

PRELIMINARY REPORT OF 060807

last update on Mon Aug 7 10:50:01 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 2006-08-06 00:00:00 to 2006-08-07 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	26	62	8	5	22
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	26	62	8	5	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	26	62	8	5	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	26	62	8	5	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	67	20	18	83
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	34	67	20	18	83
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	34	67	20	18	83
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	34	67	20	18	83

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	20060806 095349
H	20060805 084450

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒

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	-3.939003	0.010420	-0.016973
7	P1	-3.102228	0.022929	-0.006930
11	P1	-4.083043	0.013701	0.010291
15	P1	-6.174645	0.011588	0.000600
19	P1	-3.416158	0.009916	-0.063762
22	P1	-4.553446	0.010079	-0.024453
26	P1	-3.924877	0.019916	0.012564
30	P1	-5.764175	0.009457	-0.000556
3	P1	-16.533113	0.245988	-0.019631
7	P1	-17.180227	0.112282	0.077396
11	P1	-16.958069	0.287124	0.135406
15	P1	-13.083263	0.143268	0.120066
19	P1	-14.473413	0.053770	-0.062127
22	P1	-15.984893	0.430134	0.117094
26	P1	-15.121253	0.232973	-0.006564
30	P1	-17.090107	0.338644	0.036842

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.943901	0.086730	0.125849
7	P2	-21.893267	0.103299	0.082702
11	P2	-15.782537	0.119625	0.039399
15	P2	-7.122783	0.098906	0.026836
19	P2	-9.129629	0.090405	0.018420
22	P2	-18.149113	0.085776	0.005380
26	P2	-16.400137	0.092057	0.000830
30	P2	-19.511036	0.091959	0.046823

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173158	0.003110	0.004501
7	P3	-8.173158	0.003110	0.004501
11	P3	-8.173158	0.003110	0.004501
15	P3	-8.173158	0.003110	0.004501
19	P3	-8.173158	0.003110	0.004501
22	P3	-8.173158	0.003110	0.004501
26	P3	-8.173158	0.003110	0.004501
30	P3	-8.173158	0.003110	0.004501

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	-3.821912	0.008888	-0.013099
7	P1	-2.563281	0.030451	-0.017729
11	P1	-2.855527	0.014002	0.013413
15	P1	-3.578566	0.029166	-0.028219
19	P1	-3.424152	0.024299	-0.017372
22	P1	-5.085895	0.019780	0.014301
26	P1	-5.860657	0.015933	-0.003940
30	P1	-5.197130	0.033399	0.002058
3	P1	-11.614811	0.043745	-0.022856
7	P1	-9.965427	0.035187	0.023820
11	P1	-10.249850	0.055625	-0.009531
15	P1	-10.756382	0.144837	0.008157
19	P1	-15.556144	0.502287	-0.067875
22	P1	-20.918924	1.298936	0.033614
26	P1	-16.256298	0.384845	0.197622
30	P1	-17.943502	0.411369	-0.134796

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.574602	0.073543	0.176780
7	P2	-22.364534	0.120678	0.138743
11	P2	-11.029473	0.041224	0.075071
15	P2	-4.902955	0.045069	0.038995
19	P2	-6.868616	0.040268	0.021281
22	P2	-8.191823	0.035658	0.014451
26	P2	-24.181635	0.059713	0.012183
30	P2	-22.001062	0.048329	0.050210

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.011964	0.003746	0.008003
7	P3	-8.011932	0.003747	0.007783
11	P3	-8.011909	0.003751	0.007394
15	P3	-8.012006	0.003747	0.007483
19	P3	-8.011903	0.003755	0.007850
22	P3	-8.012047	0.003739	0.007557
26	P3	-8.011992	0.003740	0.007631
30	P3	-8.011960	0.003749	0.007521

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	0.000561754
	stdev	1.71233e-07
MEAN Q	mean	0.000536949
	stdev	2.14688e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137489
	stdev	0.00108473
STDEV Q	mean	0.137844
	stdev	0.00110234



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006080[567]

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_1PNPDE20060805_005031_000002372050_00059_23159_2980.N1	1	0
ASA_IMM_1PNPDE20060805_065012_000000362050_00063_23163_2992.N1	1	0
ASA_IMM_1PNPDE20060805_111216_000002182050_00066_23166_2998.N1	1	0
ASA_IMM_1PNPDE20060807_002903_000000512050_00088_23188_3070.N1	1	0







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)


Acsending

<input type="checkbox"/>
Descending

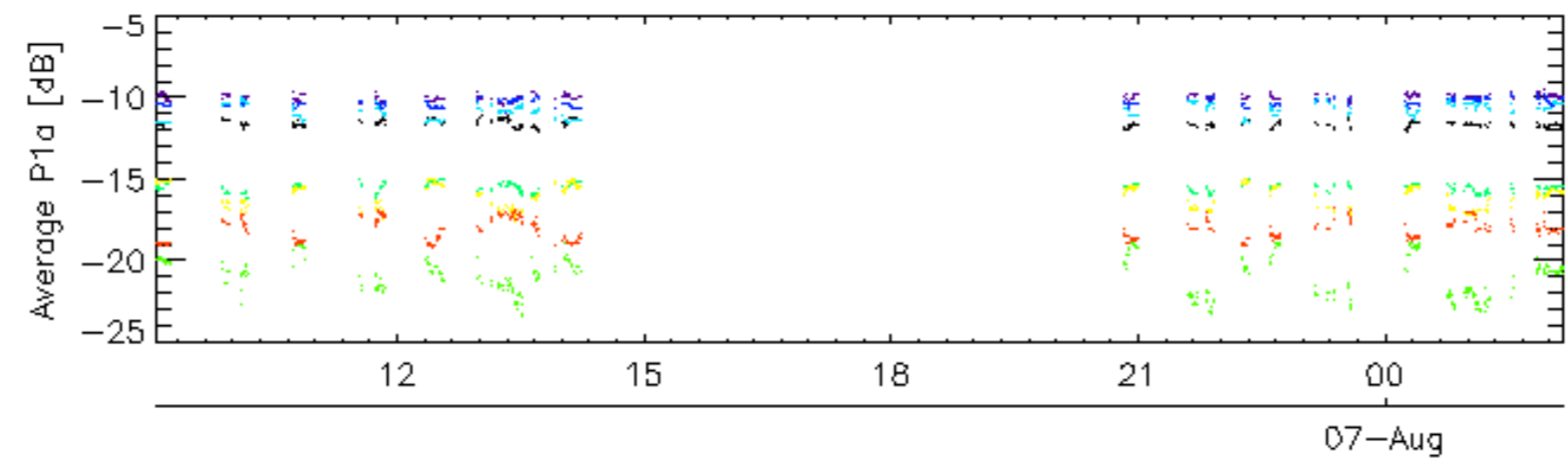
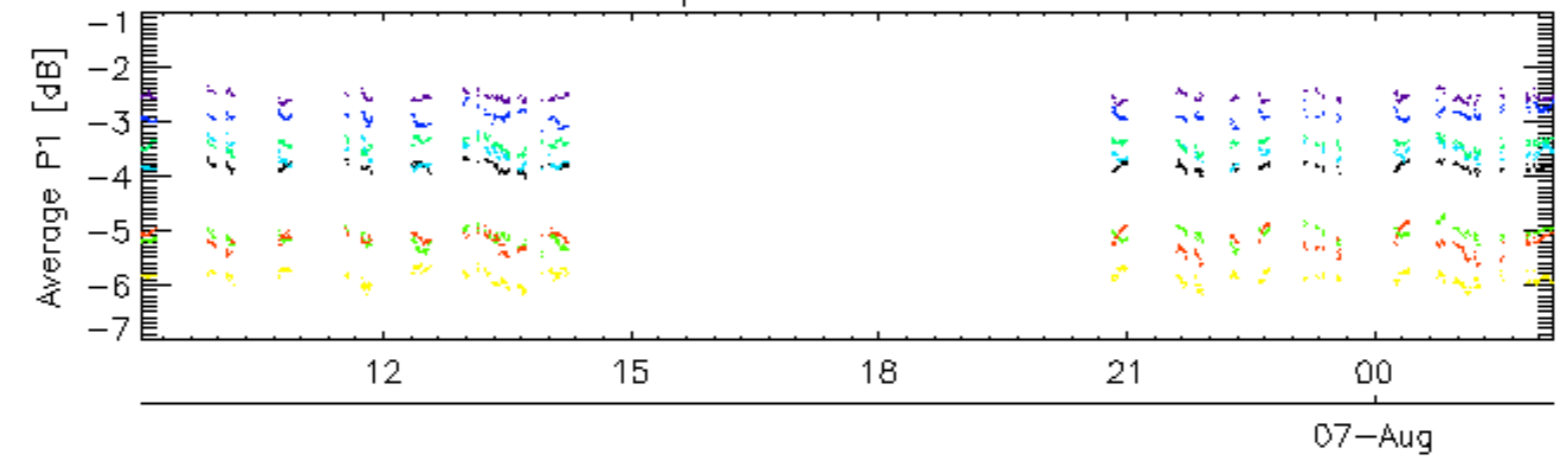
7.5 - Absolute Doppler for GM1

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

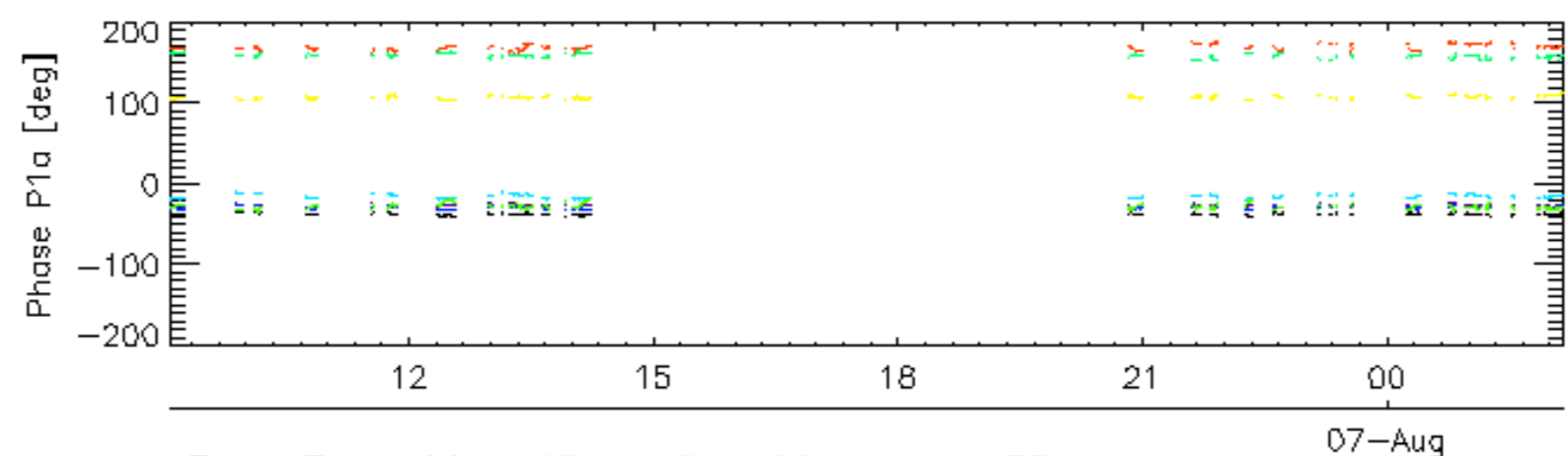
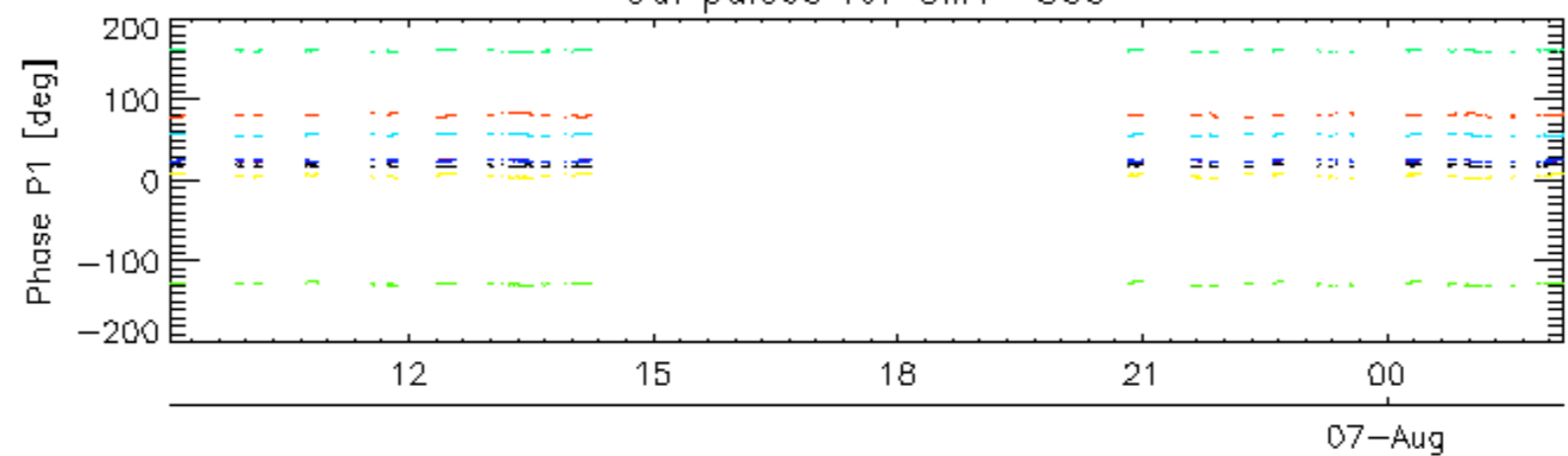
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

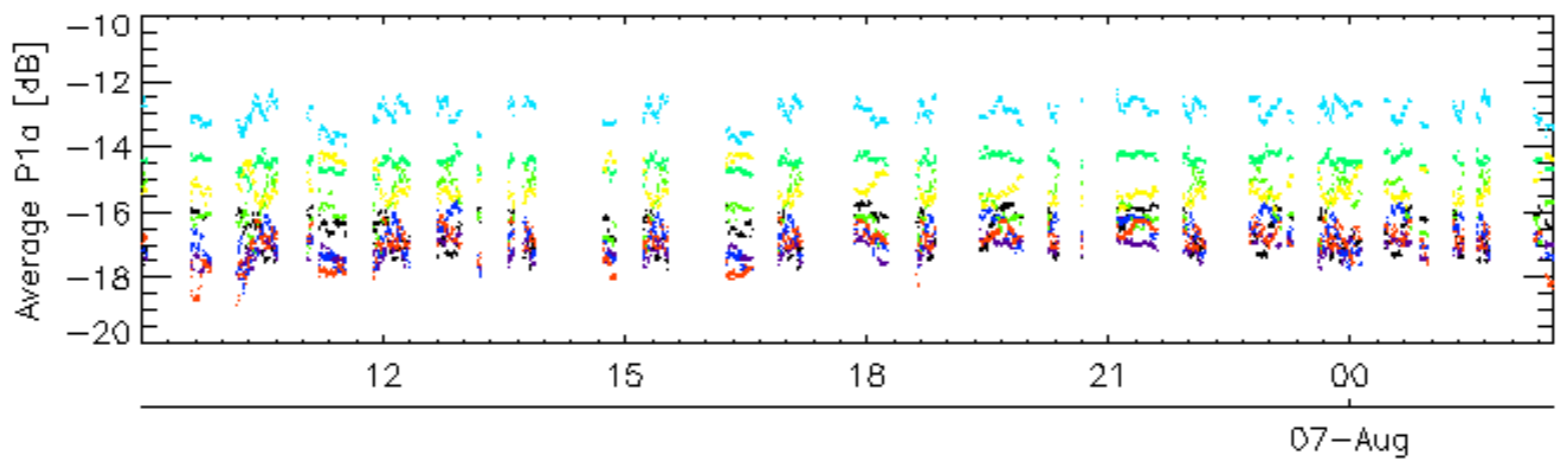
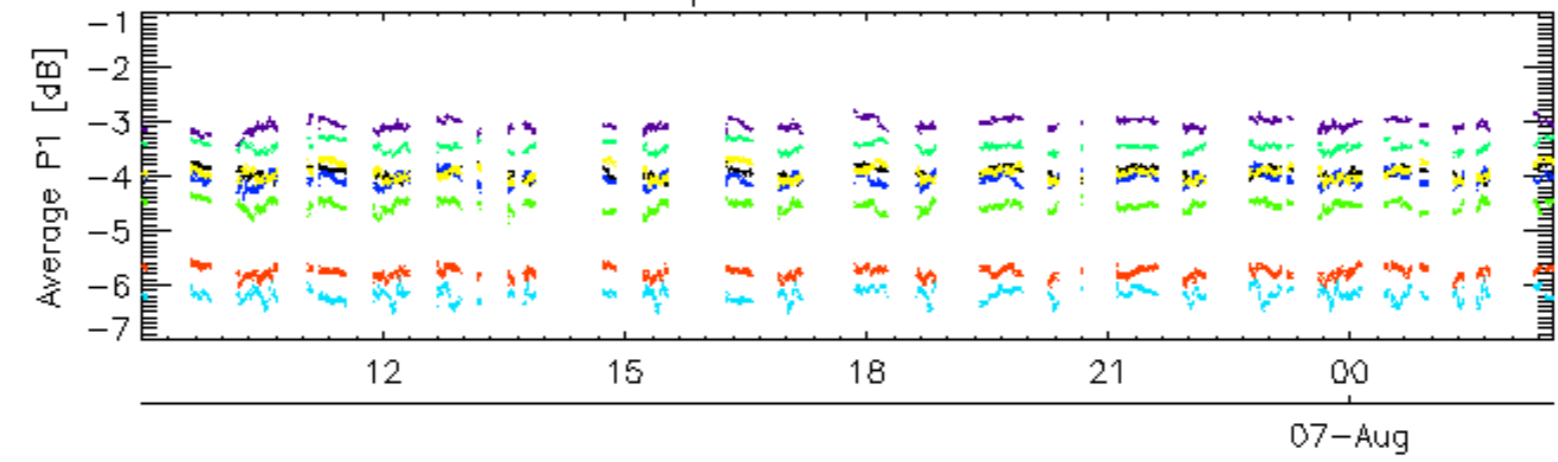


Cal pulses for GM1 SS3

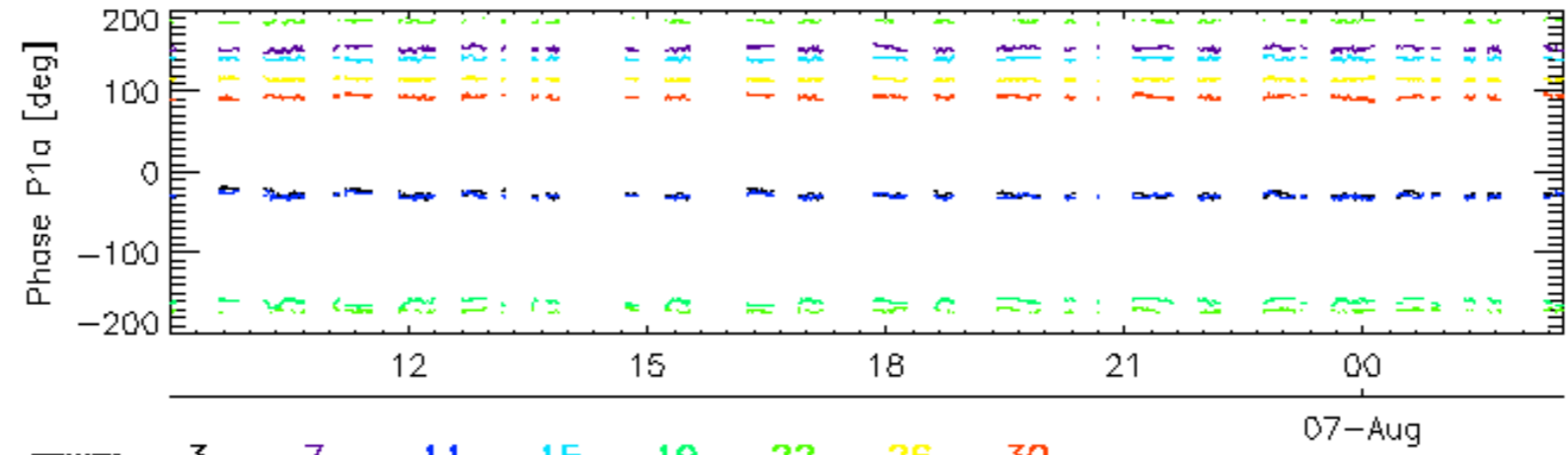
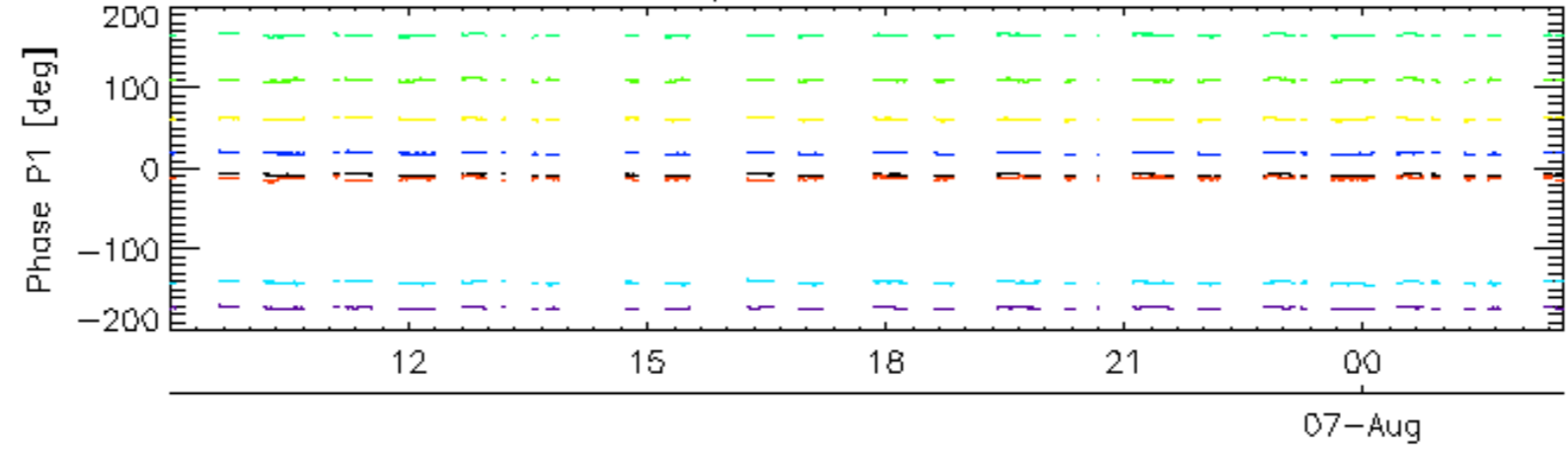


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

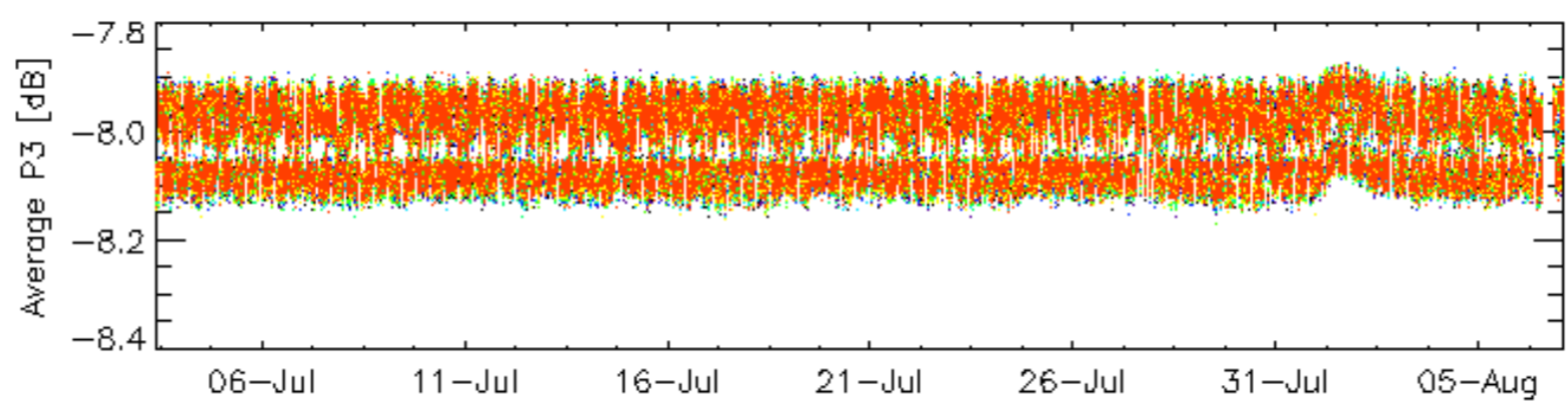
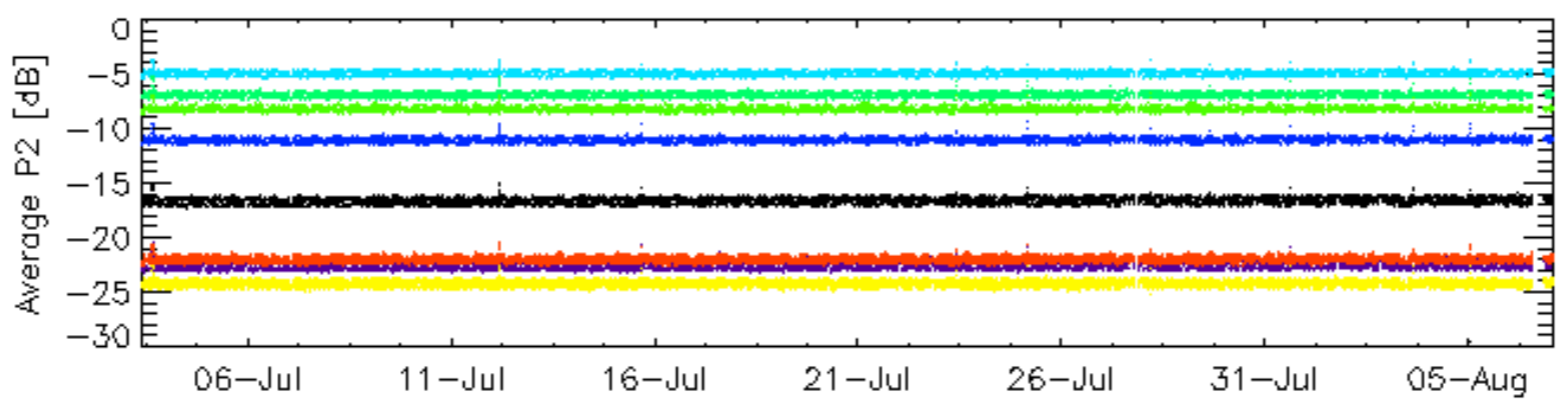
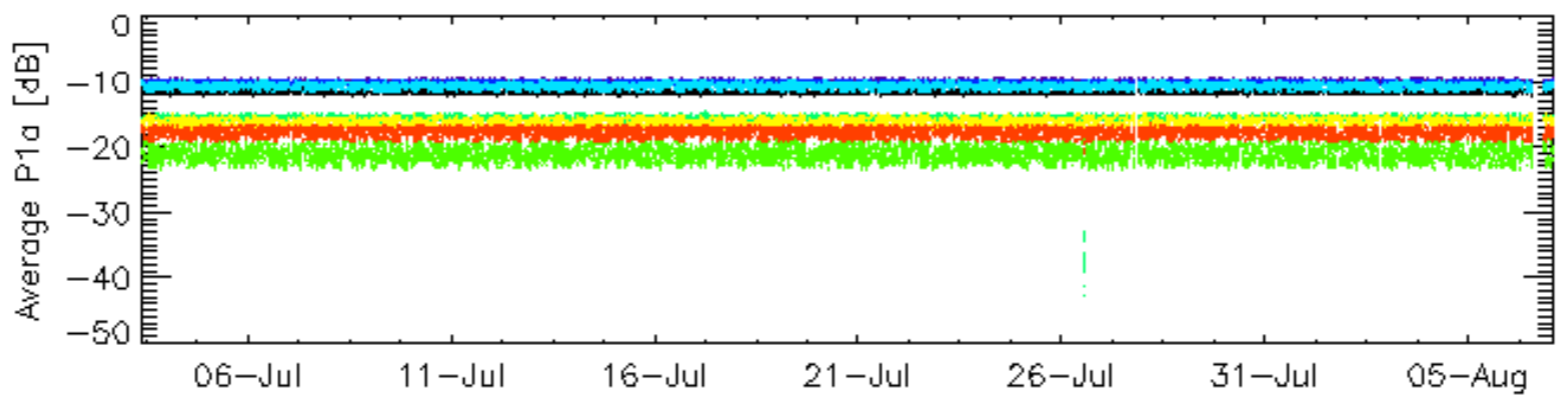
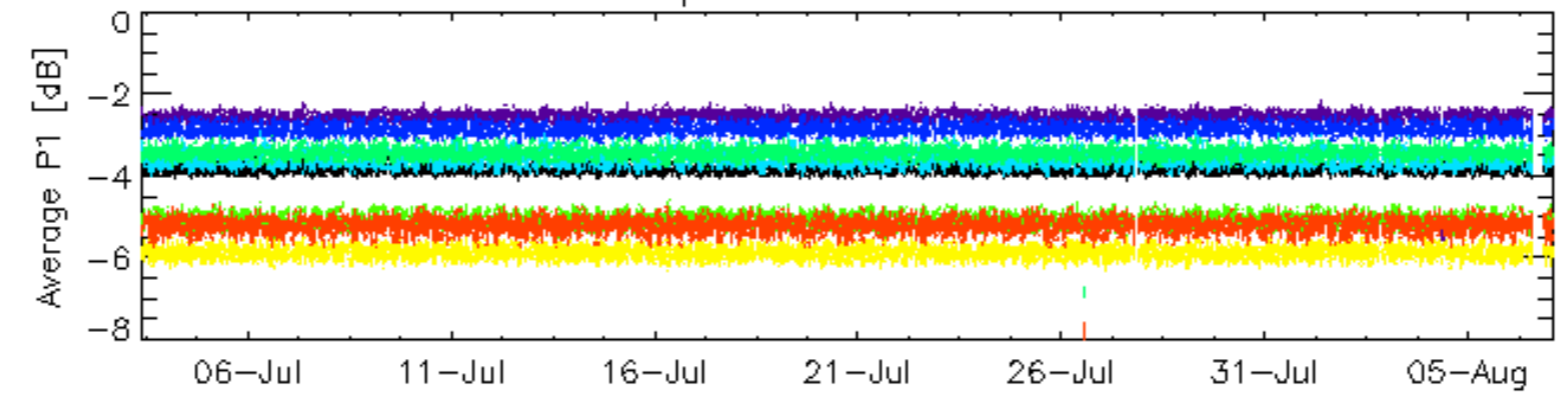


Cal pulses for WVS IS2



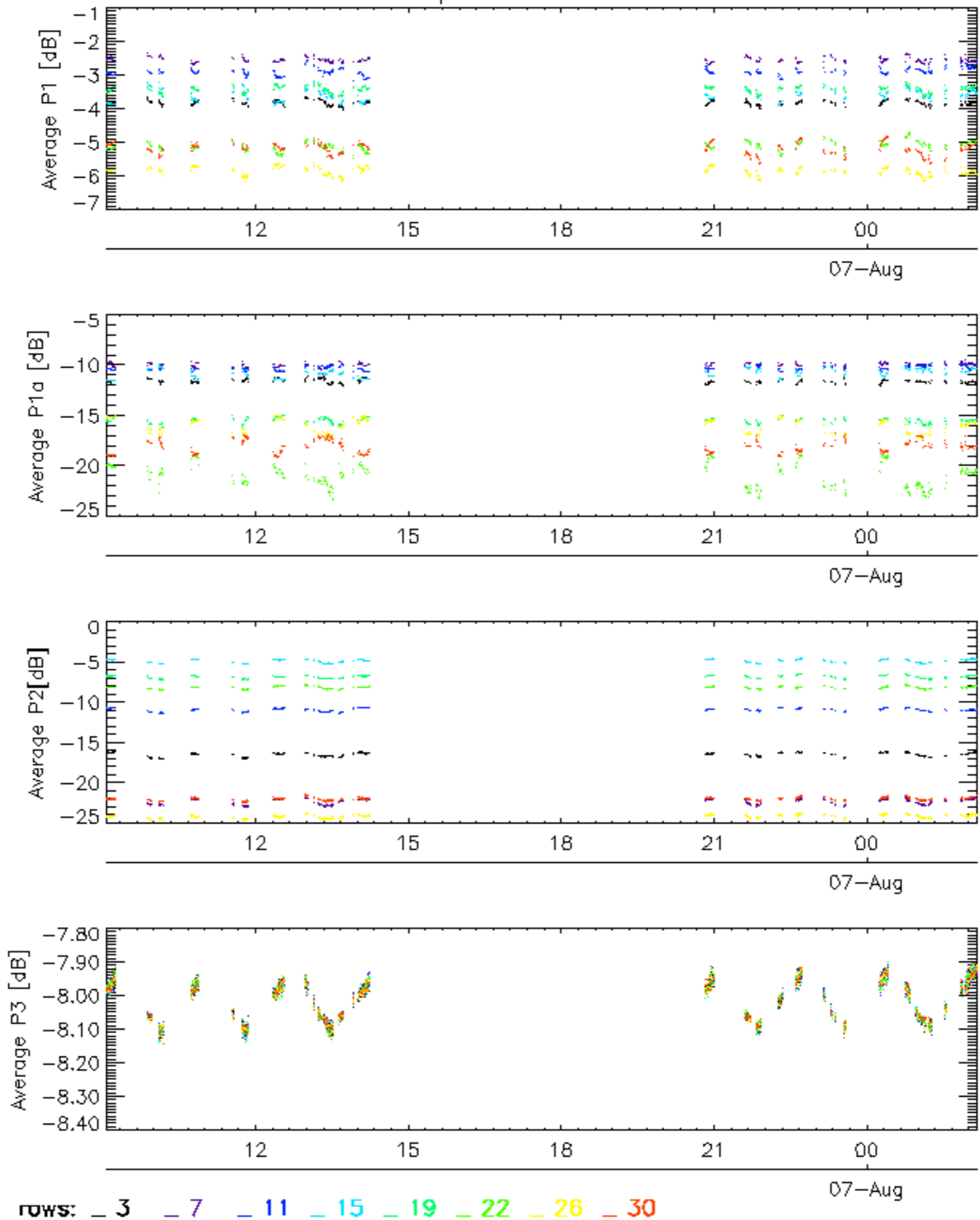
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

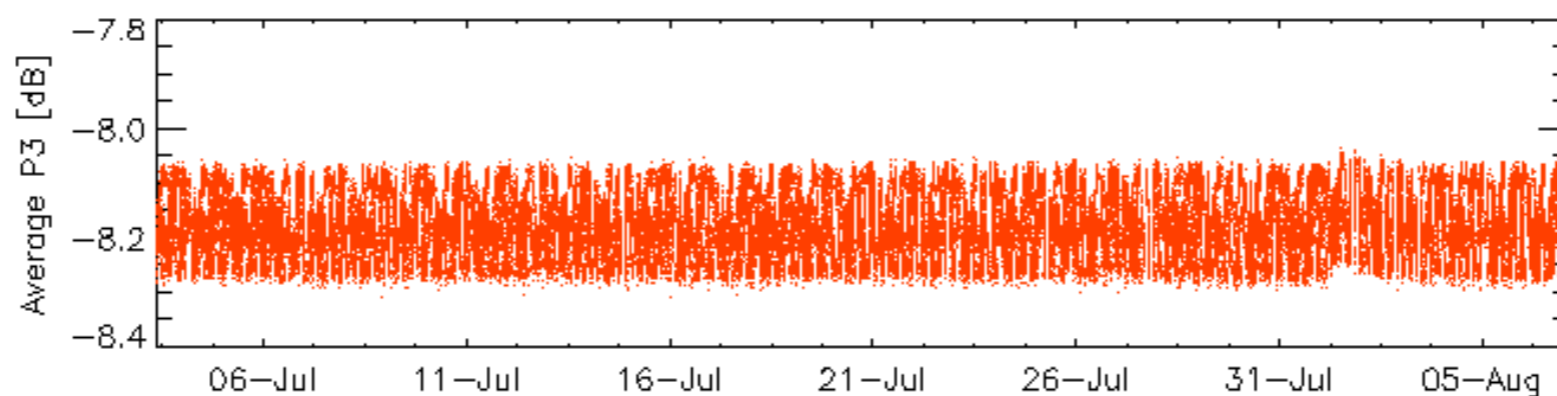
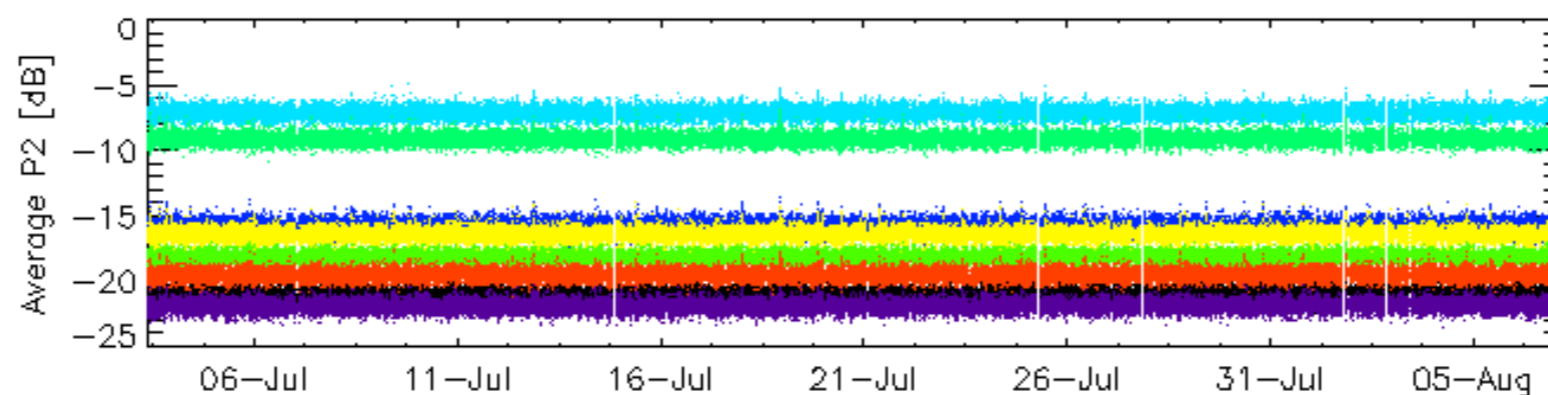
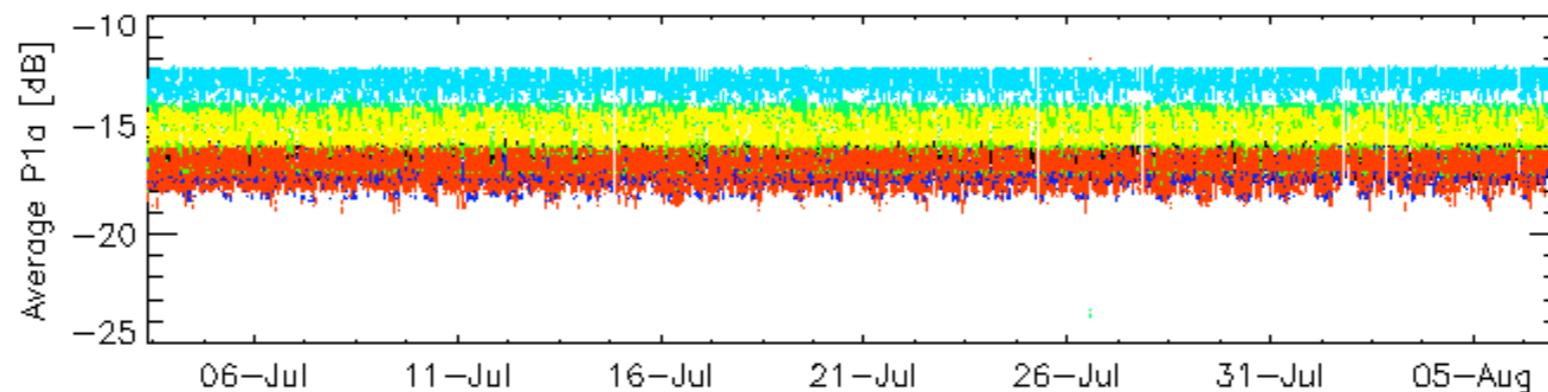
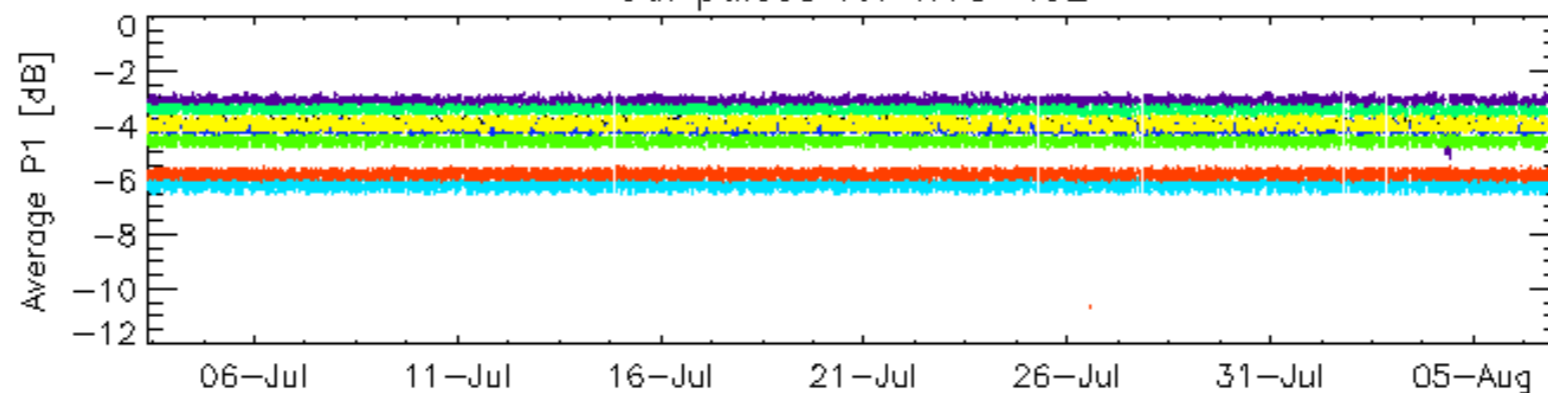


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

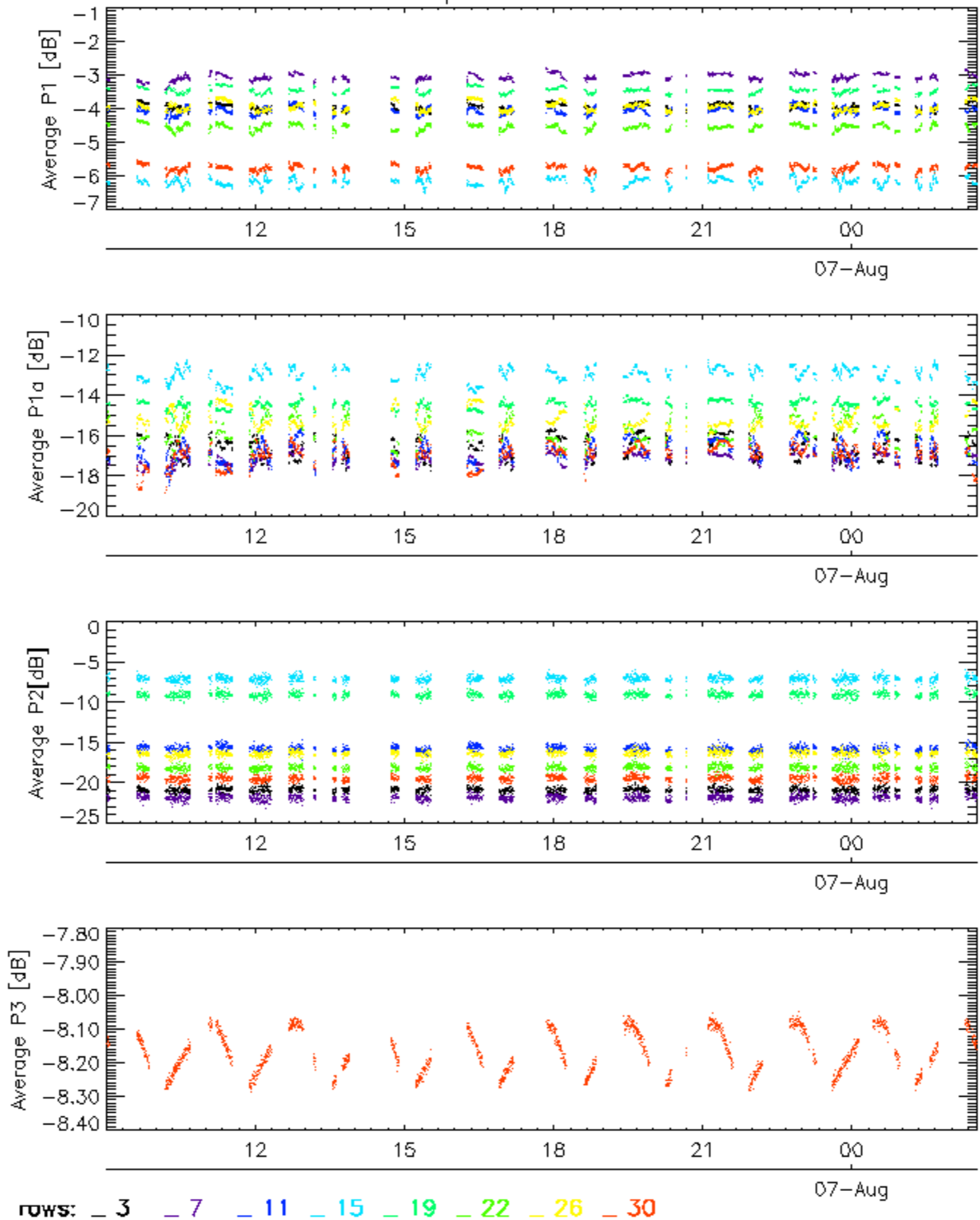


Cal pulses for WVS IS2

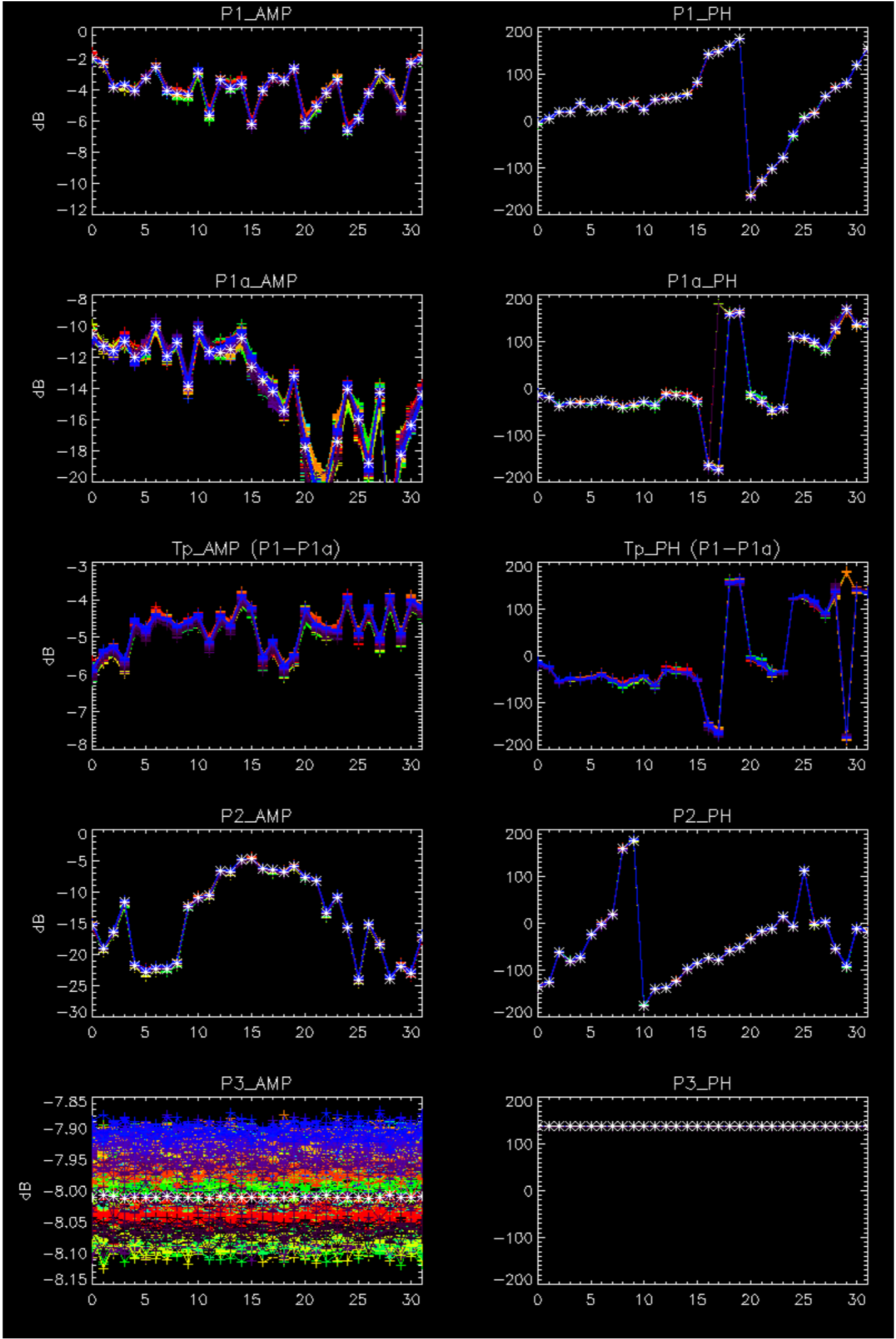


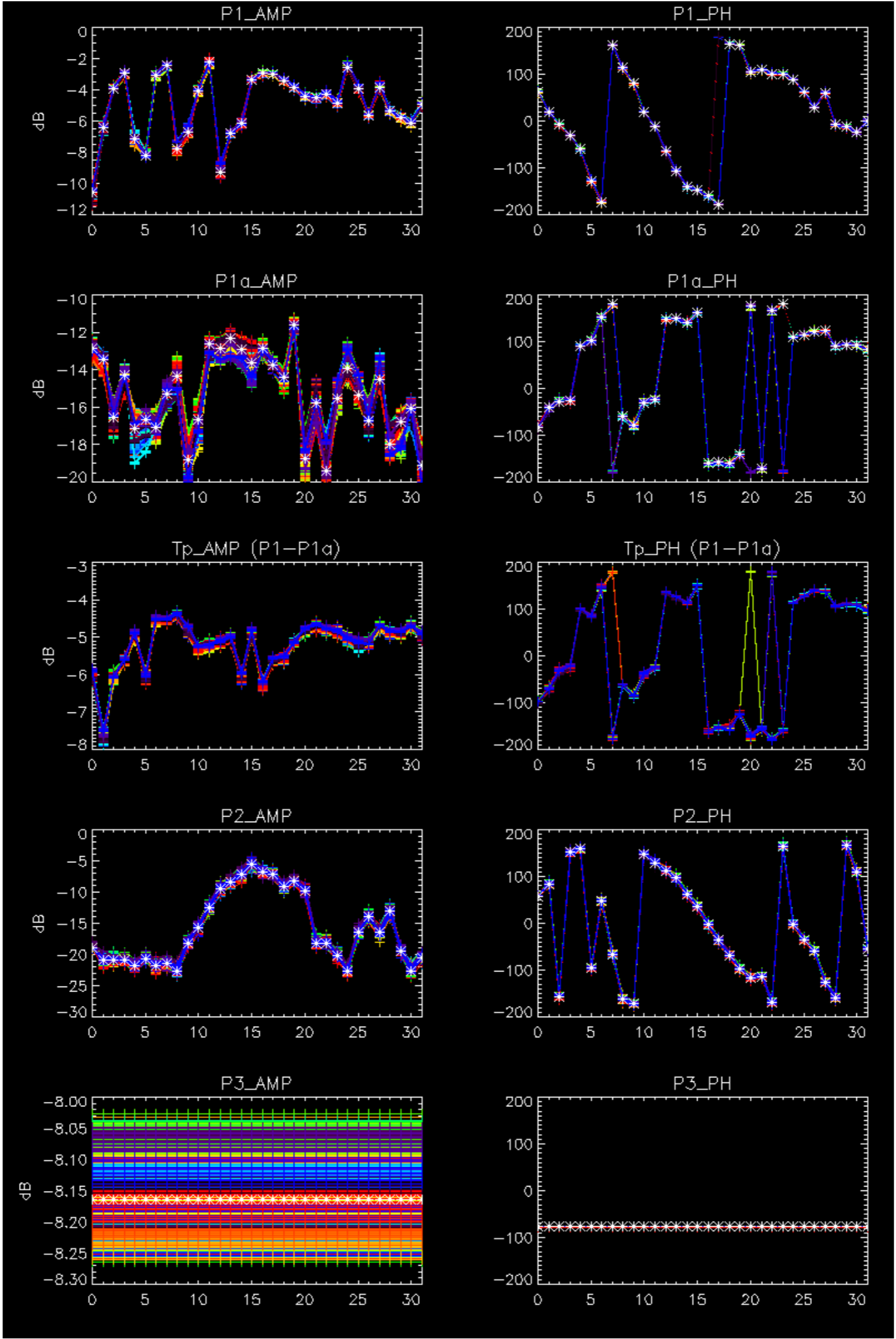
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



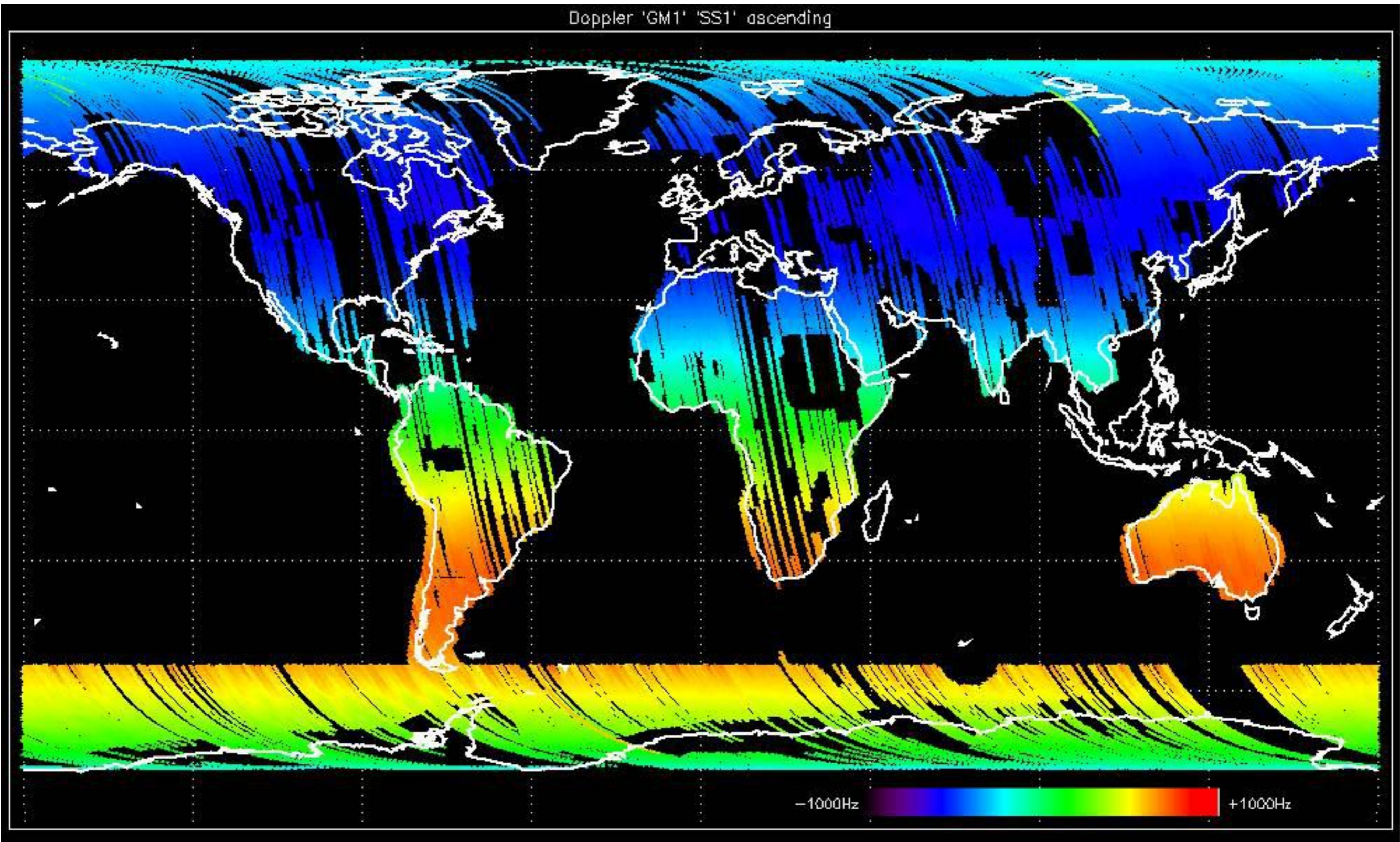
No anomalies observed.



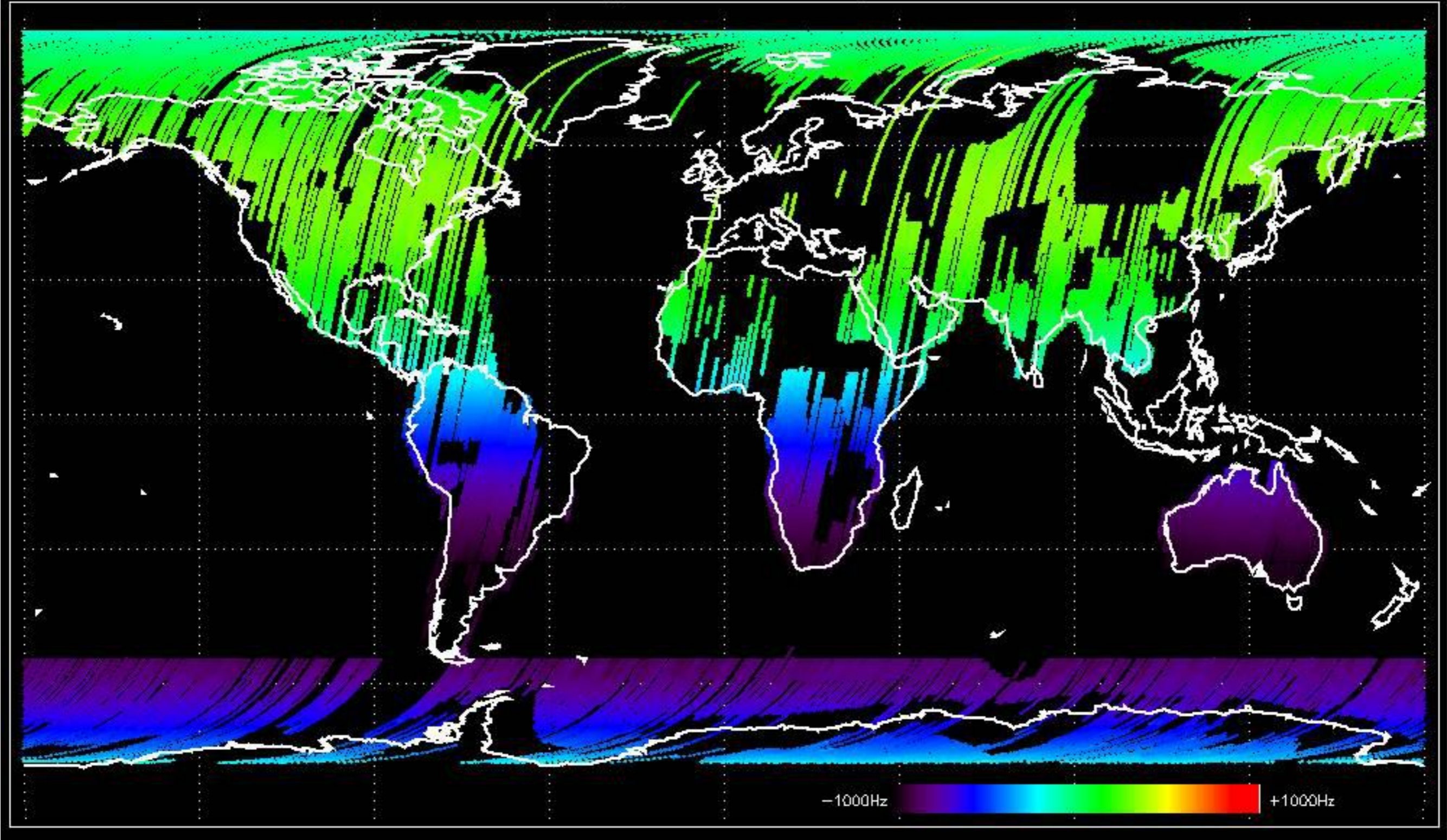


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

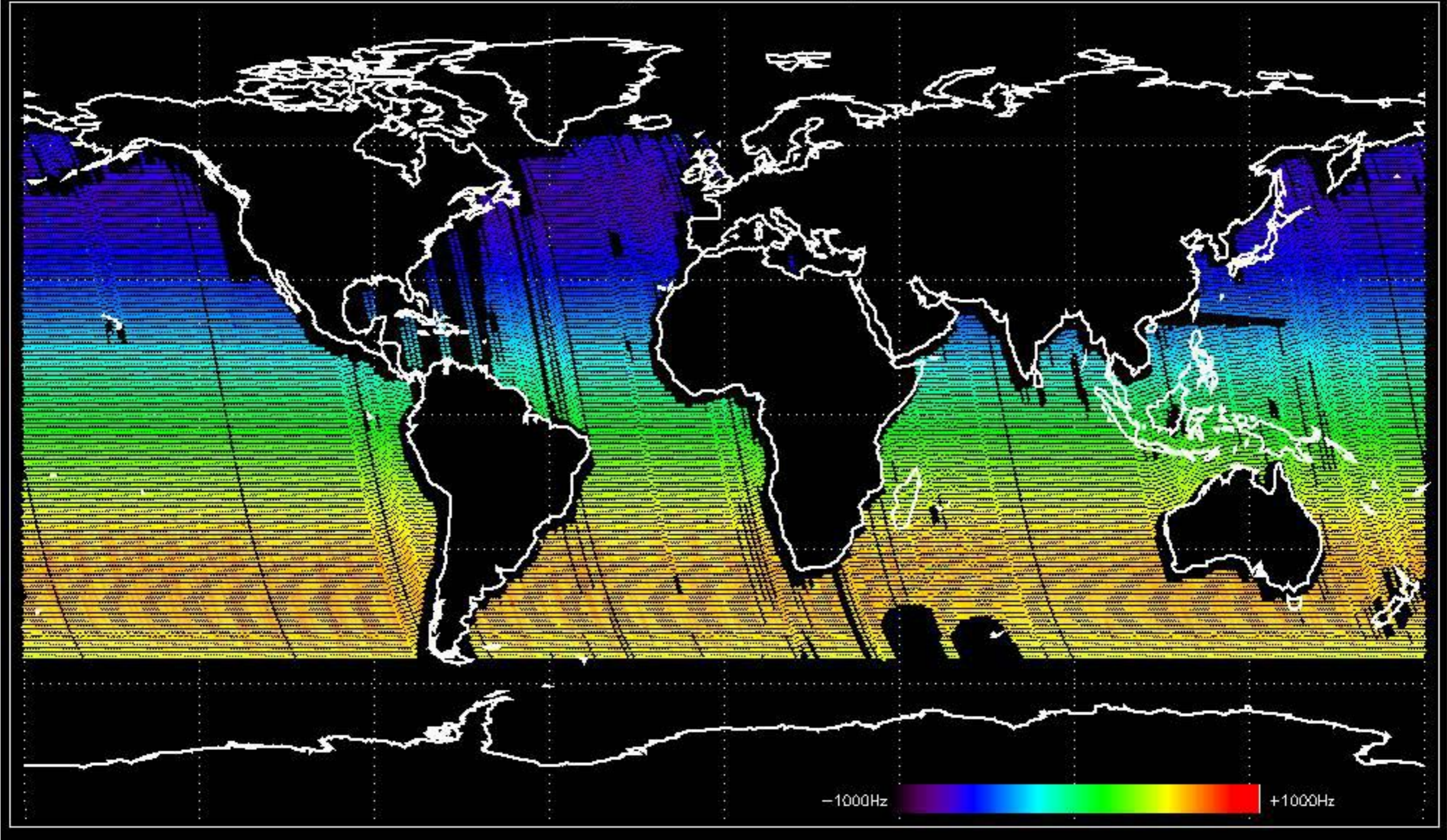
Doppler 'GM1' 'SS1' ascending



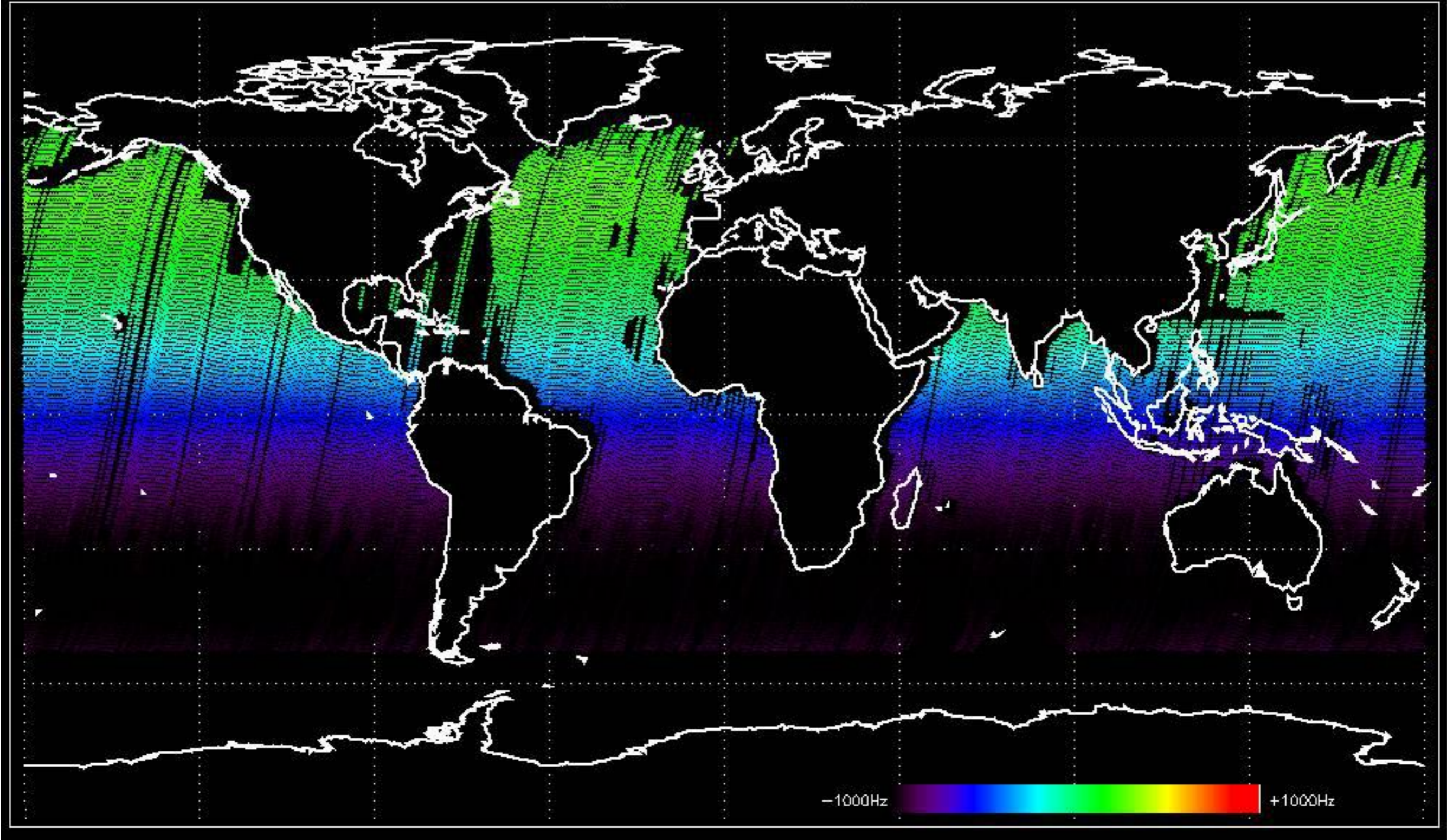
Doppler 'GM1' 'SS1' descending

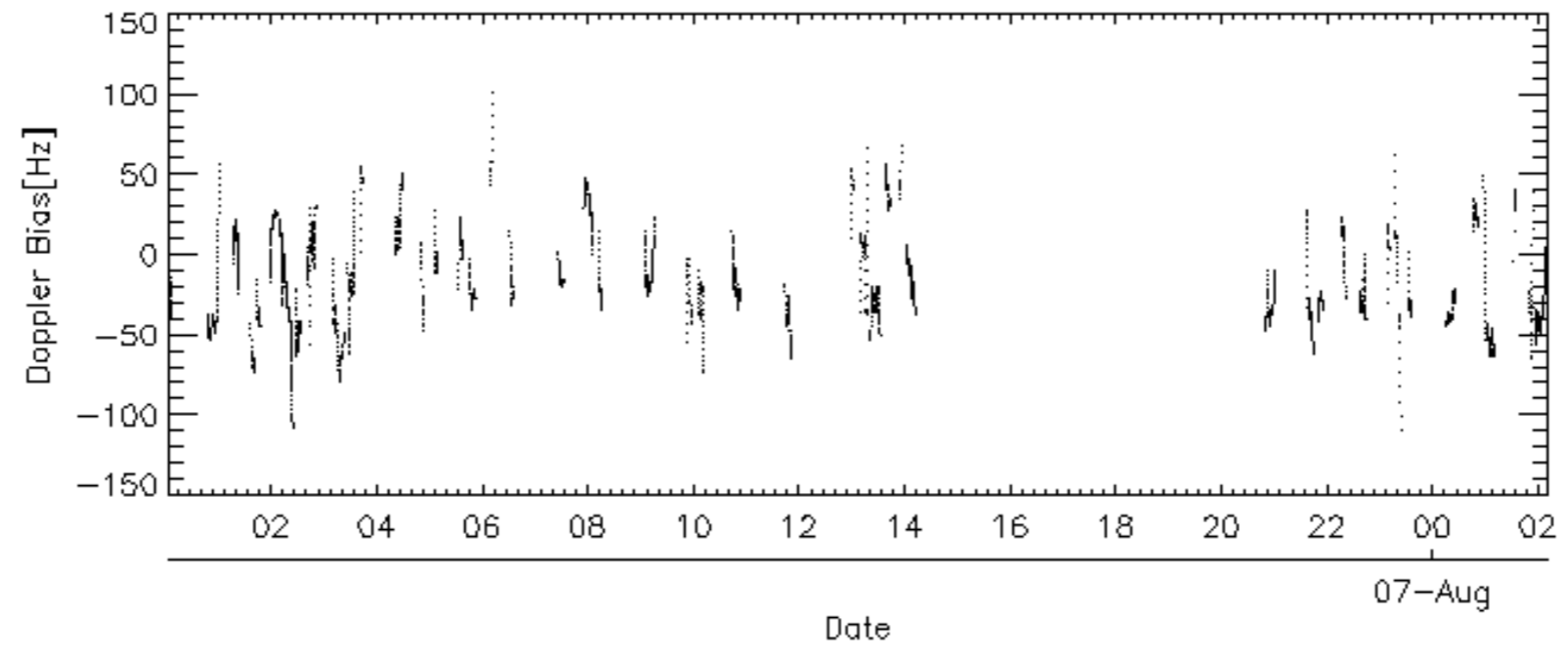
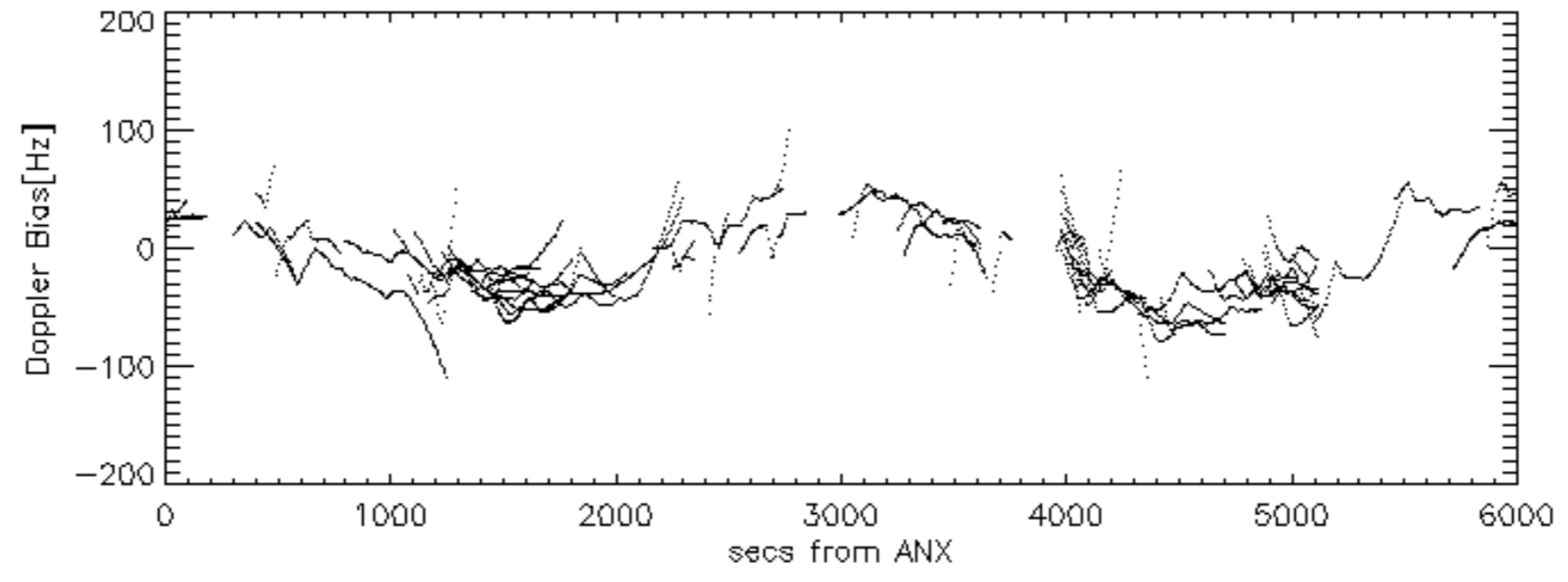
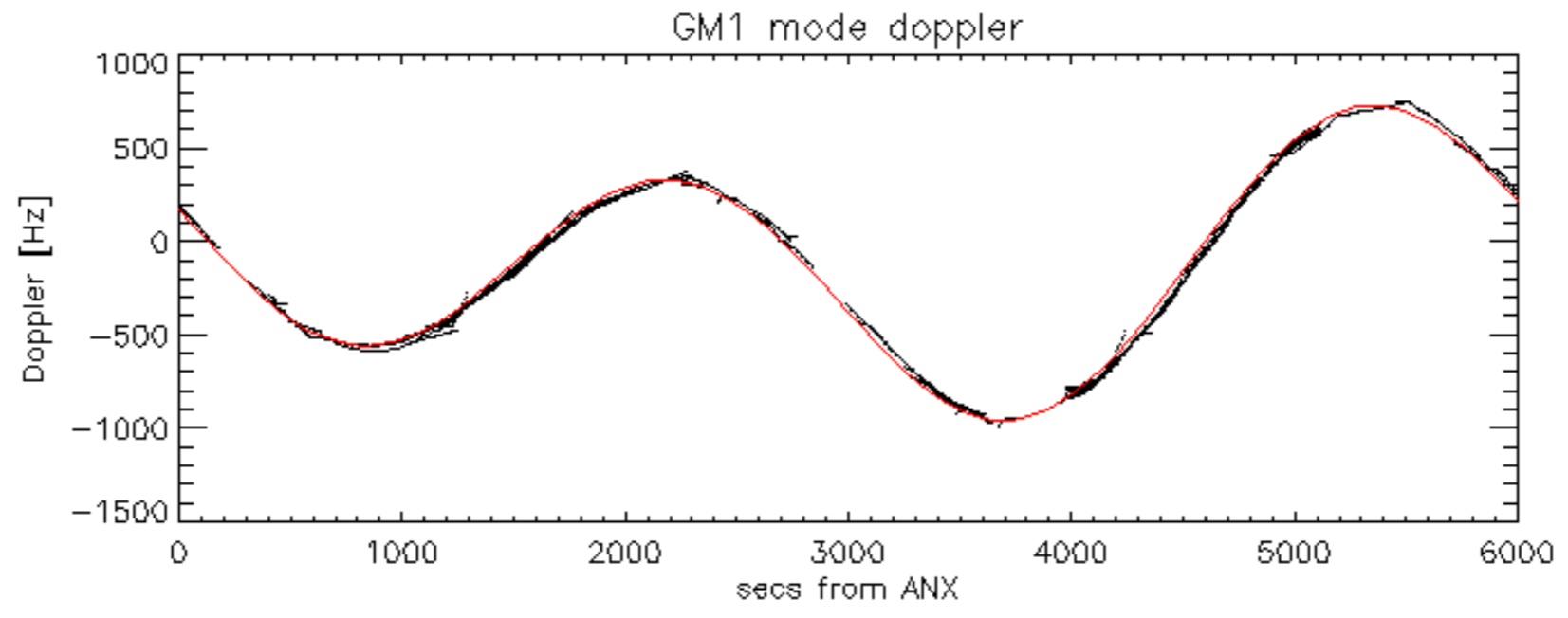


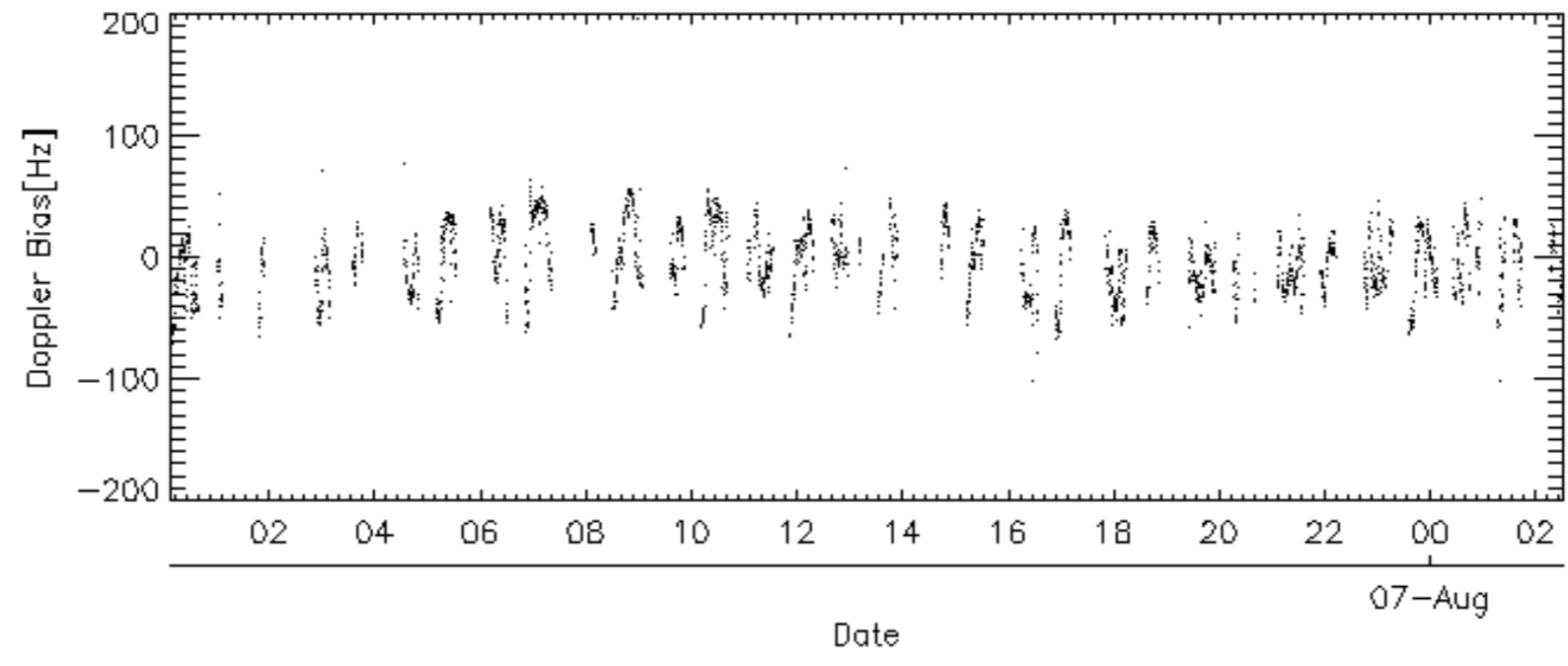
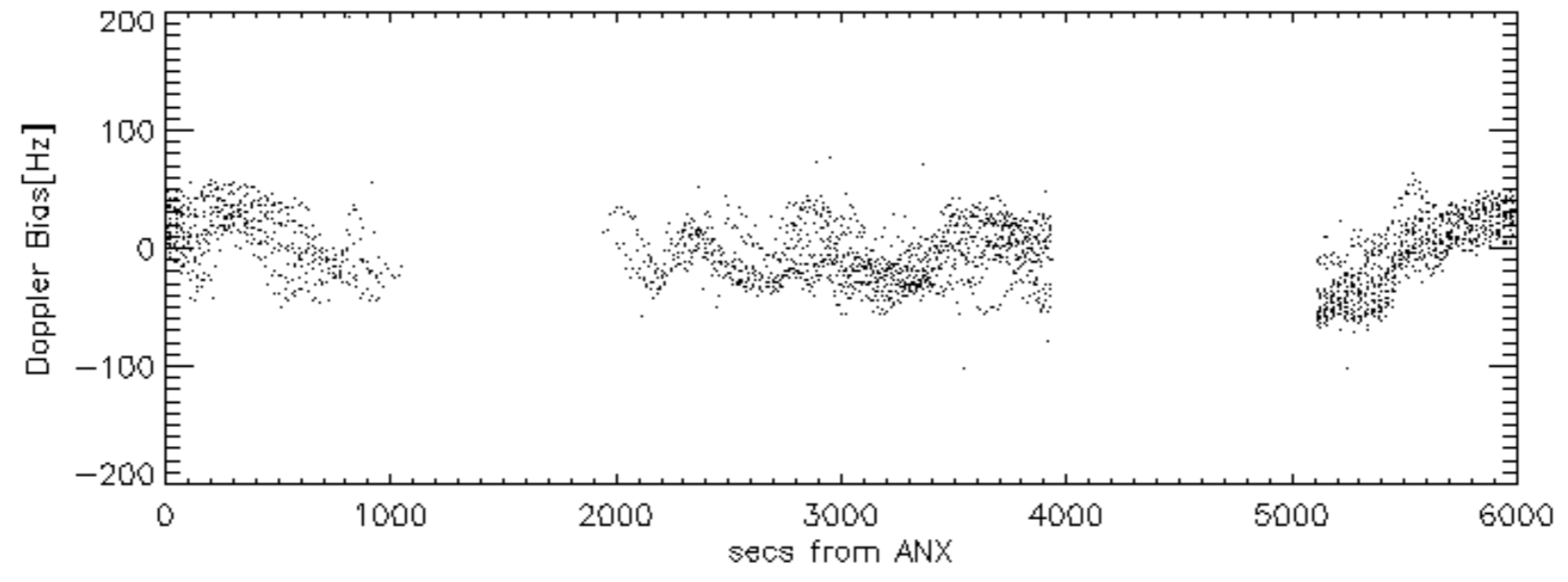
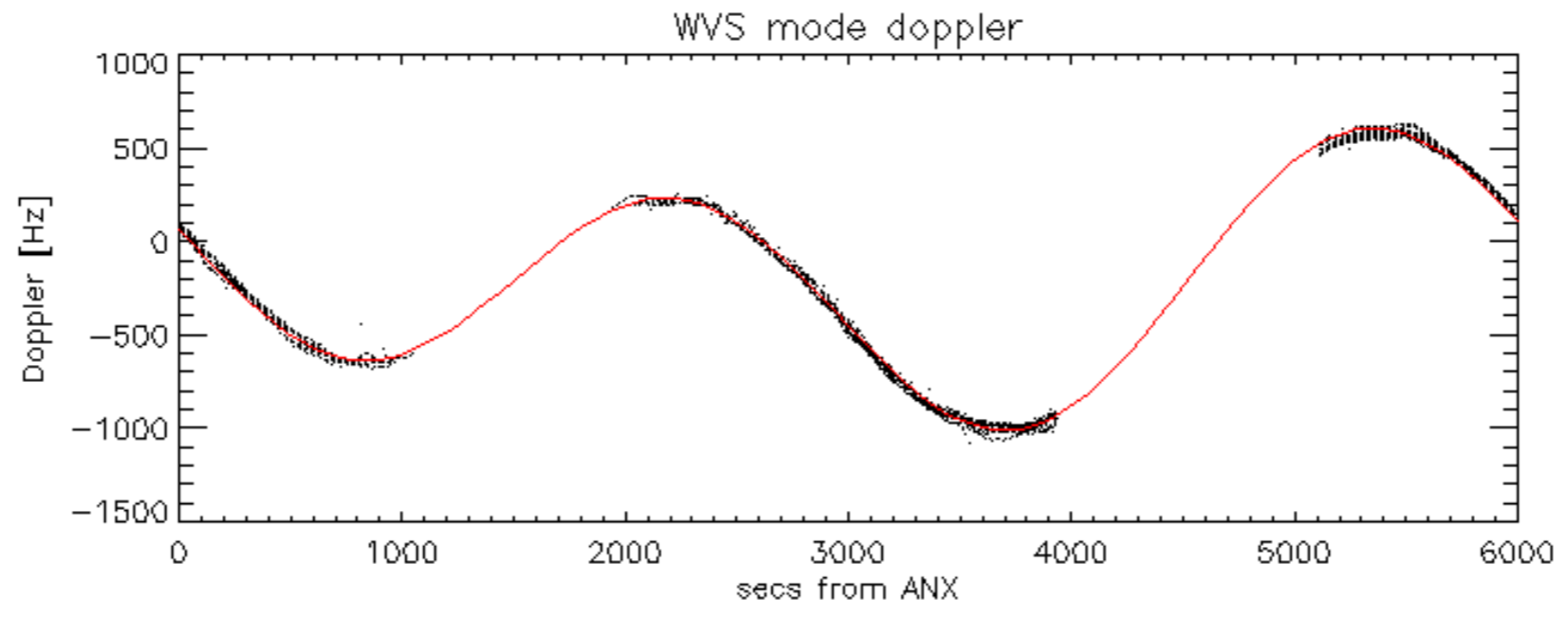
Doppler 'WVS' 'IS2' ascending



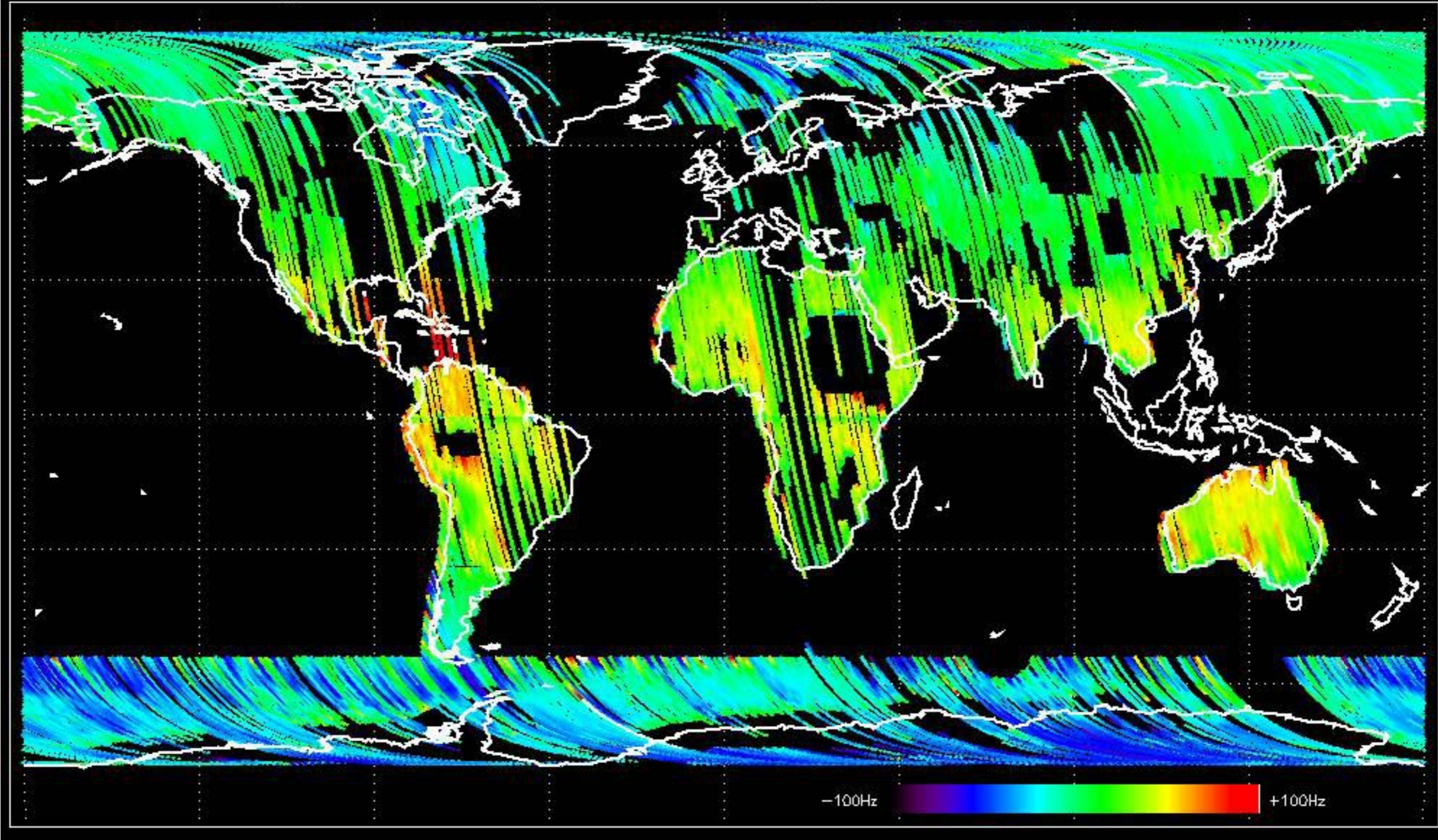
Doppler 'WVS' 'IS2' descending



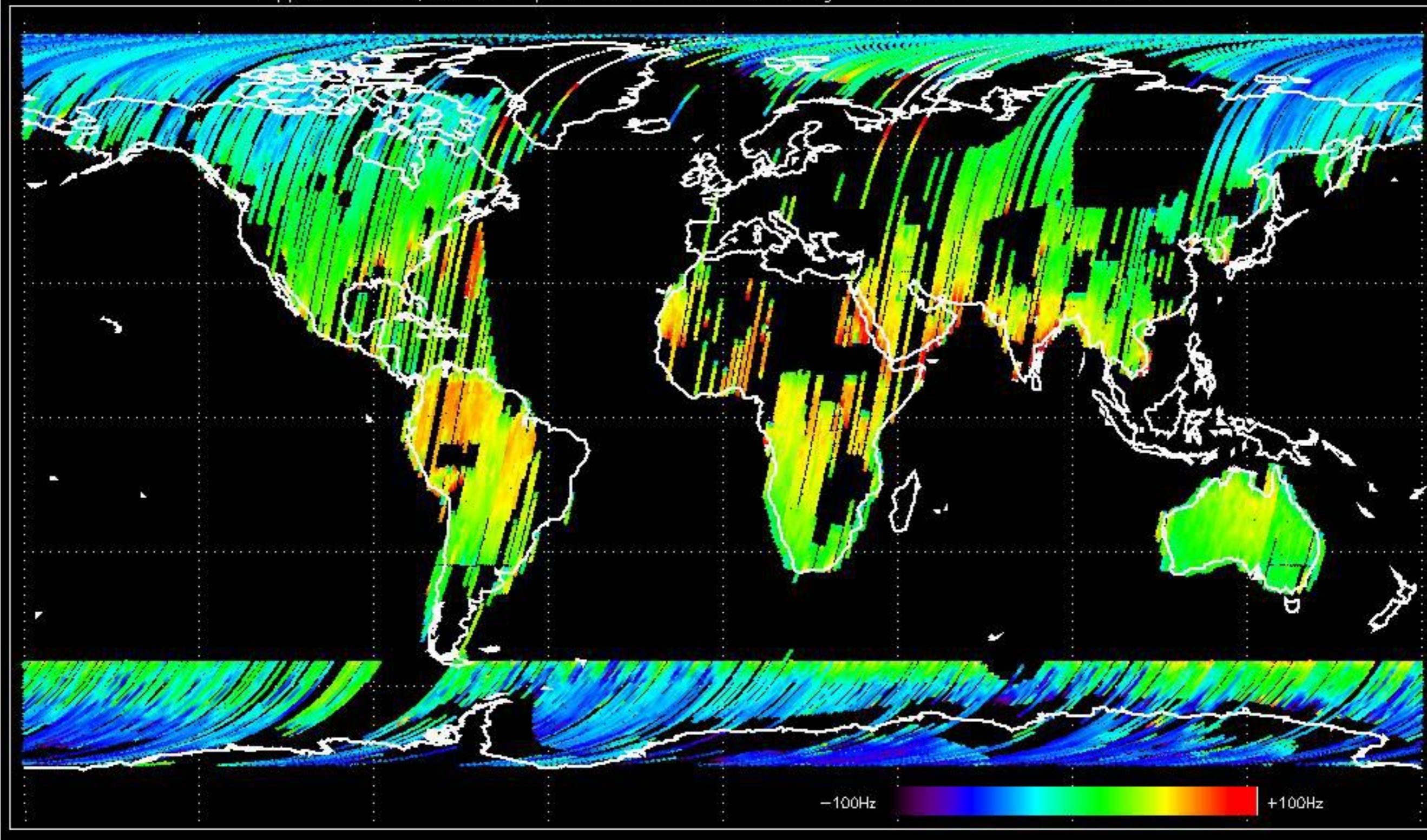




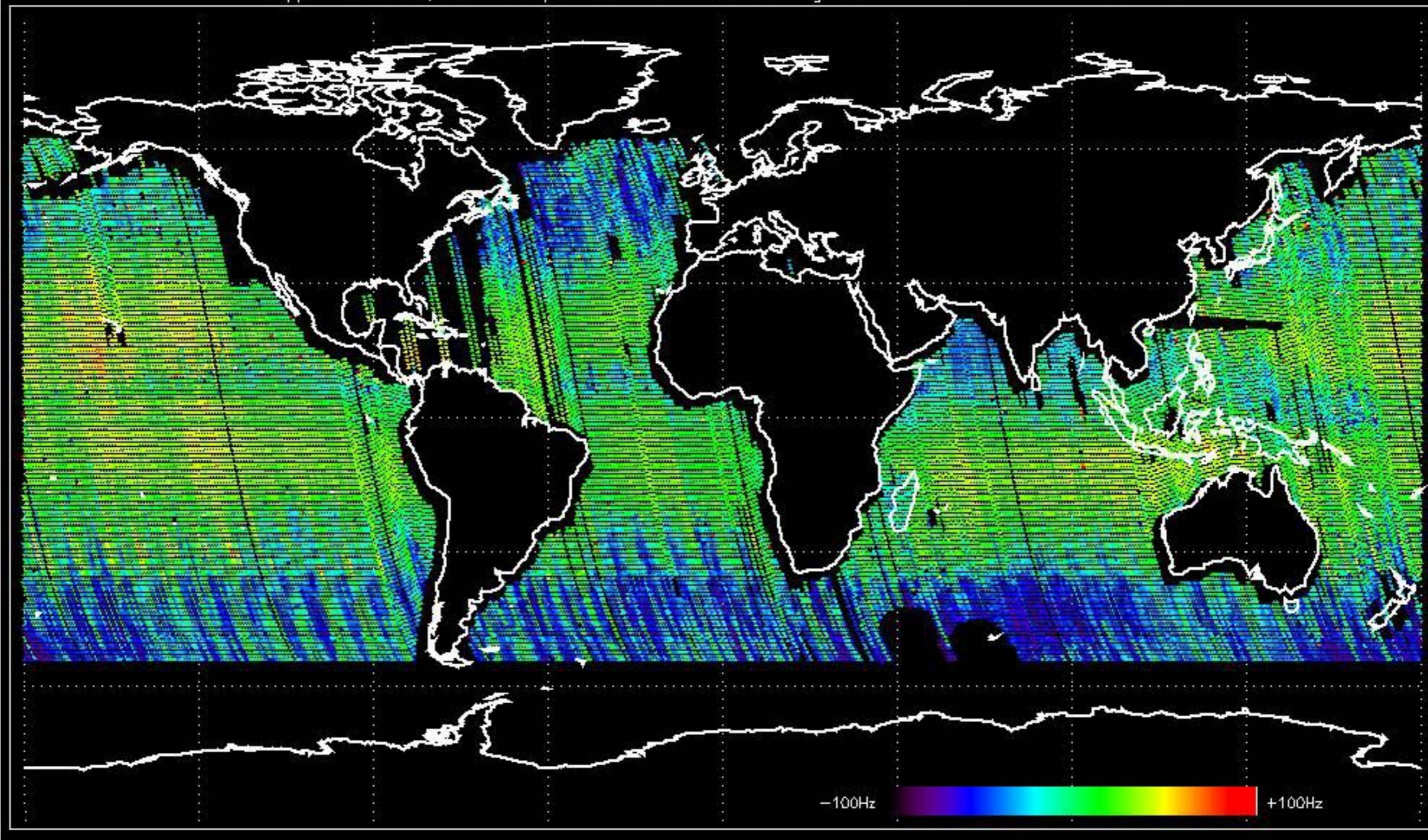
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.933847 Hz



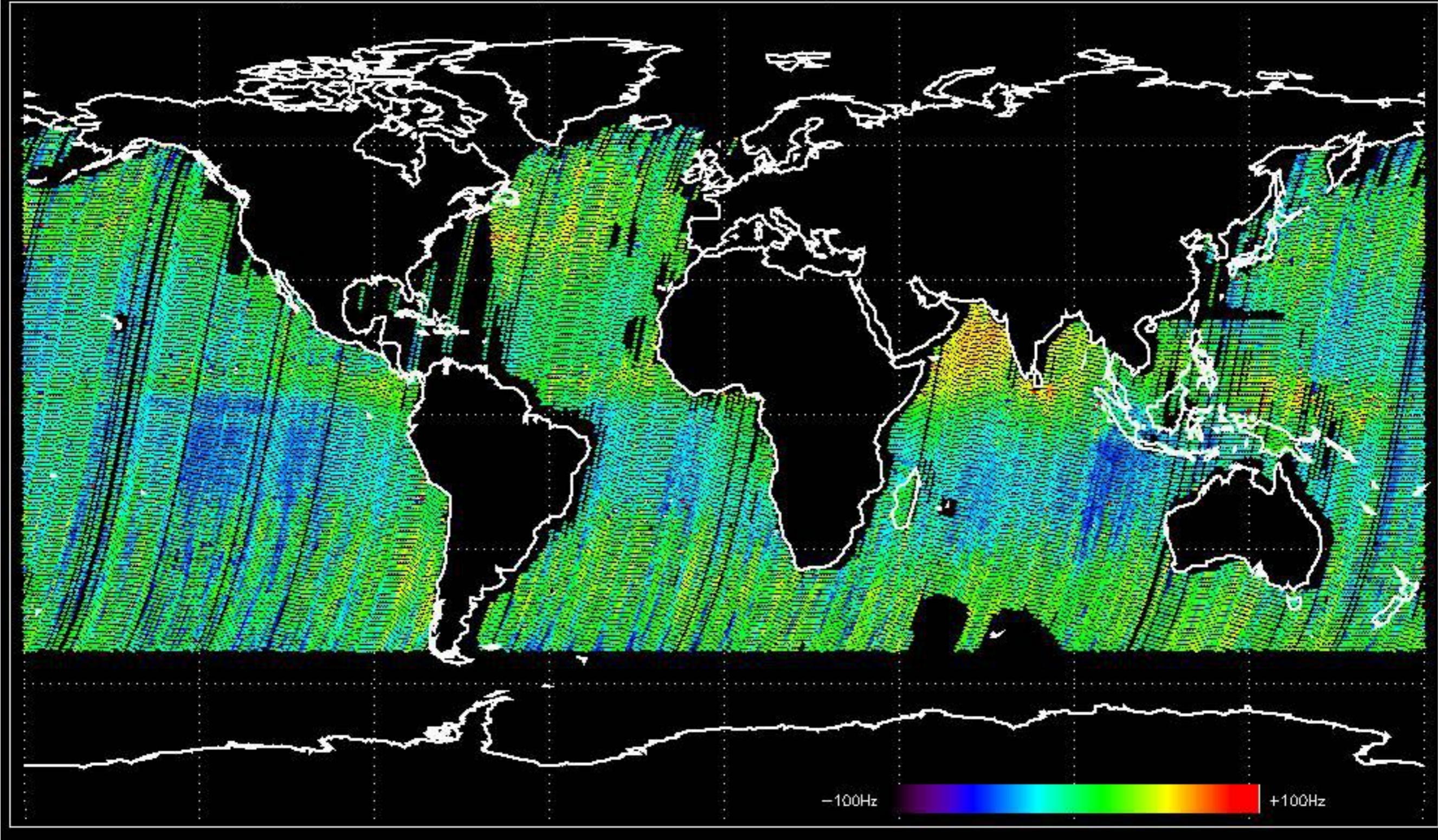
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.4397096 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.2771577 Hz

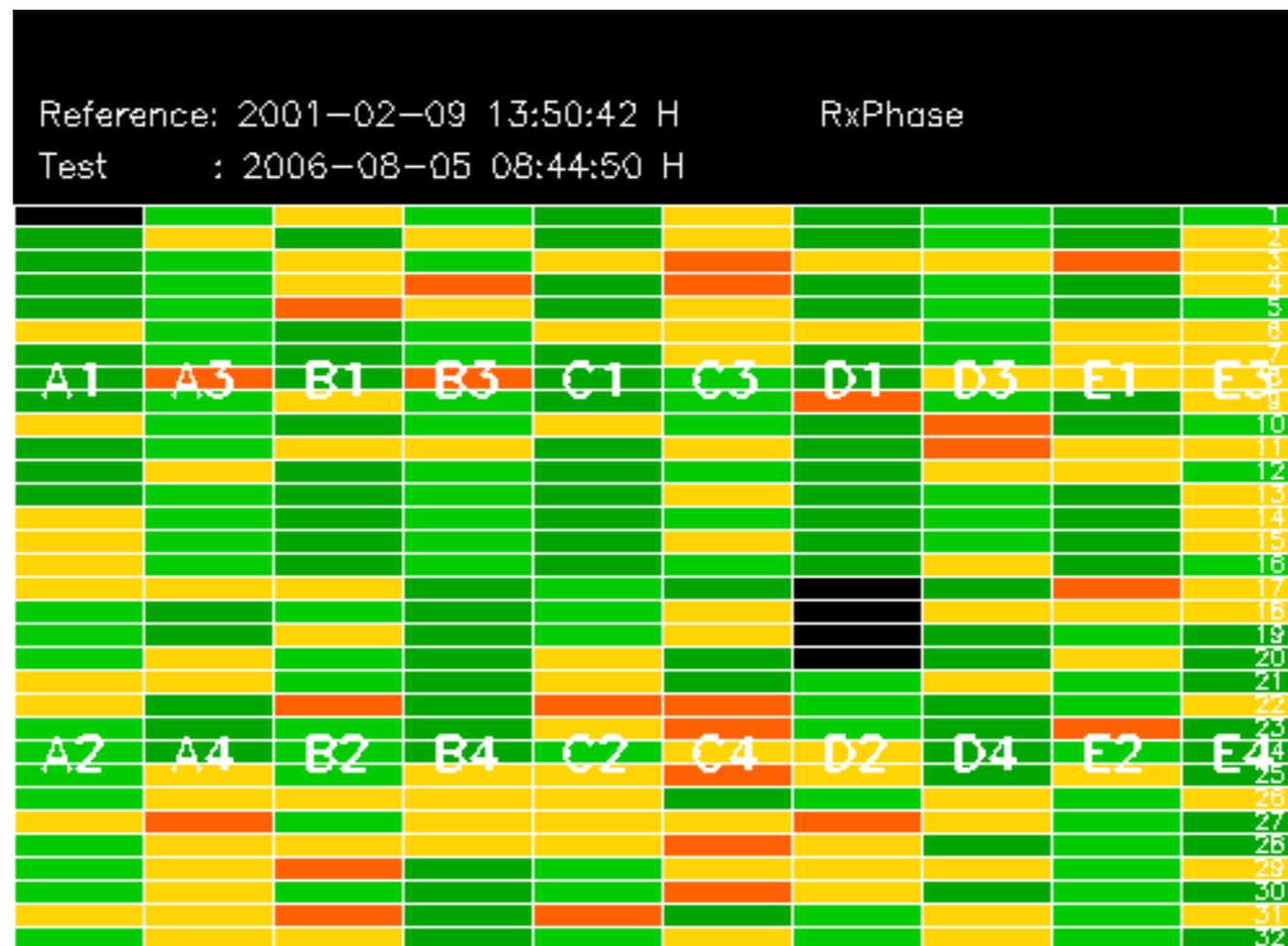


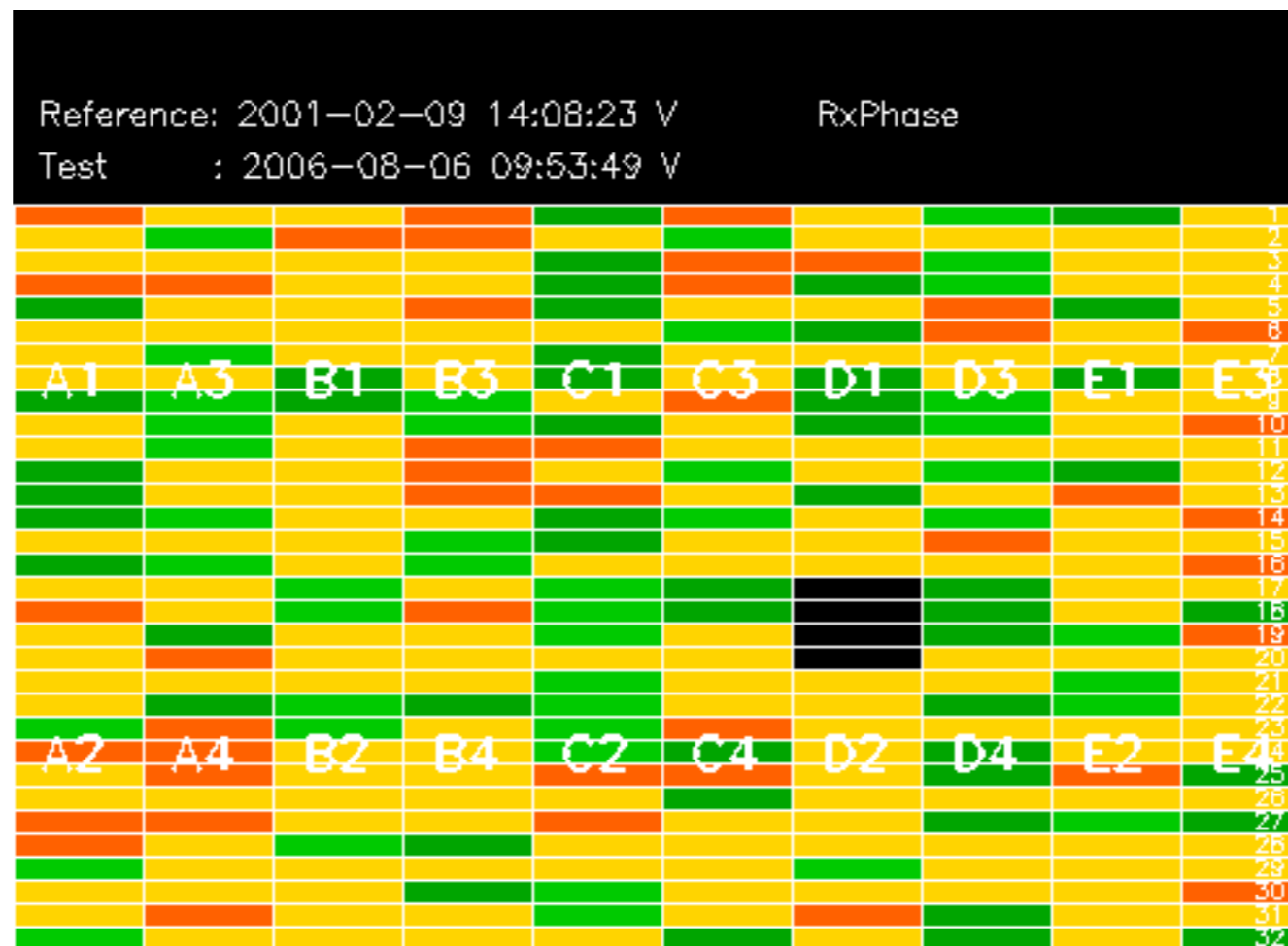
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.3282415 Hz

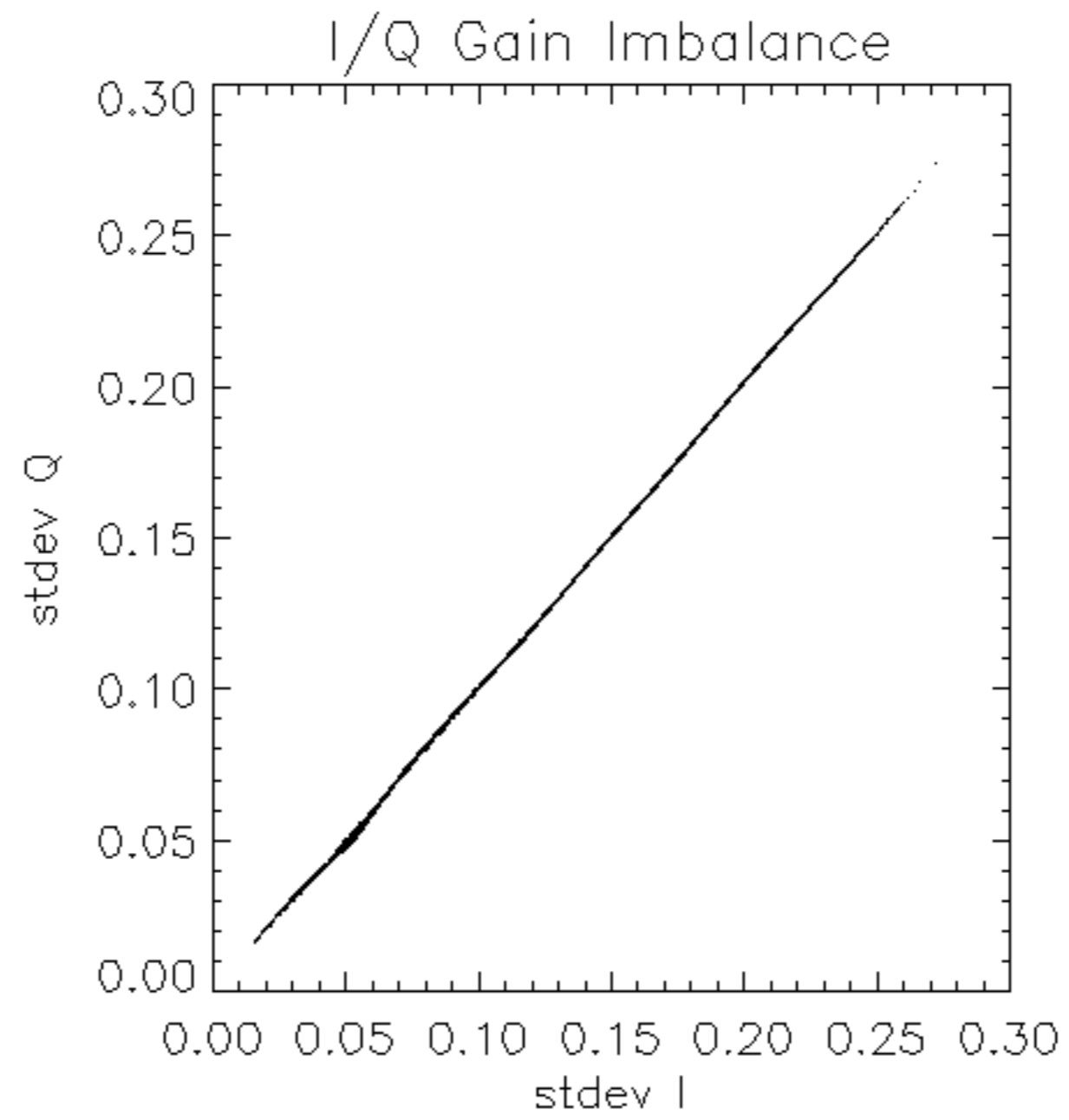


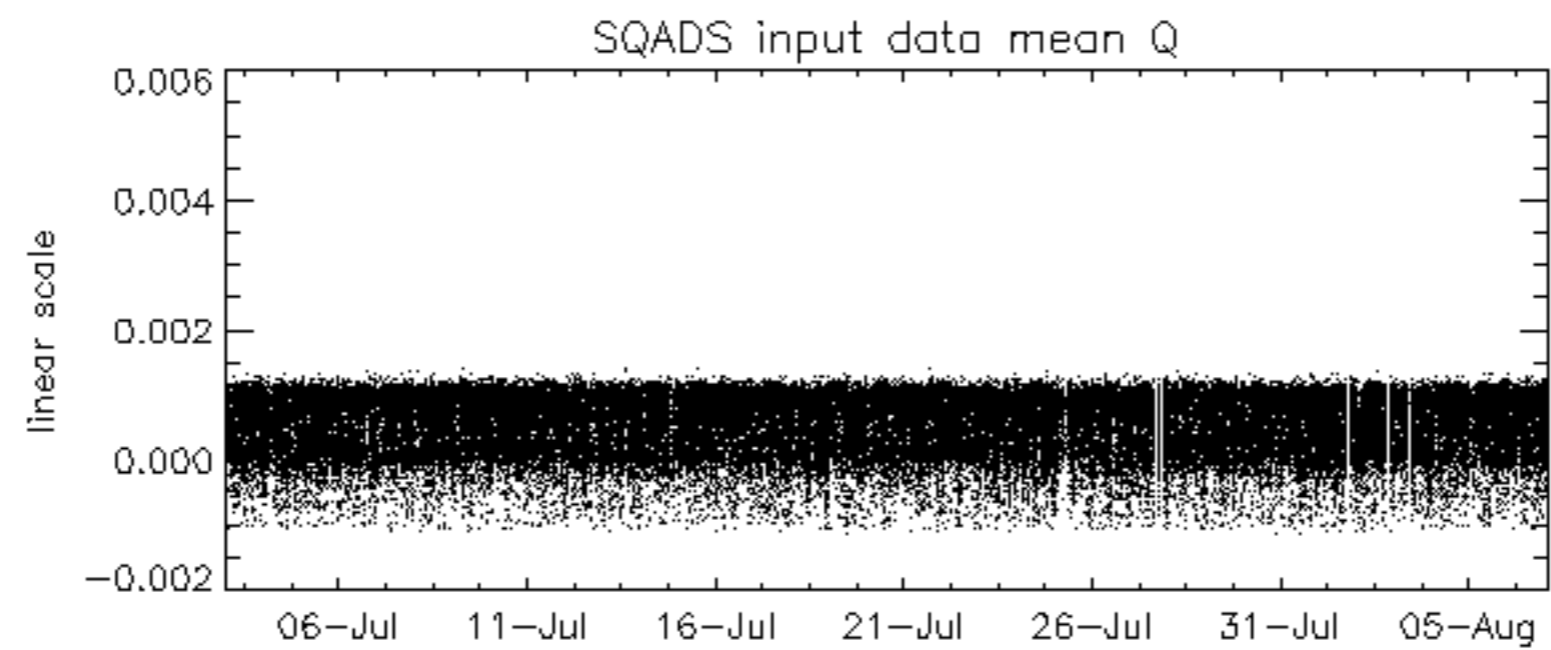
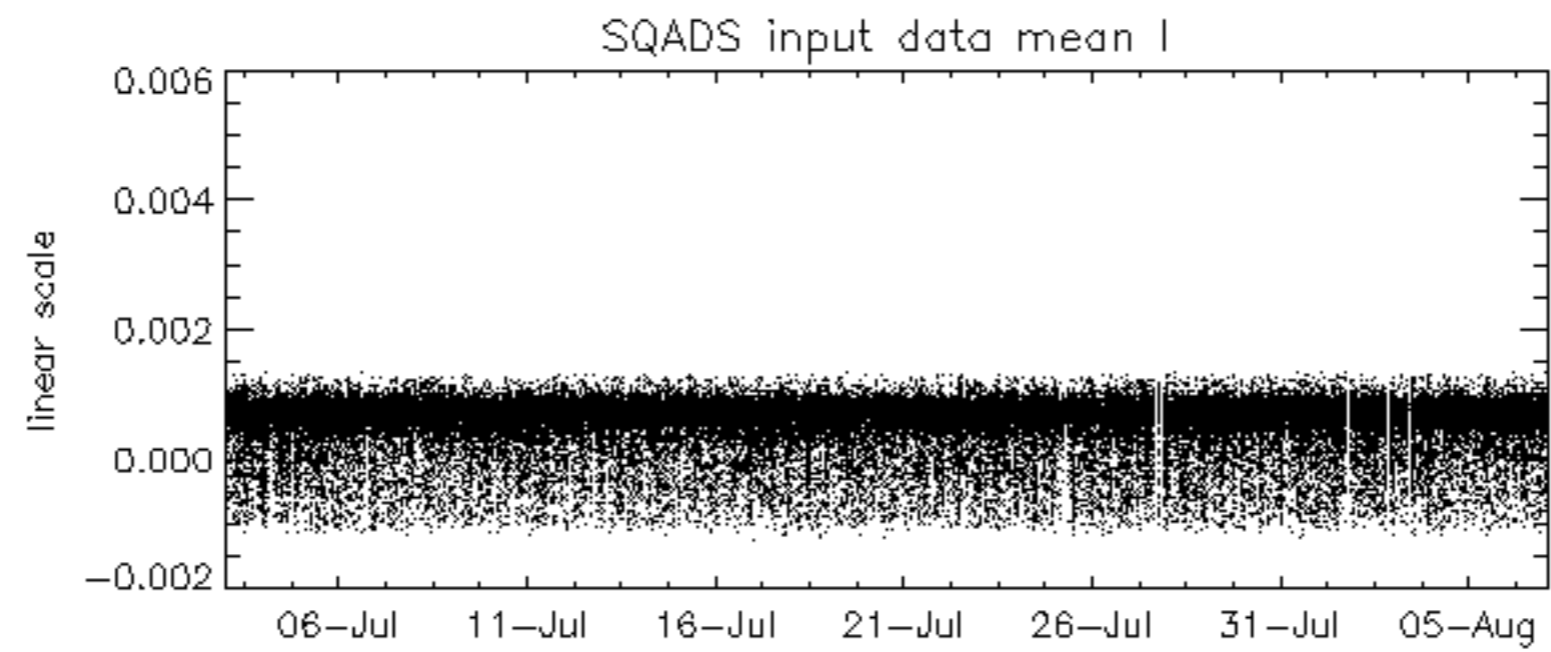
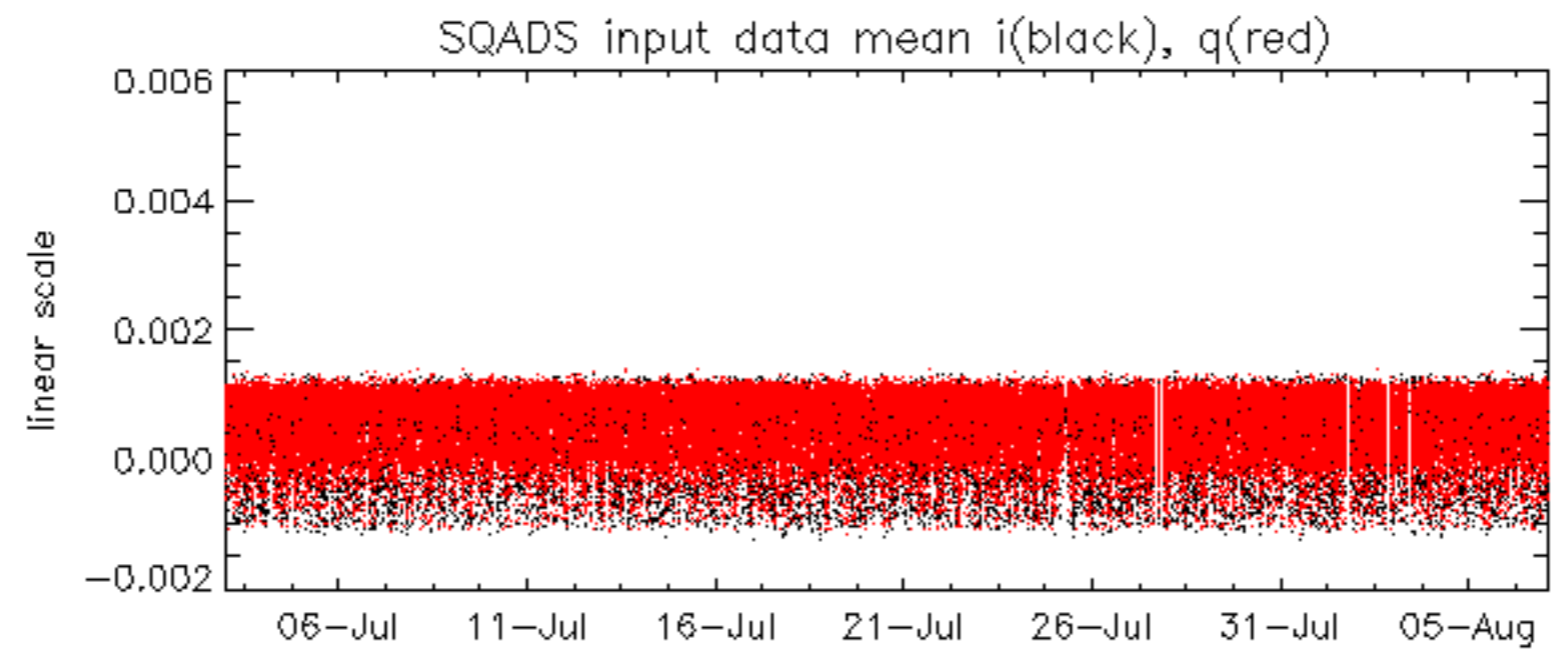
No anomalies observed on available MS products:

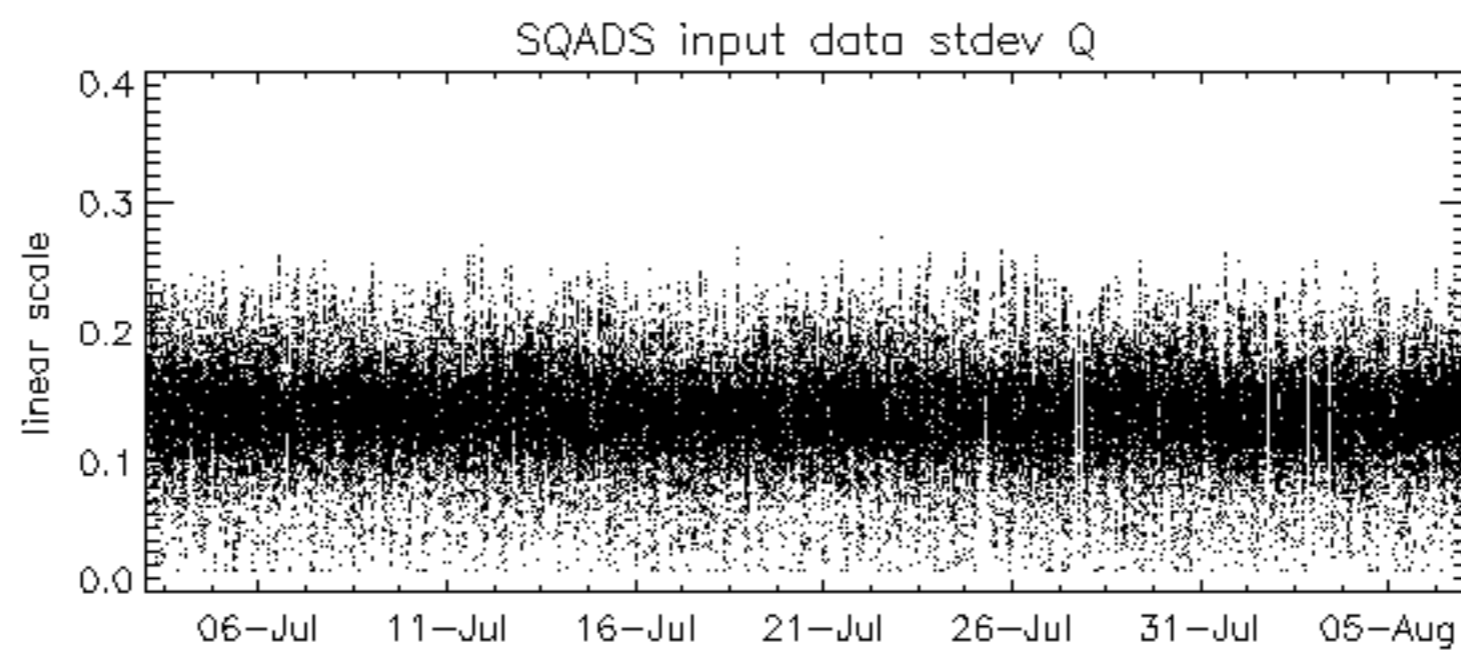
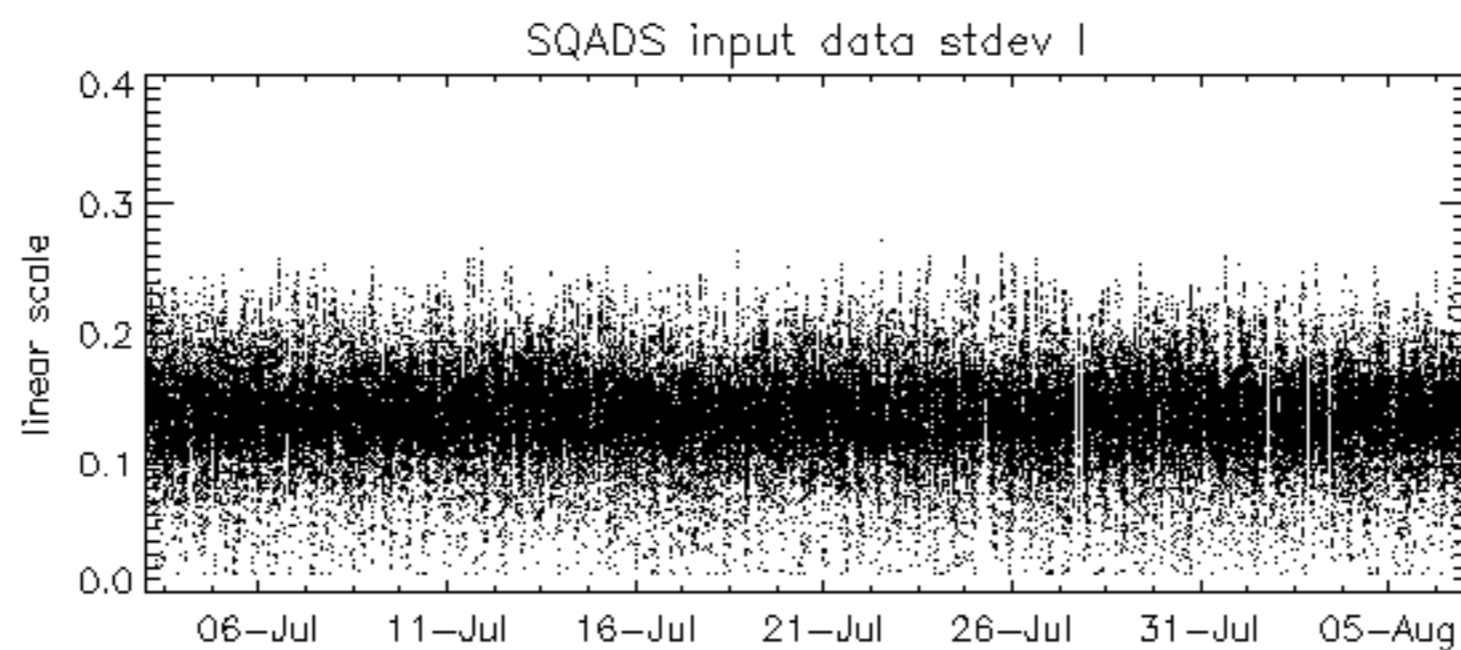
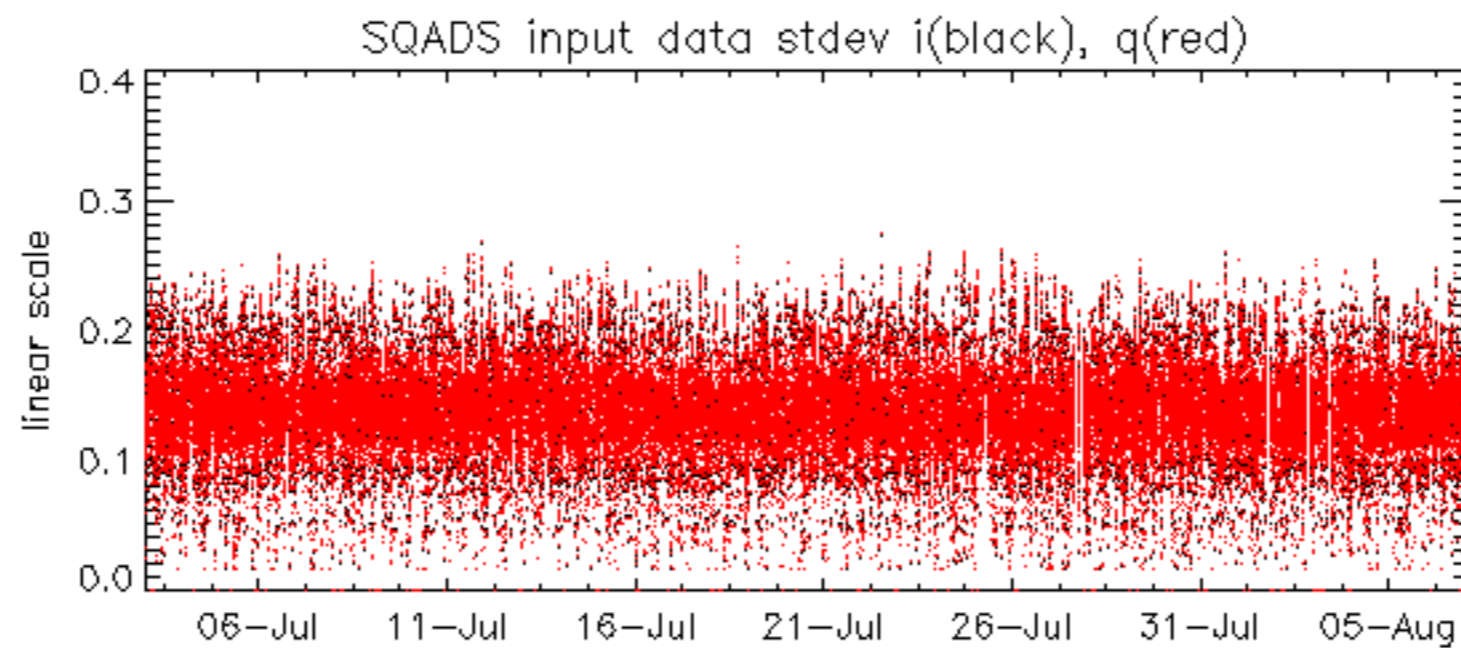
No anomalies observed.







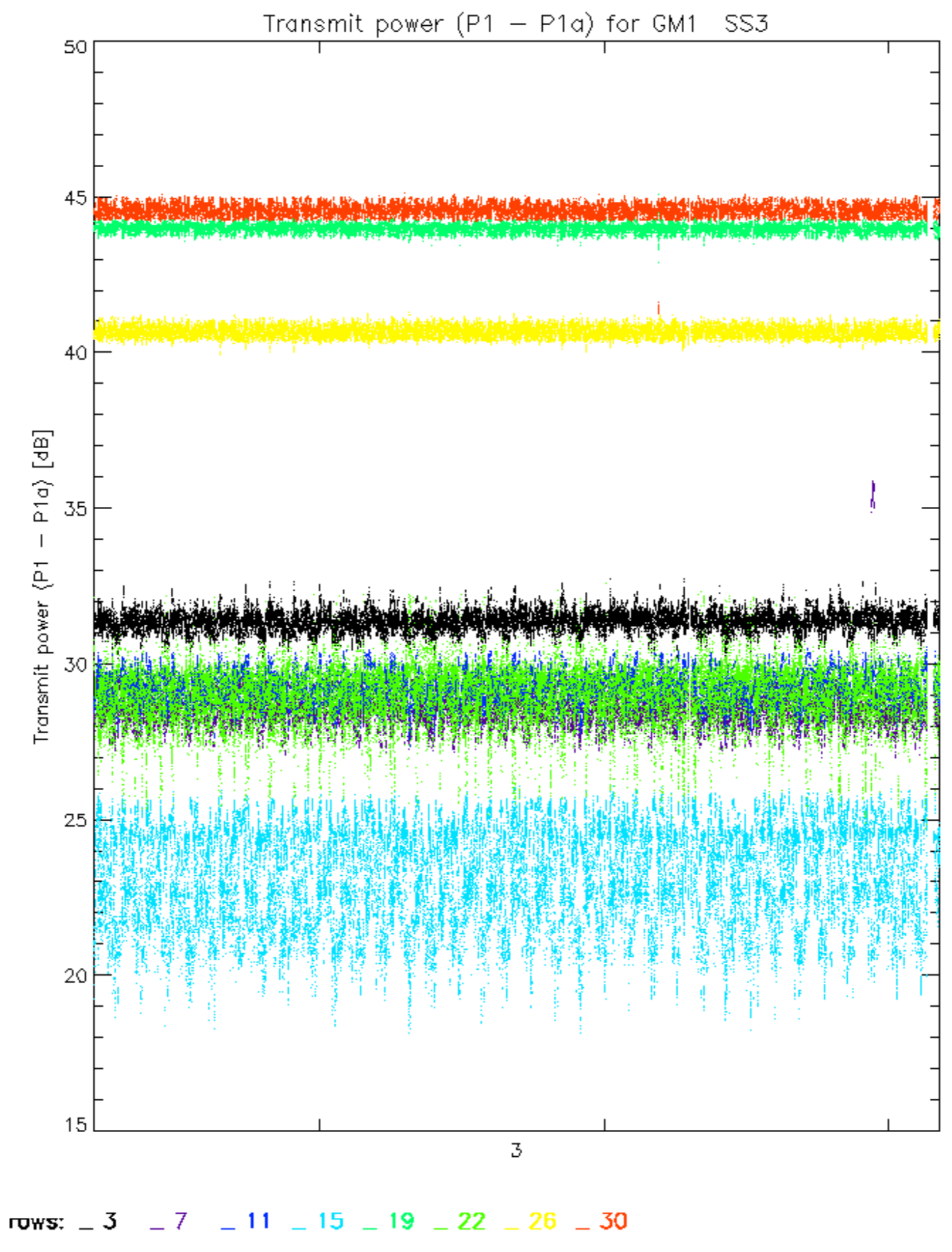


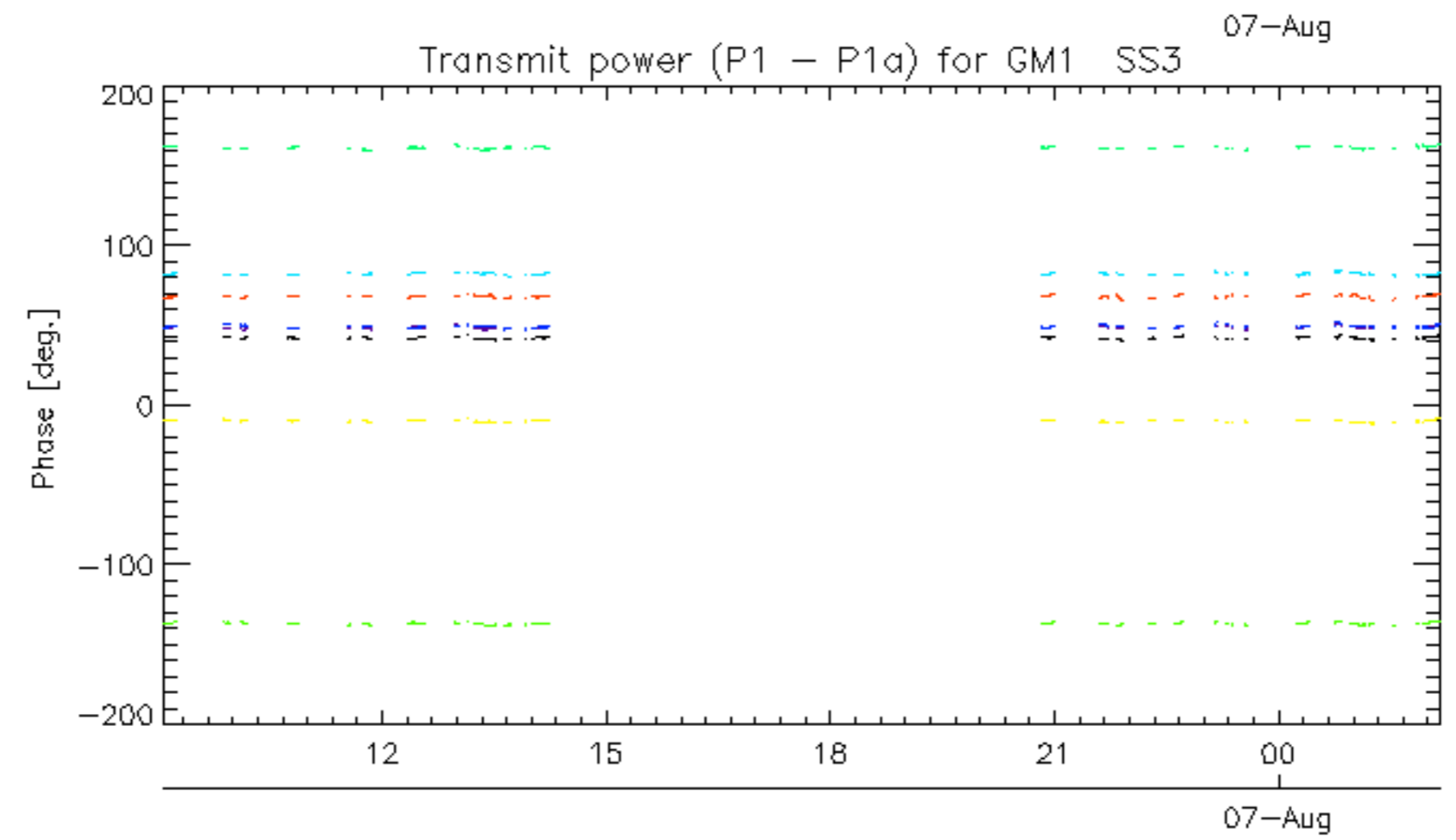
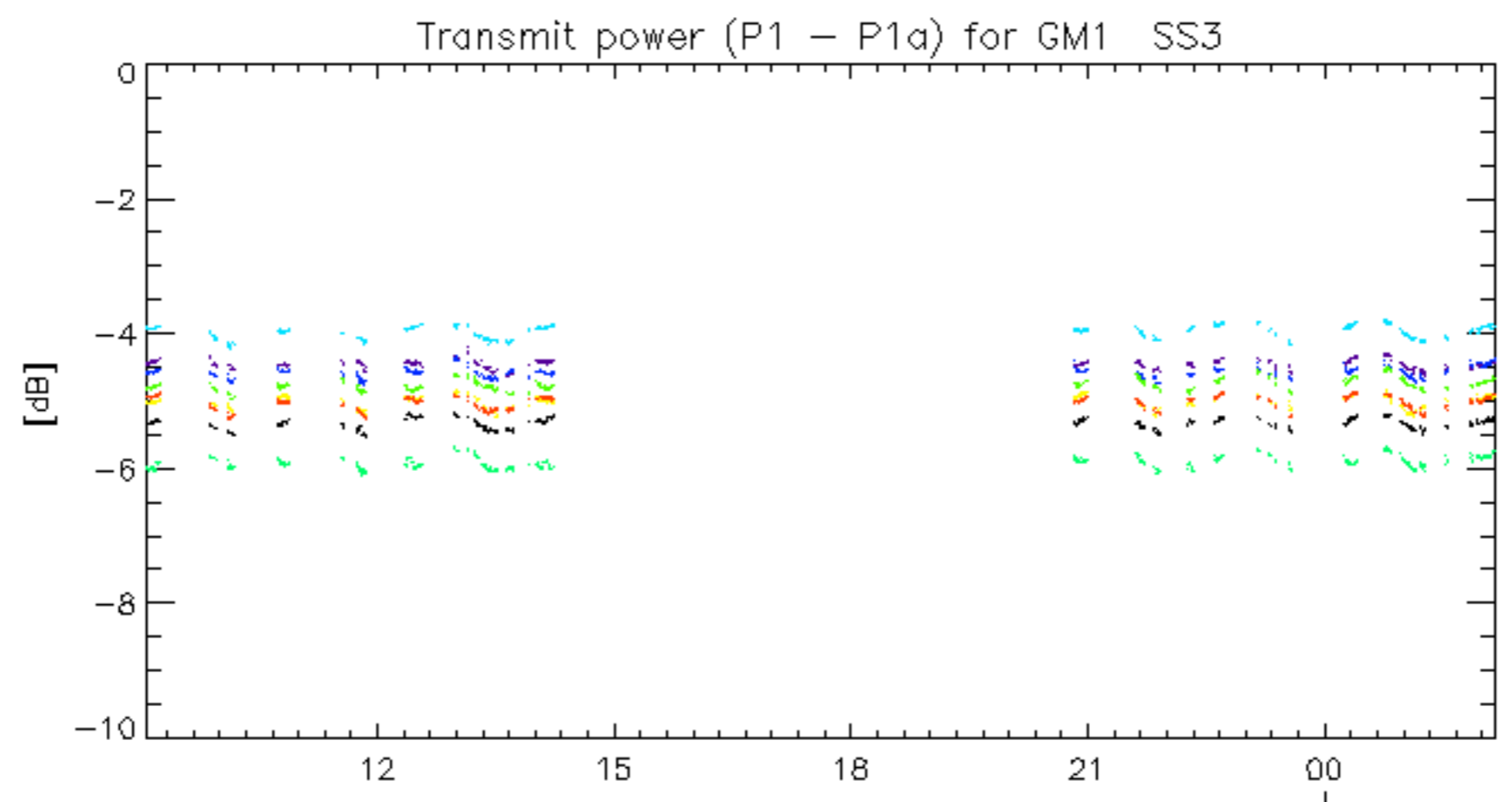


Summary of analysis for the last 3 days 2006080[567]

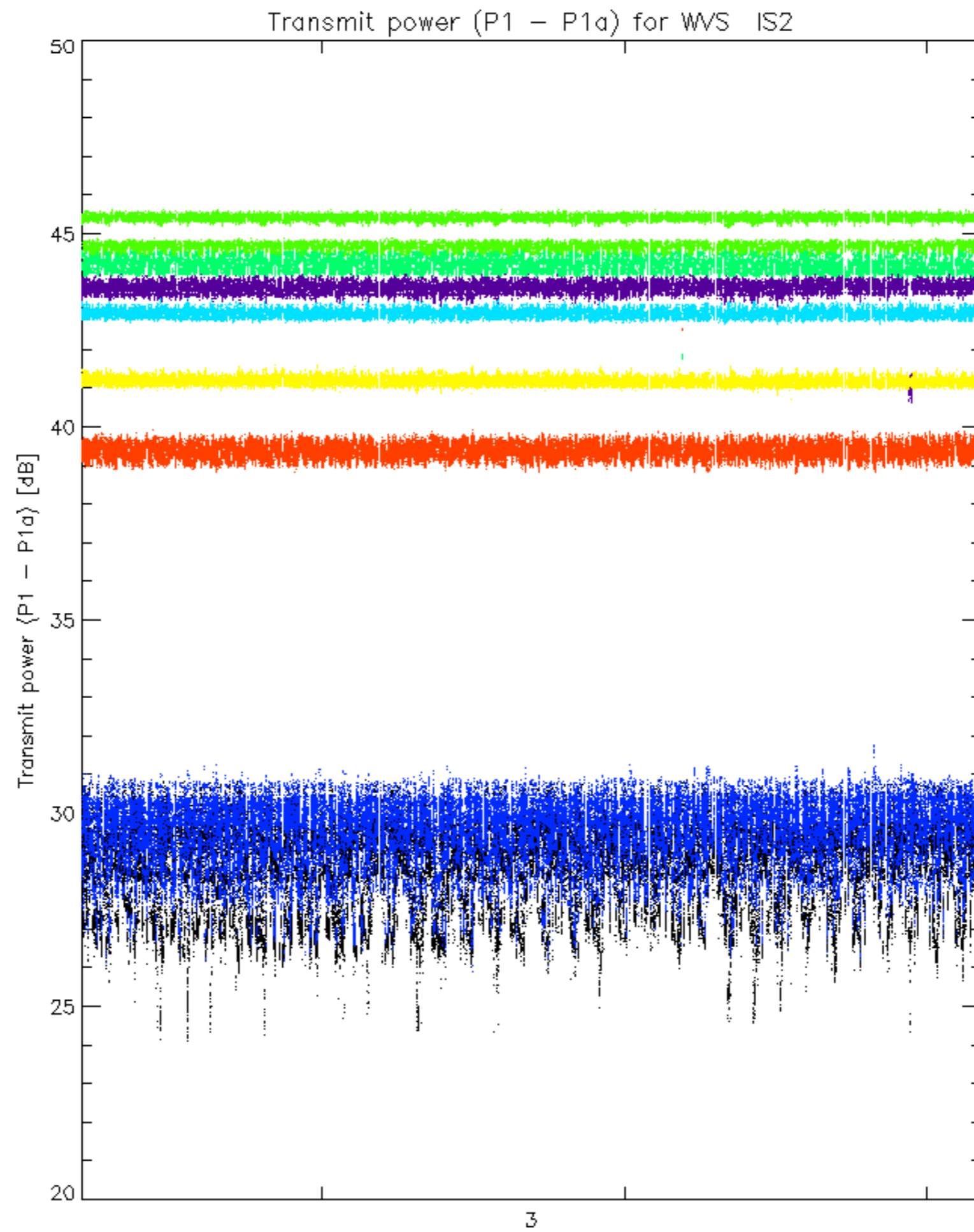
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060805_005031_000002372050_00059_23159_2980.N1	1	0
ASA_IMM_1PNPDE20060805_065012_000000362050_00063_23163_2992.N1	1	0
ASA_IMM_1PNPDE20060805_111216_000002182050_00066_23166_2998.N1	1	0
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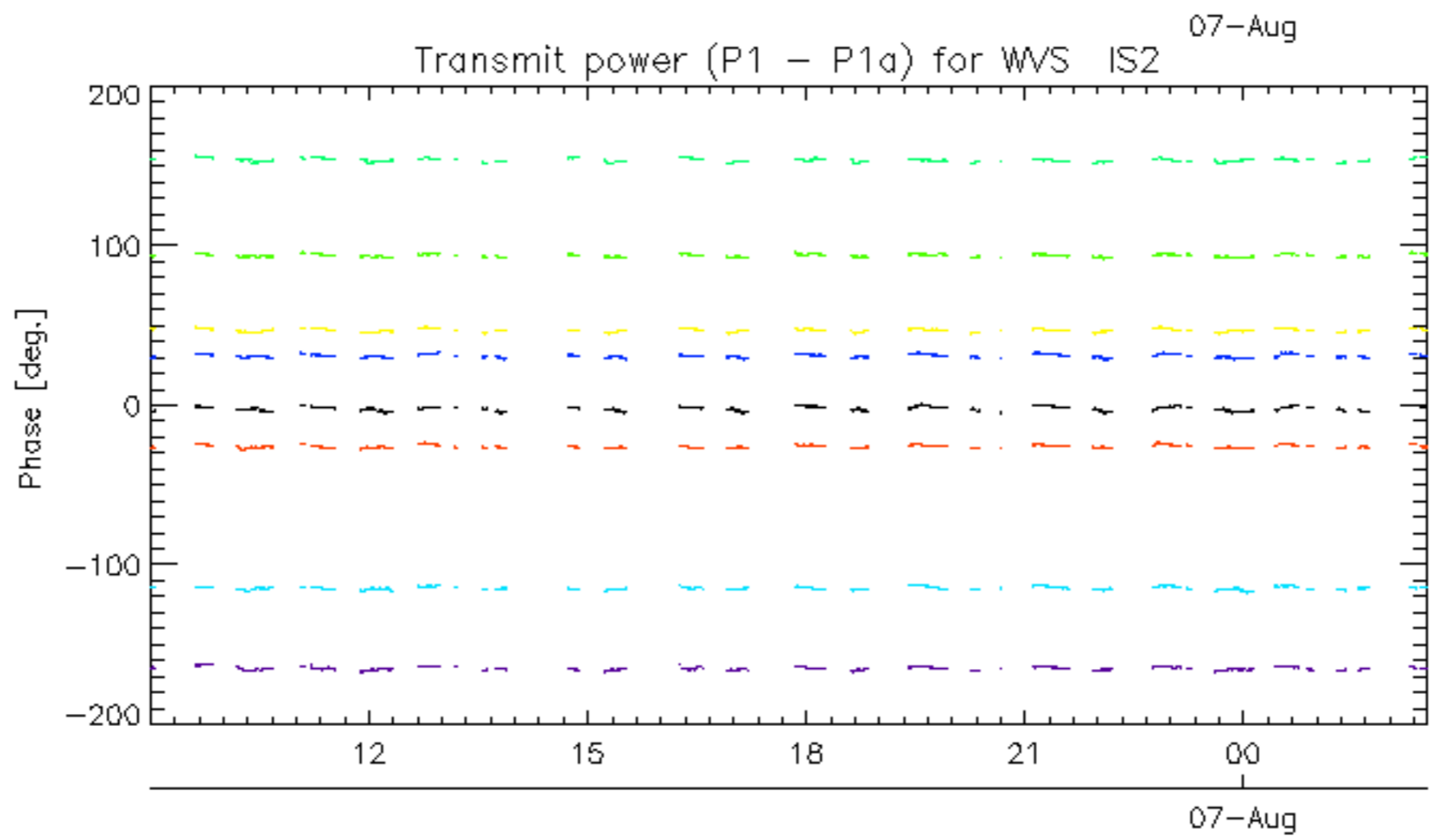
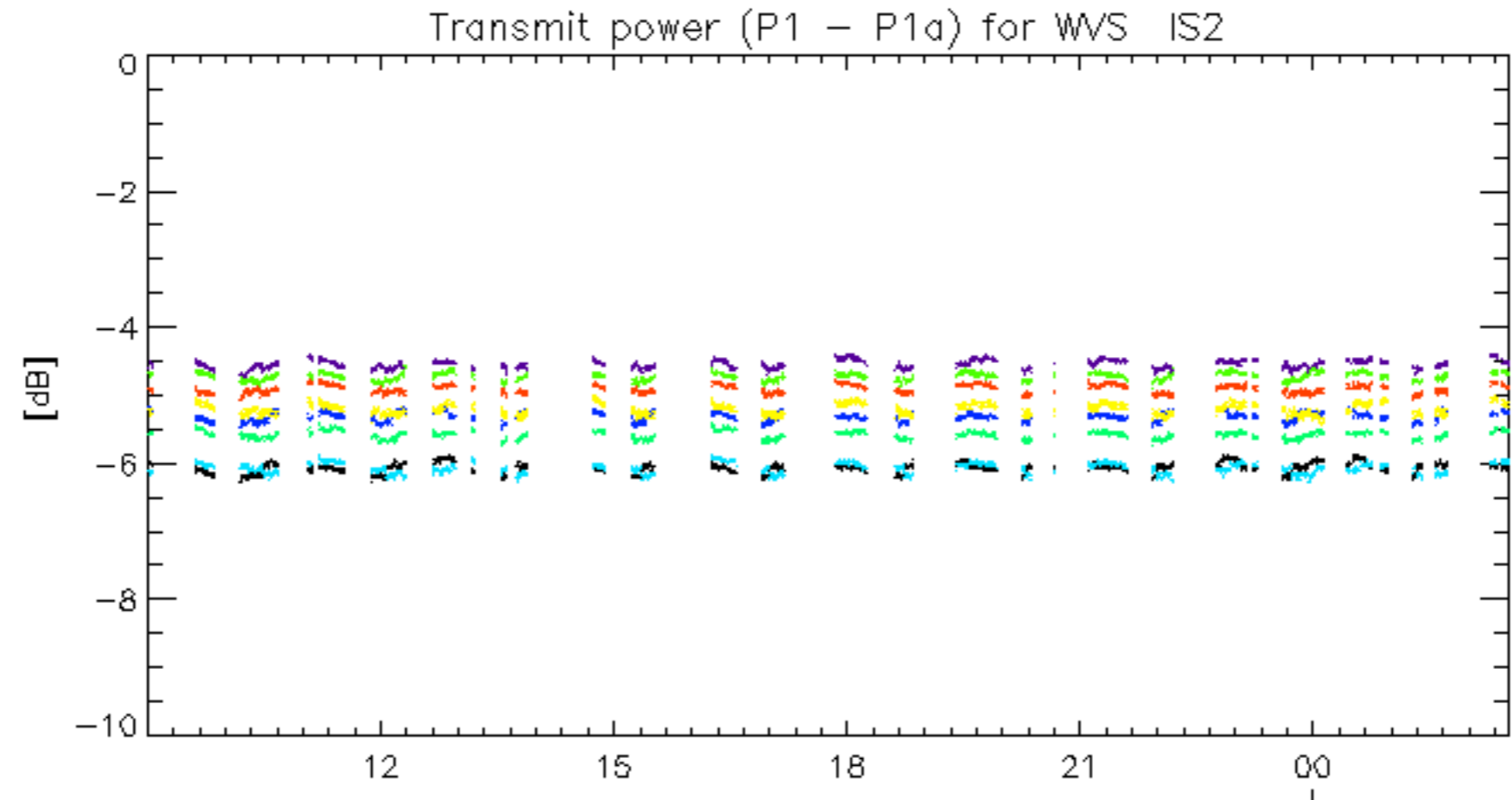




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No unavailabilities during the reported period.