

PRELIMINARY REPORT OF 060813

last update on Sun Aug 13 16:37:23 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 2006-08-12 00:00:00 to 2006-08-13 16:37:23

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	65	8	7	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	43	65	8	7	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	65	8	7	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	65	8	7	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	51	27	20	73
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	31	51	27	20	73
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	51	27	20	73
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	51	27	20	73

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	20060812 064406
H	20060813 061229

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	-3.941519	0.010268	-0.012733
7	P1	-3.111485	0.048743	-0.038475
11	P1	-4.099296	0.062146	-0.063964
15	P1	-6.197483	0.092137	-0.102228
19	P1	-3.427776	0.009937	-0.069393
22	P1	-4.559110	0.010101	-0.026030
26	P1	-3.922590	0.020015	0.005963
30	P1	-5.763926	0.009747	-0.005928
3	P1	-16.533892	0.250561	-0.029823
7	P1	-17.182056	0.130360	0.061480
11	P1	-16.937262	0.284086	0.174627
15	P1	-13.044580	0.174571	0.219358
19	P1	-14.488935	0.054095	-0.053045
22	P1	-15.971743	0.439945	0.165937
26	P1	-15.120495	0.229331	-0.040124
30	P1	-17.087997	0.336355	0.110684

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.924057	0.085914	0.108310
7	P2	-21.880384	0.103019	0.079713
11	P2	-15.773785	0.119129	0.036047
15	P2	-7.118506	0.098394	0.027830
19	P2	-9.126334	0.090613	0.026275
22	P2	-18.147291	0.086044	0.012983
26	P2	-16.401108	0.092203	0.006133
30	P2	-19.502819	0.091715	0.047317

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172896	0.003211	0.002937
7	P3	-8.172896	0.003211	0.002937
11	P3	-8.172896	0.003211	0.002937
15	P3	-8.172896	0.003211	0.002937
19	P3	-8.172896	0.003211	0.002937
22	P3	-8.172896	0.003211	0.002937
26	P3	-8.172896	0.003211	0.002937
30	P3	-8.172896	0.003211	0.002937

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	-3.825354	0.008783	-0.008980
7	P1	-2.588975	0.125042	-0.138519
11	P1	-2.887664	0.124026	-0.148758
15	P1	-3.618575	0.140682	-0.186988
19	P1	-3.425526	0.023730	-0.004028
22	P1	-5.084958	0.019411	-0.005567
26	P1	-5.862518	0.016089	-0.007159
30	P1	-5.195041	0.033413	0.012916
3	P1	-11.620254	0.043276	-0.006627
7	P1	-9.973917	0.047246	-0.043583
11	P1	-10.264213	0.061512	-0.084814
15	P1	-10.764041	0.145970	-0.067862
19	P1	-15.554560	0.499252	0.029024
22	P1	-20.919905	1.296081	0.002483
26	P1	-16.215178	0.392210	0.225616
30	P1	-17.960735	0.415149	-0.133826

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.541243	0.071843	0.173471
7	P2	-22.338827	0.116187	0.144535
11	P2	-11.009658	0.041398	0.107899
15	P2	-4.895987	0.043982	0.039801
19	P2	-6.863052	0.039329	0.027631
22	P2	-8.189061	0.034509	0.013160
26	P2	-24.177605	0.058998	0.010272
30	P2	-21.993170	0.047176	0.045732

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.011156	0.003699	0.002217
7	P3	-8.011084	0.003698	0.002160
11	P3	-8.011154	0.003703	0.001782
15	P3	-8.011157	0.003700	0.001862
19	P3	-8.011032	0.003706	0.002177
22	P3	-8.011253	0.003690	0.001923
26	P3	-8.011105	0.003692	0.002014
30	P3	-8.011118	0.003702	0.001860

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	0.000562698
	stdev	1.70480e-07
MEAN Q	mean	0.000536328
	stdev	2.14302e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137623
	stdev	0.00107720
STDEV Q	mean	0.137979
	stdev	0.00109428



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006081[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_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
ASA_WSM_1PNPDE20060811_015537_000002082050_00146_23246_7082.N1	0	41
ASA_WSM_1PNPDE20060811_161601_000001642050_00155_23255_7191.N1	0	39
ASA_WSM_1PNPDE20060812_112329_000001152050_00166_23266_7355.N1	0	75
ASA_WSM_1PNPDE20060812_172251_000001842050_00170_23270_7388.N1	0	3
ASA_WSM_1PNPDE20060813_005024_000002632050_00174_23274_7469.N1	0	36
ASA_APM_1PNPDE20060811_143629_000000852050_00154_23254_1573.N1	0	10





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)

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

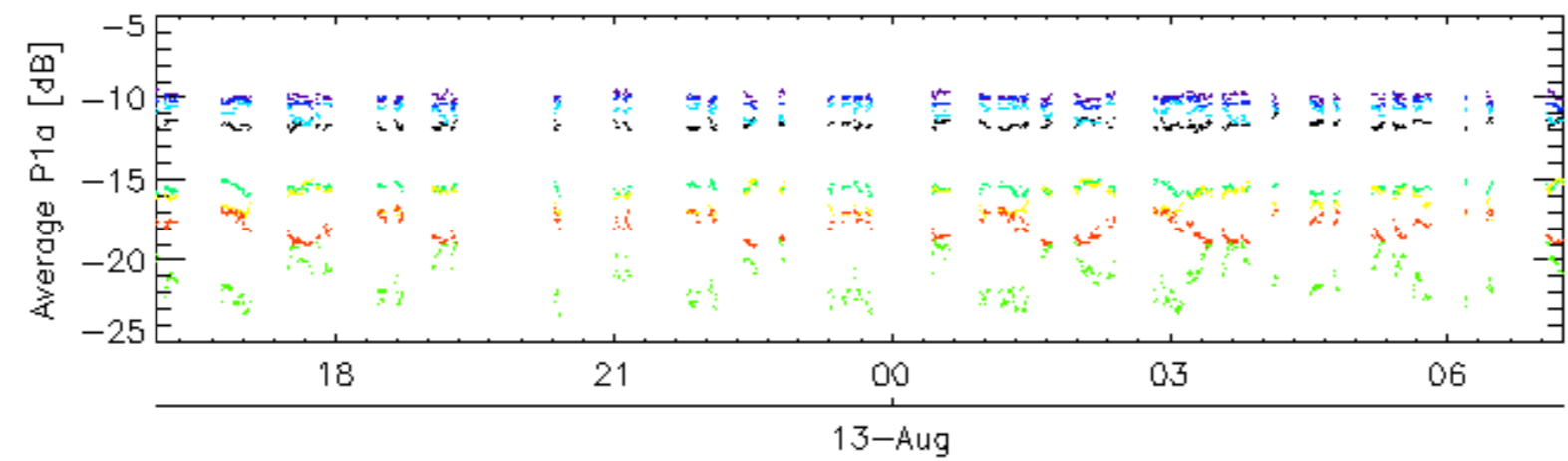
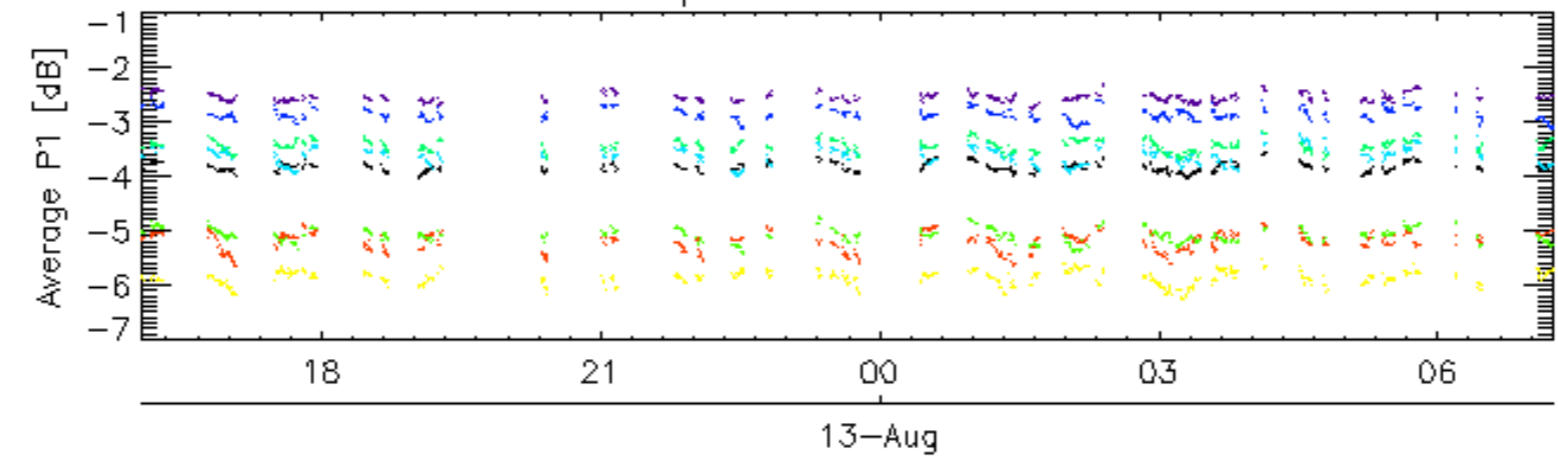
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

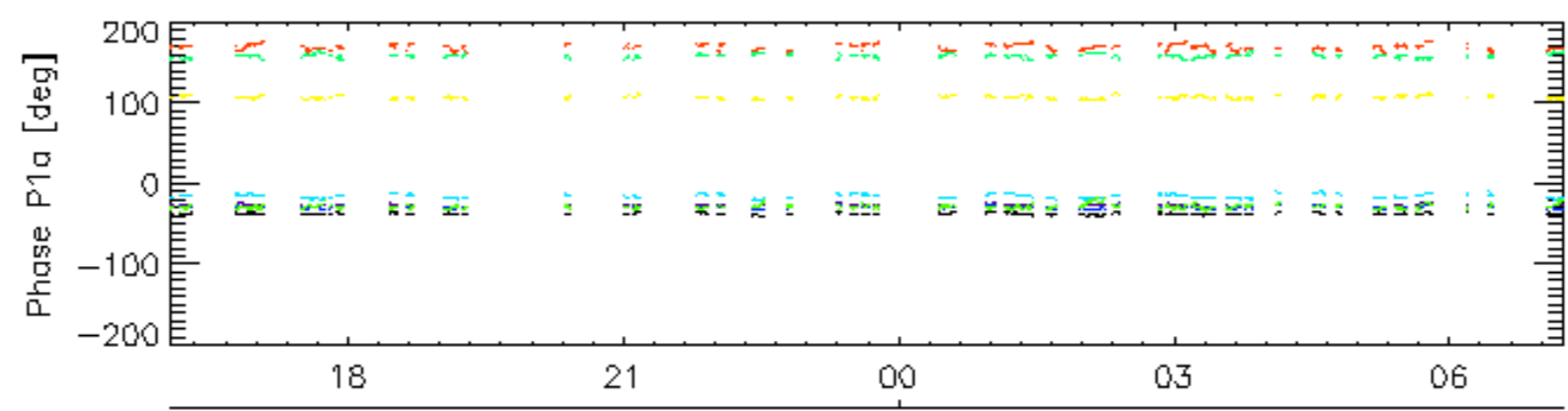
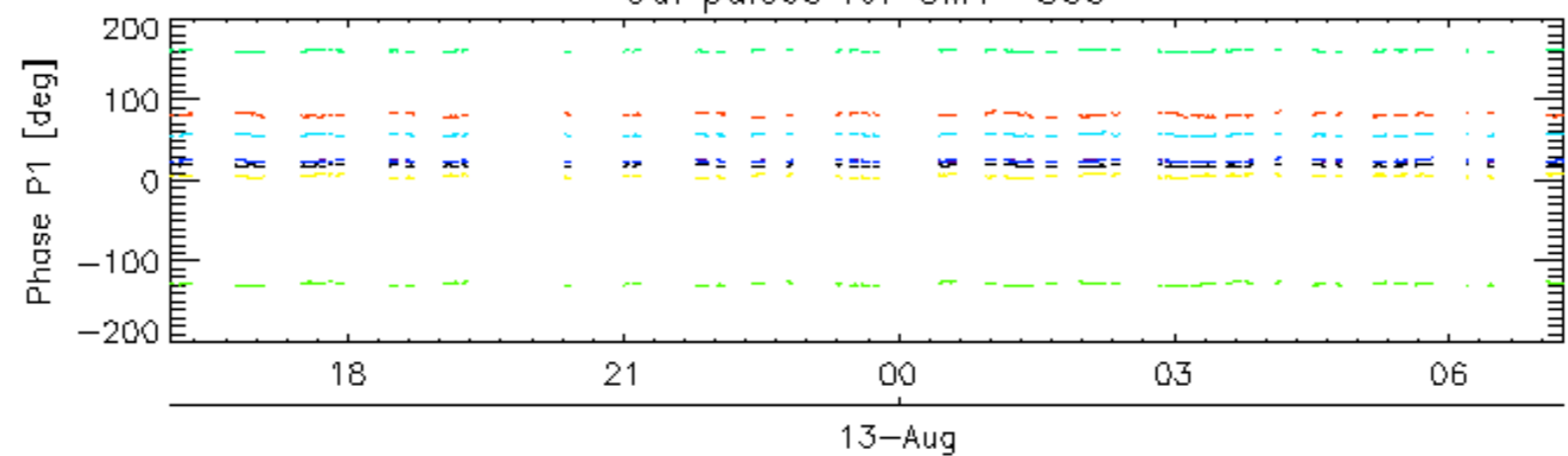
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

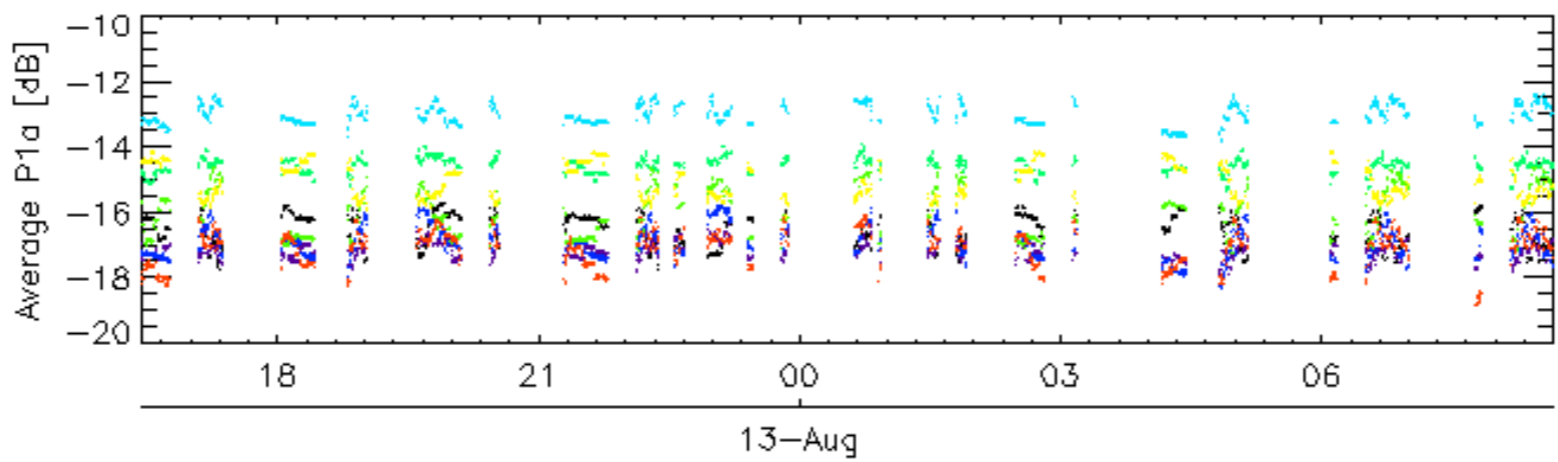
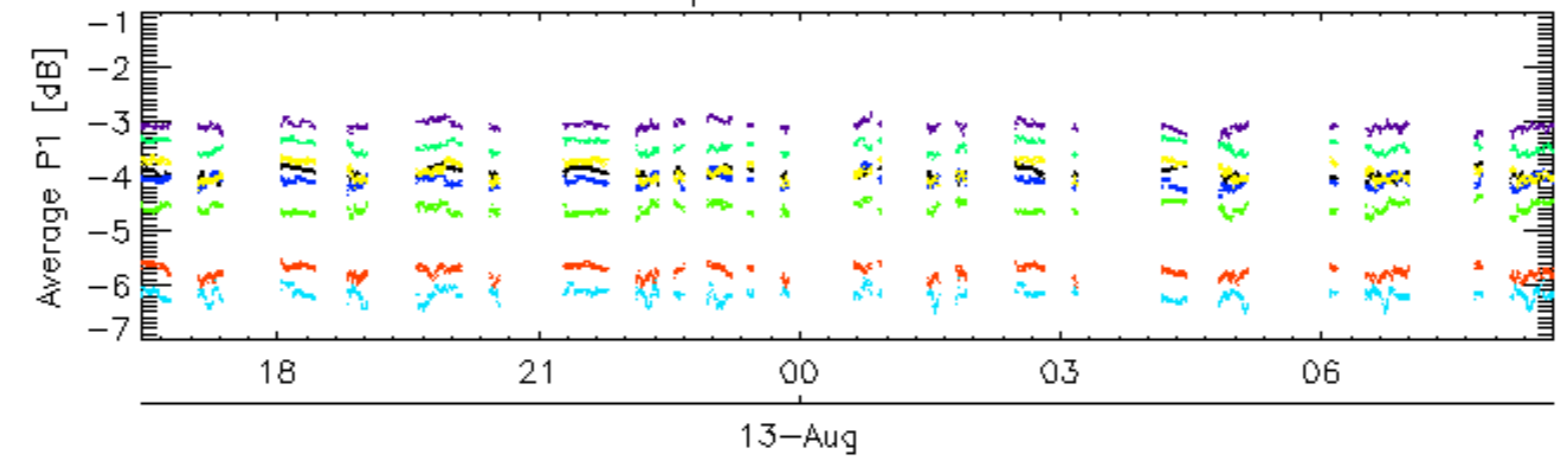


Cal pulses for GM1 SS3

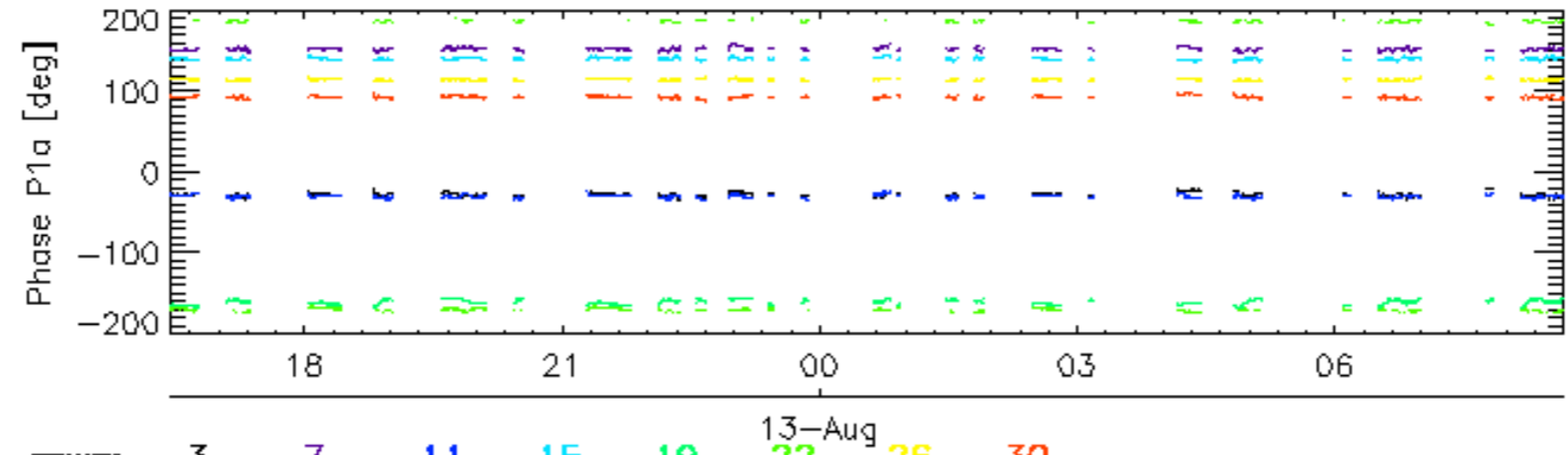
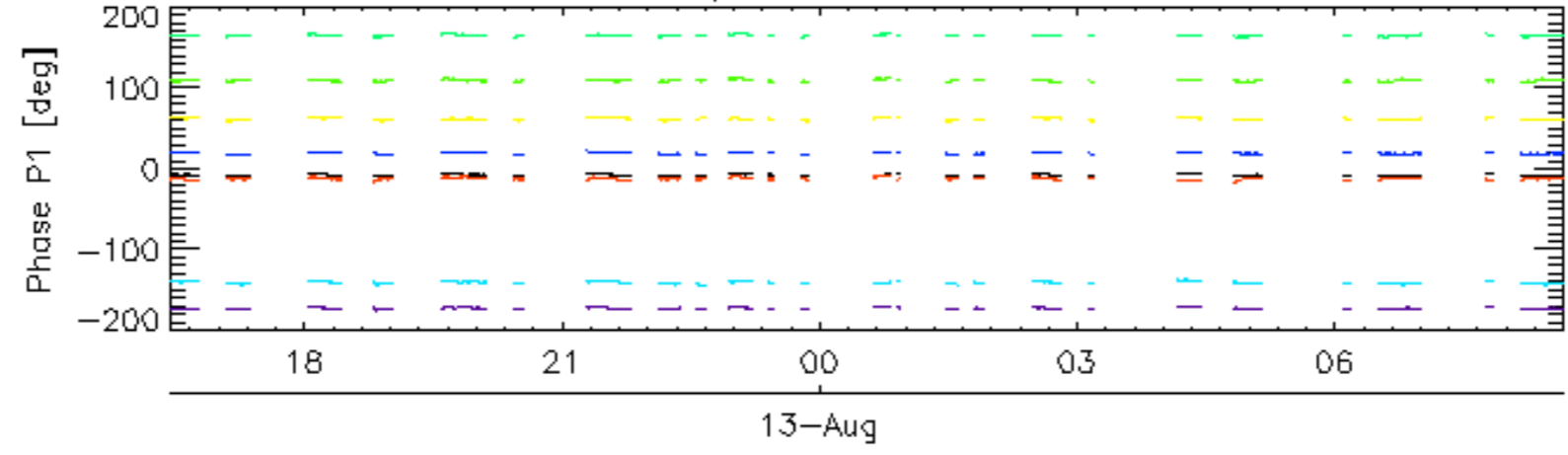


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

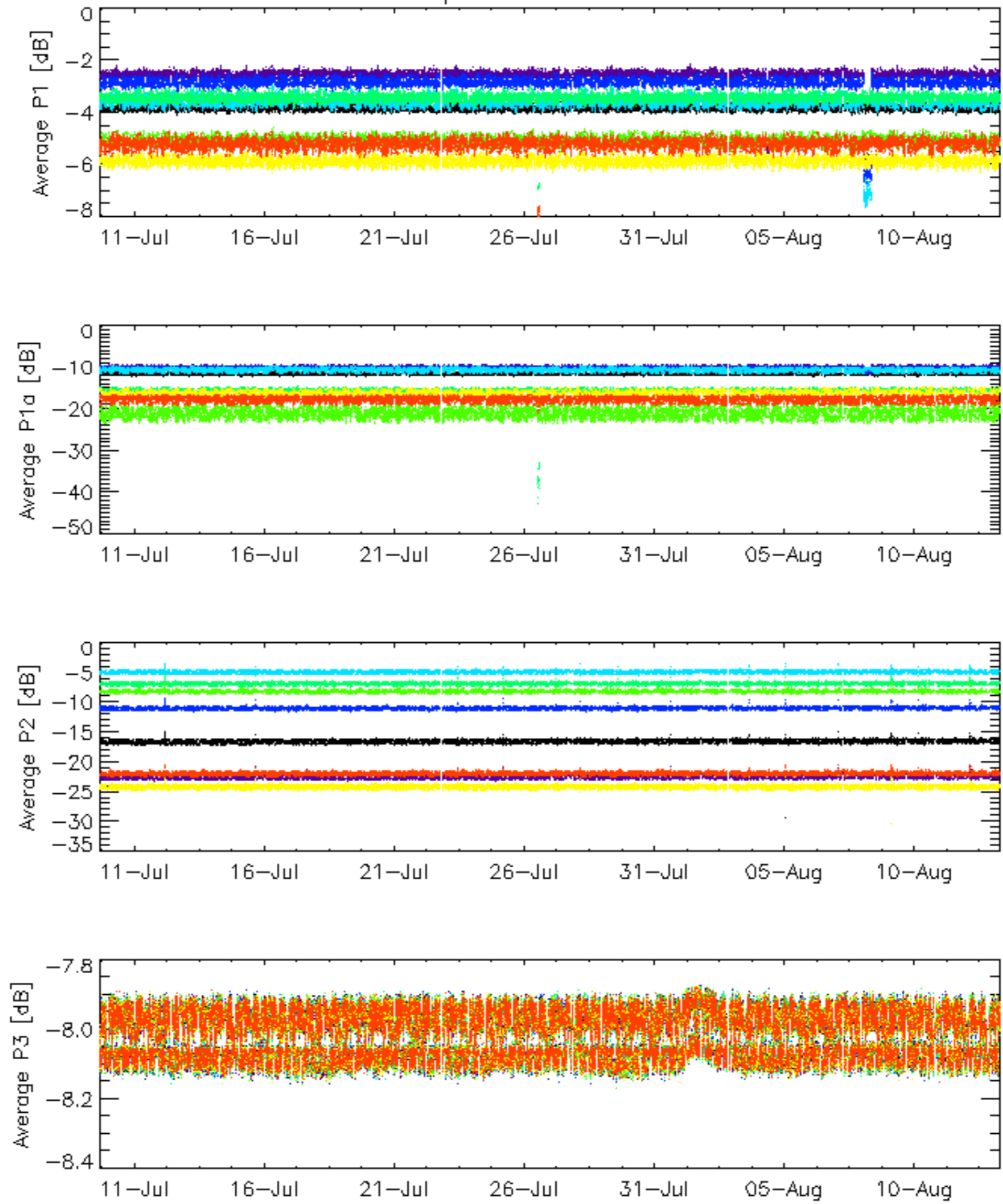


Cal pulses for WVS IS2



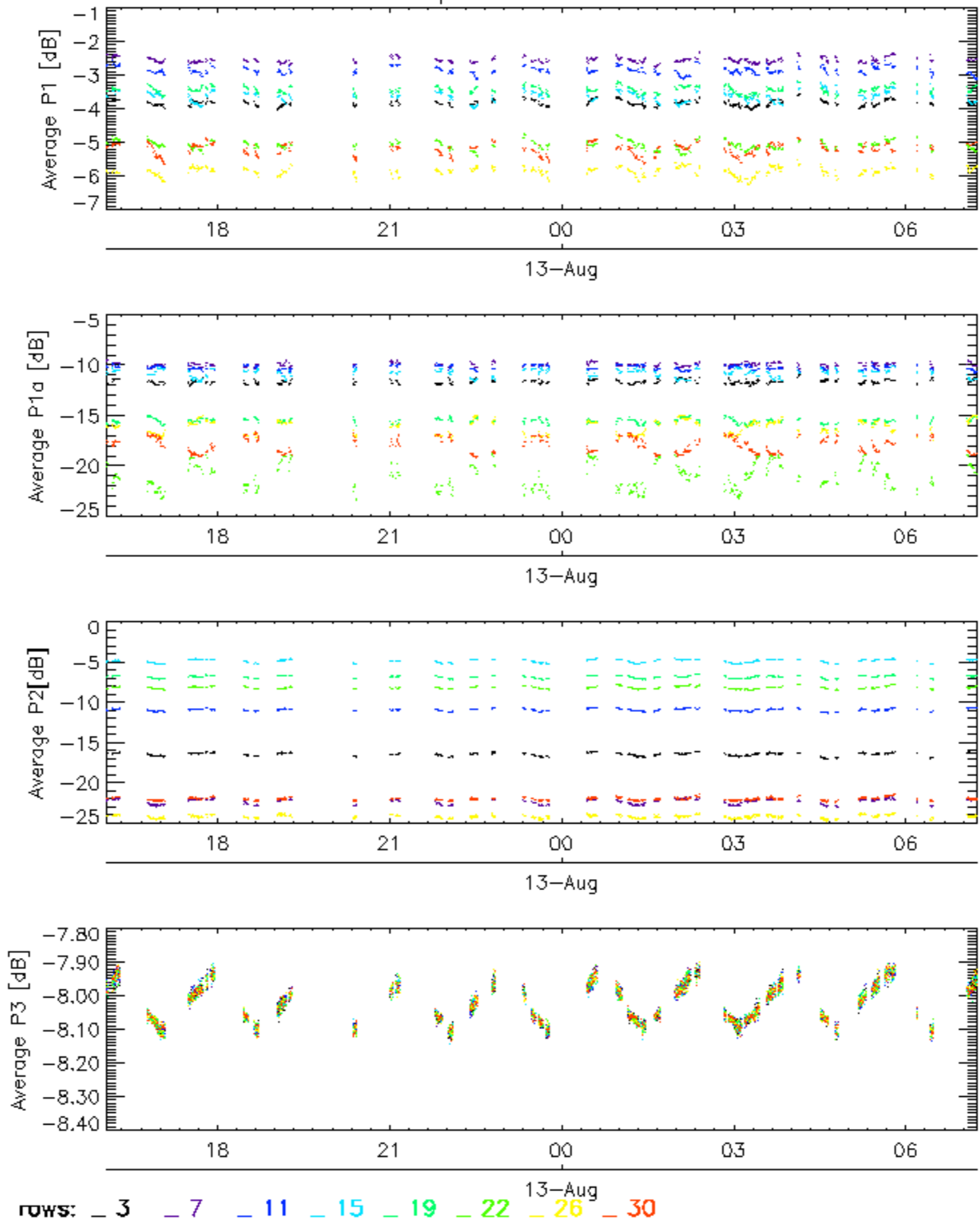
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

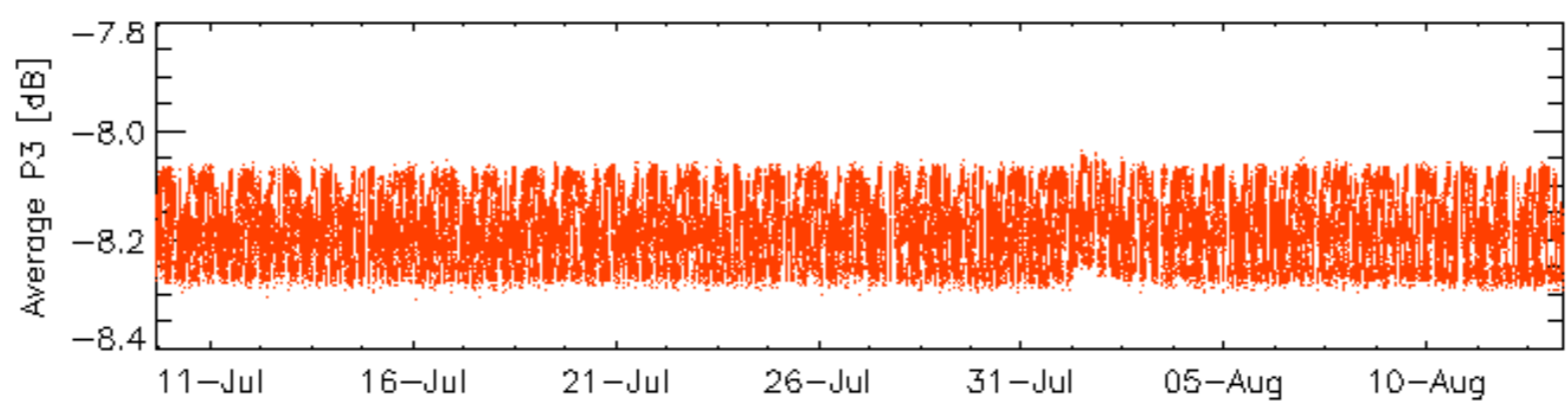
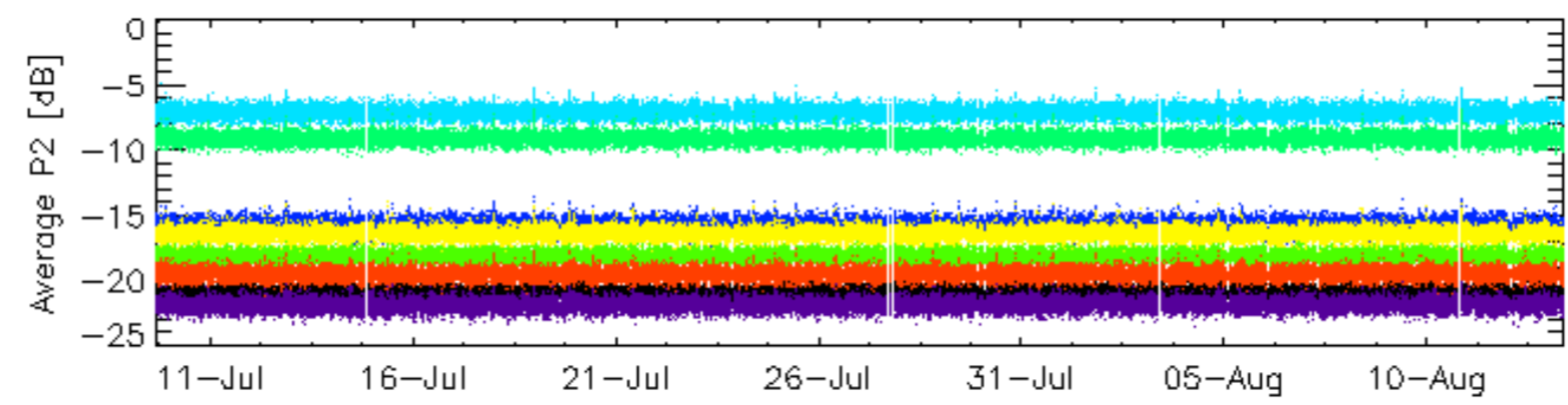
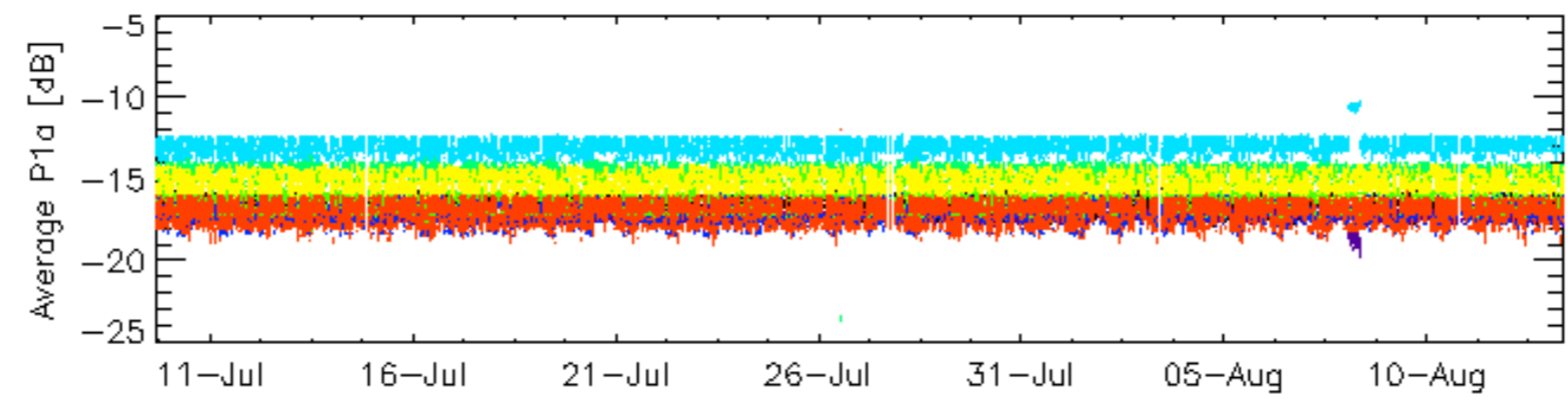
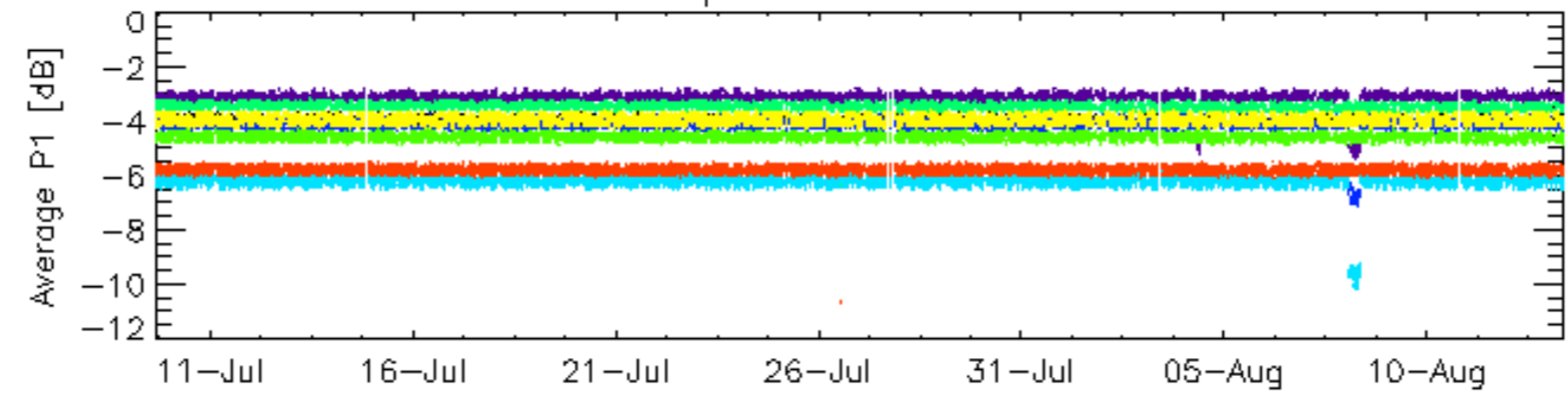


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

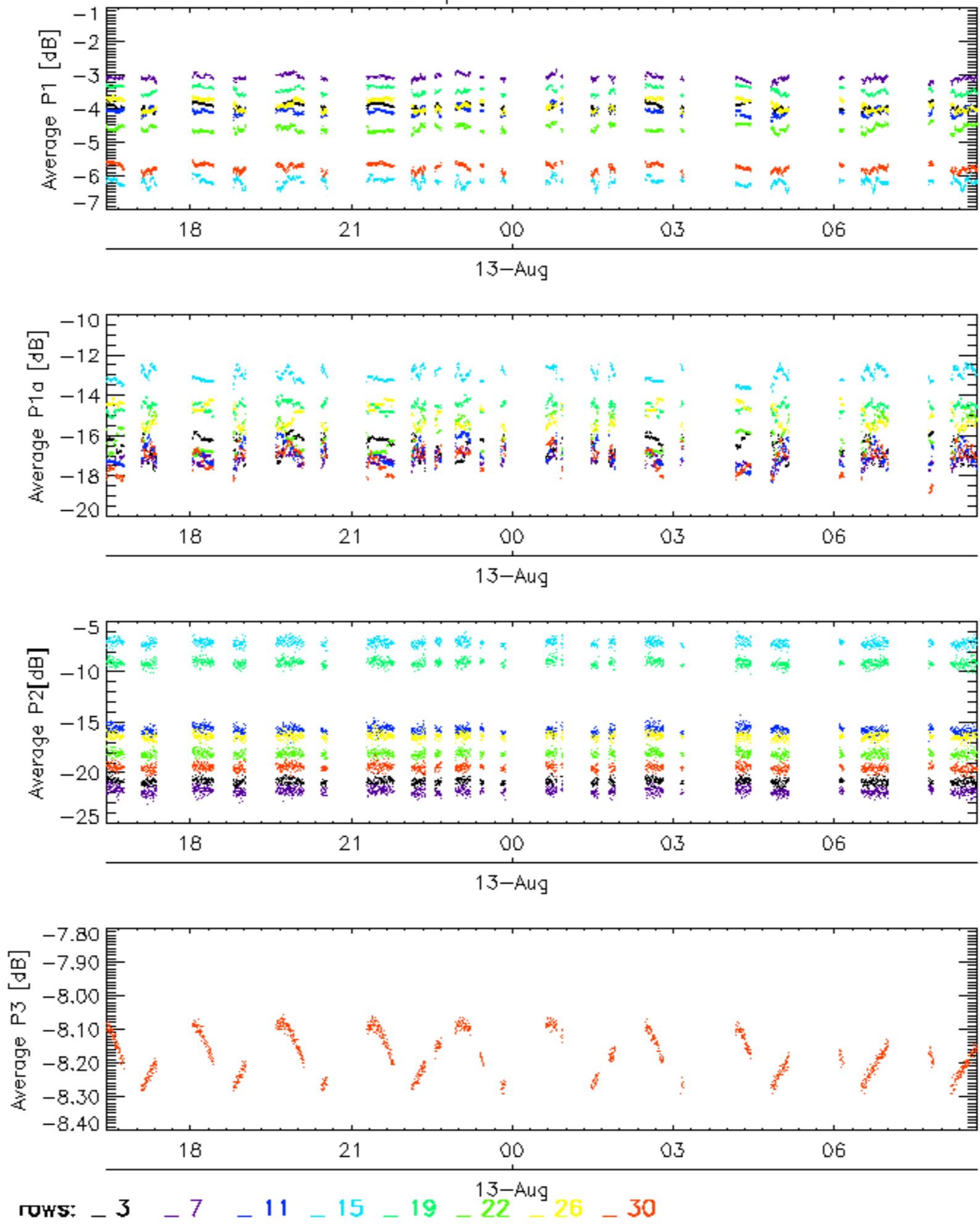


Cal pulses for WVS IS2

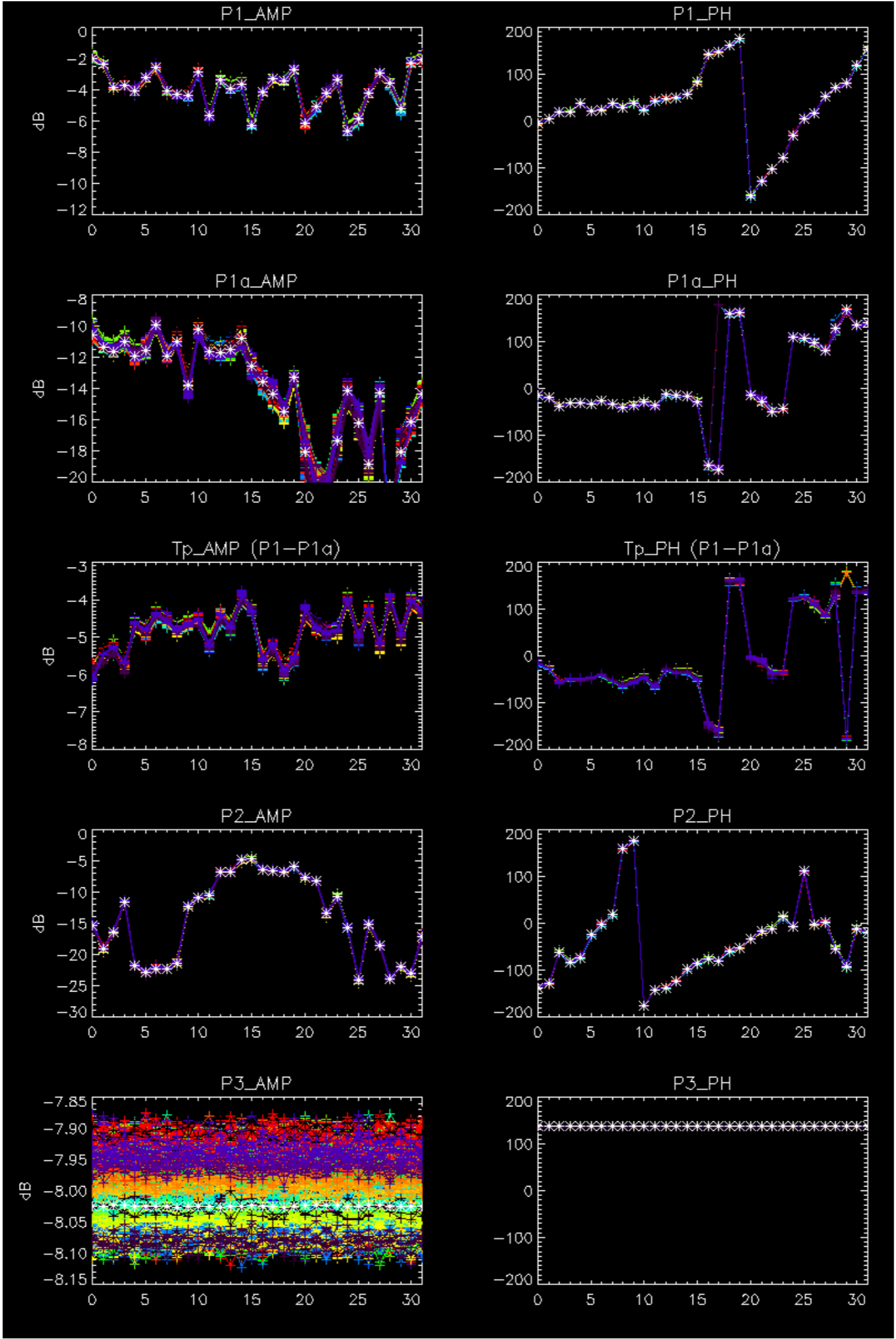


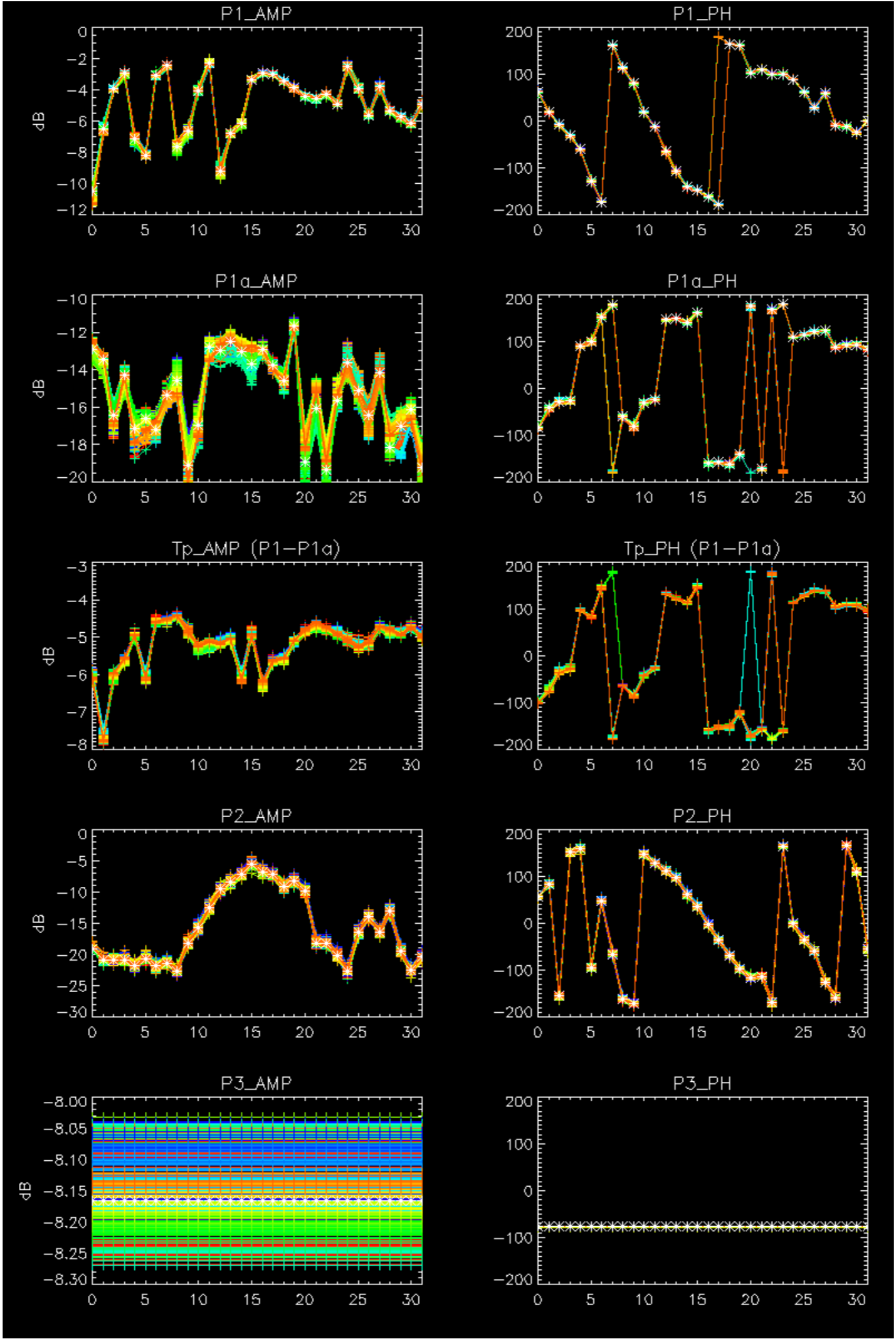
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



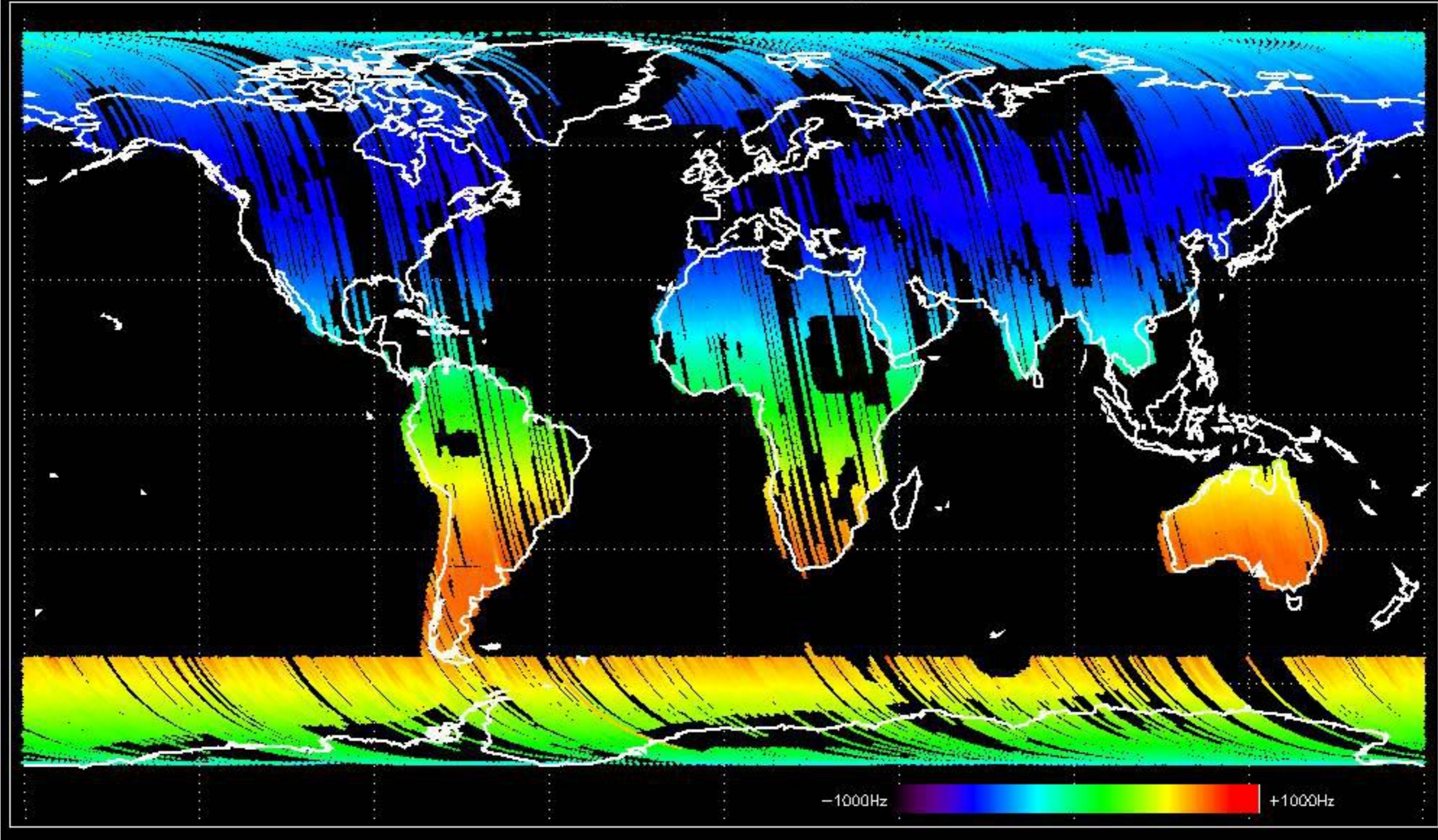
No anomalies observed.



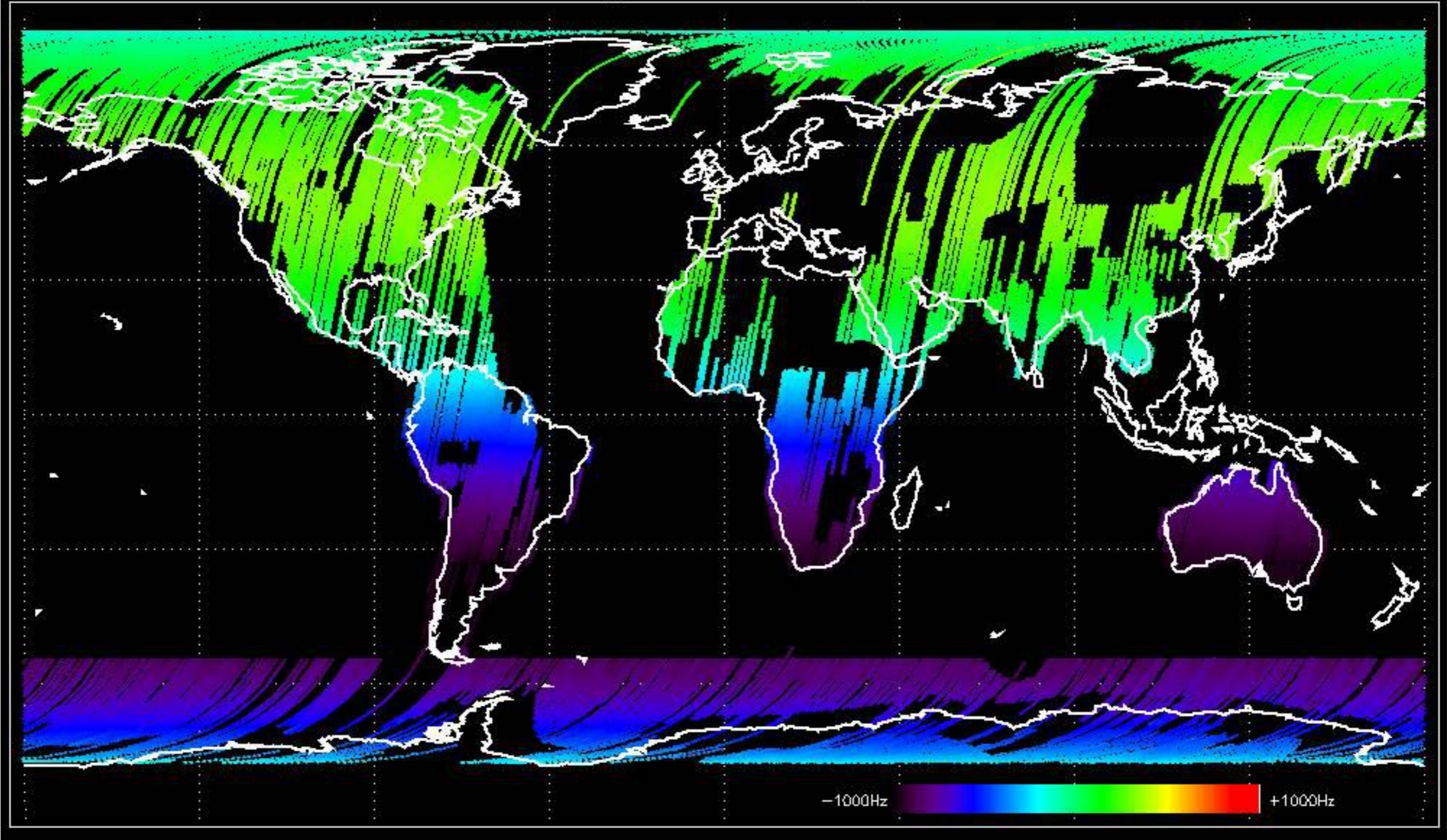


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

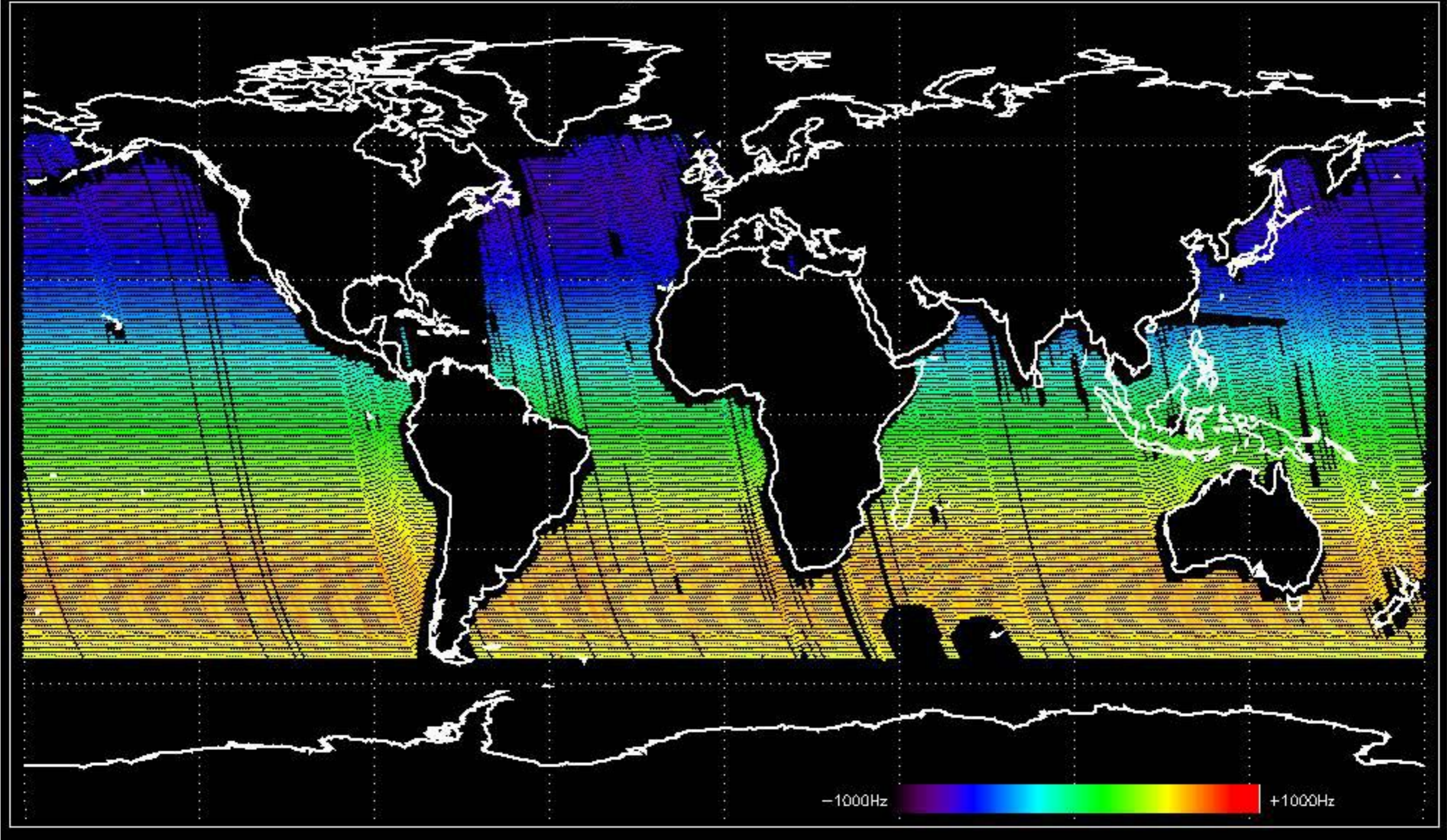
Doppler 'GM1' 'SS1' ascending



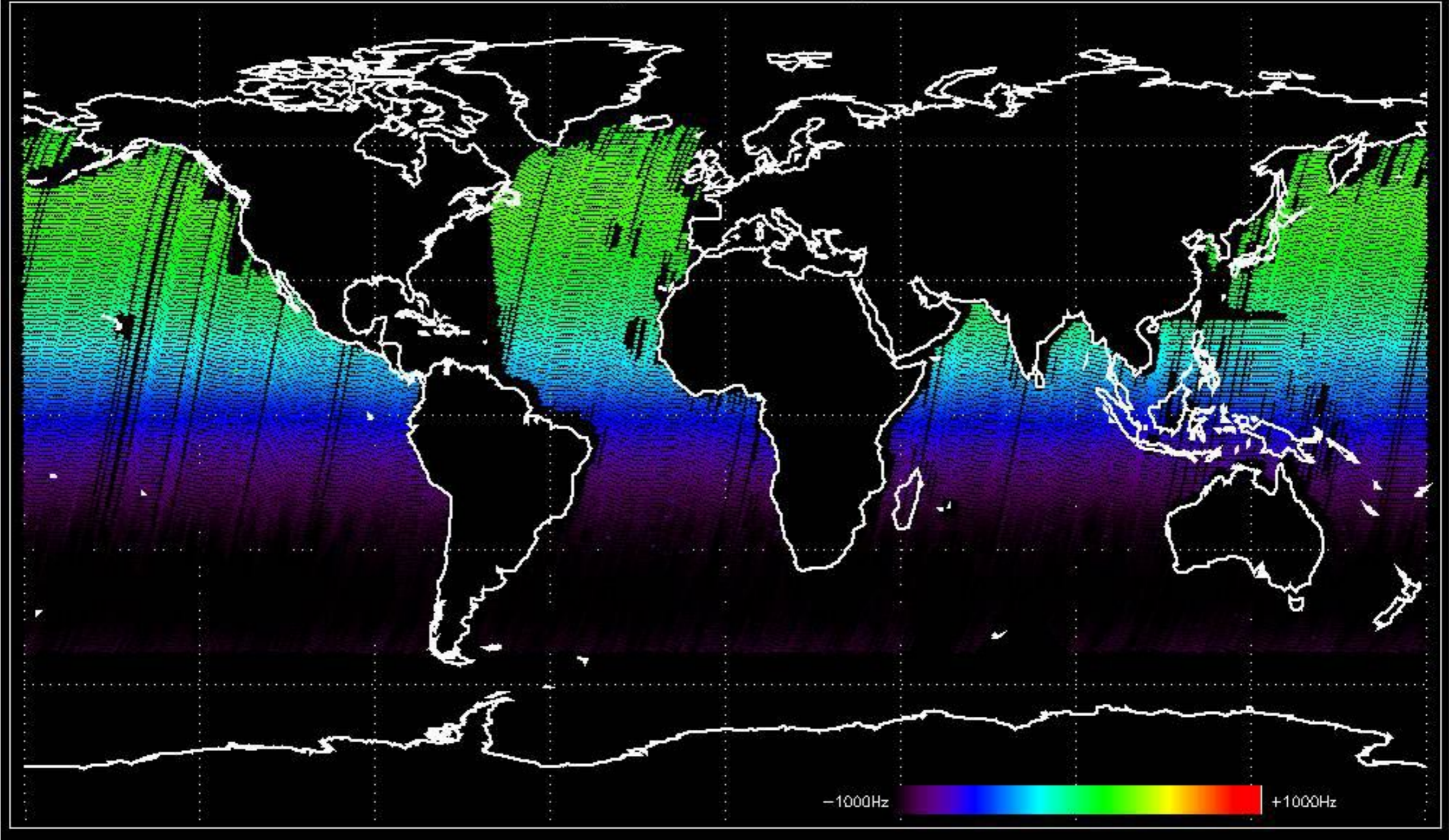
Doppler 'GM1' 'SS1' descending



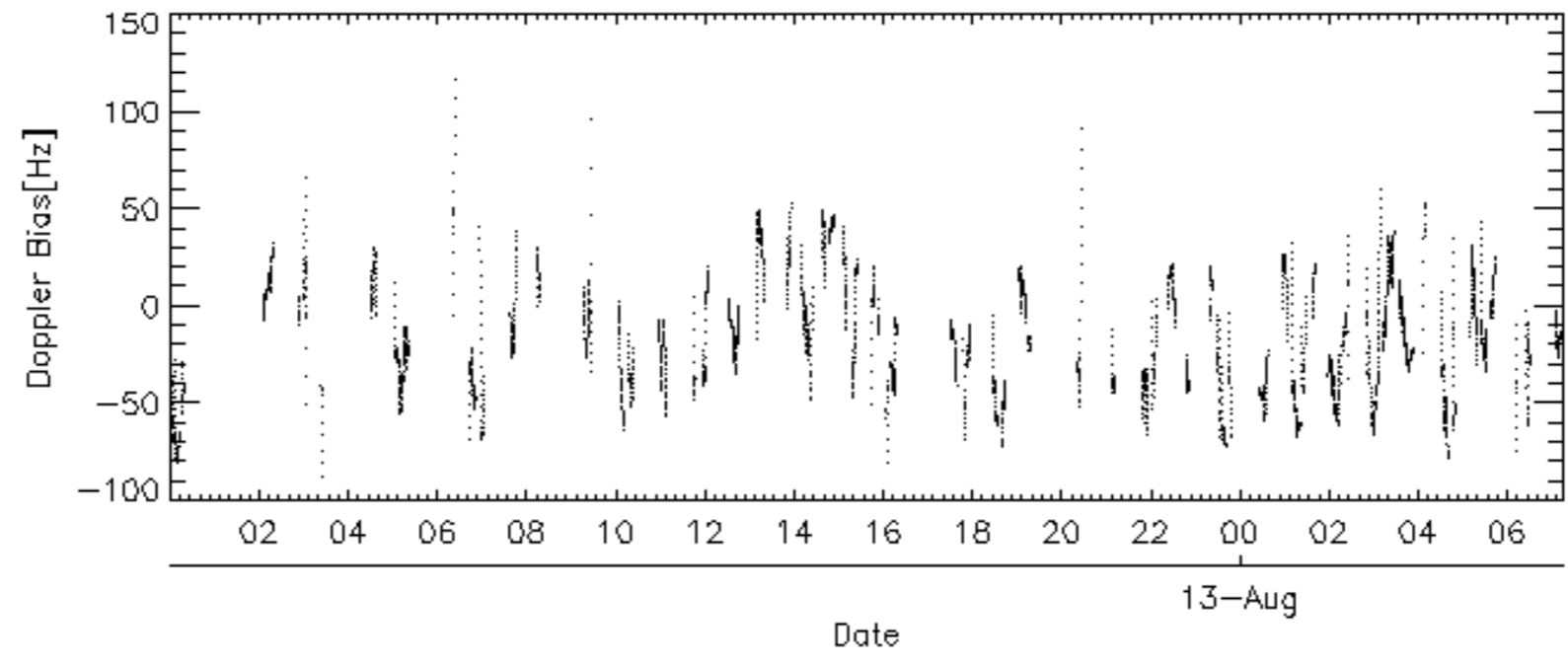
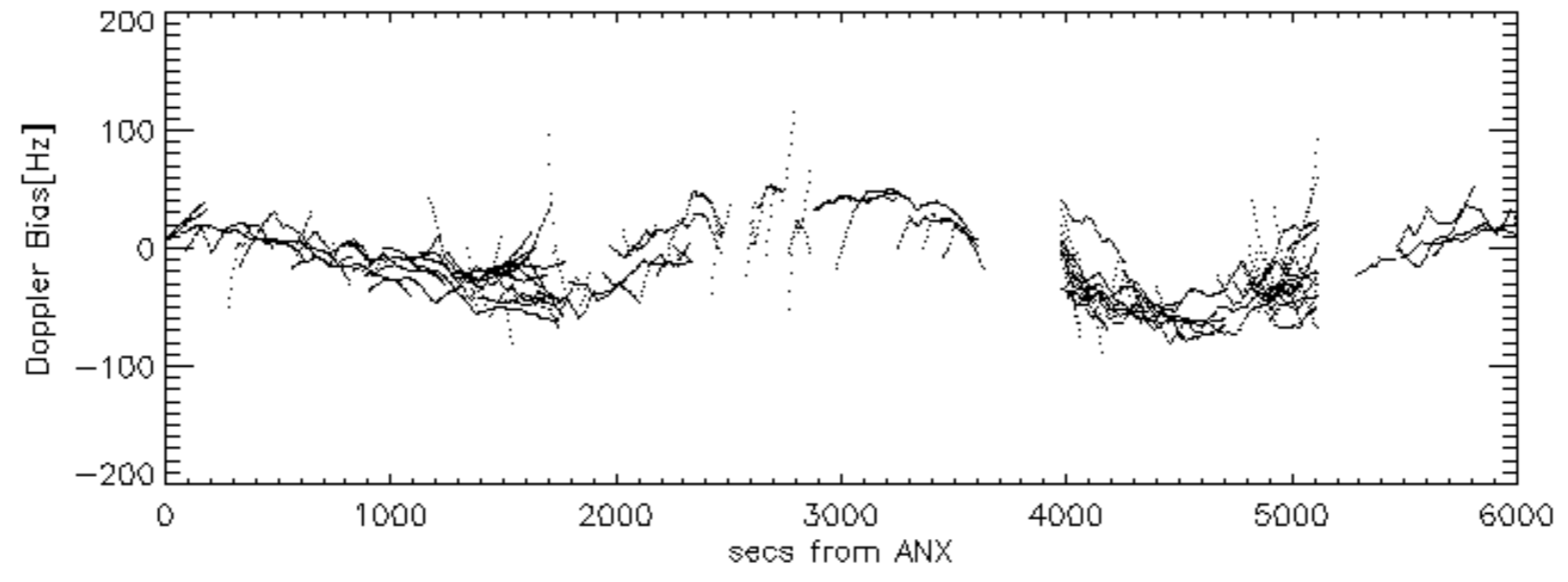
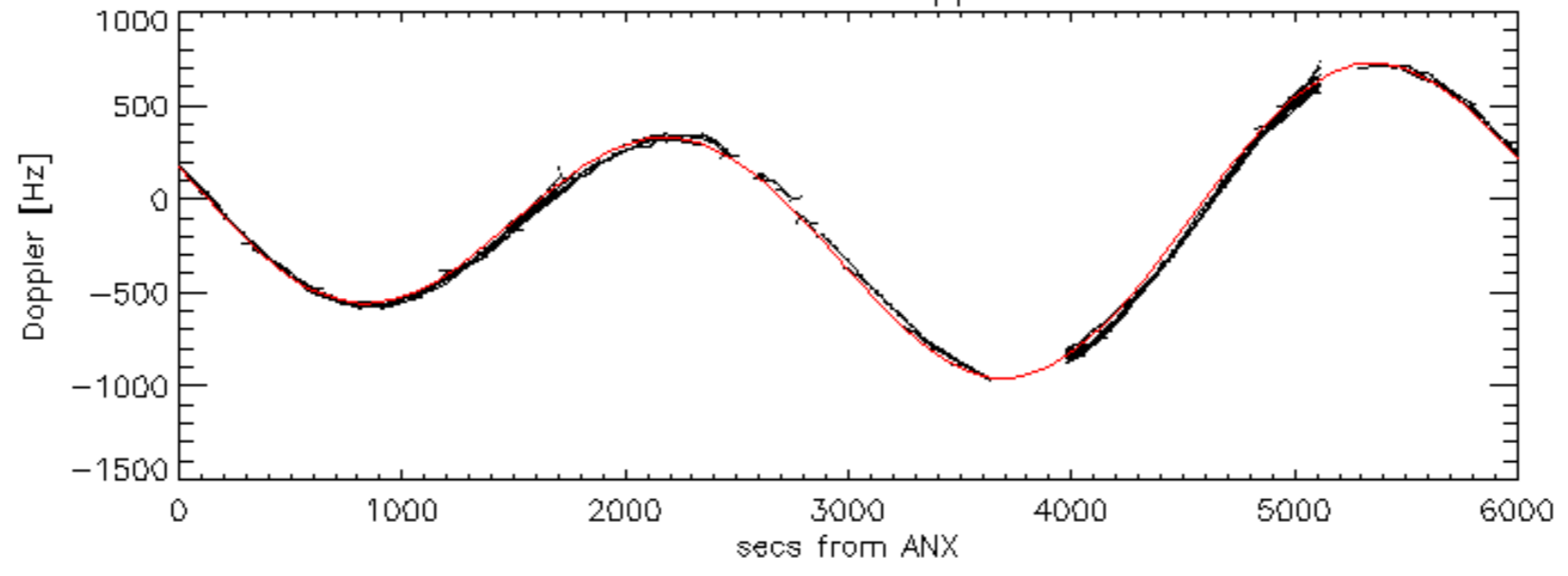
Doppler 'WVS' 'IS2' ascending

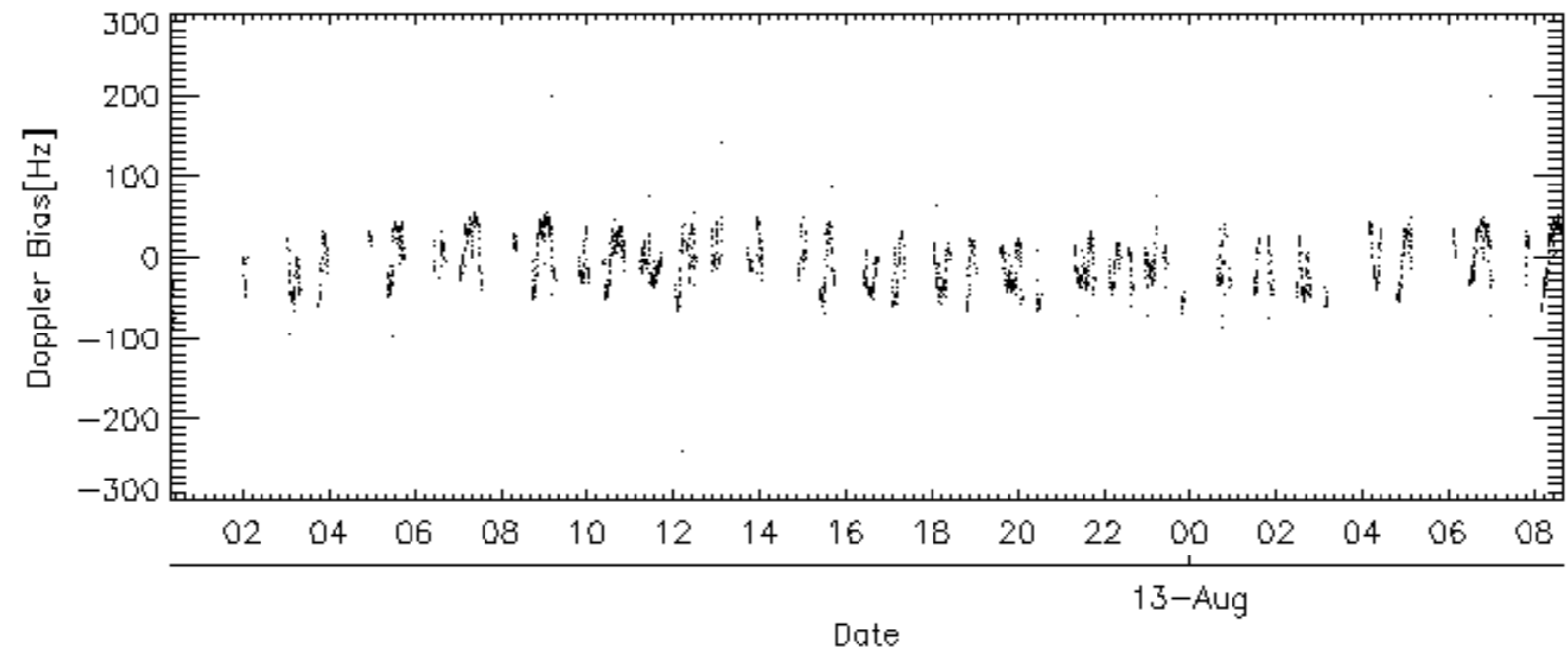
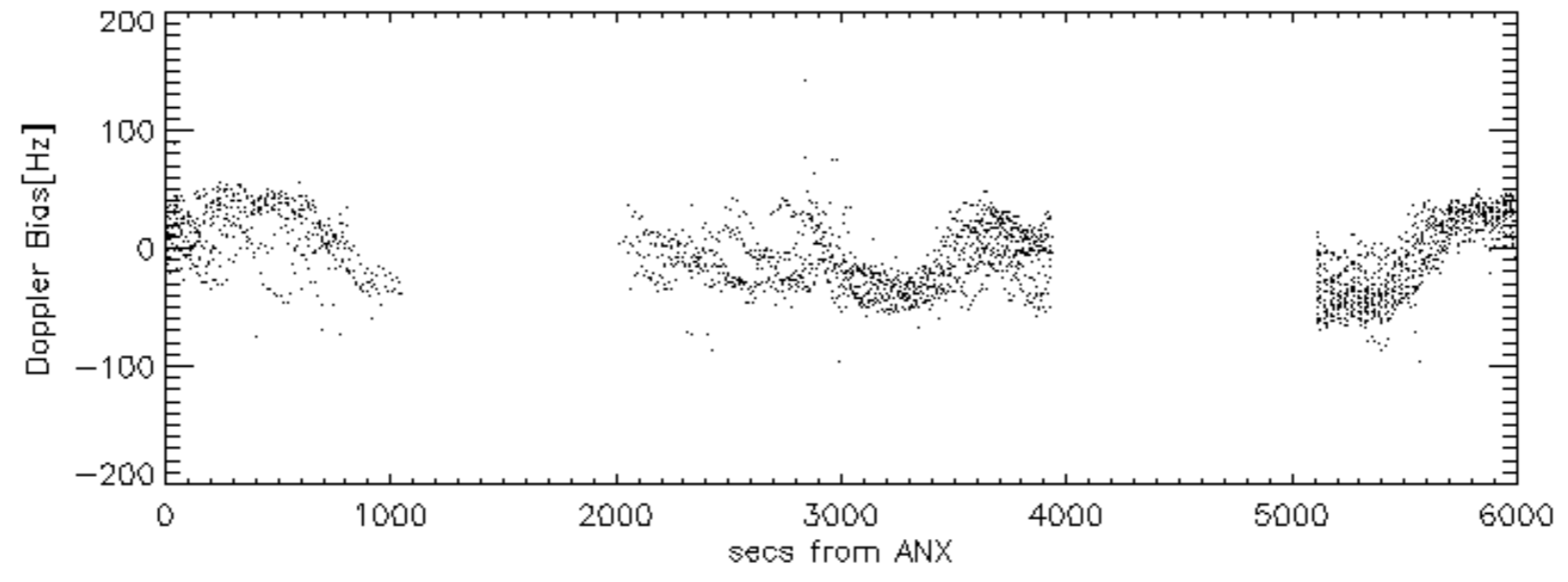
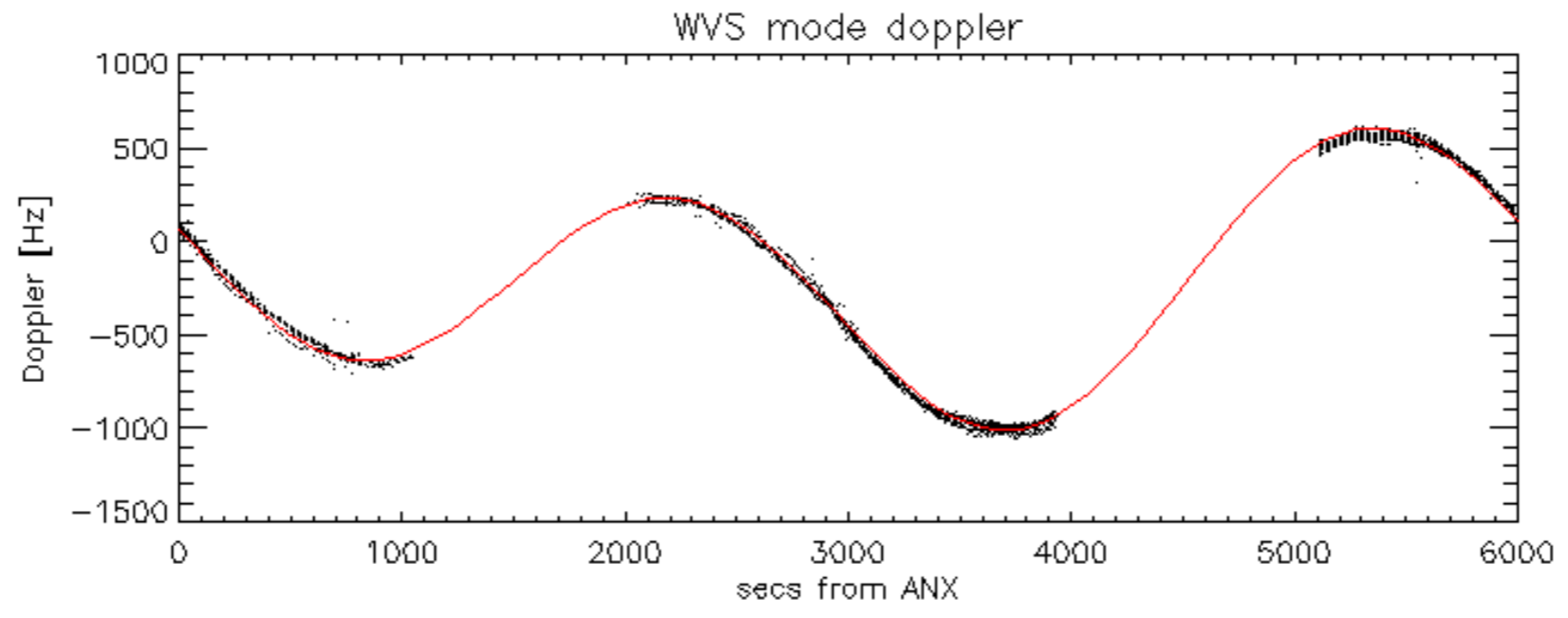


Doppler 'WVS' 'IS2' descending

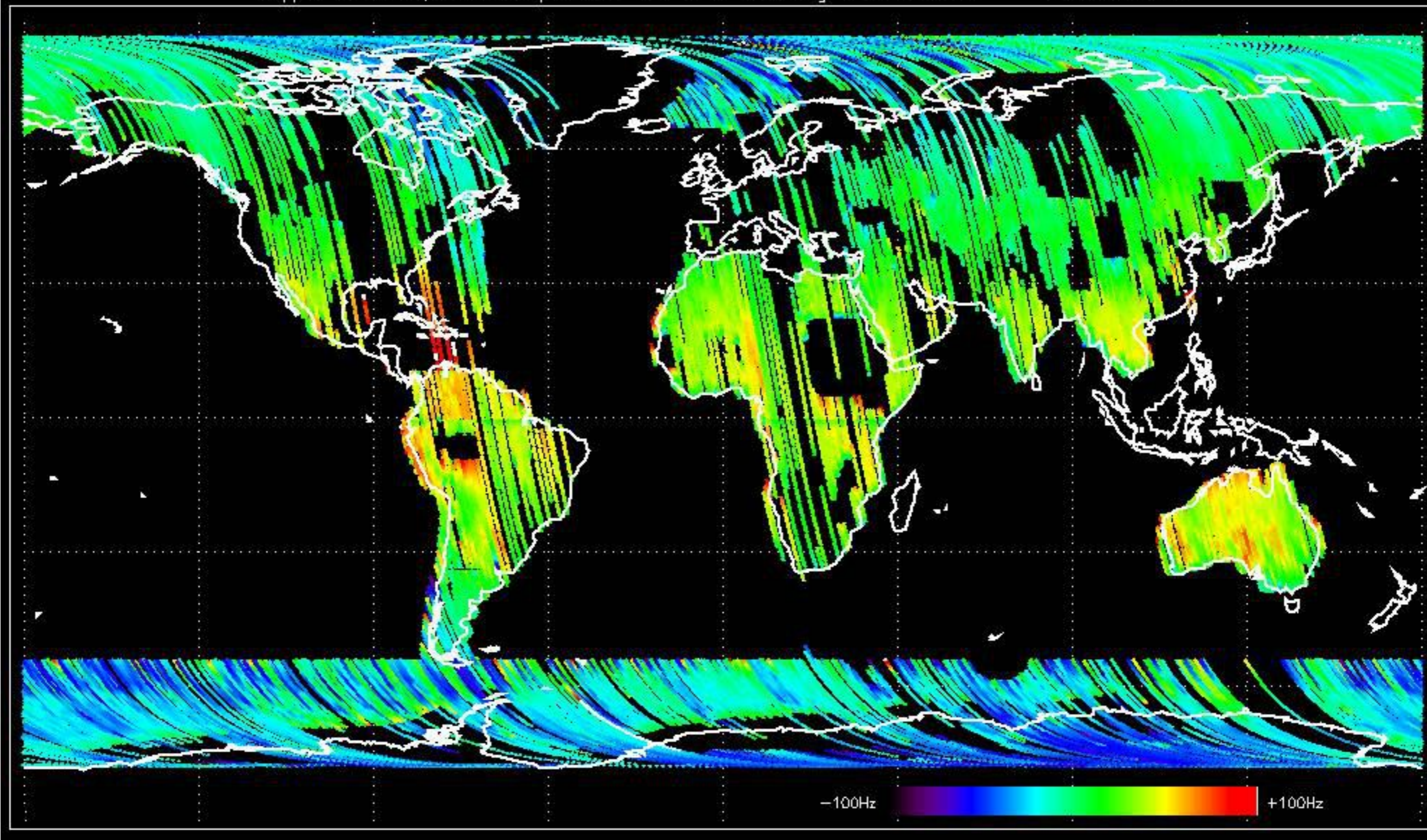


GM1 mode doppler

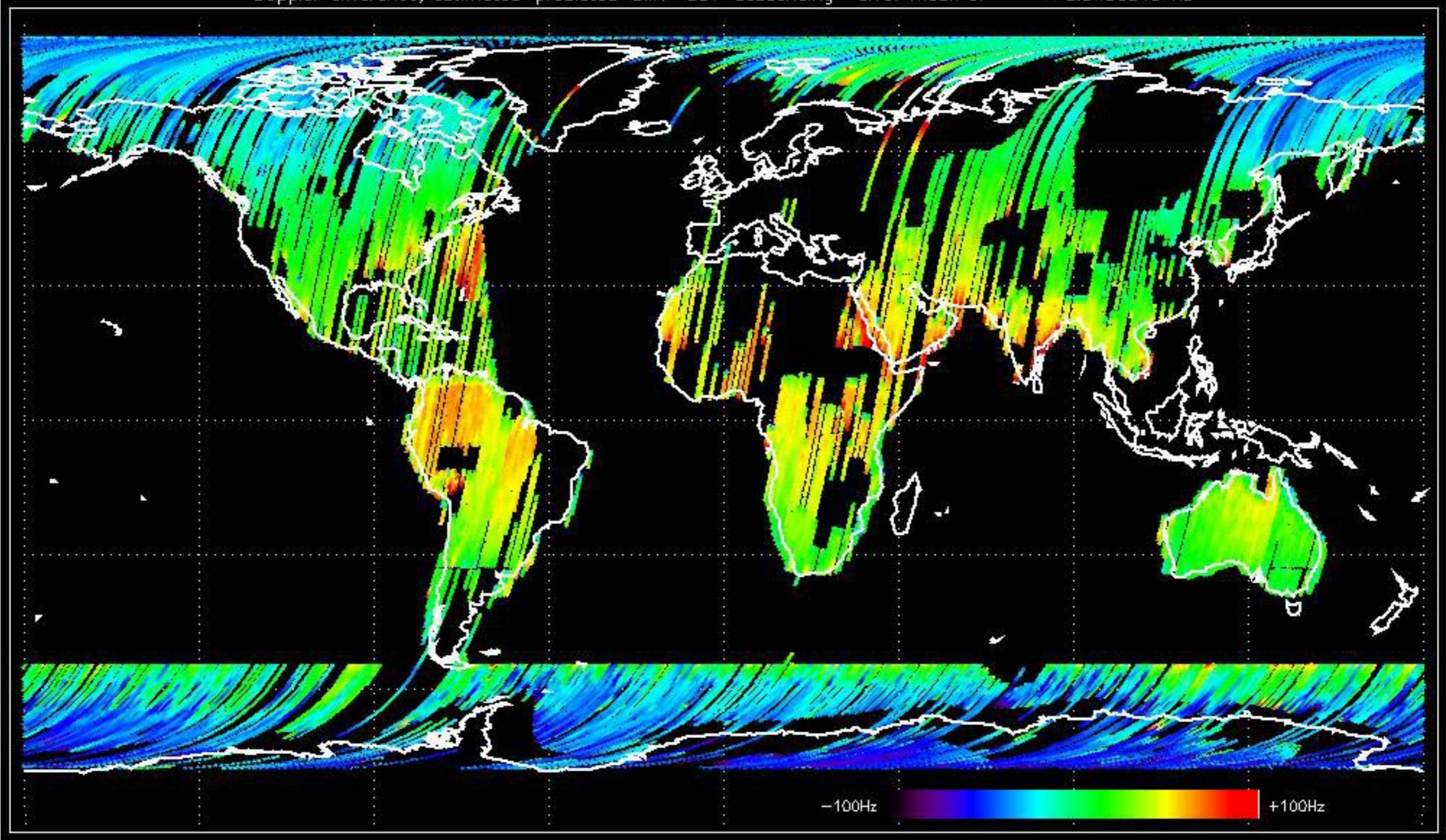




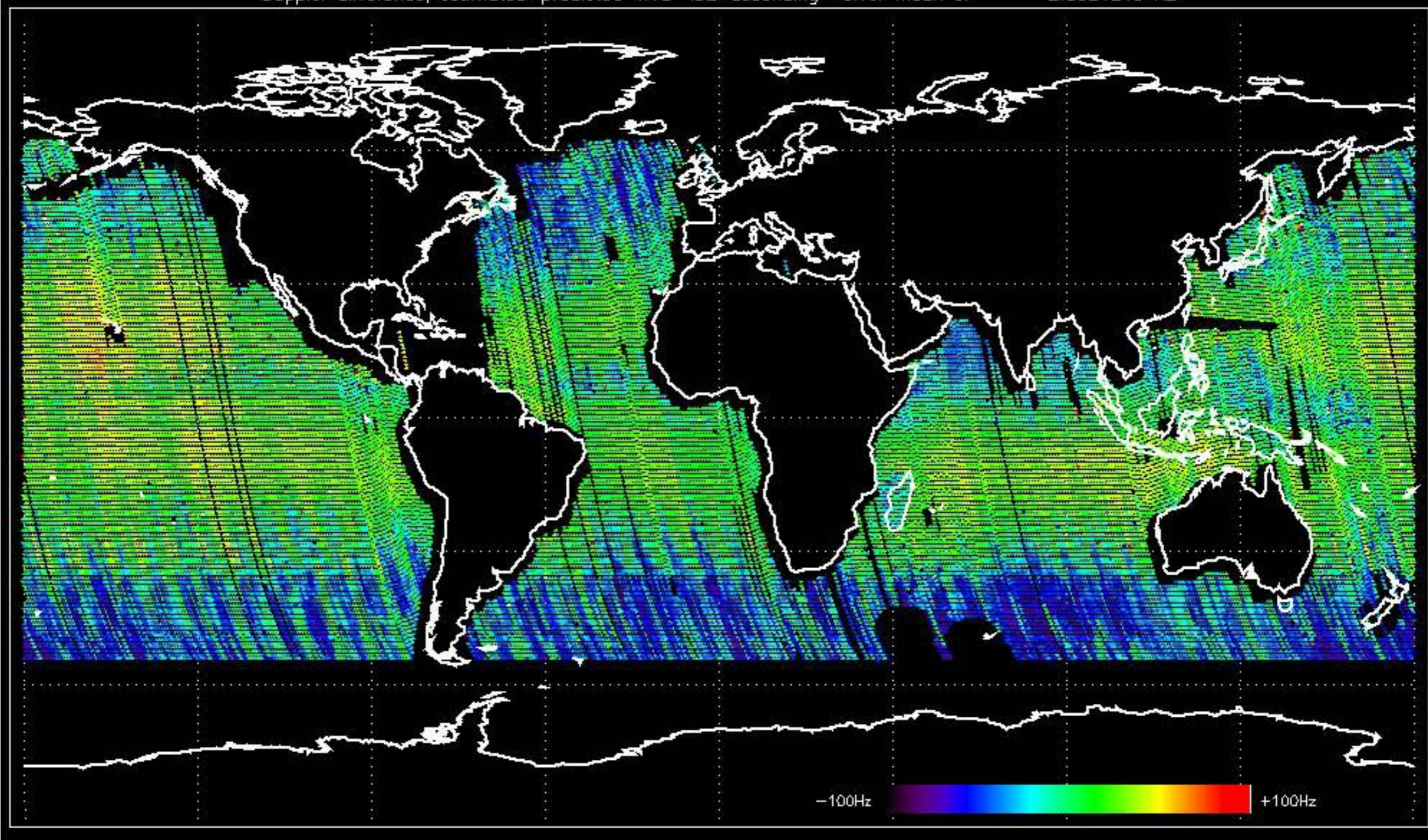
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.621675 Hz



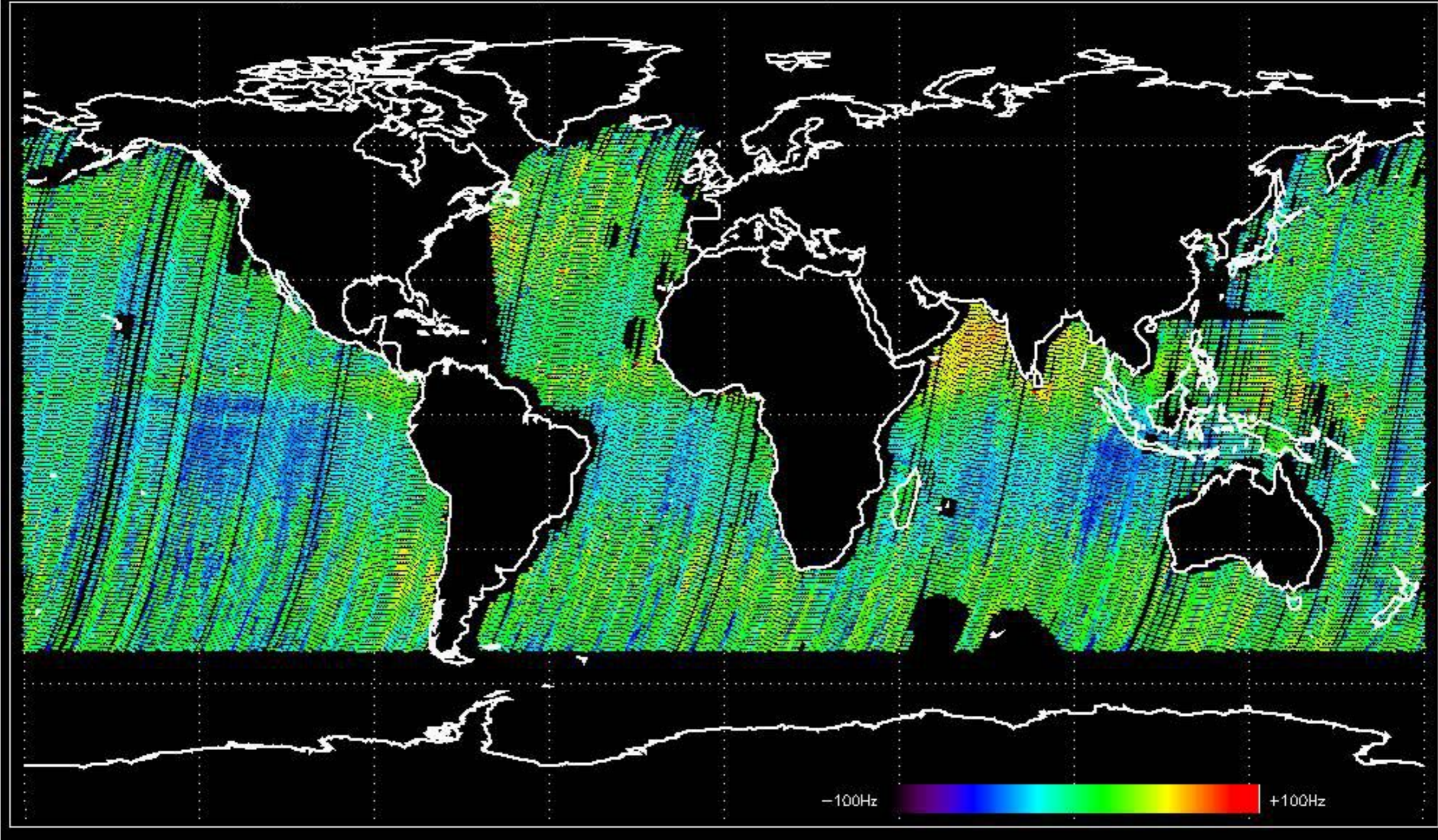
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.5456840 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.3321219 Hz

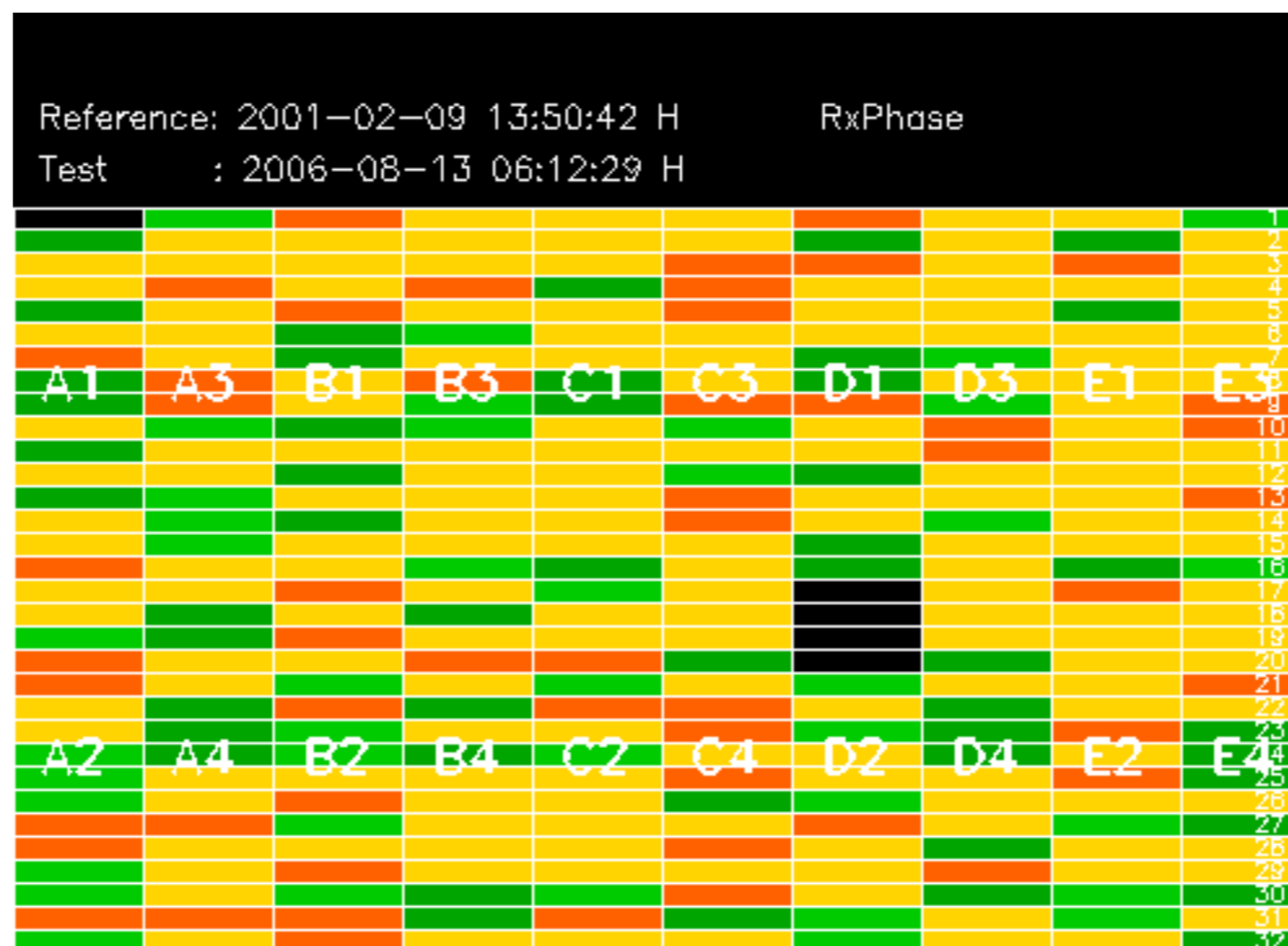


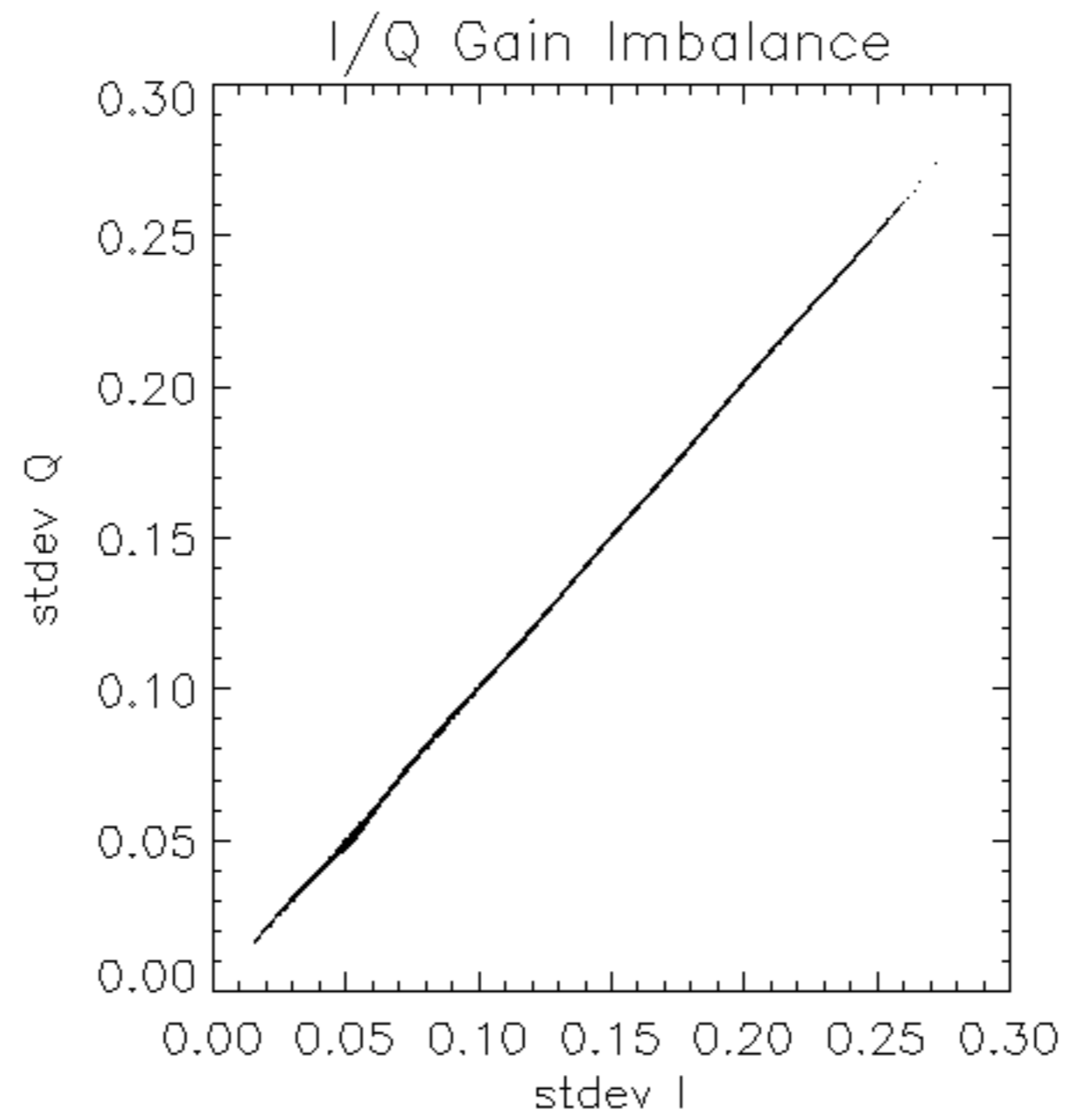
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.0642804 Hz

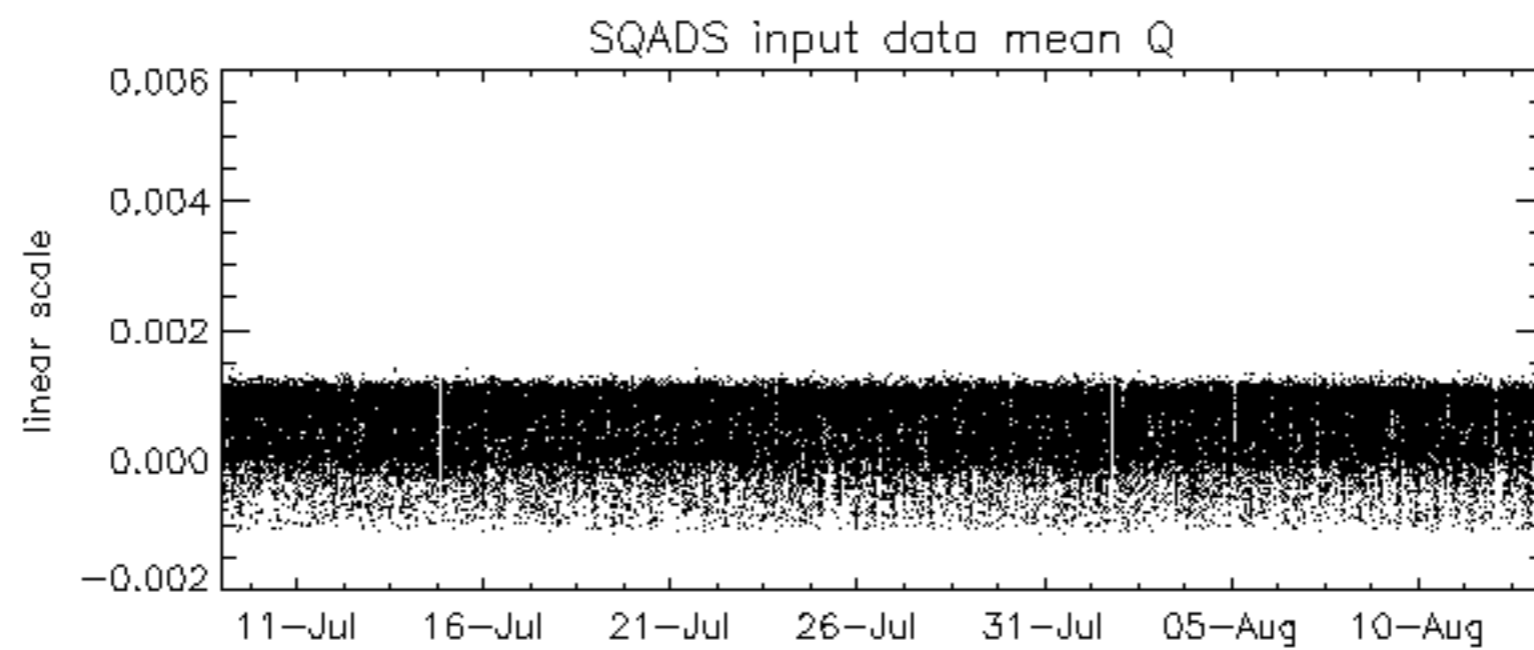
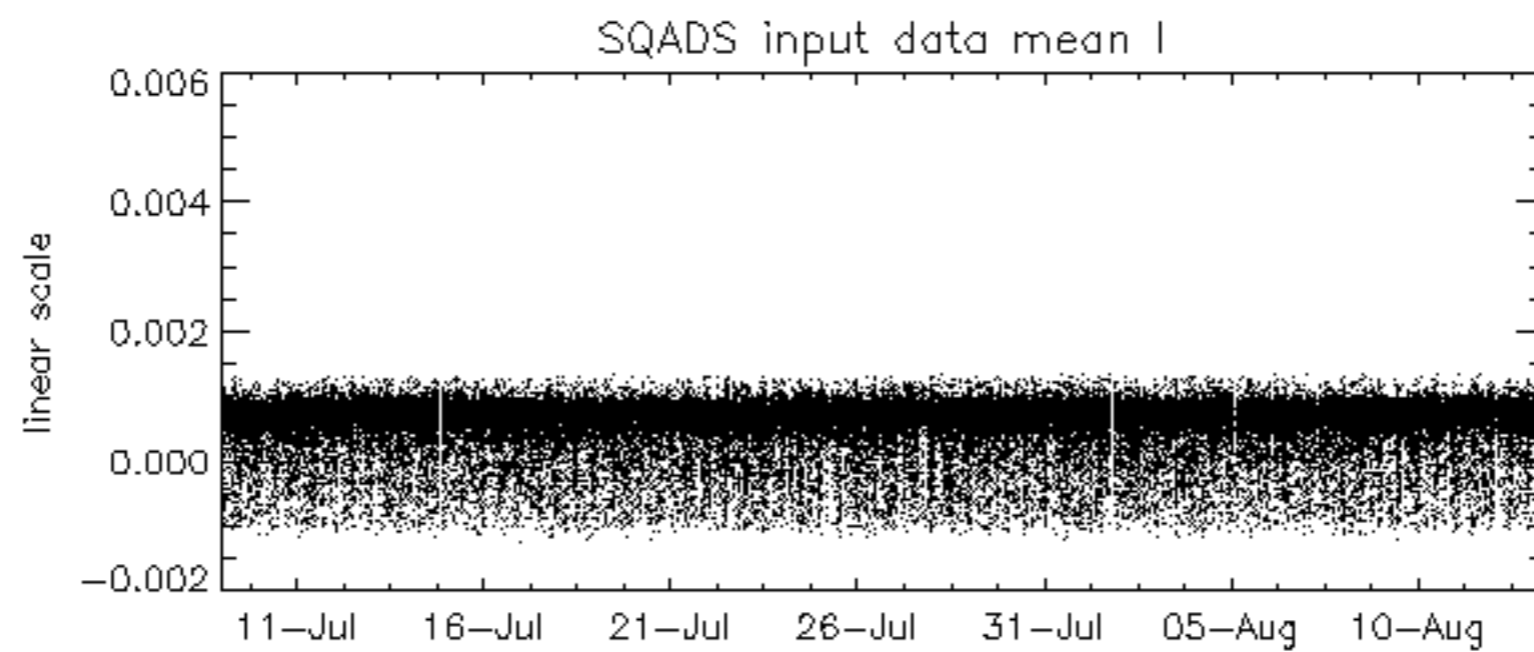
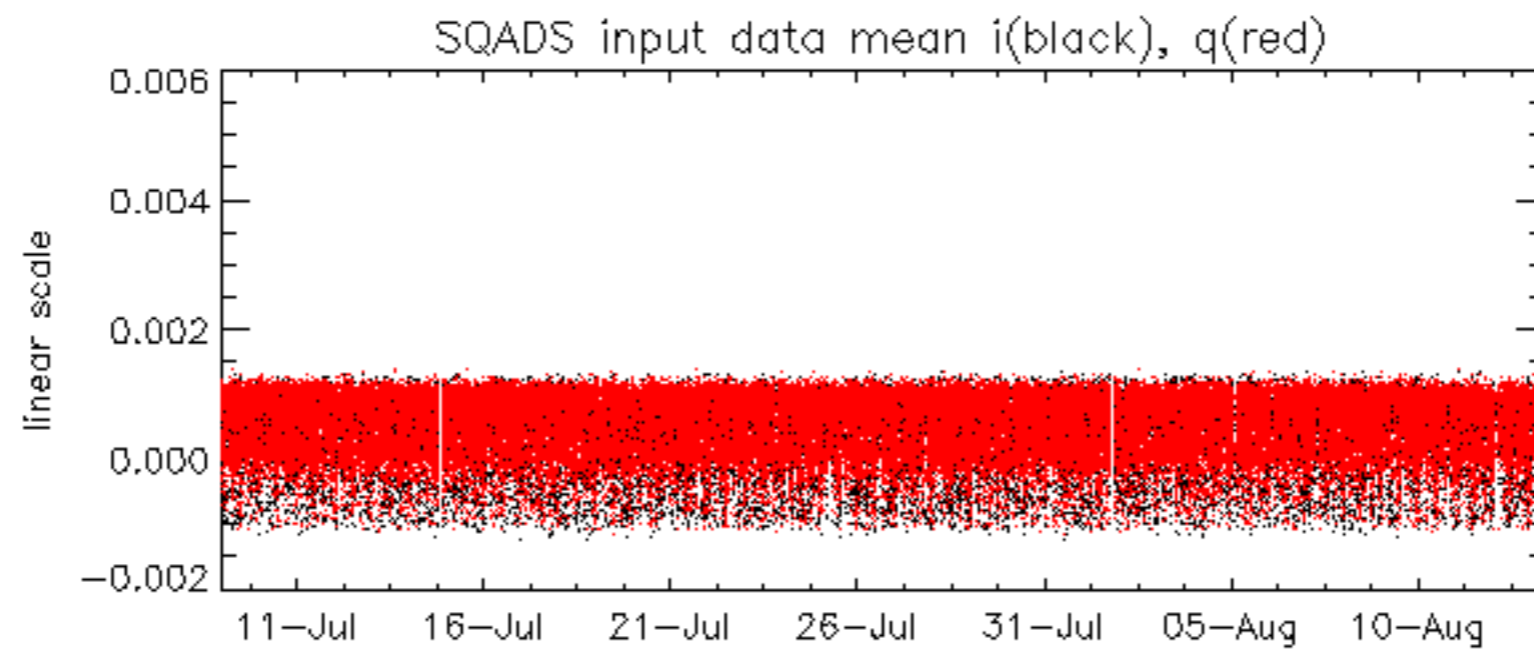


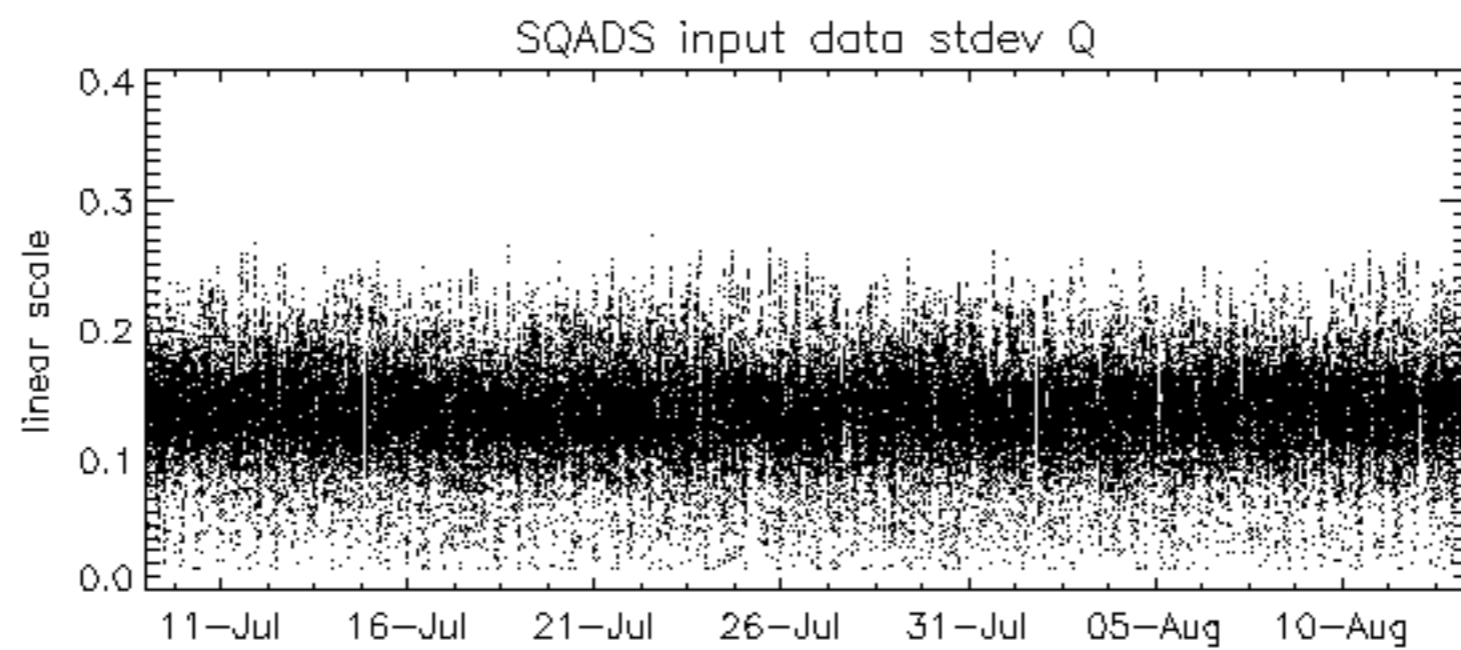
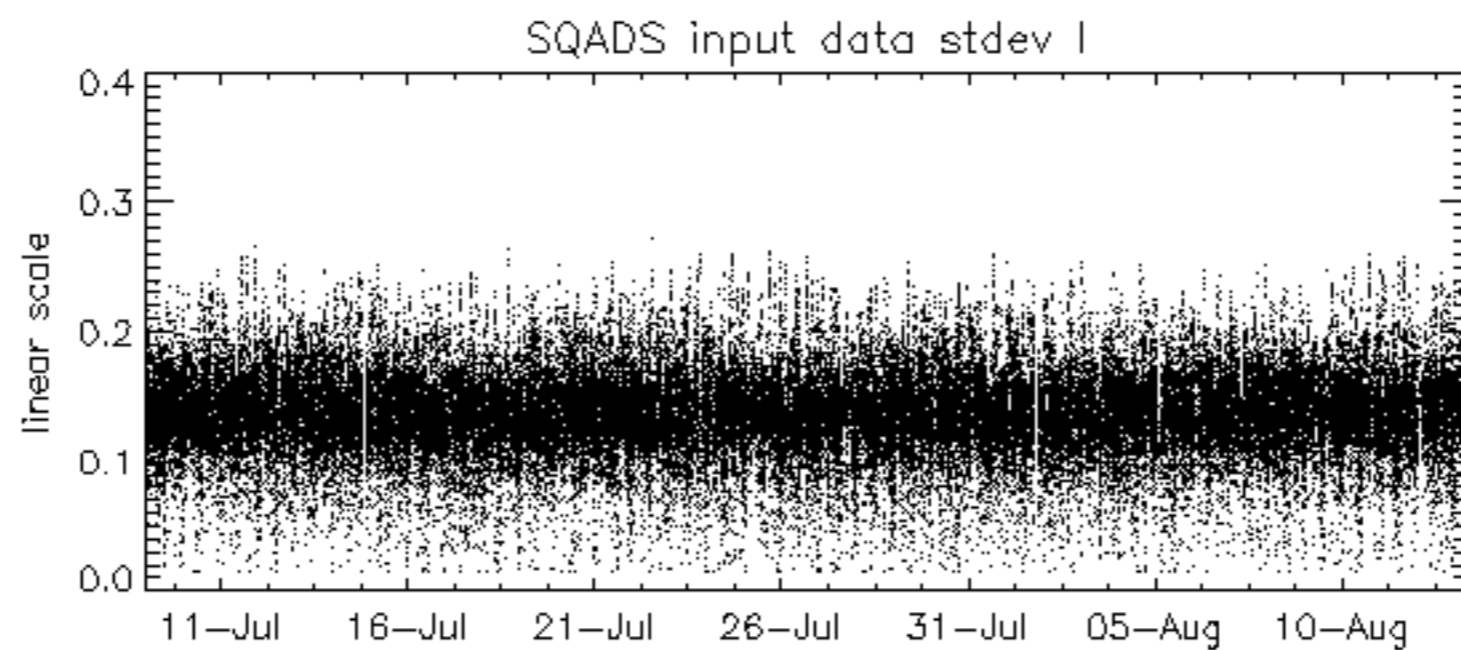
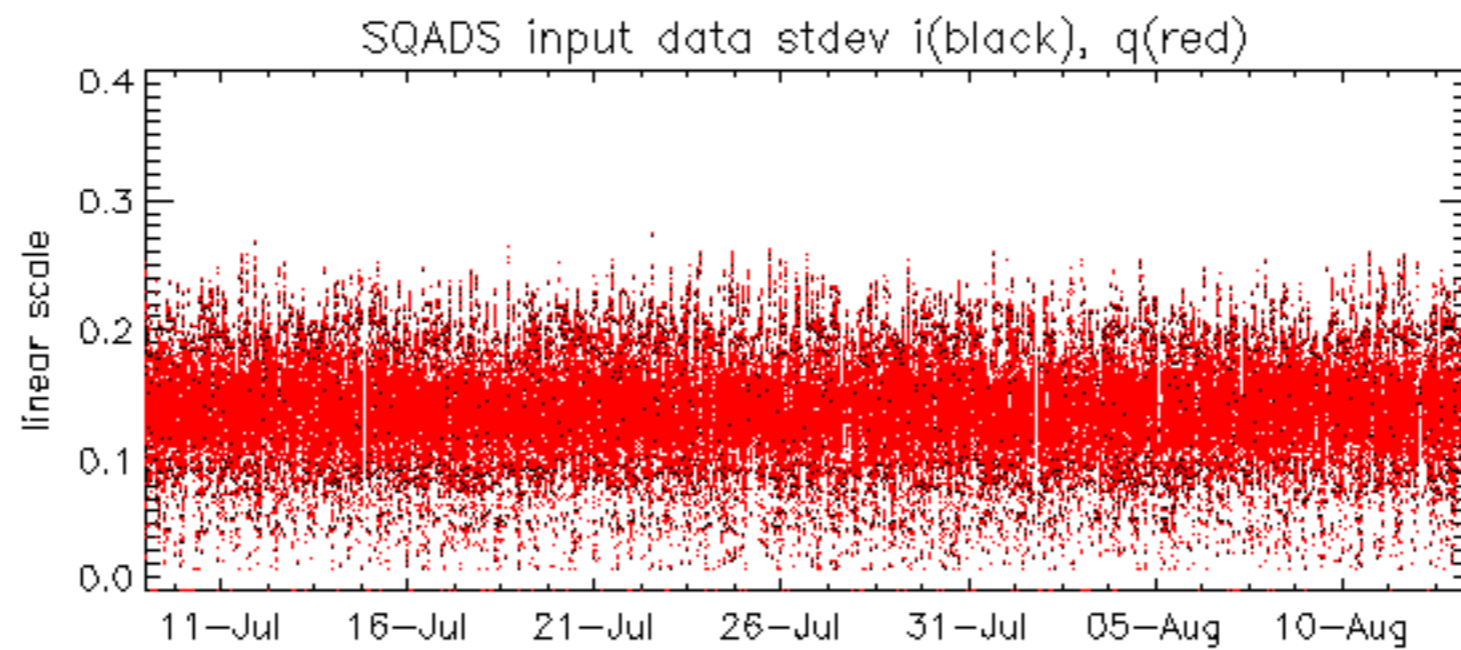
No anomalies observed on available MS products:

No anomalies observed.





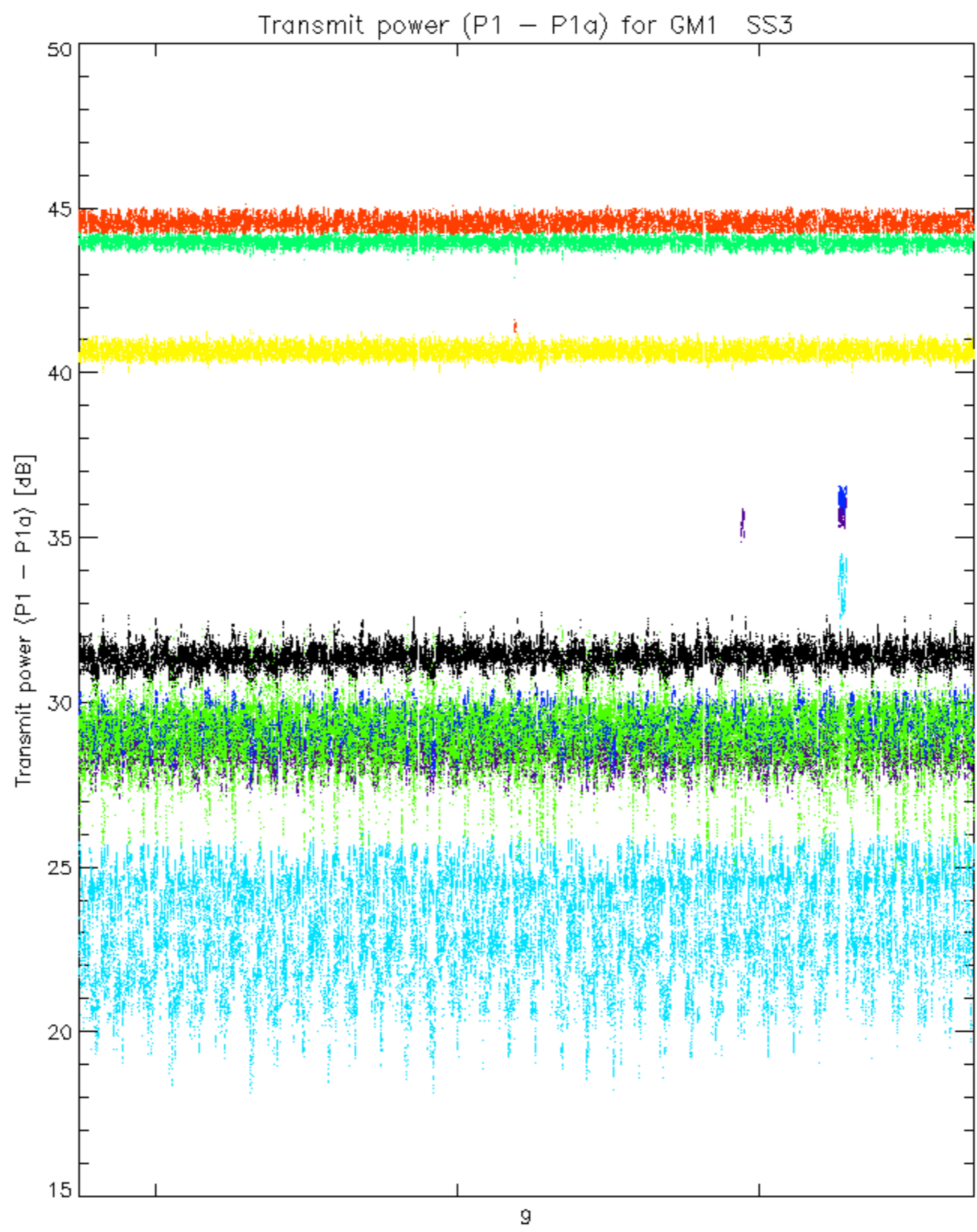




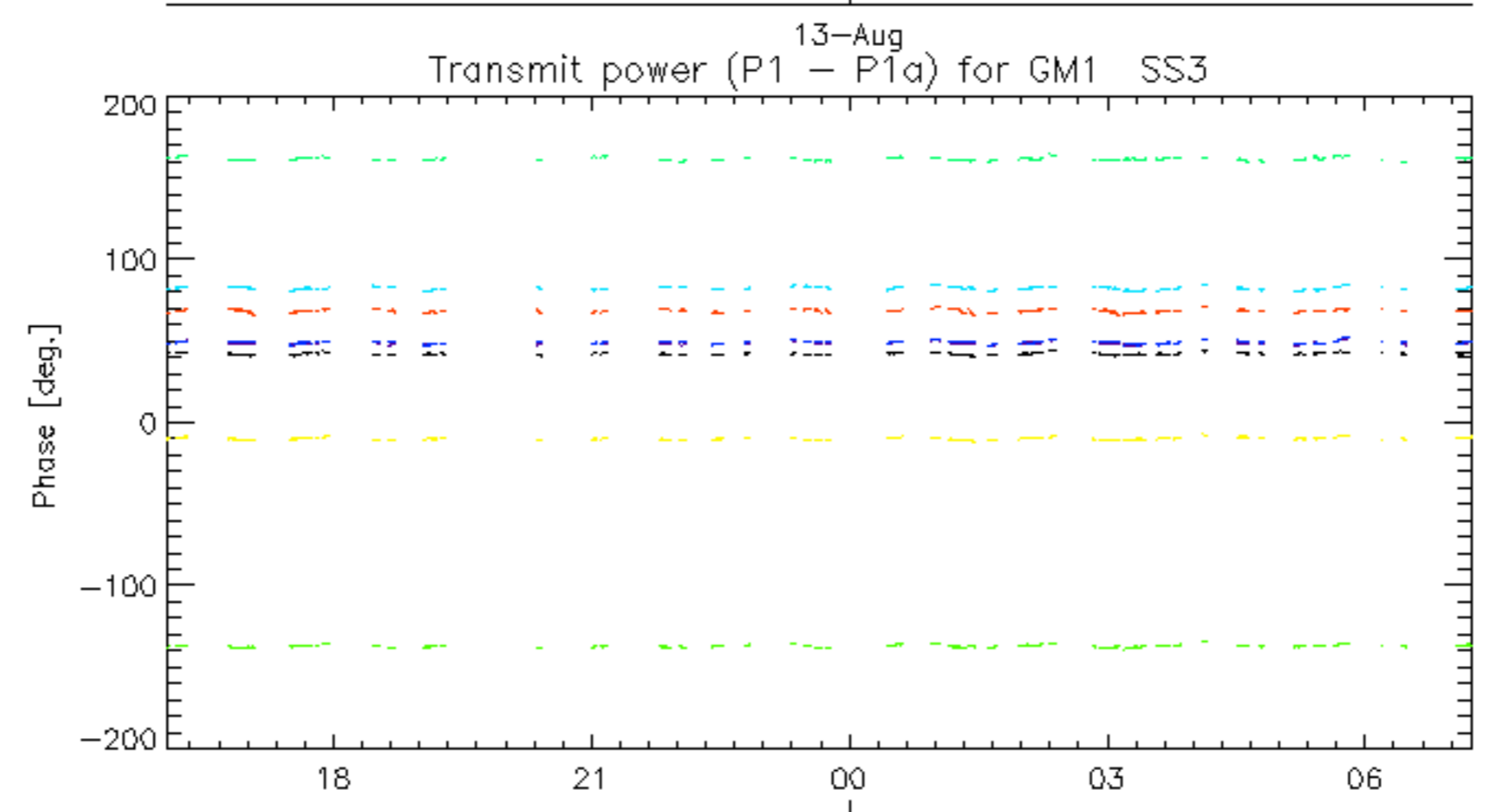
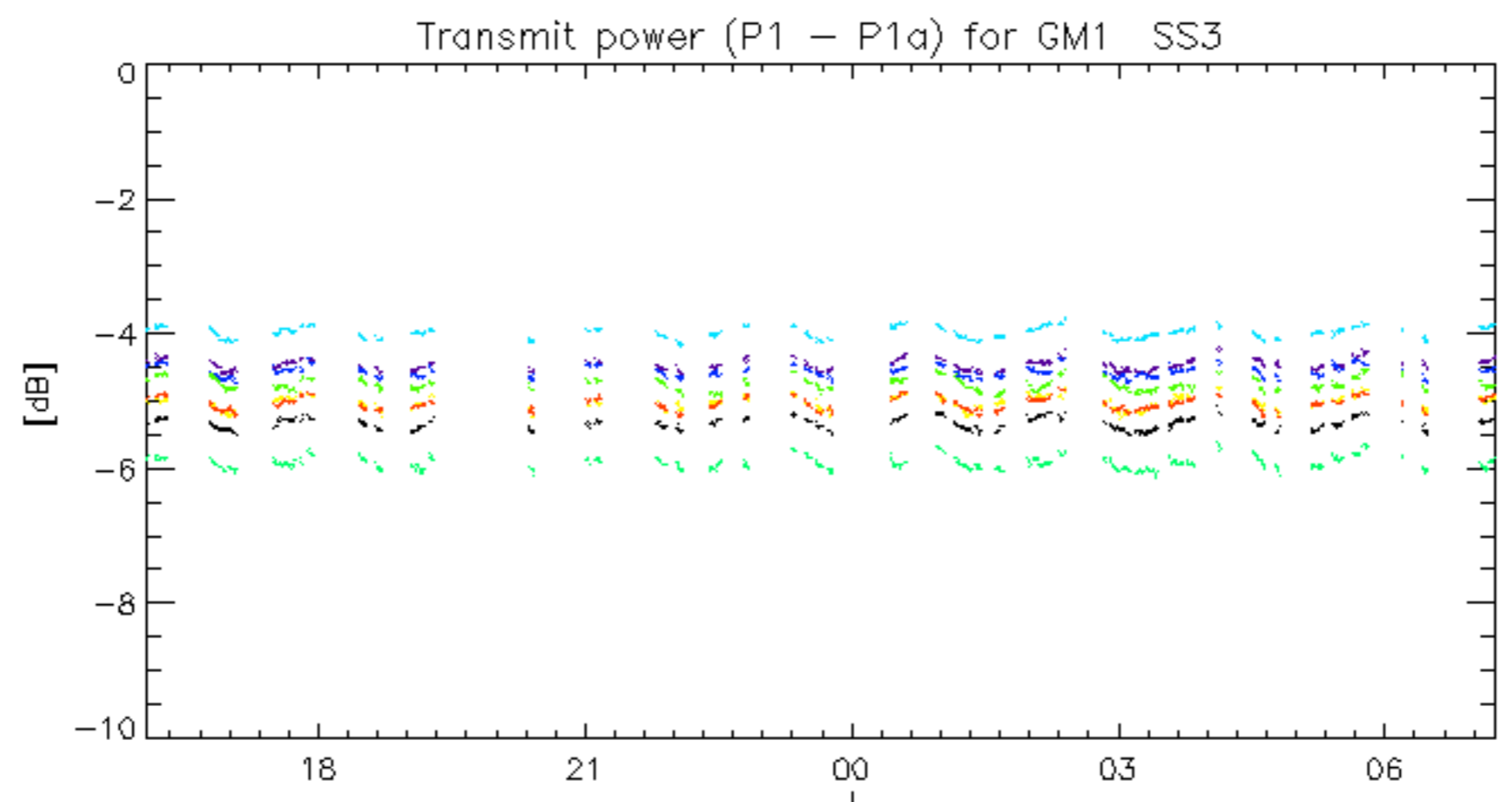
Summary of analysis for the last 3 days 2006081[123]

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

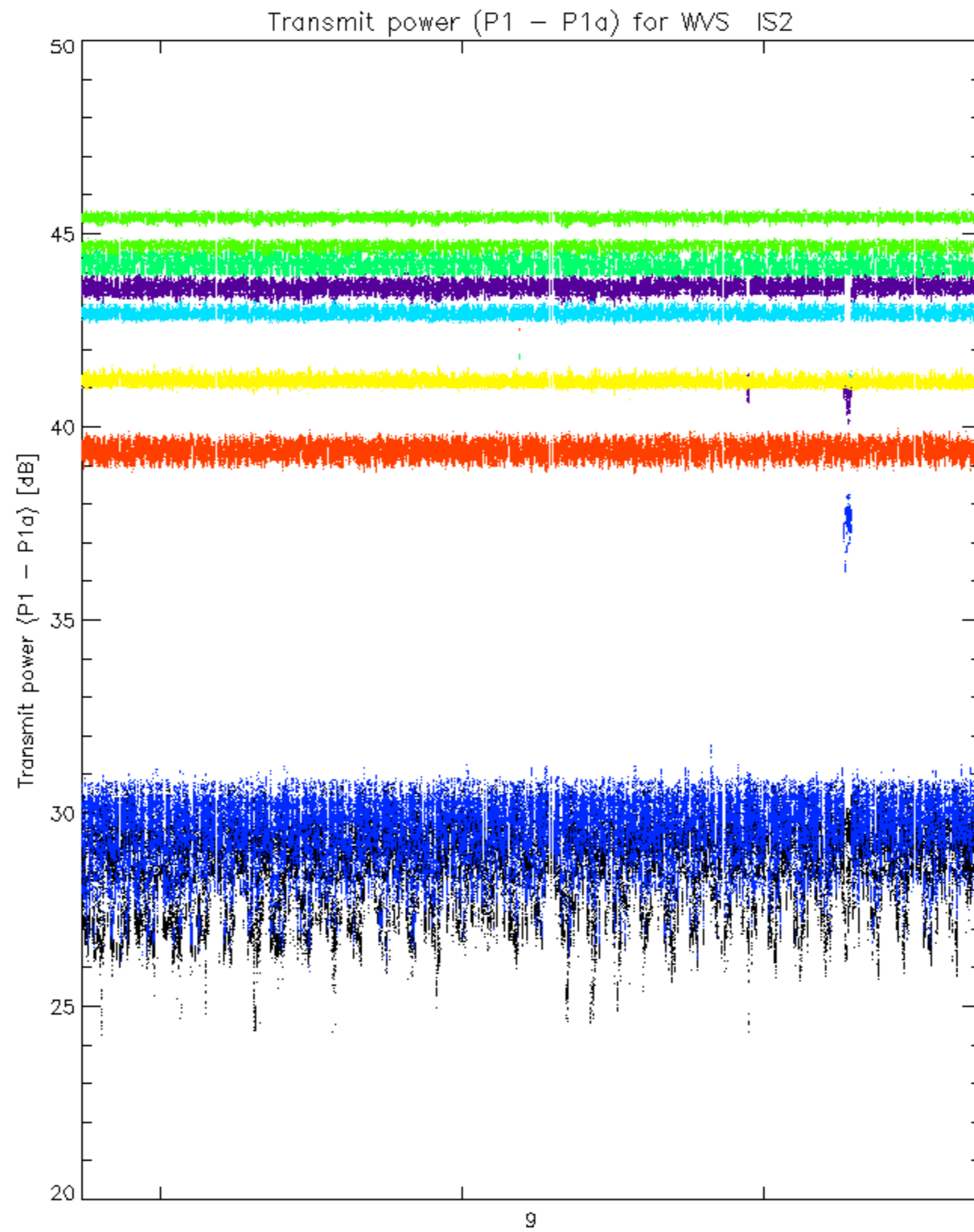
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
ASA_WSM_1PNPDE20060811_015537_000002082050_00146_23246_7082.N1	0	41
ASA_WSM_1PNPDE20060811_161601_000001642050_00155_23255_7191.N1	0	39
ASA_WSM_1PNPDE20060812_112329_000001152050_00166_23266_7355.N1	0	75
ASA_WSM_1PNPDE20060812_172251_000001842050_00170_23270_7388.N1	0	3
ASA_WSM_1PNPDE20060813_005024_000002632050_00174_23274_7469.N1	0	36
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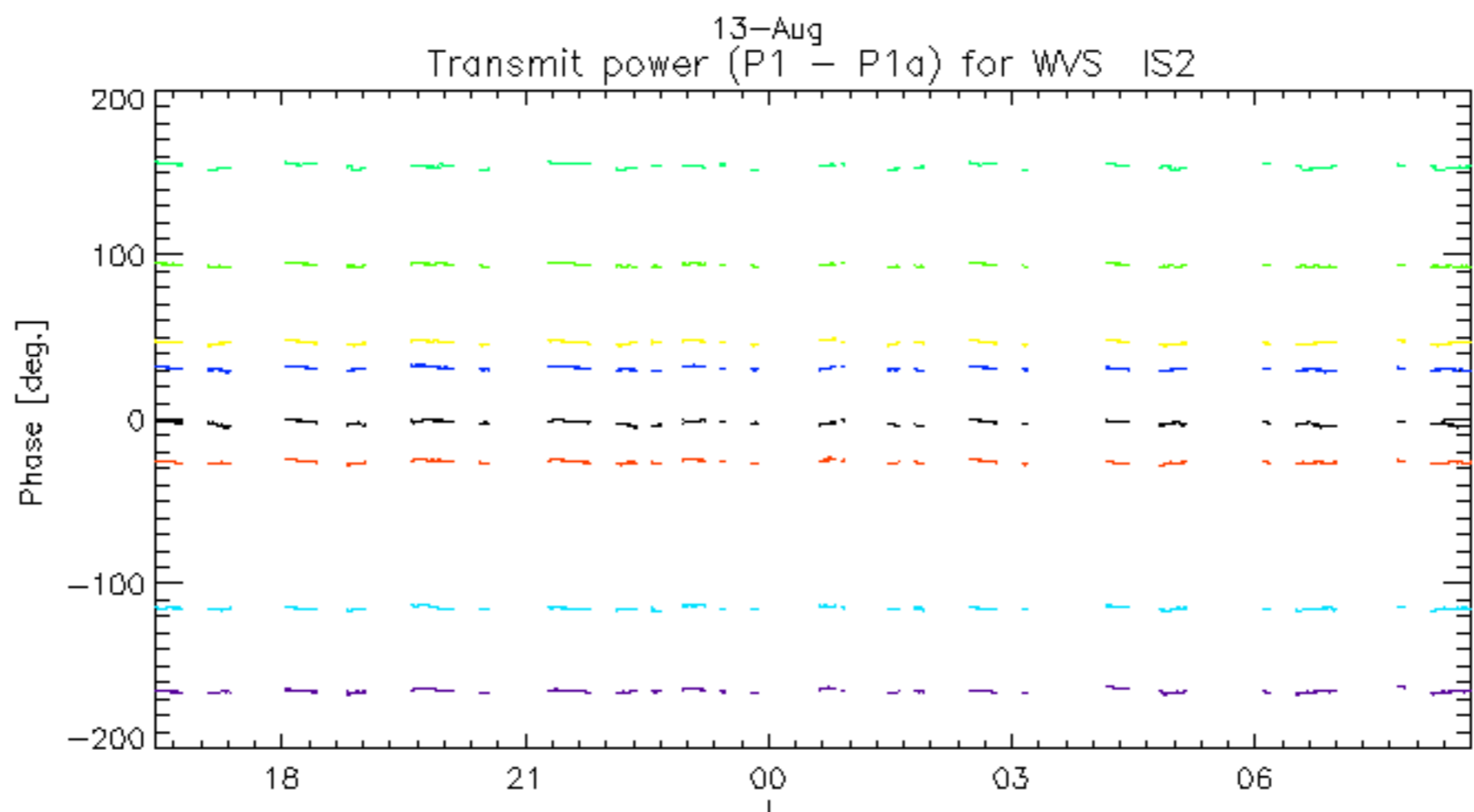
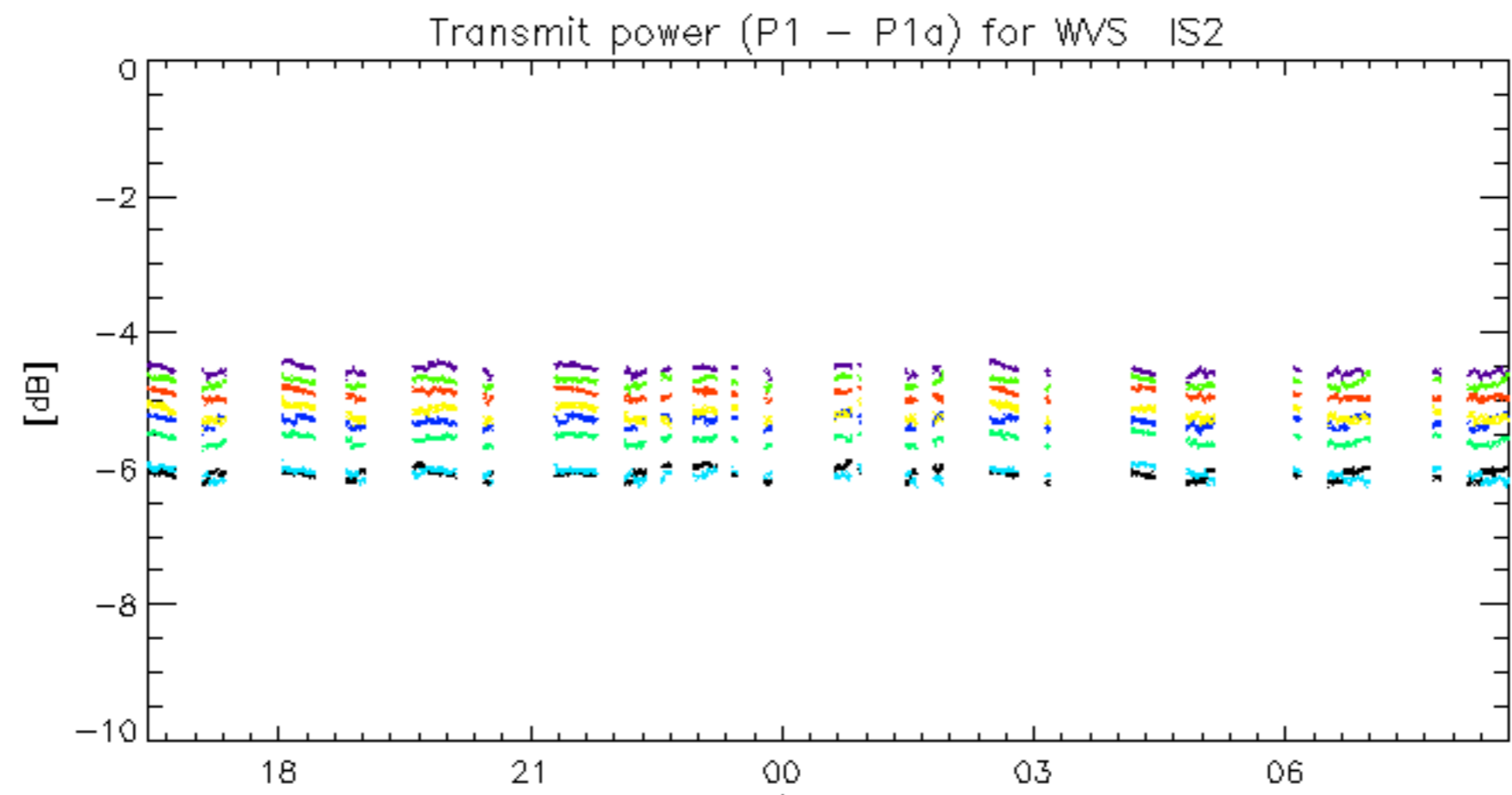
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13-Aug
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No unavailabilities during the reported period.