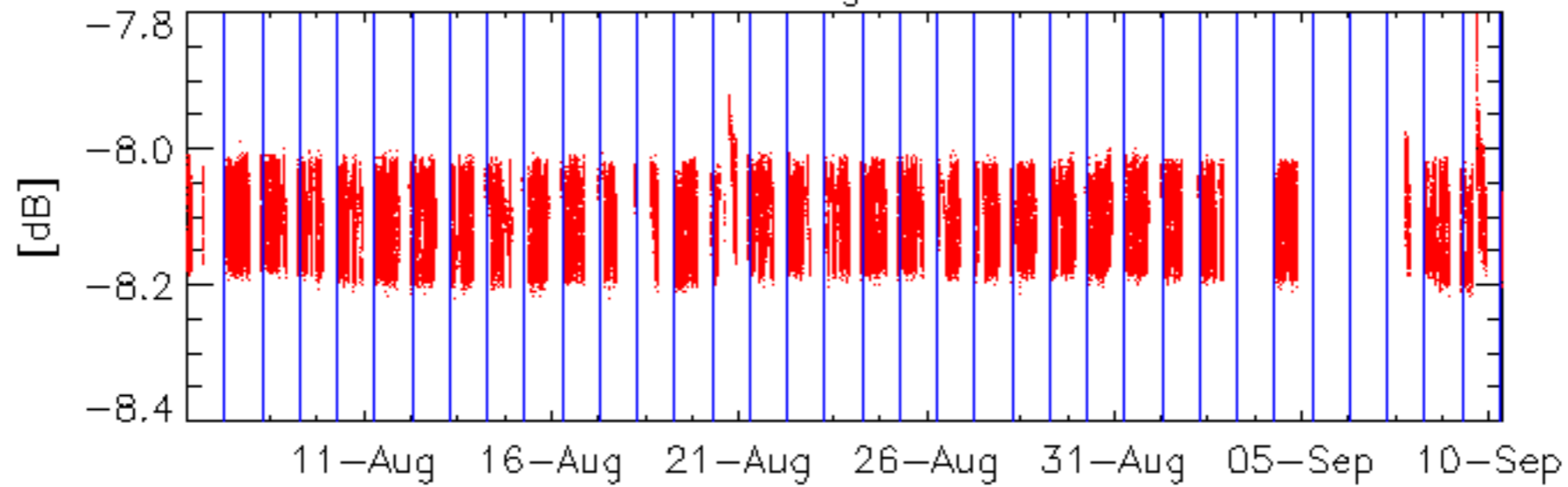
Average P1 (row 3 & row 10)

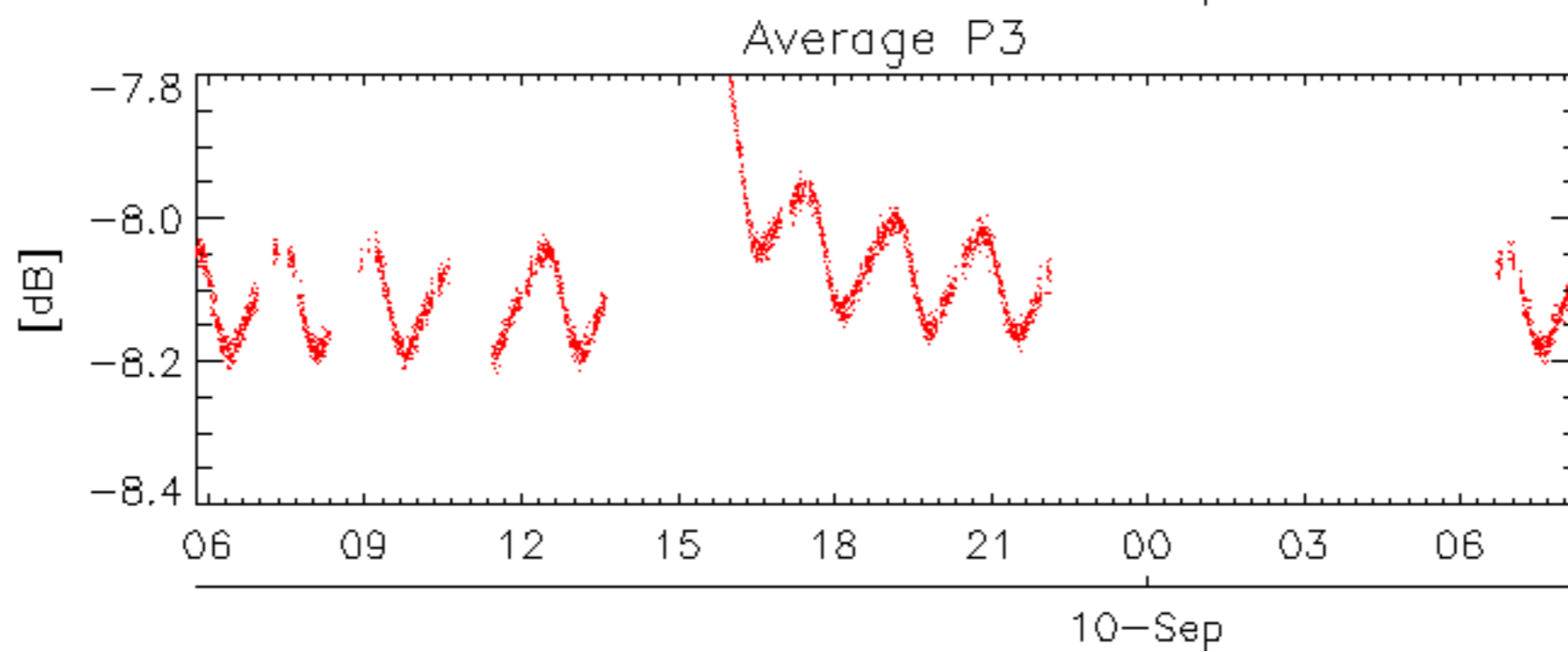
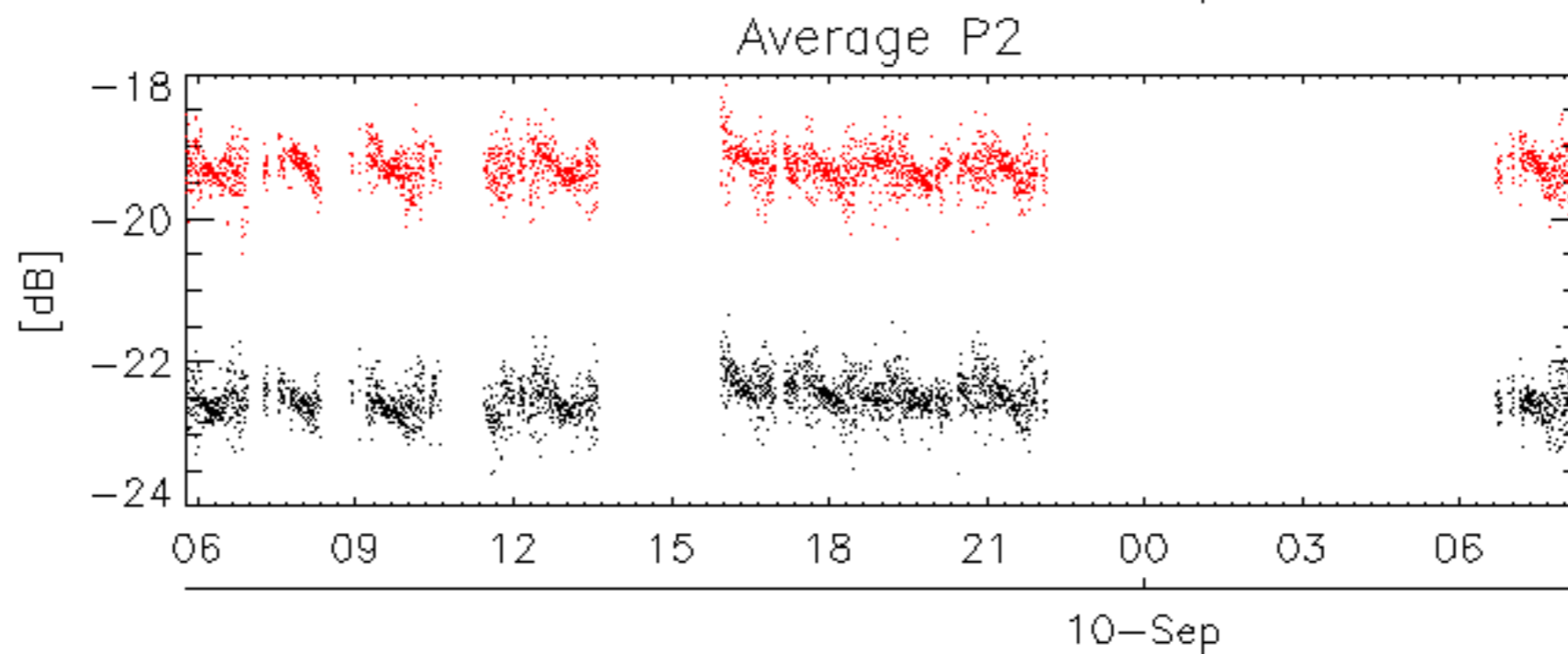
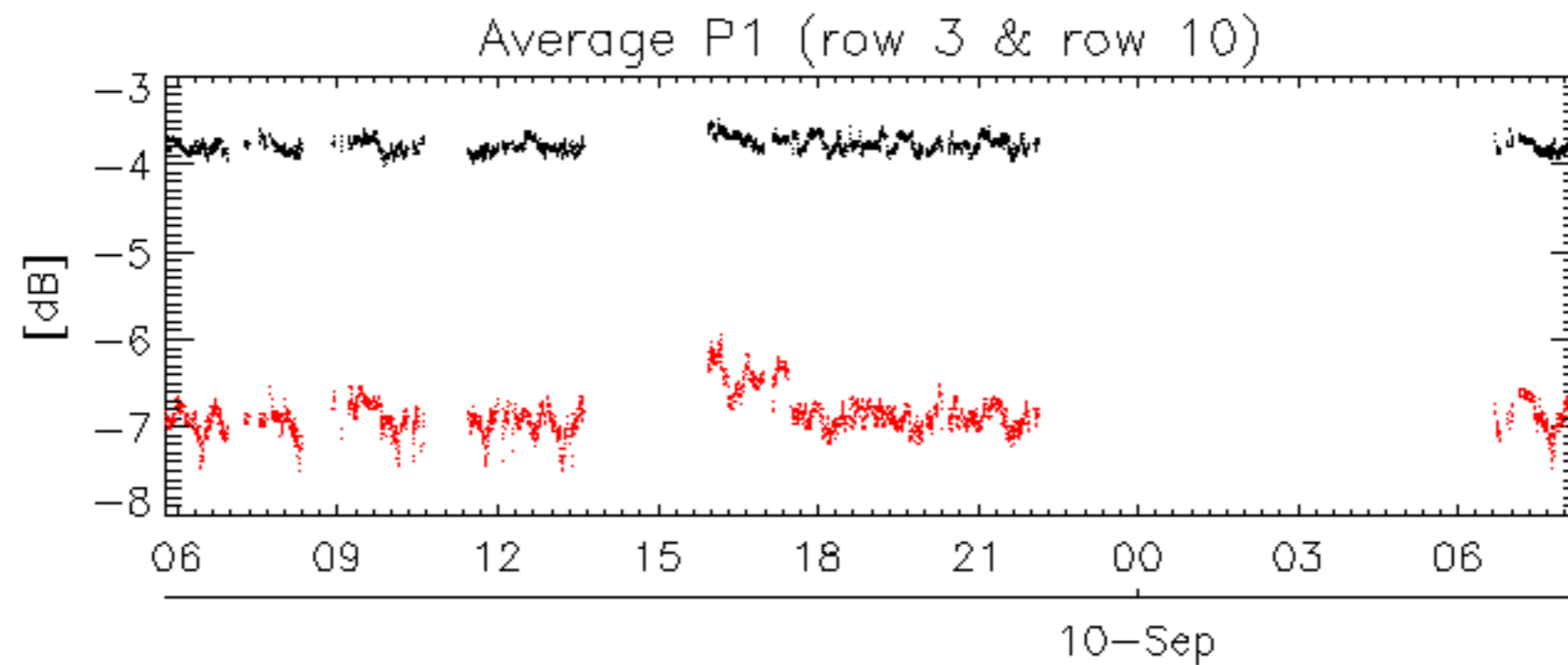


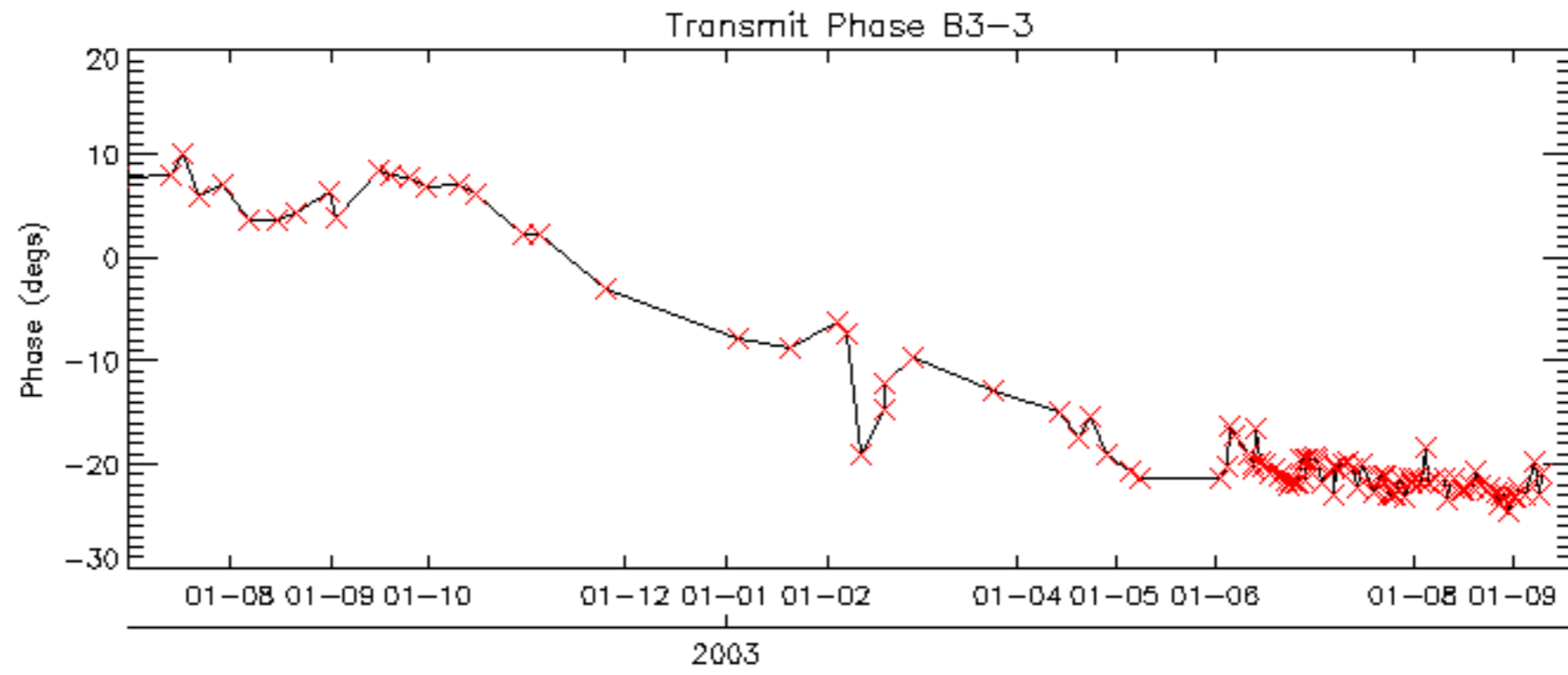
Average P2



Average P3

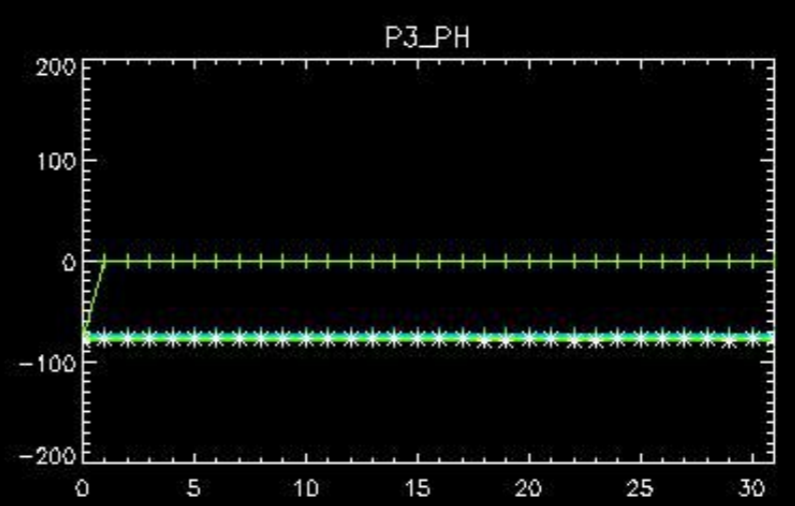
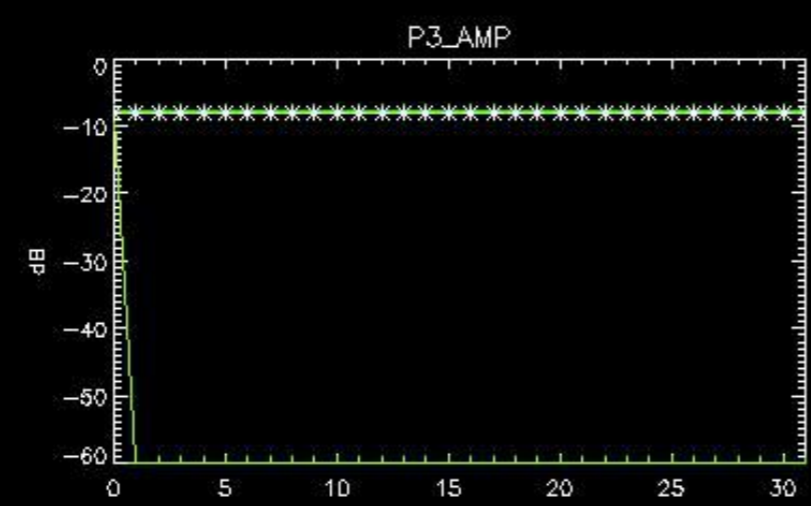
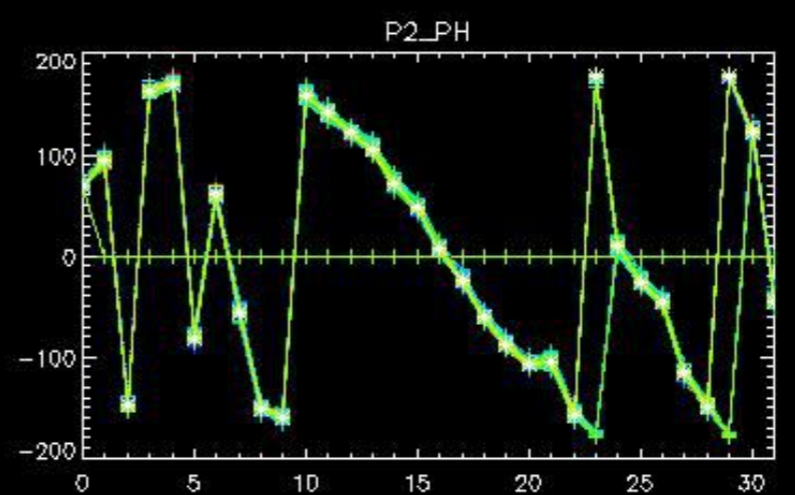
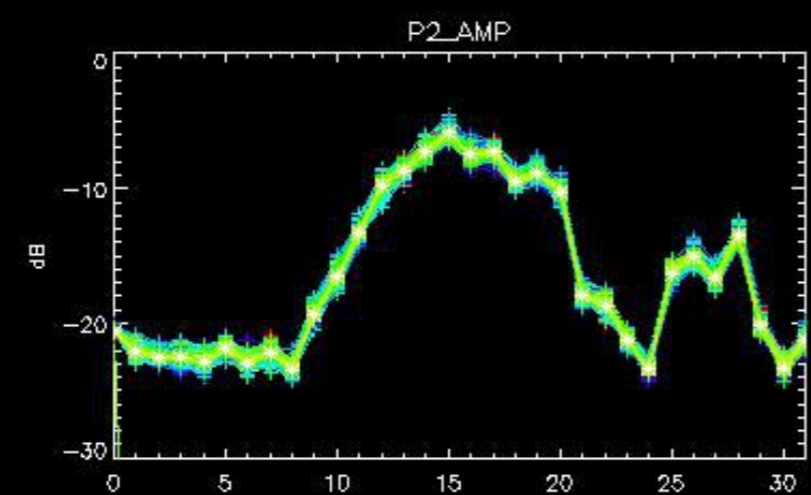
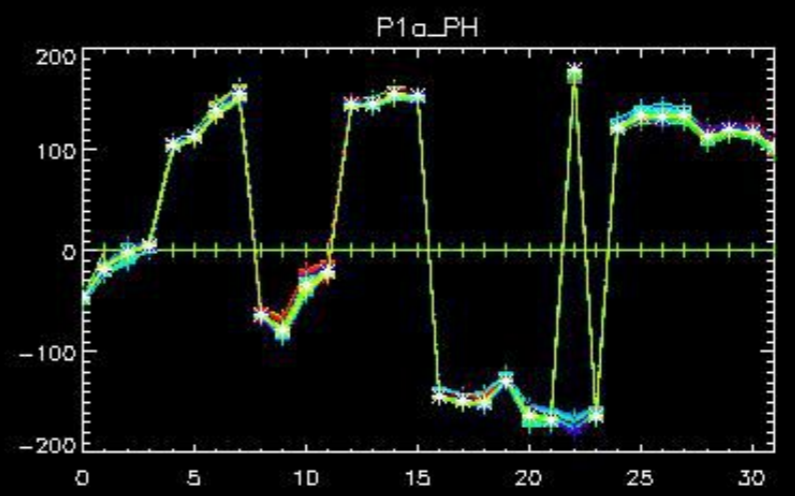
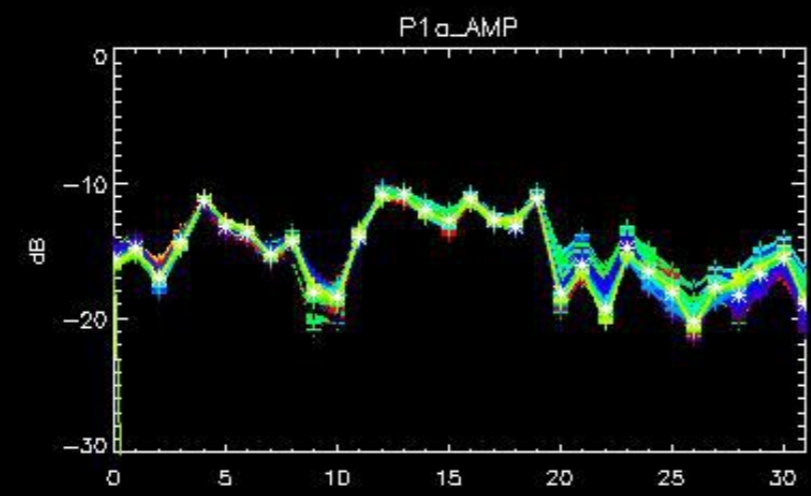
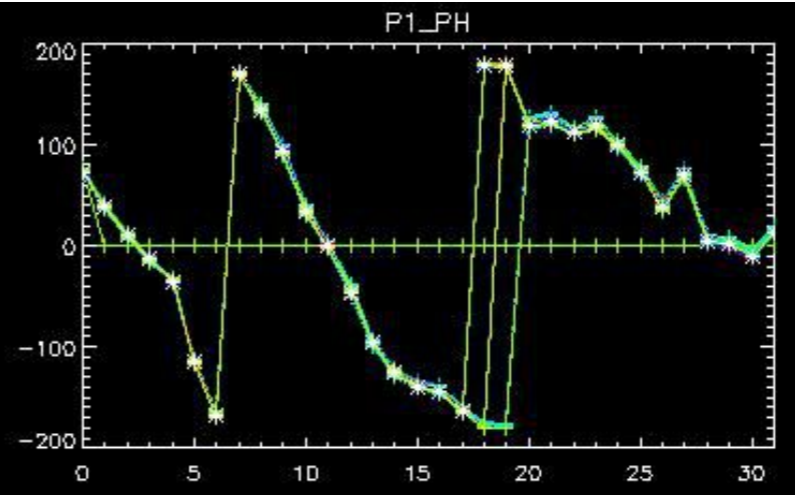
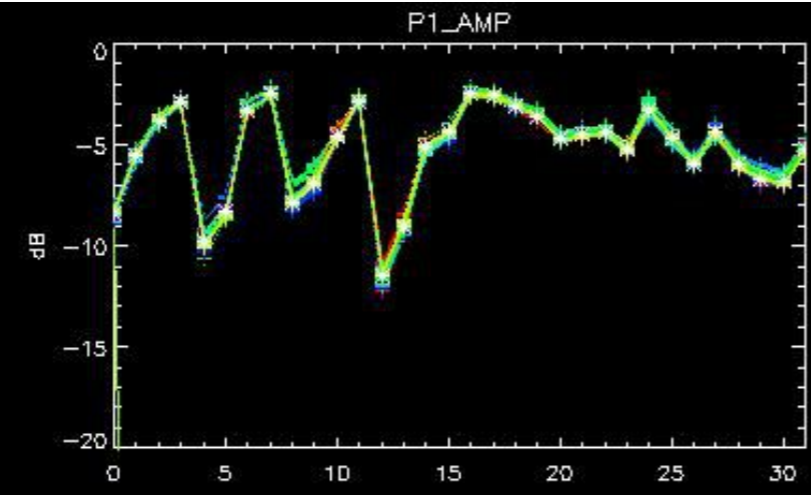






No anomalies observed on available browse products

No anomalies observed.
The instrument temperature change from pre-op to operational mode causes the variation visible on P3 pulse.

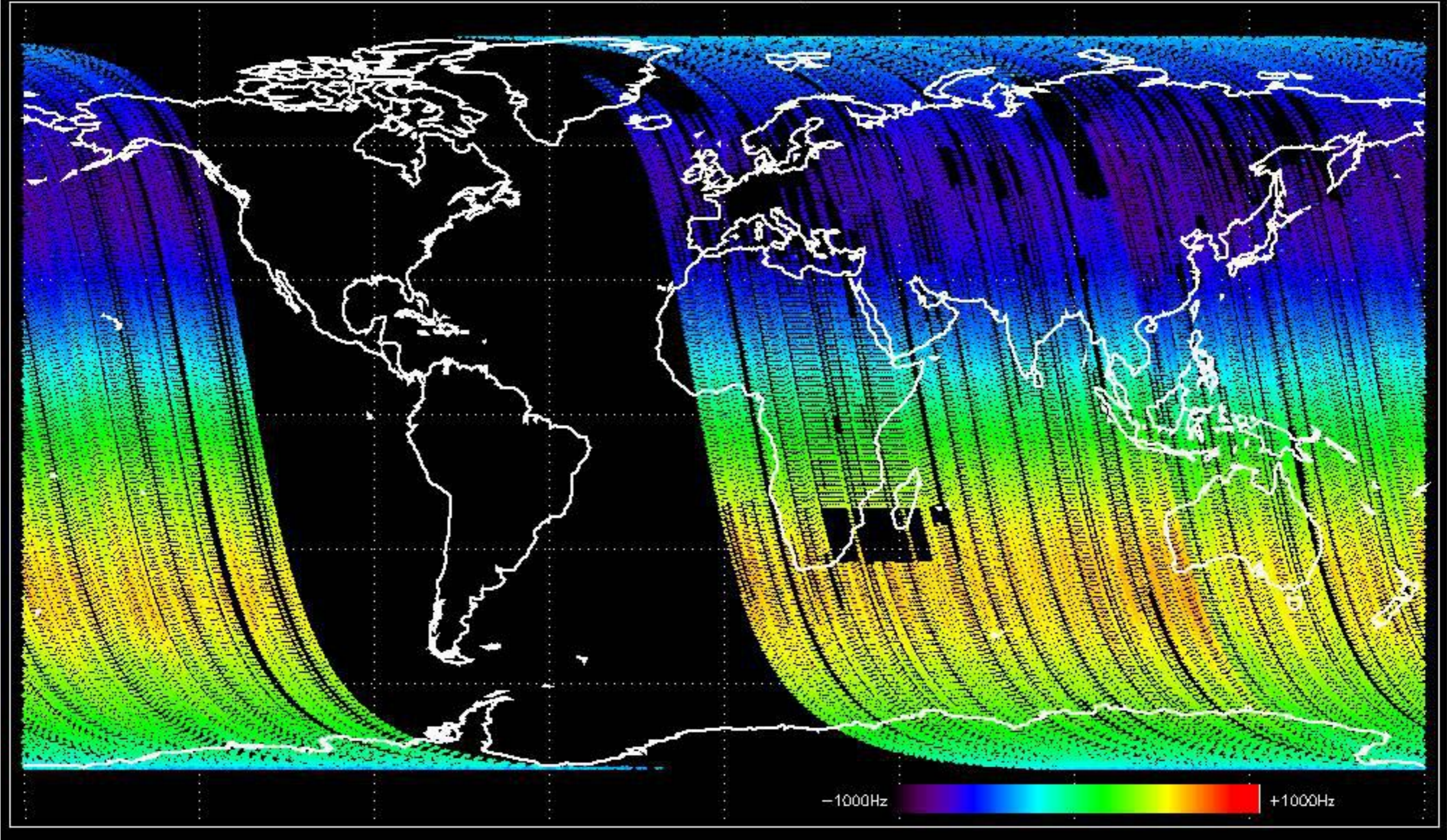


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

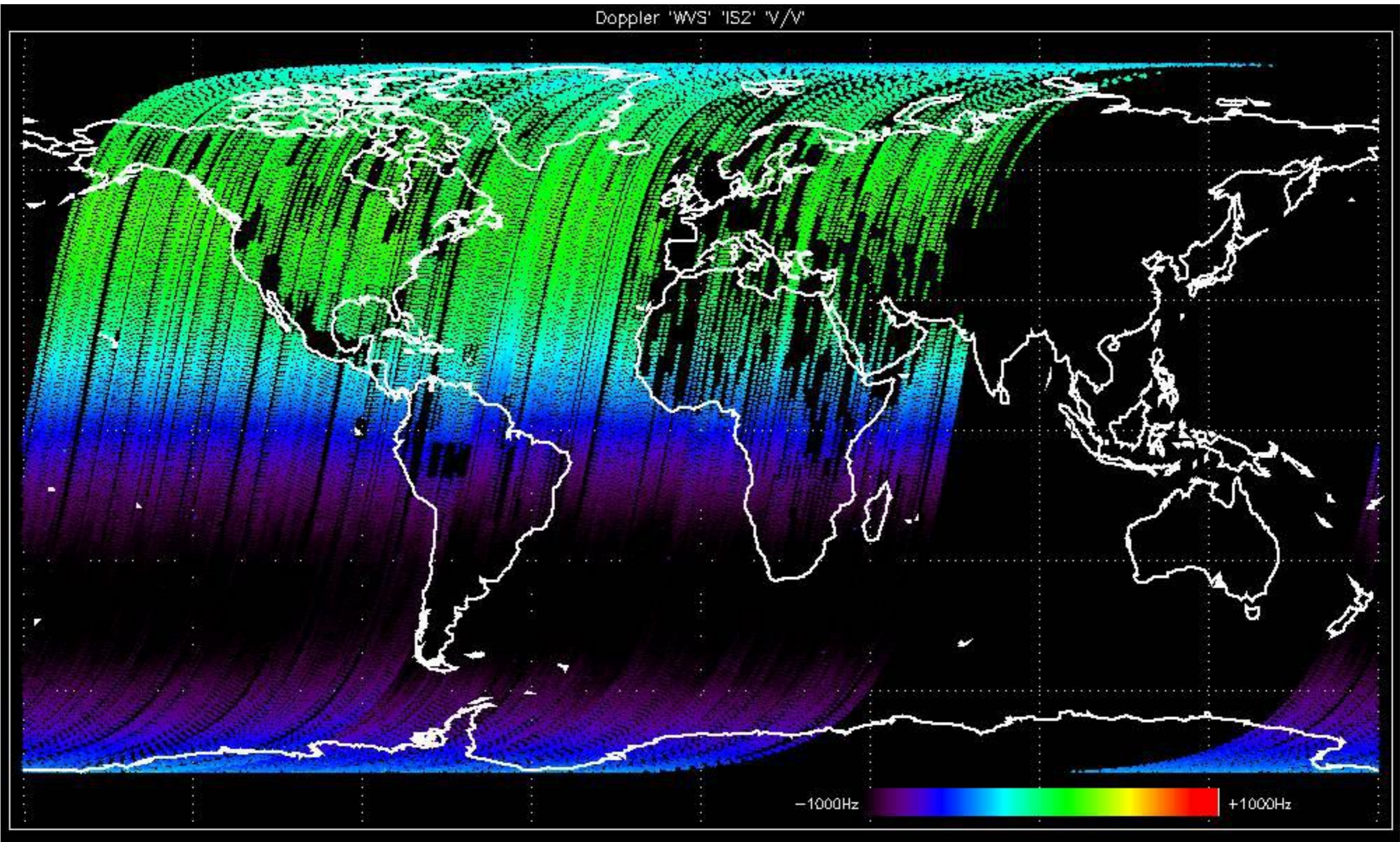
The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.

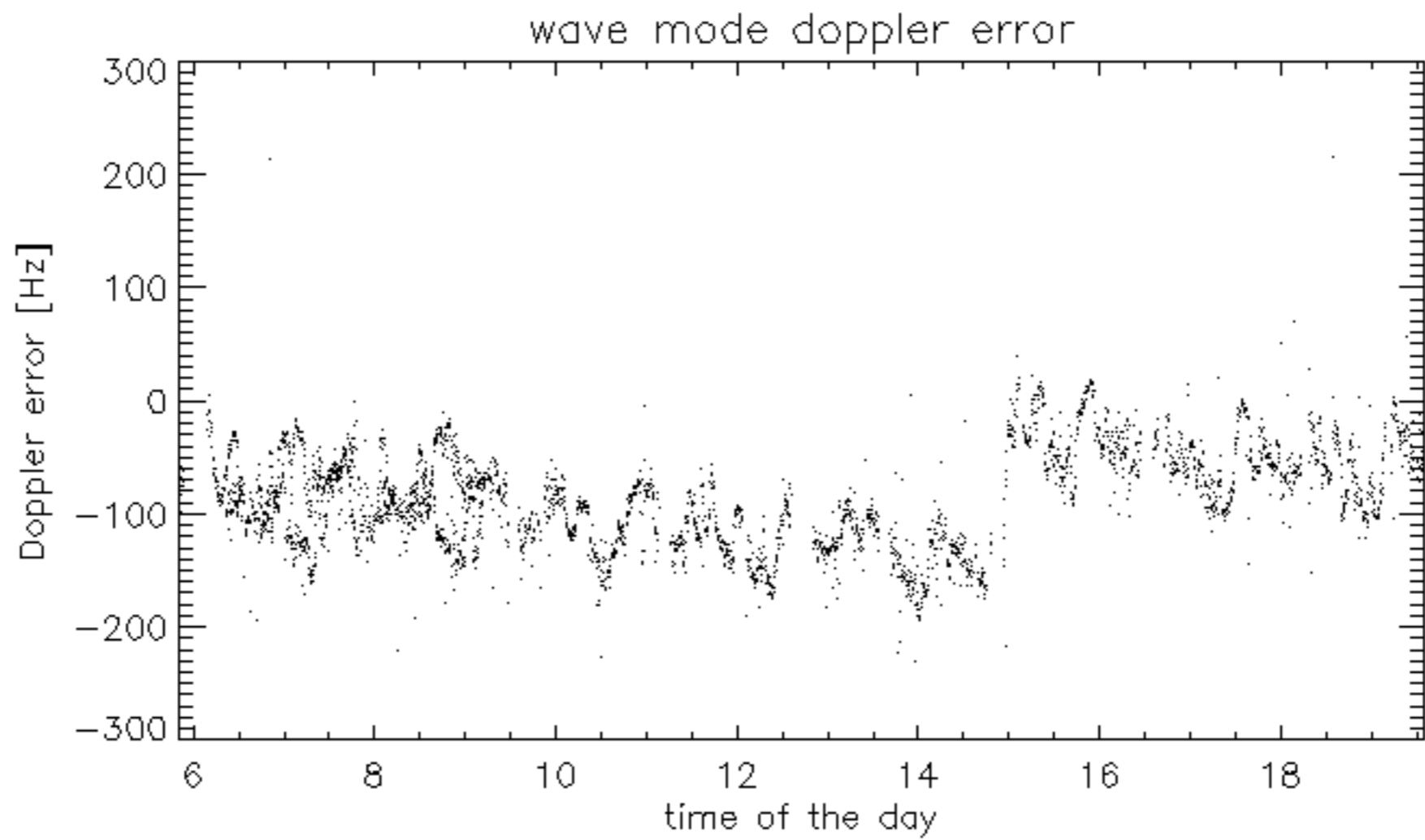
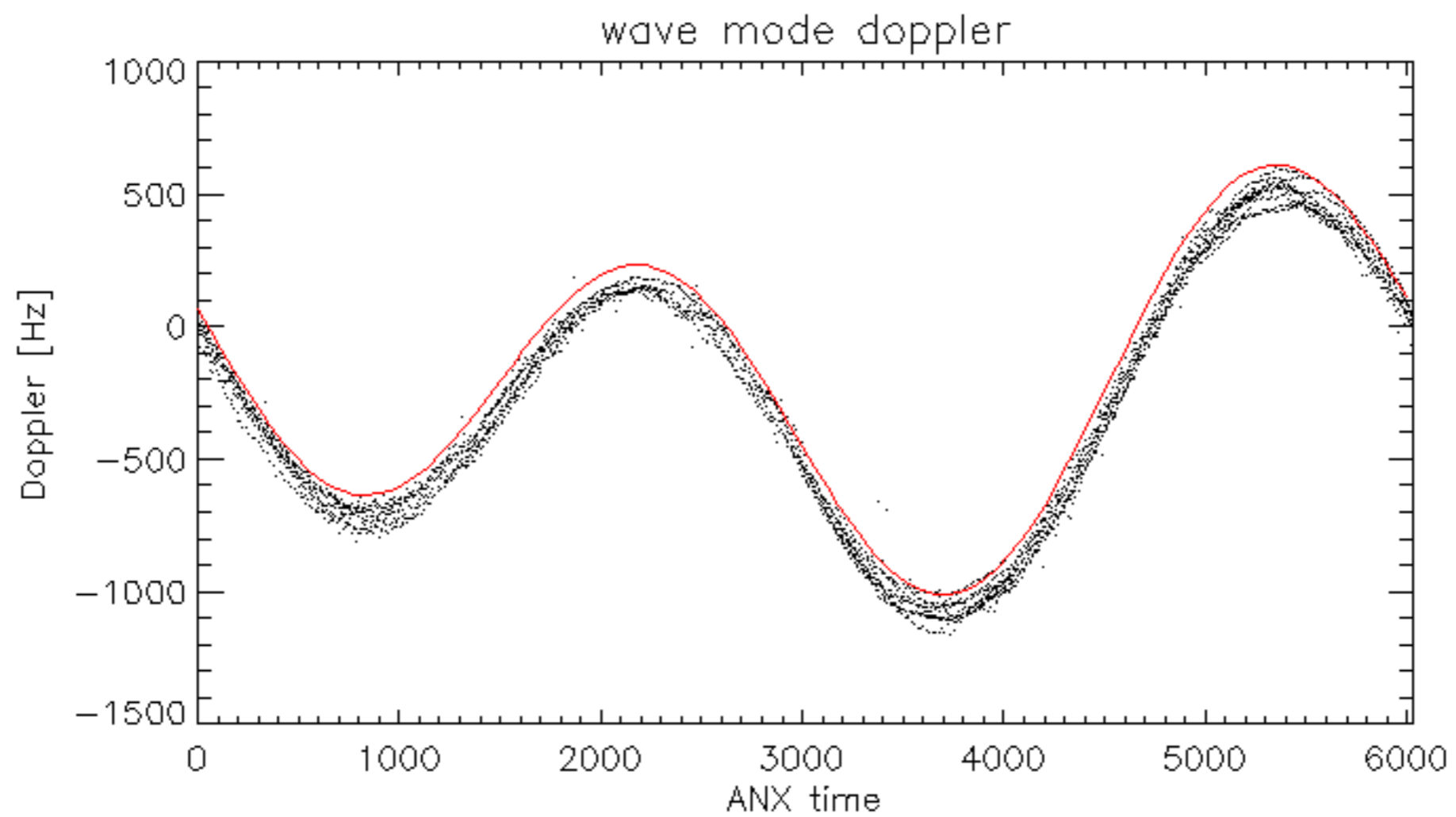
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days
Data gap over south-Africa/Madagascar is due to MS acquisition.

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

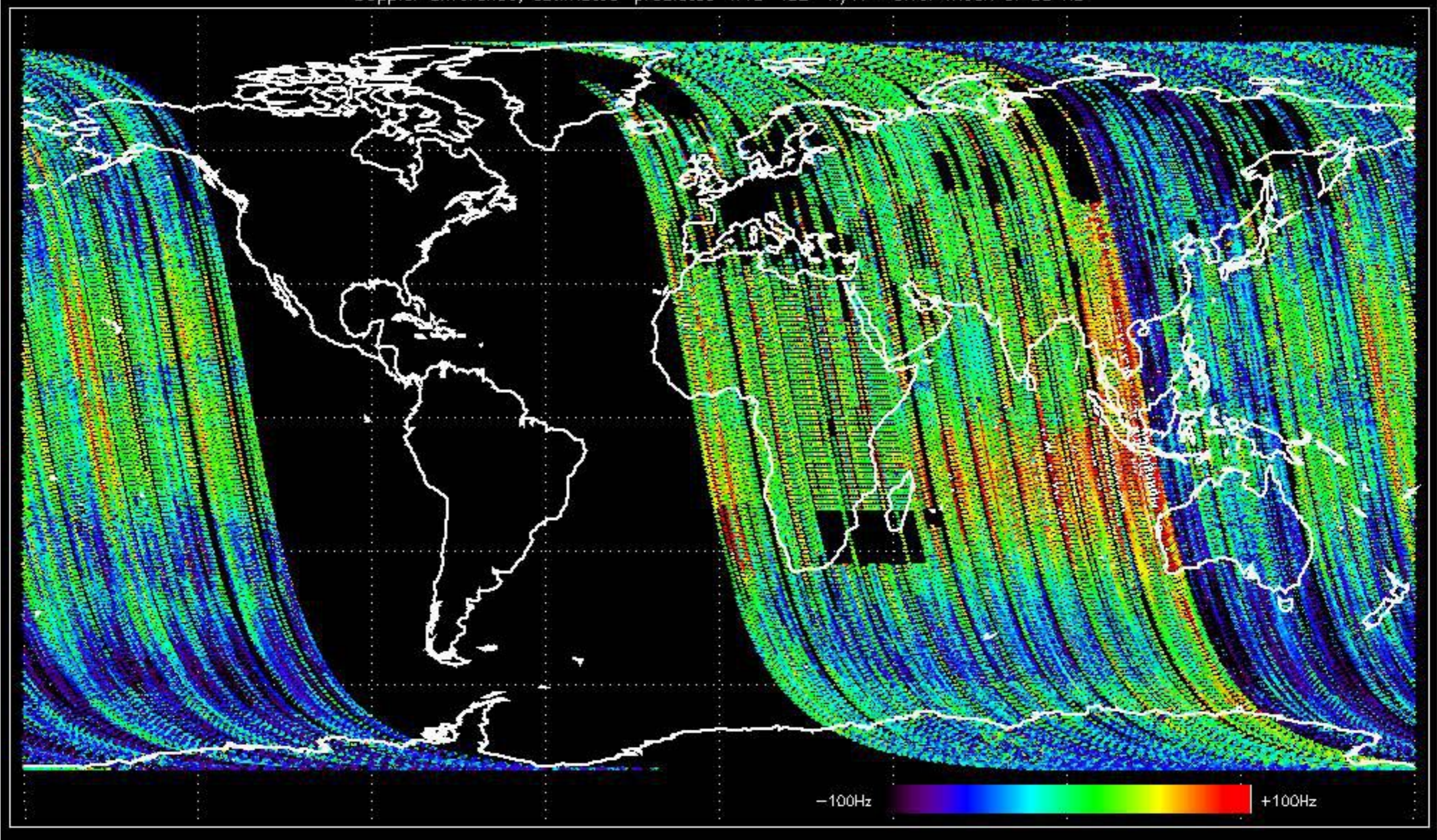


Doppler 'WVS' 'ISZ' 'V/V'

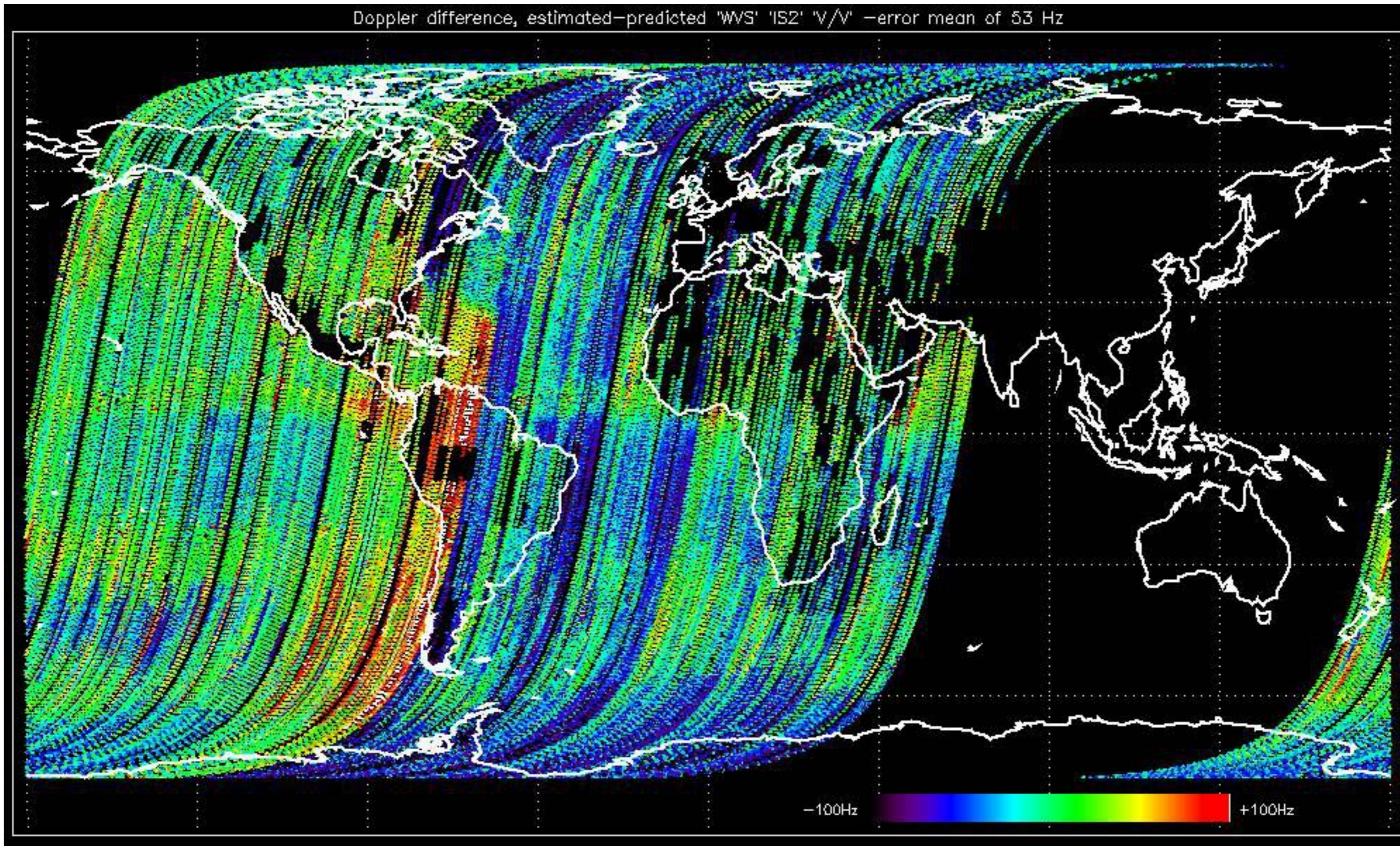




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



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

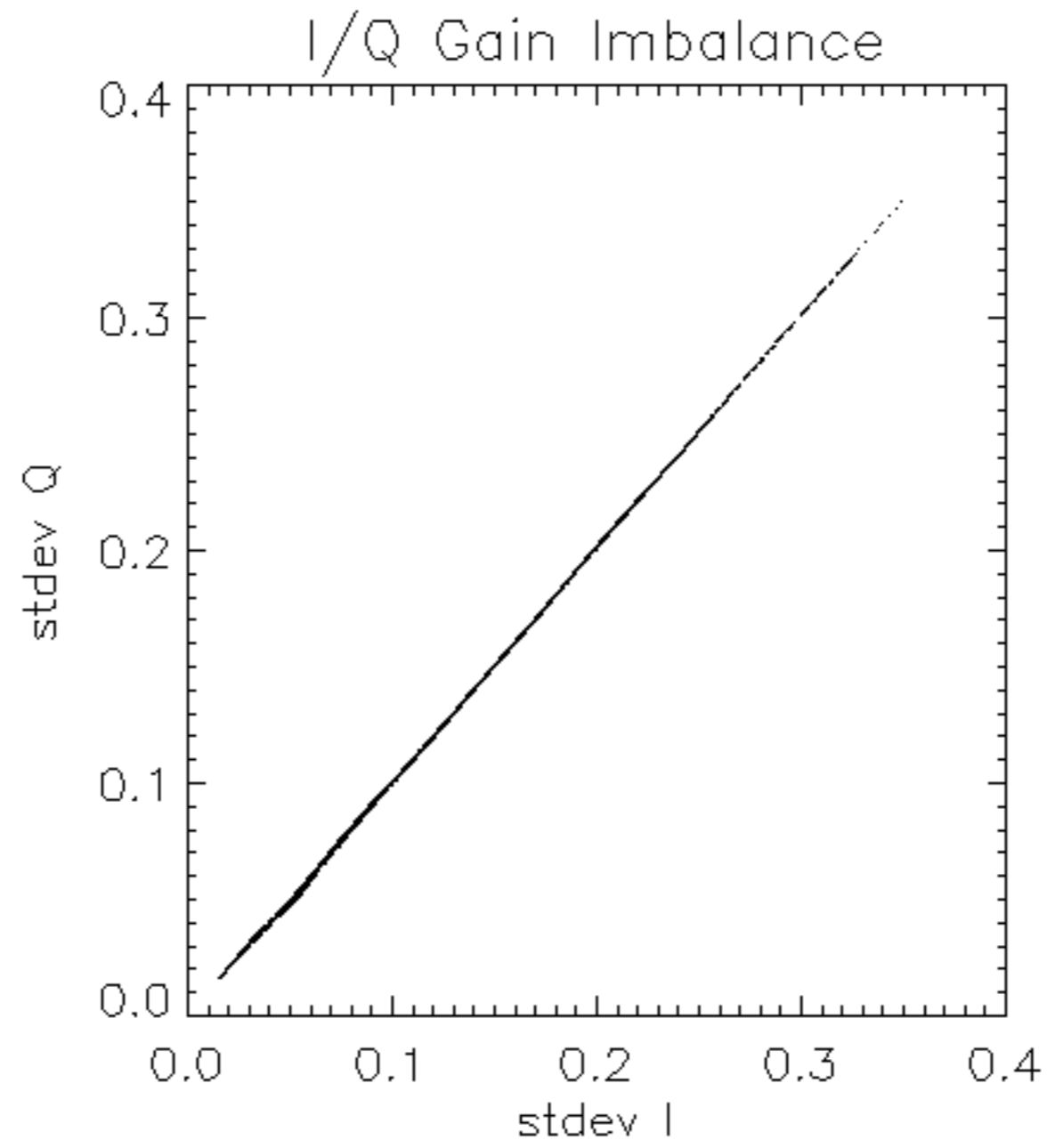


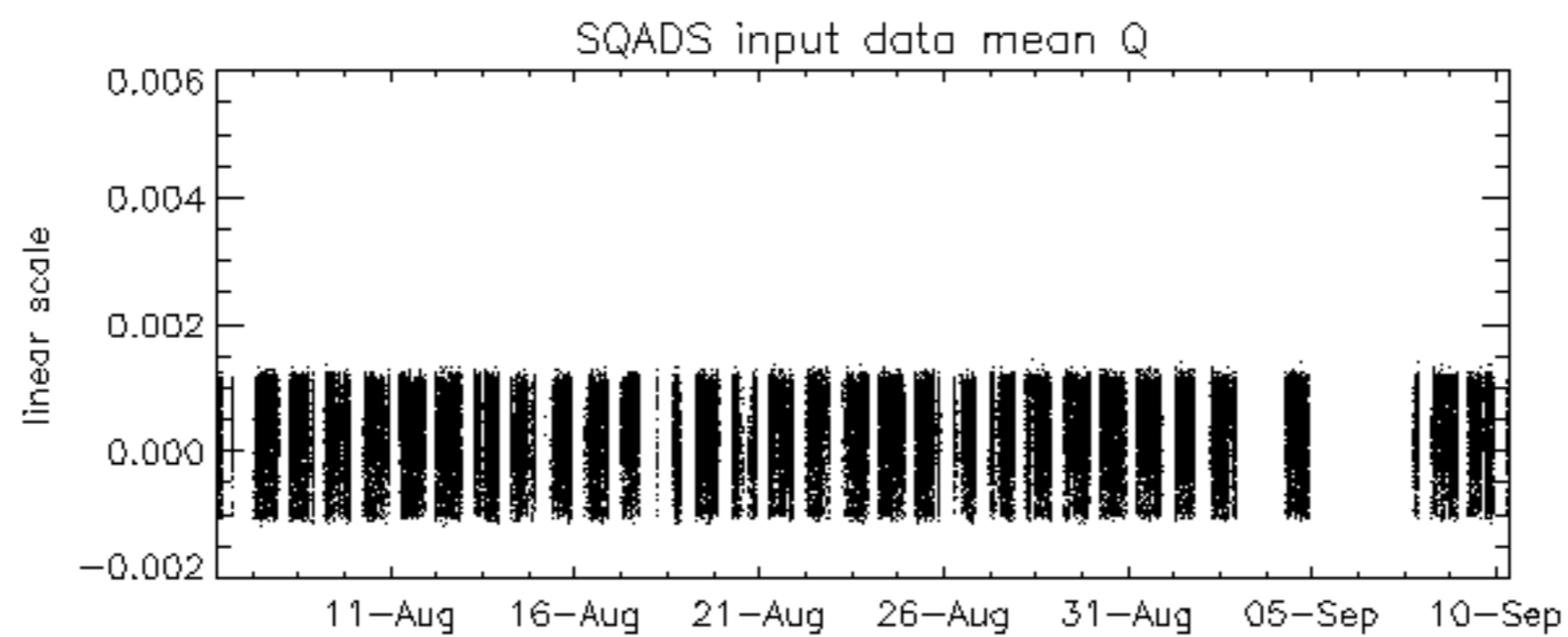
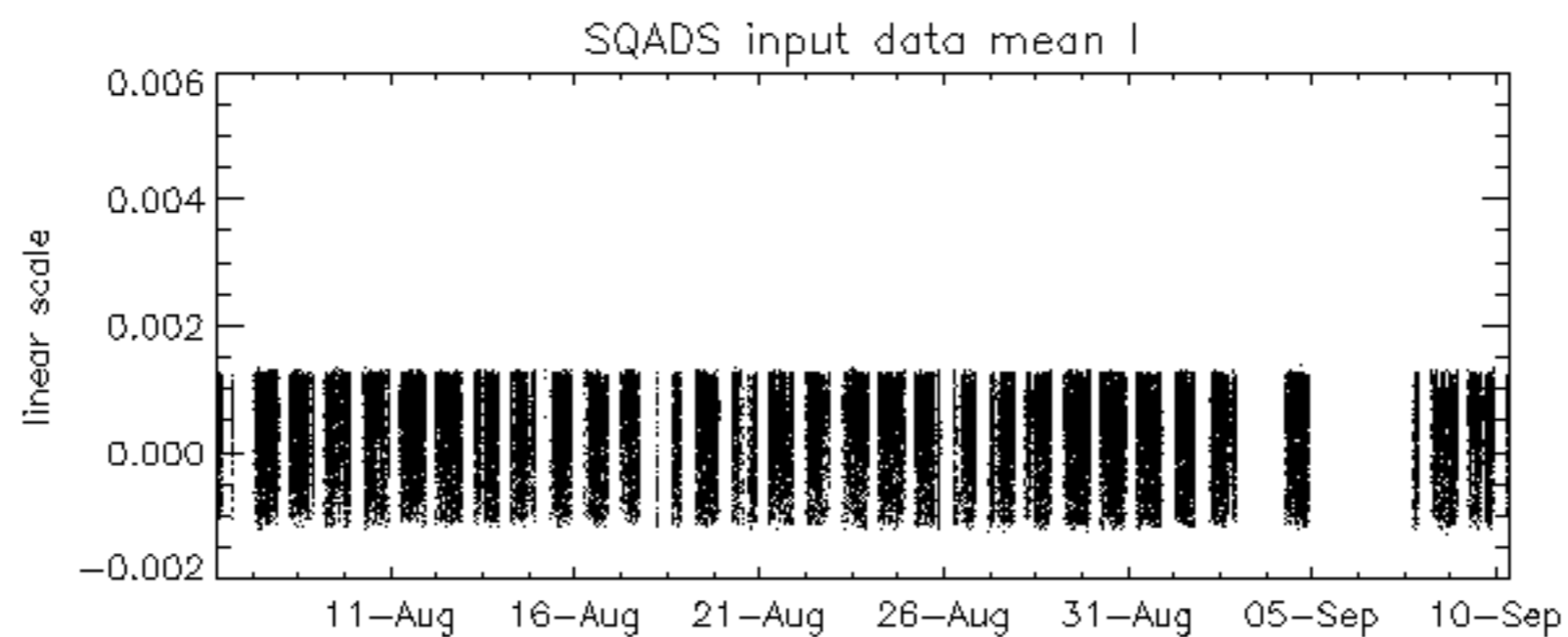
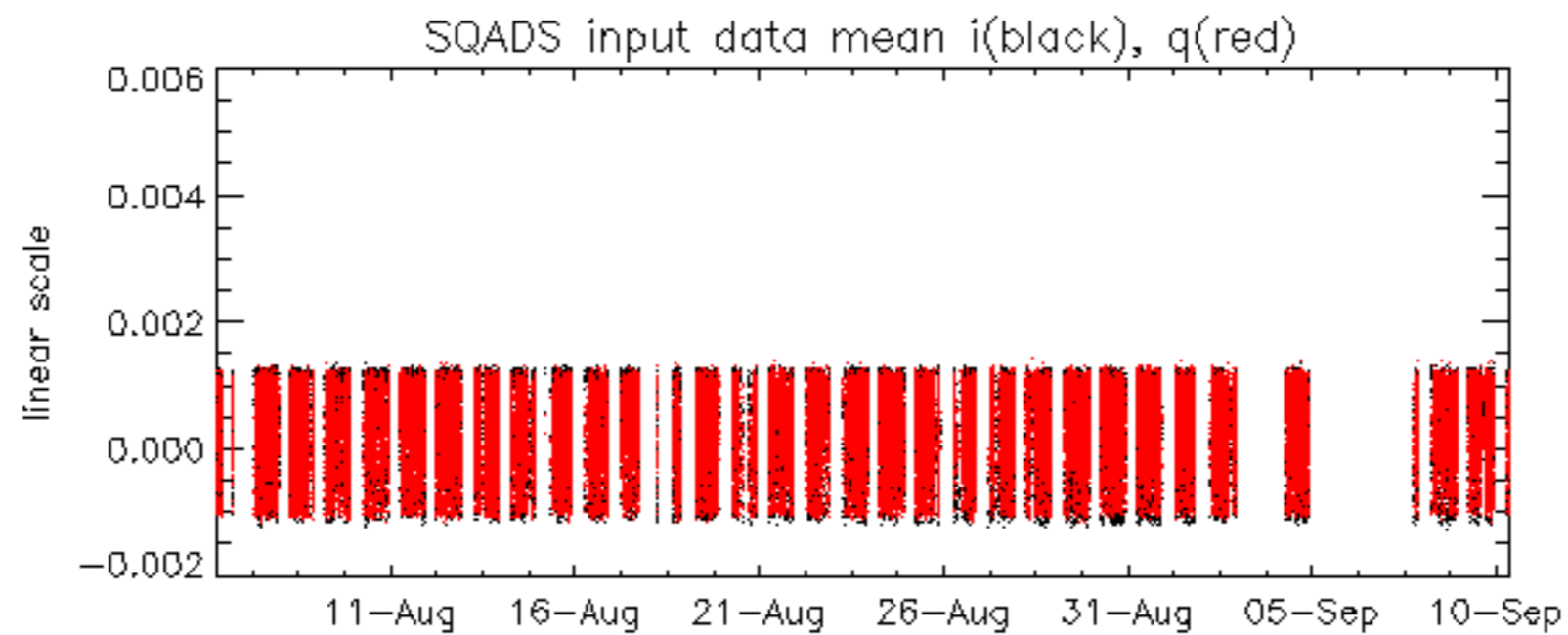
No anomalies observed on available MS products:

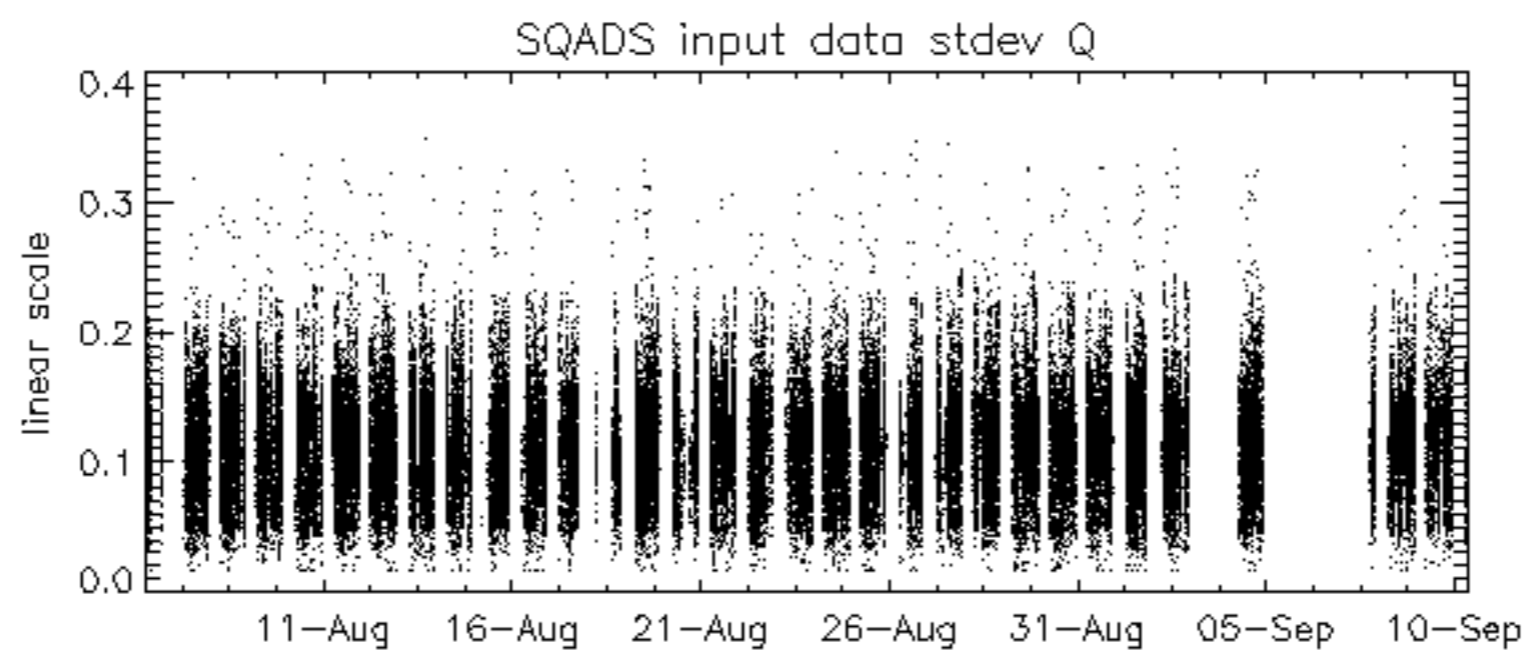
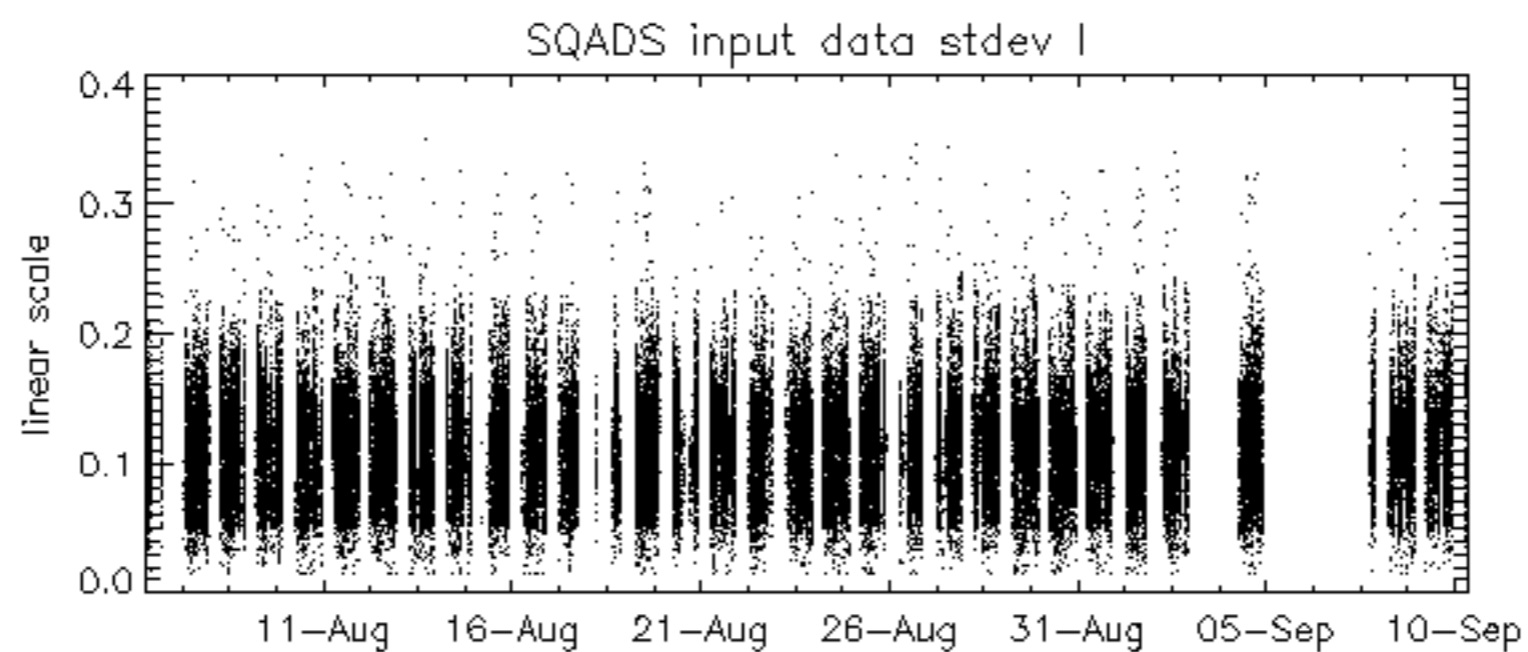
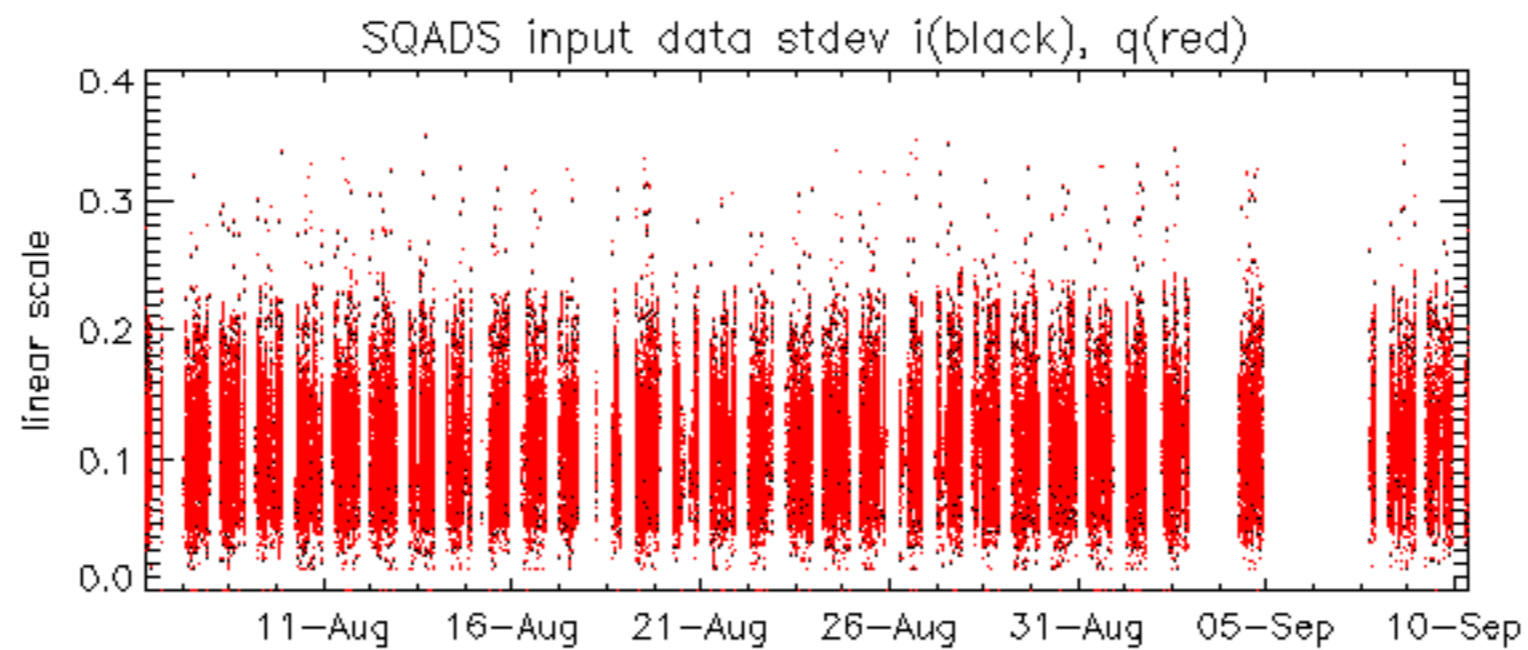
- ASA_MS__0PNPDK20030909_195843_000000152019_00414_07983_0053.N1
- ASA_MS__0PNPDK20030909_200023_000000152019_00414_07983_0054.N1

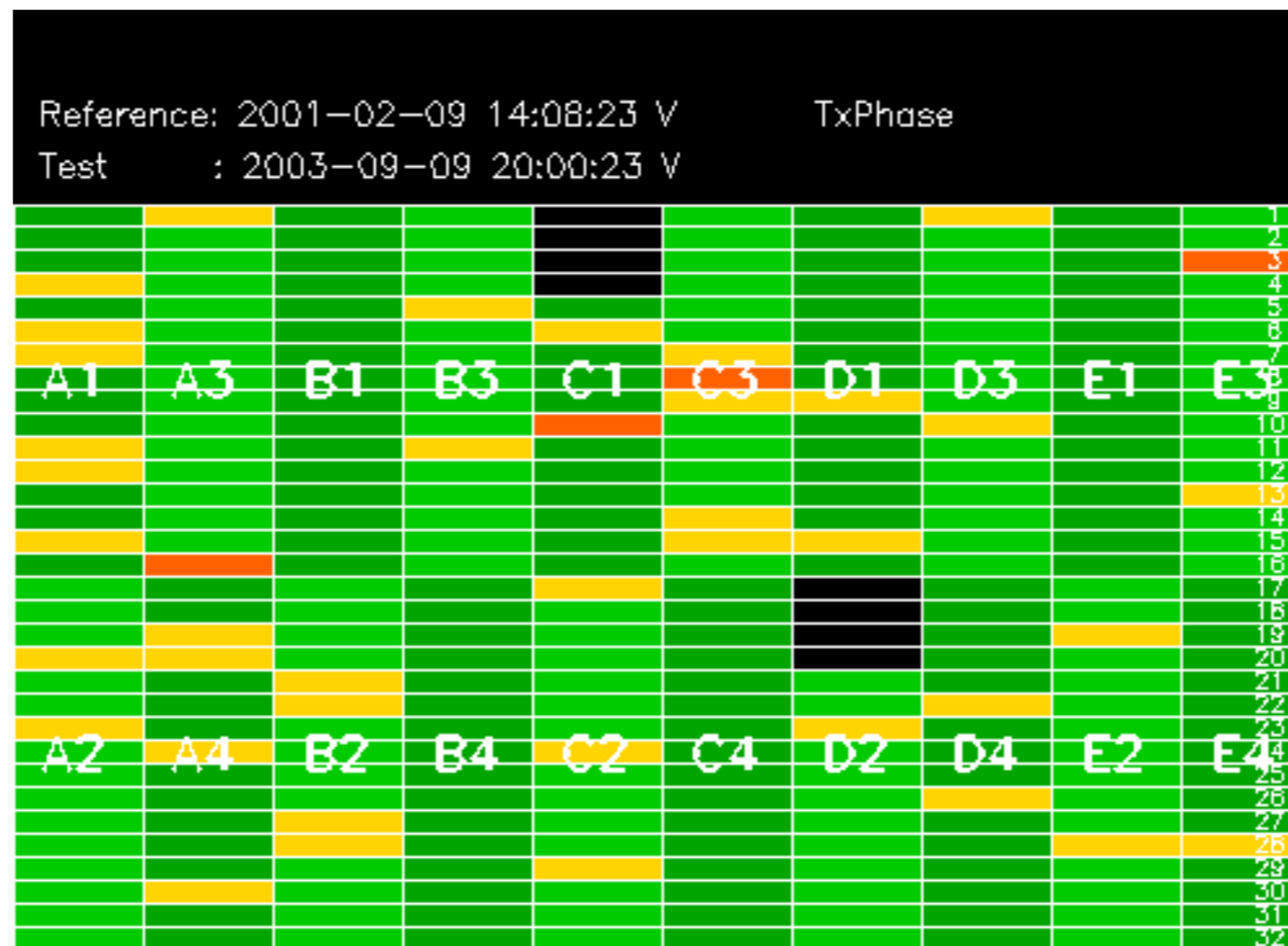
The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.

No anomalies observed.









Instrument unavailability as defined below: