

PRELIMINARY REPORT OF 061105

last update on Sun Nov 5 16:37:45 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 2006-11-04 00:00:00 to 2006-11-05 16:37:45

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	52	85	30	7	11
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	52	85	30	7	11
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	52	85	30	7	11
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	52	85	30	7	11

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	77	97	32	3	22
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	77	97	32	3	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	77	97	32	3	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	77	97	32	3	22

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	20061105 053214
H	20061104 060351

MSM in V/V 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"/>

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	-3.951150	0.009610	-0.015848
7	P1	-3.106101	0.017688	-0.111693
11	P1	-4.109061	0.025185	-0.064166
15	P1	-6.239118	0.016026	-0.125860
19	P1	-3.593150	0.065567	-0.086449
22	P1	-4.644149	0.130142	-0.119911
26	P1	-3.999687	0.125122	0.053206
30	P1	-5.885708	0.237929	-0.025517
3	P1	-16.581062	0.215411	0.320339
7	P1	-17.164038	0.173989	-0.248545
11	P1	-17.077921	0.432057	-0.083545
15	P1	-12.926397	0.120219	-0.414354
19	P1	-14.799021	0.367938	-0.347844
22	P1	-15.673780	0.493926	-0.664808
26	P1	-15.075564	0.251016	-0.072794
30	P1	-17.114256	0.694869	-0.818102

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.835808	0.088468	-0.048450
7	P2	-21.749546	0.095525	0.067882
11	P2	-15.696845	0.107816	0.117680
15	P2	-7.084850	0.108883	-0.119928
19	P2	-9.147378	0.102198	-0.131714
22	P2	-18.170511	0.097092	-0.167607
26	P2	-16.465830	0.108271	-0.207760
30	P2	-19.466434	0.091823	-0.032465

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.211664	0.007644	-0.058176
7	P3	-8.211664	0.007644	-0.058176
11	P3	-8.211664	0.007644	-0.058176
15	P3	-8.211664	0.007644	-0.058176
19	P3	-8.211664	0.007644	-0.058176
22	P3	-8.211664	0.007644	-0.058176
26	P3	-8.211574	0.007664	-0.058464
30	P3	-8.211574	0.007664	-0.058464

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	-3.925230	0.189921	0.099648
7	P1	-2.621633	1.200077	0.479878
11	P1	-2.903747	0.147496	0.184059
15	P1	-3.700475	0.135175	0.138720
19	P1	-3.524180	0.155605	-0.109111
22	P1	-5.070055	0.114870	-0.006182
26	P1	-6.000590	0.293640	-0.141386
30	P1	-5.300658	0.192949	-0.157635
3	P1	-11.756480	0.466955	0.247470
7	P1	-10.158988	1.529440	0.567225
11	P1	-10.423581	0.420907	0.471630
15	P1	-10.892354	0.572967	0.619745
19	P1	-15.758615	2.771878	-0.351648
22	P1	-21.137571	1.667676	-0.876664
26	P1	-15.938571	0.462954	-0.582267
30	P1	-17.986410	0.549343	0.396219

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.381495	0.288810	-0.353111
7	P2	-22.036005	1.641711	-0.867141
11	P2	-10.872362	0.252628	-0.302297
15	P2	-4.919201	0.072938	-0.195179
19	P2	-6.902378	0.154943	-0.209121
22	P2	-8.269840	0.533200	0.044179
26	P2	-24.161455	1.233207	-0.695601
30	P2	-21.875237	0.624747	-0.362922

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.068287	0.003247	-0.057185
7	P3	-8.068254	0.003216	-0.057297
11	P3	-8.068182	0.003221	-0.057709
15	P3	-8.068151	0.003218	-0.056868
19	P3	-8.068199	0.003219	-0.057238
22	P3	-8.068059	0.003225	-0.057311
26	P3	-8.068012	0.003209	-0.058231
30	P3	-8.068077	0.003215	-0.058371

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	0.000556013
	stdev	1.71097e-07
MEAN Q	mean	0.000522708
	stdev	2.17508e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137352
	stdev	0.00110609
STDEV Q	mean	0.137718
	stdev	0.00112308



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006110[345]

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_1PNPDK20061104_182651_00000352052_00371_24473_3469.N1	0	16
ASA_GM1_1PNPDK20061104_145005_000002232052_00368_24470_7981.N1	0	15
ASA_WSM_1PNPDE20061103_011004_000002262052_00346_24448_0001.N1	0	63
ASA_WSM_1PNPDE20061104_004249_000002012052_00360_24462_0001.N1	0	29
ASA_WSM_1PNPDK20061103_135442_000000862052_00354_24456_9305.N1	0	24







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)



Ascending



Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler



Ascending



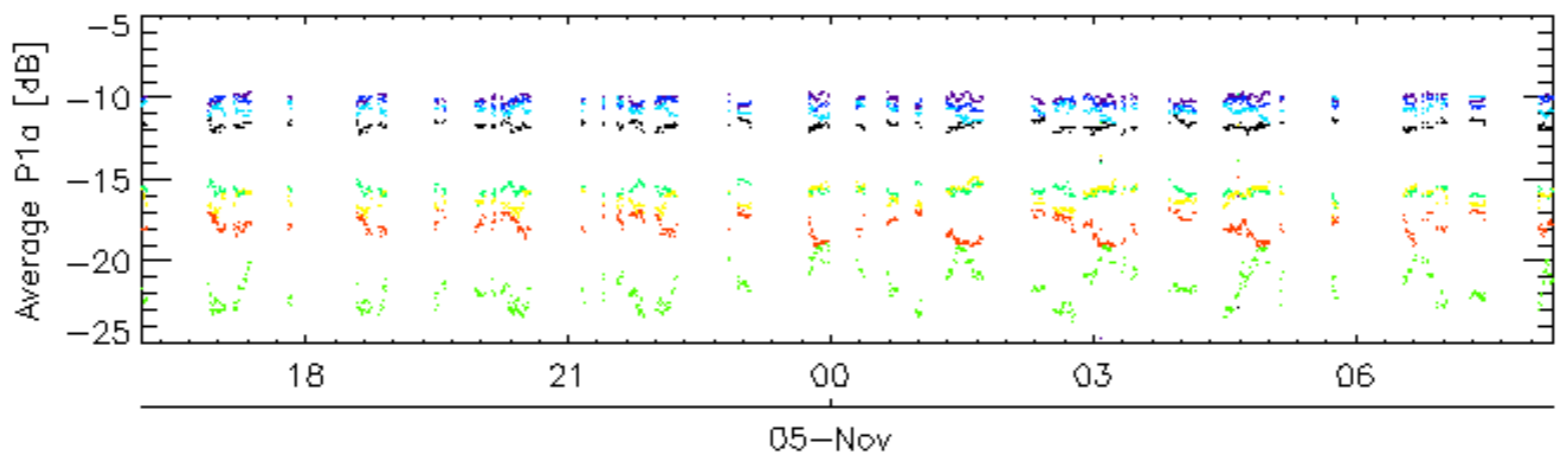
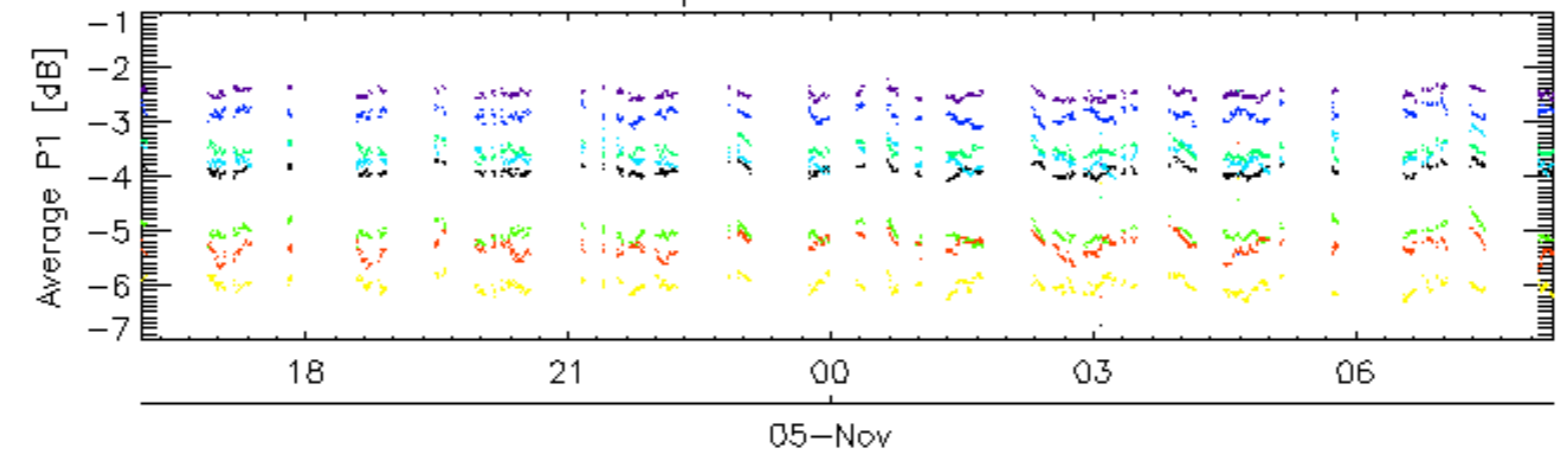
Descending

7.6 - Doppler evolution versus ANX for GM1

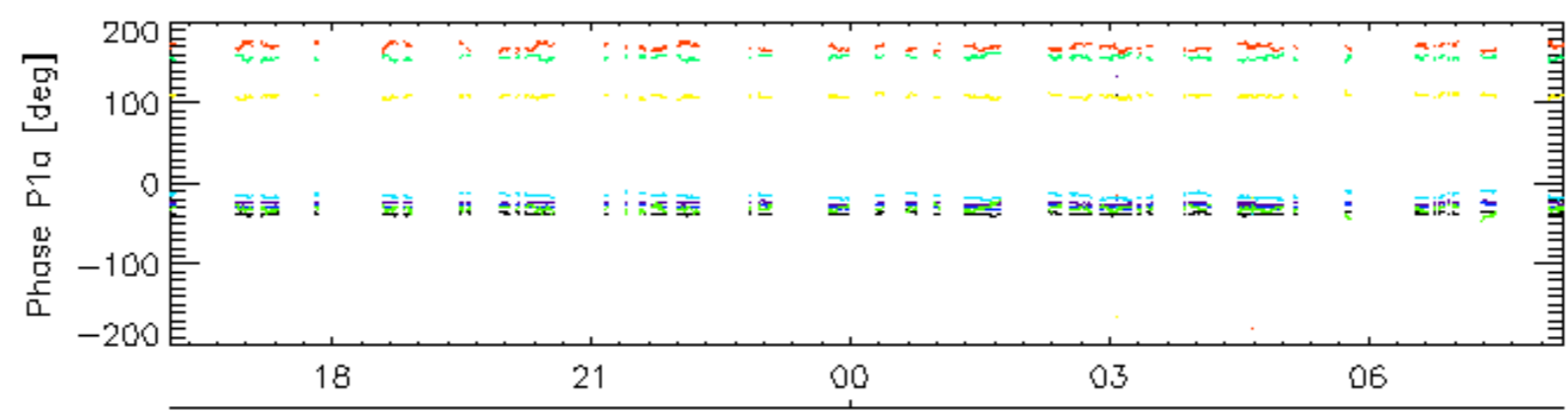
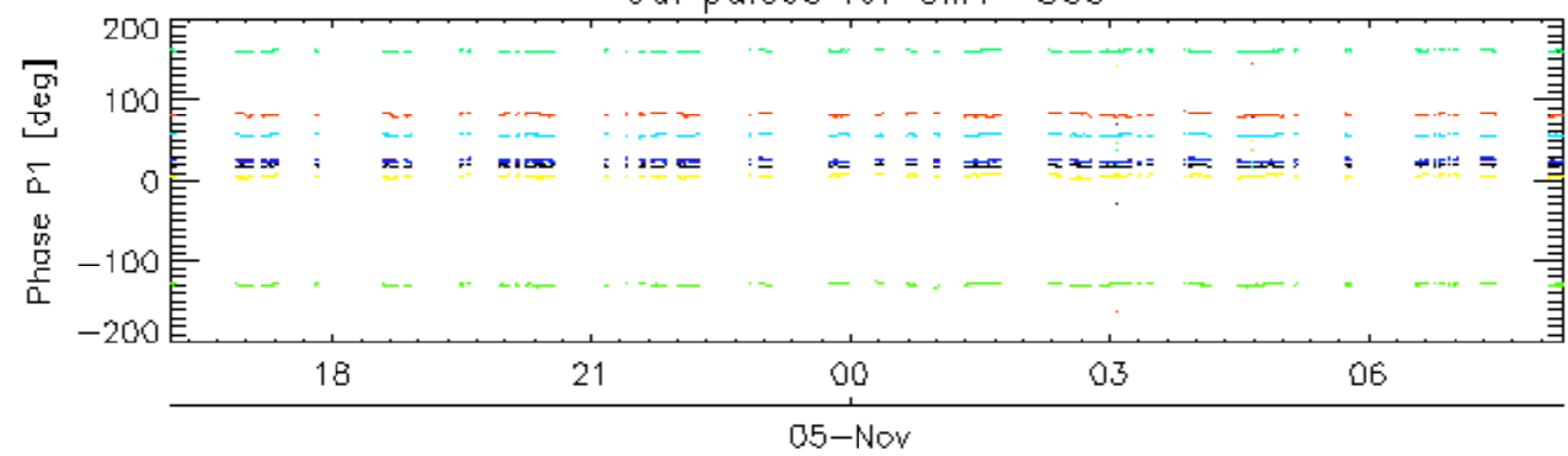
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

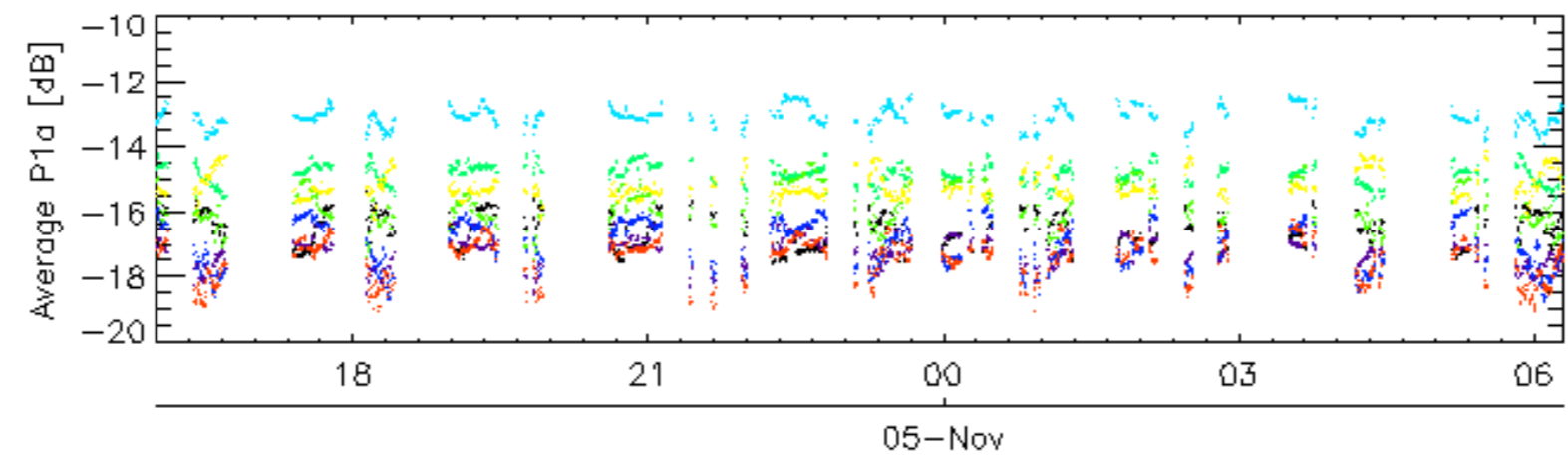
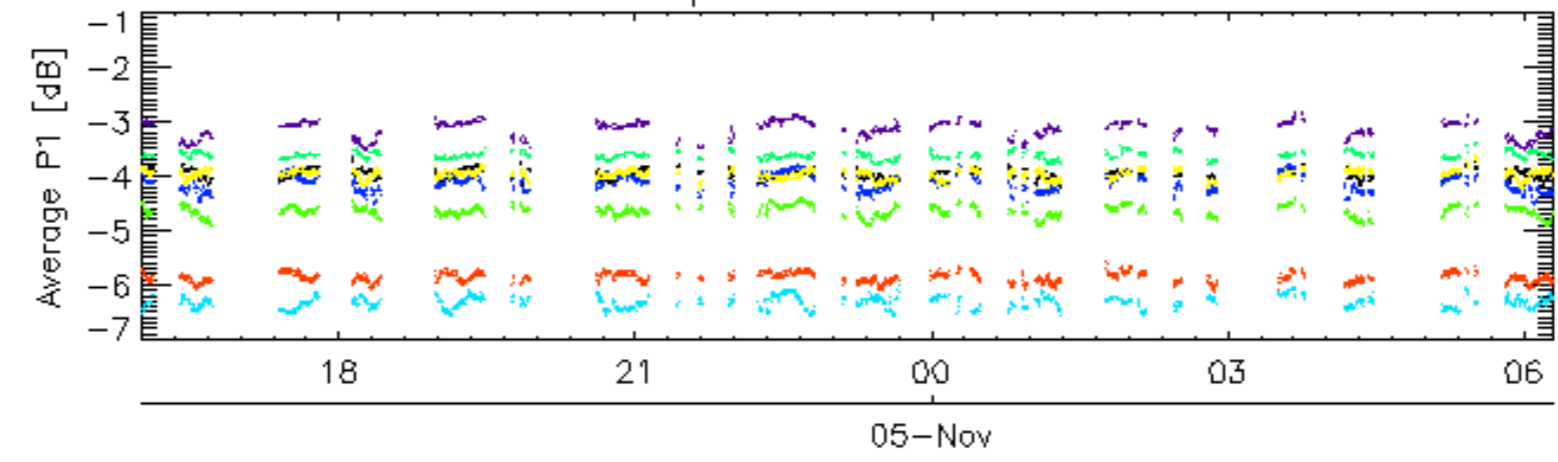


Cal pulses for GM1 SS3

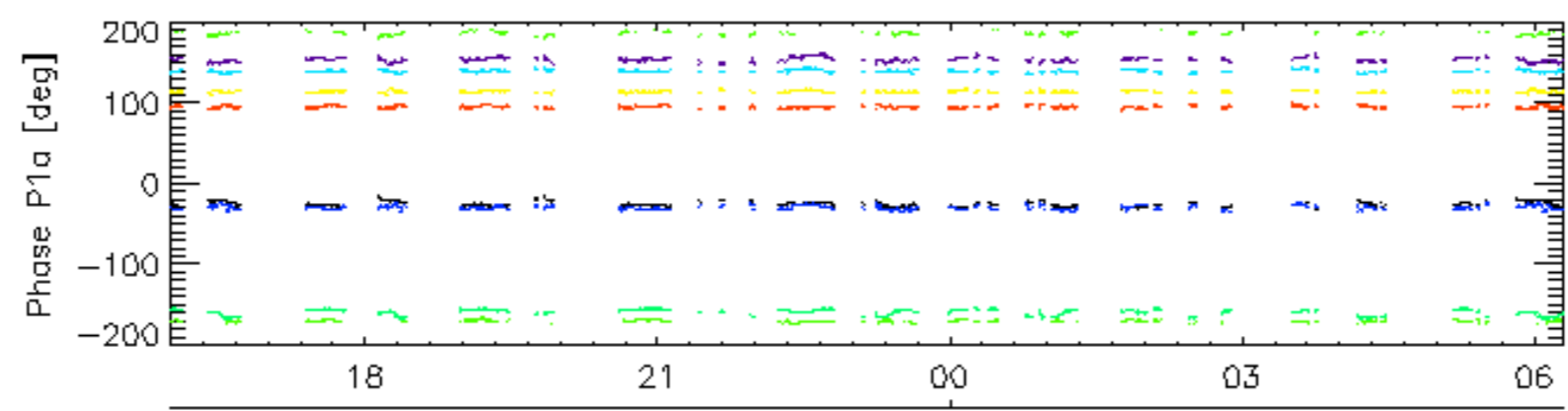
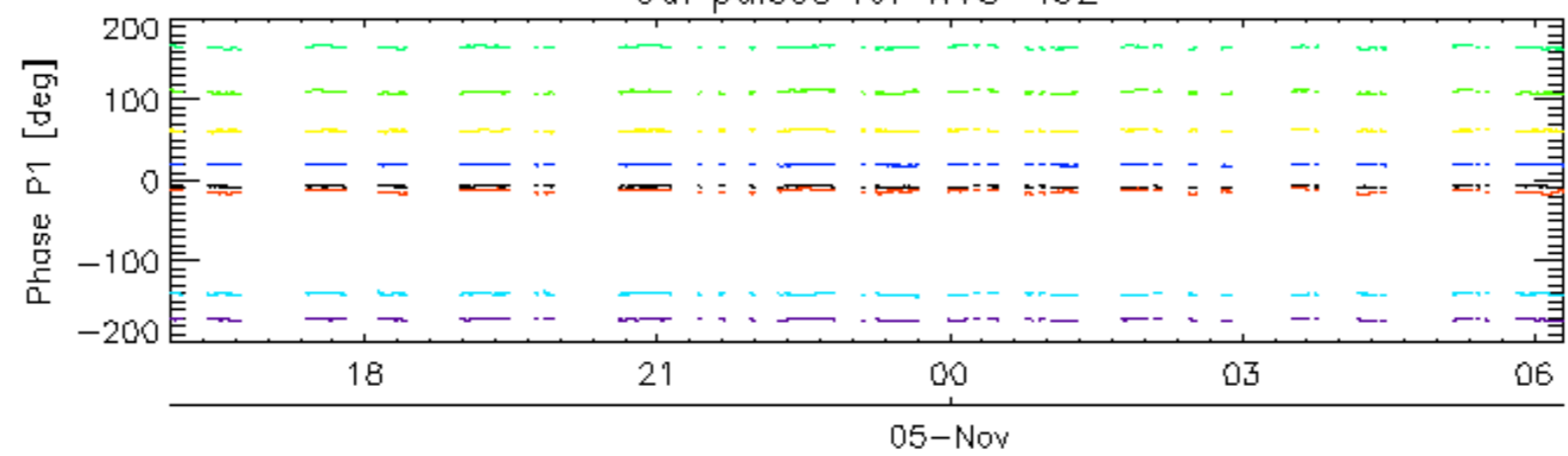


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

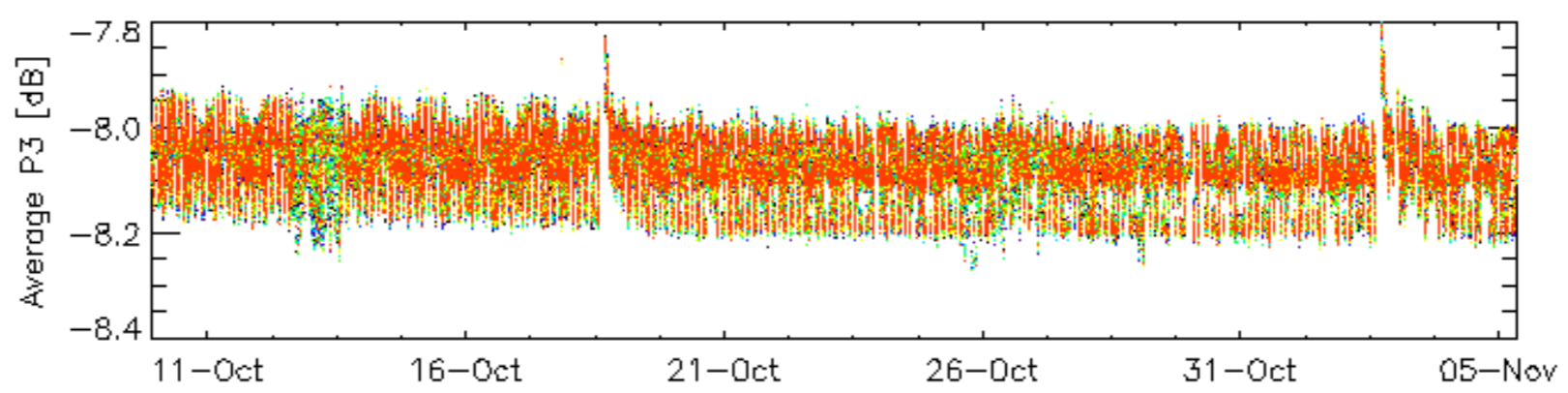
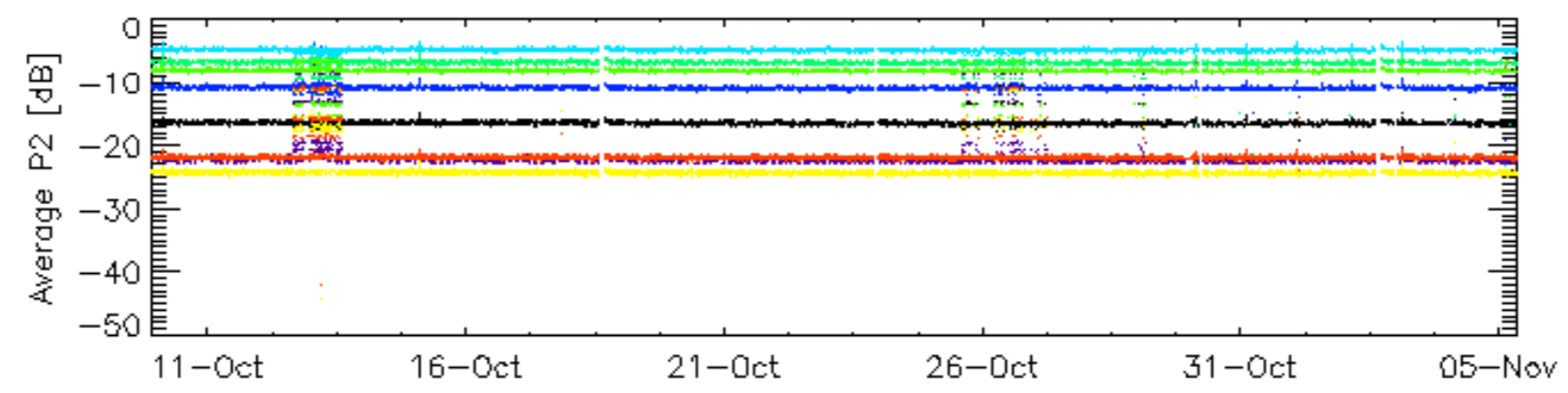
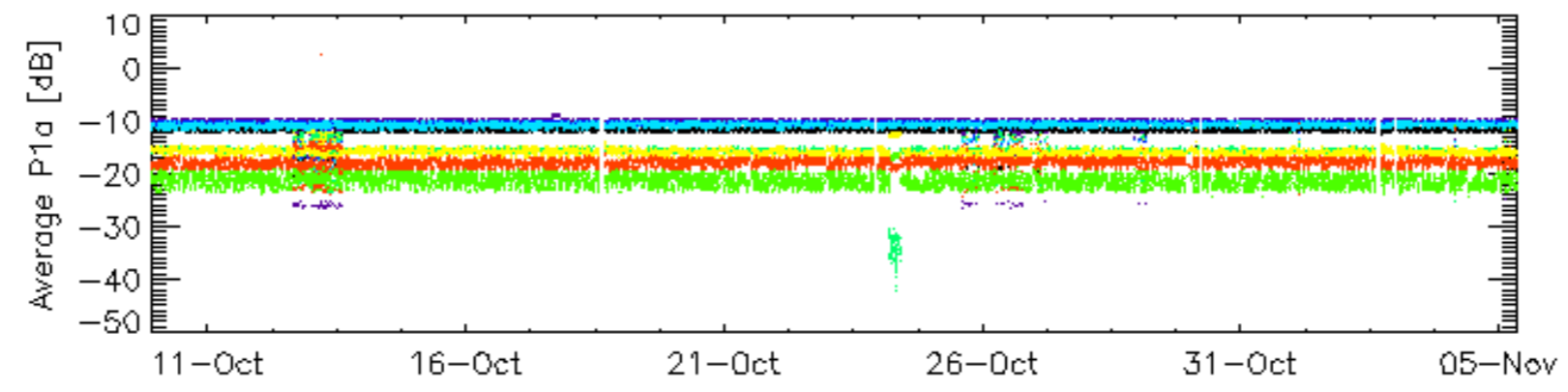
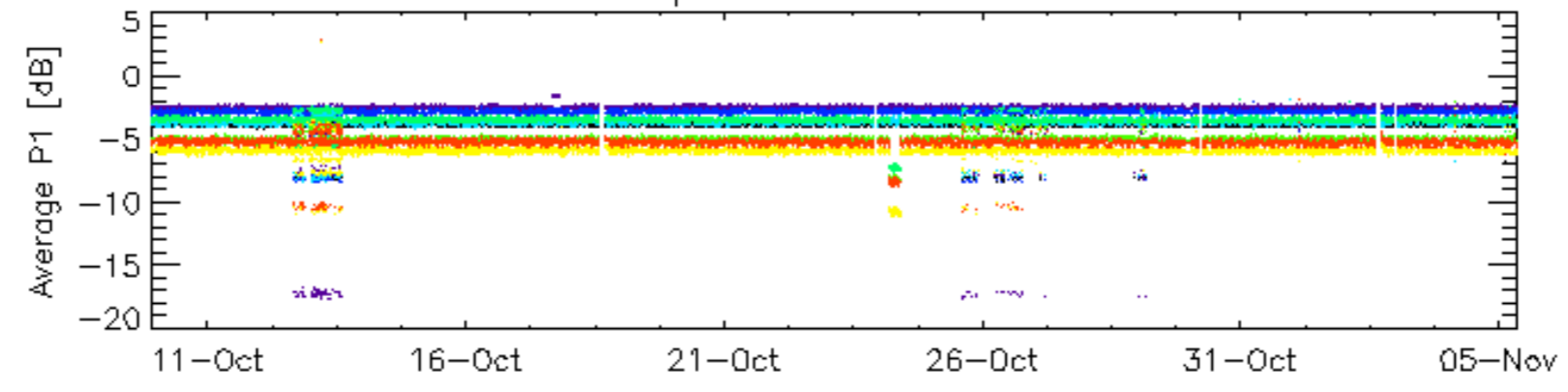


Cal pulses for WVS IS2



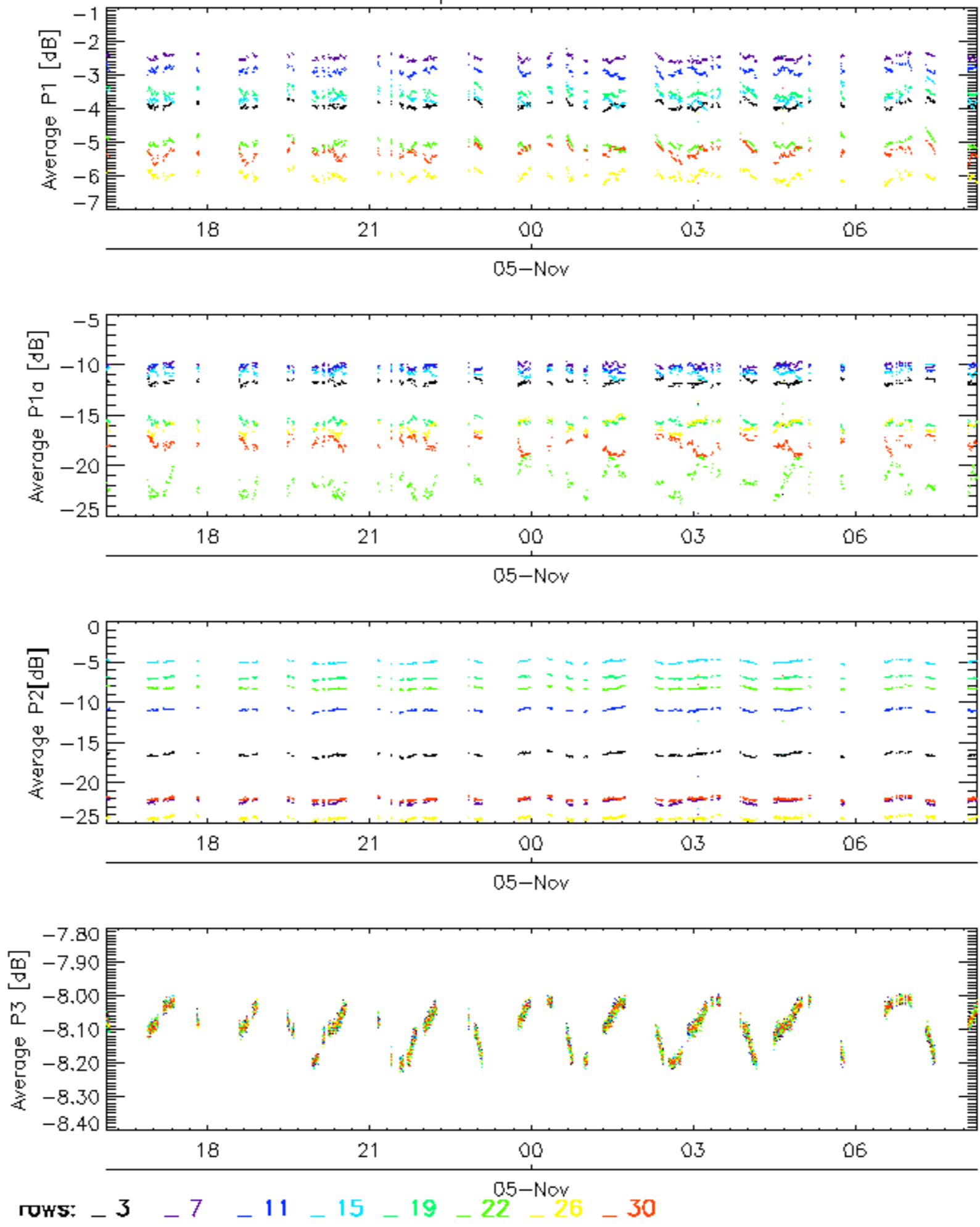
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

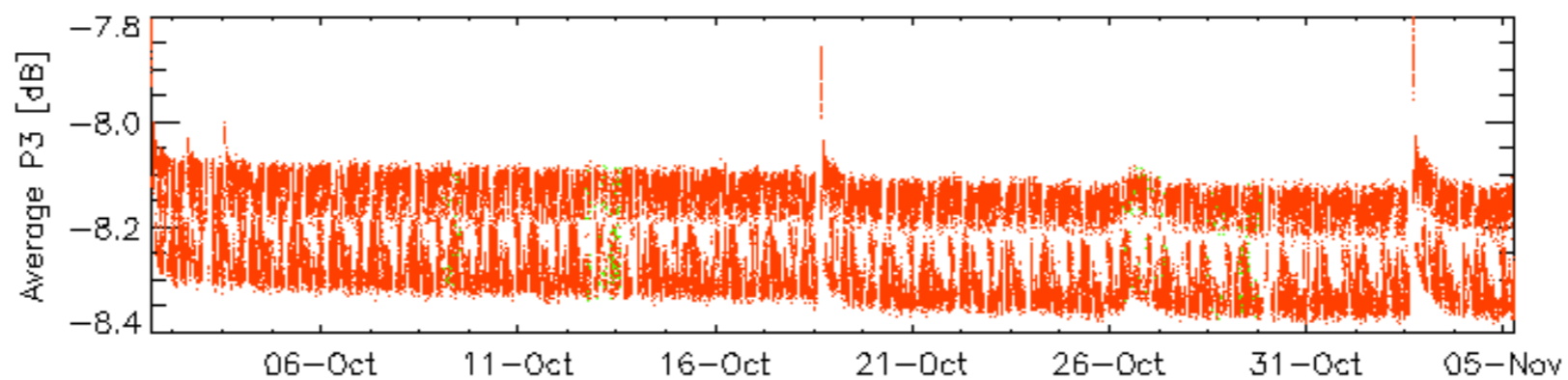
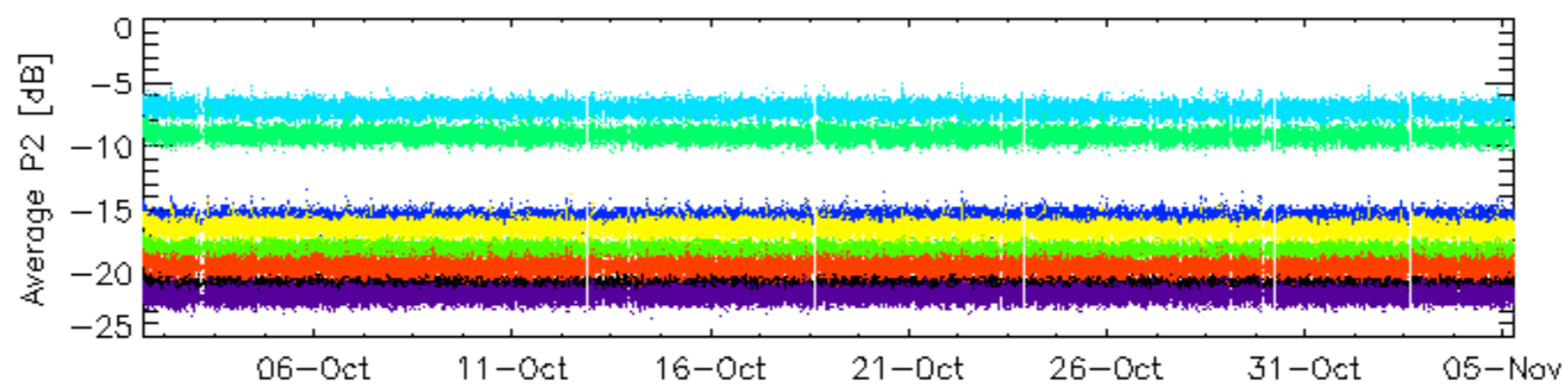
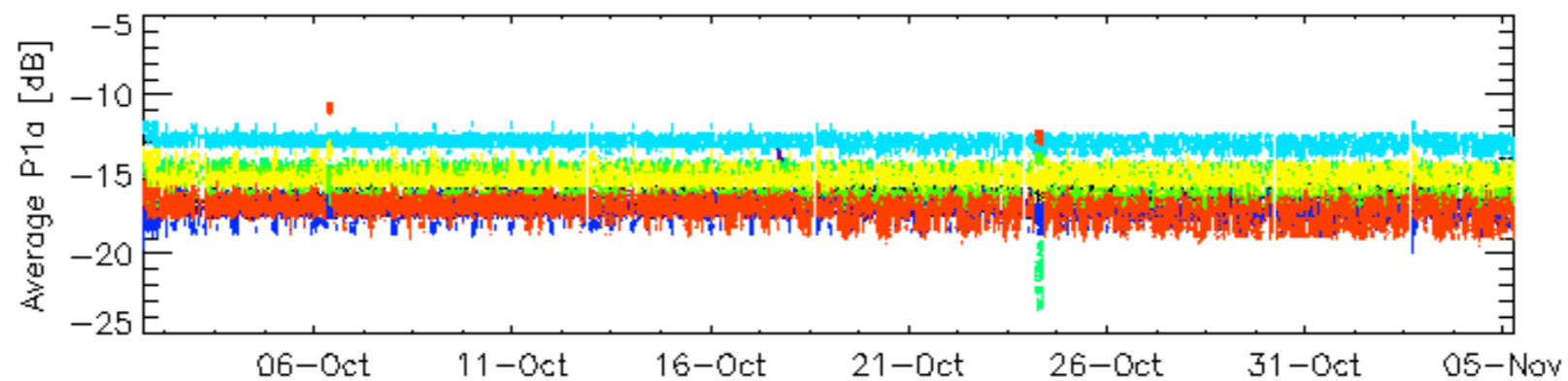
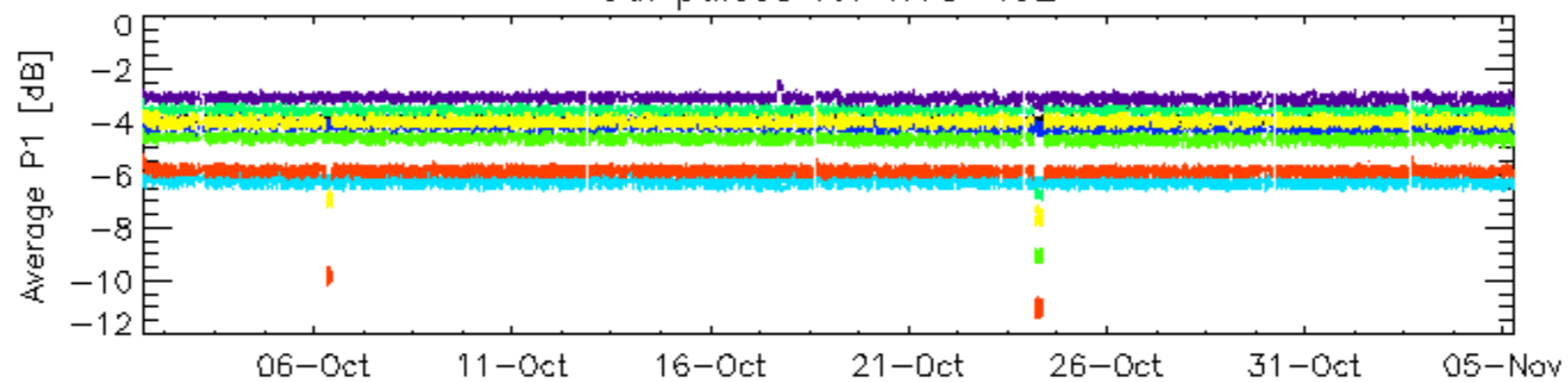


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

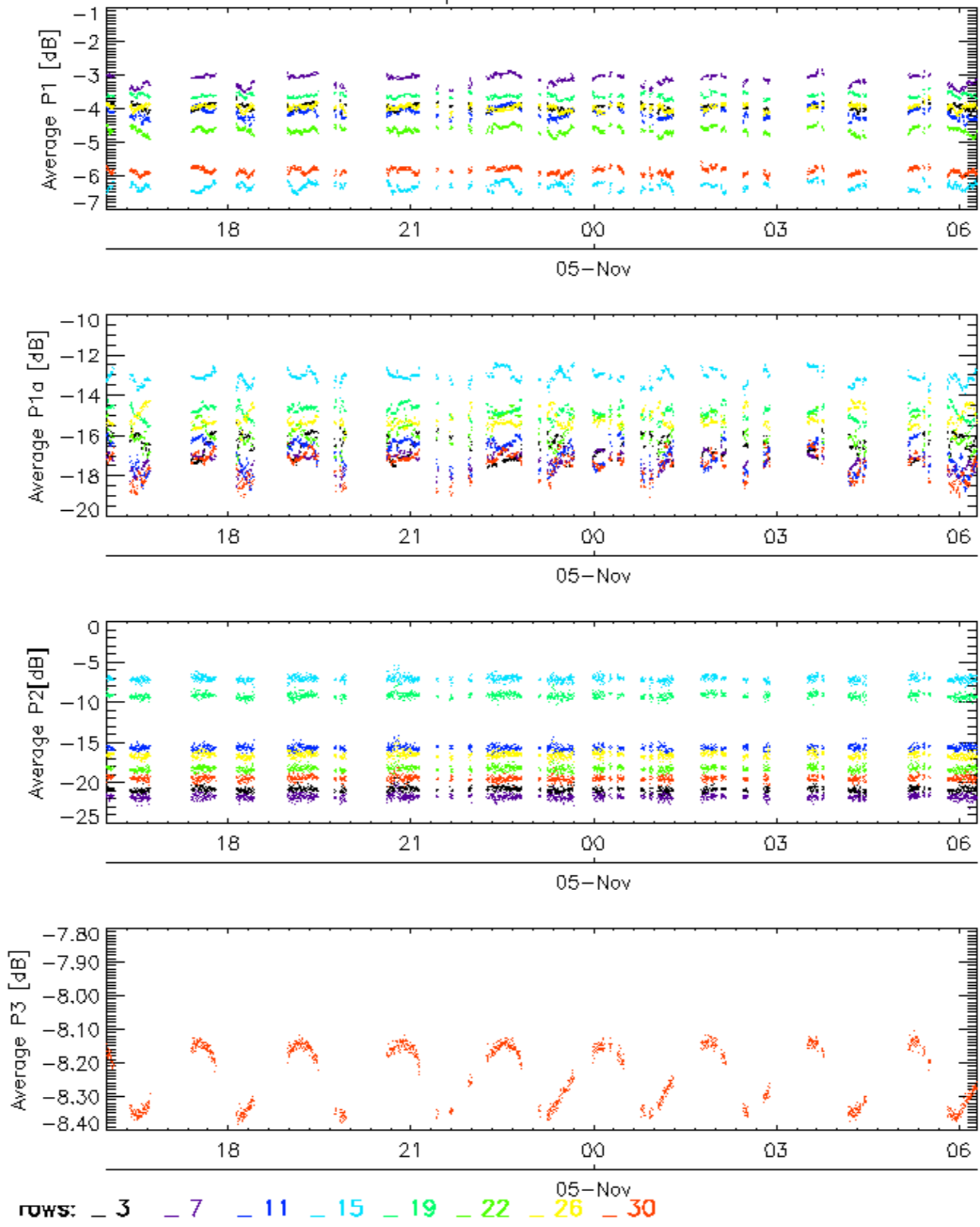


Cal pulses for WVS IS2

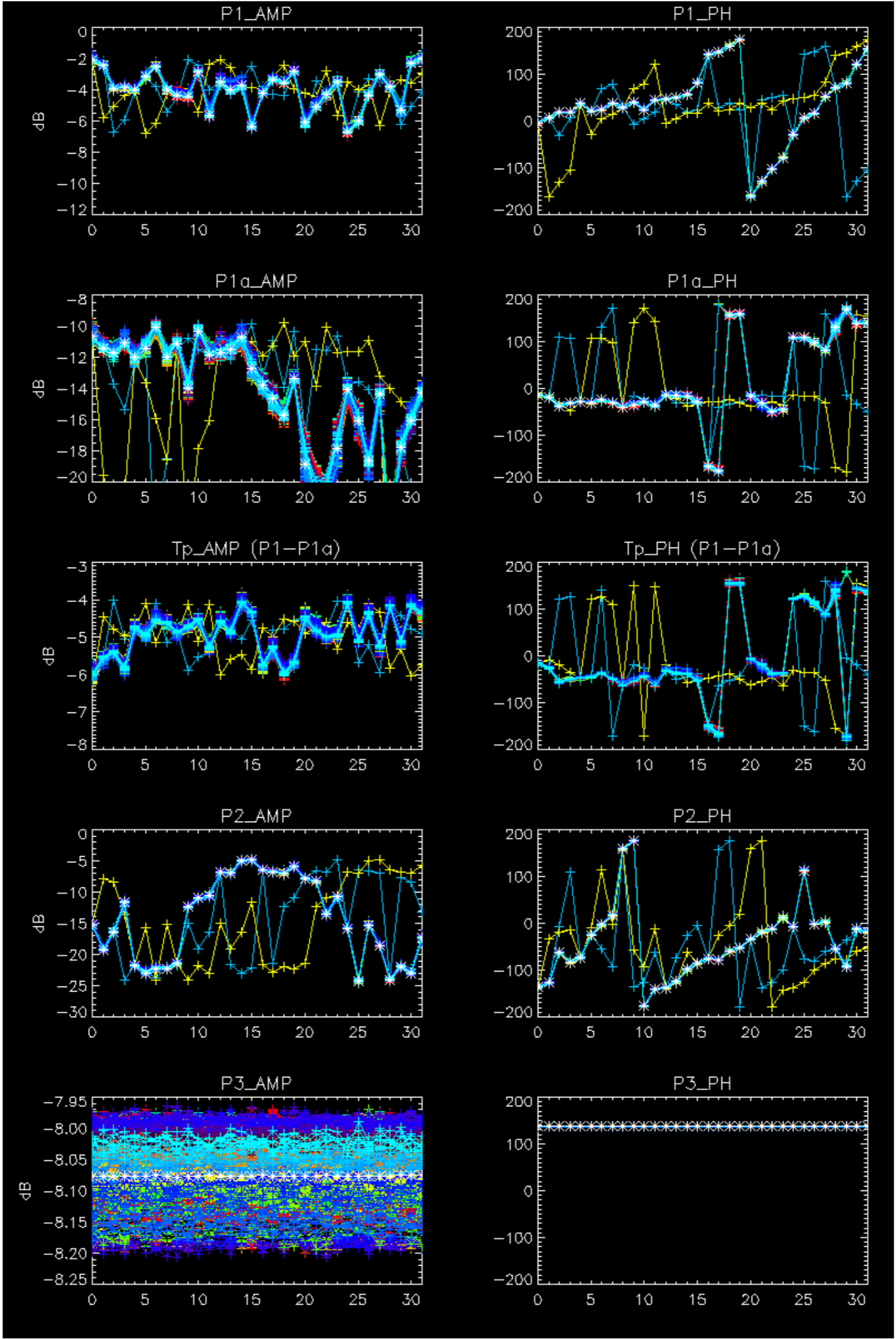


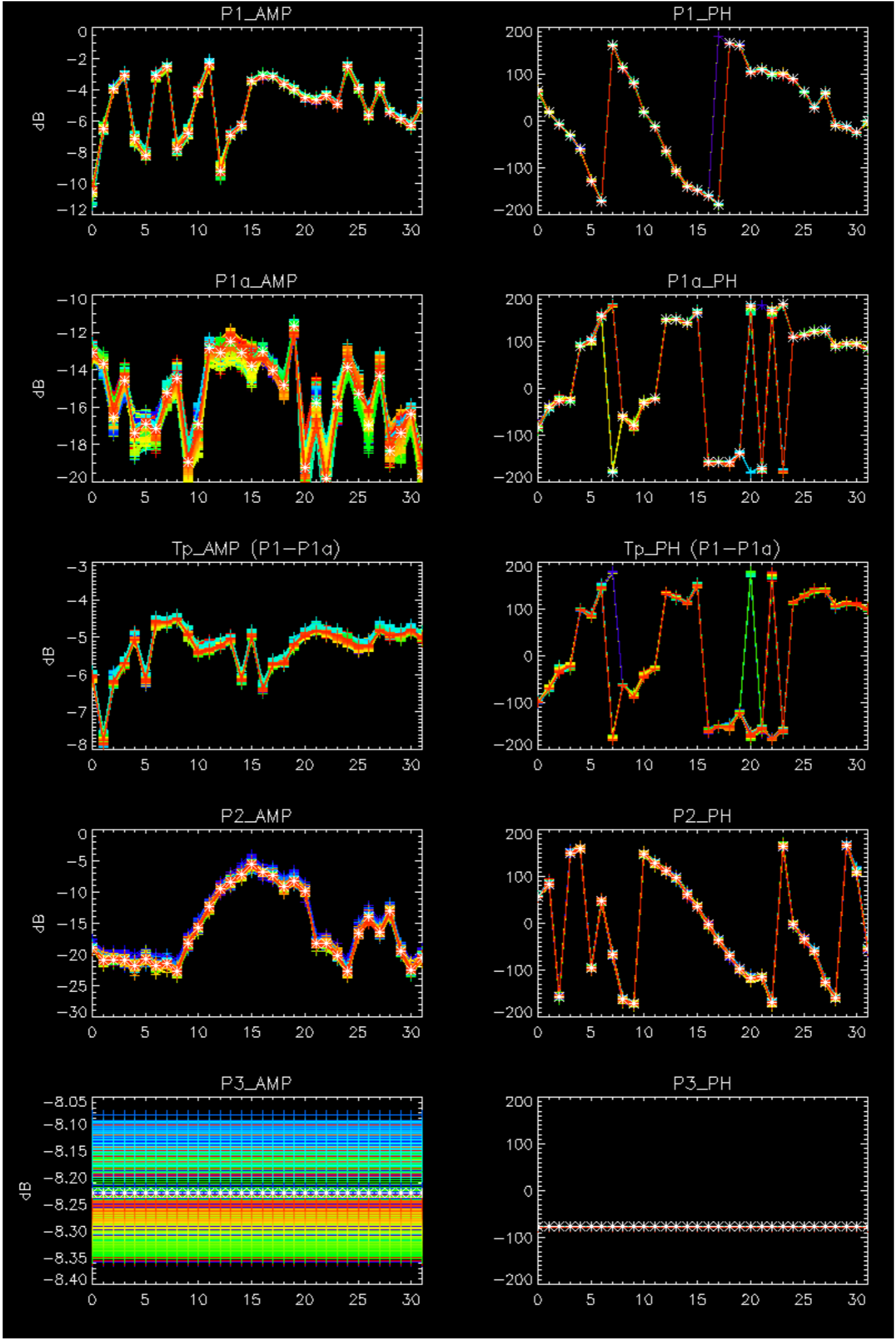
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



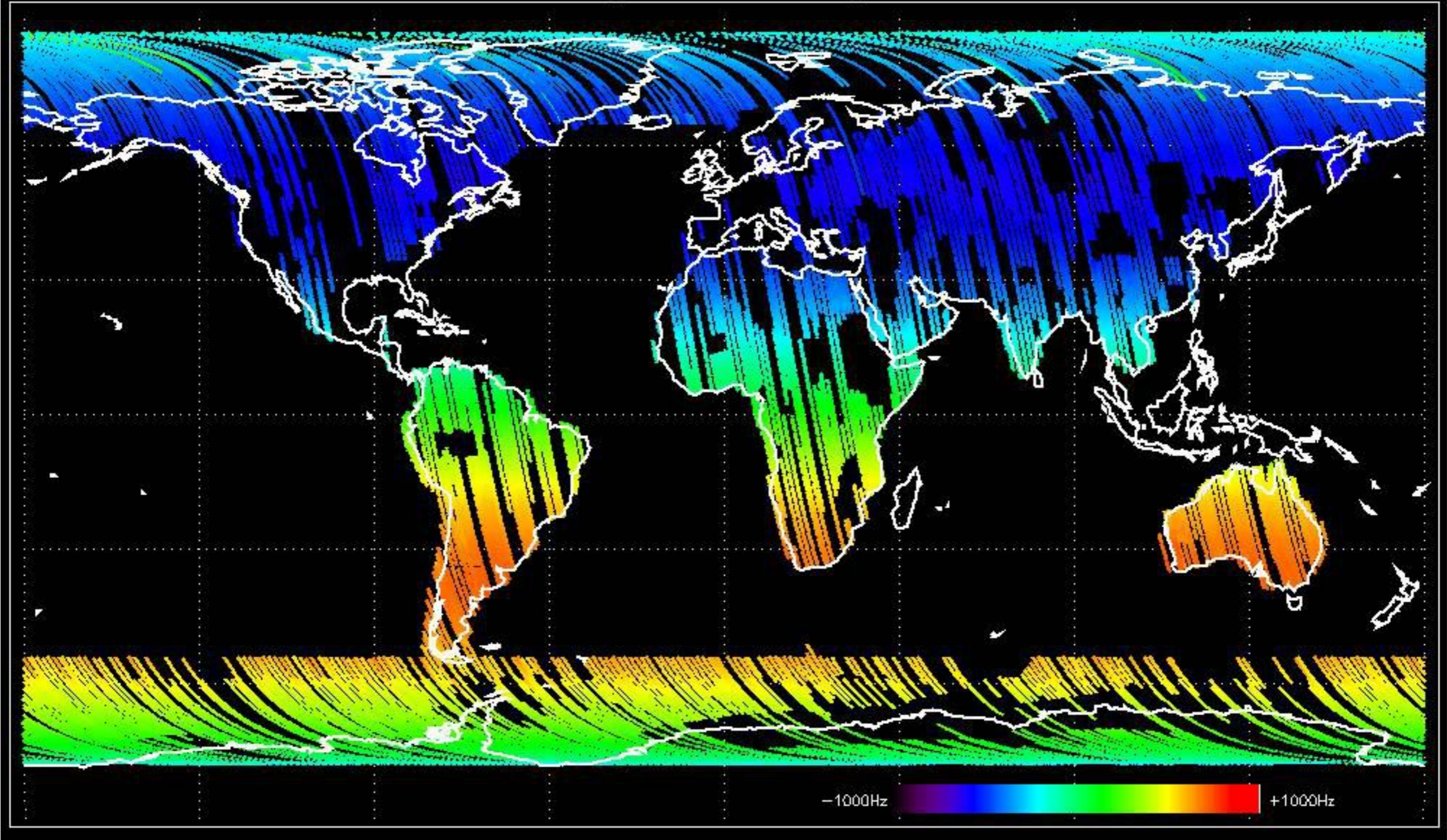
No anomalies observed.



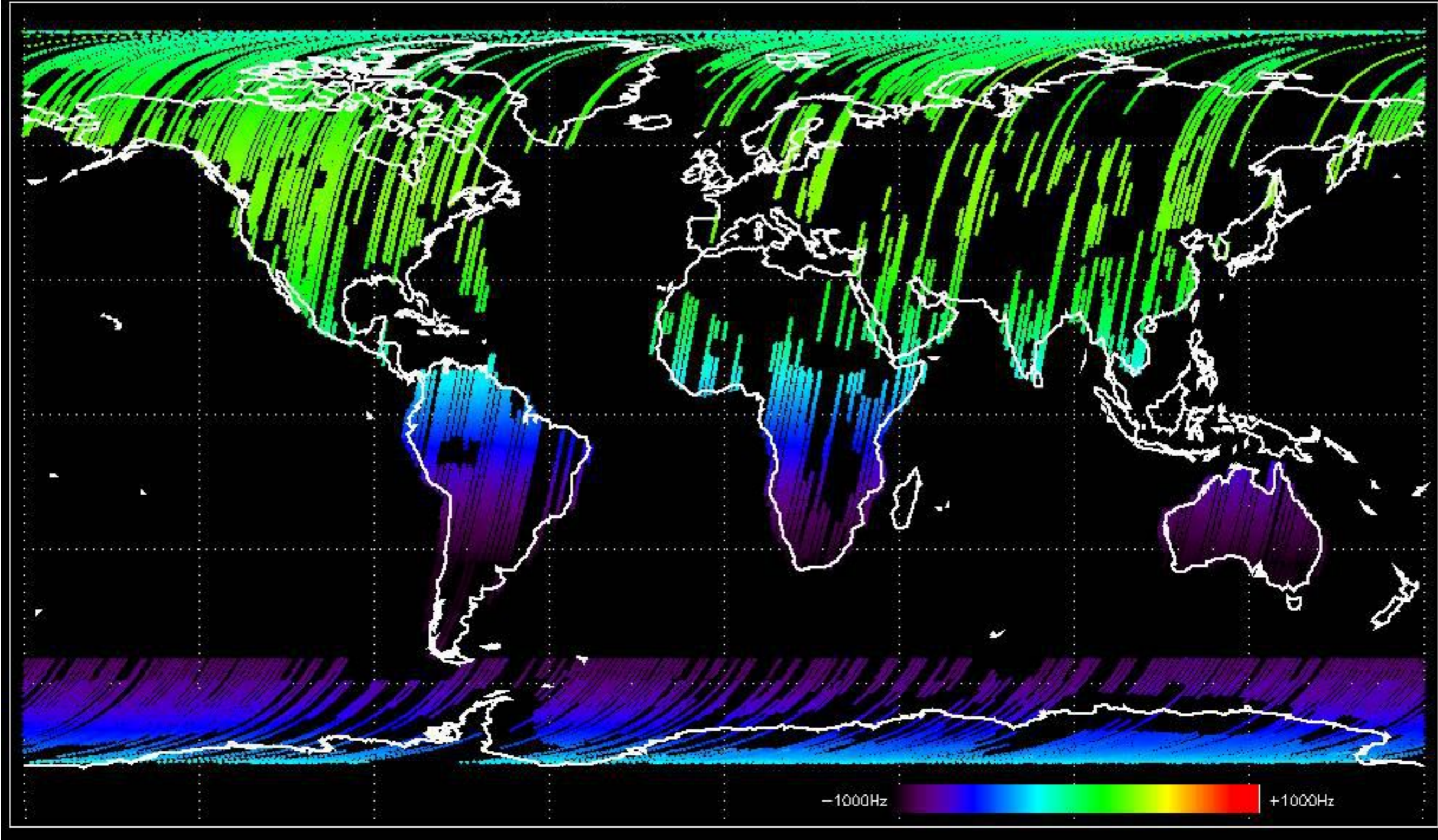


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

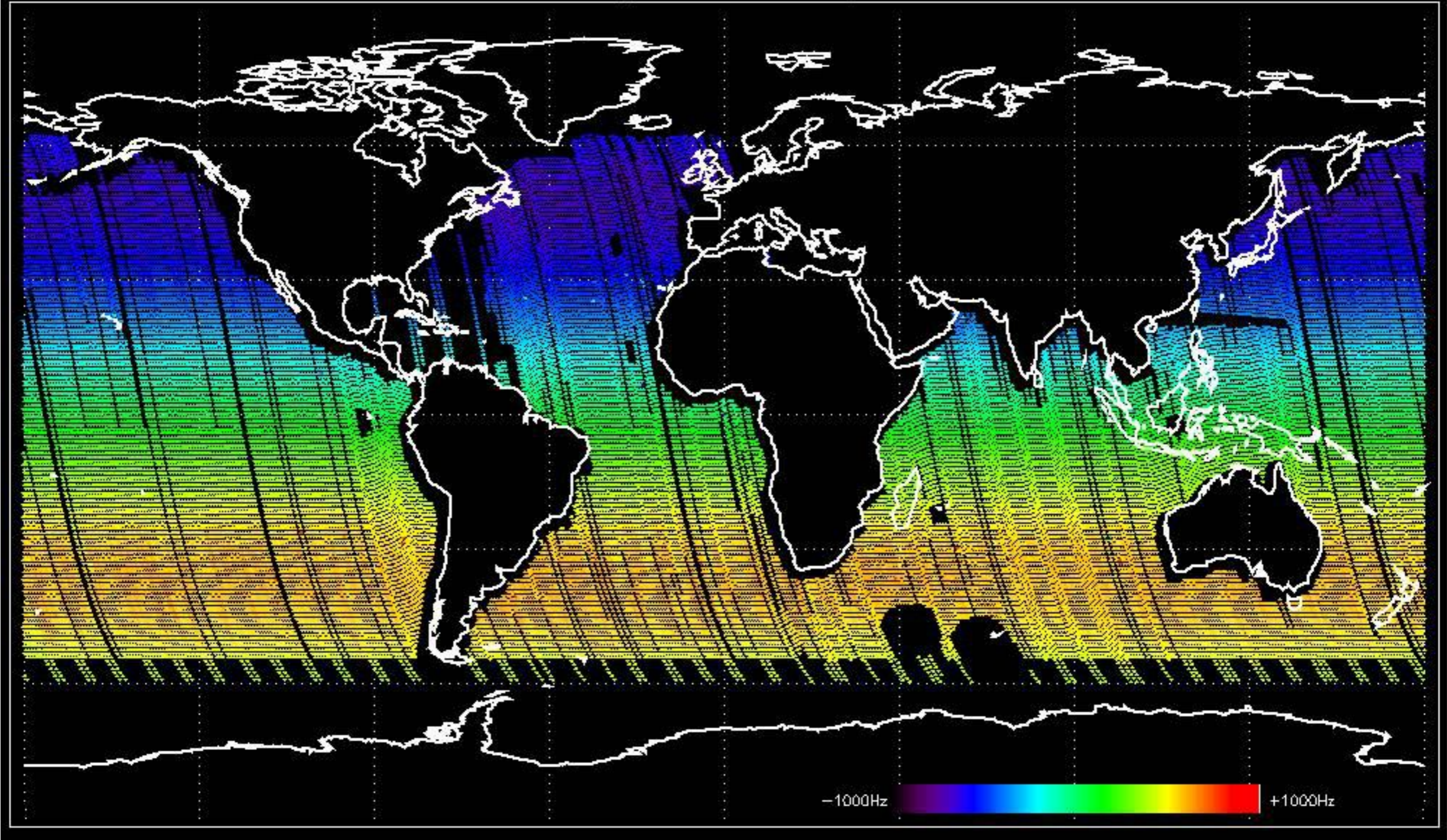
Doppler 'GM1' 'SS1' ascending



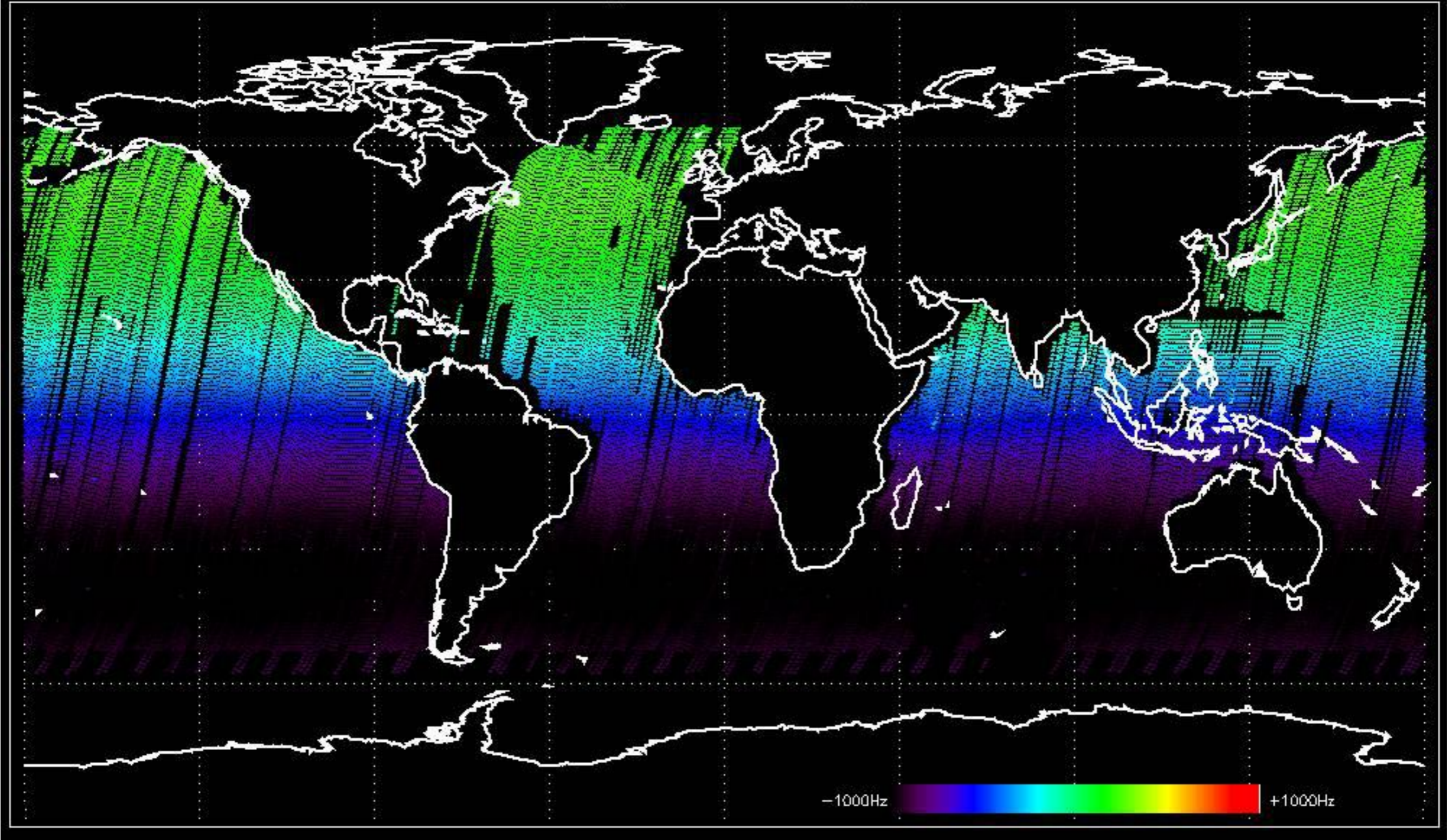
Doppler 'GM1' 'SS1' descending



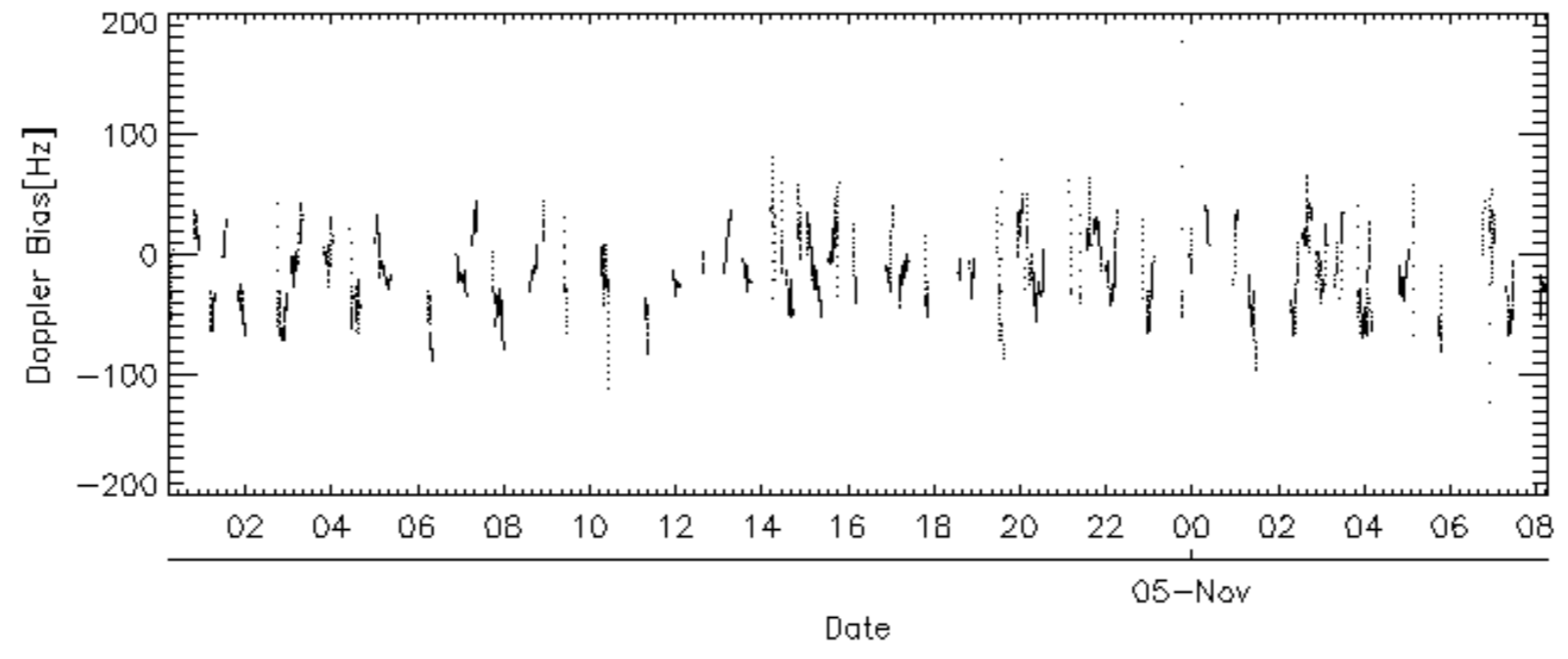
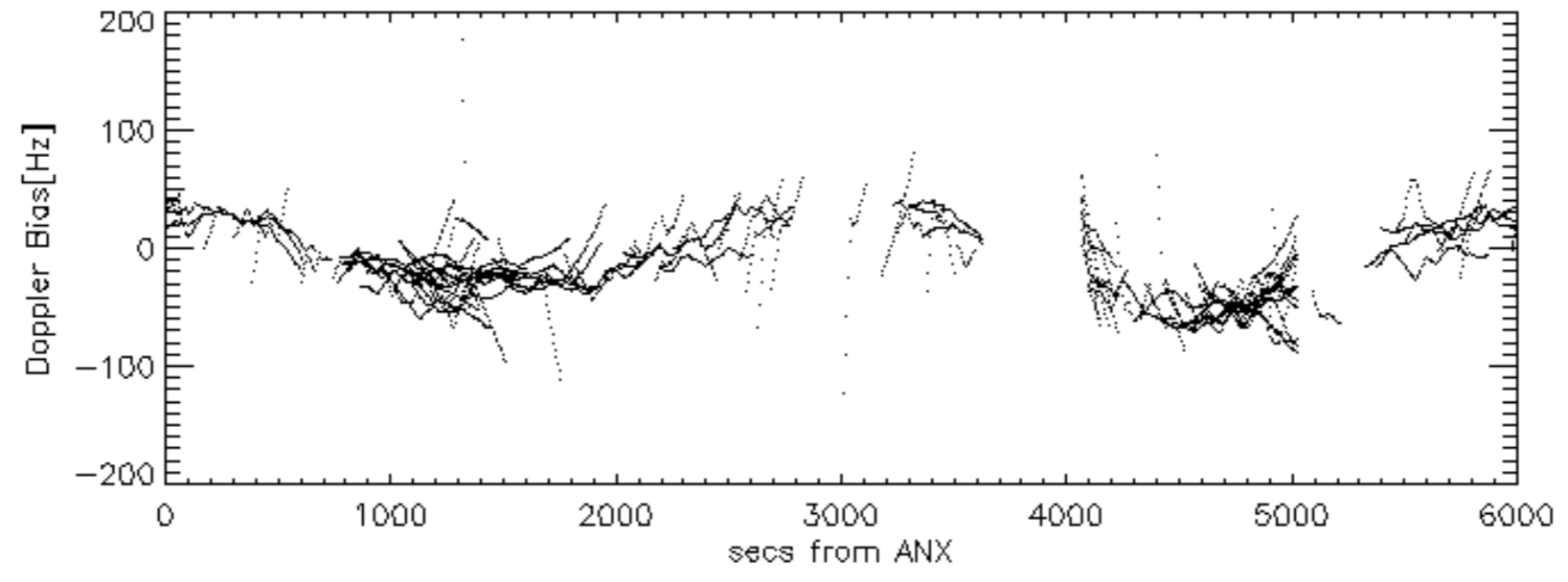
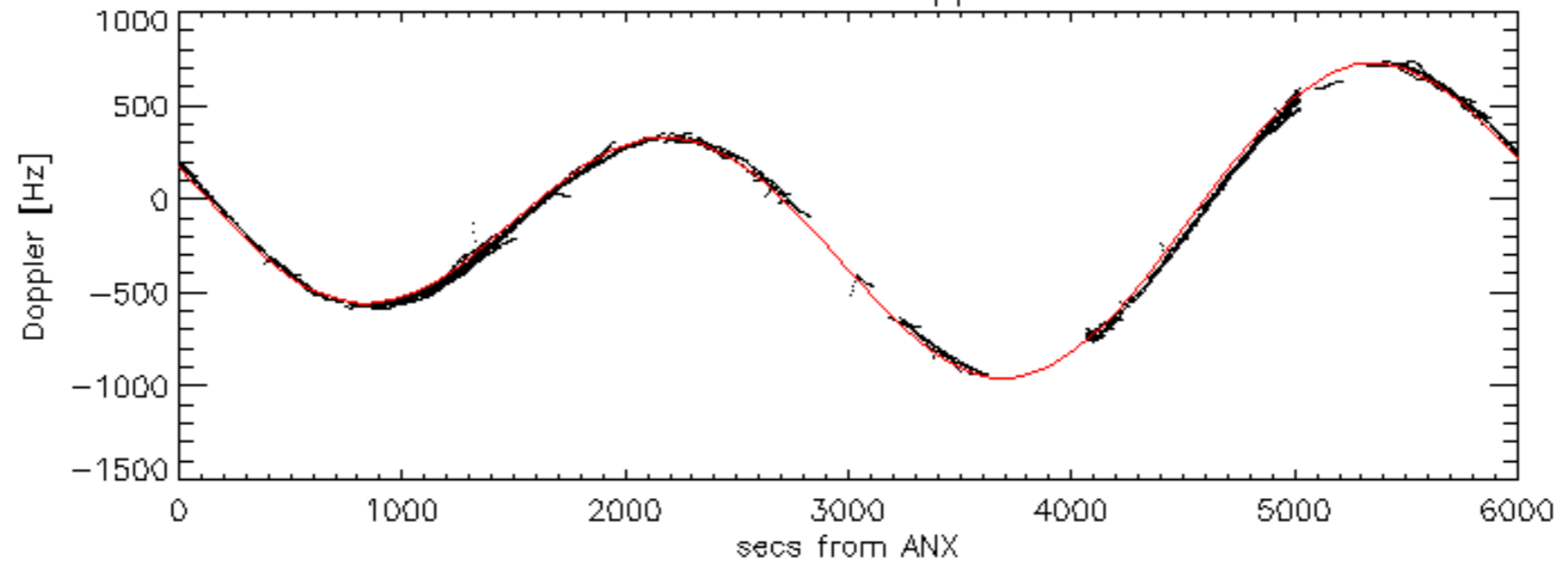
Doppler 'WVS' 'IS2' ascending

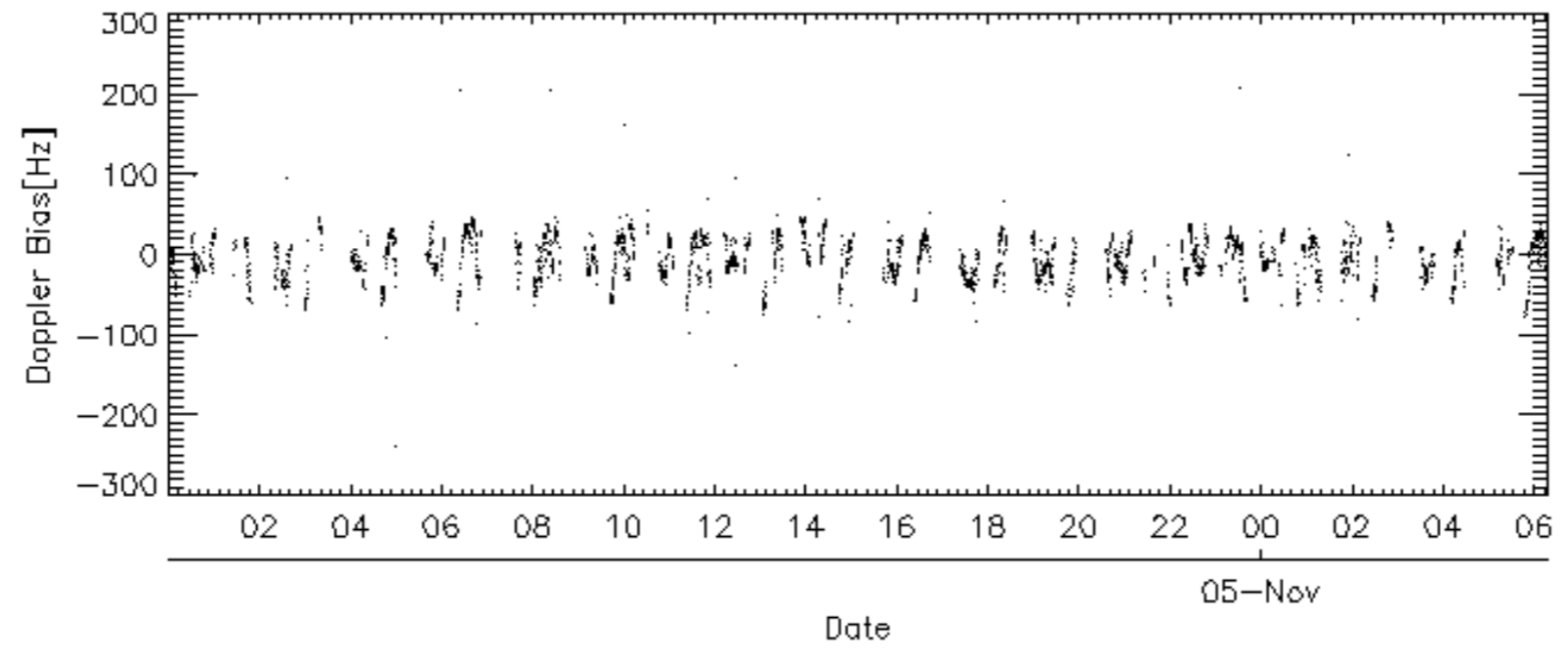
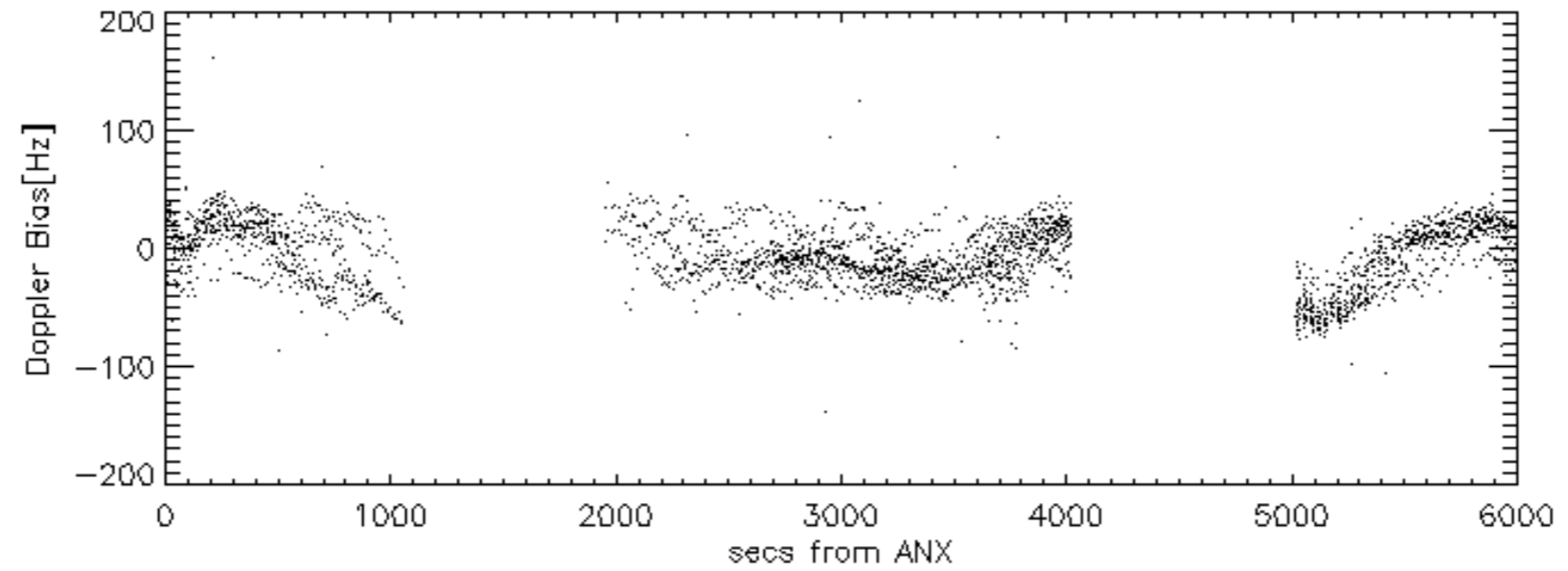
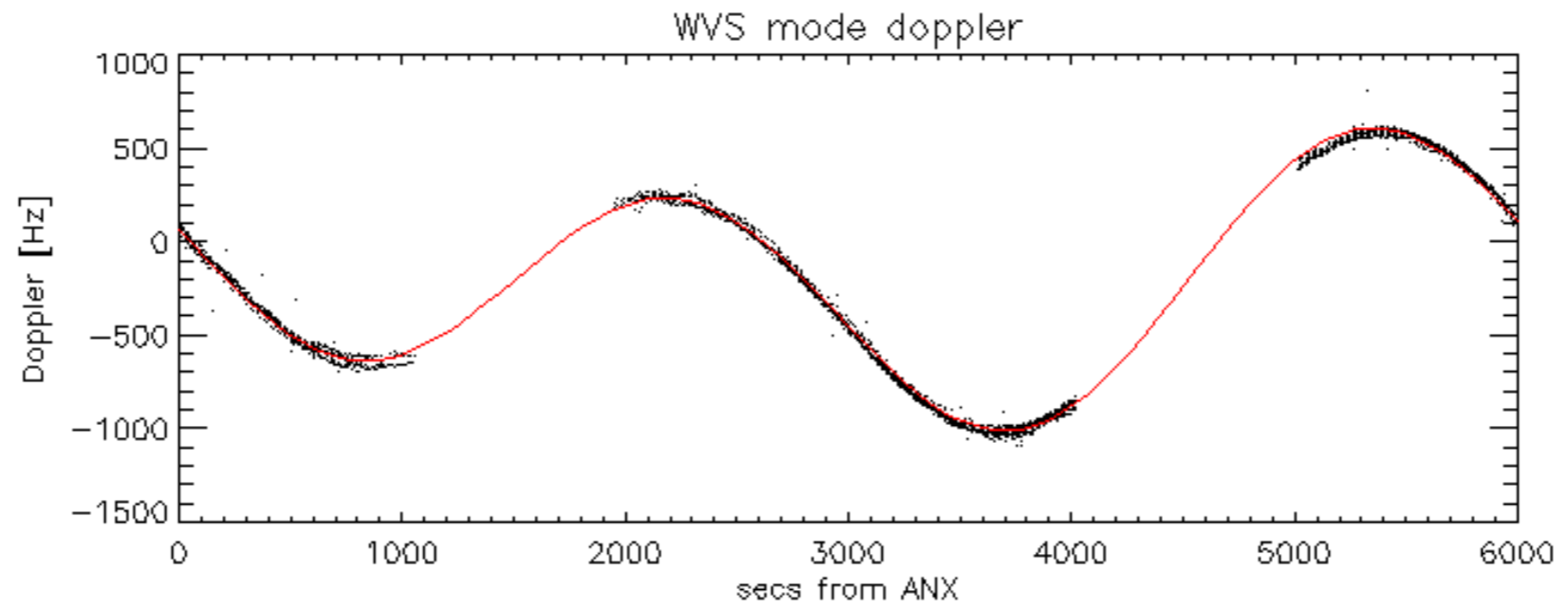


Doppler 'WVS' 'IS2' descending

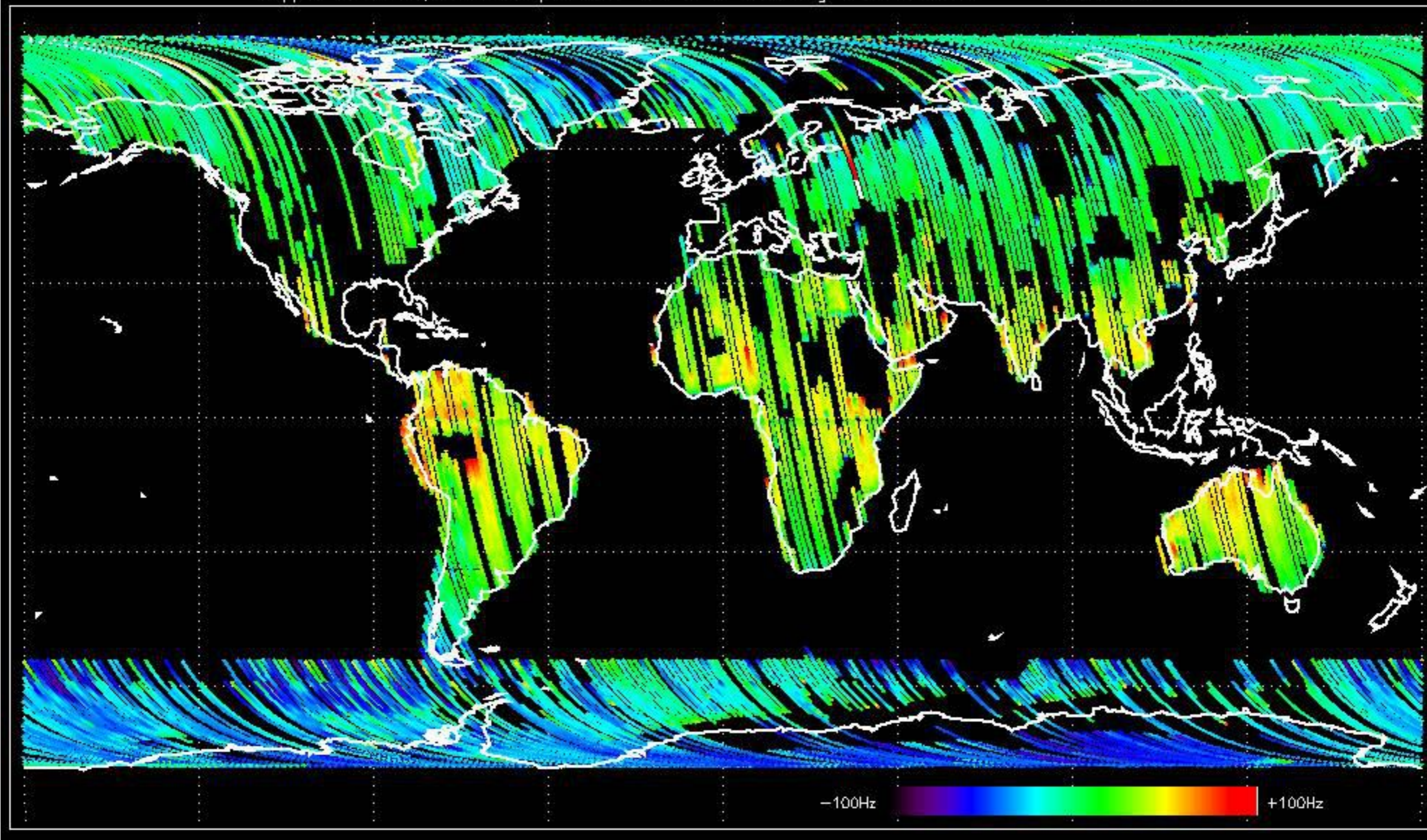


GM1 mode doppler

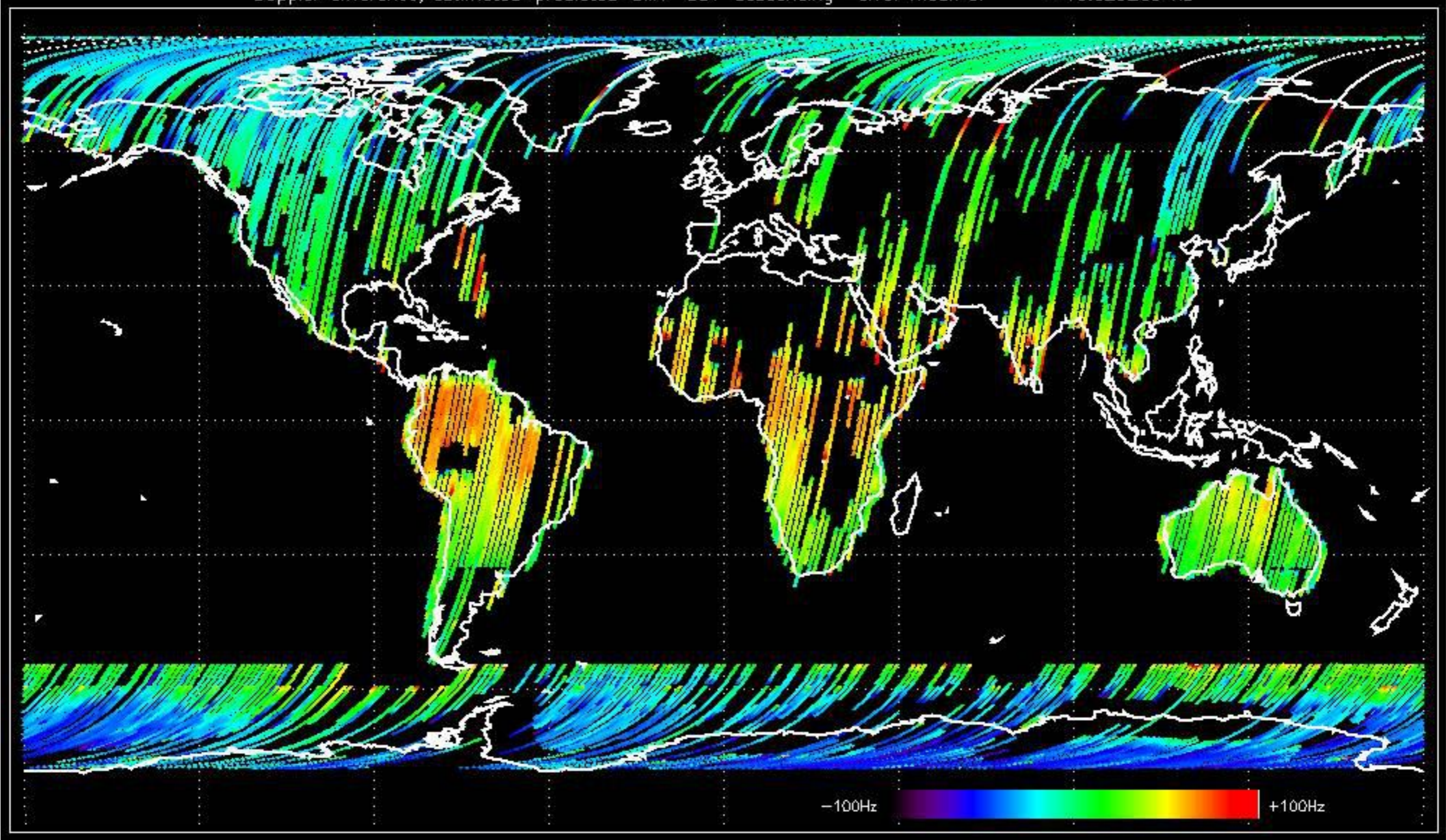




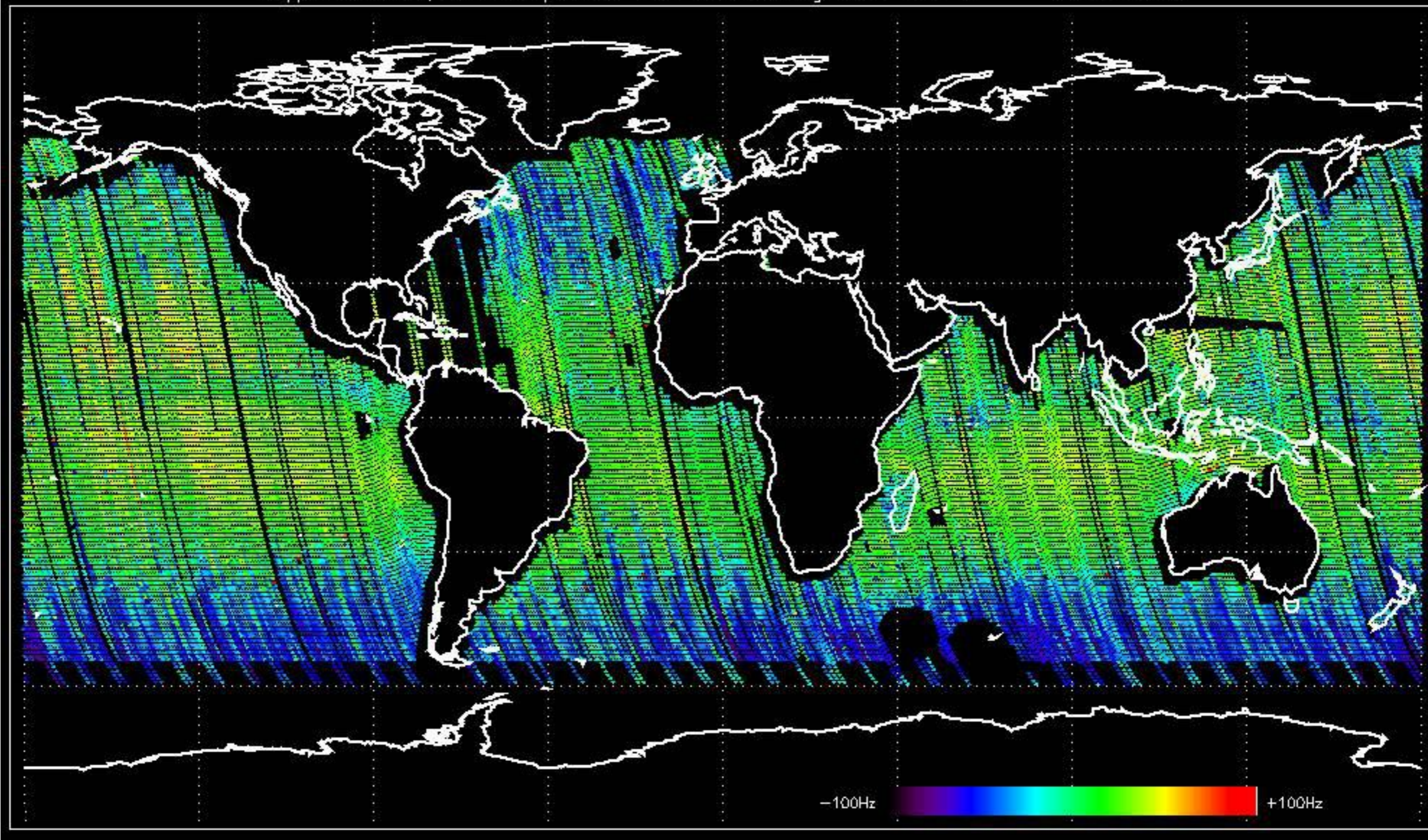
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.878802 Hz



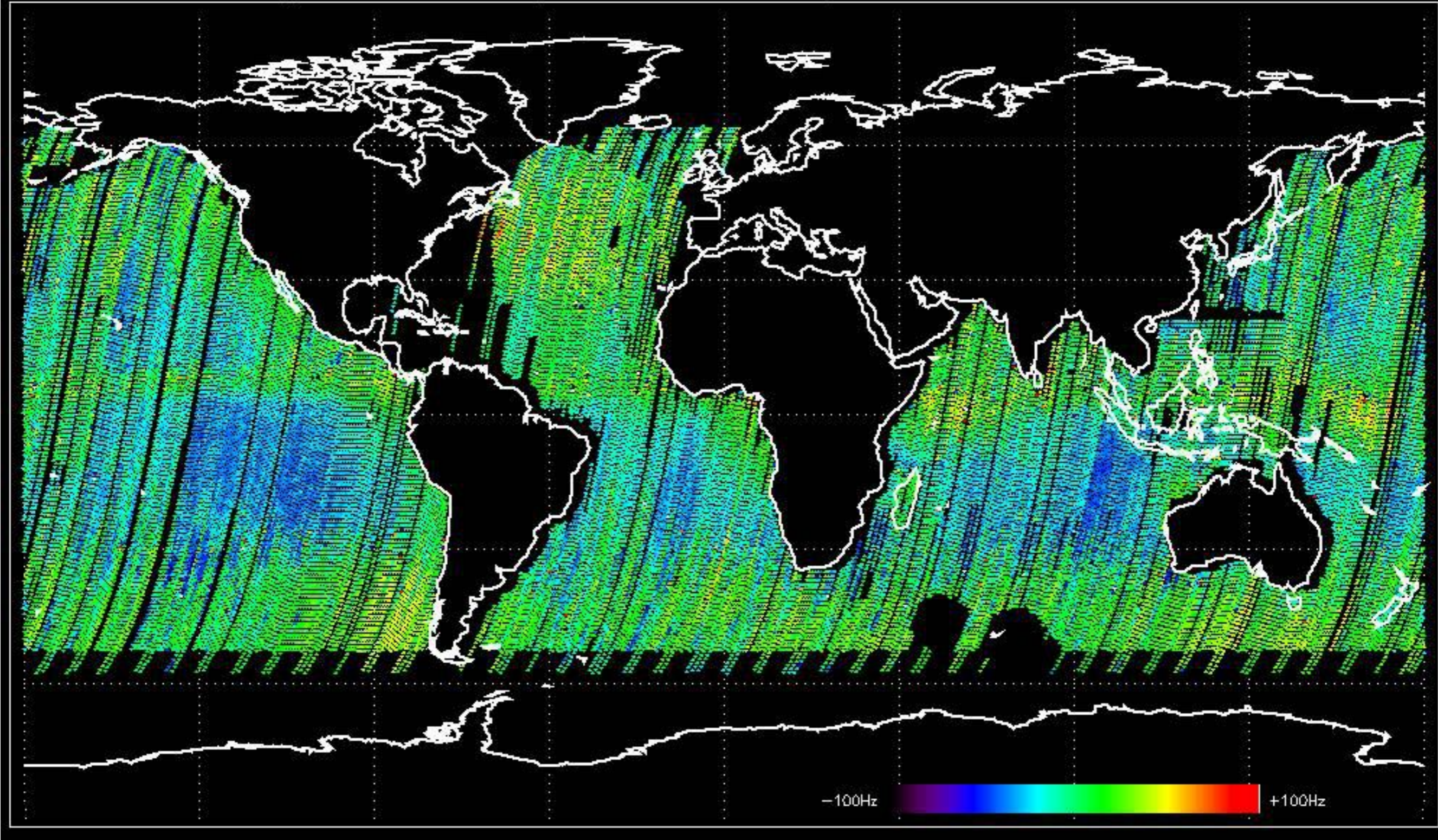
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.629260 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.1197762 Hz

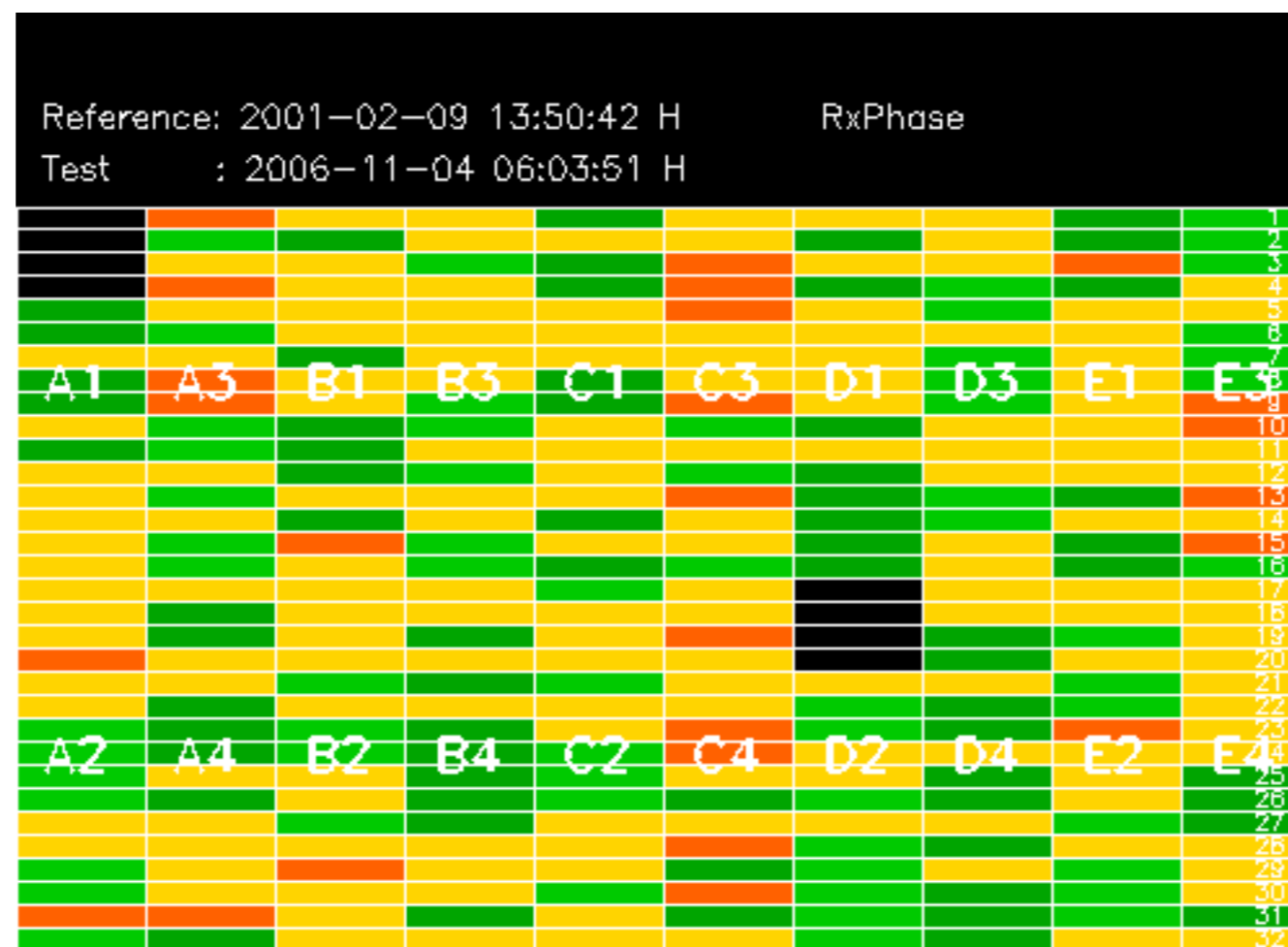


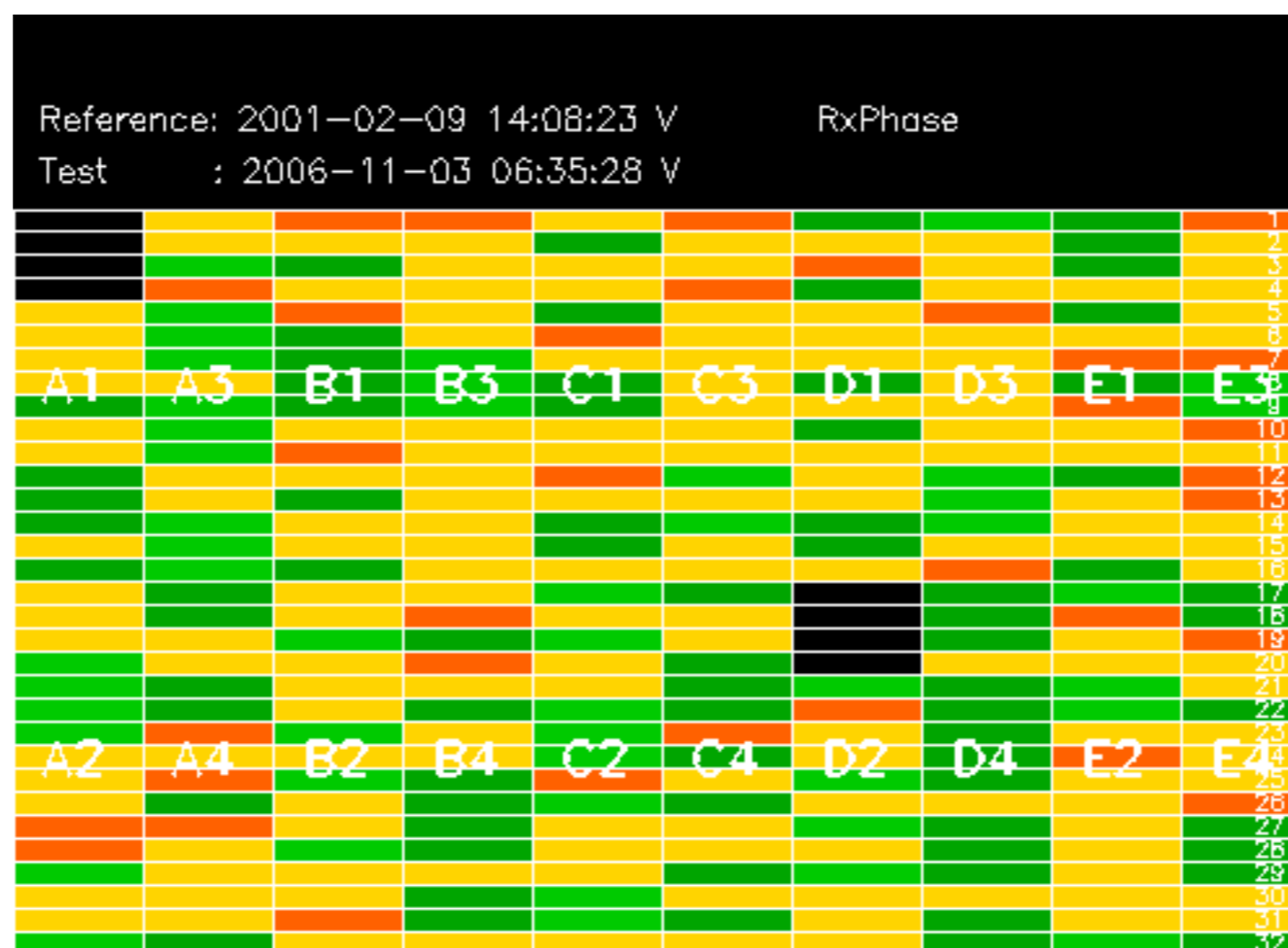
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.209688 Hz

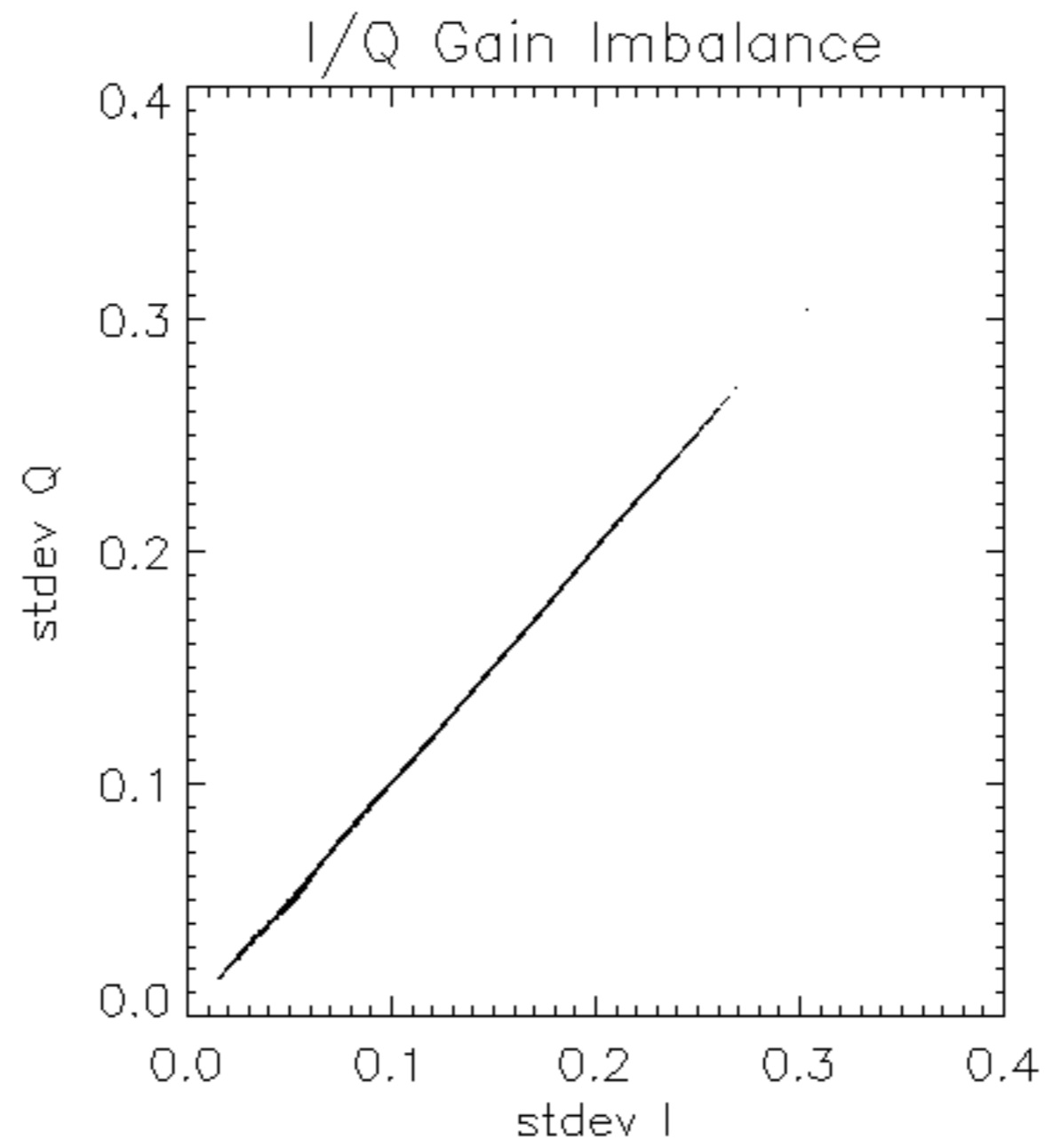


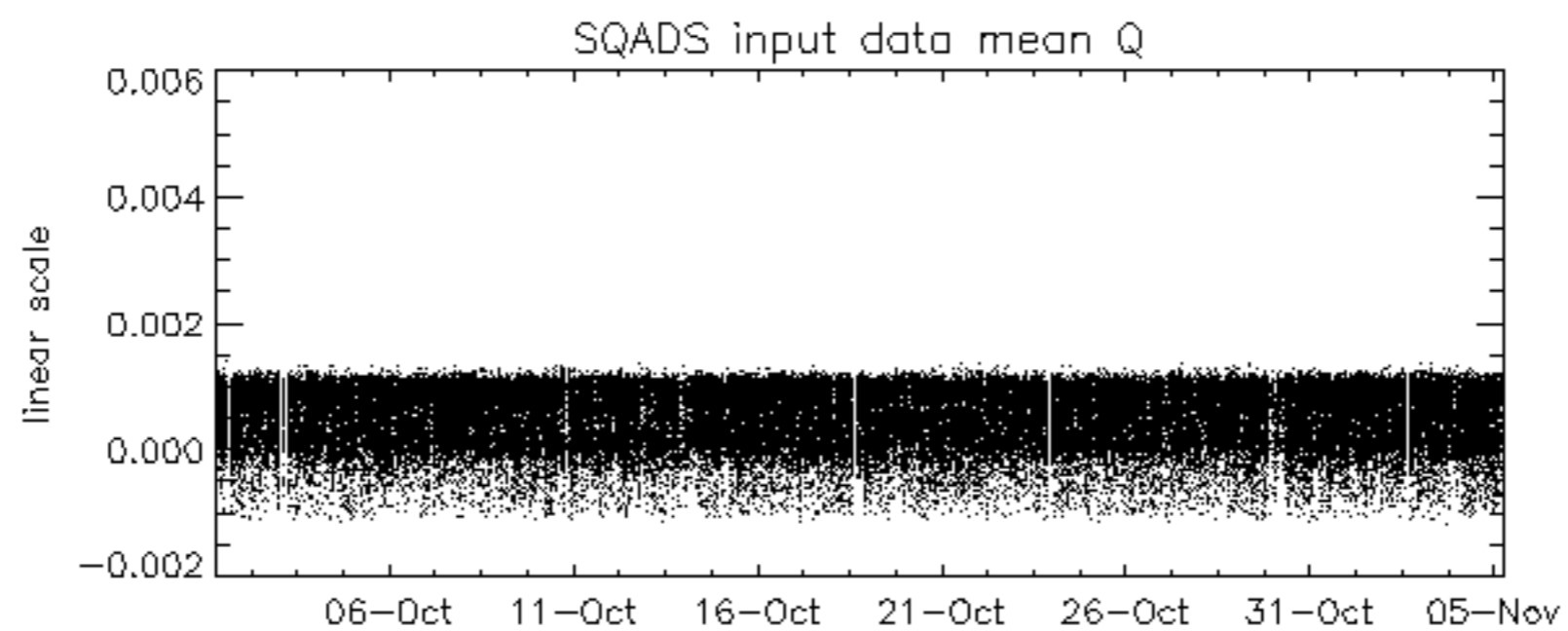
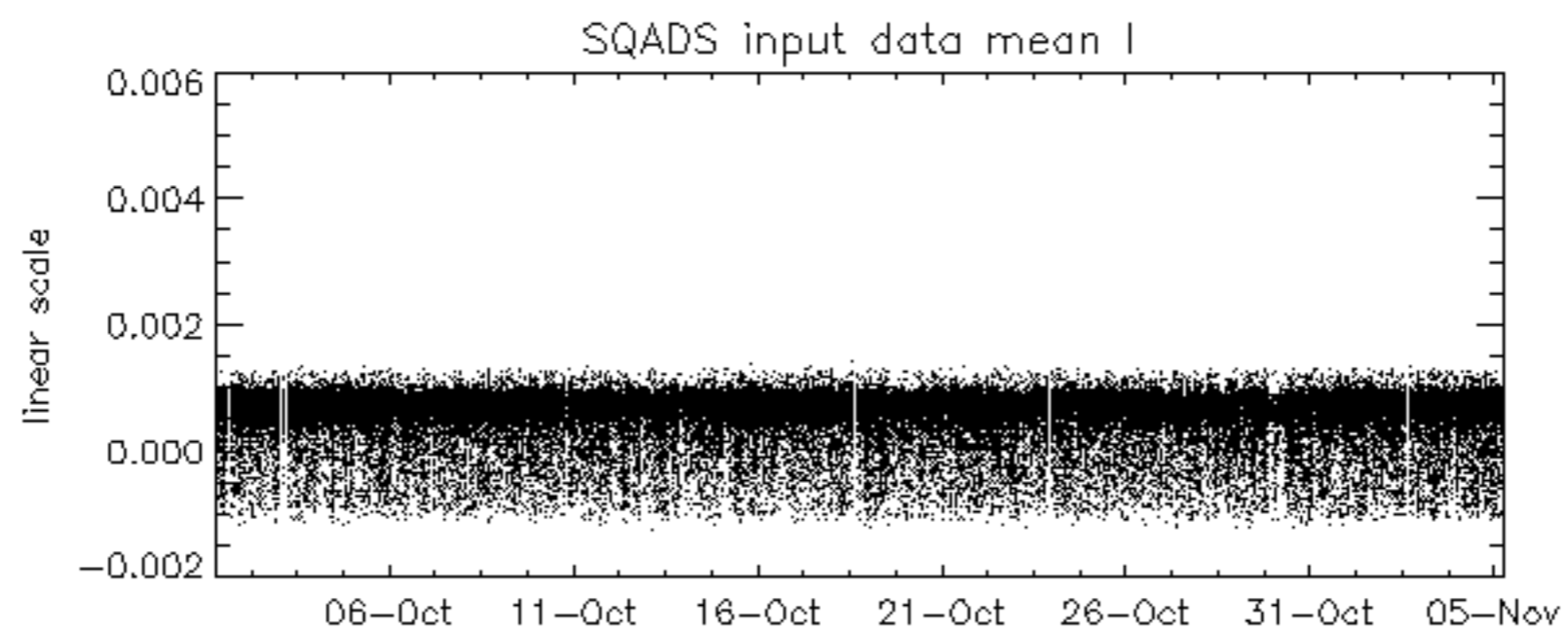
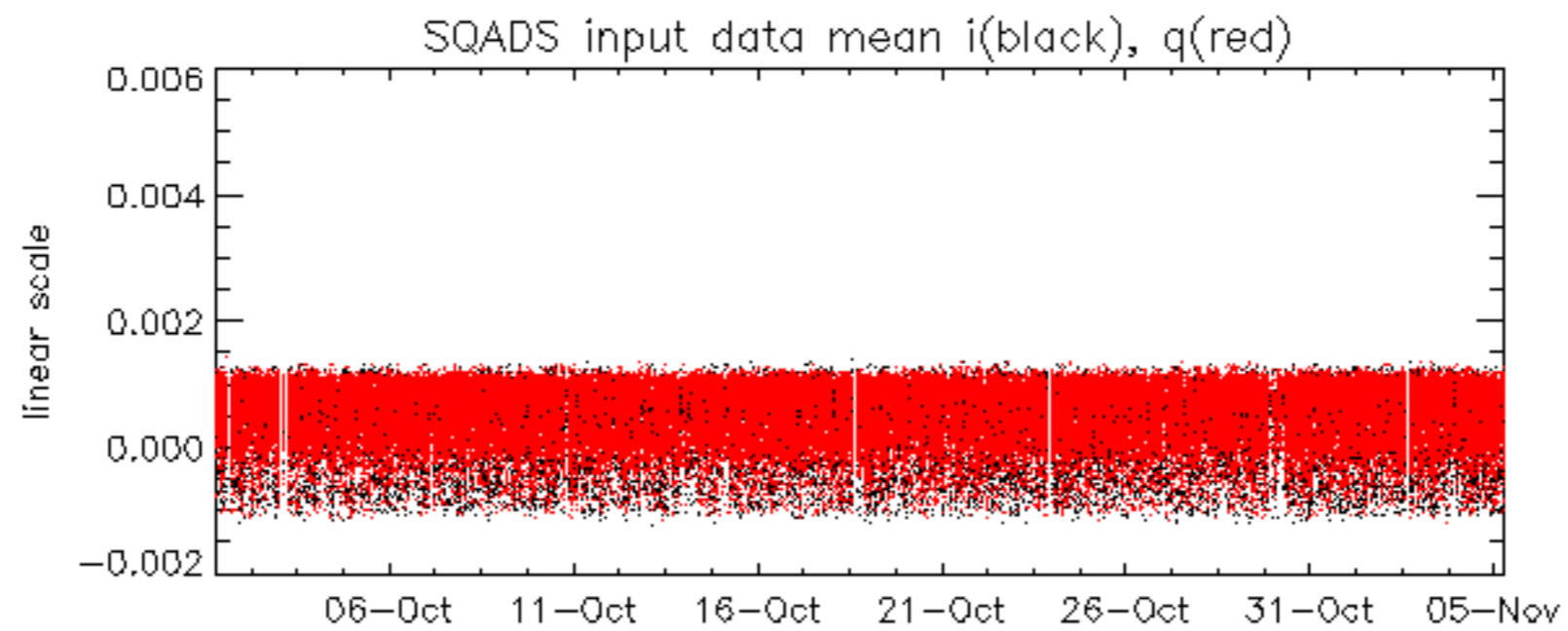
No anomalies observed on available MS products:

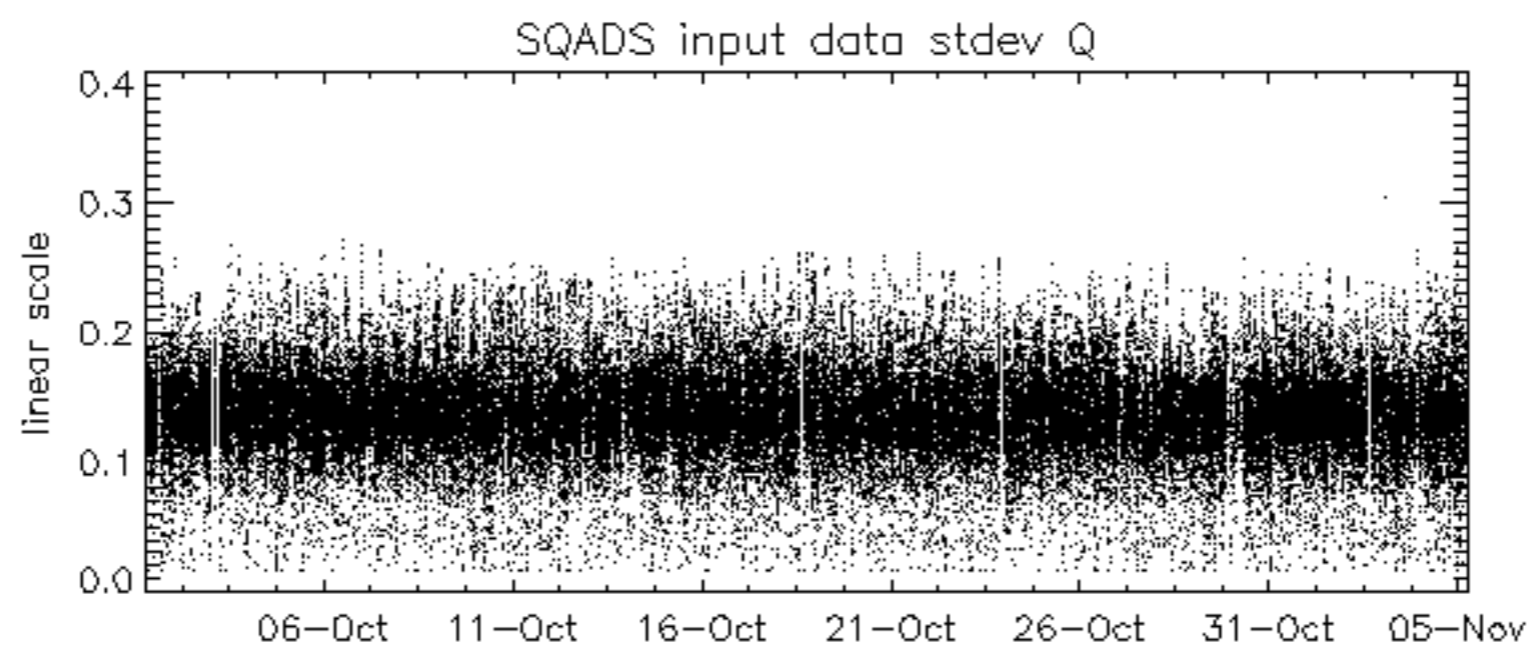
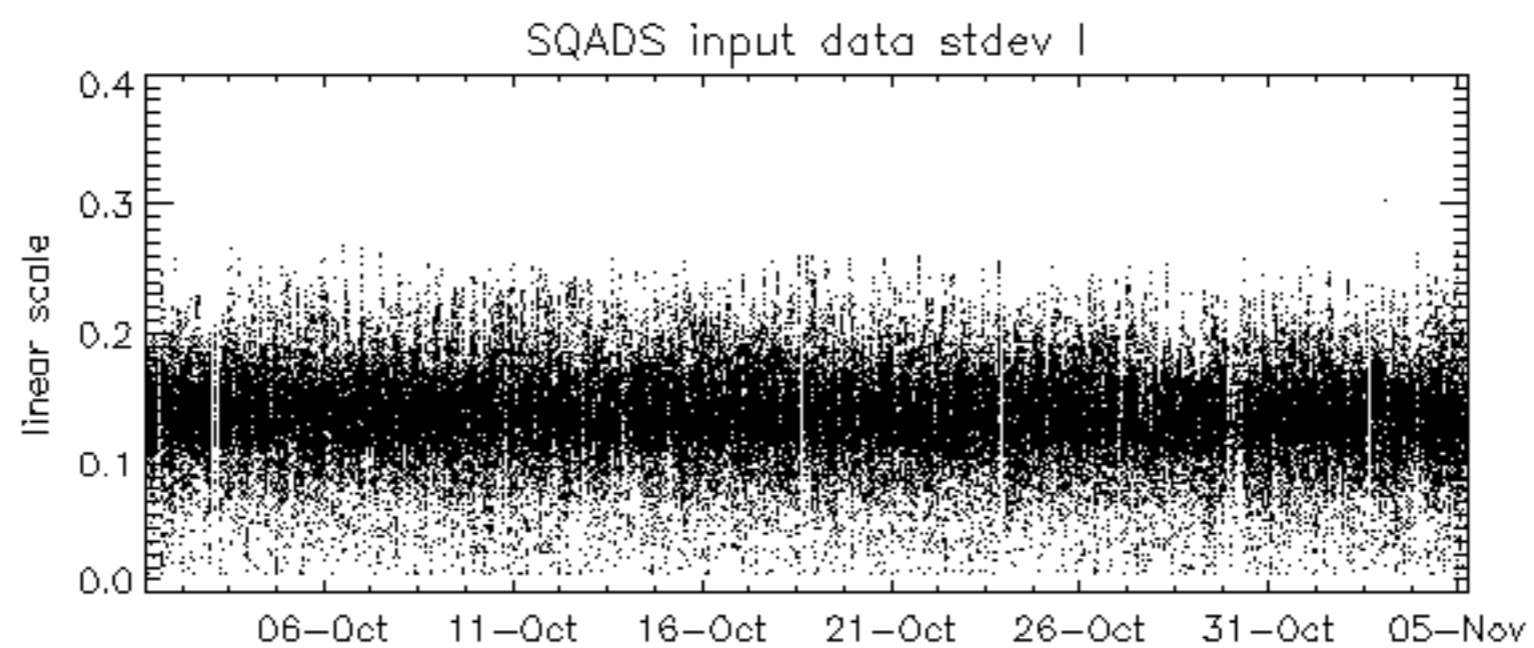
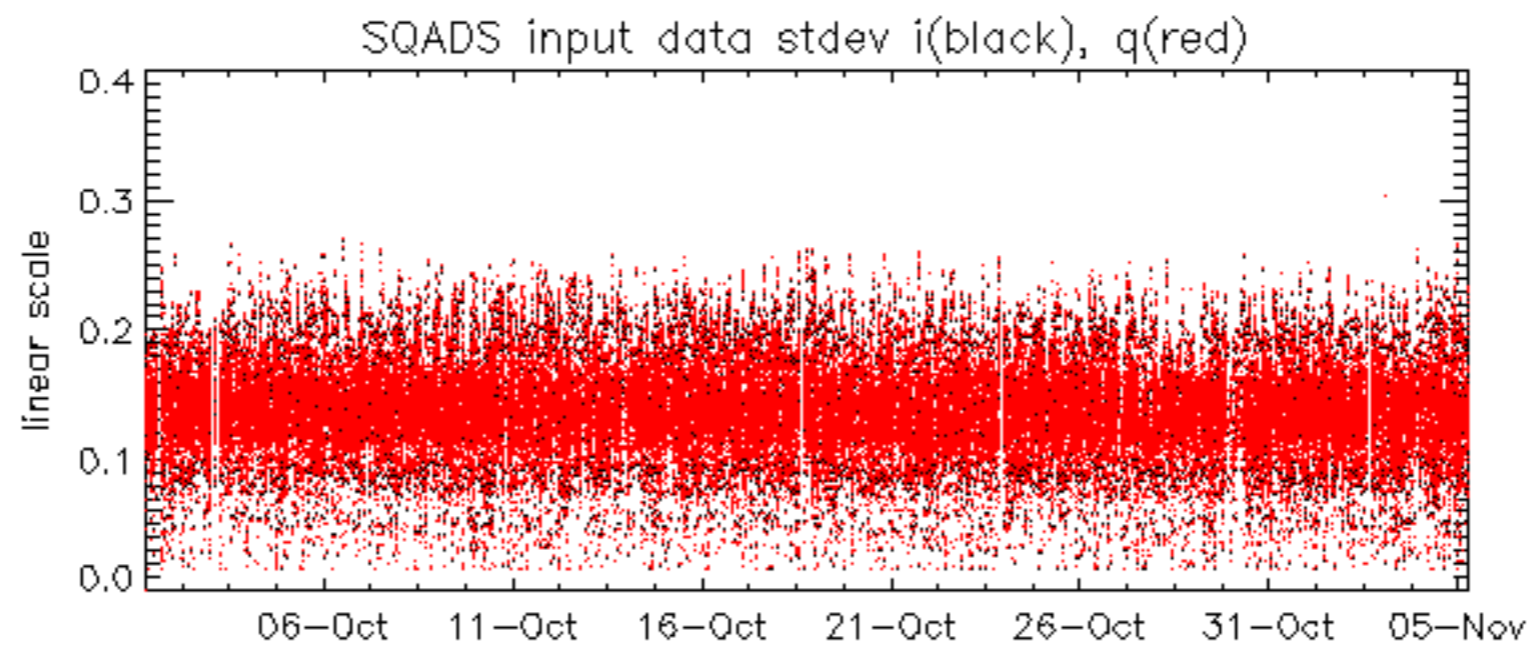
No anomalies observed.







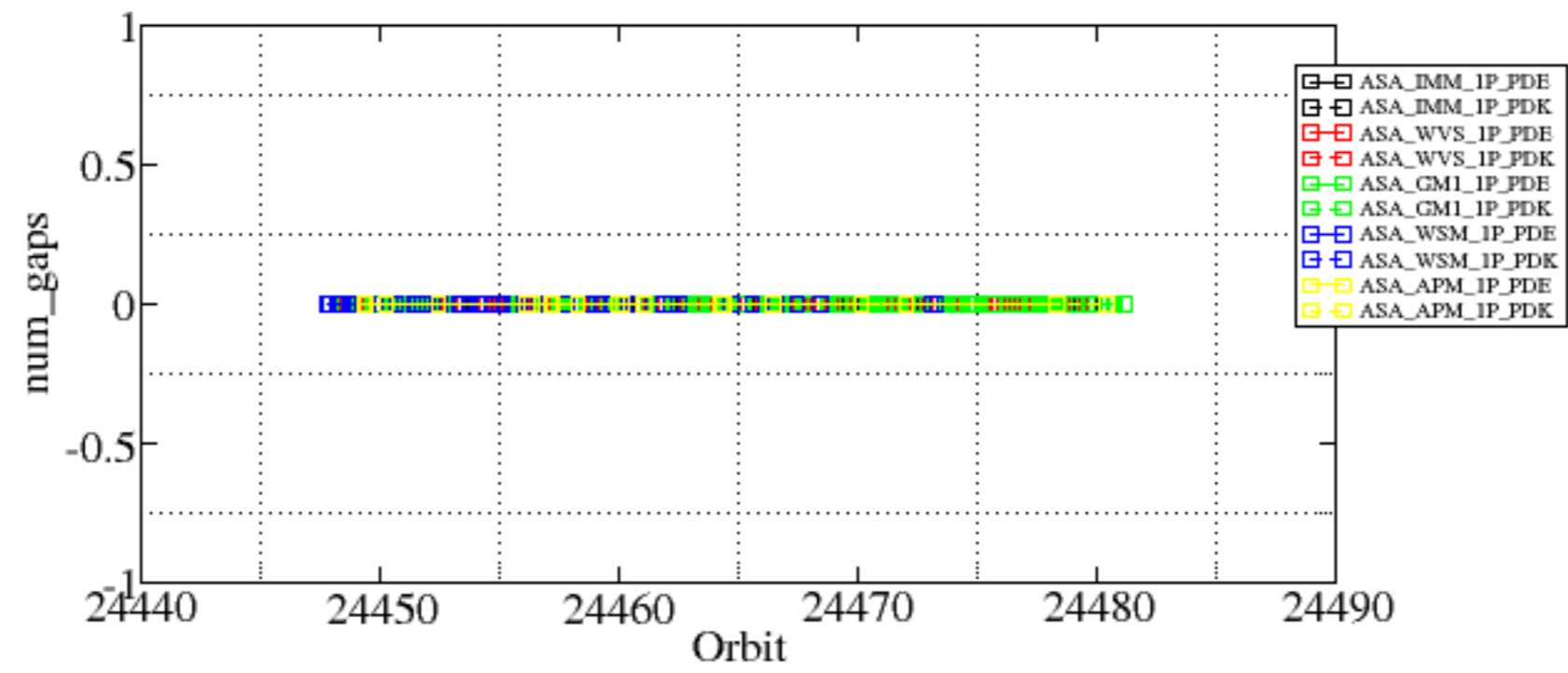




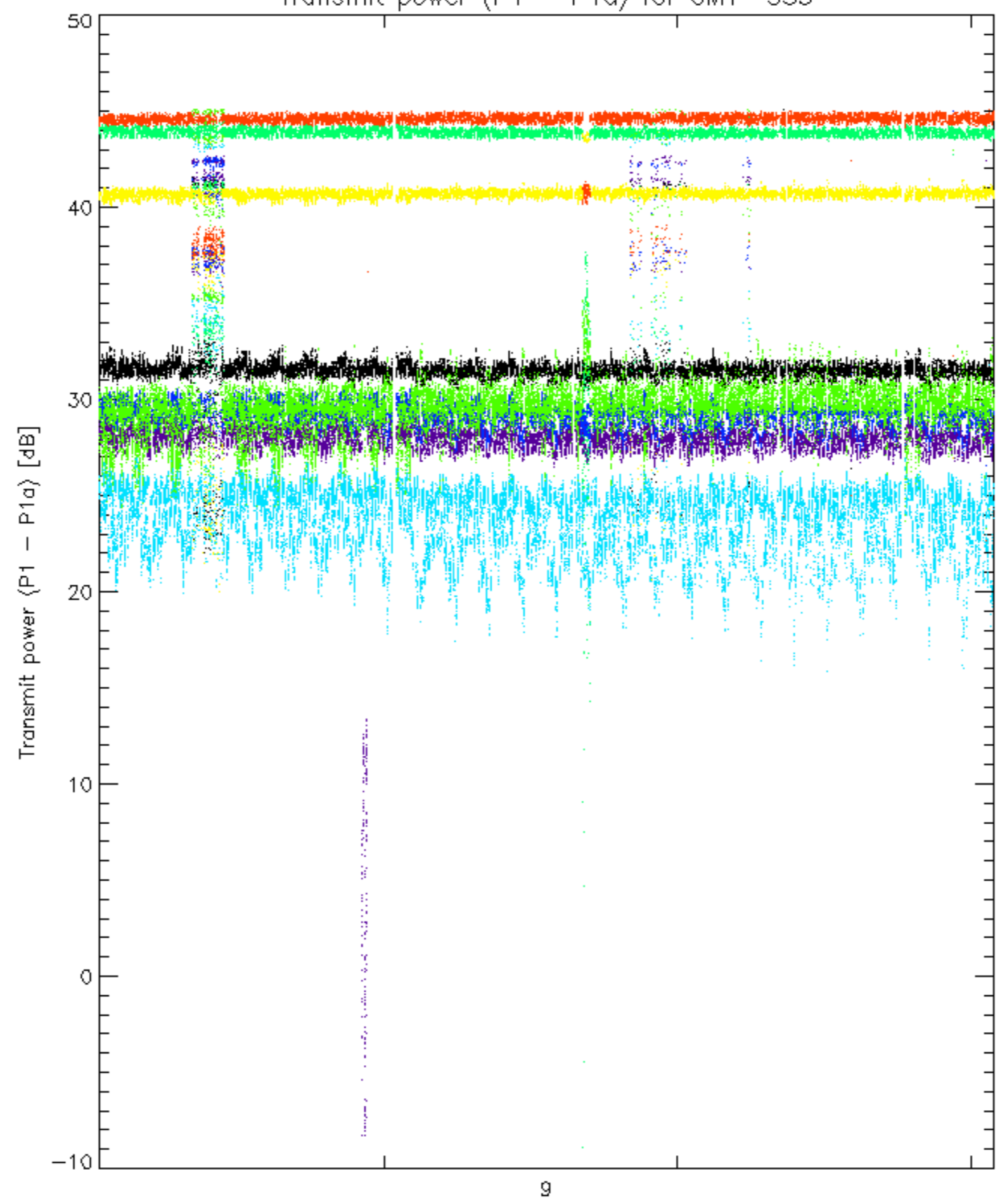
Summary of analysis for the last 3 days 2006110[345]

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

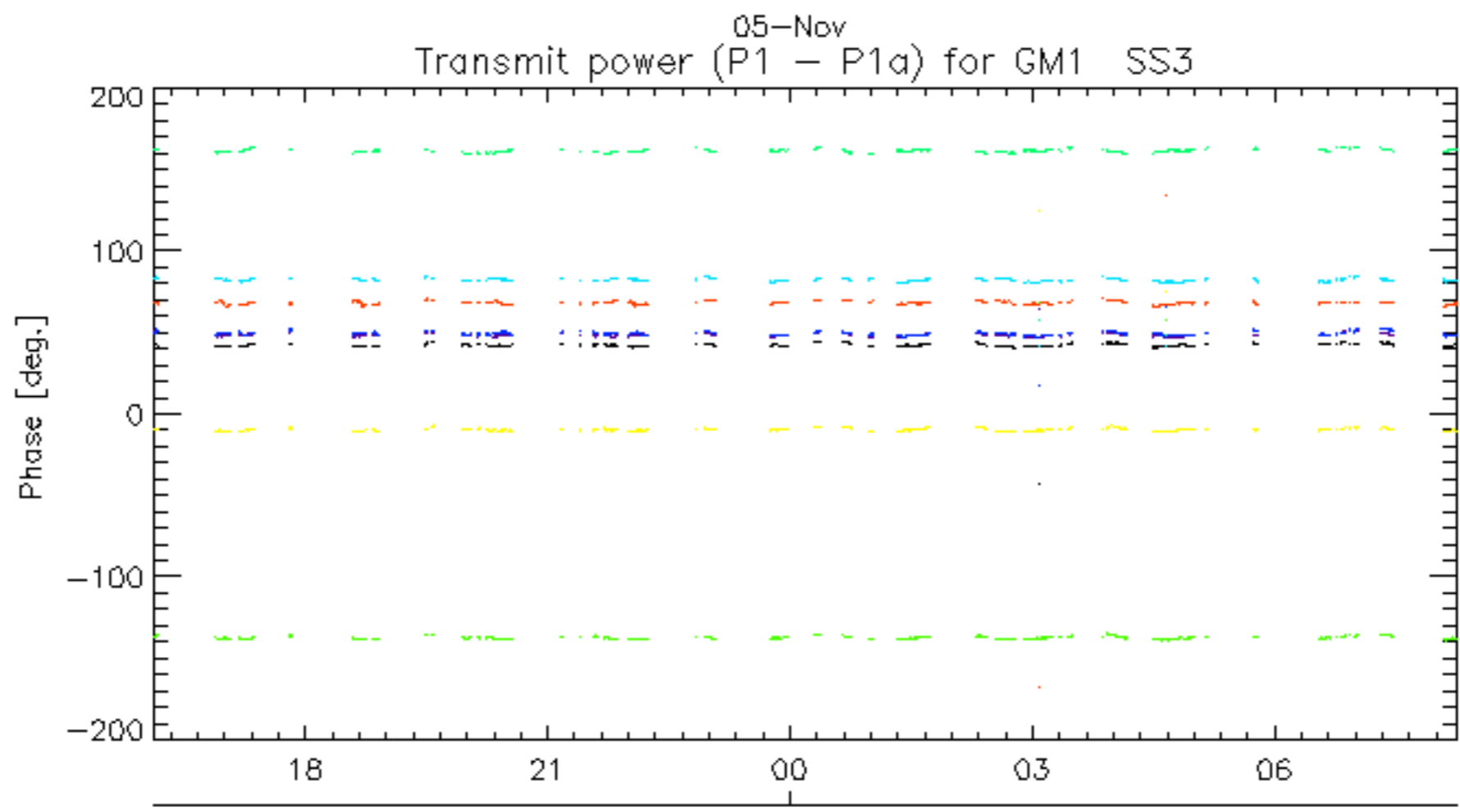
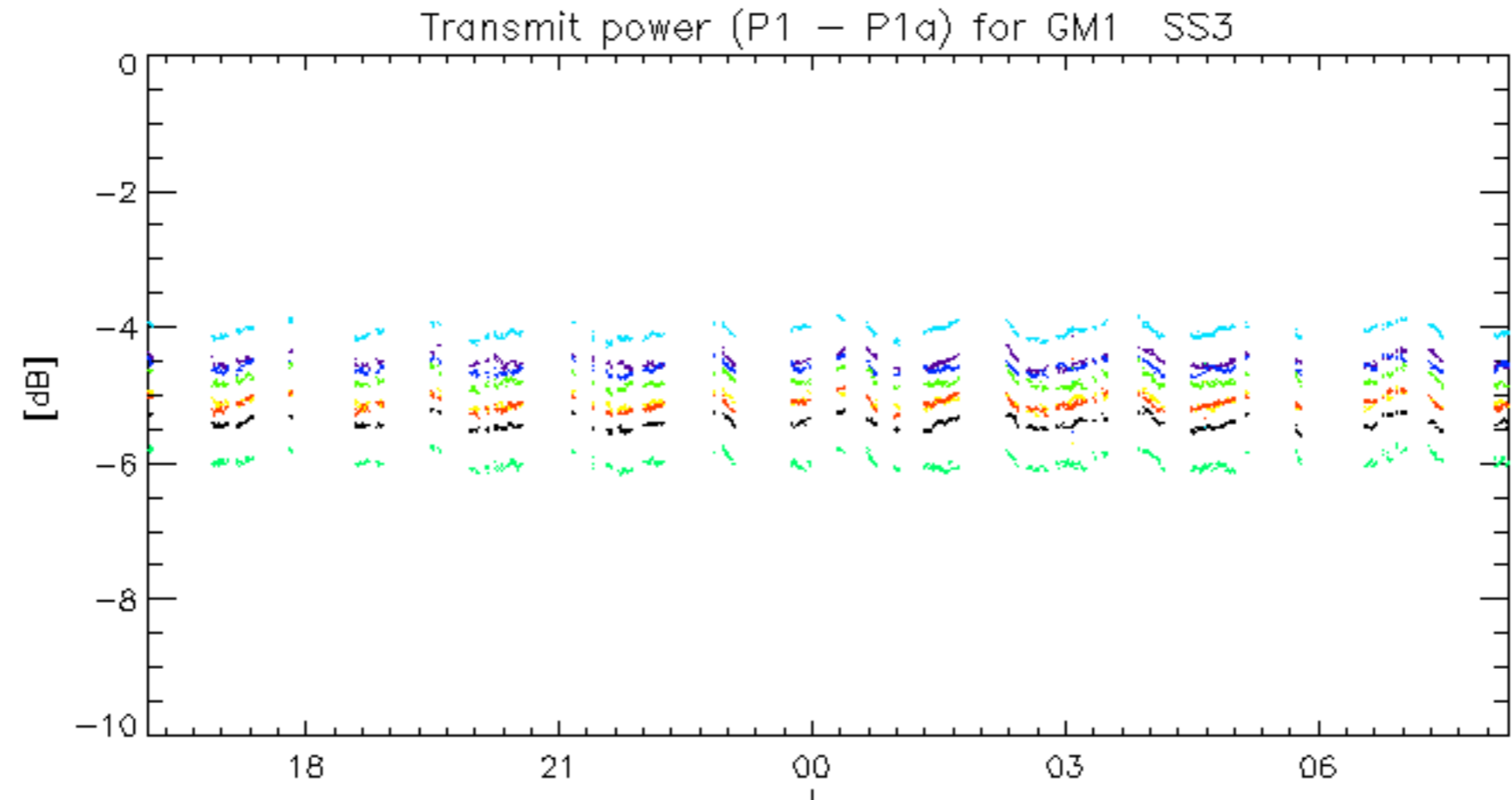
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20061104_182651_00000352052_00371_24473_3469.N1	0	16
ASA_GM1_1PNPDK20061104_145005_000002232052_00368_24470_7981.N1	0	15
ASA_WSM_1PNPDE20061103_011004_000002262052_00346_24448_0001.N1	0	63
ASA_WSM_1PNPDE20061104_004249_000002012052_00360_24462_0001.N1	0	29
ASA_WSM_1PNPDK20061103_135442_000000862052_00354_24456_9305.N1	0	24



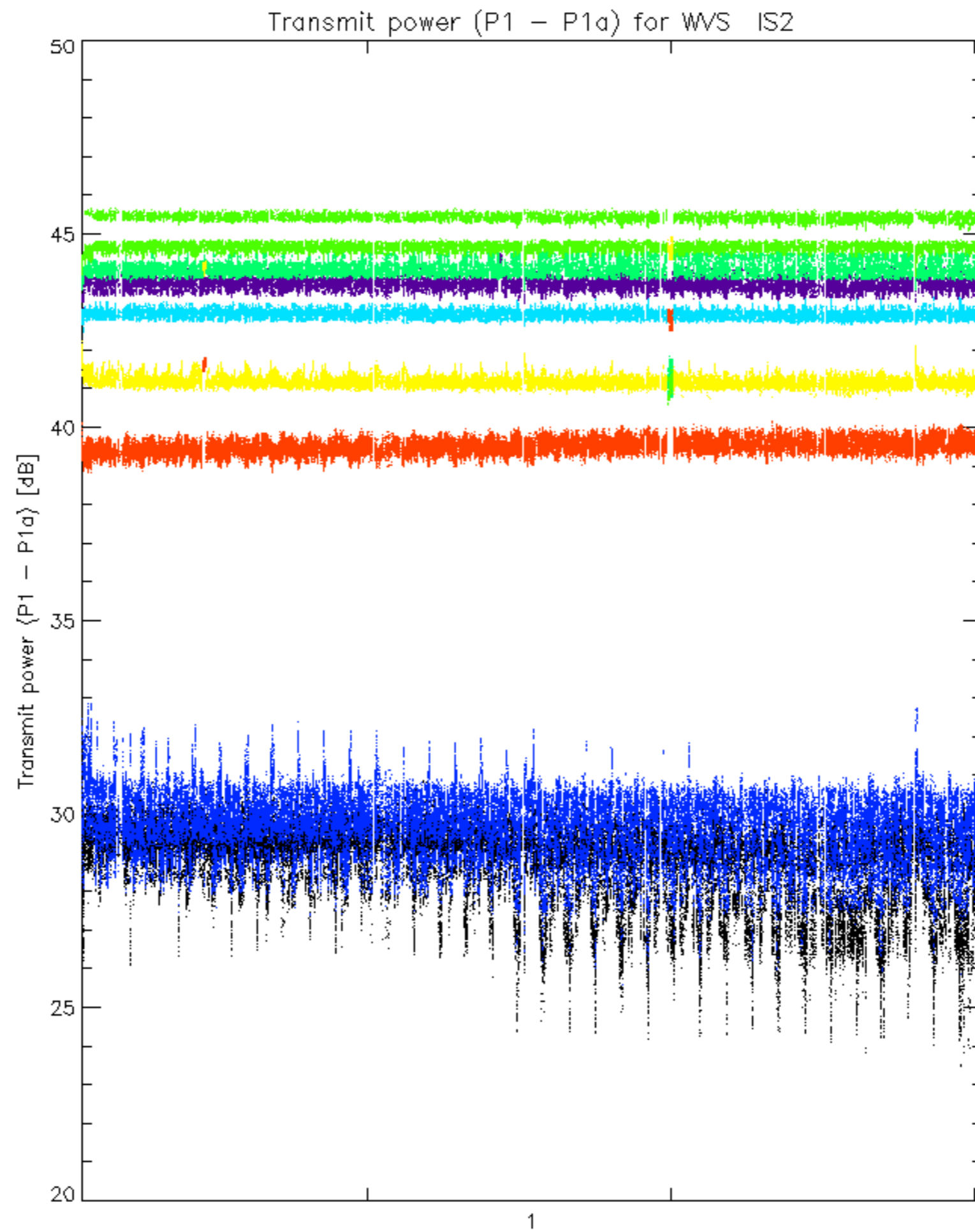
Transmit power (P1 - P1a) for GM1 SS3



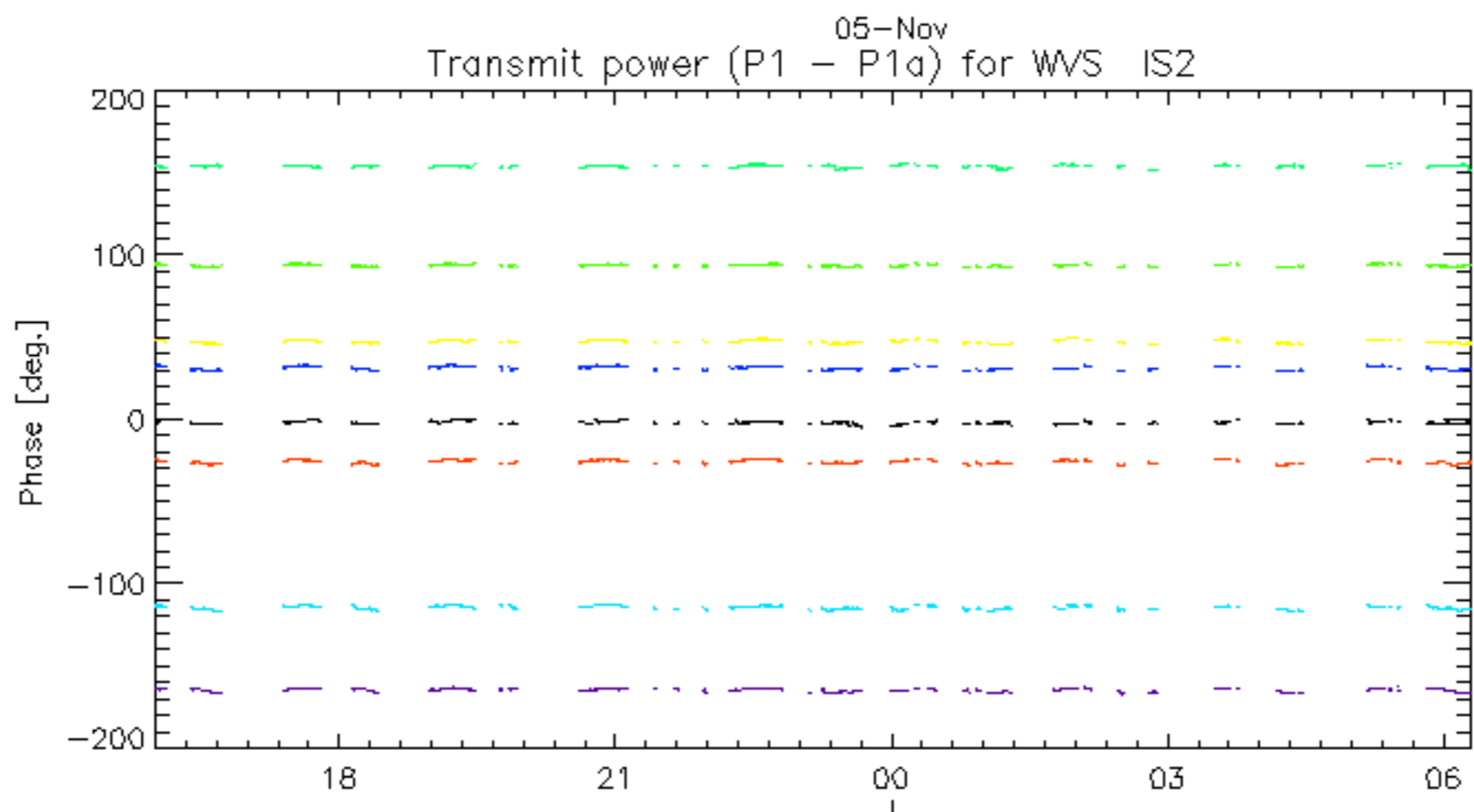
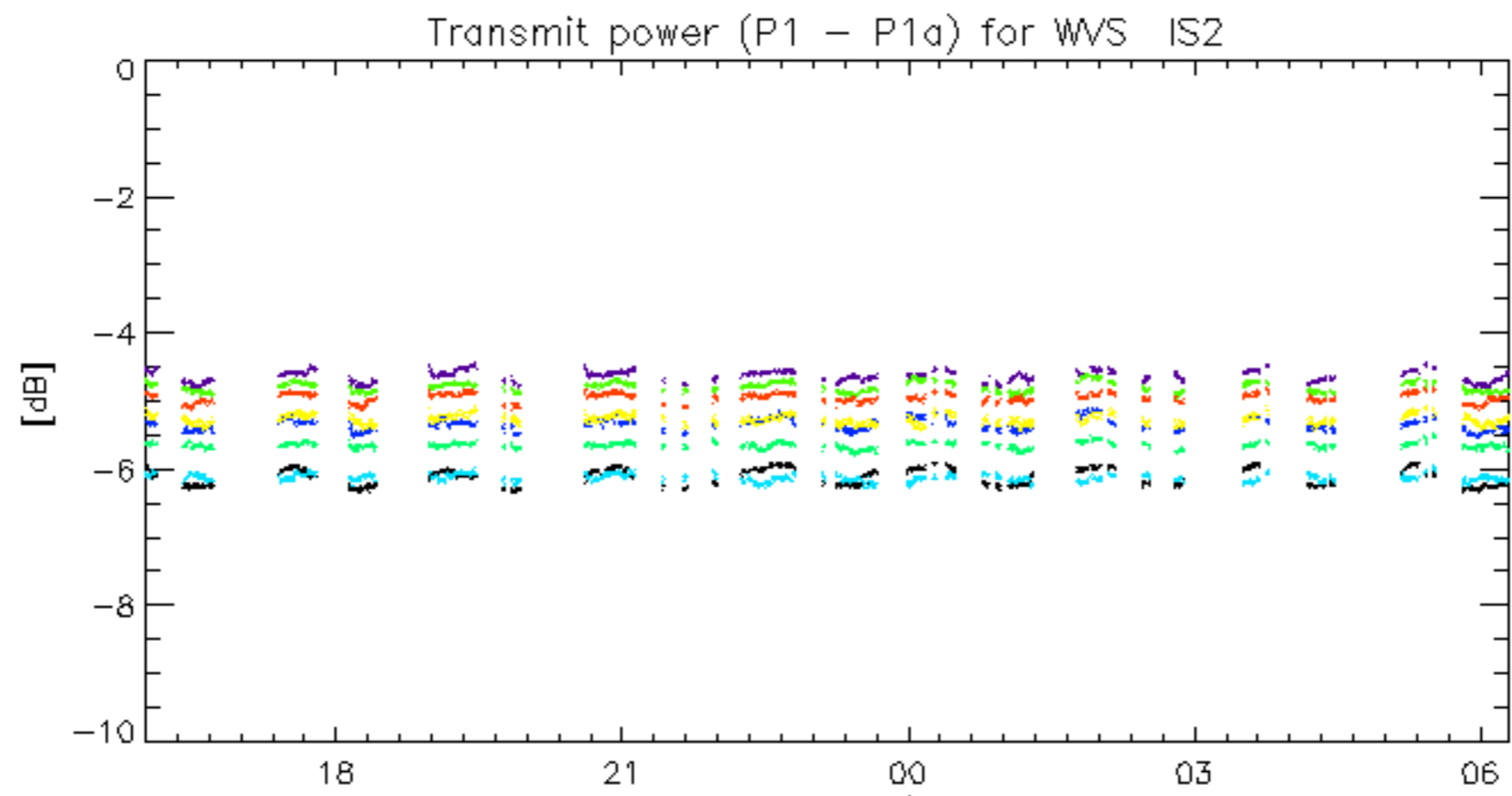
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.