

REPORT OF 040420

last update on Tue Apr 20 15:52:21 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

ASAR unavailability from 20-APR-2004 08:15:46 to 08:23:31 to investigate module B2-31 H/Tx problem.

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	20040419 193939
H	20040419 193819

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	-3.579939	0.005387	0.018375
7	P1	-3.300283	0.010360	0.006728
11	P1	-4.633937	0.021364	0.014798
15	P1	-4.986124	0.038235	0.015747
19	P1	-3.345653	0.006291	-0.040349
22	P1	-4.517855	0.014610	0.020770
24	P1	-5.034081	0.015195	0.057654
28	P1	-4.587903	0.013503	-0.035570

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.397175	0.079699	-0.015673
7	P2	-22.876772	0.123651	-0.025872
11	P2	-15.919788	0.154361	0.116309
15	P2	-7.161664	0.089271	0.026759
19	P2	-9.512613	0.169245	0.034709
22	P2	-17.659523	0.099949	0.049540
24	P2	-21.000082	0.112573	0.026897
28	P2	-16.604845	0.081612	-0.021754

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.130023	0.003023	-0.015675
7	P3	-8.130029	0.003023	-0.015653
11	P3	-8.130048	0.003022	-0.015551
15	P3	-8.130060	0.003022	-0.015449
19	P3	-8.130061	0.003023	-0.015431
22	P3	-8.130054	0.003022	-0.015474
24	P3	-8.130045	0.003022	-0.015519

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	0.000479323
	stdev	2.36851e-07
MEAN Q	mean	0.000483304
	stdev	2.69820e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127783
	stdev	0.00118906
STDEV Q	mean	0.128037
	stdev	0.00120281



5.3 - Gain imbalance I/Q



6 - Doppler Analysis

6.1 - Unbiased Doppler Error

Evolution of unbiased Doppler error (Real - Expected)
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Ascending

Descending

6.2 - Absolute Doppler

Evolution of Absolute Doppler

Ascending

Descending

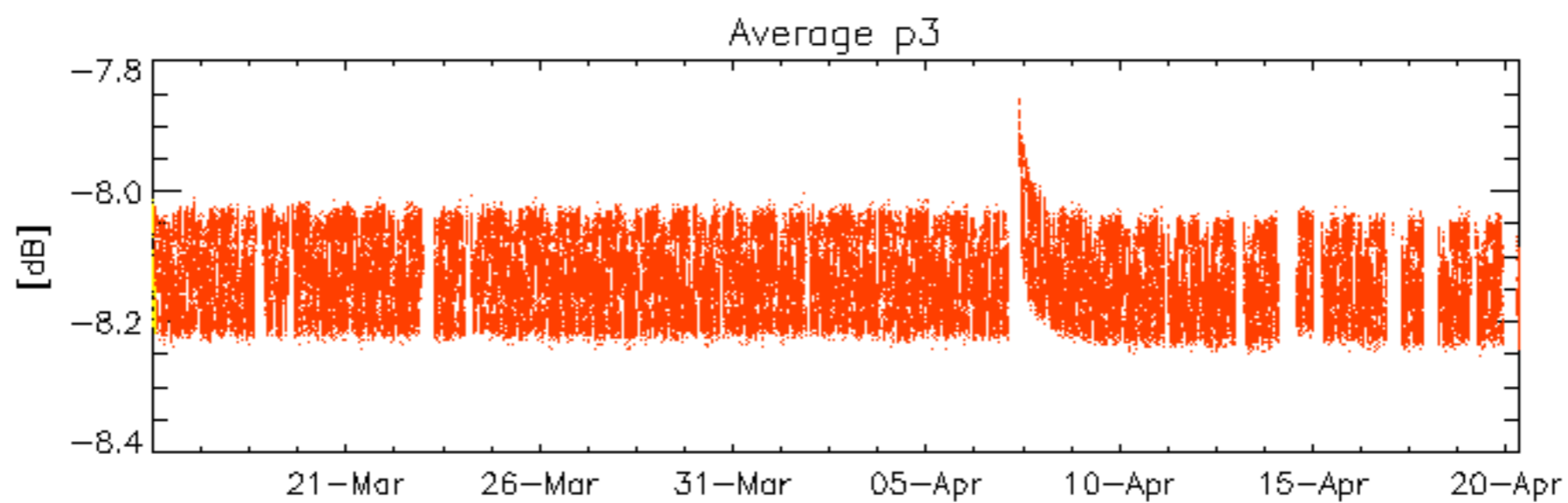
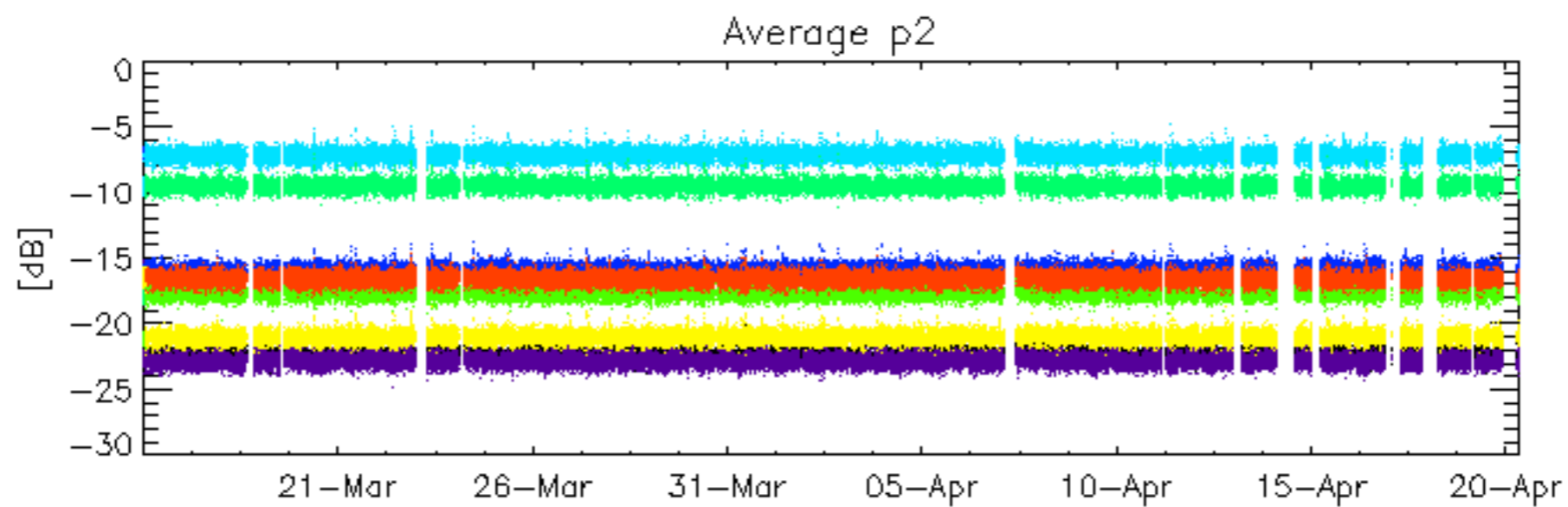
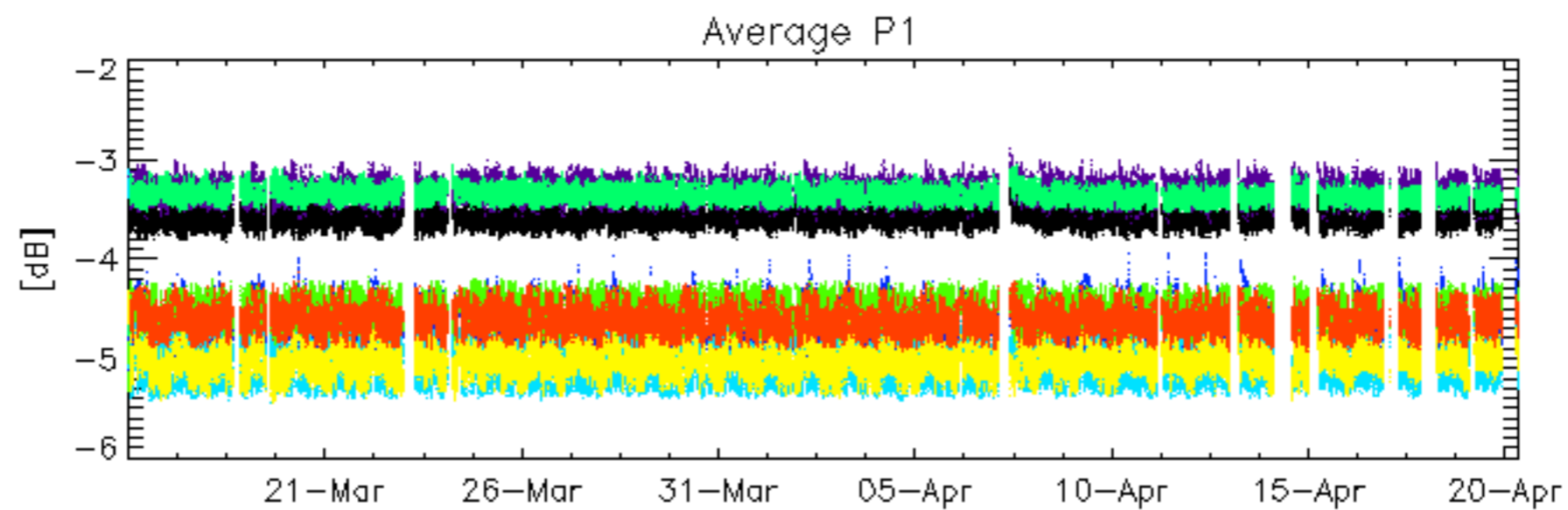
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX

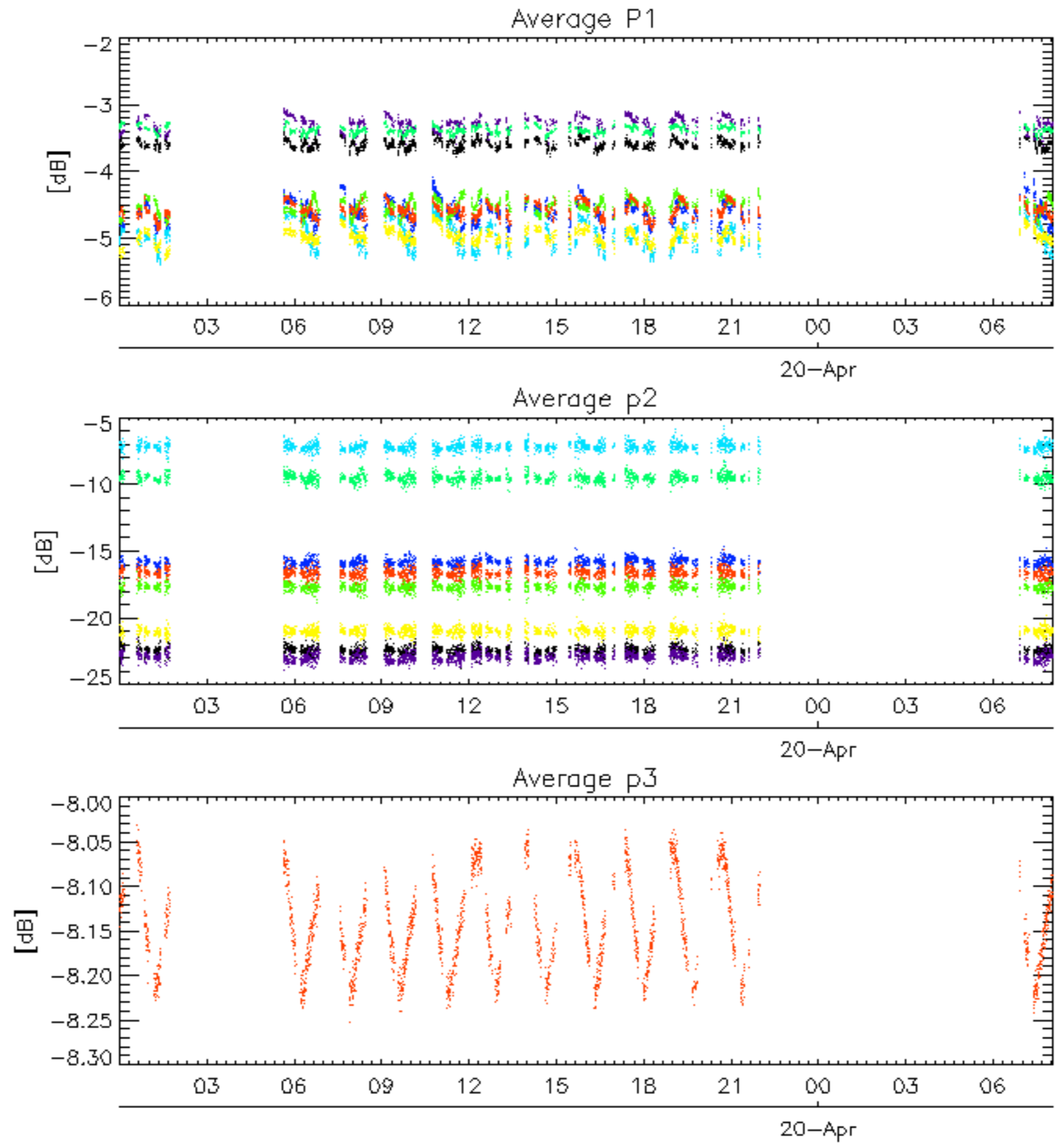
⊗

Evolution Doppler error versus ANX

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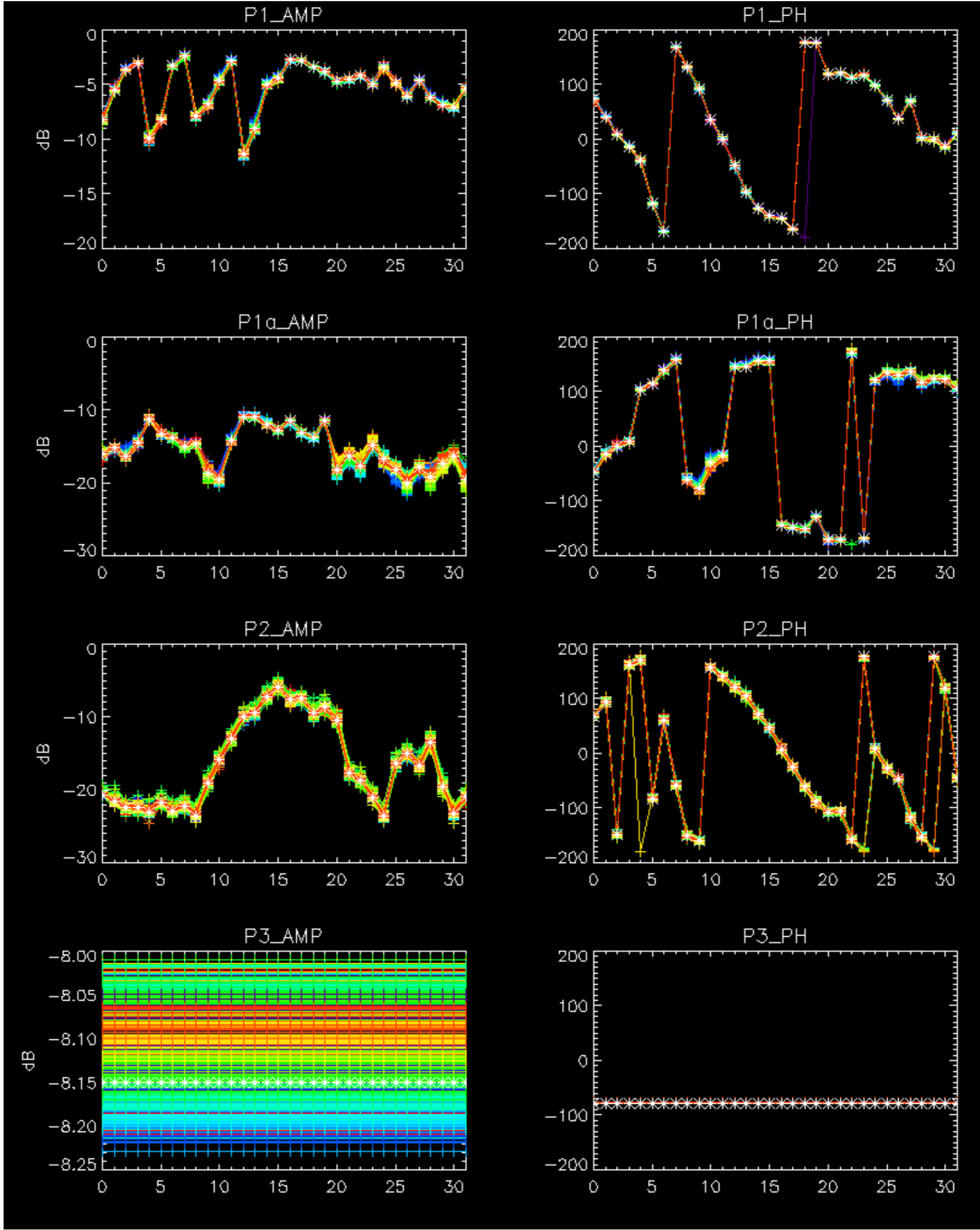
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



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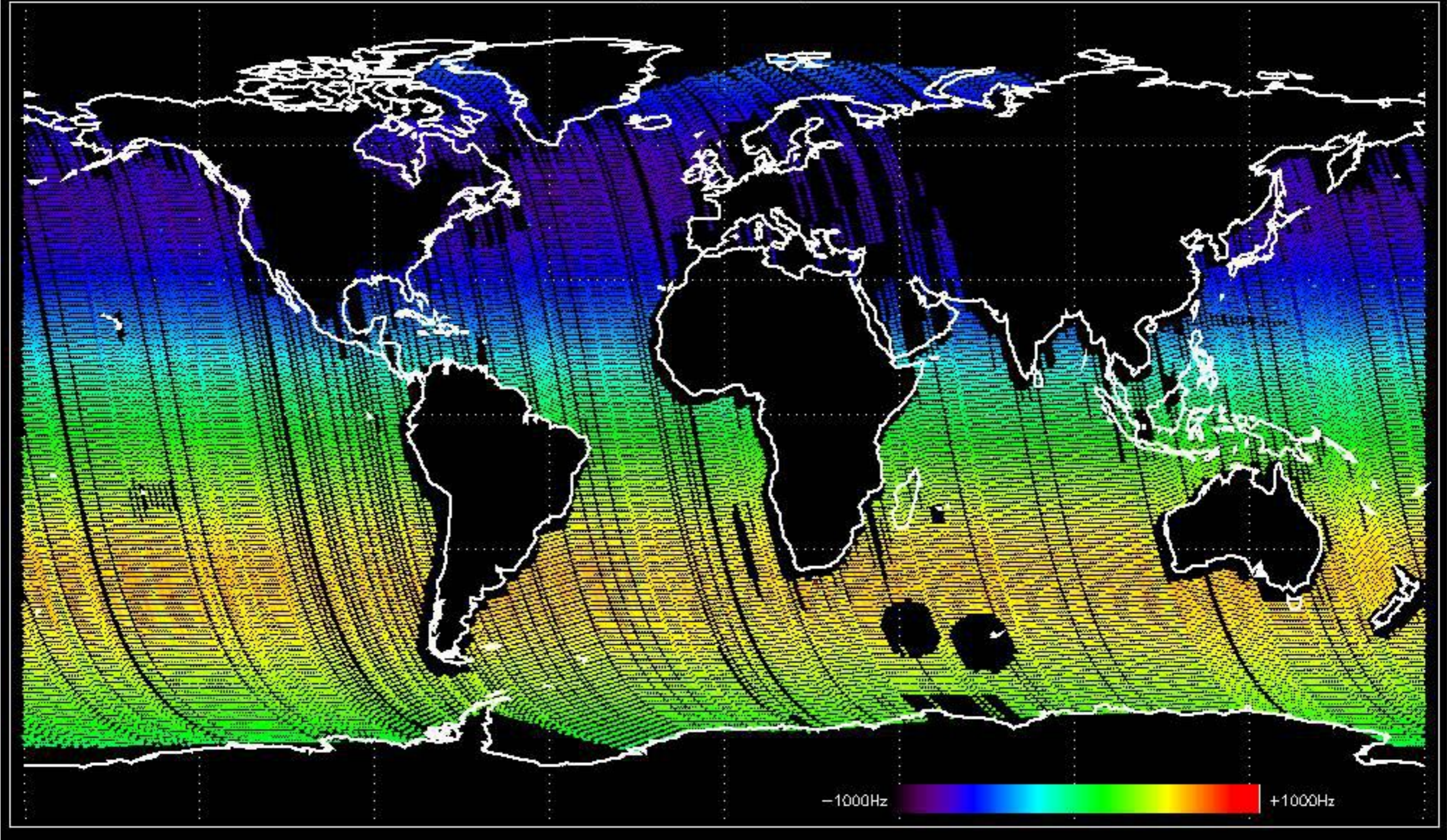
No anomalies observed on available browse products

No anomalies observed.

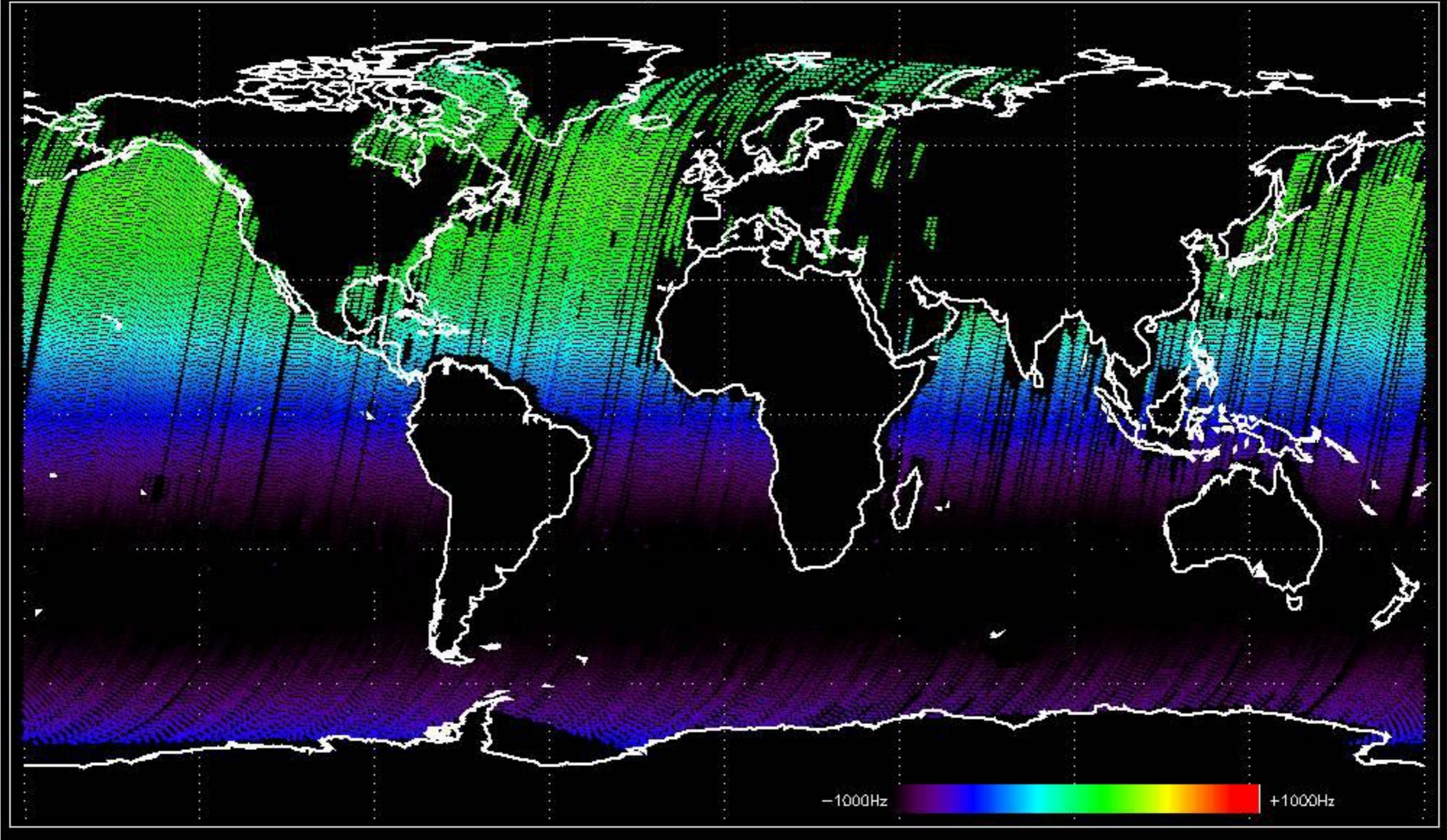


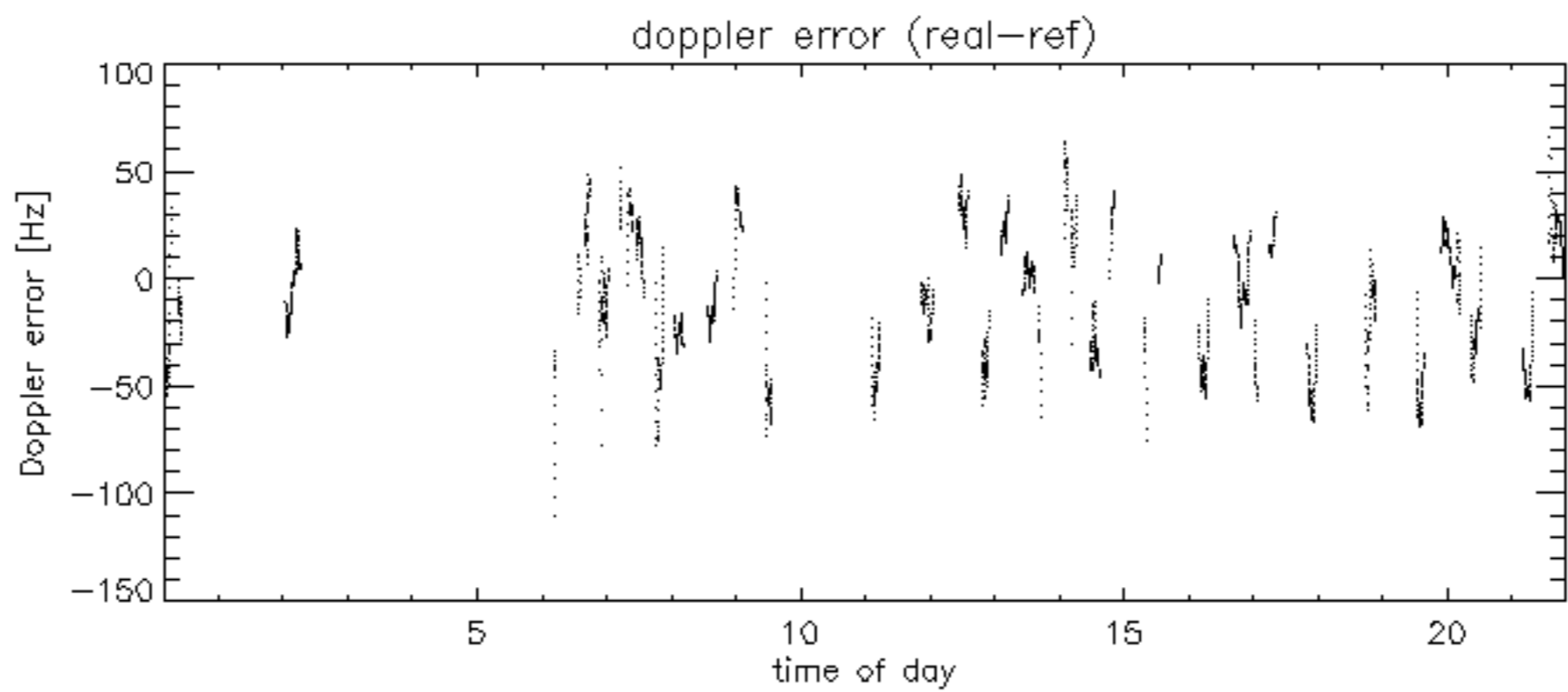
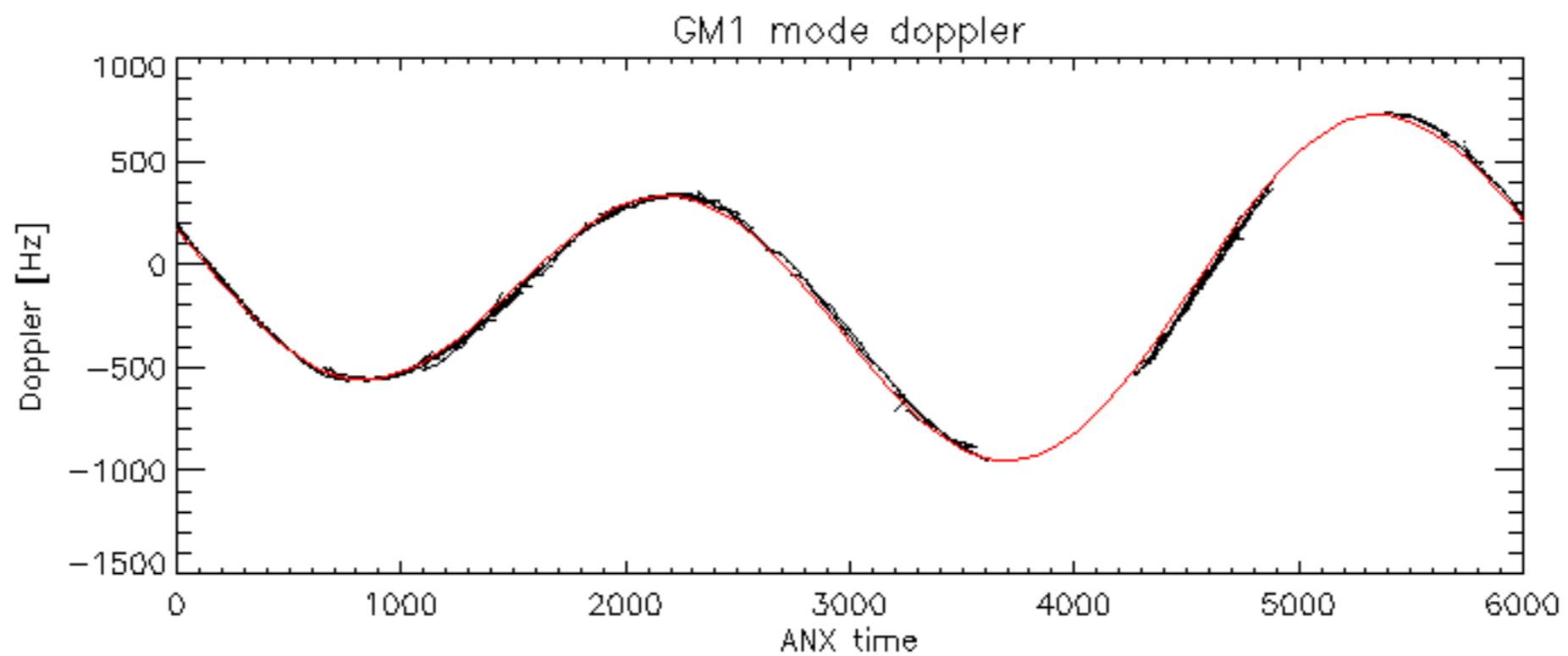
- Stable wave internal calibration pulses gain and phase.
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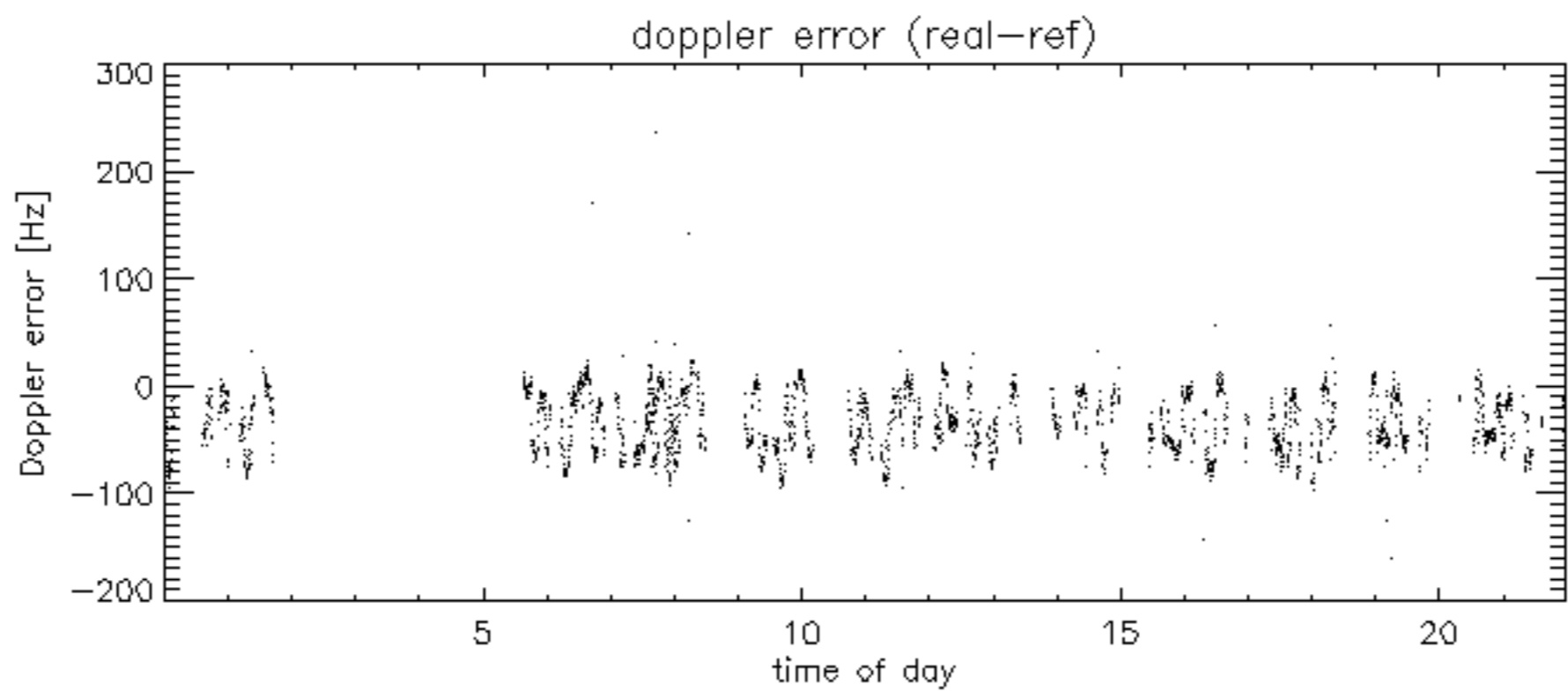
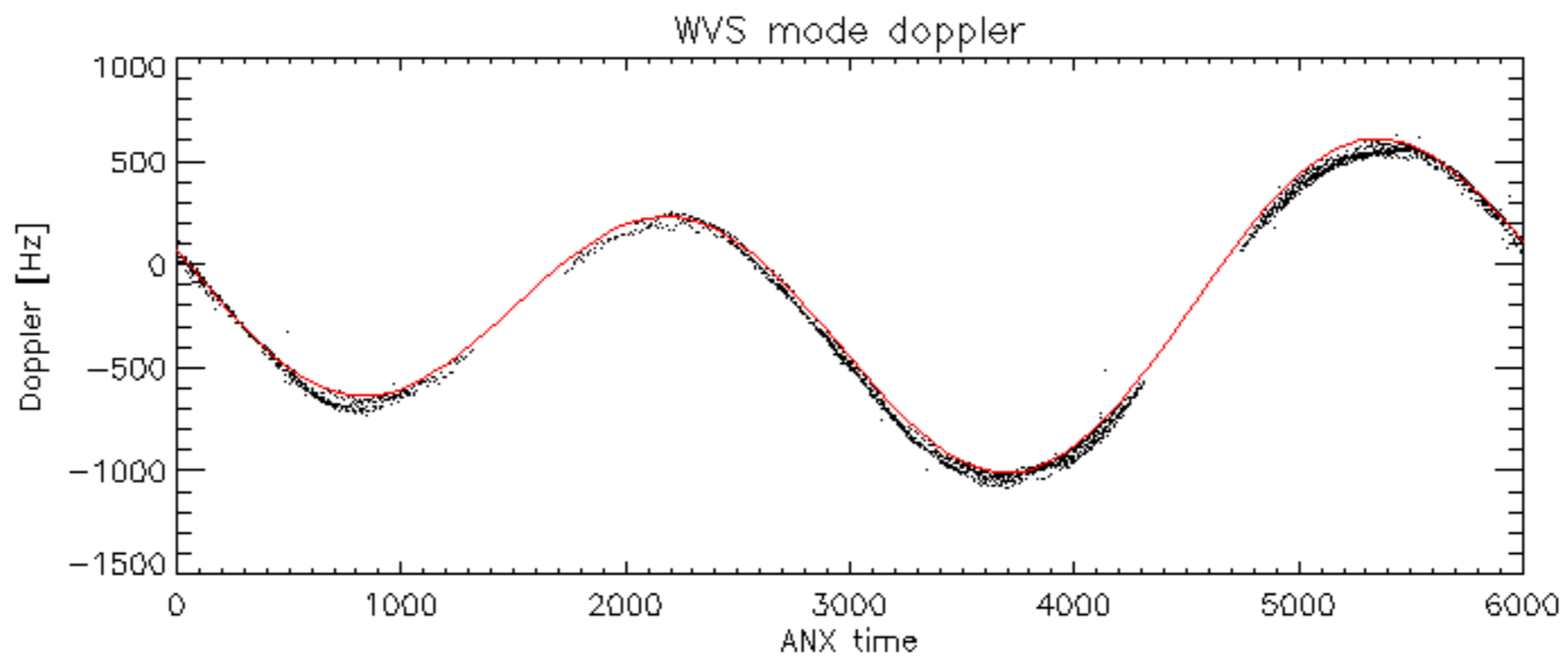
Doppler 'WVS' 'IS2' 'H/H'



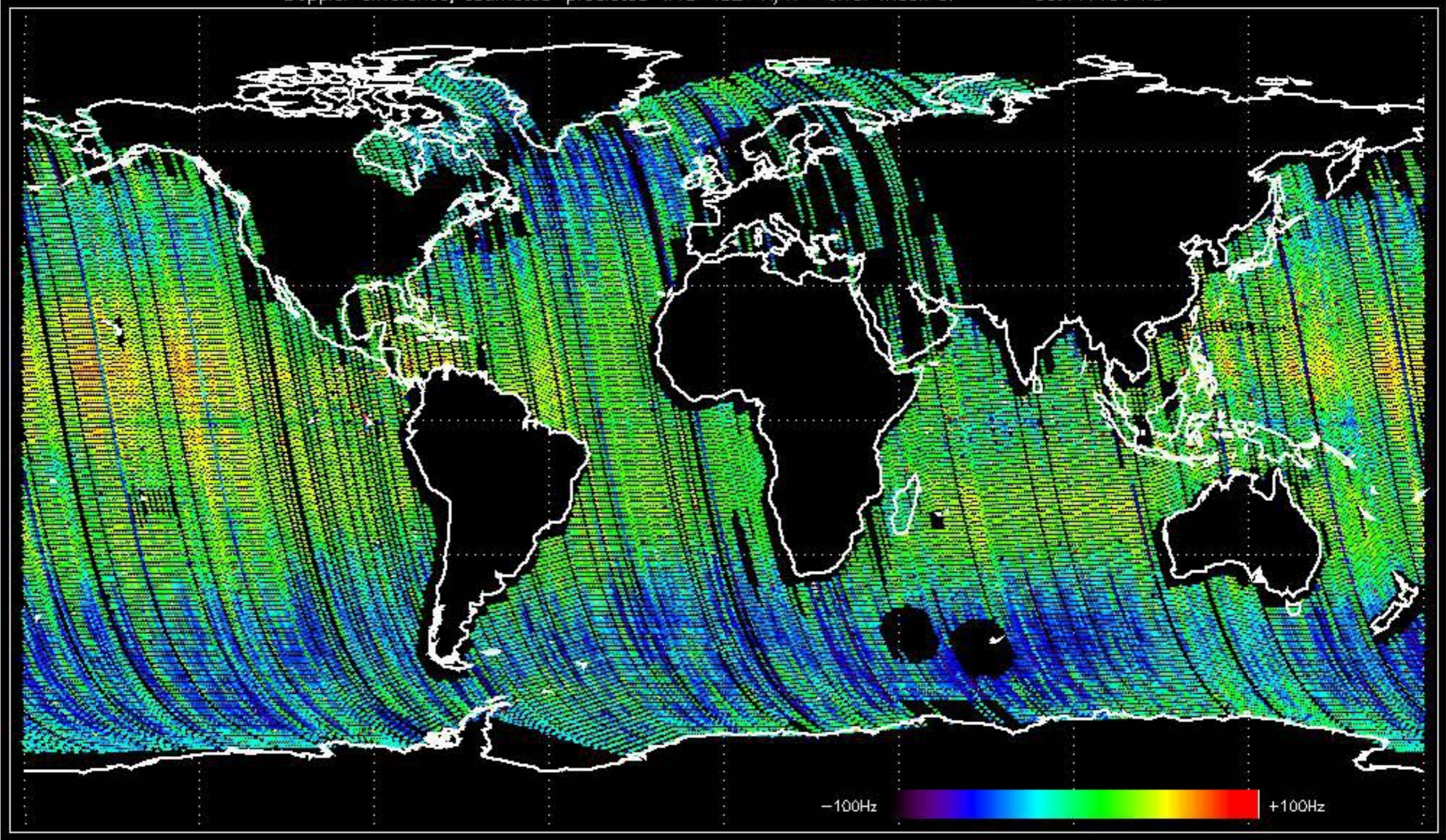
Doppler 'WVS' 'IS2' 'V/V'



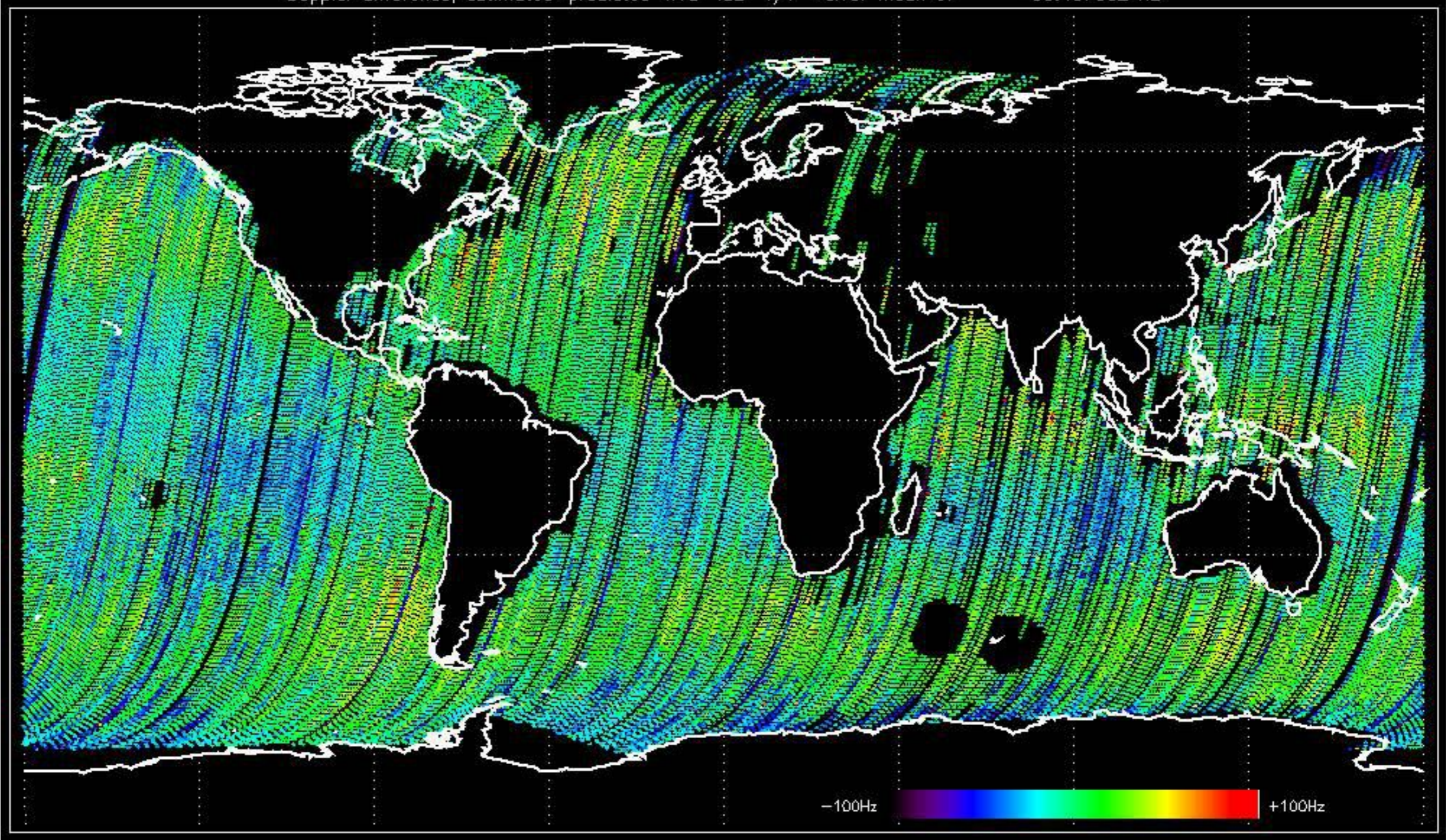




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -36.141106 Hz

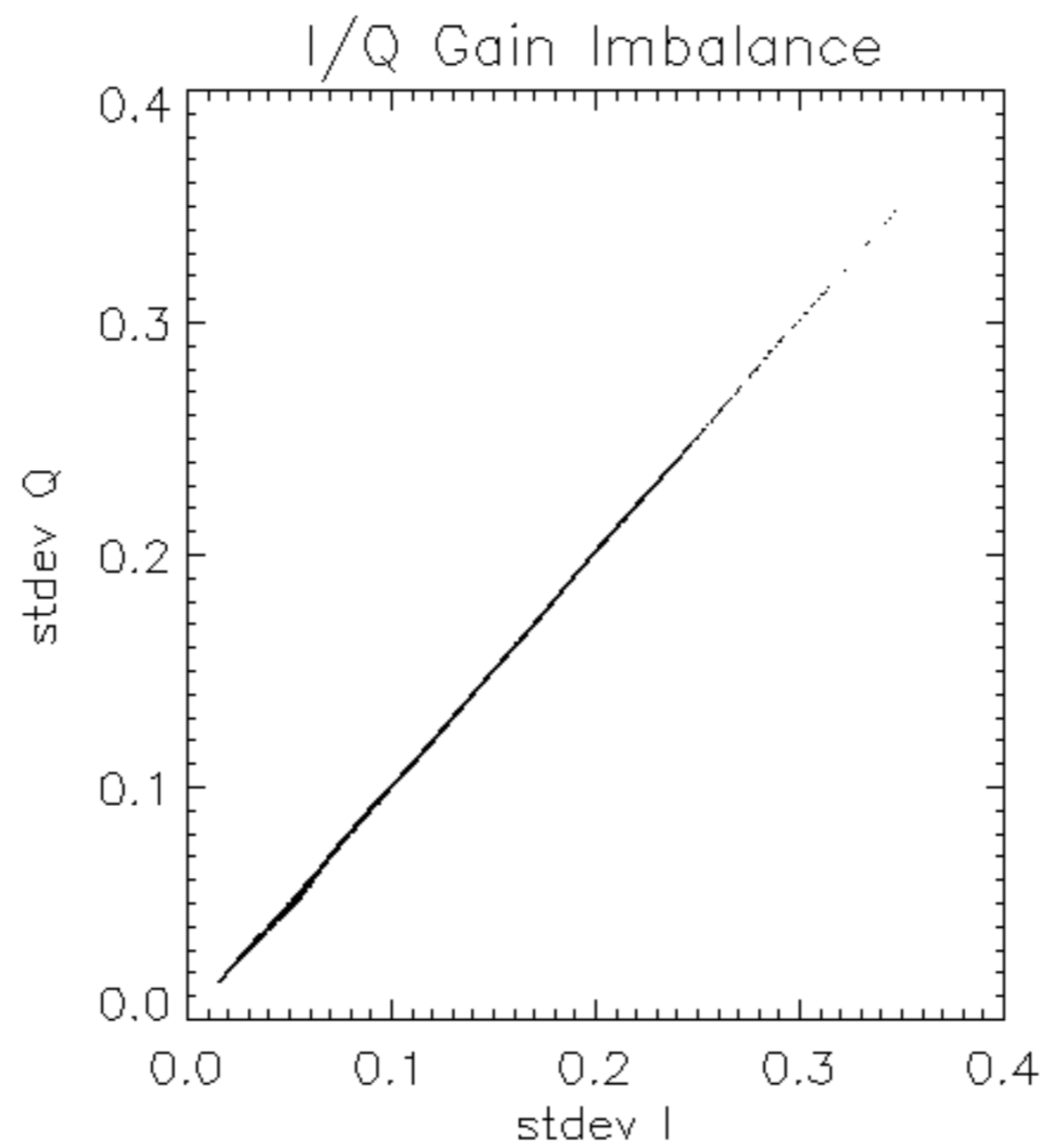


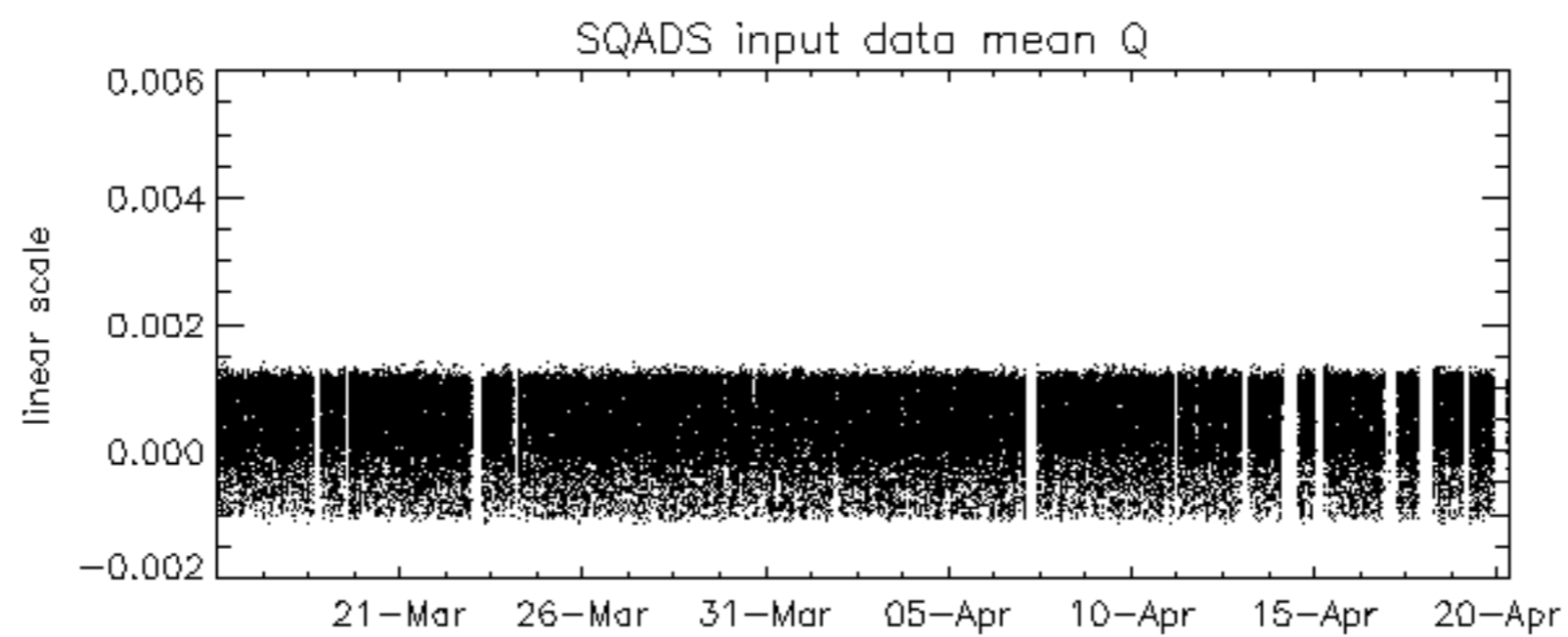
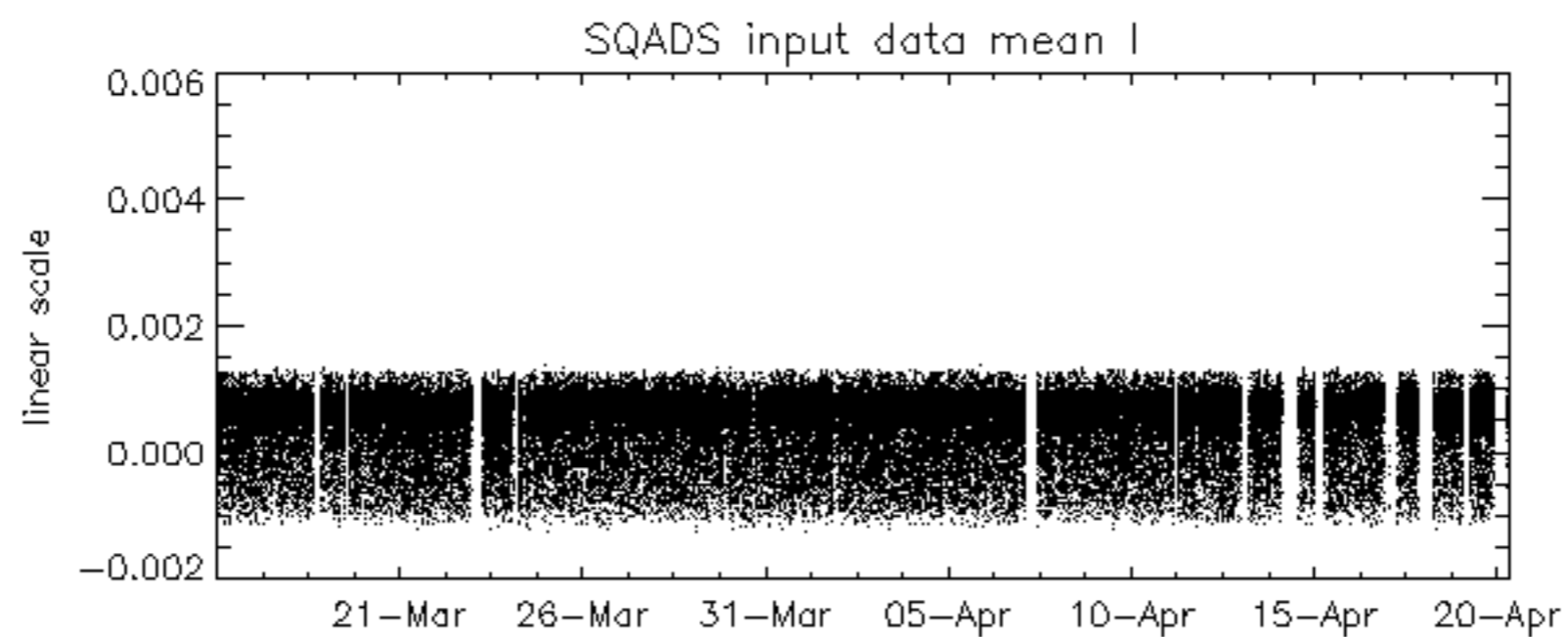
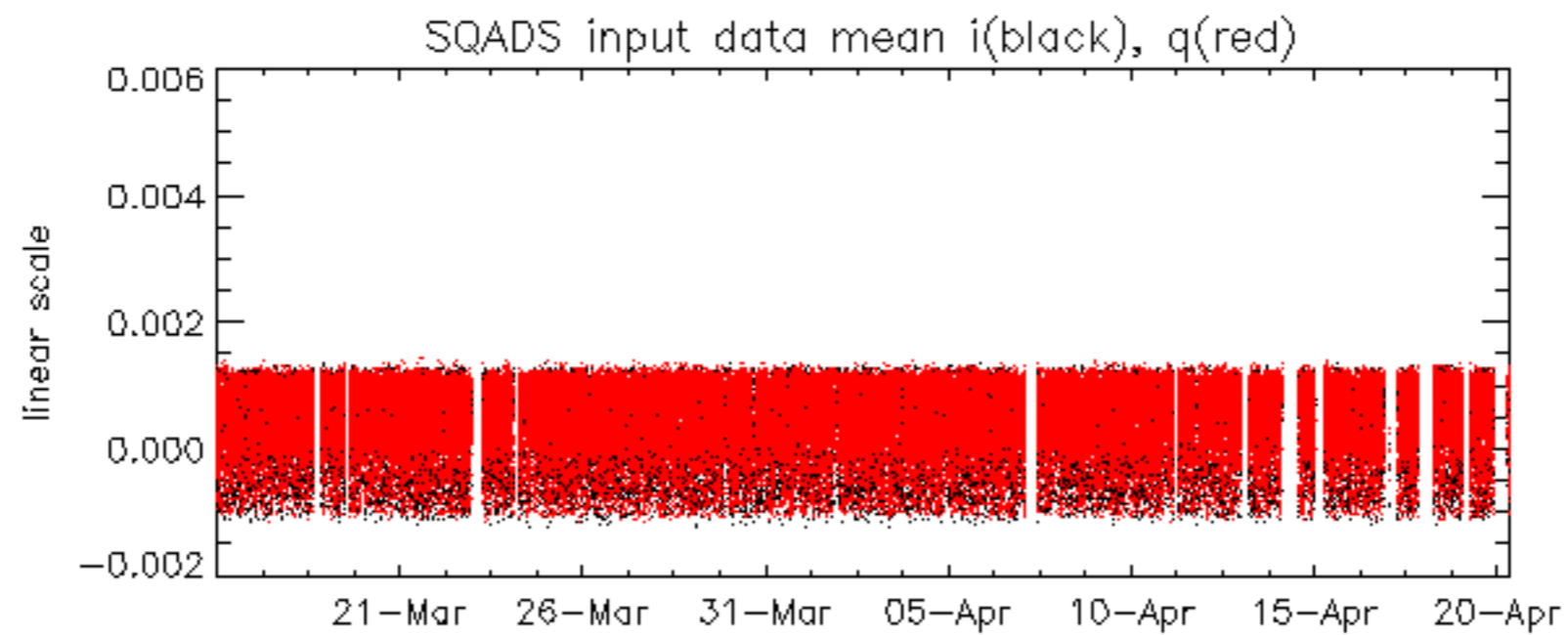
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -33.467662 Hz

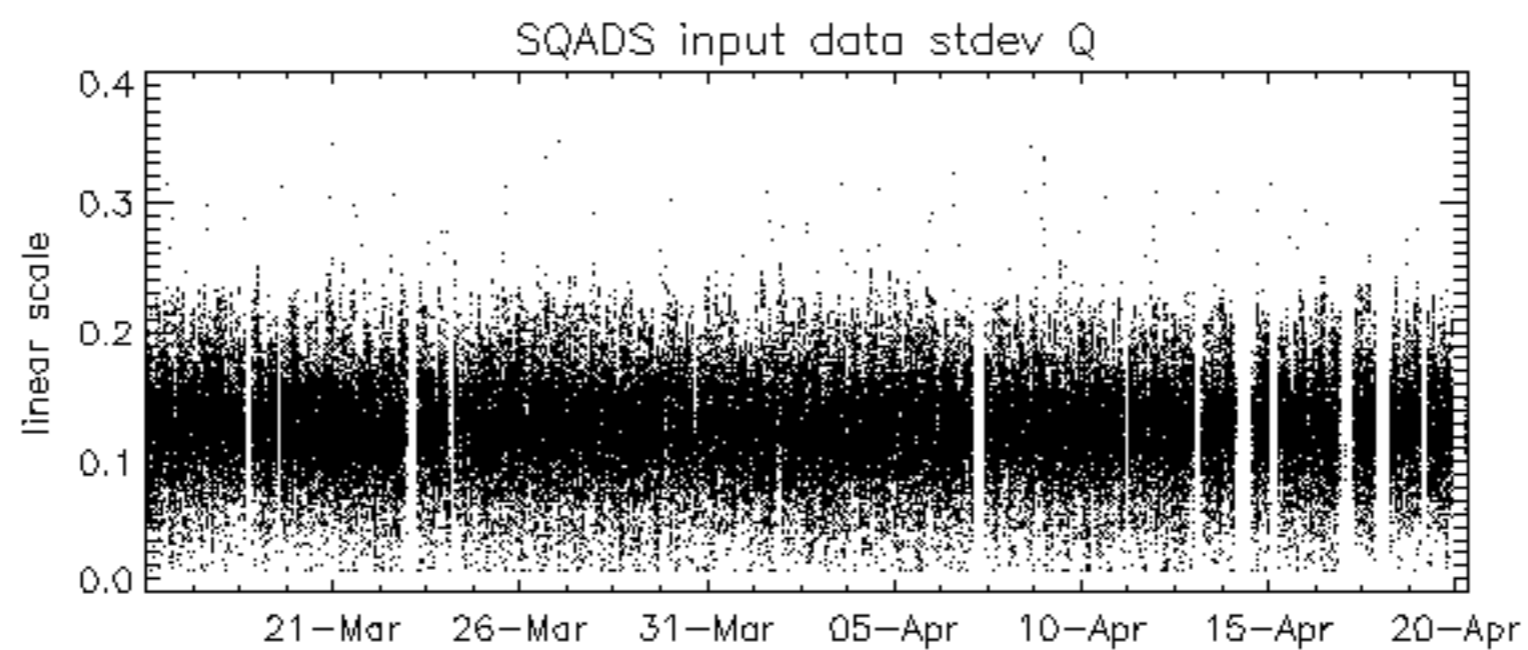
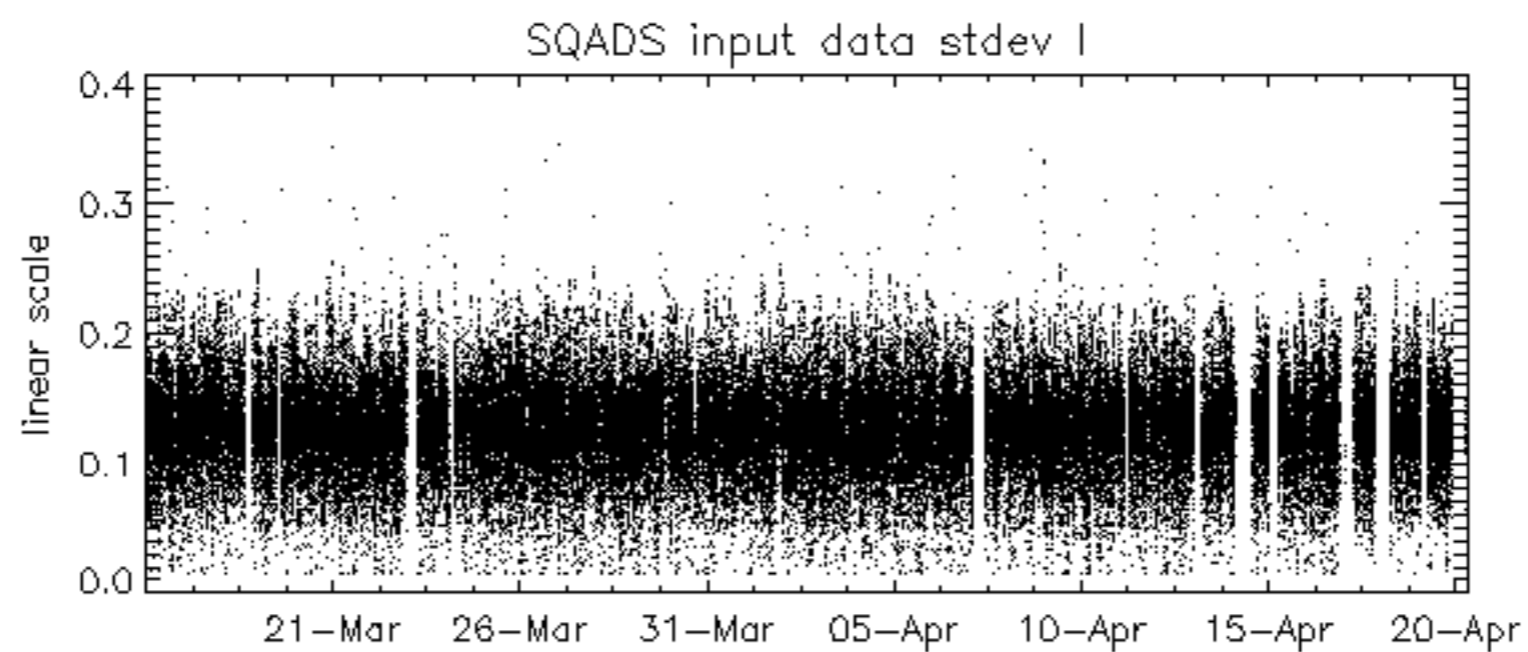
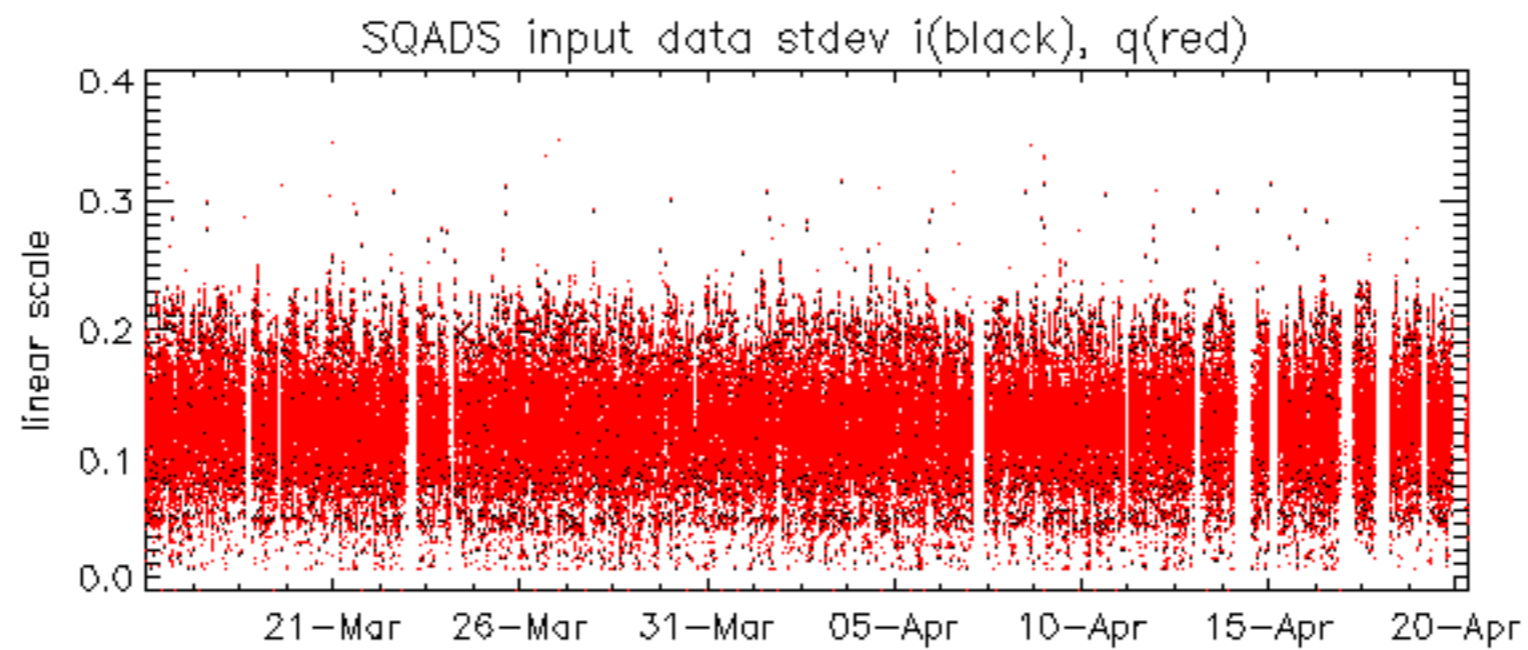


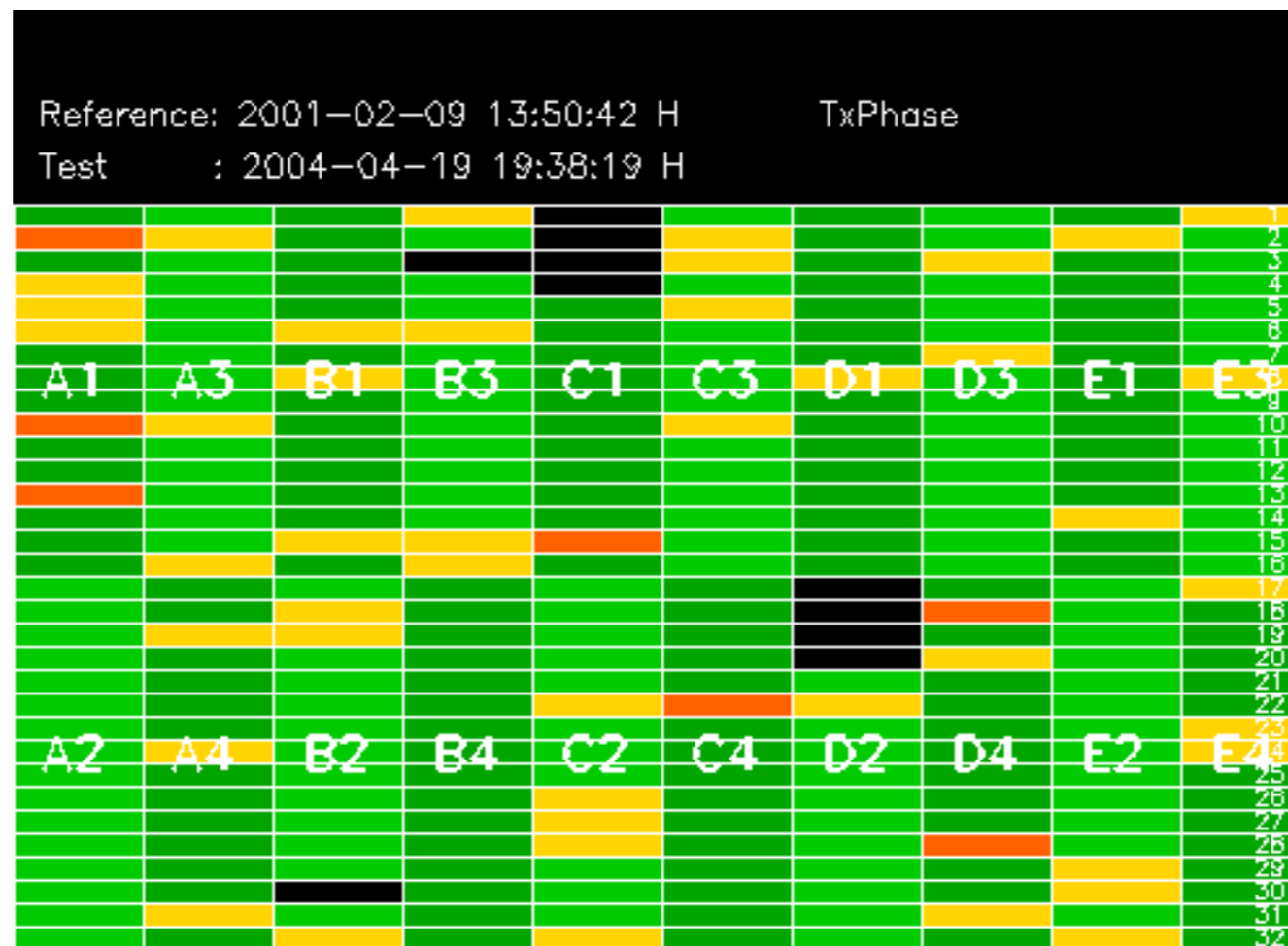
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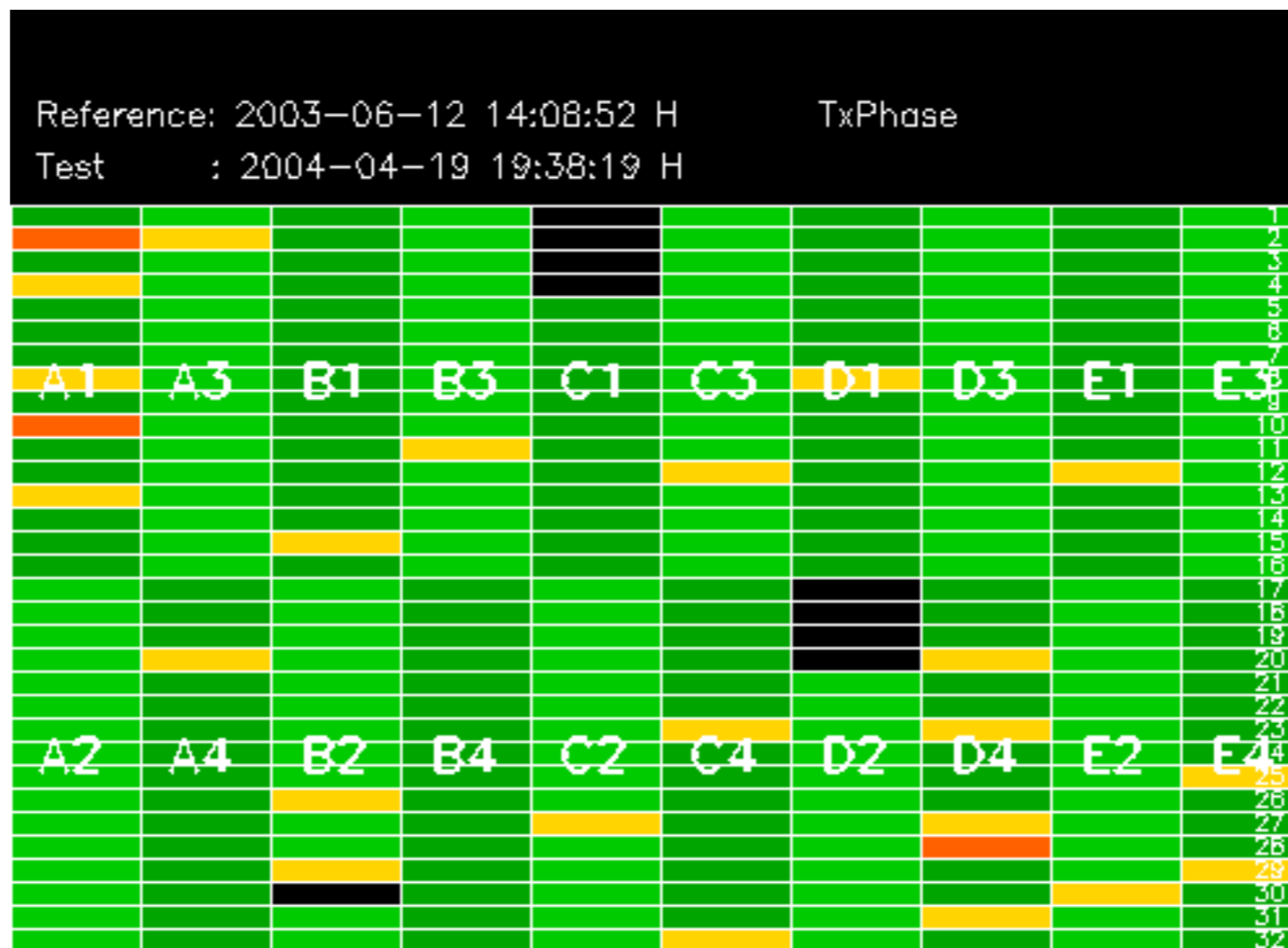
No anomalies observed.











ASAR unavailability from 20-APR-2004 08:15:46 to 08:23:31 to investigate module B2-31 H/Tx problem.

