

PRELIMINARY REPORT OF 060811

last update on Fri Aug 11 16:38:46 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 2006-08-10 00:00:00 to 2006-08-11 16:38:46

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	77	8	4	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	41	77	8	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	77	8	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	77	8	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	51	28	15	87
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	51	28	15	87
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	51	28	15	87
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	51	28	15	87

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060810 074720
H	20060811 071543

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

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	-3.940868	0.010357	-0.013225
7	P1	-3.112301	0.048390	-0.052020
11	P1	-4.099781	0.061630	-0.073426
15	P1	-6.198081	0.091395	-0.110296
19	P1	-3.423587	0.009943	-0.067492
22	P1	-4.556670	0.010066	-0.025449
26	P1	-3.922817	0.019972	0.008763
30	P1	-5.764373	0.009614	-0.003712
3	P1	-16.534754	0.249906	-0.018245
7	P1	-17.184254	0.129855	0.059563
11	P1	-16.945702	0.286272	0.181490
15	P1	-13.053229	0.178630	0.237882
19	P1	-14.483827	0.053945	-0.048469
22	P1	-15.973150	0.432891	0.135182
26	P1	-15.119326	0.231591	-0.035283
30	P1	-17.089592	0.337492	0.101056

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.929718	0.086646	0.114927
7	P2	-21.883760	0.103030	0.085140
11	P2	-15.776711	0.119596	0.039767
15	P2	-7.119582	0.098761	0.028978
19	P2	-9.128134	0.090304	0.027105
22	P2	-18.147755	0.086131	0.008569
26	P2	-16.401365	0.092182	0.011209
30	P2	-19.505318	0.091972	0.050624

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172913	0.003166	0.004870
7	P3	-8.172913	0.003166	0.004870
11	P3	-8.172913	0.003166	0.004870
15	P3	-8.172913	0.003166	0.004870
19	P3	-8.172913	0.003166	0.004870
22	P3	-8.172913	0.003166	0.004870
26	P3	-8.172913	0.003166	0.004870
30	P3	-8.172913	0.003166	0.004870

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	-3.823906	0.008833	-0.008908
7	P1	-2.589926	0.124596	-0.155937
11	P1	-2.886261	0.123694	-0.159576
15	P1	-3.615205	0.140309	-0.199547
19	P1	-3.424887	0.023864	-0.005769
22	P1	-5.084067	0.019524	0.003559
26	P1	-5.861627	0.015995	-0.008088
30	P1	-5.196501	0.033458	0.006665
3	P1	-11.620001	0.042933	-0.010142
7	P1	-9.972920	0.046926	-0.041144
11	P1	-10.259933	0.061712	-0.072595
15	P1	-10.758309	0.144981	-0.030352
19	P1	-15.556851	0.497276	0.000416
22	P1	-20.922419	1.315040	-0.010594

26	P1	-16.230597	0.389034	0.207553
30	P1	-17.958366	0.410420	-0.129408

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.551695	0.072696	0.175179
7	P2	-22.346197	0.117049	0.143335
11	P2	-11.015919	0.041279	0.094692
15	P2	-4.896997	0.044378	0.040946
19	P2	-6.864637	0.039691	0.024962
22	P2	-8.189181	0.034889	0.012816
26	P2	-24.178572	0.059670	0.011370
30	P2	-21.994486	0.047656	0.047285

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.011116	0.003726	0.005096
7	P3	-8.011063	0.003728	0.005079
11	P3	-8.011118	0.003727	0.004520
15	P3	-8.011122	0.003727	0.004762
19	P3	-8.011071	0.003737	0.005007
22	P3	-8.011199	0.003720	0.004783
26	P3	-8.011079	0.003717	0.004844
30	P3	-8.011103	0.003732	0.004857

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	0.000562849
	stdev	1.70636e-07
MEAN Q	mean	0.000537294
	stdev	2.13989e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137630
	stdev	0.00107824
STDEV Q	mean	0.137986
	stdev	0.00109549



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006081[901]

The assumptions 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_GM1_1PNPDK20060810_101808_000007182050_00137_23237_2553.N1	0	15
ASA_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
ASA_WSM_1PNPDE20060811_015537_000002082050_00146_23246_7082.N1	0	41





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

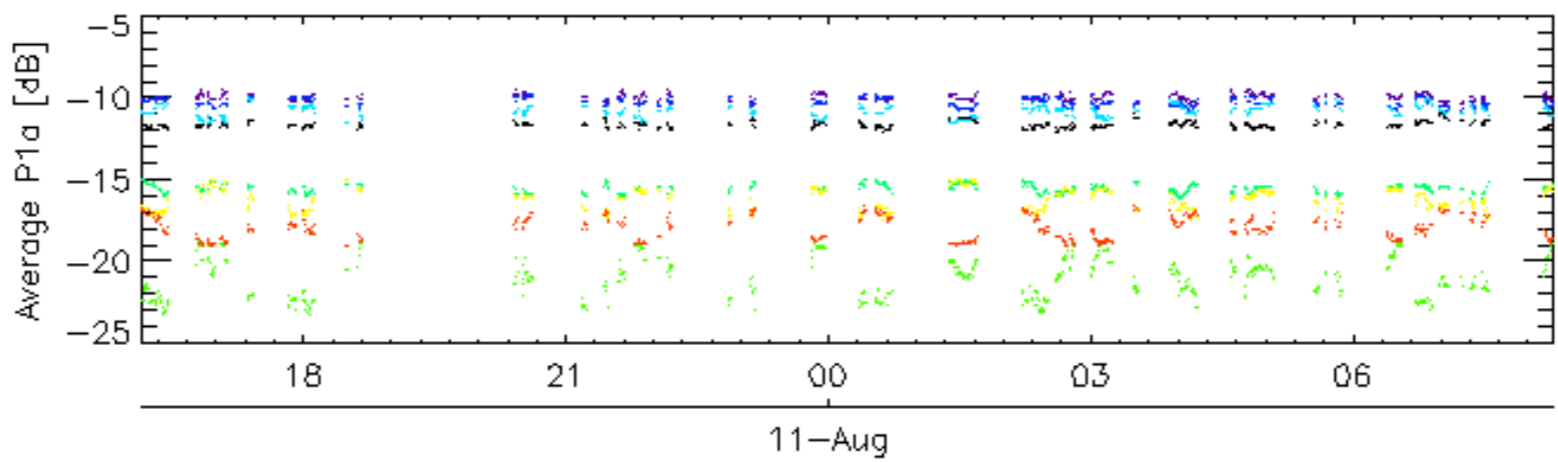
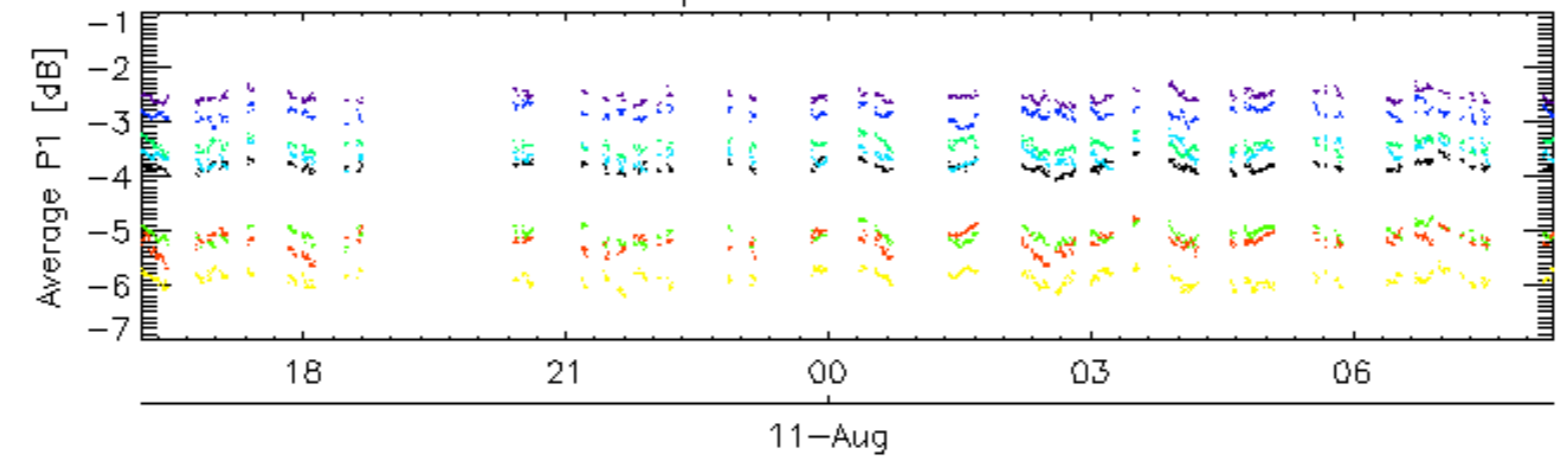
7.5 - Absolute Doppler for GM1

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

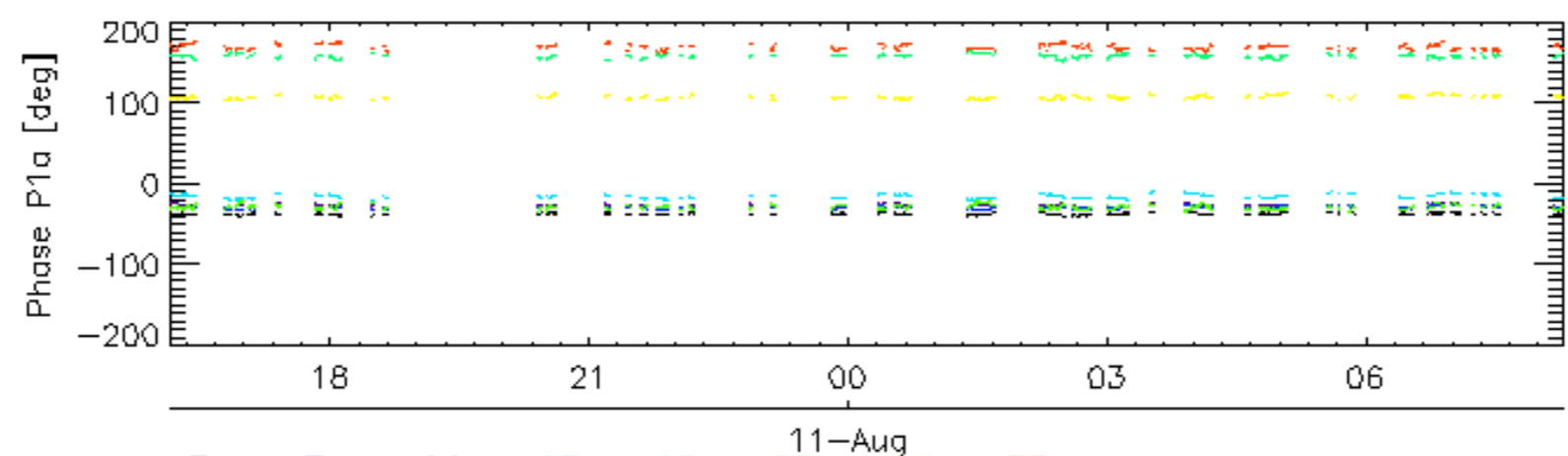
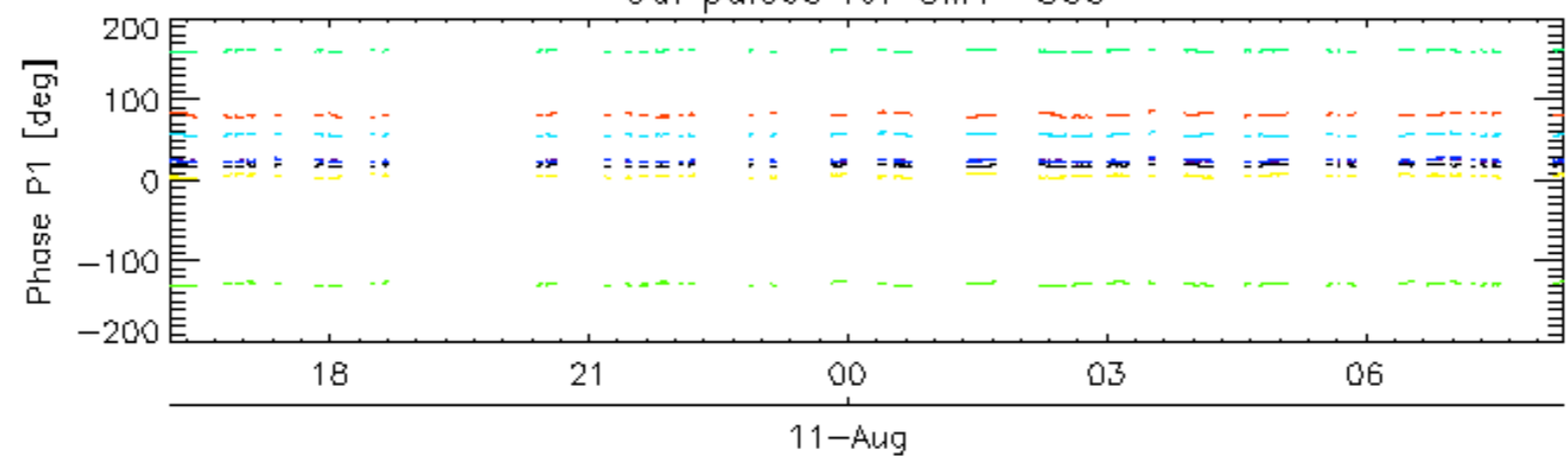
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

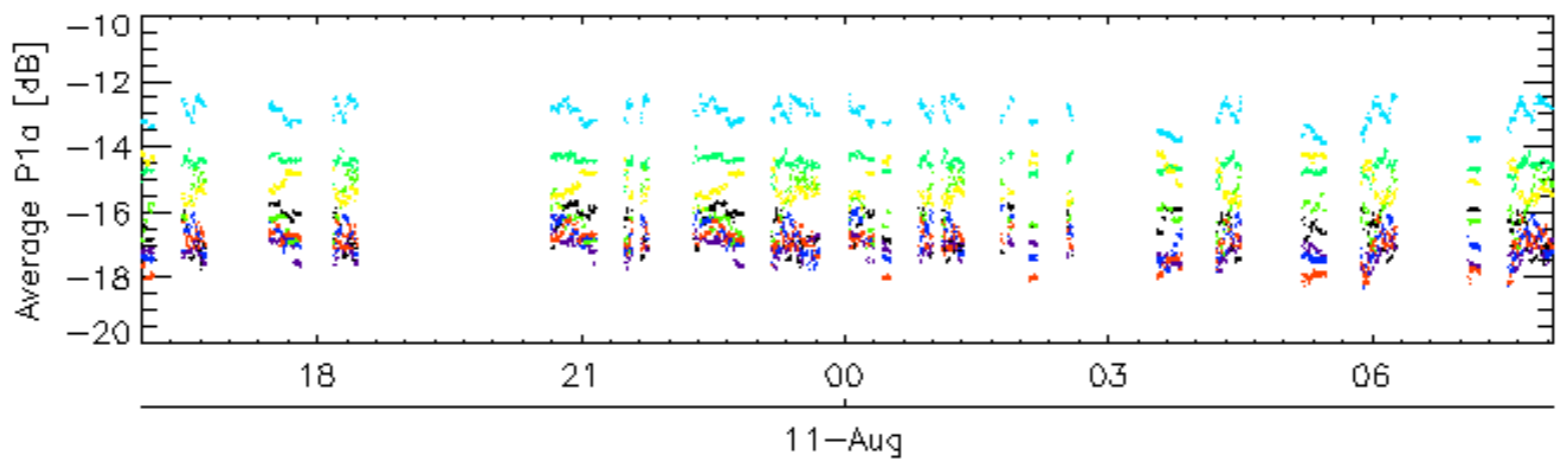
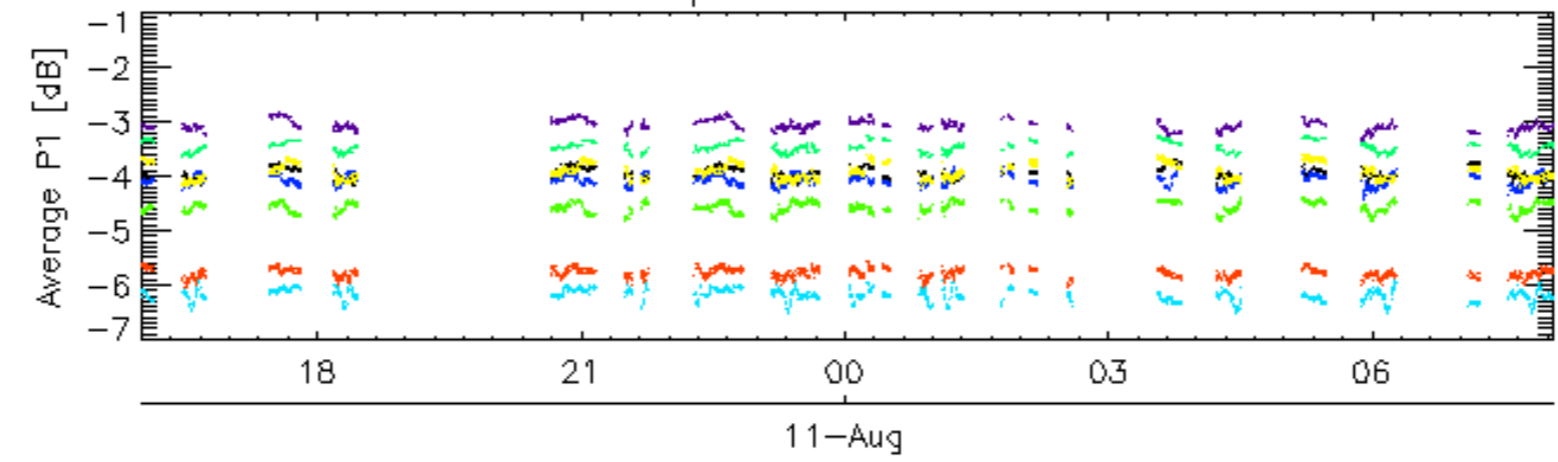


Cal pulses for GM1 SS3

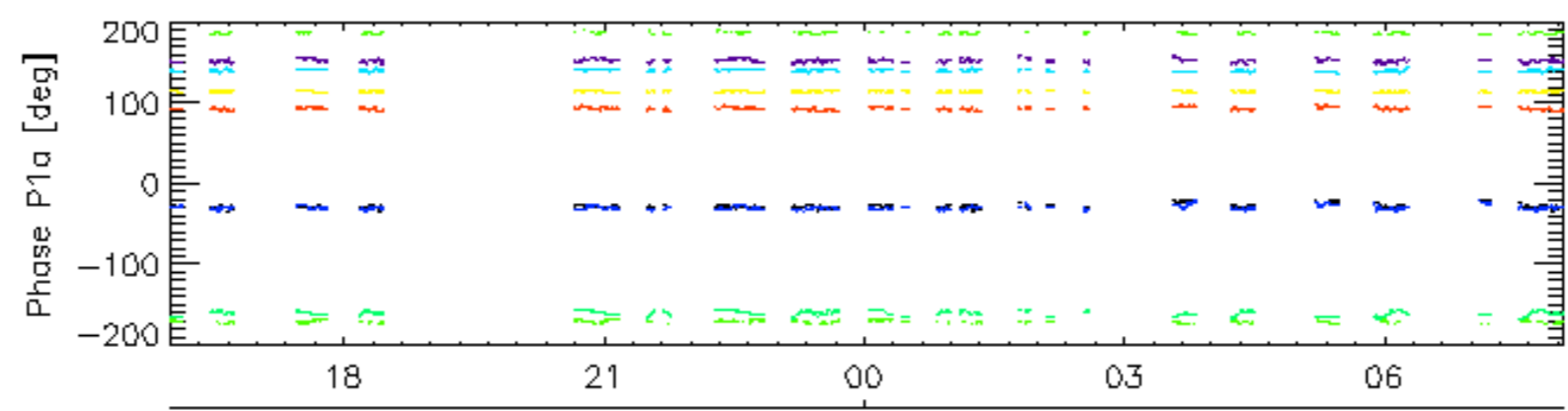
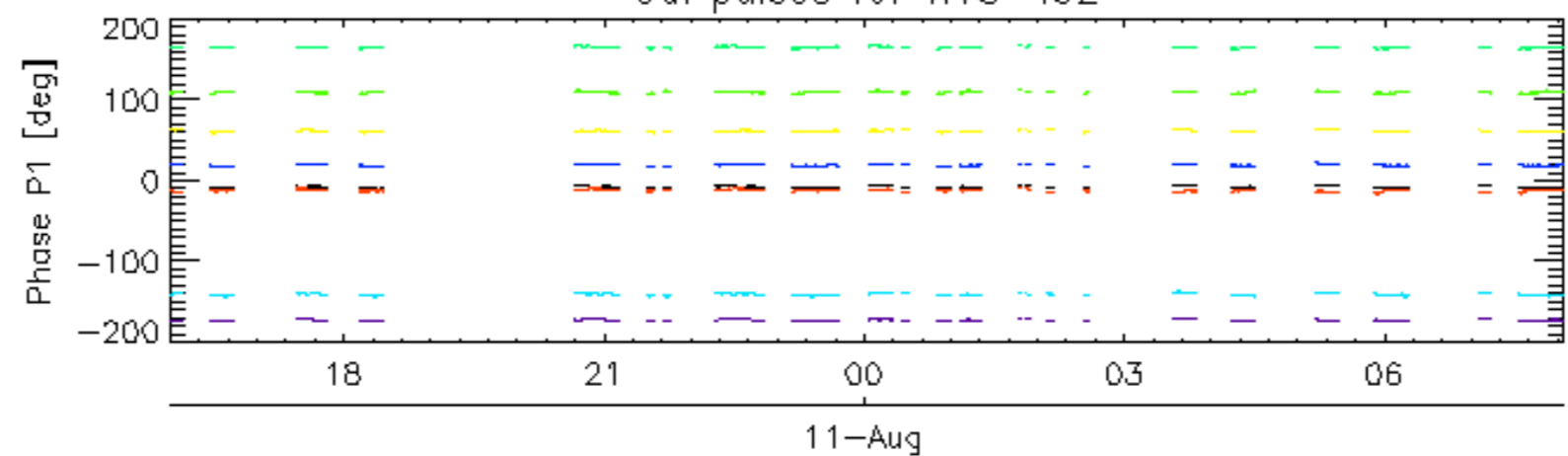


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

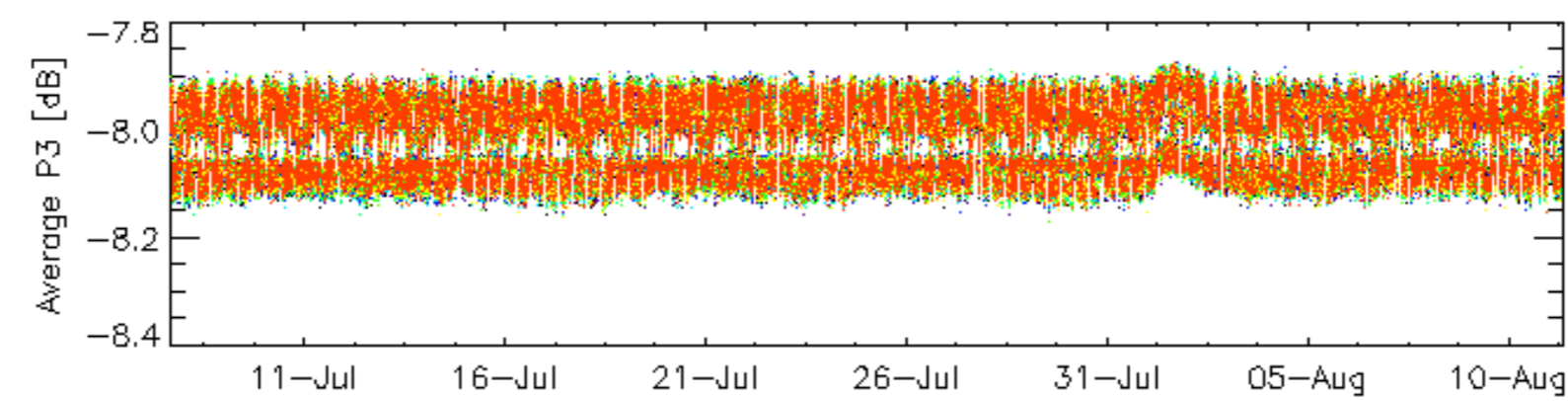
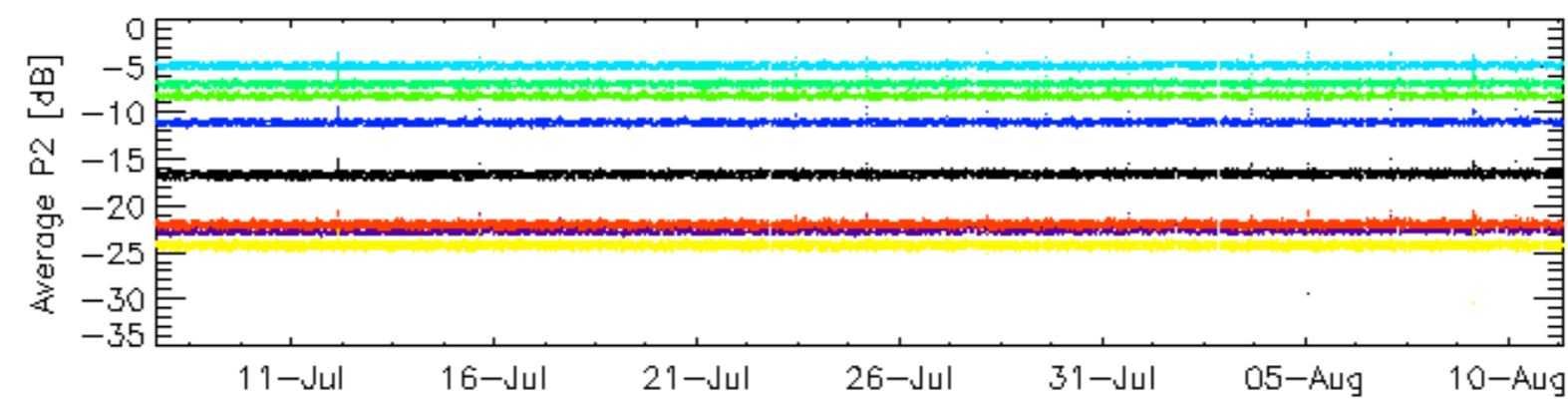
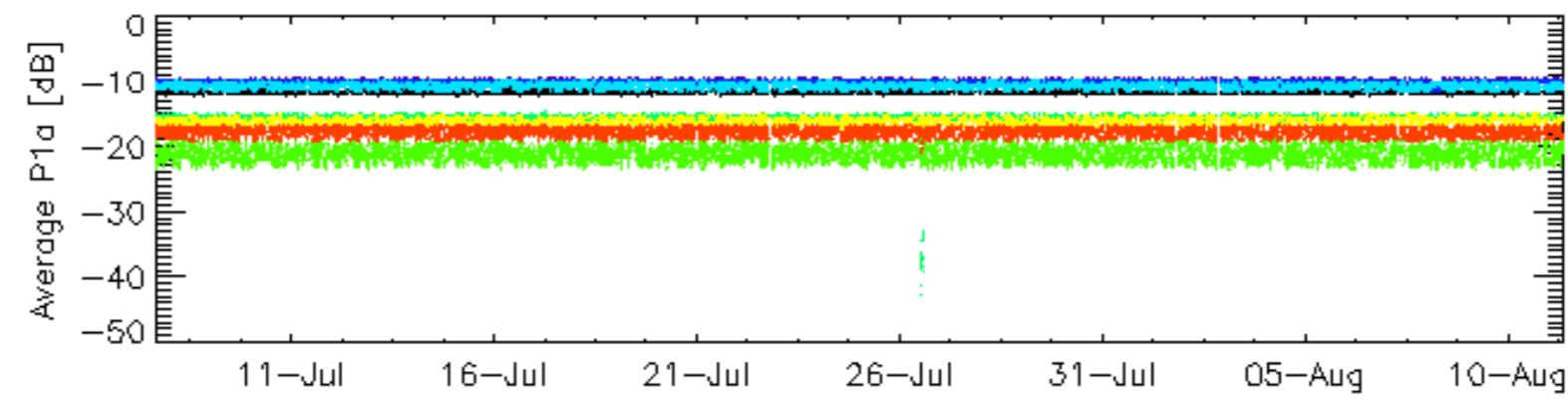
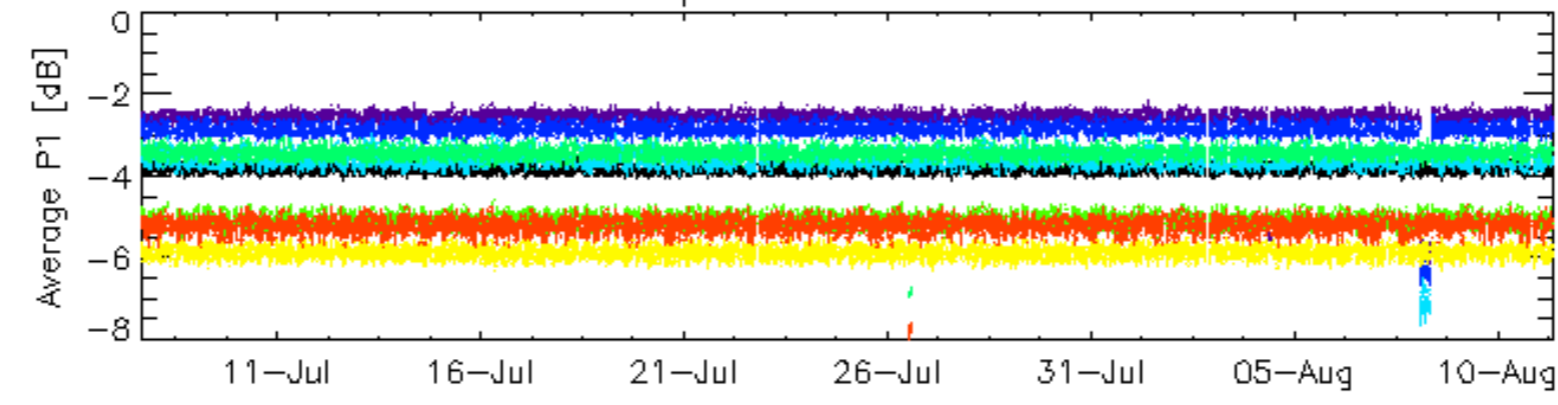


Cal pulses for WVS IS2



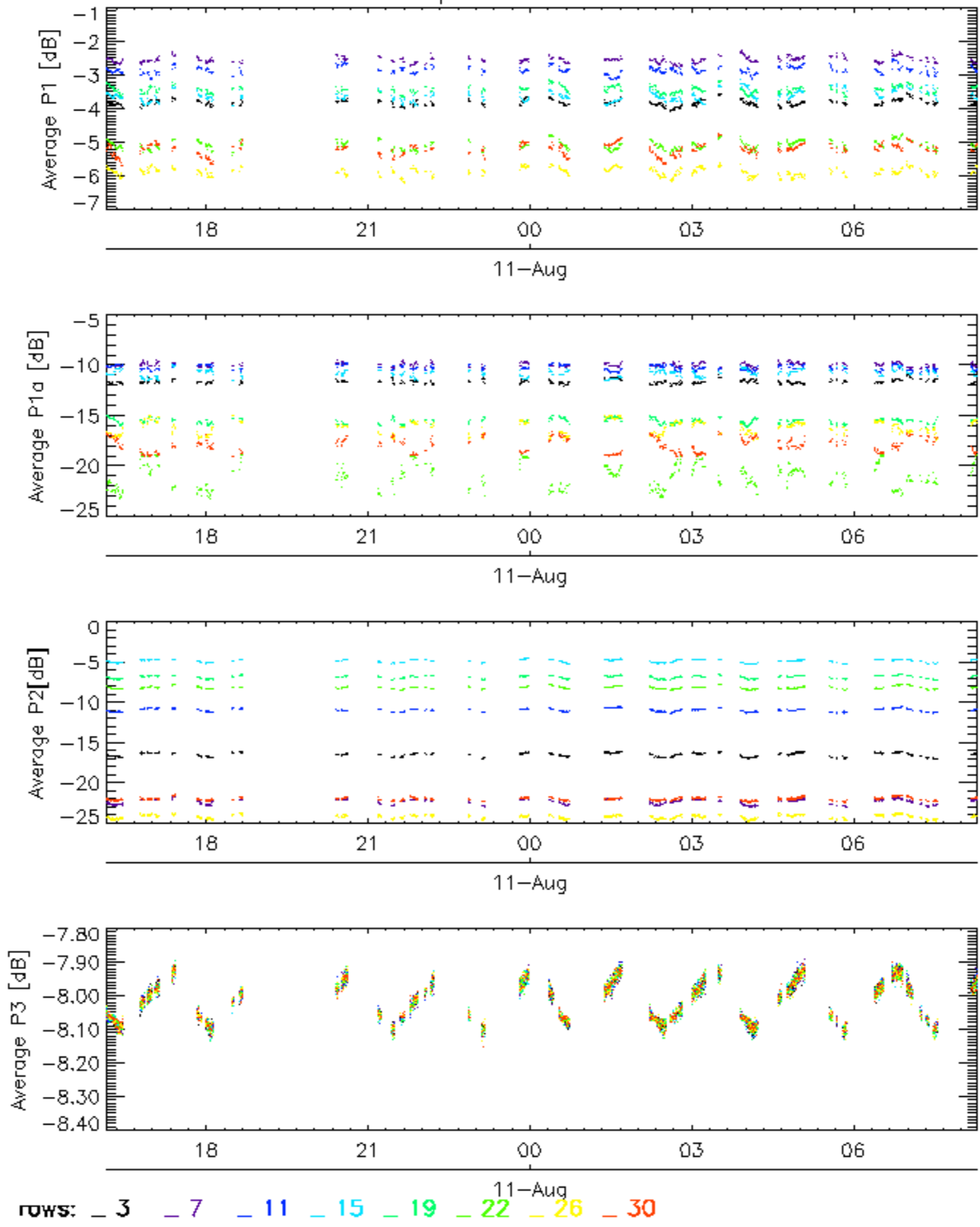
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

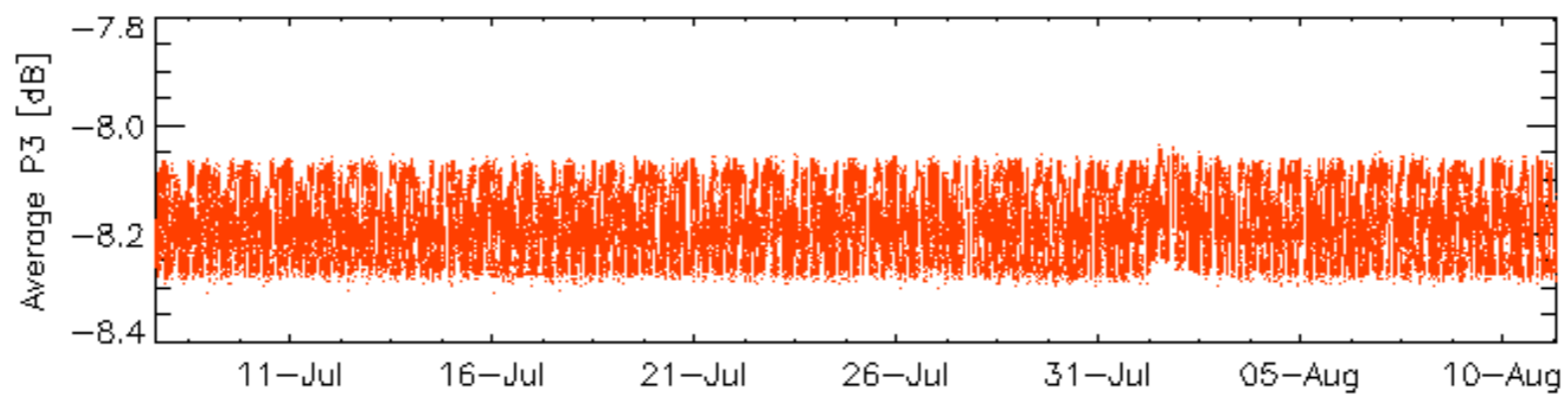
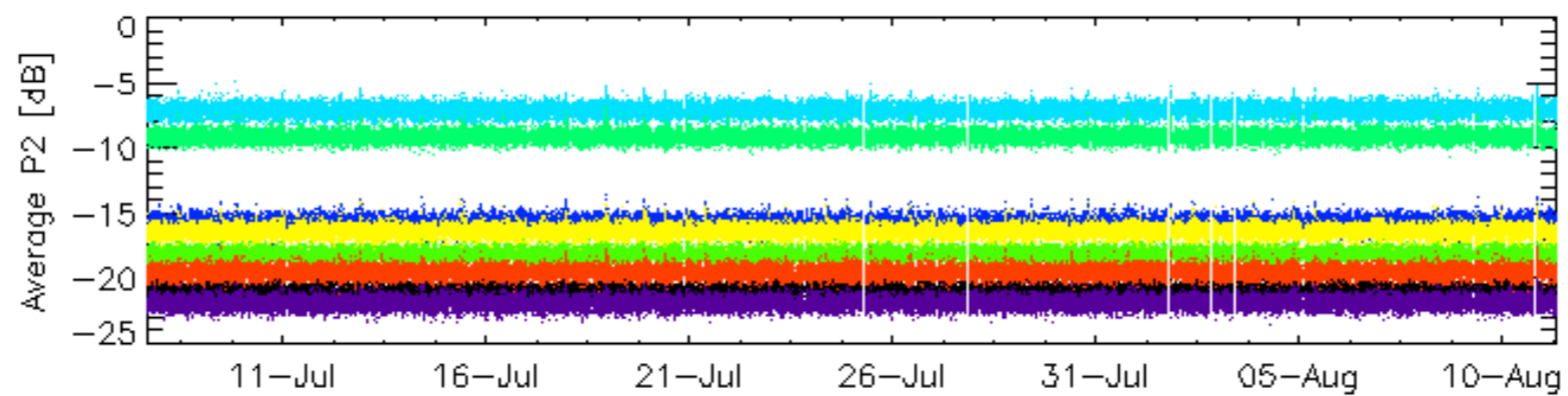
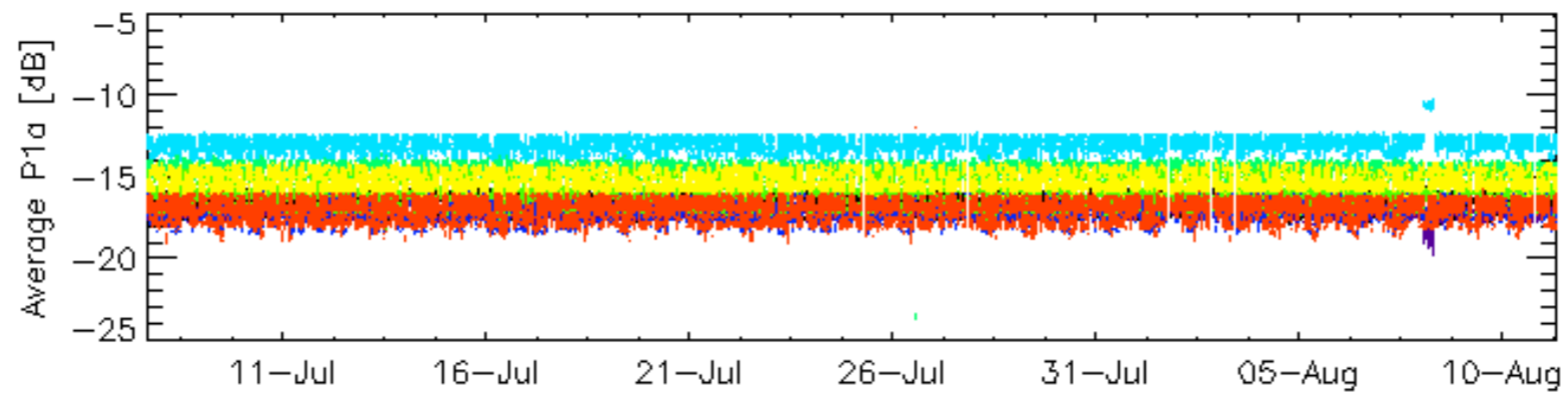
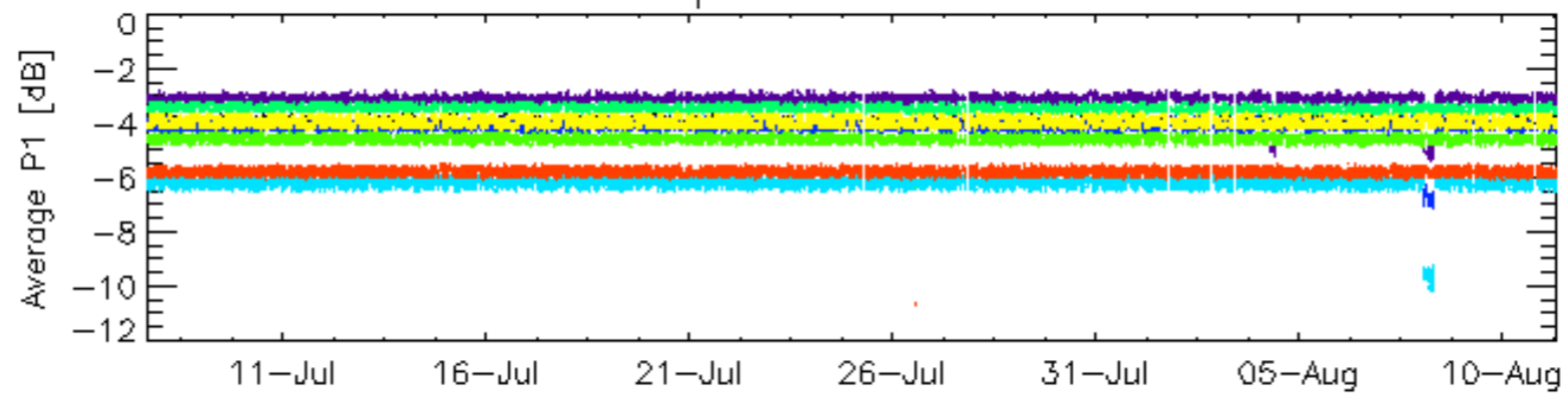


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

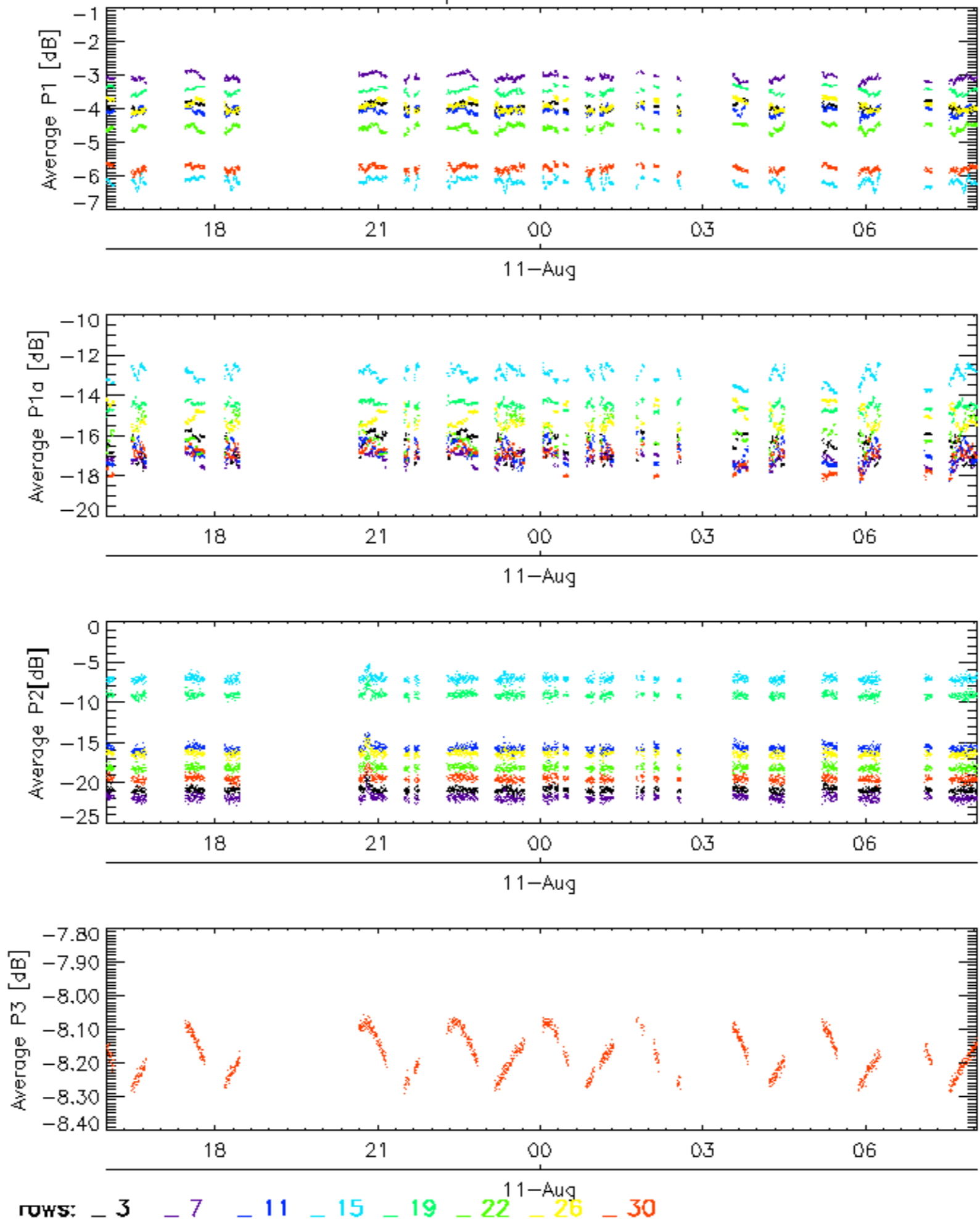


Cal pulses for WVS IS2



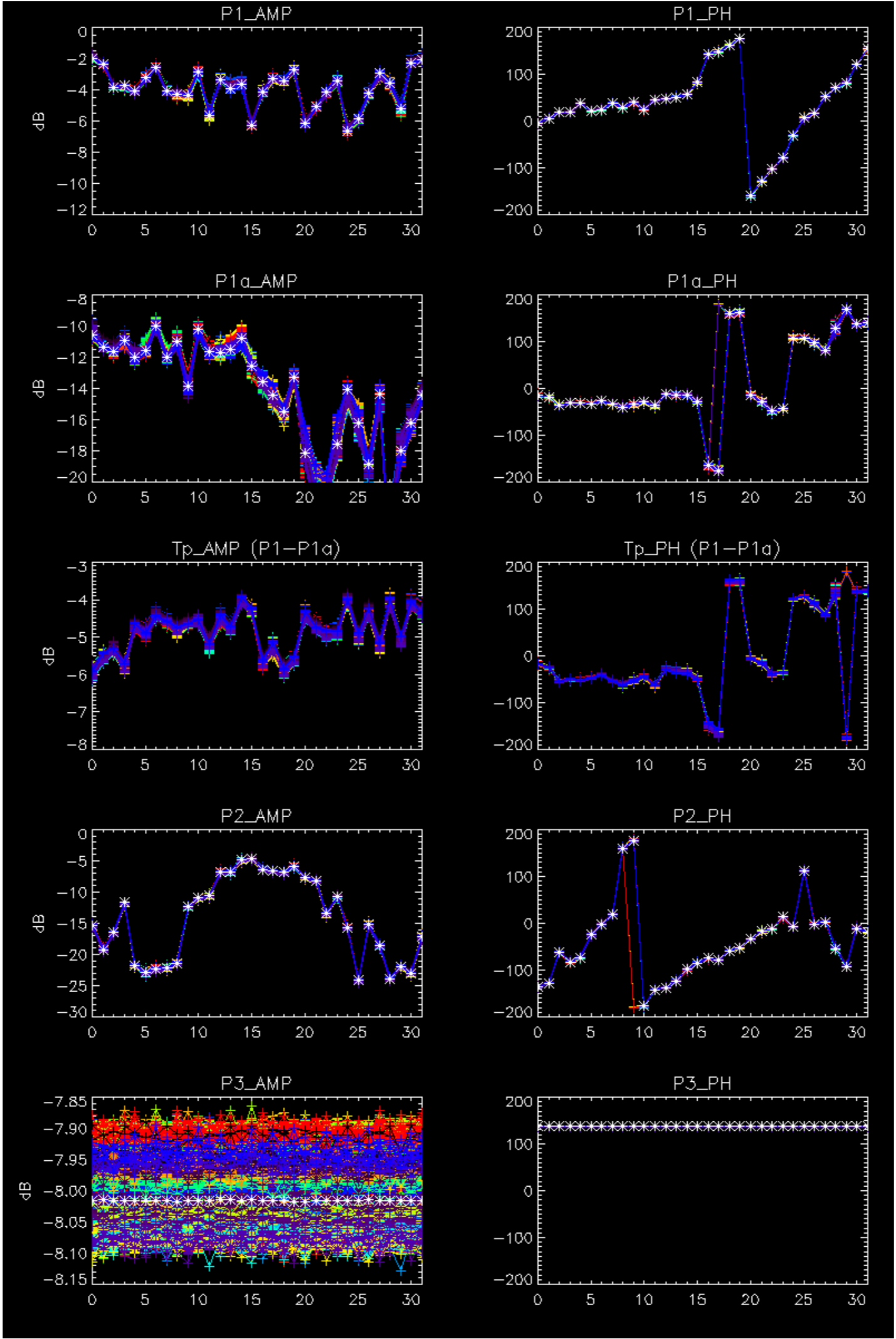
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

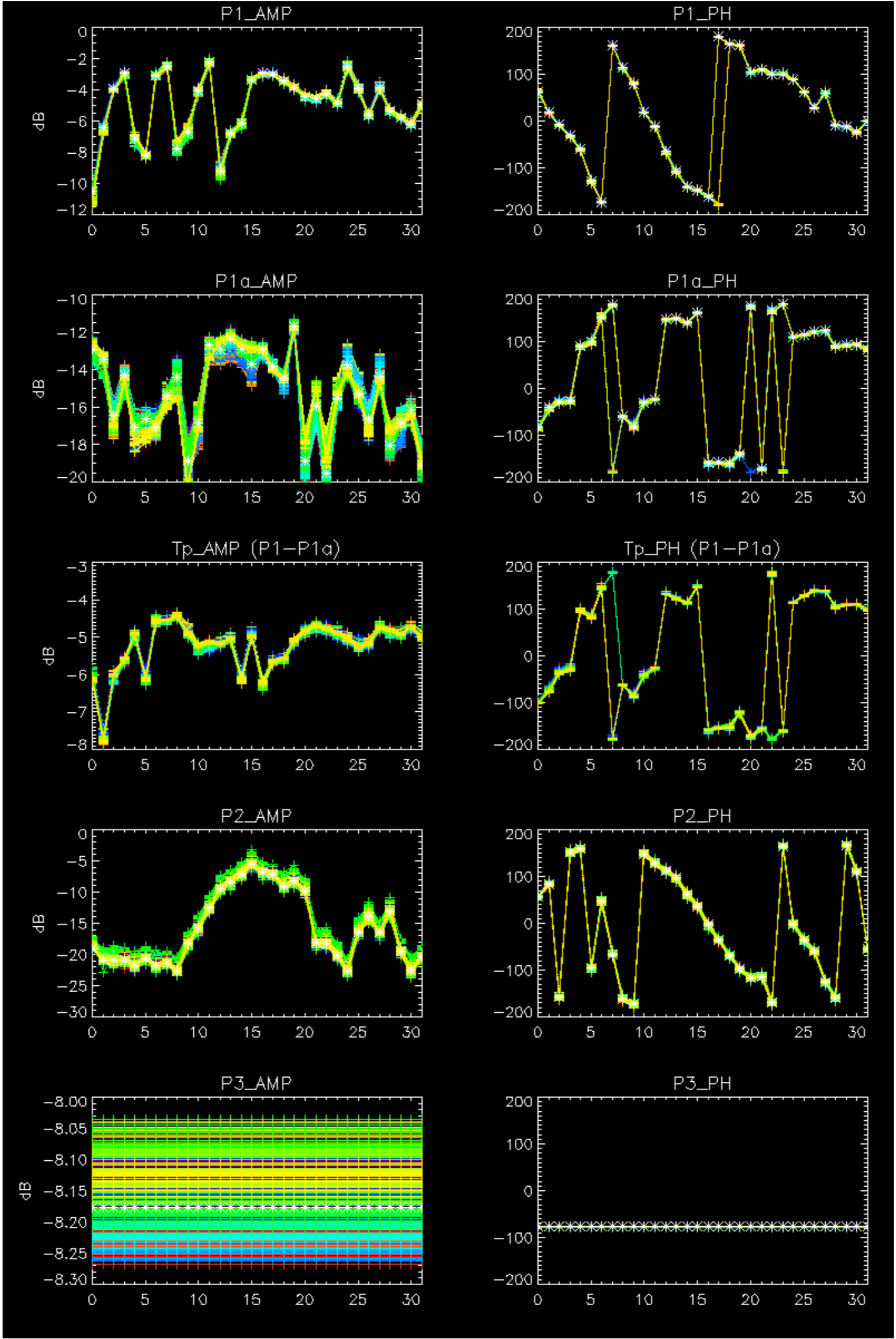
Cal pulses for WVS IS2



No anomalies observed on available browse products

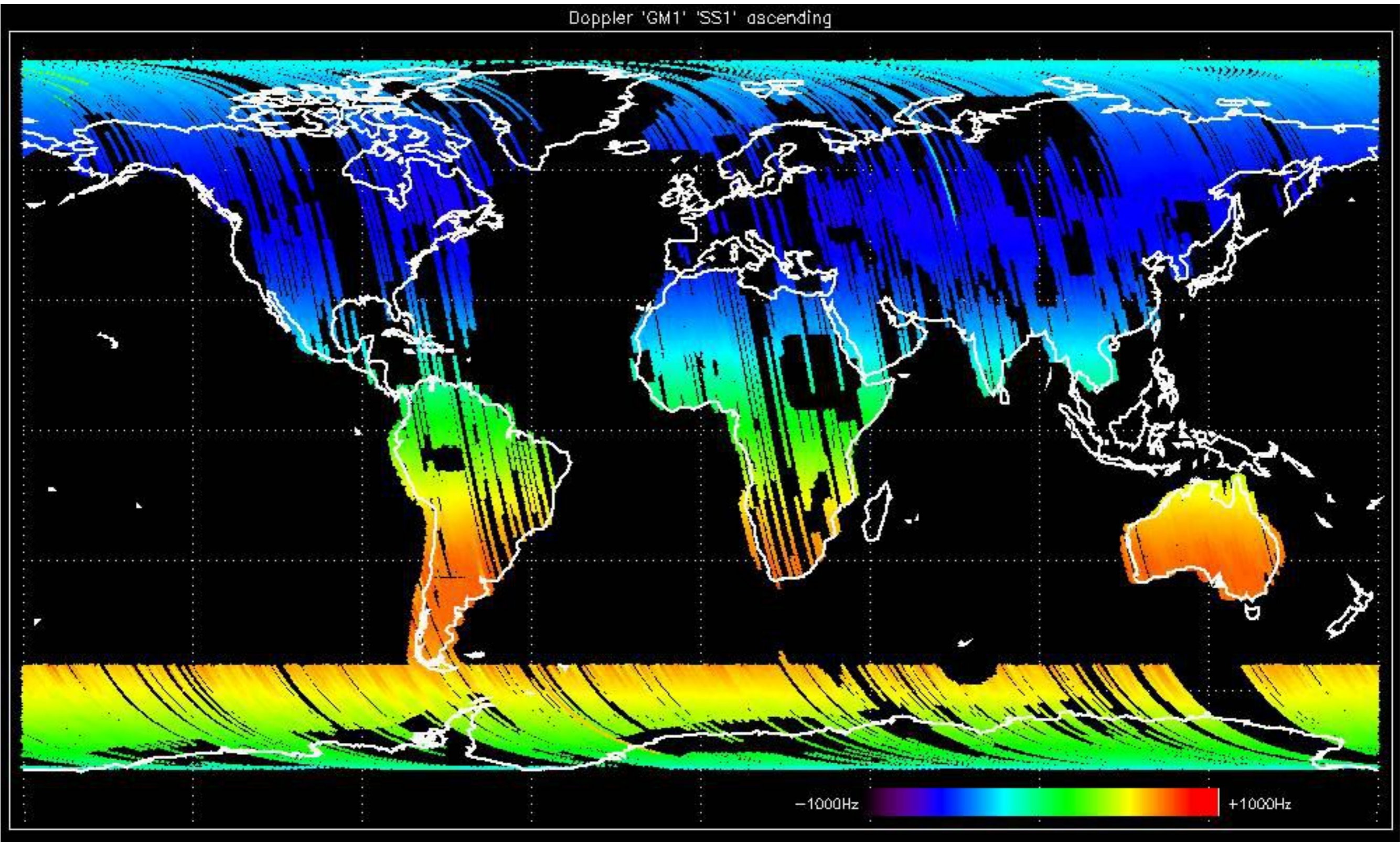
No anomalies observed.



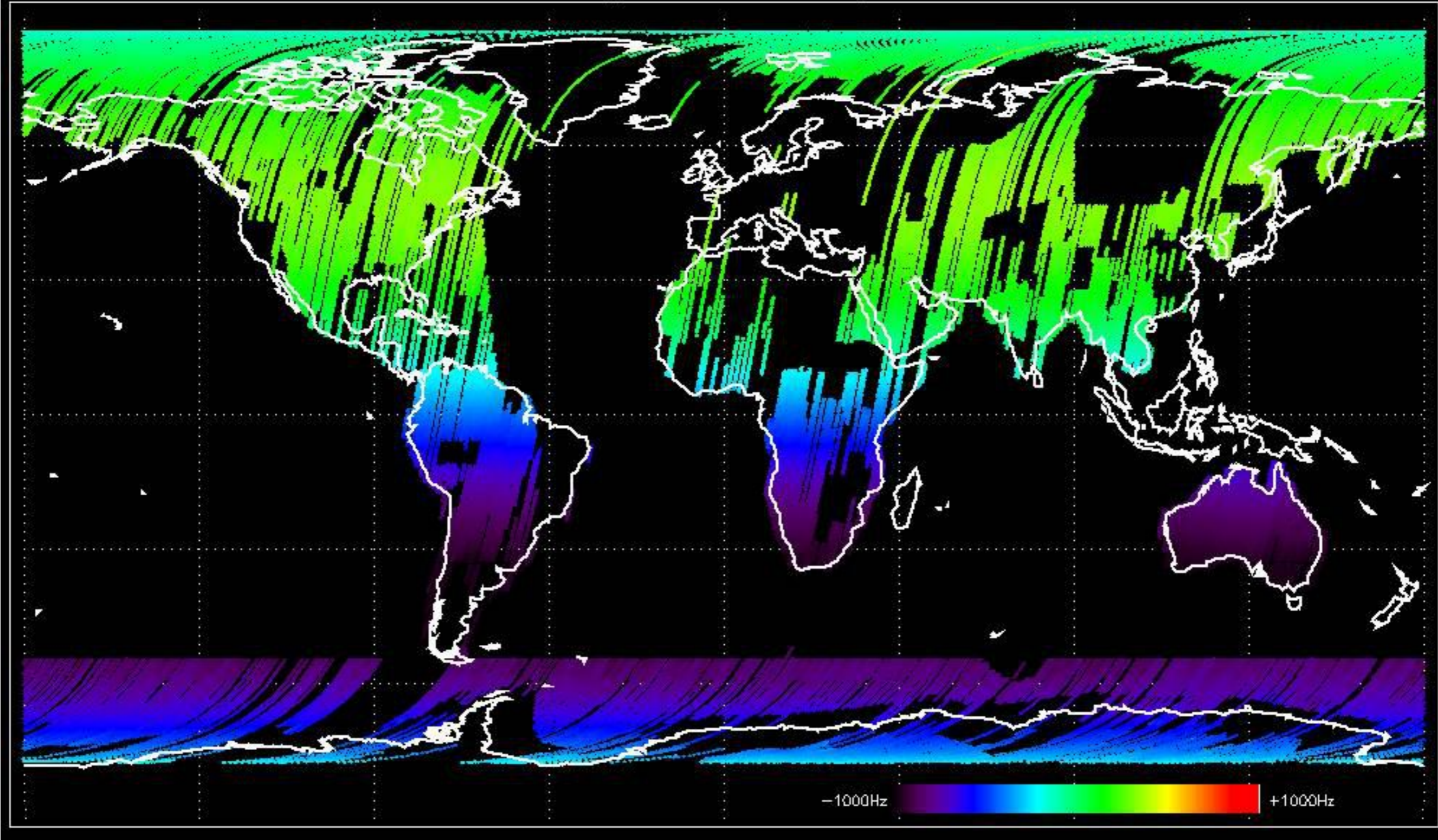


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

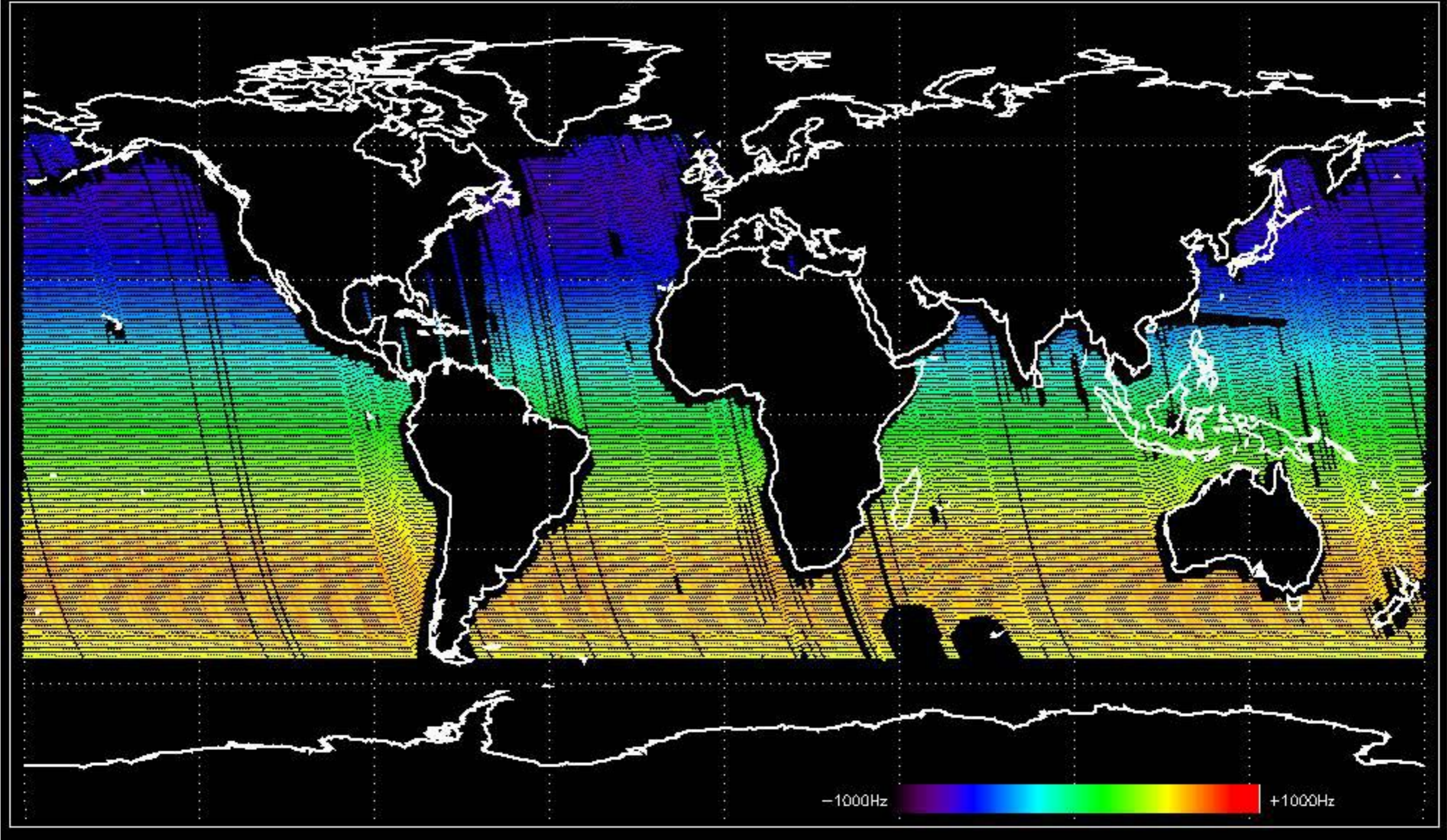
Doppler 'GM1' 'SS1' ascending



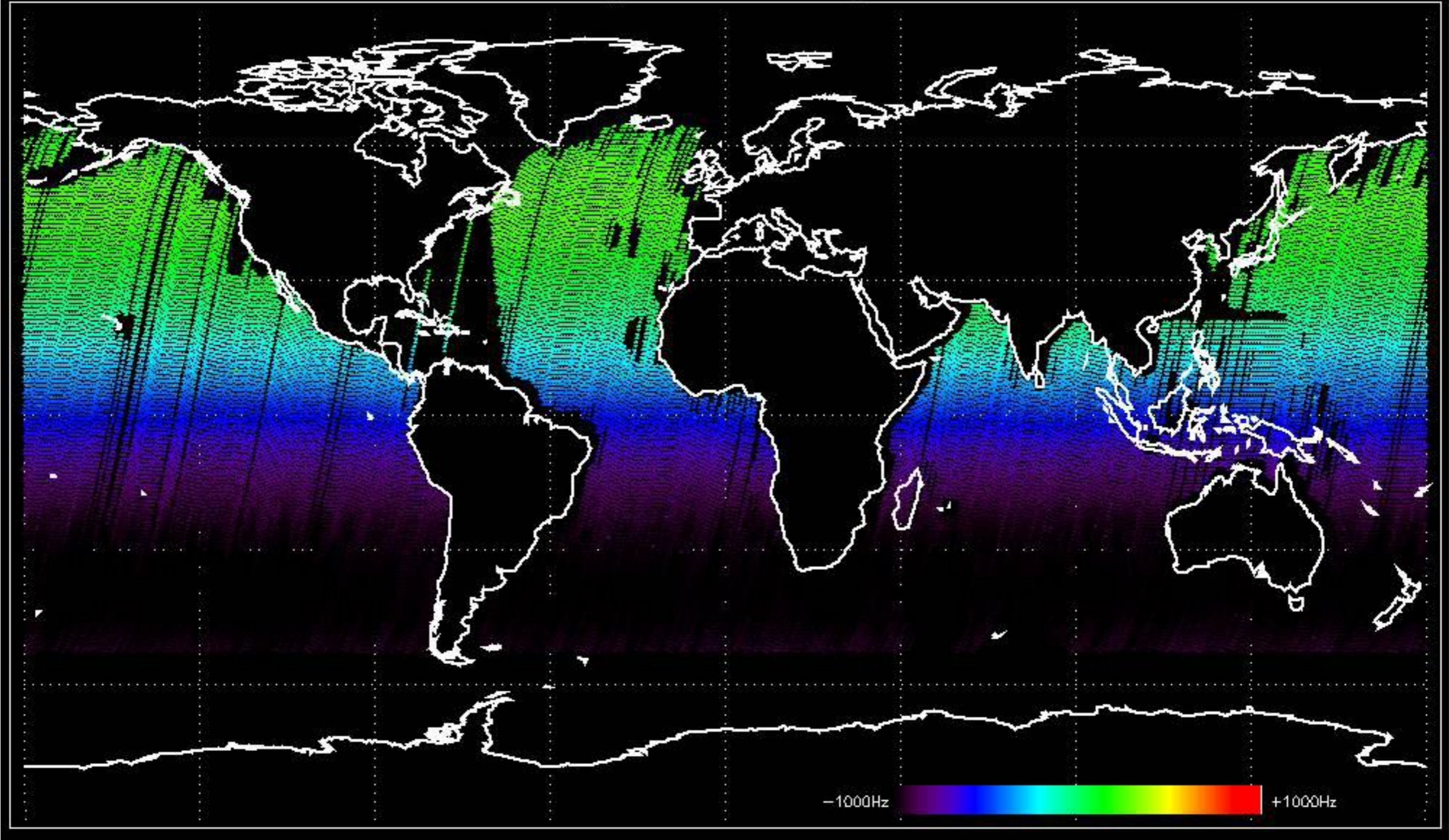
Doppler 'GM1' 'SS1' descending



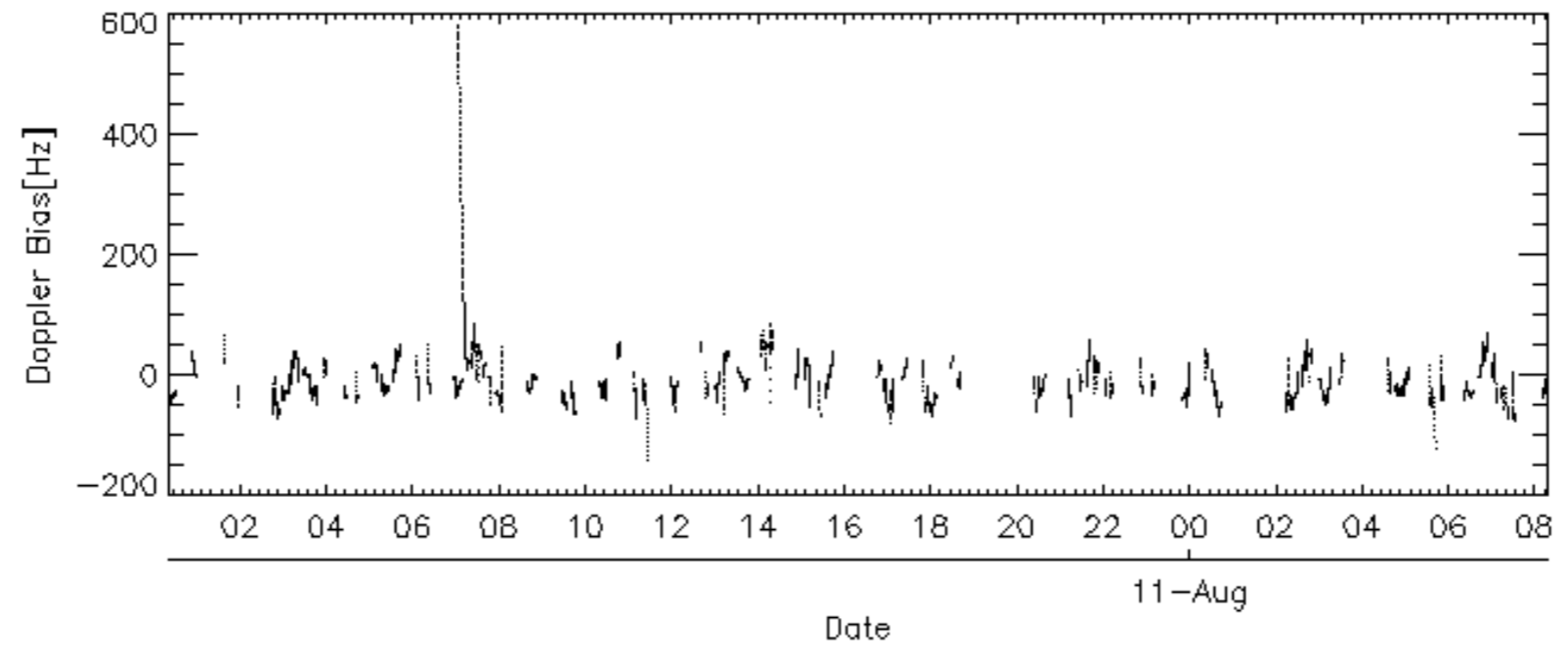
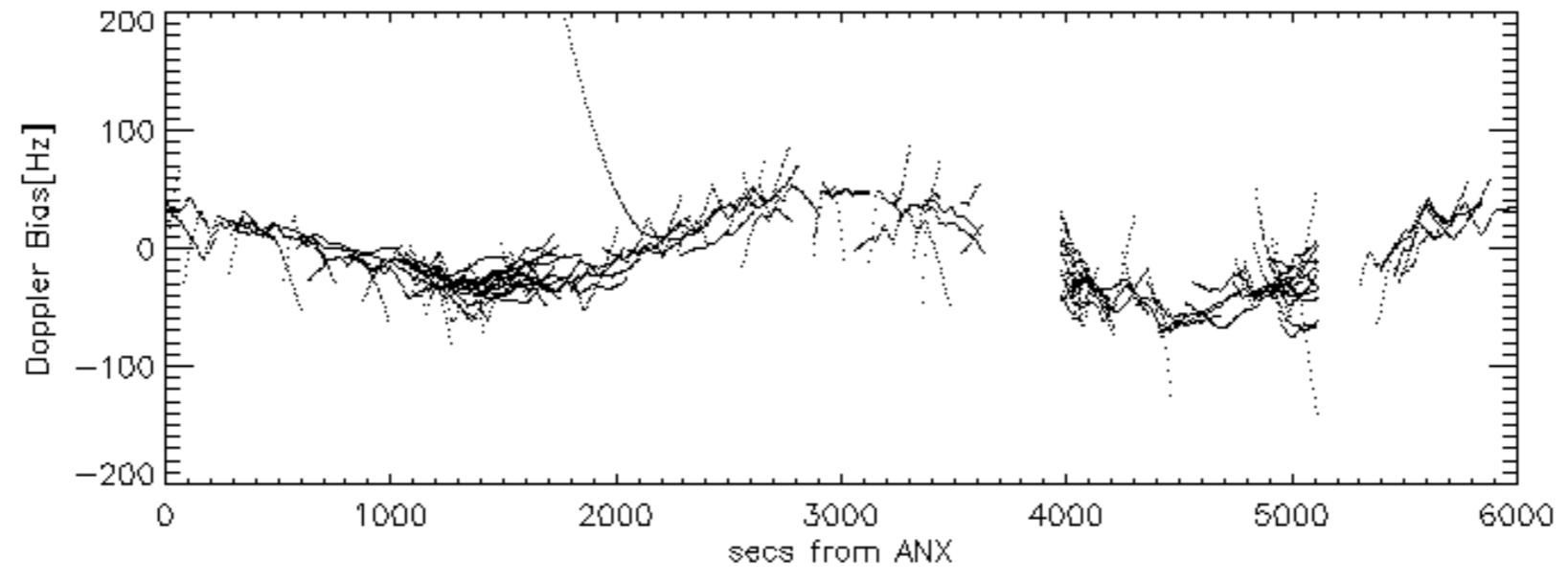
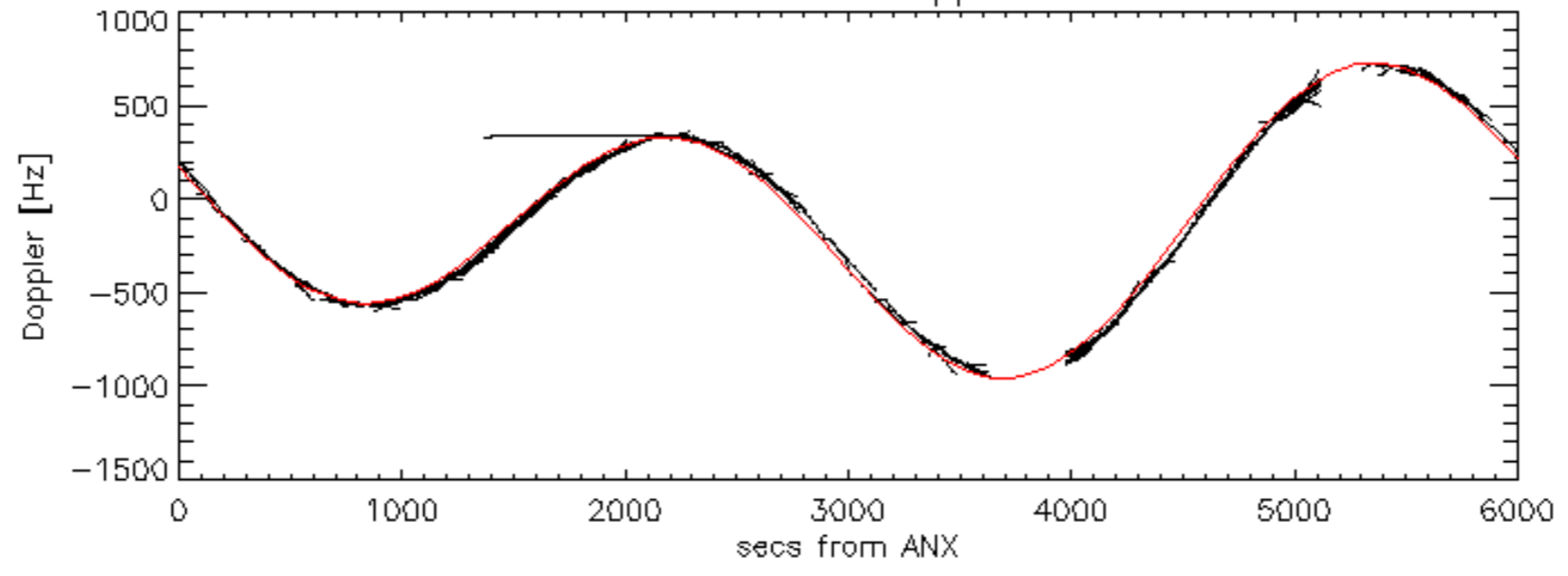
Doppler 'WVS' 'IS2' ascending

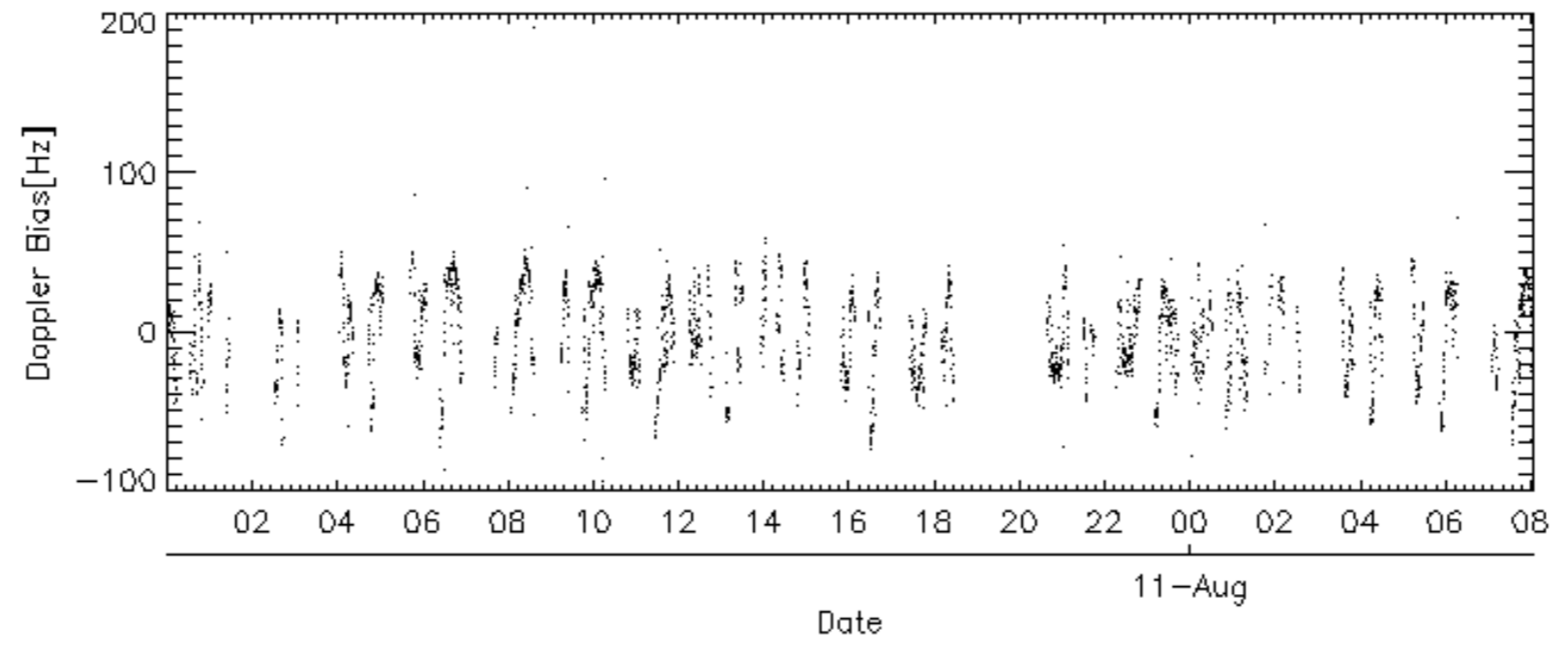
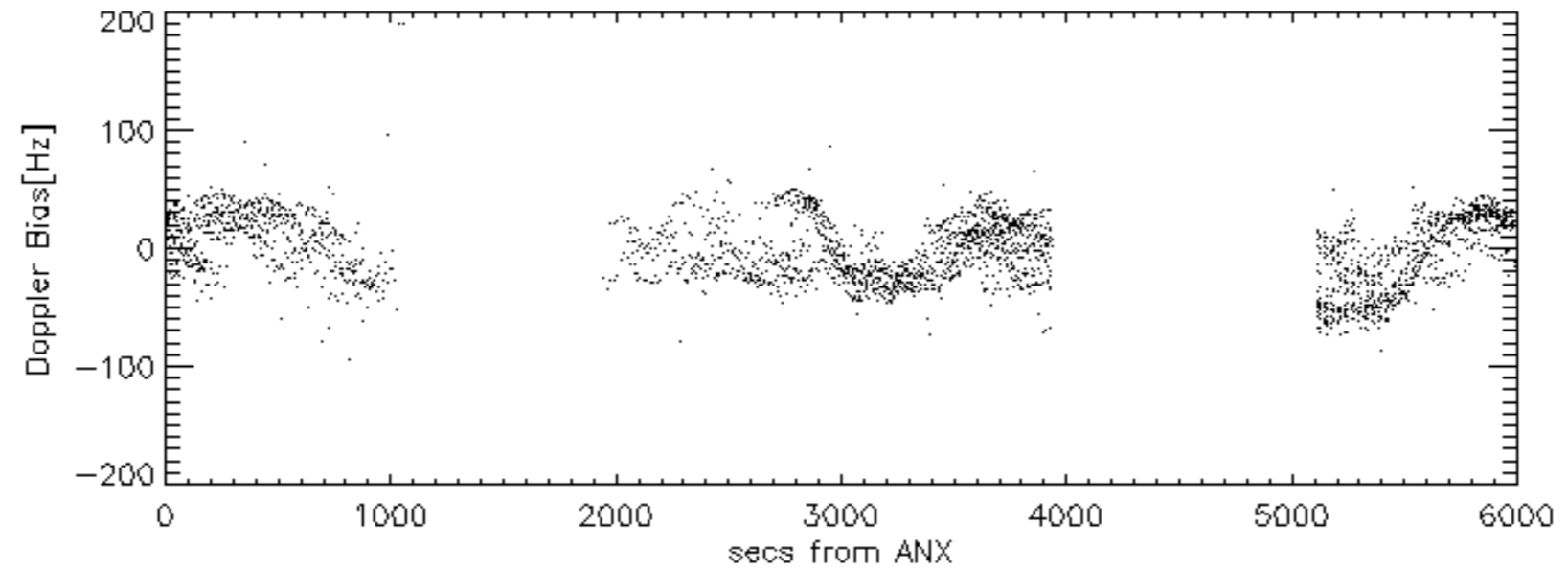
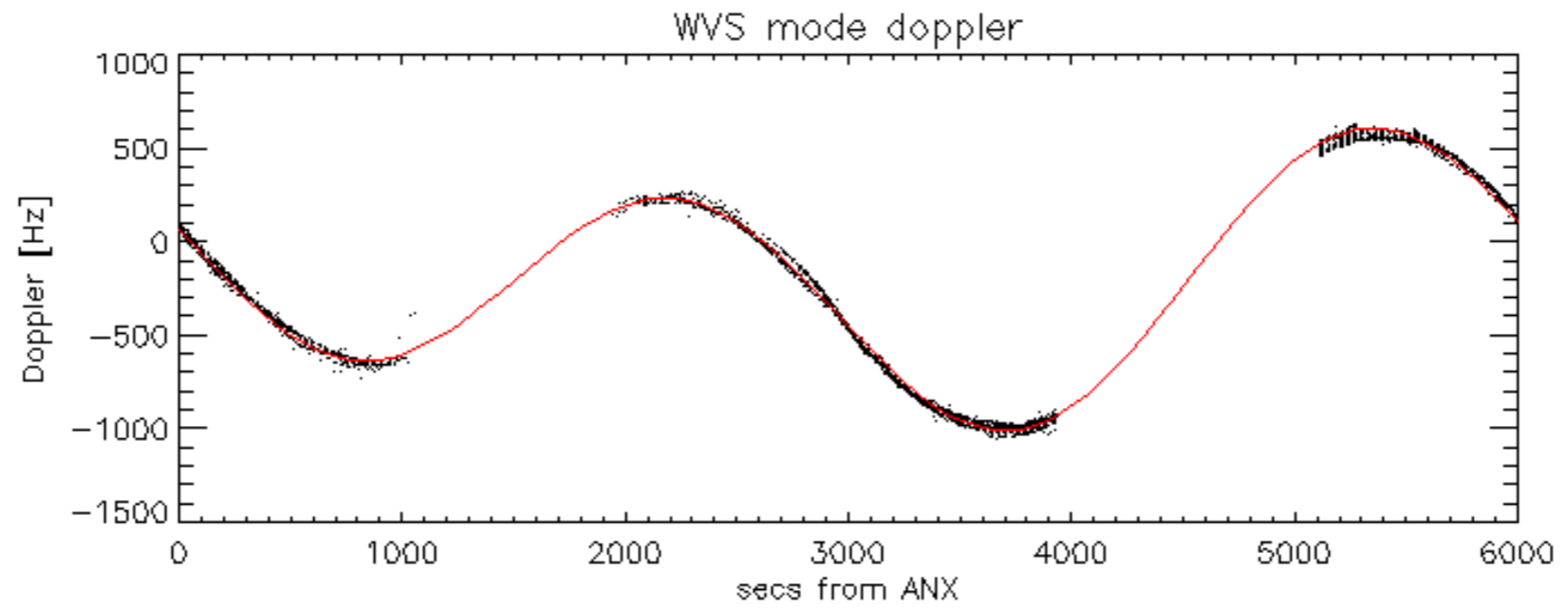


Doppler 'WVS' 'IS2' descending

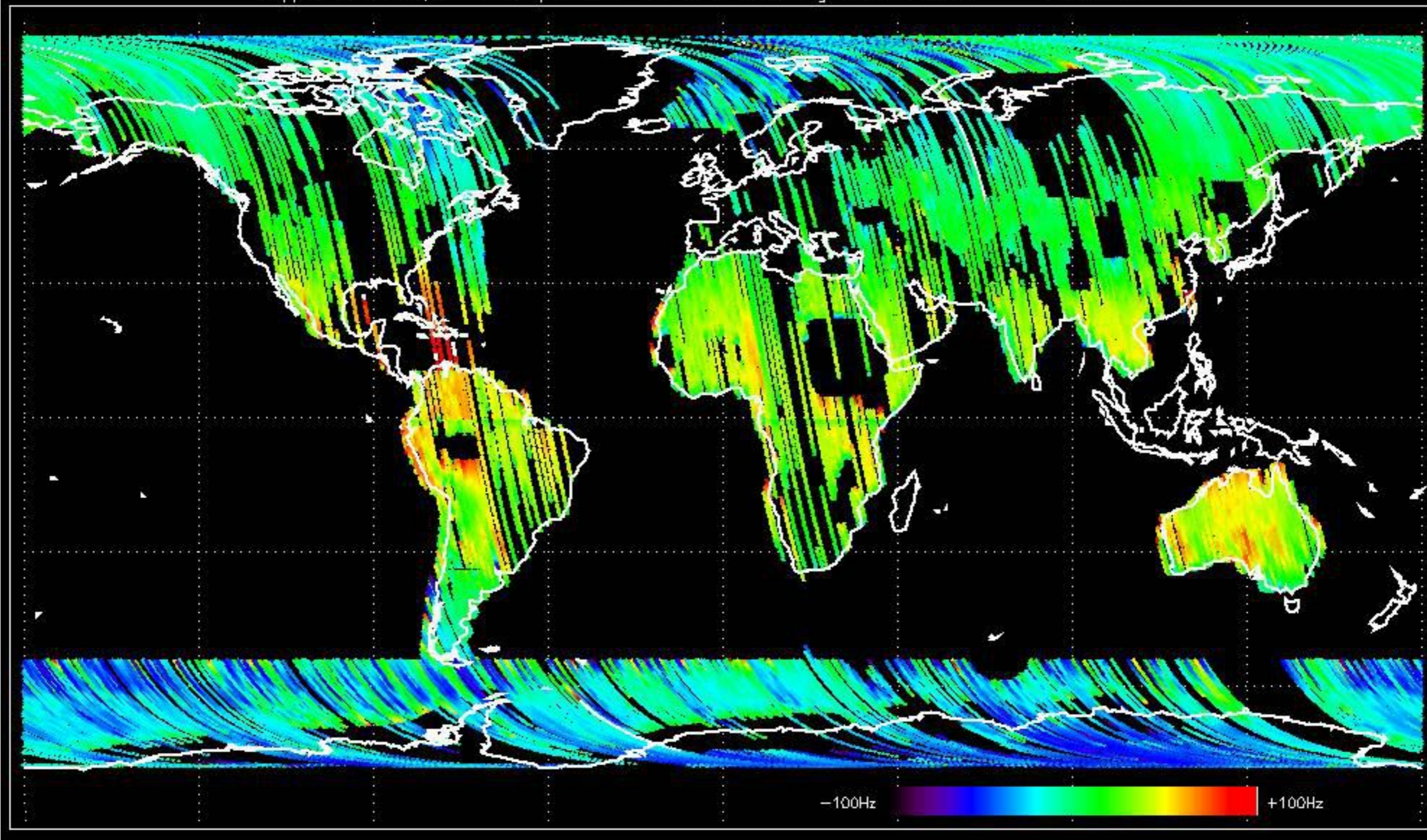


GM1 mode doppler

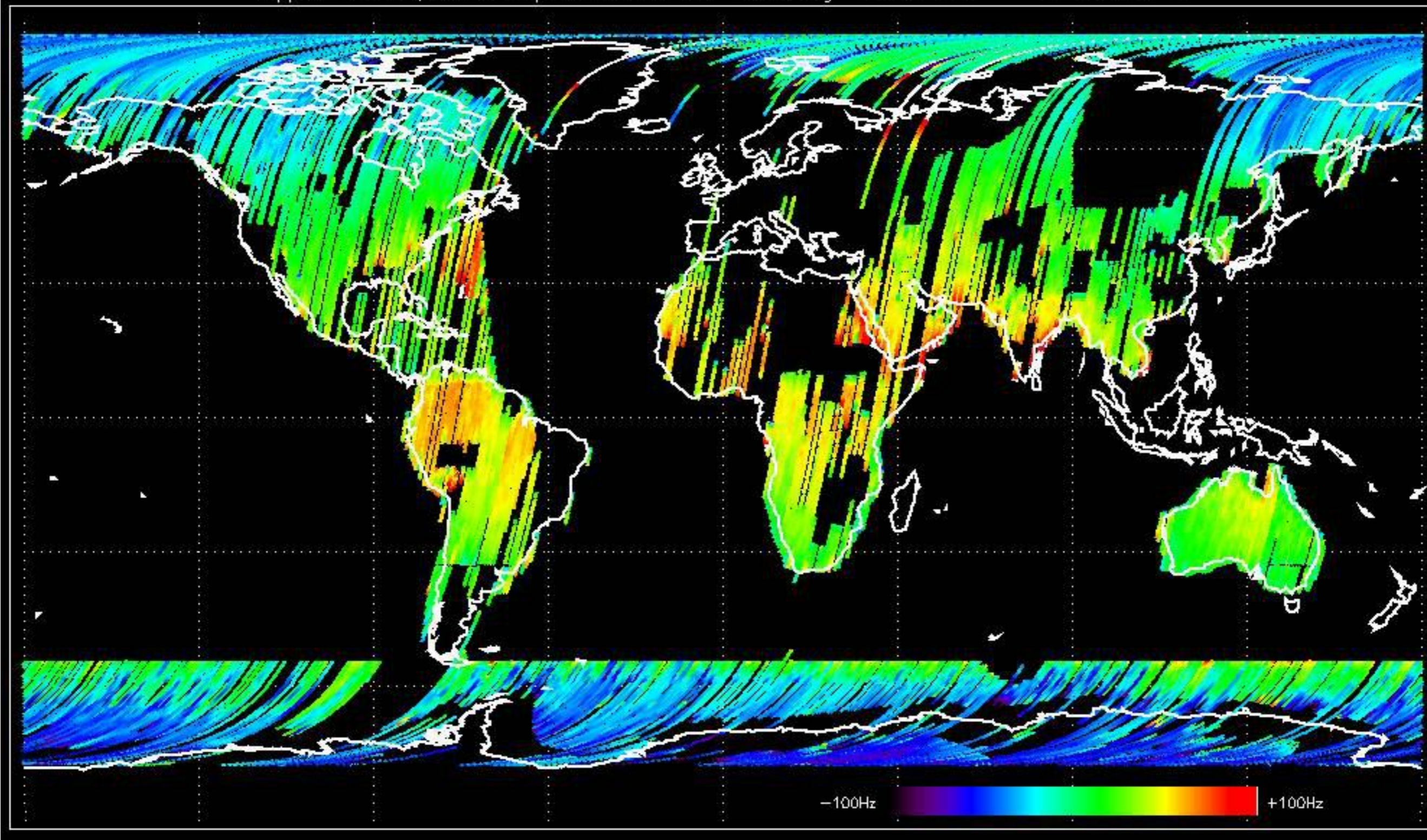




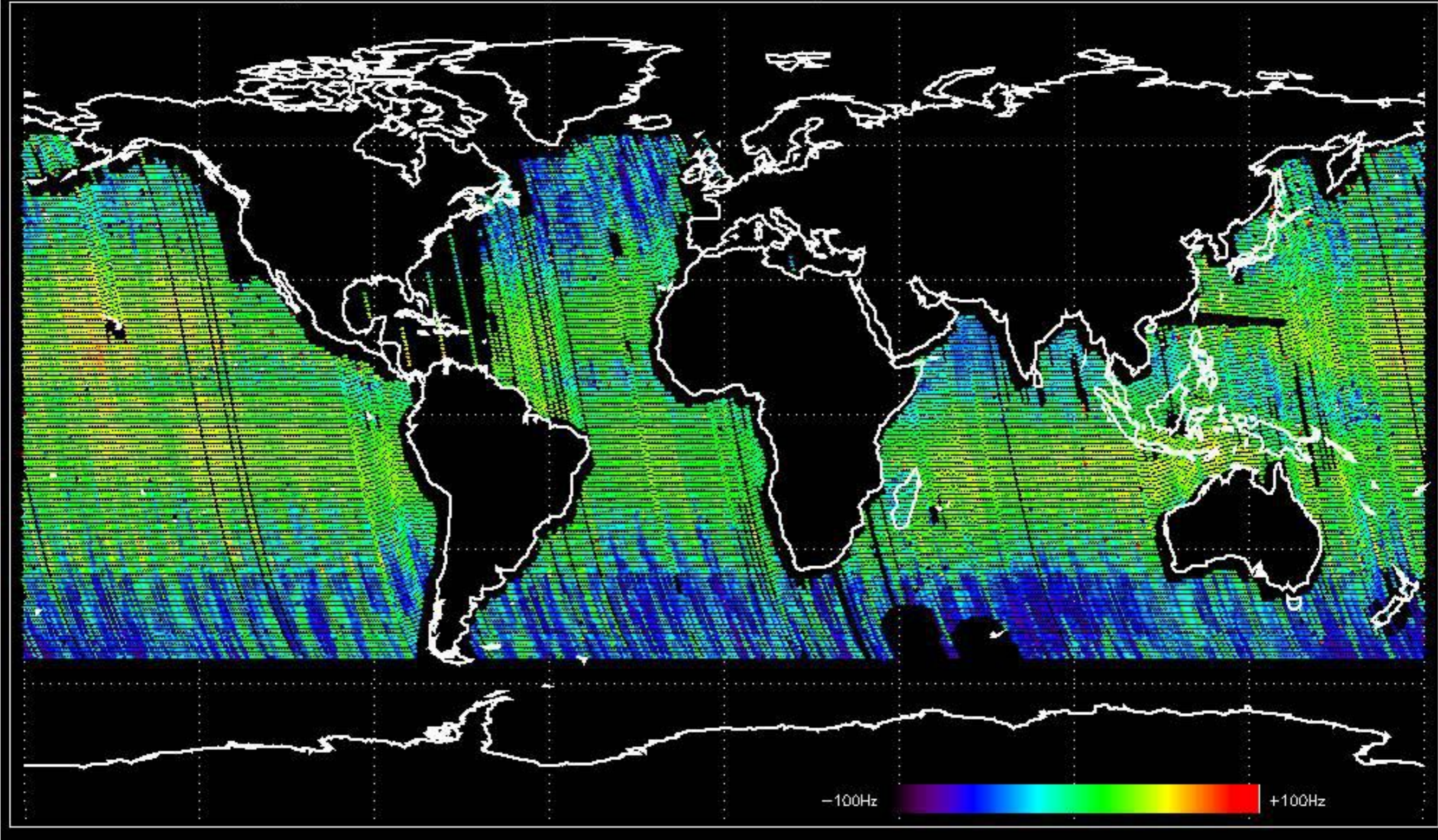
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.707307 Hz



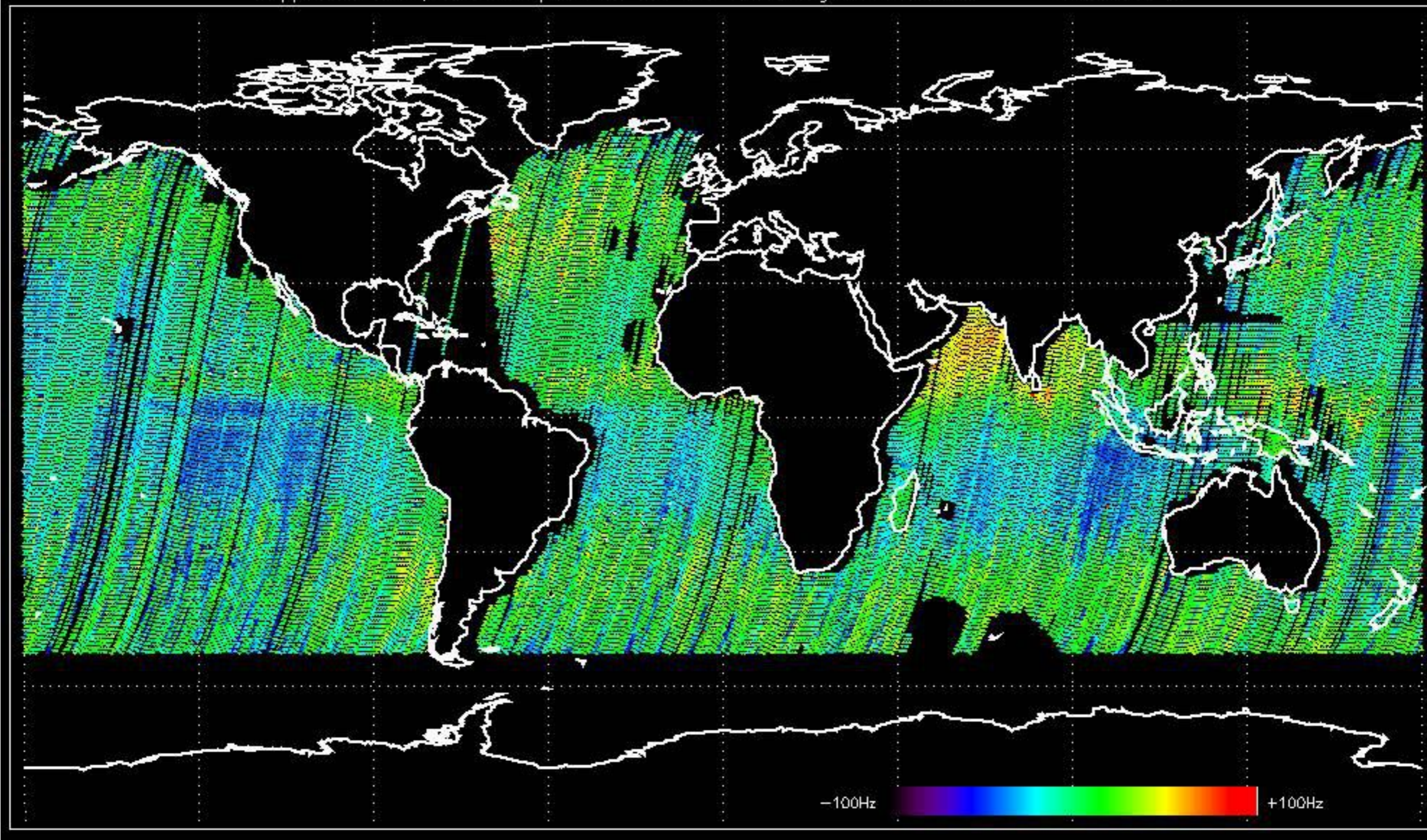
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.2220201 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.3249904 Hz

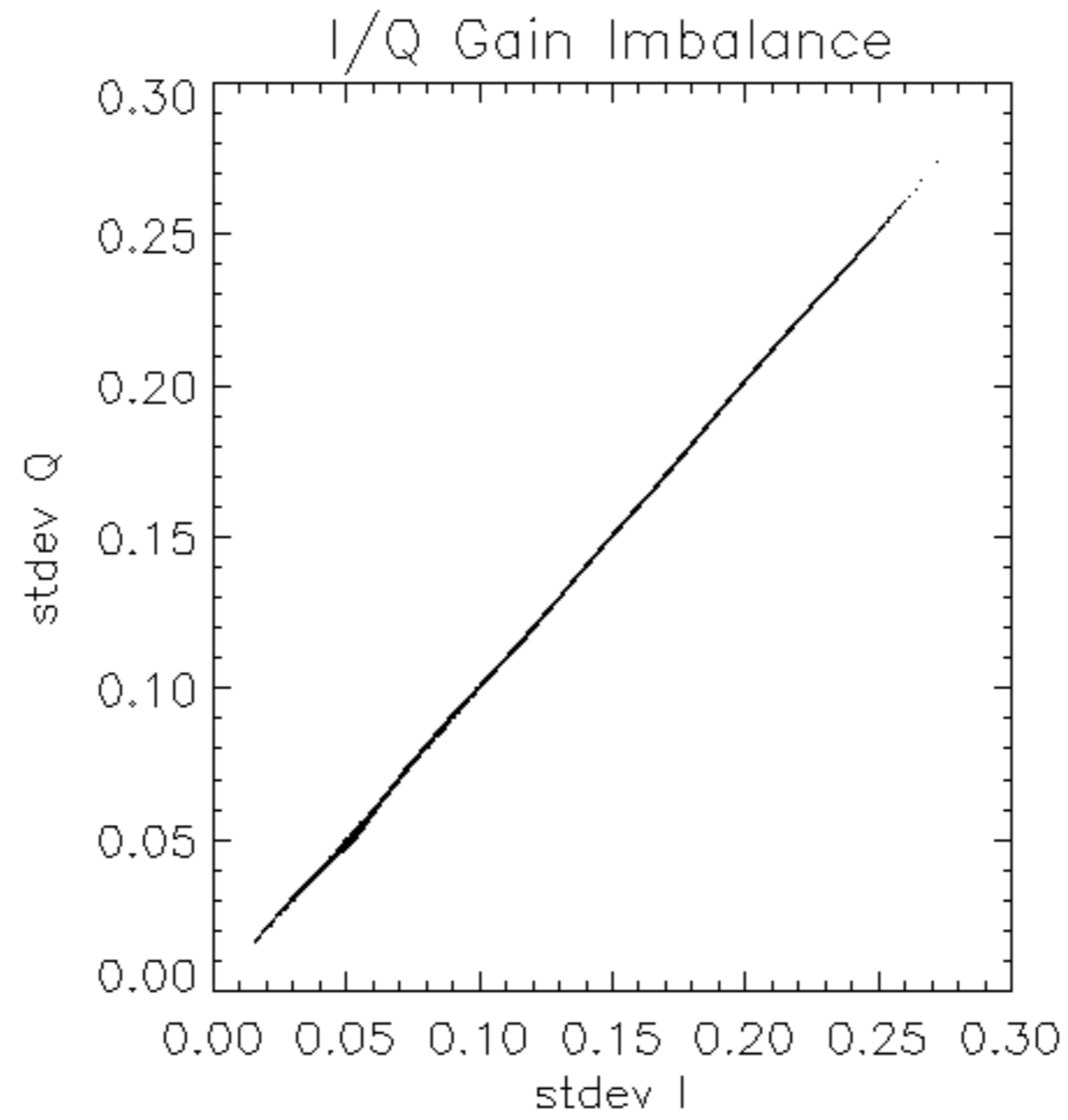


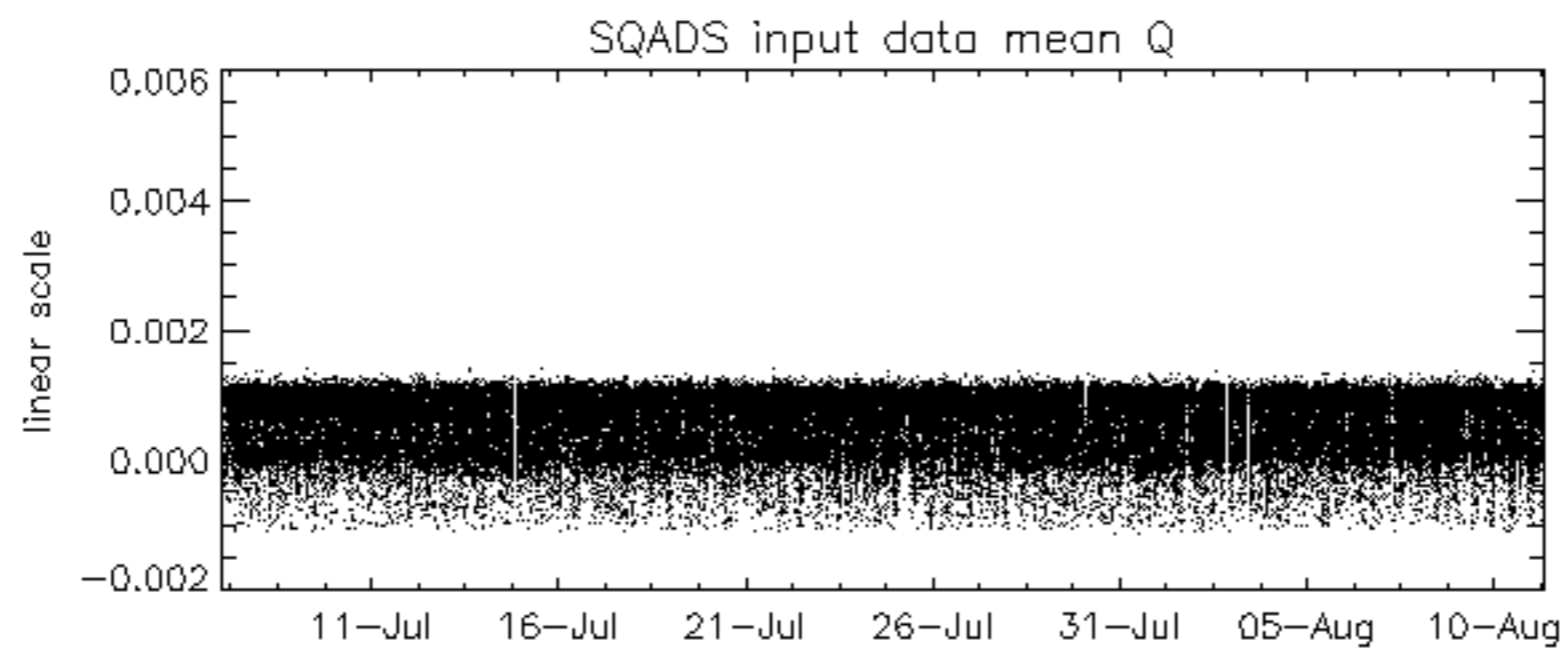
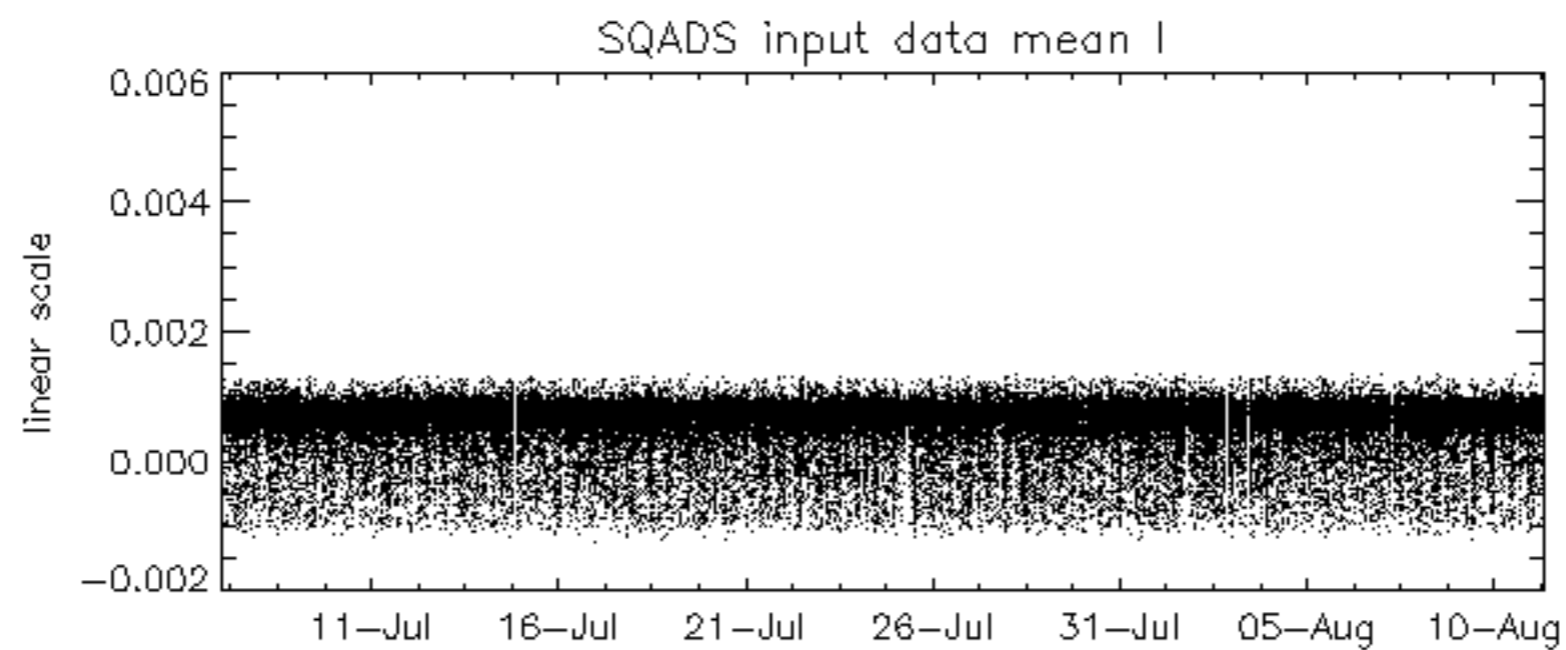
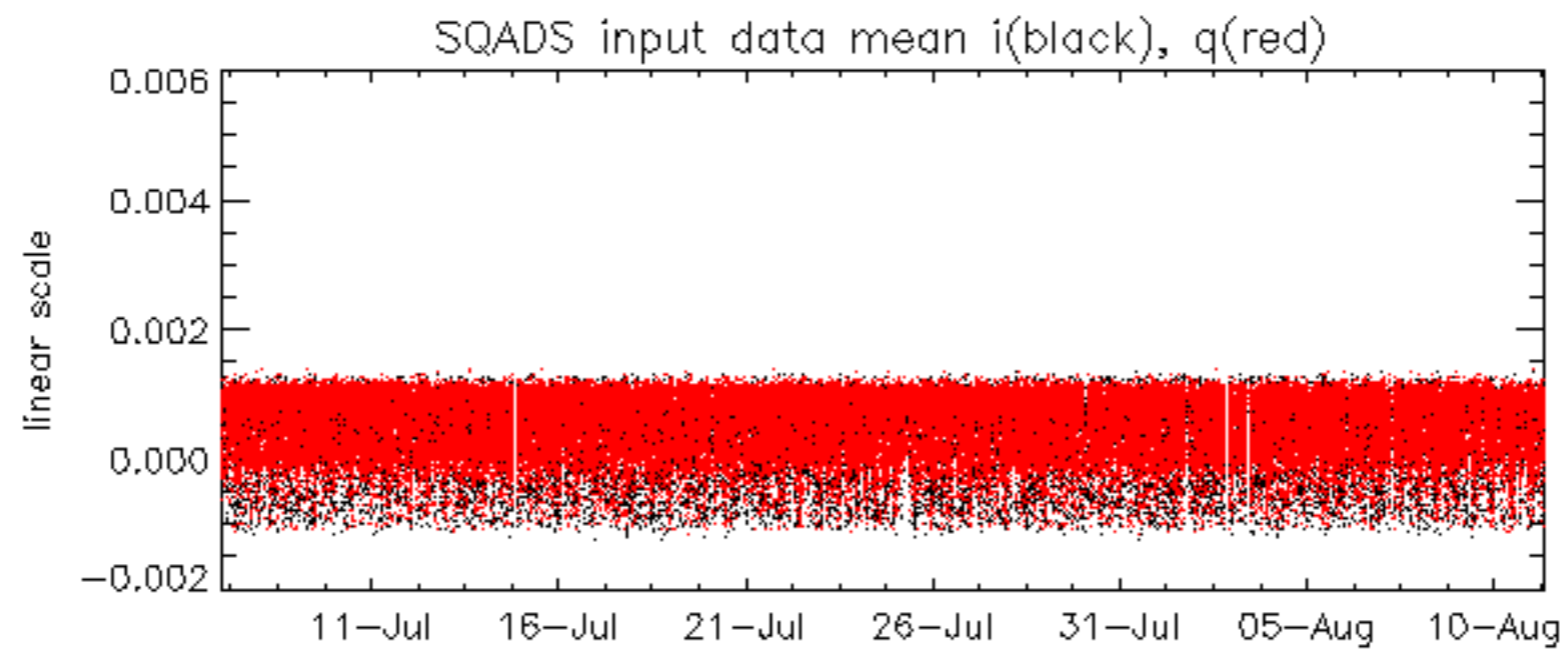
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.1581306 Hz

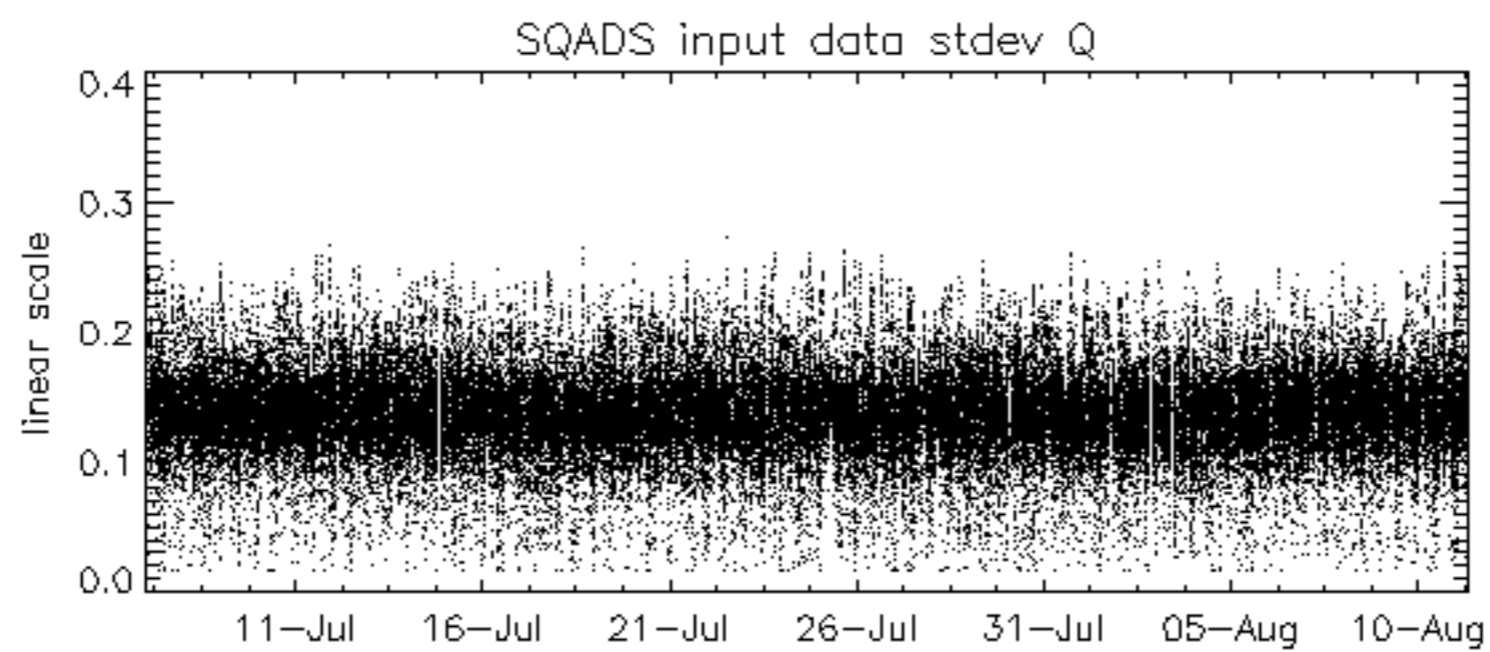
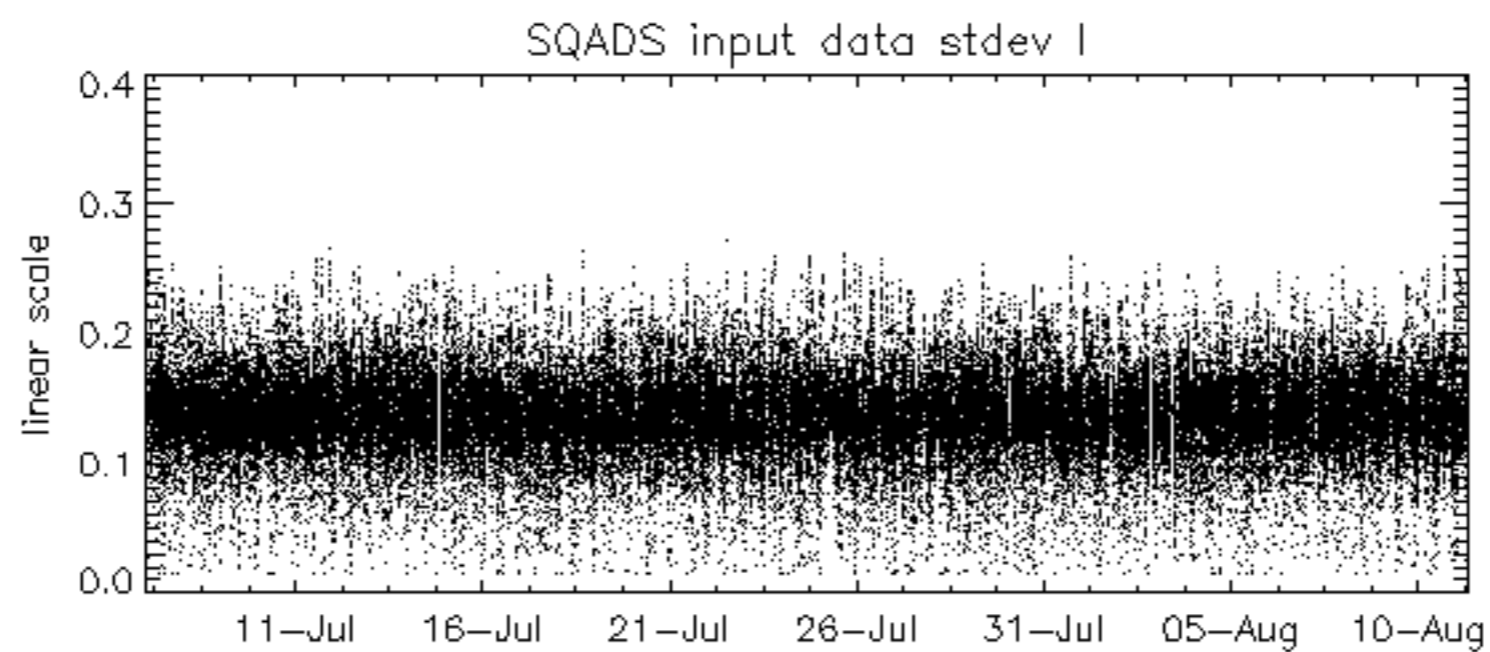
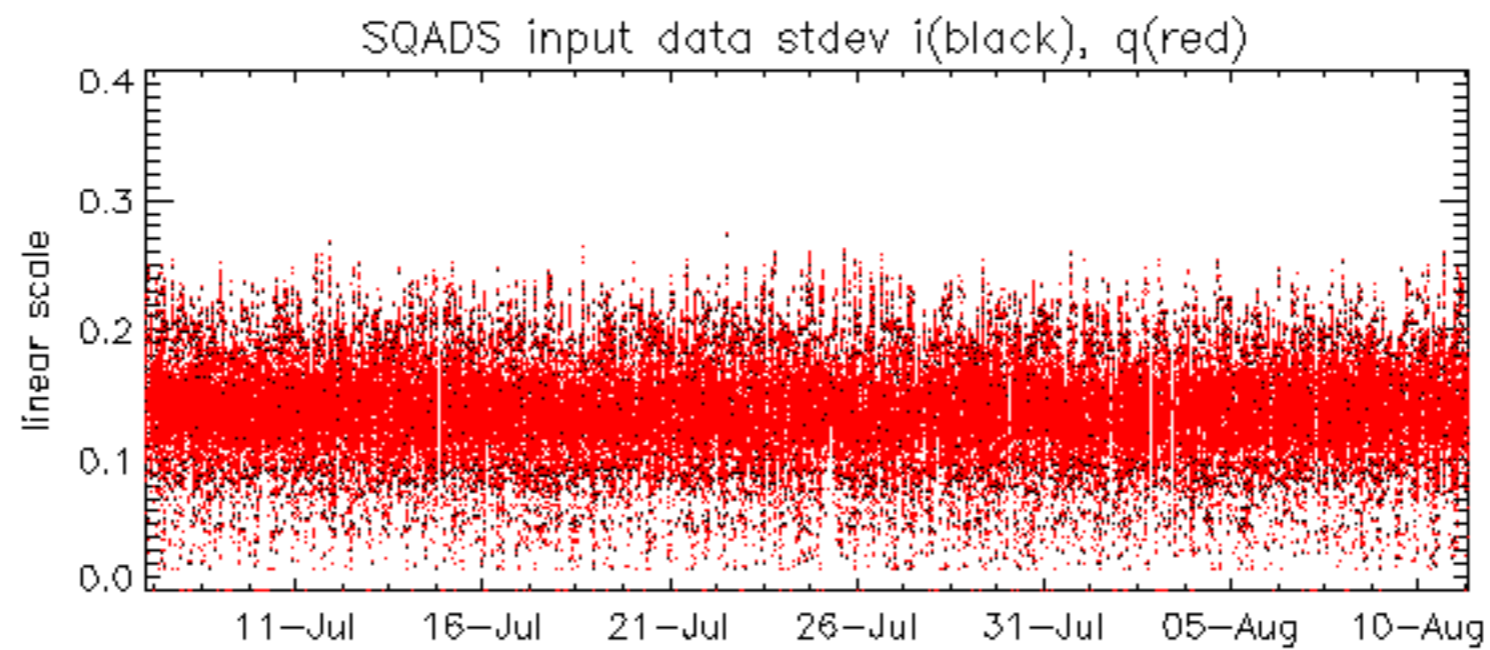


No anomalies observed on available MS products:

No anomalies observed.



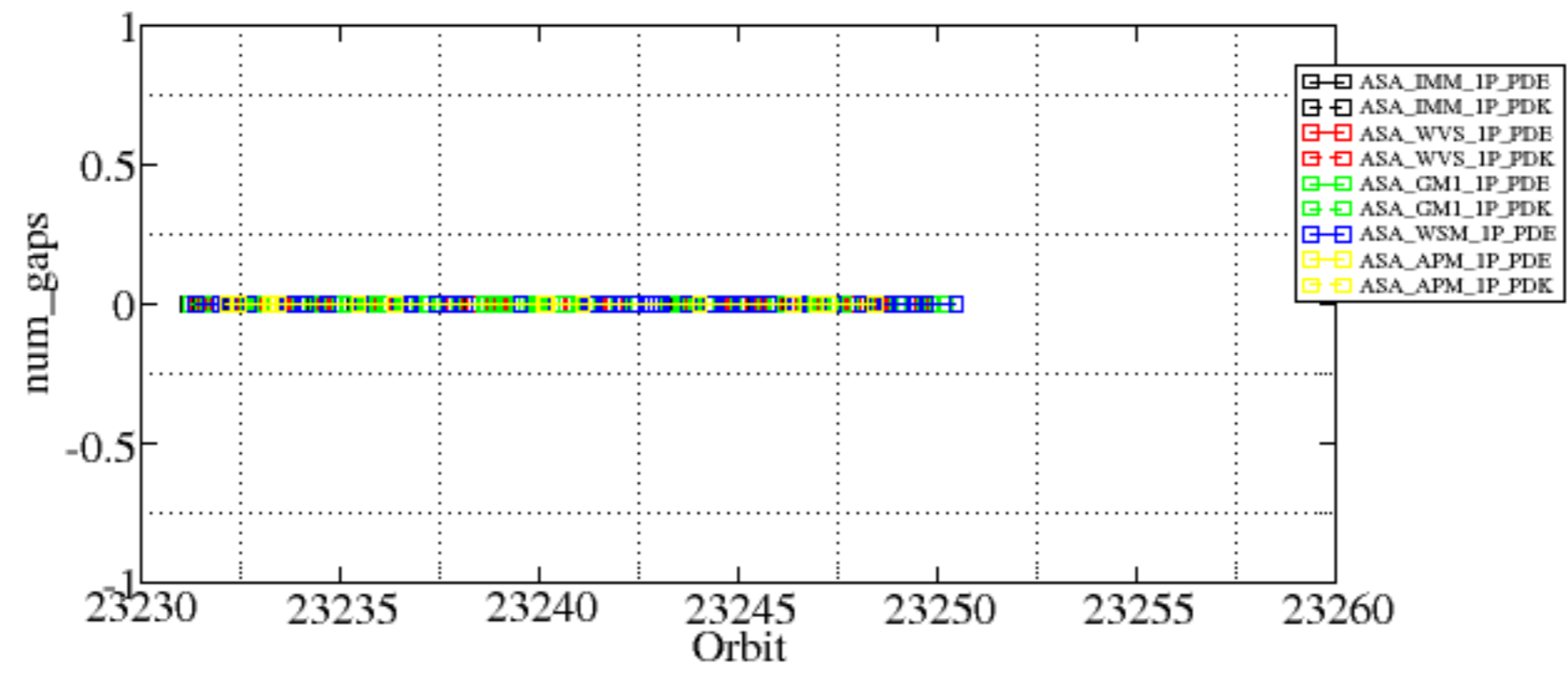


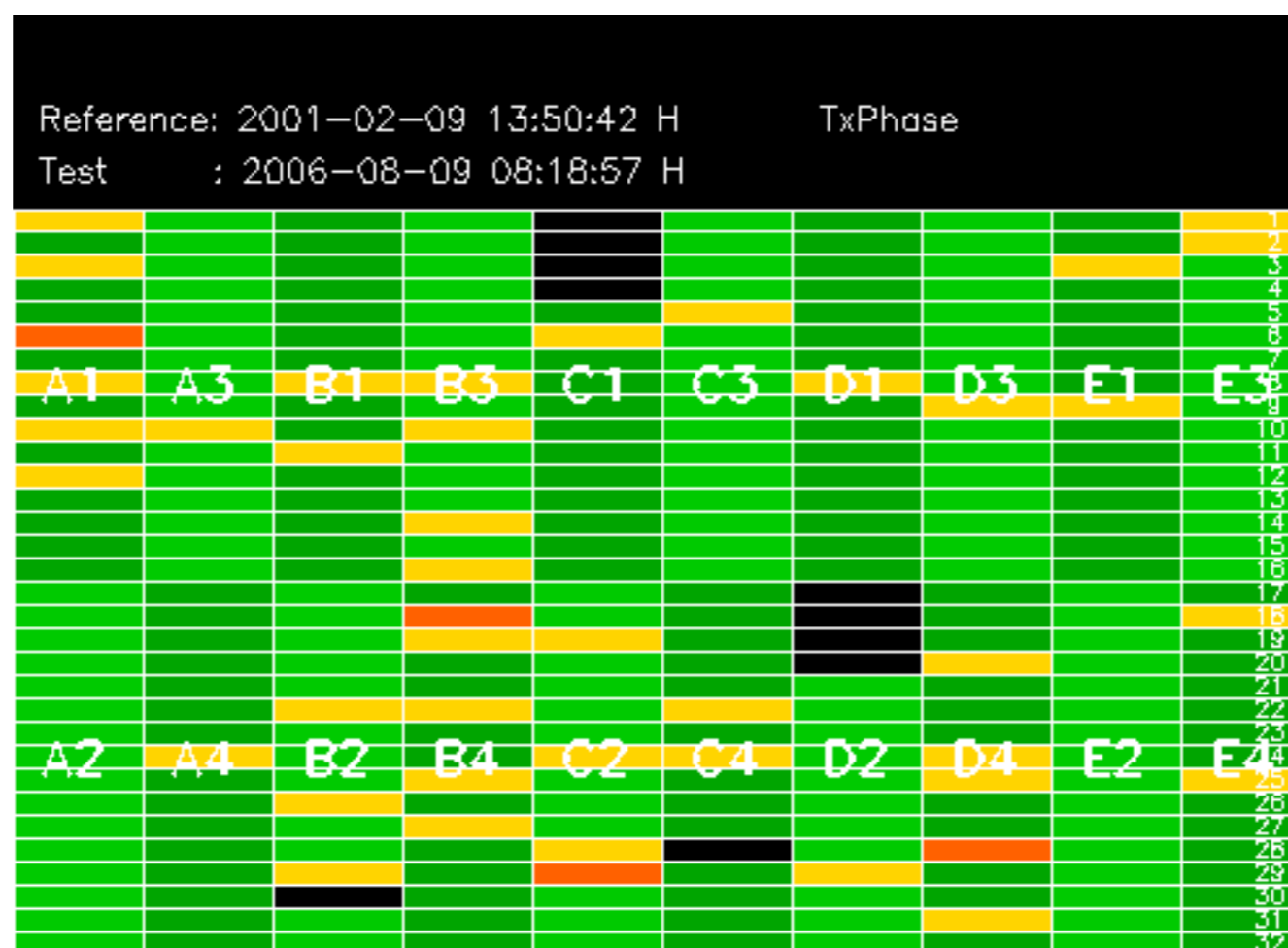


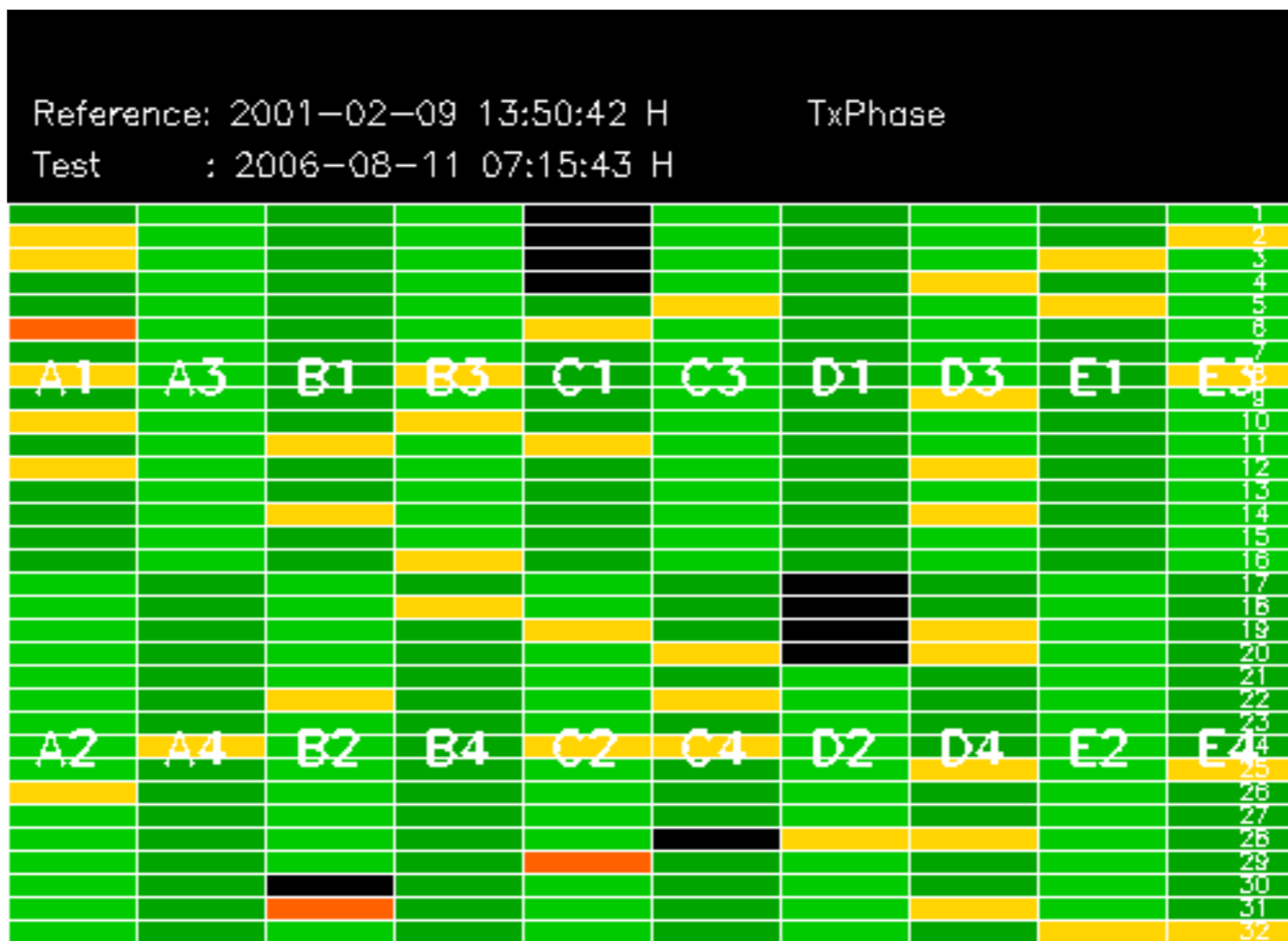
Summary of analysis for the last 3 days 2006081[901]

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

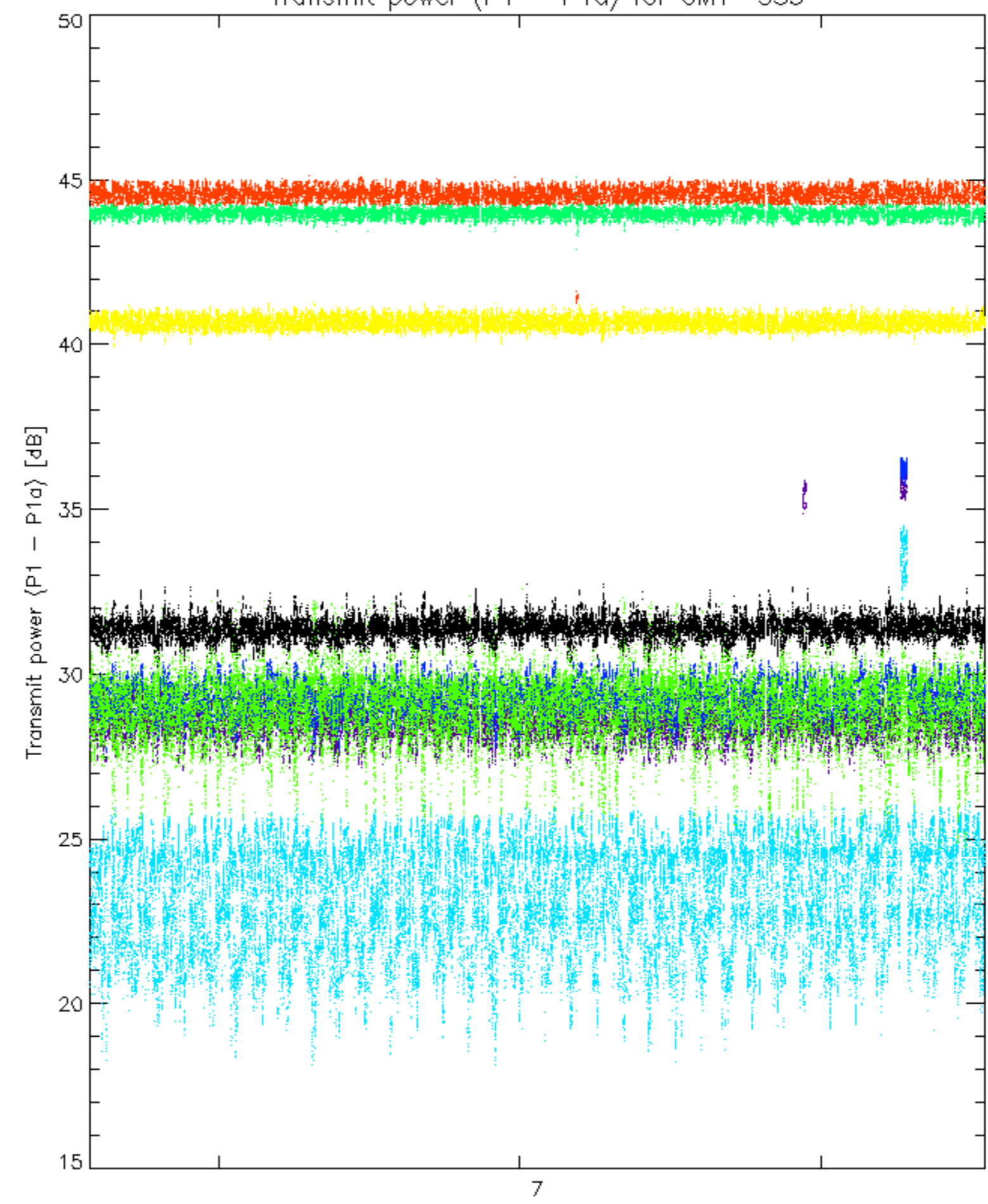
Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20060810_101808_000007182050_00137_23237_2553.N1	0	15
ASA_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
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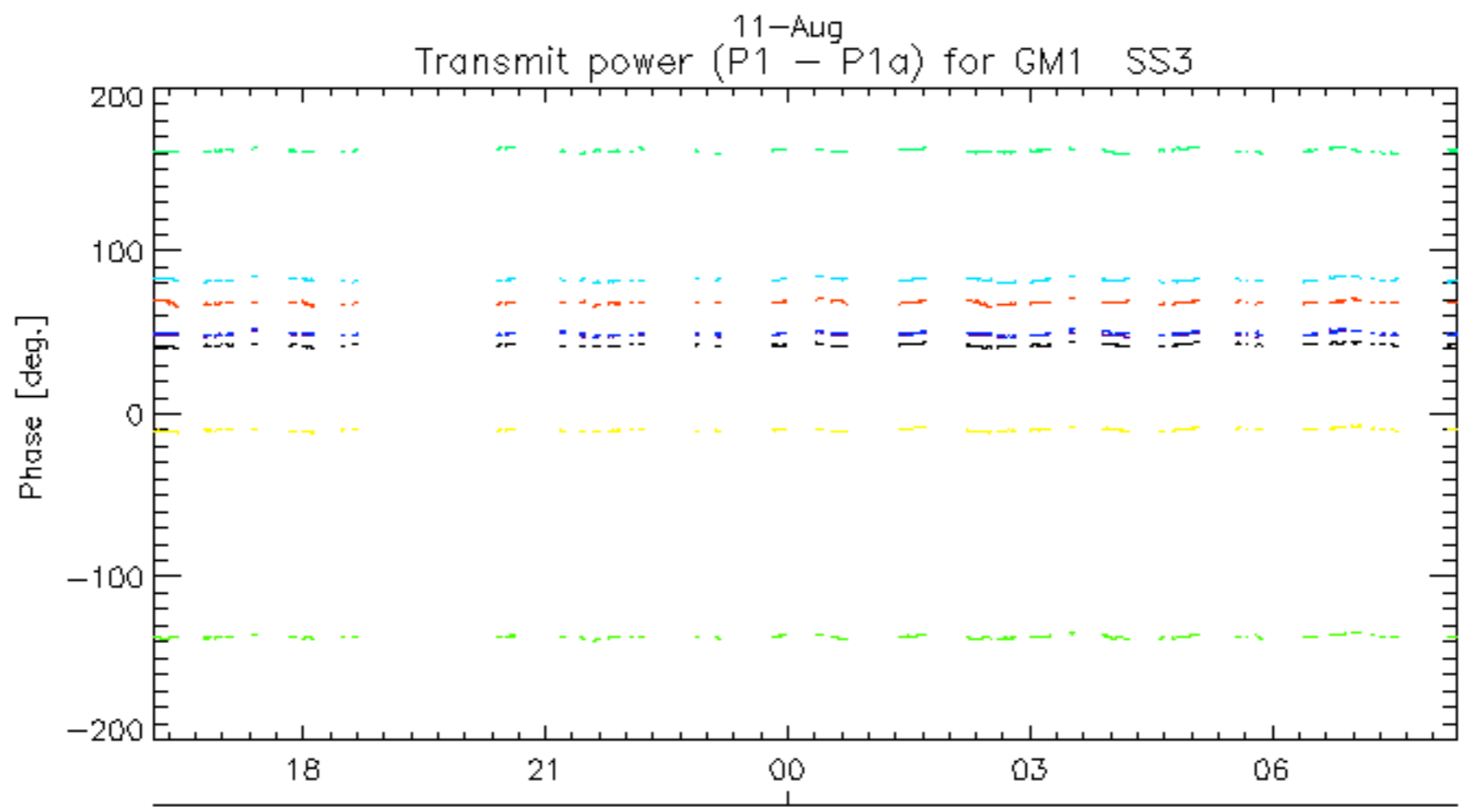
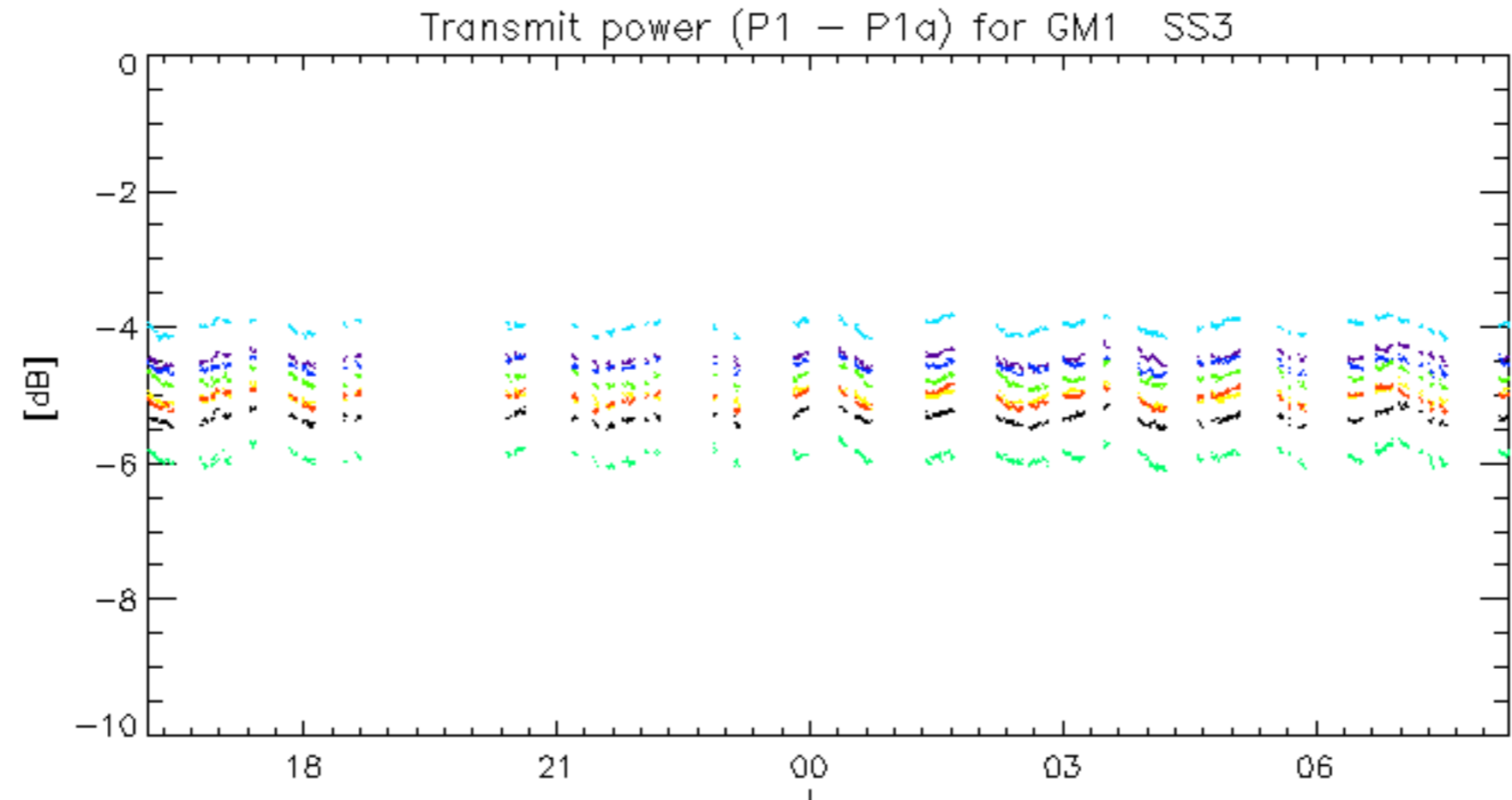




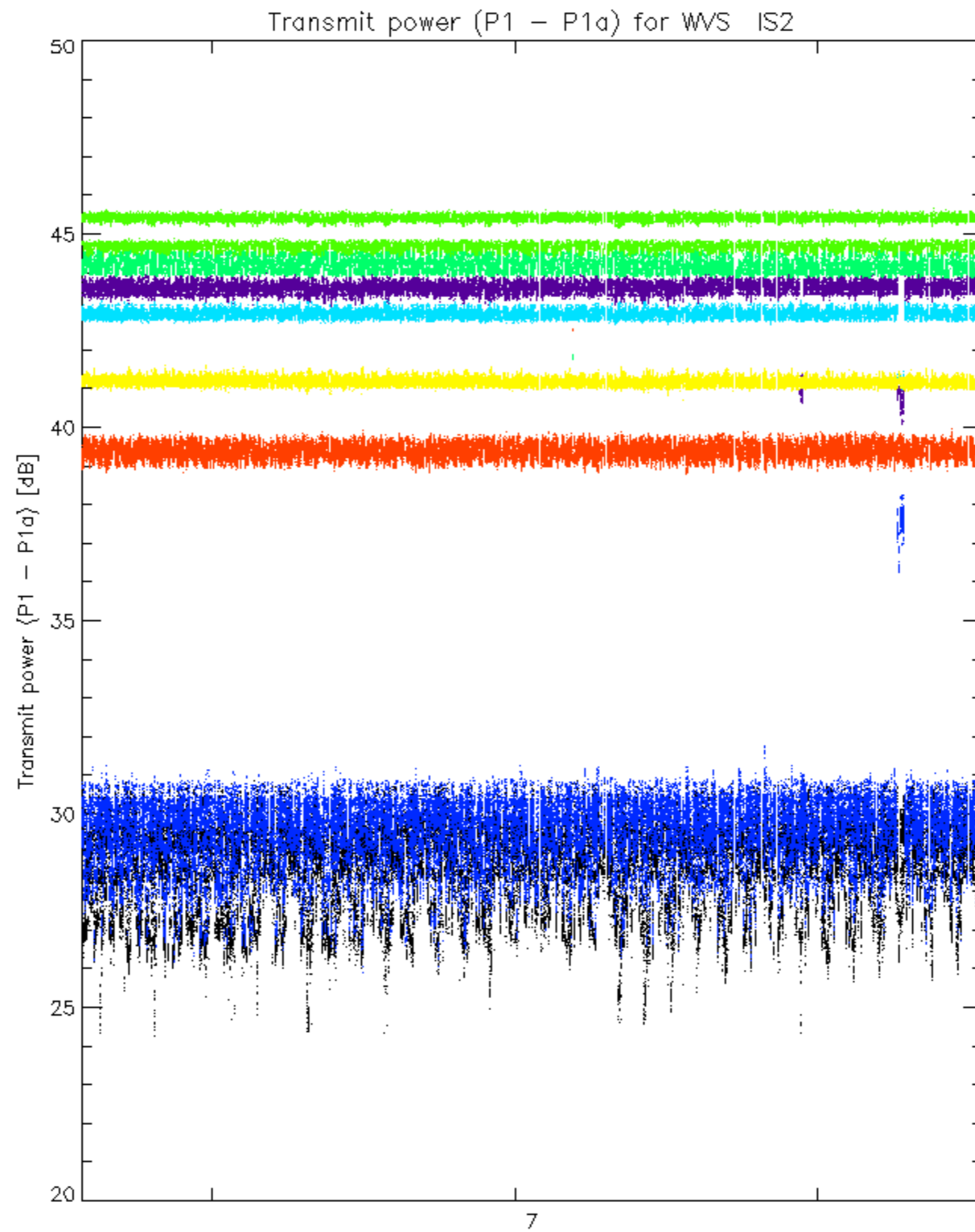
Transmit power (P1 - P1a) for GM1 SS3



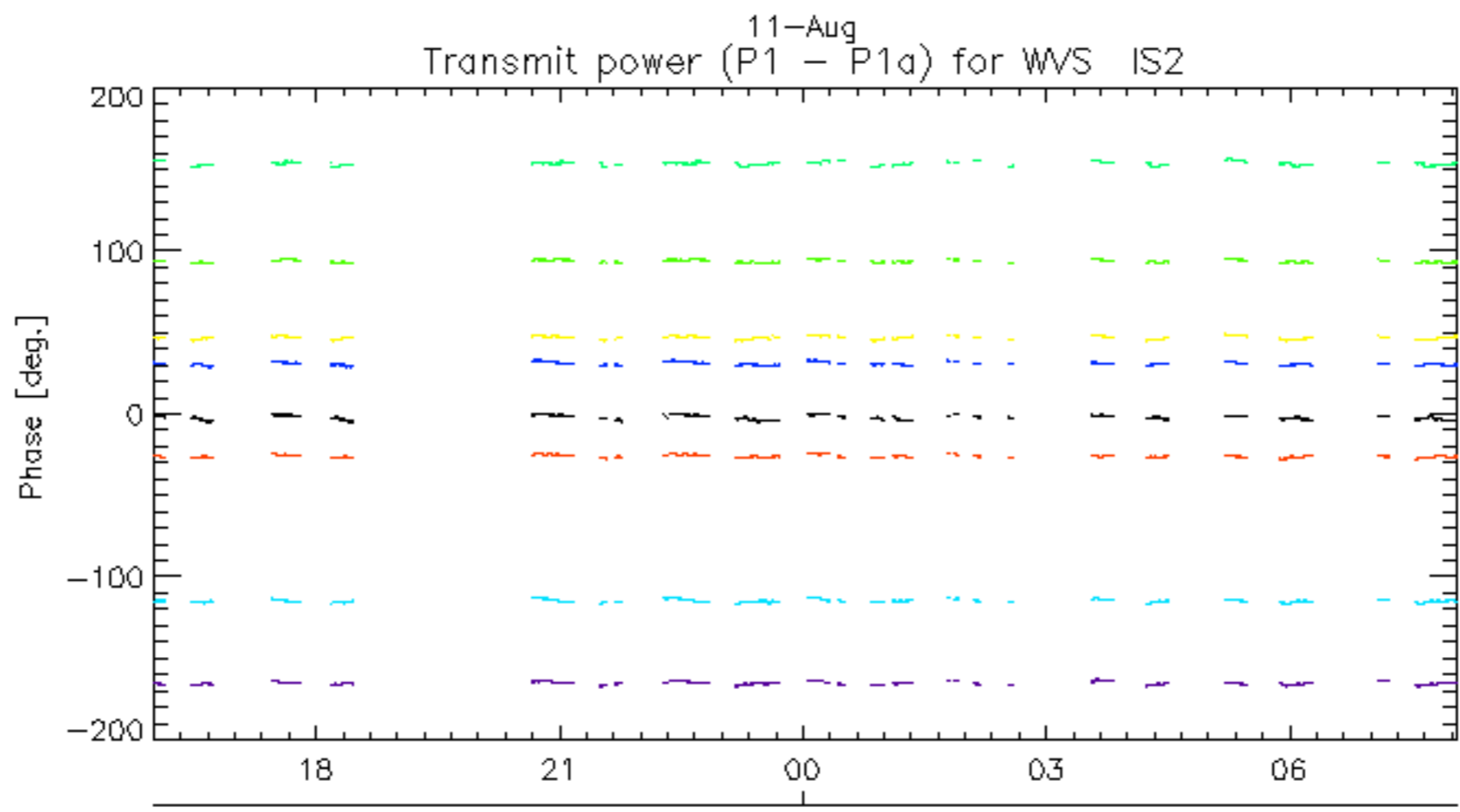
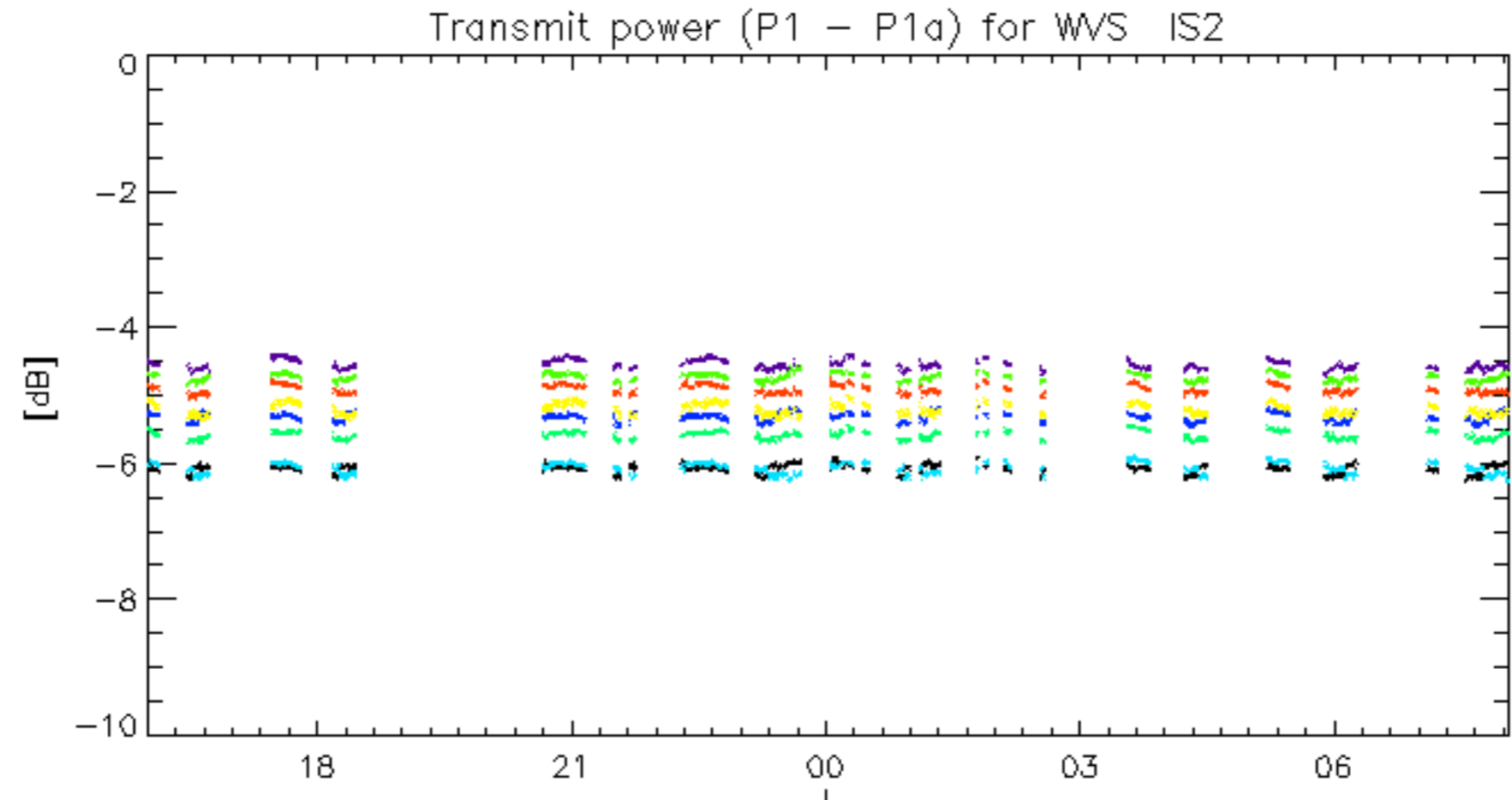
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.