

PRELIMINARY REPORT OF 060926

last update on Tue Sep 26 11:00:01 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 2006-09-25 00:00:00 to 2006-09-26 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	27	64	8	3	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	27	64	8	3	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	27	64	8	3	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	27	64	8	3	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	28	59	39	12	30
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	28	59	39	12	30
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	28	59	39	12	30
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	28	59	39	12	30

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	20060925 084153
H	20060925 015929

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	-3.942808	0.010002	-0.018372
7	P1	-3.068560	0.010199	-0.013448
11	P1	-4.063174	0.019010	-0.028290
15	P1	-6.185099	0.015760	-0.028095
19	P1	-3.533458	0.051349	-0.038702
22	P1	-4.575739	0.029046	-0.097029
26	P1	-3.956118	0.019053	-0.041943
30	P1	-5.806677	0.158196	-0.078830
3	P1	-16.610714	0.251208	-0.047037
7	P1	-17.107445	0.108191	-0.025376
11	P1	-16.804657	0.340571	-0.085206
15	P1	-12.886489	0.103900	0.075758
19	P1	-14.648360	0.471828	-0.087076
22	P1	-15.680238	0.566218	-0.107843
26	P1	-15.224160	0.203800	-0.000251
30	P1	-16.937824	0.396542	-0.138273

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.818760	0.084609	0.019891
7	P2	-21.845207	0.096862	0.064428
11	P2	-15.746731	0.108151	0.007706
15	P2	-7.094310	0.101064	-0.008226
19	P2	-9.122414	0.092944	-0.038679
22	P2	-18.125139	0.089064	-0.033921
26	P2	-16.414167	0.096162	-0.059582
30	P2	-19.472033	0.091087	-0.021968

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.183881	0.005465	-0.035933
7	P3	-8.183881	0.005465	-0.035933
11	P3	-8.183881	0.005465	-0.035933
15	P3	-8.183881	0.005465	-0.035933
19	P3	-8.183881	0.005465	-0.035933
22	P3	-8.183881	0.005465	-0.035933
26	P3	-8.183853	0.005463	-0.035820
30	P3	-8.183853	0.005463	-0.035820

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	-3.852625	0.010126	-0.045393
7	P1	-2.543827	0.019080	0.002697
11	P1	-2.886427	0.019057	-0.018144
15	P1	-3.657710	0.029844	-0.028037
19	P1	-3.469776	0.080048	-0.010512
22	P1	-5.096970	0.036331	-0.047018
26	P1	-5.873337	0.025565	-0.035572
30	P1	-5.205843	0.080249	-0.058597
3	P1	-11.642381	0.048611	-0.040330
7	P1	-10.000104	0.056585	-0.073690
11	P1	-10.350683	0.062314	-0.058106
15	P1	-10.857741	0.150264	0.044228
19	P1	-15.699545	3.682579	0.146560
22	P1	-20.805691	1.715257	-0.503949
26	P1	-15.929478	0.385132	0.014545
30	P1	-18.056526	0.821355	-0.284145

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.406059	0.054839	0.024166
7	P2	-22.188946	0.090834	0.063572
11	P2	-10.900202	0.042743	-0.013448
15	P2	-4.861006	0.036963	-0.018246
19	P2	-6.849417	0.038029	-0.031404
22	P2	-8.158591	0.032839	-0.024785
26	P2	-24.174511	0.061083	-0.051393
30	P2	-21.962440	0.048104	-0.015241

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.030471	0.004028	-0.049824
7	P3	-8.030346	0.004027	-0.049725
11	P3	-8.030333	0.004039	-0.049994
15	P3	-8.030308	0.004056	-0.050181
19	P3	-8.030412	0.004057	-0.049799
22	P3	-8.030452	0.004023	-0.049979
26	P3	-8.030450	0.004046	-0.049820
30	P3	-8.030330	0.004031	-0.050033

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	0.000553476
	stdev	1.74066e-07
MEAN Q	mean	0.000522865
	stdev	2.17745e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136812
	stdev	0.00114347
STDEV Q	mean	0.137170
	stdev	0.00116111



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006092[456]

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_1PNPDE20060924_232021_000001852051_00288_23889_6487.N1	1	0
ASA_IMM_1PNPDE20060925_010032_000002092051_00289_23890_6511.N1	1	0
ASA_GM1_1PNPDK20060924_132252_000006402051_00282_23883_5084.N1	0	15
ASA_WSM_1PNPDE20060924_163151_000001282051_00284_23885_3698.N1	0	70
ASA_WSM_1PNPDE20060924_181428_000002142051_00285_23886_3707.N1	0	60
ASA_WSM_1PNPDE20060924_231433_000000972051_00288_23889_3734.N1	0	50
ASA_WSM_1PNPDE20060925_141859_000000862051_00297_23898_3790.N1	0	35





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)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	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)

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

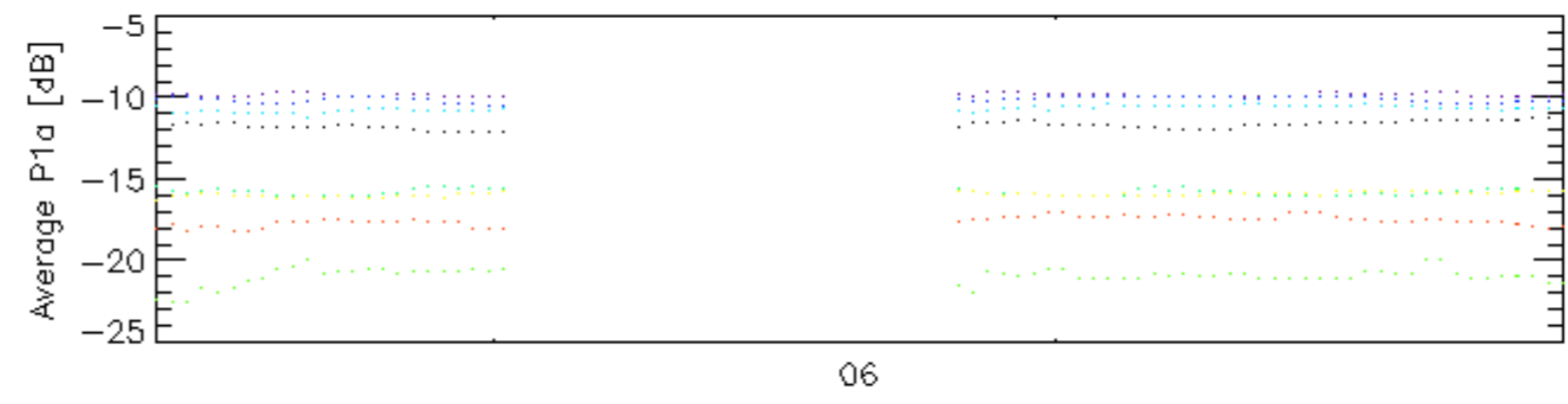
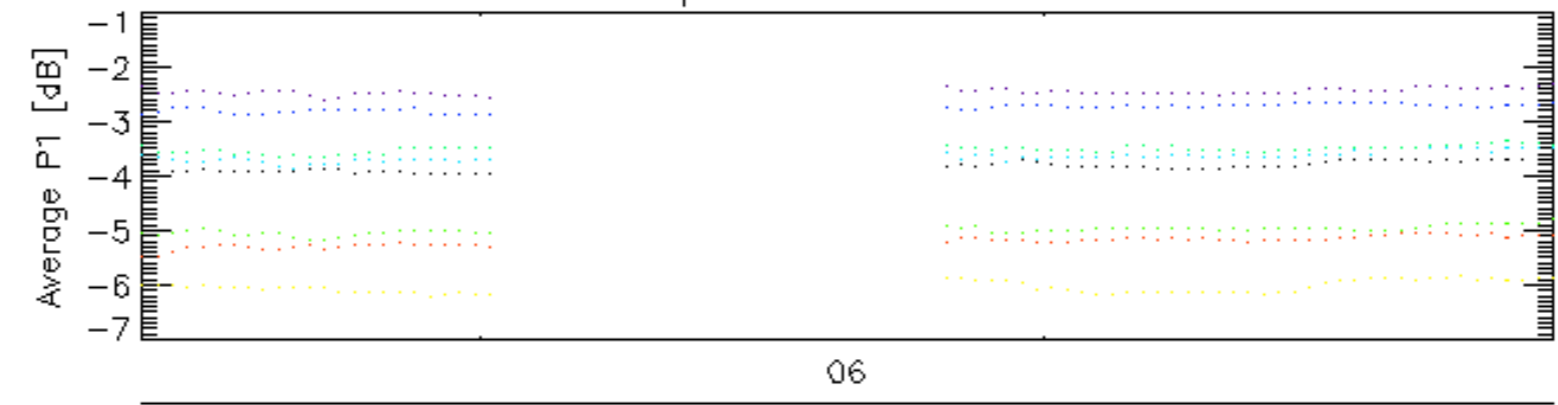
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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Acsending
<input type="checkbox"/>
Descending

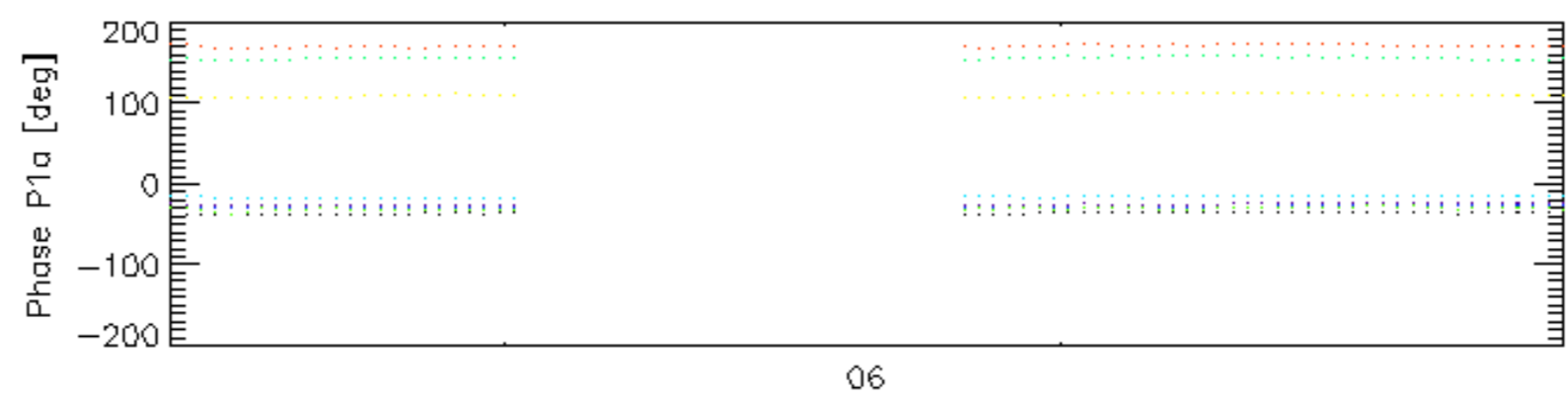
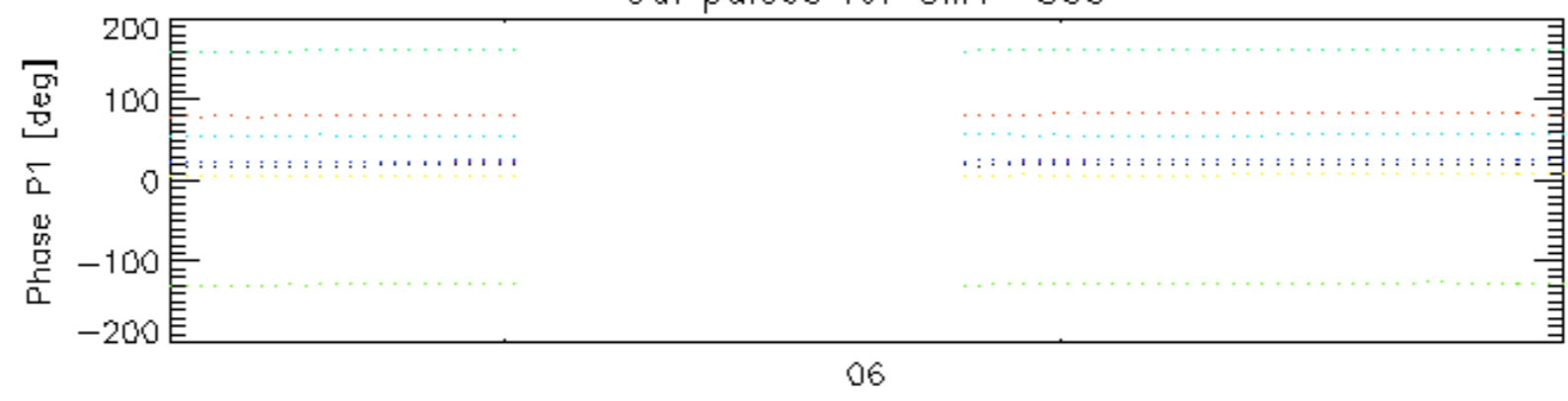
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

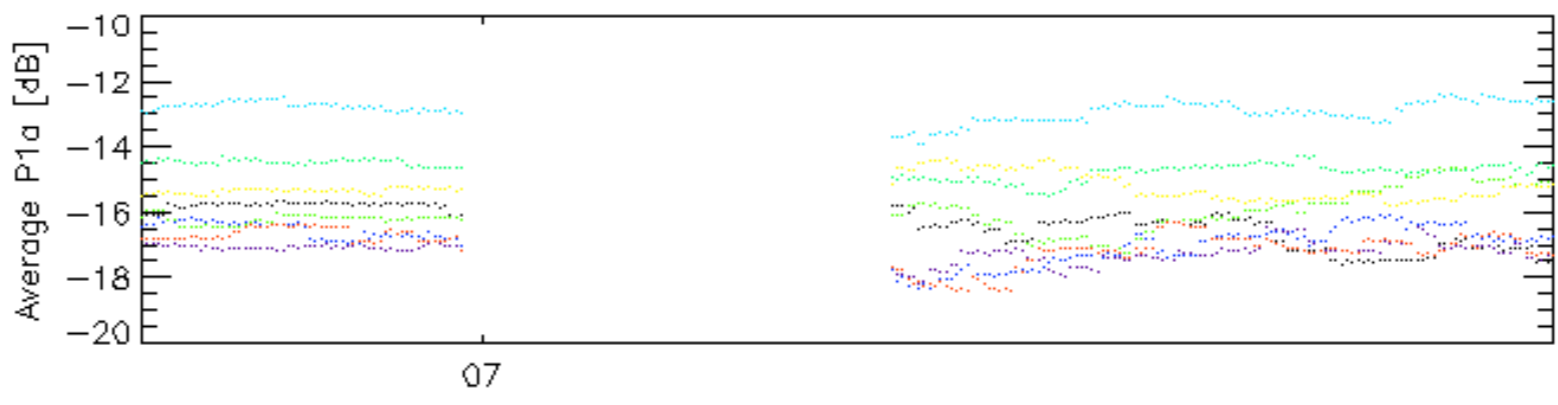
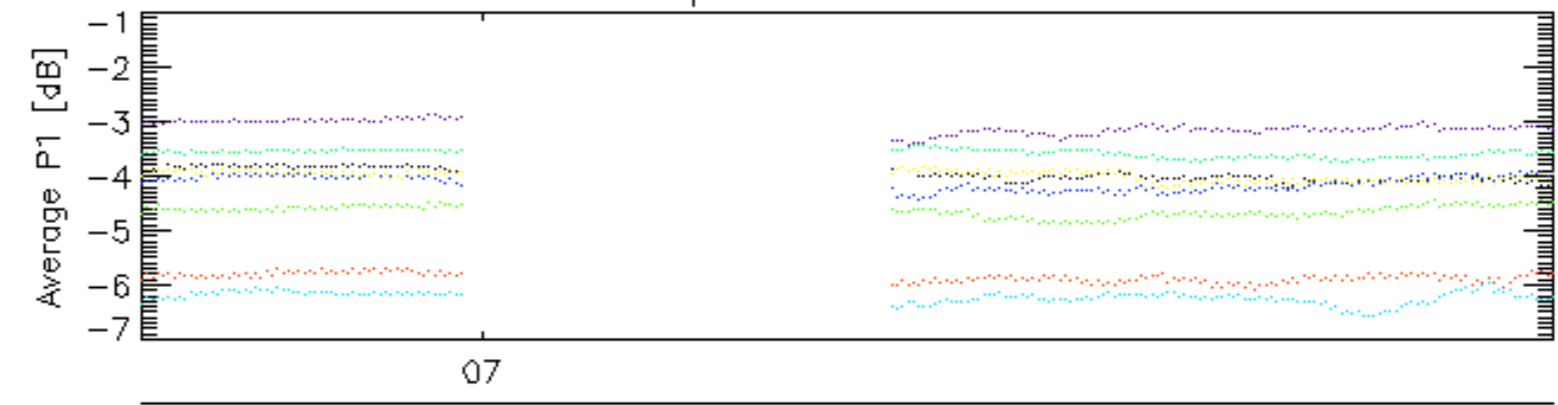


Cal pulses for GM1 SS3

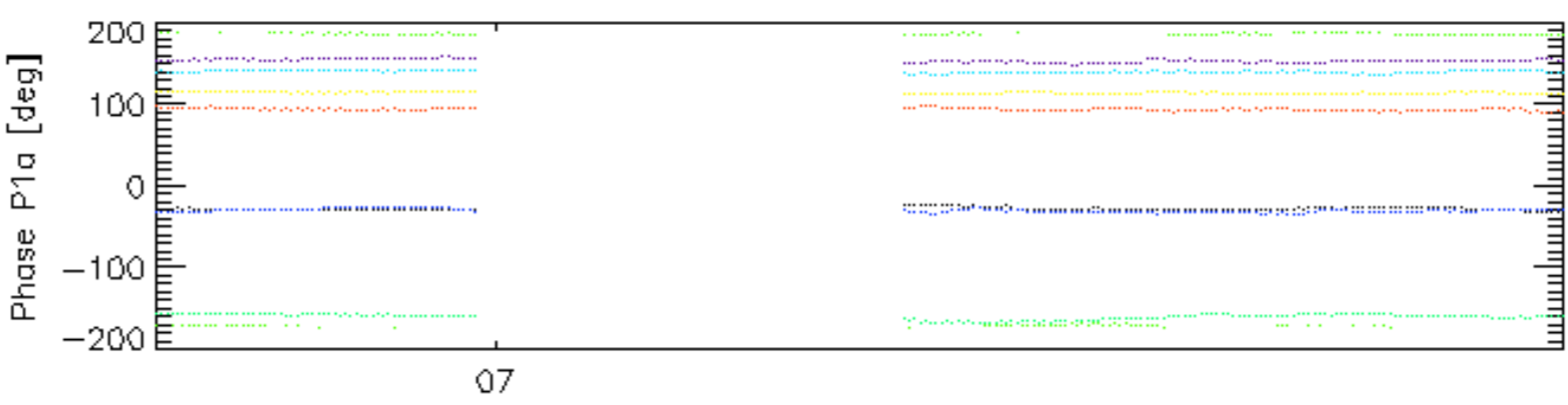


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{25-Sep} _ 26 _ 30

Cal pulses for WVS IS2

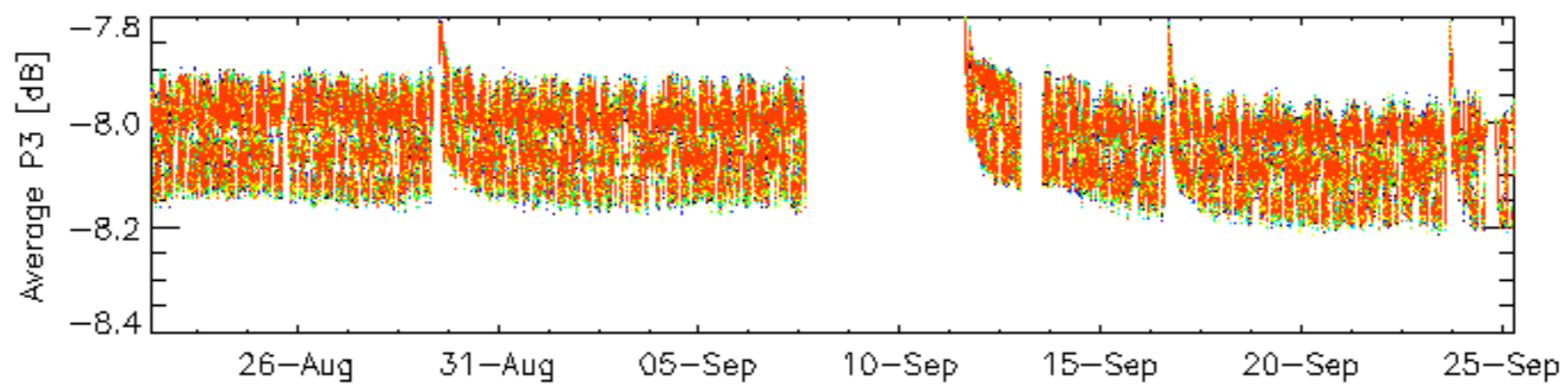
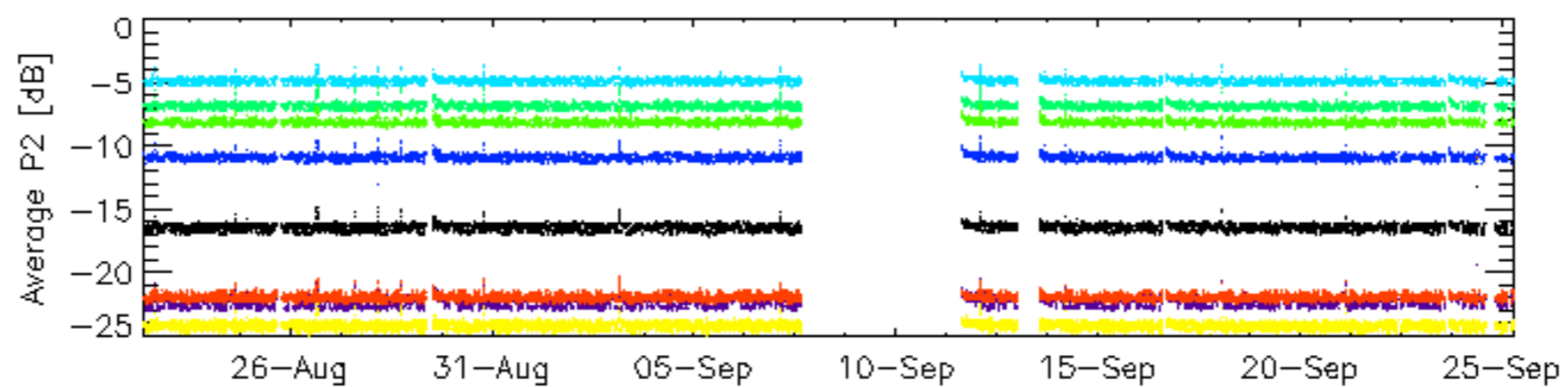
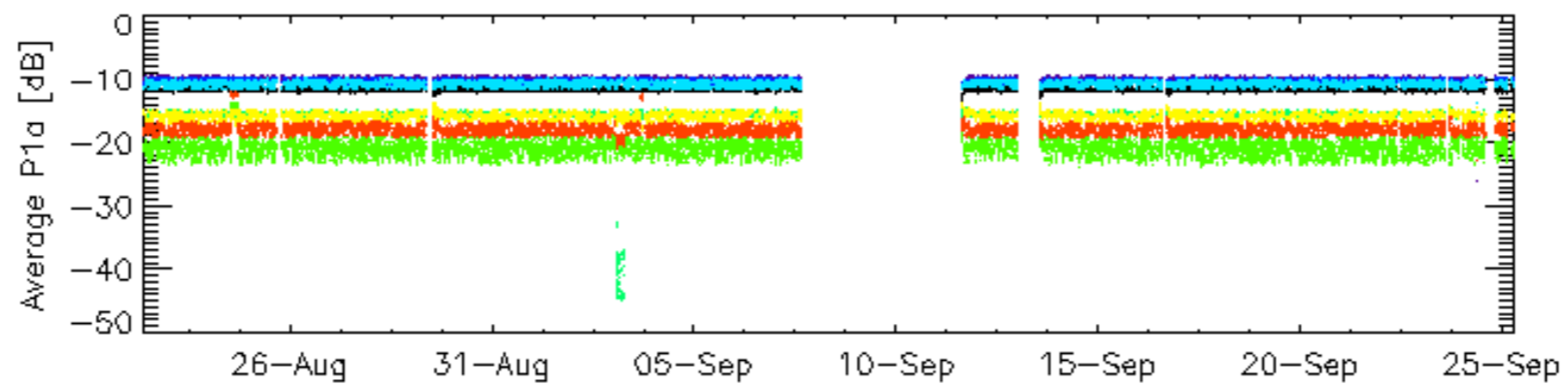
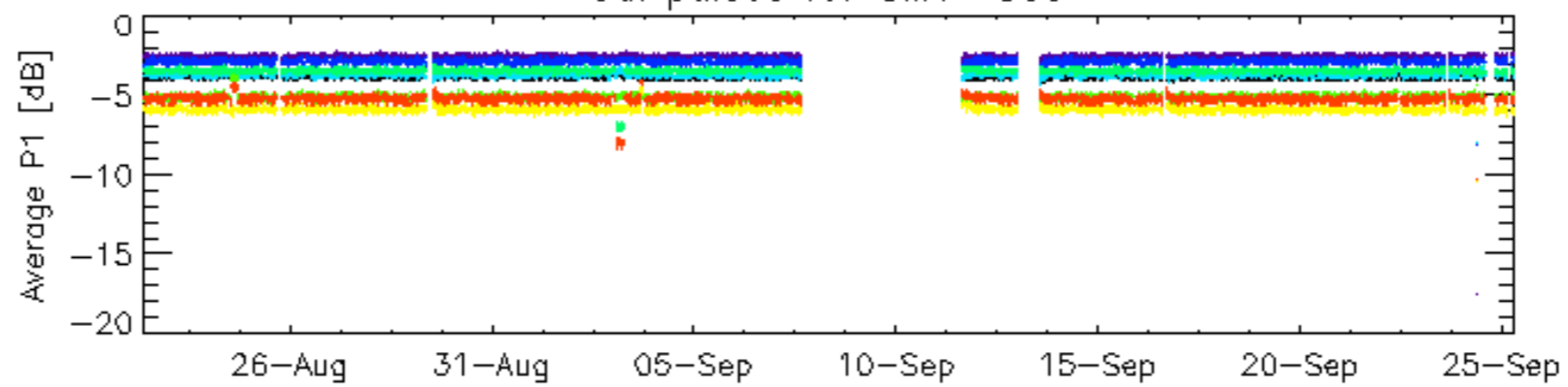


Cal pulses for WVS IS2



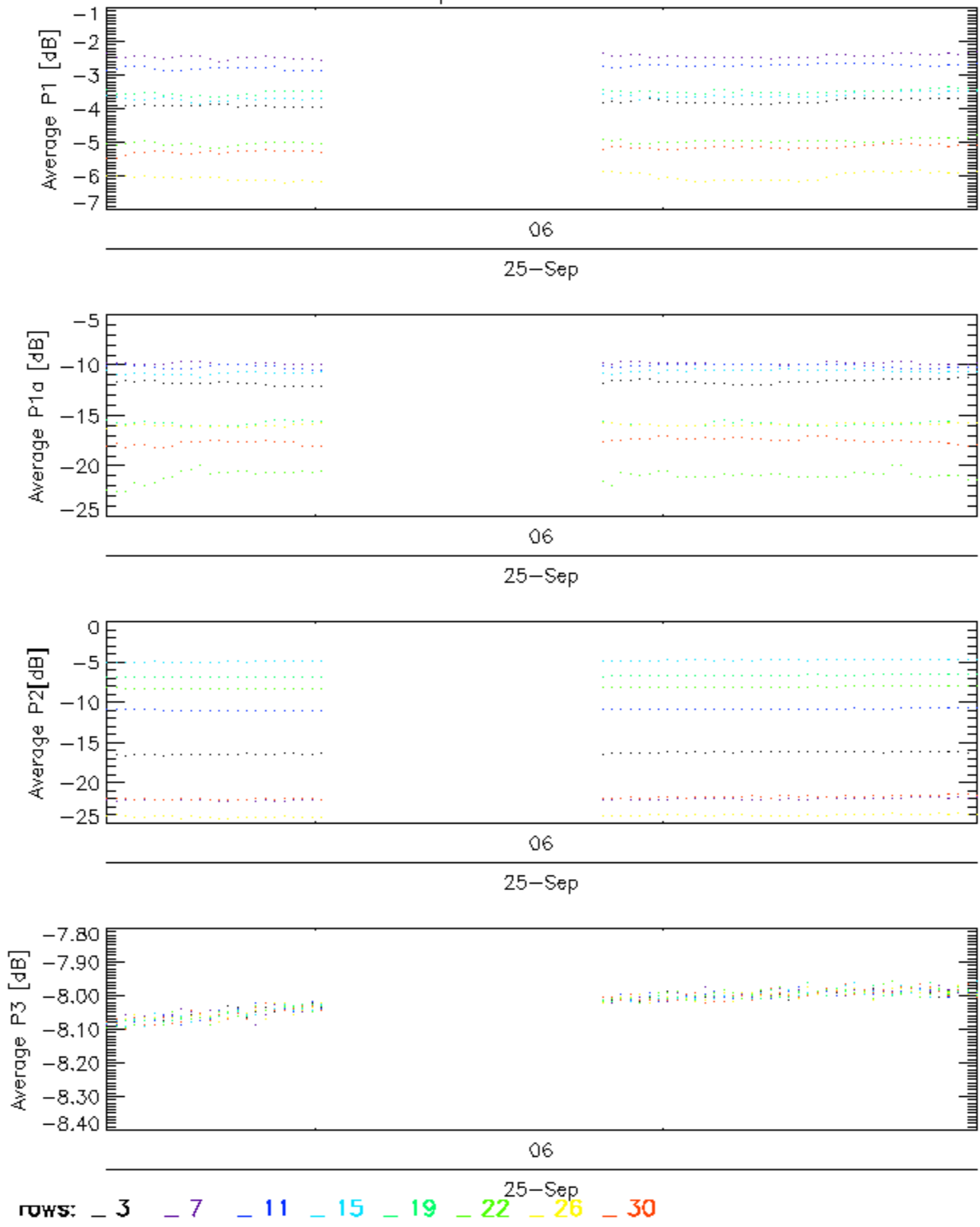
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{25-Sep} _ 26 _ 30

Cal pulses for GM1 SS3

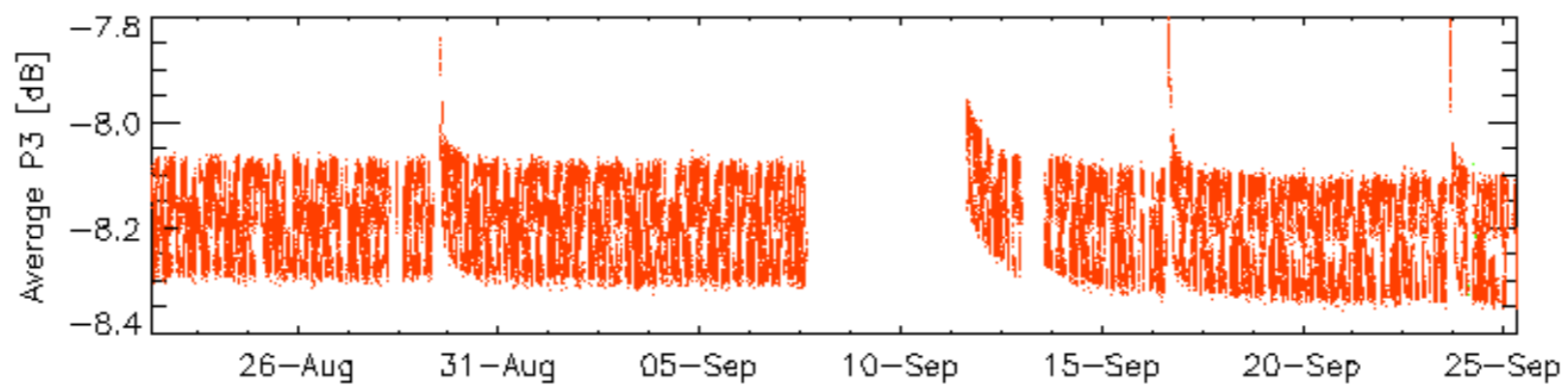
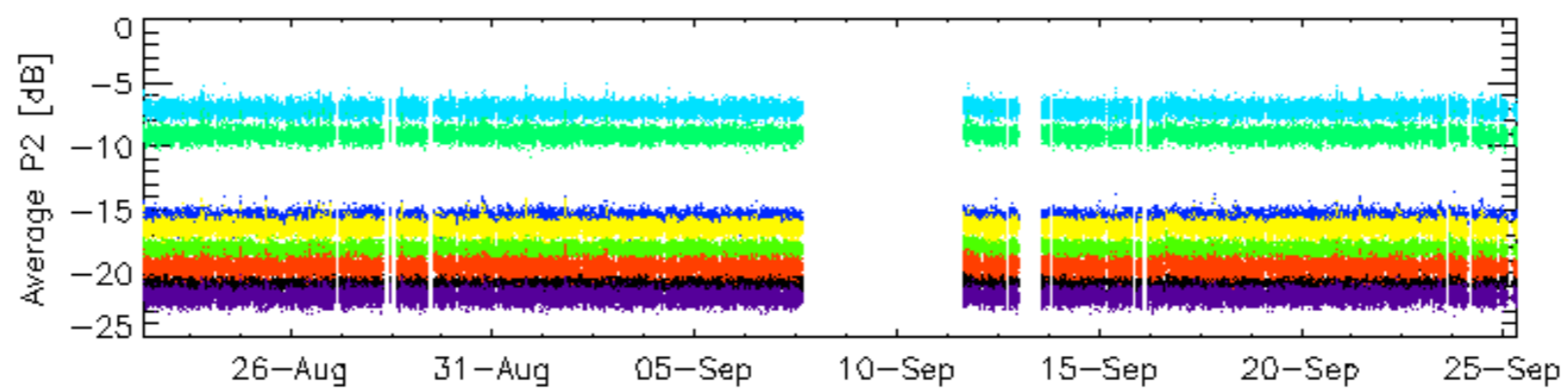
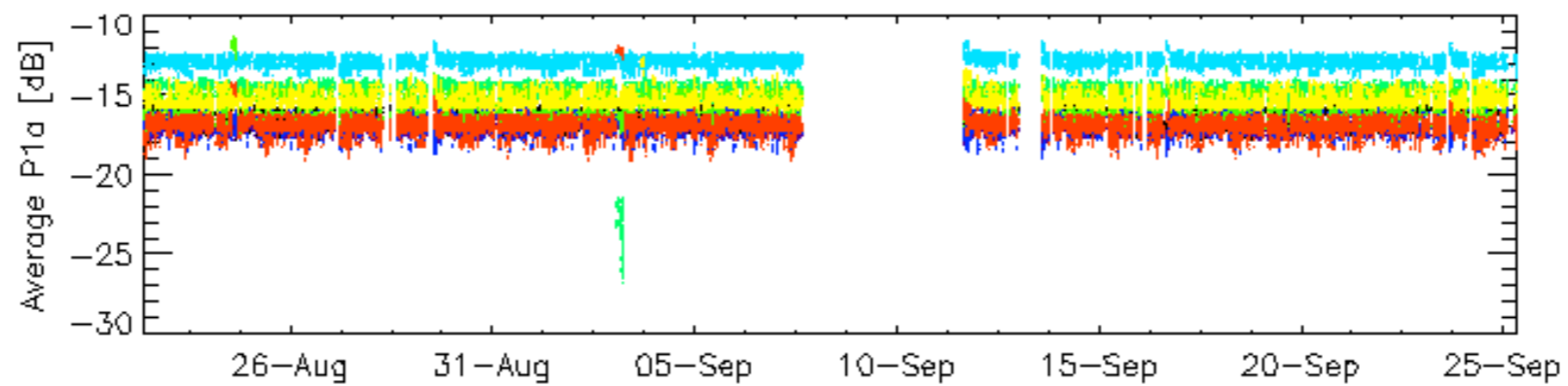
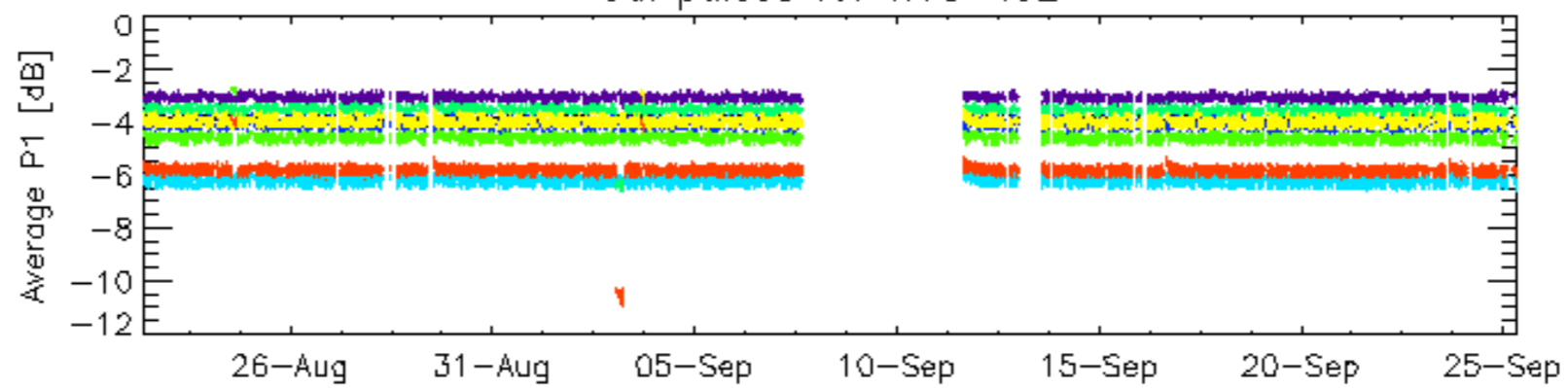


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

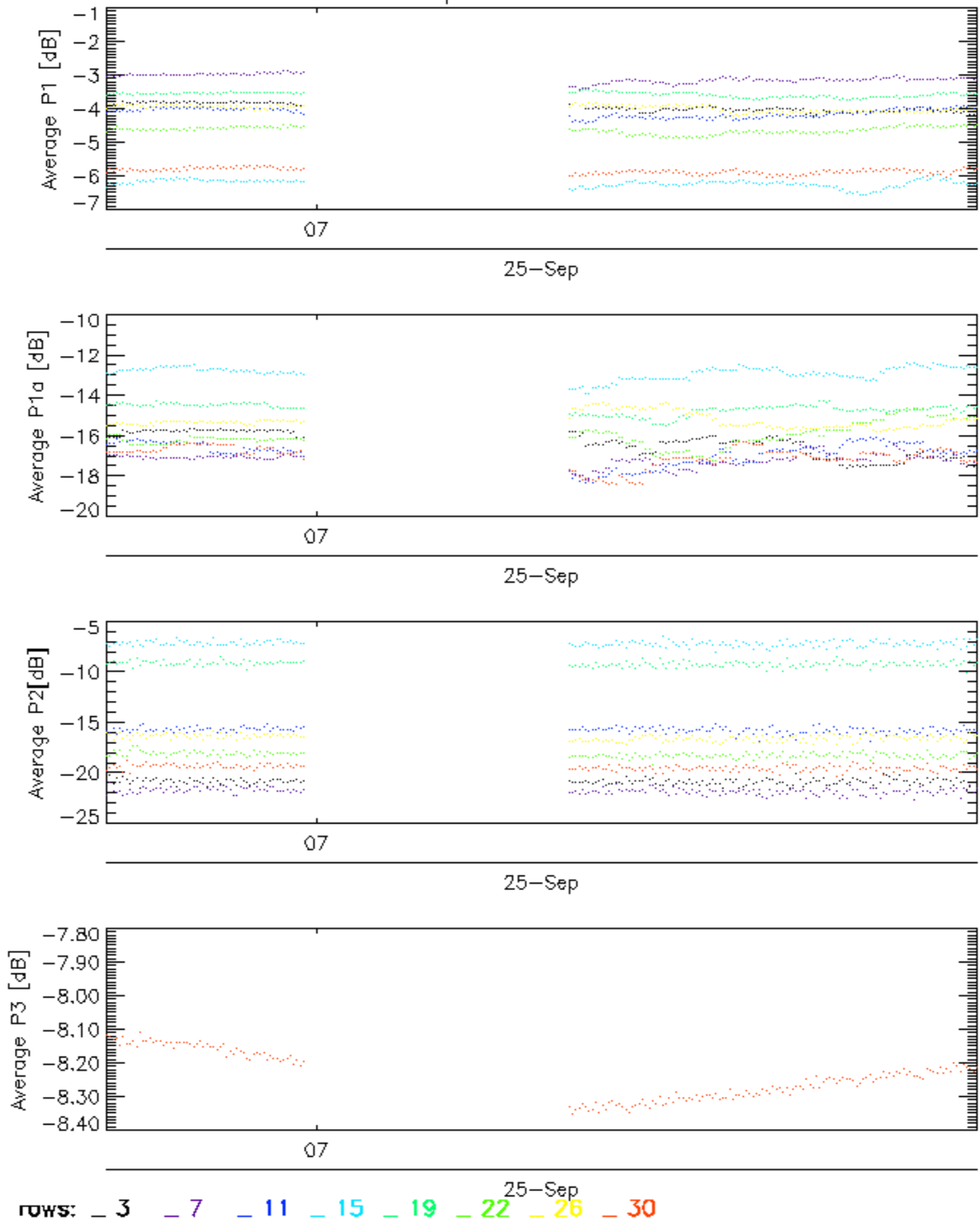


Cal pulses for WVS IS2

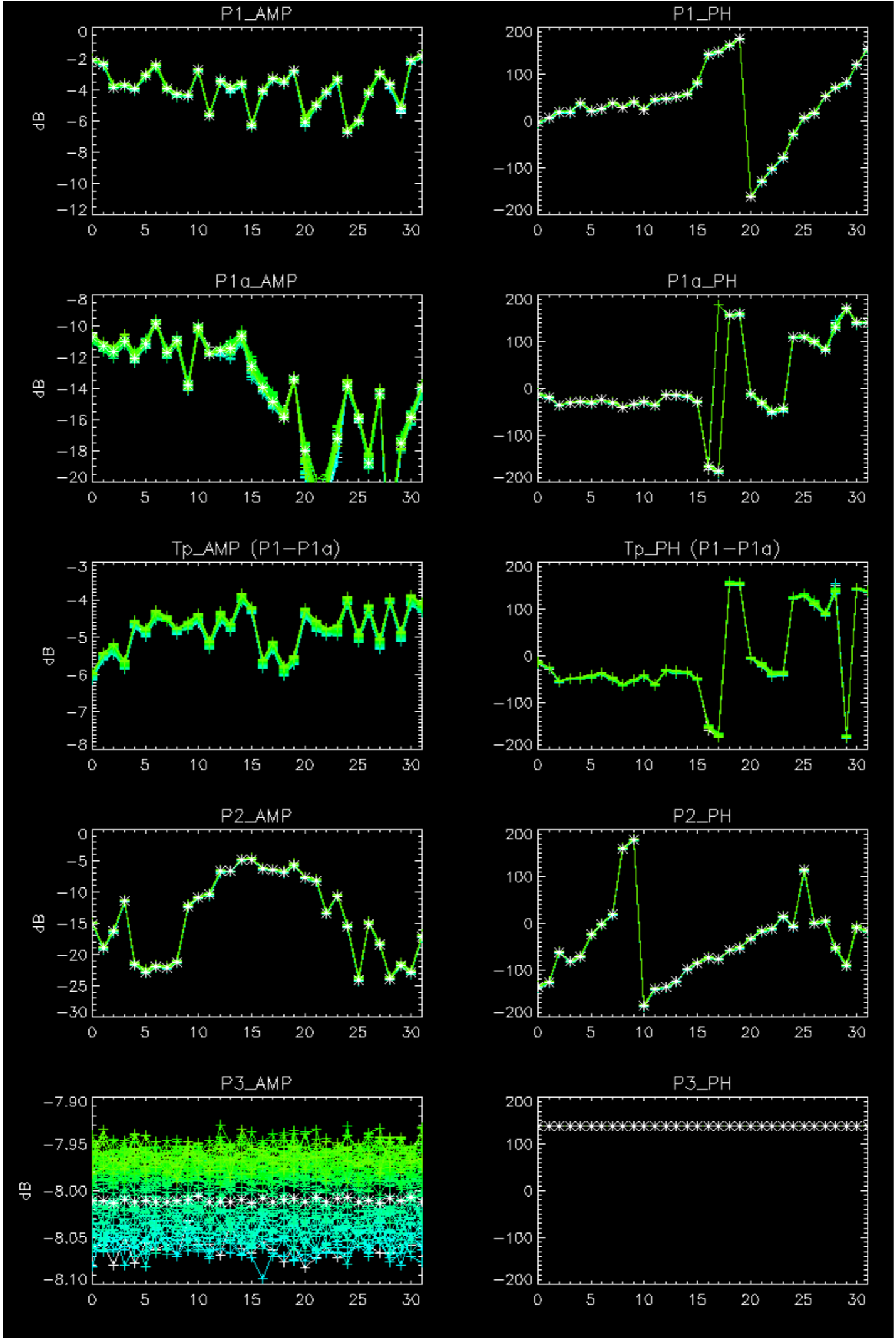


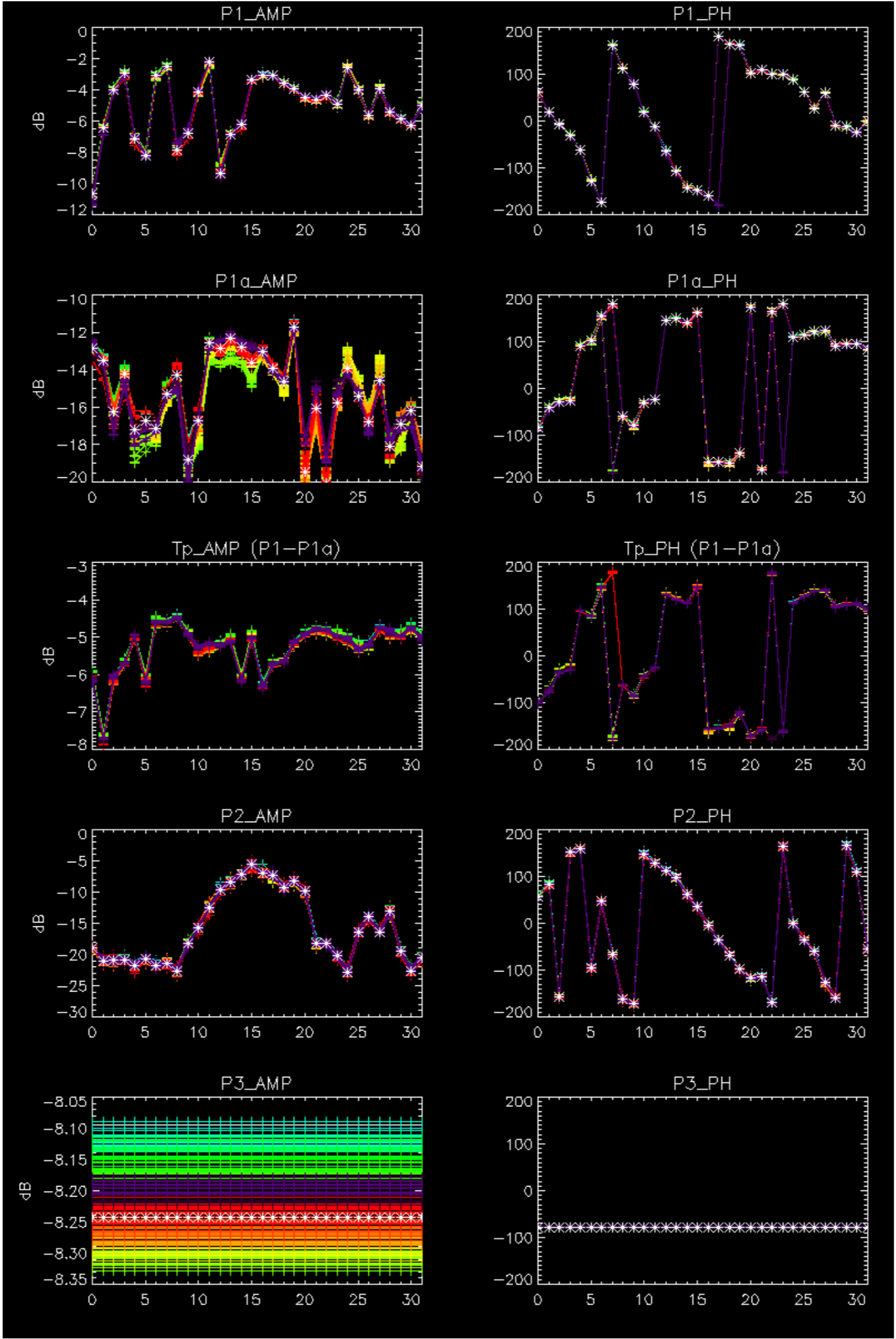
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for WVS IS2



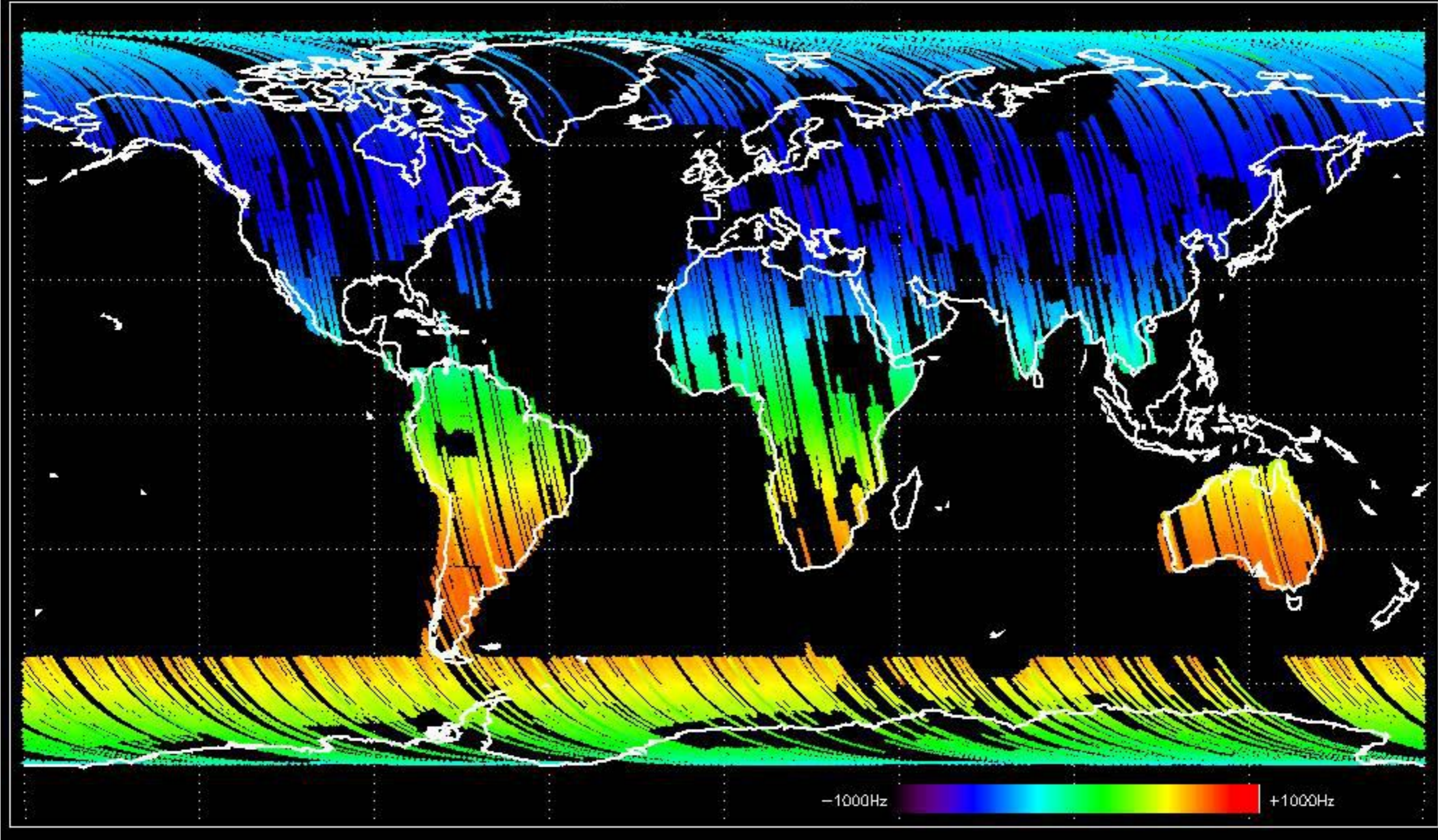
No anomalies observed.



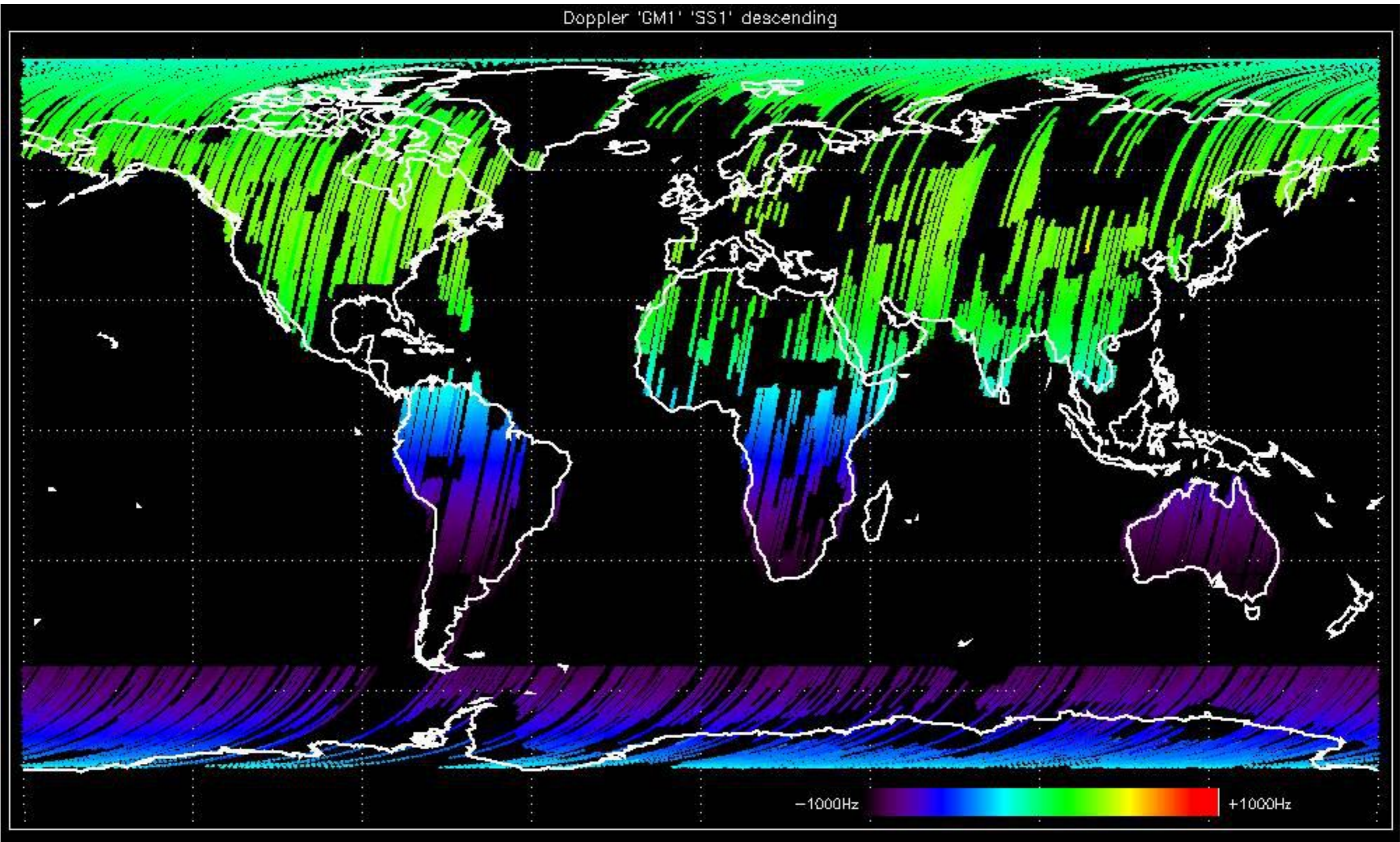


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

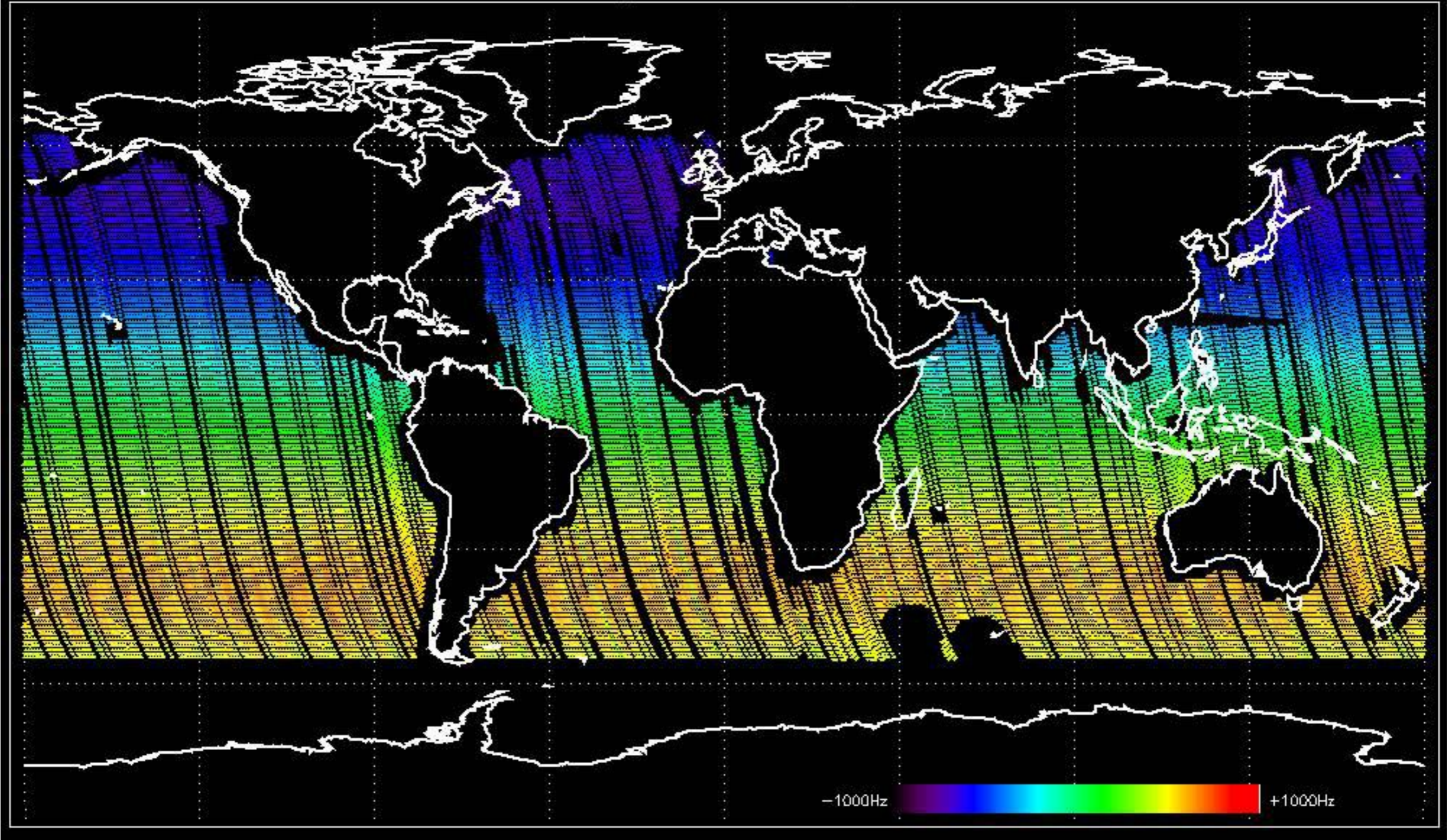
Doppler 'GM1' 'SS1' ascending



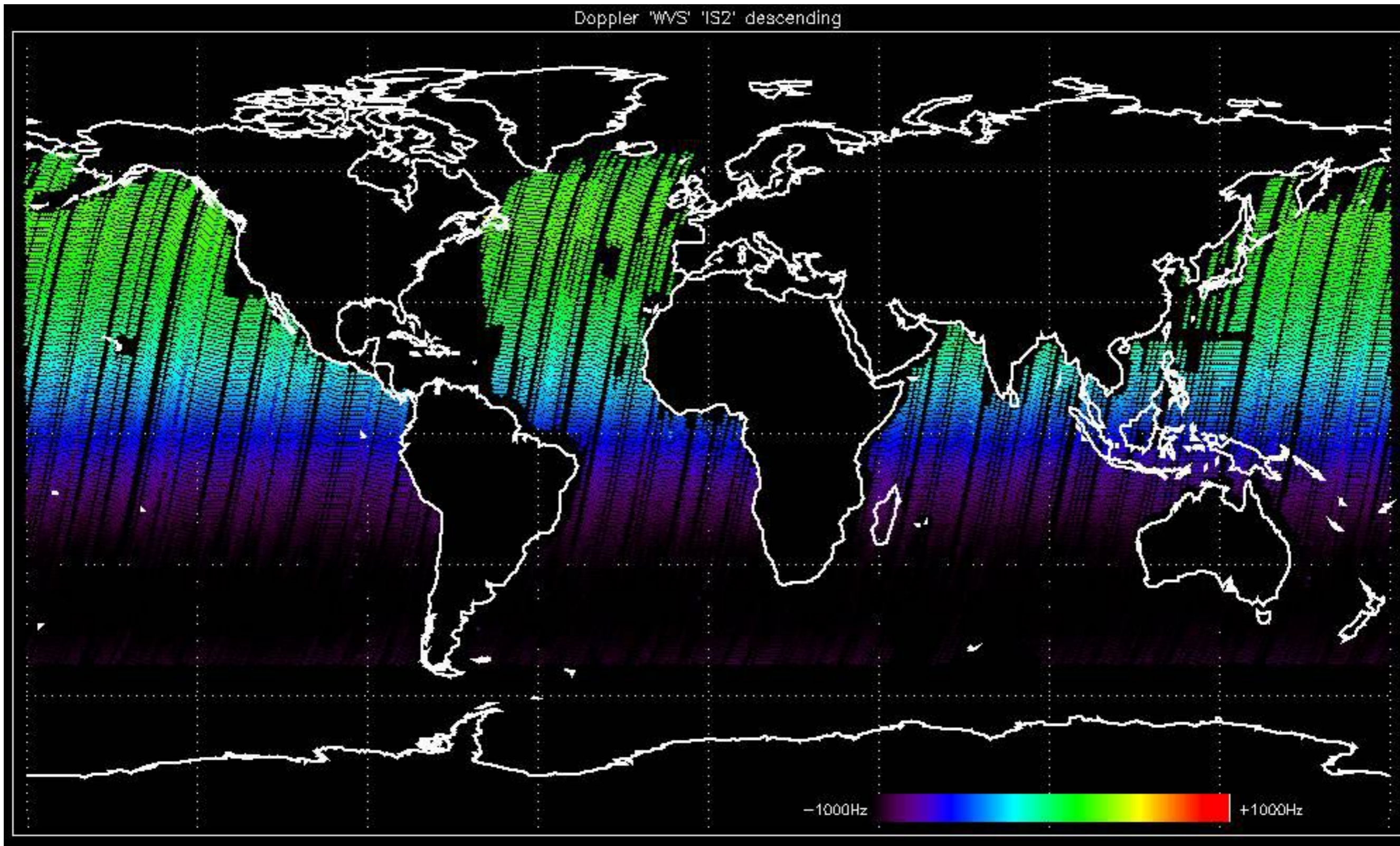
Doppler 'GM1' 'SS1' descending



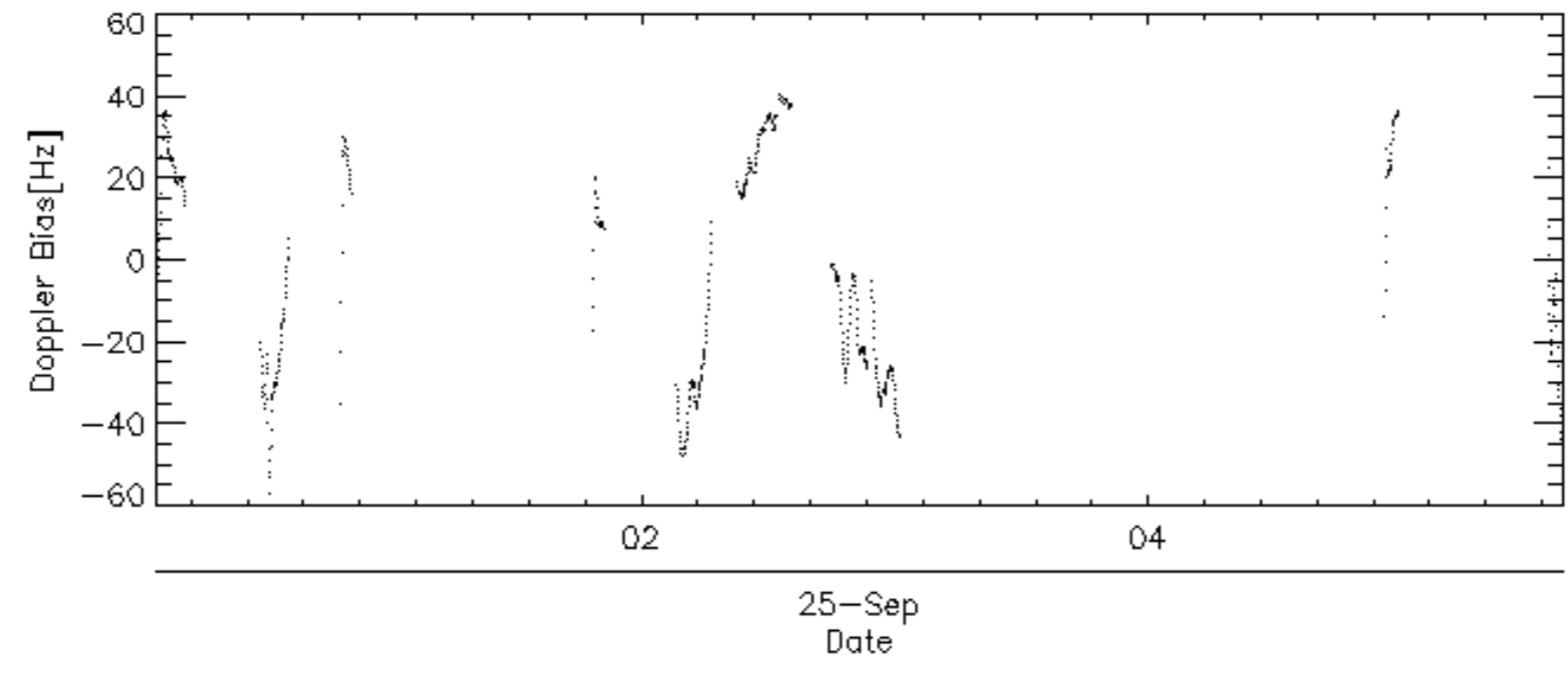
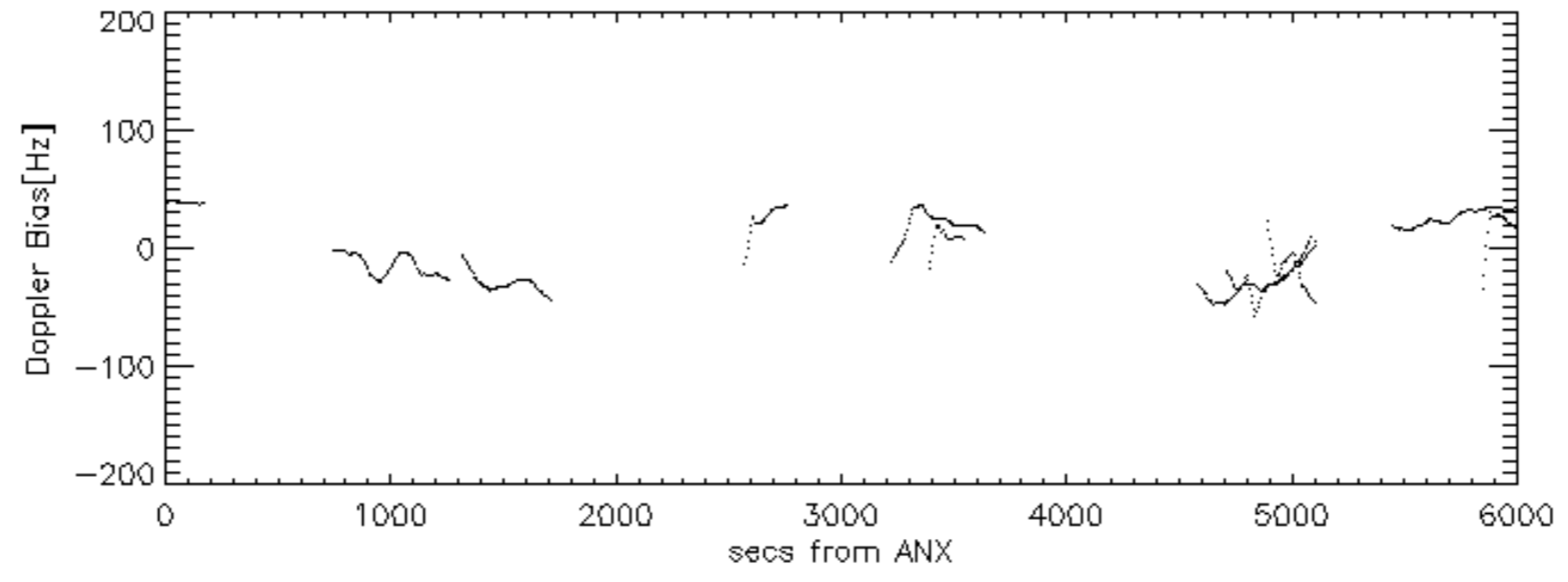
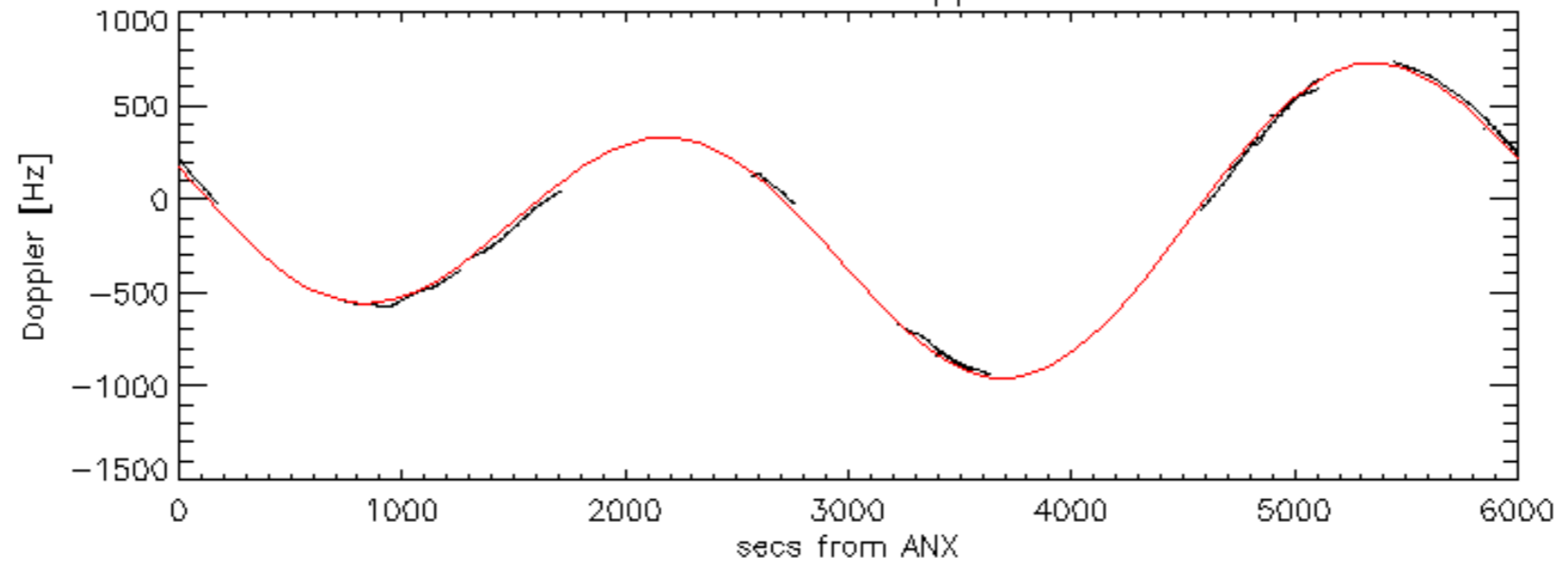
Doppler 'WVS' 'IS2' ascending

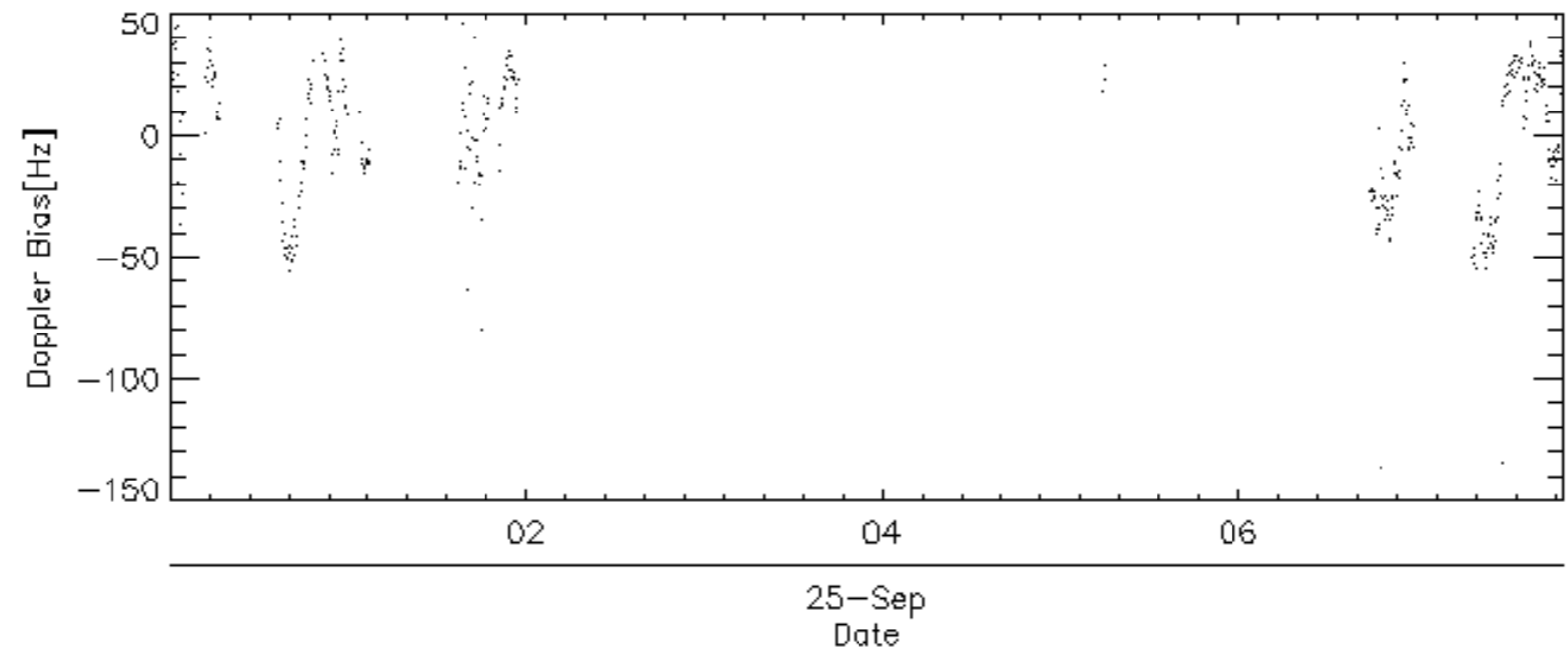
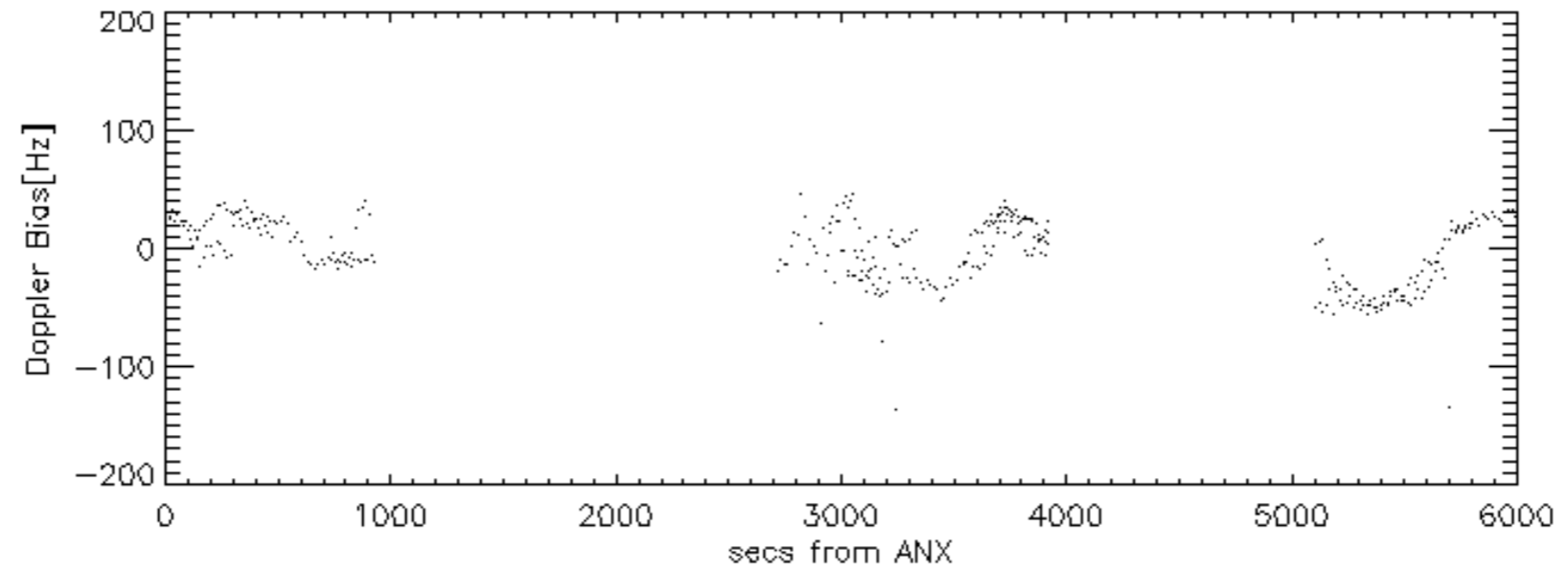
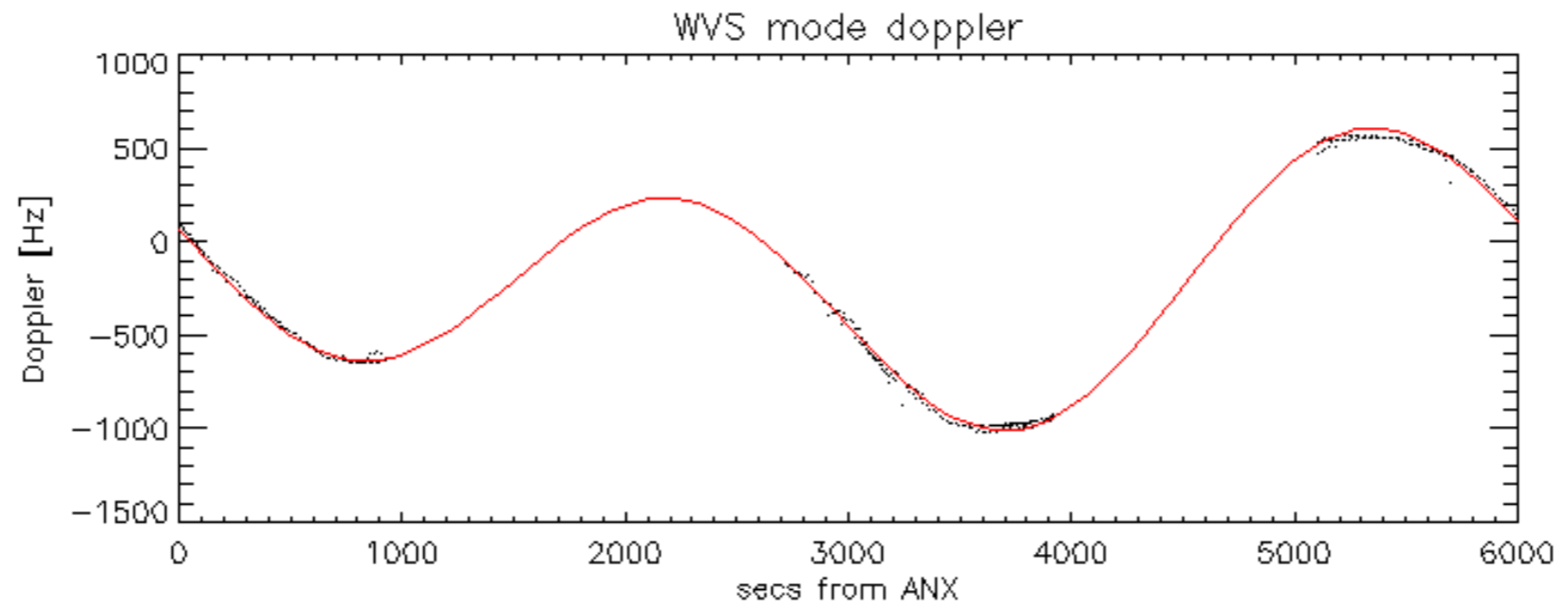


Doppler 'WVS' 'IS2' descending

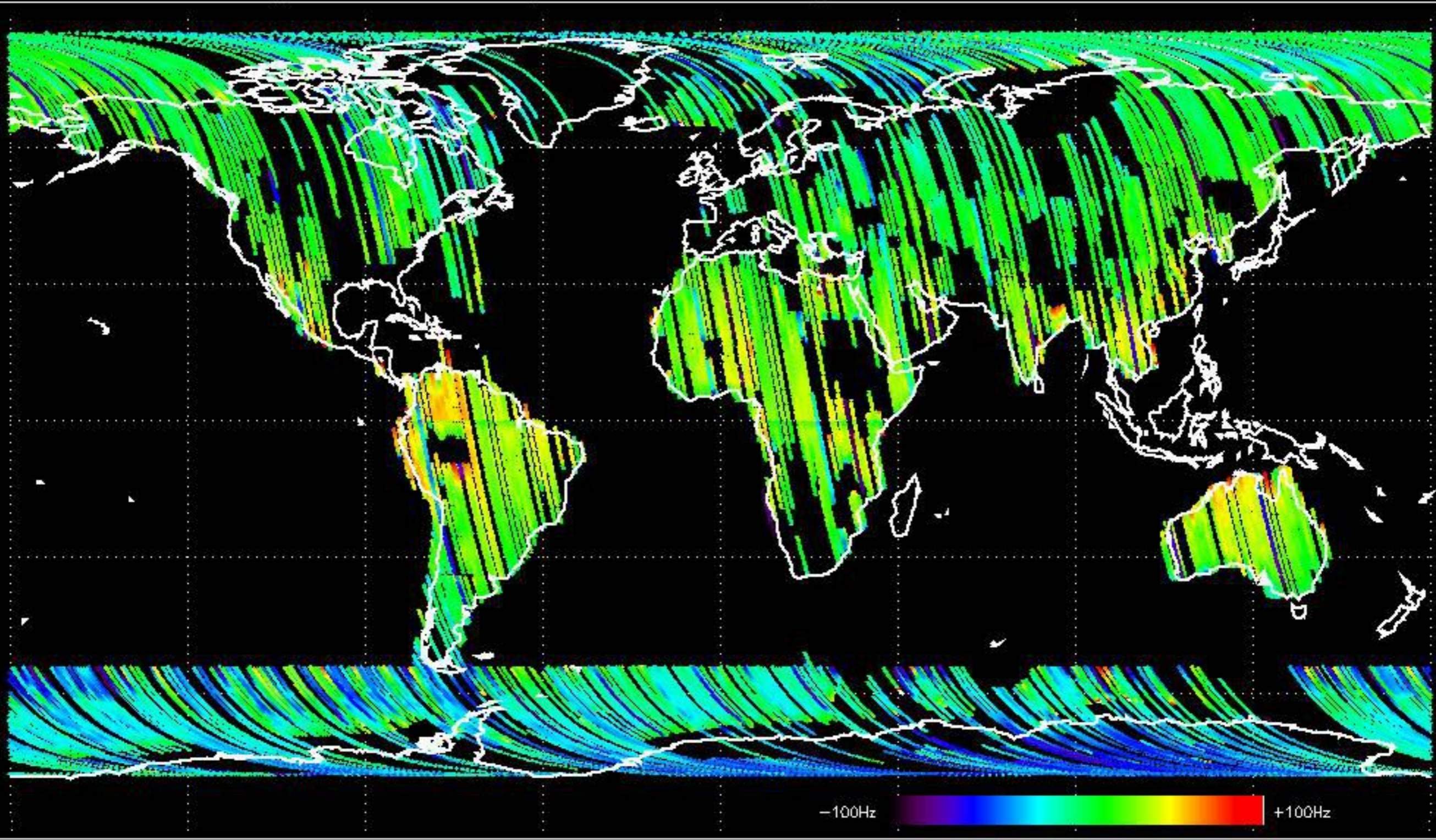


GM1 mode doppler

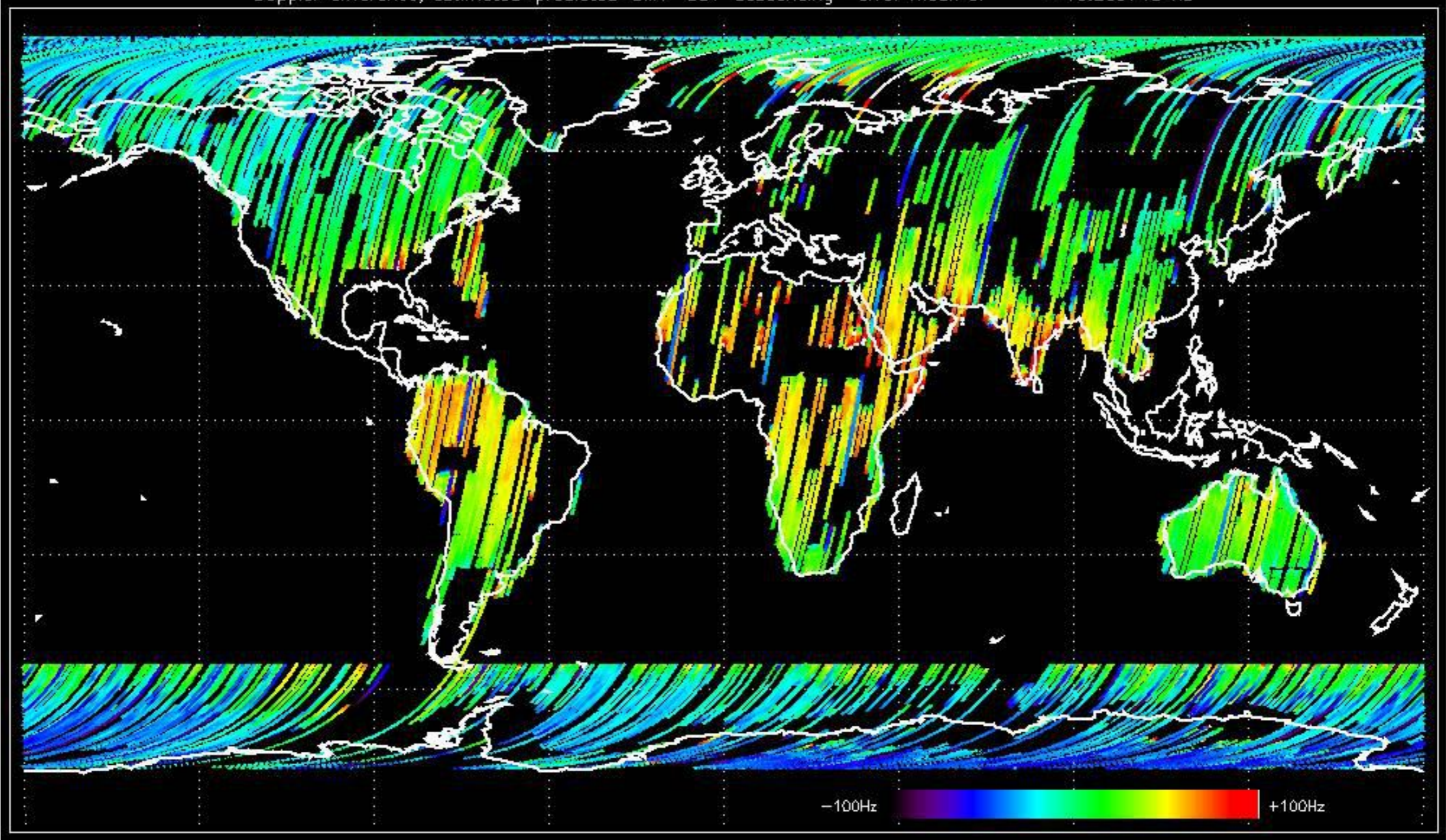




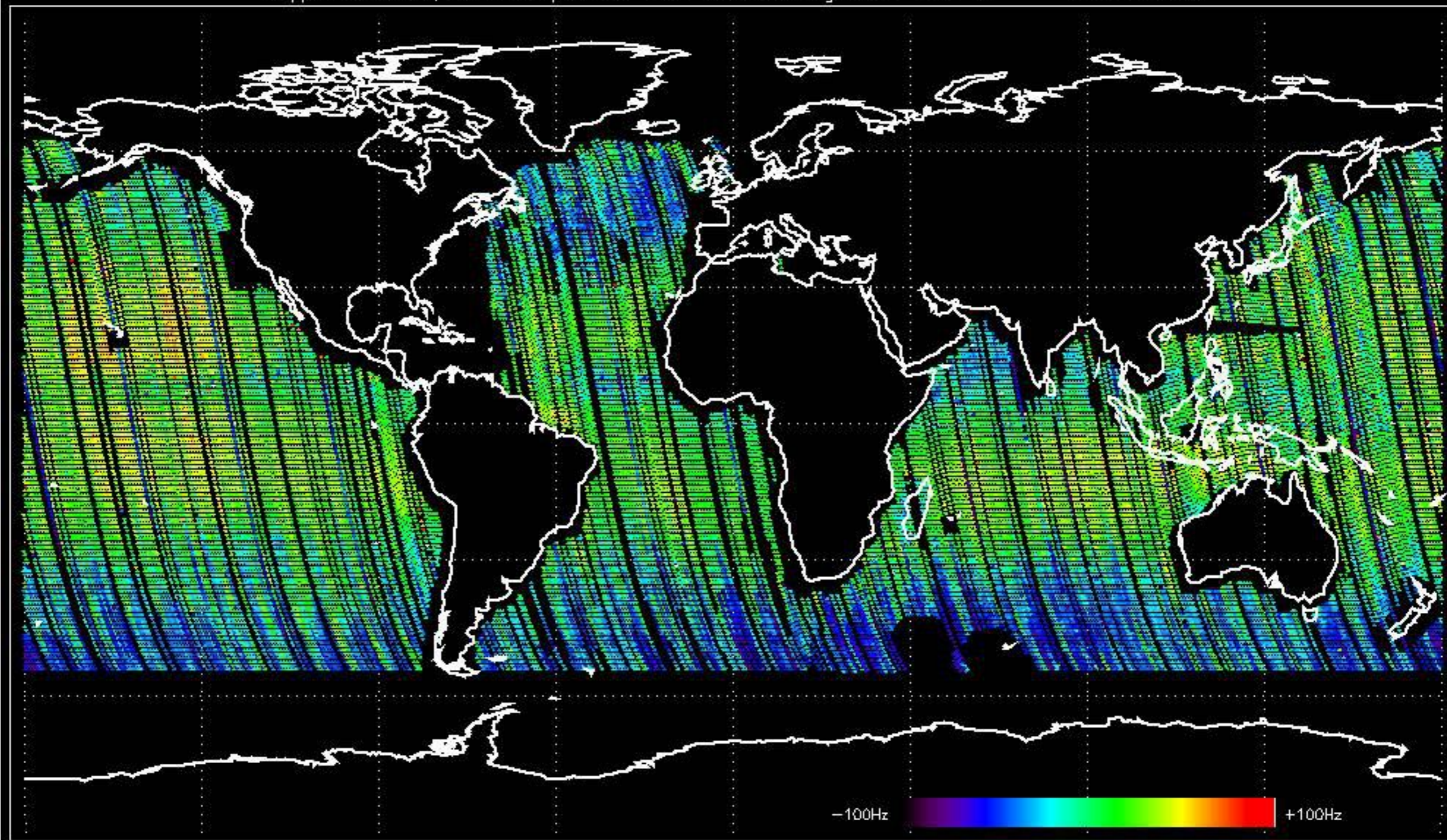
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.279186 Hz



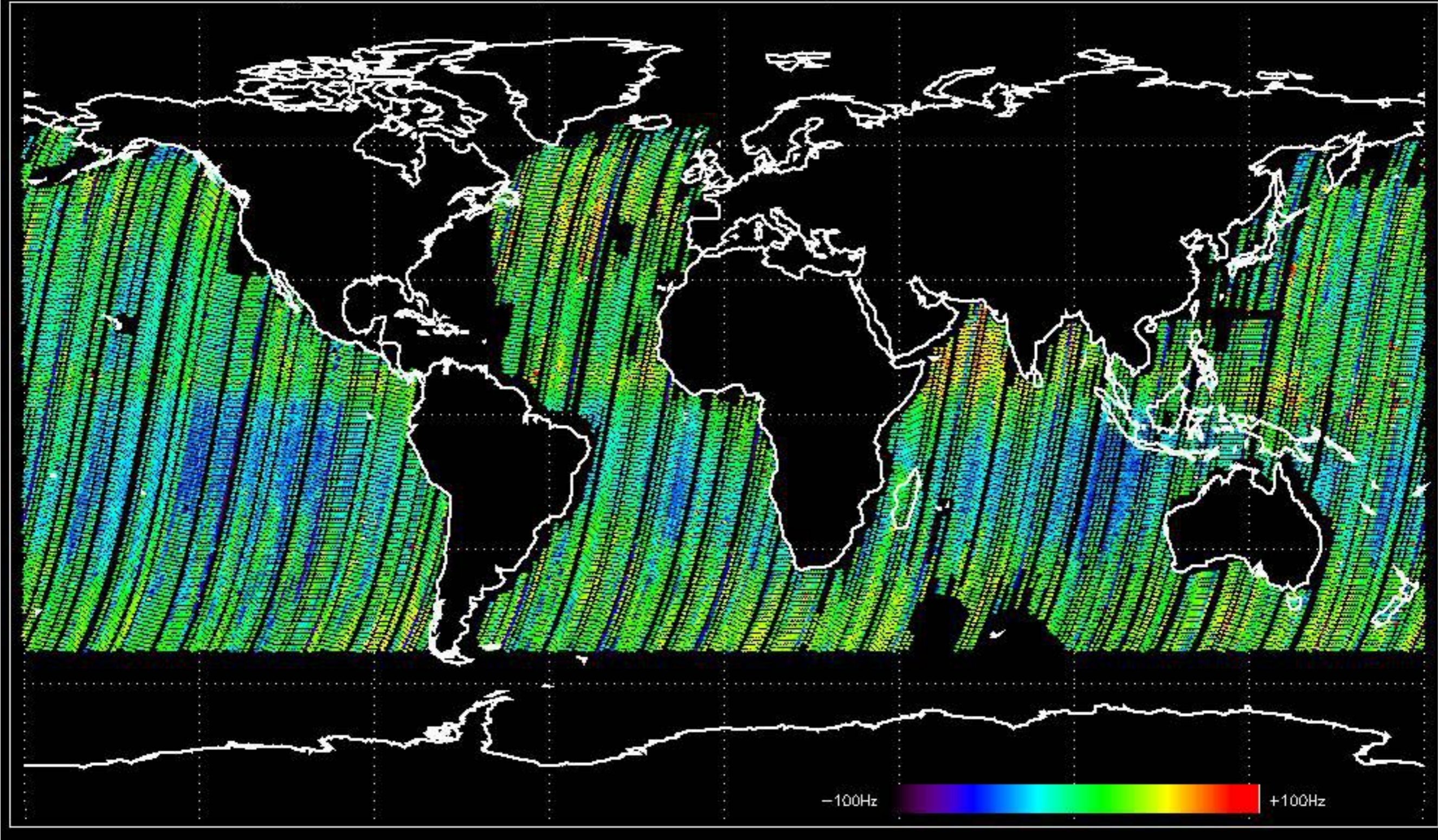
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.269748 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.727169 Hz

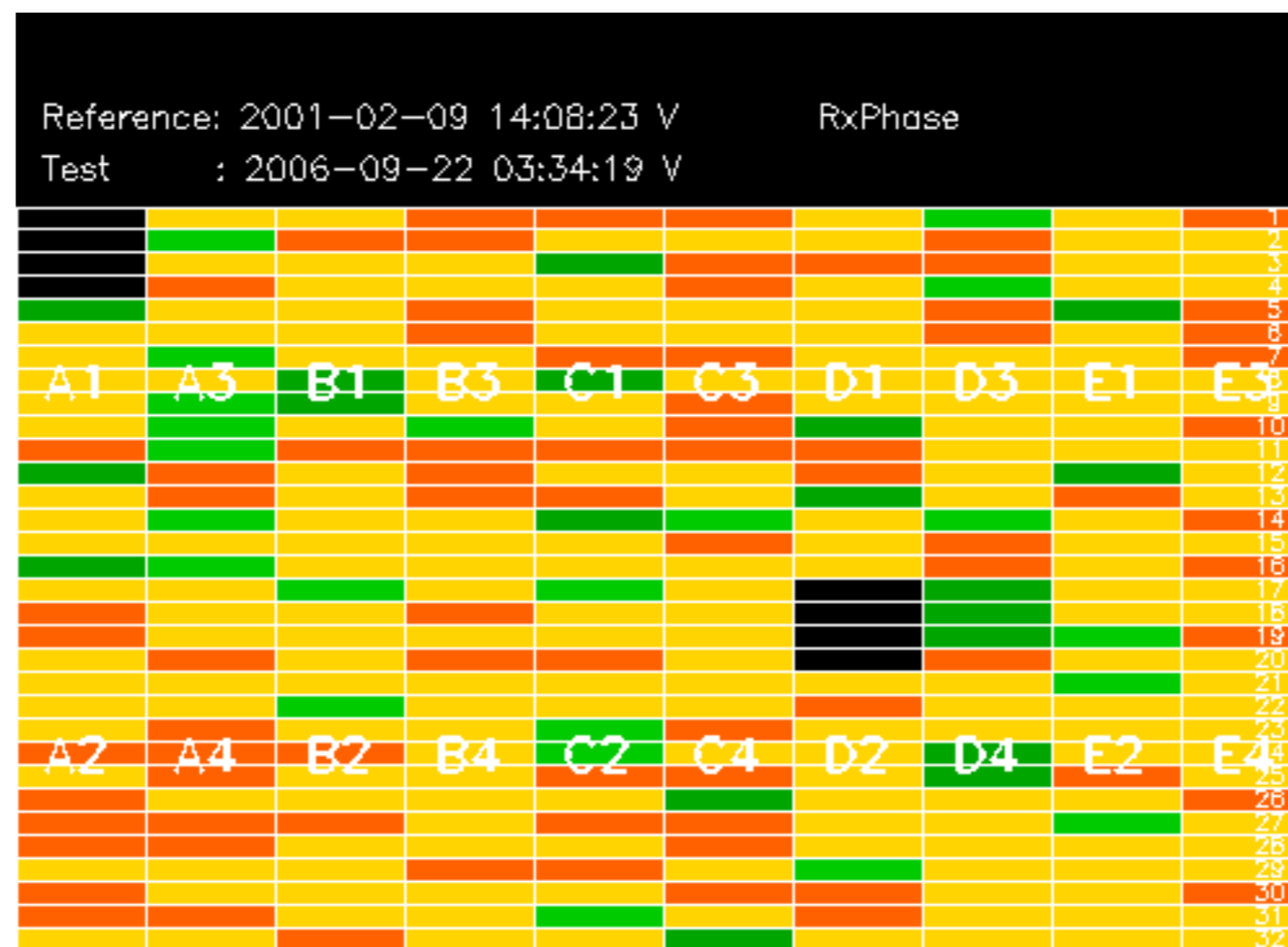


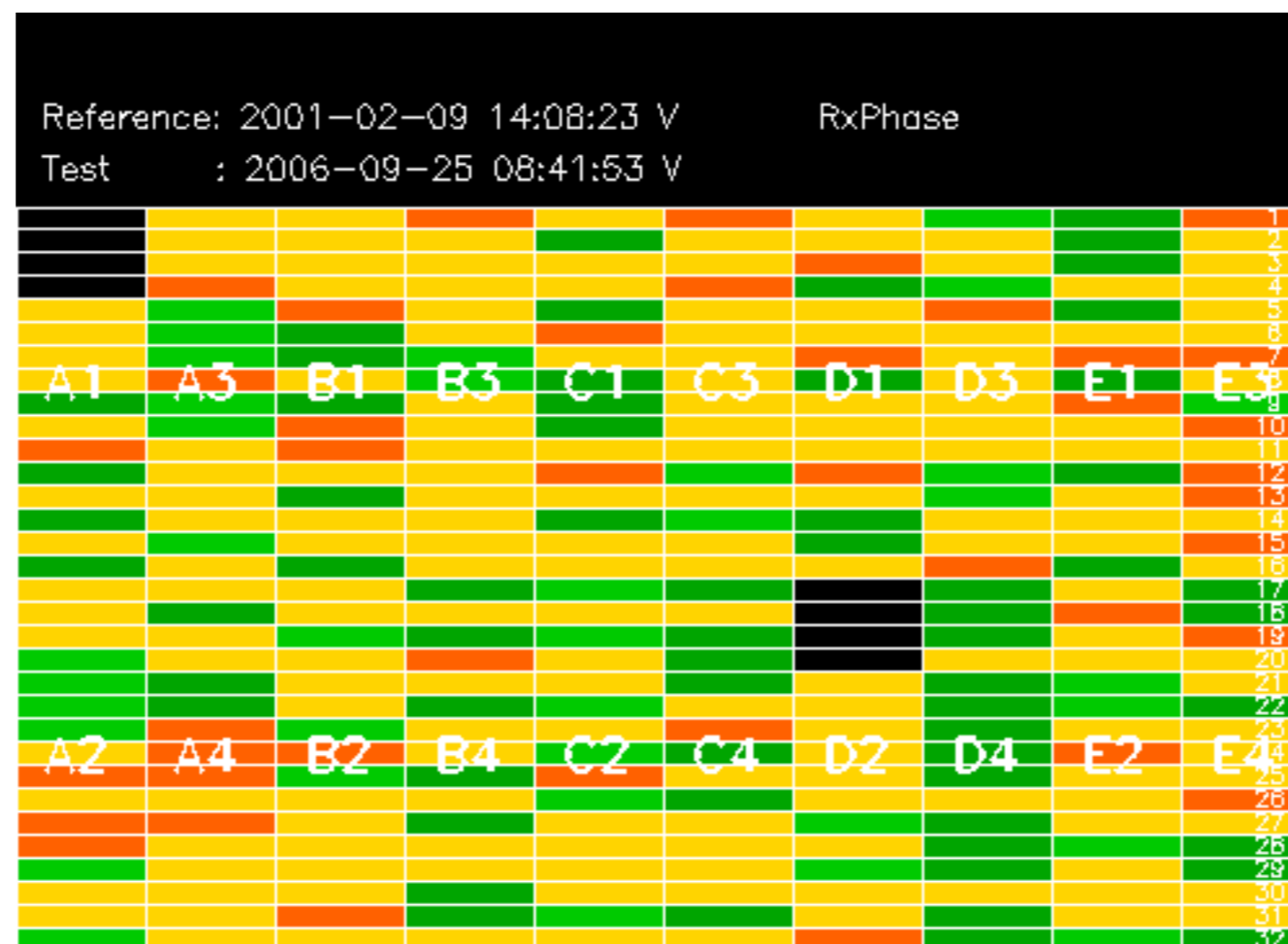
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -14.357227 Hz

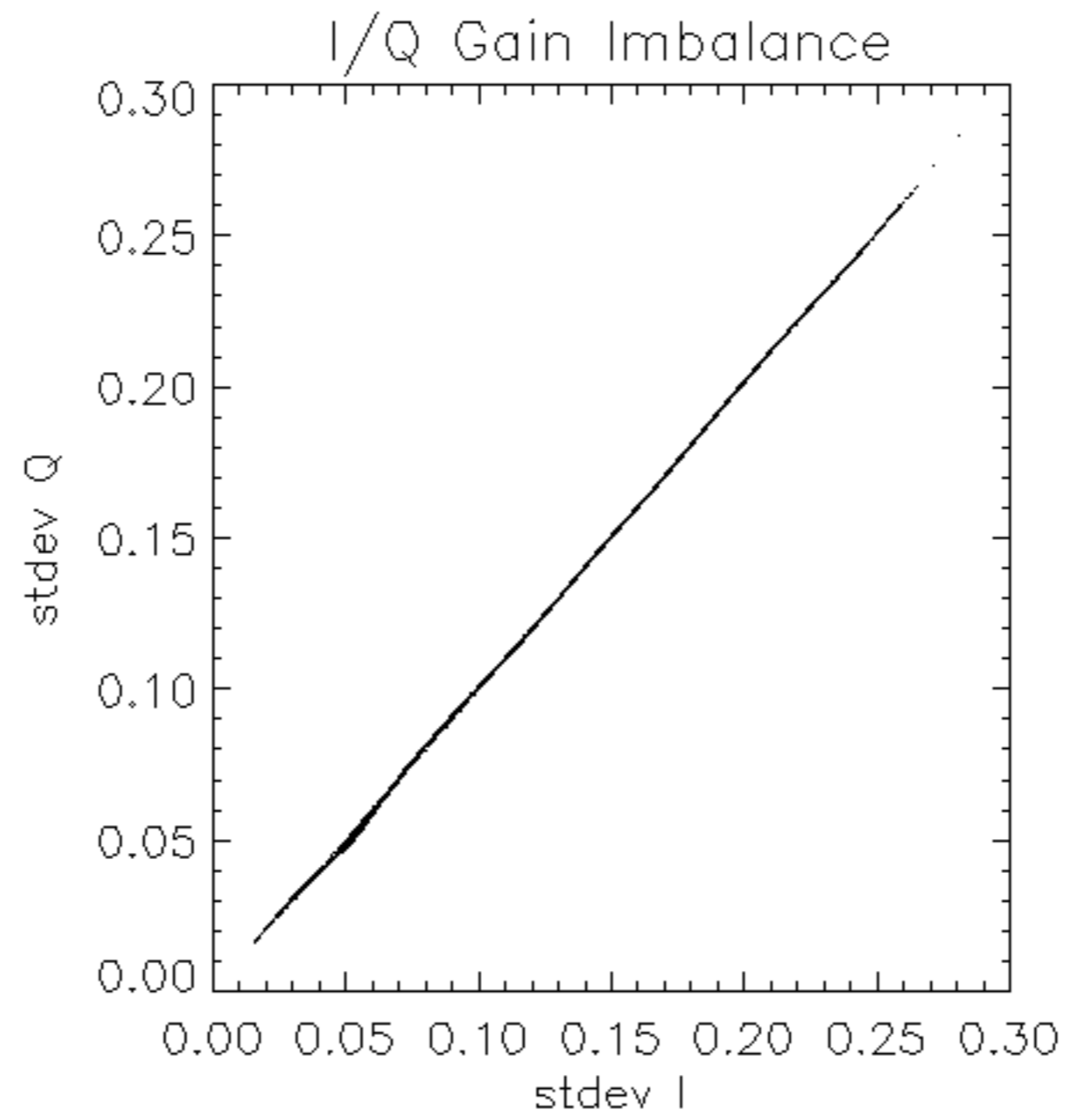


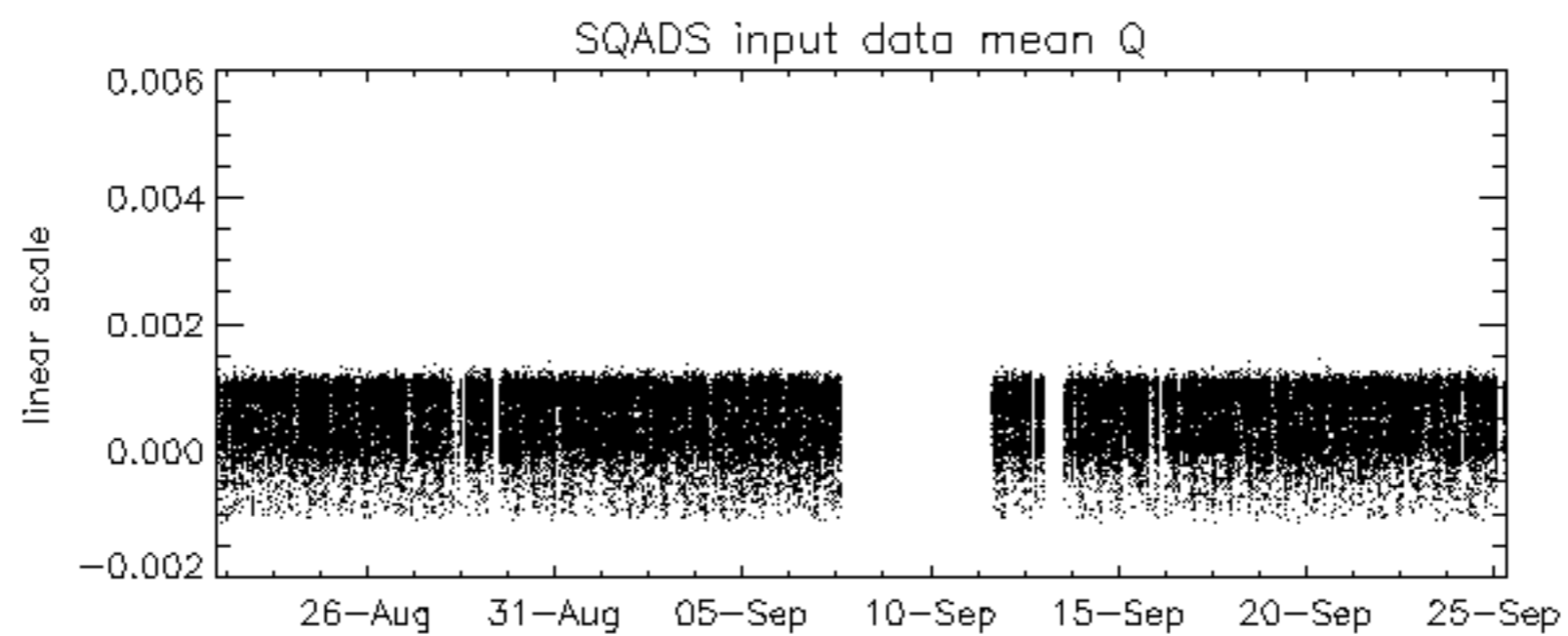
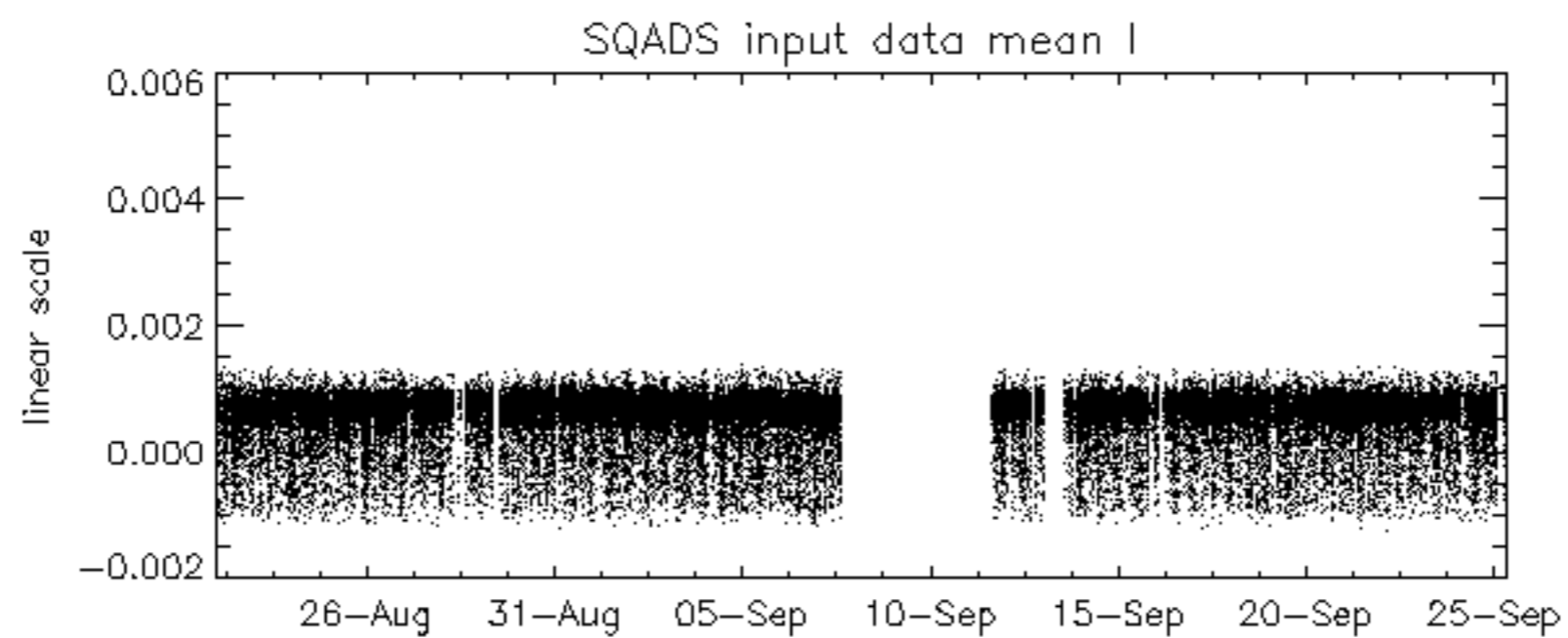
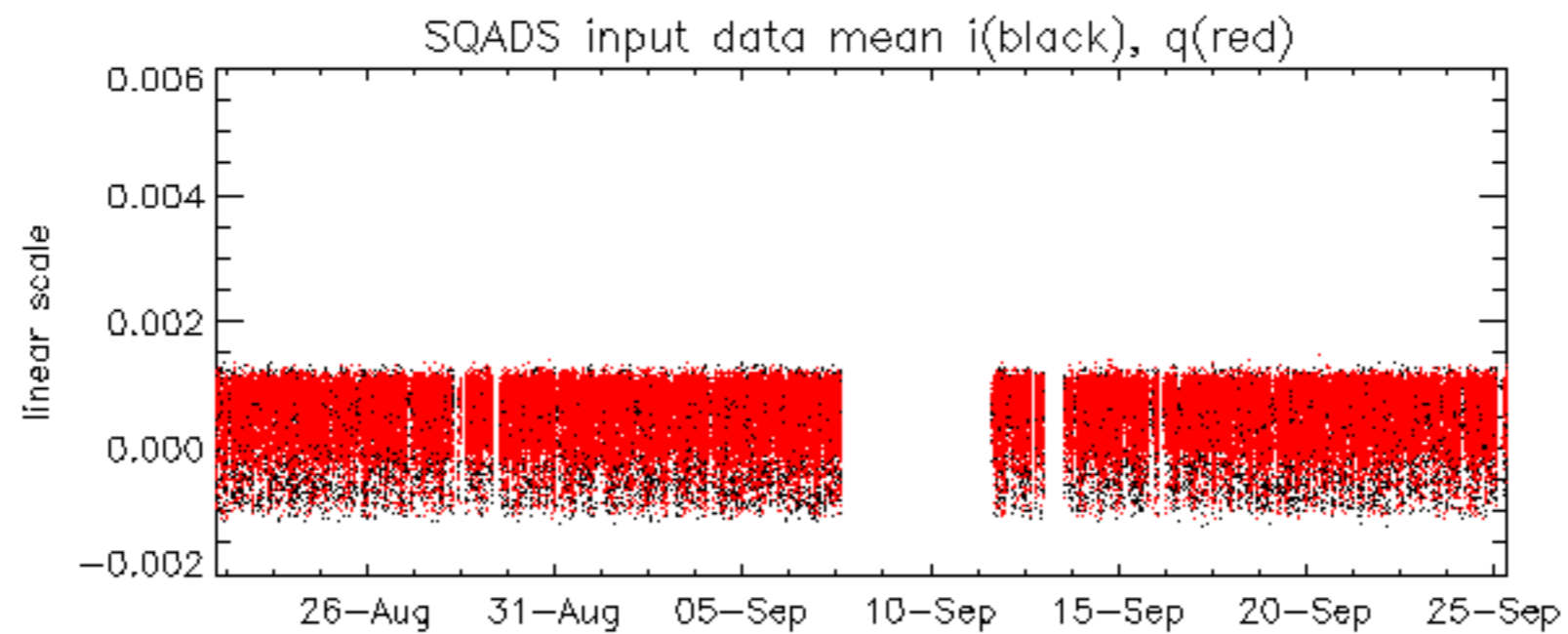
No anomalies observed on available MS products:

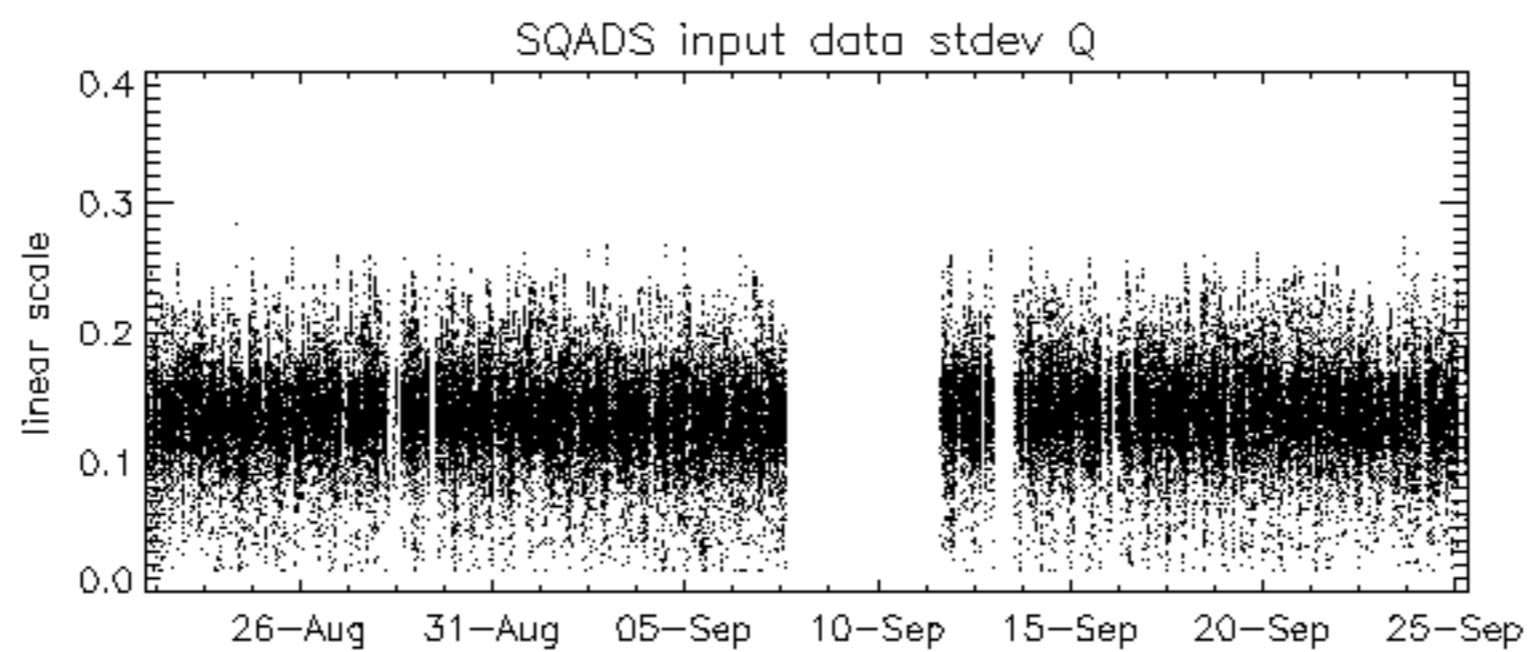
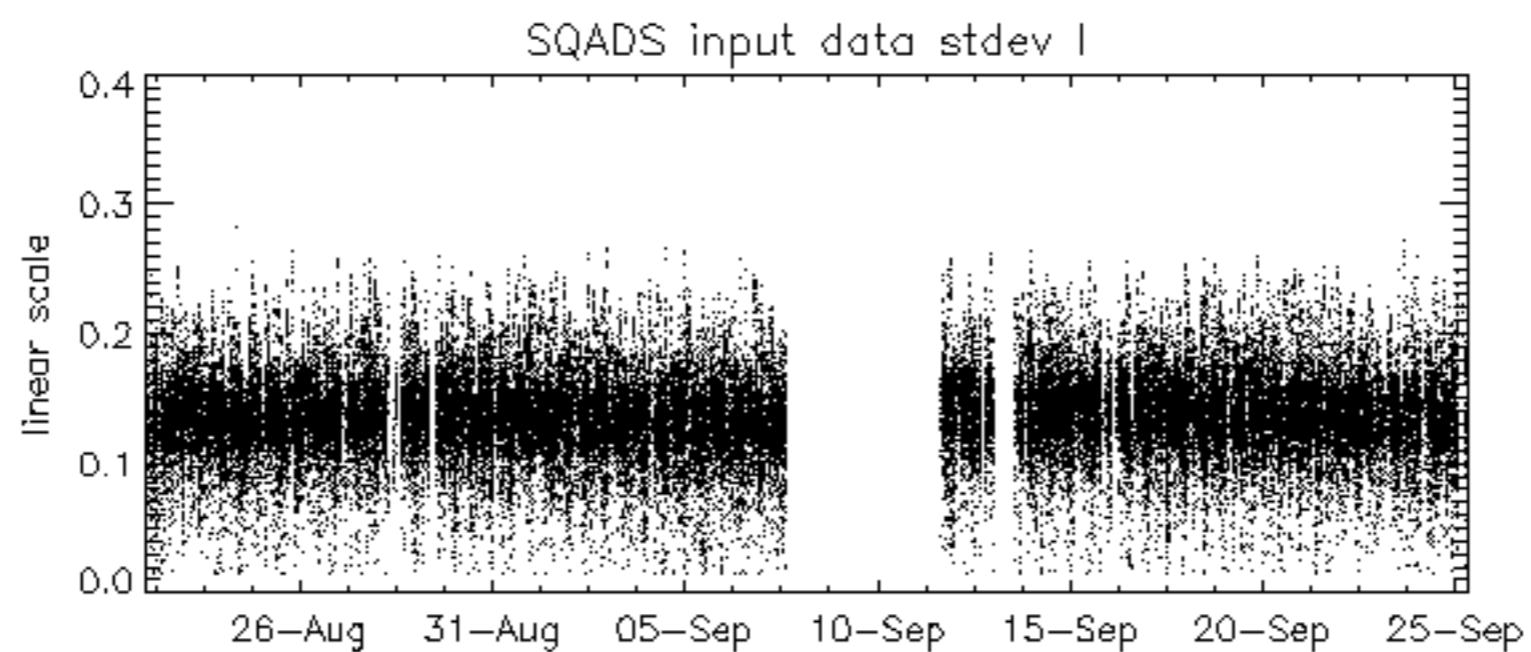
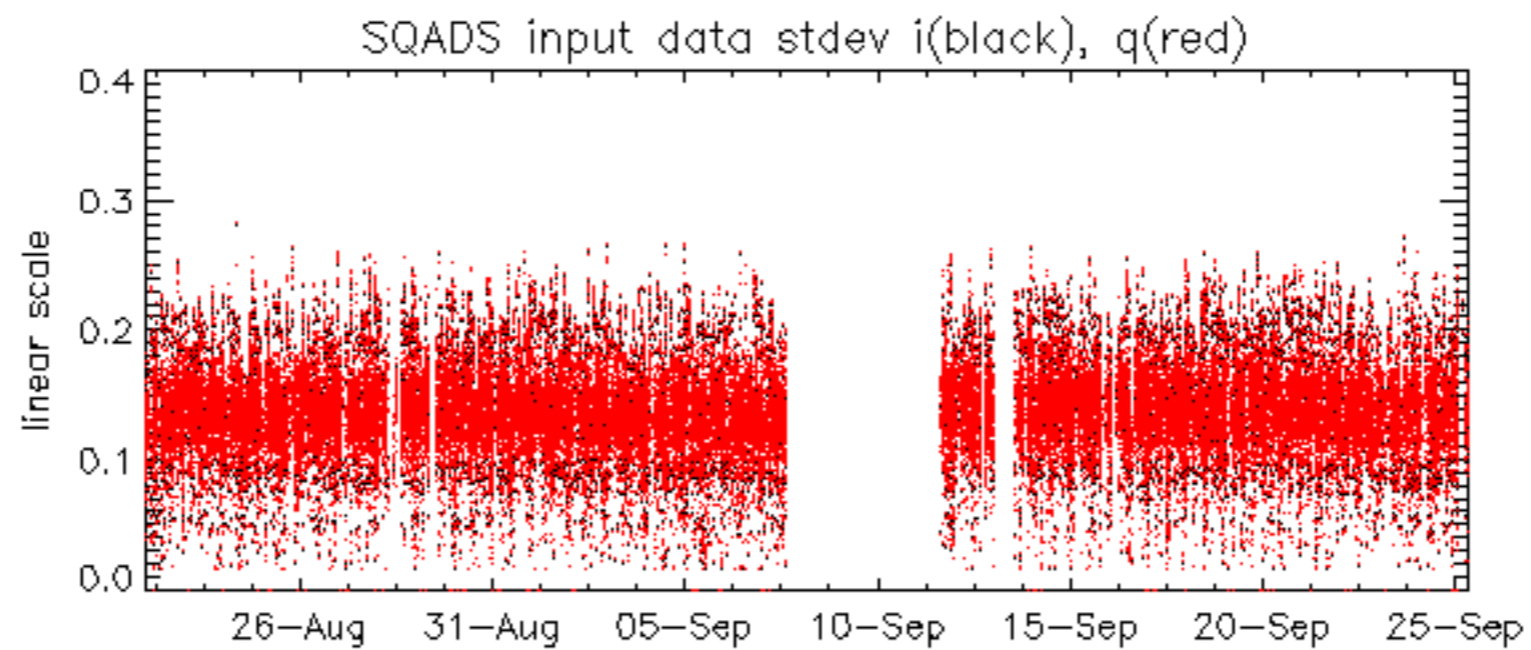
No anomalies observed.







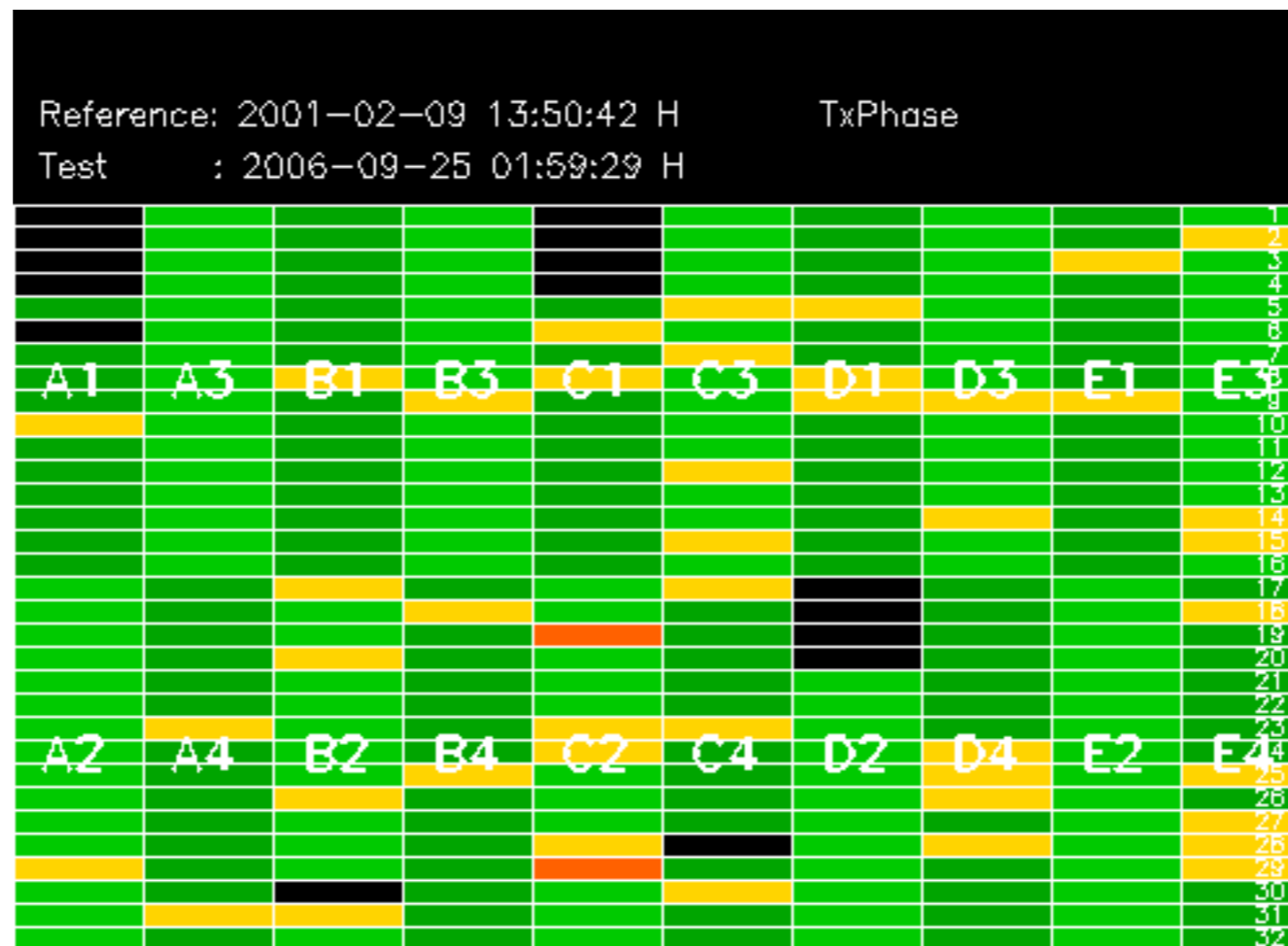




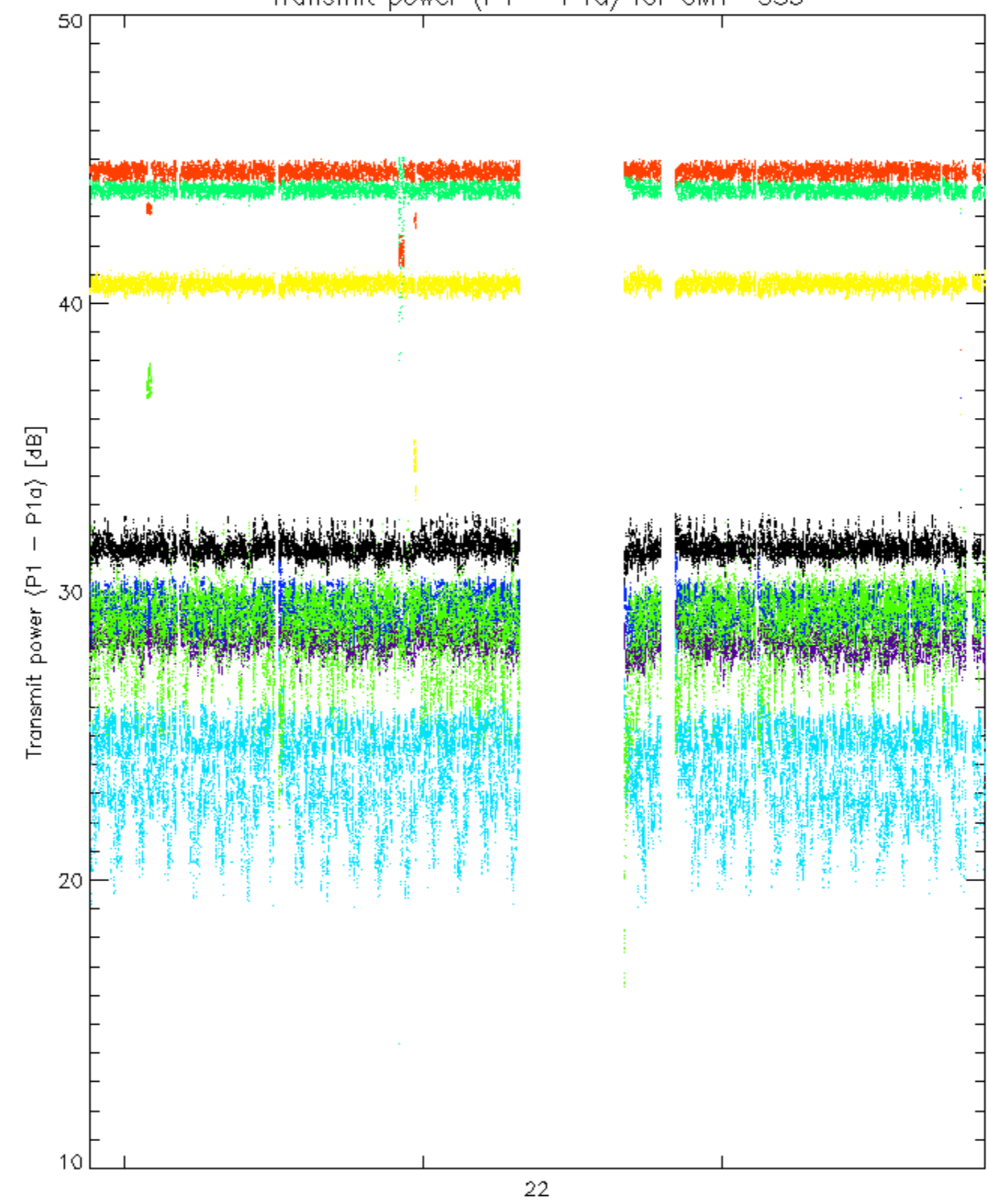
Summary of analysis for the last 3 days 2006092[456]

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

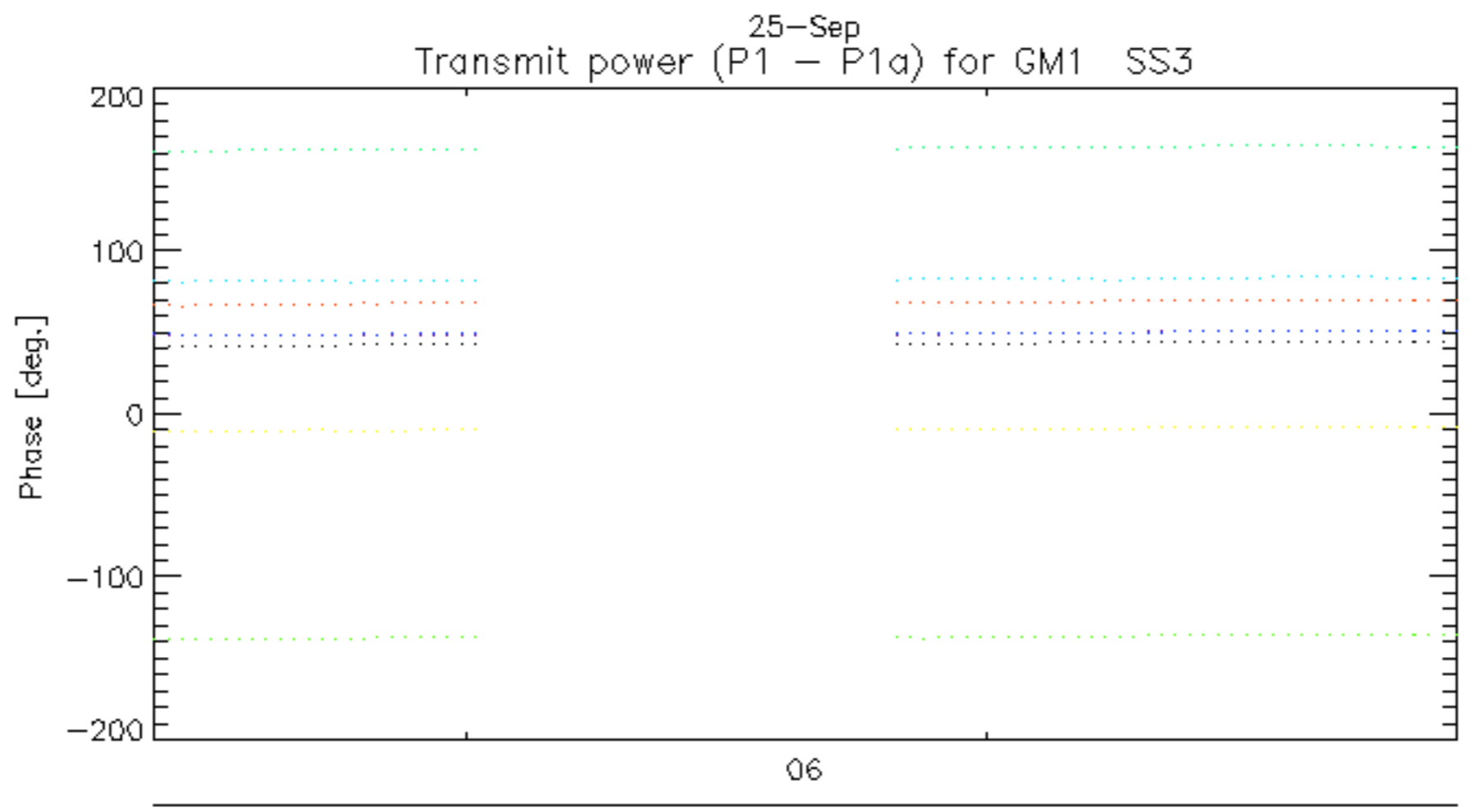
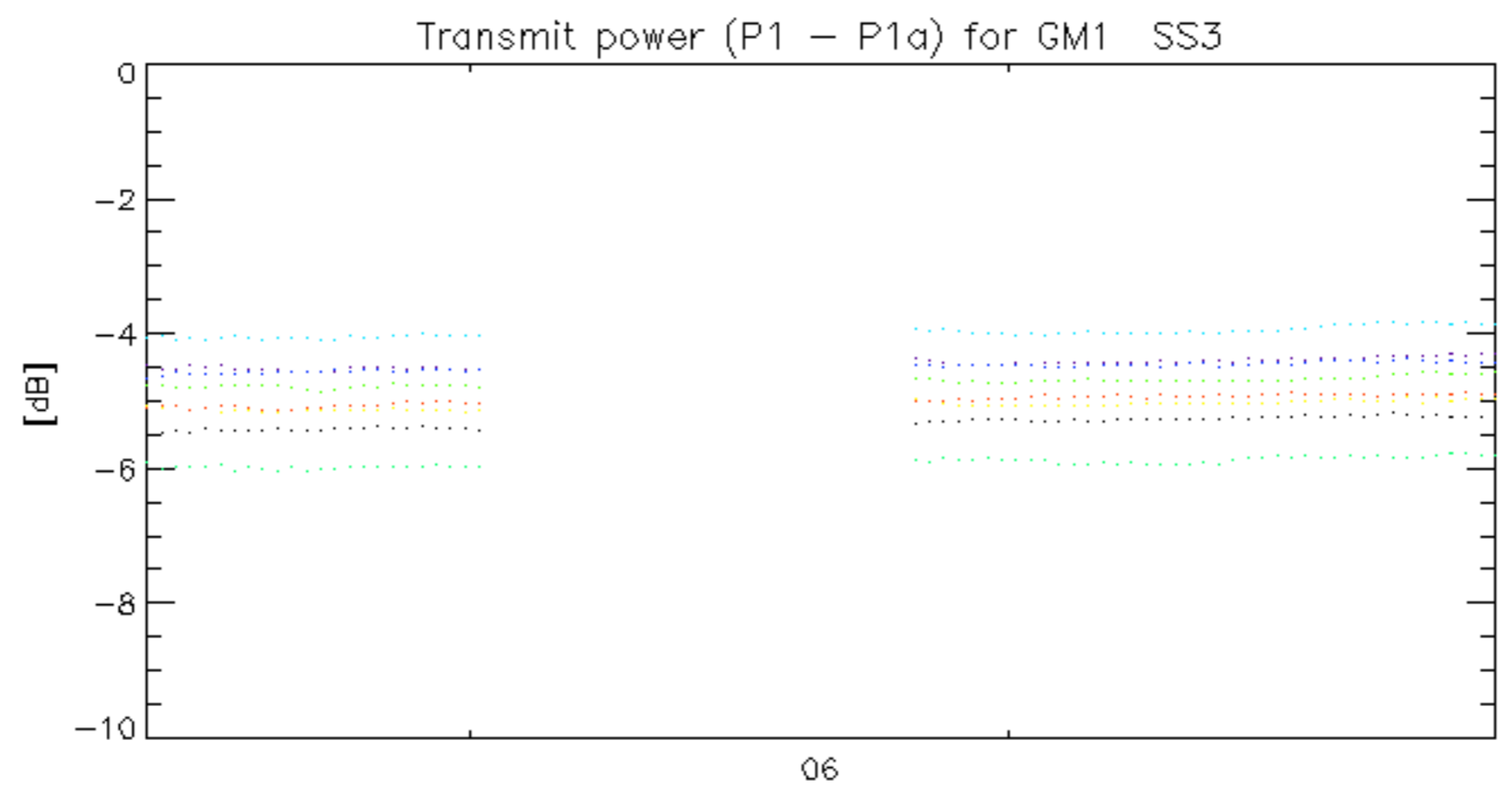
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060924_232021_000001852051_00288_23889_6487.N1	1	0
ASA_IMM_1PNPDE20060925_010032_000002092051_00289_23890_6511.N1	1	0
ASA_GM1_1PNPDK20060924_132252_000006402051_00282_23883_5084.N1	0	15
ASA_WSM_1PNPDE20060924_163151_000001282051_00284_23885_3698.N1	0	70
ASA_WSM_1PNPDE20060924_181428_000002142051_00285_23886_3707.N1	0	60
ASA_WSM_1PNPDE20060924_231433_000000972051_00288_23889_3734.N1	0	50
ASA_WSM_1PNPDE20060925_141859_000000862051_00297_23898_3790.N1	0	35



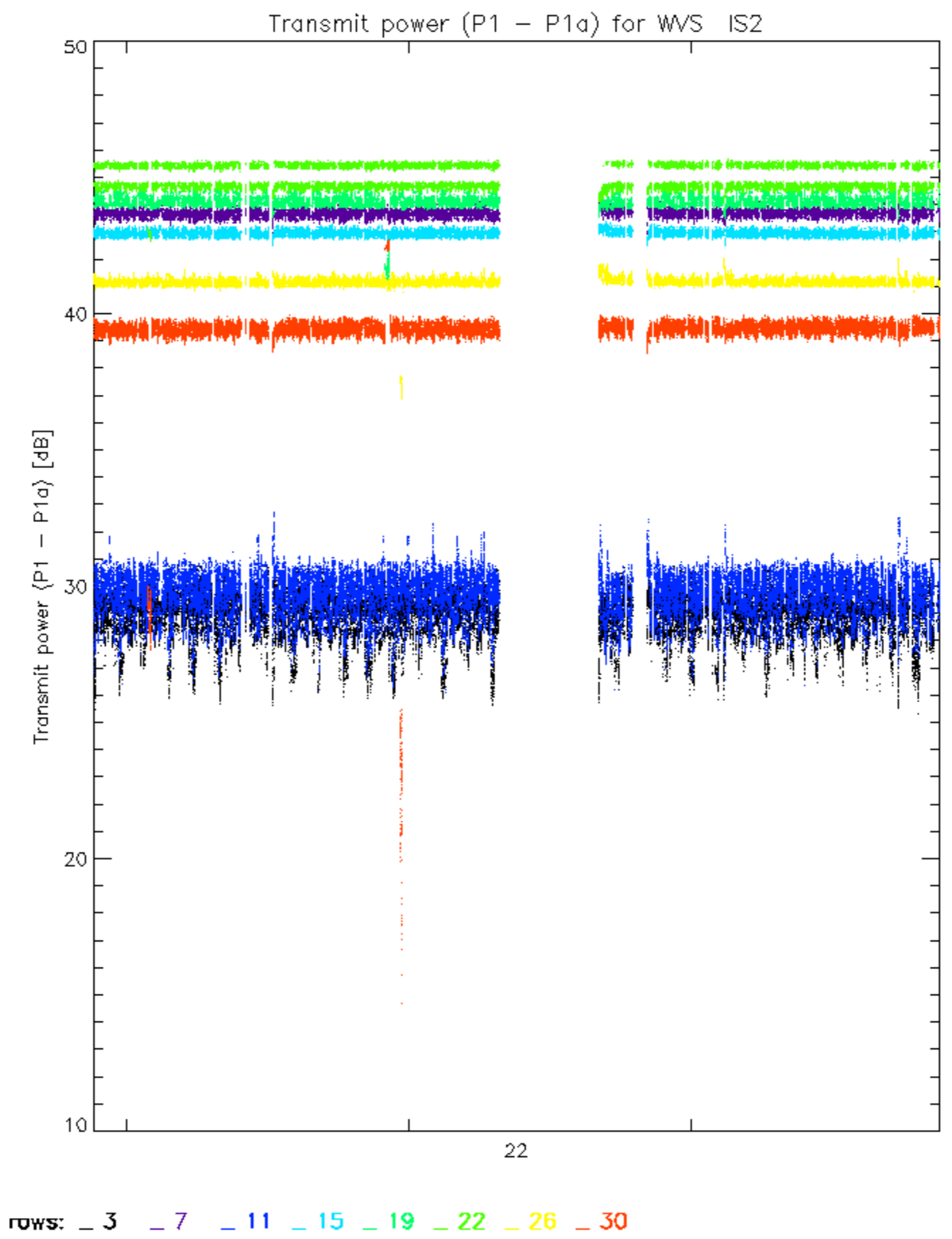
Transmit power (P1 - P1a) for GM1 SS3

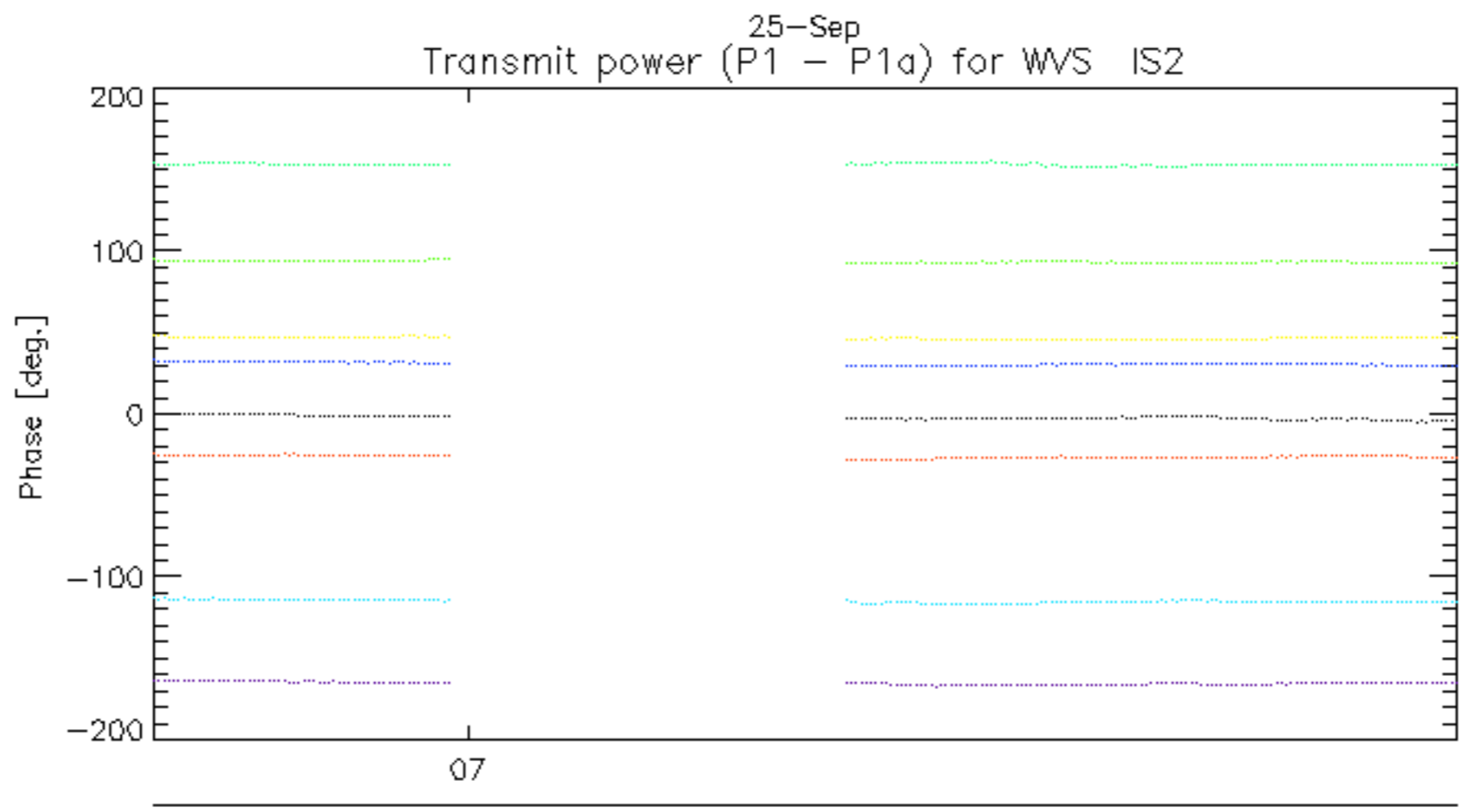
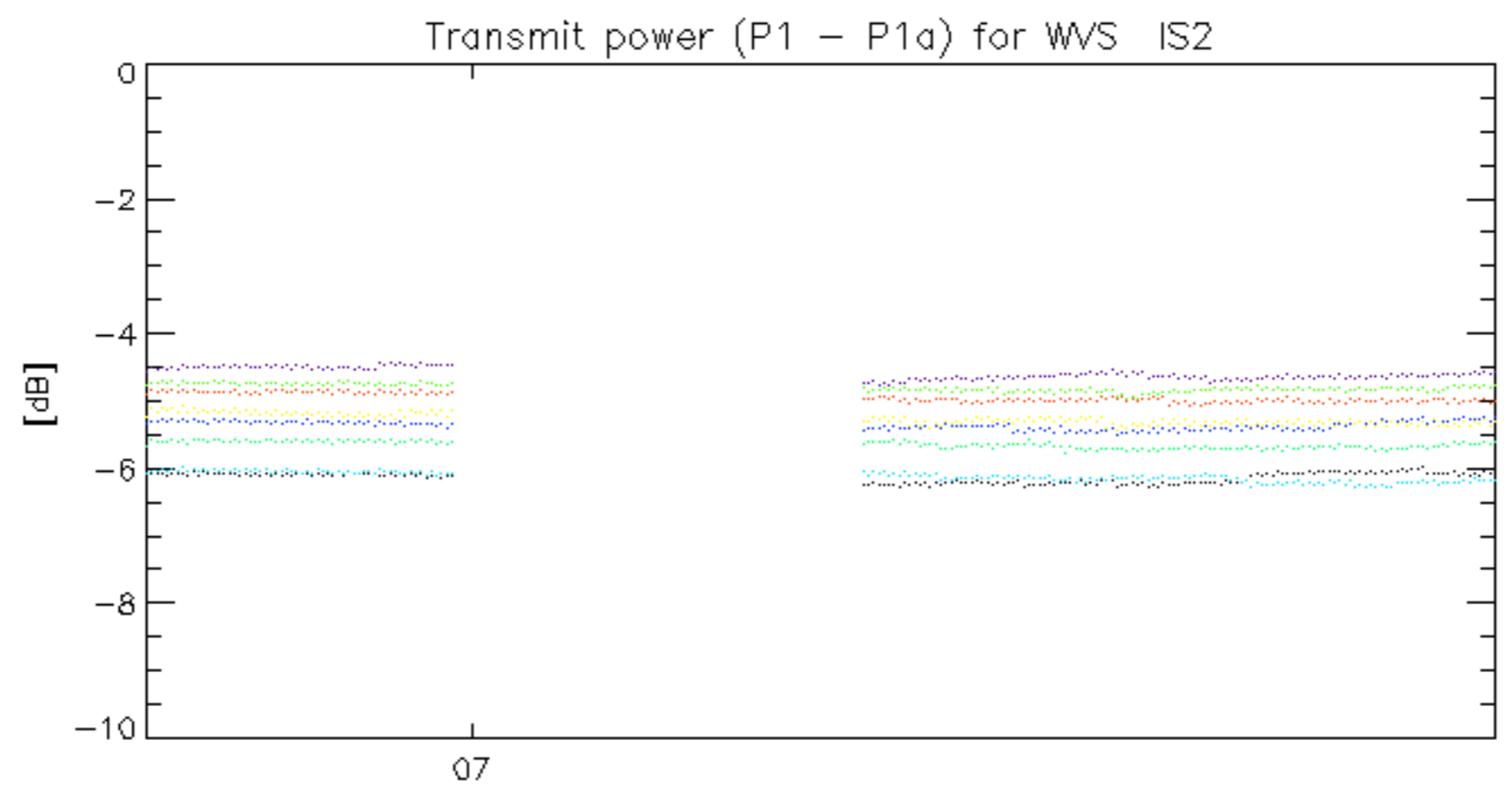


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.