

REPORT OF 040405

last update on Mon Apr 5 13:18:49 GMT 2004

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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

No anomalies observed from browse visual inspection.

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__0PNPDK20040404_190935_000000152025_00385_10960_0052.N1
- ASA_MS__0PNPDK20040404_191055_000000152025_00385_10960_0053.N1

Polarisation	Start Time
V	20040404 191055
H	20040404 190935

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	-3.592453	0.005642	0.046212
7	P1	-3.305257	0.009885	0.019725
11	P1	-4.635982	0.019943	-0.003781
15	P1	-4.998257	0.036925	0.009362
19	P1	-3.355173	0.070288	0.060401
22	P1	-4.539889	0.069264	0.068040
24	P1	-5.076463	0.089233	0.103491
28	P1	-4.594368	0.073425	0.011976

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.393774	0.080170	-0.007531
7	P2	-22.890686	0.126411	0.043238
11	P2	-15.975325	0.159468	0.071382
15	P2	-7.170725	0.089205	0.049225
19	P2	-9.502470	0.177780	0.043471
22	P2	-17.671312	0.101726	0.066937
24	P2	-21.021257	0.115003	-0.010525
28	P2	-16.600809	0.082461	0.001631

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.127110	0.003023	0.000030
7	P3	-8.127110	0.003024	0.000040
11	P3	-8.127105	0.003023	0.000011
15	P3	-8.127094	0.003022	-0.000039
19	P3	-8.127088	0.003022	-0.000077
22	P3	-8.127081	0.003022	-0.000117

24	P3	-8.127070	0.003023	-0.000177
28	P3	-8.126904	0.003030	0.000607

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	0.000482714
	stdev	2.32697e-07
MEAN Q	mean	0.000492530
	stdev	2.63489e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128393
	stdev	0.00116642
STDEV Q	mean	0.128644
	stdev	0.00118013



5.3 - Gain imbalance I/Q



6 - Doppler Analysis

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

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

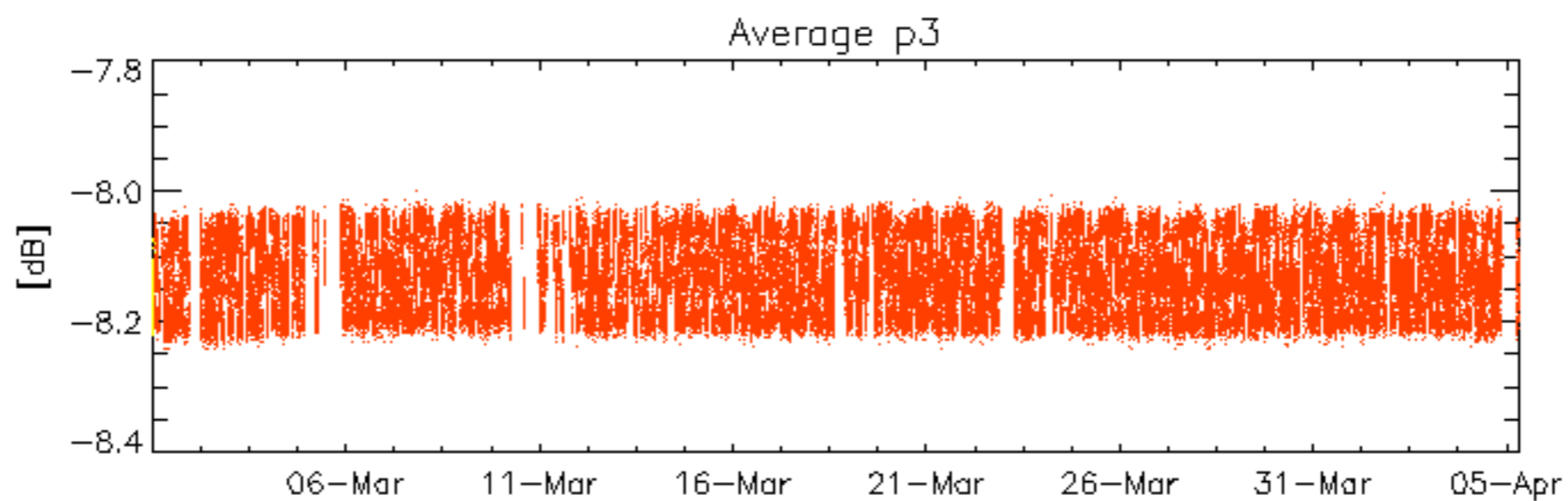
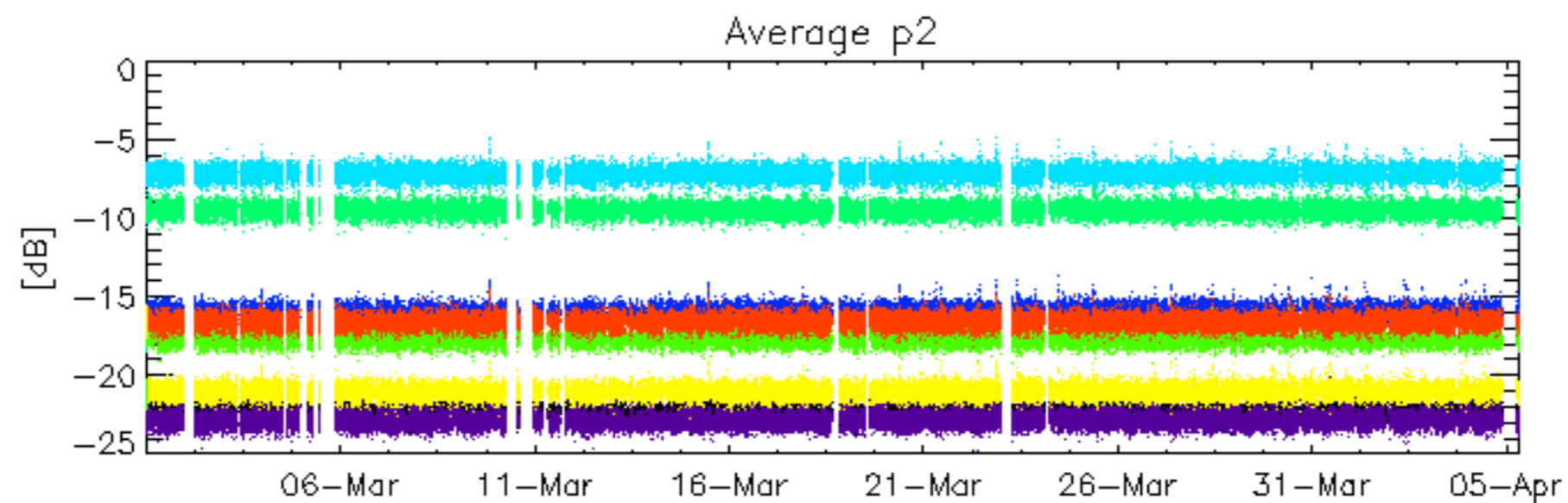
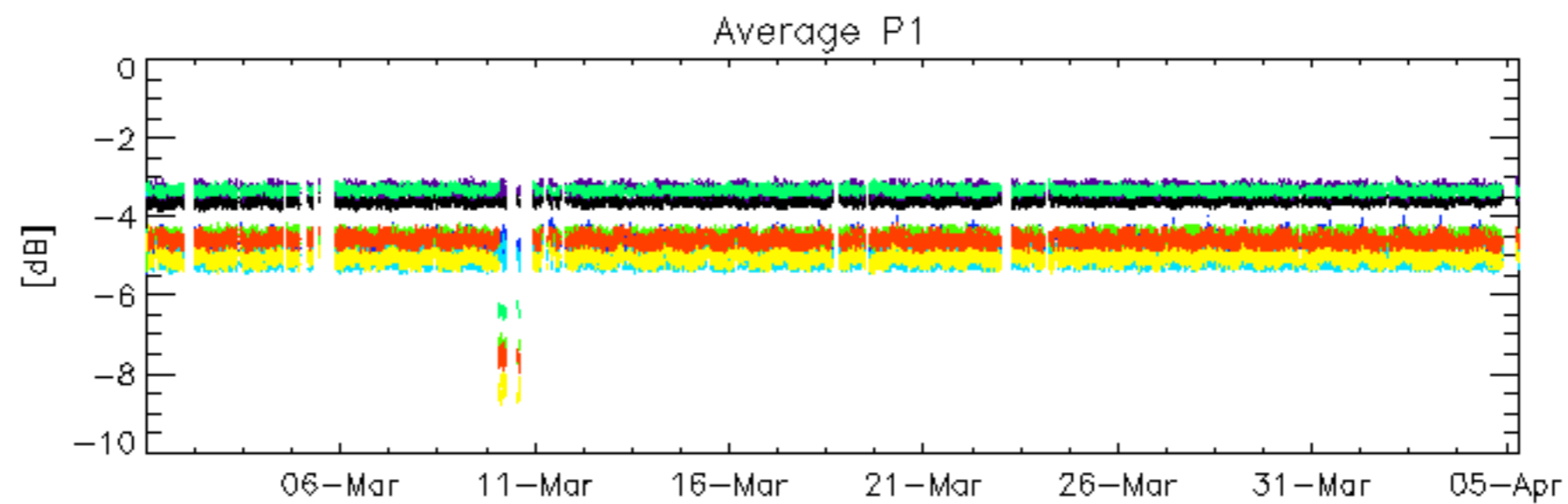
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX

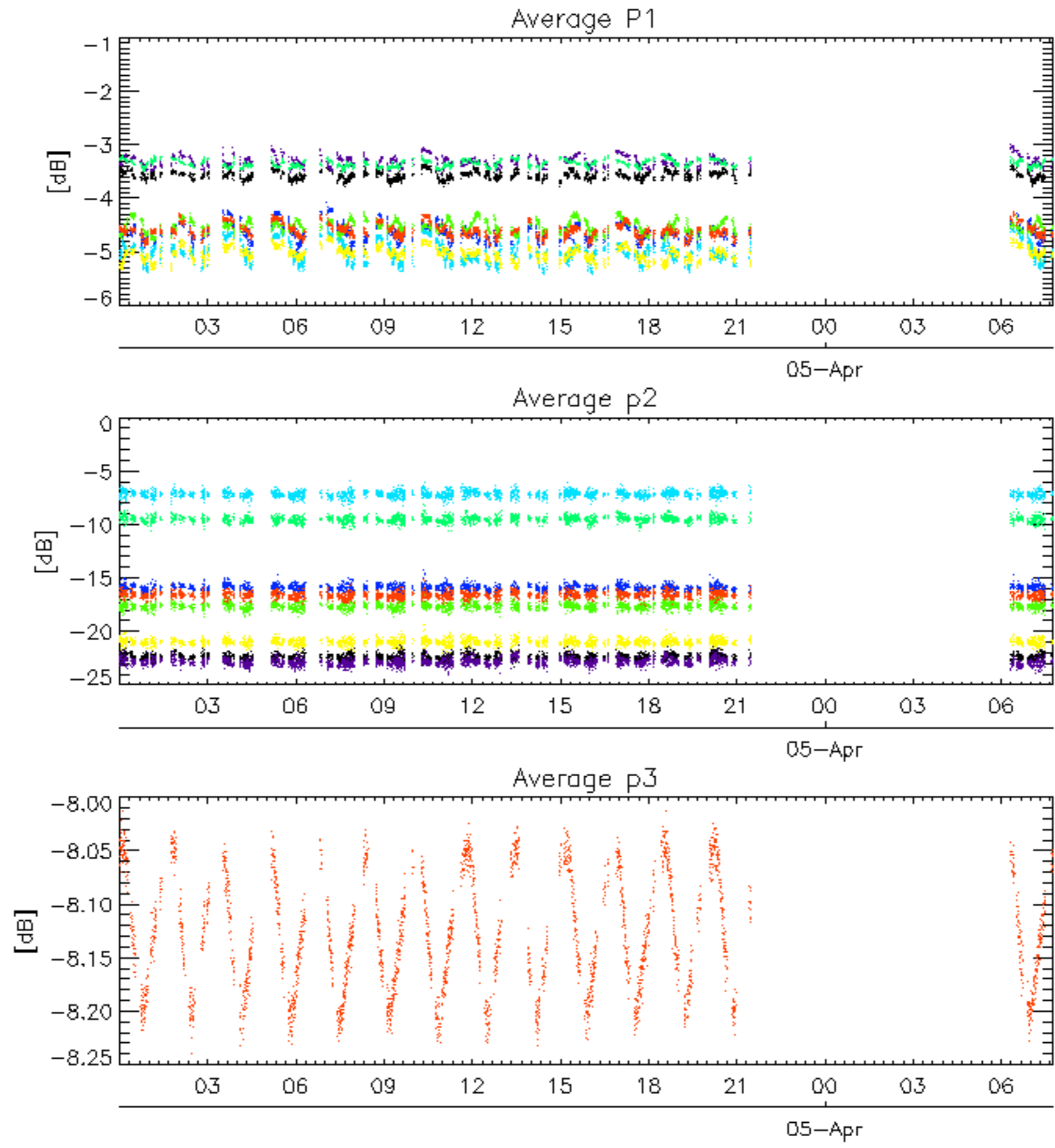
⊗

Evolution Doppler error versus ANX

⊗



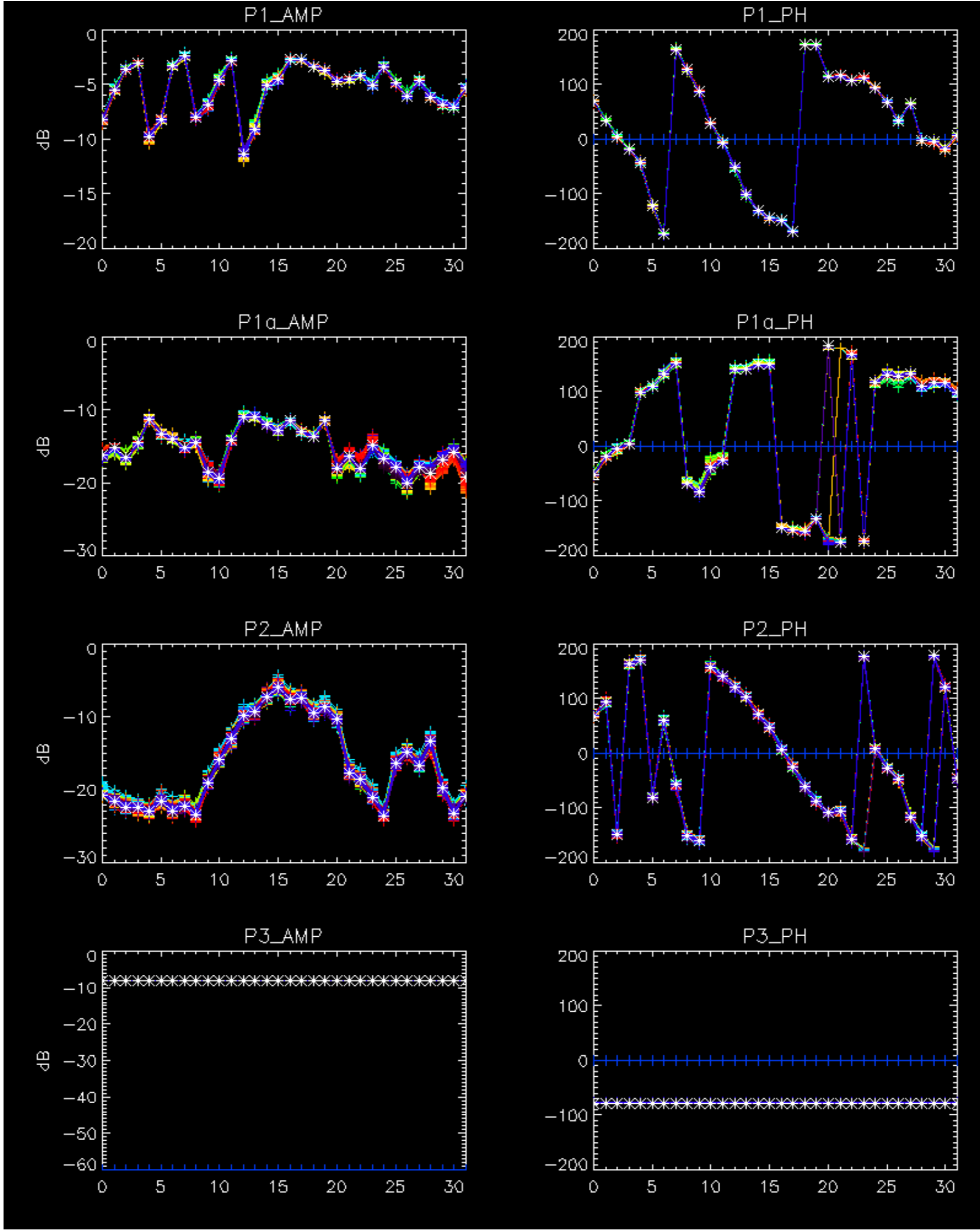
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



rows: 3 7 11 15 19 22 24 28

No anomalies observed from browse visual inspection.

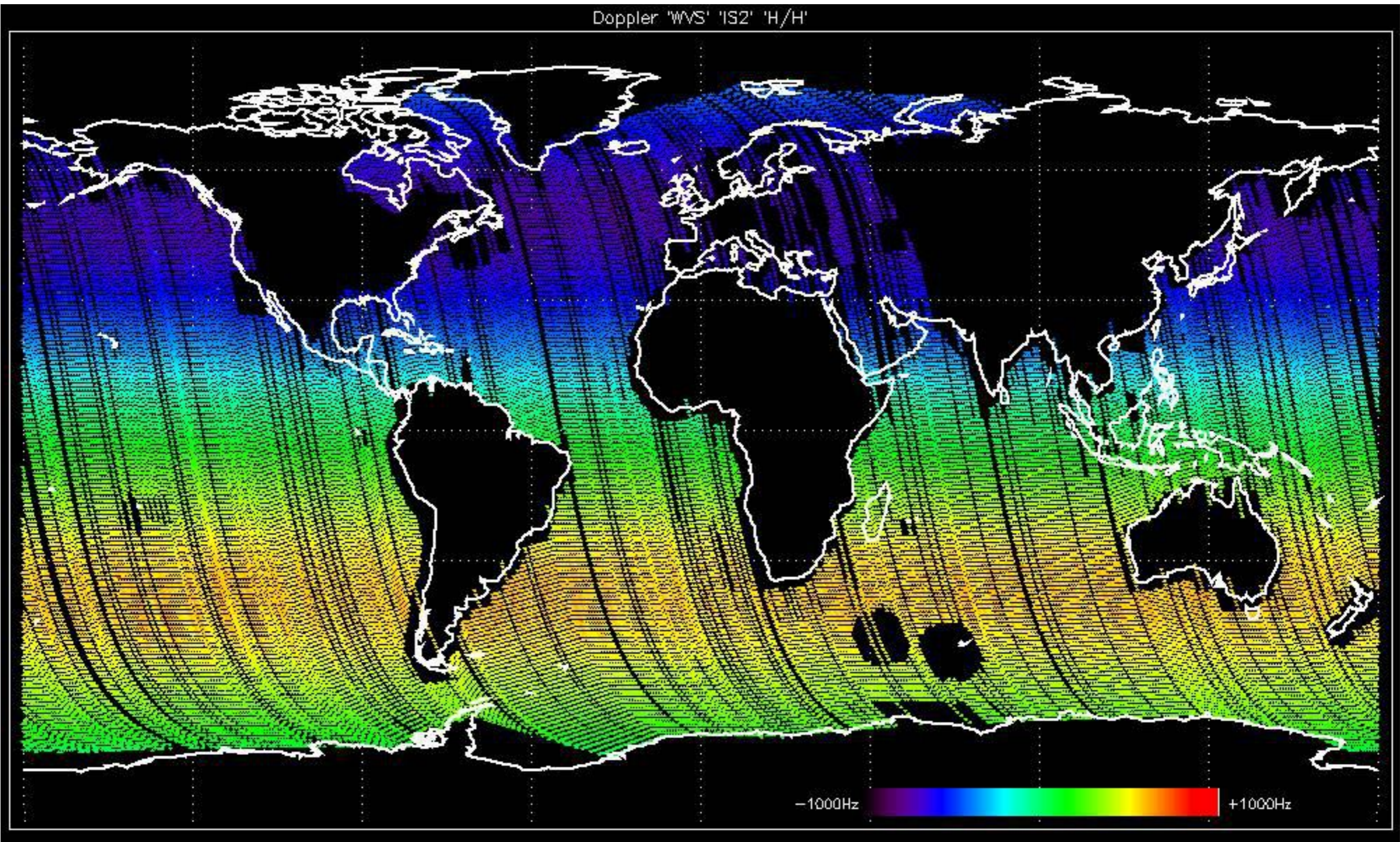
No anomalies observed.



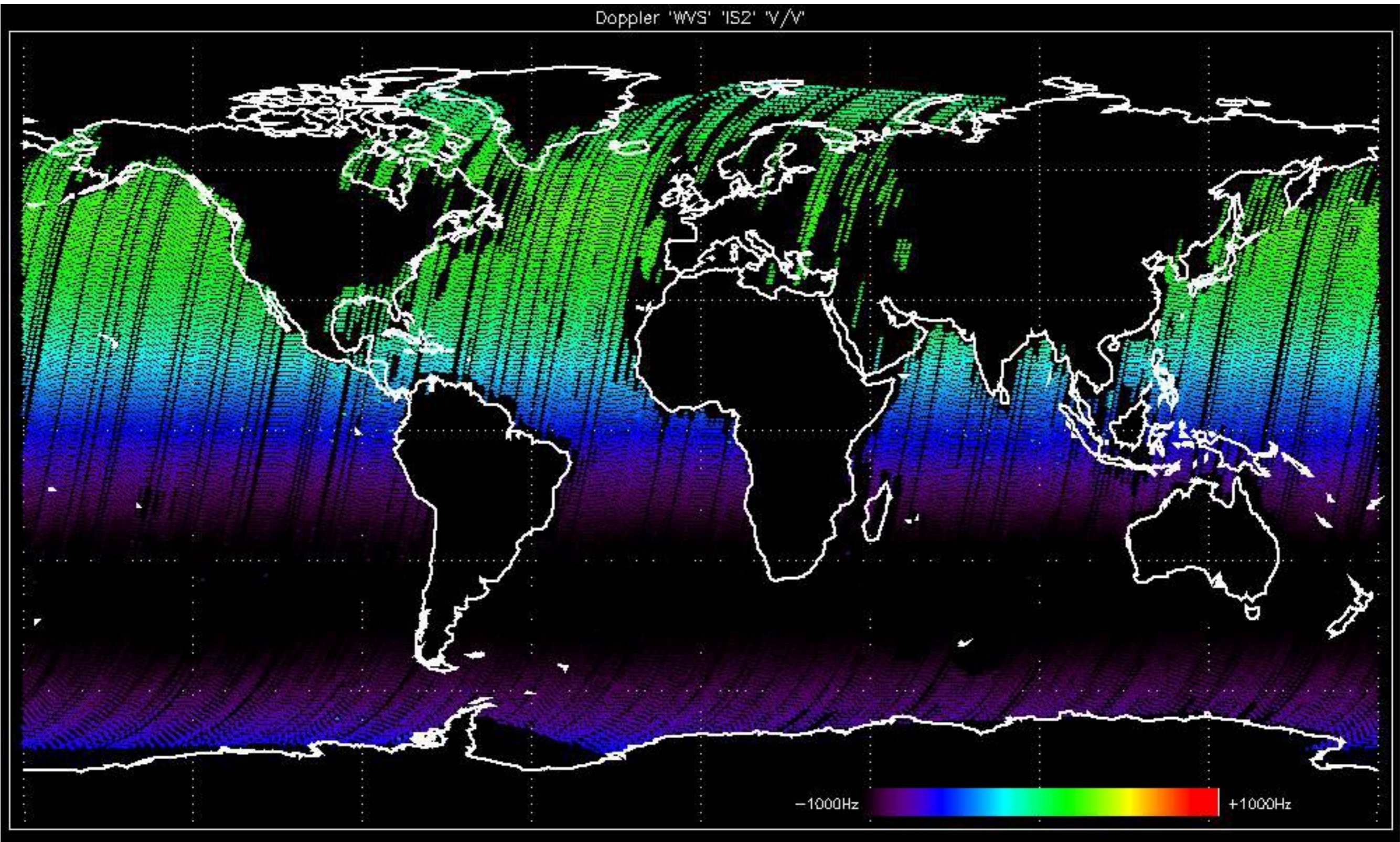
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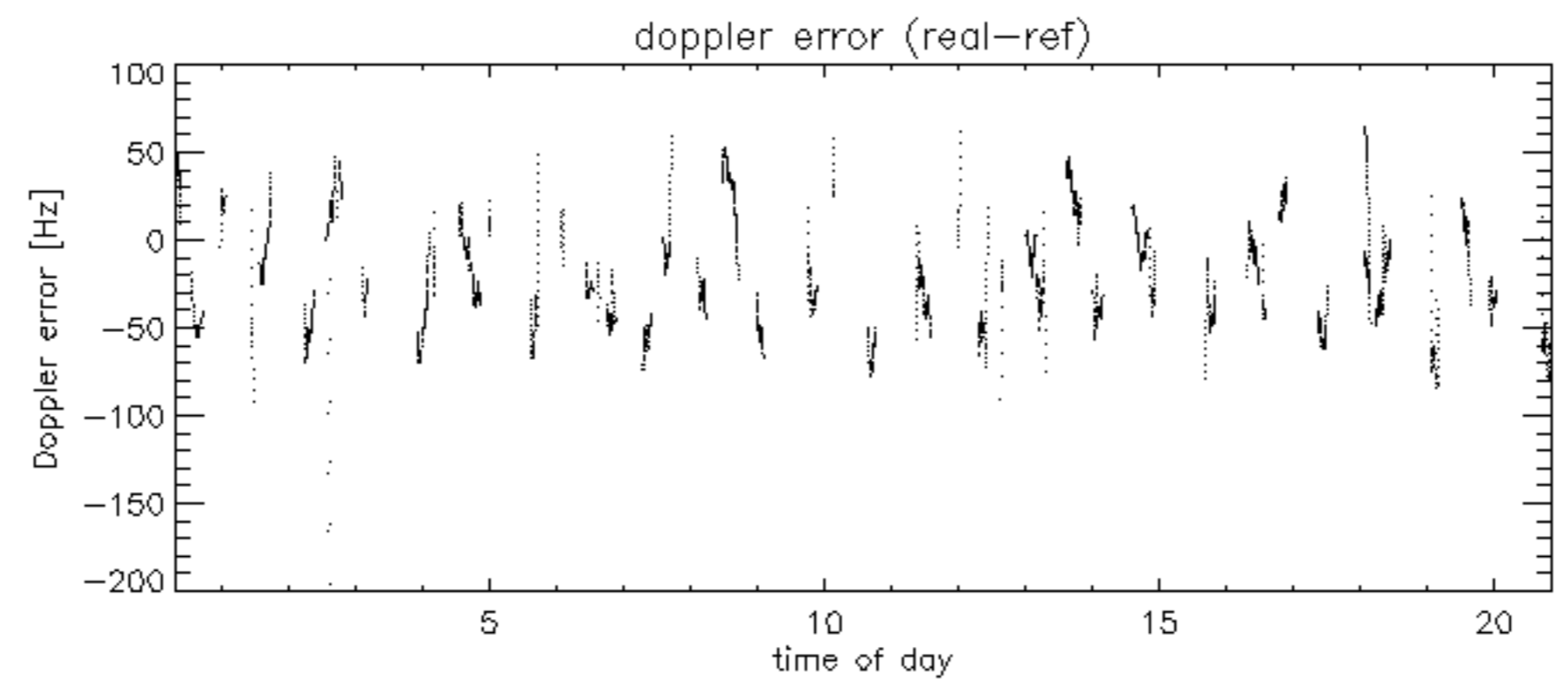
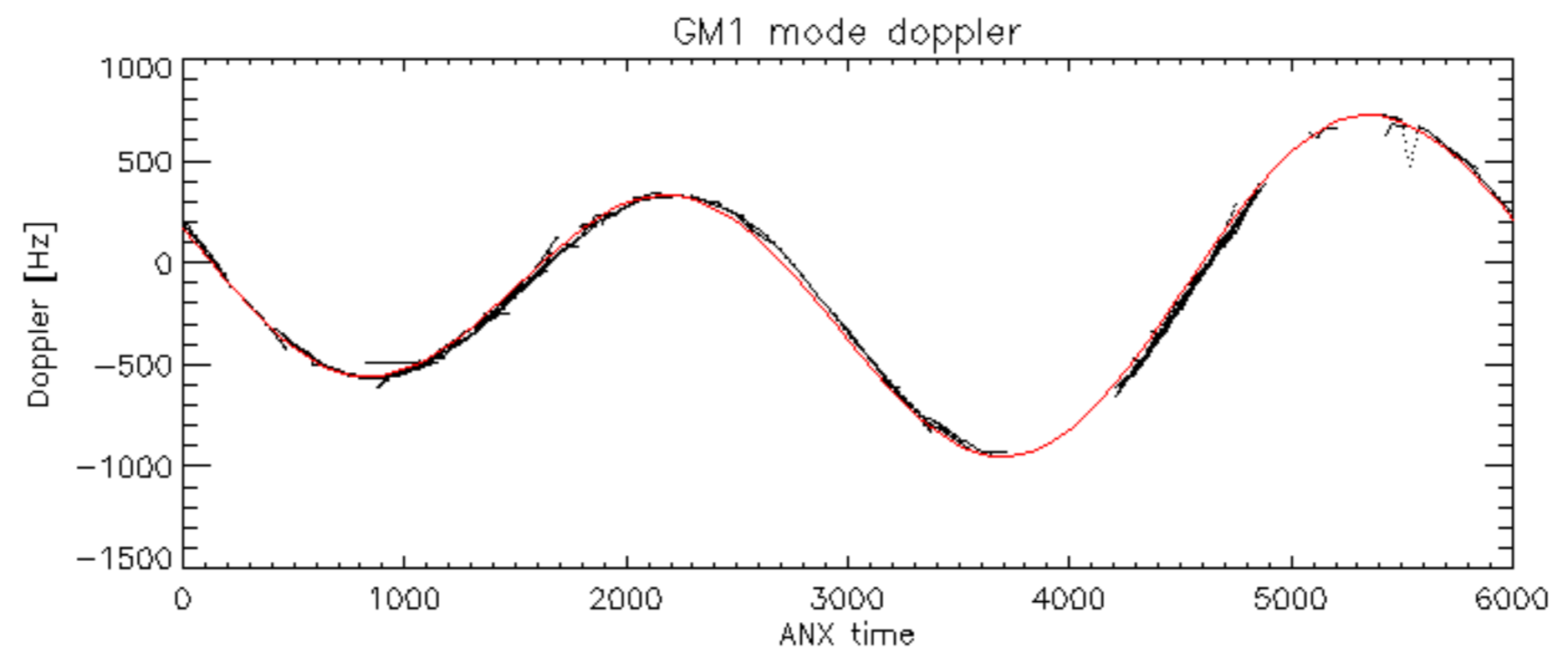
No anomalies observed in Doppler evolution.
Analysis performed over the last 35 days.

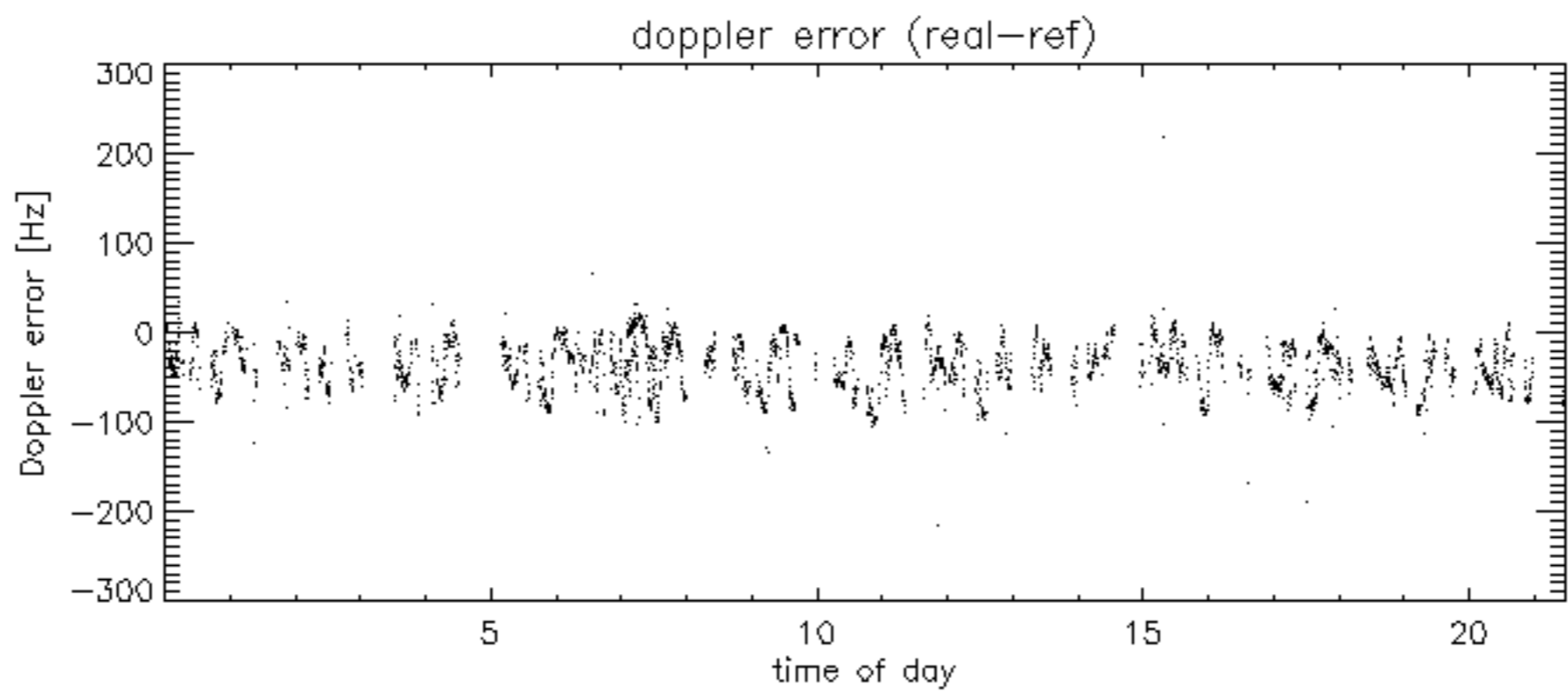
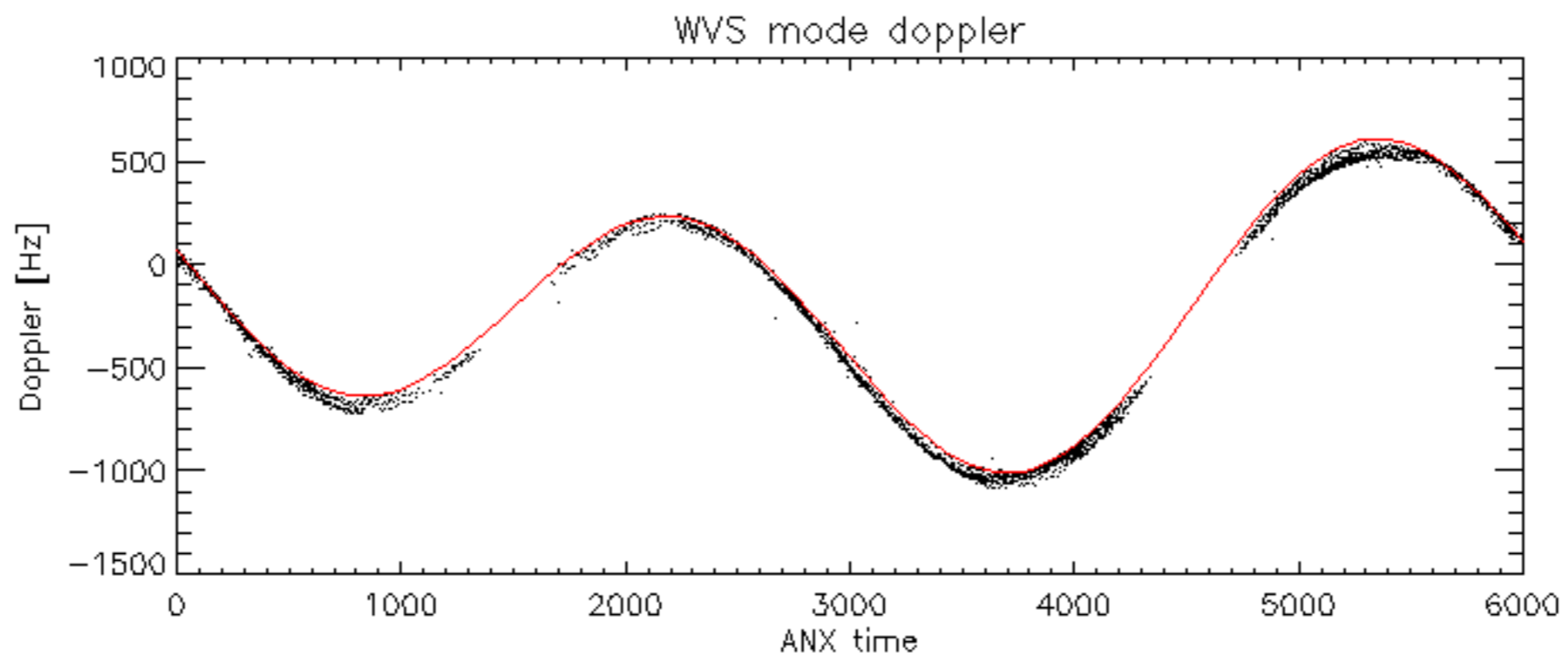
Doppler 'WVS' 'IS2' 'H/H'



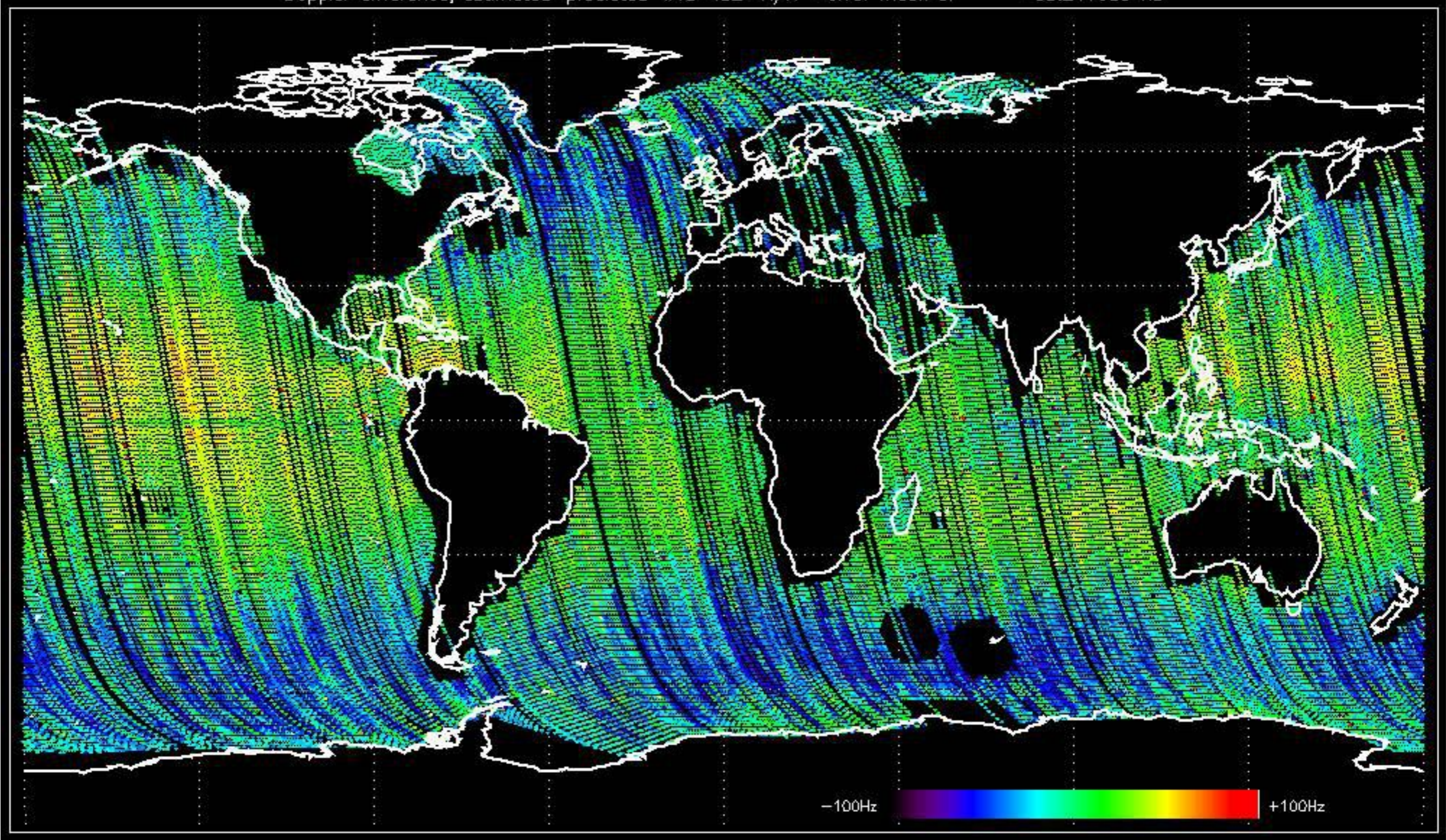
Doppler 'WVS' 'ISZ' 'V/V'



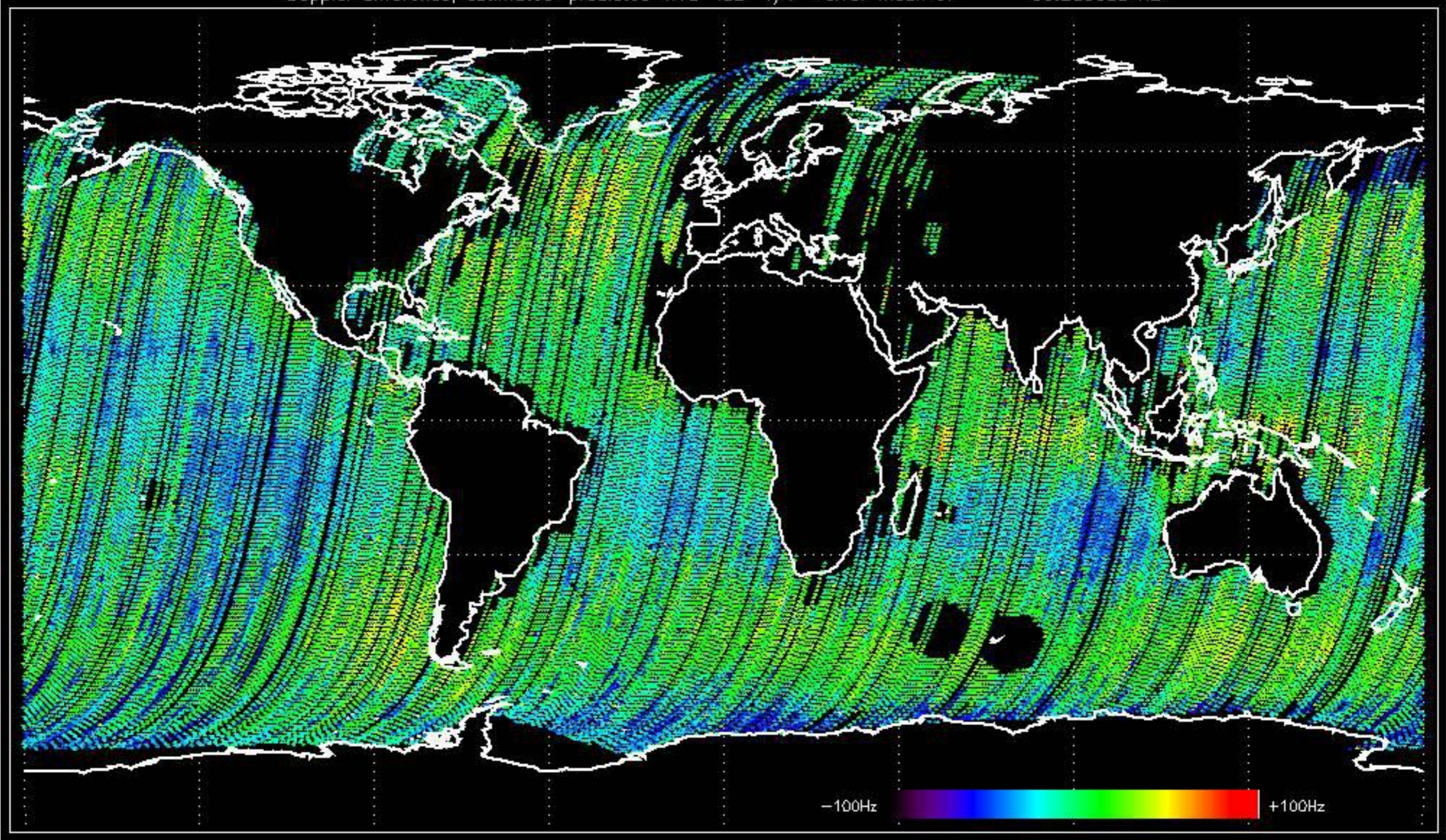




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -33.211683 Hz



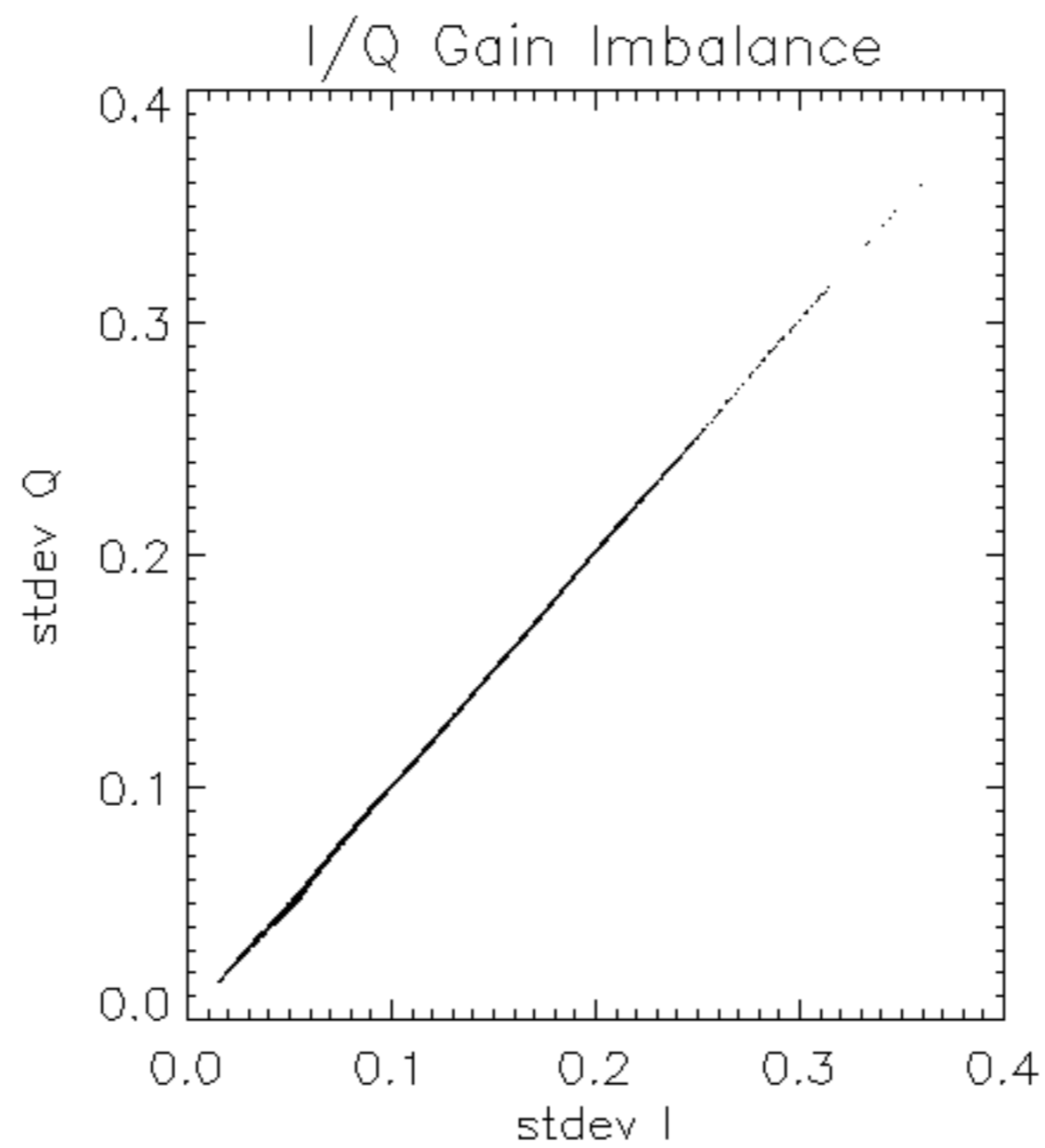
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -30.286688 Hz

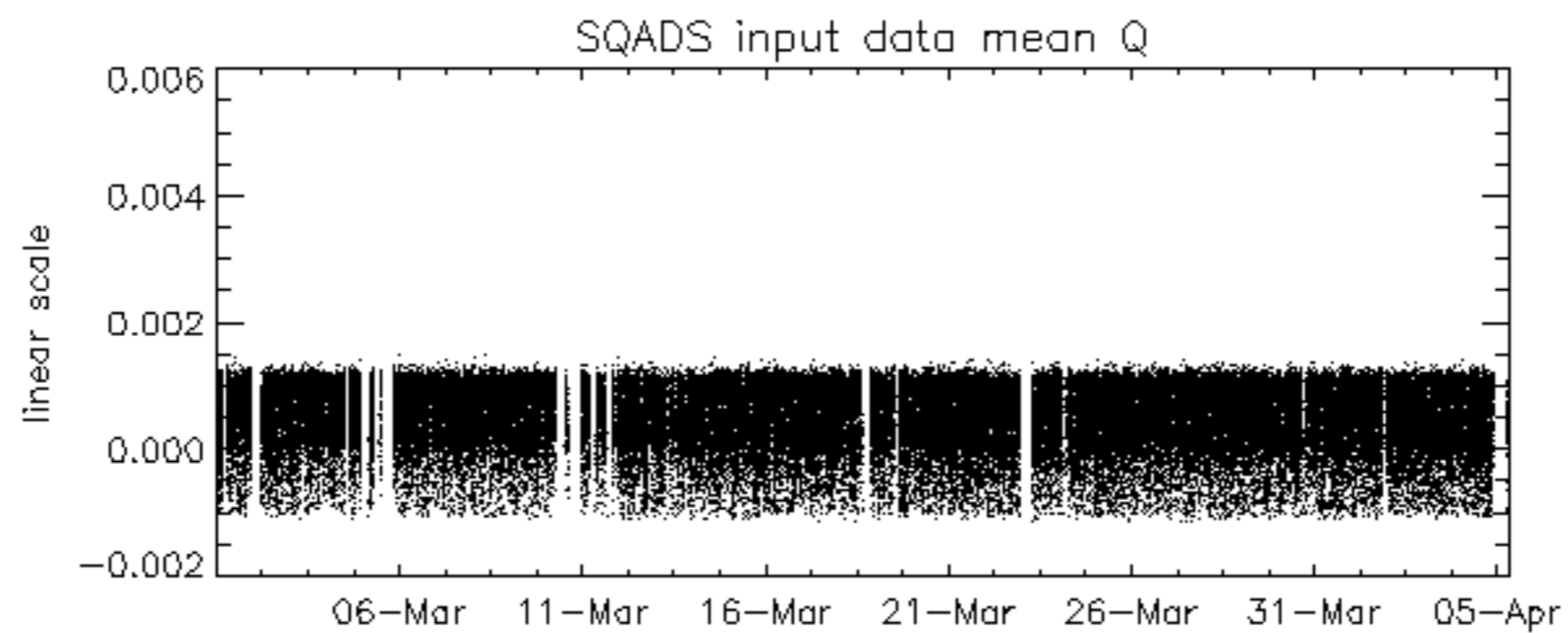
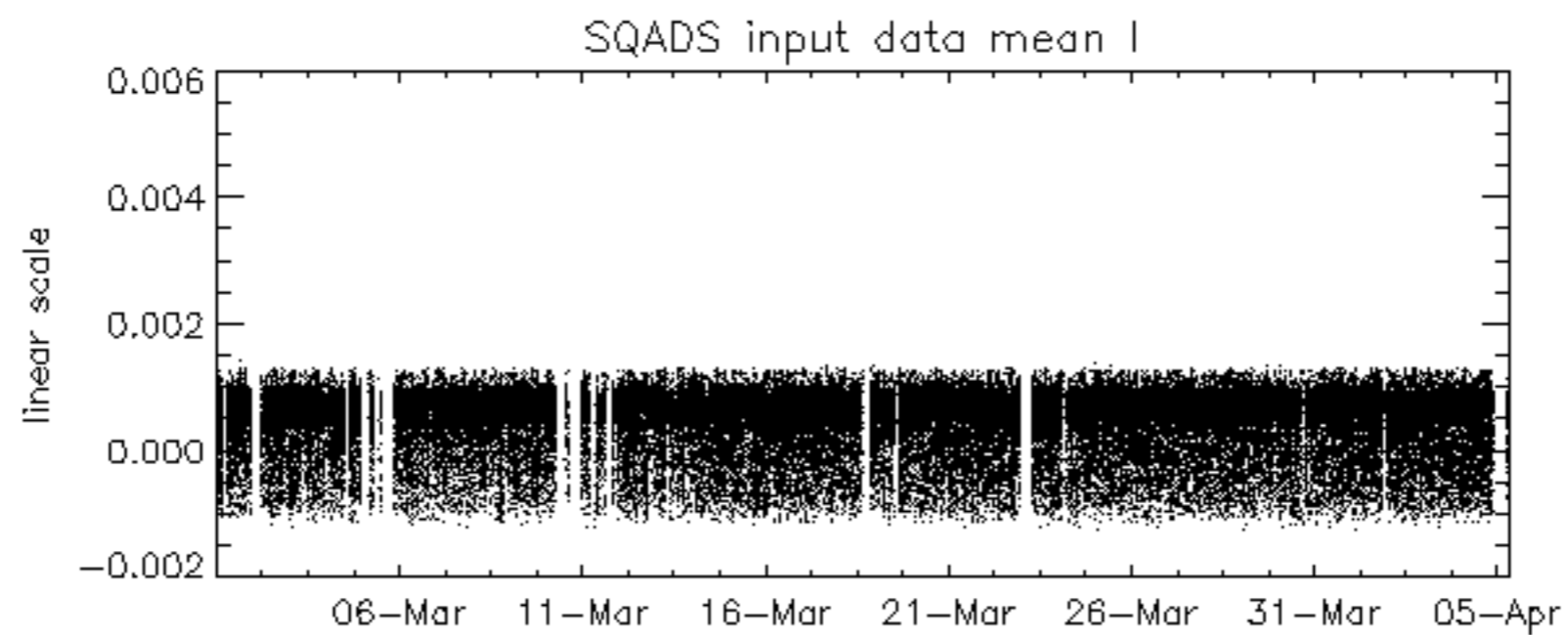
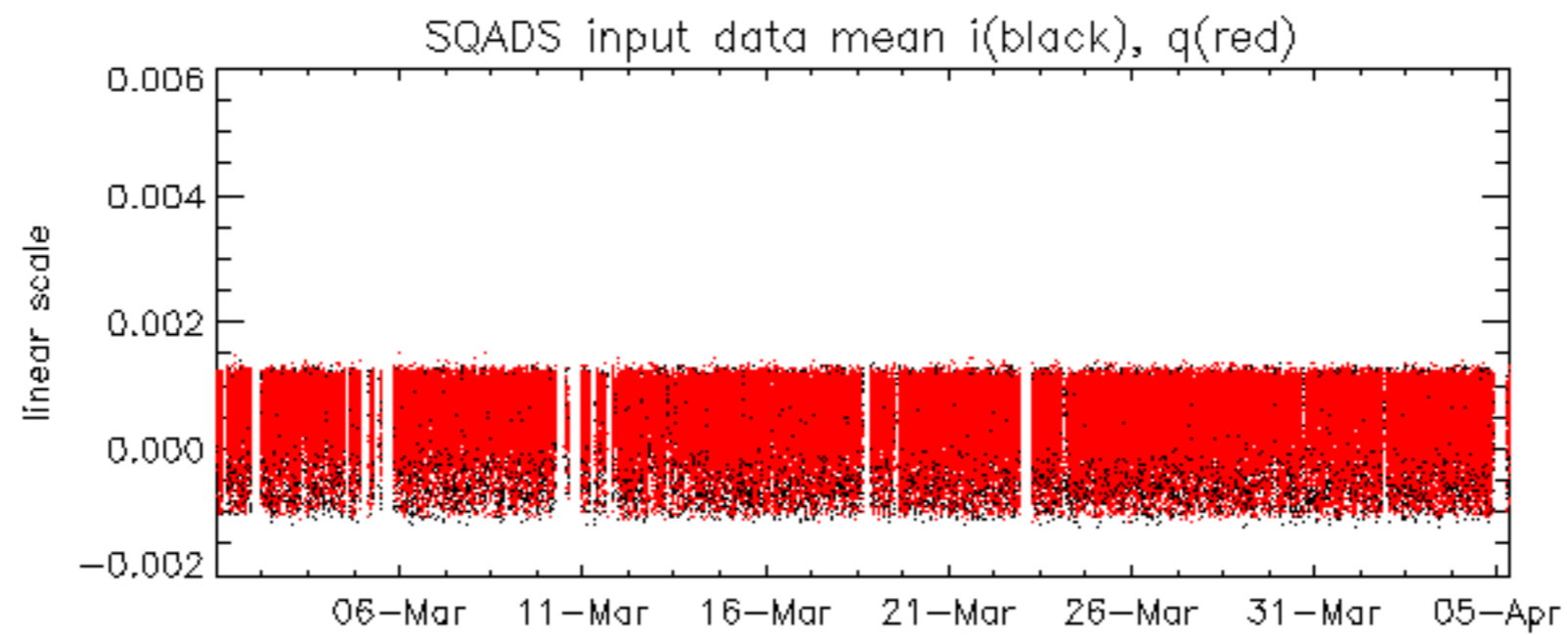


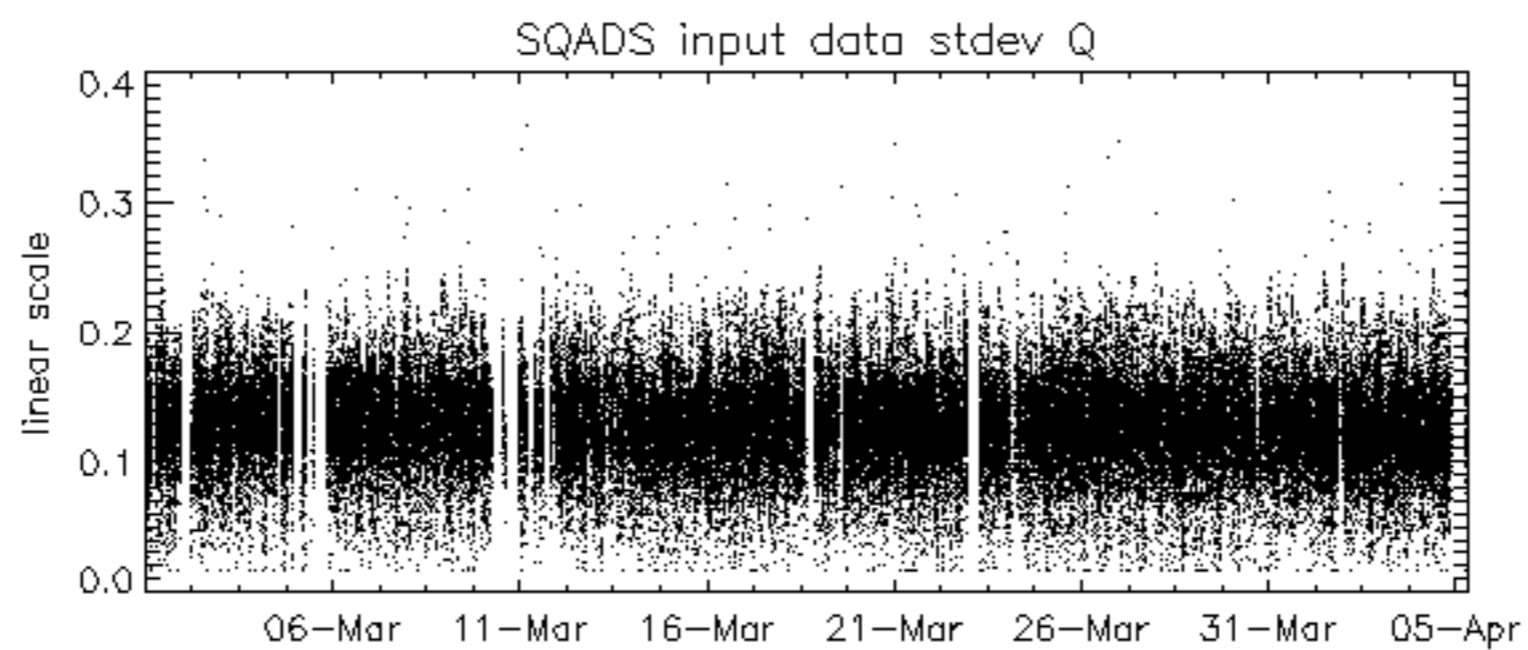
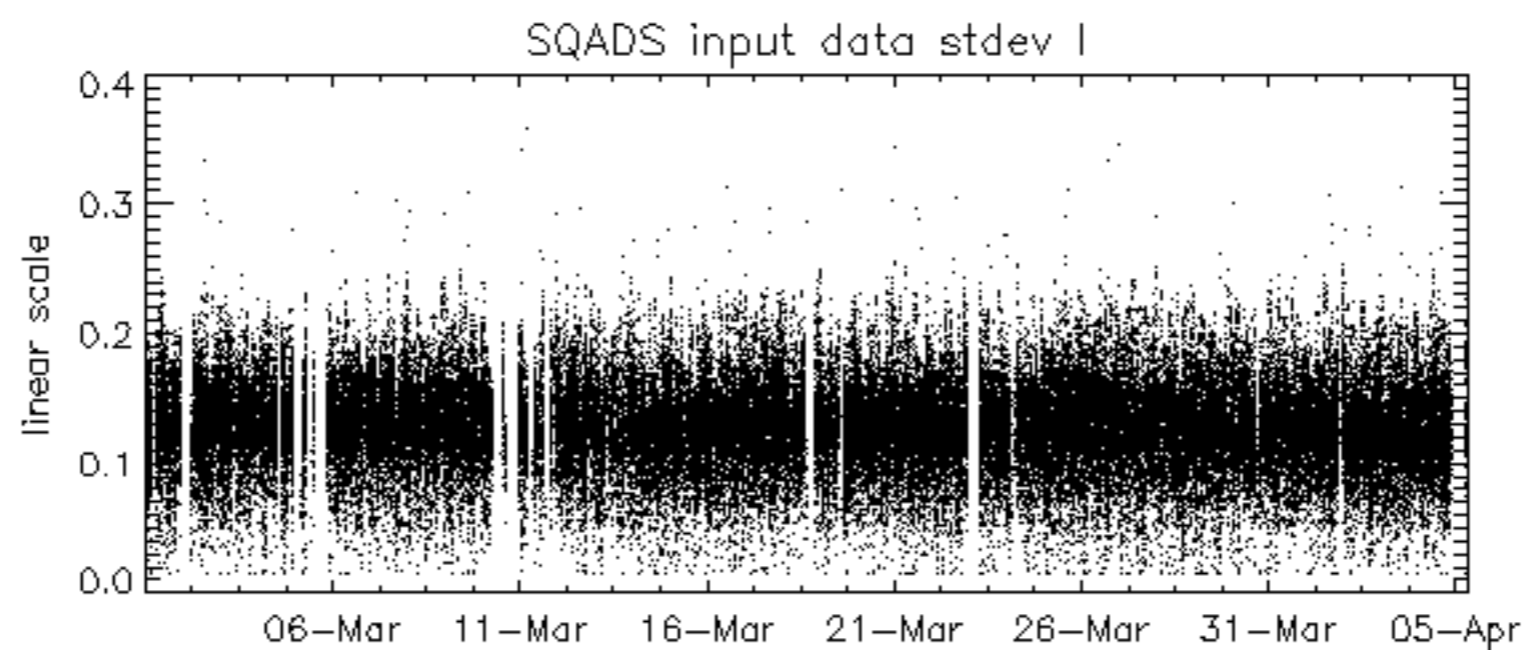
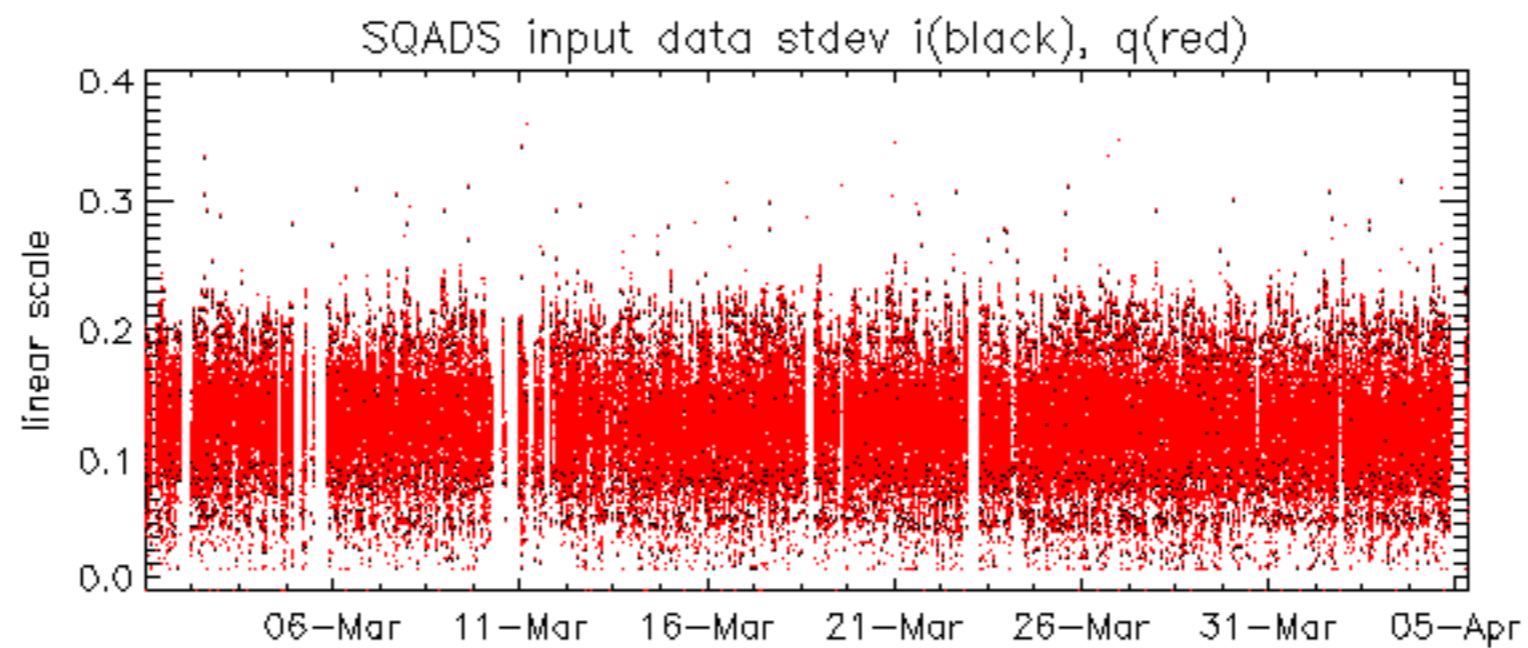
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No anomalies observed.







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