

PRELIMINARY REPORT OF 060604

last update on Sun Jun 4 16:44:02 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 2006-06-03 00:00:00 to 2006-06-04 16:44:02

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	48	68	13	0	23
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	48	68	13	0	23
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	48	68	13	0	23
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	68	13	0	23

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	32	48	23	23	62
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	32	48	23	23	62
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	32	48	23	23	62
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	32	48	23	23	62

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	20060603 064401
H	20060604 061224

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
<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	-3.954885	0.017162	0.055933
7	P1	-3.109979	0.016577	-0.057988
11	P1	-4.108044	0.017986	0.009999
15	P1	-6.135149	0.019782	-0.003137
19	P1	-3.323018	0.008439	-0.041018
22	P1	-4.517230	0.011366	0.034675
26	P1	-3.984652	0.018415	0.046196
30	P1	-5.747430	0.008343	0.018725
3	P1	-16.566164	0.260568	0.198873
7	P1	-17.153332	0.148356	-0.162636
11	P1	-16.924095	0.311344	-0.047984
15	P1	-13.214012	0.211606	-0.019234
19	P1	-14.267502	0.047997	-0.096010
22	P1	-16.160448	0.379807	-0.019611
26	P1	-15.266756	0.246120	0.074346
30	P1	-17.032068	0.371762	-0.236224

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.204636	0.080990	0.143058
7	P2	-22.086779	0.097442	0.162706
11	P2	-15.931834	0.109957	0.137499
15	P2	-7.162424	0.091802	0.029109
19	P2	-9.165399	0.084528	-0.001214
22	P2	-18.125900	0.082185	-0.077538
26	P2	-16.369446	0.087412	-0.052505
30	P2	-19.577850	0.085262	0.076915

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.185794	0.003998	0.024488
7	P3	-8.185794	0.003998	0.024488
11	P3	-8.185794	0.003998	0.024488
15	P3	-8.185794	0.003998	0.024488
19	P3	-8.185794	0.003998	0.024488
22	P3	-8.185794	0.003998	0.024488
26	P3	-8.185794	0.003998	0.024488
30	P3	-8.185794	0.003998	0.024488

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	-3.778036	0.064703	-0.080424
7	P1	-2.604629	0.032041	0.053577
11	P1	-2.865496	0.023917	0.009398
15	P1	-3.498302	0.049069	-0.018083
19	P1	-3.396680	0.014016	-0.021800
22	P1	-5.087511	0.020088	0.025105
26	P1	-5.838875	0.015122	-0.021051
30	P1	-5.188097	0.026275	0.011292
3	P1	-11.615076	0.079970	-0.024777
7	P1	-9.963812	0.053997	0.031036
11	P1	-10.200867	0.085443	-0.002942
15	P1	-10.628581	0.148485	-0.069835
19	P1	-15.509171	0.076100	-0.068951
22	P1	-20.889162	1.230667	-0.088984
26	P1	-16.481653	0.351746	0.013506
30	P1	-18.006838	0.388771	0.296747

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.892328	0.064500	0.099404
7	P2	-22.517233	0.122926	0.063669
11	P2	-11.180207	0.043771	0.053168
15	P2	-4.905225	0.044590	-0.022373
19	P2	-6.877114	0.044027	-0.002400
22	P2	-8.194631	0.039813	-0.036015
26	P2	-24.107687	0.063034	-0.043488
30	P2	-22.063248	0.051142	-0.003234

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019265	0.004521	0.022551
7	P3	-8.019411	0.004512	0.022555
11	P3	-8.019341	0.004501	0.022504
15	P3	-8.019222	0.004511	0.022282
19	P3	-8.019384	0.004511	0.022489
22	P3	-8.019390	0.004496	0.022340
26	P3	-8.019302	0.004500	0.021926
30	P3	-8.019257	0.004509	0.022283

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	0.000528659
	stdev	1.92318e-07
MEAN Q	mean	0.000509072
	stdev	2.31731e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.133758
	stdev	0.00119264
STDEV Q	mean	0.134095
	stdev	0.00120929



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006060[234]

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_1PNPDE20060602_042646_000000522048_00147_22245_6548.N1	1	0
ASA_WSM_1PNPDE20060602_201721_000000852048_00157_22255_2313.N1	0	43
ASA_WSM_1PNPDE20060603_035851_000000852048_00162_22260_2386.N1	0	39
ASA_WSM_1PNPDE20060603_112210_000002262048_00166_22264_2437.N1	0	64







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)


Acsending

<input type="checkbox"/>
Descending

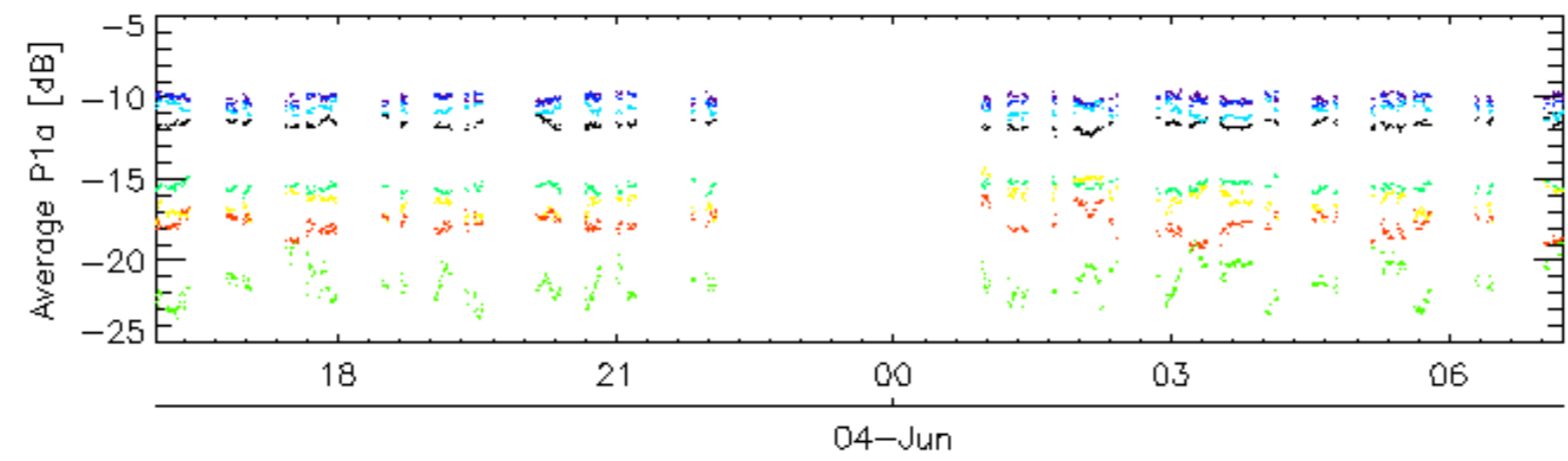
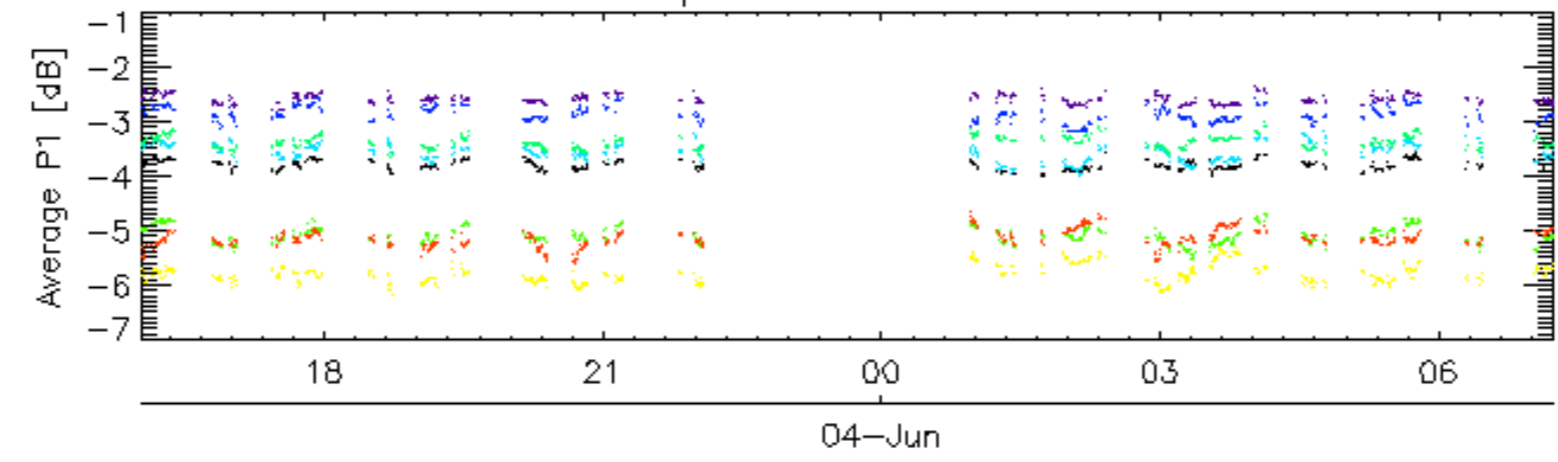
7.5 - Absolute Doppler for GM1

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

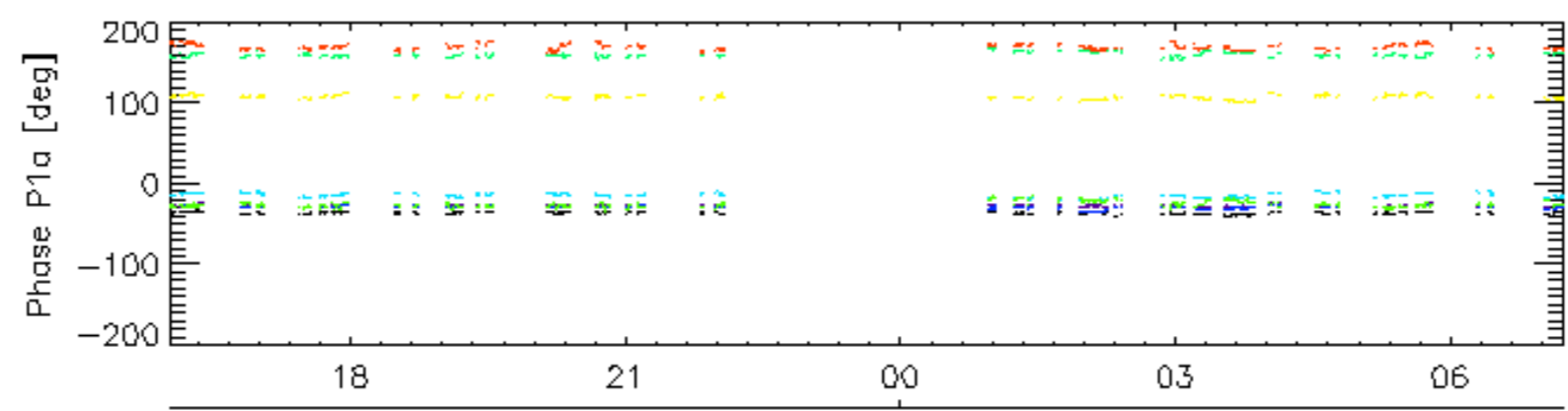
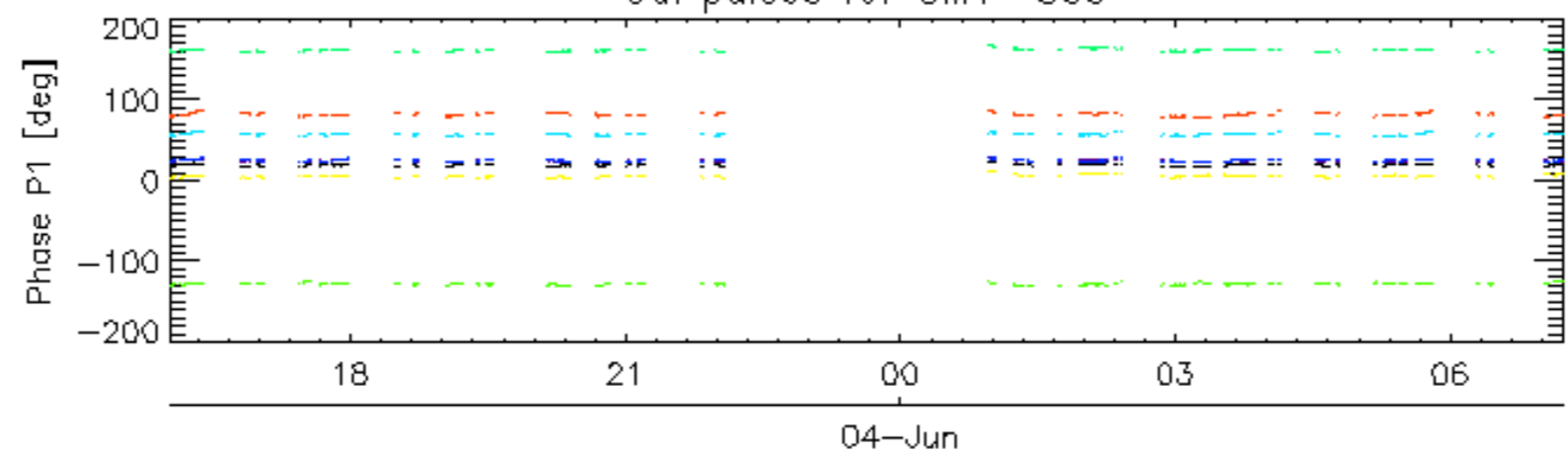
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

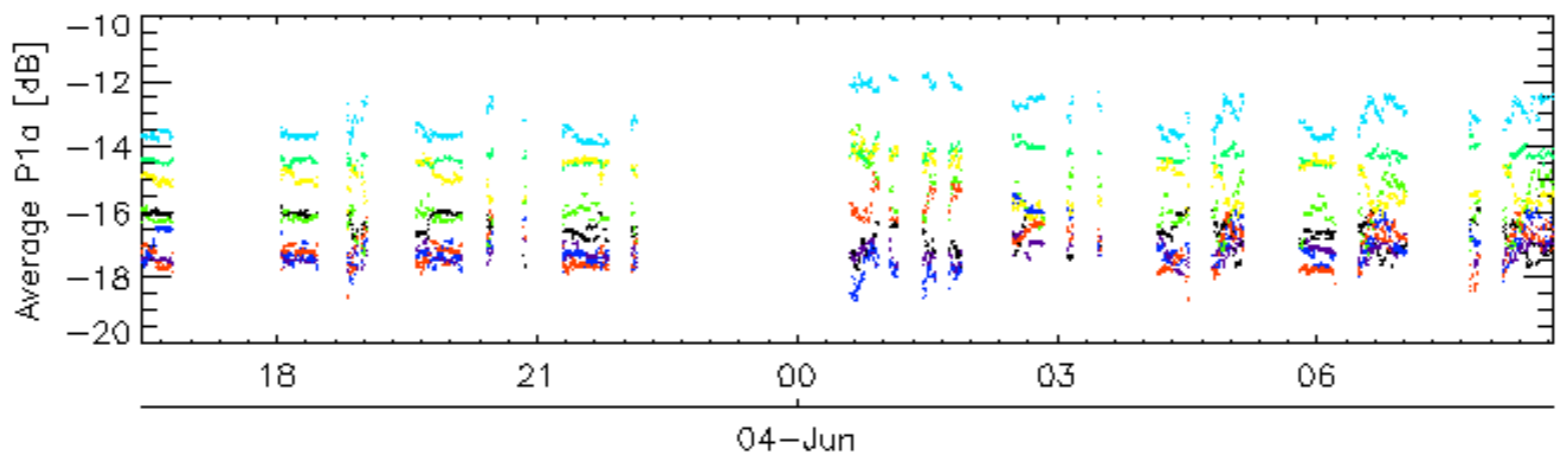
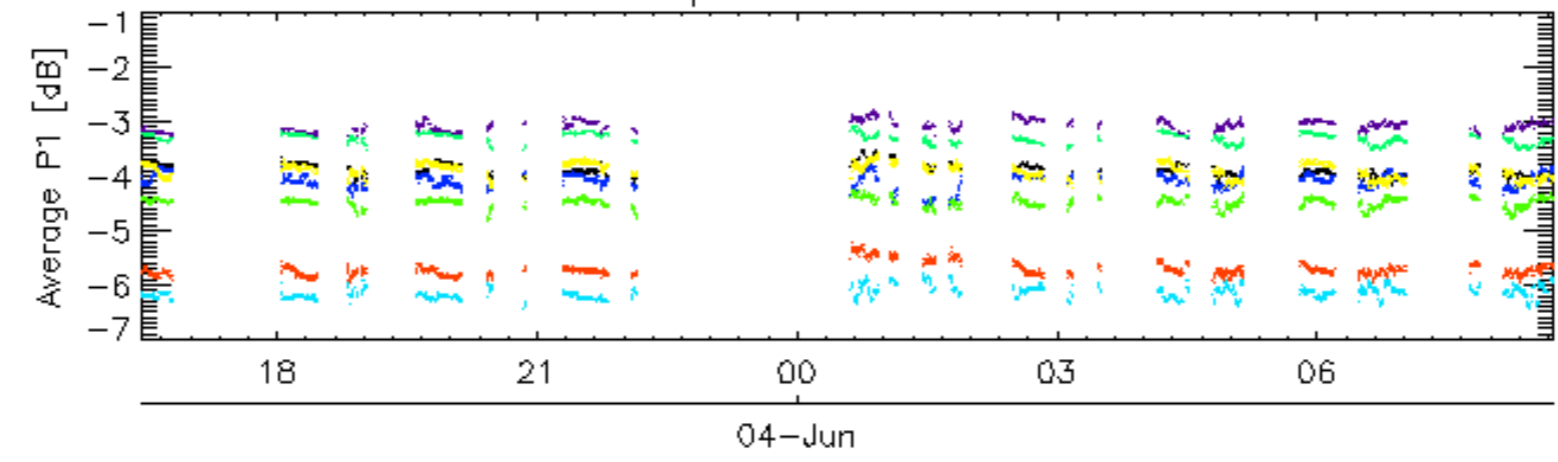


Cal pulses for GM1 SS3

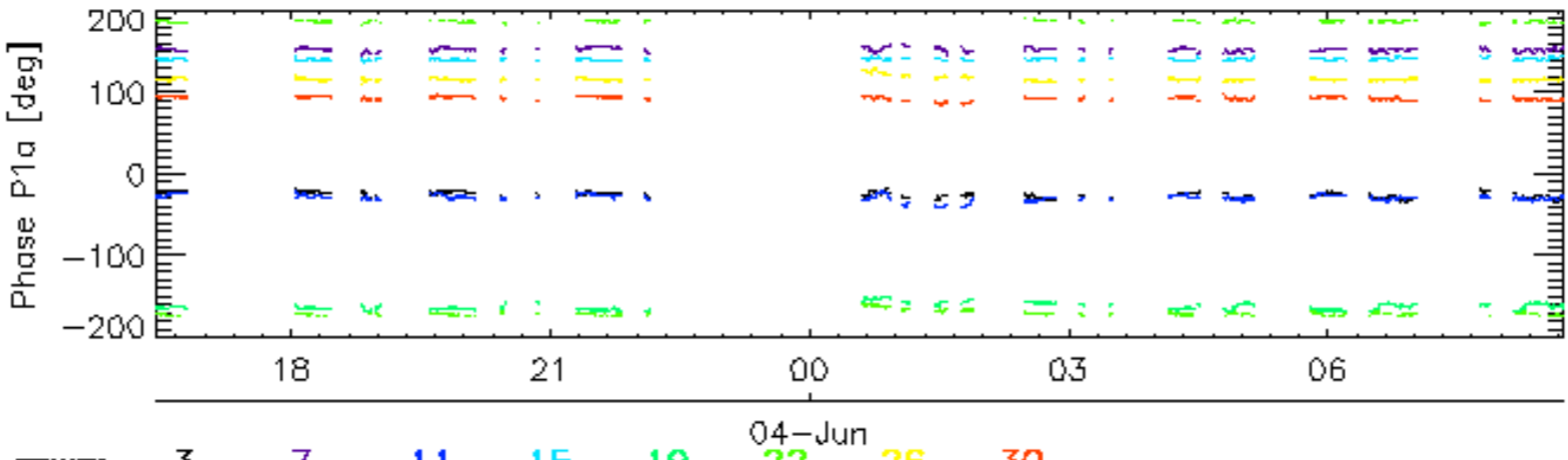
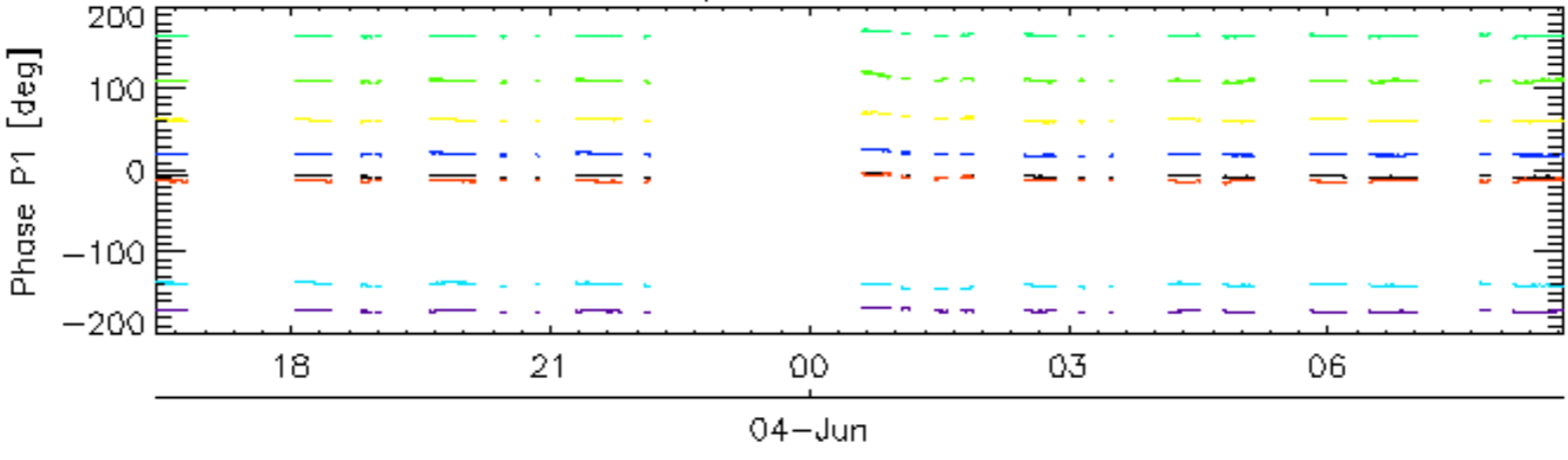


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 04-Jun

Cal pulses for WVS IS2

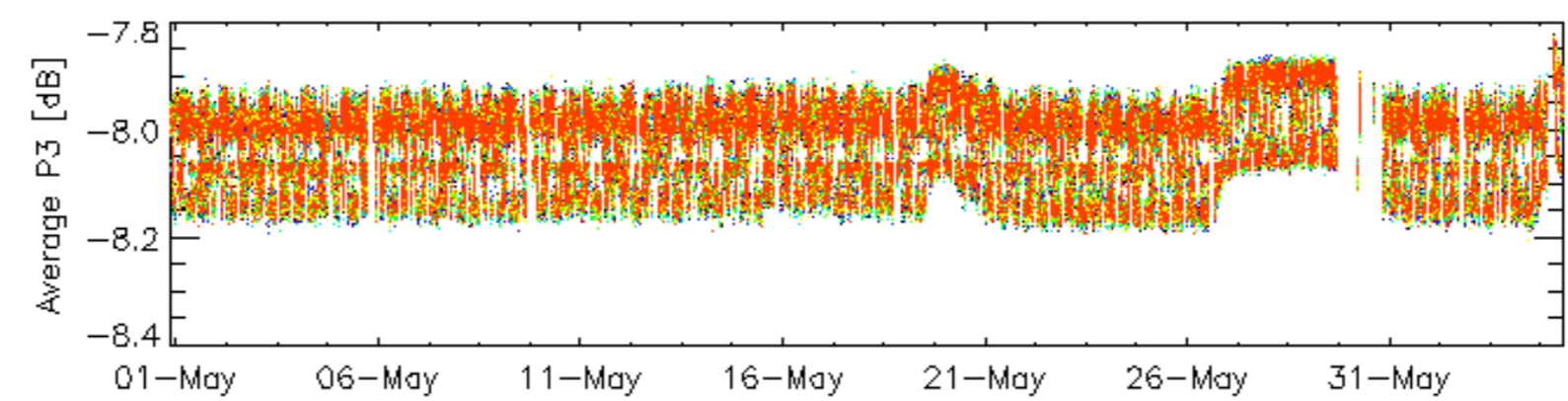
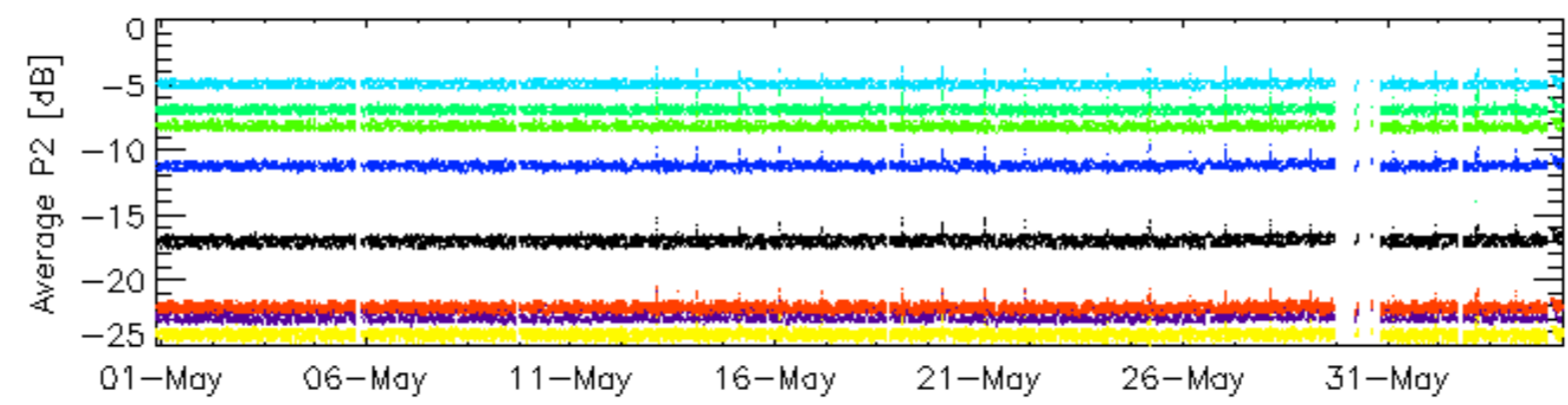
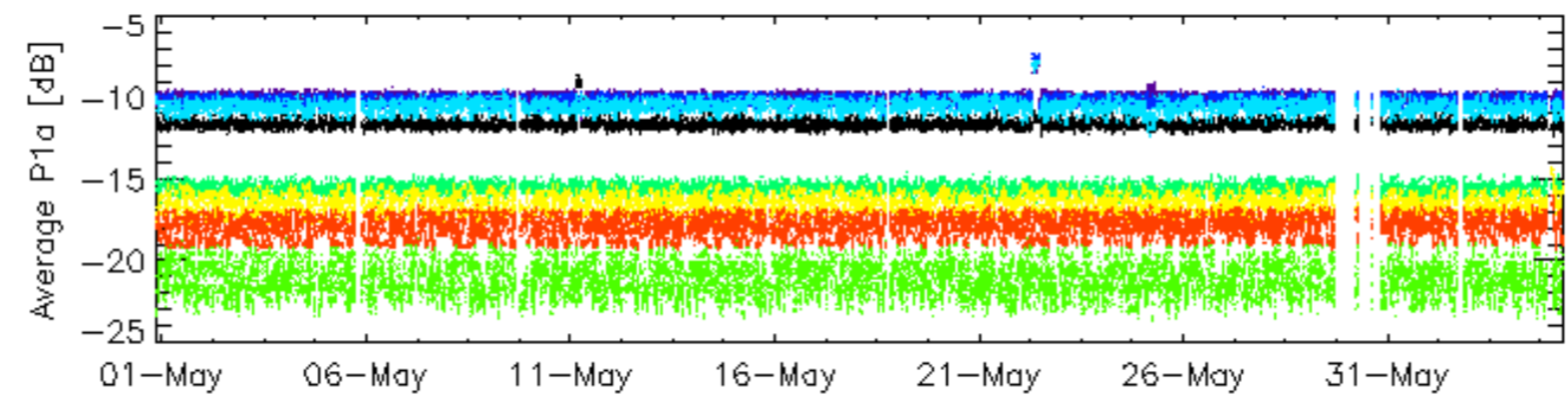
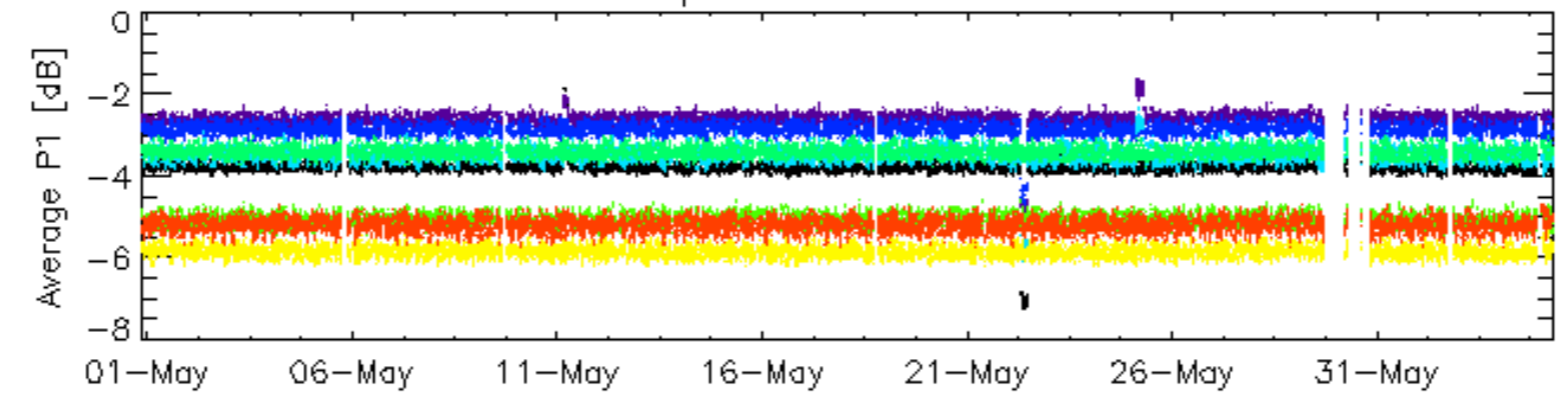


Cal pulses for WVS IS2



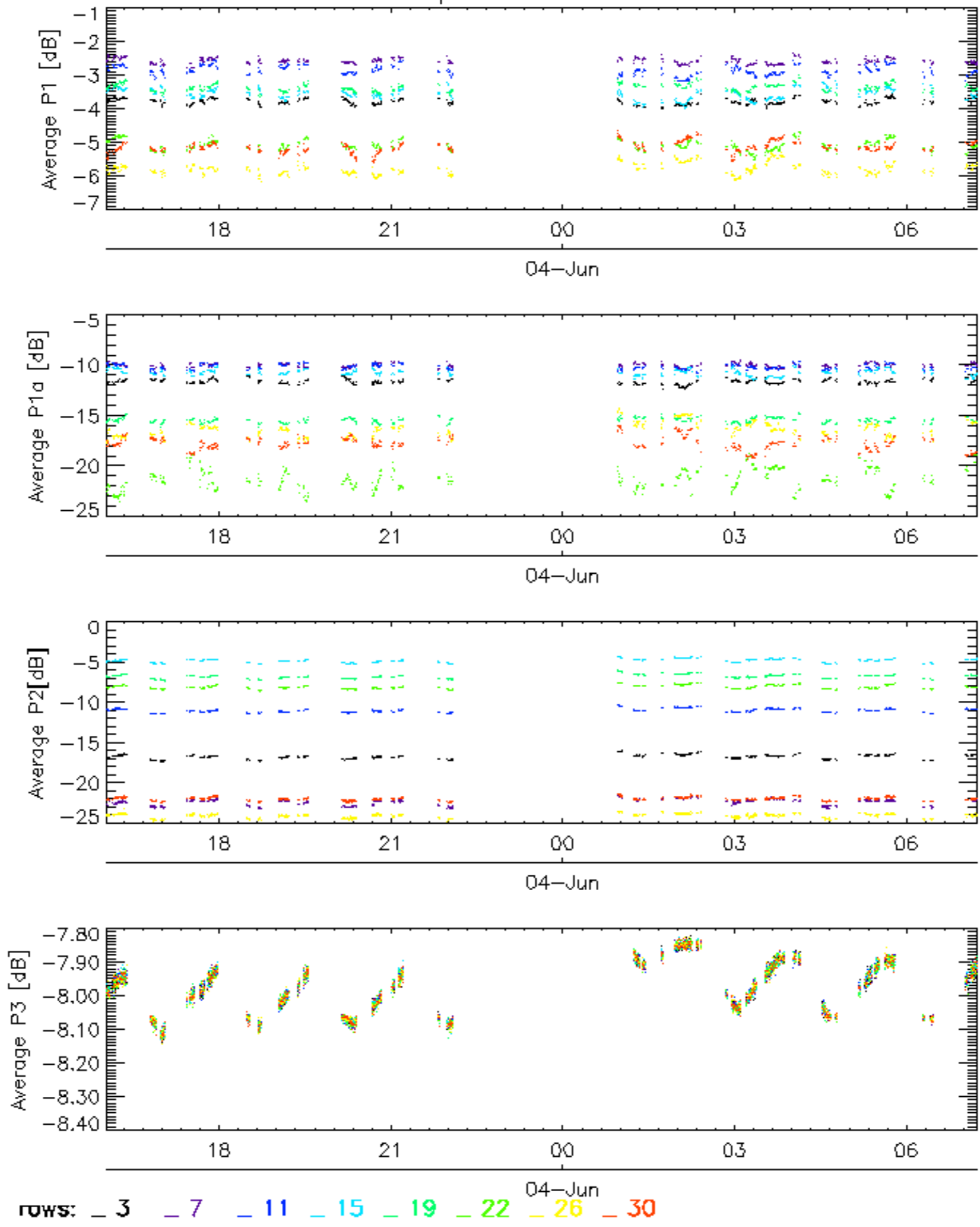
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

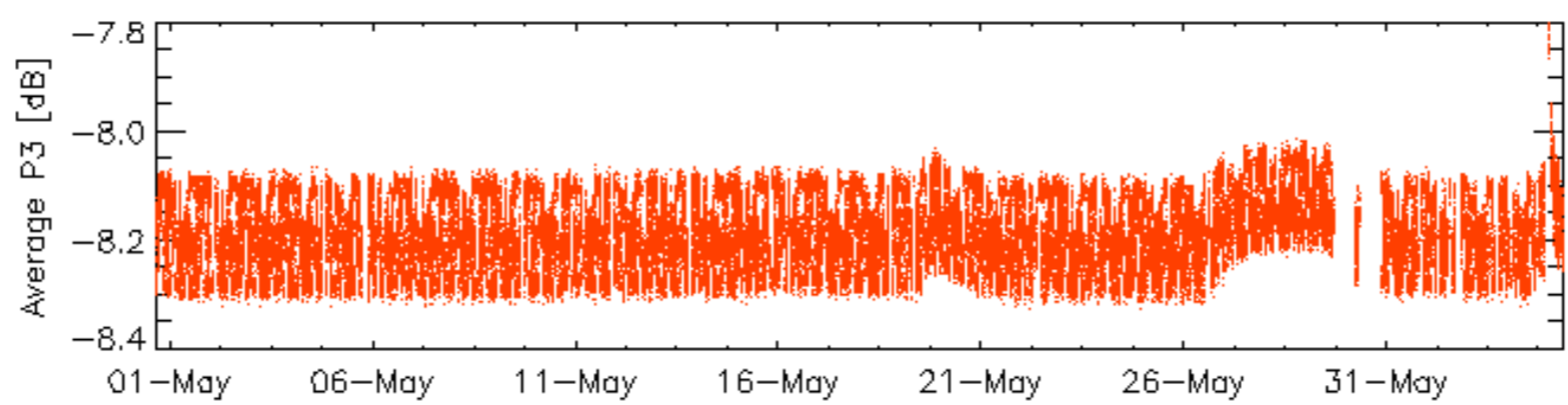
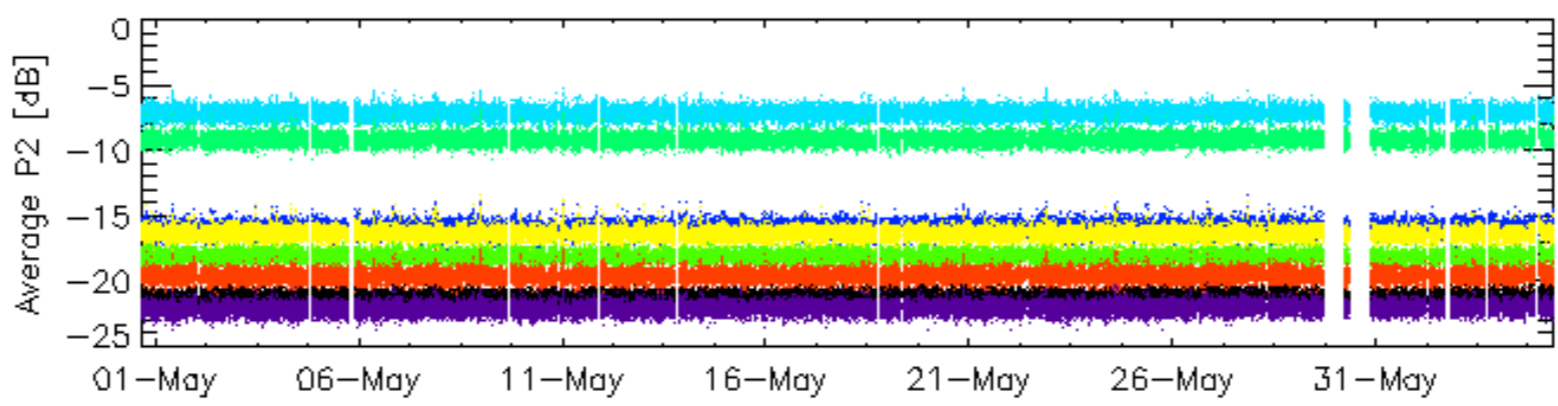
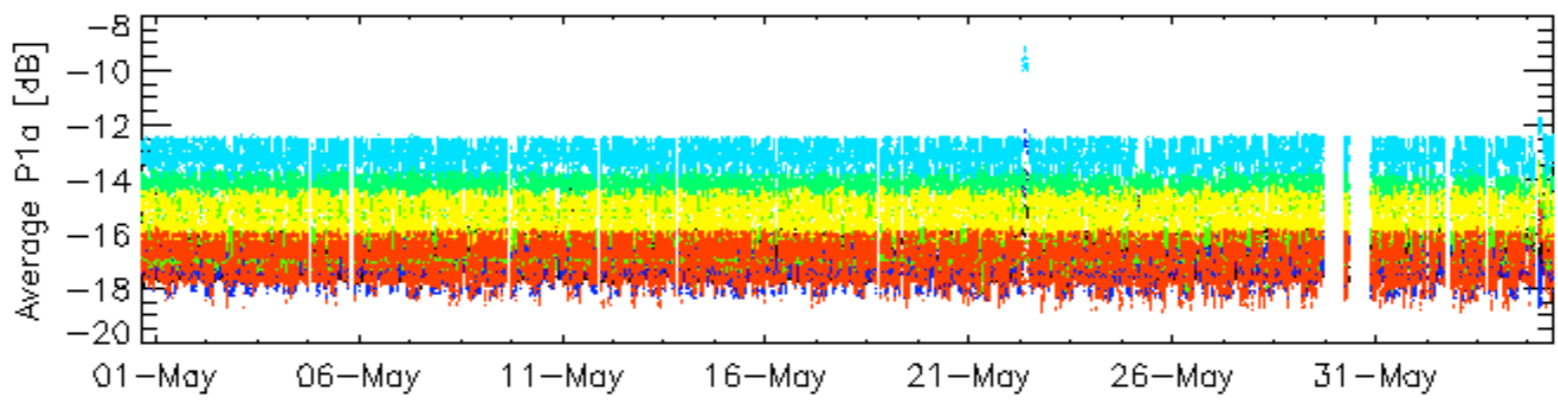
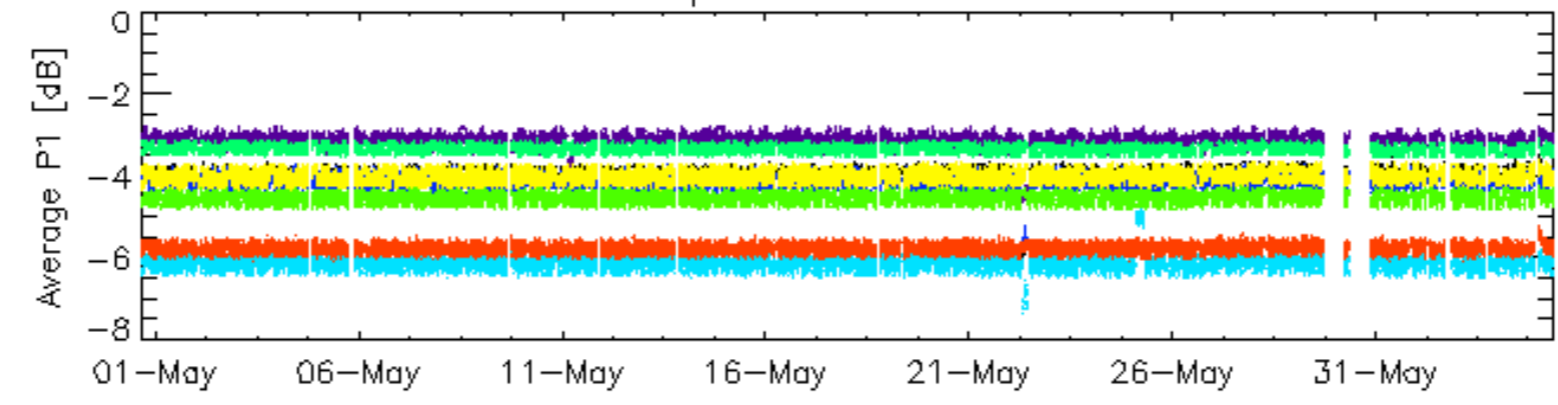


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

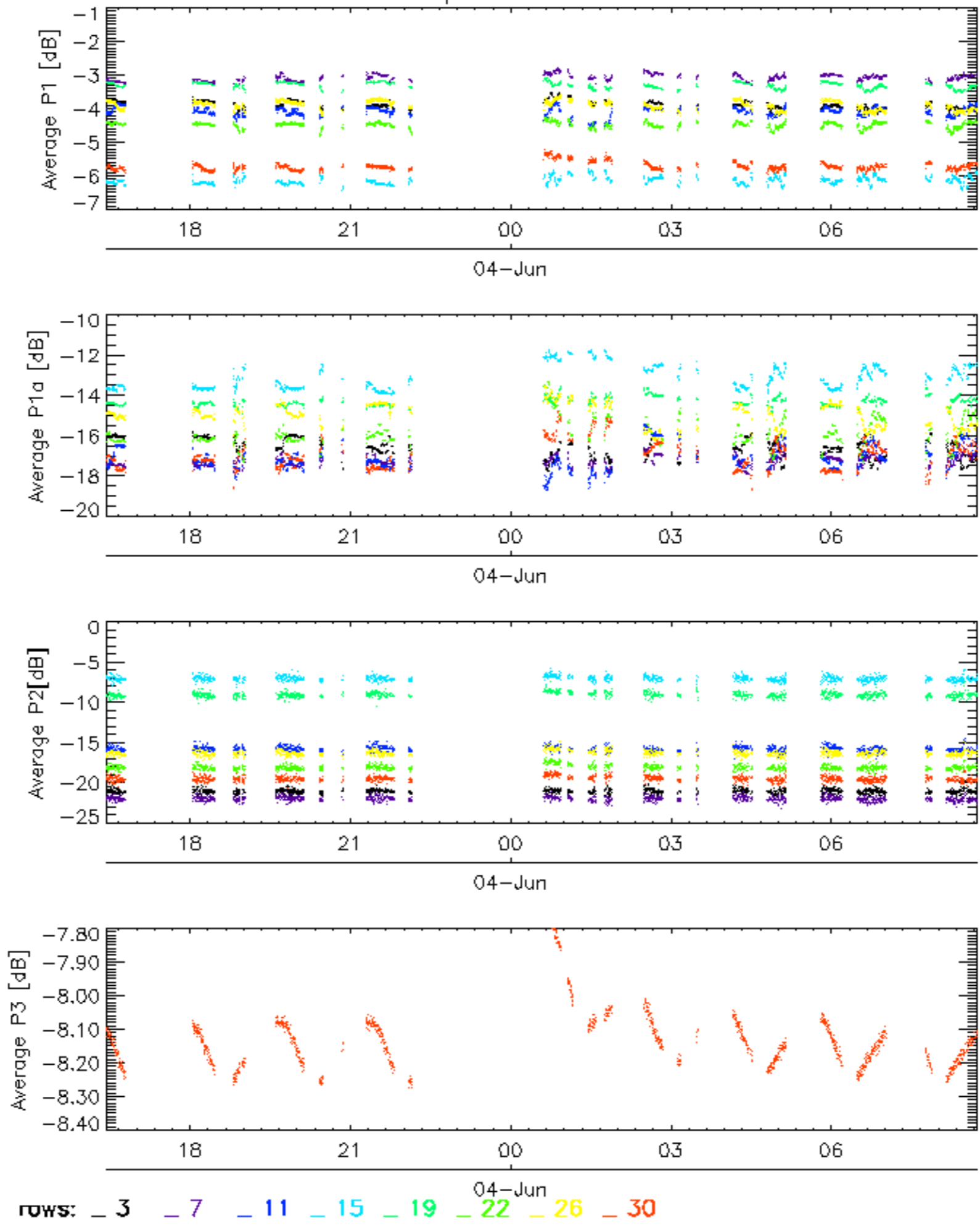


Cal pulses for WVS IS2

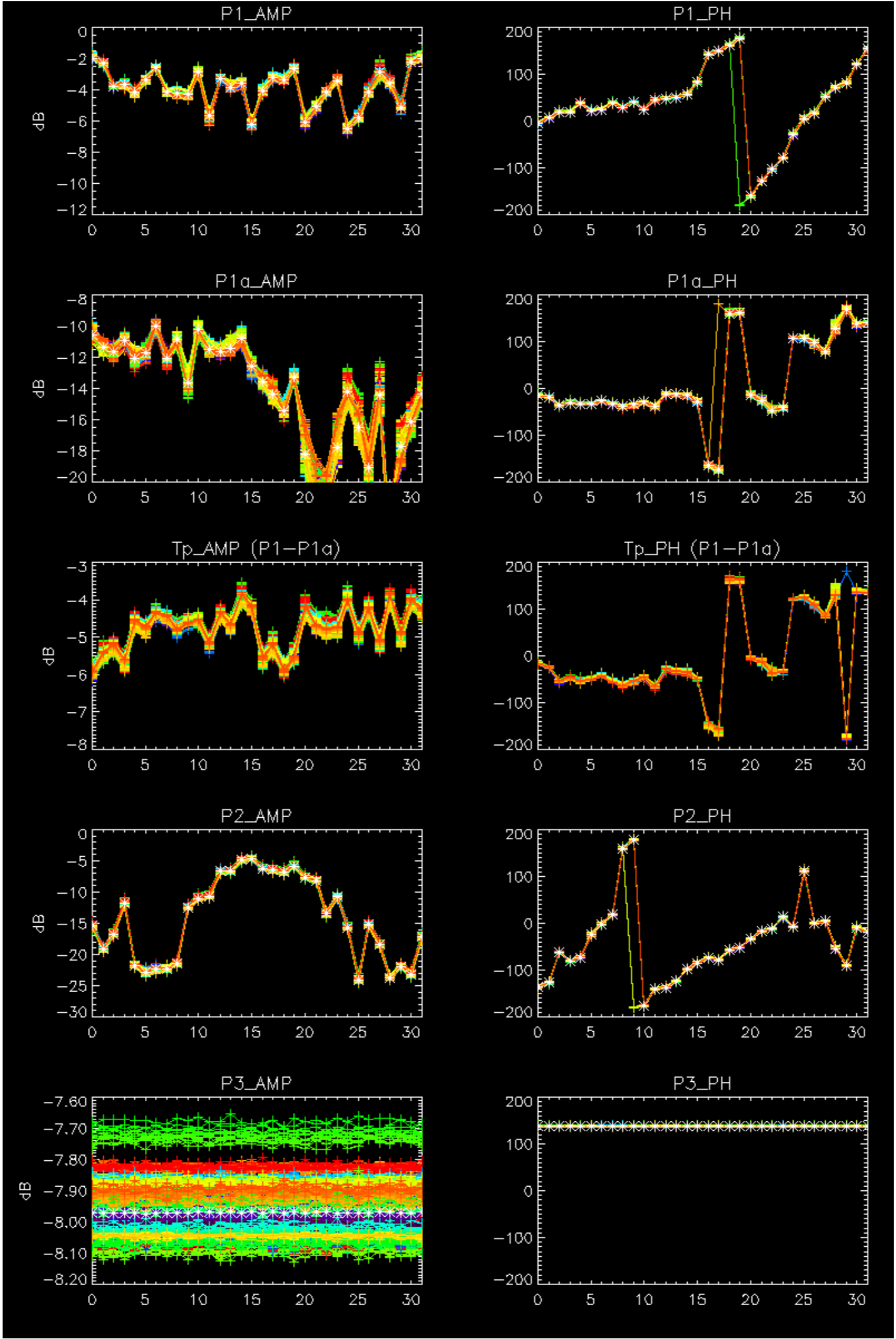


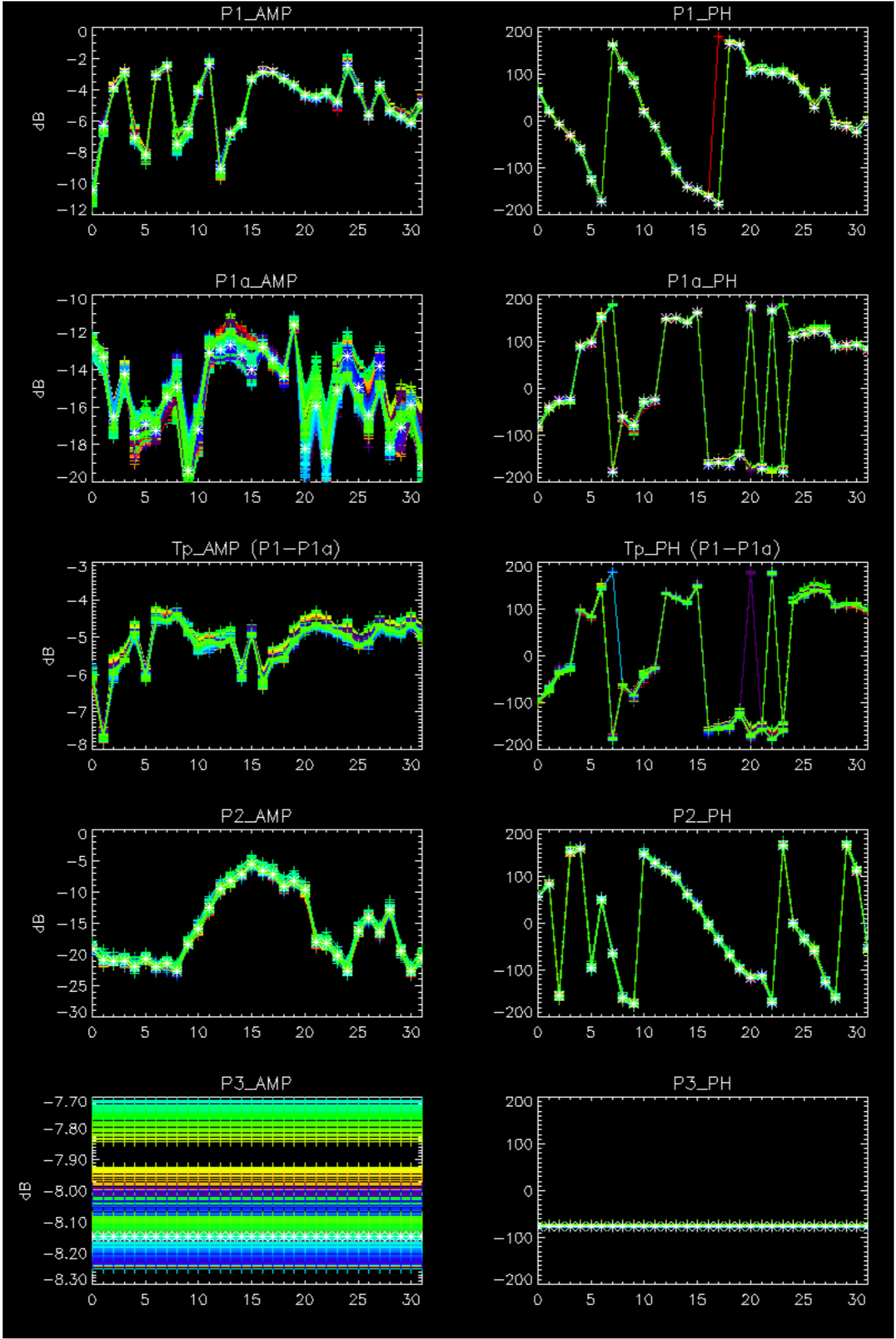
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



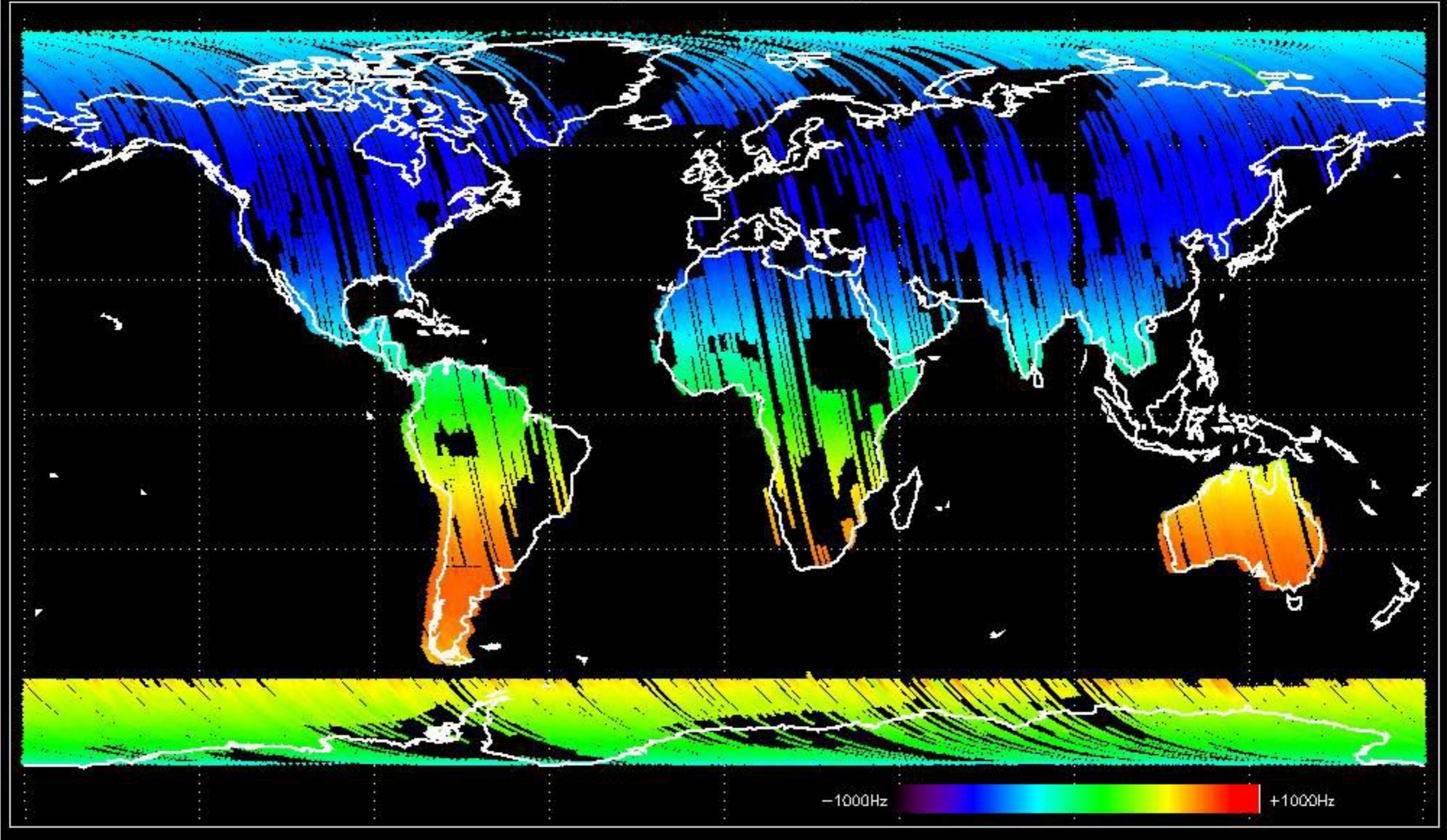
No anomalies observed.



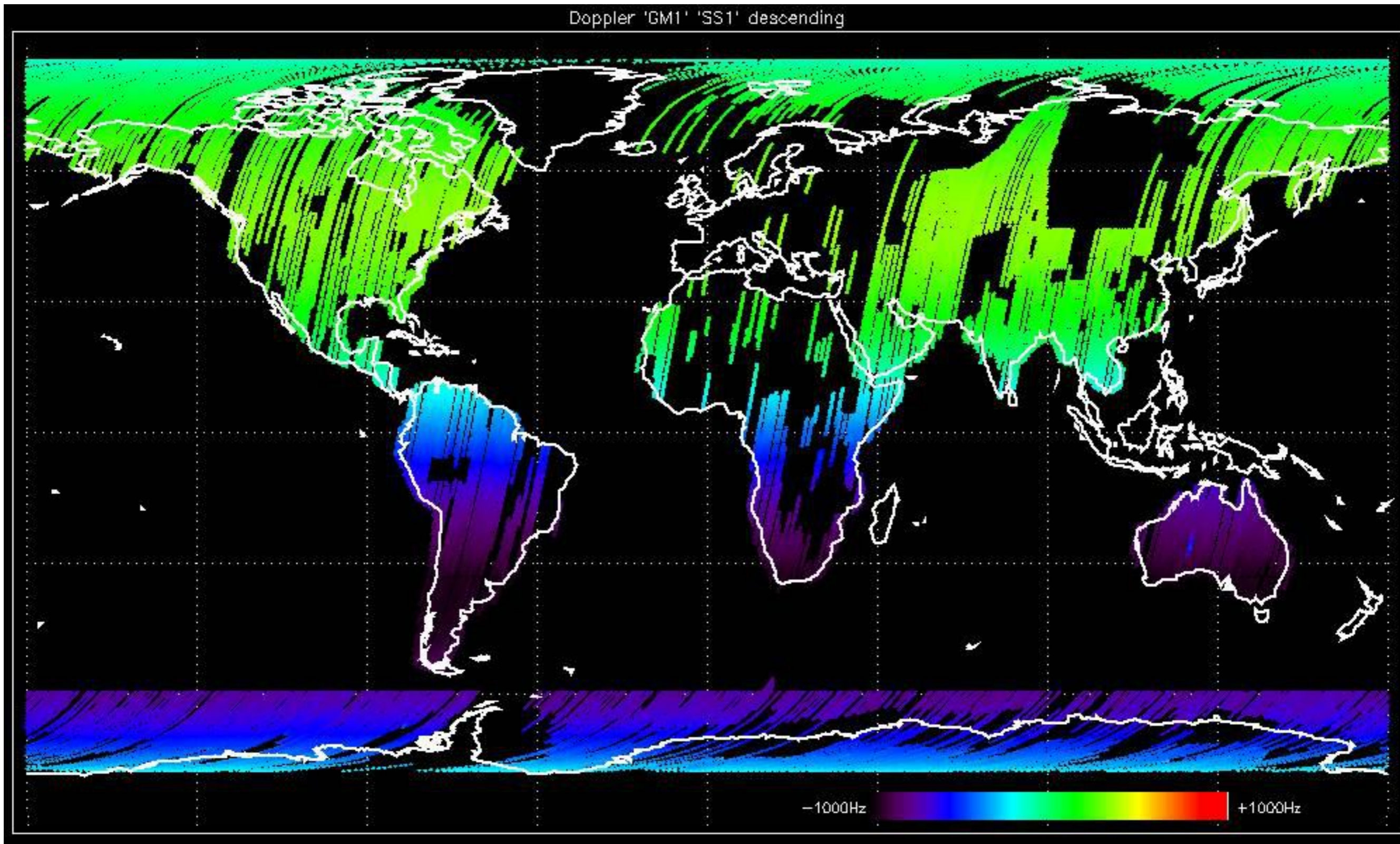


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

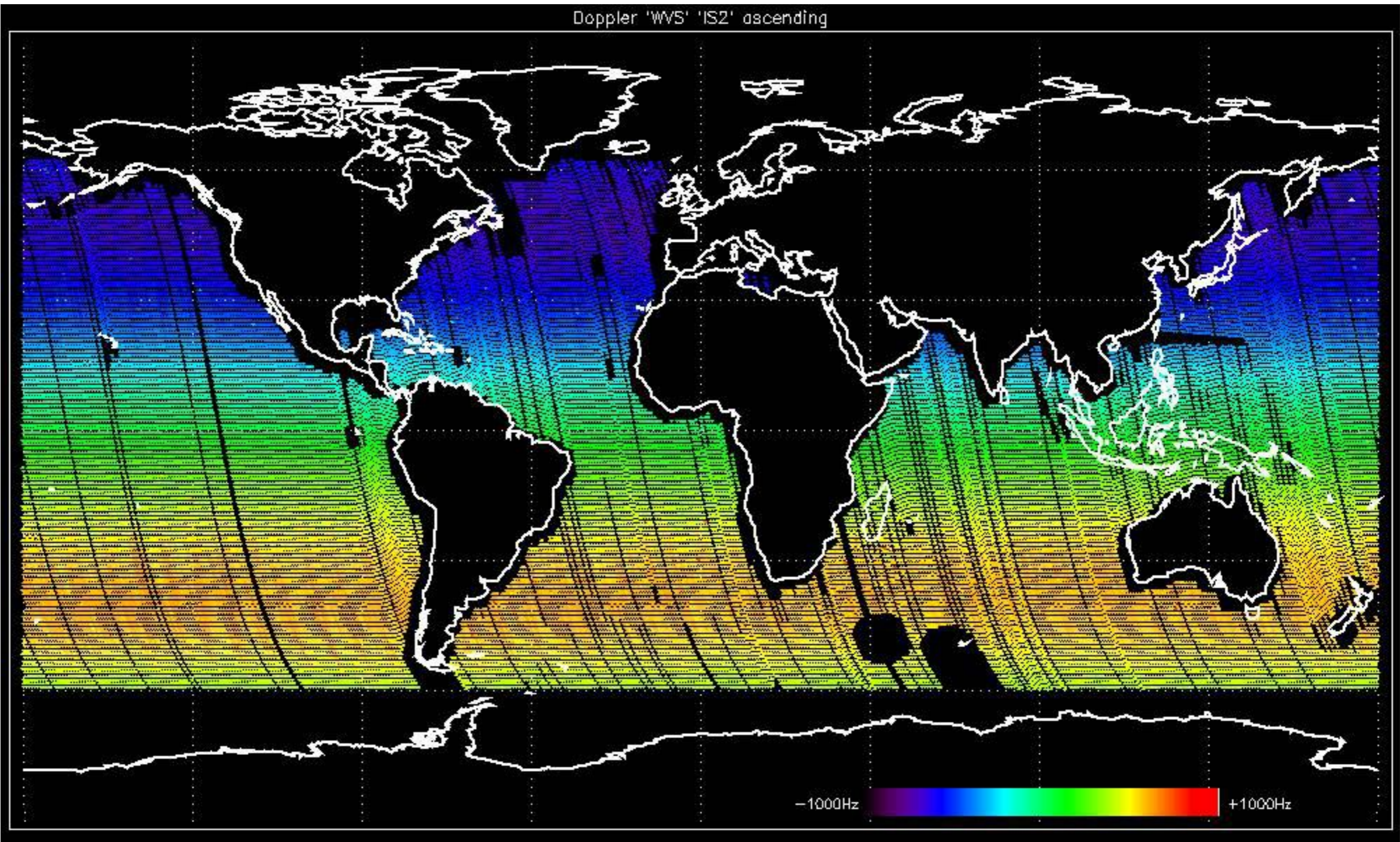
Doppler 'GM1' 'SS1' ascending



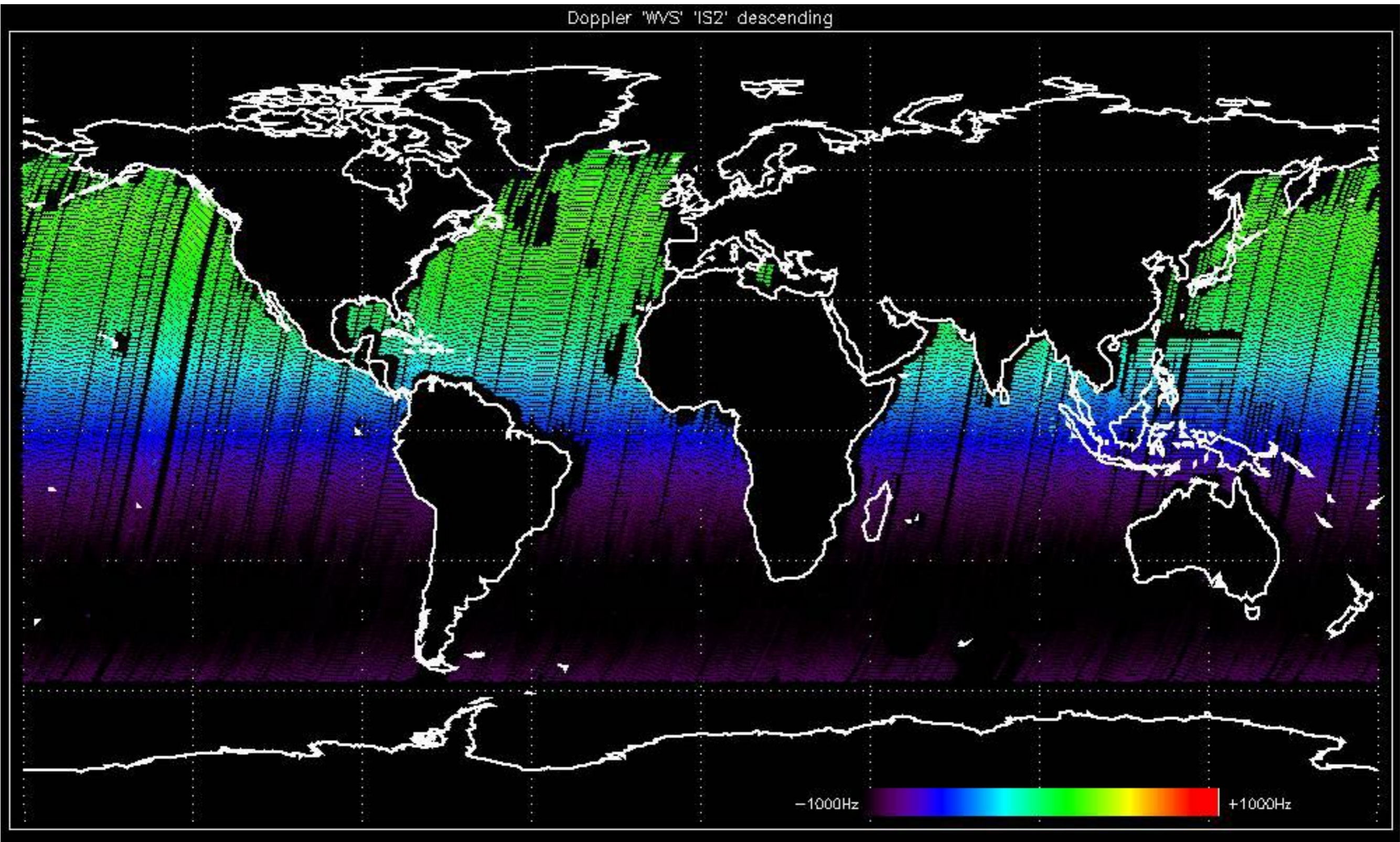
Doppler 'GM1' 'SS1' descending



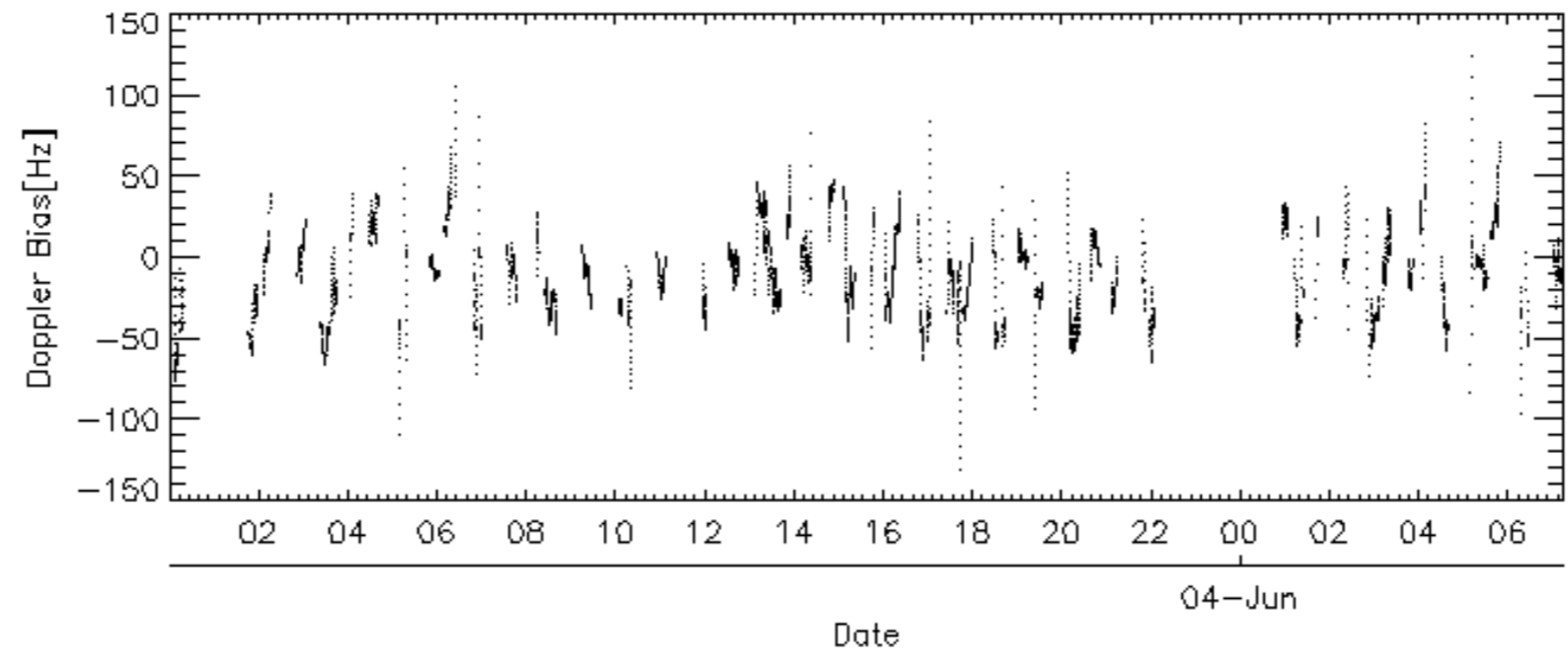
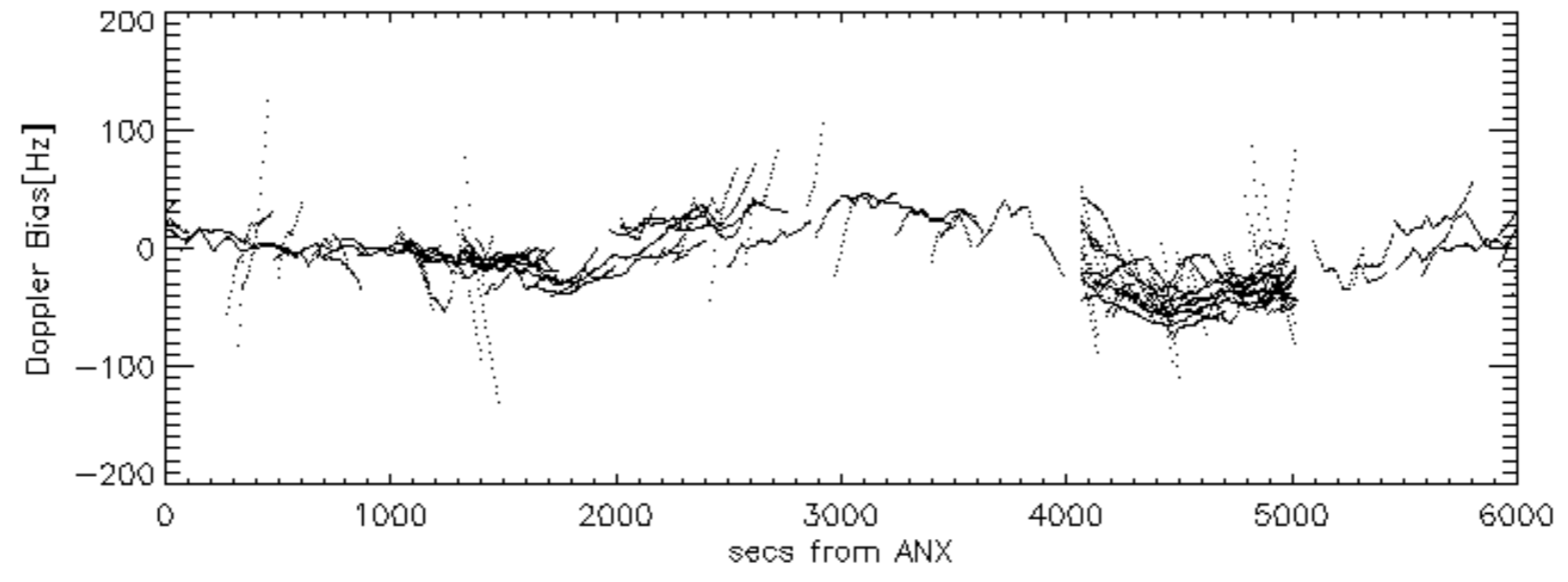
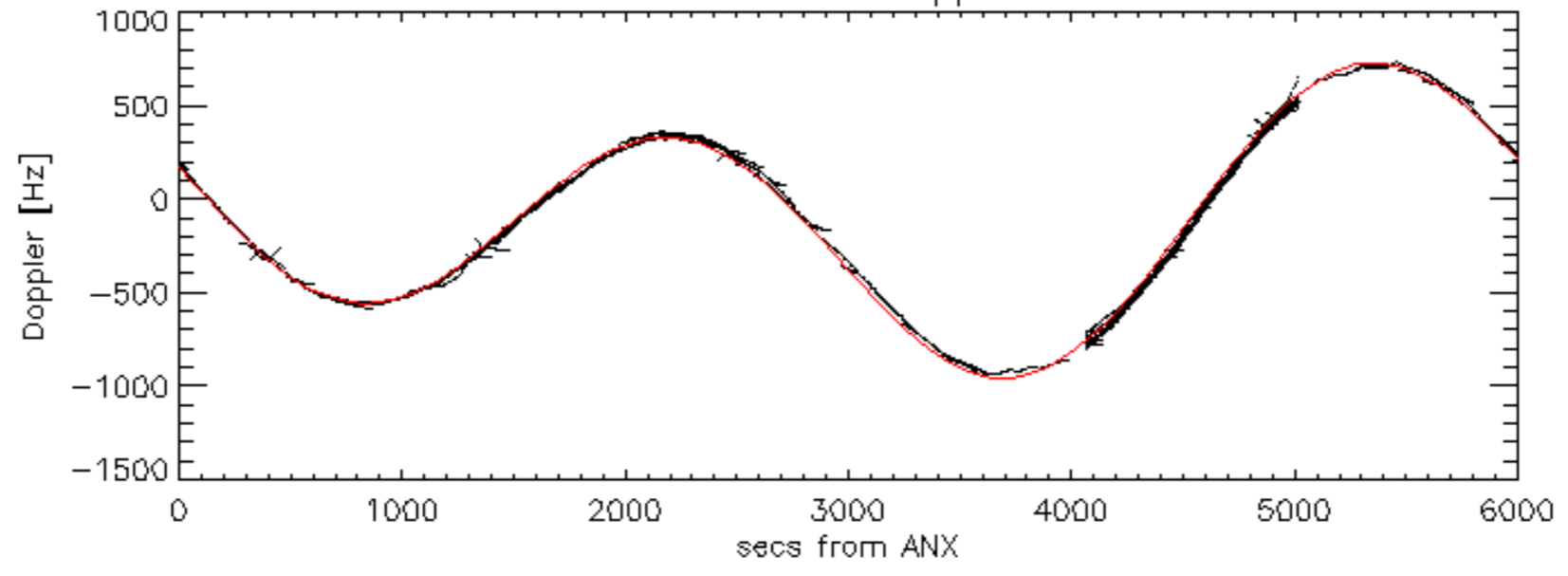
Doppler 'WVS' 'IS2' ascending

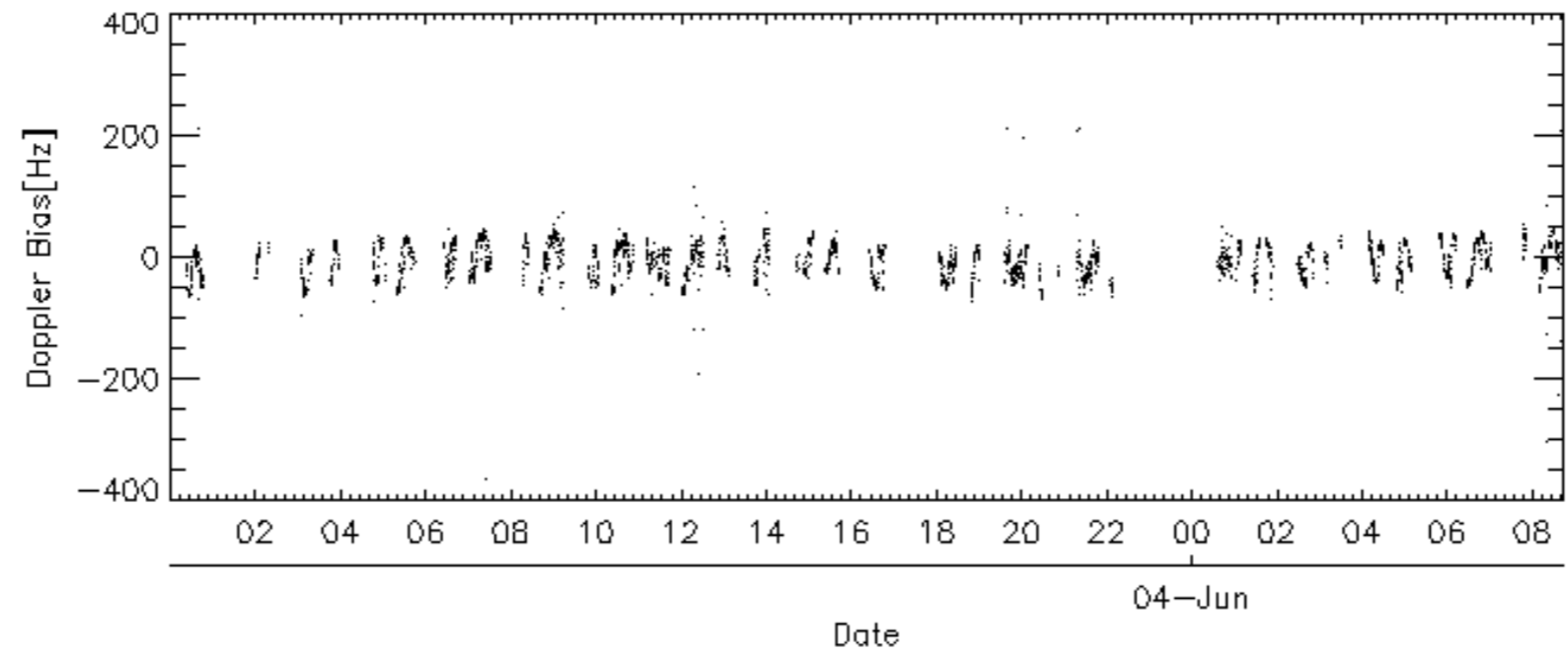
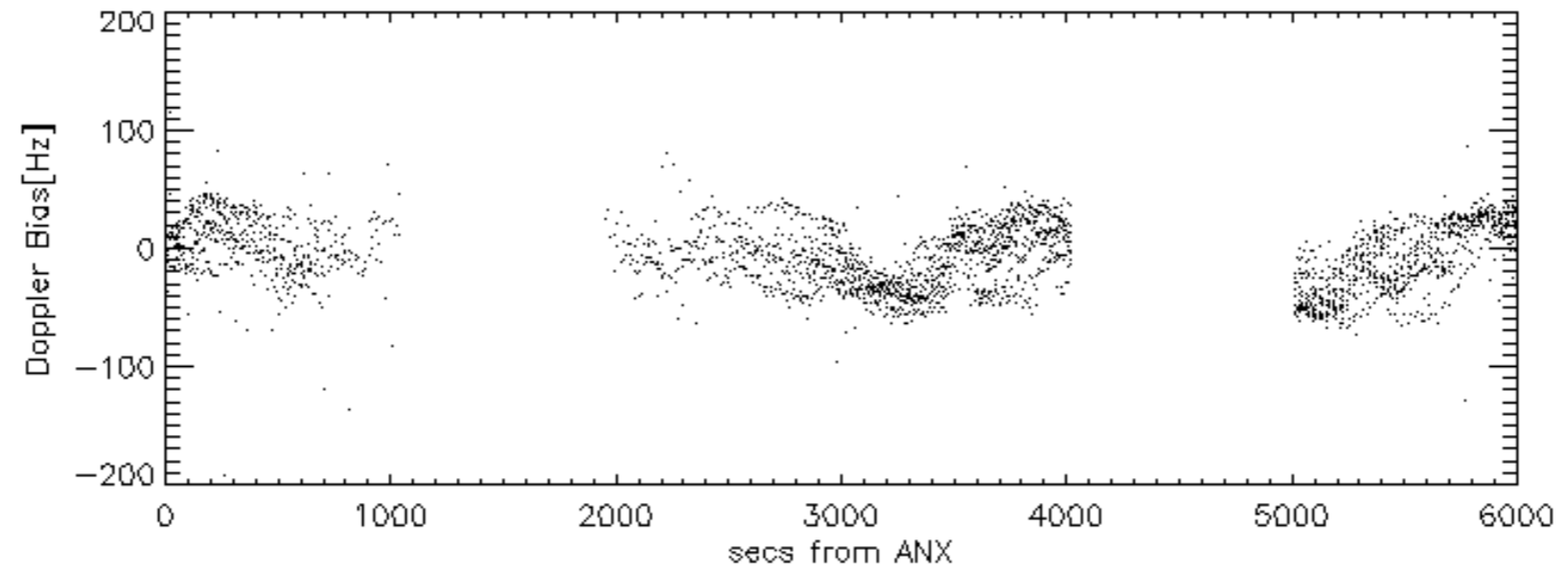
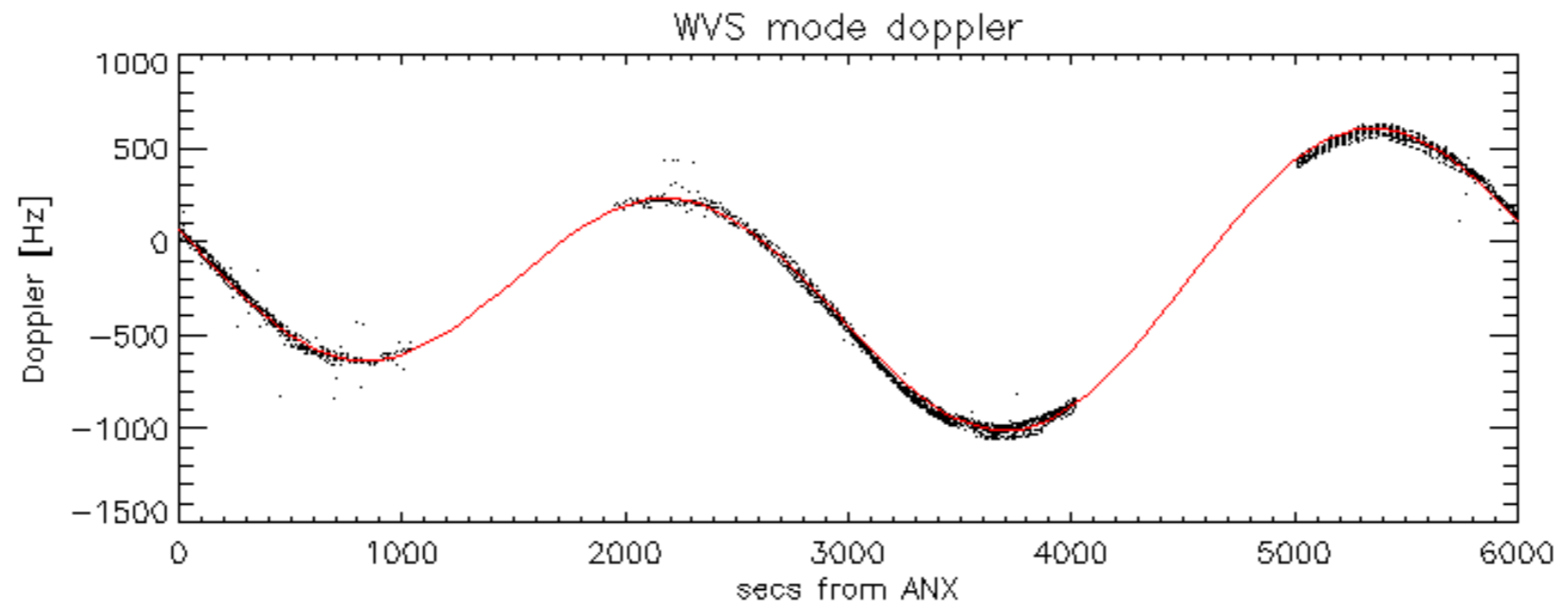


Doppler 'WVS' 'IS2' descending

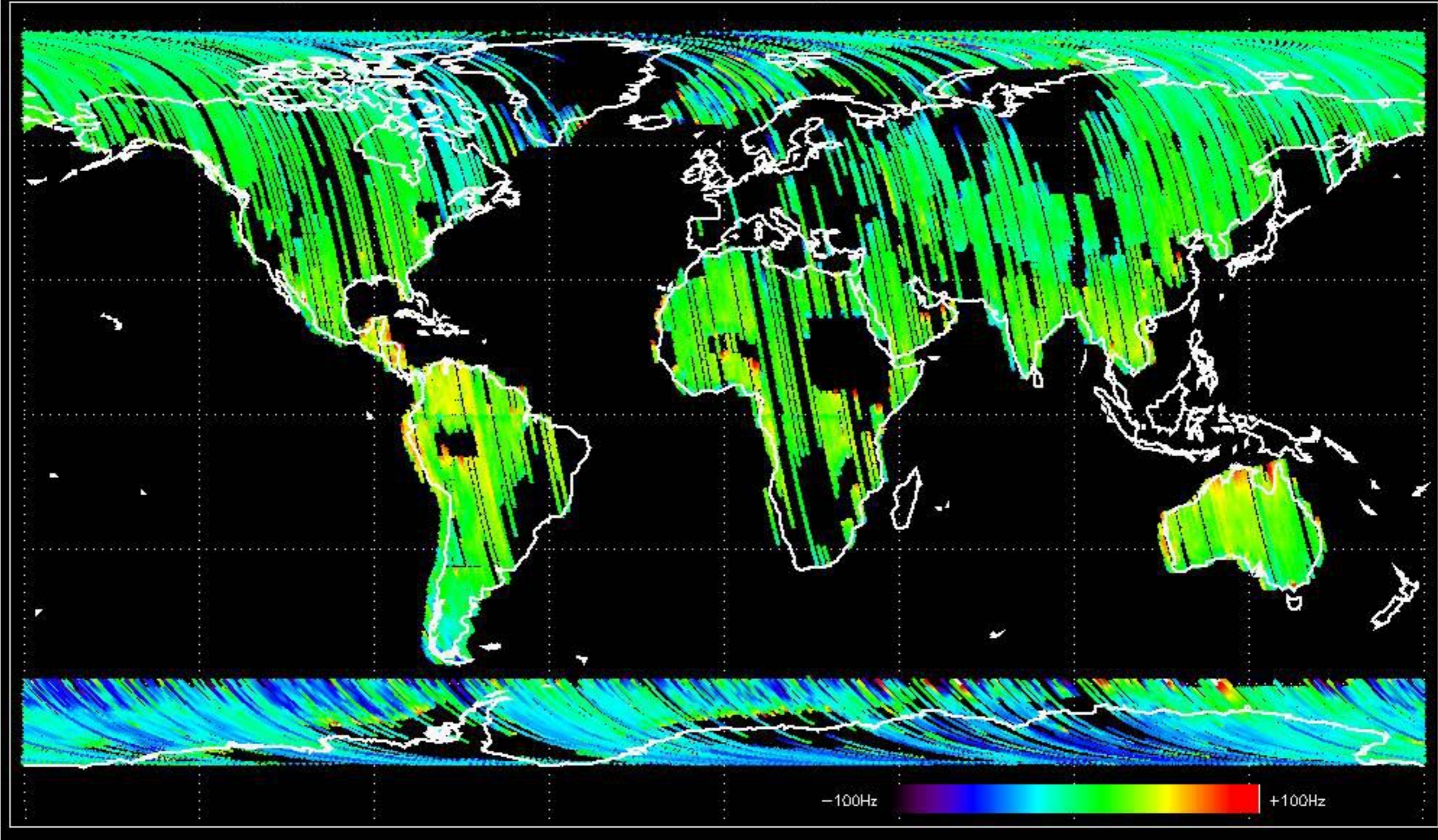


GM1 mode doppler

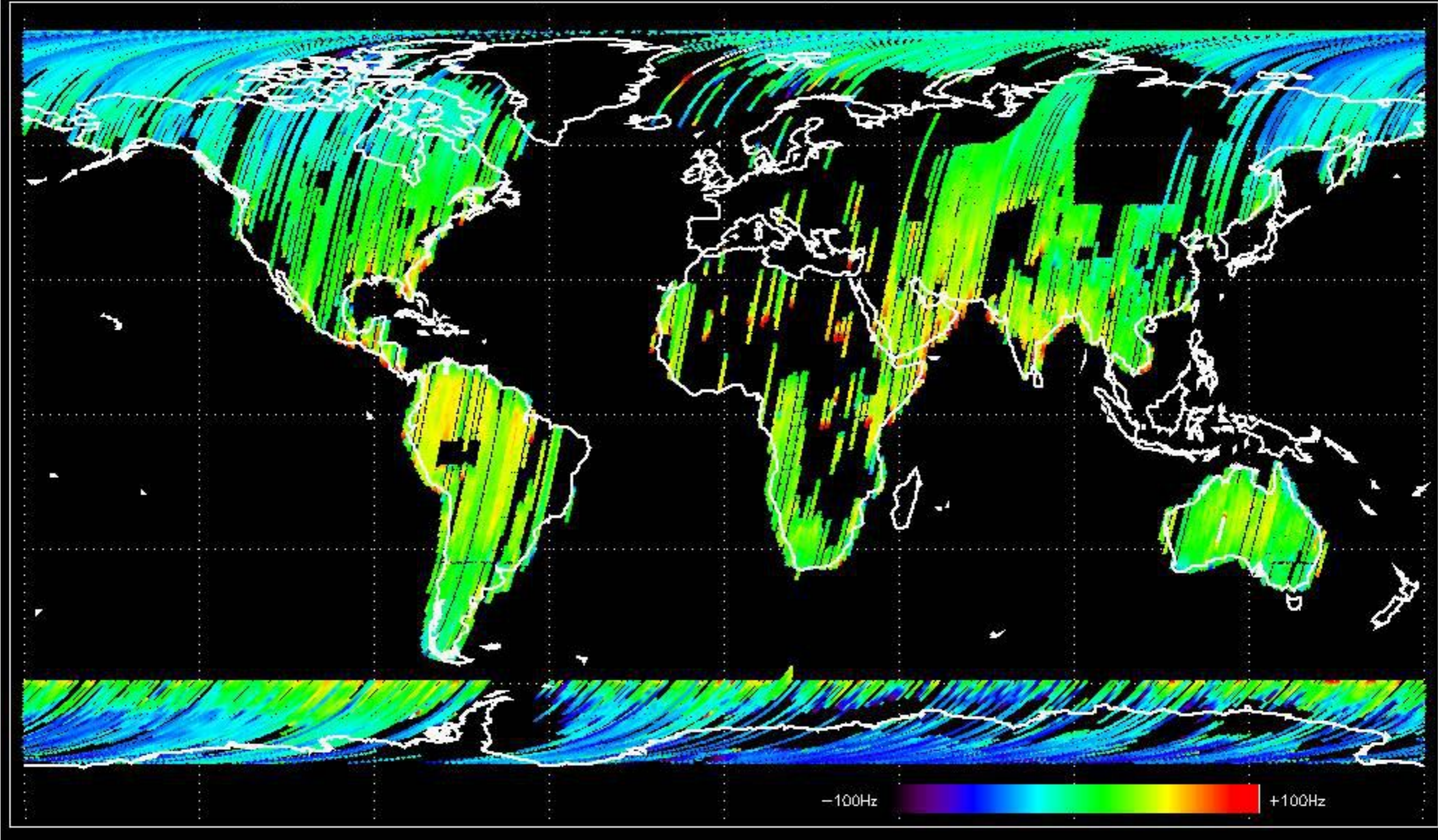




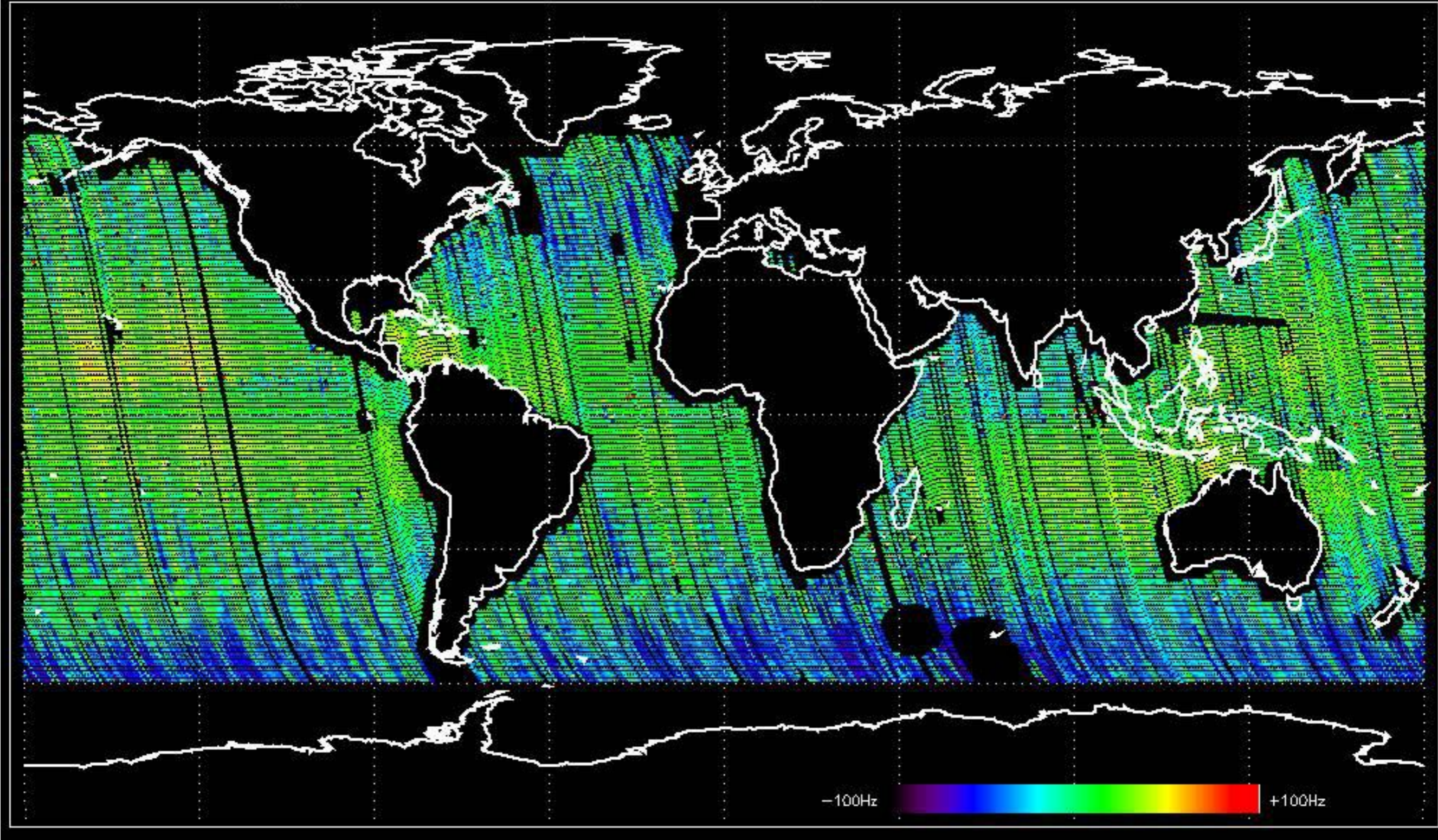
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.133425 Hz



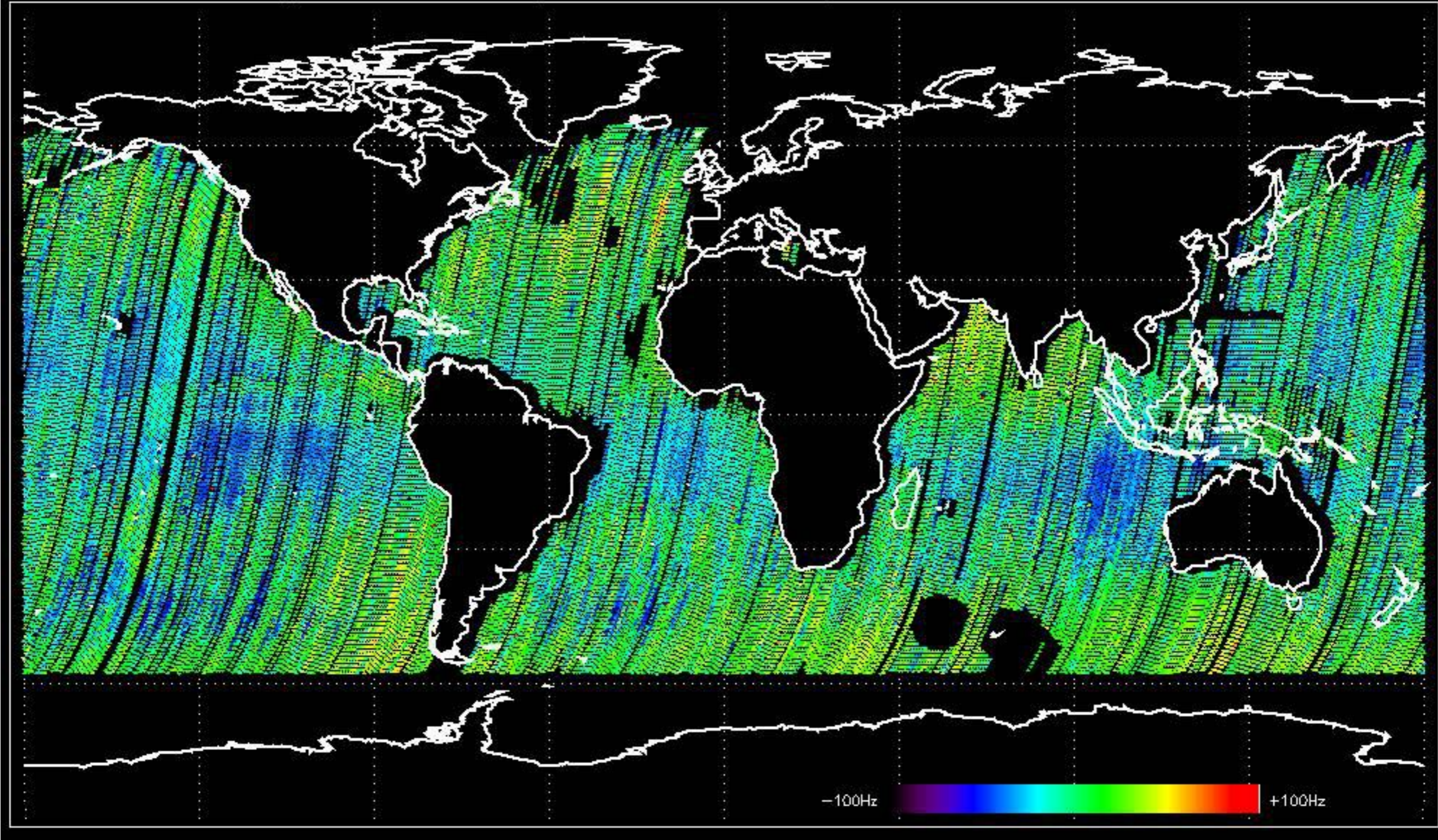
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.8922362 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.2095660 Hz

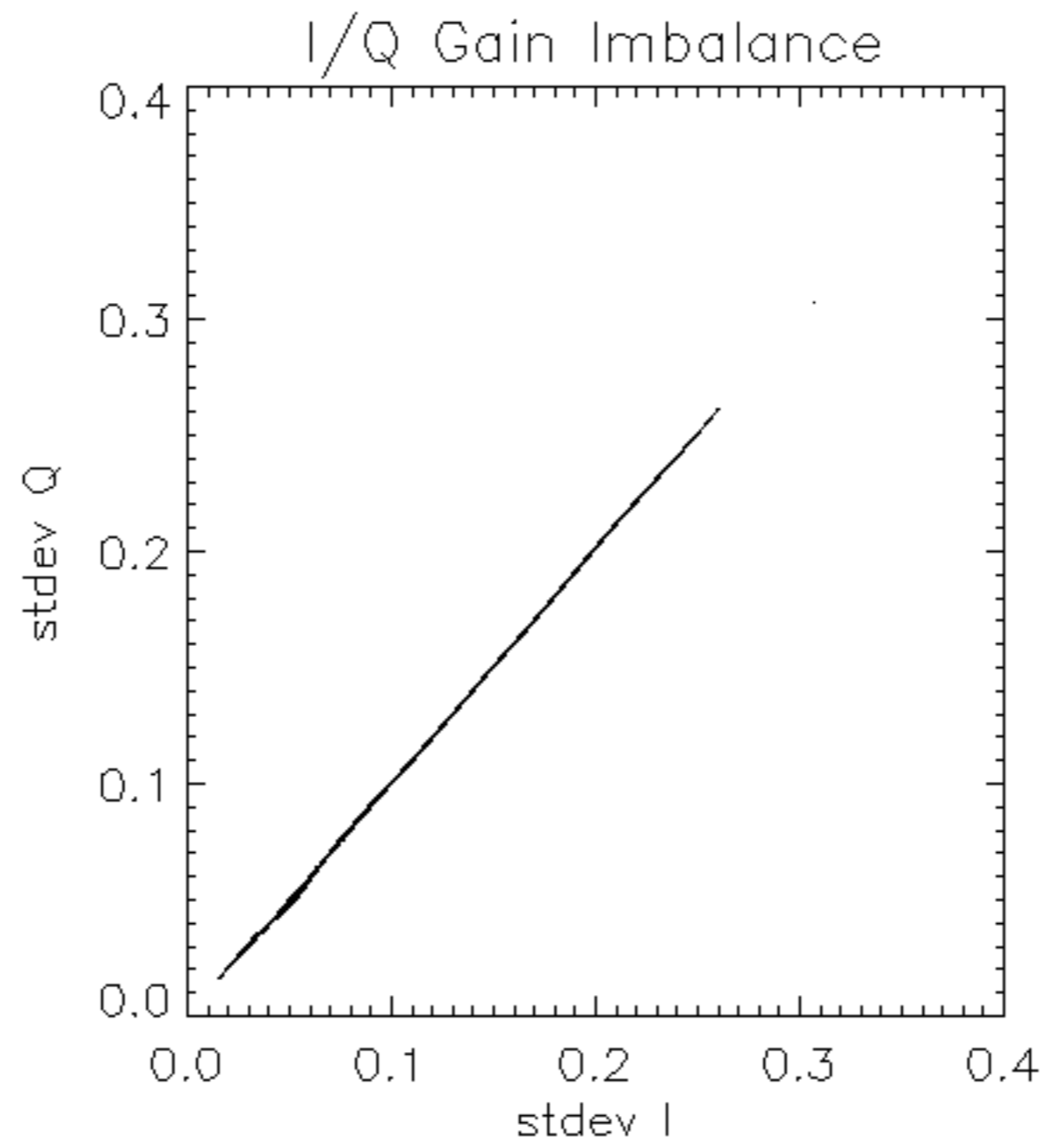


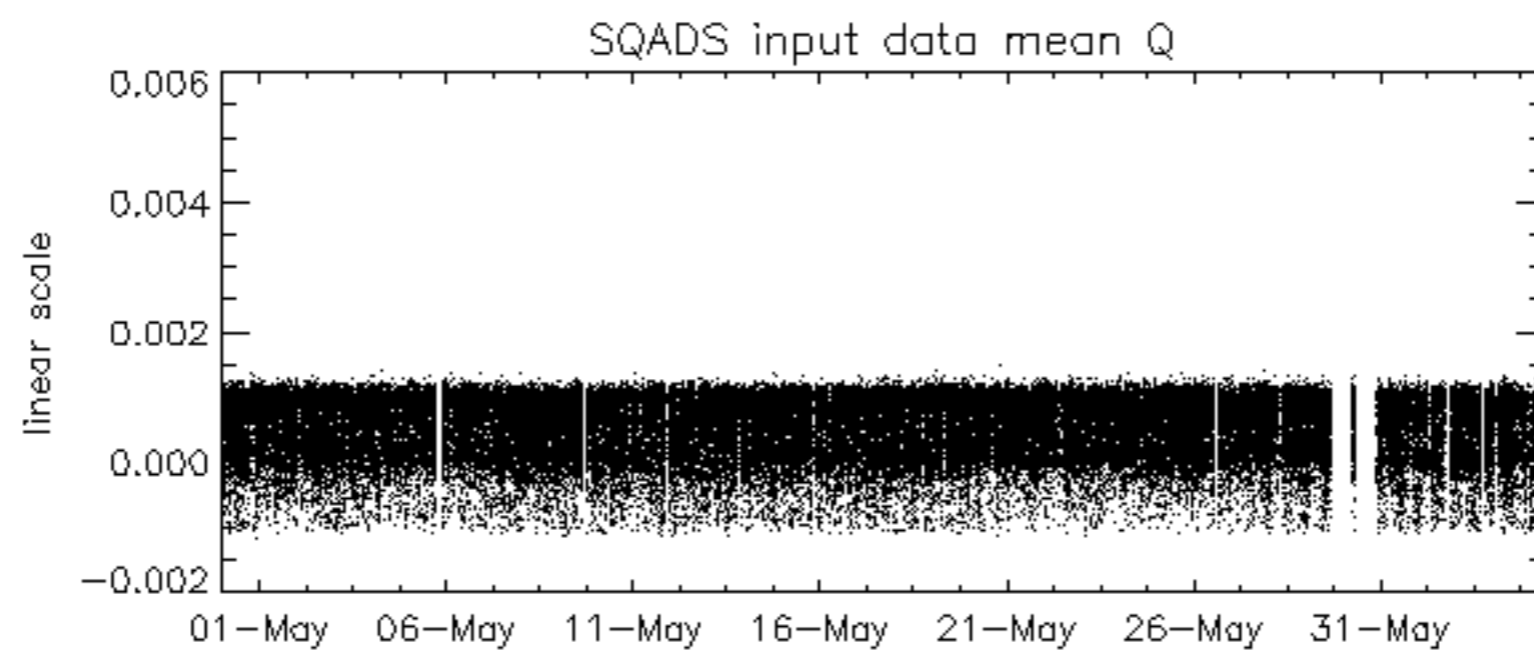
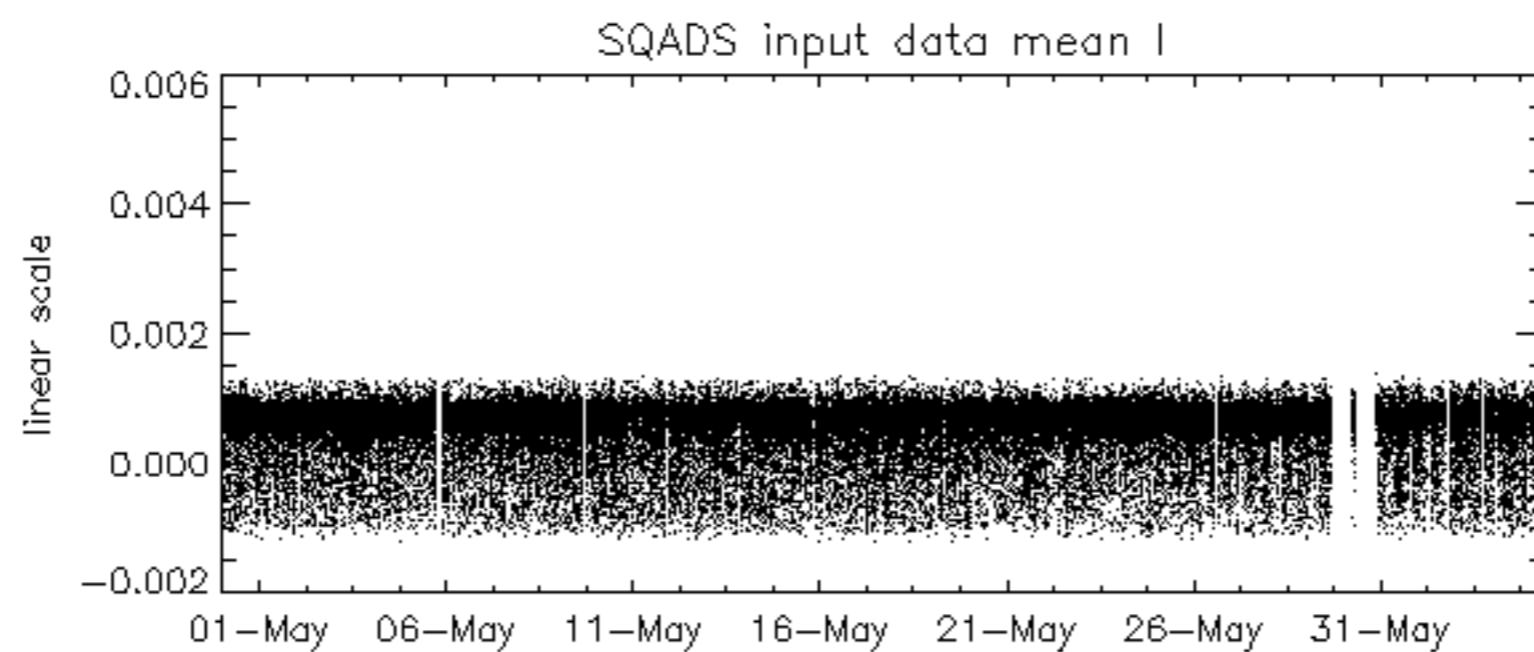
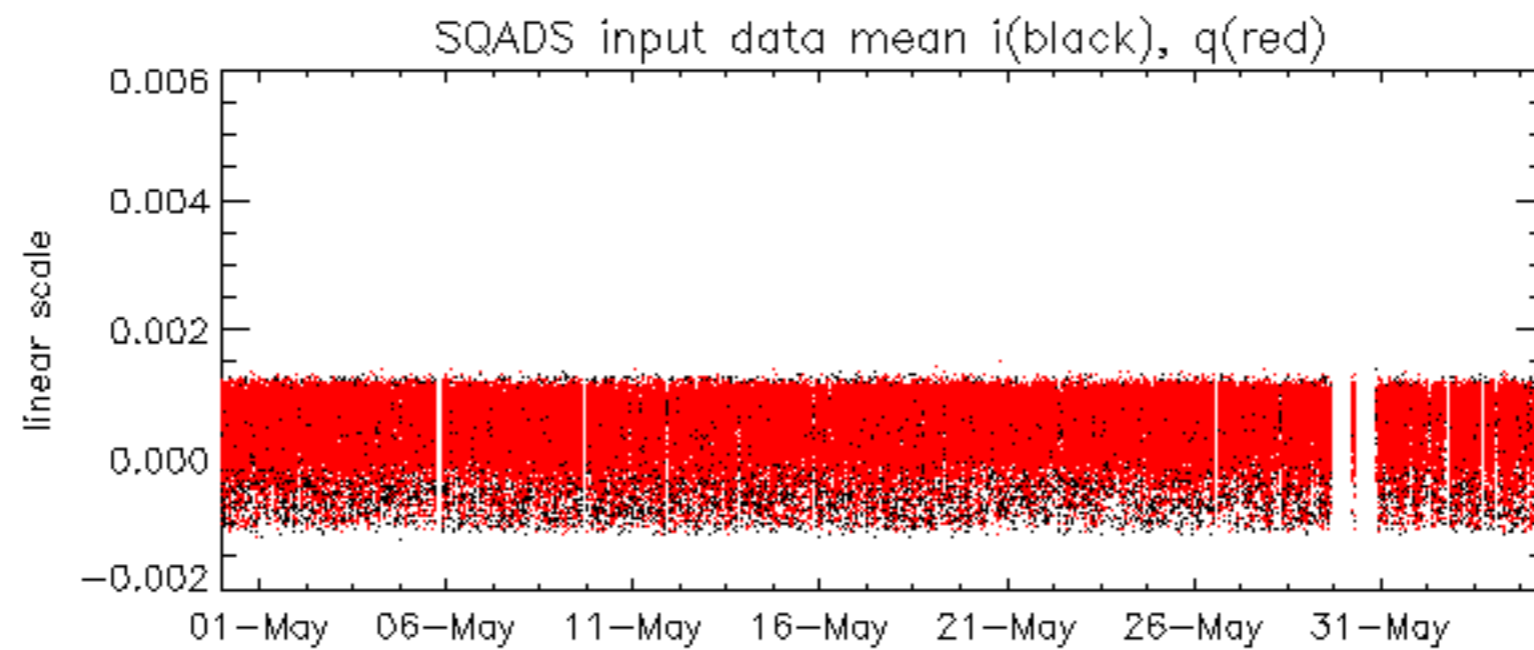
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.576870 Hz

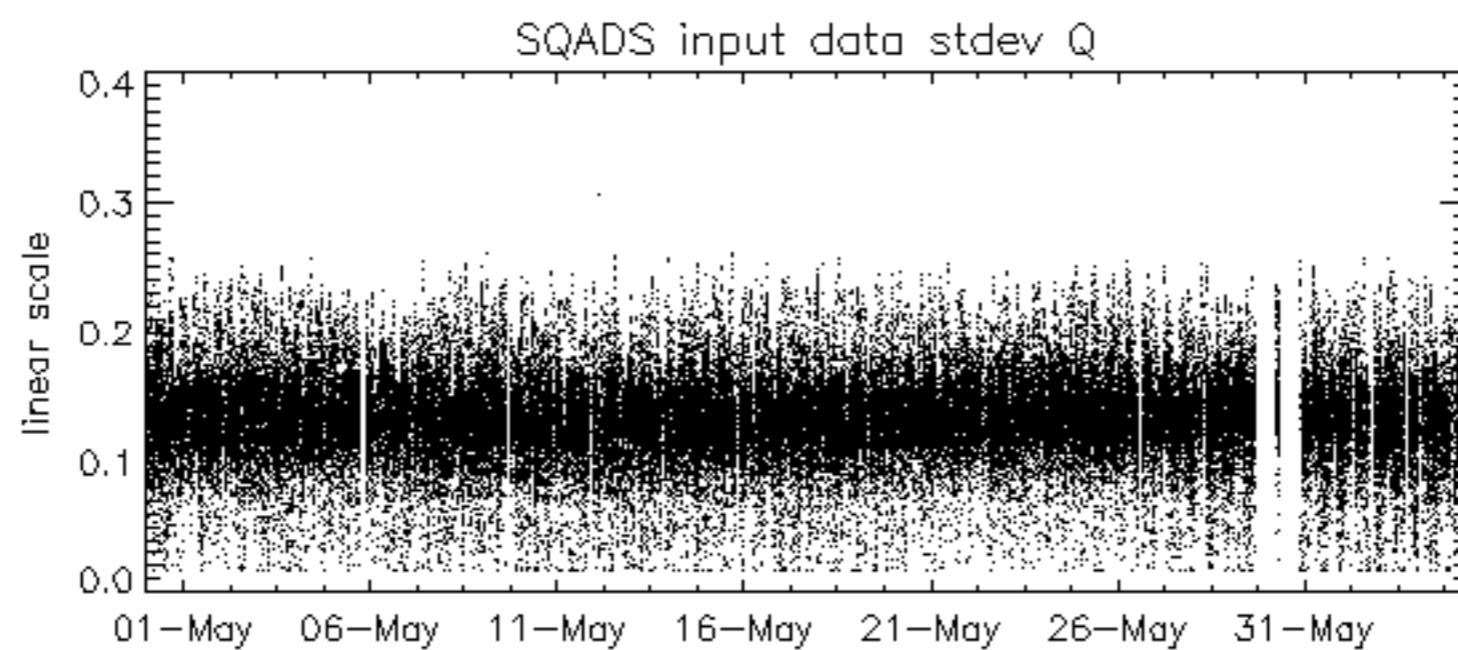
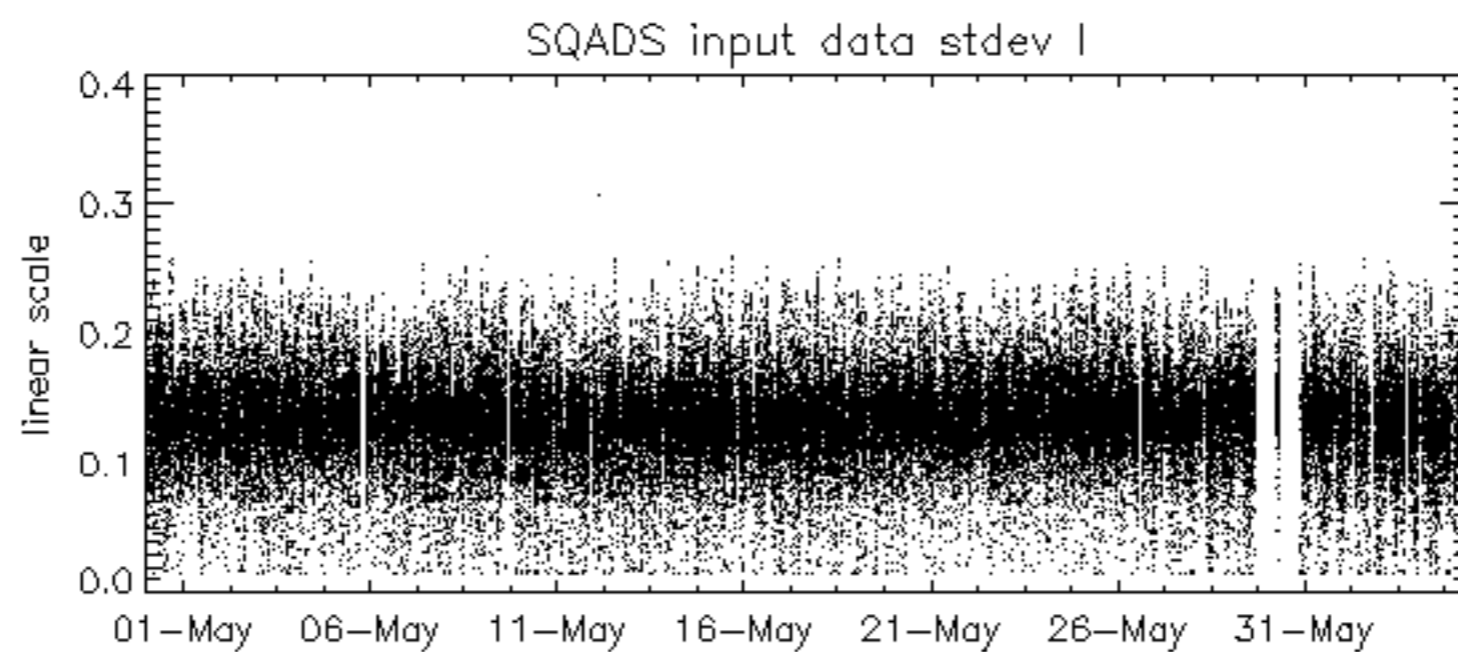
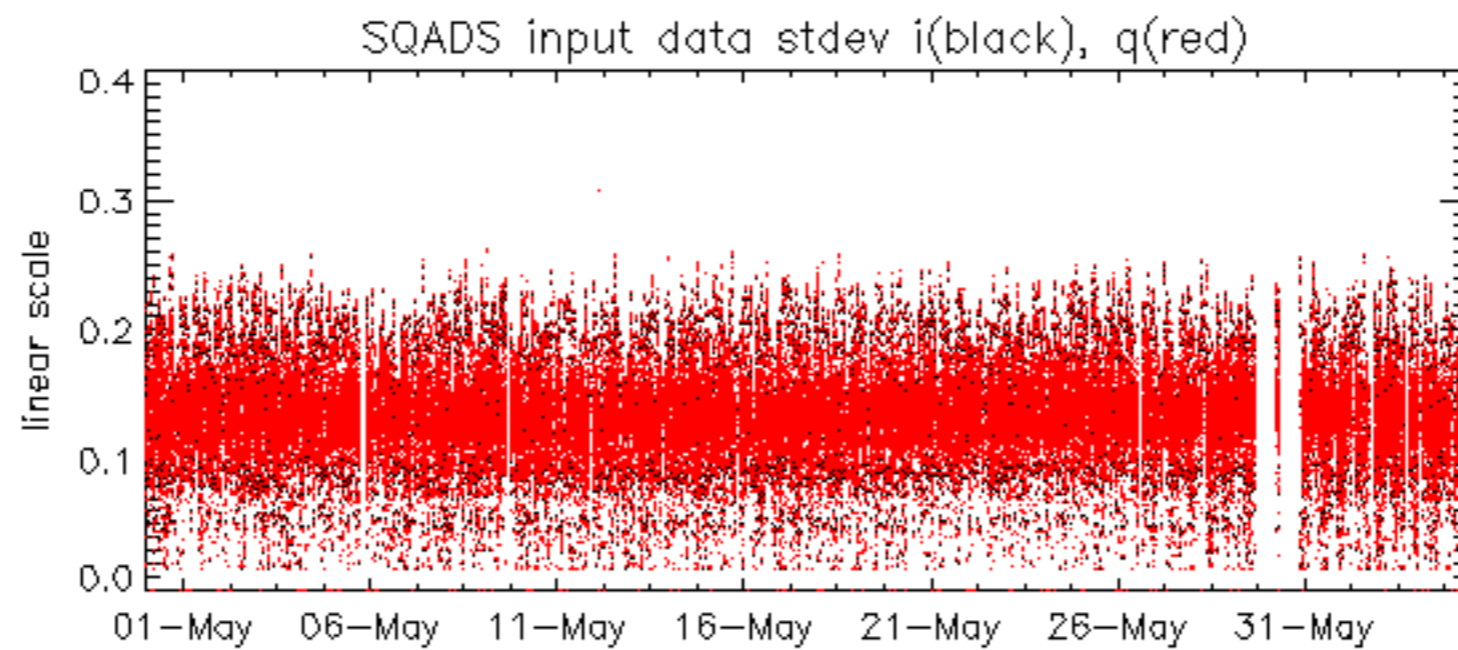


No anomalies observed on available MS products:

No anomalies observed.



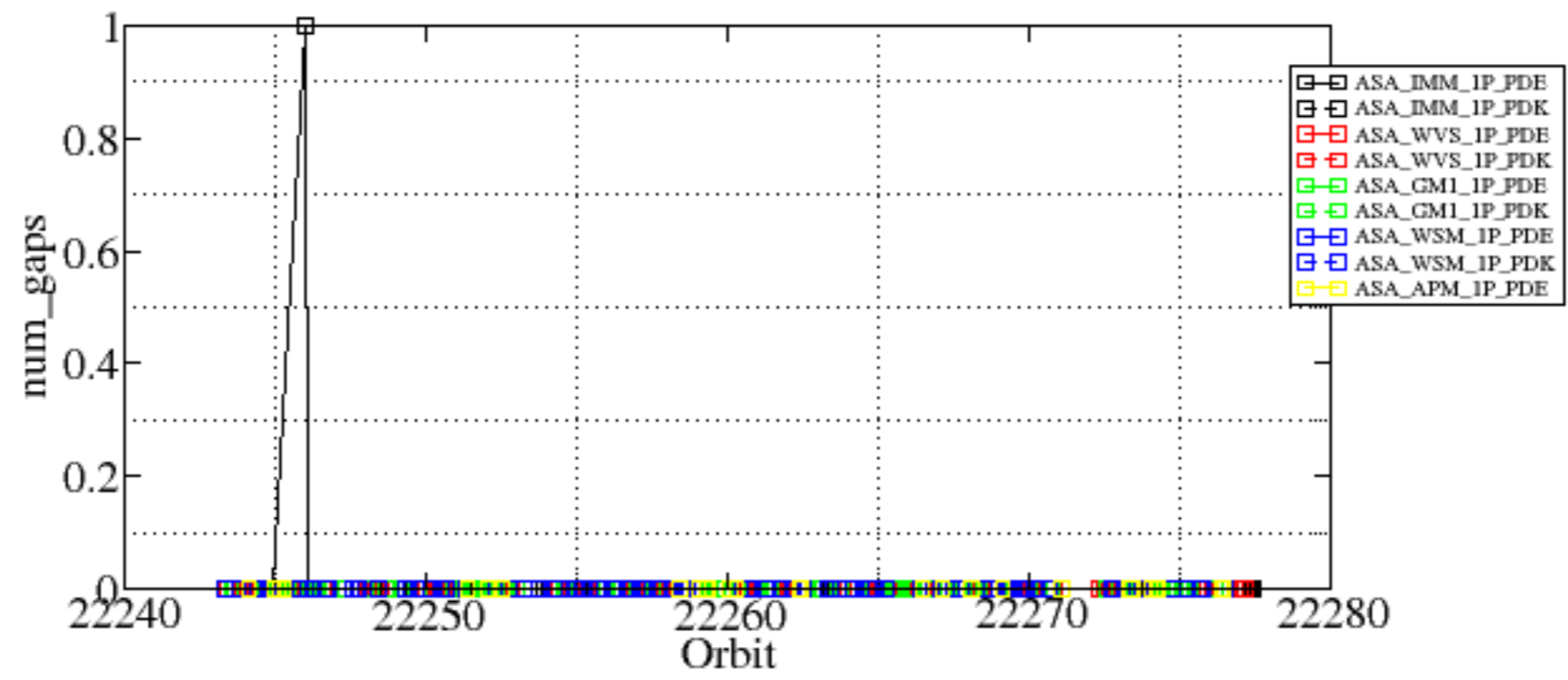


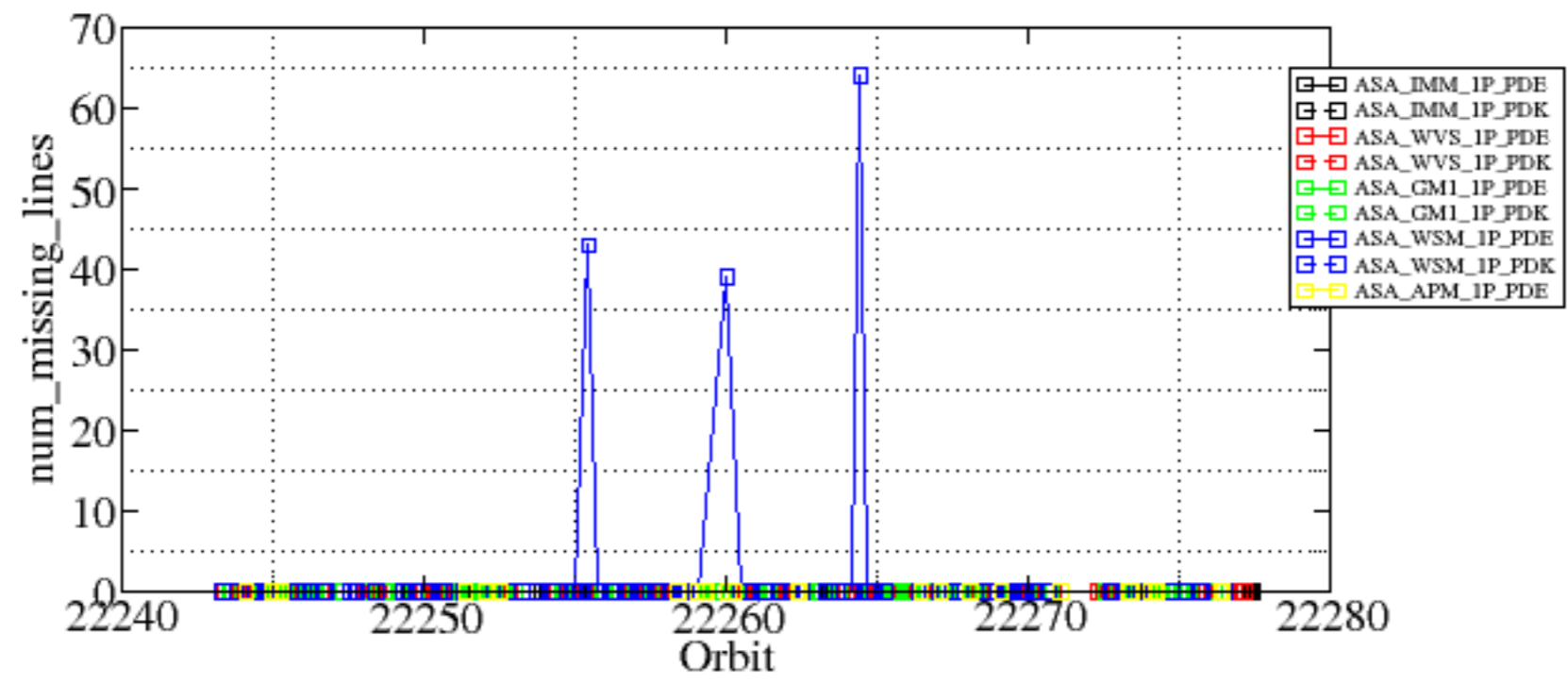


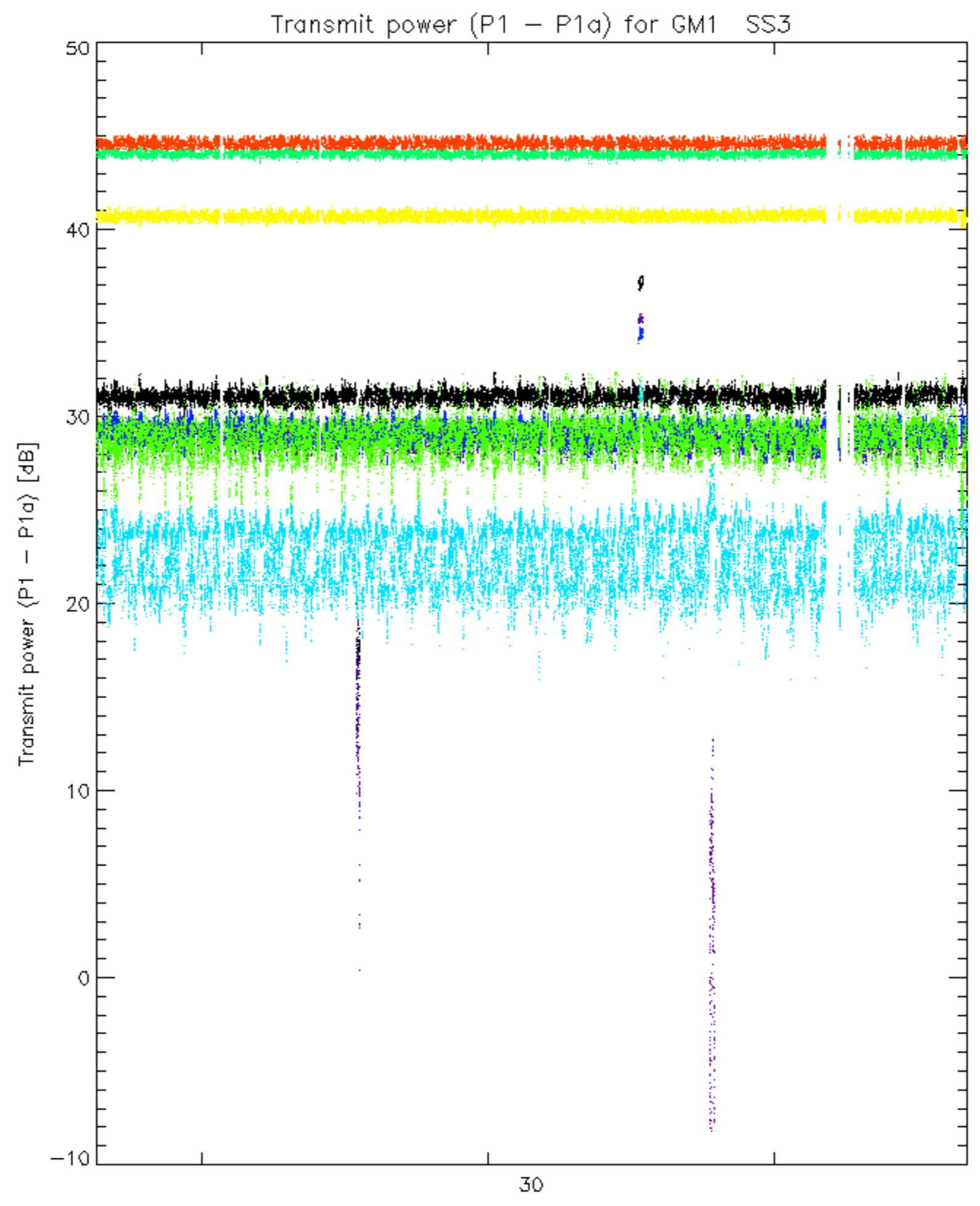
Summary of analysis for the last 3 days 2006060[234]

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

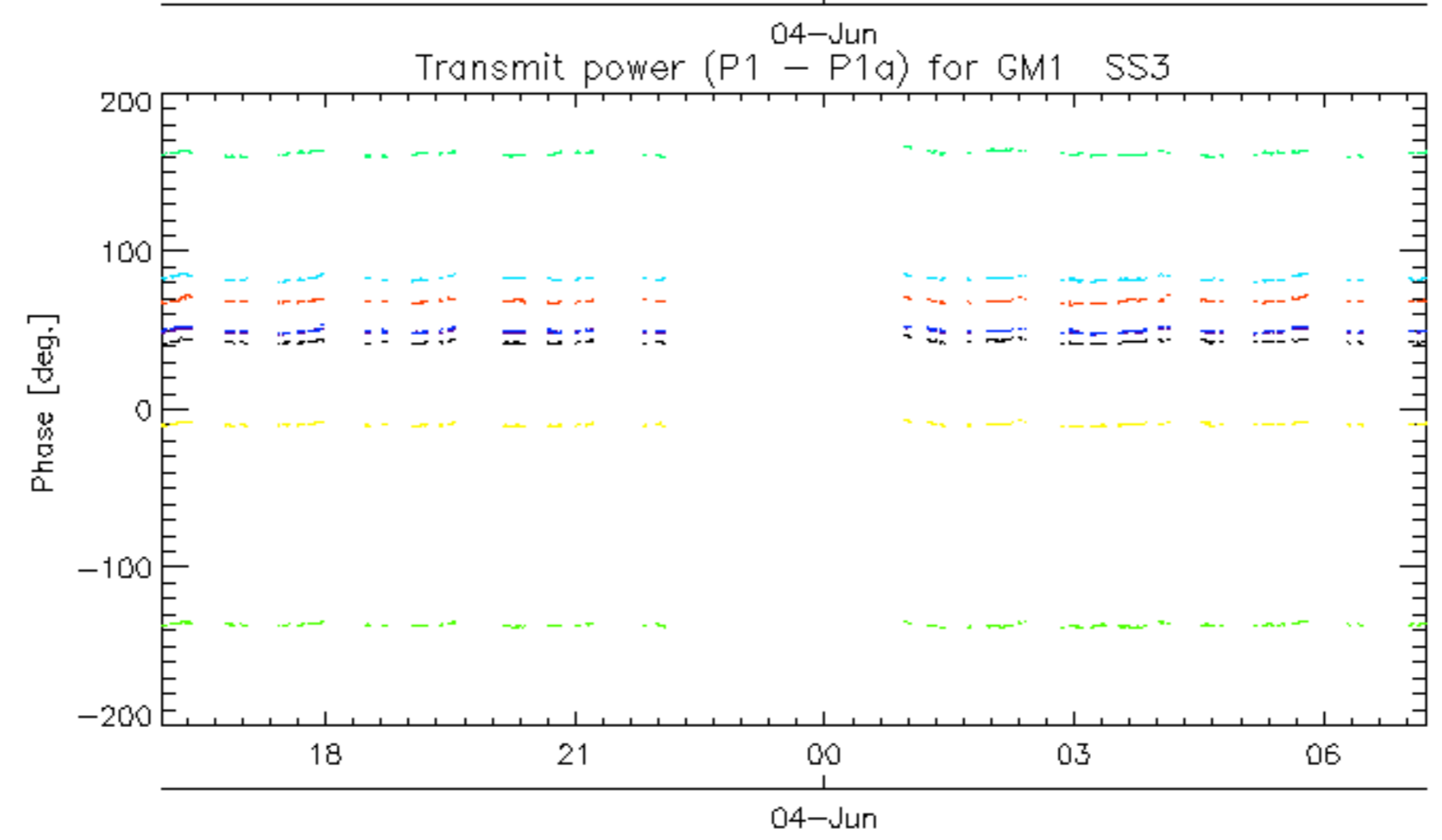
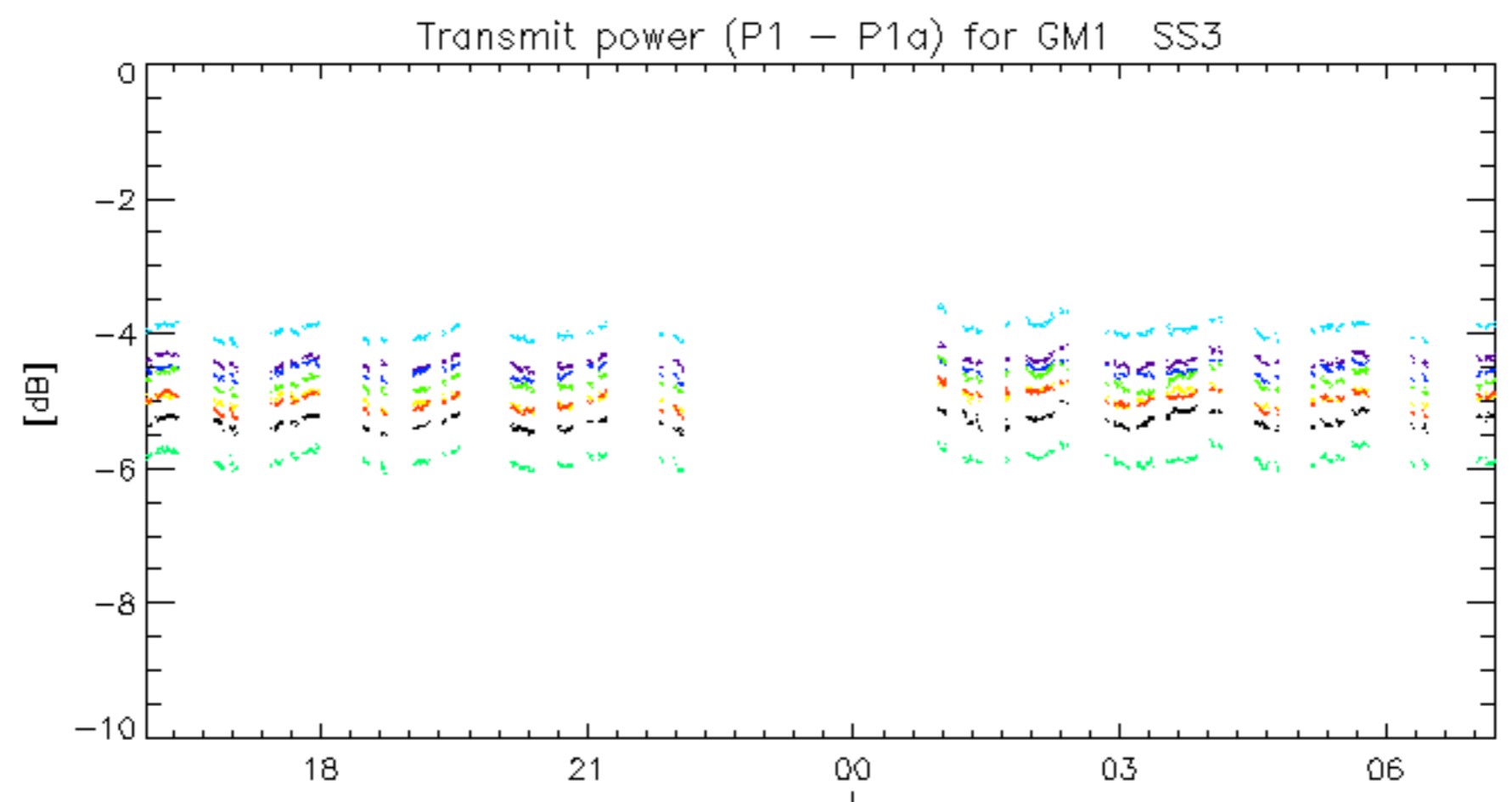
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060602_042646_00000522048_00147_22245_6548.N1	1	0
ASA_WSM_1PNPDE20060602_201721_00000852048_00157_22255_2313.N1	0	43
ASA_WSM_1PNPDE20060603_035851_00000852048_00162_22260_2386.N1	0	39
ASA_WSM_1PNPDE20060603_112210_000002262048_00166_22264_2437.N1	0	64



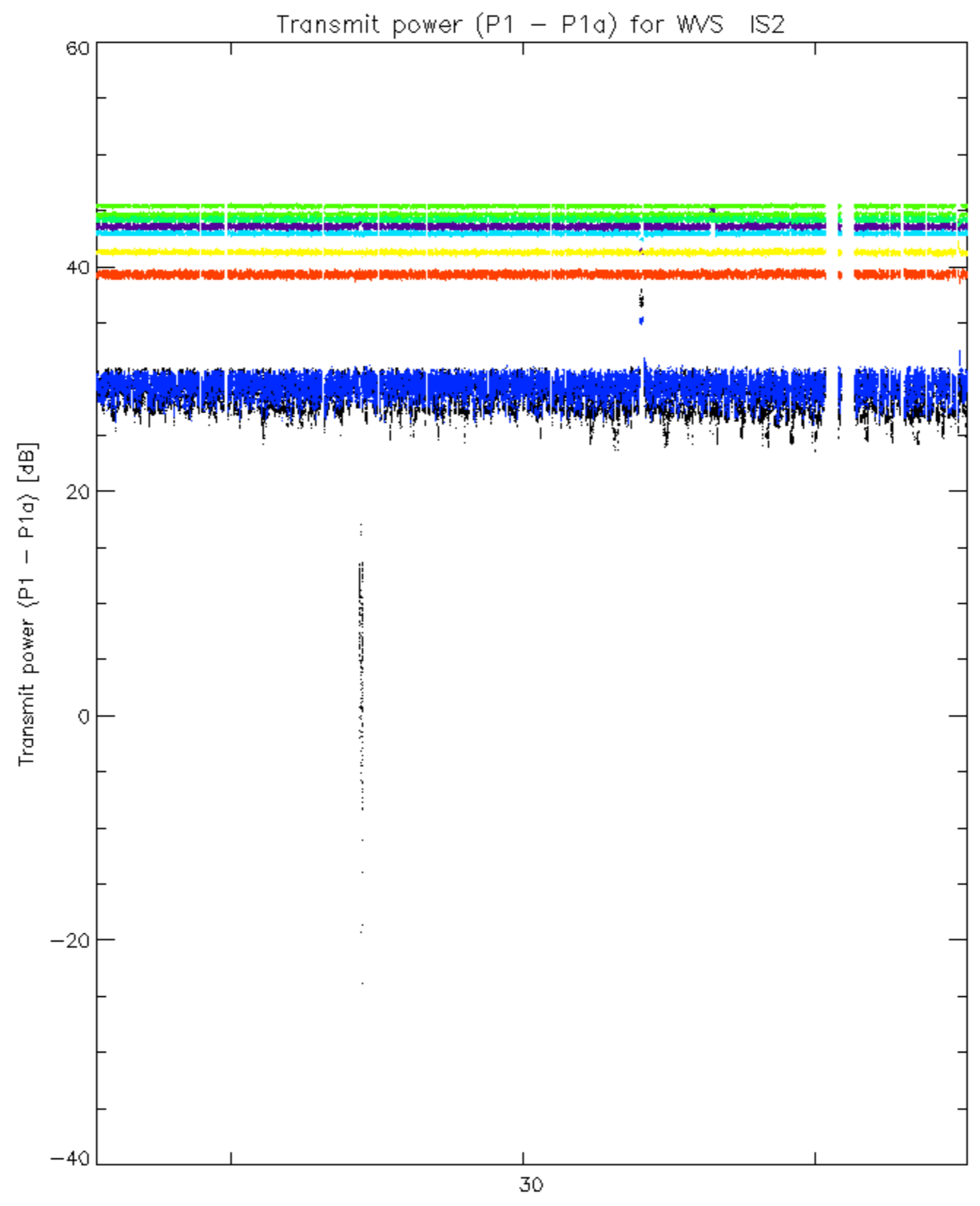




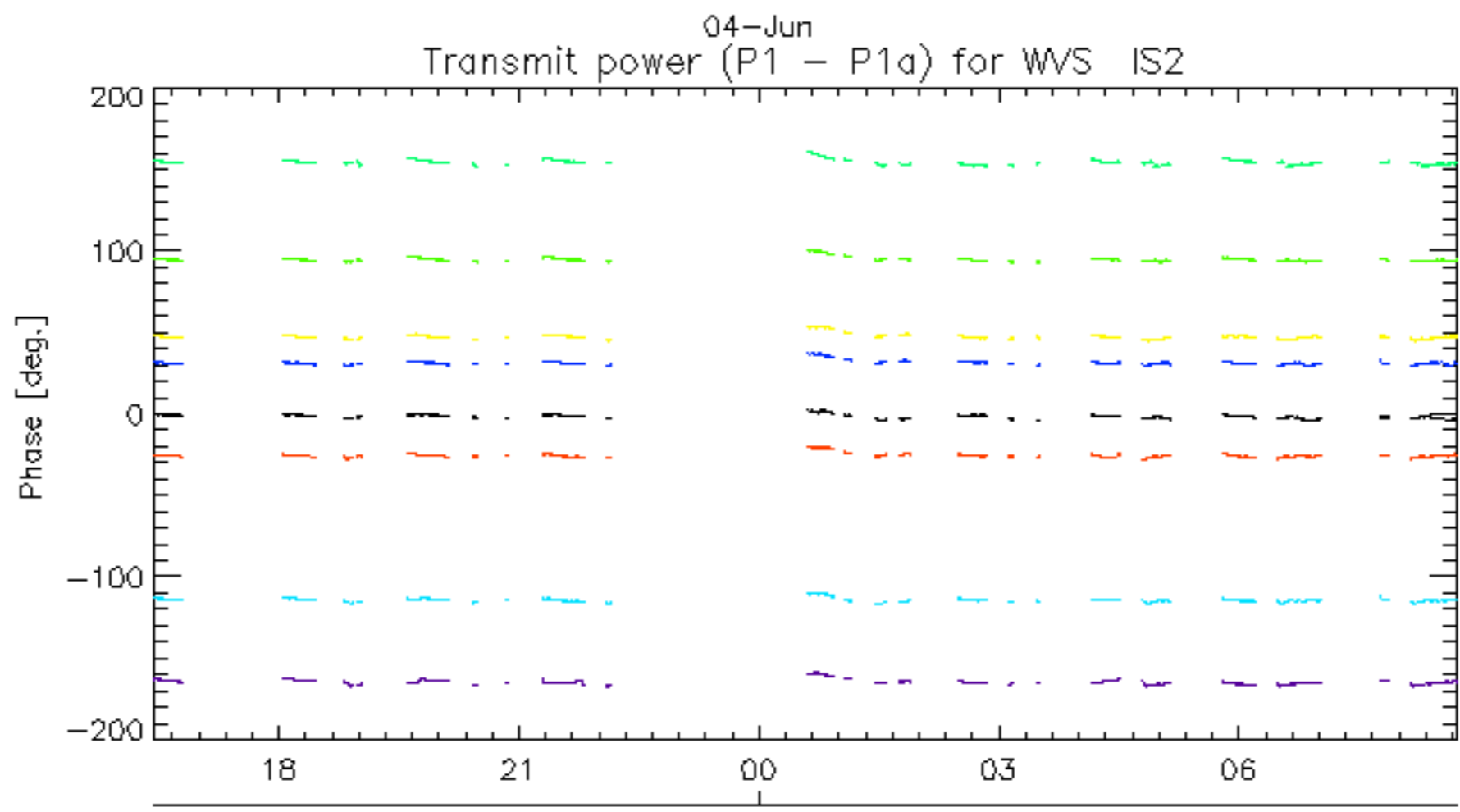
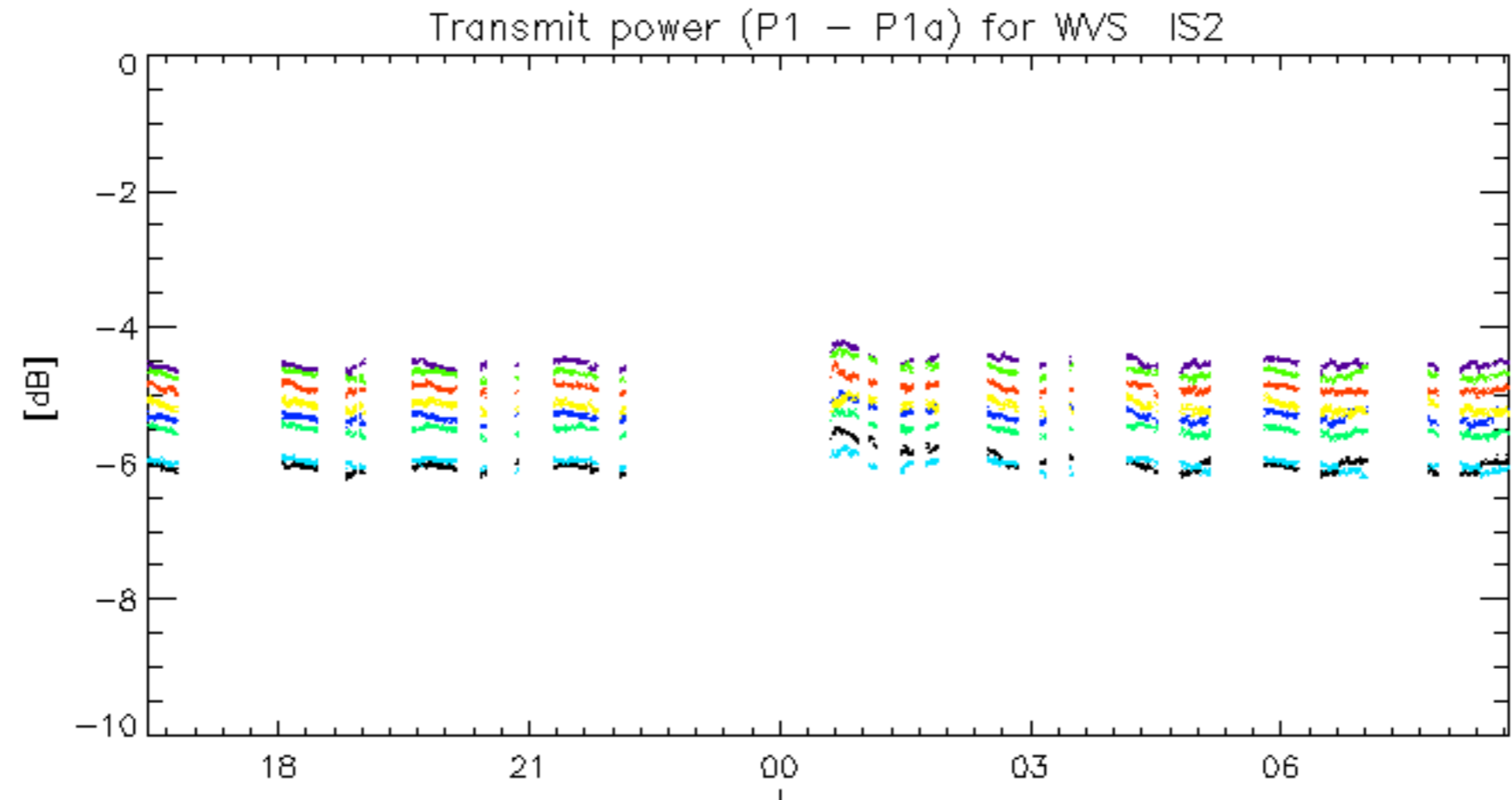
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.