

PRELIMINARY REPORT OF 060805

last update on Sat Aug 5 16:37:31 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 2006-08-04 00:00:00 to 2006-08-05 16:37:31

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	82	8	5	27
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	43	82	8	5	27
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	82	8	5	27
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	82	8	5	27

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	44	26	18	91
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	29	44	26	18	91
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	29	44	26	18	91
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	29	44	26	18	91

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	20060804 055515
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
<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	-3.938769	0.010336	-0.018714
7	P1	-3.103741	0.022906	-0.018152
11	P1	-4.083665	0.013674	0.008280
15	P1	-6.174201	0.011501	0.005413
19	P1	-3.411973	0.009988	-0.062472
22	P1	-4.553062	0.010075	-0.025206
26	P1	-3.924388	0.020065	0.013453
30	P1	-5.763835	0.009431	0.001029
3	P1	-16.533644	0.242373	-0.014719
7	P1	-17.184637	0.110911	0.066240
11	P1	-16.968855	0.283702	0.111399
15	P1	-13.091233	0.145724	0.119415
19	P1	-14.471627	0.053837	-0.069389
22	P1	-15.995837	0.430023	0.100128
26	P1	-15.115343	0.234987	0.004355
30	P1	-17.094555	0.338537	0.019440

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.949677	0.086690	0.129106
7	P2	-21.897461	0.103403	0.086453
11	P2	-15.783765	0.119494	0.040973
15	P2	-7.124287	0.098792	0.024713
19	P2	-9.130687	0.090442	0.015573
22	P2	-18.149694	0.085644	0.000604
26	P2	-16.400284	0.092236	-0.003104
30	P2	-19.513363	0.092166	0.044600

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173557	0.003078	0.003908
7	P3	-8.173557	0.003078	0.003908
11	P3	-8.173557	0.003078	0.003908
15	P3	-8.173557	0.003078	0.003908
19	P3	-8.173557	0.003078	0.003908
22	P3	-8.173557	0.003078	0.003908
26	P3	-8.173557	0.003078	0.003908
30	P3	-8.173557	0.003078	0.003908

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	-3.821023	0.008952	-0.016162
7	P1	-2.564116	0.030499	-0.020551
11	P1	-2.855085	0.014059	0.017658
15	P1	-3.577385	0.029235	-0.027098
19	P1	-3.423551	0.024418	-0.022962
22	P1	-5.086865	0.019865	0.016080
26	P1	-5.860030	0.015930	-0.004762
30	P1	-5.196864	0.033254	-0.006478
3	P1	-11.613515	0.044268	-0.028285
7	P1	-9.965354	0.035191	0.030783
11	P1	-10.248495	0.055538	-0.002190
15	P1	-10.755833	0.145285	0.017201
19	P1	-15.556067	0.504496	-0.093759
22	P1	-20.911623	1.276523	0.015233
26	P1	-16.260698	0.383368	0.194699
30	P1	-17.940096	0.411201	-0.121941

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.581694	0.070024	0.177854
7	P2	-22.368071	0.121521	0.136564
11	P2	-11.034089	0.041275	0.069280
15	P2	-4.903419	0.045126	0.034104
19	P2	-6.869467	0.040486	0.017273
22	P2	-8.192094	0.035733	0.012595
26	P2	-24.181709	0.059939	0.005313
30	P2	-22.002348	0.048732	0.043810

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.011870	0.003761	0.008926
7	P3	-8.011858	0.003766	0.008955
11	P3	-8.011770	0.003771	0.008405
15	P3	-8.011909	0.003764	0.008599
19	P3	-8.011828	0.003771	0.008846
22	P3	-8.011954	0.003756	0.008598
26	P3	-8.011913	0.003756	0.008658
30	P3	-8.011860	0.003766	0.008463

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	0.000561138
	stdev	1.71809e-07
MEAN Q	mean	0.000536461
	stdev	2.15129e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137447
	stdev	0.00109464
STDEV Q	mean	0.137802
	stdev	0.00111244



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006080[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_1PNPDE20060804_054400_000000352050_00048_23148_2915.N1	1	0
ASA_IMM_1PNPDE20060805_005031_000002372050_00059_23159_2980.N1	1	0
ASA_IMM_1PNPDE20060805_065012_000000362050_00063_23163_2992.N1	1	0
ASA_WSM_1PNPDE20060804_181615_000002202050_00056_23156_5846.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)


Ascending

<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

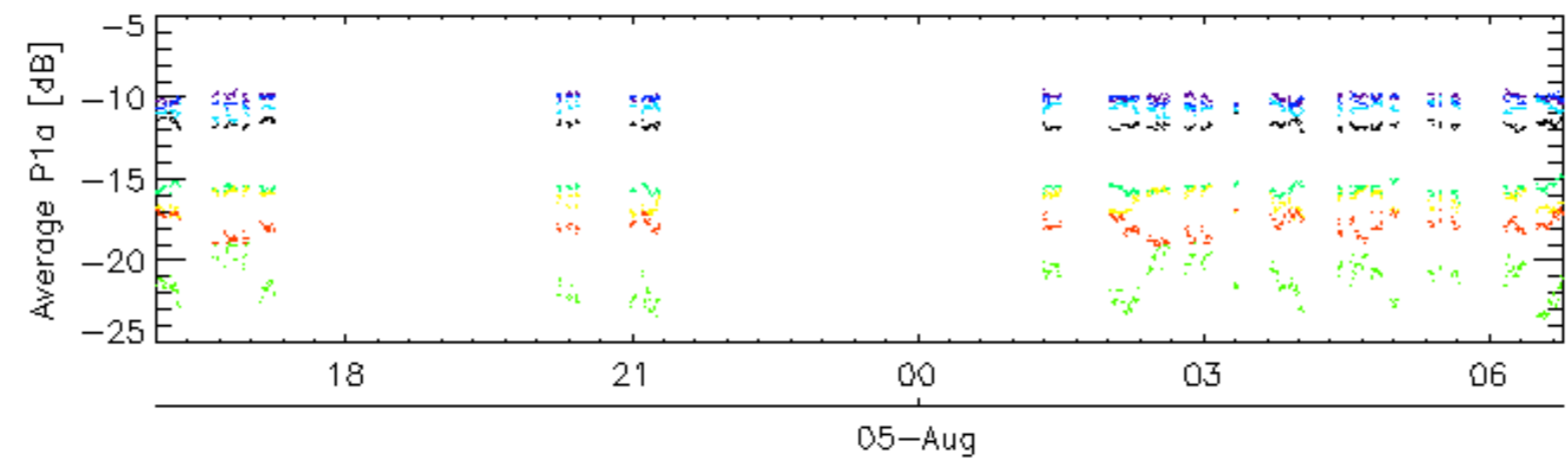
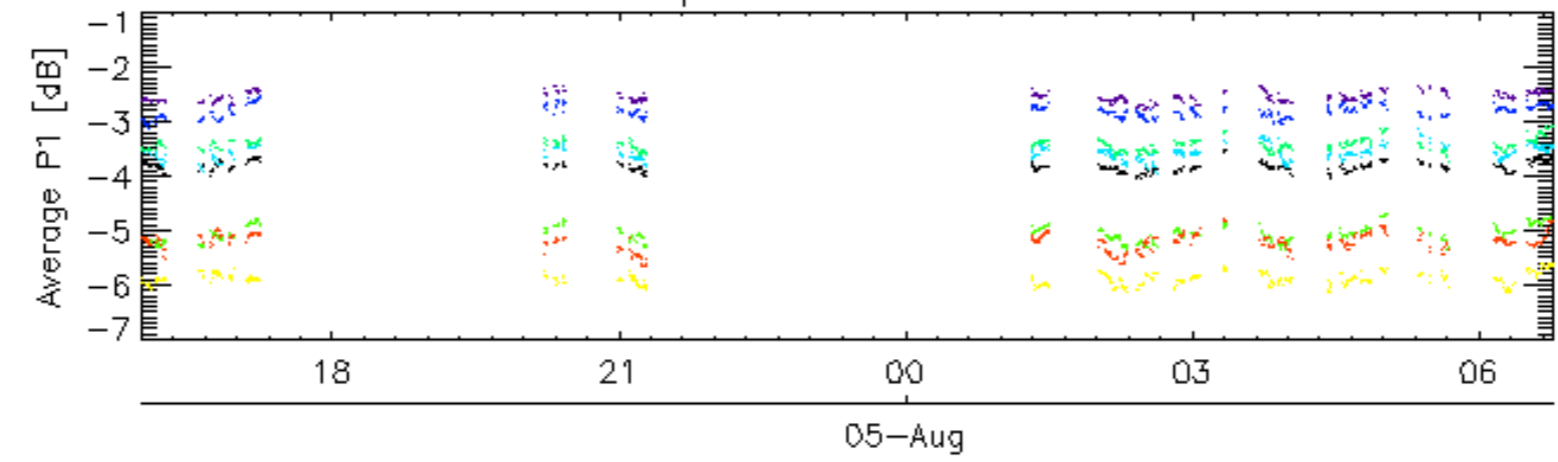
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Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

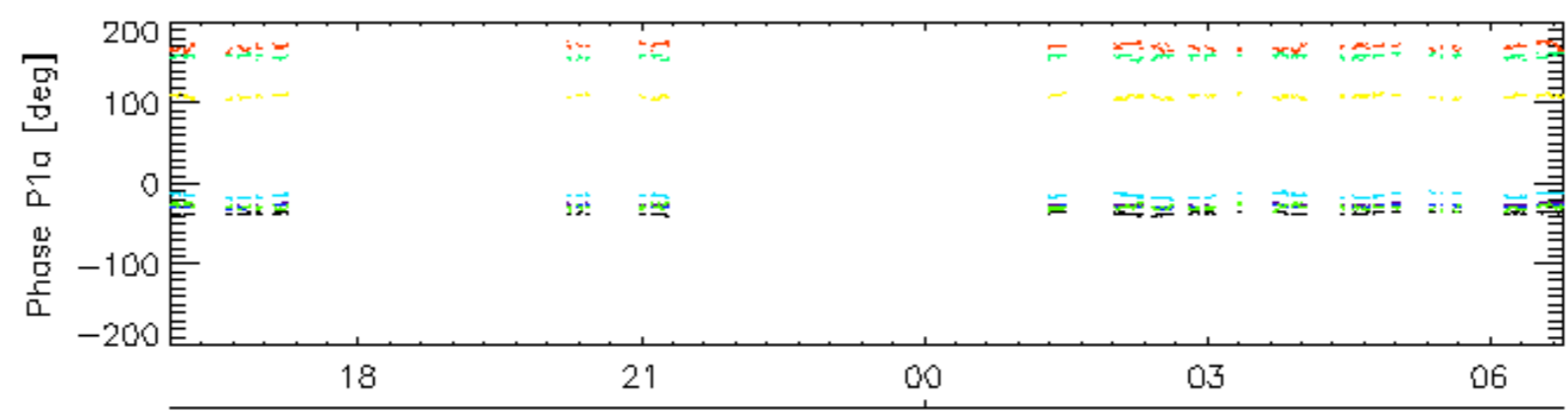
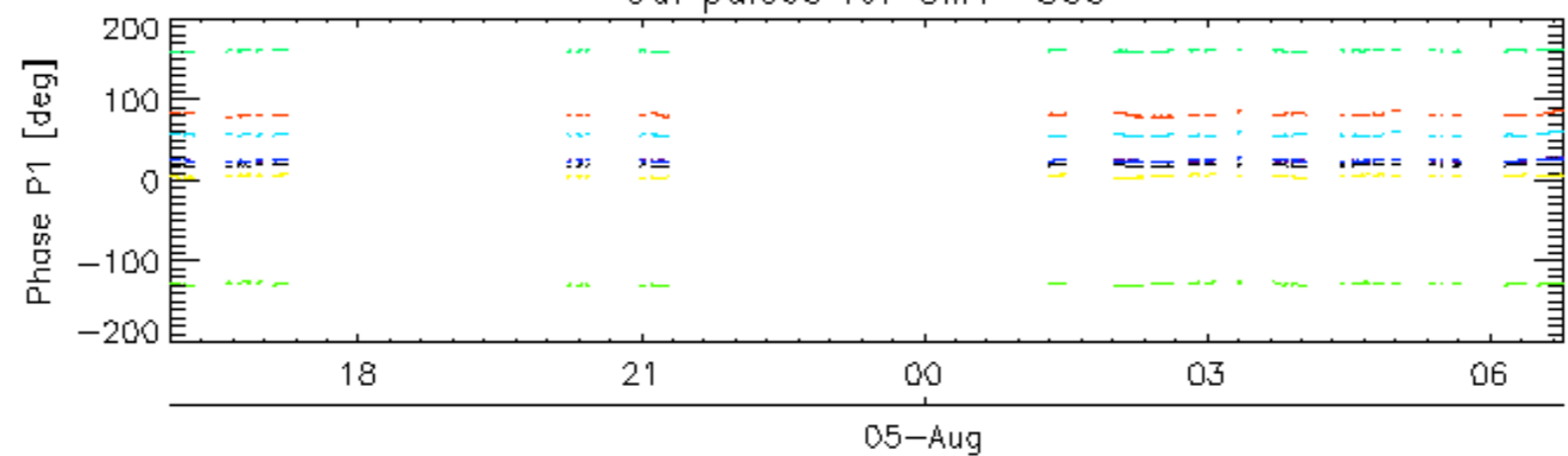
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

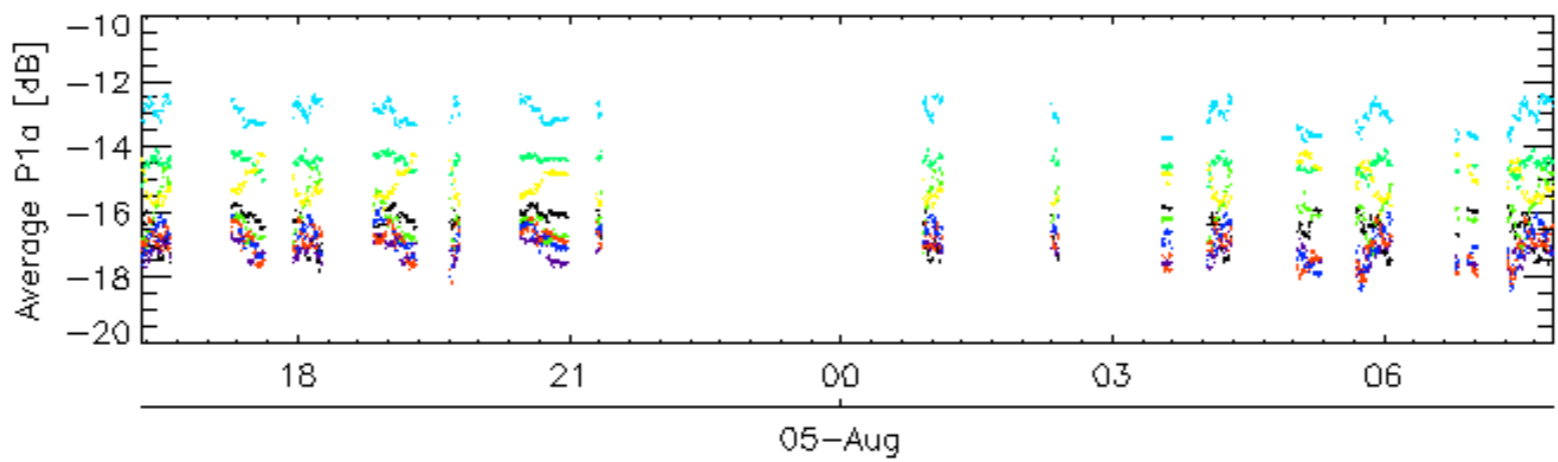
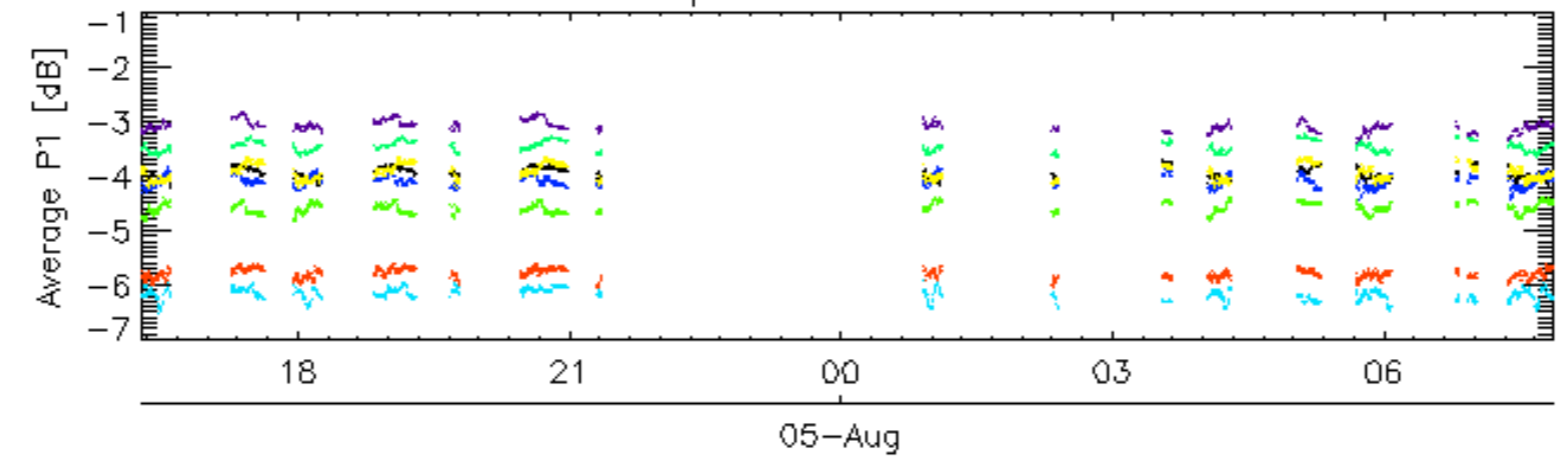


Cal pulses for GM1 SS3

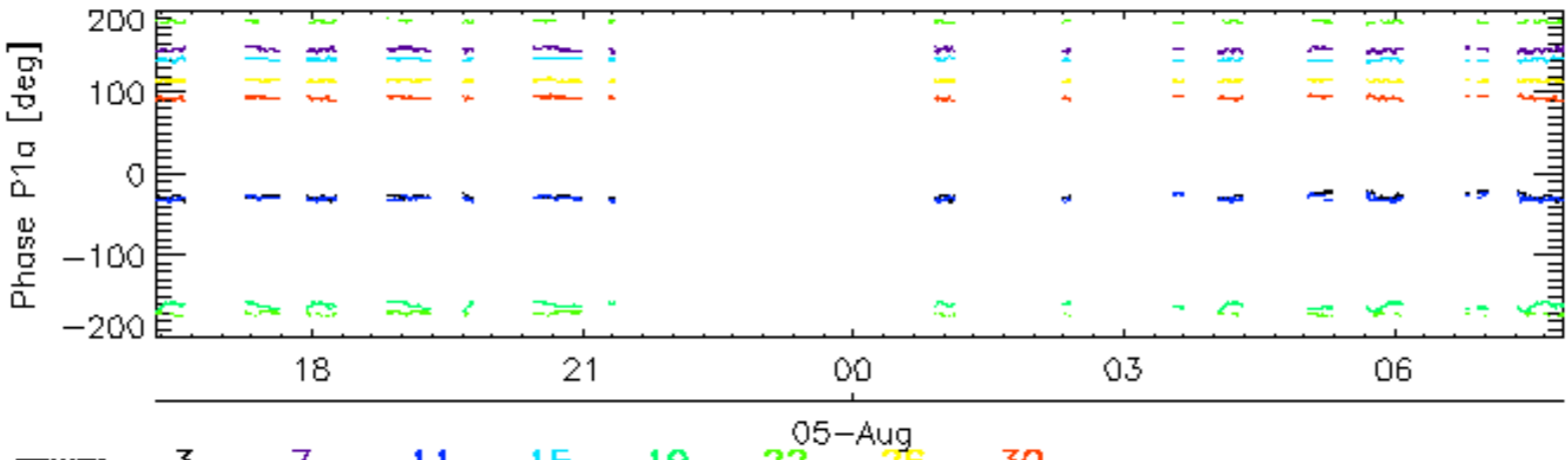
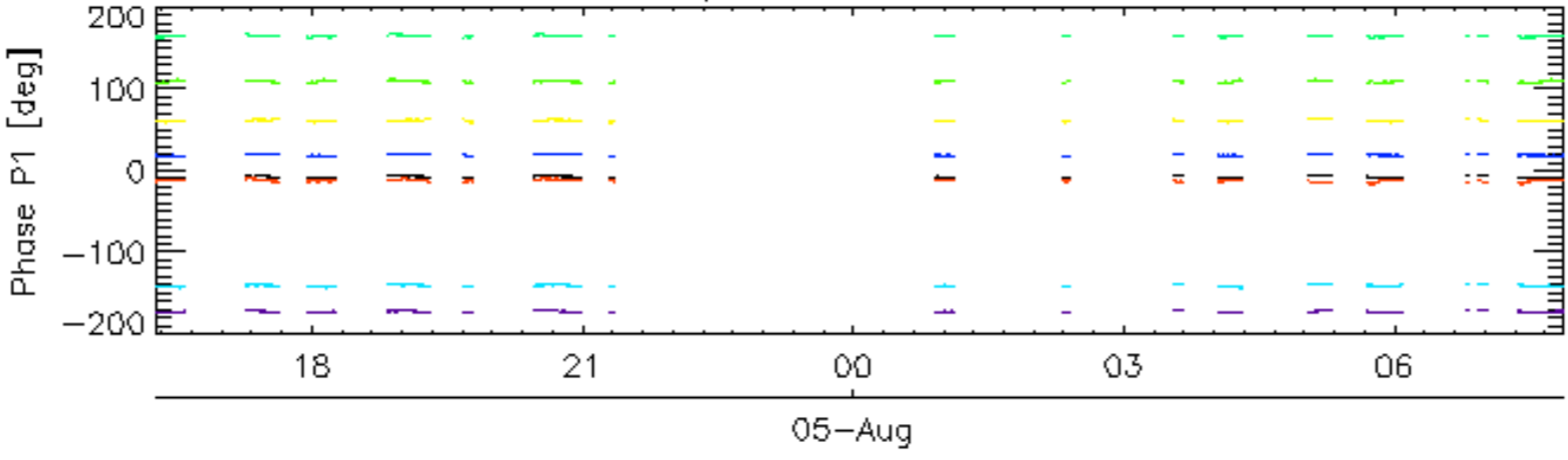


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

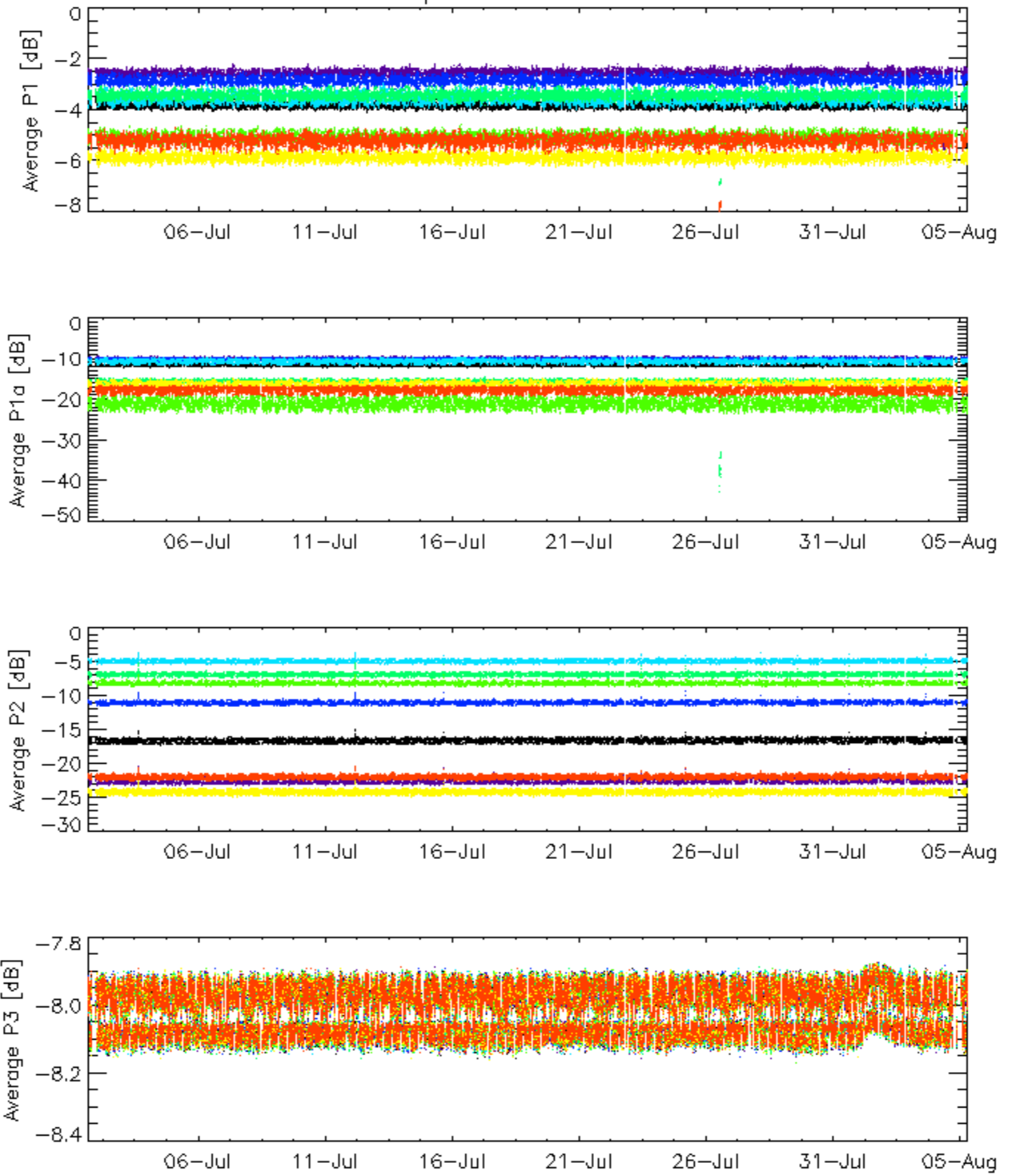


Cal pulses for WVS IS2



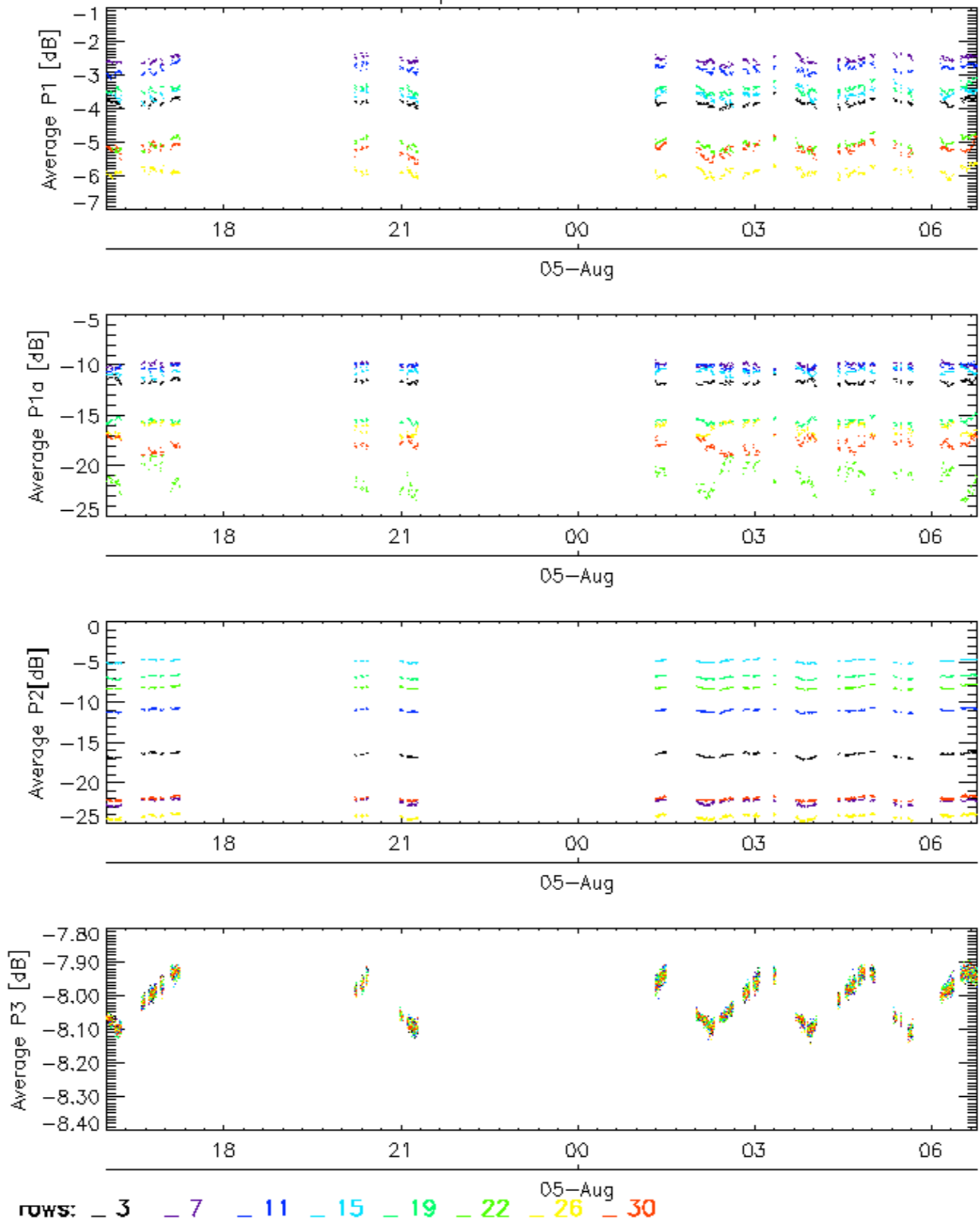
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

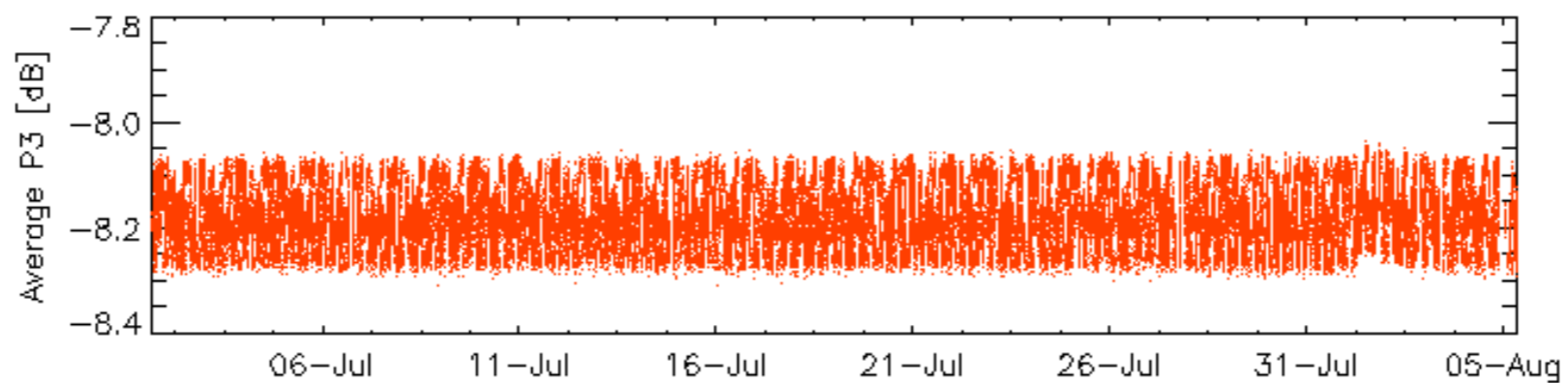
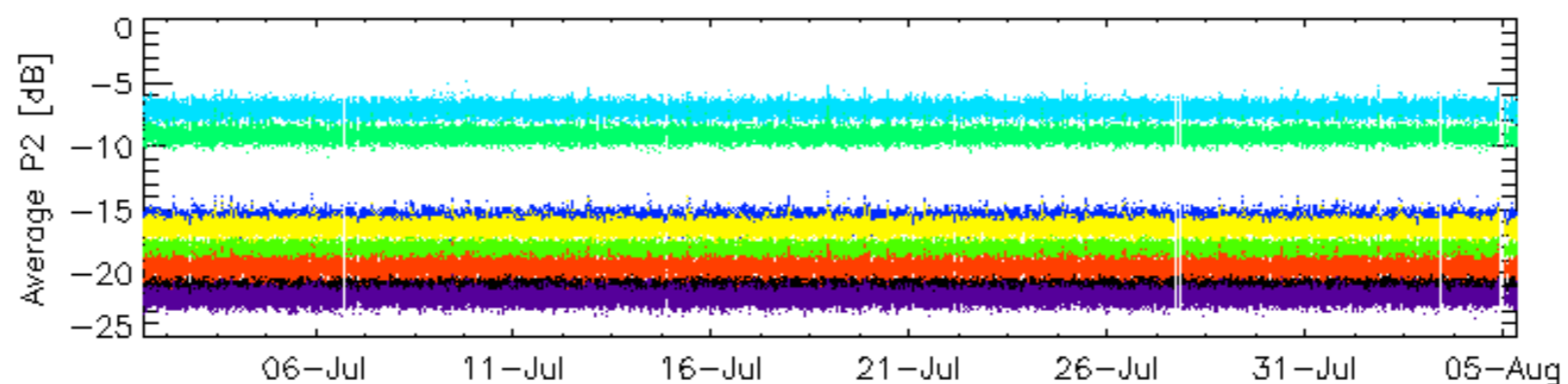
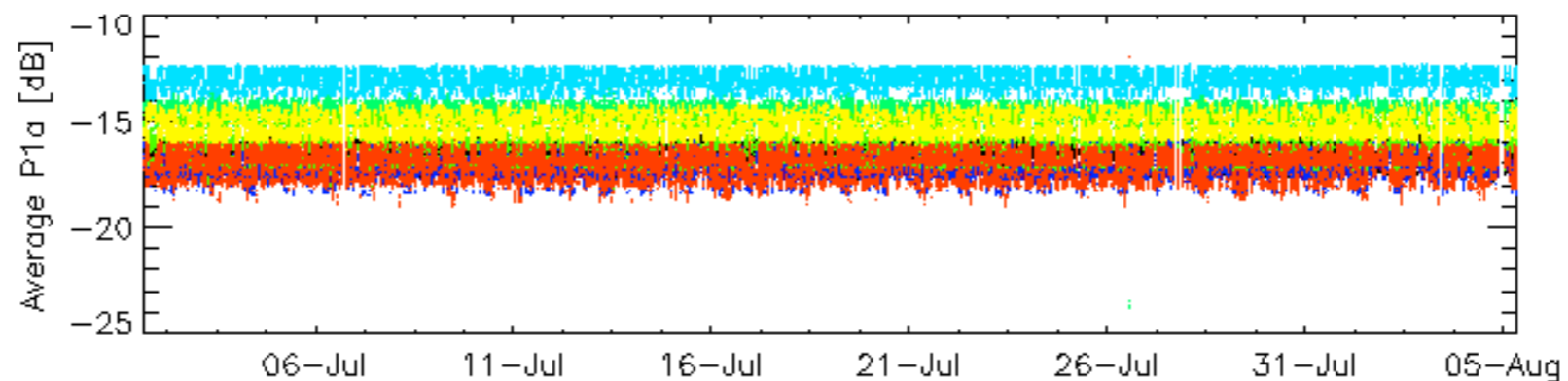
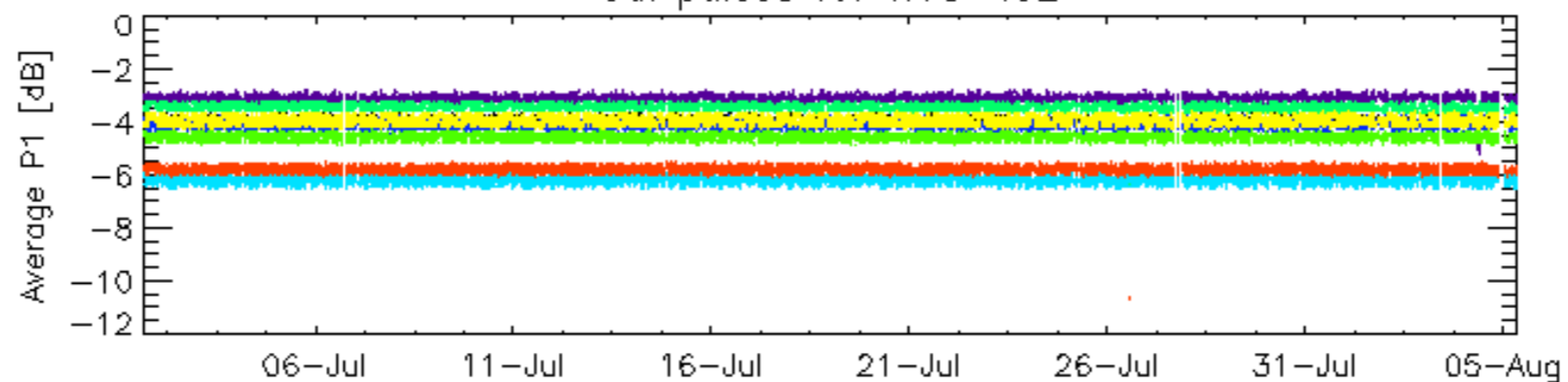


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

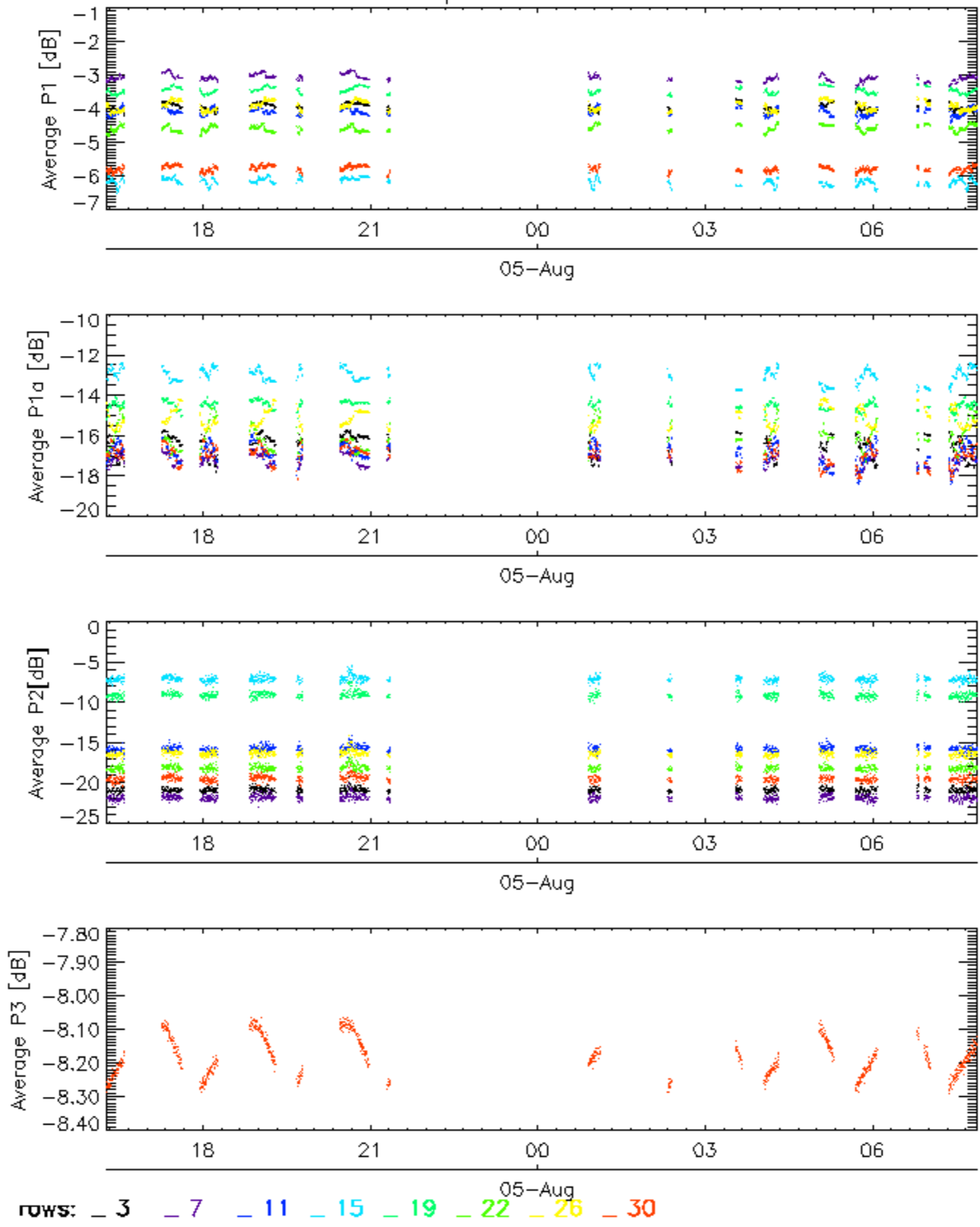


Cal pulses for WVS IS2

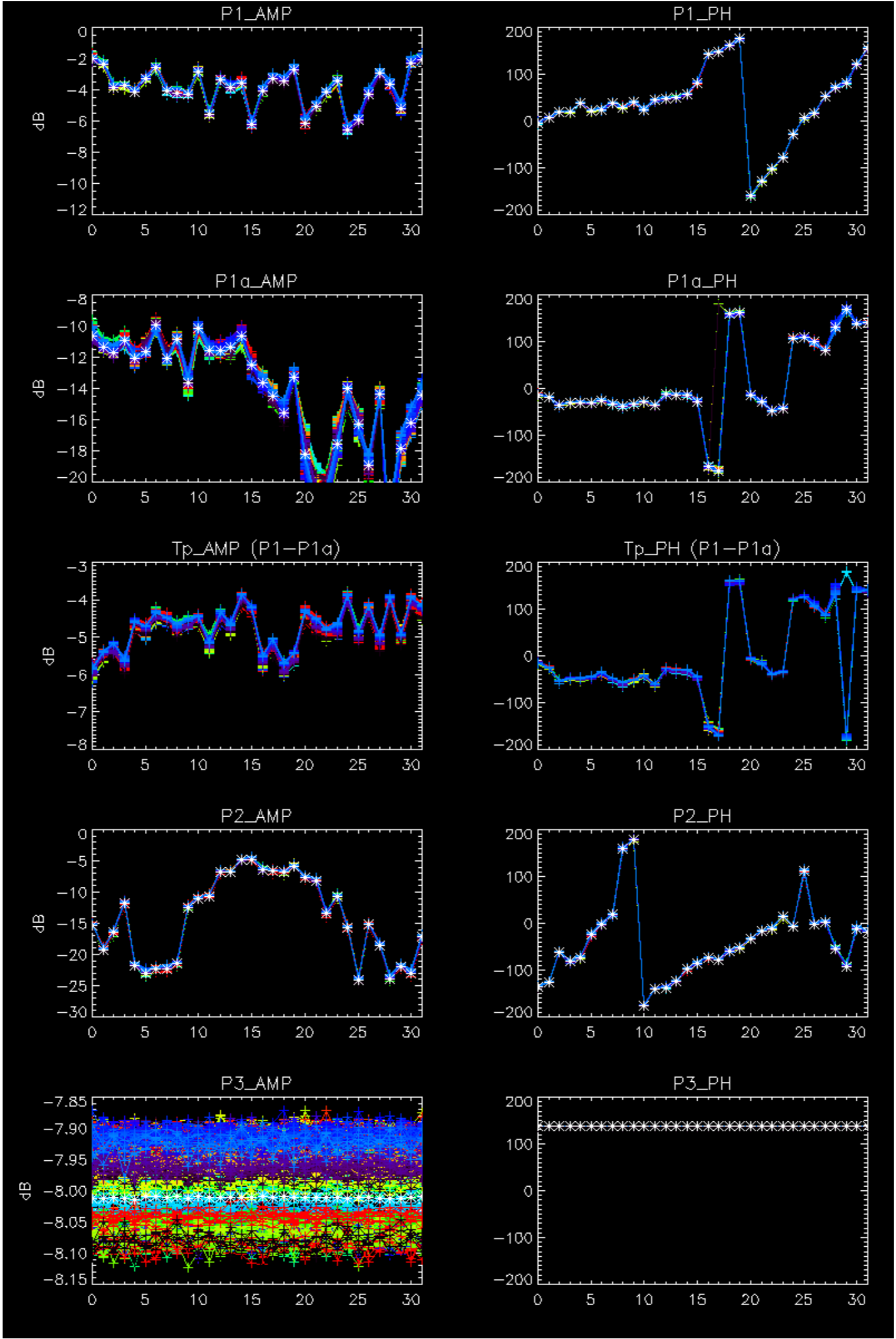


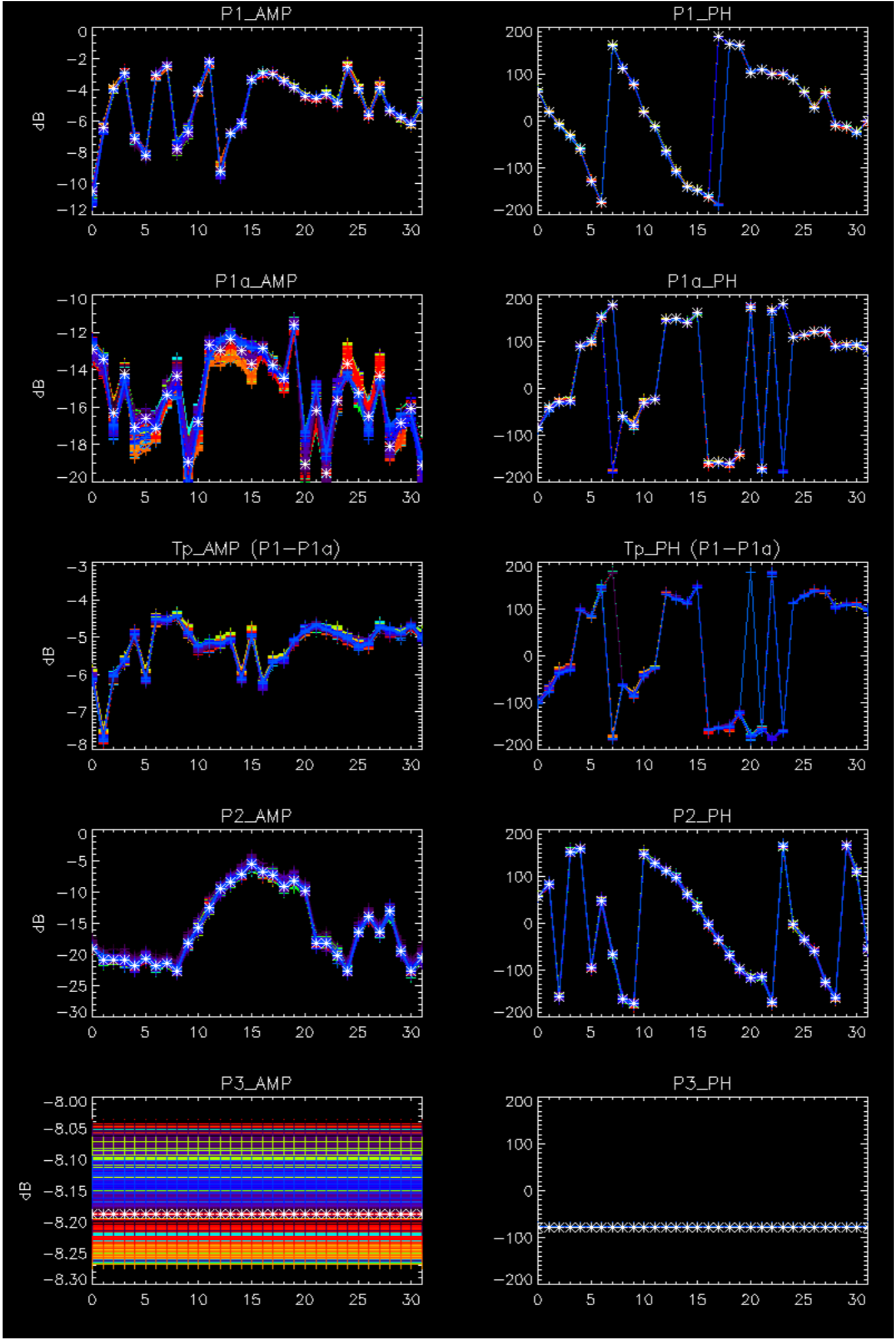
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



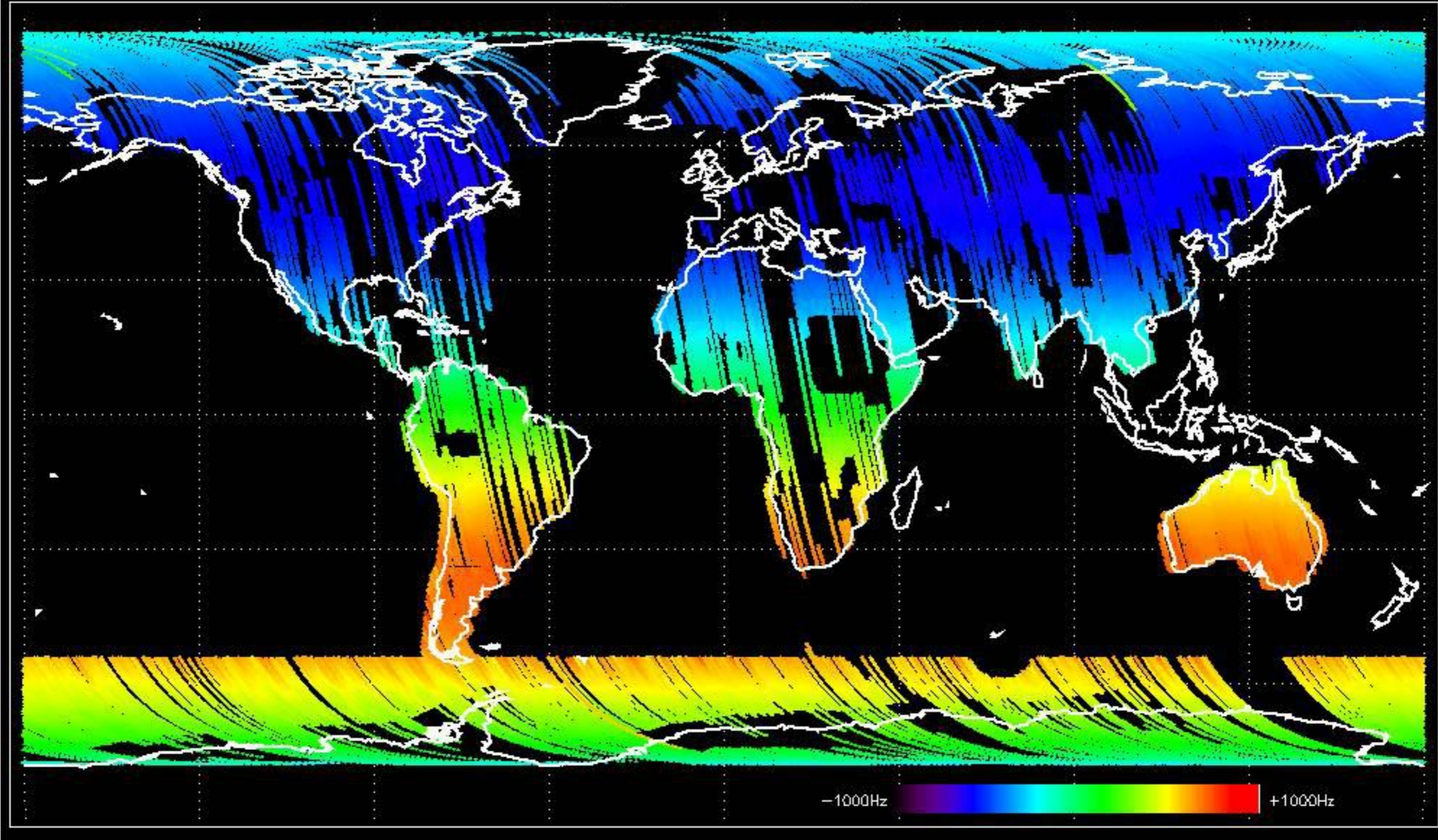
No anomalies observed.



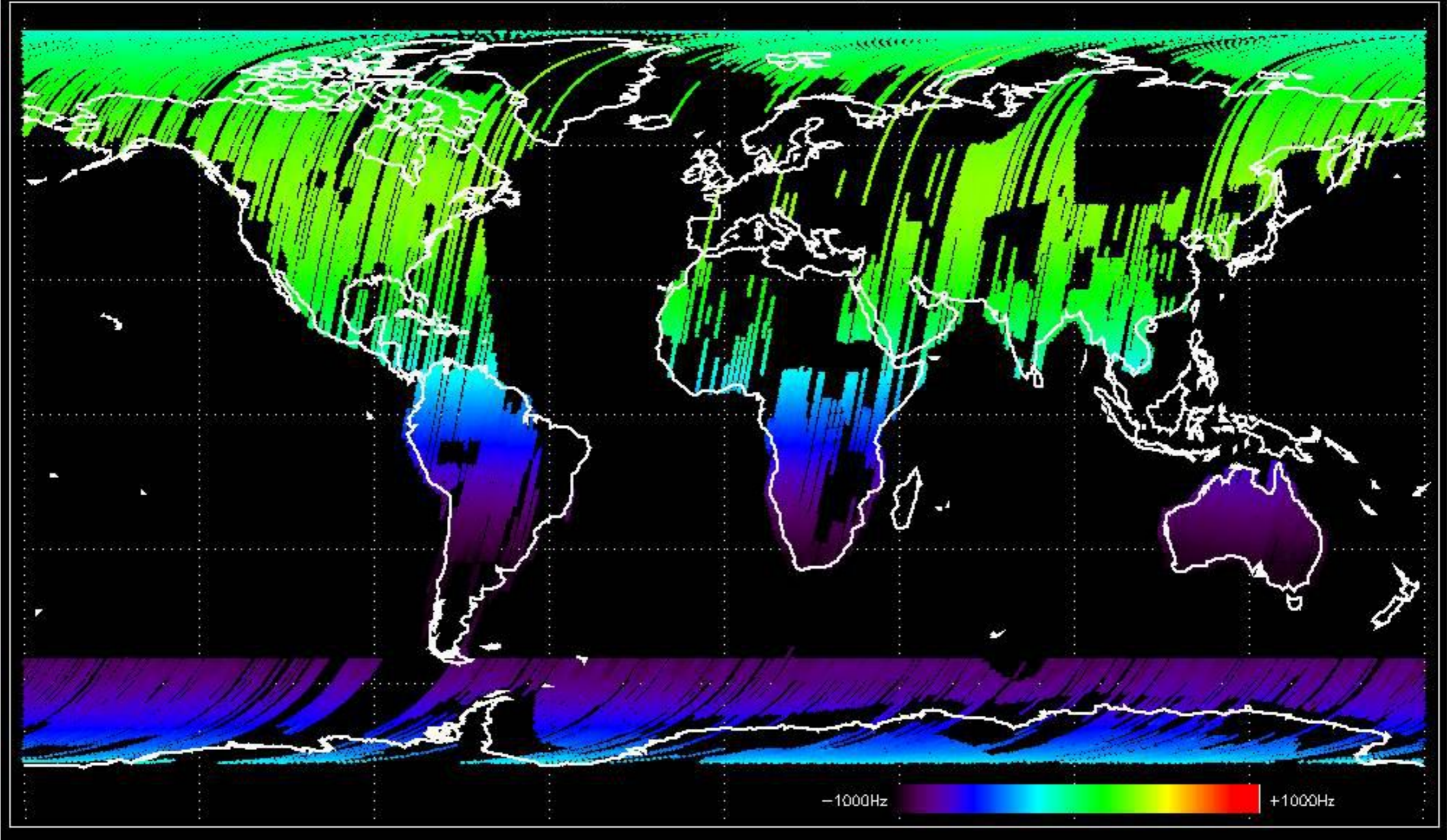


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

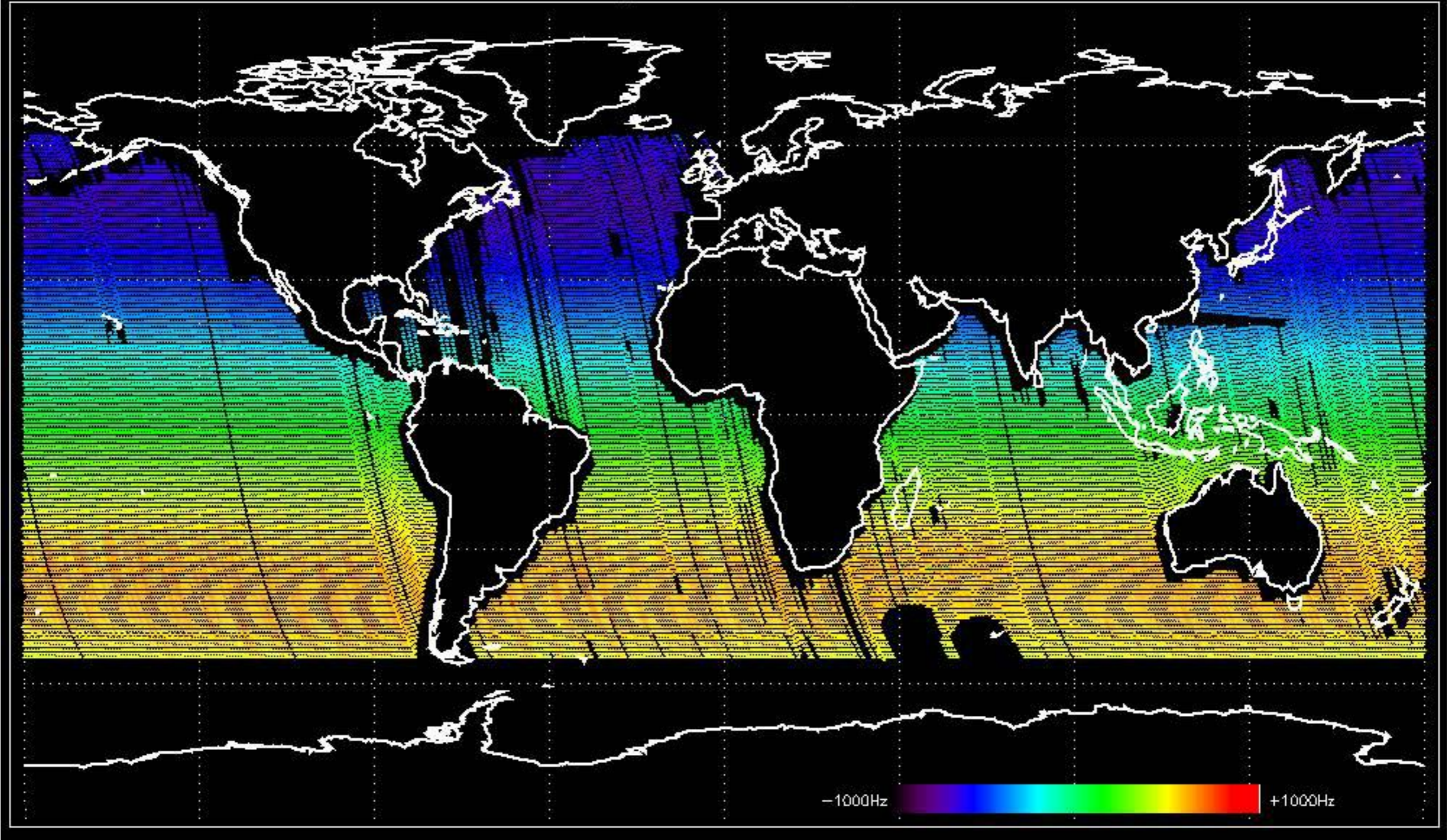
Doppler 'GM1' 'SS1' ascending



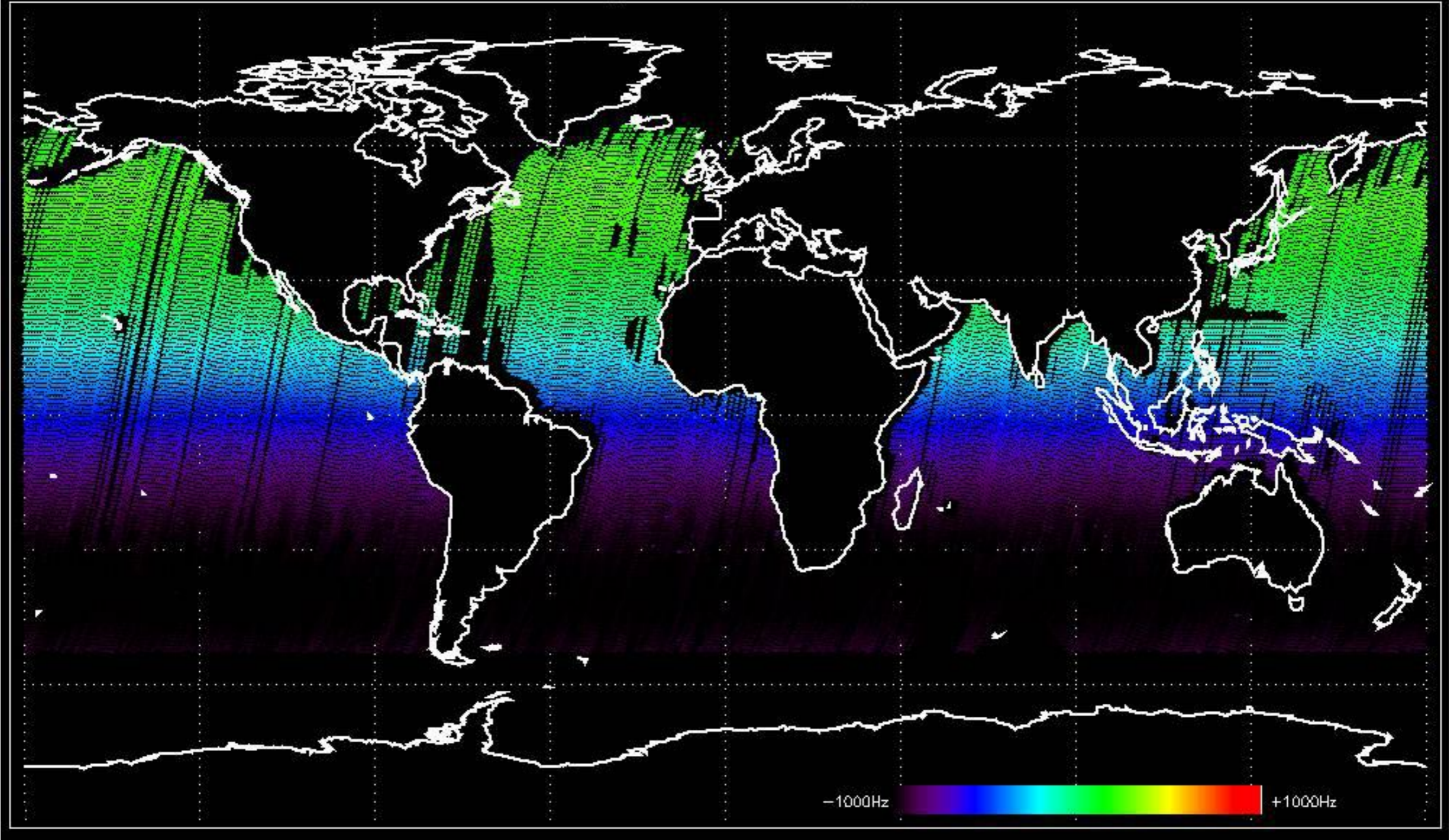
Doppler 'GM1' 'SS1' descending



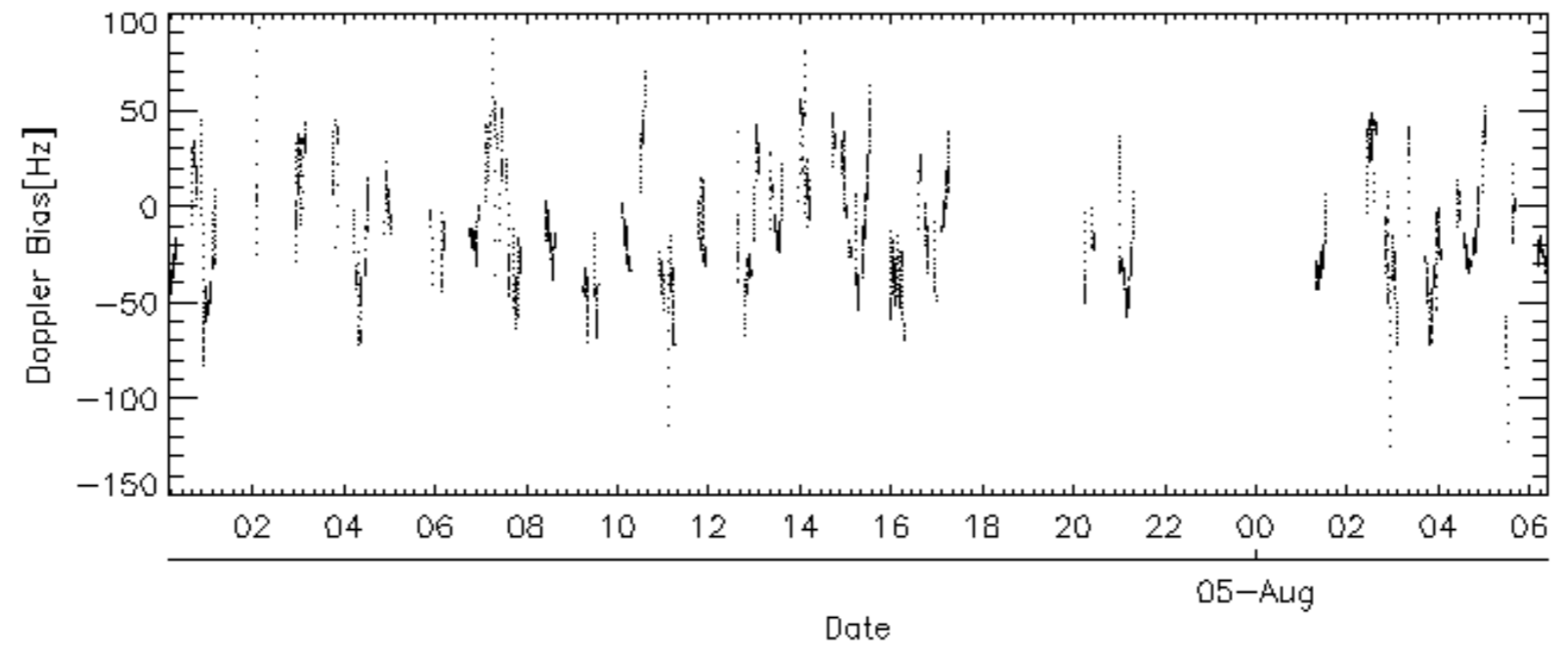
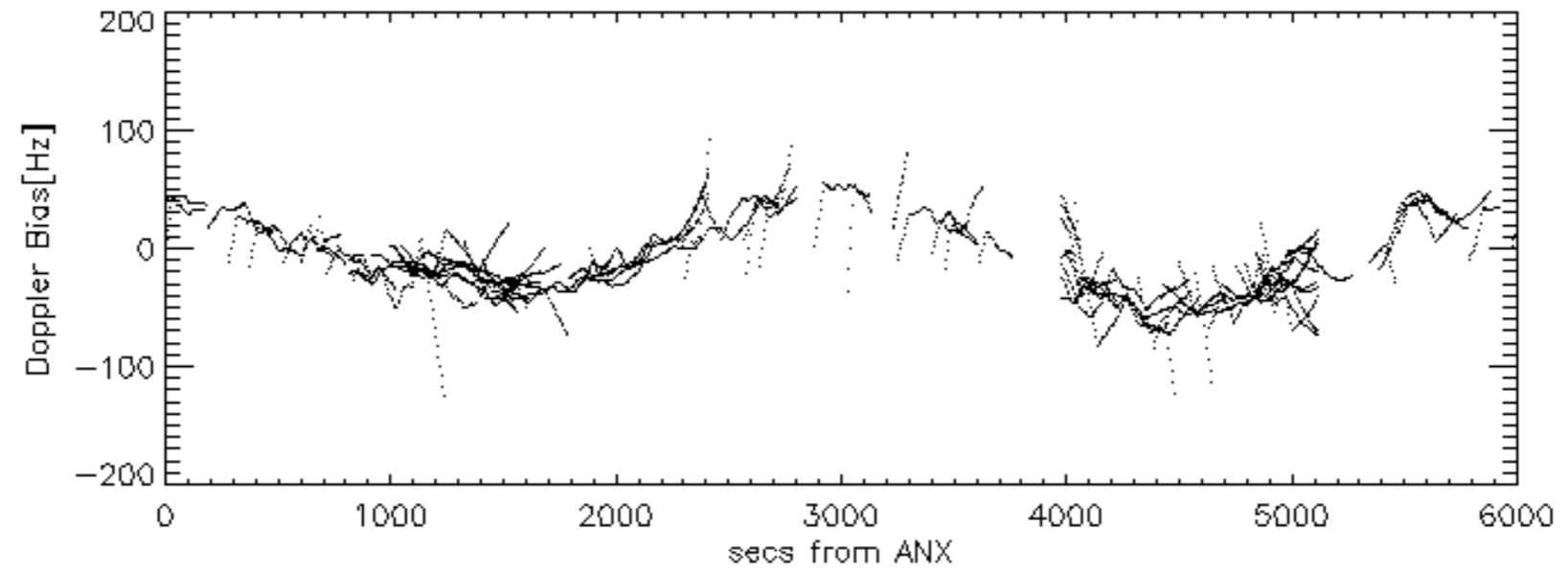
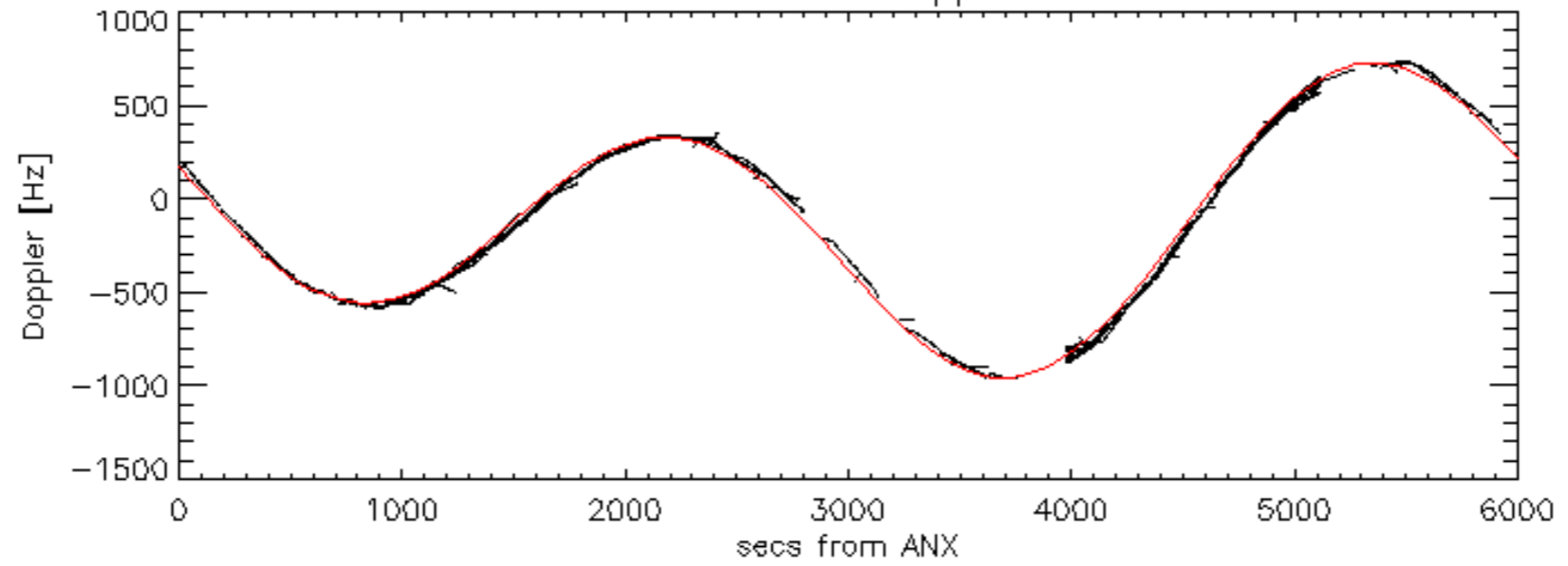
Doppler 'WVS' 'IS2' ascending

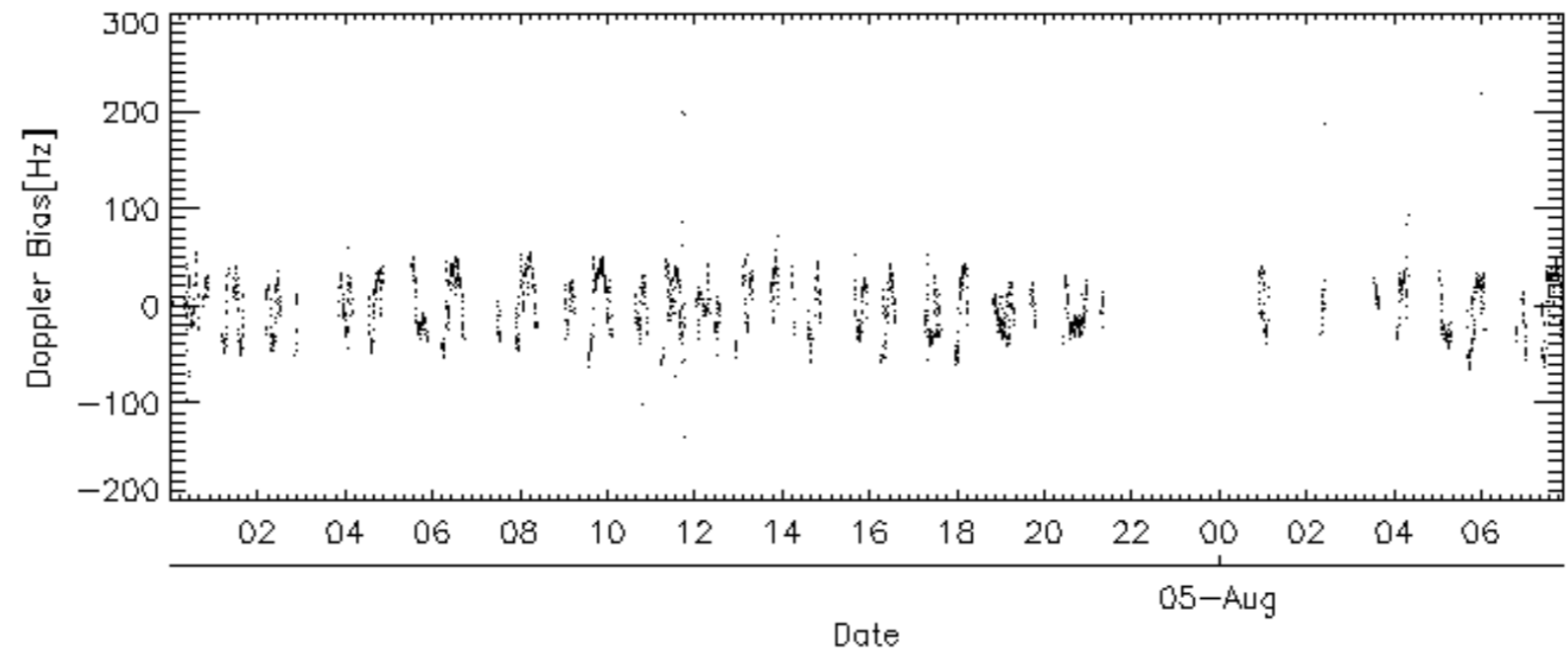
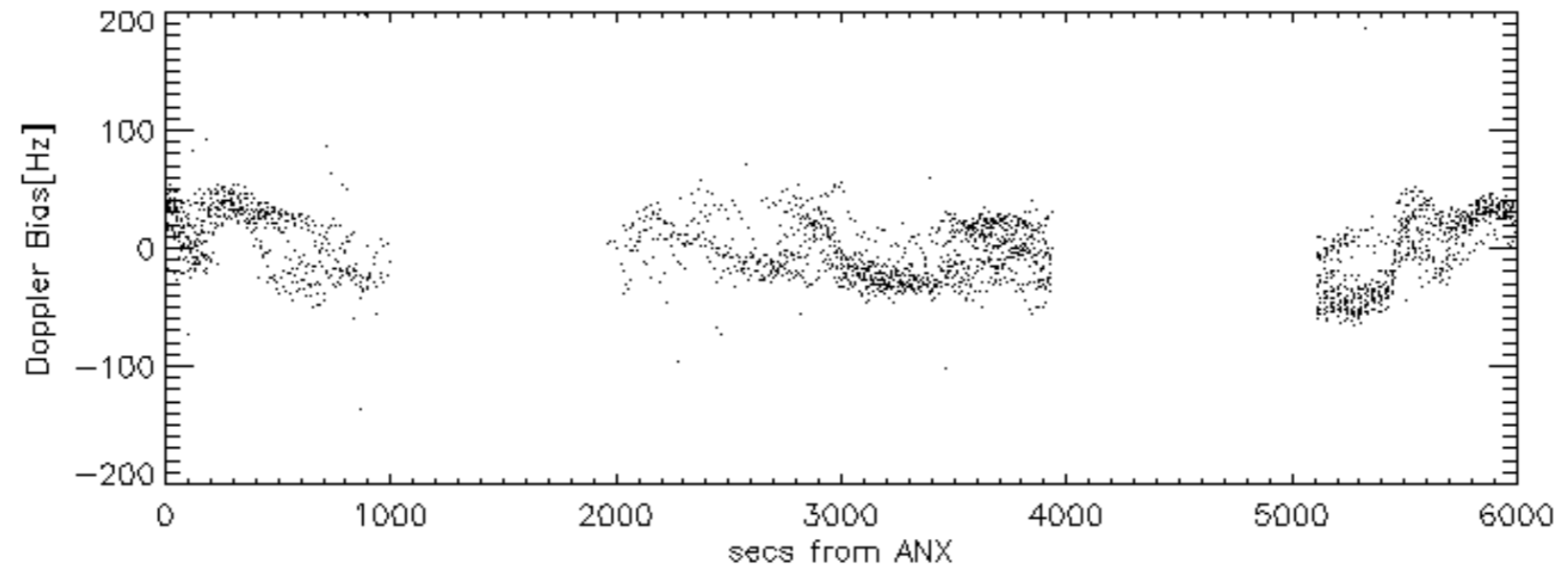
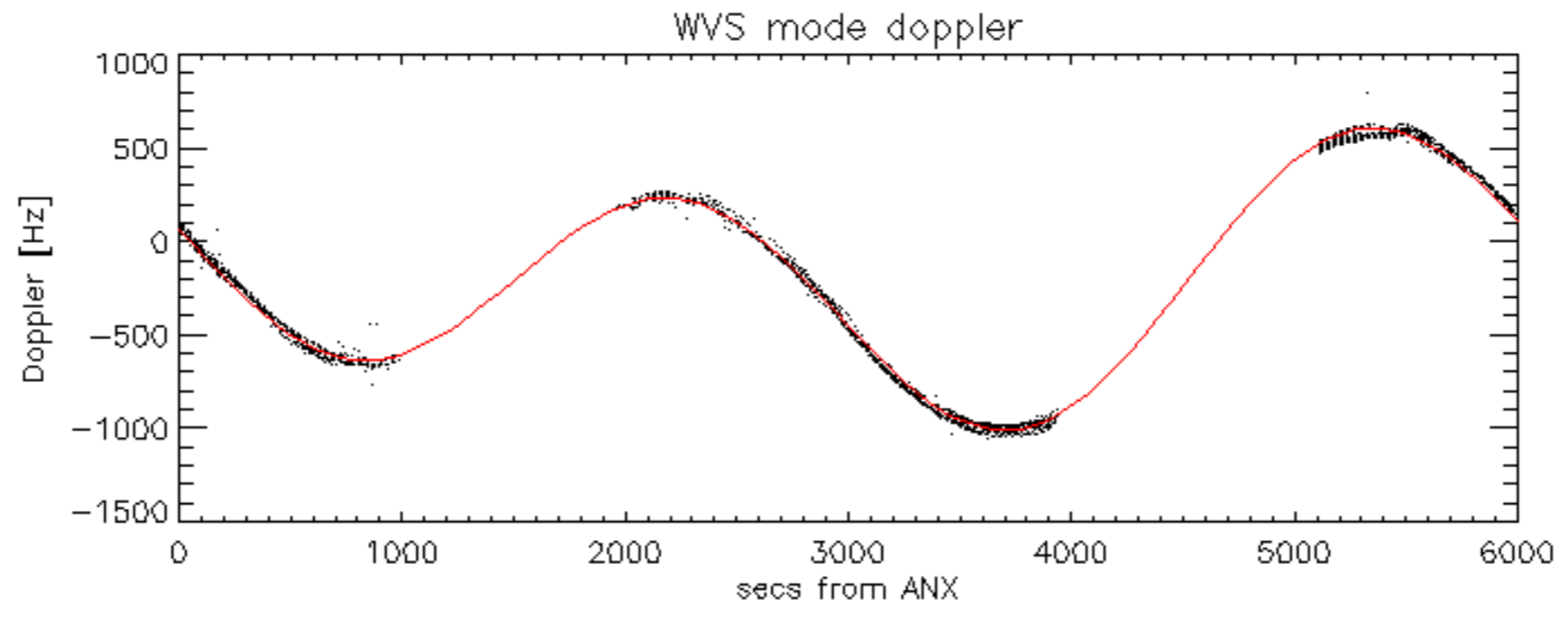


Doppler 'WVS' 'IS2' descending

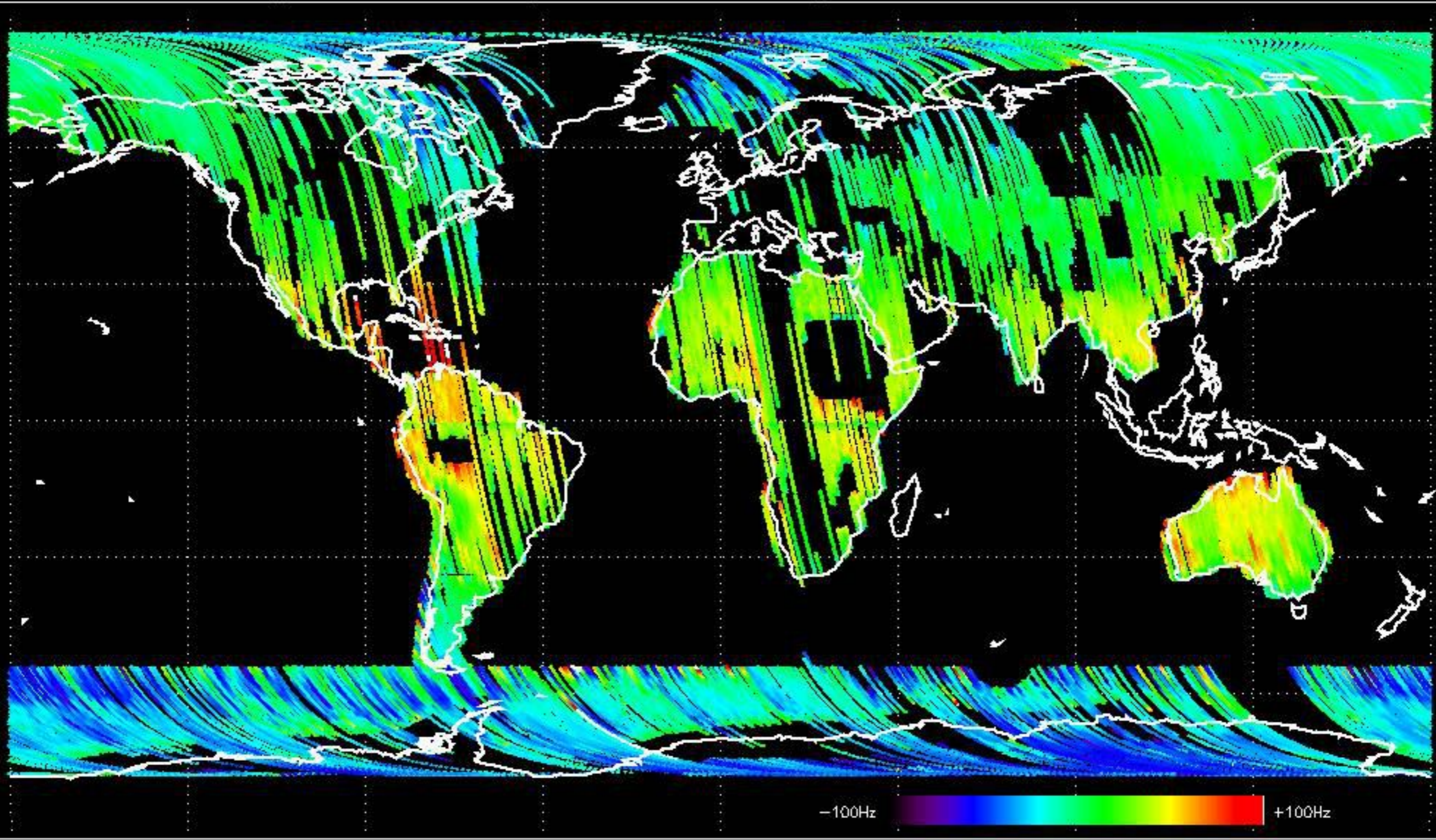


GM1 mode doppler



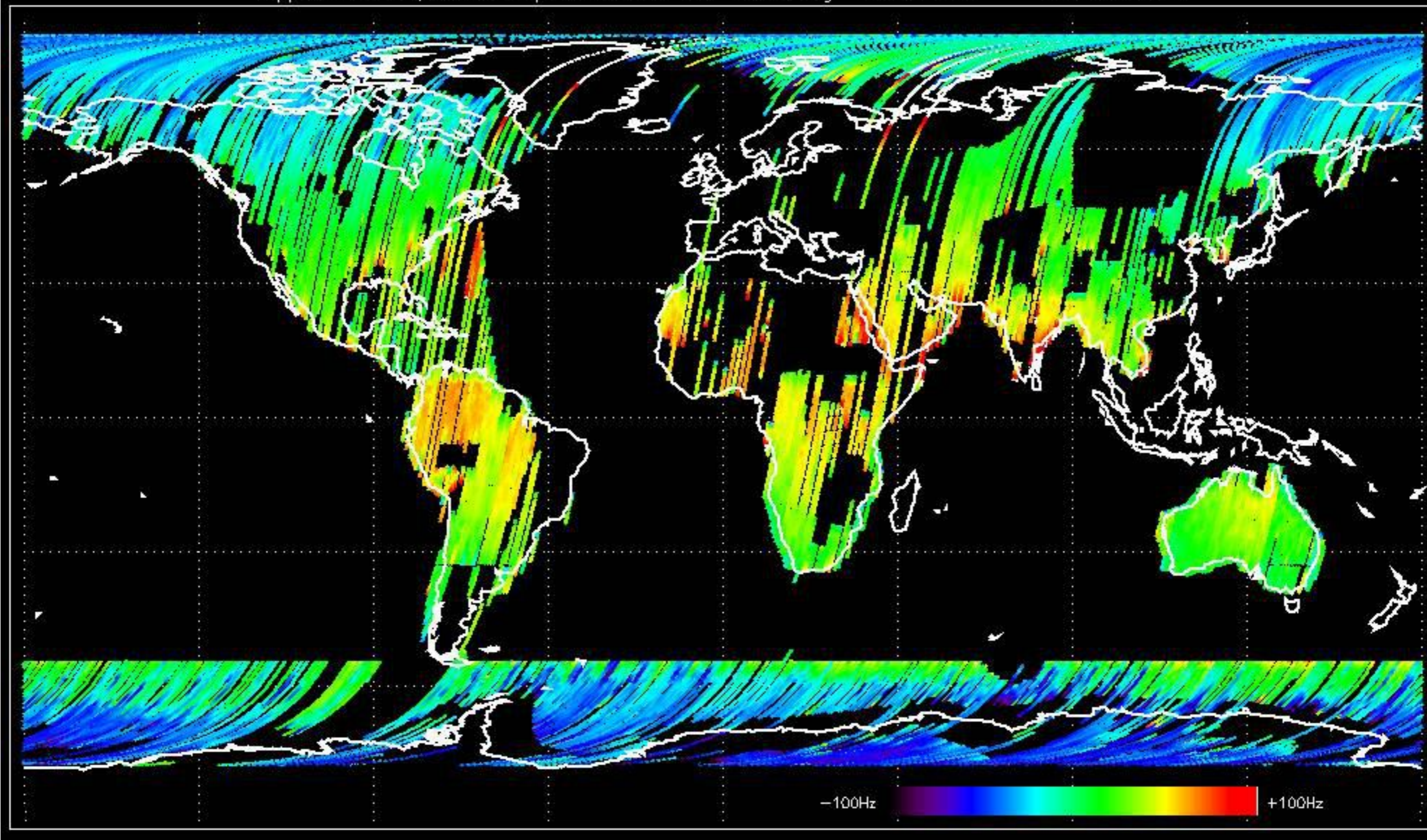


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.016937 Hz

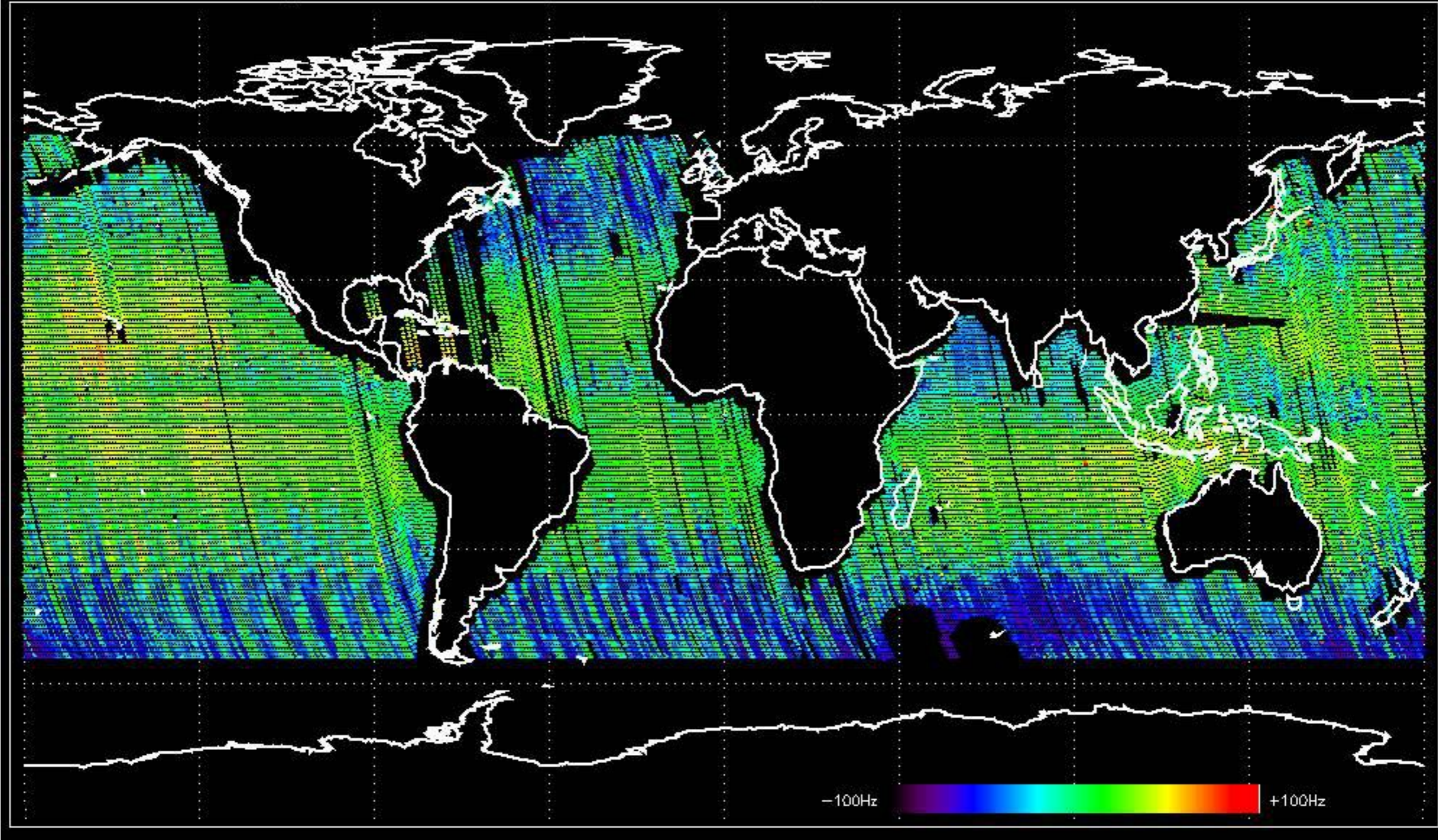


-100Hz +100Hz

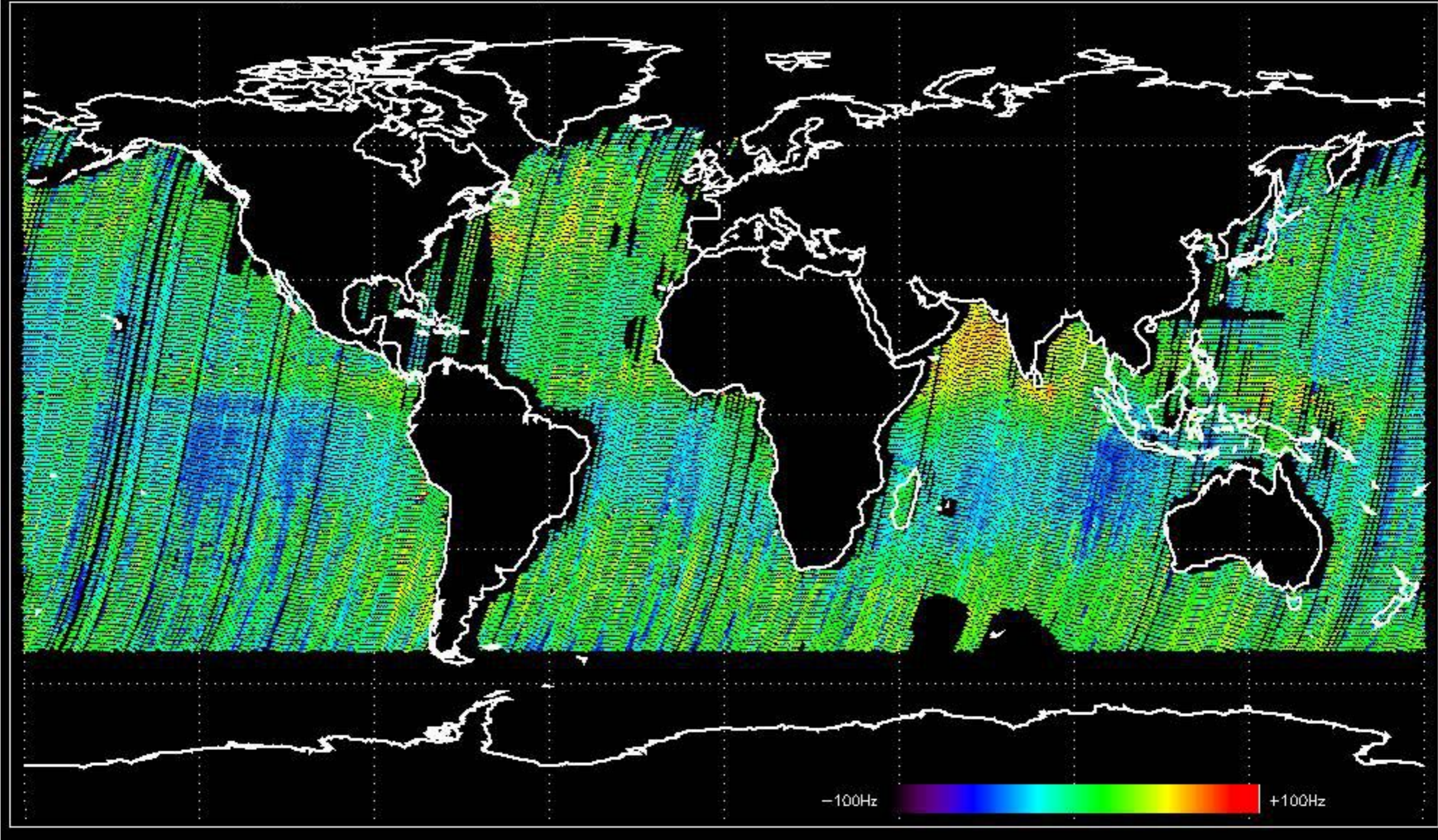
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.9633460 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.3771316 Hz

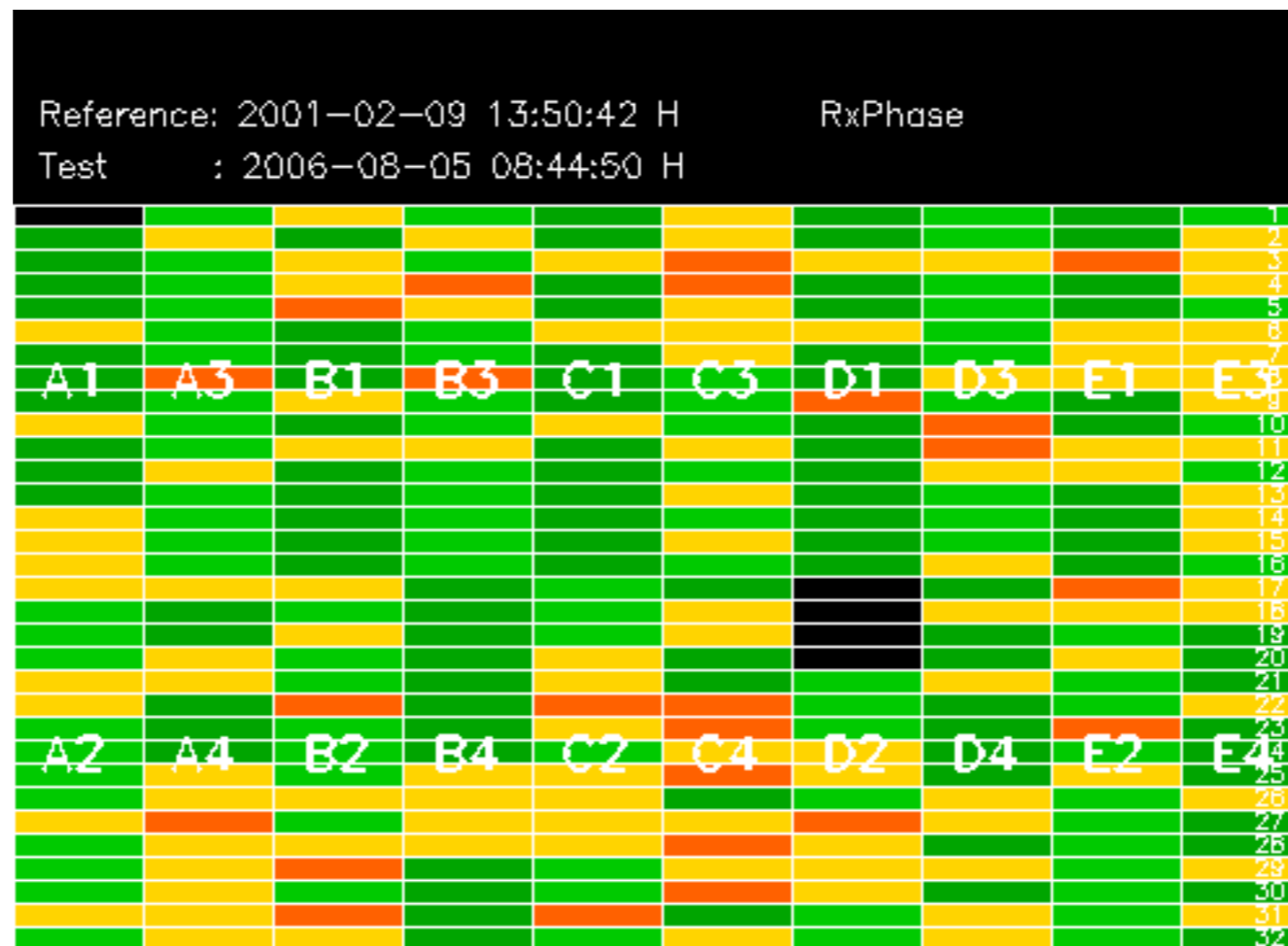


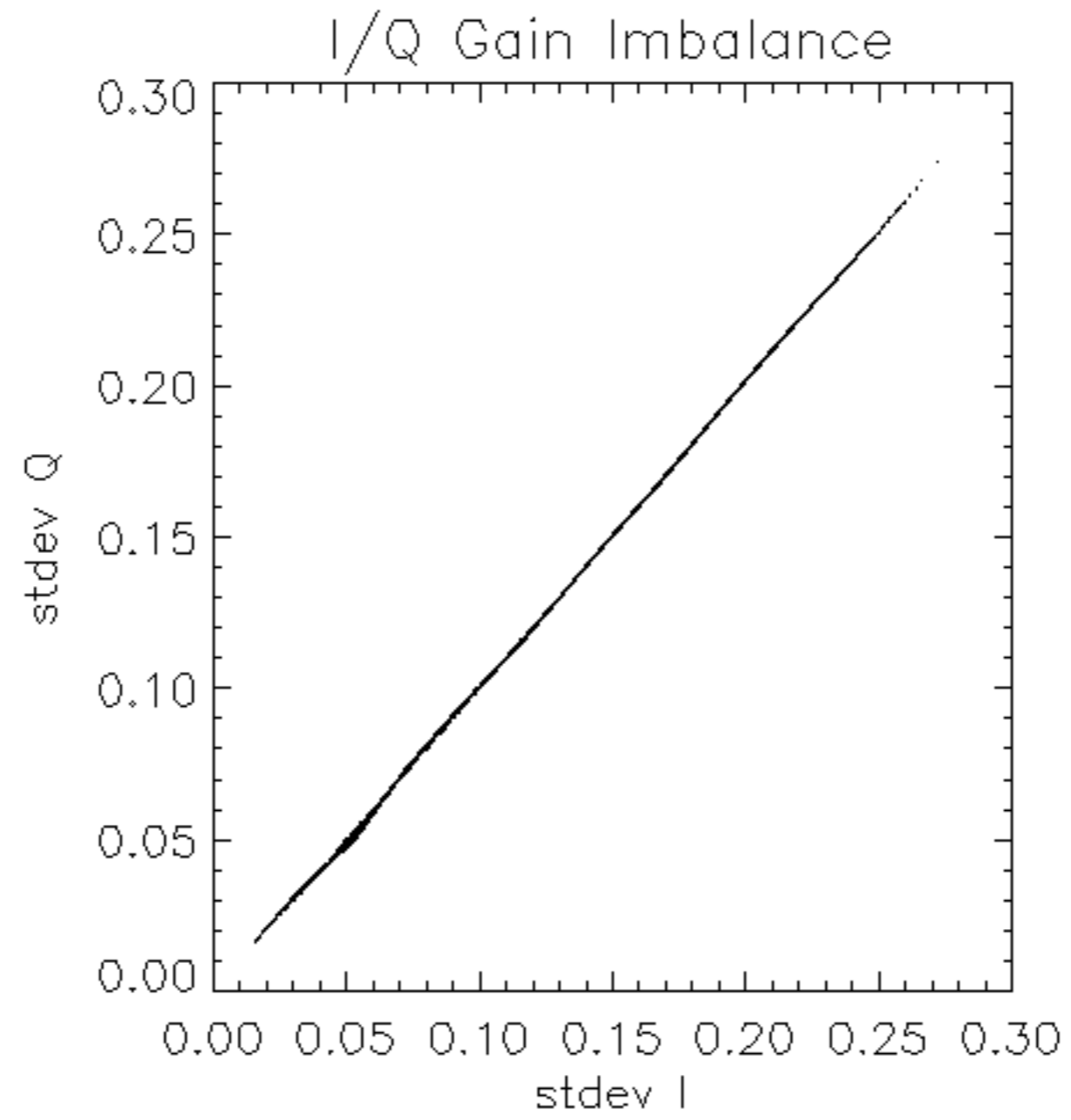
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.5222495 Hz

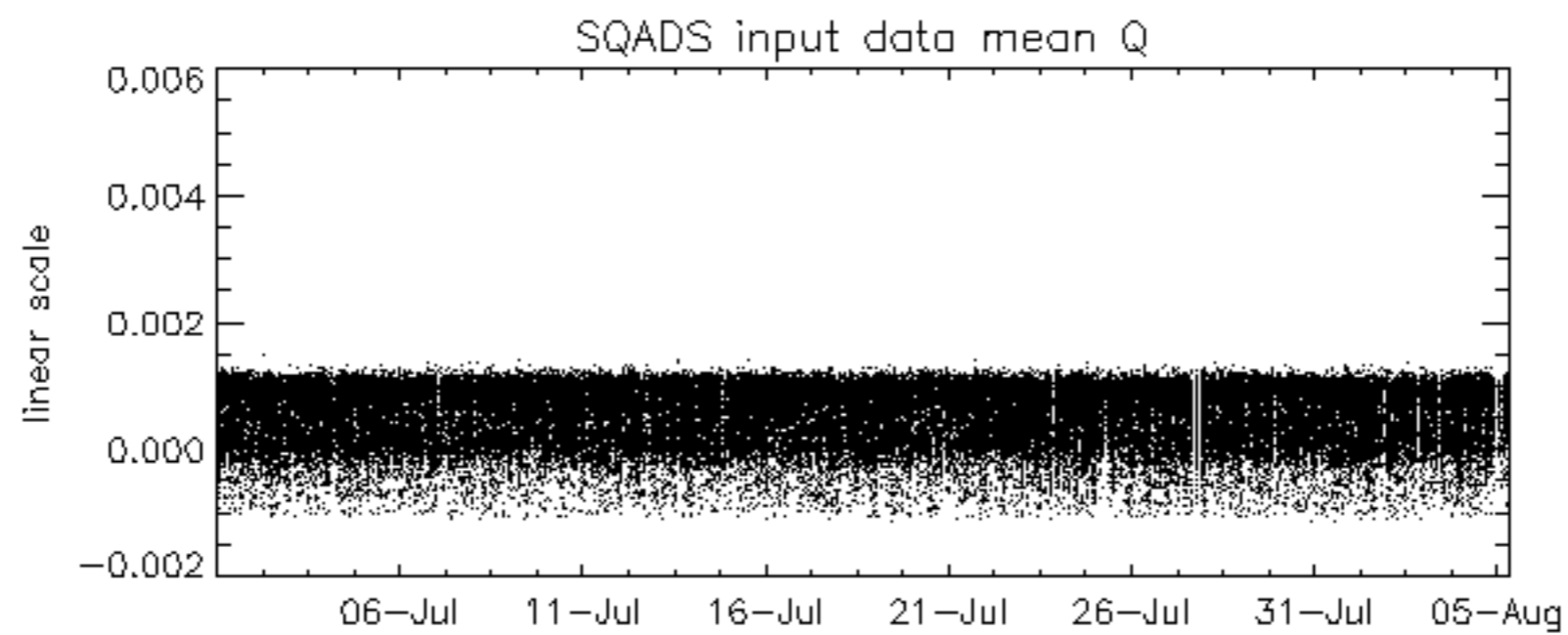
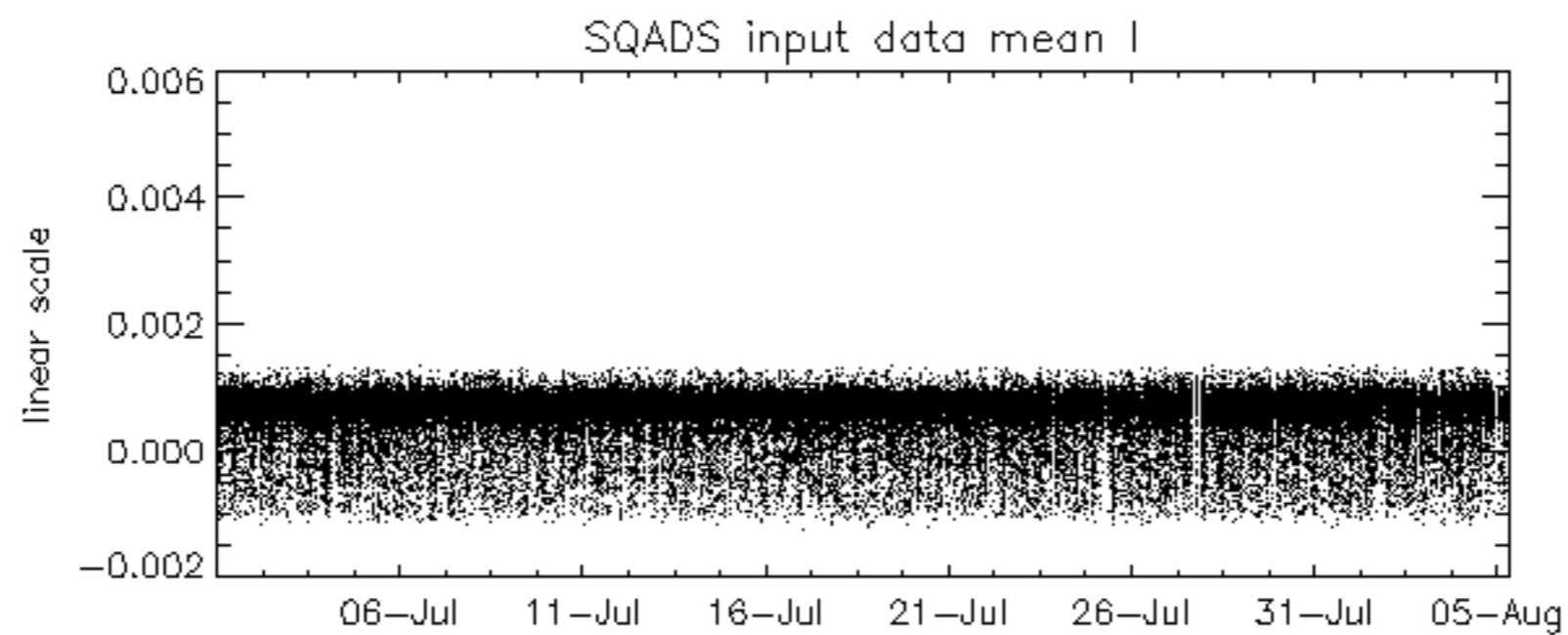
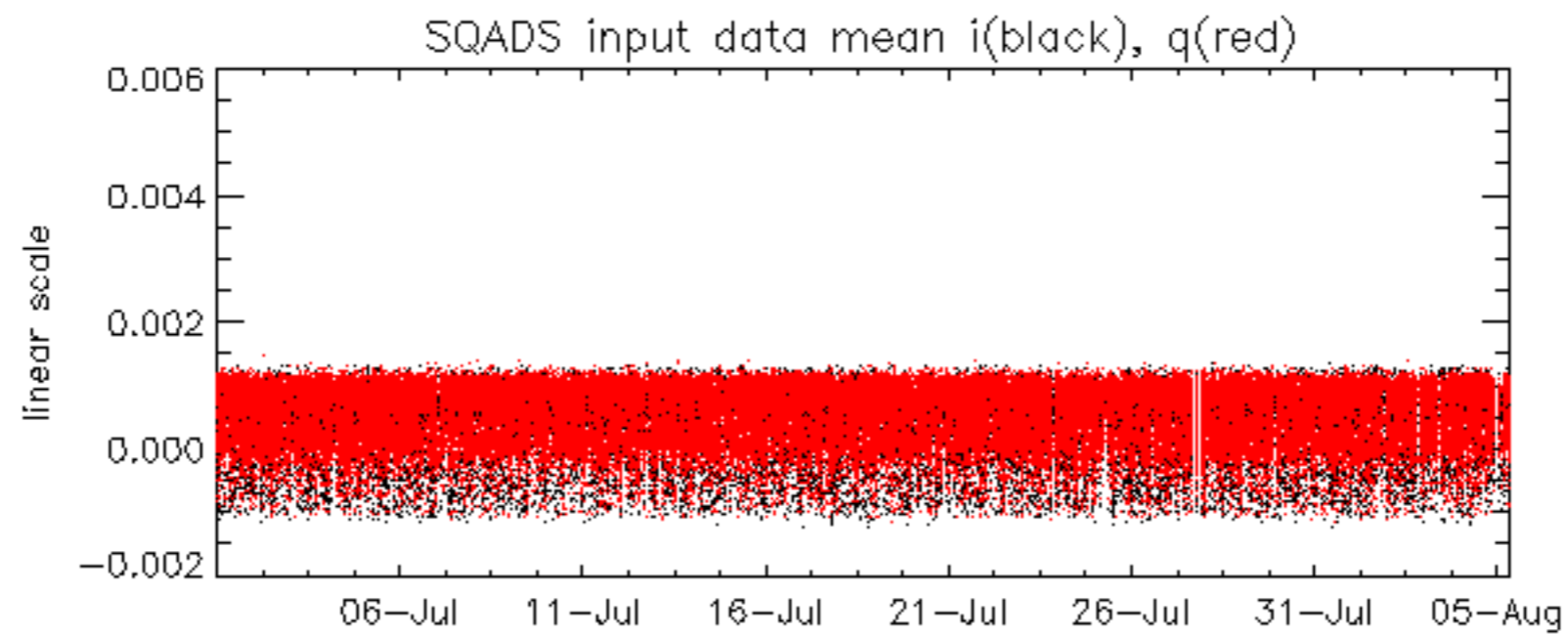


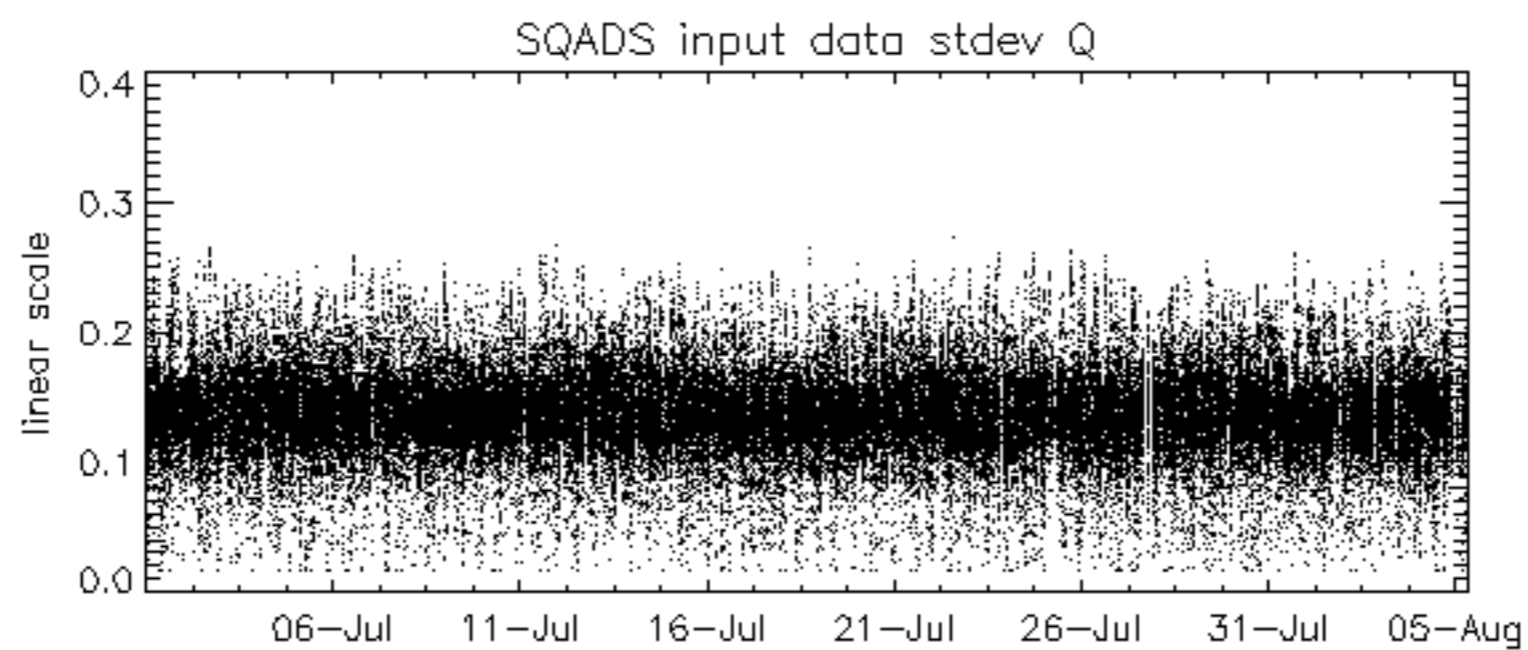
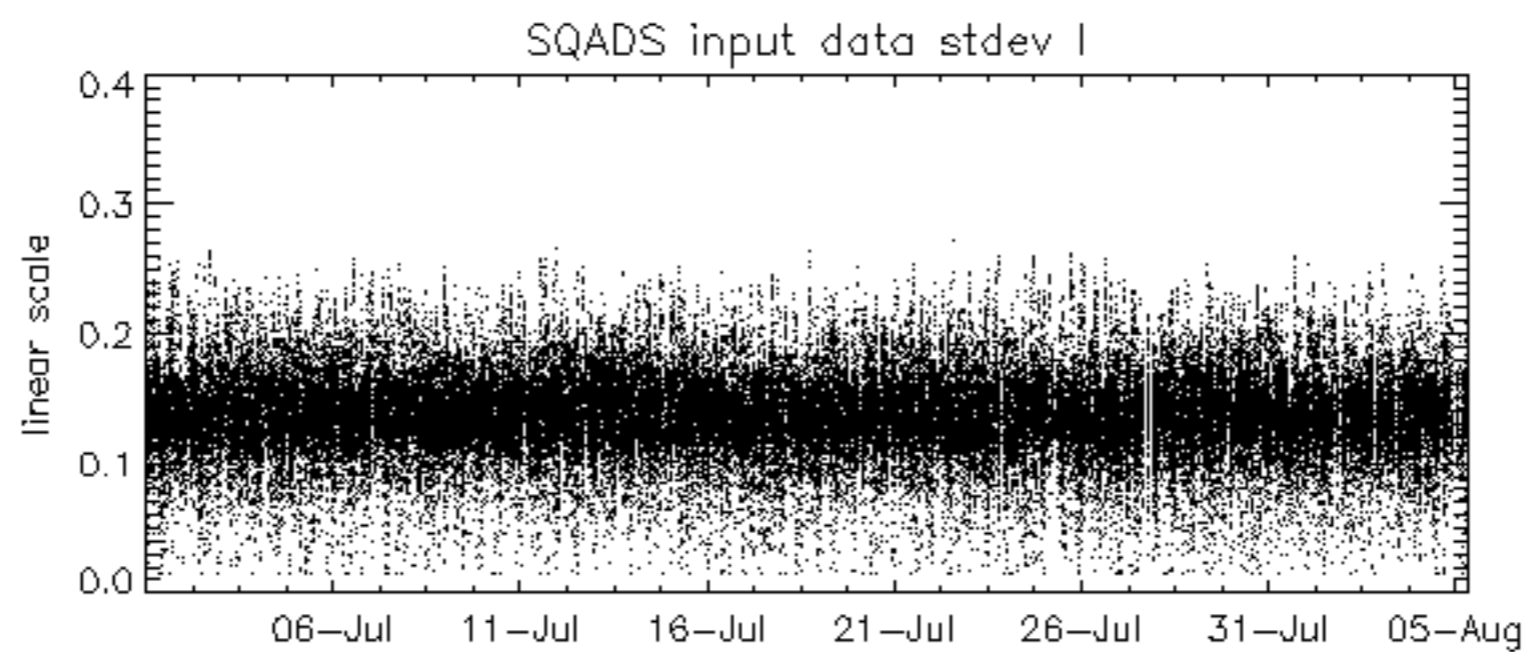
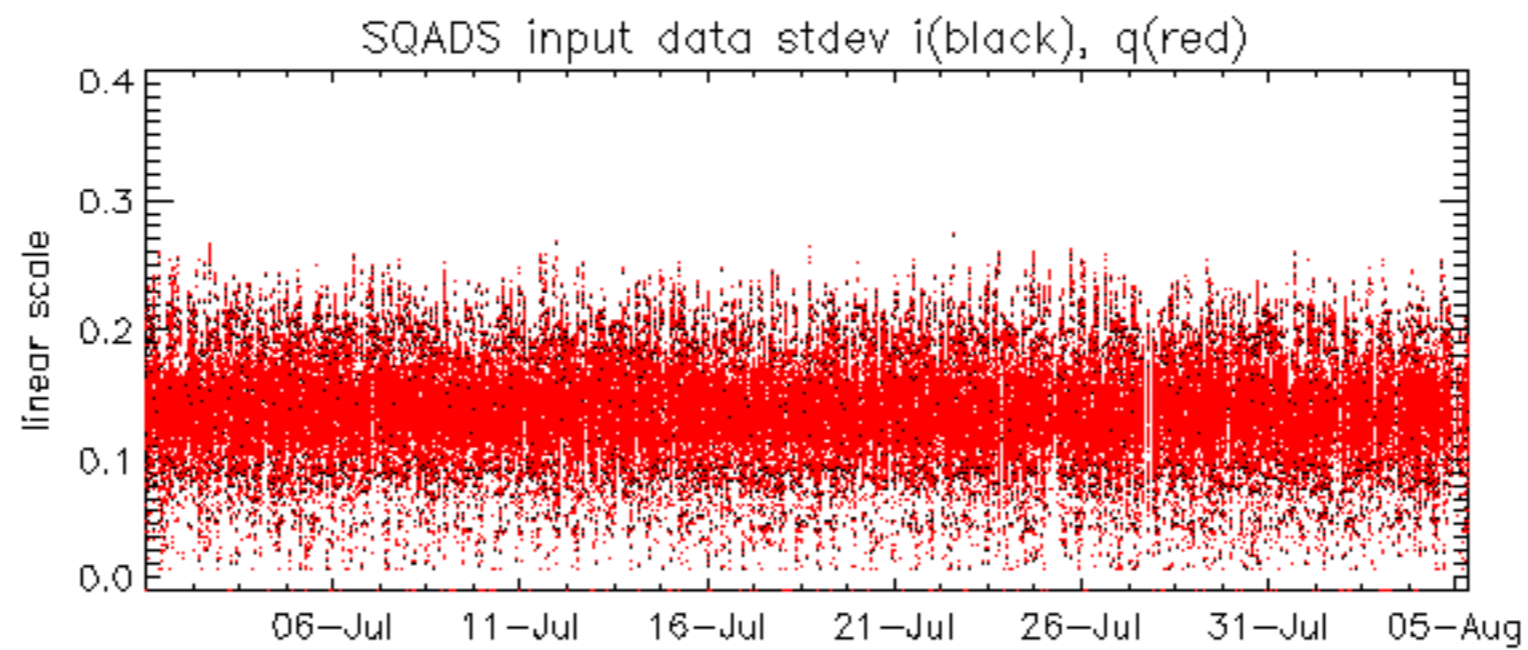
No anomalies observed on available MS products:

No anomalies observed.





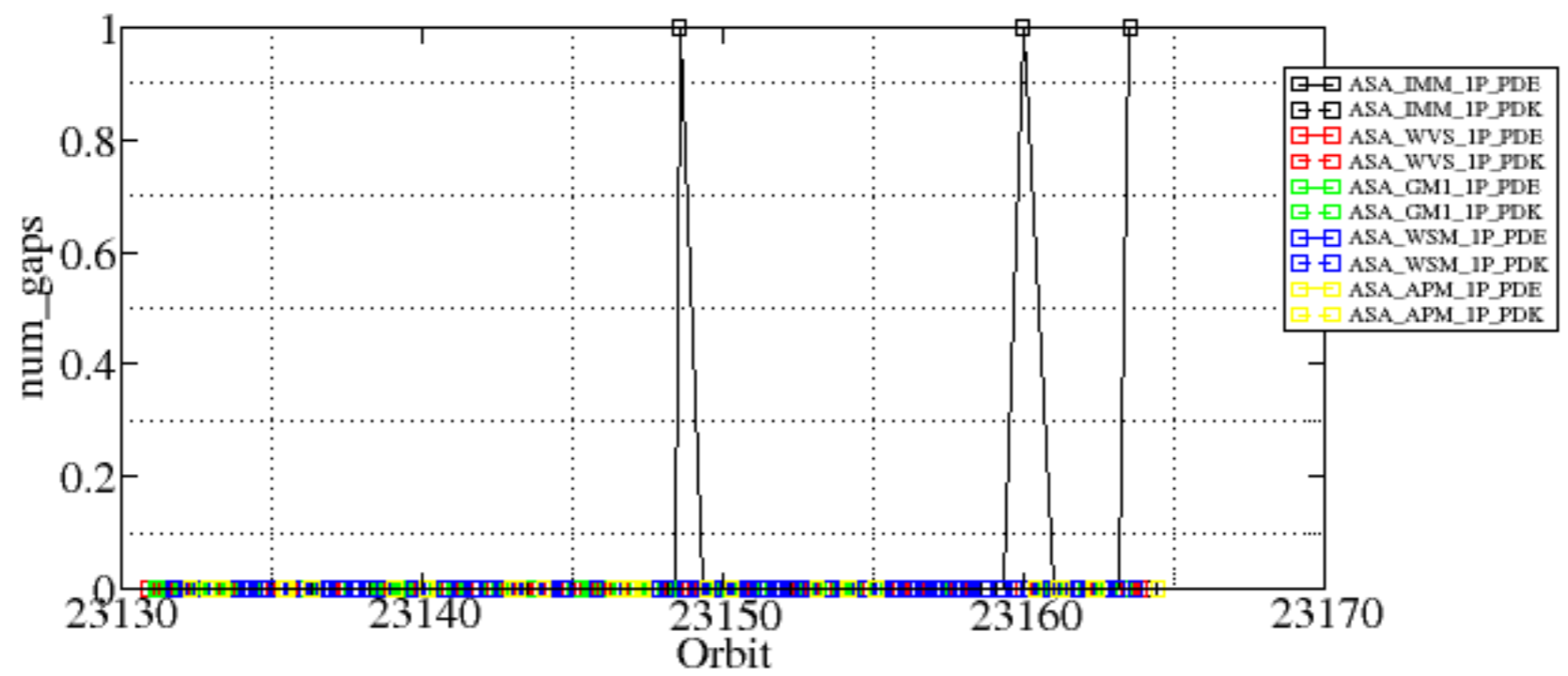


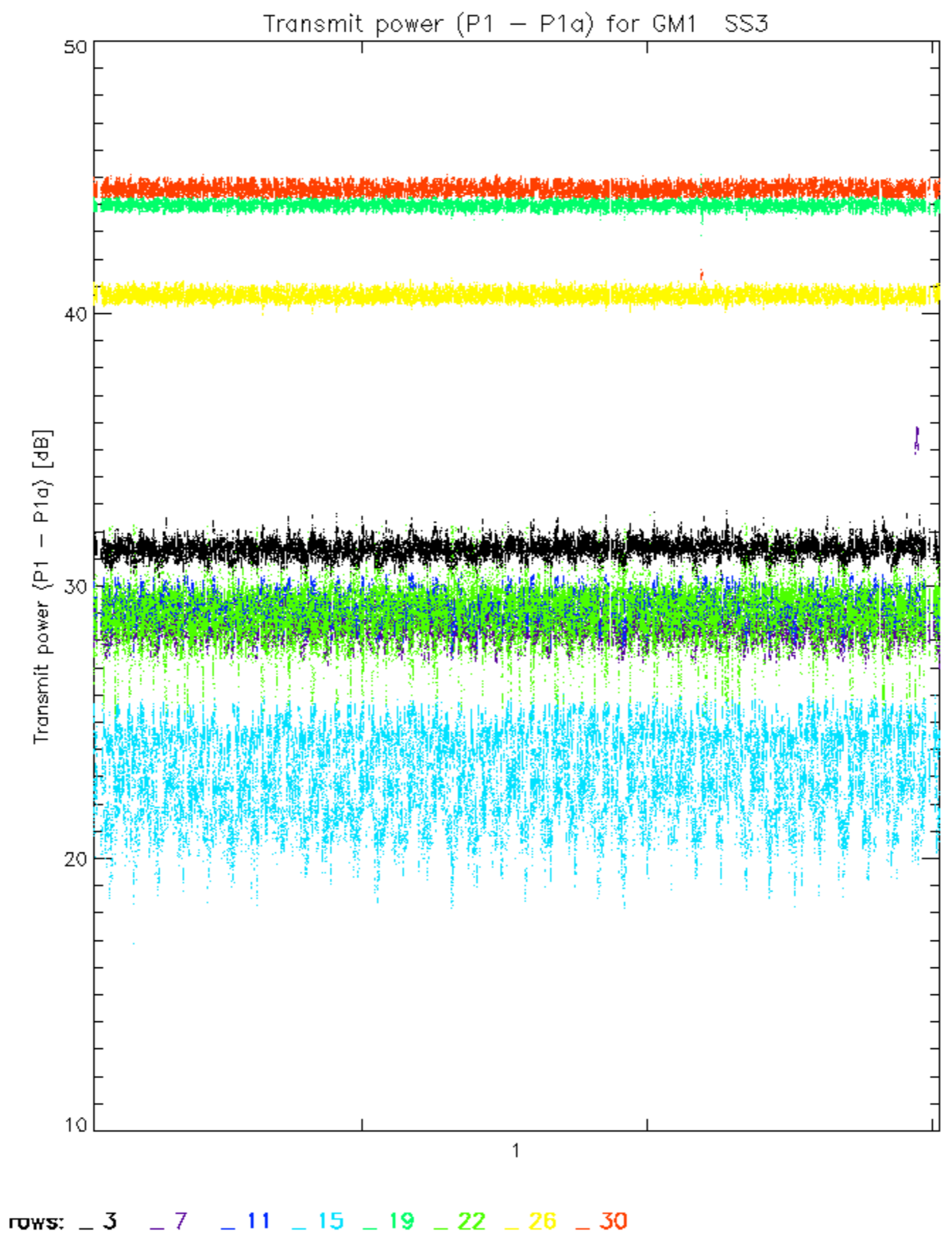


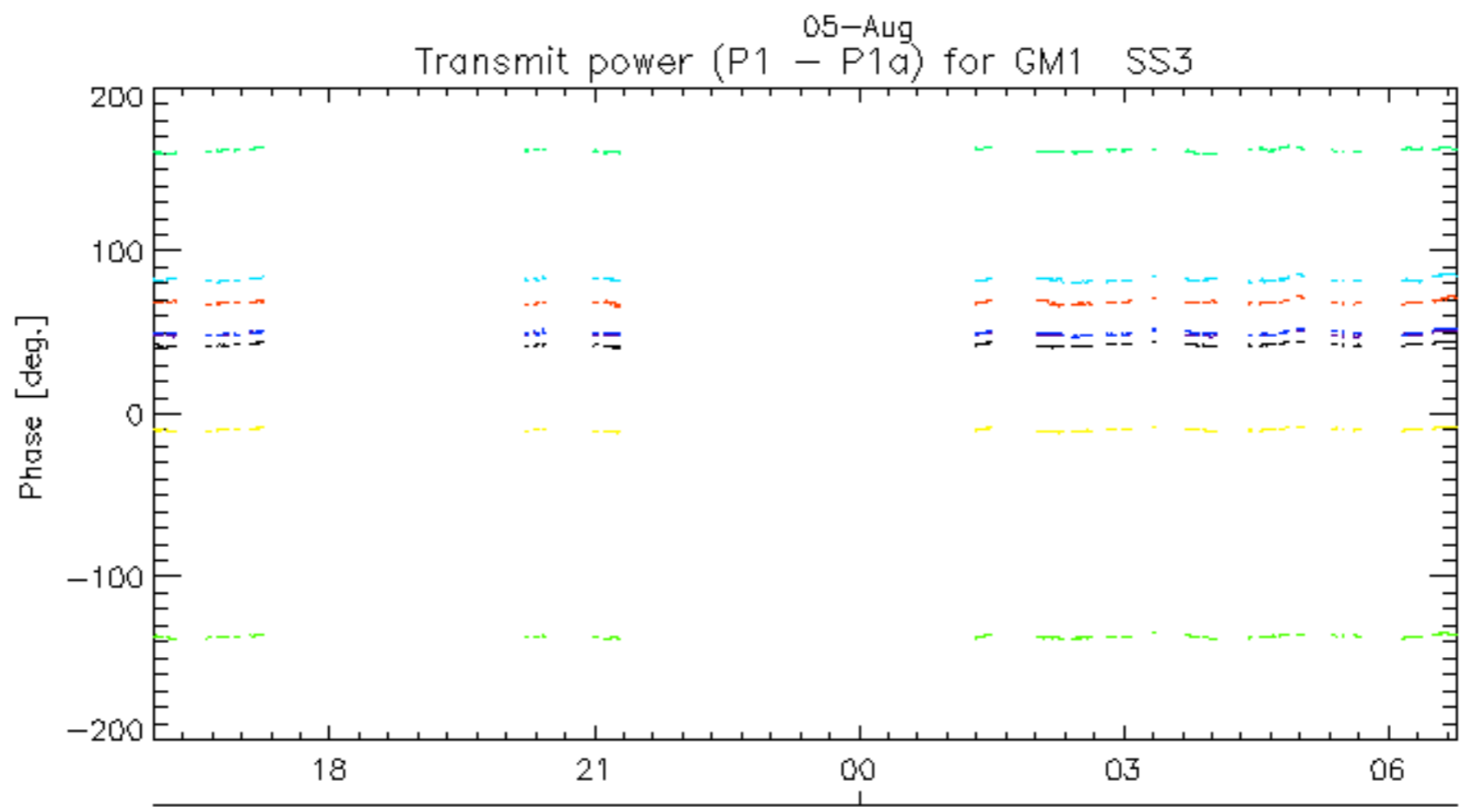
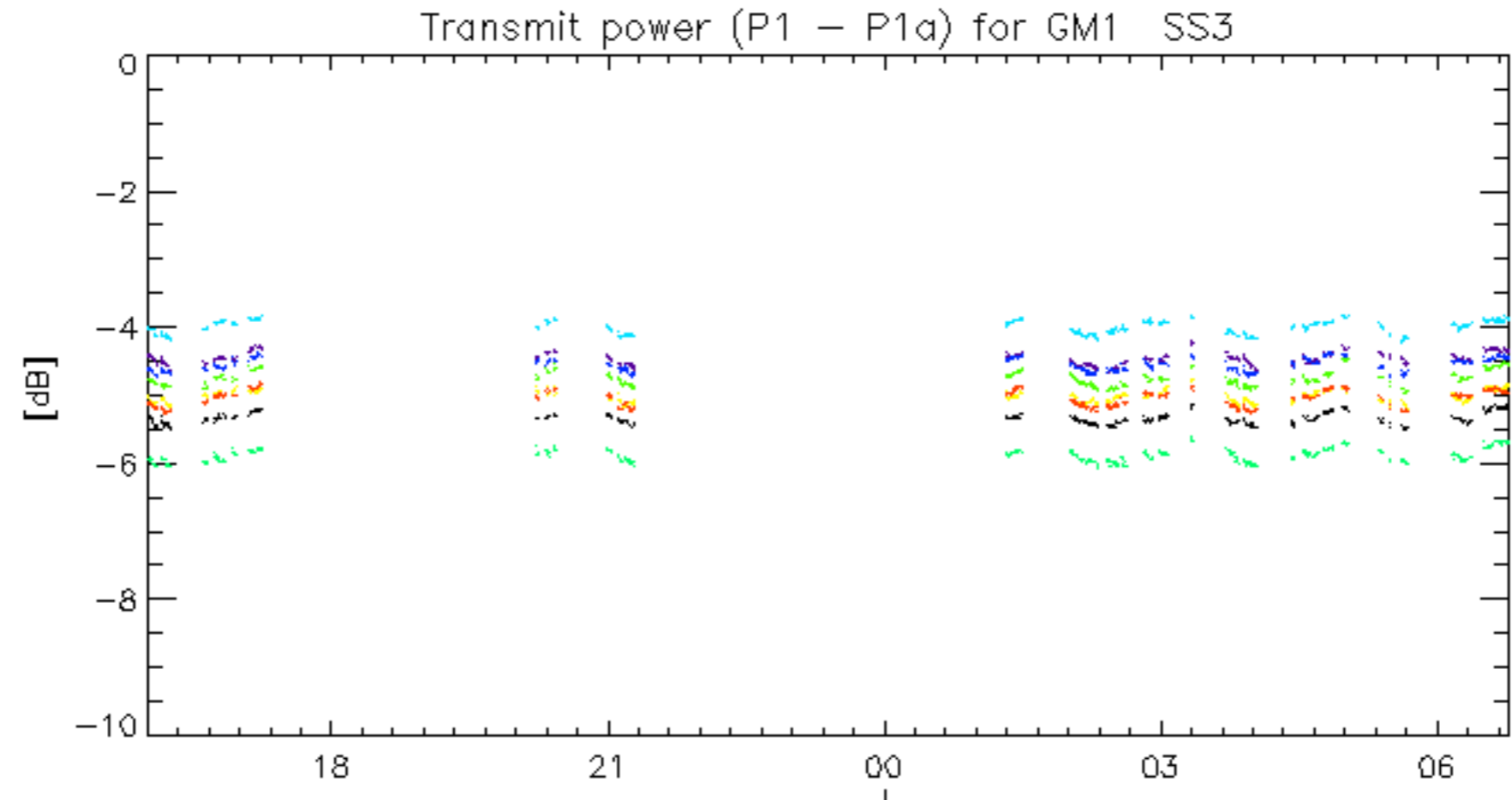
Summary of analysis for the last 3 days 2006080[345]

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

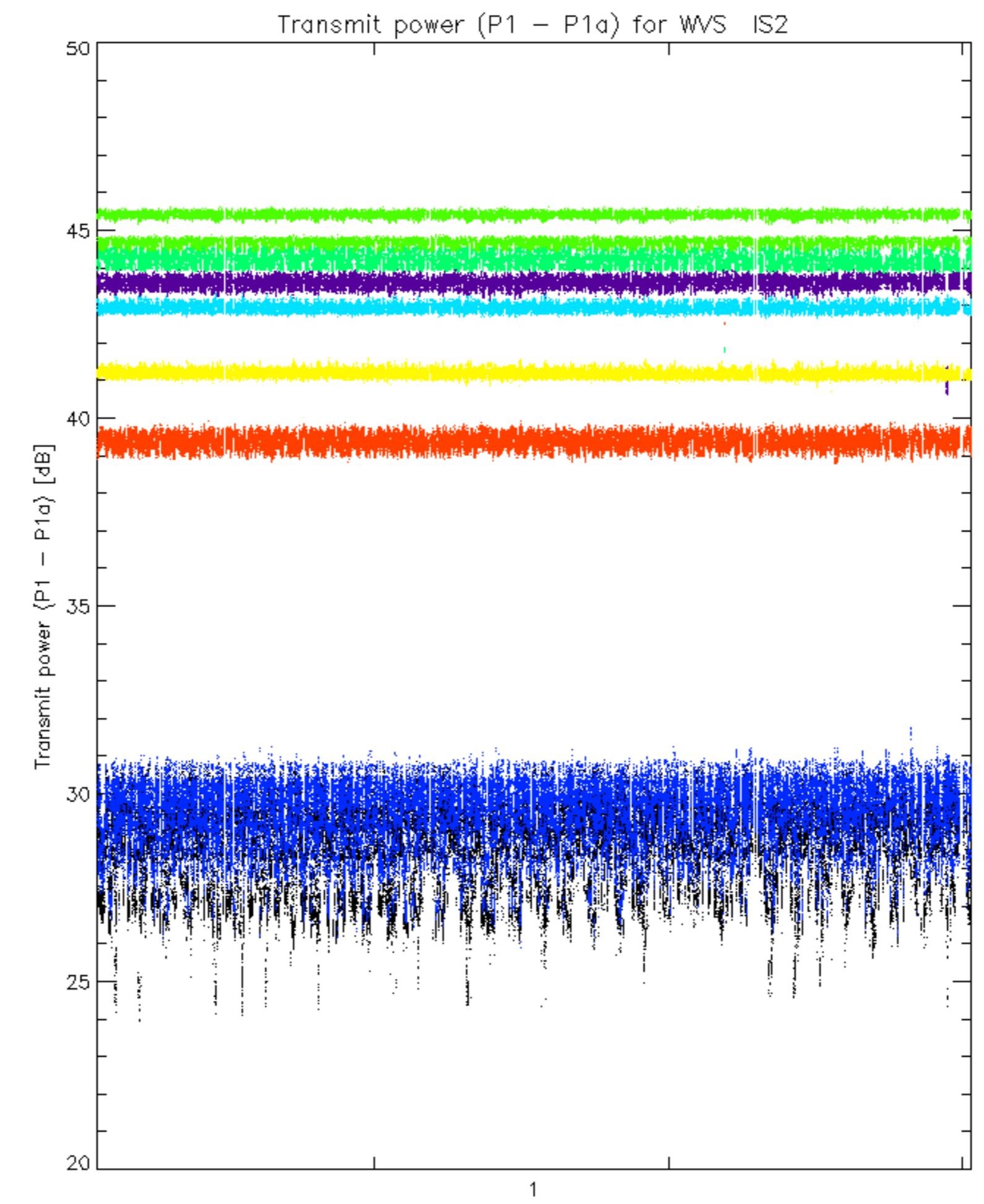
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060804_054400_000000352050_00048_23148_2915.N1	1	0
ASA_IMM_1PNPDE20060805_005031_000002372050_00059_23159_2980.N1	1	0
ASA_IMM_1PNPDE20060805_065012_000000362050_00063_23163_2992.N1	1	0
ASA_WSM_1PNPDE20060804_181615_000002202050_00056_23156_5846.N1	0	35



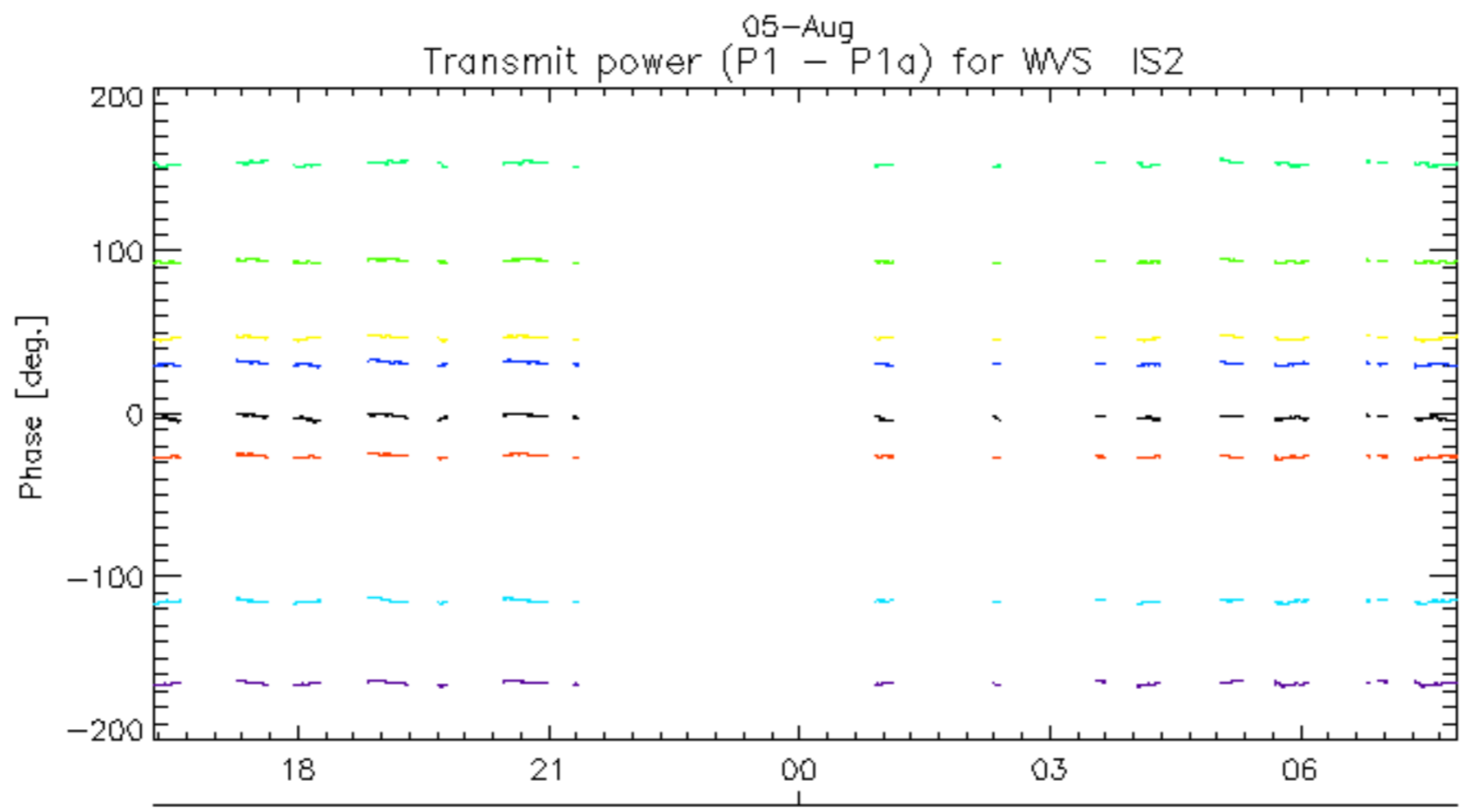
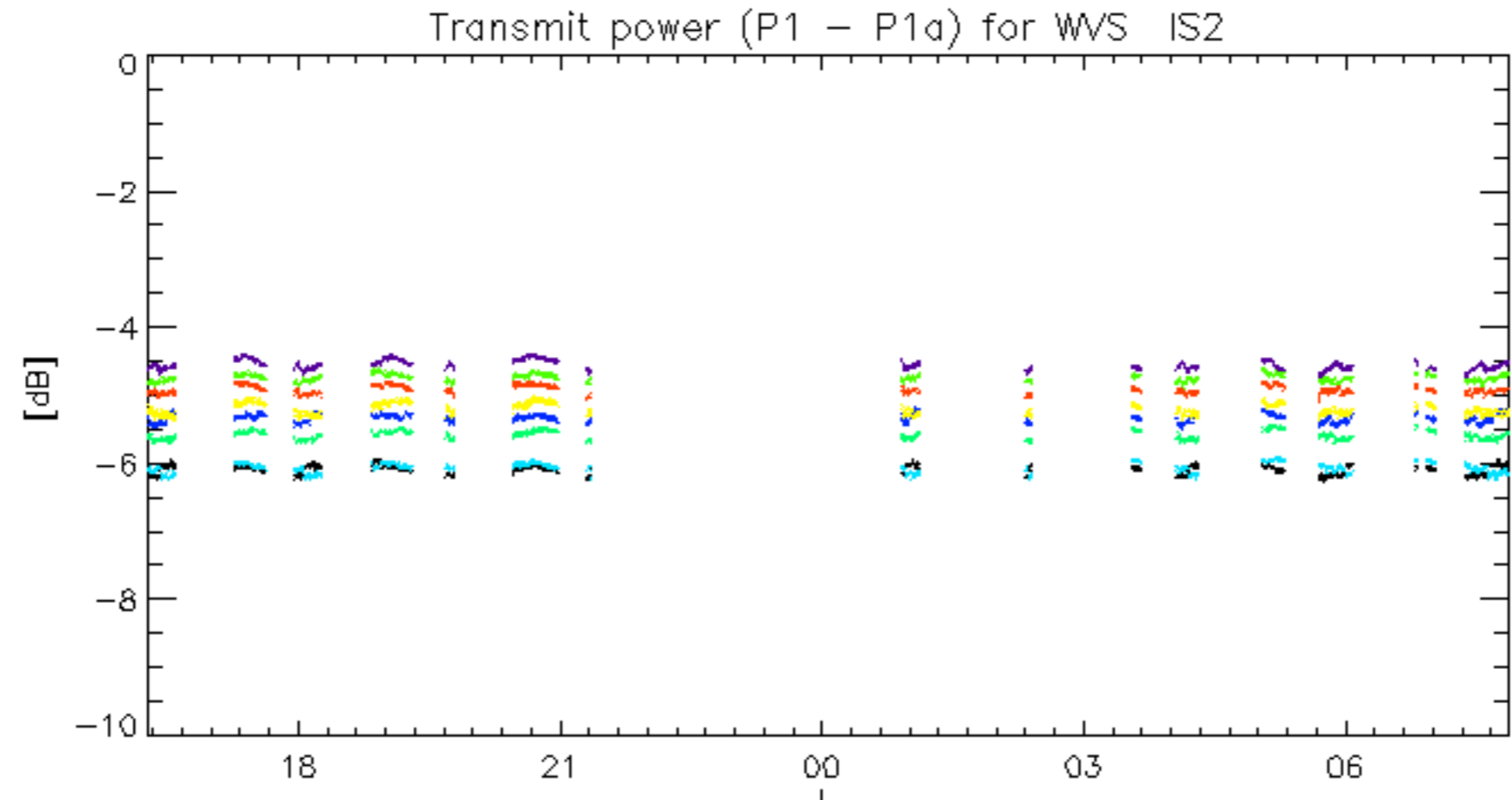




05-Aug
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.