

PRELIMINARY REPORT OF 051021

last update on Fri Oct 21 16:41:31 GMT 2005

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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 2005-10-20 00:00:00 to 2005-10-21 16:41:31

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	45	69	14	7	14
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	45	69	14	7	14
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	69	14	7	14
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	45	69	14	7	14

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	26	39	23	9	71
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	26	39	23	9	71
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	26	39	23	9	71
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	26	39	23	9	71

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	20051020 100812
H	20051019 071837

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	-3.538874	0.011964	0.051600
7	P1	-2.893735	0.011183	-0.050673
11	P1	-4.067152	0.020750	-0.052519
15	P1	-6.022141	0.015534	-0.057250
19	P1	-3.147532	0.010975	-0.075112
22	P1	-4.444259	0.013187	-0.046805
26	P1	-4.282032	0.020049	0.058713
30	P1	-5.700707	0.009573	-0.063271
3	P1	-15.441391	0.322511	0.356005
7	P1	-16.305407	0.463059	0.148114
11	P1	-16.265383	1.031247	0.129421
15	P1	-13.404435	0.824016	0.352389
19	P1	-13.601531	0.040469	-0.145225
22	P1	-16.224216	2.596793	0.451464
26	P1	-16.286024	2.033303	0.878808
30	P1	-16.456732	0.938034	0.258659

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.869354	0.098511	0.010541
7	P2	-22.704638	0.106727	0.080253
11	P2	-16.764183	0.117117	0.147491
15	P2	-7.217854	0.102543	-0.036813
19	P2	-9.164073	0.098519	-0.083222
22	P2	-17.709644	0.102295	-0.134898
26	P2	-16.092264	0.094477	-0.088939
30	P2	-19.624058	0.090798	-0.007815

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.186736	0.005473	-0.039007
7	P3	-8.186736	0.005473	-0.039007
11	P3	-8.186736	0.005473	-0.039007
15	P3	-8.186736	0.005473	-0.039007
19	P3	-8.186736	0.005473	-0.039007
22	P3	-8.186736	0.005473	-0.039007
26	P3	-8.186736	0.005473	-0.039007
30	P3	-8.186736	0.005473	-0.039007

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	-3.651199	0.020192	-0.076526
7	P1	-2.840020	0.013253	0.075576
11	P1	-2.856394	0.019229	0.034592
15	P1	-3.388825	0.018517	0.012523
19	P1	-3.345336	0.012401	-0.042775
22	P1	-5.141780	0.024564	-0.001420
26	P1	-5.767499	0.029125	-0.111631
30	P1	-5.204429	0.033377	-0.070240
3	P1	-11.412014	0.056554	0.036947
7	P1	-10.009325	1.442352	0.538412
11	P1	-10.127489	2.600087	0.700901
15	P1	-10.699390	2.691101	0.767727
19	P1	-15.448595	0.077224	-0.097168
22	P1	-20.456507	1.228756	-0.055959
26	P1	-17.121490	0.639788	0.112798
30	P1	-18.839430	0.494462	0.610430

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.706188	0.039085	0.030072
7	P2	-23.048046	0.092630	-0.021601
11	P2	-11.752259	0.028379	0.024304
15	P2	-4.888829	0.037846	-0.056458
19	P2	-6.889468	0.031926	-0.072202
22	P2	-8.099406	0.028457	-0.092100
26	P2	-23.855568	0.038818	-0.078994
30	P2	-22.059771	0.029294	-0.009540

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.030188	0.002818	-0.038535
7	P3	-8.030221	0.002826	-0.038545
11	P3	-8.030172	0.002832	-0.039093
15	P3	-8.030206	0.002822	-0.038804
19	P3	-8.030291	0.002832	-0.038469
22	P3	-8.030129	0.002838	-0.038966
26	P3	-8.030375	0.002837	-0.038844
30	P3	-8.030235	0.002835	-0.038857

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	0.000556253
	stdev	1.72336e-07
MEAN Q	mean	0.000537705
	stdev	2.16080e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137479
	stdev	0.00111860
STDEV Q	mean	0.137820
	stdev	0.00113499



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005102[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
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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

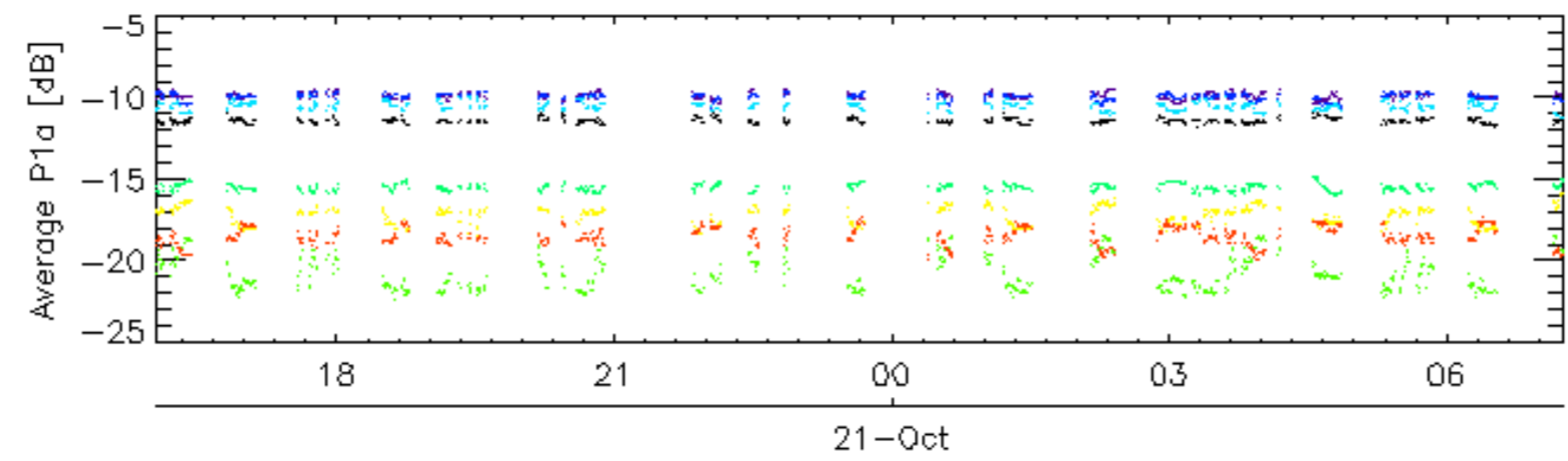
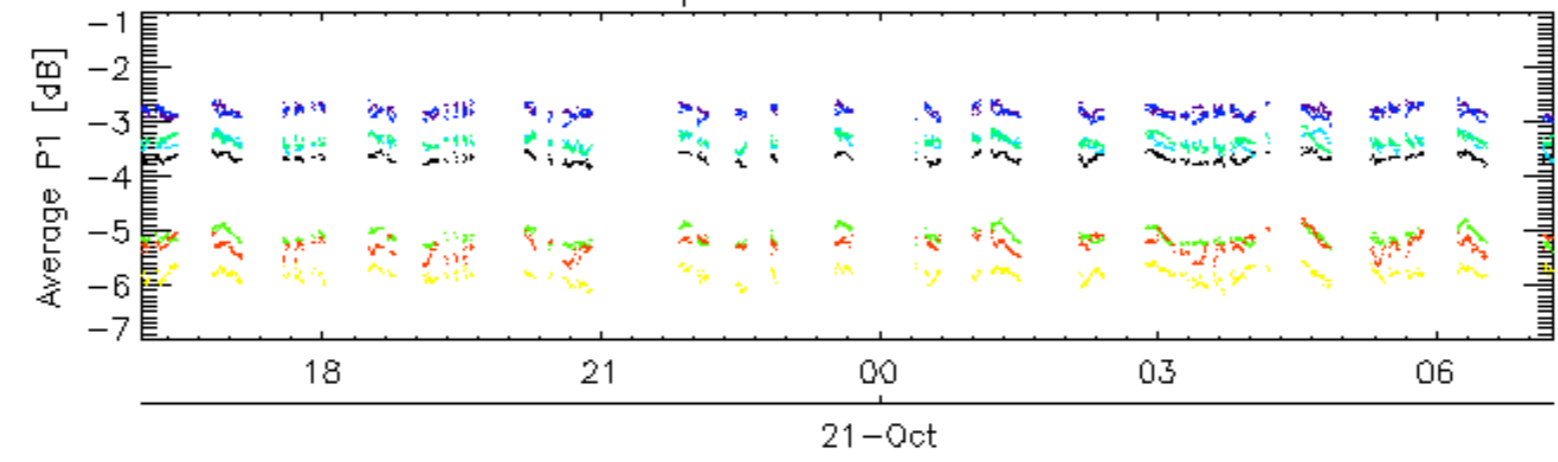
Ascending

Descending

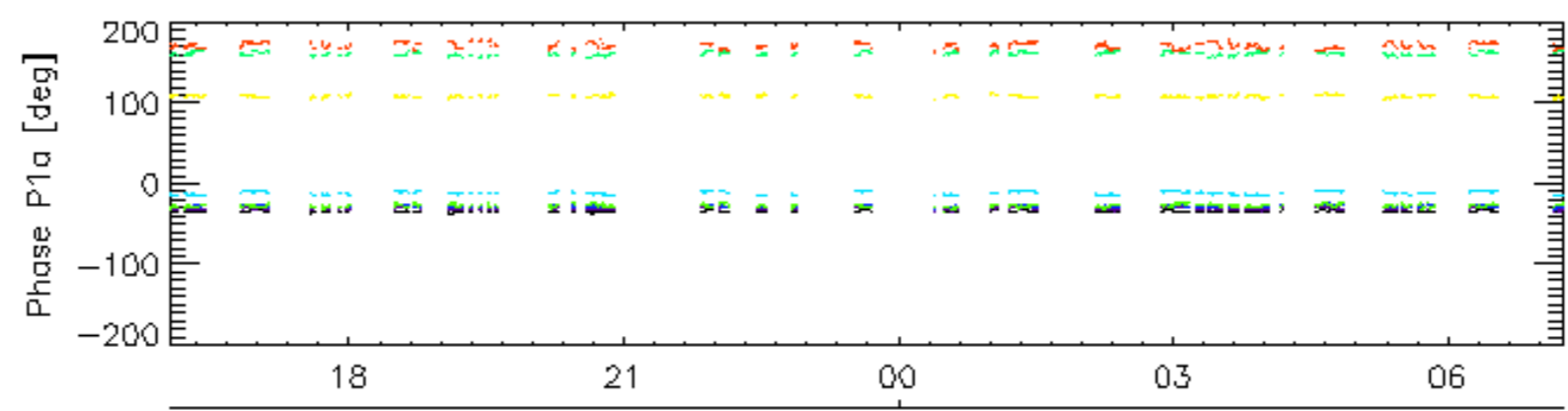
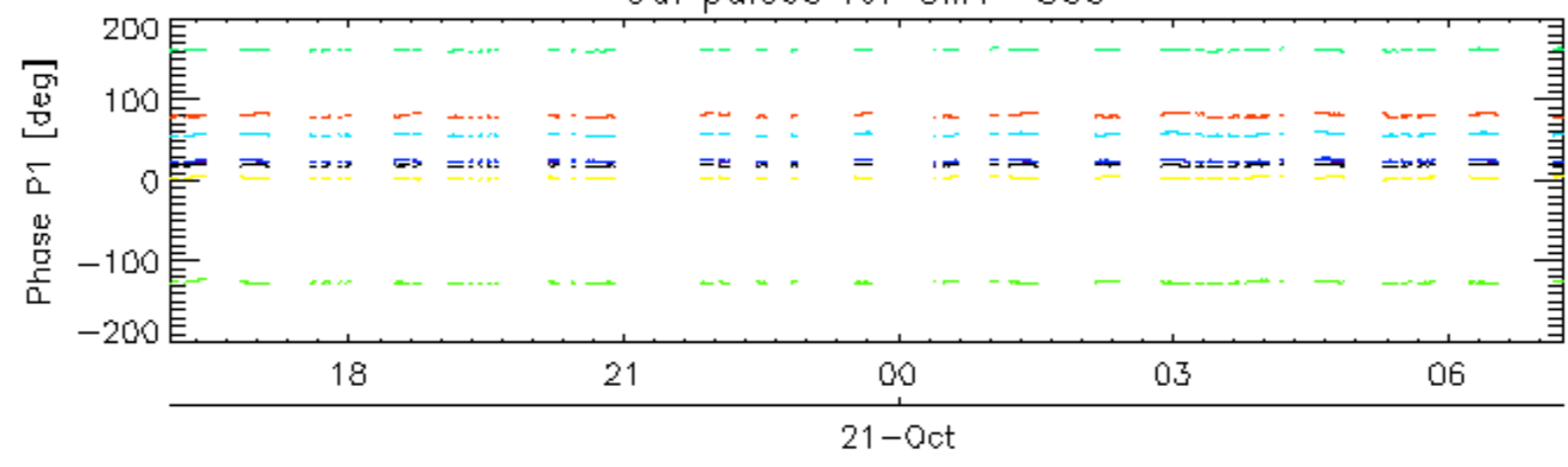
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

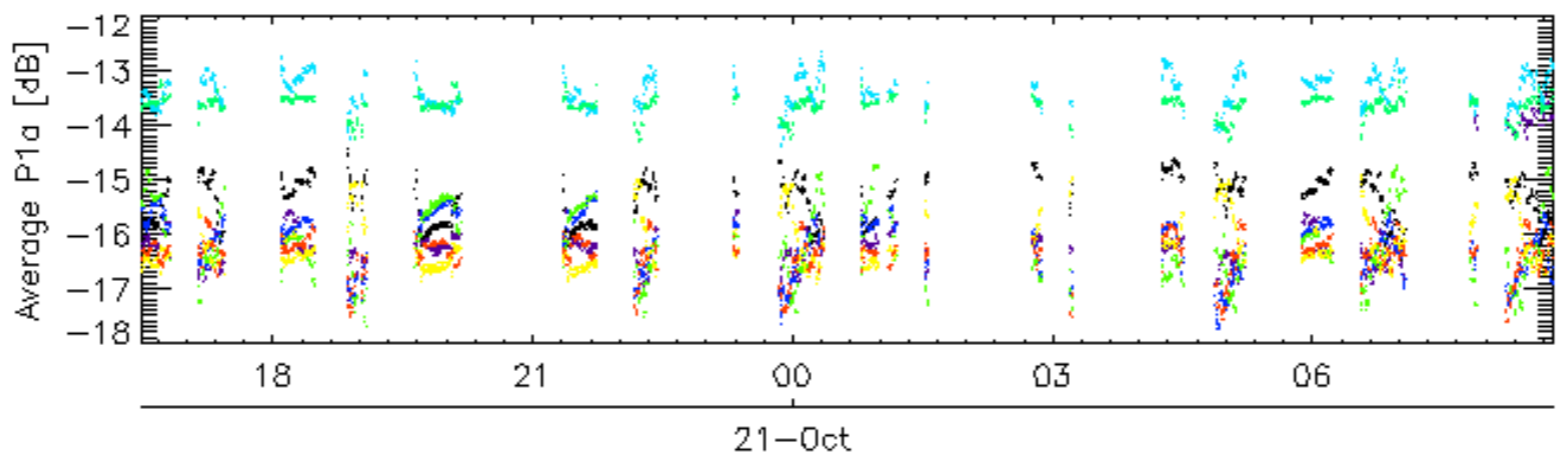
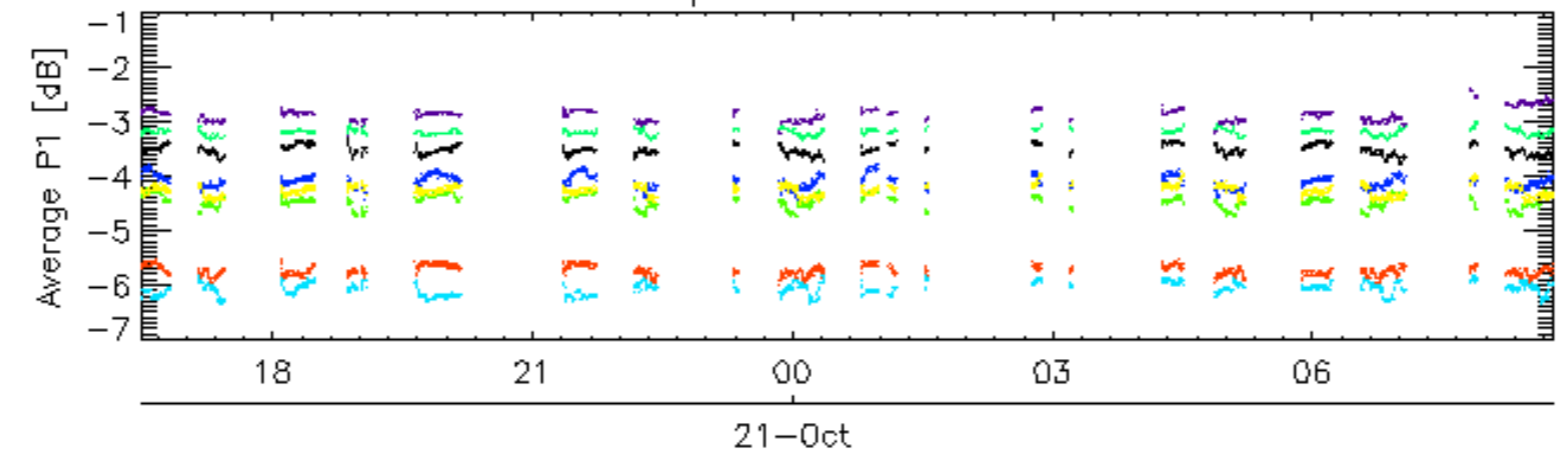


Cal pulses for GM1 SS3

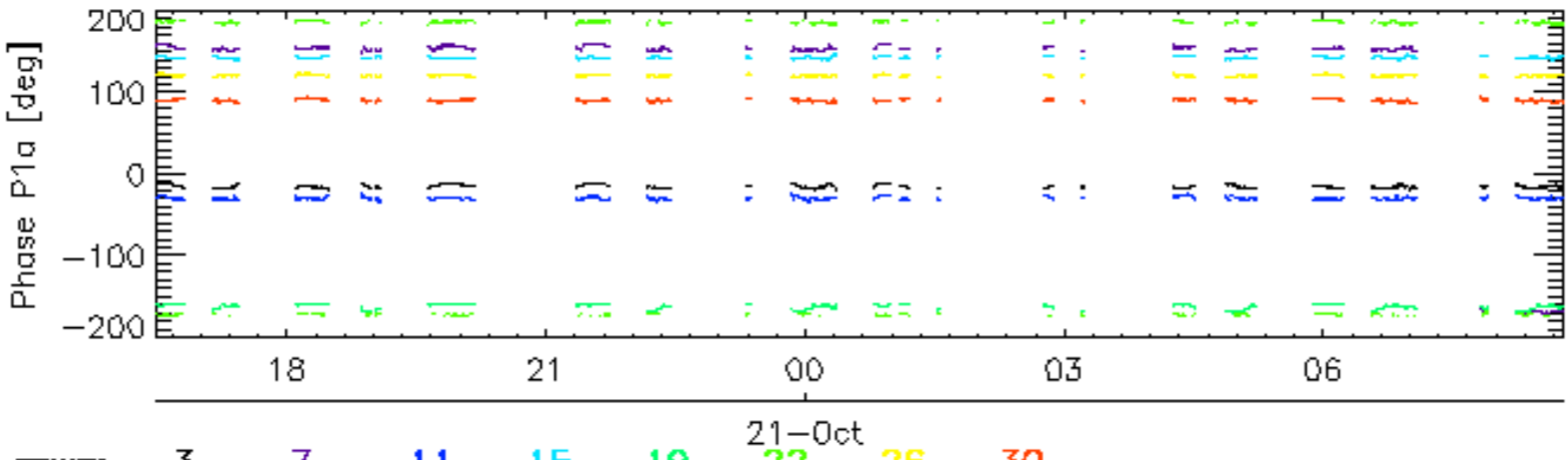
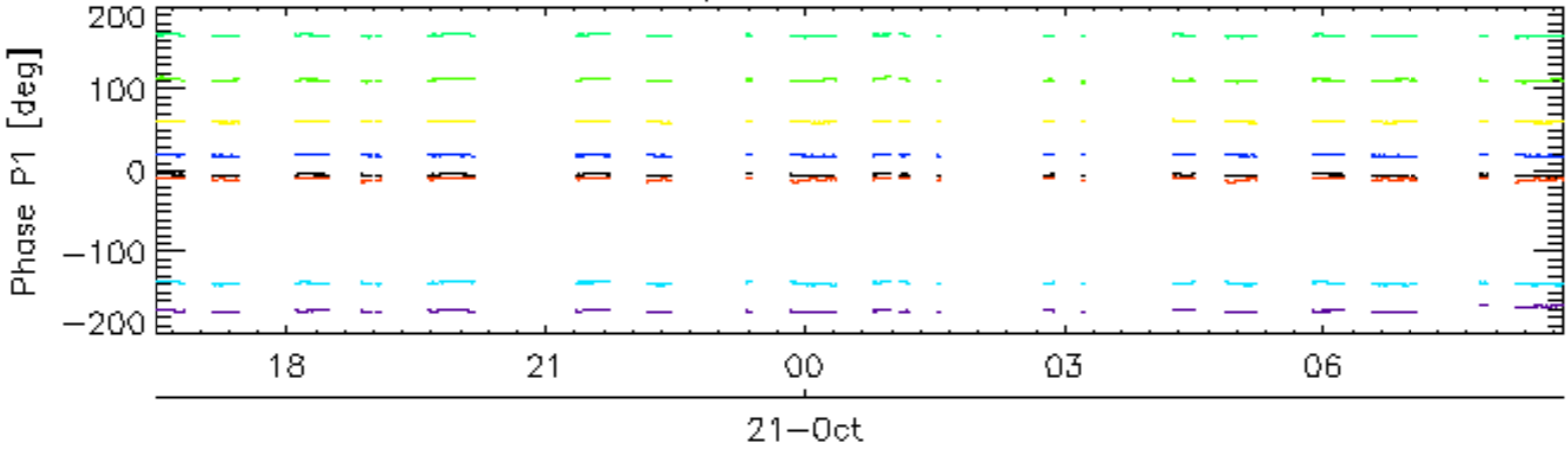


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

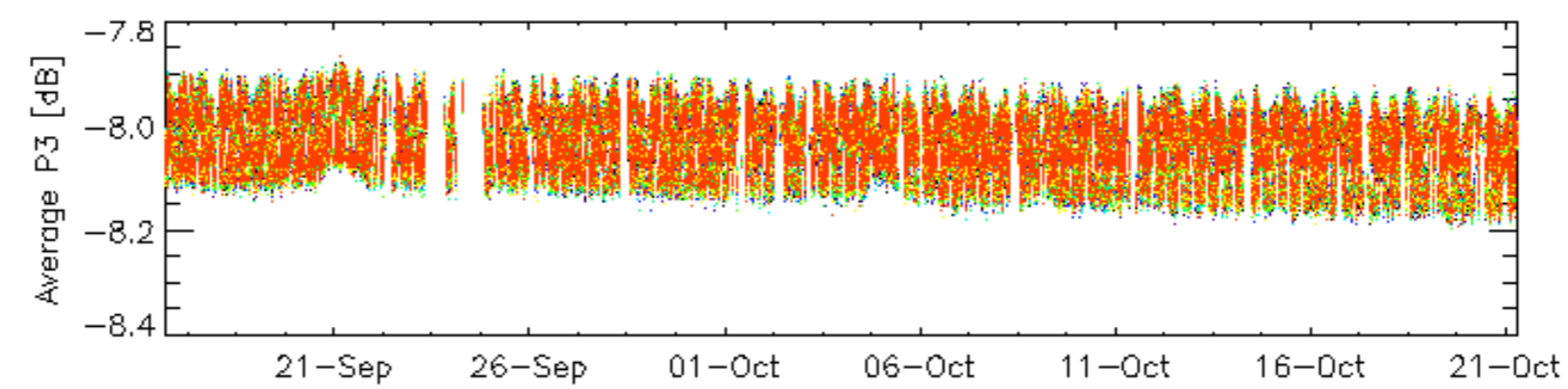
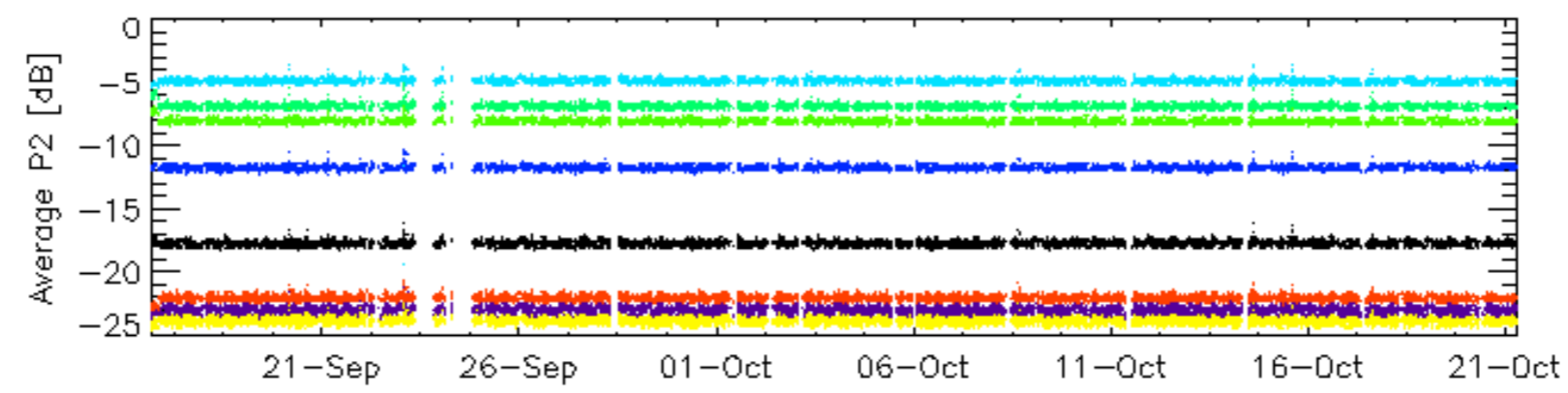
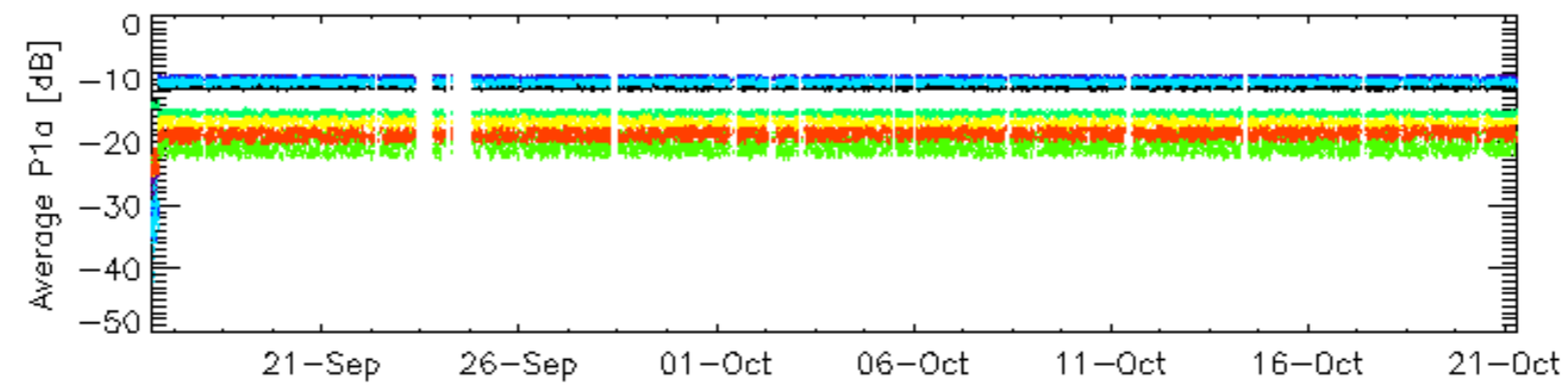
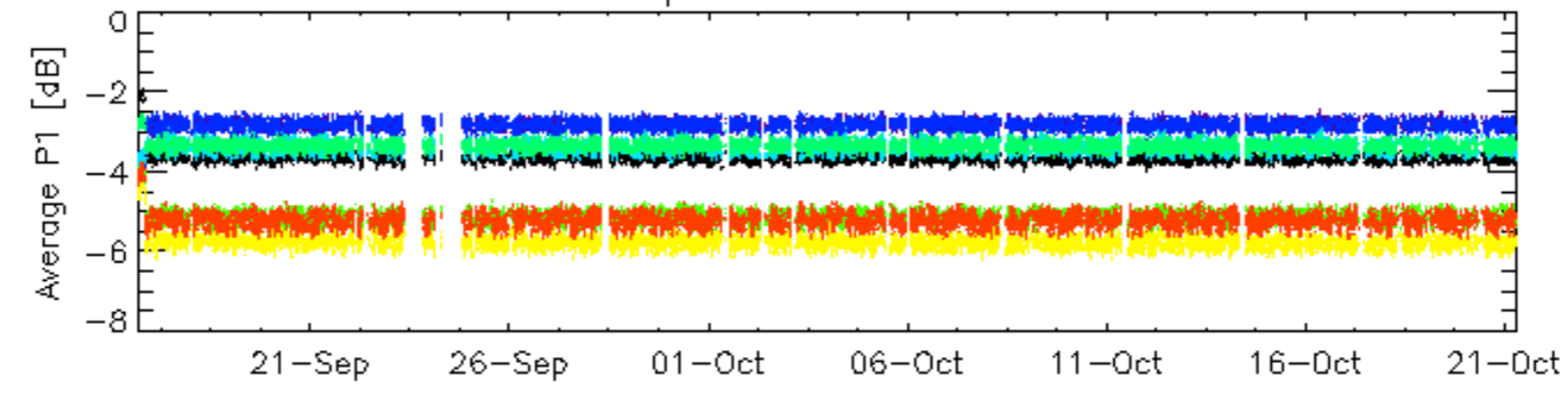


Cal pulses for WVS IS2



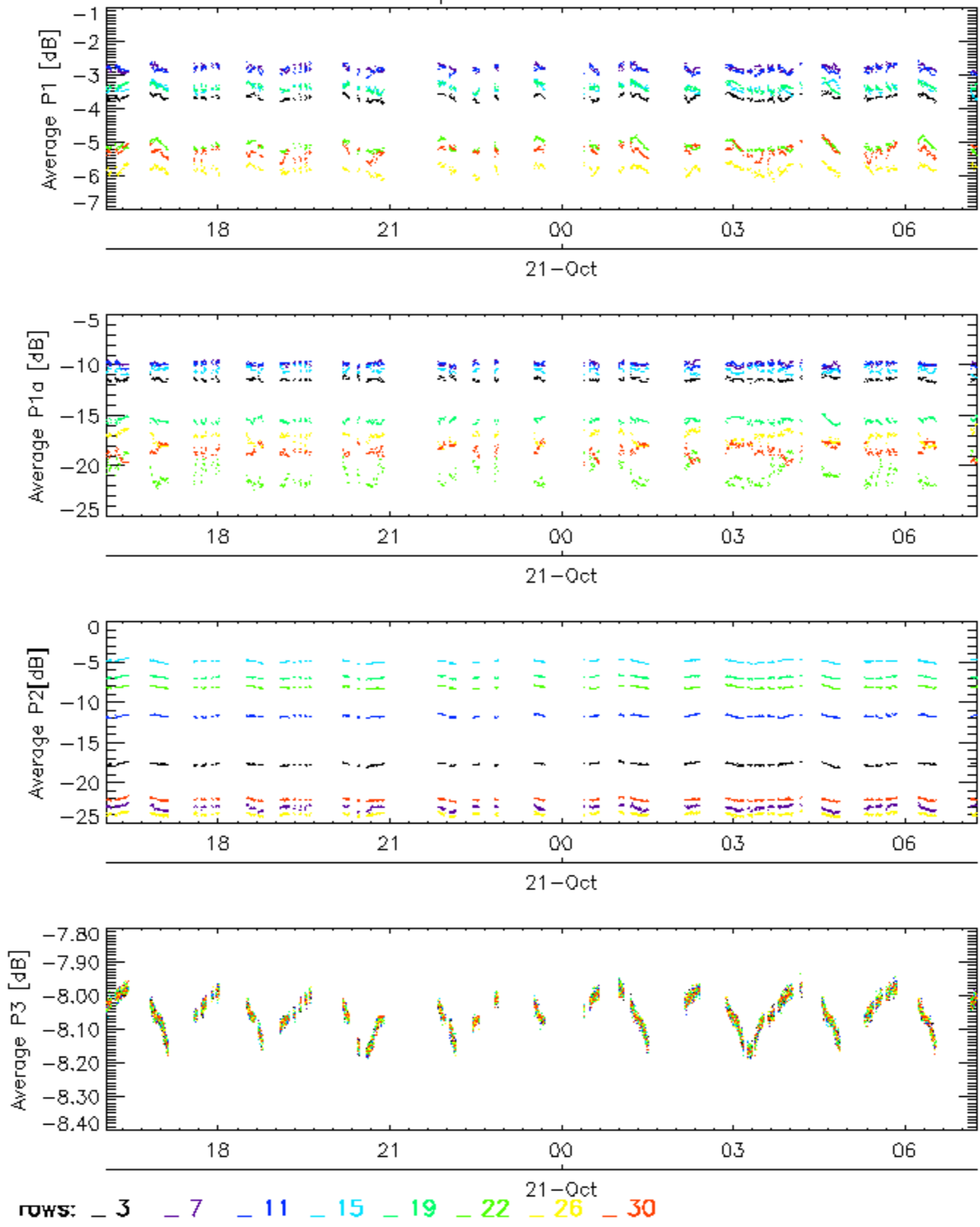
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

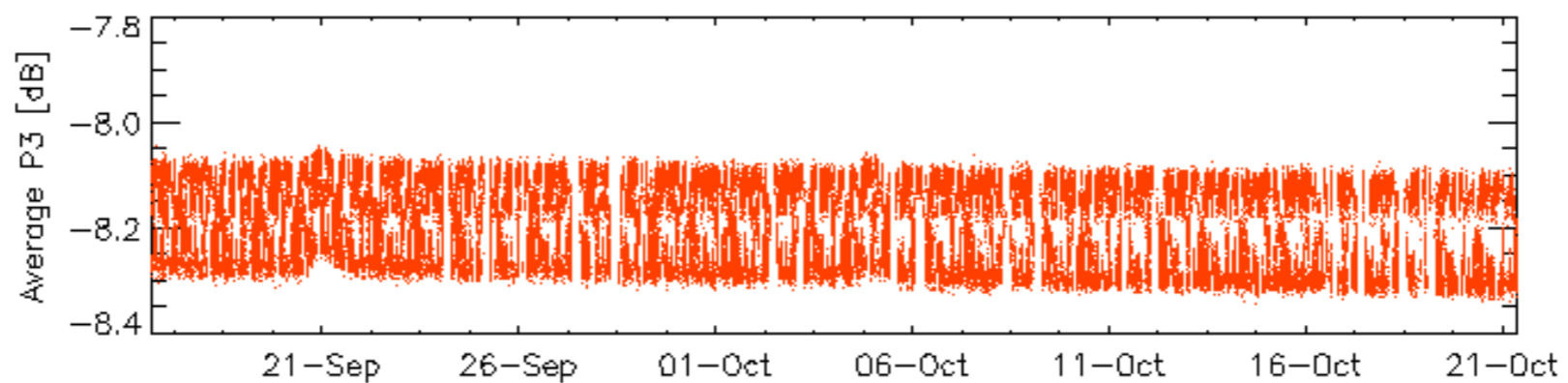
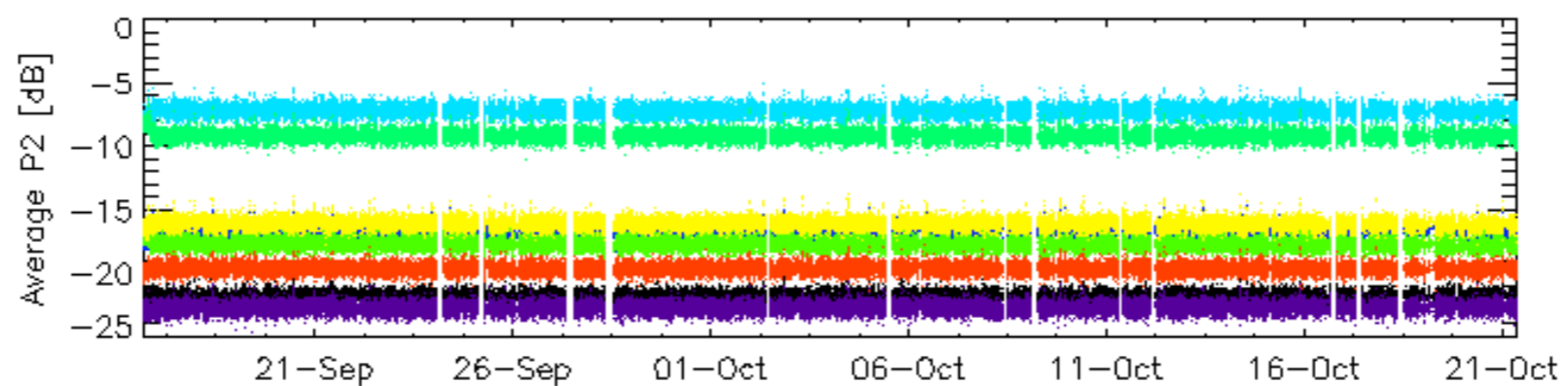
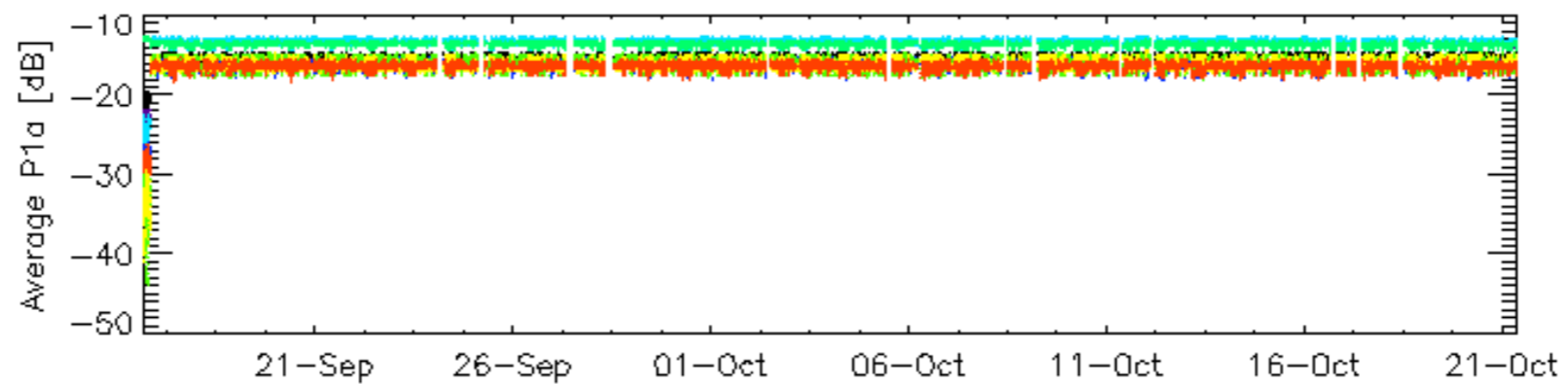
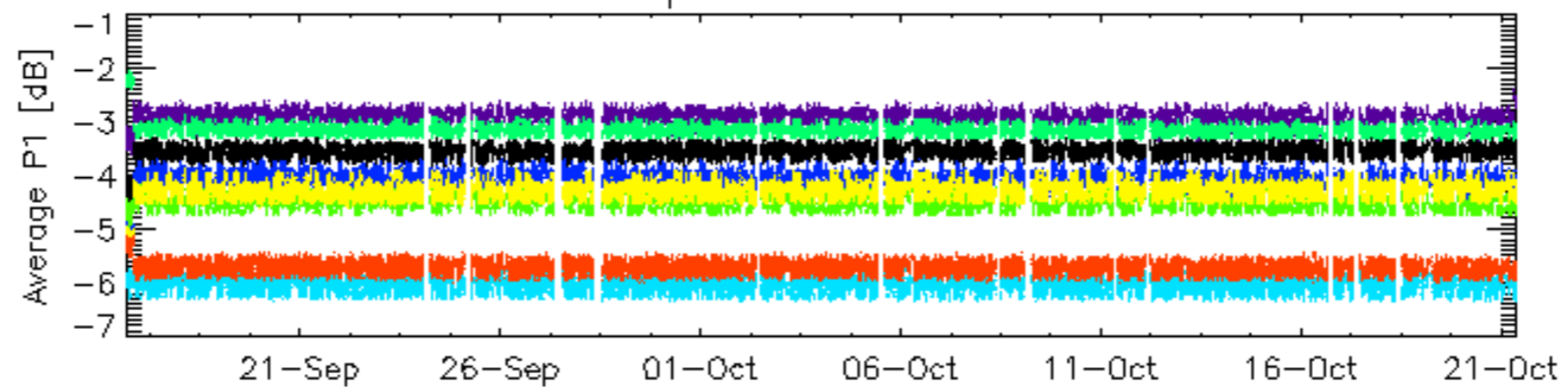


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

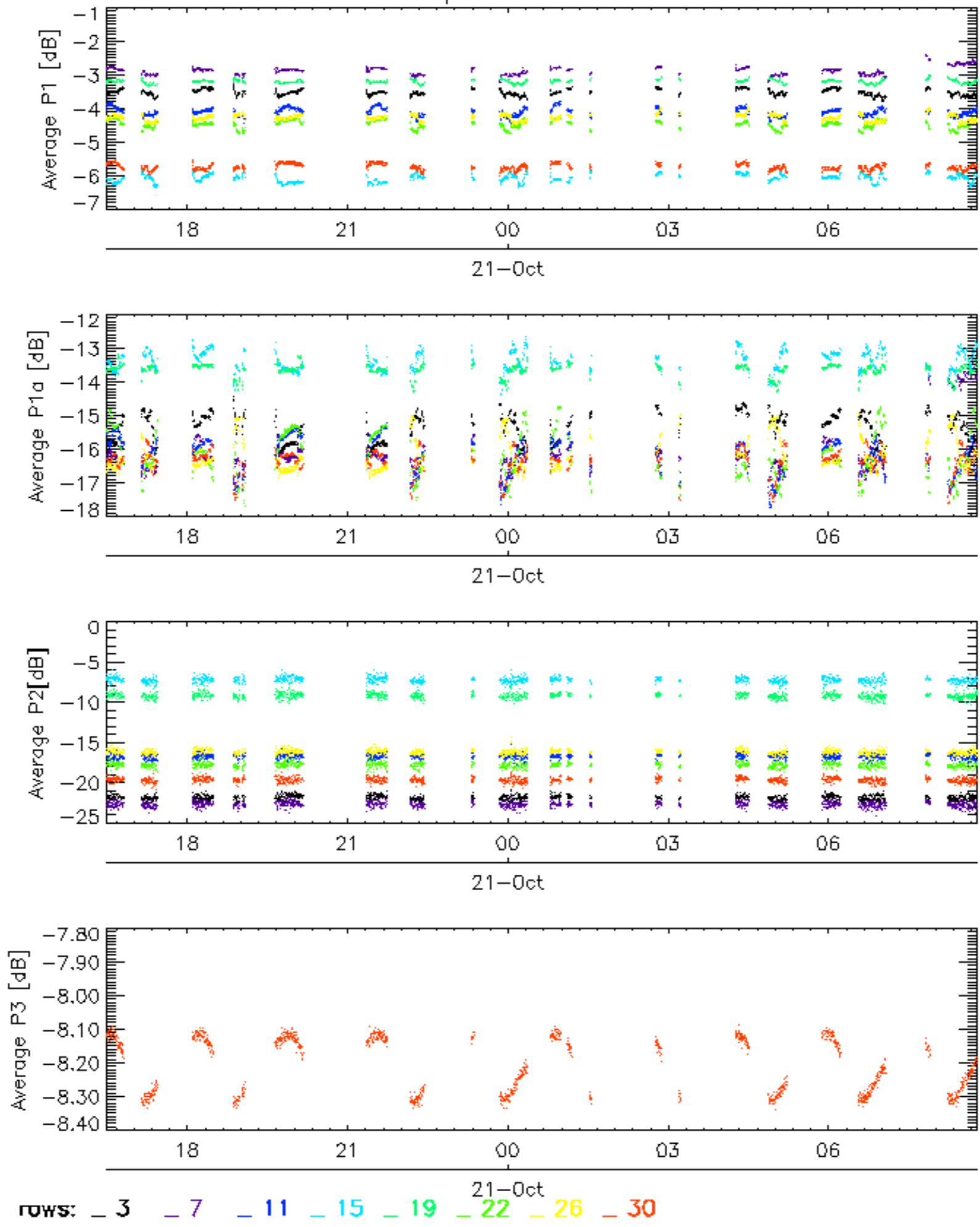


Cal pulses for WVS IS2

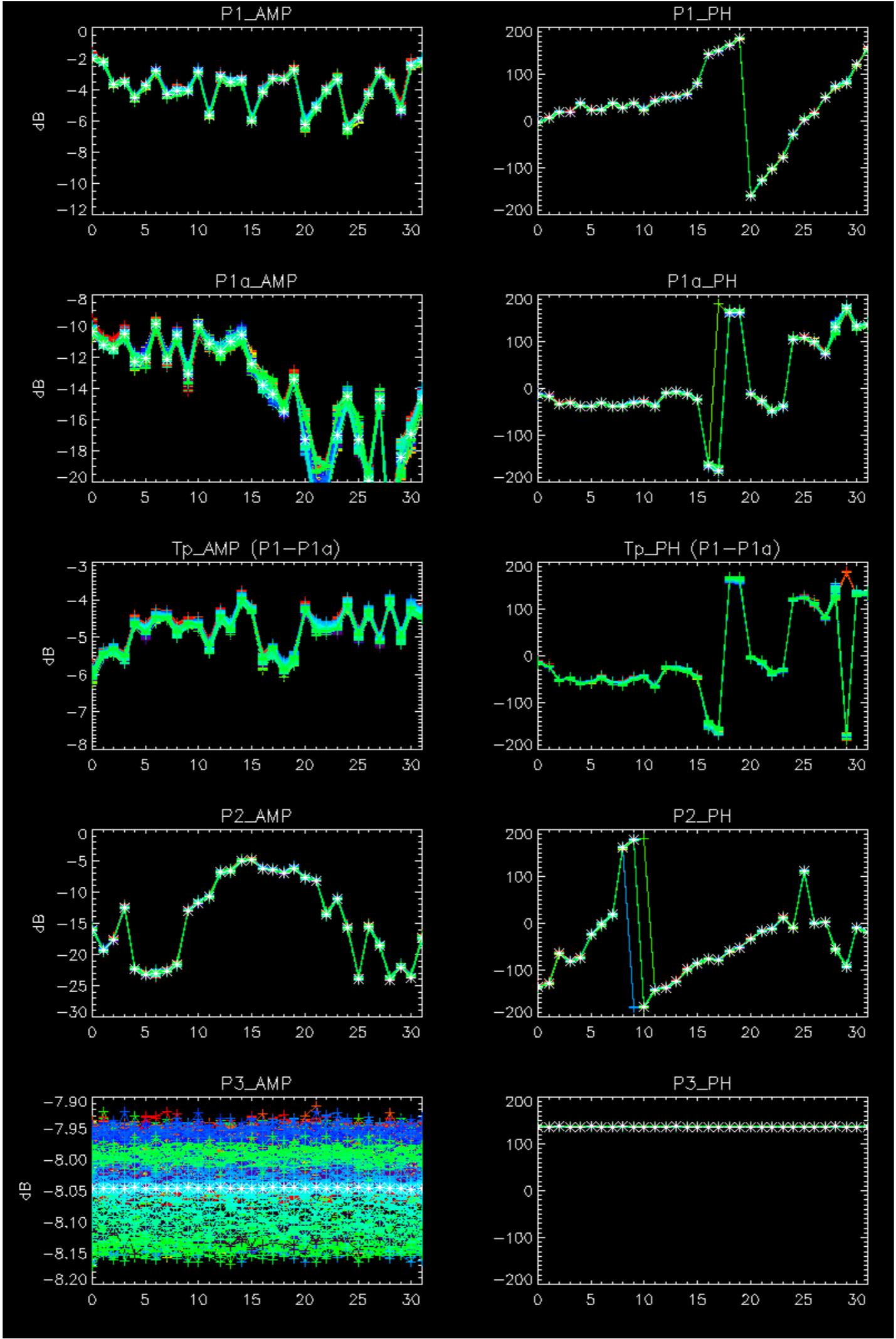


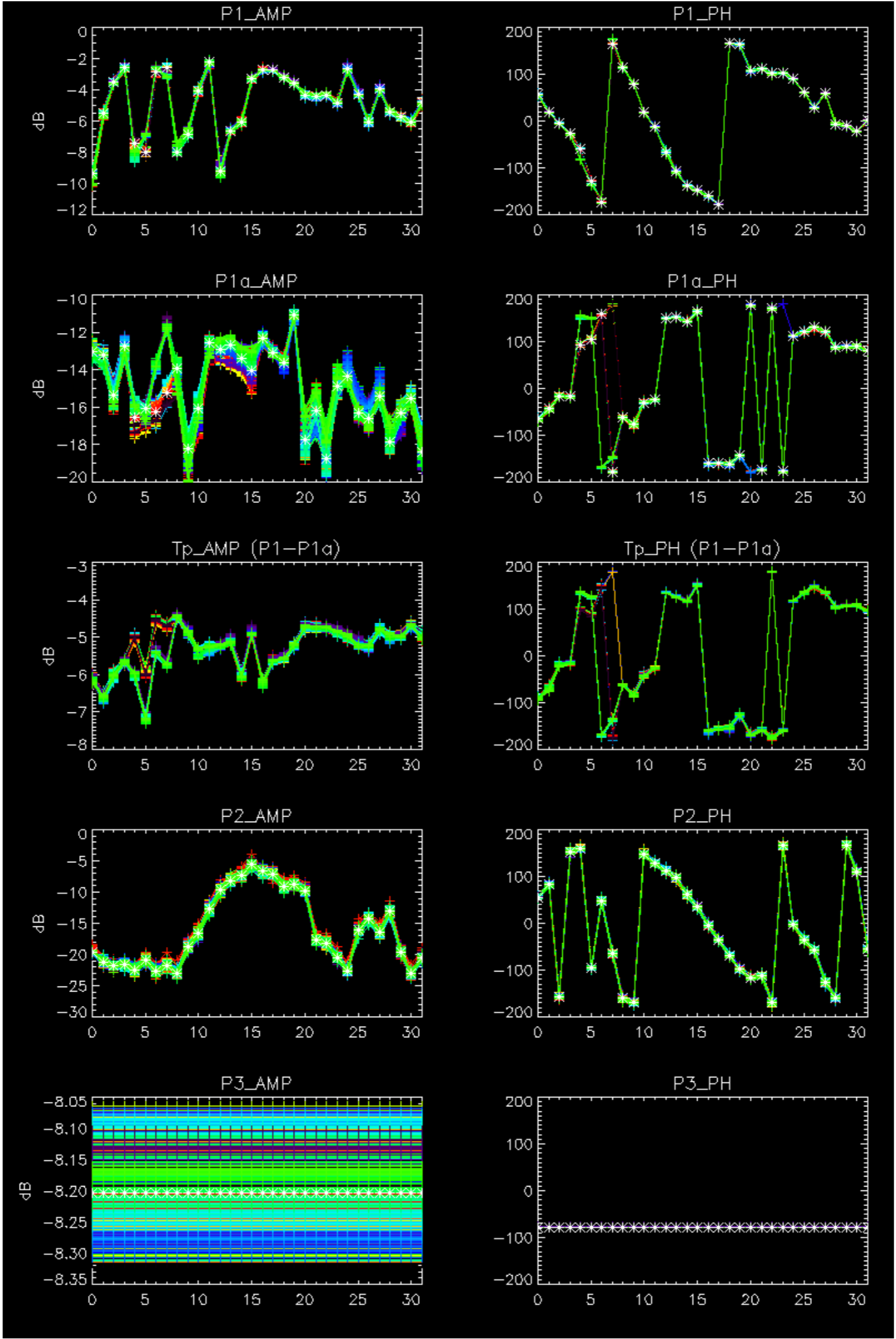
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



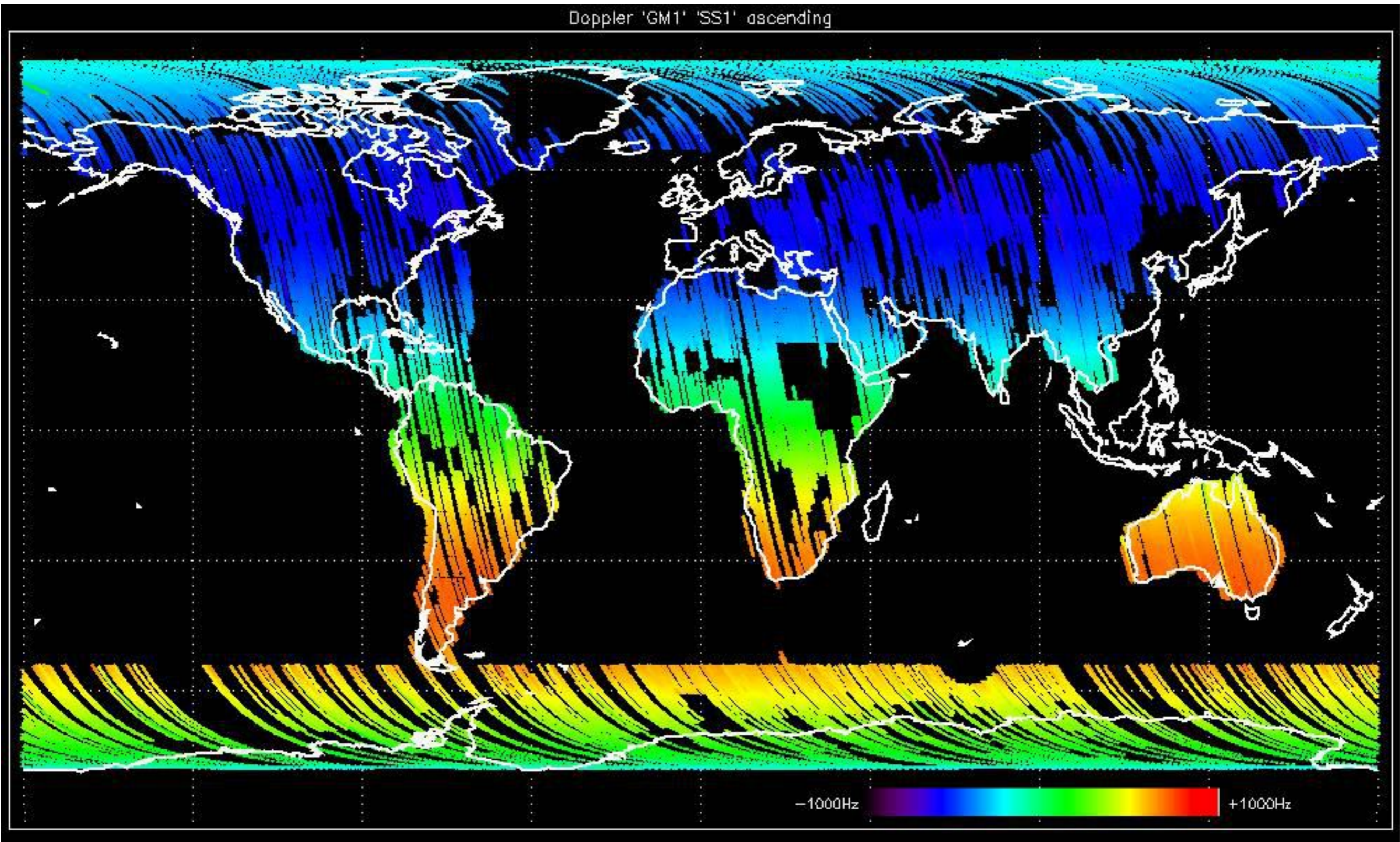
No anomalies observed.



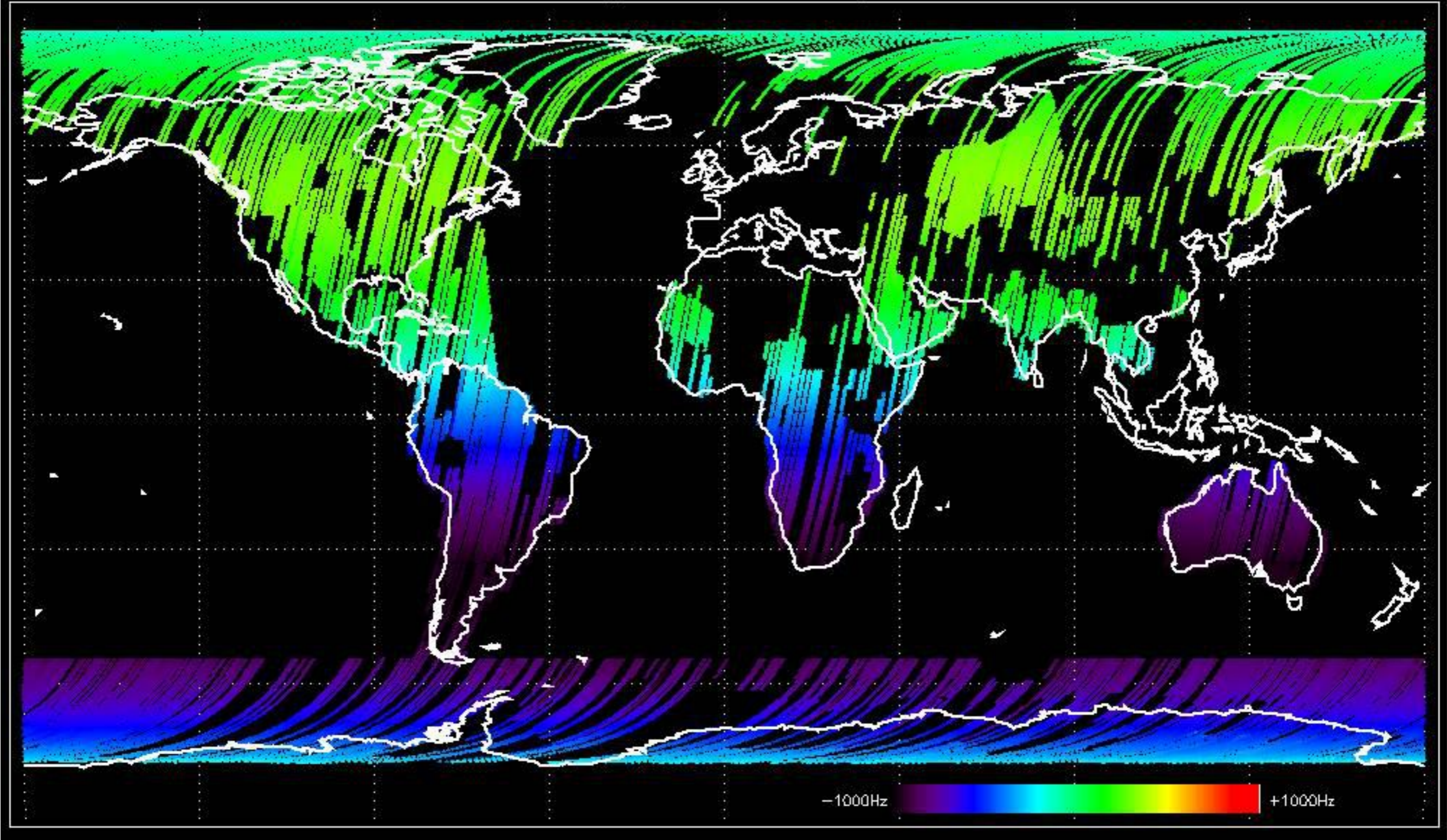


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

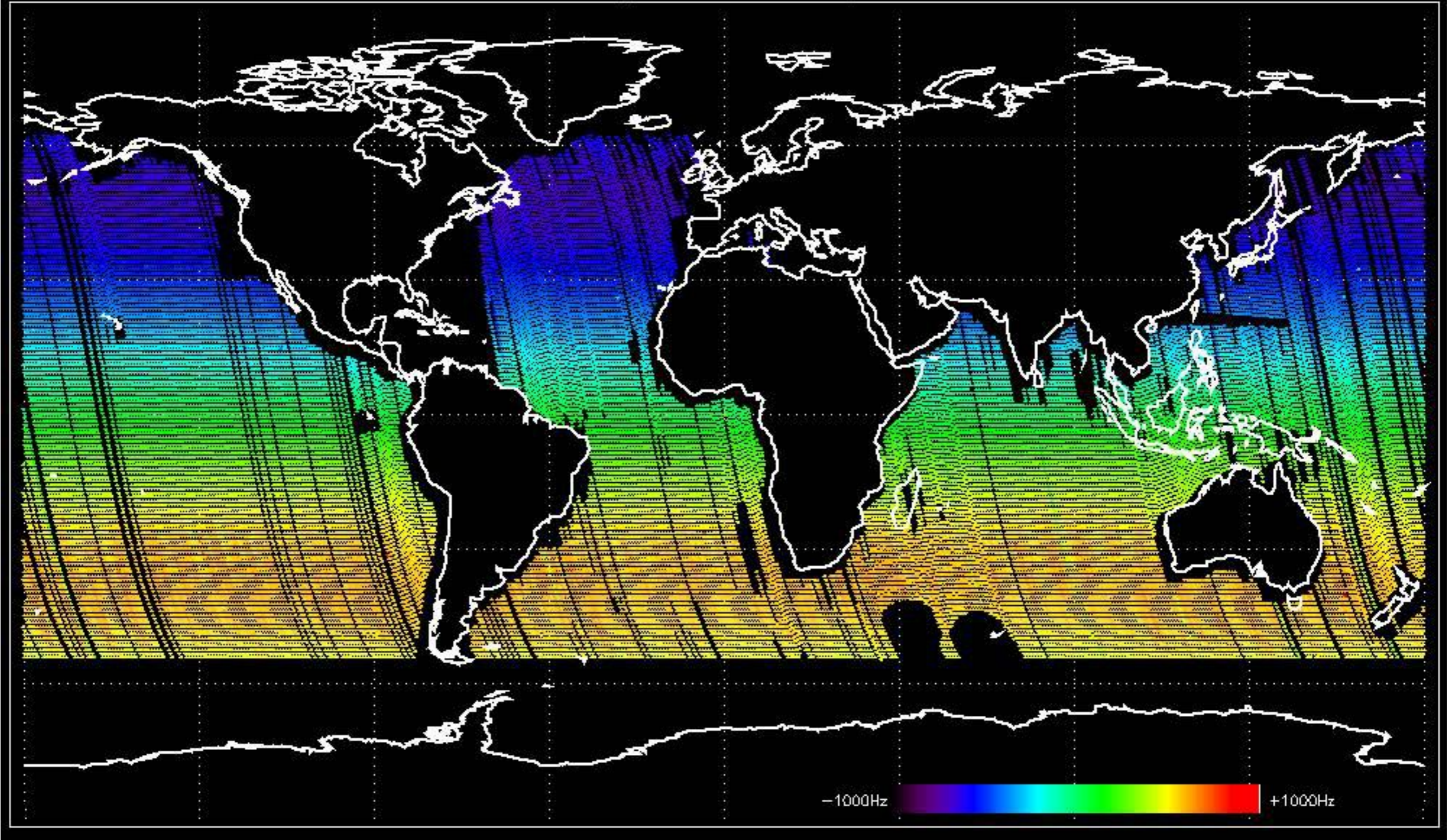
Doppler 'GM1' 'SS1' ascending



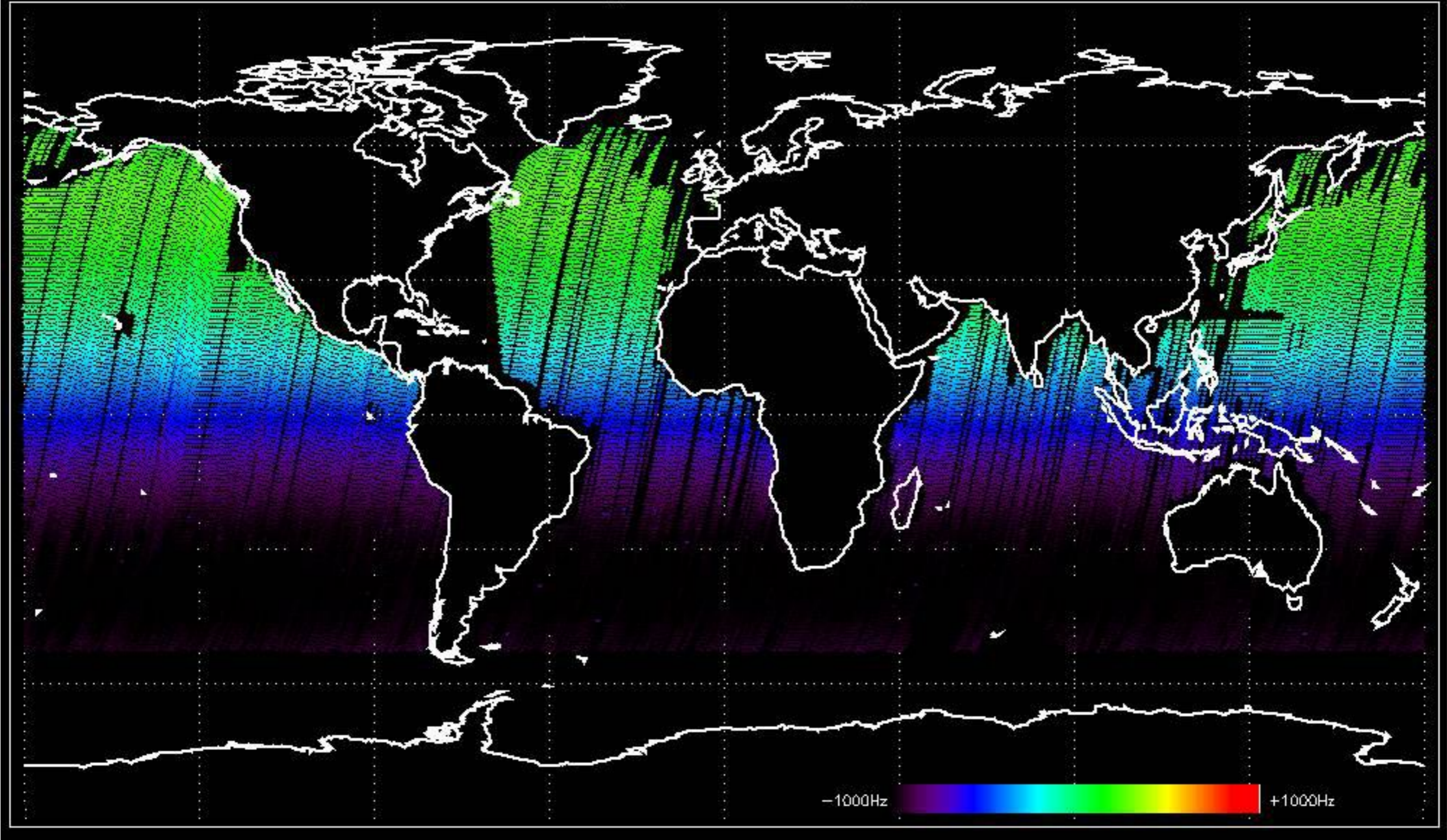
Doppler 'GM1' 'SS1' descending



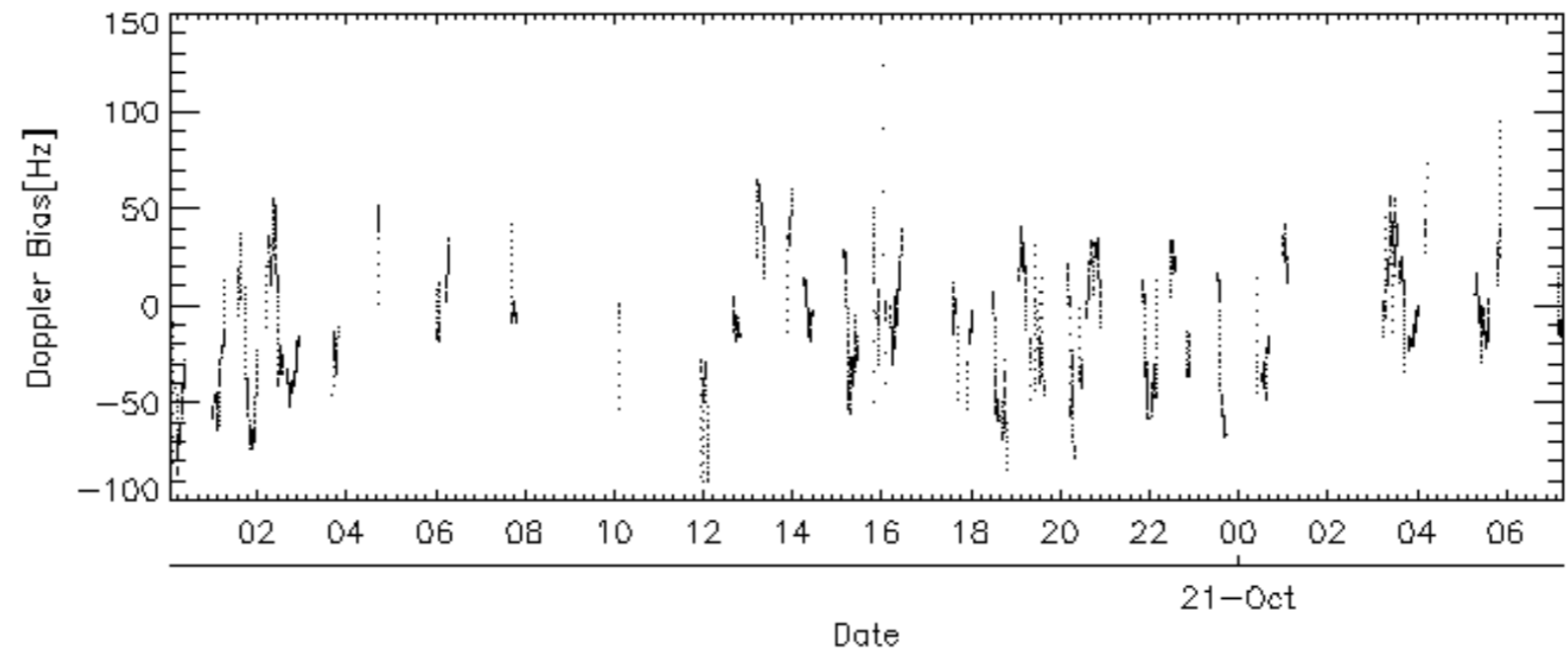
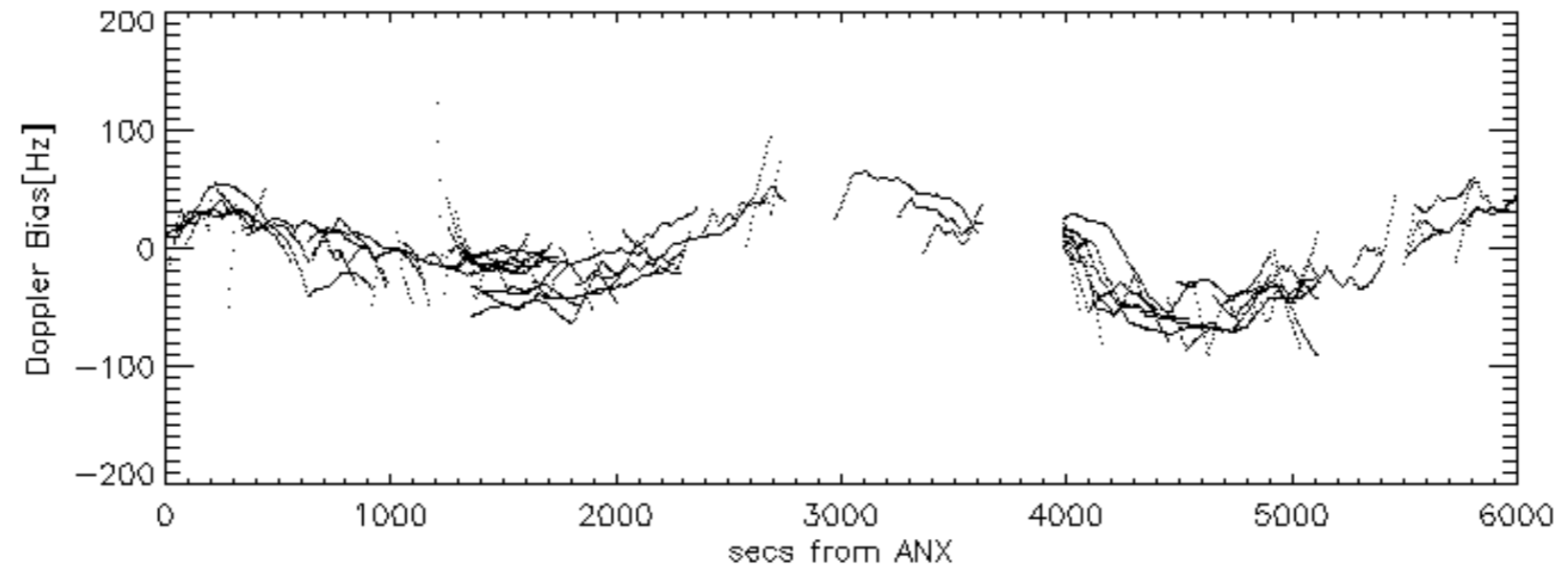
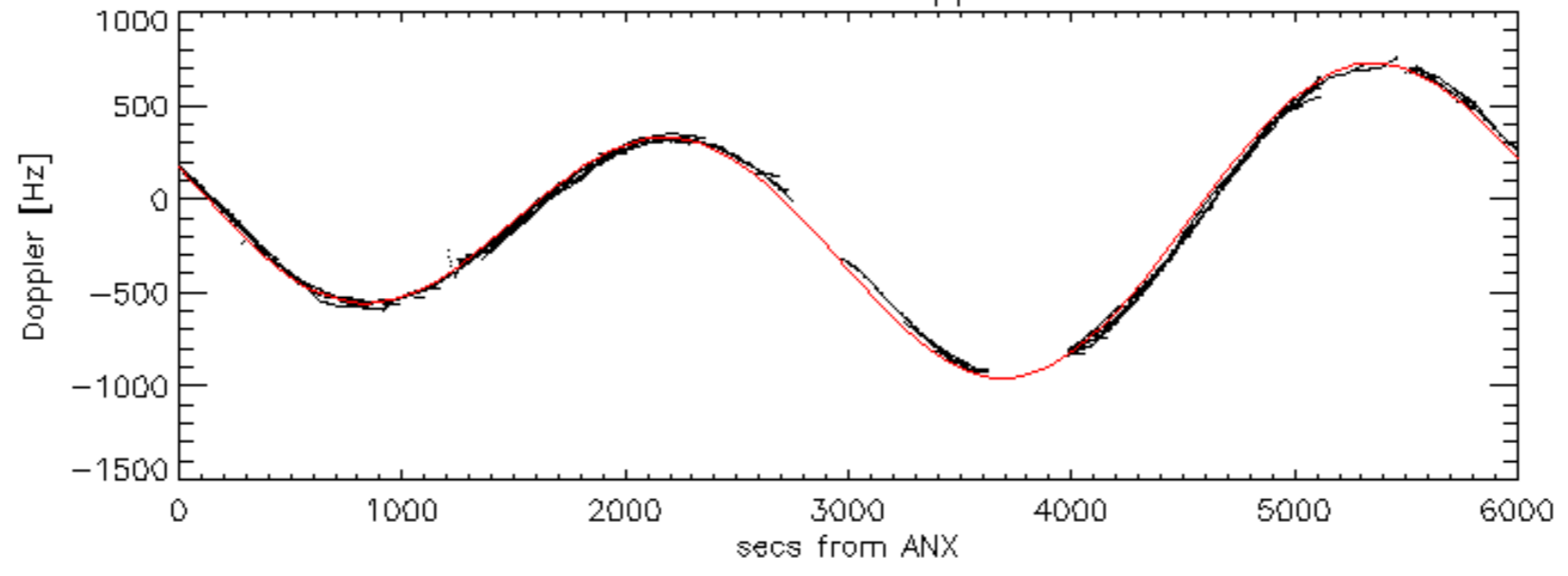
Doppler 'WVS' 'IS2' ascending

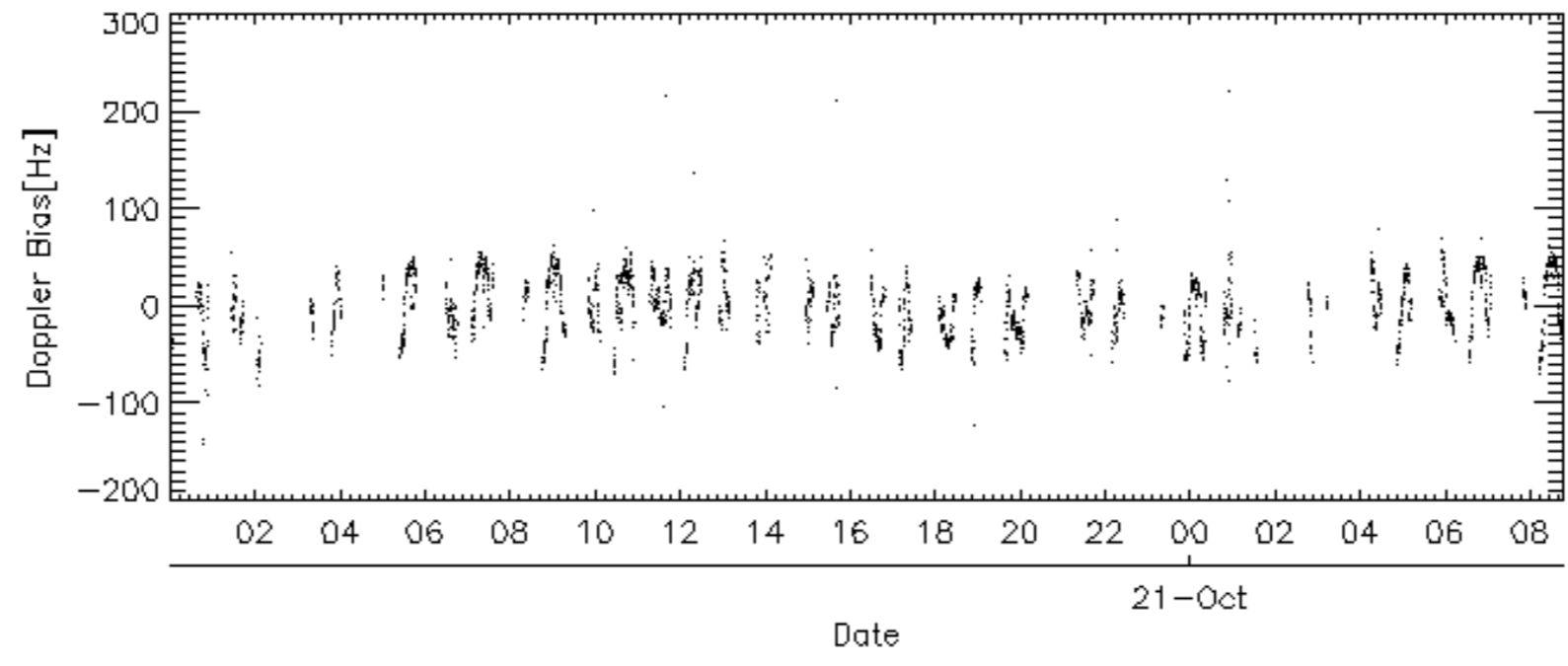
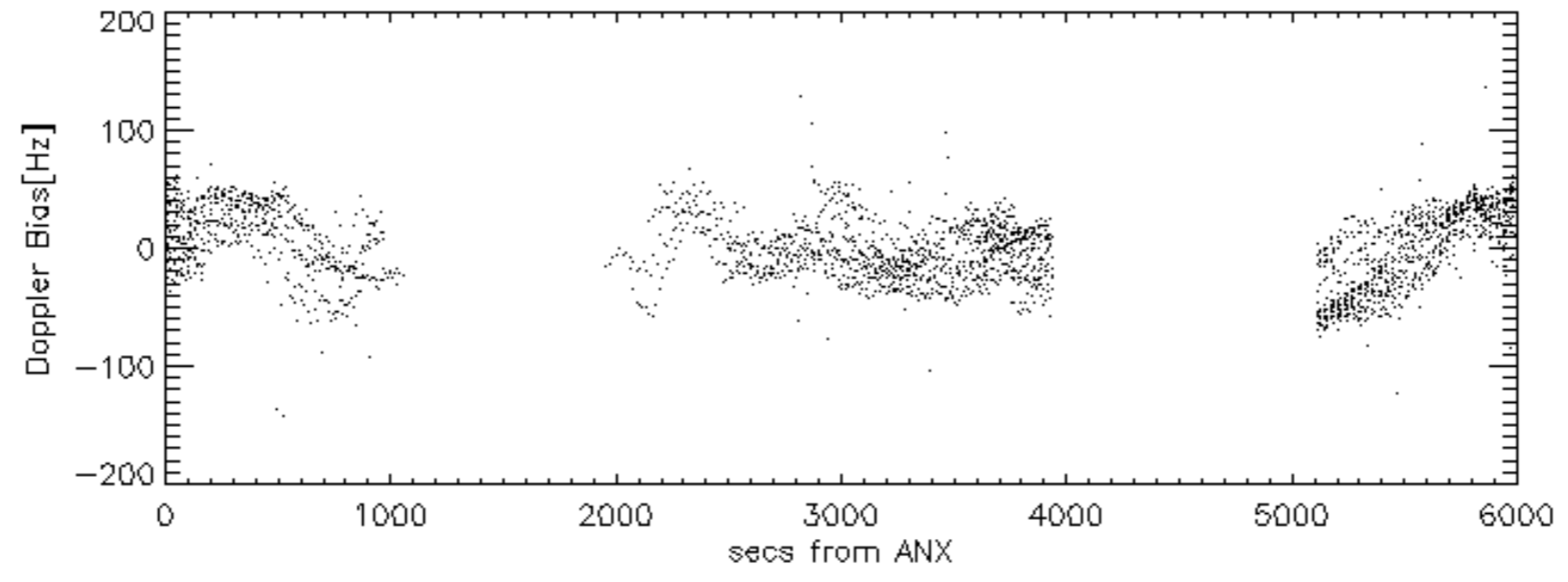
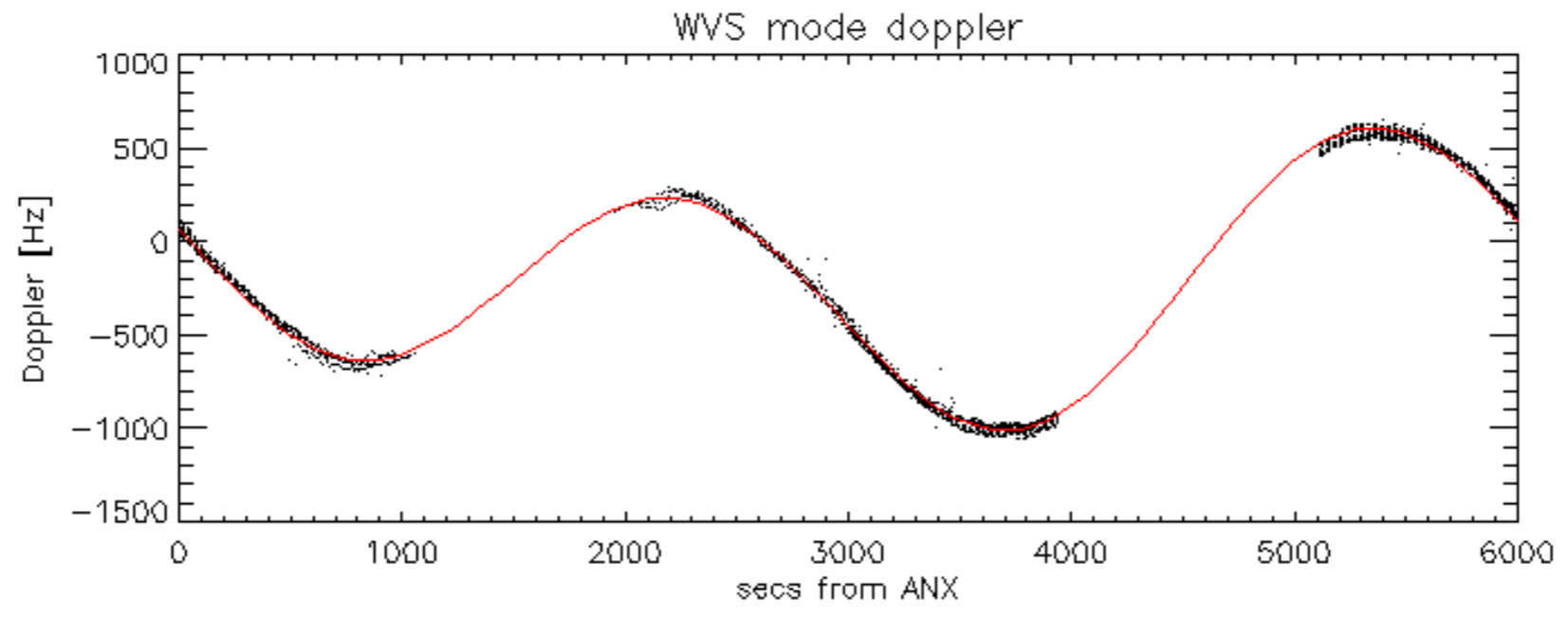


Doppler 'WVS' 'IS2' descending

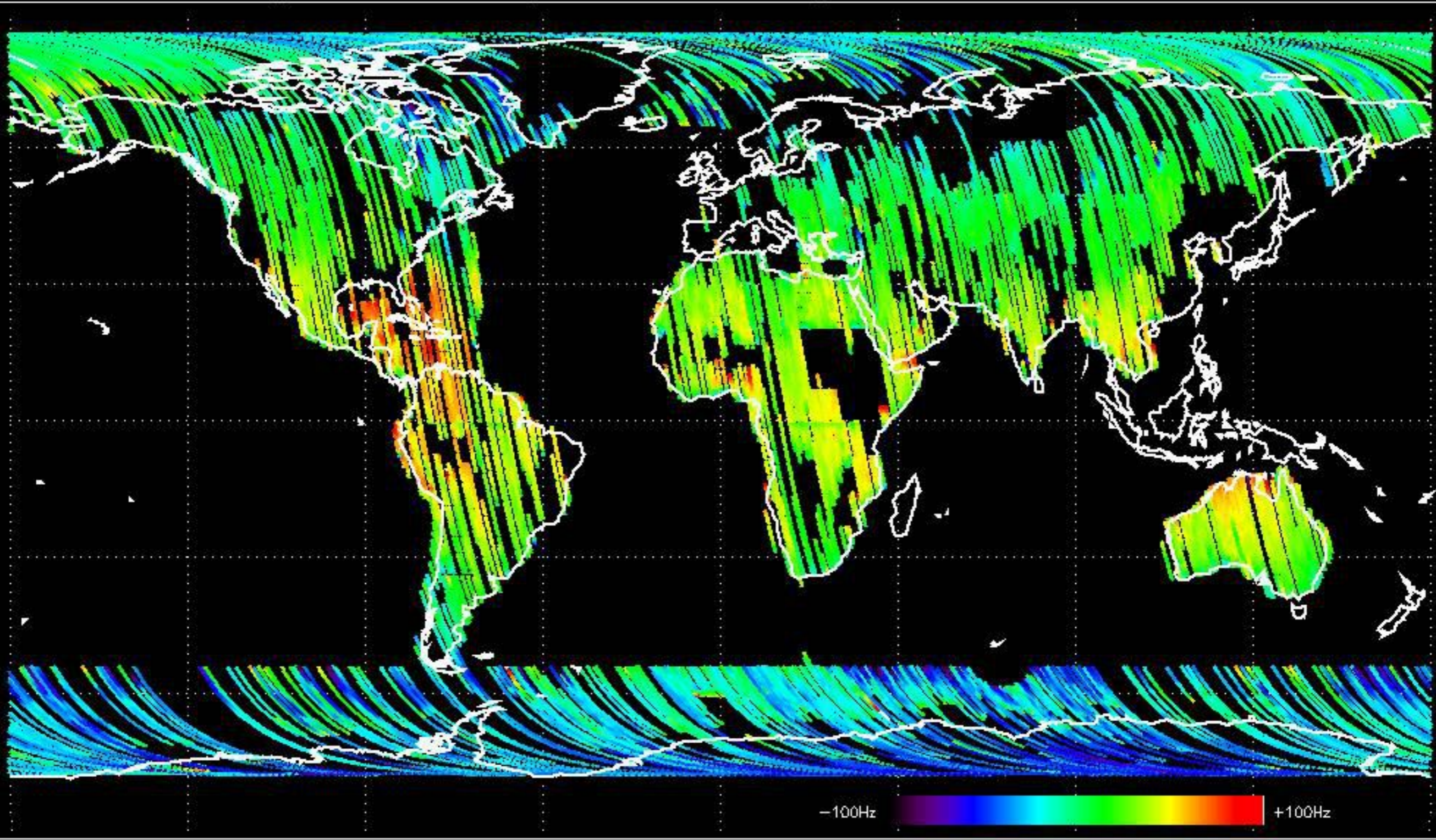


GM1 mode doppler

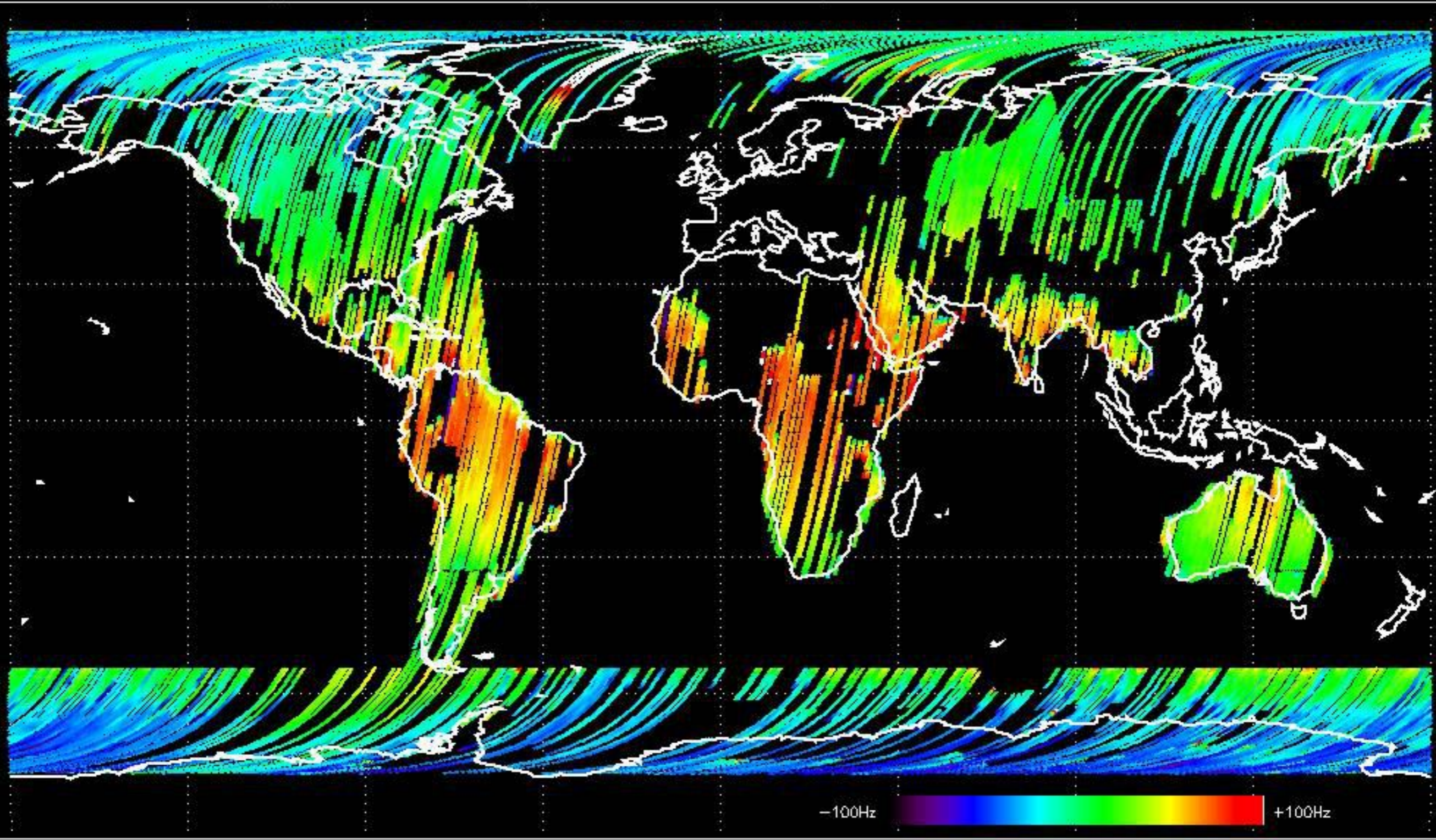




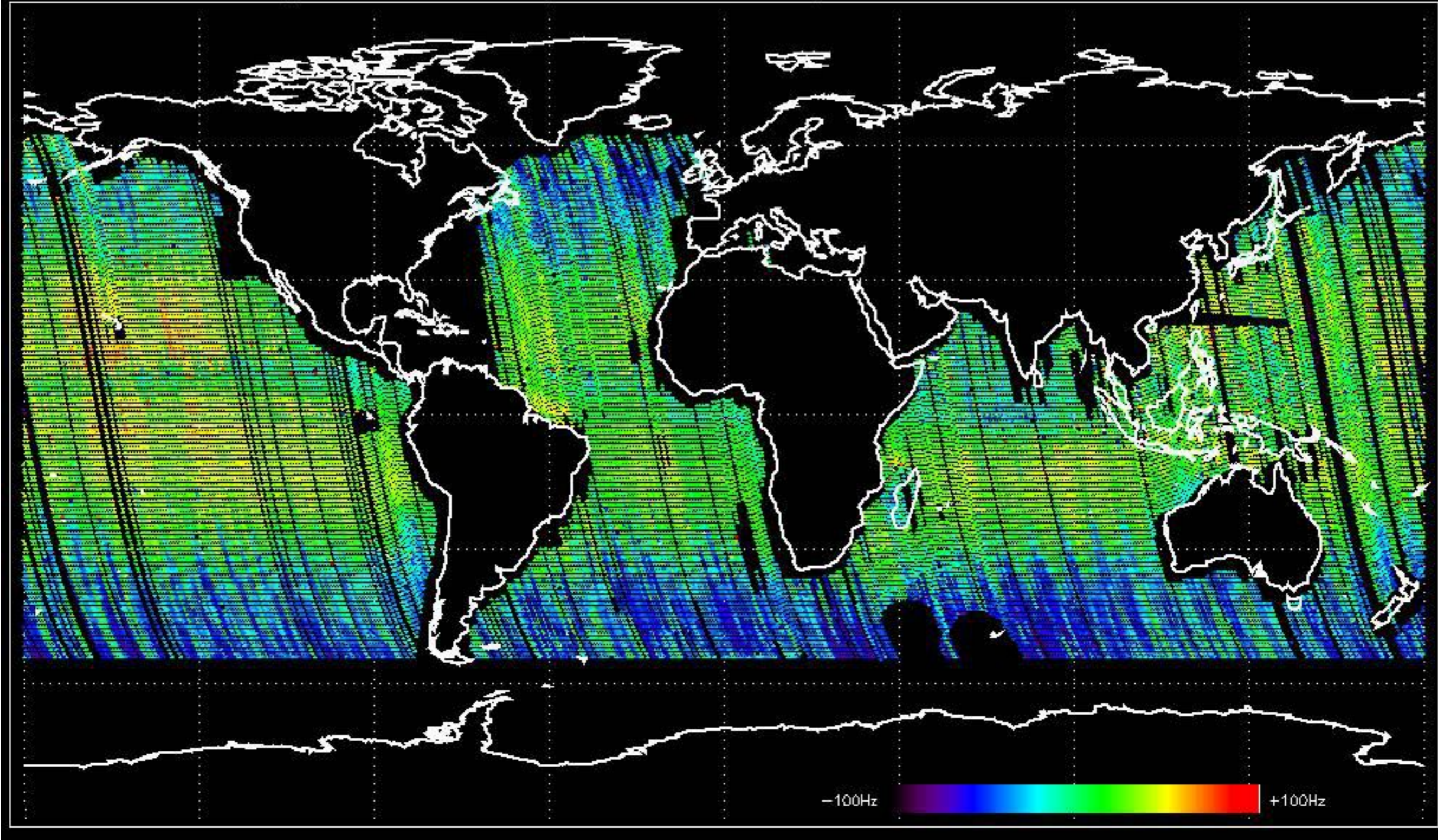
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -11.926851 Hz



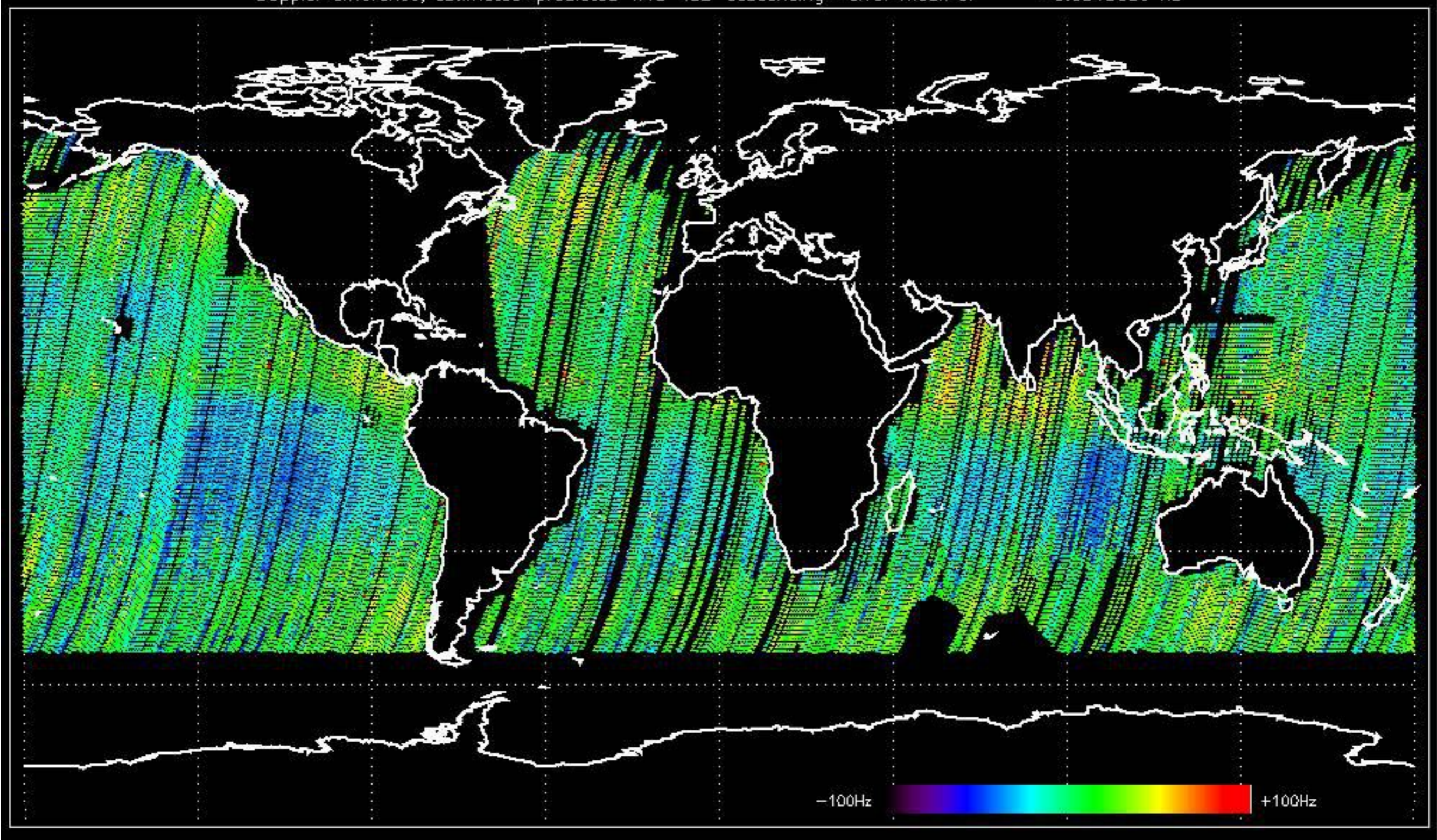
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.9874856 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -3.5785211 Hz

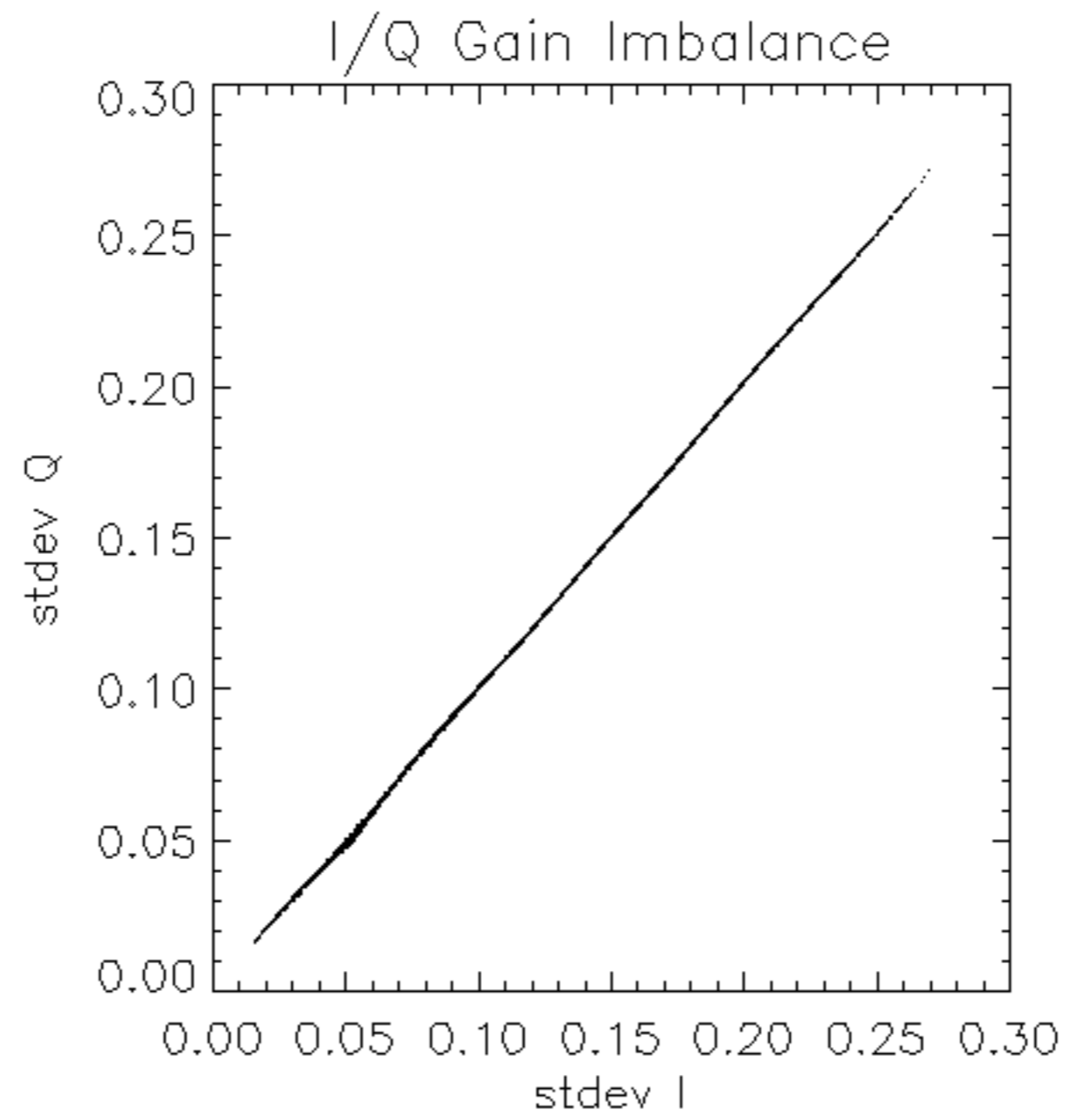


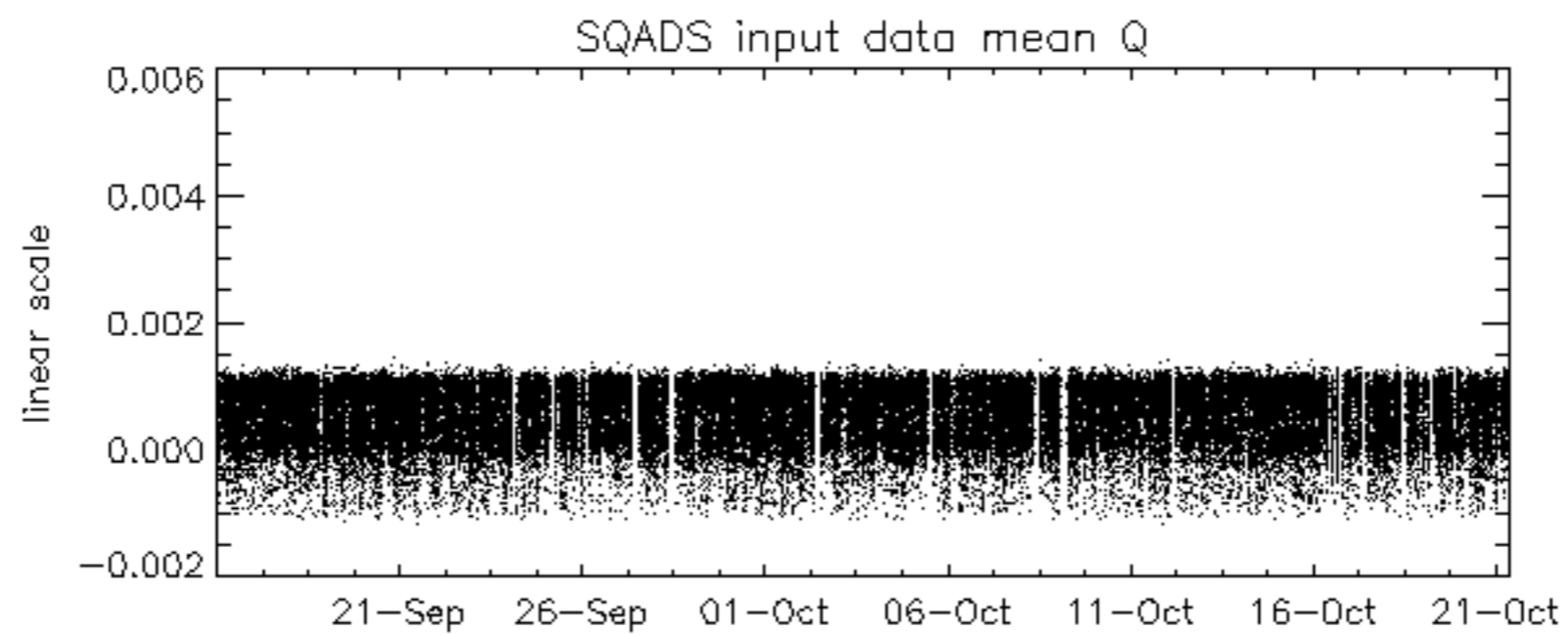
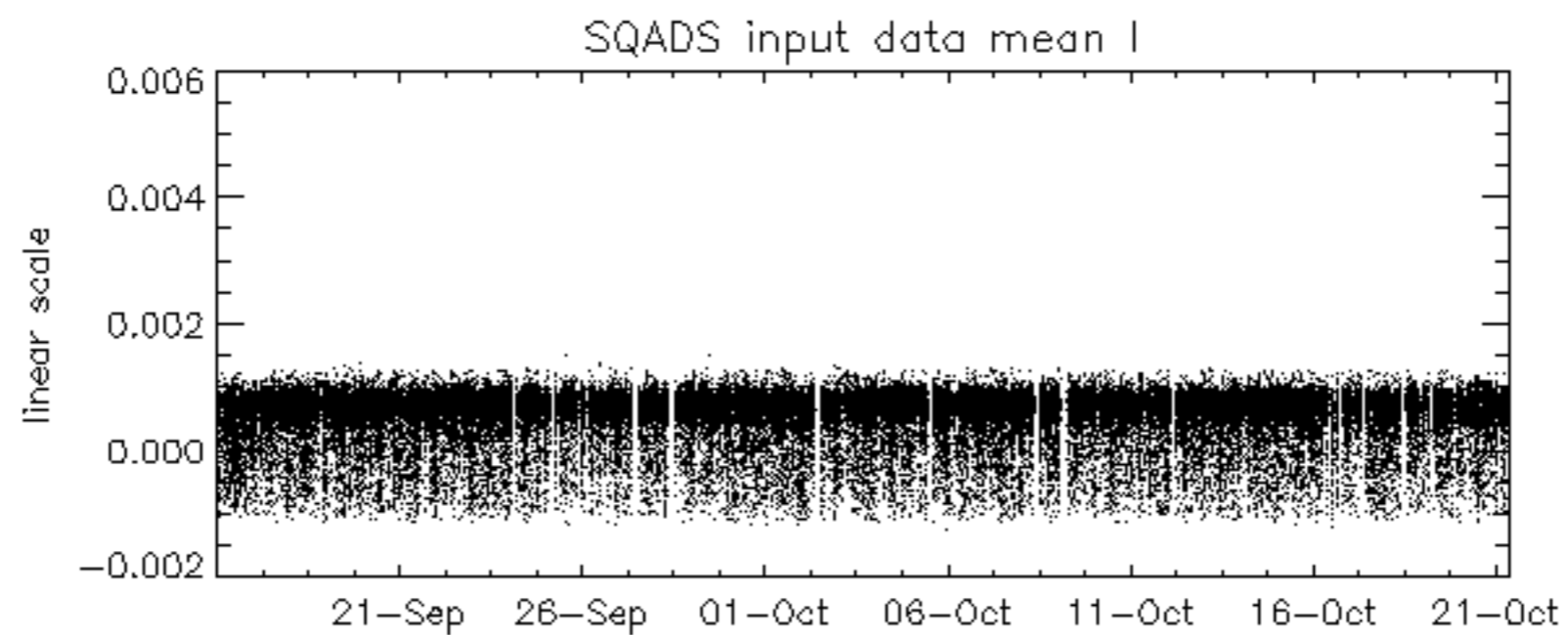
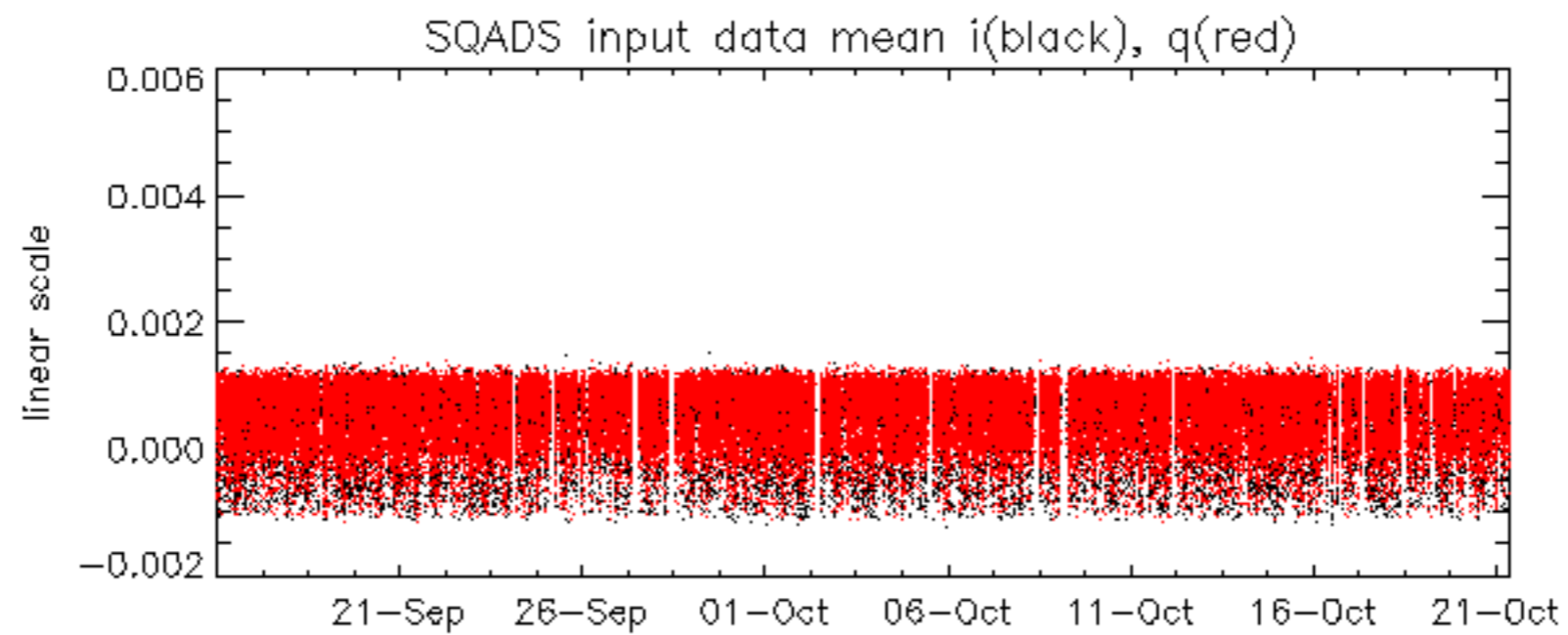
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -6.6843686 Hz

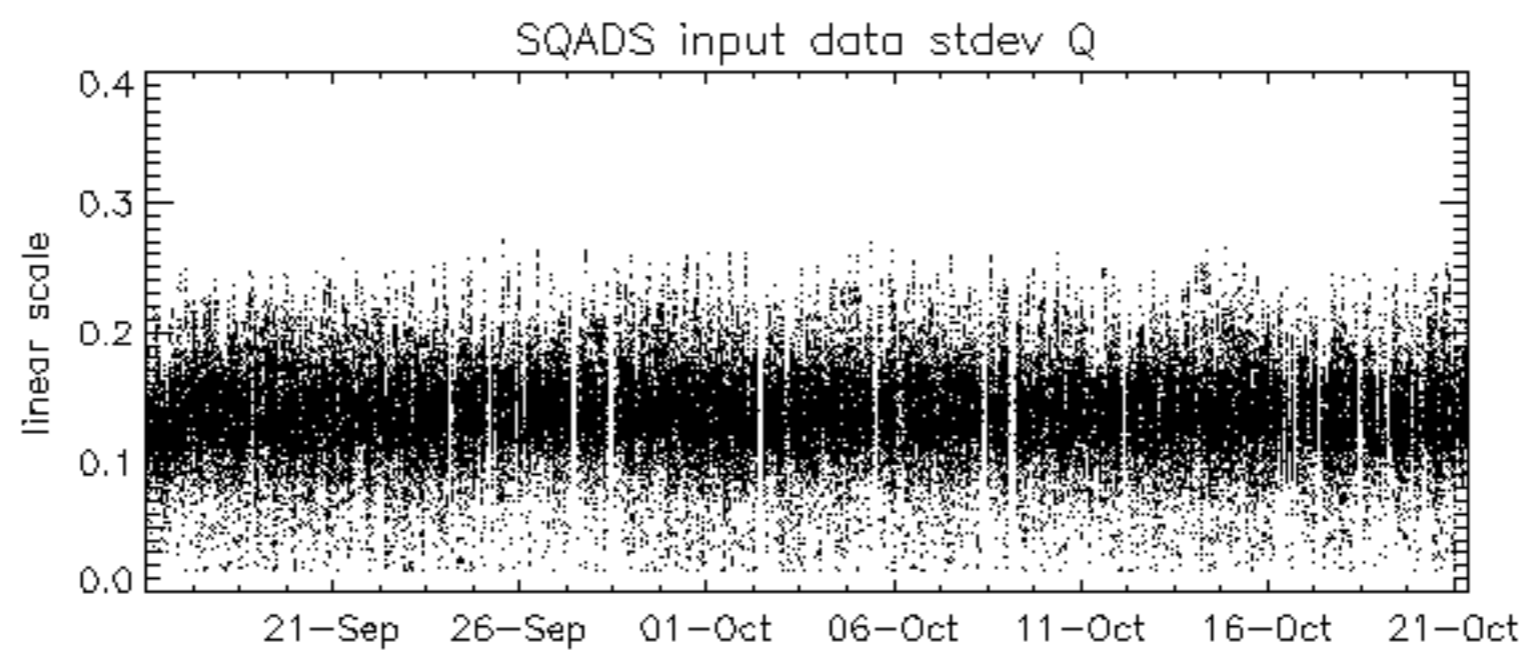
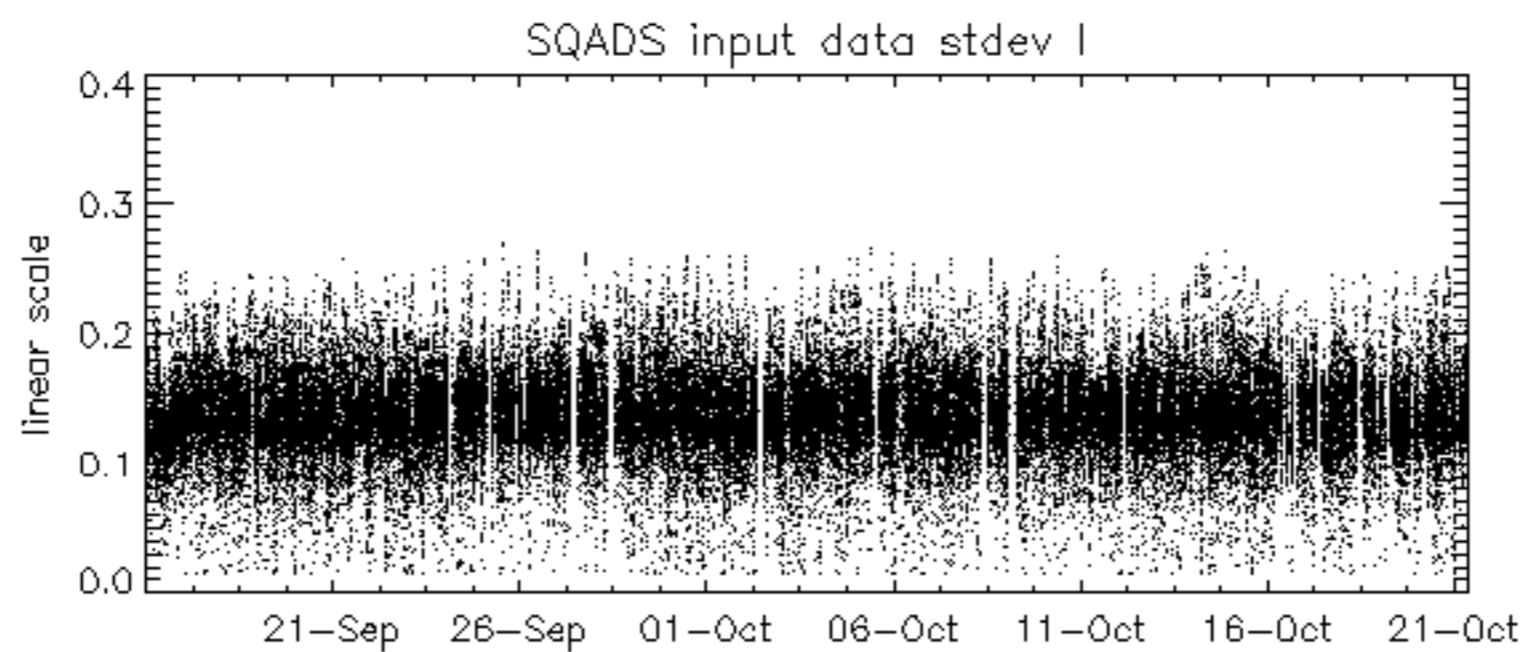
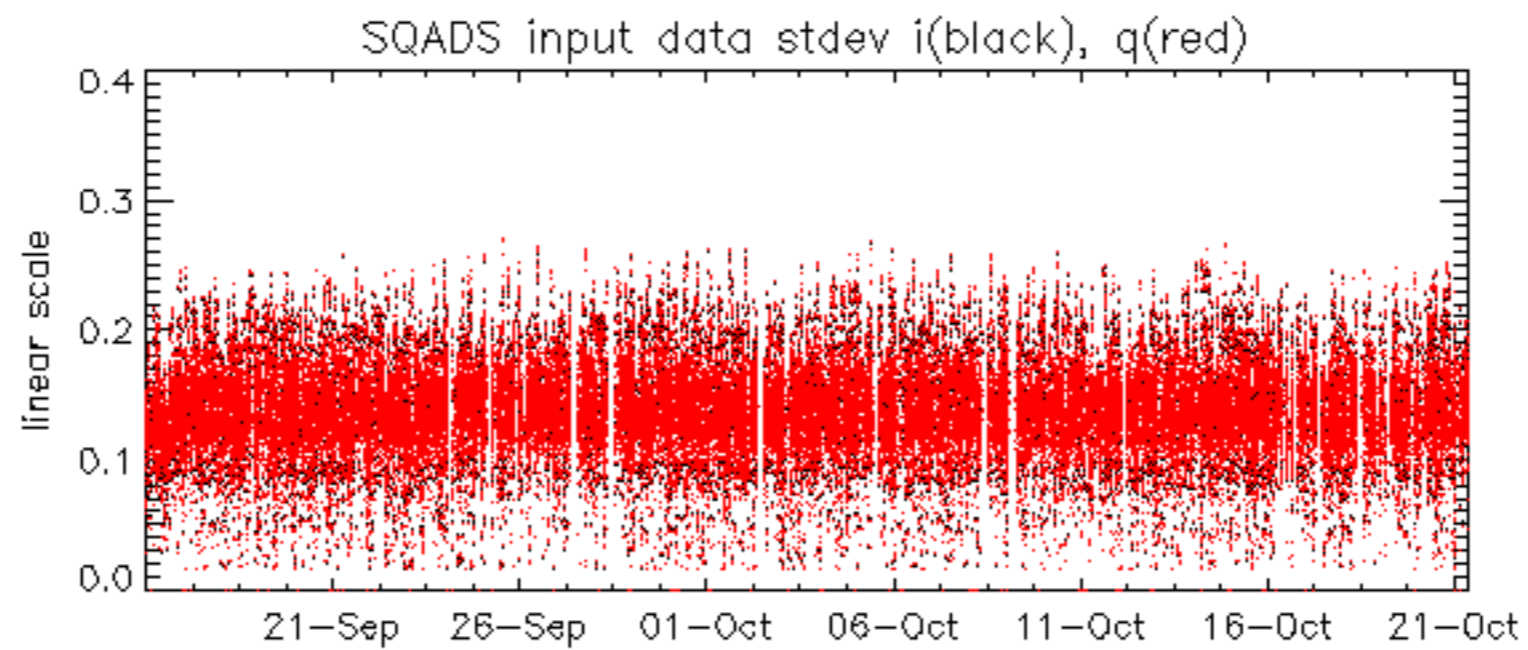


No anomalies observed on available MS products:

No anomalies observed.



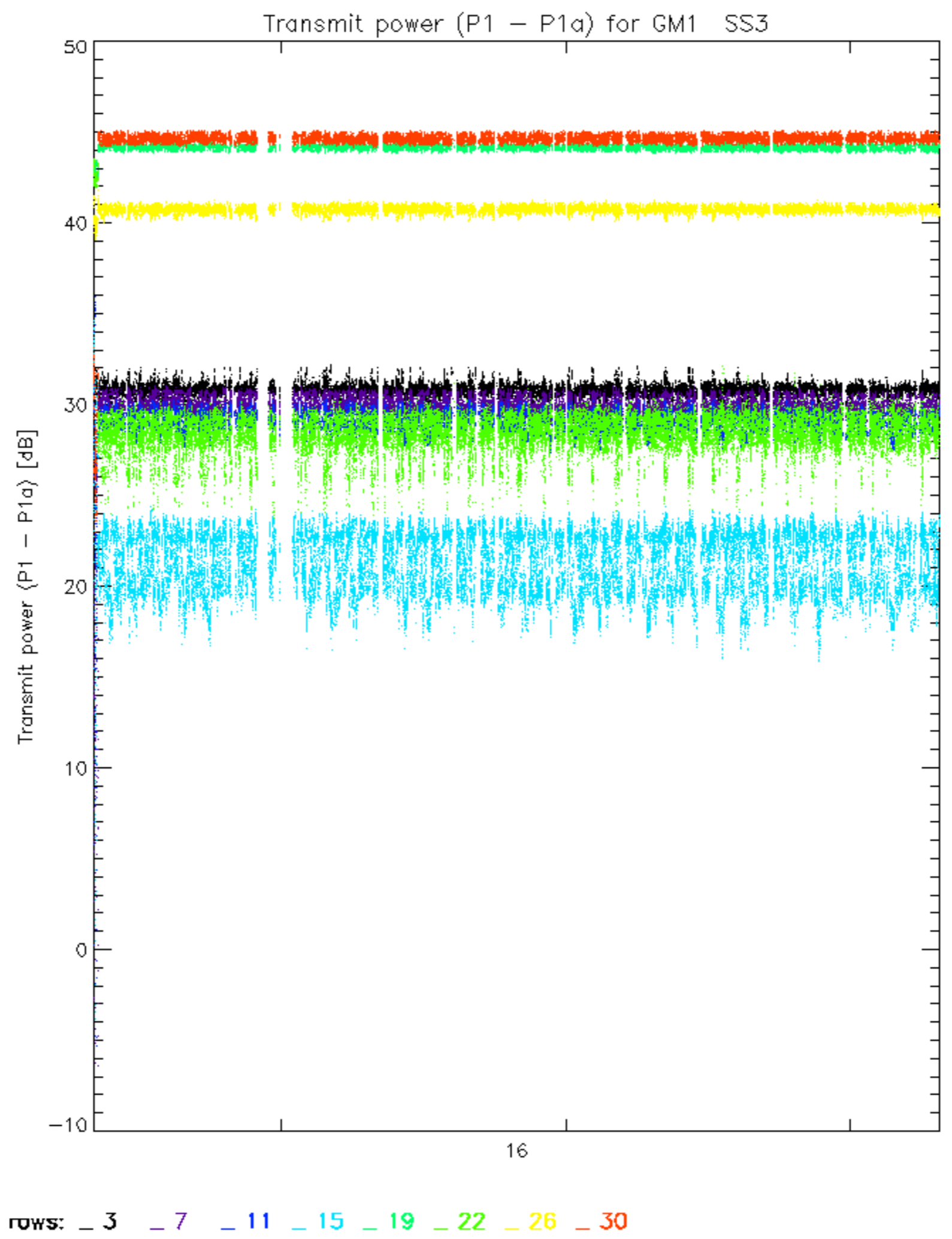


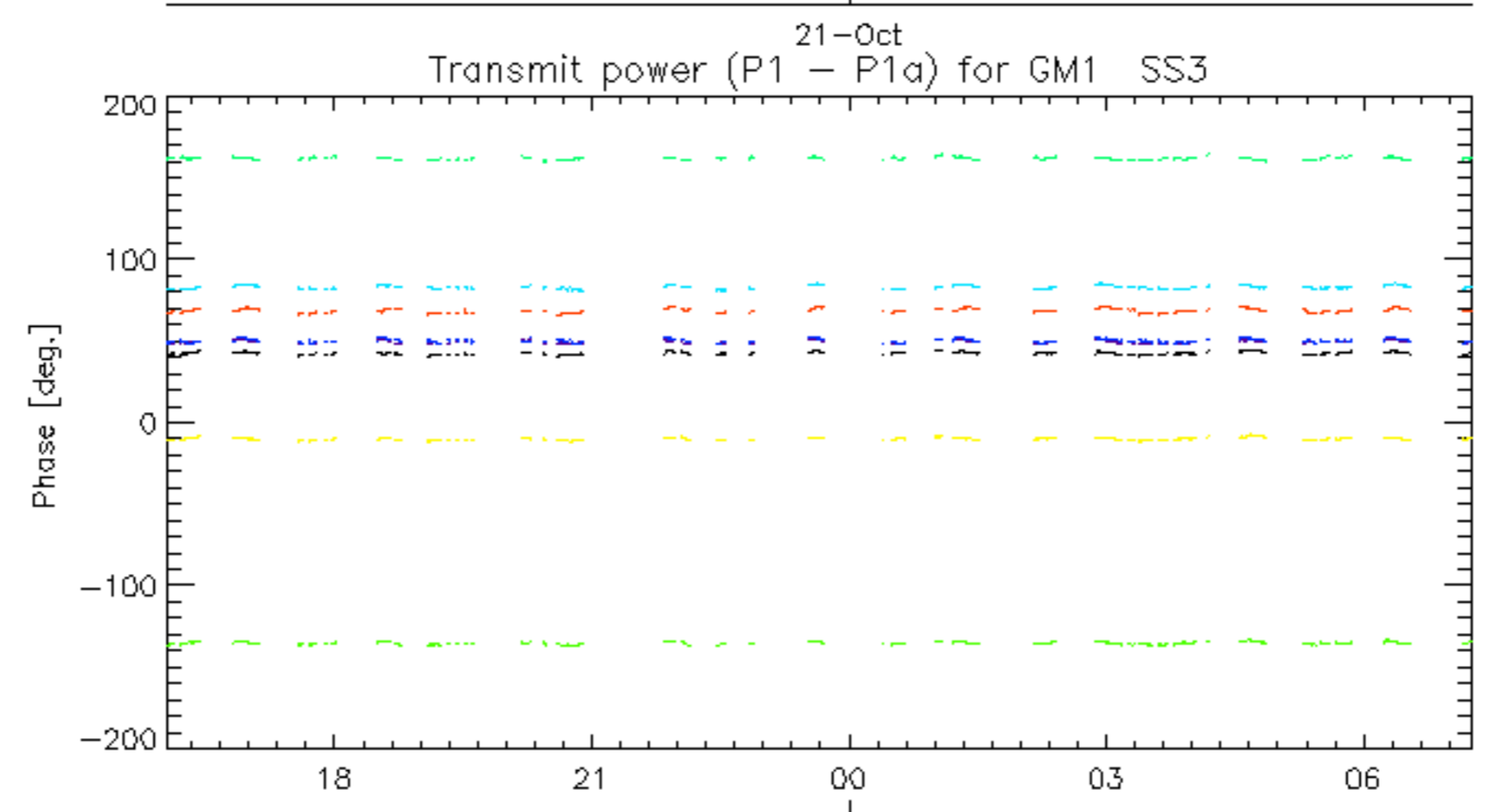
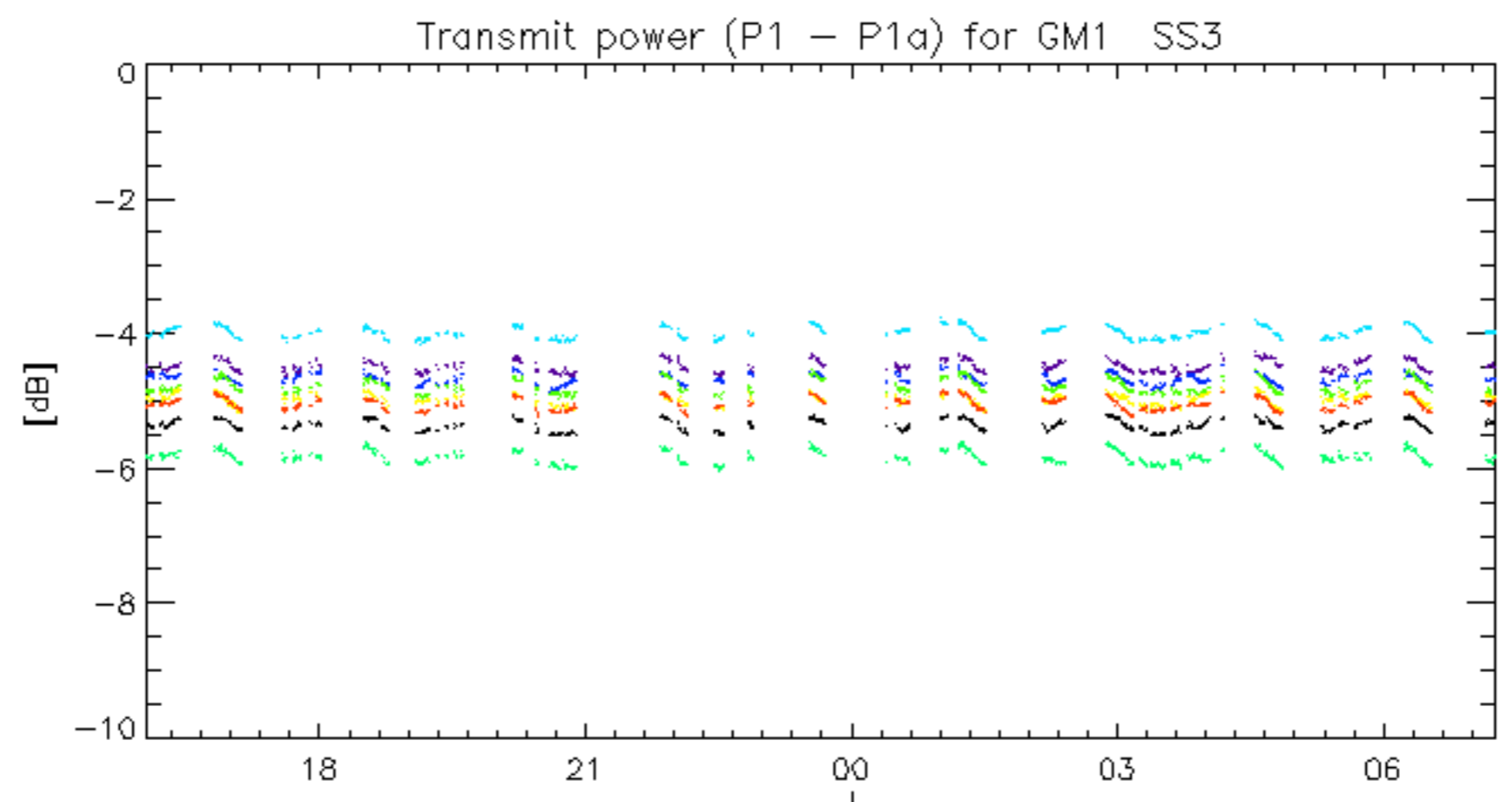


Summary of analysis for the last 3 days 2005102[901]

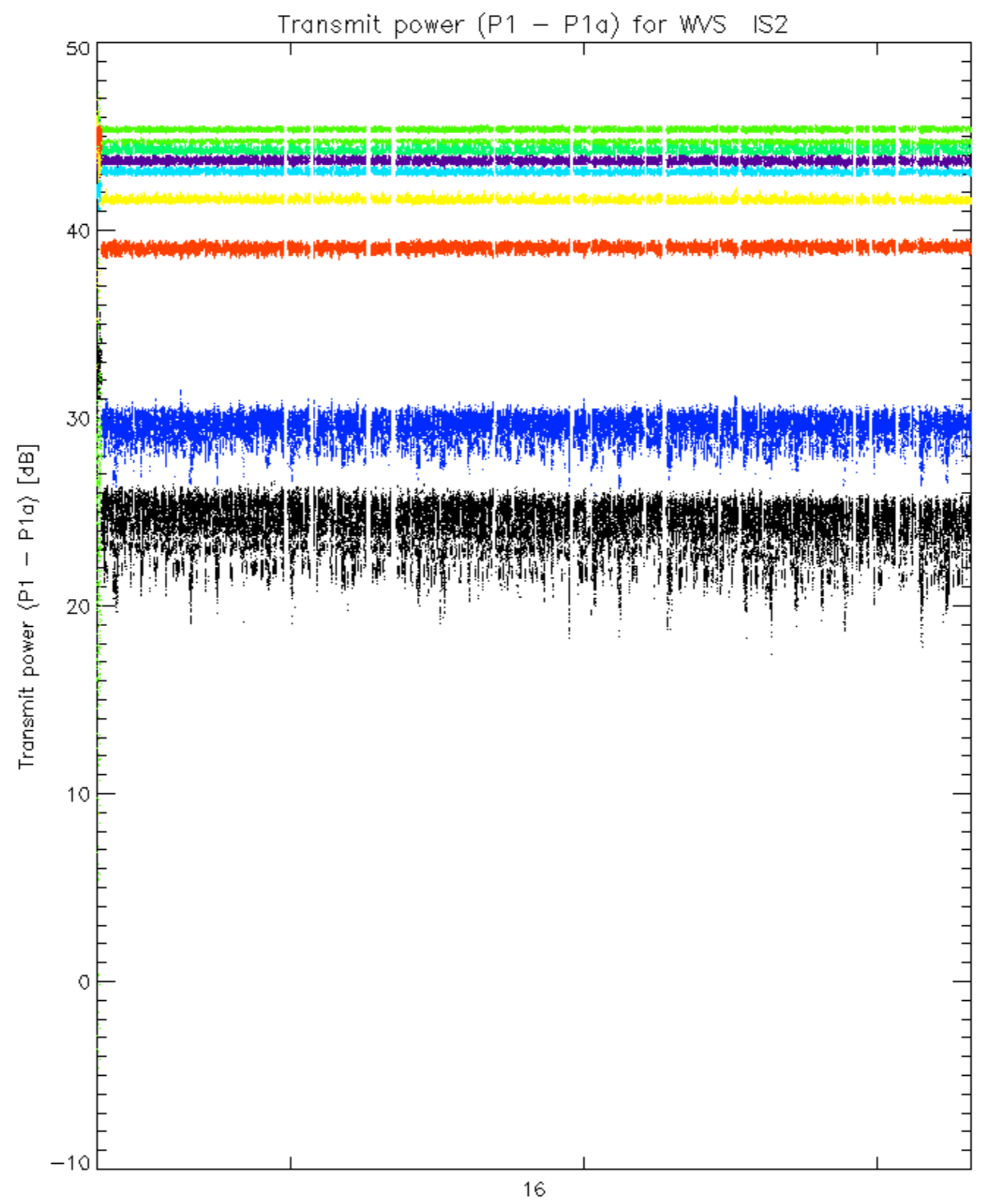
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

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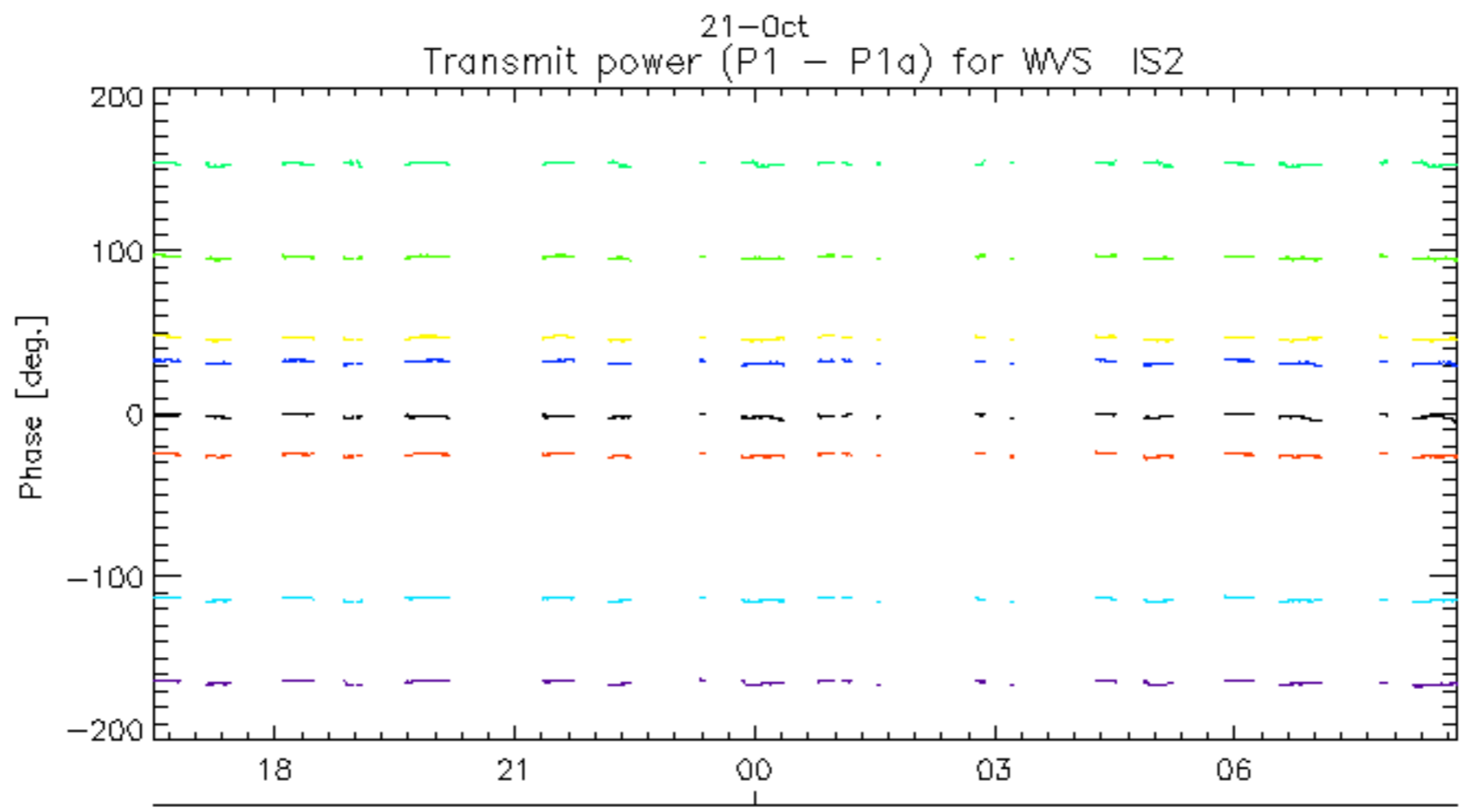
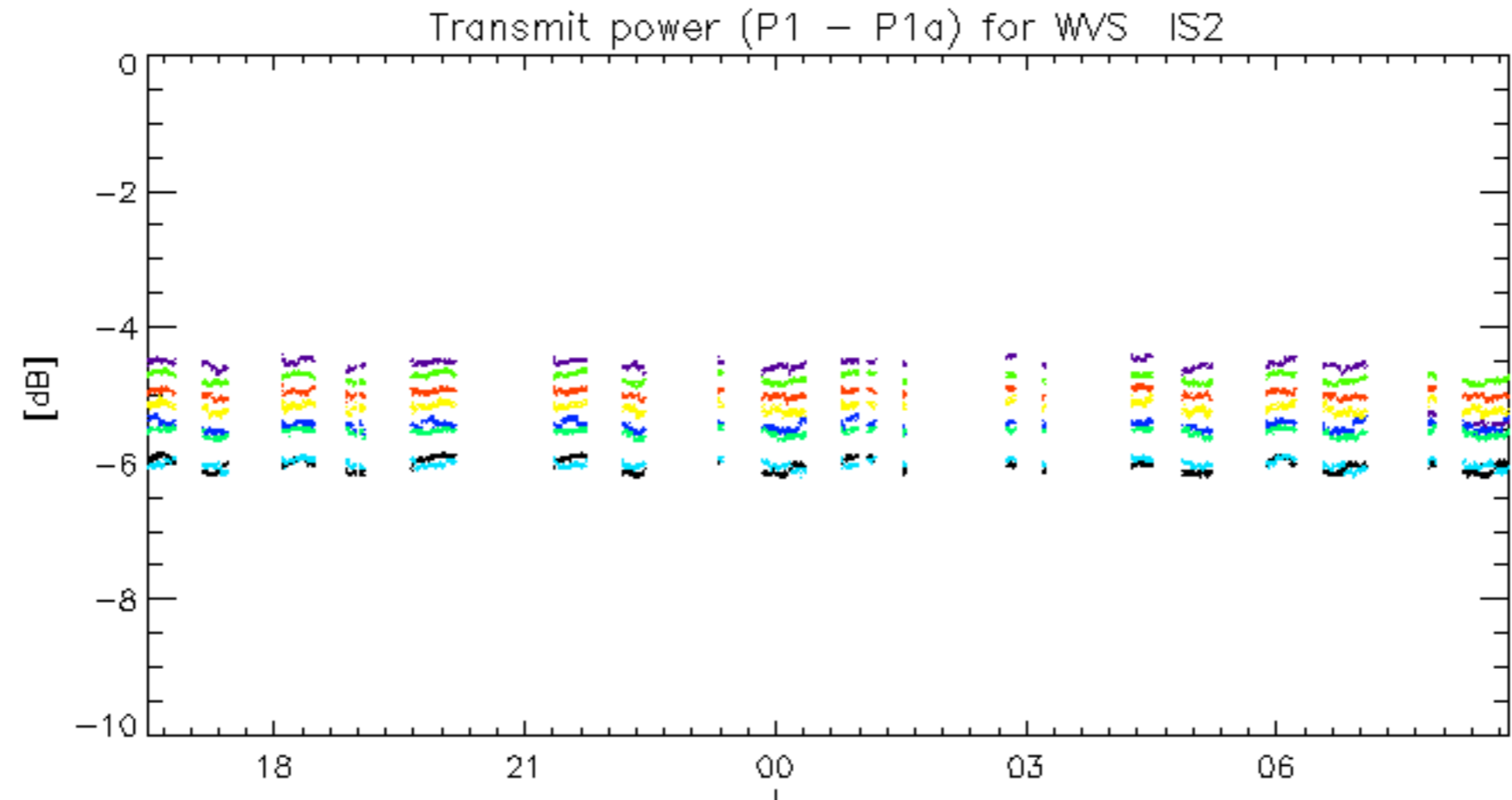





rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.