

PRELIMINARY REPORT OF 050610

last update on Fri Jun 10 11:40:18 GMT 2005

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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 2005-06-09 00:00:00 to 2005-06-10 11:40:18

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	30	64	10	2	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	30	64	10	2	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	30	64	10	2	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	30	64	10	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	41	46	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	41	46	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	41	46	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	41	46	0	0	0

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	20050610 055517
H	20050609 062654

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	-3.333831	0.008141	0.018038
7	P1	-3.141656	0.015134	-0.037579
11	P1	-4.622720	0.034403	0.029066
15	P1	-5.492607	0.042480	0.012007
19	P1	-3.740134	0.004382	-0.033155
22	P1	-4.586349	0.016426	-0.022149
26	P1	-4.851301	0.022110	0.034689
30	P1	-7.139724	0.027171	-0.009687
3	P1	-15.575772	0.119085	0.167361
7	P1	-15.592647	0.116770	-0.111921
11	P1	-21.364899	0.303414	-0.114451
15	P1	-11.305138	0.048368	0.049954
19	P1	-14.410129	0.032335	-0.069324
22	P1	-15.946097	0.322694	0.029658
26	P1	-17.731962	0.410057	-0.028173
30	P1	-17.838665	0.212906	-0.001767

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.016273	0.078725	0.093354
7	P2	-22.200317	0.096676	0.020006
11	P2	-13.963278	0.093825	0.235957
15	P2	-7.137521	0.087170	-0.040170
19	P2	-9.619395	0.089346	0.023223
22	P2	-16.883993	0.087120	0.015158
26	P2	-16.507149	0.090009	-0.011171
30	P2	-18.796633	0.075814	0.040602

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.164447	0.002647	-0.004754
7	P3	-8.164447	0.002647	-0.004754
11	P3	-8.164447	0.002647	-0.004754
15	P3	-8.164447	0.002647	-0.004754
19	P3	-8.164447	0.002647	-0.004754
22	P3	-8.164447	0.002647	-0.004754
26	P3	-8.164447	0.002647	-0.004754
30	P3	-8.164447	0.002647	-0.004754

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	-2.796664	0.013586	-0.027252
7	P1	-2.936674	0.030771	0.045778
11	P1	-3.959077	0.018030	-0.020682
15	P1	-3.530036	0.024056	-0.029219
19	P1	-3.633197	0.016026	-0.023341
22	P1	-5.639143	0.046180	0.014056
26	P1	-7.295271	0.039172	-0.006097
30	P1	-6.290658	0.044030	-0.086871
3	P1	-10.839036	0.040996	-0.017040
7	P1	-10.367308	0.166425	0.064779
11	P1	-12.550889	0.115376	-0.066822
15	P1	-11.608401	0.083814	-0.036053
19	P1	-15.614853	0.063890	-0.016059
22	P1	-26.029272	3.338848	-0.361499
26	P1	-15.629373	0.384172	0.064670
30	P1	-20.203957	1.119082	0.376748

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.762009	0.041931	0.030381
7	P2	-22.149551	0.039464	0.047039
11	P2	-9.905512	0.056979	0.156079
15	P2	-5.121077	0.045627	-0.057720
19	P2	-6.911644	0.058230	-0.042332
22	P2	-7.105289	0.037763	-0.023688
26	P2	-23.955564	0.037041	-0.014116
30	P2	-21.950373	0.039526	-0.049274

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.996618	0.003853	-0.007934
7	P3	-7.996486	0.003850	-0.007887
11	P3	-7.996603	0.003845	-0.008171
15	P3	-7.996569	0.003841	-0.007932
19	P3	-7.996440	0.003854	-0.007955
22	P3	-7.996633	0.003842	-0.007483
26	P3	-7.996625	0.003850	-0.008409
30	P3	-7.996609	0.003856	-0.008121

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	0.000455316
	stdev	2.20002e-07
MEAN Q	mean	0.000494477
	stdev	2.31036e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127486
	stdev	0.000973408
STDEV Q	mean	0.127723
	stdev	0.000983966



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005060[890]

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_1PNPDK20050608_124608_000000692038_00024_17112_0070.N1	1	0



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

7.2 - Absolute Doppler for WVS

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

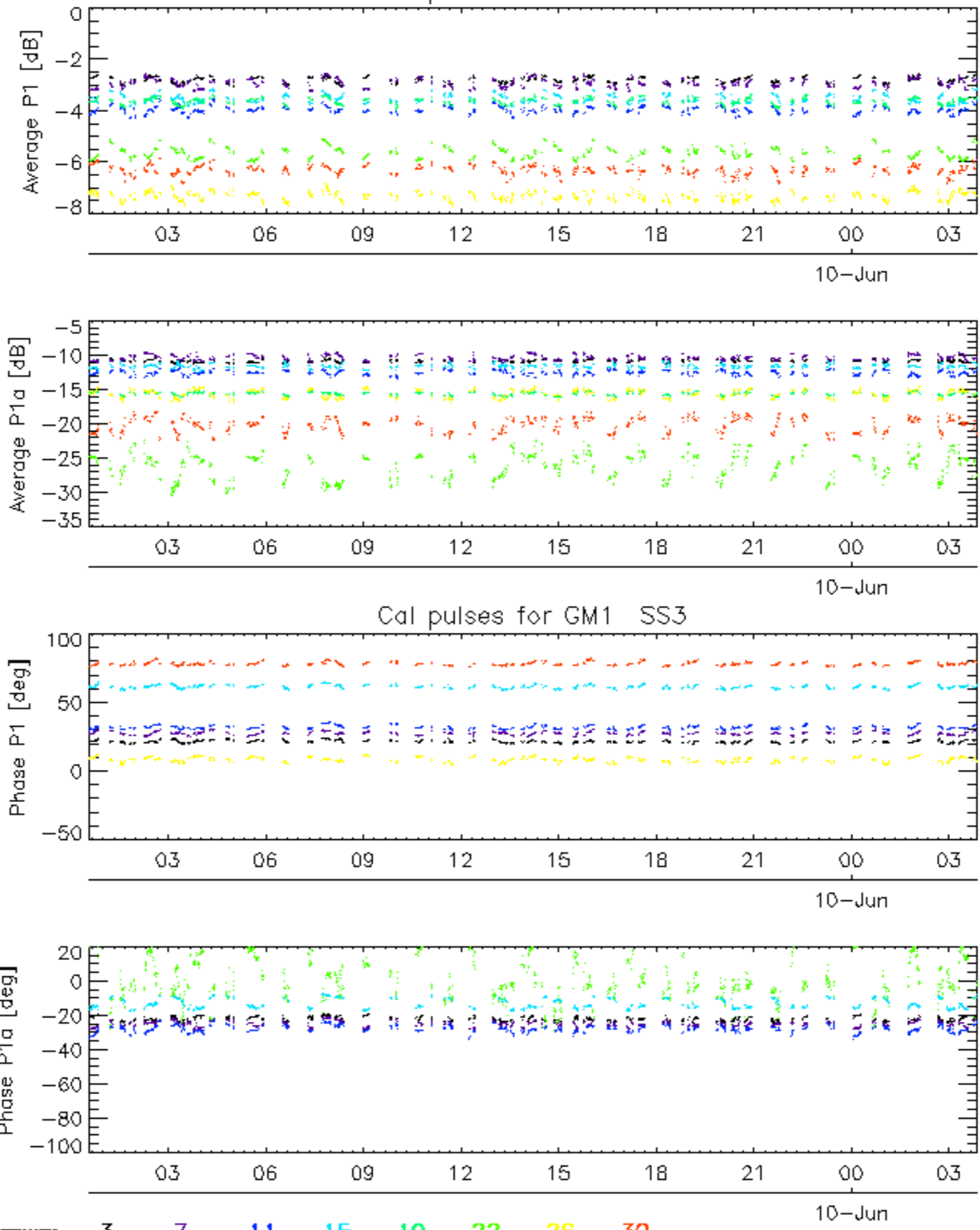
Ascending

Descending

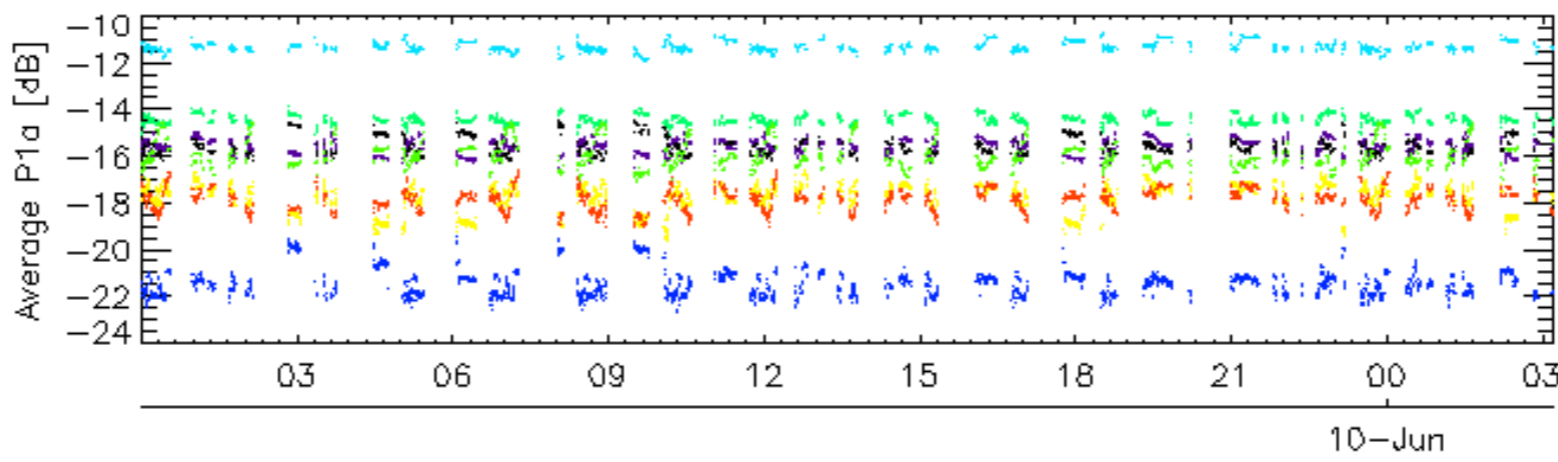
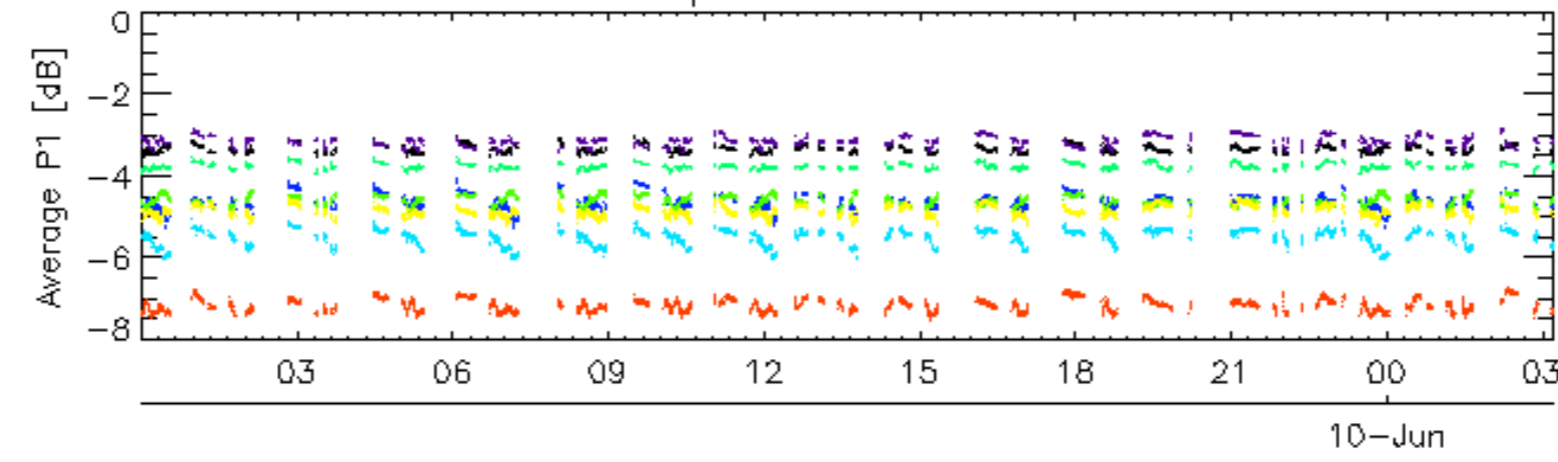
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

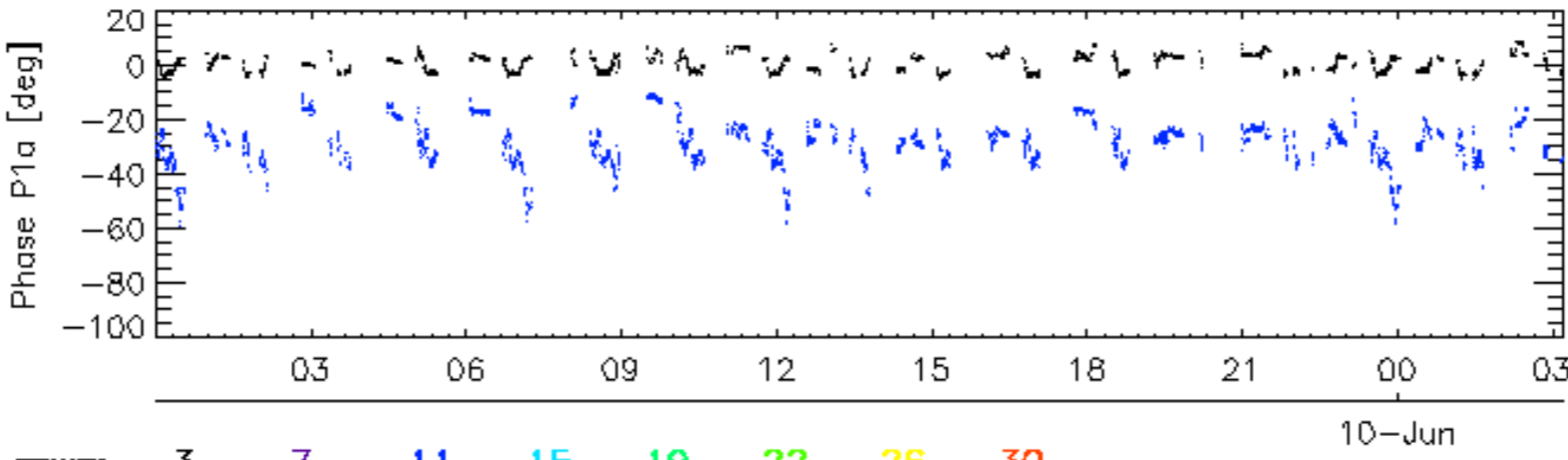
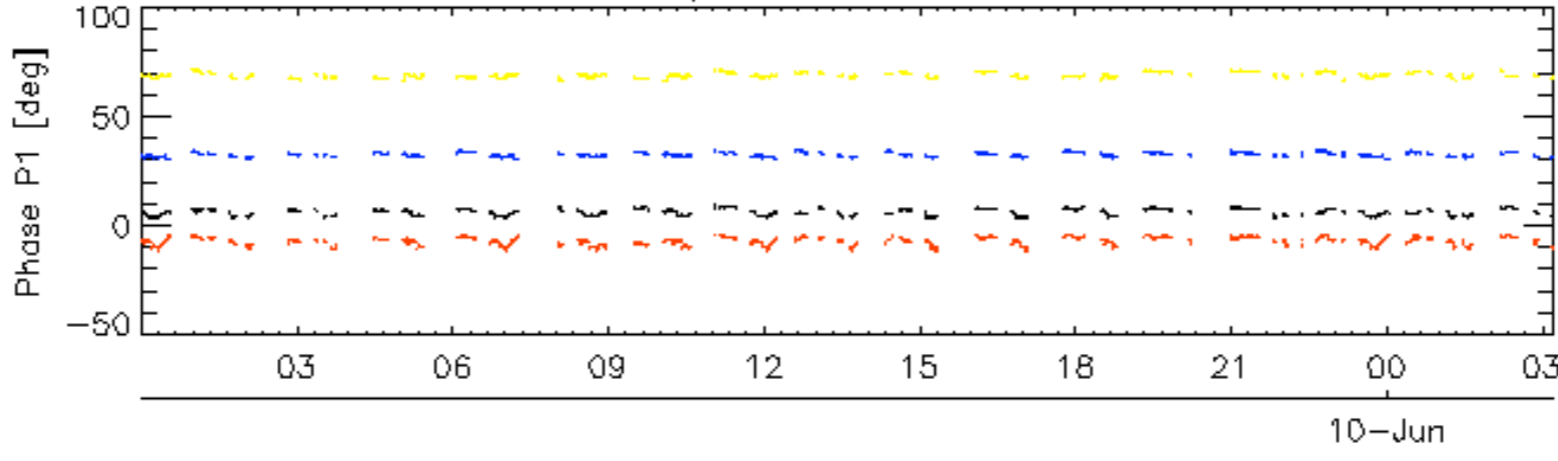
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

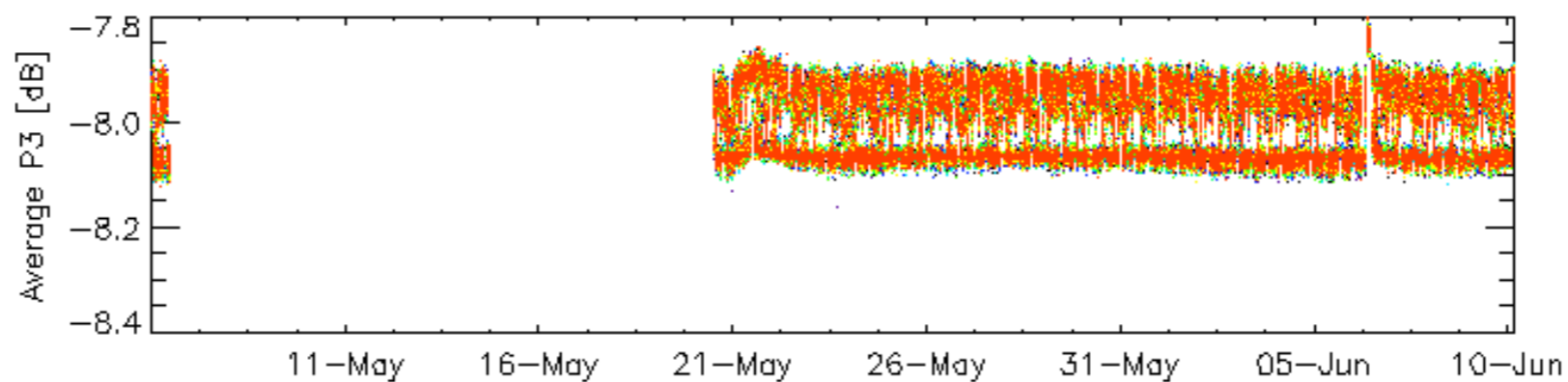
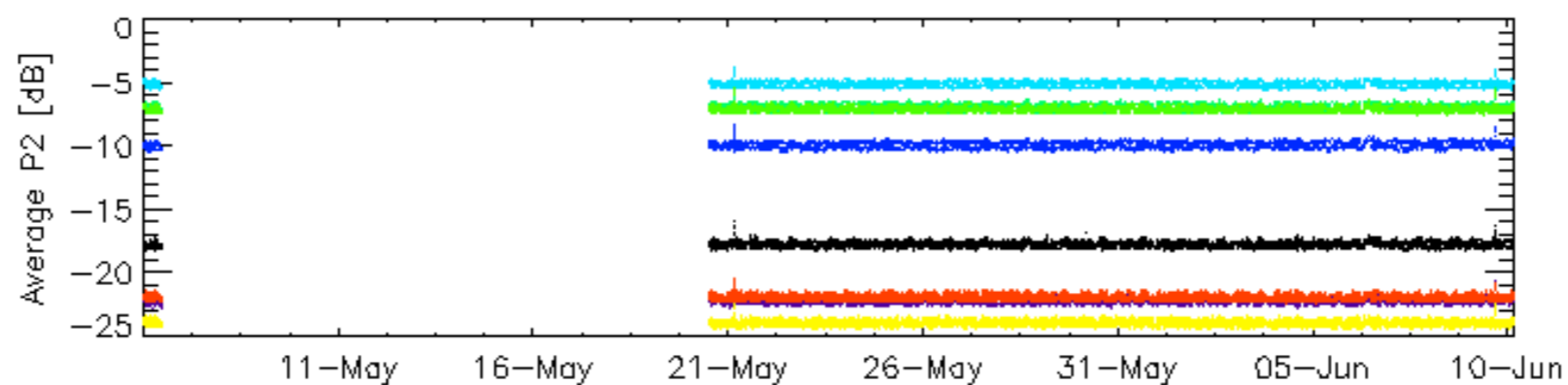
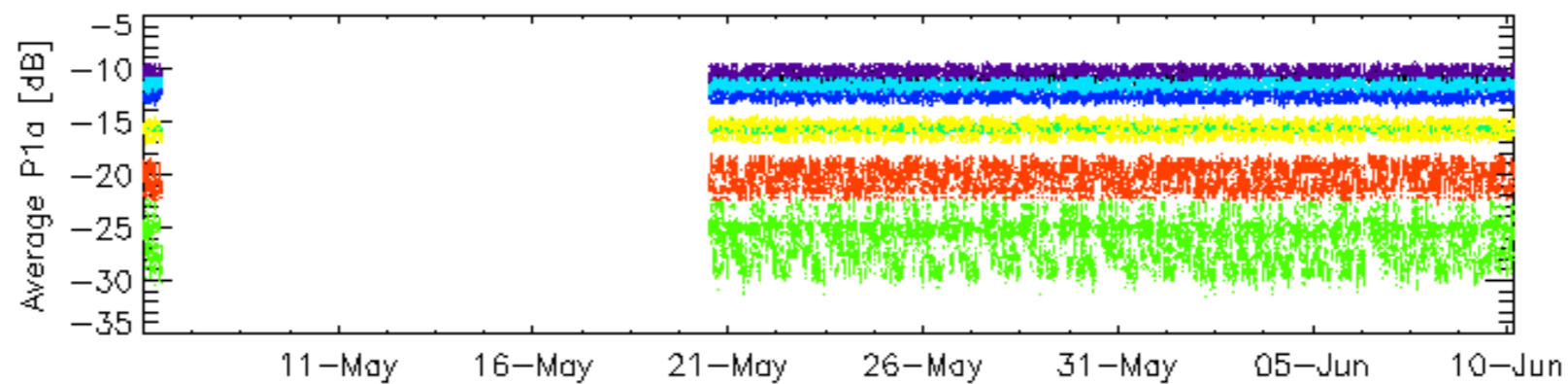
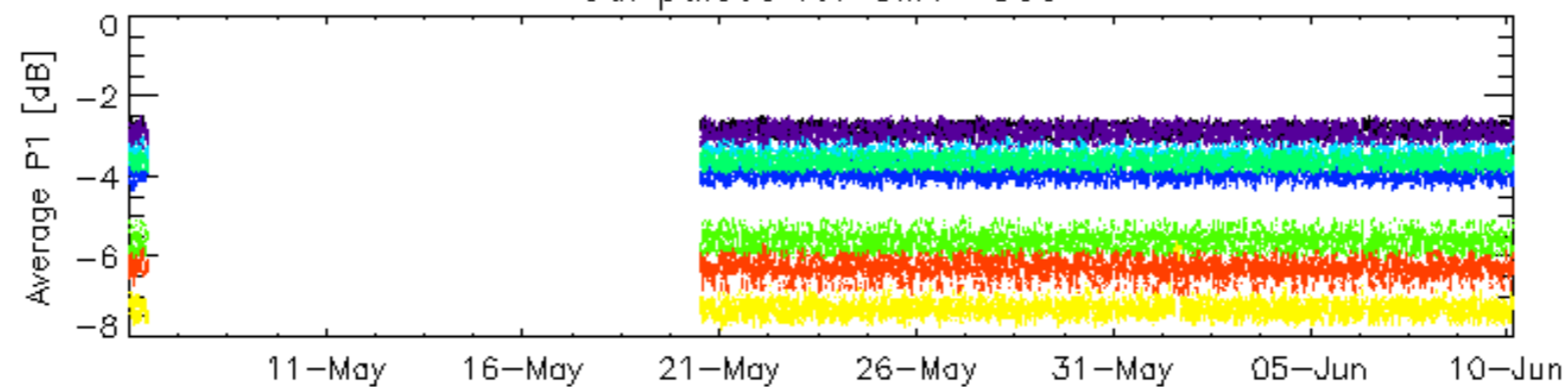


Cal pulses for WVS IS2



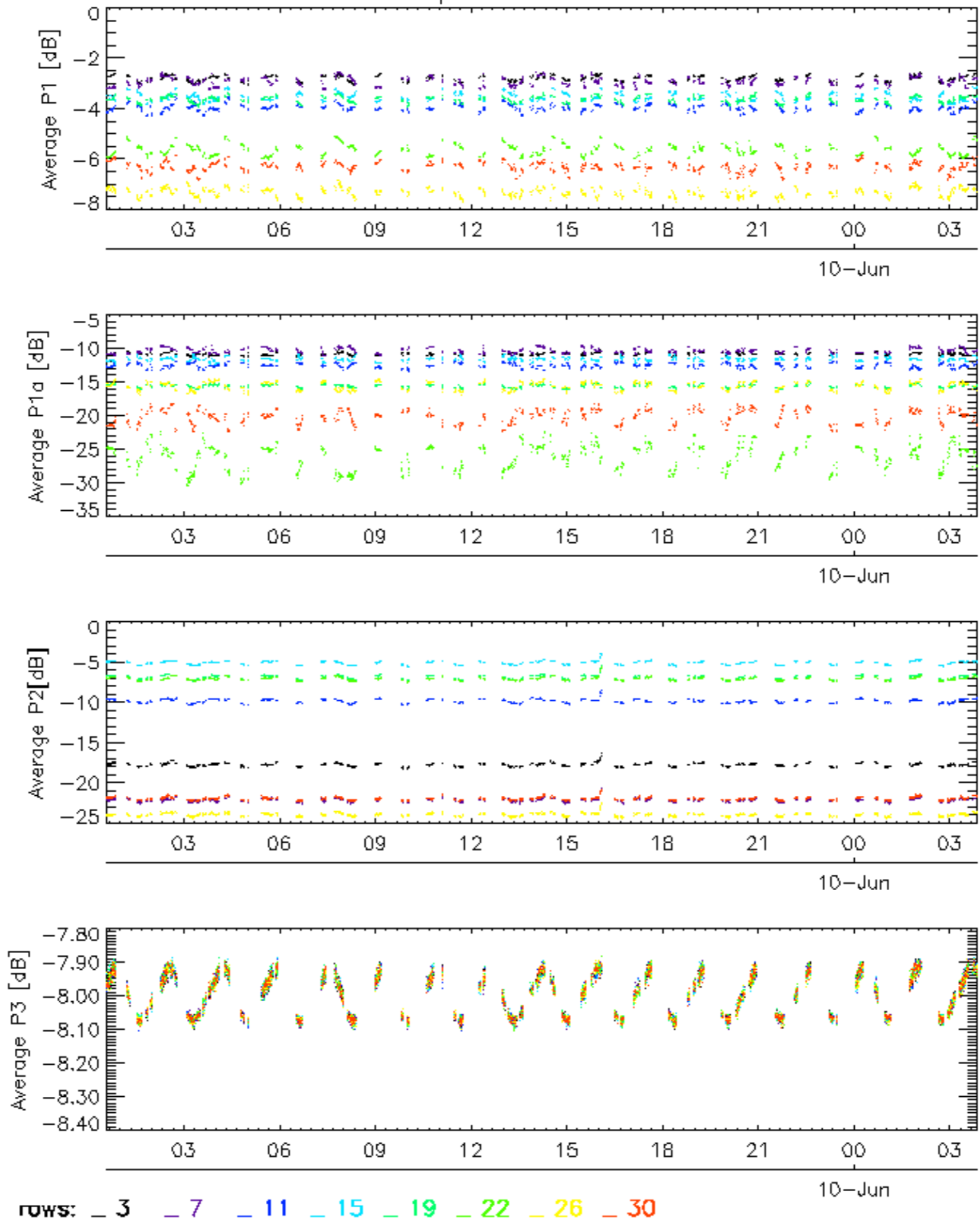
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

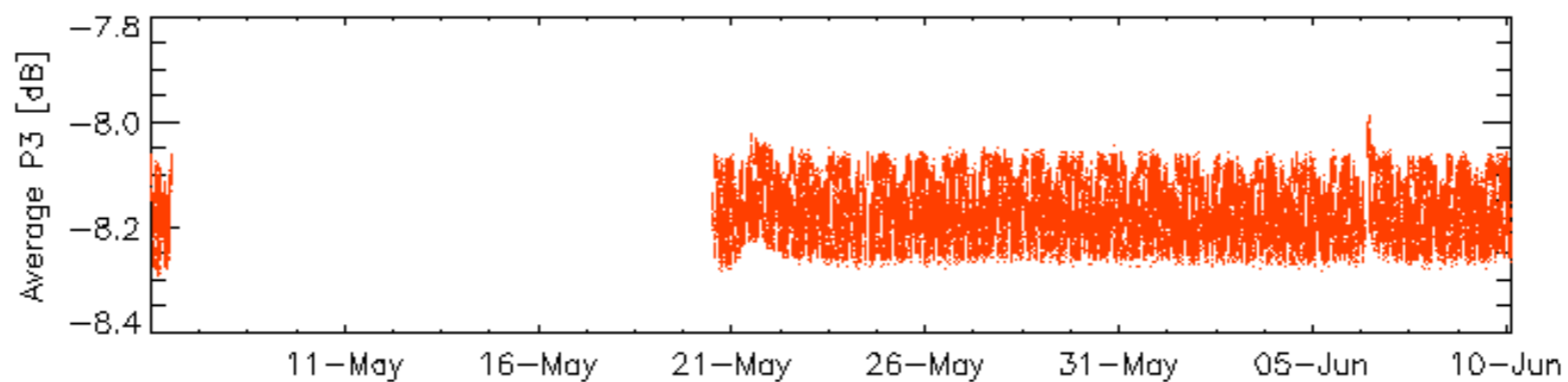
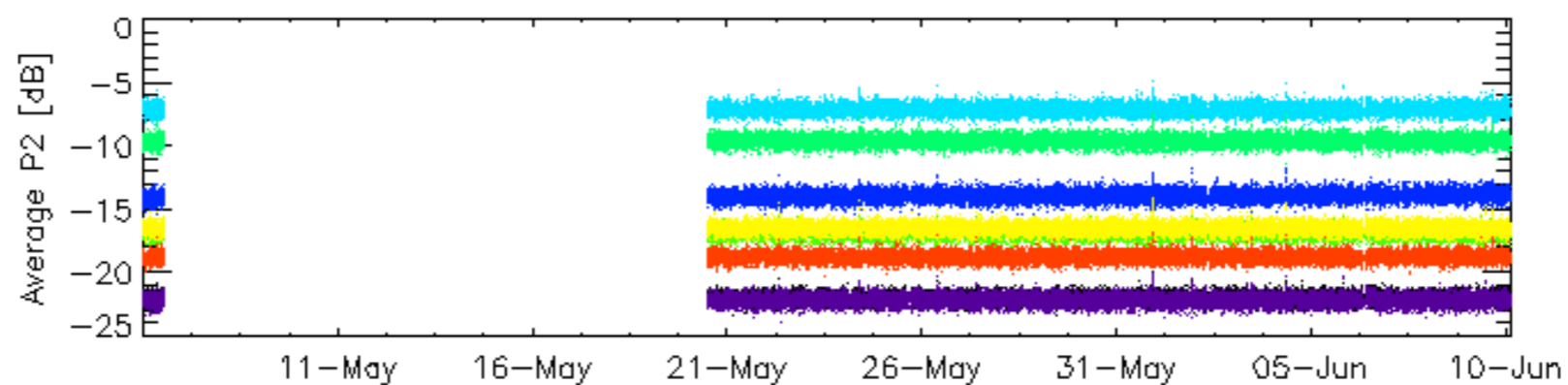
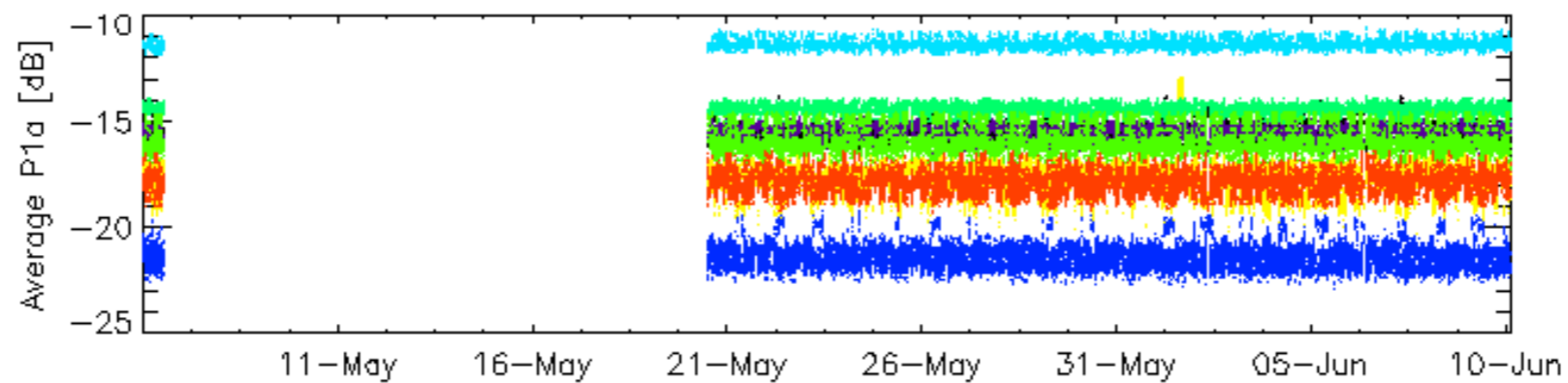
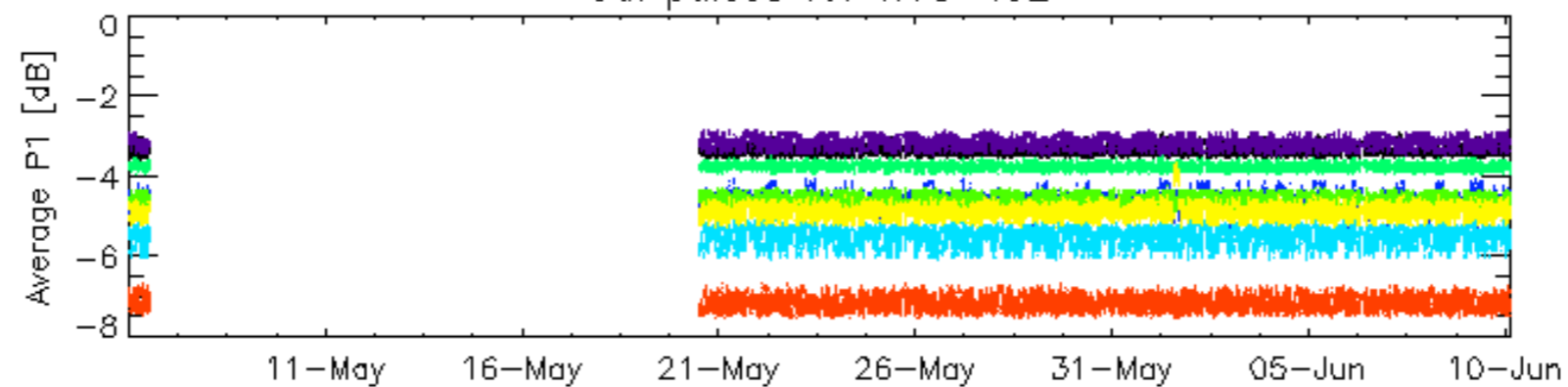


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

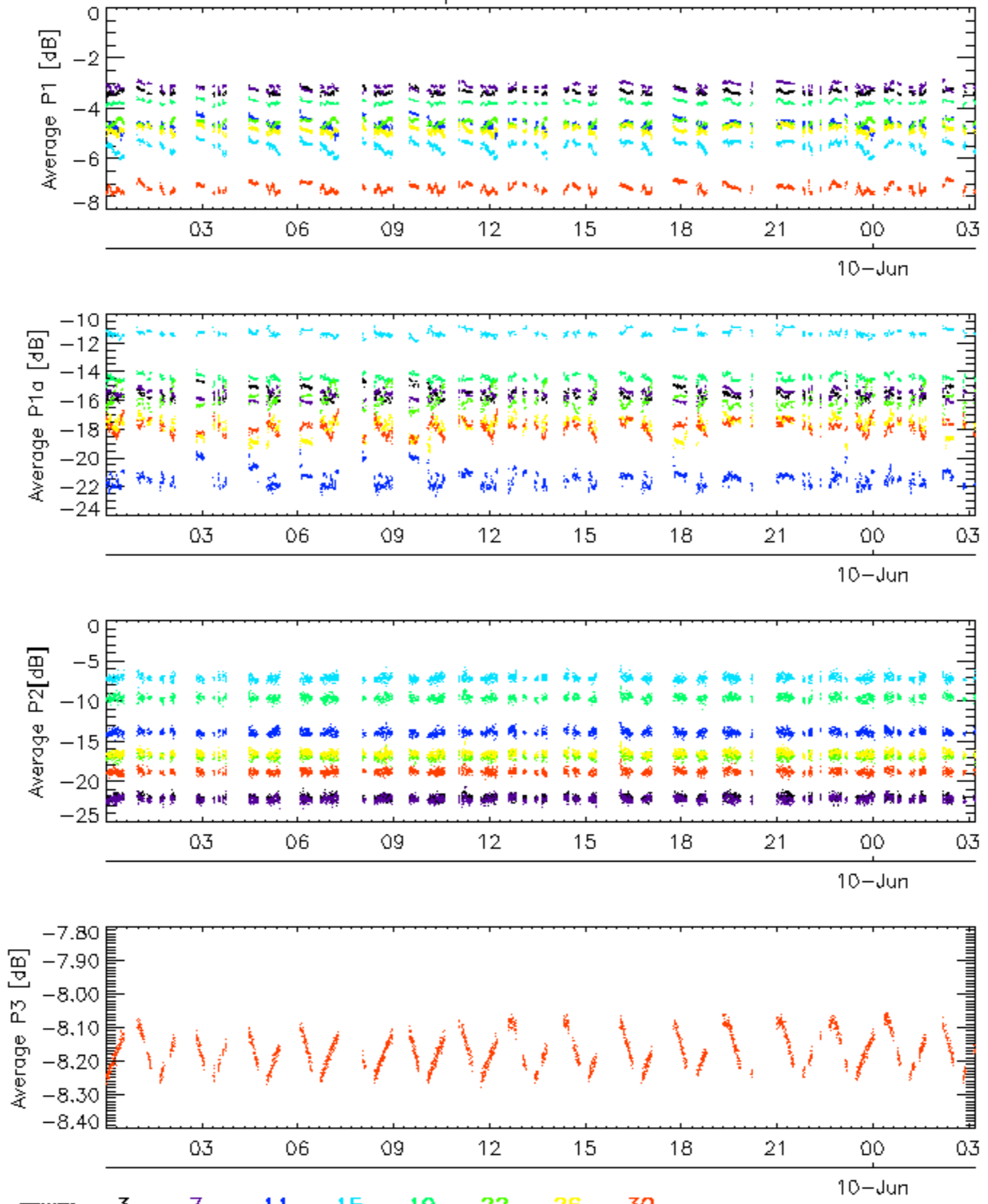


Cal pulses for WVS IS2



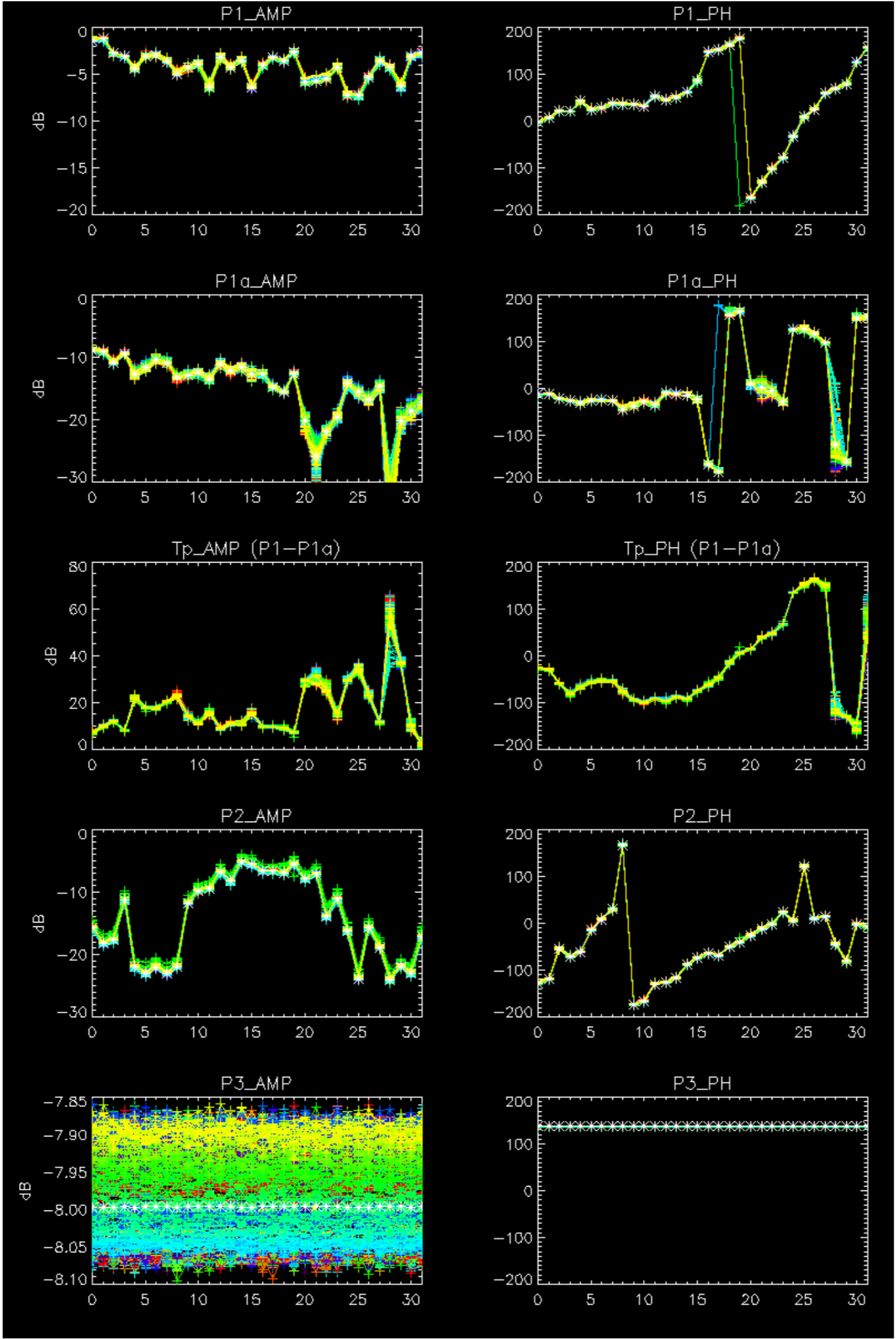
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

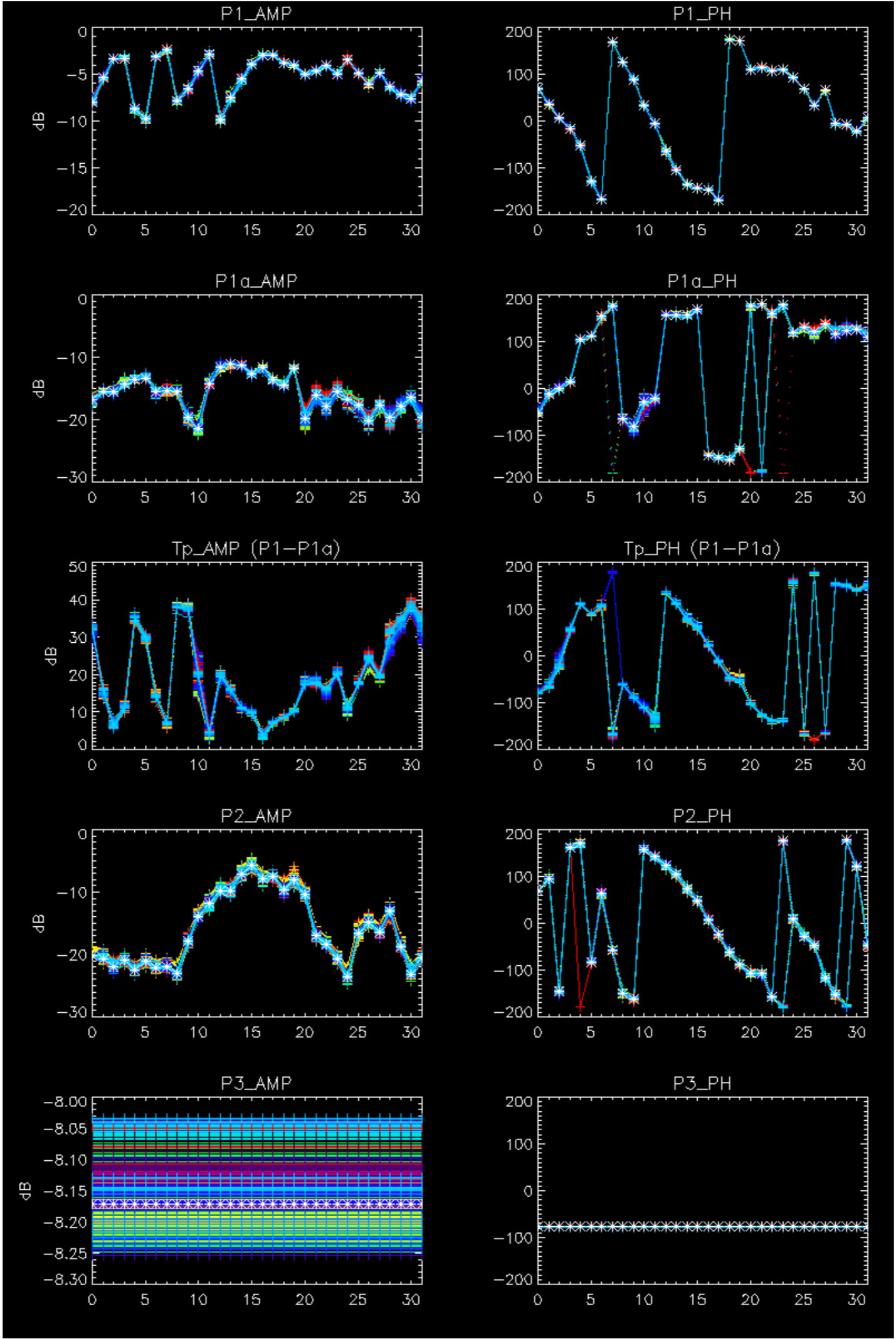
Cal pulses for WVS IS2



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

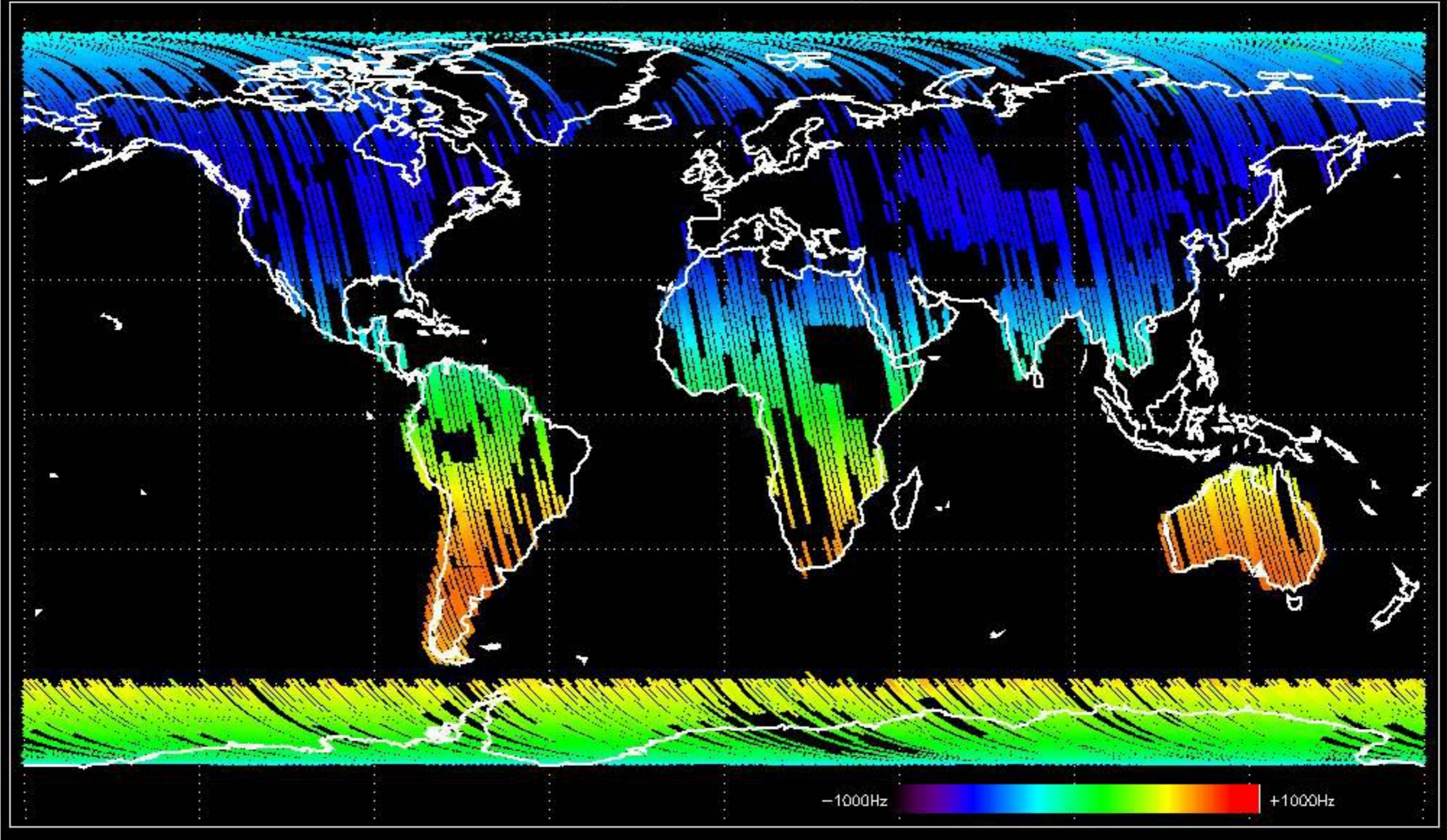
No anomalies observed.



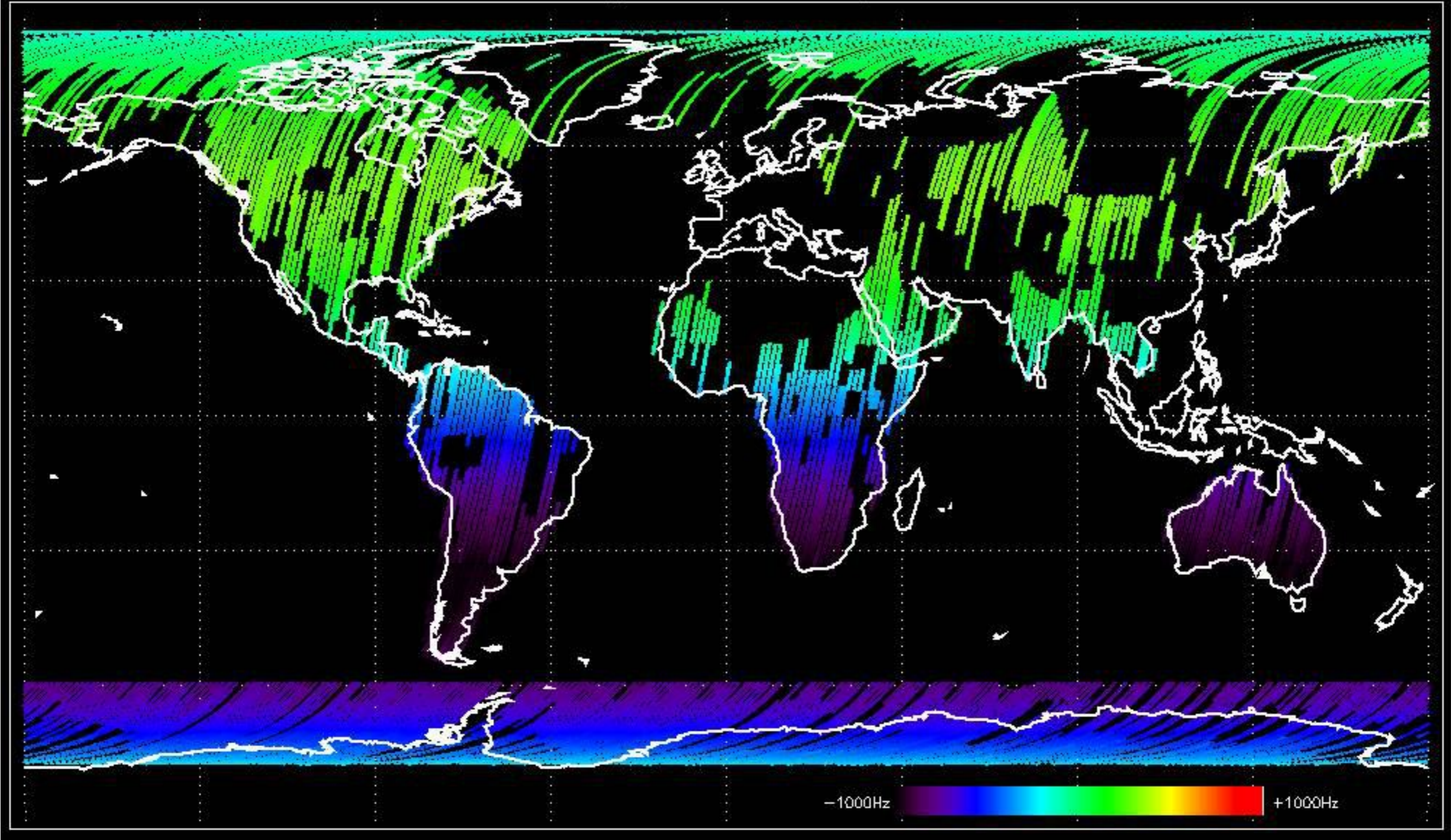


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

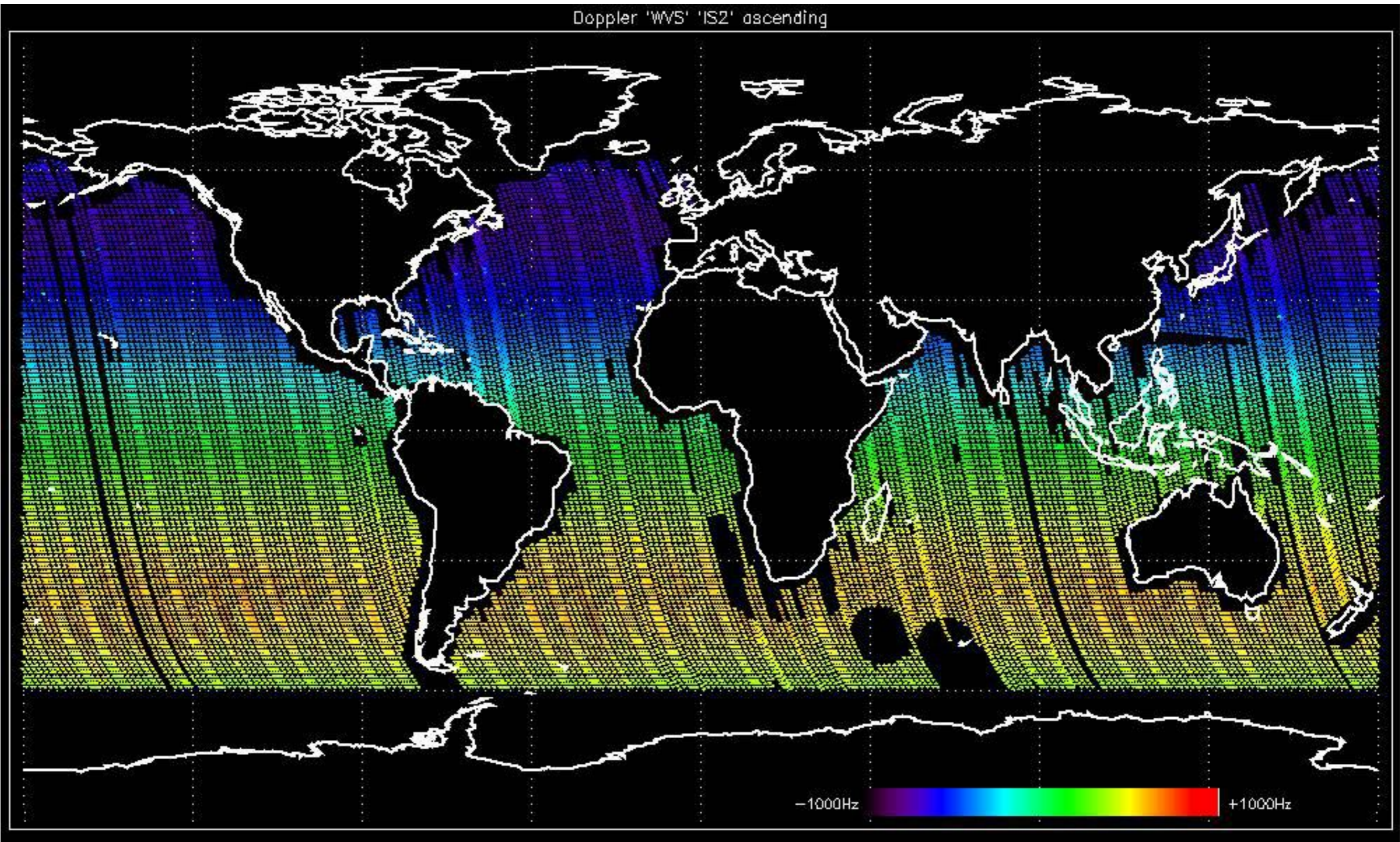
Doppler 'GM1' 'SS1' ascending



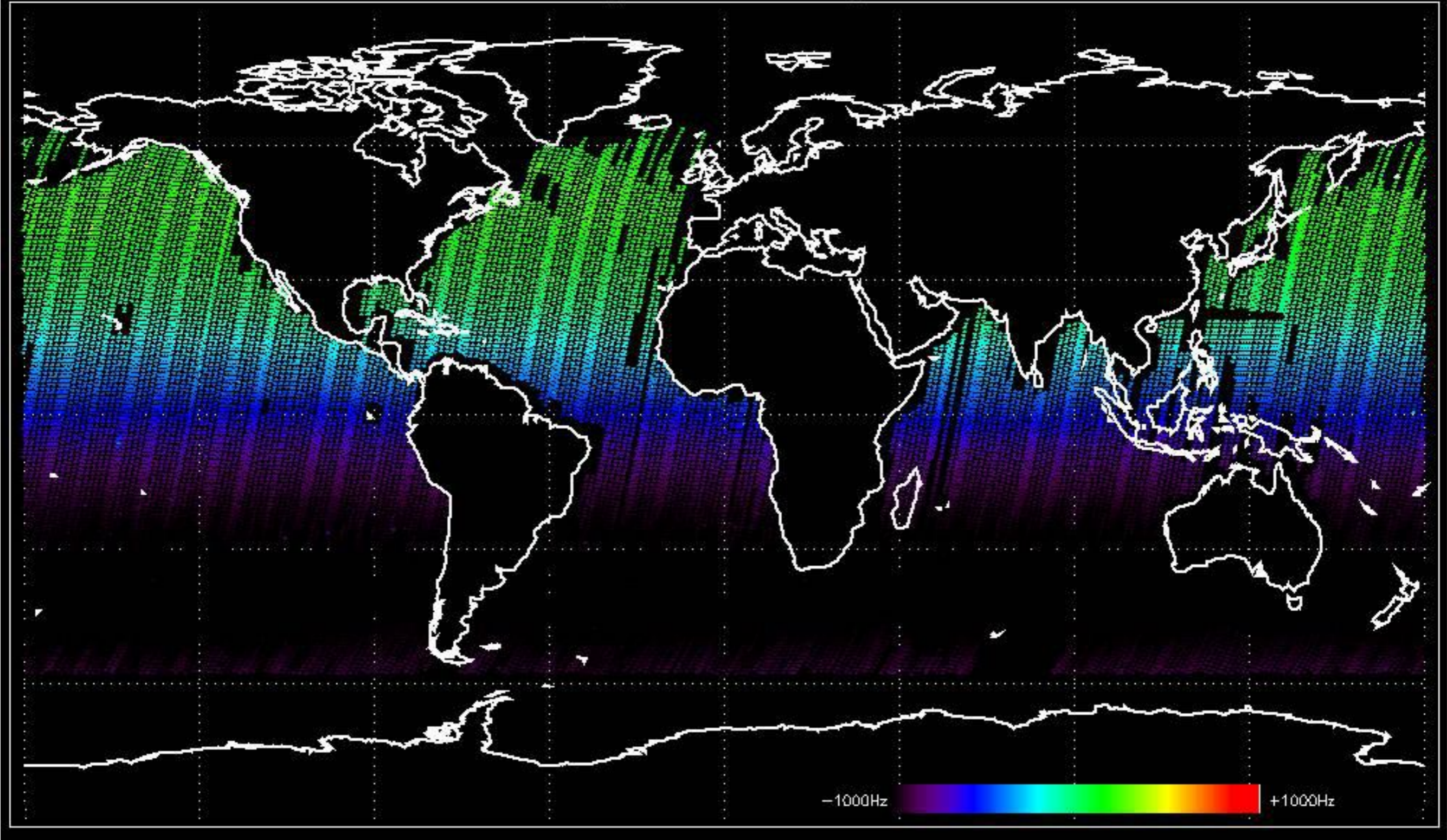
Doppler 'GM1' 'SS1' descending



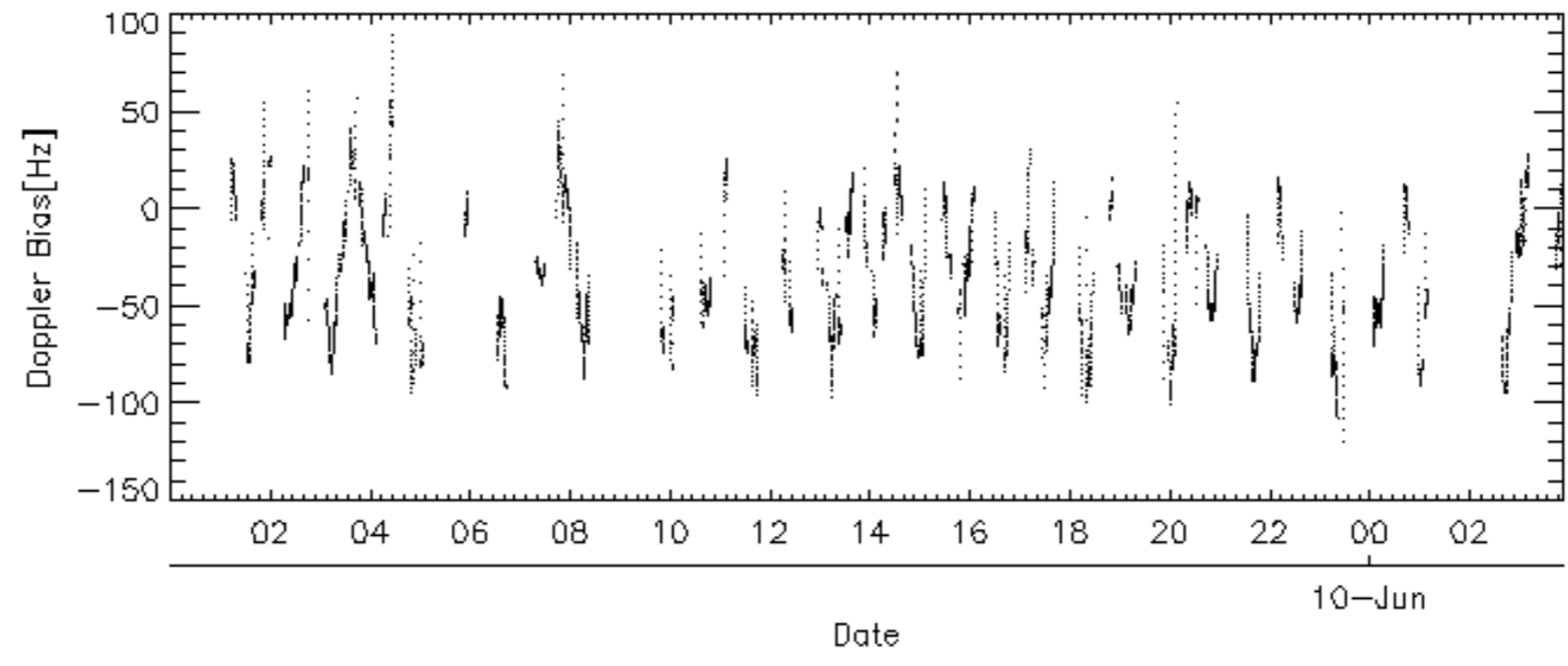
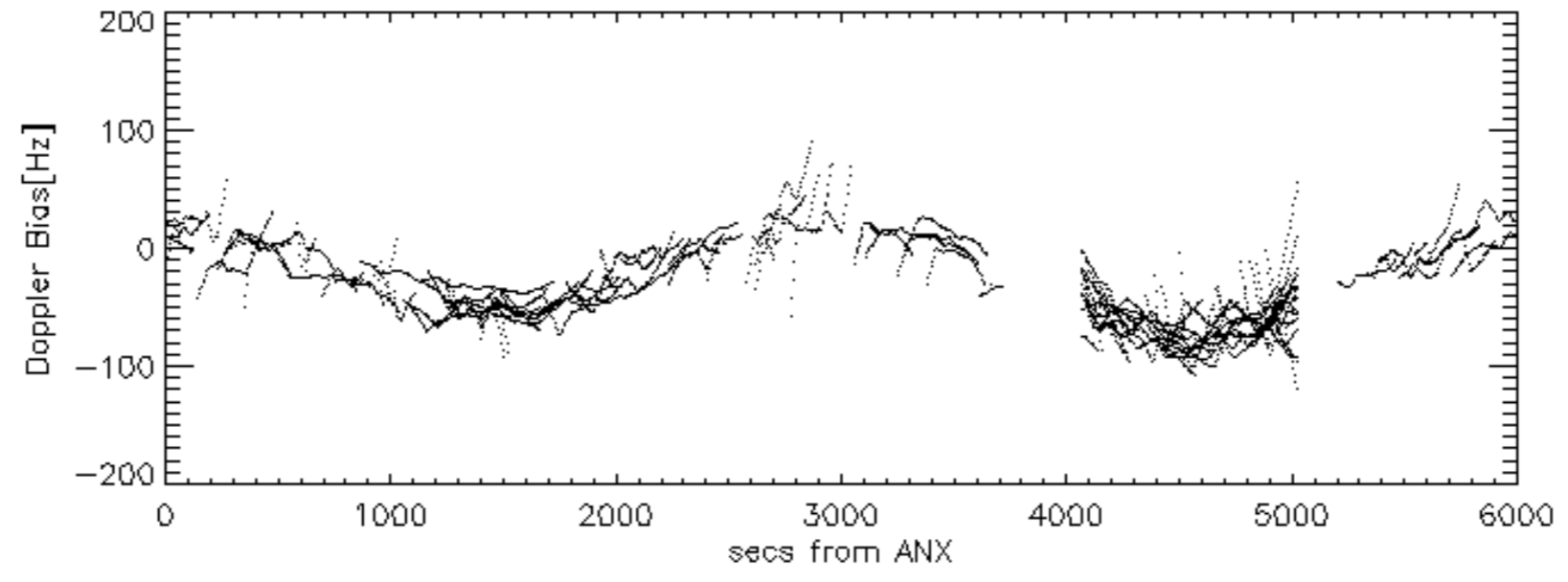
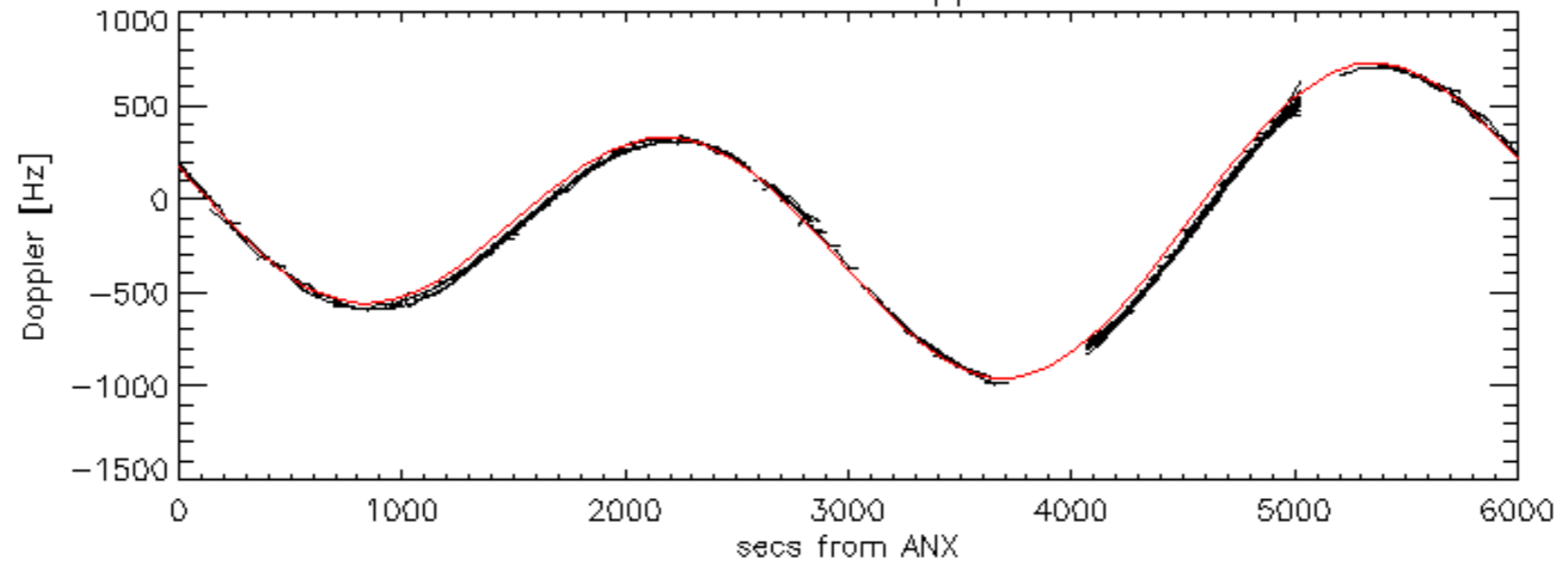
Doppler 'WVS' 'IS2' ascending

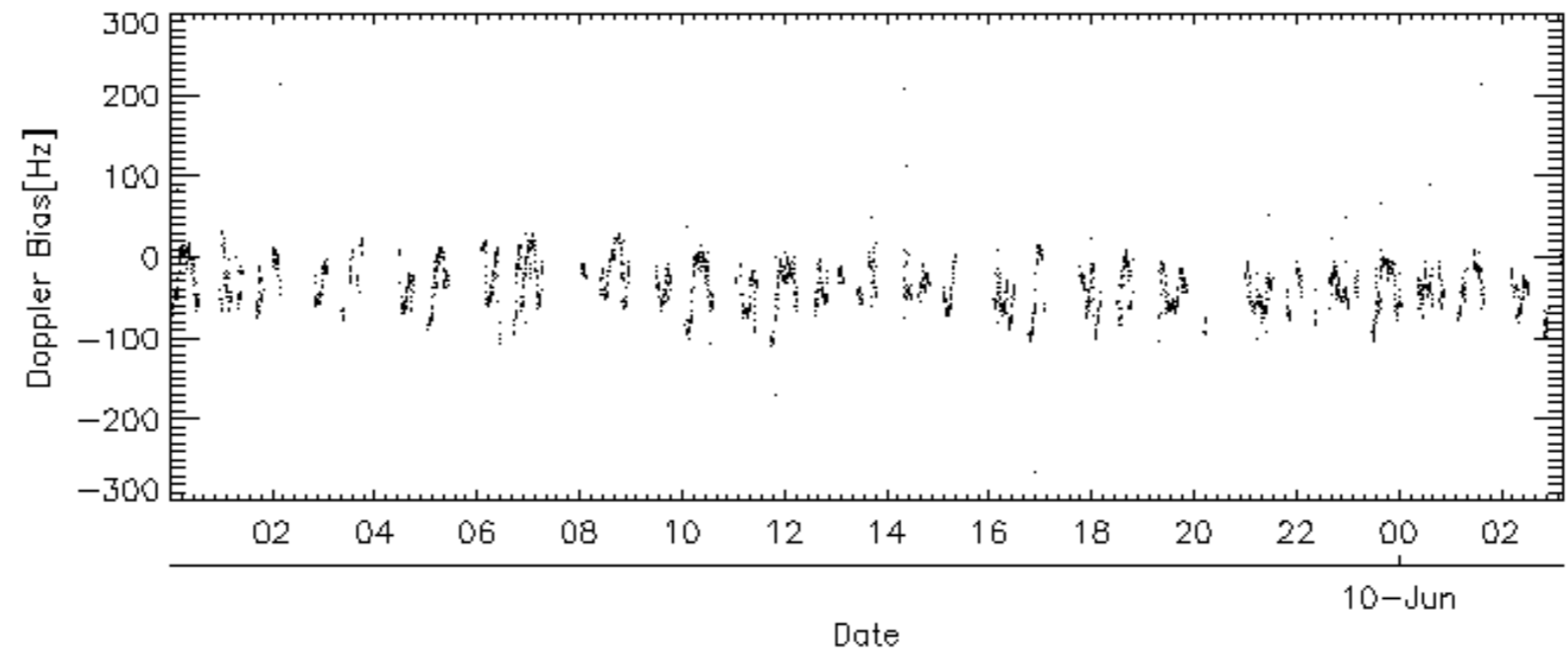
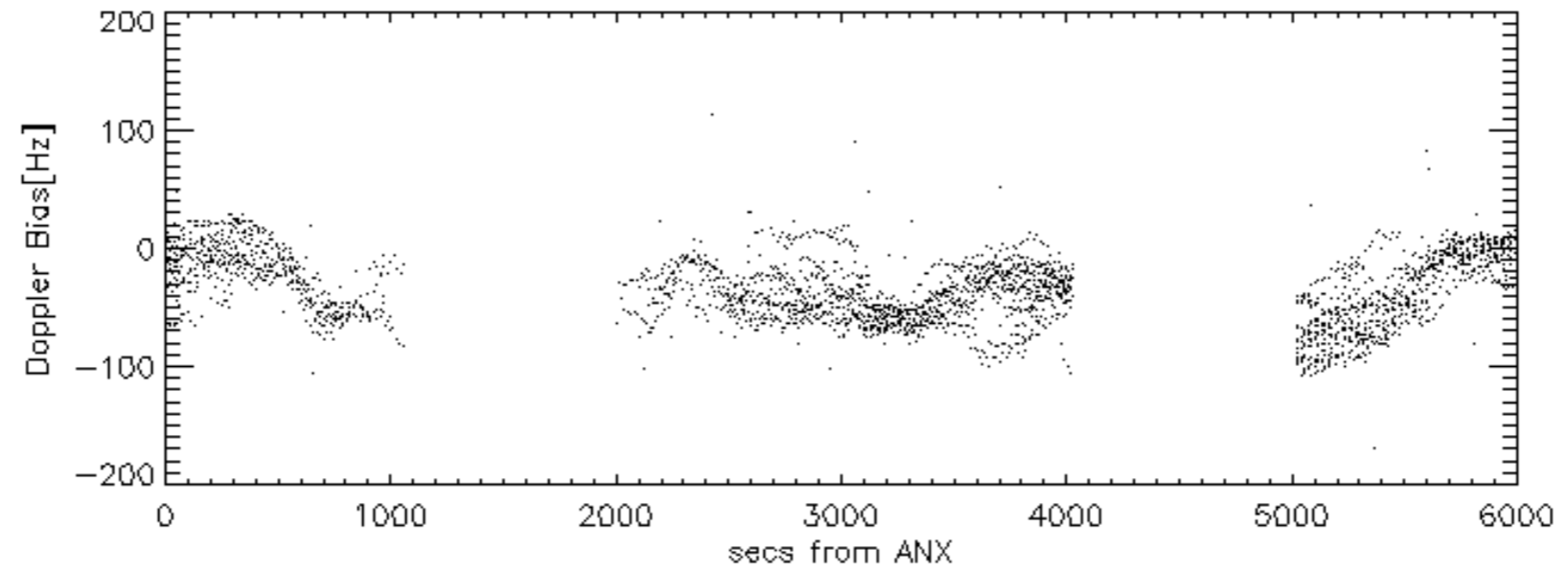
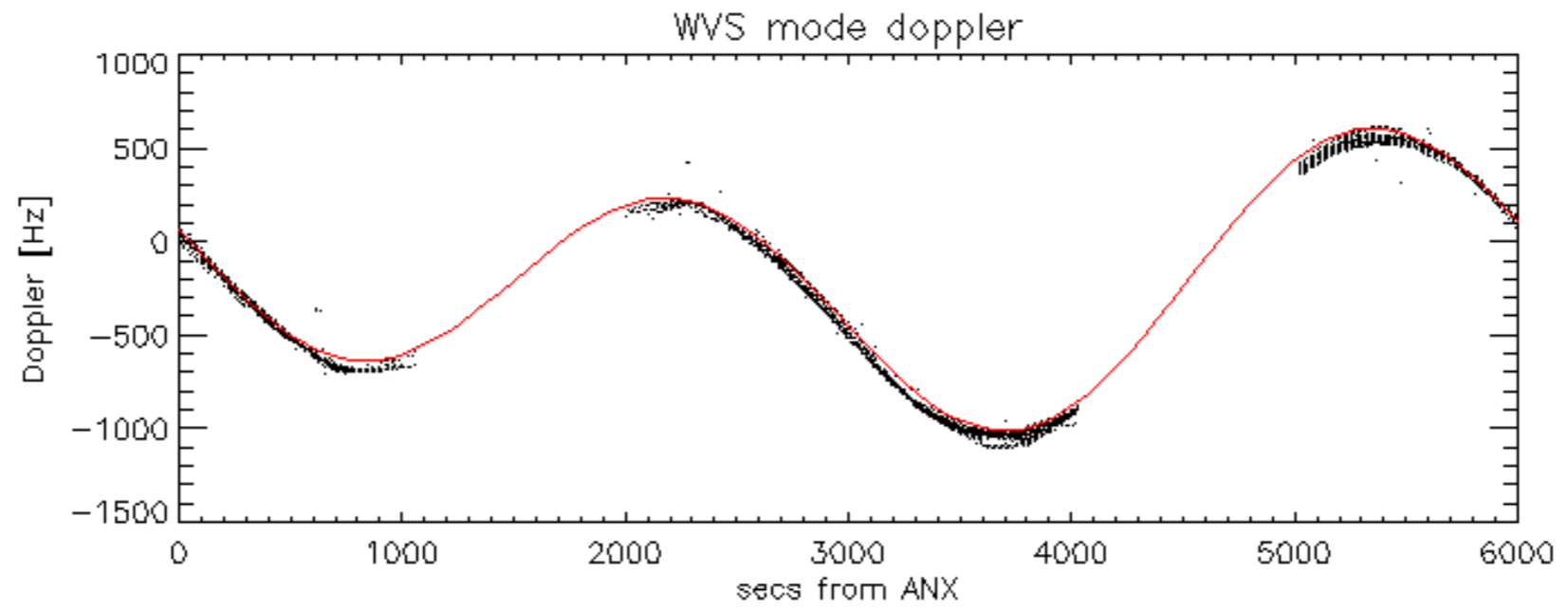


Doppler 'WVS' 'IS2' descending

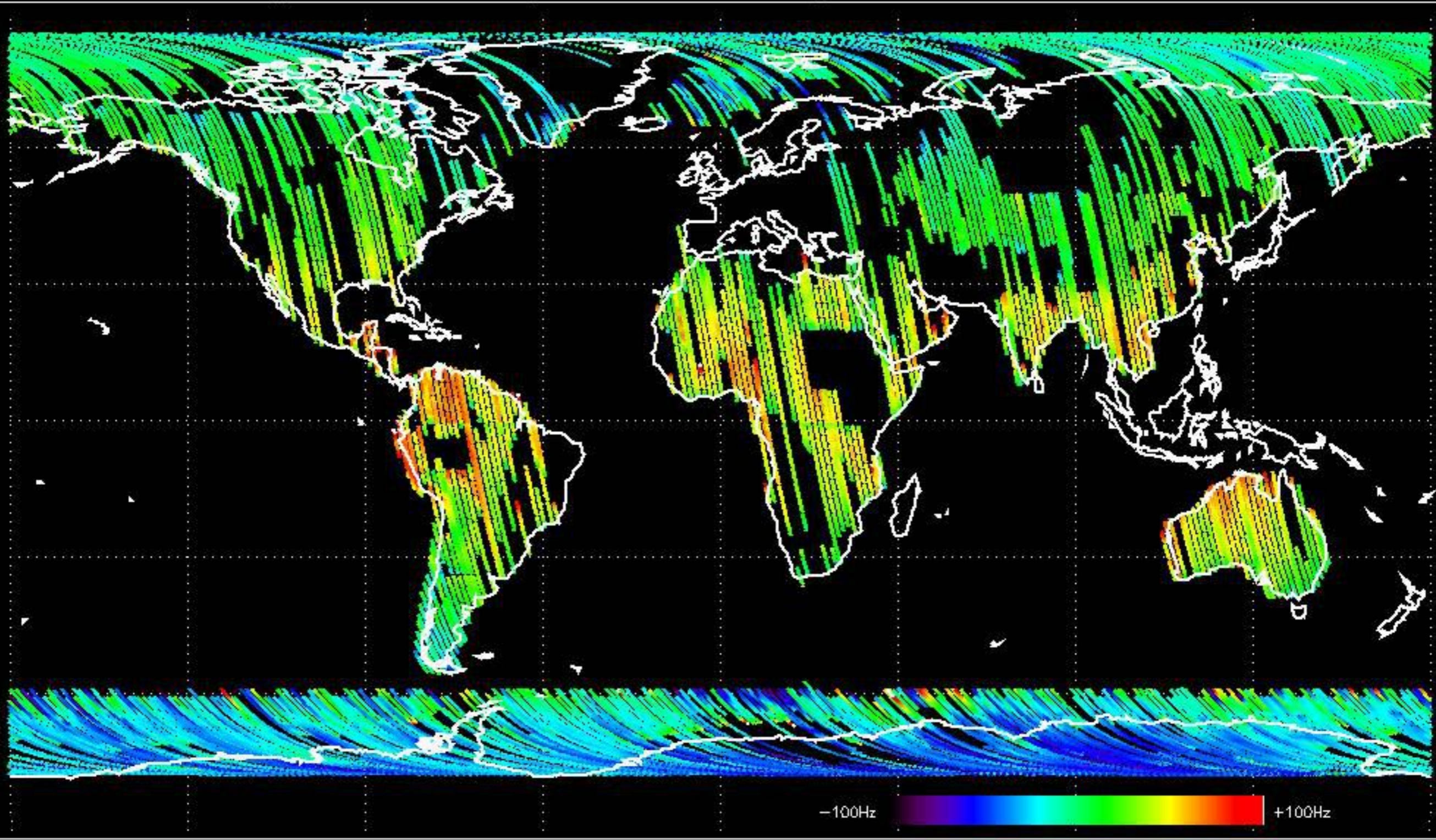


GM1 mode doppler

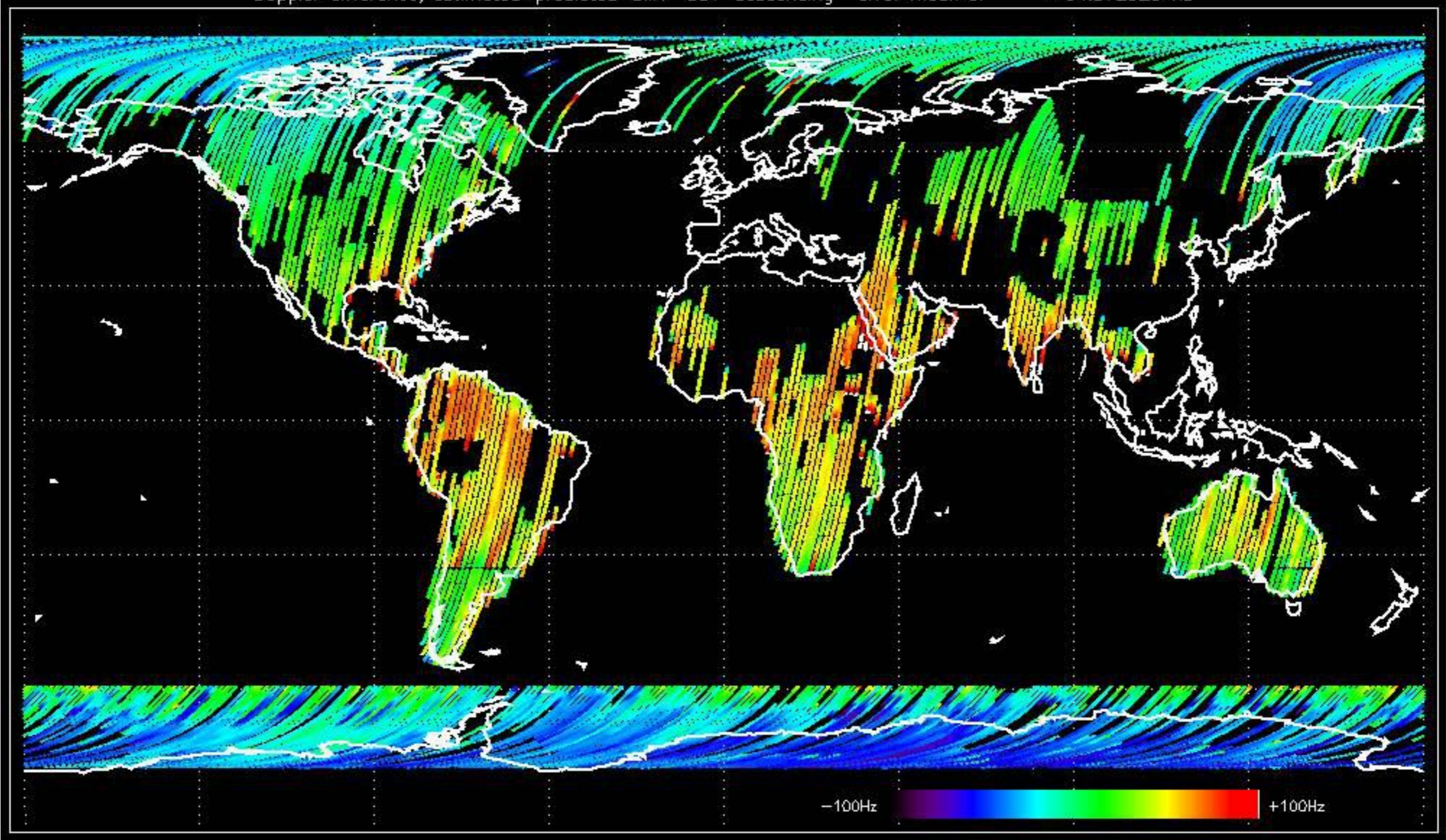




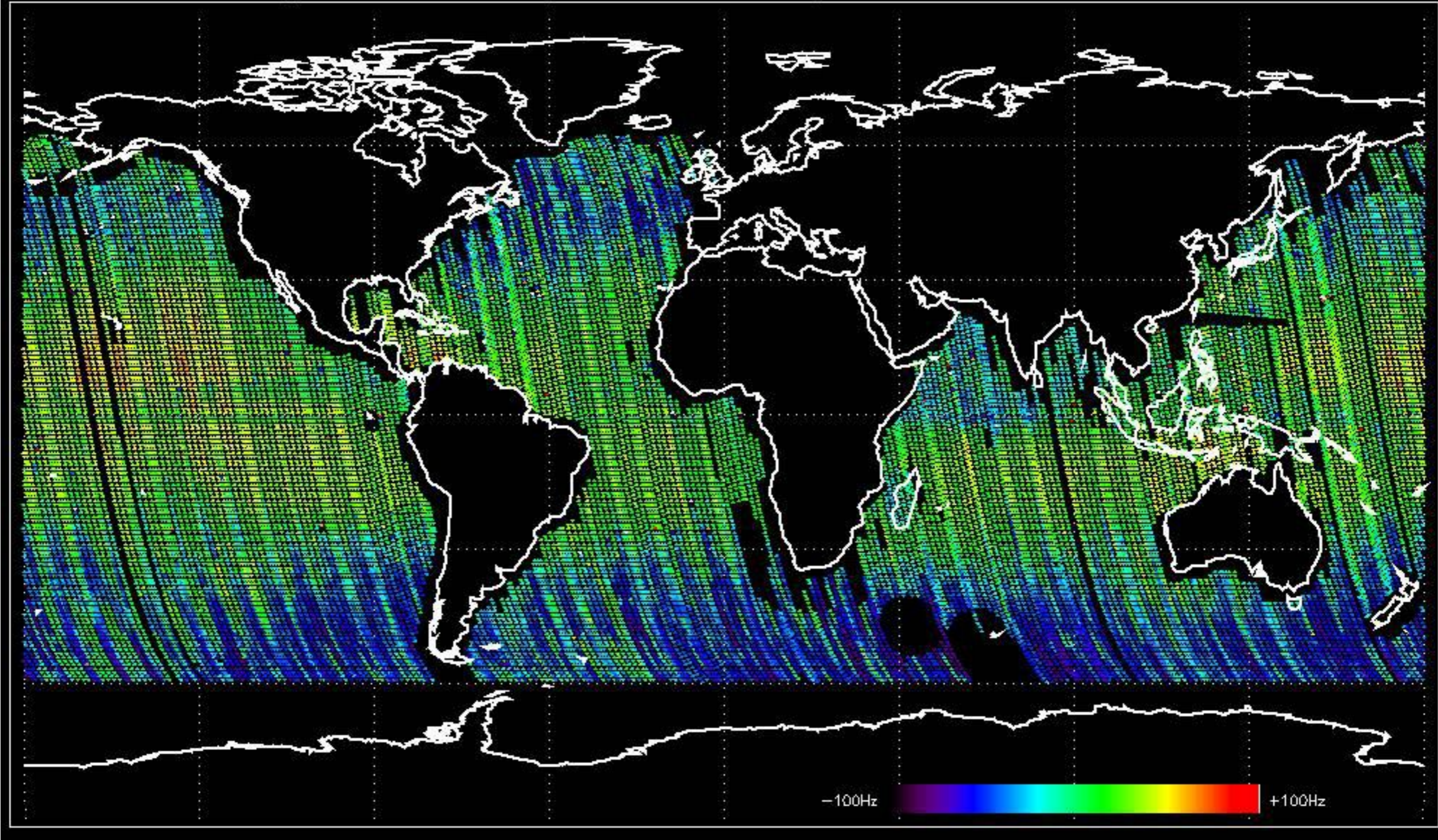
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.503446 Hz



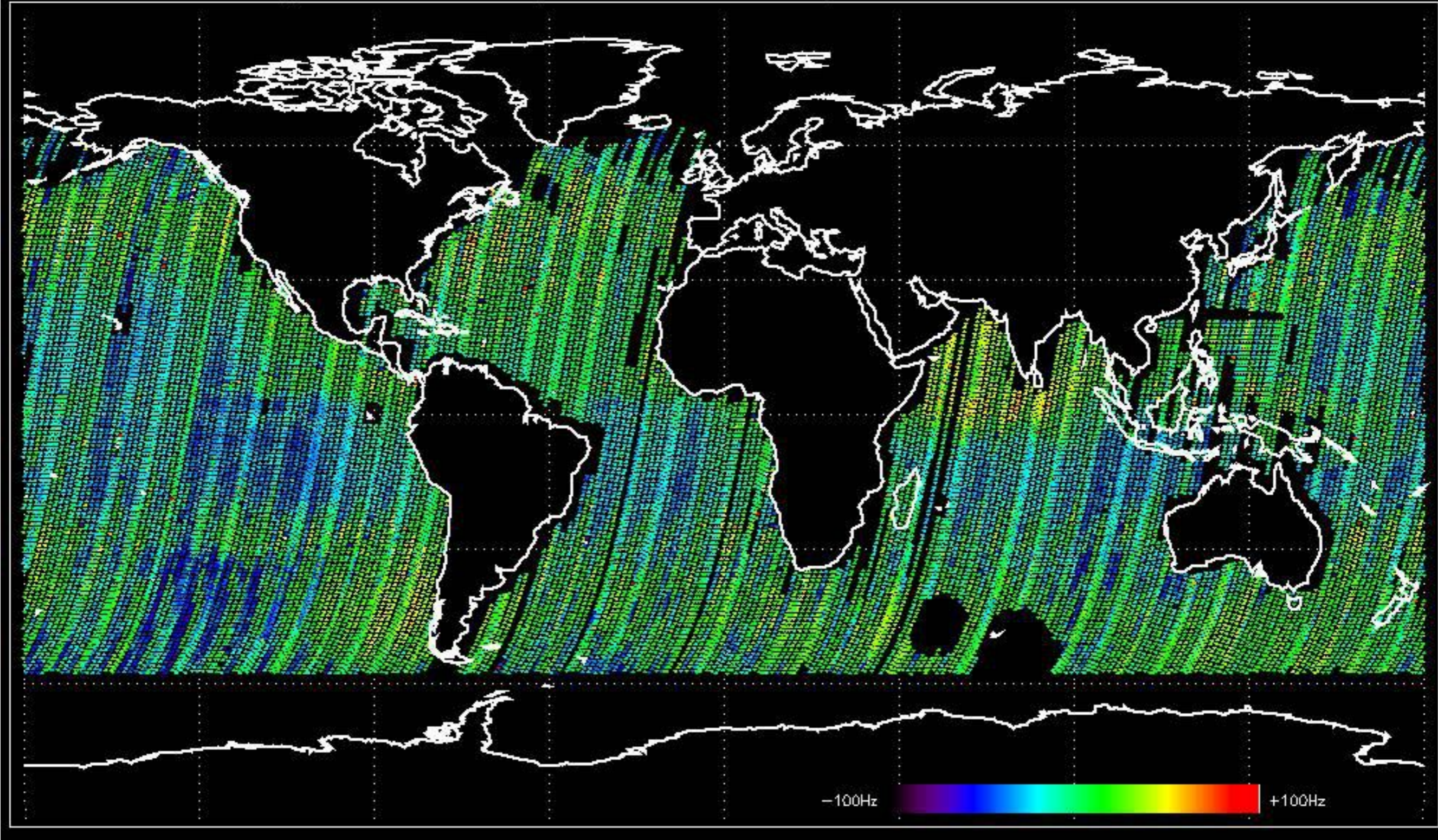
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -34.972920 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.140192 Hz

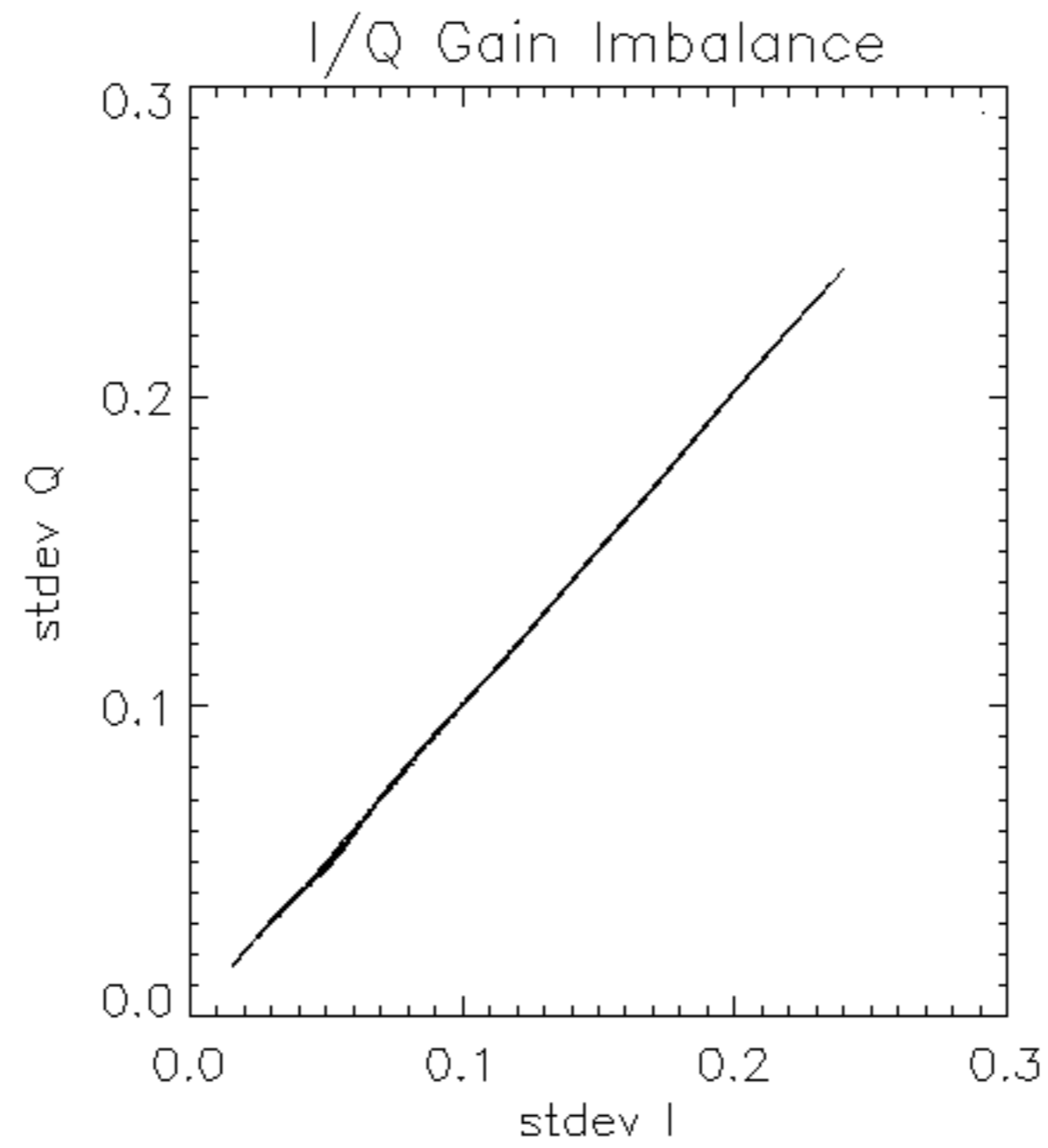


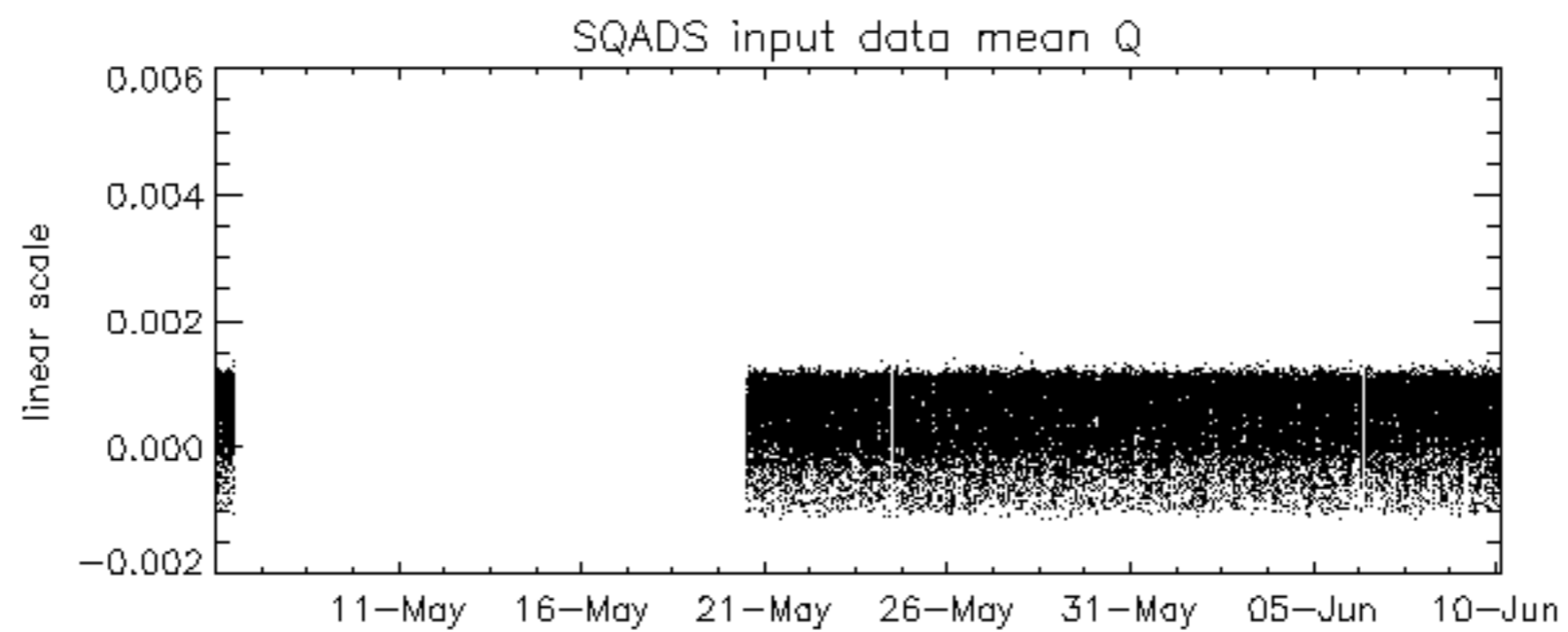
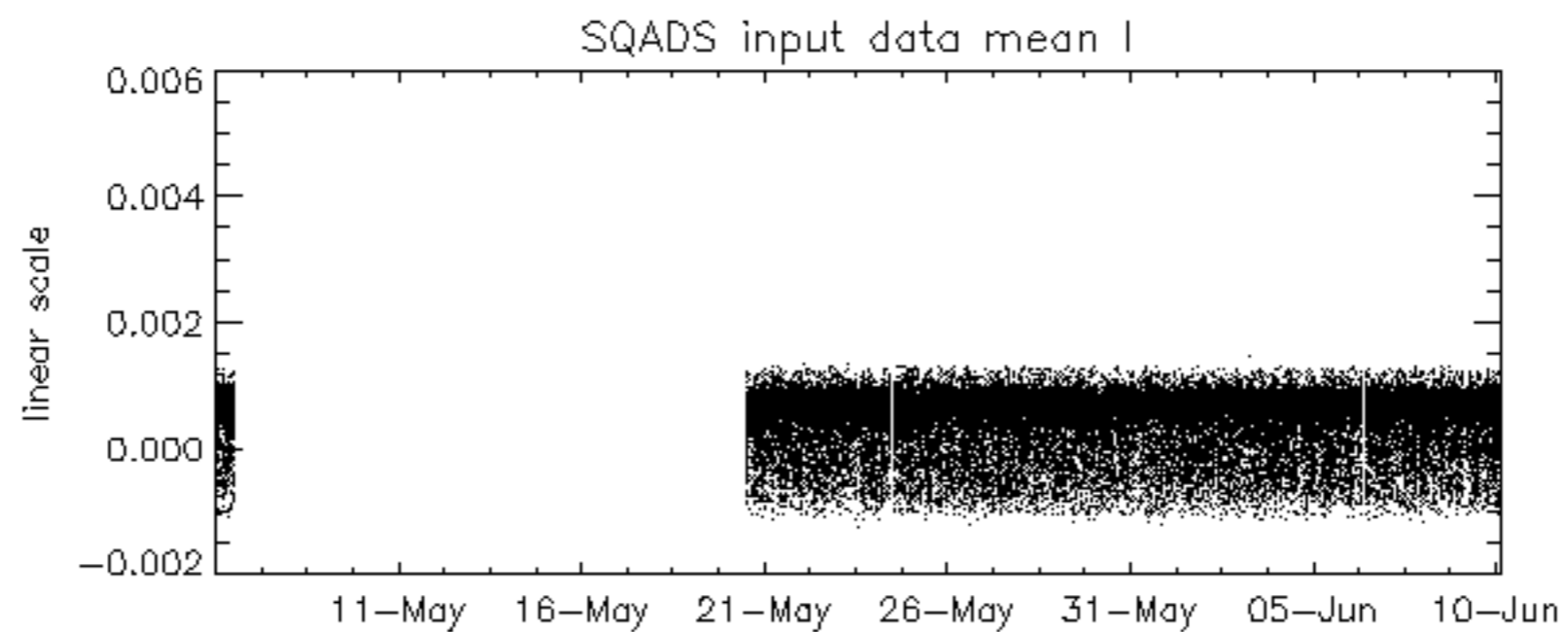
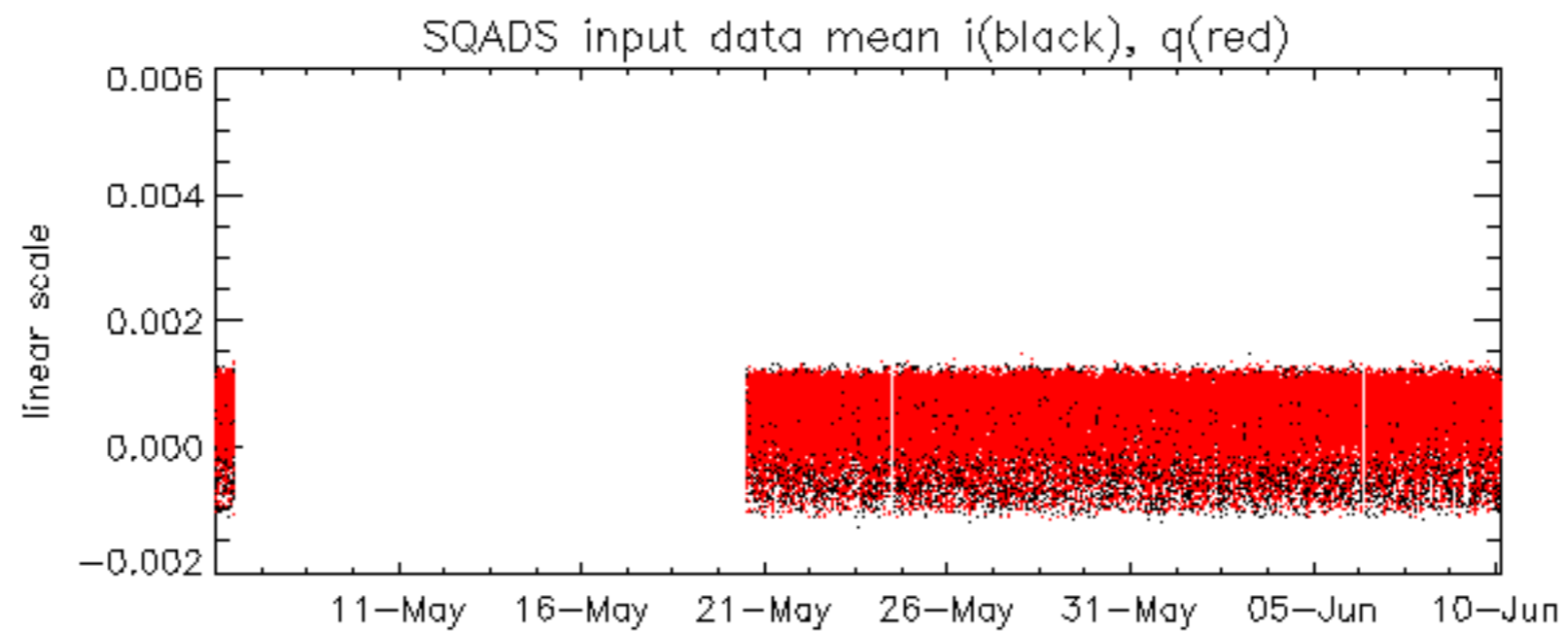
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -39.062392 Hz

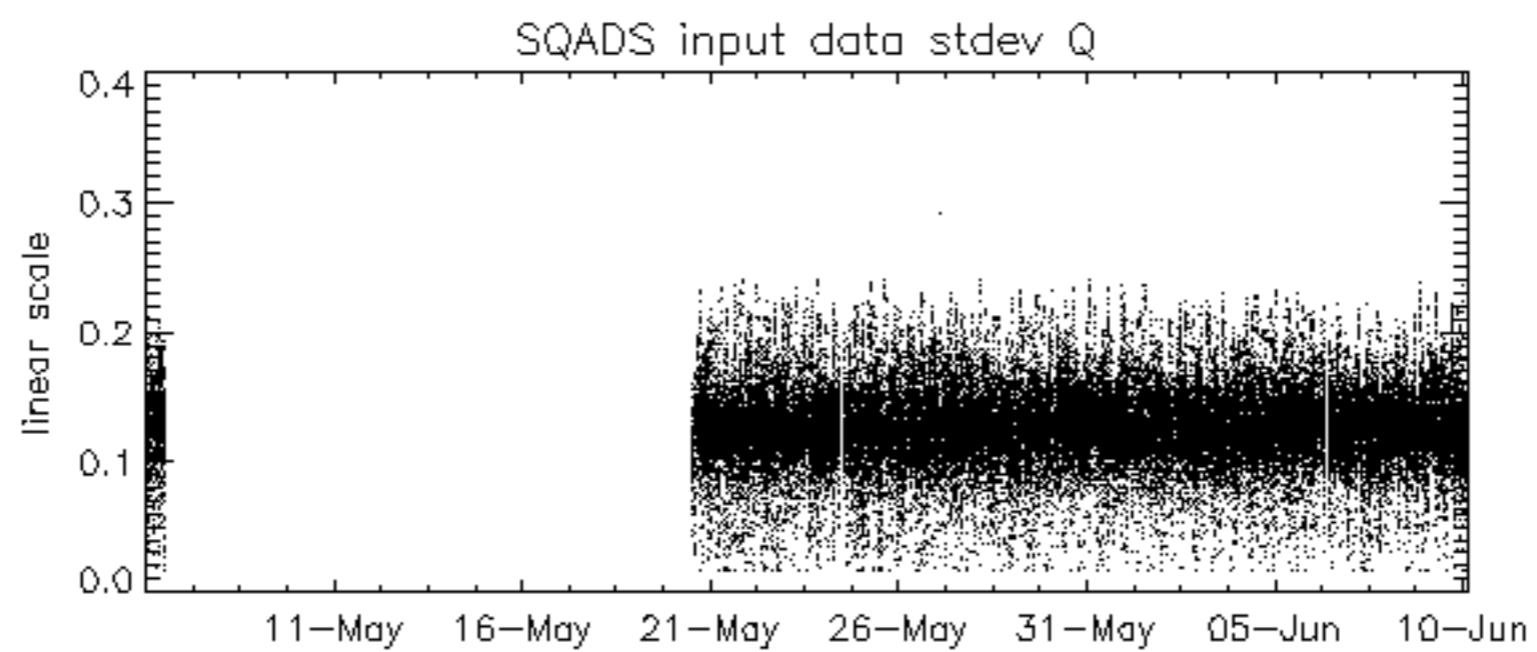
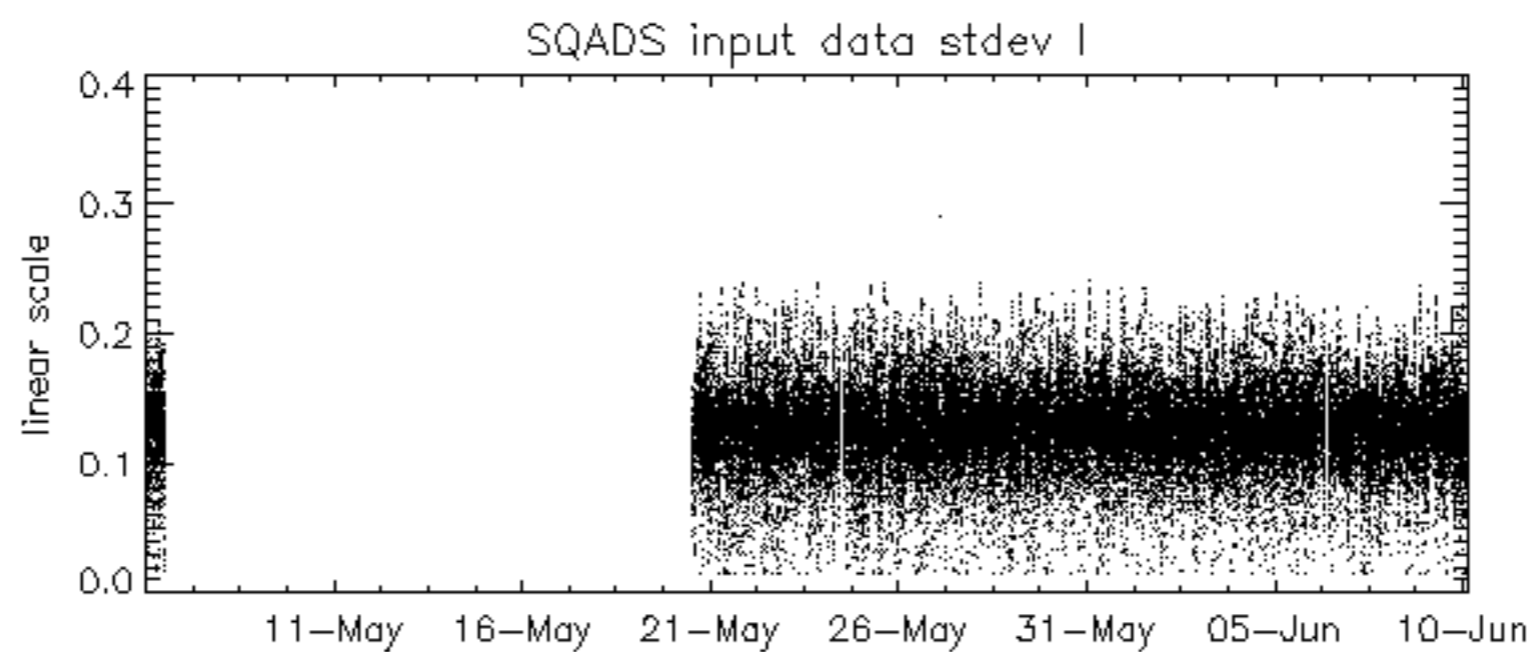
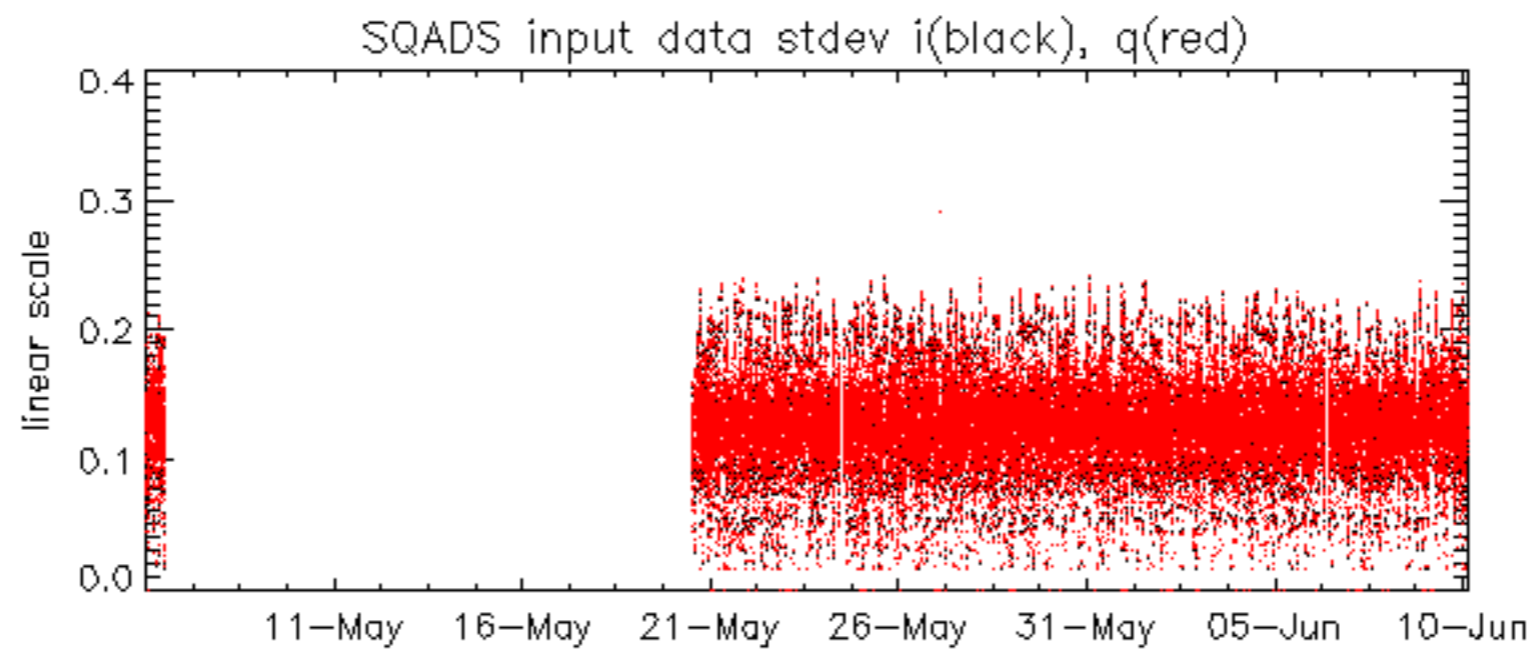


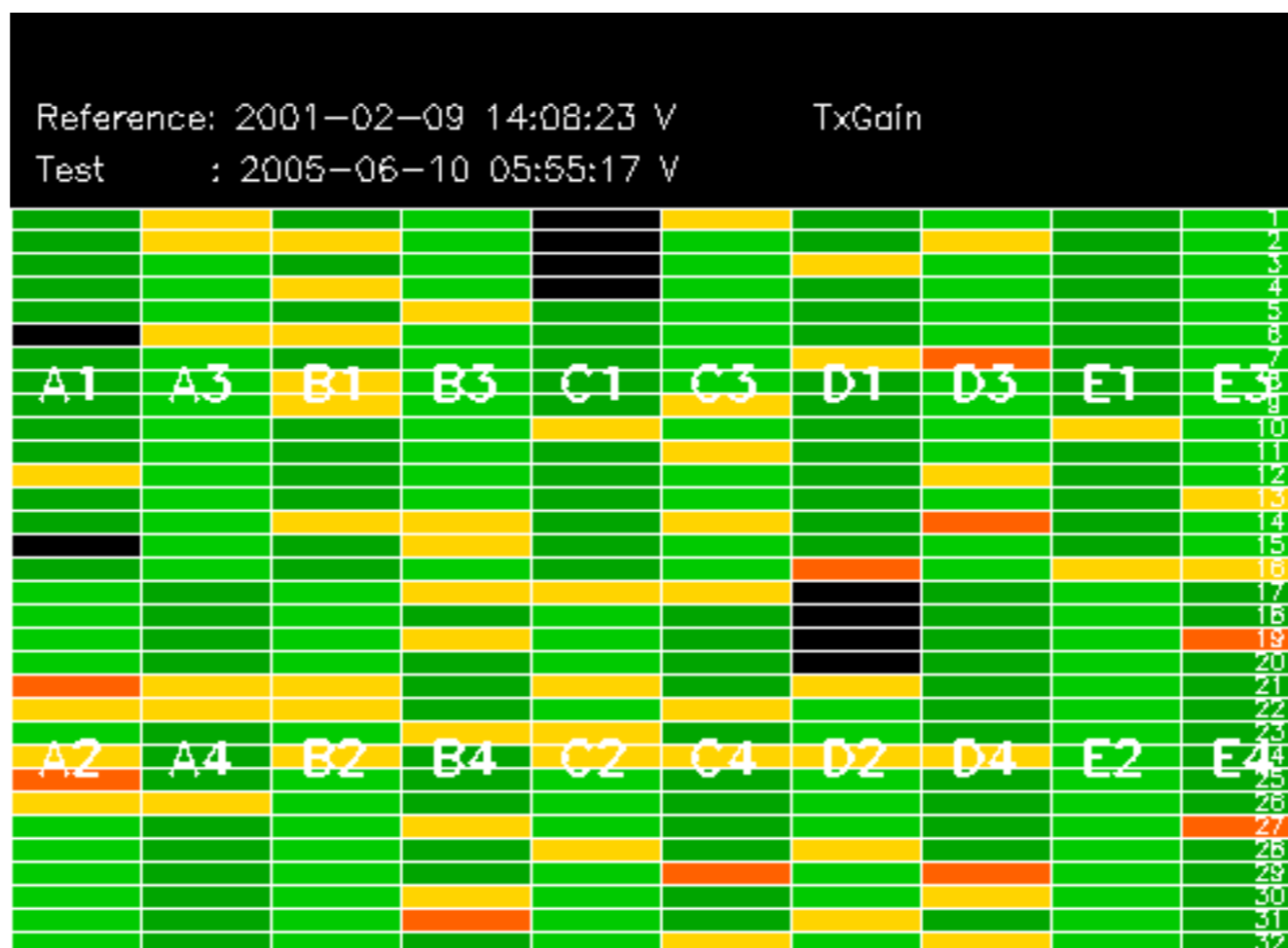
No anomalies observed on available MS products:

No anomalies observed.





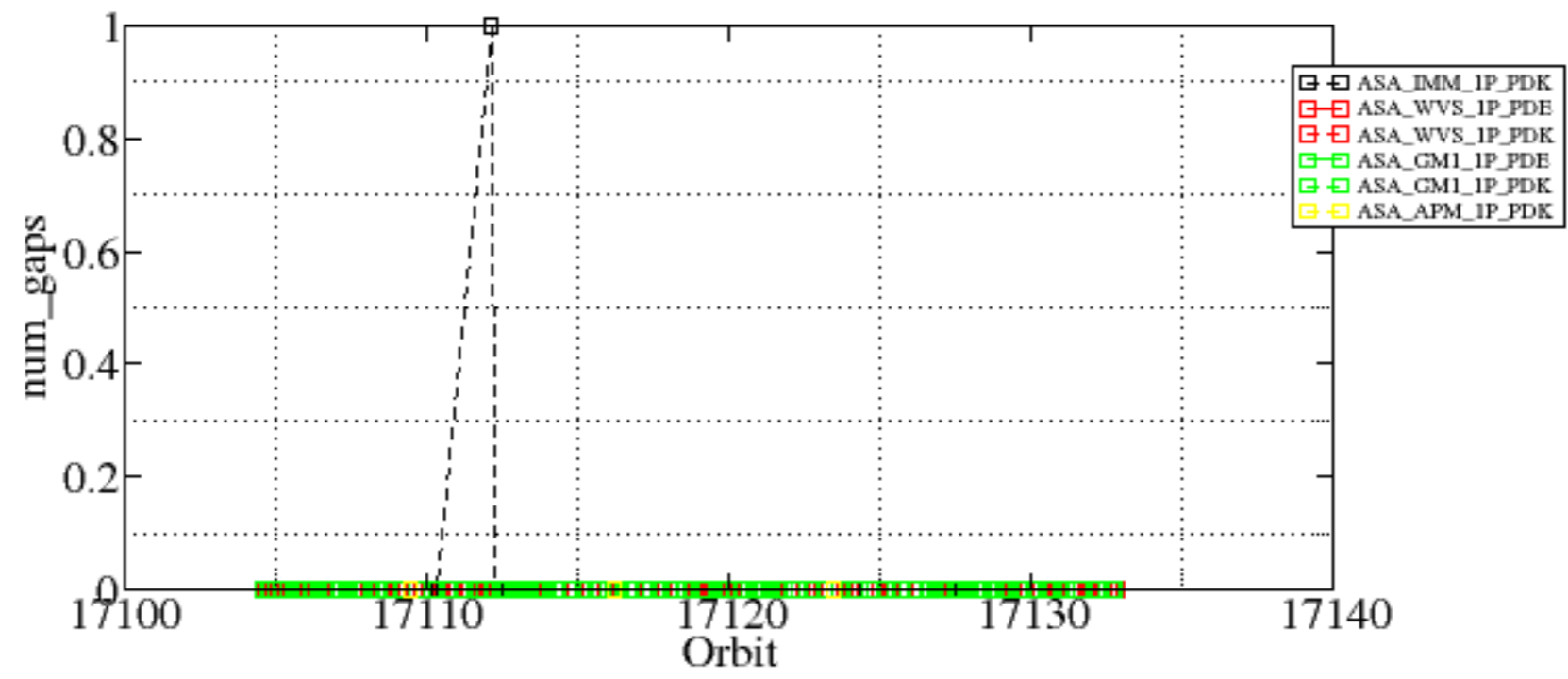


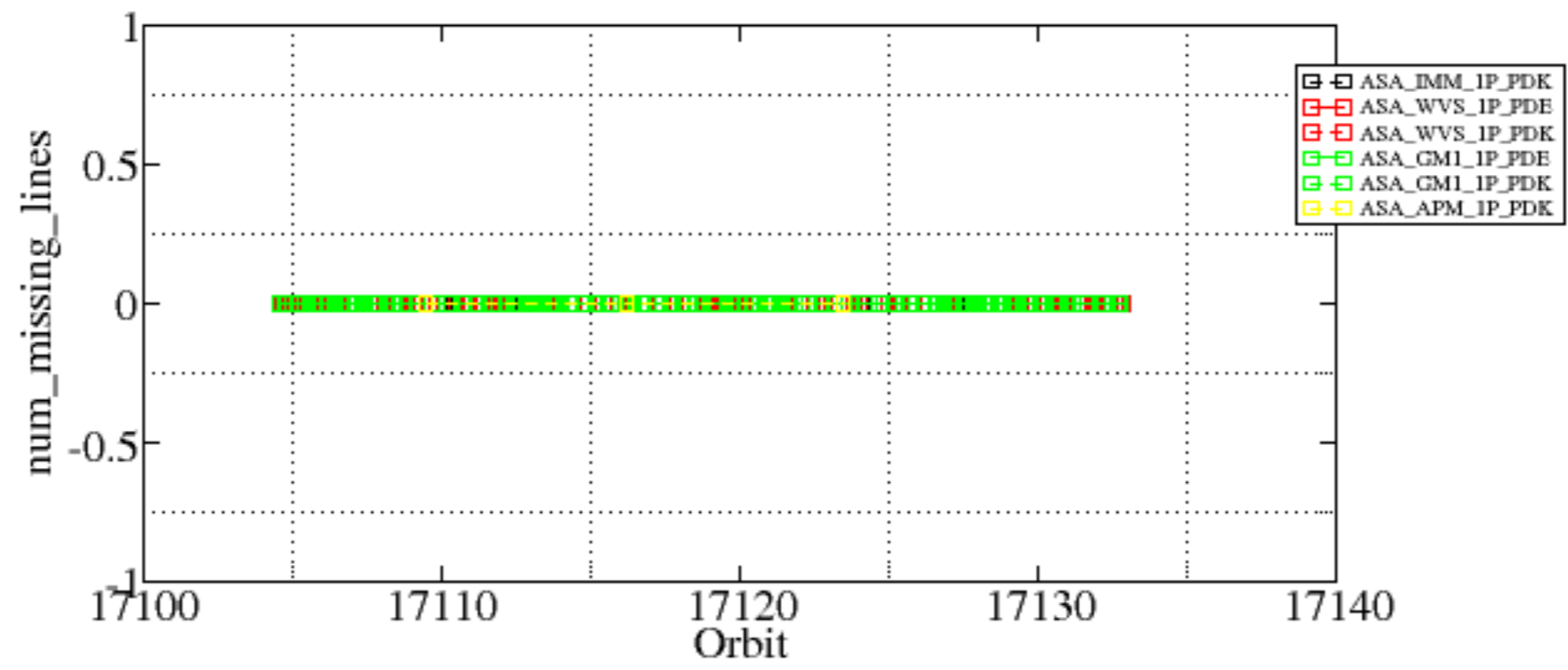


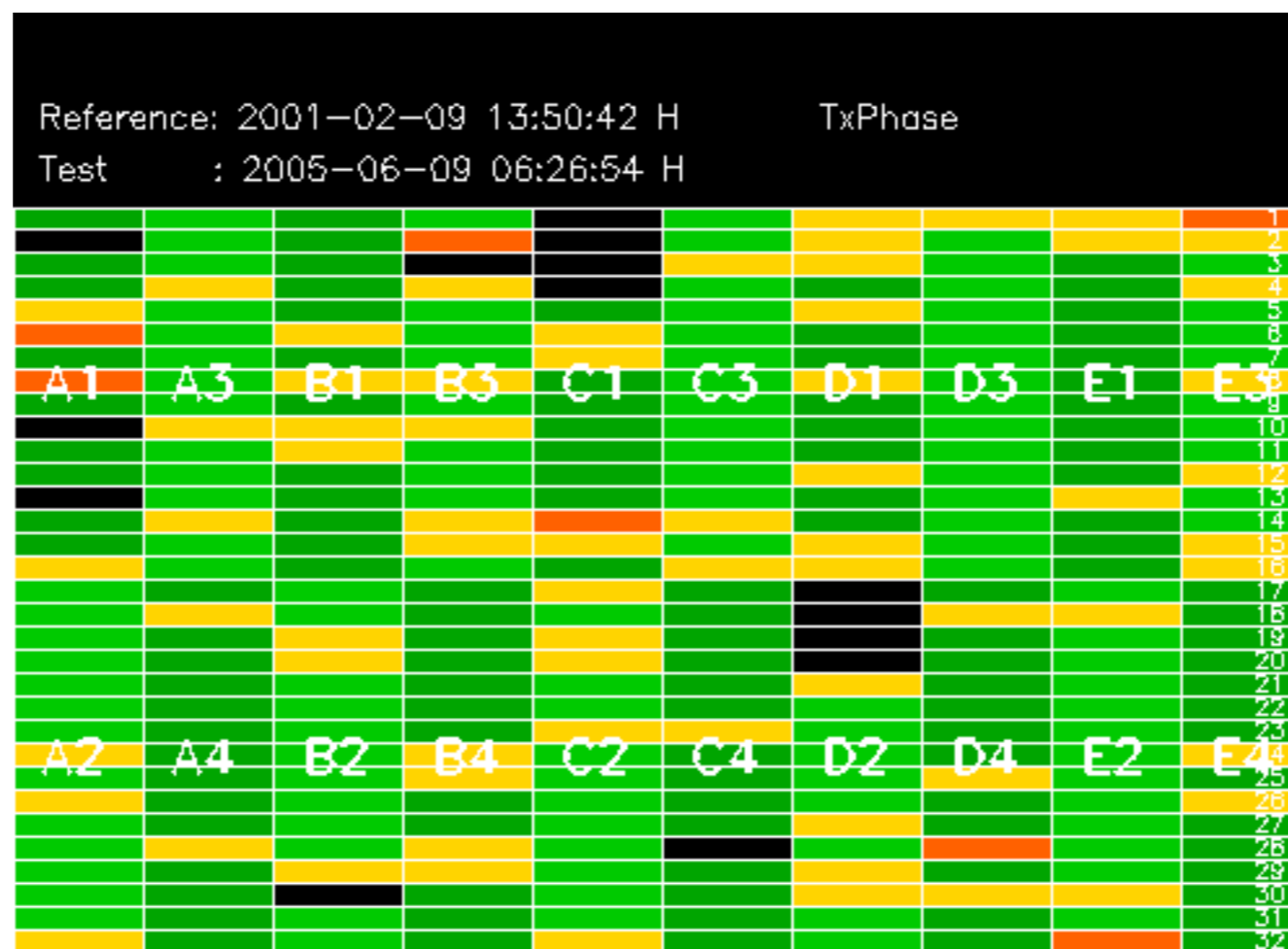
Summary of analysis for the last 3 days 2005060[890]

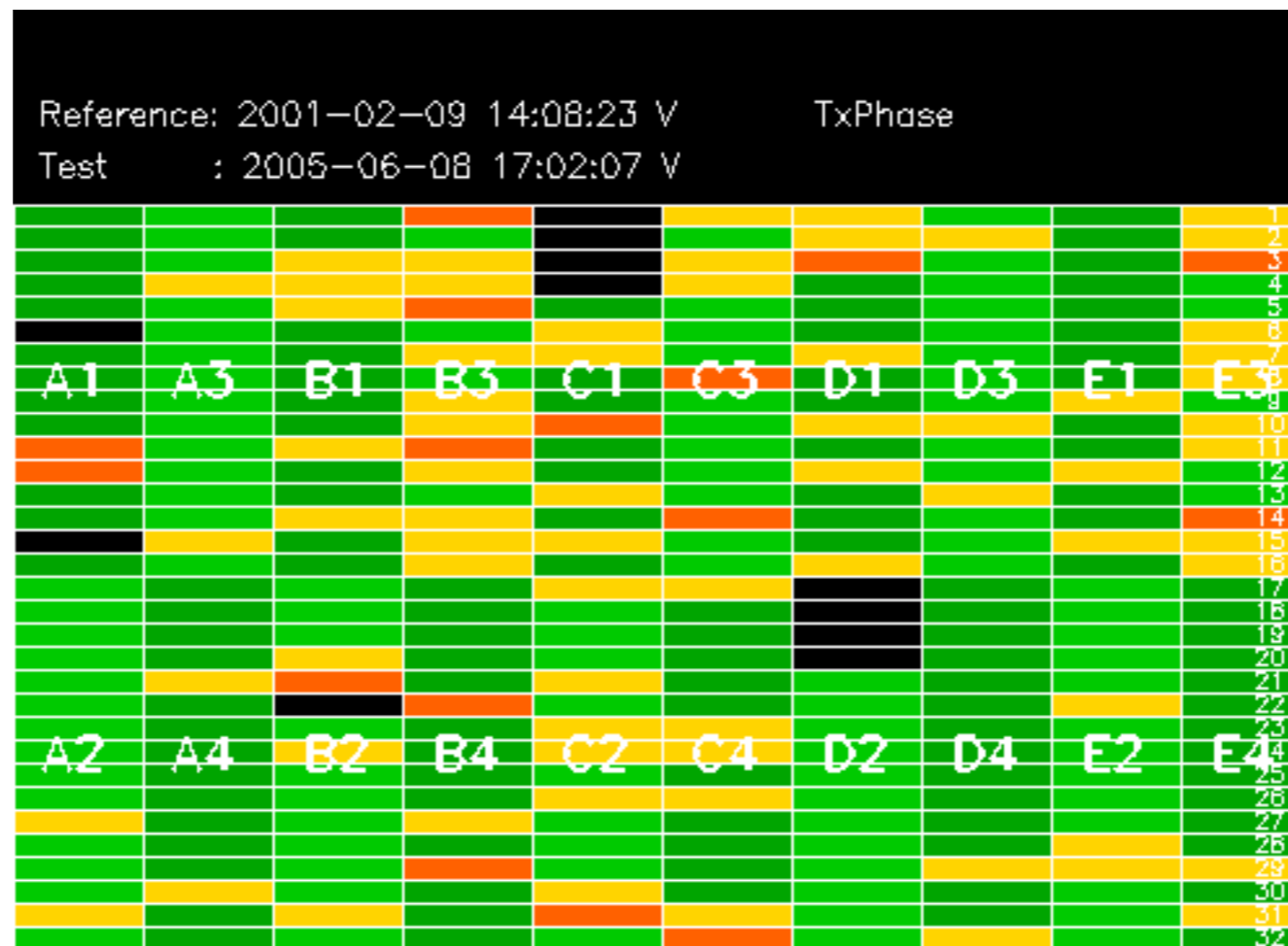
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

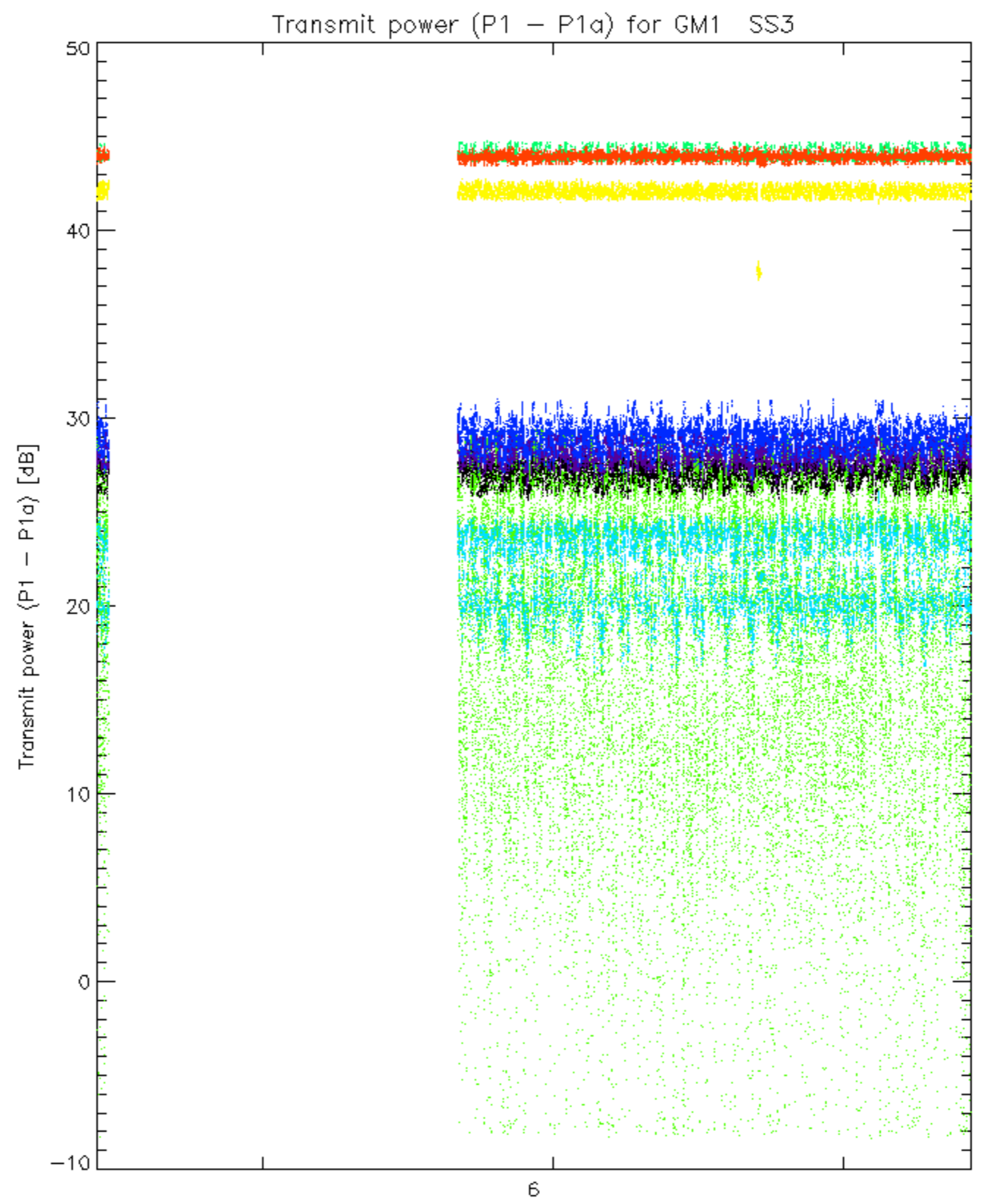
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050608_124608_00000692038_00024_17112_0070.N1	1	0



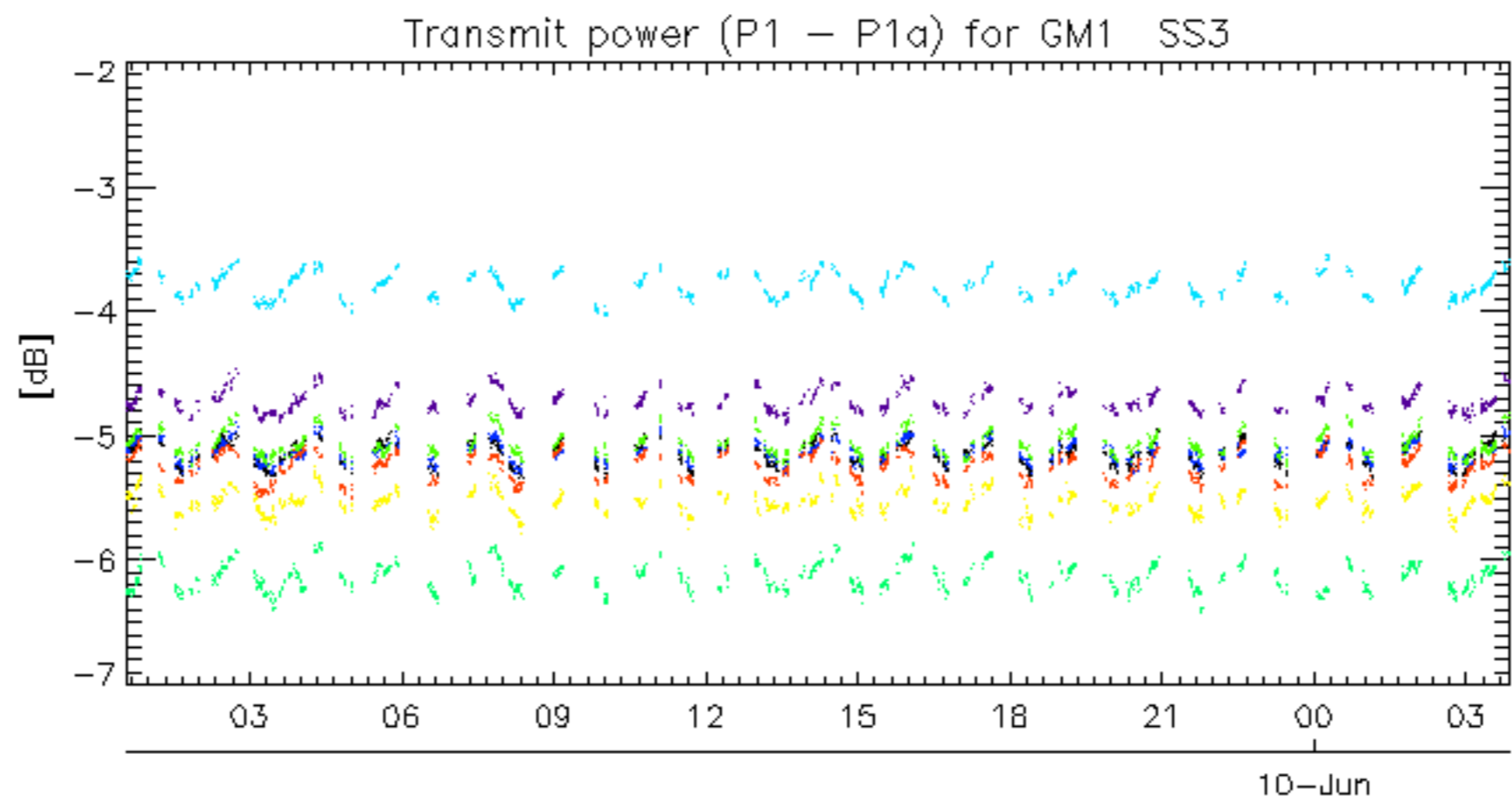




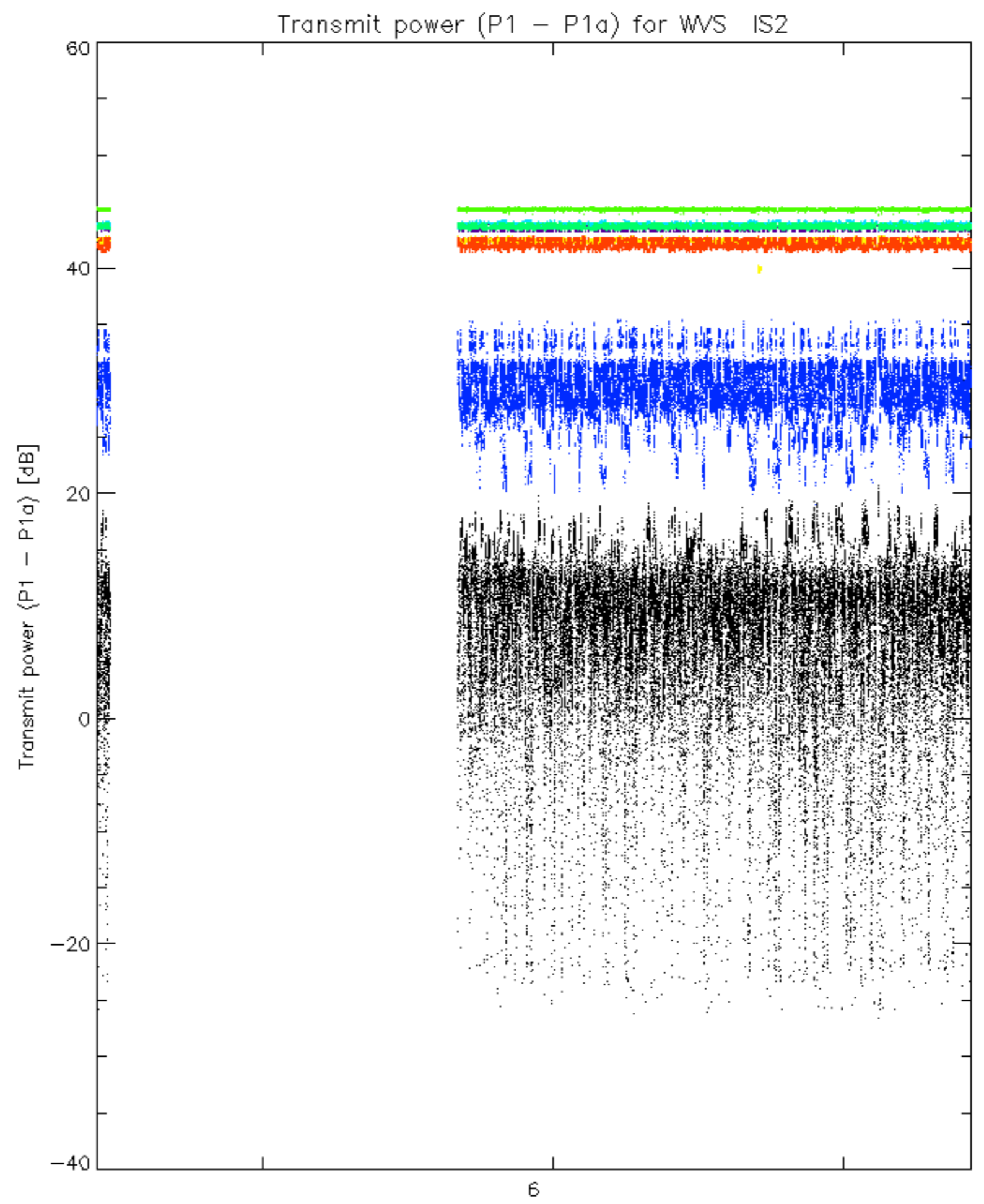


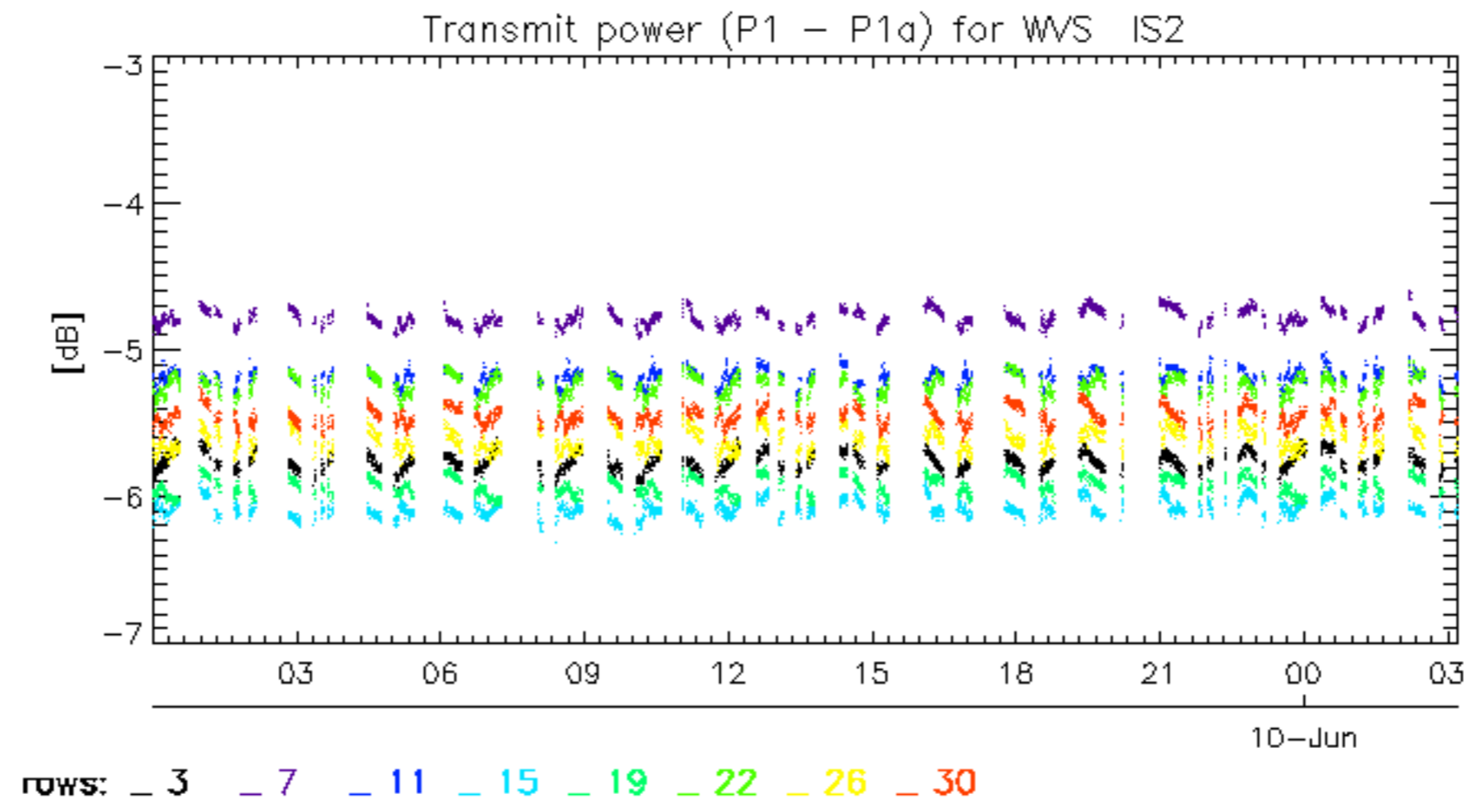


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





No unavailabilities during the reported period.