

REPORT OF 040406

last update on Tue Apr 6 13:47:55 GMT 2004

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [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.

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

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:

Polarisation	Start Time
V	20040405 201954
H	20040405 201834

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

⊗

4.2 - Cyclic statistics



P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.591011	0.005570	0.044500
7	P1	-3.304718	0.009545	0.013620
11	P1	-4.635983	0.019747	-0.009592
15	P1	-4.997996	0.037311	0.005236
19	P1	-3.355503	0.069591	0.064533
22	P1	-4.539553	0.068744	0.073156
24	P1	-5.075171	0.089273	0.109751
28	P1	-4.595749	0.073132	0.017541

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.393282	0.079851	-0.008450
7	P2	-22.888308	0.130276	0.041951
11	P2	-15.971672	0.161941	0.073990
15	P2	-7.169133	0.088515	0.049618
19	P2	-9.503789	0.176374	0.044992
22	P2	-17.669798	0.100188	0.069545
24	P2	-21.020094	0.114528	-0.008456
28	P2	-16.601065	0.082333	-0.001555

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.126864	0.003014	-0.002263
7	P3	-8.126866	0.003013	-0.002247
11	P3	-8.126882	0.003012	-0.002183
15	P3	-8.126896	0.003012	-0.002089
19	P3	-8.126908	0.003014	-0.001995
22	P3	-8.126908	0.003014	-0.001986
24	P3	-8.126899	0.003013	-0.002024

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	0.000482093
	stdev	2.33499e-07
MEAN Q	mean	0.000490850
	stdev	2.64183e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128378
	stdev	0.00117460
STDEV Q	mean	0.128630
	stdev	0.00118839



5.3 - Gain imbalance I/Q



6 - Doppler Analysis

6.1 - Unbiased Doppler Error

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

Ascending

Descending

6.2 - Absolute Doppler

Evolution of Absolute Doppler

Ascending

Descending

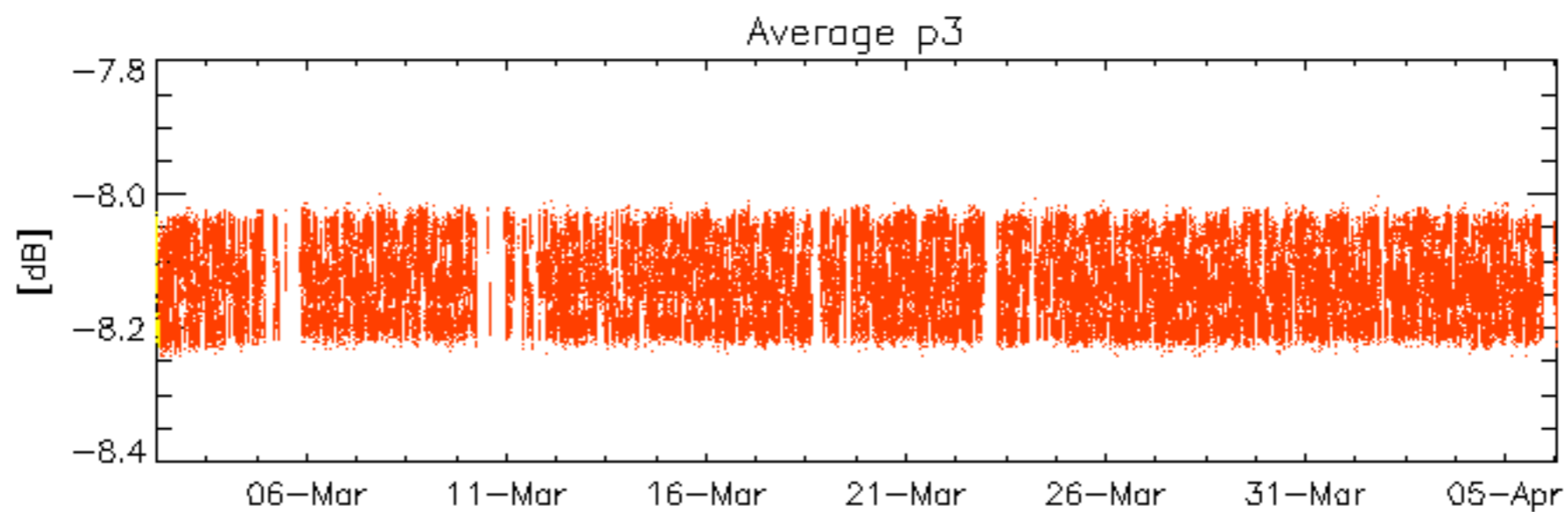
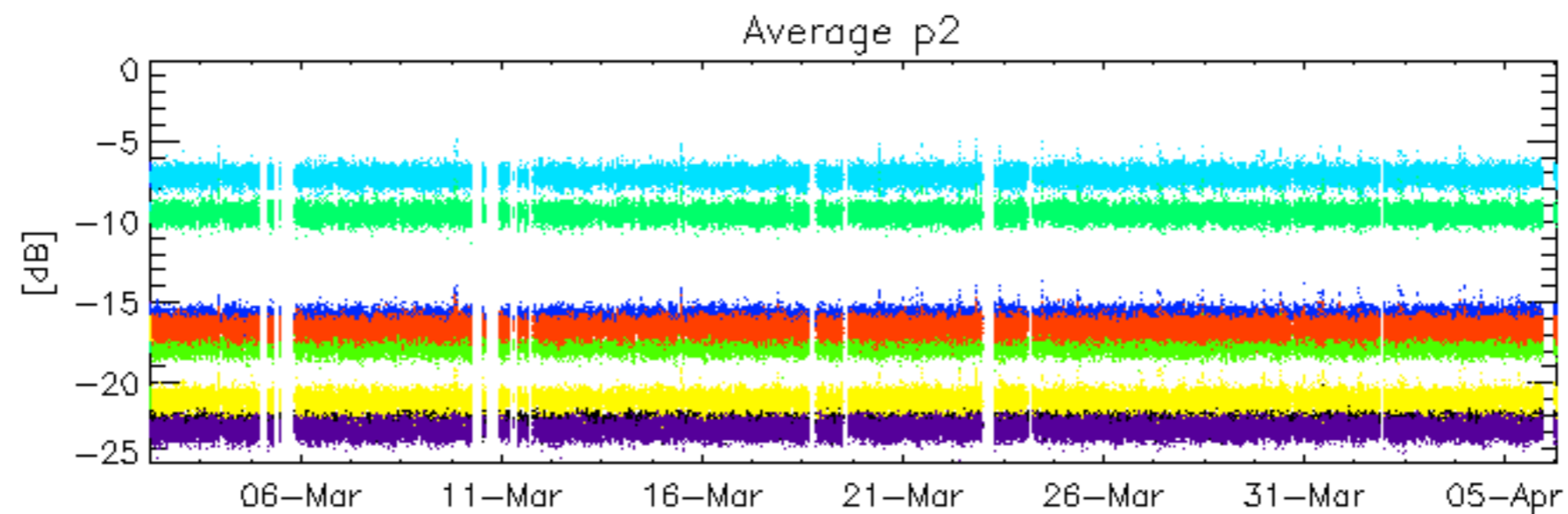
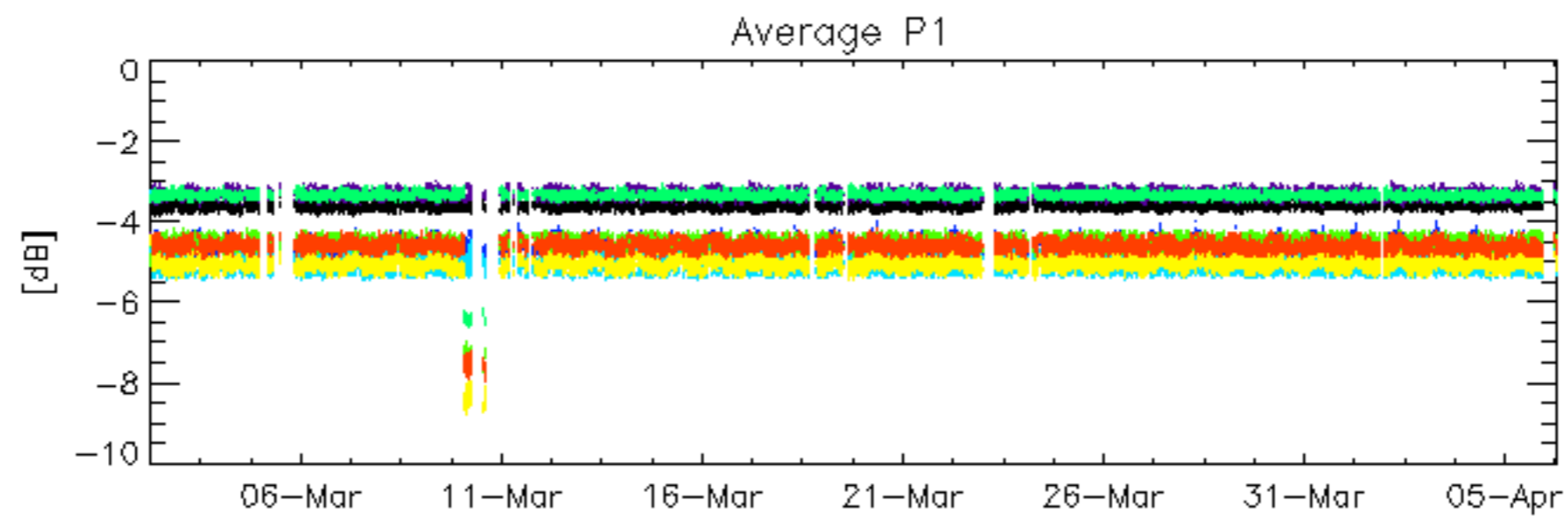
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX

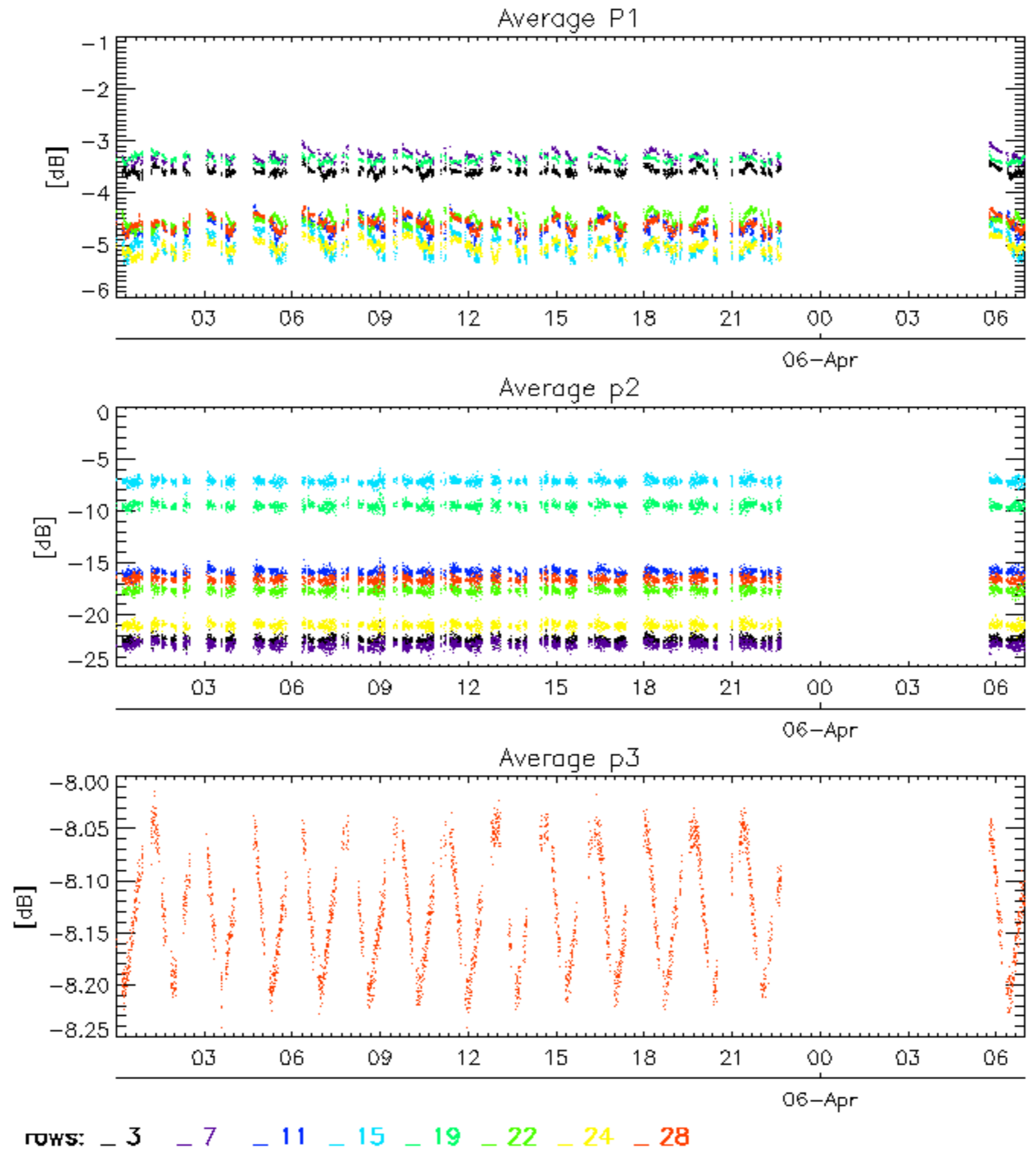


Evolution Doppler error versus ANX



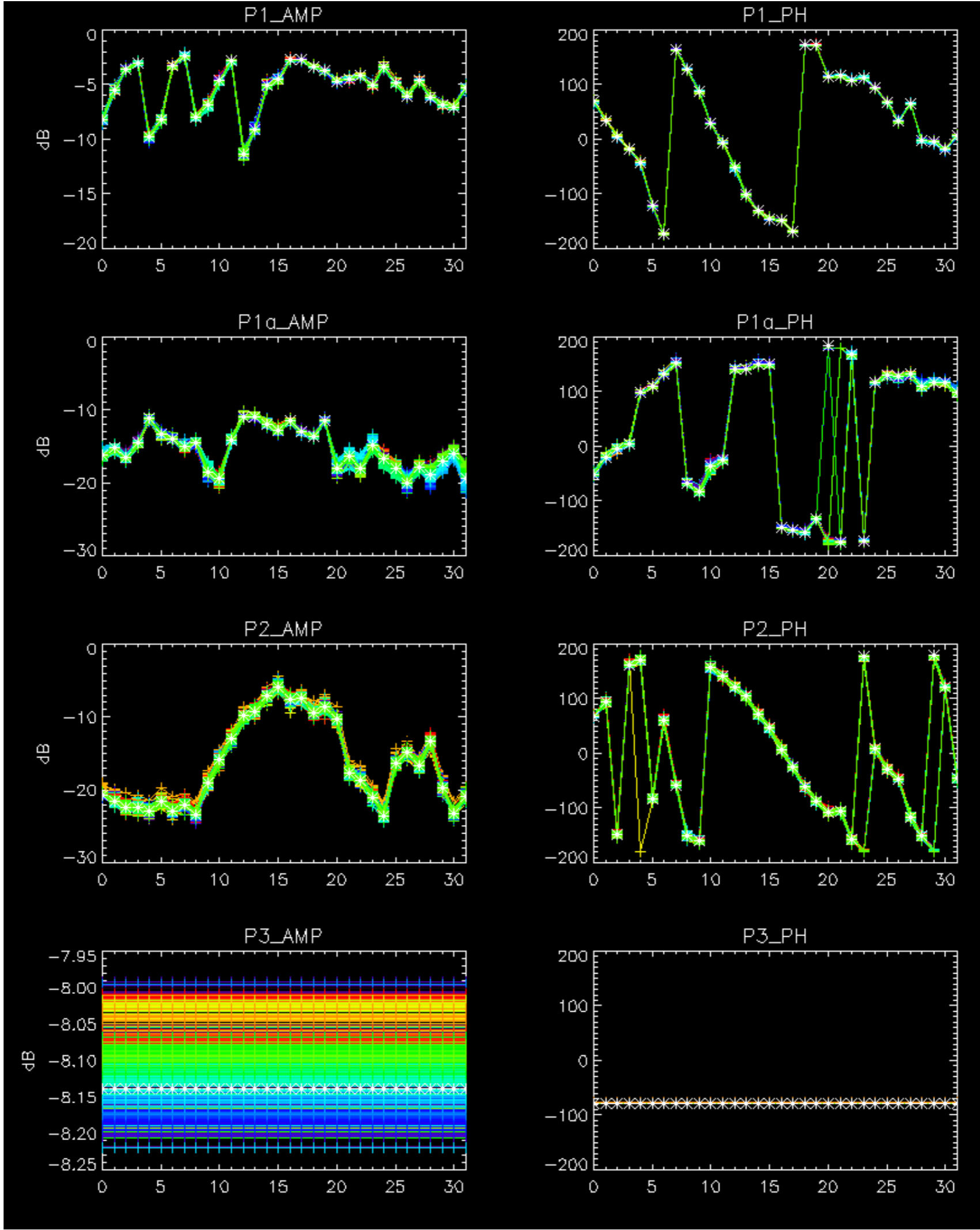


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



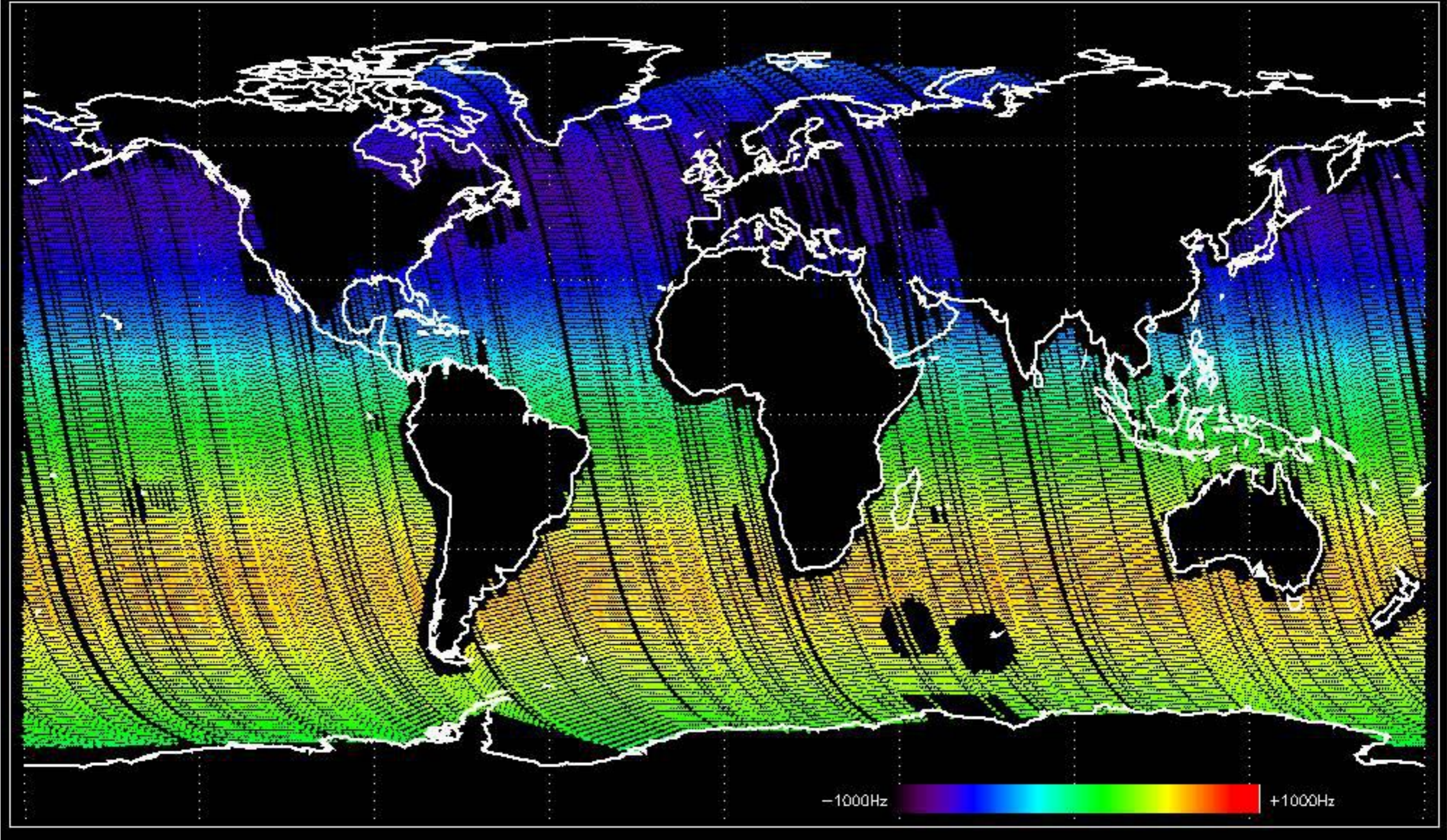
No anomalies observed on available browse products

No anomalies observed.

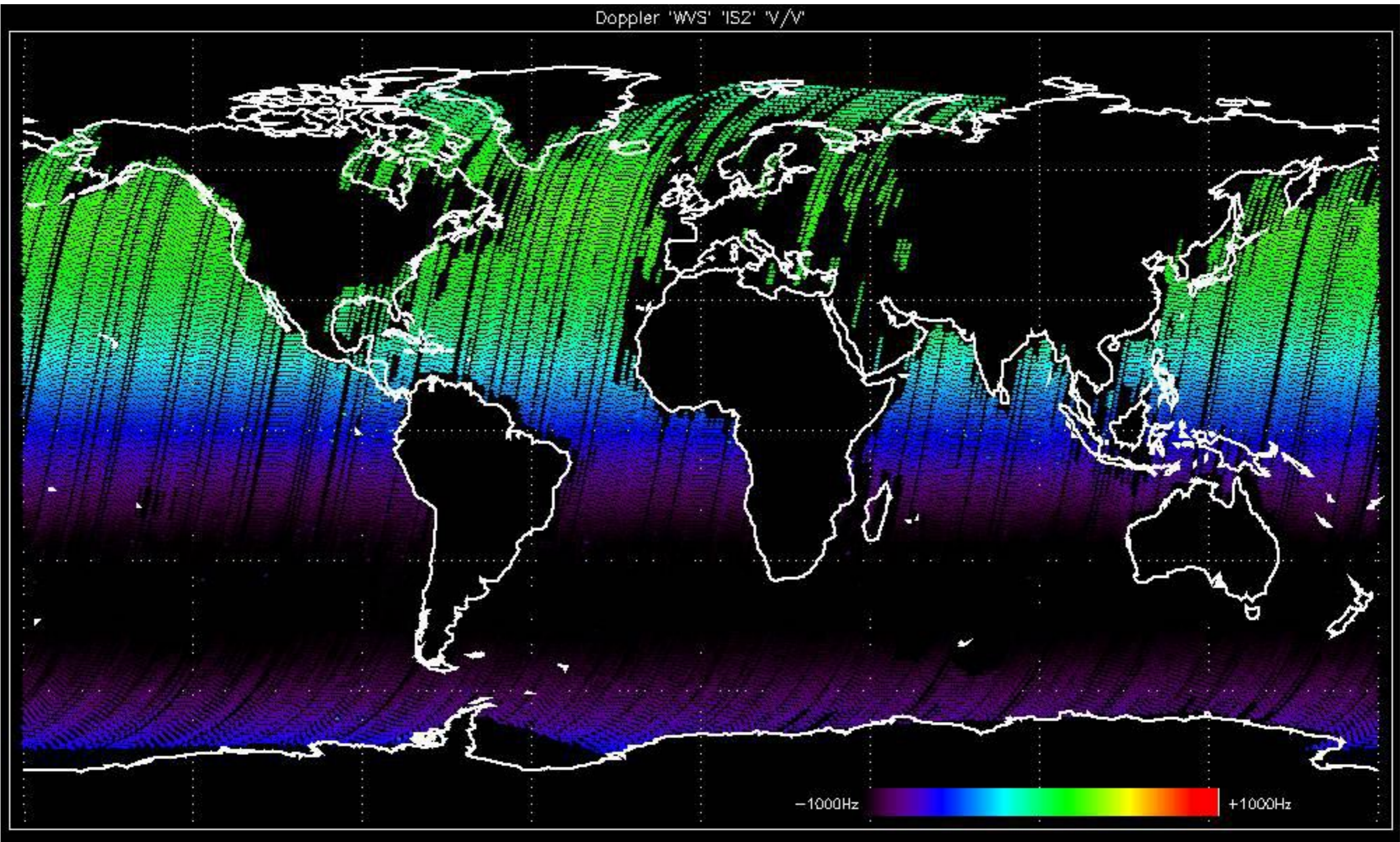


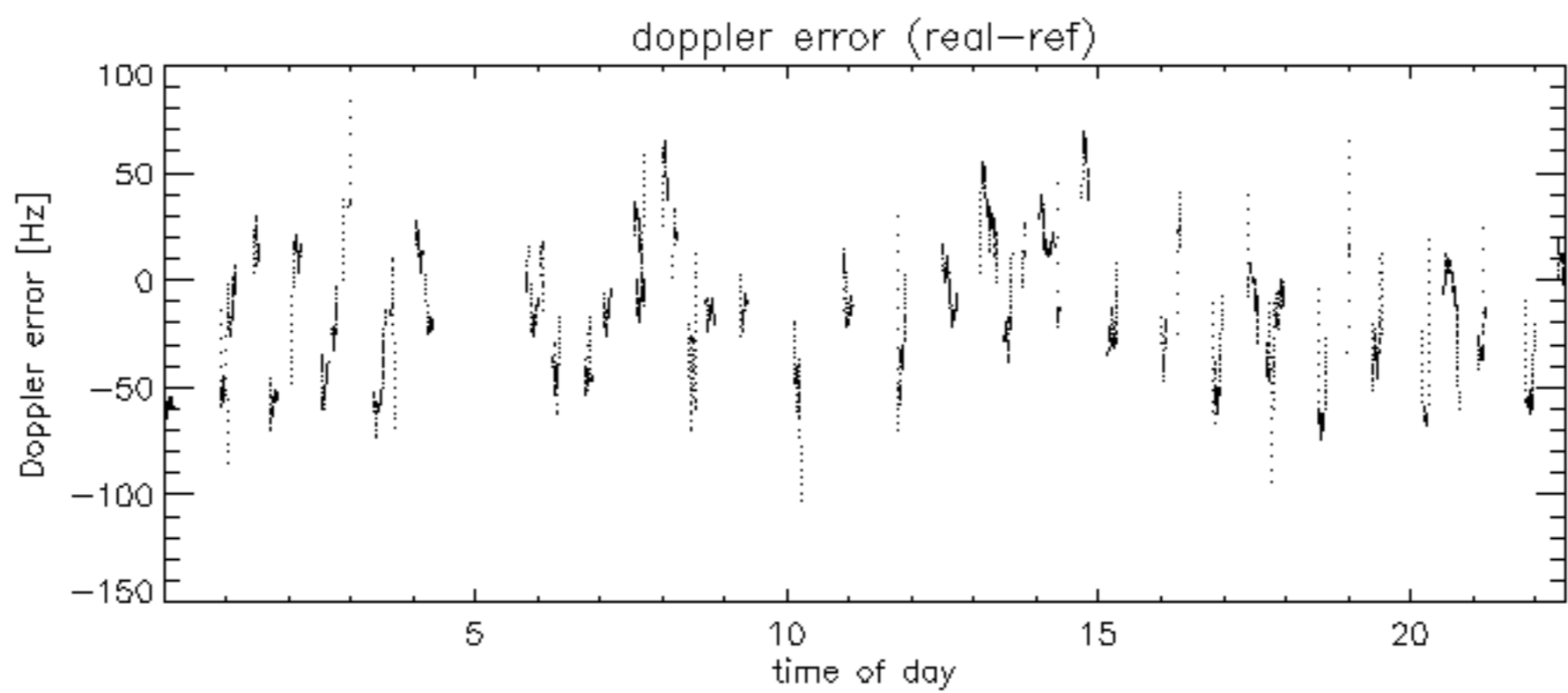
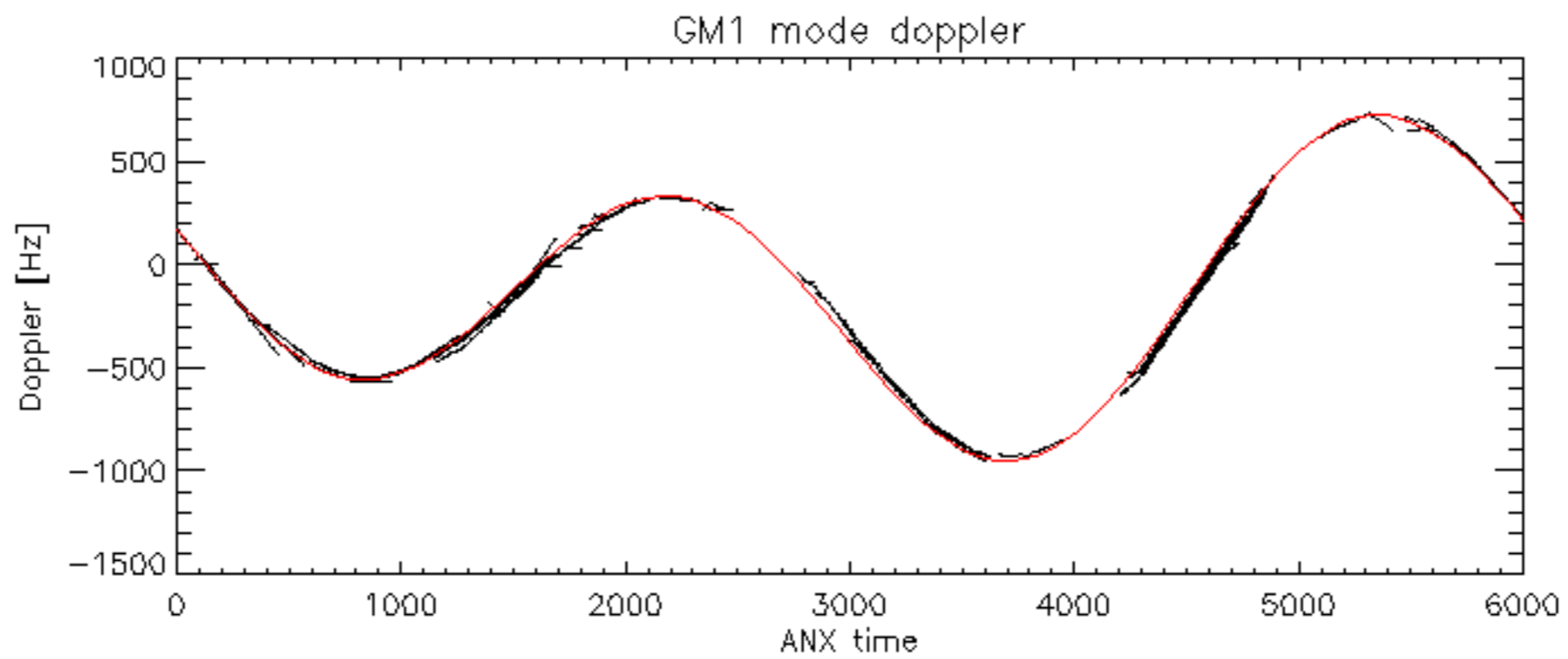
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

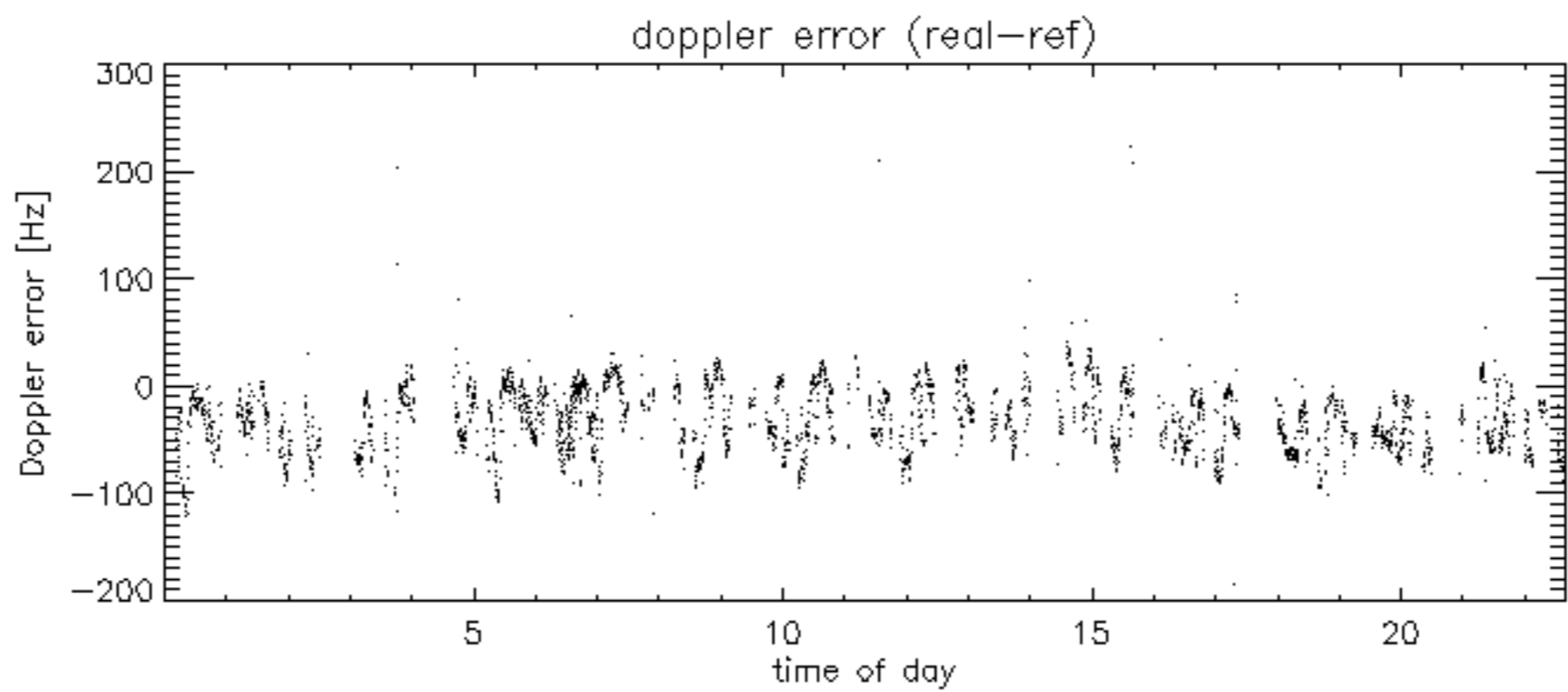
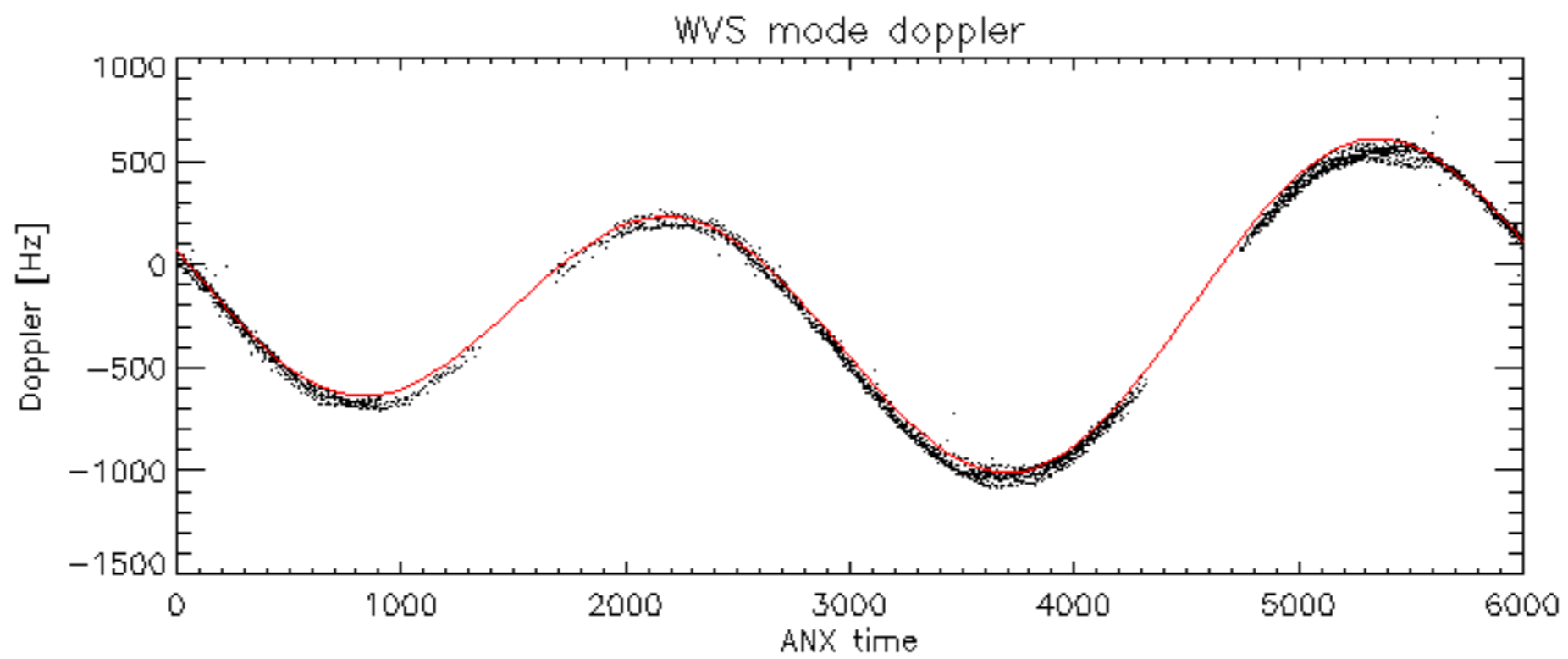
Doppler 'WVS' 'IS2' 'H/H'



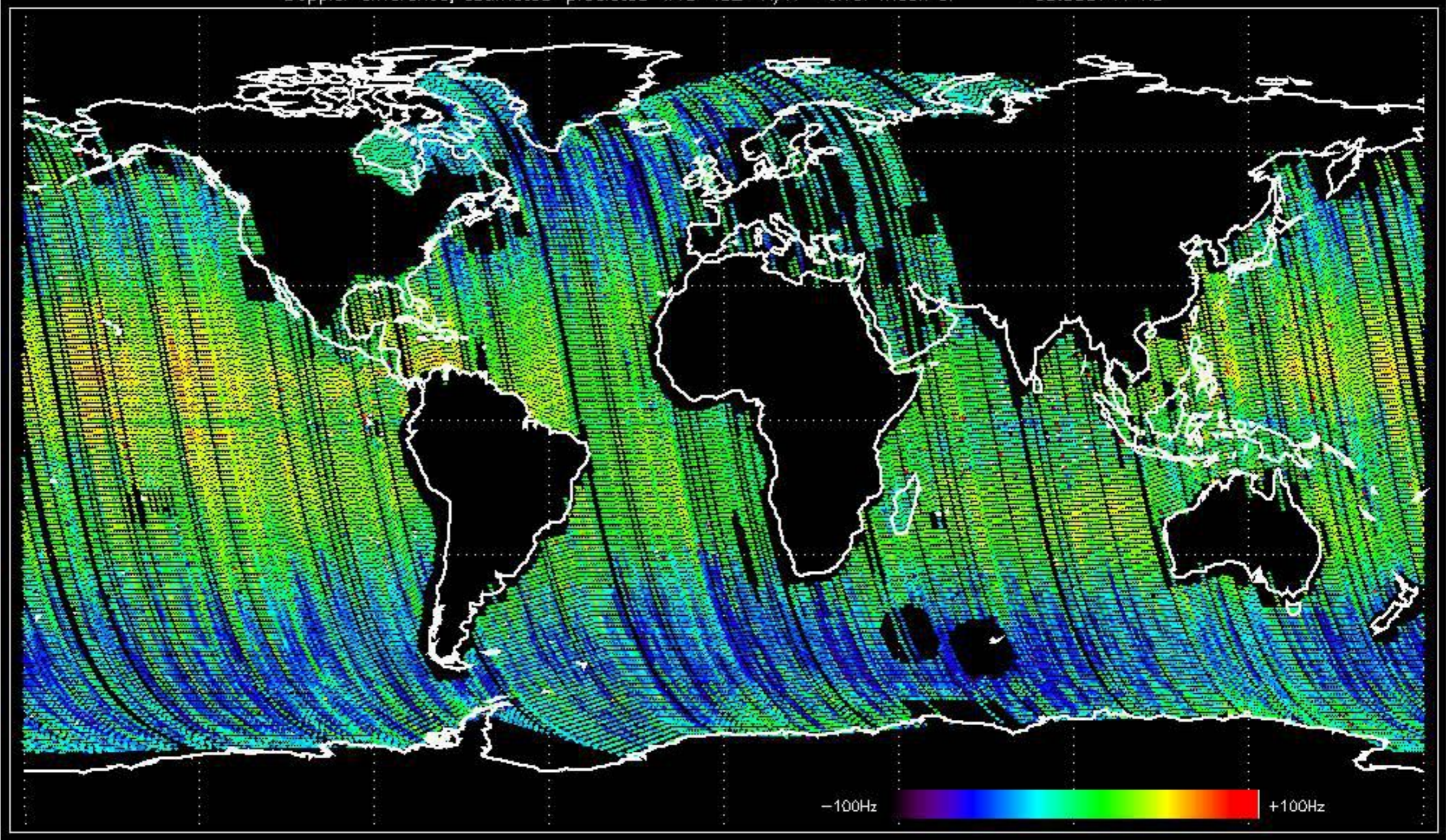
Doppler 'WVS' 'ISZ' 'V/V'



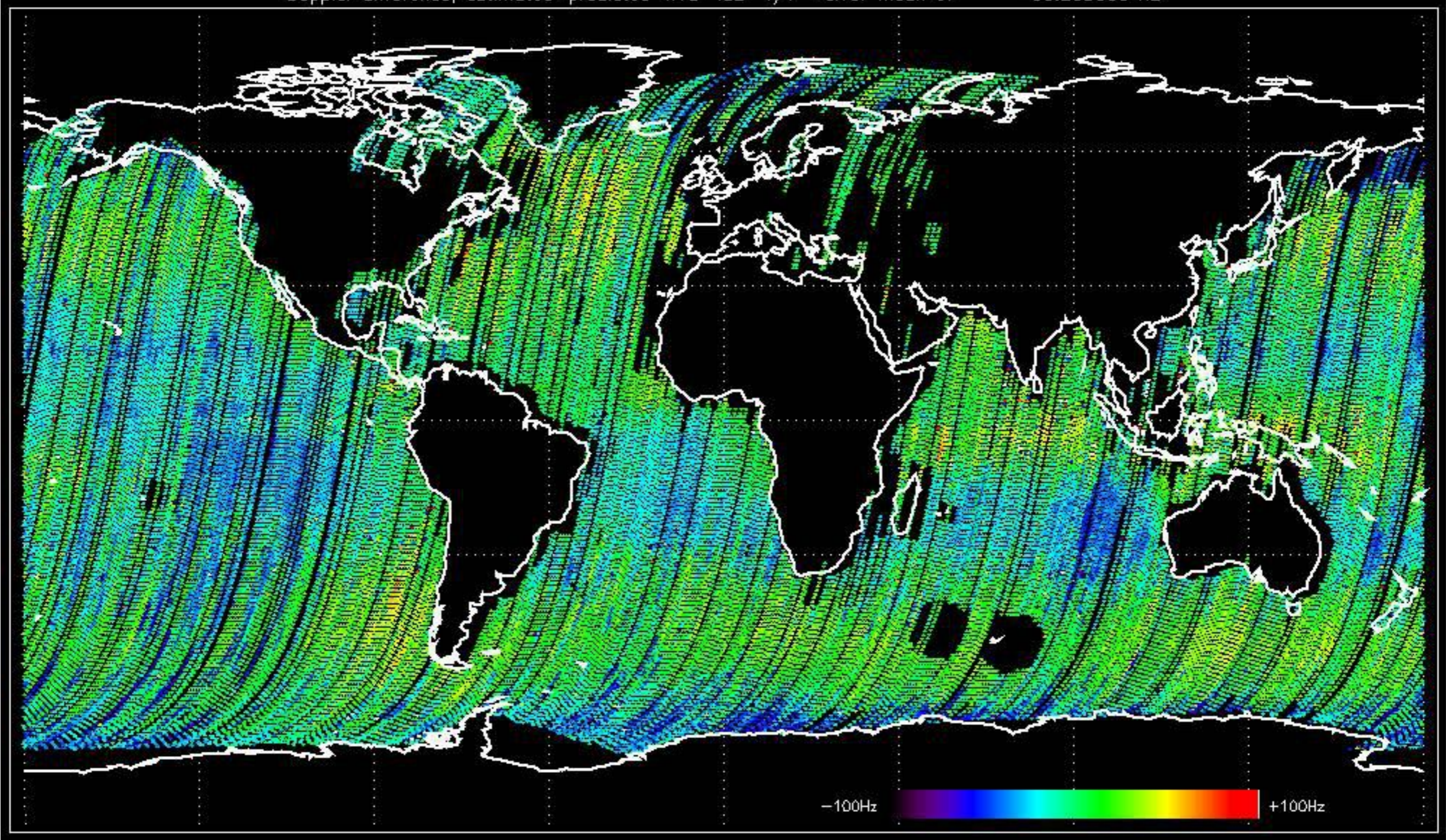




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -33.358741 Hz

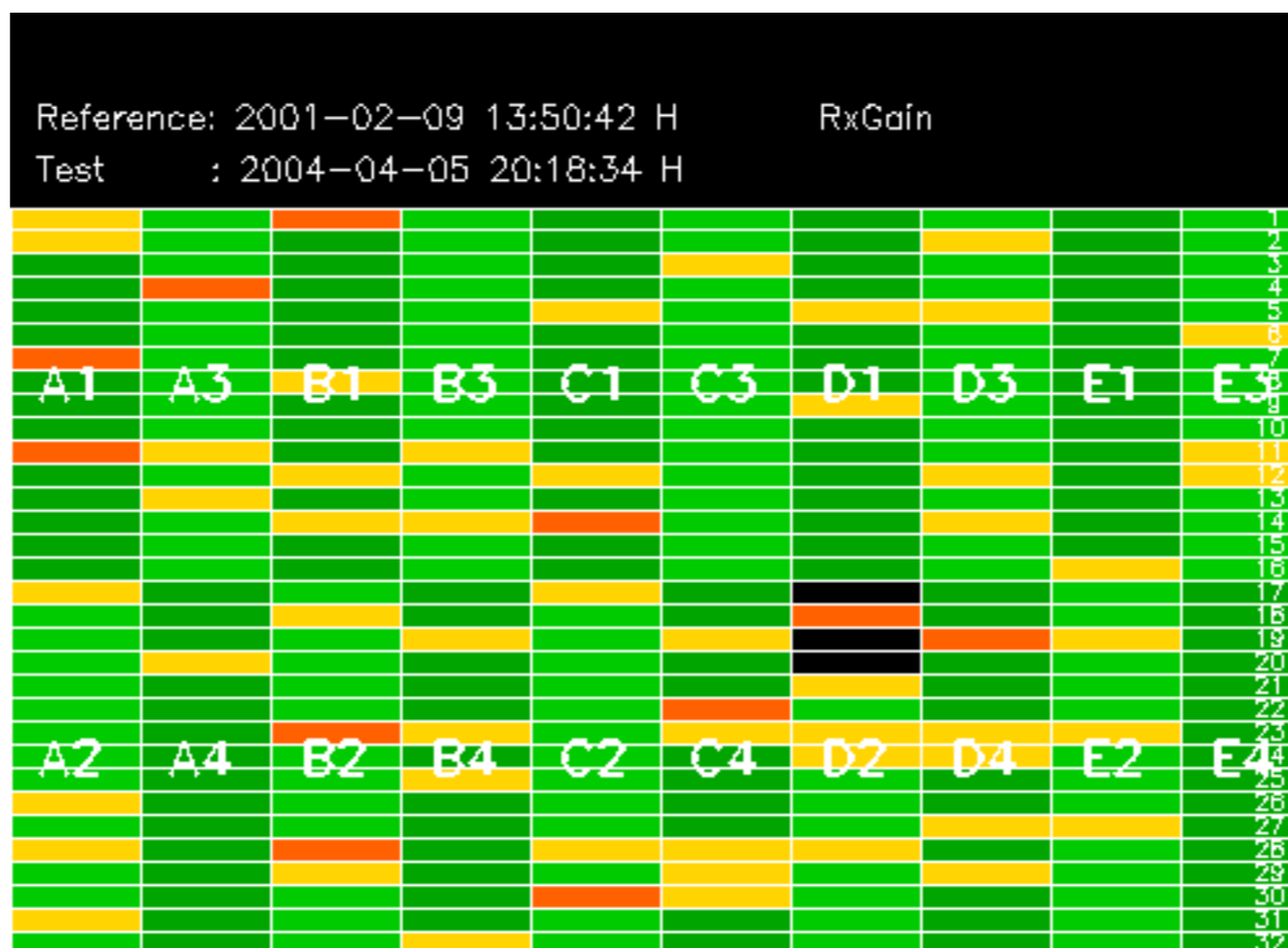


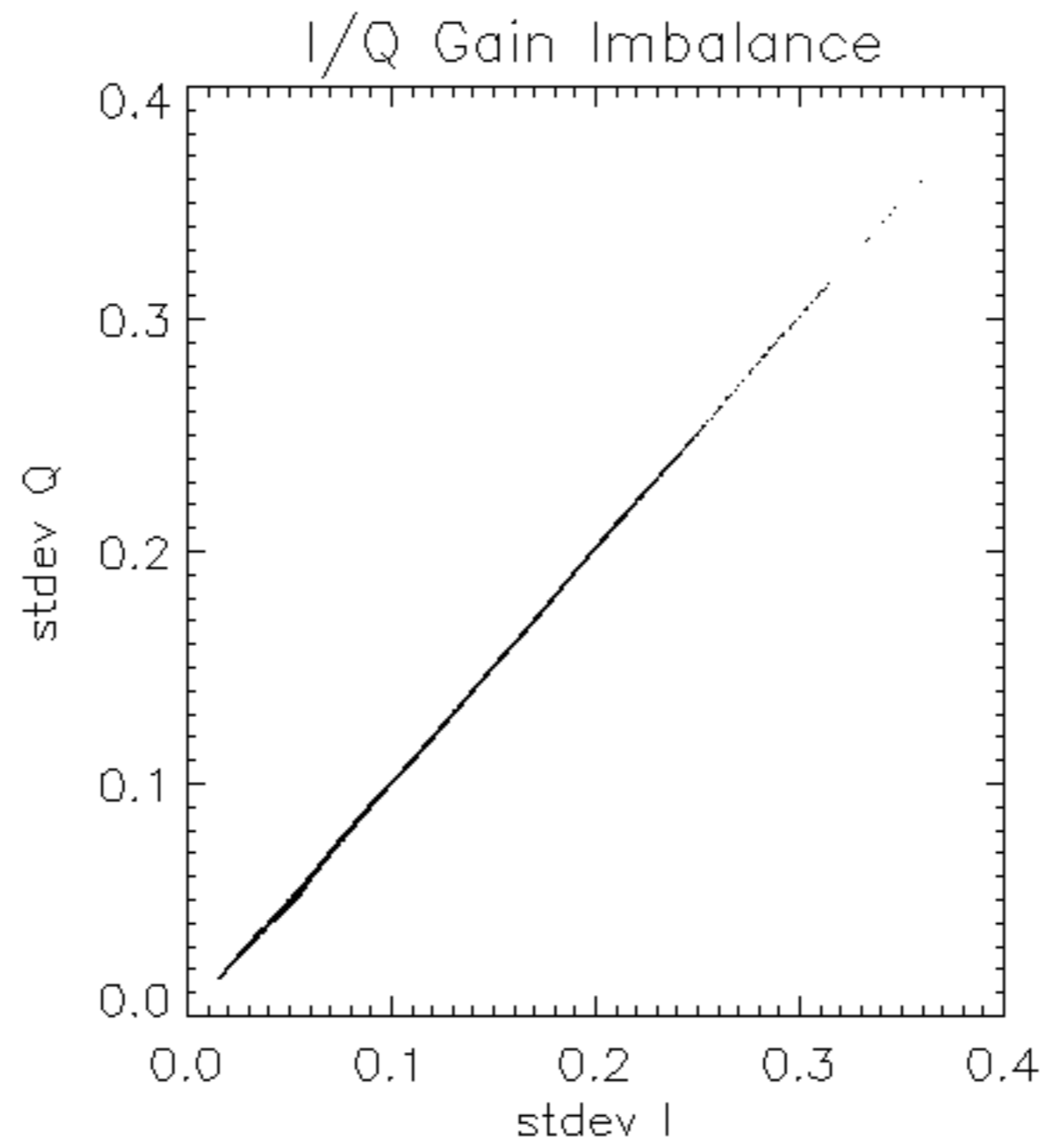
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -30.253600 Hz

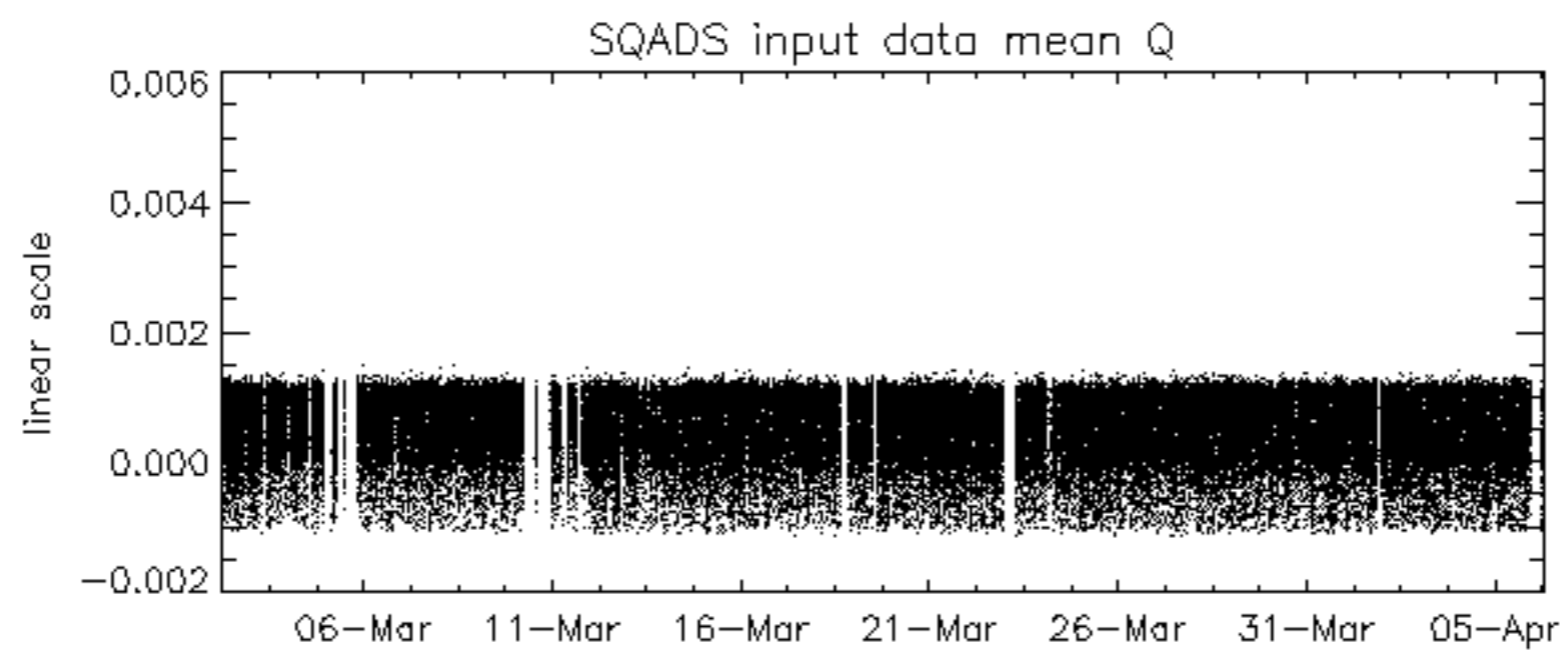
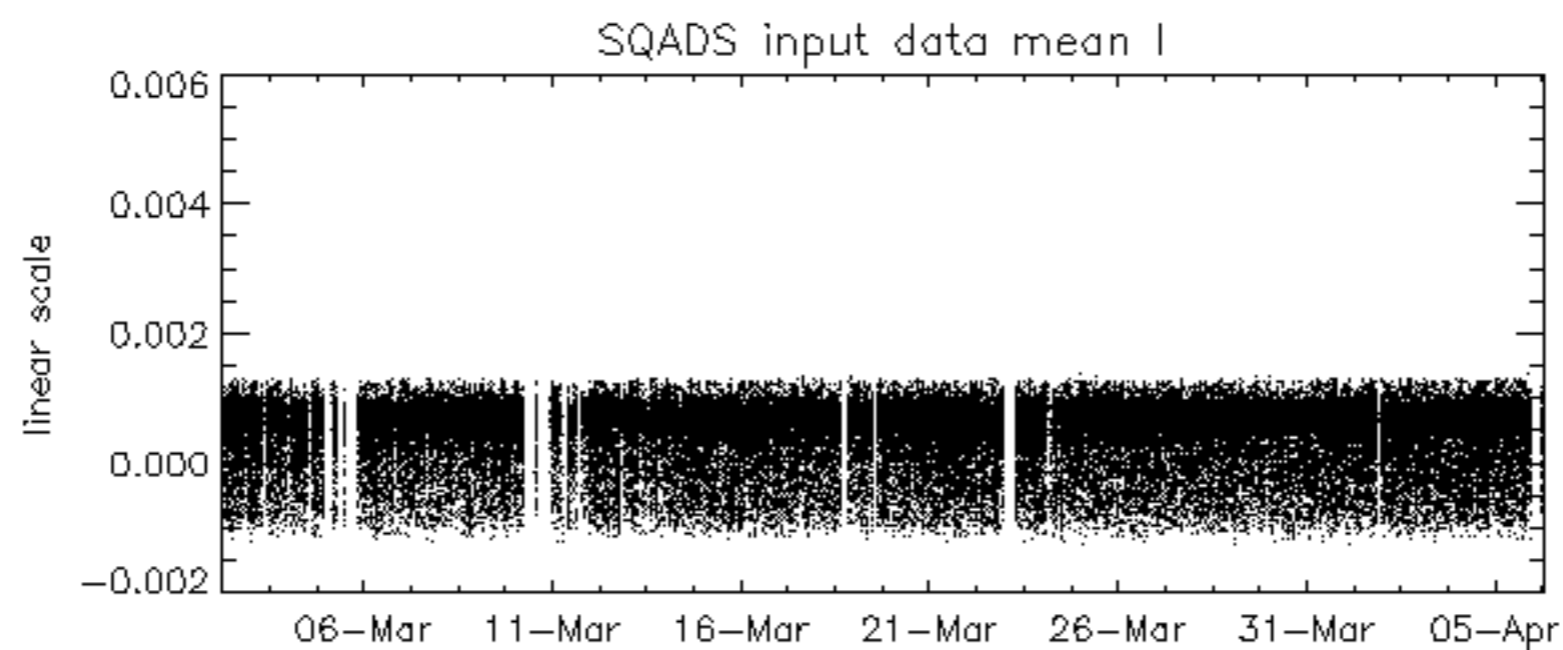
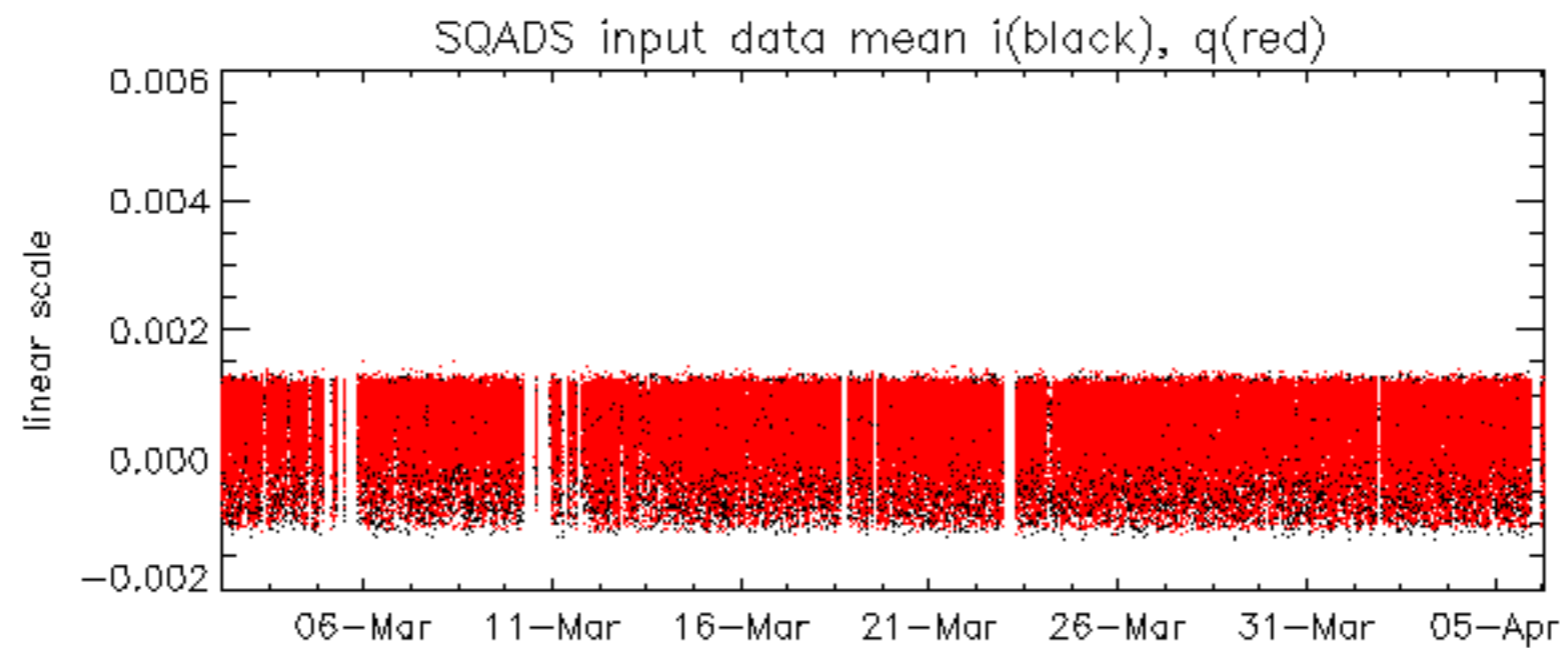


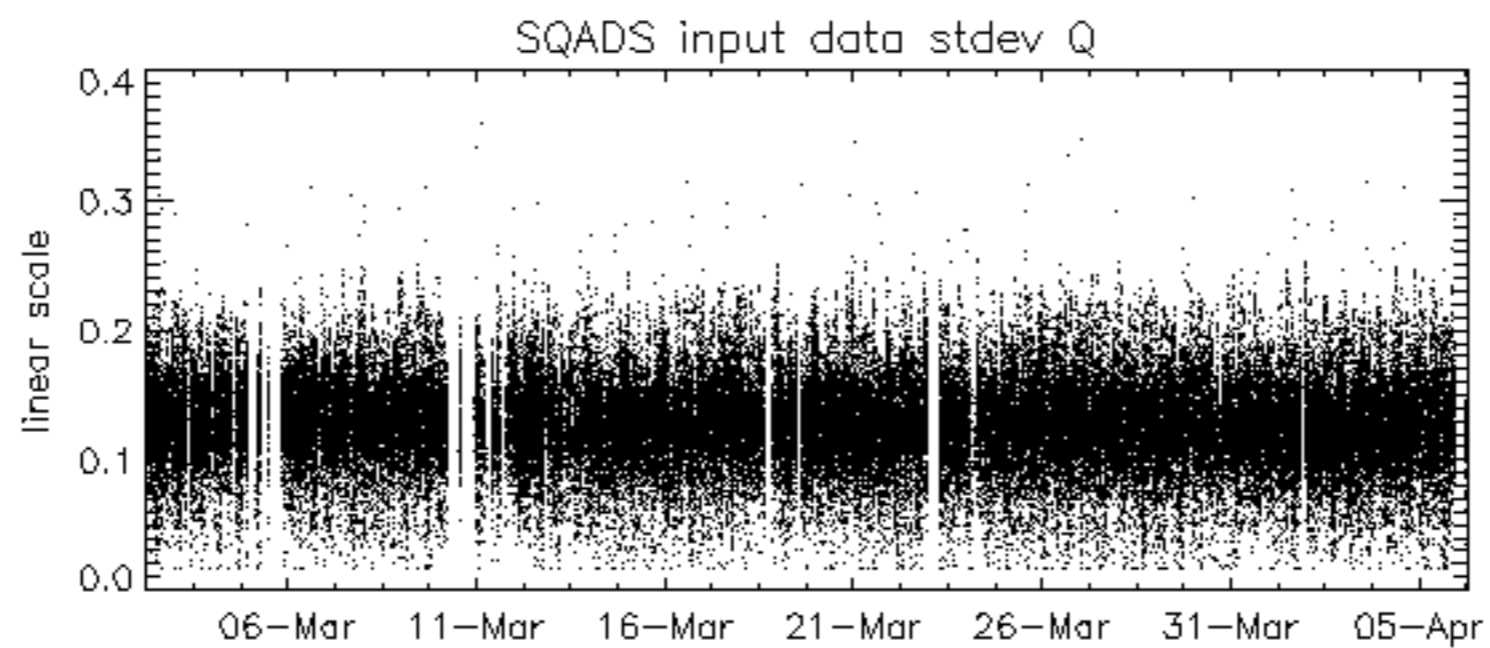
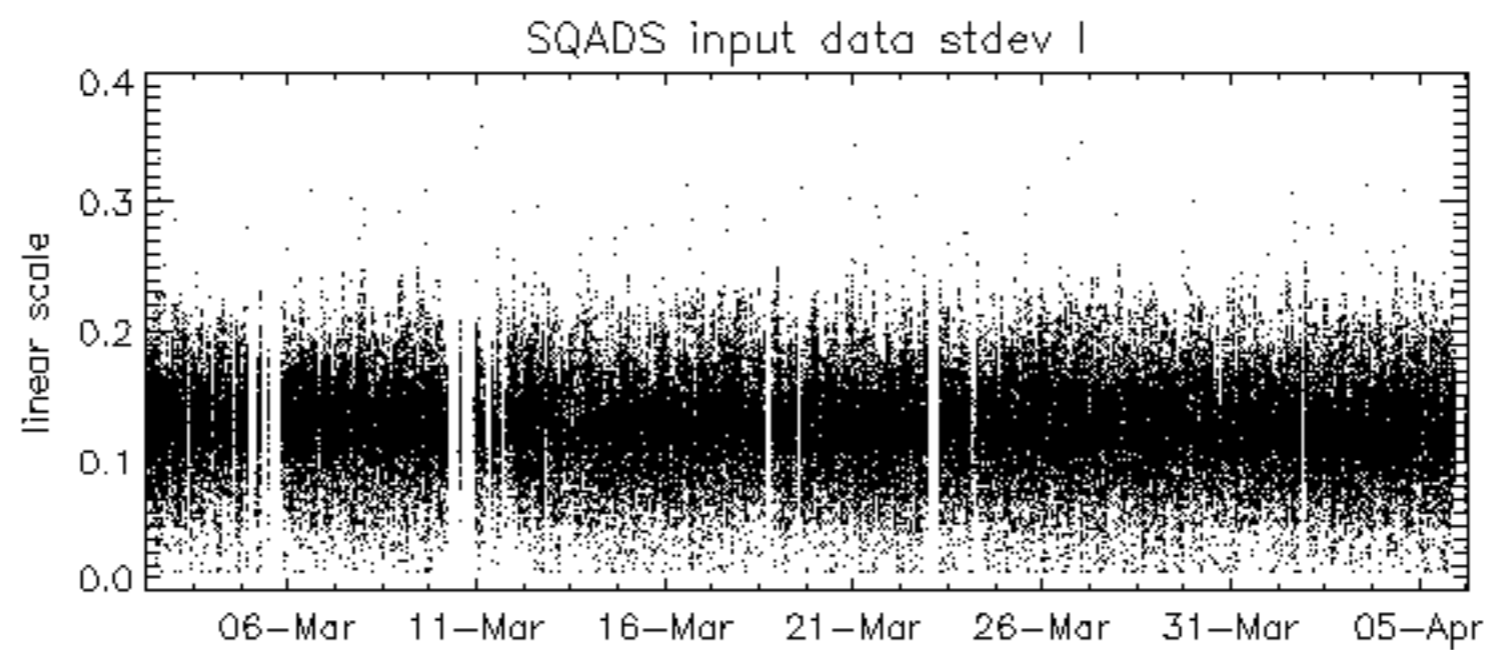
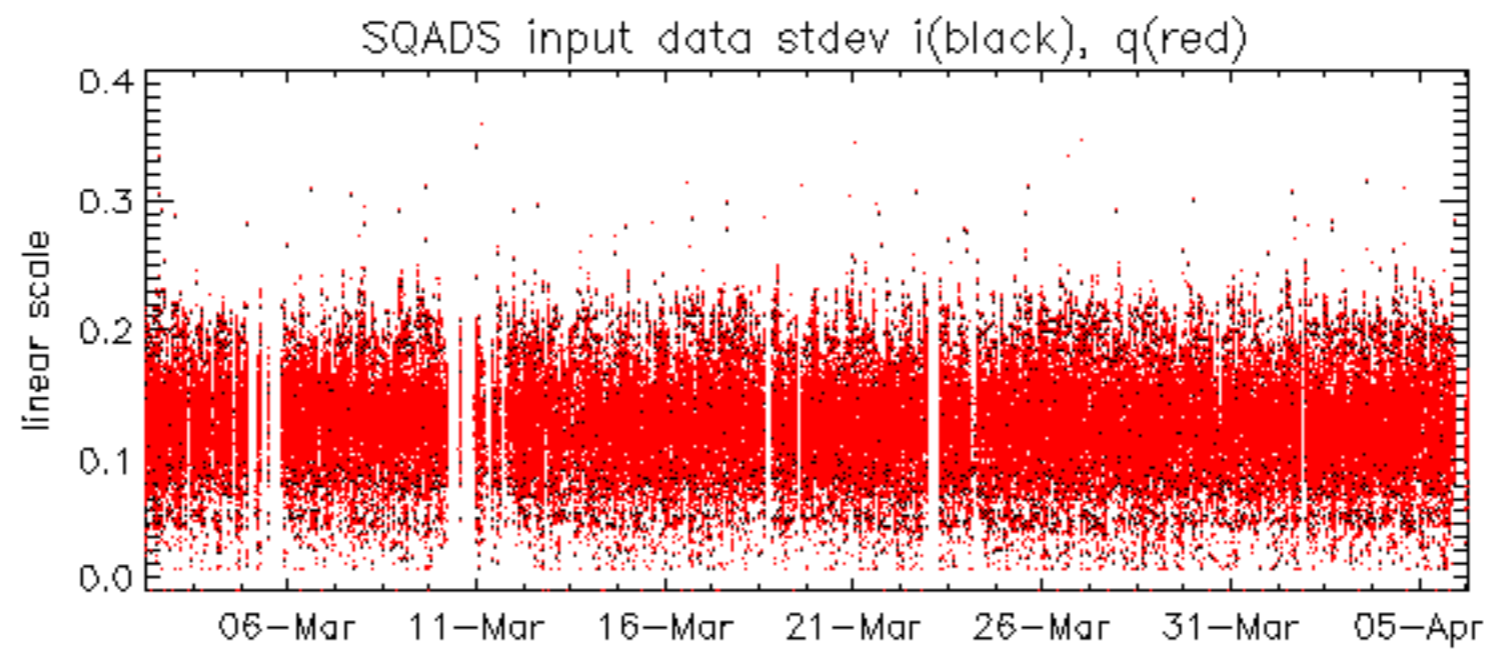
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

No anomalies observed.









No unavailabilities during the reported period.