

PRELIMINARY REPORT OF 050113

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

last update on Thu Jan 13 11:00:24 GMT 2005

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2005-01-12 00:00:00 to 2005-01-13 11:00:24

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	26	2	2	5	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	26	2	2	5	2
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	26	2	2	5	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	26	2	2	5	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	35	45	0	10	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	35	45	0	10	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	35	45	0	10	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	35	45	0	10	4

2.3 - Browse Visual Inspection

2.4 - 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	20050111 042856
H	20050110 050033

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

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.430214	0.007015	0.035263
7	P1	-3.086001	0.010395	0.015988
11	P1	-4.644737	0.020638	0.010918
15	P1	-5.651441	0.040231	0.034096
19	P1	-3.660993	0.006178	0.005000
22	P1	-4.571290	0.016985	0.019529
26	P1	-4.942793	0.025318	0.046698
30	P1	-7.124505	0.013855	-0.013709
3	P1	-15.934182	0.105838	0.023034
7	P1	-15.517173	0.099034	0.061901
11	P1	-20.797266	0.315230	-0.070101
15	P1	-11.633554	0.076792	0.051431
19	P1	-14.174430	0.031923	0.008964
22	P1	-16.027784	0.450031	0.131738
26	P1	-17.711628	0.244479	0.115342
30	P1	-17.874119	0.318819	-0.022680

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.322208	0.086844	0.099724
7	P2	-22.521431	0.172849	0.105733
11	P2	-14.808613	0.184607	0.173299
15	P2	-7.148472	0.116158	0.070232
19	P2	-9.729493	0.216023	0.113510
22	P2	-17.131725	0.099540	0.109734
26	P2	-16.527657	0.115809	0.084360

30	P2	-18.949448	0.083390	0.058291
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P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.205178	0.007090	0.028807
7	P3	-8.205186	0.007092	0.028869
11	P3	-8.205139	0.007090	0.028568
15	P3	-8.205135	0.007089	0.028589
19	P3	-8.205200	0.007091	0.028967
22	P3	-8.205190	0.007090	0.028920
26	P3	-8.205144	0.007090	0.028616
30	P3	-8.204879	0.007108	0.030794

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.824095	0.011673	0.005891
7	P1	-2.956289	0.023874	0.012377
11	P1	-3.942328	0.025590	-0.008793
15	P1	-3.507034	0.029571	-0.003413
19	P1	-3.609948	0.012789	0.001439
22	P1	-5.637942	0.067975	-0.035909
26	P1	-6.530241	0.024922	-0.034778
30	P1	-6.299878	0.044758	0.015281
3	P1	-10.768504	0.049888	-0.115614
7	P1	-10.139385	0.136072	-0.020318
11	P1	-12.491665	0.109748	-0.088496

15	P1	-11.751042	0.055057	-0.024078
19	P1	-15.640105	0.046845	0.020962
22	P1	-24.087704	1.879289	0.085061
26	P1	-14.925911	0.363602	0.293982
30	P1	-20.071548	0.874841	0.119162

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.003733	0.036965	0.082903
7	P2	-22.569246	0.034118	0.115110
11	P2	-10.606988	0.037920	0.200845
15	P2	-5.048515	0.025507	0.038268
19	P2	-6.943867	0.037220	0.051581
22	P2	-7.273559	0.028715	0.088110
26	P2	-23.949968	0.019565	0.034059
30	P2	-21.994144	0.024512	0.065227

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.038004	0.002999	0.022620
7	P3	-8.038002	0.003002	0.022521
11	P3	-8.037960	0.002997	0.022195
15	P3	-8.038055	0.002996	0.022570
19	P3	-8.037918	0.003009	0.022622
22	P3	-8.038008	0.003001	0.022519
26	P3	-8.037988	0.003006	0.022813
30	P3	-8.037934	0.002992	0.022382

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	0.000464529
	stdev	2.23493e-07
MEAN Q	mean	0.000539303
	stdev	2.36181e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128089
	stdev	0.000963174
STDEV Q	mean	0.128322
	stdev	0.000973385





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)

Acsending


Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

Ascending

Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

Ascending

Descending

6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

Ascending

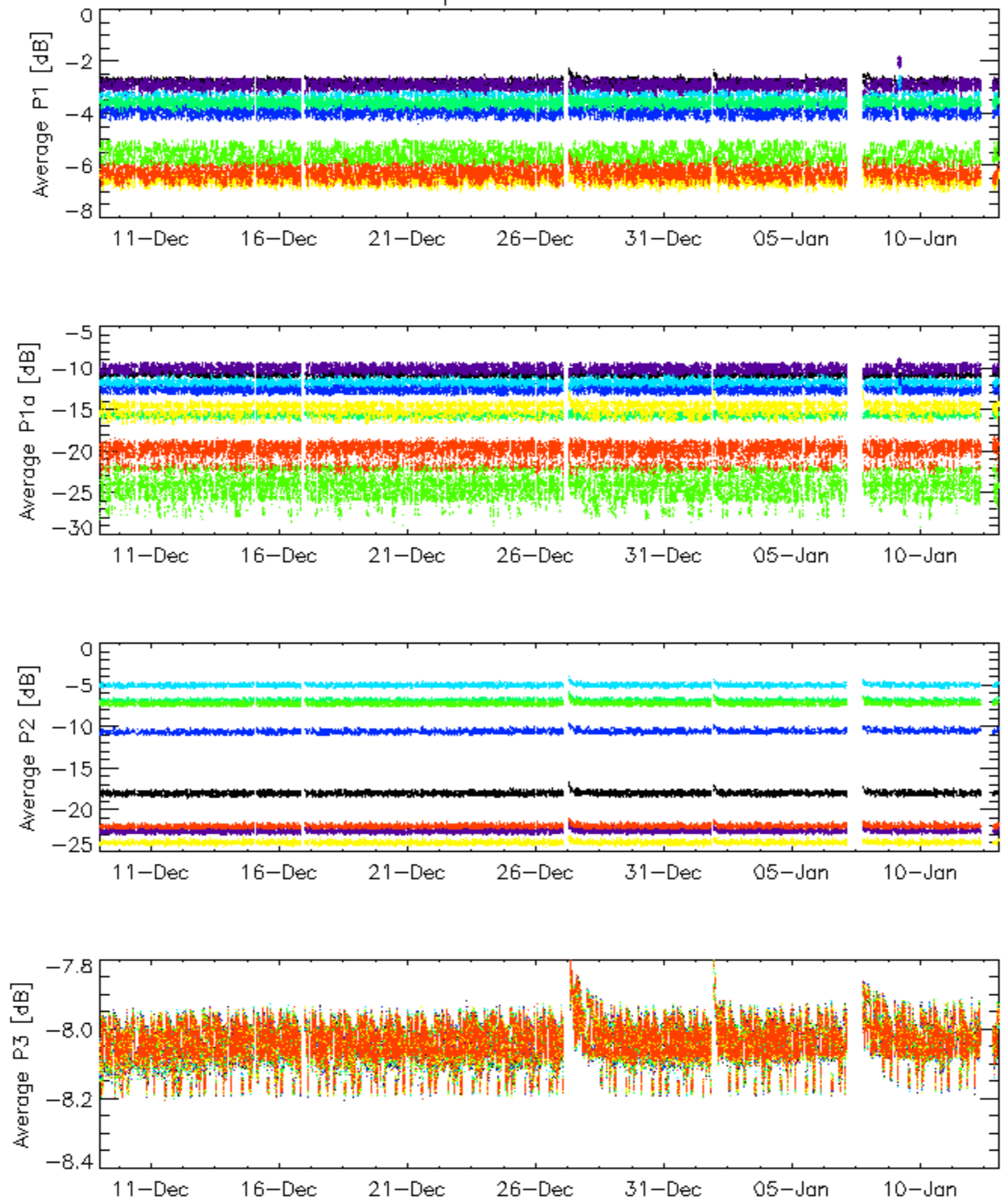
Descending

6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

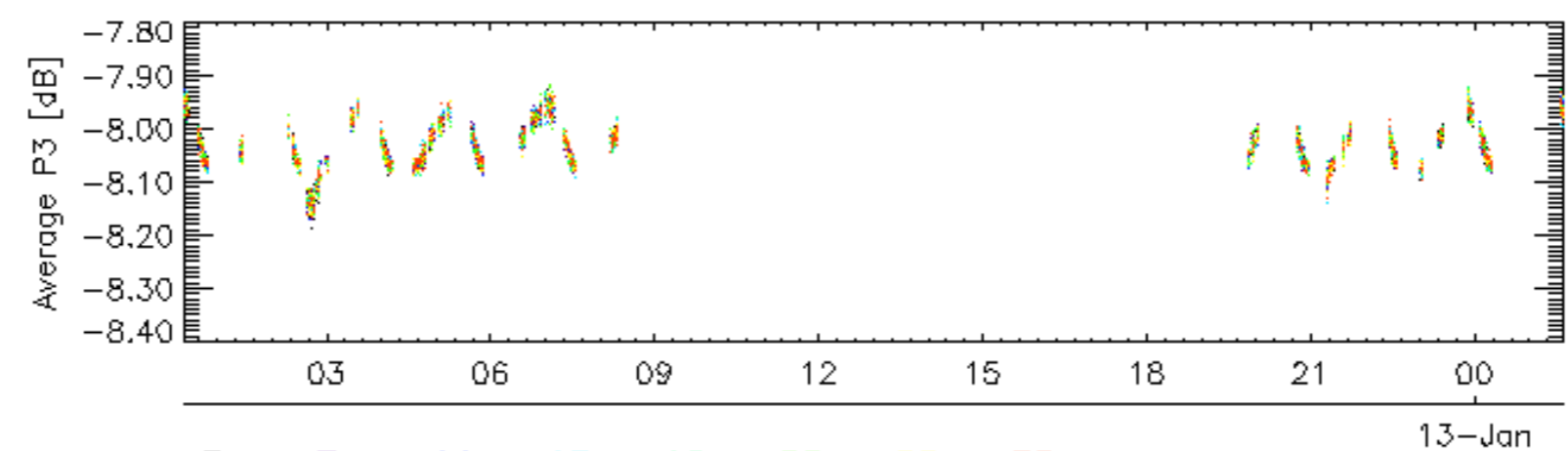
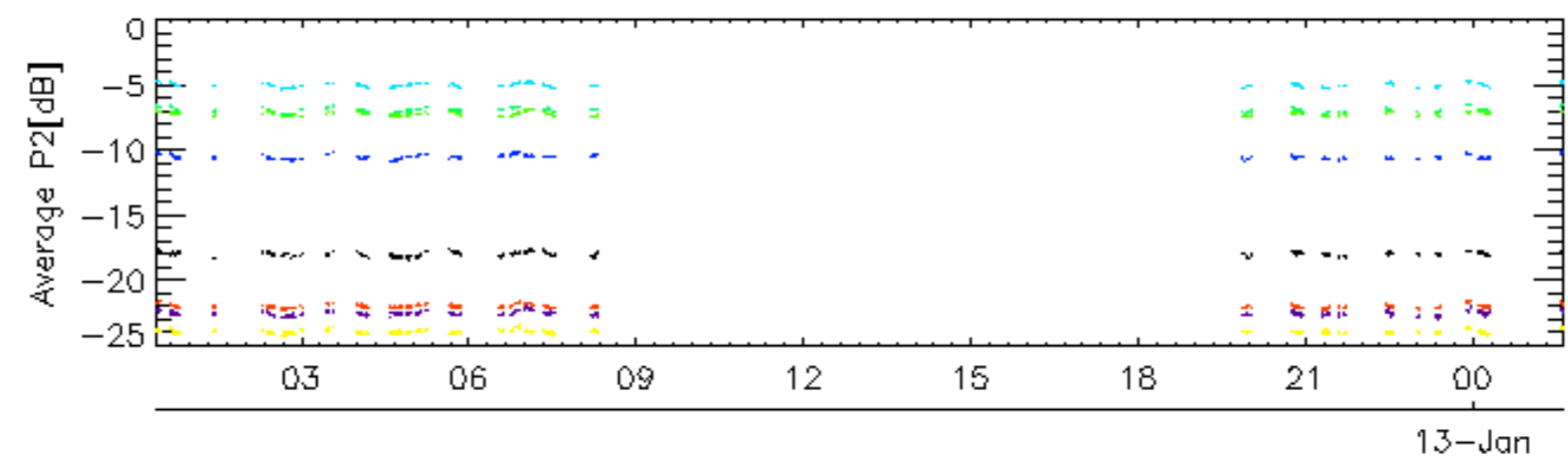
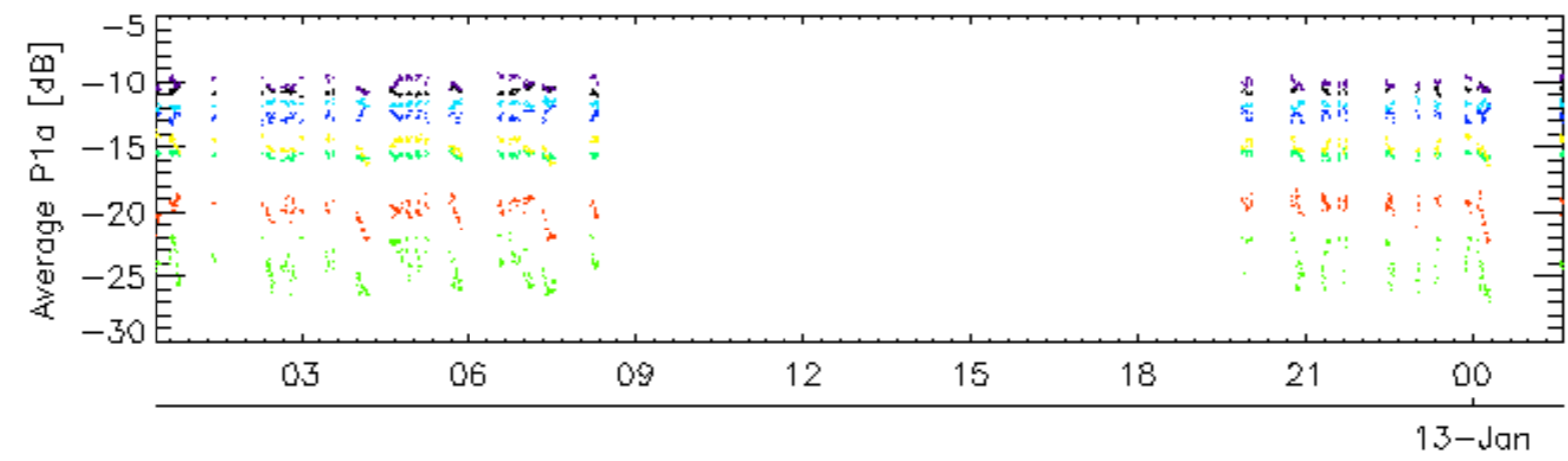
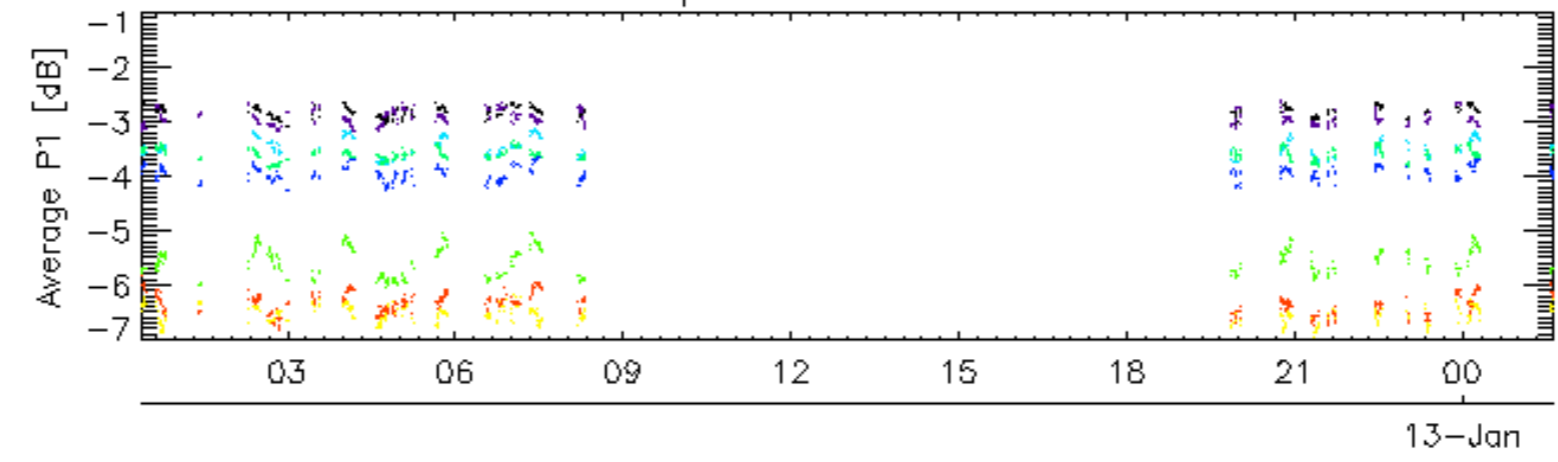


Cal pulses for GM1 SS3



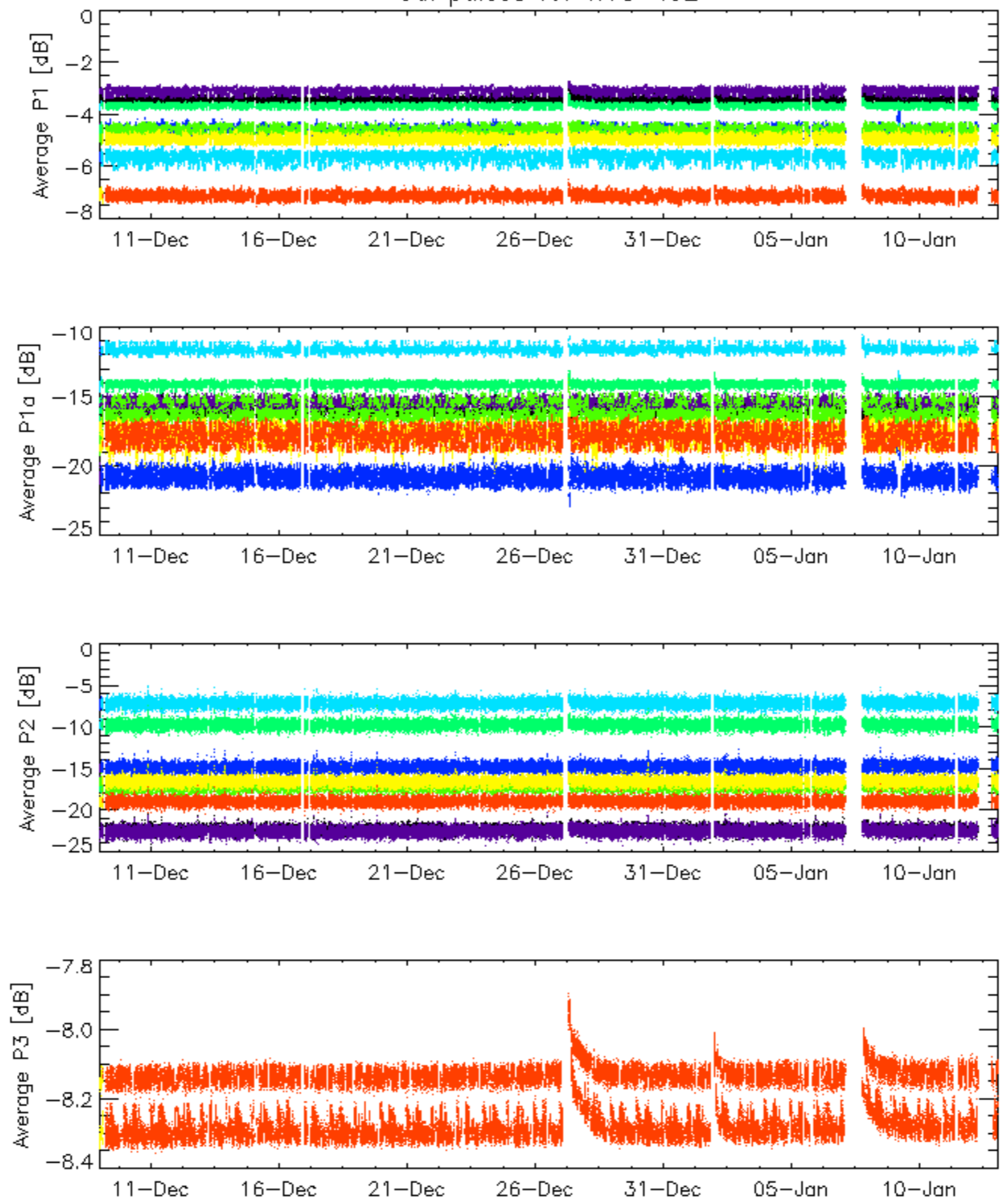
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Cal pulses for GM1 SS3



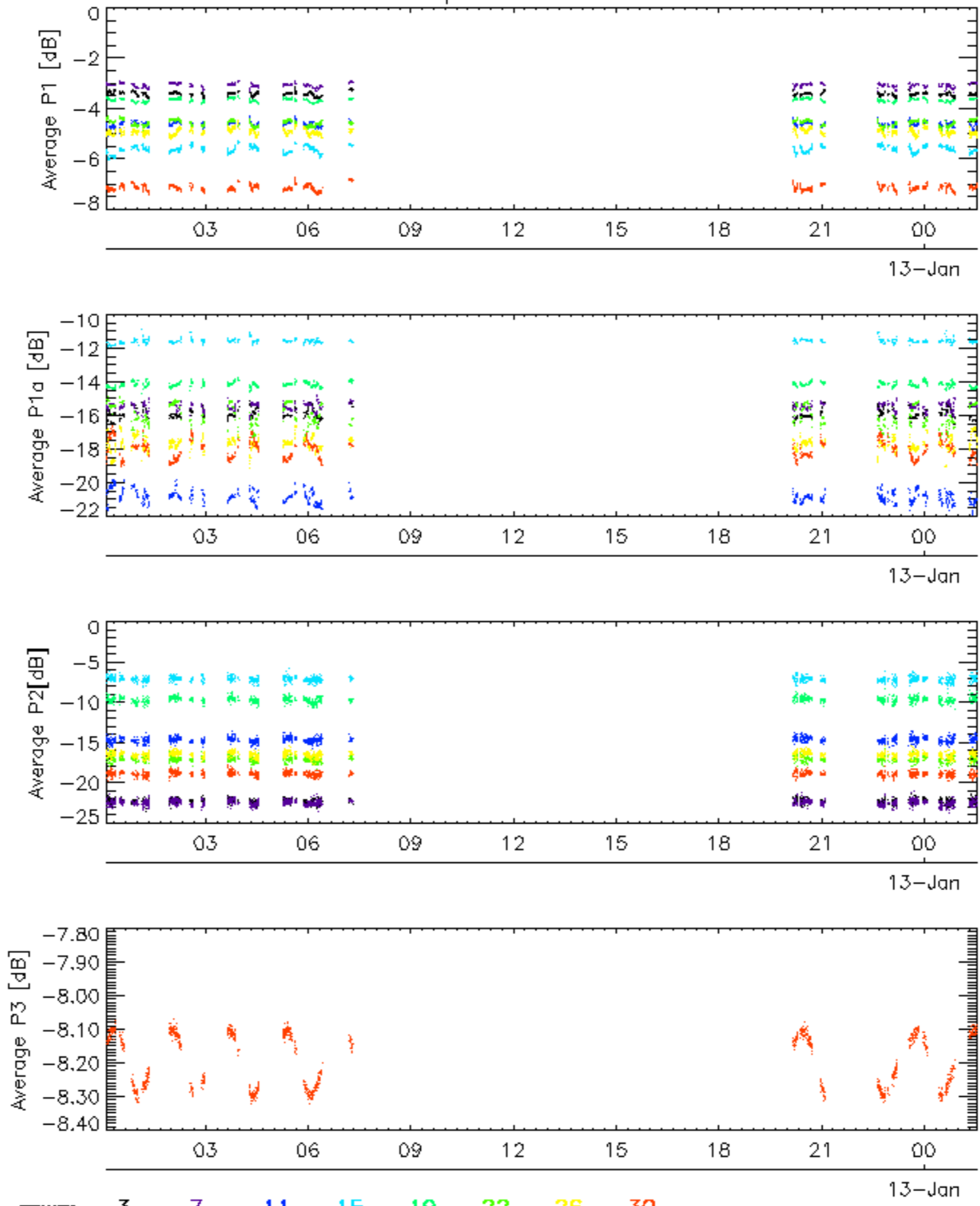
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Cal pulses for WVS IS2

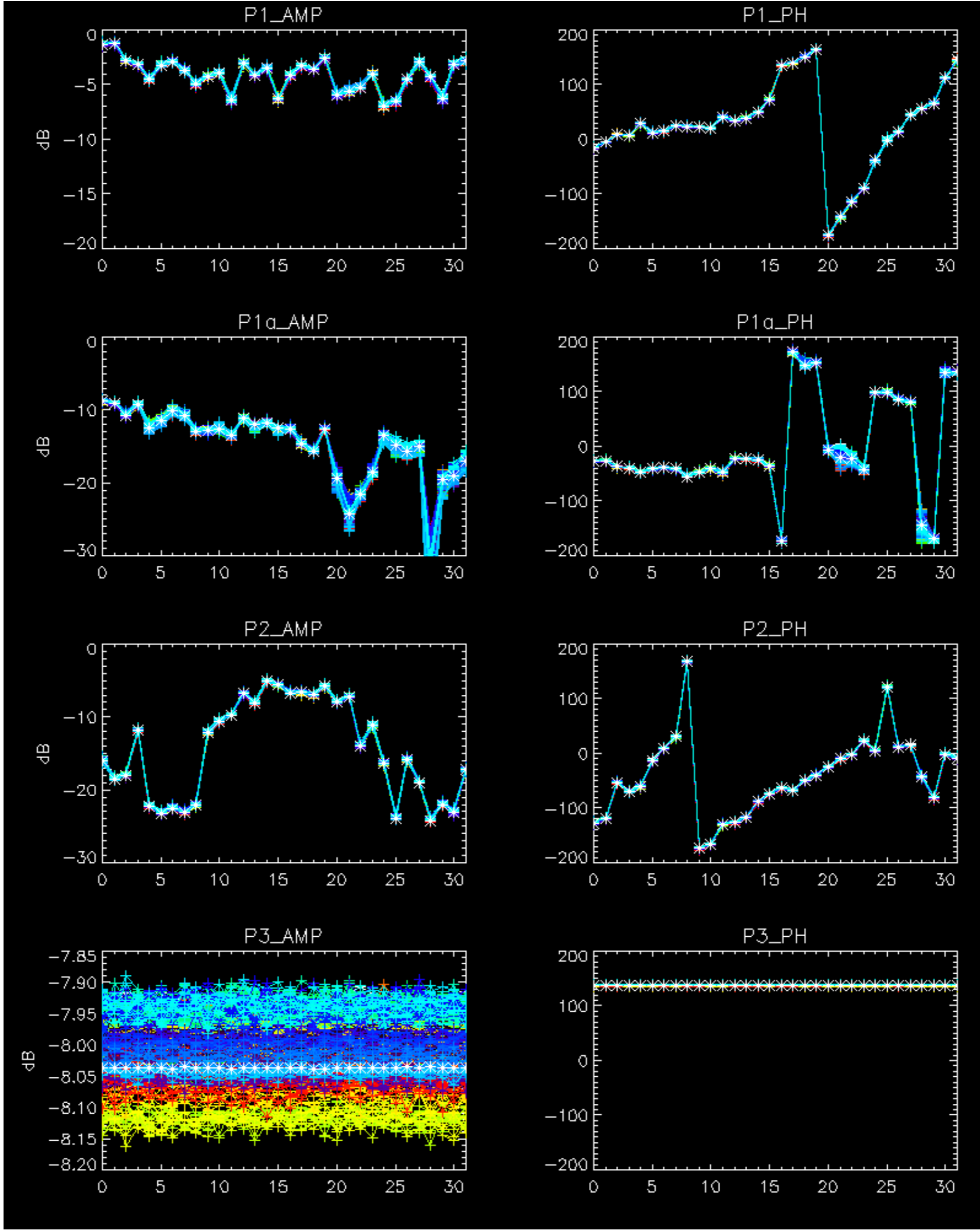


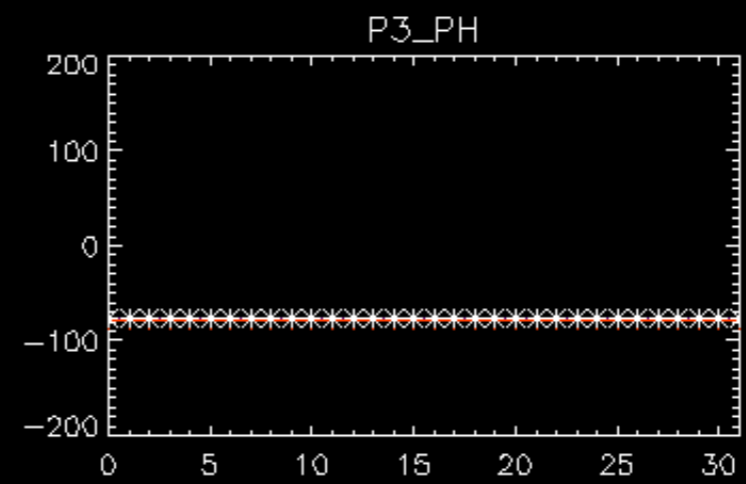
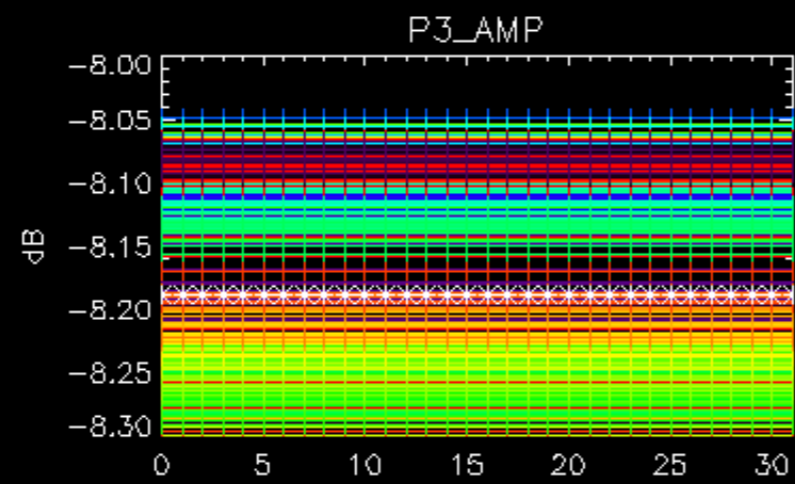
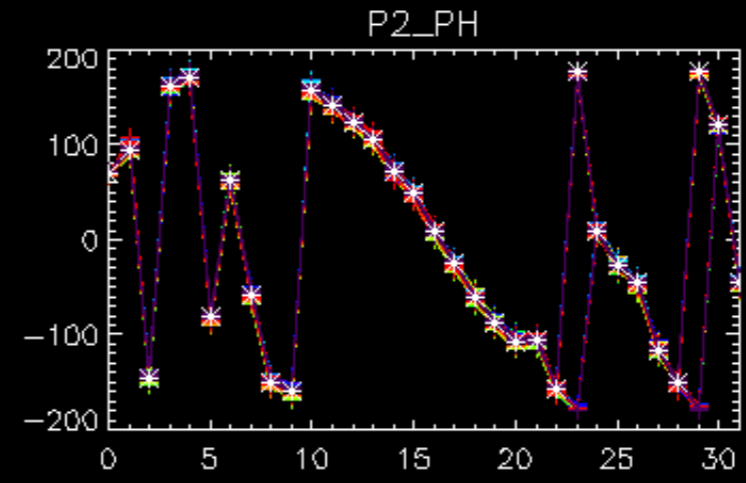
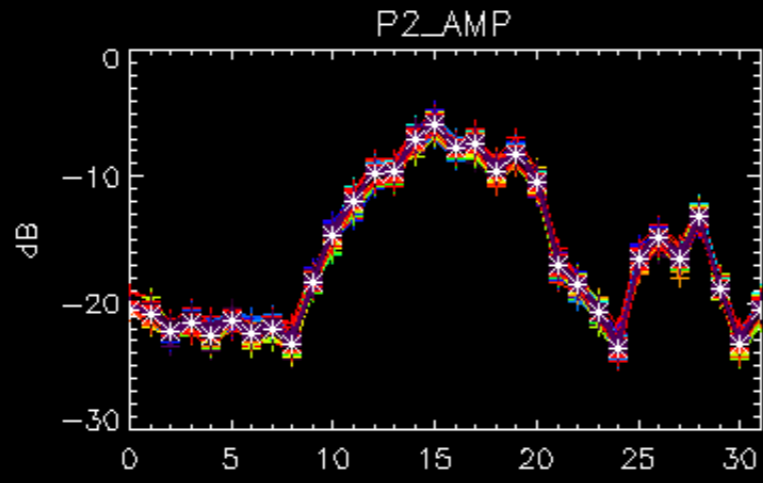
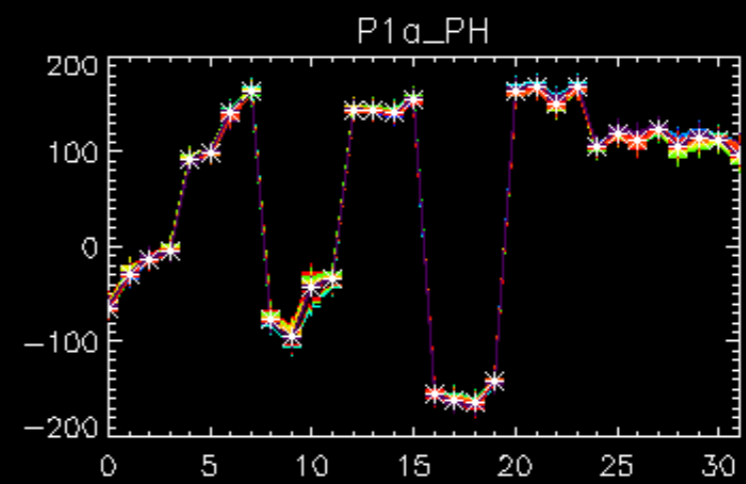
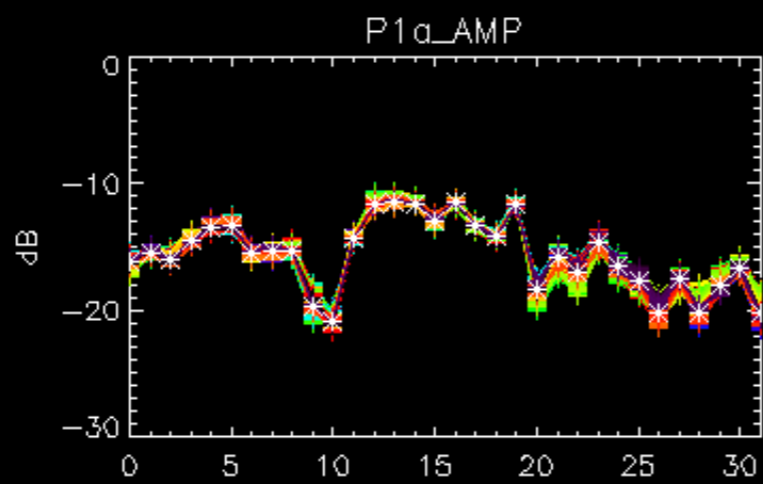
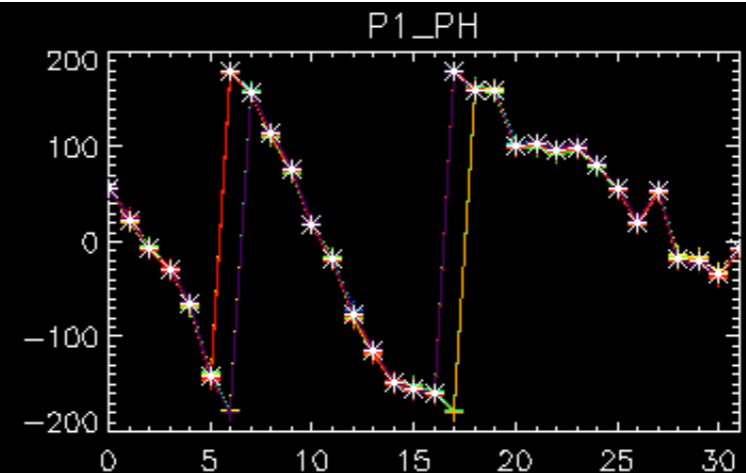
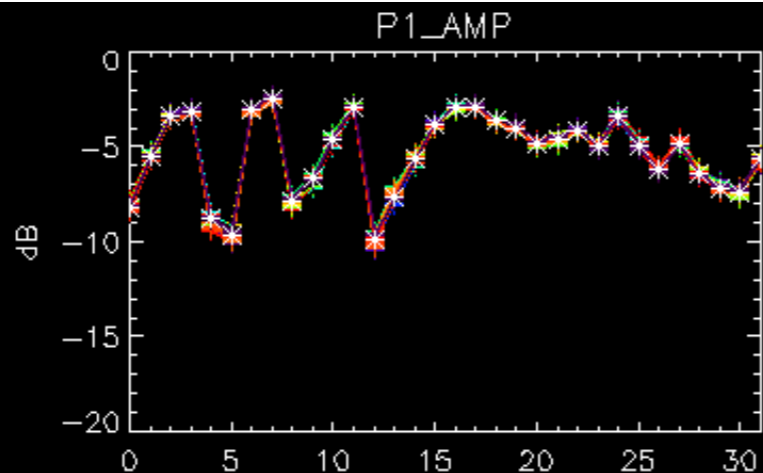
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Cal pulses for WVS IS2



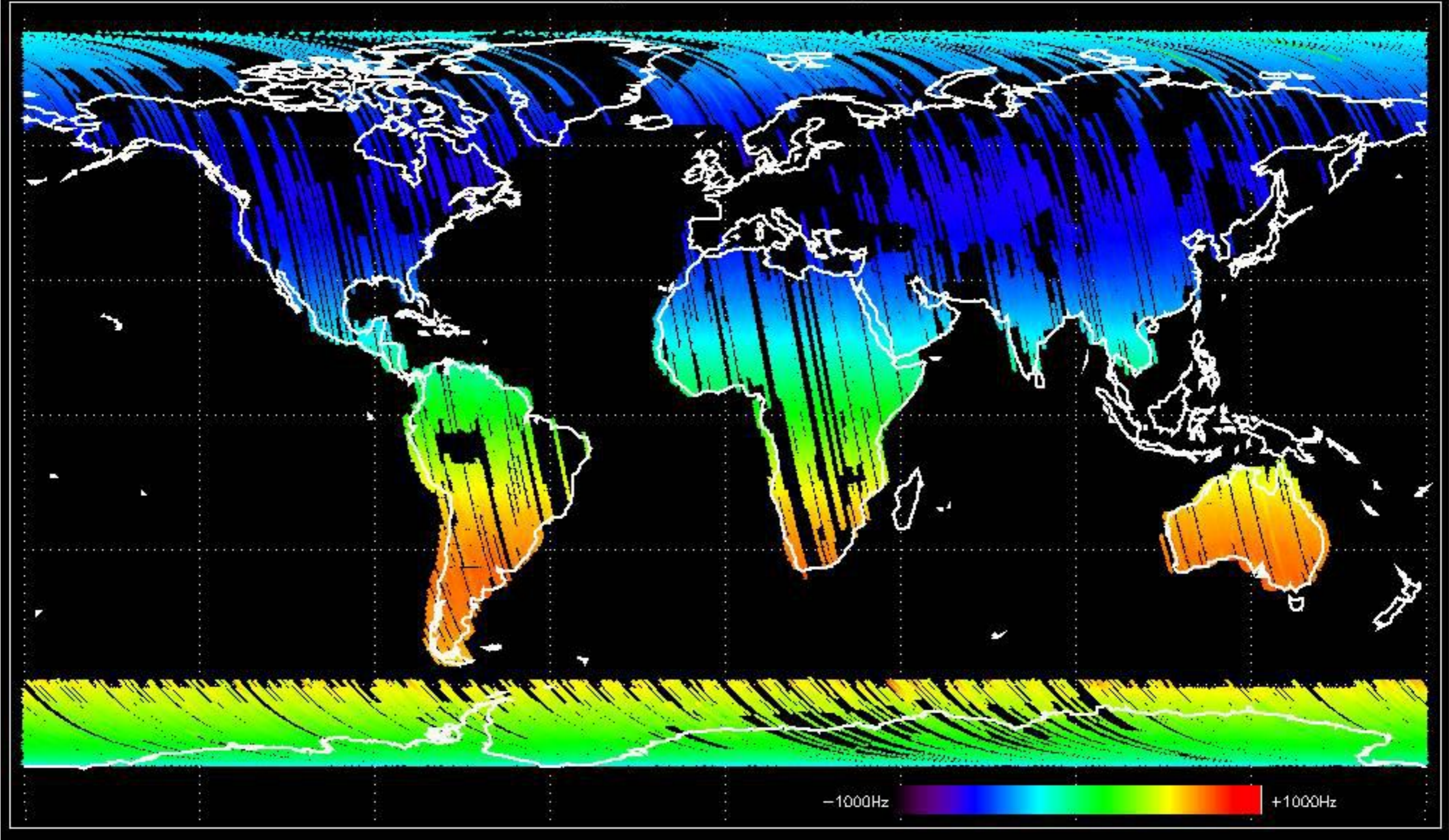
No anomalies observed.



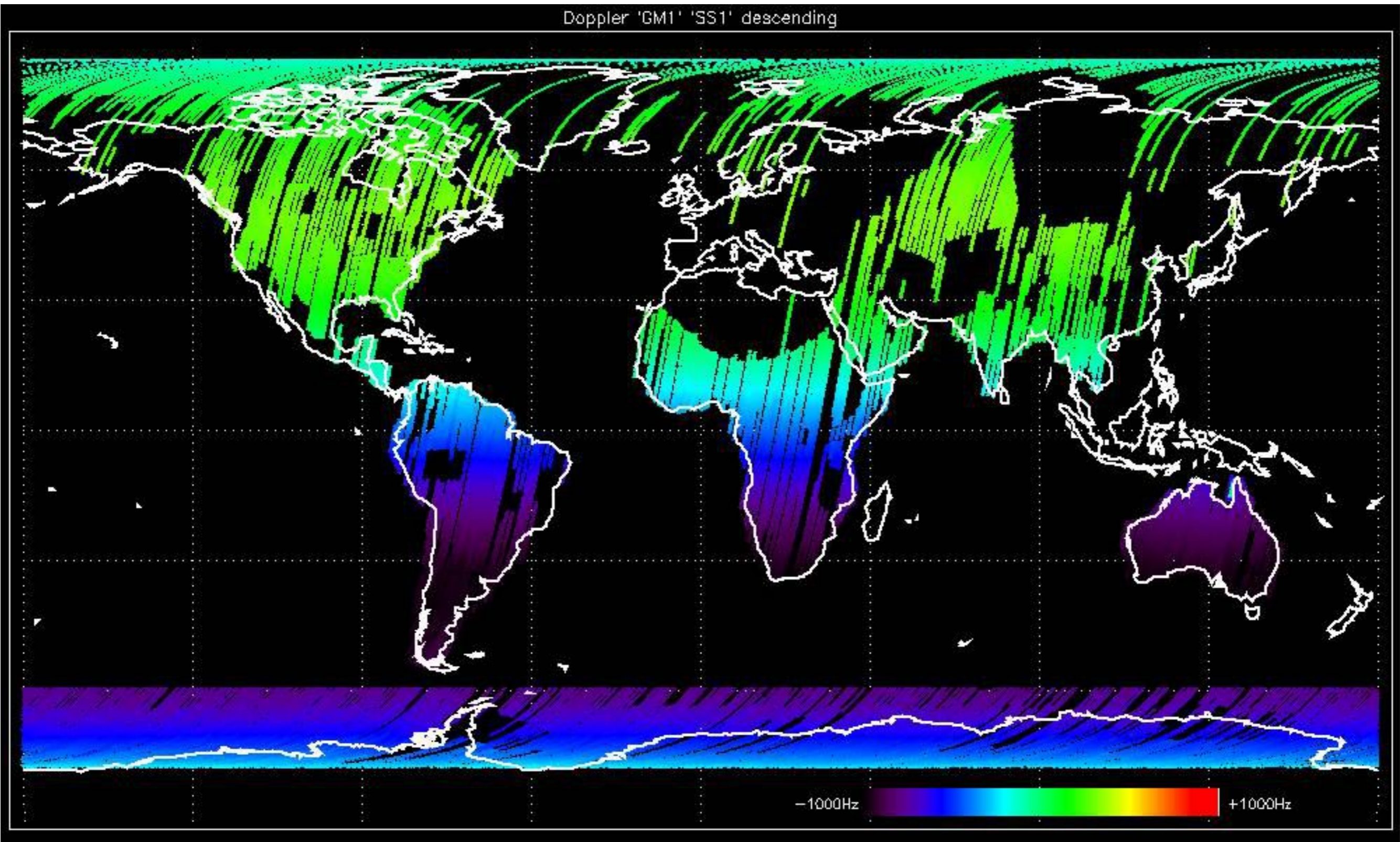


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

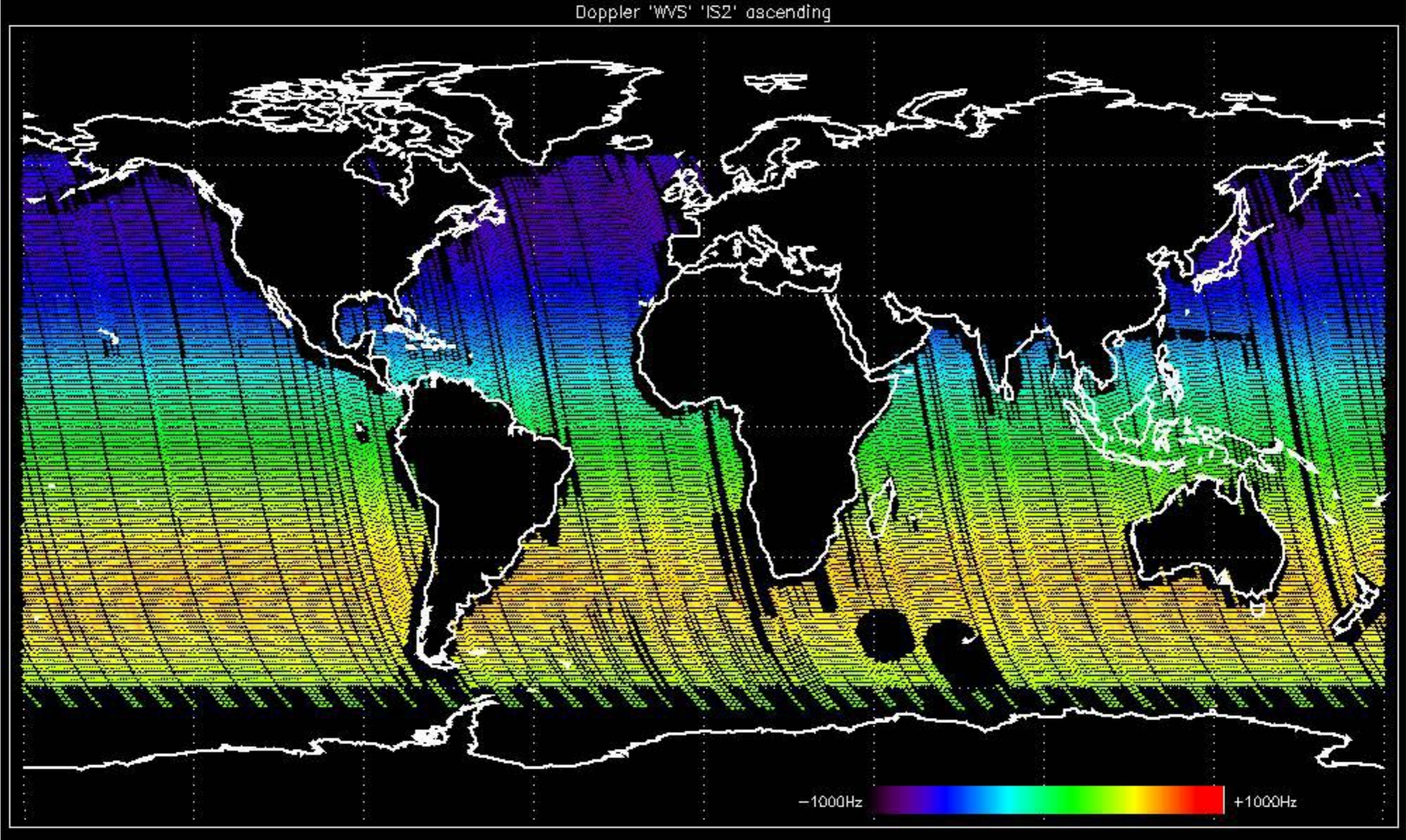
Doppler 'GM1' 'SS1' ascending



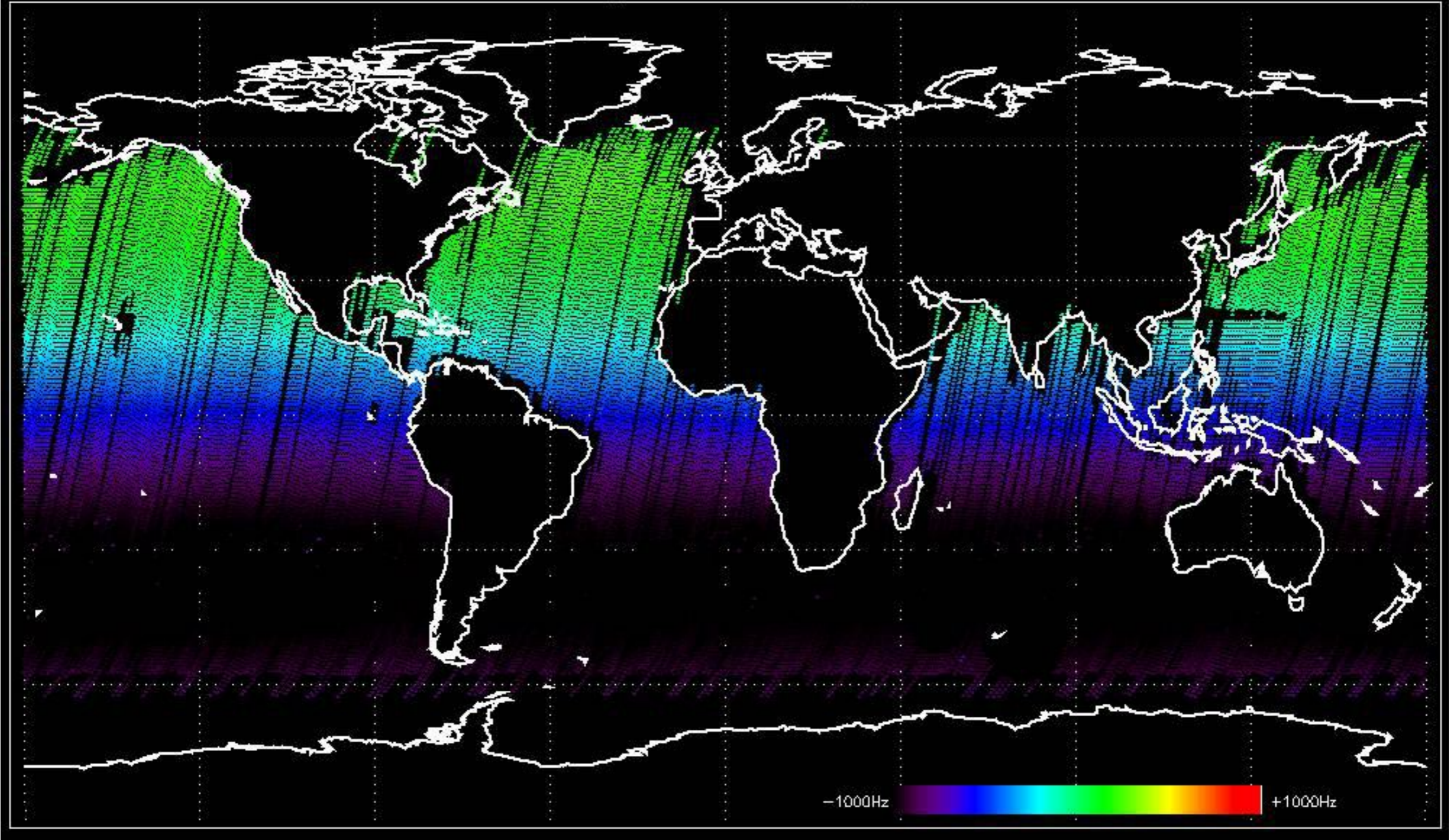
Doppler 'GM1' 'SS1' descending



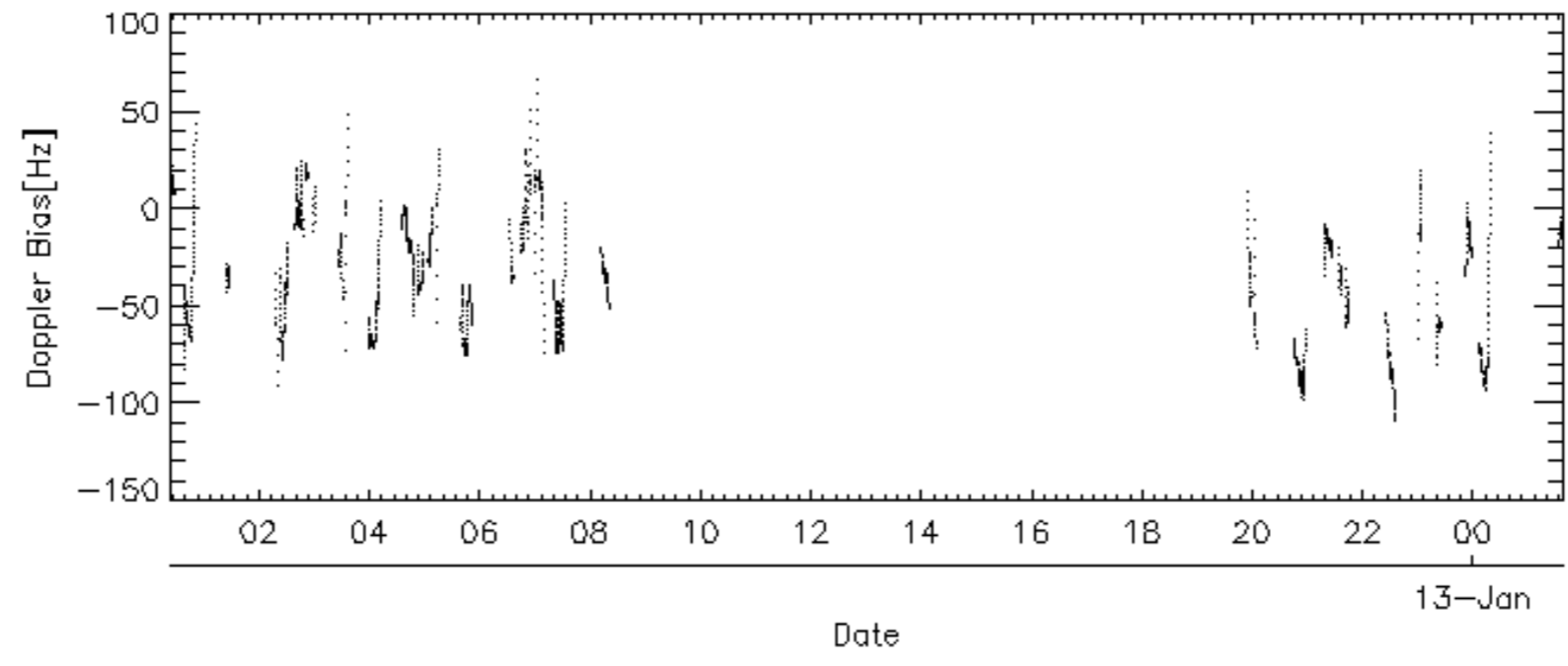
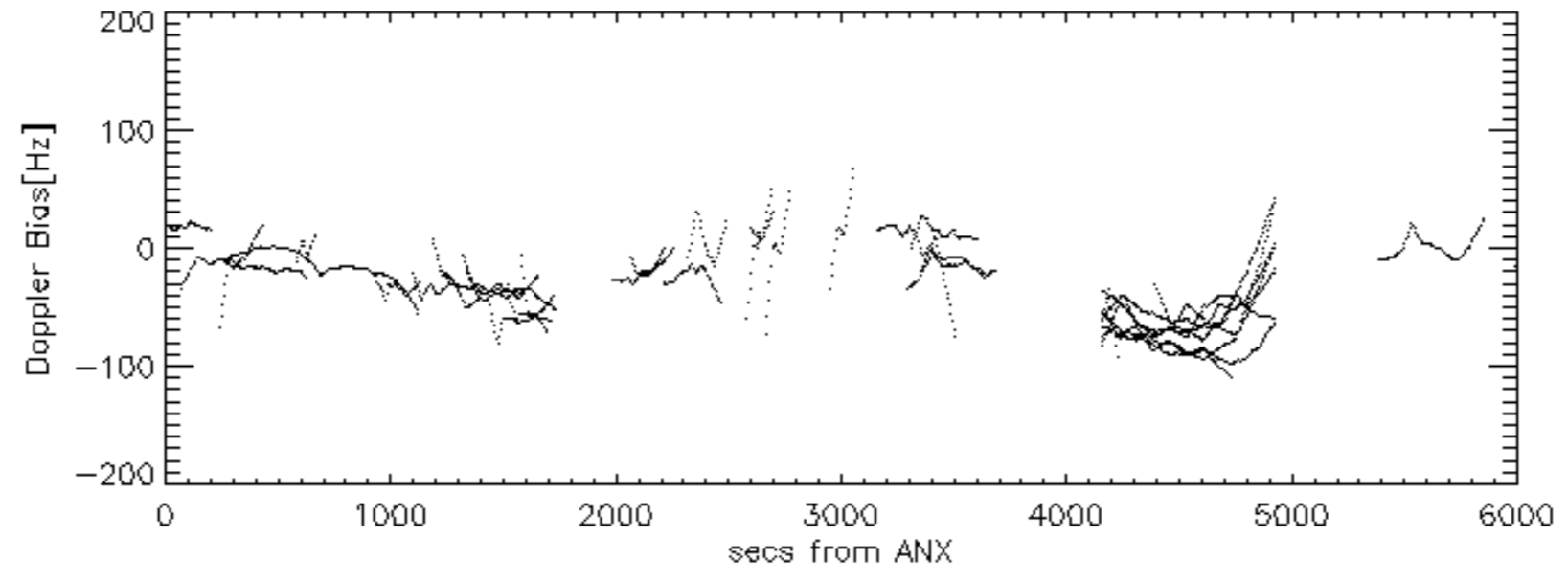
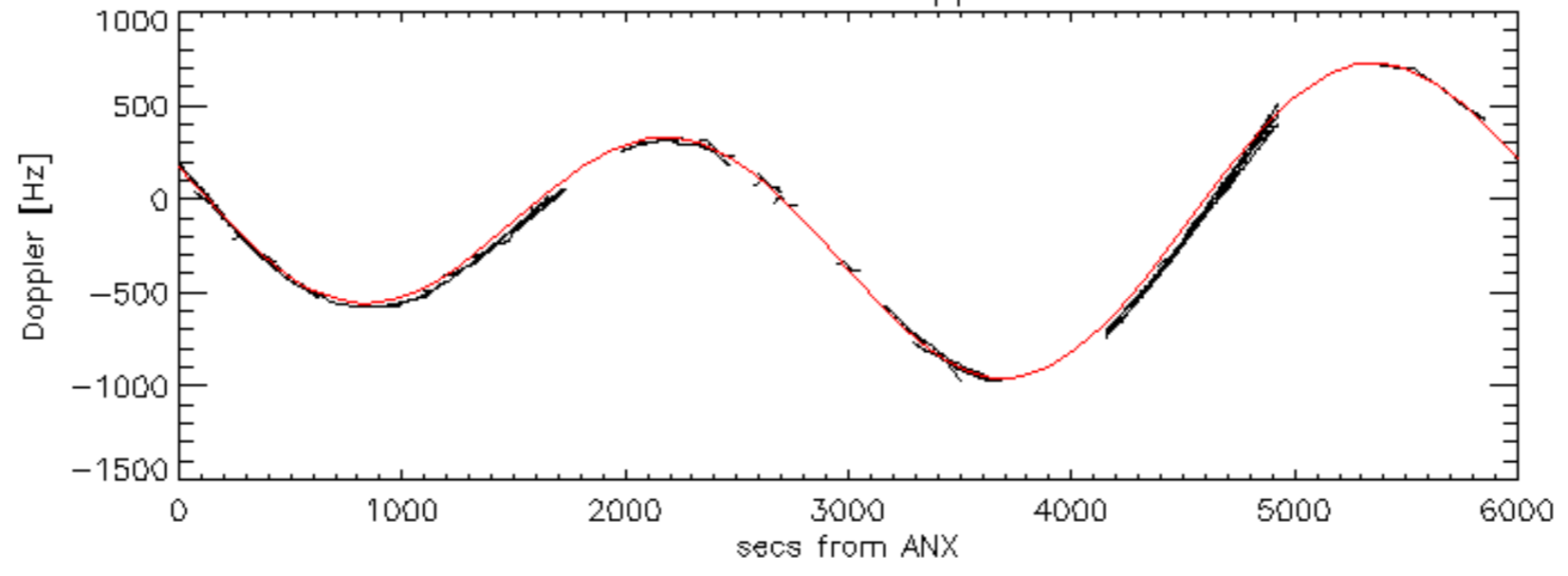
Doppler 'WVS' 'IS2' ascending

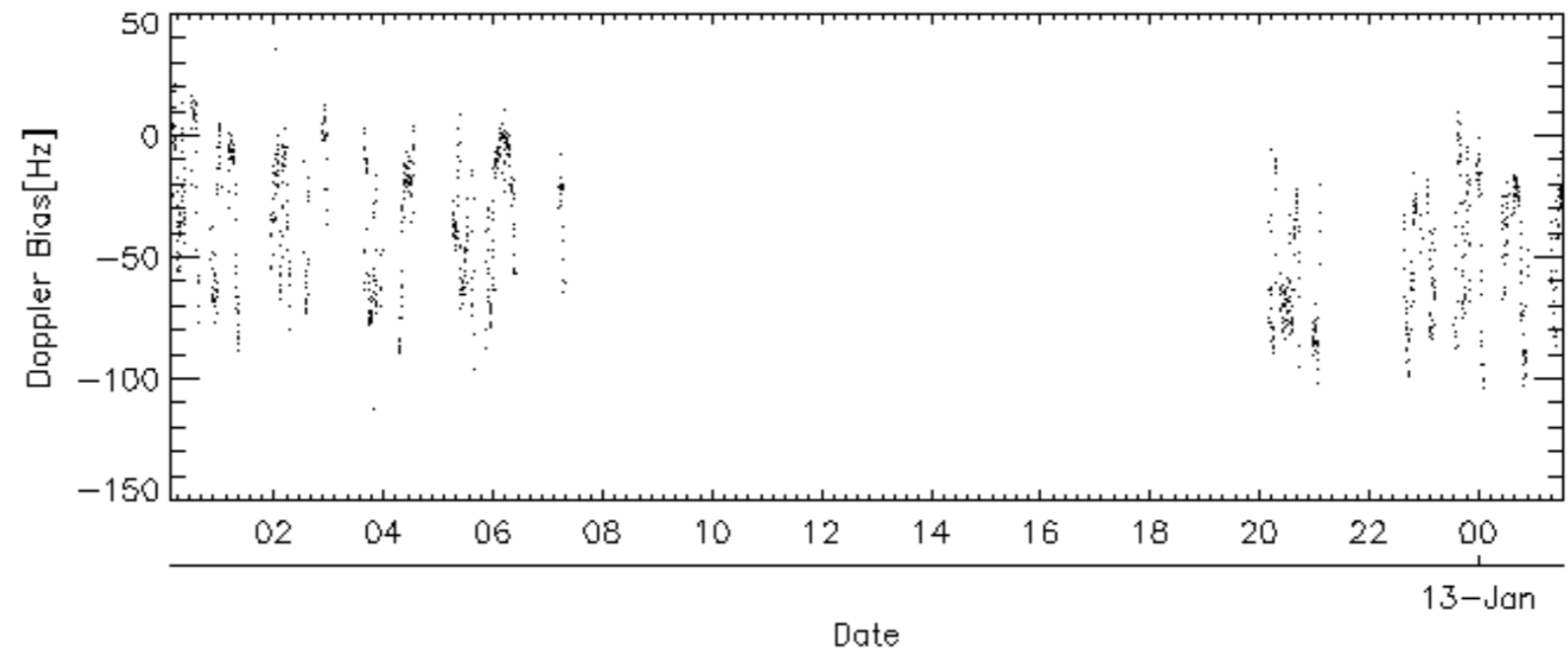
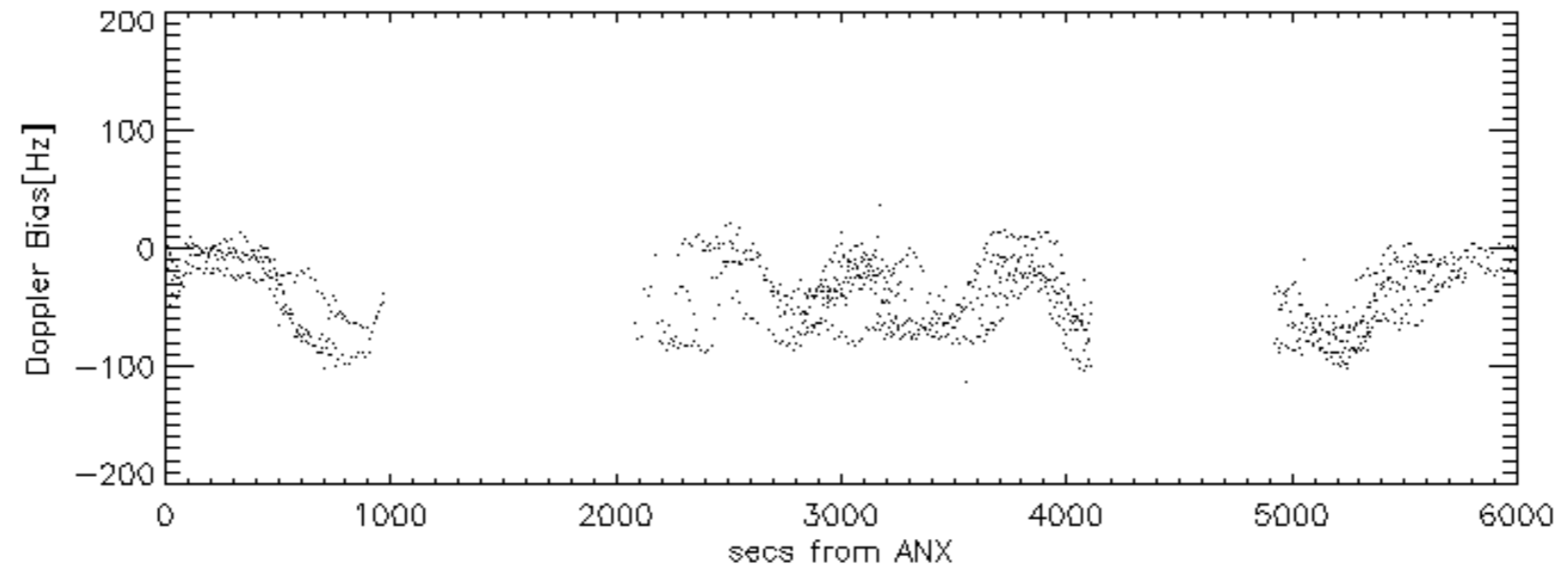
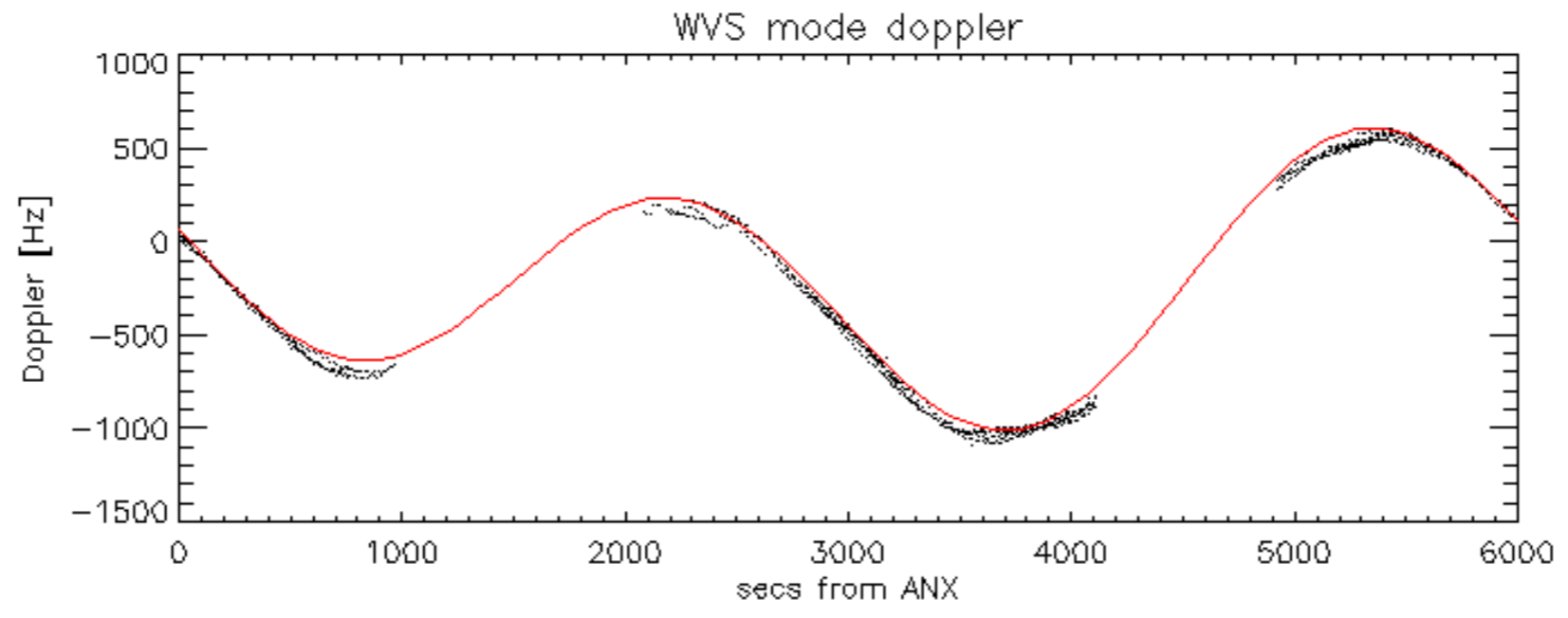


Doppler 'WVS' 'IS2' descending

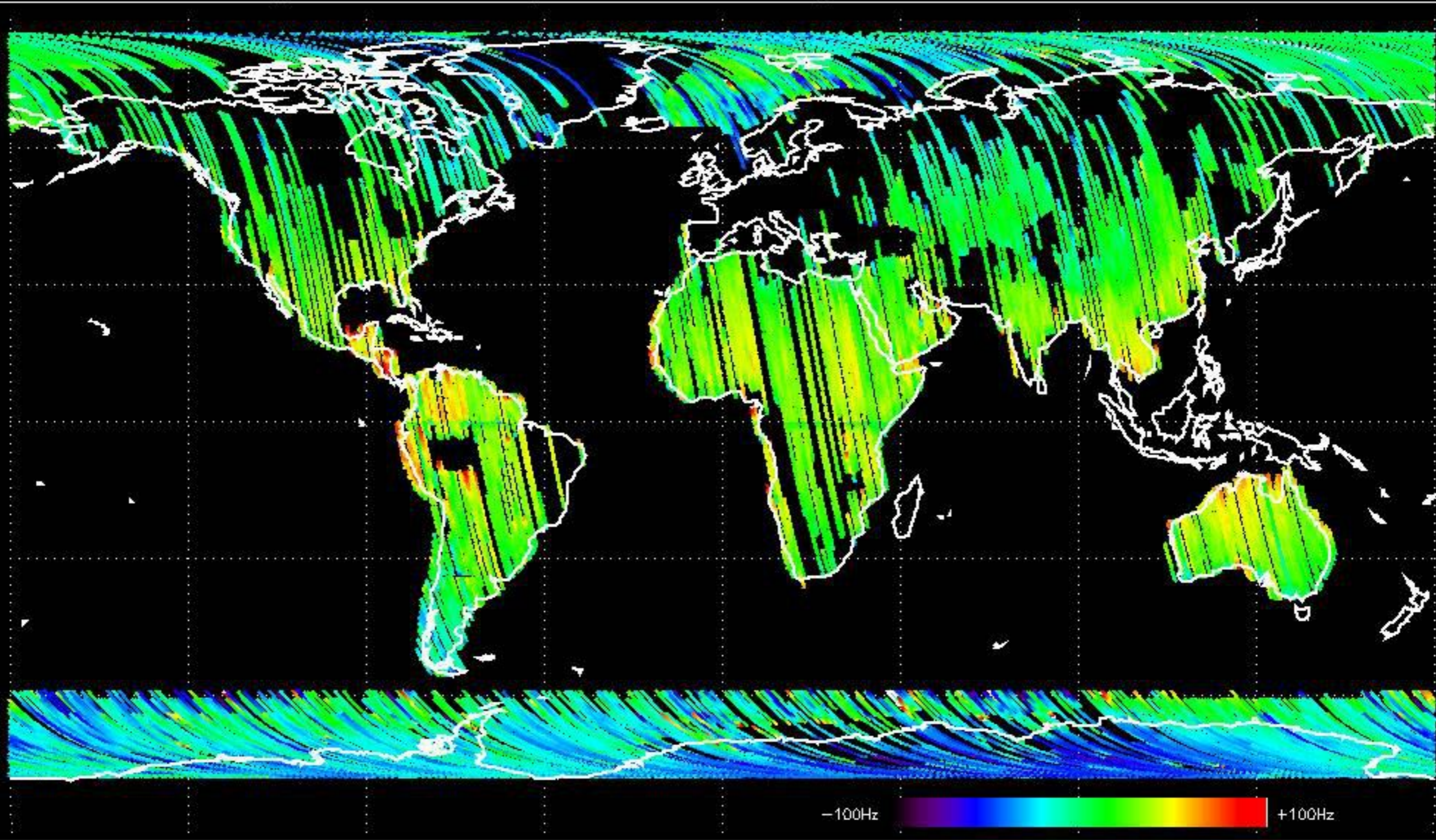


GM1 mode doppler

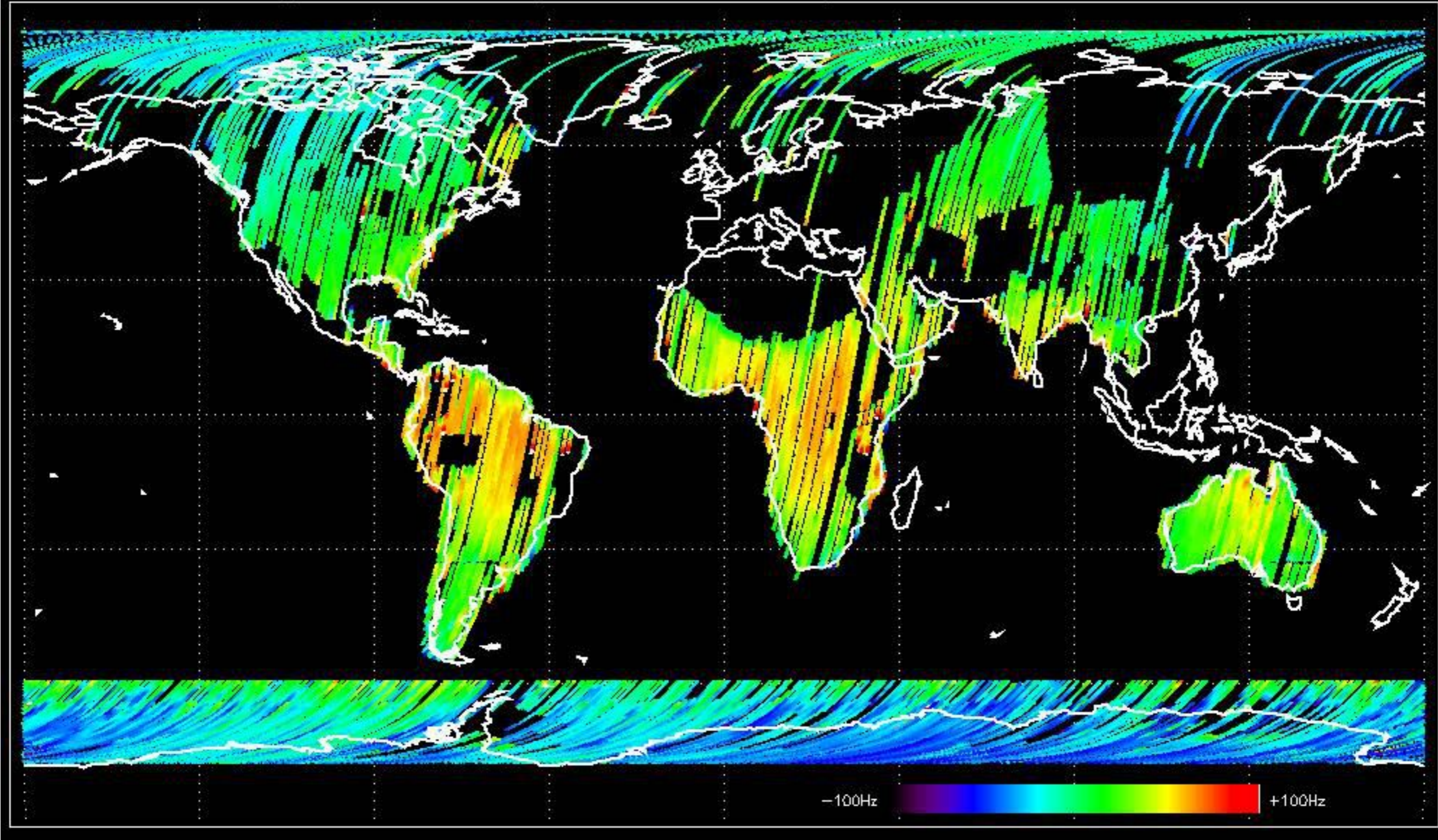




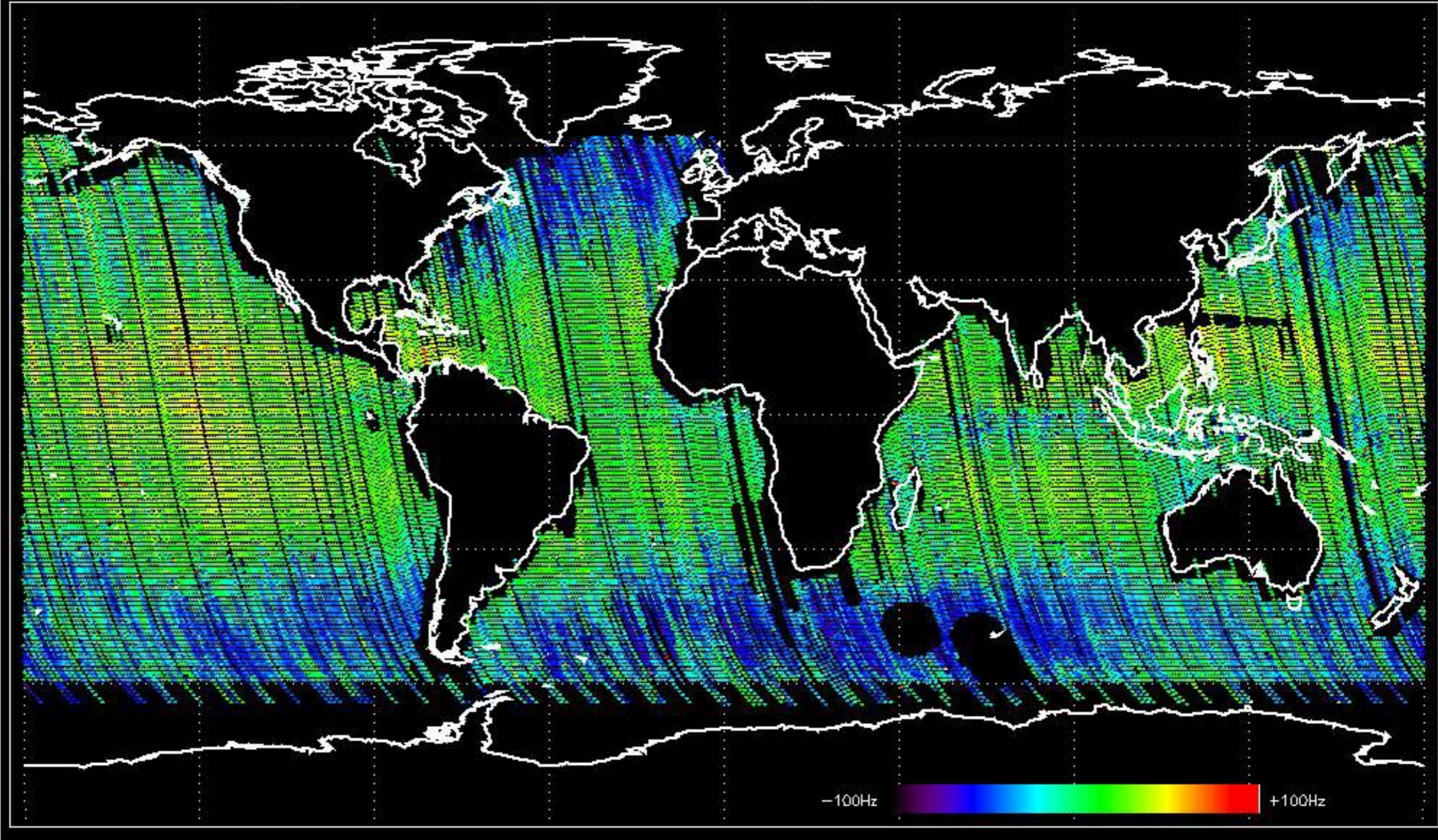
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -33.515700 Hz



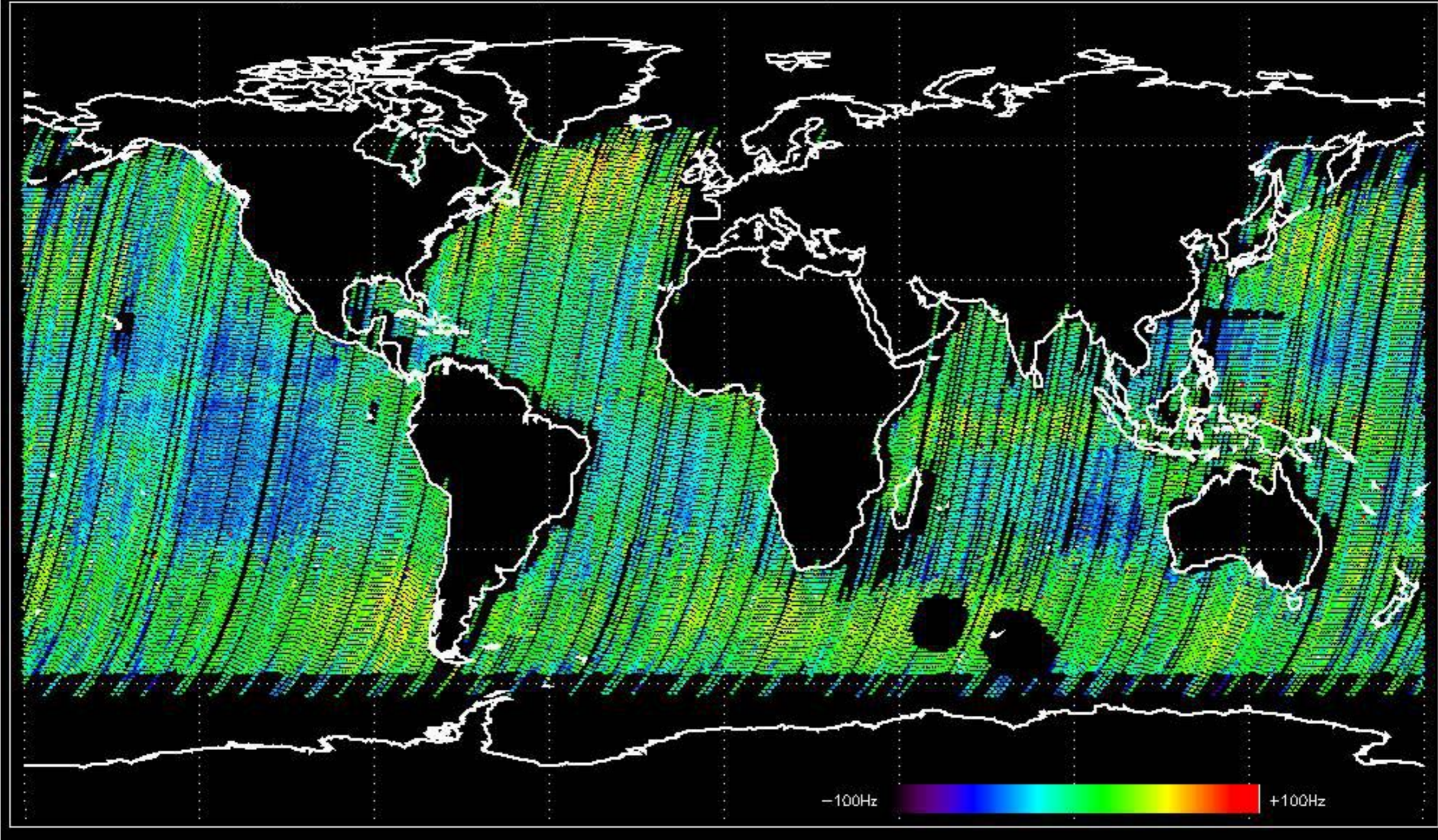
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.829470 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -34.805275 Hz

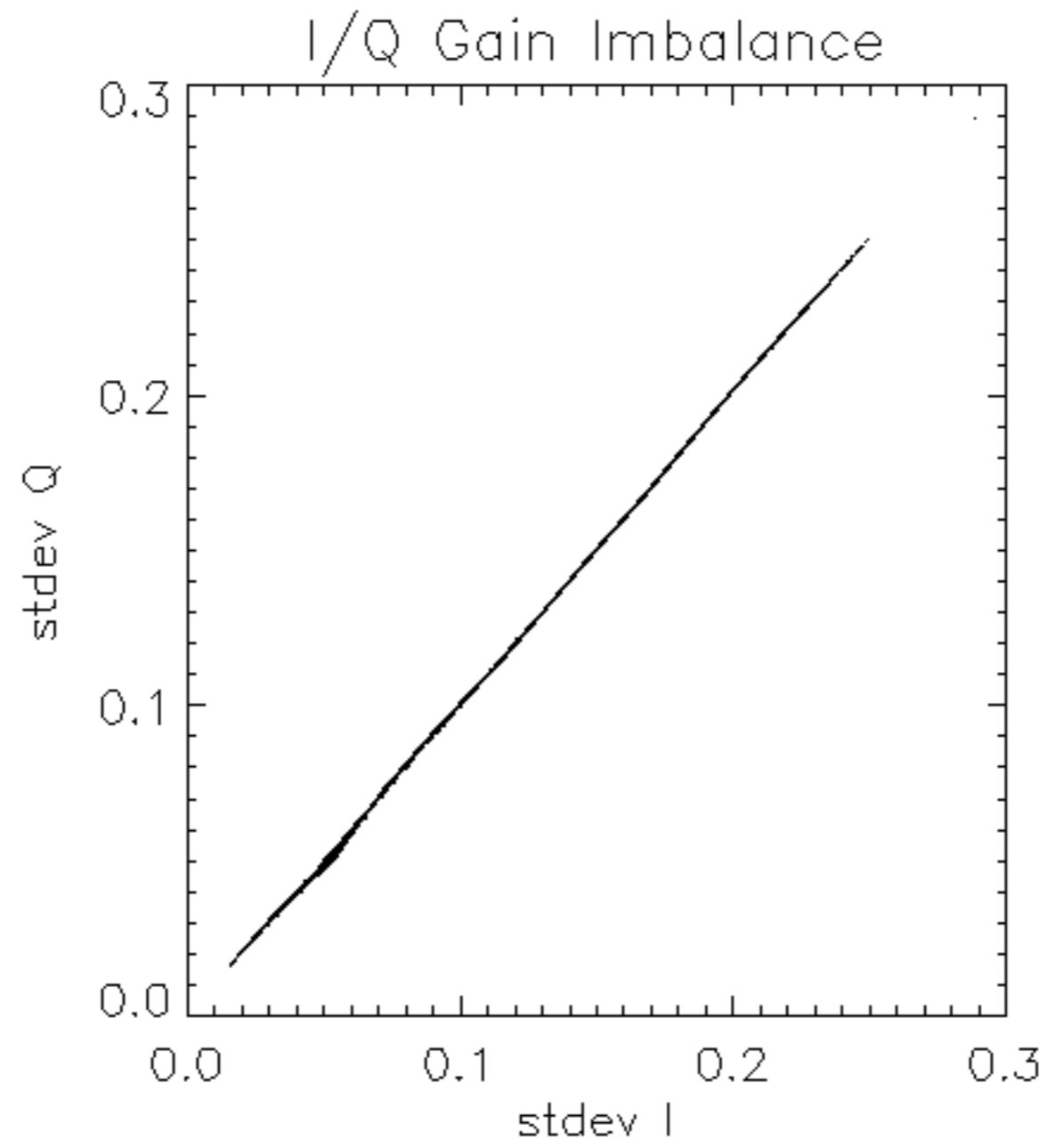


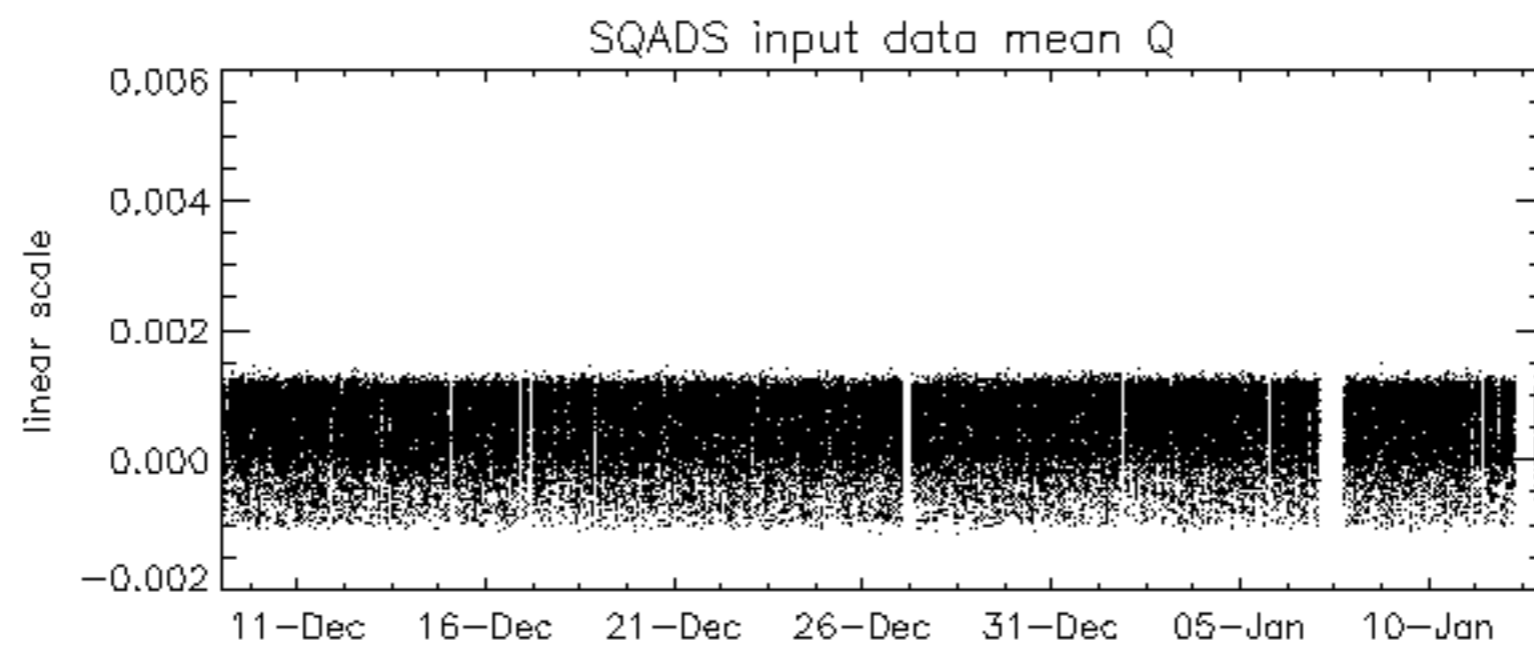
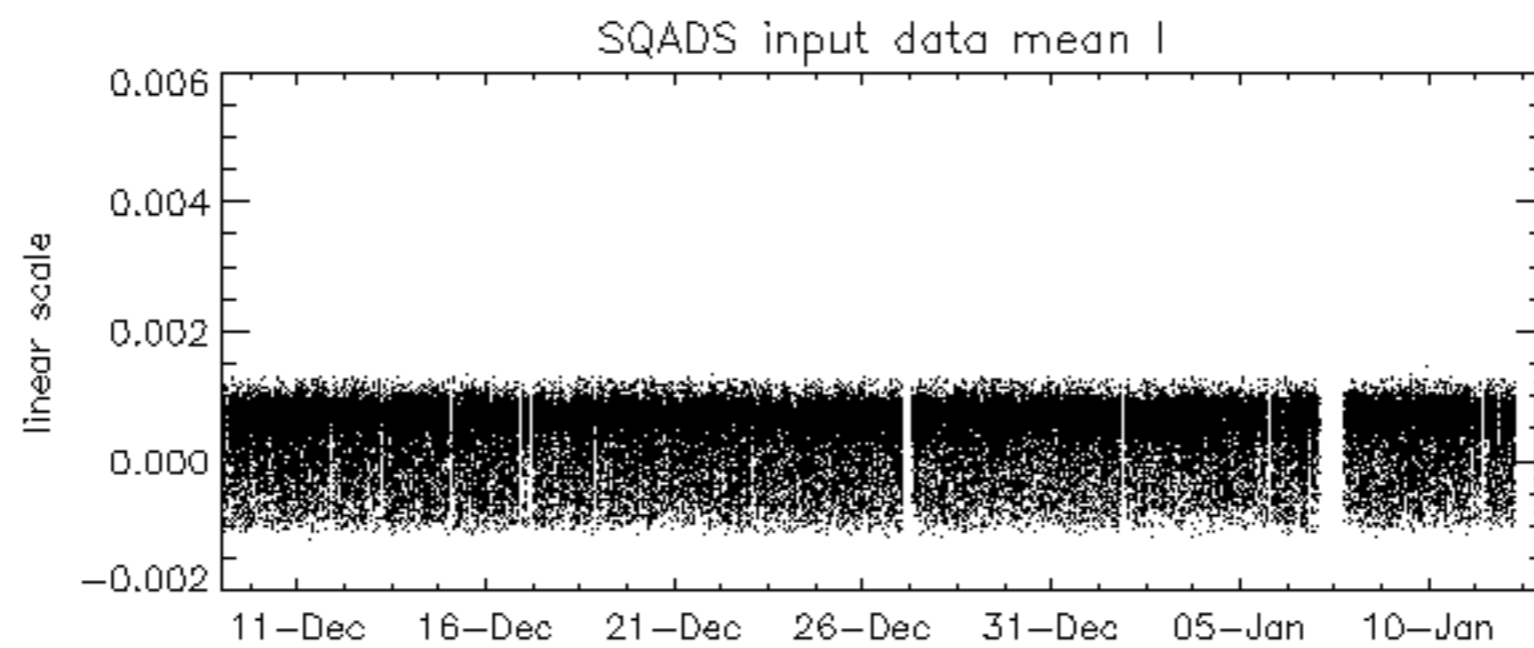
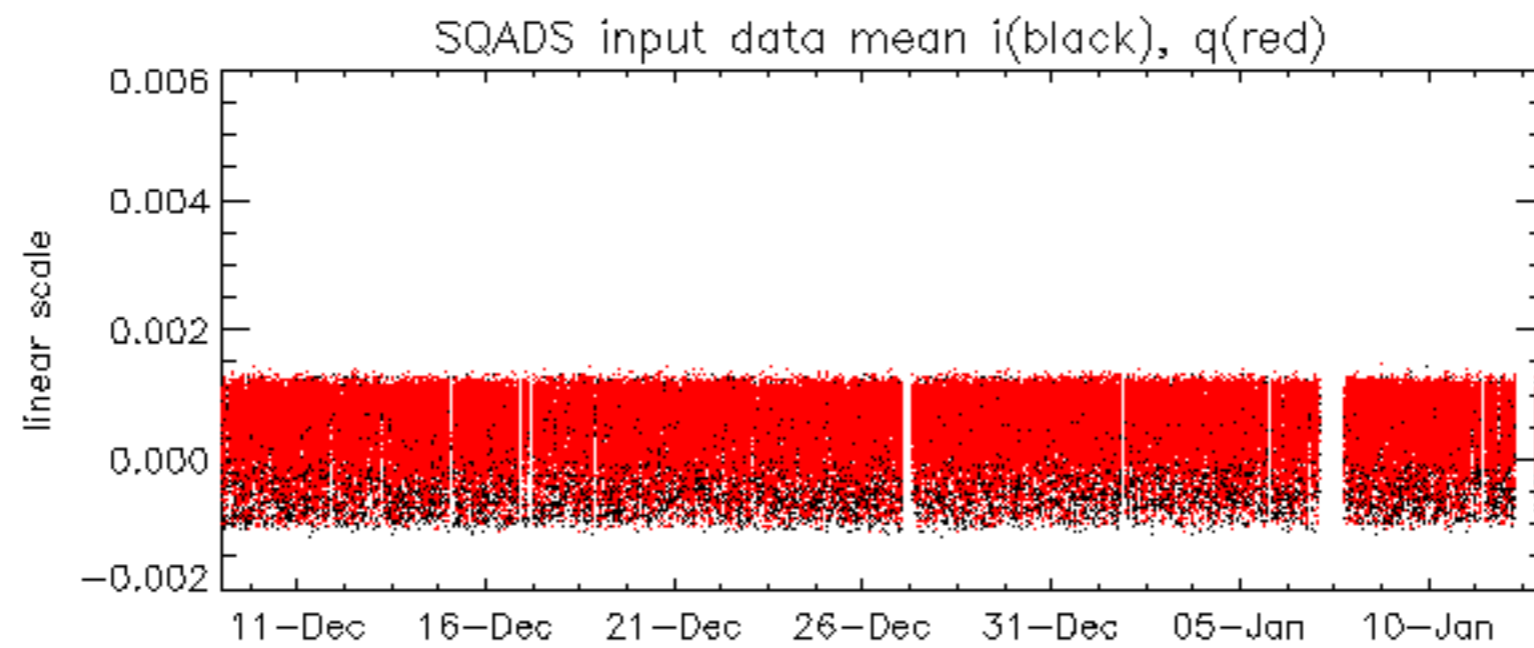
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.133400 Hz

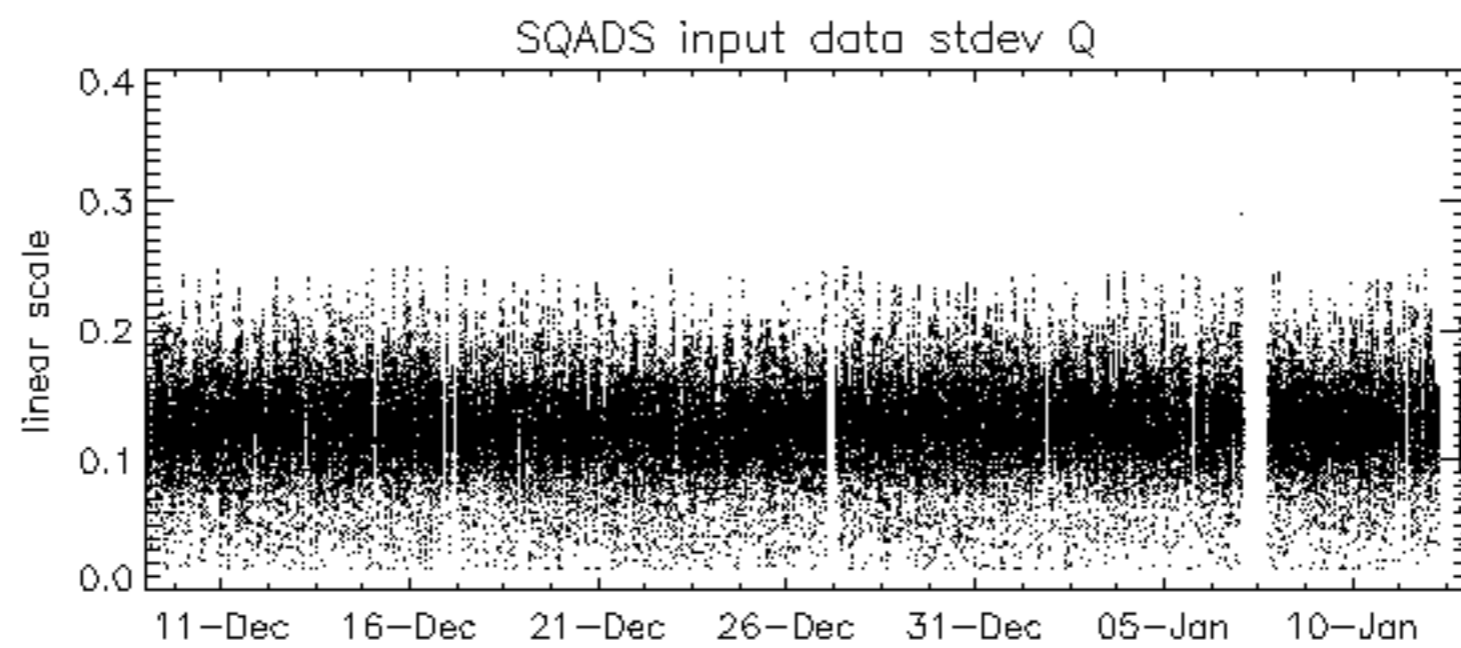
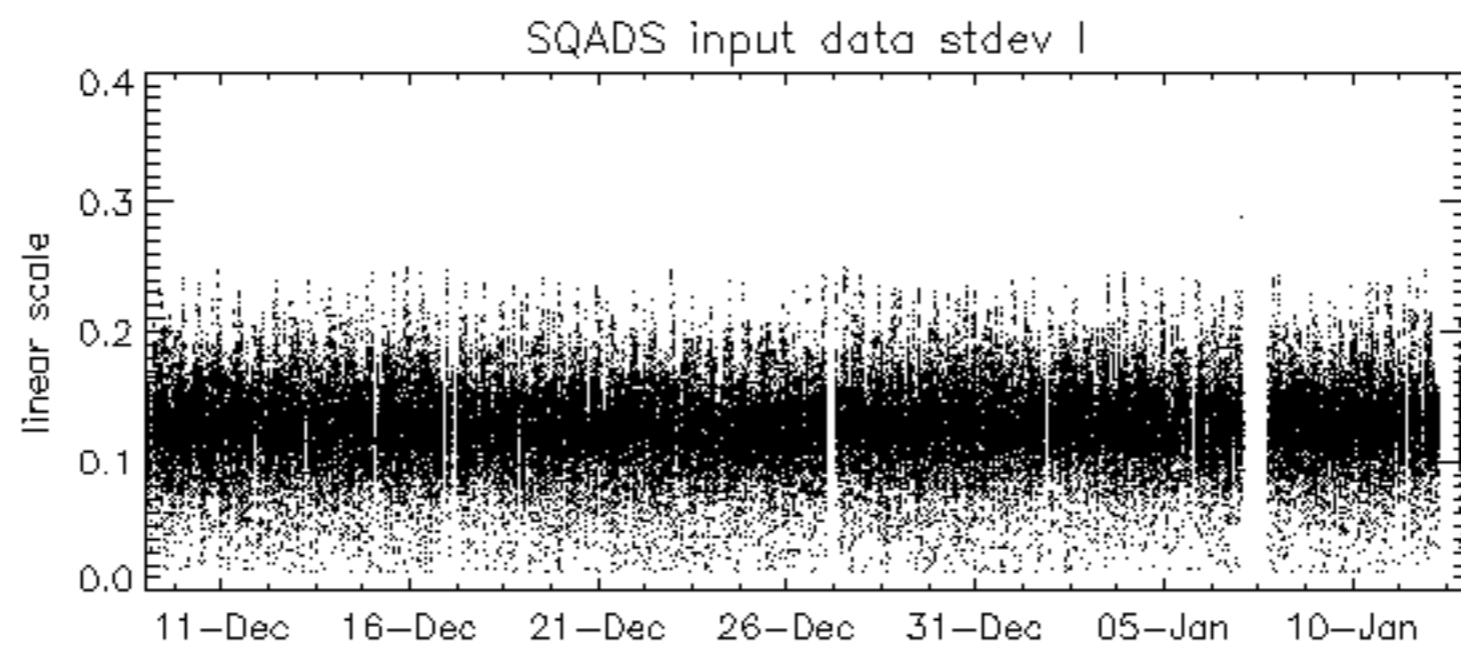
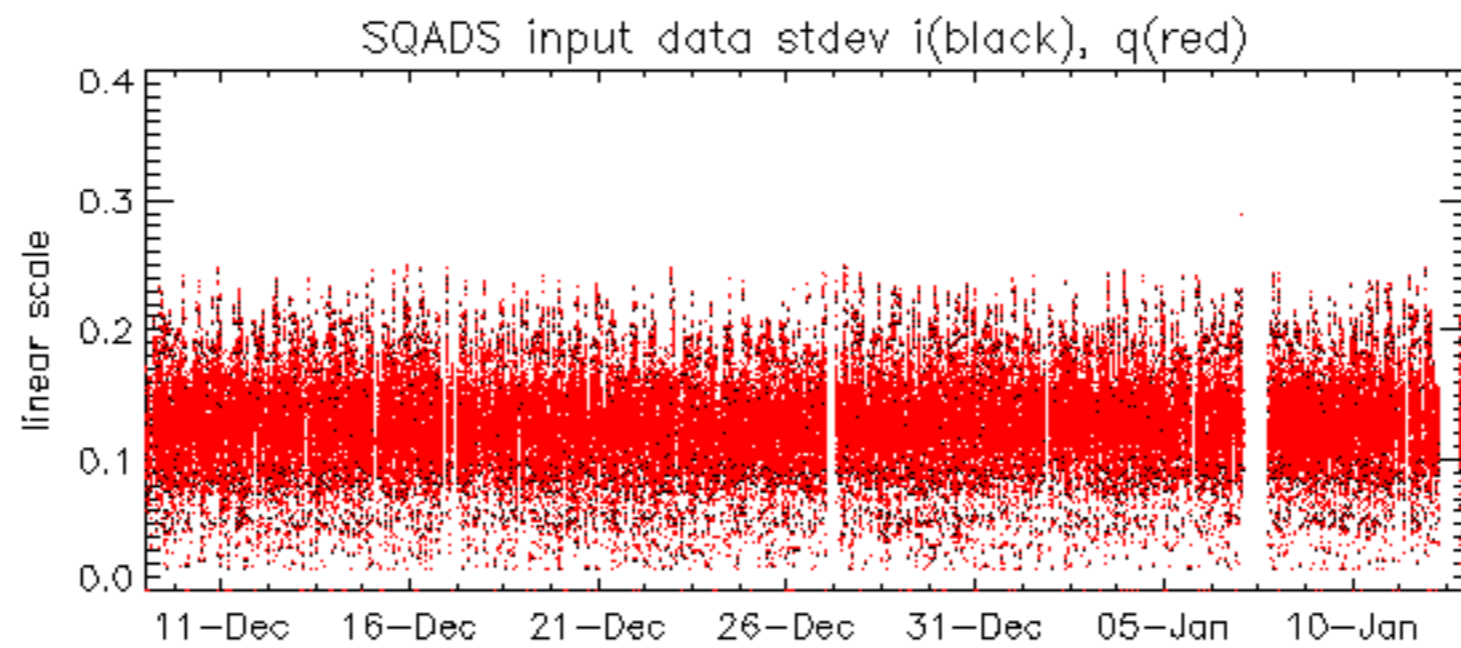


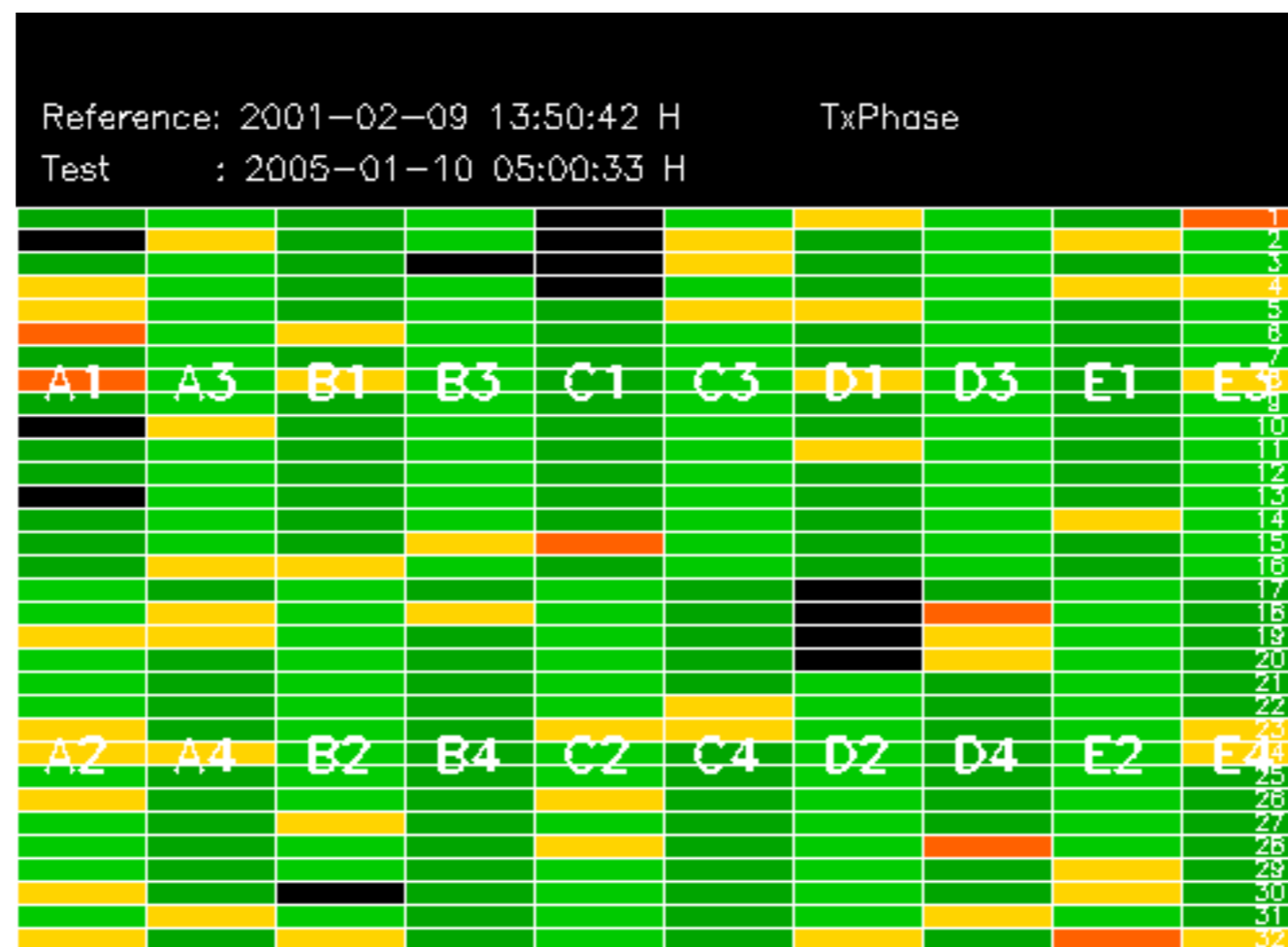
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

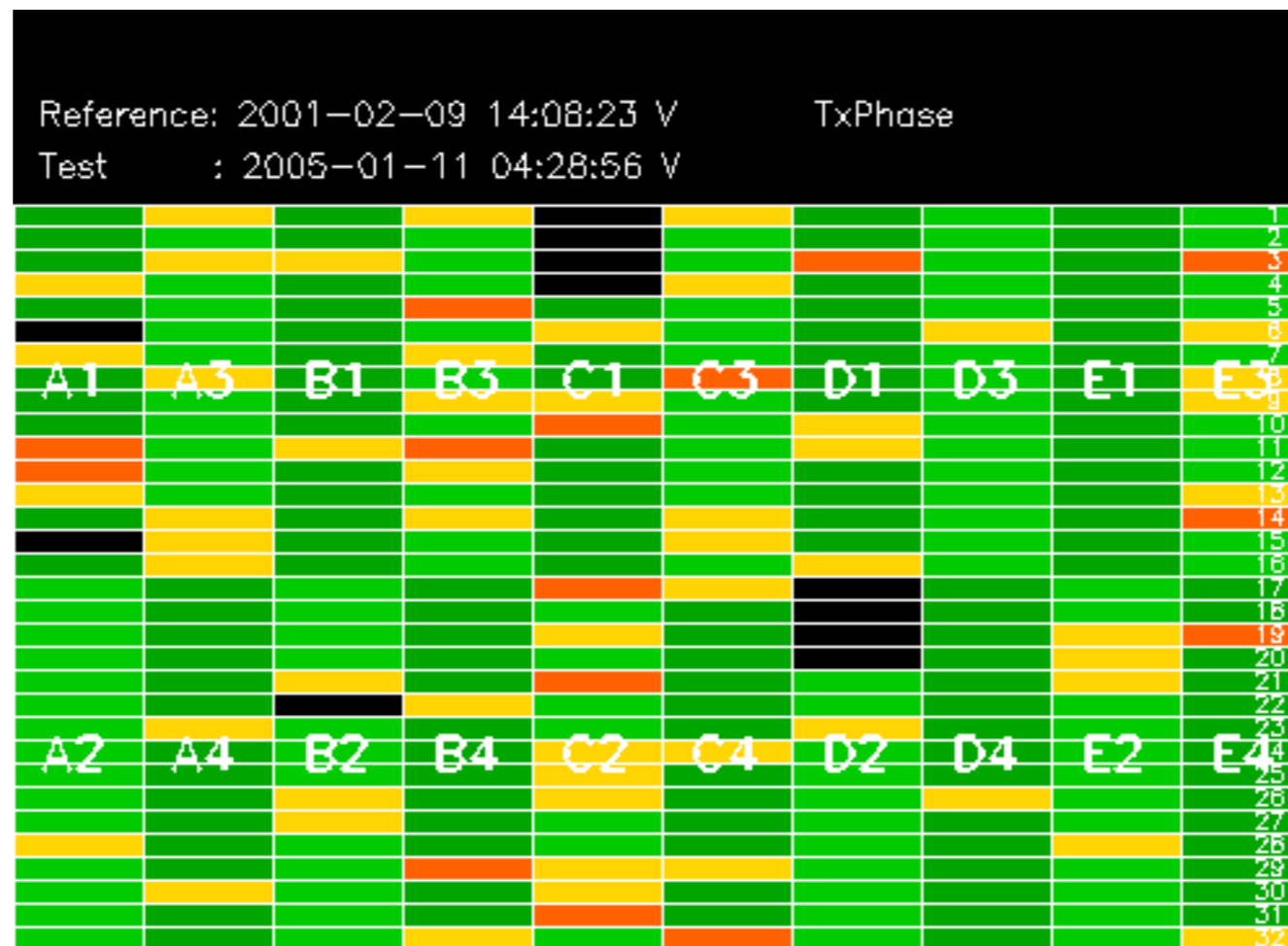
No anomalies observed.

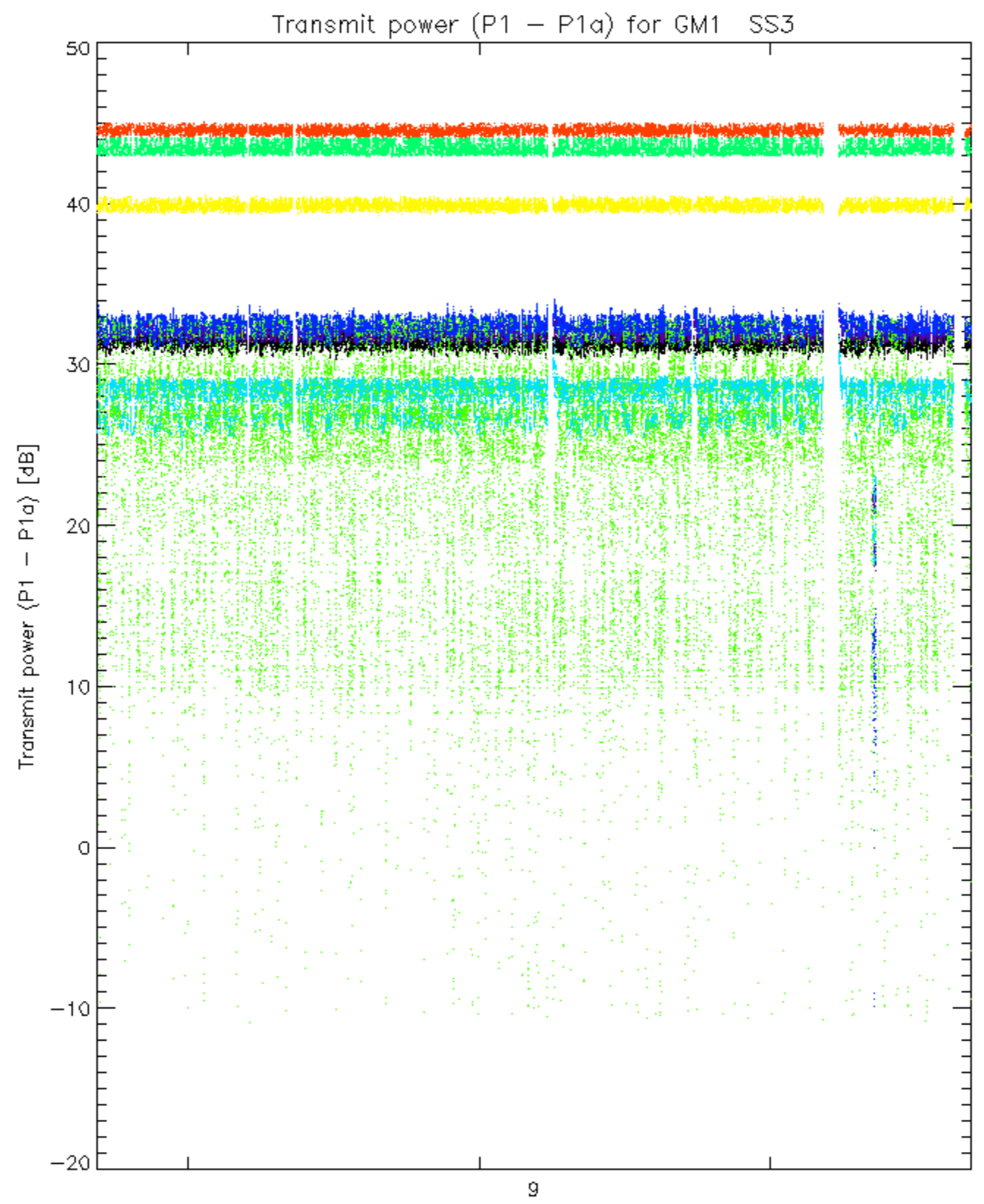




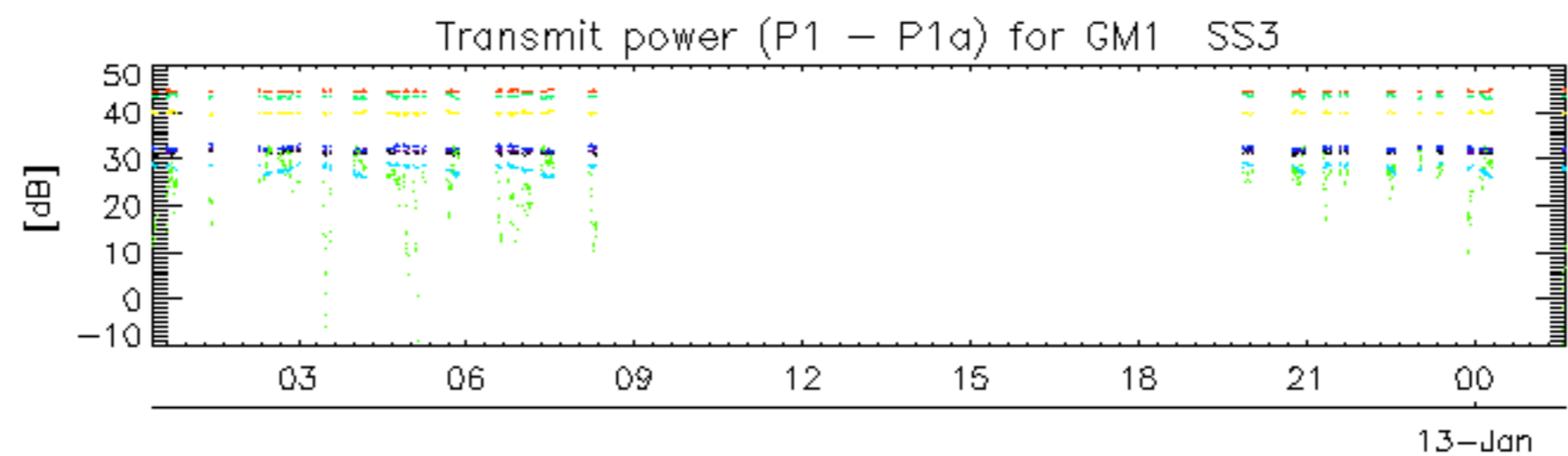




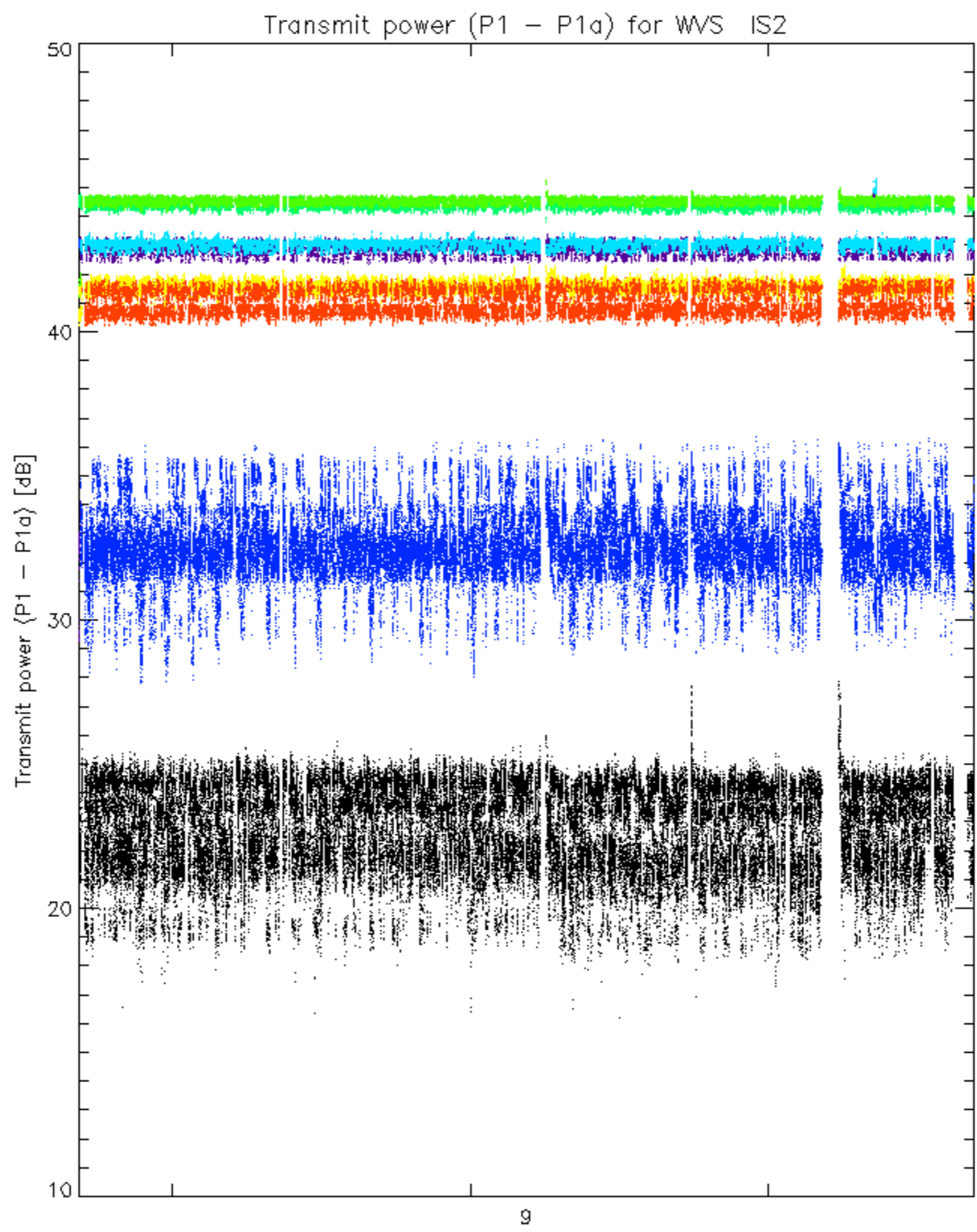




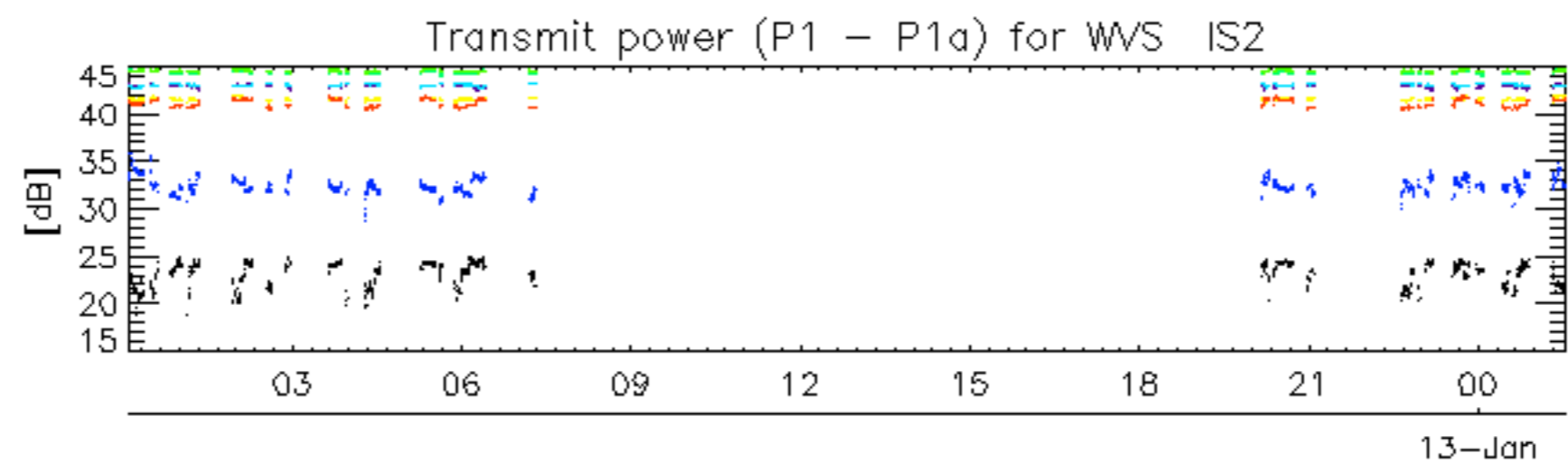
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rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.