

PRELIMINARY REPORT OF 060726

last update on Wed Jul 26 16:30:56 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 2006-07-25 00:00:00 to 2006-07-26 16:30:56

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	73	19	4	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	42	73	19	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	73	19	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	73	19	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	55	29	13	78
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	35	55	29	13	78
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	55	29	13	78
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	55	29	13	78

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	20060725 042902
H	20060726 071837

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	-3.934546	0.011838	-0.030976
7	P1	-3.100359	0.010285	0.012150
11	P1	-4.085769	0.013602	0.003241
15	P1	-6.173114	0.011520	-0.006128
19	P1	-3.400741	0.009387	-0.051350
22	P1	-4.549242	0.010217	-0.033266
26	P1	-3.928969	0.019970	0.032205
30	P1	-5.762403	0.008096	-0.001534
3	P1	-16.517685	0.315489	-0.080550
7	P1	-17.190842	0.102180	-0.014260
11	P1	-16.982607	0.277363	-0.014480
15	P1	-13.107092	0.149059	0.054890
19	P1	-14.455210	0.049239	-0.128627
22	P1	-16.016109	0.425092	0.031733
26	P1	-15.123527	0.238408	0.090905
30	P1	-17.099901	0.345116	-0.041298

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.975788	0.088074	0.148146
7	P2	-21.916357	0.105189	0.077950
11	P2	-15.793775	0.121996	0.062467
15	P2	-7.129267	0.100653	0.028533
19	P2	-9.133160	0.091818	0.014569
22	P2	-18.148758	0.086558	0.008760
26	P2	-16.399103	0.093748	-0.014317
30	P2	-19.522762	0.093312	0.036976

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.174915	0.002999	0.002723
7	P3	-8.174915	0.002999	0.002723
11	P3	-8.174915	0.002999	0.002723
15	P3	-8.174915	0.002999	0.002723
19	P3	-8.174915	0.002999	0.002723
22	P3	-8.174915	0.002999	0.002723
26	P3	-8.174915	0.002999	0.002723
30	P3	-8.174915	0.002999	0.002723

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	-3.807767	0.024791	-0.088254
7	P1	-2.560093	0.007961	0.018355
11	P1	-2.857405	0.014399	0.019432
15	P1	-3.570281	0.029172	-0.044903
19	P1	-3.418150	0.013242	-0.010250
22	P1	-5.089124	0.019940	0.022773
26	P1	-5.859242	0.015703	-0.010294
30	P1	-5.191911	0.026748	0.000568
3	P1	-11.593690	0.083747	-0.114450
7	P1	-9.968203	0.034286	0.036775
11	P1	-10.247635	0.056374	0.005582
15	P1	-10.756282	0.144632	-0.014457
19	P1	-15.531473	0.073762	-0.015383
22	P1	-20.907038	1.234896	0.048451

26	P1	-16.294388	0.381905	0.233434
30	P1	-17.914930	0.410354	-0.166219

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.618011	0.071139	0.209971
7	P2	-22.395412	0.126274	0.149149
11	P2	-11.048639	0.041726	0.084503
15	P2	-4.909834	0.045766	0.047483
19	P2	-6.873551	0.041277	0.031229
22	P2	-8.195368	0.036767	0.026031
26	P2	-24.182388	0.062063	0.029988
30	P2	-22.012098	0.049649	0.059103

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013682	0.003750	0.012462
7	P3	-8.013673	0.003749	0.012669
11	P3	-8.013516	0.003763	0.012442
15	P3	-8.013613	0.003757	0.012507
19	P3	-8.013648	0.003751	0.012598
22	P3	-8.013679	0.003741	0.012384
26	P3	-8.013648	0.003749	0.012369
30	P3	-8.013636	0.003748	0.012620

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	0.000565164
	stdev	1.67273e-07
MEAN Q	mean	0.000540973
	stdev	2.13140e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137904
	stdev	0.00109128
STDEV Q	mean	0.138263
	stdev	0.00110918



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[456]

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_IMM_1PNPDE20060724_223414_000000352049_00402_23001_1971.N1	1	0
ASA_IMM_1PNPDE20060725_115630_000000512049_00410_23009_2003.N1	1	0
ASA_IMM_1PNPDK20060724_111125_000000372049_00395_22994_0853.N1	1	0
ASA_WSM_1PNPDE20060725_183111_000002692049_00414_23013_4403.N1	0	18





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

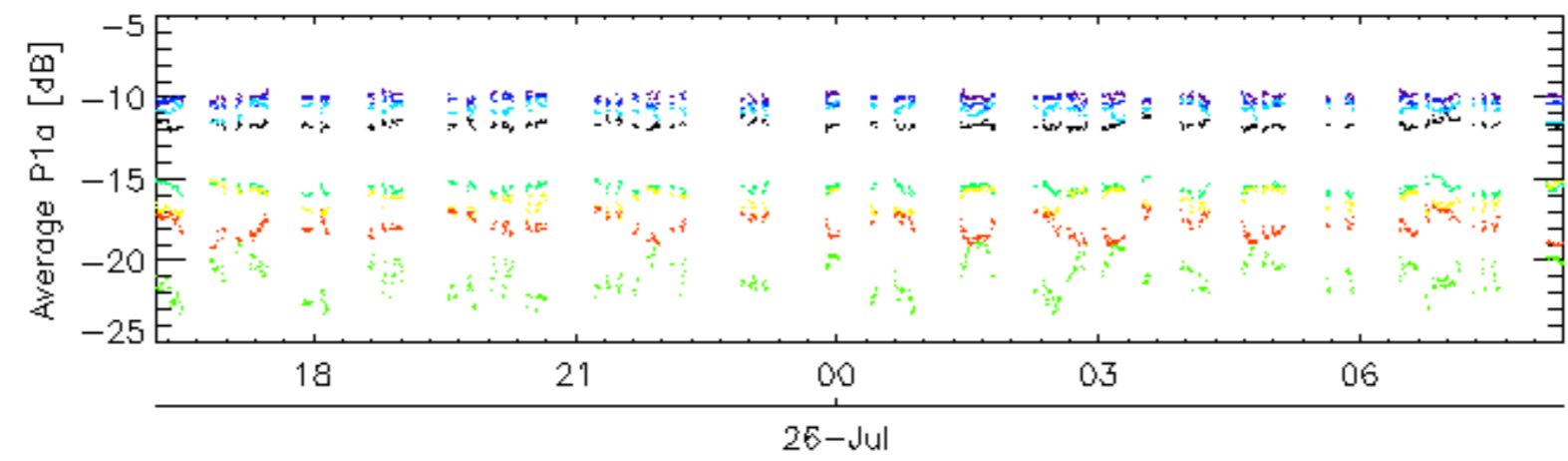
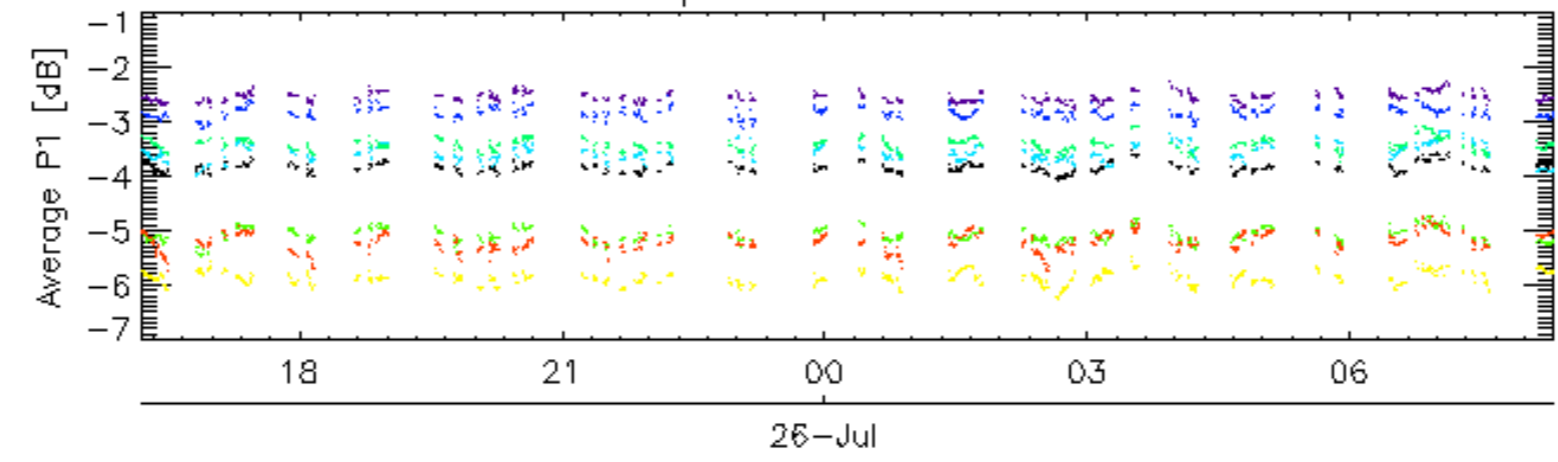
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

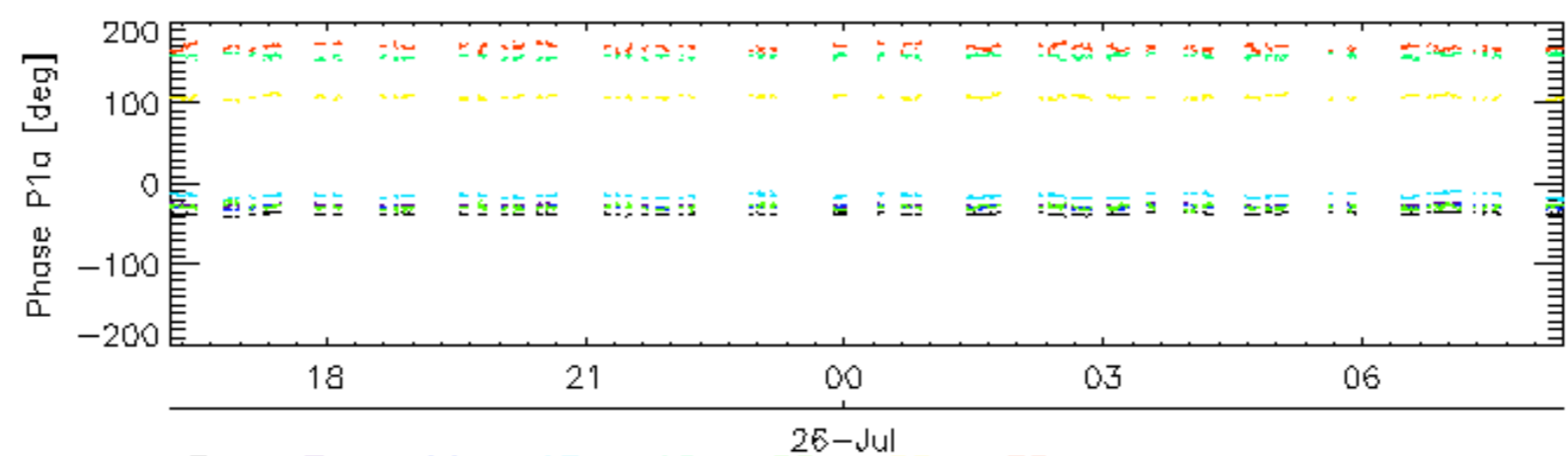
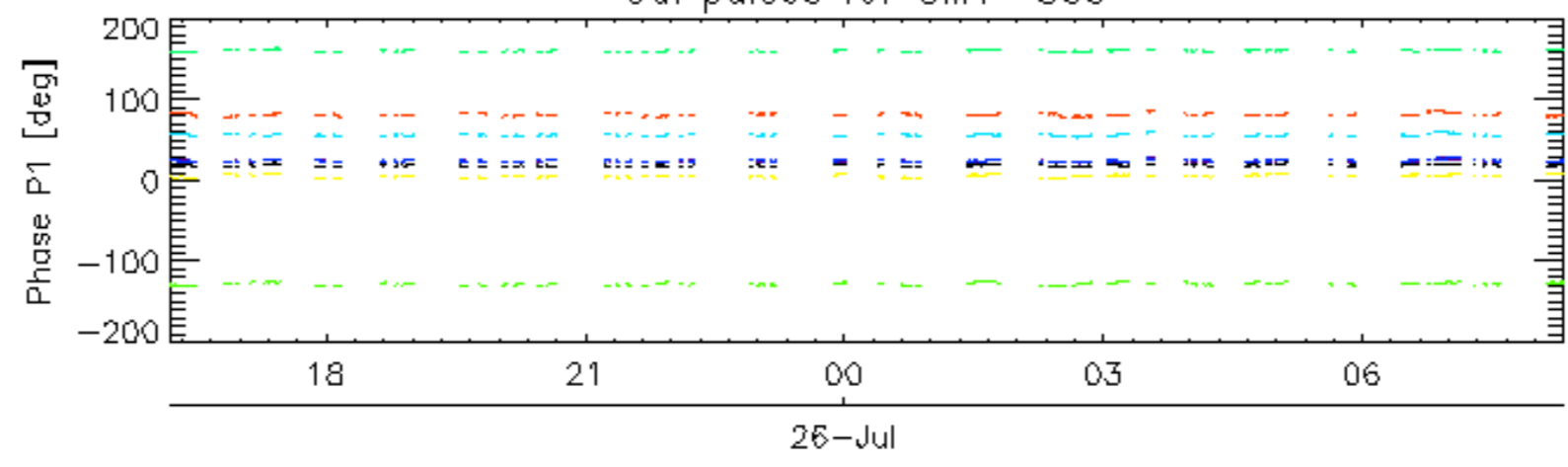
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

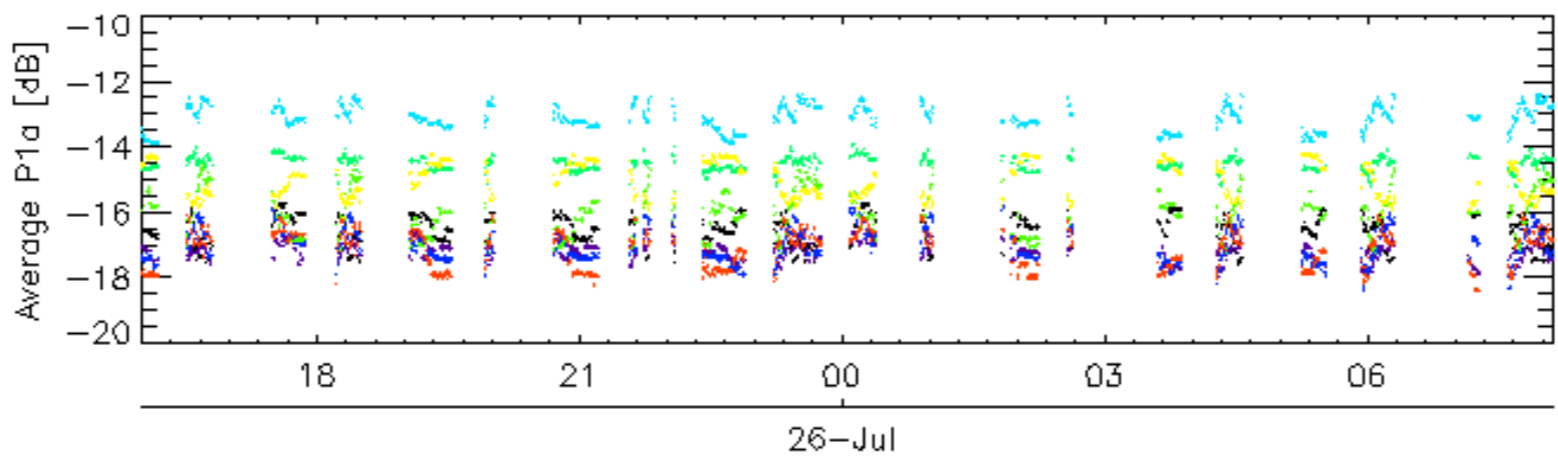
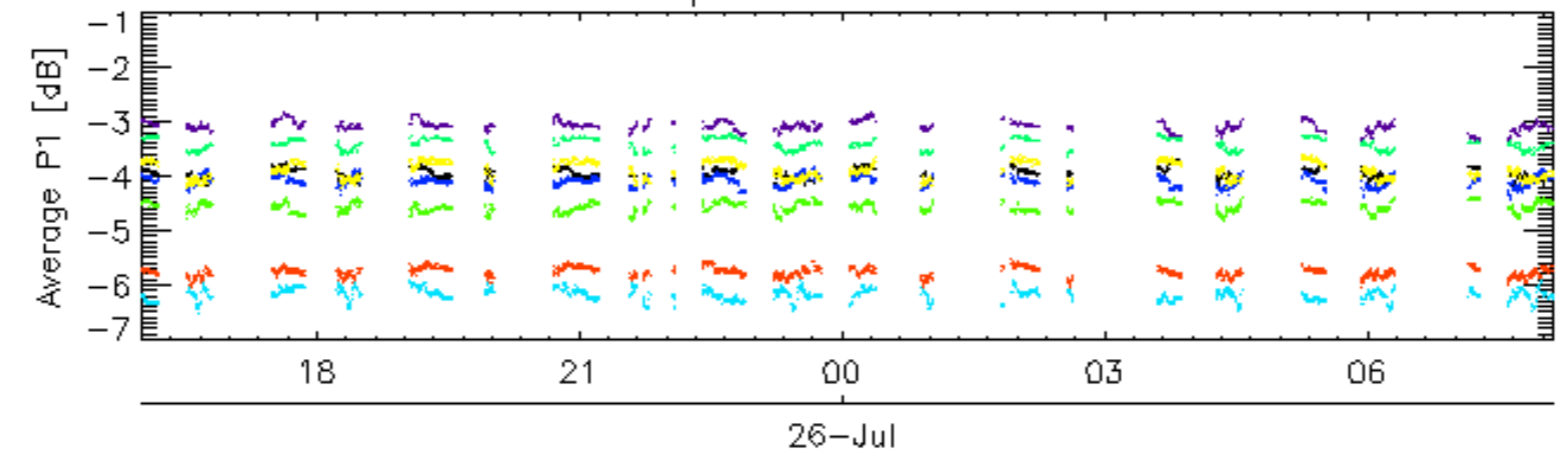


Cal pulses for GM1 SS3

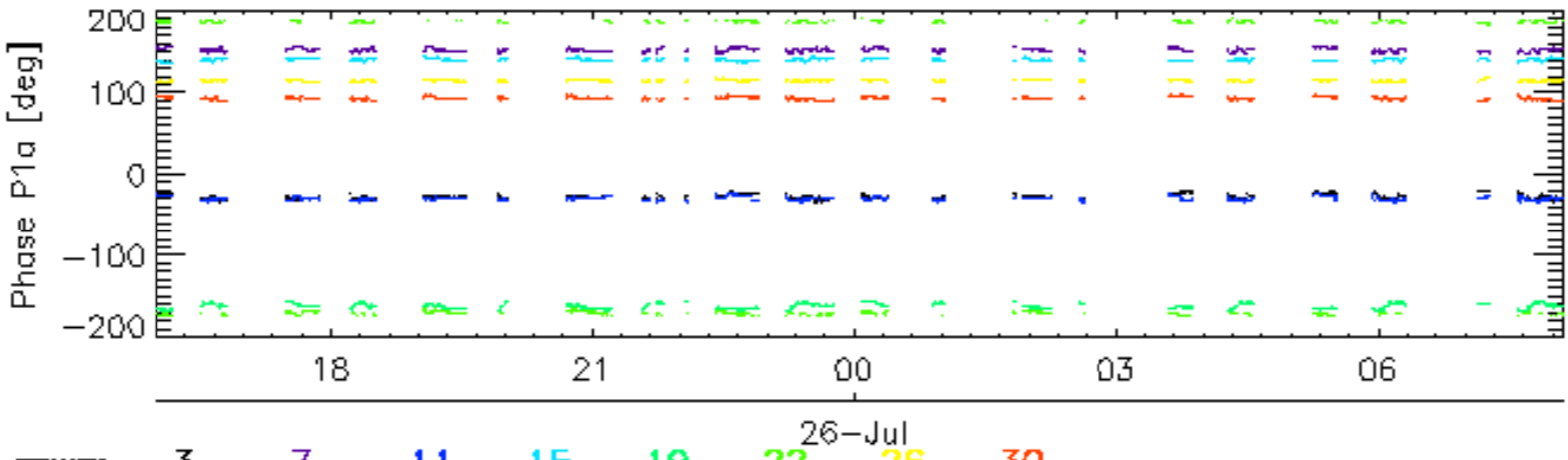
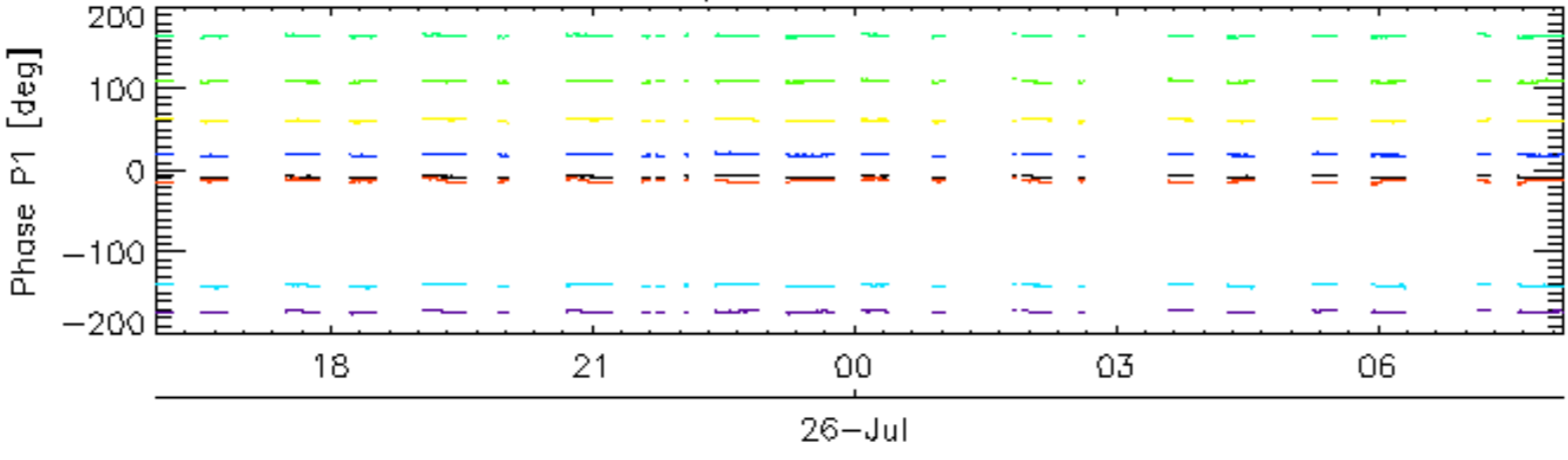


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

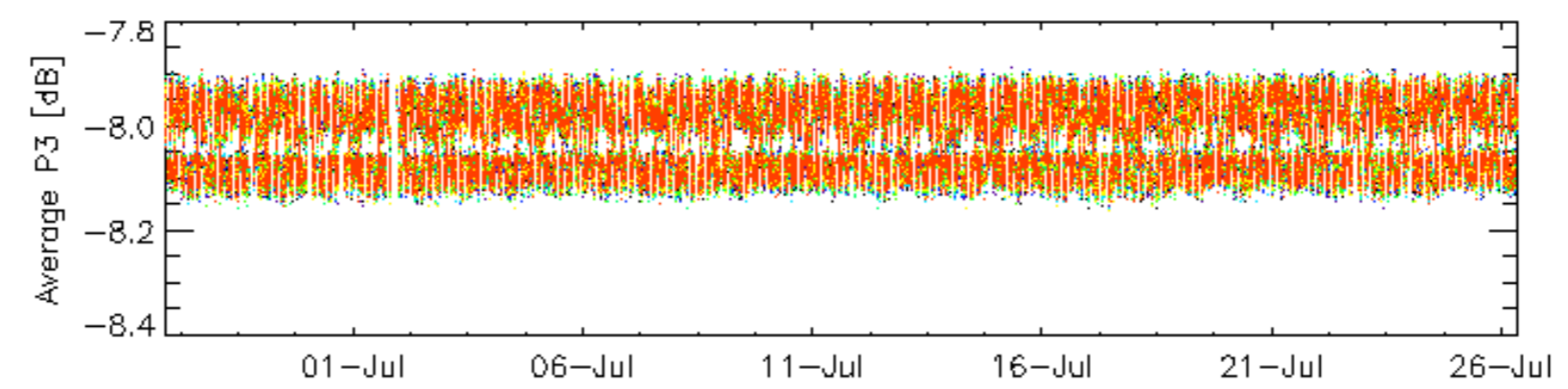
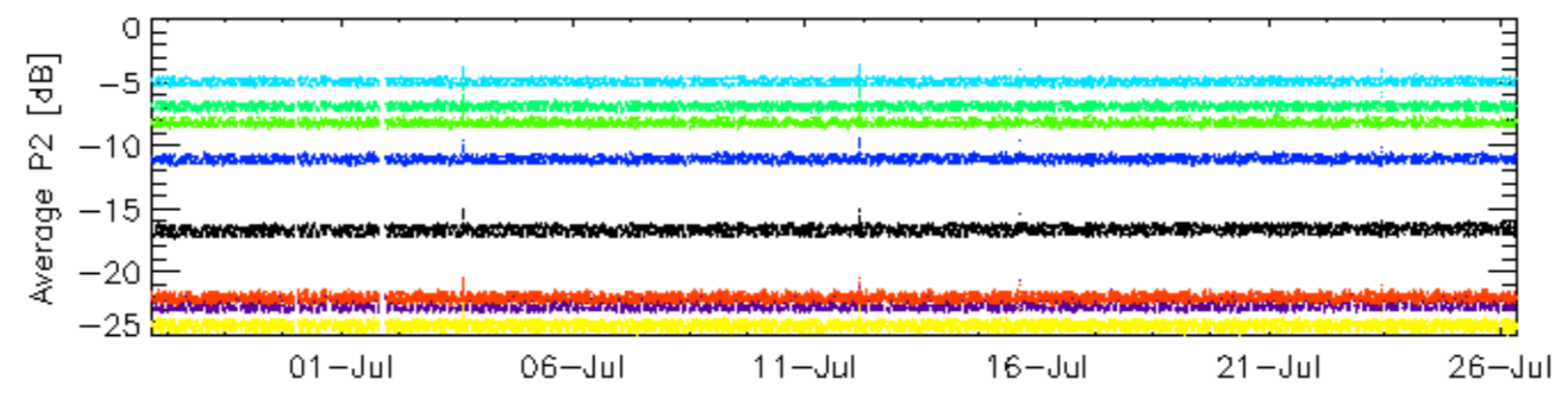
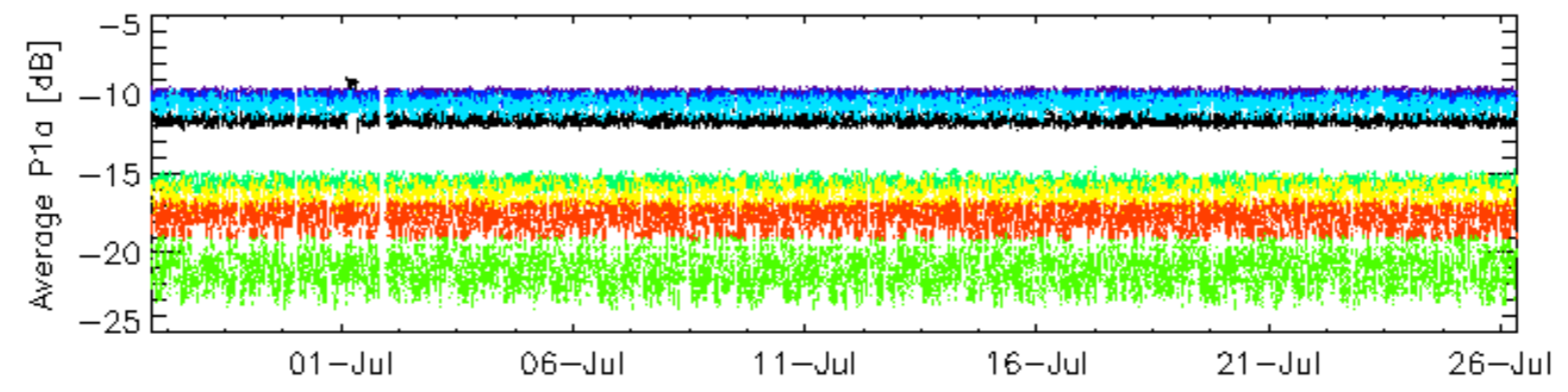
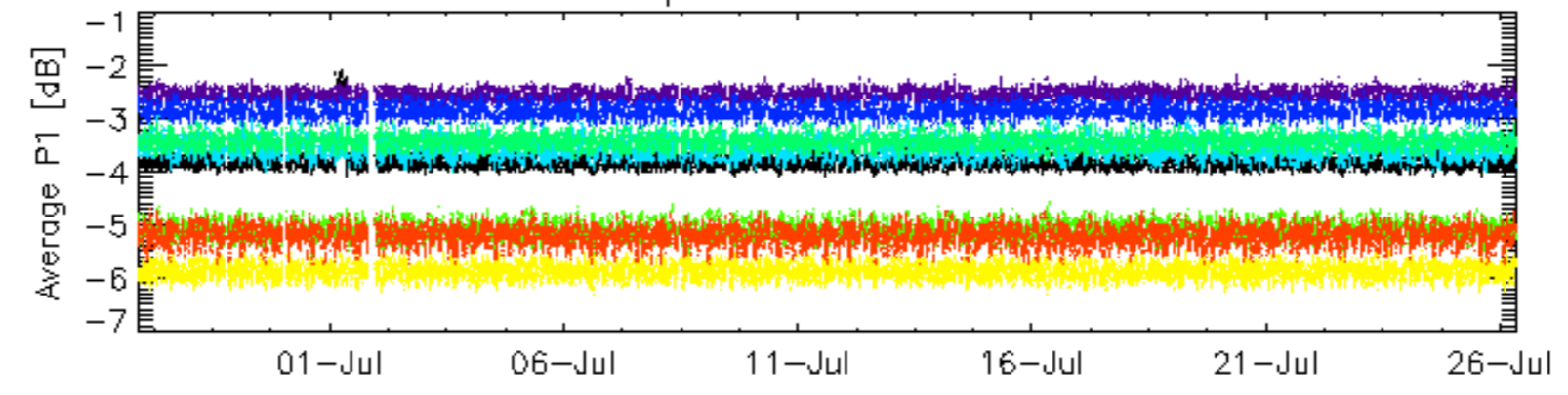


Cal pulses for WVS IS2



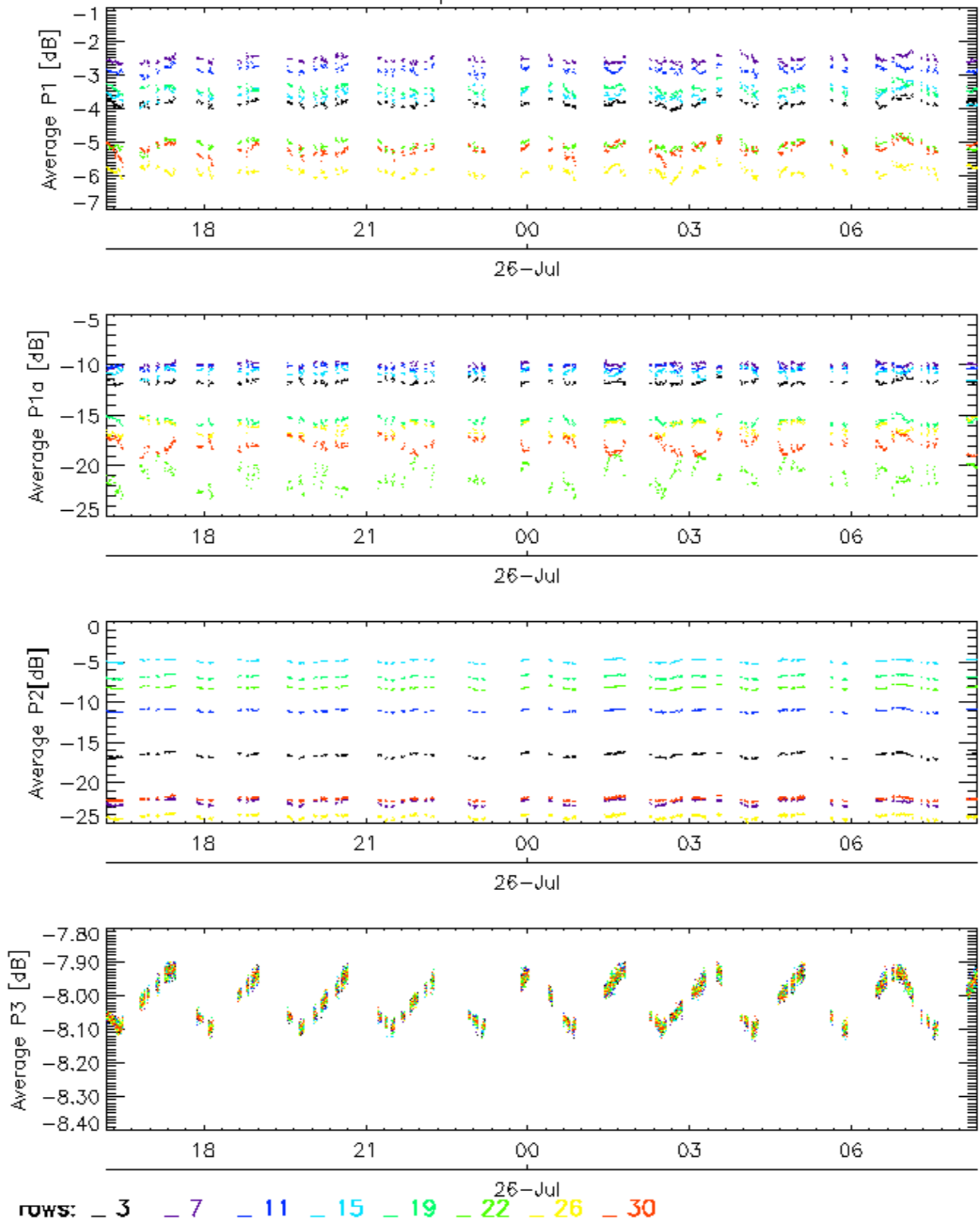
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

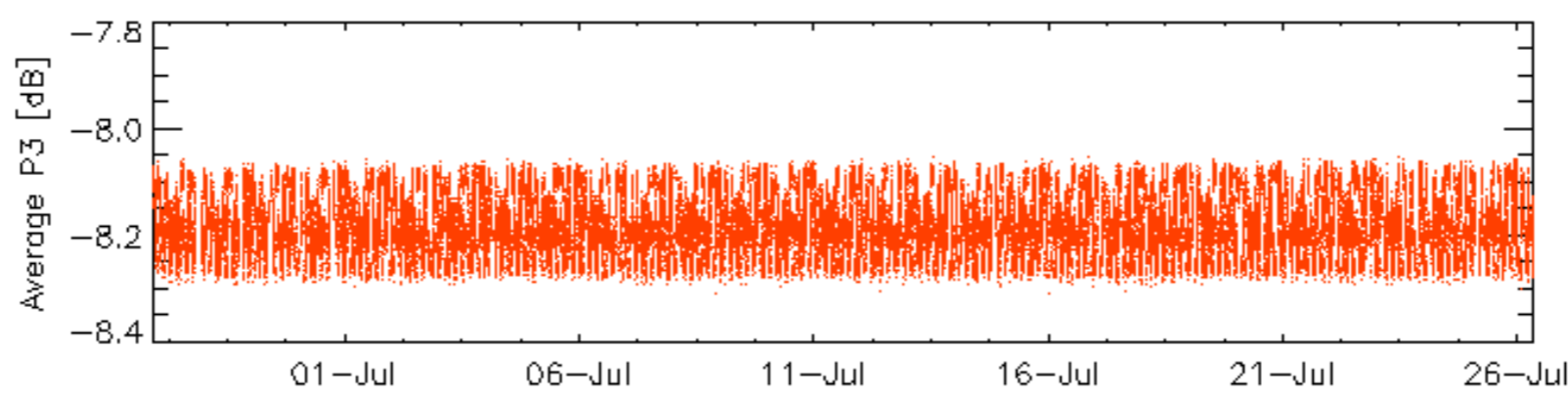
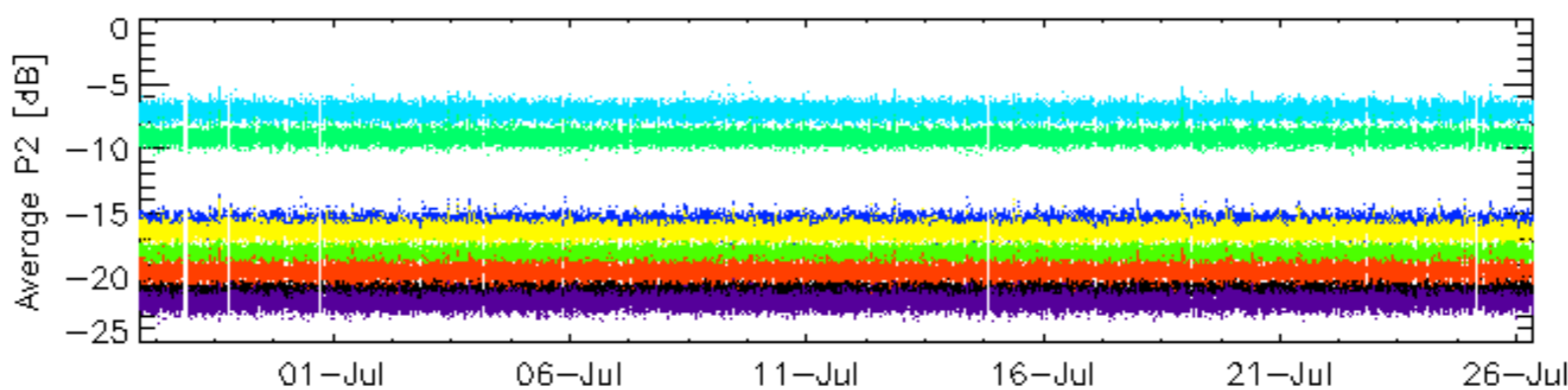
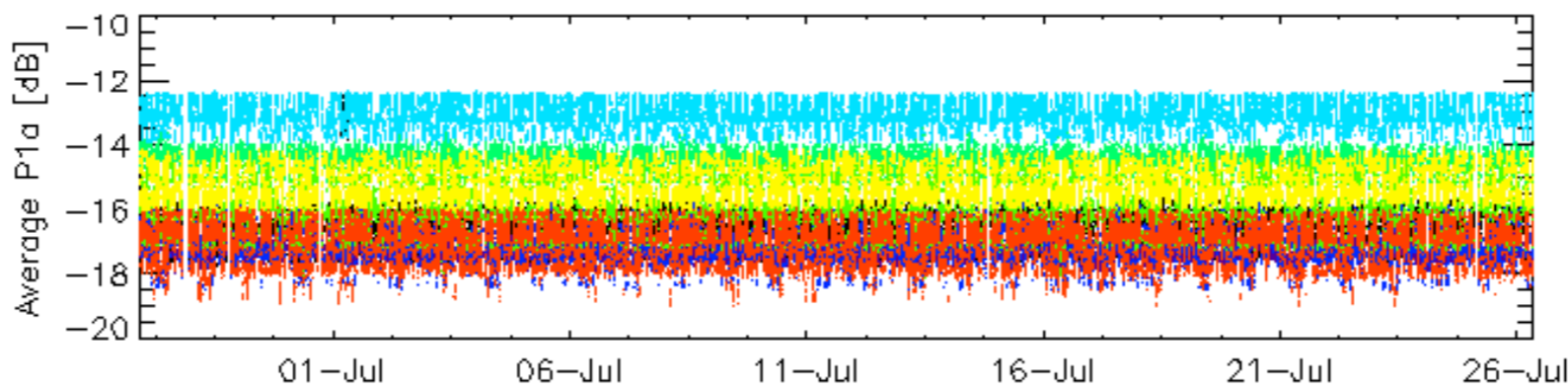
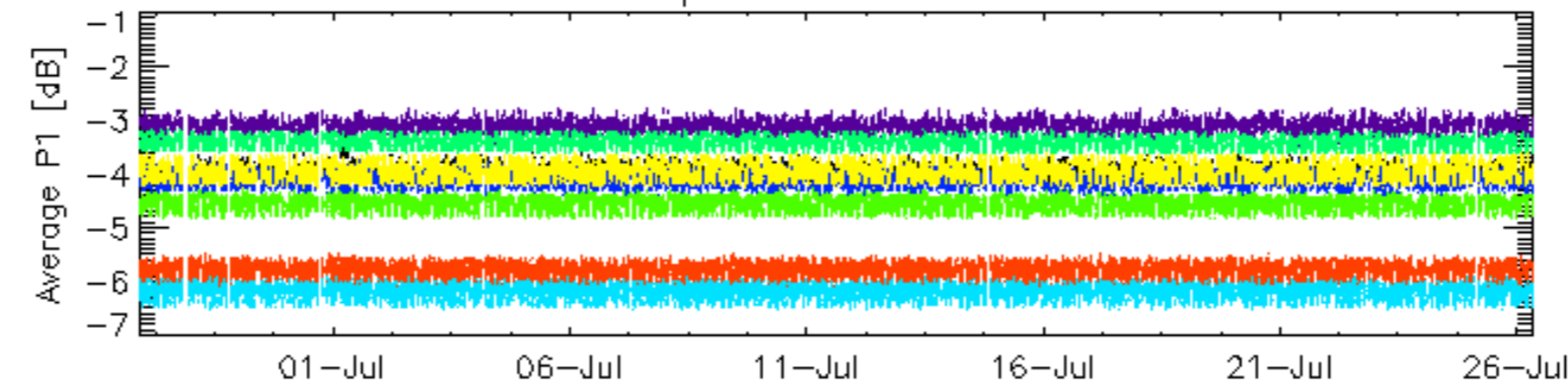


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

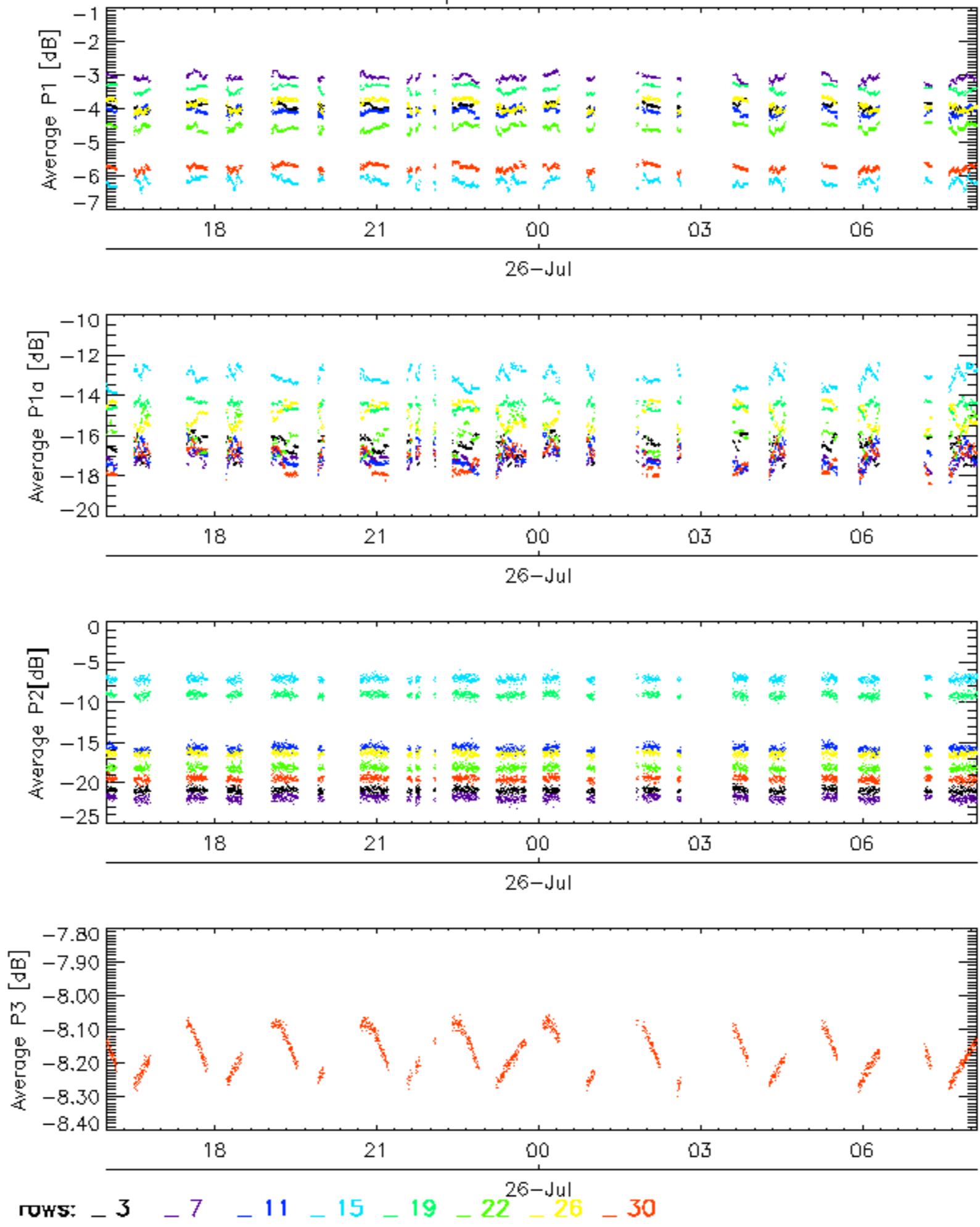


Cal pulses for WVS IS2



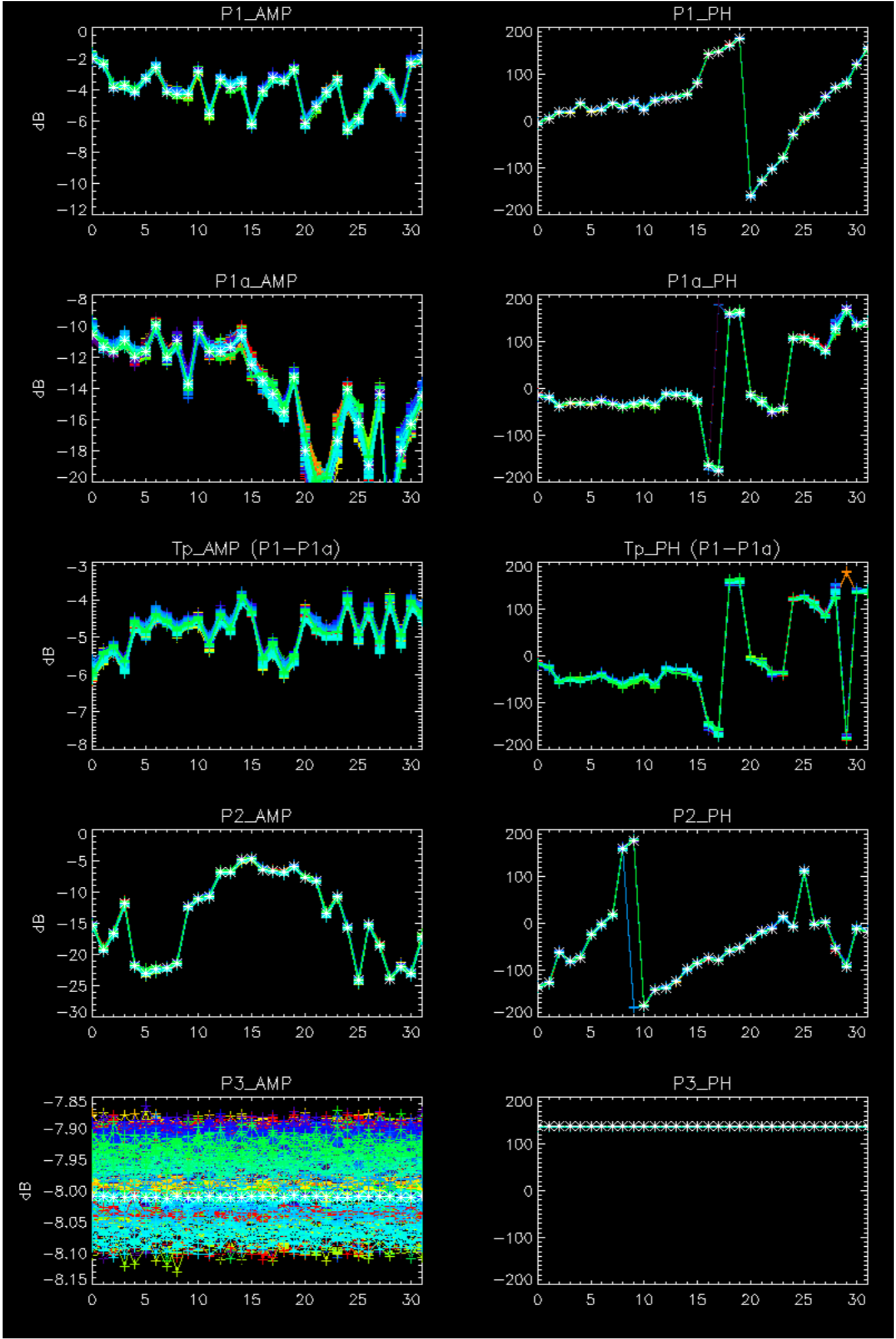
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

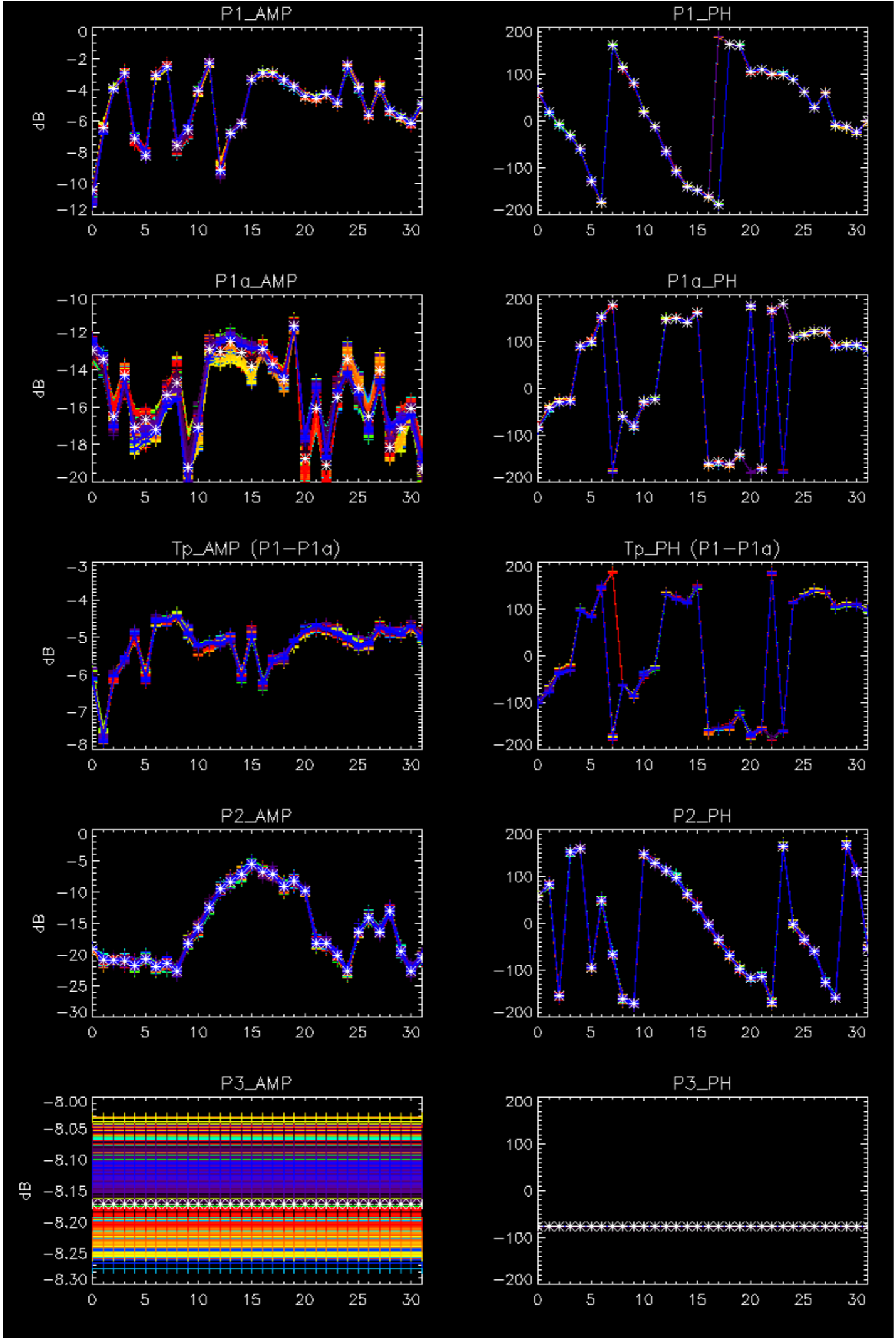
Cal pulses for WVS IS2



No anomalies observed on available browse products

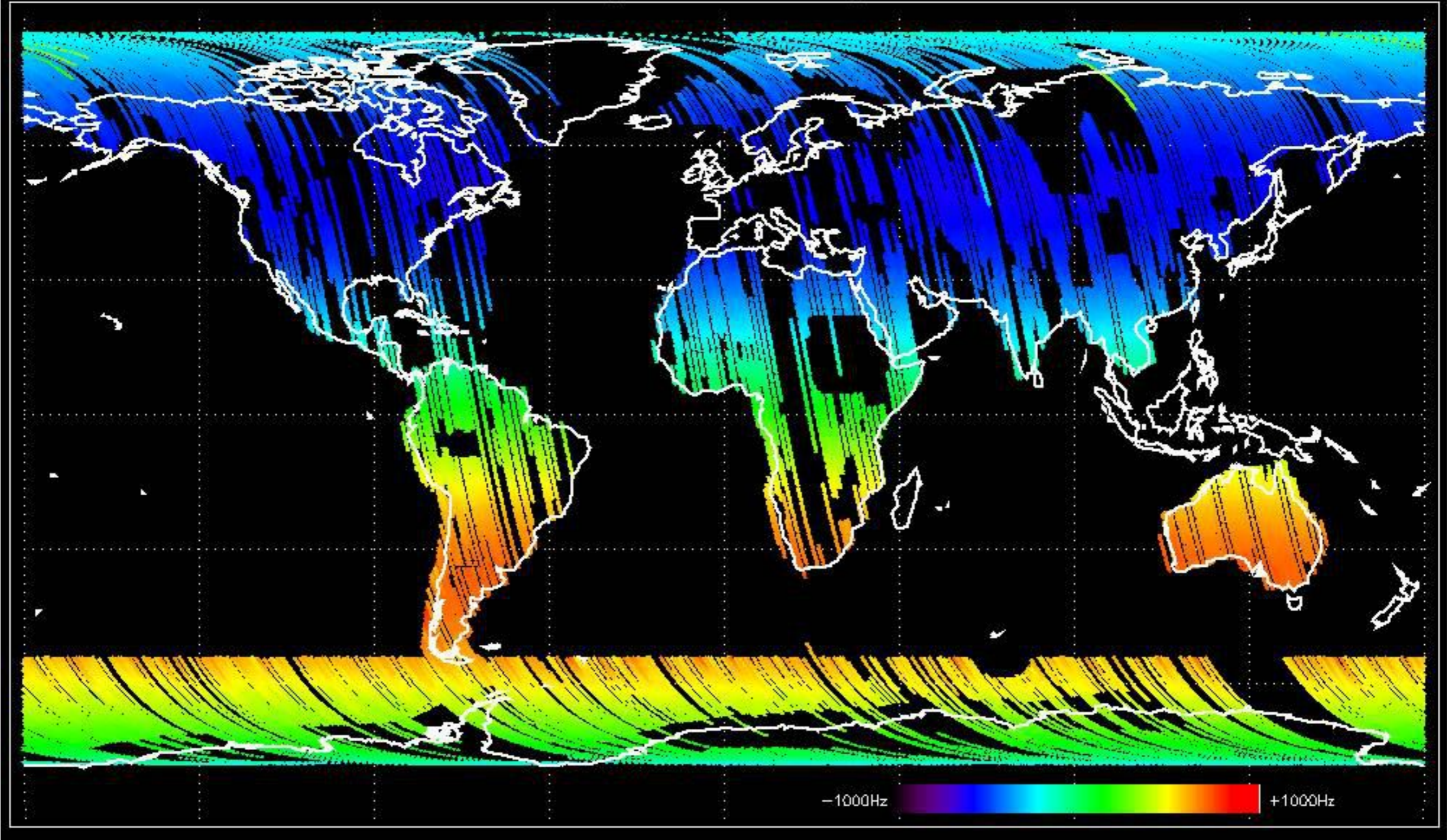
No anomalies observed.



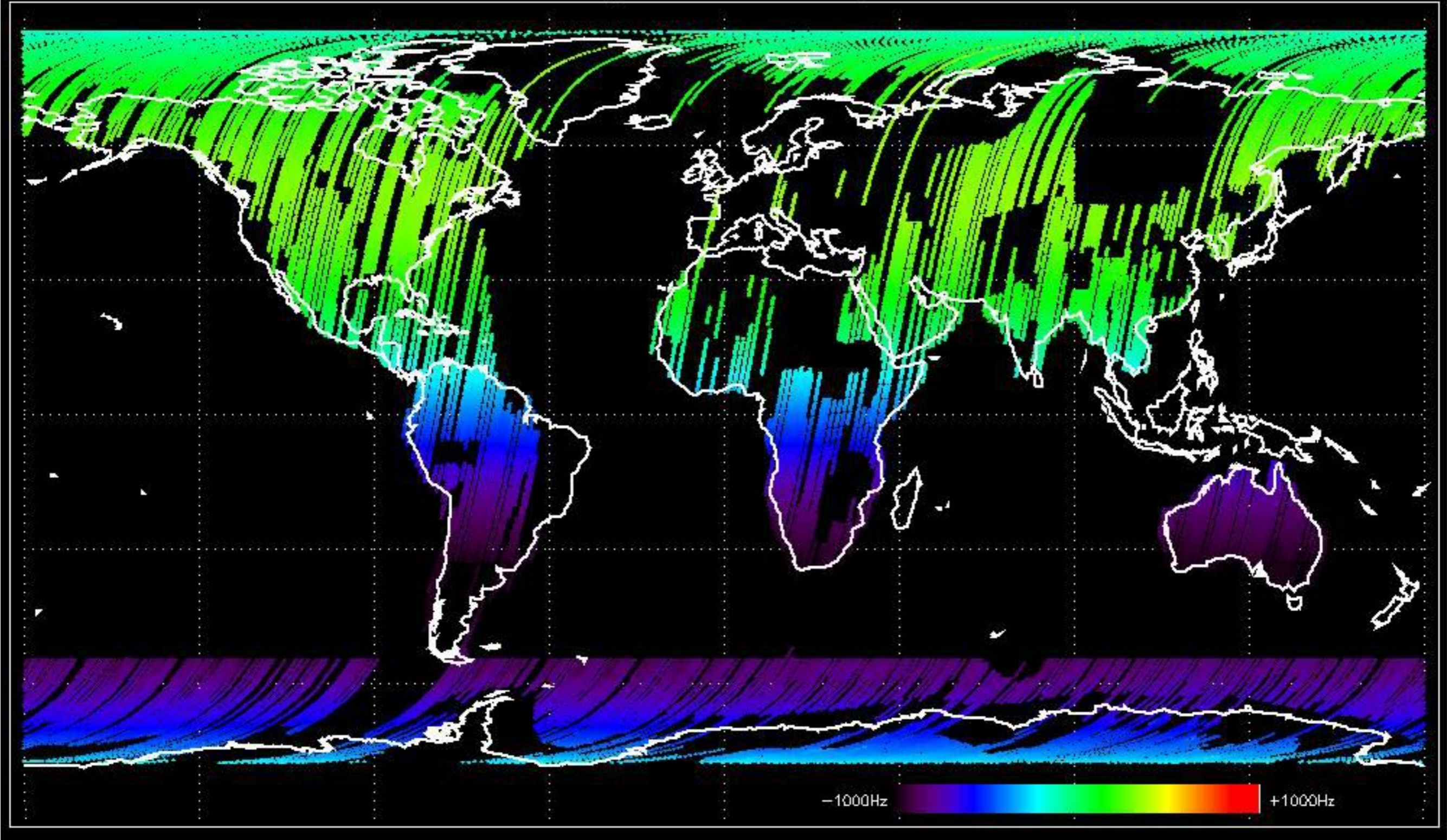


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

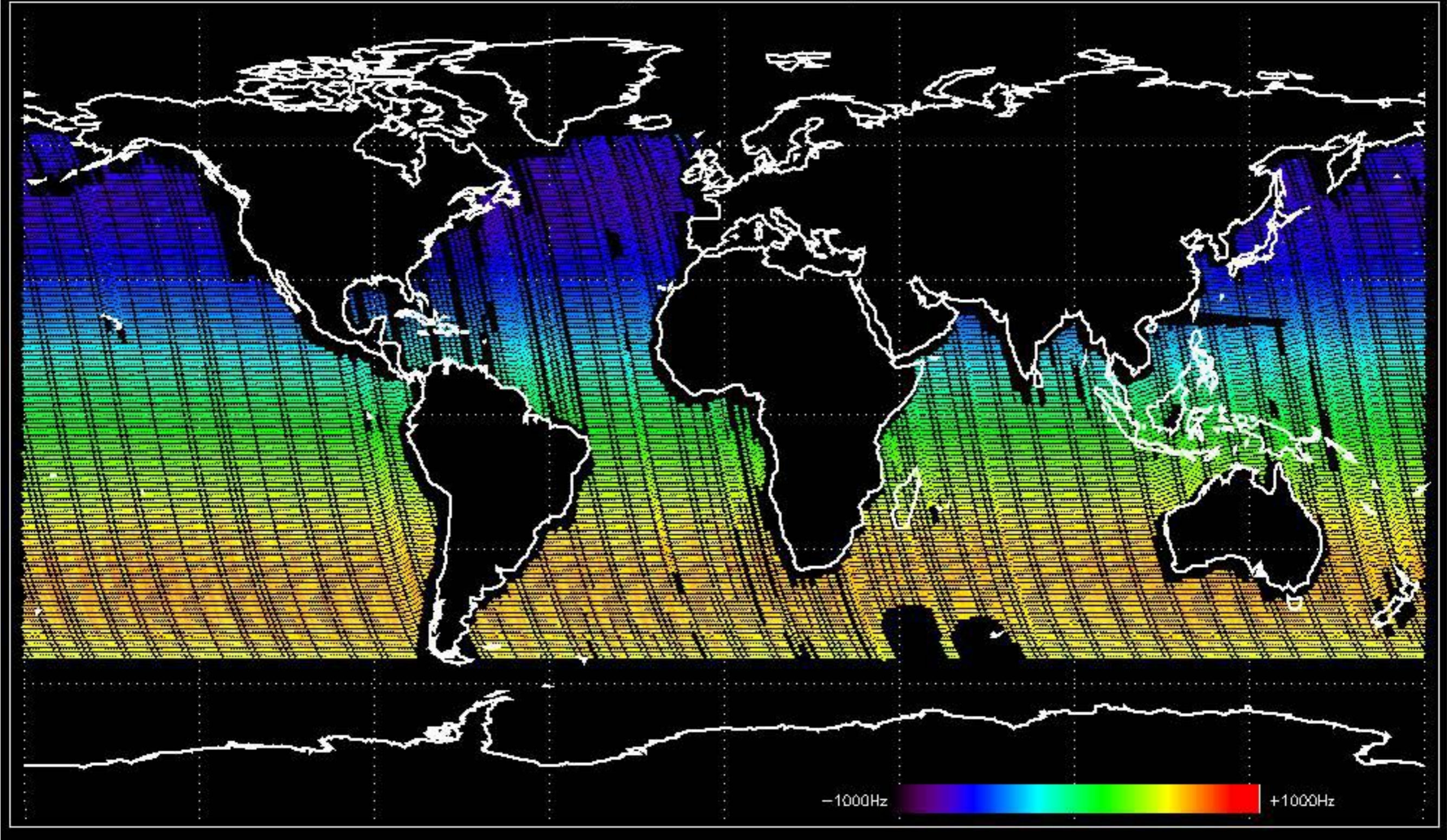
Doppler 'GM1' 'SS1' ascending



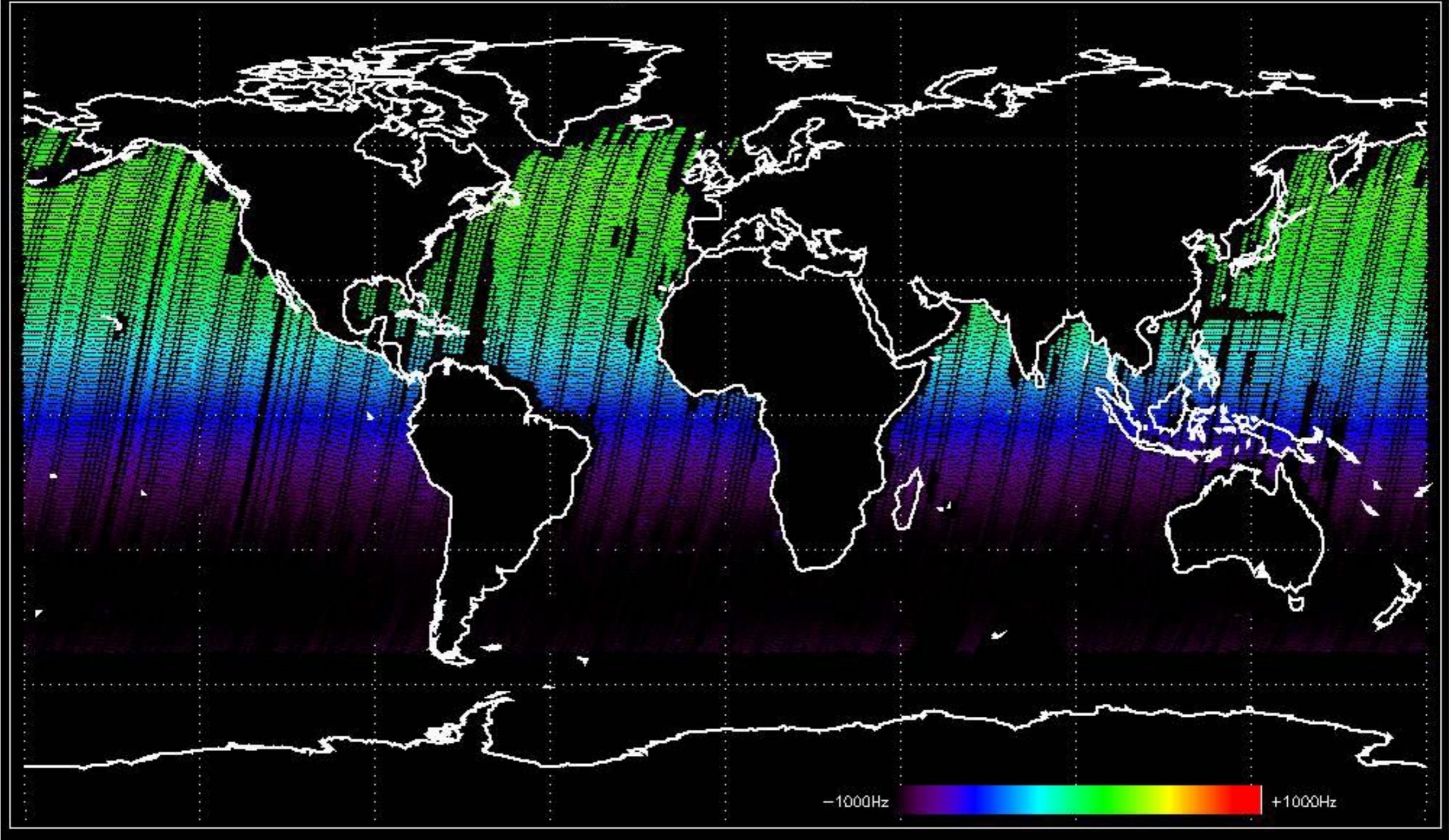
Doppler 'GM1' 'SS1' descending



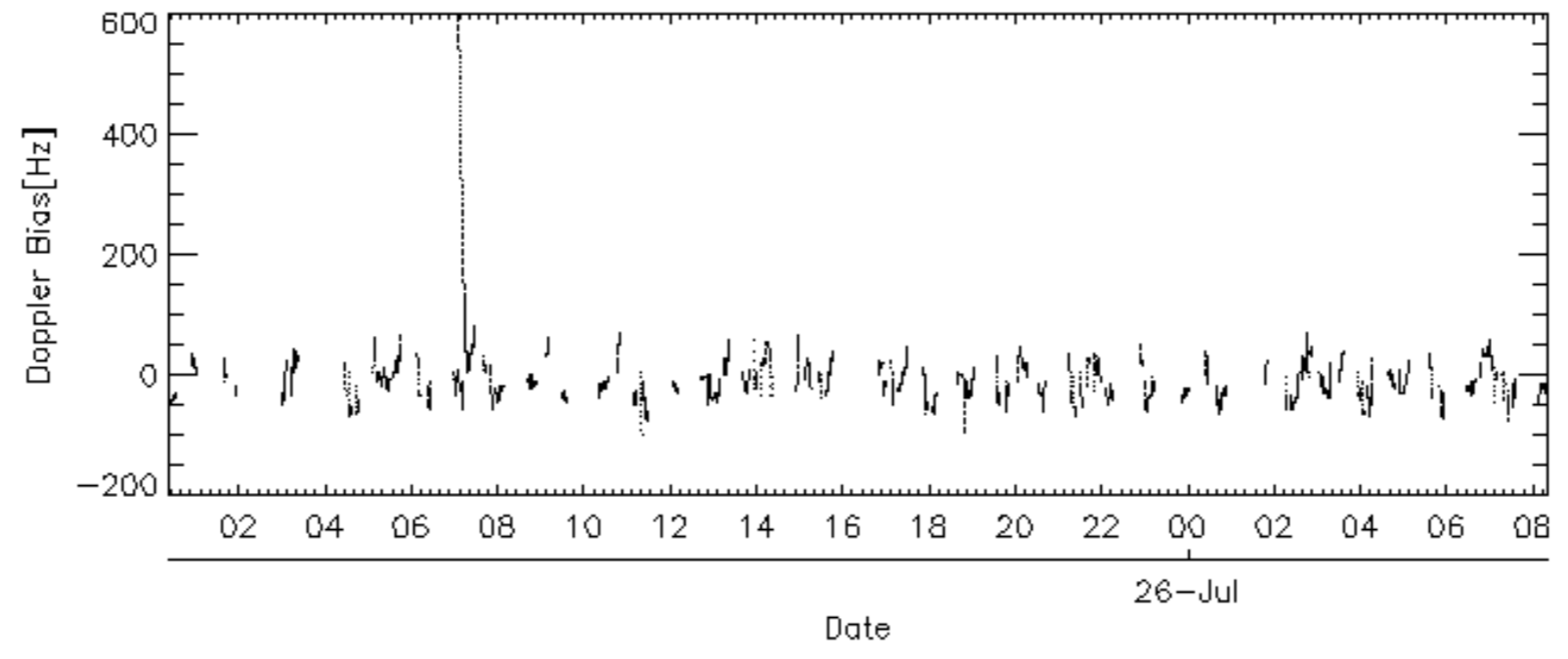
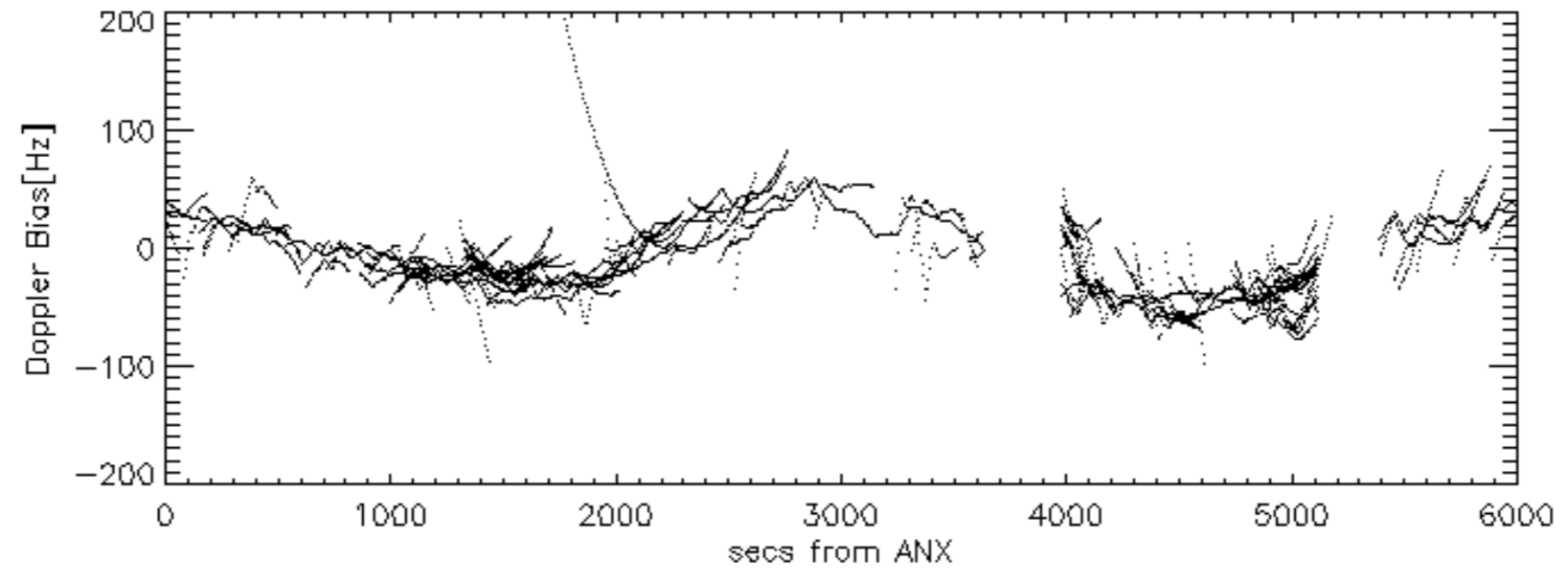
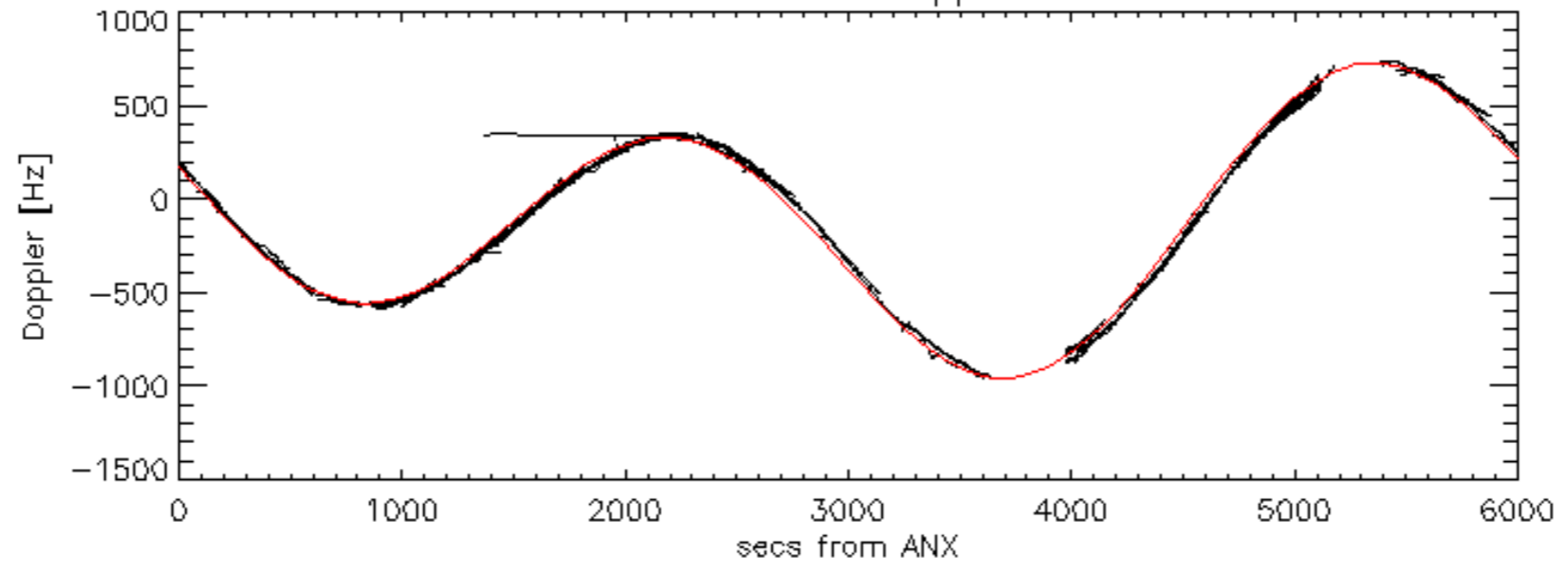
Doppler 'WVS' 'IS2' ascending

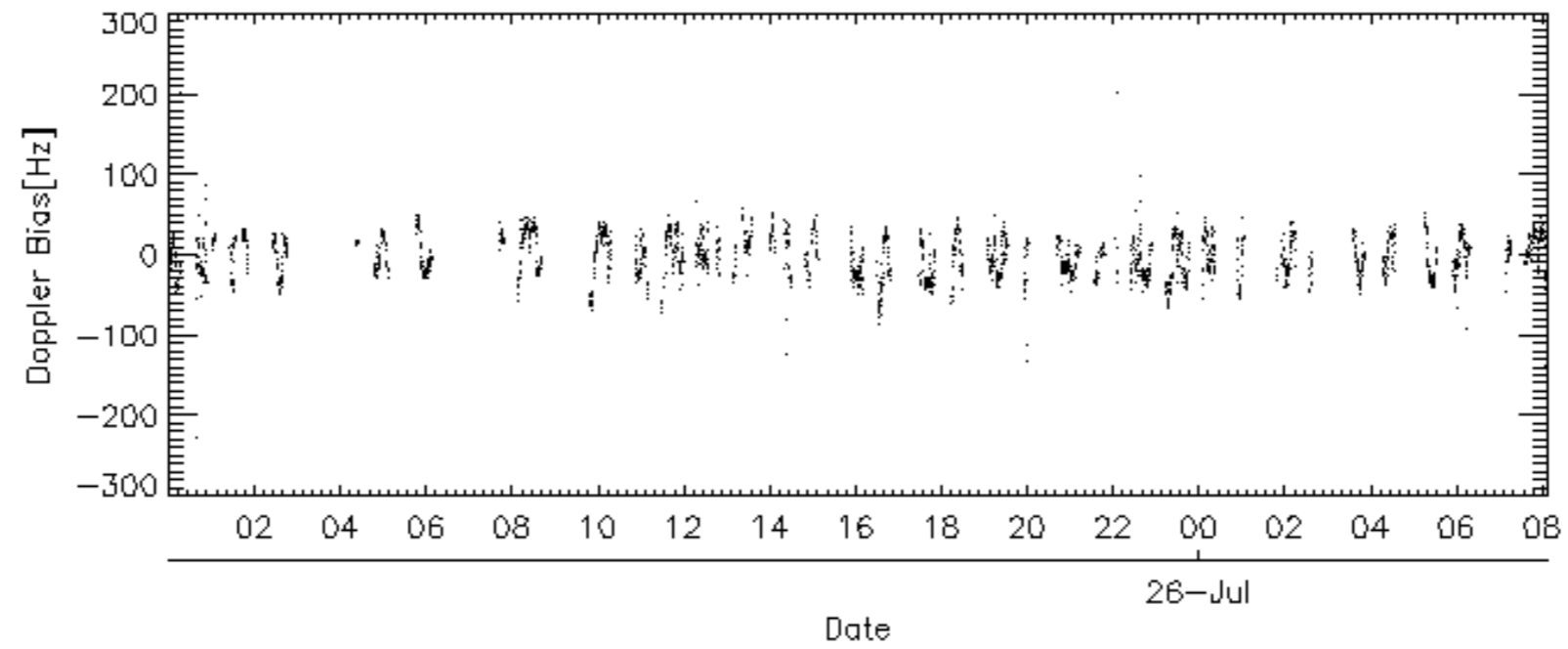
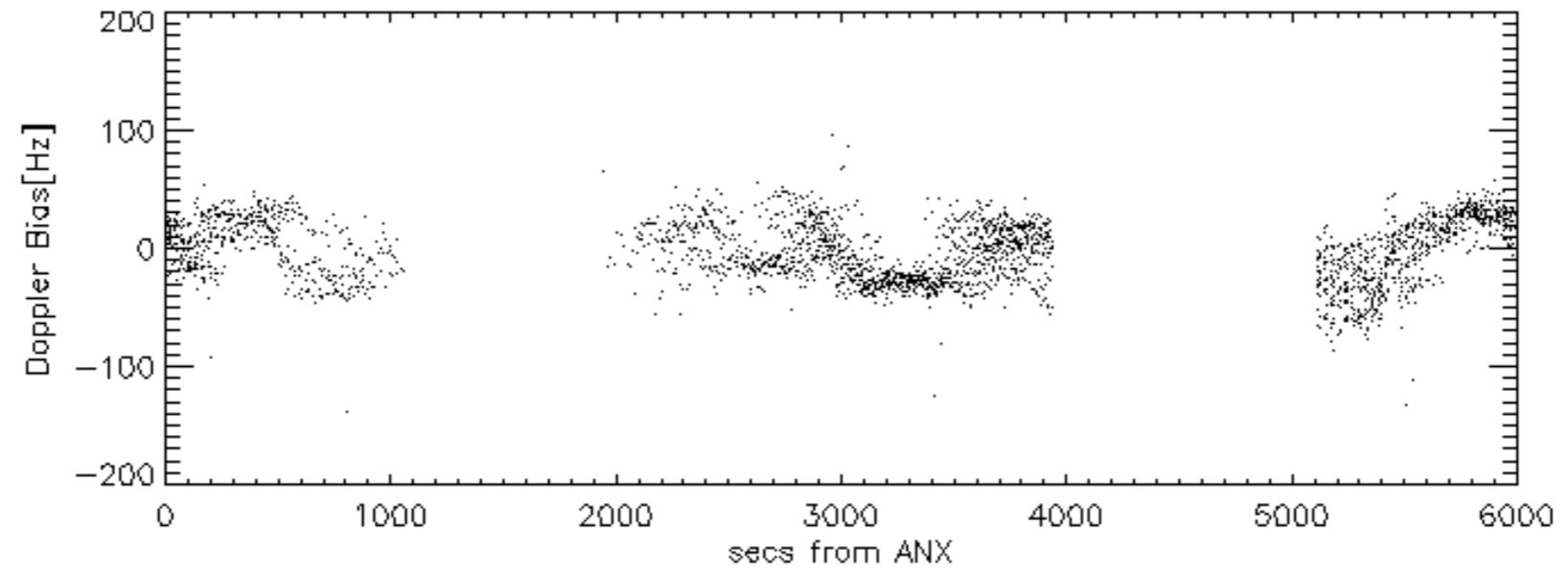
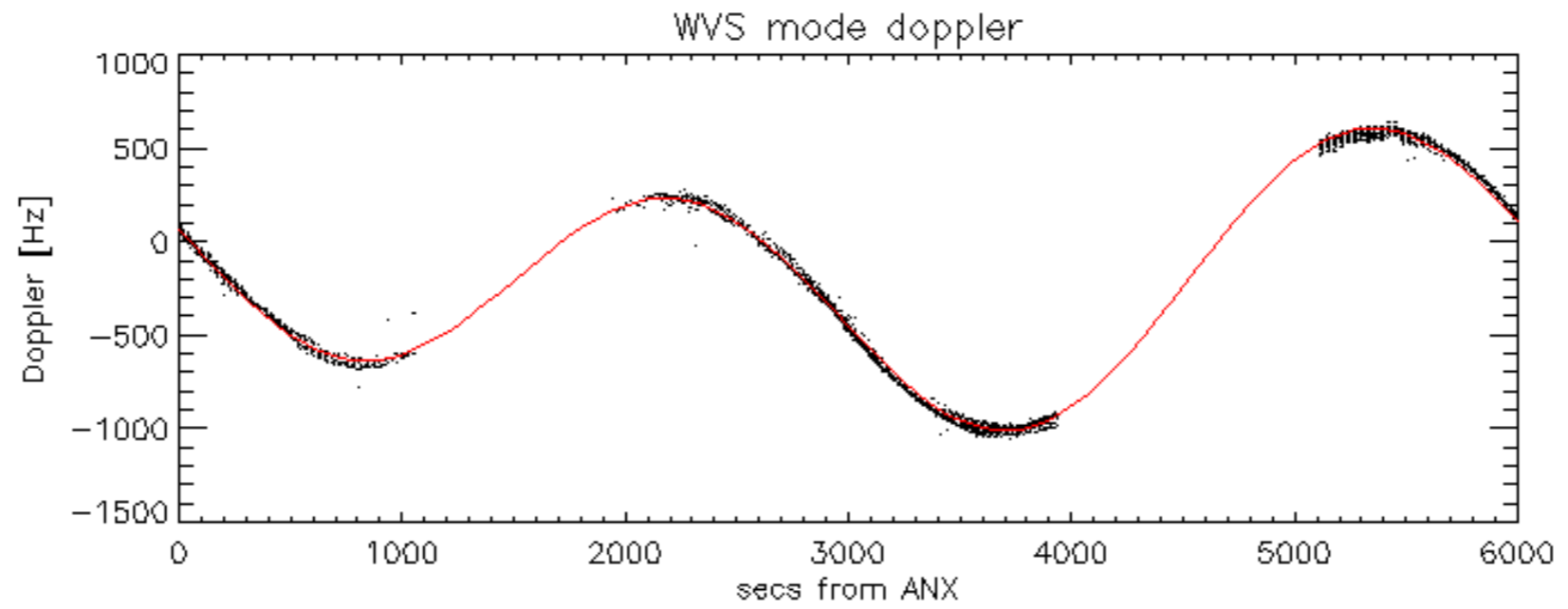


Doppler 'WVS' 'IS2' descending

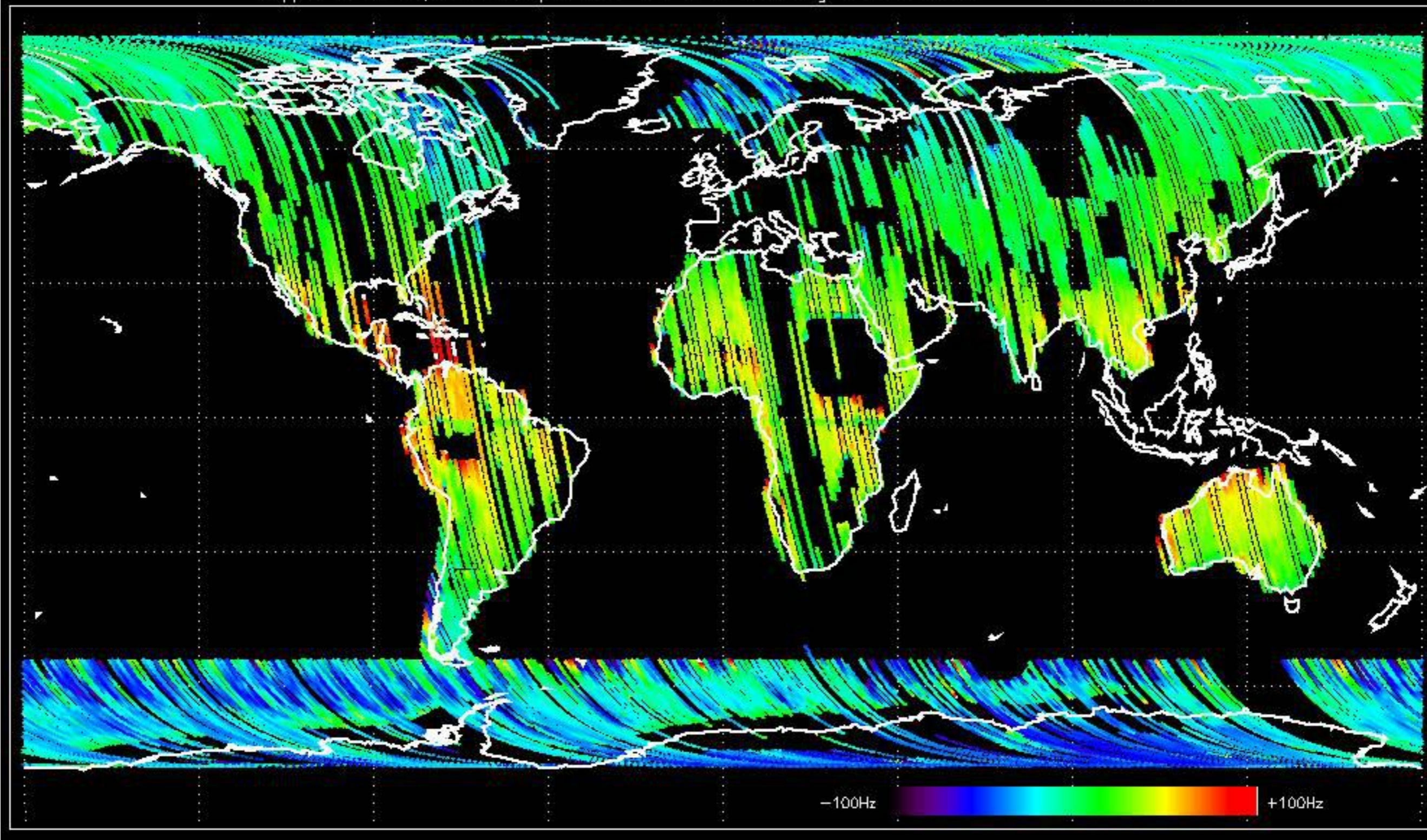


GM1 mode doppler

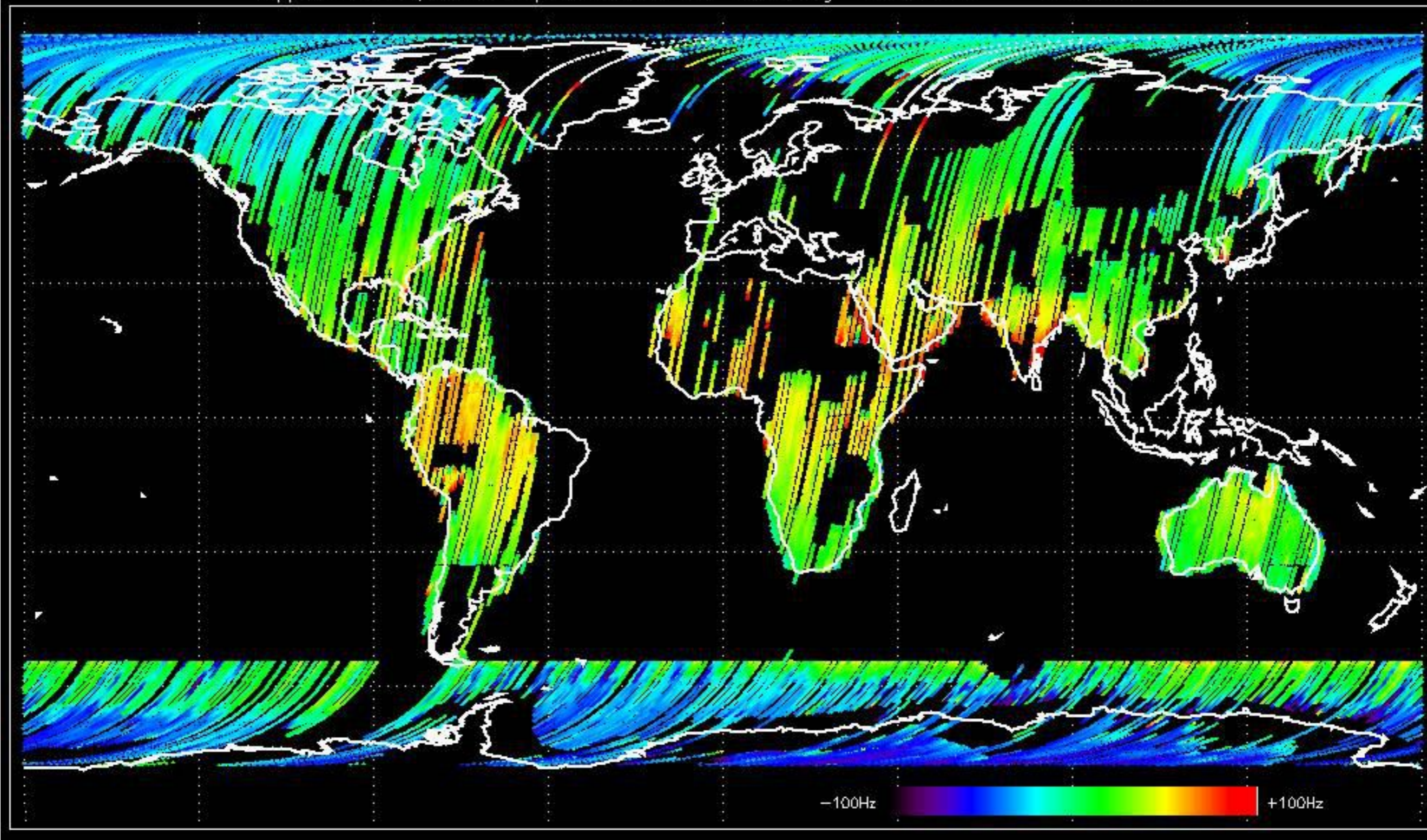




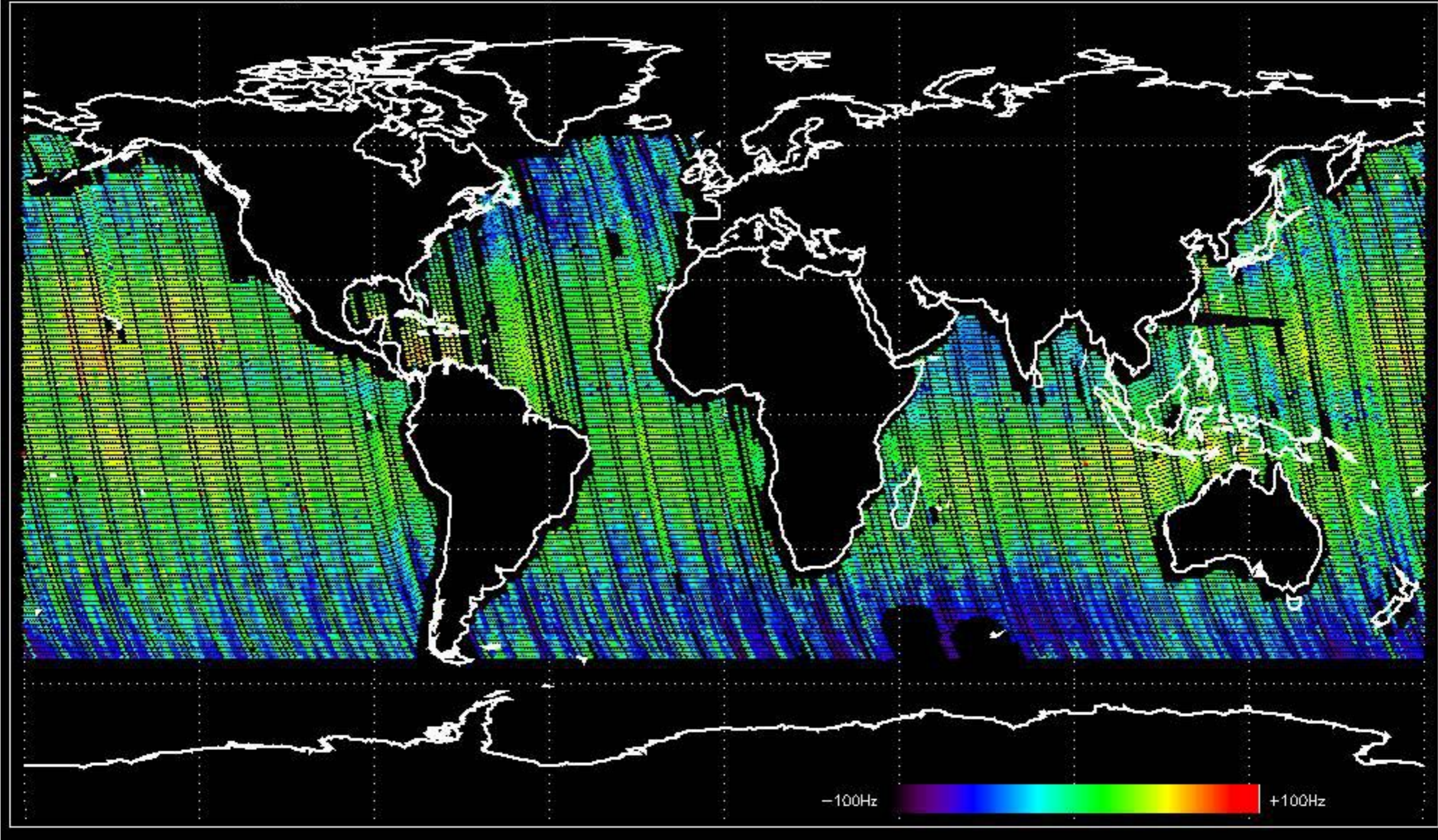
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.707439 Hz



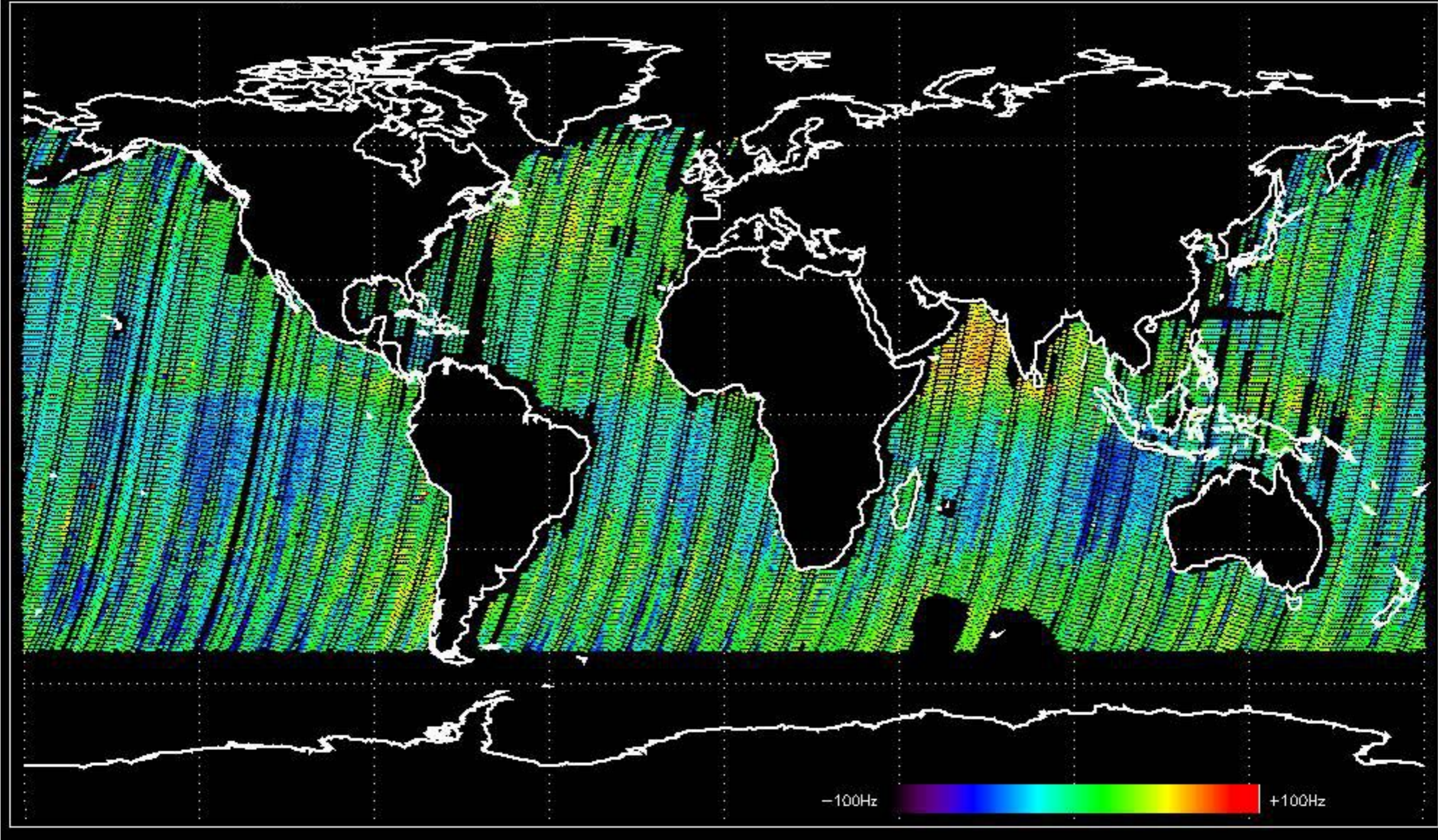
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.7956297 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.5798951 Hz

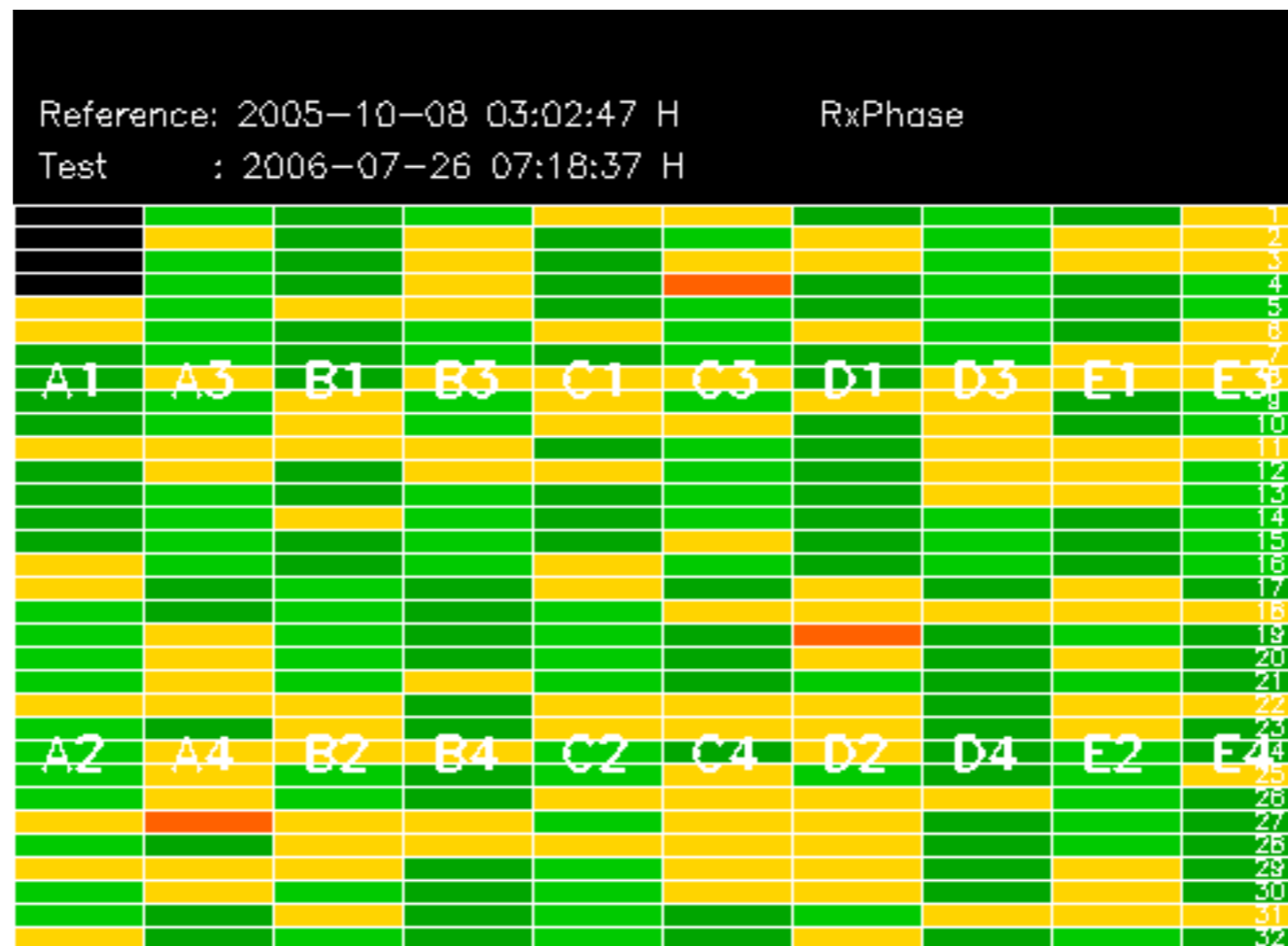


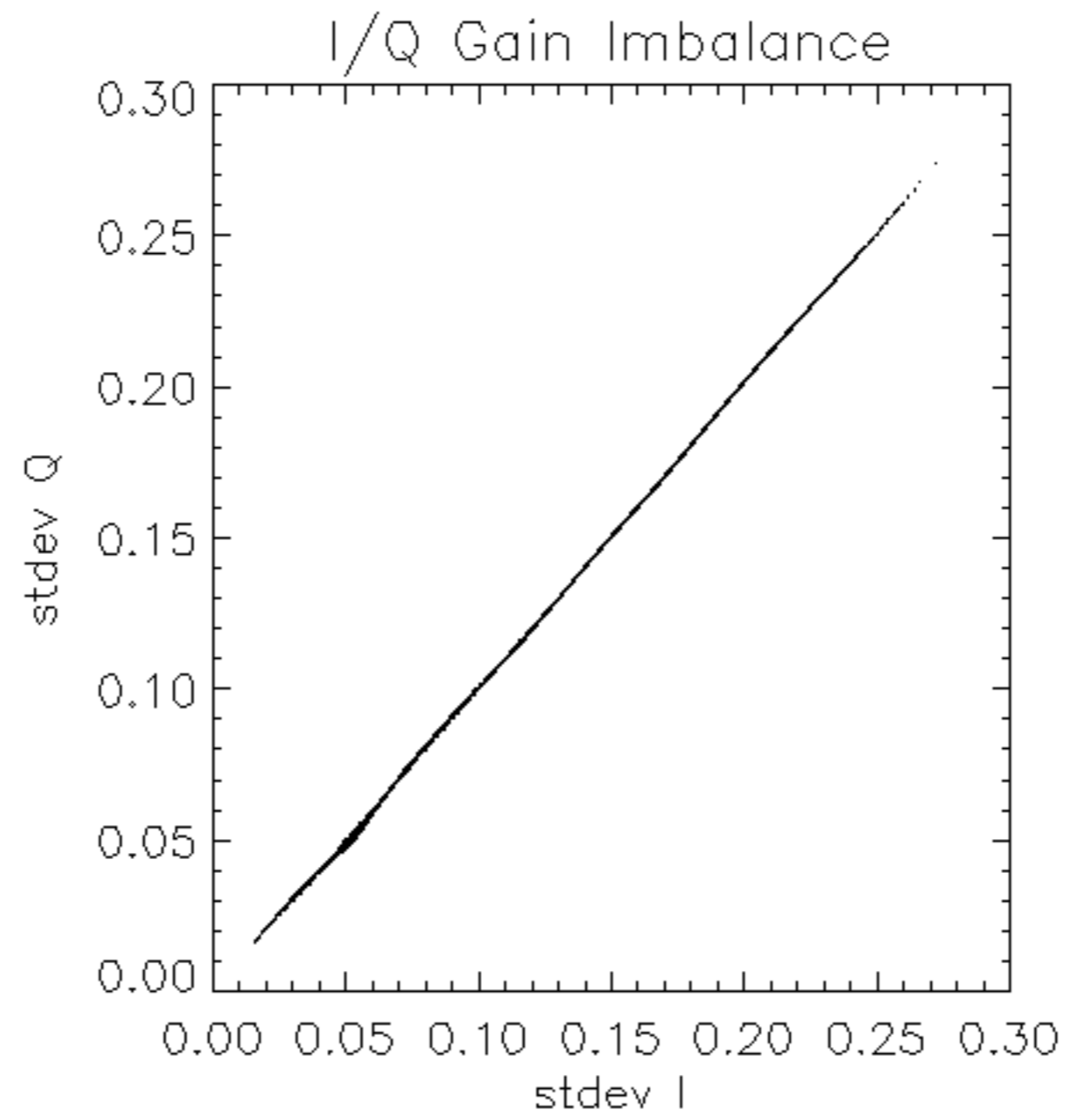
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.8065941 Hz

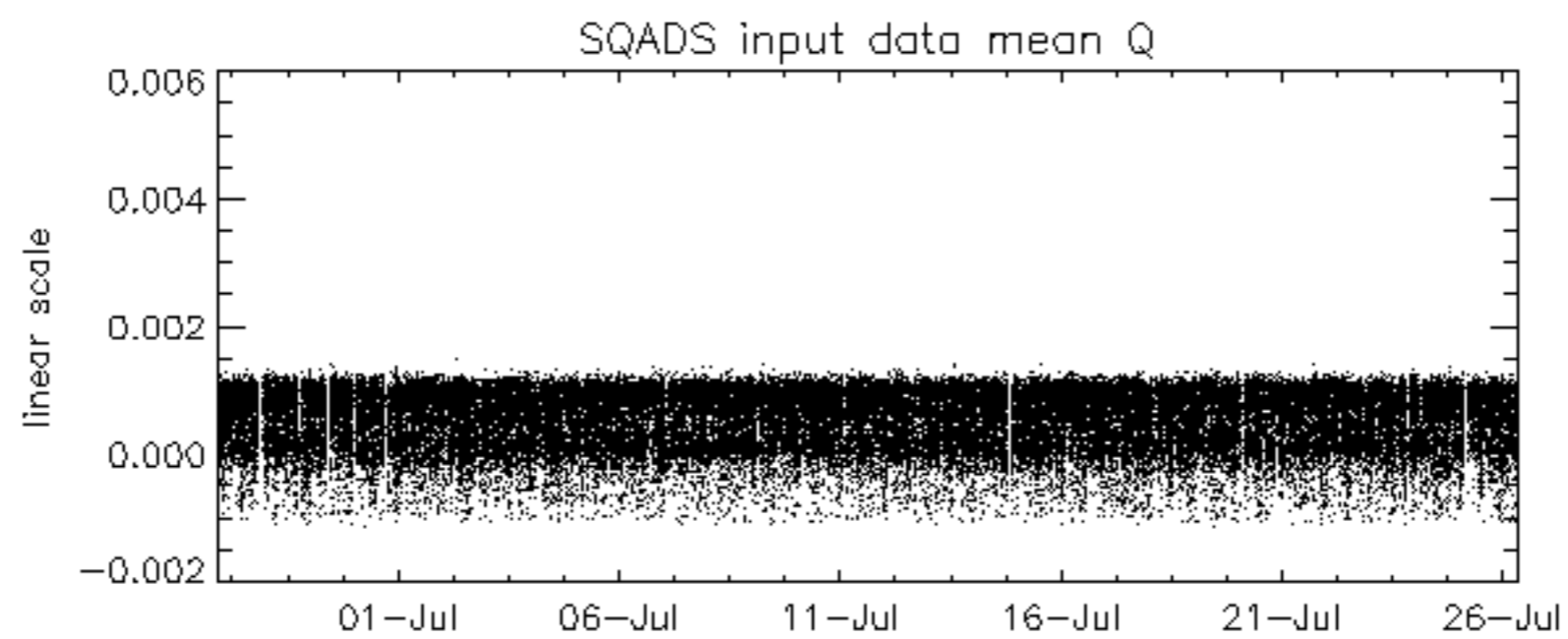
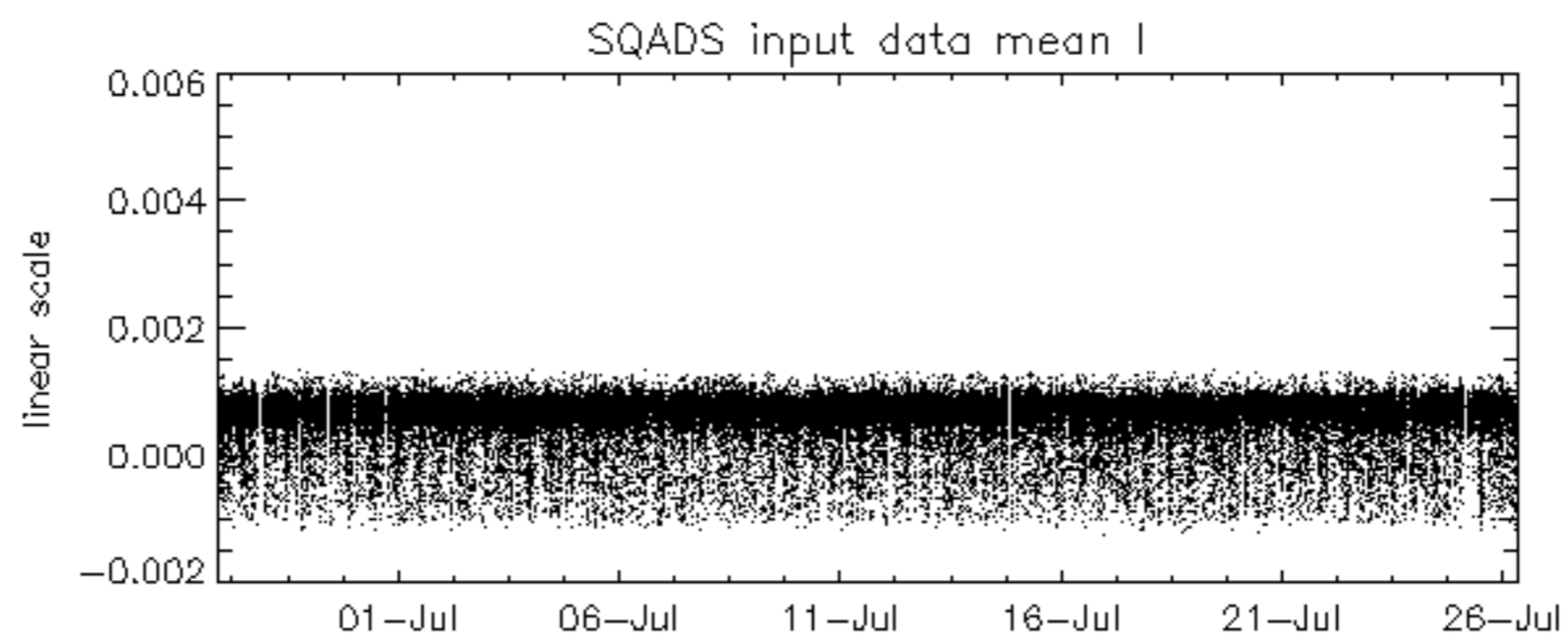
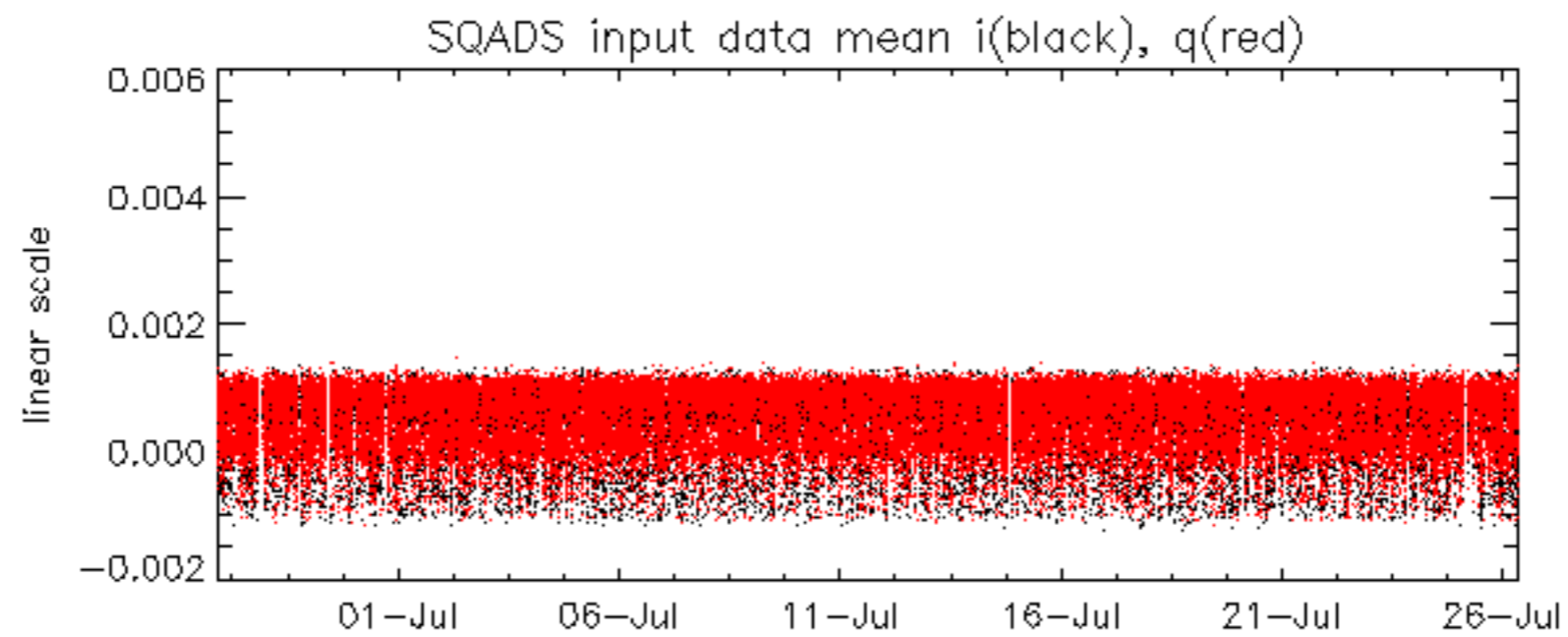


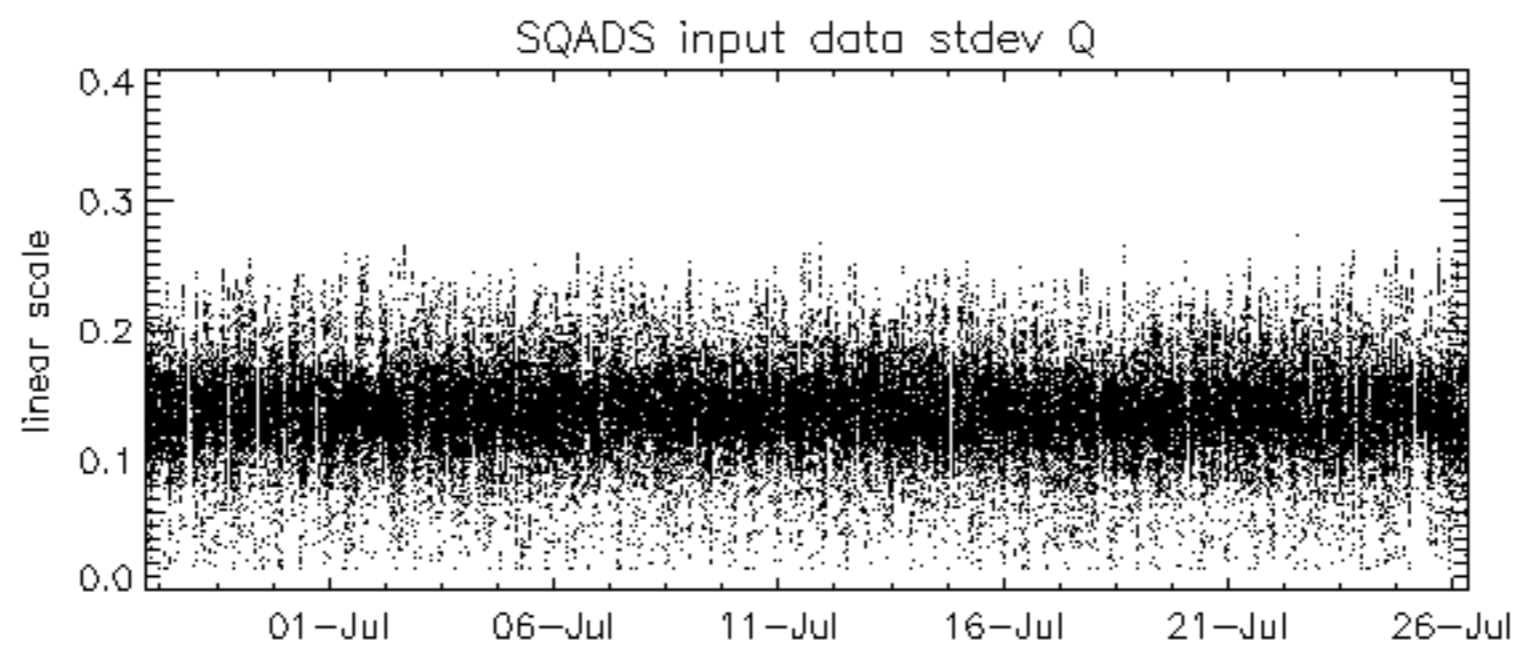
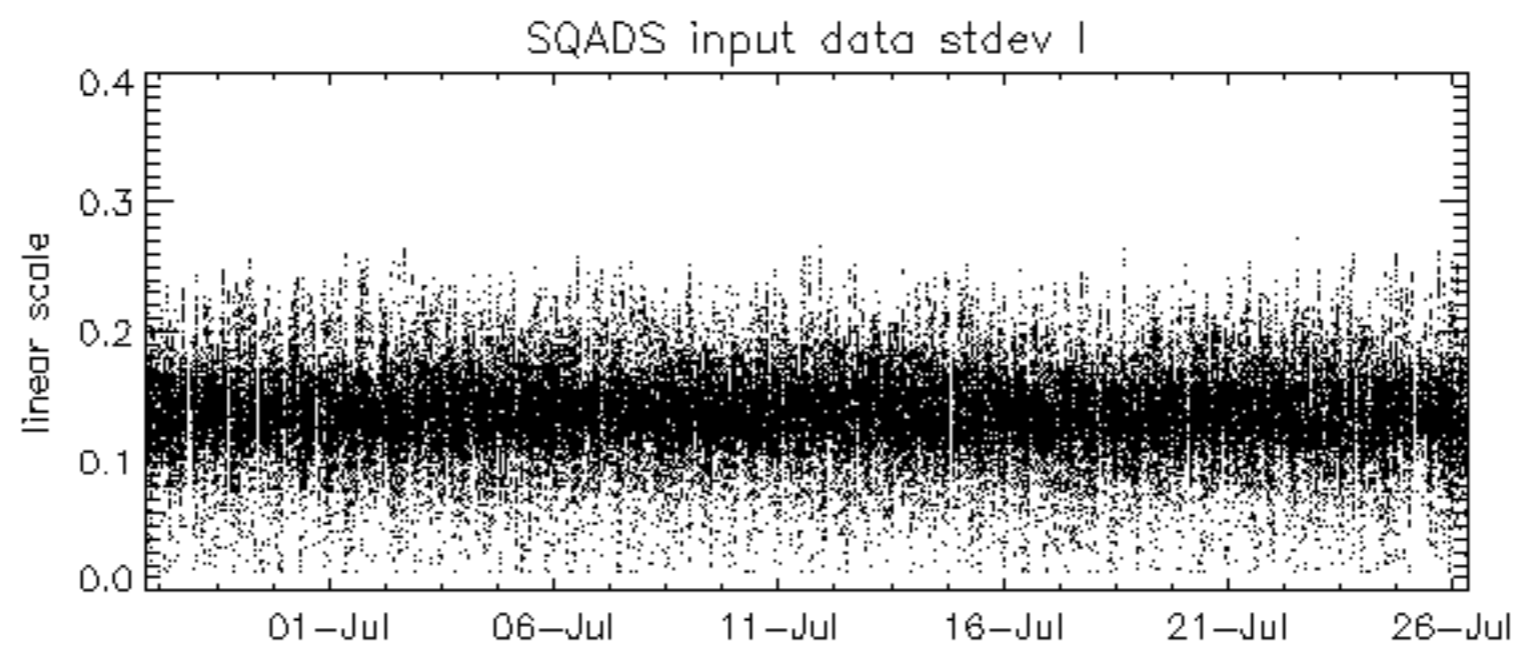
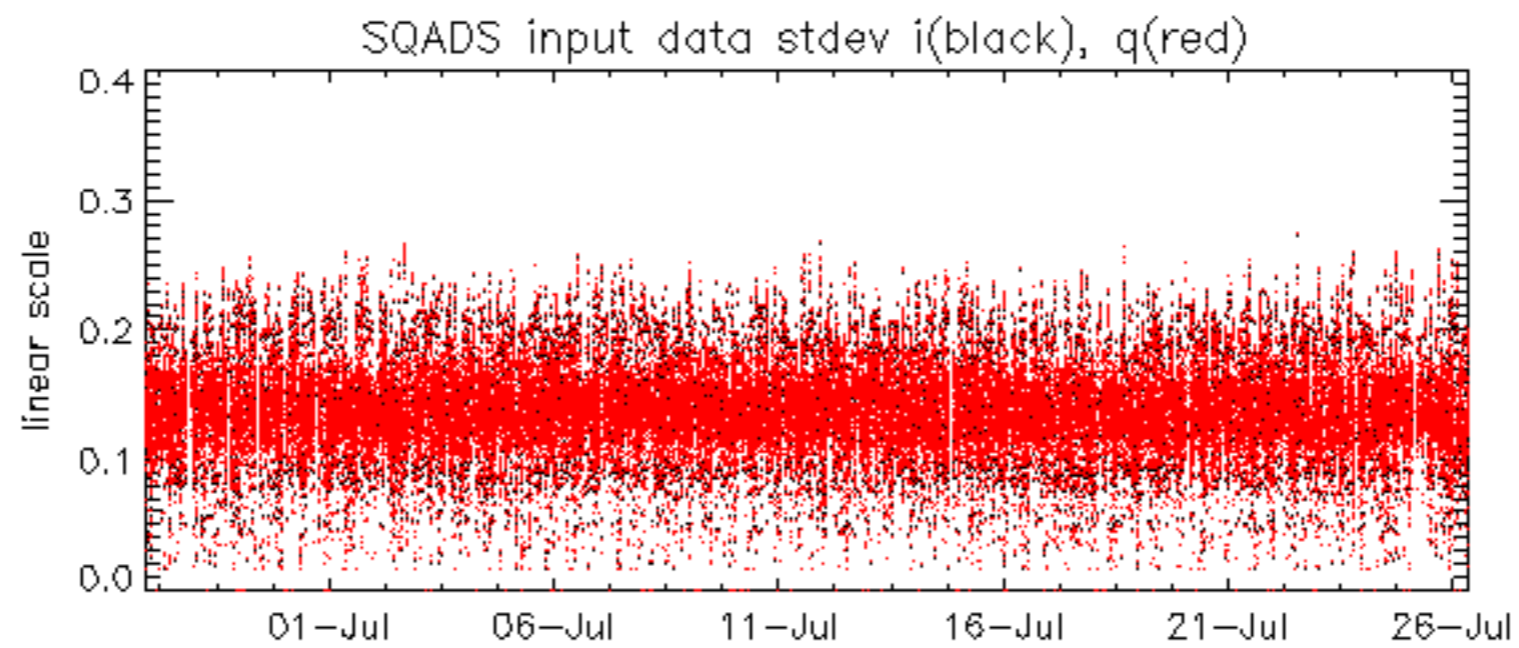
No anomalies observed on available MS products:

No anomalies observed.





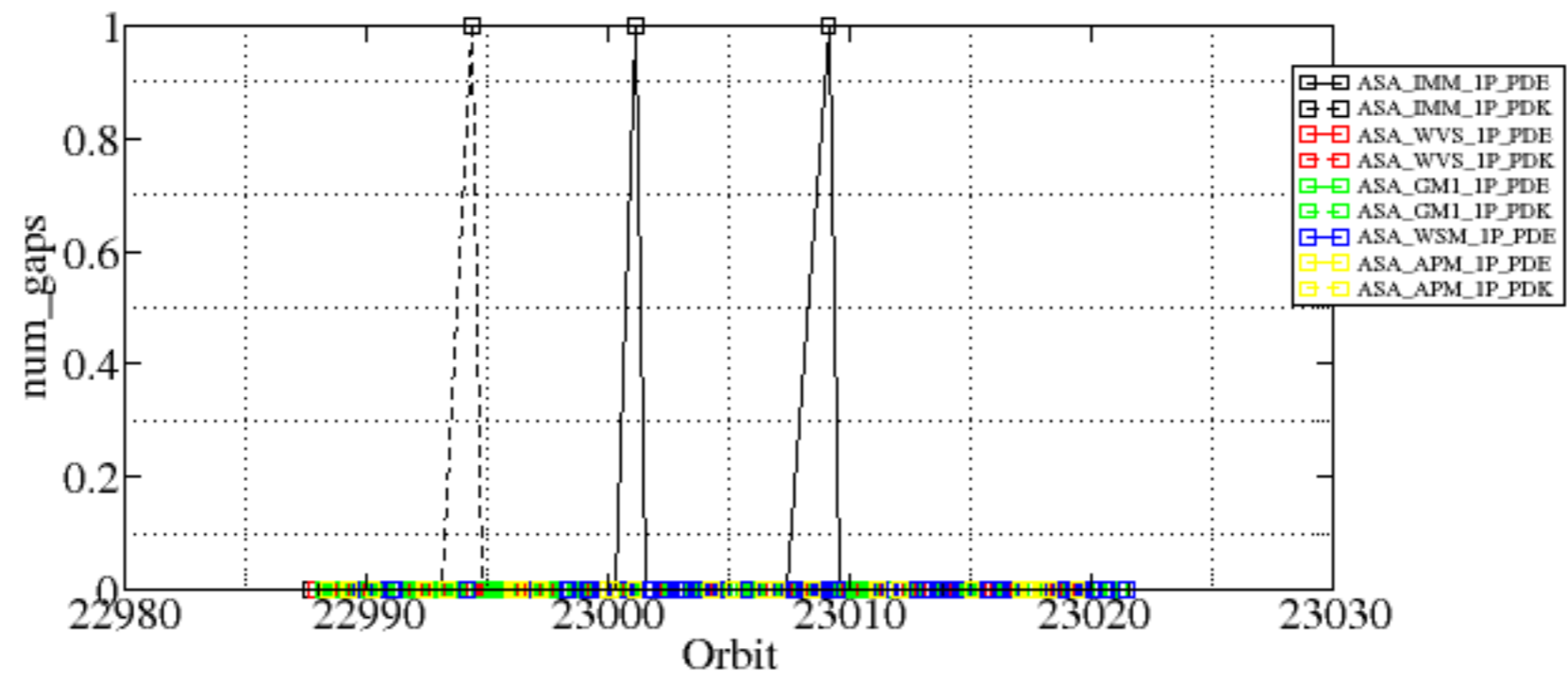


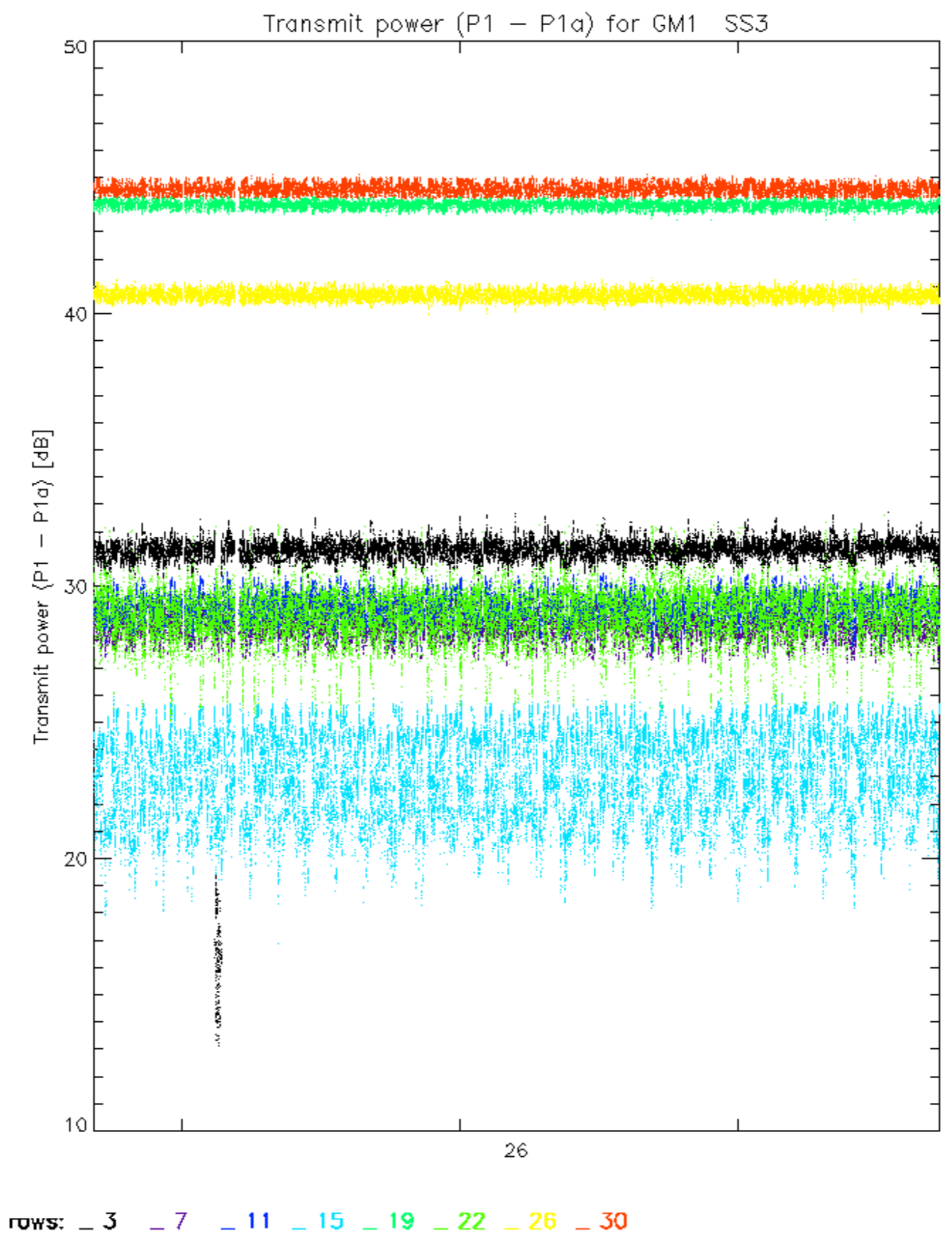


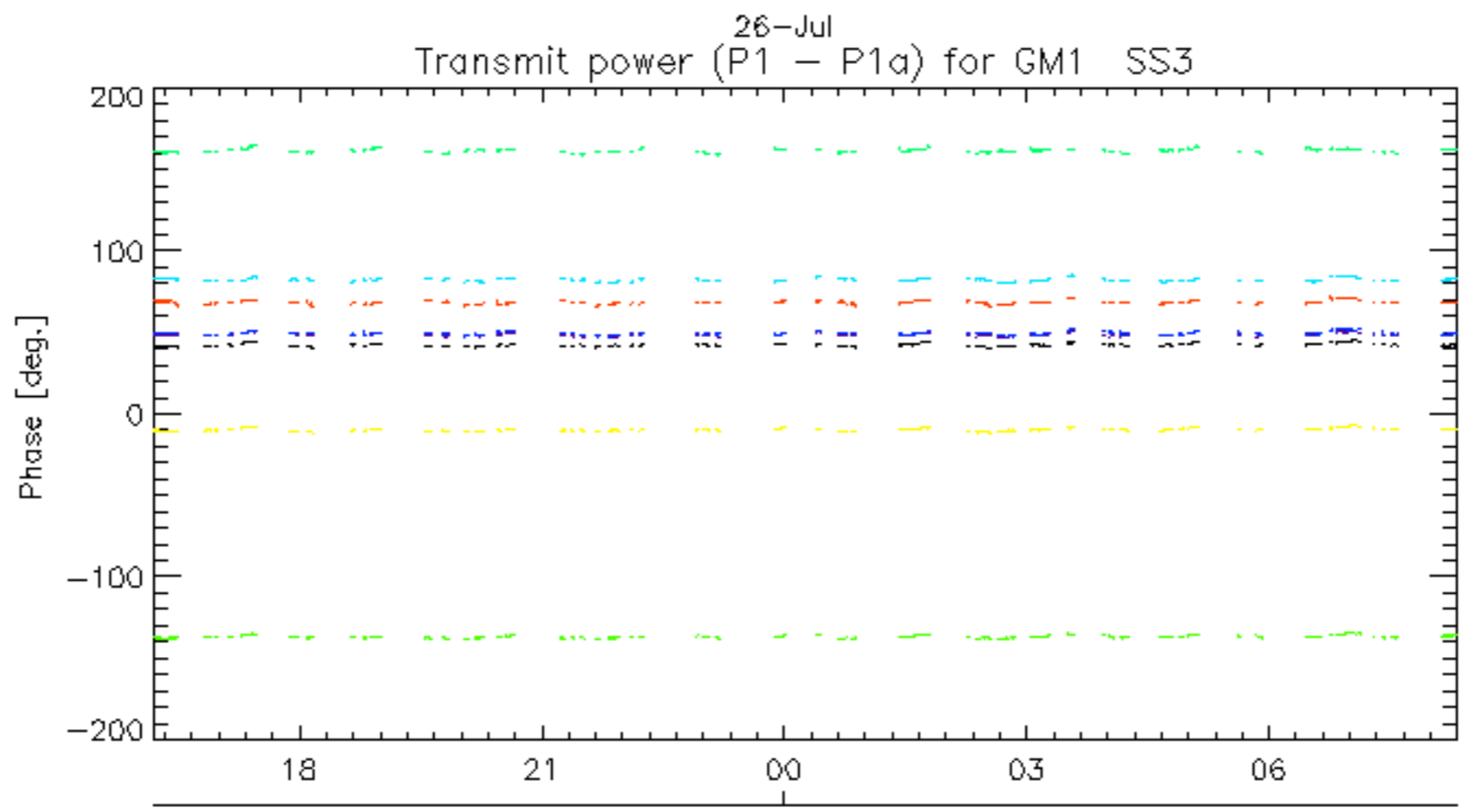
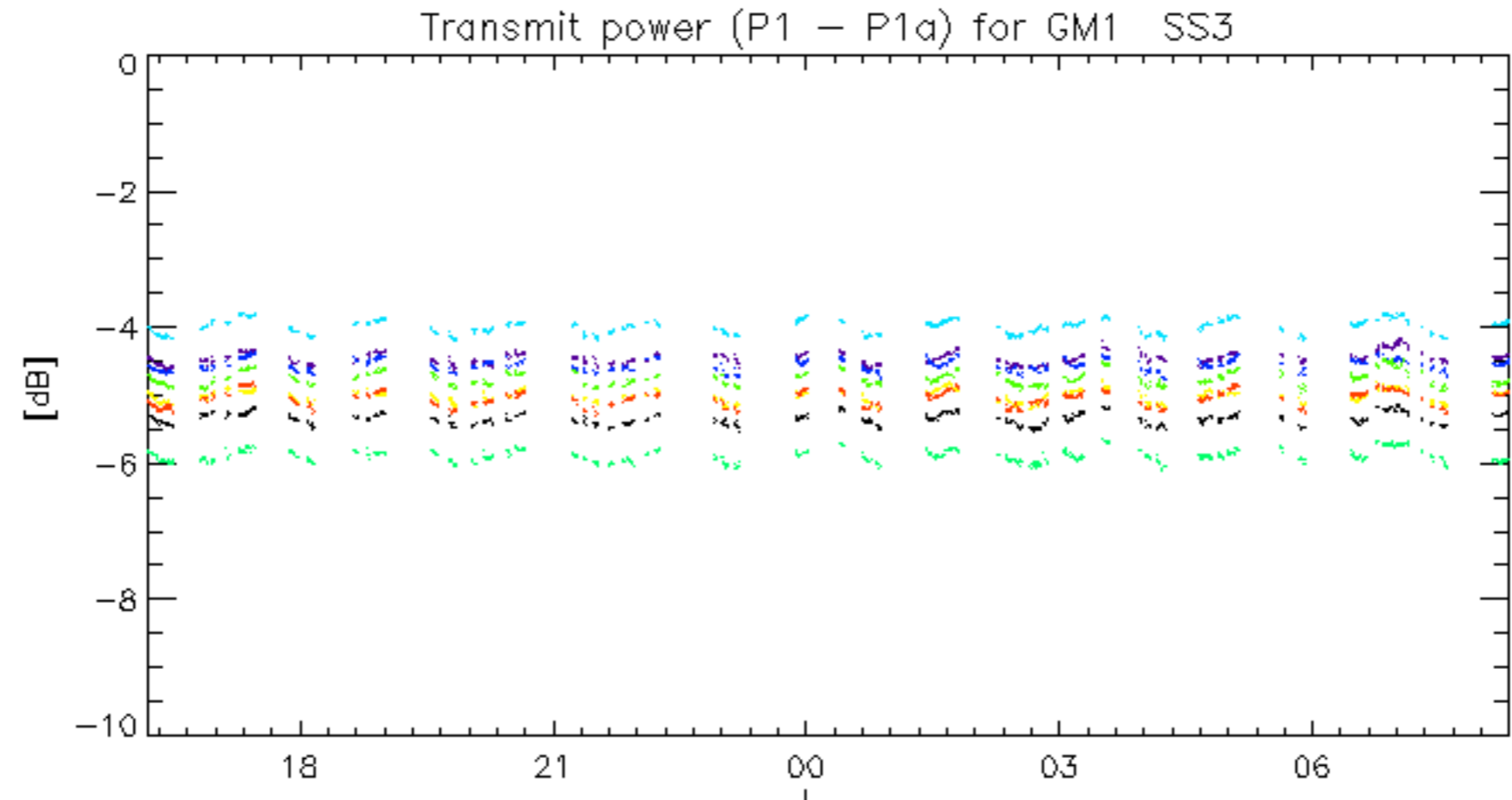
Summary of analysis for the last 3 days 2006072[456]

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

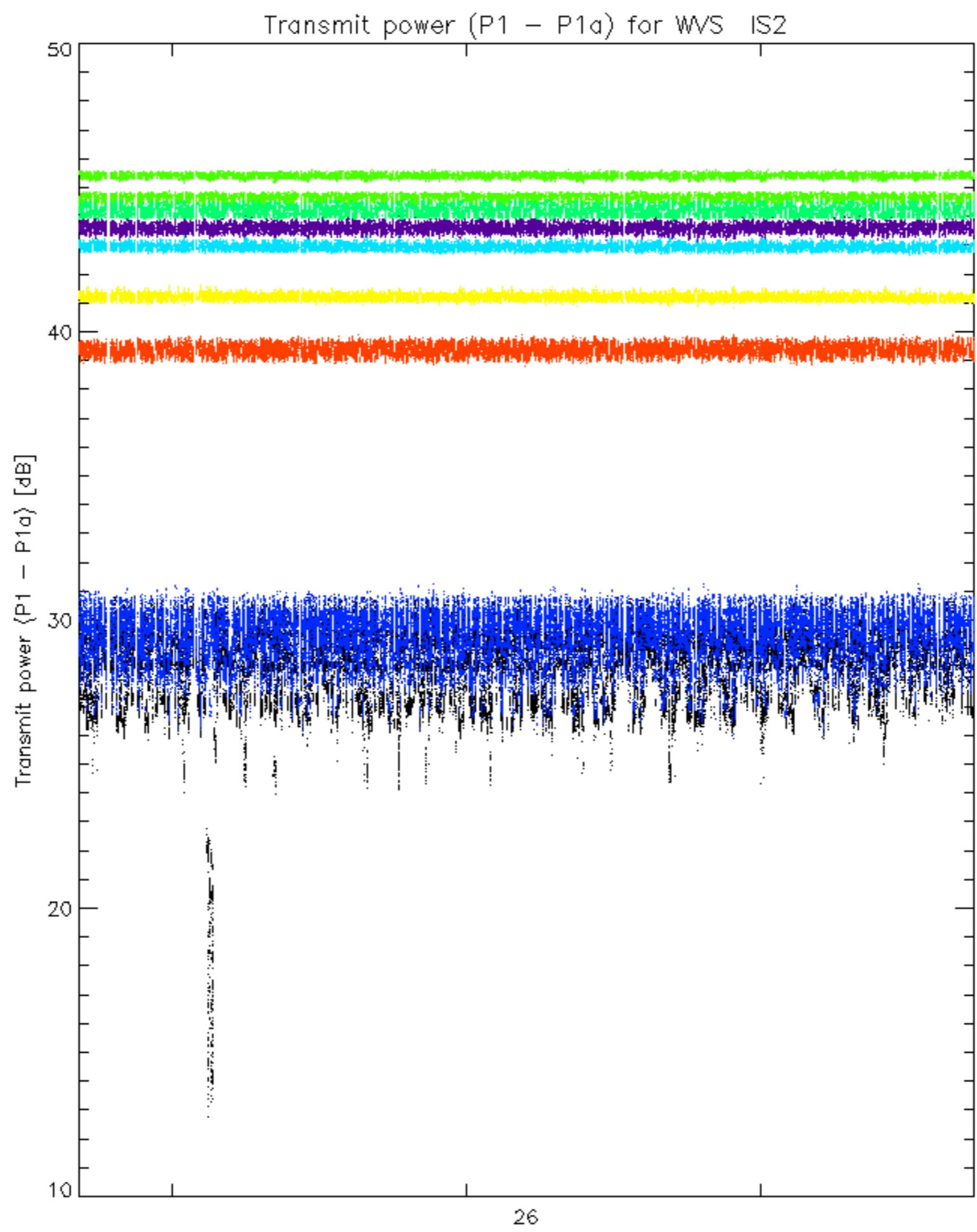
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060724_223414_000000352049_00402_23001_1971.N1	1	0
ASA_IMM_1PNPDE20060725_115630_000000512049_00410_23009_2003.N1	1	0
ASA_IMM_1PNPDK20060724_111125_000000372049_00395_22994_0853.N1	1	0
ASA_WSM_1PNPDE20060725_183111_000002692049_00414_23013_4403.N1	0	18



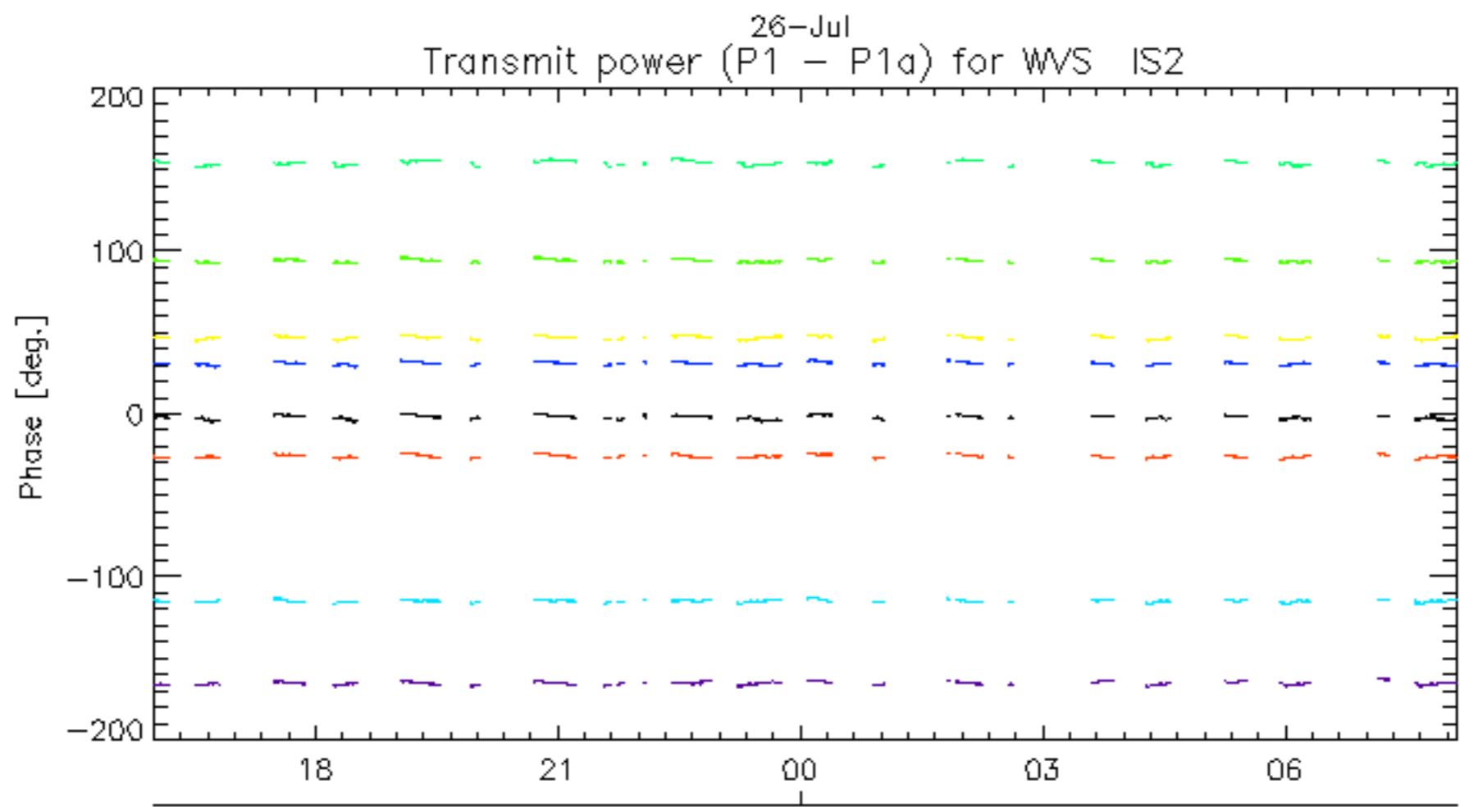
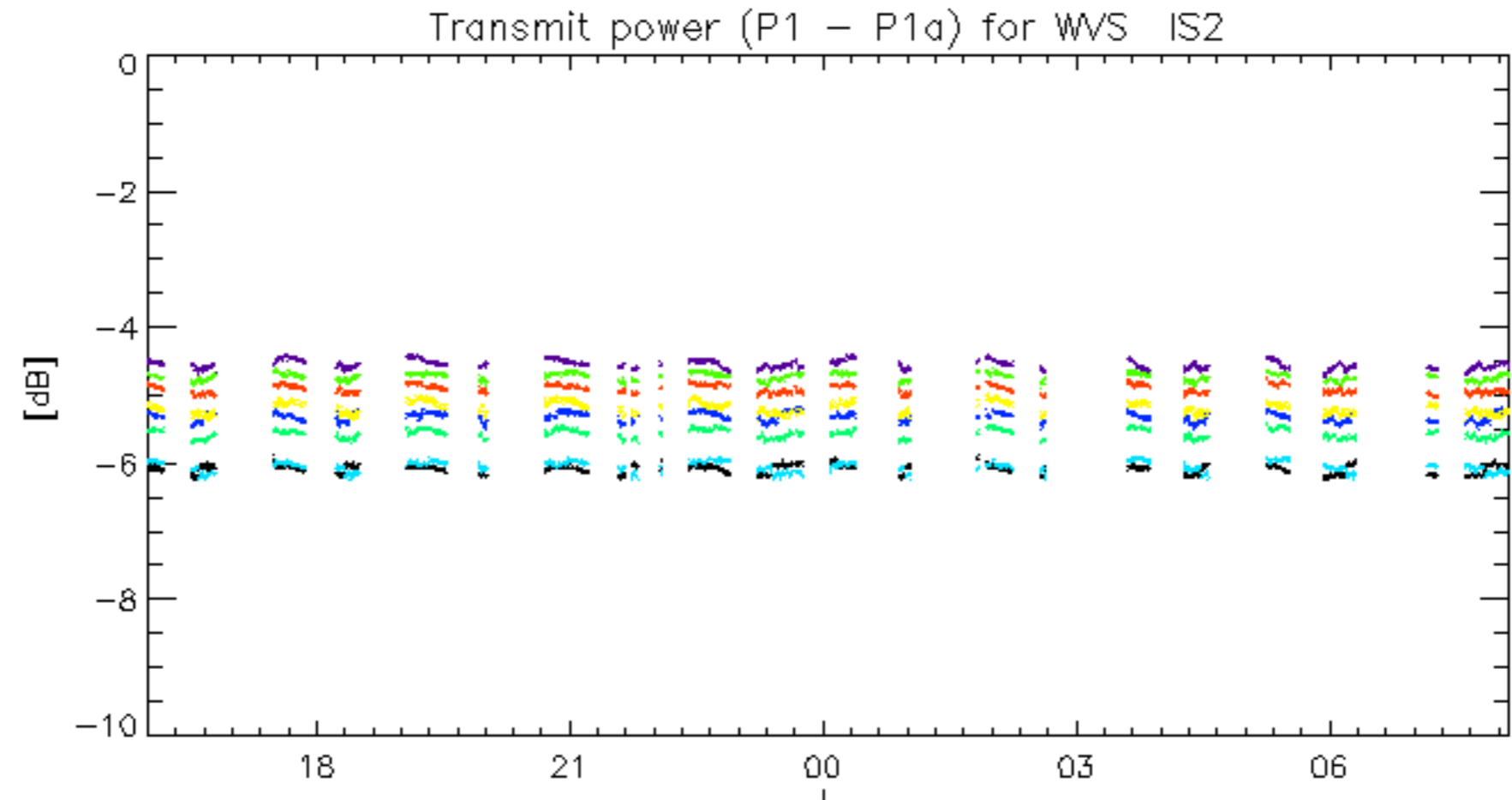




26-Jul
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.