

PRELIMINARY REPORT OF 061112

last update on Sun Nov 12 16:40:52 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 2006-11-11 00:00:00 to 2006-11-12 16:40:52

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	47	79	30	3	21
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	47	79	30	3	21
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	47	79	30	3	21
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	79	30	3	21

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	22	33	54	7	28
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	22	33	54	7	28
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	22	33	54	7	28
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	22	33	54	7	28

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	20061111 204906
H	20061110 143819

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	-3.955051	0.009058	0.004946
7	P1	-3.124475	0.020885	-0.112115
11	P1	-4.119829	0.024413	-0.053342
15	P1	-6.259187	0.014917	-0.102324
19	P1	-3.603003	0.064960	-0.035349
22	P1	-4.656377	0.130244	-0.037168
26	P1	-3.980934	0.088739	0.051092
30	P1	-5.876925	0.170702	-0.016686
3	P1	-16.535385	0.228168	0.237702
7	P1	-17.204700	0.194942	-0.311724
11	P1	-17.107777	0.433526	-0.197577
15	P1	-12.989514	0.121861	-0.302845
19	P1	-14.848799	0.372479	-0.247612
22	P1	-15.774877	0.503416	-0.492037
26	P1	-15.084149	0.216125	0.060403
30	P1	-17.271749	0.568389	-0.686959

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.843246	0.088372	-0.031881
7	P2	-21.739372	0.093038	0.034497
11	P2	-15.678805	0.104933	0.094687
15	P2	-7.102879	0.106769	-0.090721
19	P2	-9.168330	0.101479	-0.107321
22	P2	-18.198505	0.094905	-0.125813
26	P2	-16.498960	0.107605	-0.178587
30	P2	-19.472019	0.089024	-0.015863

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.222618	0.007754	-0.046000
7	P3	-8.222618	0.007754	-0.046000
11	P3	-8.222618	0.007754	-0.046000
15	P3	-8.222618	0.007754	-0.046000
19	P3	-8.222618	0.007754	-0.046000
22	P3	-8.222618	0.007754	-0.046000
26	P3	-8.222644	0.007777	-0.045989
30	P3	-8.222644	0.007777	-0.045989

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	-3.922990	0.163762	0.063834
7	P1	-2.604114	1.051930	0.346580
11	P1	-2.896124	0.131404	0.137498
15	P1	-3.697917	0.121957	0.087000
19	P1	-3.523826	0.129304	-0.057032
22	P1	-5.066374	0.097194	0.015141
26	P1	-5.999804	0.243946	-0.072358
30	P1	-5.302159	0.164003	-0.091572
3	P1	-11.749361	0.401640	0.165545
7	P1	-10.143666	1.336771	0.382301
11	P1	-10.407609	0.366882	0.330327
15	P1	-10.867979	0.500791	0.453314
19	P1	-15.745398	2.267408	-0.120959
22	P1	-21.177647	1.626253	-0.666324
26	P1	-15.953896	0.436265	-0.383641
30	P1	-17.975180	0.522714	0.262718

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.396496	0.251722	-0.265178
7	P2	-22.069933	1.384238	-0.631415
11	P2	-10.886413	0.224103	-0.232214
15	P2	-4.925921	0.076264	-0.138426
19	P2	-6.910696	0.150349	-0.153084
22	P2	-8.266279	0.458885	0.038786
26	P2	-24.192610	1.041927	-0.526293
30	P2	-21.890322	0.531891	-0.269972

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.070827	0.003273	-0.042898
7	P3	-8.070754	0.003253	-0.042961
11	P3	-8.070749	0.003260	-0.043427
15	P3	-8.070662	0.003254	-0.042814
19	P3	-8.070751	0.003258	-0.043015
22	P3	-8.070622	0.003262	-0.043248
26	P3	-8.070633	0.003251	-0.043786
30	P3	-8.070696	0.003260	-0.043789

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	0.000548567
	stdev	1.75537e-07
MEAN Q	mean	0.000517539
	stdev	2.20133e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136744
	stdev	0.00112795
STDEV Q	mean	0.137107
	stdev	0.00114531



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006111[012]

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_IMM_1PNPDK20061110_062233_00000592052_00449_24551_3724.N1	0	1
ASA_GM1_1PNPDK20061110_150123_000001872052_00454_24556_8390.N1	0	30
ASA_GM1_1PNPDK20061110_152402_000006522052_00455_24557_8387.N1	0	28
ASA_GM1_1PNPDK20061111_131036_000000782052_00468_24570_8454.N1	0	7
ASA_WSM_1PNPDE20061110_005418_000002632052_00446_24548_0001.N1	0	29
ASA_WSM_1PNPDK20061110_141658_000003302052_00454_24556_9834.N1	0	60
ASA_WSM_1PNPDK20061110_142505_000000672052_00454_24556_9836.N1	0	18
ASA_WSM_1PNPDK20061110_165310_000000852052_00456_24558_9847.N1	0	59
ASA_WSM_1PNPDK20061111_094431_000000862052_00466_24568_9866.N1	0	21



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

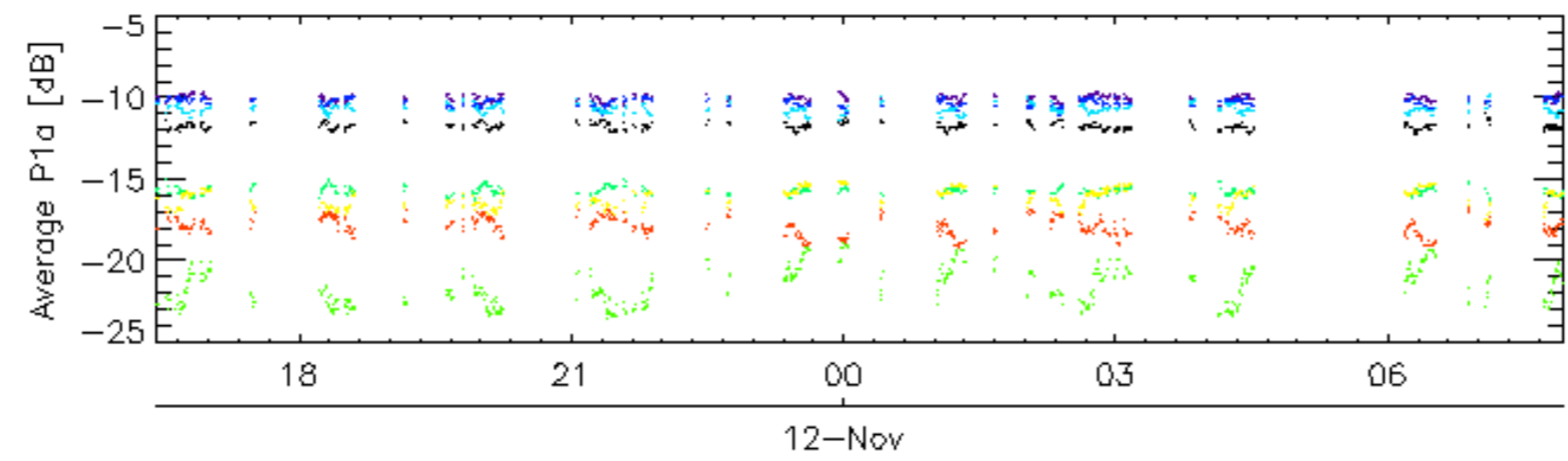
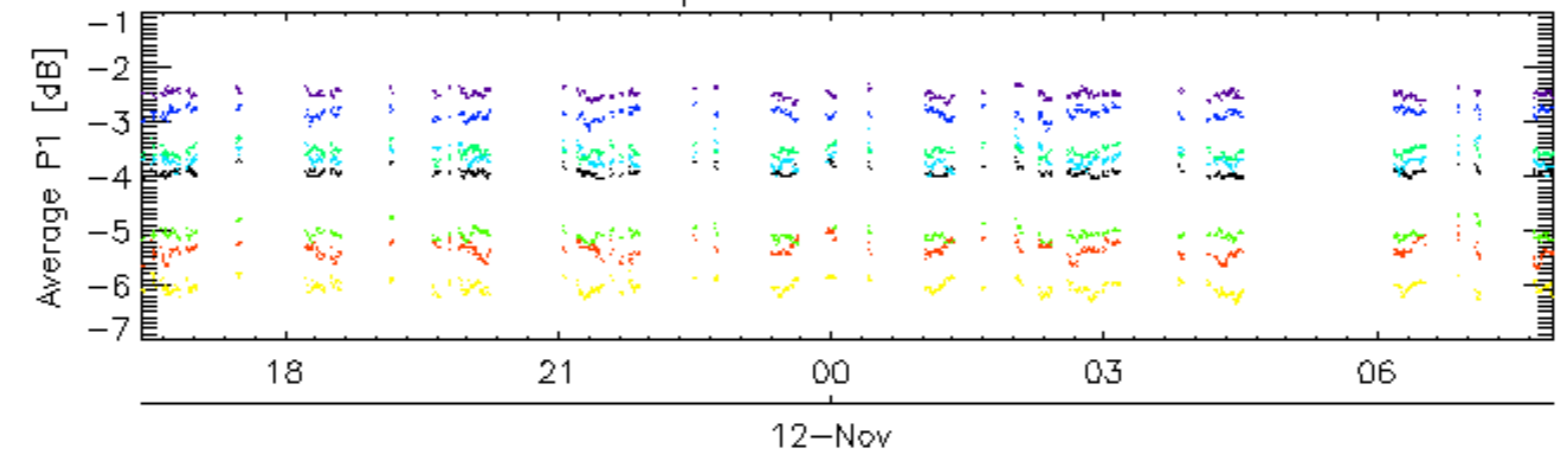
Ascending

Descending

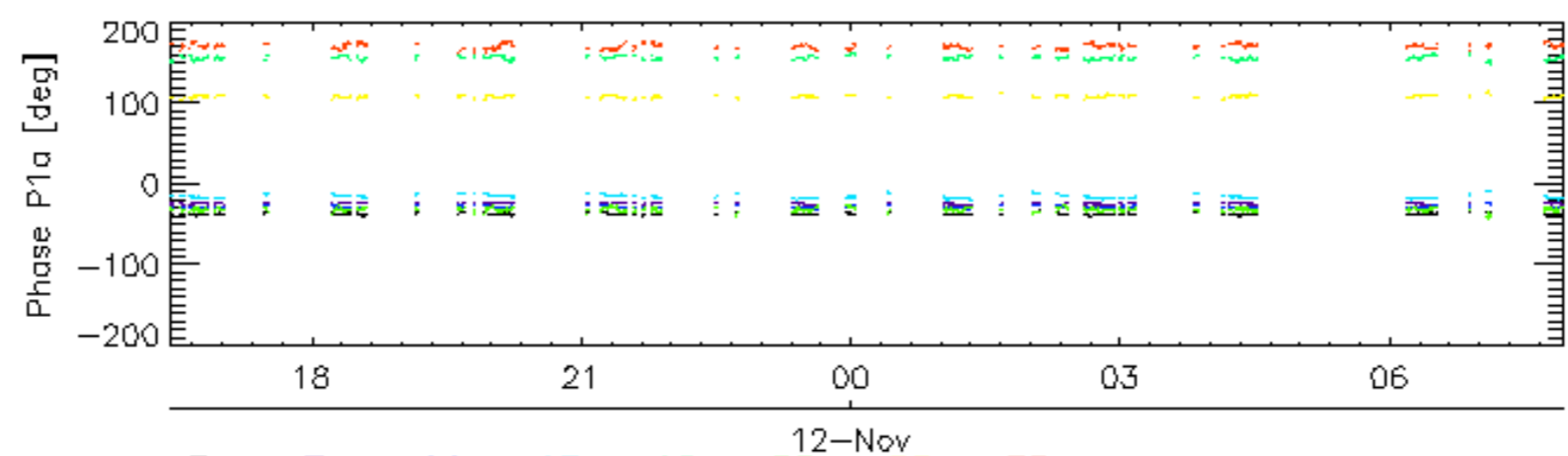
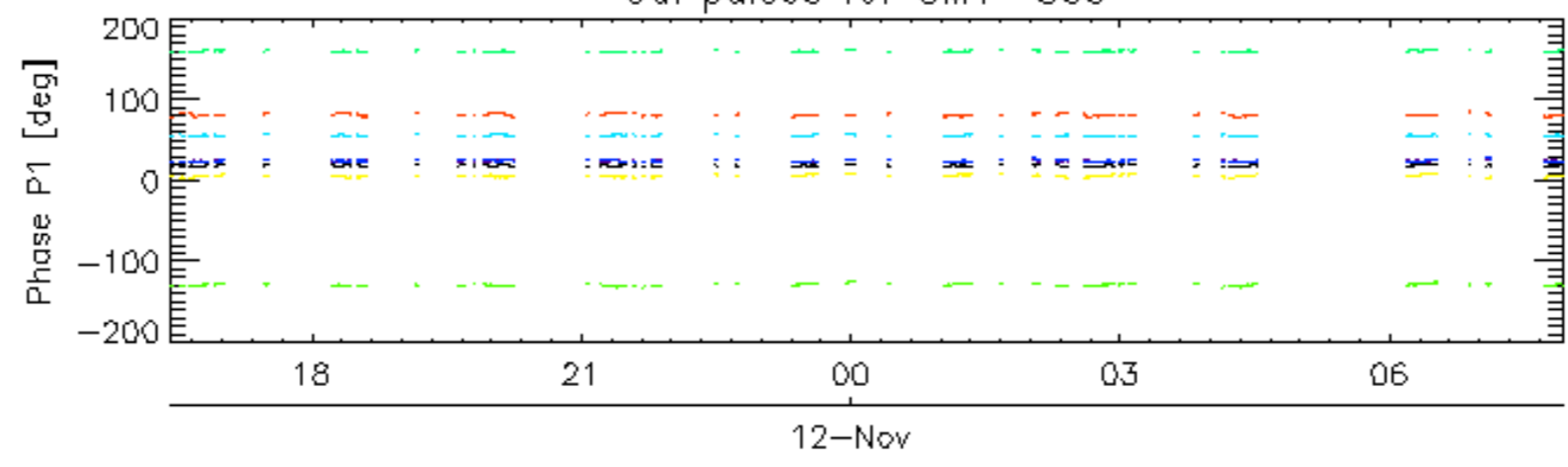
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

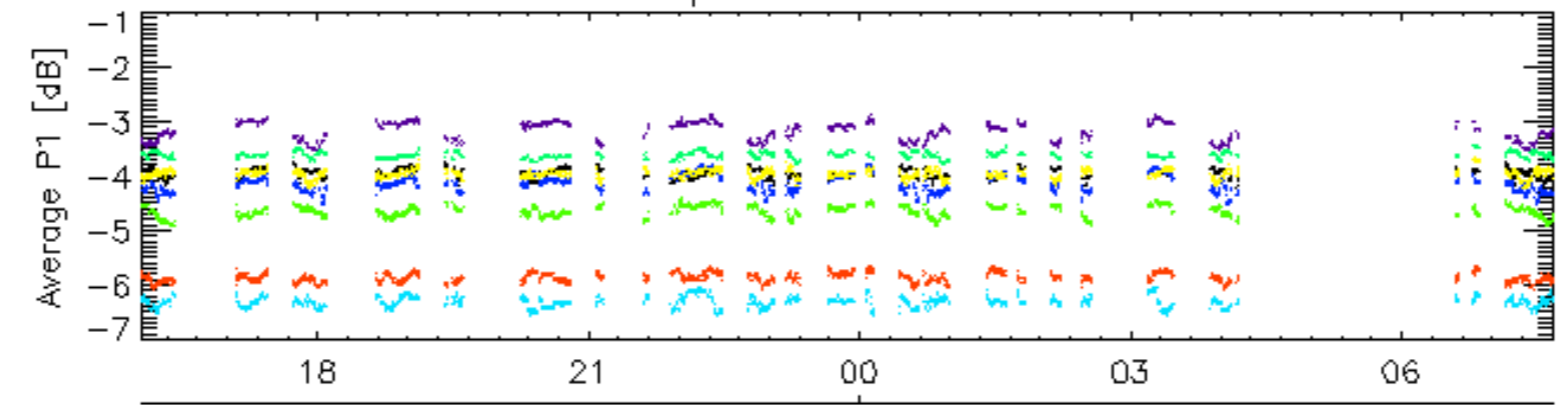


Cal pulses for GM1 SS3

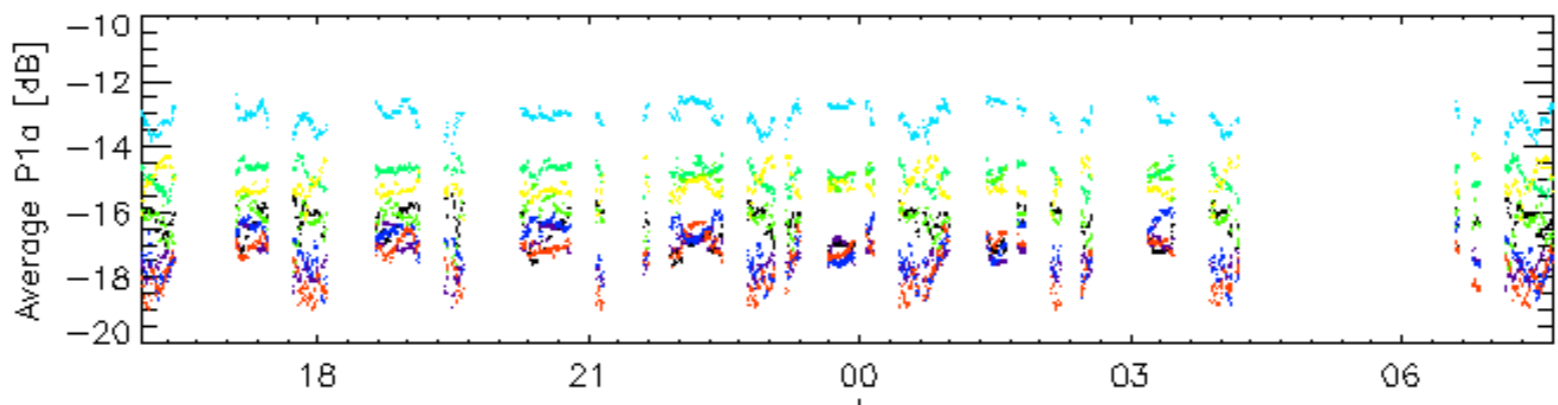


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

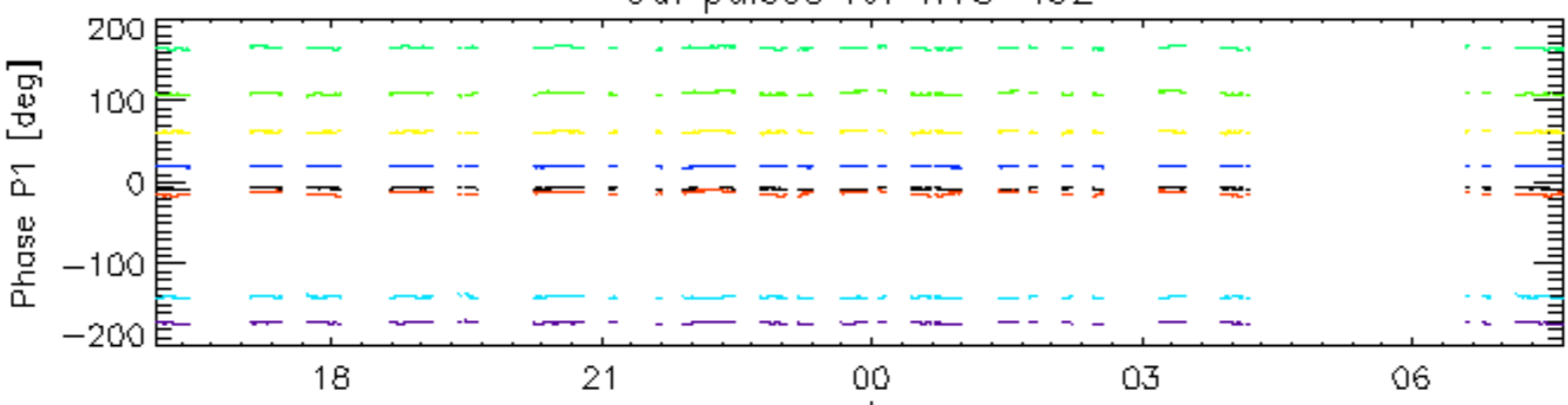


12-Nov

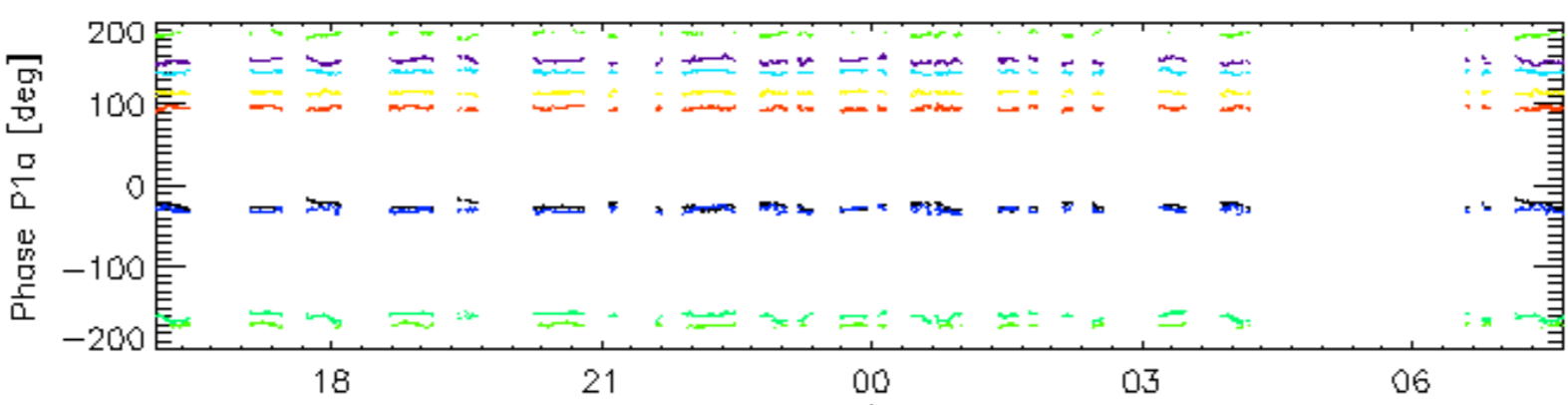


12-Nov

Cal pulses for WVS IS2

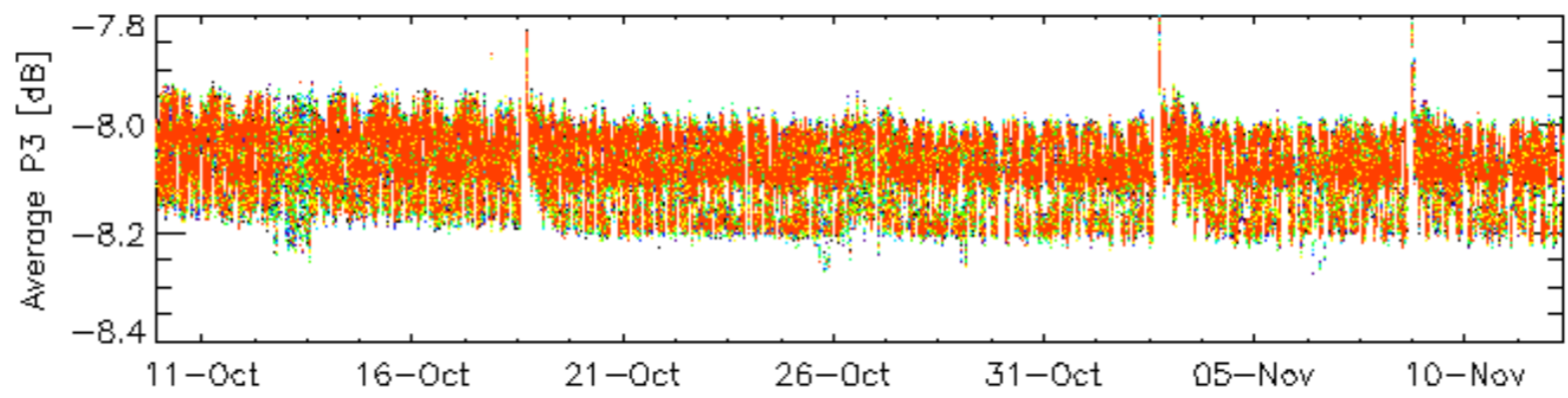
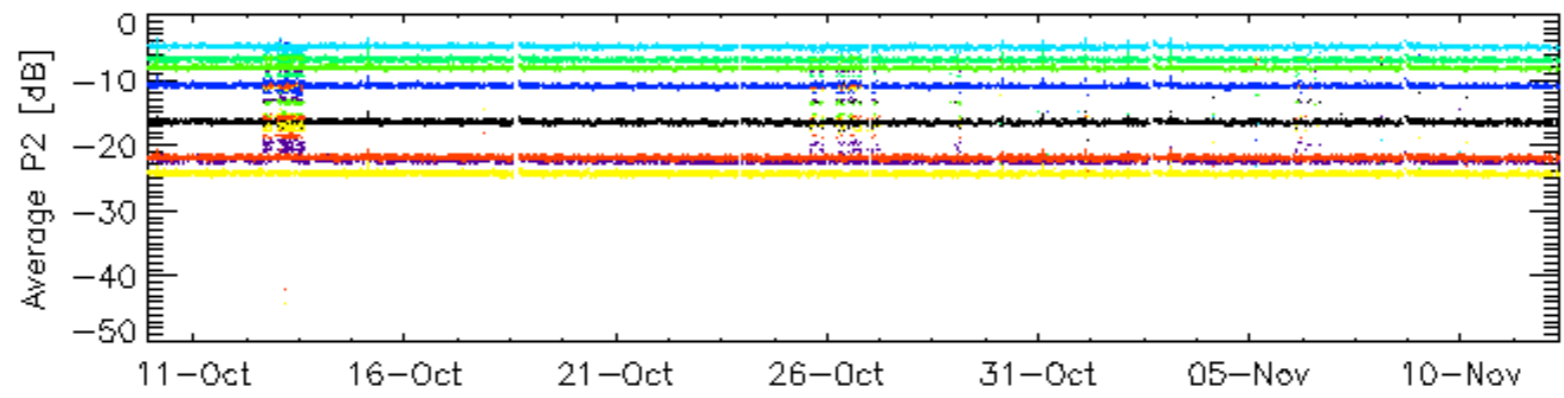
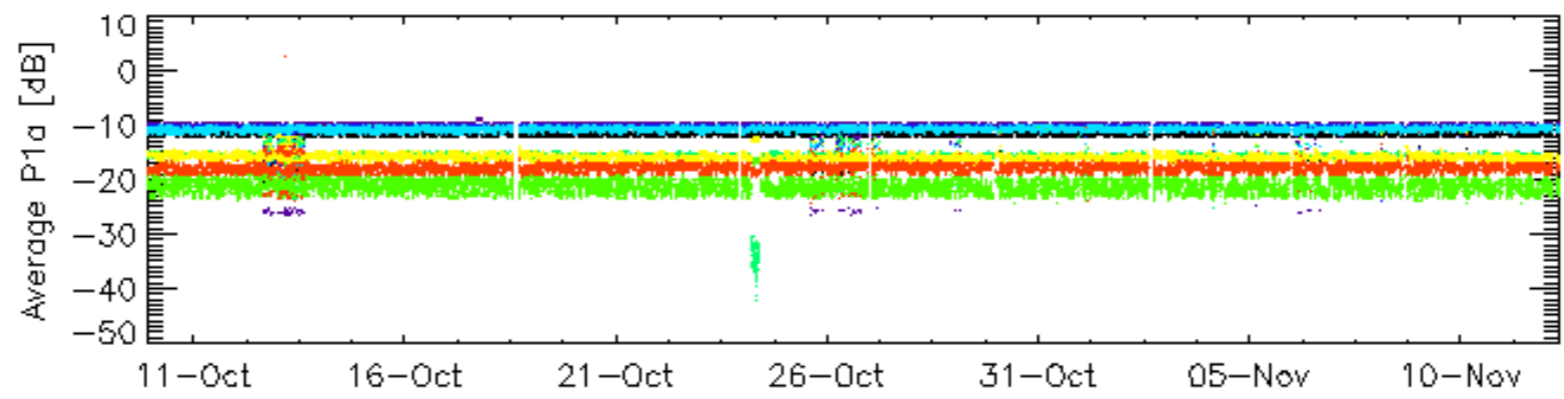
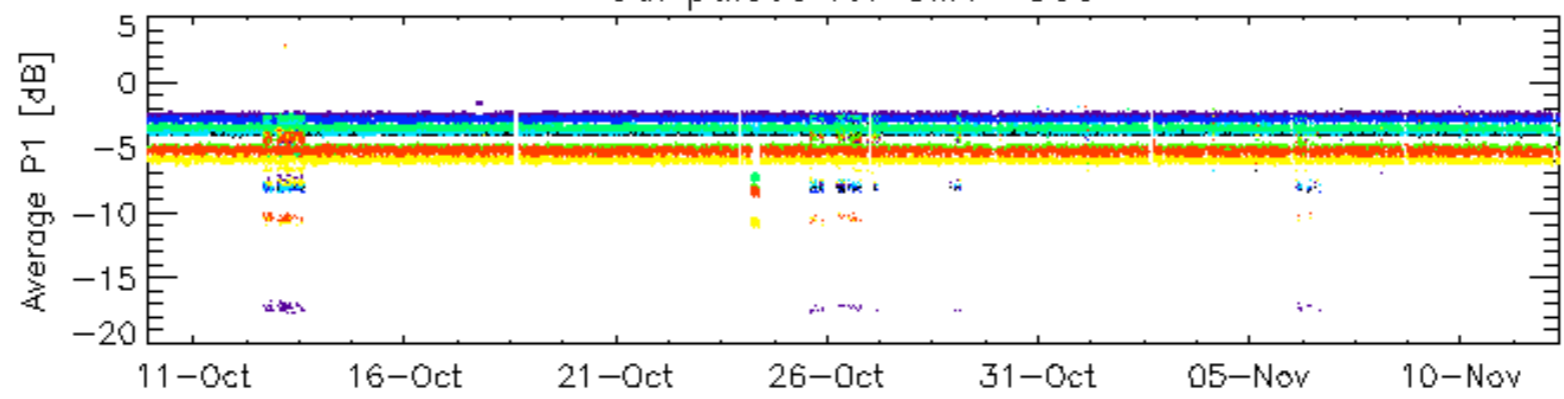


12-Nov



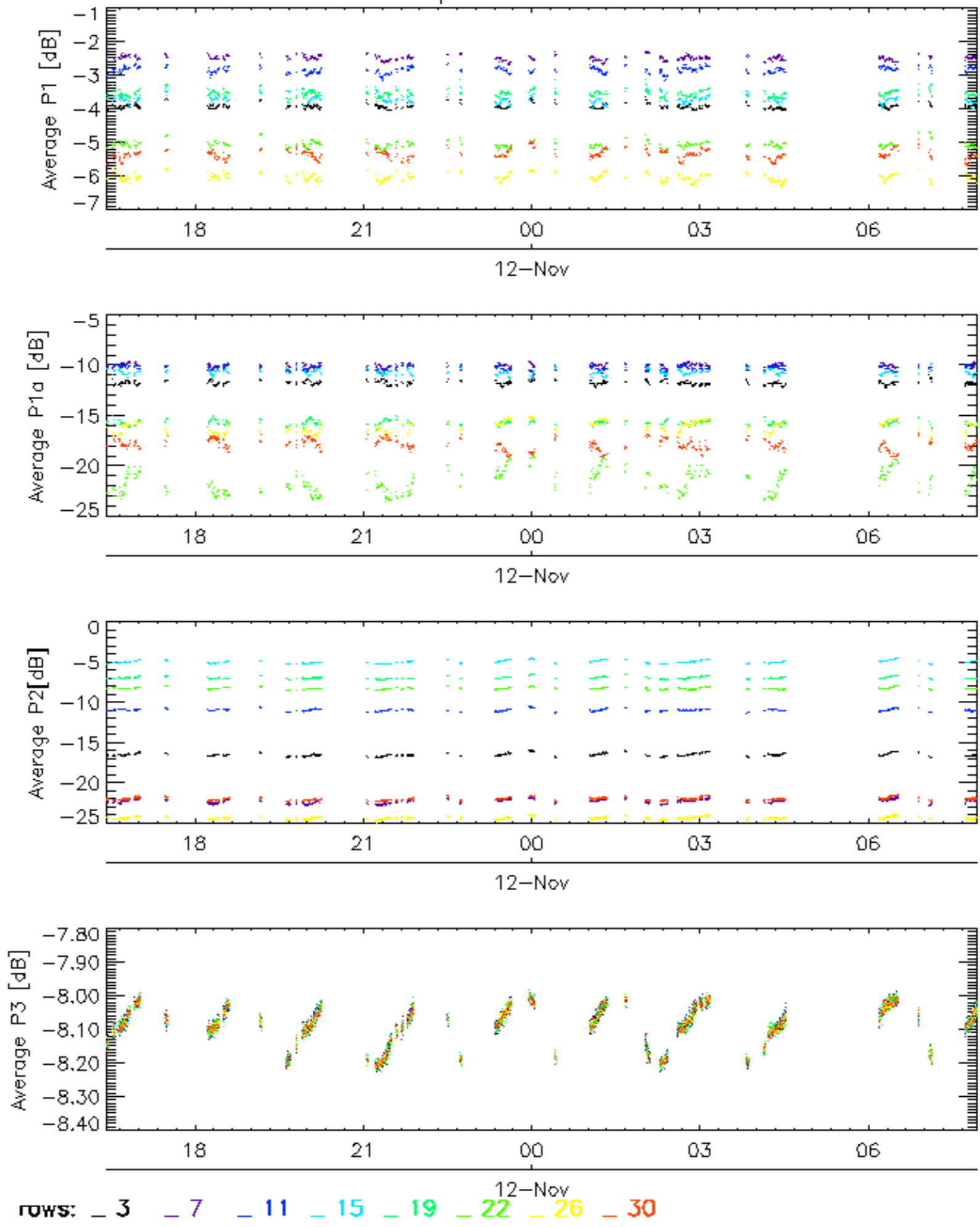
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

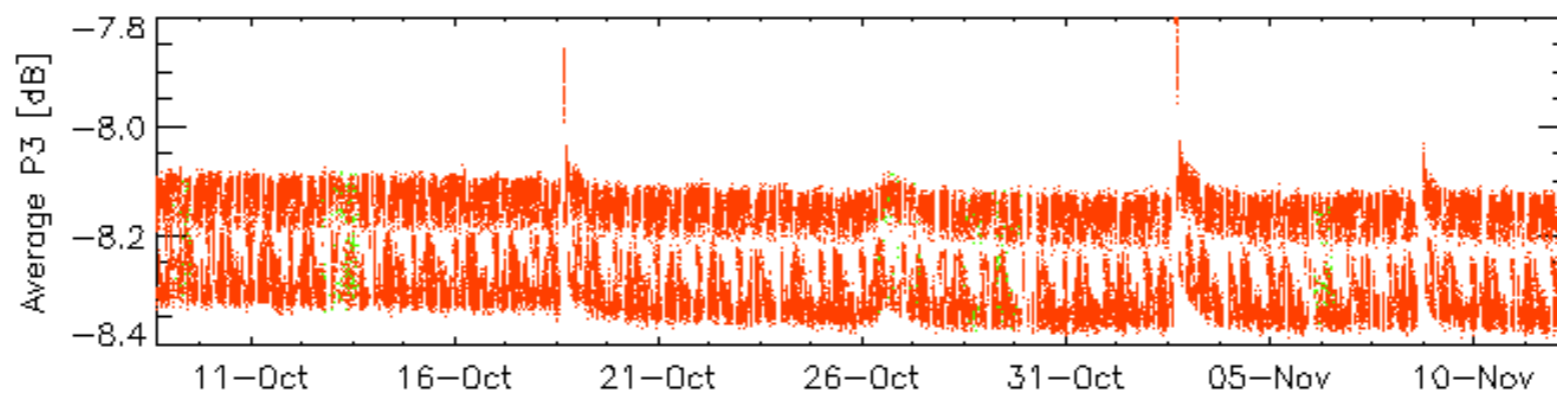
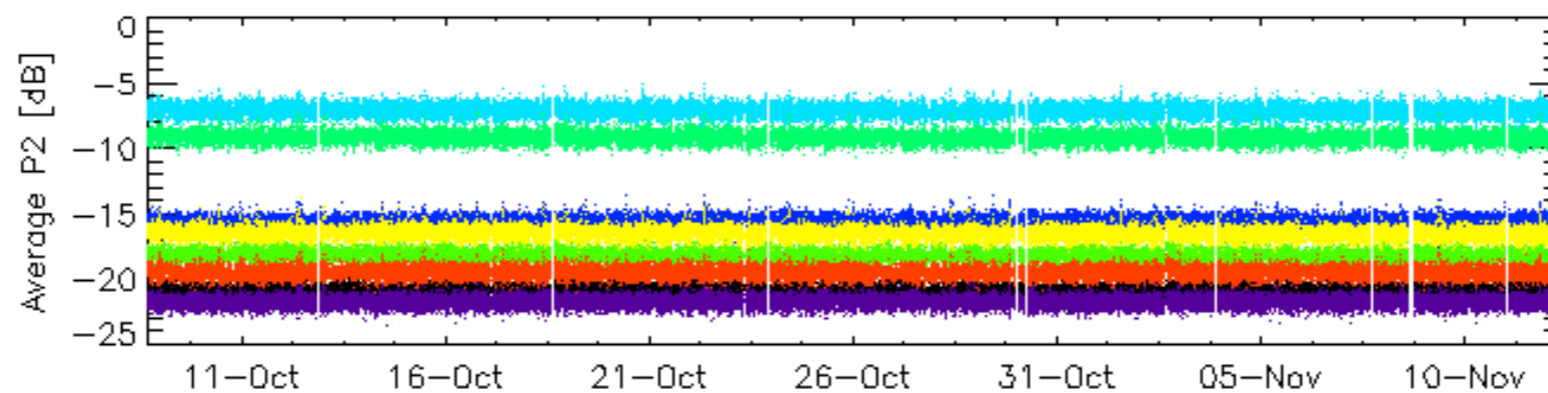
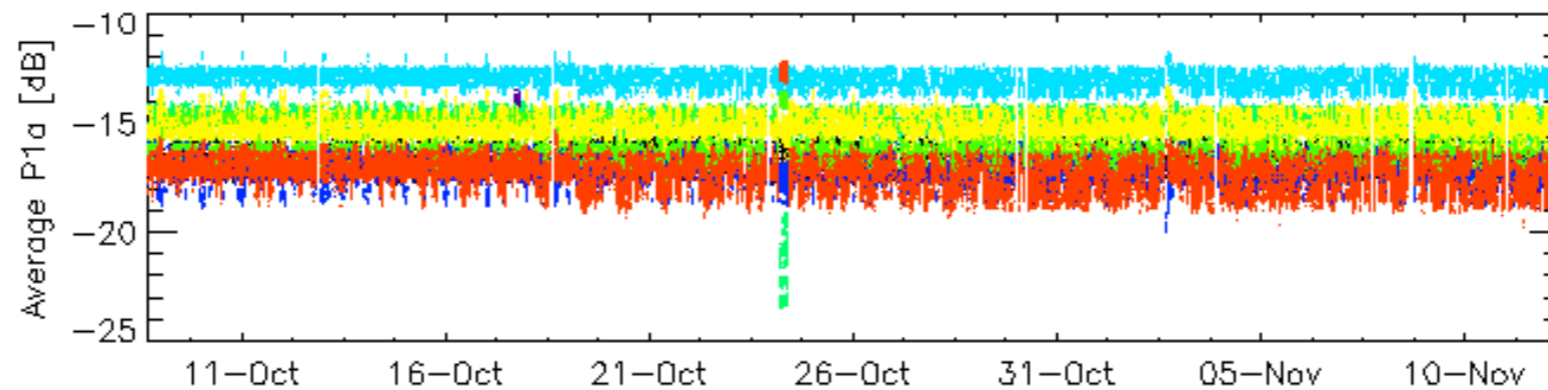
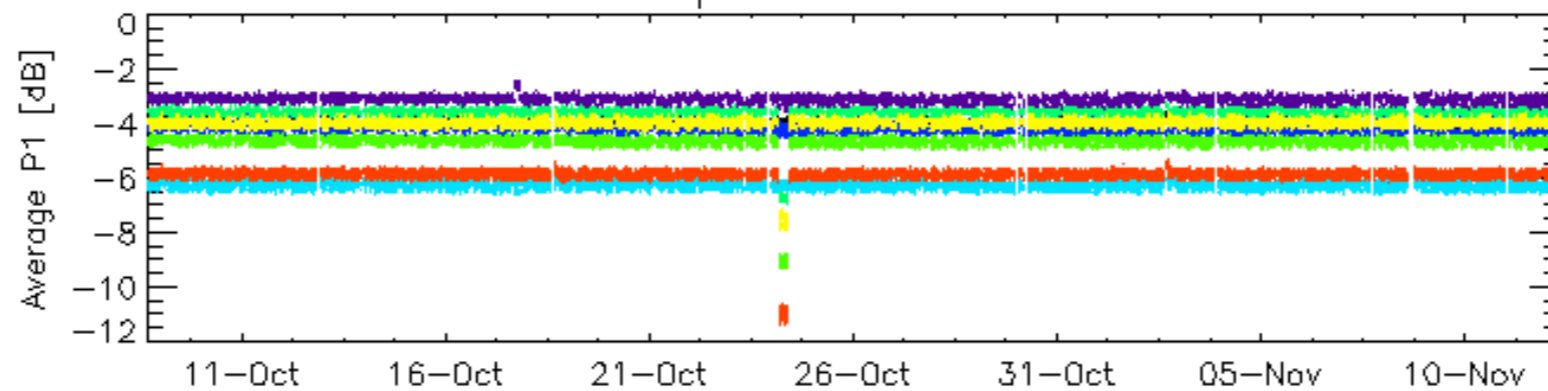


rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

Cal pulses for GM1 SS3

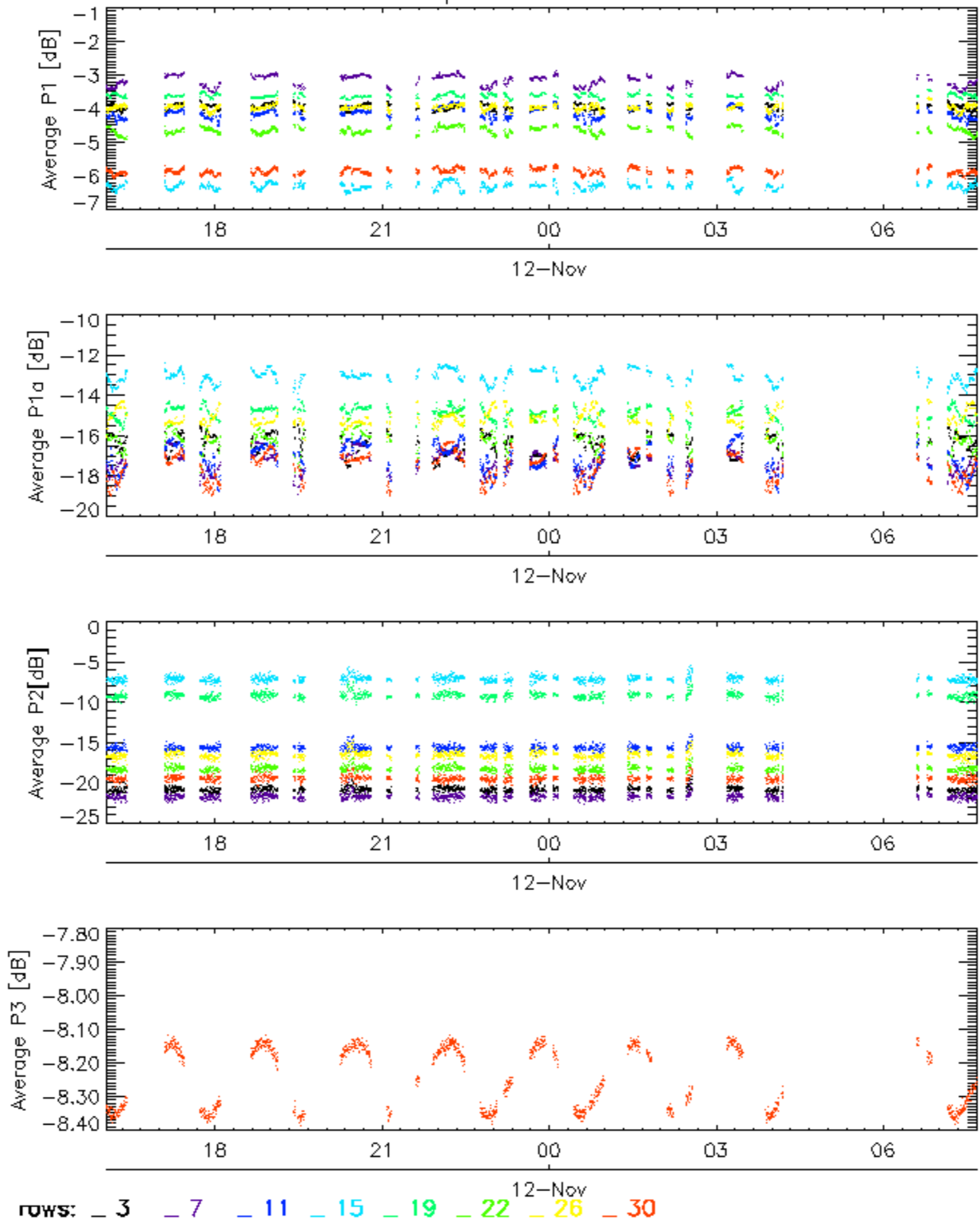


Cal pulses for WVS IS2

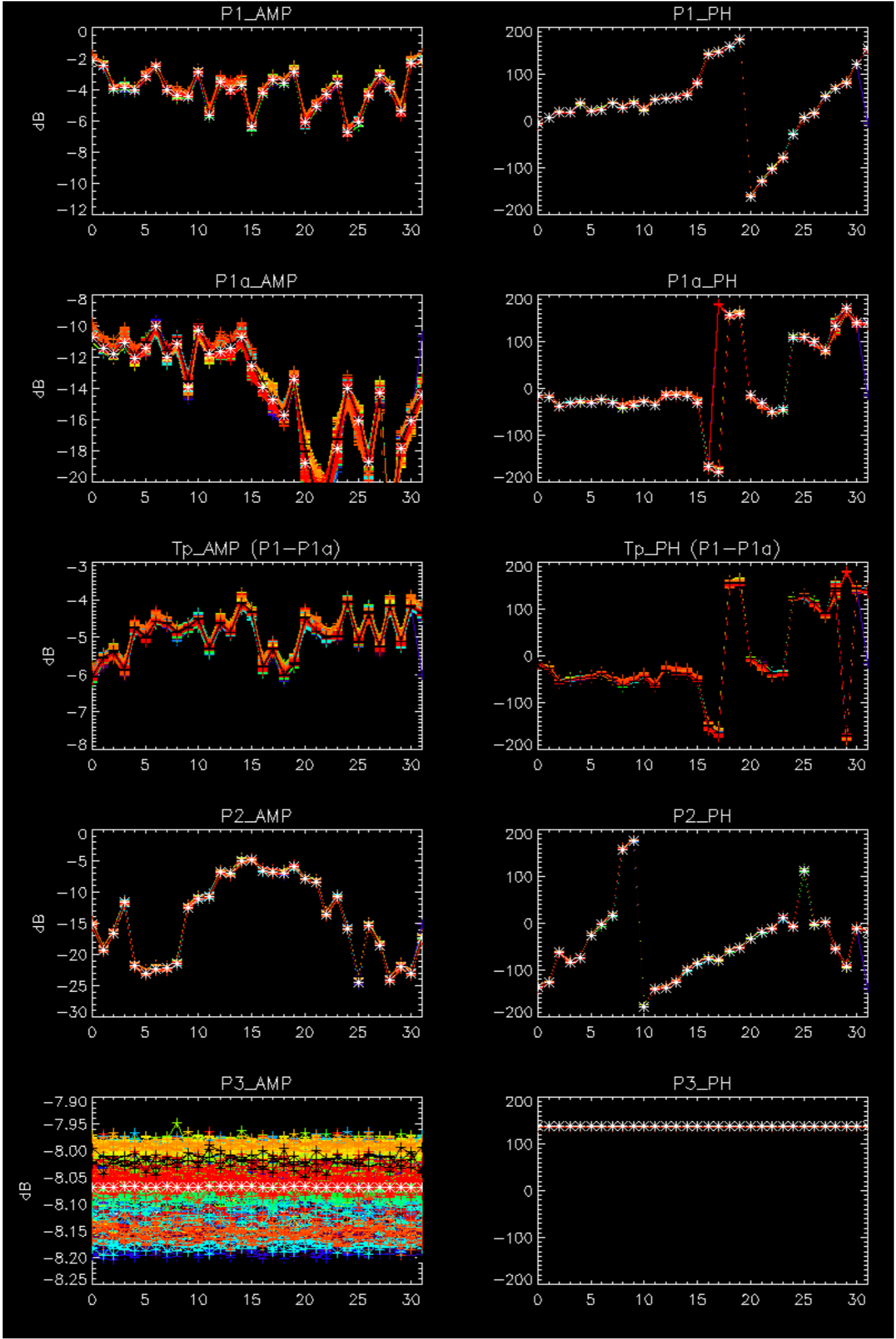


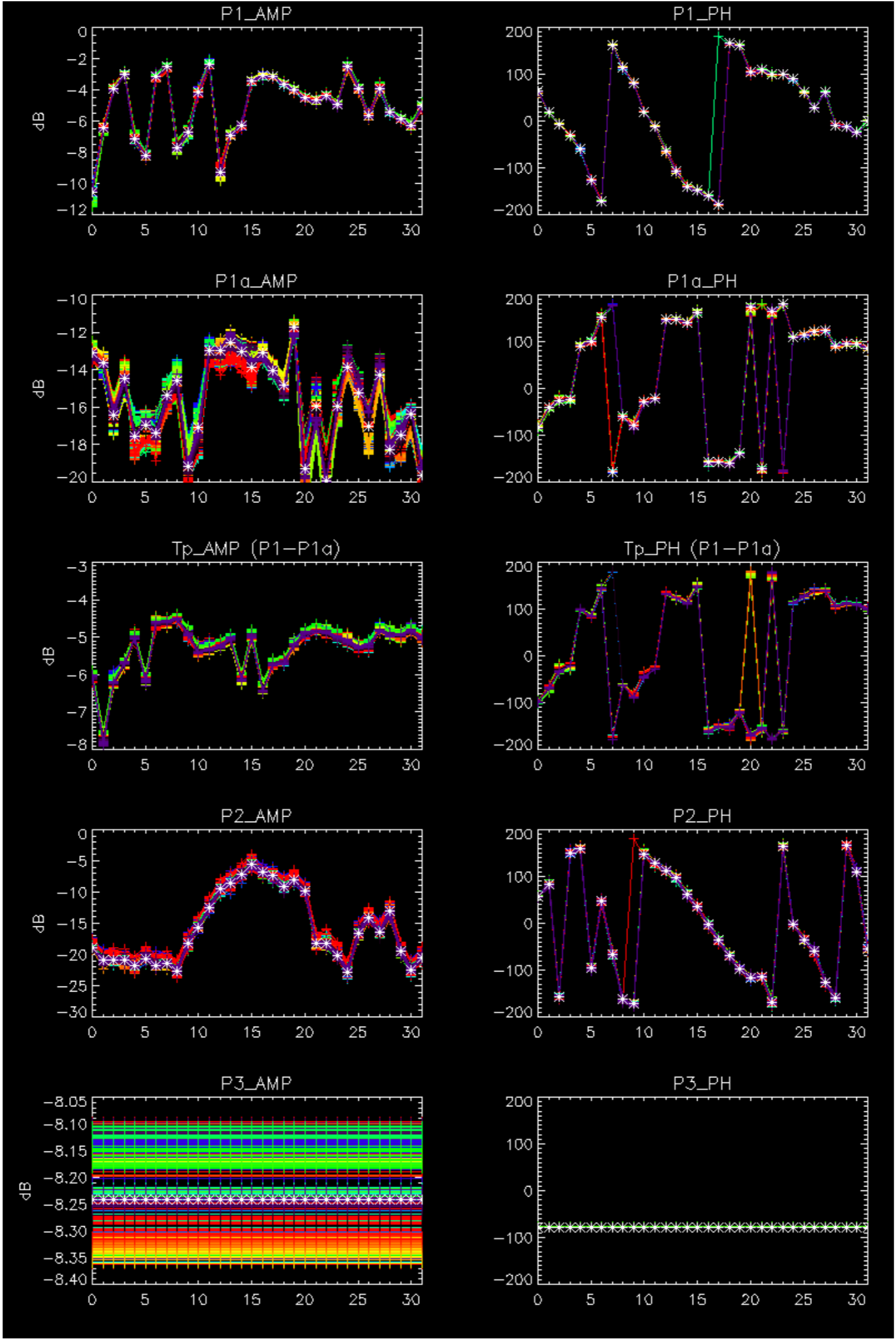
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



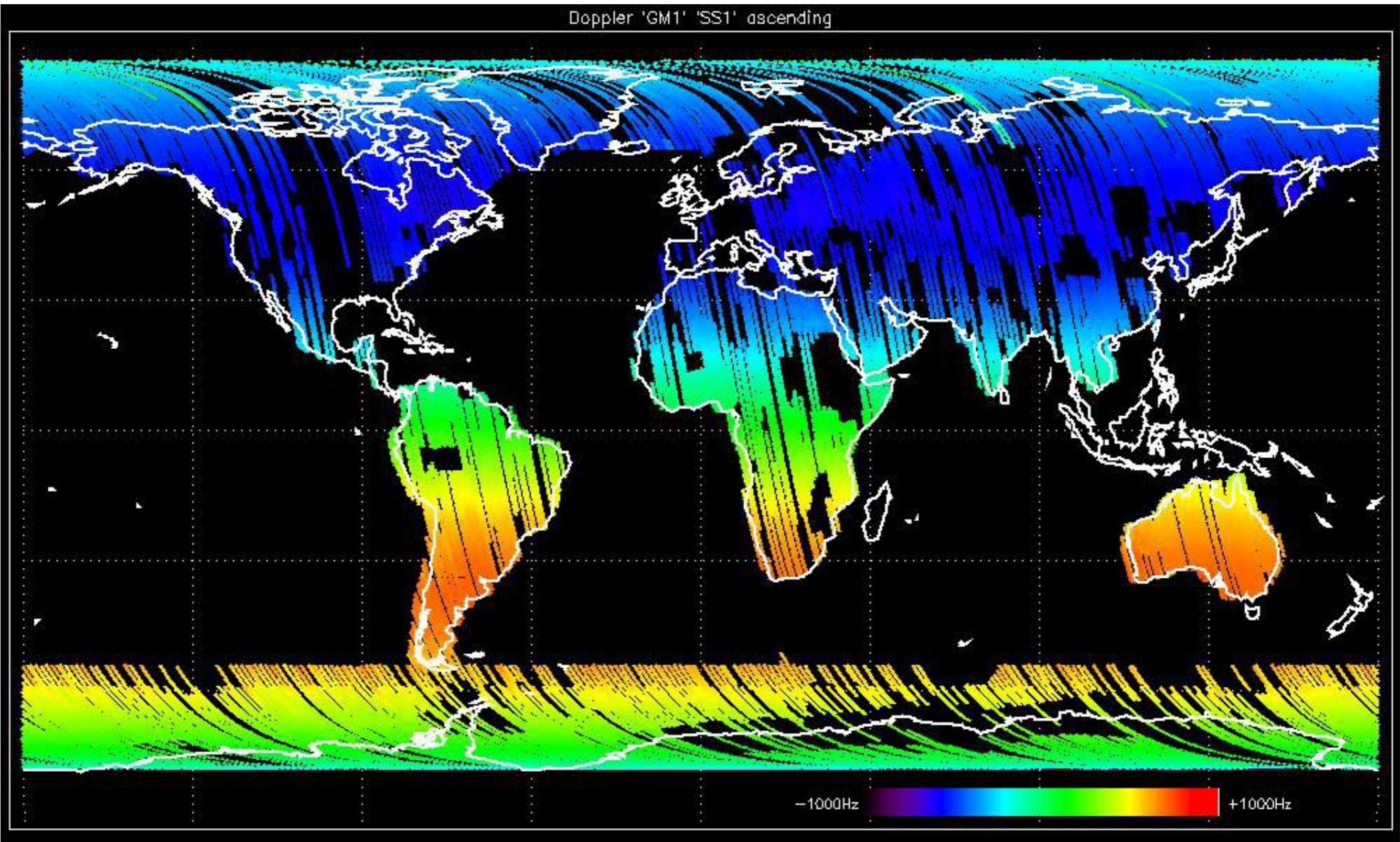
No anomalies observed.



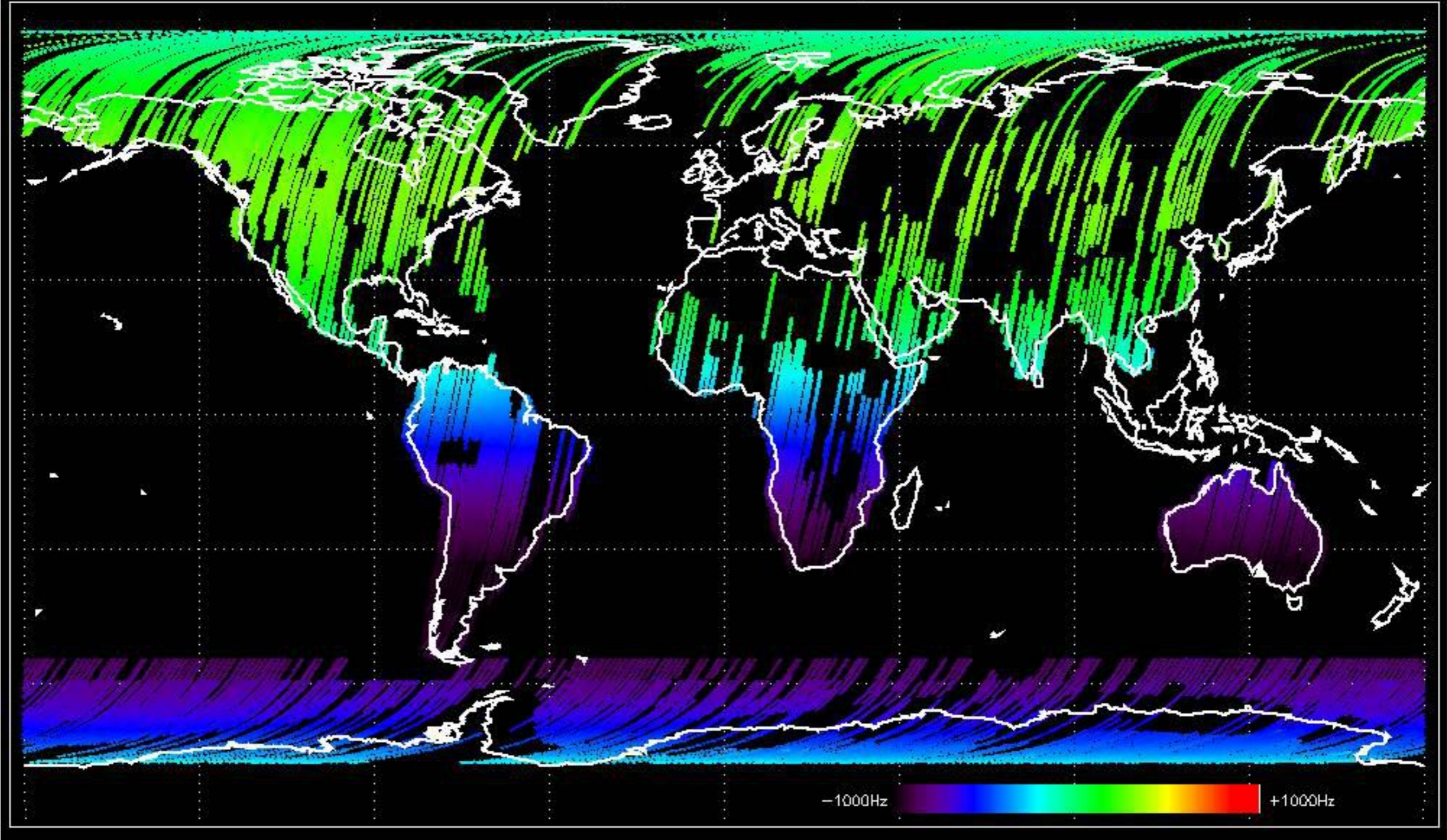


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

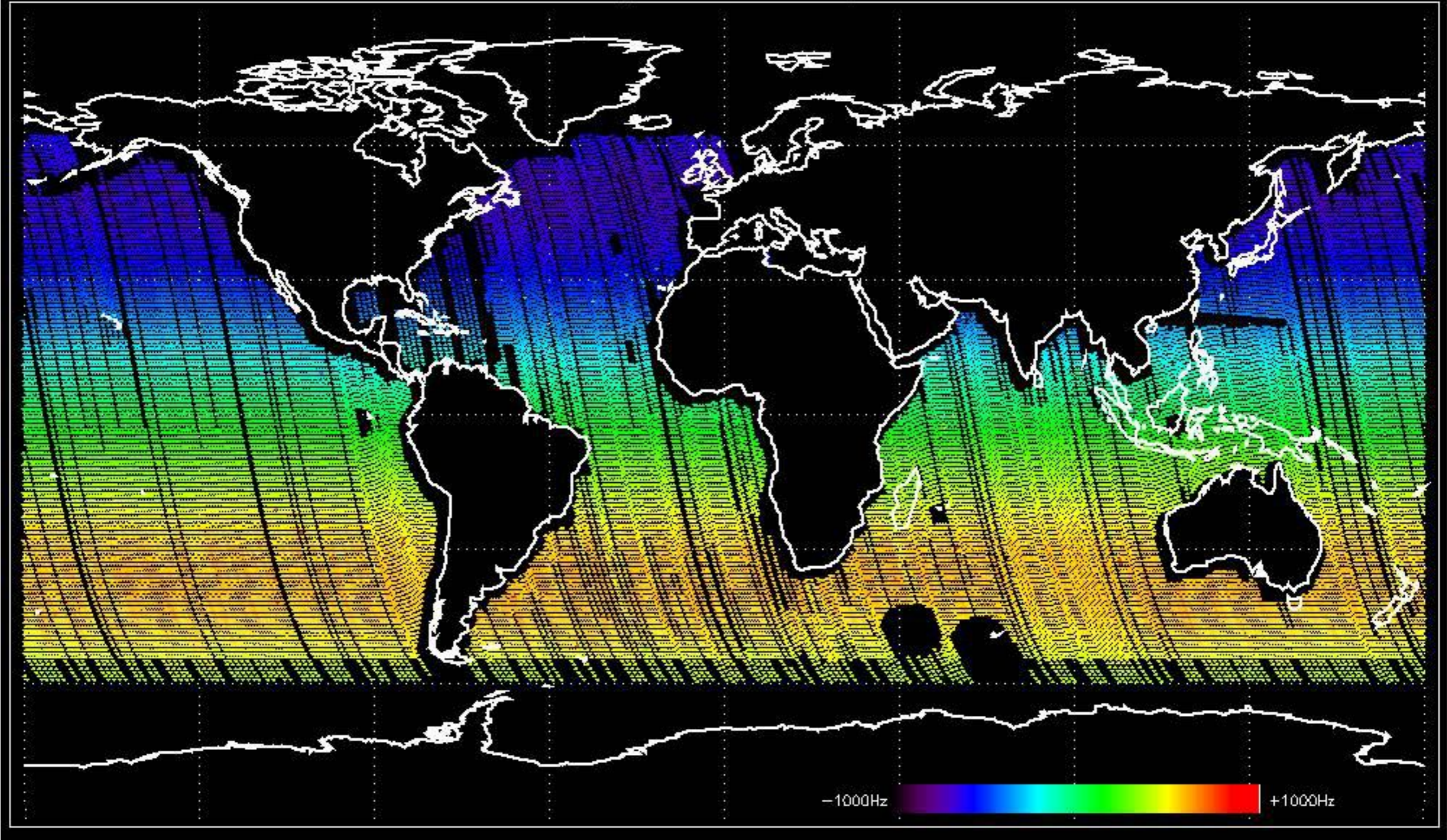
Doppler 'GM1' 'SS1' ascending



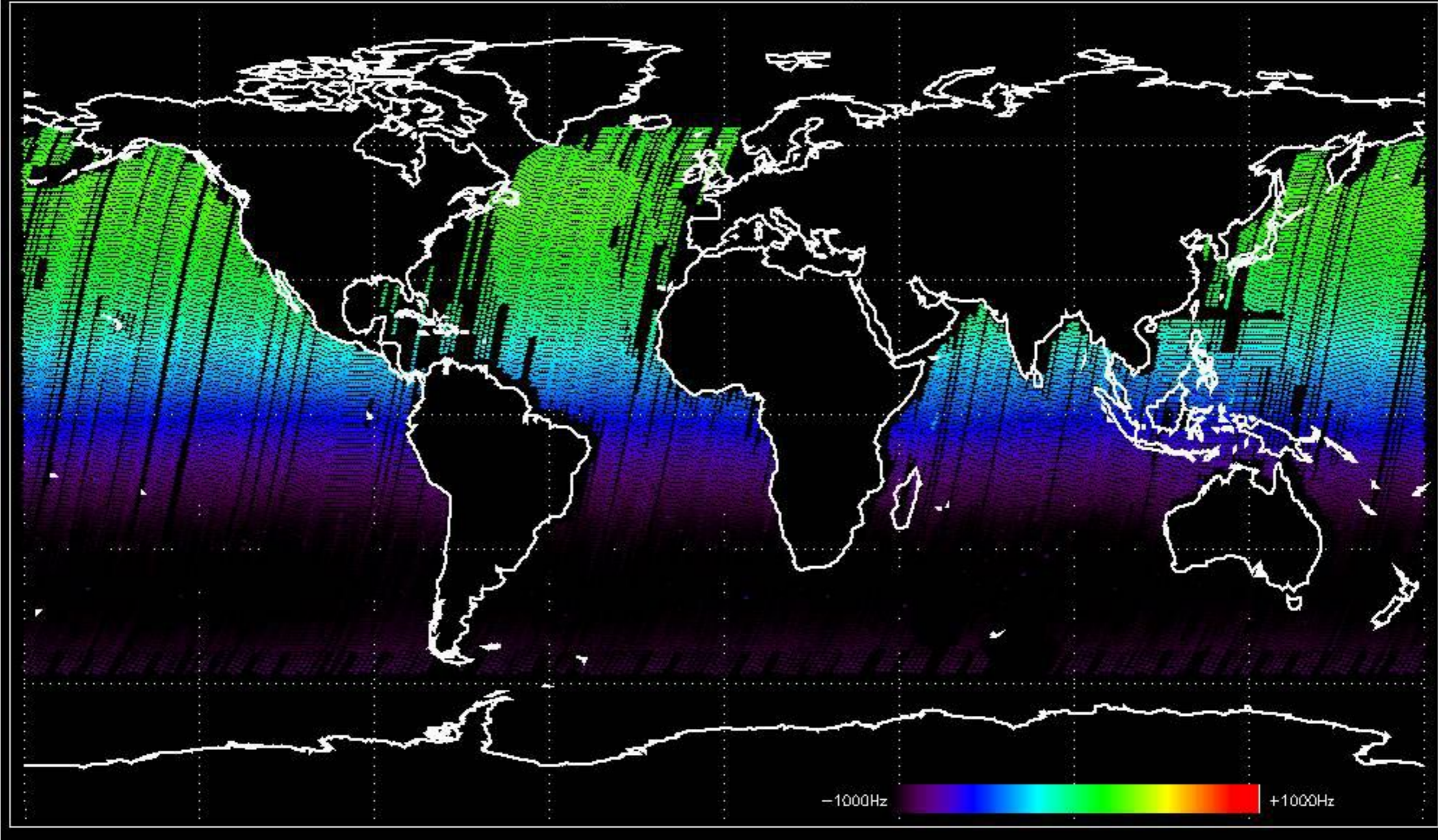
Doppler 'GM1' 'SS1' descending

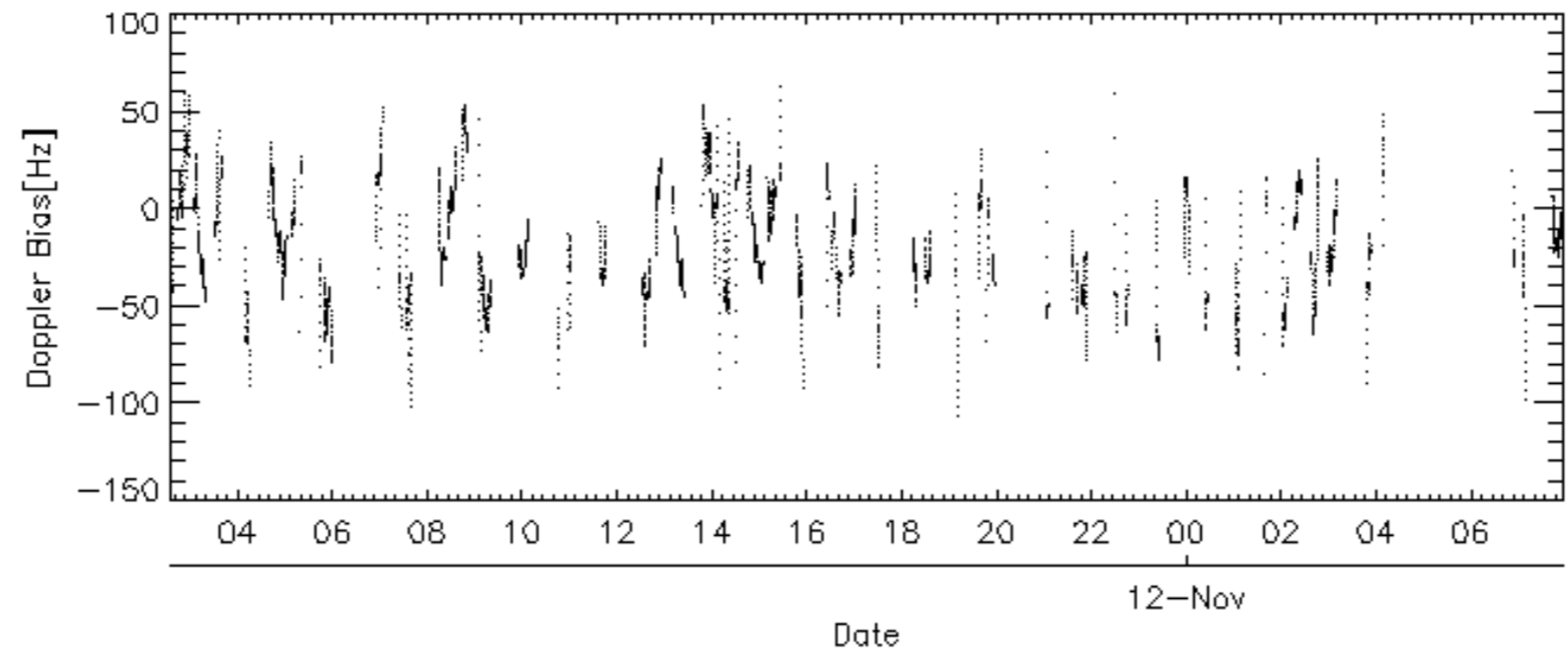
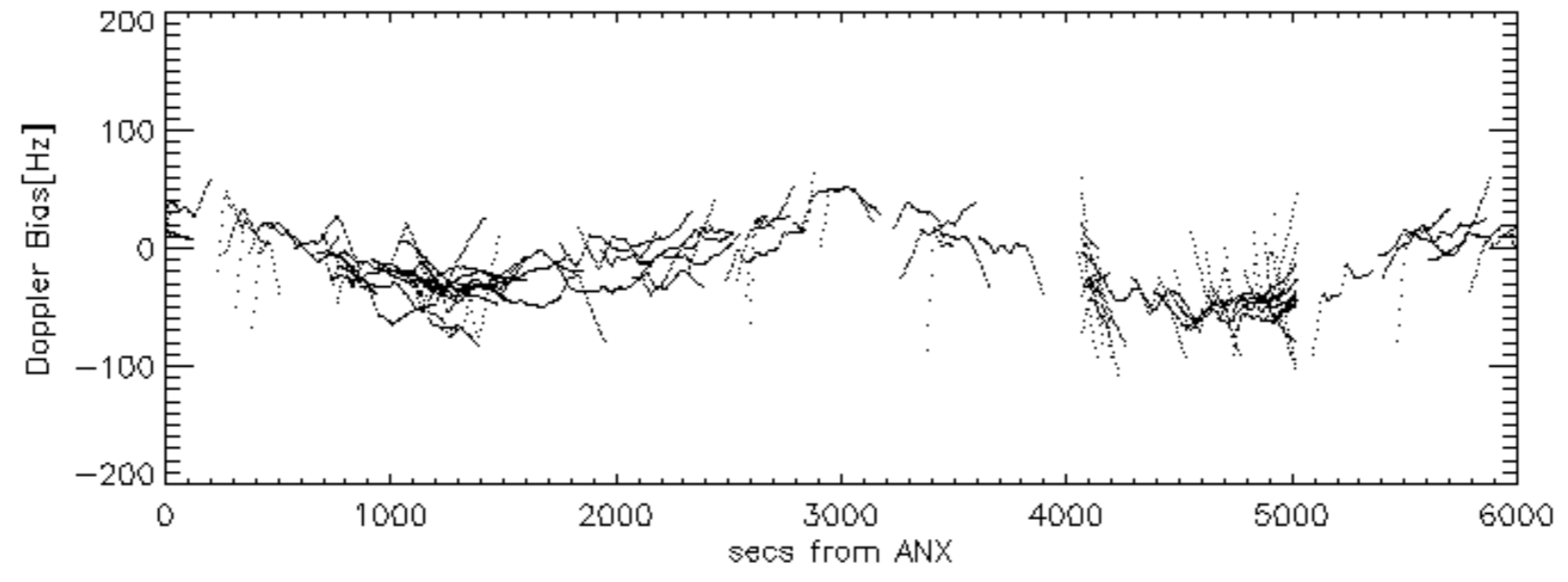
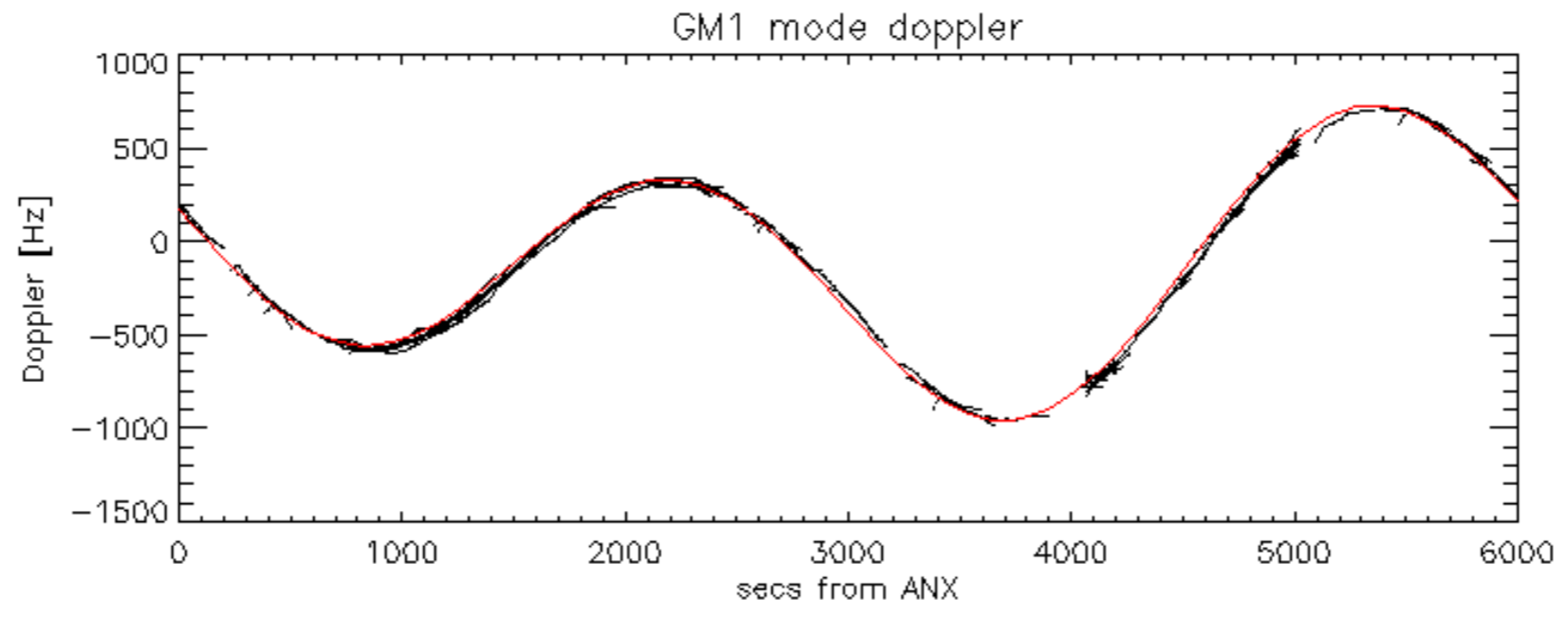


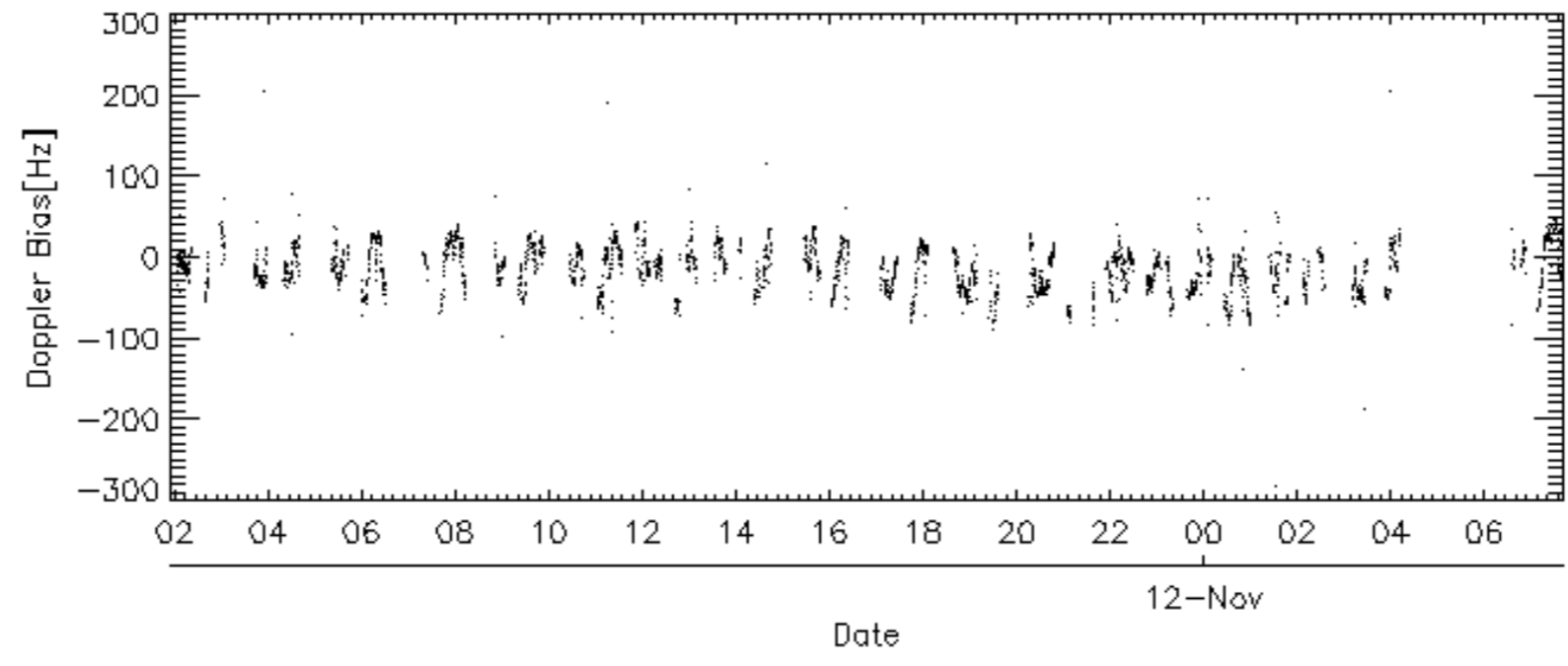
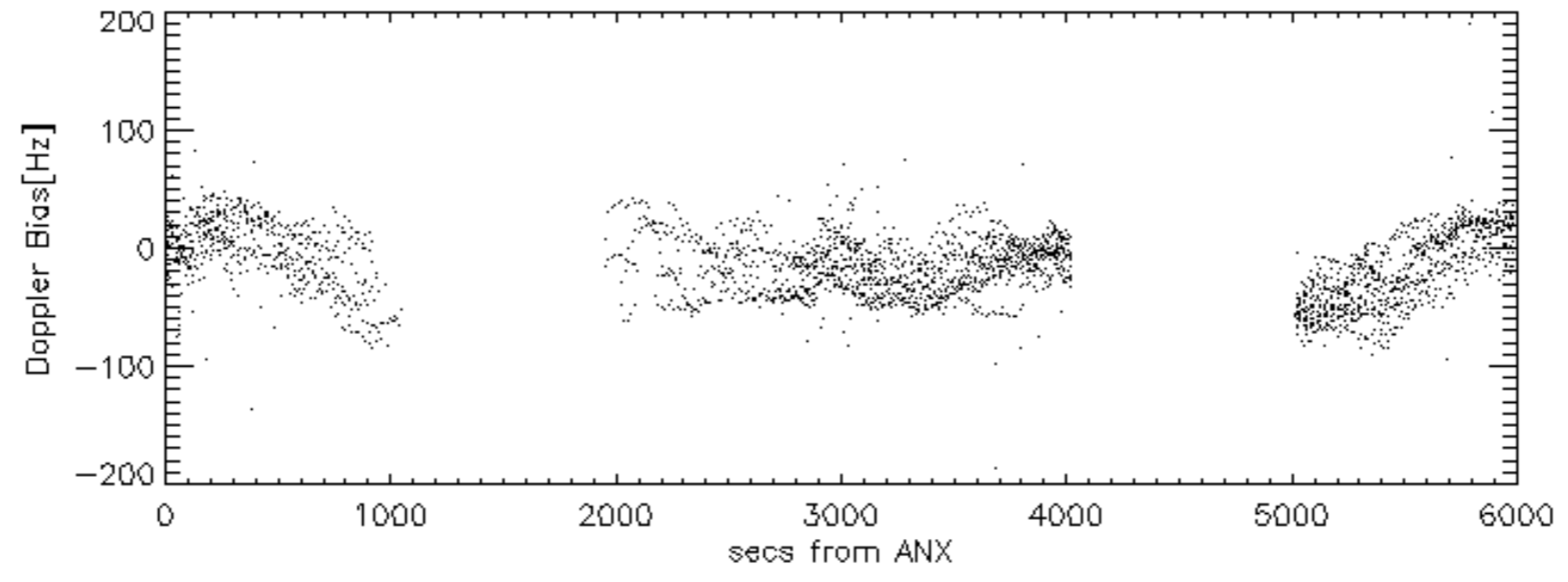
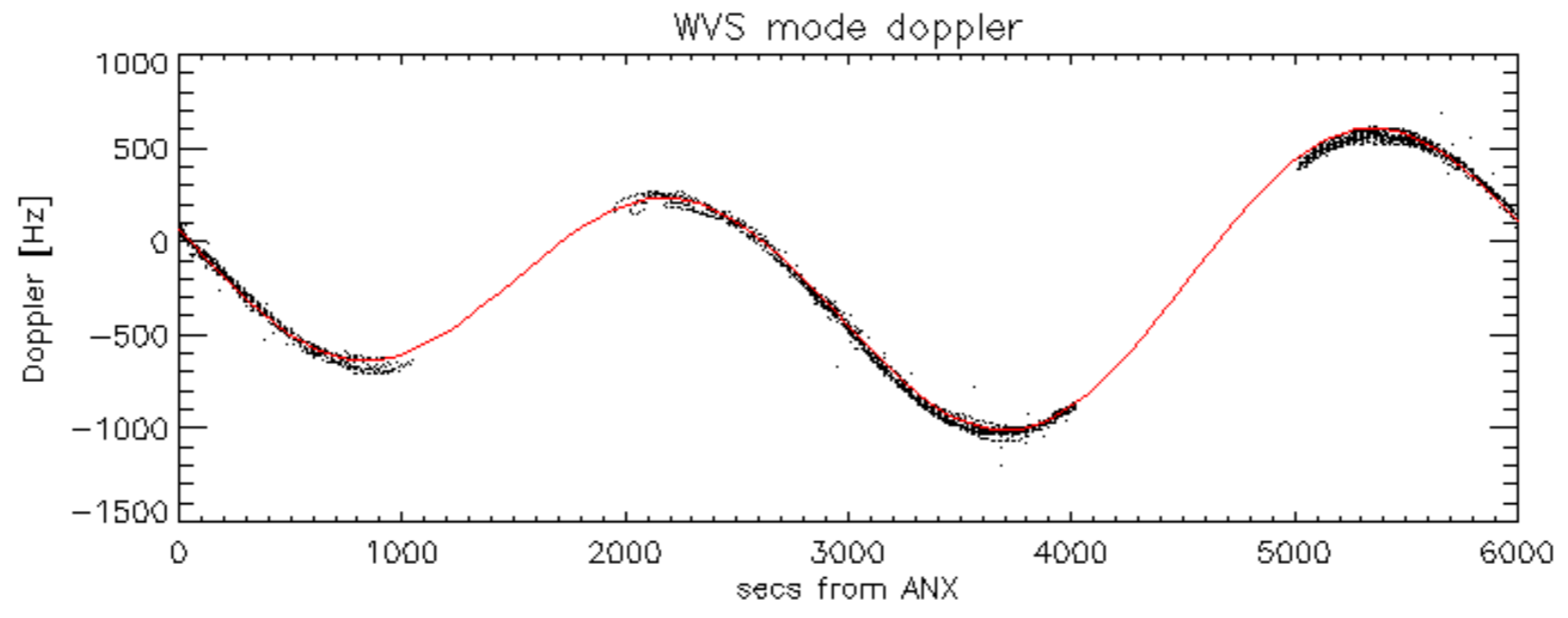
Doppler 'WVS' 'IS2' ascending



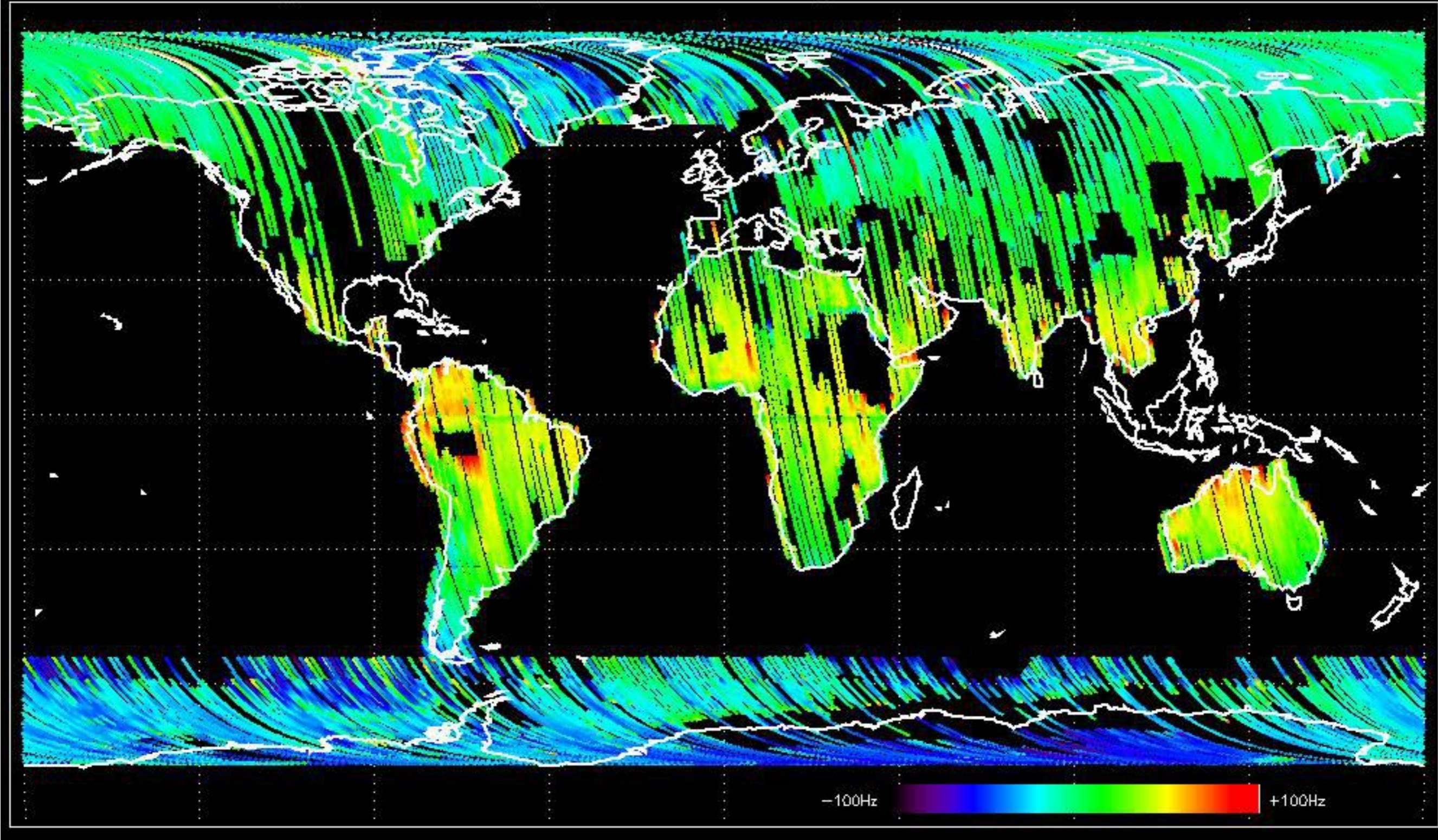
Doppler 'WVS' 'IS2' descending



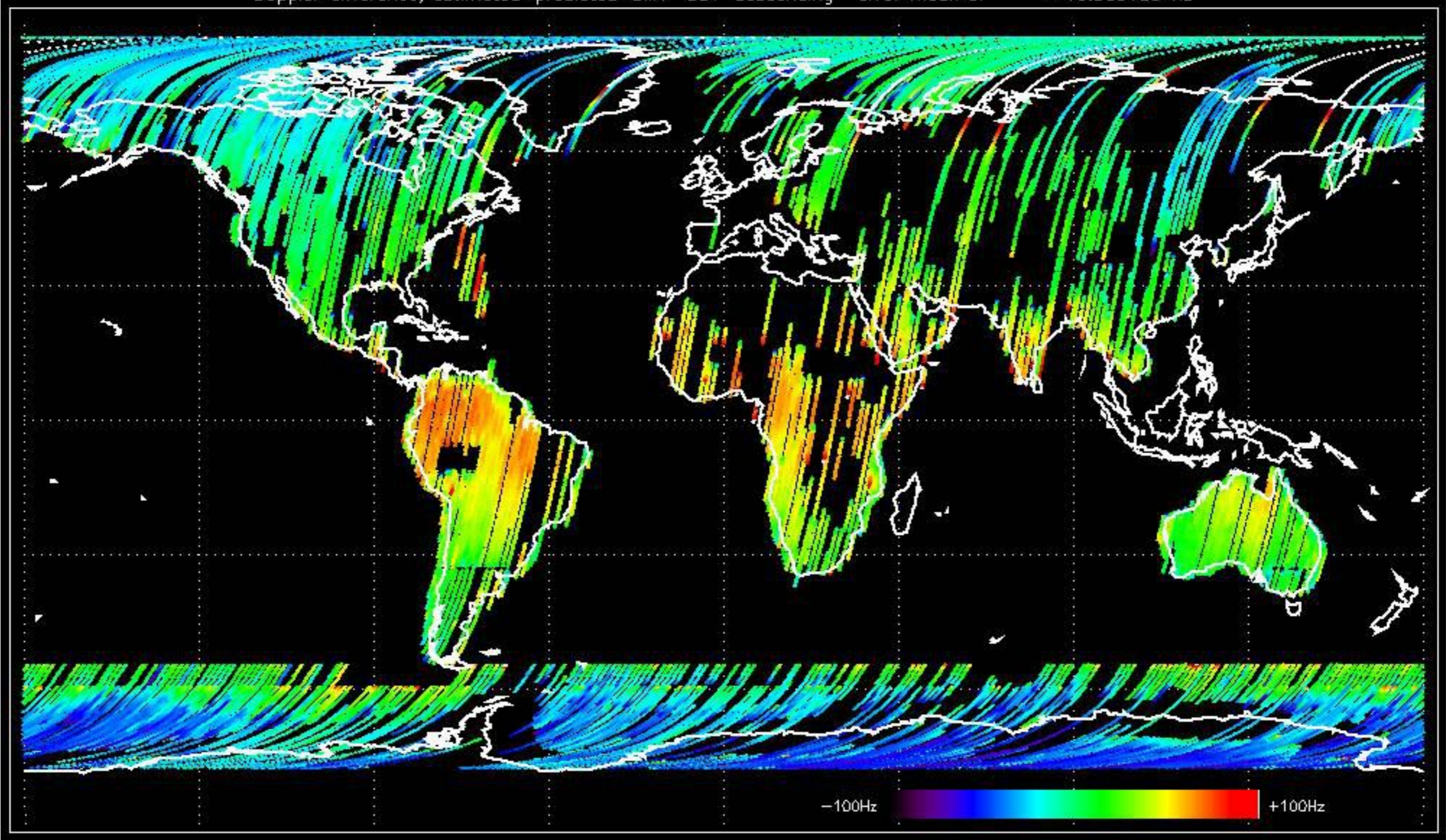




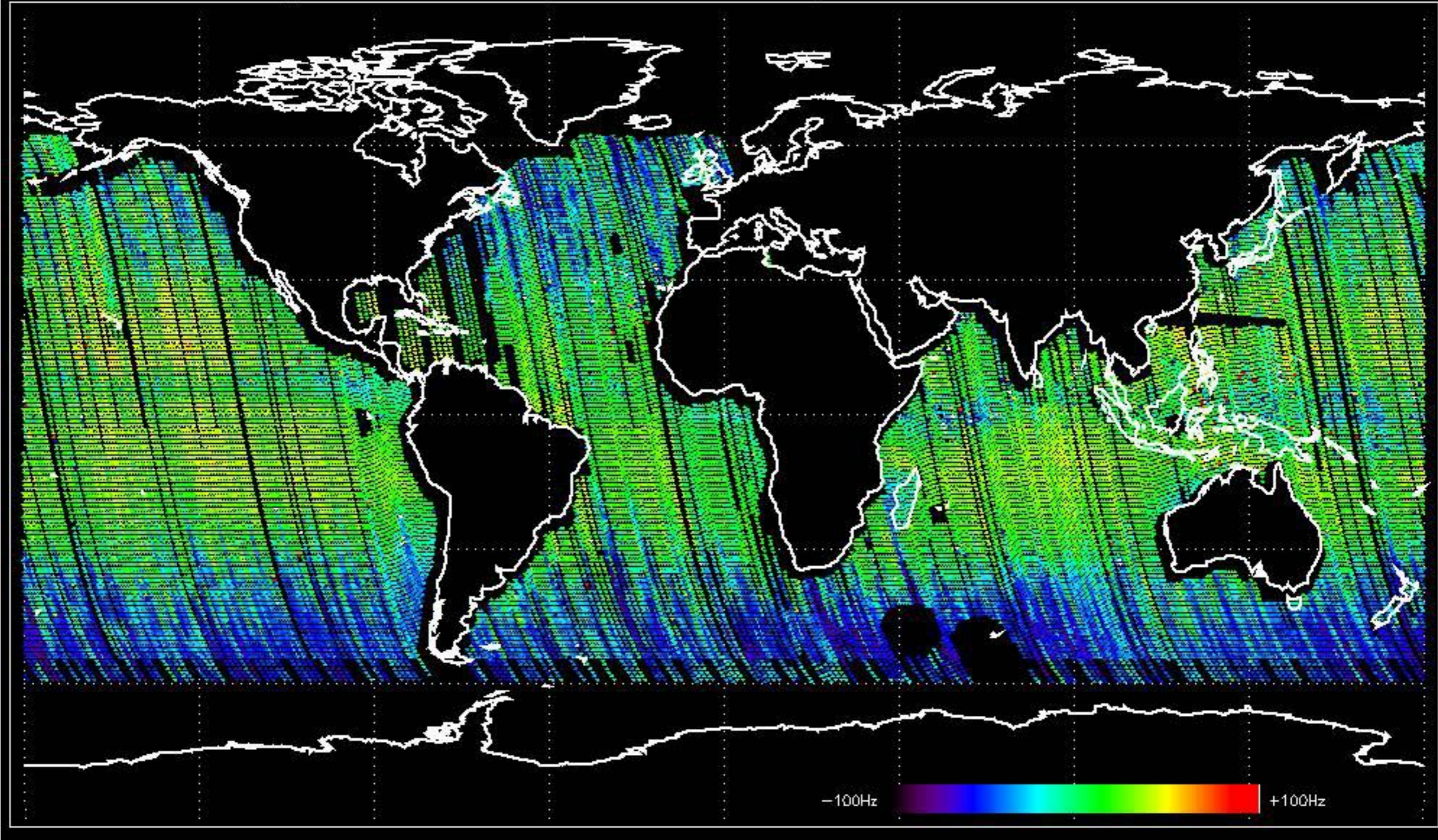
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.403431 Hz



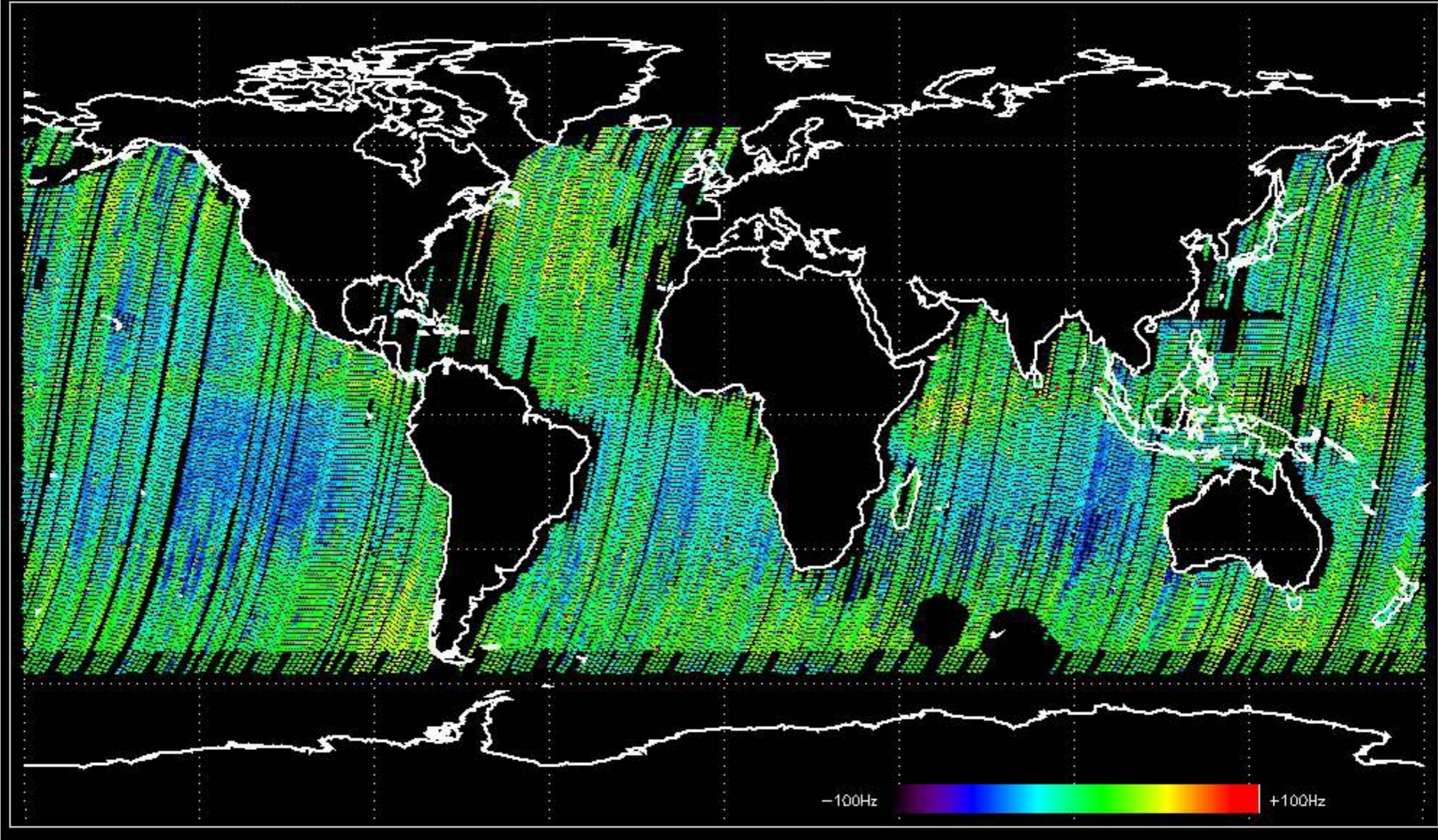
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.569135 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.6173933 Hz

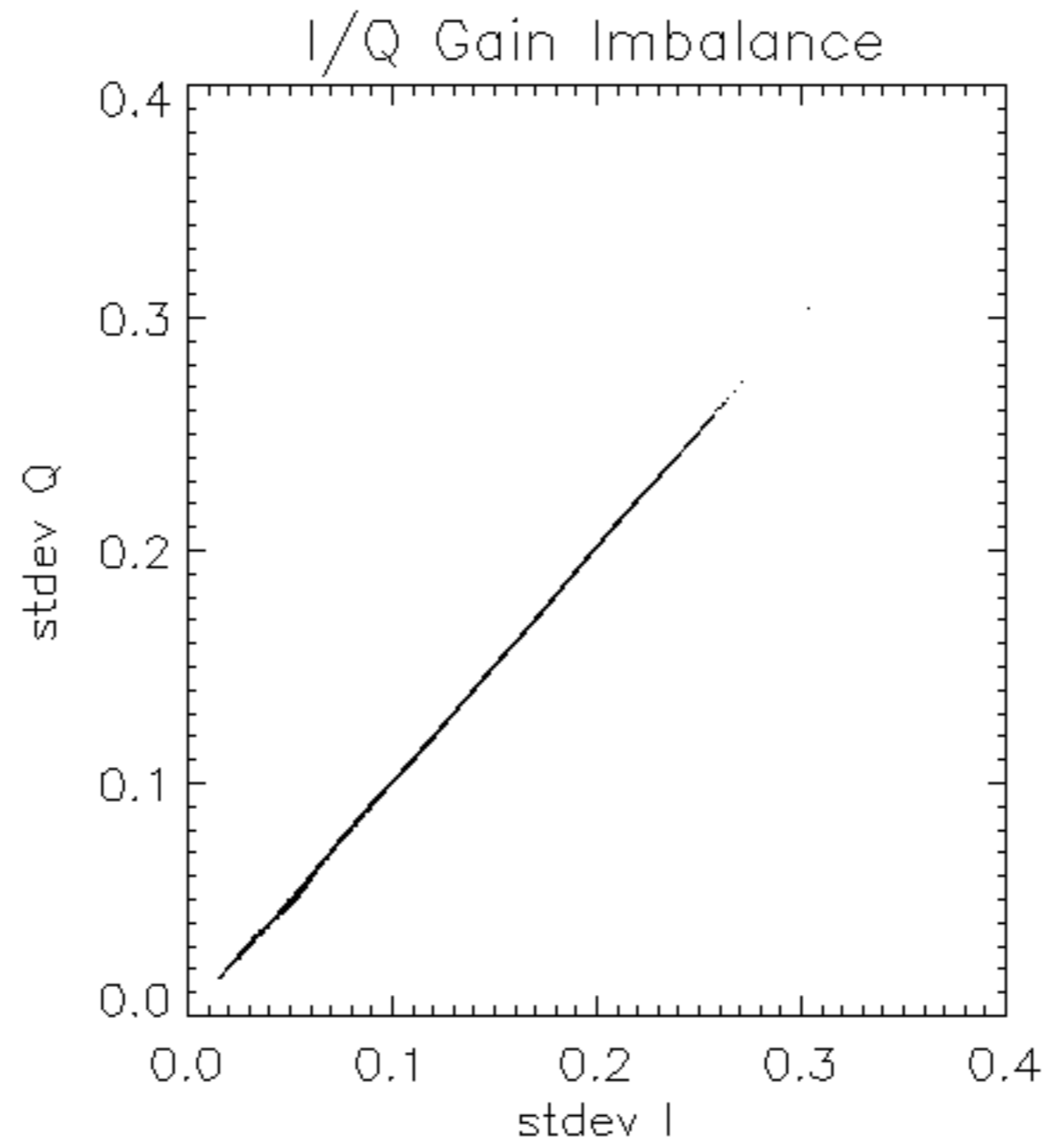


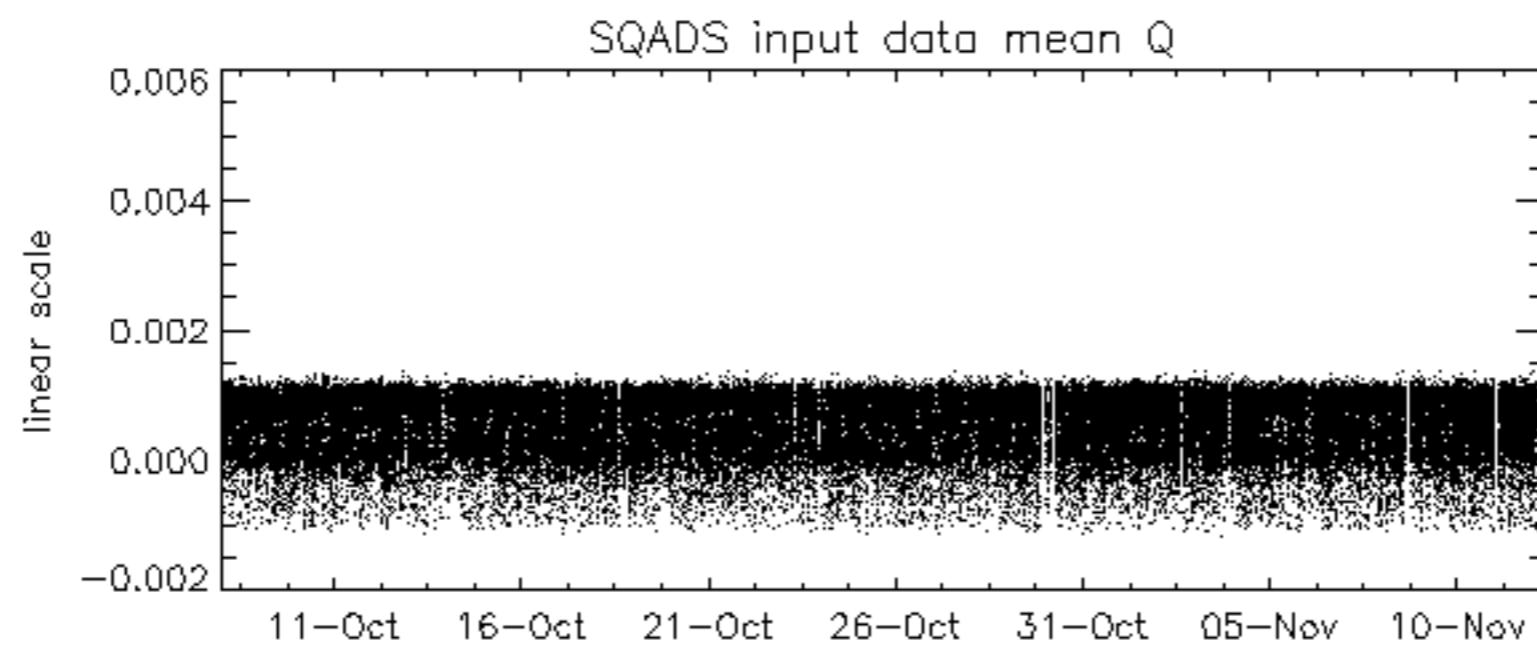
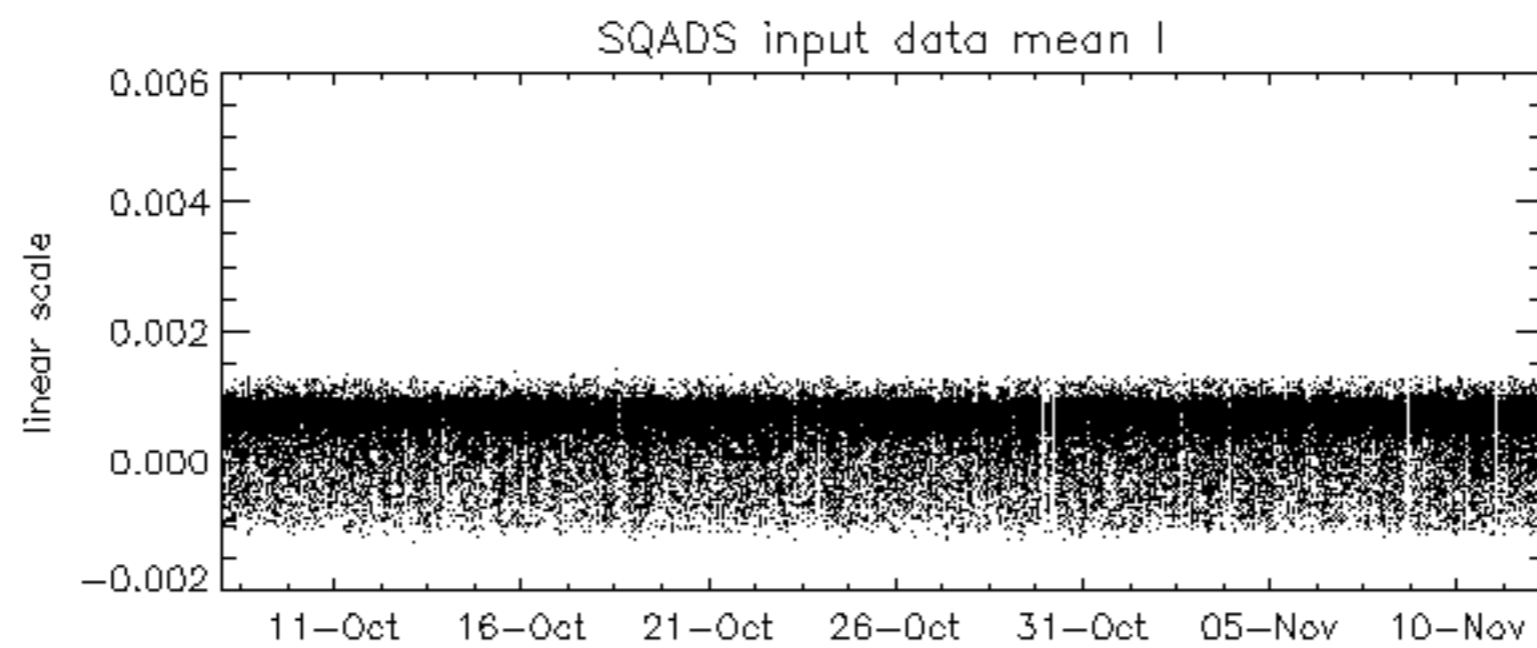
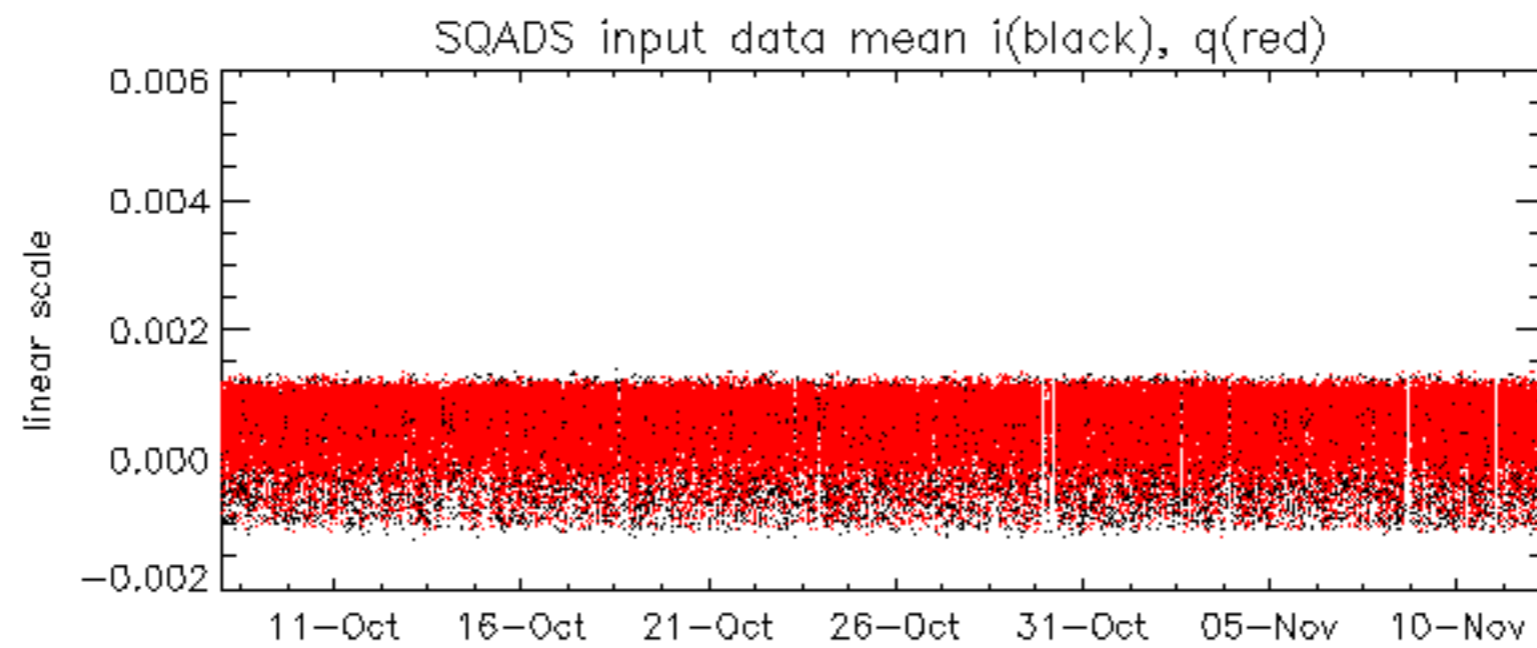
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.7791006 Hz

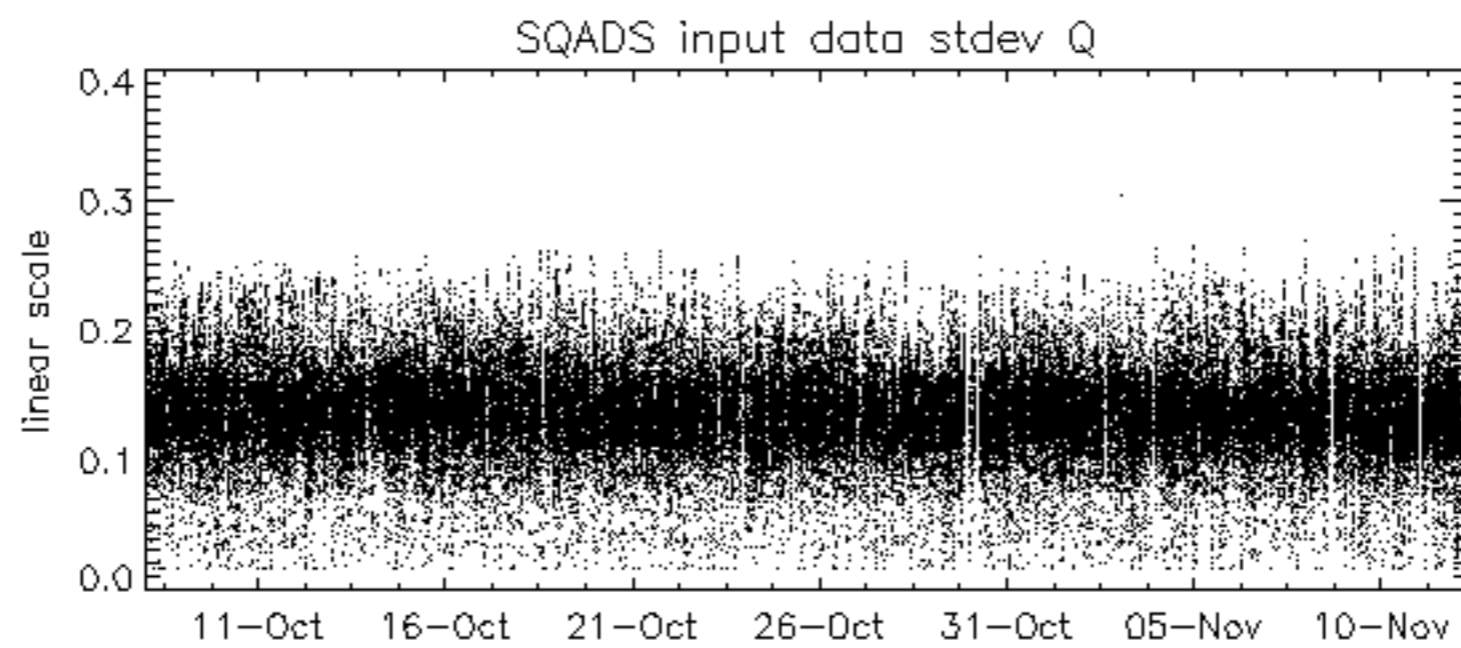
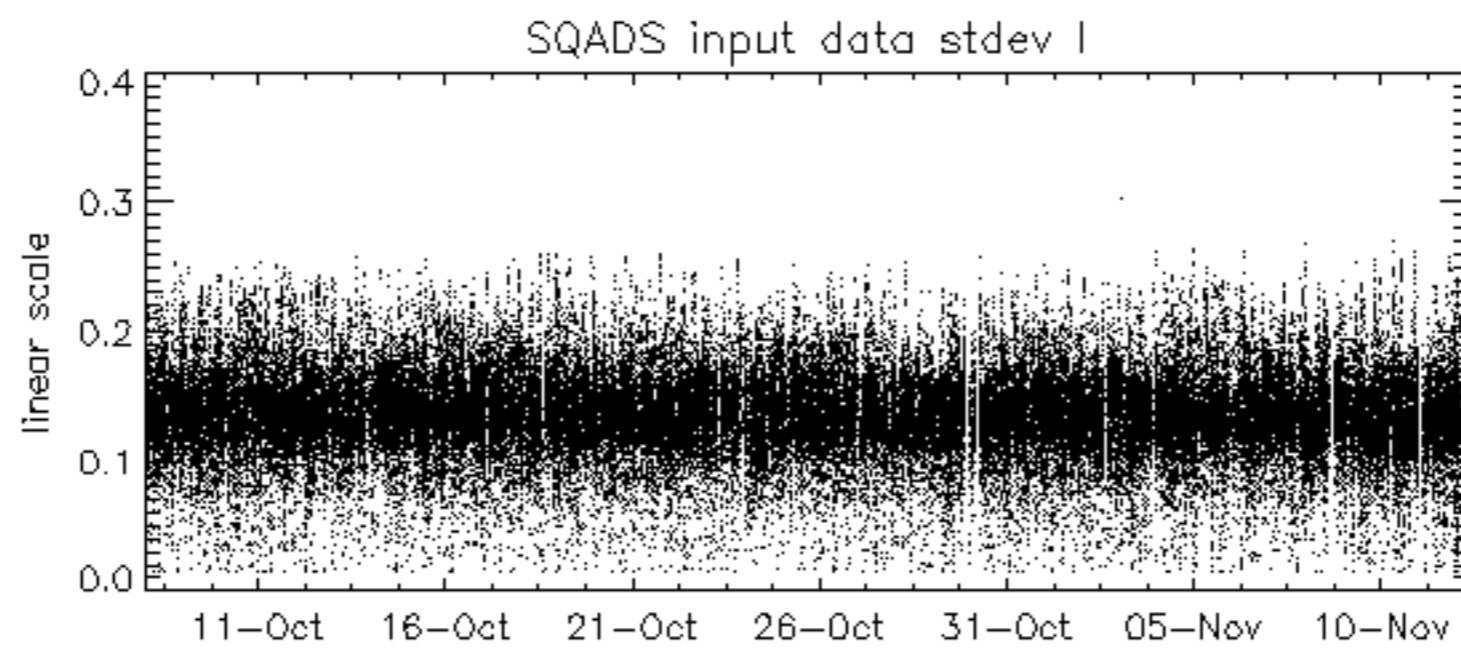
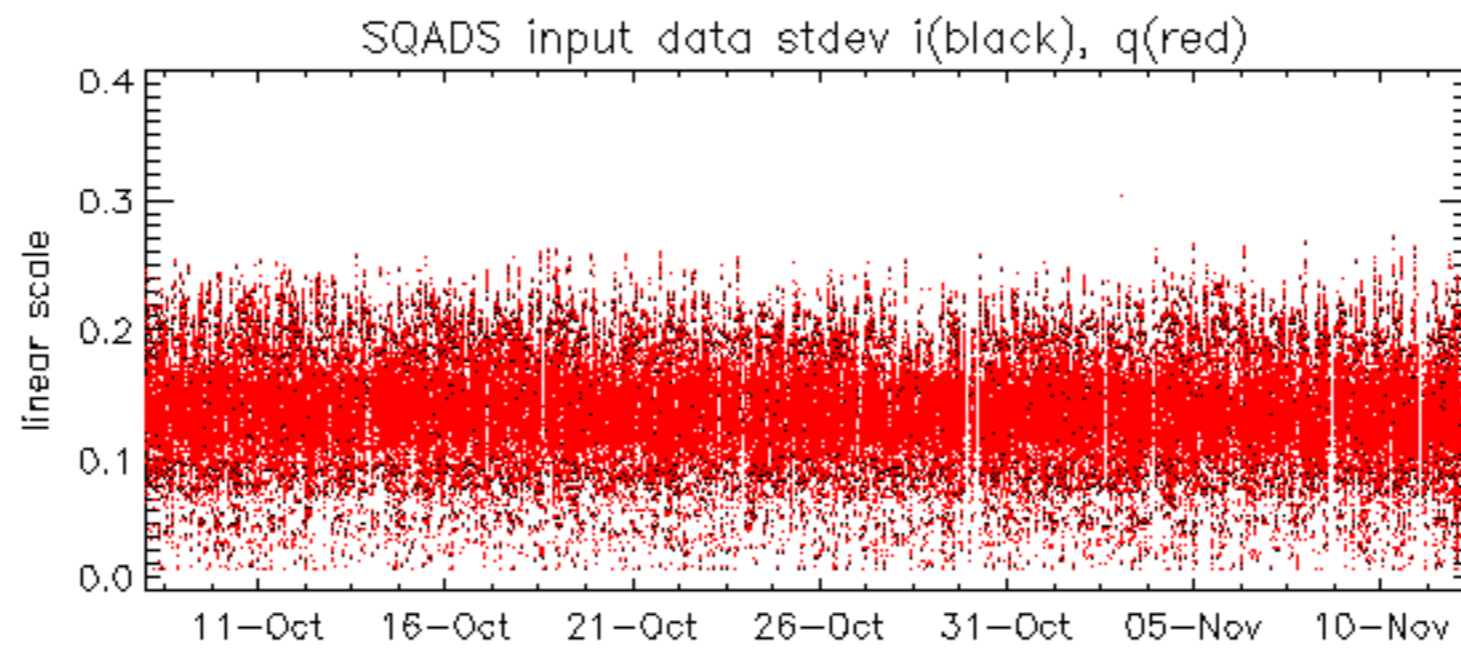


No anomalies observed on available MS products:

No anomalies observed.



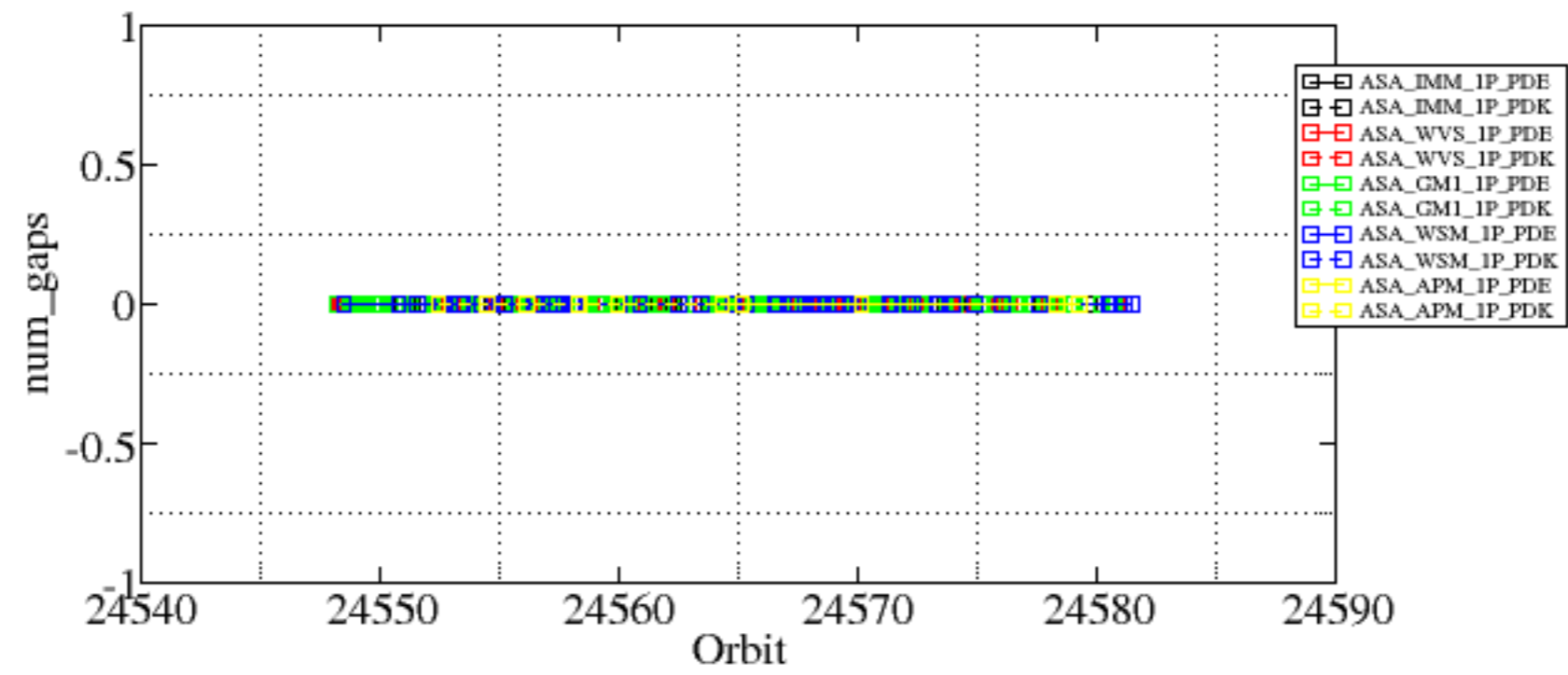




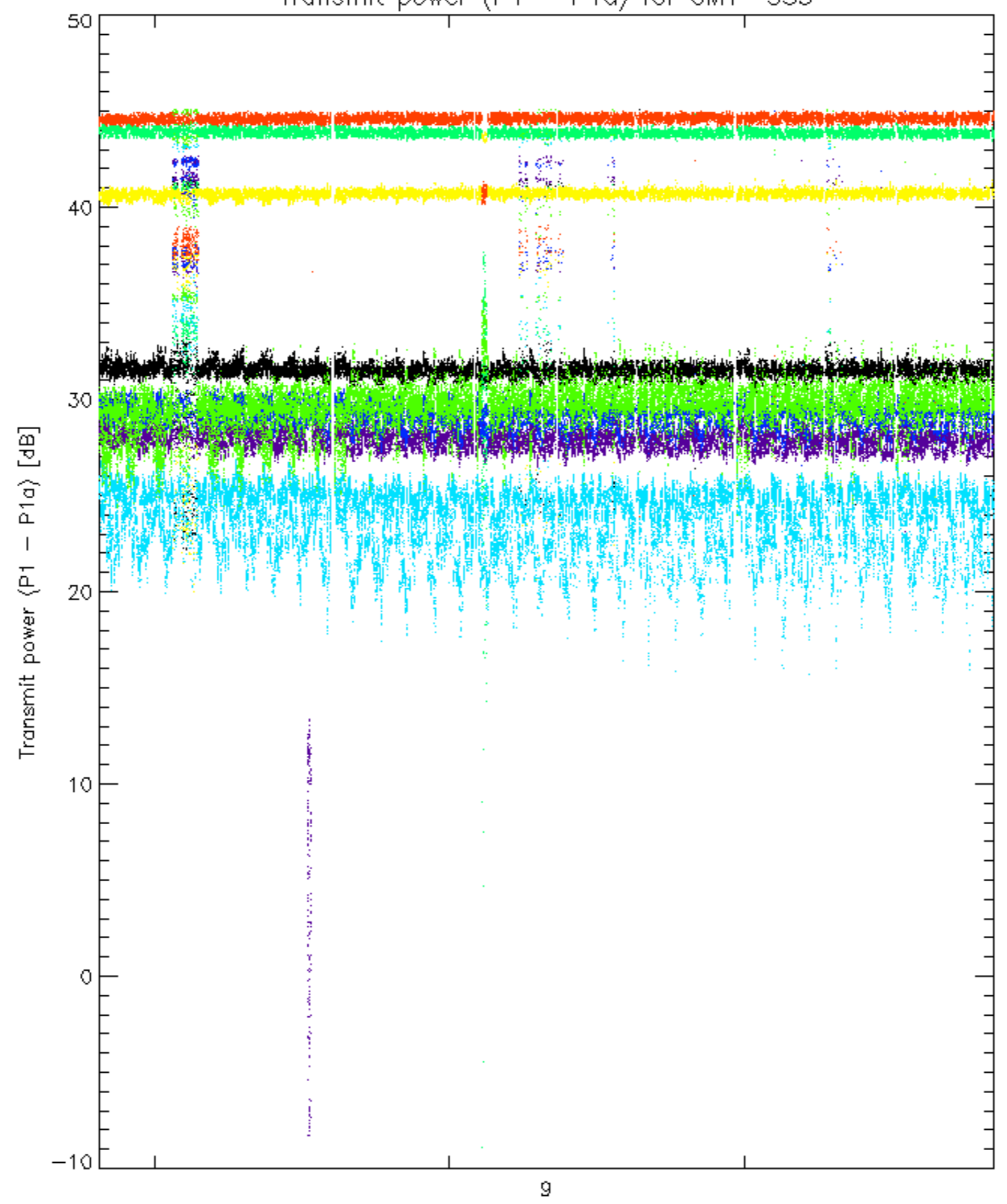
Summary of analysis for the last 3 days 2006111[012]

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

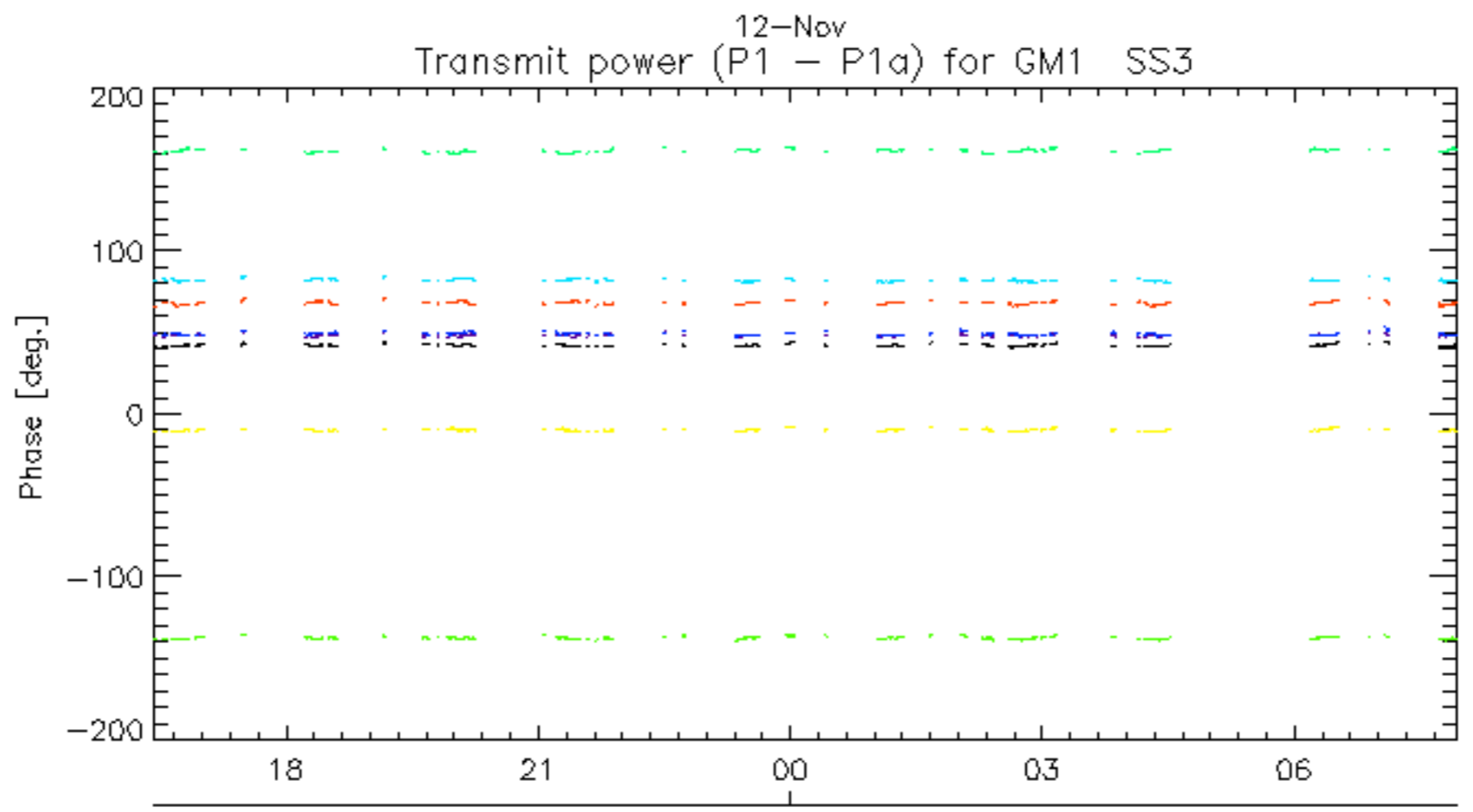
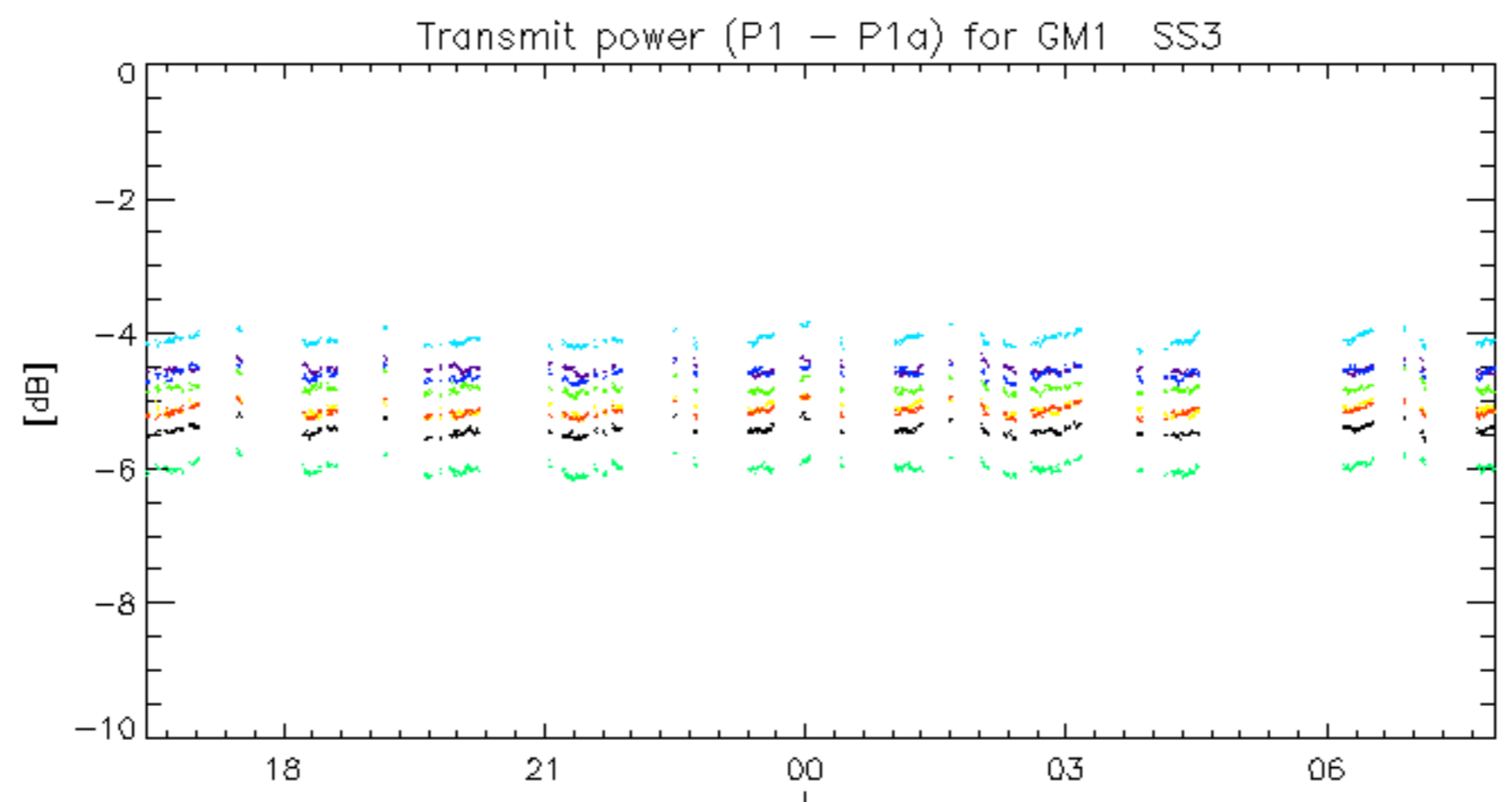
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20061110_062233_000000592052_00449_24551_3724.N1	0	1
ASA_GM1_1PNPDK20061110_150123_000001872052_00454_24556_8390.N1	0	30
ASA_GM1_1PNPDK20061110_152402_000006522052_00455_24557_8387.N1	0	28
ASA_GM1_1PNPDK20061111_131036_000000782052_00468_24570_8454.N1	0	7
ASA_WSM_1PNPDE20061110_005418_000002632052_00446_24548_0001.N1	0	29
ASA_WSM_1PNPDK20061110_141658_000003302052_00454_24556_9834.N1	0	60
ASA_WSM_1PNPDK20061110_142505_000000672052_00454_24556_9836.N1	0	18
ASA_WSM_1PNPDK20061110_165310_000000852052_00456_24558_9847.N1	0	59
ASA_WSM_1PNPDK20061111_094431_000000862052_00466_24568_9866.N1	0	21



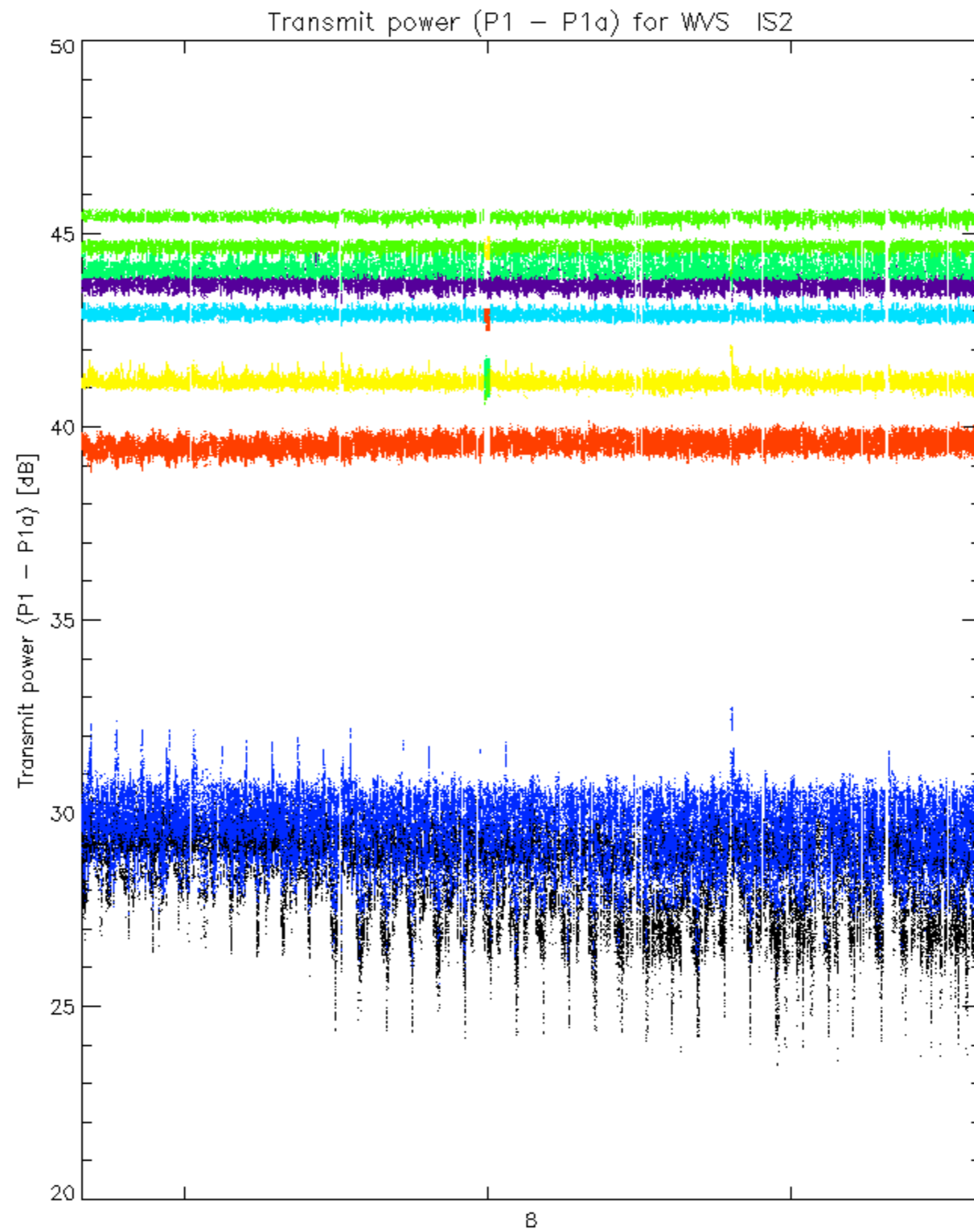
Transmit power (P1 - P1a) for GM1 SS3



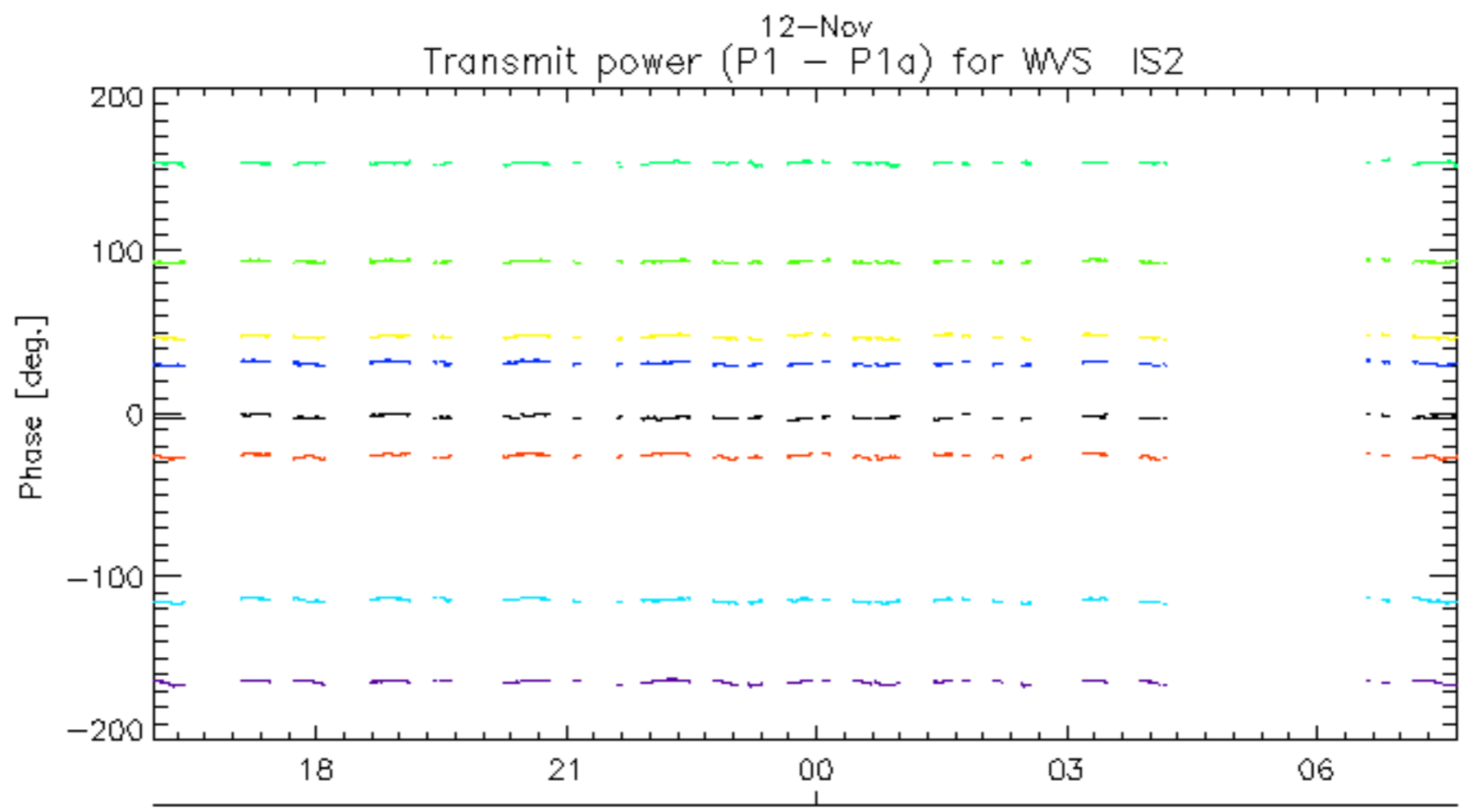
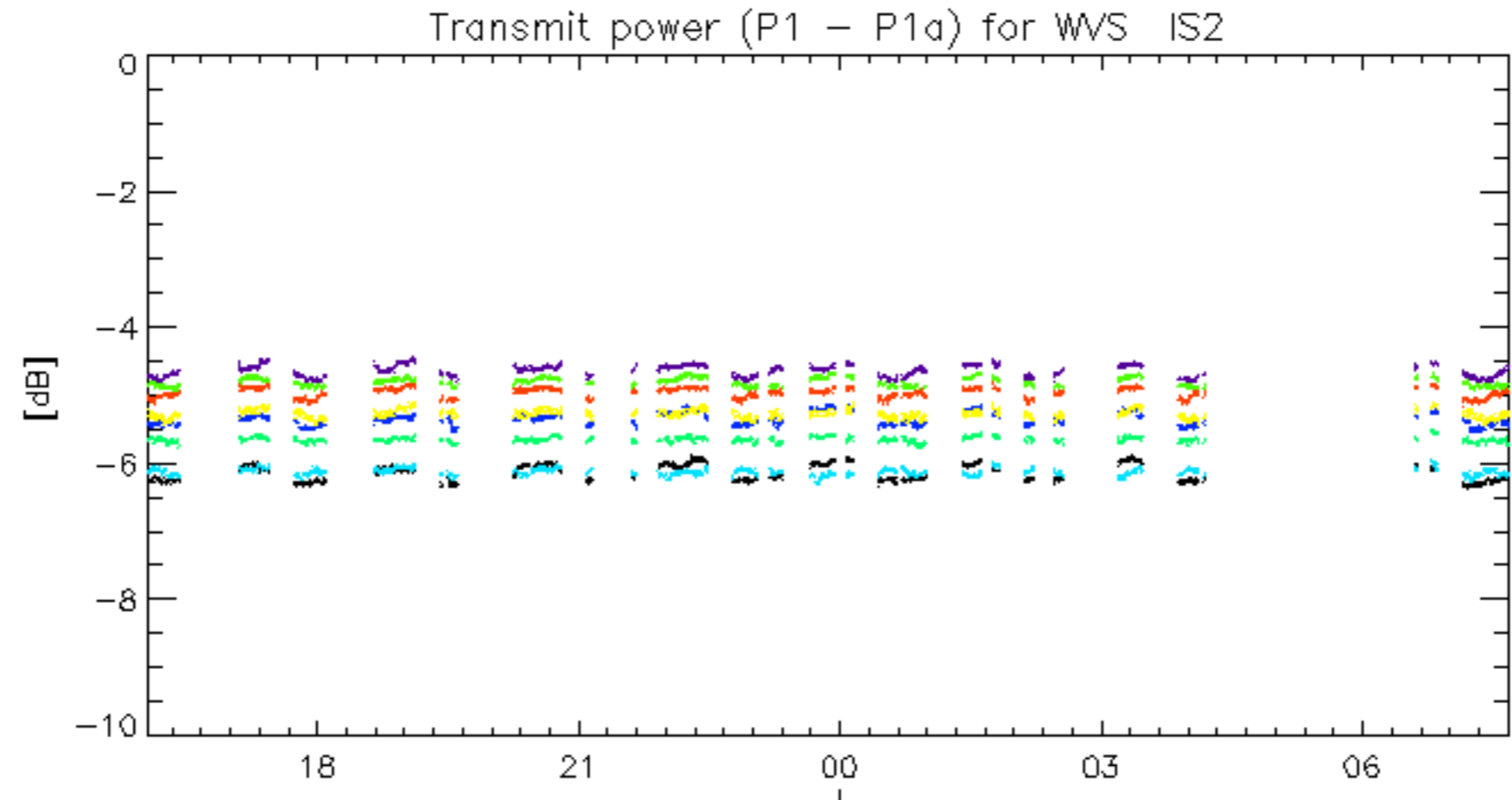
rows: 3 7 11 15 19 22 26 30



12-Nov
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



12-Nov
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.