

REPORT OF 031106

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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

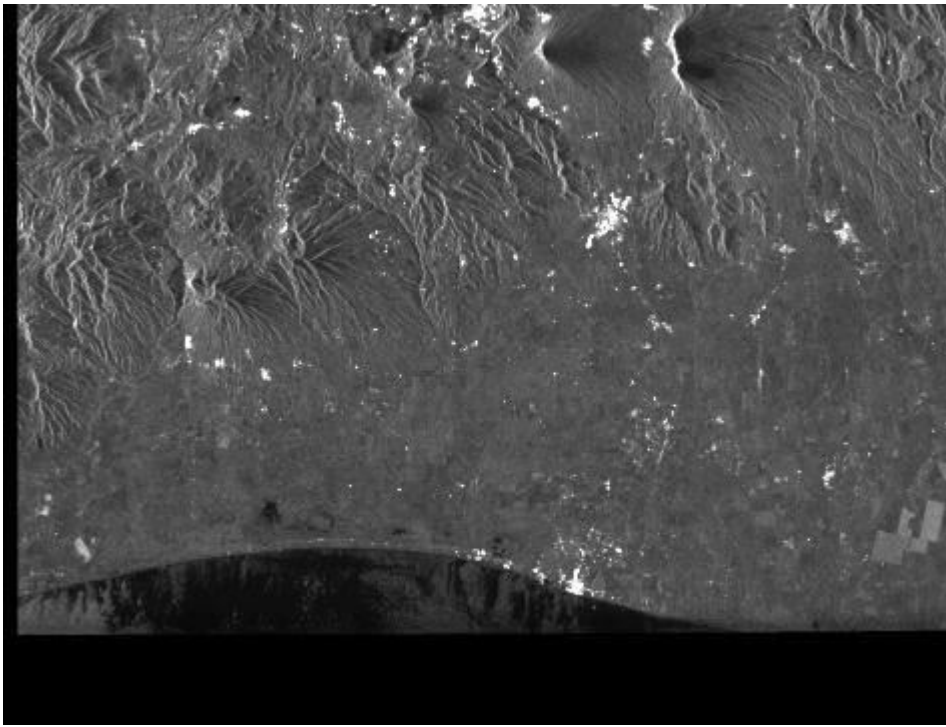
2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Browse Visual Inspection

Anomalies observed from browse products visual inspection:

-ASA_IM__BPZPK20031105_160039_00000122021_00226_08797_0021.N1



The problem is under investigation.

2.3 - Data Analysis

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

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied.

No anomalies observed on available MS products:

- ASA_MS__0PNPDK20031105_195853_000000152021_00228_08799_0001.N1
- ASA_MS__0PNPDK20031105_200013_000000152021_00228_08799_0000.N1

Stabilization of the B3-3 module drift in transmit phase on H polarisation as shown below.



Polarisation **Start Time**

V	20031105 200013
H	20031105 195853

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	-3.77651	-22.5594	-8.16154
	stdev	0.00592426	0.0696355	0.00270026
24	mean	-5.15760	-21.2532	-8.16154
	stdev	0.0137605	0.0649524	0.00270026

☒

4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.78984	-22.5447	-8.14723

	stdev	0.00547402	0.0635611	0.00264256
24	mean	-5.35159	-21.2539	-8.14723
	stdev	0.885377	0.0604575	0.00264256



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	0.000376171
	stdev	3.56695e-07
MEAN Q	mean	0.000274082
	stdev	3.40747e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.113706
	stdev	0.00144353
STDEV Q	mean	0.113943
	stdev	0.00146116



5.3 - Gain imbalance I/Q



6 - Wave Doppler Analysis

No anomalies observed in Doppler evolution.
Doppler analysis performed over the last 35 days.

6.1 - Unbiased Doppler Error

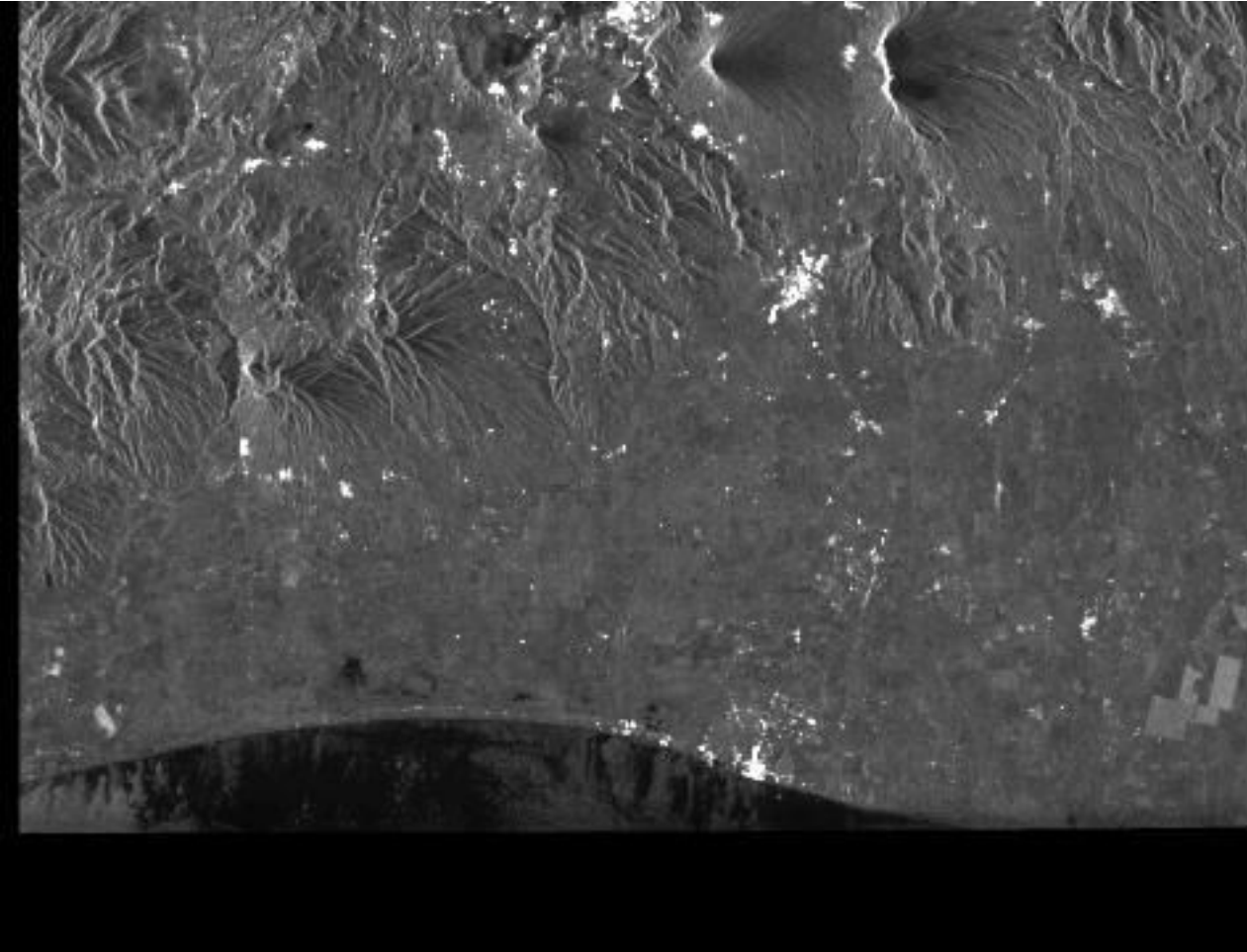
Evolution of unbiased Doppler error (Real - Expected)
Ascending
Descending

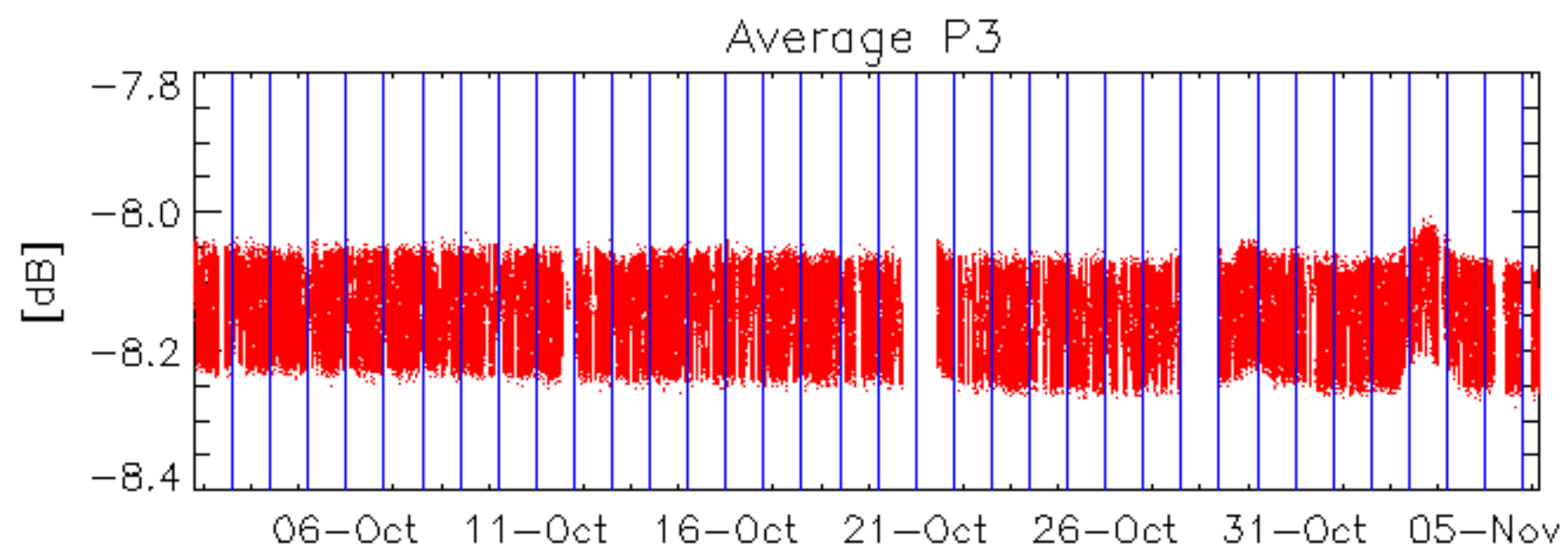
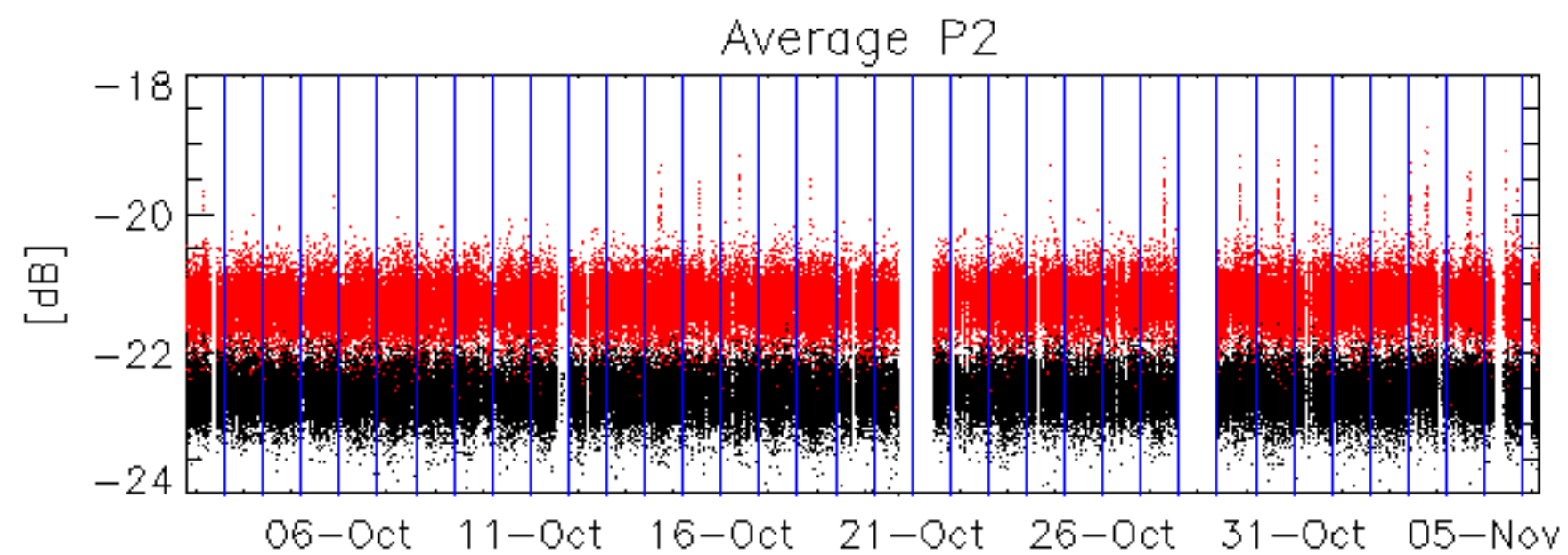
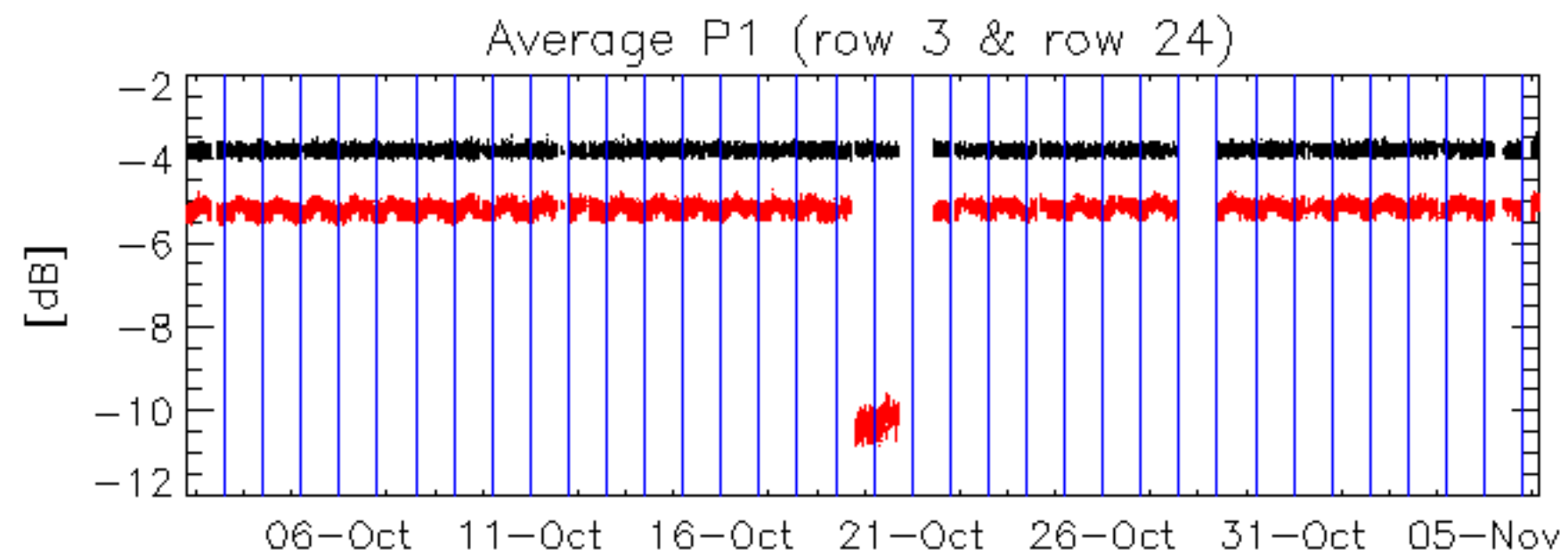
6.2 - Absolute Doppler

Evolution of Absolute Doppler
Ascending
Descending

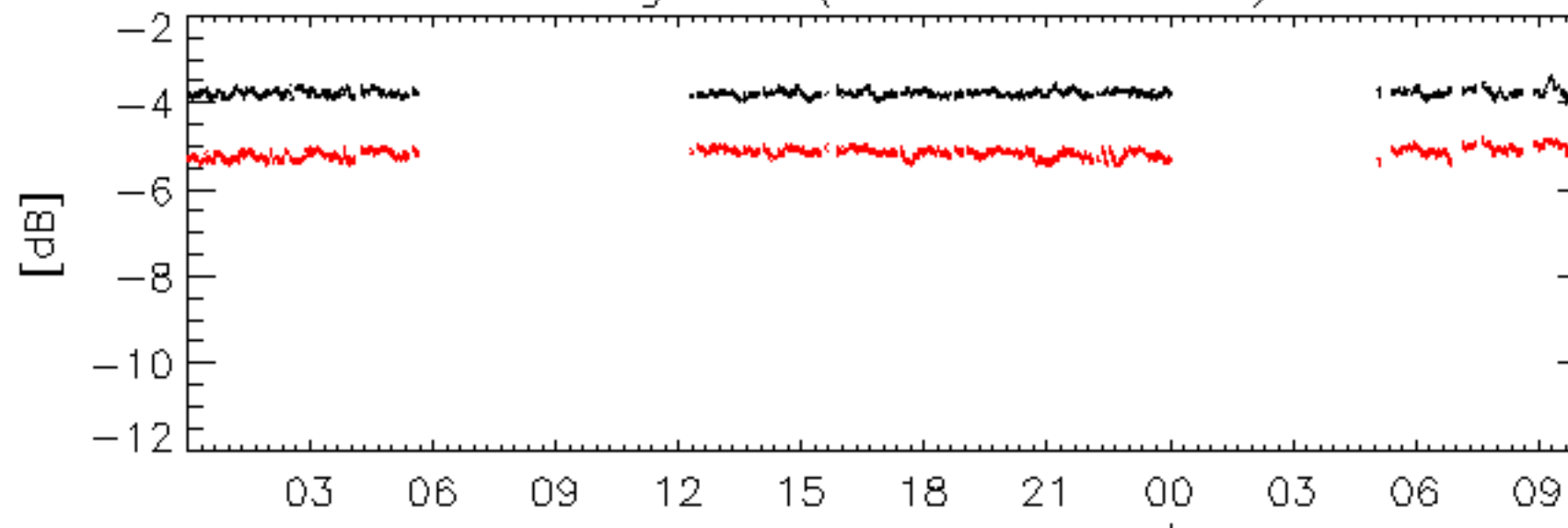
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX
<input type="checkbox"/>



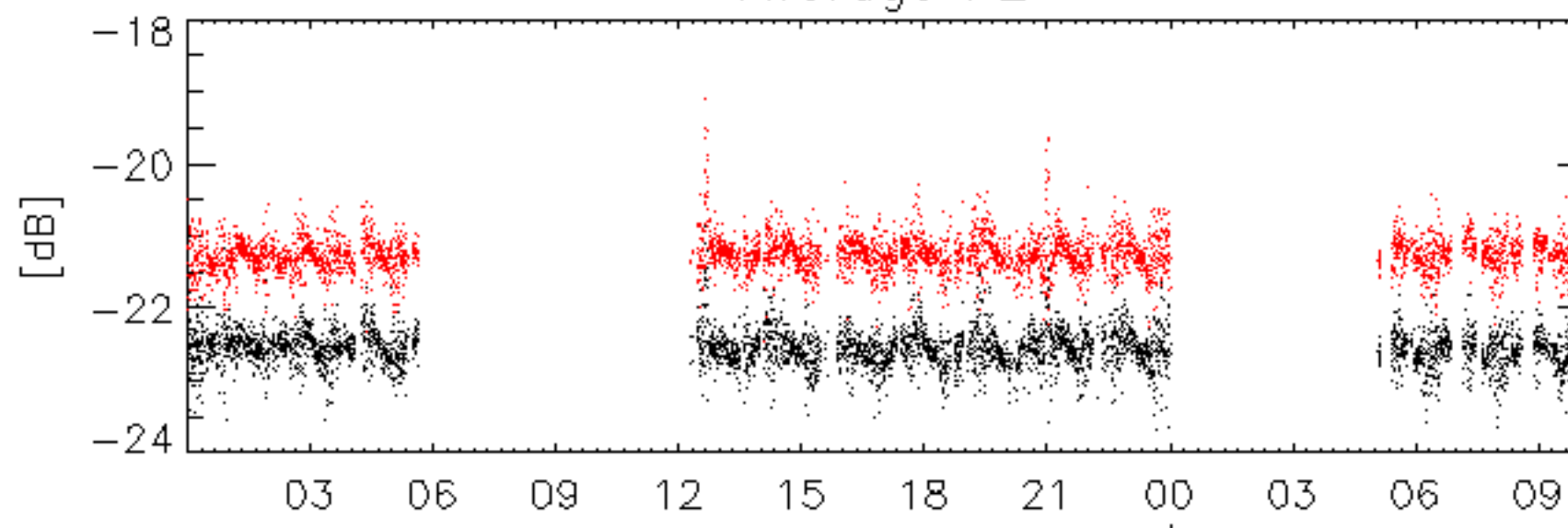


Average P1 (row 3 & row 24)



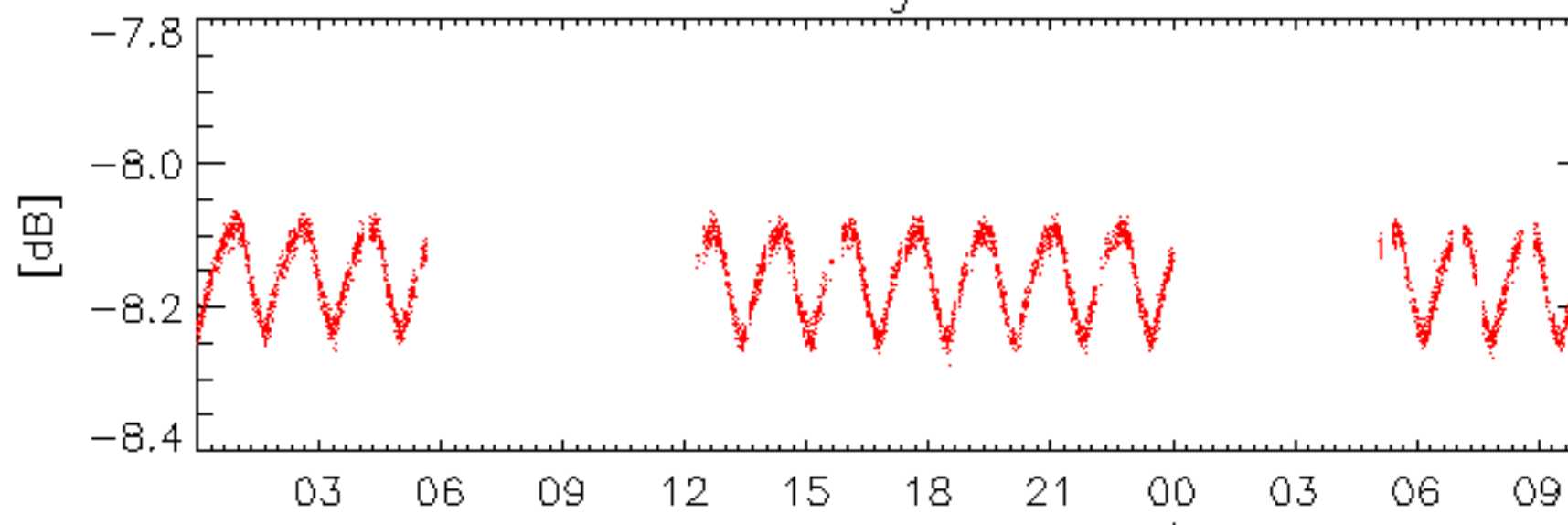
06-Nov

Average P2

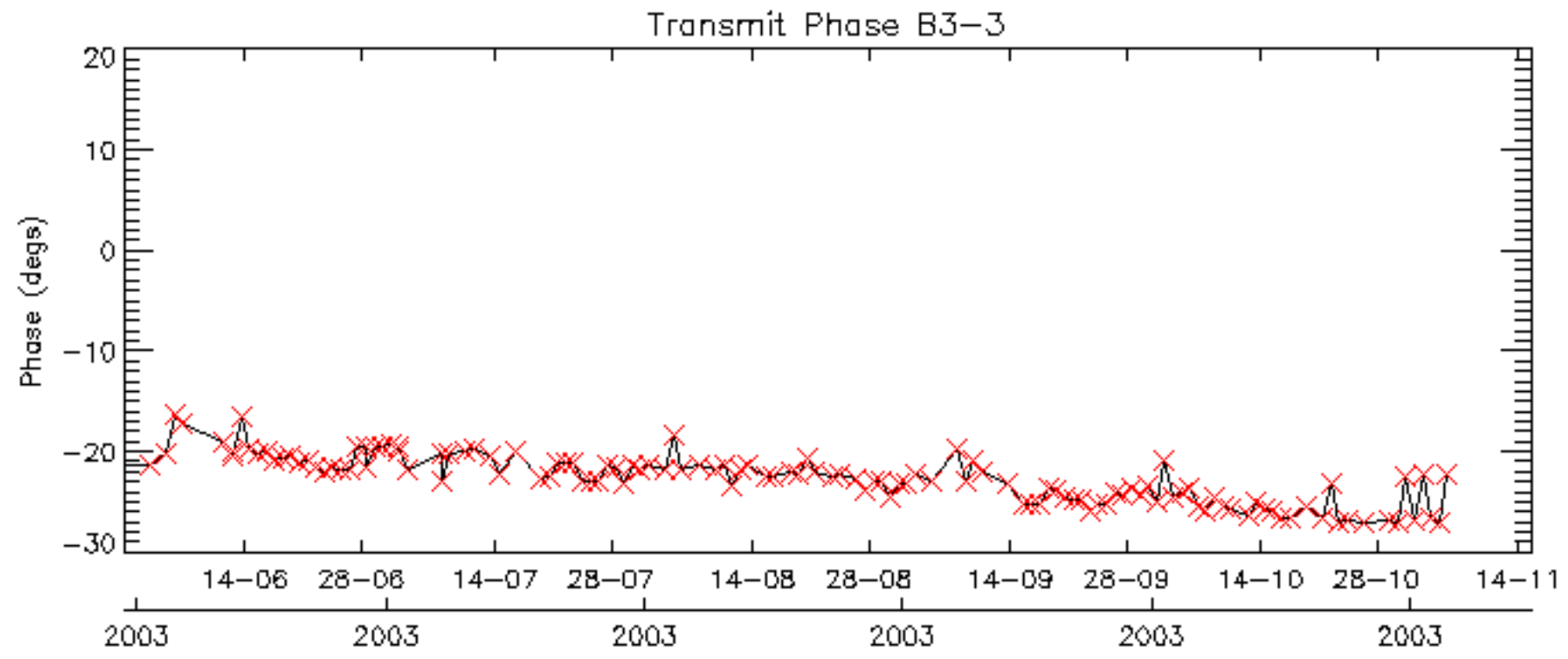


06-Nov

Average P3



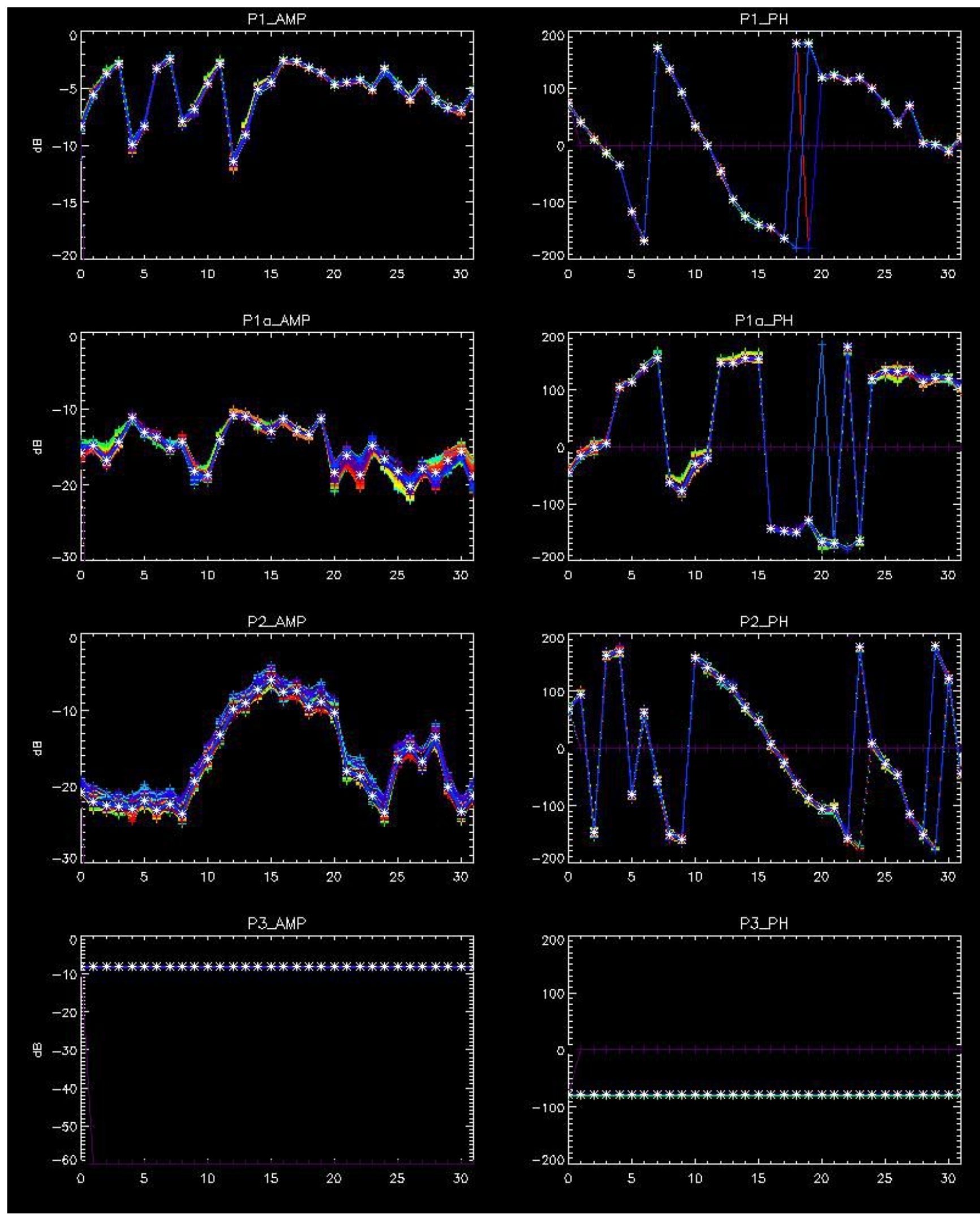
06-Nov



Anomalies observed from browse products visual inspection:
-ASA_IM_BPZPK20031105_160039_000000122021_00226_08797_0021.N1

The problem is under investigation.

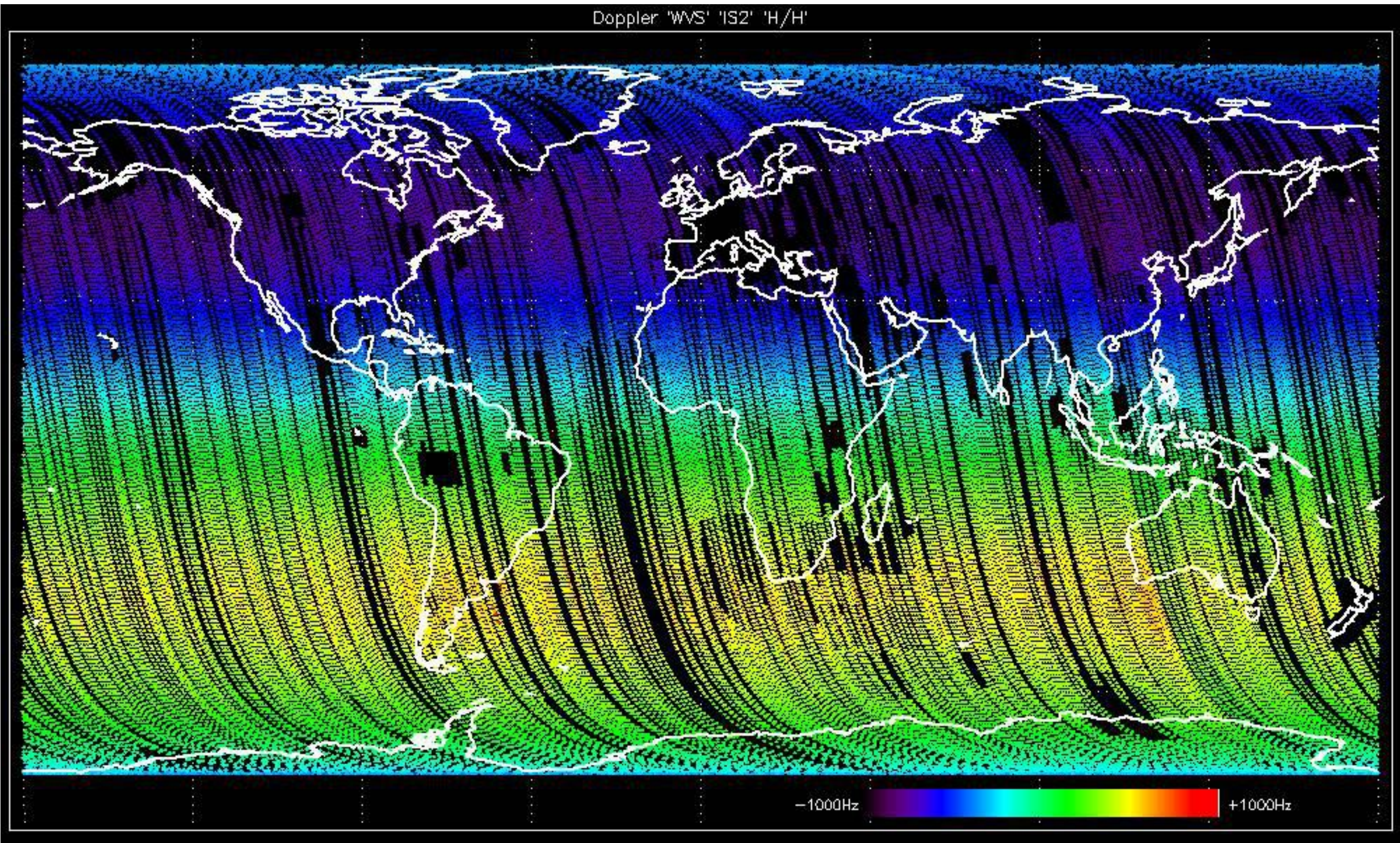
No anomalies observed.



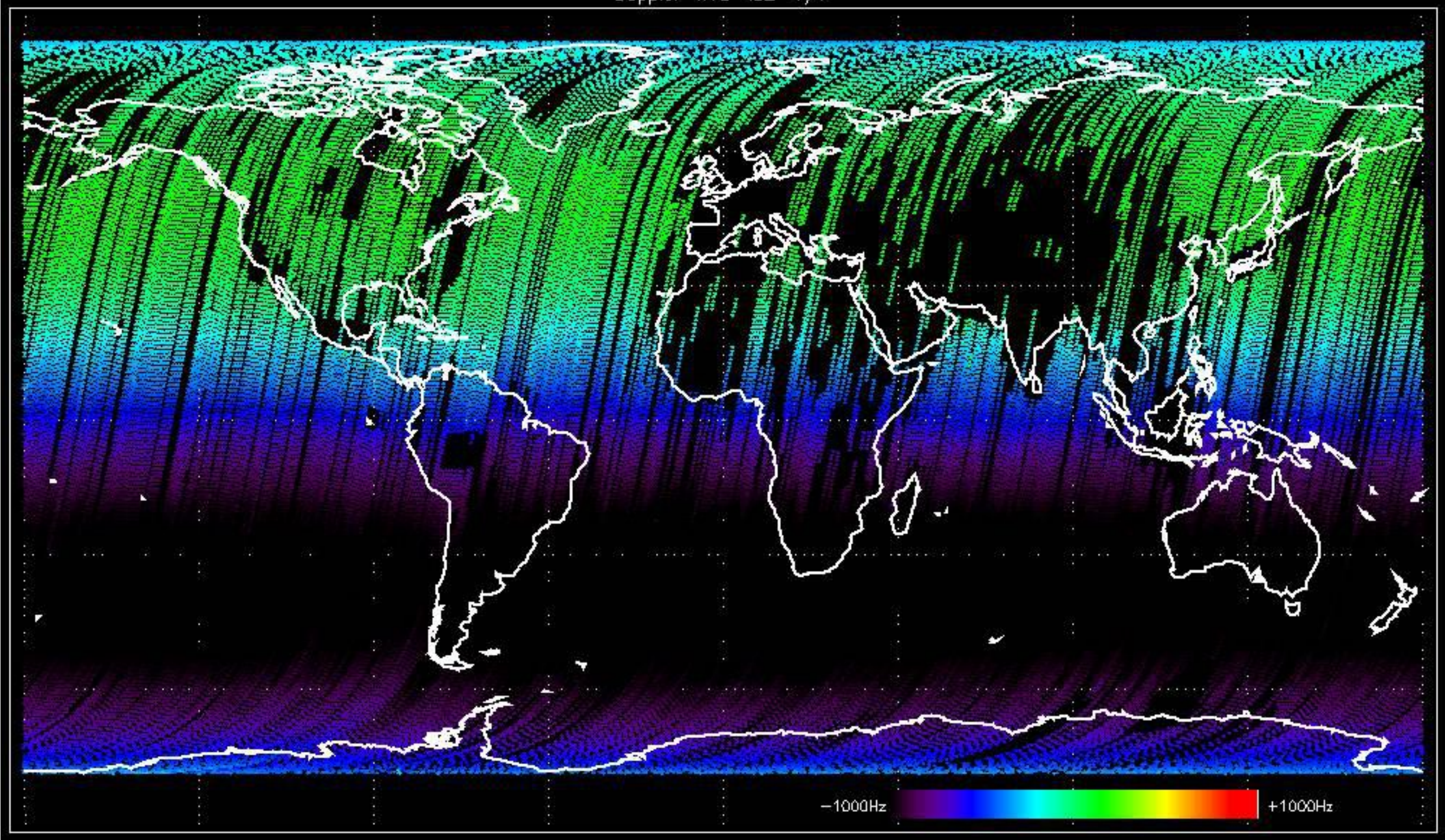
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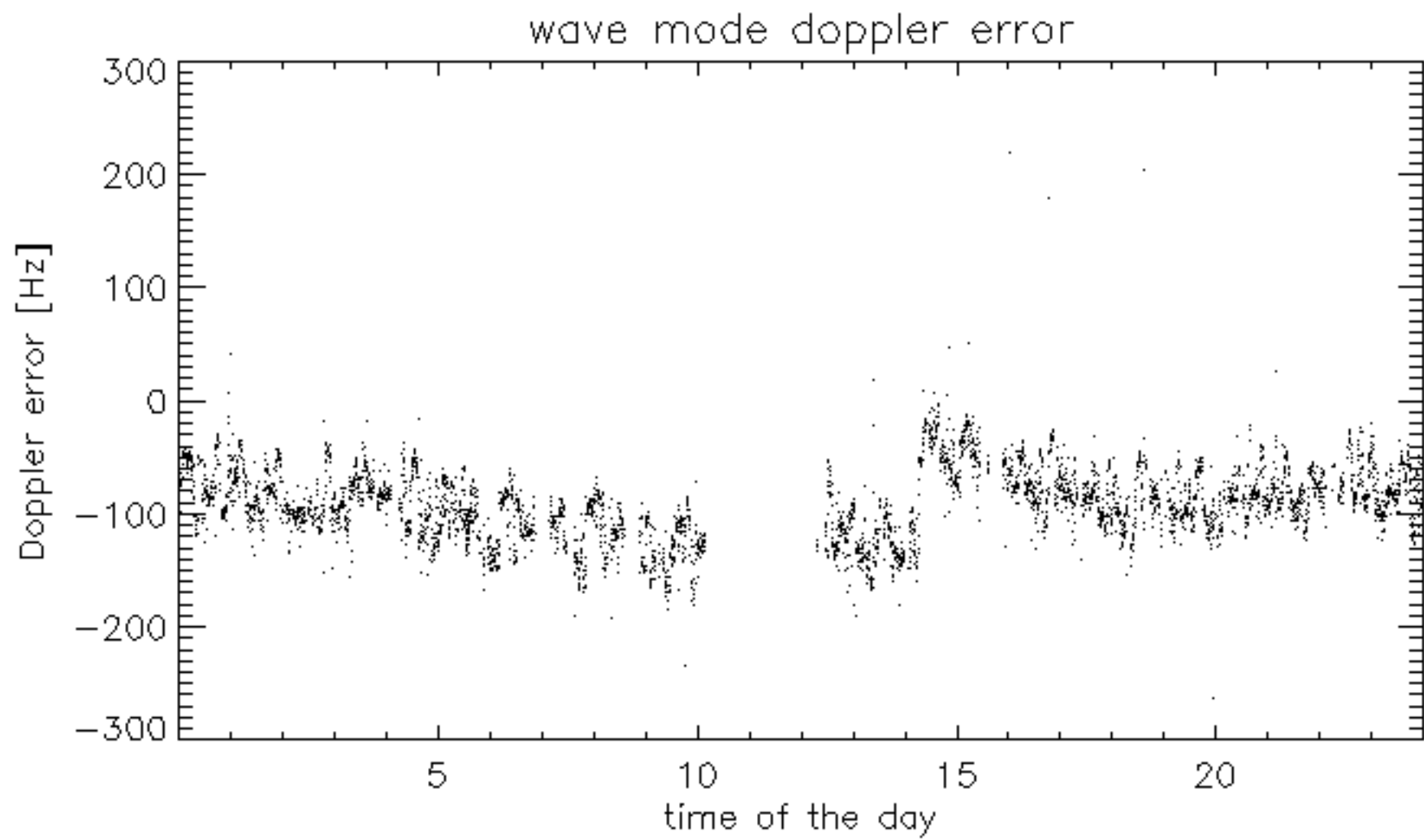
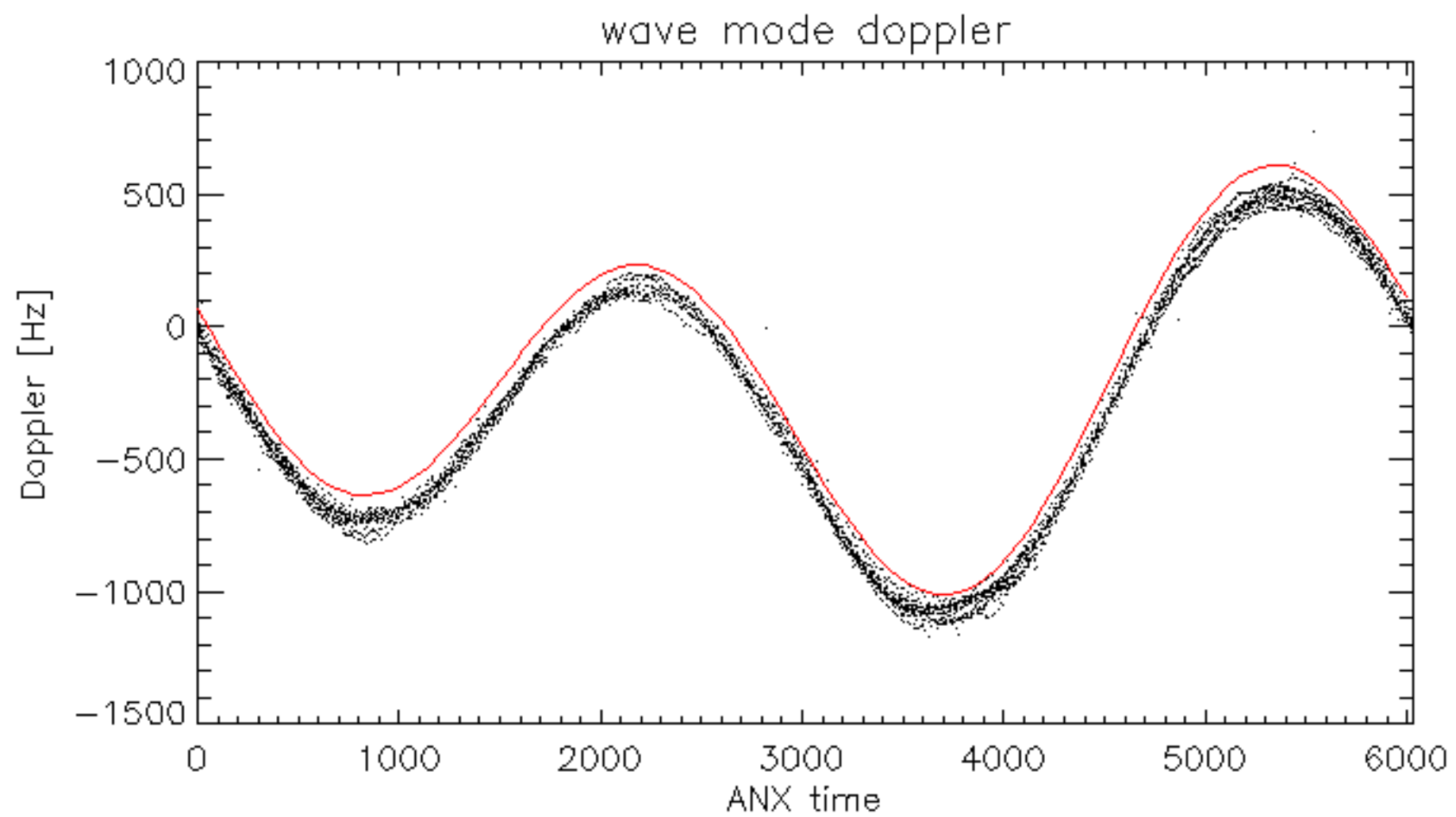
No anomalies observed in Doppler evolution.
Doppler analysis performed over the last 35 days.

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

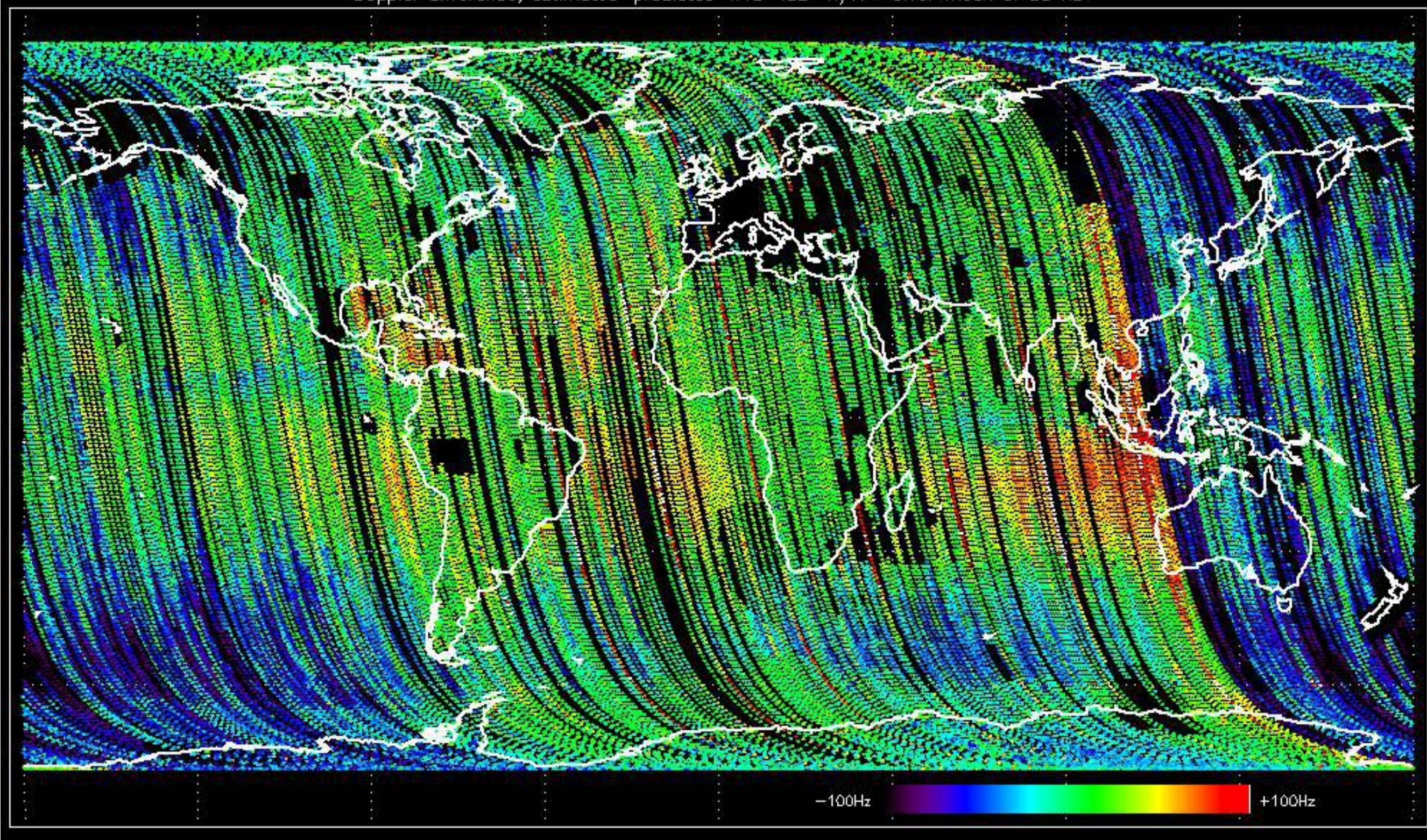


Doppler 'WVS' 'IS2' 'V/V'

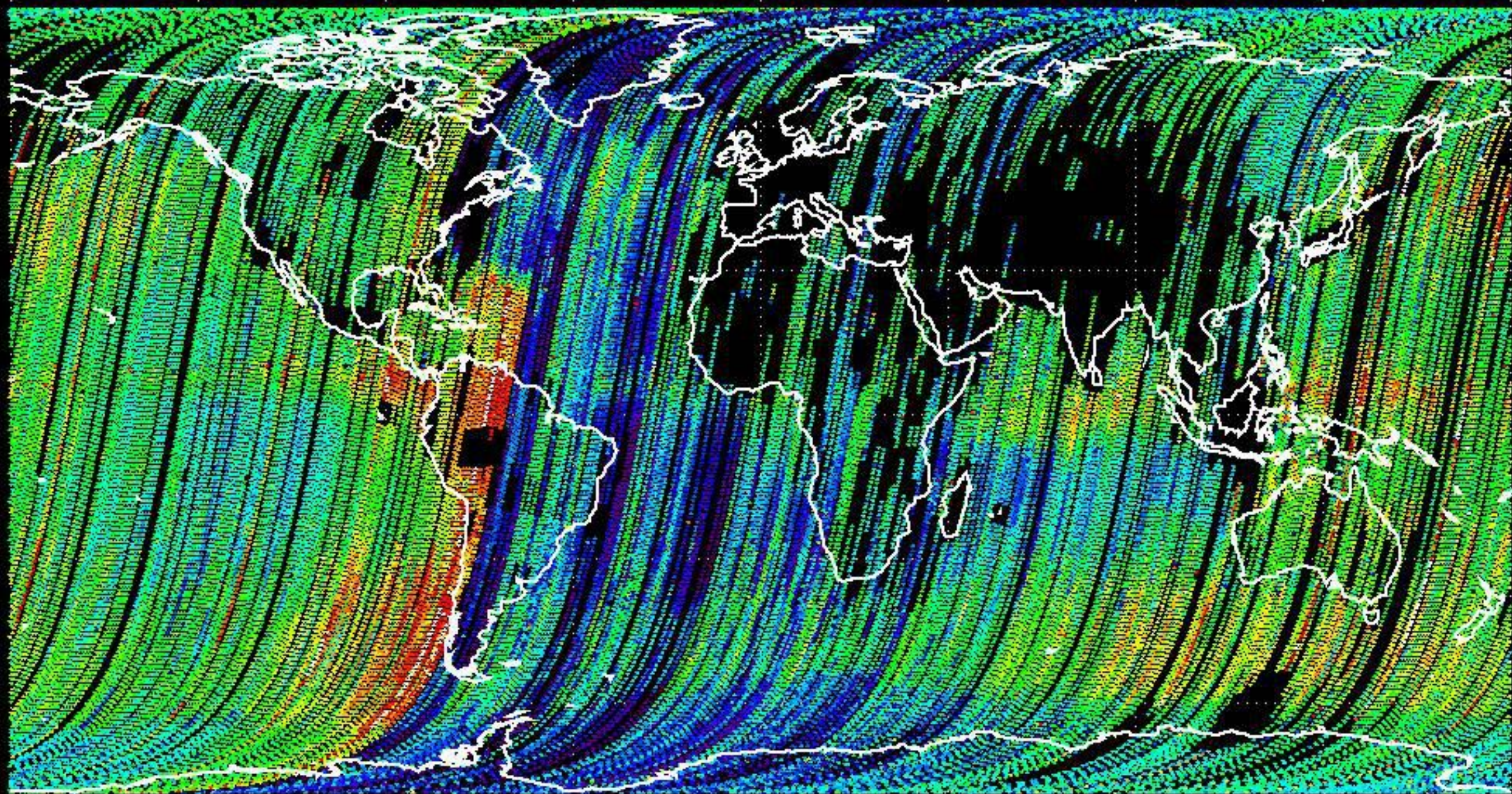




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of 53 Hz



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



-100Hz

+100Hz

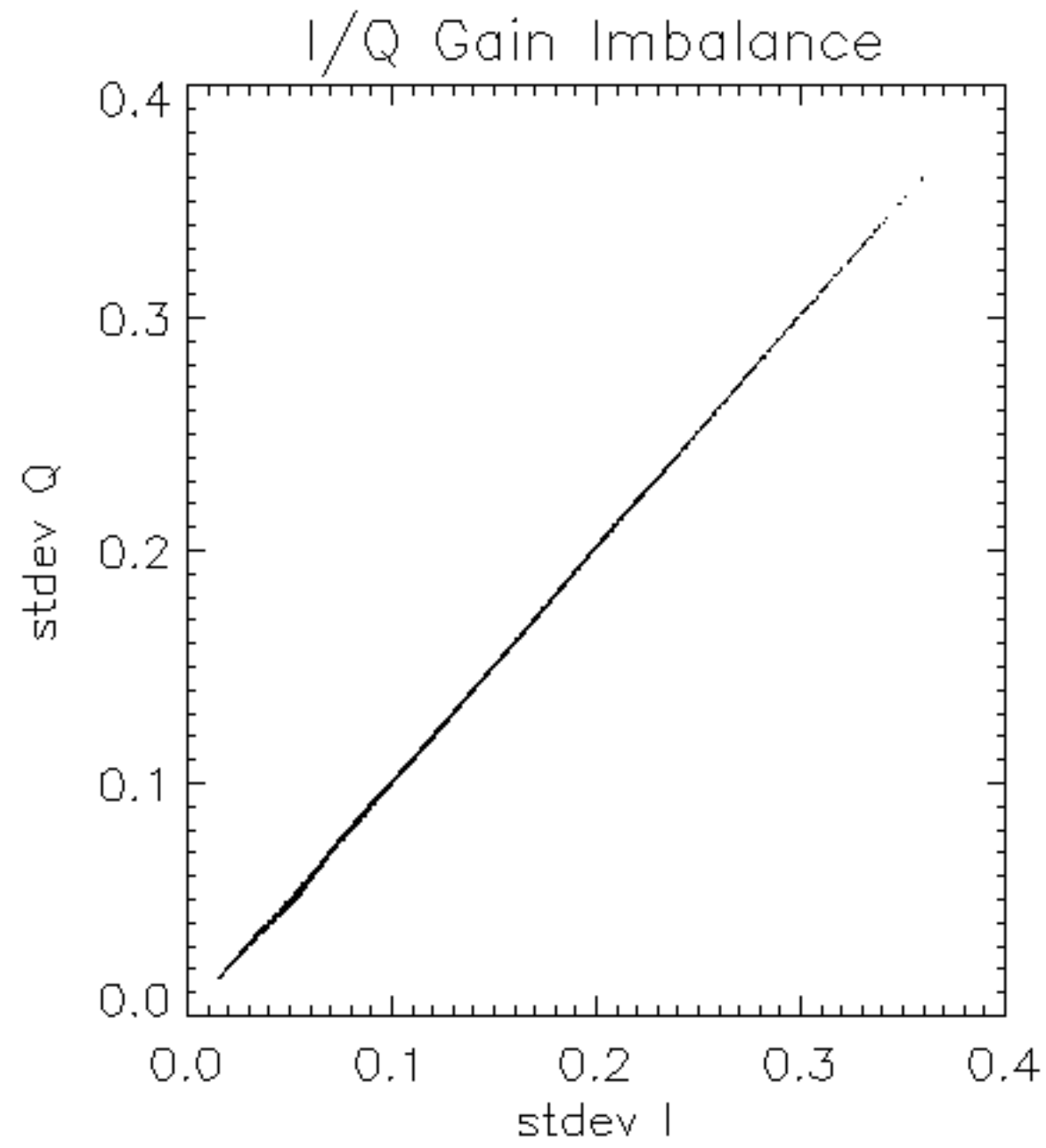
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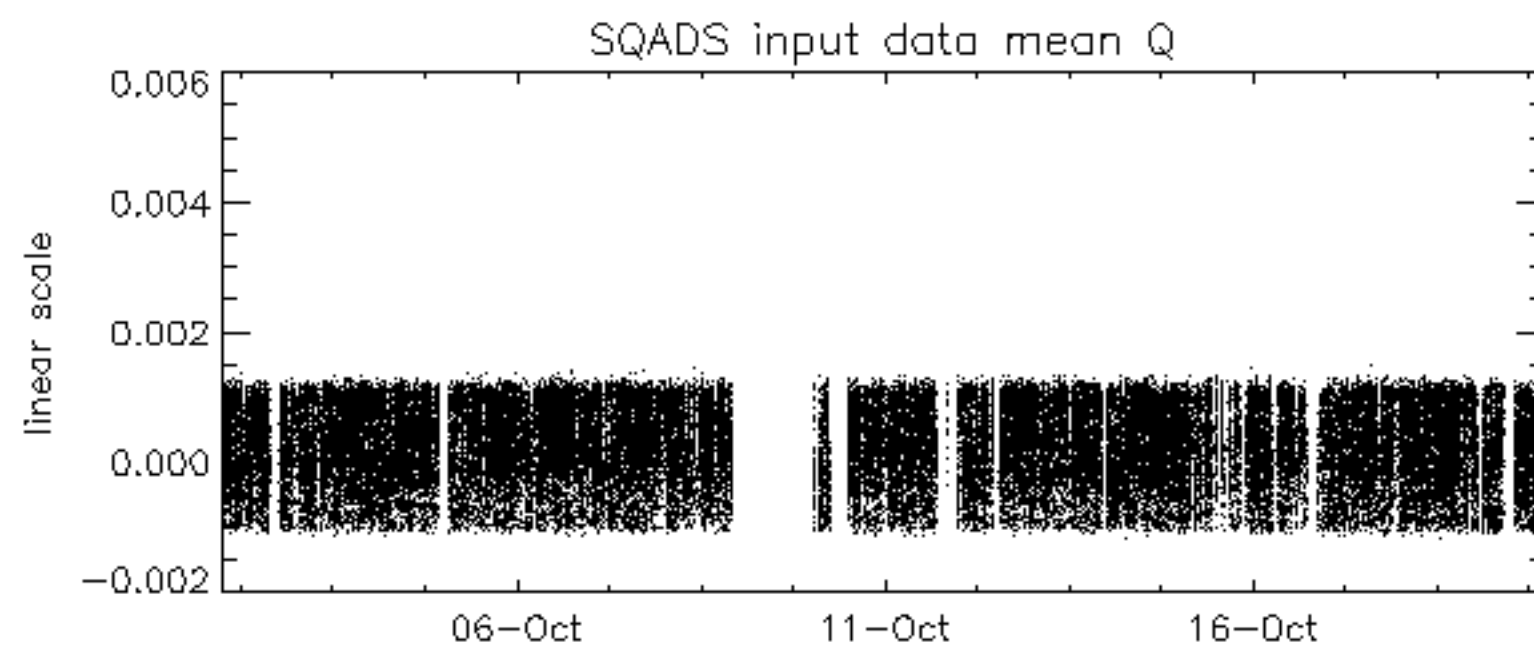
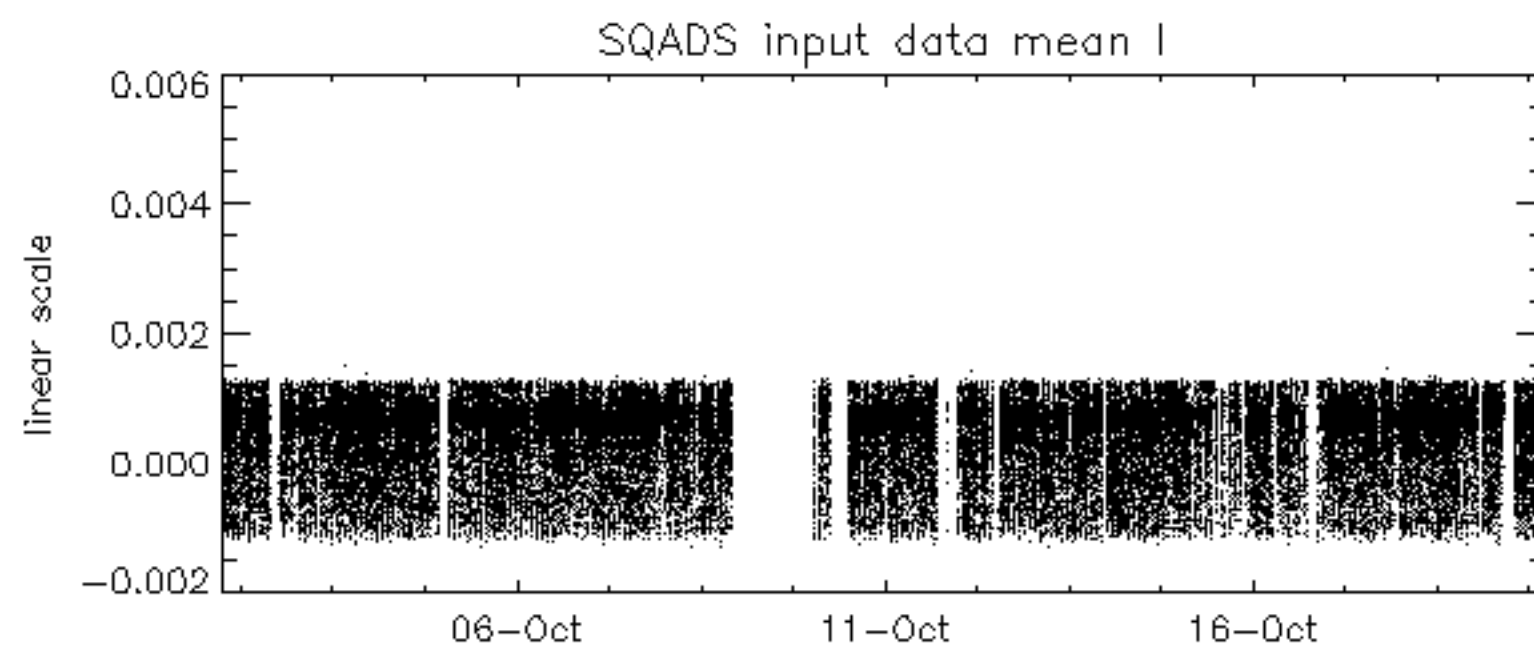
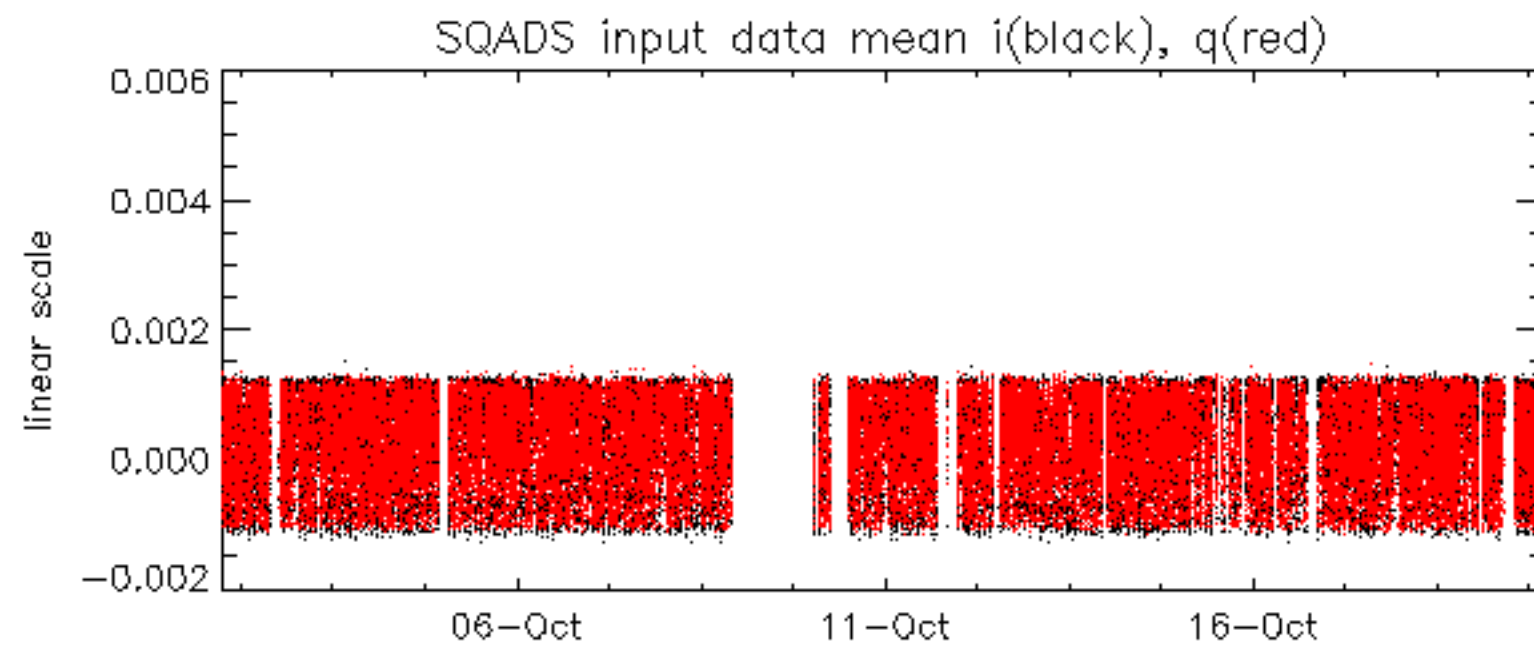
No anomalies observed on available MS products:

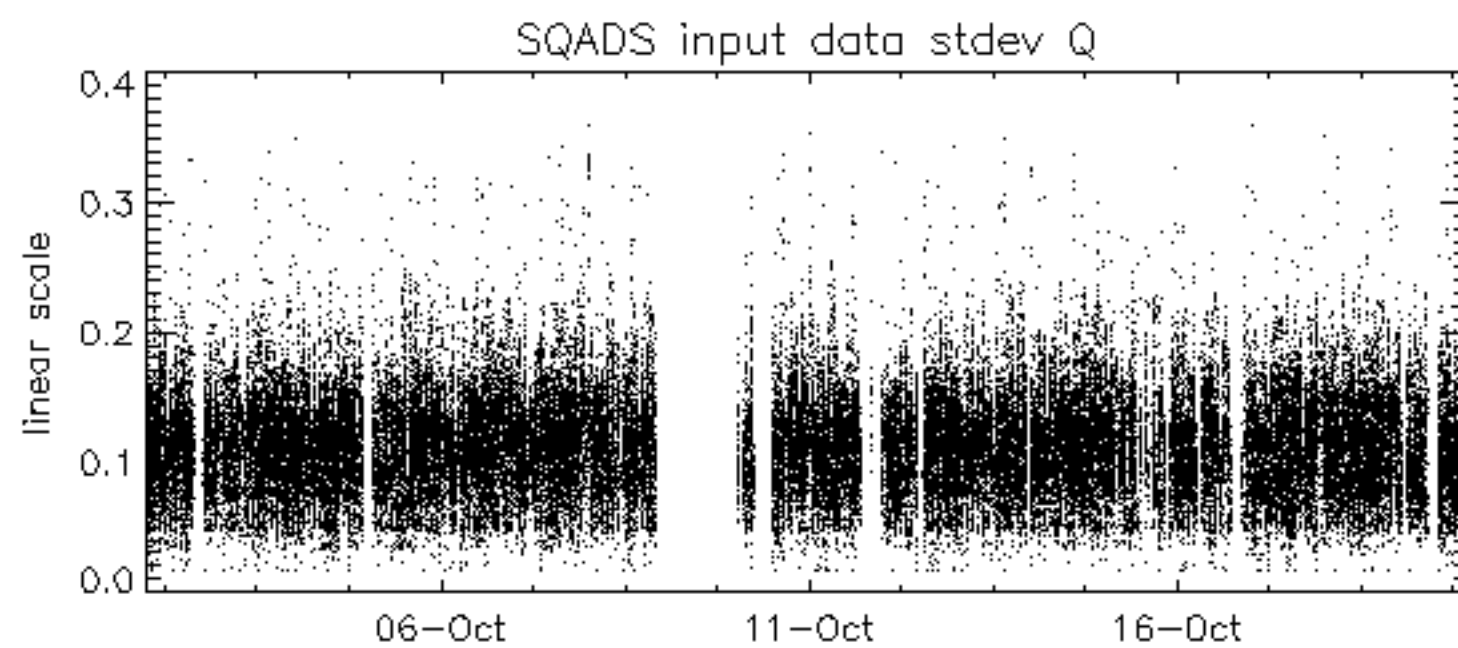
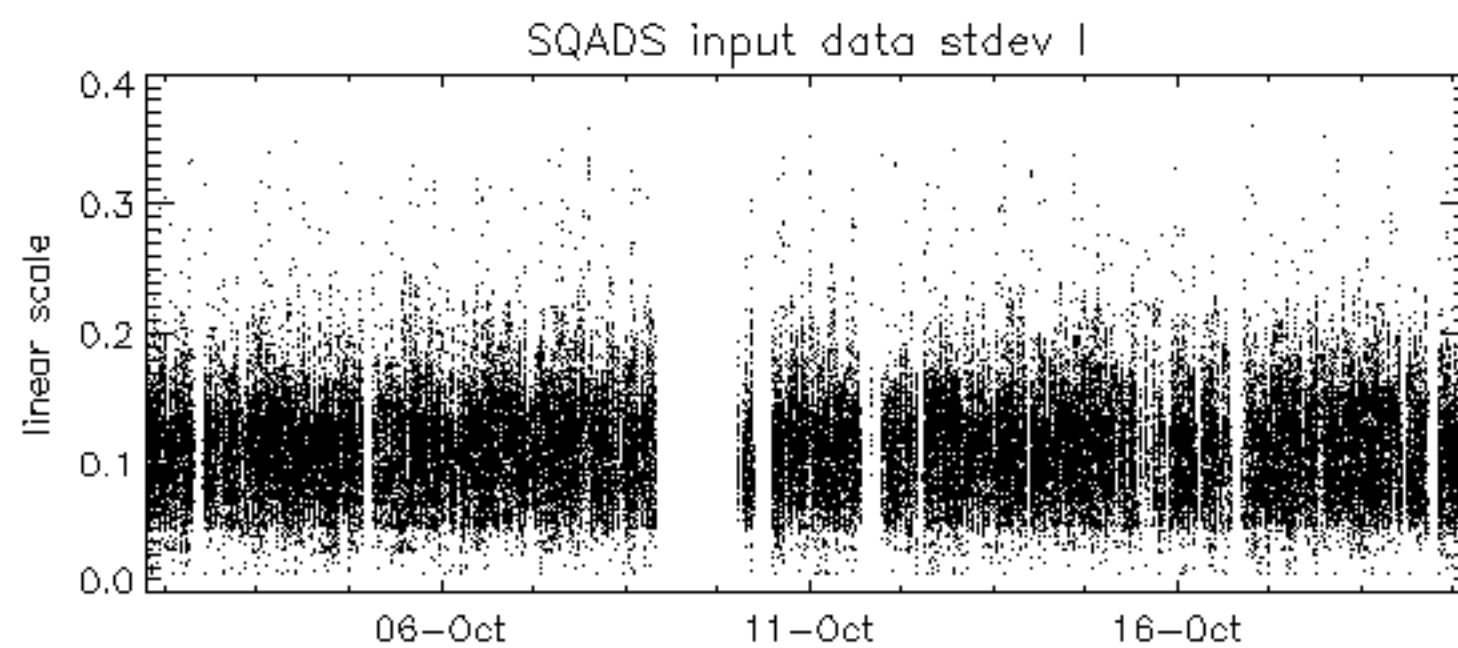
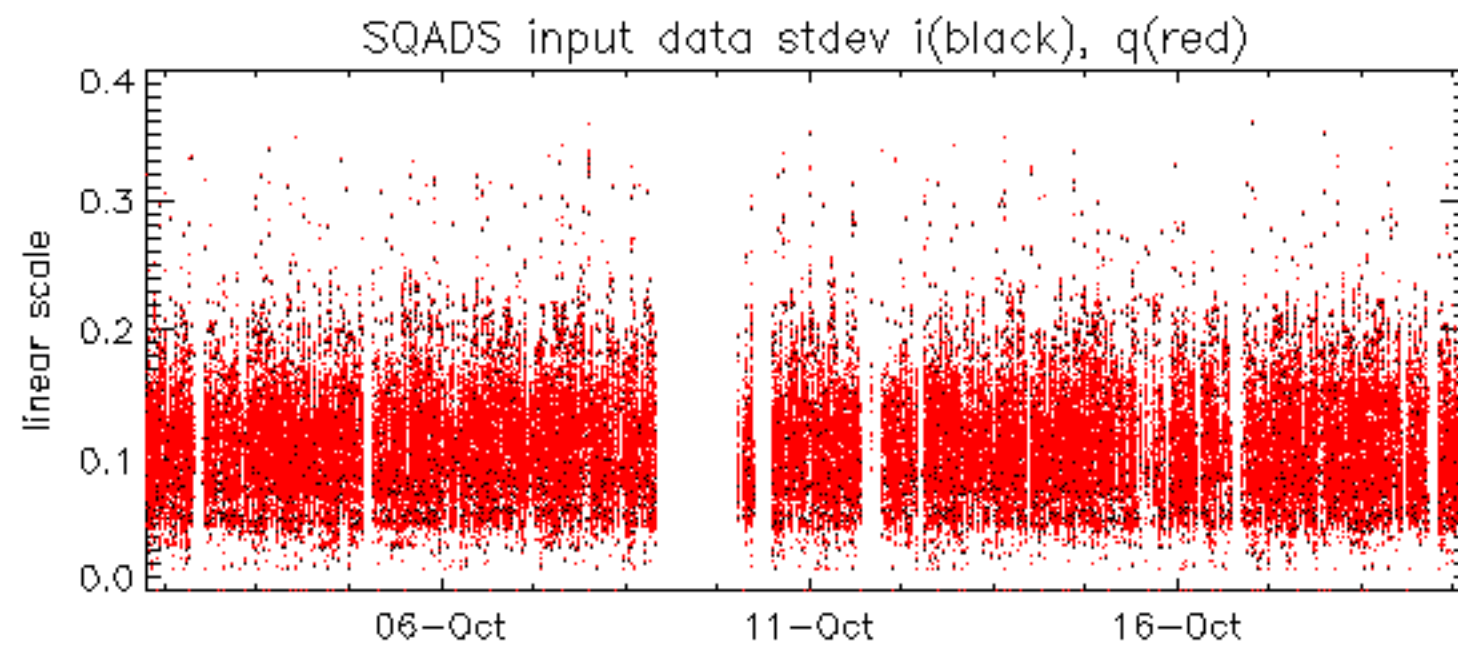
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