

PRELIMINARY REPORT OF 050923

last update on Fri Sep 23 10:50:01 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 2005-09-22 00:00:00 to 2005-09-23 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	28	52	9	3	3
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	28	52	9	3	3
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	28	52	9	3	3
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	28	52	9	3	3

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	35	50	28	10	48
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	35	50	28	10	48
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	35	50	28	10	48
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	35	50	28	10	48

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	20050923 055514
H	20050922 062651

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	-3.424523	0.089296	-0.503228
7	P1	-3.122882	0.031855	0.249930
11	P1	-4.597091	0.125535	0.613883
15	P1	-5.746201	0.067194	-0.475364
19	P1	-3.536360	0.240757	1.036985
22	P1	-4.582946	0.021323	0.162142
26	P1	-4.729126	0.087438	0.449927
30	P1	-6.754308	0.636119	2.007455
3	P1	-15.914593	1.916341	-1.043948
7	P1	-16.436357	5.642662	-2.691969
11	P1	-20.999319	10.303251	4.137774
15	P1	-12.819867	11.931613	-4.886029
19	P1	-14.181755	0.336354	1.314028
22	P1	-17.084253	26.227453	-4.923616
26	P1	-18.342192	22.501833	-3.018860
30	P1	-18.353807	8.791274	-0.852365

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.752642	0.099085	-0.207651
7	P2	-22.135536	0.313699	-1.163232
11	P2	-14.484969	2.888742	-4.287906
15	P2	-7.119910	0.125303	-0.306707
19	P2	-9.366138	0.240388	0.712462
22	P2	-17.014704	0.235978	-0.934159
26	P2	-16.397161	0.135363	0.418186
30	P2	-19.081617	0.268613	-1.074822

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.160667	0.004496	-0.028250
7	P3	-8.160667	0.004496	-0.028250
11	P3	-8.160667	0.004496	-0.028250
15	P3	-8.160667	0.004496	-0.028250
19	P3	-8.160667	0.004496	-0.028250
22	P3	-8.160667	0.004496	-0.028250
26	P3	-8.160666	0.004496	-0.028266
30	P3	-8.160666	0.004496	-0.028266

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	-2.910990	0.208582	-0.674947
7	P1	-2.994554	0.083695	-0.117392
11	P1	-3.757809	0.274739	1.192335
15	P1	-3.580503	0.035697	0.214939
19	P1	-3.481274	0.090246	0.538183
22	P1	-5.447299	0.254080	0.985112
26	P1	-6.714431	1.028205	2.388399
30	P1	-5.828615	0.590707	1.681641
3	P1	-11.301068	0.575242	-1.117317
7	P1	-11.800422	21.405569	-3.663445
11	P1	-13.919428	38.333897	-2.840263
15	P1	-13.262568	35.615429	-4.316940
19	P1	-15.320467	0.224284	0.381168
22	P1	-24.033804	5.919903	5.352026
26	P1	-16.383743	6.926689	-4.274602
30	P1	-20.067791	2.068909	0.327555

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.481340	0.063760	-0.327423
7	P2	-22.318947	0.334075	-1.392348
11	P2	-10.156797	1.208704	-2.856281
15	P2	-5.025937	0.049431	0.185561
19	P2	-6.751645	0.126956	0.214146
22	P2	-7.276413	0.233501	-1.116186
26	P2	-23.927744	0.040153	0.076991
30	P2	-22.015308	0.077028	-0.315553

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.005387	0.003566	-0.016147
7	P3	-8.005424	0.003567	-0.015608
11	P3	-8.005309	0.003565	-0.015521
15	P3	-8.005302	0.003570	-0.015917
19	P3	-8.005480	0.003558	-0.016231
22	P3	-8.005266	0.003559	-0.015787
26	P3	-8.005394	0.003560	-0.015970
30	P3	-8.005253	0.003583	-0.016322

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	0.000482149
	stdev	2.06662e-07
MEAN Q	mean	0.000503726
	stdev	2.24089e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.130596
	stdev	0.000995655
STDEV Q	mean	0.130865
	stdev	0.00100730



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005092[123]

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_1PNPDE20050921_155413_000001532041_00025_18616_6218.N1	1	0
ASA_GM1_1PNPDK20050921_152005_000011362041_00025_18616_6092.N1	0	6
ASA_GM1_1PNPDK20050922_104238_000006162041_00037_18628_6169.N1	0	58
ASA_WSM_1PNPDE20050921_041517_000002322041_00019_18610_9764.N1	0	51
ASA_WSM_1PNPDE20050922_170449_000002442041_00041_18632_9995.N1	0	22
ASA_WSM_1PNPDE20050922_184757_000003042041_00042_18633_0010.N1	0	13
ASA_WSM_1PNPDE20050922_191352_000000672041_00042_18633_0013.N1	0	601





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

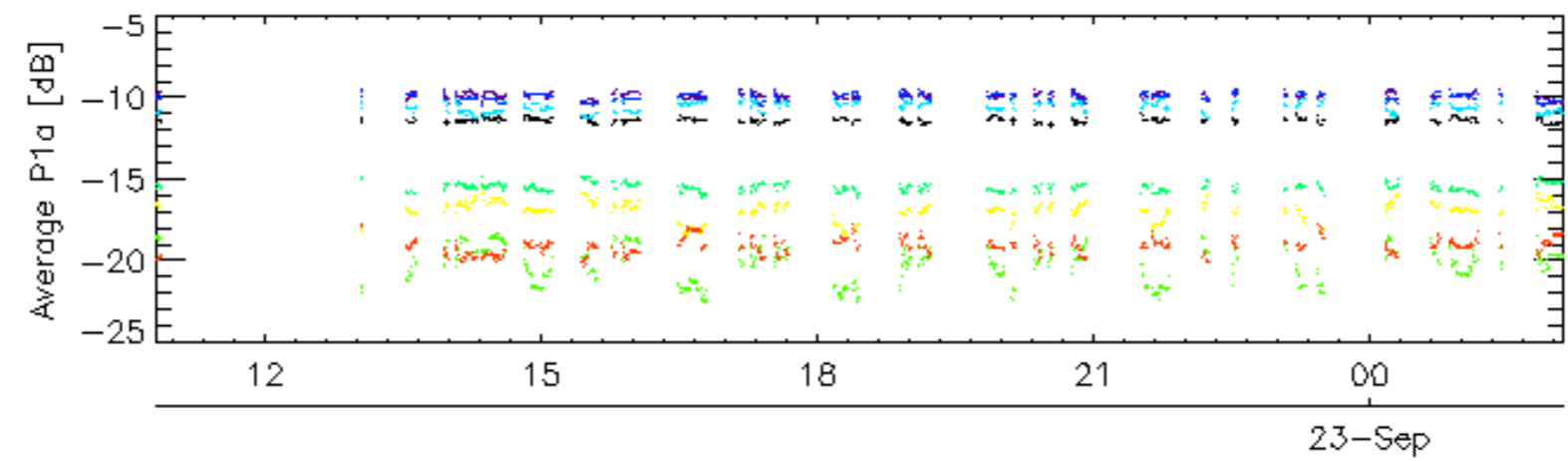
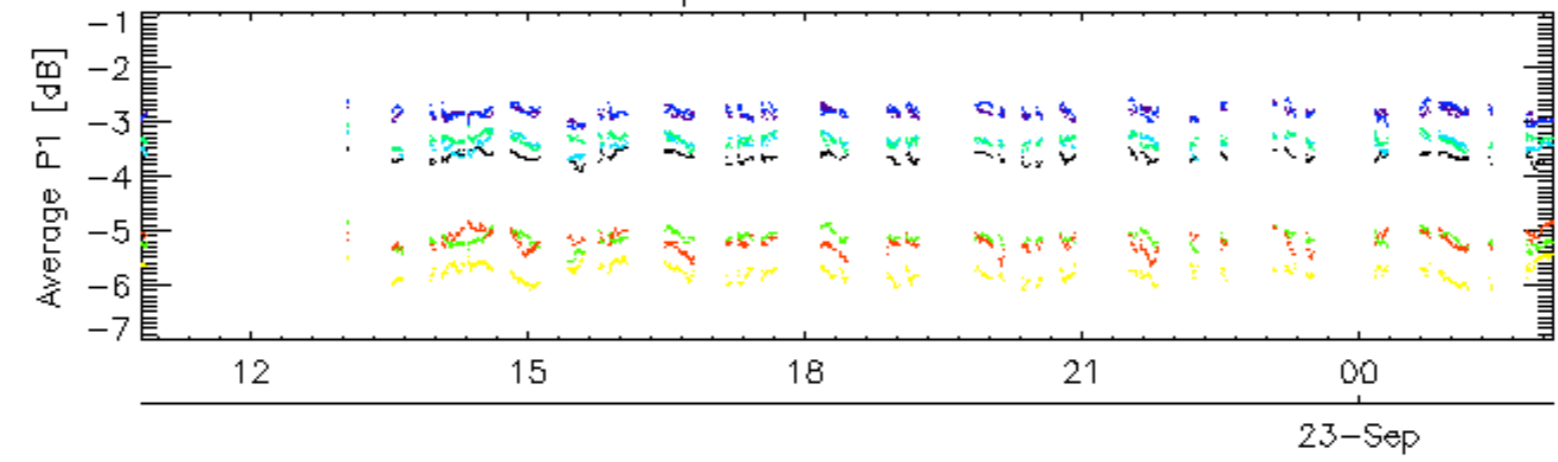
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

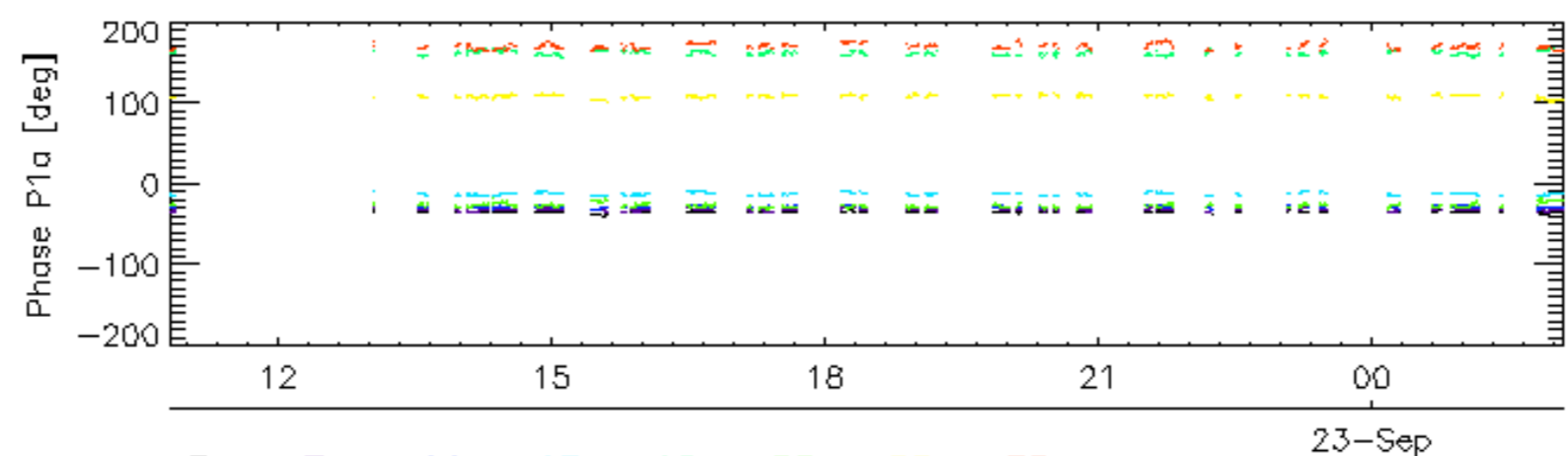
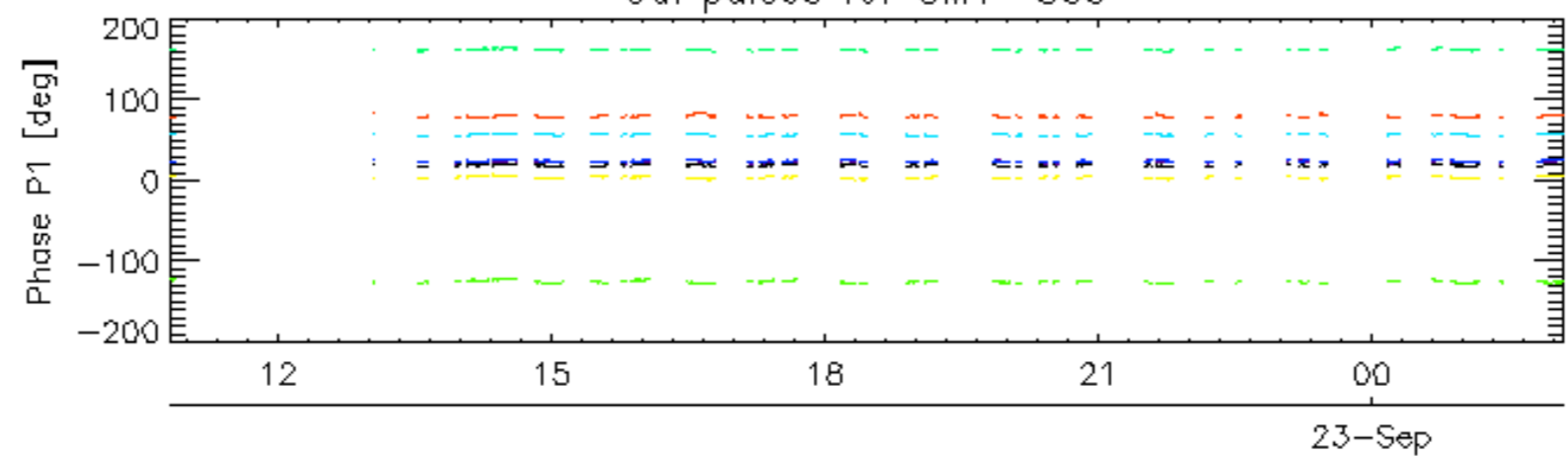
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

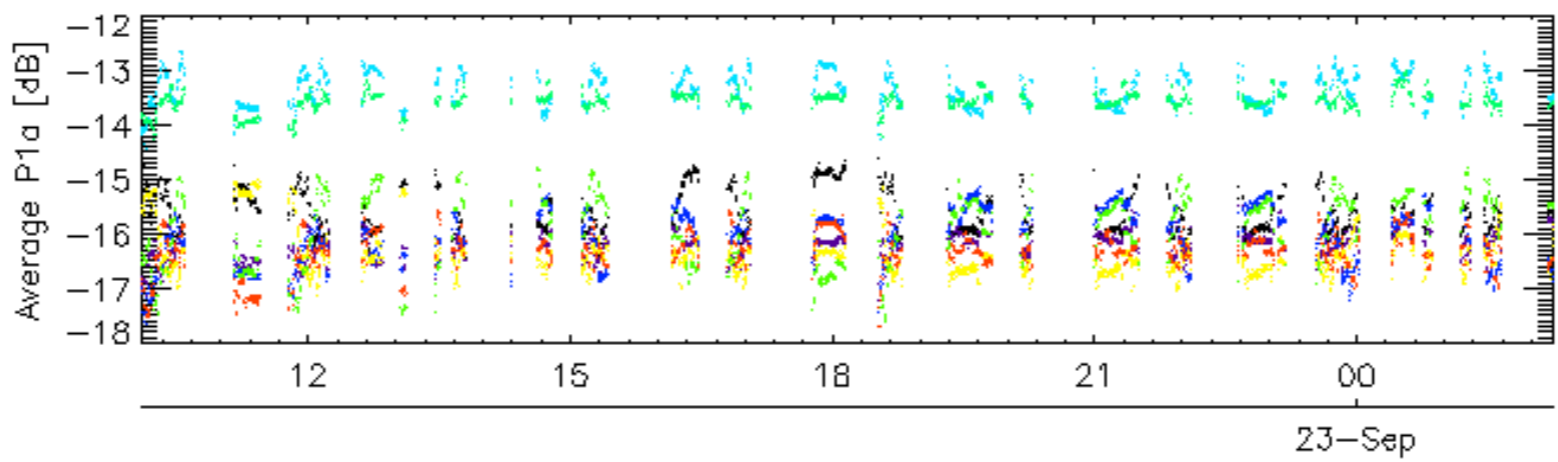
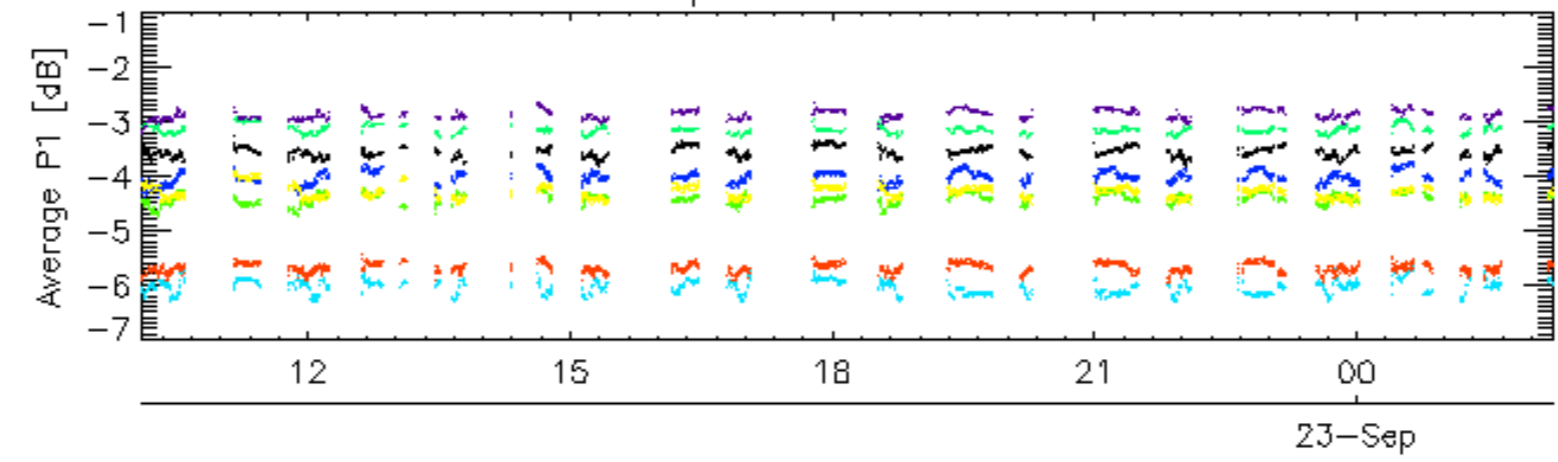


Cal pulses for GM1 SS3

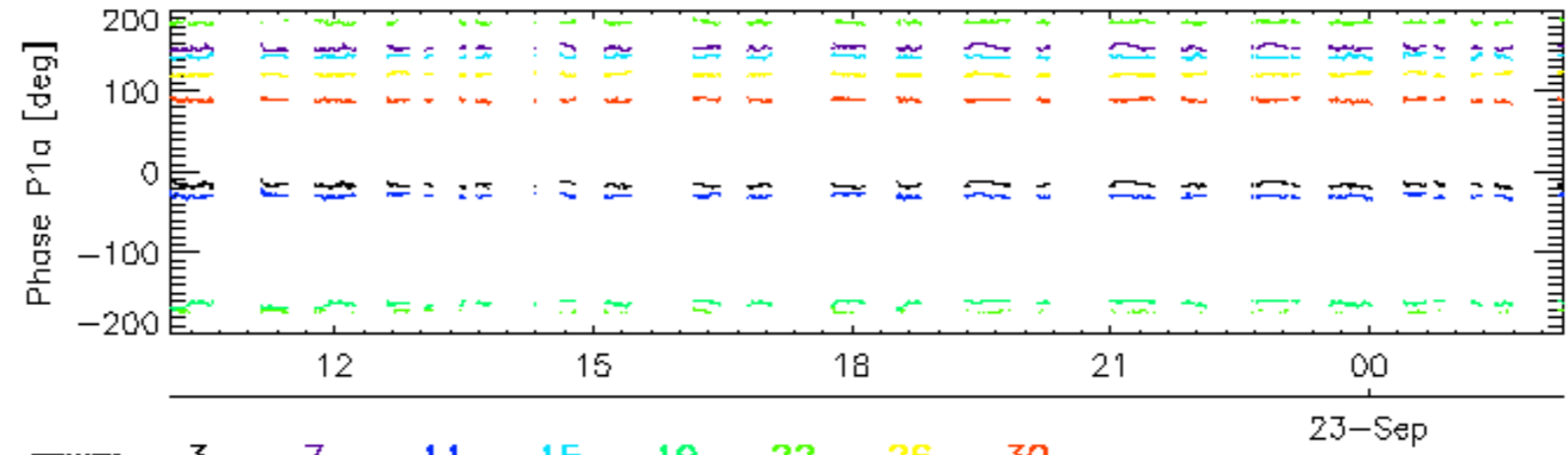
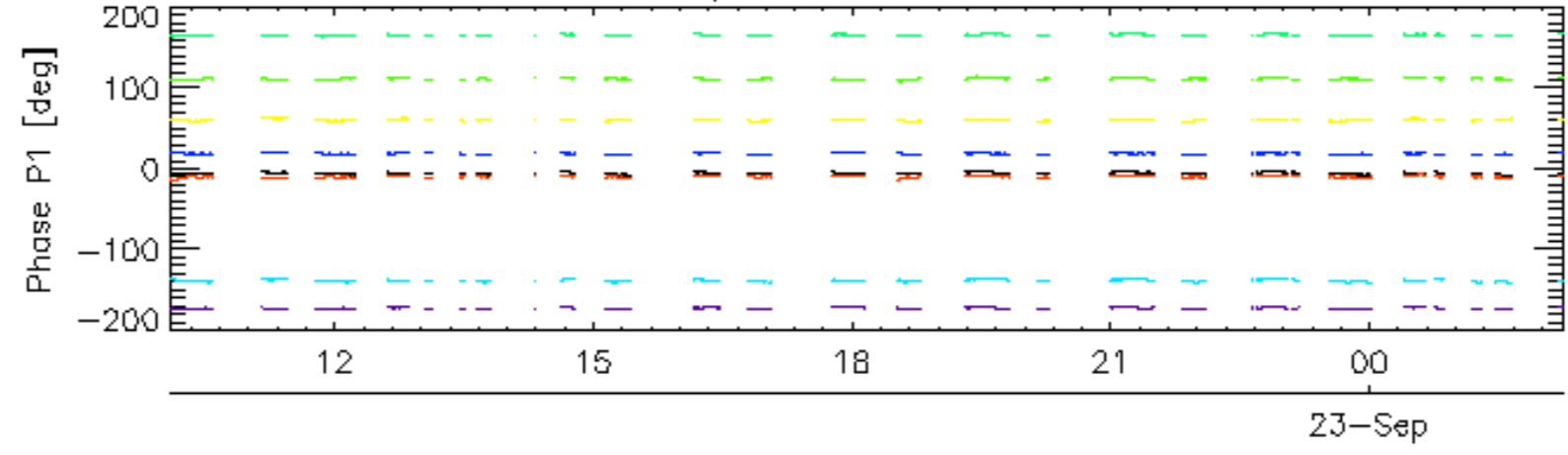


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

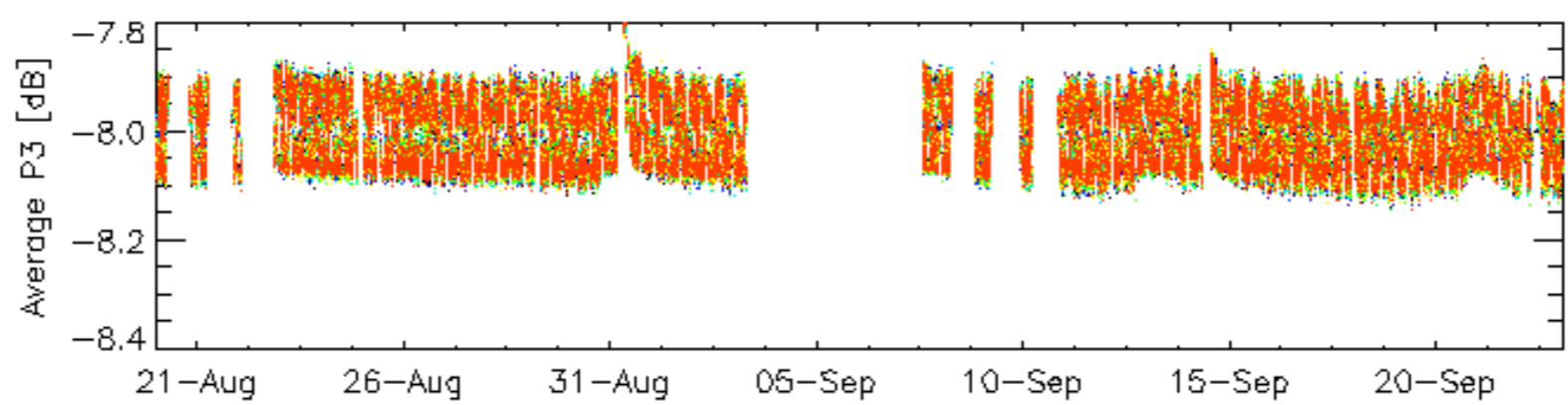
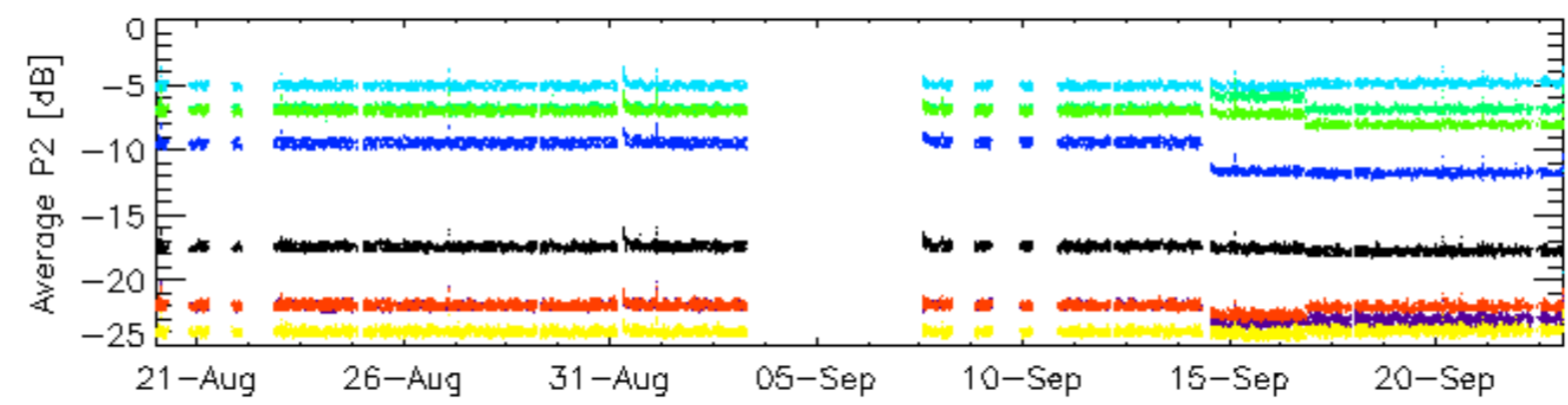
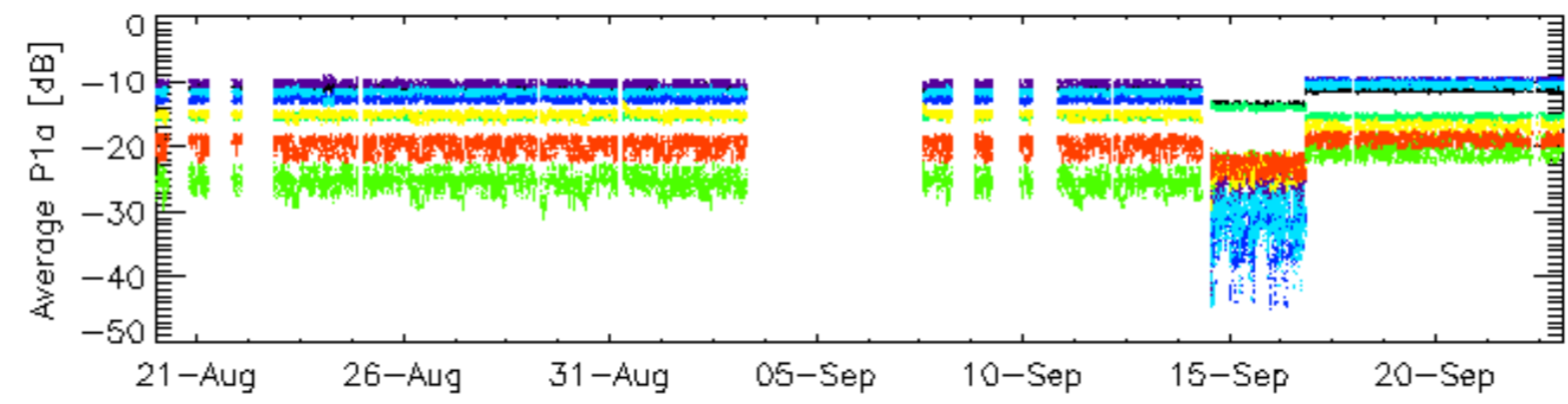
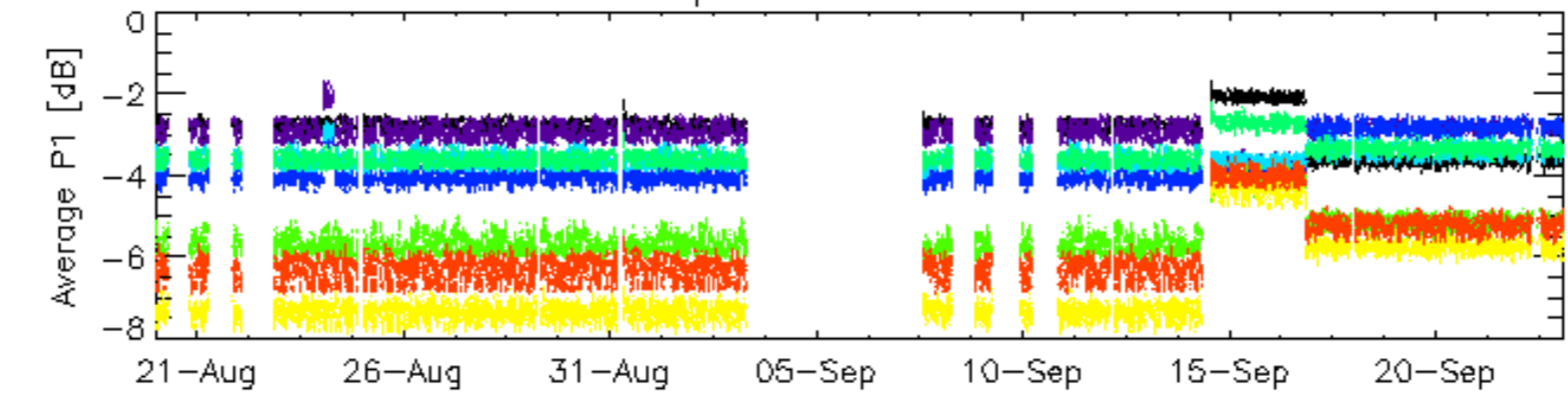


Cal pulses for WVS IS2



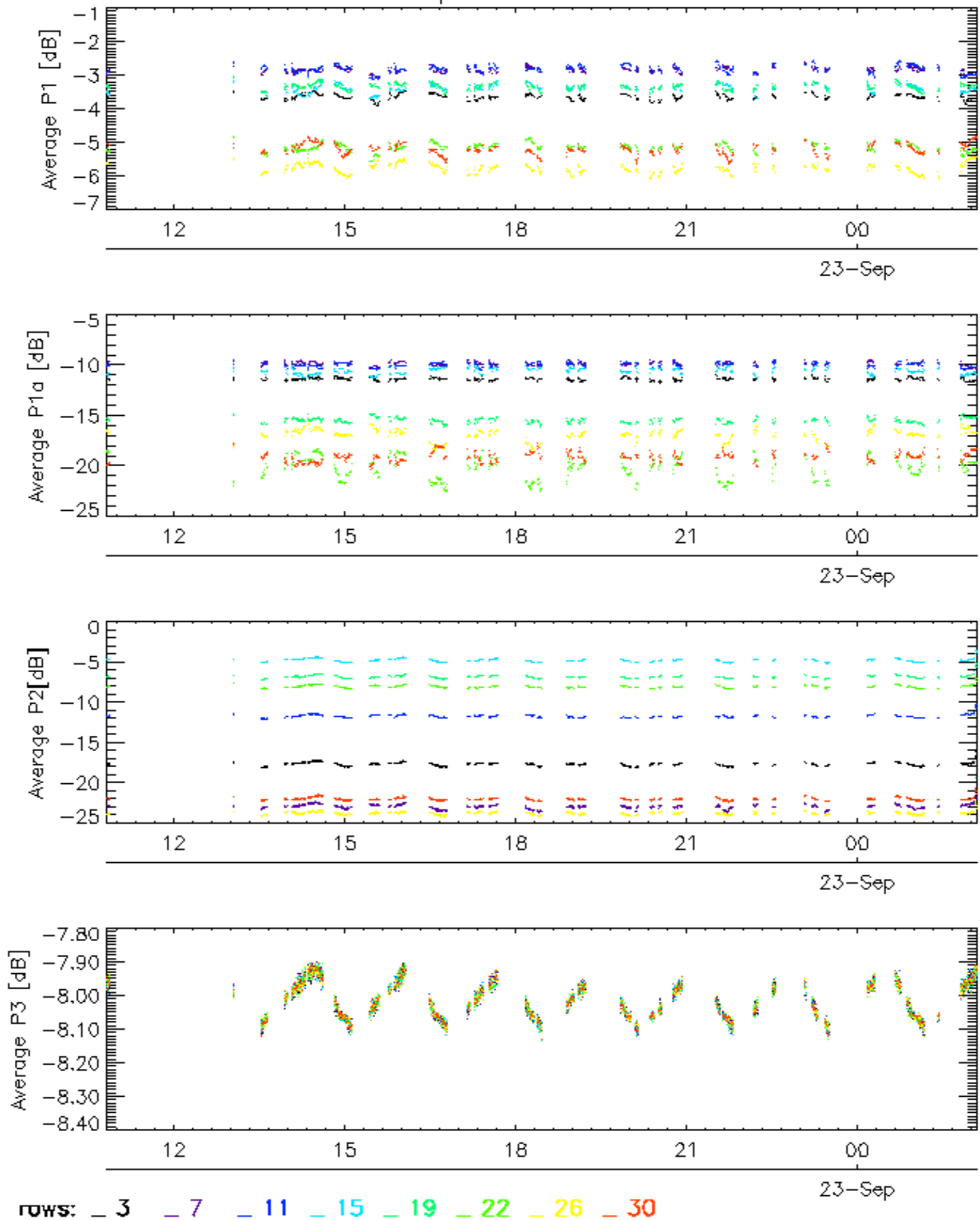
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

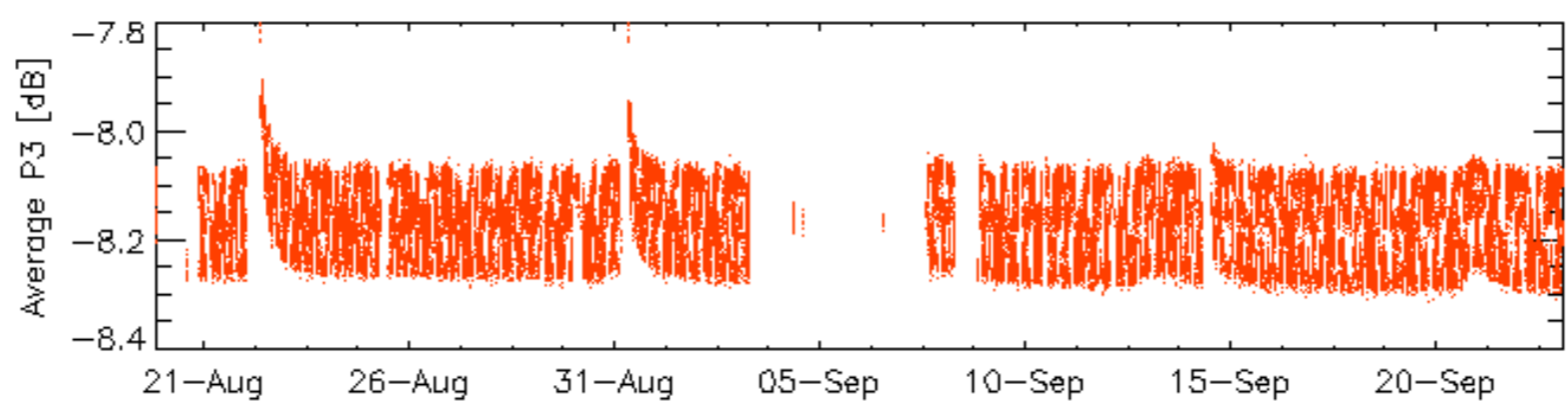
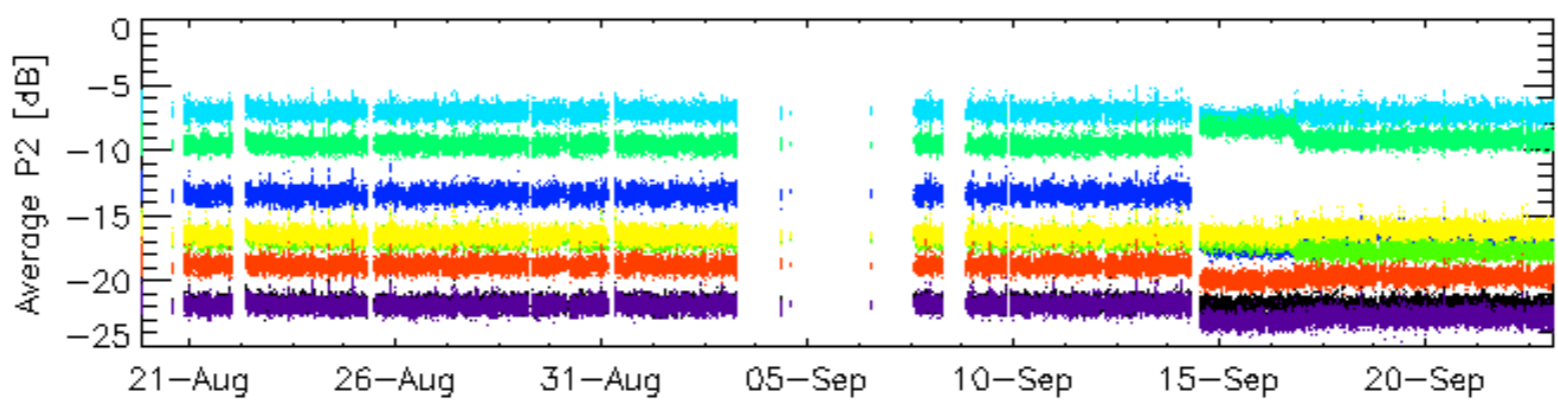
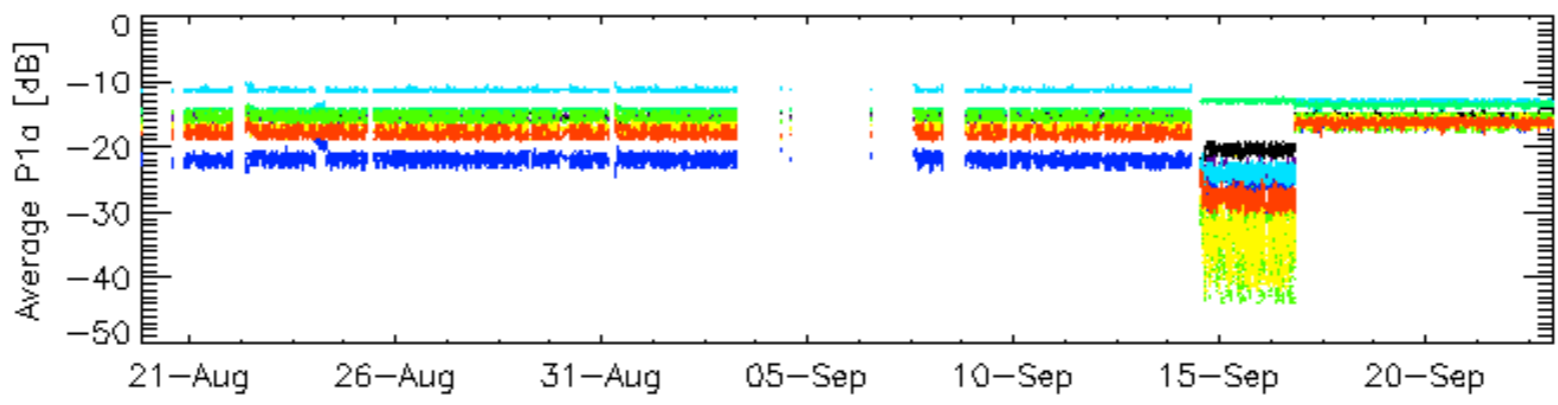
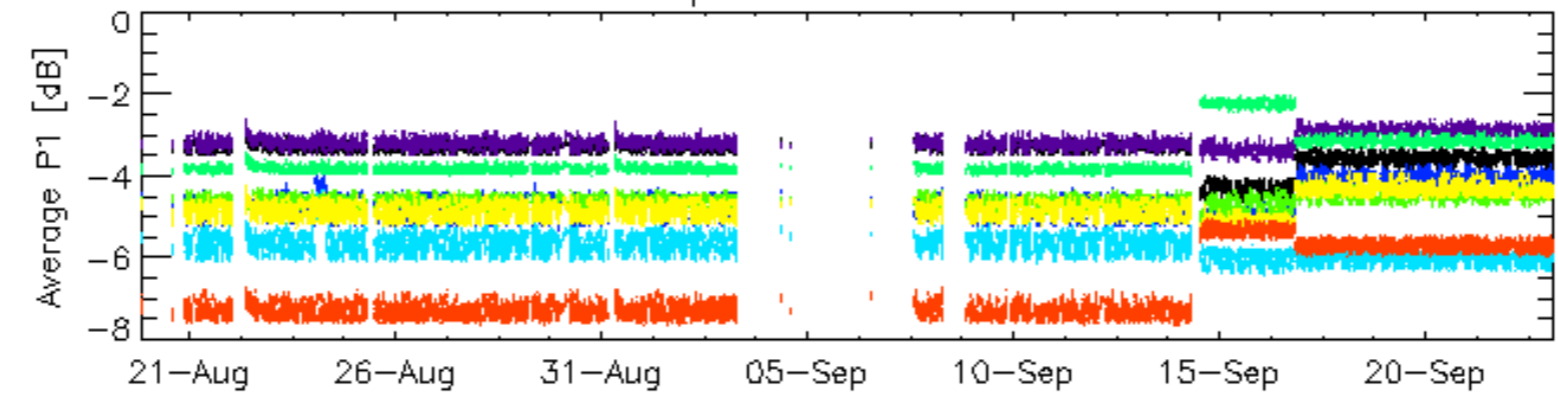


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

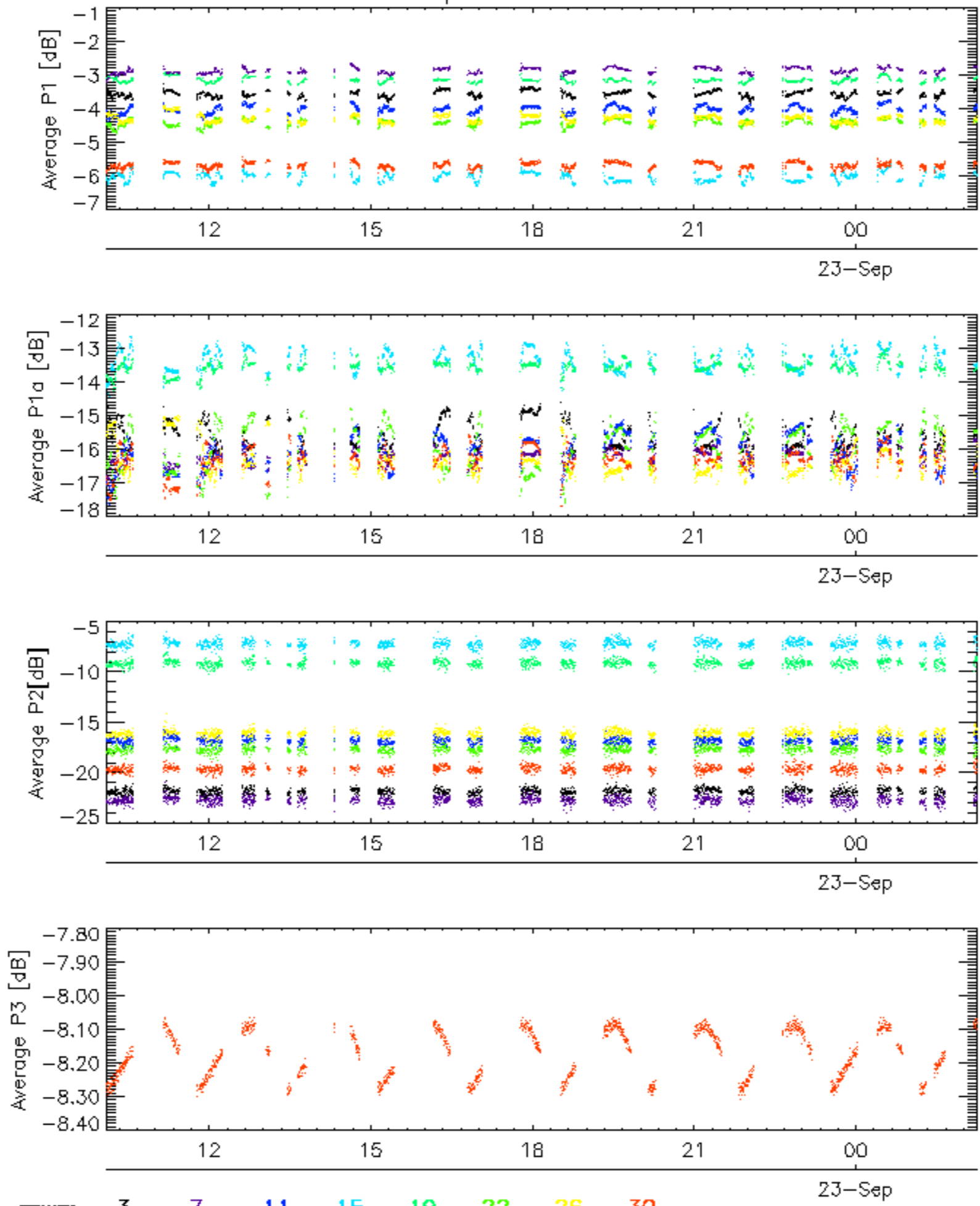


Cal pulses for WVS IS2

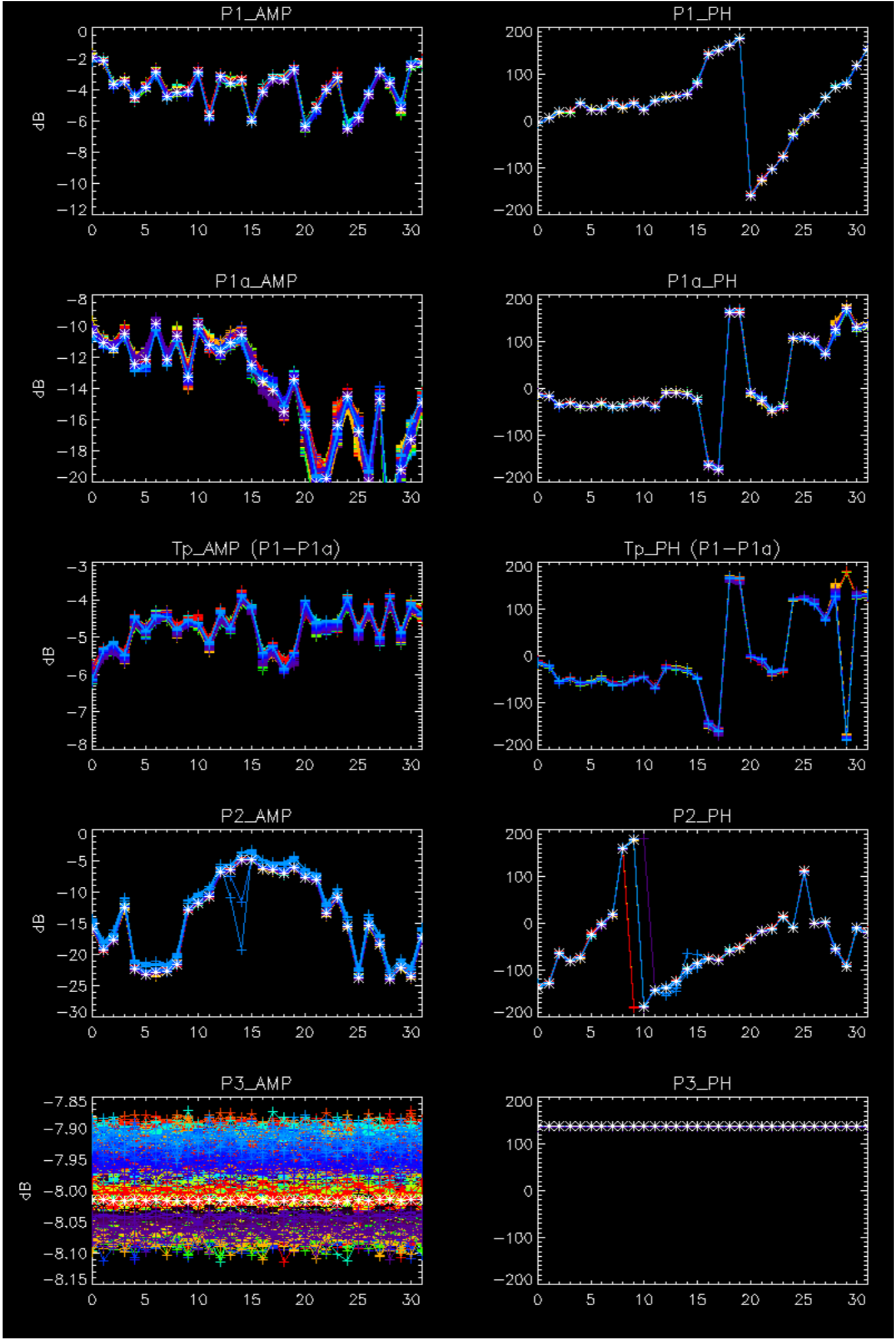


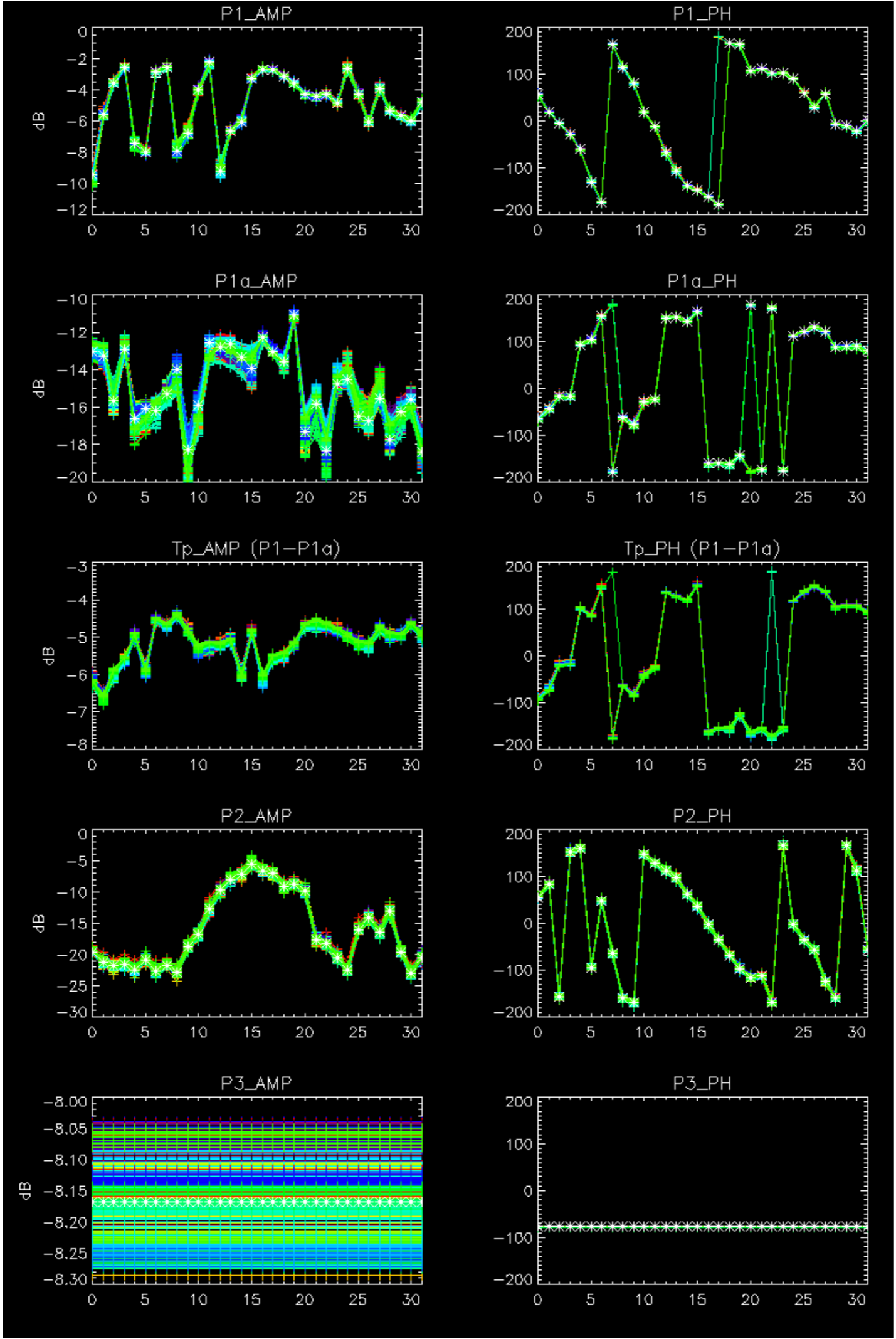
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



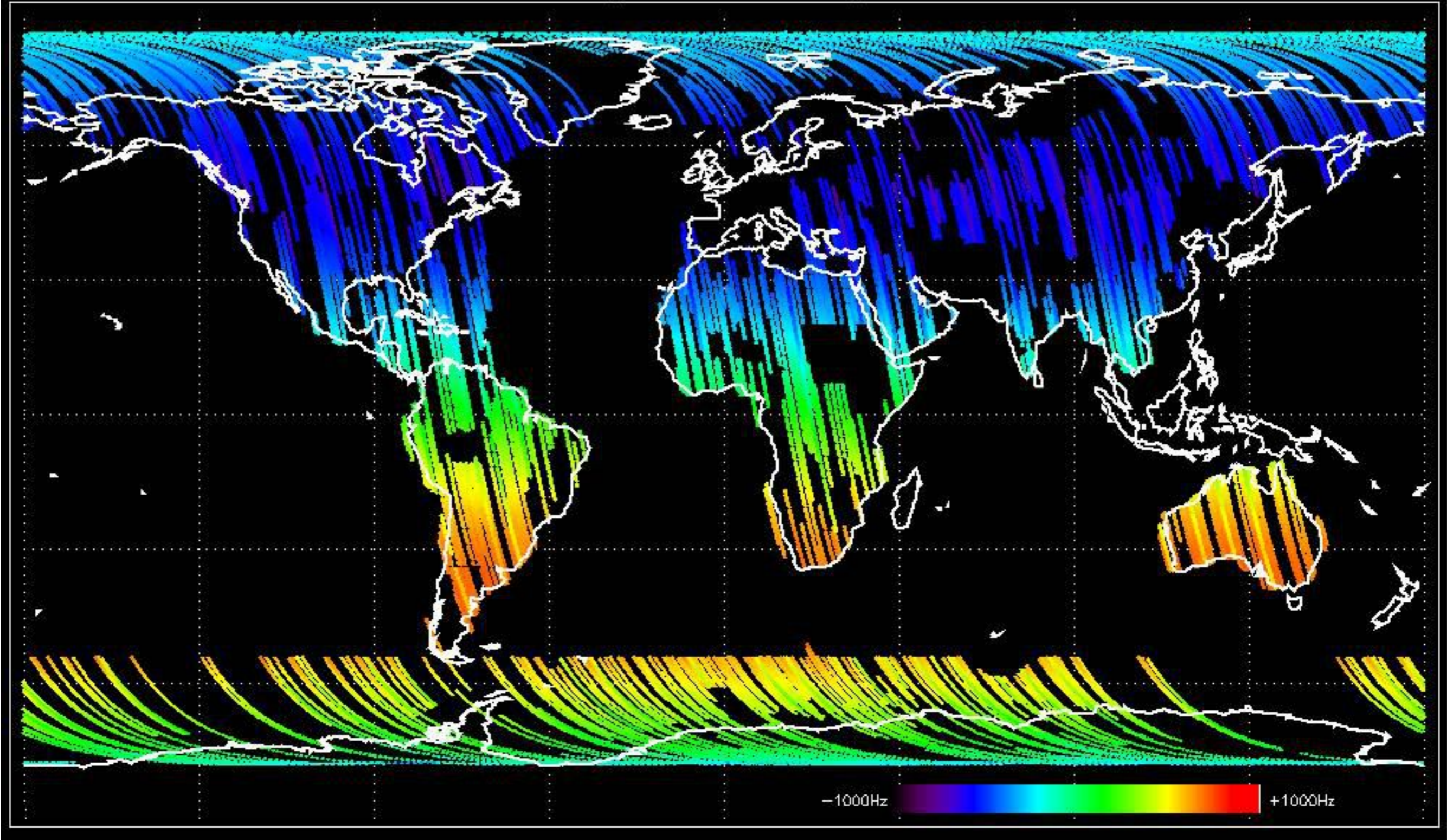
No anomalies observed.



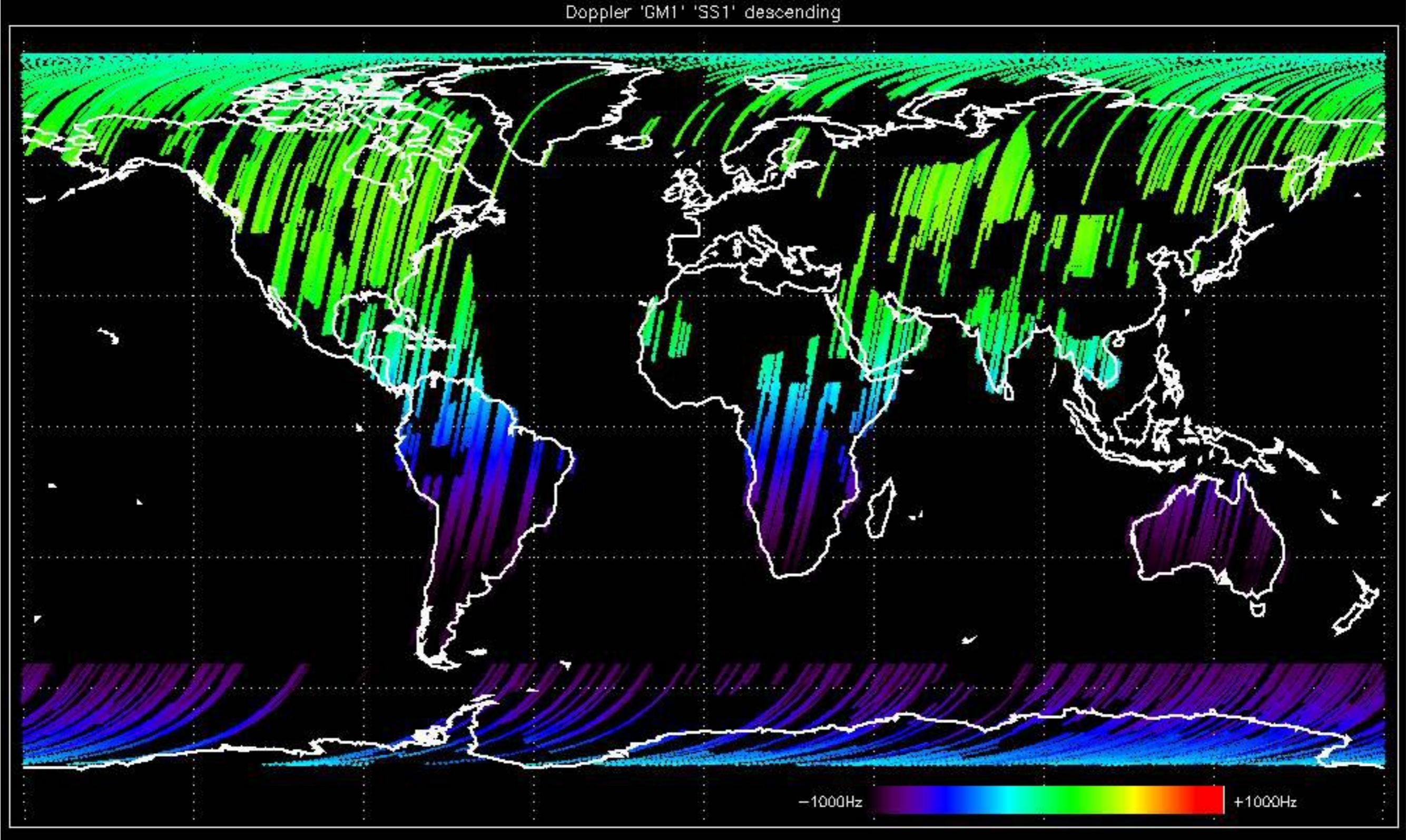


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

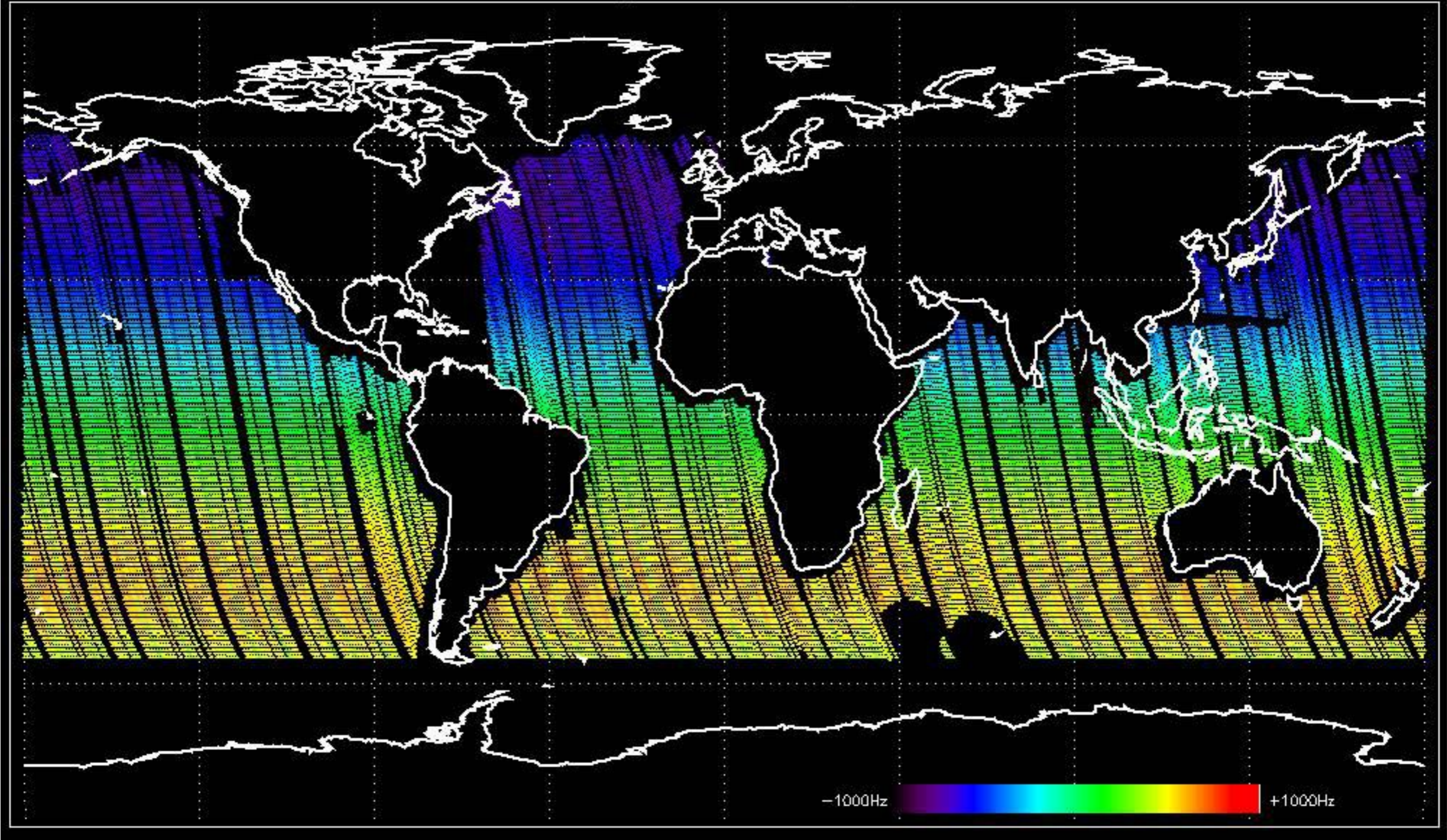
Doppler 'GM1' 'SS1' ascending



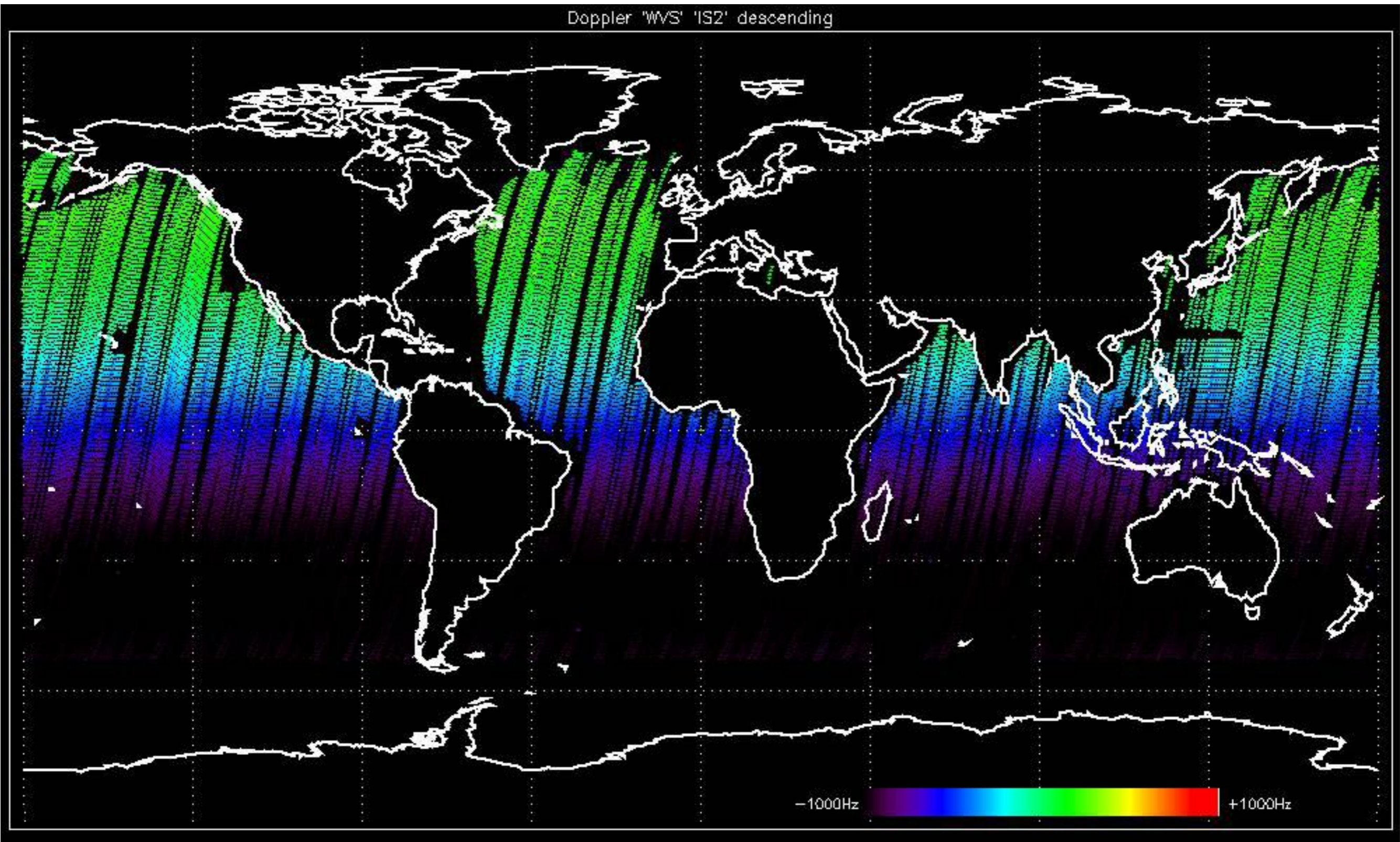
Doppler 'GM1' 'SS1' descending



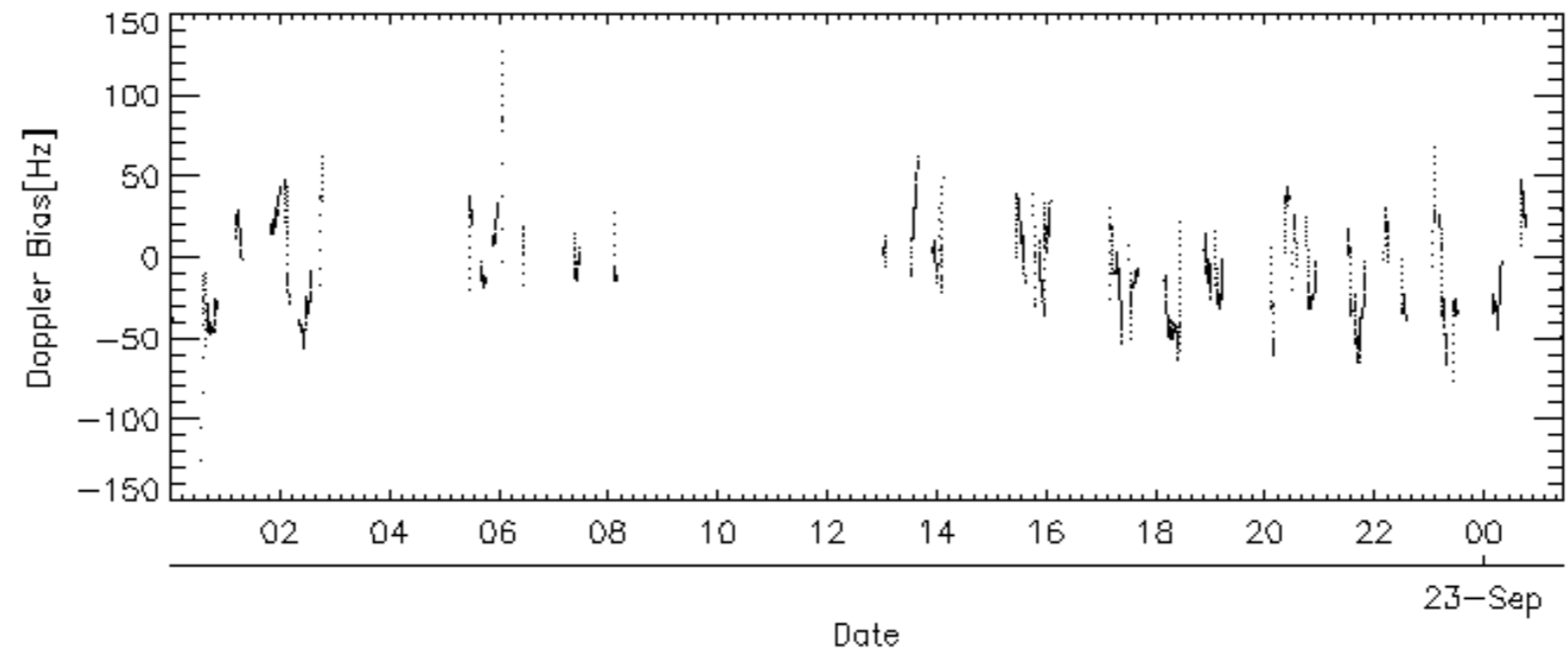
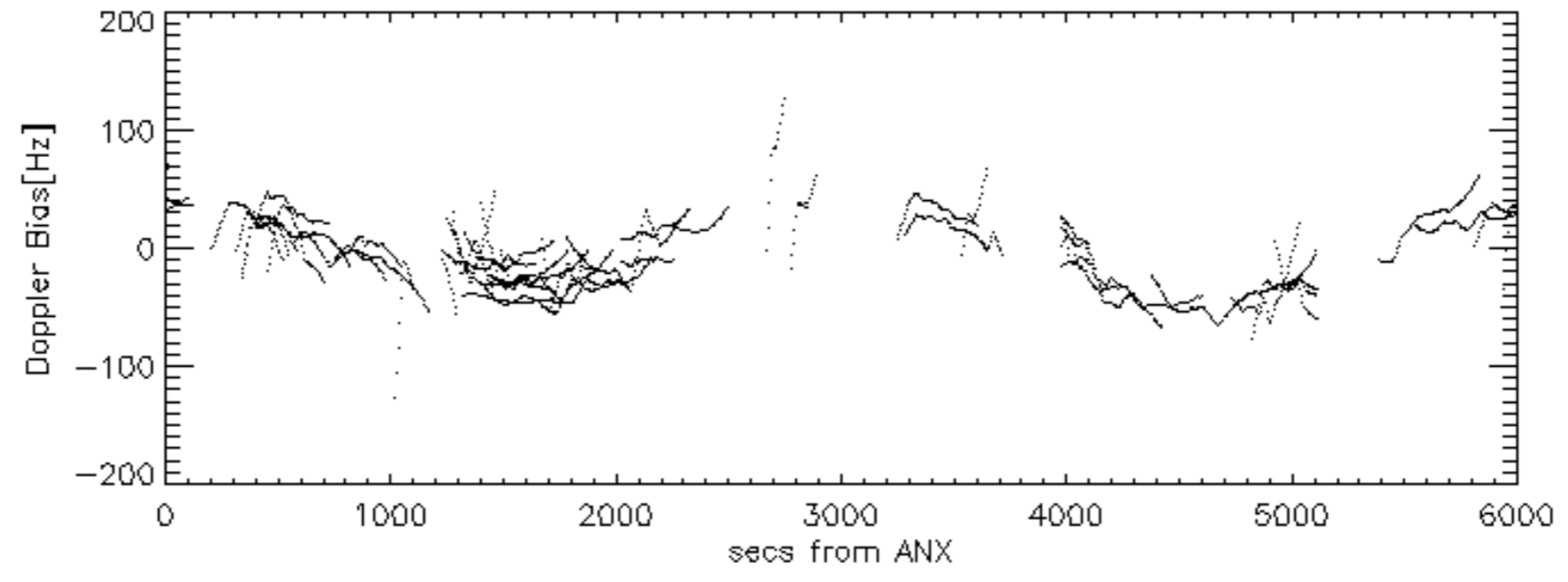
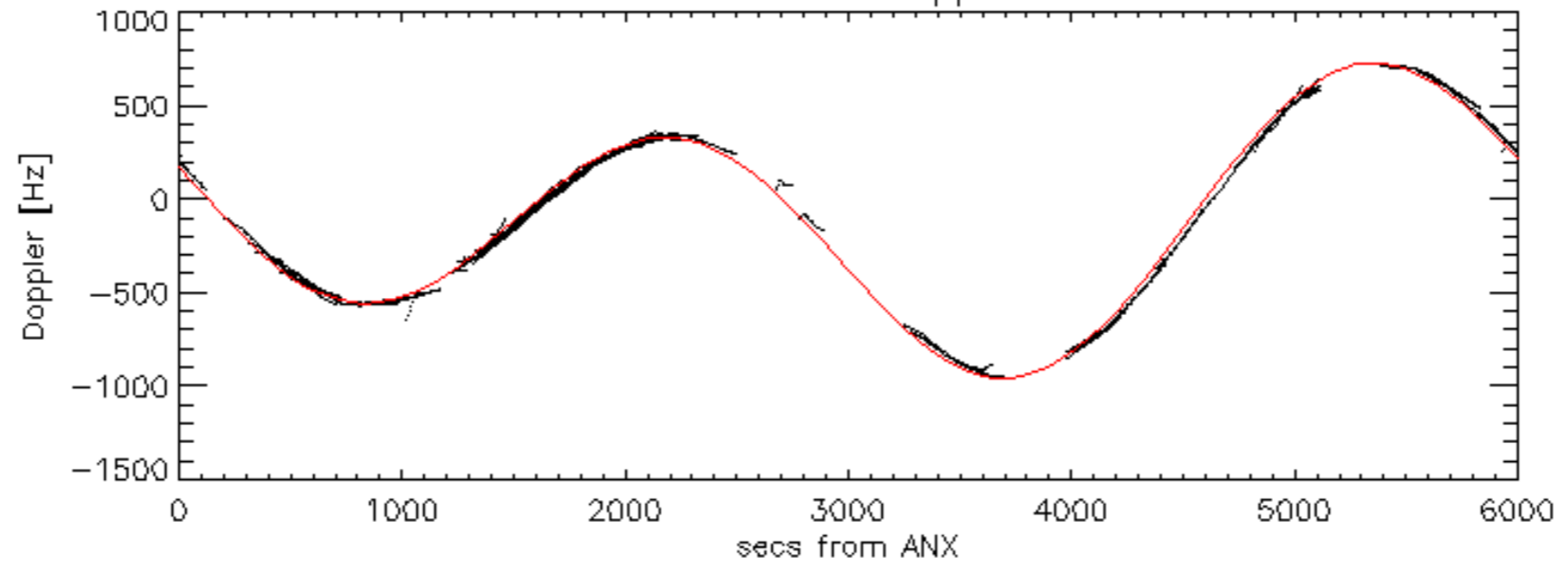
Doppler 'WVS' 'IS2' ascending

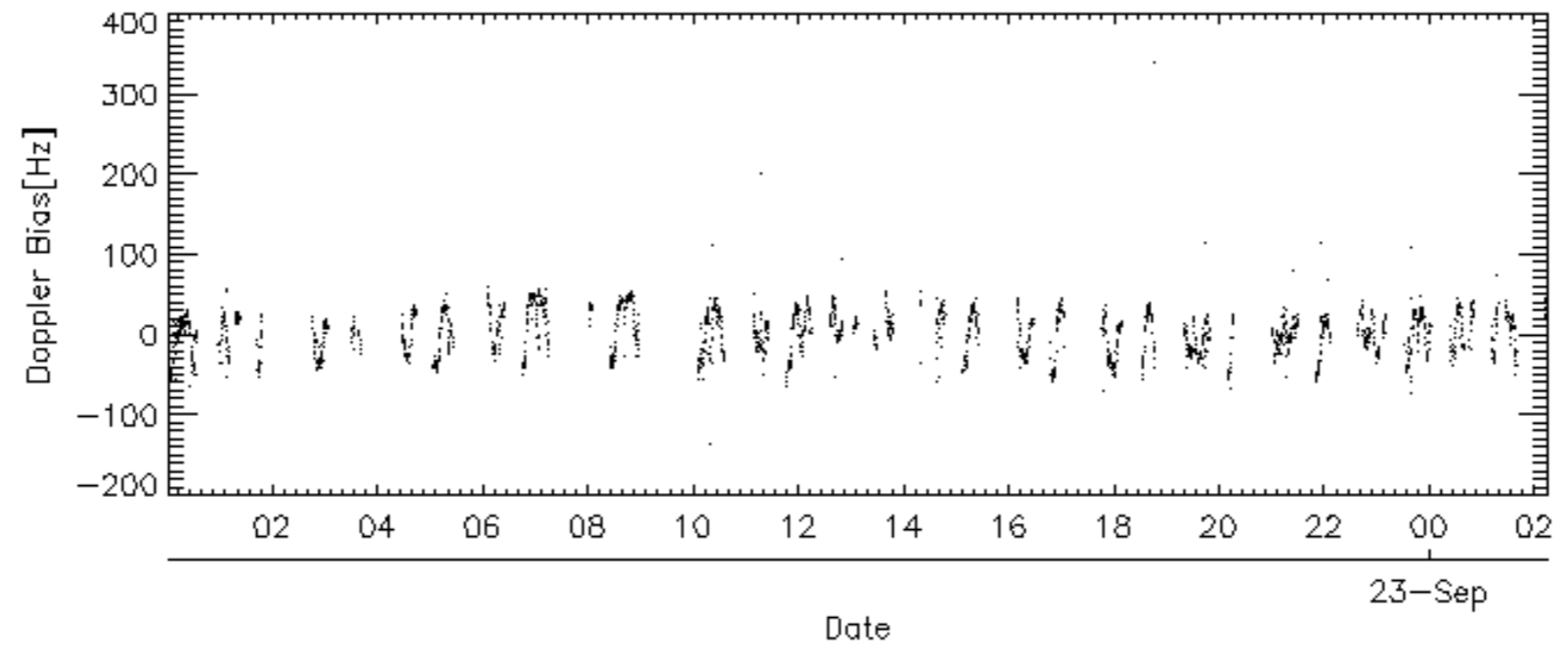
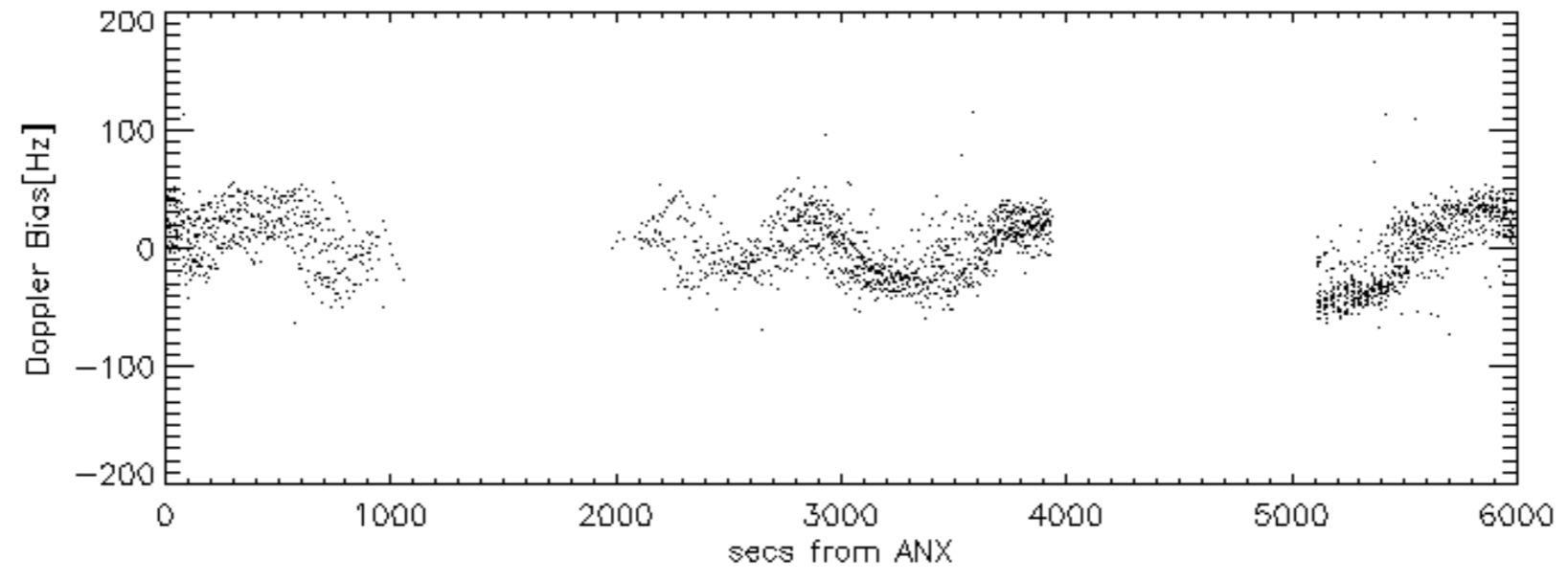
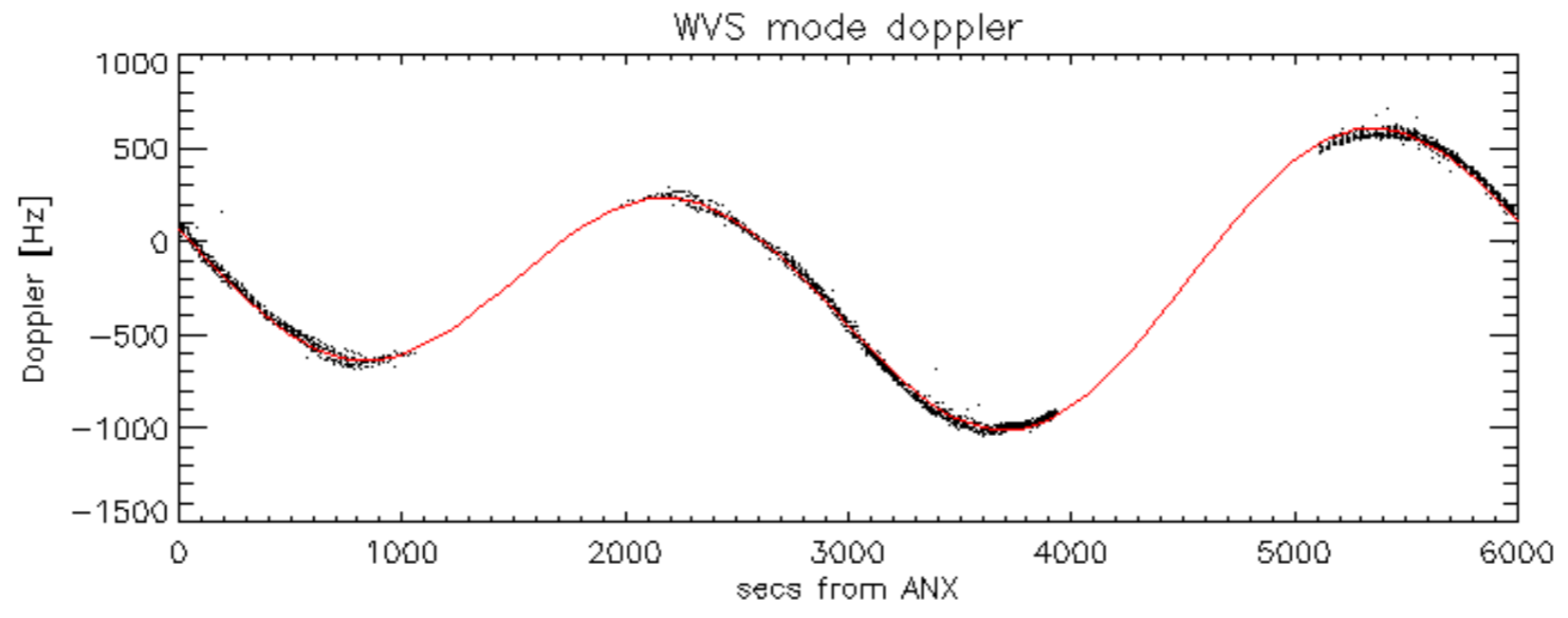


Doppler 'WVS' 'IS2' descending

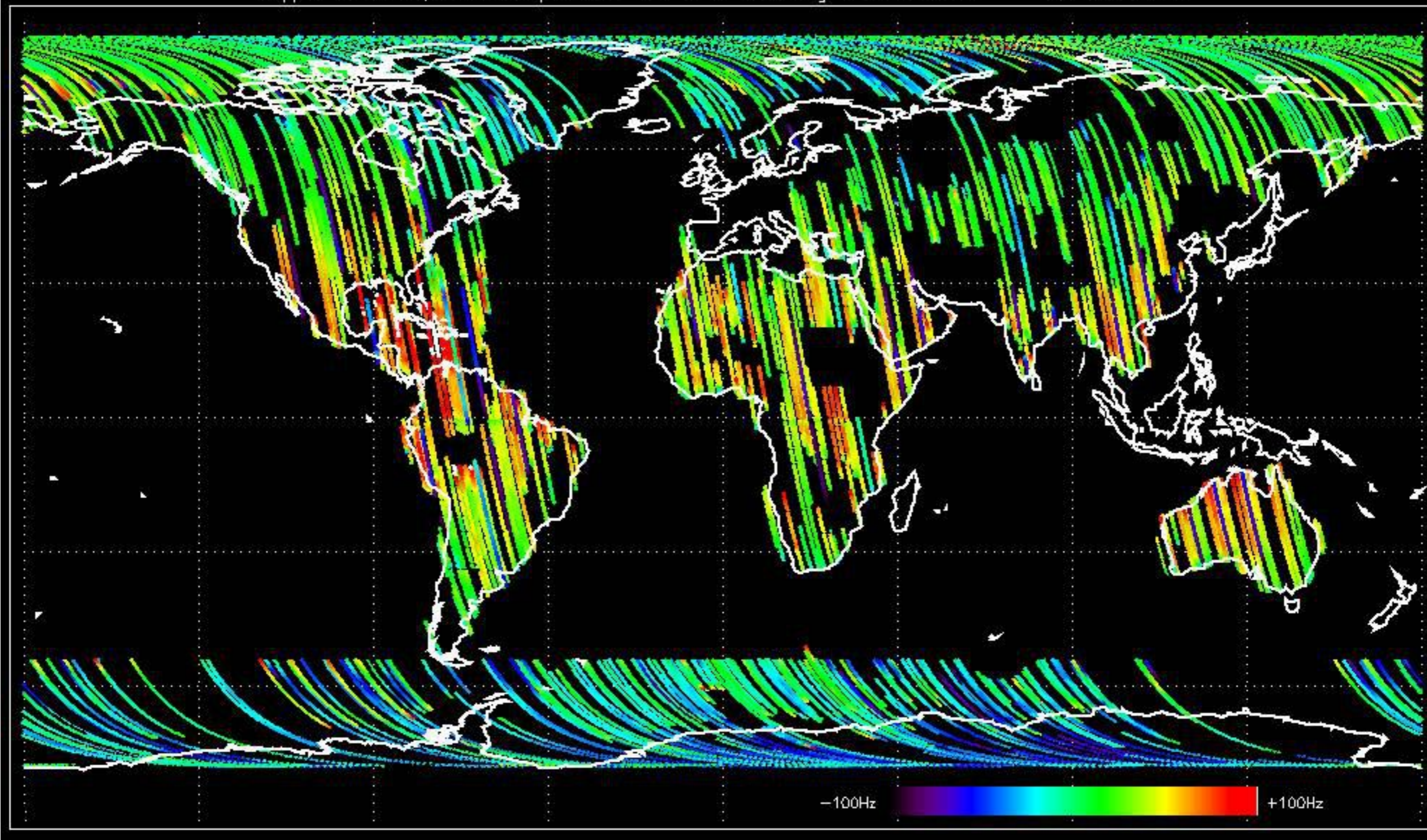


GM1 mode doppler

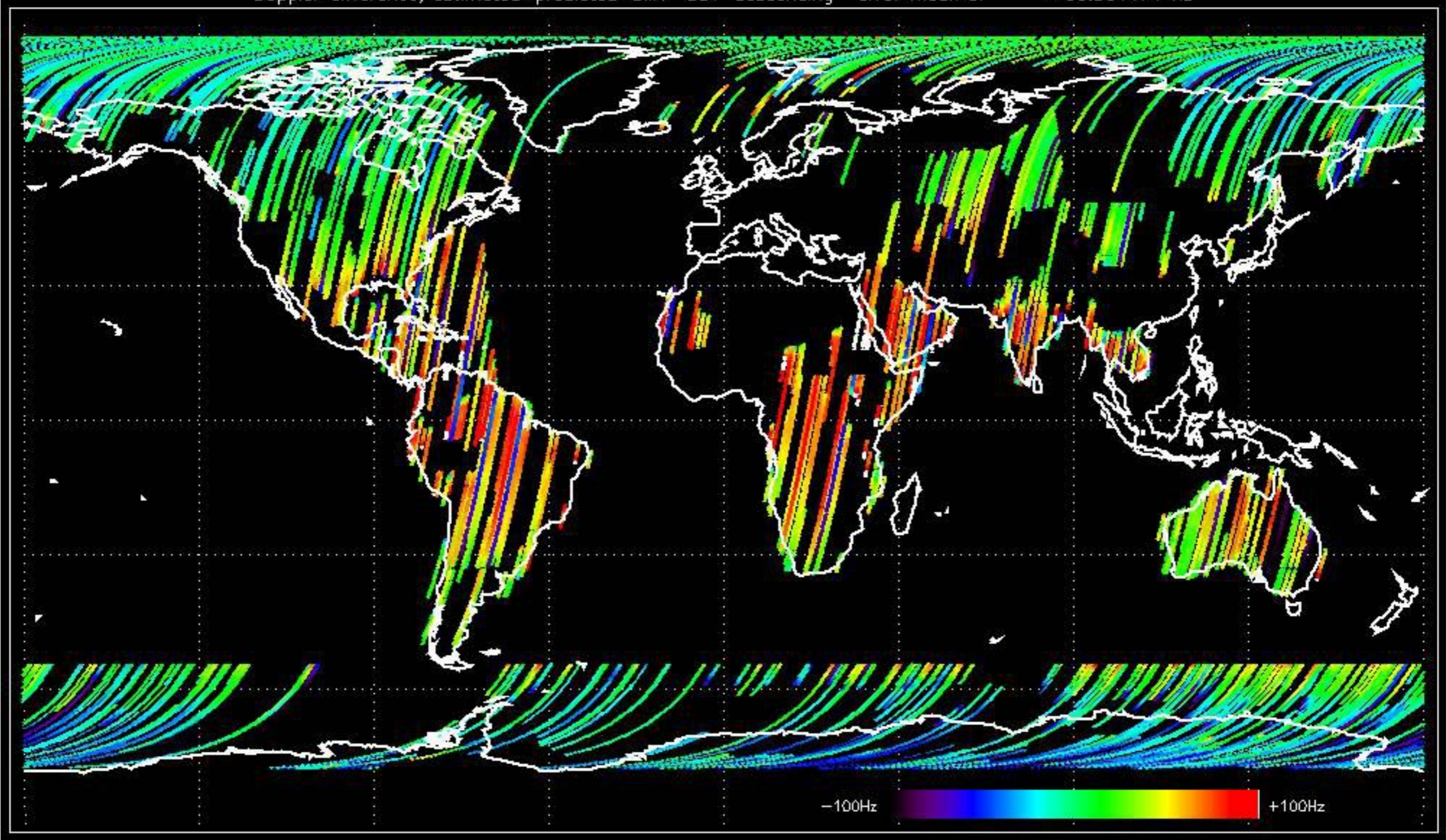




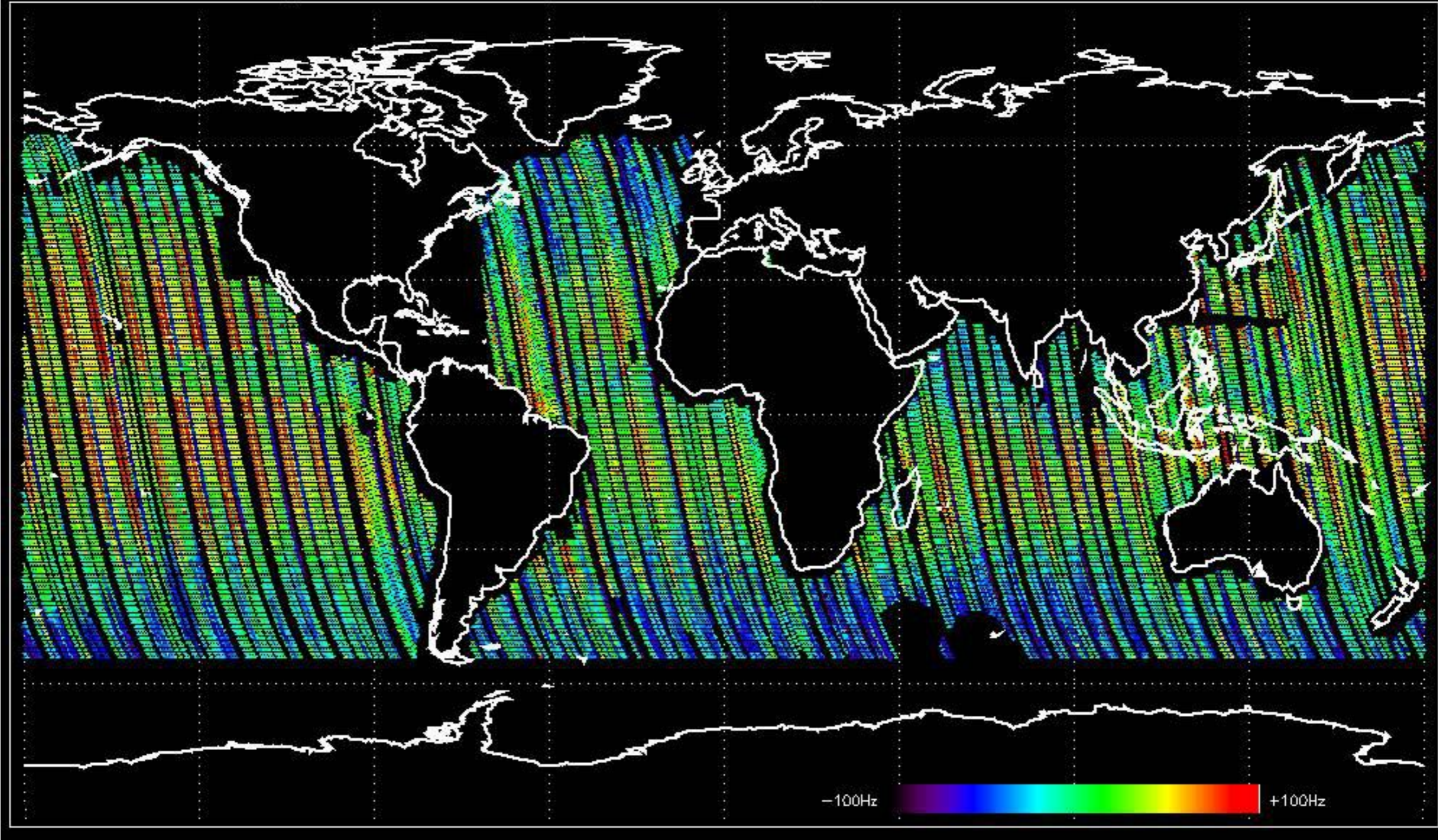
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -37.100864 Hz



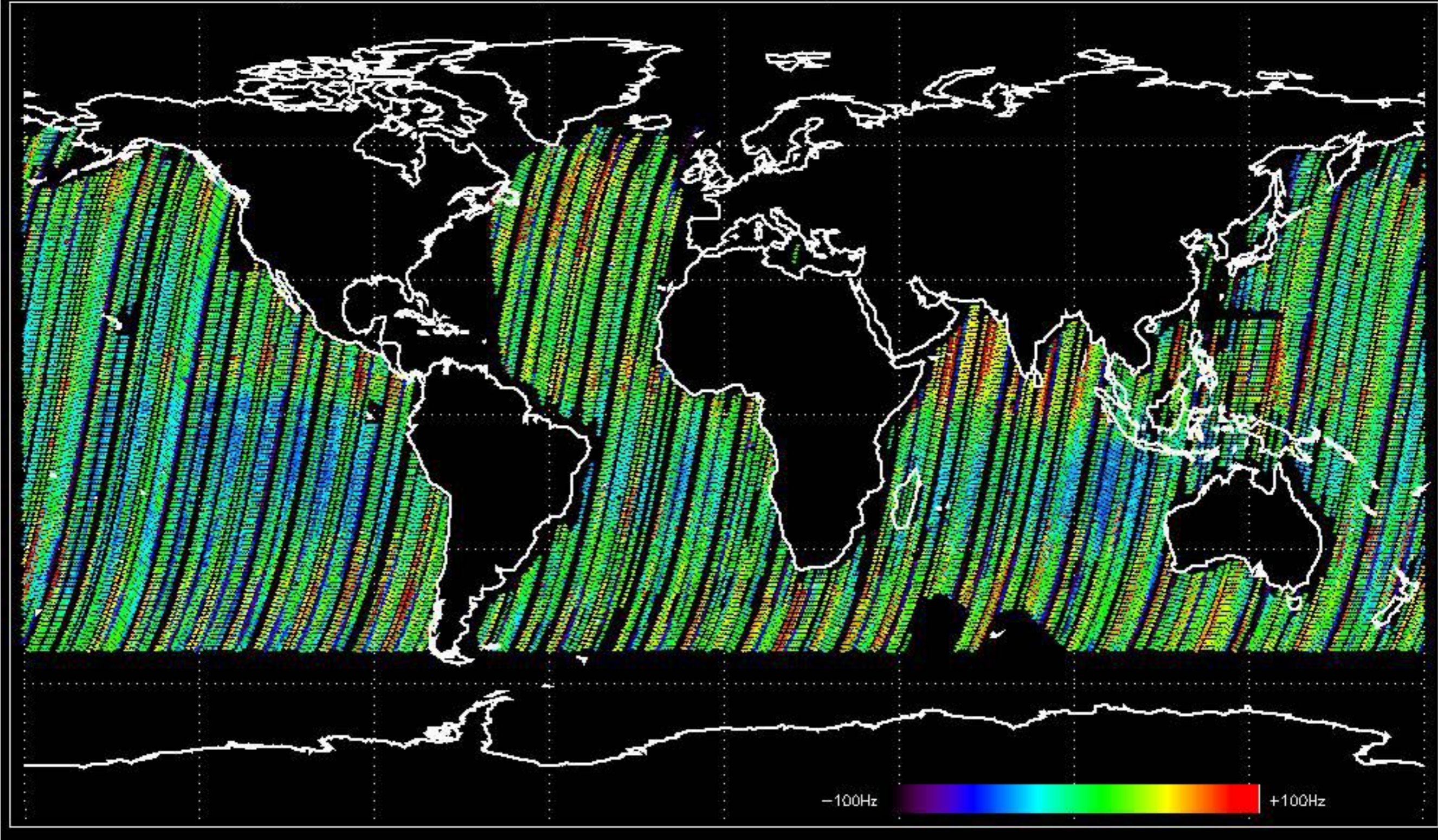
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.504474 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -35.925672 Hz

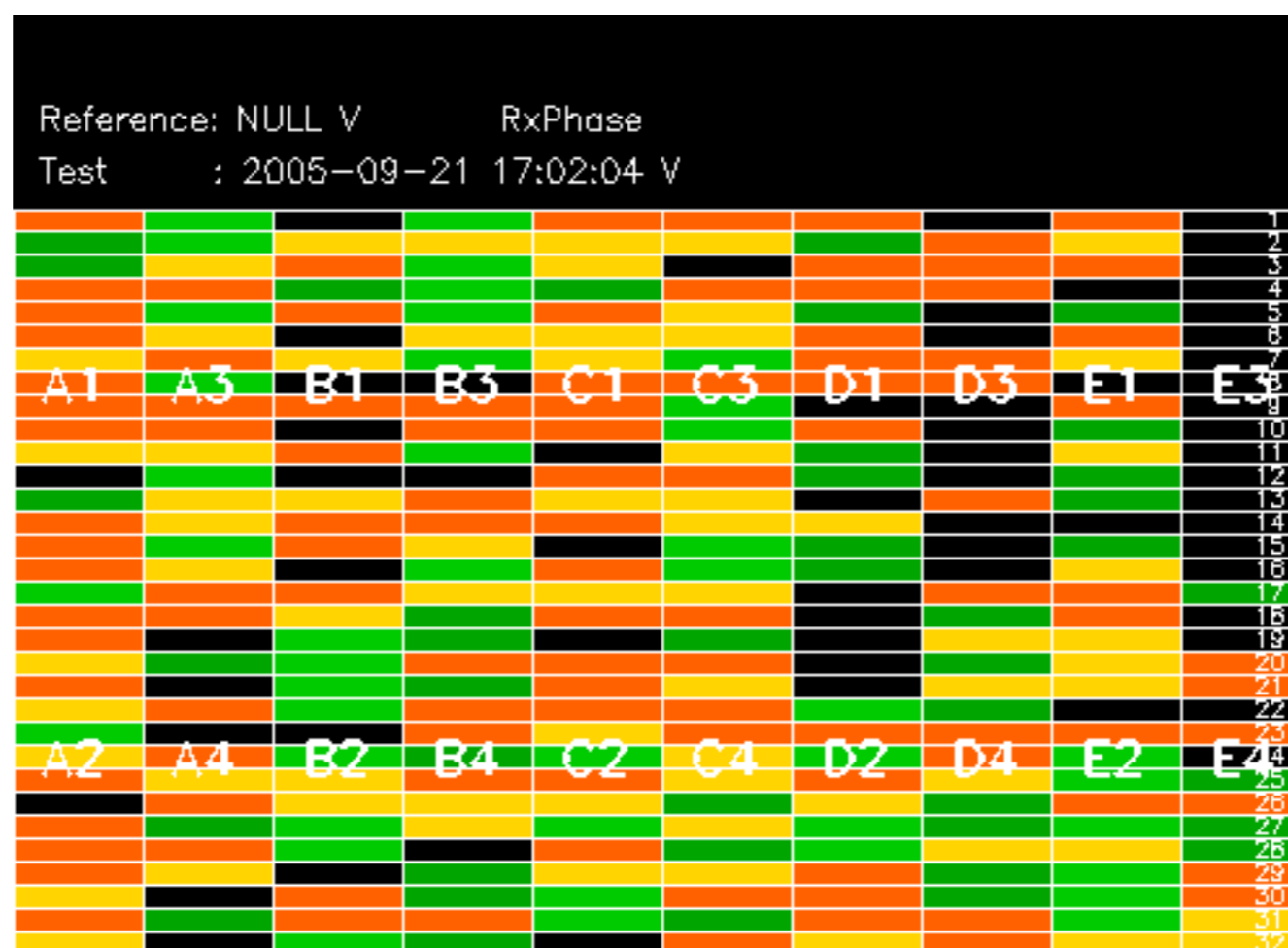


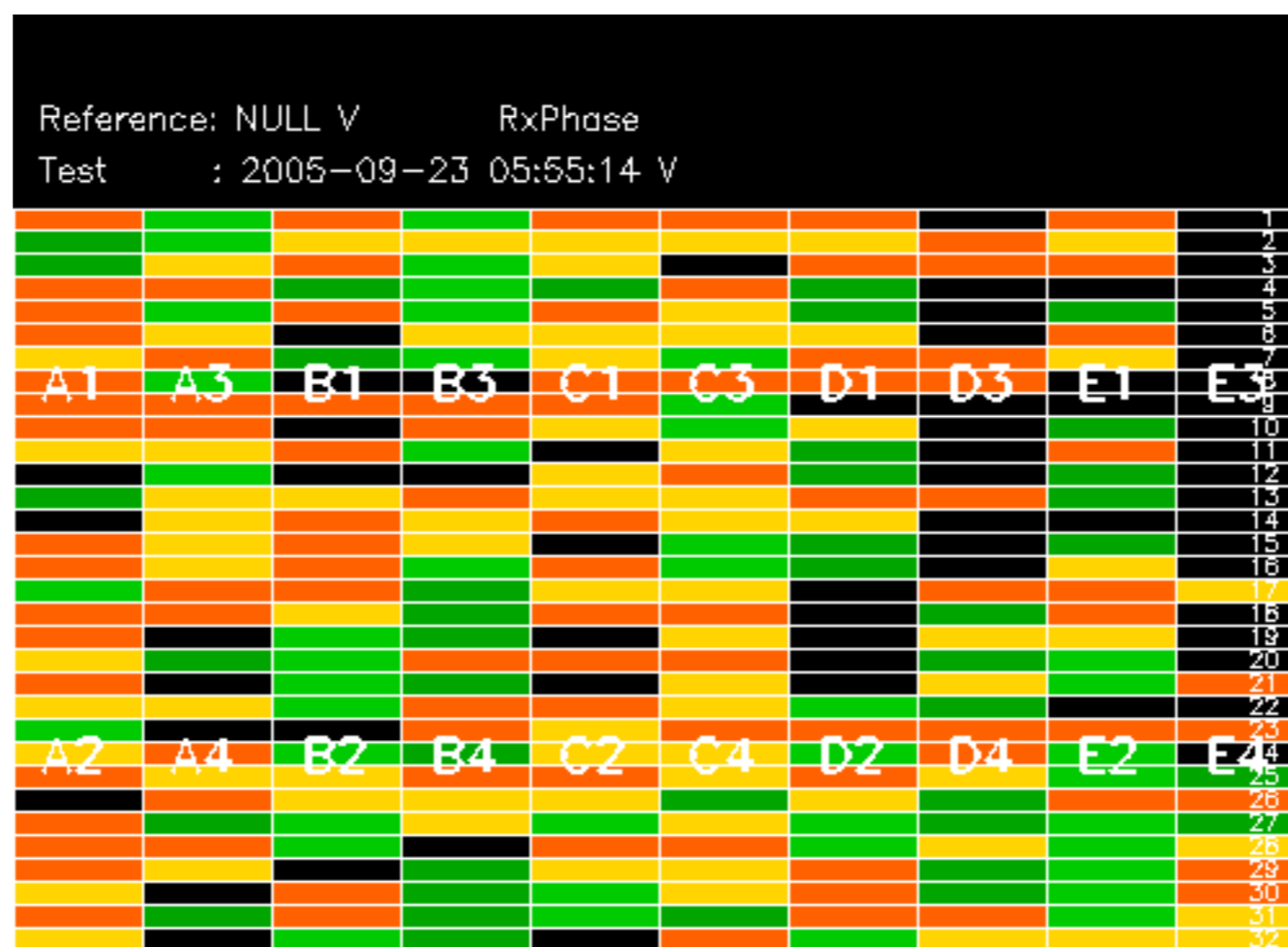
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -40.506642 Hz

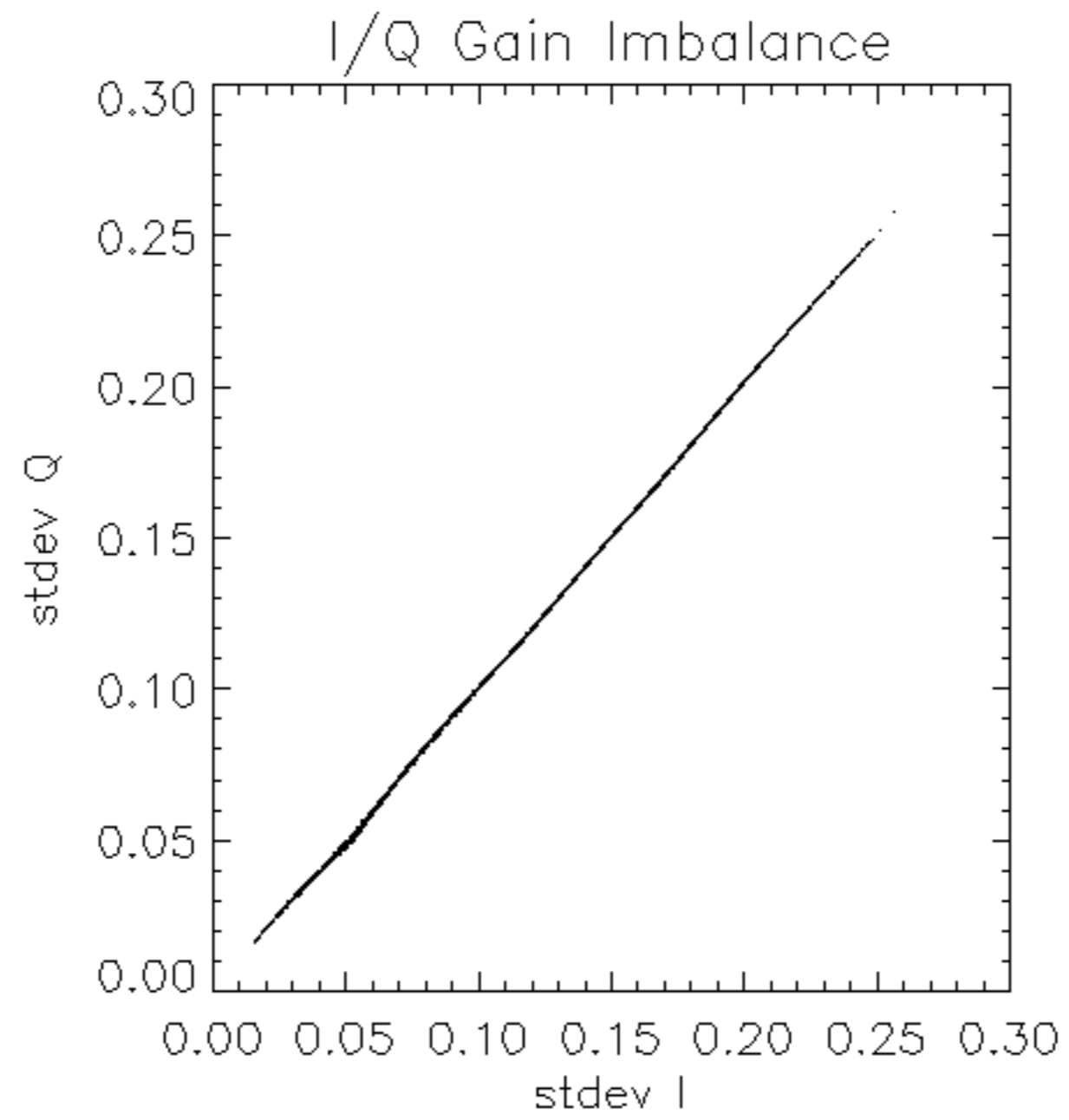


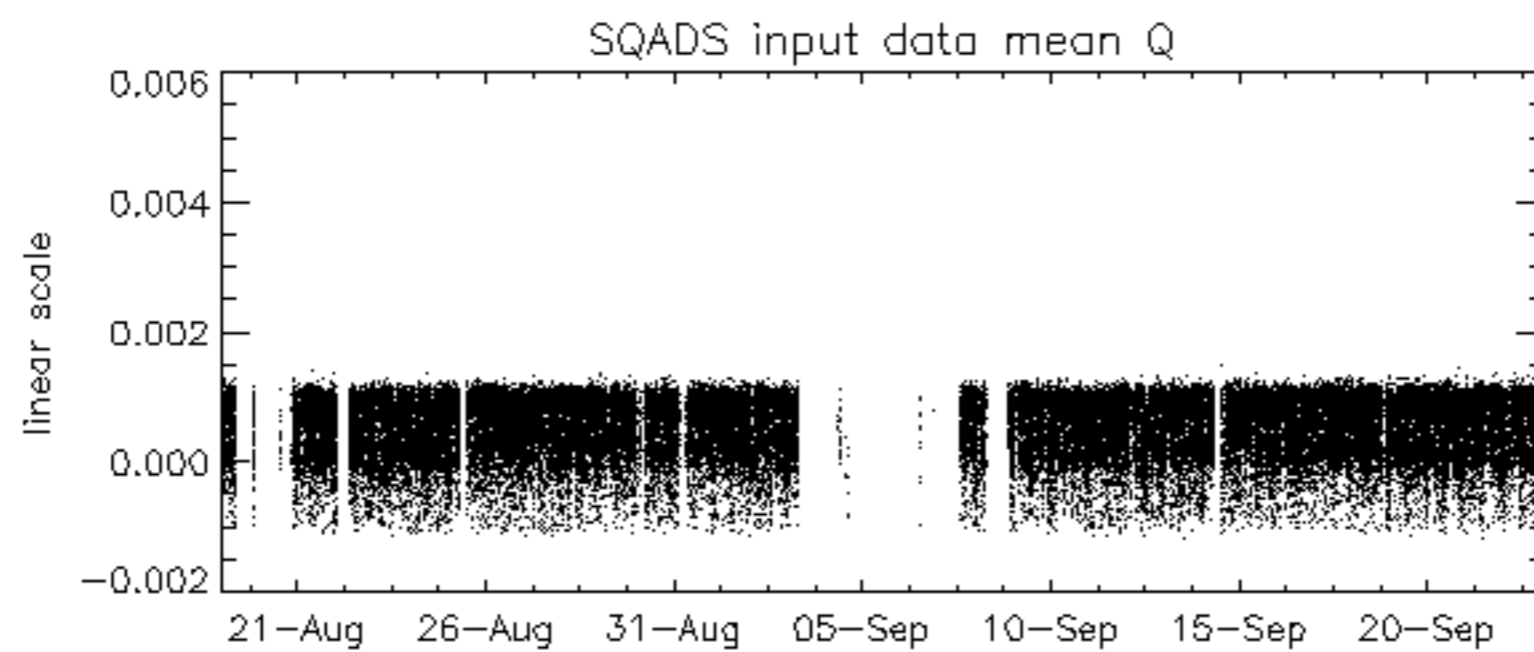
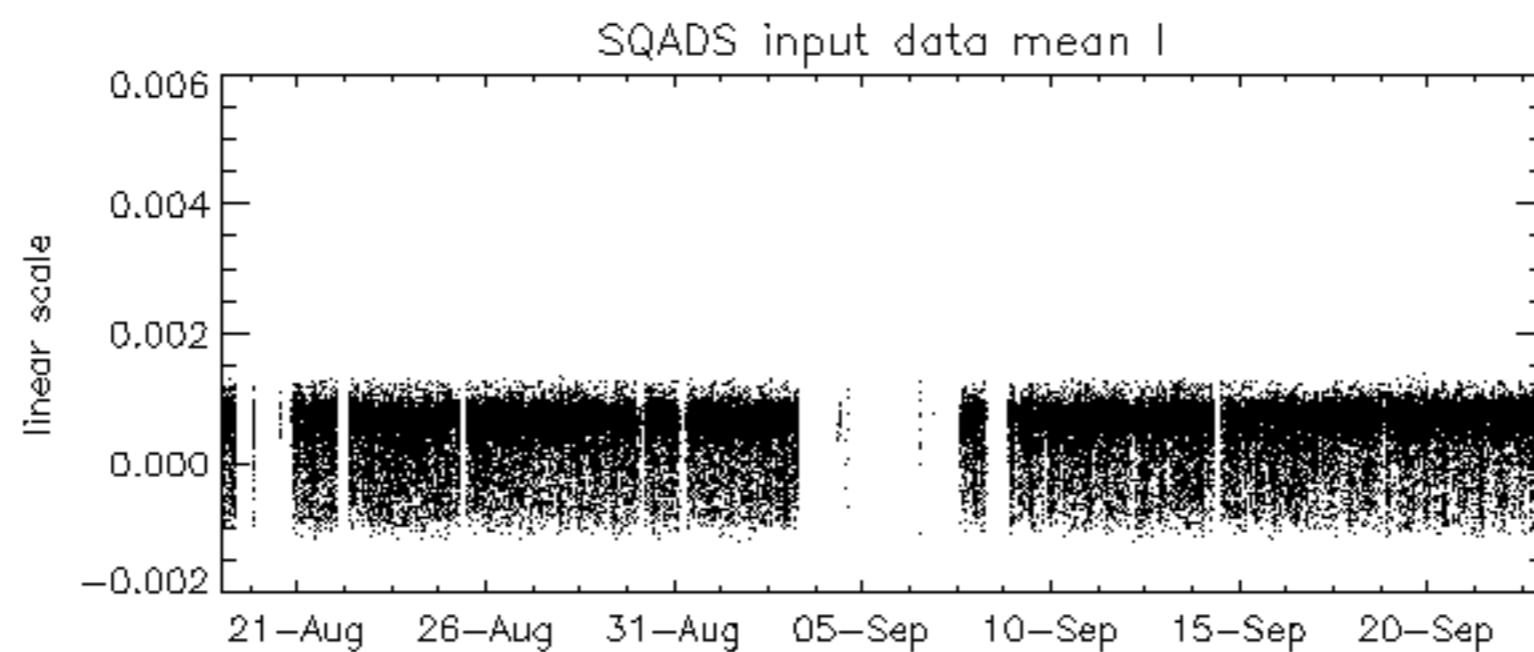
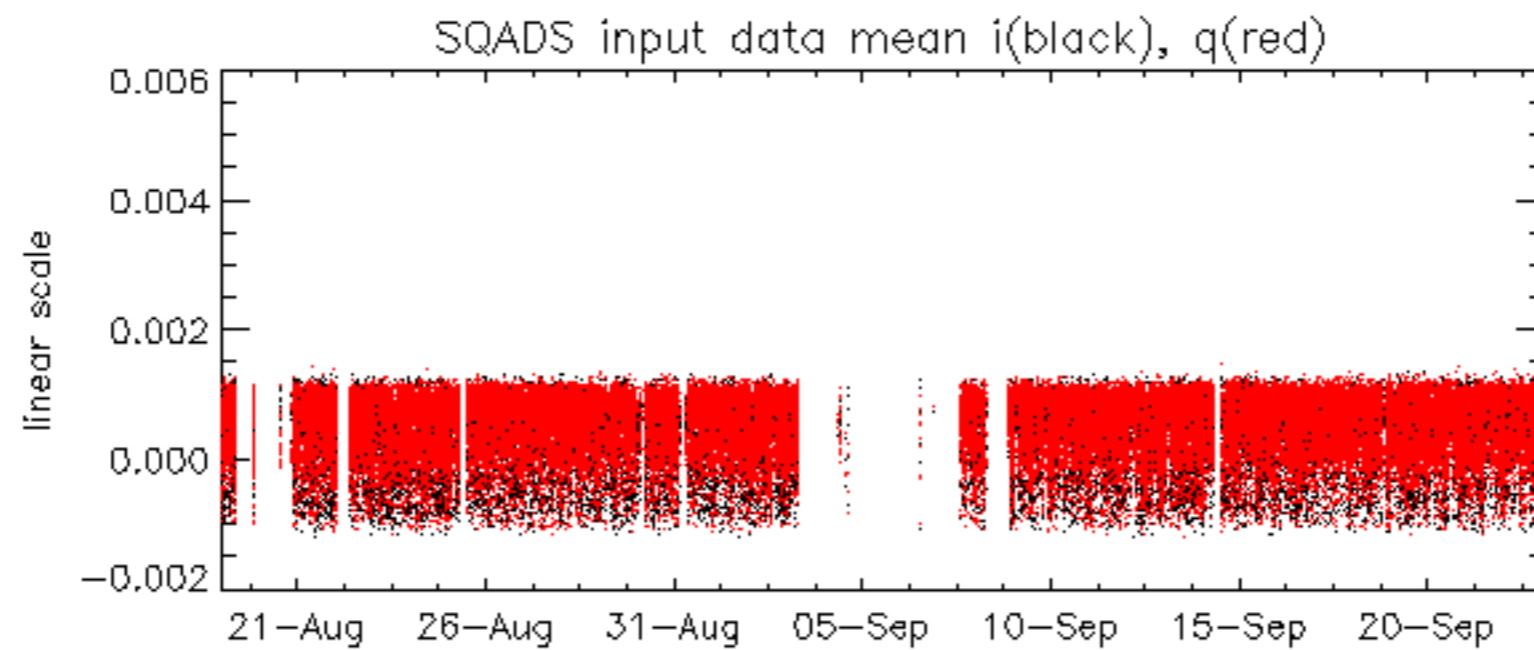
No anomalies observed on available MS products:

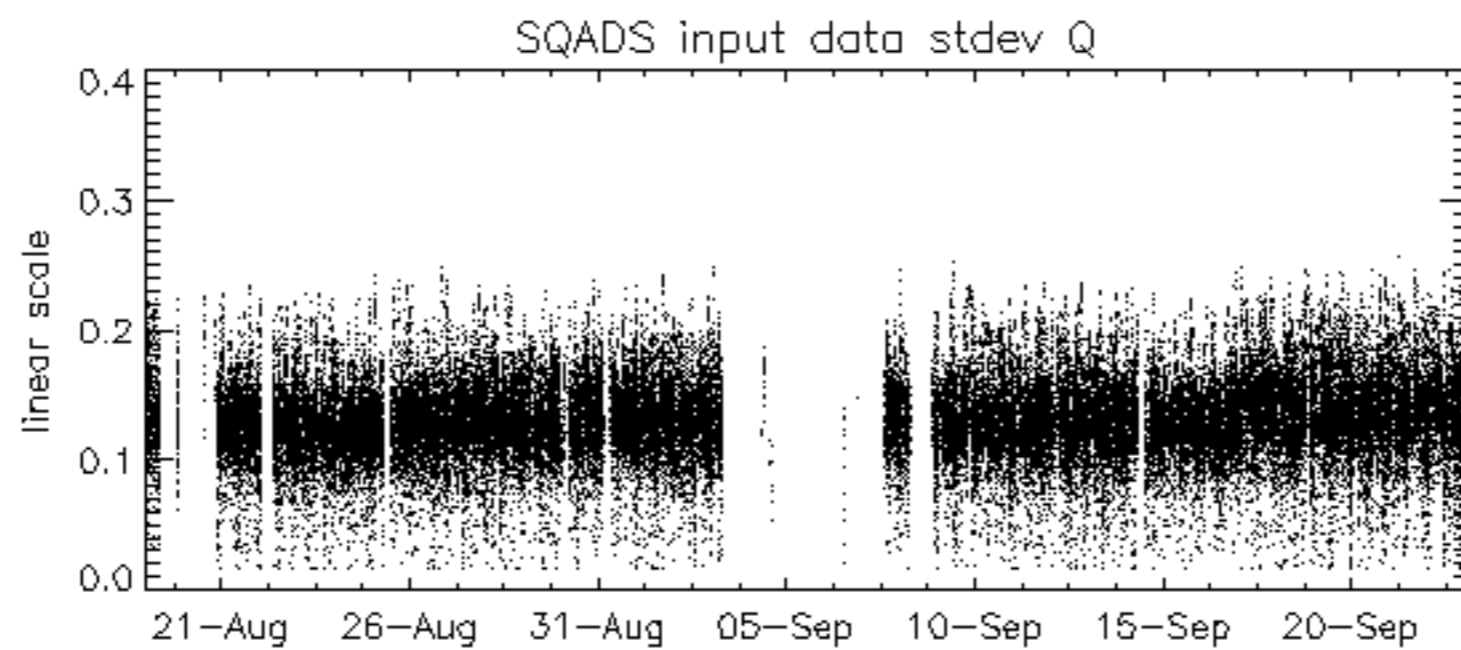
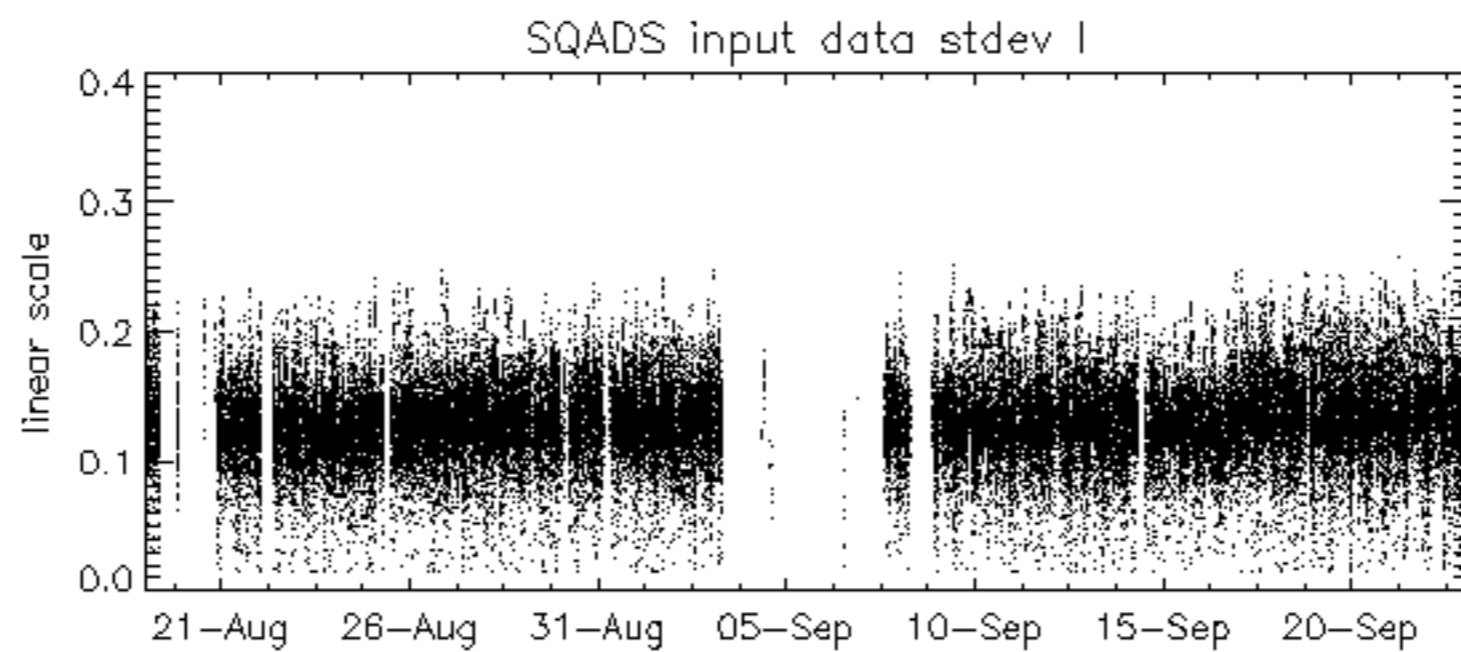
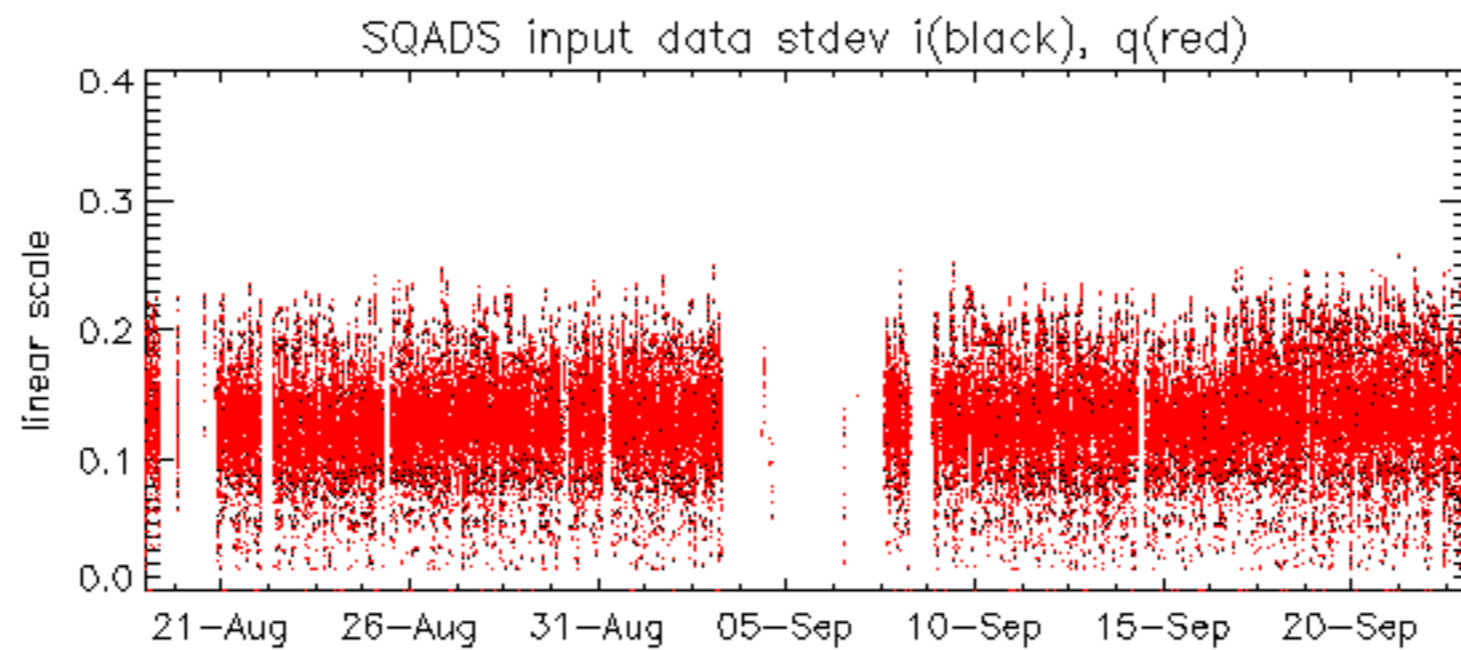
No anomalies observed.







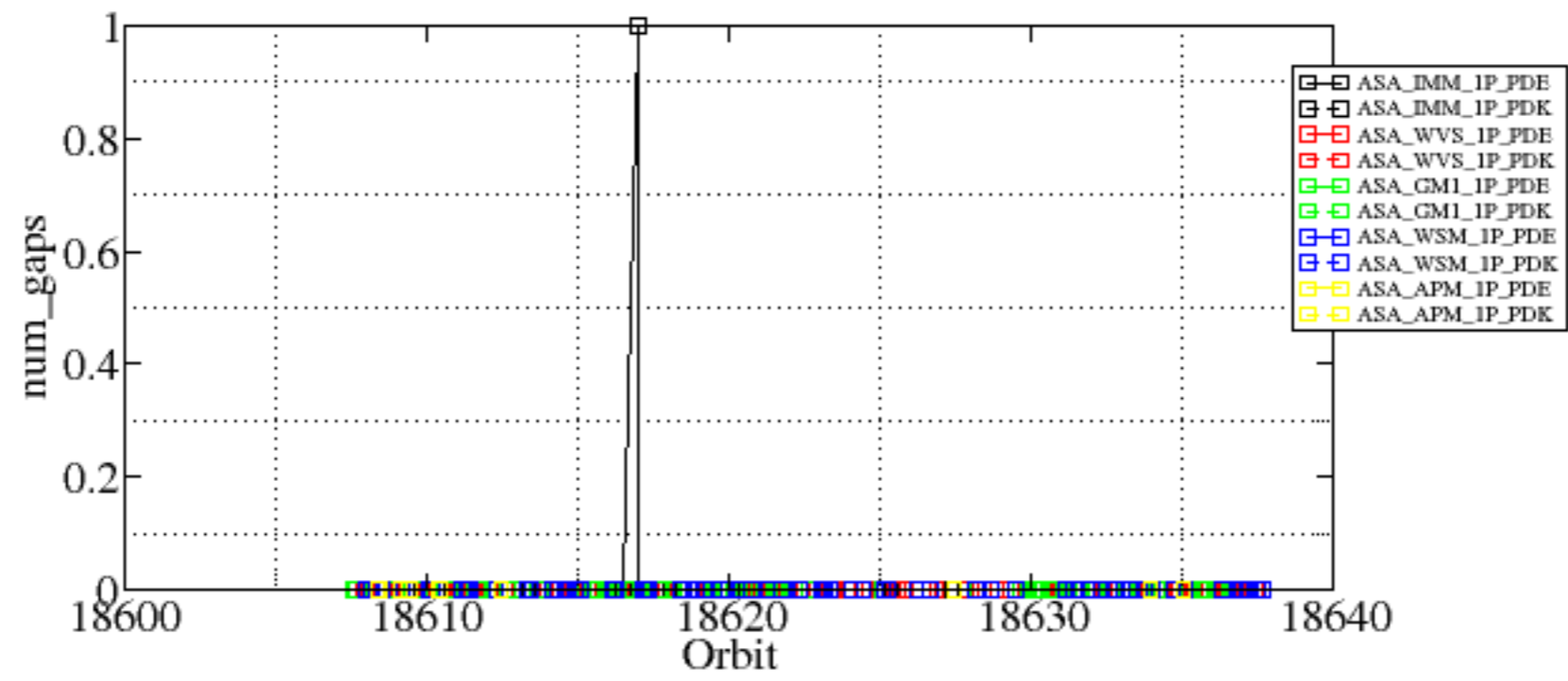


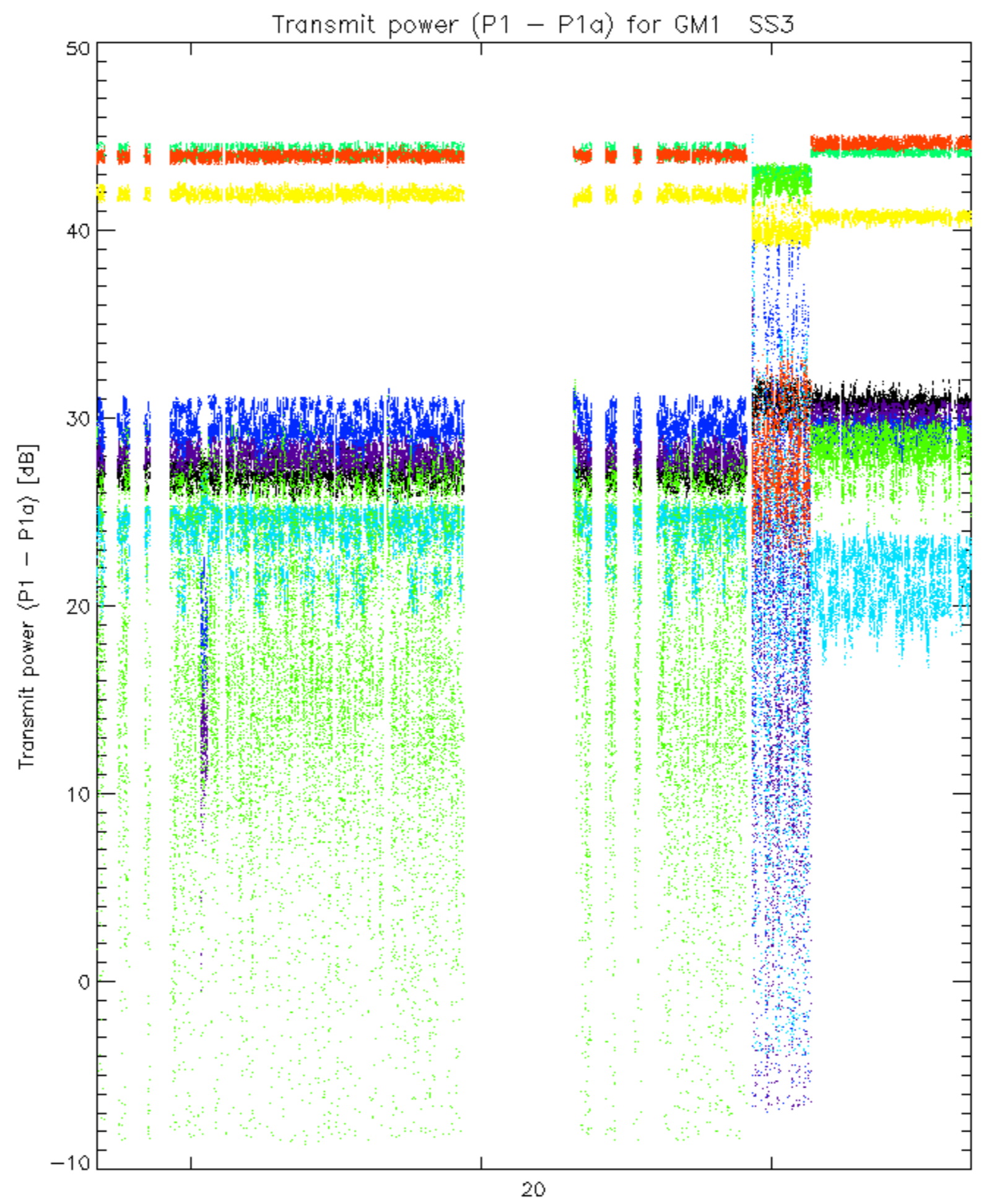


Summary of analysis for the last 3 days 2005092[123]

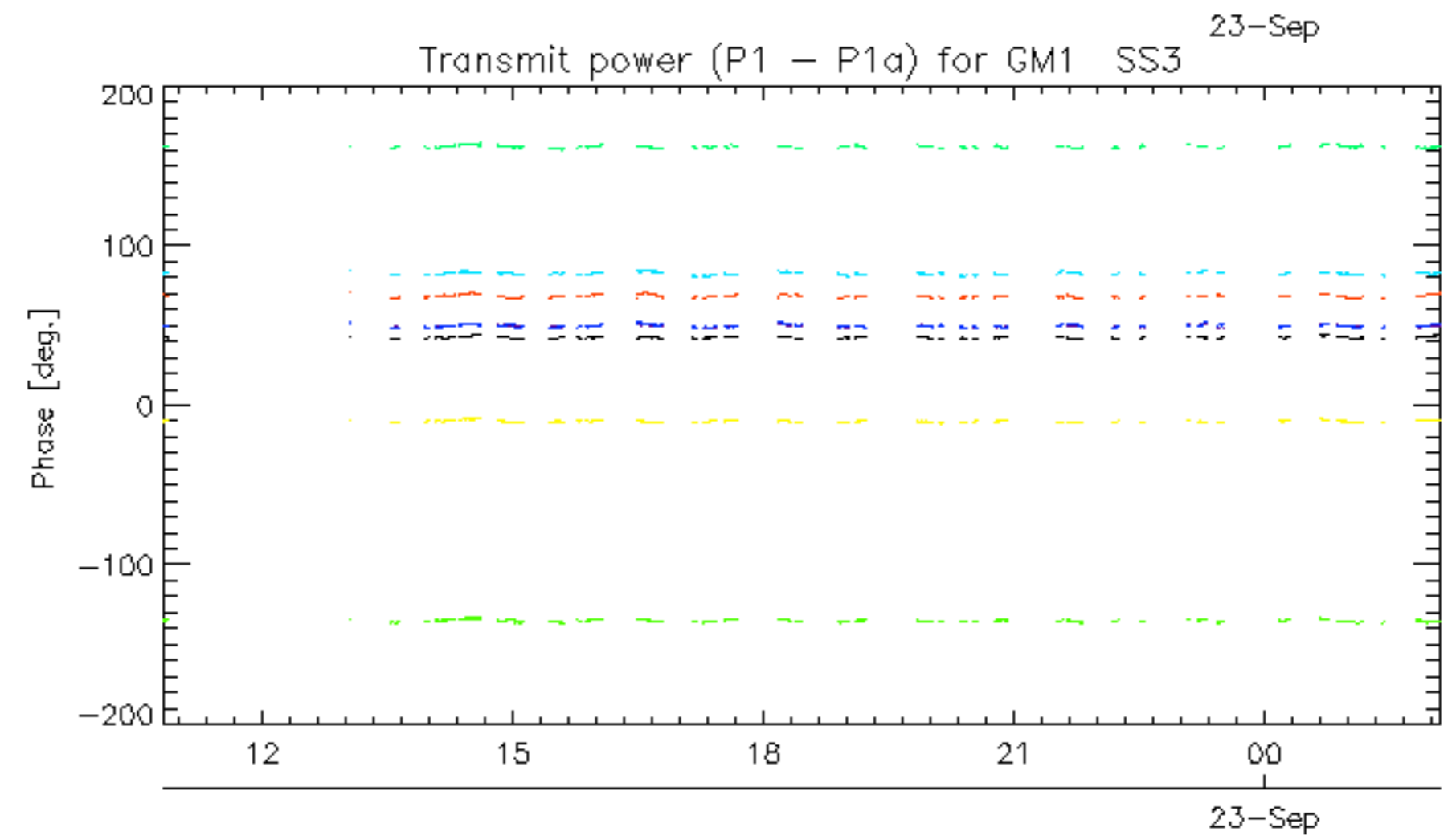
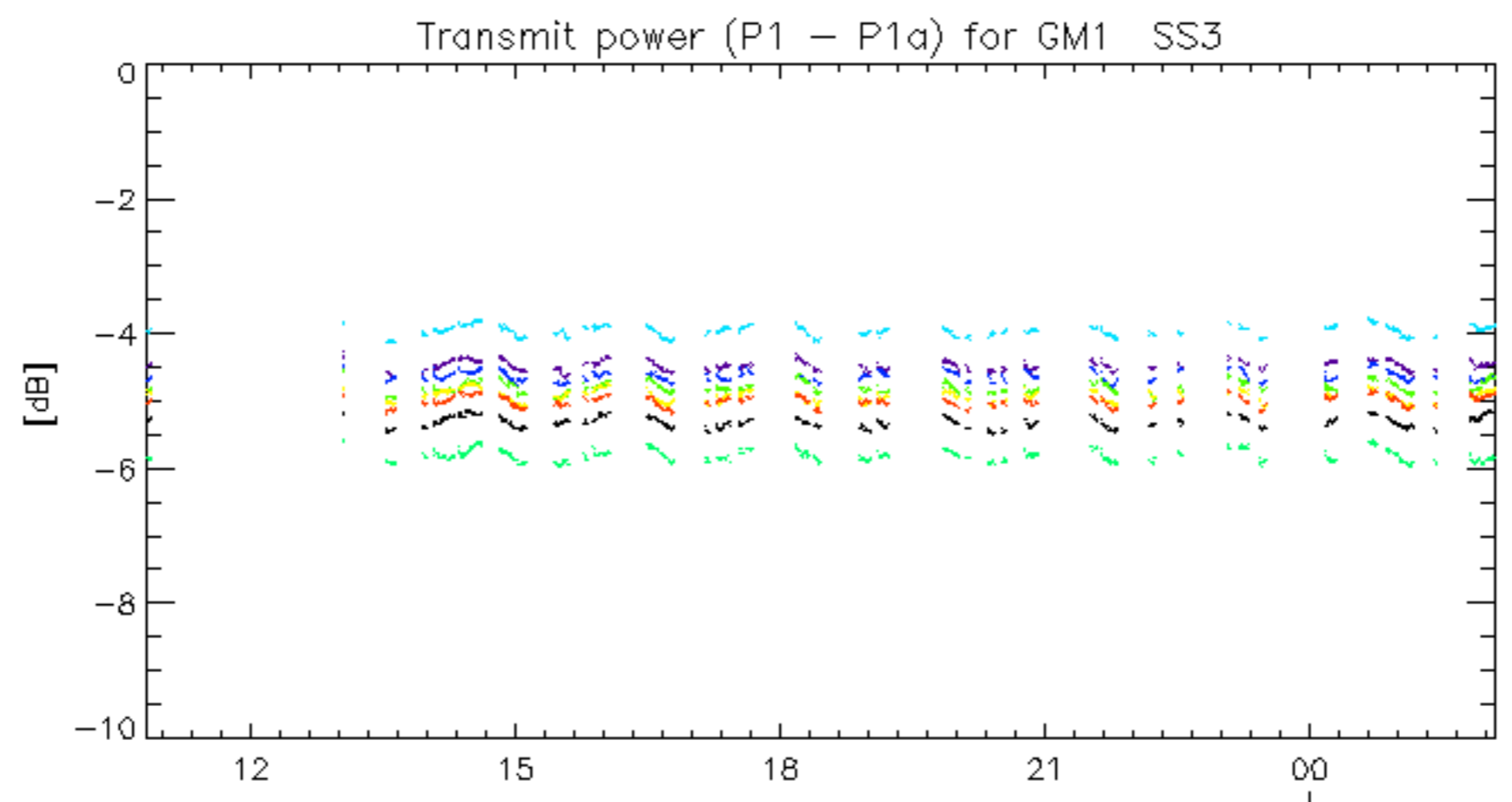
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050921_155413_000001532041_00025_18616_6218.N1	1	0
ASA_GM1_1PNPDK20050921_152005_000011362041_00025_18616_6092.N1	0	6
ASA_GM1_1PNPDK20050922_104238_000006162041_00037_18628_6169.N1	0	58
ASA_WSM_1PNPDE20050921_041517_000002322041_00019_18610_9764.N1	0	51
ASA_WSM_1PNPDE20050922_170449_000002442041_00041_18632_9995.N1	0	22
ASA_WSM_1PNPDE20050922_184757_000003042041_00042_18633_0010.N1	0	13
ASA_WSM_1PNPDE20050922_191352_000000672041_00042_18633_0013.N1	0	601

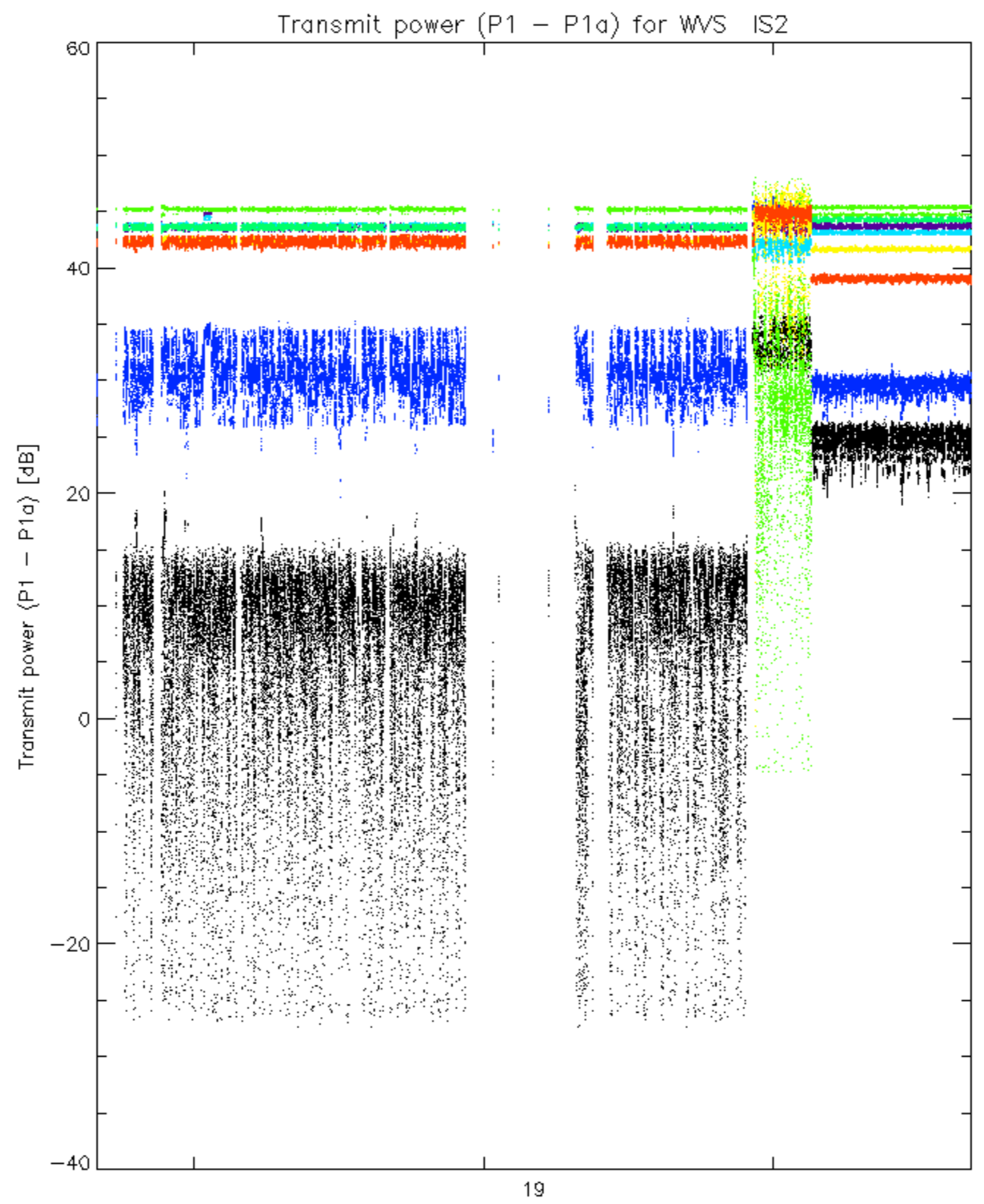




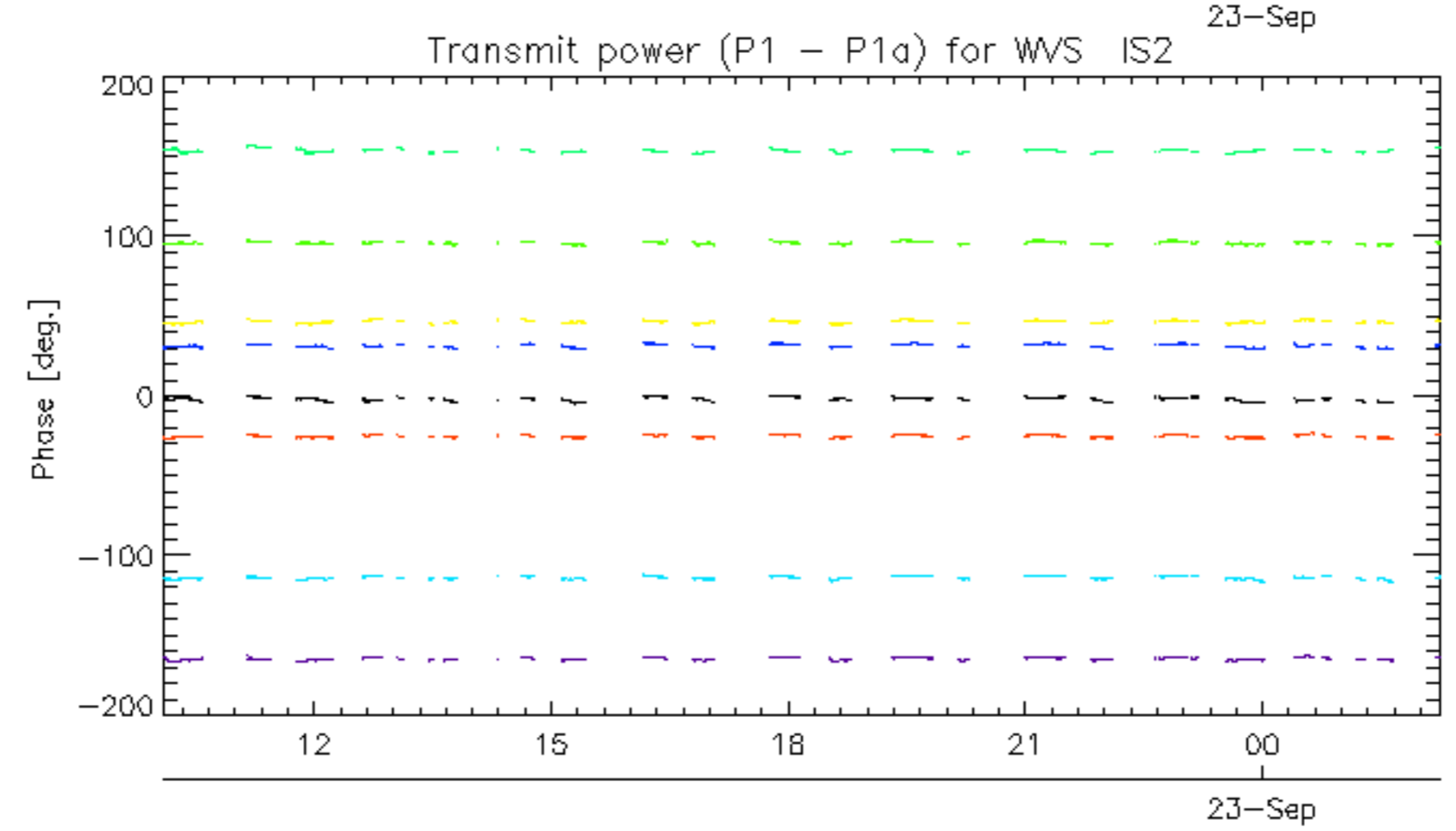
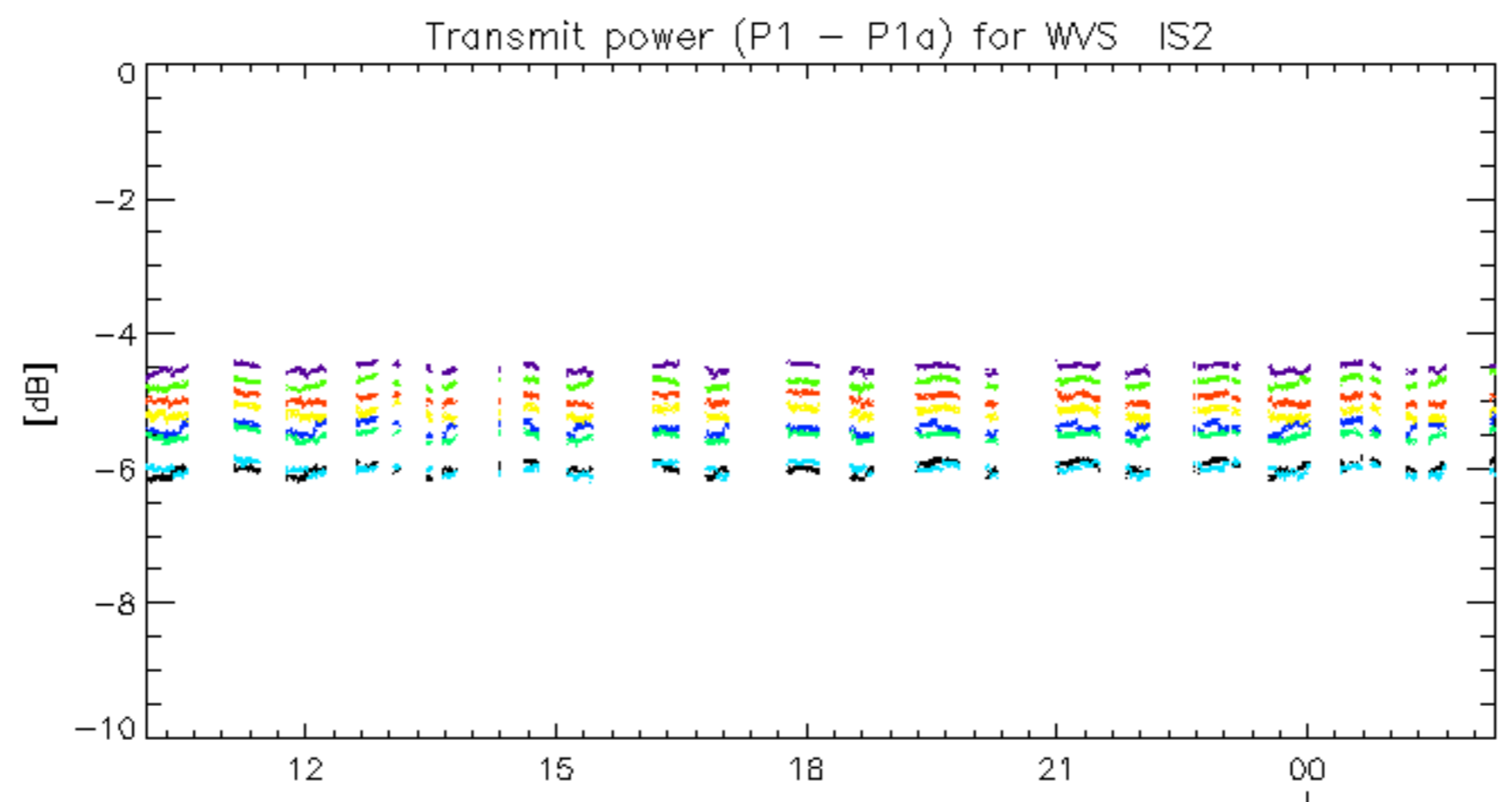
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.