

PRELIMINARY REPORT OF 041223

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

last update on Thu Dec 23 10:59:08 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), 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 2004-12-22 00:00:00 to 2004-12-23 10:59:08

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	30	55	2	1	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	30	55	2	1	0
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	30	55	2	1	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	30	55	2	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	36	48	4	6	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	36	48	4	6	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	36	48	4	6	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	36	48	4	6	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	20041221 085030
H	20041222 081853

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	-3.462162	0.028799	0.013542
7	P1	-3.099327	0.024809	0.001063
11	P1	-4.640590	0.045711	-0.035244
15	P1	-5.663872	0.038091	-0.022624
19	P1	-3.646743	0.005833	-0.036828
22	P1	-4.578146	0.016813	-0.005427
26	P1	-4.935890	0.023982	0.007510
30	P1	-7.108014	0.013759	-0.048862
3	P1	-15.956986	0.113951	0.064390
7	P1	-15.510593	0.163656	0.028076
11	P1	-20.723513	0.534829	-0.221590
15	P1	-11.624928	0.093626	0.023902
19	P1	-14.145718	0.031301	-0.050068
22	P1	-16.114155	0.464182	0.064161
26	P1	-17.774969	0.256797	0.047887
30	P1	-17.905928	0.306710	0.040270

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.363342	0.085094	0.016033
7	P2	-22.588810	0.167656	0.020755
11	P2	-14.929787	0.176910	0.139263
15	P2	-7.169731	0.115228	0.017178
19	P2	-9.731713	0.201182	0.061987
22	P2	-17.189526	0.098680	0.048752
26	P2	-16.530312	0.114317	0.003392

30	P2	-18.985640	0.082860	0.089719
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P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.211202	0.006940	-0.017669
7	P3	-8.211158	0.006939	-0.017927
11	P3	-8.211185	0.006940	-0.017769
15	P3	-8.211143	0.006940	-0.018045
19	P3	-8.211136	0.006940	-0.018063
22	P3	-8.211142	0.006939	-0.018018
26	P3	-8.211187	0.006940	-0.017725
30	P3	-8.210936	0.006938	-0.016319

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	-2.846035	0.111787	-0.039443
7	P1	-2.979112	0.064793	-0.005511
11	P1	-3.942416	0.049025	-0.015626
15	P1	-3.519378	0.079021	-0.005044
19	P1	-3.603308	0.012741	-0.031286
22	P1	-5.614889	0.069298	-0.005972
26	P1	-6.507287	0.023348	-0.053525
30	P1	-6.301562	0.042487	-0.044677
3	P1	-10.675817	0.059150	-0.200506
7	P1	-10.110107	0.156304	-0.082361
11	P1	-12.413988	0.199639	-0.057157

15	P1	-11.726688	0.099595	0.005657
19	P1	-15.634017	0.048747	-0.057557
22	P1	-24.104313	2.134645	-0.168958
26	P1	-15.069474	0.385711	0.042093
30	P1	-20.141136	0.925358	0.045332

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.043678	0.034689	0.028096
7	P2	-22.634237	0.028916	0.082259
11	P2	-10.723324	0.032255	0.159422
15	P2	-5.063368	0.023193	-0.018824
19	P2	-6.967618	0.032794	-0.021506
22	P2	-7.318642	0.025371	0.048366
26	P2	-23.961430	0.018167	-0.031230
30	P2	-22.042534	0.018706	0.074657

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.044469	0.002584	-0.011767
7	P3	-8.044514	0.002594	-0.011470
11	P3	-8.044513	0.002579	-0.011375
15	P3	-8.044438	0.002590	-0.011887
19	P3	-8.044575	0.002592	-0.011661
22	P3	-8.044502	0.002593	-0.011753
26	P3	-8.044596	0.002585	-0.011680
30	P3	-8.044445	0.002577	-0.011752

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	0.000440879
	stdev	2.41777e-07
MEAN Q	mean	0.000502135
	stdev	2.54920e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125617
	stdev	0.000996937
STDEV Q	mean	0.125854
	stdev	0.00100599





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

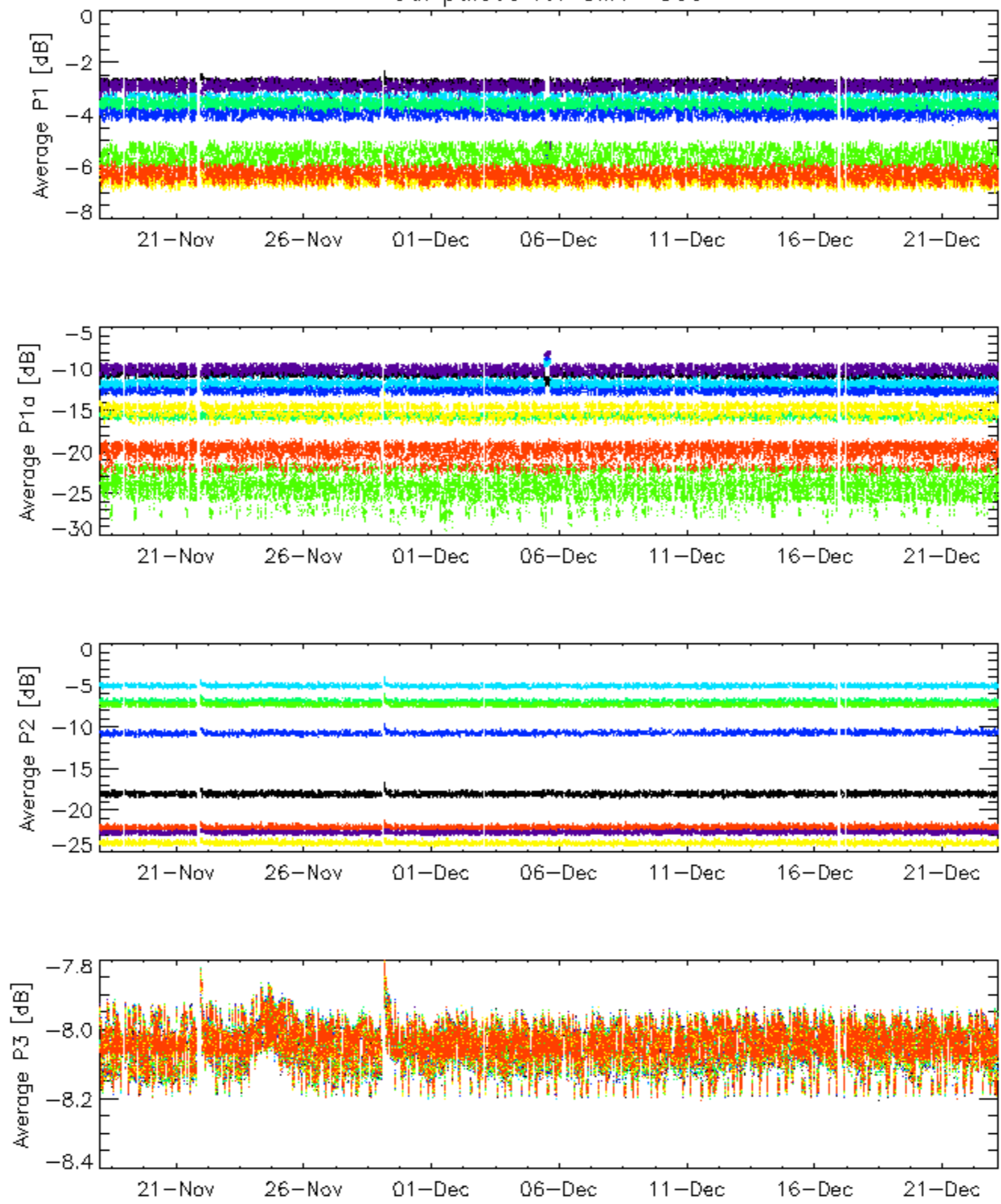
Descending

6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

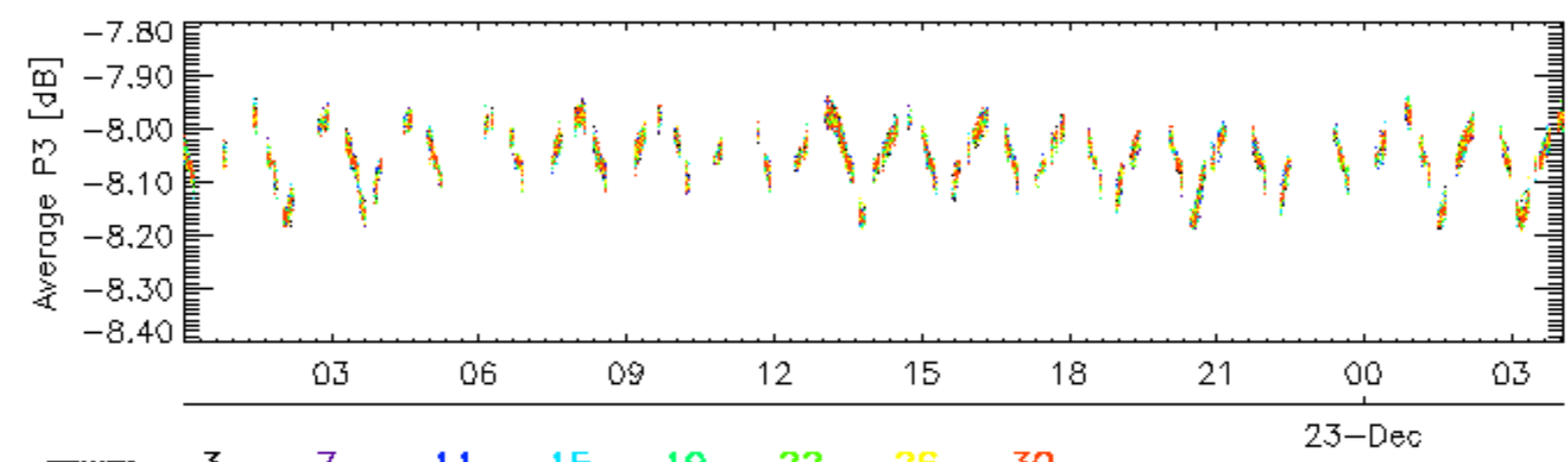
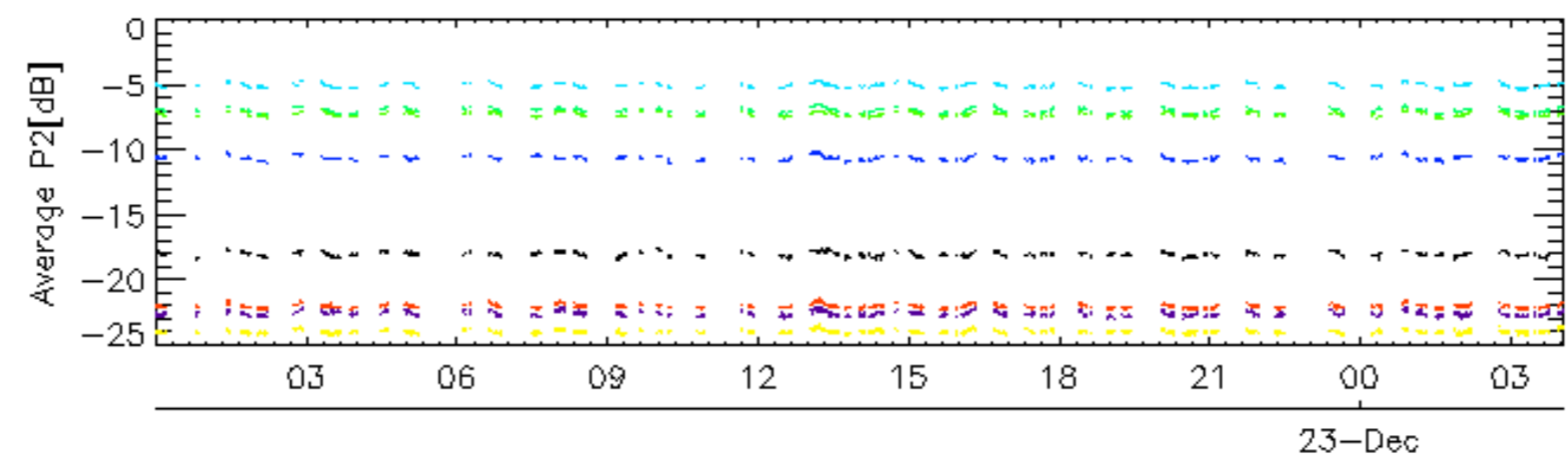
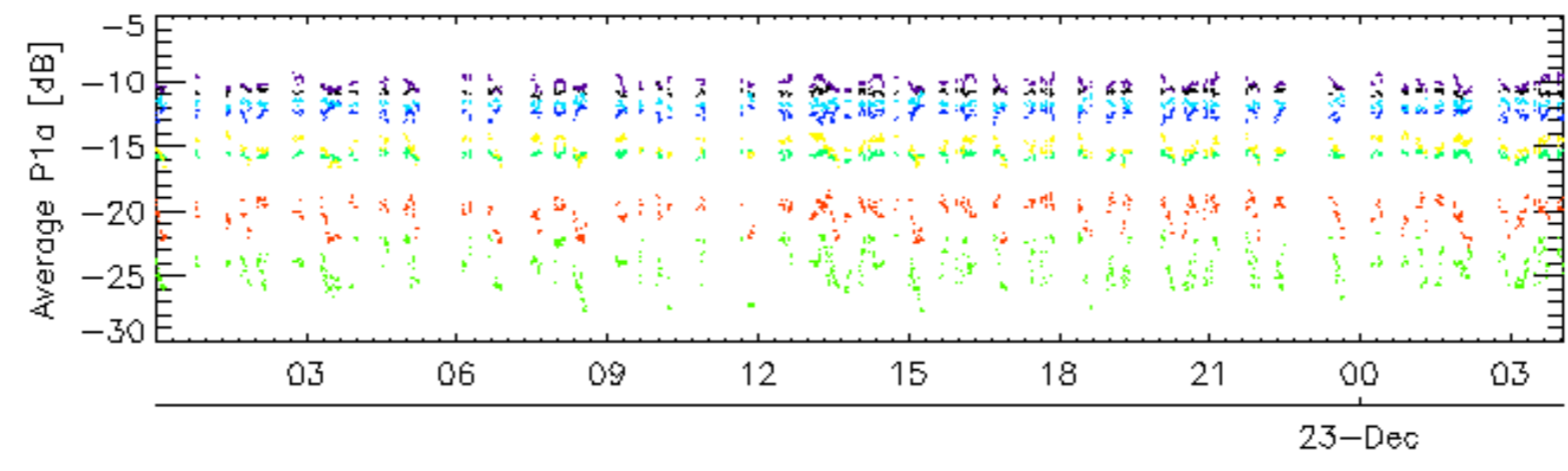
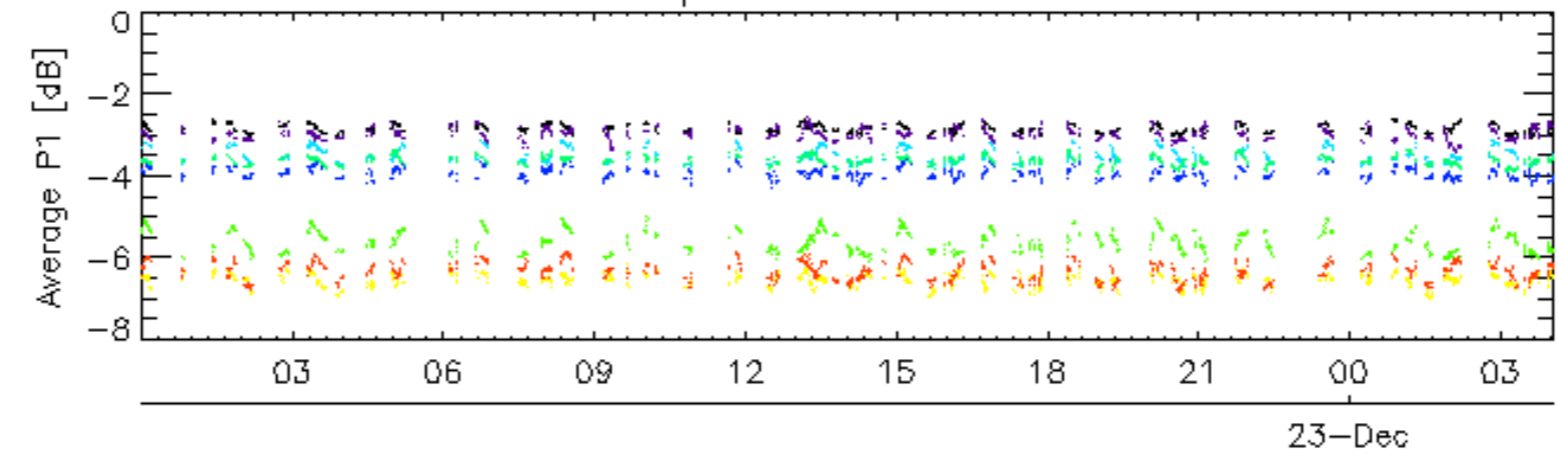


Cal pulses for GM1 SS3



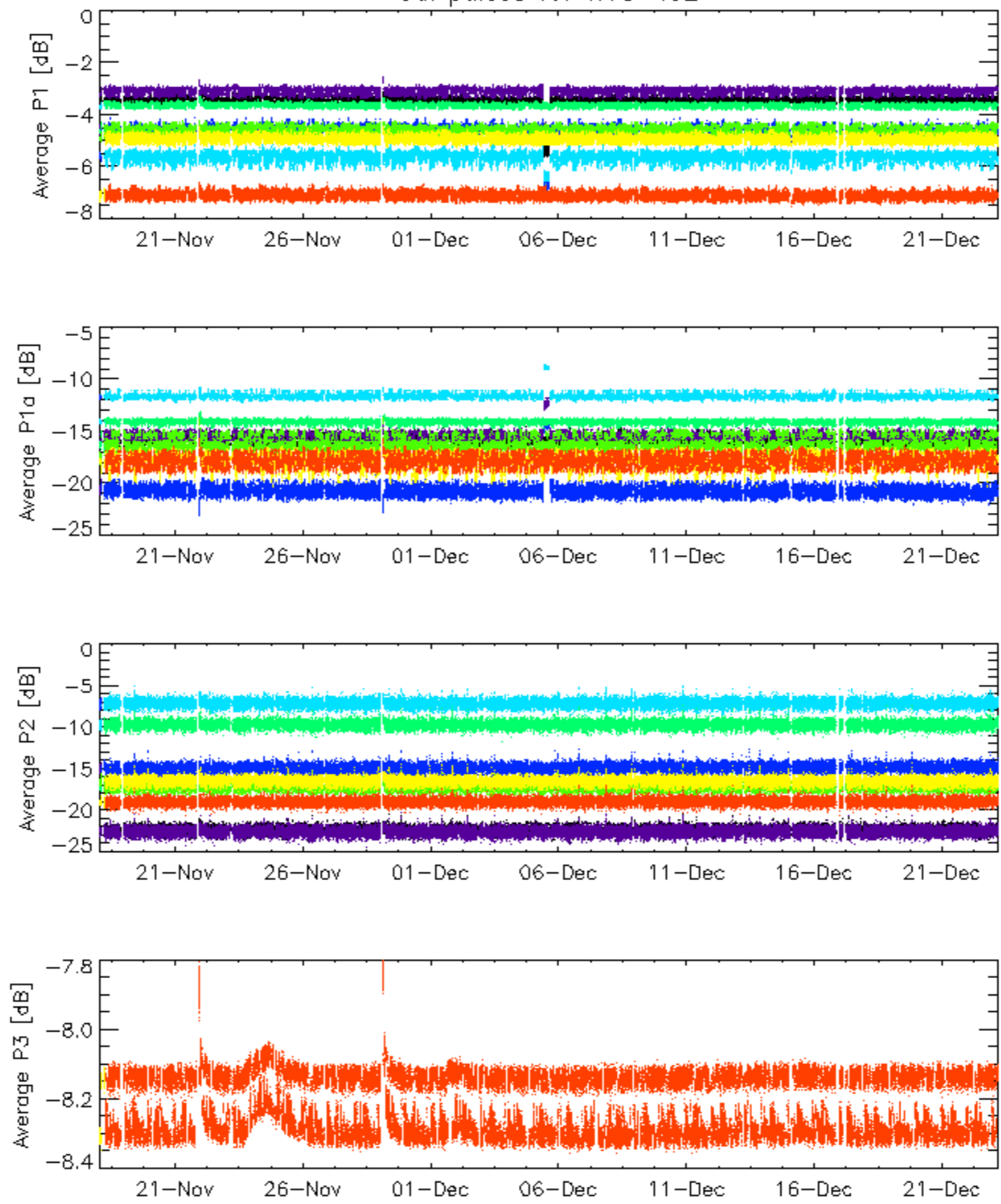
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Cal pulses for GM1 SS3



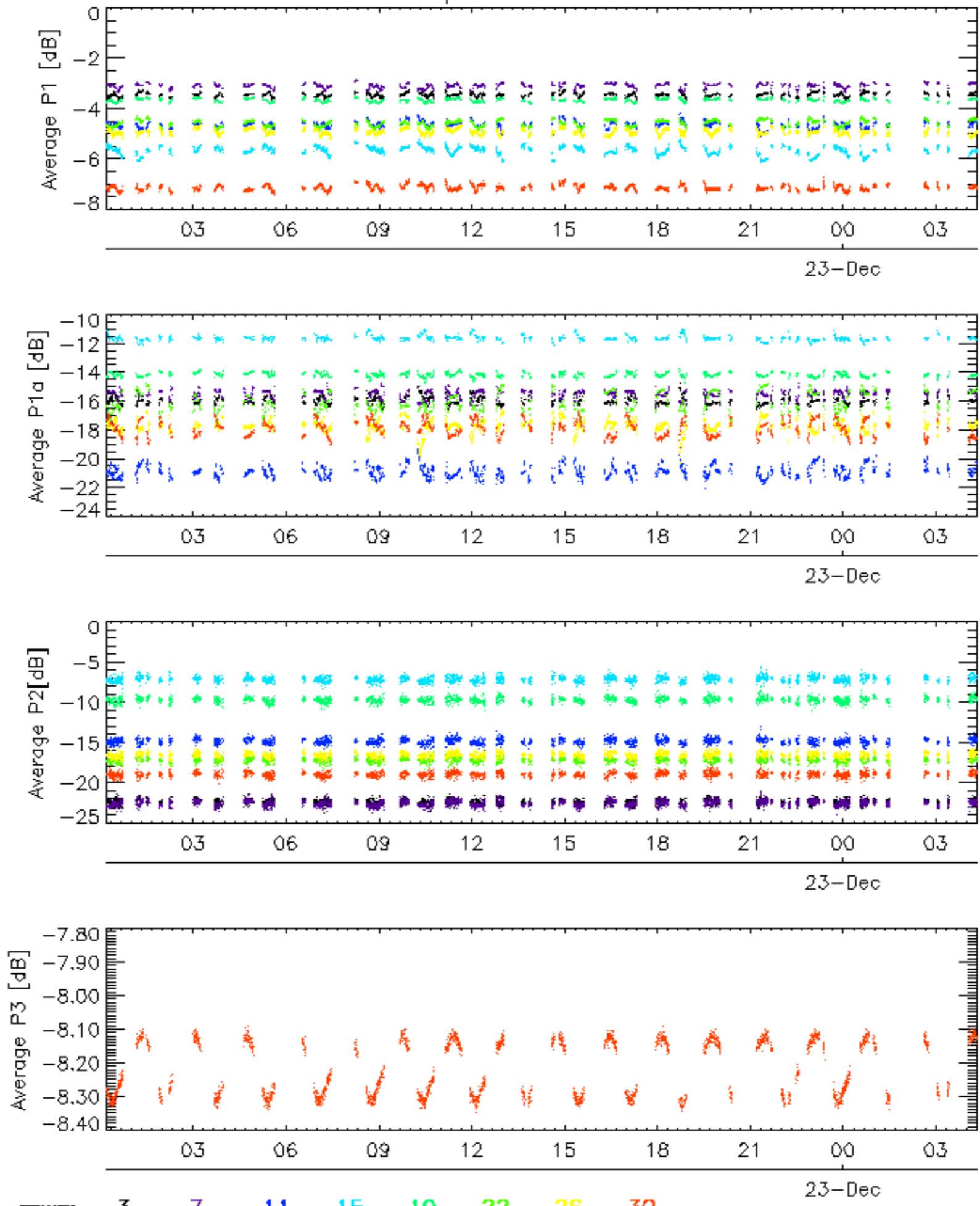
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Cal pulses for WVS IS2

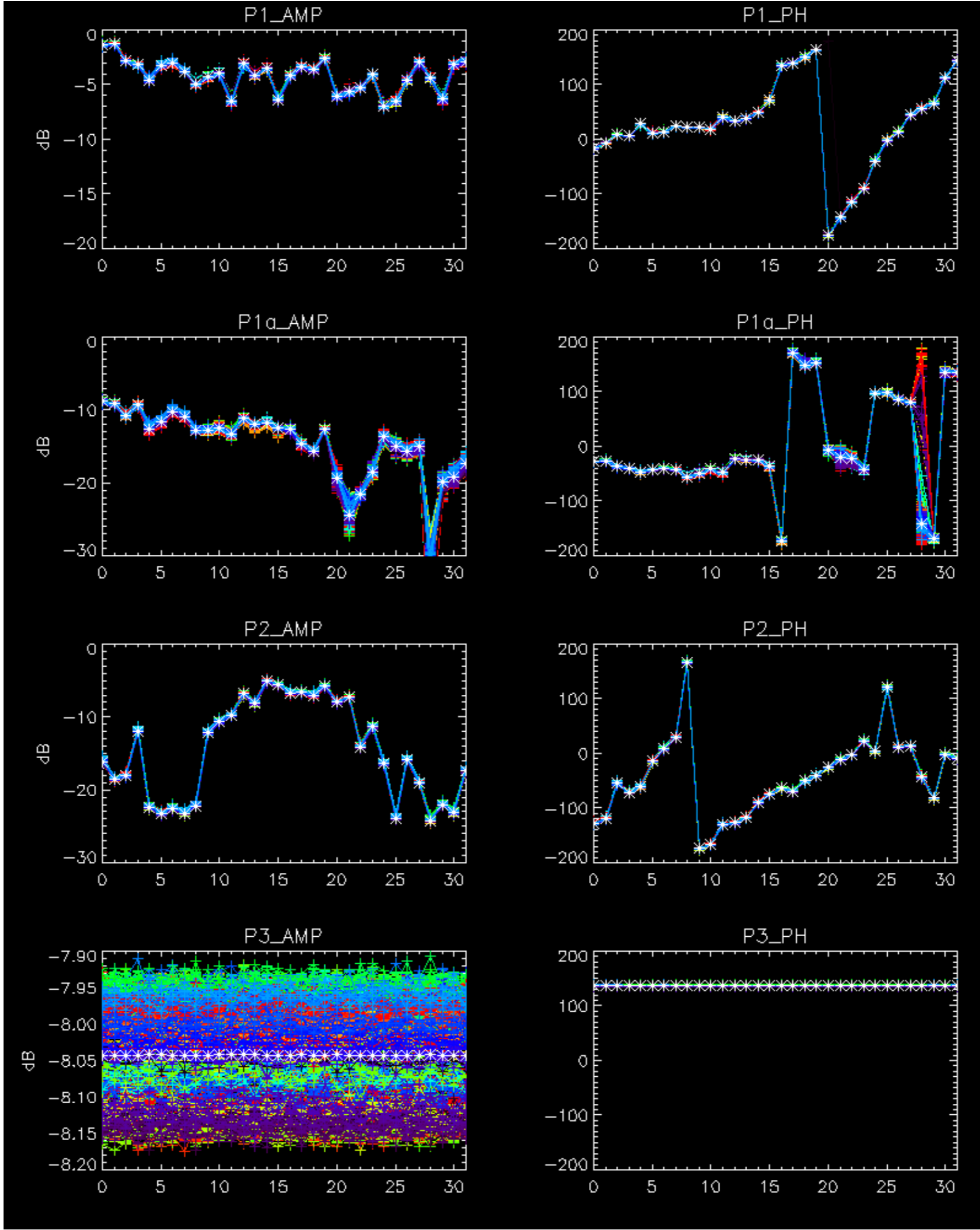


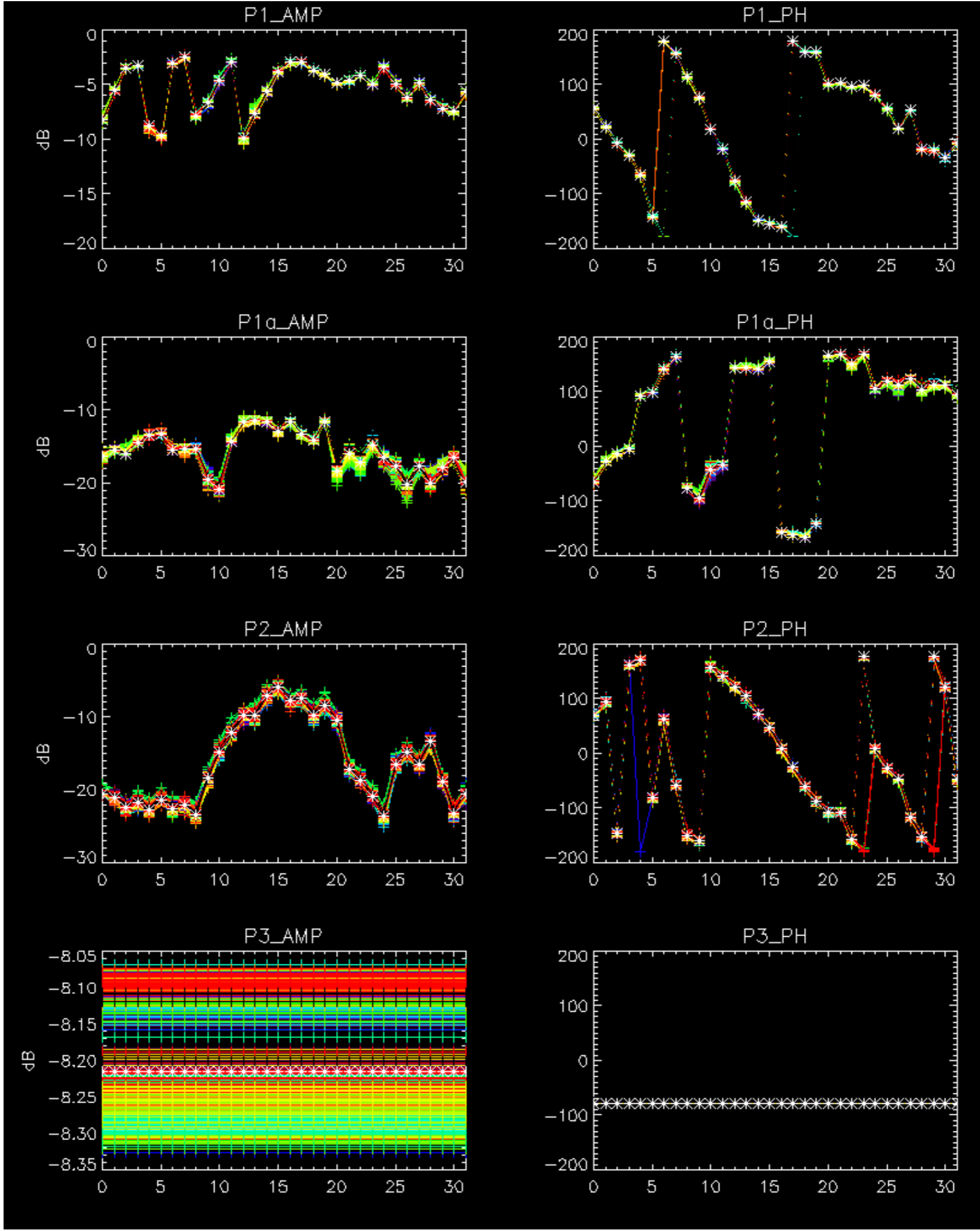
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Cal pulses for WVS IS2



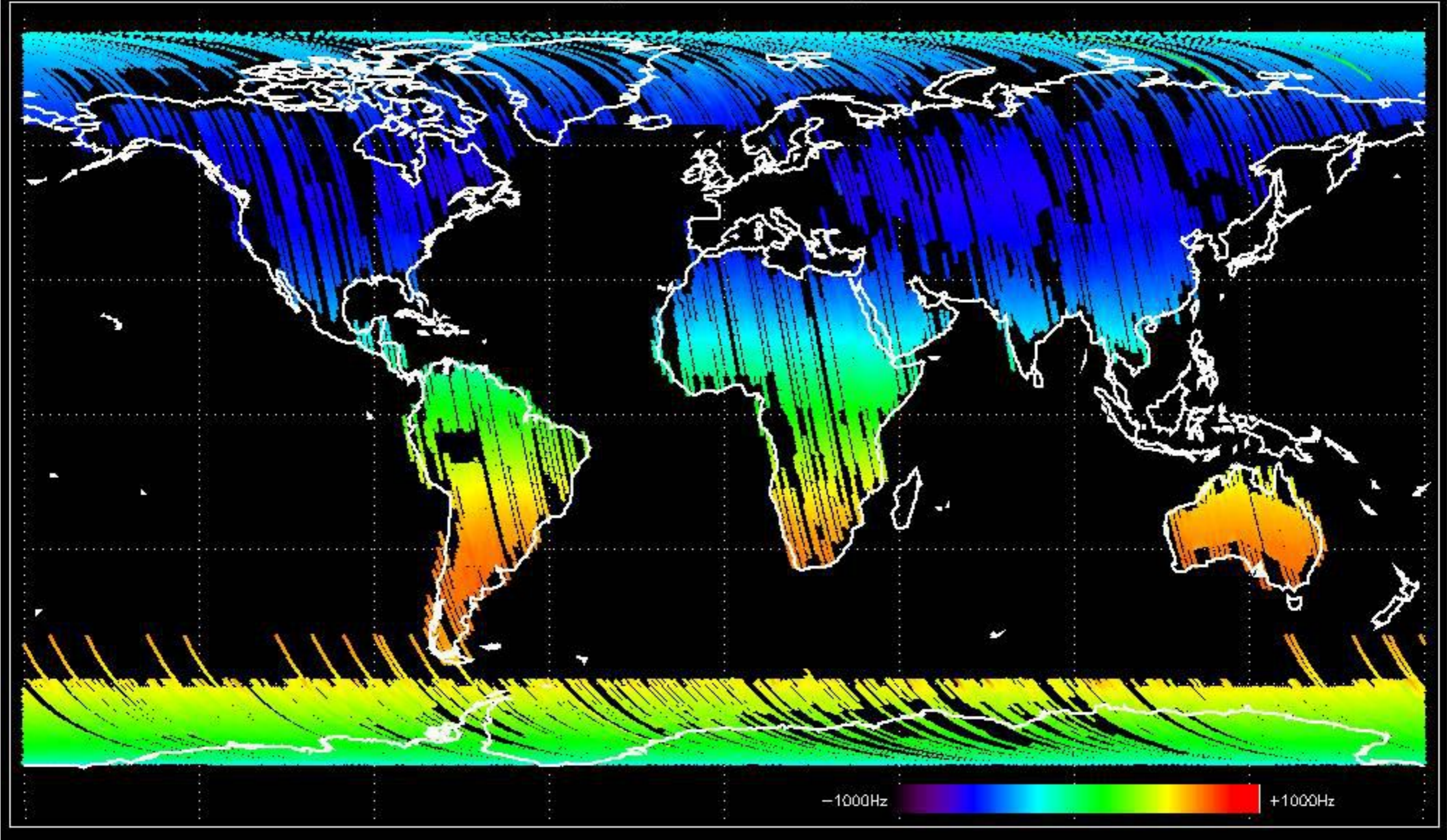
No anomalies observed.



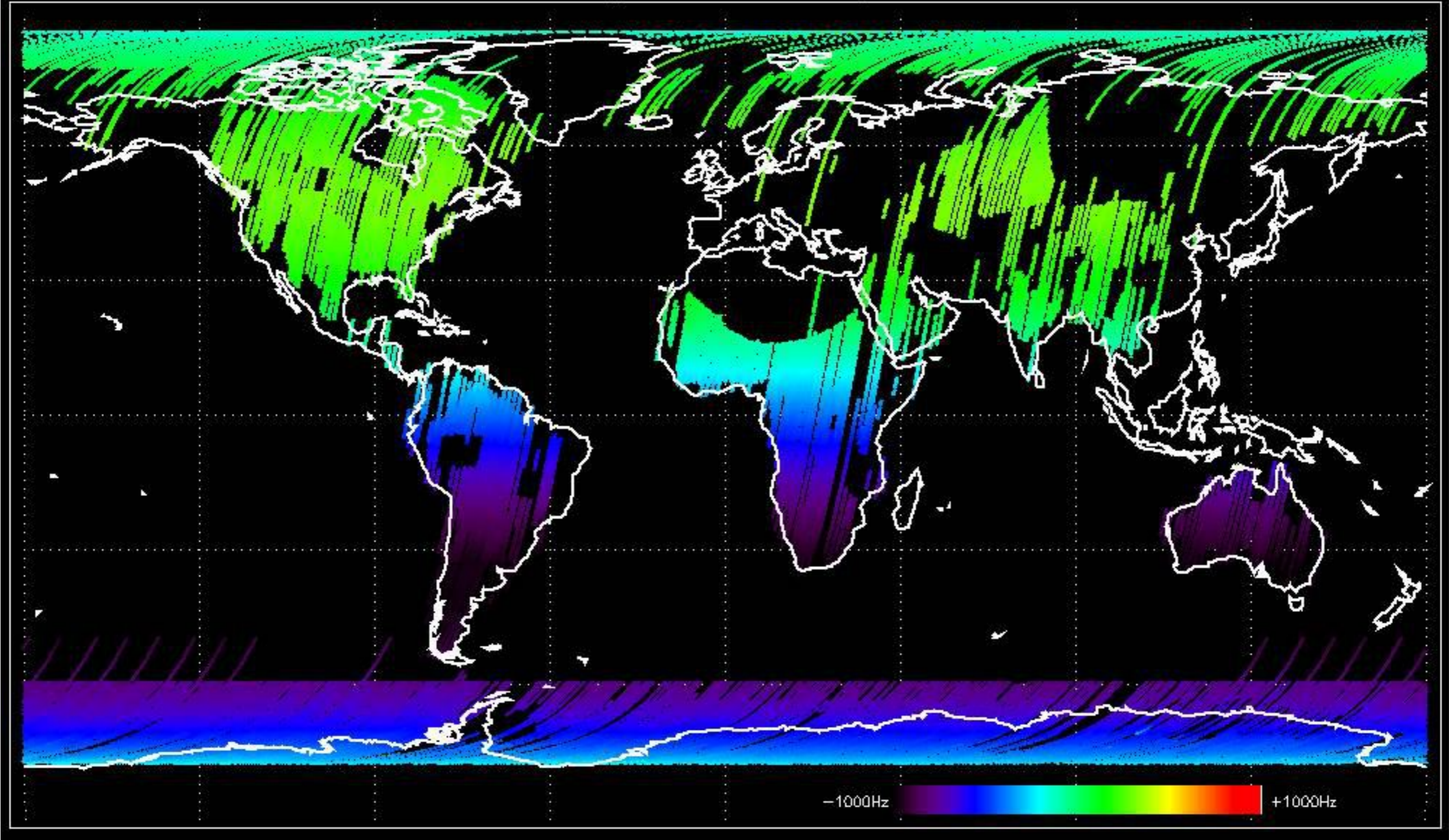


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

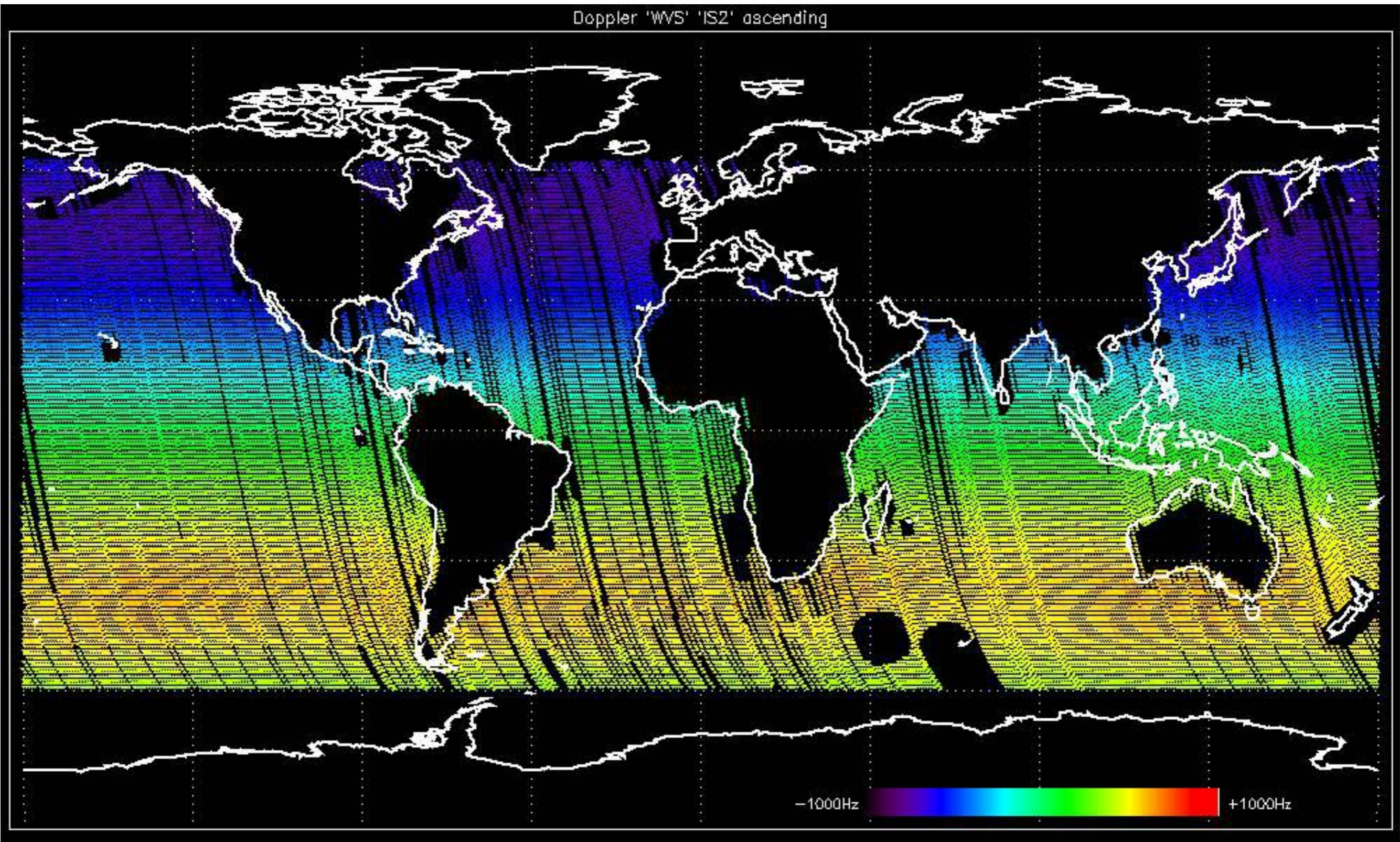
Doppler 'GM1' 'SS1' ascending



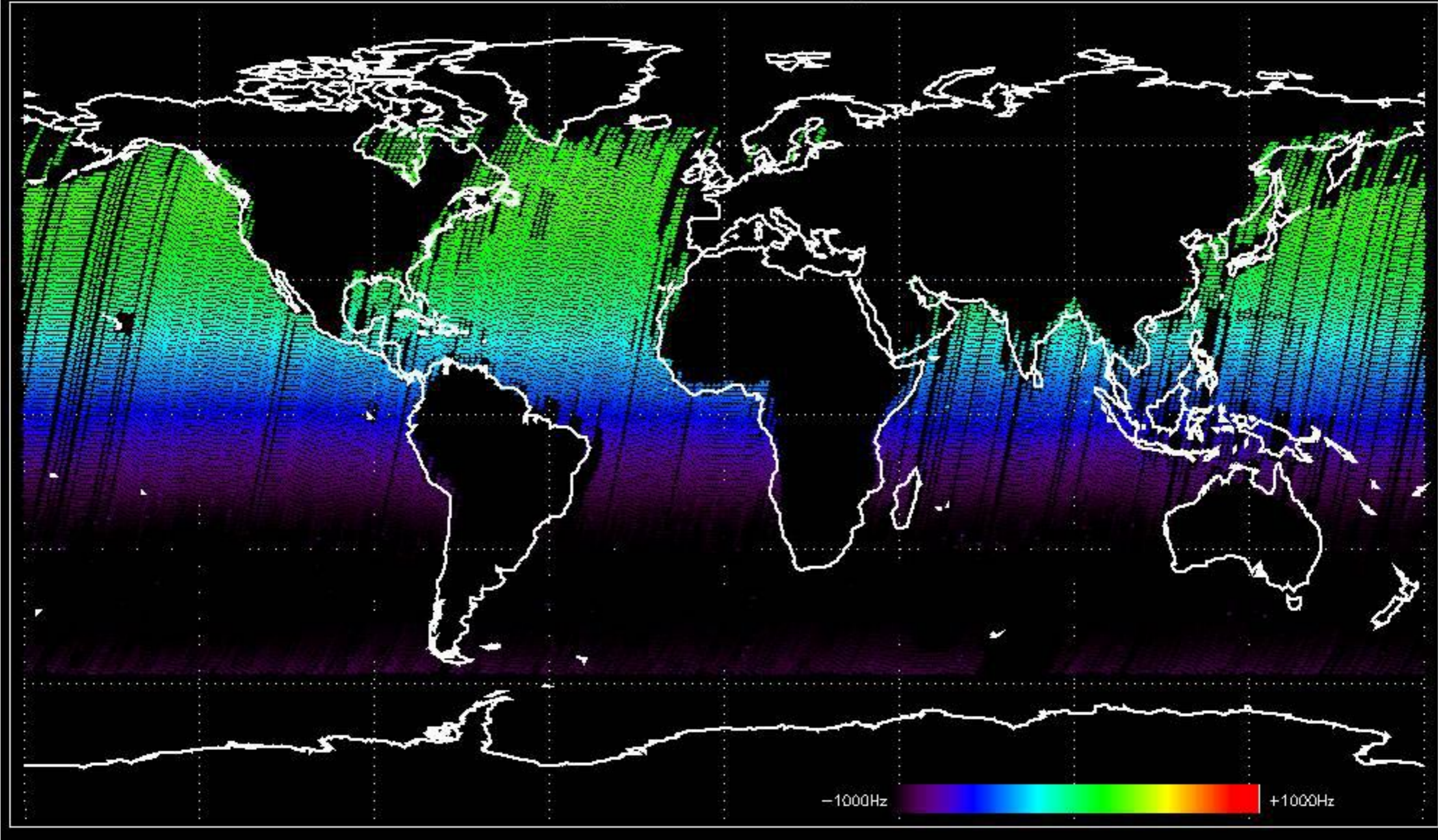
Doppler 'GM1' 'SS1' descending



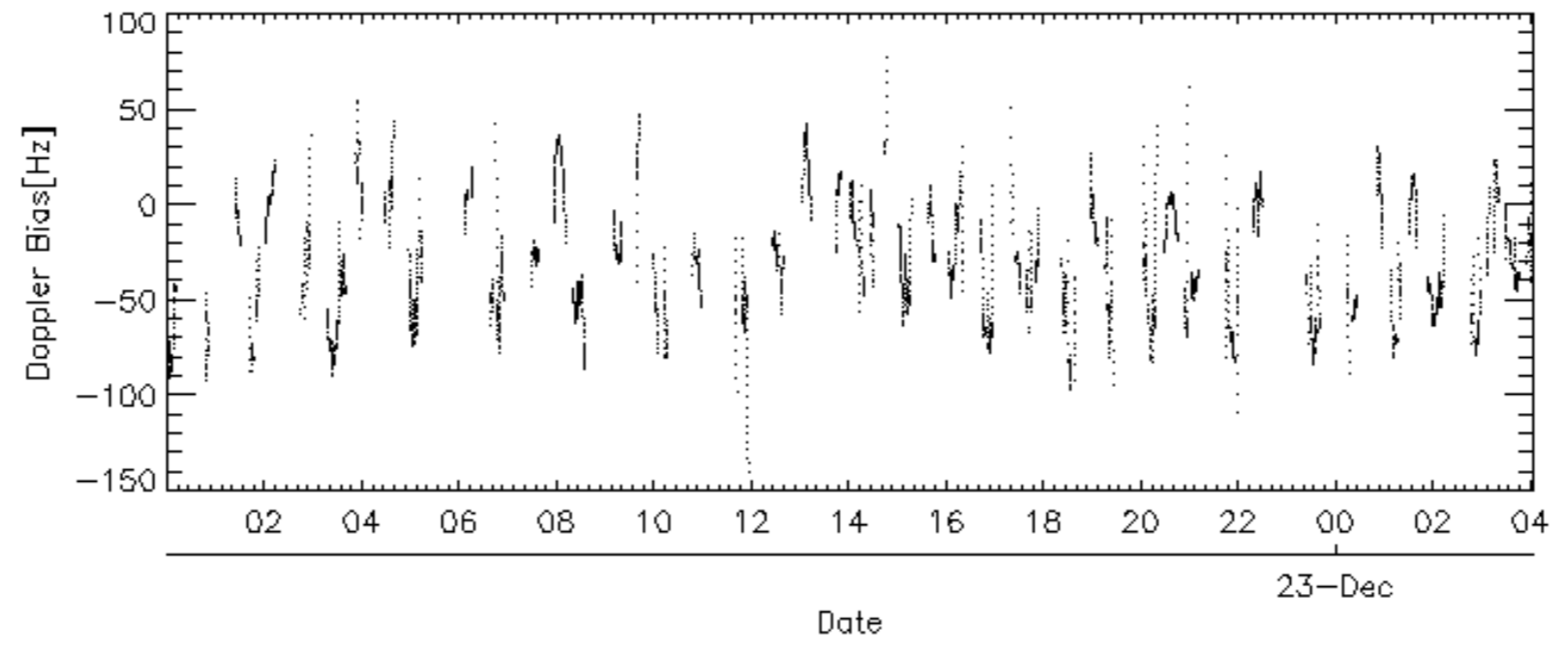
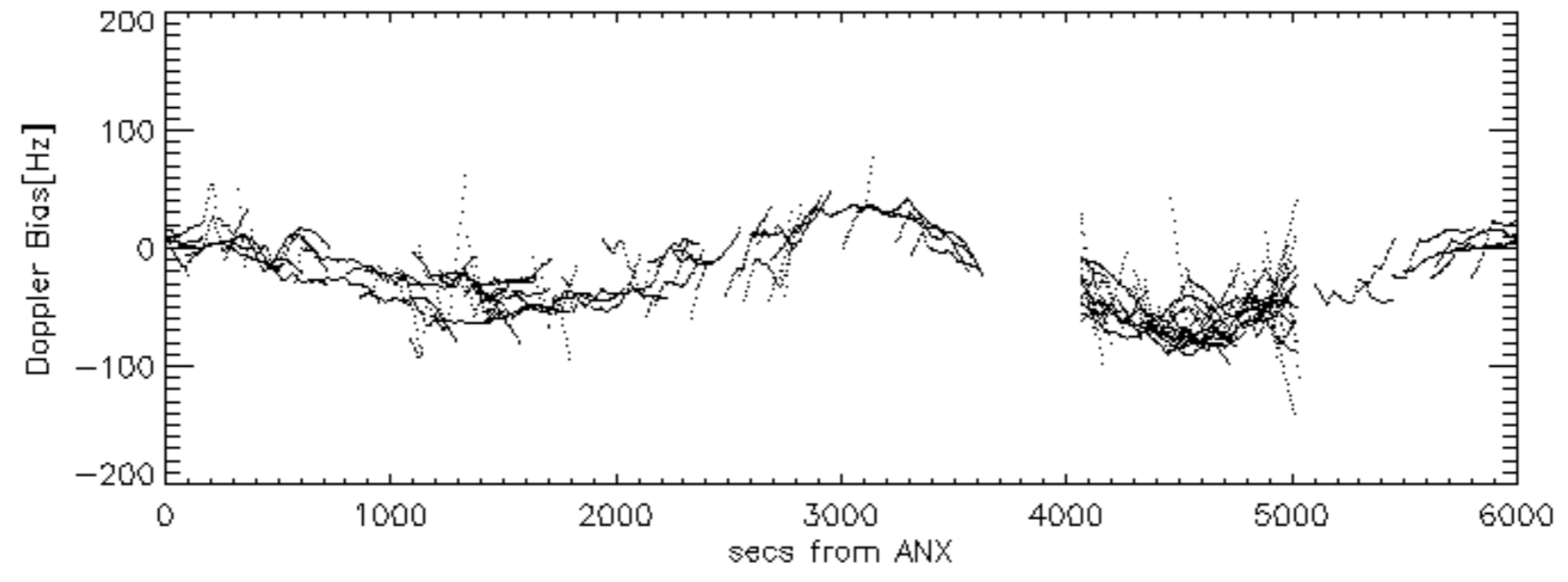
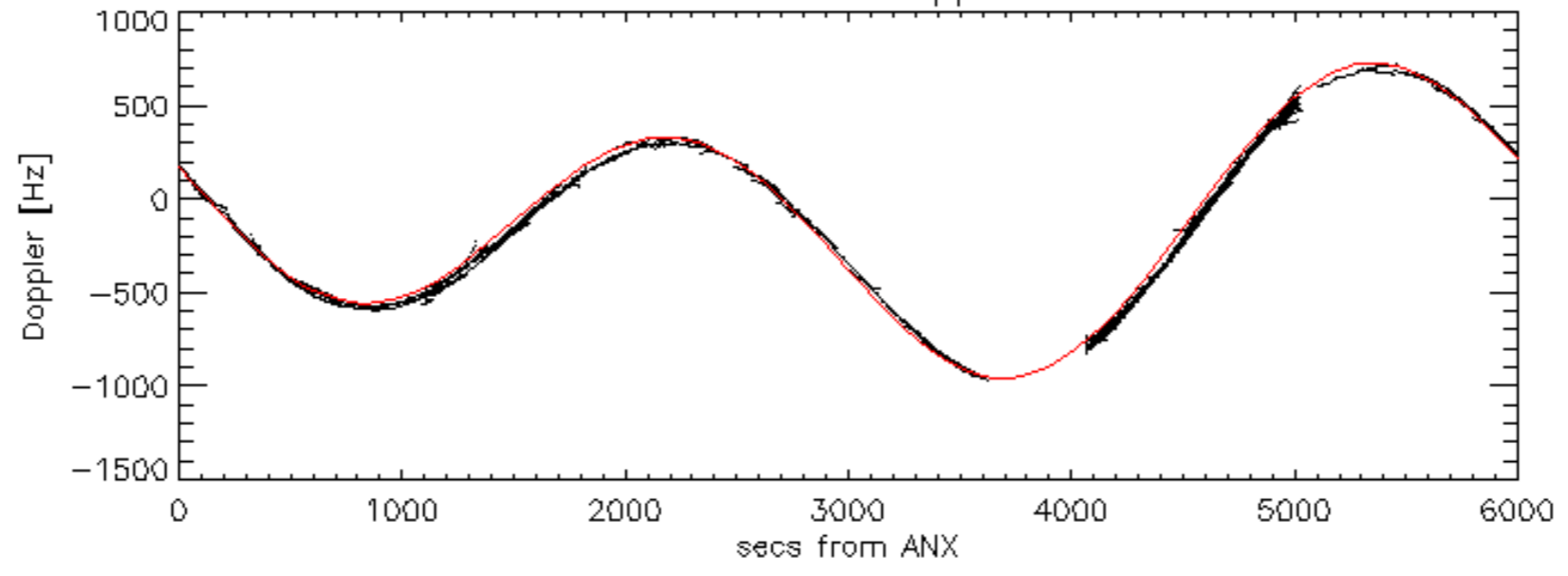
Doppler 'WVS' 'IS2' ascending

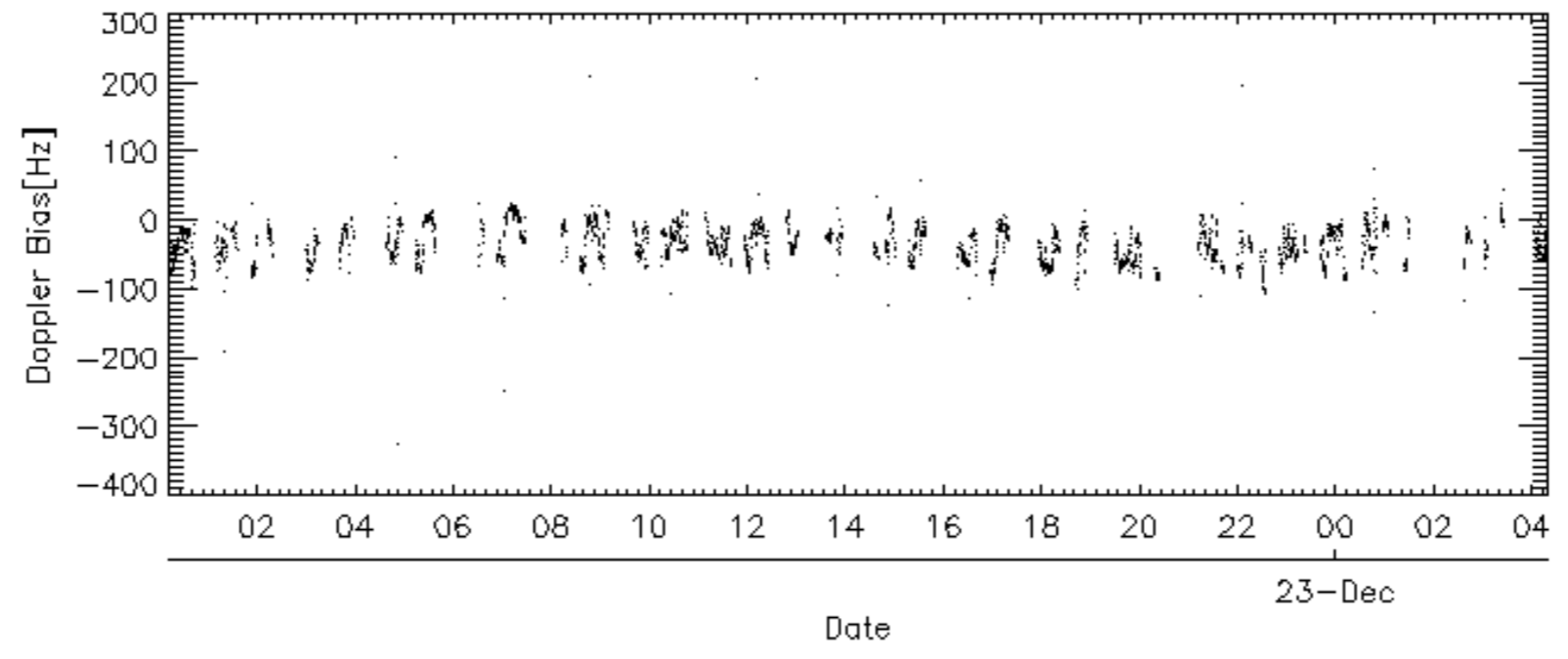
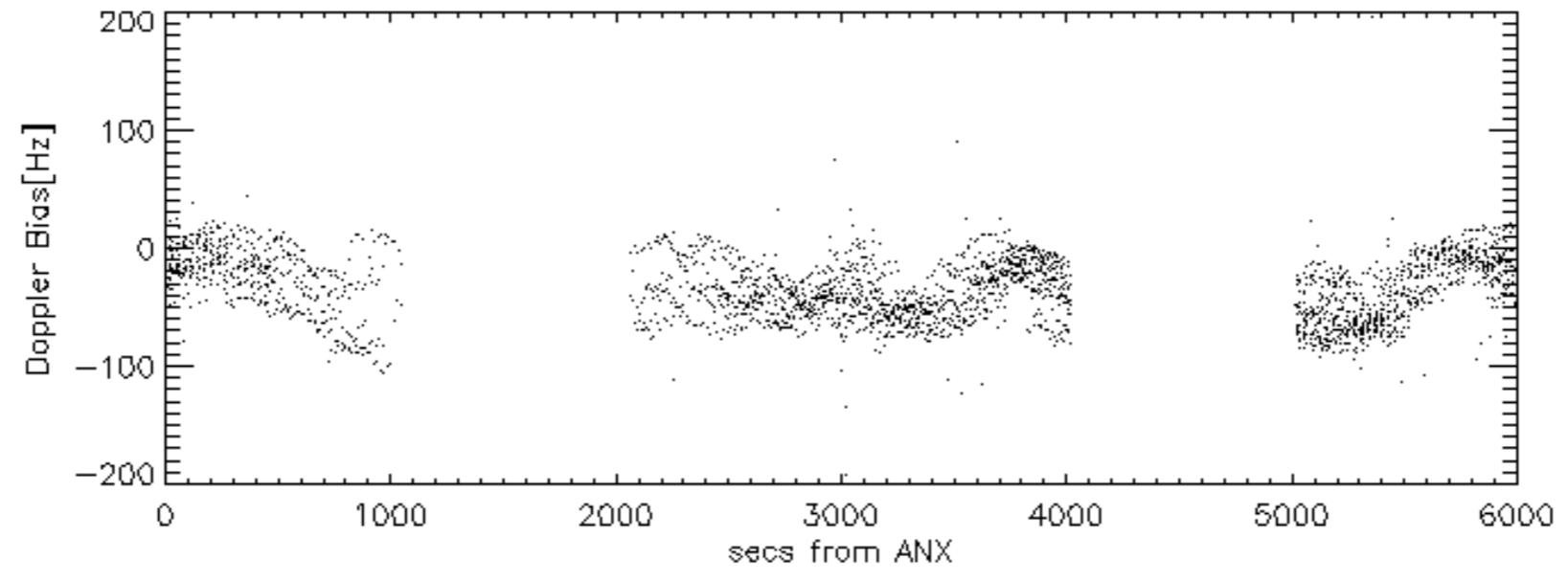
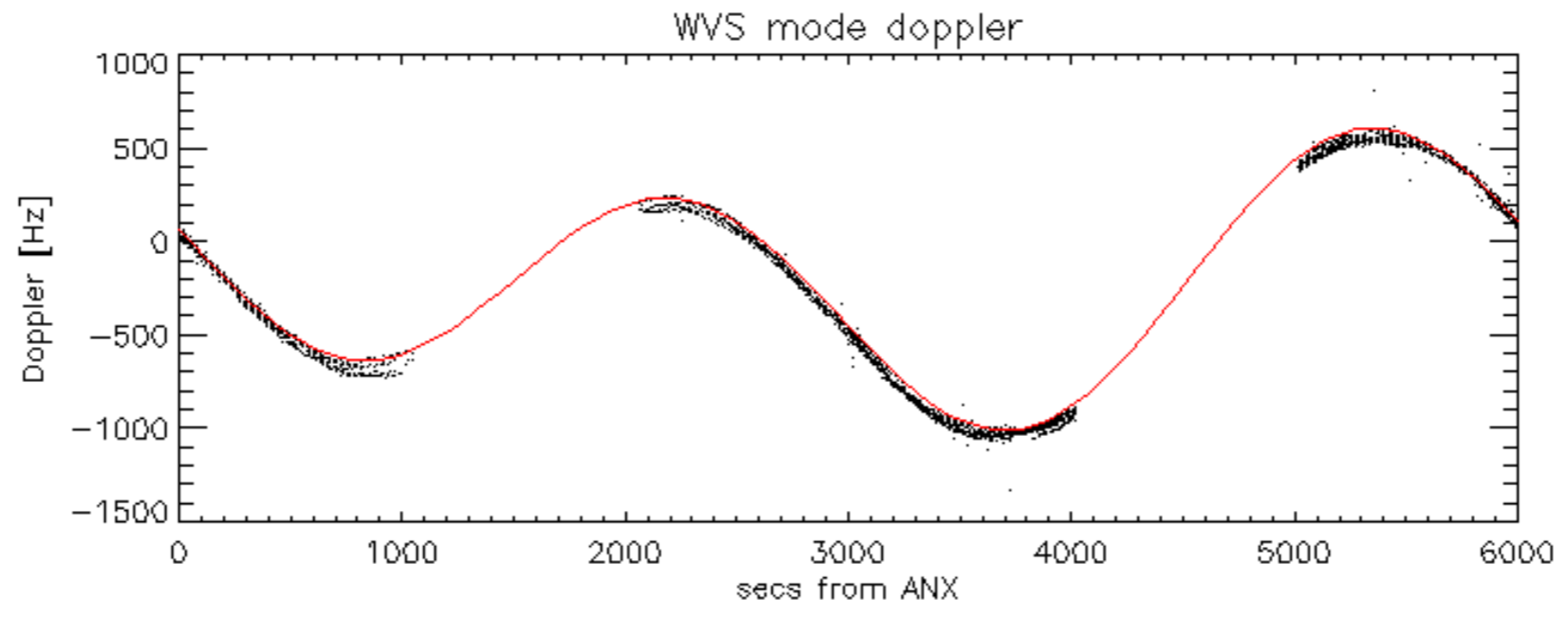


Doppler 'WVS' 'IS2' descending

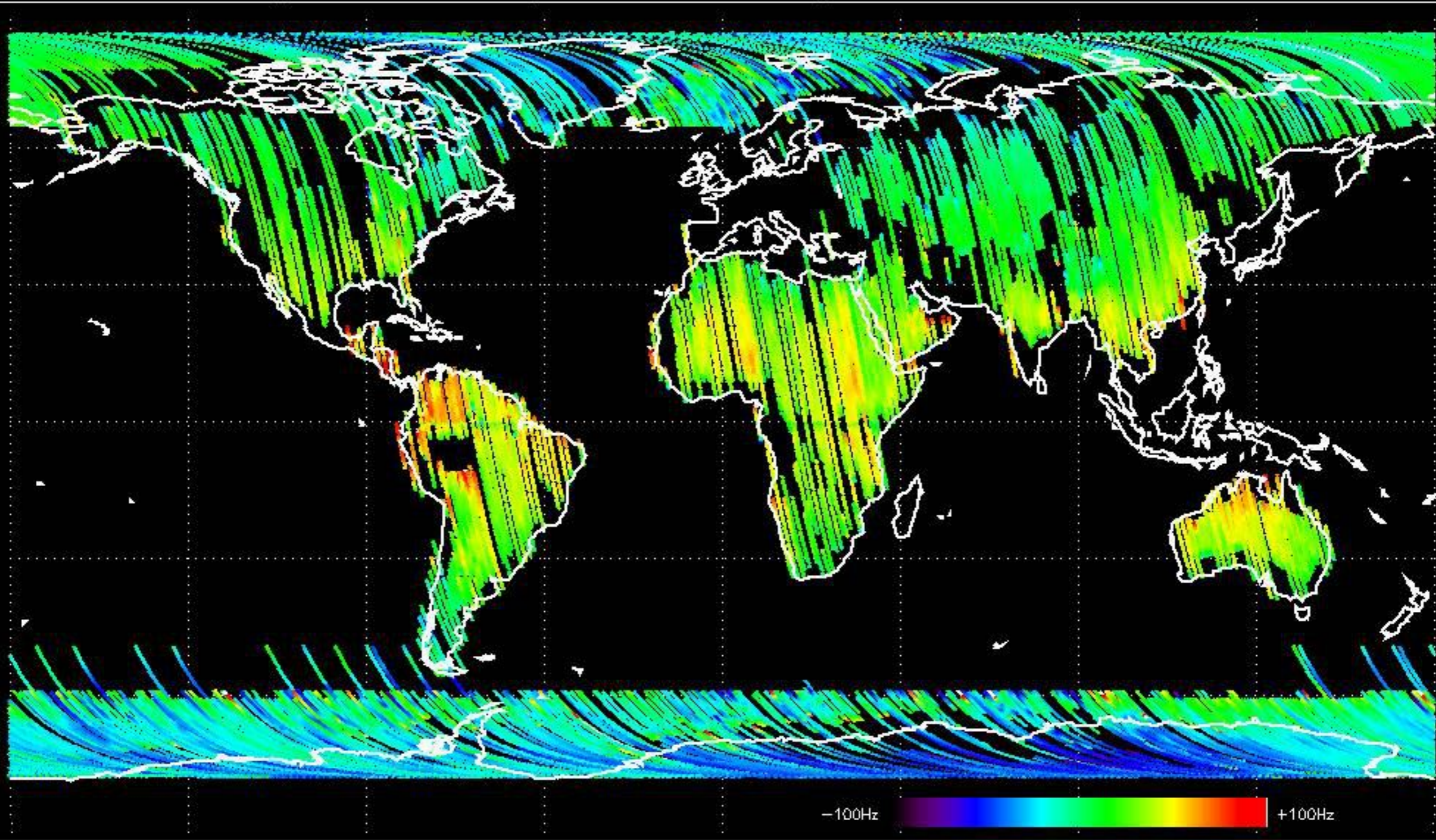


GM1 mode doppler

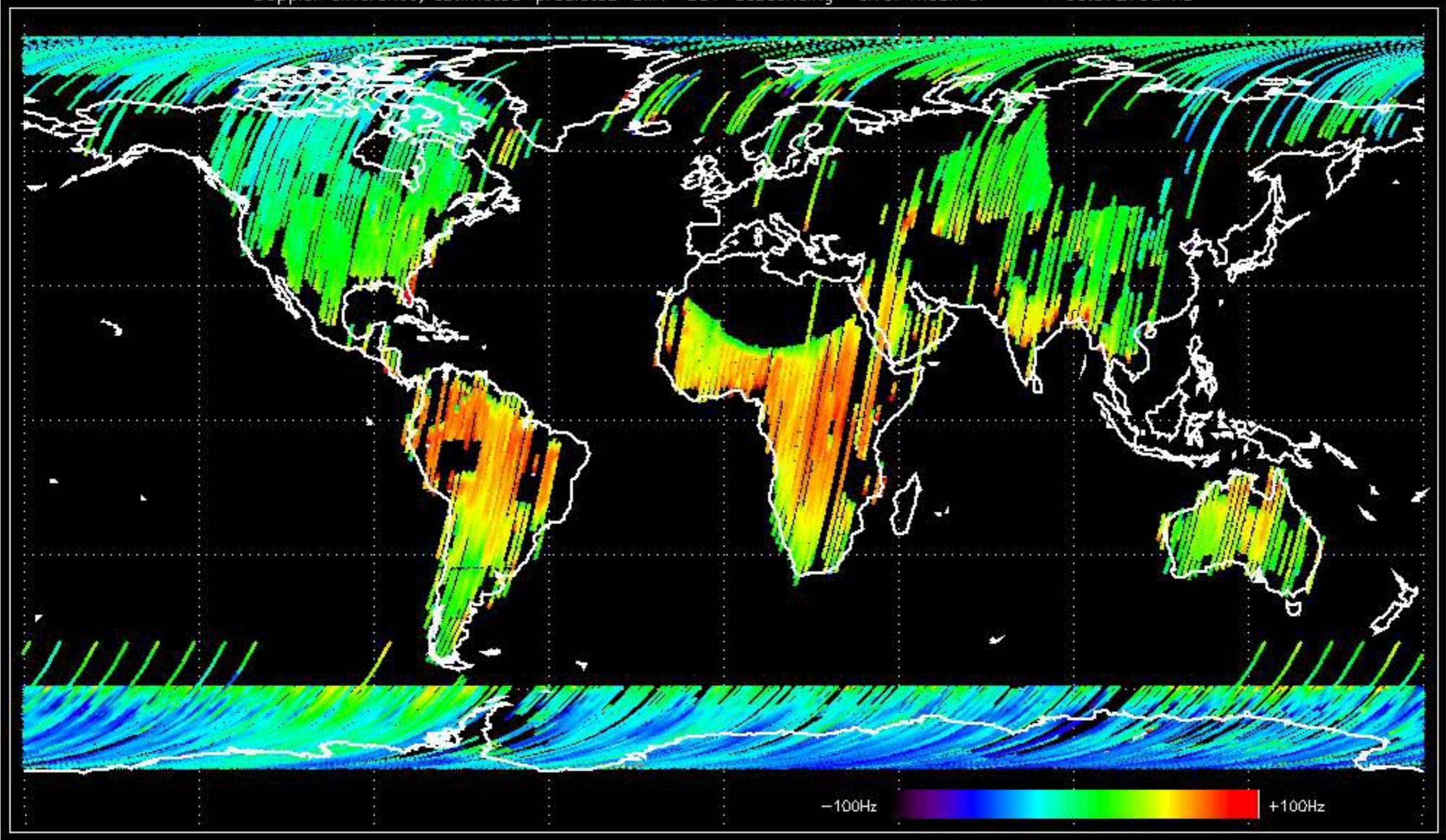




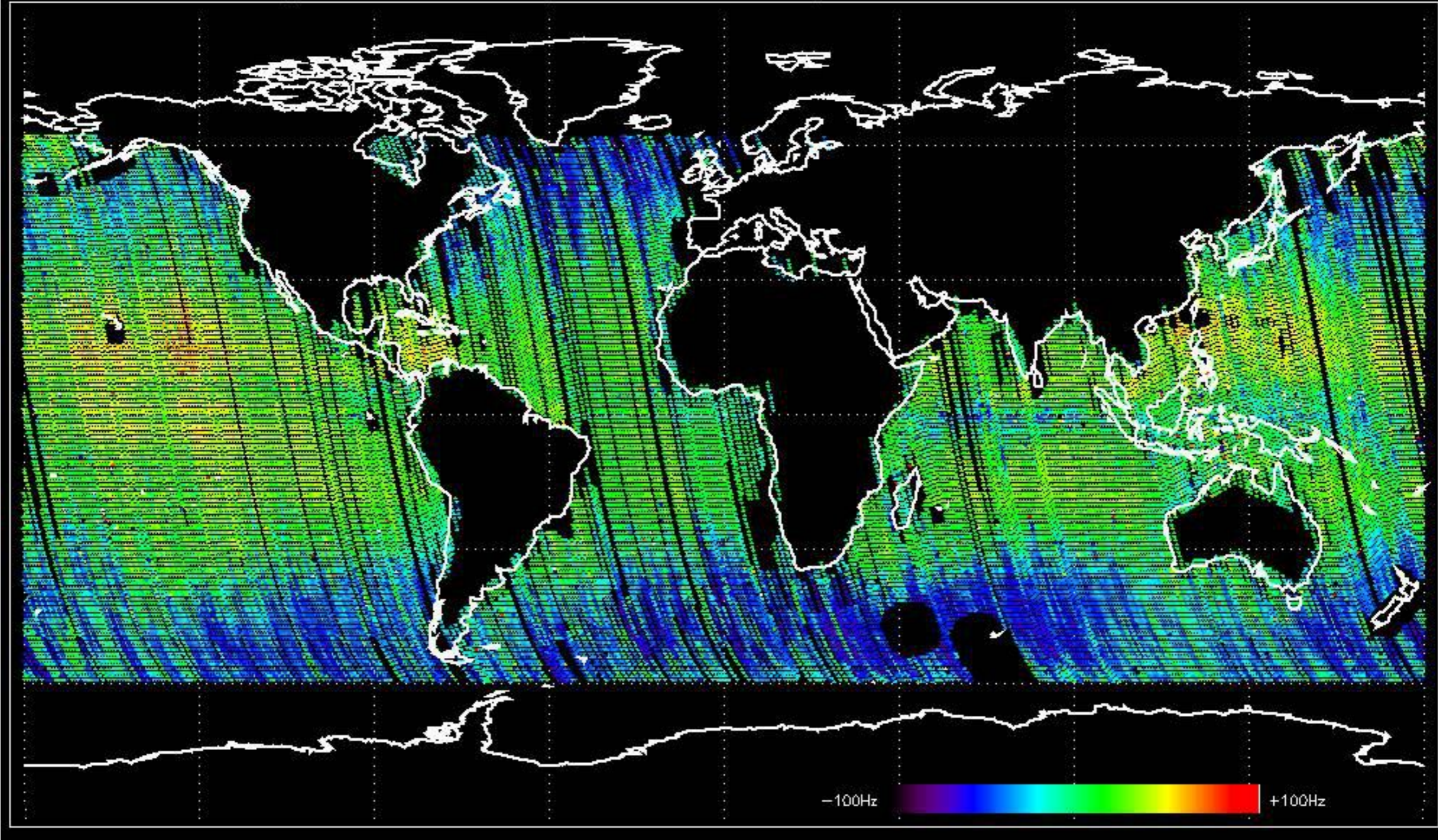
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -36.934819 Hz



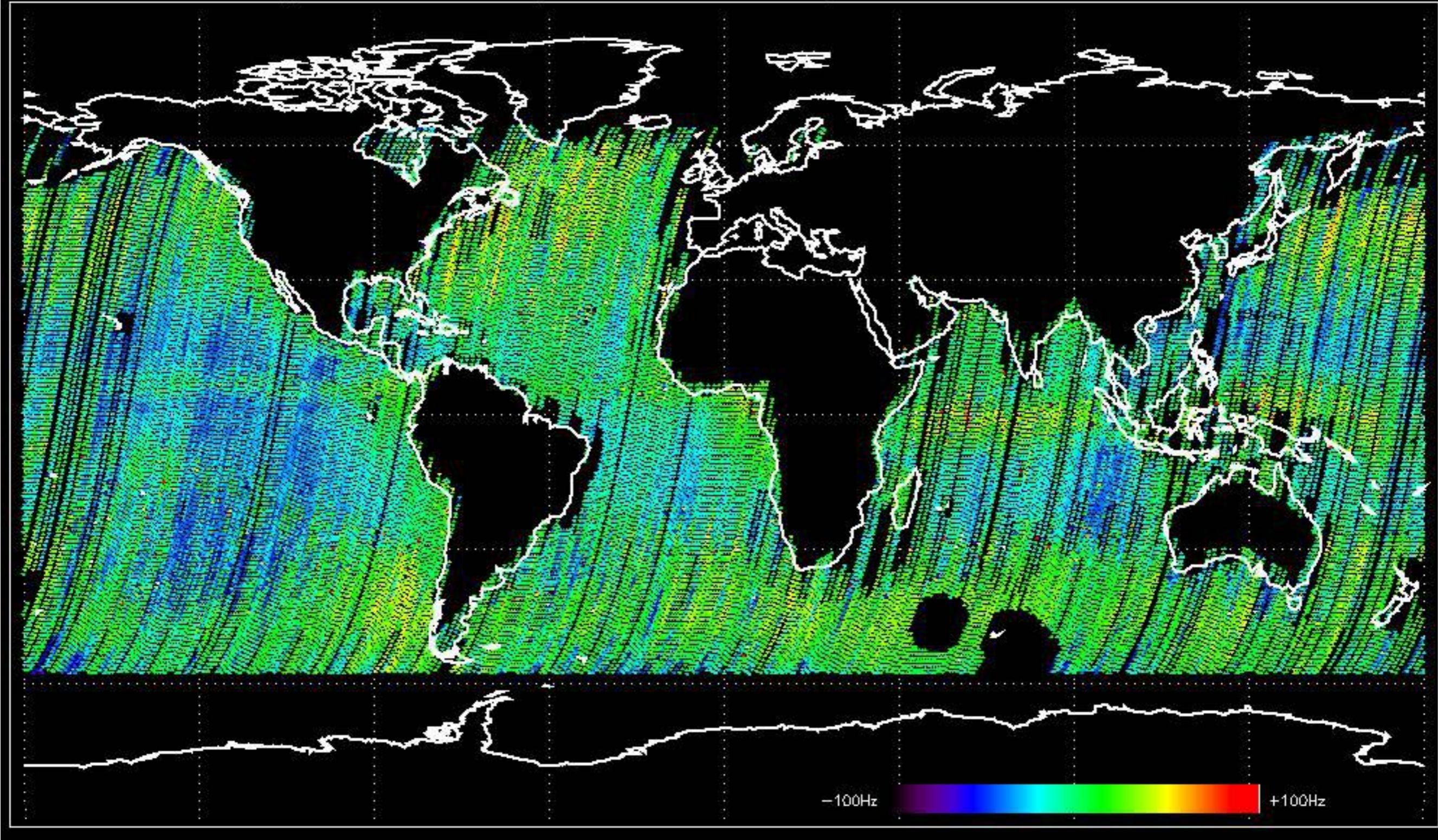
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.372798 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.191554 Hz

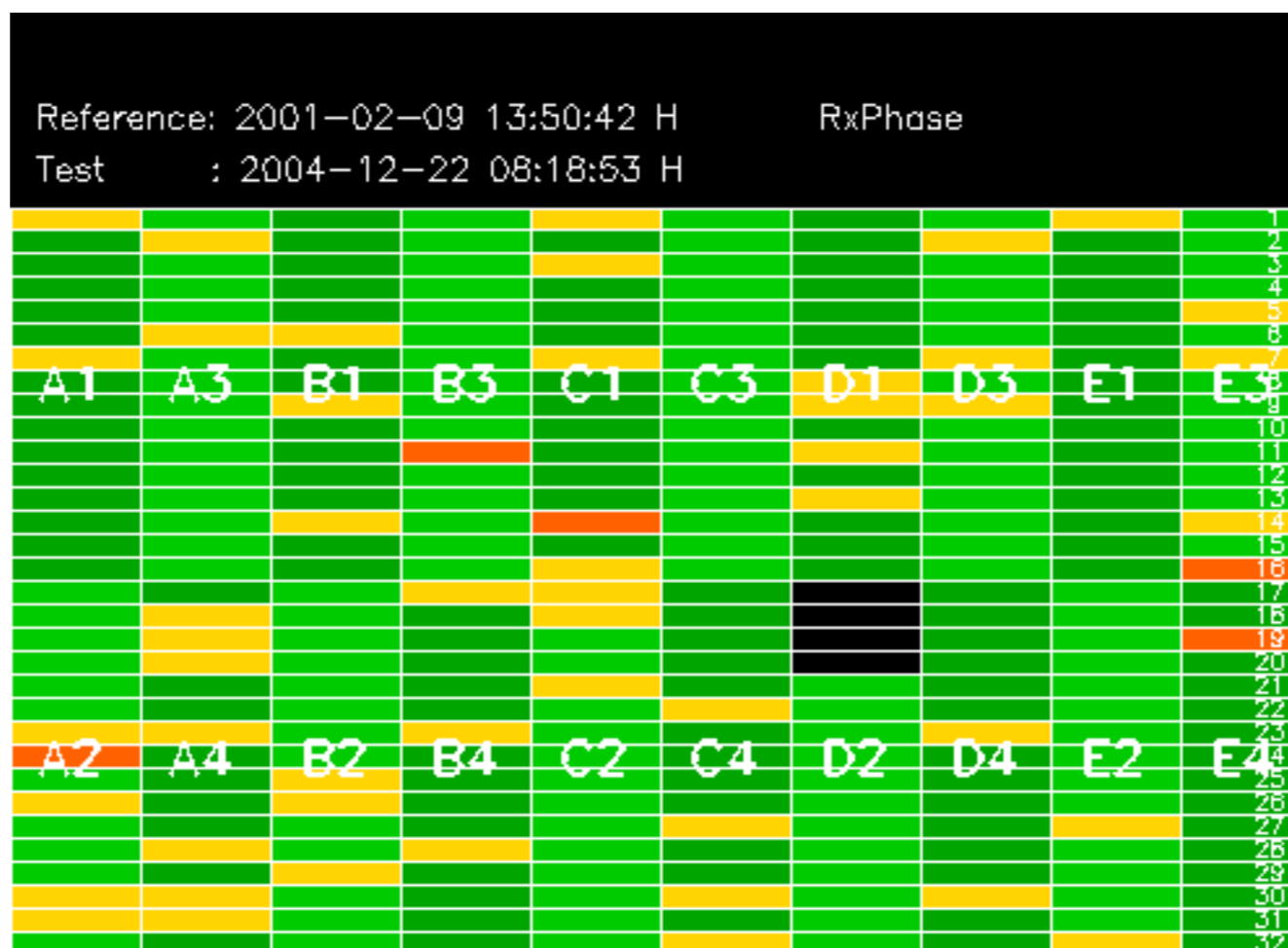


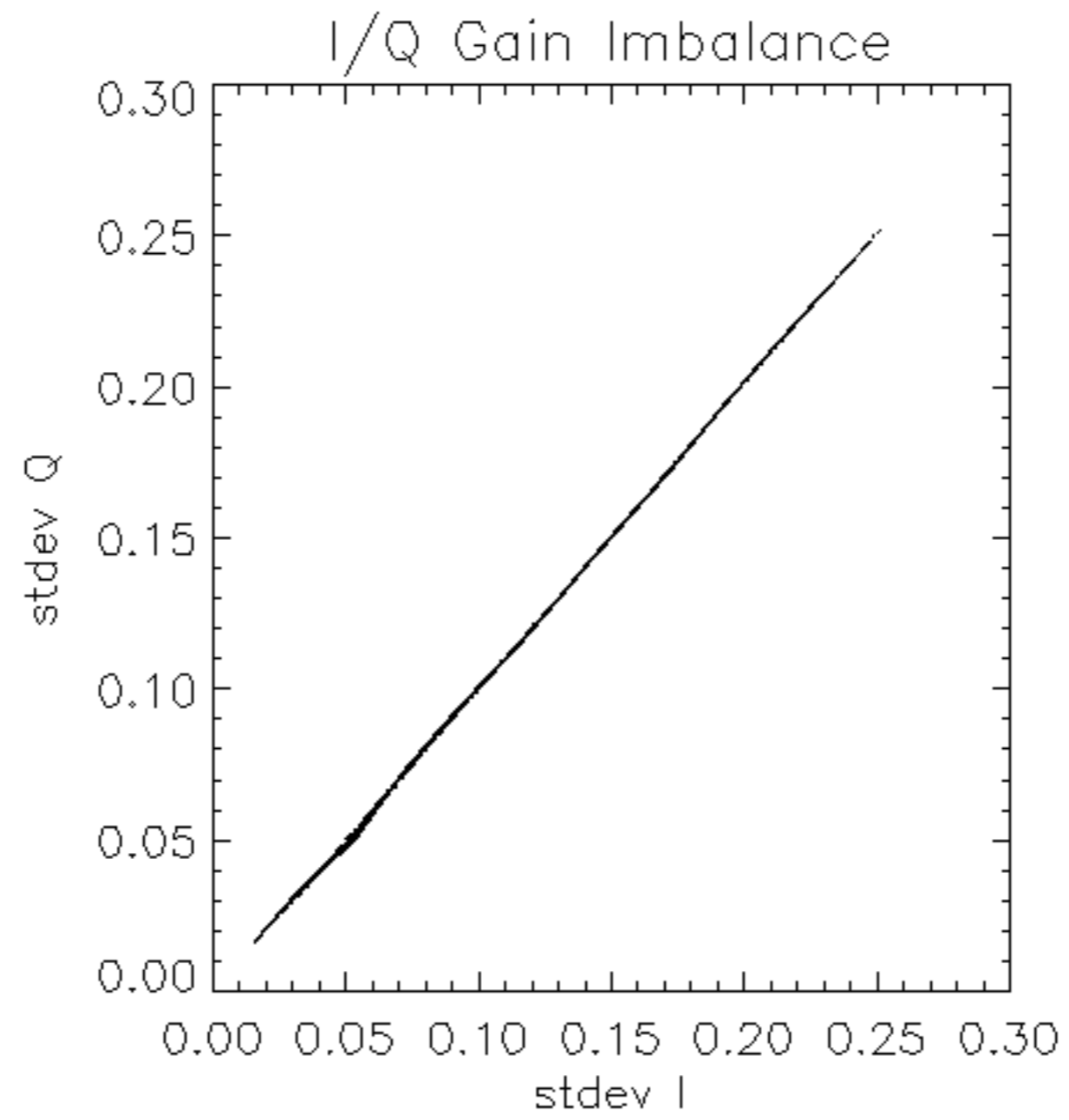
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -34.567815 Hz

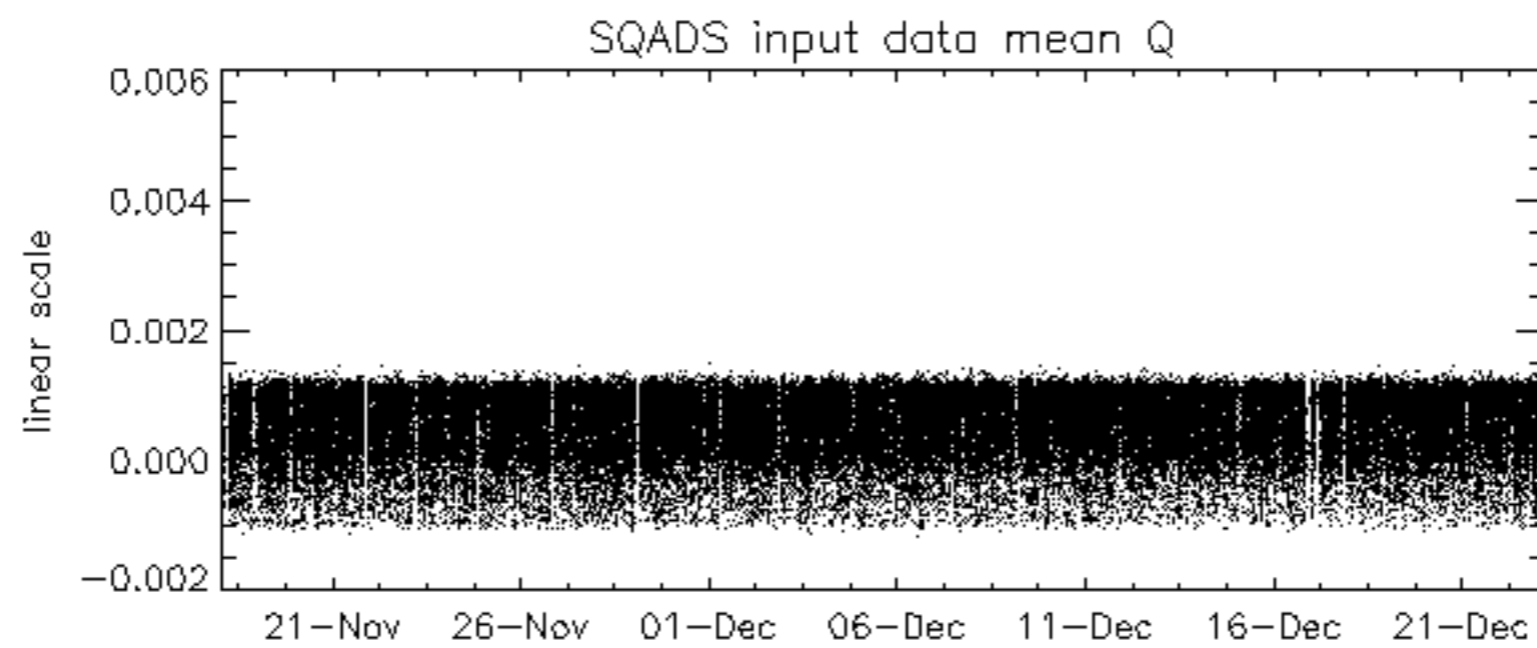
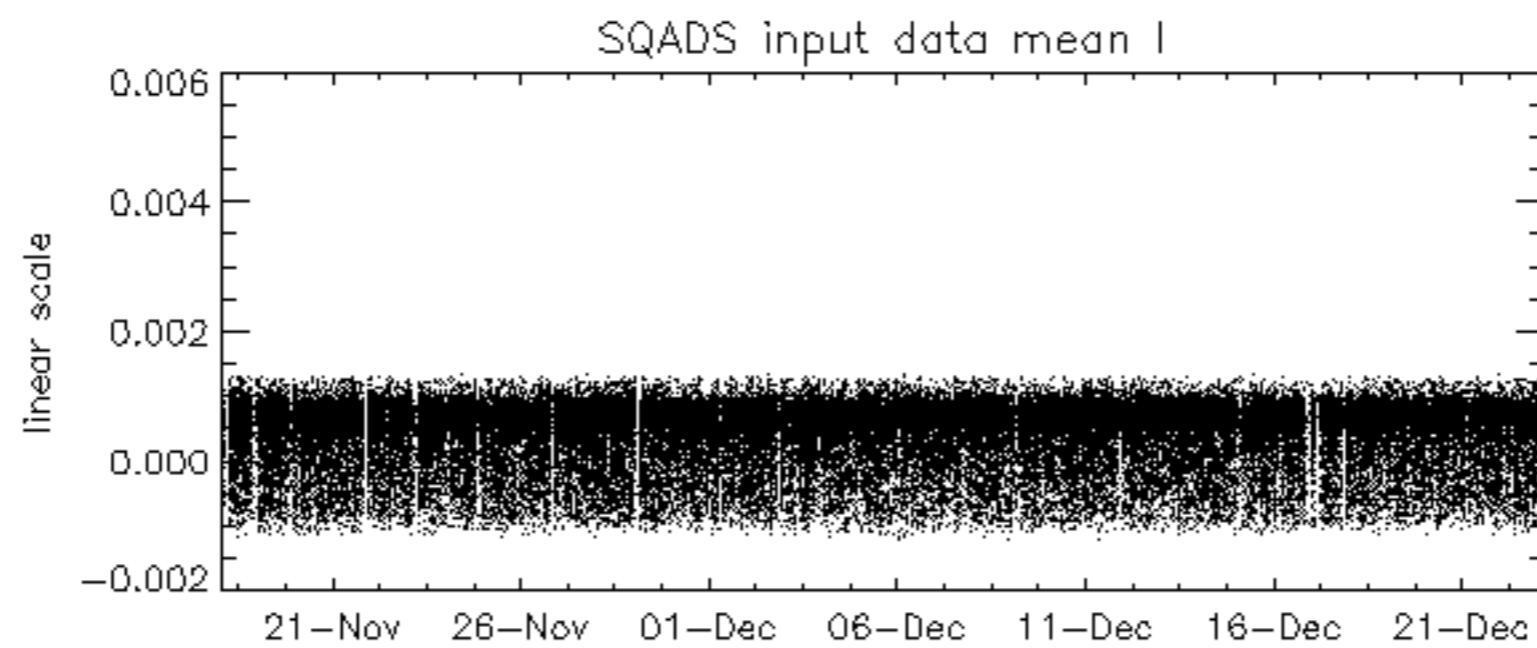
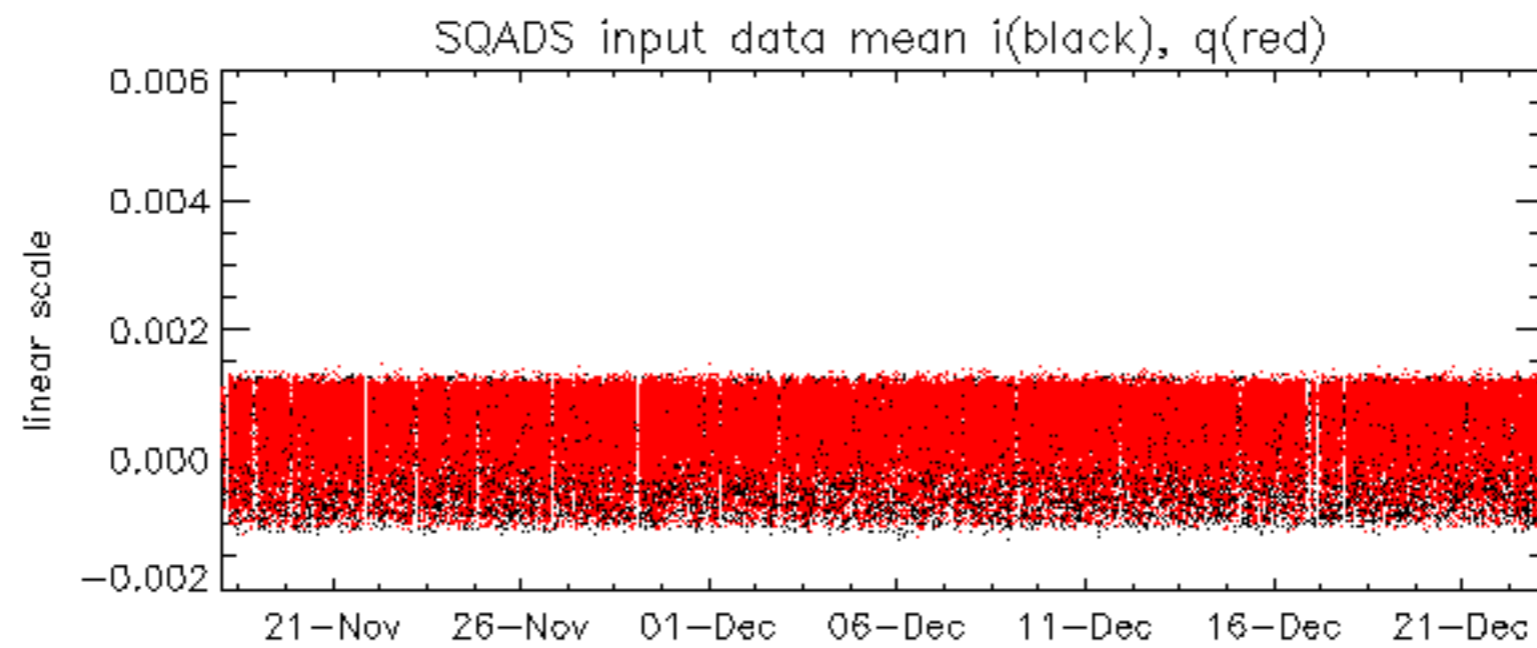


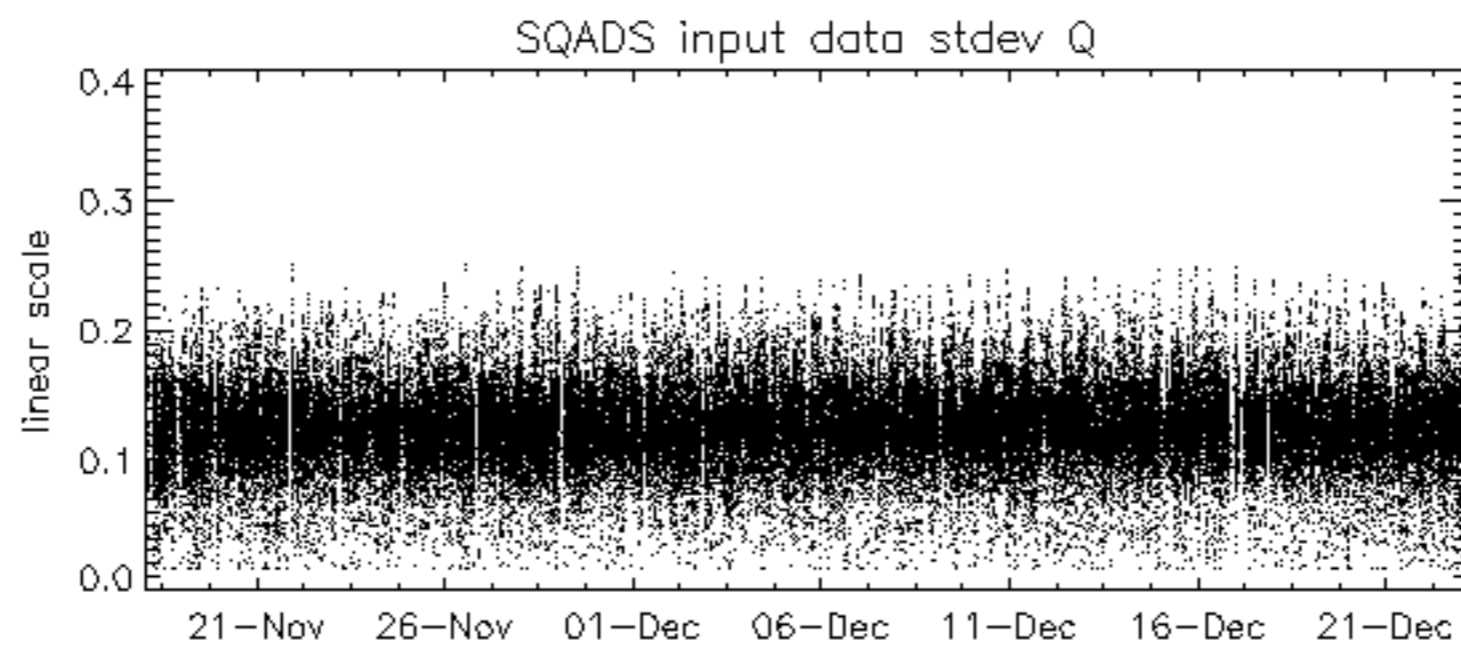
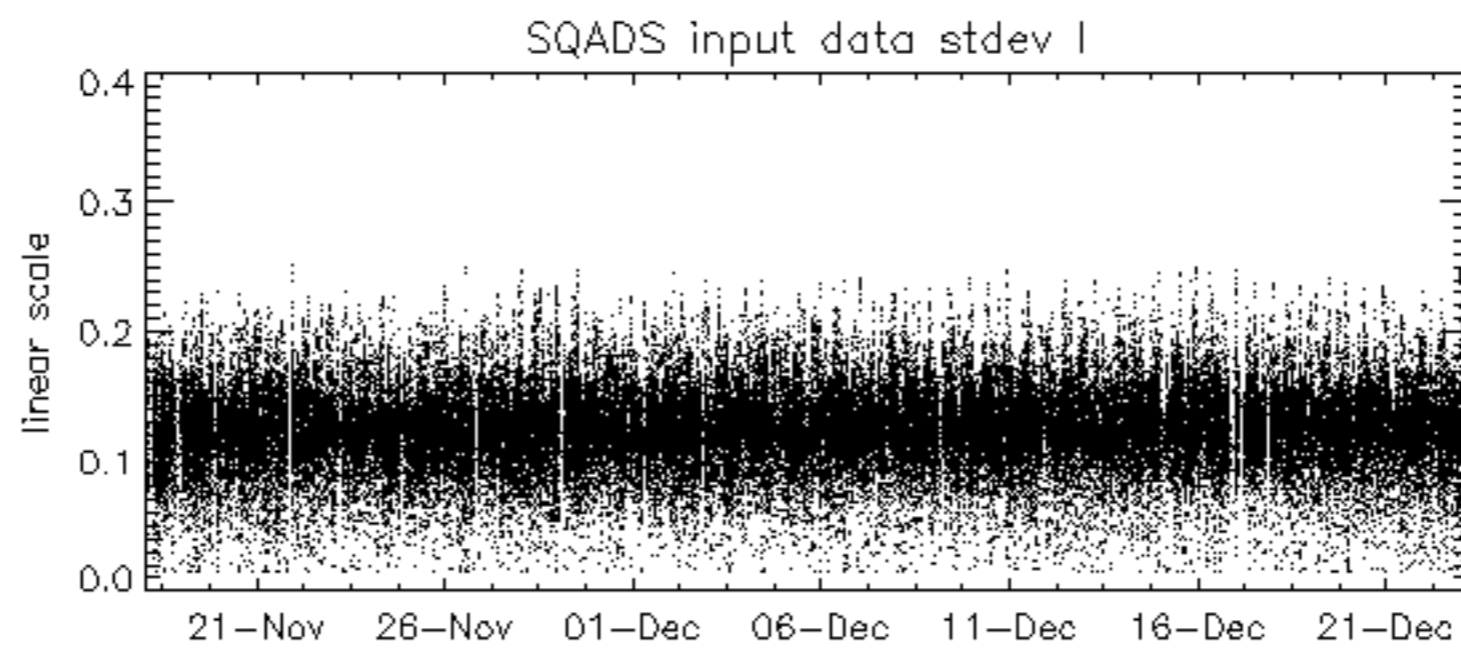
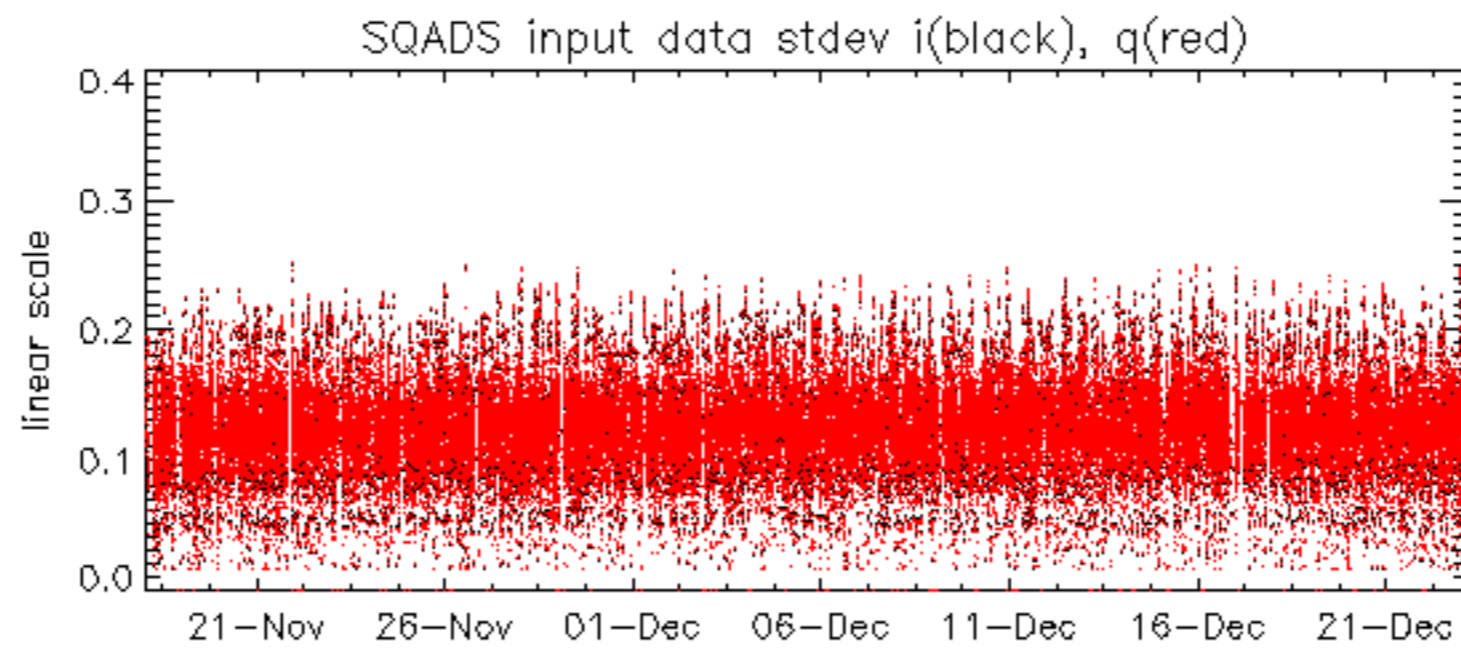
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No anomalies observed on available MS products:

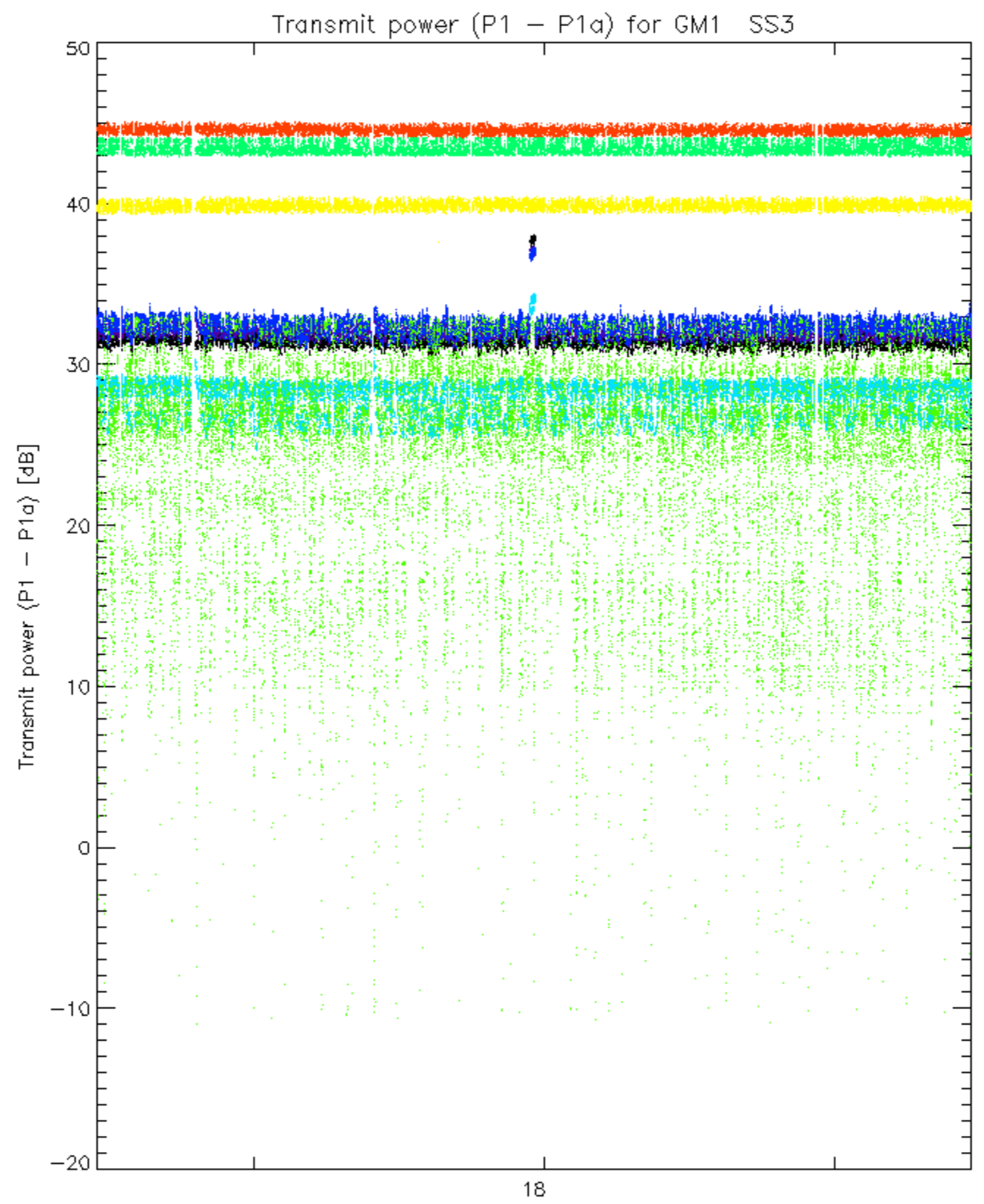
No anomalies observed.



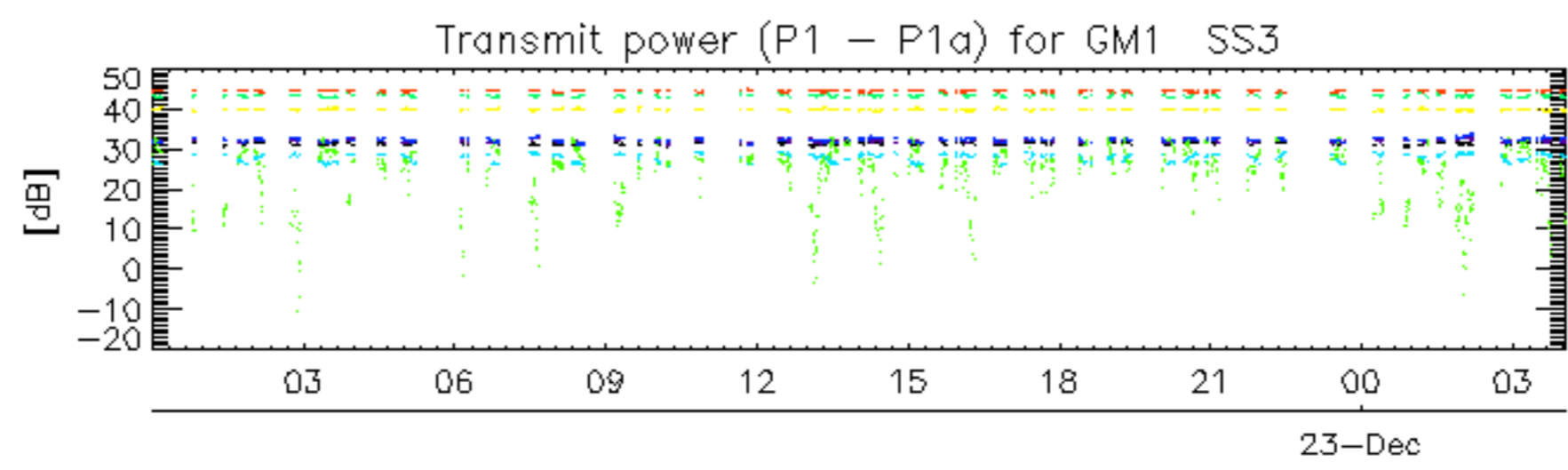




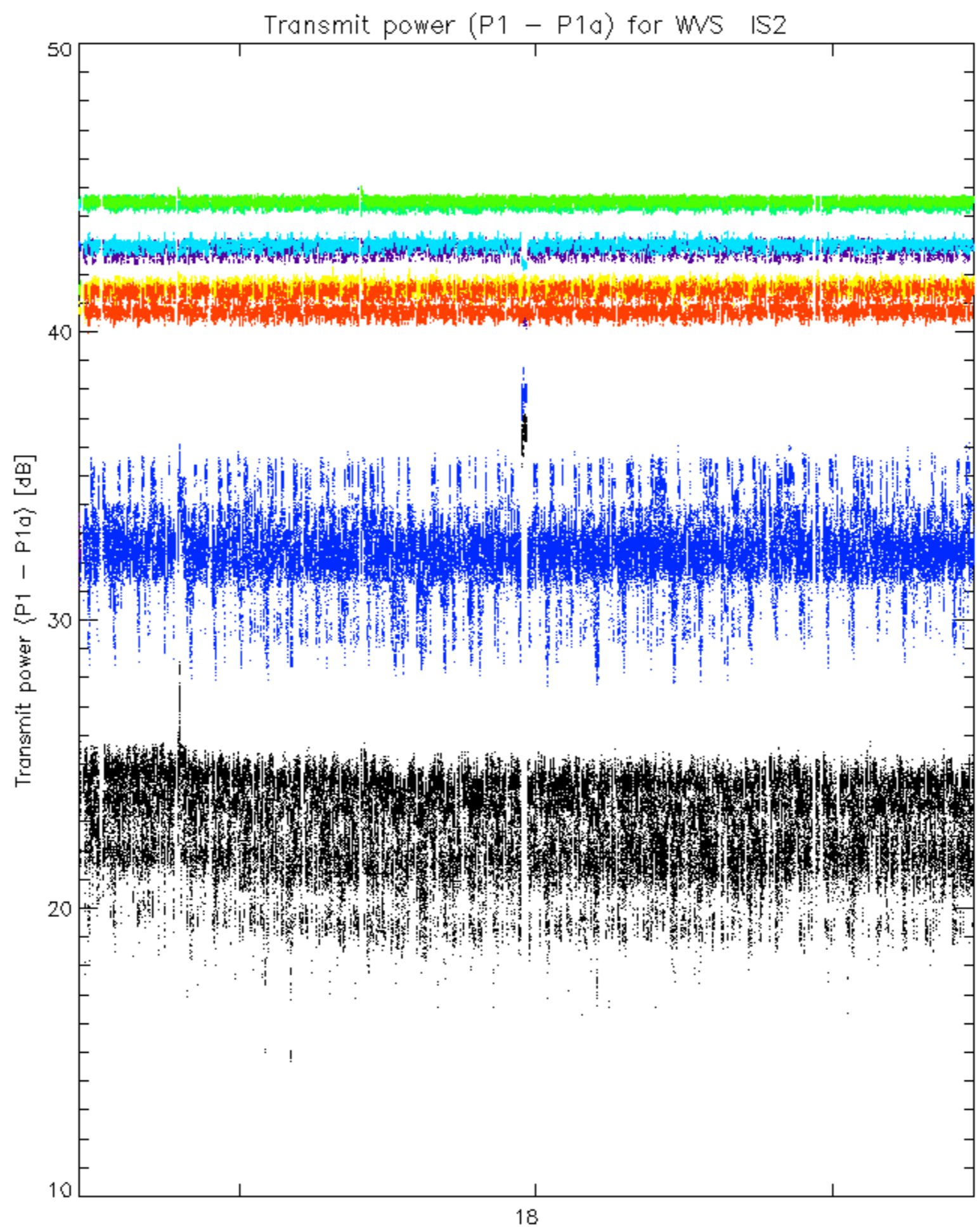




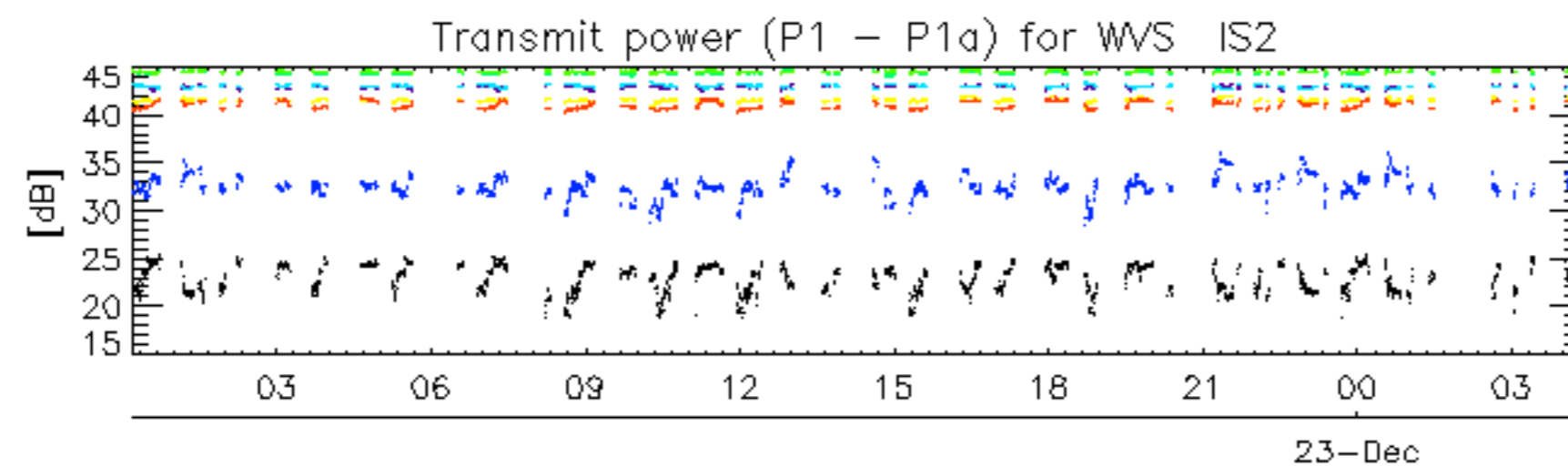
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.