

PRELIMINARY REPORT OF 060725

last update on Tue Jul 25 16:29:41 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 2006-07-24 00:00:00 to 2006-07-25 16:29:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	46	69	14	8	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	46	69	14	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	46	69	14	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	69	14	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	48	36	15	48
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	33	48	36	15	48
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	48	36	15	48
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	48	36	15	48

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	20060723 053216
H	20060724 050039

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	-3.933932	0.011937	-0.029442
7	P1	-3.101012	0.010331	0.008359
11	P1	-4.085723	0.013682	0.003964
15	P1	-6.172669	0.011470	-0.003421
19	P1	-3.400280	0.009335	-0.053159
22	P1	-4.548831	0.010249	-0.033513
26	P1	-3.929787	0.019840	0.029115
30	P1	-5.762463	0.008106	-0.002125
3	P1	-16.515335	0.318315	-0.071084
7	P1	-17.191750	0.102462	-0.022816
11	P1	-16.982185	0.276609	-0.012540
15	P1	-13.107190	0.148998	0.059998
19	P1	-14.453542	0.049306	-0.129111
22	P1	-16.019102	0.424715	0.011750
26	P1	-15.125389	0.236712	0.085543
30	P1	-17.098850	0.345866	-0.037029

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.978178	0.088087	0.145237
7	P2	-21.917429	0.105439	0.077694
11	P2	-15.794515	0.121957	0.063152
15	P2	-7.129786	0.100689	0.027469
19	P2	-9.133602	0.091985	0.012764
22	P2	-18.149292	0.086696	0.005604
26	P2	-16.398983	0.094113	-0.014758
30	P2	-19.523232	0.093595	0.037182

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175092	0.002991	0.001911
7	P3	-8.175092	0.002991	0.001911
11	P3	-8.175092	0.002991	0.001911
15	P3	-8.175092	0.002991	0.001911
19	P3	-8.175092	0.002991	0.001911
22	P3	-8.175092	0.002991	0.001911
26	P3	-8.175092	0.002991	0.001911
30	P3	-8.175092	0.002991	0.001911

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	-3.806961	0.025336	-0.091662
7	P1	-2.560482	0.007969	0.017341
11	P1	-2.857508	0.014464	0.020673
15	P1	-3.570092	0.029238	-0.048372
19	P1	-3.418272	0.013245	-0.012346
22	P1	-5.089313	0.019946	0.023755
26	P1	-5.859230	0.015738	-0.011291
30	P1	-5.192153	0.026597	-0.001245
3	P1	-11.592355	0.085115	-0.116437
7	P1	-9.968408	0.034250	0.039220
11	P1	-10.247098	0.056530	0.010255
15	P1	-10.756830	0.145415	-0.020497
19	P1	-15.532051	0.073484	-0.021700
22	P1	-20.907995	1.235300	0.045981

26	P1	-16.296335	0.381104	0.243881
30	P1	-17.914011	0.410271	-0.177239

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.620213	0.070773	0.215931
7	P2	-22.396723	0.126581	0.155278
11	P2	-11.049187	0.041731	0.089595
15	P2	-4.910117	0.045925	0.050467
19	P2	-6.873581	0.041038	0.034409
22	P2	-8.195437	0.036979	0.028373
26	P2	-24.182415	0.061921	0.032923
30	P2	-22.012510	0.049780	0.062430

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013753	0.003741	0.013220
7	P3	-8.013749	0.003739	0.013312
11	P3	-8.013595	0.003753	0.013160
15	P3	-8.013703	0.003743	0.013225
19	P3	-8.013744	0.003743	0.013260
22	P3	-8.013744	0.003735	0.013072
26	P3	-8.013731	0.003740	0.012933
30	P3	-8.013736	0.003737	0.013216

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	0.000565915
	stdev	1.66586e-07
MEAN Q	mean	0.000541778
	stdev	2.12648e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137964
	stdev	0.00108593
STDEV Q	mean	0.138322
	stdev	0.00110383



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[345]

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_1PNPDE20060723_142730_000000342049_00382_22981_1791.N1	1	0
ASA_IMM_1PNPDE20060724_223414_000000352049_00402_23001_1971.N1	1	0
ASA_IMM_1PNPDK20060724_111125_000000372049_00395_22994_0853.N1	1	0
ASA_WSM_1PNPDE20060723_161437_000001092049_00384_22983_4126.N1	0	49
ASA_WSM_1PNPDE20060723_234035_000000852049_00388_22987_4163.N1	0	29



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

7.2 - Absolute Doppler for WVS

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

7.3 - Doppler evolution versus ANX for WVS

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

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

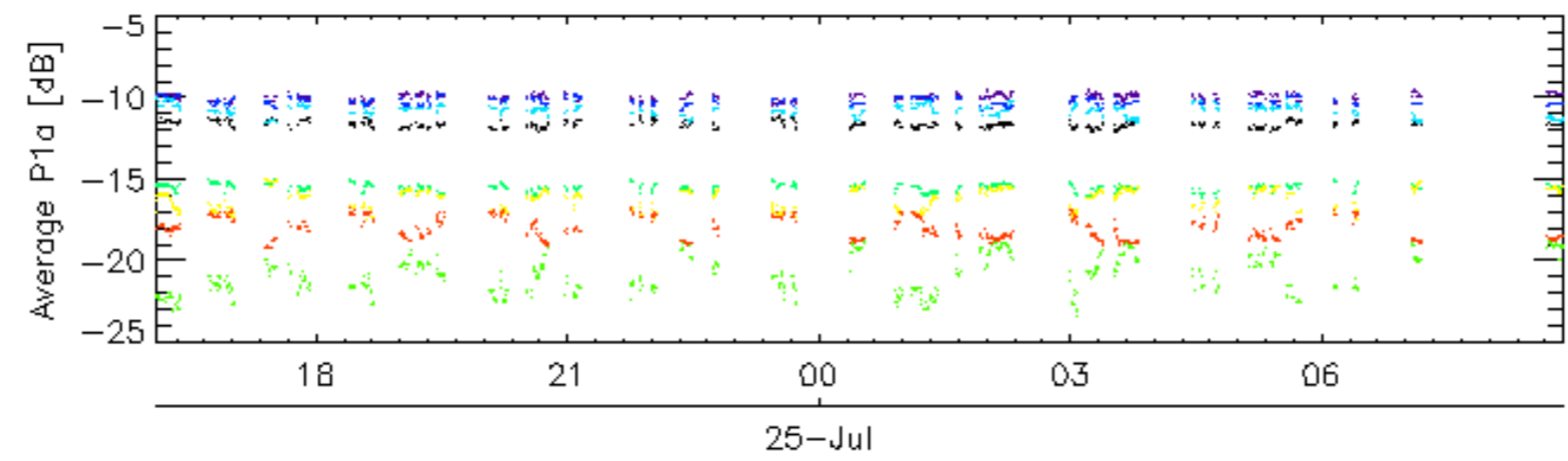
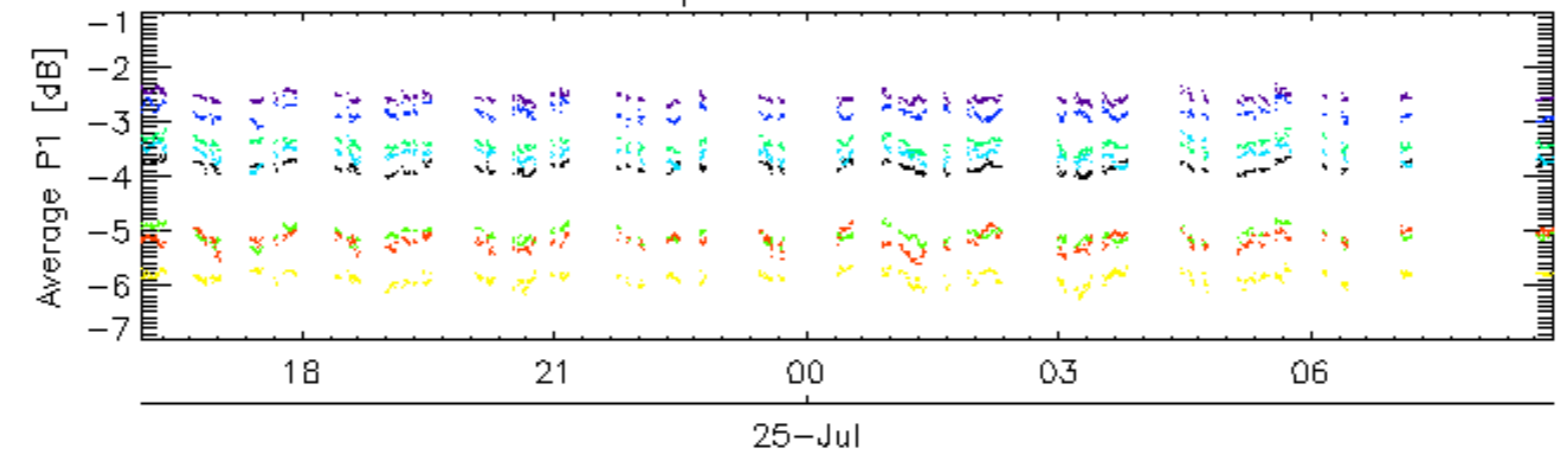
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

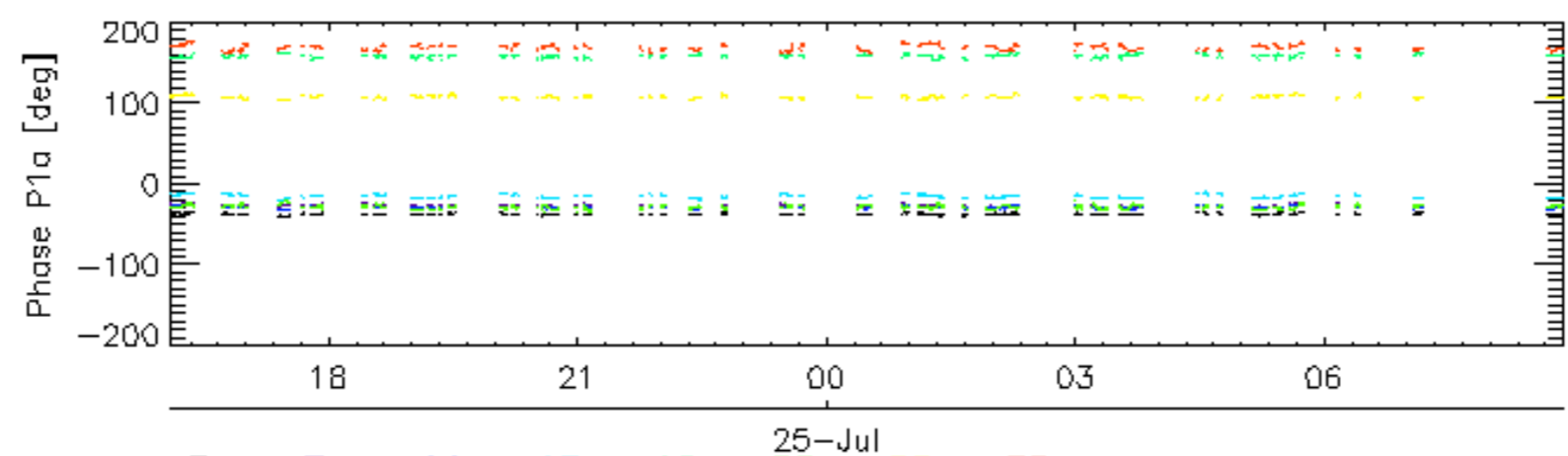
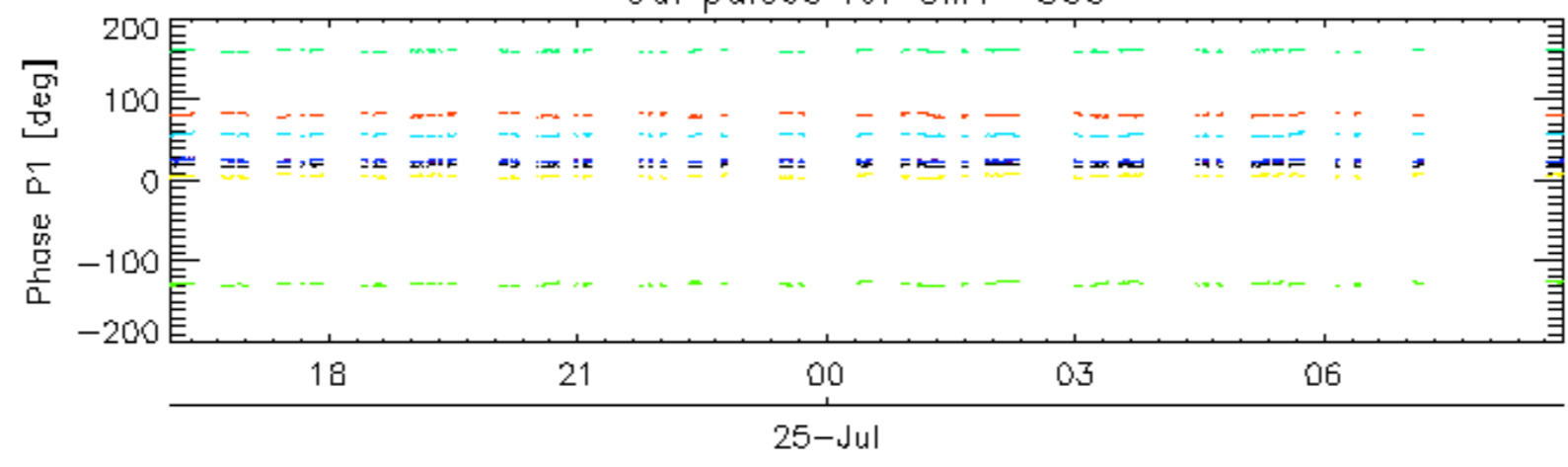
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

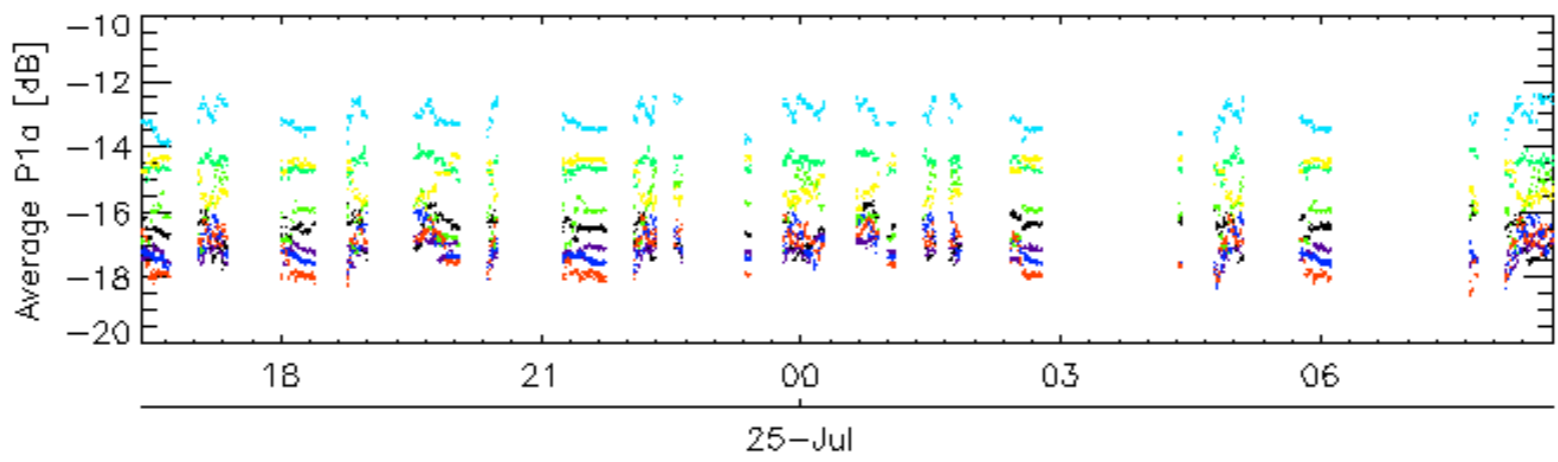
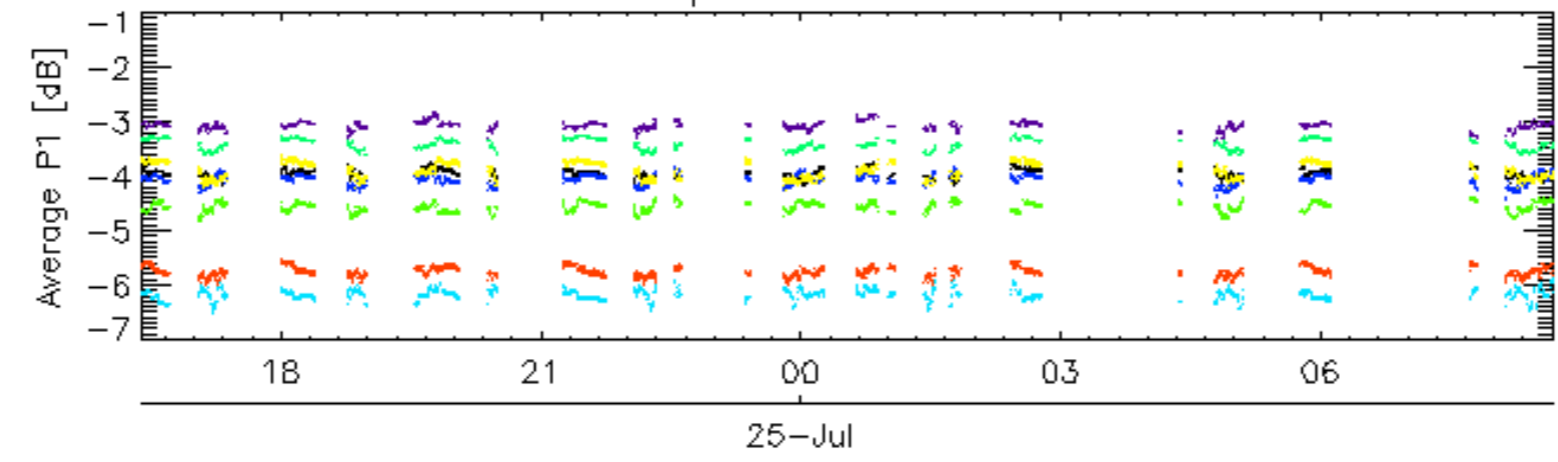


Cal pulses for GM1 SS3

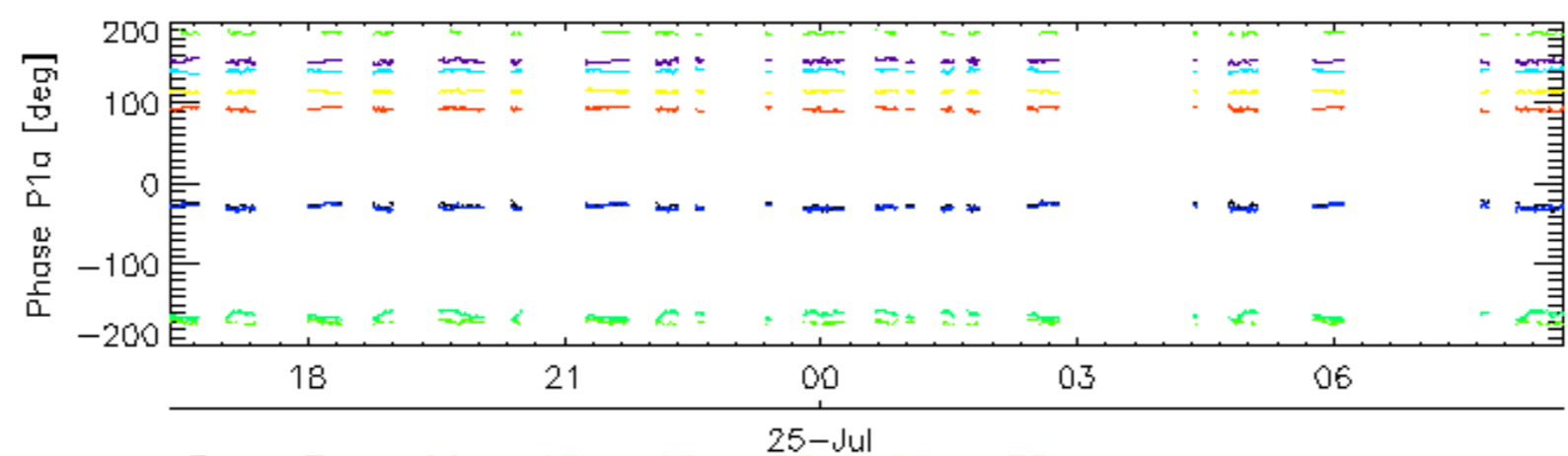
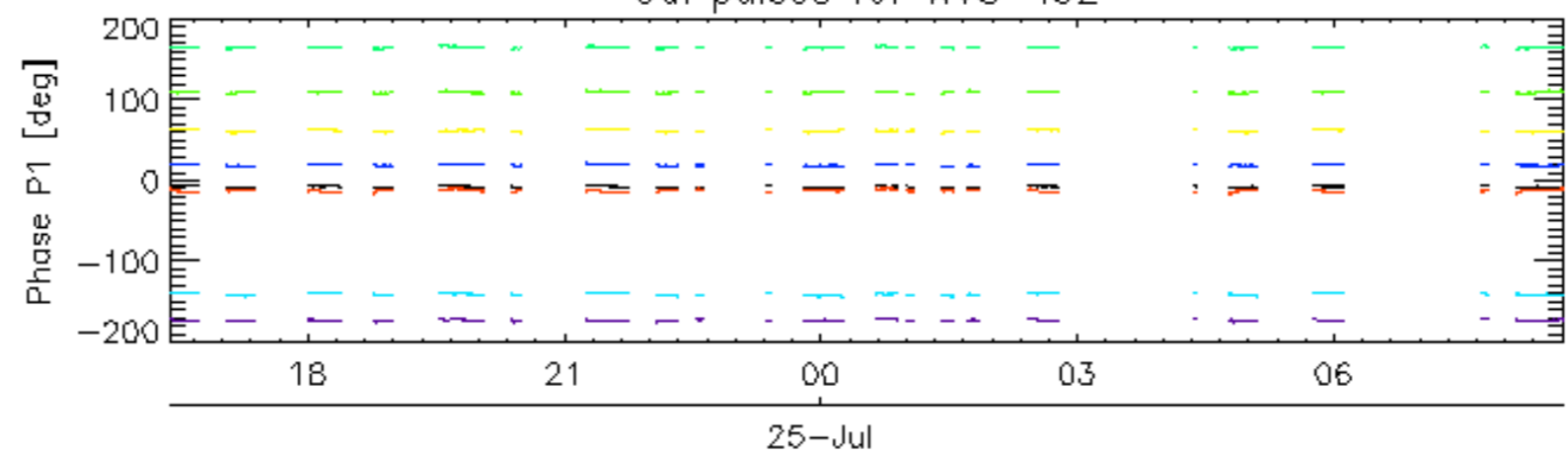


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

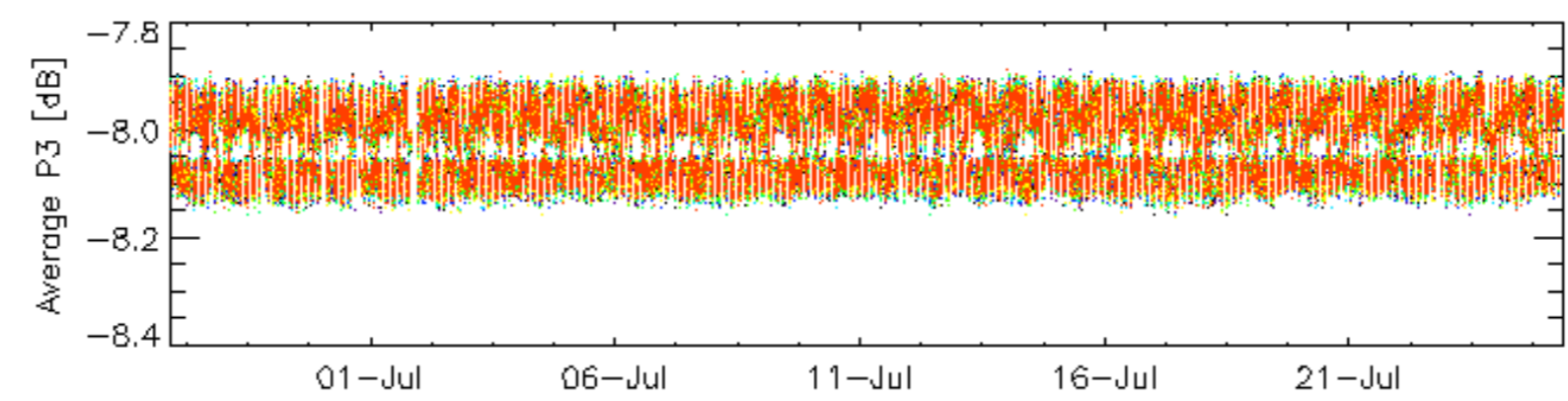
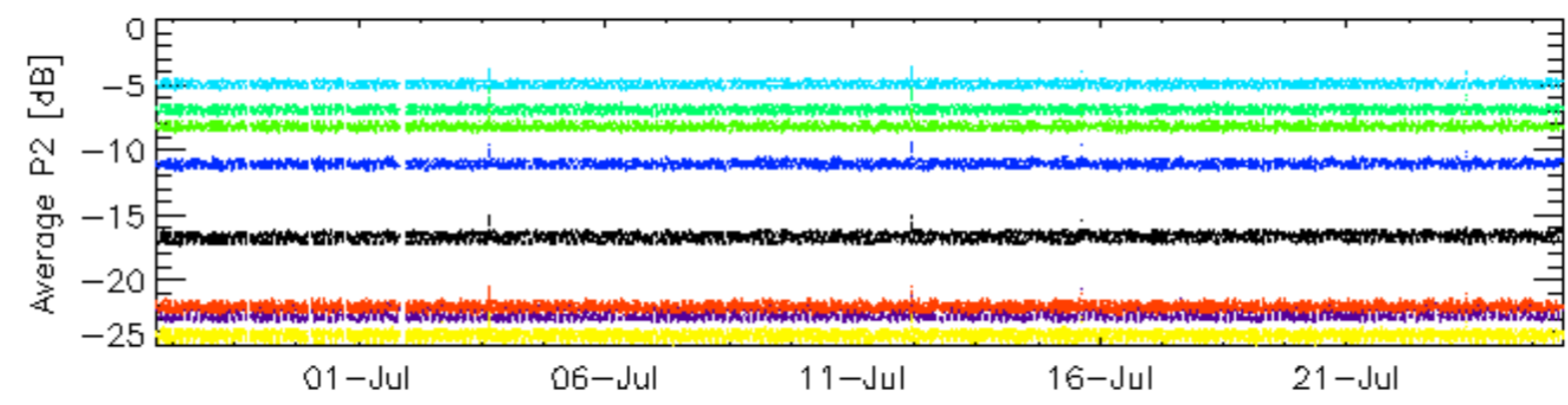
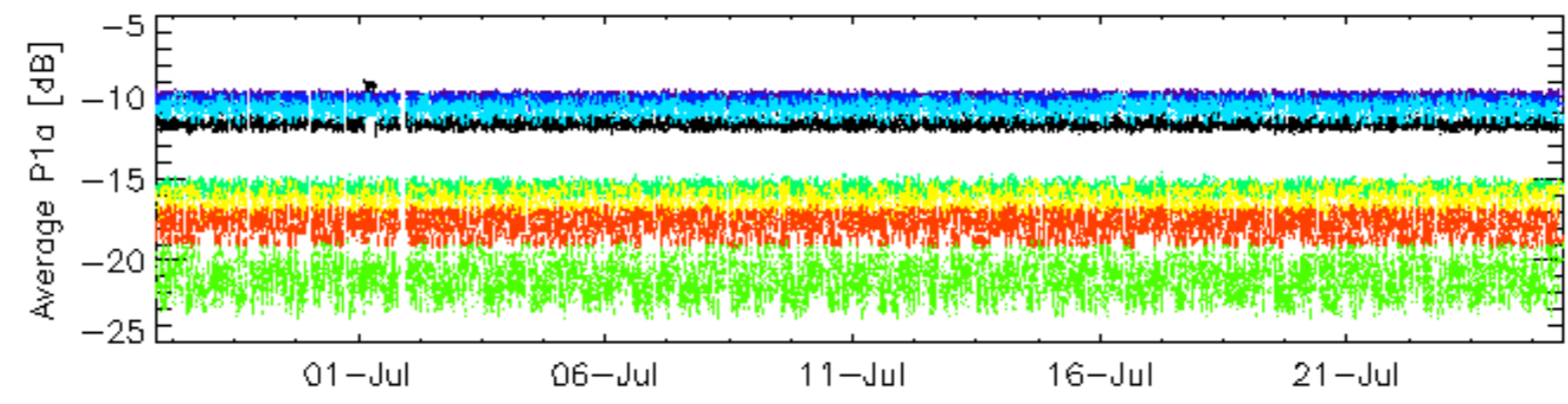
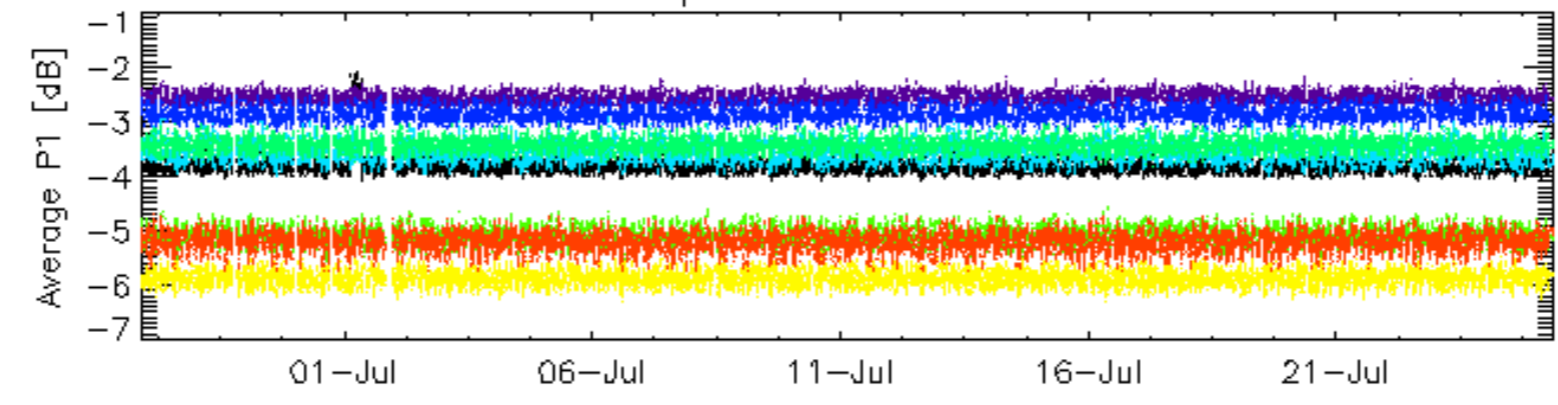


Cal pulses for WVS IS2



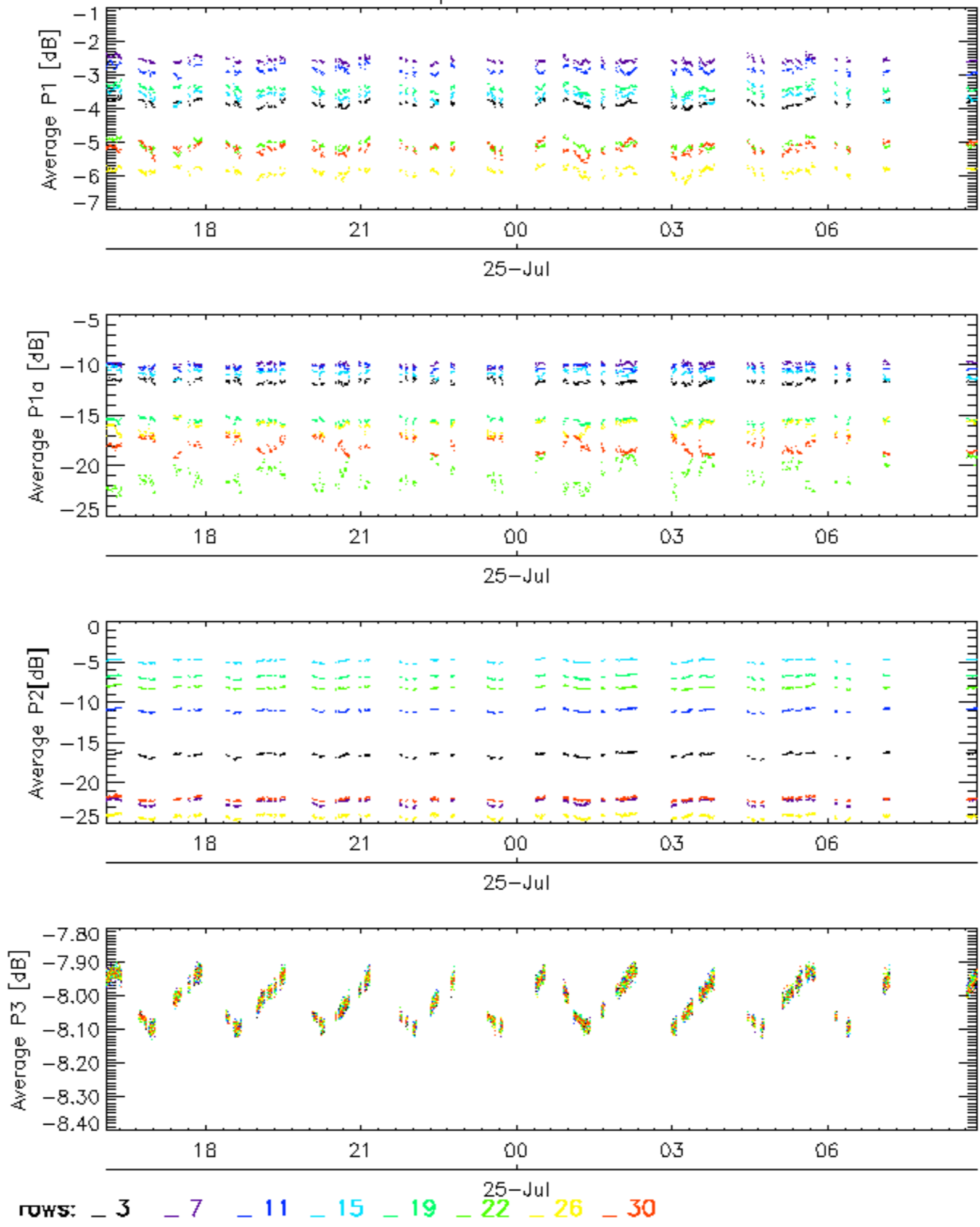
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

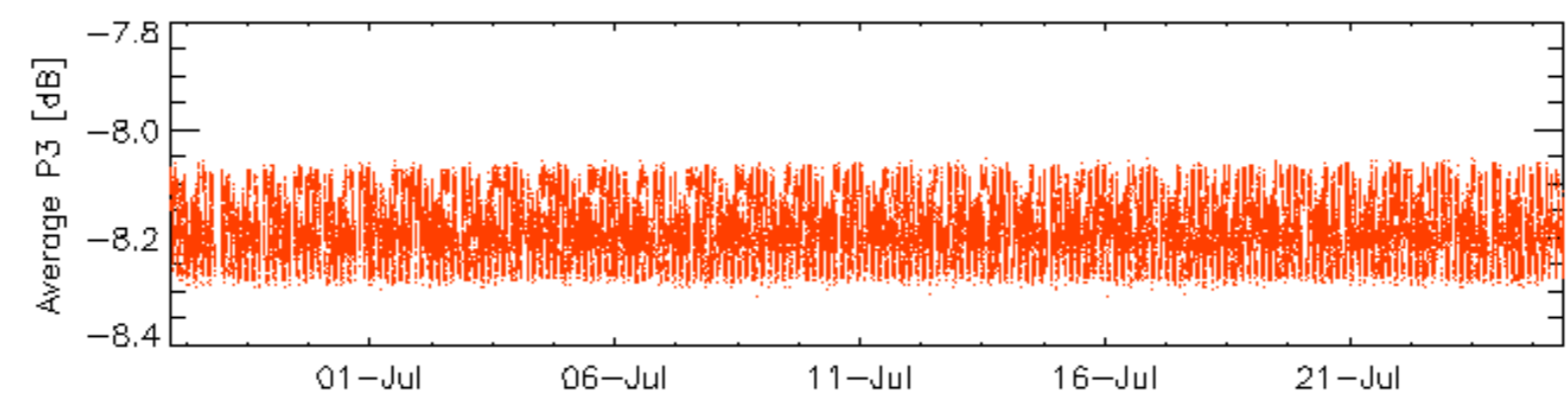
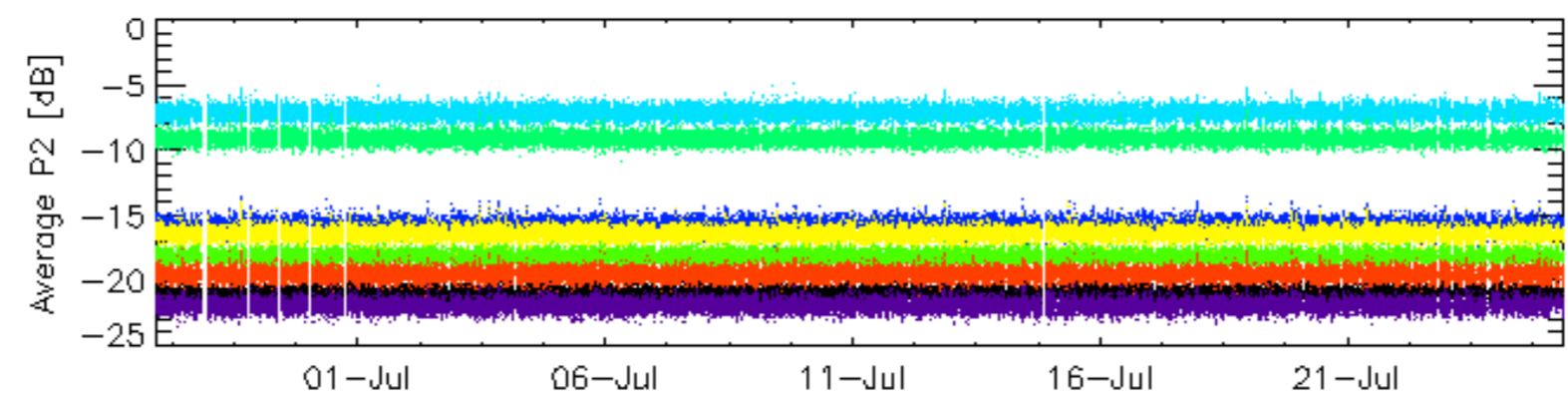
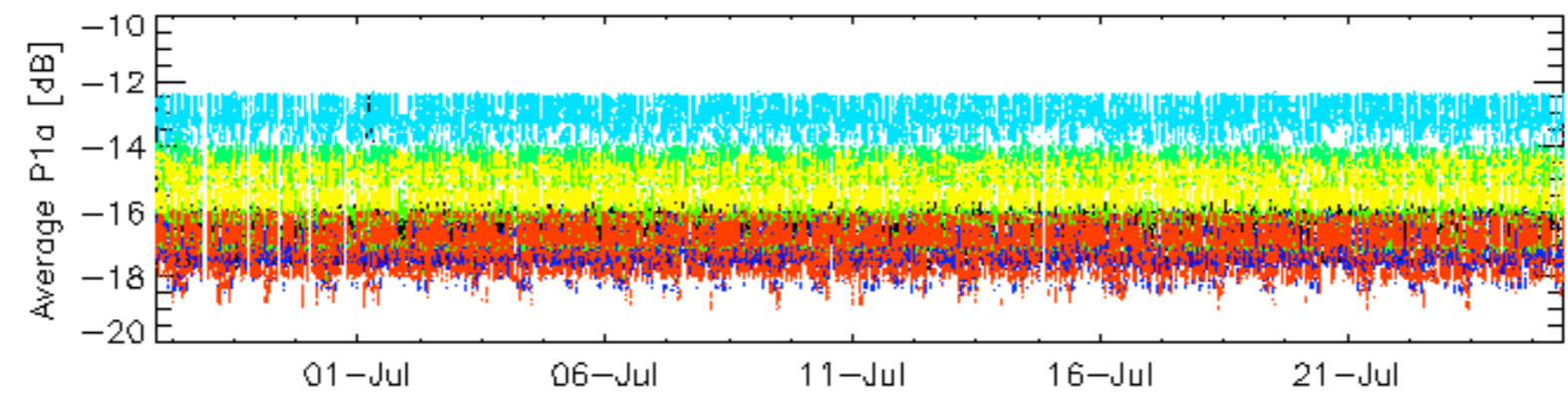
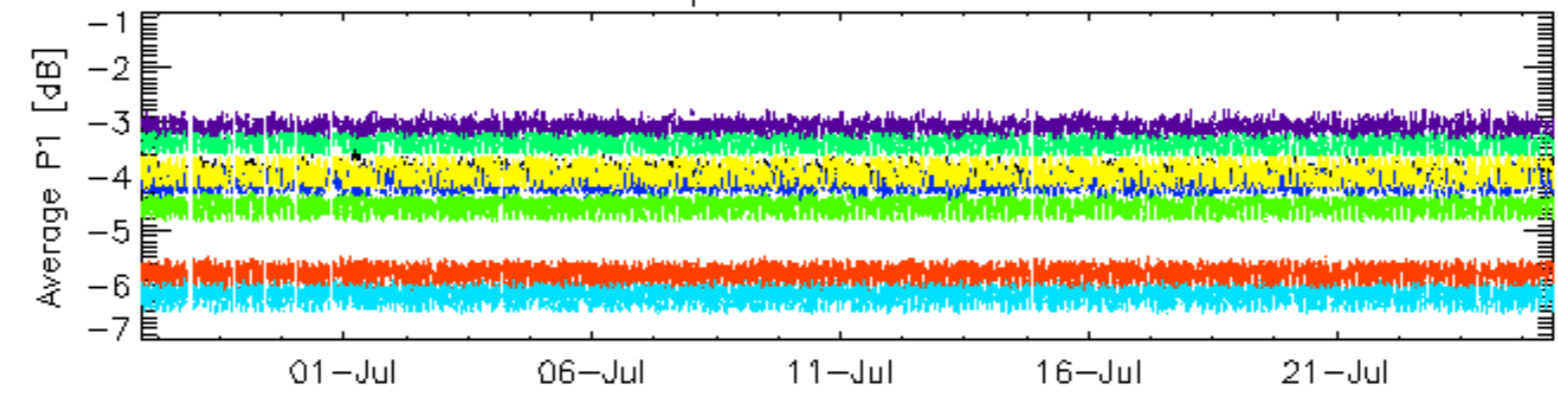


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

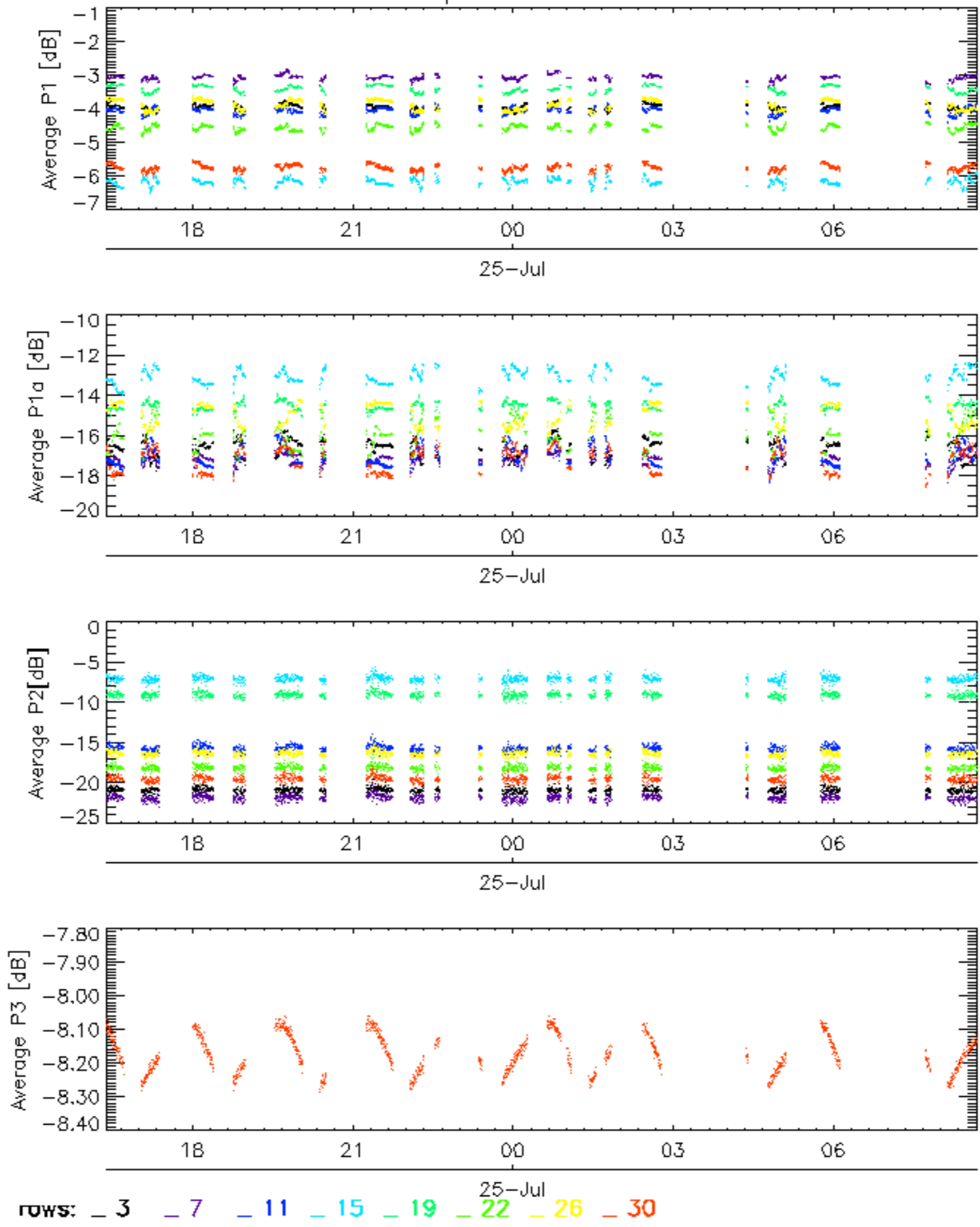


Cal pulses for WVS IS2



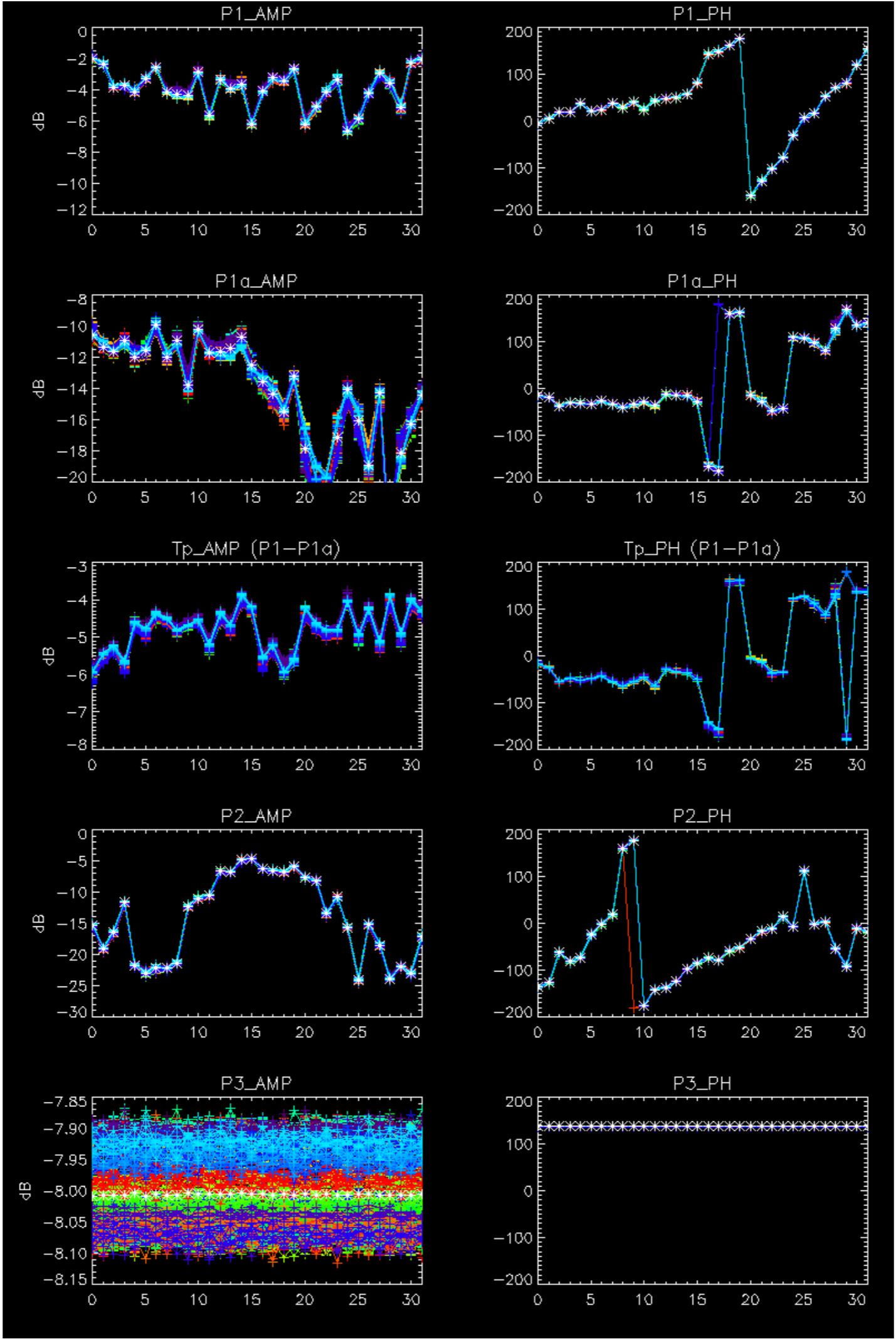
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

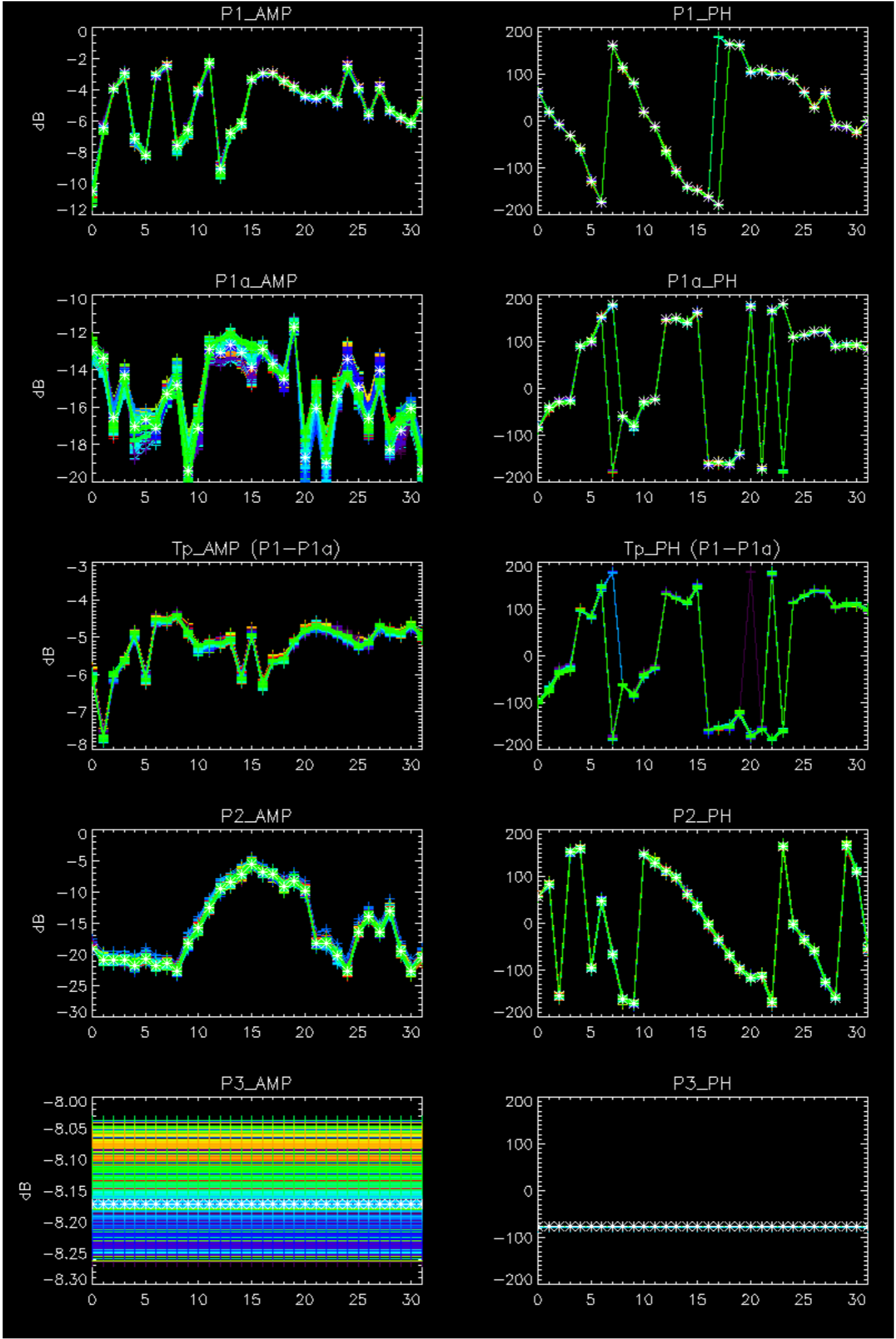
Cal pulses for WVS IS2



No anomalies observed on available browse products

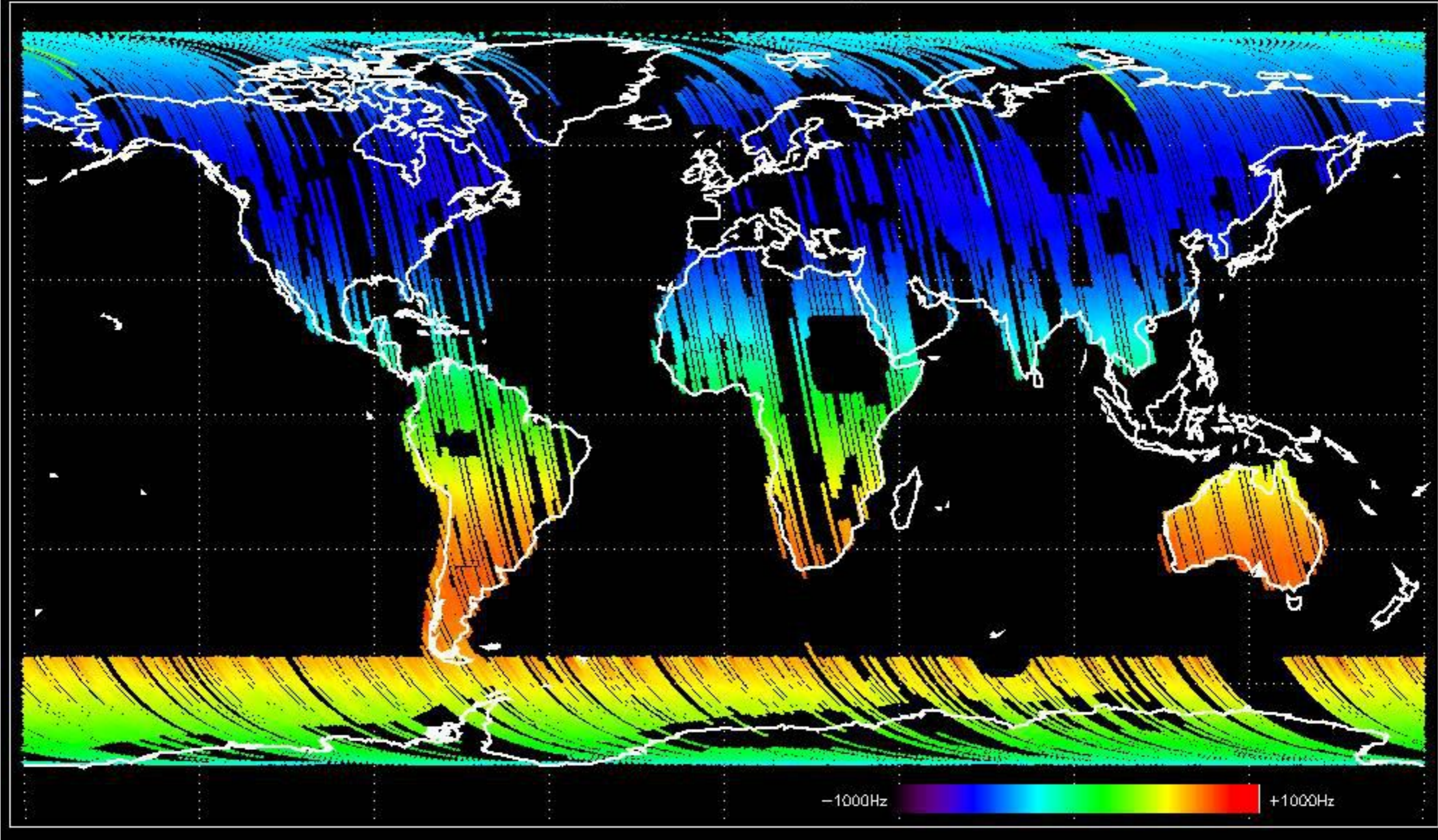
No anomalies observed.



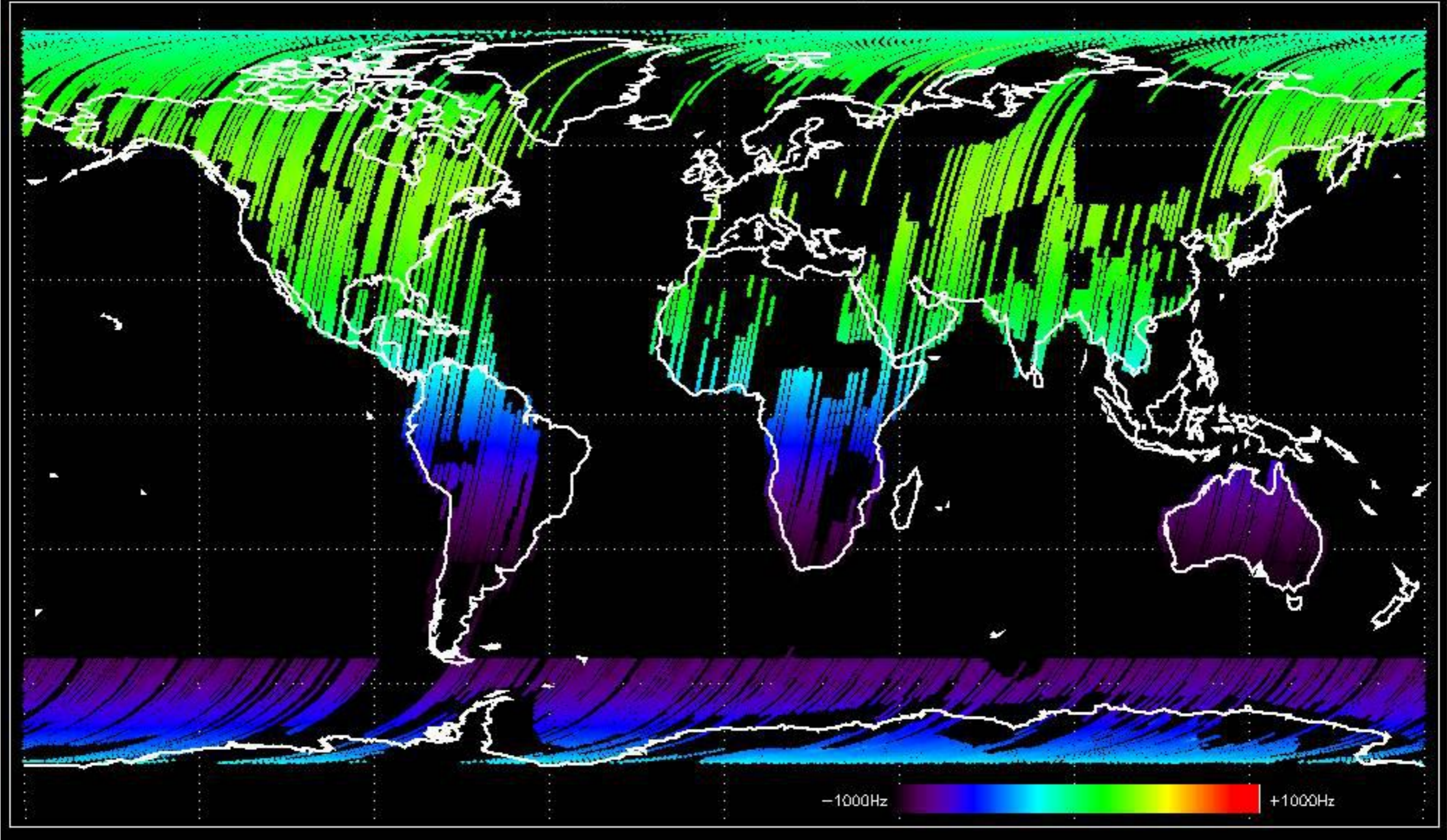


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

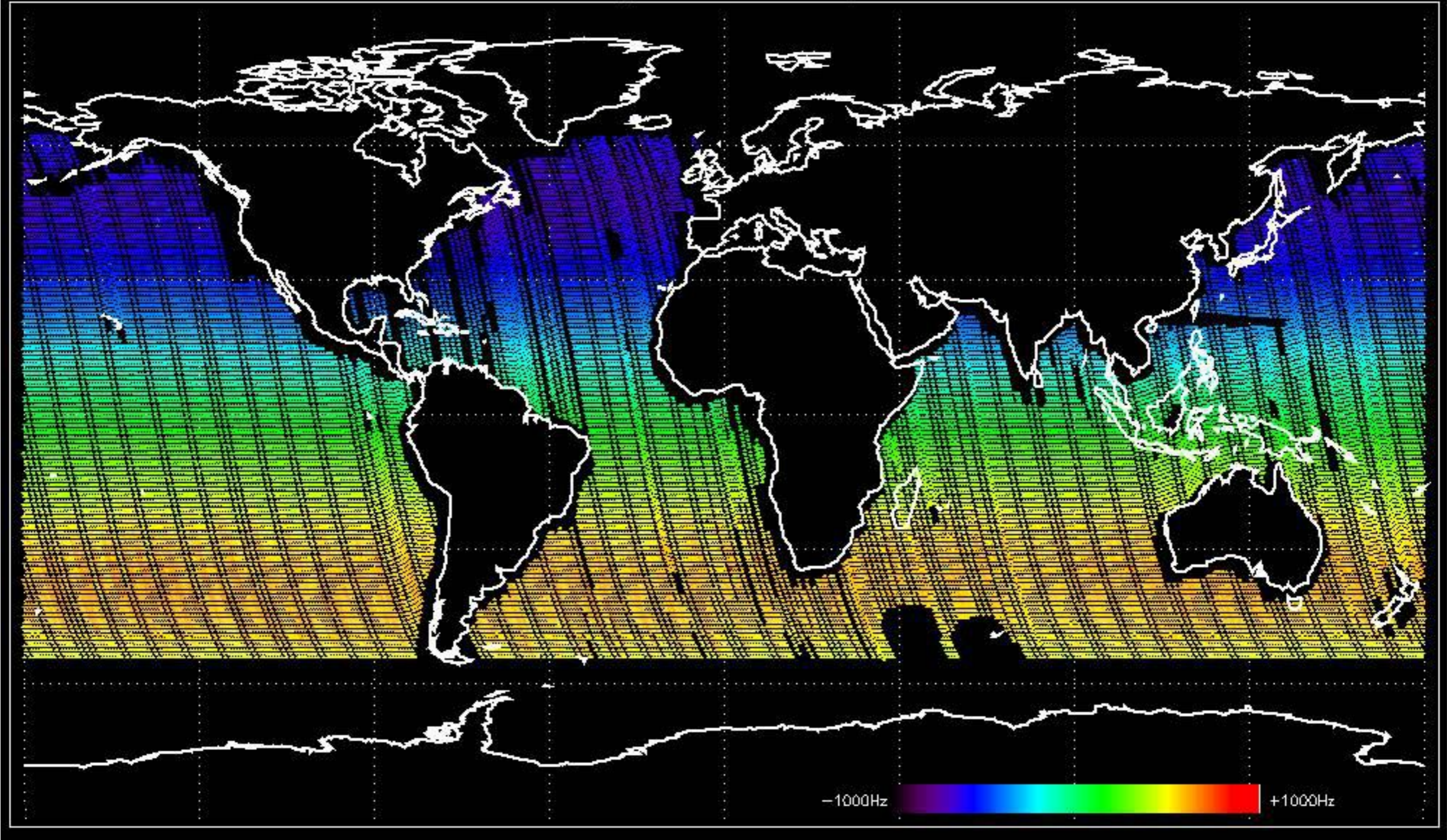
Doppler 'GM1' 'SS1' ascending



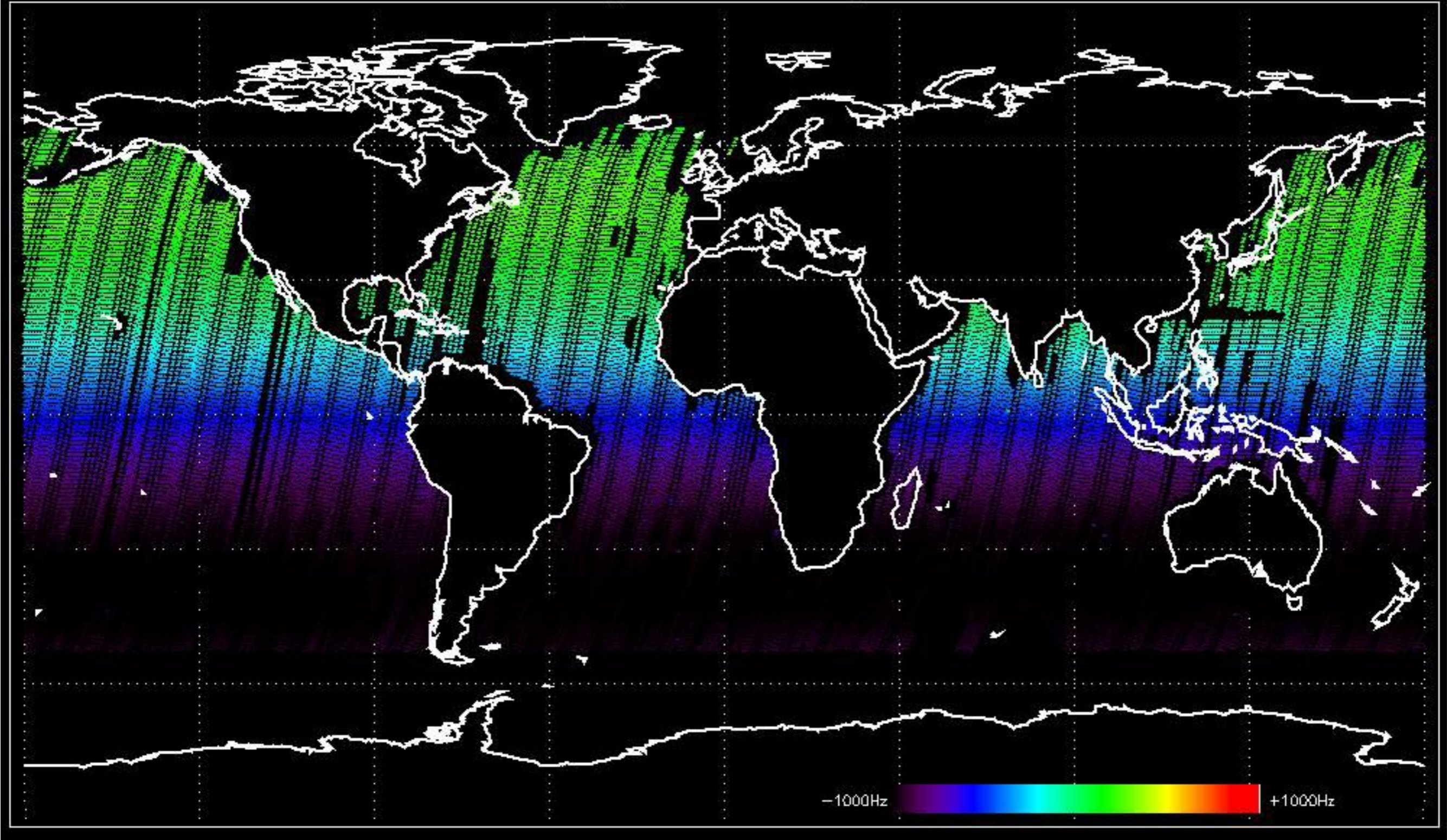
Doppler 'GM1' 'SS1' descending



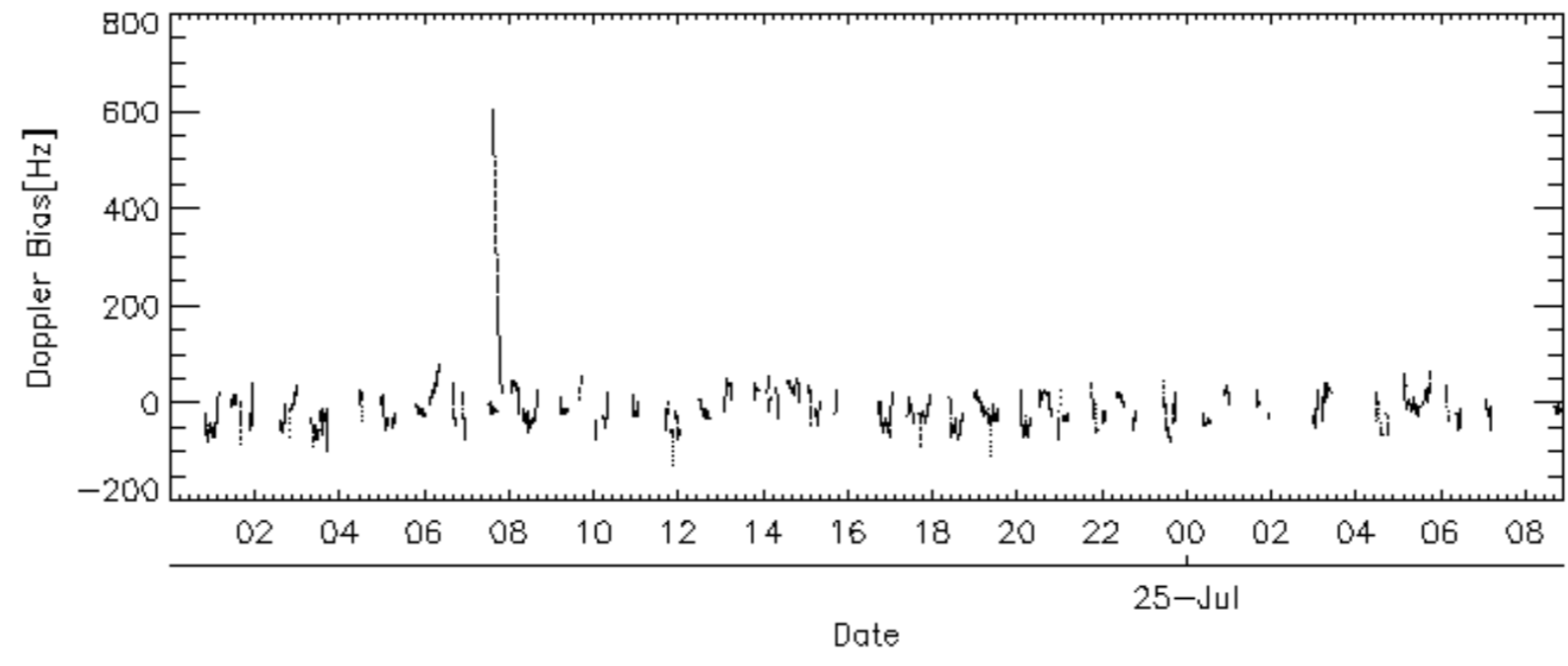
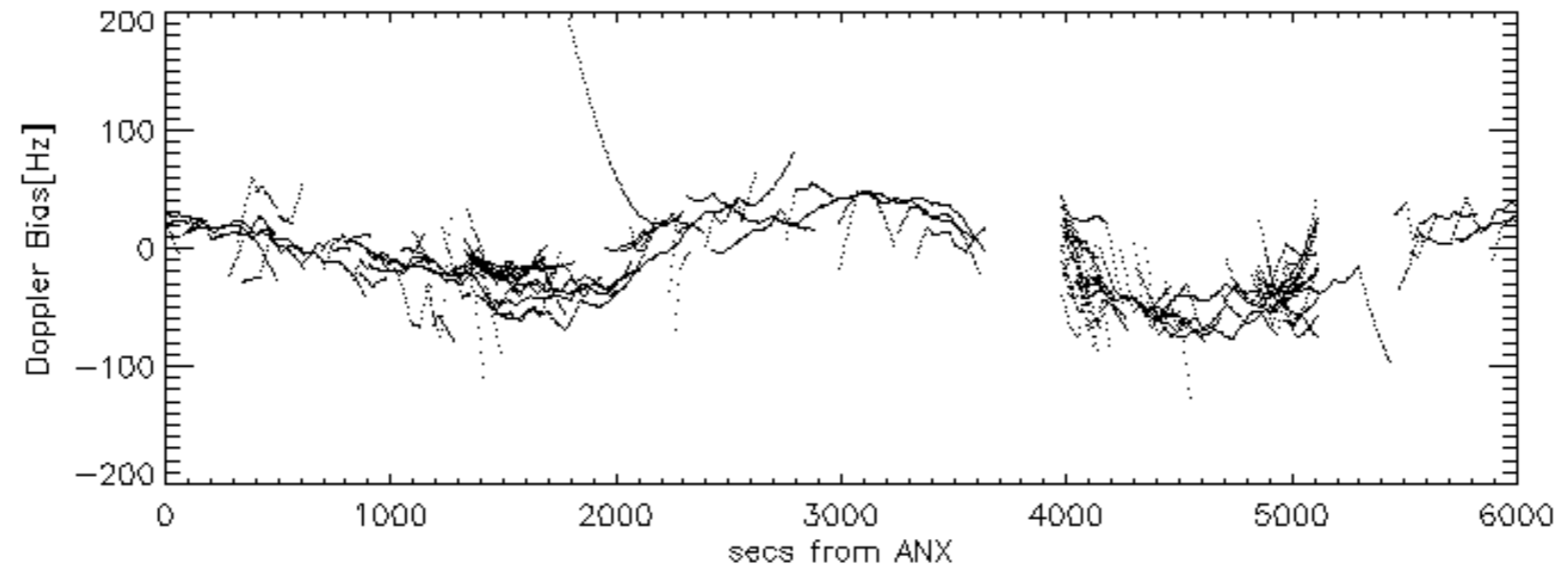
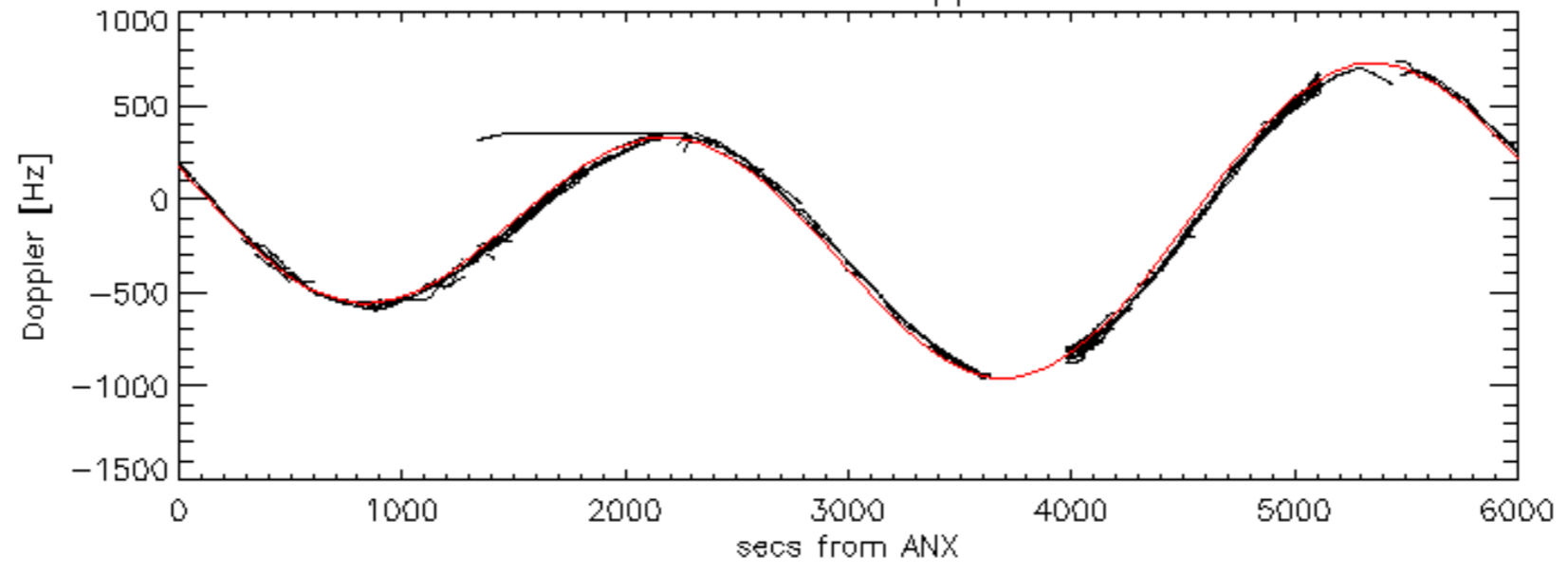
Doppler 'WVS' 'IS2' ascending

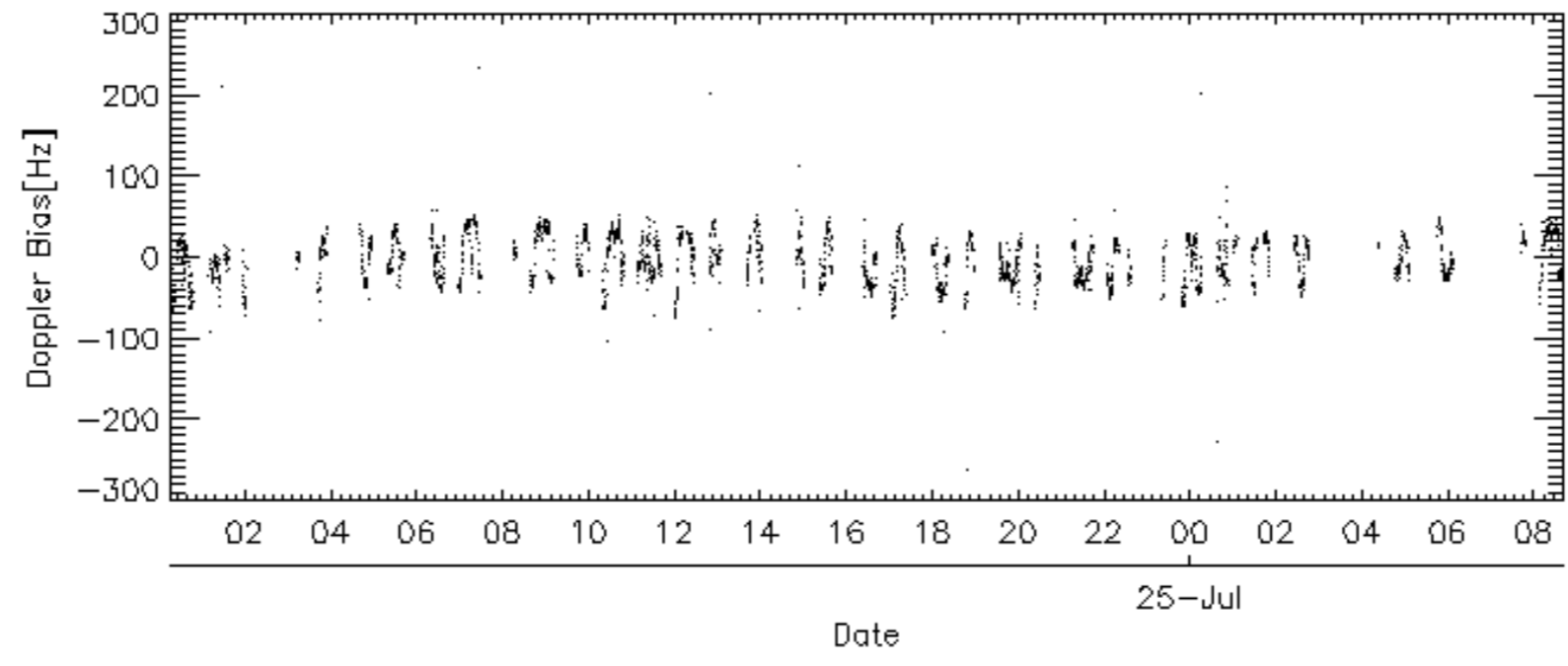
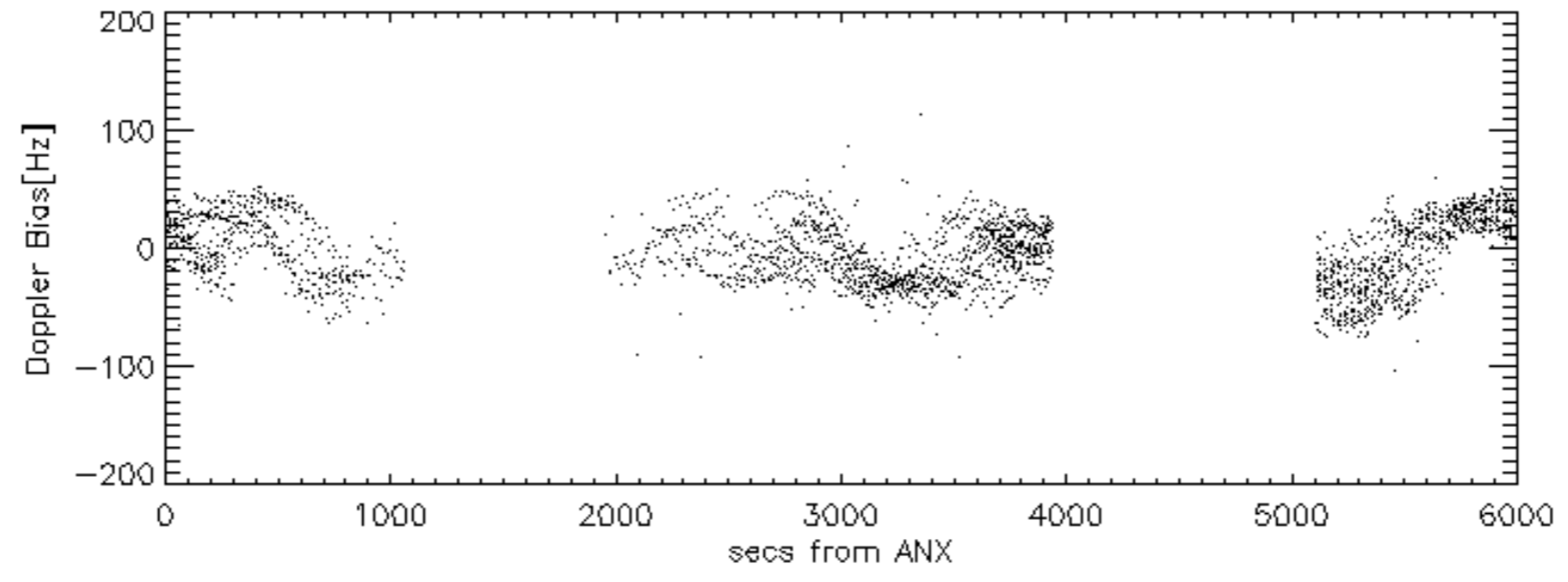
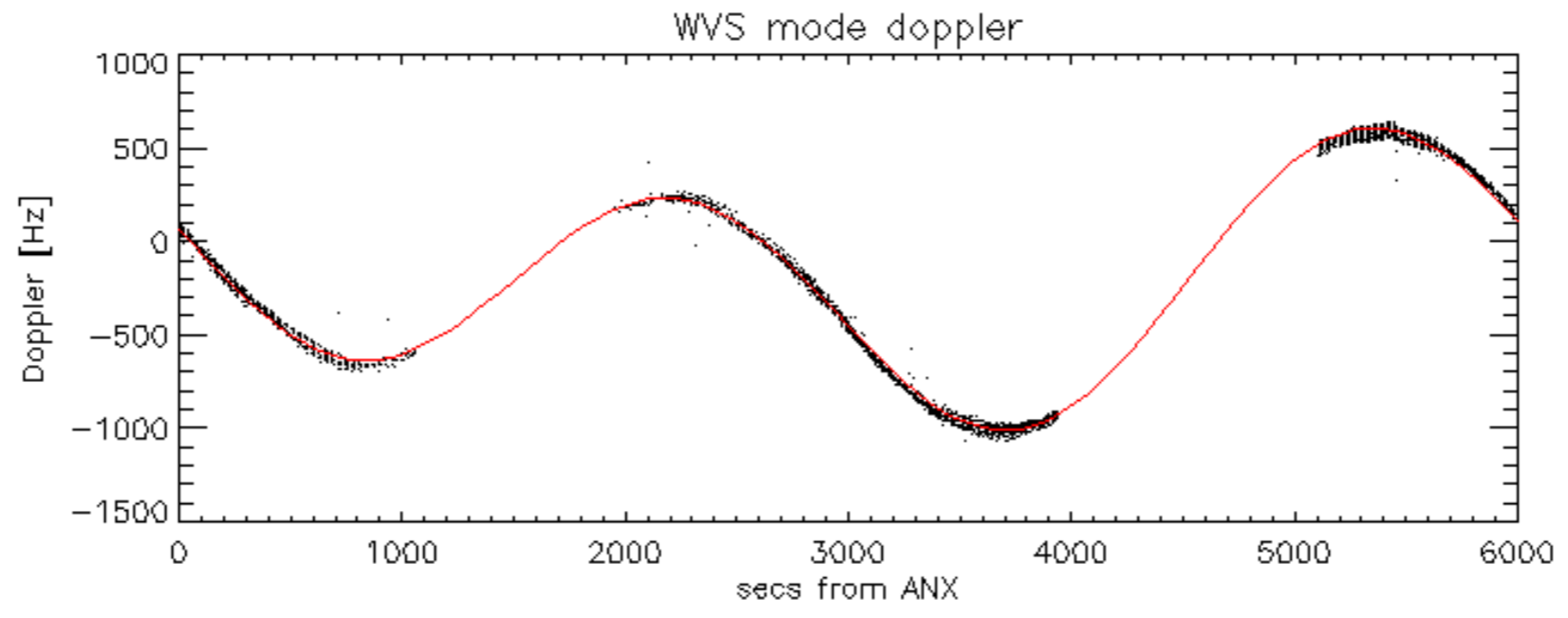


Doppler 'WVS' 'IS2' descending

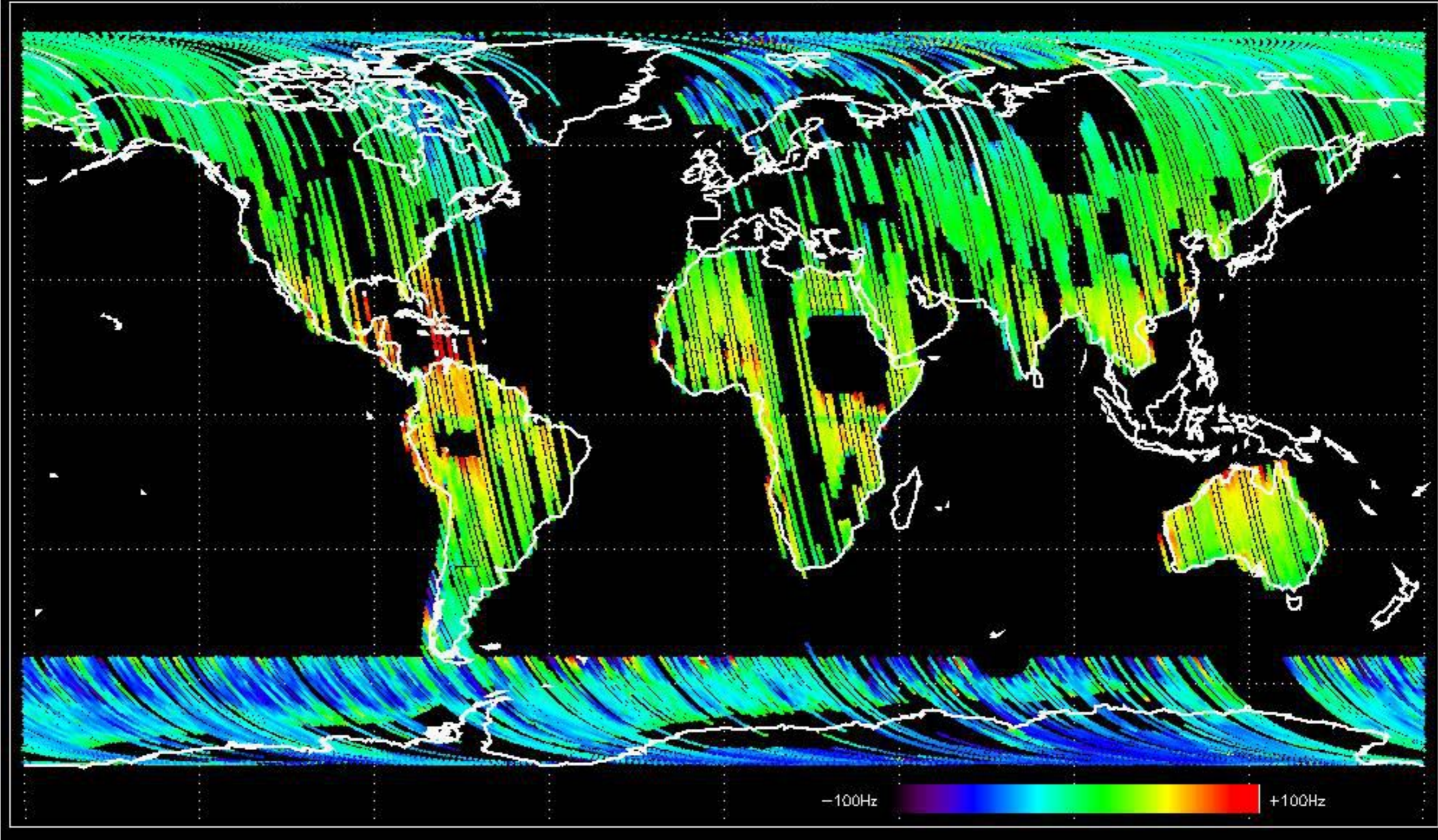


GM1 mode doppler

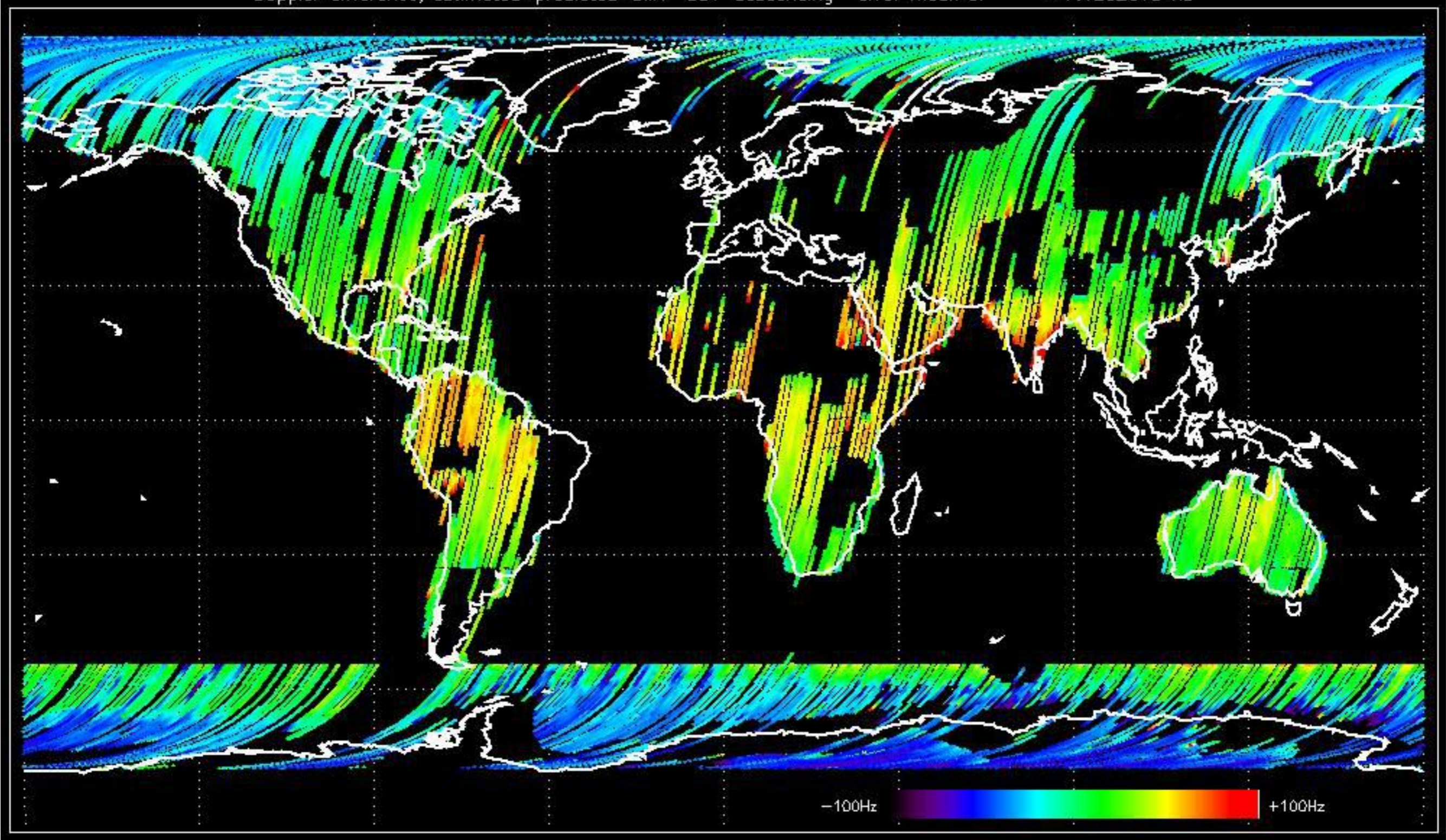




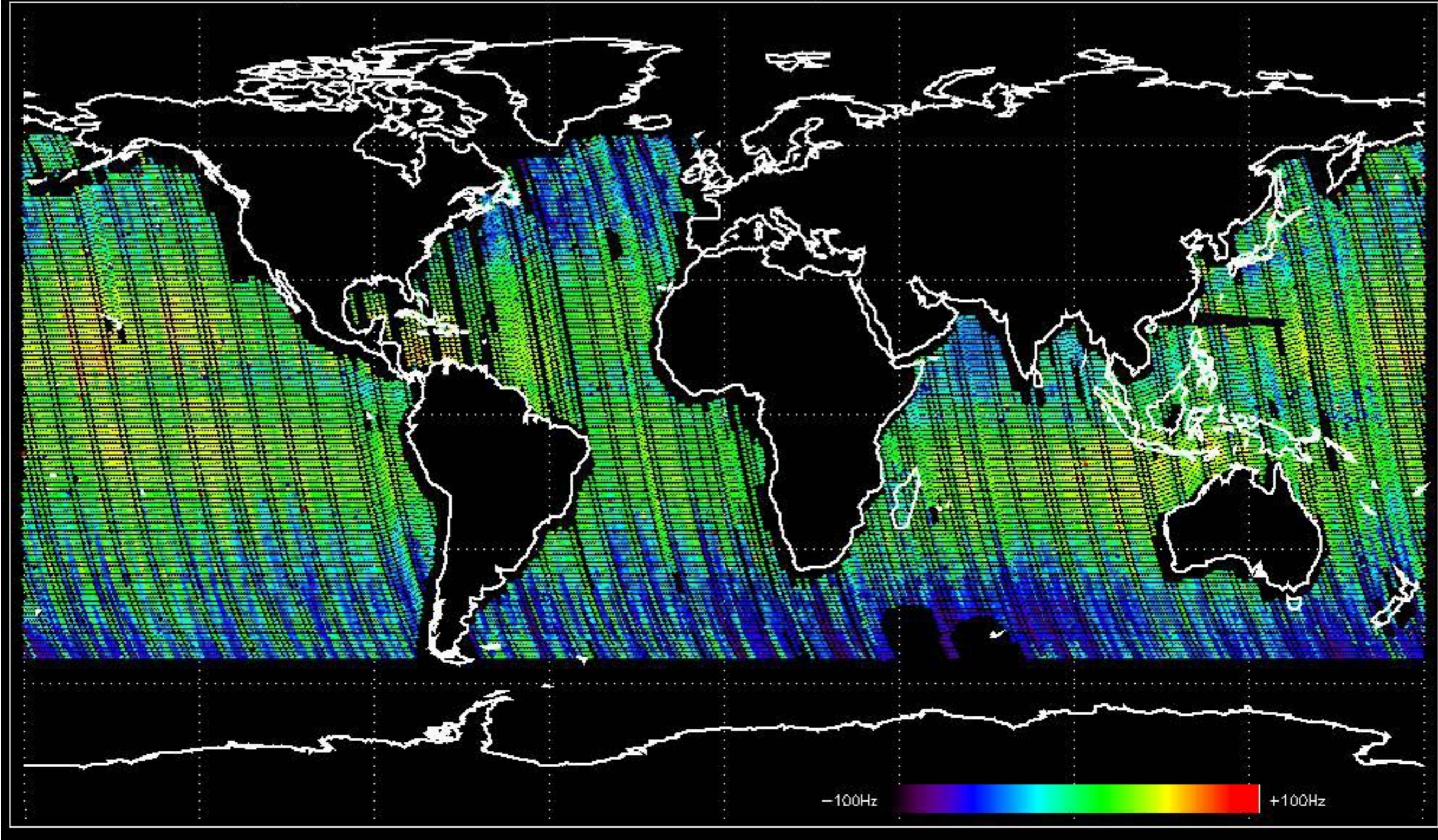
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.913981 Hz



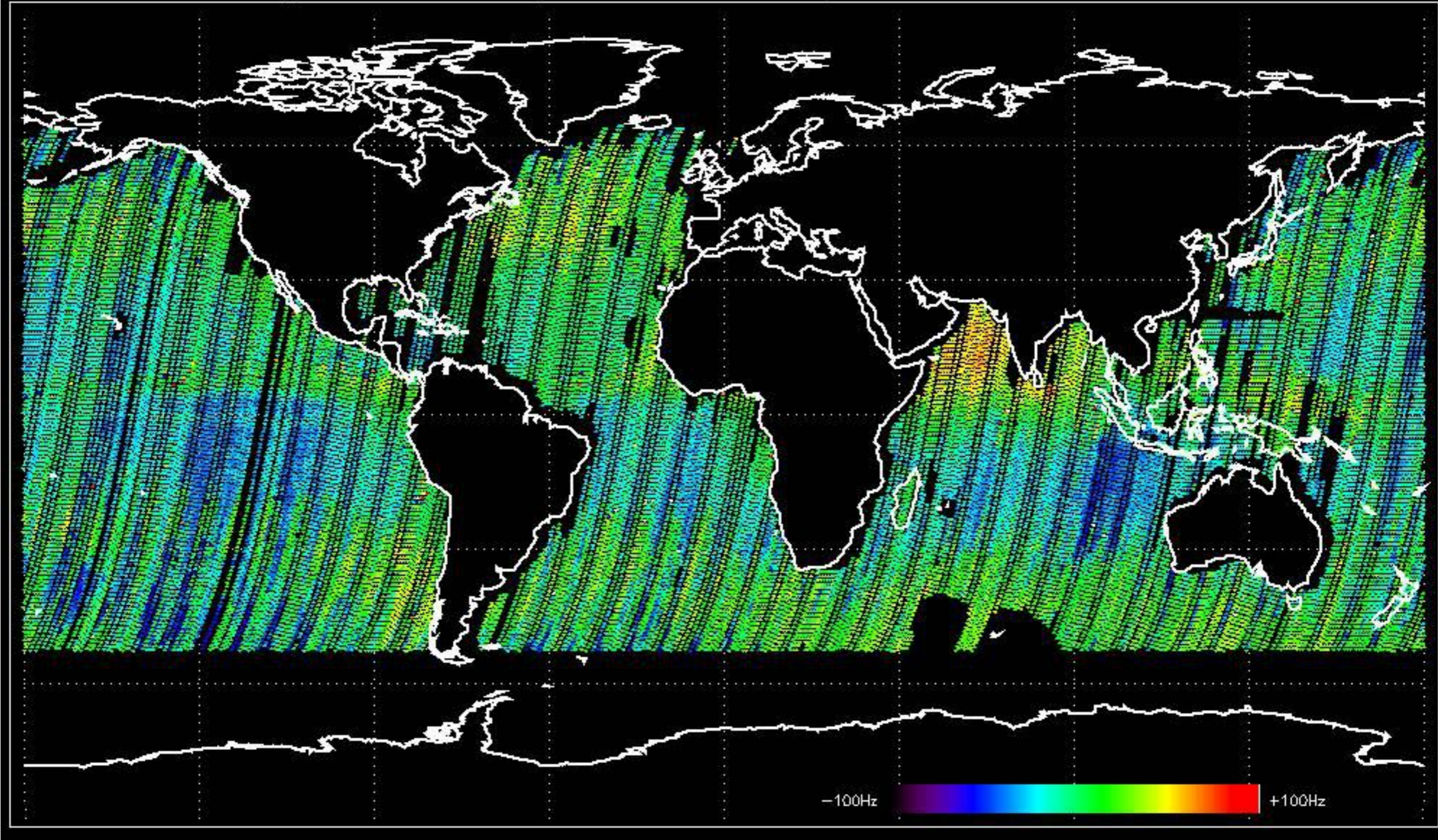
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.1202618 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.6395862 Hz

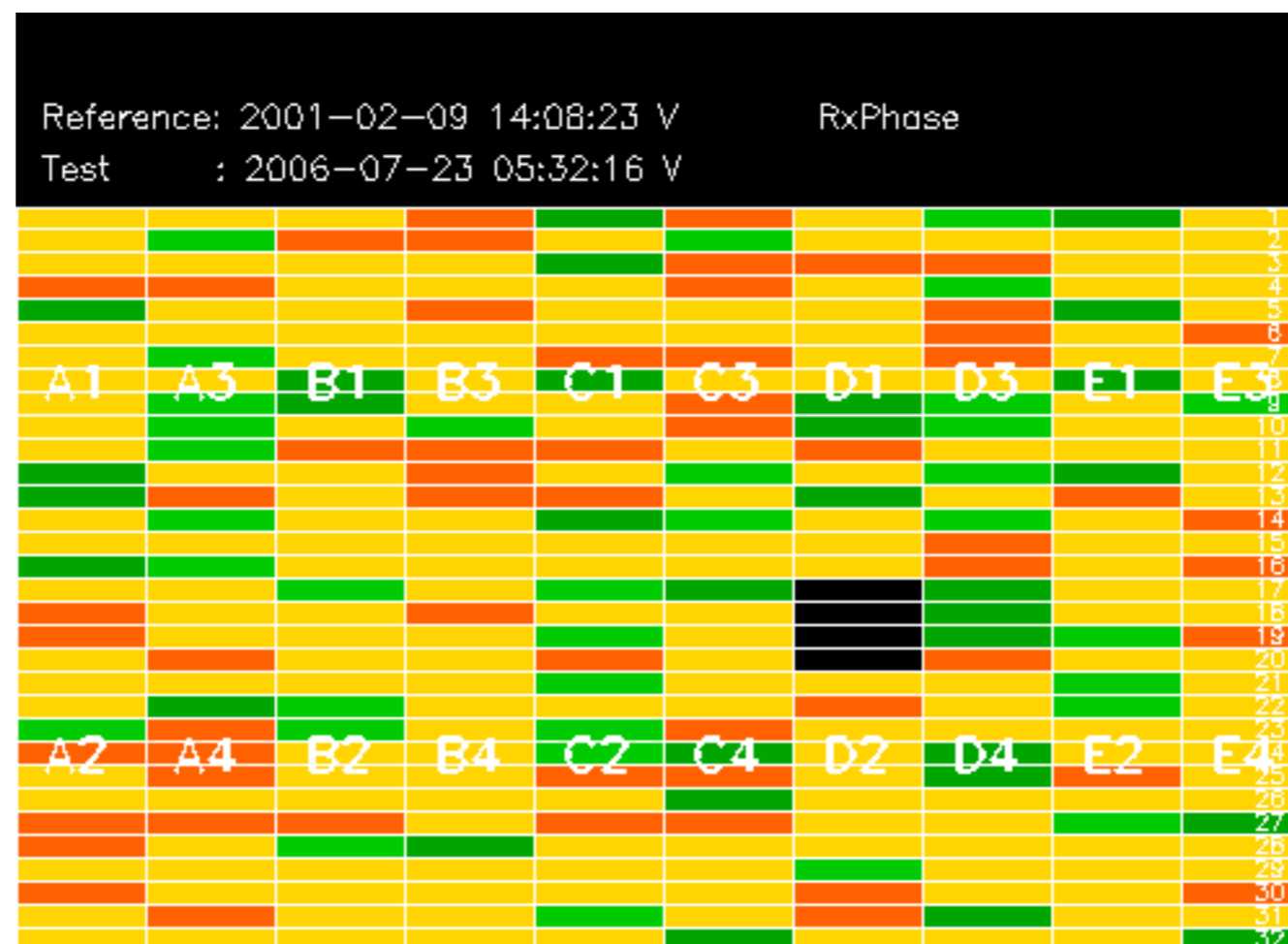


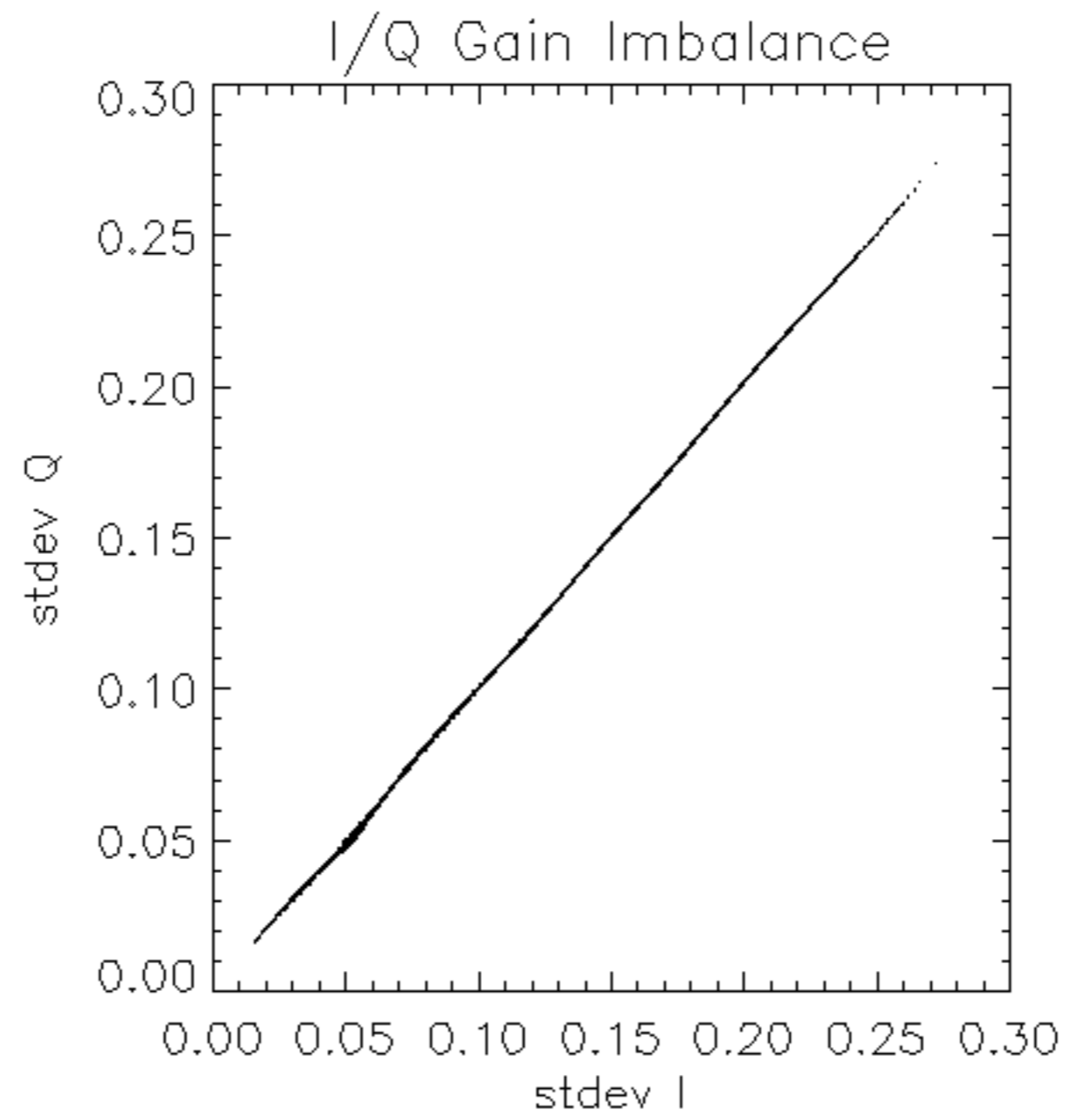
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9331521 Hz

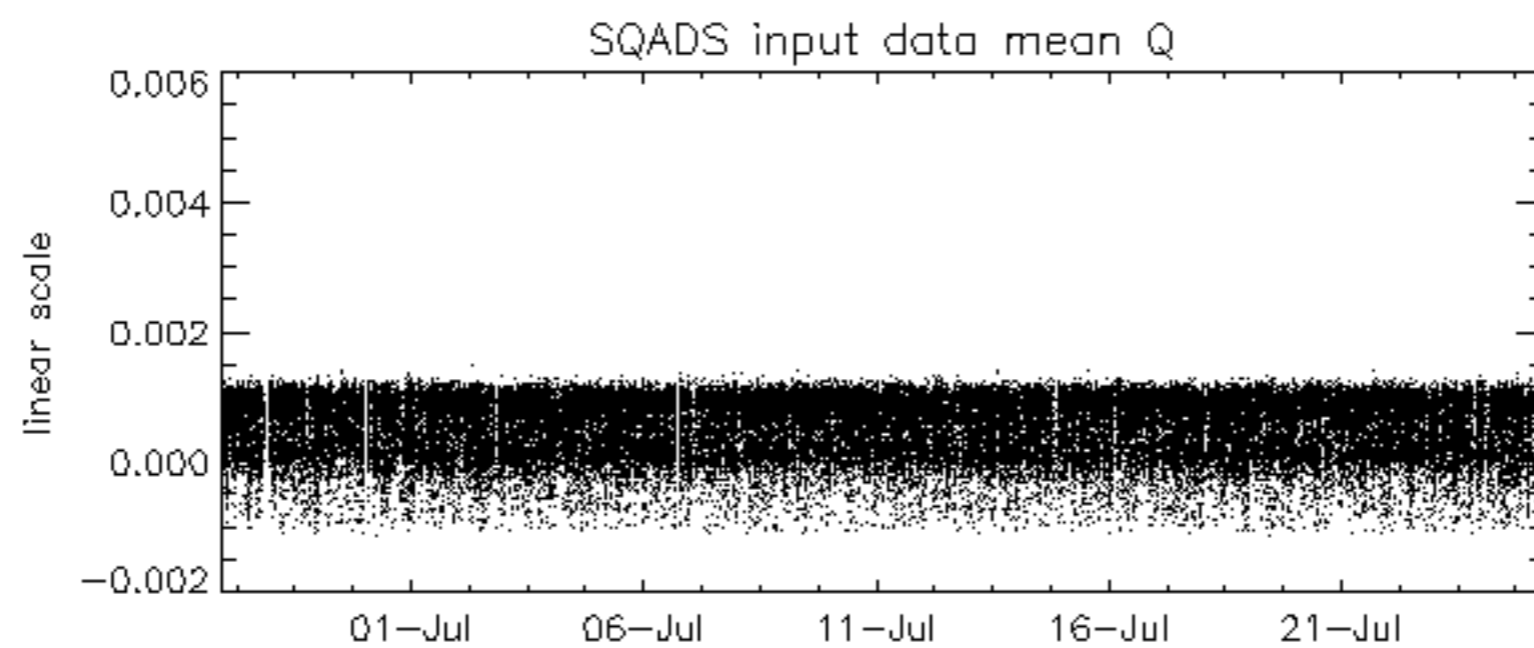
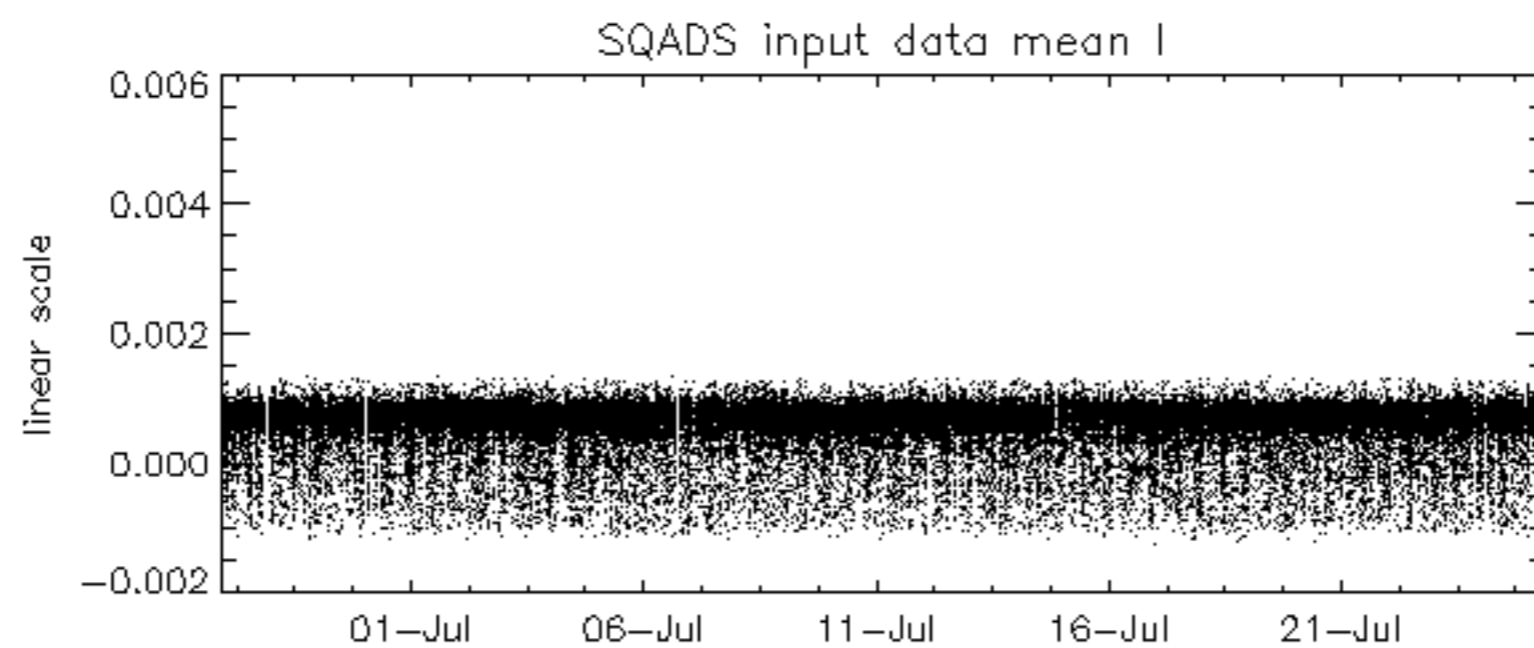
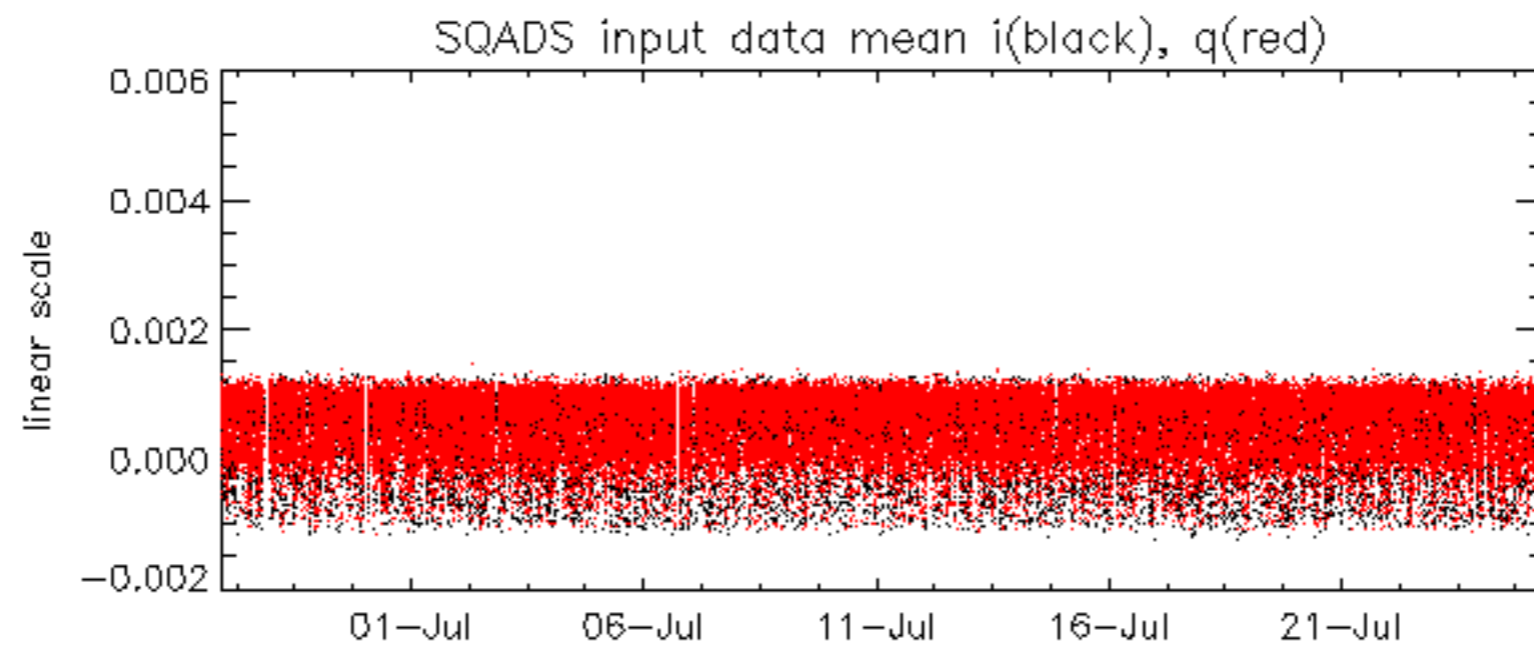


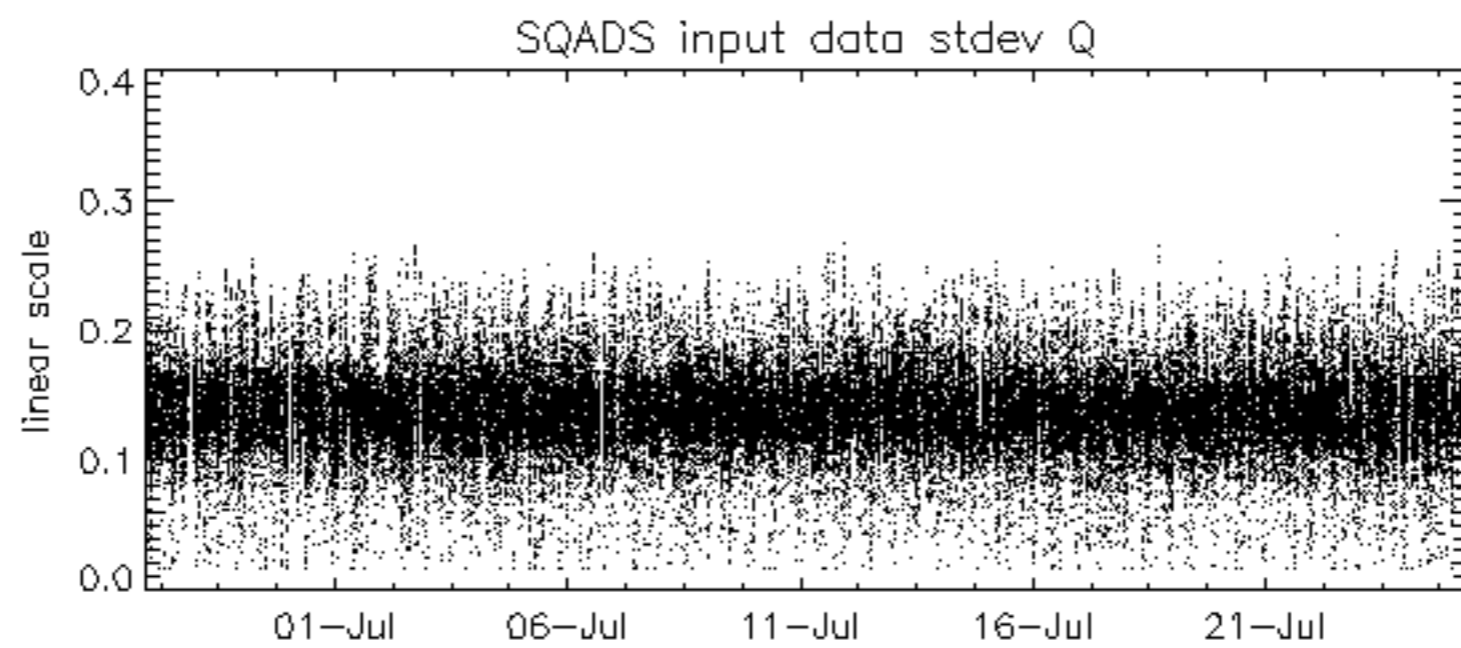
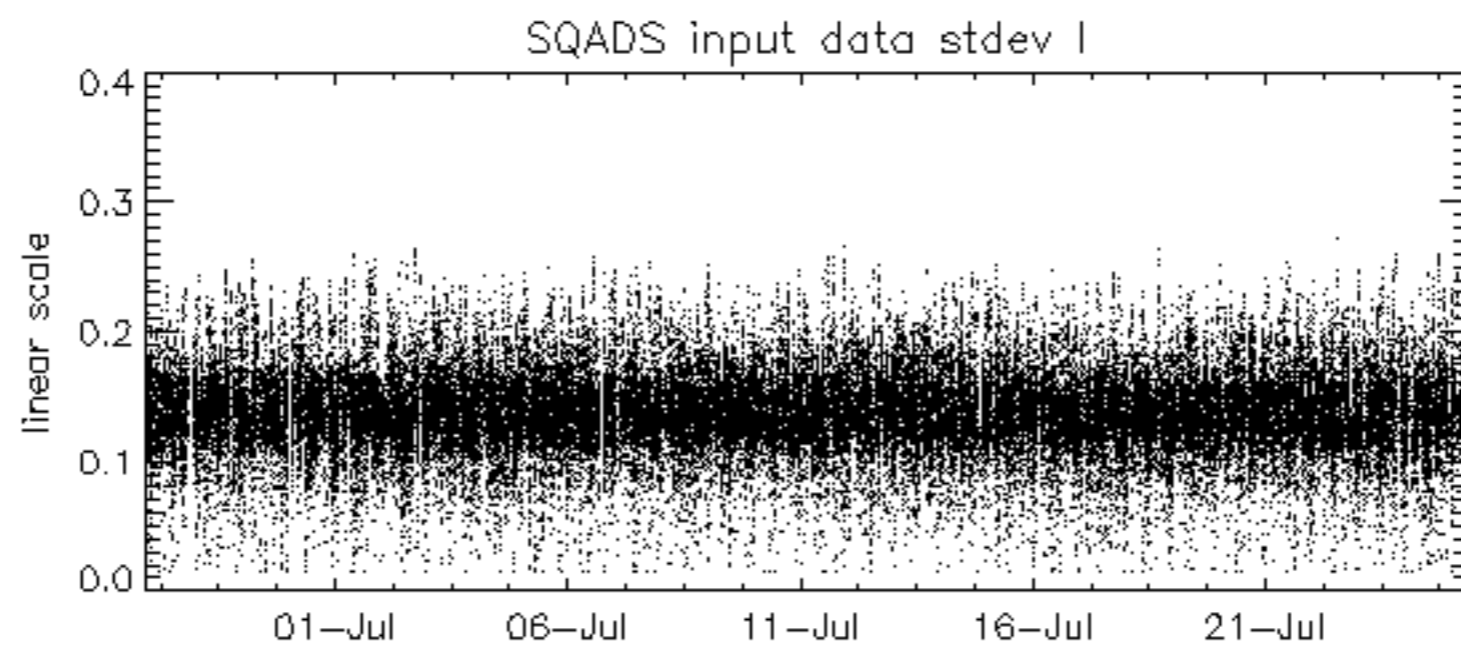
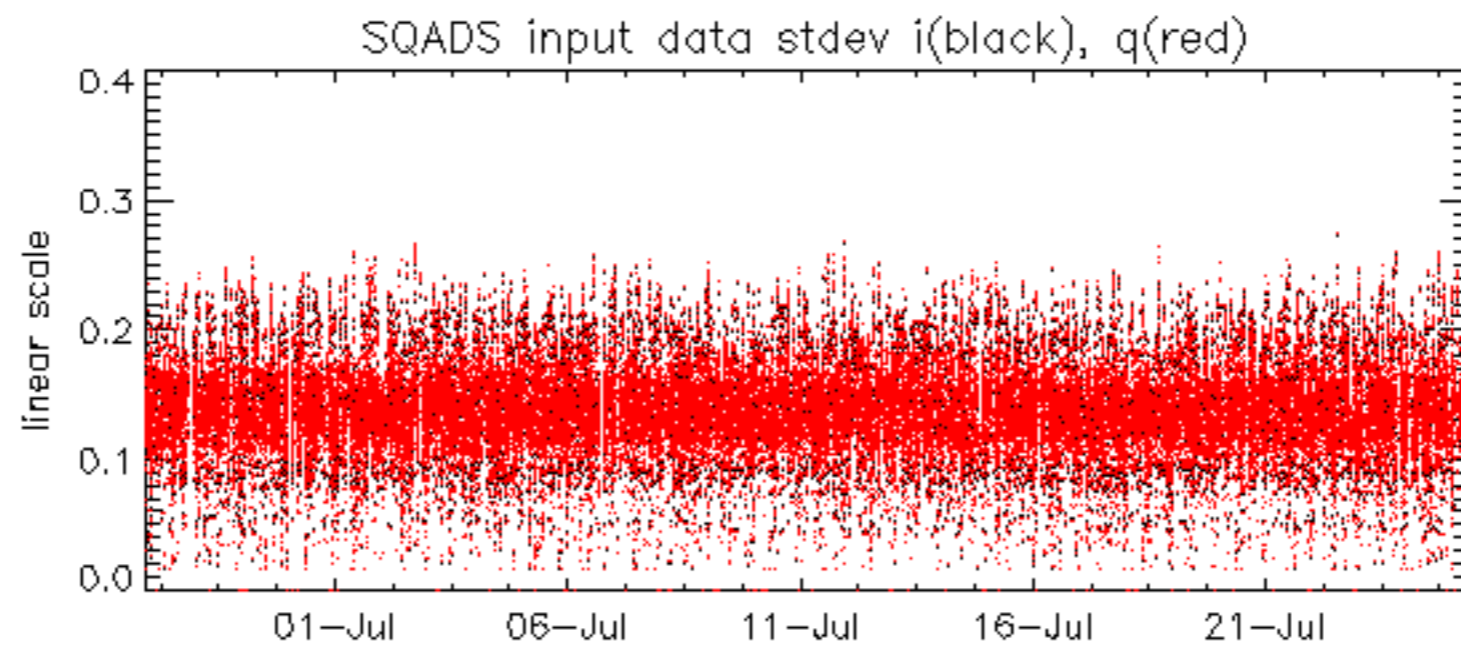
No anomalies observed on available MS products:

No anomalies observed.





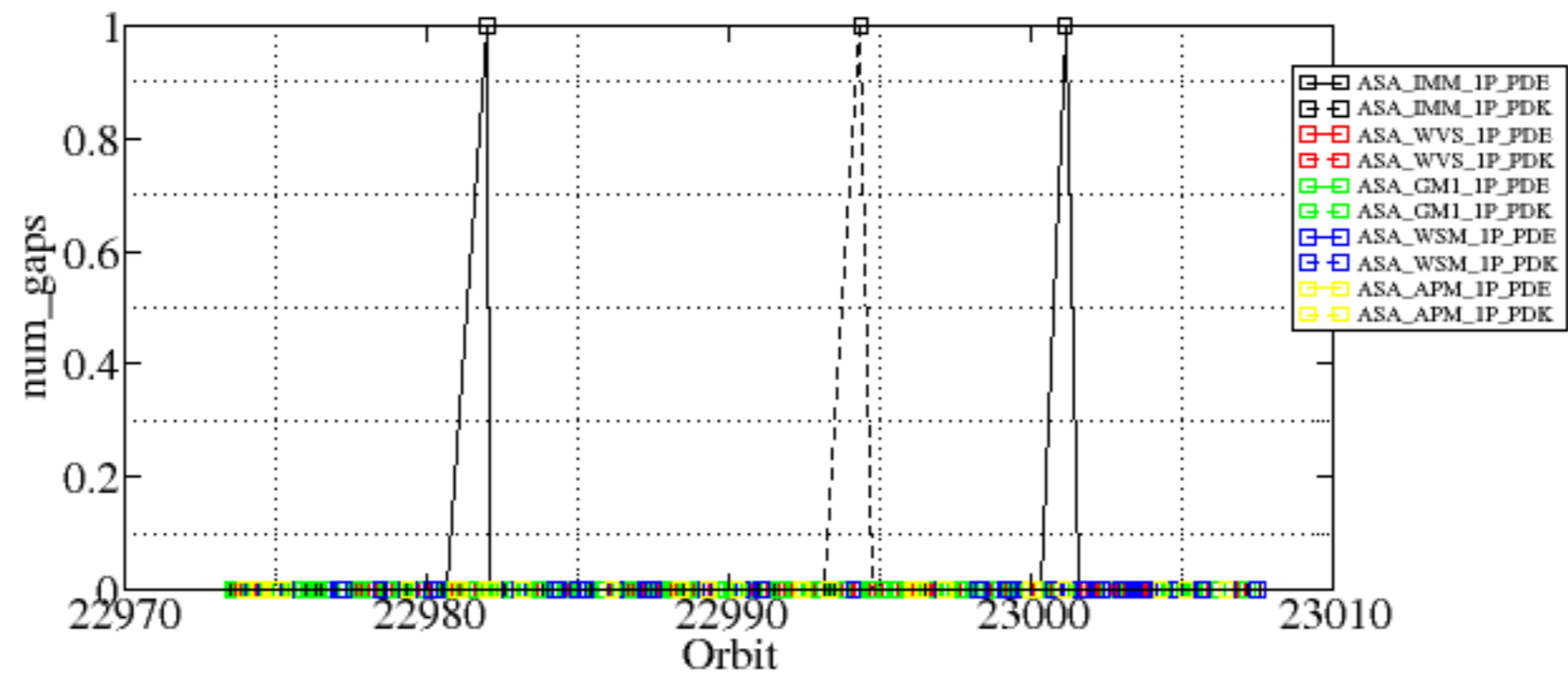


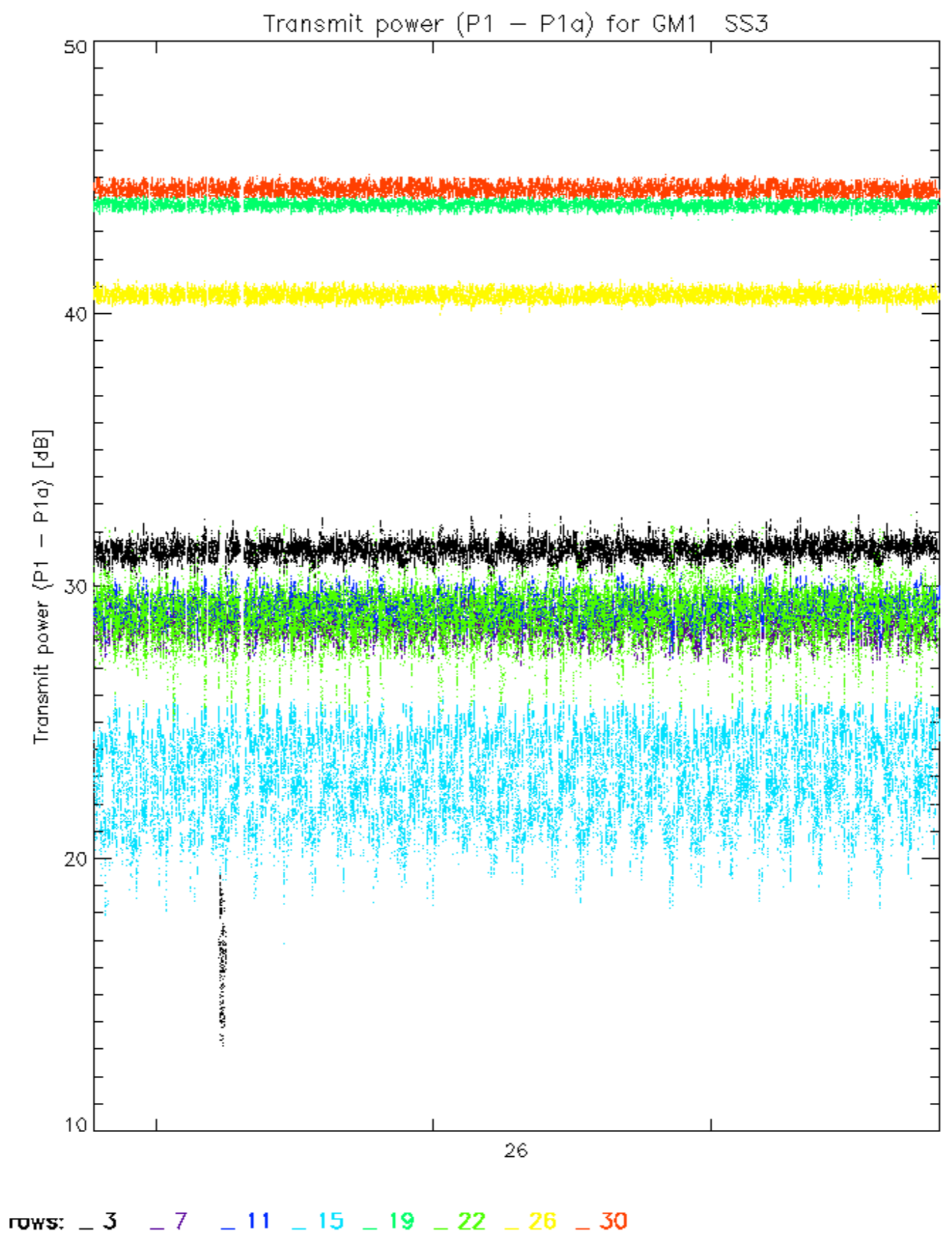


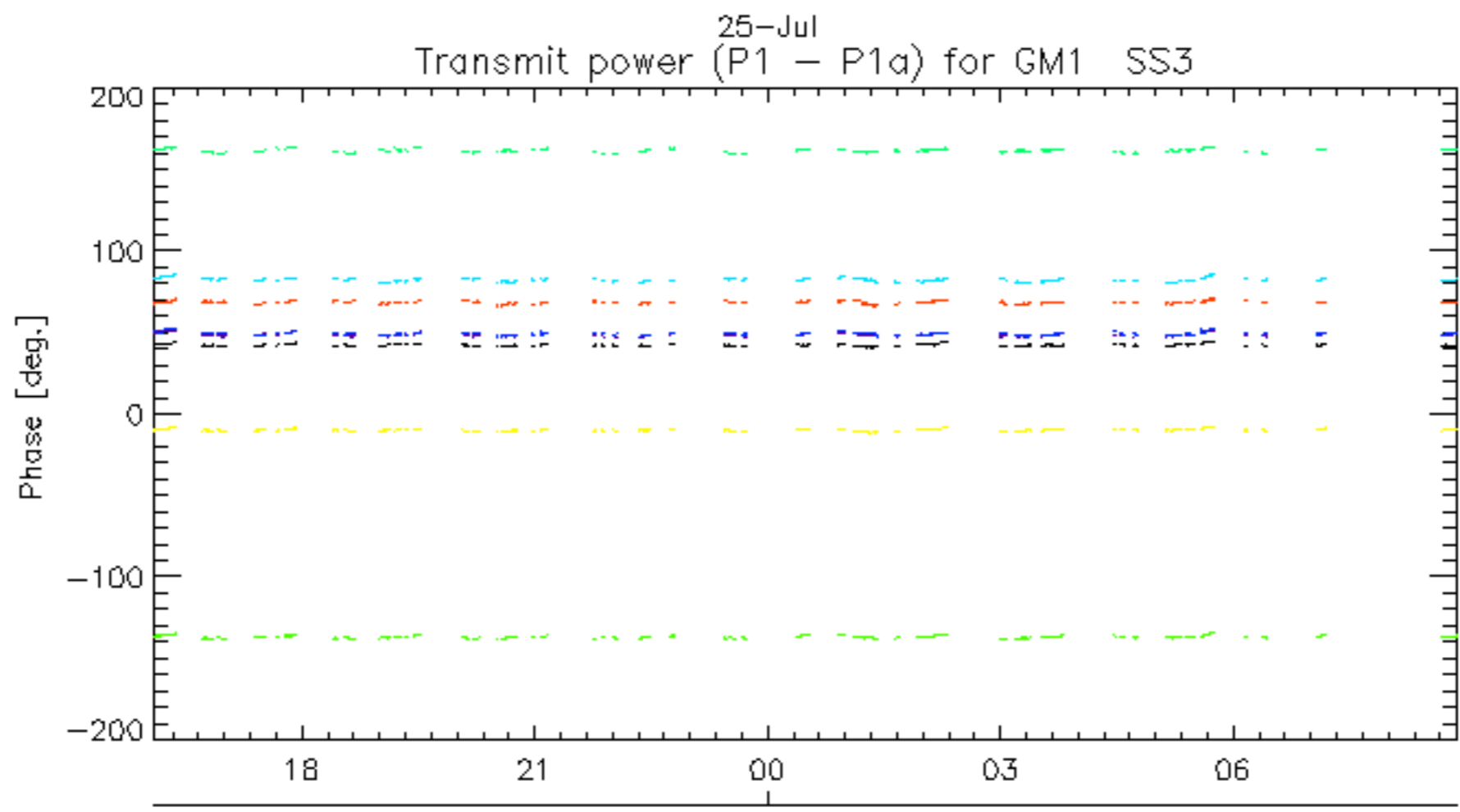
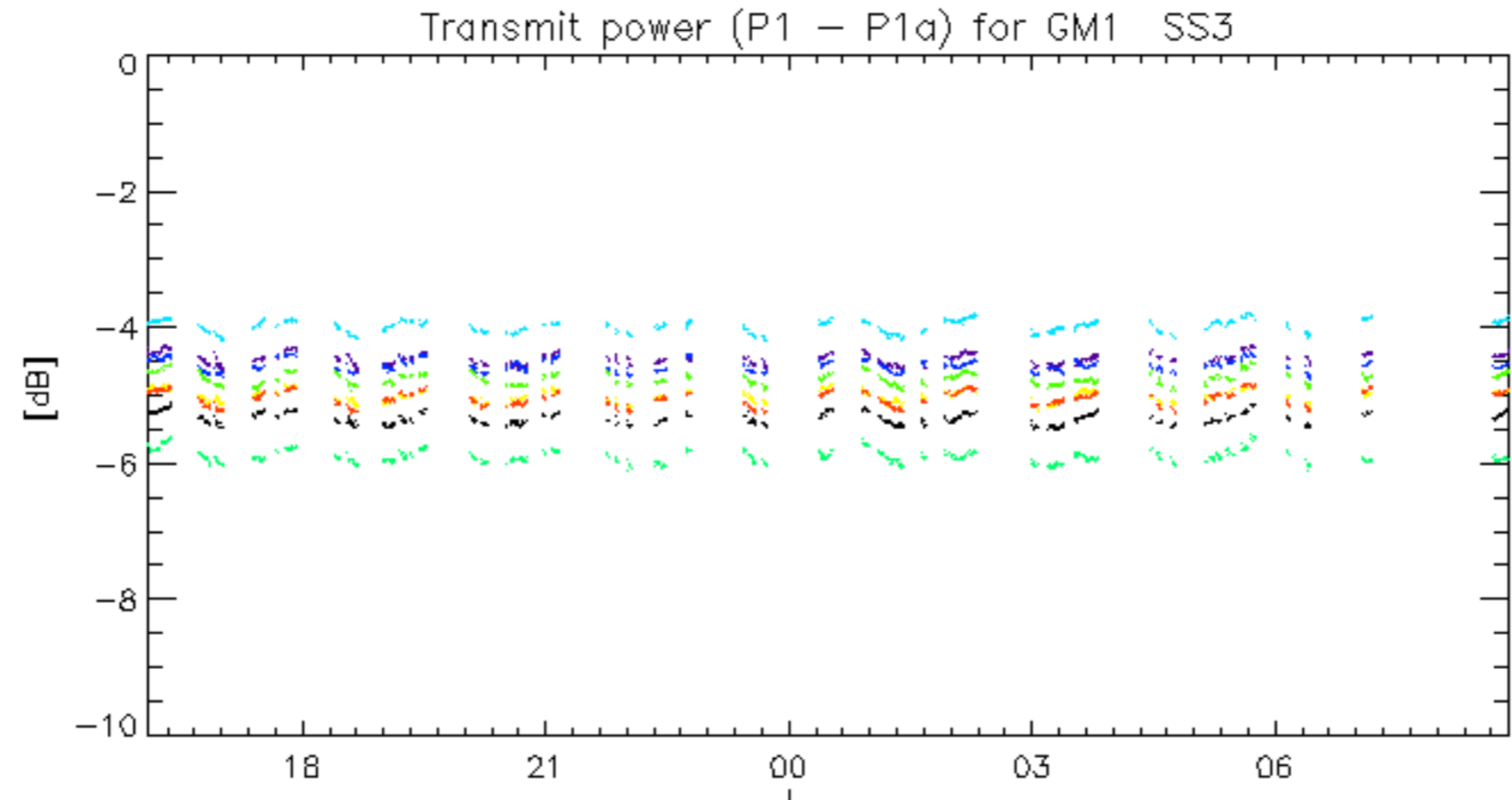
Summary of analysis for the last 3 days 2006072[345]

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

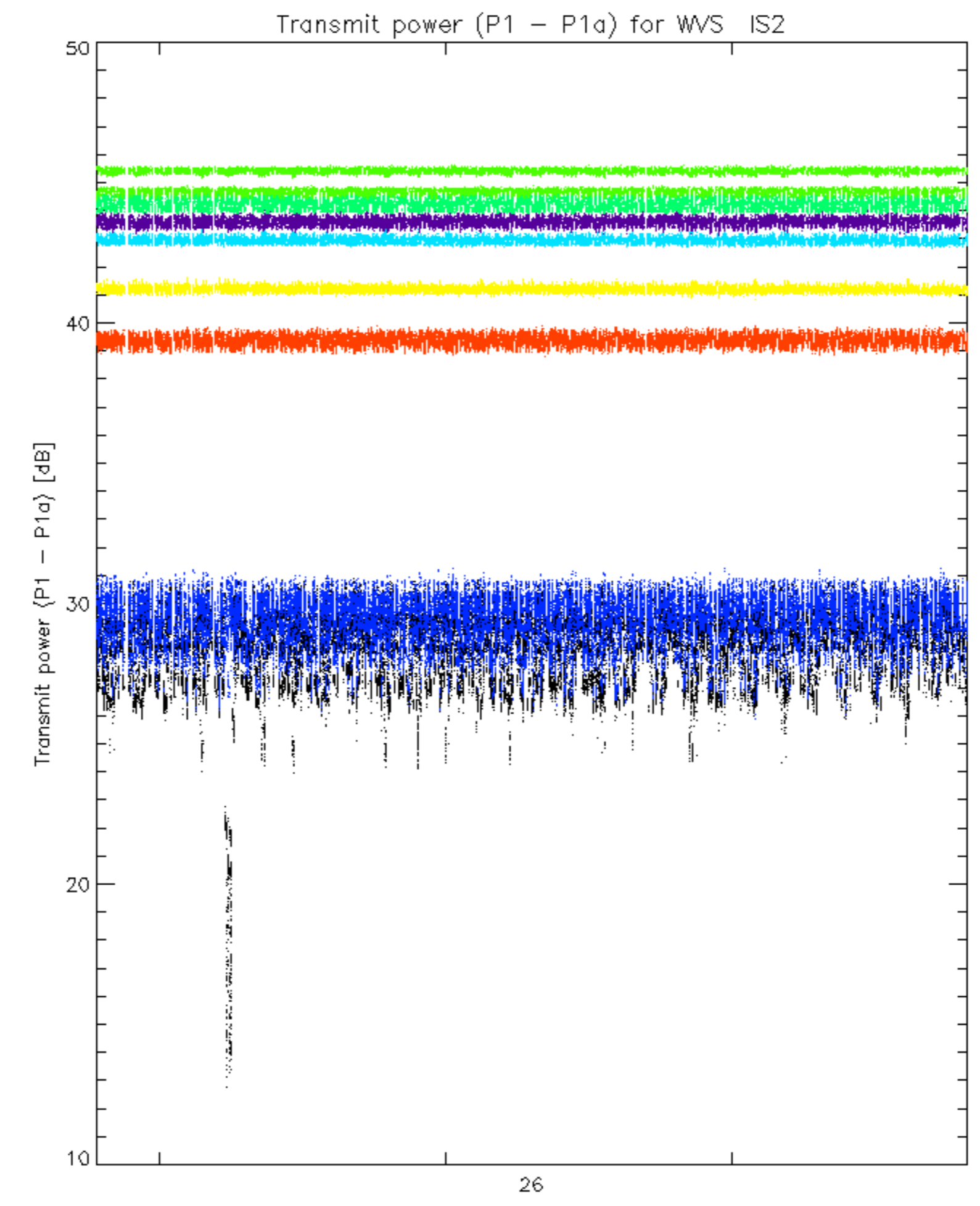
Filename	num_gaps	num_missing_lines
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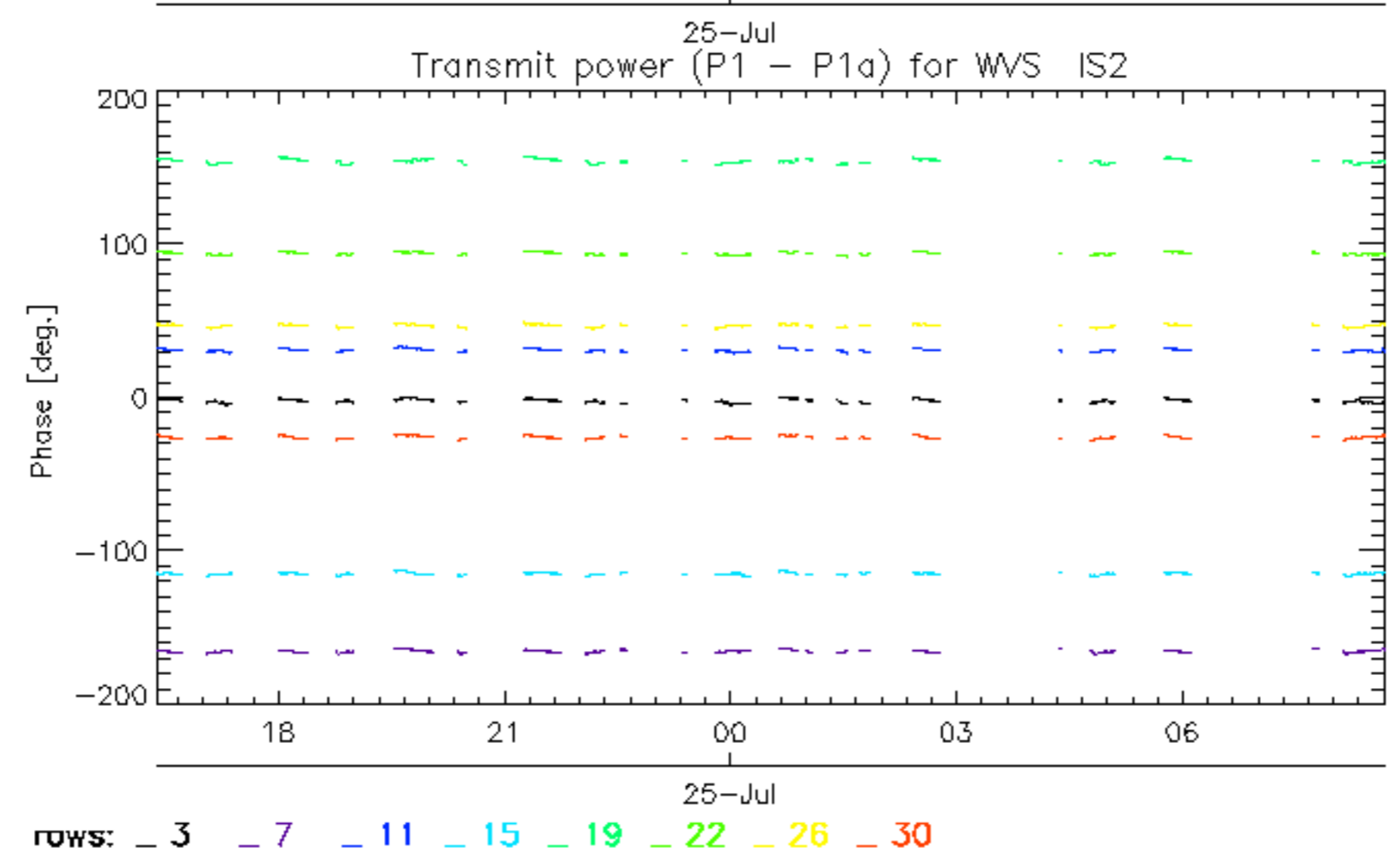
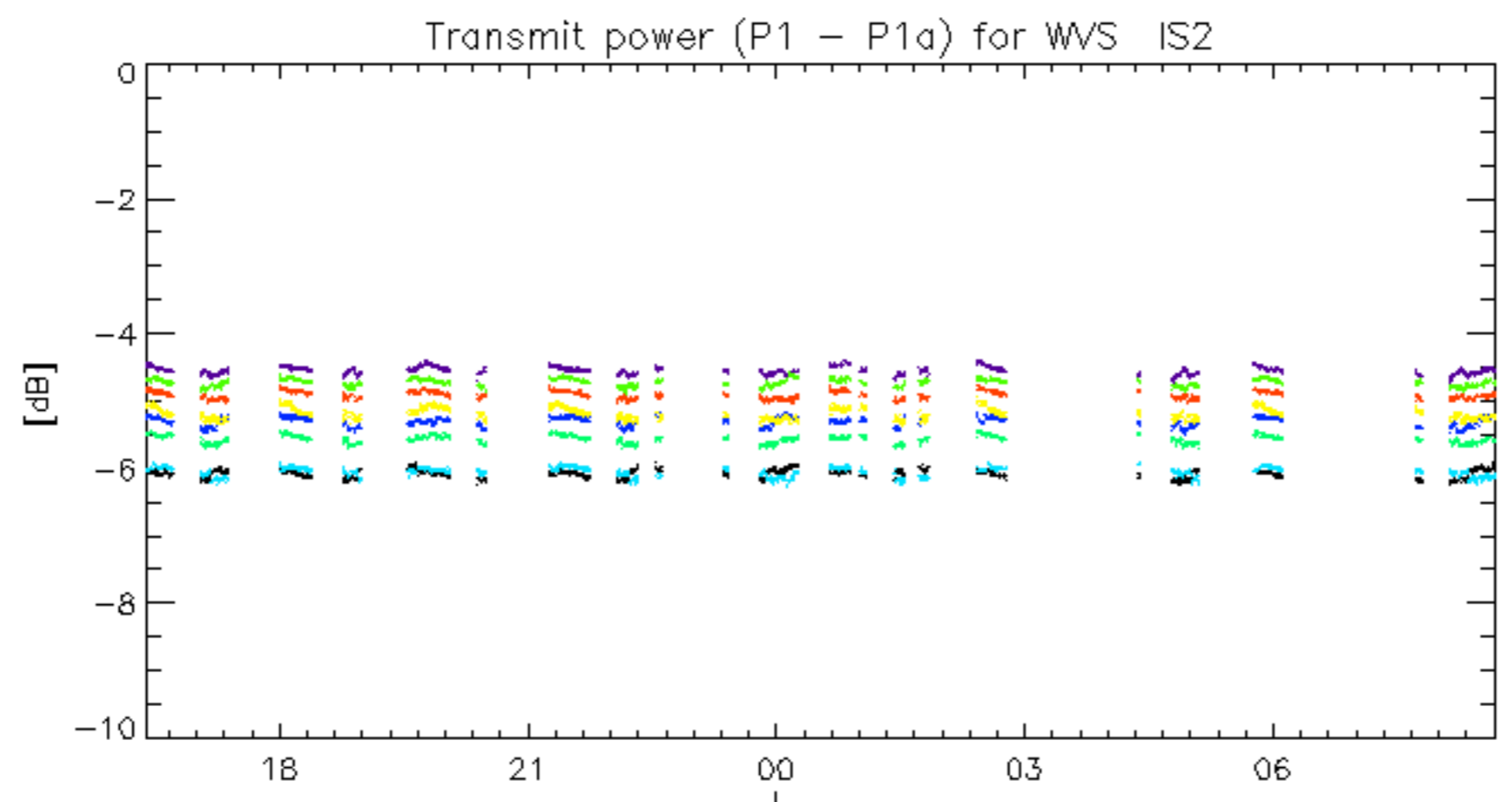




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



No unavailabilities during the reported period.