

PRELIMINARY REPORT OF 061205

last update on Tue Dec 5 16:41:14 GMT 2006

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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 2006-12-04 00:00:00 to 2006-12-05 16:41:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	36	50	8	3	12
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	50	8	3	12
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	50	8	3	12
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	50	8	3	12

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	39	45	60	9	19
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	39	45	60	9	19
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	45	60	9	19
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	45	60	9	19

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20061204 084156
H	20061205 081019

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

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	-3.958459	0.008405	-0.007268
7	P1	-3.150817	0.023969	-0.001606
11	P1	-4.128438	0.025414	0.008888
15	P1	-6.300263	0.014864	-0.039820
19	P1	-3.618170	0.006354	-0.053403
22	P1	-4.648262	0.013003	-0.016477
26	P1	-3.949558	0.010520	-0.000854
30	P1	-5.870850	0.009596	-0.045801
3	P1	-16.515013	0.236594	-0.024663
7	P1	-17.287750	0.180531	-0.049963
11	P1	-17.186857	0.452427	-0.091365
15	P1	-13.061108	0.136925	-0.017296
19	P1	-14.927952	0.091256	-0.140961
22	P1	-15.851963	0.531308	0.049076
26	P1	-15.053981	0.195708	-0.007010
30	P1	-17.485157	0.475531	-0.099583

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.831436	0.091873	0.068112
7	P2	-21.731798	0.094300	-0.003904
11	P2	-15.635865	0.103202	0.103960
15	P2	-7.120595	0.107723	0.006108
19	P2	-9.189554	0.105261	0.004400
22	P2	-18.232893	0.097814	-0.013138
26	P2	-16.558218	0.112200	-0.051416
30	P2	-19.468750	0.088655	0.025669

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.240480	0.008741	-0.012944
7	P3	-8.240480	0.008741	-0.012944
11	P3	-8.240480	0.008741	-0.012944
15	P3	-8.240480	0.008741	-0.012944
19	P3	-8.240480	0.008741	-0.012944
22	P3	-8.240480	0.008741	-0.012944
26	P3	-8.240427	0.008751	-0.013306
30	P3	-8.240427	0.008751	-0.013306

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-3.908868	0.024473	-0.007130
7	P1	-2.499141	0.116161	0.063778
11	P1	-2.854733	0.026879	0.026744
15	P1	-3.682037	0.040111	0.016043
19	P1	-3.526371	0.017530	-0.033470
22	P1	-5.034810	0.022501	0.043721
26	P1	-6.003575	0.028085	-0.046978
30	P1	-5.321982	0.038666	-0.058246
3	P1	-11.724430	0.086078	-0.033592
7	P1	-10.054215	0.194579	0.005806
11	P1	-10.326561	0.128014	0.006931
15	P1	-10.734368	0.156389	0.129556
19	P1	-15.698302	0.104557	-0.091742
22	P1	-21.473921	1.446661	-0.380849

26	P1	-16.051502	0.325387	-0.060627
30	P1	-17.898376	0.388995	0.068939

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.460136	0.103637	-0.010509
7	P2	-22.225111	0.266949	-0.011293
11	P2	-10.928138	0.114950	0.071753
15	P2	-4.969533	0.203965	-0.037076
19	P2	-6.951572	0.241136	-0.001889
22	P2	-8.252907	0.169789	0.013735
26	P2	-24.321413	0.179973	0.038699
30	P2	-21.950102	0.142906	0.015018

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.086707	0.003835	-0.005432
7	P3	-8.086662	0.003826	-0.005381
11	P3	-8.086741	0.003834	-0.005227
15	P3	-8.086615	0.003827	-0.005424
19	P3	-8.086729	0.003834	-0.005251
22	P3	-8.086650	0.003827	-0.005629
26	P3	-8.086593	0.003838	-0.005398
30	P3	-8.086678	0.003843	-0.004740

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	0.000548546
	stdev	1.78048e-07
MEAN Q	mean	0.000518146
	stdev	2.19924e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137025
	stdev	0.00114713
STDEV Q	mean	0.137396
	stdev	0.00116531



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006120[345]

The assumptions 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_GM1_1PNPDK20061204_093242_000007732053_00294_24897_9683.N1	0	7
ASA_GM1_1PNPDK20061204_174633_000006342053_00299_24902_9712.N1	0	26
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6506.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6579.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6802.N1	0	34

ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6989.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_7194.N1	0	34
ASA_WSM_1PNPDE20061203_231436_000000982053_00288_24891_7851.N1	0	57
ASA_WSM_1PNPDE20061204_142150_000000852053_00297_24900_8594.N1	0	29

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)

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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

<input type="checkbox"/>

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

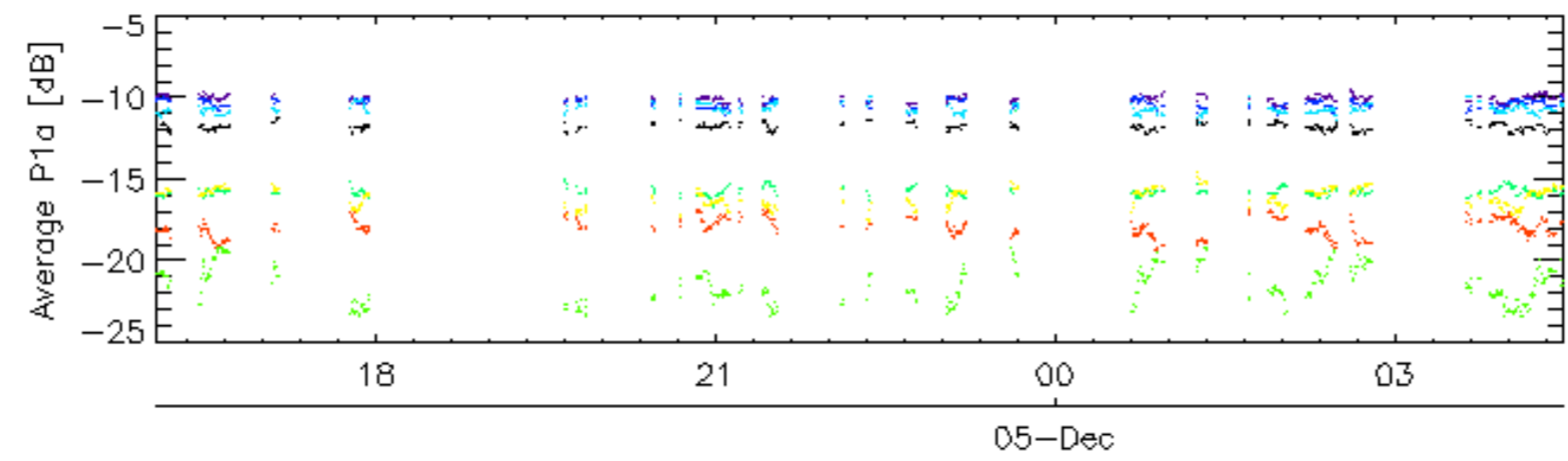
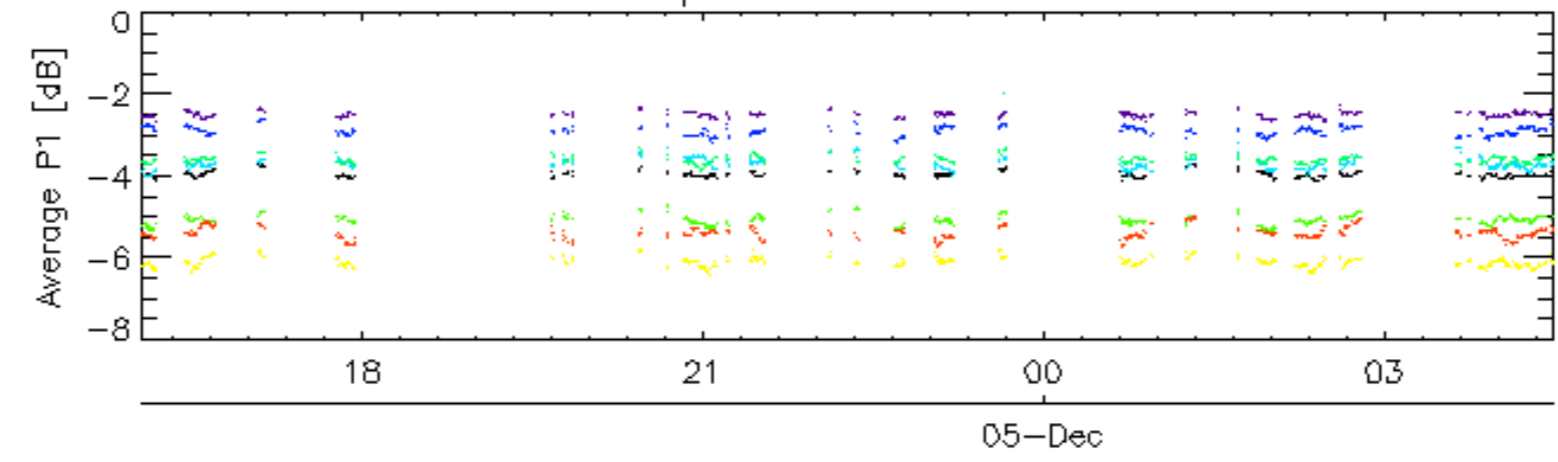
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

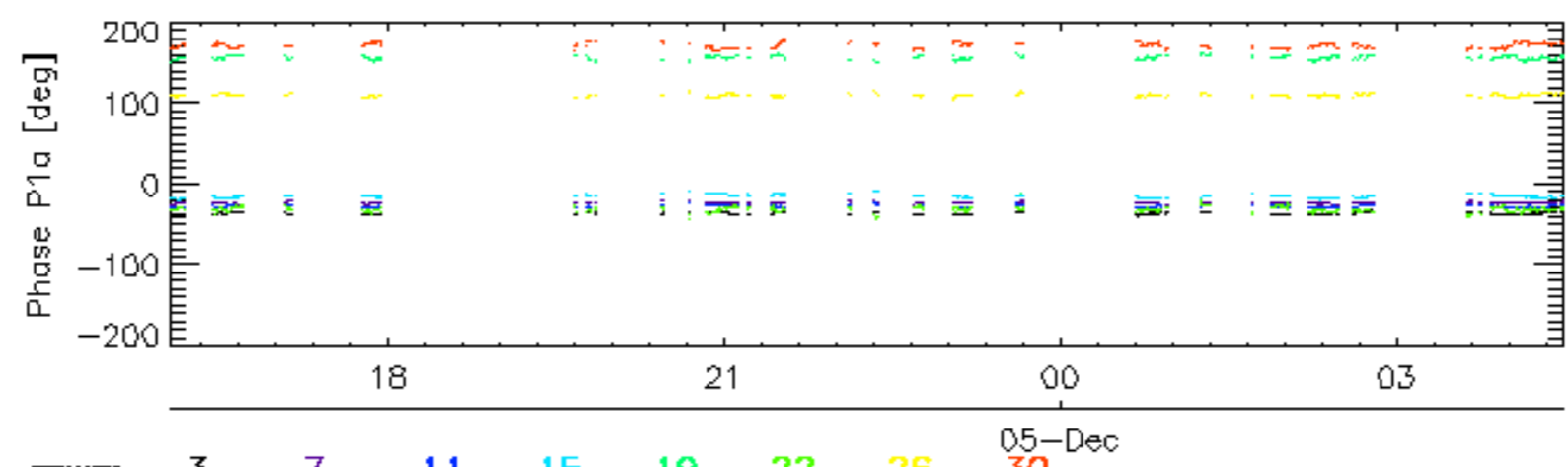
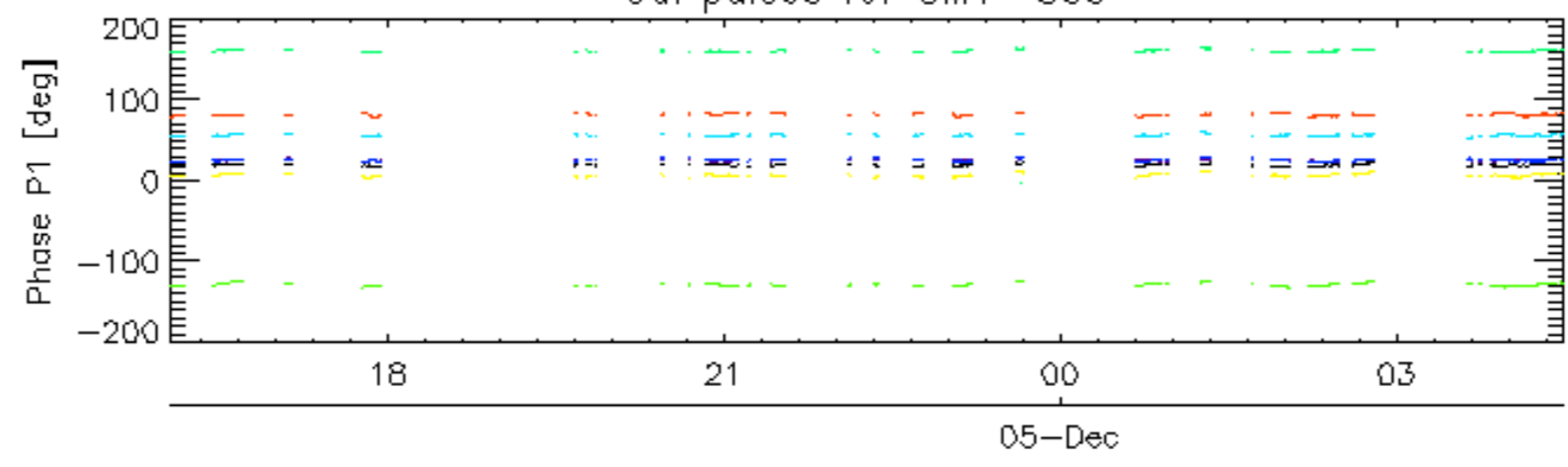
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

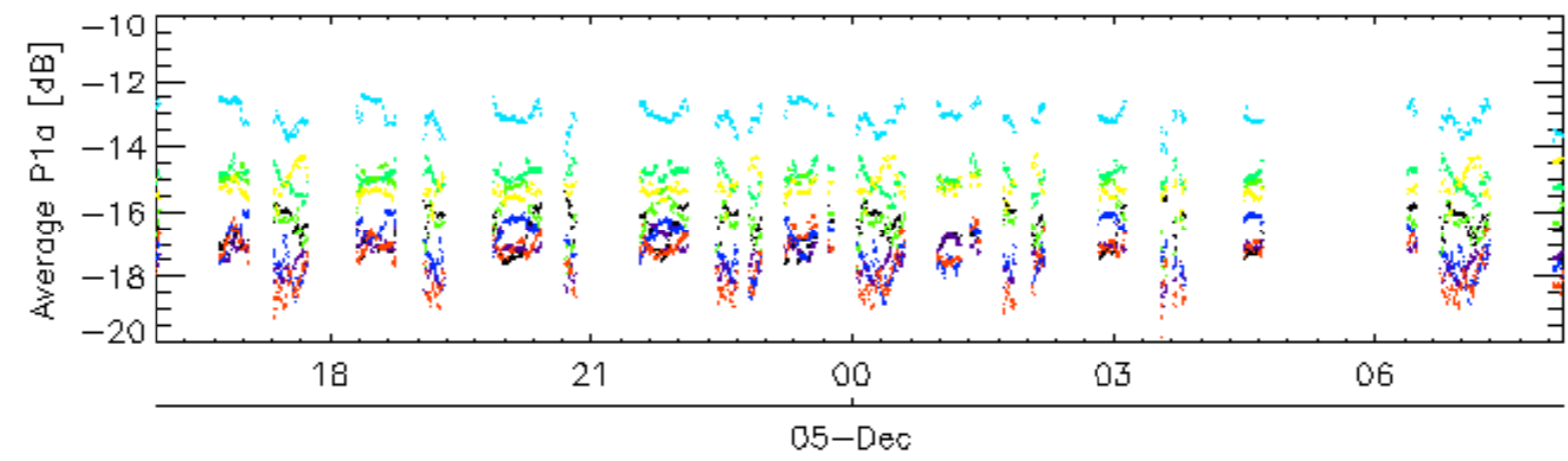
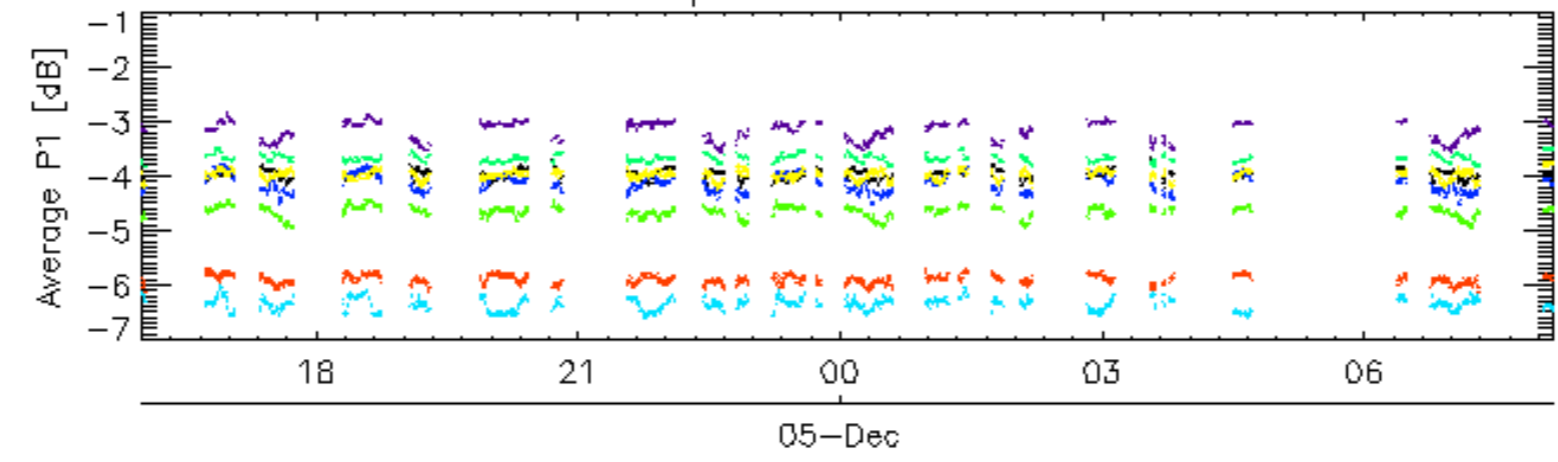


Cal pulses for GM1 SS3

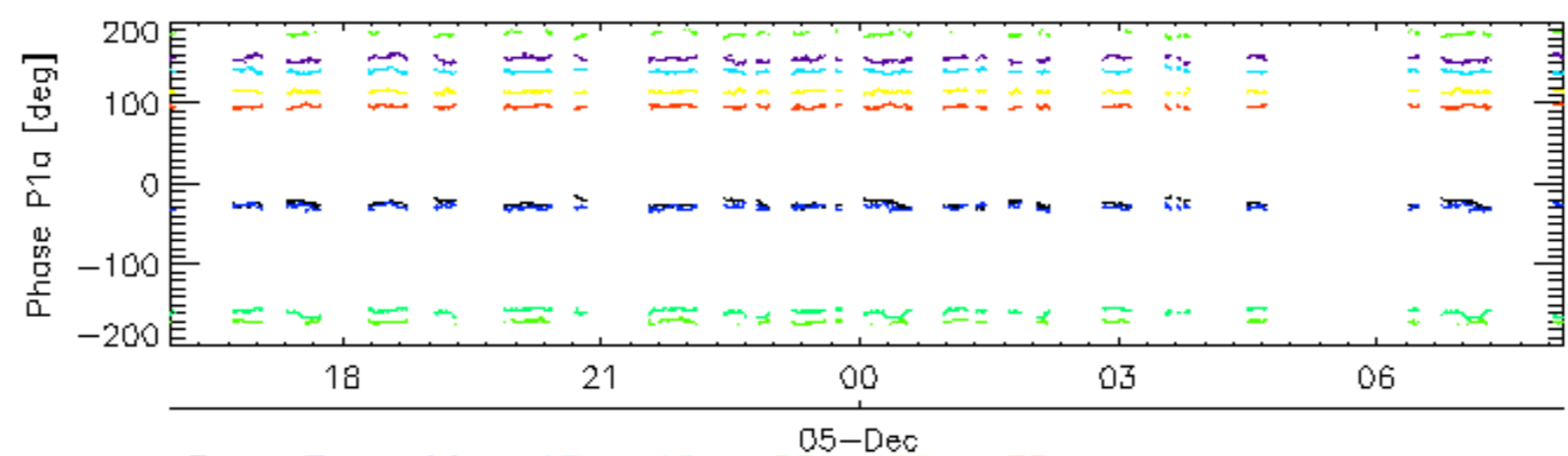
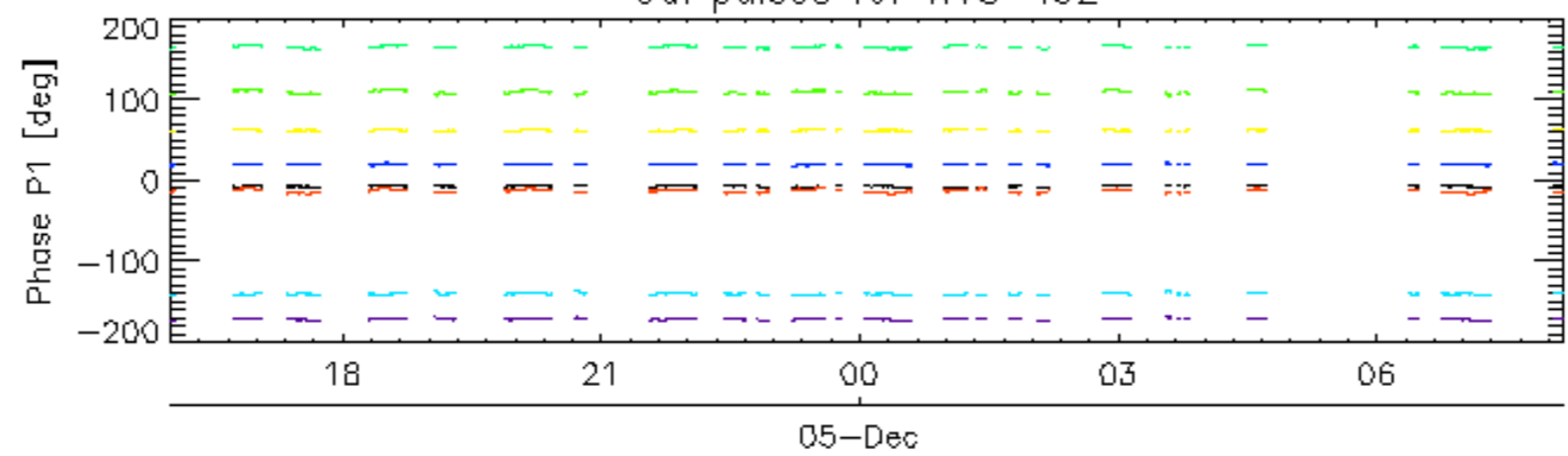


rows: **3** **7** **11** **15** **19** **22** **26** **30** 05-Dec

Cal pulses for WVS IS2

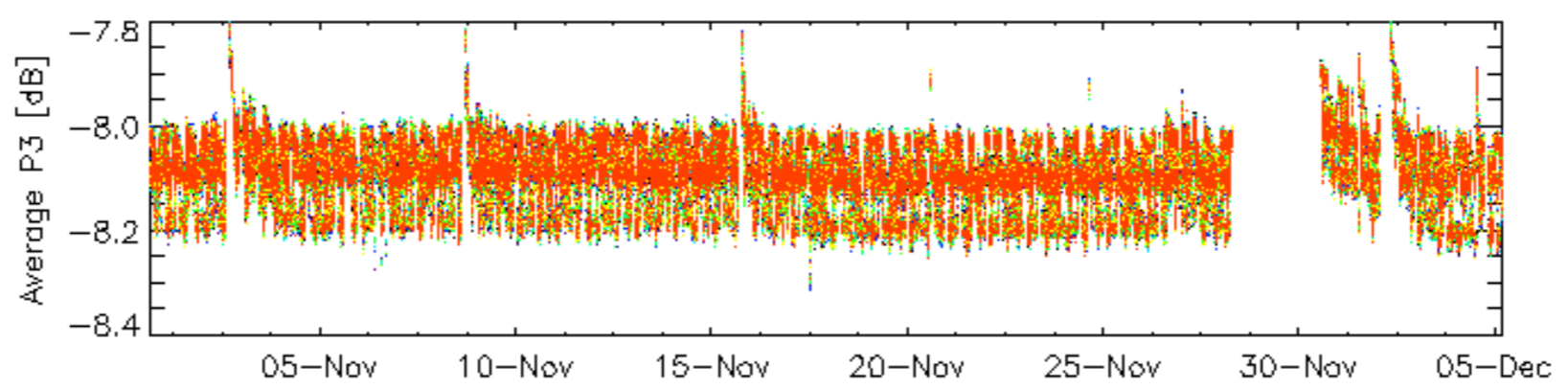
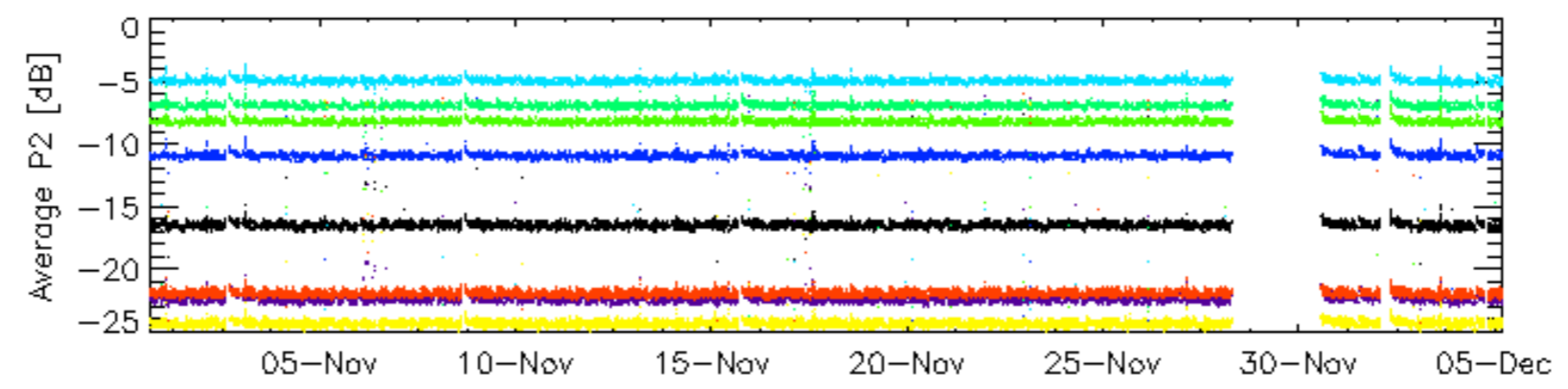
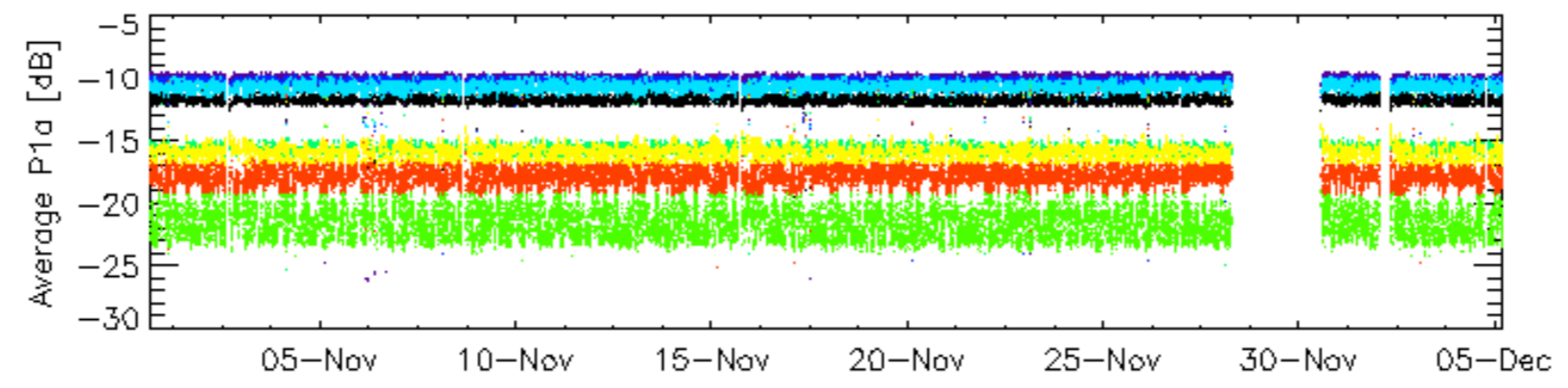
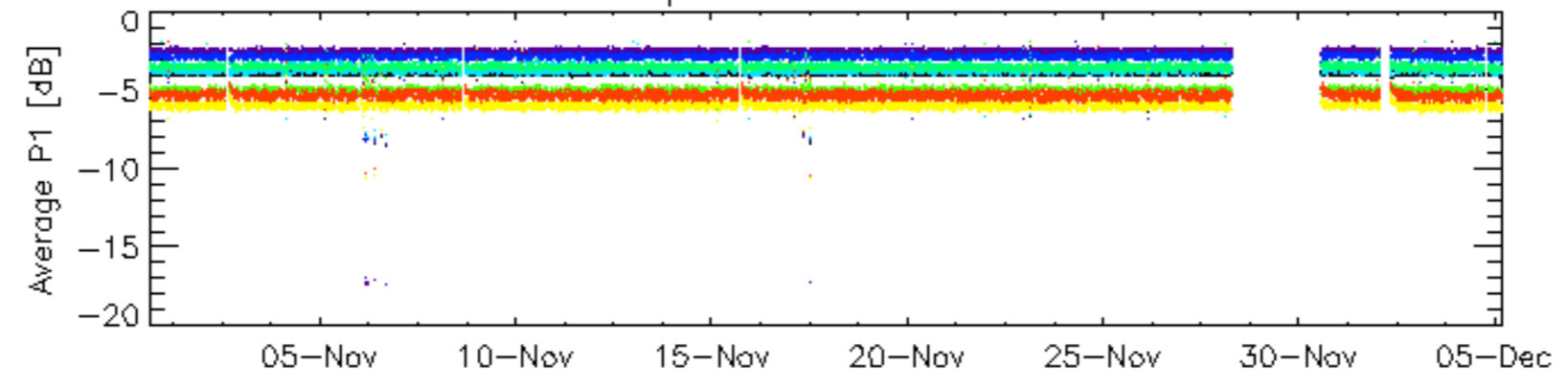


Cal pulses for WVS IS2



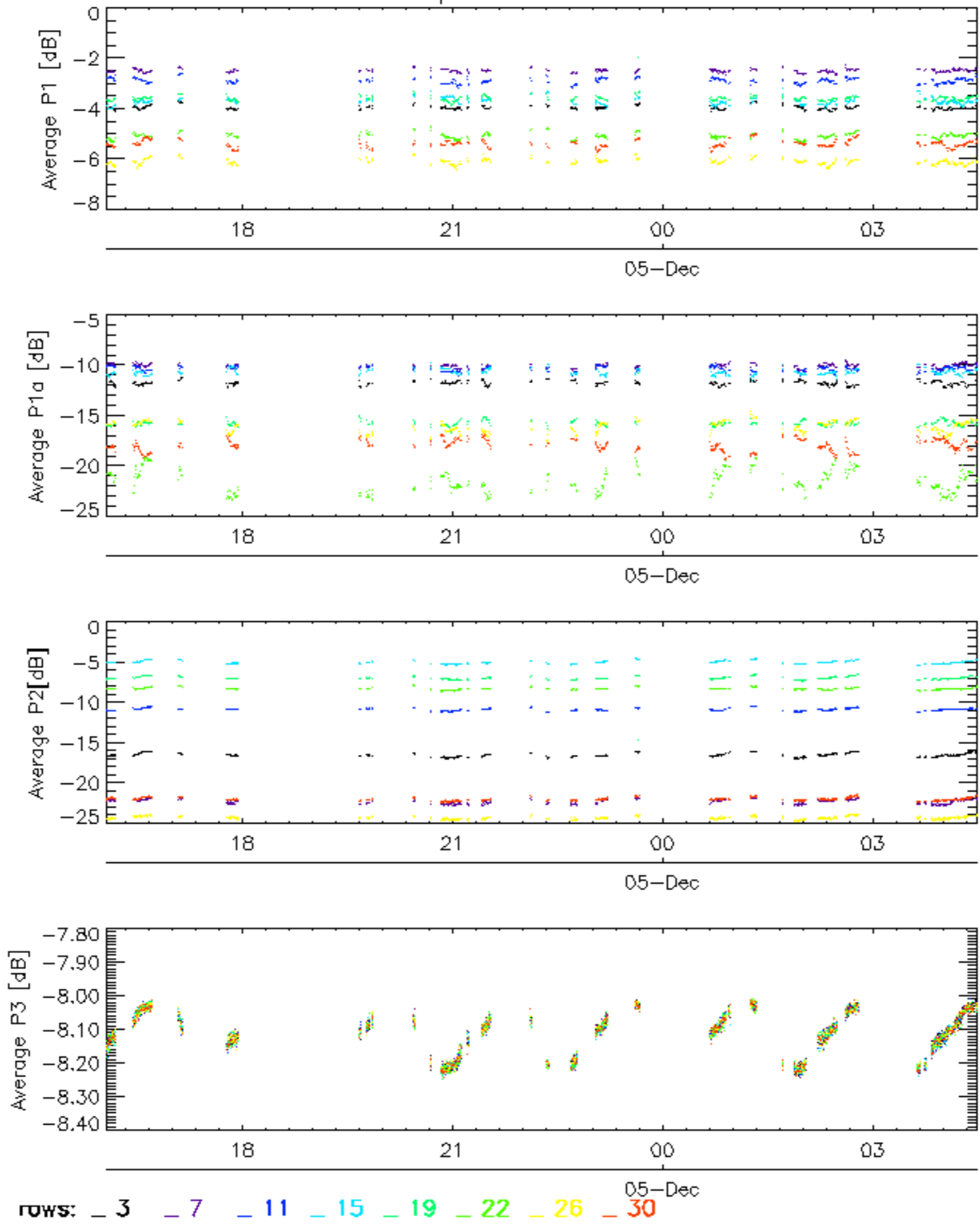
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

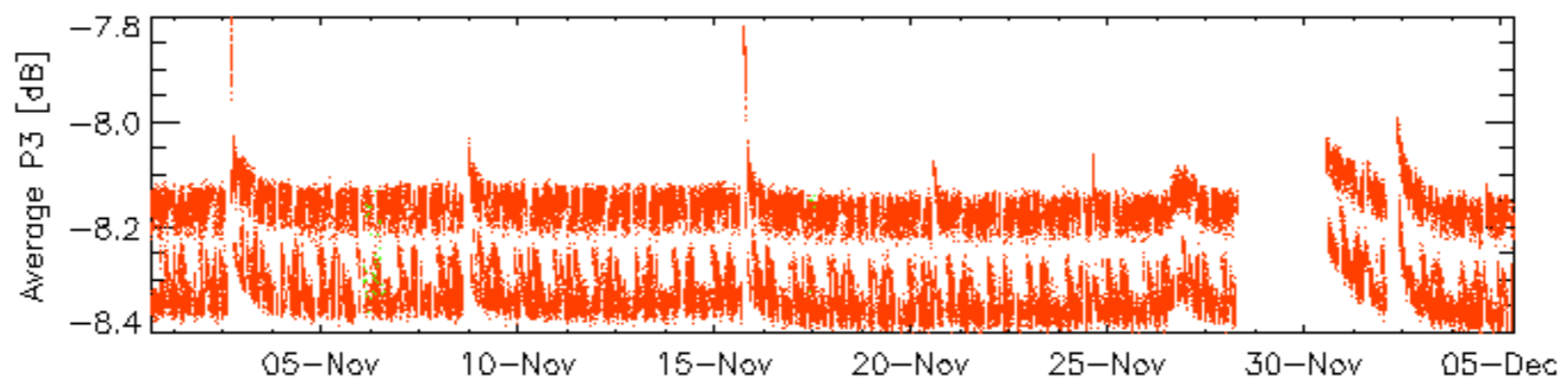
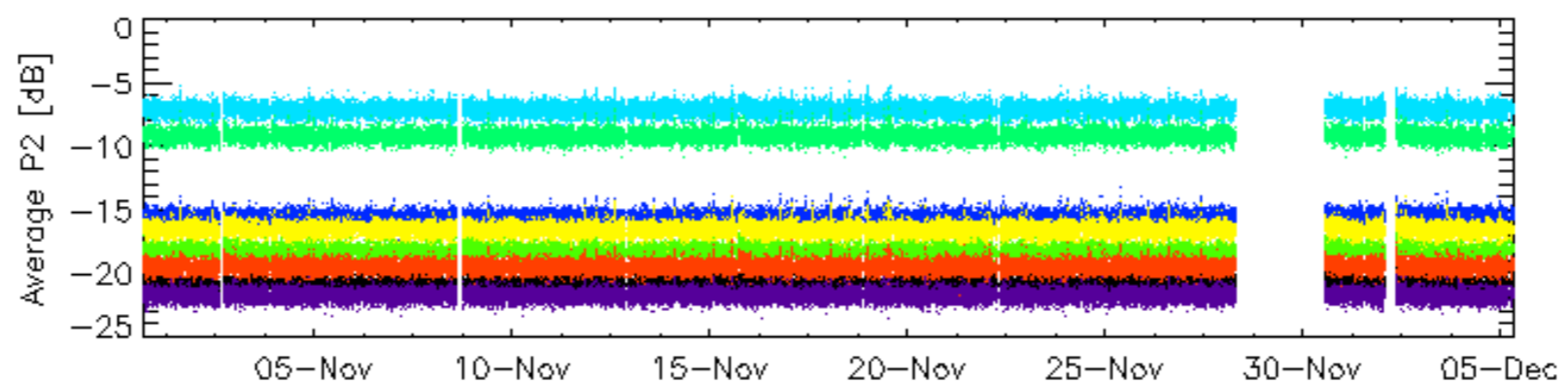
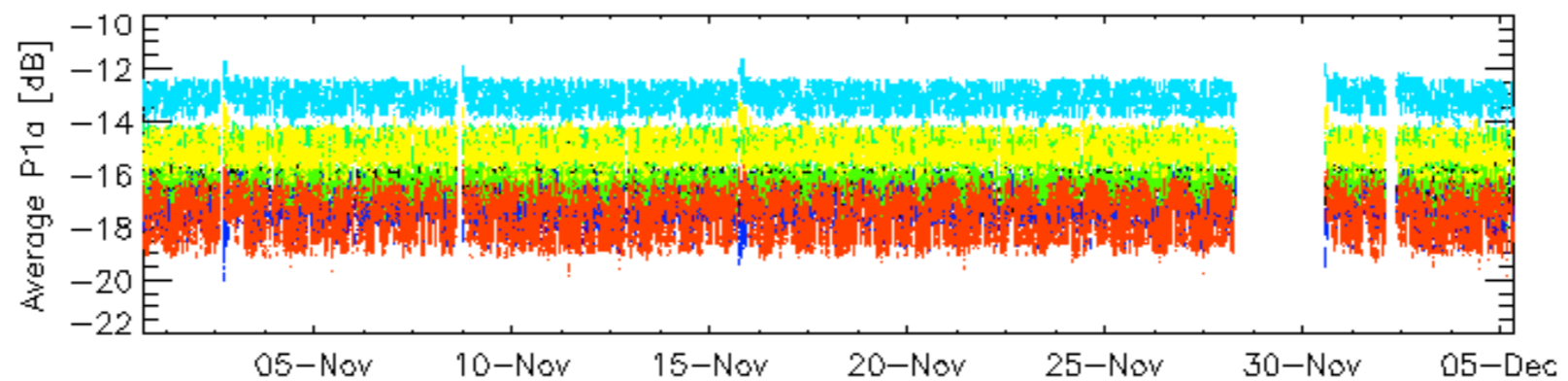
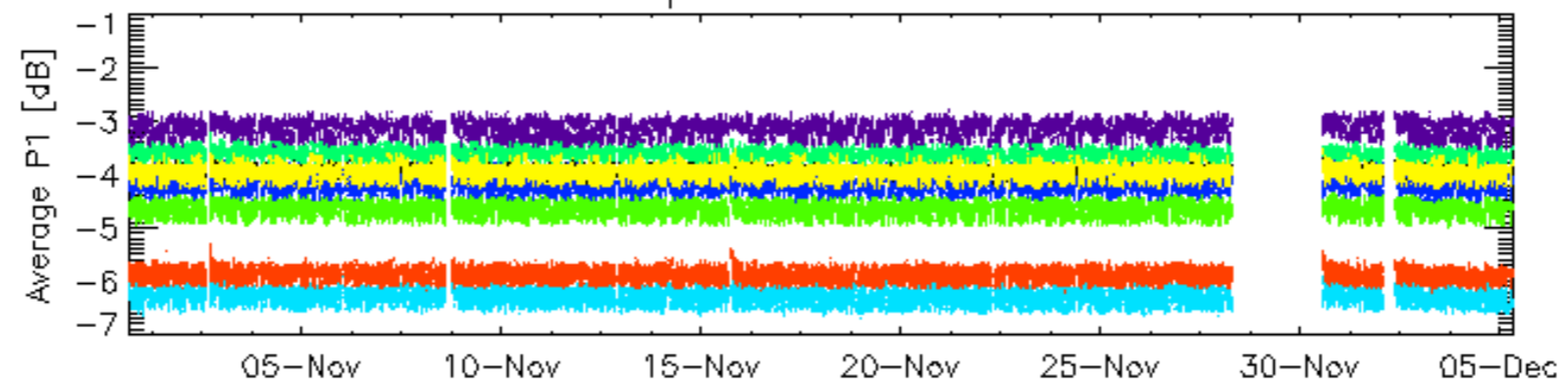


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

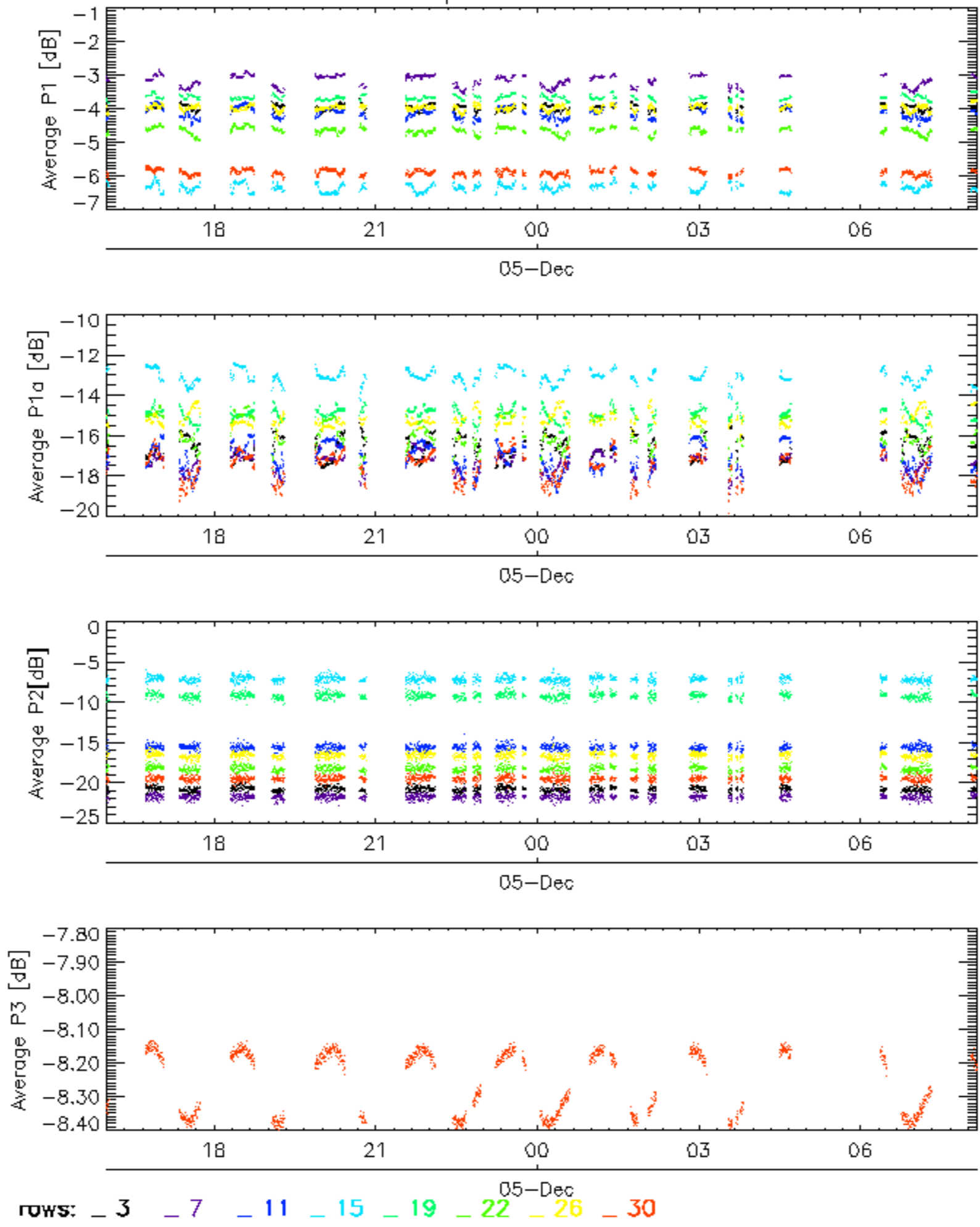


Cal pulses for WVS IS2



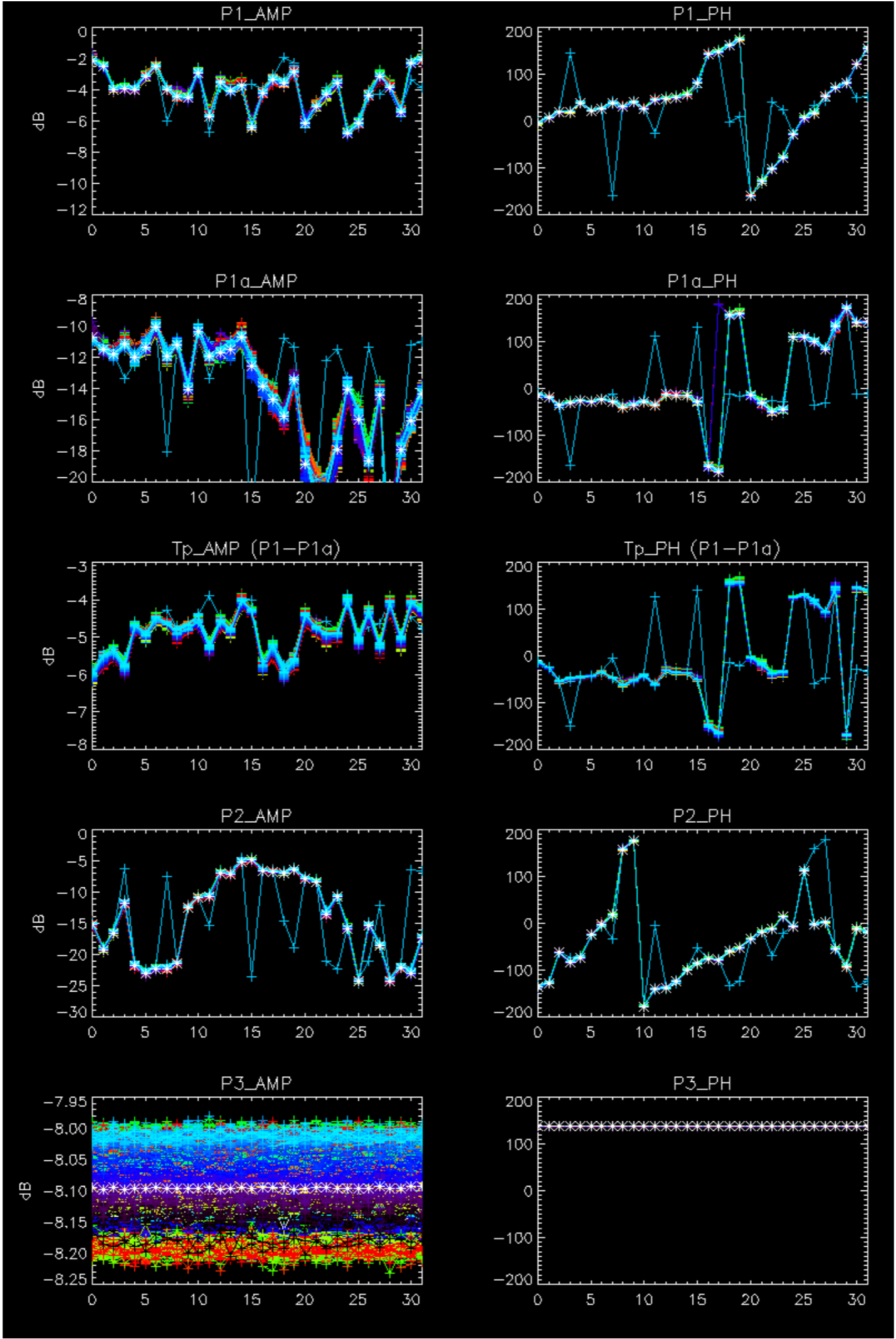
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

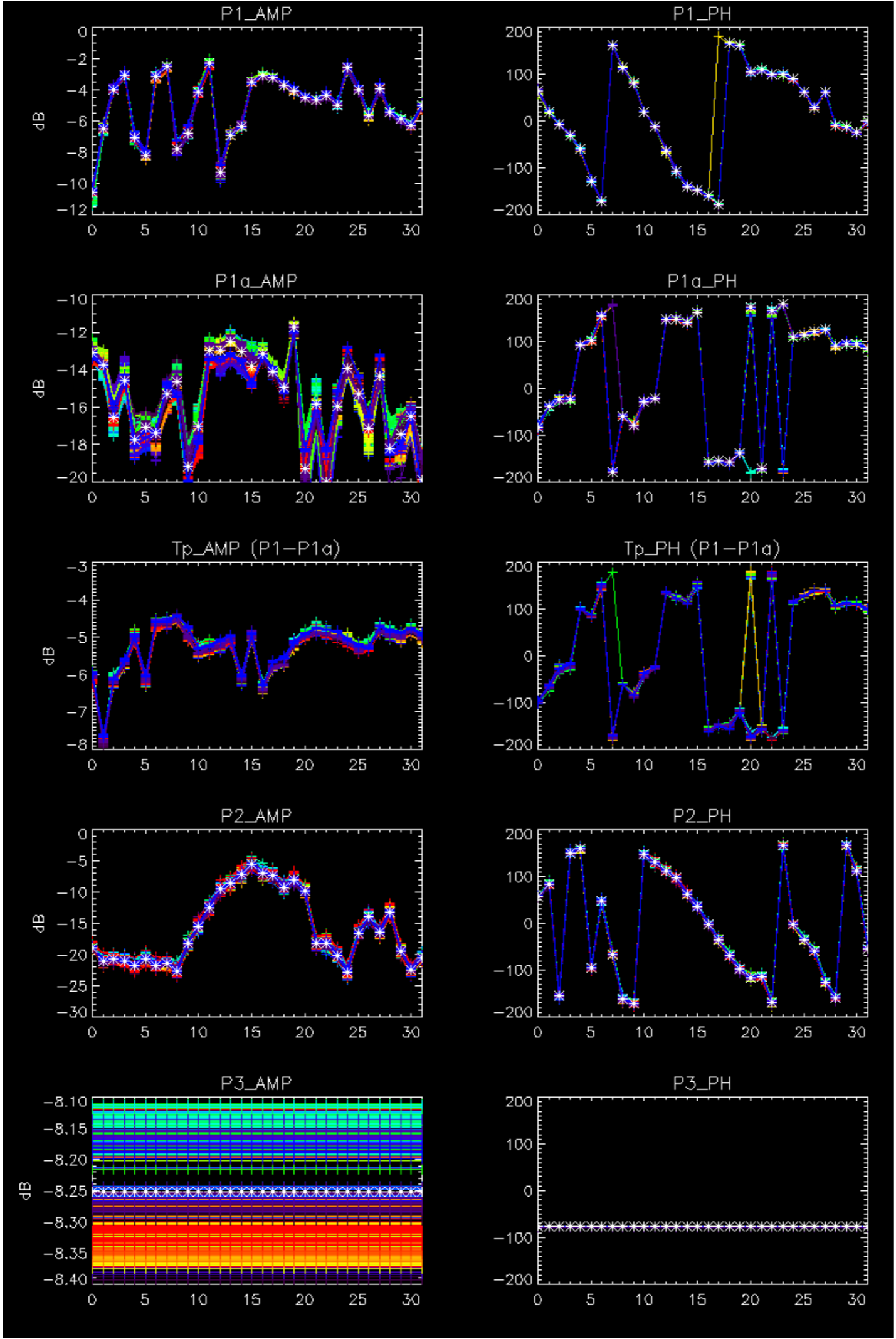
Cal pulses for WVS IS2



No anomalies observed on available browse products

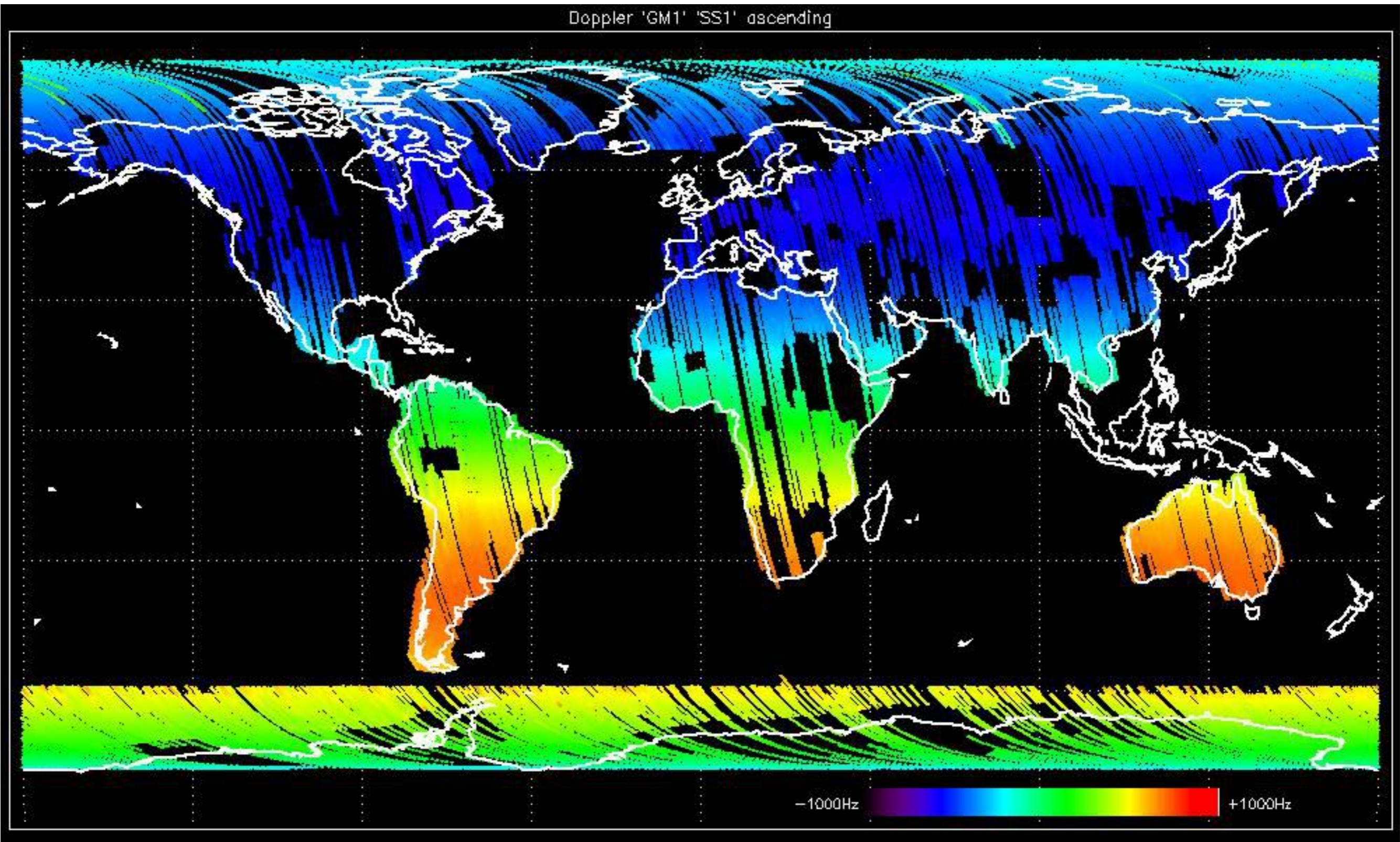
No anomalies observed.



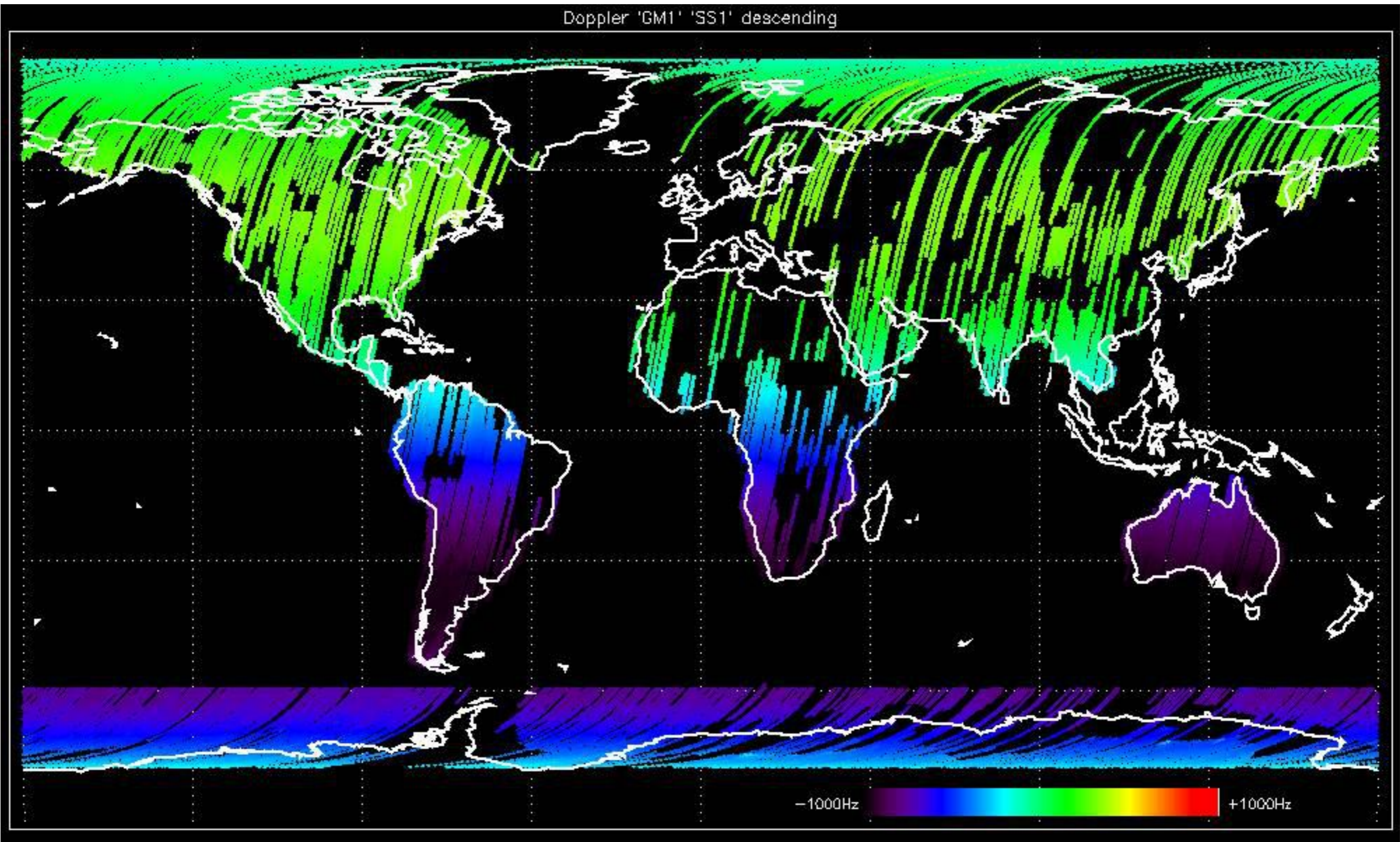


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

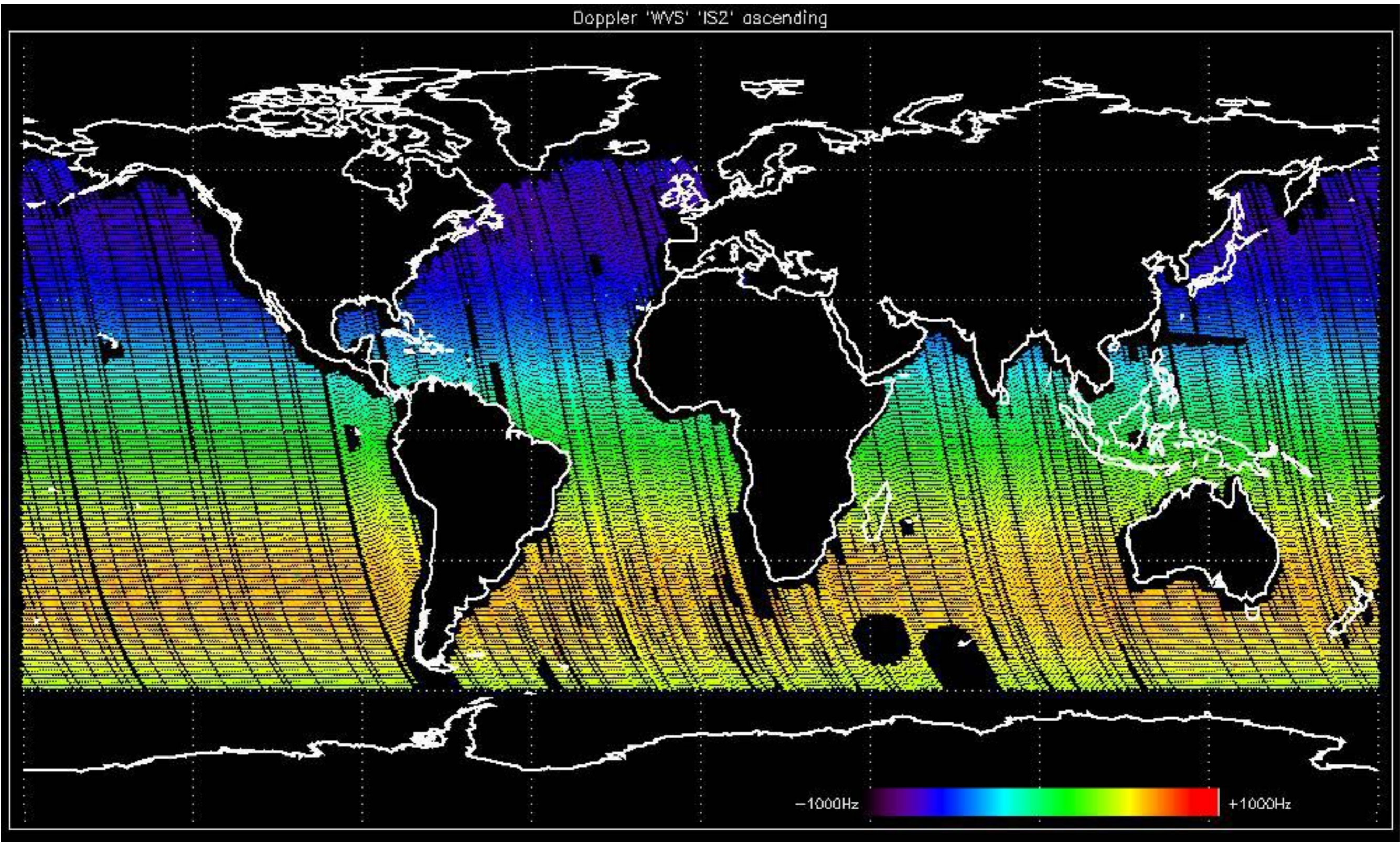
Doppler 'GM1' 'SS1' ascending



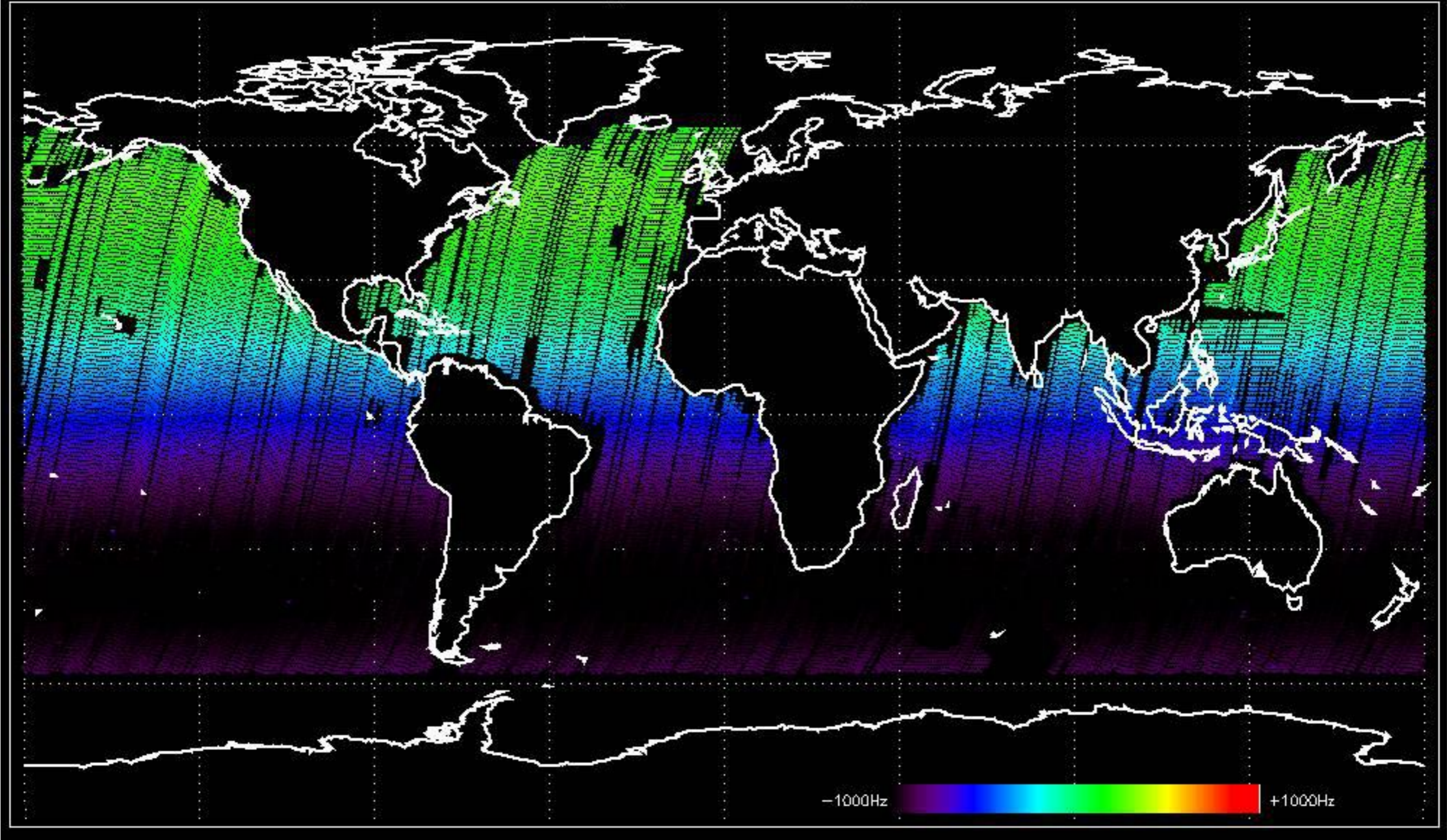
Doppler 'GM1' 'SS1' descending

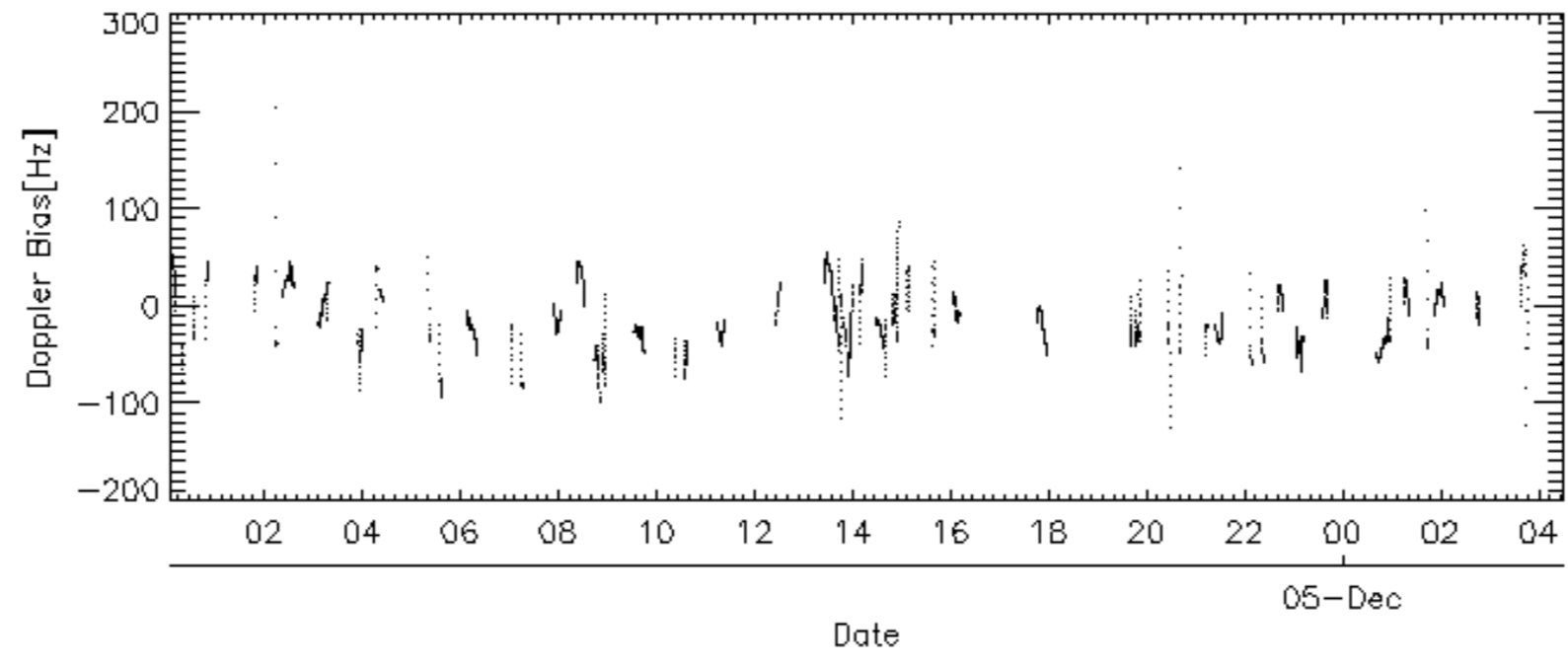
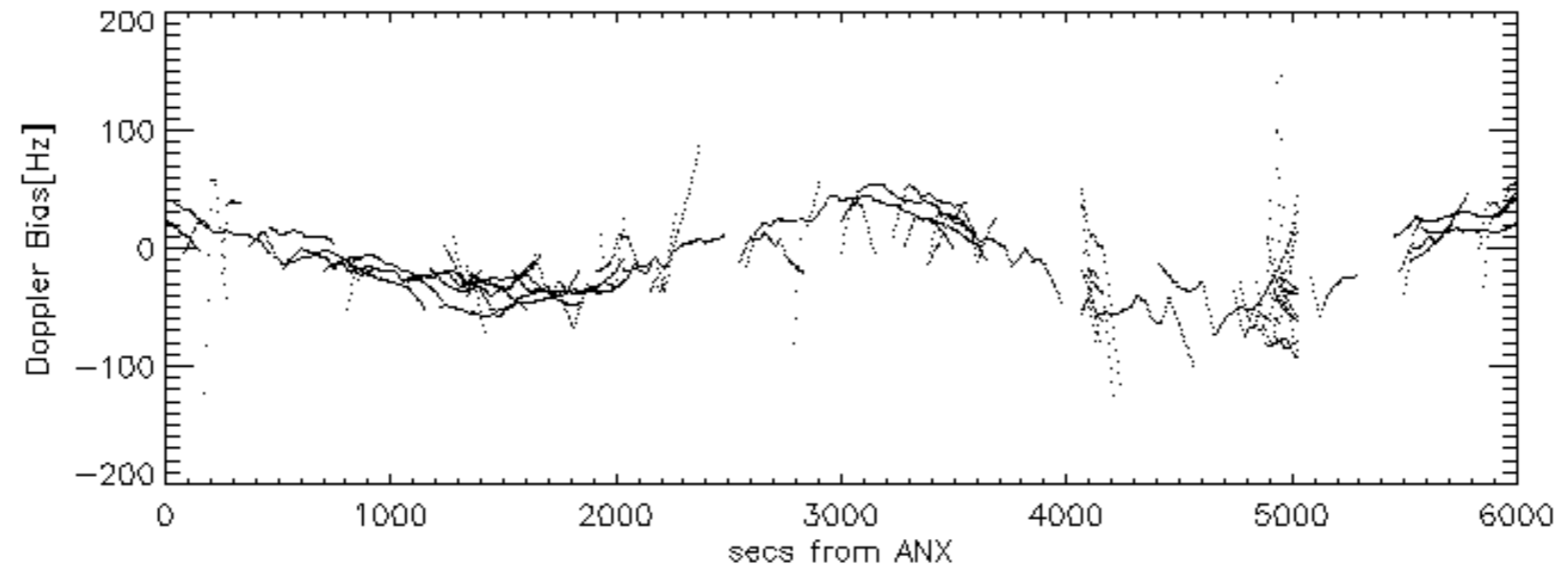
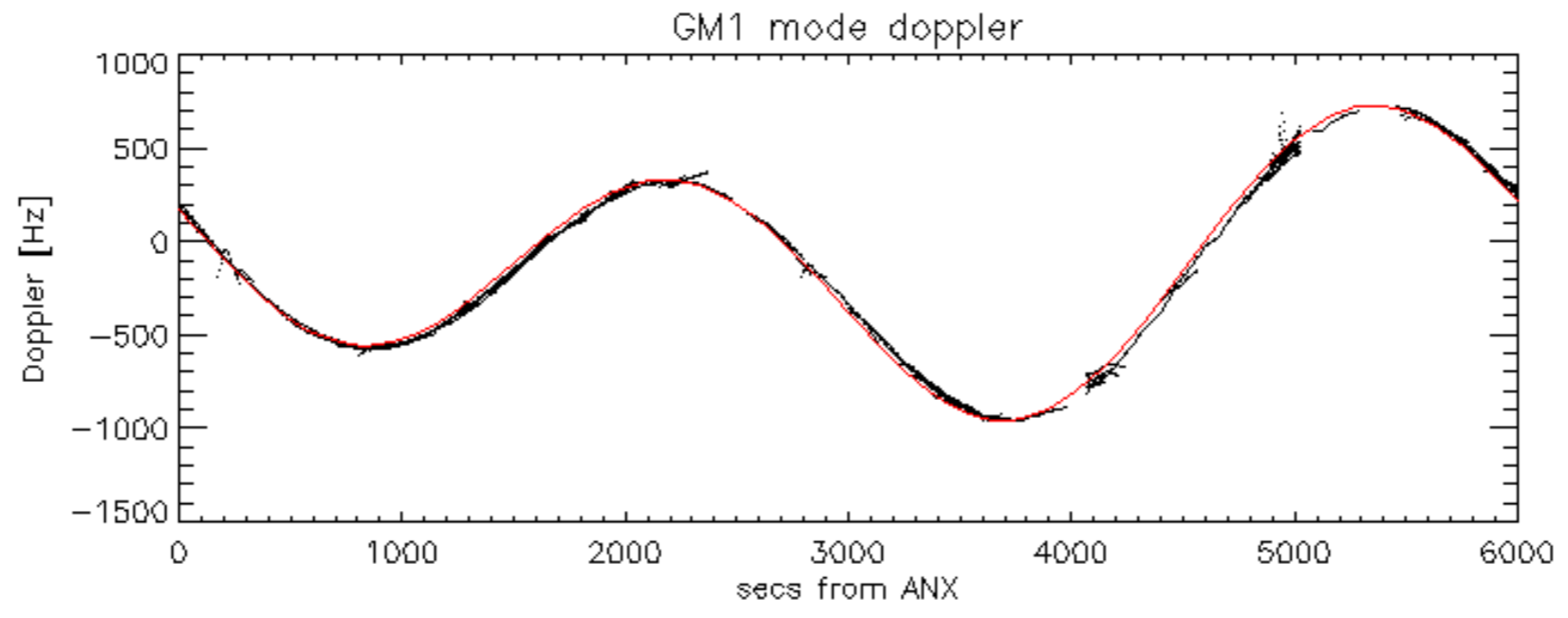


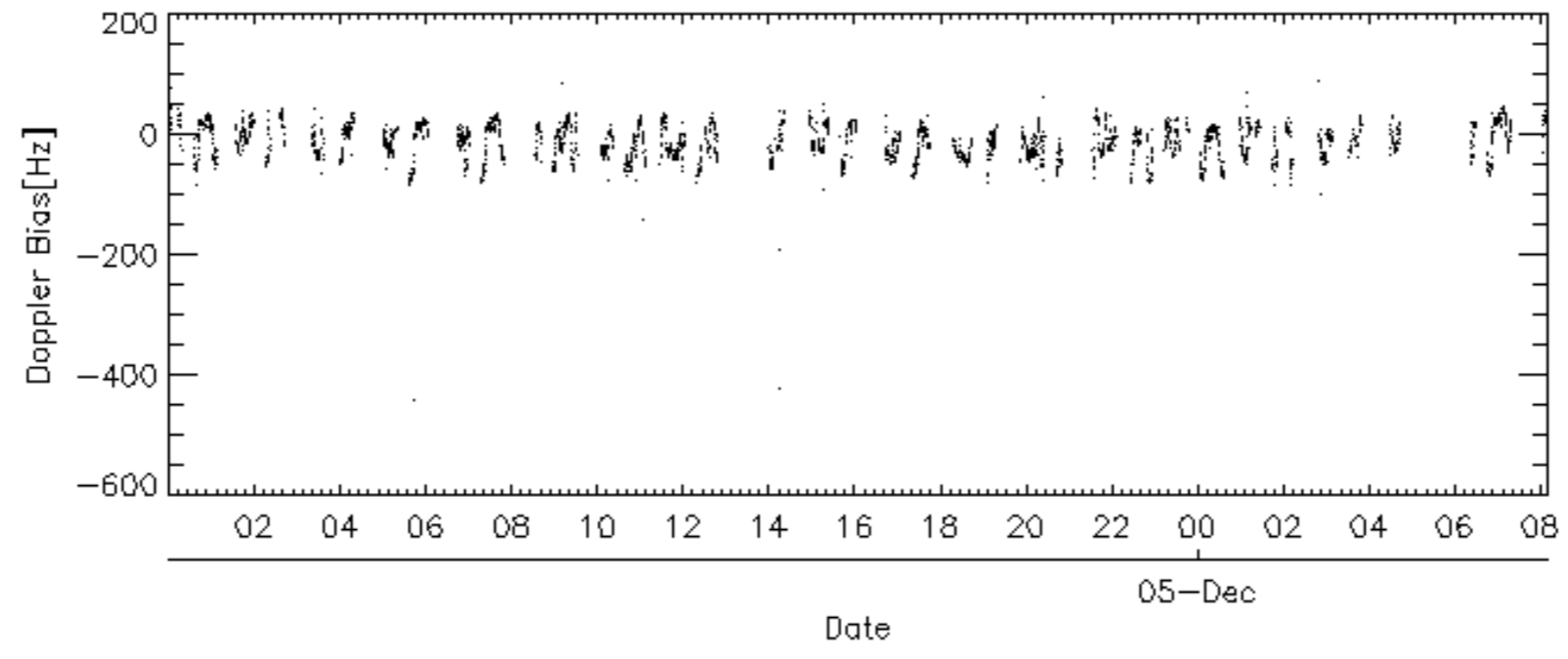
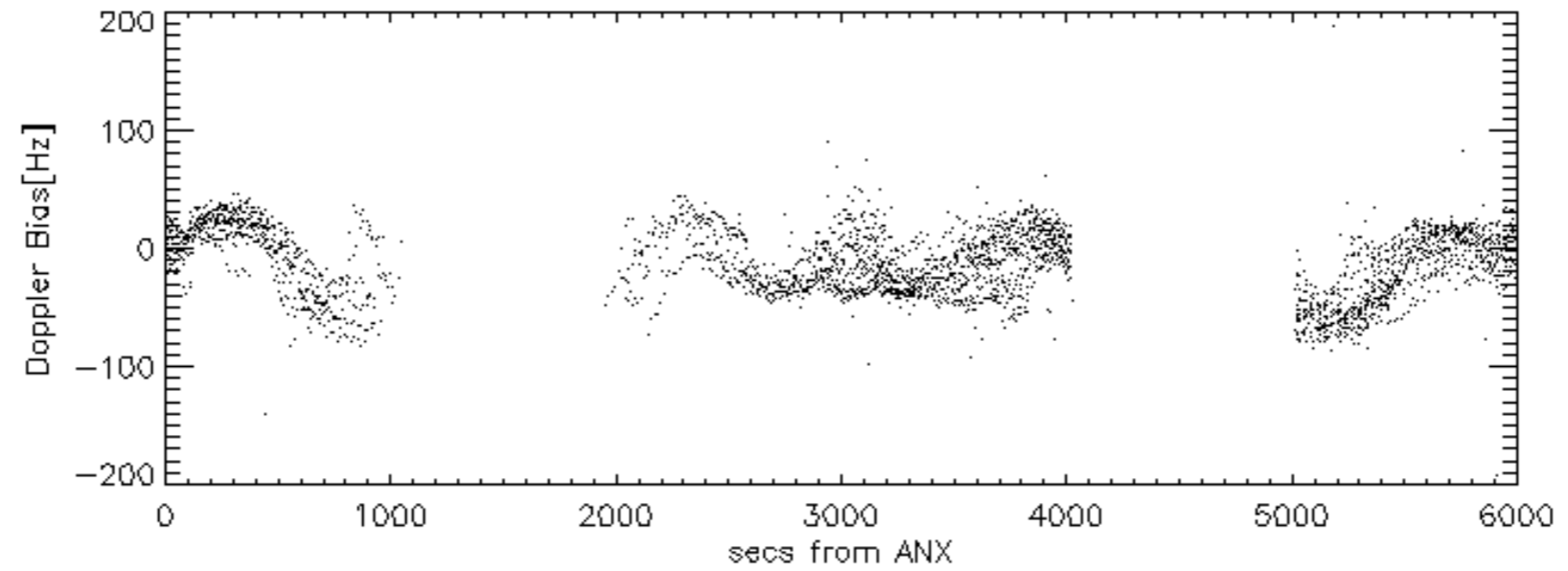
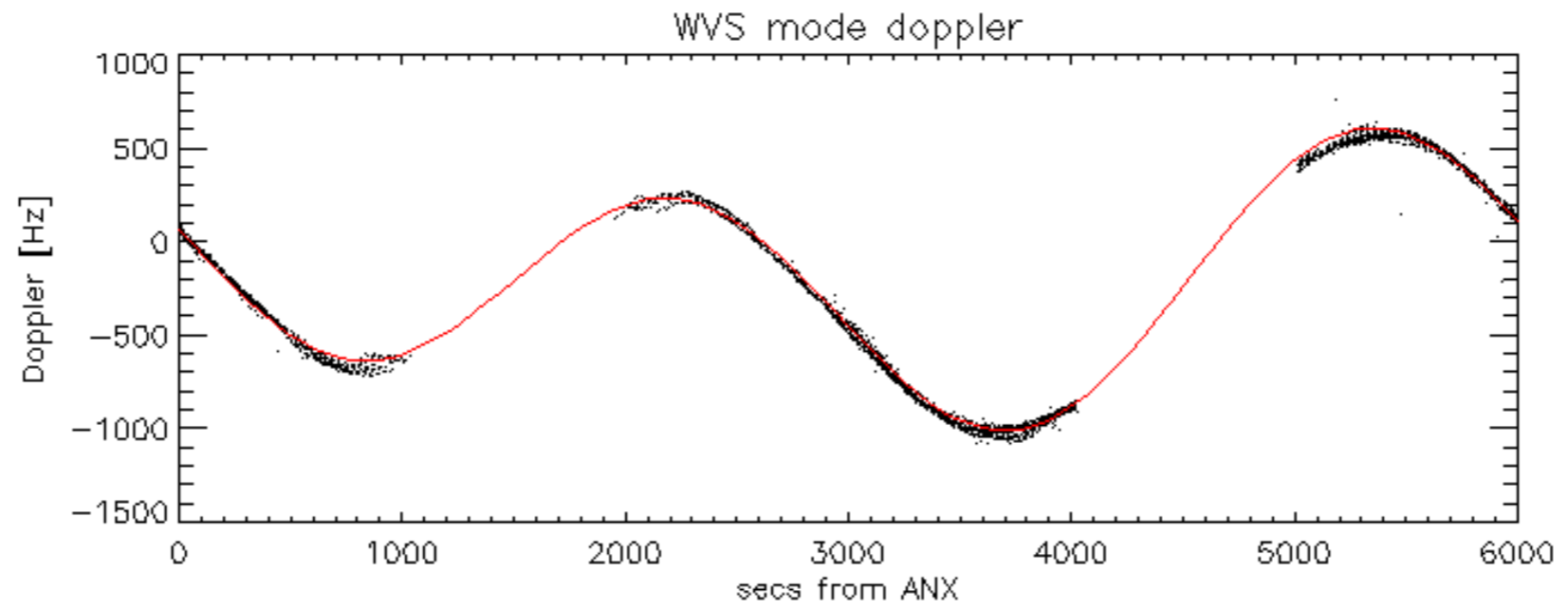
Doppler 'WVS' 'IS2' ascending



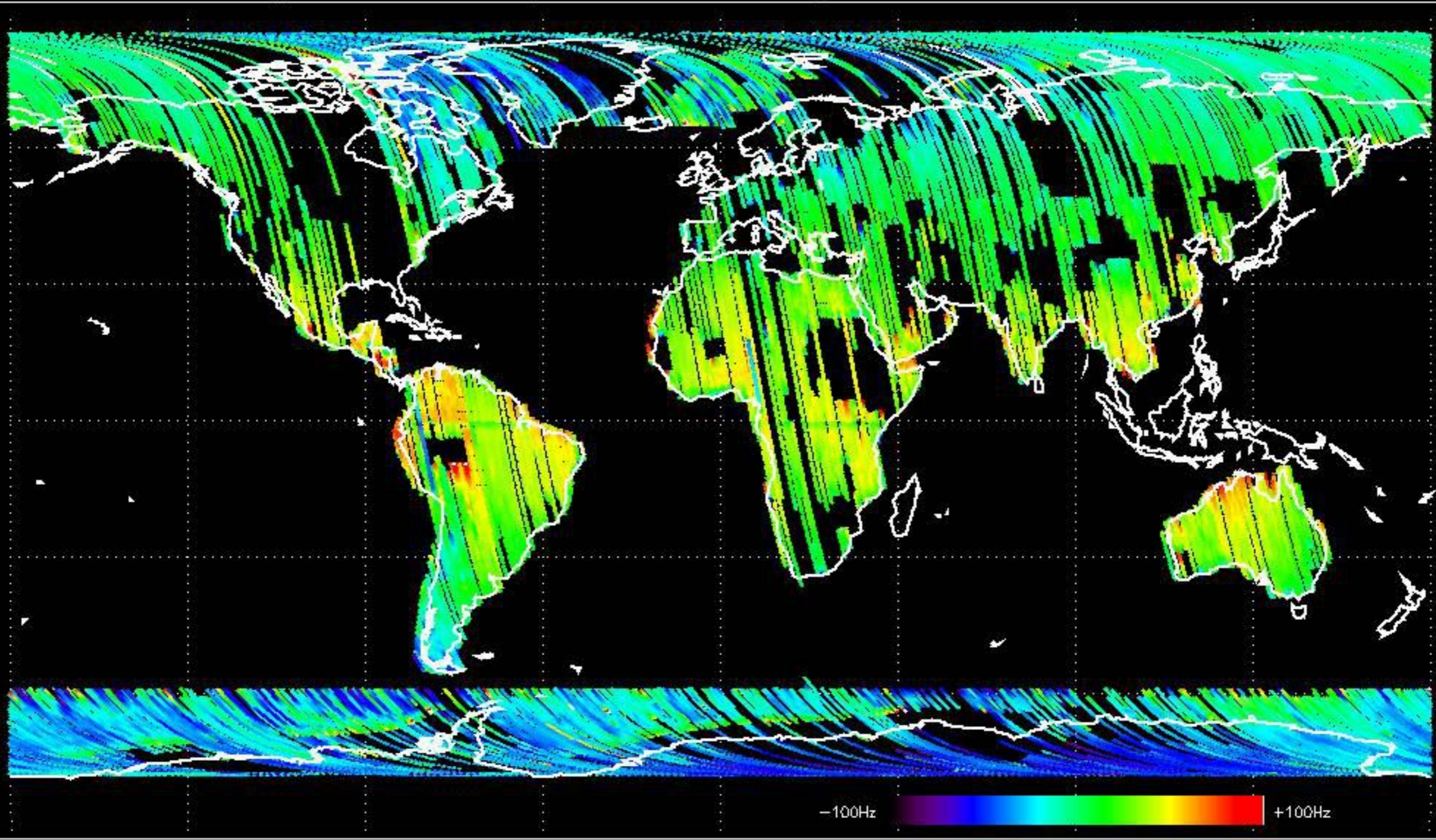
Doppler 'WVS' 'IS2' descending



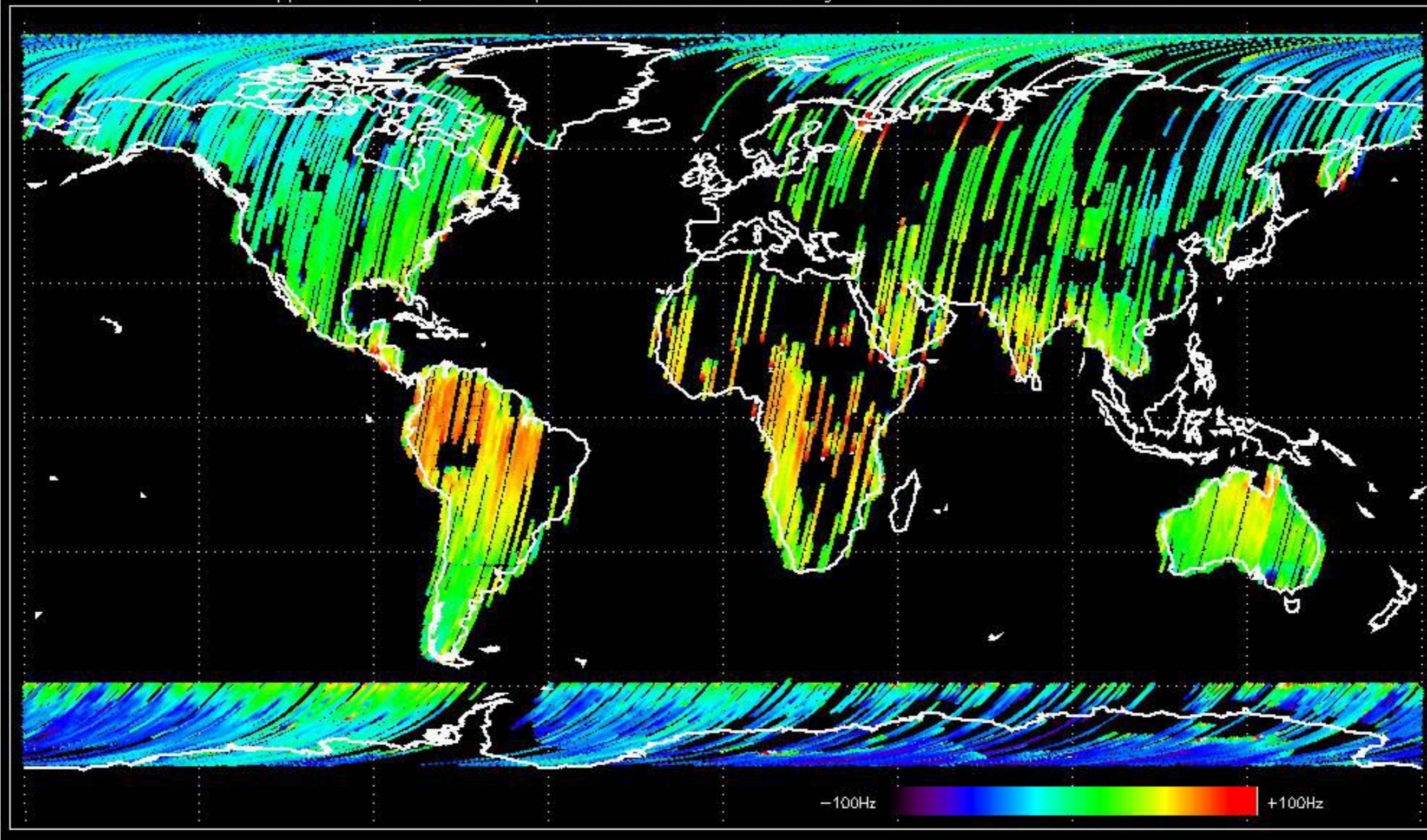




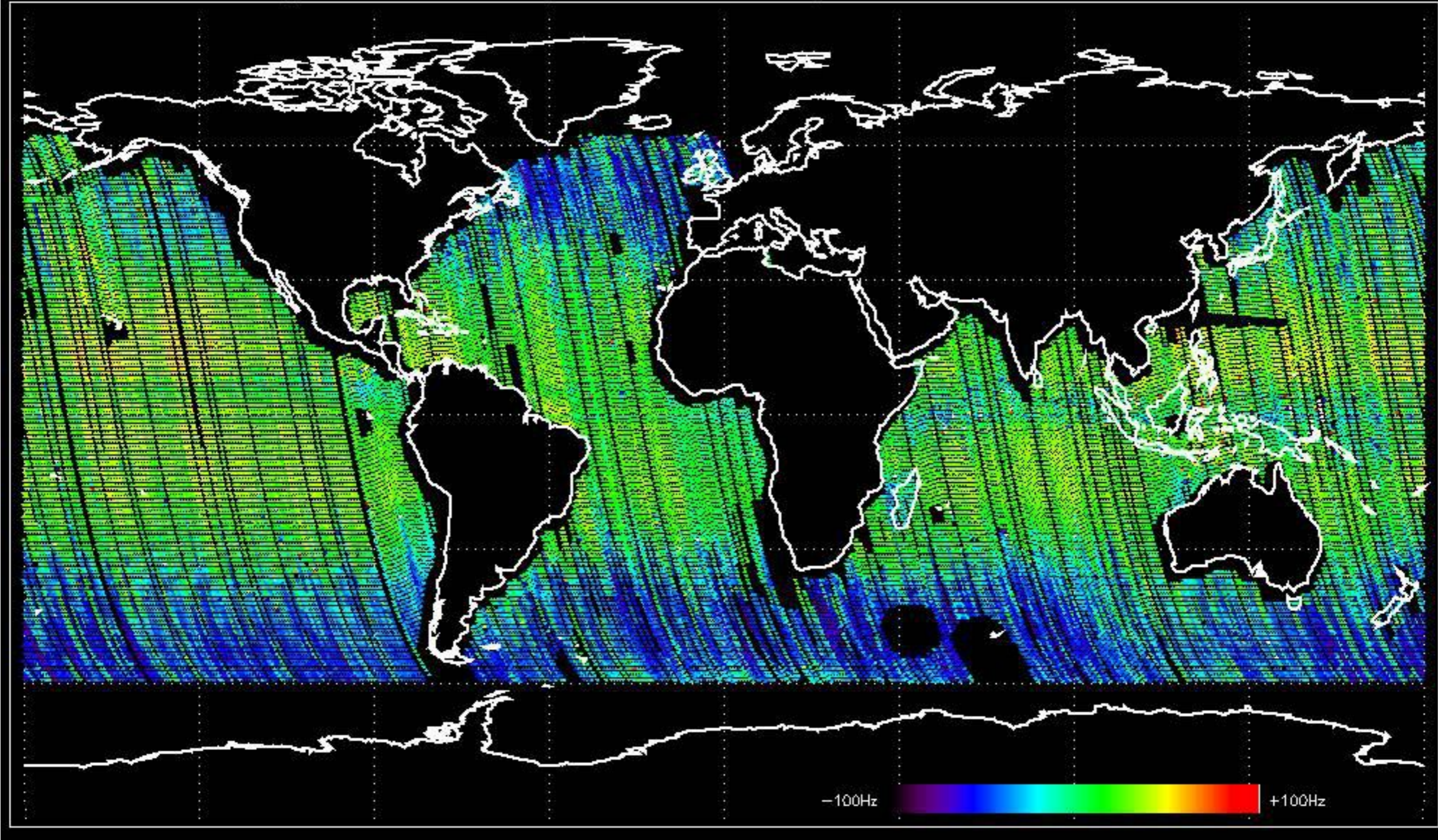
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.522863 Hz



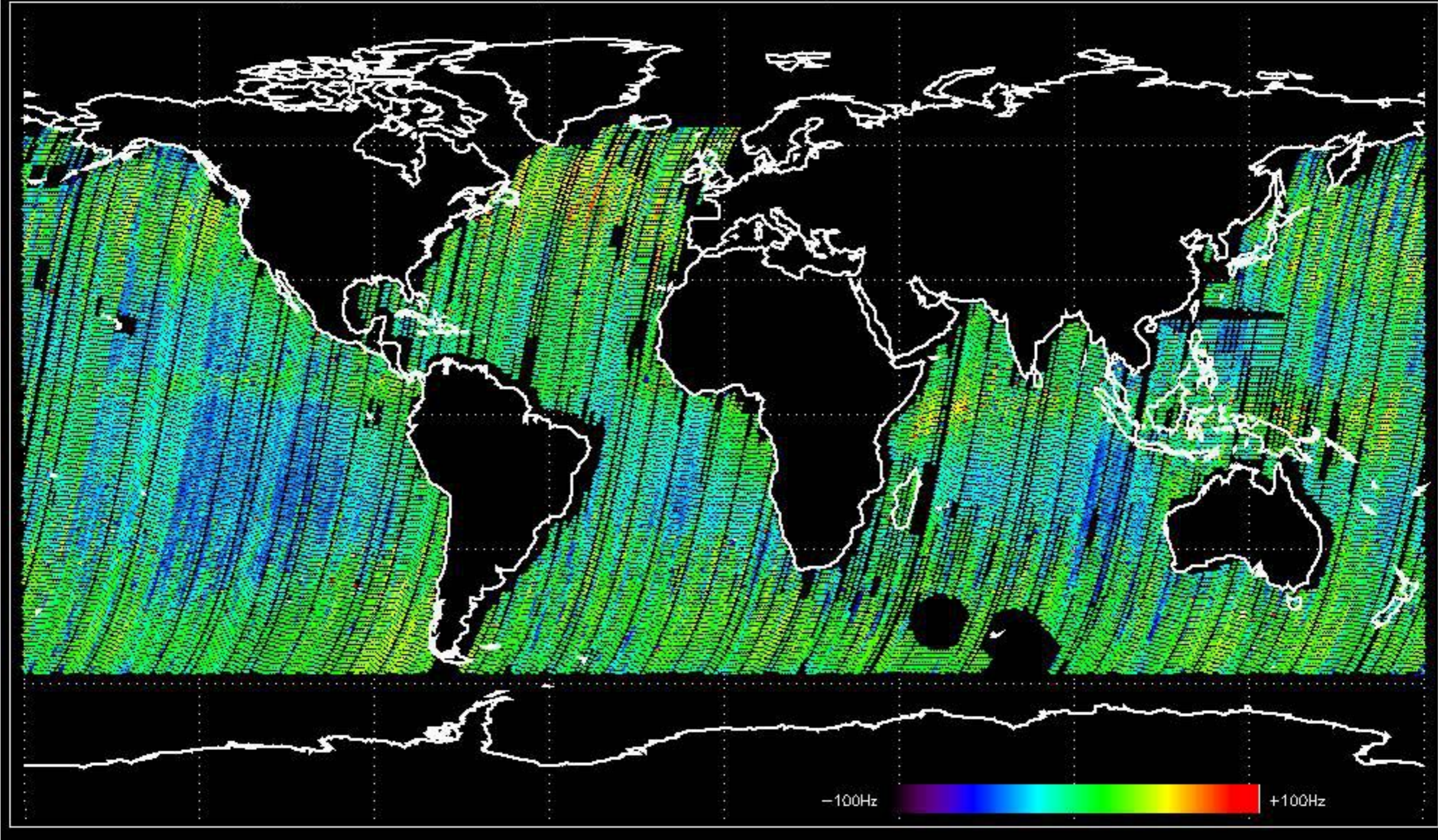
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.660975 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.6963814 Hz

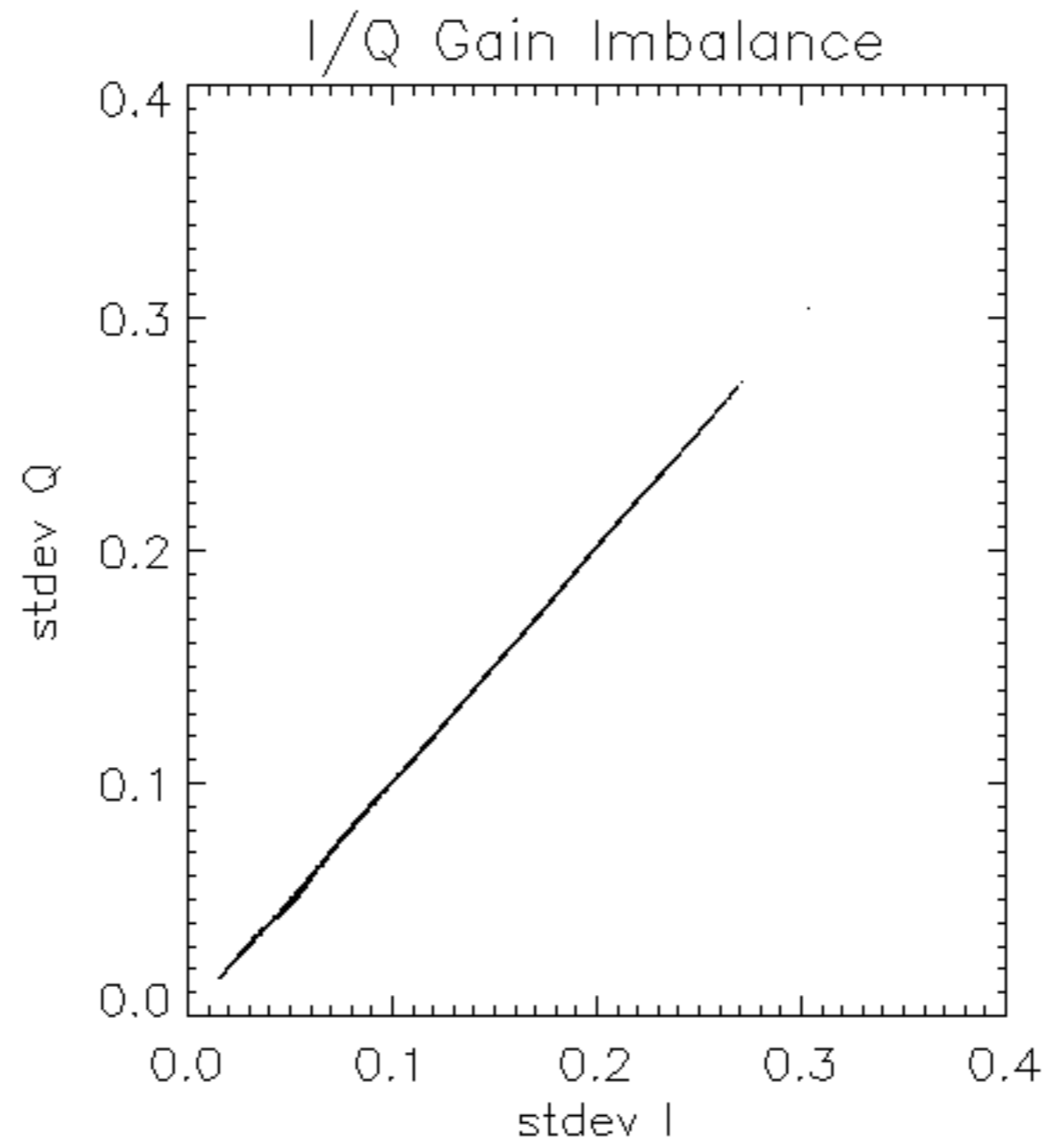


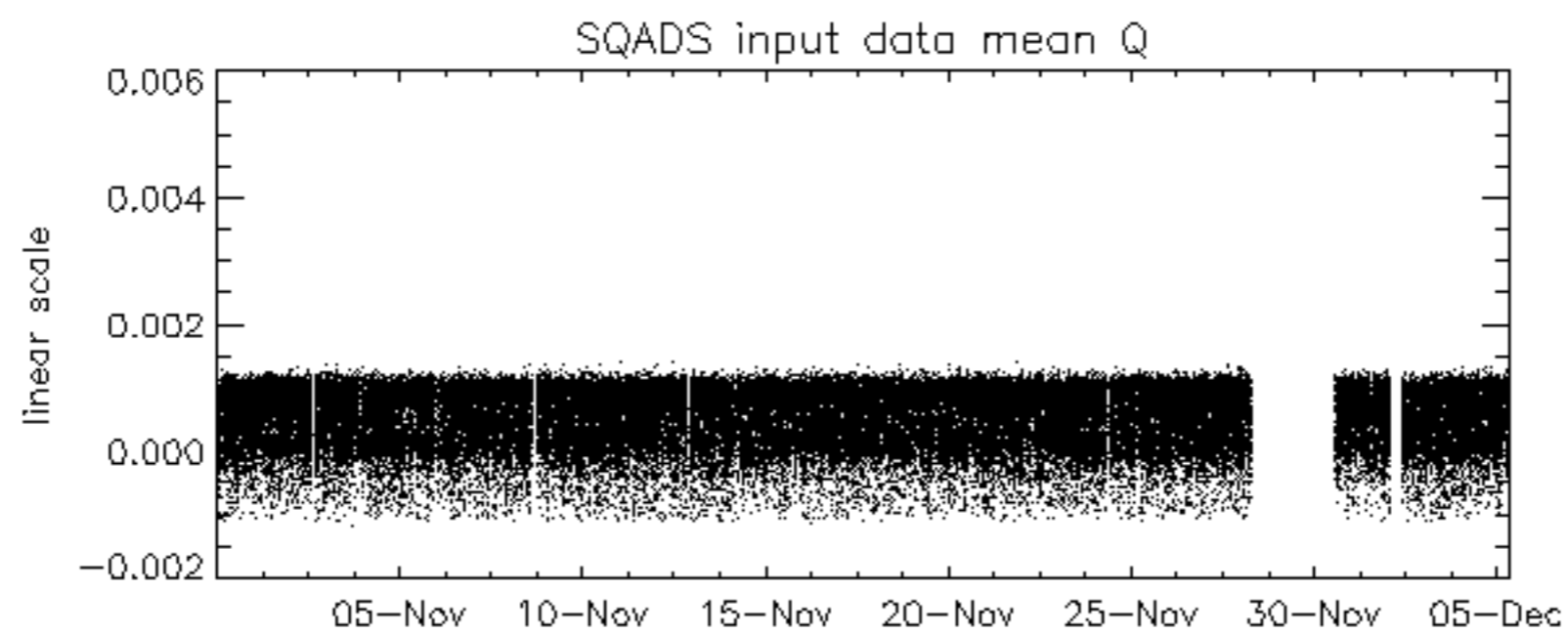
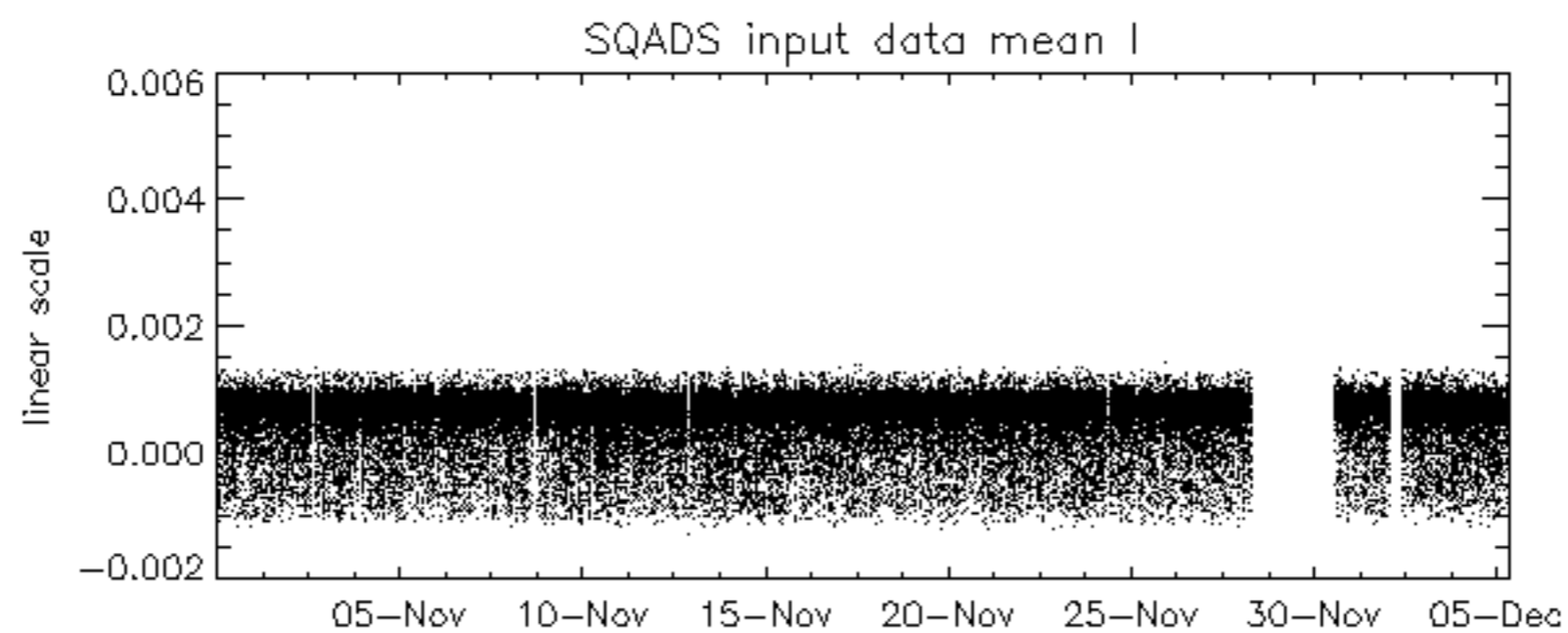
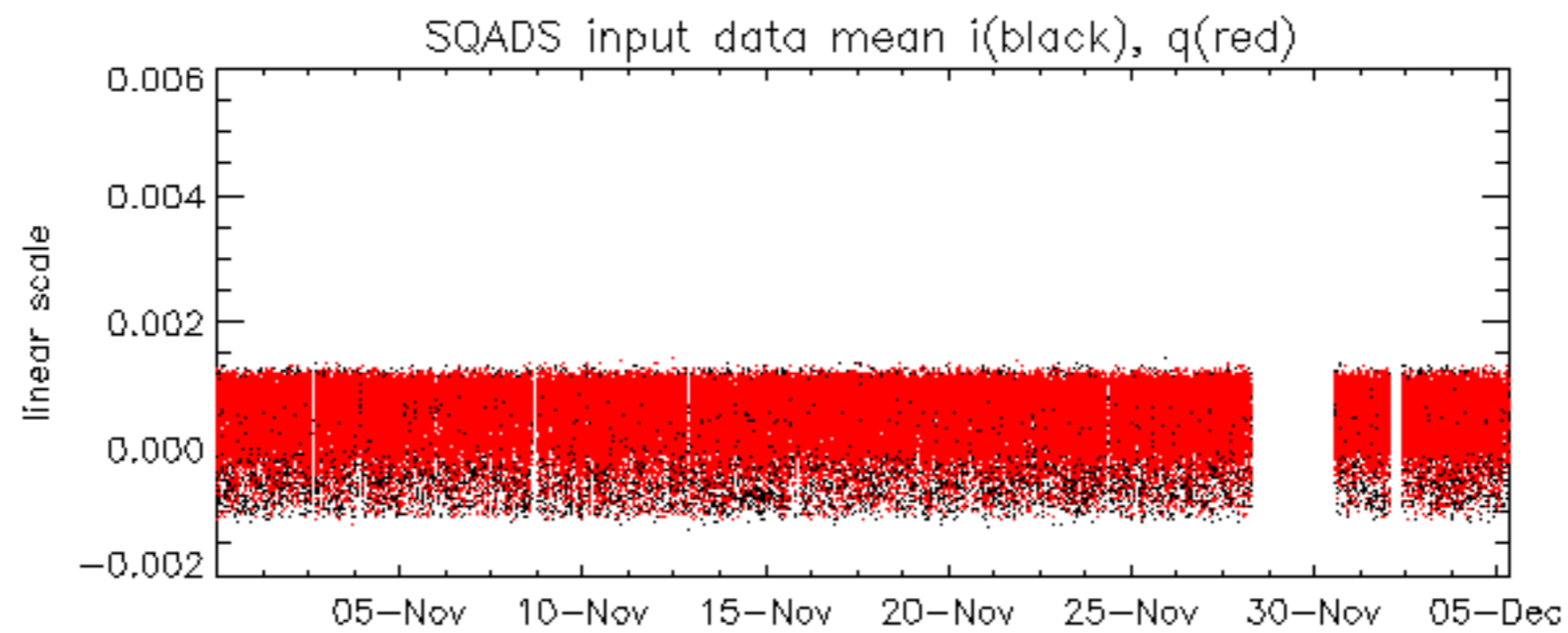
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.1773483 Hz

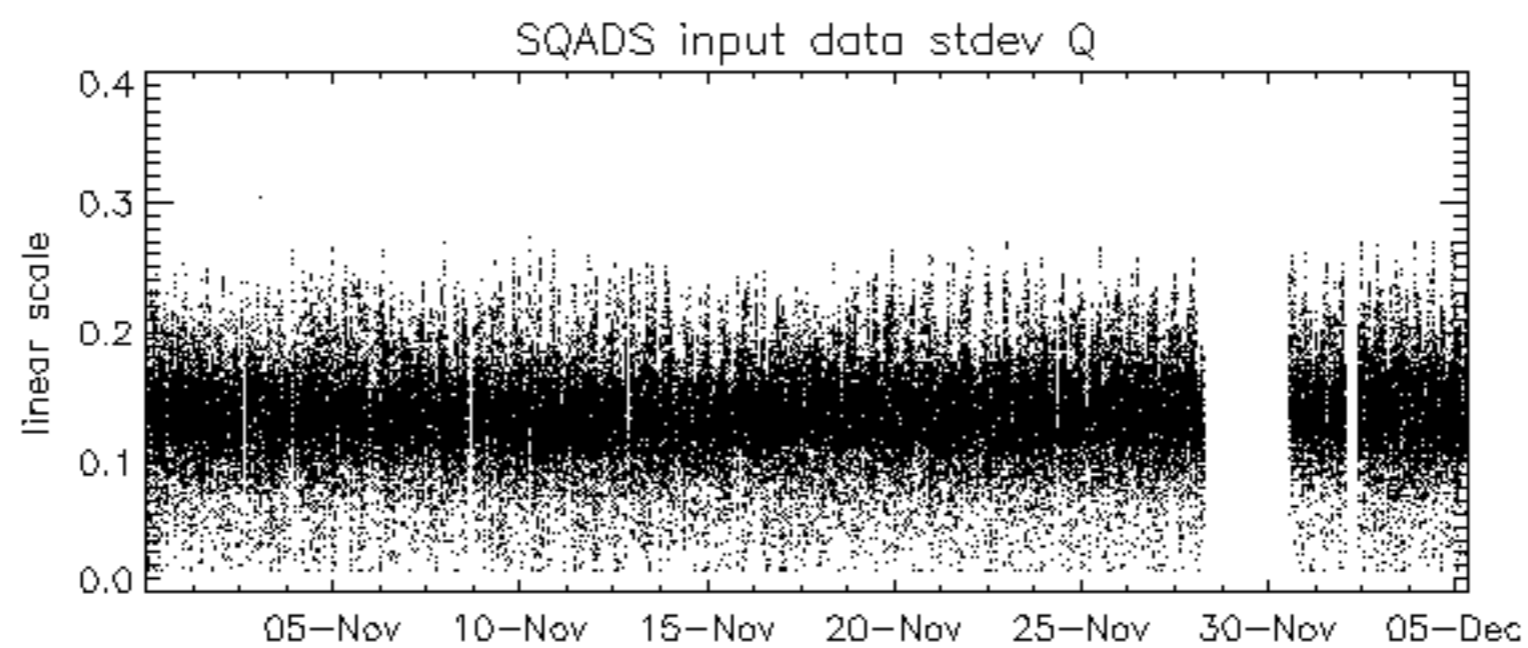
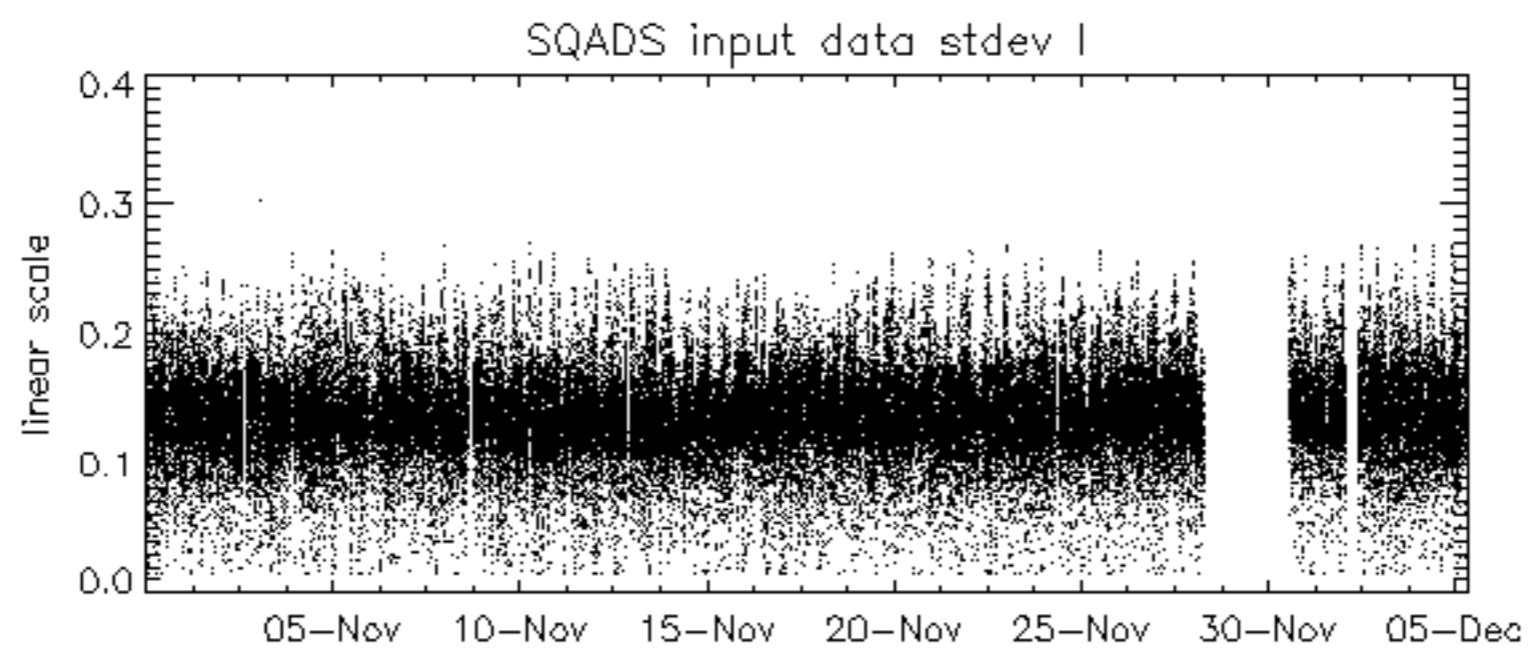
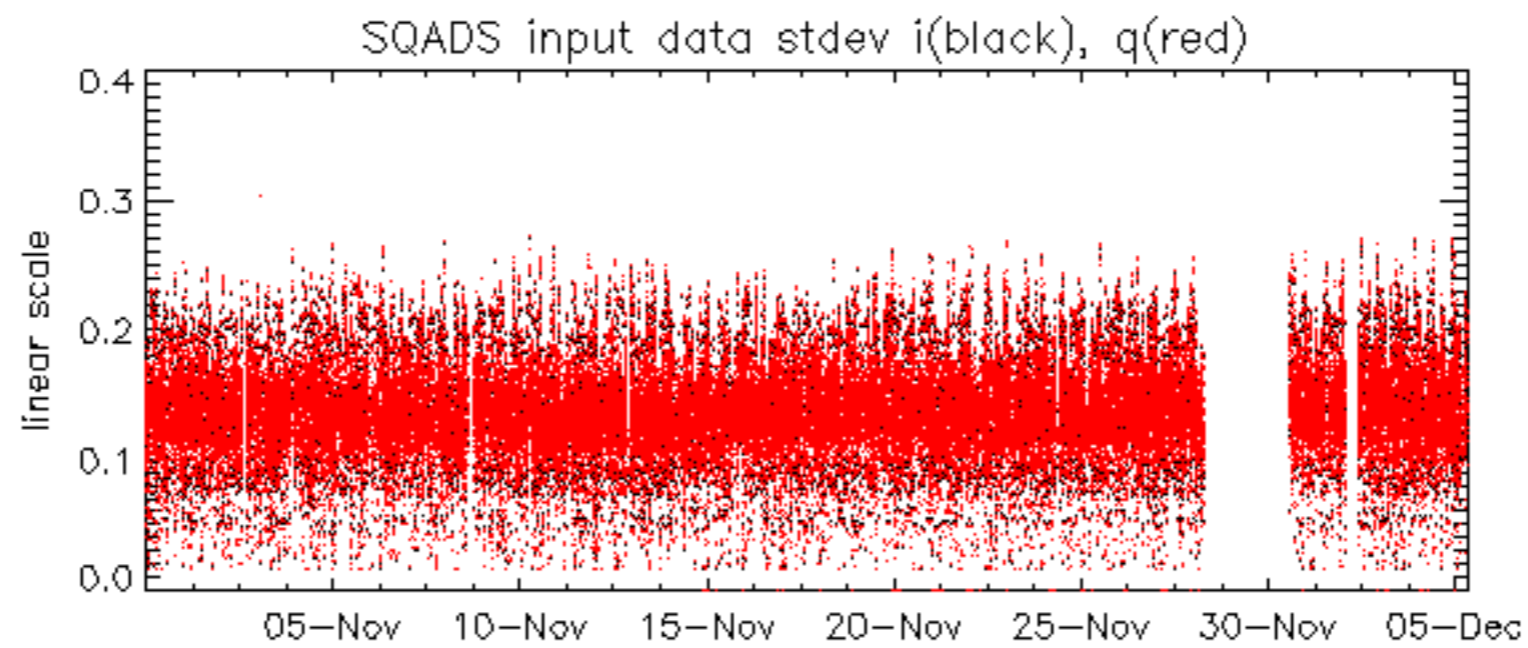


No anomalies observed on available MS products:

No anomalies observed.



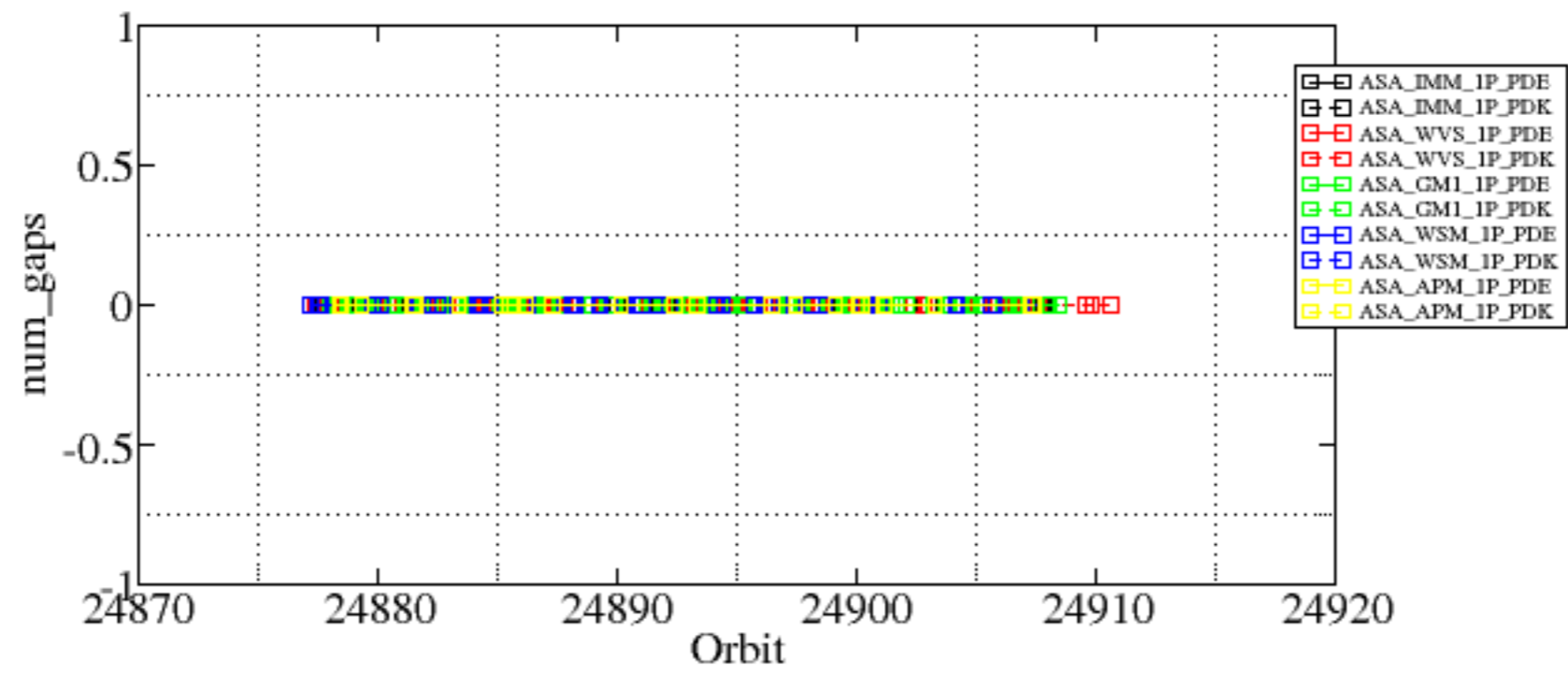


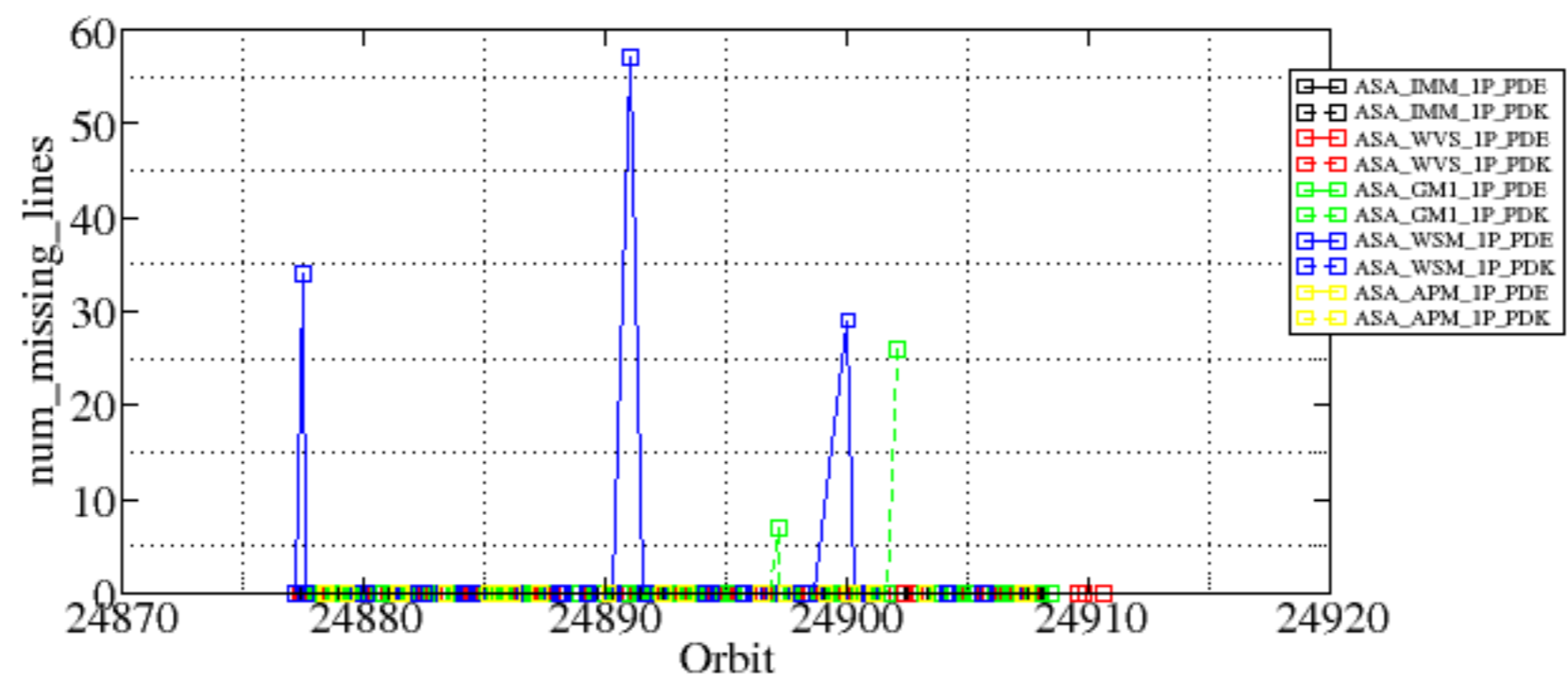


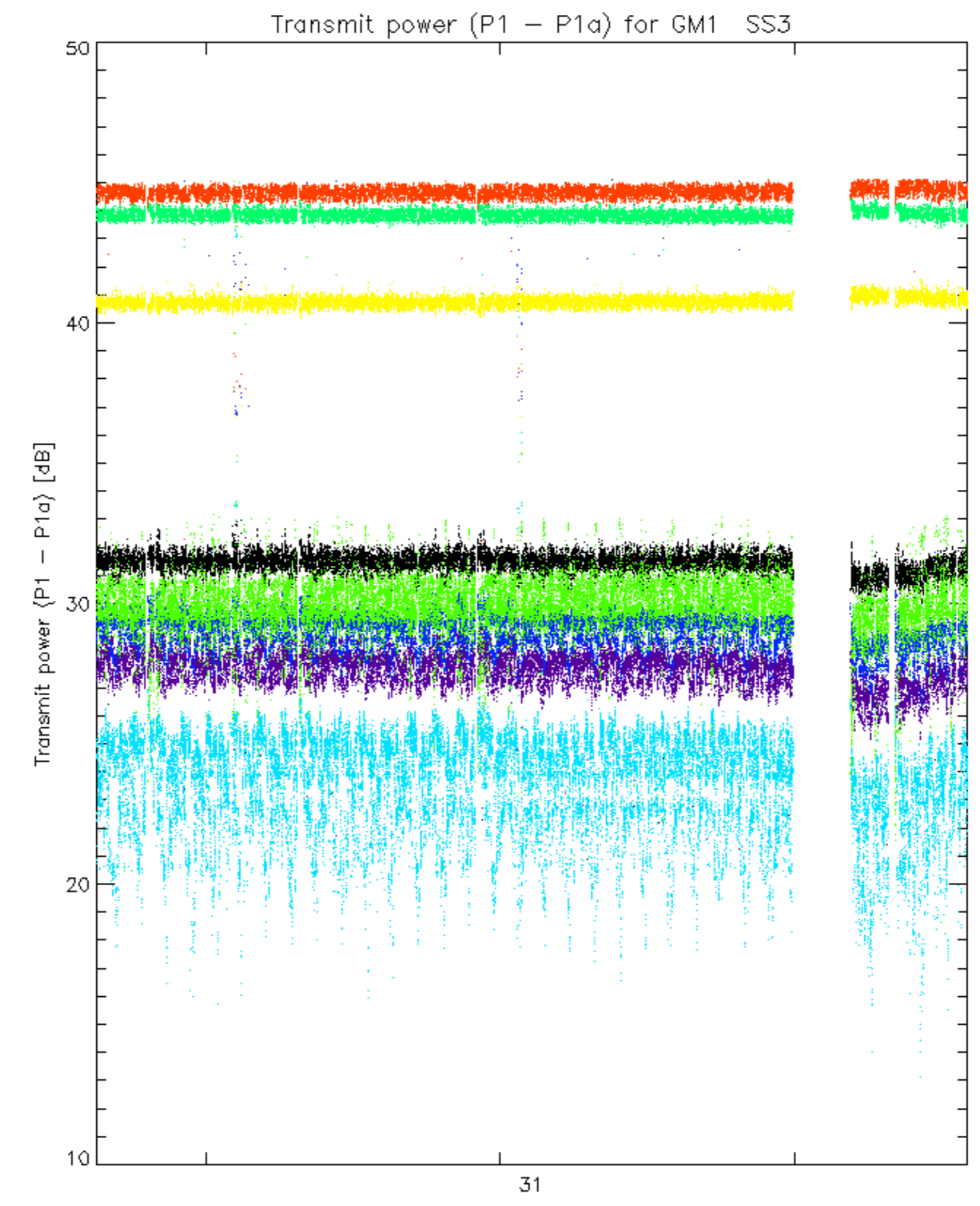
Summary of analysis for the last 3 days 2006120[345]

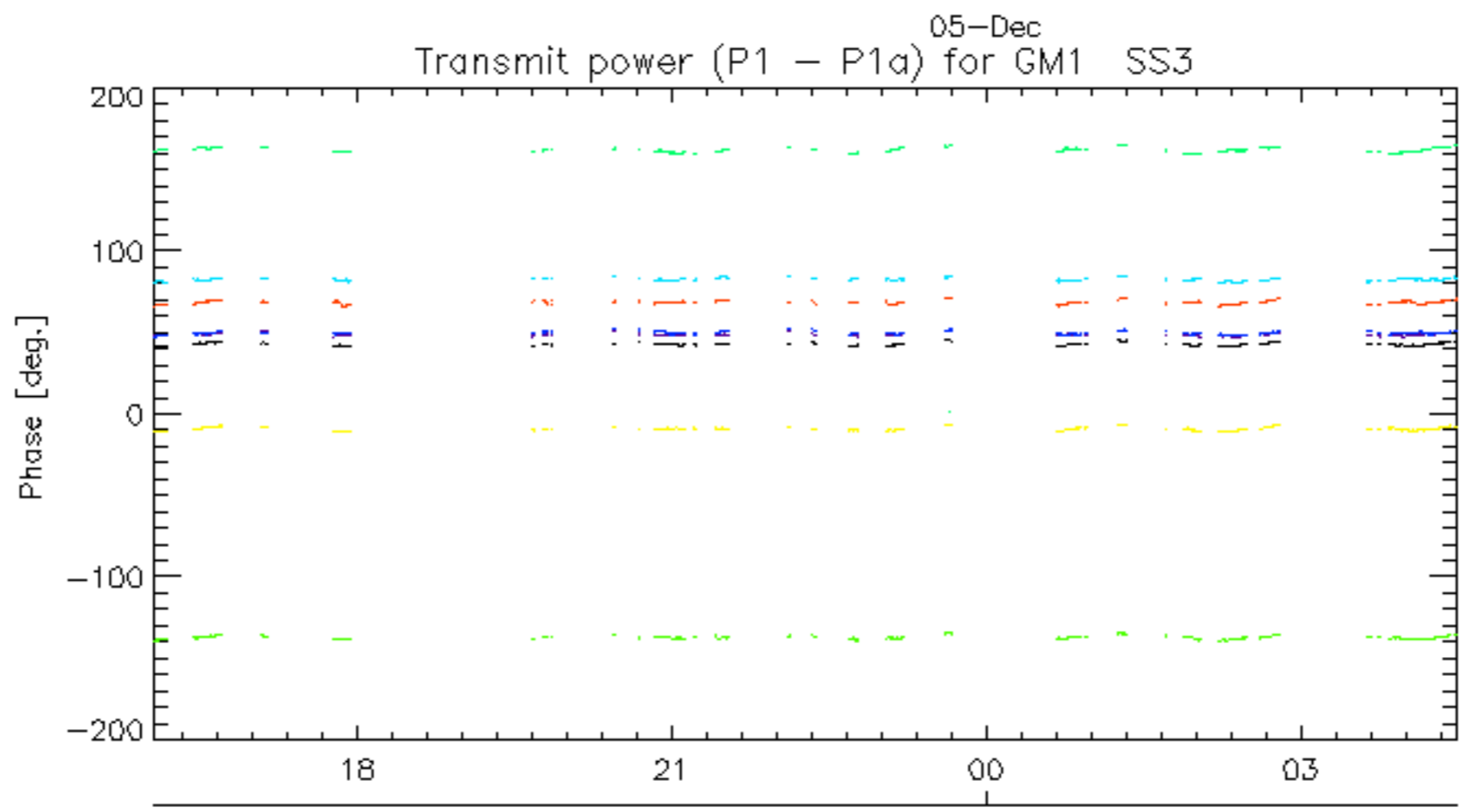
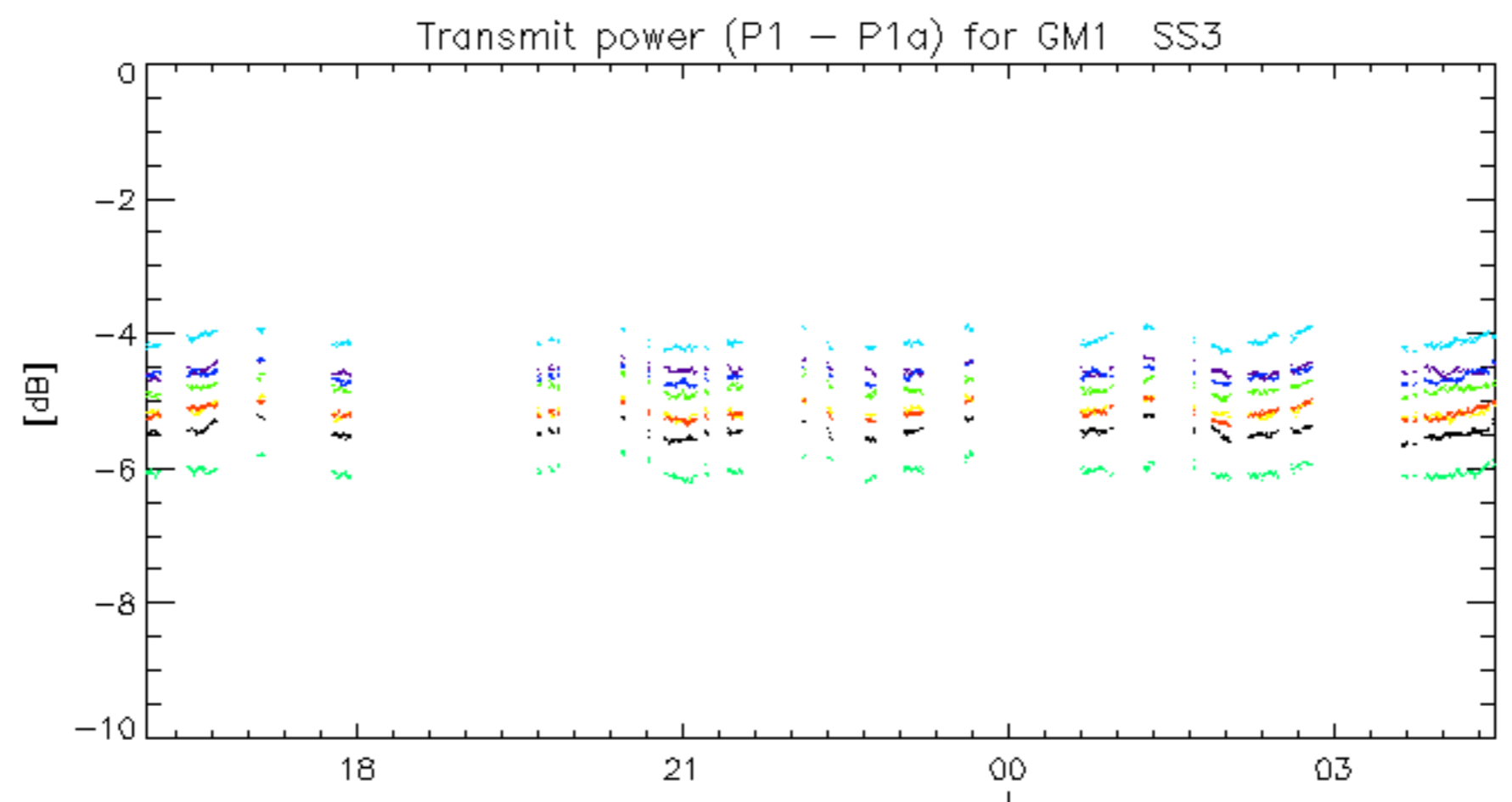
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20061204_093242_000007732053_00294_24897_9683.N1	0	7
ASA_GM1_1PNPDK20061204_174633_000006342053_00299_24902_9712.N1	0	26
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6506.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6579.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6802.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6989.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_7194.N1	0	34
ASA_WSM_1PNPDE20061203_231436_000000982053_00288_24891_7851.N1	0	57
ASA_WSM_1PNPDE20061204_142150_000000852053_00297_24900_8594.N1	0	29



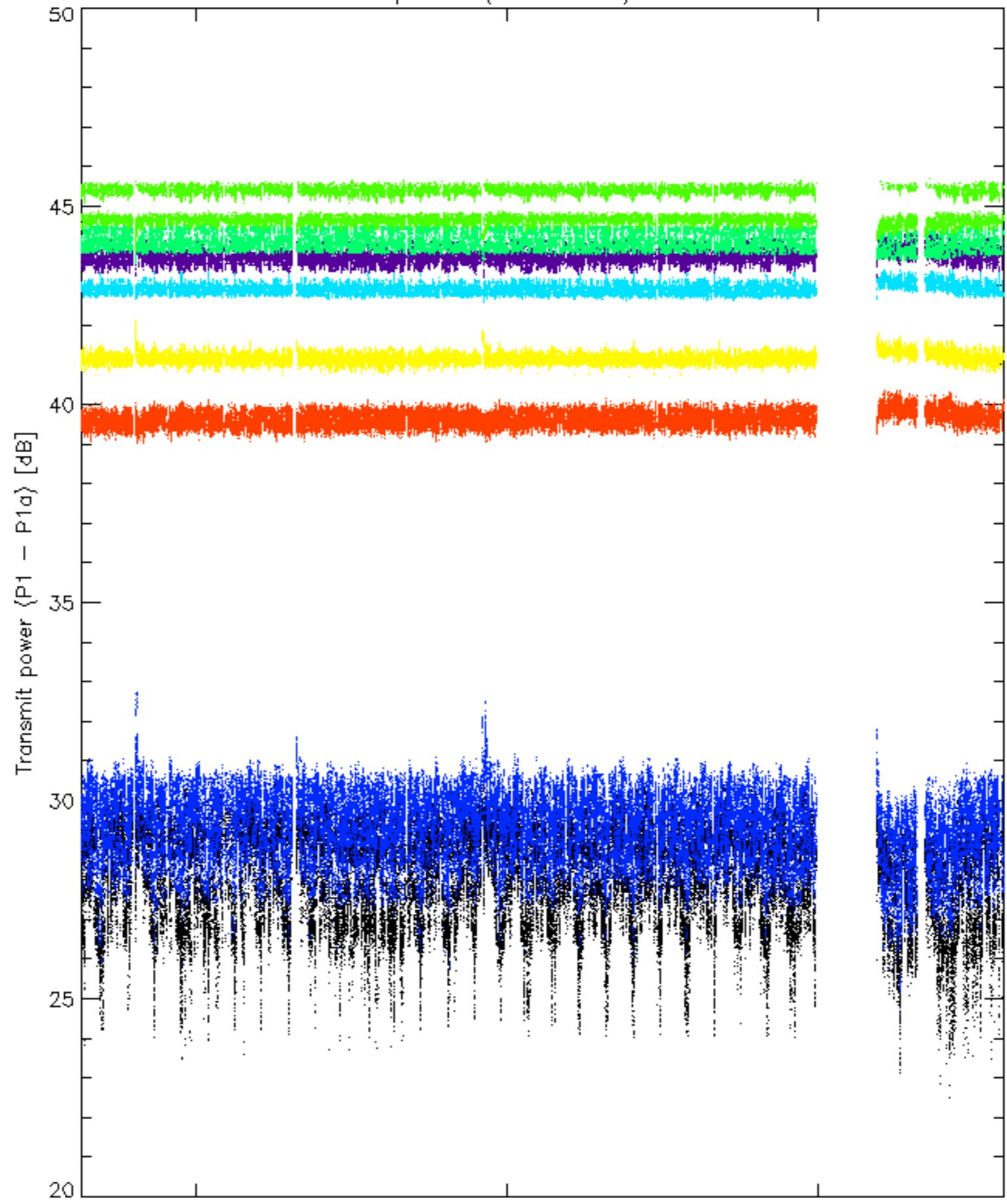






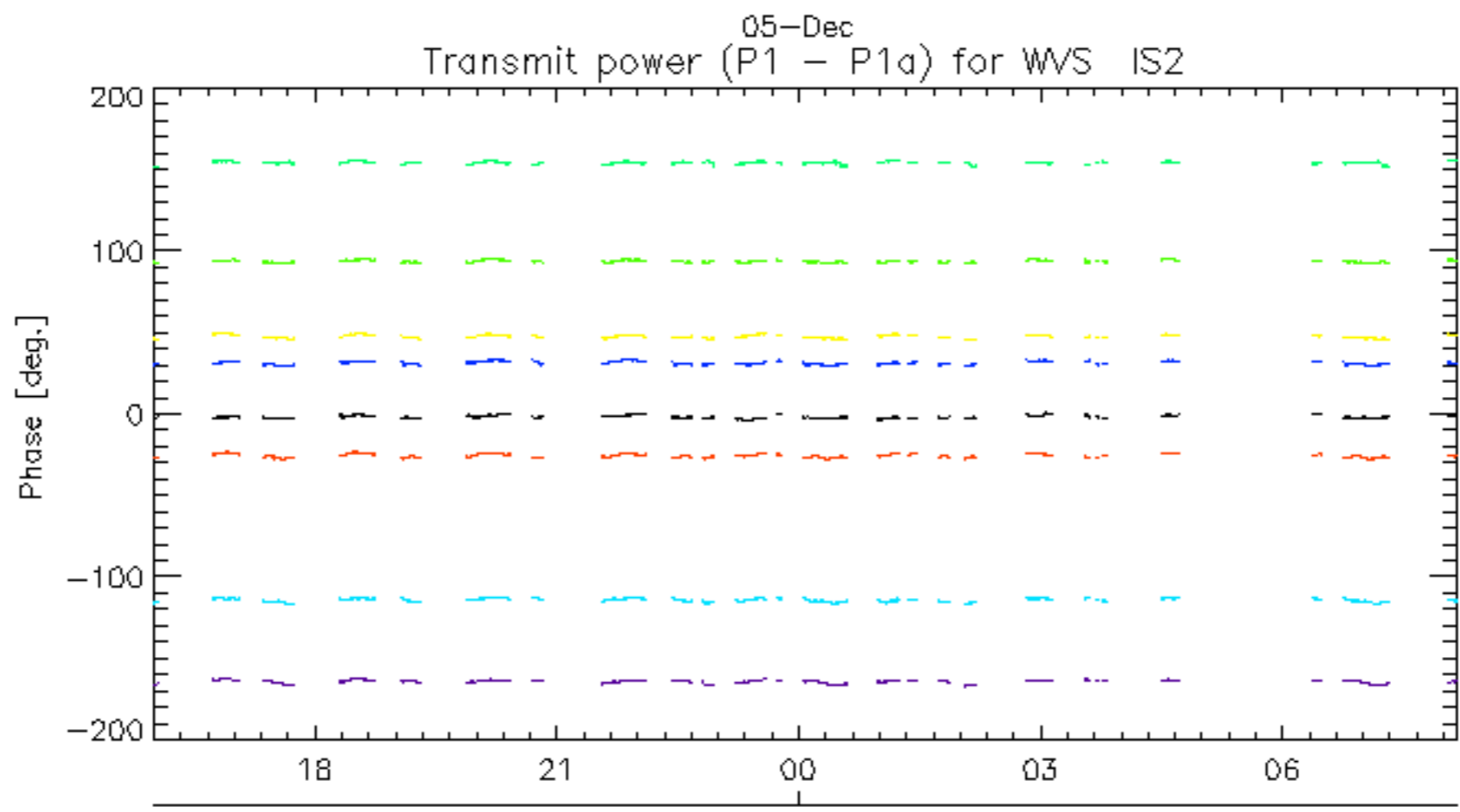
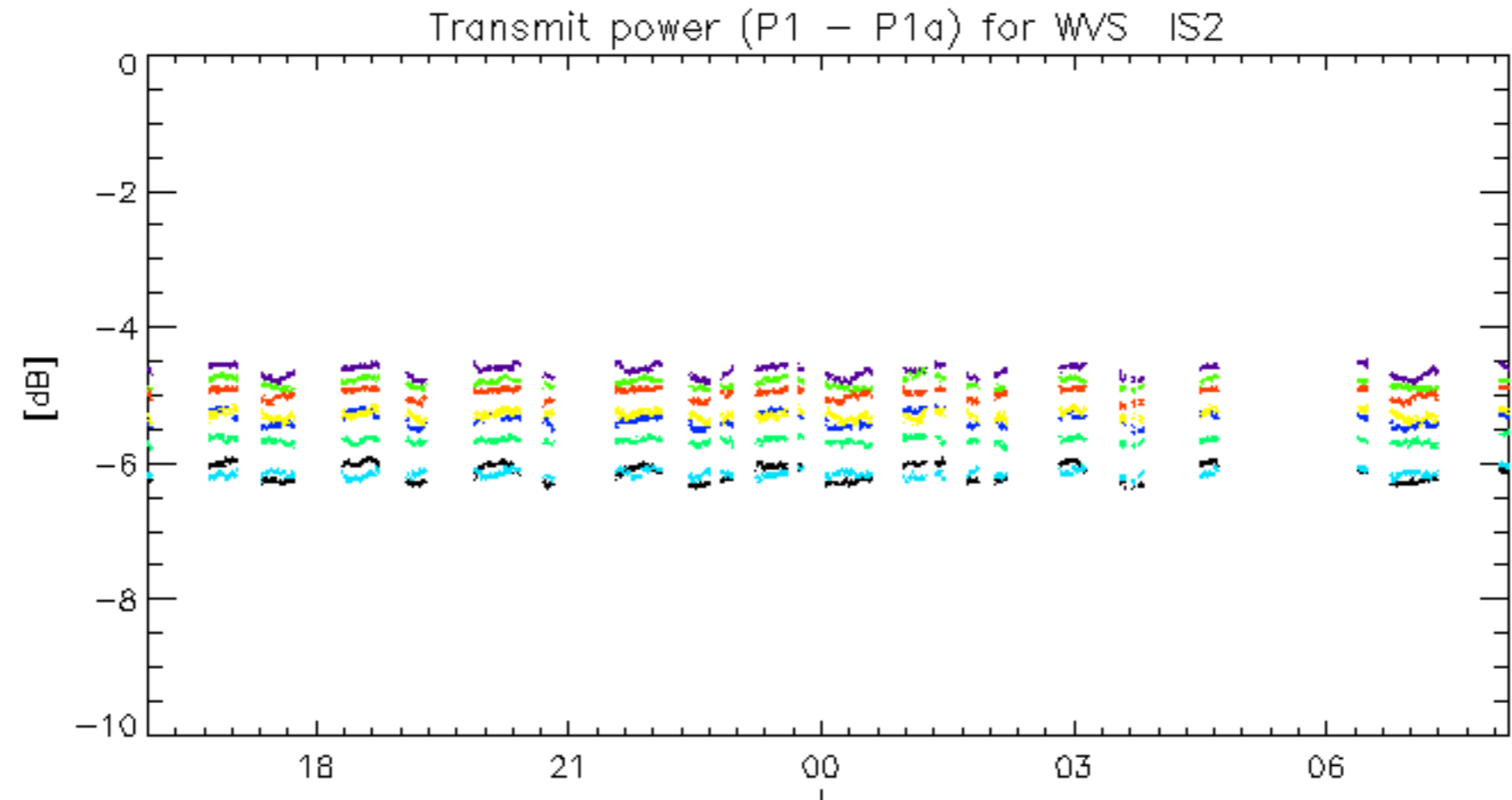
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.