

PRELIMINARY REPORT OF 061121

last update on Tue Nov 21 16:43:45 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 2006-11-20 00:00:00 to 2006-11-21 16:43:45

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	45	71	3	5	37
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	45	71	3	5	37
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	71	3	5	37
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	71	3	5	37

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	46	58	30	11	62
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	46	58	30	11	62
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	46	58	30	11	62
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	58	30	11	62

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	20061121 085033
H	20061120 092210

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	-3.957290	0.008782	-0.013659
7	P1	-3.146132	0.023618	-0.053207
11	P1	-4.131521	0.024303	-0.011638
15	P1	-6.284214	0.014532	-0.073497
19	P1	-3.617010	0.063741	0.010944
22	P1	-4.669082	0.129143	0.077202
26	P1	-3.972680	0.086696	0.092149
30	P1	-5.888889	0.166584	0.077426
3	P1	-16.502996	0.234221	-0.049878
7	P1	-17.255901	0.208253	-0.157996
11	P1	-17.149780	0.451493	-0.107746
15	P1	-13.051365	0.130015	-0.099777
19	P1	-14.910707	0.371789	-0.016353
22	P1	-15.860836	0.507627	-0.039749
26	P1	-15.061653	0.205732	0.052135
30	P1	-17.400784	0.608145	-0.396893

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.846399	0.090450	0.012371
7	P2	-21.731766	0.093861	0.004877
11	P2	-15.660478	0.103135	0.027569
15	P2	-7.119531	0.106466	-0.025239
19	P2	-9.187001	0.104024	-0.031585
22	P2	-18.224766	0.096256	-0.054057
26	P2	-16.537100	0.109905	-0.085309
30	P2	-19.474304	0.088861	-0.009386

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.235233	0.008283	-0.035775
7	P3	-8.235233	0.008283	-0.035775
11	P3	-8.235233	0.008283	-0.035775
15	P3	-8.235233	0.008283	-0.035775
19	P3	-8.235233	0.008283	-0.035775
22	P3	-8.235233	0.008283	-0.035775
26	P3	-8.235256	0.008295	-0.035861
30	P3	-8.235256	0.008295	-0.035861

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	-3.906970	0.055082	-0.016712
7	P1	-2.522220	0.329162	0.029692
11	P1	-2.865530	0.049875	0.025504
15	P1	-3.678508	0.057779	-0.027162
19	P1	-3.537890	0.111871	0.049450
22	P1	-5.062174	0.087296	0.088748
26	P1	-6.019535	0.183777	0.056717
30	P1	-5.324664	0.110989	0.017754
3	P1	-11.713675	0.134225	-0.045512
7	P1	-10.054465	0.424543	-0.040332
11	P1	-10.337602	0.145466	0.035461
15	P1	-10.768387	0.217005	0.072660
19	P1	-15.785293	2.119489	0.352842
22	P1	-21.342091	1.539790	-0.436649
26	P1	-16.033020	0.397286	-0.089473
30	P1	-17.918371	0.417194	0.070062

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.450619	0.118033	-0.048573
7	P2	-22.203804	0.443927	-0.082841
11	P2	-10.933853	0.115065	-0.048273
15	P2	-4.955859	0.123774	-0.061631
19	P2	-6.937900	0.173158	-0.071579
22	P2	-8.254550	0.189644	-0.030999
26	P2	-24.301058	0.316688	-0.103147
30	P2	-21.946520	0.190961	-0.026186

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.081594	0.003280	-0.029235
7	P3	-8.081555	0.003262	-0.029606
11	P3	-8.081643	0.003261	-0.029636
15	P3	-8.081537	0.003262	-0.029510
19	P3	-8.081576	0.003272	-0.029619
22	P3	-8.081510	0.003267	-0.029472
26	P3	-8.081521	0.003264	-0.029232
30	P3	-8.081539	0.003270	-0.029536

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	0.000544214
	stdev	1.78717e-07
MEAN Q	mean	0.000519735
	stdev	2.20721e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136088
	stdev	0.00111263
STDEV Q	mean	0.136446
	stdev	0.00112952



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006112[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_WSM_1PNPDE20061120_140442_000002022053_00096_24699_0001.N1	0	34
ASA_WSM_1PNPDE20061120_182348_000001652053_00099_24702_0001.N1	0	18



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

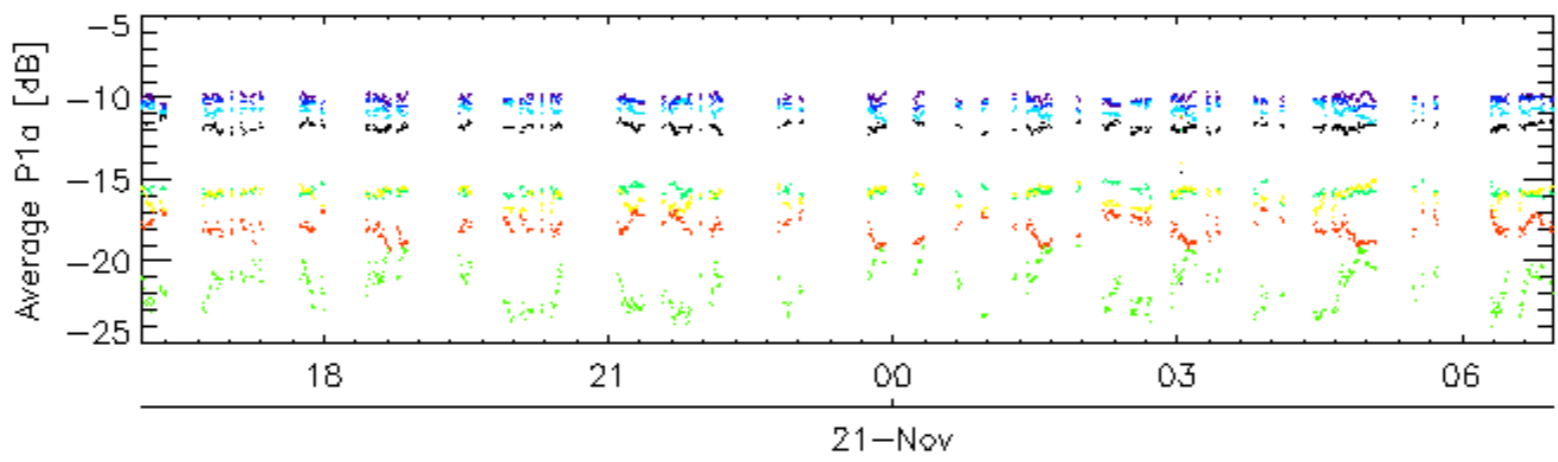
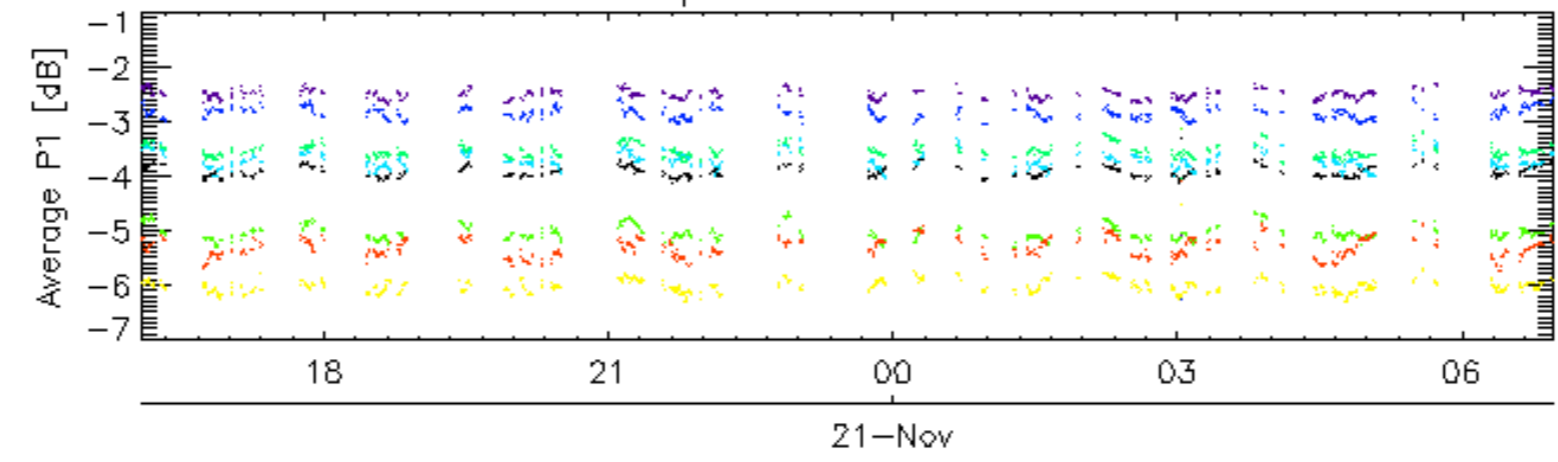
7.5 - Absolute Doppler for GM1

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

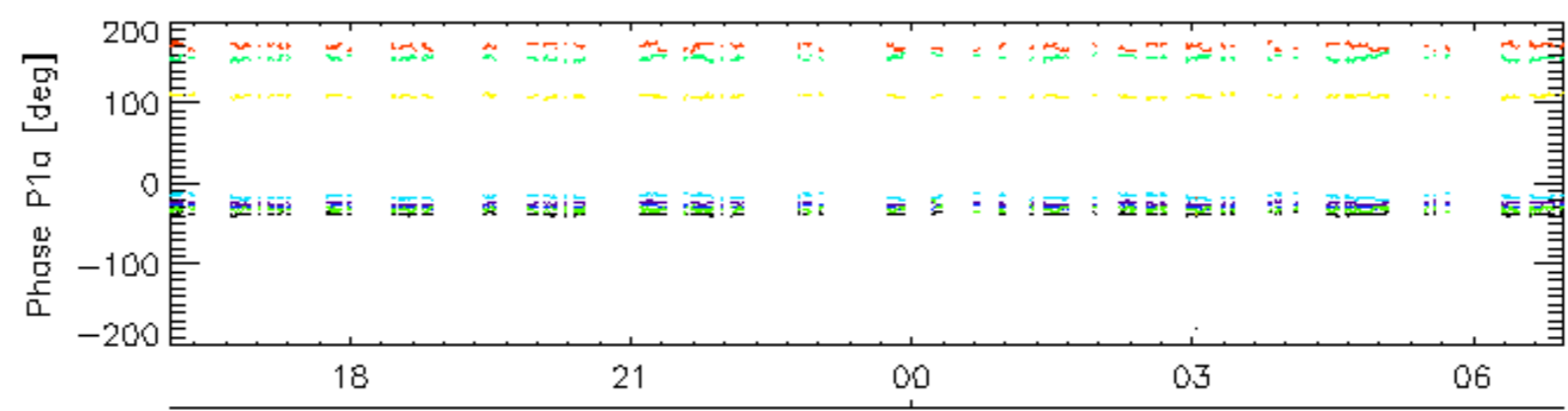
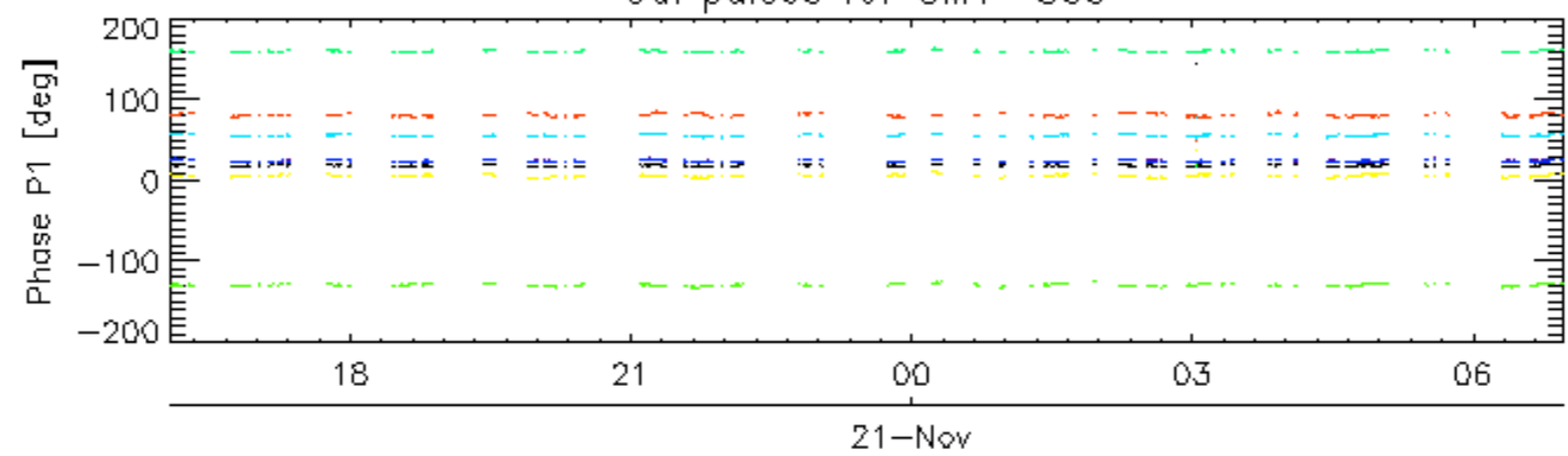
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

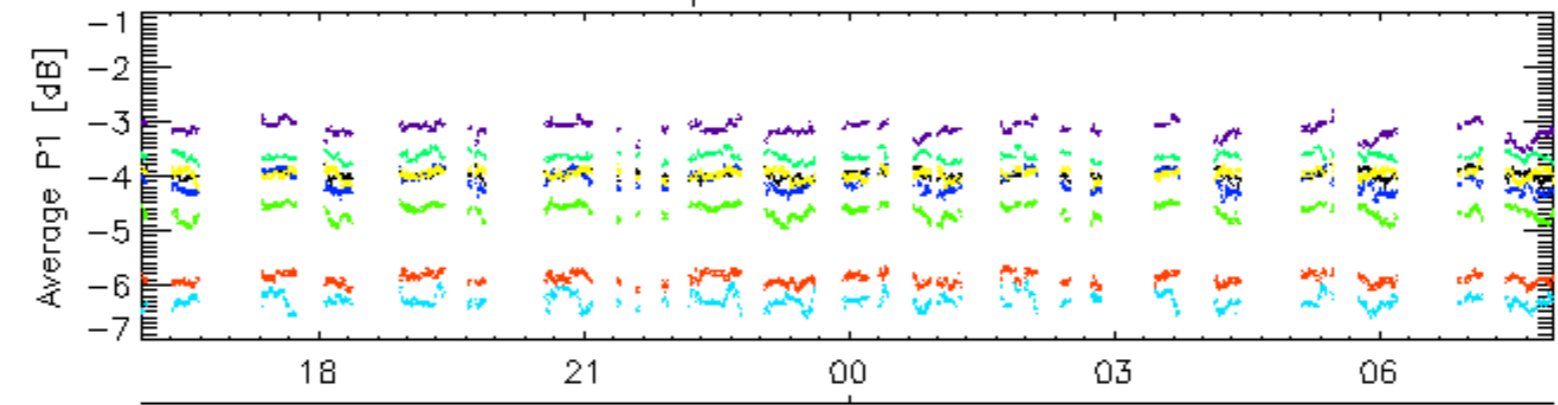


Cal pulses for GM1 SS3

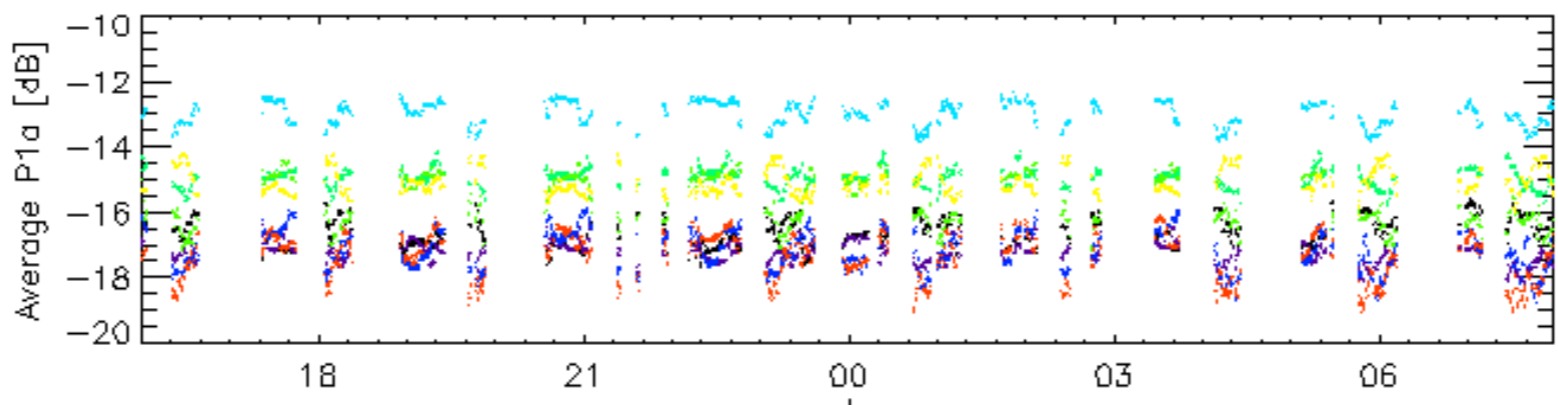


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

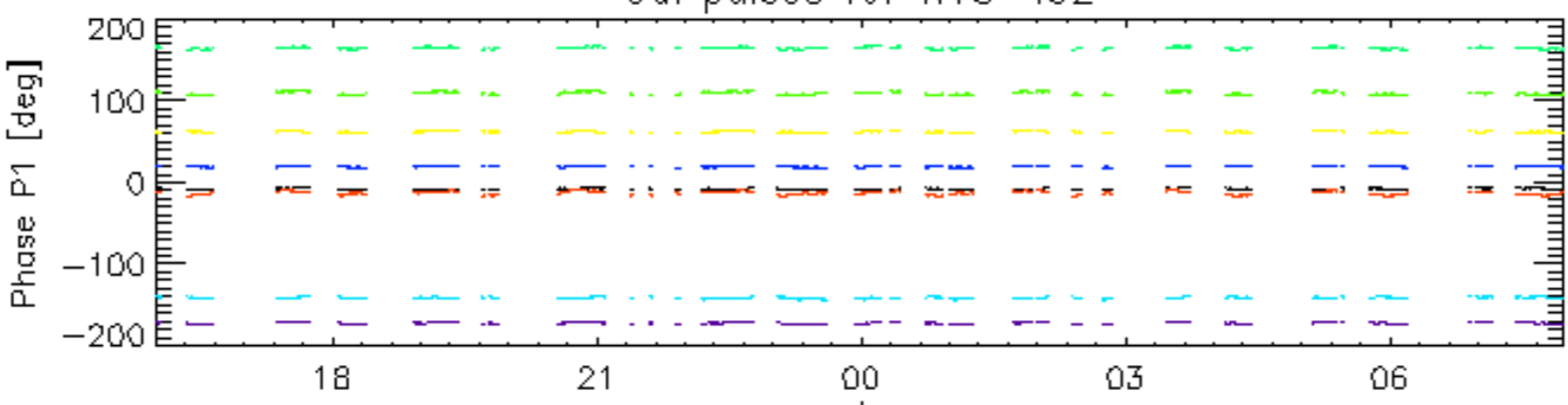


21-Nov

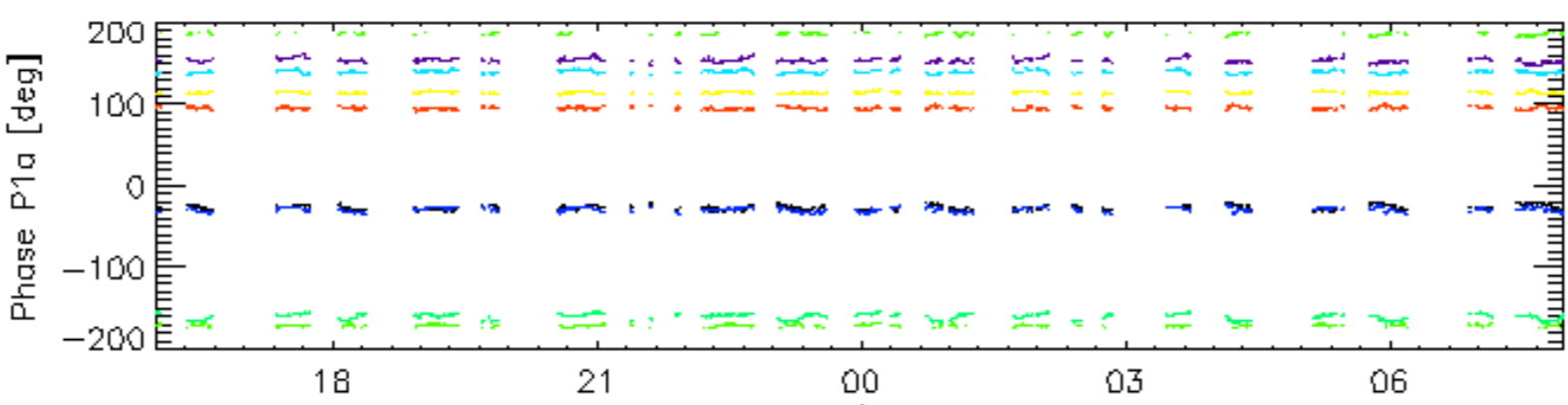


21-Nov

Cal pulses for WVS IS2

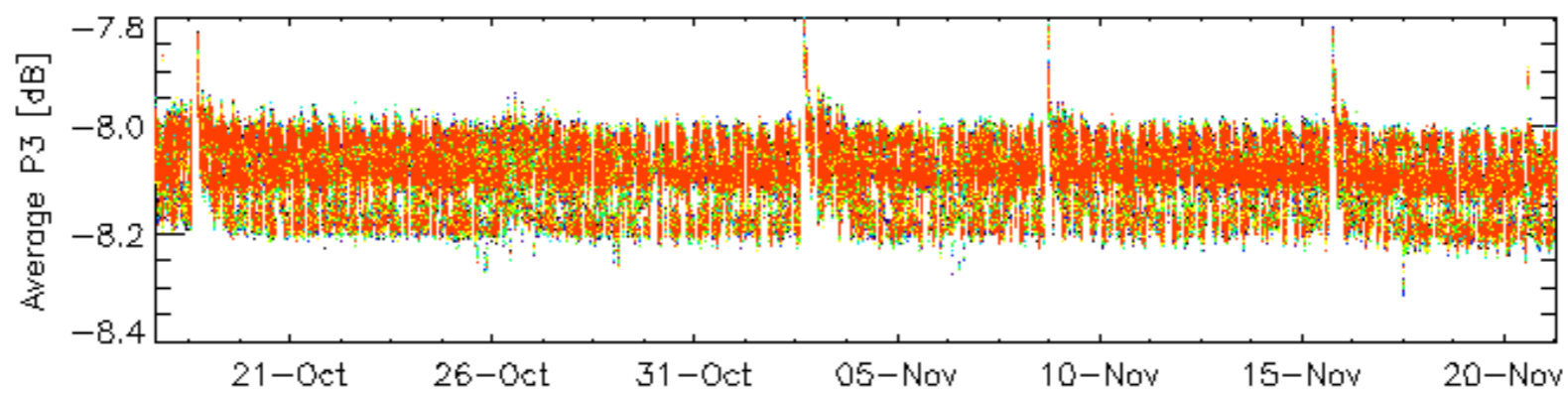
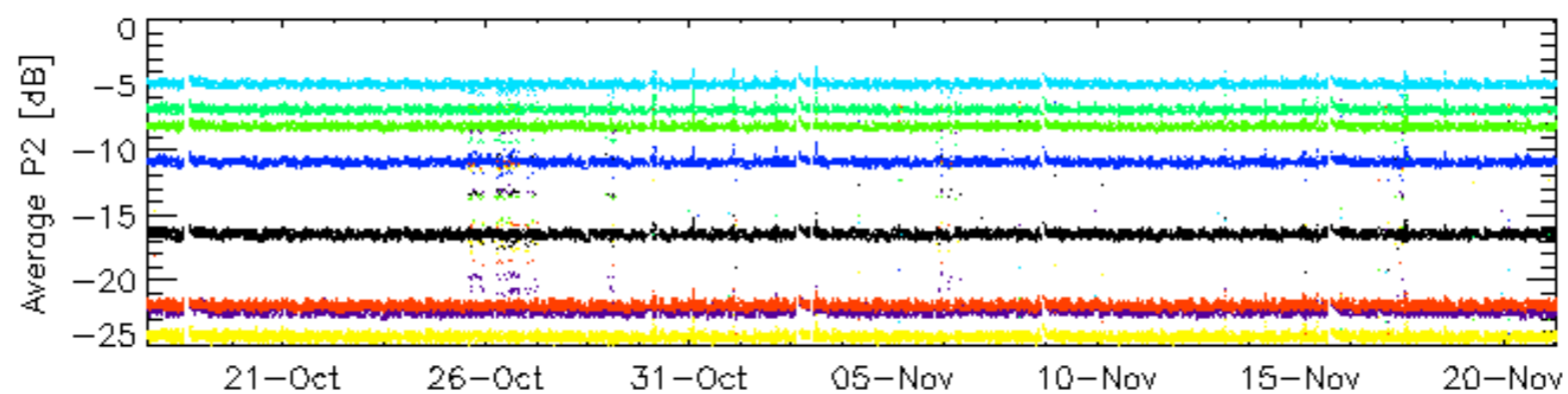
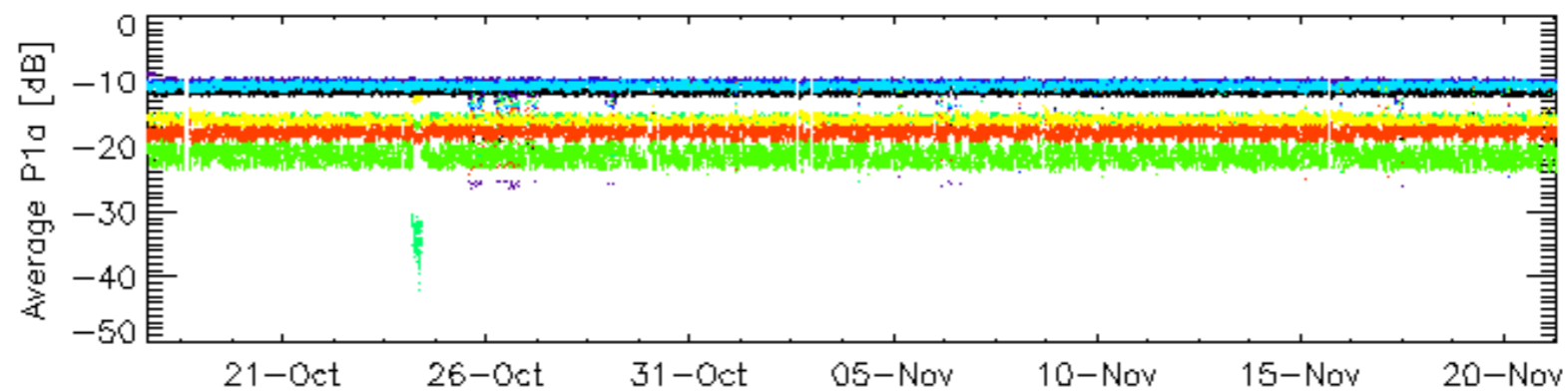
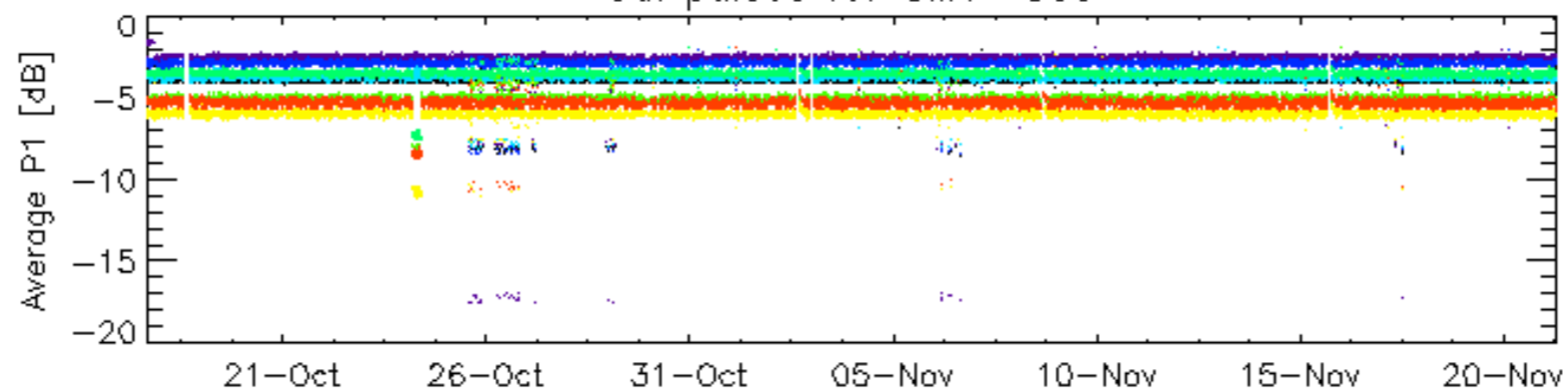


21-Nov



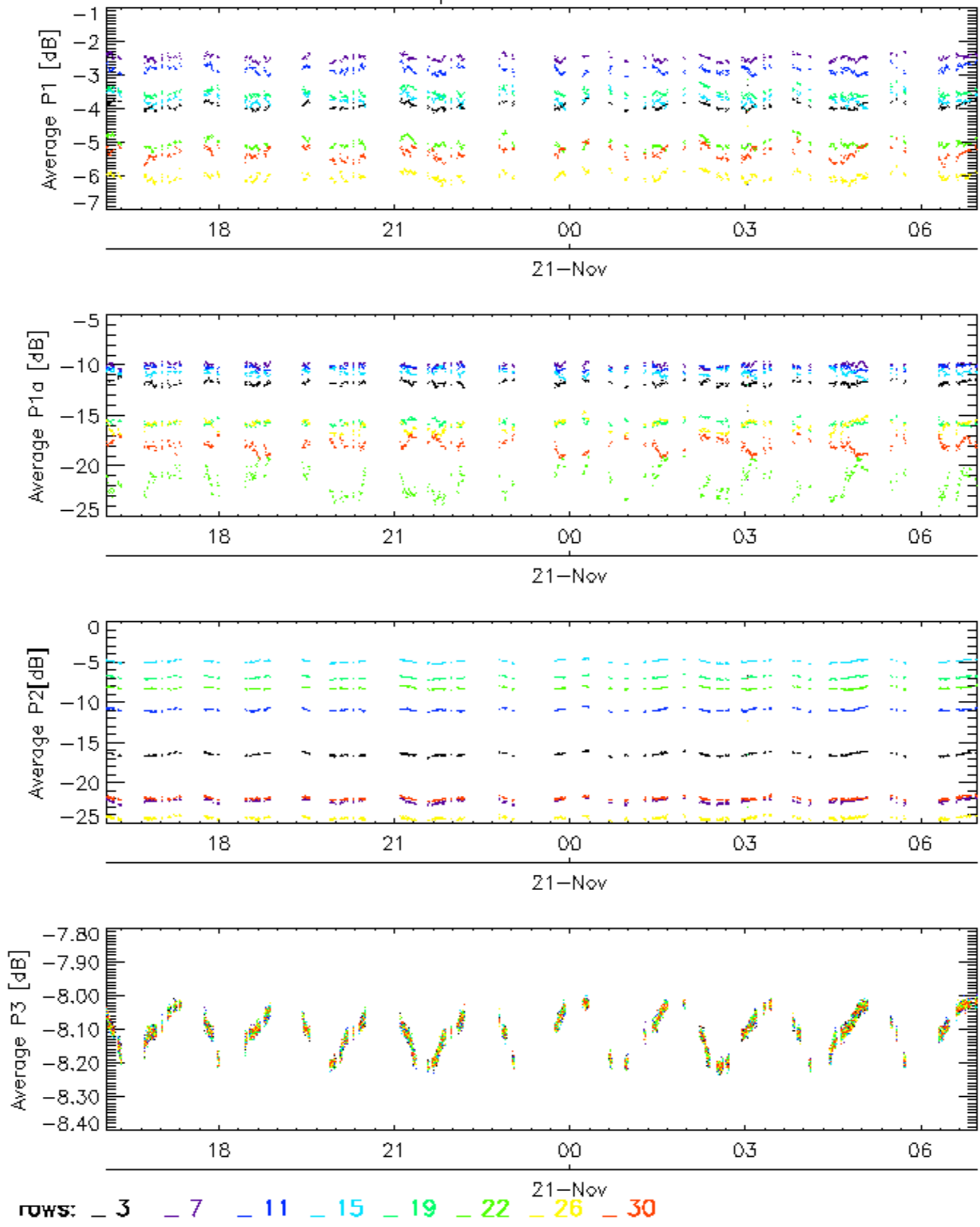
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

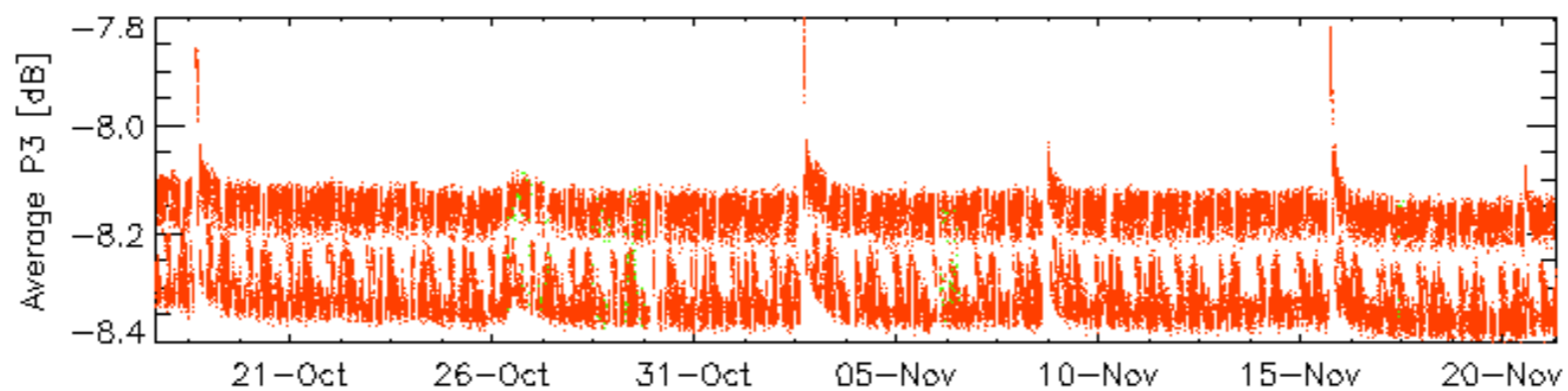
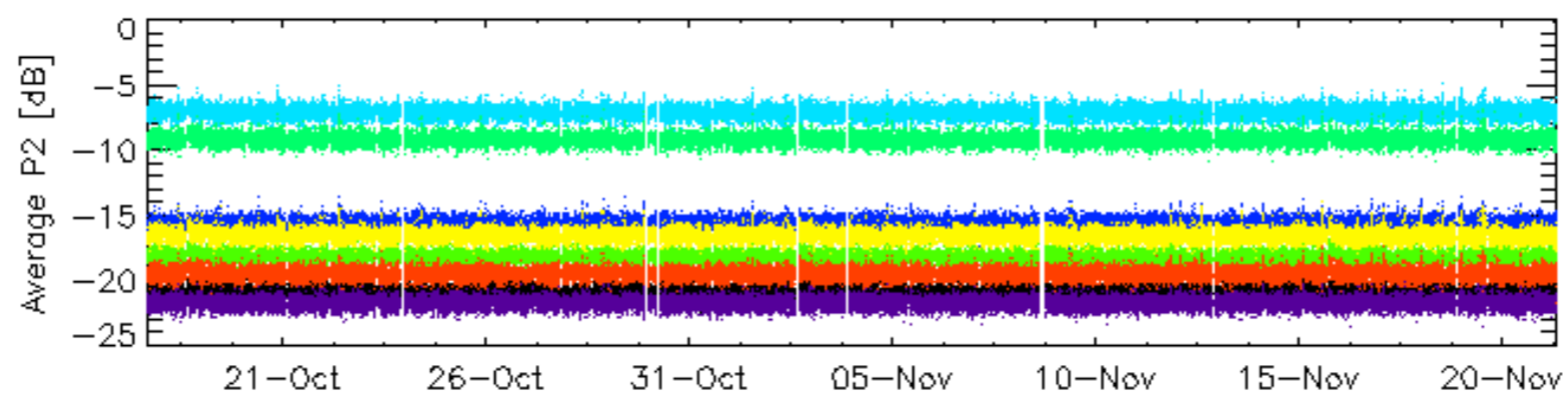
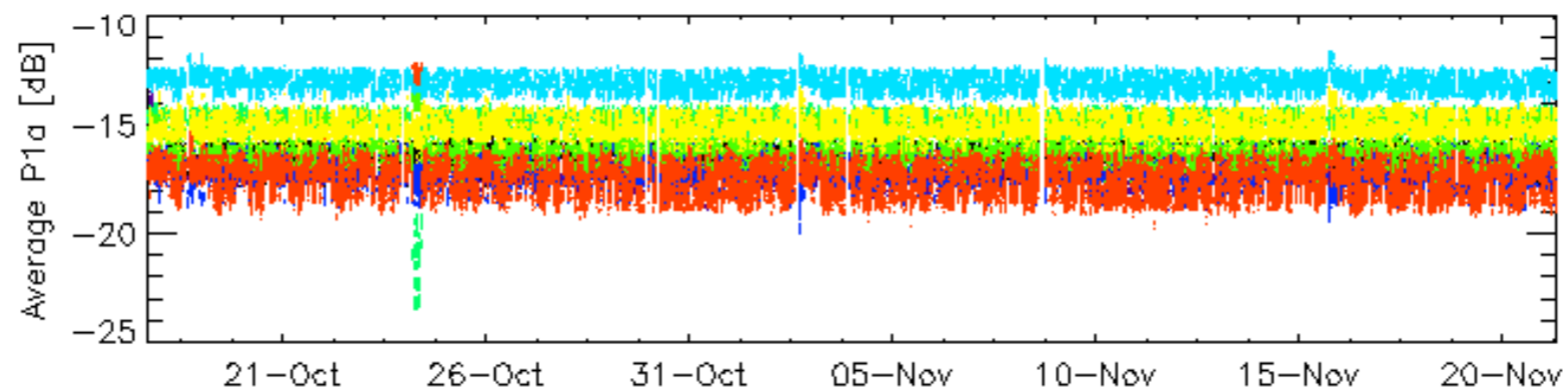
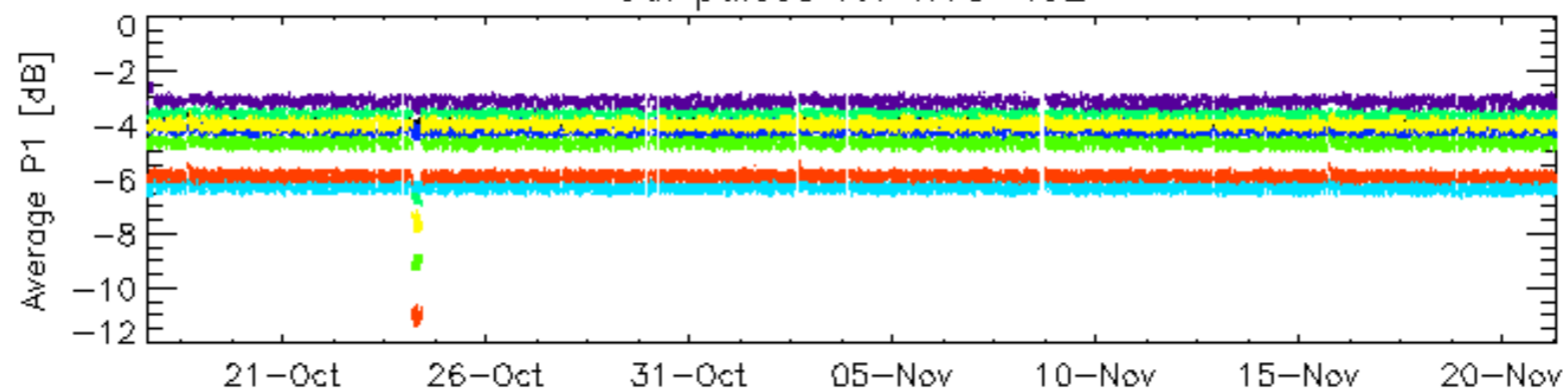


rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for GM1 SS3

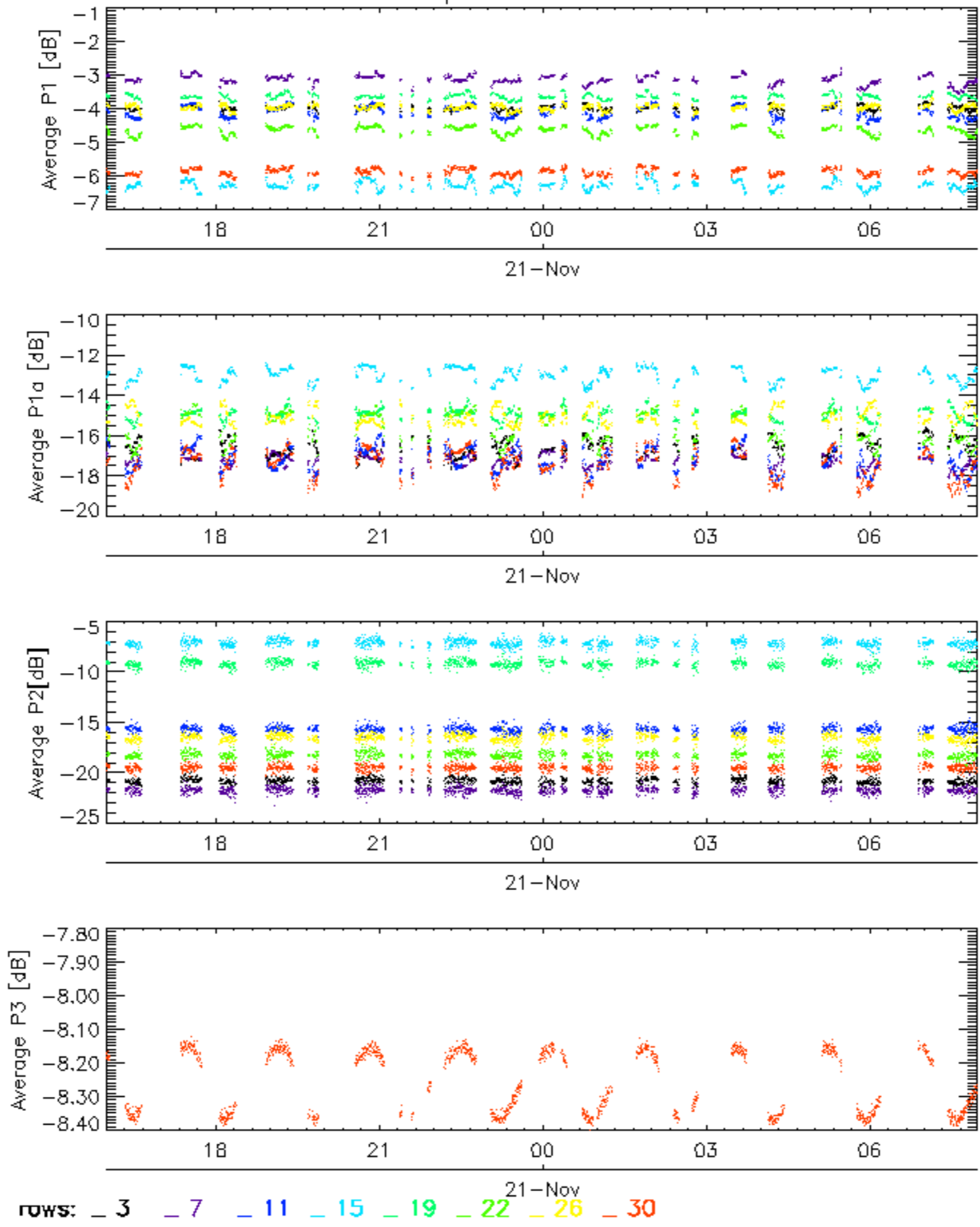


Cal pulses for WVS IS2

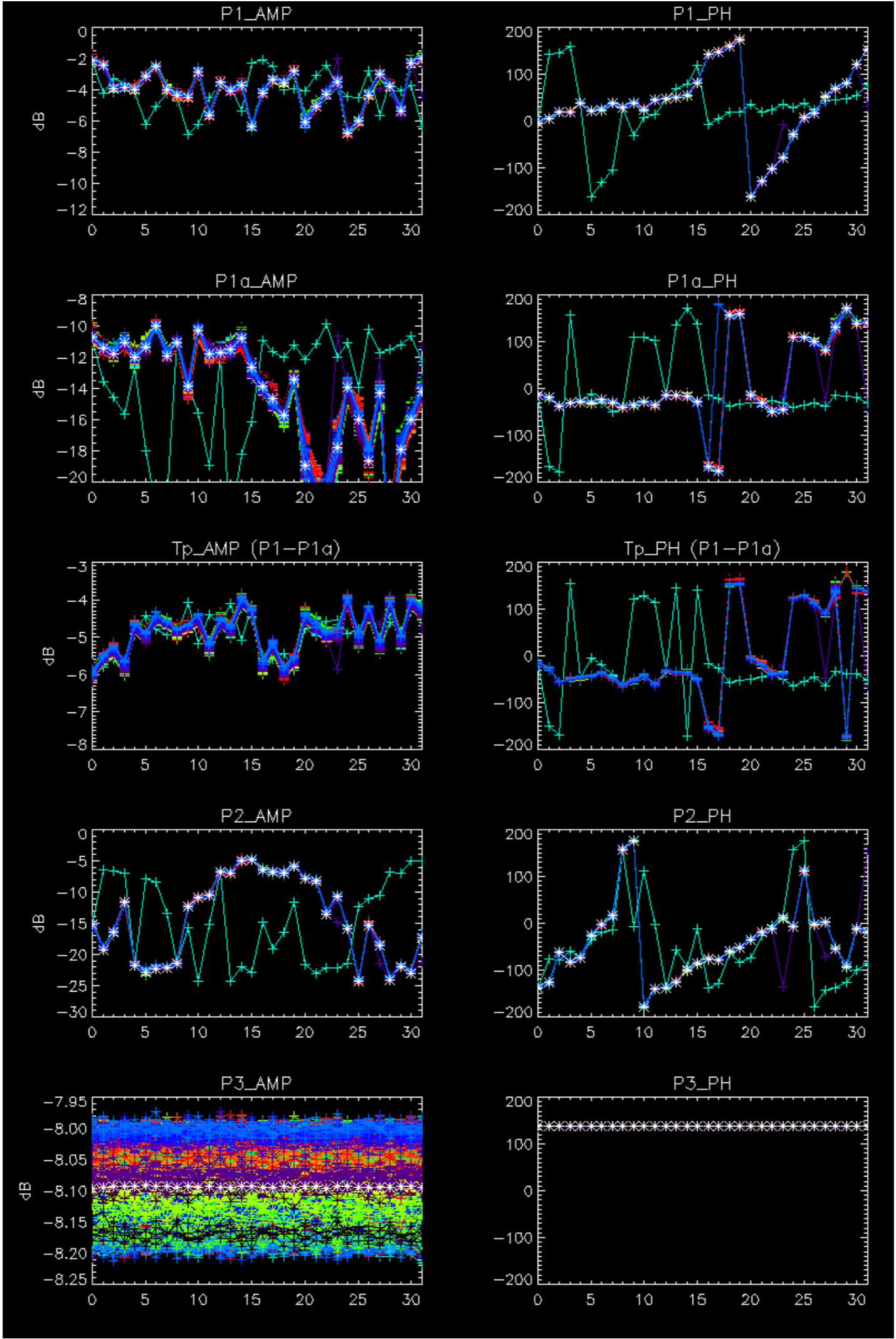


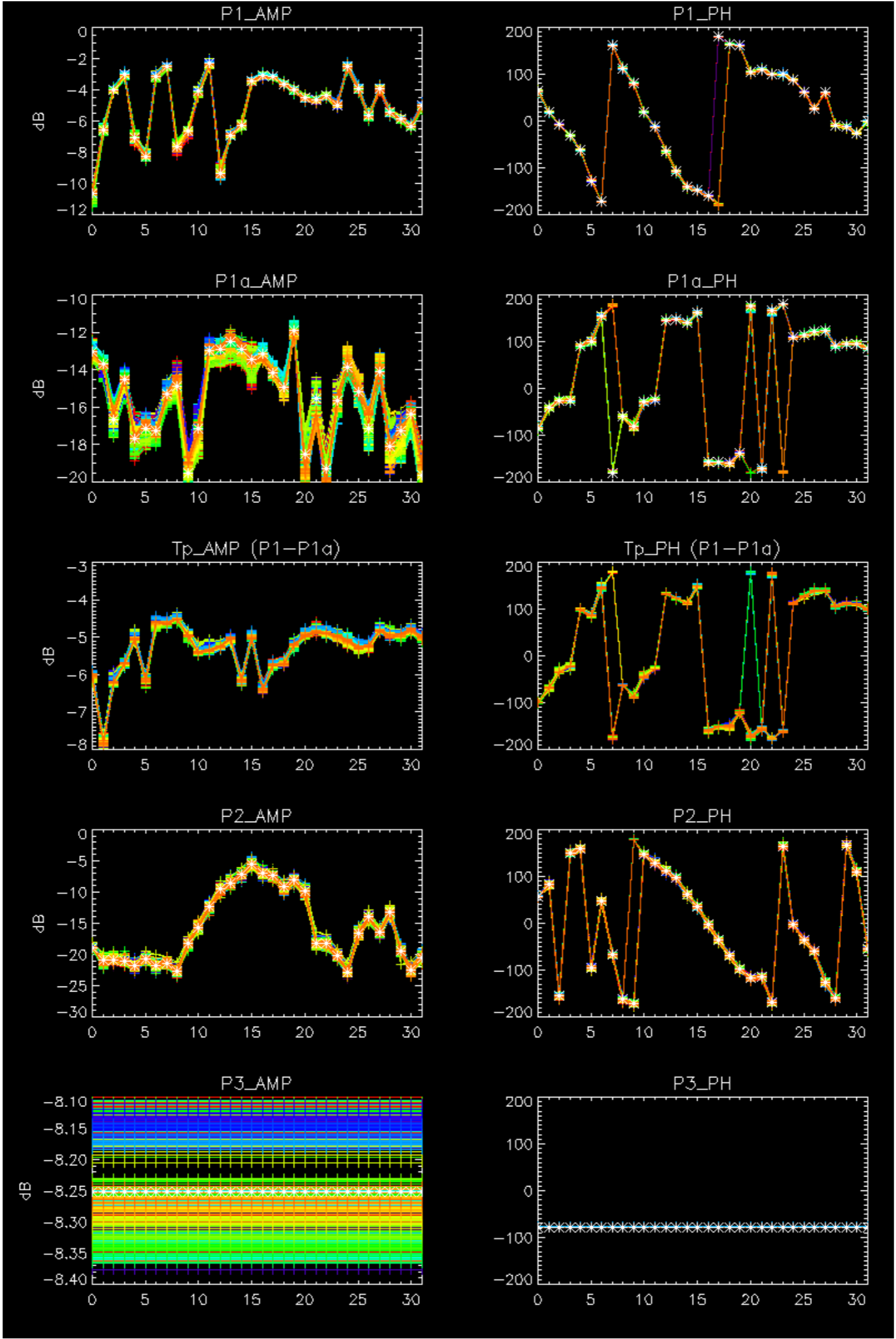
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



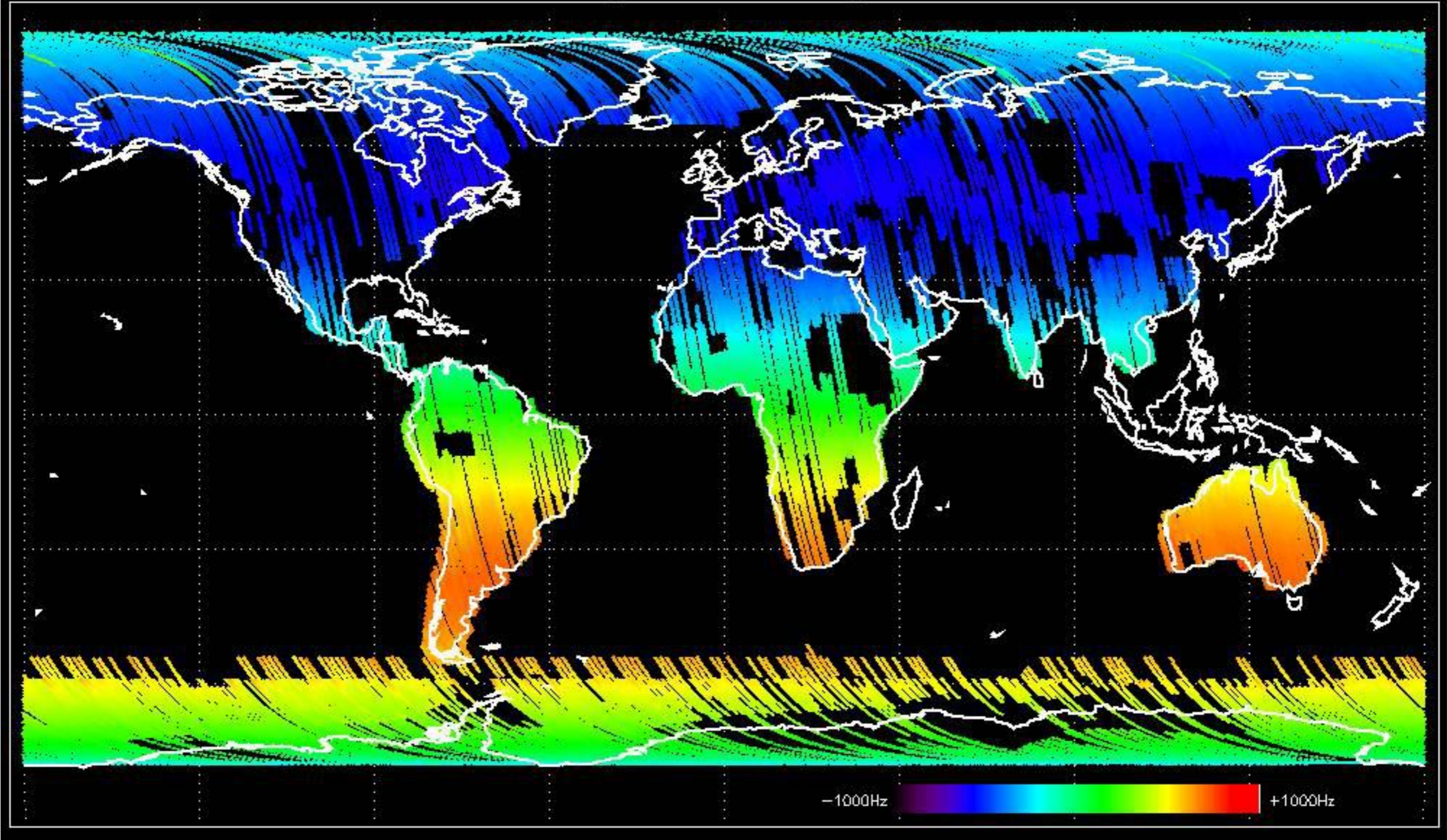
No anomalies observed.



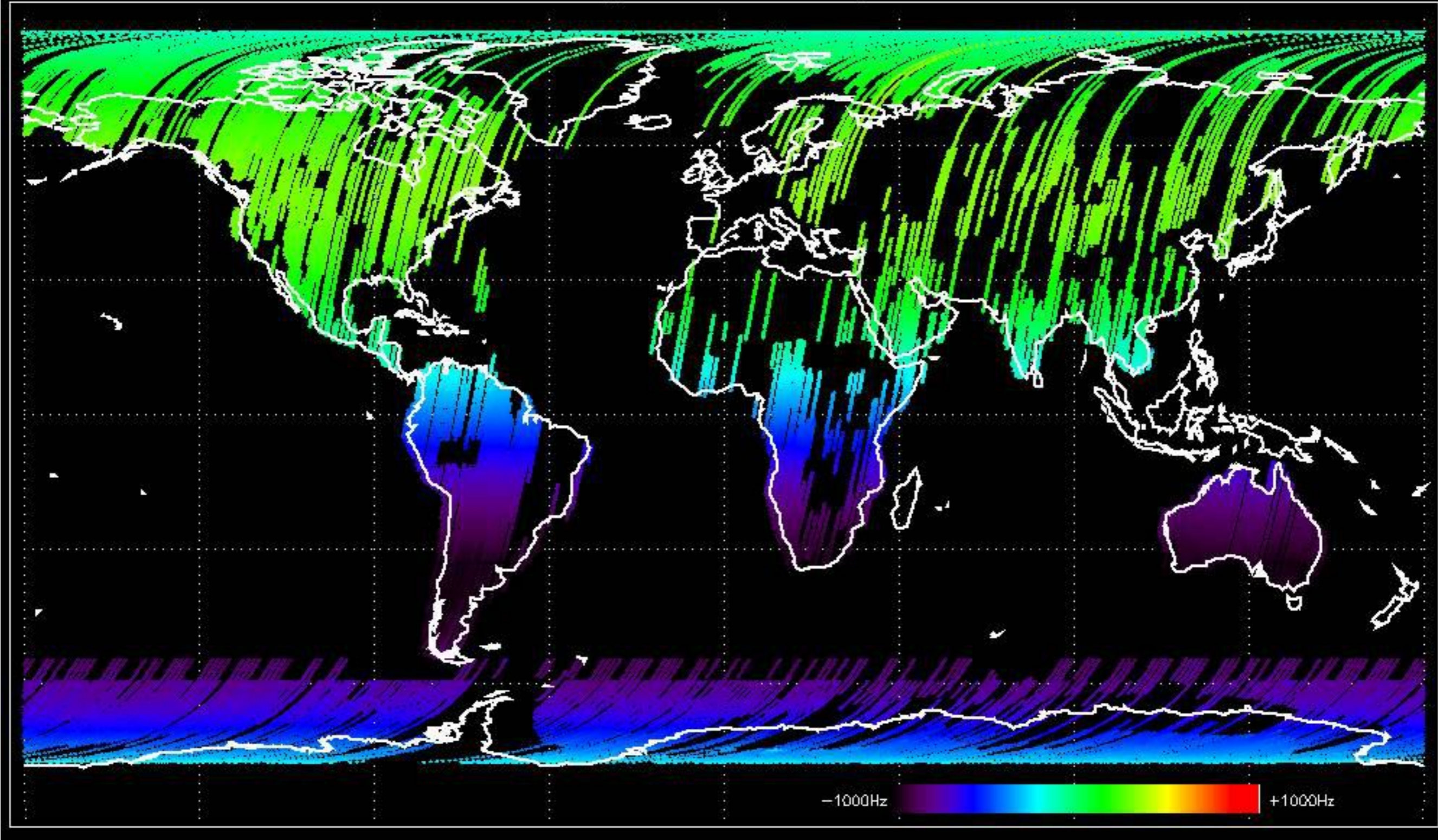


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

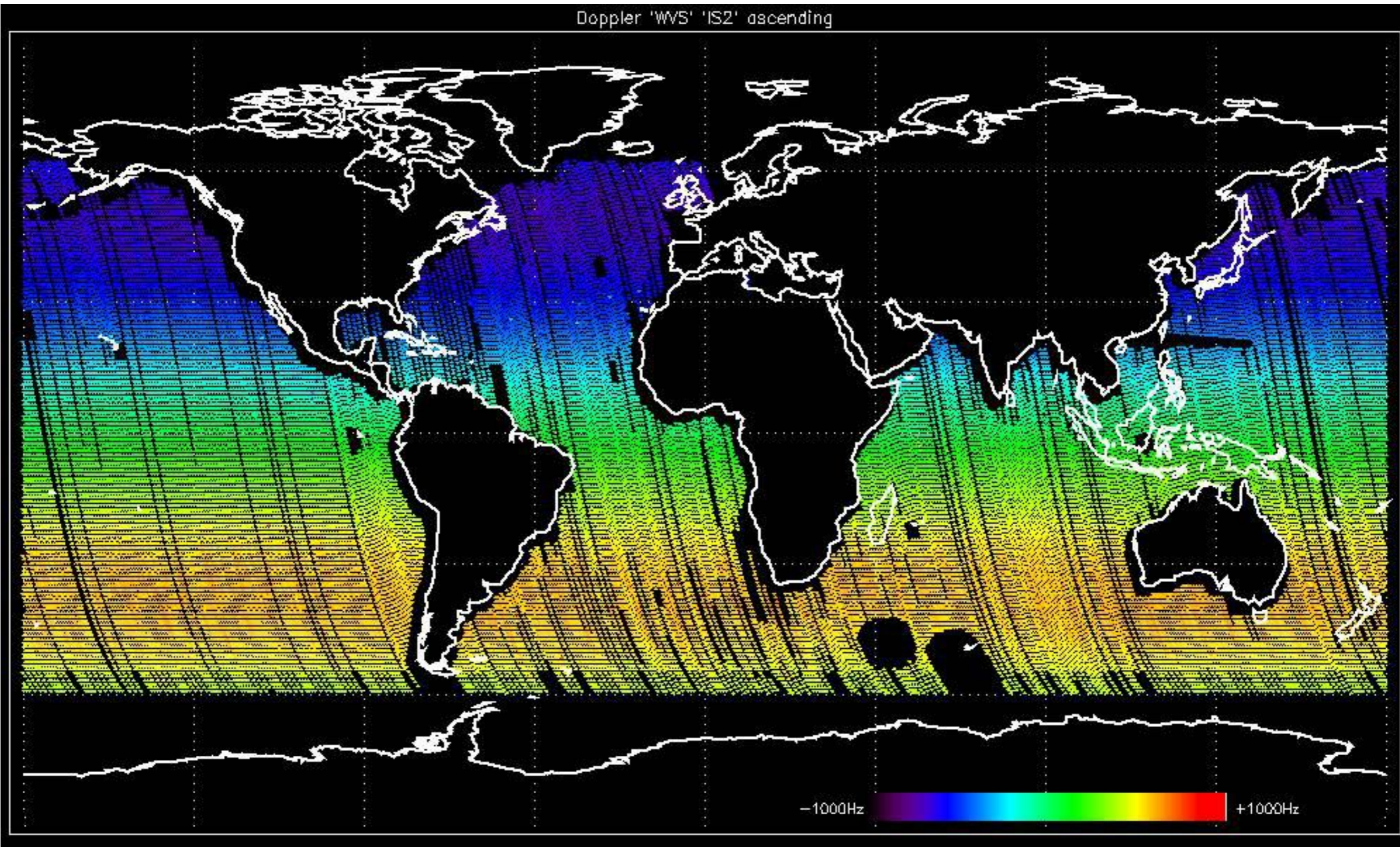
Doppler 'GM1' 'SS1' ascending



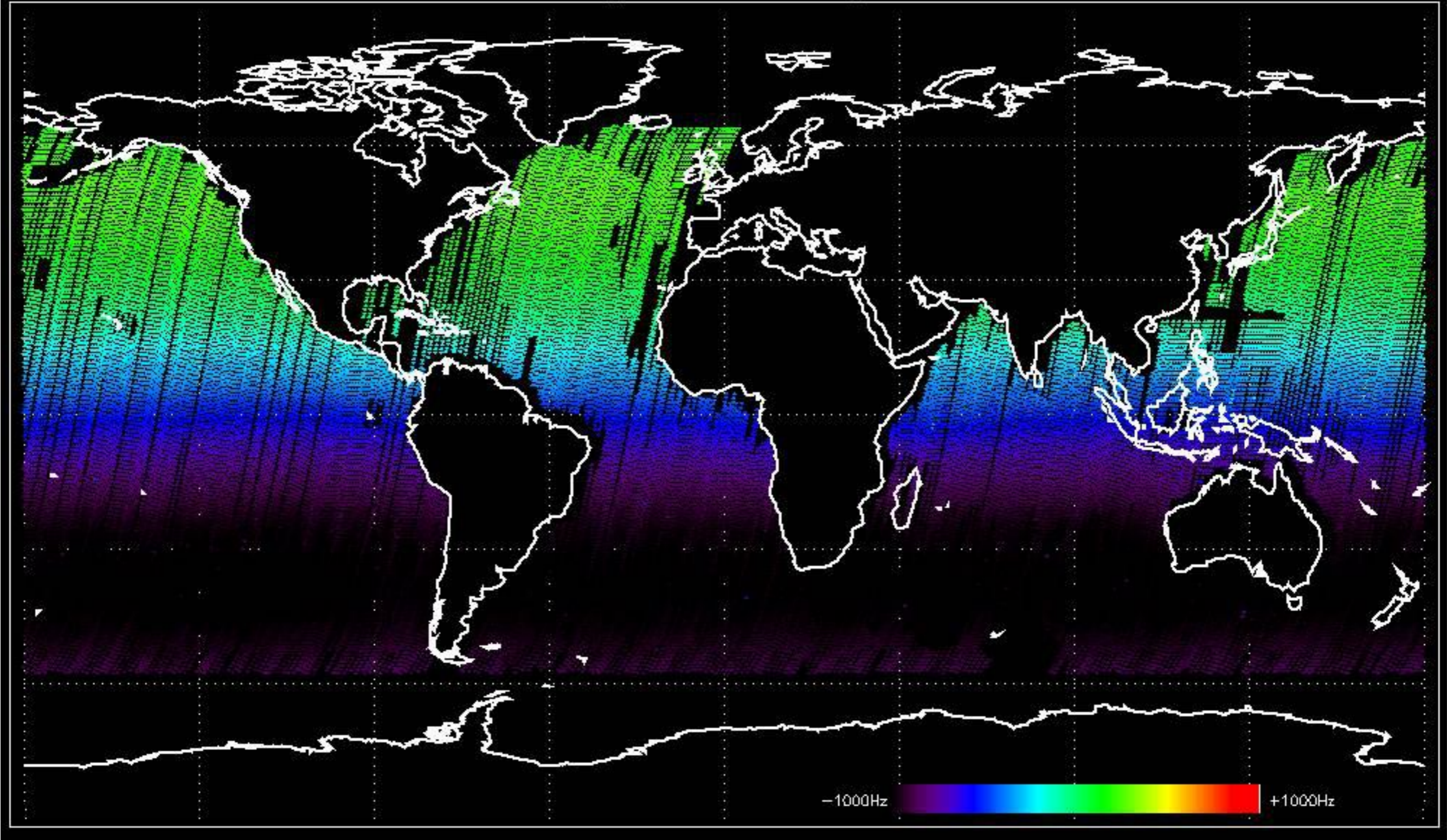
Doppler 'GM1' 'SS1' descending

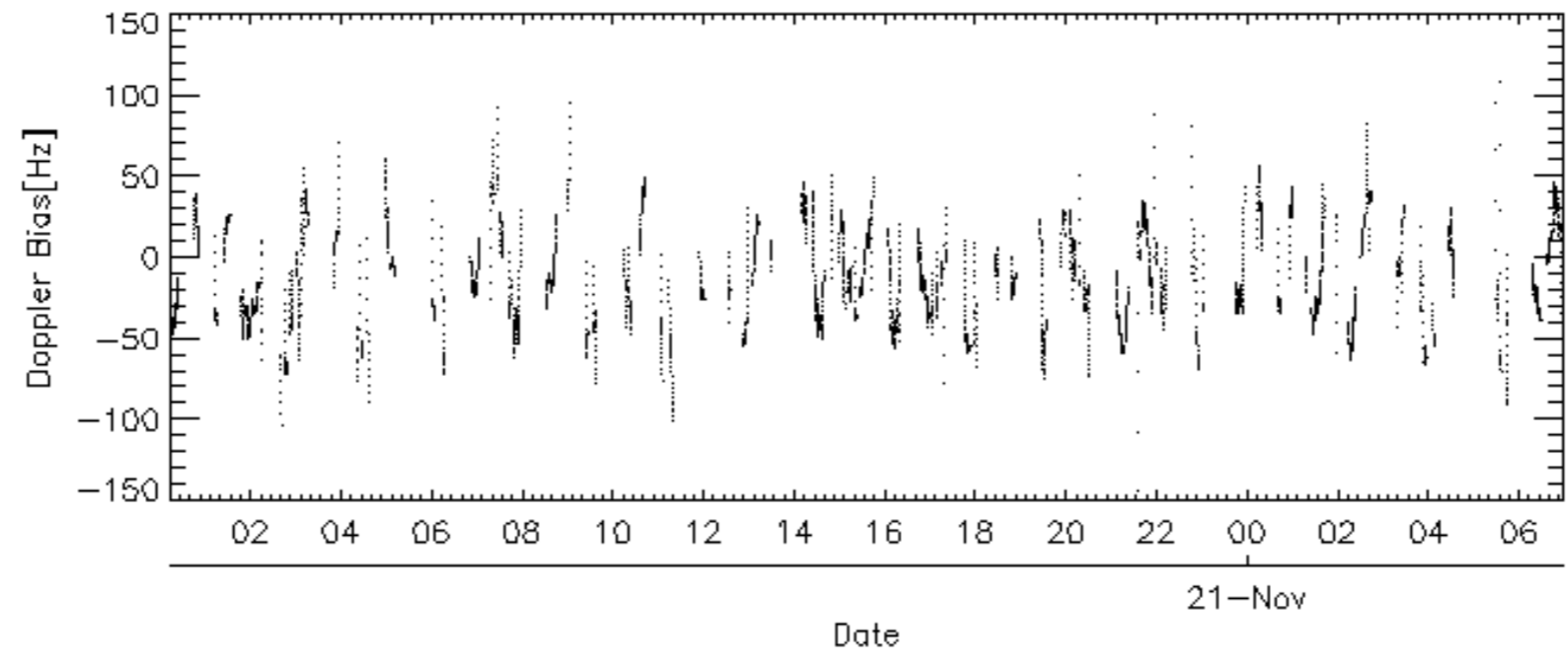
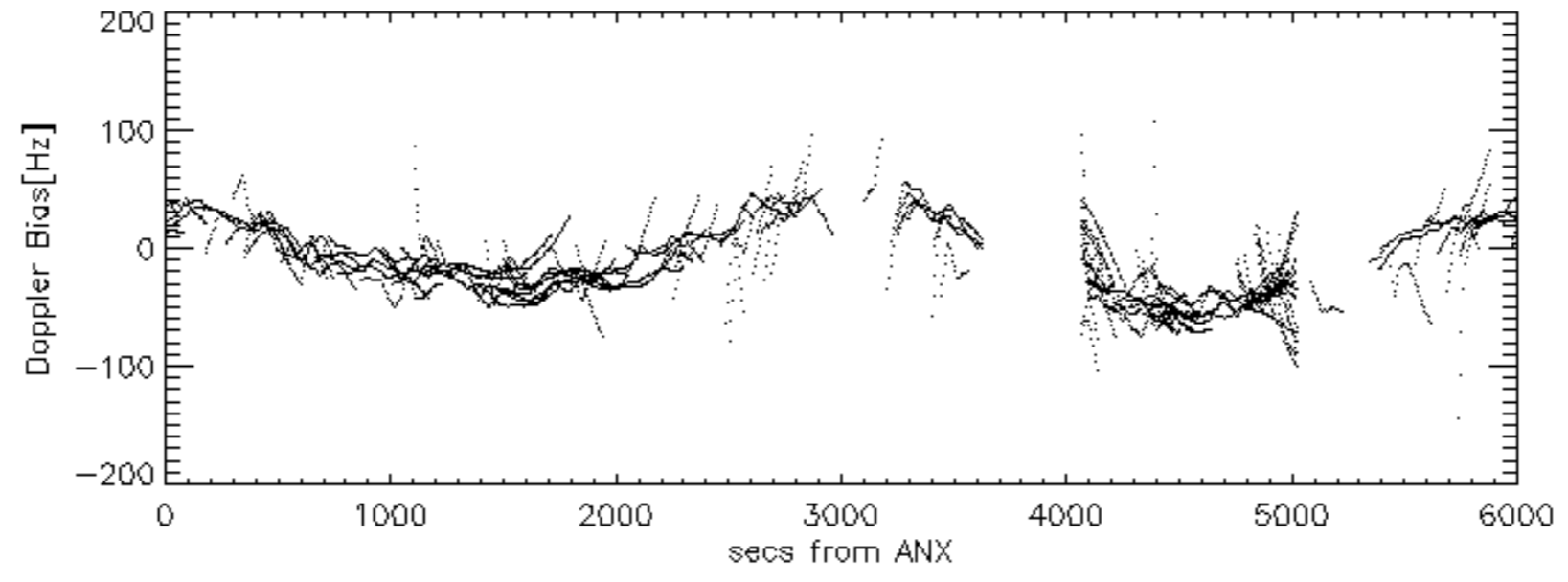
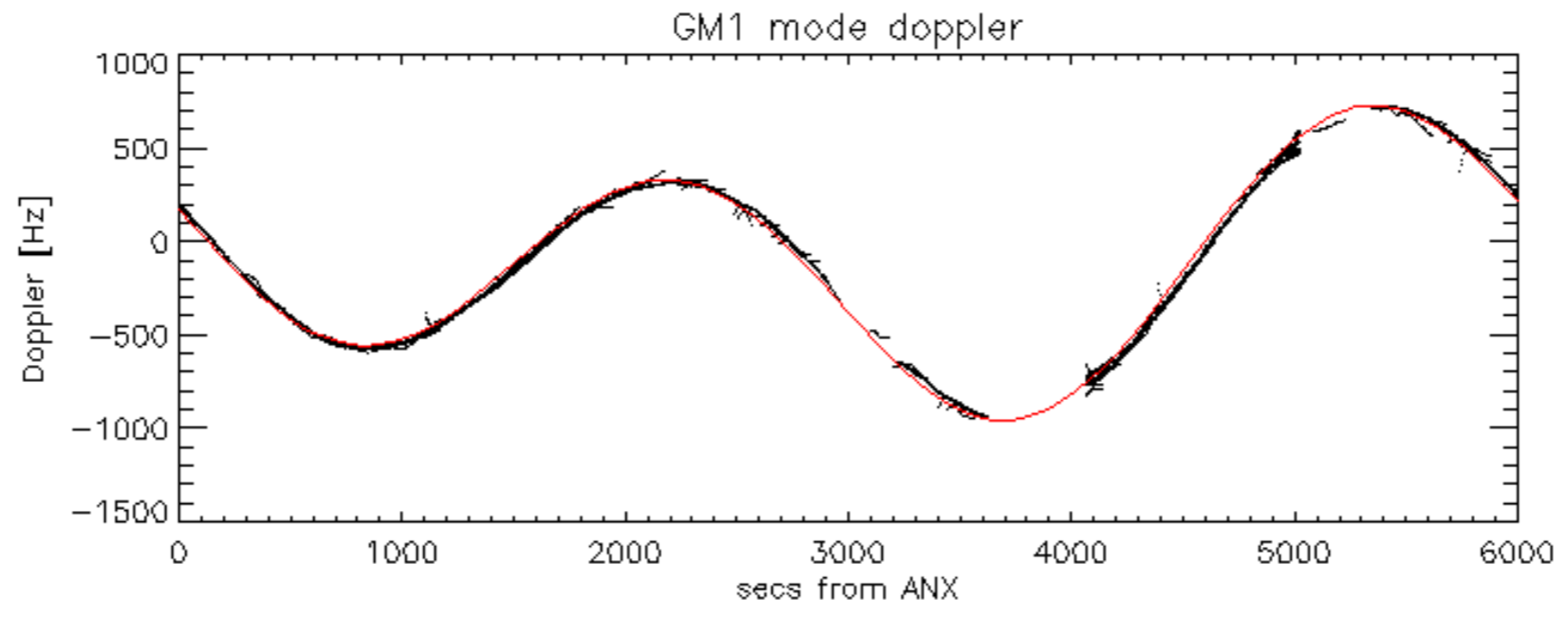


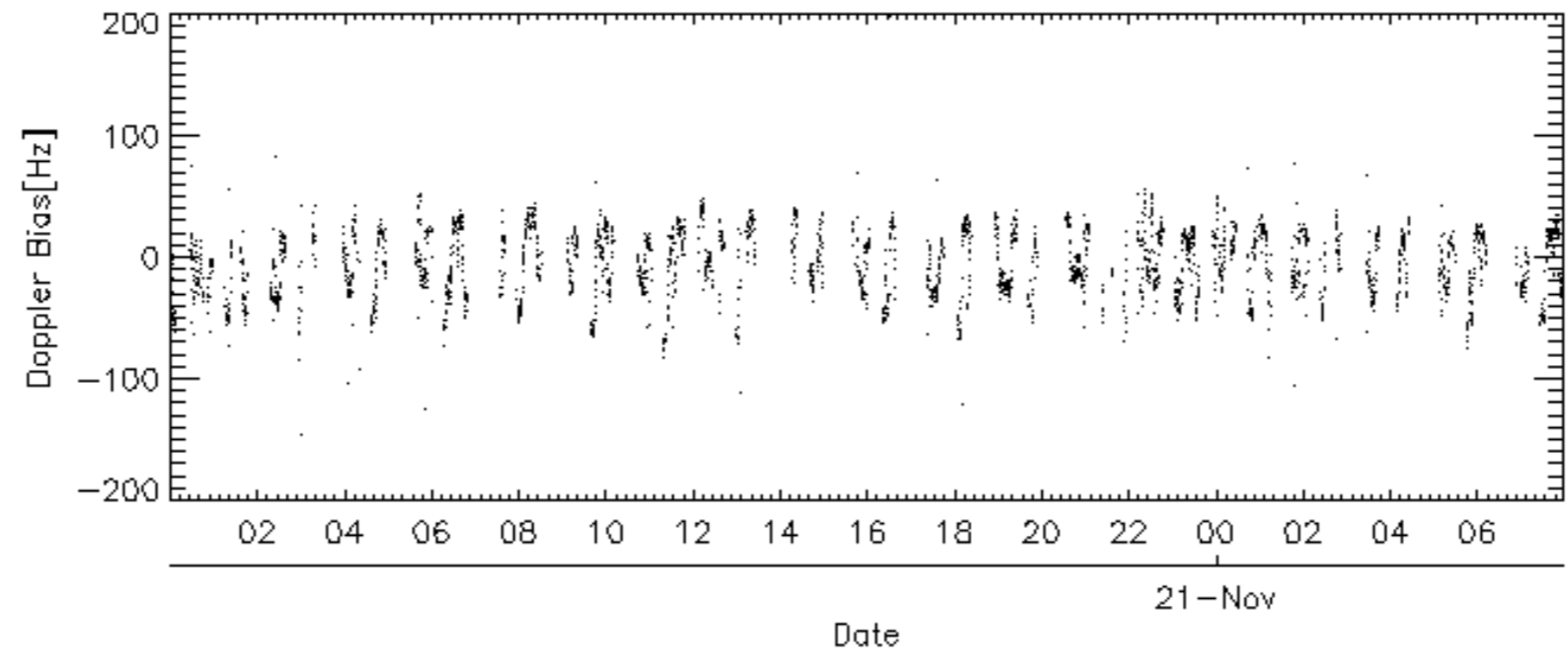
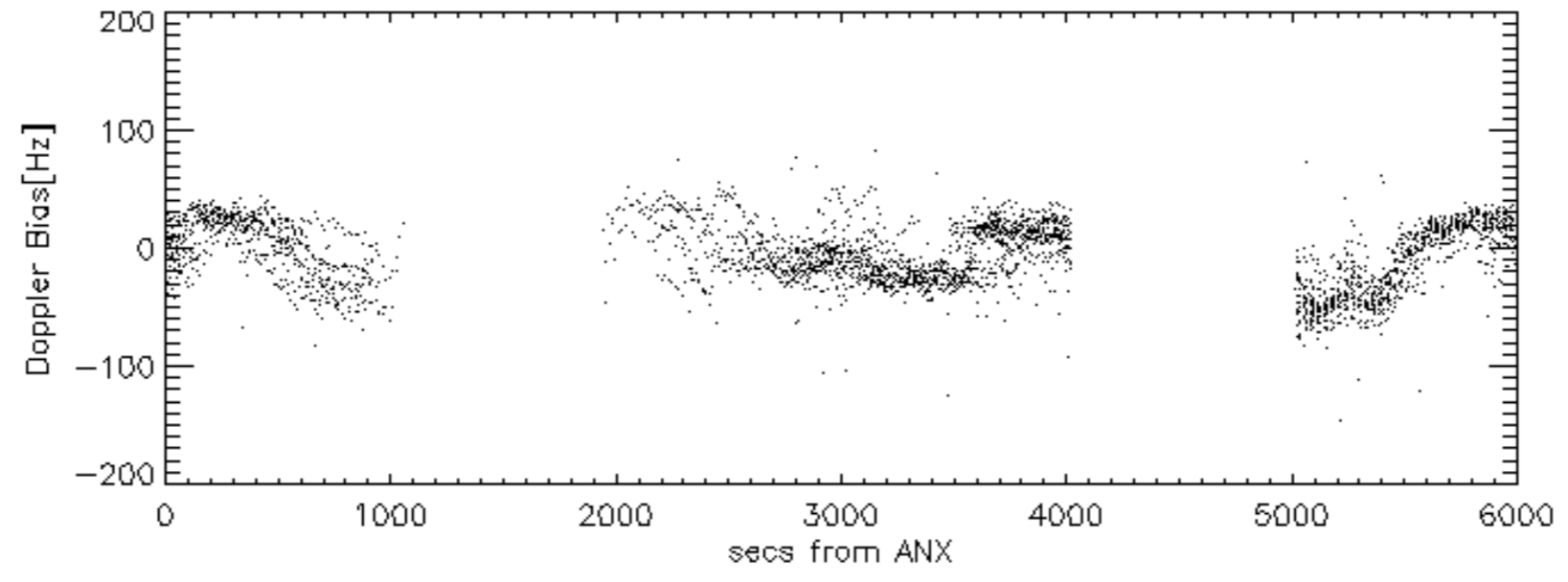
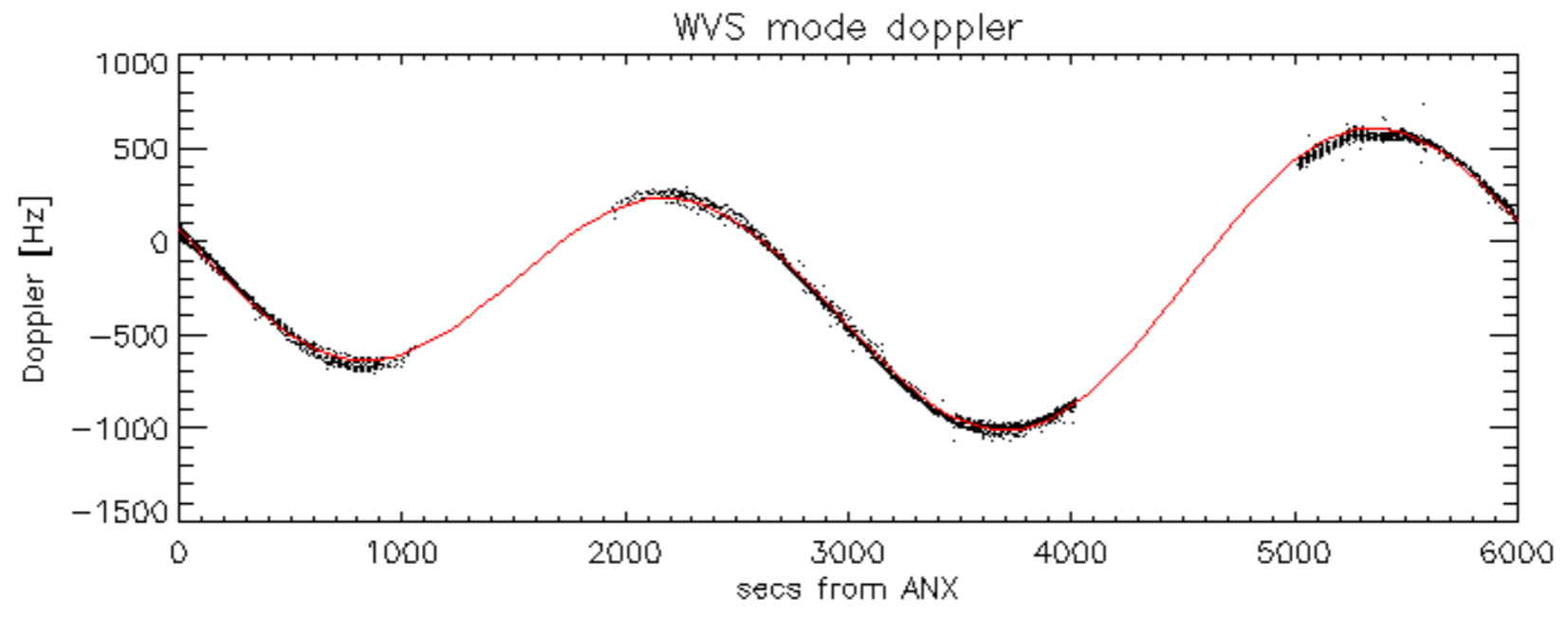
Doppler 'WVS' 'IS2' ascending



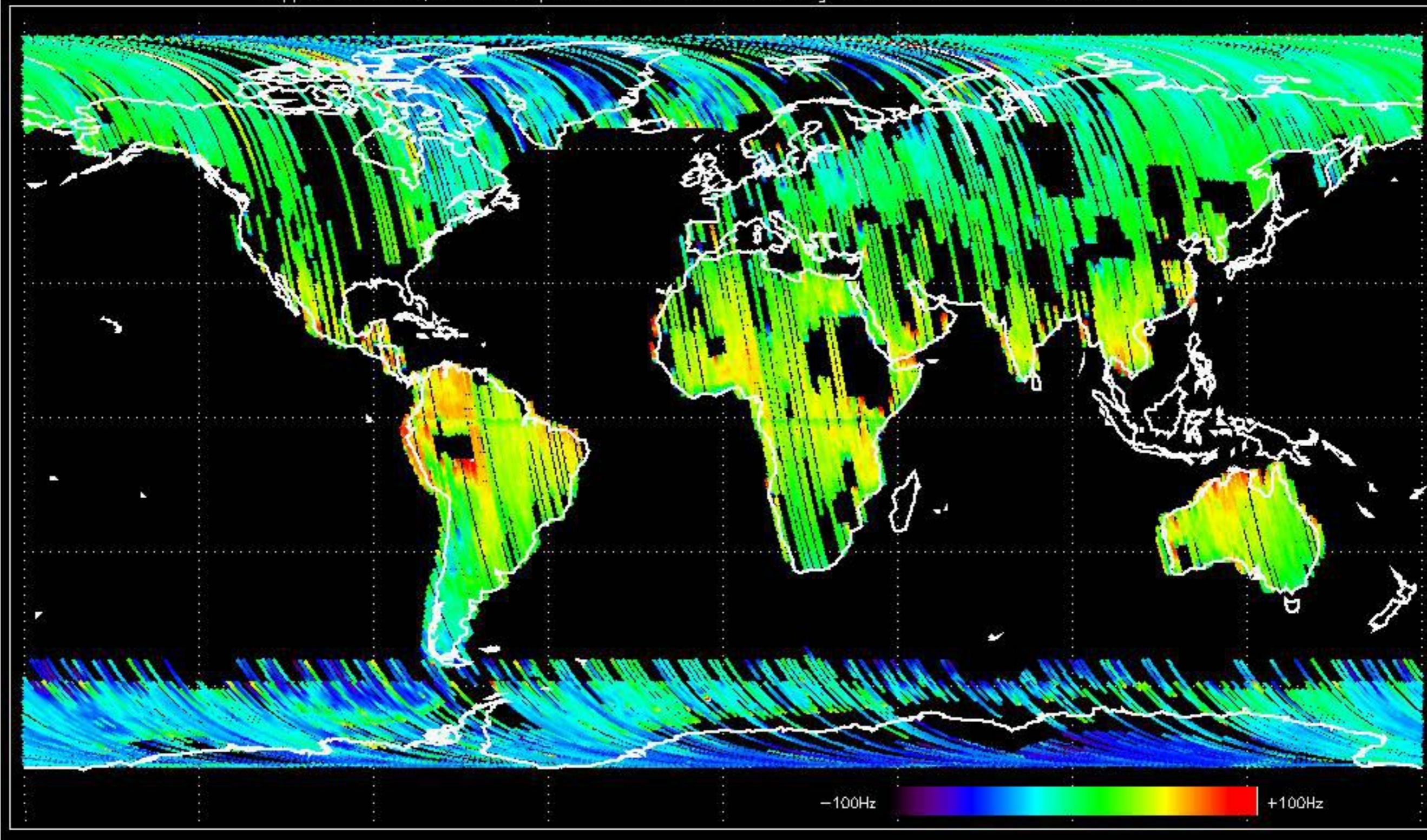
Doppler 'WVS' 'IS2' descending



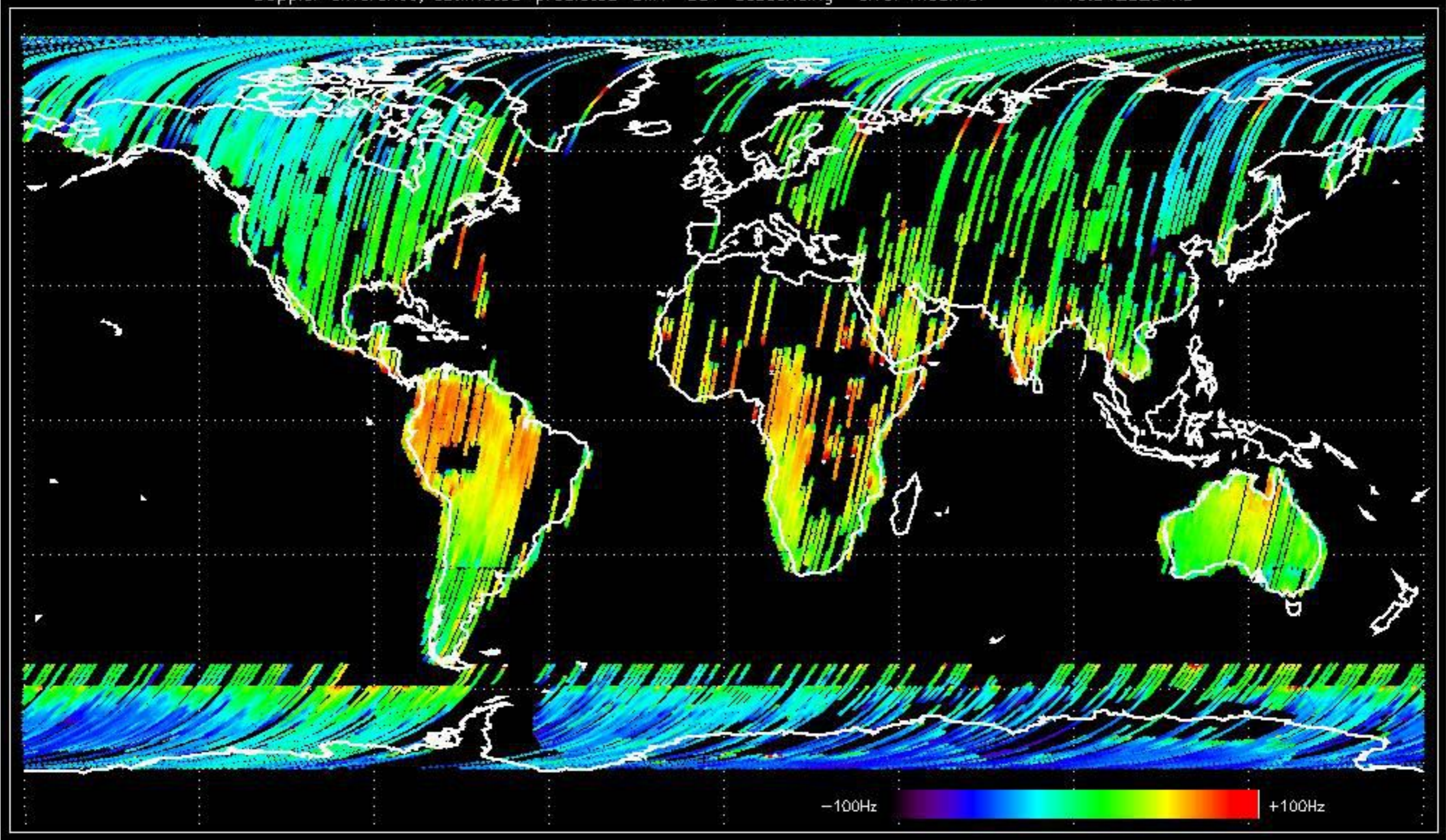




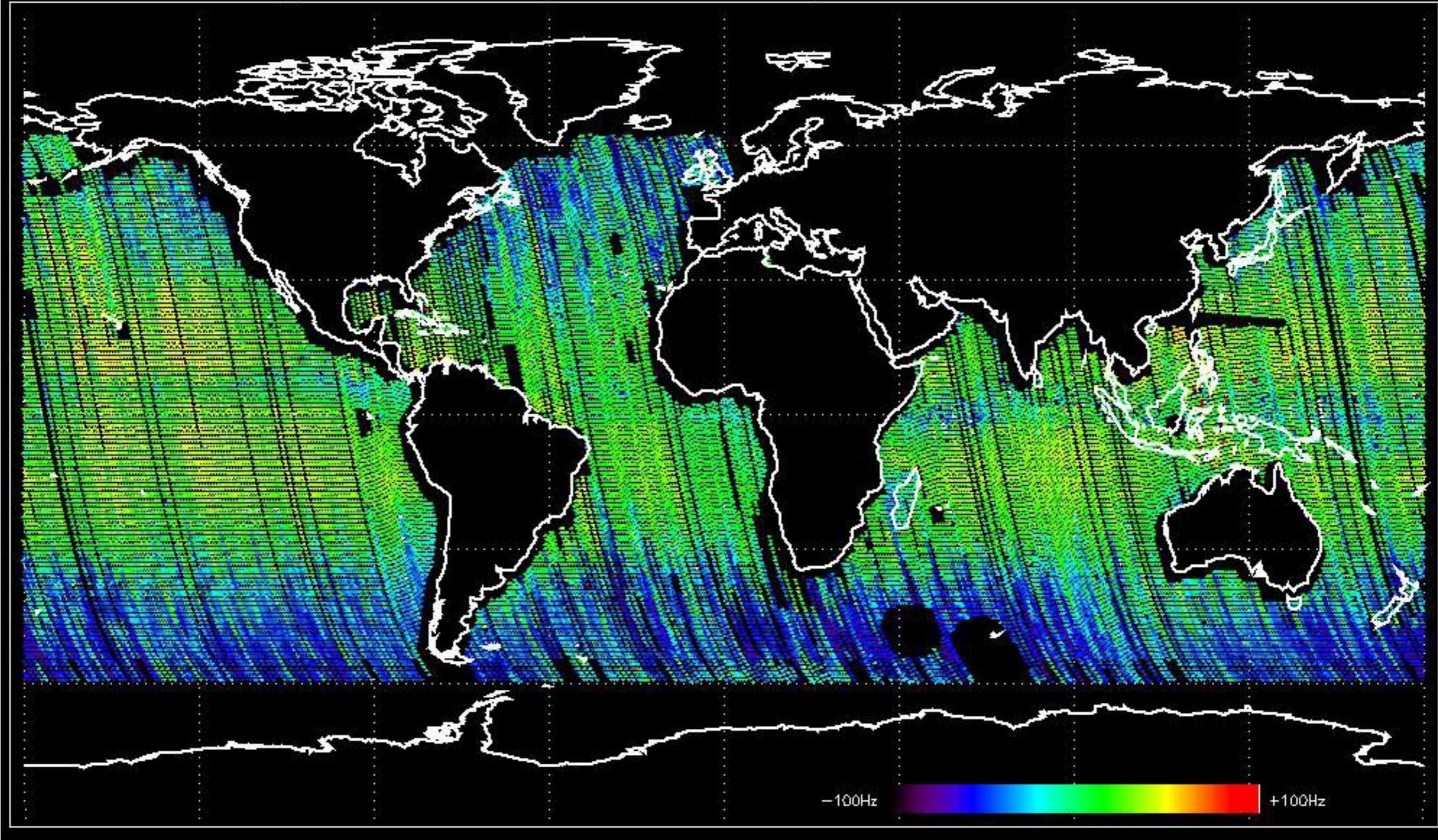
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.739554 Hz



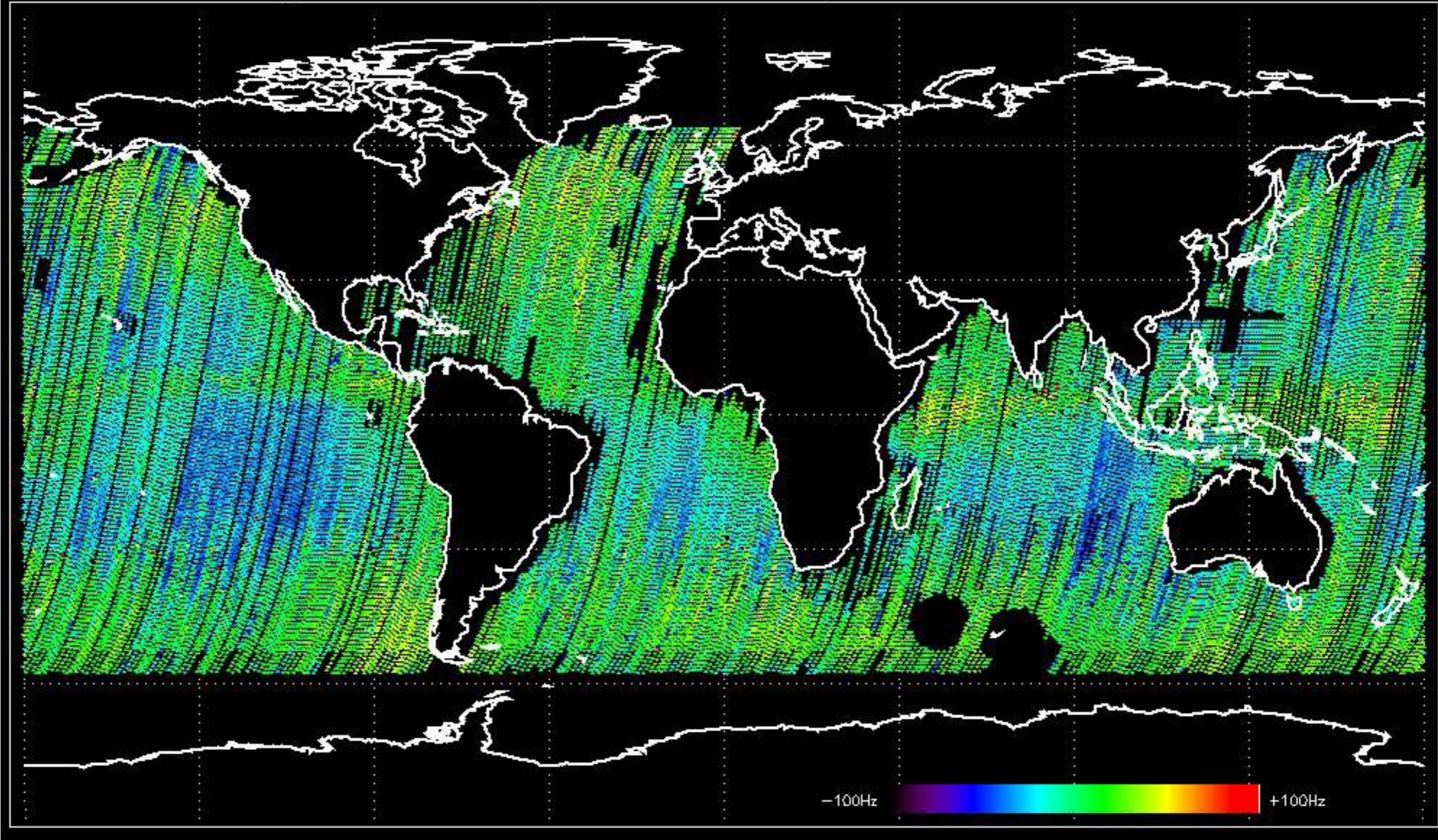
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.812325 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.2046752 Hz

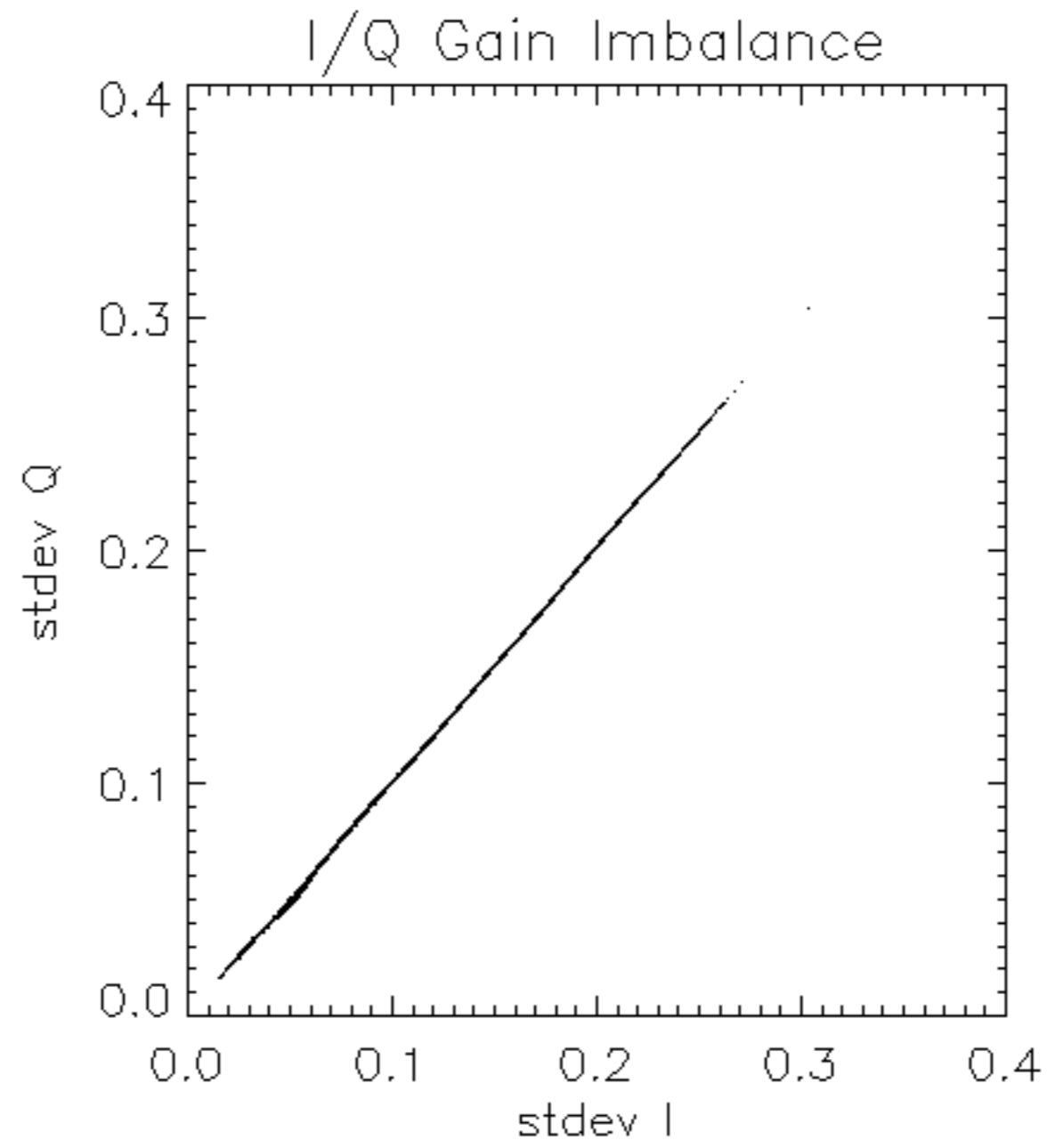


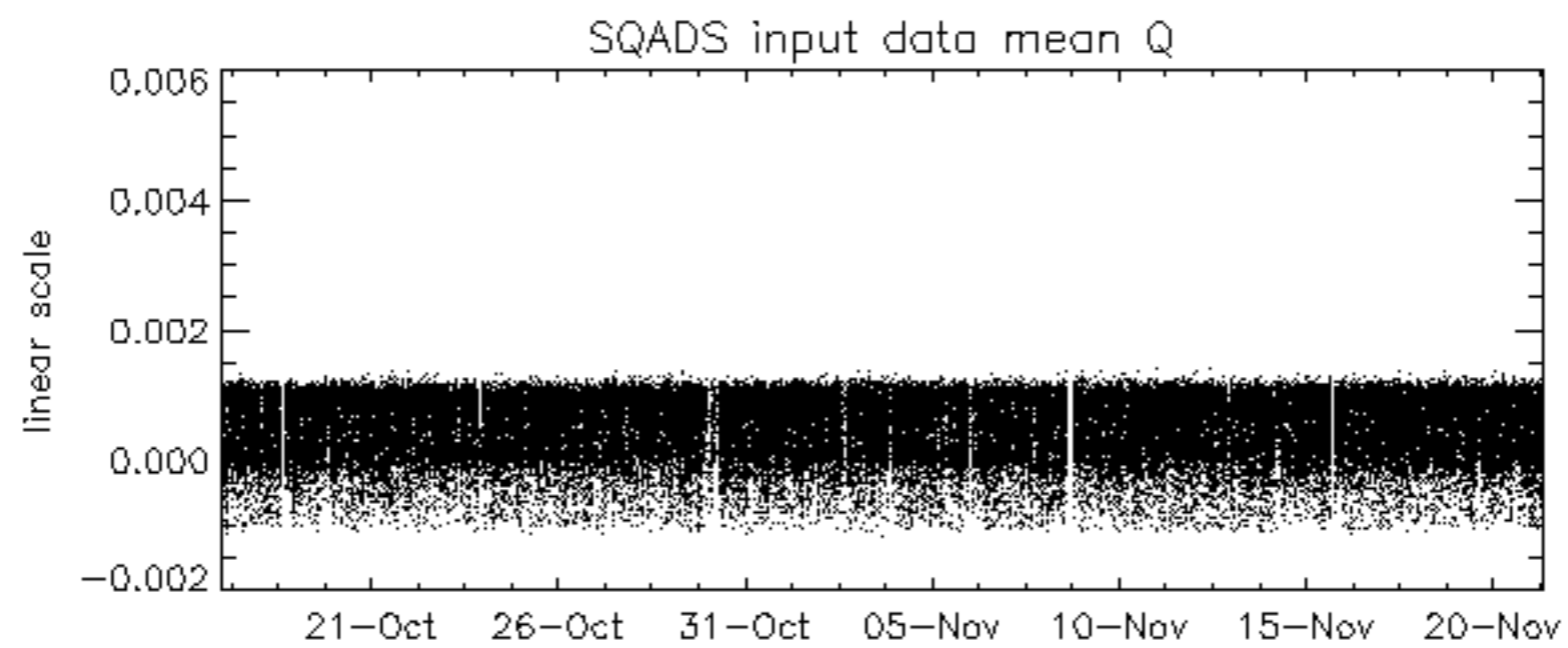
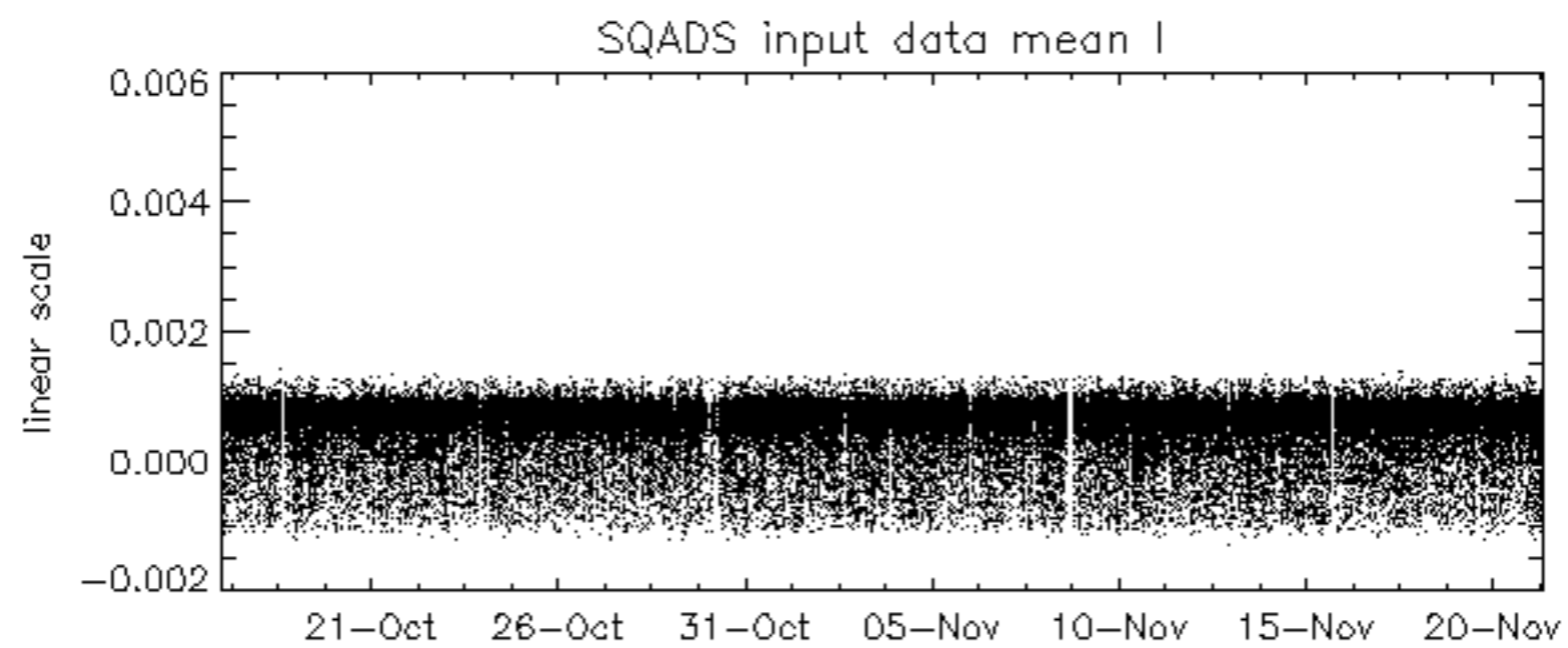
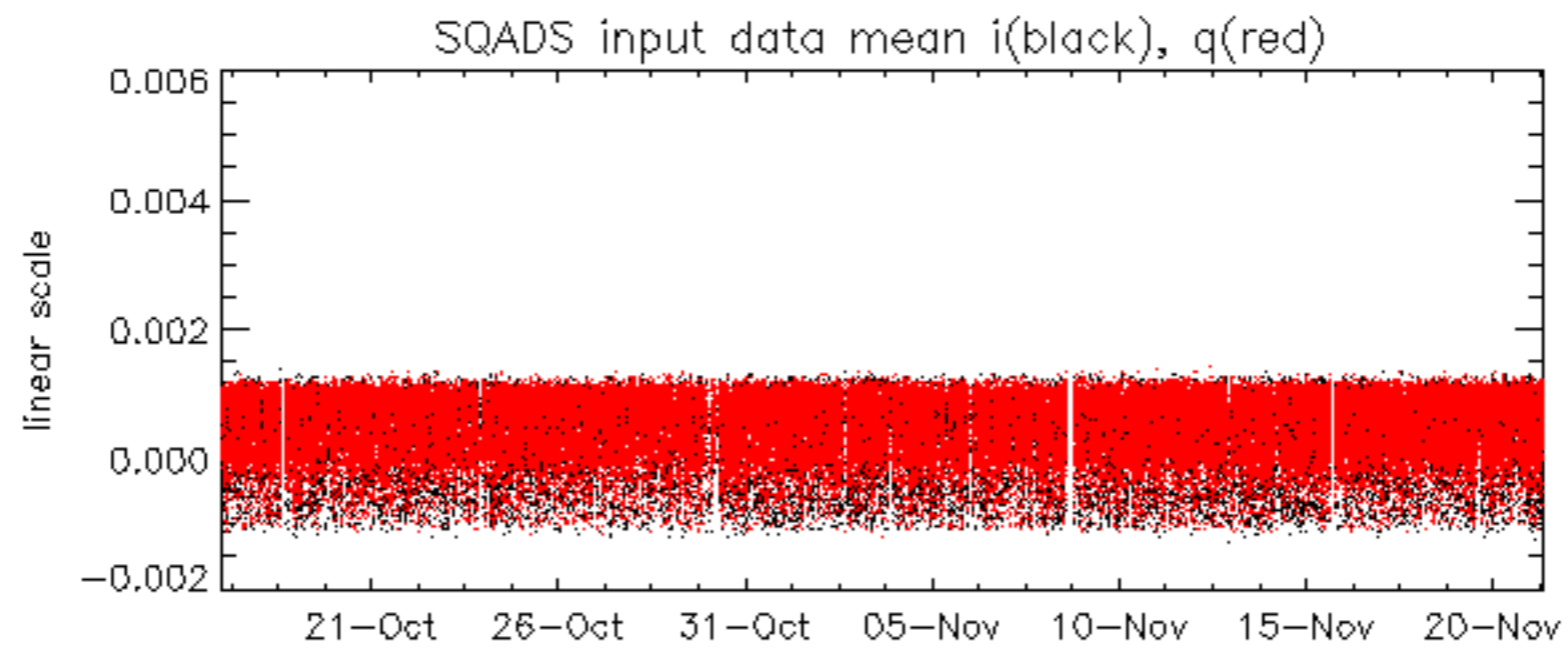
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.3632903 Hz

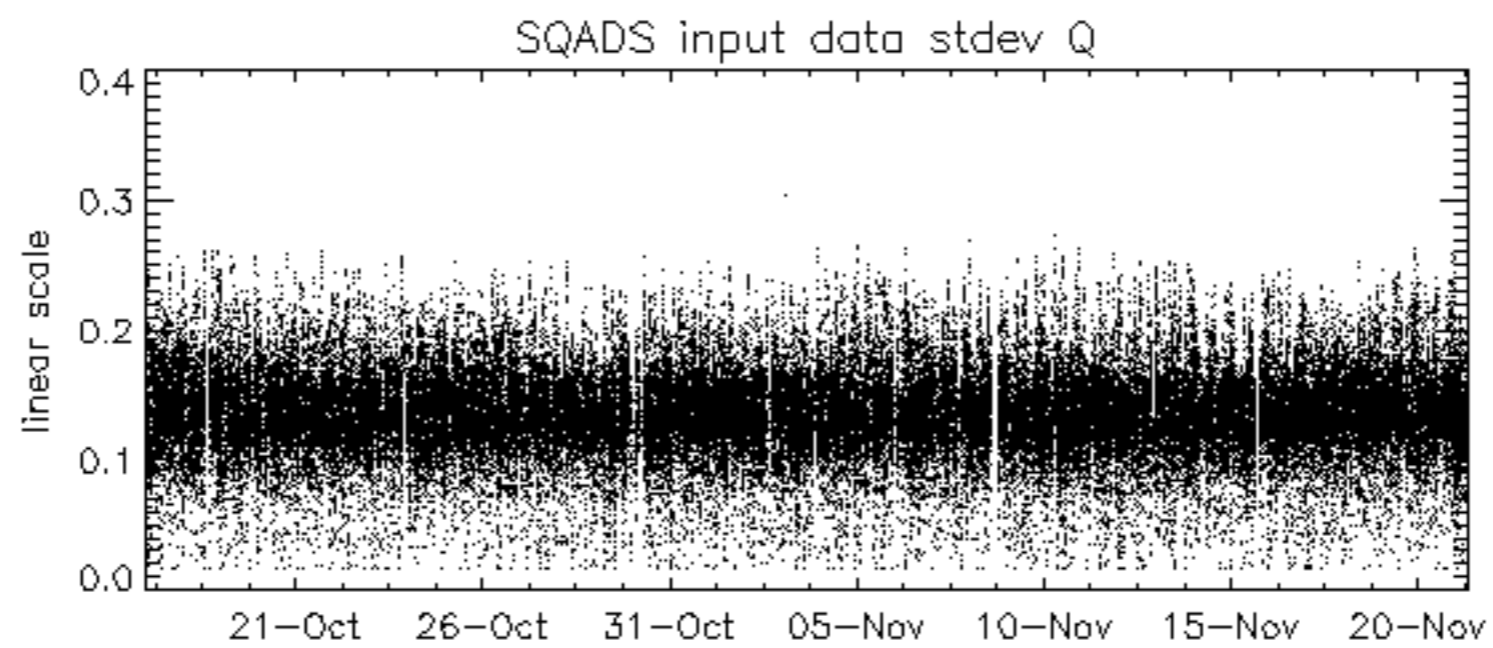
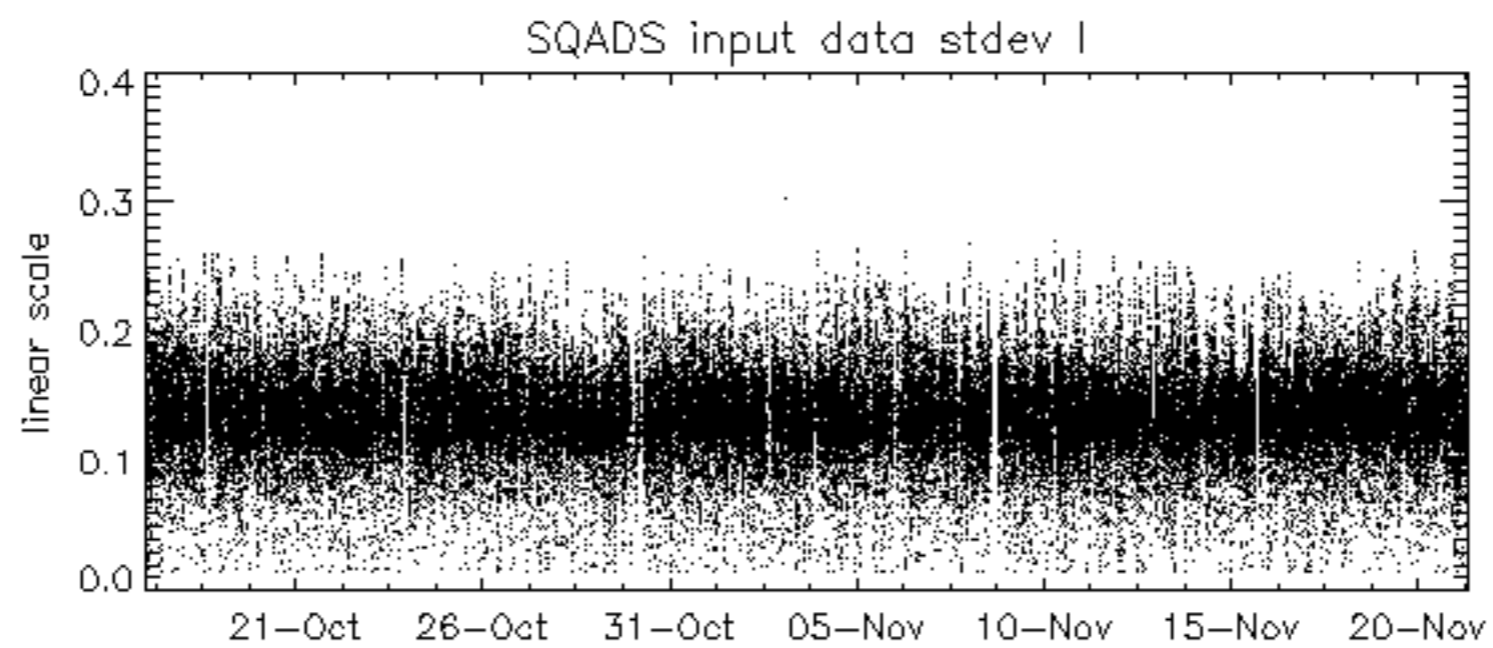
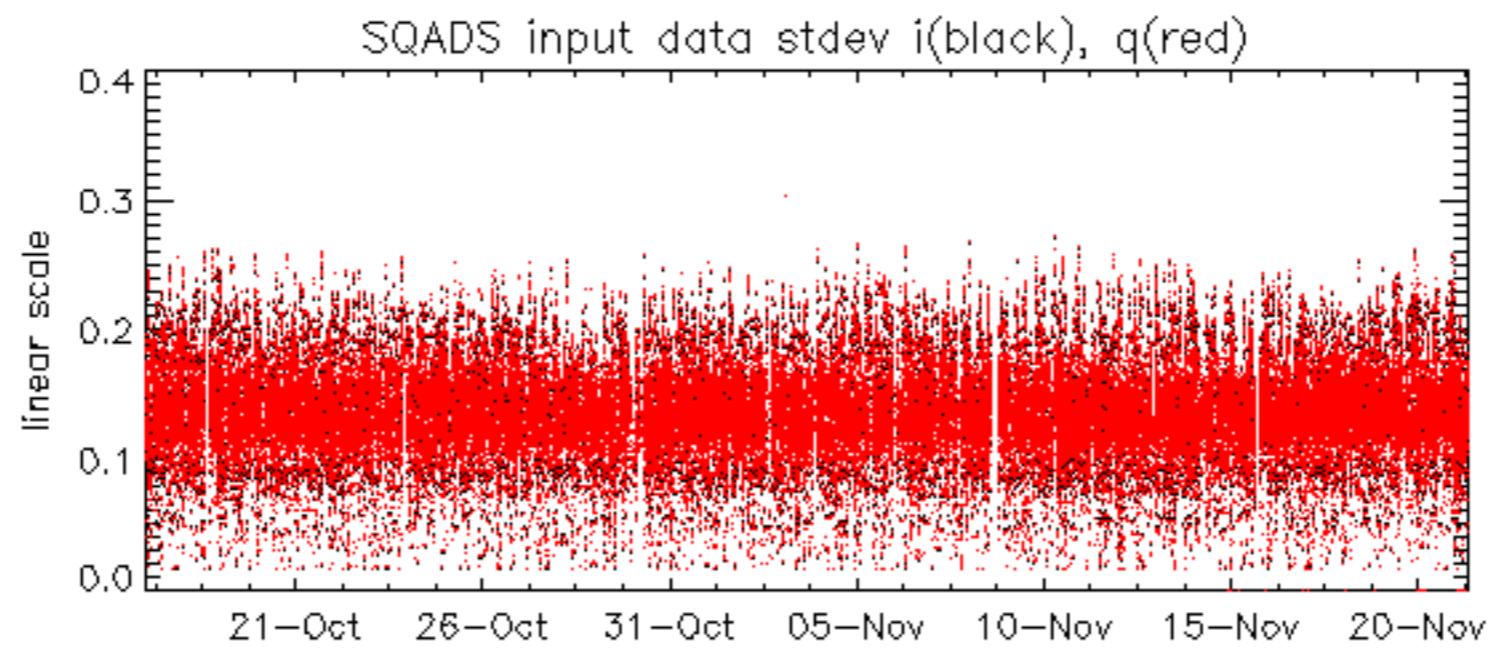


No anomalies observed on available MS products:

No anomalies observed.



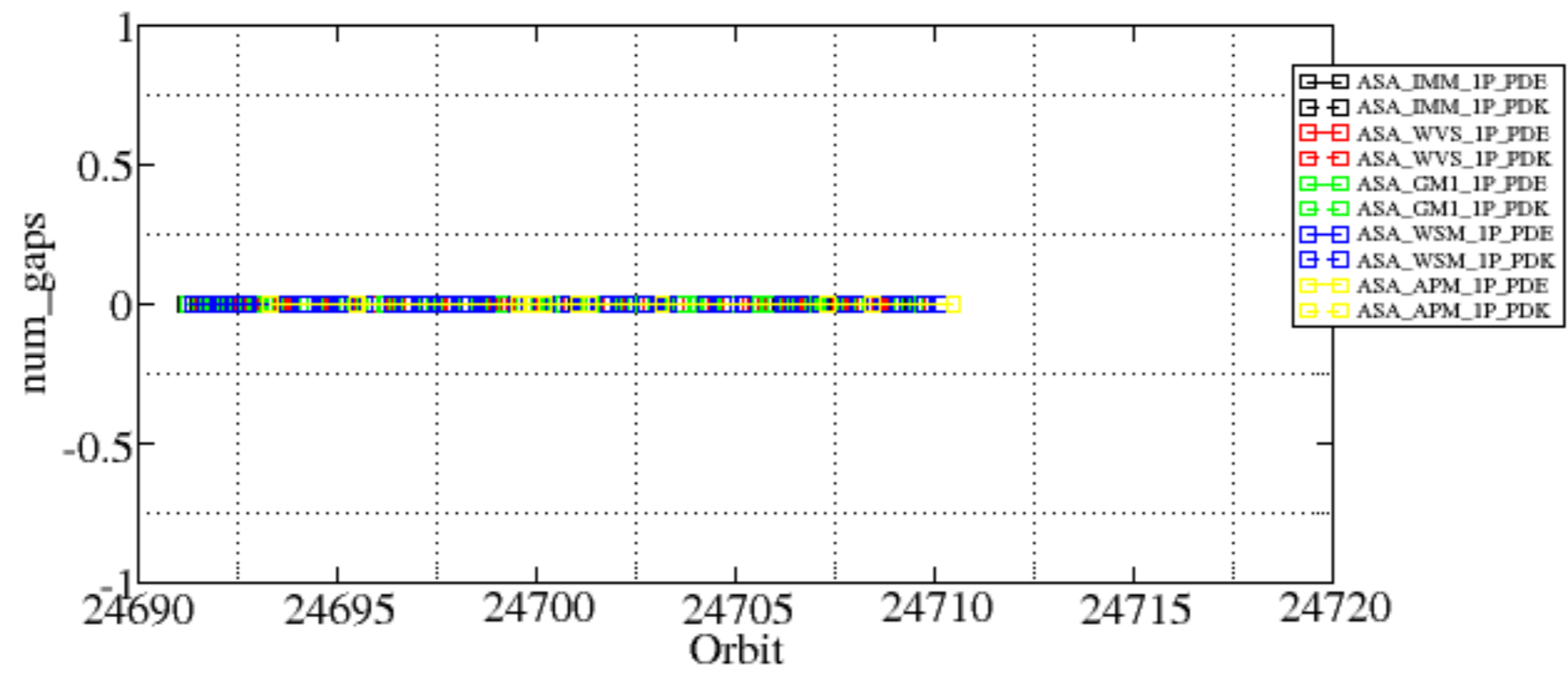


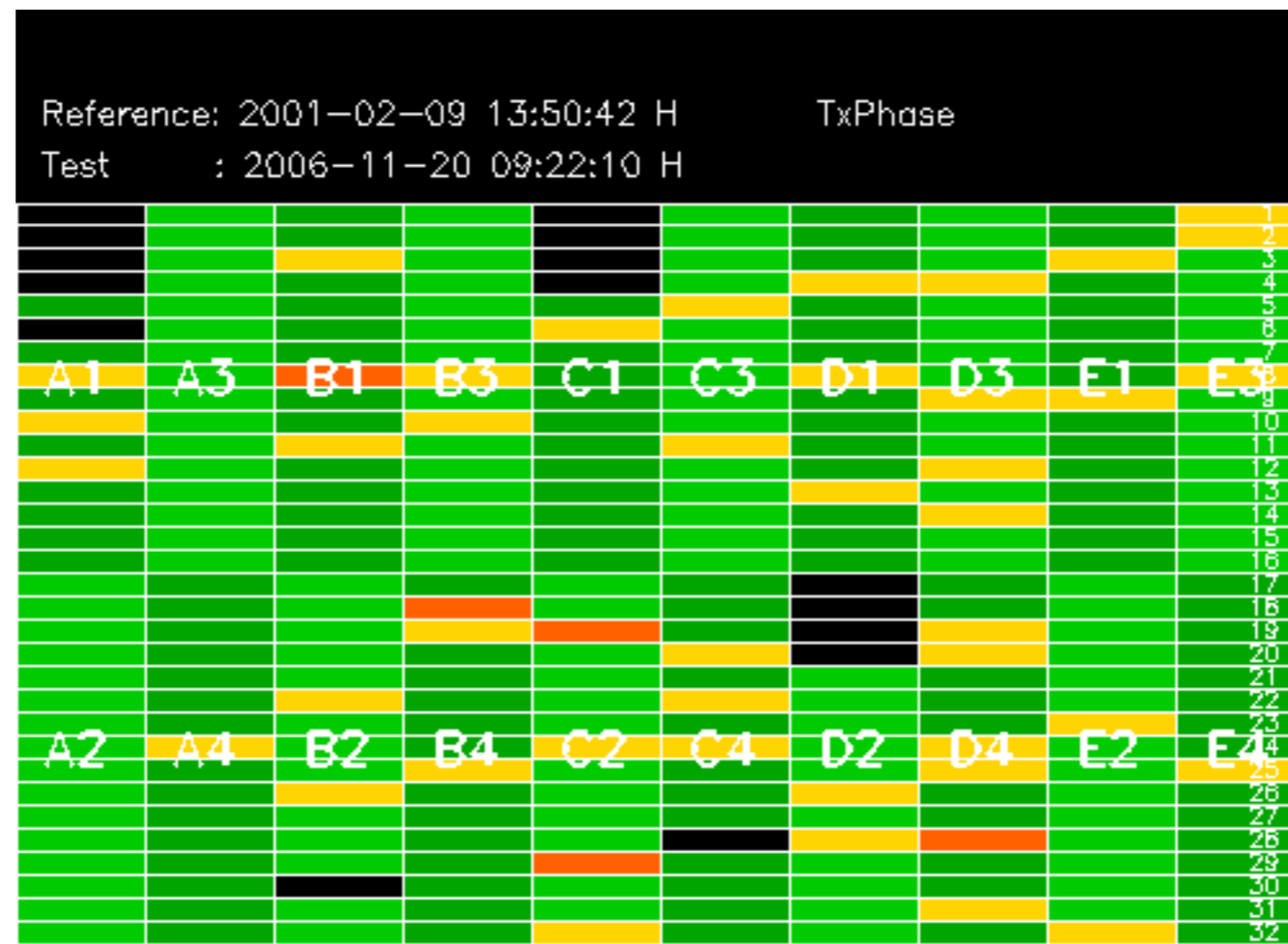


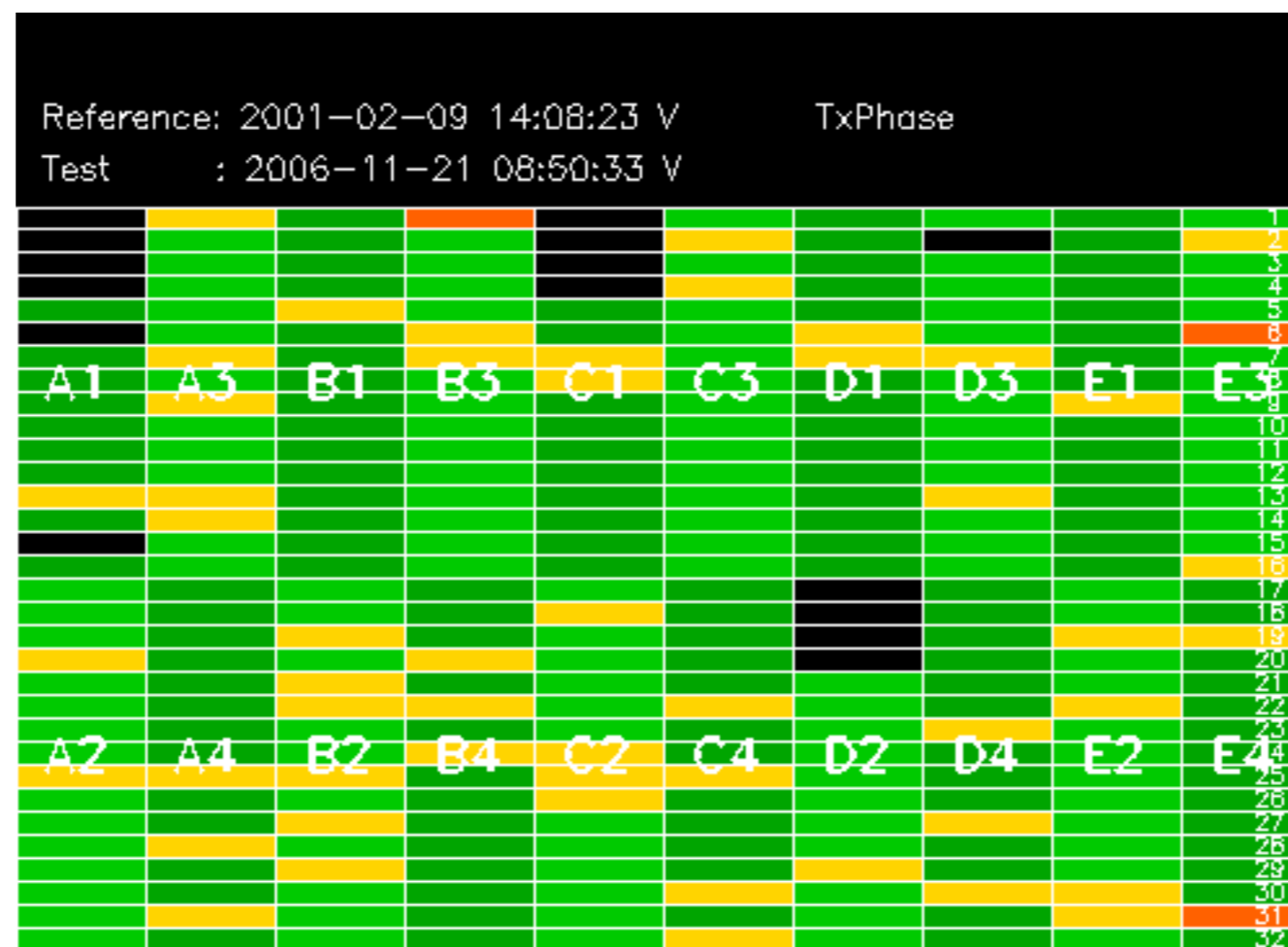
Summary of analysis for the last 3 days 2006112[901]

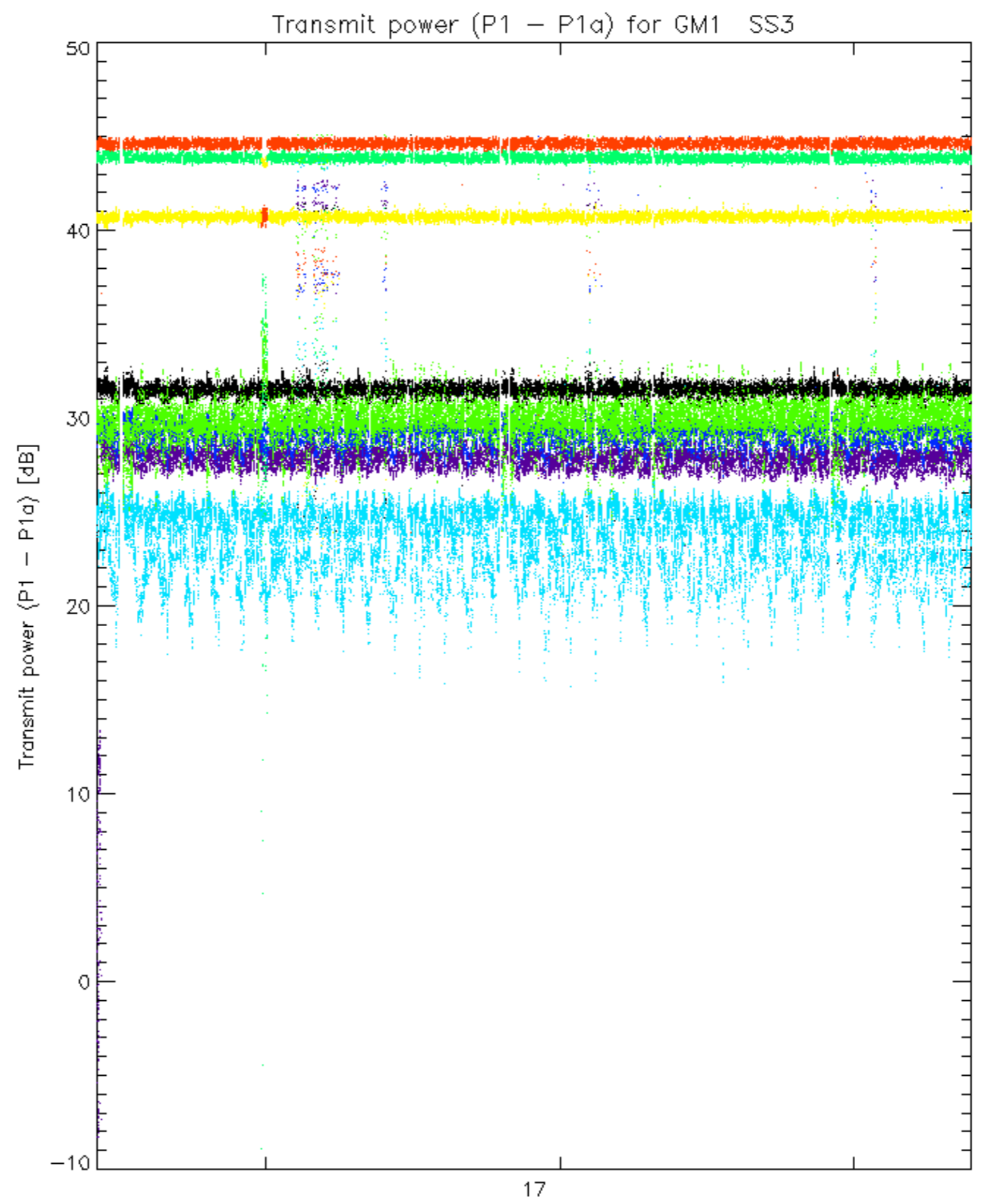
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061120_140442_000002022053_00096_24699_0001.N1	0	34
ASA_WSM_1PNPDE20061120_182348_000001652053_00099_24702_0001.N1	0	18

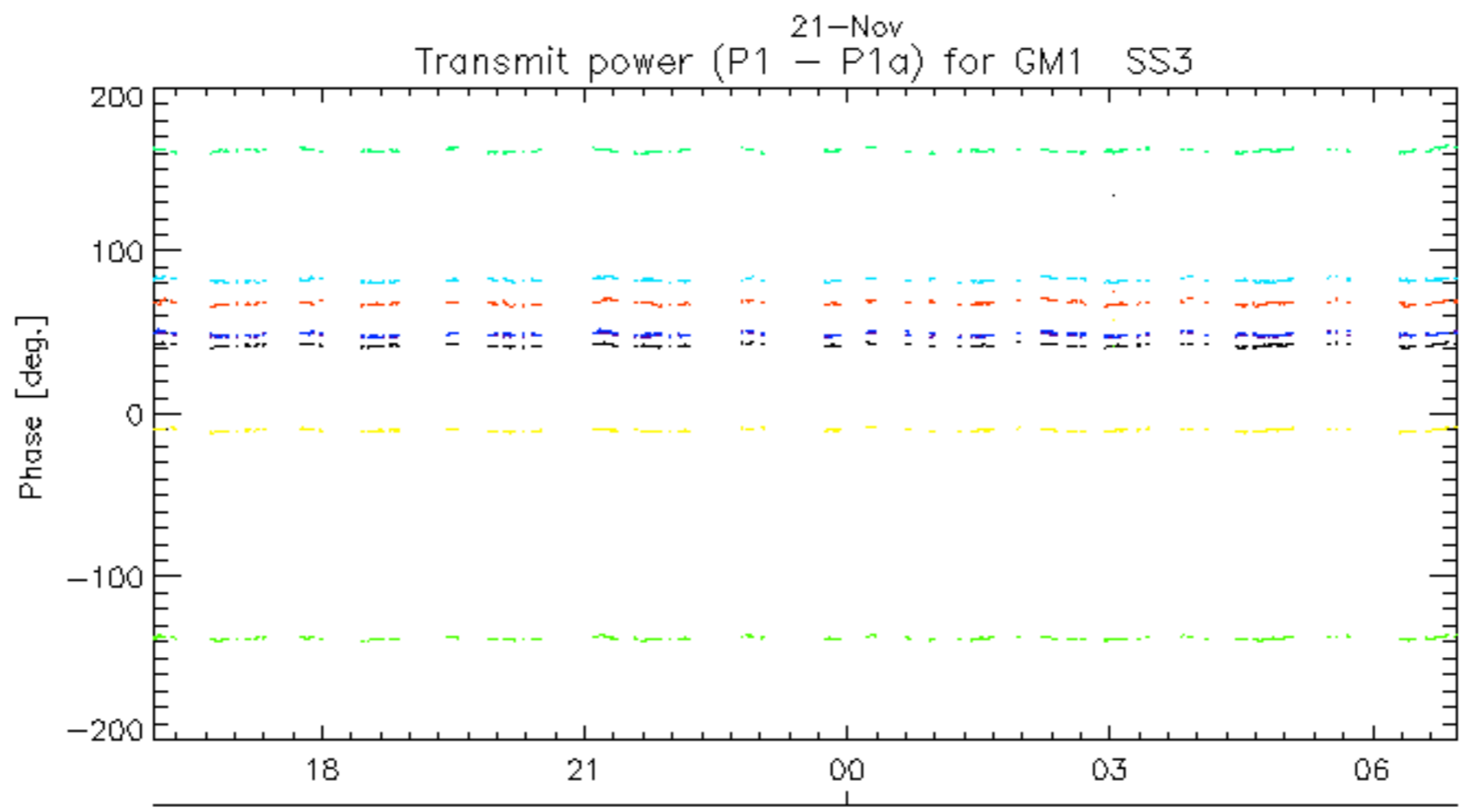
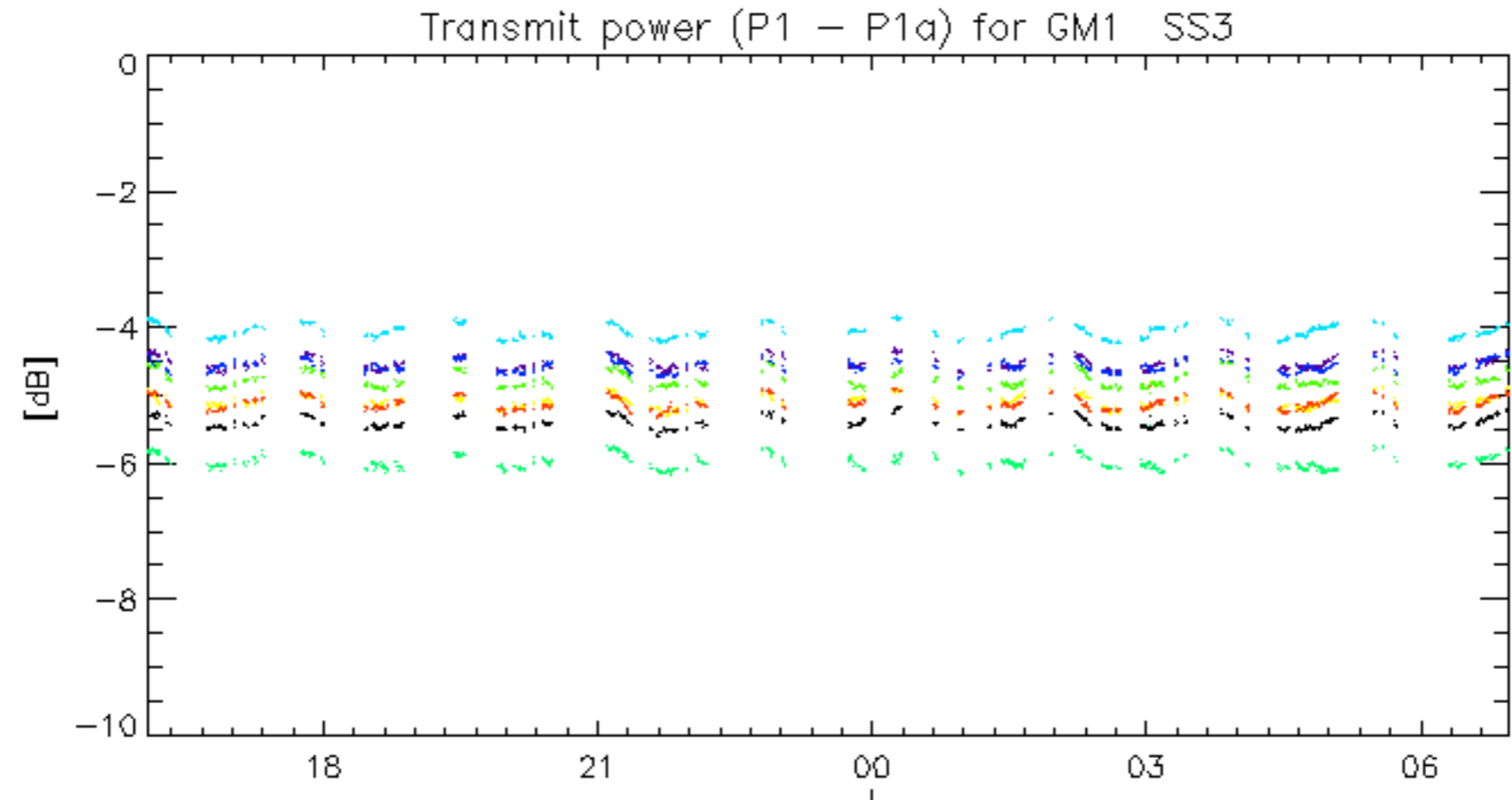




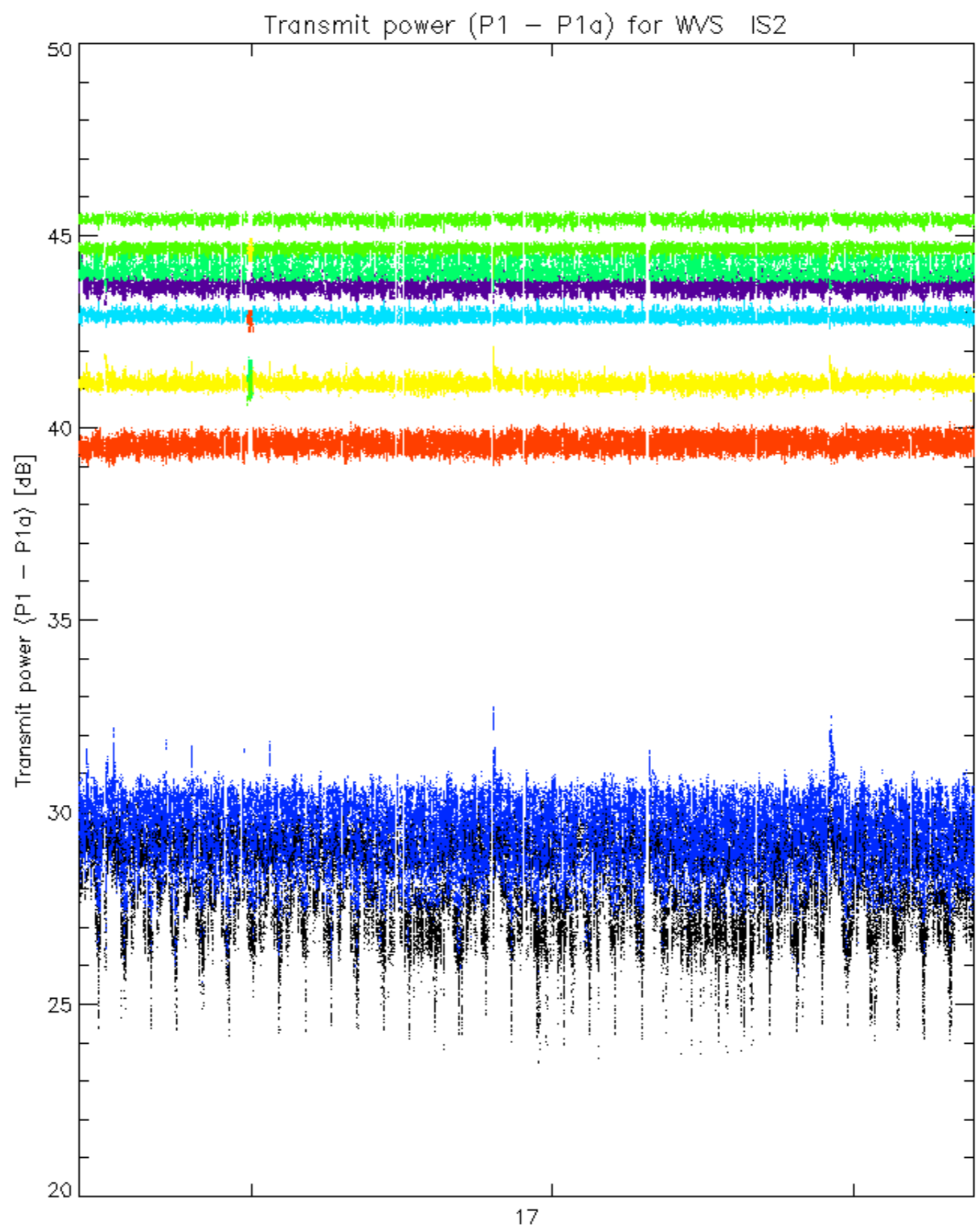


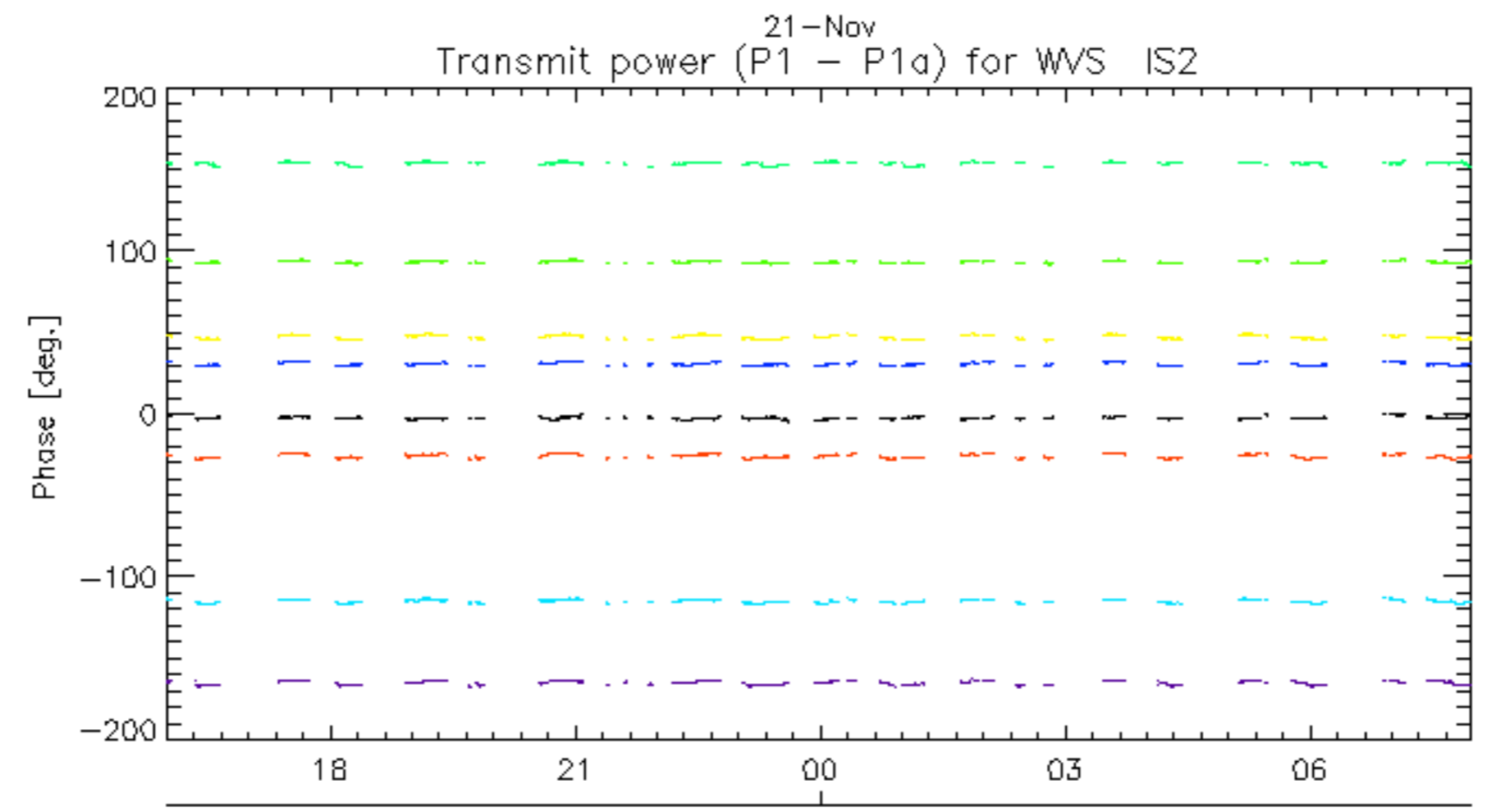
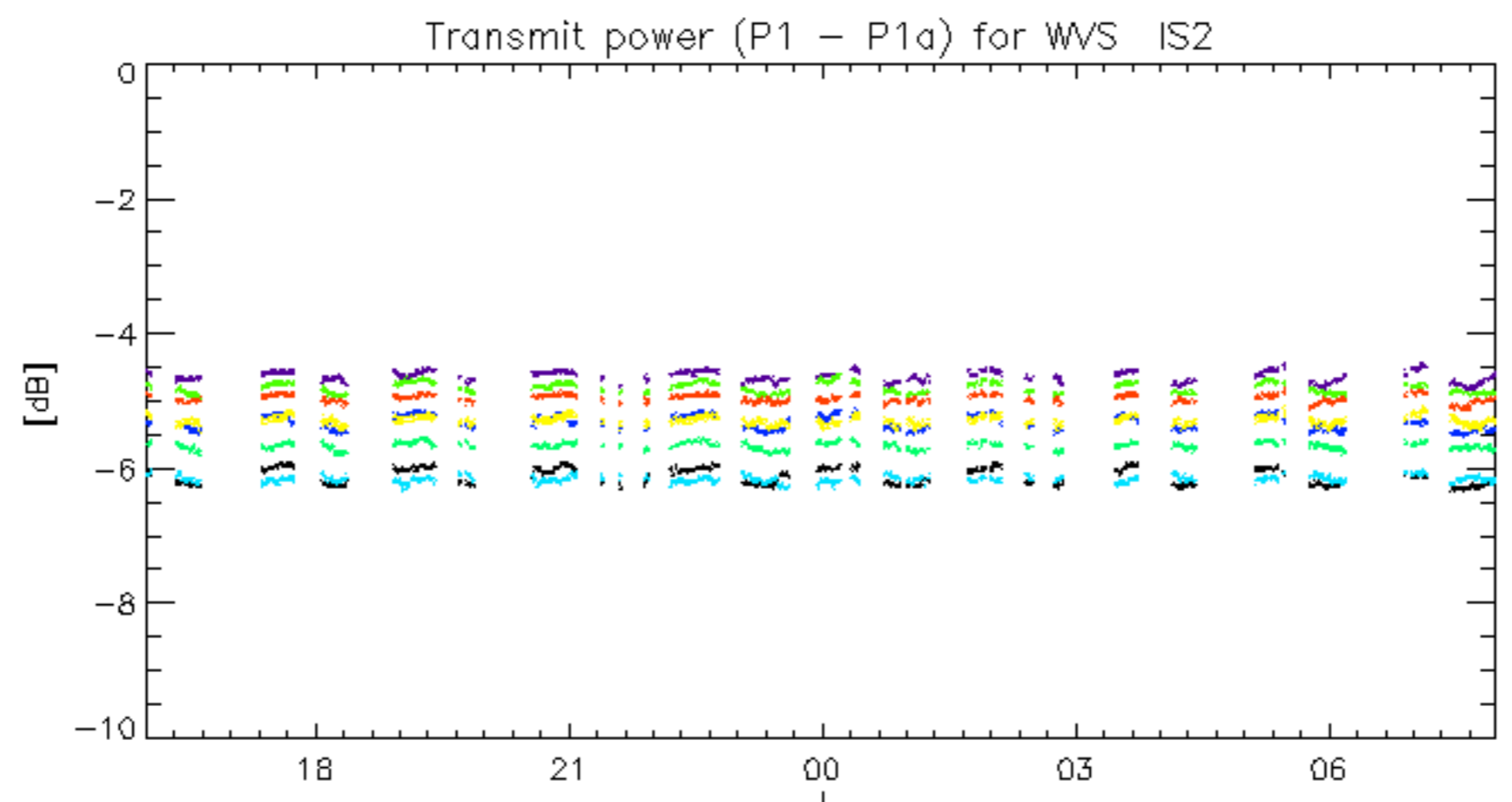


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.