

PRELIMINARY REPORT OF 051211

last update on Sun Dec 11 16:44:56 GMT 2005

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [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. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2005-12-10 00:00:00 to 2005-12-11 16:44:56

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	42	0	11	0	29
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	42	0	11	0	29
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	0	11	0	29
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	42	0	11	0	29

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	34	47	26	17	67
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	34	47	26	17	67
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	47	26	17	67
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	34	47	26	17	67

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

No anomalies observed on available MS products:

Polarisation	Start Time
V	20051210 064401
H	20051211 061224

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

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

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

4.1.2 - Evolution for GM1

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

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<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	-3.512026	0.165321	0.566229
7	P1	-2.763788	0.119472	0.915515
11	P1	-4.144422	0.017507	-0.027420
15	P1	-5.164675	1.671238	3.736924
19	P1	-3.042325	0.058370	0.643590
22	P1	-4.441306	0.020569	0.213298
26	P1	-4.389354	0.058598	-0.622250
30	P1	-5.658604	0.032287	0.413309
3	P1	-15.150089	1.847431	2.051341
7	P1	-15.368309	2.514913	4.486120
11	P1	-16.328753	0.432182	0.990329
15	P1	-12.857656	0.941747	2.582562
19	P1	-13.430170	0.324036	1.479031
22	P1	-16.085817	0.613390	1.002179
26	P1	-15.179886	1.095943	2.751211
30	P1	-15.651121	2.371136	4.187001

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.878822	0.105092	-0.074106
7	P2	-22.560032	0.104103	0.028187
11	P2	-16.595066	0.118289	-0.138051
15	P2	-7.279257	0.103724	-0.079345
19	P2	-9.222363	0.100961	0.043465
22	P2	-17.859720	0.109119	0.171553
26	P2	-16.348251	0.133195	-0.554886
30	P2	-19.778570	0.118483	-0.425370

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.234097	0.007296	-0.019829
7	P3	-8.234097	0.007296	-0.019829
11	P3	-8.234097	0.007296	-0.019829
15	P3	-8.234097	0.007296	-0.019829
19	P3	-8.234097	0.007296	-0.019829
22	P3	-8.234097	0.007296	-0.019829
26	P3	-8.234097	0.007296	-0.019829
30	P3	-8.234097	0.007296	-0.019829

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

✕

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	-3.693389	0.007938	-0.026798
7	P1	-2.782171	0.011065	0.020832
11	P1	-2.876723	0.014196	-0.014022
15	P1	-3.399739	0.021669	-0.027733
19	P1	-3.380664	0.013385	-0.028679
22	P1	-5.117458	0.019822	-0.030267
26	P1	-5.826454	0.016313	-0.053848
30	P1	-5.269807	0.032499	-0.023409
3	P1	-11.466823	0.042319	-0.037418
7	P1	-9.970098	0.045947	-0.009434
11	P1	-10.050647	0.060594	-0.021373
15	P1	-10.570698	0.084057	-0.007468
19	P1	-15.504544	0.073206	-0.029558
22	P1	-20.923384	0.977766	-0.241101
26	P1	-17.206814	0.308514	0.057291
30	P1	-18.338804	0.319020	0.132401

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.643606	0.030337	0.050176
7	P2	-23.056196	0.061777	-0.007311
11	P2	-11.663435	0.021969	0.097652
15	P2	-4.978531	0.021848	-0.049999
19	P2	-6.956549	0.021910	-0.040876
22	P2	-8.177608	0.023832	-0.071279
26	P2	-24.040276	0.031771	-0.059122
30	P2	-22.113535	0.020535	-0.043216

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.073388	0.002475	-0.013349
7	P3	-8.073476	0.002483	-0.013428
11	P3	-8.073400	0.002466	-0.013300
15	P3	-8.073416	0.002479	-0.012990
19	P3	-8.073595	0.002487	-0.012951
22	P3	-8.073479	0.002477	-0.013345
26	P3	-8.073386	0.002461	-0.013421
30	P3	-8.073261	0.002477	-0.012955

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	0.000470223
	stdev	2.15506e-07
MEAN Q	mean	0.000486427
	stdev	2.36671e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129553
	stdev	0.00108961
STDEV Q	mean	0.129842
	stdev	0.00110209



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005121[901]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051211_004056_000000622043_00174_19767_3704.N1	1	0
ASA_WSM_1PNPDE20051210_012121_000004282043_00160_19753_3544.N1	0	65
ASA_WSM_1PNPDE20051210_161814_000001462043_00169_19762_3611.N1	0	1
ASA_WSM_1PNPDE20051211_023139_000002262043_00175_19768_3714.N1	0	39







7 - Doppler Analysis

Preliminary report. The data is not yet controlled



7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending


7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)


Acsending

<input type="checkbox"/>
Descending

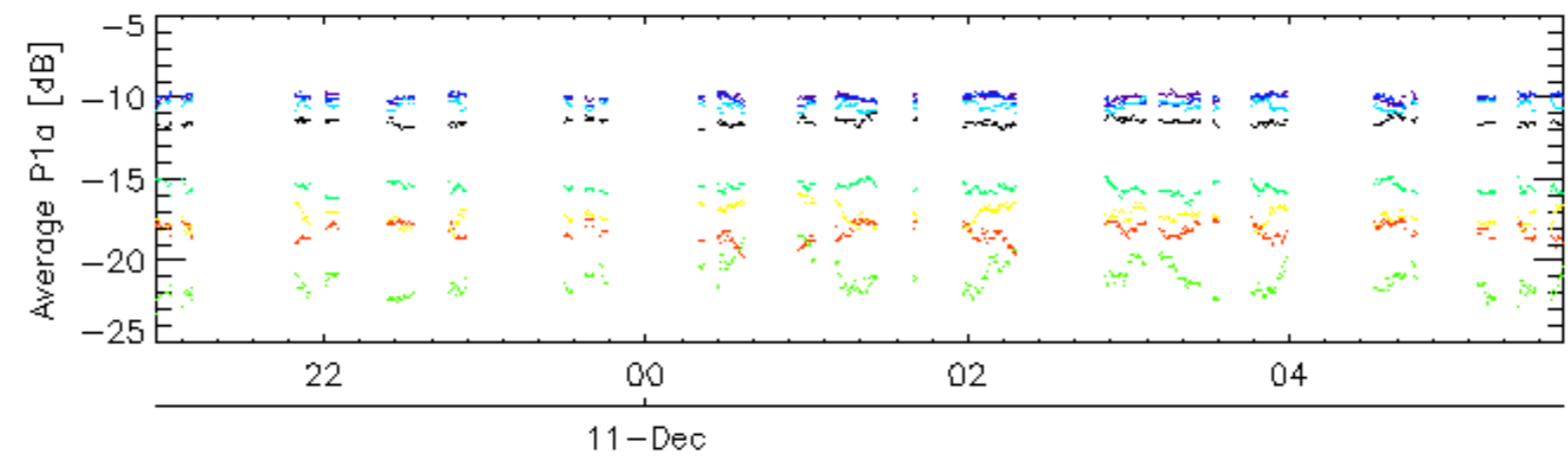
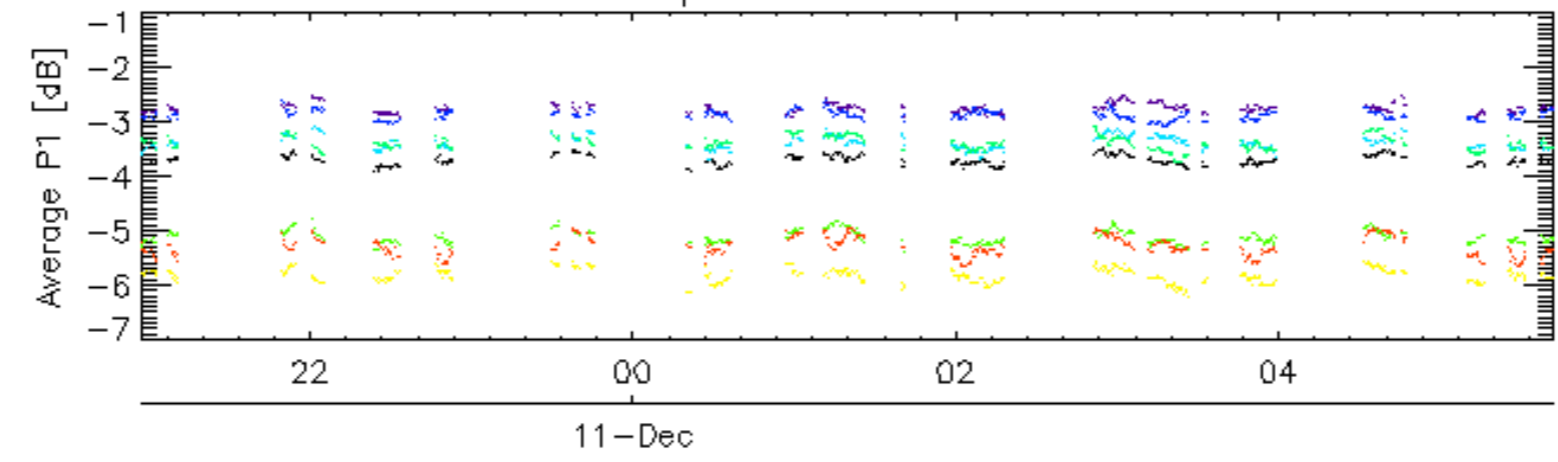
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

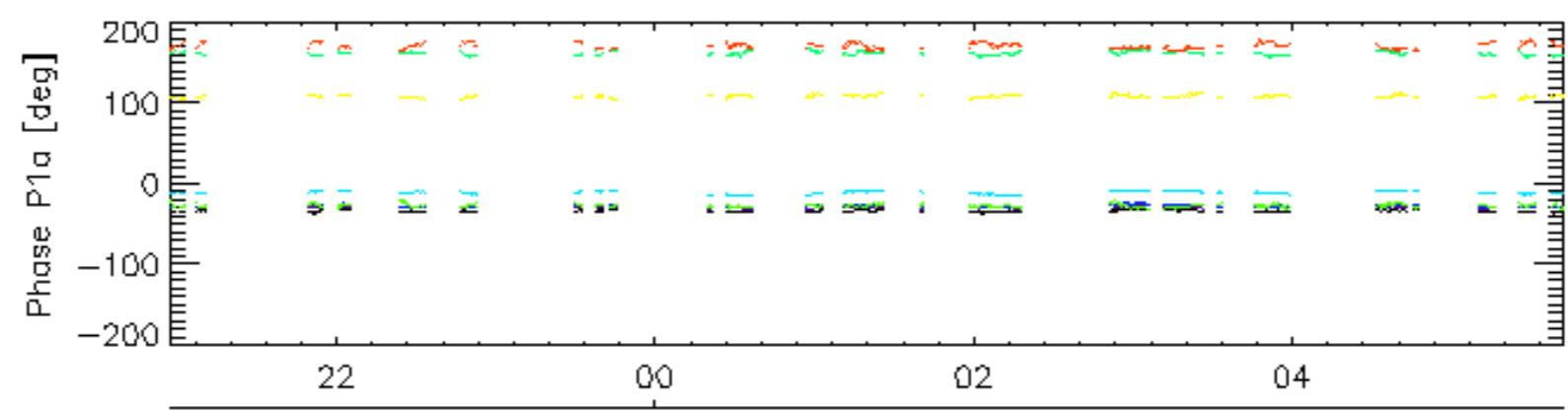
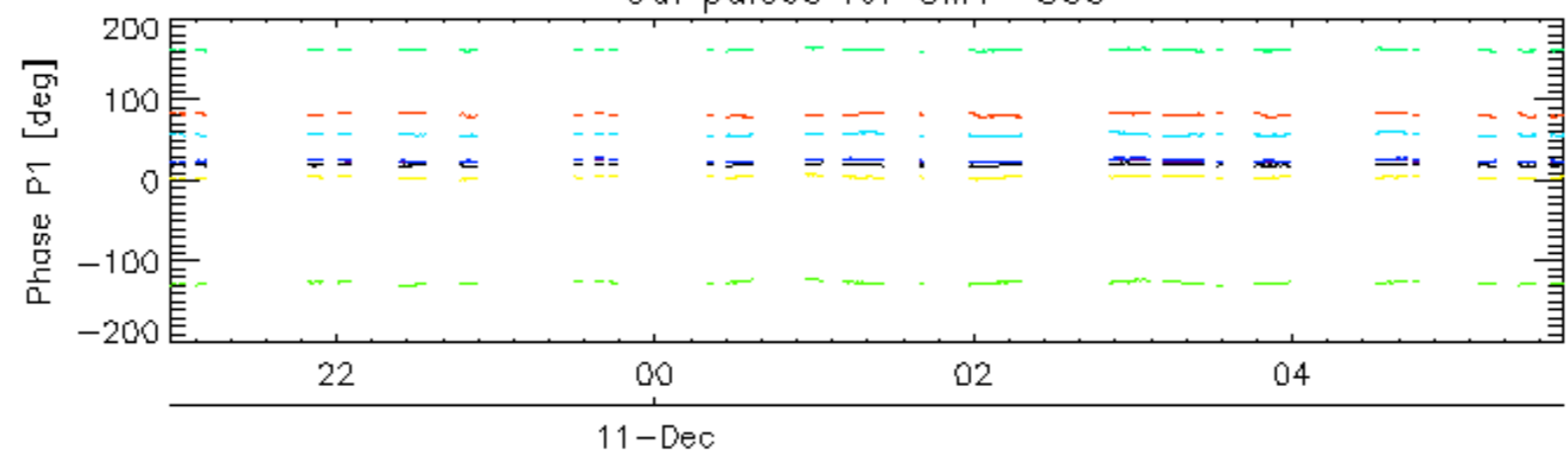
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

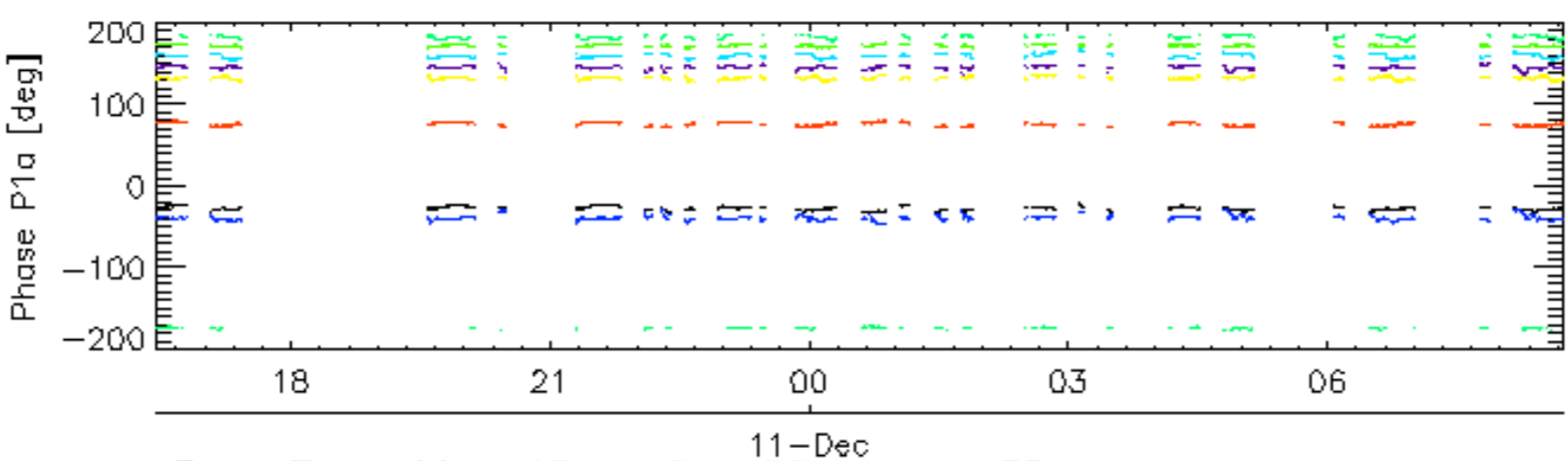
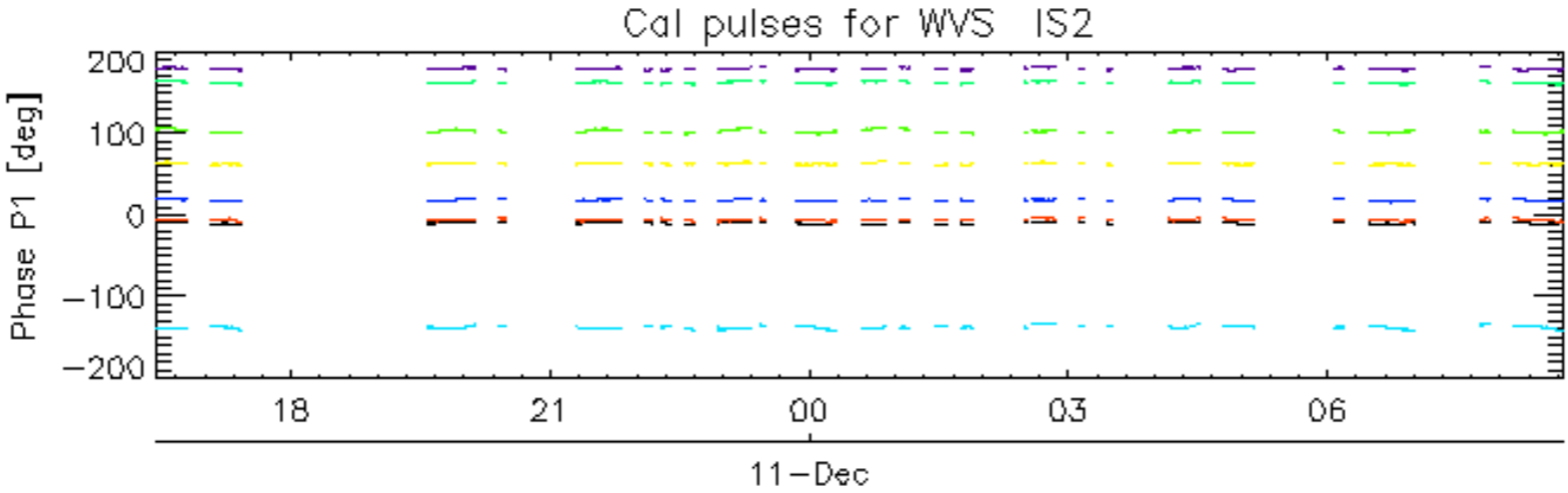
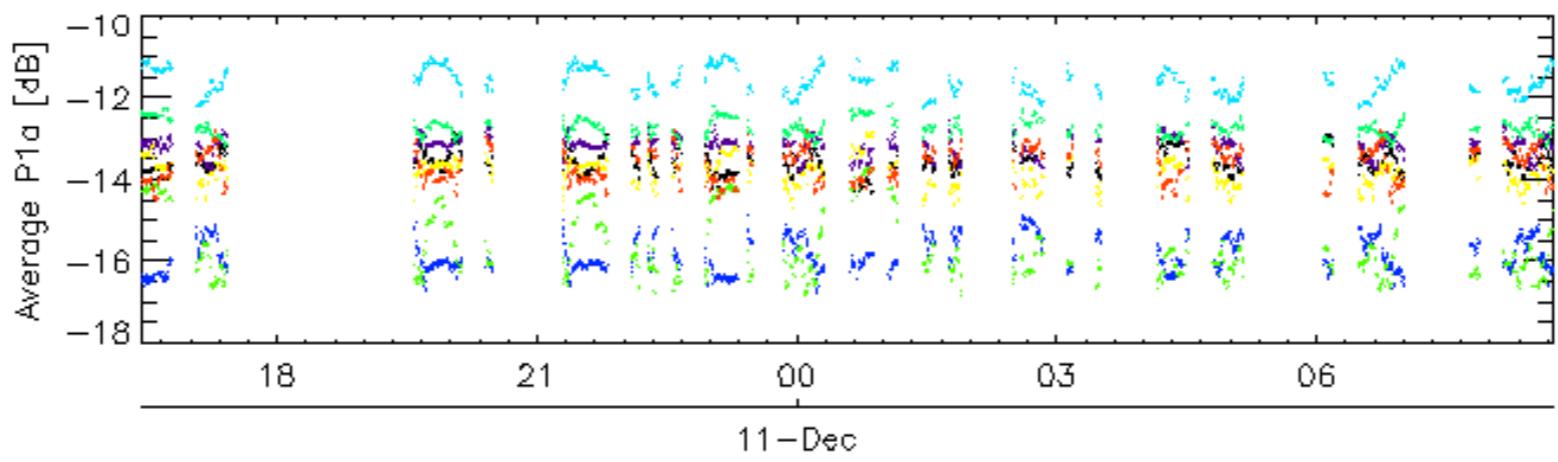
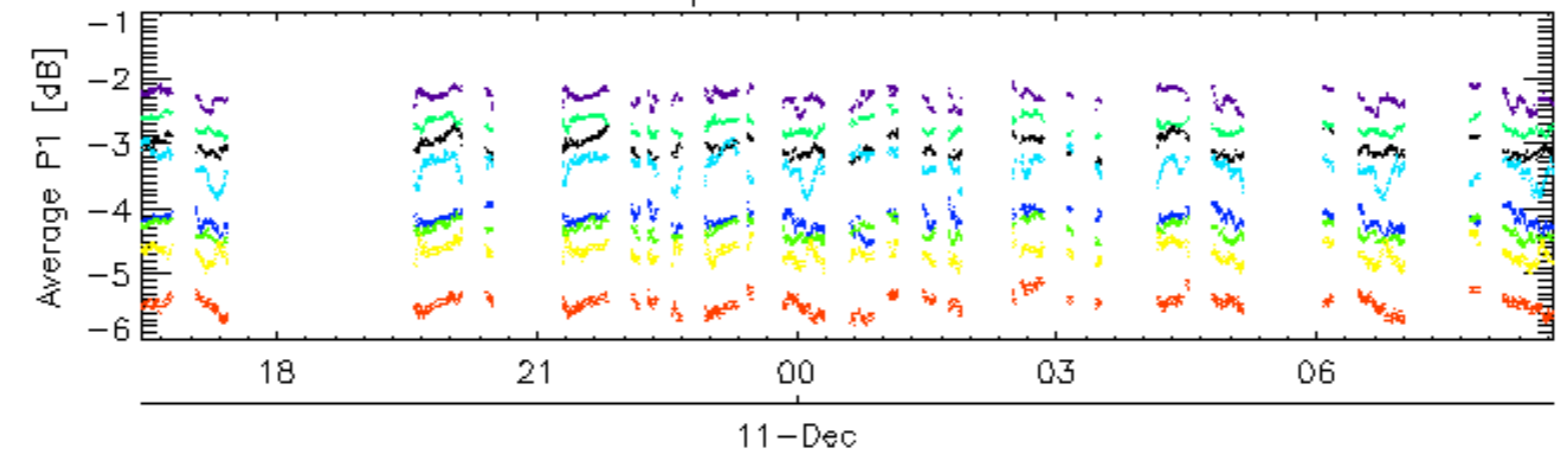


Cal pulses for GM1 SS3



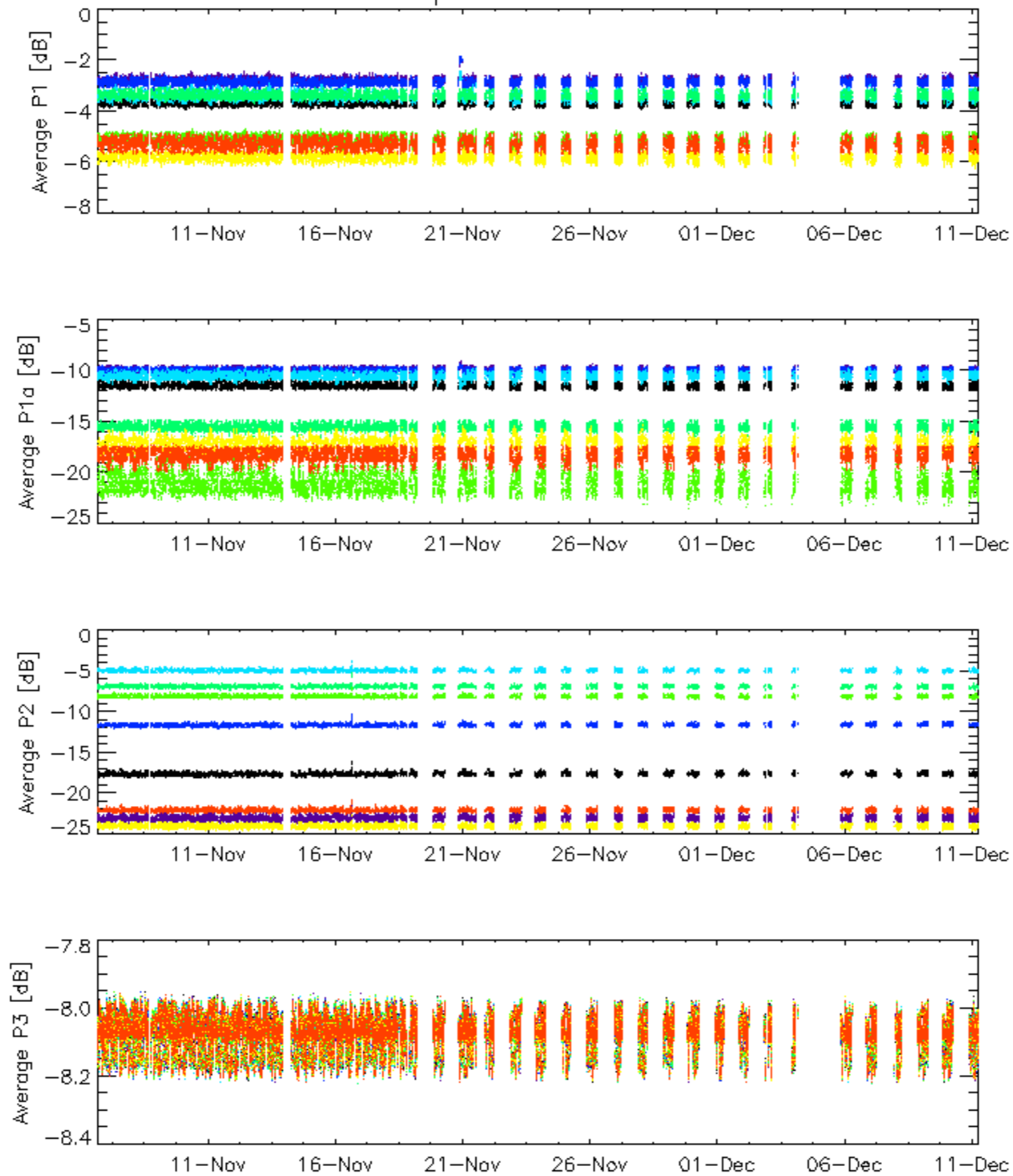
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2



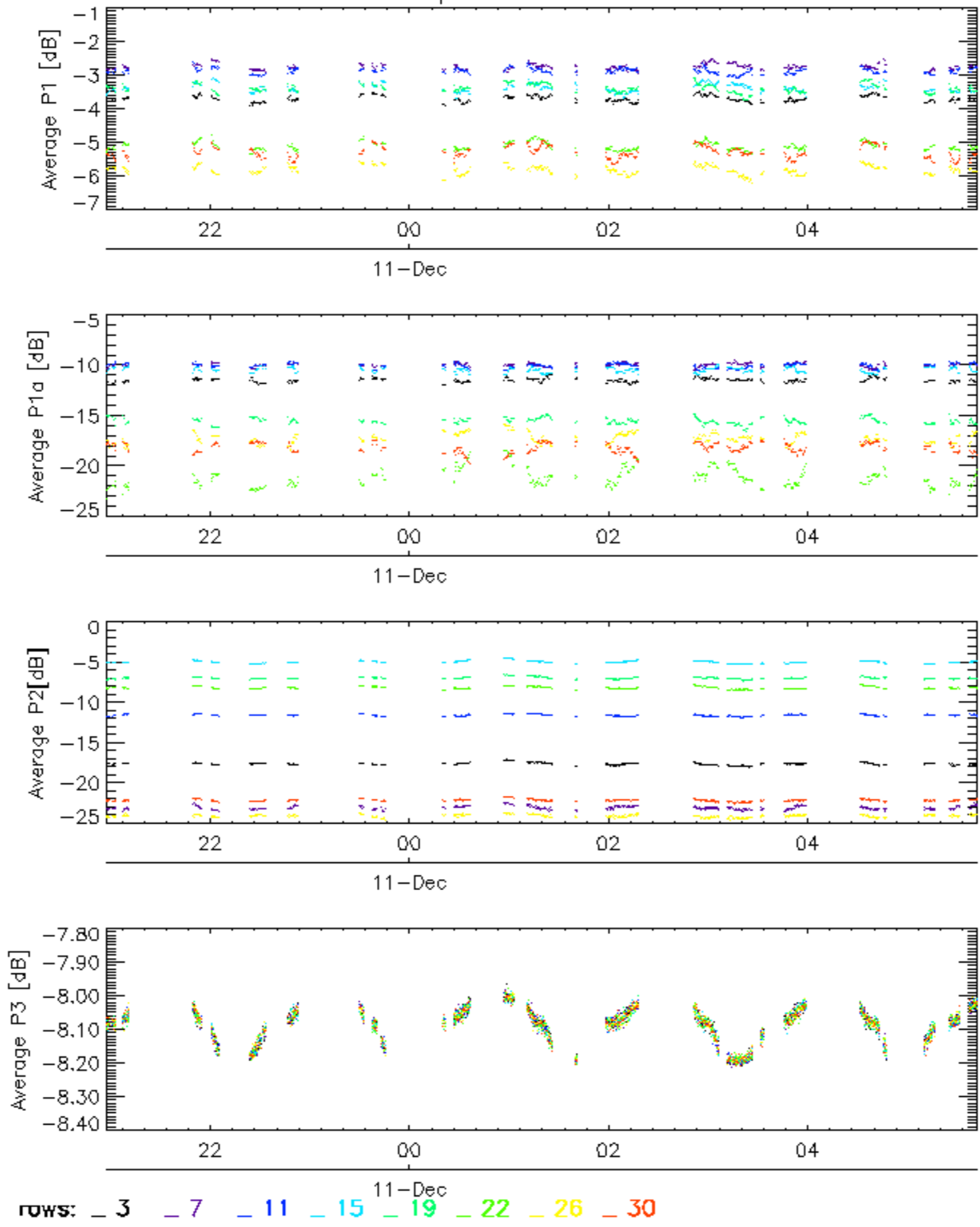
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

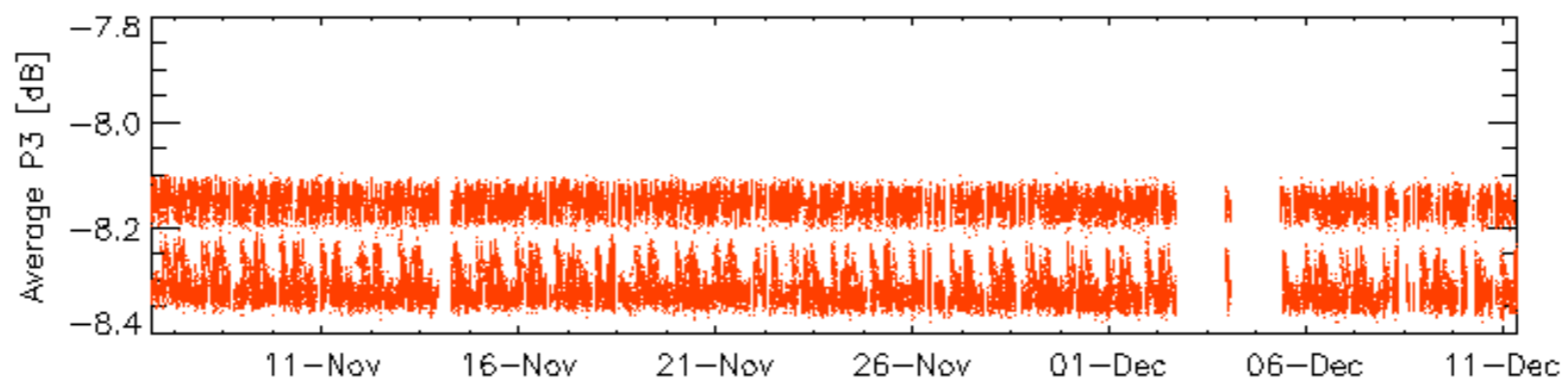
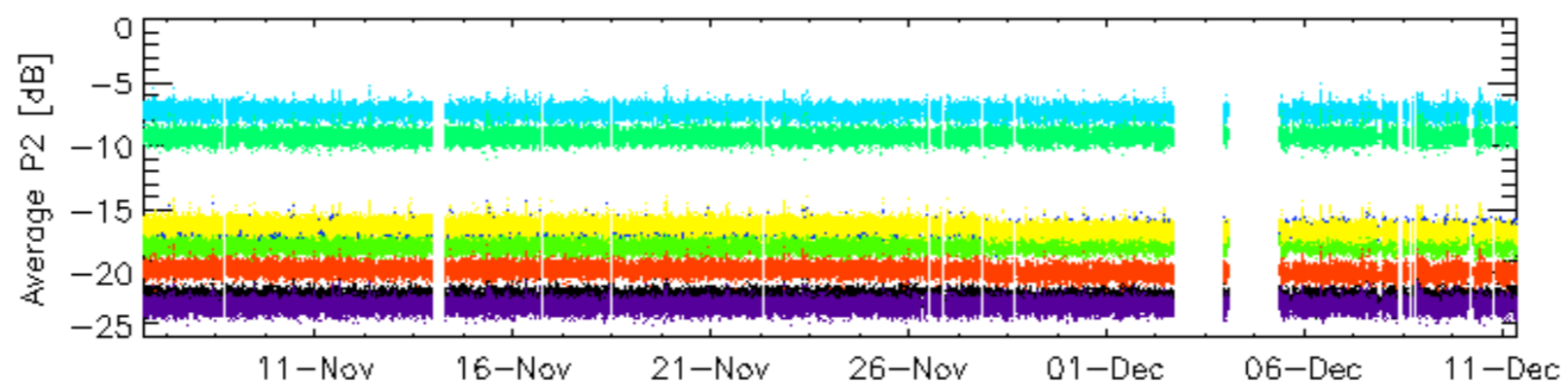
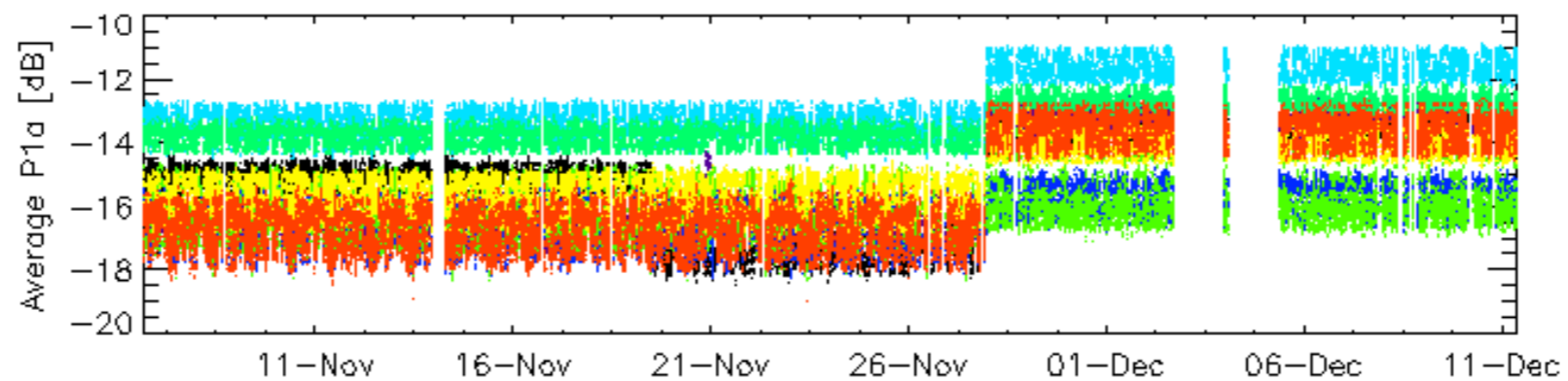
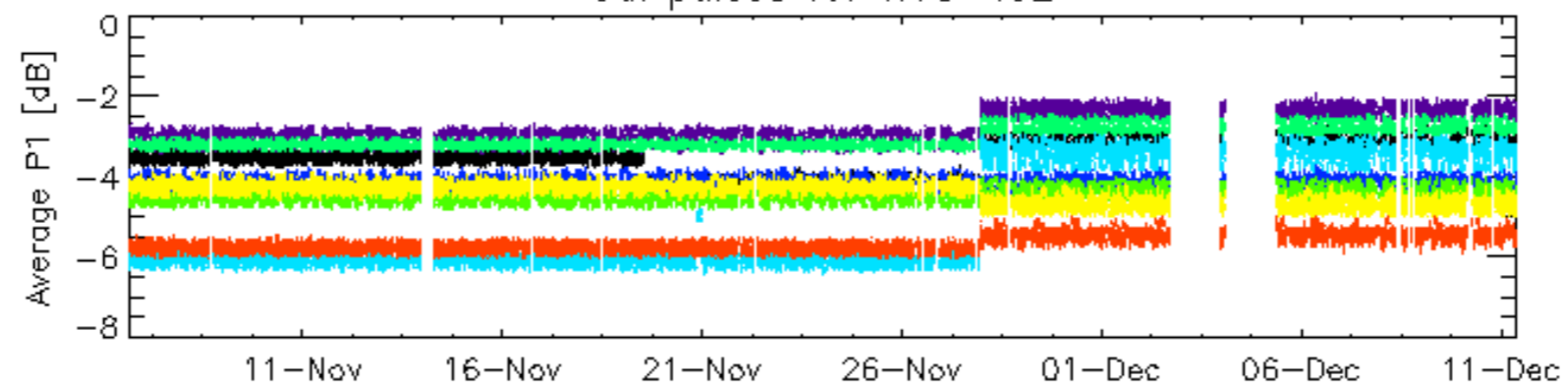


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

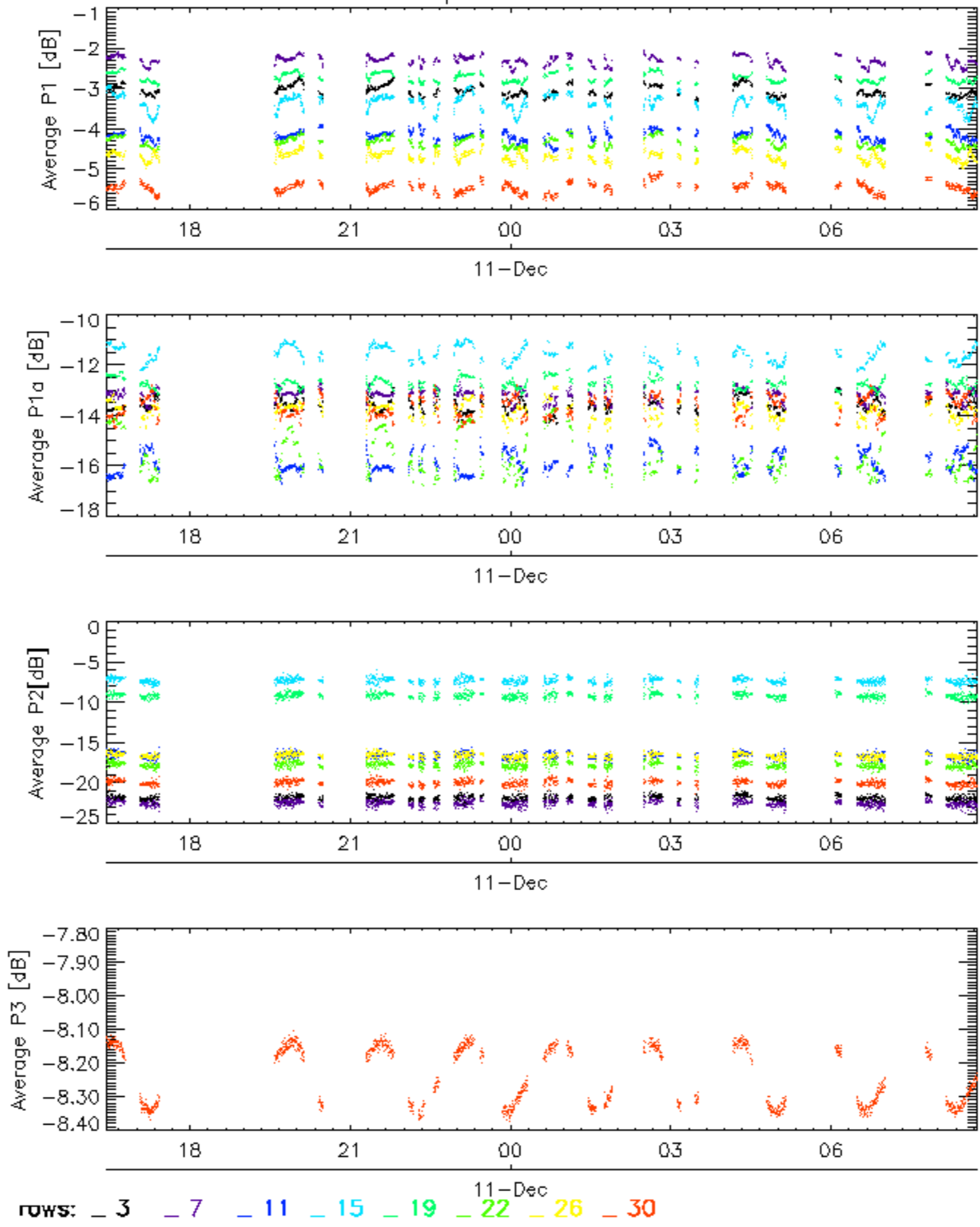


Cal pulses for WVS IS2

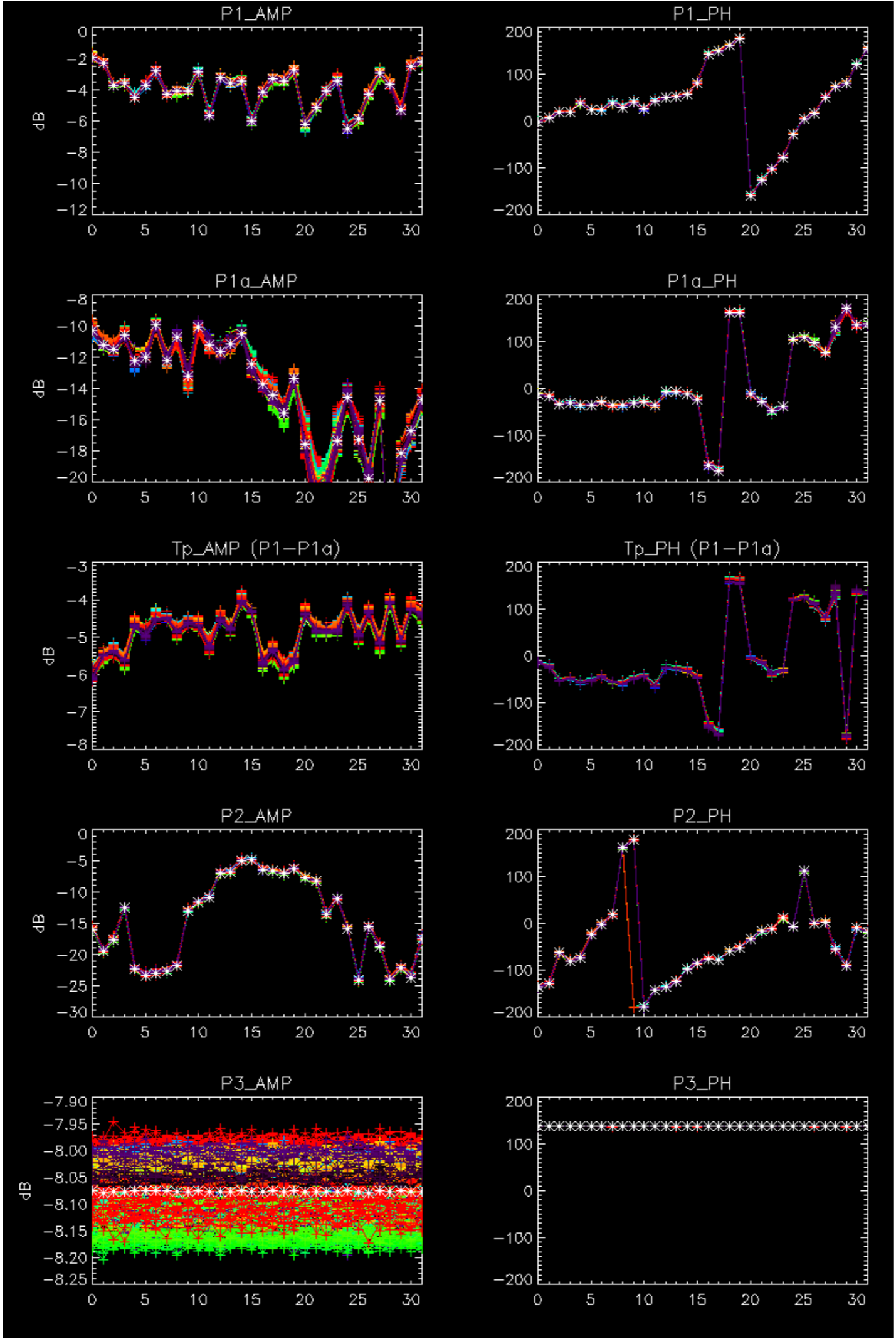


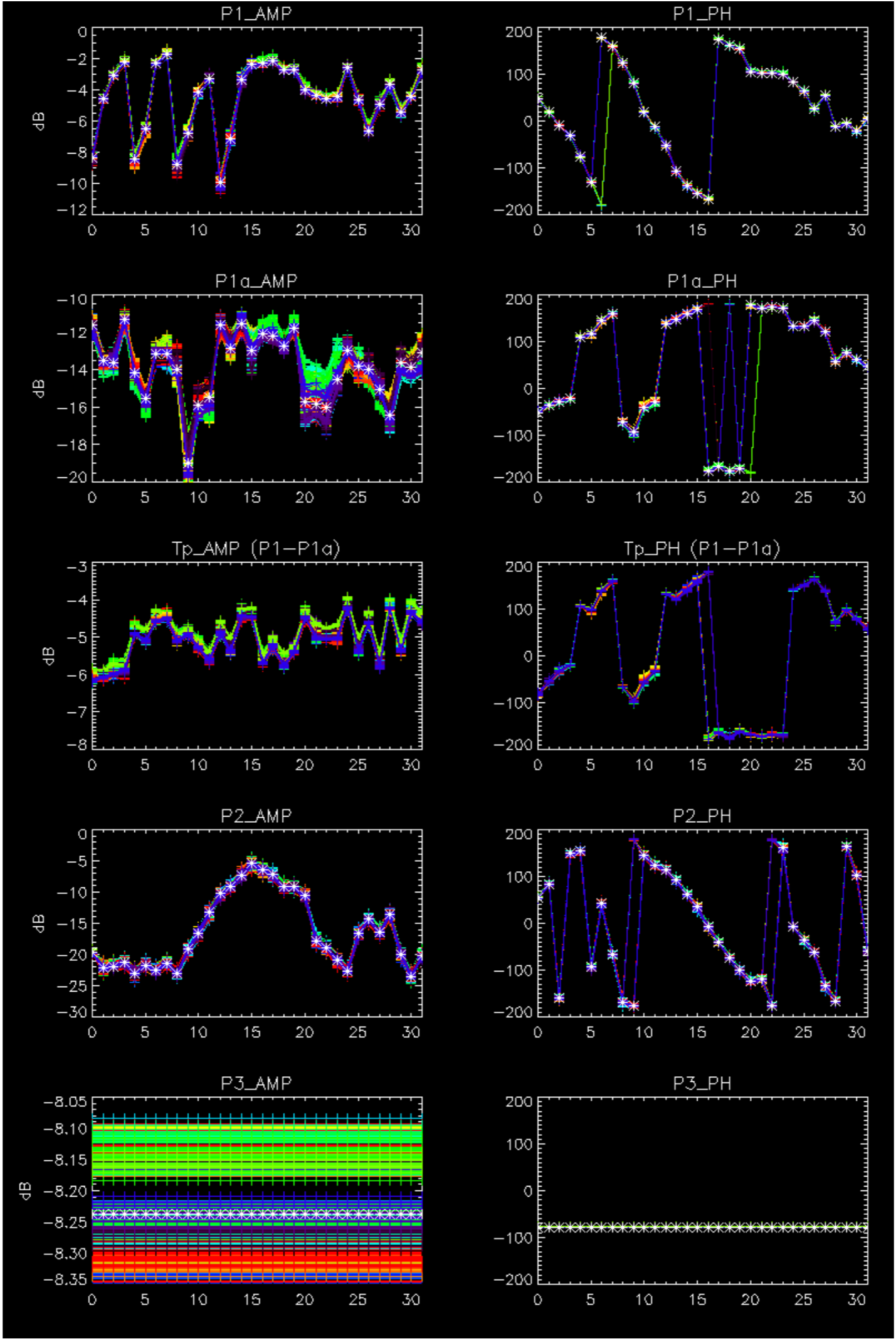
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



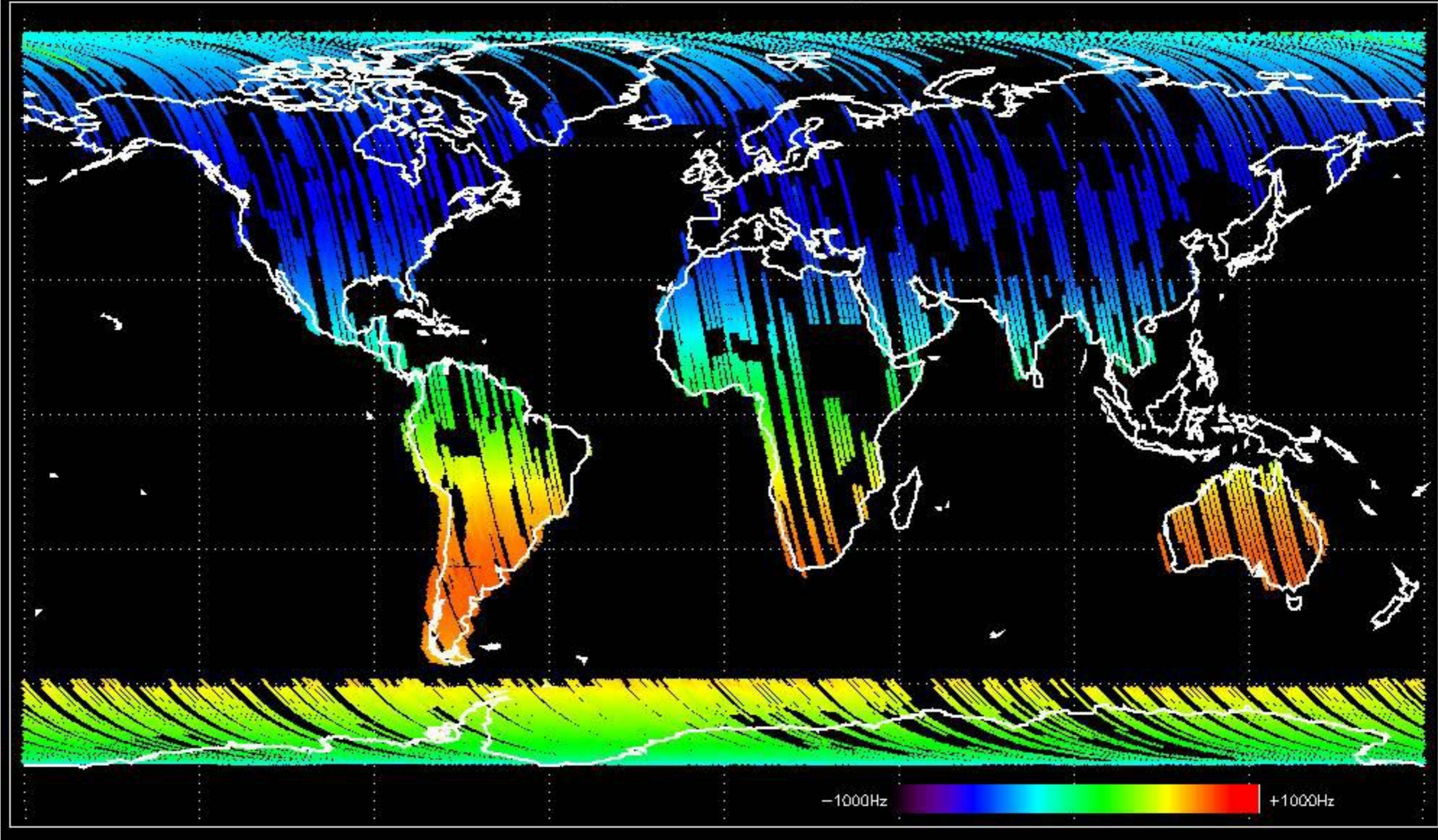
No anomalies observed.



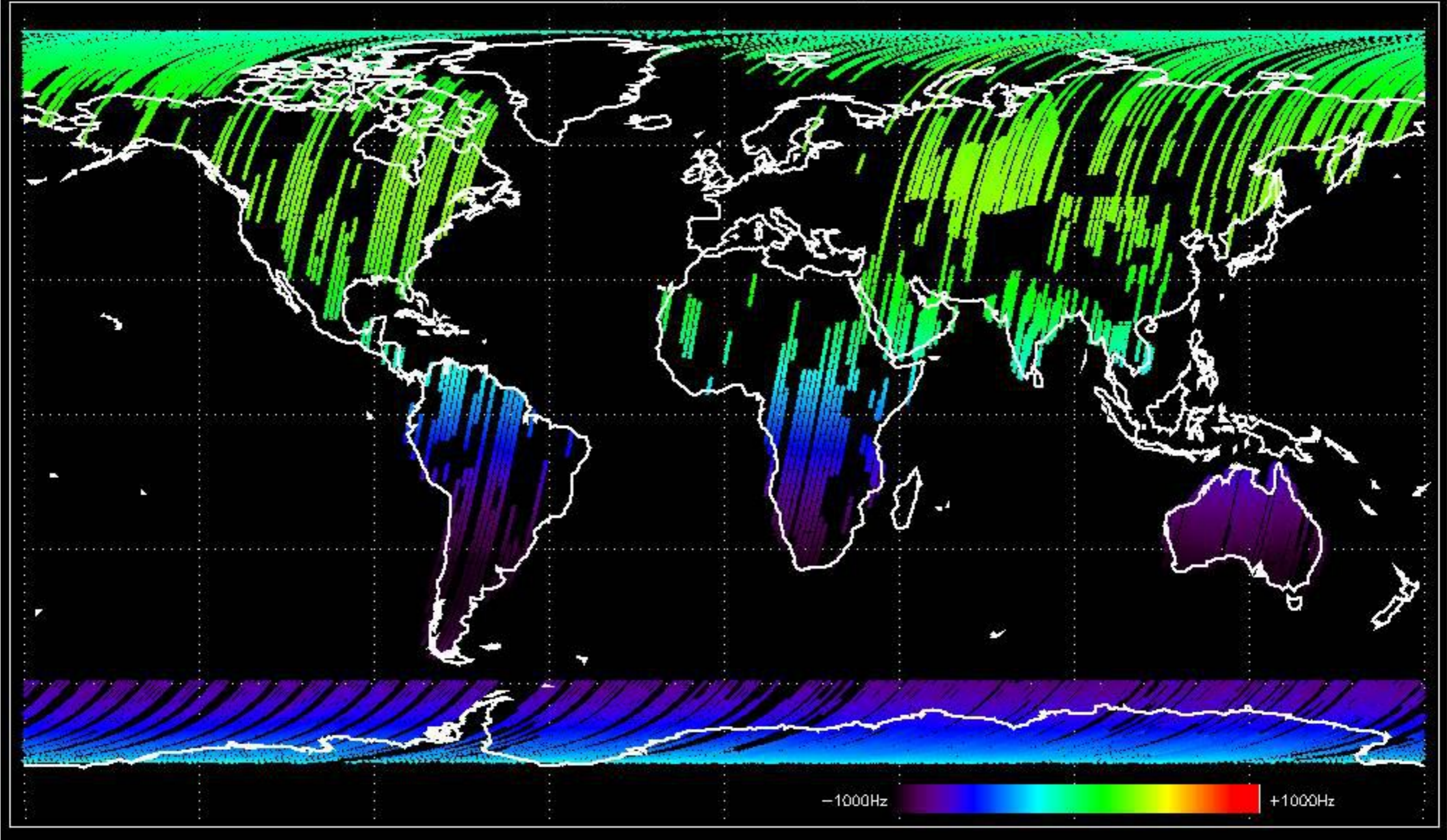


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

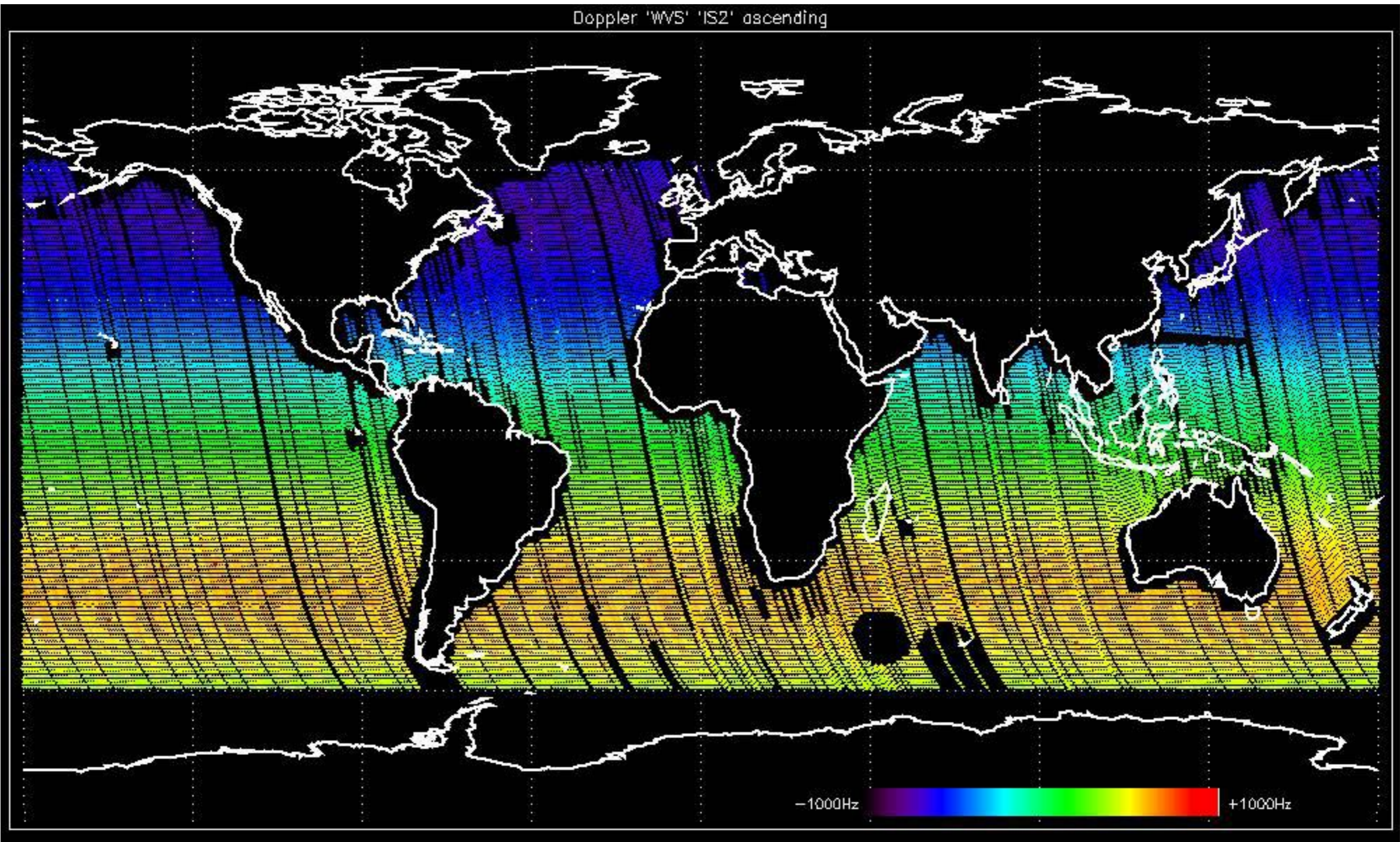
Doppler 'GM1' 'SS1' ascending



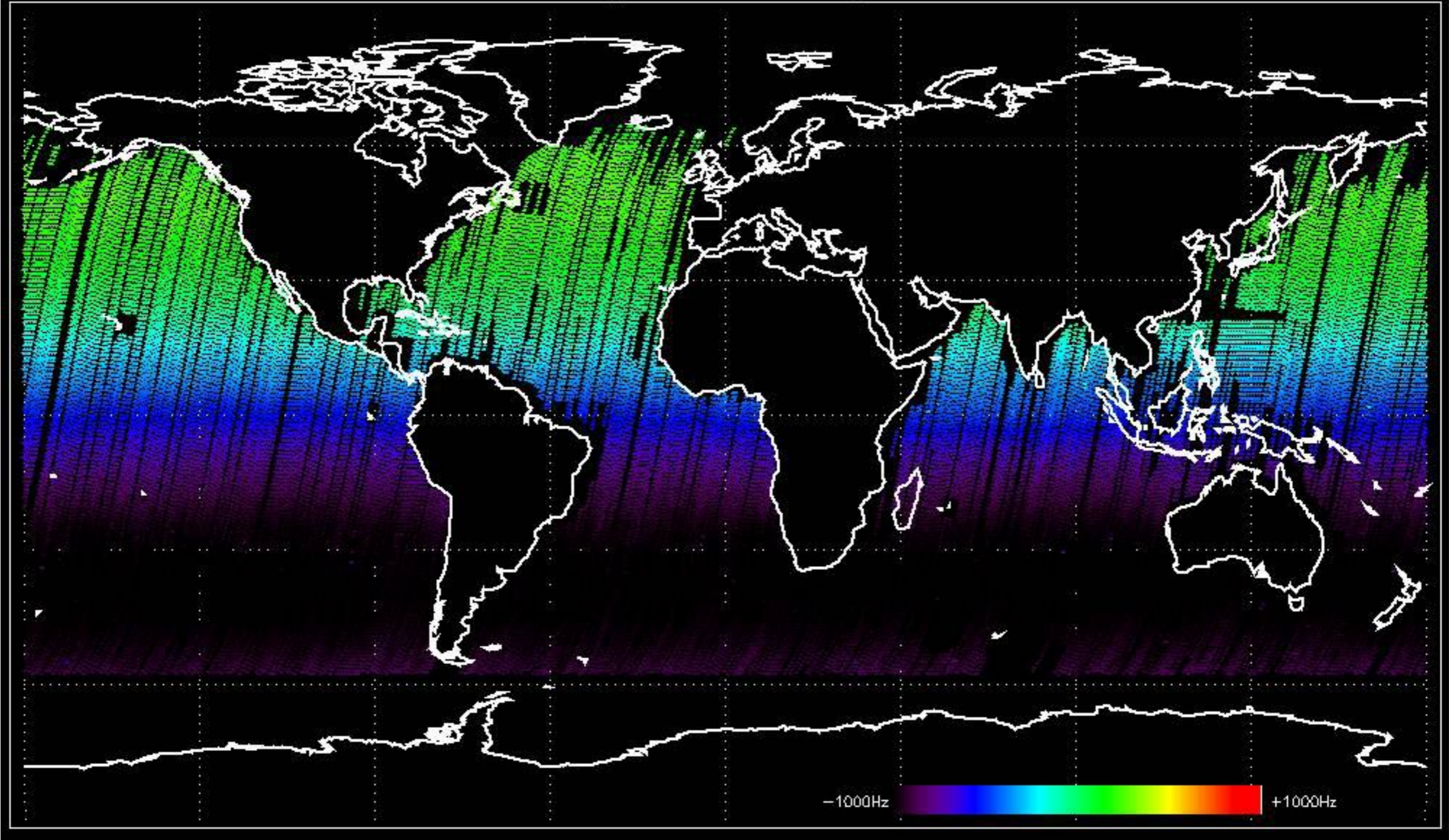
Doppler 'GM1' 'SS1' descending

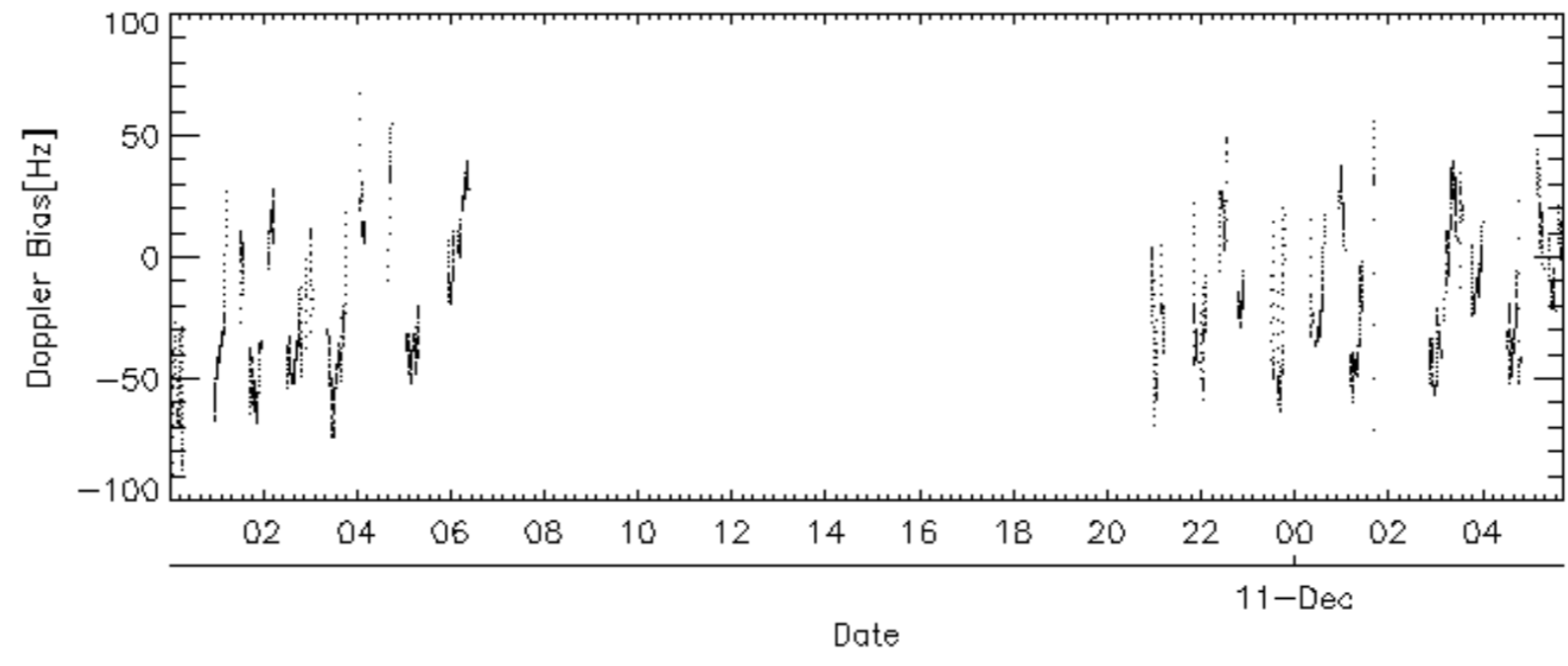
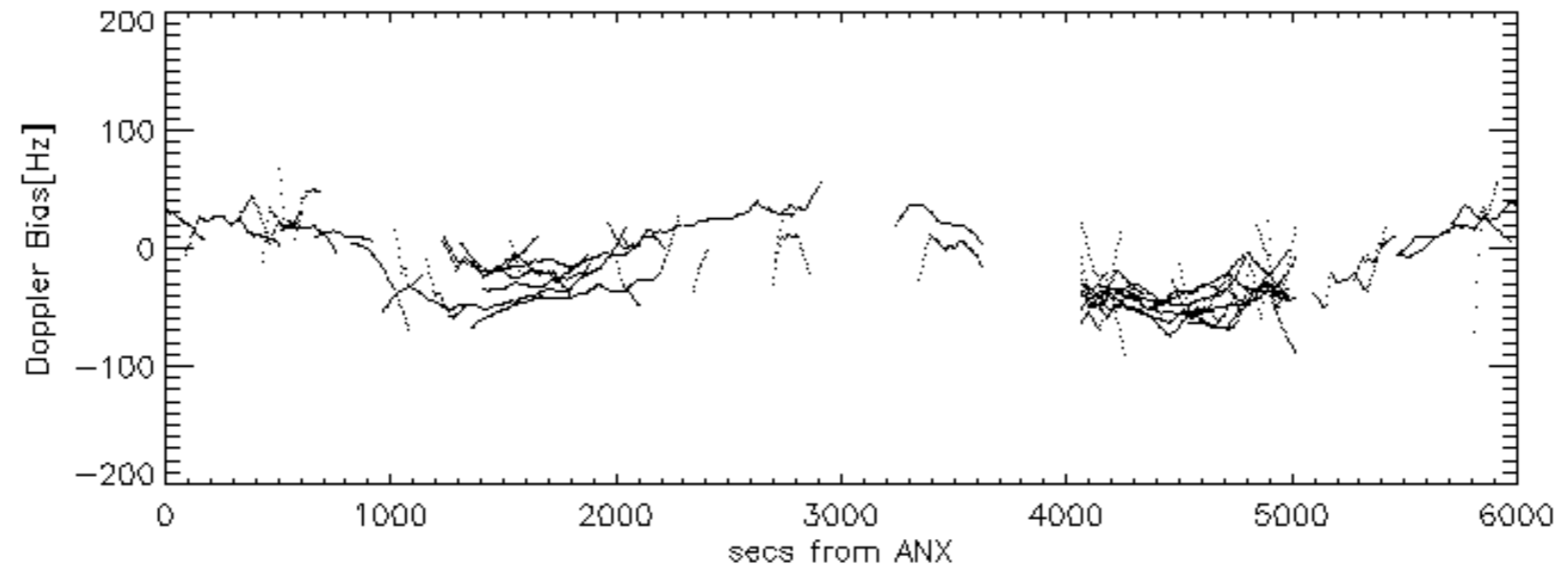
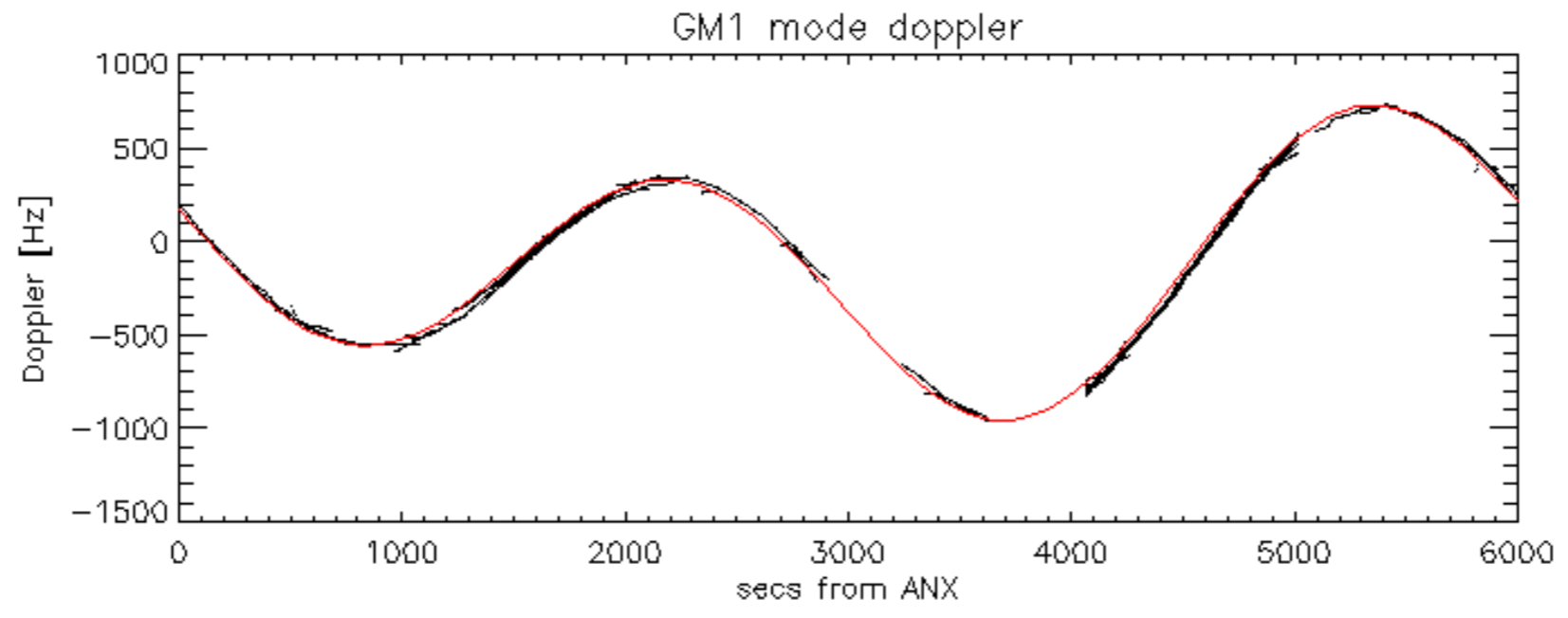


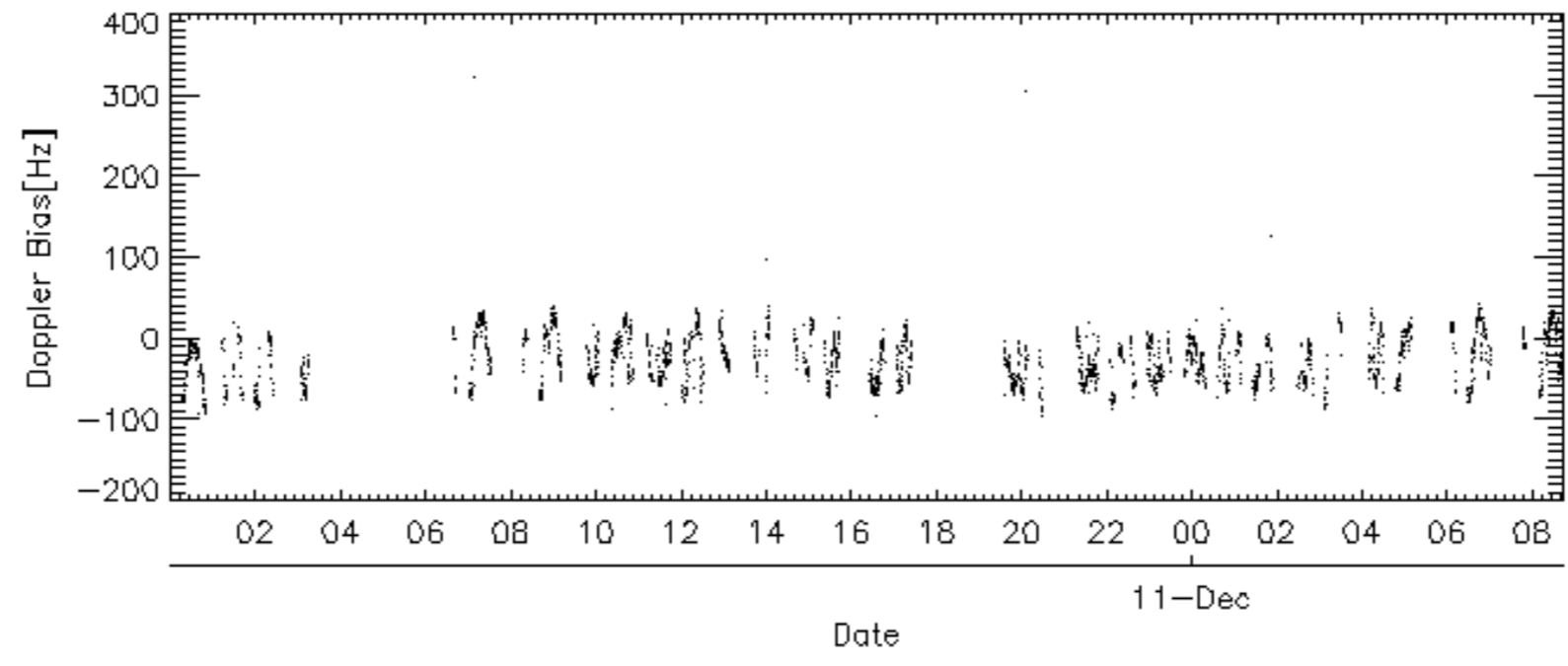
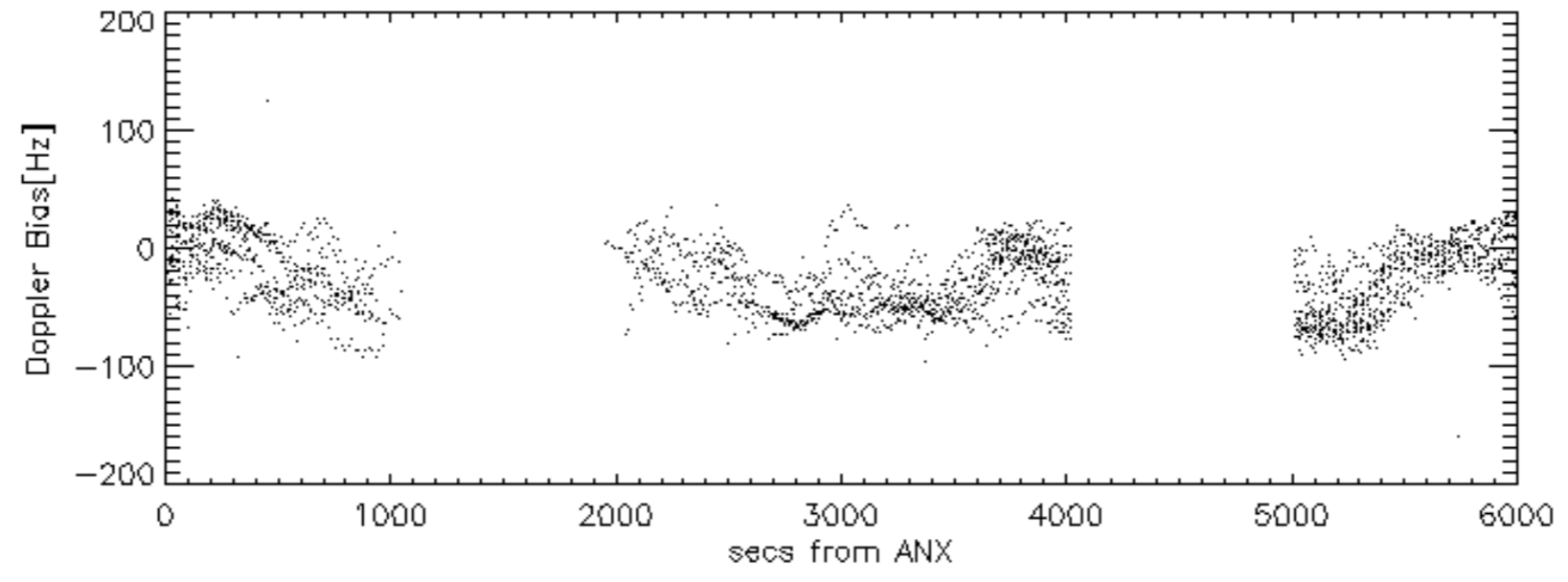
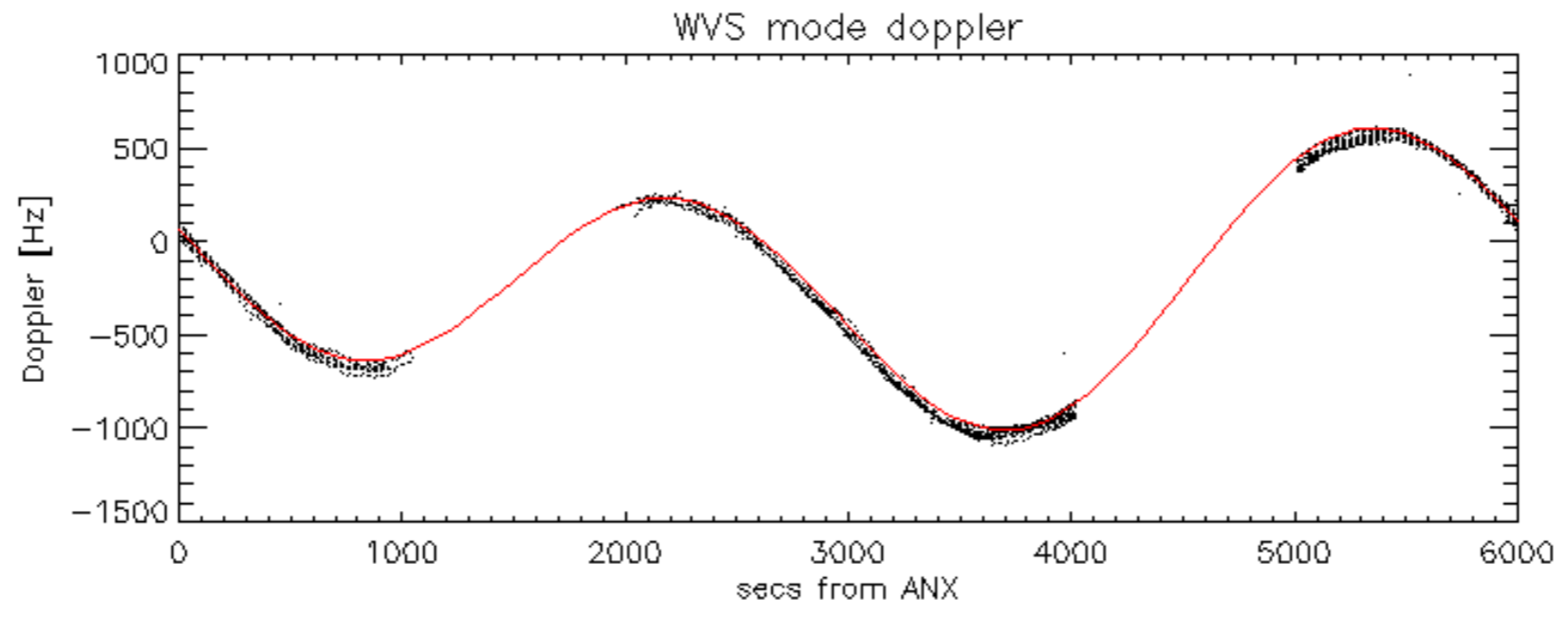
Doppler 'WVS' 'IS2' ascending



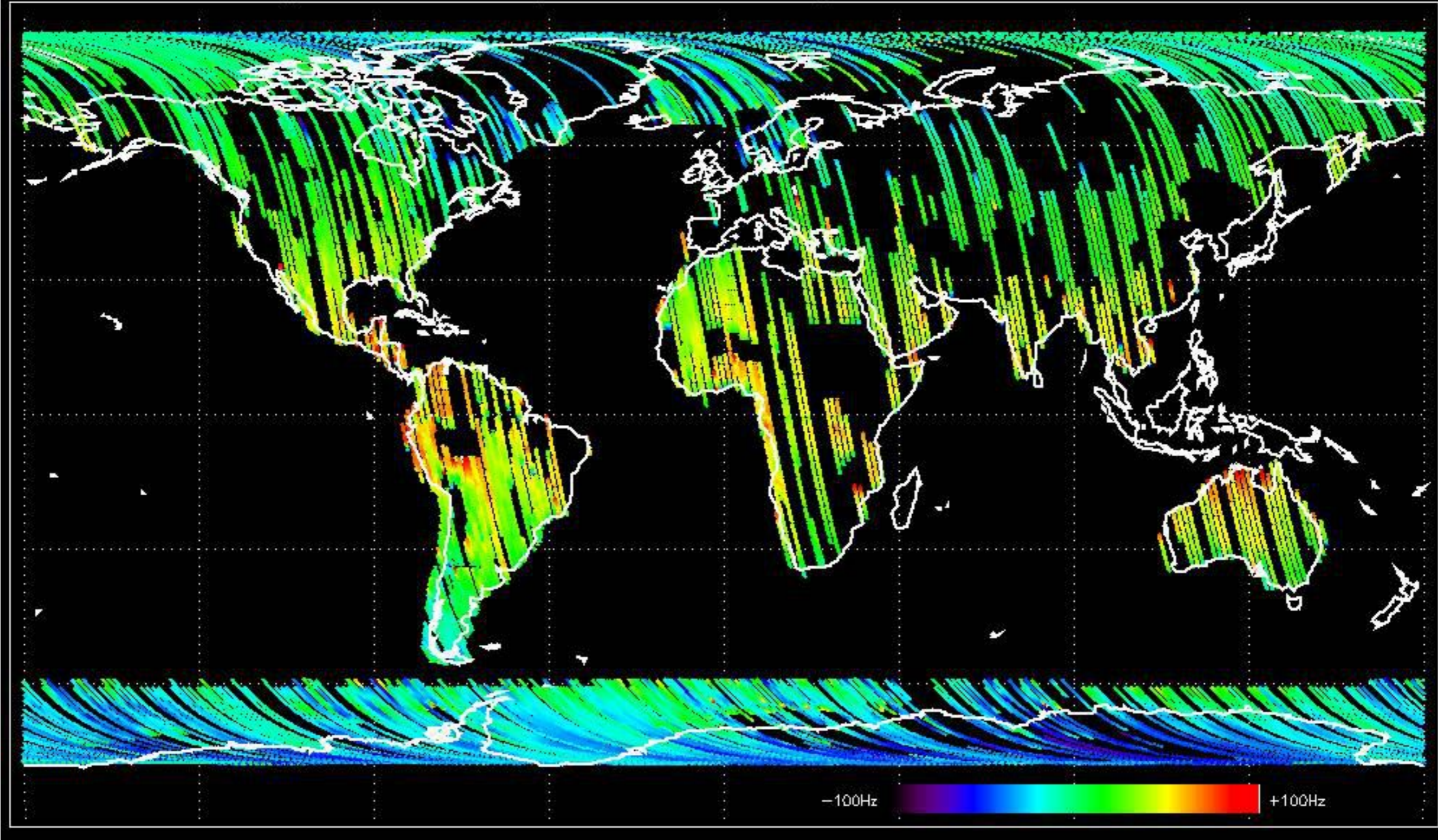
Doppler 'WVS' 'IS2' descending



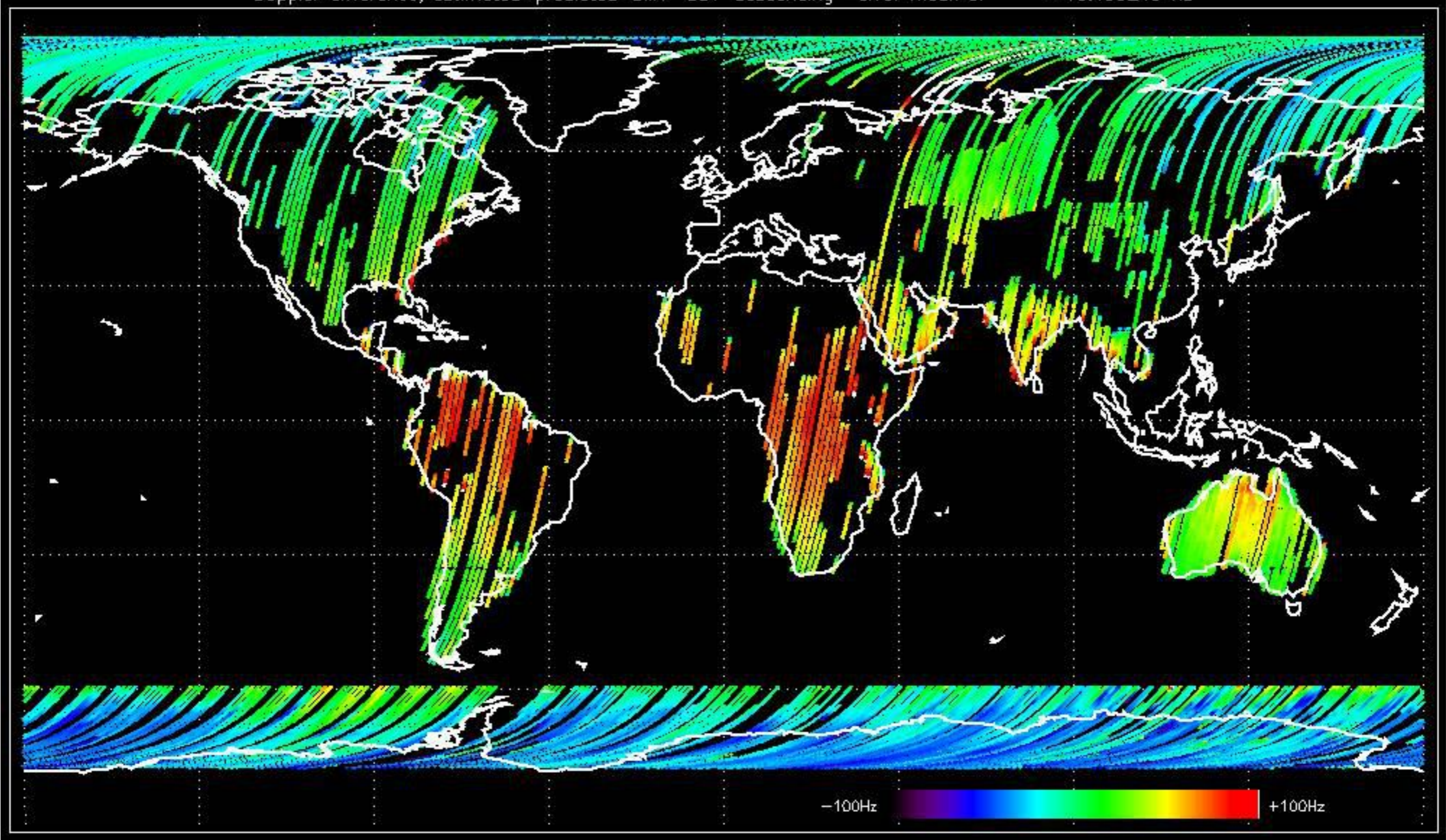




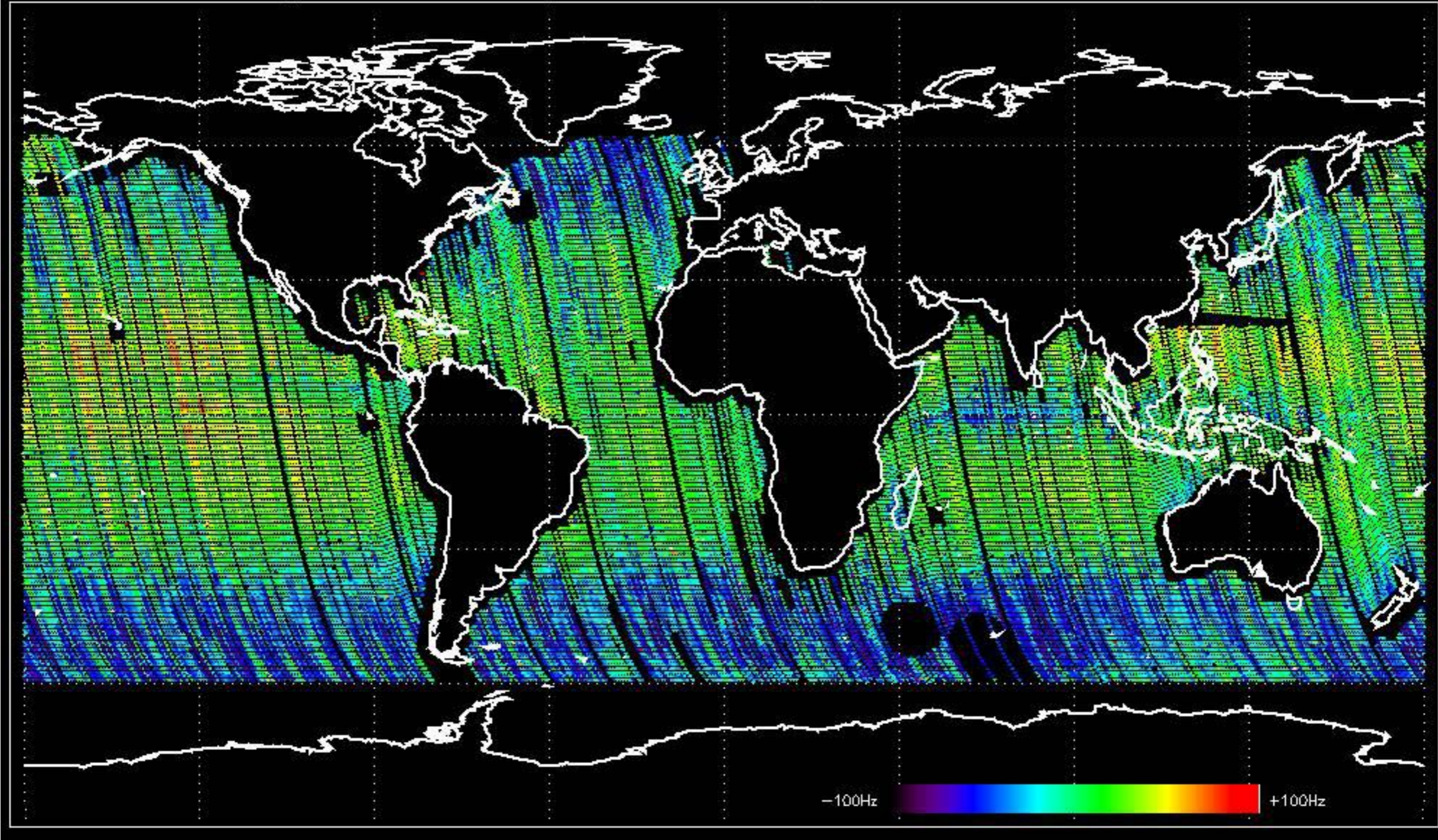
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -15.730011 Hz



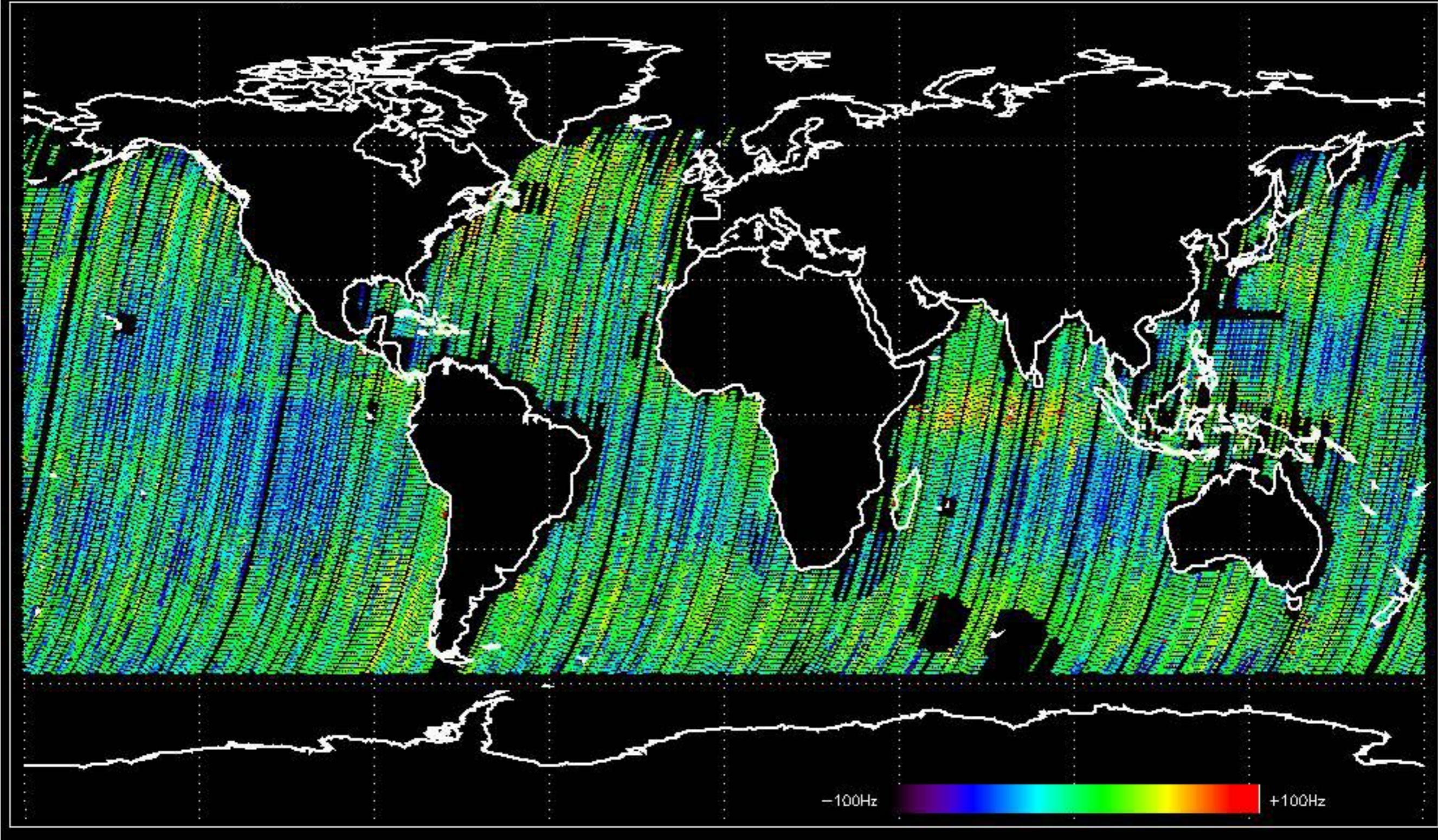
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.199243 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.9680215 Hz

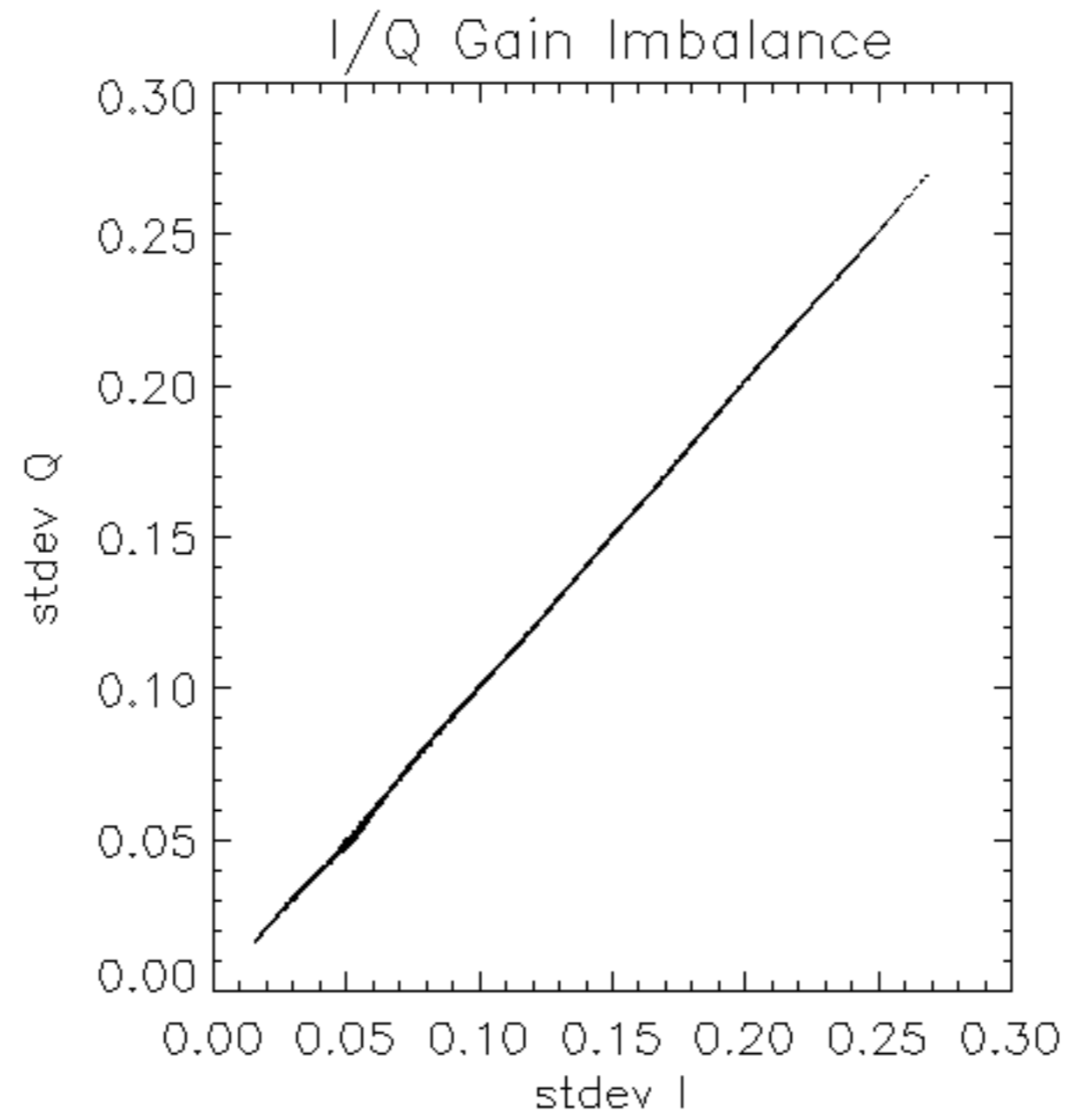


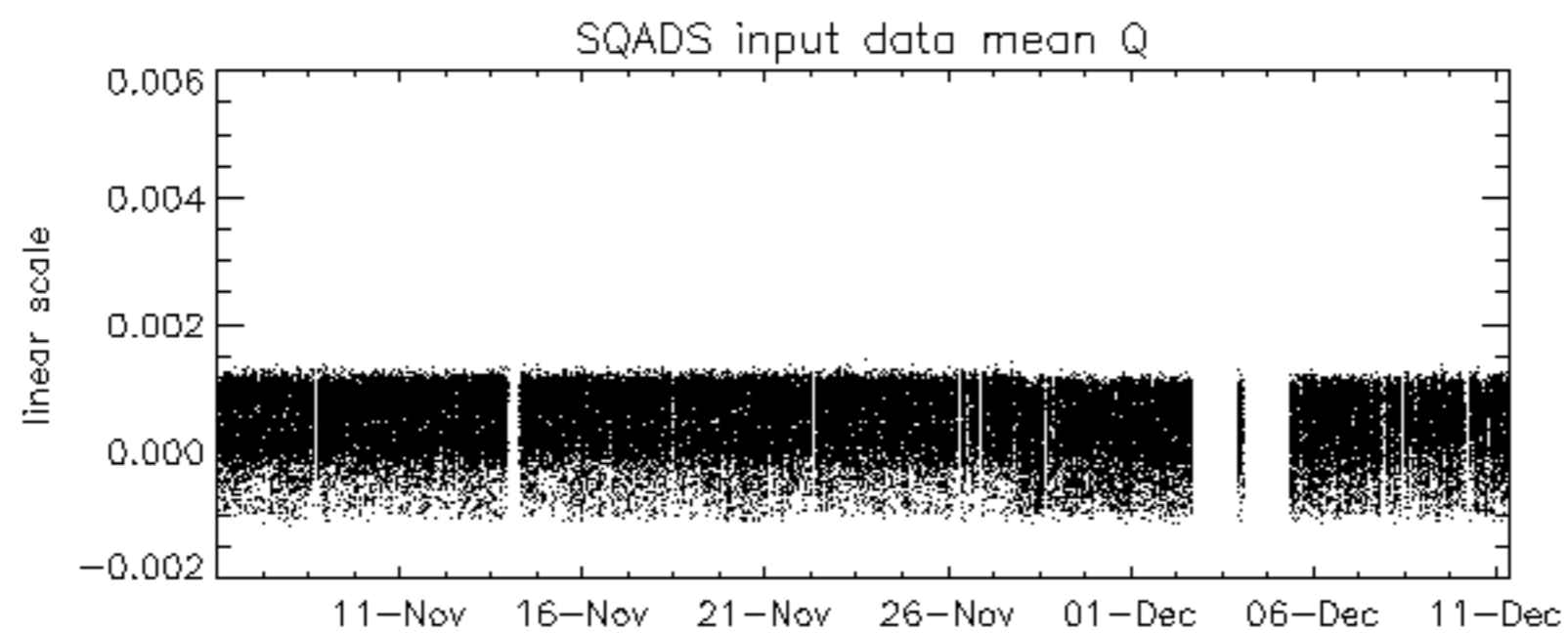
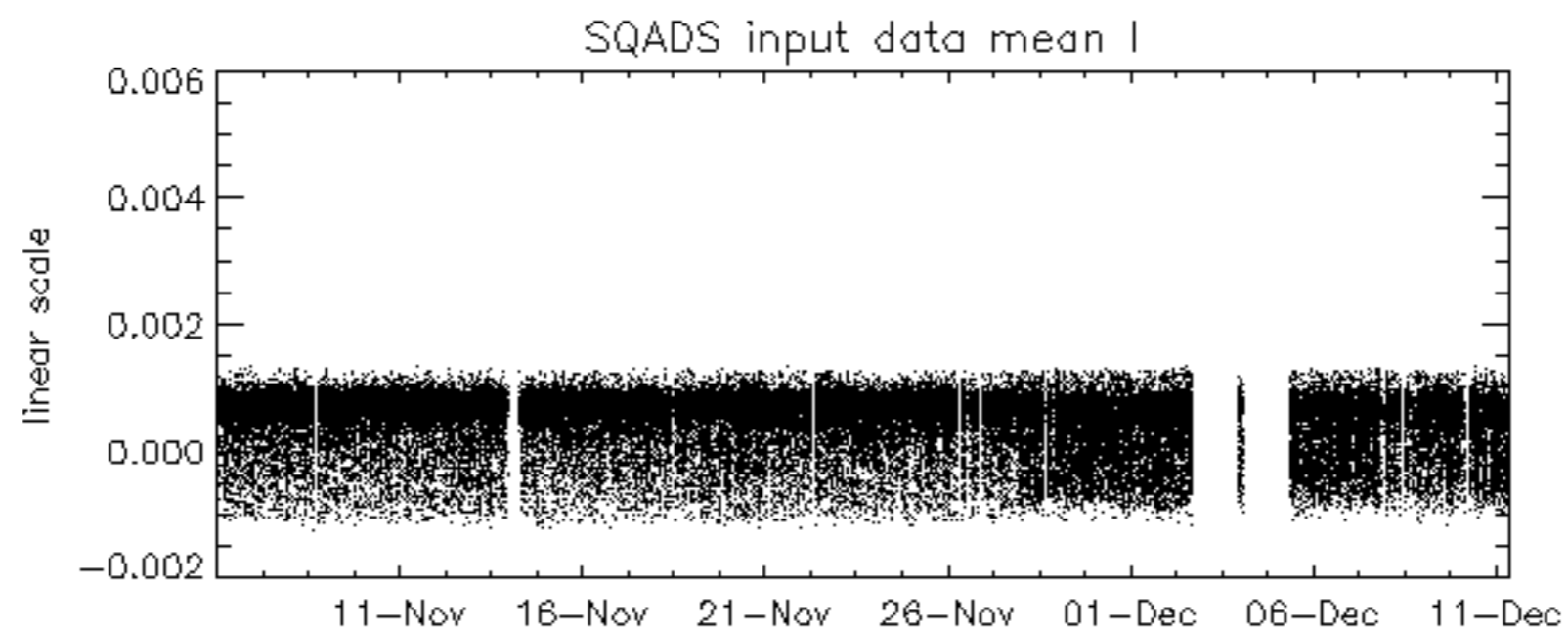
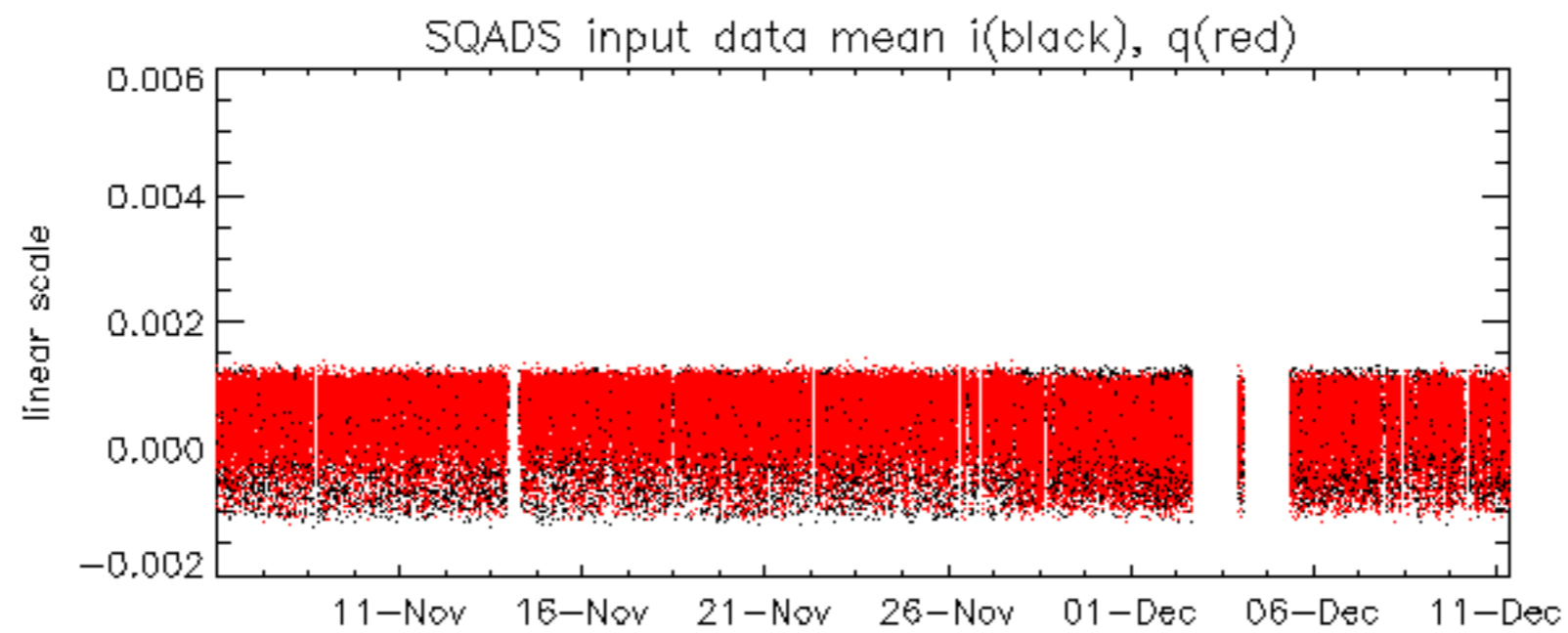
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -12.382633 Hz

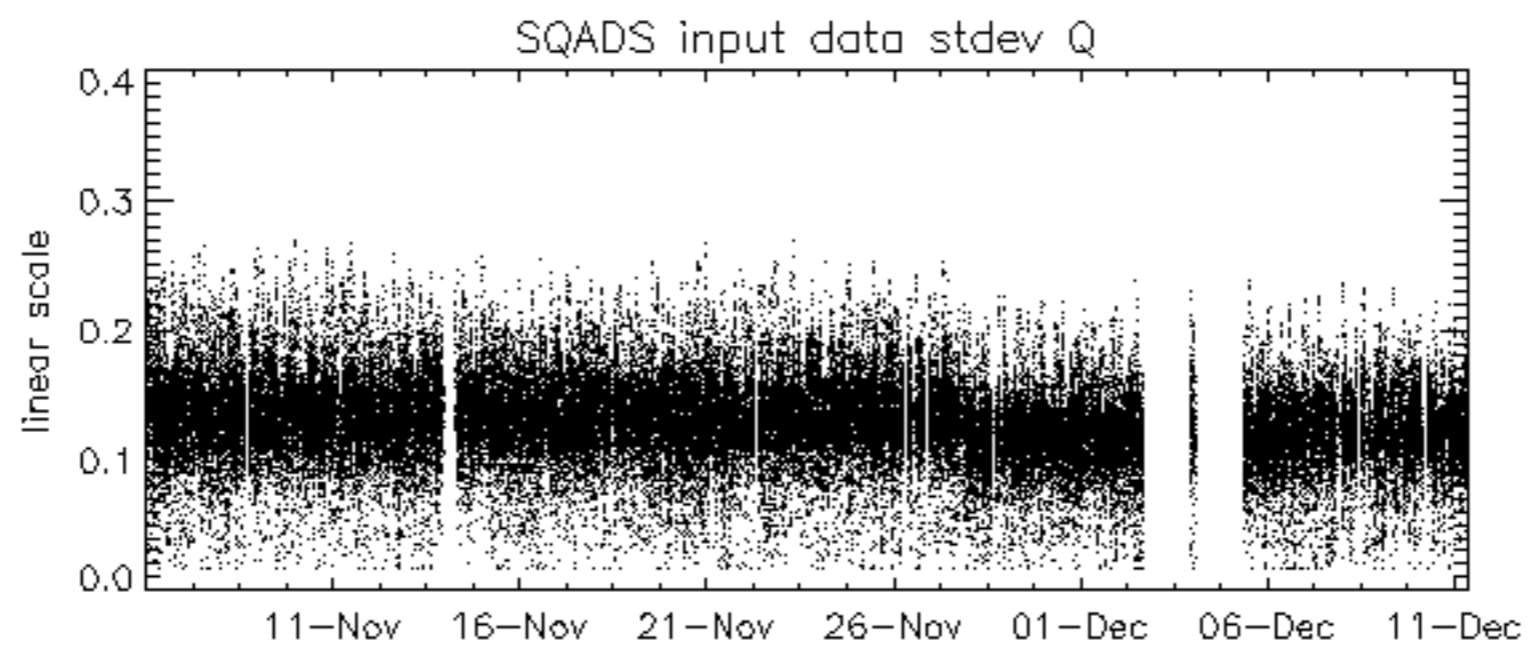
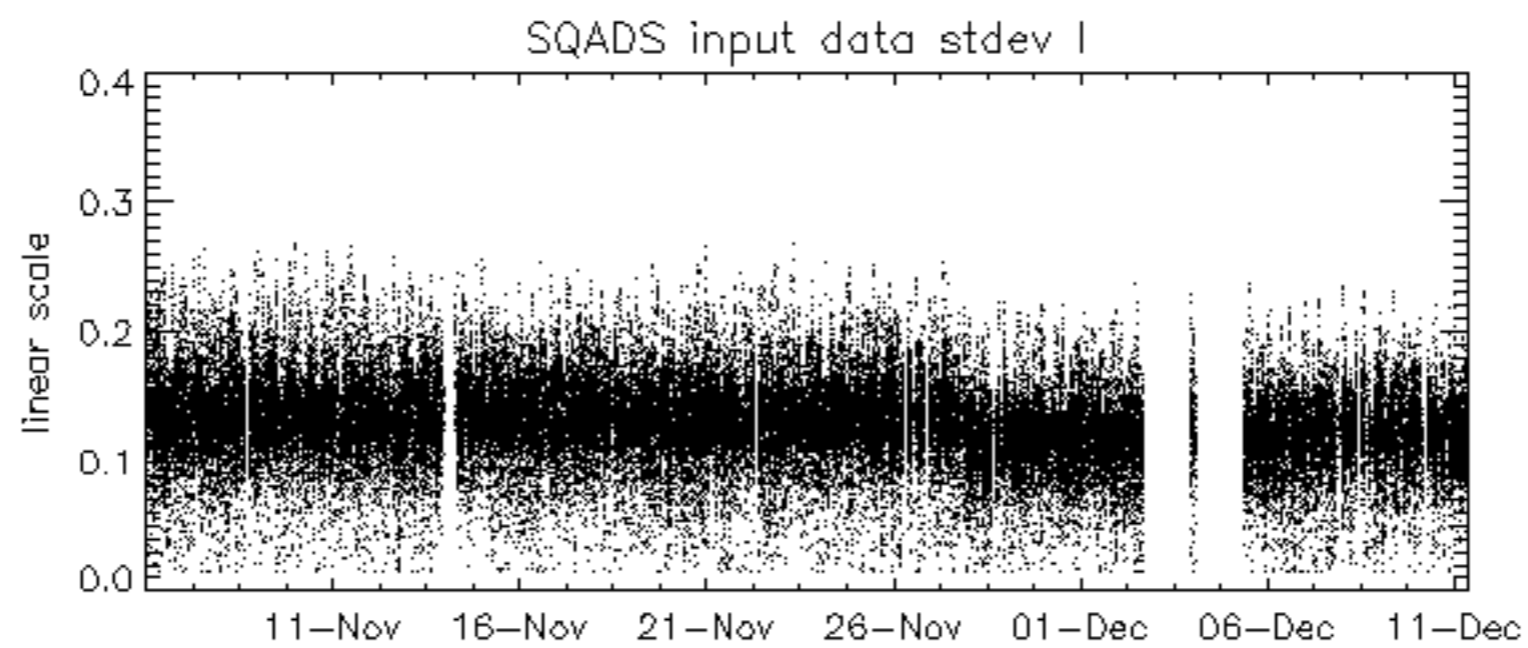
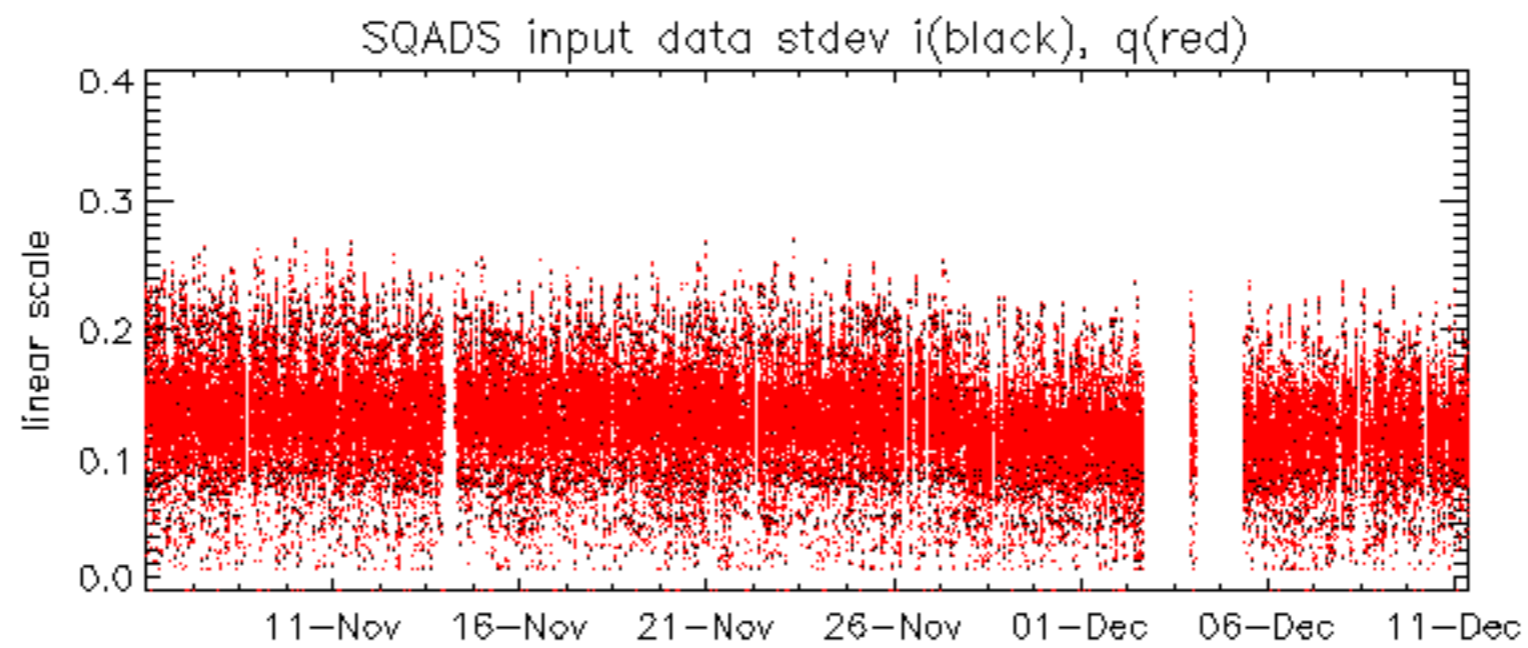


No anomalies observed on available MS products:

No anomalies observed.



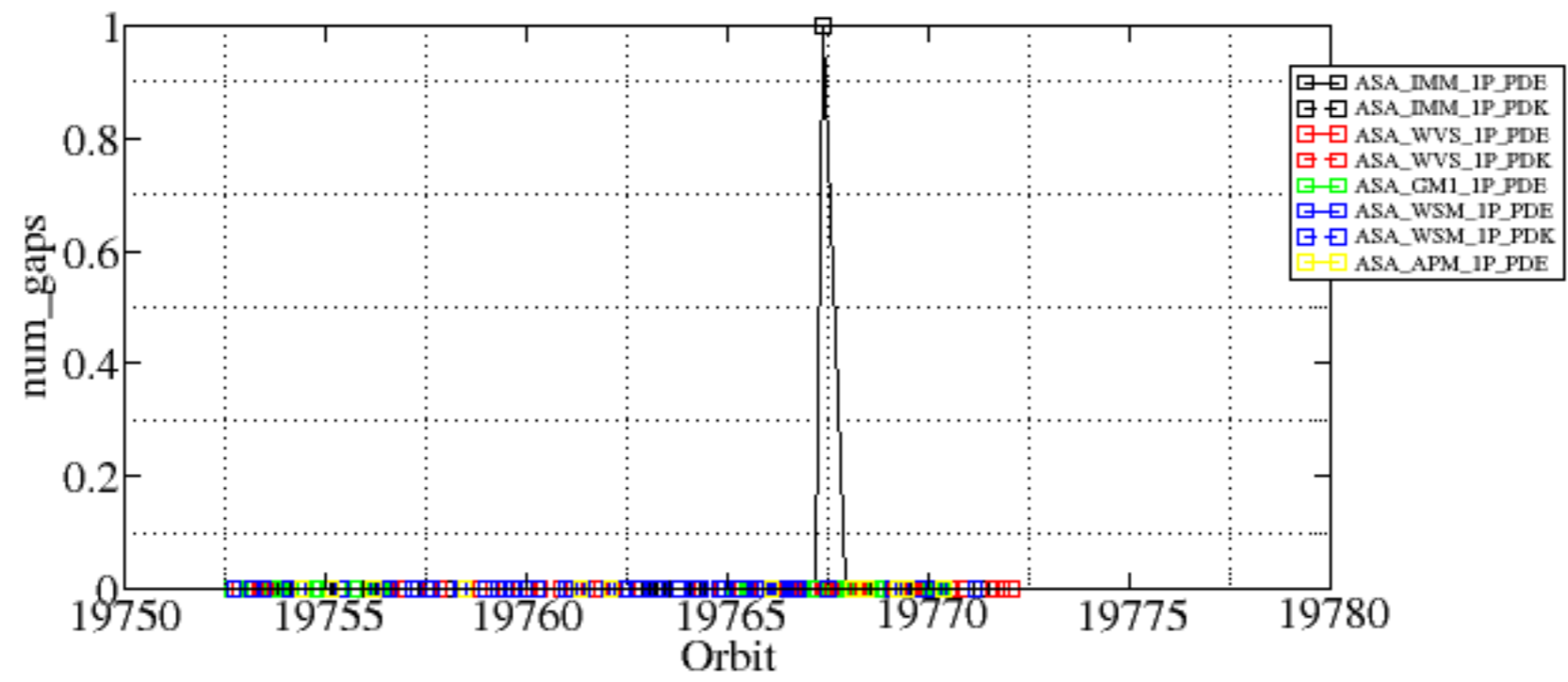


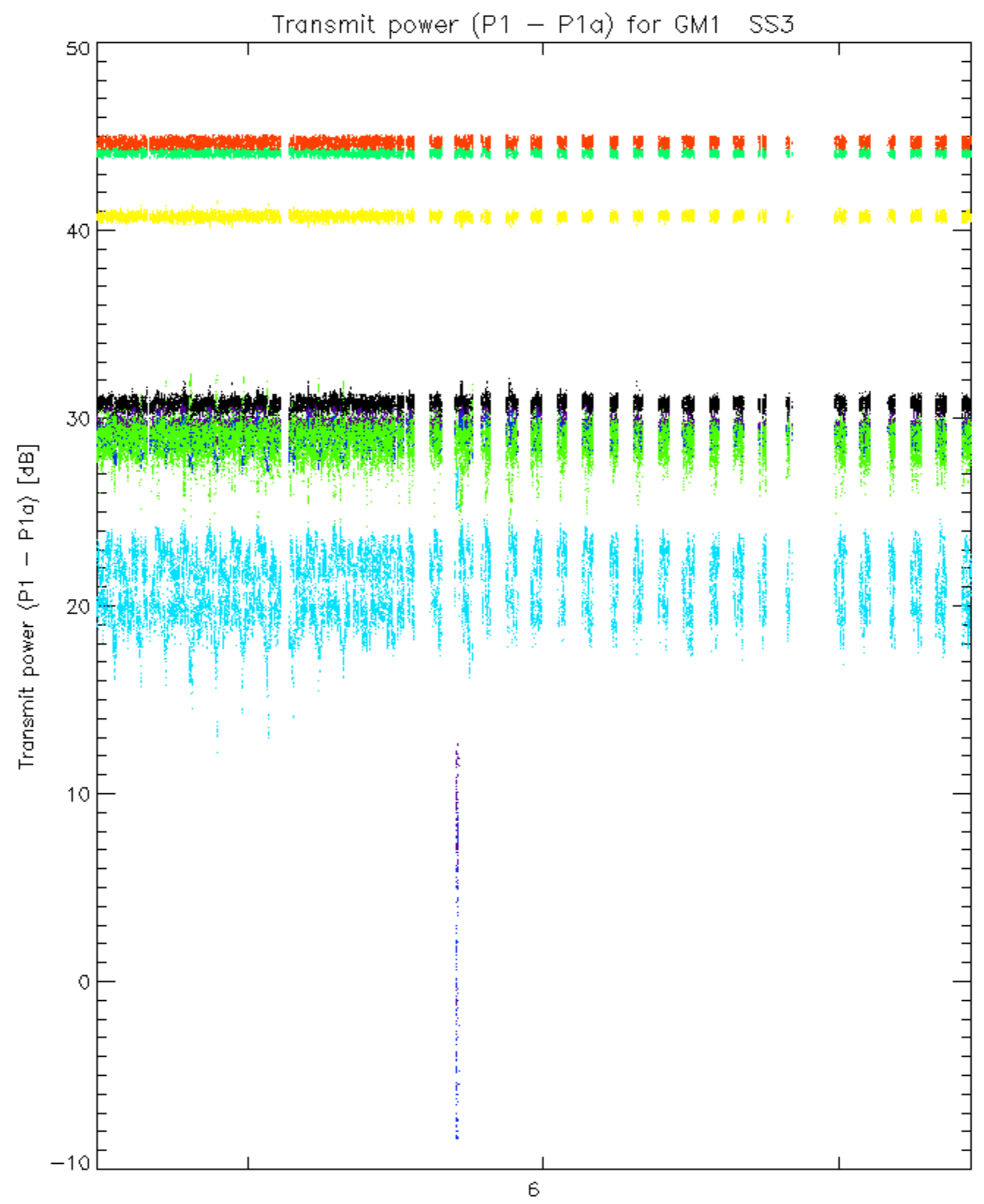


Summary of analysis for the last 3 days 2005121[901]

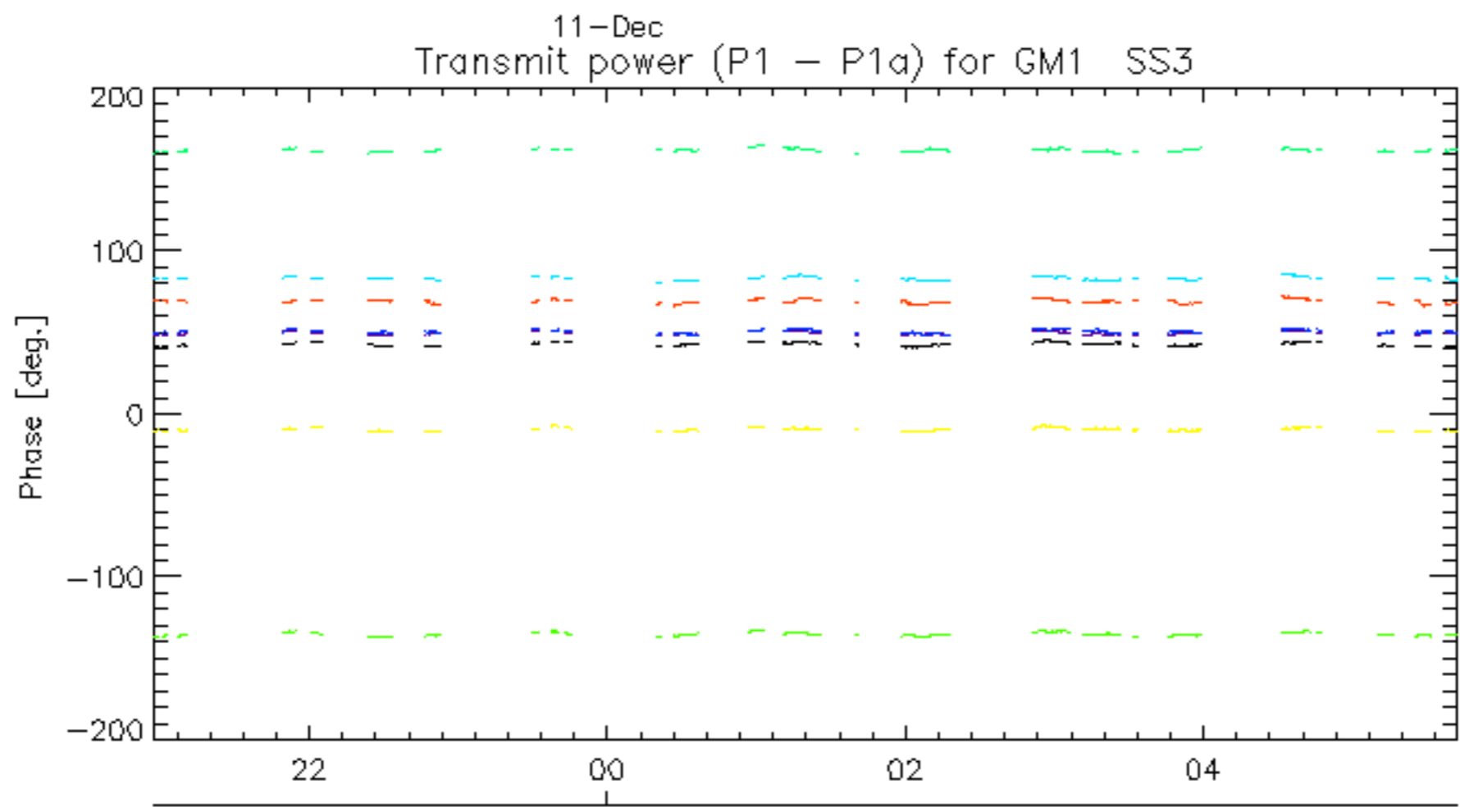
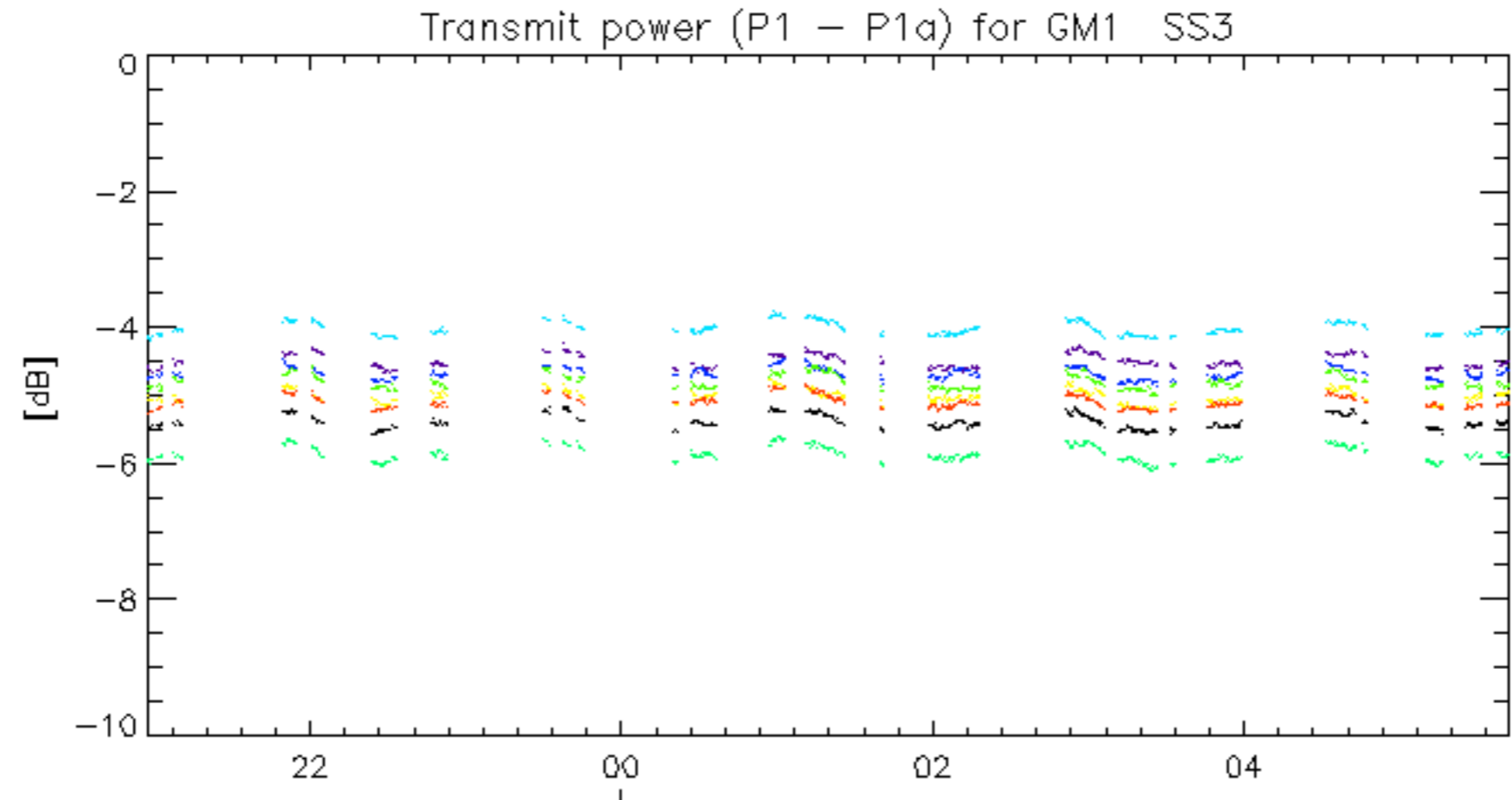
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051211_004056_000000622043_00174_19767_3704.N1	1	0
ASA_WSM_1PNPDE20051210_012121_000004282043_00160_19753_3544.N1	0	65
ASA_WSM_1PNPDE20051210_161814_000001462043_00169_19762_3611.N1	0	1
ASA_WSM_1PNPDE20051211_023139_000002262043_00175_19768_3714.N1	0	39

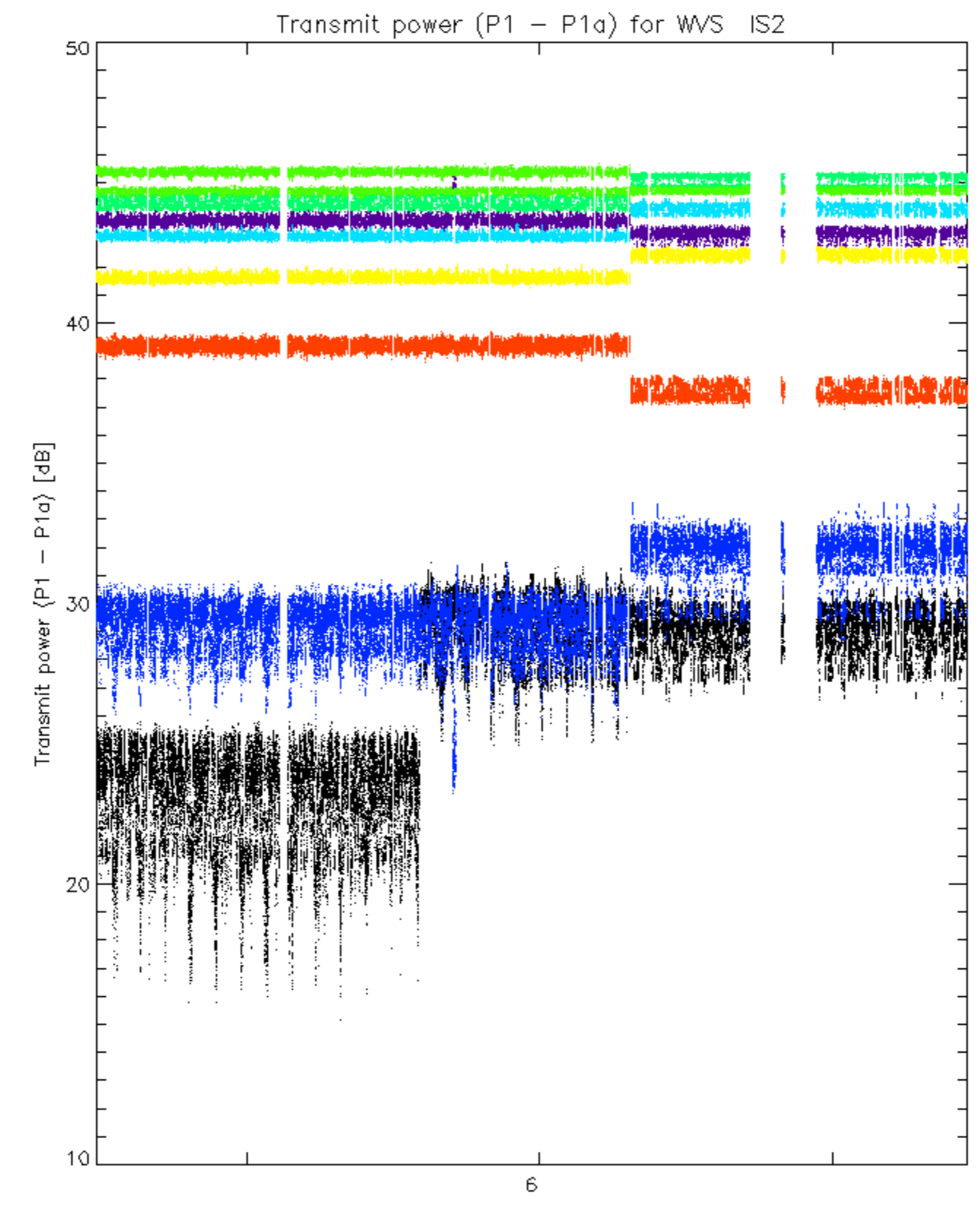




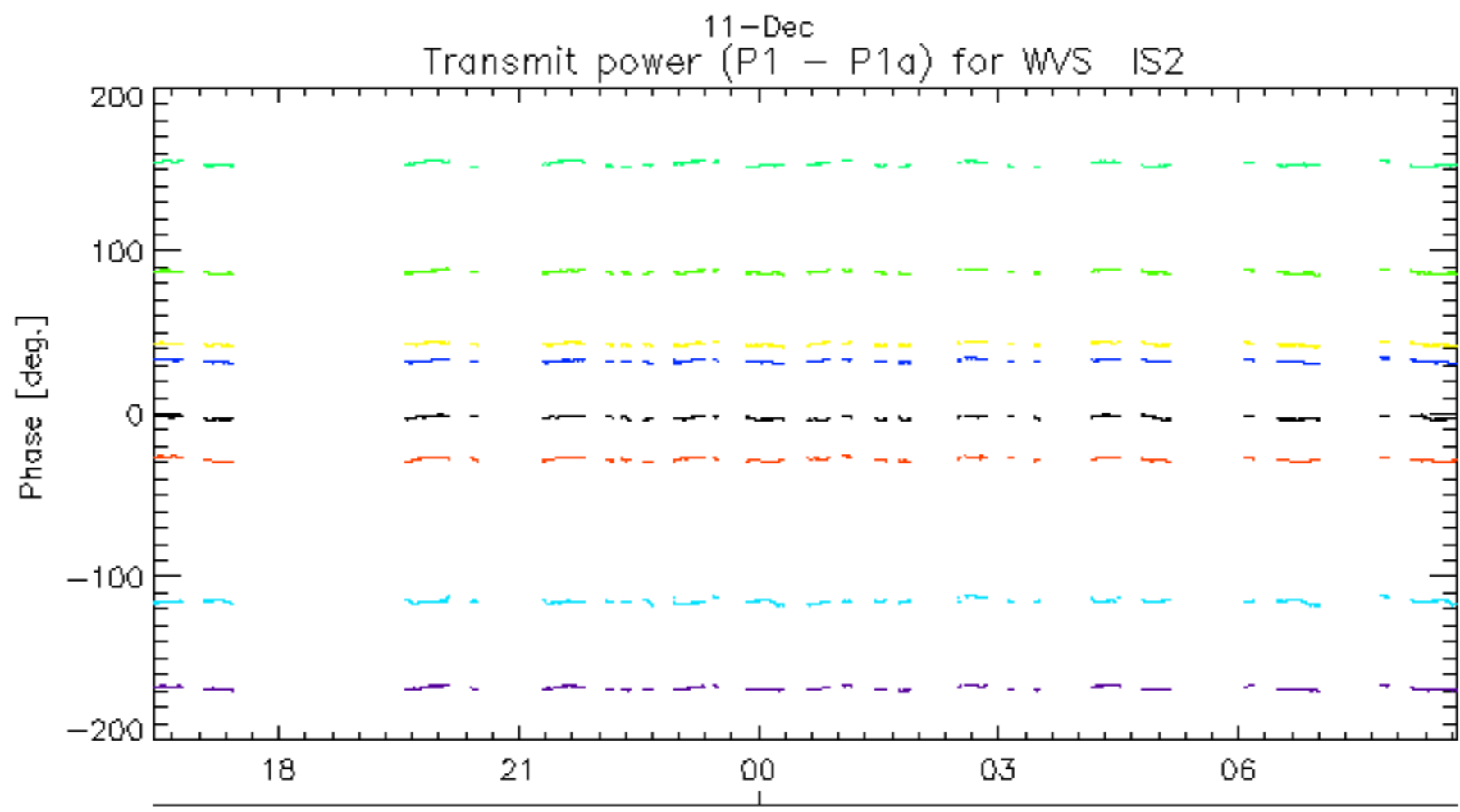
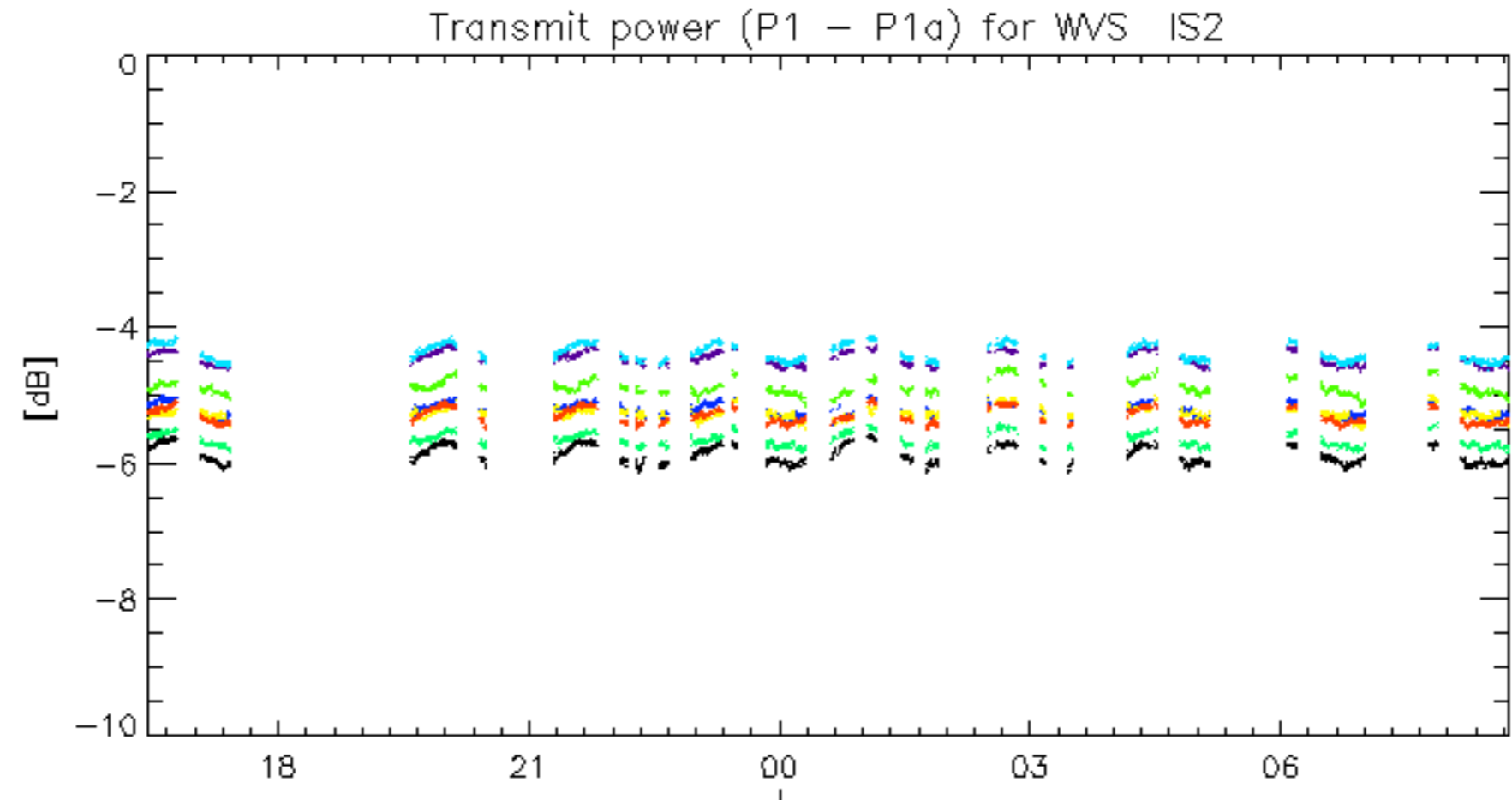
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



11-Dec
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.