

PRELIMINARY REPORT OF 060602

last update on Fri Jun 2 16:42:44 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 2006-06-01 00:00:00 to 2006-06-02 16:42:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	60	18	0	18
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	36	60	18	0	18
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	60	18	0	18
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	60	18	0	18

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	61	24	32	71
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	61	24	32	71
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	61	24	32	71
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	61	24	32	71

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	20060601 074715
H	20060602 071538

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
<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	-3.958441	0.016818	0.048594
7	P1	-3.105792	0.017165	-0.071846
11	P1	-4.107988	0.017797	0.003932
15	P1	-6.133729	0.019786	-0.000951
19	P1	-3.320562	0.008428	-0.039252
22	P1	-4.518305	0.011316	0.034416
26	P1	-3.987689	0.018550	0.045838
30	P1	-5.748560	0.008103	0.018336
3	P1	-16.577221	0.260103	0.226392
7	P1	-17.129488	0.183795	-0.230675
11	P1	-16.919104	0.310653	-0.047128
15	P1	-13.215150	0.207874	-0.045370
19	P1	-14.261182	0.047619	-0.093277
22	P1	-16.158134	0.379983	-0.061854
26	P1	-15.274574	0.246734	0.053933
30	P1	-17.021385	0.361429	-0.247427

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.212963	0.080999	0.137504
7	P2	-22.095610	0.098139	0.164218
11	P2	-15.939207	0.110282	0.138586
15	P2	-7.163894	0.092123	0.025871
19	P2	-9.166053	0.084426	-0.005503
22	P2	-18.122889	0.082196	-0.083378
26	P2	-16.367338	0.087232	-0.062557
30	P2	-19.582483	0.085145	0.077102

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.186920	0.003861	0.023053
7	P3	-8.186920	0.003861	0.023053
11	P3	-8.186920	0.003861	0.023053
15	P3	-8.186920	0.003861	0.023053
19	P3	-8.186920	0.003861	0.023053
22	P3	-8.186920	0.003861	0.023053
26	P3	-8.186920	0.003861	0.023053
30	P3	-8.186920	0.003861	0.023053

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	-3.776116	0.066505	-0.084478
7	P1	-2.606045	0.032849	0.060266
11	P1	-2.864788	0.024164	0.006063
15	P1	-3.496244	0.049401	-0.011236
19	P1	-3.395632	0.013981	-0.020446
22	P1	-5.087434	0.019943	0.030774
26	P1	-5.838492	0.014828	-0.023703
30	P1	-5.188924	0.026261	0.010263
3	P1	-11.615367	0.080788	-0.022742
7	P1	-9.961716	0.054469	0.049952
11	P1	-10.197348	0.085815	0.005285
15	P1	-10.622883	0.148385	-0.052381
19	P1	-15.507784	0.075574	-0.069318
22	P1	-20.883694	1.233180	-0.054356
26	P1	-16.483406	0.348623	0.019255
30	P1	-18.019644	0.386650	0.277434

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.897692	0.063434	0.100072
7	P2	-22.520636	0.121142	0.063708
11	P2	-11.183438	0.042734	0.053416
15	P2	-4.903943	0.043871	-0.023348
19	P2	-6.877345	0.043128	-0.000926
22	P2	-8.193552	0.039225	-0.038816
26	P2	-24.105202	0.062214	-0.037802
30	P2	-22.062927	0.050740	-0.005555

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019563	0.004394	0.023682
7	P3	-8.019681	0.004386	0.023765
11	P3	-8.019632	0.004369	0.023649
15	P3	-8.019512	0.004381	0.023380
19	P3	-8.019670	0.004386	0.023678
22	P3	-8.019694	0.004364	0.023561
26	P3	-8.019596	0.004368	0.022855
30	P3	-8.019565	0.004379	0.023431

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	0.000530474
	stdev	1.90615e-07
MEAN Q	mean	0.000512454
	stdev	2.29665e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.134089
	stdev	0.00117685
STDEV Q	mean	0.134428
	stdev	0.00119355



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006060[112]

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_1PNPDE20060601_182816_000002692048_00142_22240_2073.N1	0	70



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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

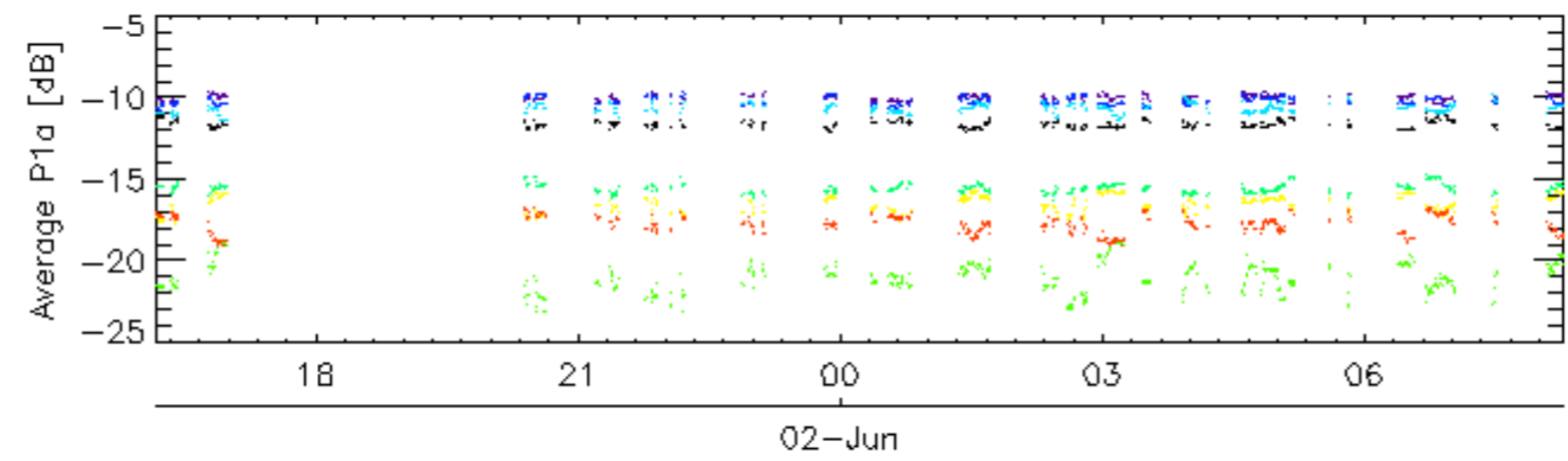
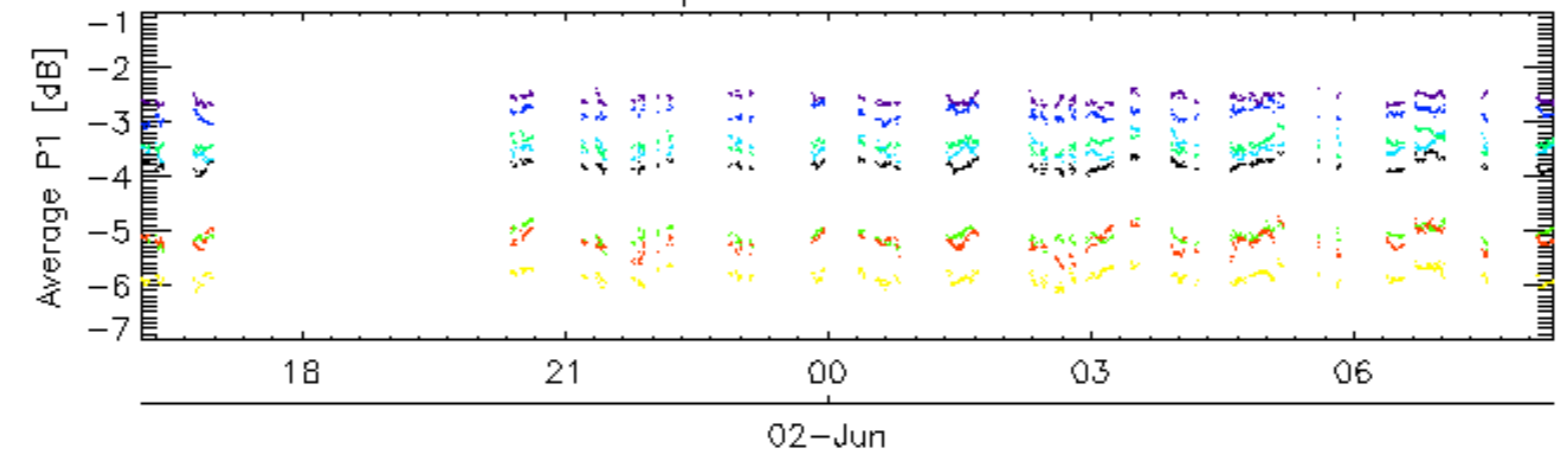
Ascending

Descending

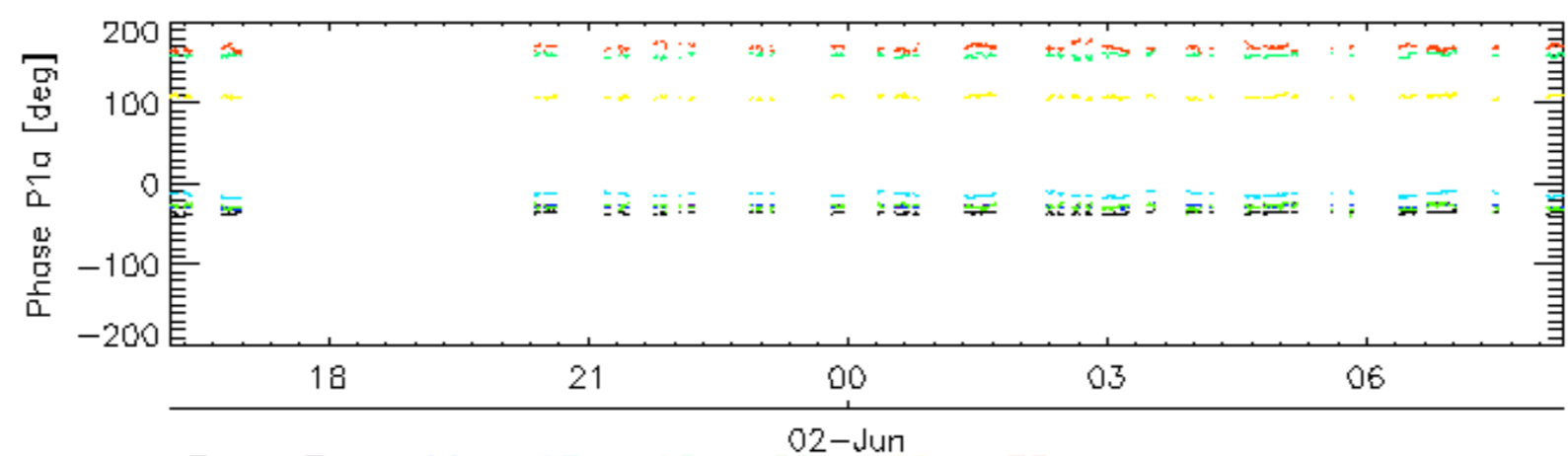
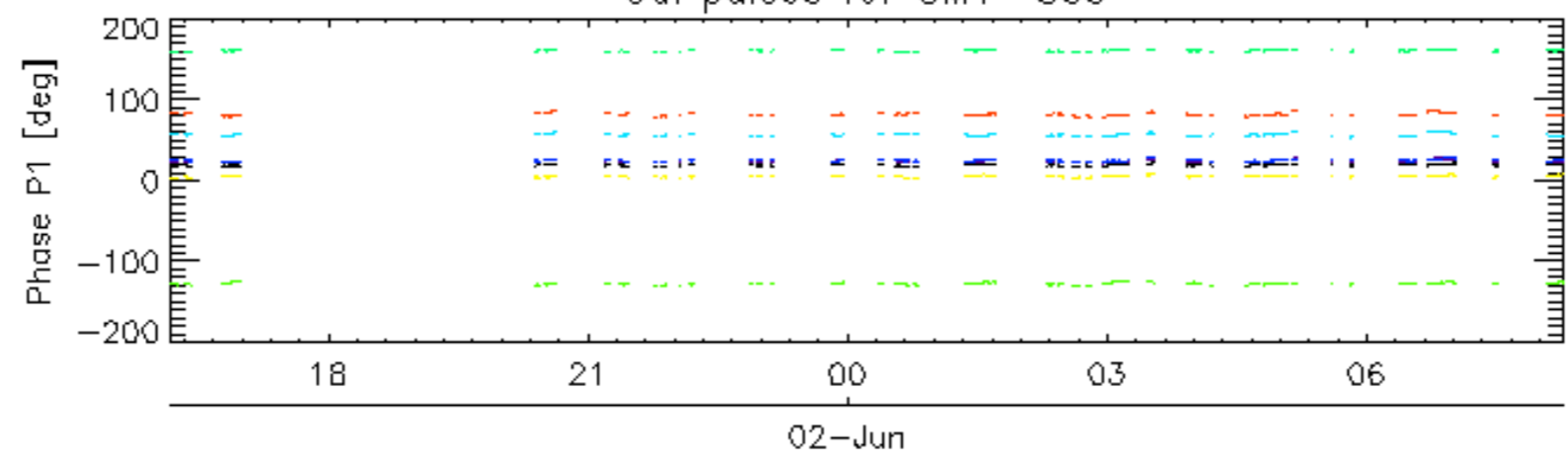
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

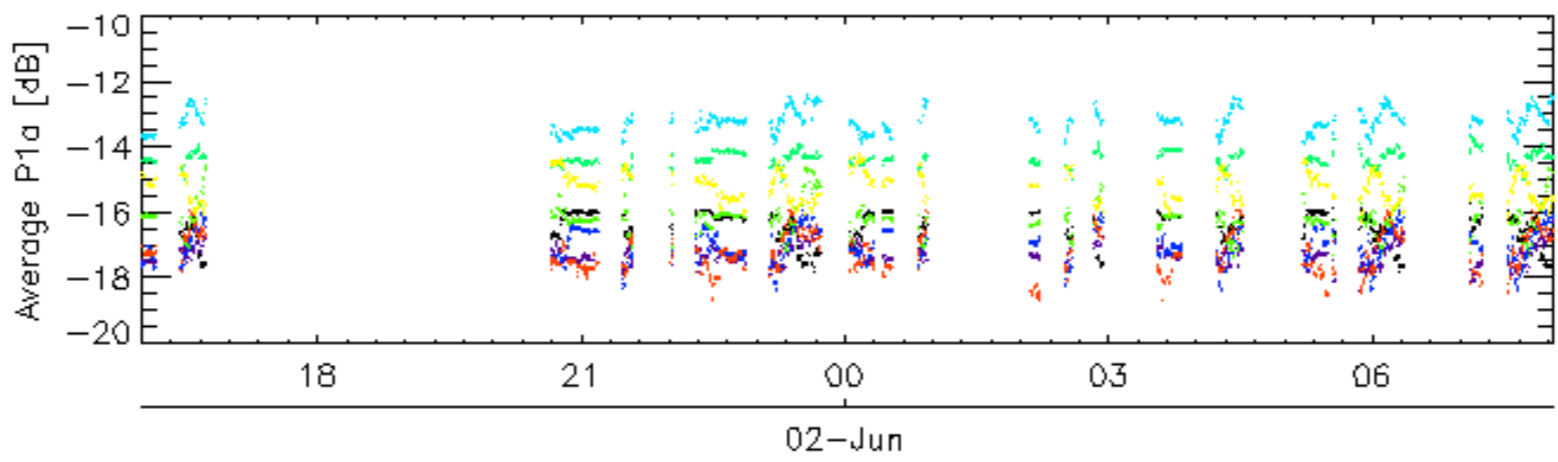
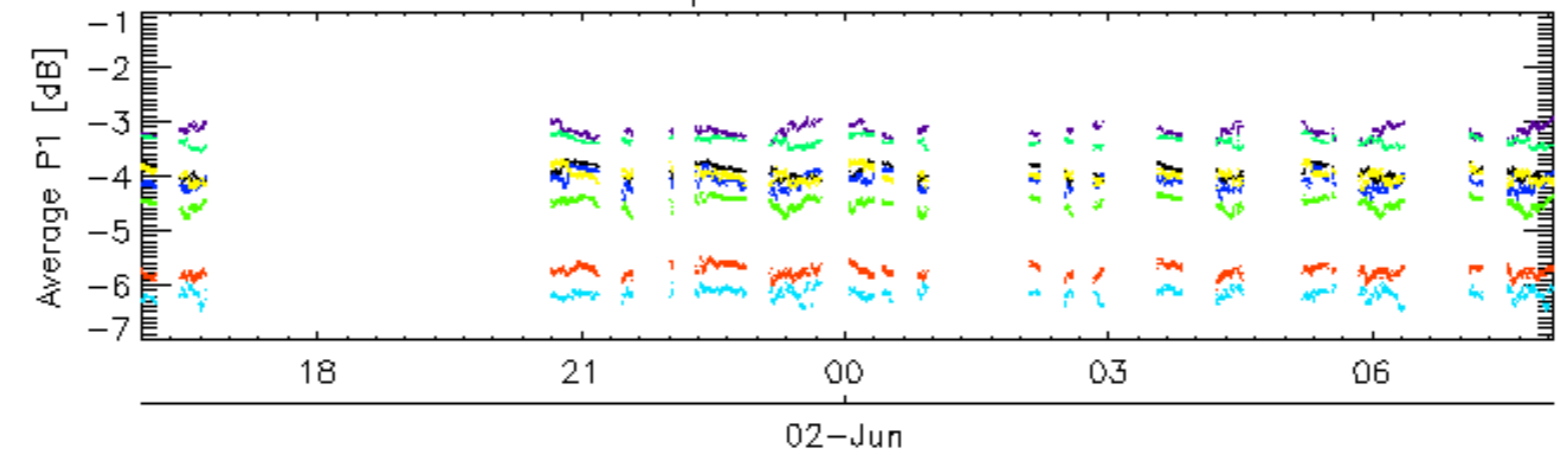


Cal pulses for GM1 SS3

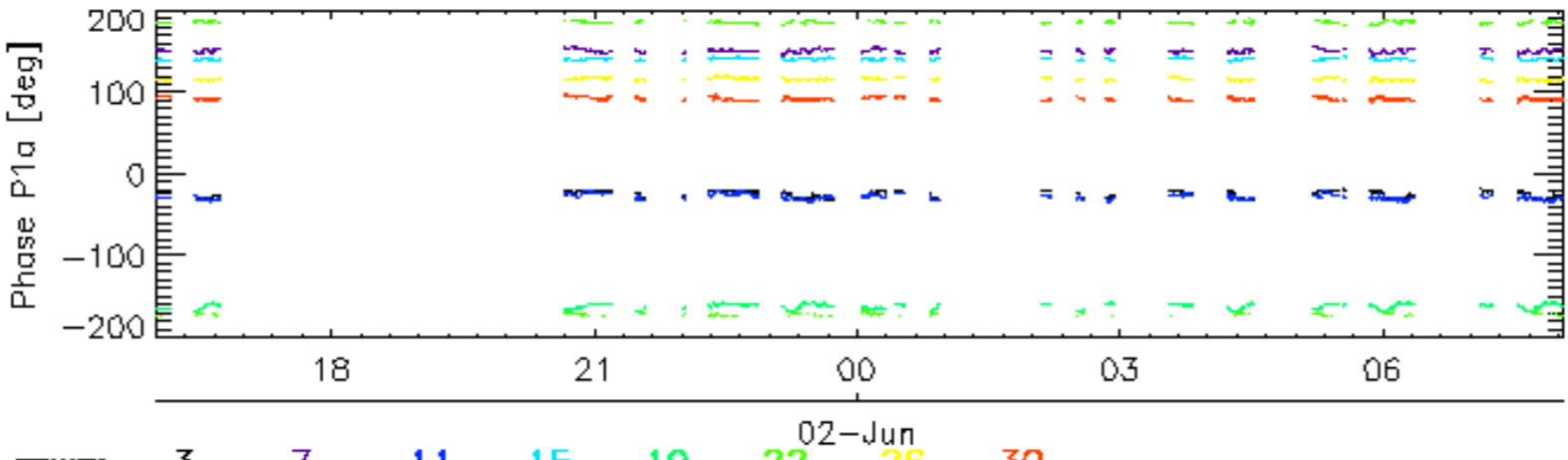
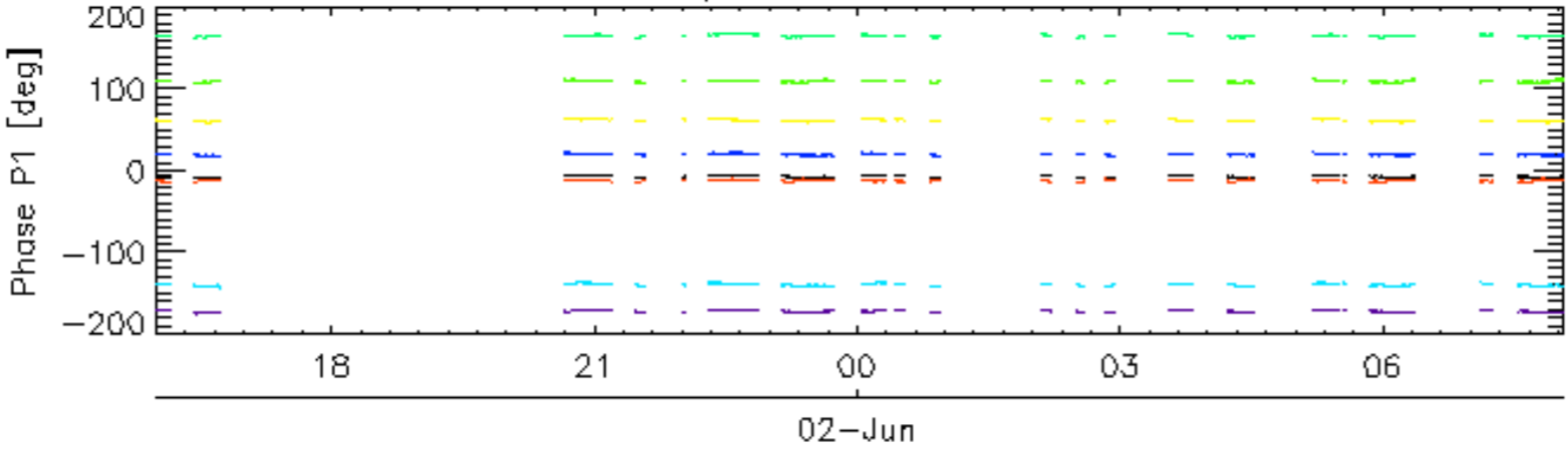


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

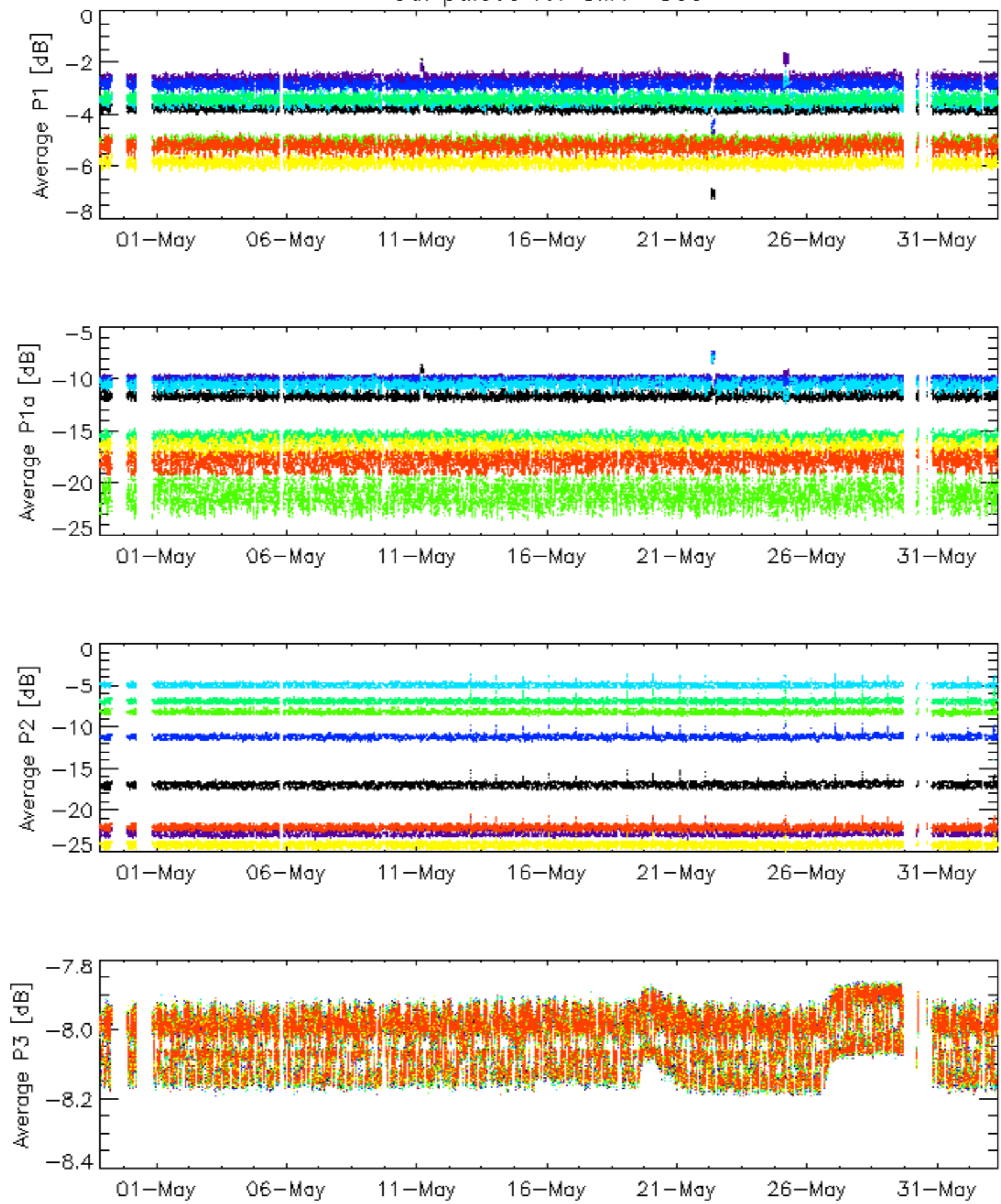


Cal pulses for WVS IS2



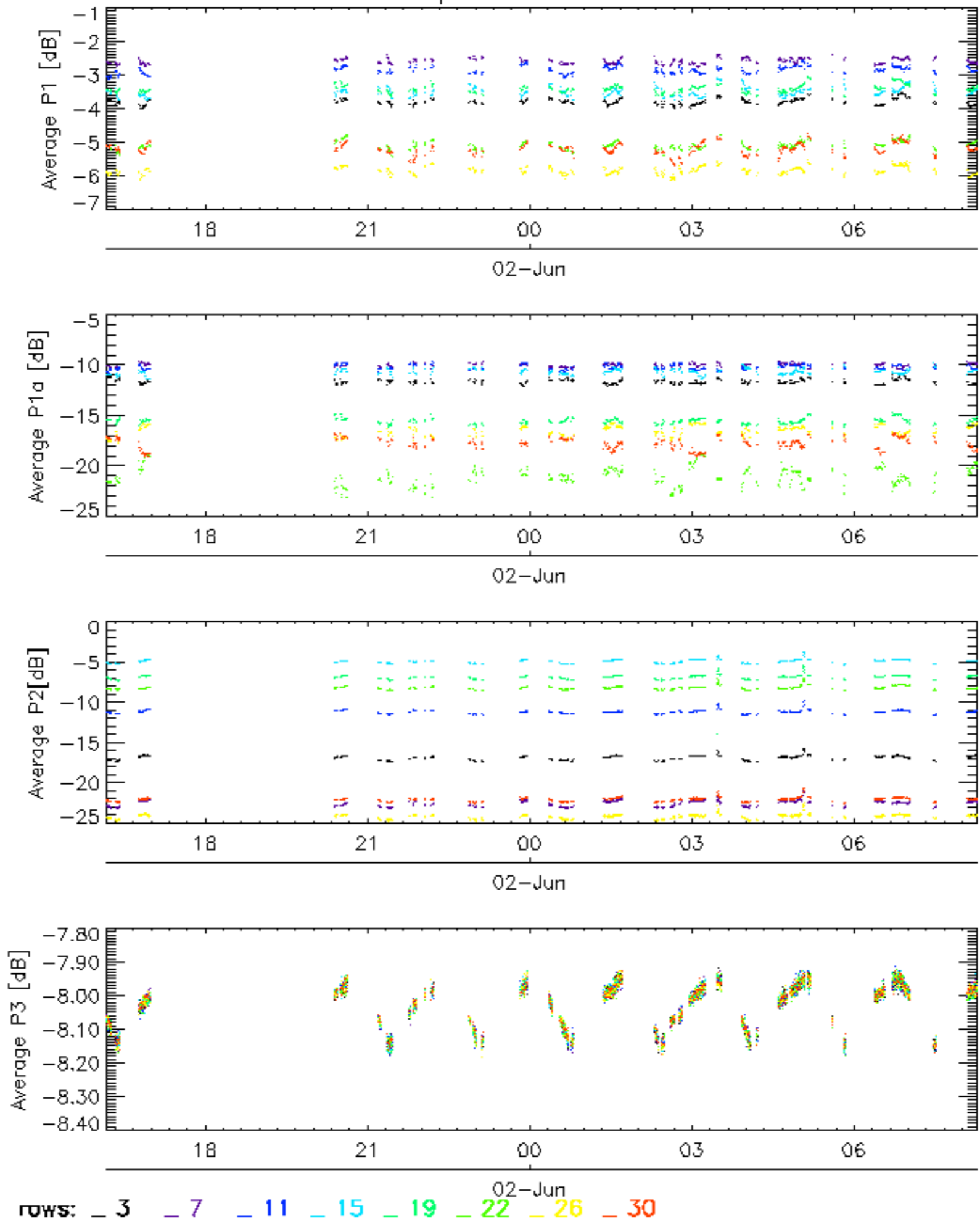
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

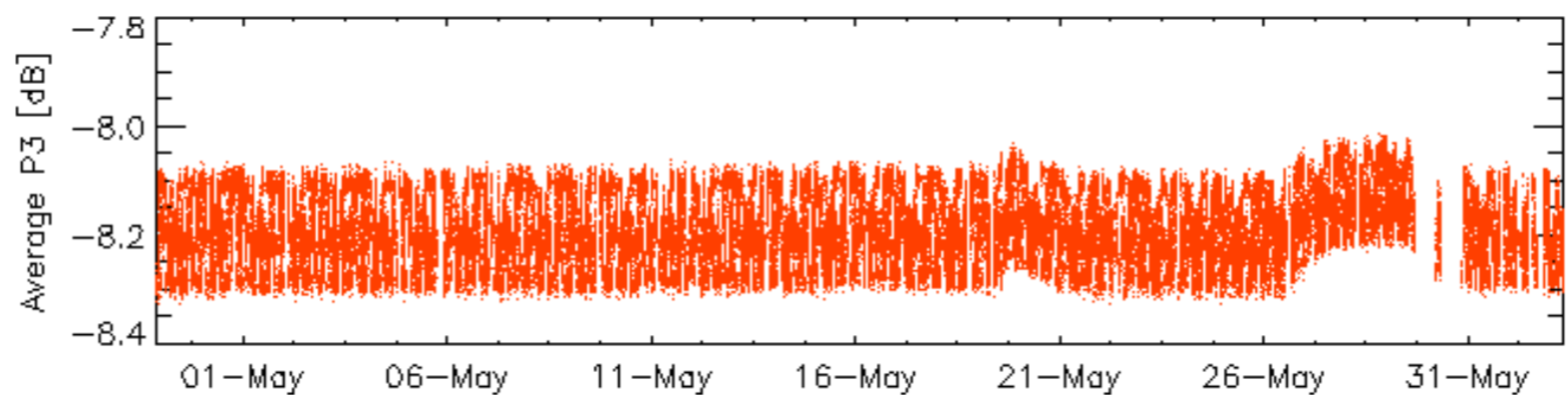
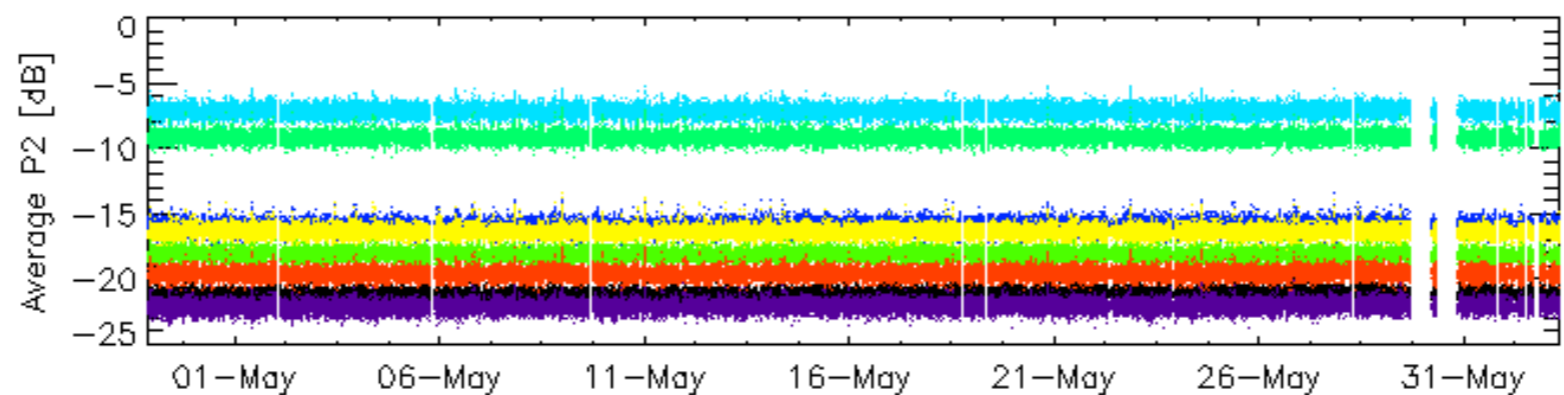
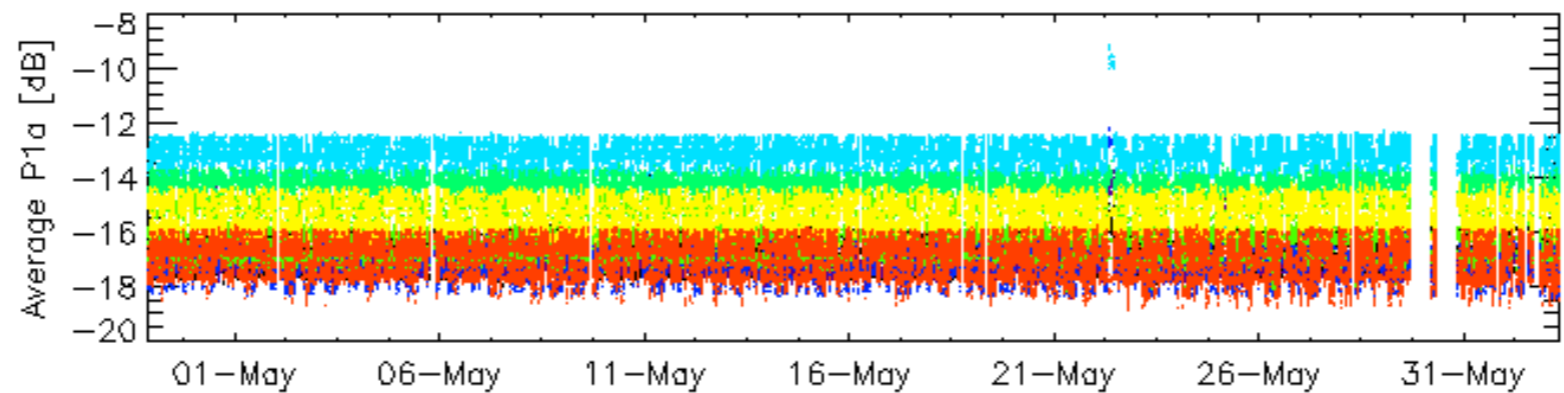
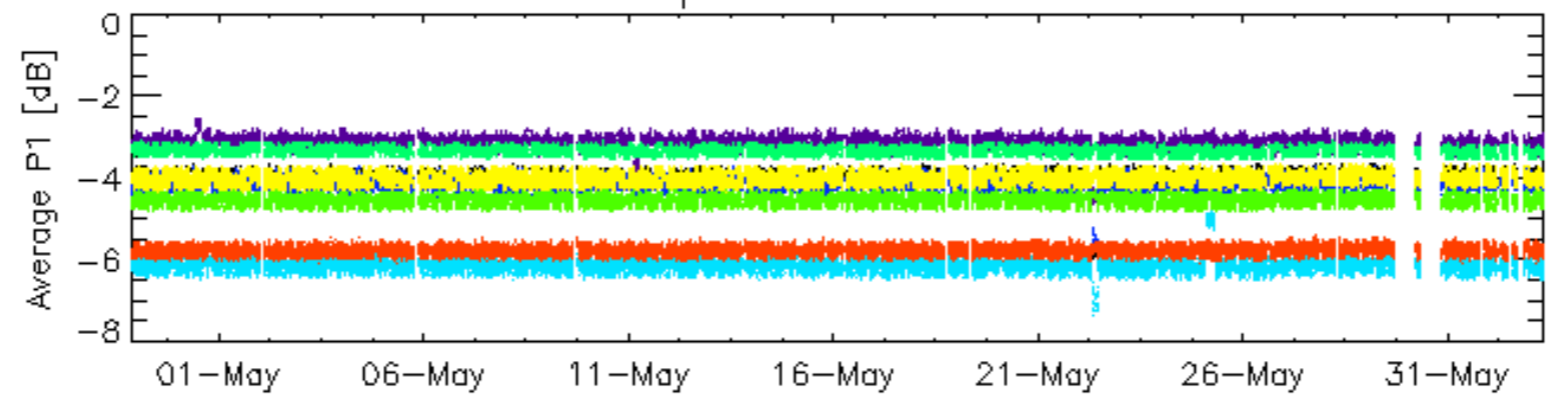


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

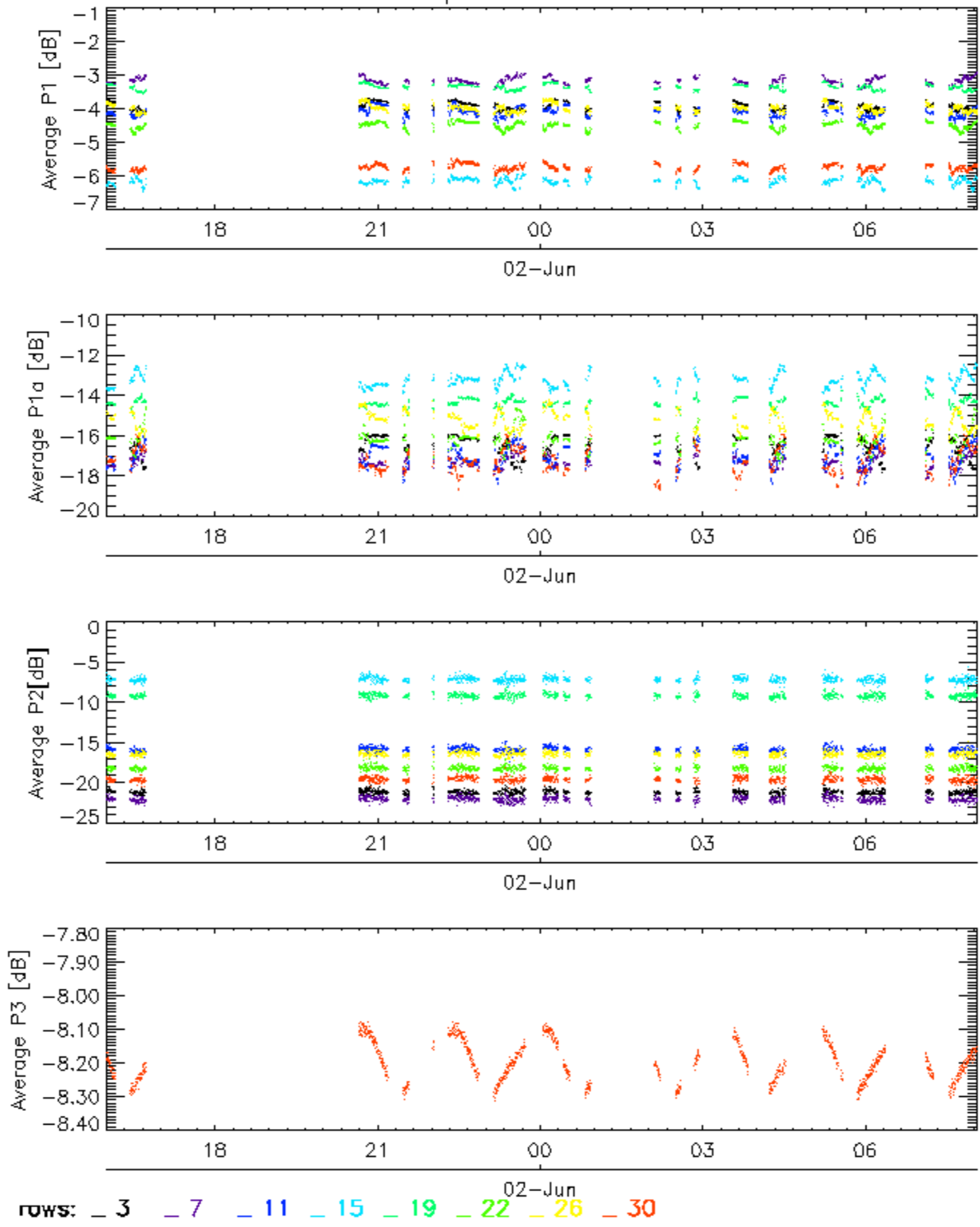


Cal pulses for WVS IS2

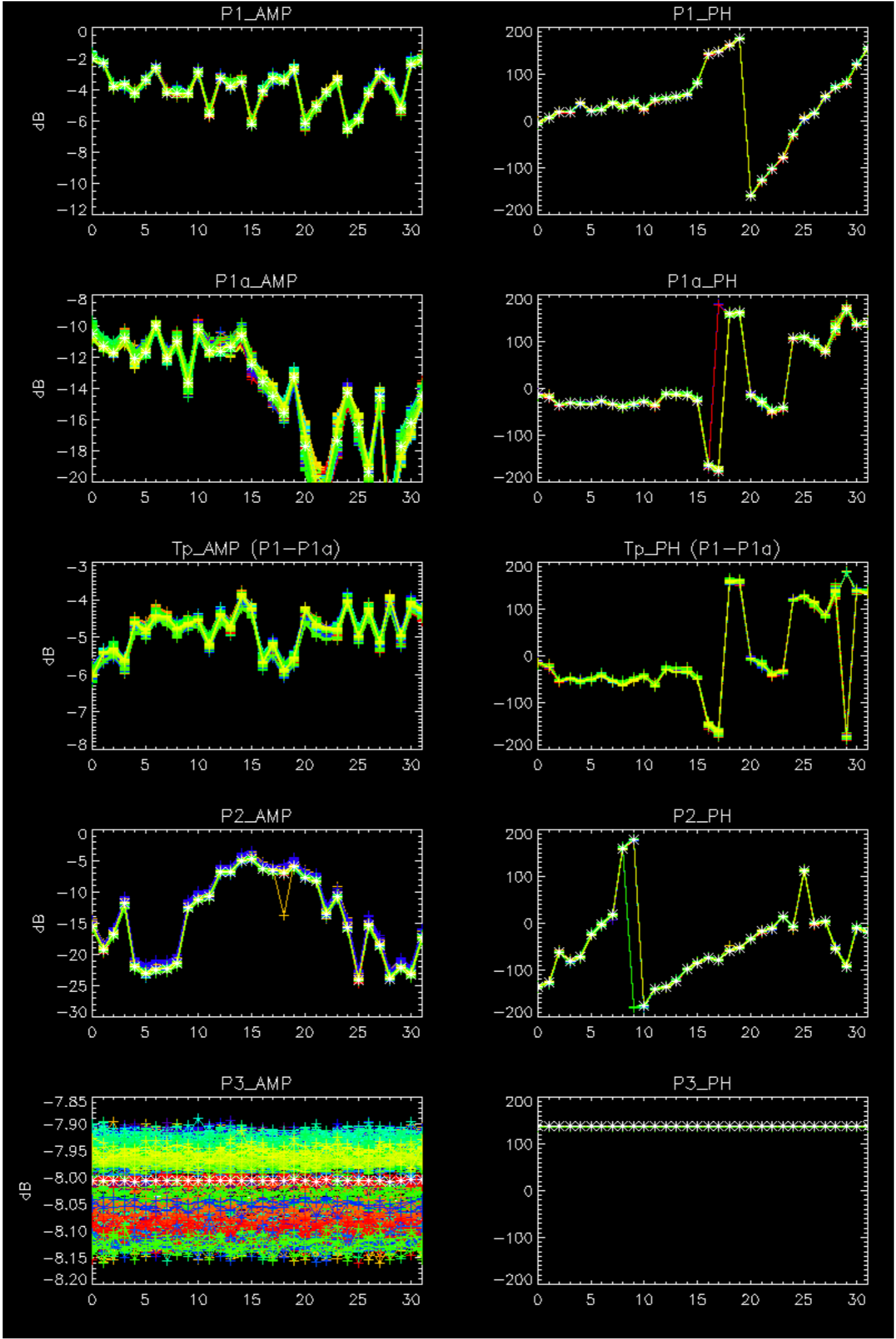


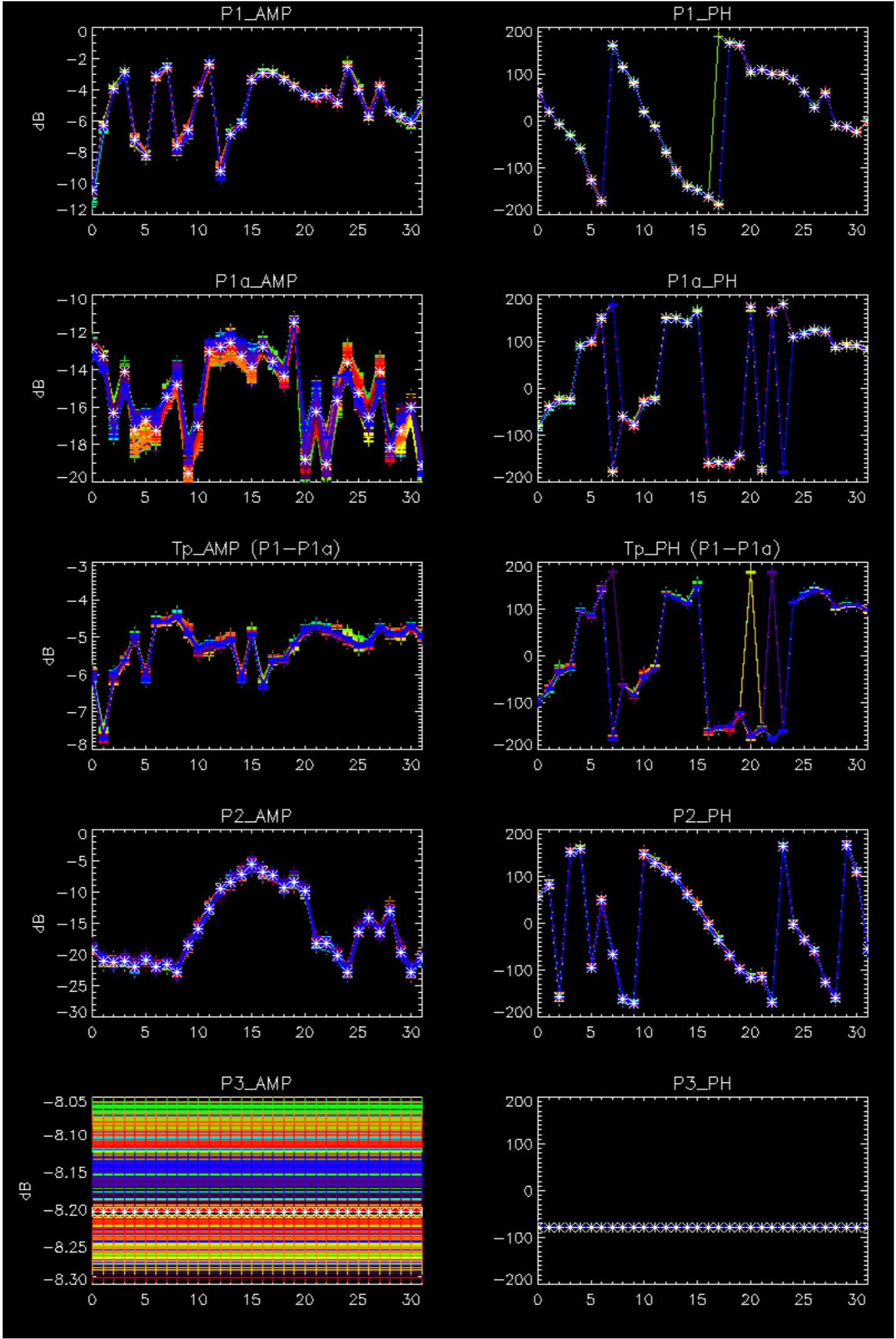
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



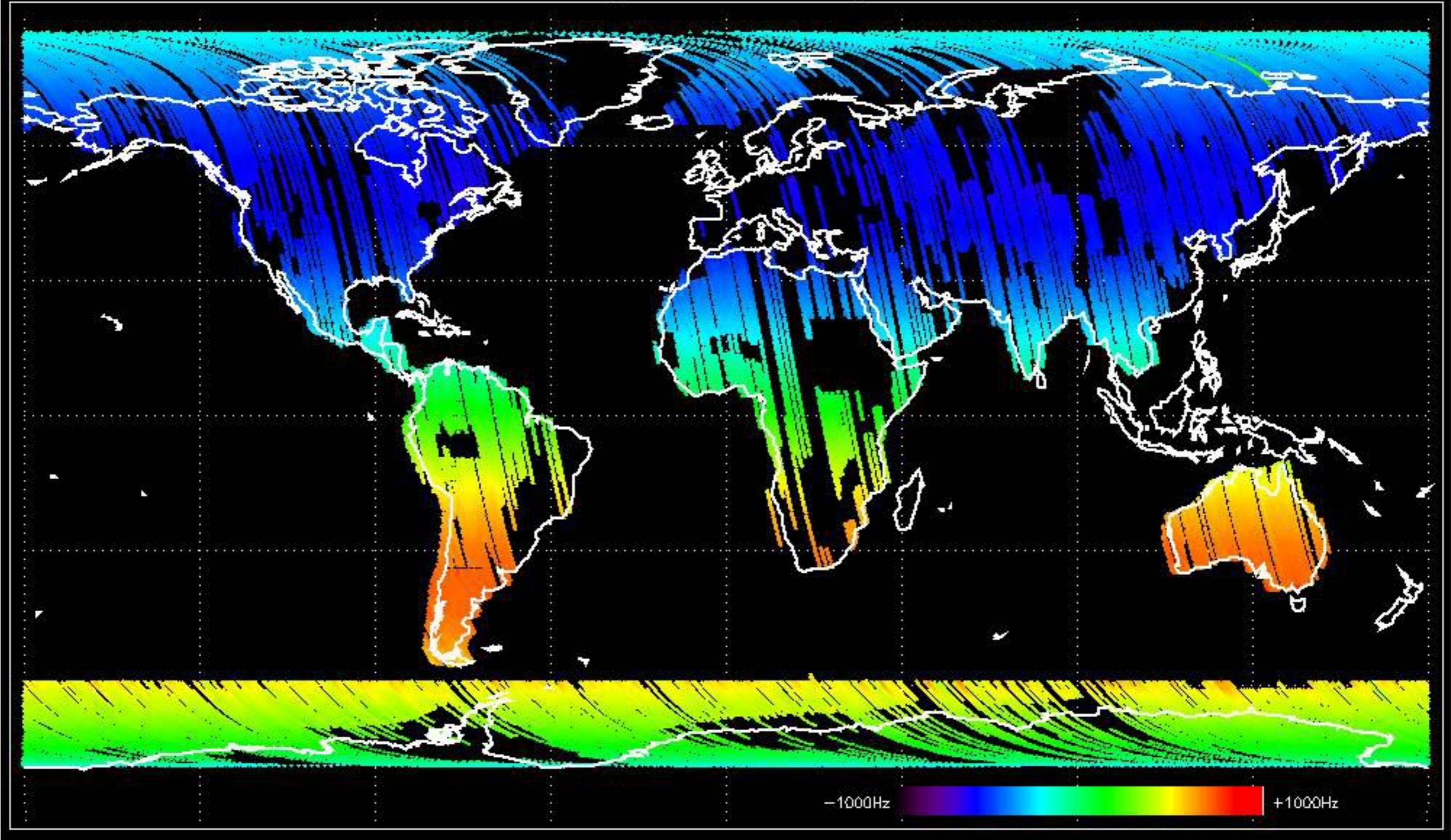
No anomalies observed.



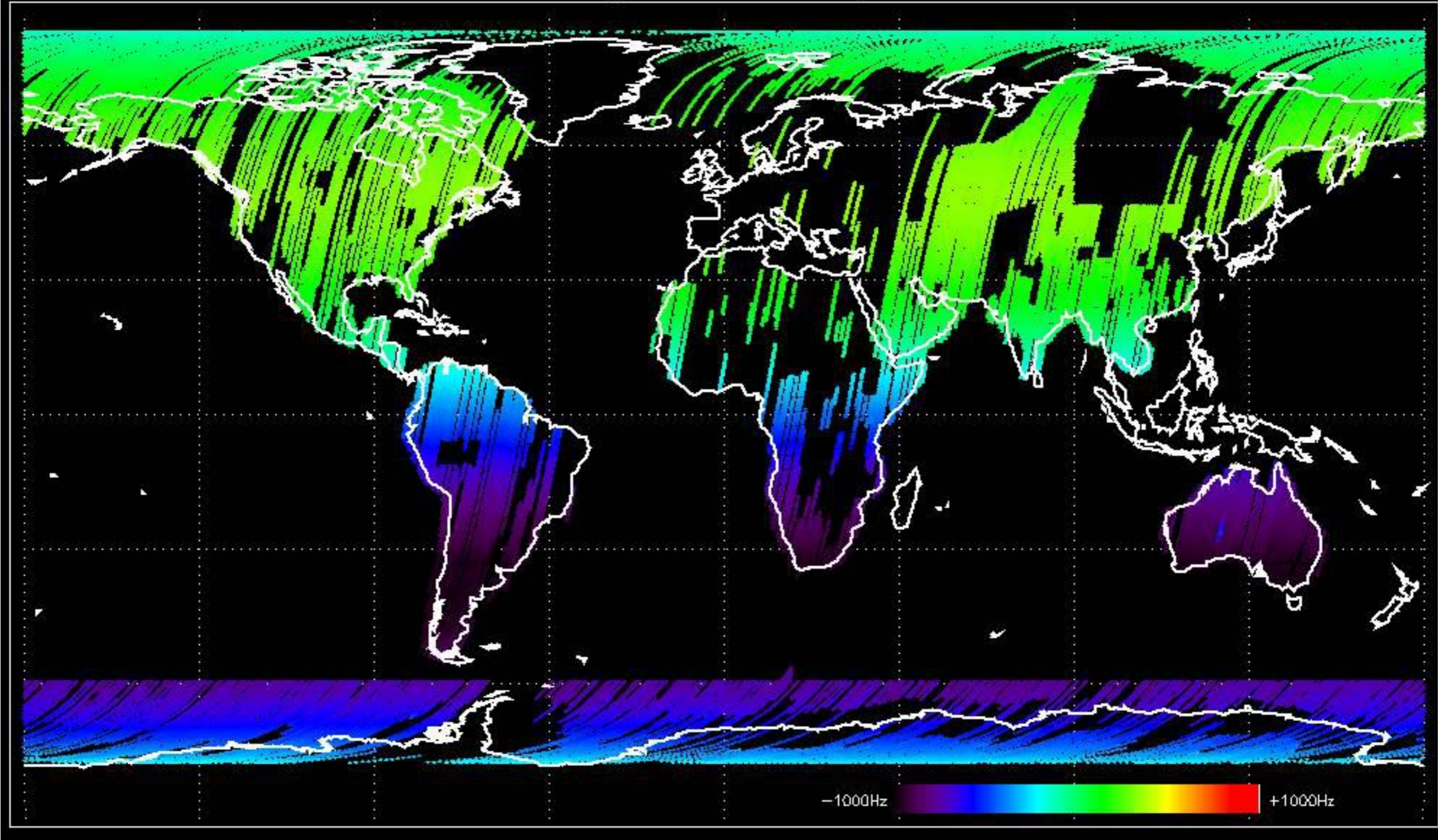


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

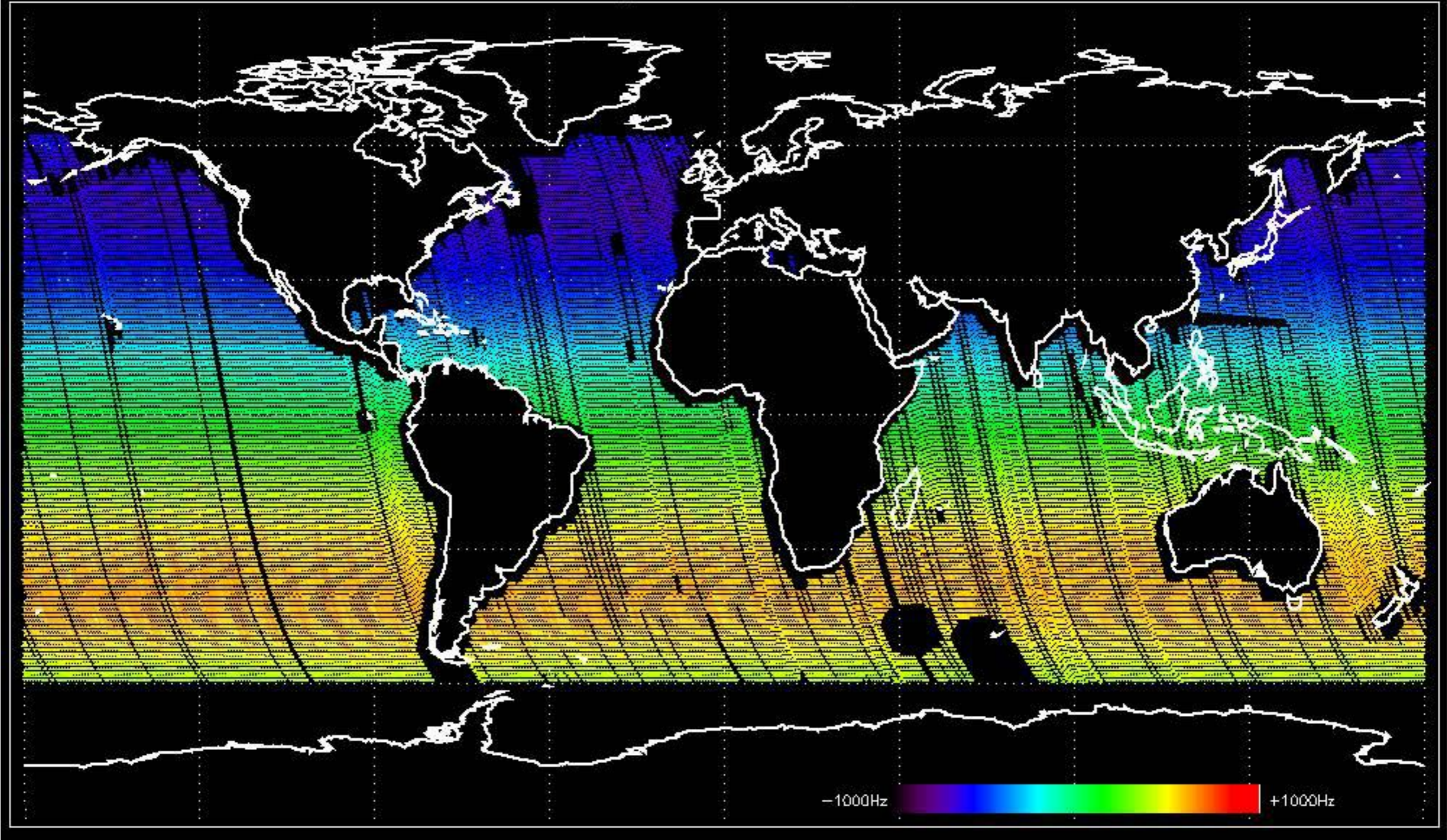
Doppler 'GM1' 'SS1' ascending



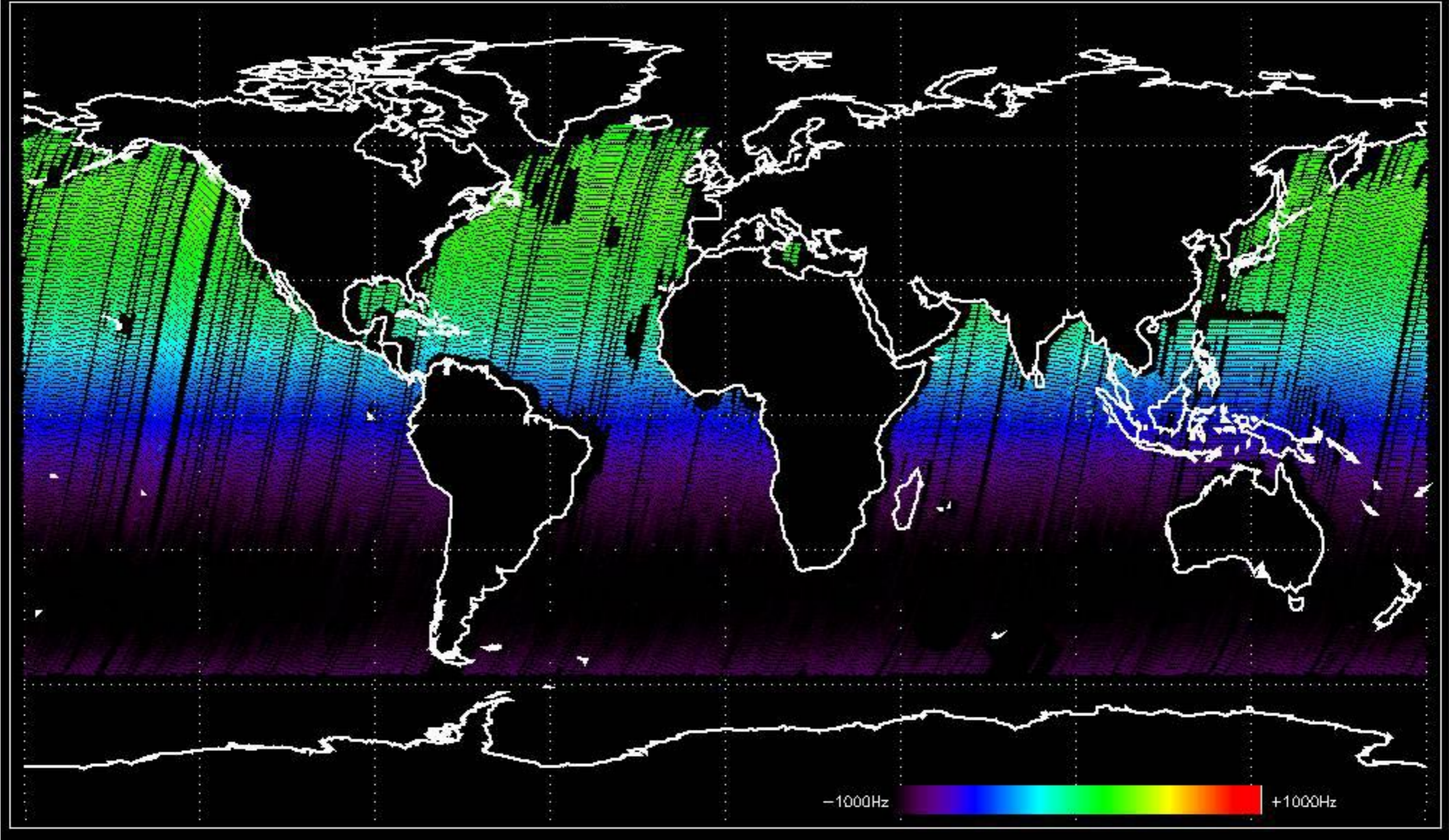
Doppler 'GM1' 'SS1' descending



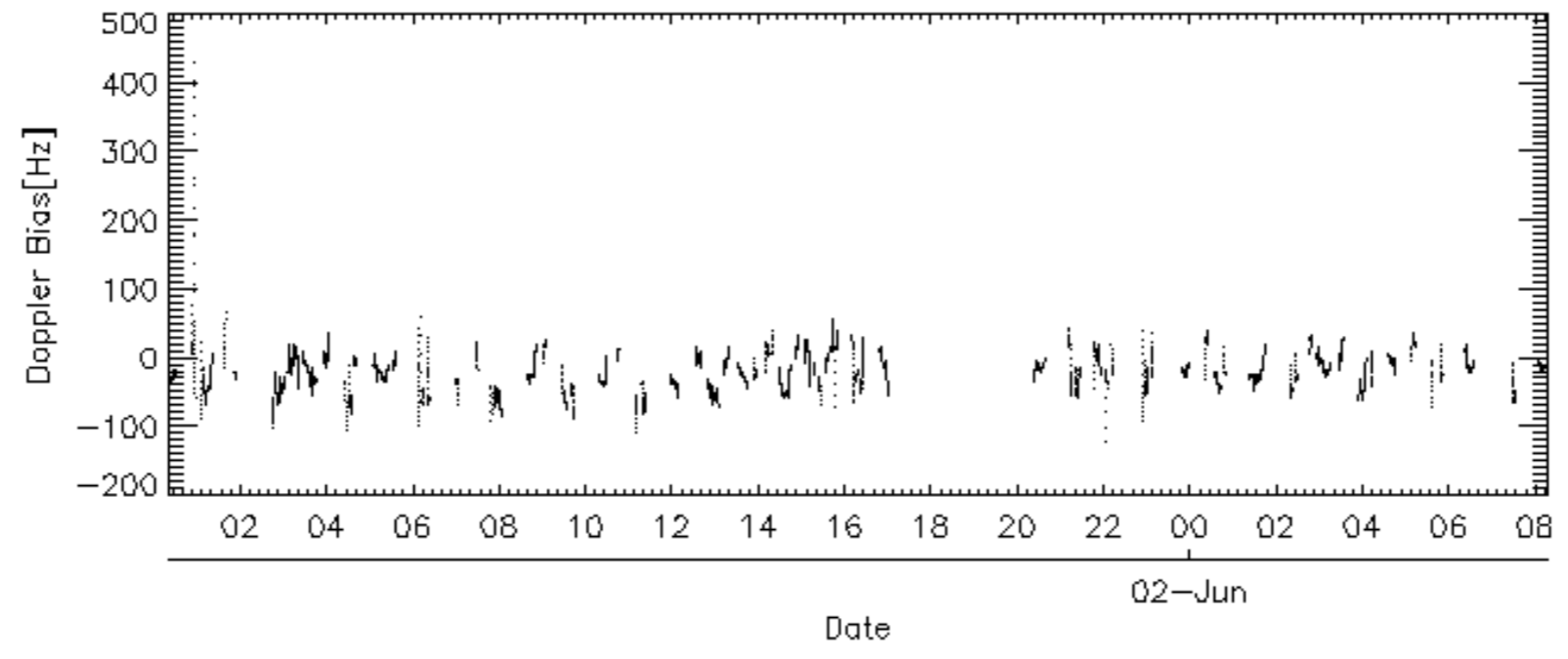
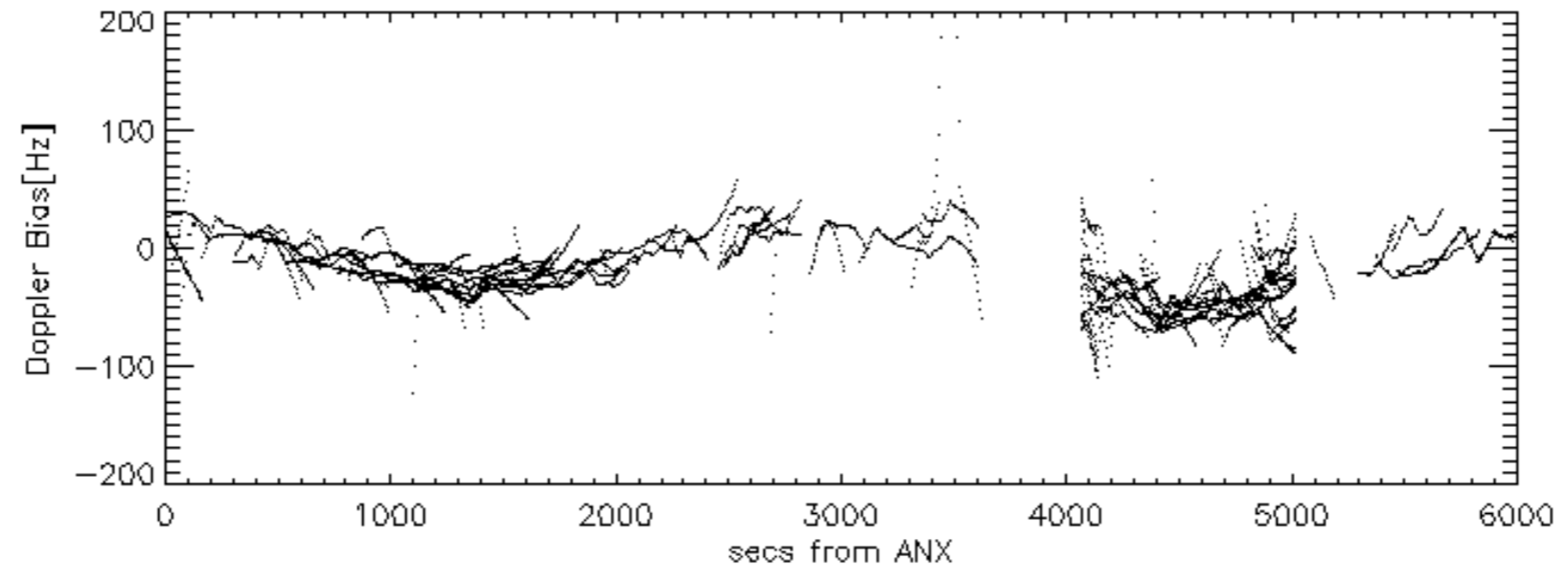
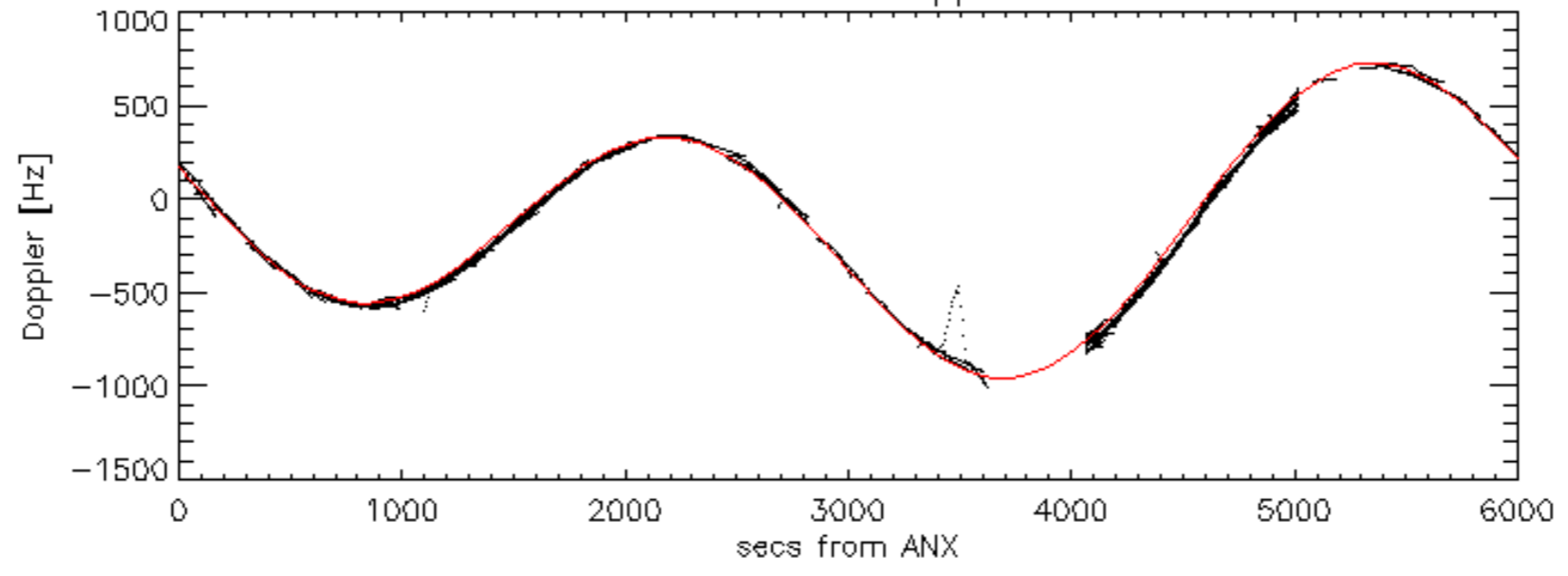
Doppler 'WVS' 'IS2' ascending

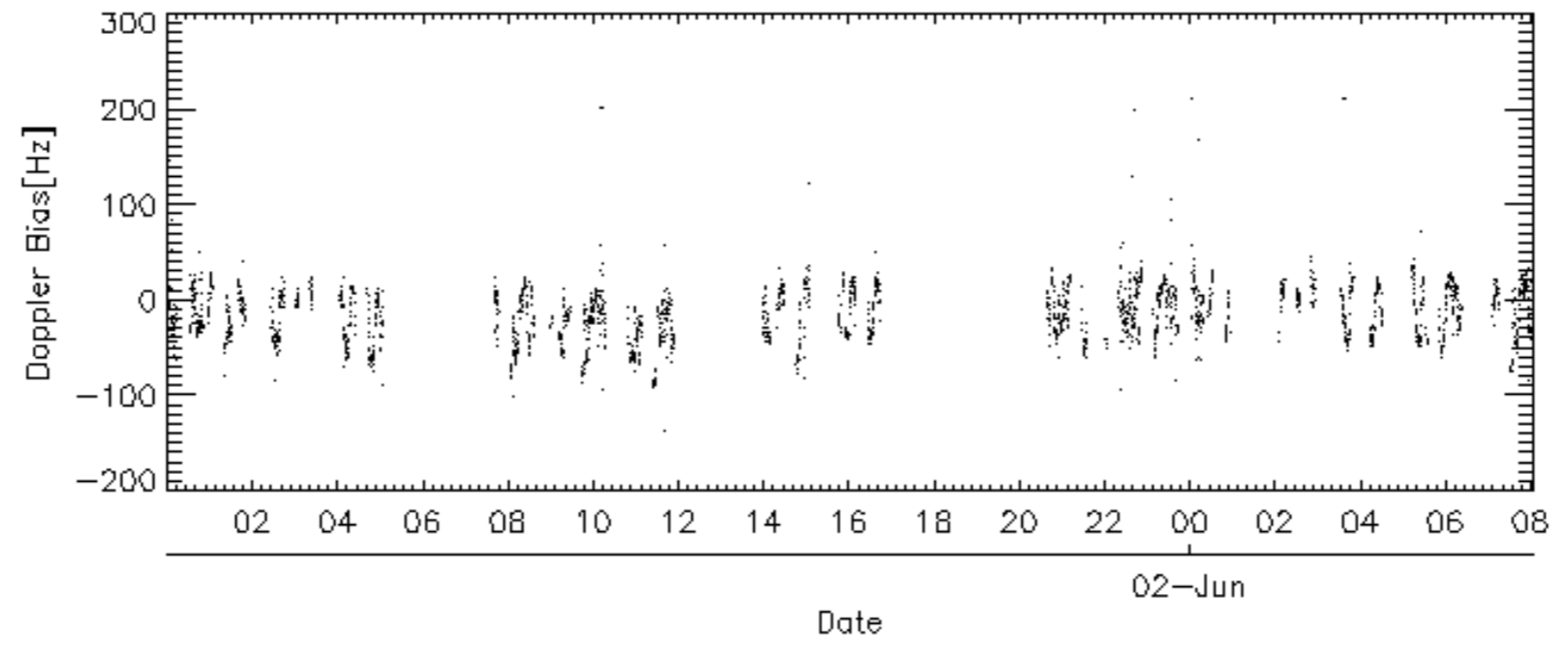
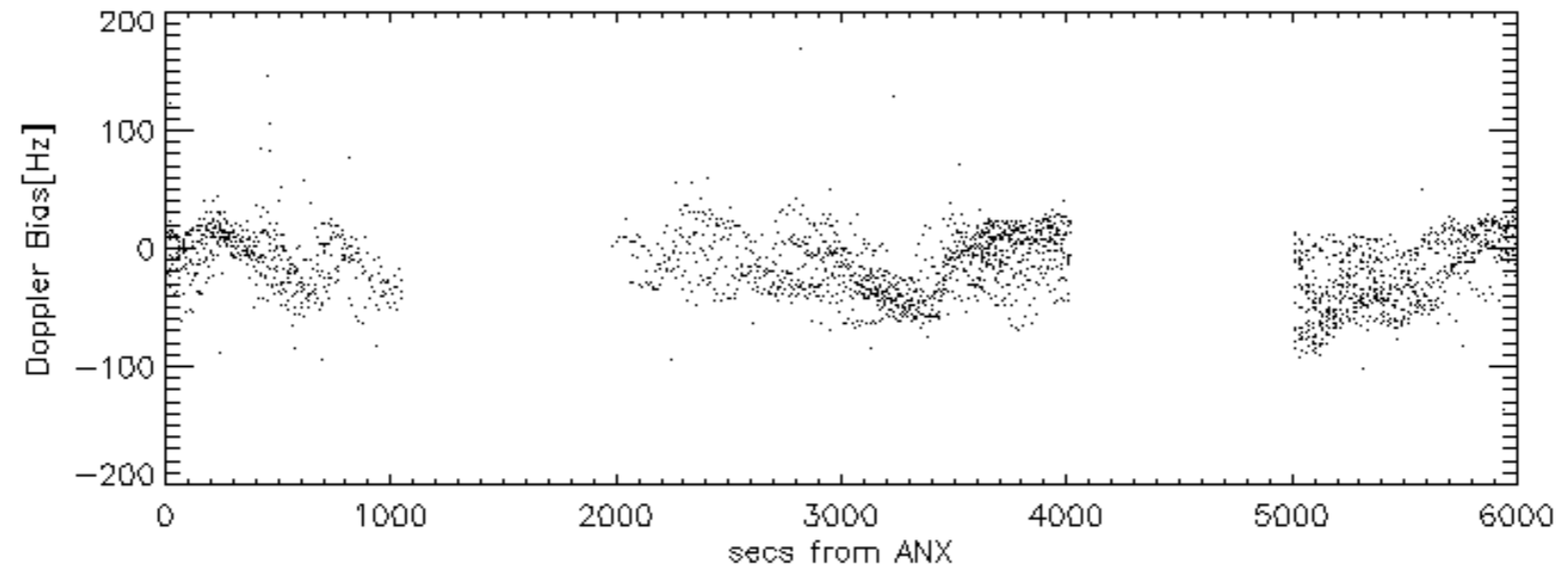
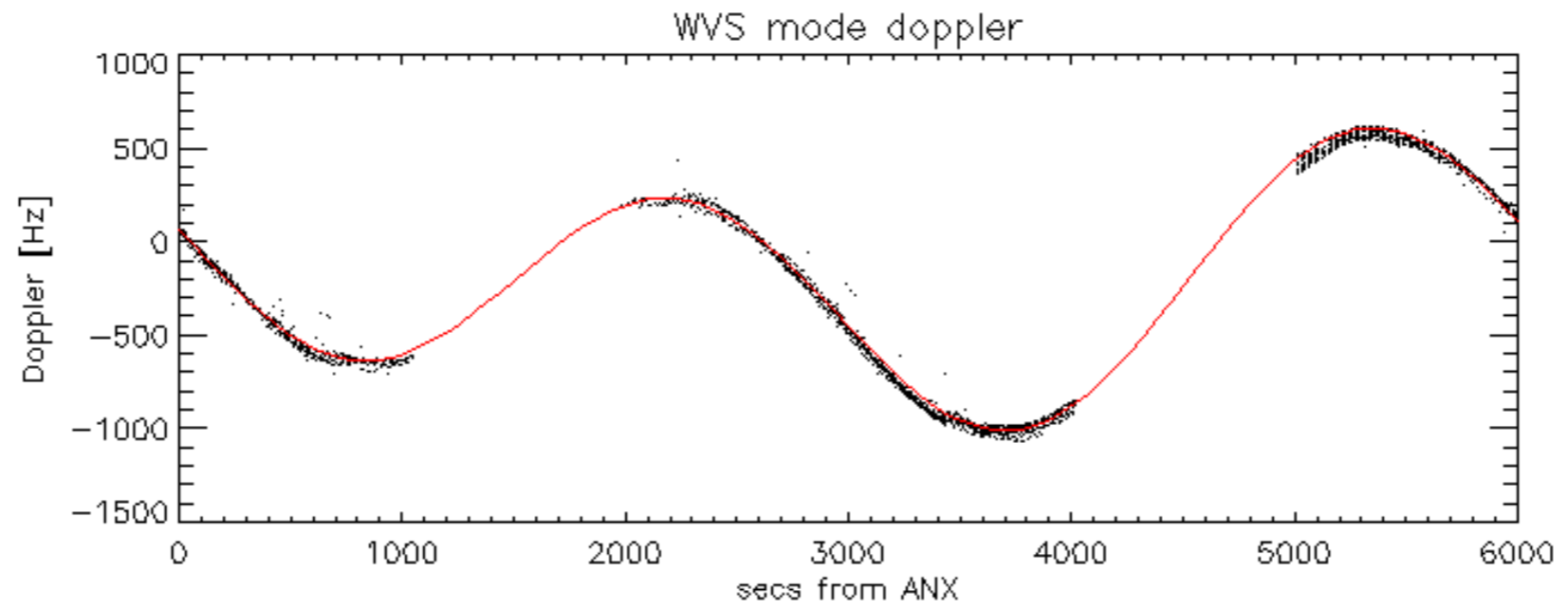


Doppler 'WVS' 'IS2' descending

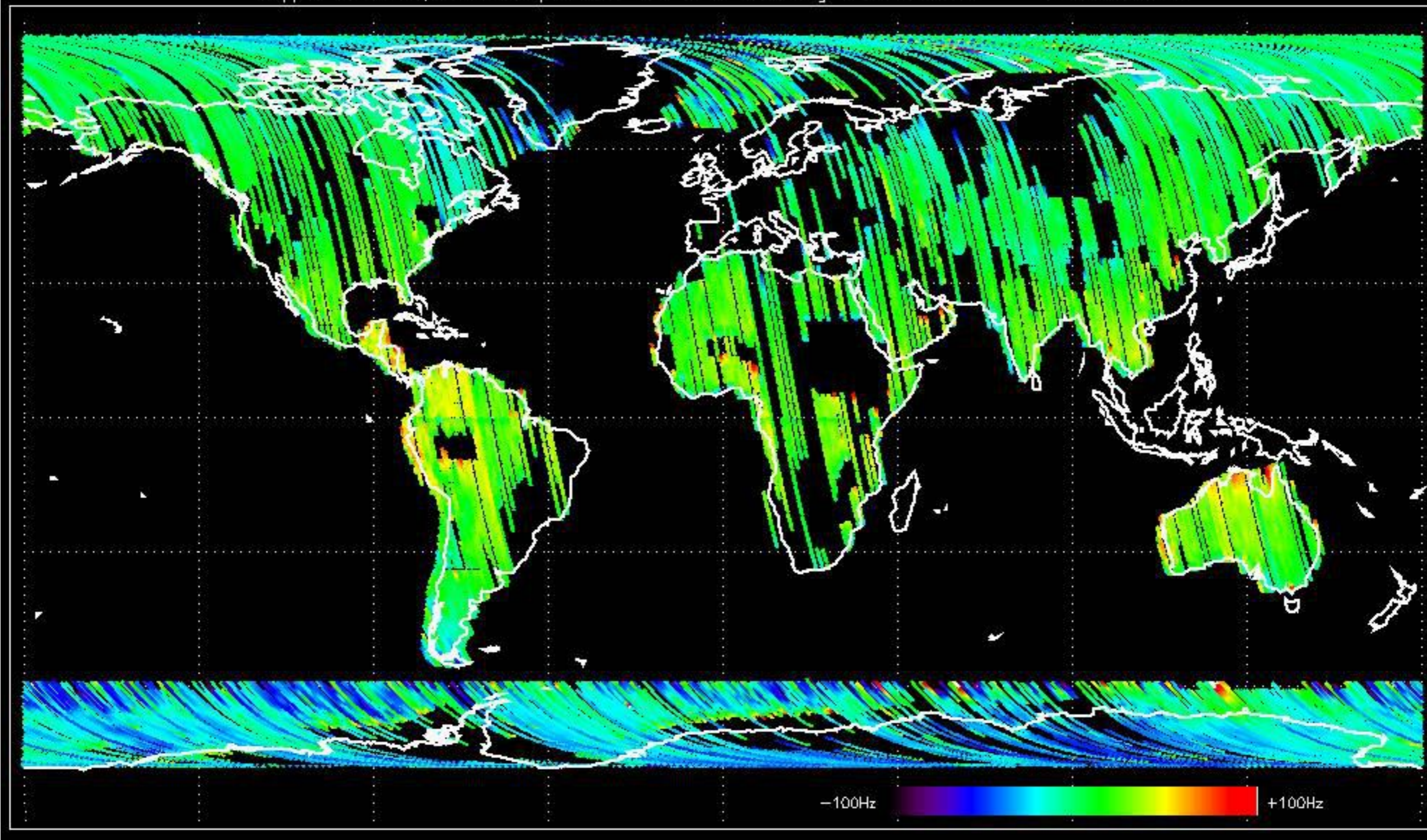


GM1 mode doppler

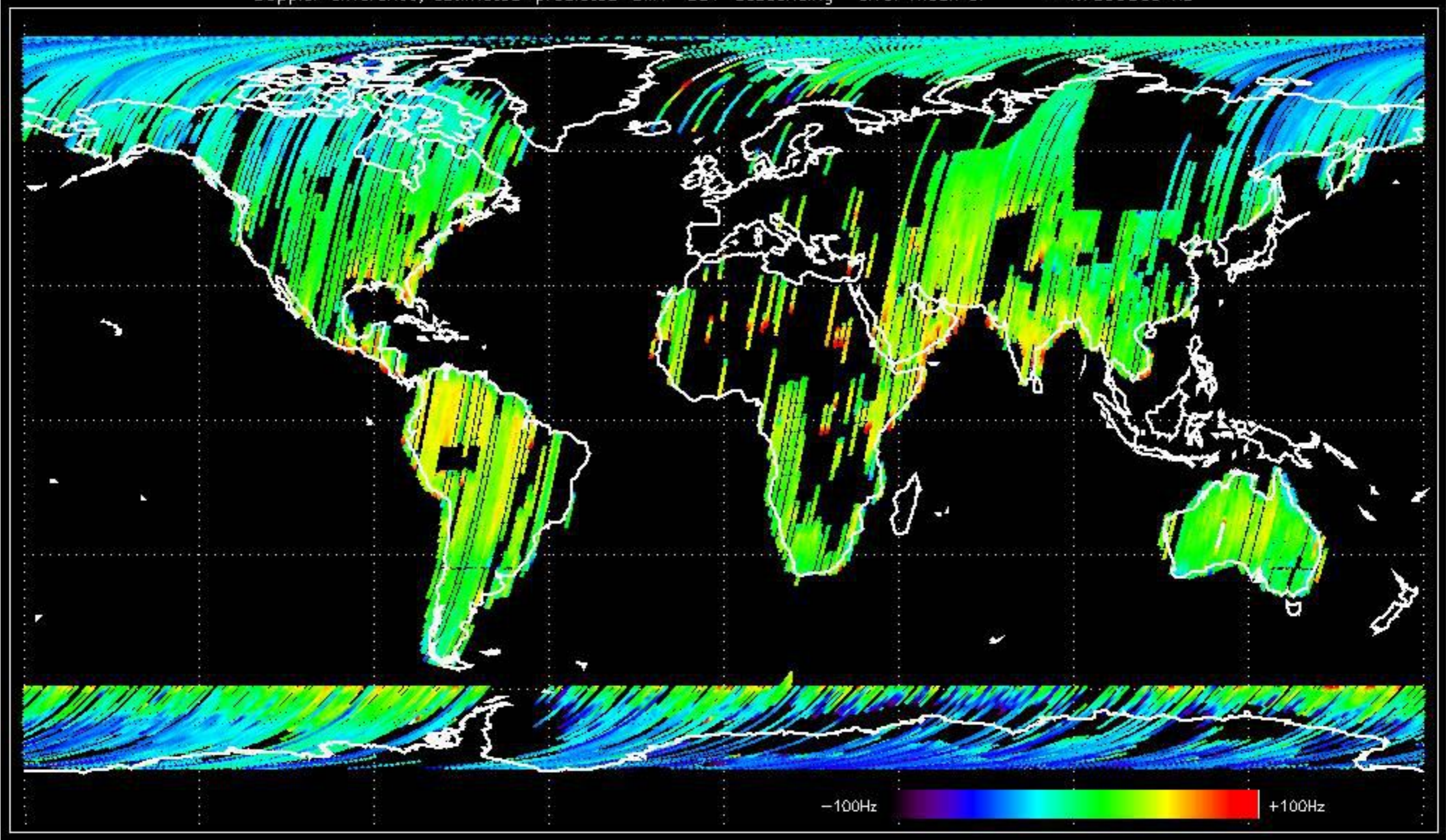




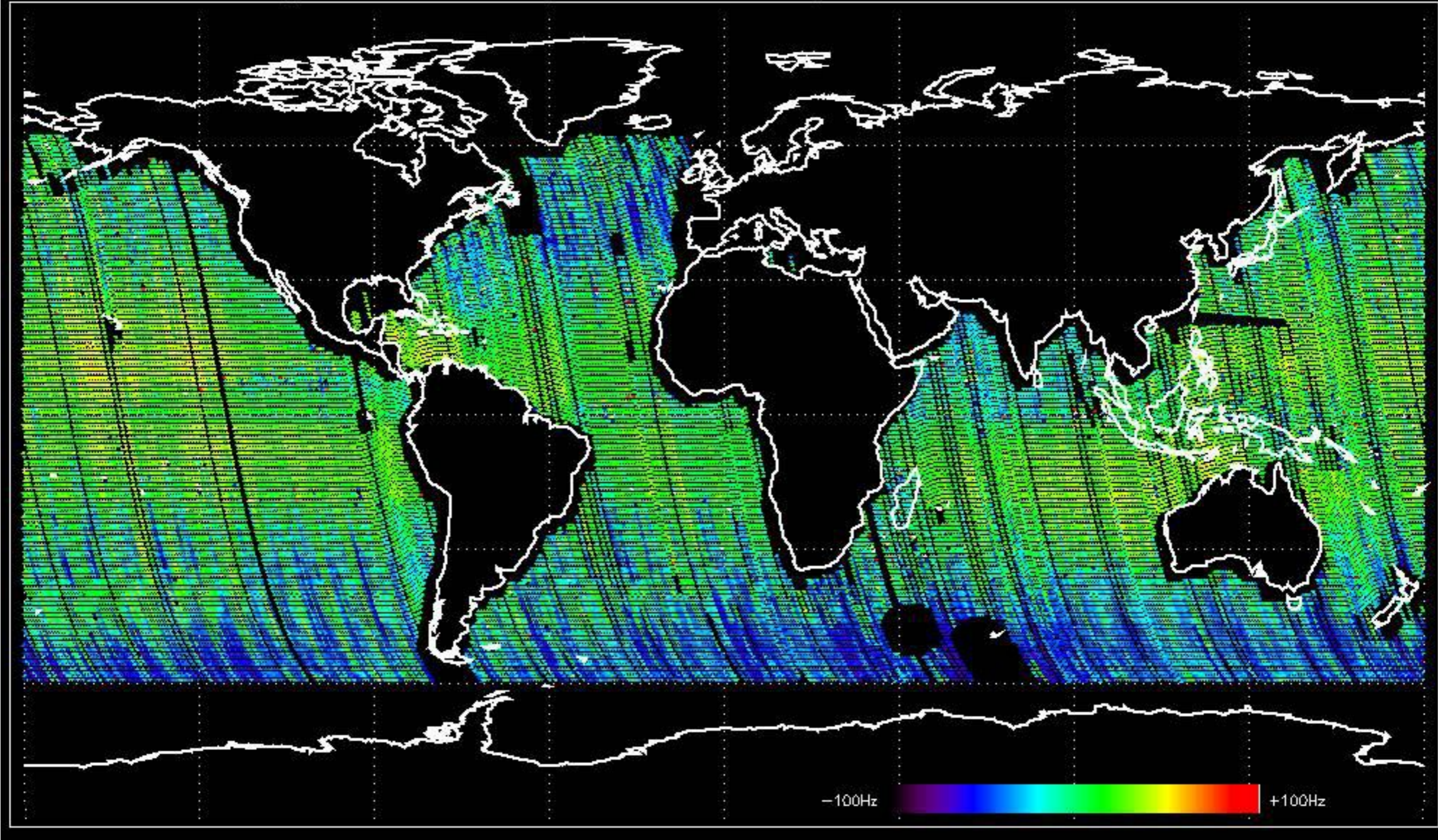
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -15.993231 Hz



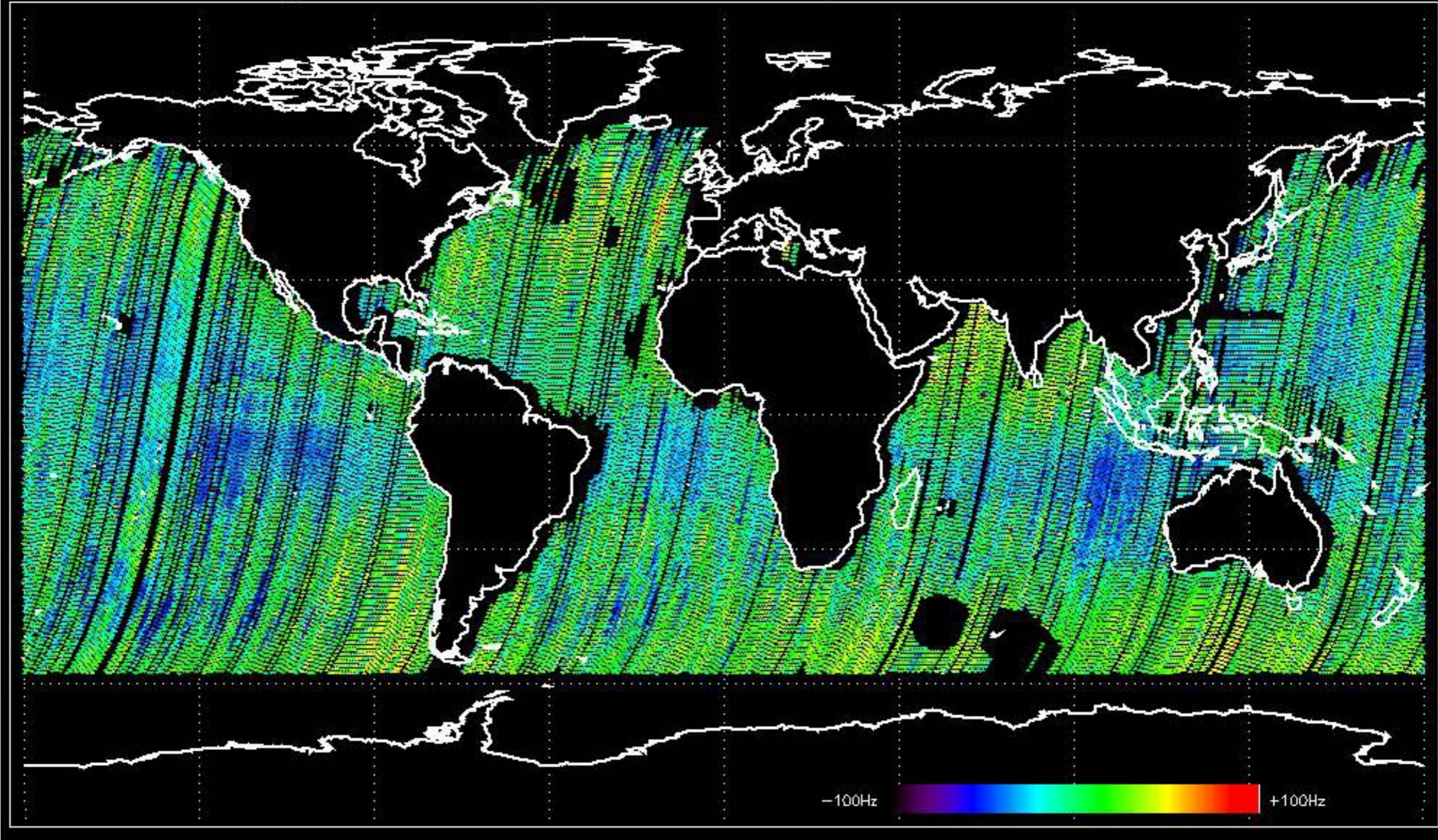
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.7999369 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.1410681 Hz

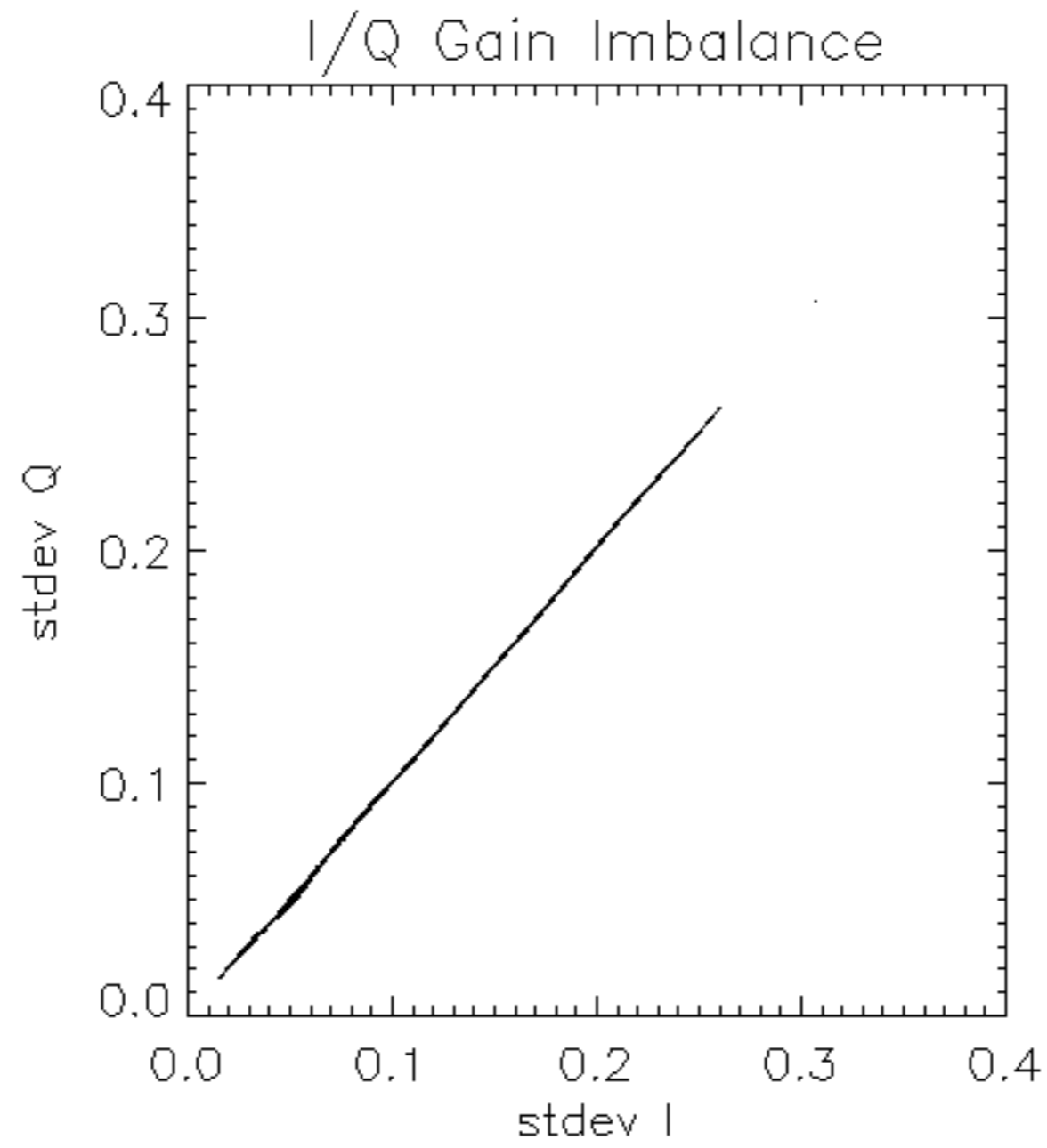


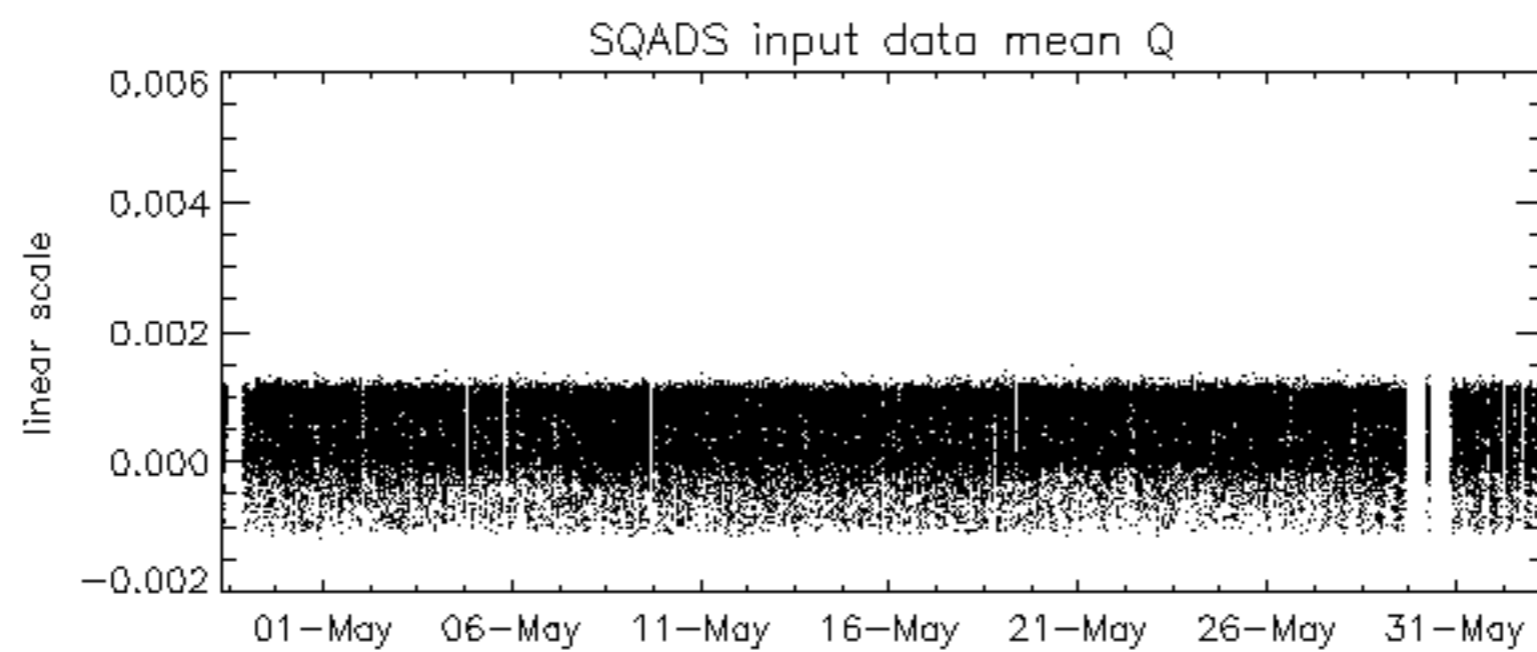
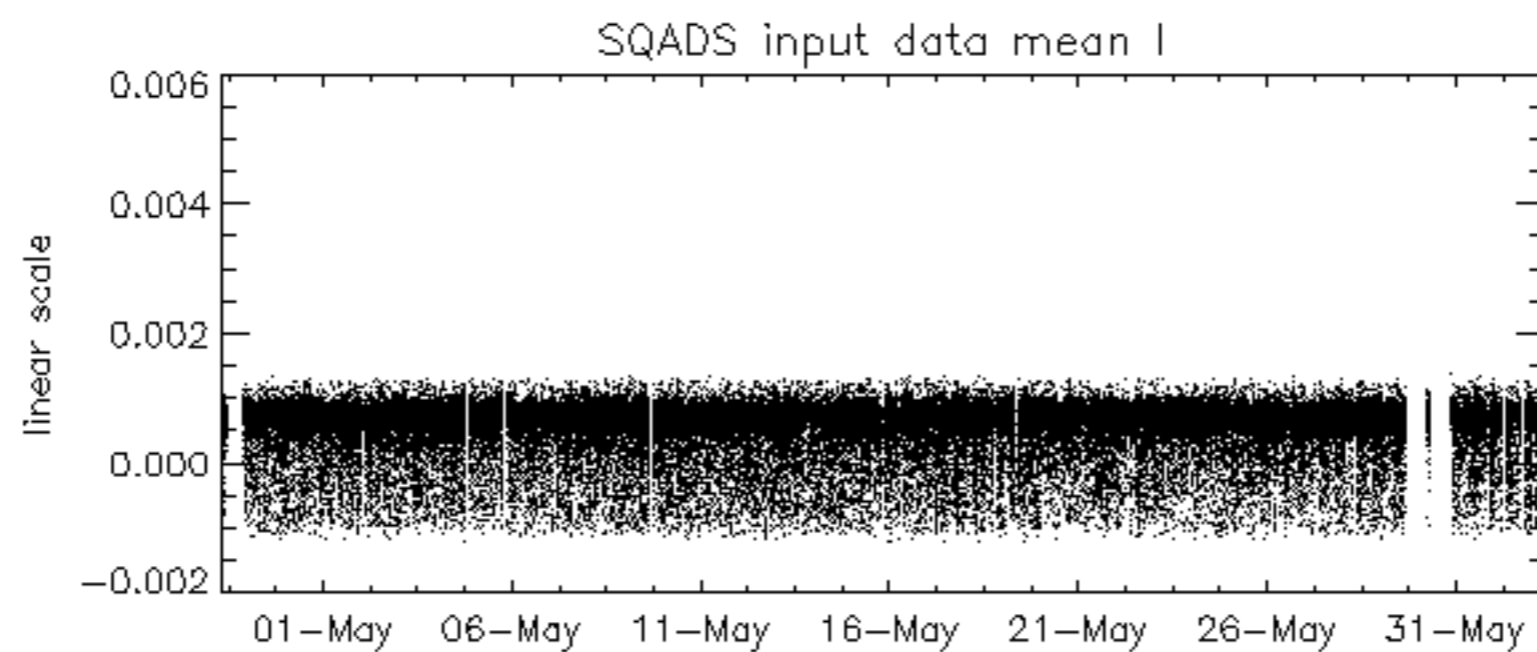
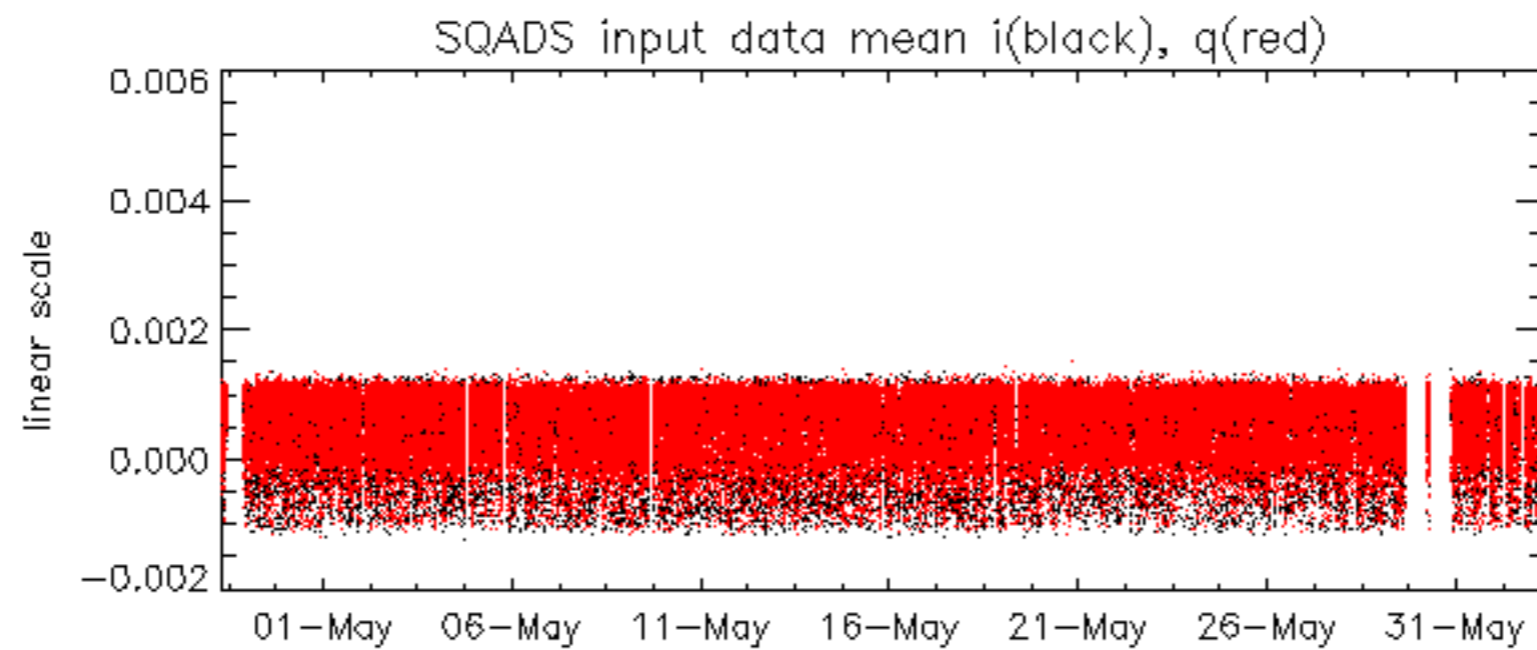
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.703859 Hz

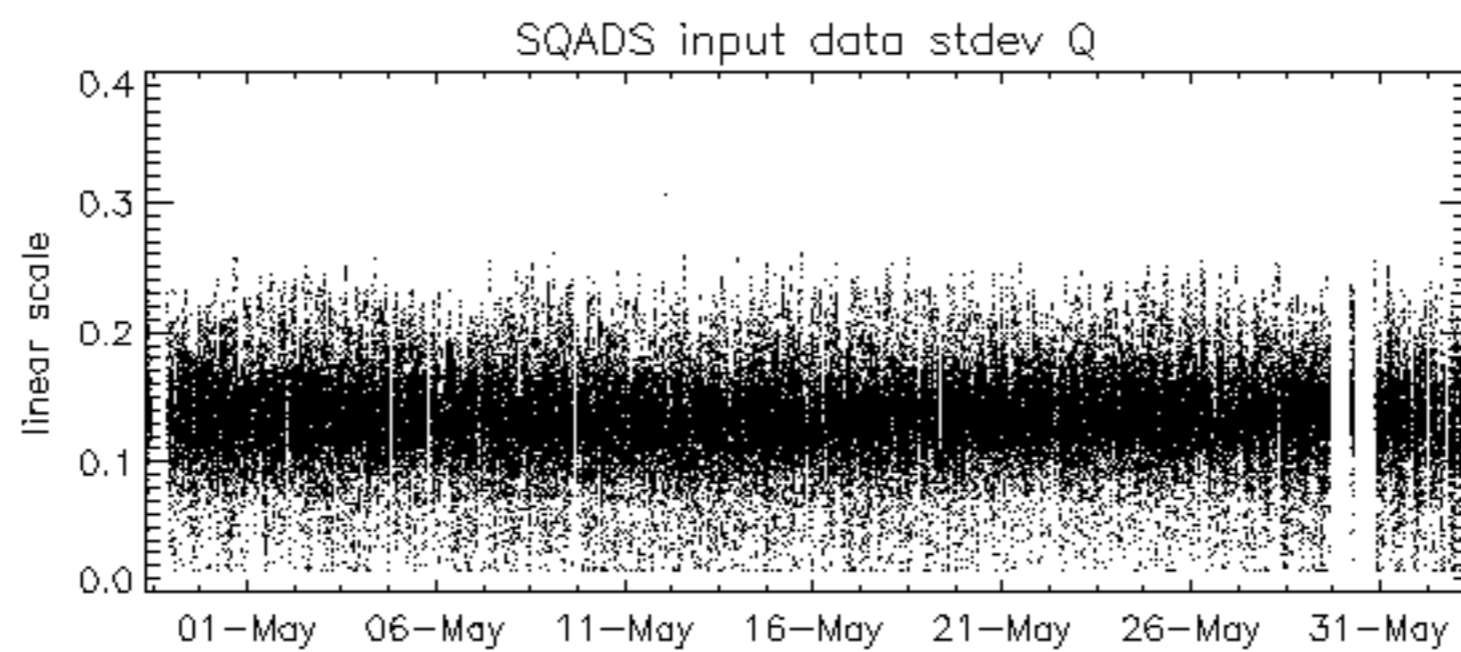
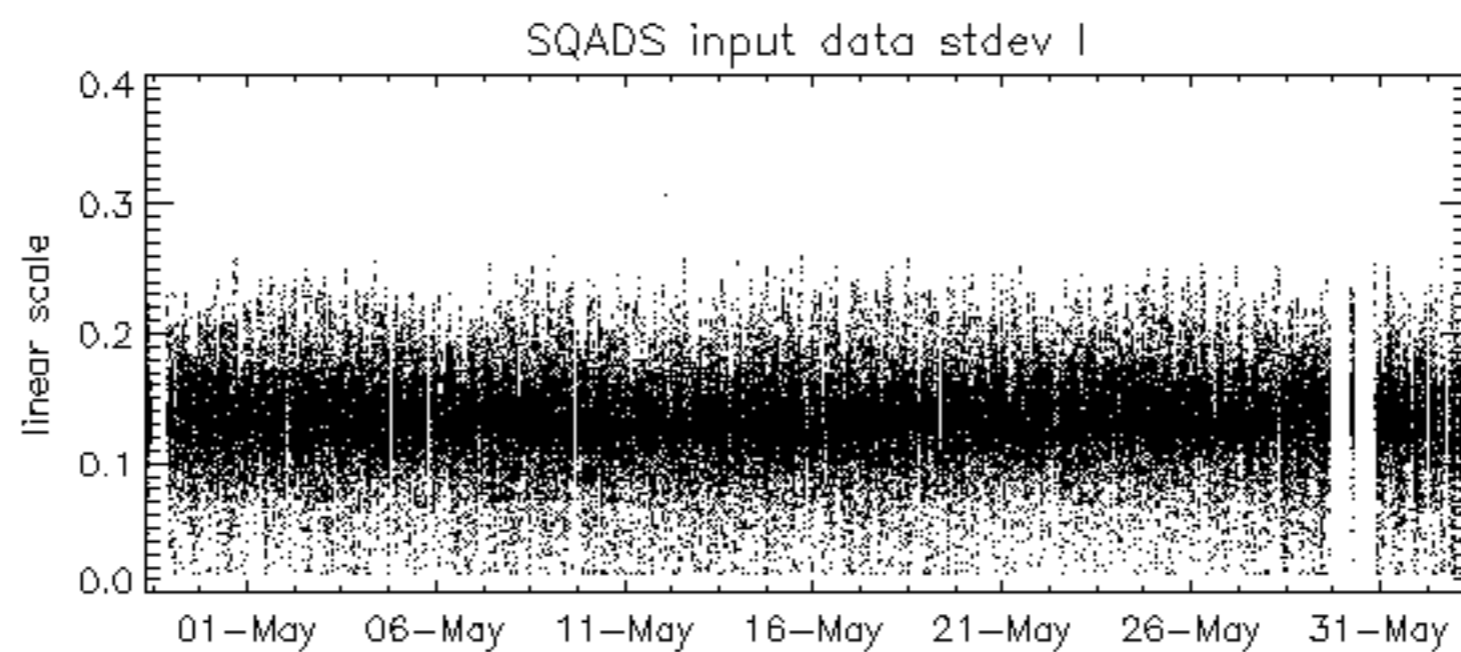
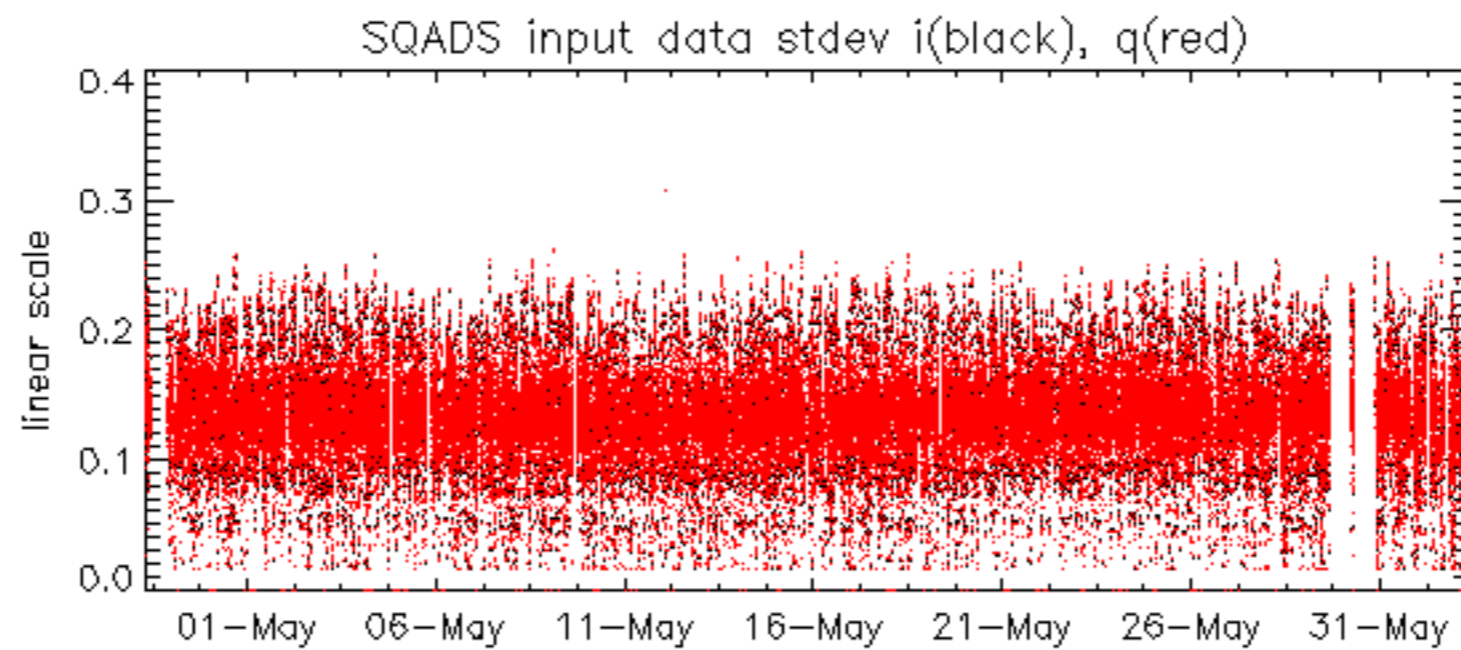


No anomalies observed on available MS products:

No anomalies observed.



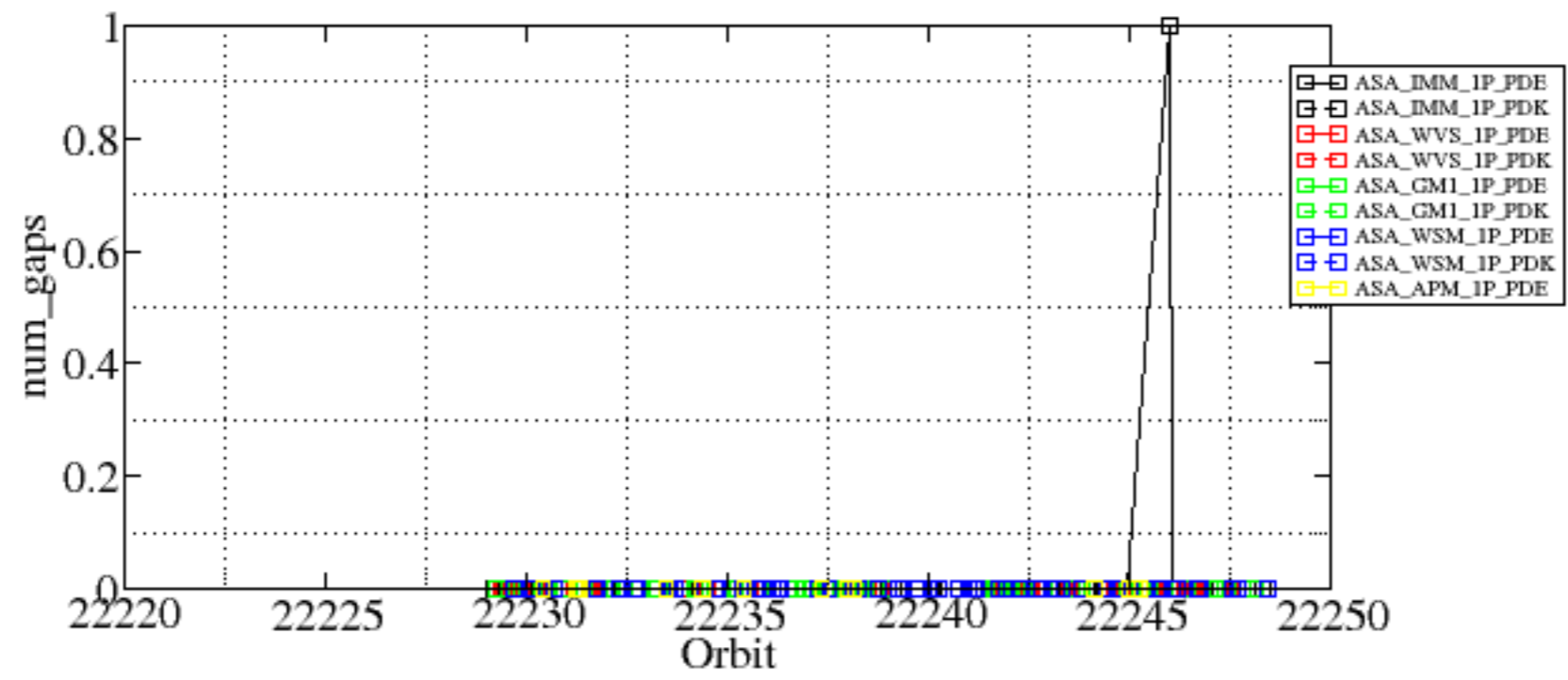


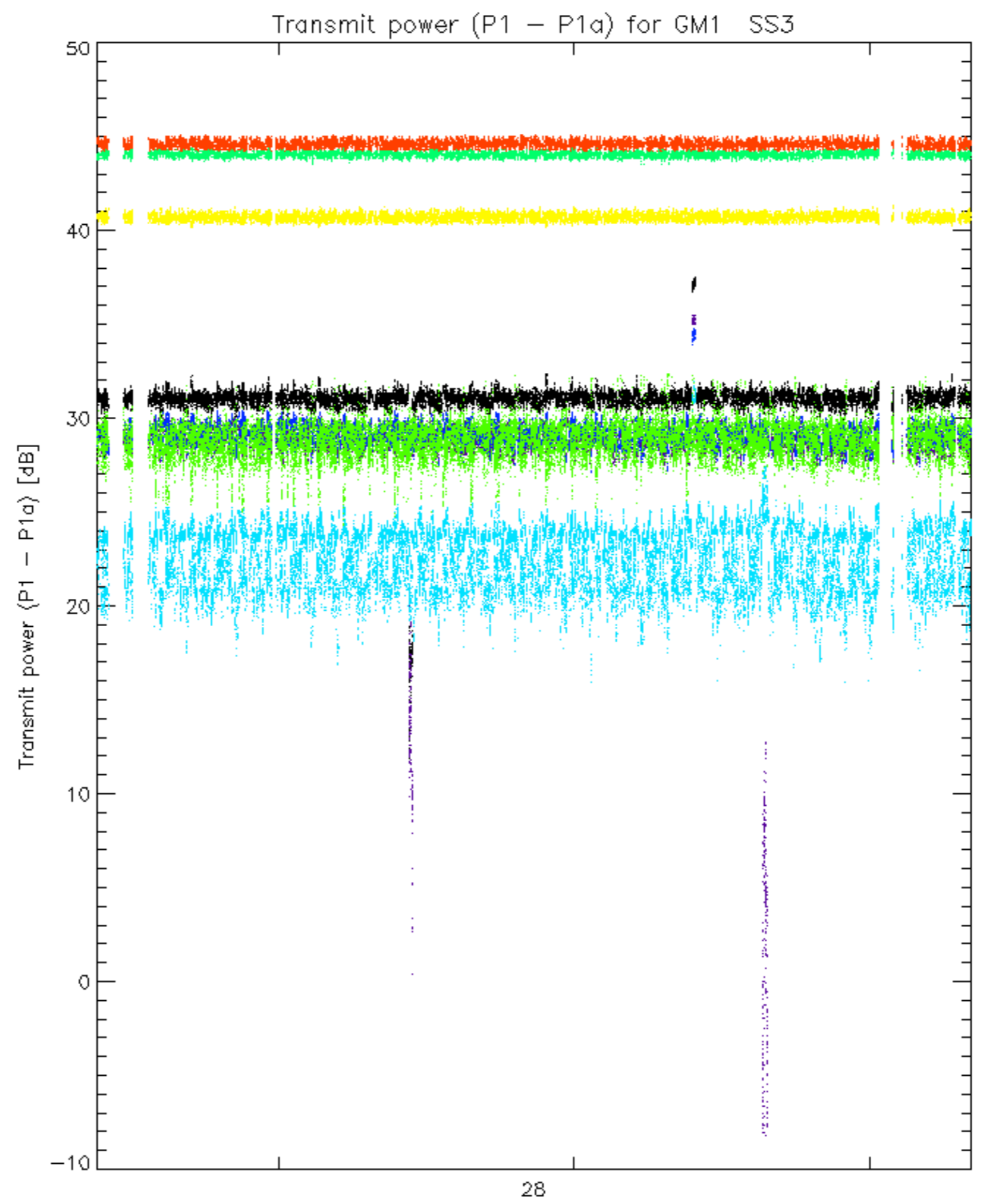


Summary of analysis for the last 3 days 2006060[112]

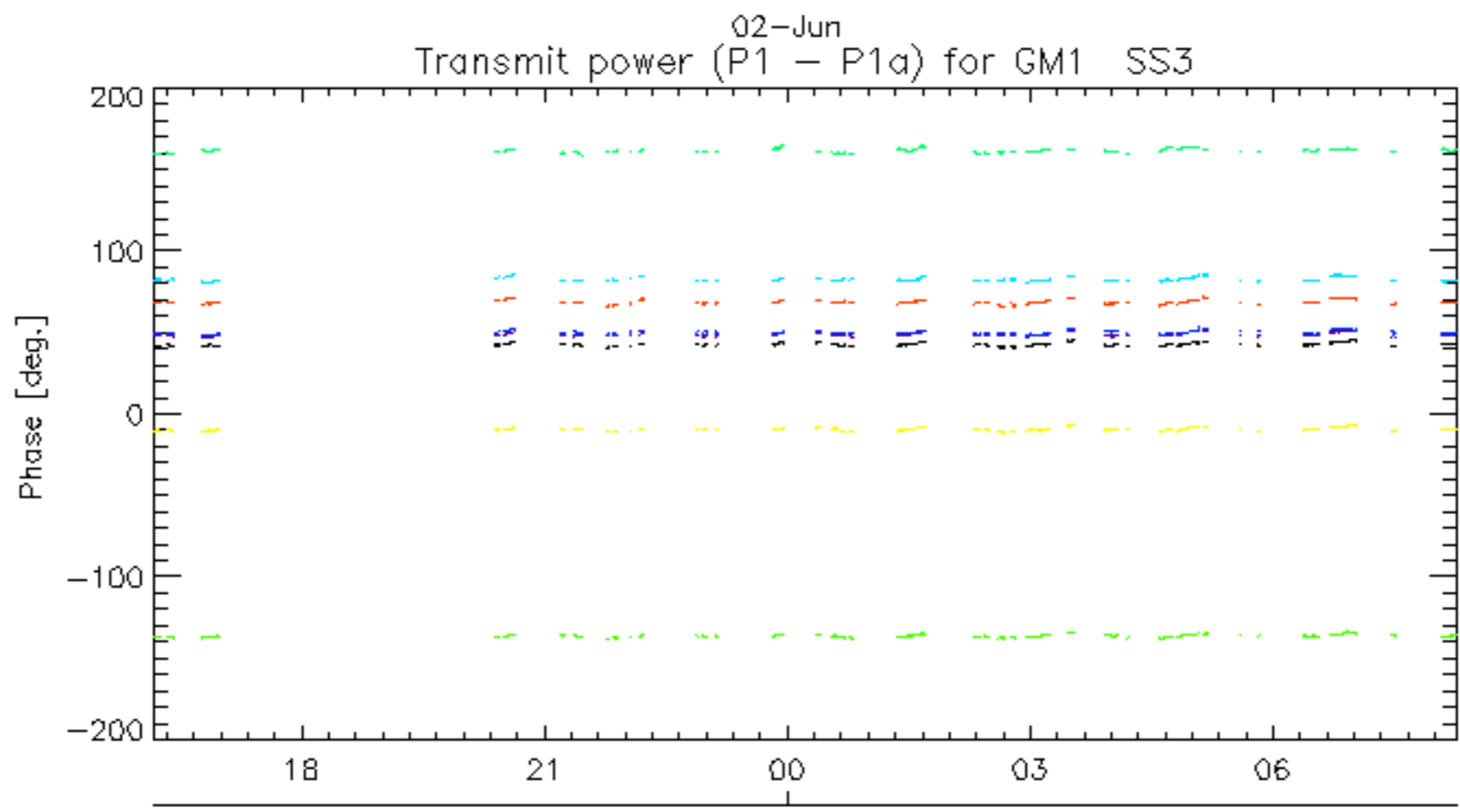
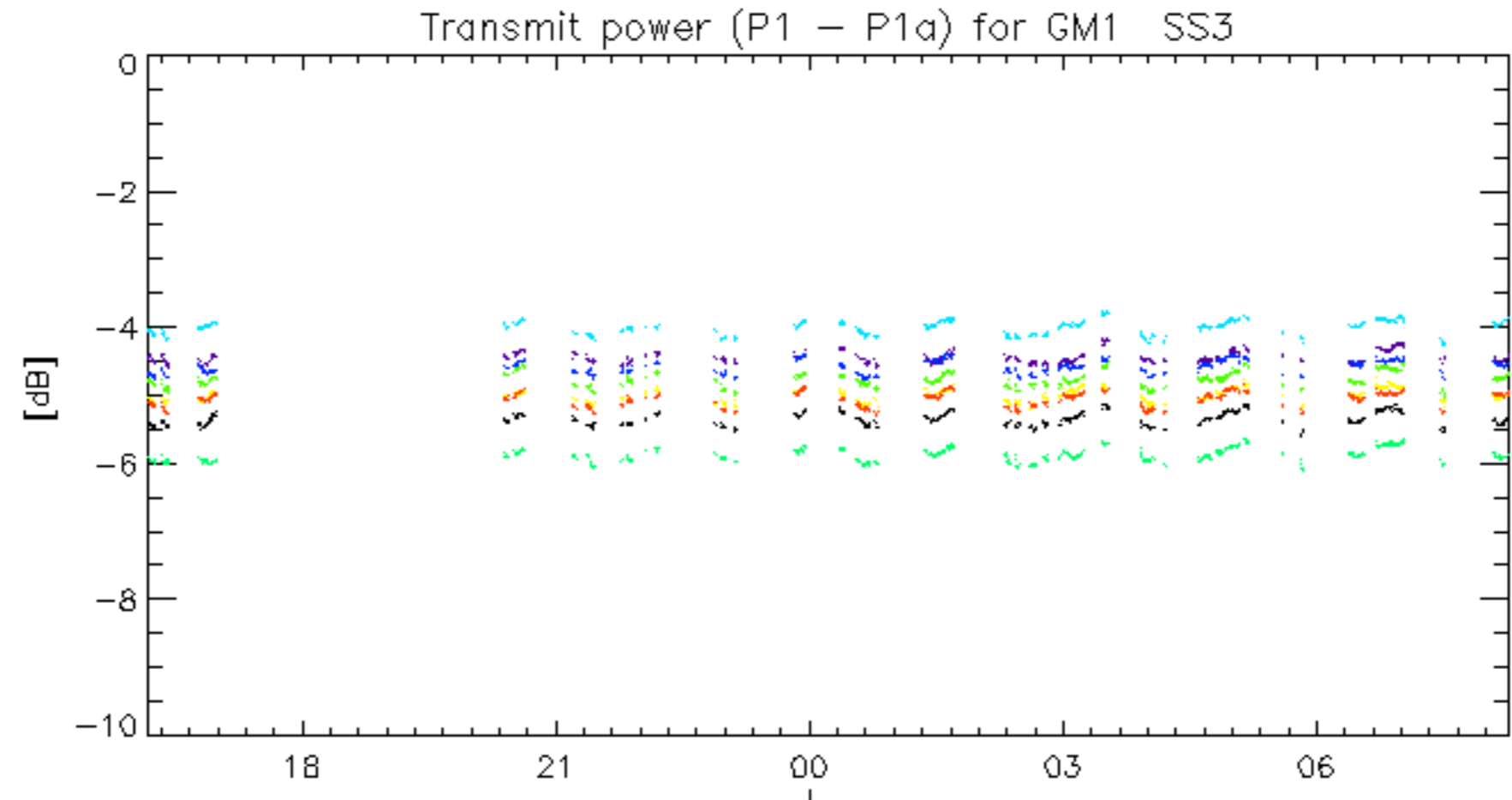
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060602_042646_00000522048_00147_22245_6548.N1	1	0
ASA_WSM_1PNPDE20060601_182816_000002692048_00142_22240_2073.N1	0	70

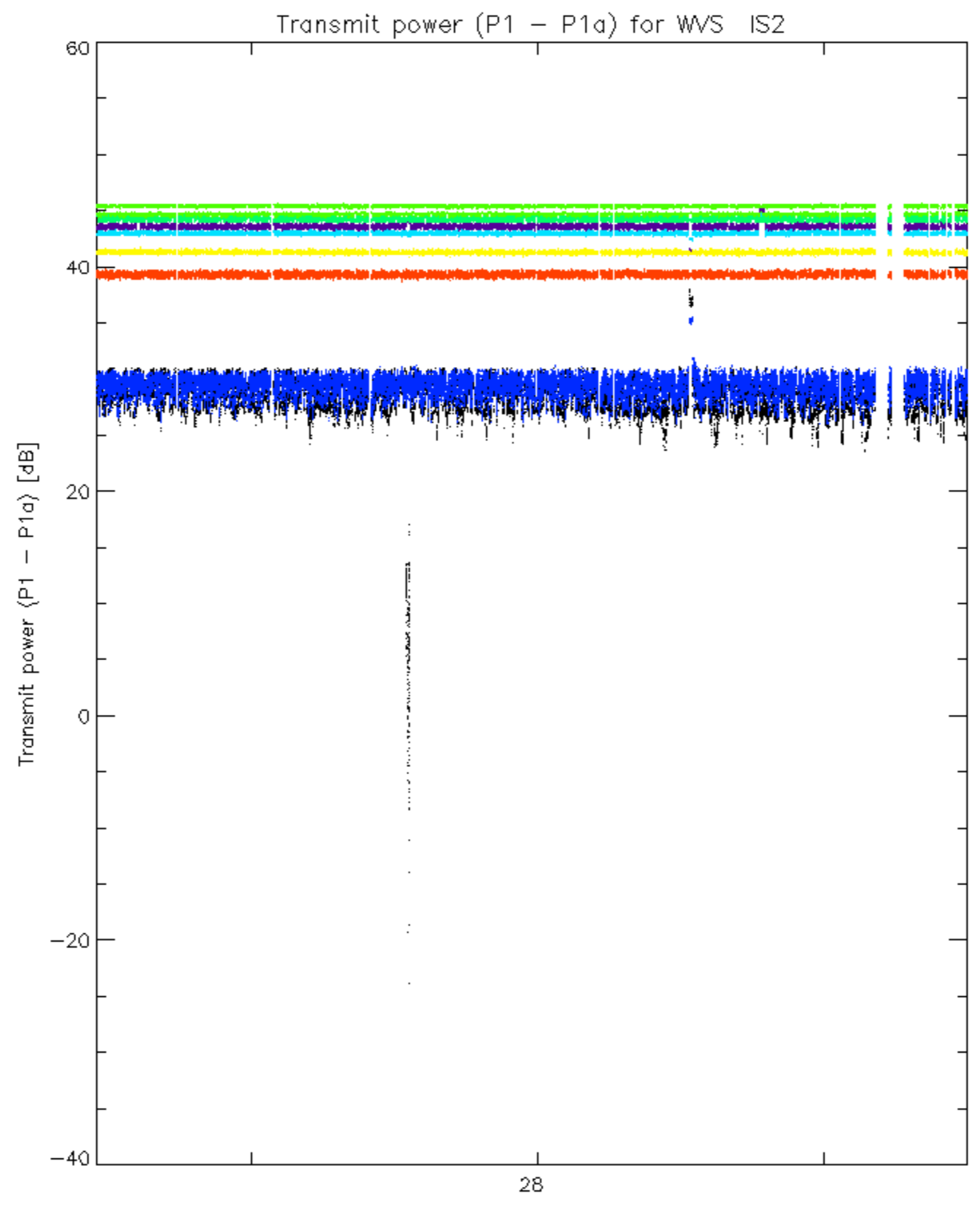




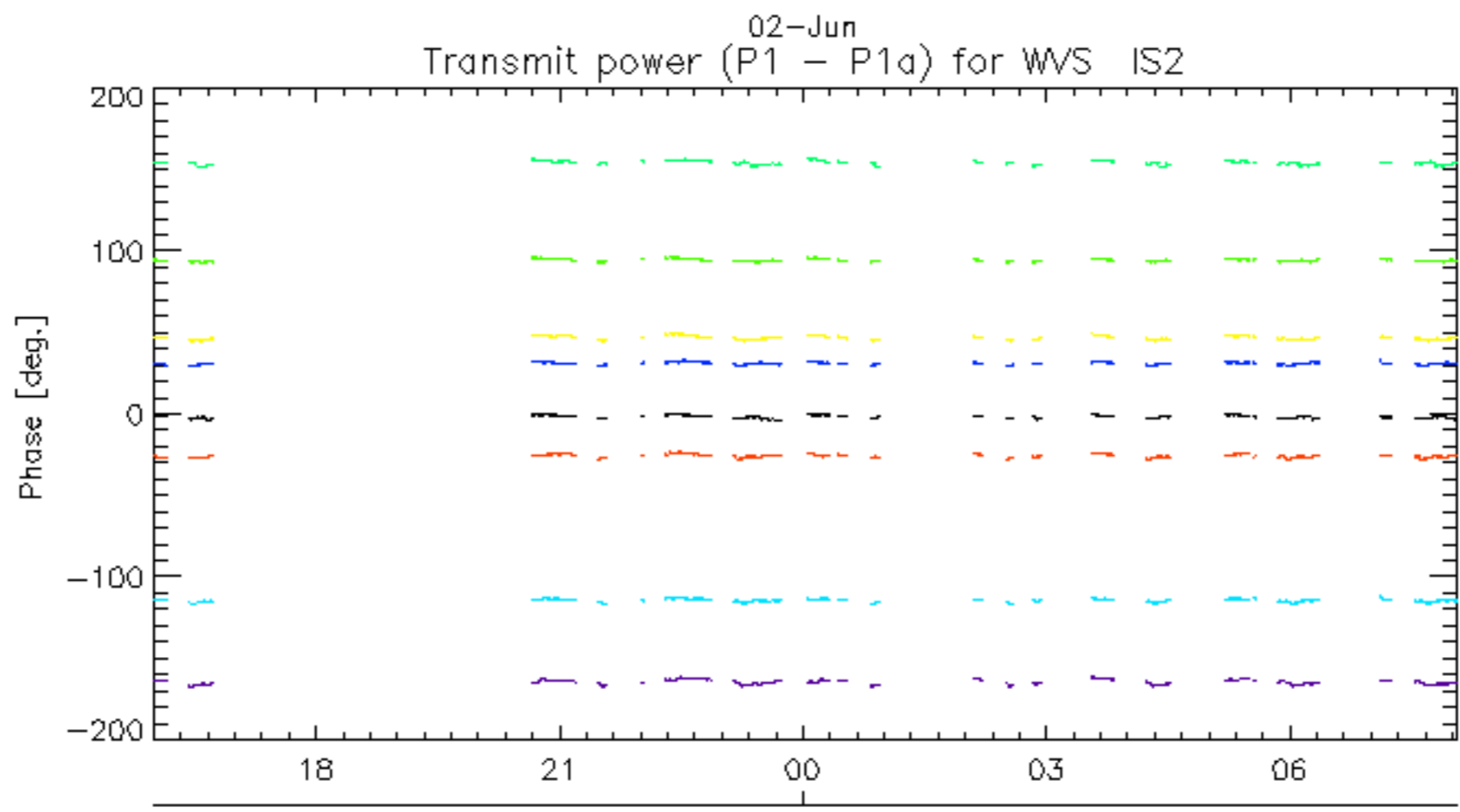
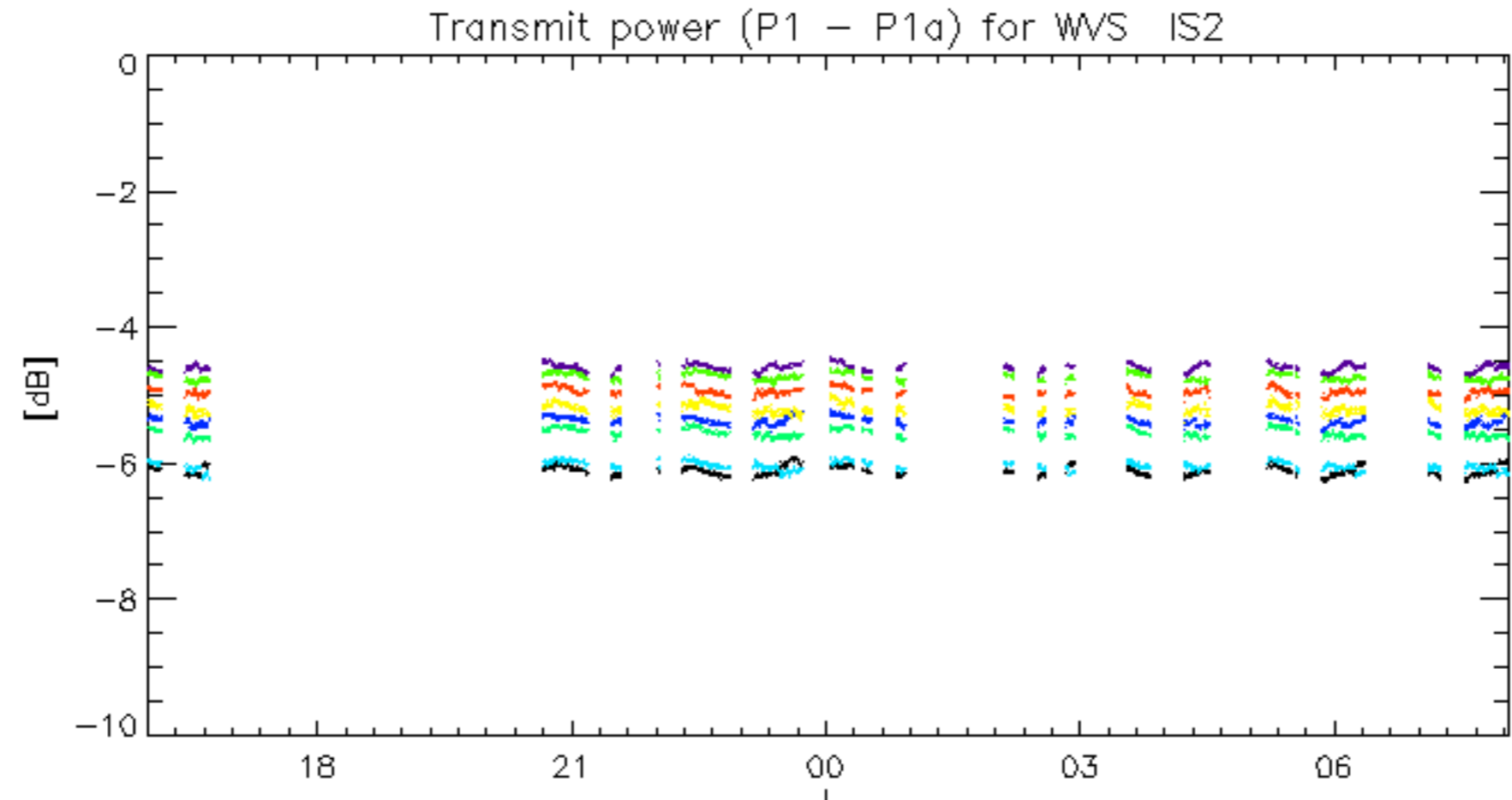
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.