

PRELIMINARY REPORT OF 040425

ATTENTION: This report is automatically generated no comments are provided on data analysis

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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

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	20040424 202246
H	20040424 202126

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

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS



P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.576722	0.005337	0.015454
7	P1	-3.300081	0.010636	0.002431
11	P1	-4.630001	0.022938	0.034445
15	P1	-4.980733	0.038647	0.045528
19	P1	-3.350971	0.006371	-0.042718
22	P1	-4.515427	0.014606	0.006362
24	P1	-5.024706	0.014972	0.064709
28	P1	-4.590628	0.013675	-0.012408

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.399368	0.079702	-0.022606

7	P2	-22.875731	0.119064	-0.042730
11	P2	-15.898021	0.146421	0.123534
15	P2	-7.160861	0.089221	0.000445
19	P2	-9.514523	0.159261	0.020719
22	P2	-17.654684	0.097505	0.050284
24	P2	-20.990322	0.110038	0.028931
28	P2	-16.606598	0.080841	-0.019195

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.131778	0.003045	-0.018350
7	P3	-8.131770	0.003044	-0.018372
11	P3	-8.131765	0.003044	-0.018393
15	P3	-8.131758	0.003045	-0.018436
19	P3	-8.131749	0.003046	-0.018485
22	P3	-8.131748	0.003046	-0.018500
24	P3	-8.131754	0.003046	-0.018494
28	P3	-8.131937	0.003042	-0.018490

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-4.189509	0.098839	-0.110063
7	P1	-3.413074	0.347279	-0.182099
11	P1	-4.648942	0.073554	0.063024
15	P1	-3.615946	0.509582	-0.234532
19	P1	-2.880489	0.080899	-0.116230
22	P1	-4.690640	0.101001	0.025259
24	P1	-7.074489	0.040569	0.002561
28	P1	-6.627735	0.115828	0.018635

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.604946	0.243556	0.040572
7	P2	-13.448859	0.190854	0.012530
11	P2	-12.061625	0.146288	0.106841
15	P2	-5.730556	0.023674	-0.040451
19	P2	-6.558374	0.052127	-0.124757
22	P2	-15.013958	0.558594	-0.020722
24	P2	-19.702749	0.042785	0.063891
28	P2	-17.109707	0.059682	-0.039695

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.025678	0.003203	-0.014942
7	P3	-8.025724	0.003205	-0.015032
11	P3	-8.025623	0.003201	-0.014732
15	P3	-8.025635	0.003207	-0.015282
19	P3	-8.025654	0.003208	-0.015013
22	P3	-8.025675	0.003194	-0.015167
24	P3	-8.025688	0.003227	-0.014891
28	P3	-8.025681	0.003229	-0.014992

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel stat DSS-B

MEAN I	mean	0.000479226
	stdev	2.38098e-07
MEAN Q	mean	0.000482727
	stdev	2.72263e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127460
	stdev	0.00118675
STDEV Q	mean	0.127713
	stdev	0.00120019





5.3 - Gain imbalance I/Q



6 - Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error for WVS

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

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

<input type="checkbox"/>

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

6.5 - Absolute Doppler for GM1

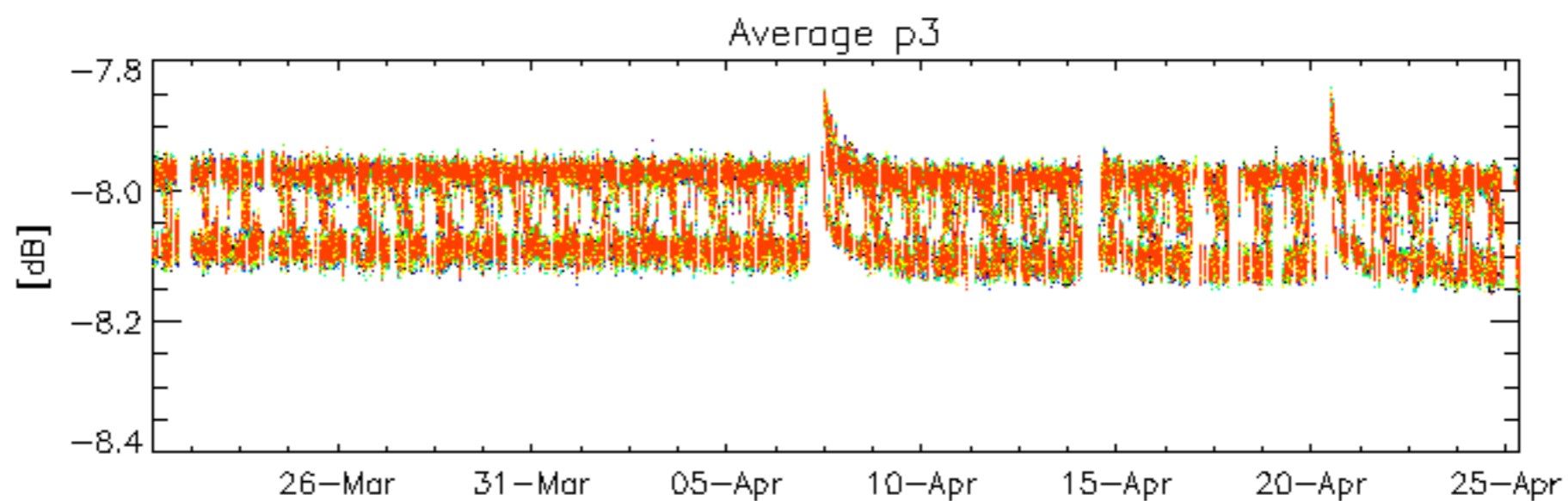
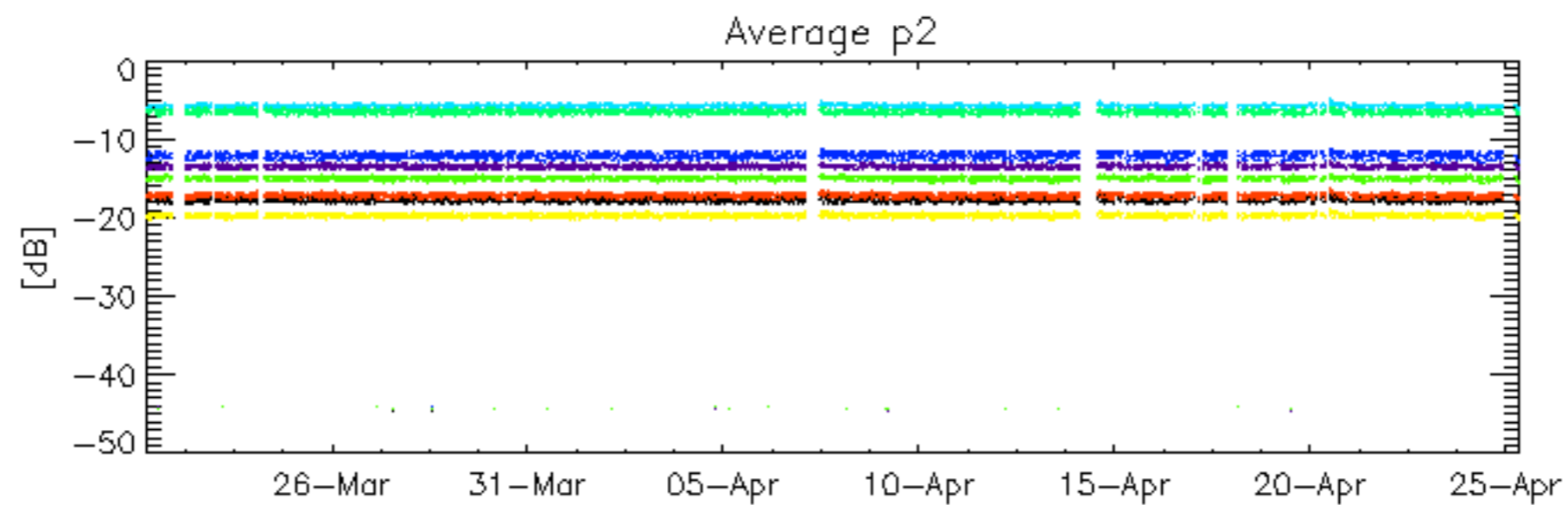
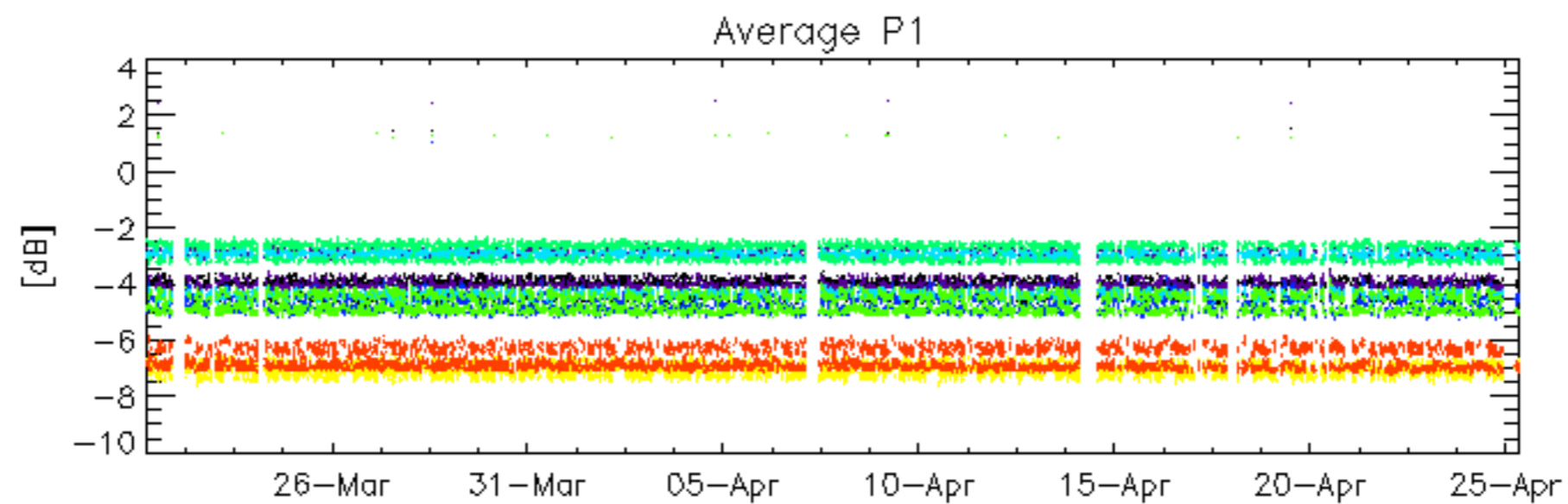
Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

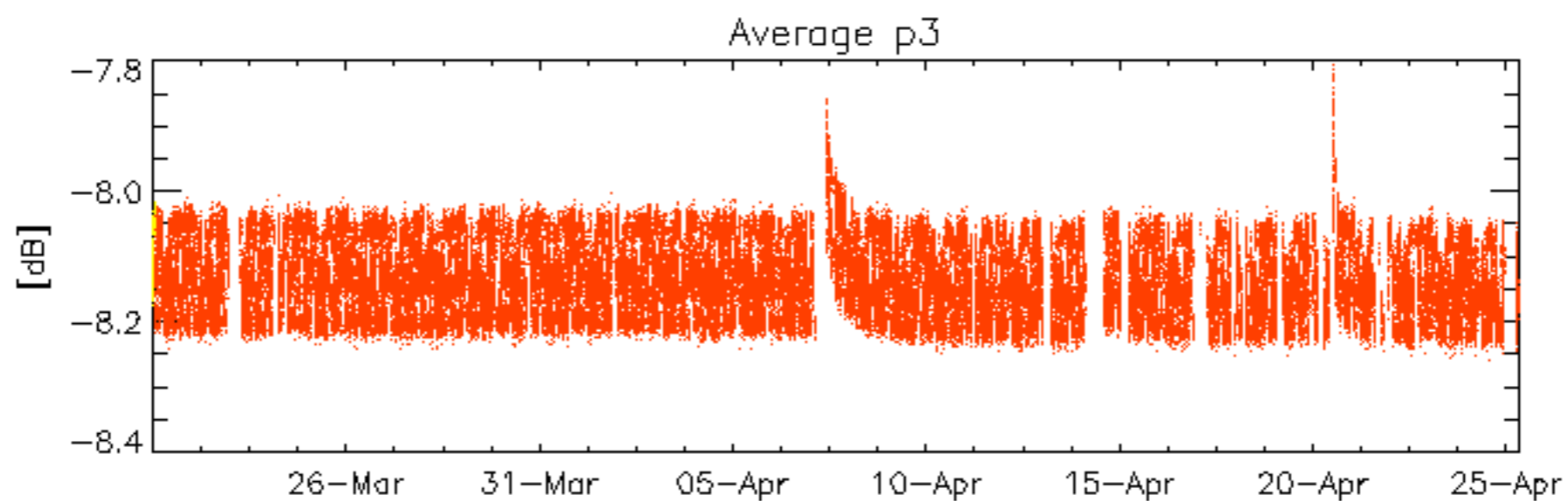
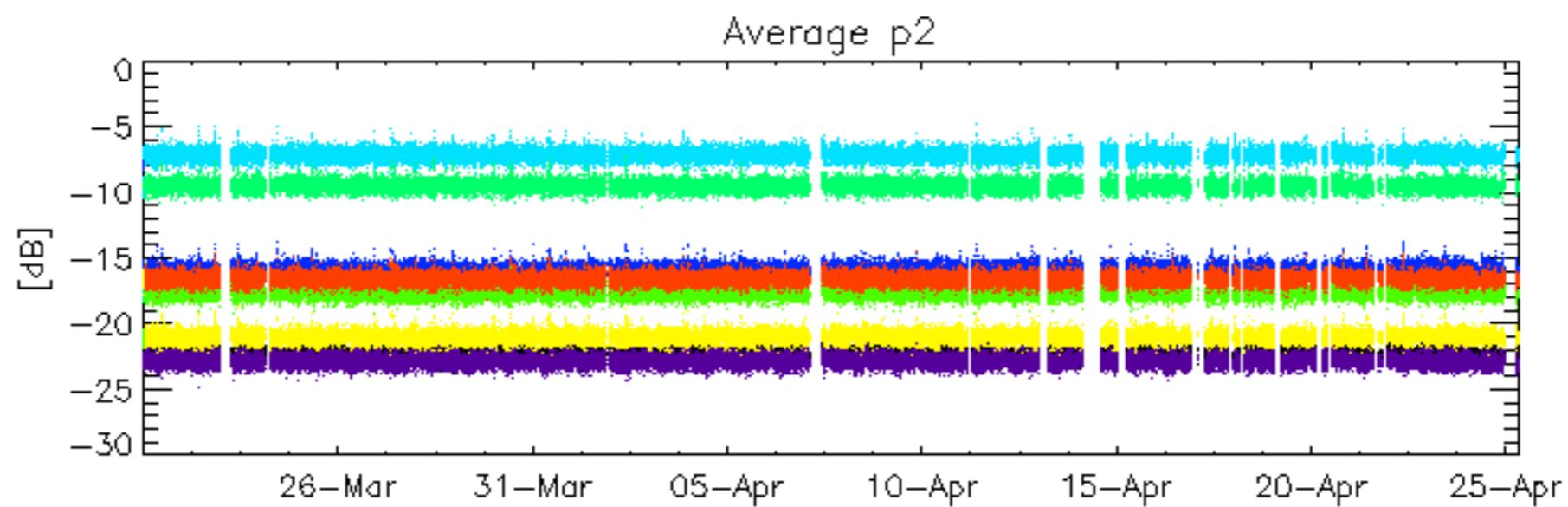
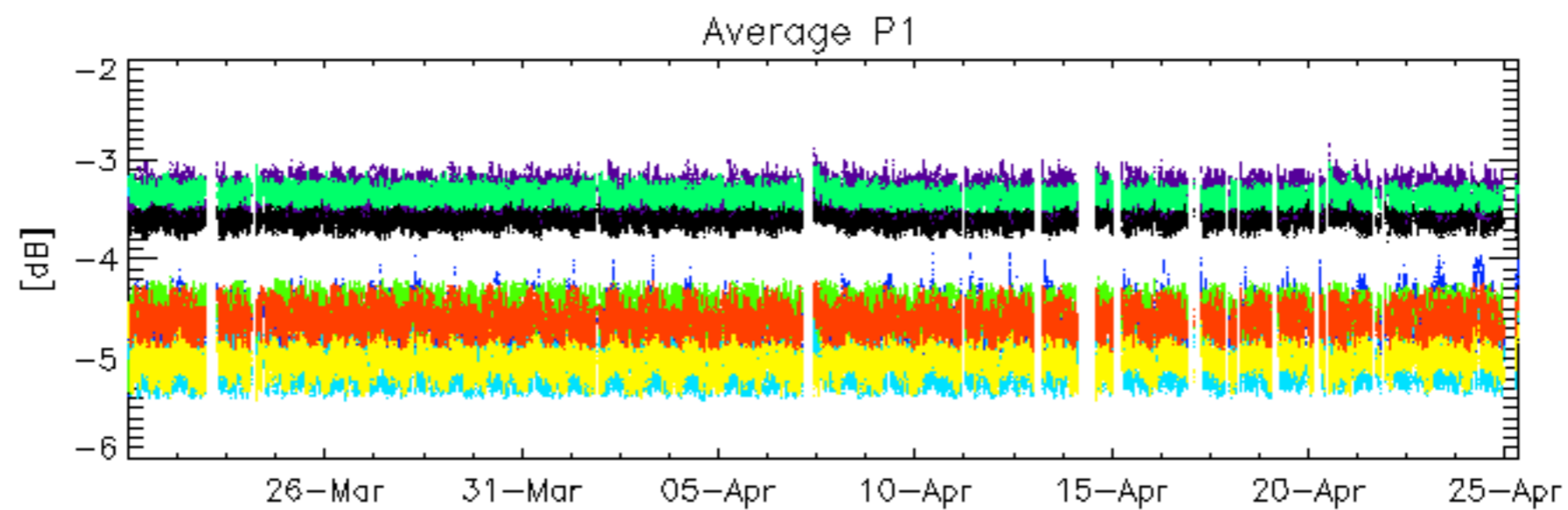
6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

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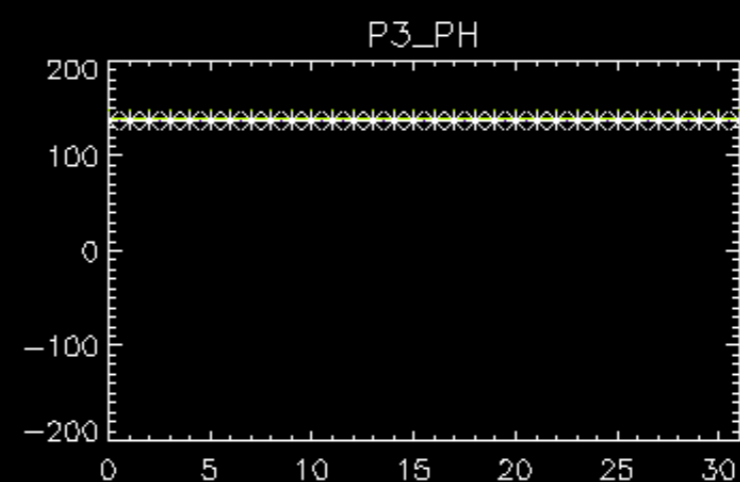
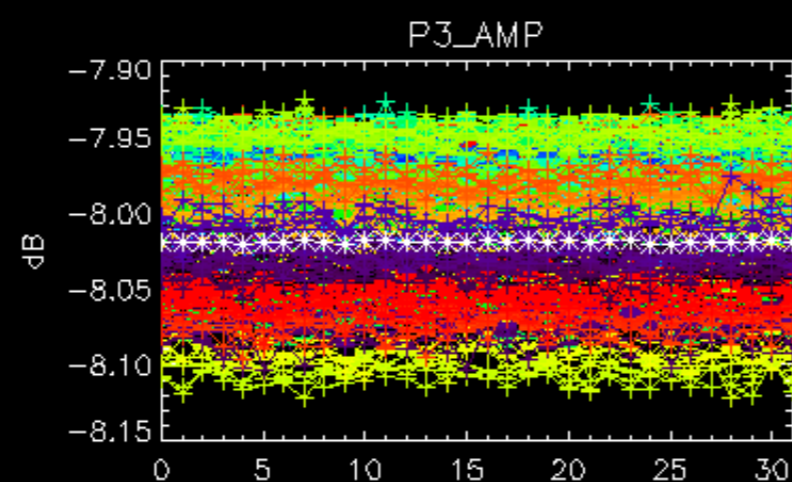
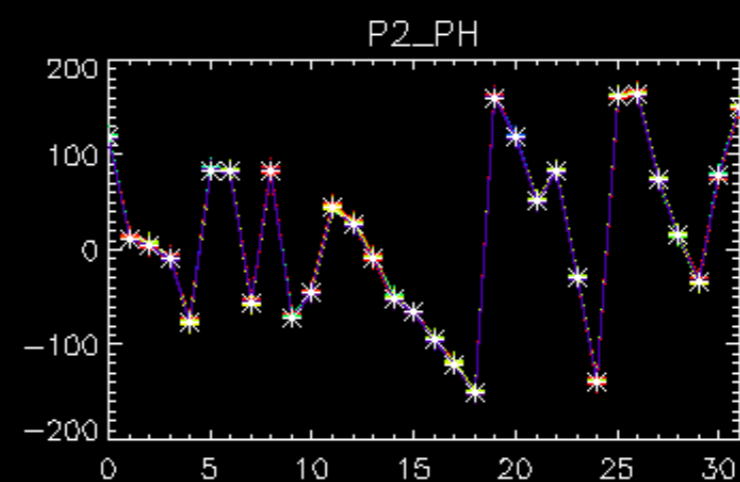
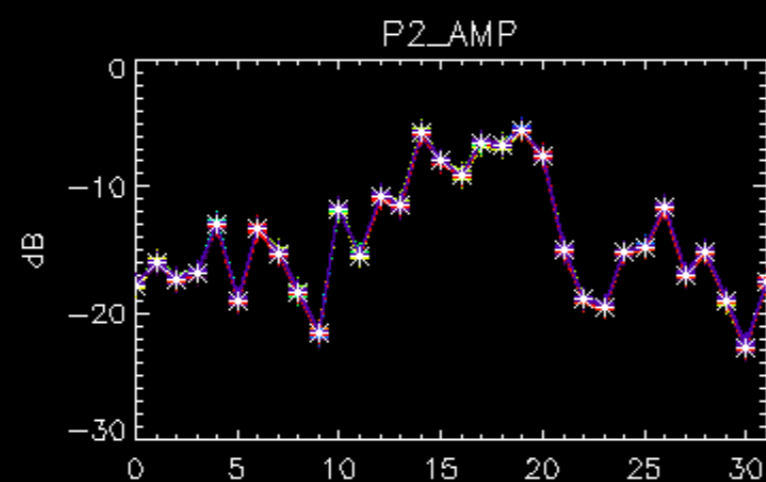
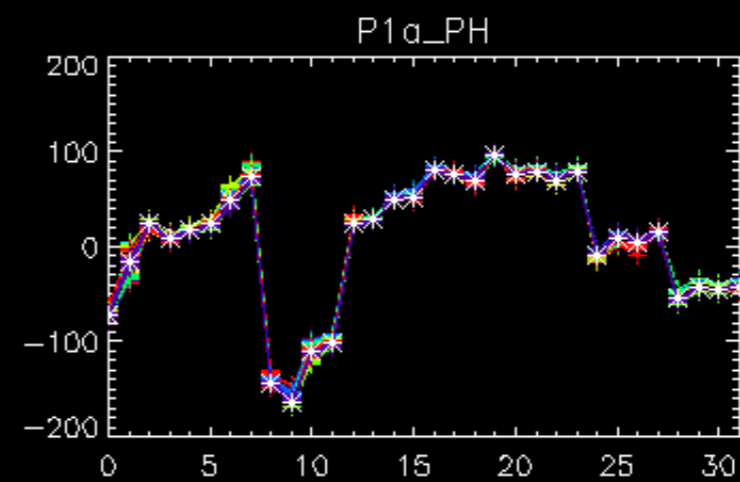
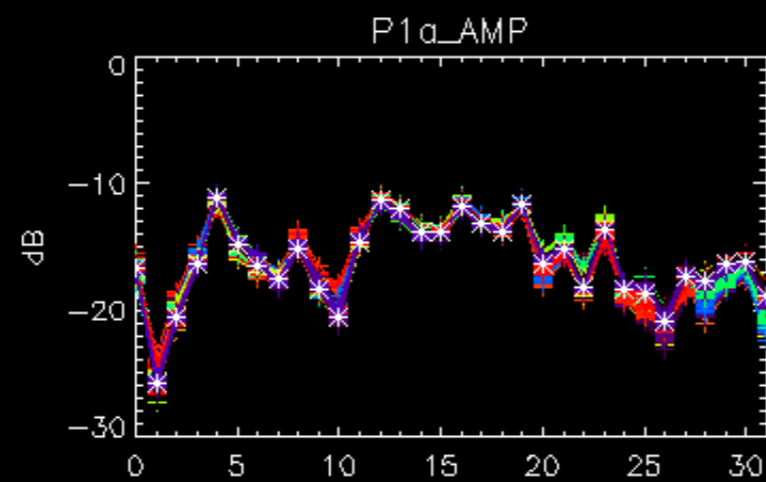
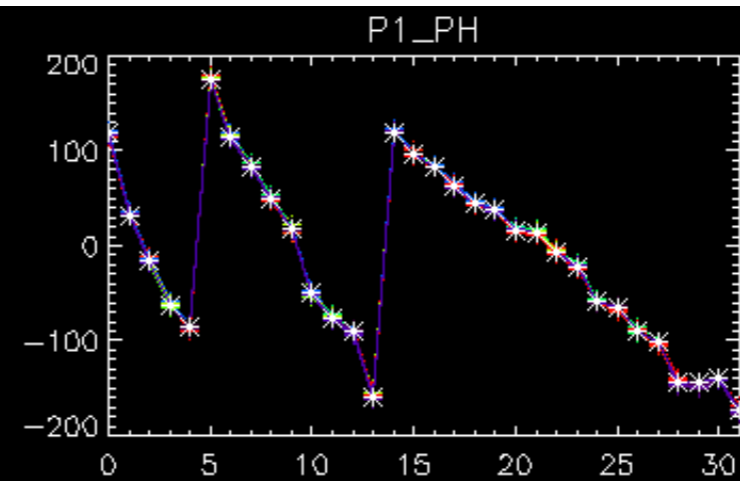
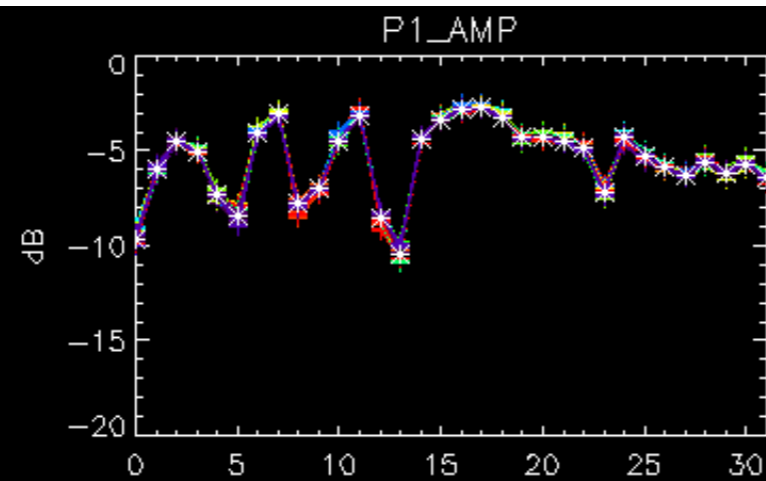


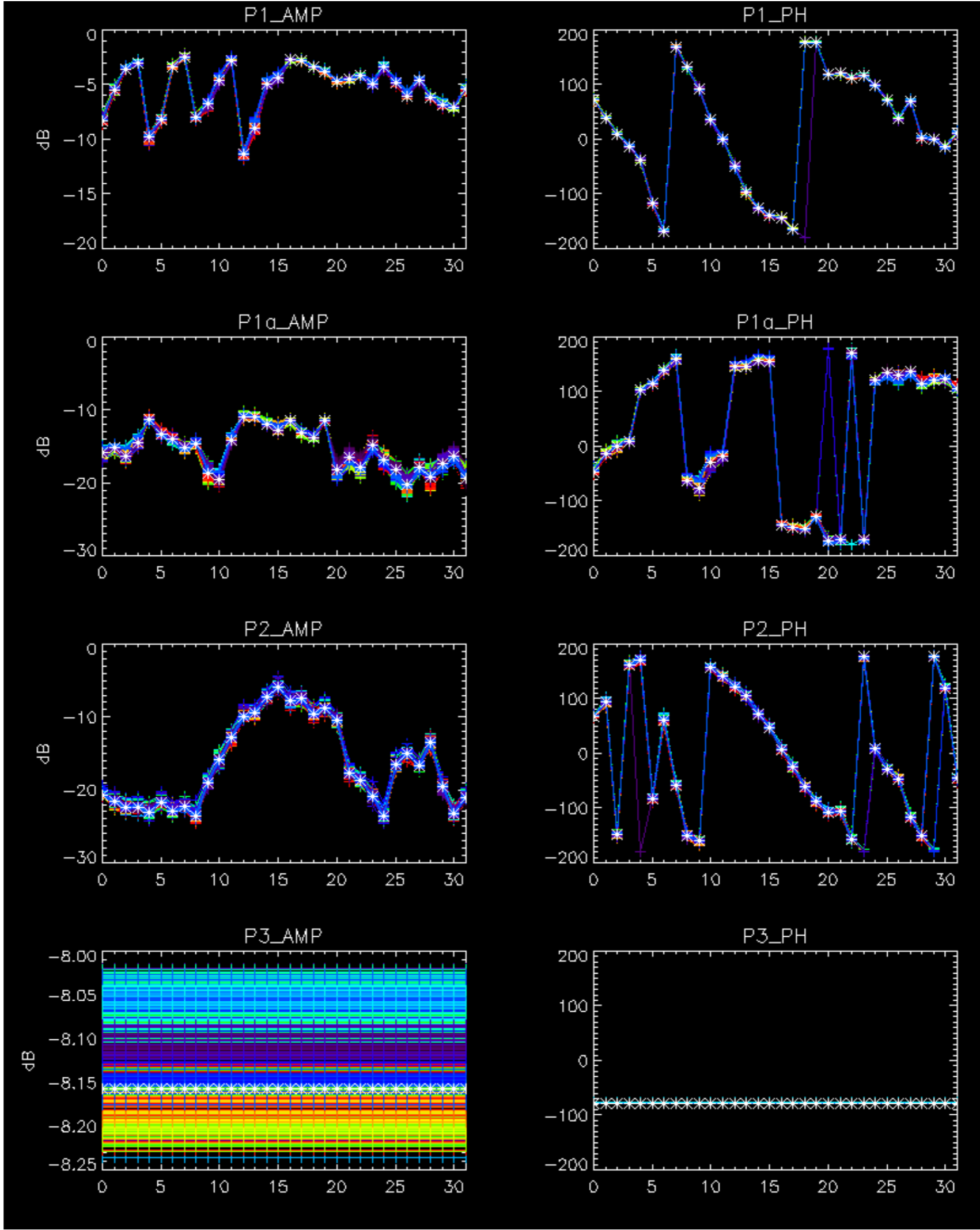
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28



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

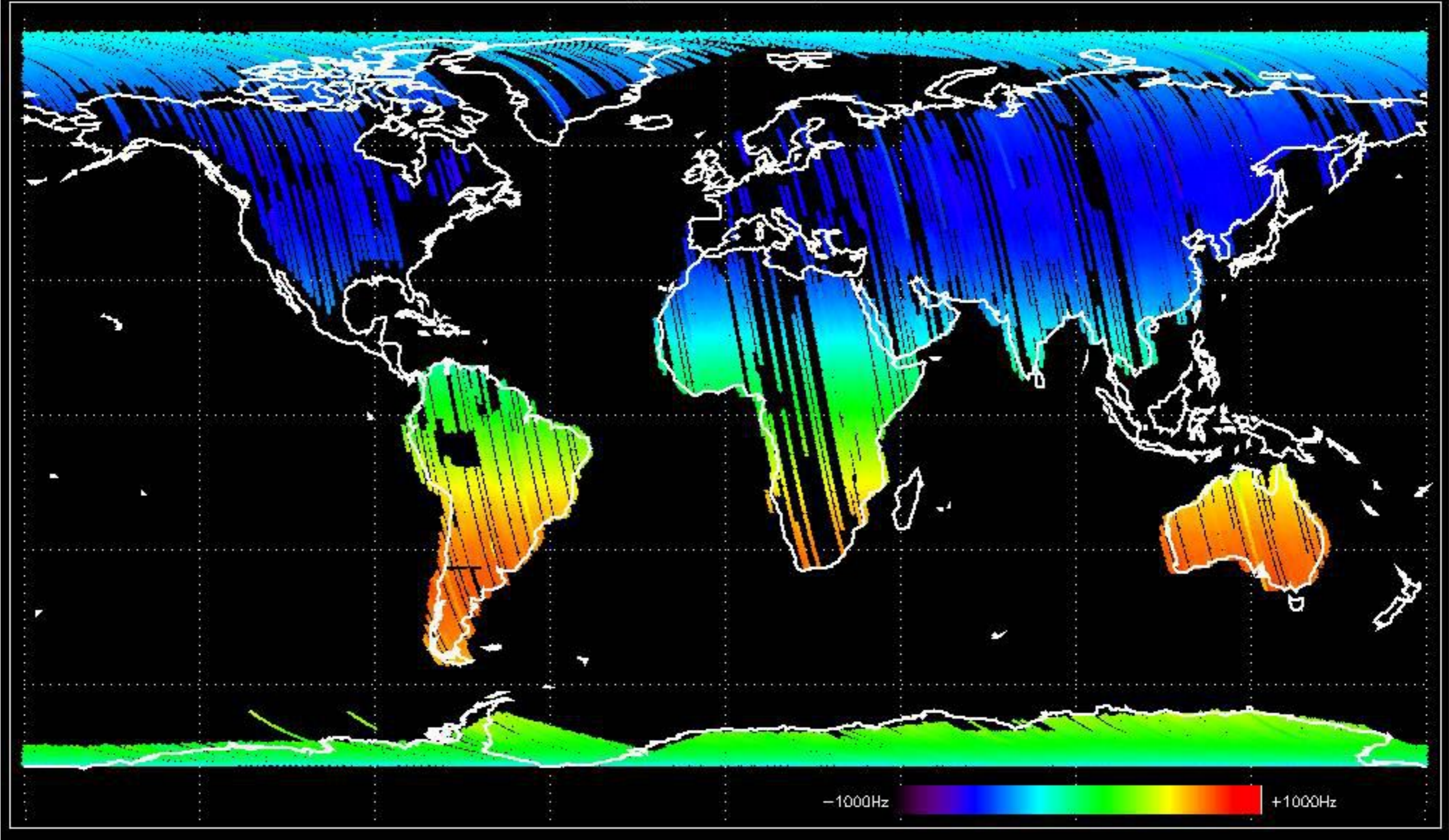
No anomalies observed.



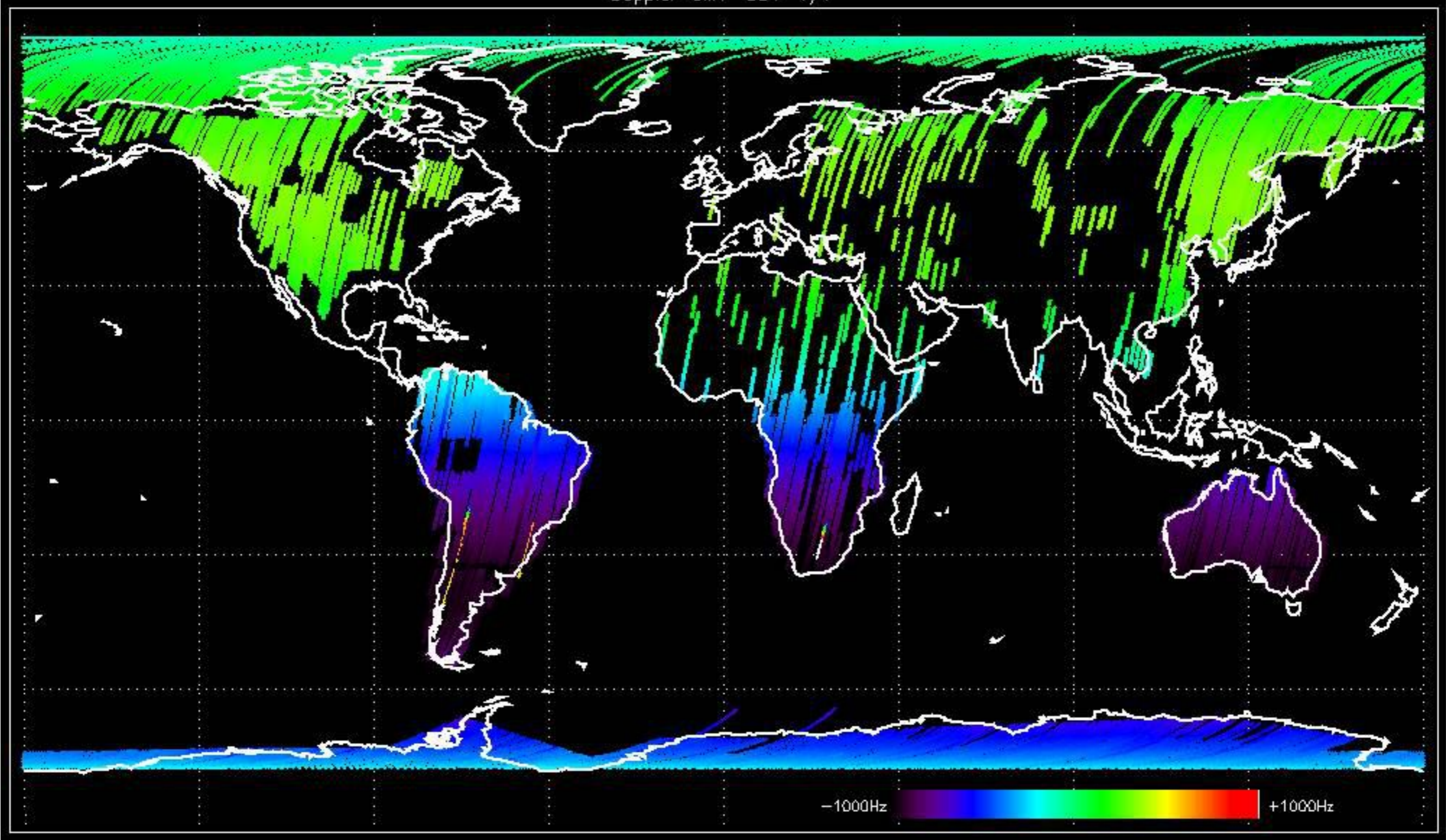


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

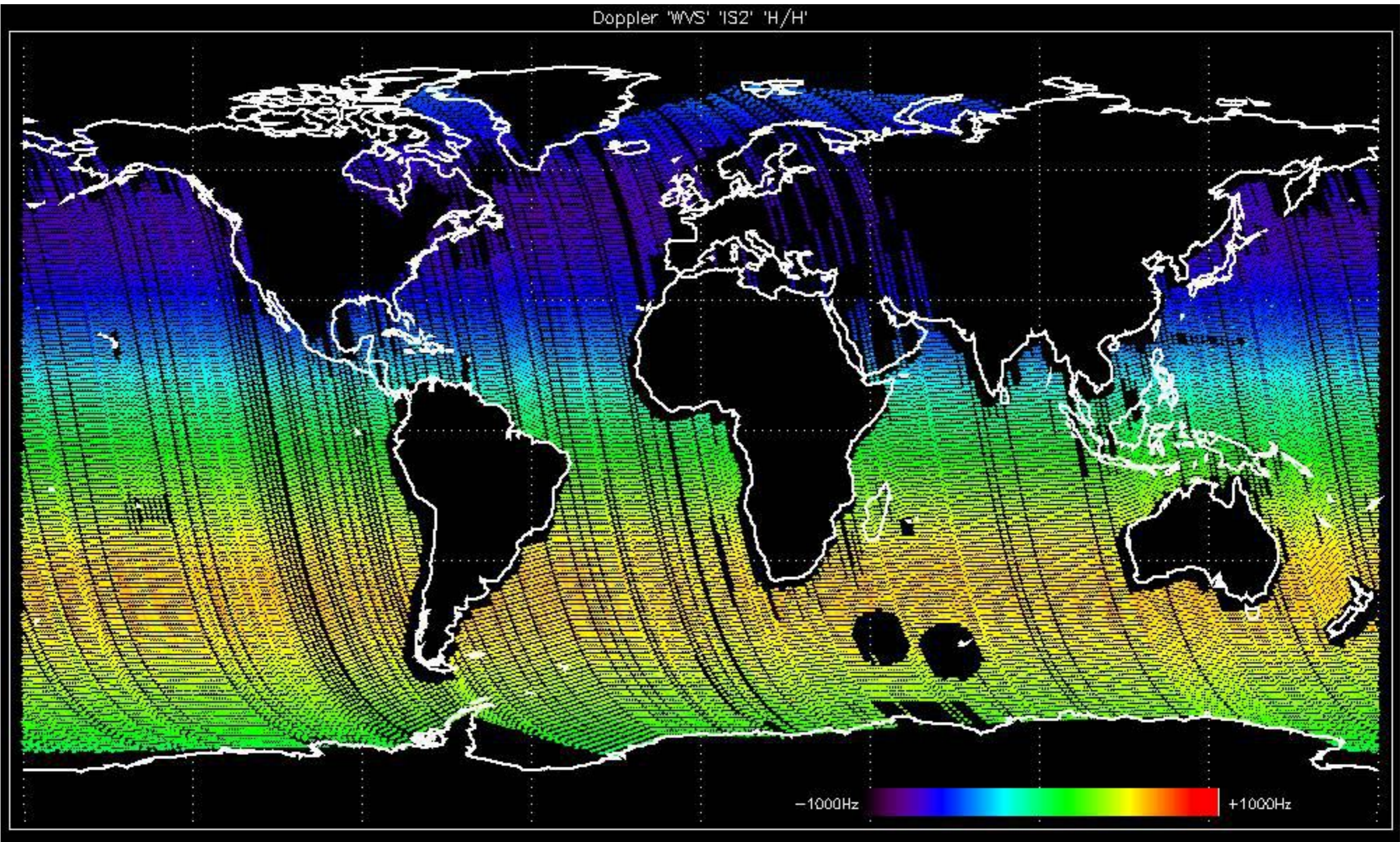
Doppler 'GM1' 'SS1' 'H/H'



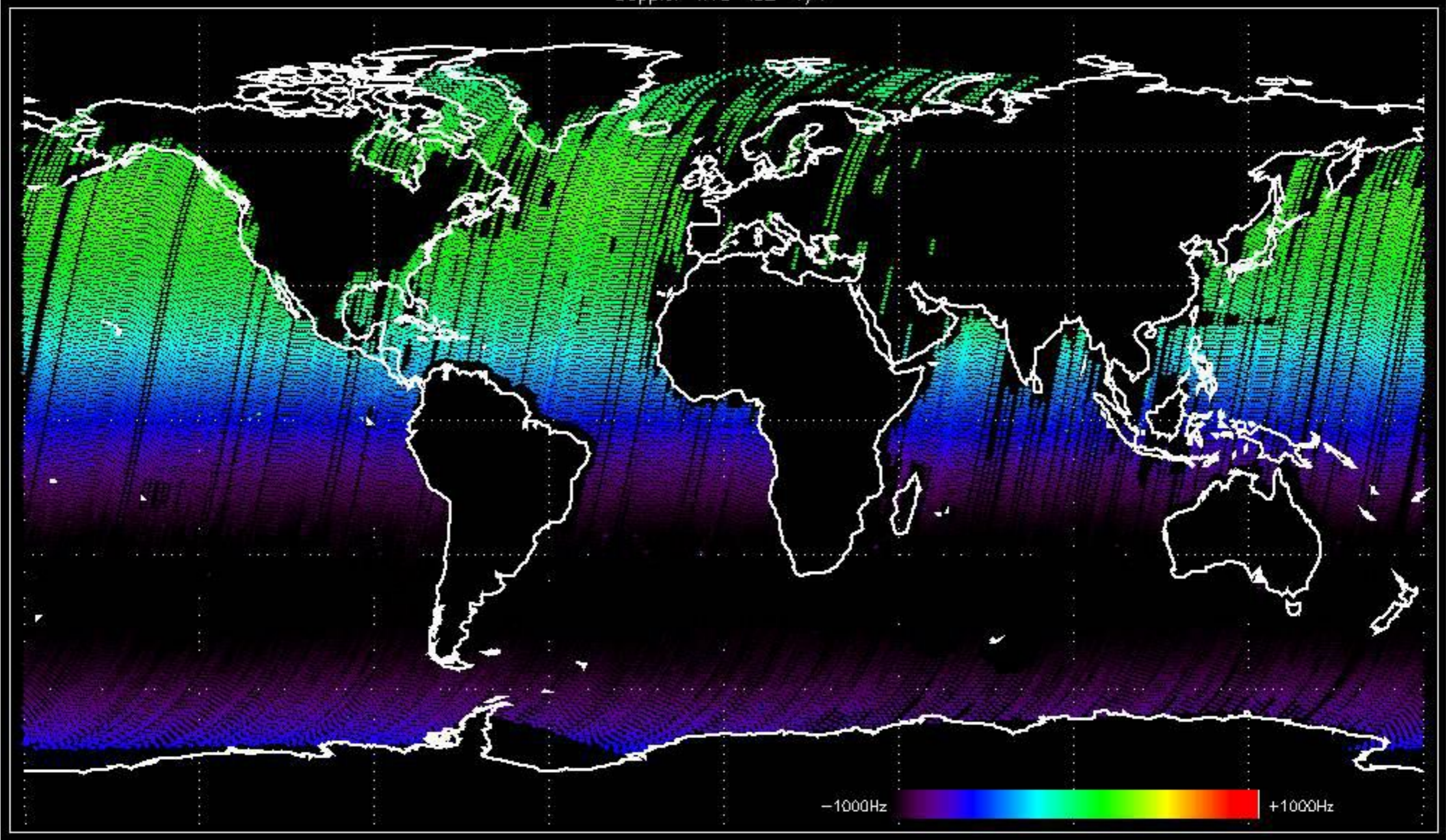
Doppler 'GM1' 'SS1' 'V/V'

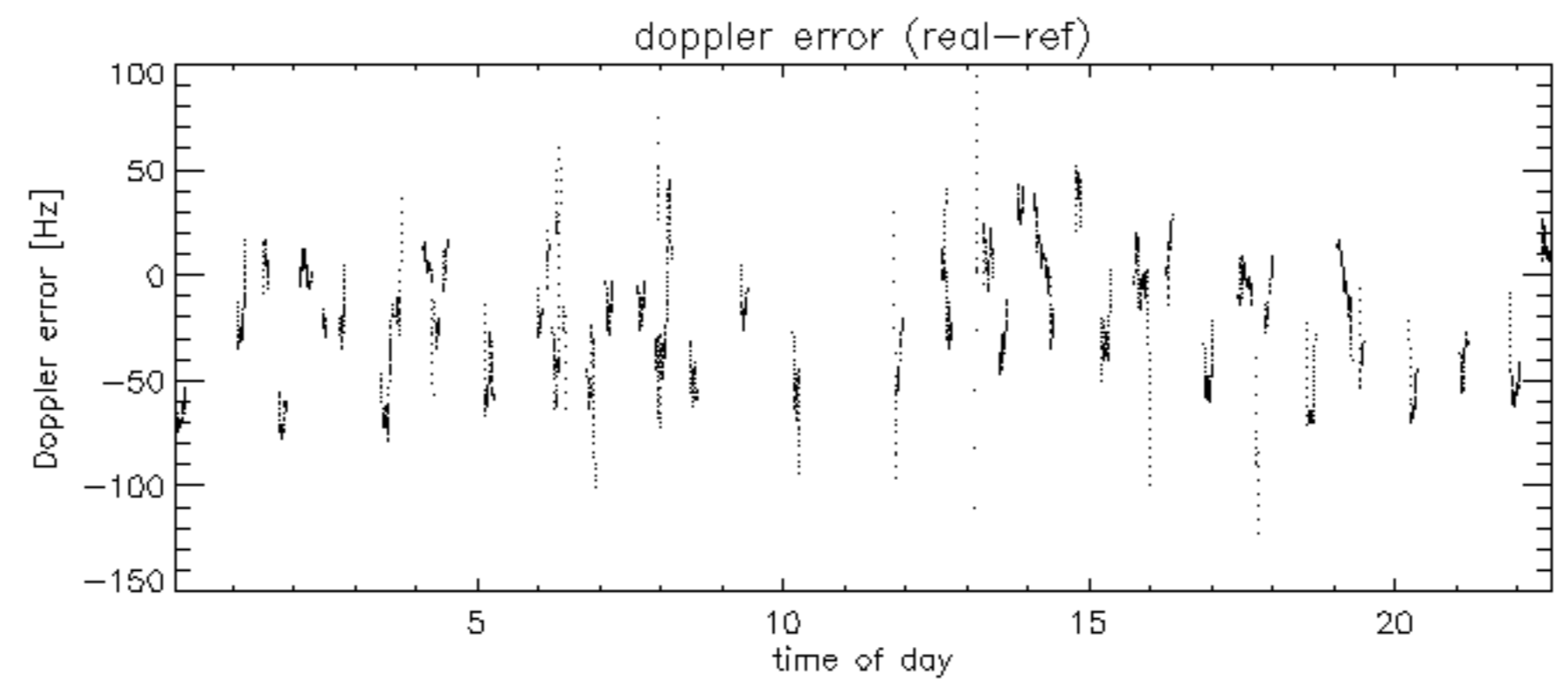
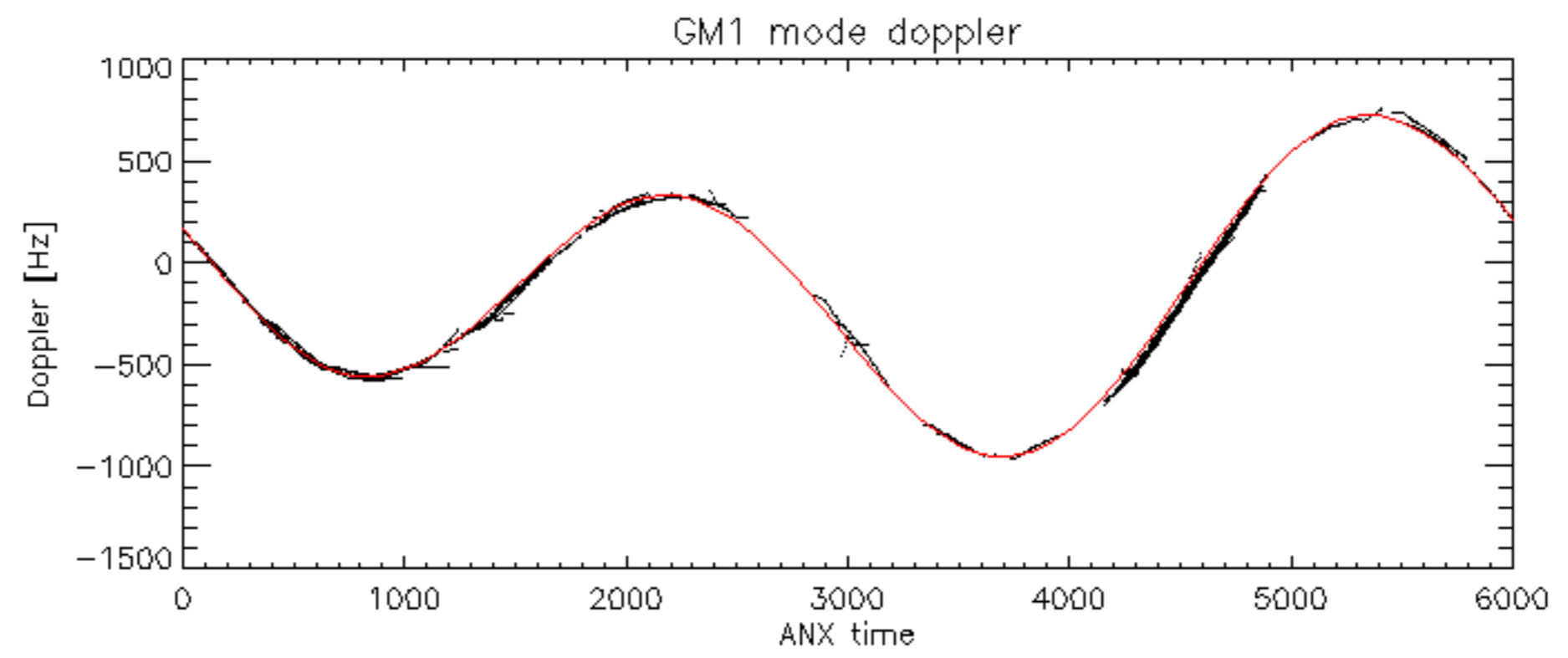


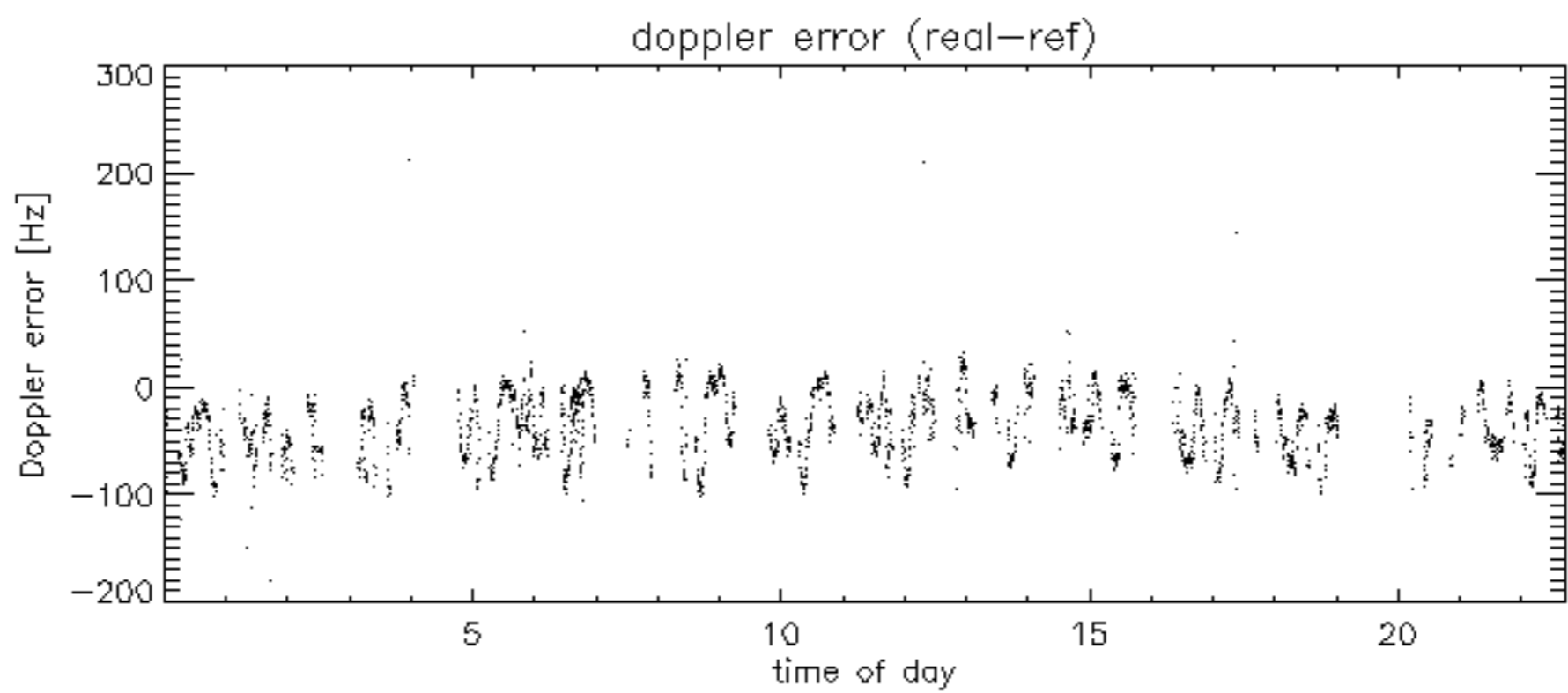
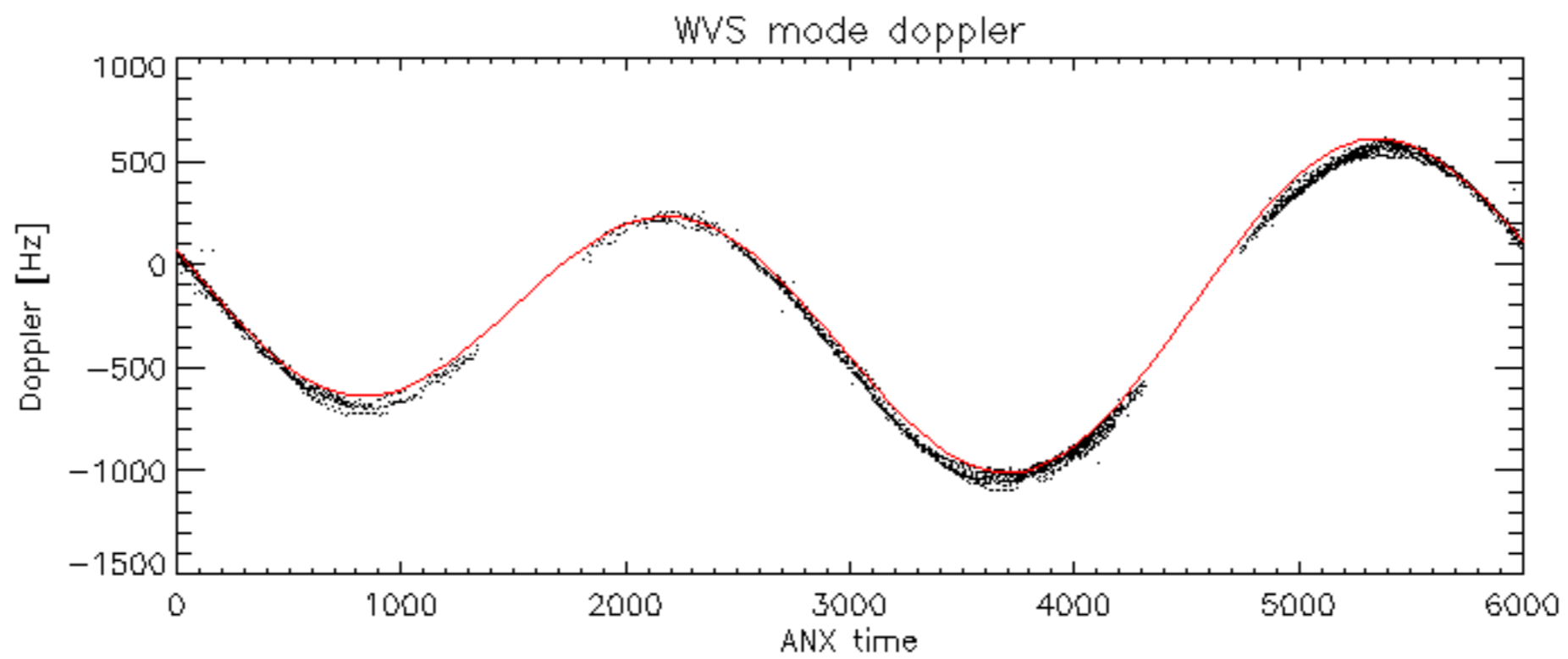
Doppler 'WVS' 'IS2' 'H/H'



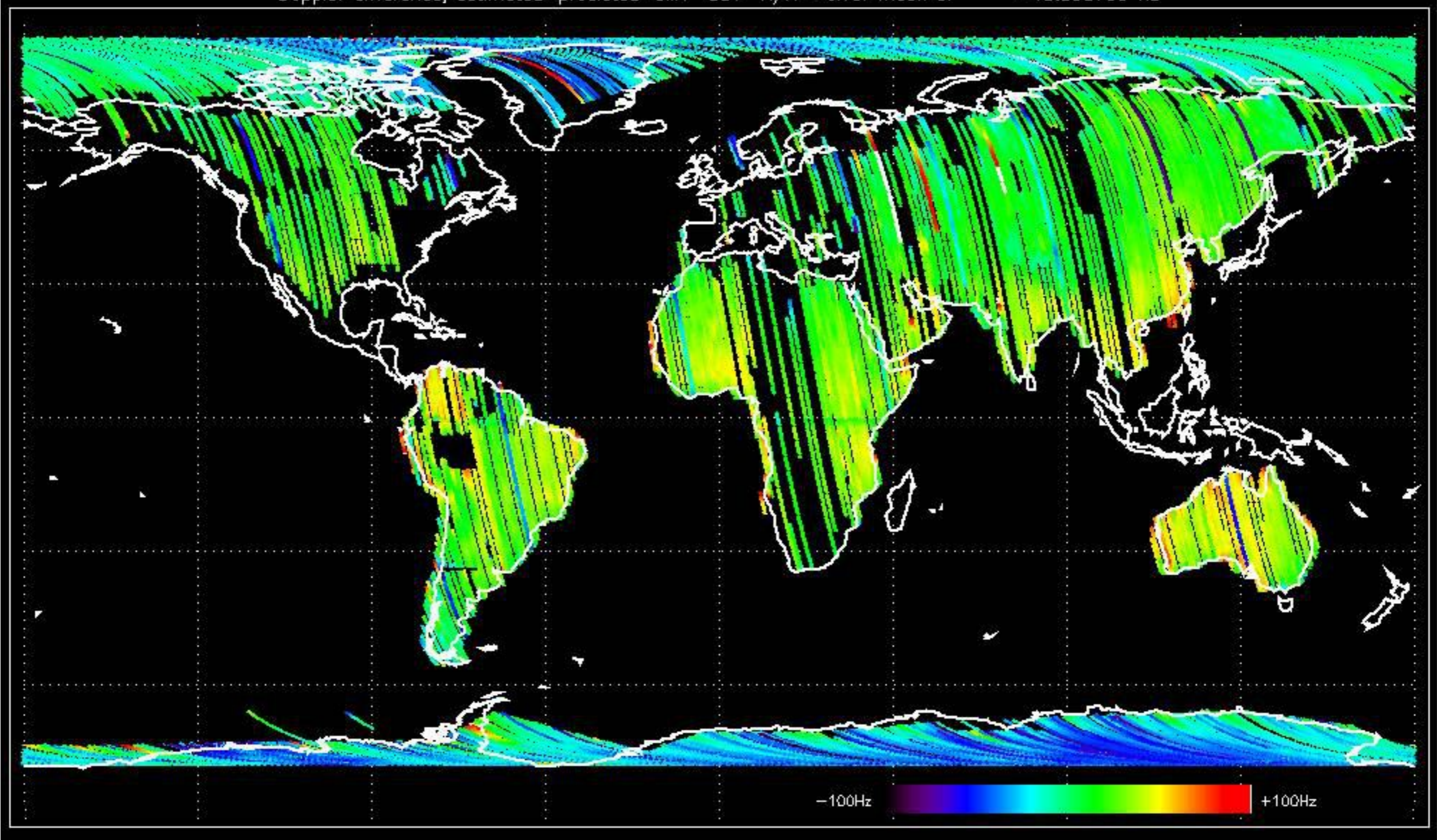
Doppler 'WVS' 'IS2' 'V/V'



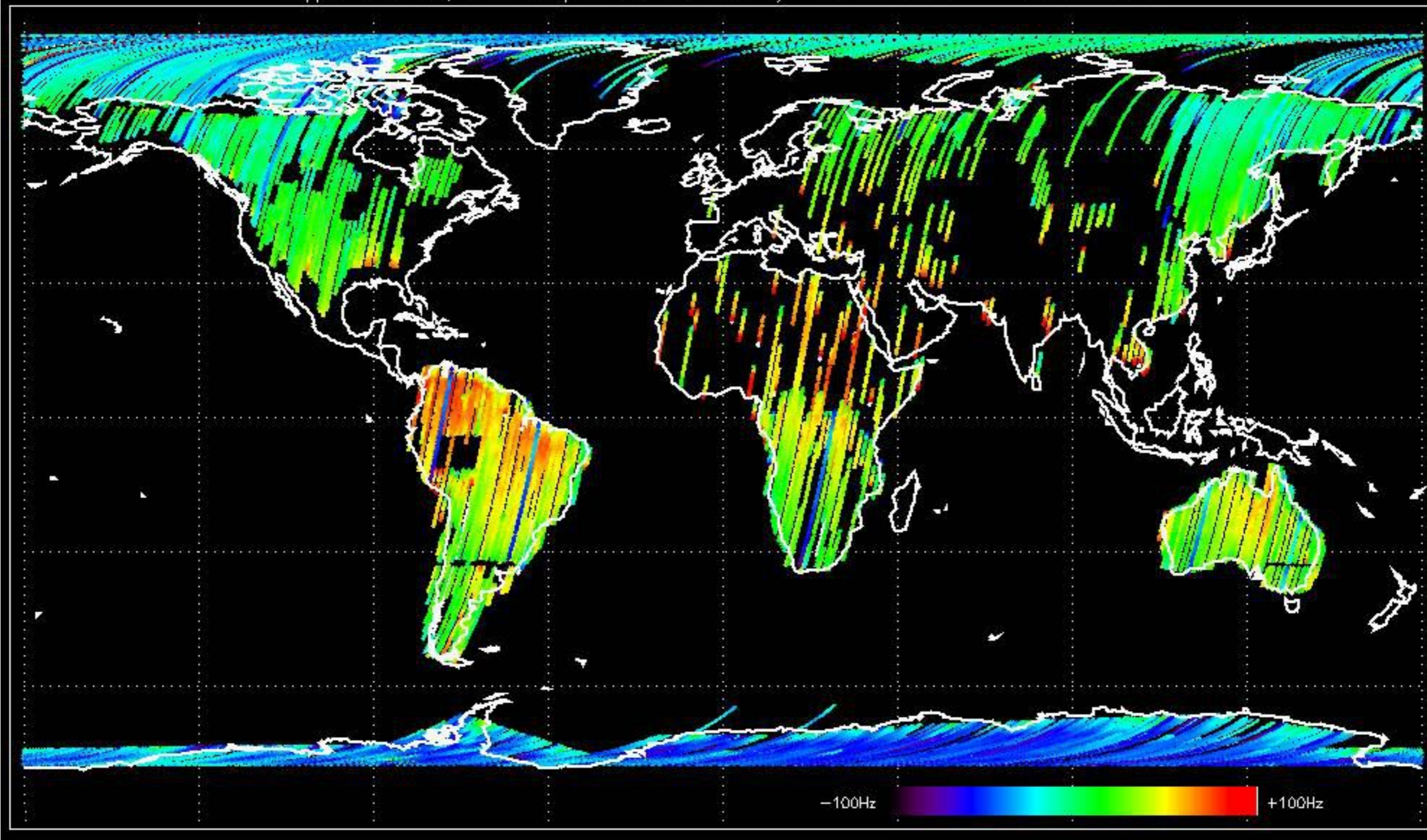




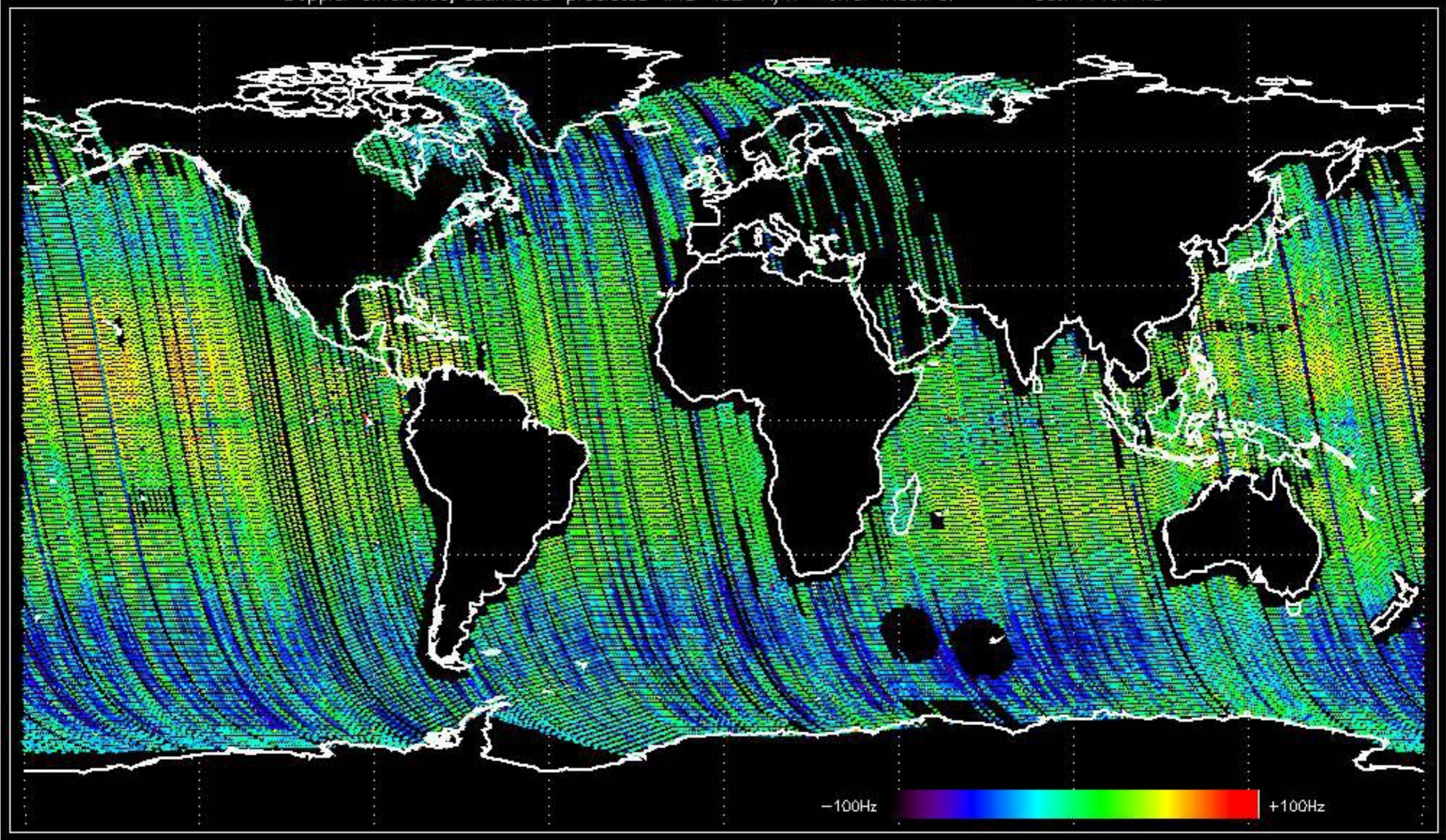
Doppler difference, estimated-predicted 'GM1' 'SS1' 'H/H' -error mean of -19.893796 Hz



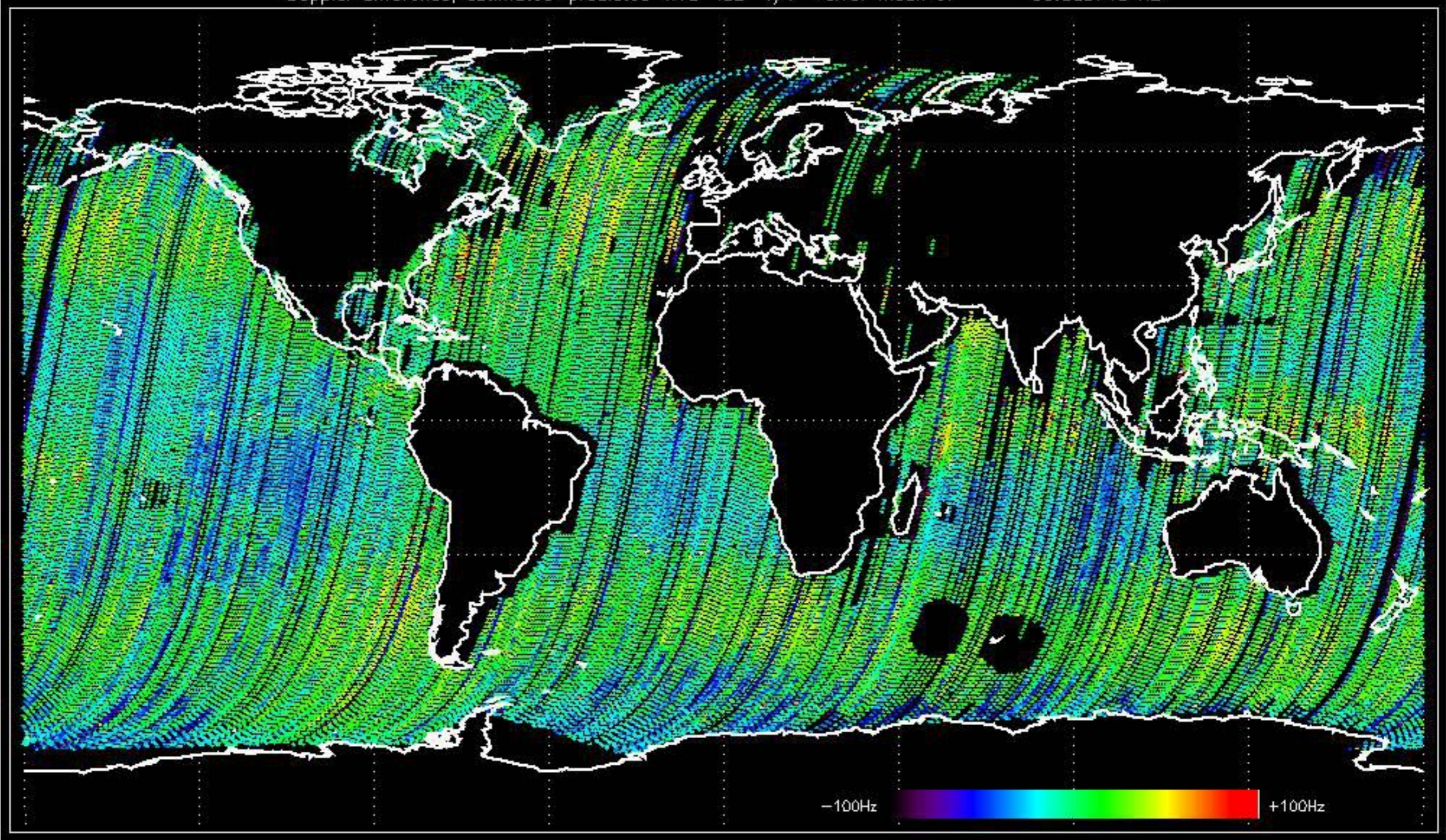
Doppler difference, estimated—predicted 'GM1' 'SS1' 'V/V' -error mean of -13.403742 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -36.744467 Hz

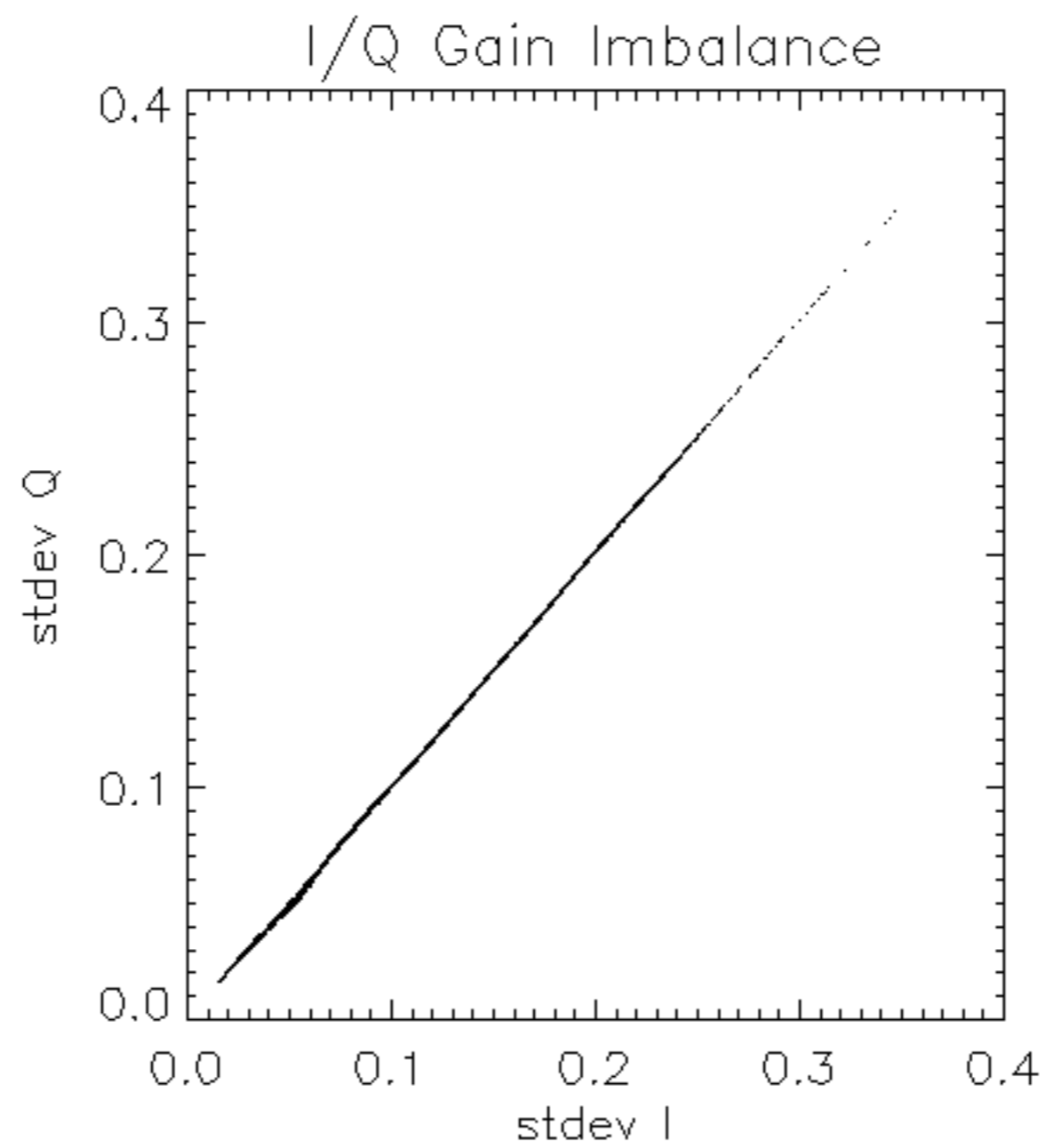


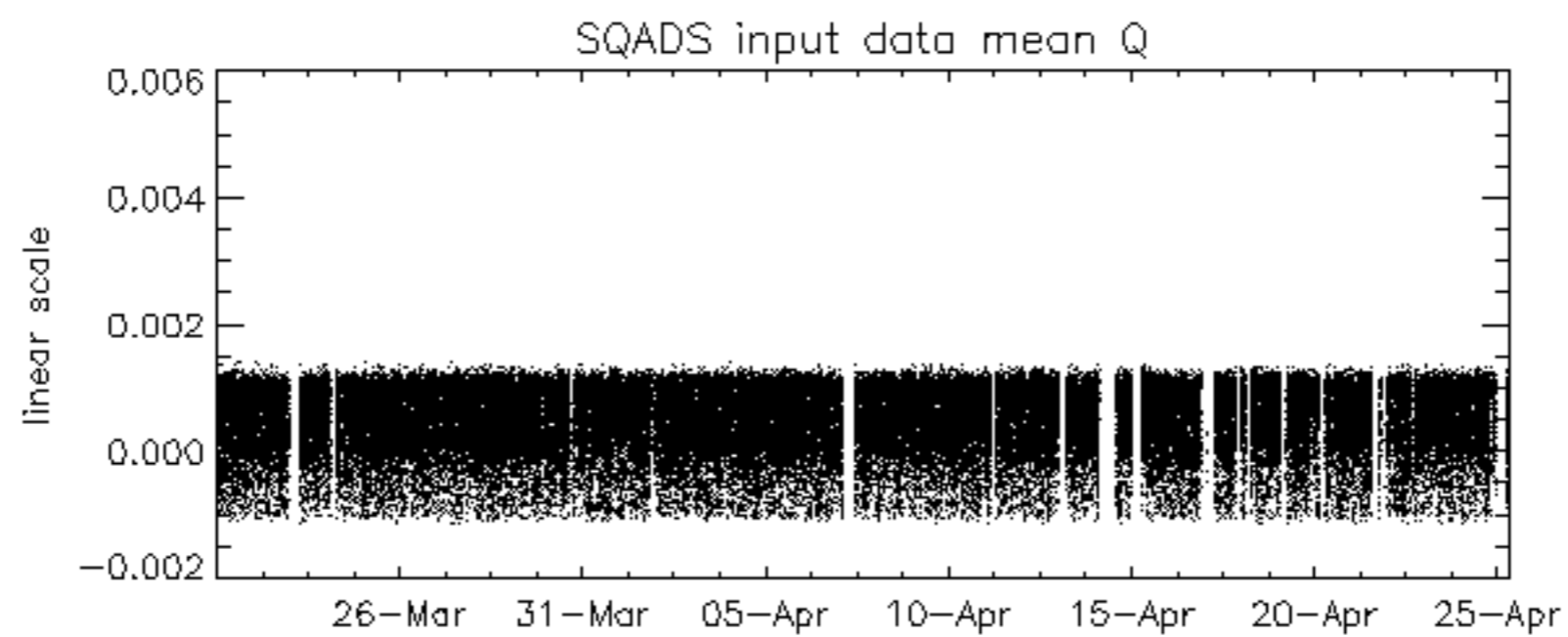
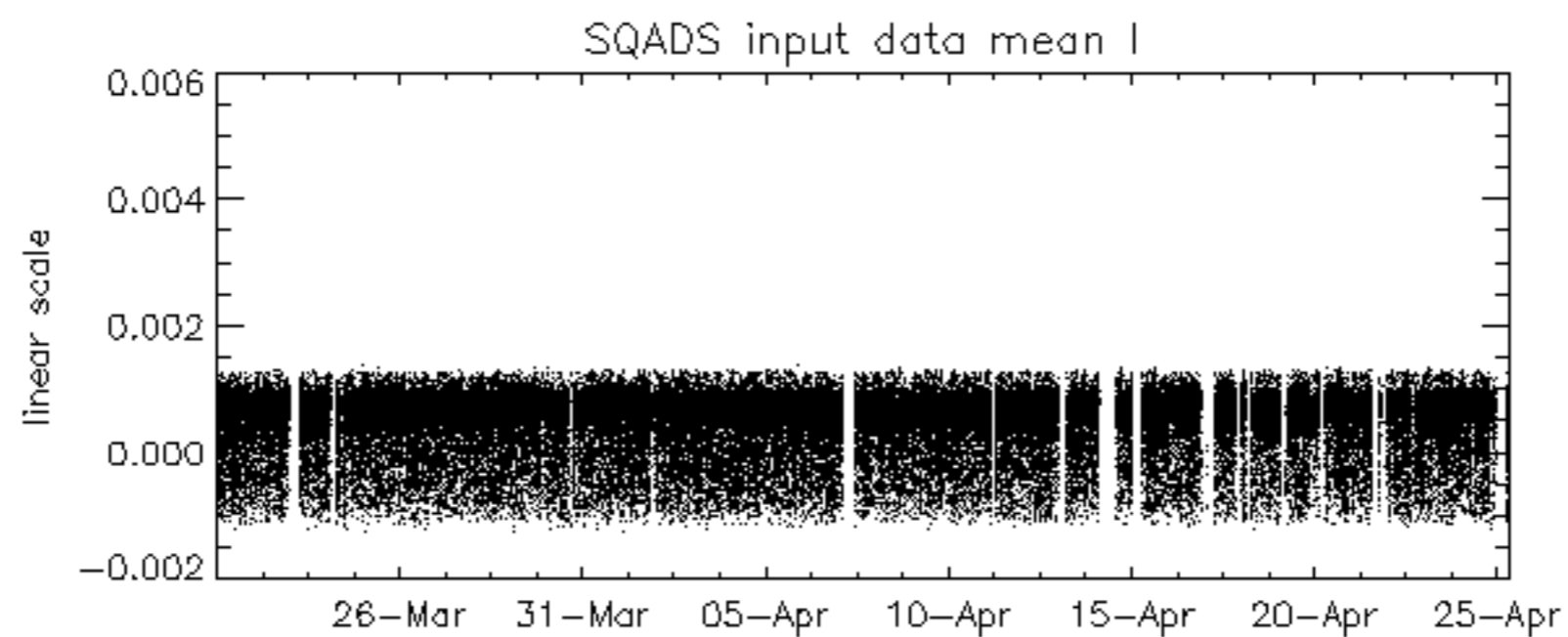
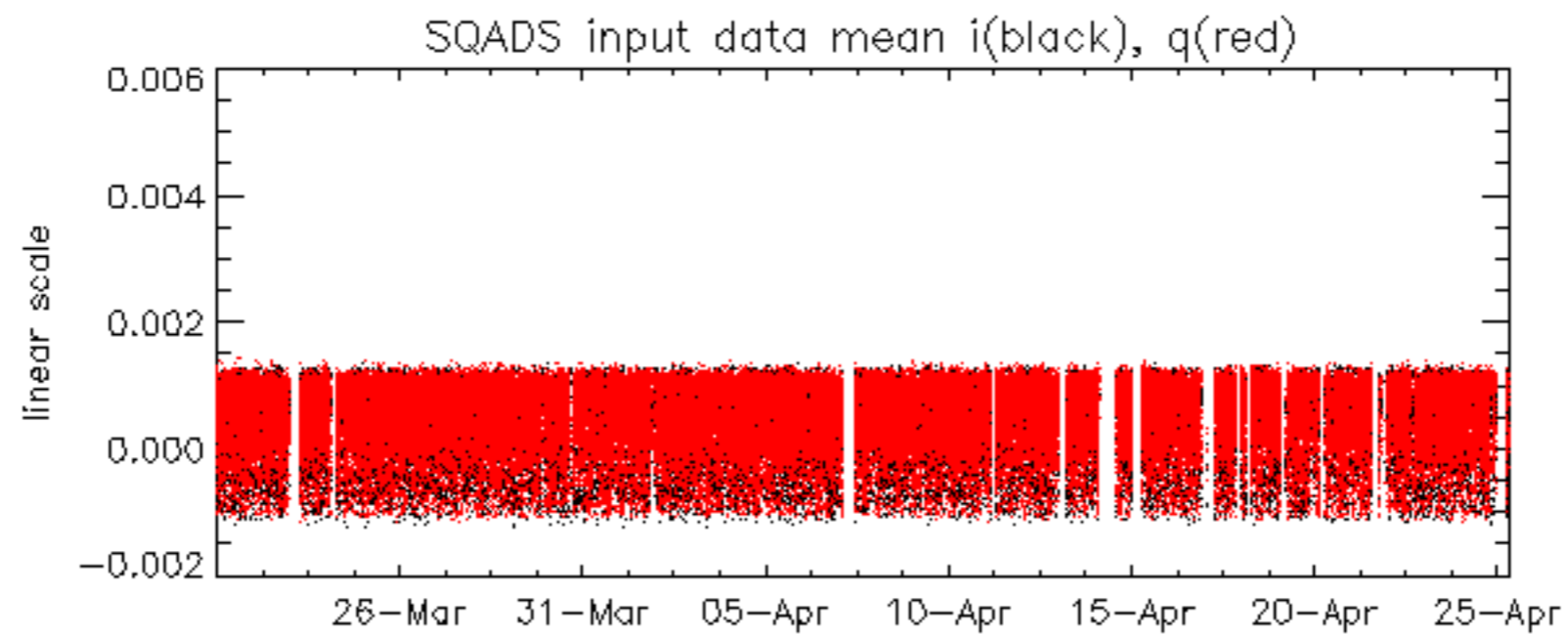
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -33.883713 Hz

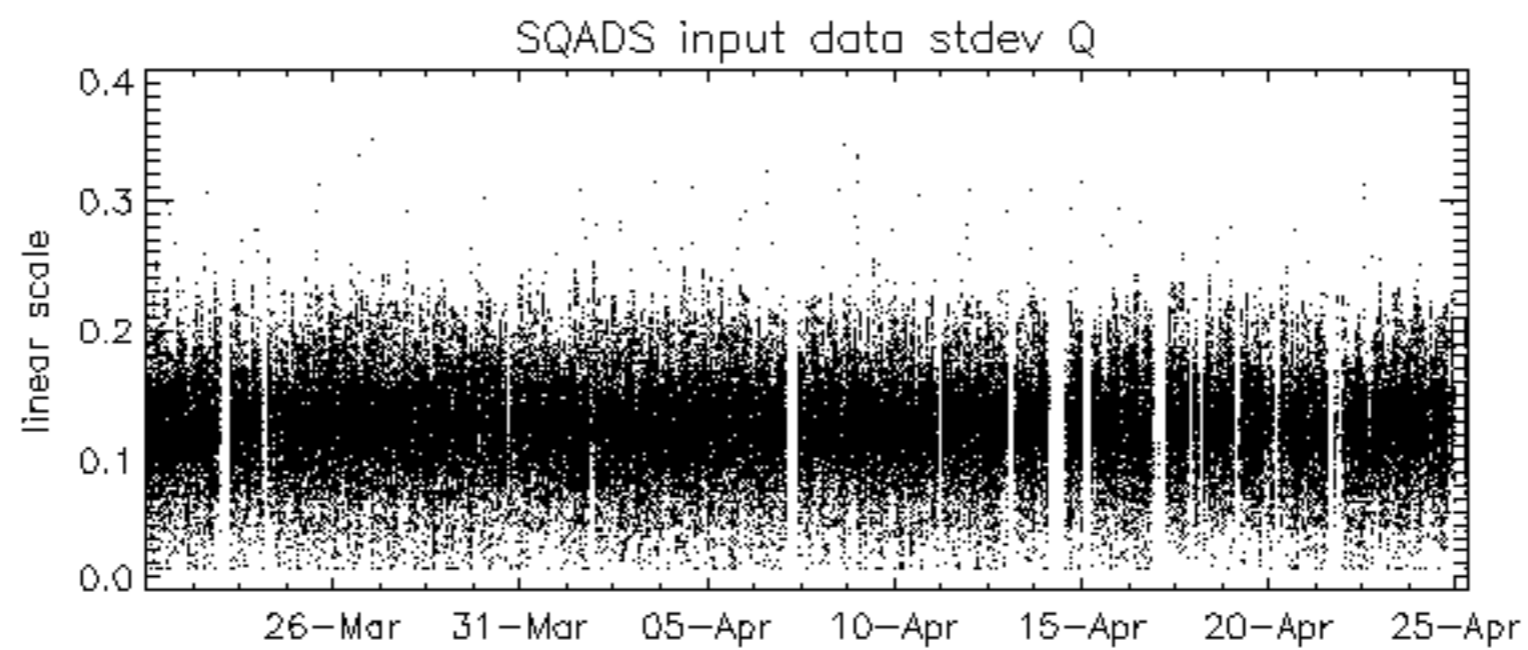
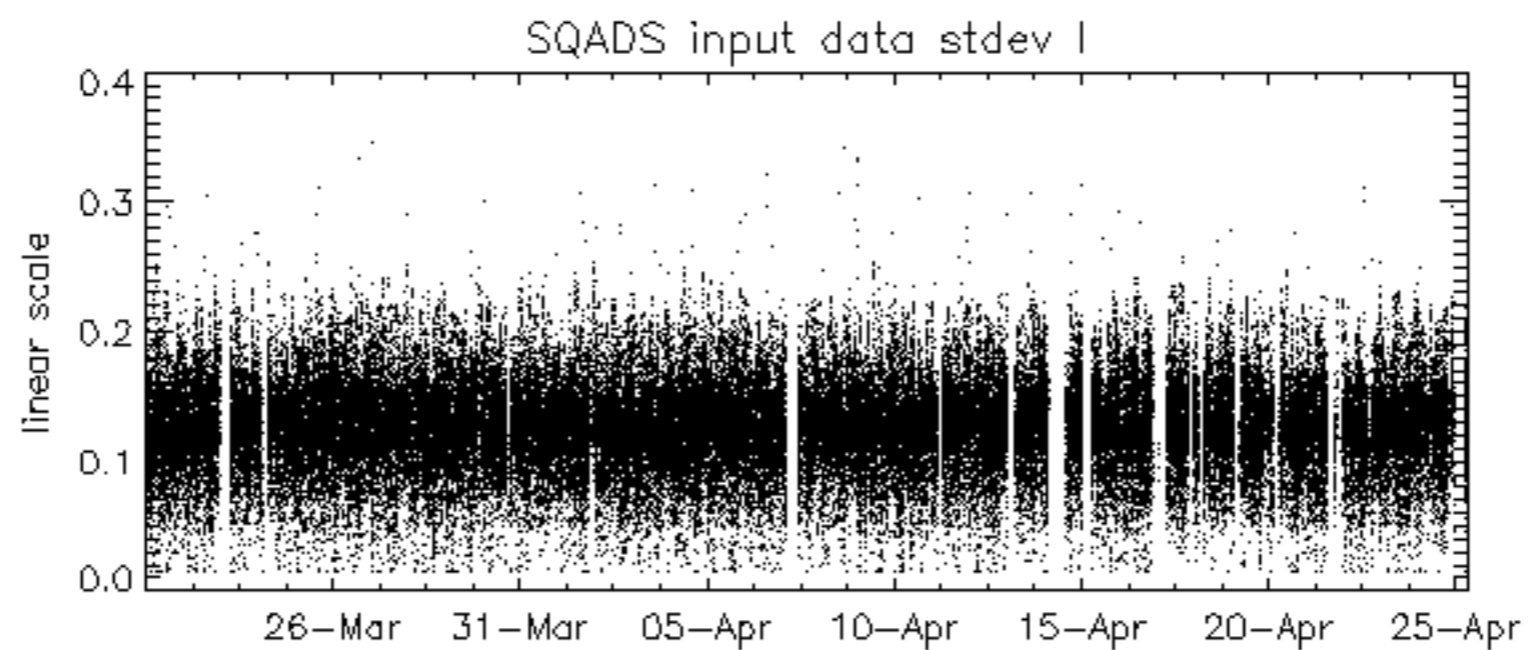
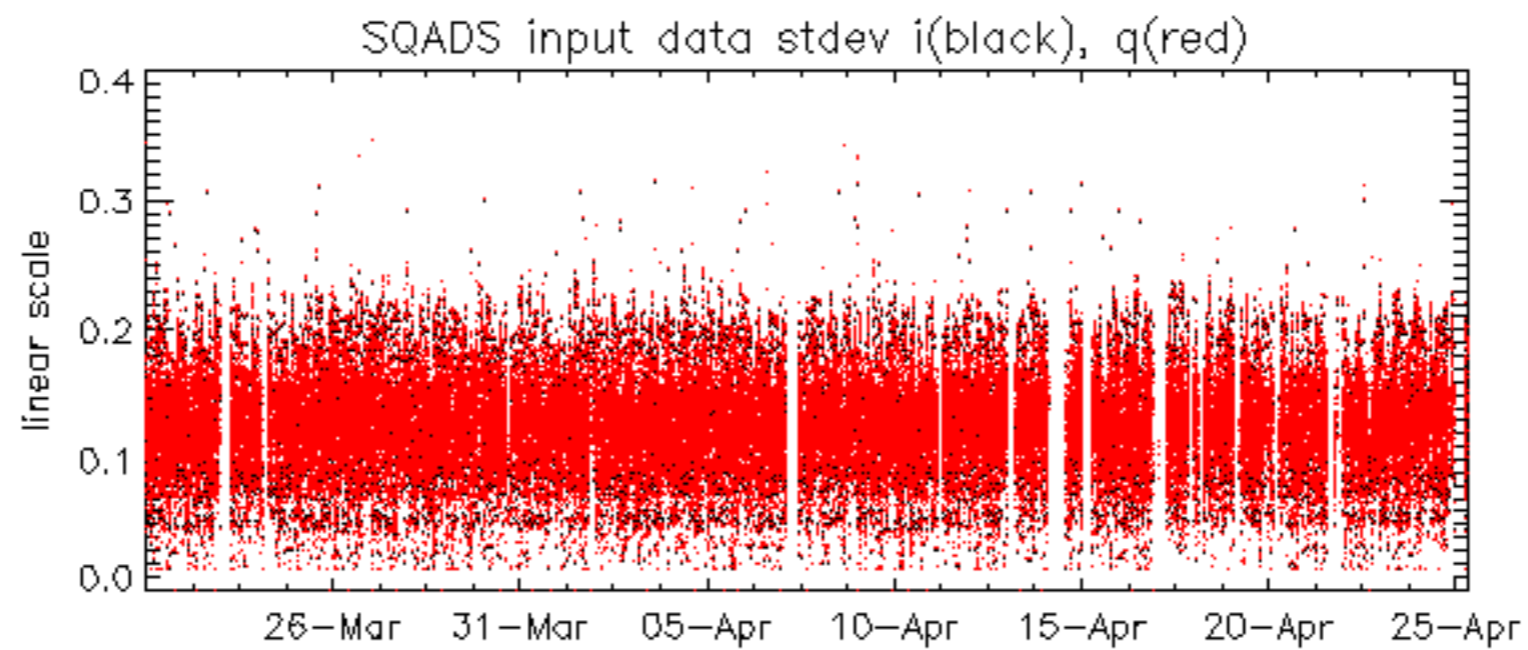


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No anomalies observed on available MS products:

No anomalies observed.







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