

PRELIMINARY REPORT OF 060707

last update on Fri Jul 7 16:50:34 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 2006-07-06 00:00:00 to 2006-07-07 16:50:34

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	68	13	5	5
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	68	13	5	5
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	68	13	5	5
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	68	13	5	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	46	22	12	77
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	46	22	12	77
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	46	22	12	77
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	46	22	12	77

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	20060706 074721
H	20060707 071544

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.938190	0.046641	-0.016232
7	P1	-3.129402	0.012245	0.053801
11	P1	-4.099380	0.015974	0.030921
15	P1	-6.164599	0.011453	-0.021184
19	P1	-3.373027	0.008785	-0.038833
22	P1	-4.531549	0.011022	-0.037768
26	P1	-3.955125	0.018240	0.046799
30	P1	-5.758657	0.008607	-0.015128
3	P1	-16.534697	0.627590	-0.010527
7	P1	-17.232521	0.109016	0.105857
11	P1	-16.982946	0.279902	-0.003732
15	P1	-13.163458	0.161270	0.073234
19	P1	-14.391026	0.048903	-0.097513
22	P1	-16.117048	0.393949	0.170807
26	P1	-15.168000	0.232319	0.060428
30	P1	-17.134741	0.394874	0.084203

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.074062	0.085403	0.159574
7	P2	-21.976723	0.102106	0.111172
11	P2	-15.827671	0.115812	0.074959
15	P2	-7.151037	0.098514	0.035226
19	P2	-9.158745	0.090123	0.057266
22	P2	-18.166565	0.085511	0.020886
26	P2	-16.409067	0.091692	0.021382
30	P2	-19.548029	0.090872	0.030213

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184070	0.003629	0.014258
7	P3	-8.184070	0.003629	0.014258
11	P3	-8.184070	0.003629	0.014258
15	P3	-8.184070	0.003629	0.014258
19	P3	-8.184070	0.003629	0.014258
22	P3	-8.184070	0.003629	0.014258
26	P3	-8.184070	0.003629	0.014258
30	P3	-8.184070	0.003629	0.014258

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	-3.808552	0.064396	0.004975
7	P1	-2.573883	0.008344	0.038014
11	P1	-2.858551	0.013745	-0.002015
15	P1	-3.537881	0.028156	-0.063119
19	P1	-3.415459	0.013975	-0.002859
22	P1	-5.088001	0.020031	-0.019034
26	P1	-5.860419	0.016232	-0.003310
30	P1	-5.192559	0.025927	0.005043
3	P1	-11.619349	0.172934	0.064167
7	P1	-9.982840	0.033457	0.025739
11	P1	-10.241182	0.058788	-0.005894
15	P1	-10.712738	0.133851	-0.114239
19	P1	-15.537674	0.076688	0.027590
22	P1	-20.948193	1.161452	0.086111

26	P1	-16.414871	0.352673	0.187066
30	P1	-17.869417	0.384625	-0.001962

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.738167	0.075070	0.199513
7	P2	-22.452465	0.132918	0.076098
11	P2	-11.104103	0.047545	0.101561
15	P2	-4.922989	0.048551	0.005608
19	P2	-6.882469	0.051488	0.005694
22	P2	-8.206876	0.041975	0.011576
26	P2	-24.173399	0.068506	-0.047873
30	P2	-22.043831	0.054935	0.058125

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020539	0.004312	0.010147
7	P3	-8.020658	0.004303	0.010293
11	P3	-8.020552	0.004330	0.010352
15	P3	-8.020476	0.004322	0.010213
19	P3	-8.020494	0.004322	0.010226
22	P3	-8.020667	0.004312	0.010402
26	P3	-8.020700	0.004317	0.010162
30	P3	-8.020556	0.004293	0.010442

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	0.000567345
	stdev	1.66790e-07
MEAN Q	mean	0.000531500
	stdev	2.16270e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137973
	stdev	0.00114518
STDEV Q	mean	0.138337
	stdev	0.00116324



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[567]

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_1PNPDE20060706_022612_000000862049_00132_22731_1537.N1	0	48
ASA_WSM_1PNPDE20060706_182823_000002692049_00142_22741_1631.N1	0	69





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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

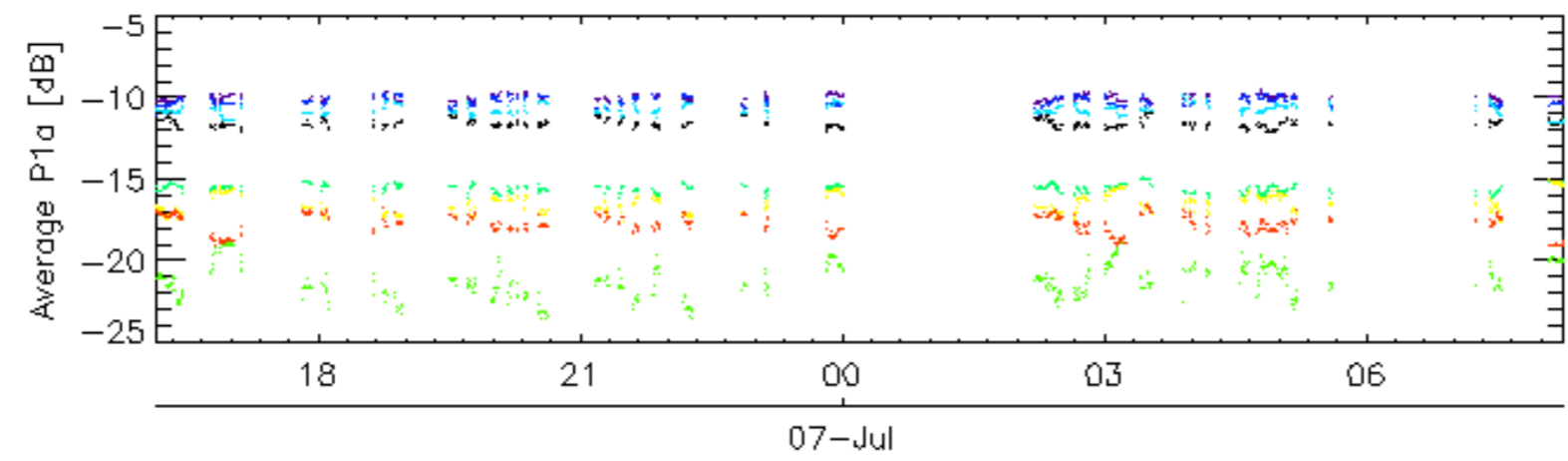
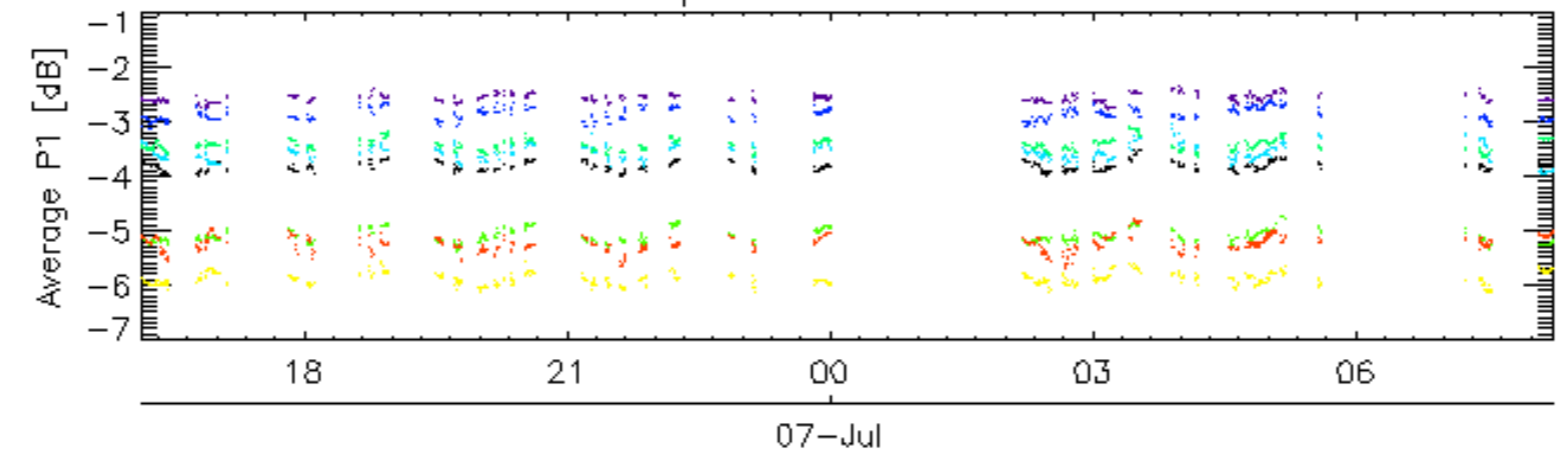
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

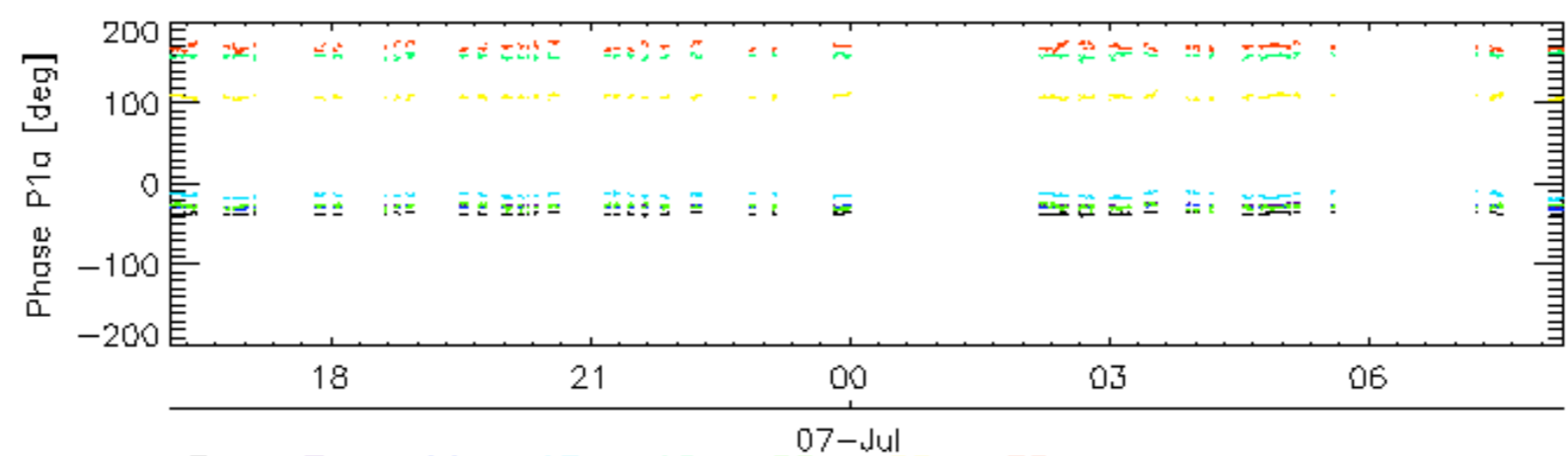
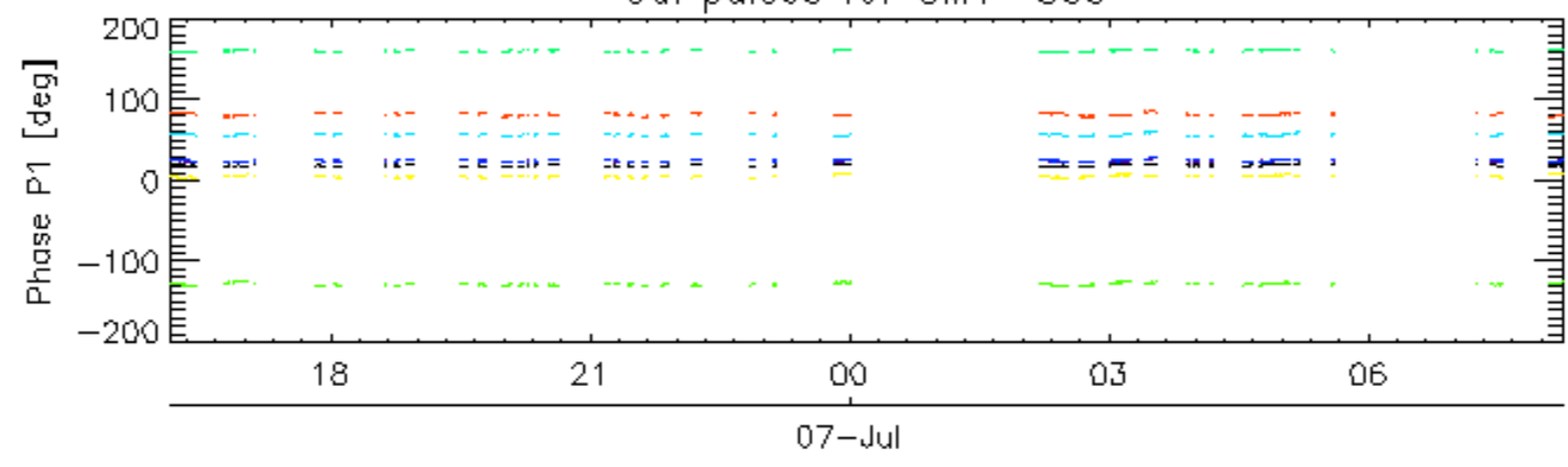
Evolution Doppler error versus ANX

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Cal pulses for GM1 SS3

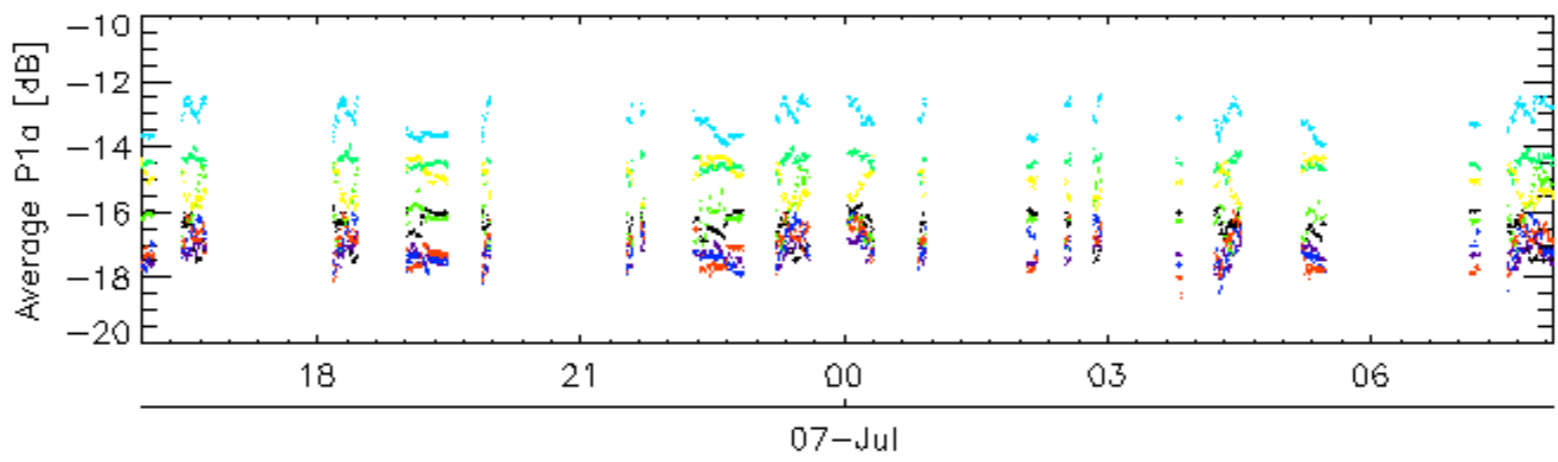
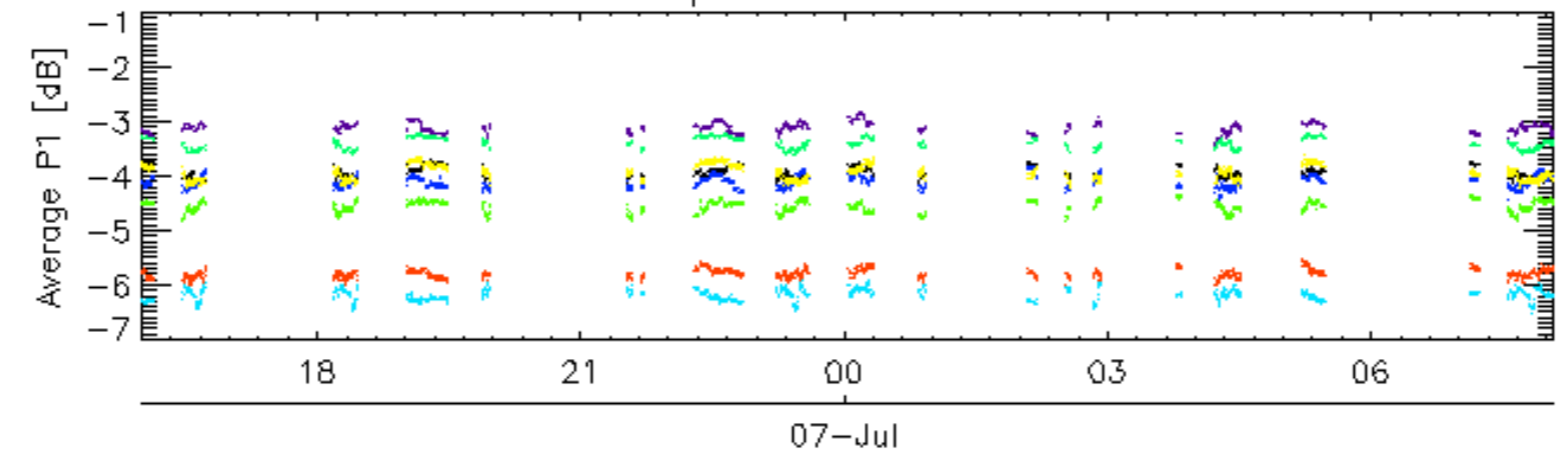


Cal pulses for GM1 SS3

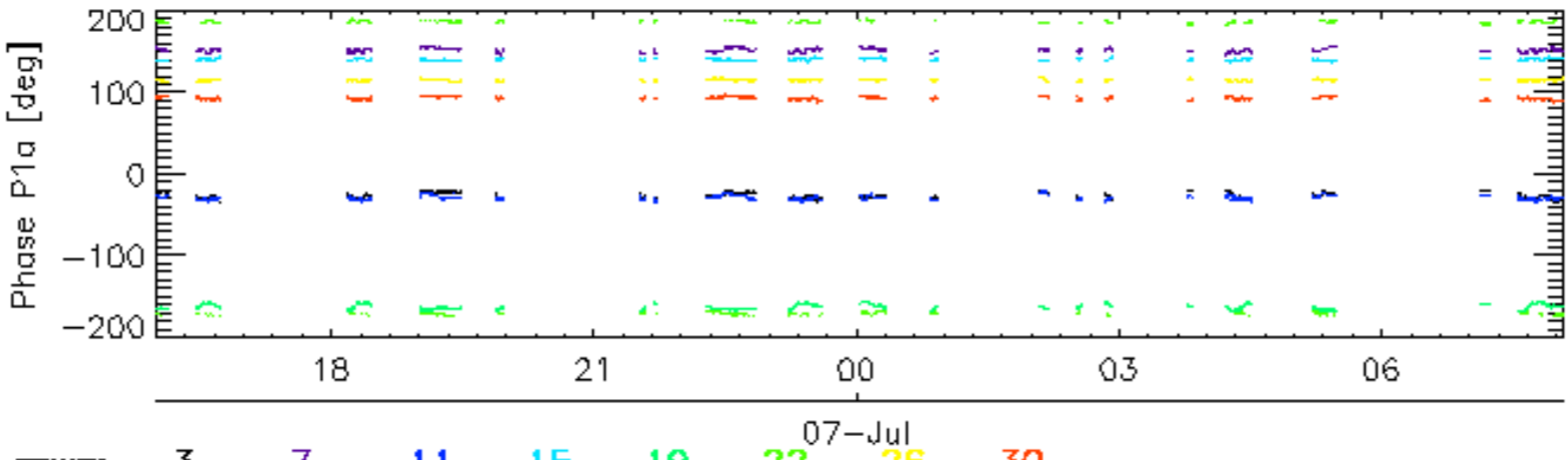
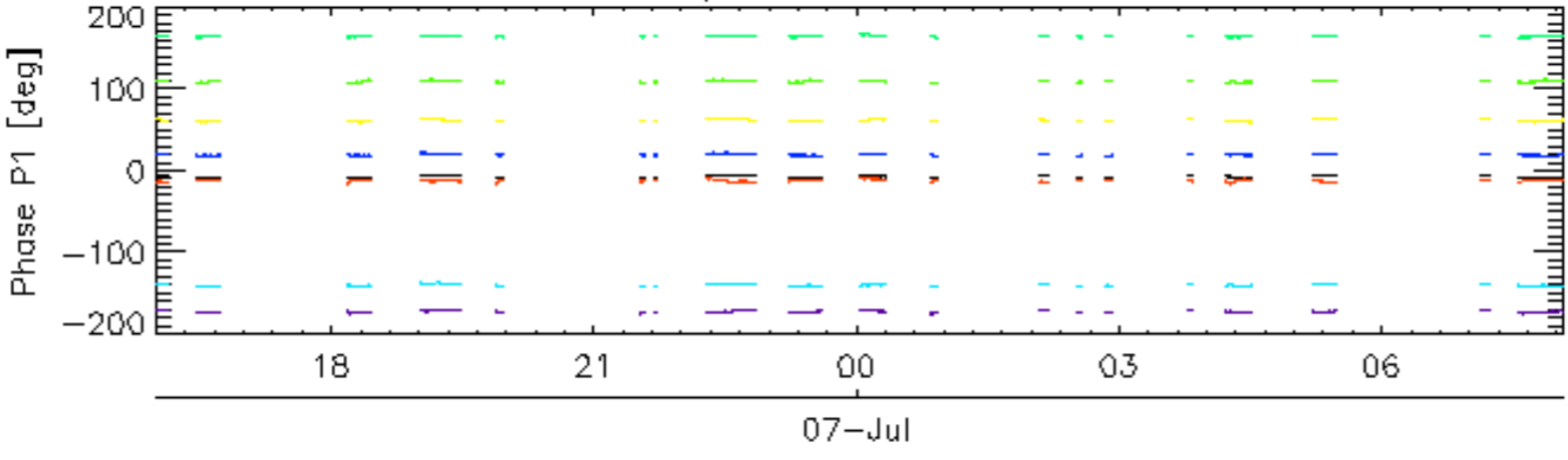


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

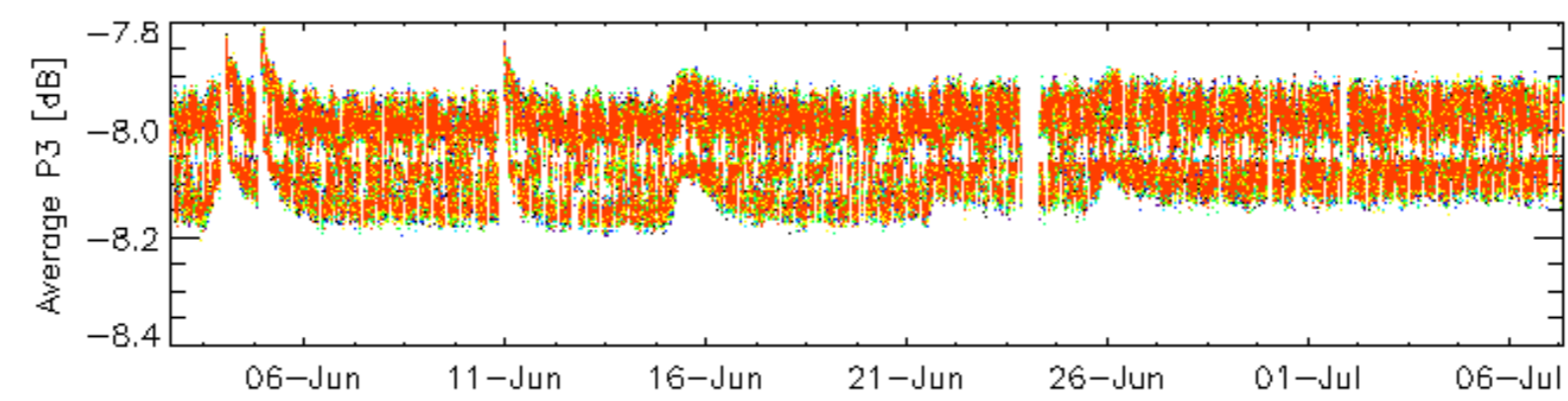
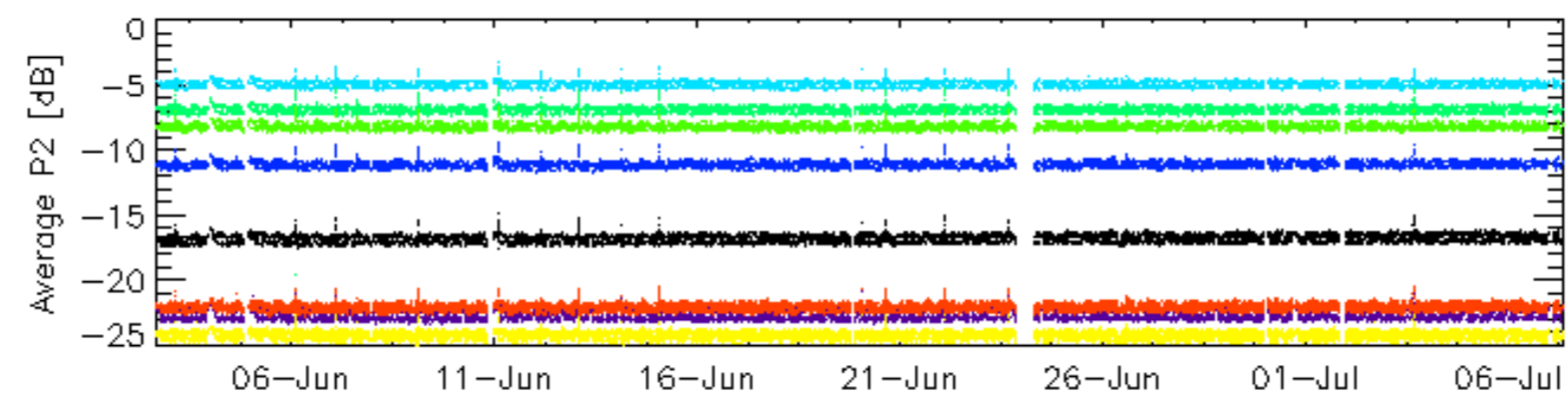
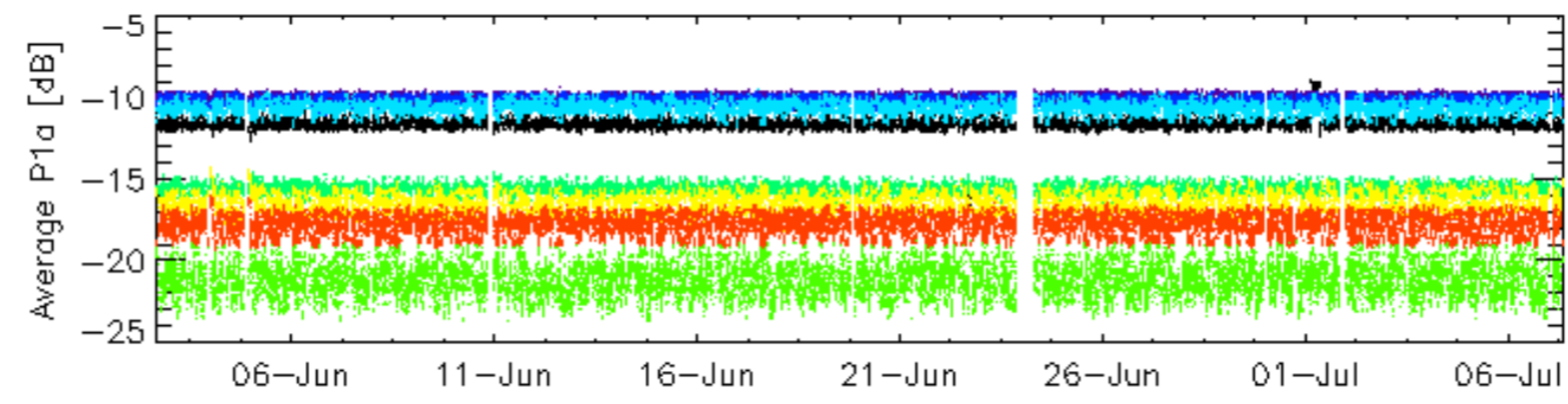
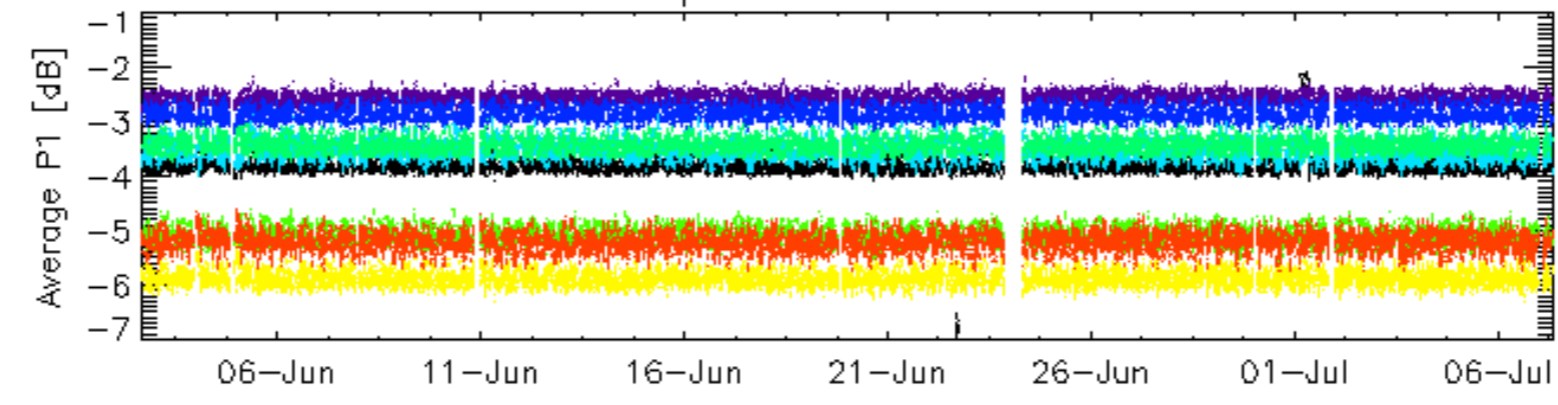


Cal pulses for WVS IS2



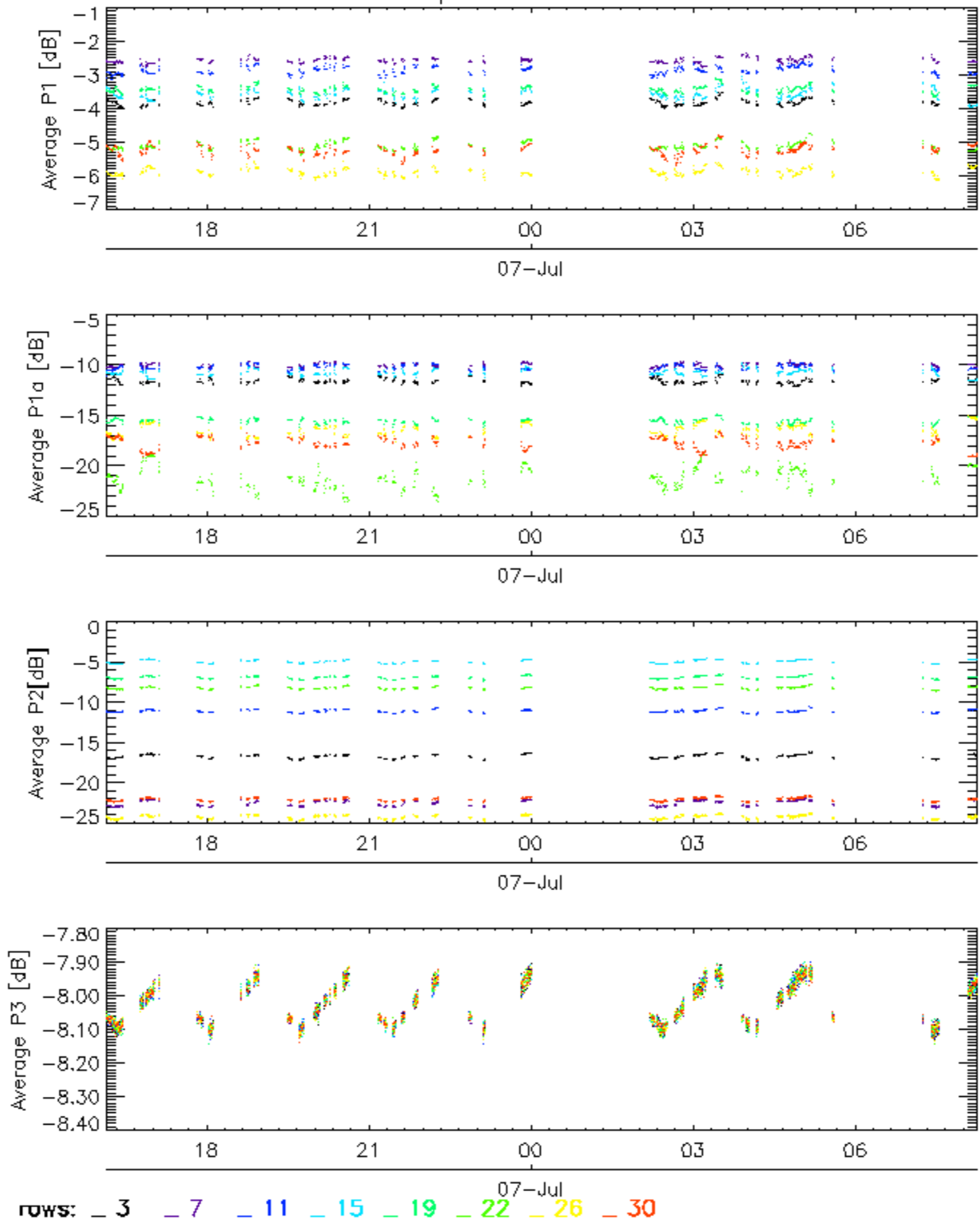
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

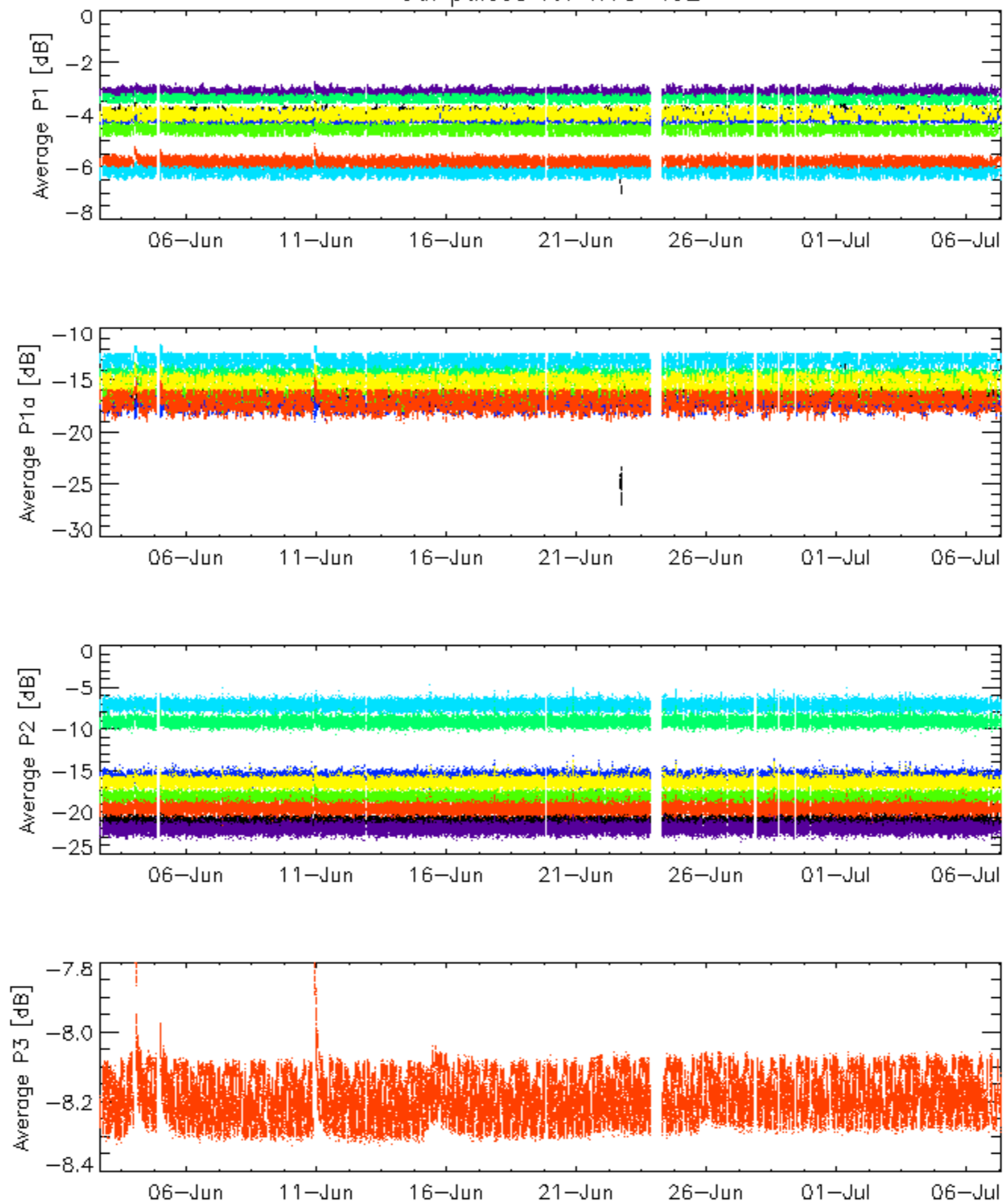


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

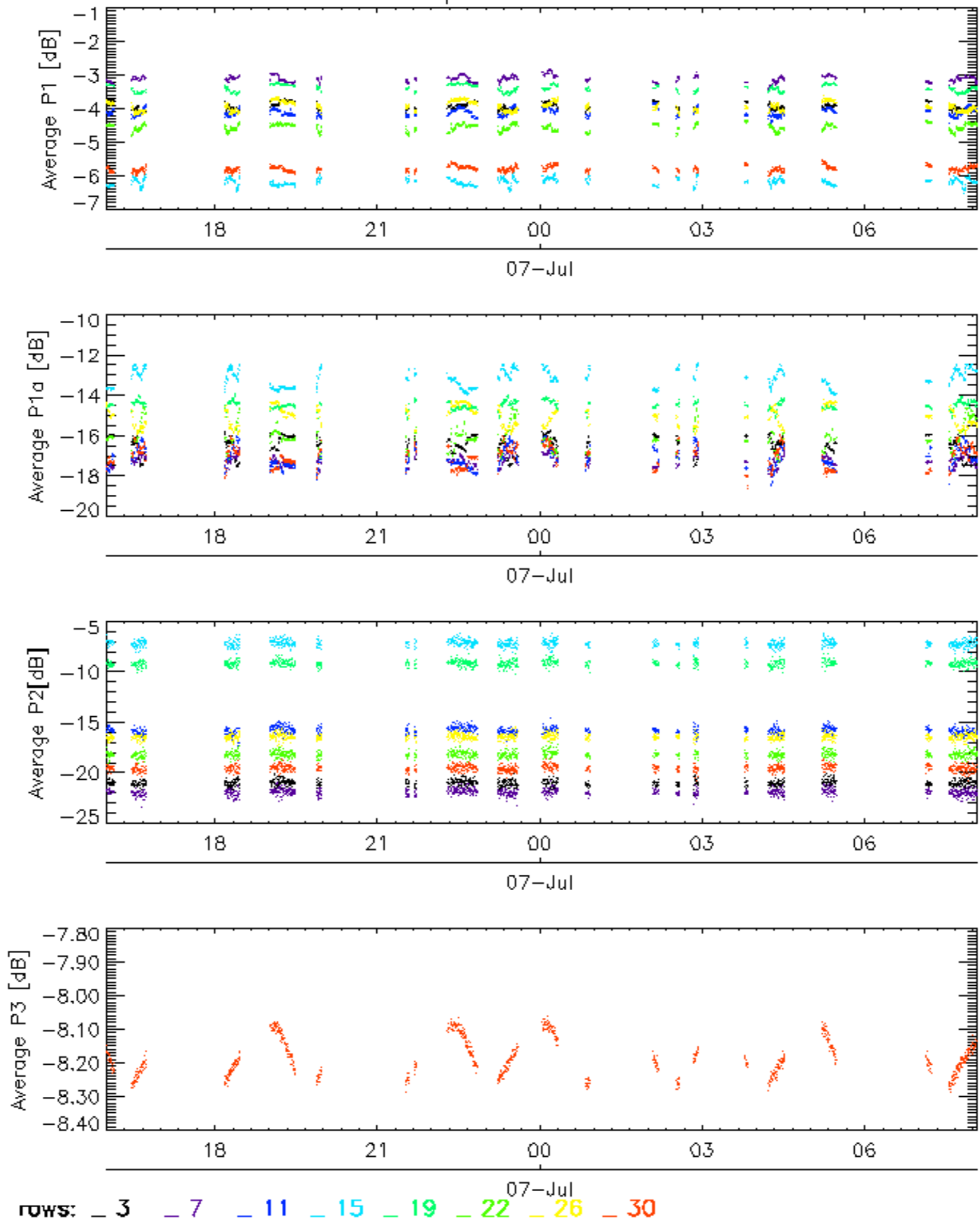


Cal pulses for WVS IS2



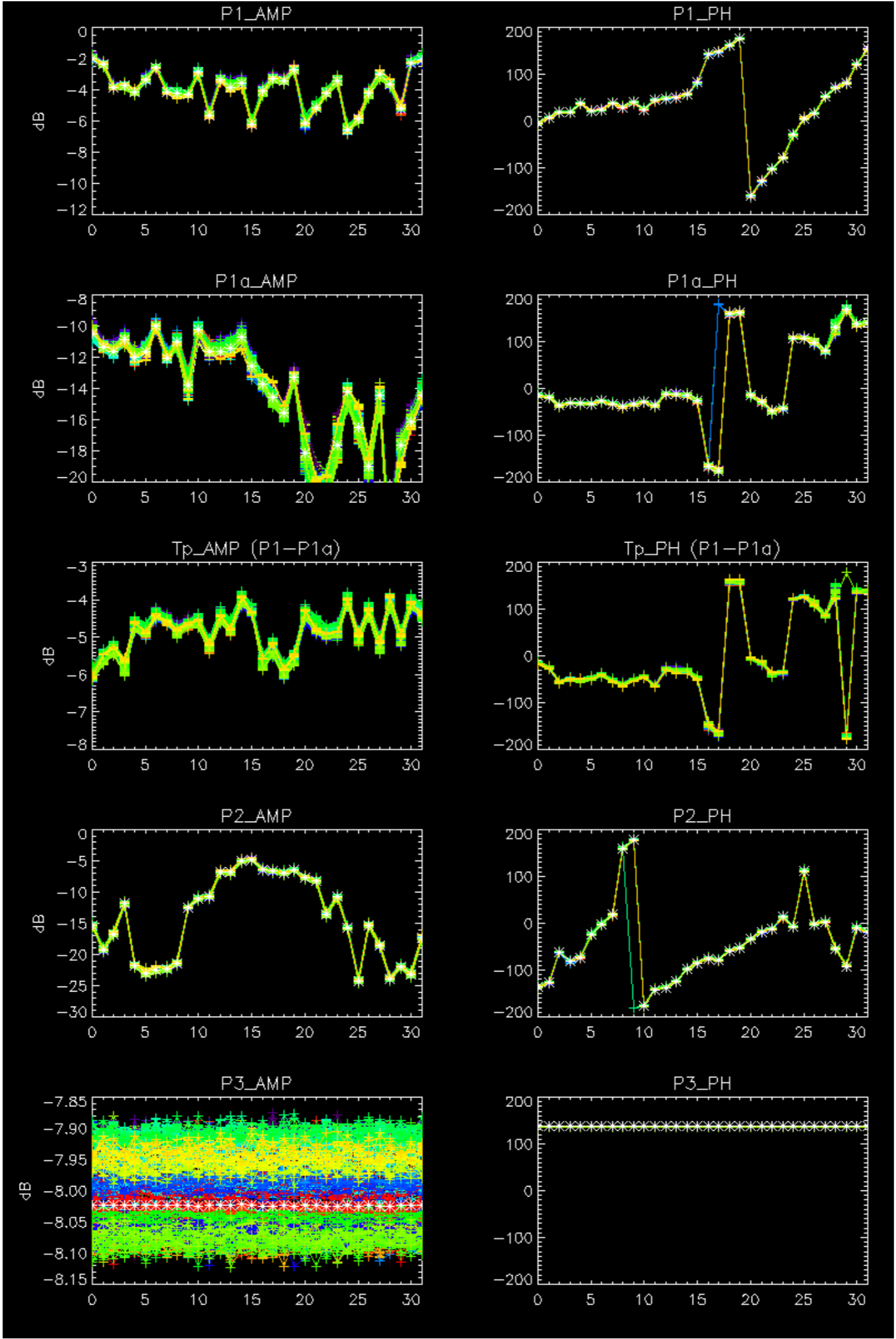
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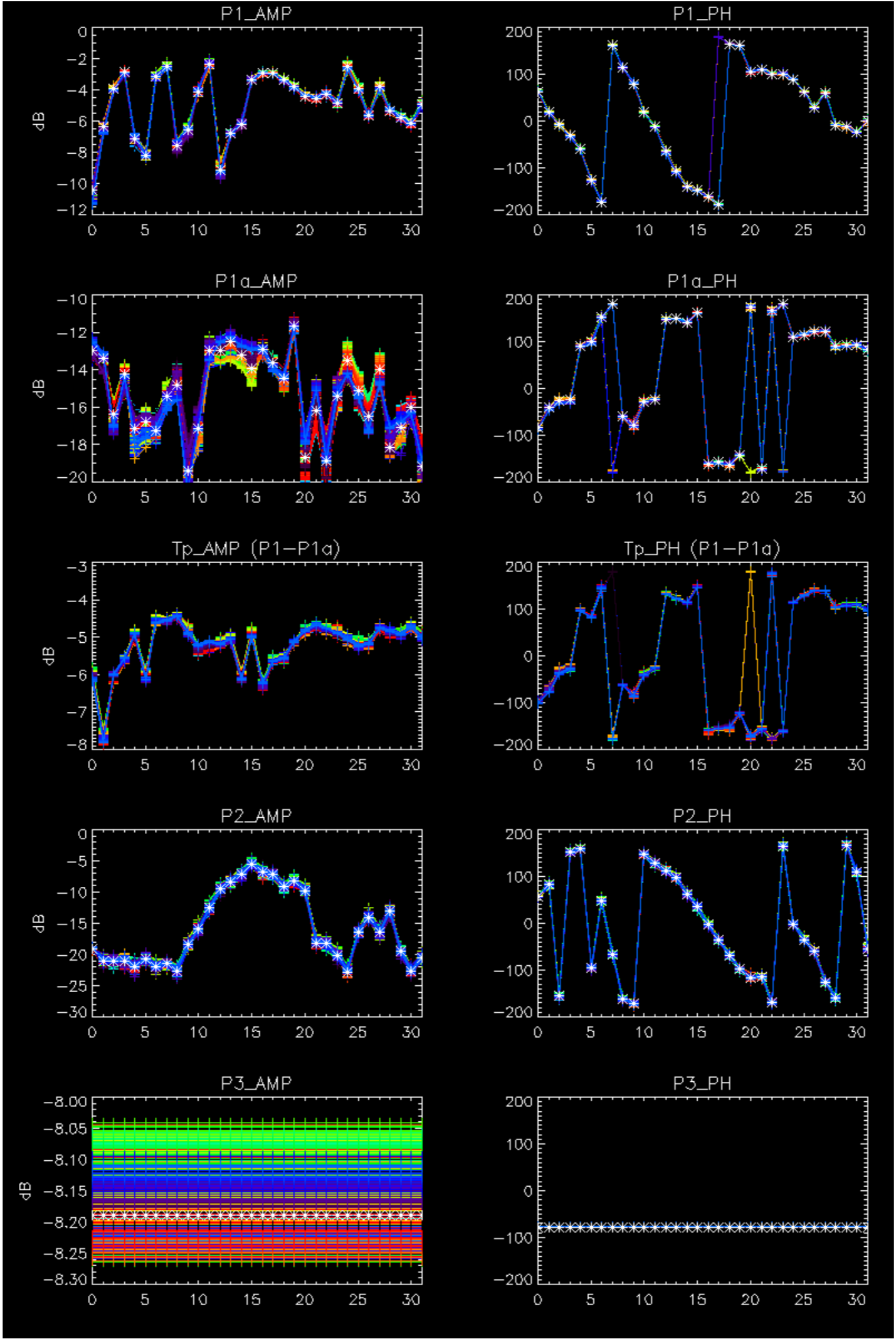
Cal pulses for WVS IS2



No anomalies observed on available browse products

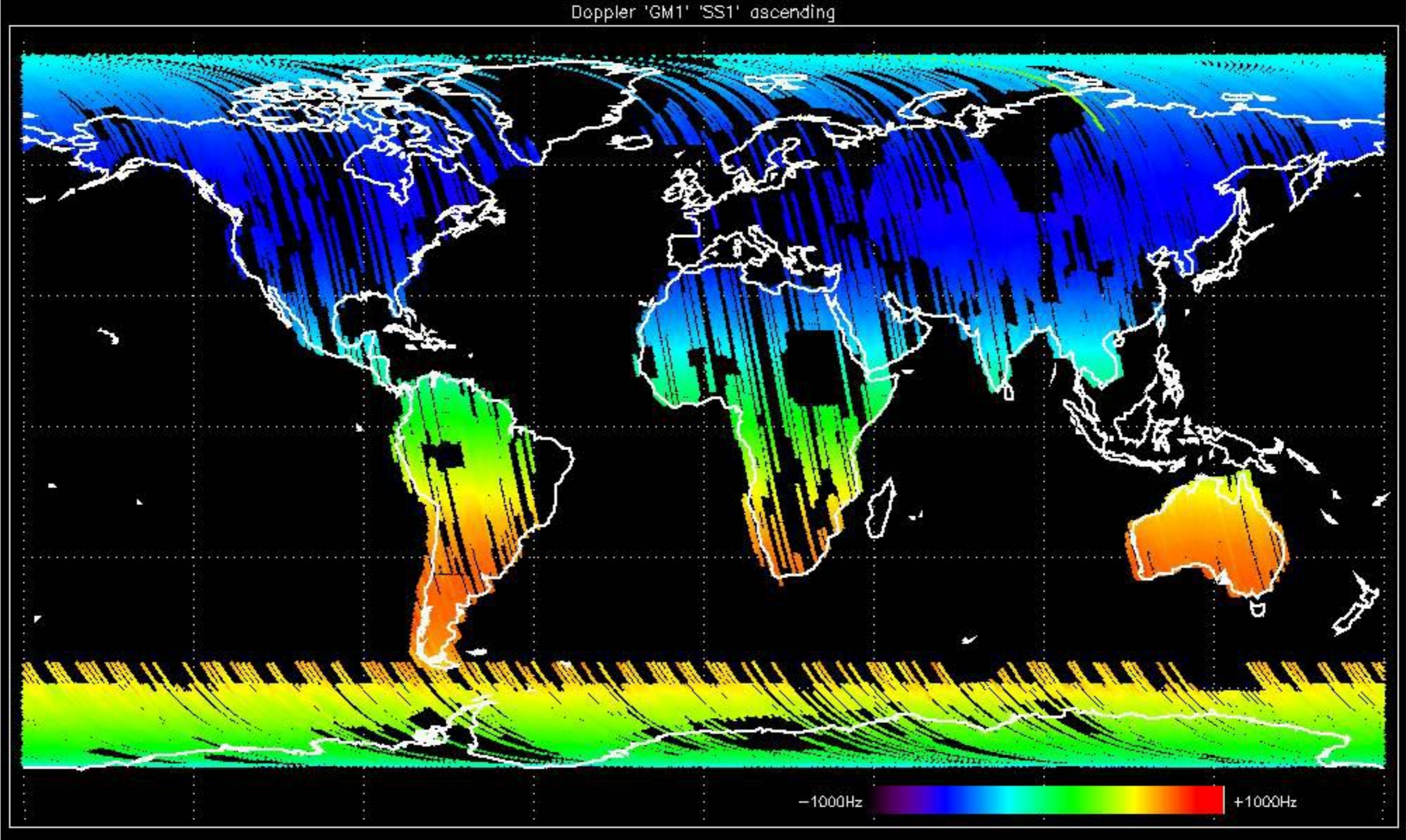
No anomalies observed.



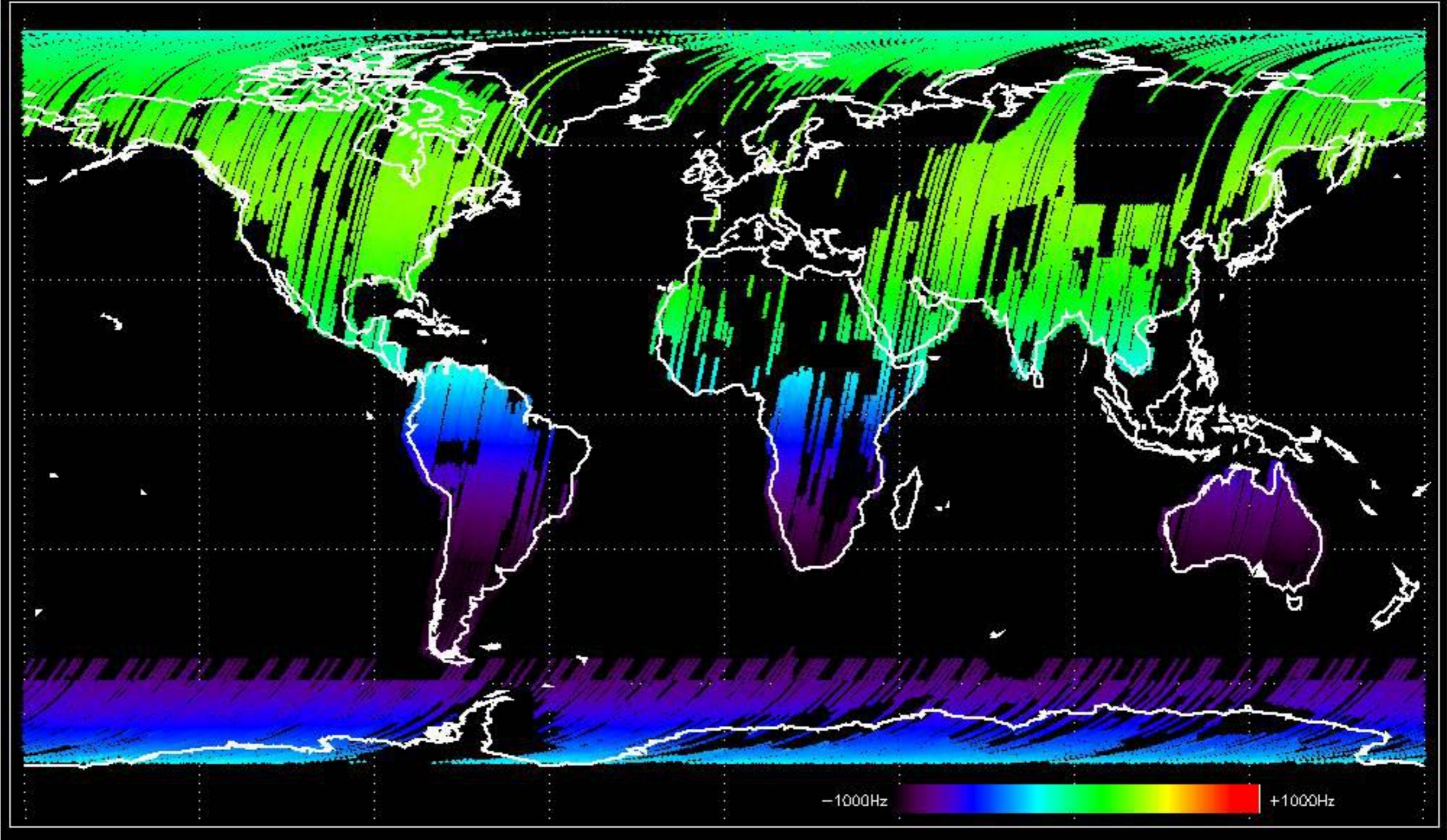


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

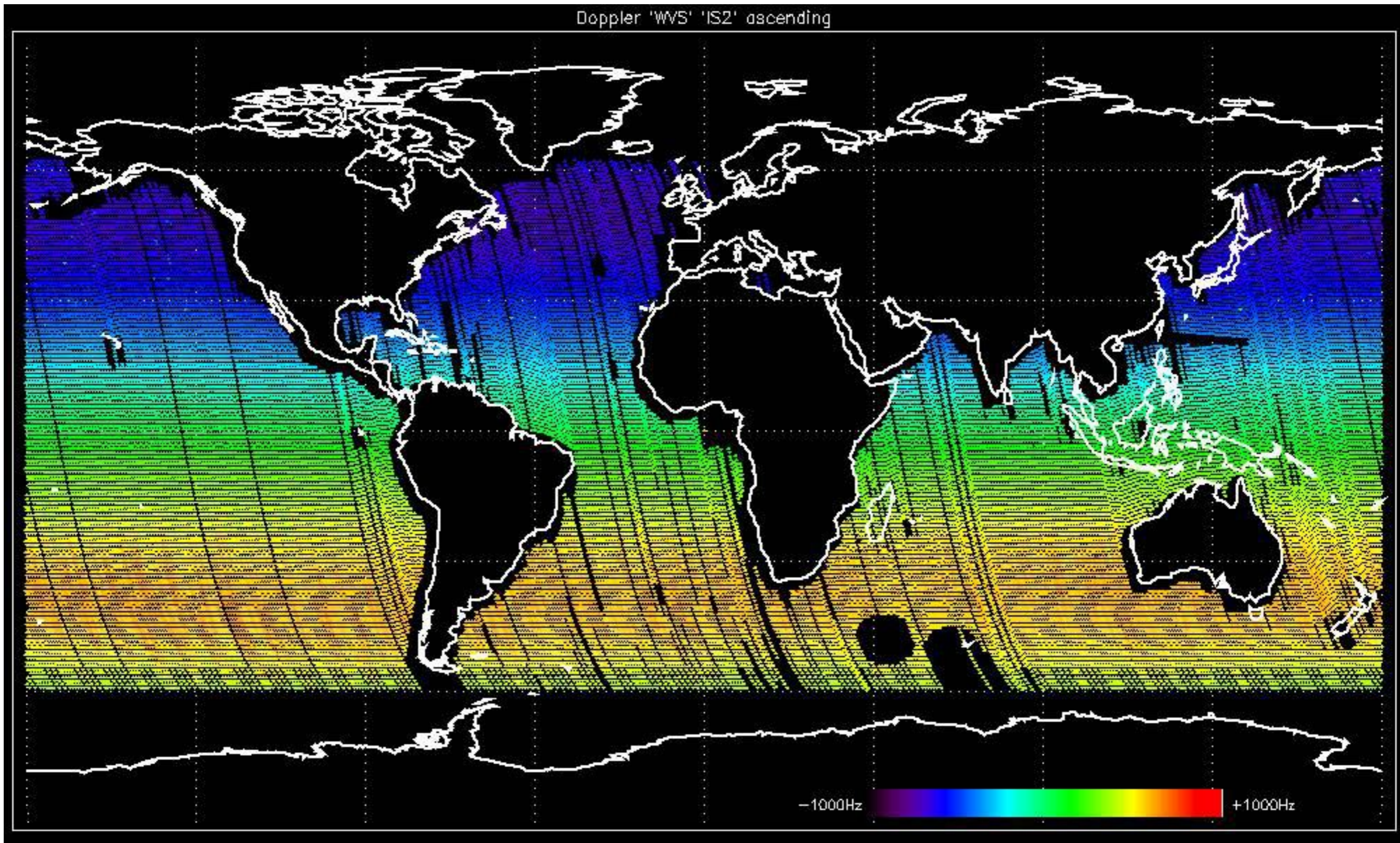
Doppler 'GM1' 'SS1' ascending



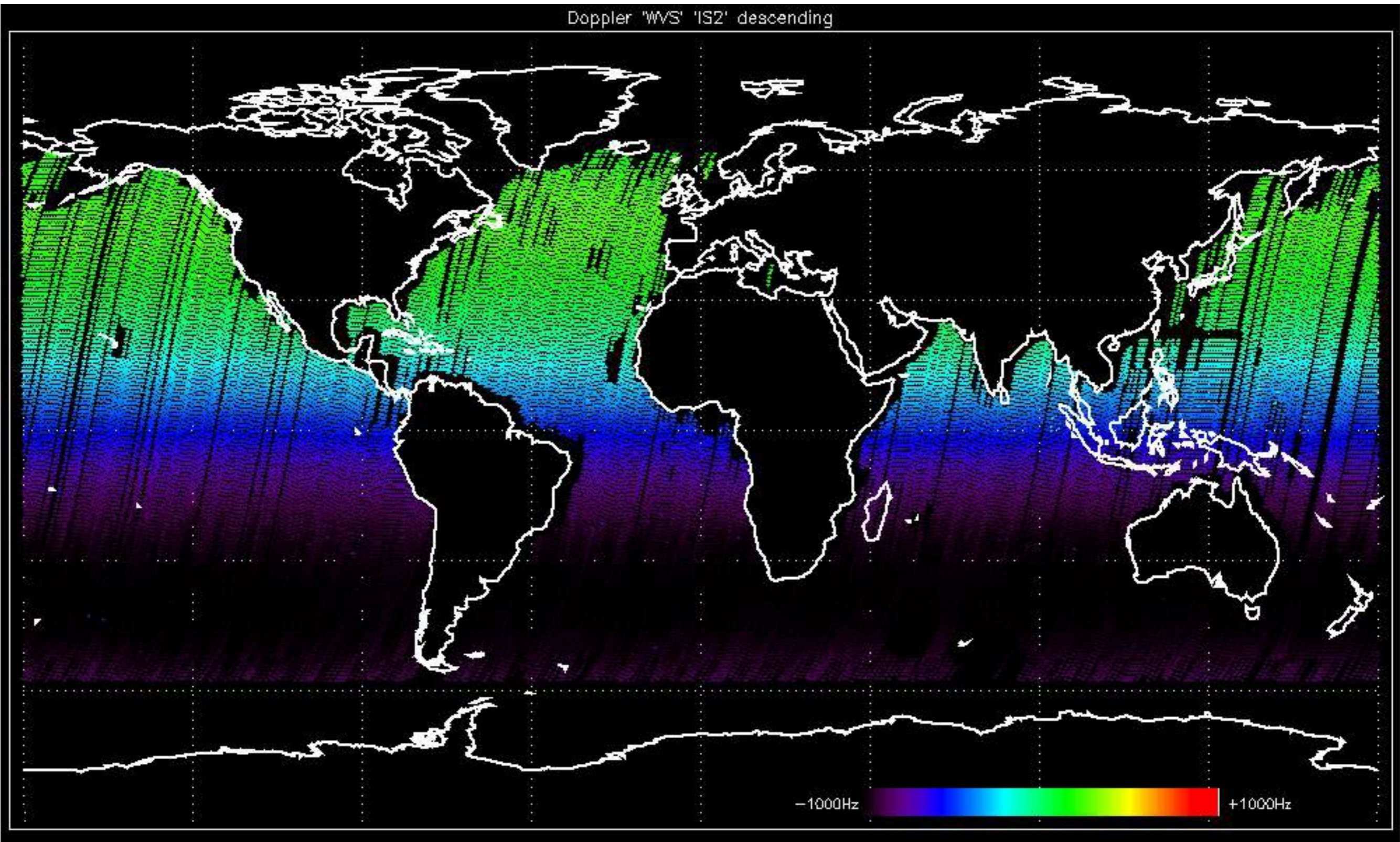
Doppler 'GM1' 'SS1' descending



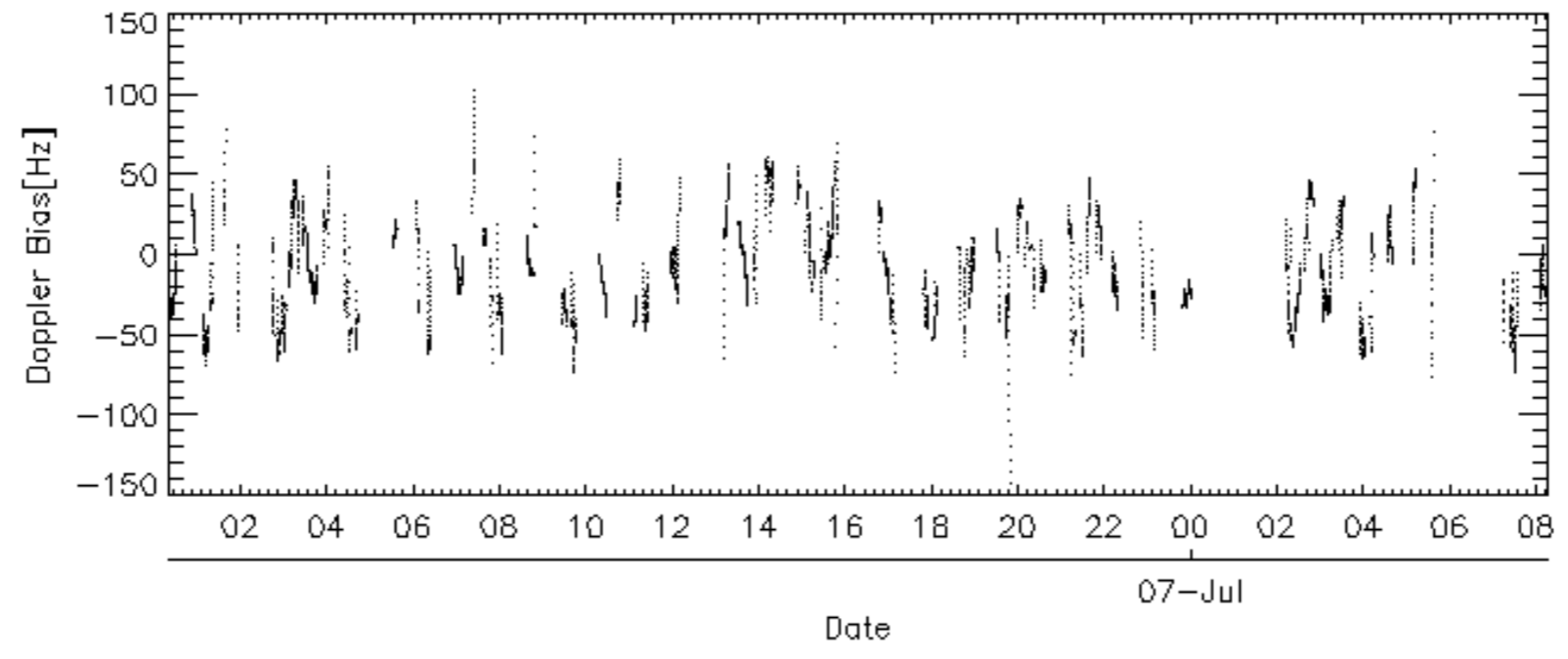
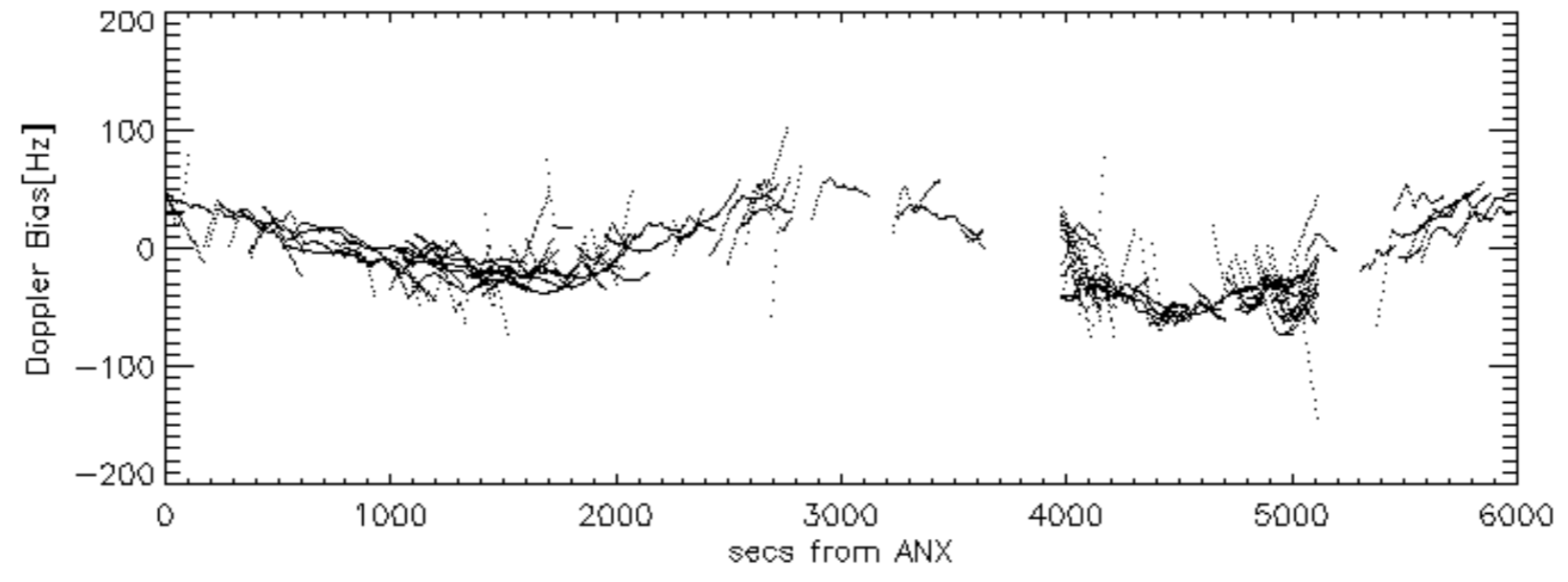
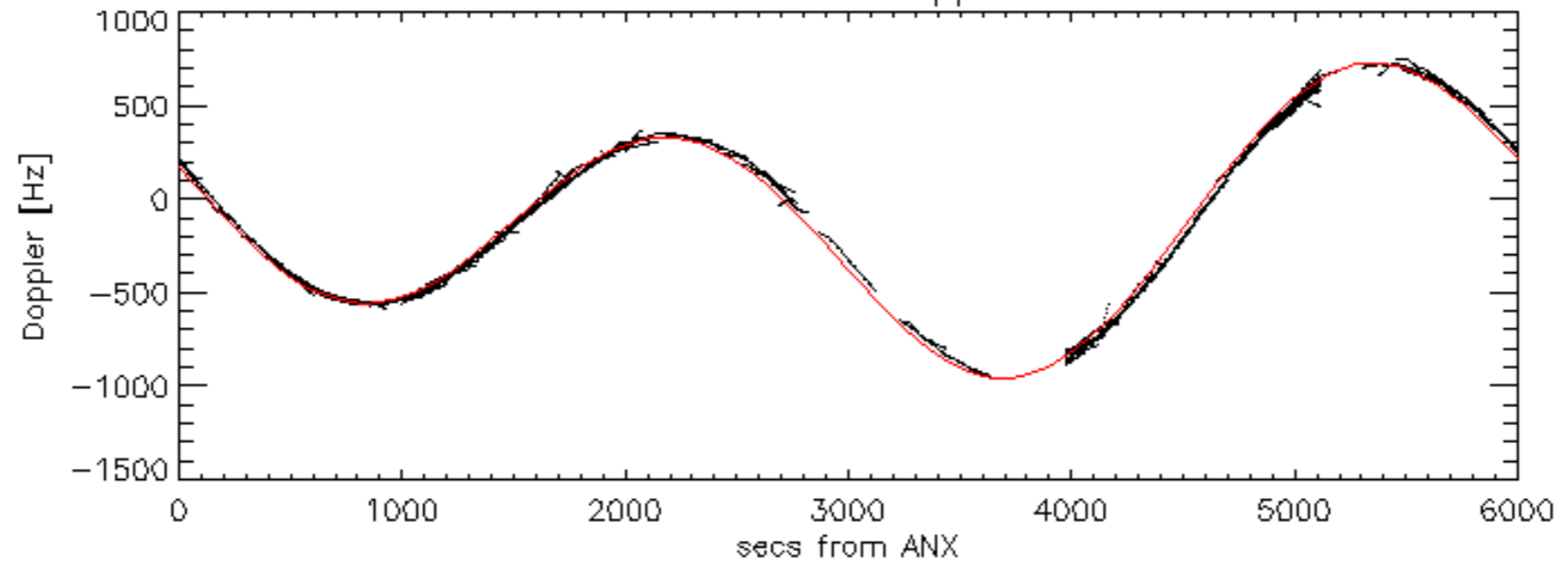
Doppler 'WVS' 'IS2' ascending

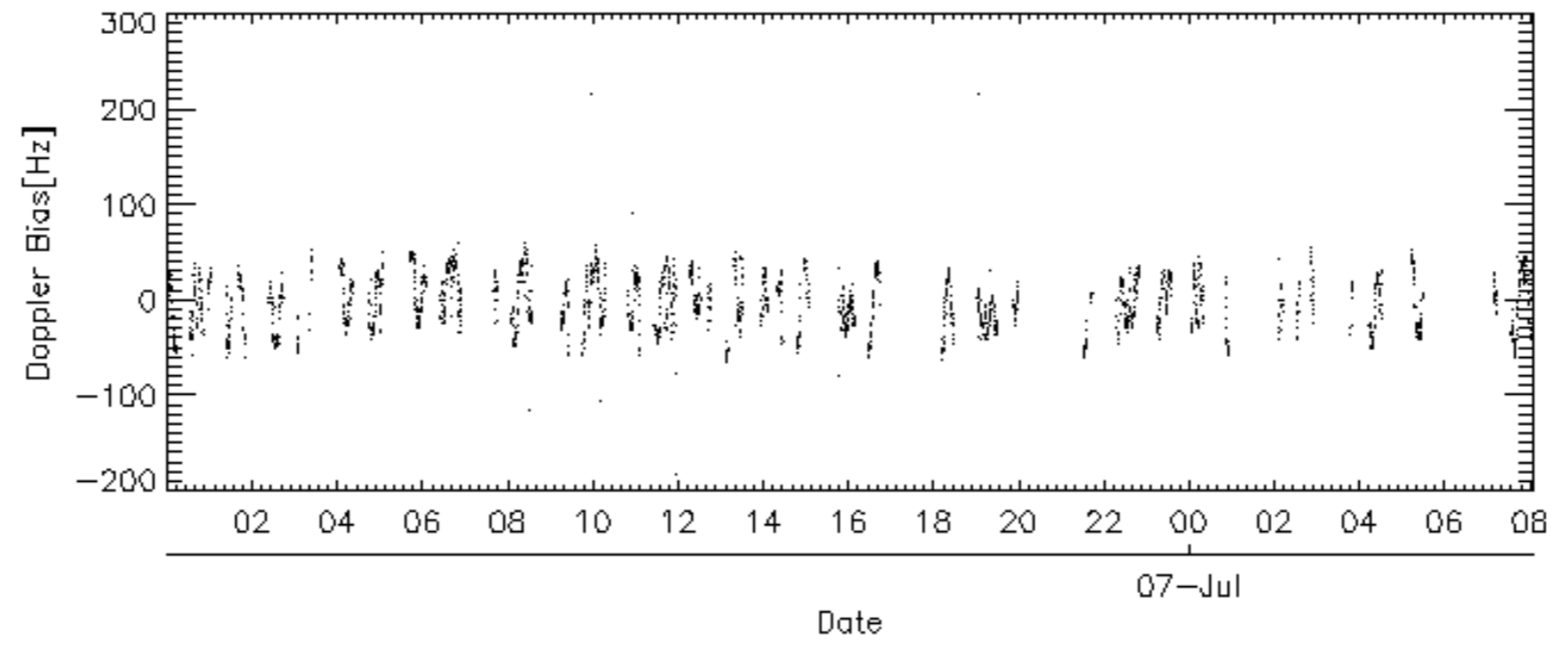
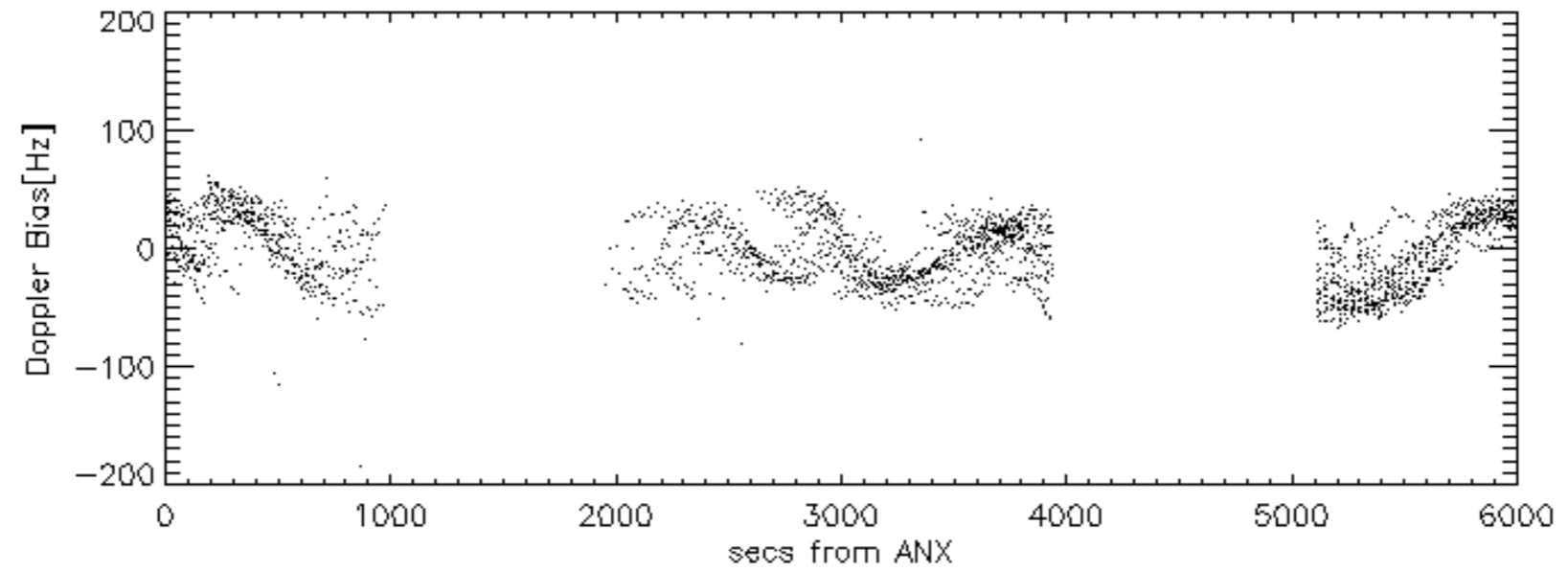
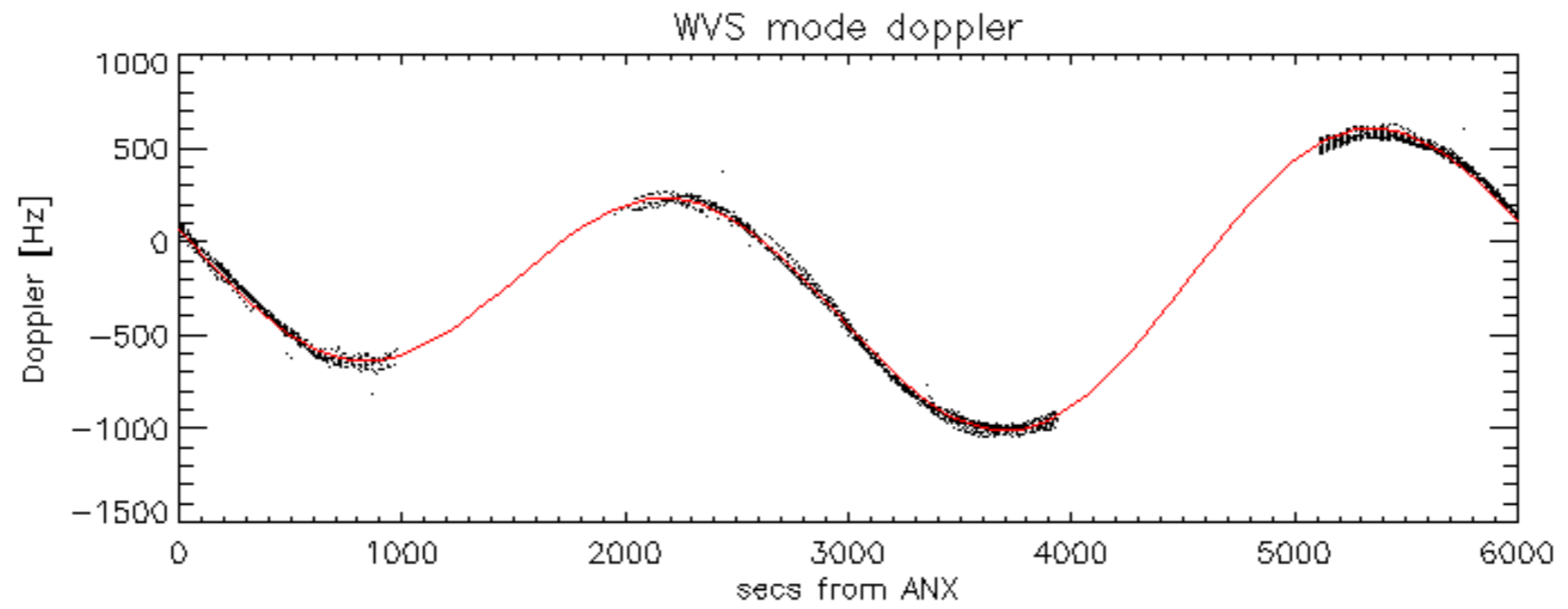


Doppler 'WVS' 'IS2' descending

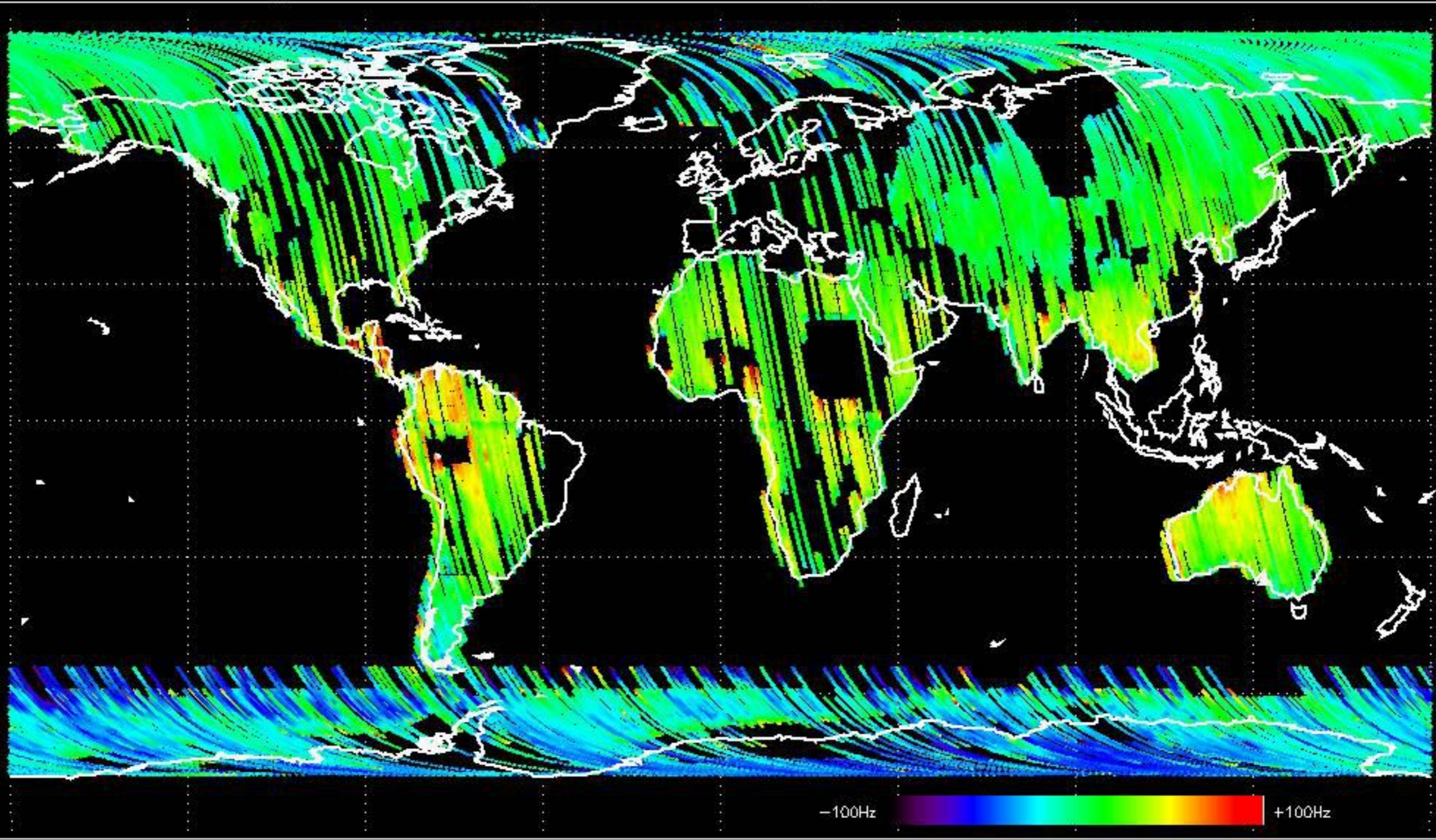


GM1 mode doppler

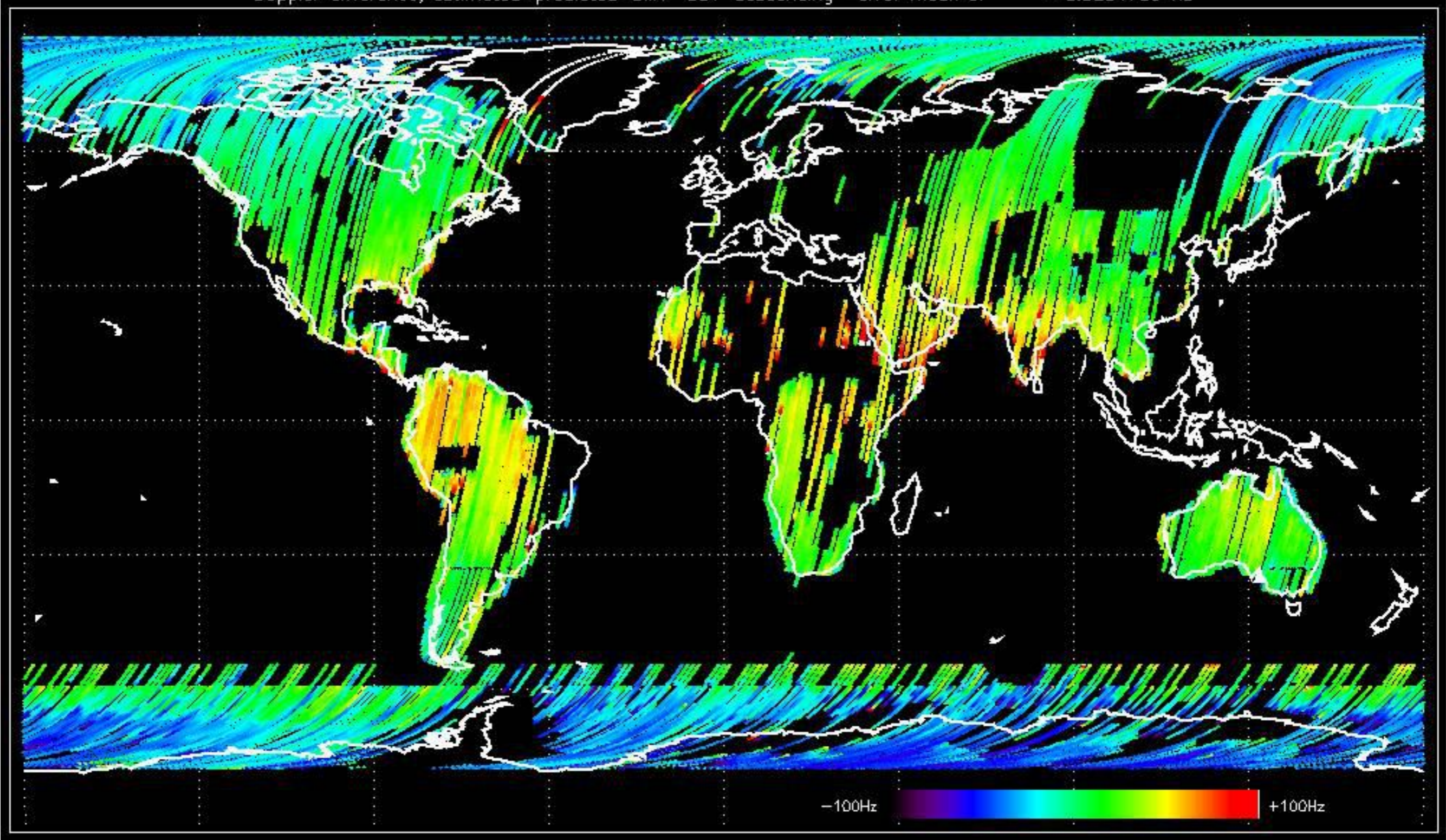




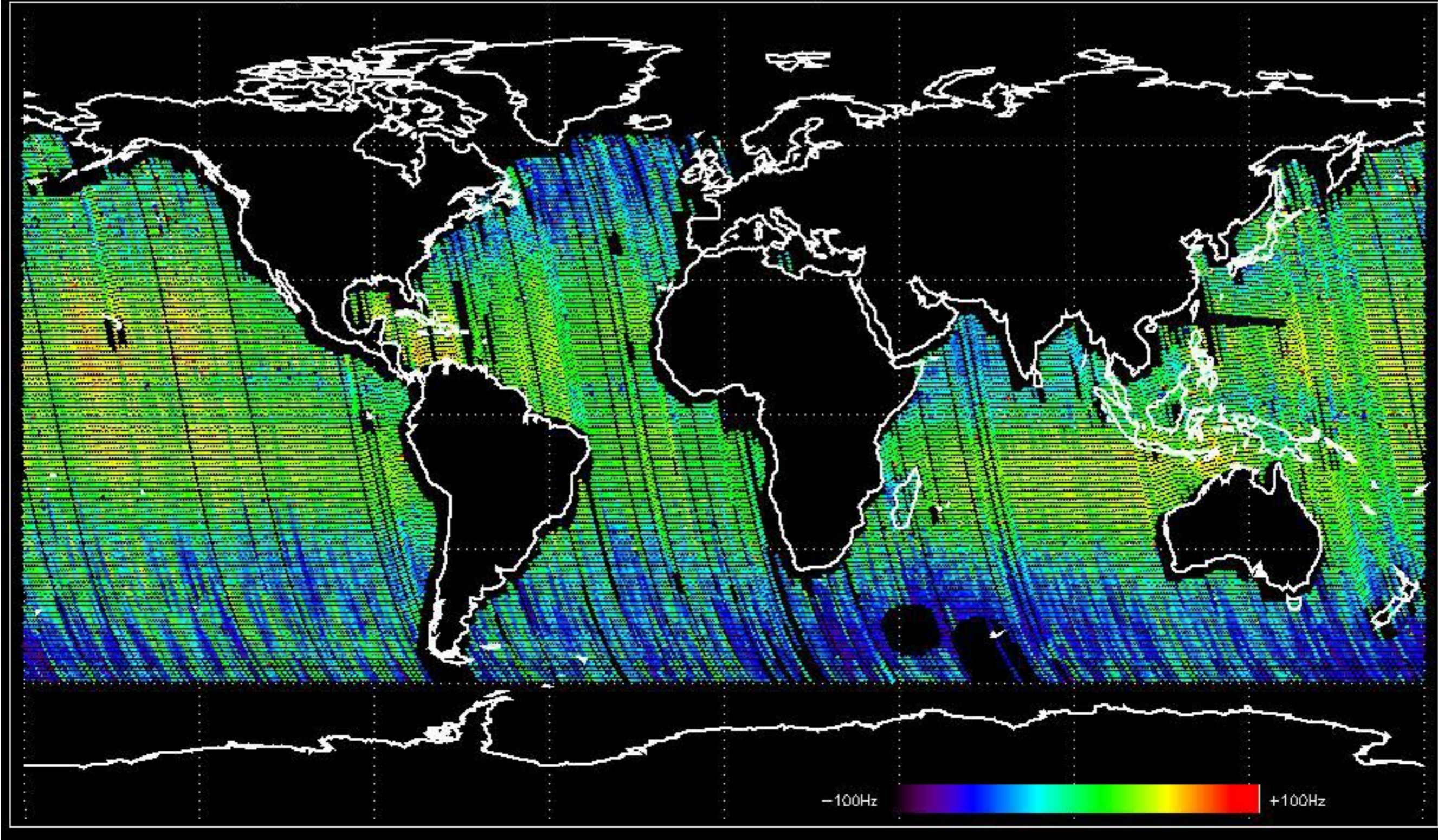
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.165391 Hz



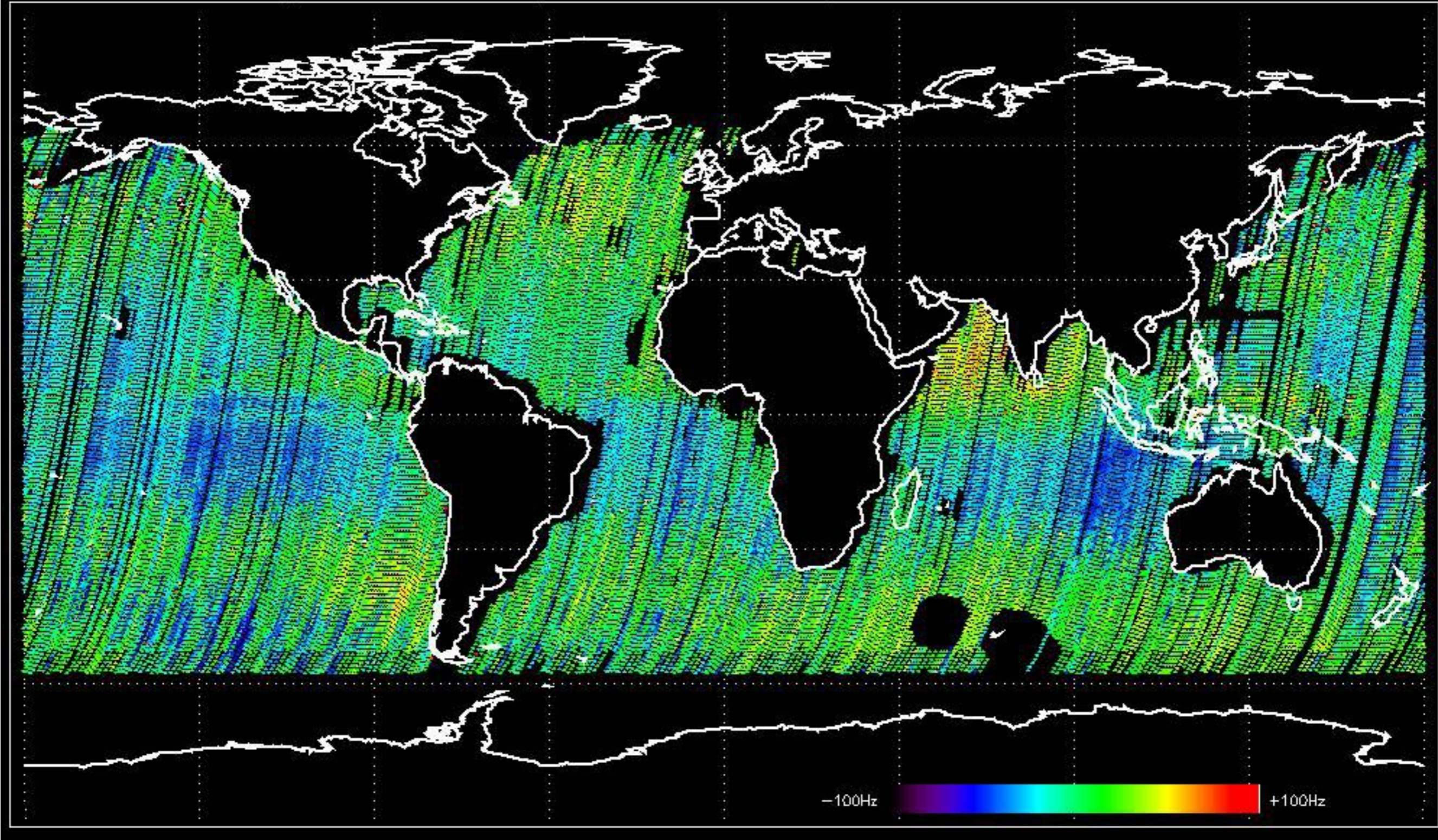
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.5284753 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.8216064 Hz

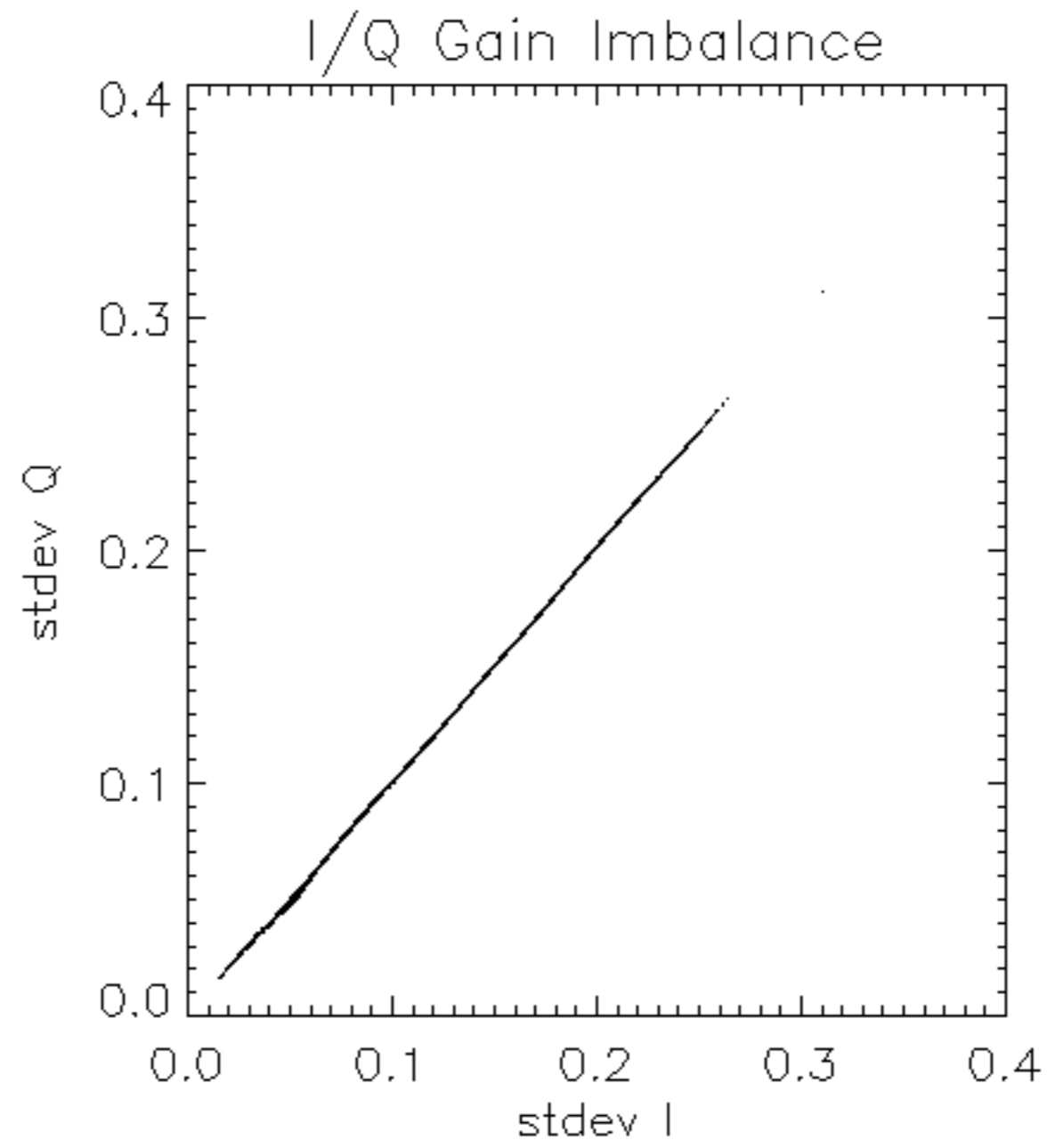


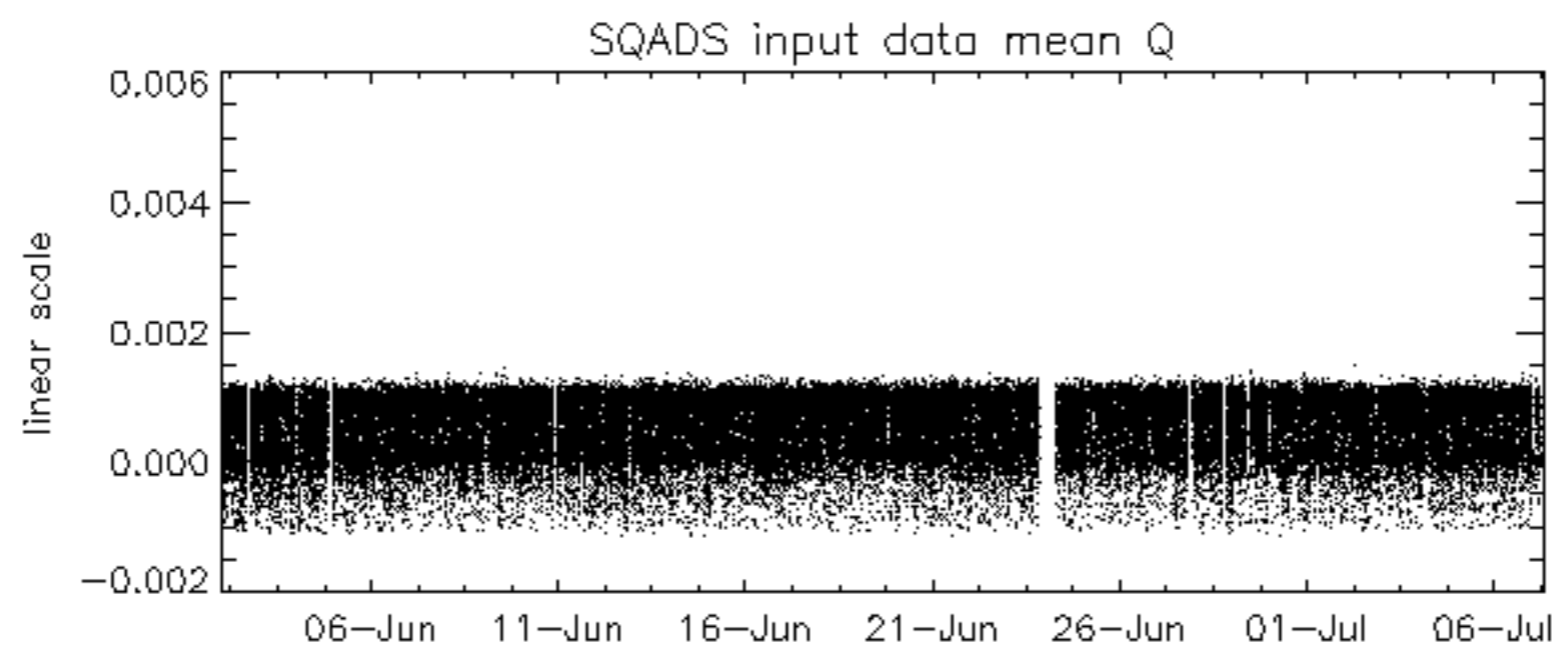
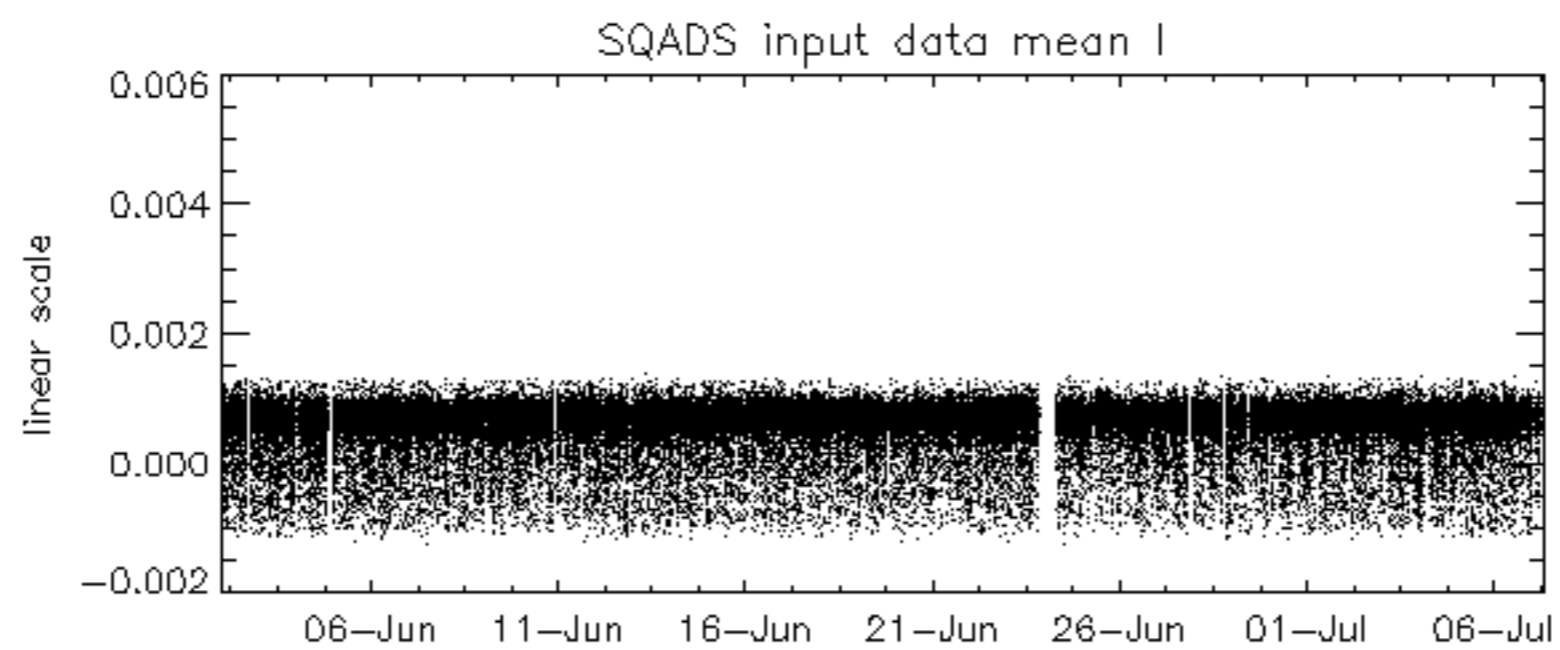
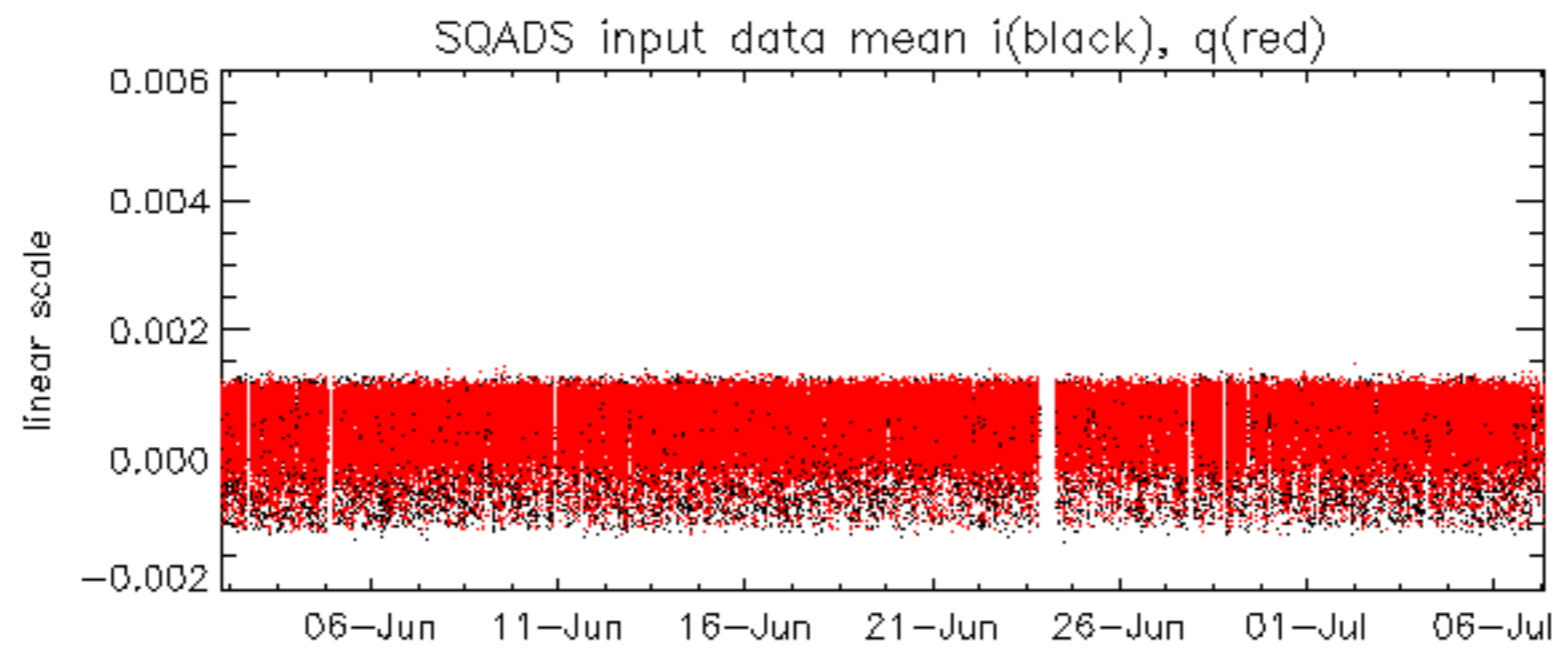
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.345391 Hz

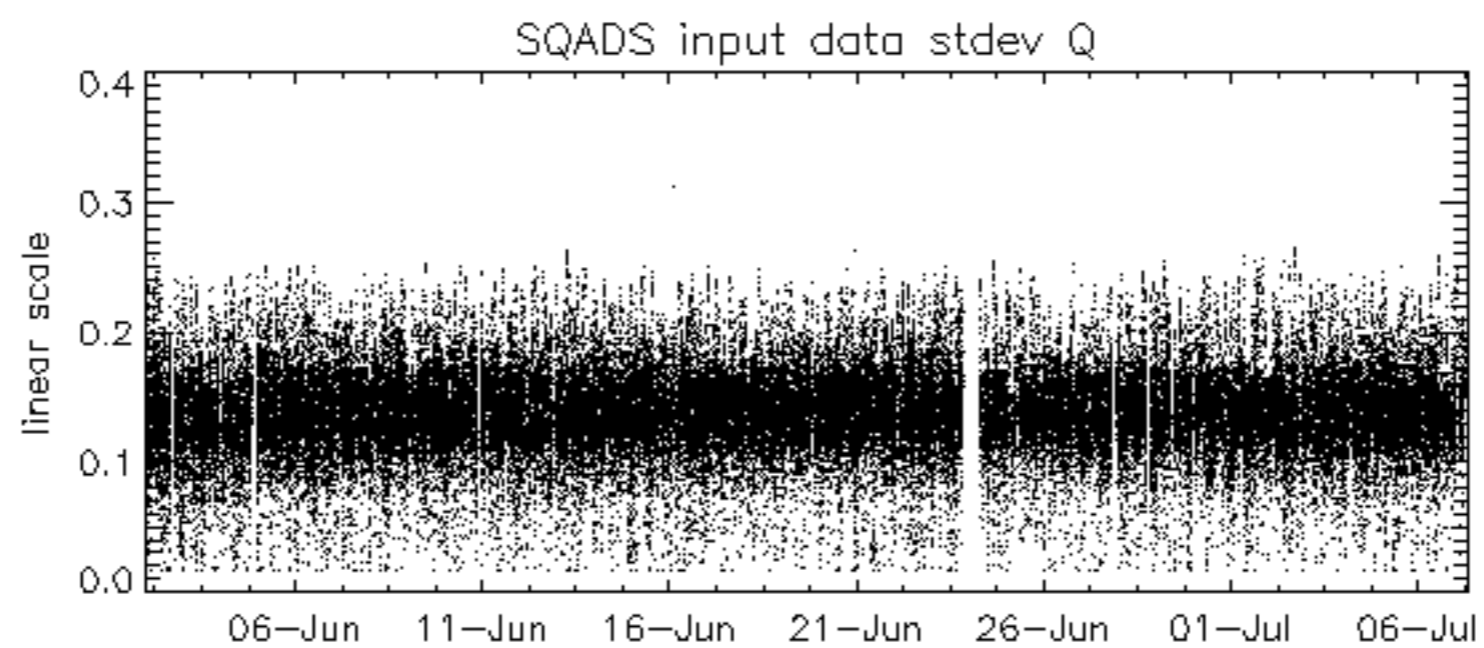
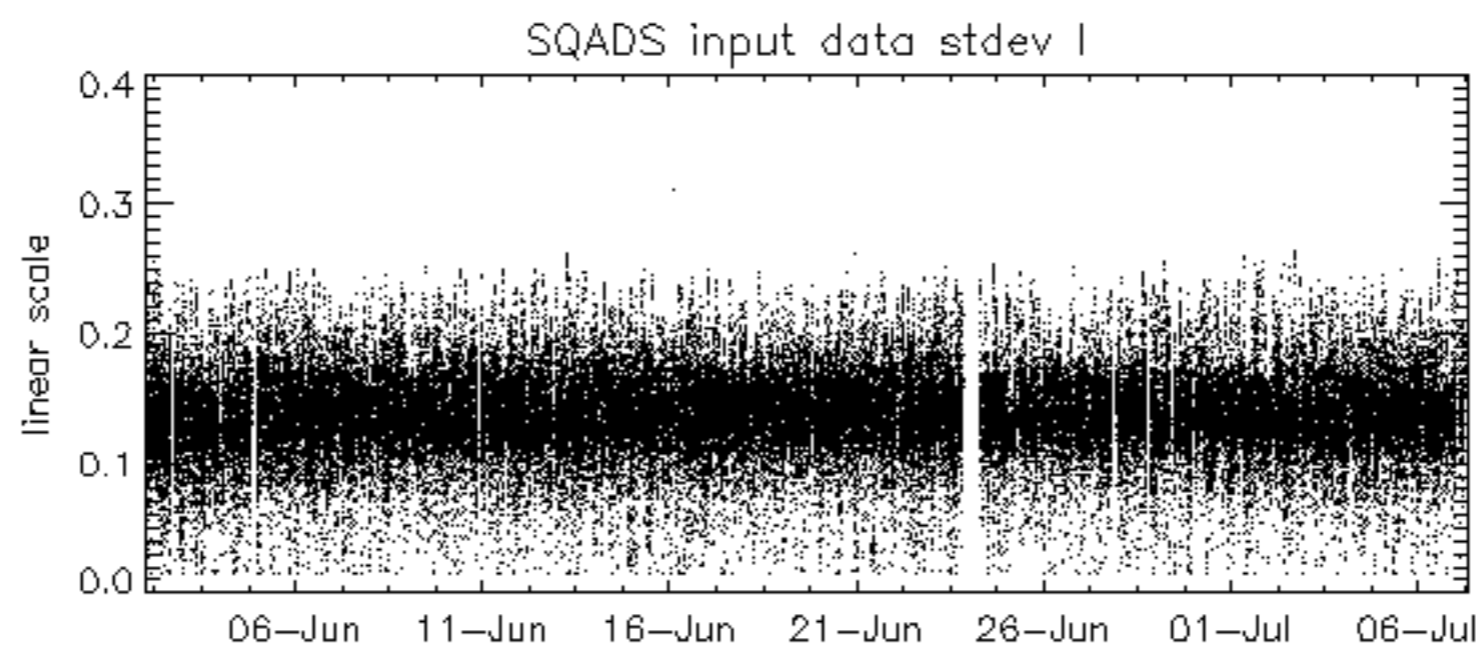
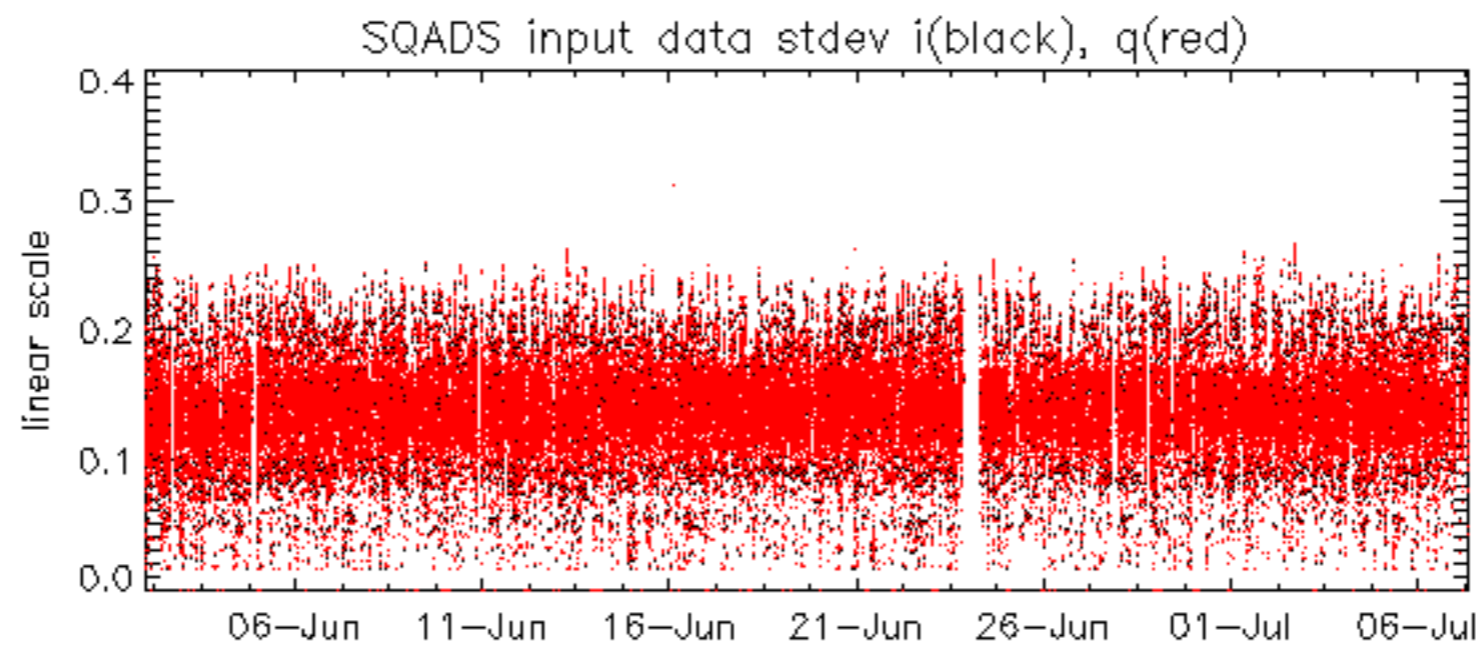


No anomalies observed on available MS products:

No anomalies observed.



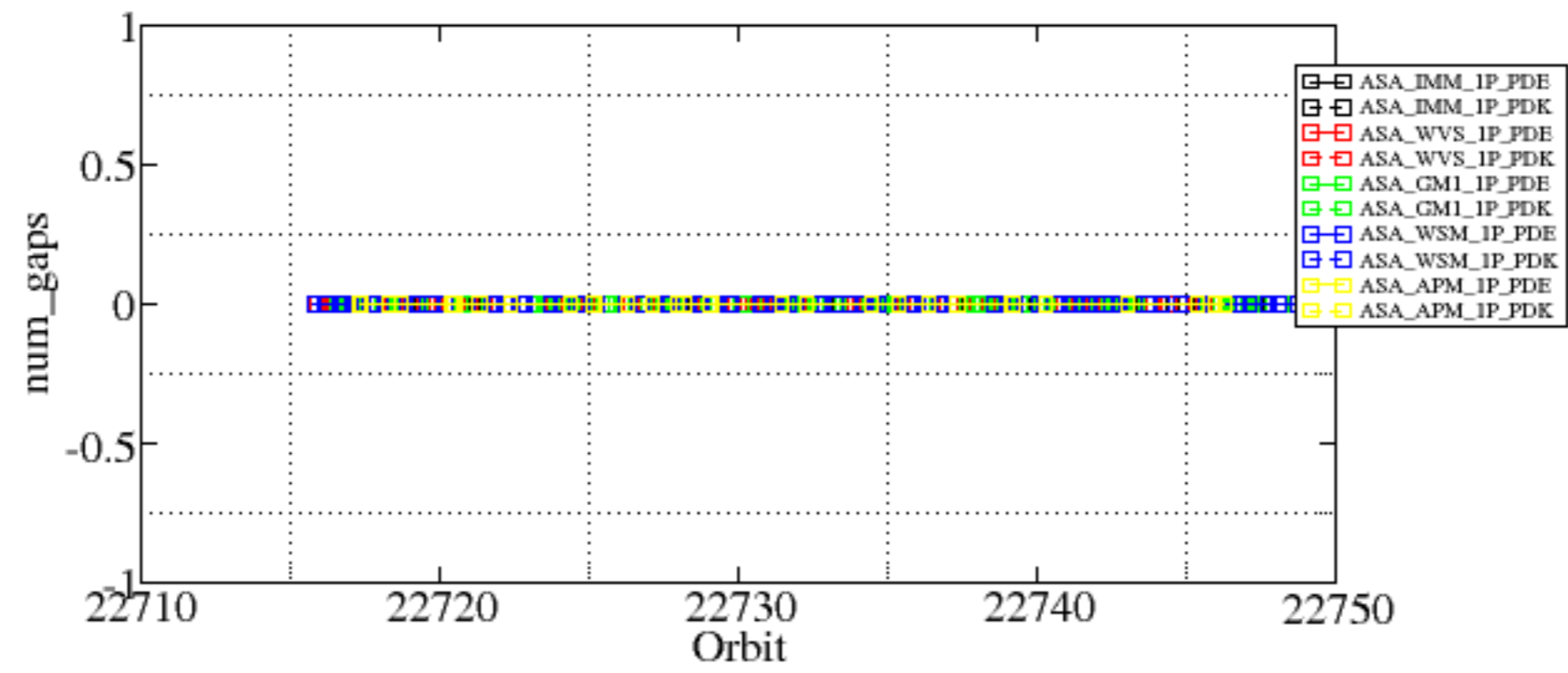


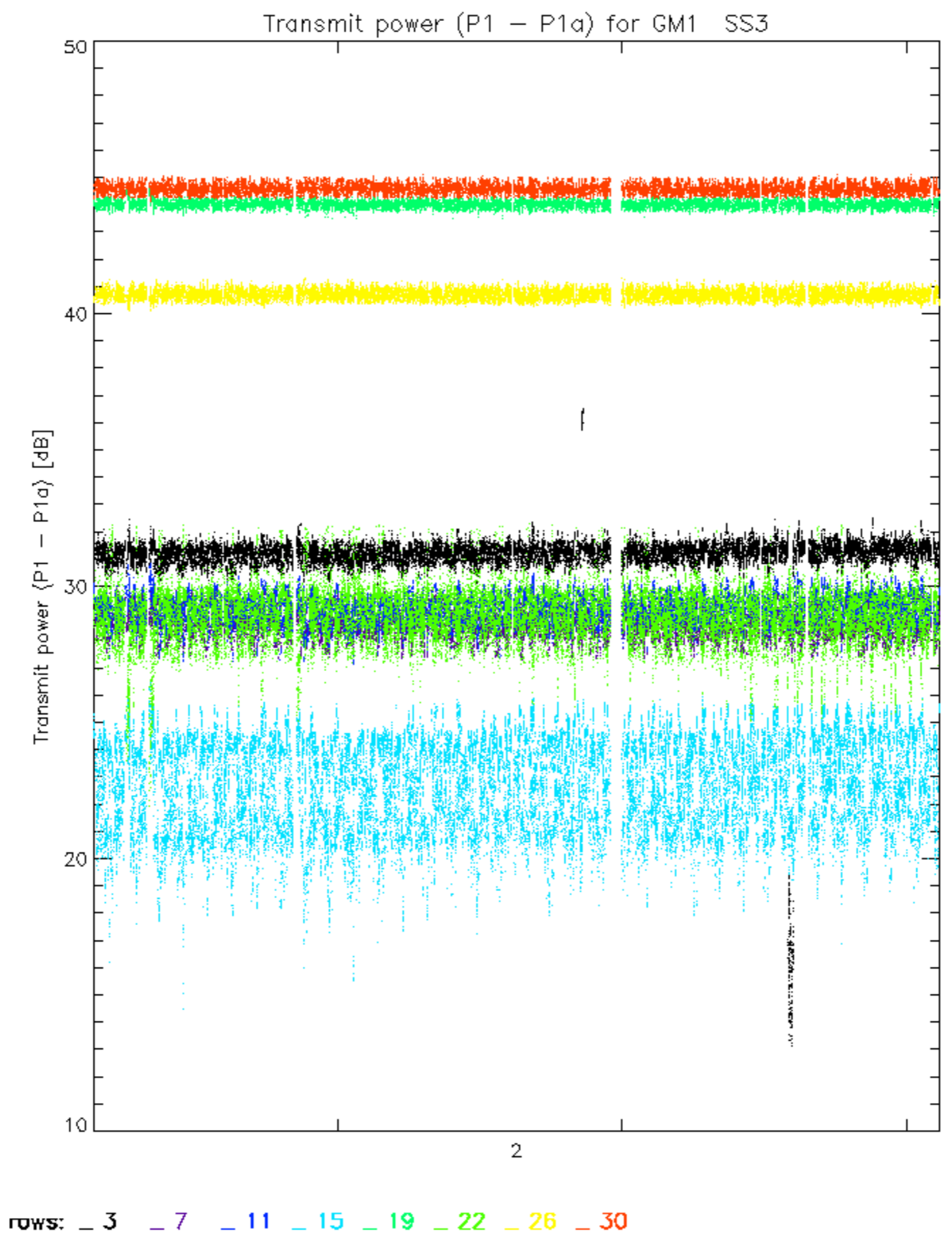


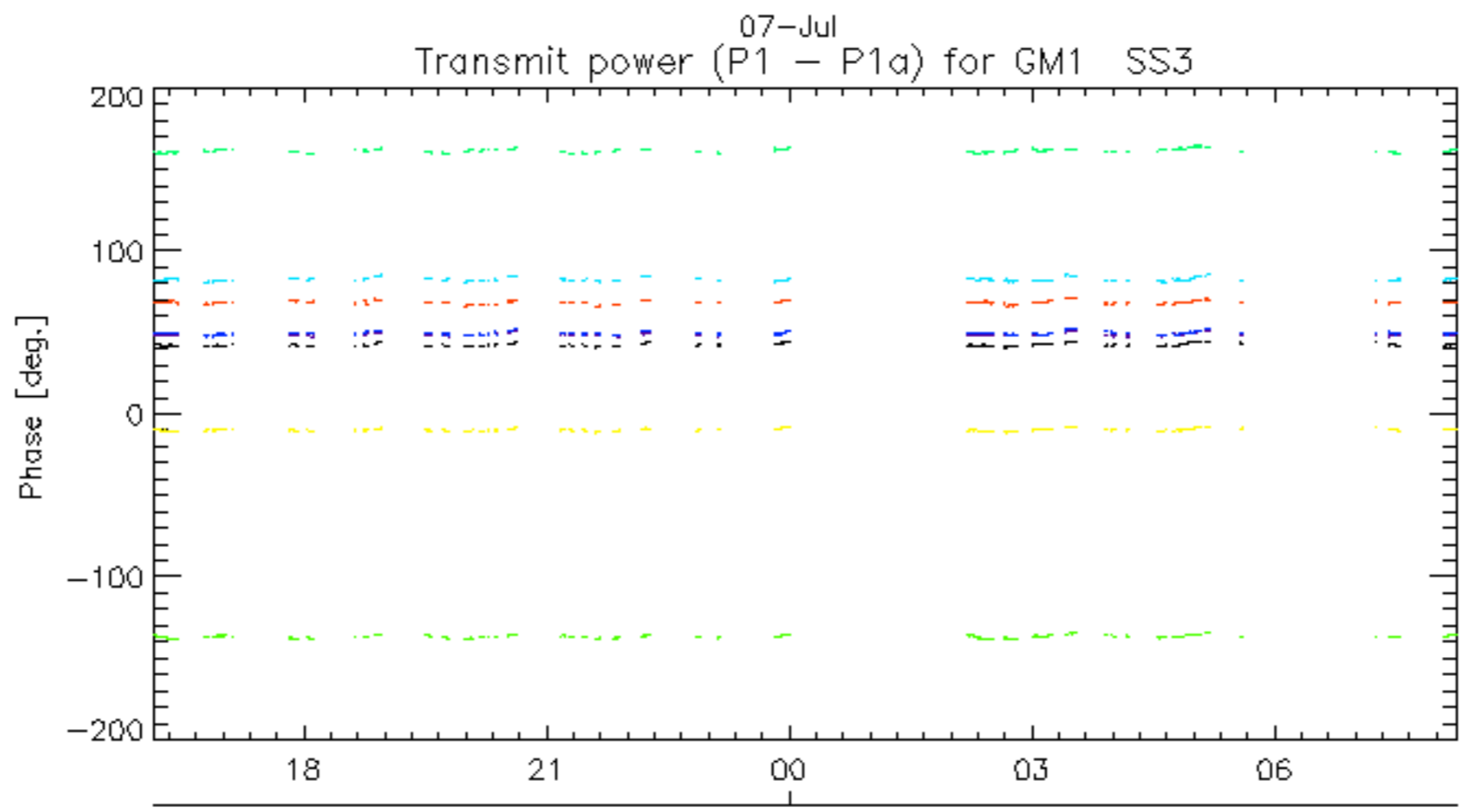
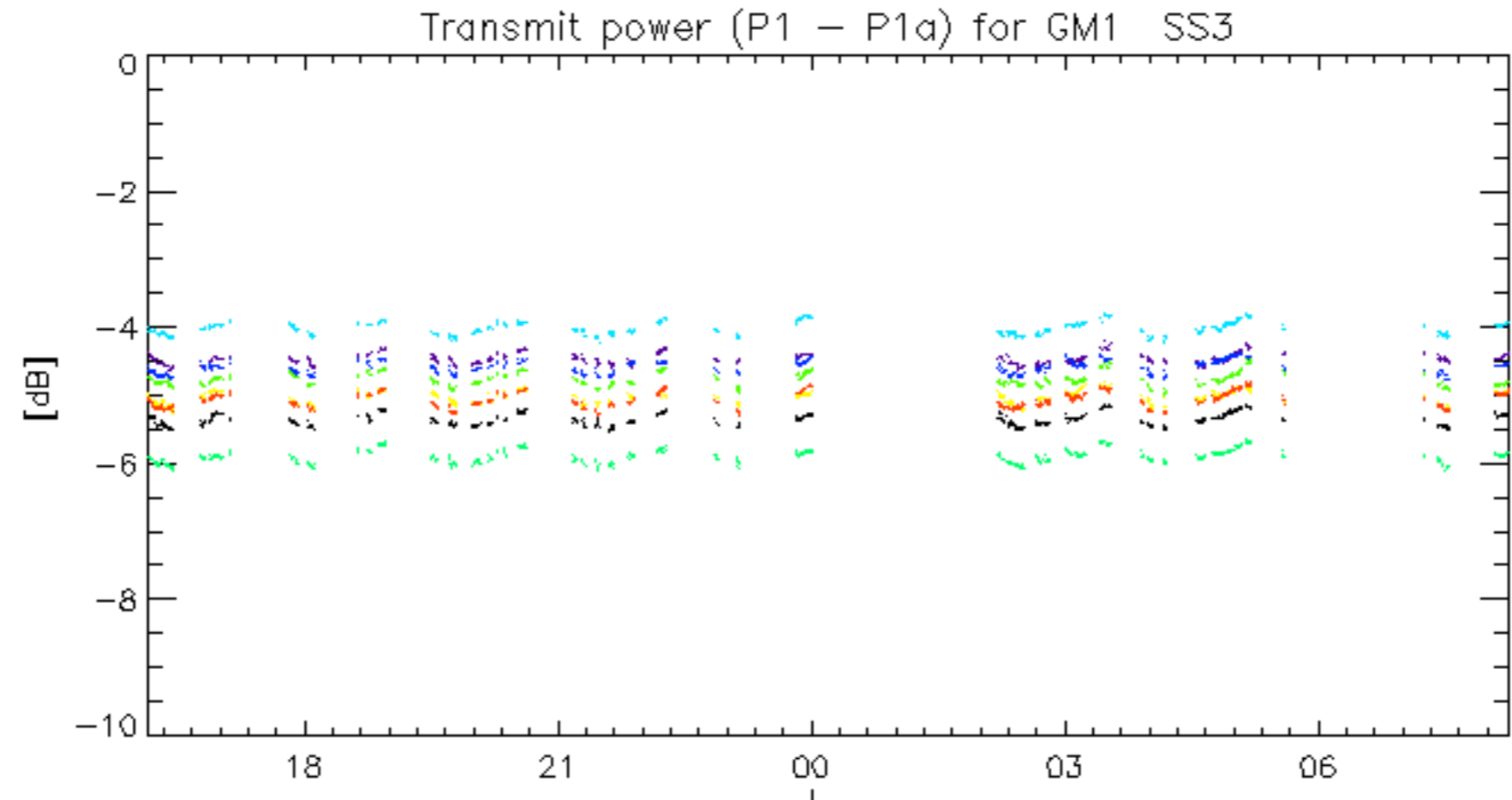
Summary of analysis for the last 3 days 2006070[567]

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

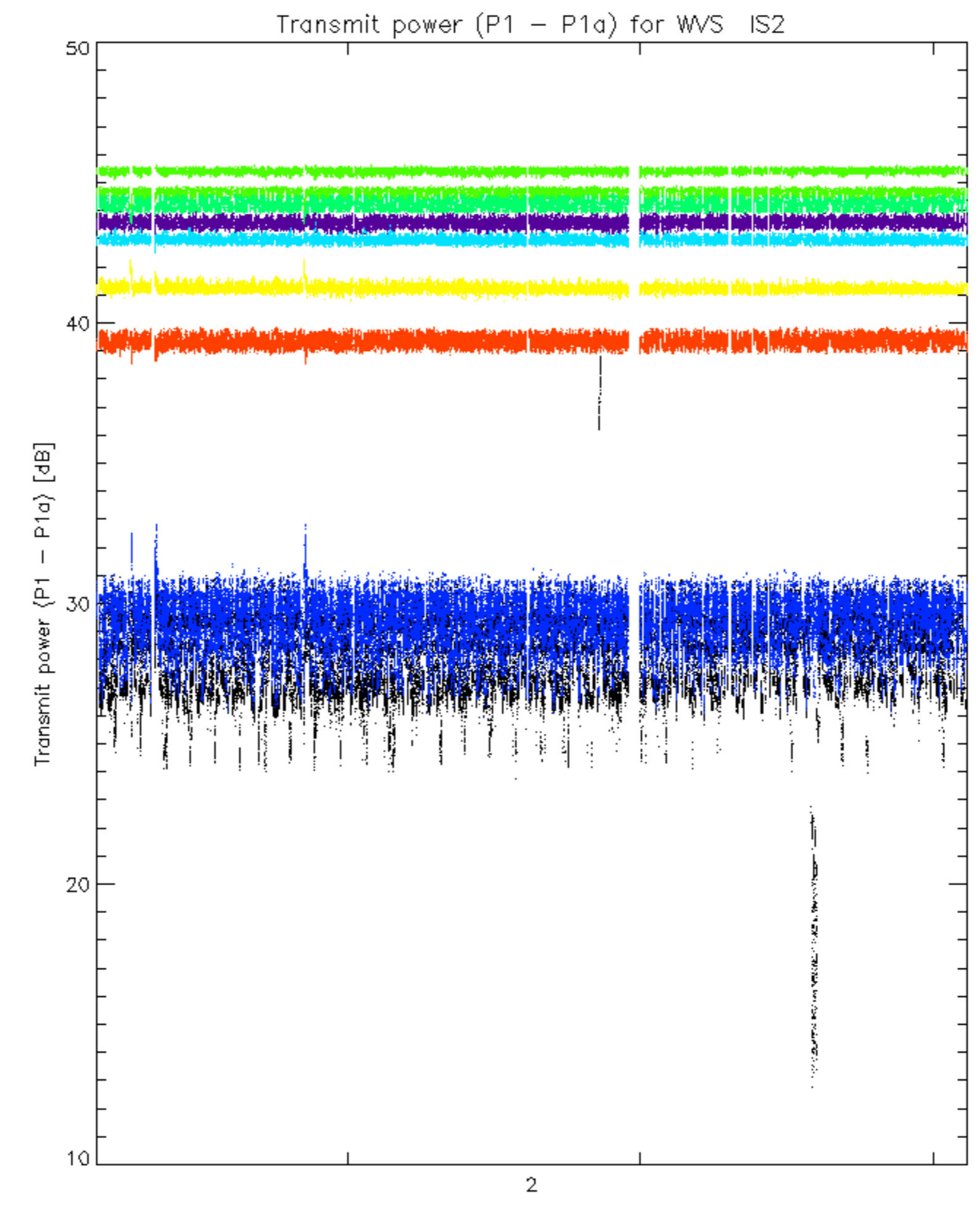
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20060706_022612_00000862049_00132_22731_1537.N1	0	48
ASA_WSM_1PNPDE20060706_182823_000002692049_00142_22741_1631.N1	0	69



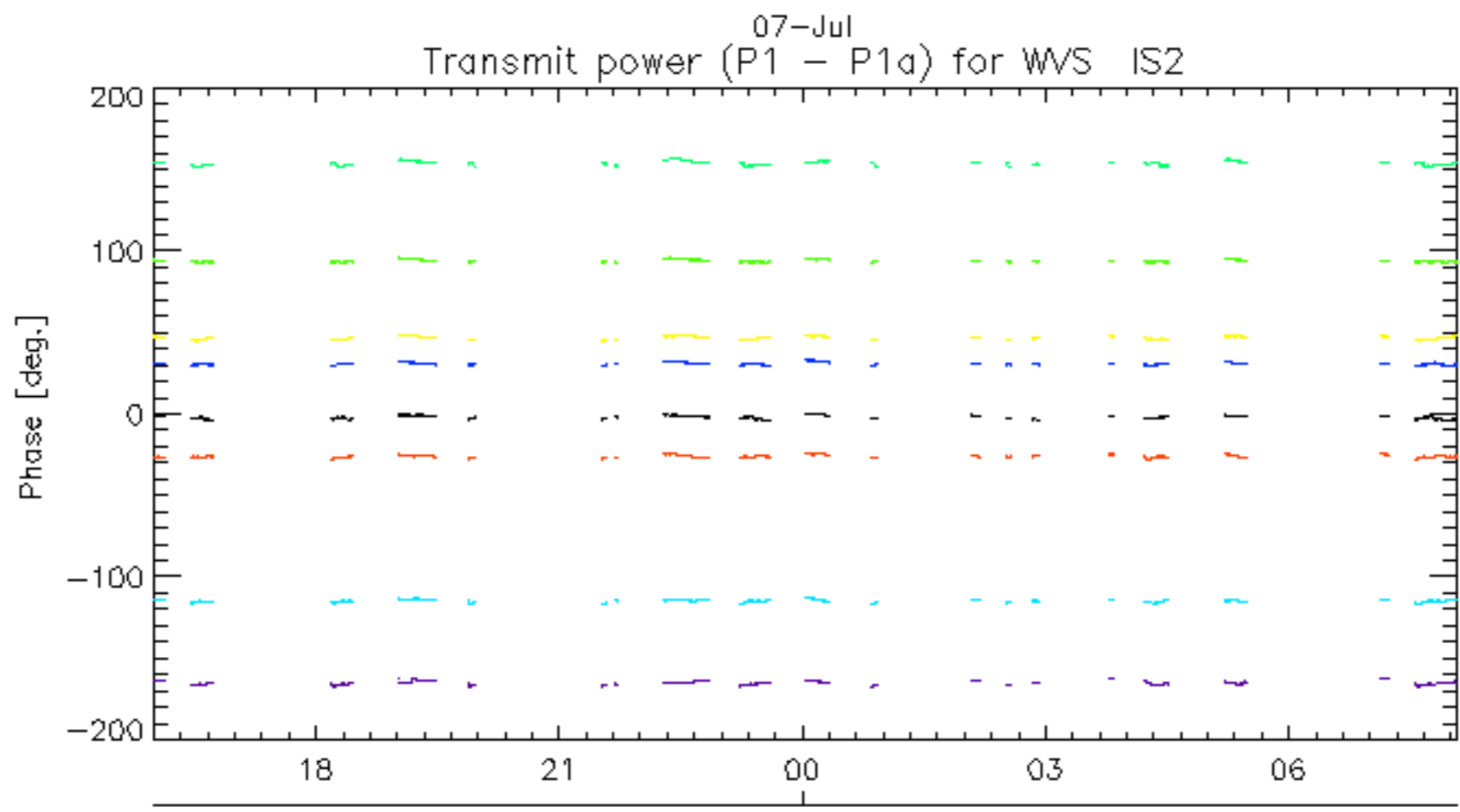
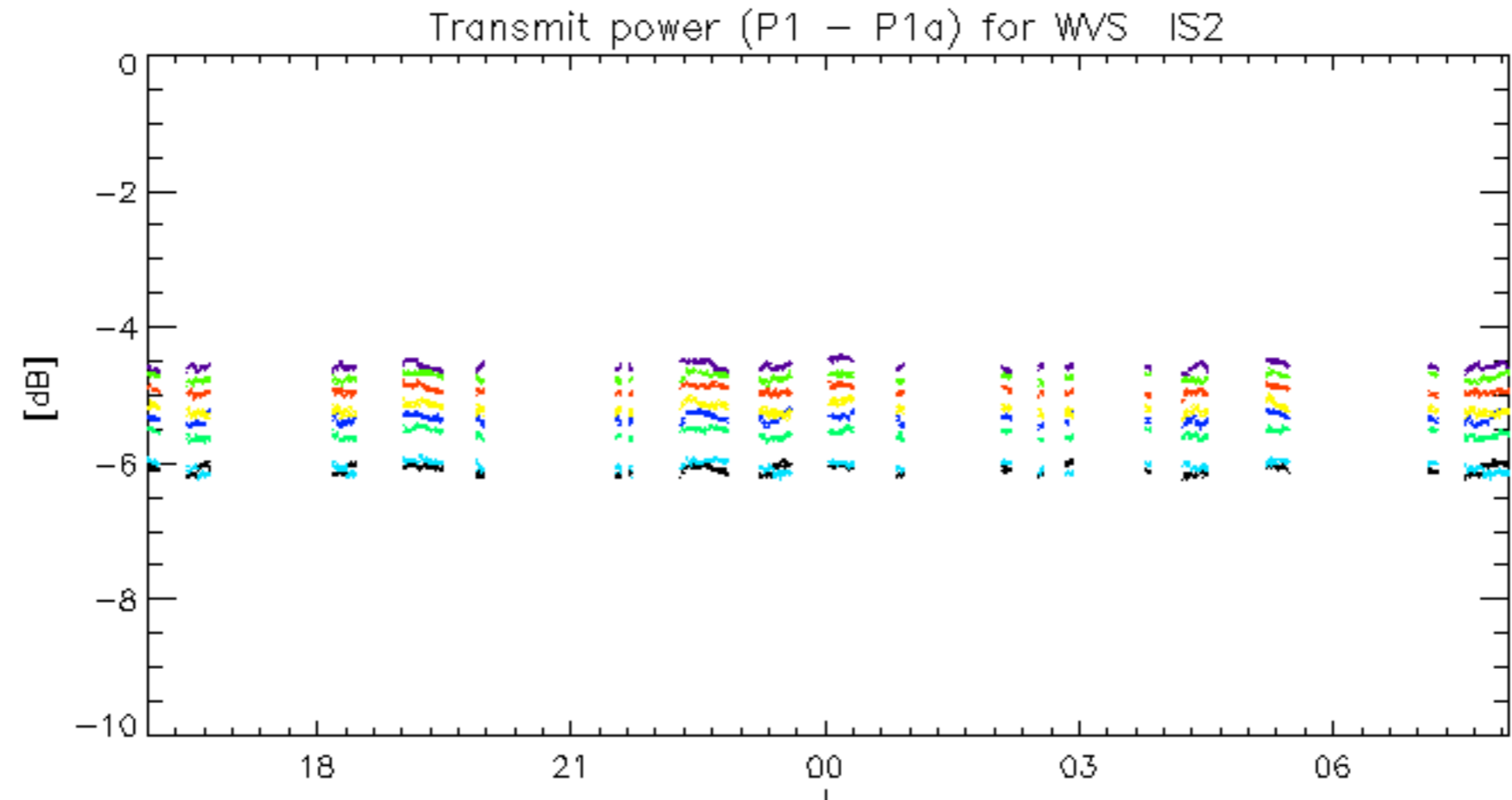




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.