

PRELIMINARY REPORT OF 050605

last update on Sun Jun 5 11:26:00 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 2005-06-04 00:00:00 to 2005-06-05 11:26:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	29	51	13	4	6
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	29	51	13	4	6
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	29	51	13	4	6
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	29	51	13	4	6

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	41	57	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	41	57	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	41	57	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	41	57	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	20050604 204911
H	20050603 143824

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	-3.339789	0.007665	0.023589
7	P1	-3.134205	0.015168	-0.038626
11	P1	-4.630099	0.032300	0.036246
15	P1	-5.501513	0.043285	0.046993
19	P1	-3.735174	0.004177	-0.016874
22	P1	-4.586773	0.015825	0.013846
26	P1	-4.857042	0.022429	0.042295
30	P1	-7.138126	0.028111	0.002658
3	P1	-15.612500	0.106872	0.155669
7	P1	-15.569059	0.114406	-0.130152
11	P1	-21.344177	0.277244	-0.091196
15	P1	-11.329030	0.046678	0.129563
19	P1	-14.394192	0.032675	-0.082694
22	P1	-15.947393	0.326549	0.031112
26	P1	-17.708105	0.384110	-0.078021
30	P1	-17.854372	0.216003	0.058595

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.034468	0.078386	0.065002
7	P2	-22.210333	0.096069	0.036554
11	P2	-14.007314	0.095843	0.181017
15	P2	-7.130216	0.086295	-0.035159
19	P2	-9.627106	0.089126	0.038261
22	P2	-16.887707	0.087095	0.015207
26	P2	-16.504892	0.089985	-0.005831
30	P2	-18.804718	0.076483	0.033779

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.165976	0.002743	0.008085
7	P3	-8.165976	0.002743	0.008085
11	P3	-8.165976	0.002743	0.008085
15	P3	-8.165976	0.002743	0.008085
19	P3	-8.165976	0.002743	0.008085
22	P3	-8.165976	0.002743	0.008085
26	P3	-8.165976	0.002743	0.008085
30	P3	-8.165976	0.002743	0.008085

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	-2.791135	0.013261	-0.024494
7	P1	-2.949923	0.031869	0.052138
11	P1	-3.957532	0.017955	-0.000940
15	P1	-3.530904	0.023342	0.012383
19	P1	-3.630272	0.015858	-0.004173
22	P1	-5.645176	0.045998	0.035550
26	P1	-7.292680	0.039101	0.042126
30	P1	-6.283778	0.047279	-0.002763
3	P1	-10.834982	0.041688	-0.030948
7	P1	-10.381408	0.168170	0.029154
11	P1	-12.545325	0.113707	-0.009534
15	P1	-11.618179	0.081571	0.054086
19	P1	-15.614828	0.063396	0.021146
22	P1	-25.919540	3.213084	-0.542866
26	P1	-15.633957	0.380649	0.020654
30	P1	-20.222357	1.118402	-0.054752

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.772362	0.040189	0.040294
7	P2	-22.174574	0.042480	0.113921
11	P2	-9.944445	0.057529	0.158850
15	P2	-5.109592	0.043495	-0.035583
19	P2	-6.909876	0.057420	-0.002390
22	P2	-7.103874	0.035815	0.000303
26	P2	-23.949444	0.036652	-0.033619
30	P2	-21.946499	0.039731	0.008039

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.998207	0.003745	0.009457
7	P3	-7.998137	0.003744	0.009368
11	P3	-7.998232	0.003747	0.009258
15	P3	-7.998102	0.003729	0.009343
19	P3	-7.998075	0.003748	0.009713
22	P3	-7.998236	0.003730	0.009273
26	P3	-7.998059	0.003743	0.009205
30	P3	-7.998246	0.003761	0.009518

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	0.000449646
	stdev	2.22940e-07
MEAN Q	mean	0.000488035
	stdev	2.32957e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127054
	stdev	0.000998706
STDEV Q	mean	0.127293
	stdev	0.00100934



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005060[345]

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
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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

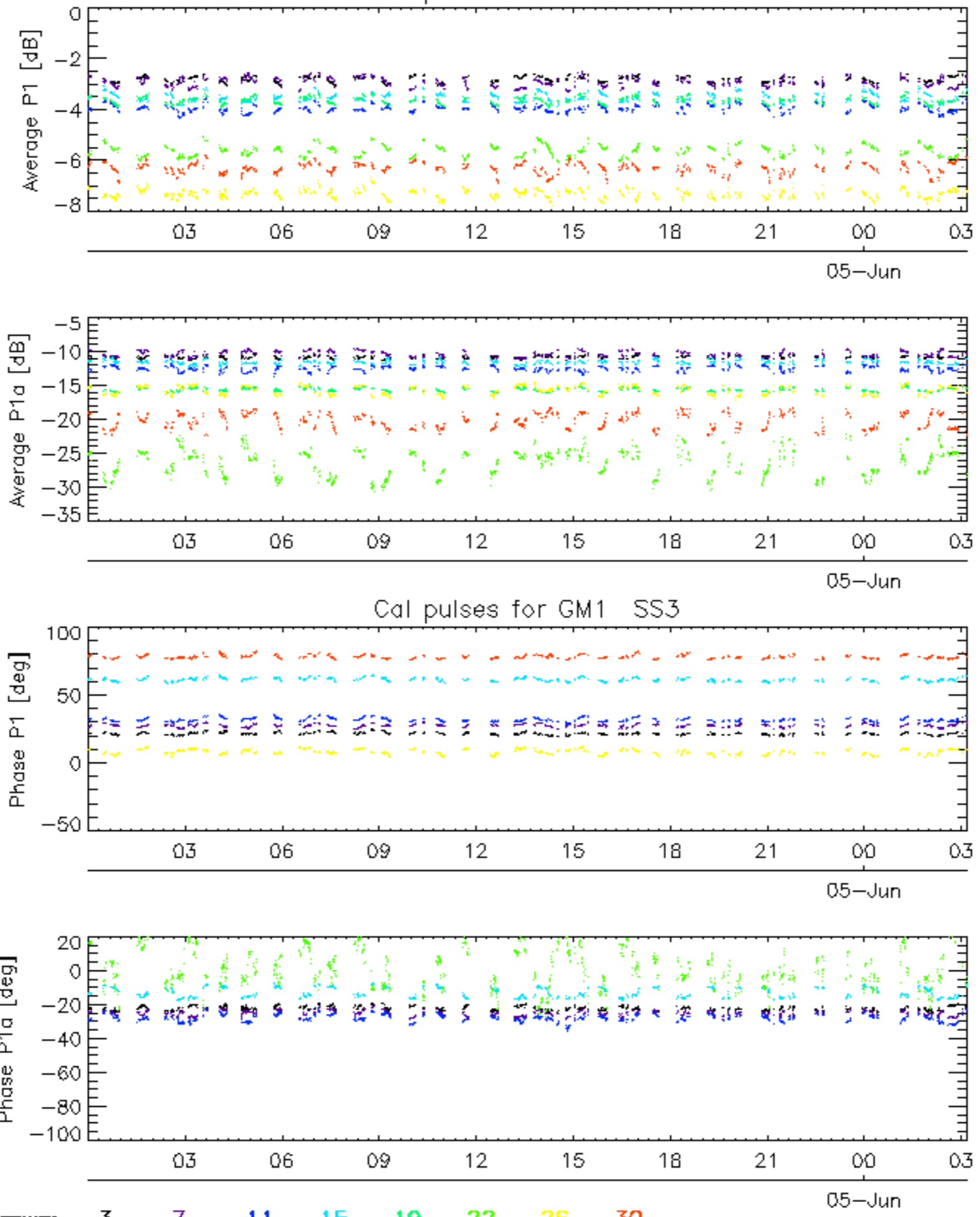
Ascending

Descending

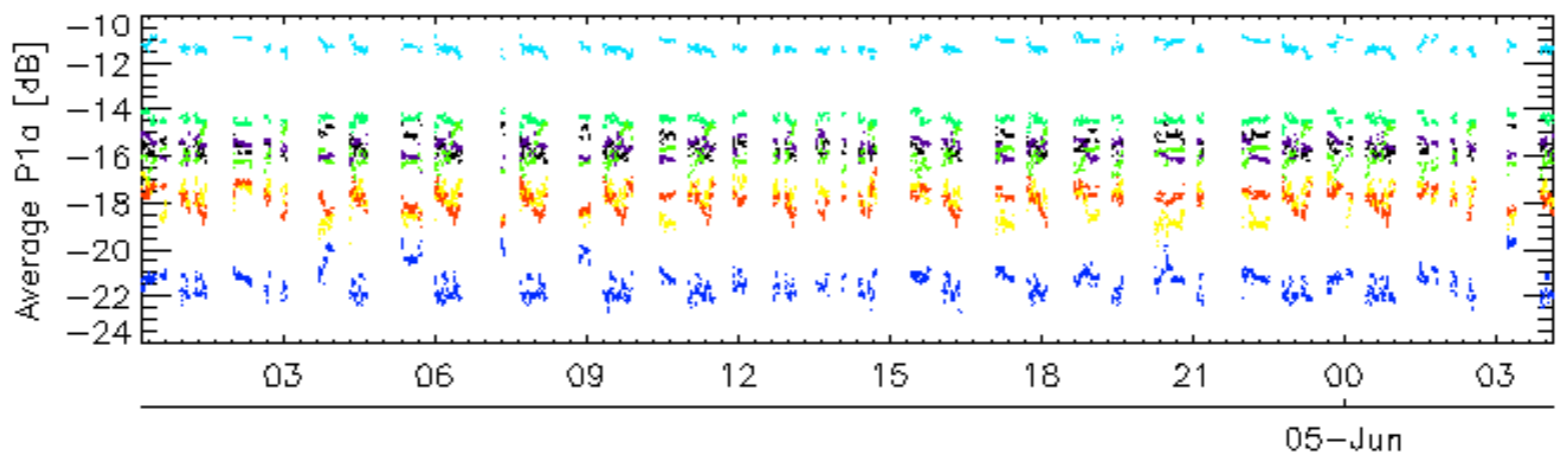
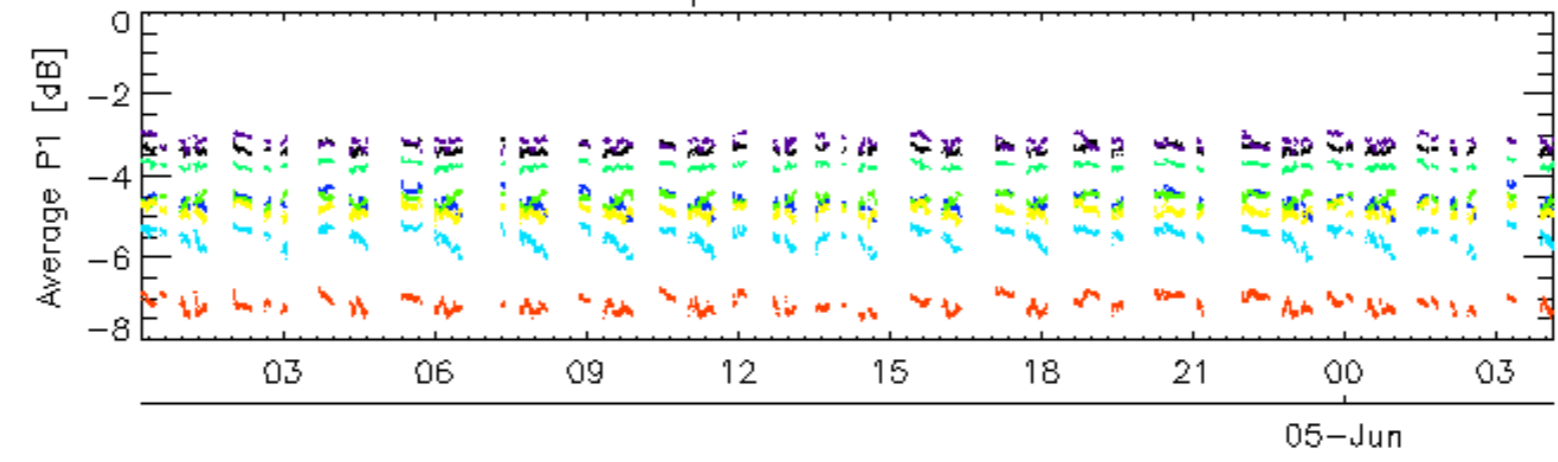
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

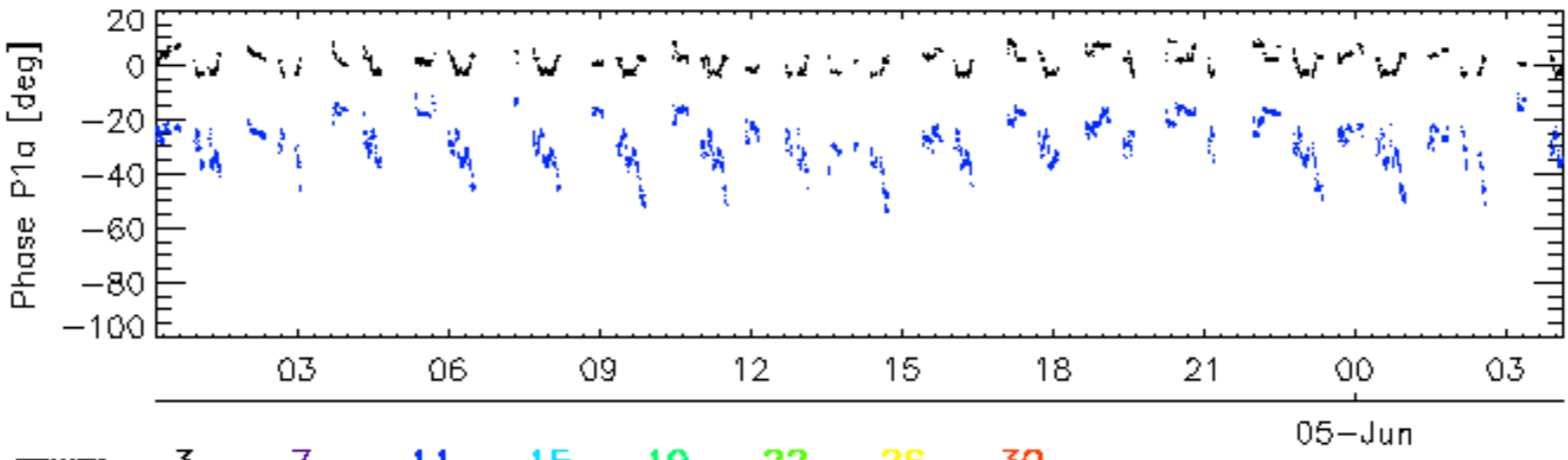
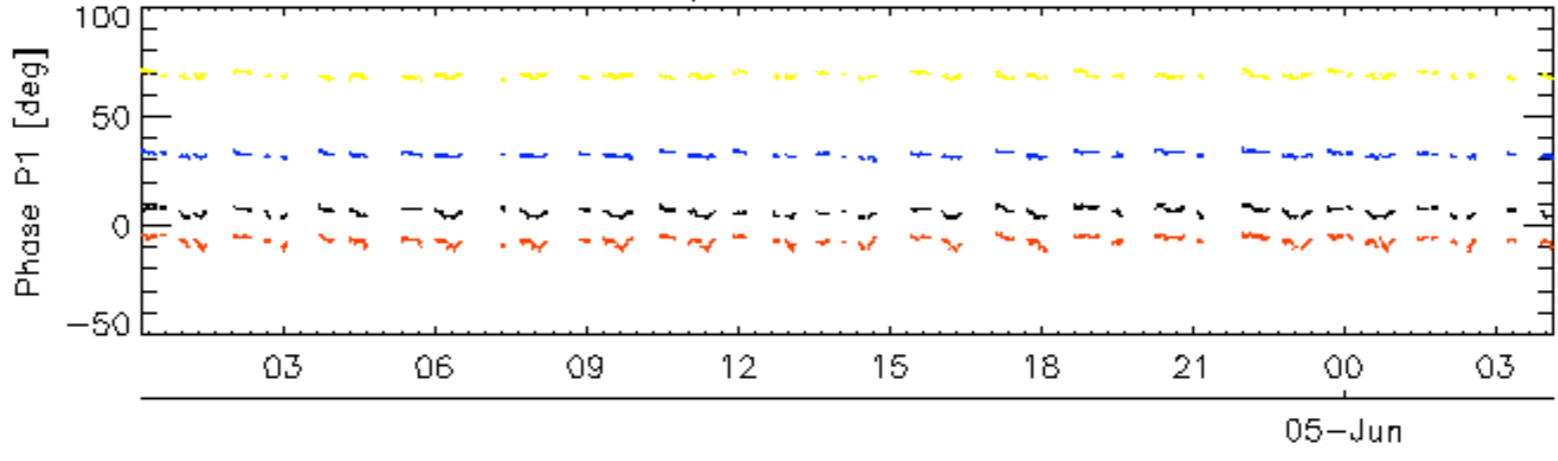
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

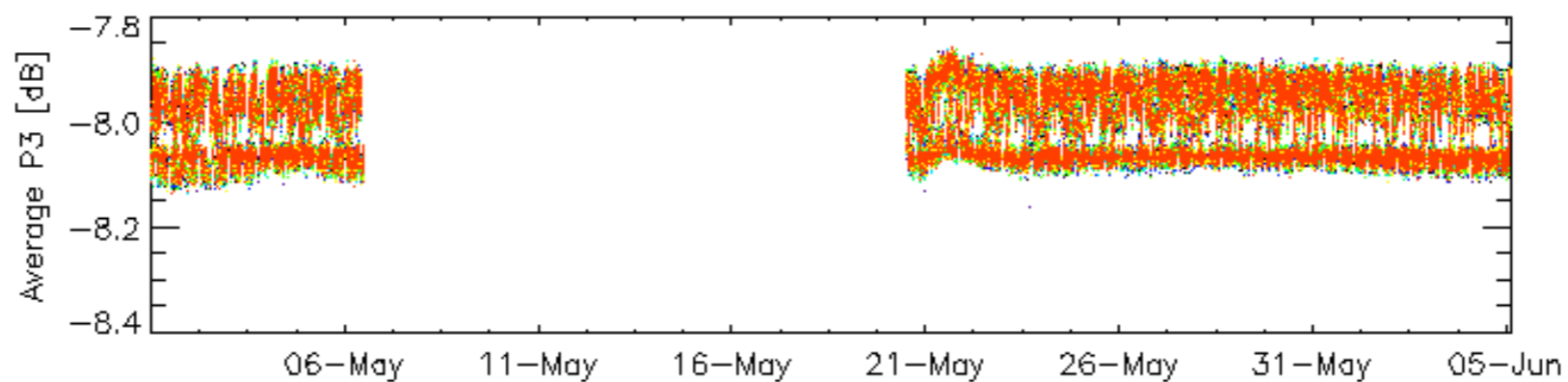
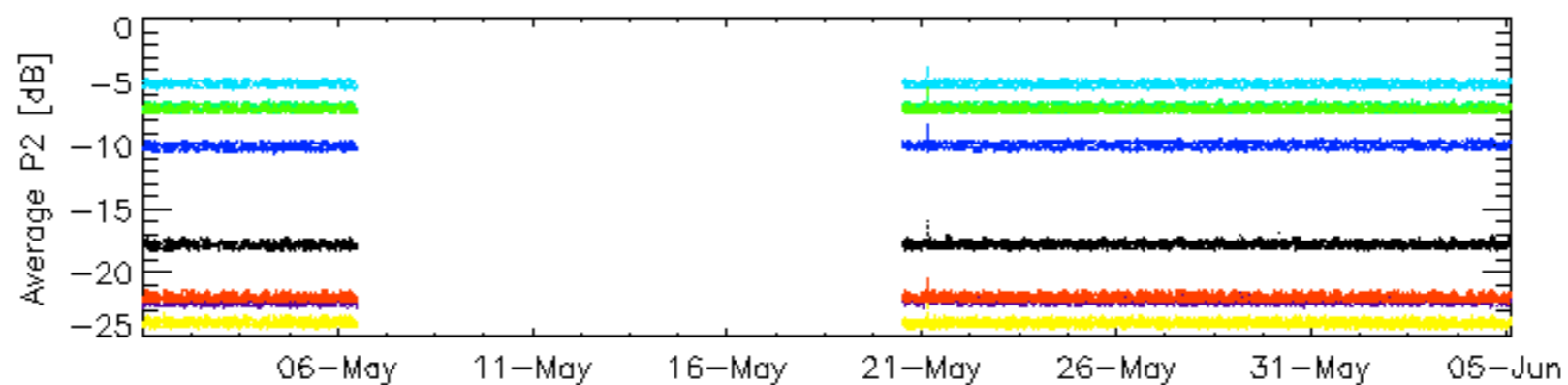
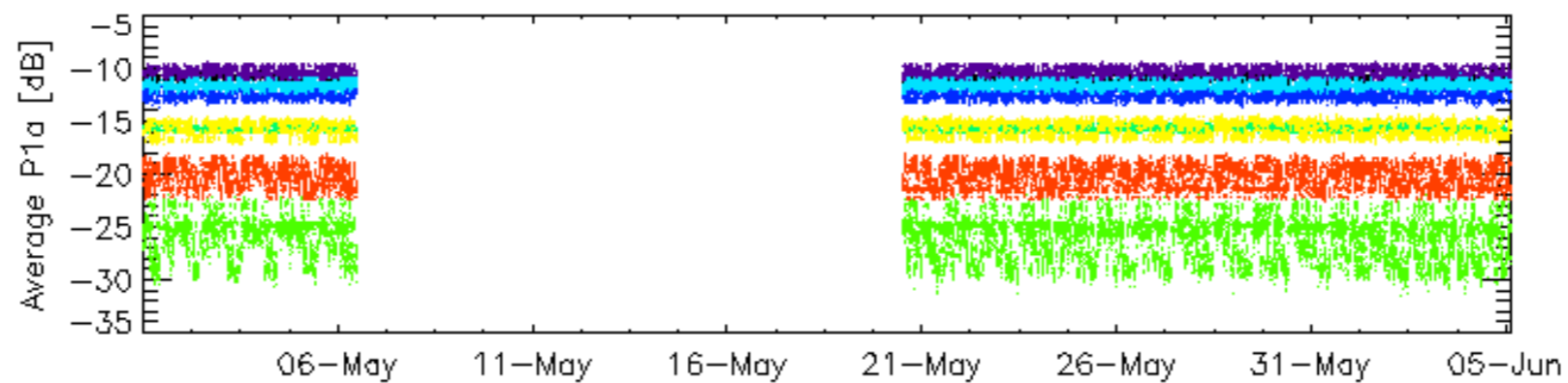
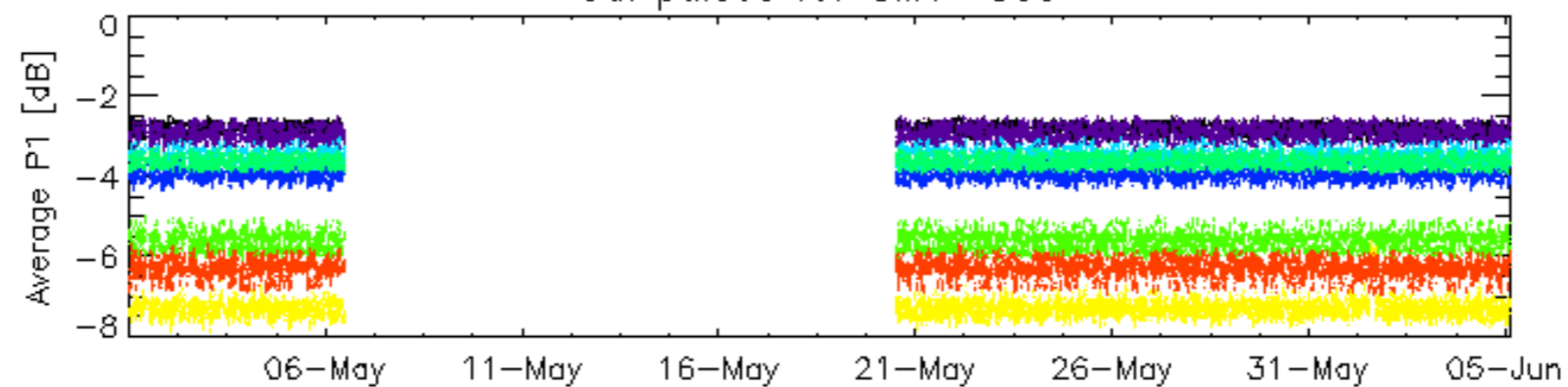


Cal pulses for WVS IS2



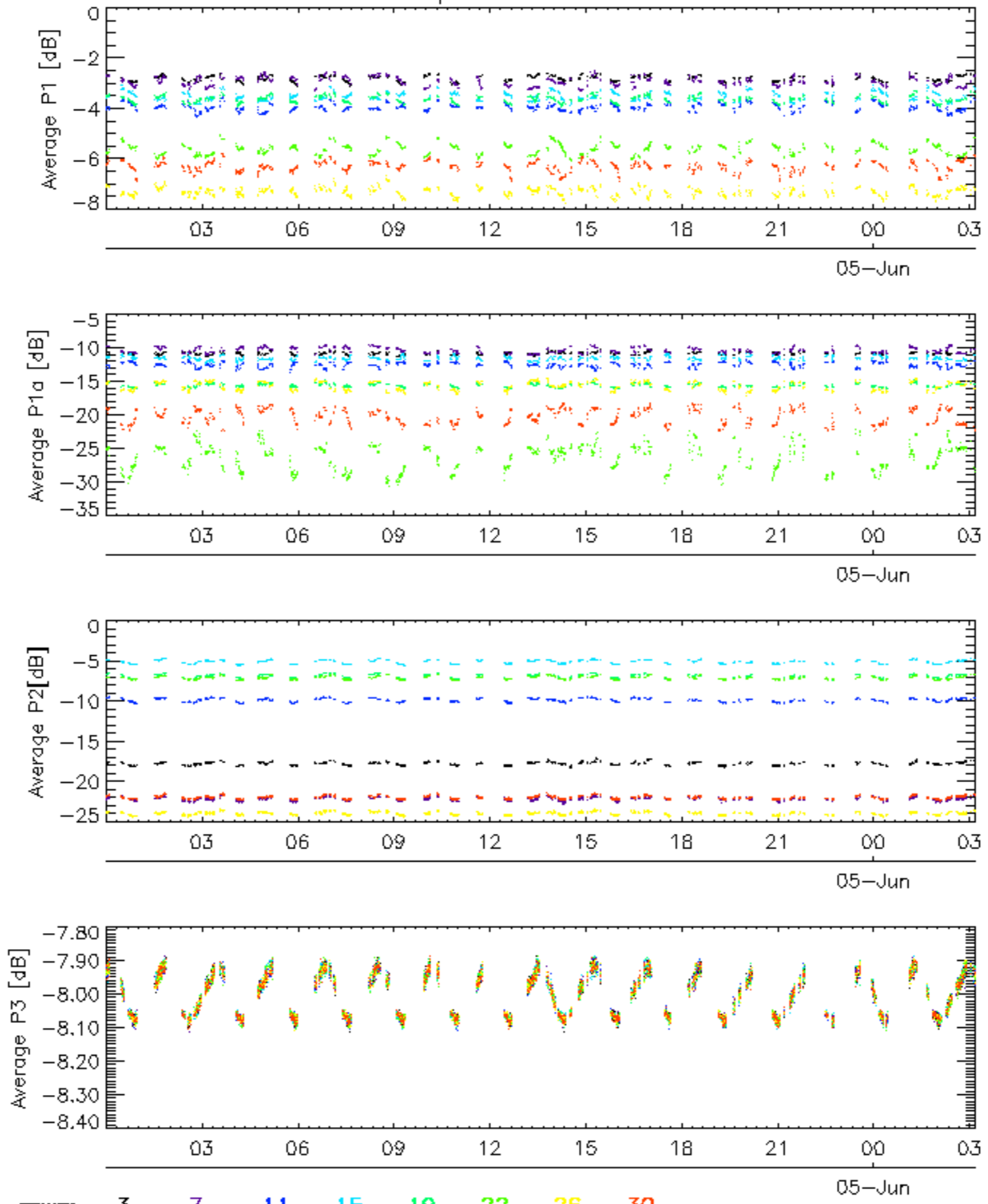
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

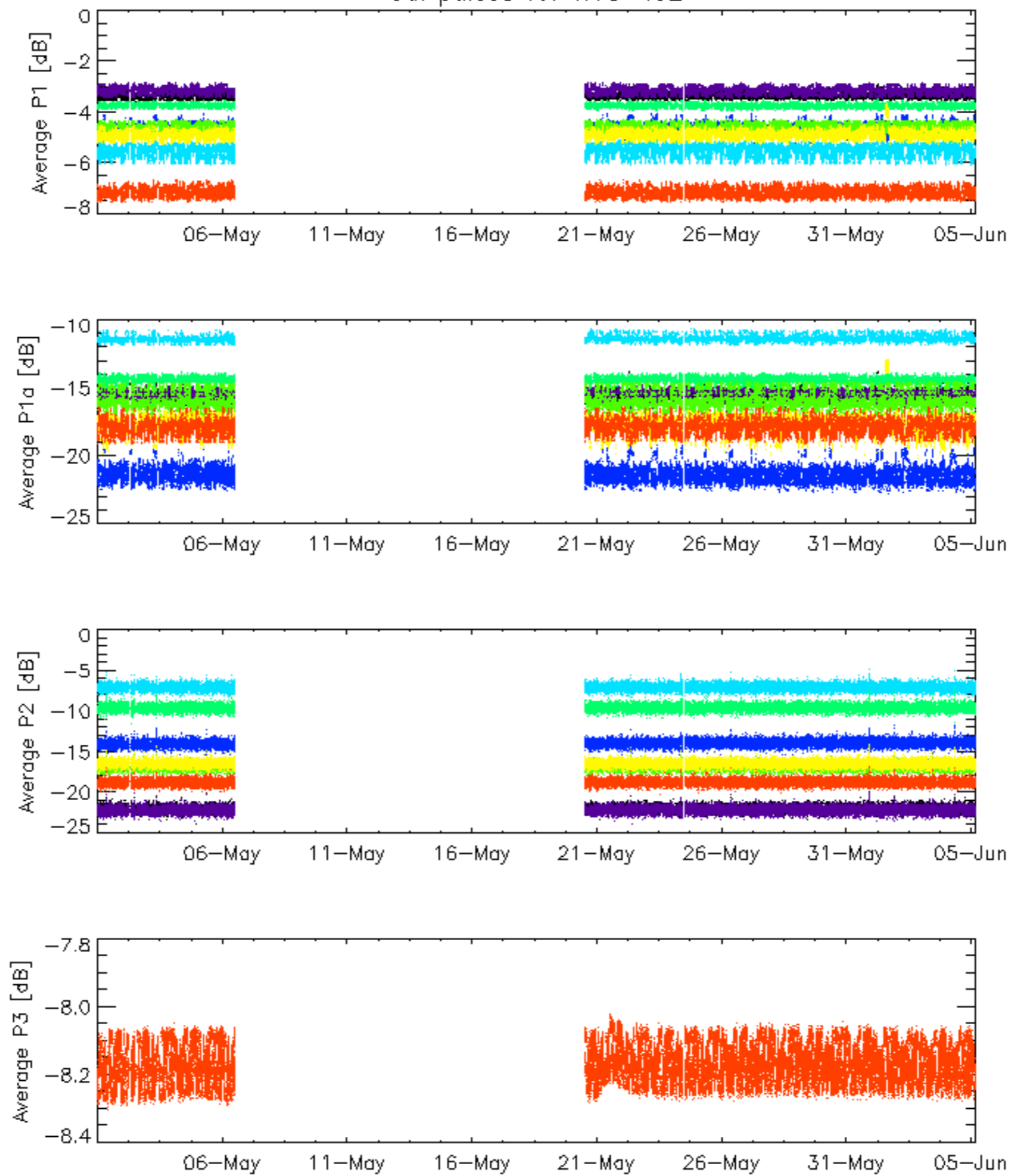


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

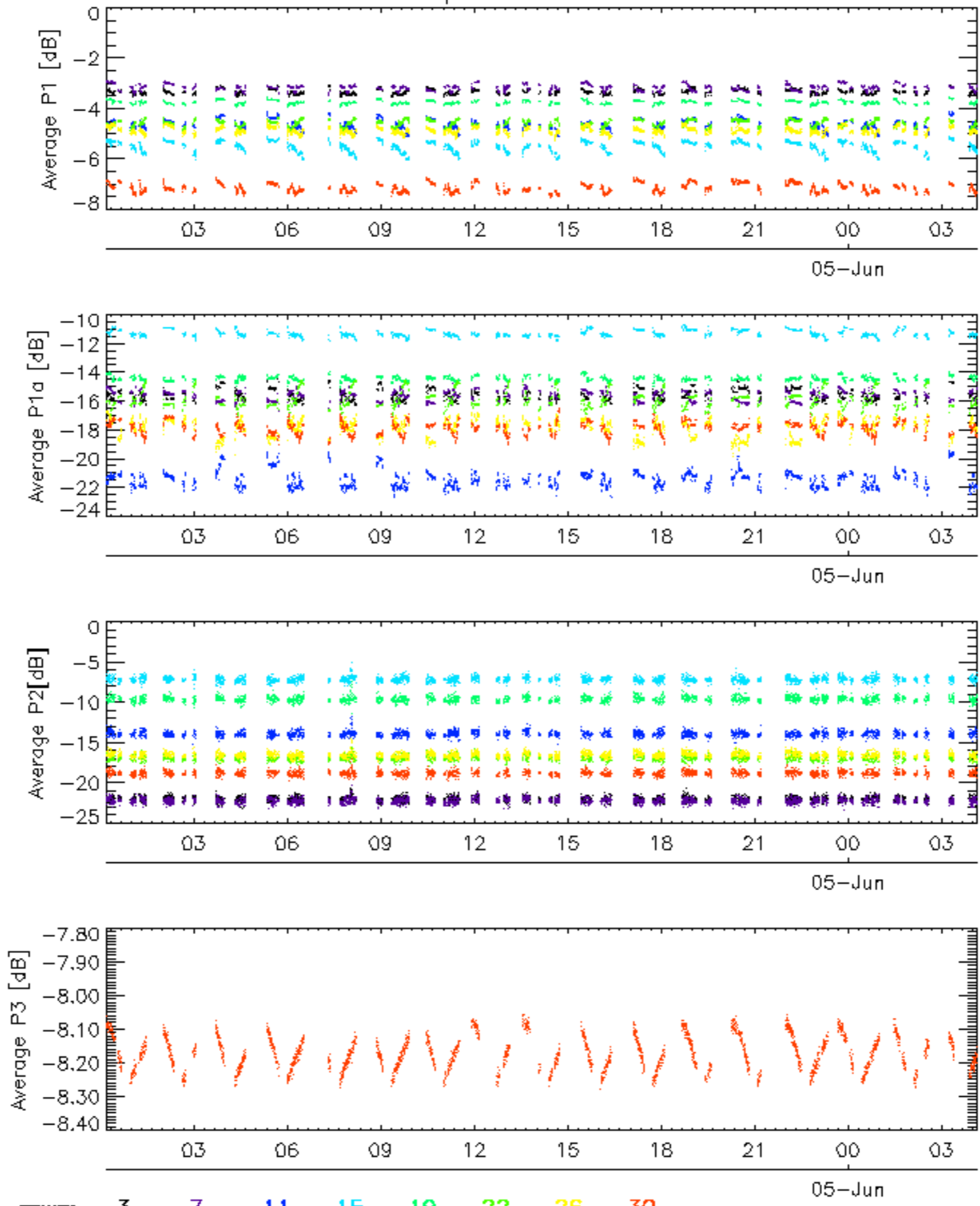
Cal pulses for GM1 SS3



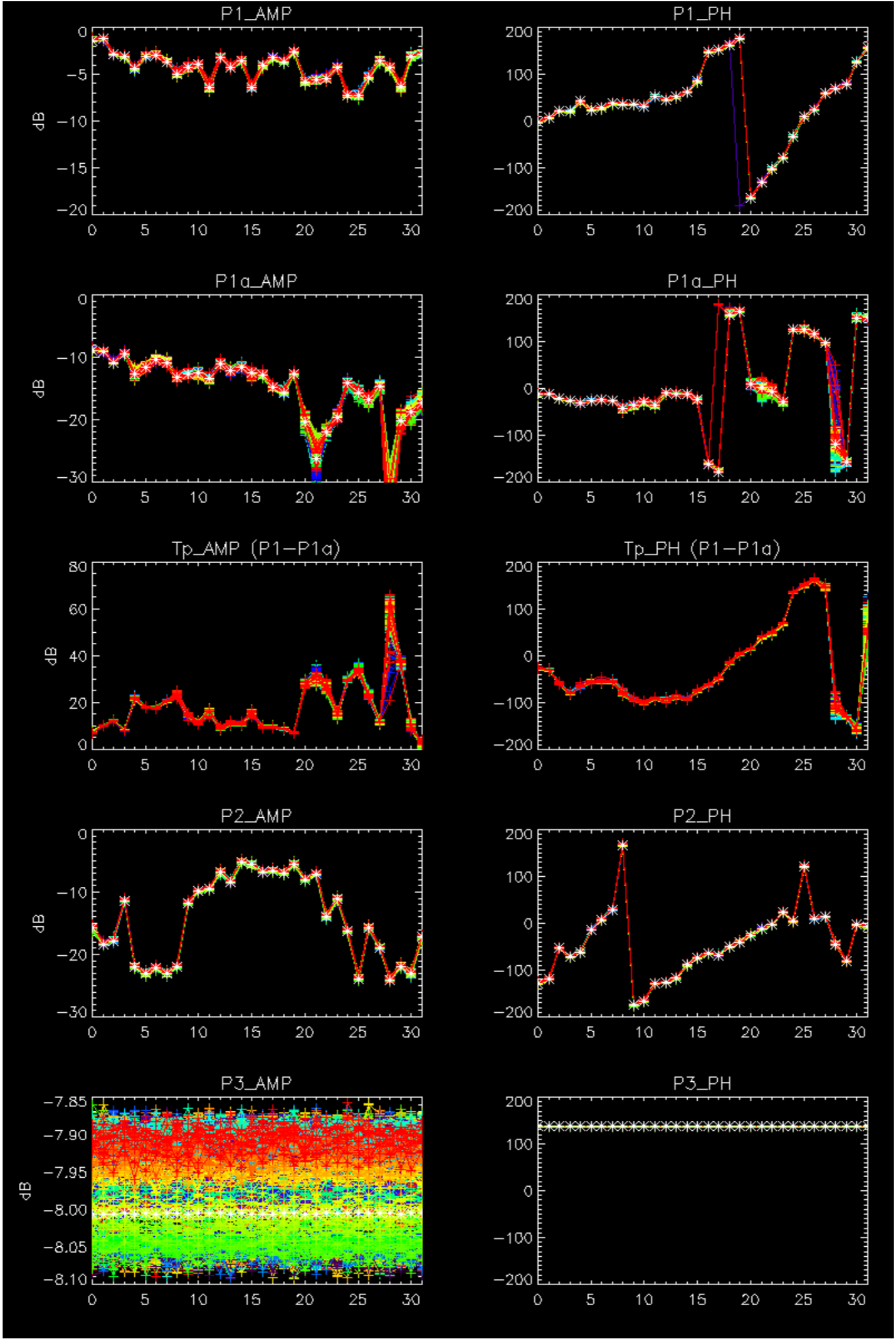
Cal pulses for WVS IS2

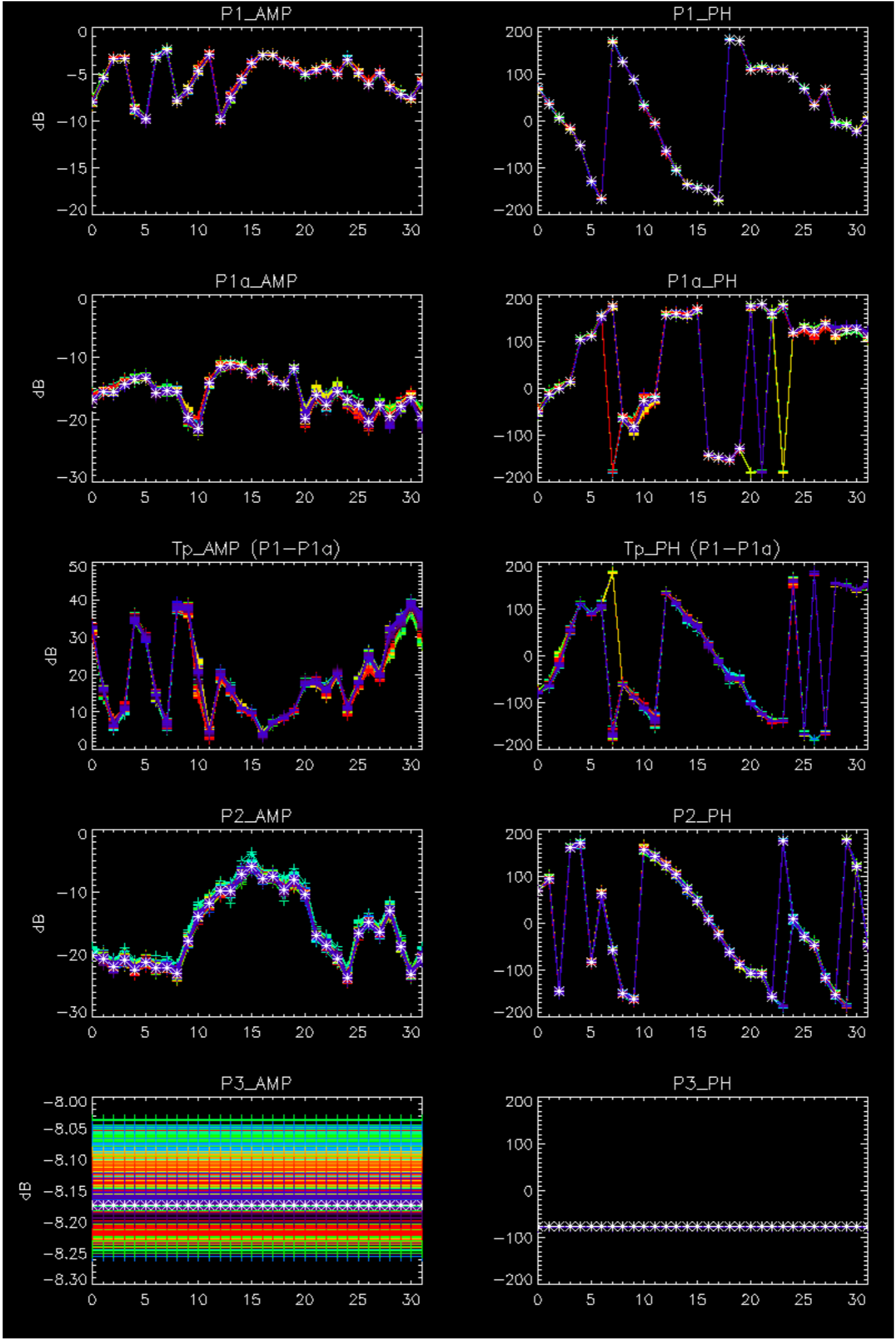


Cal pulses for WVS IS2



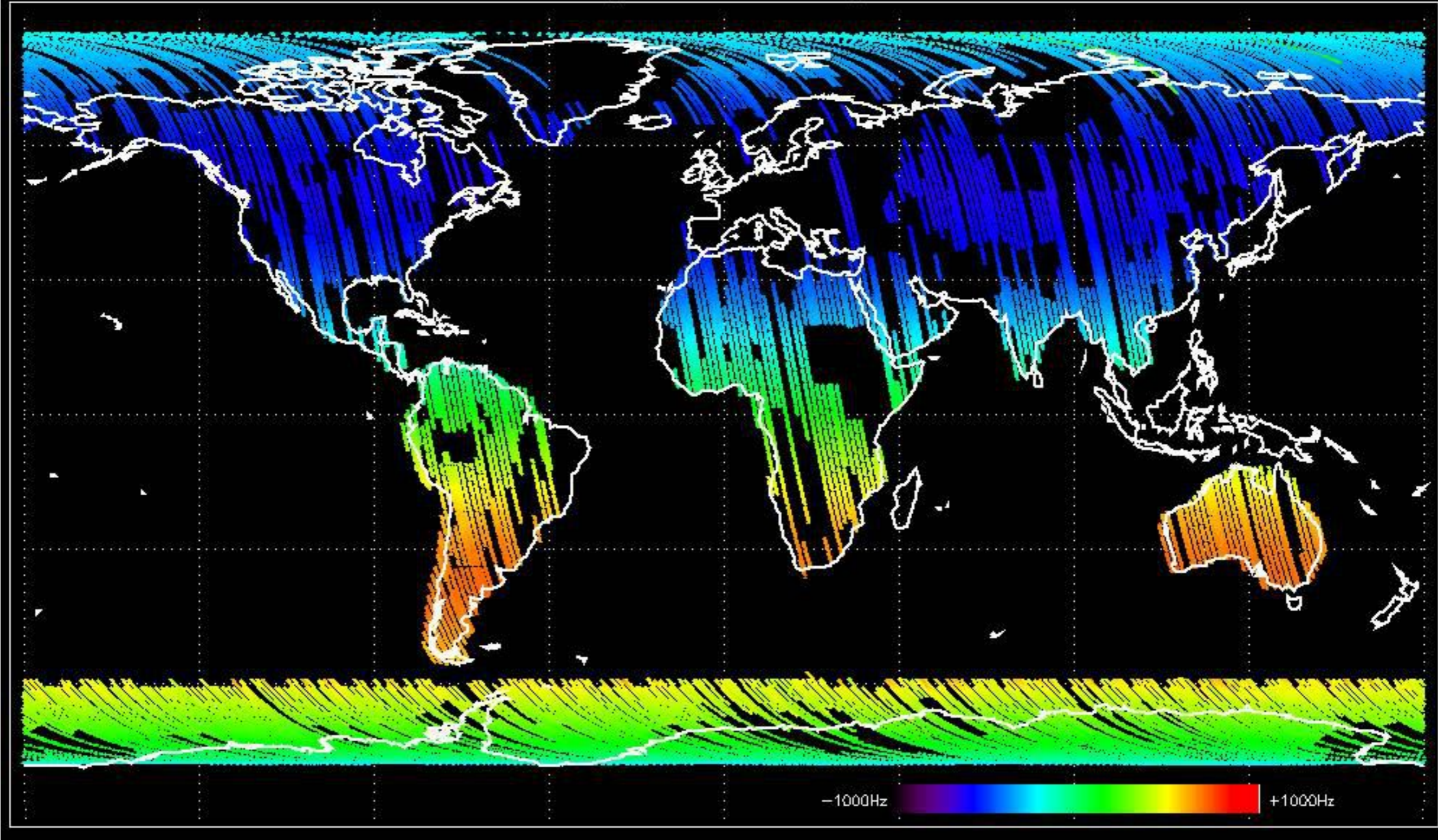
No anomalies observed.



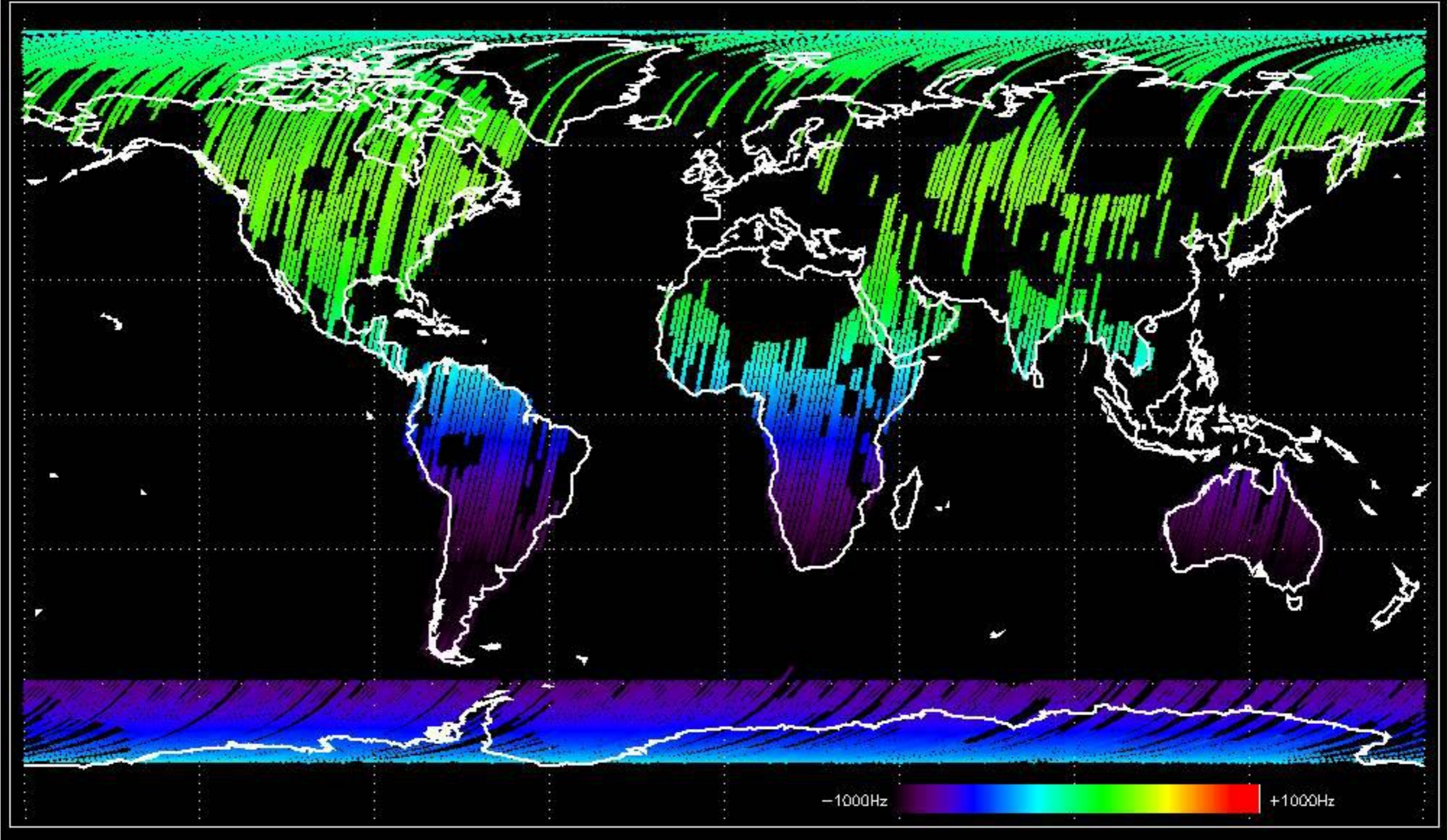


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

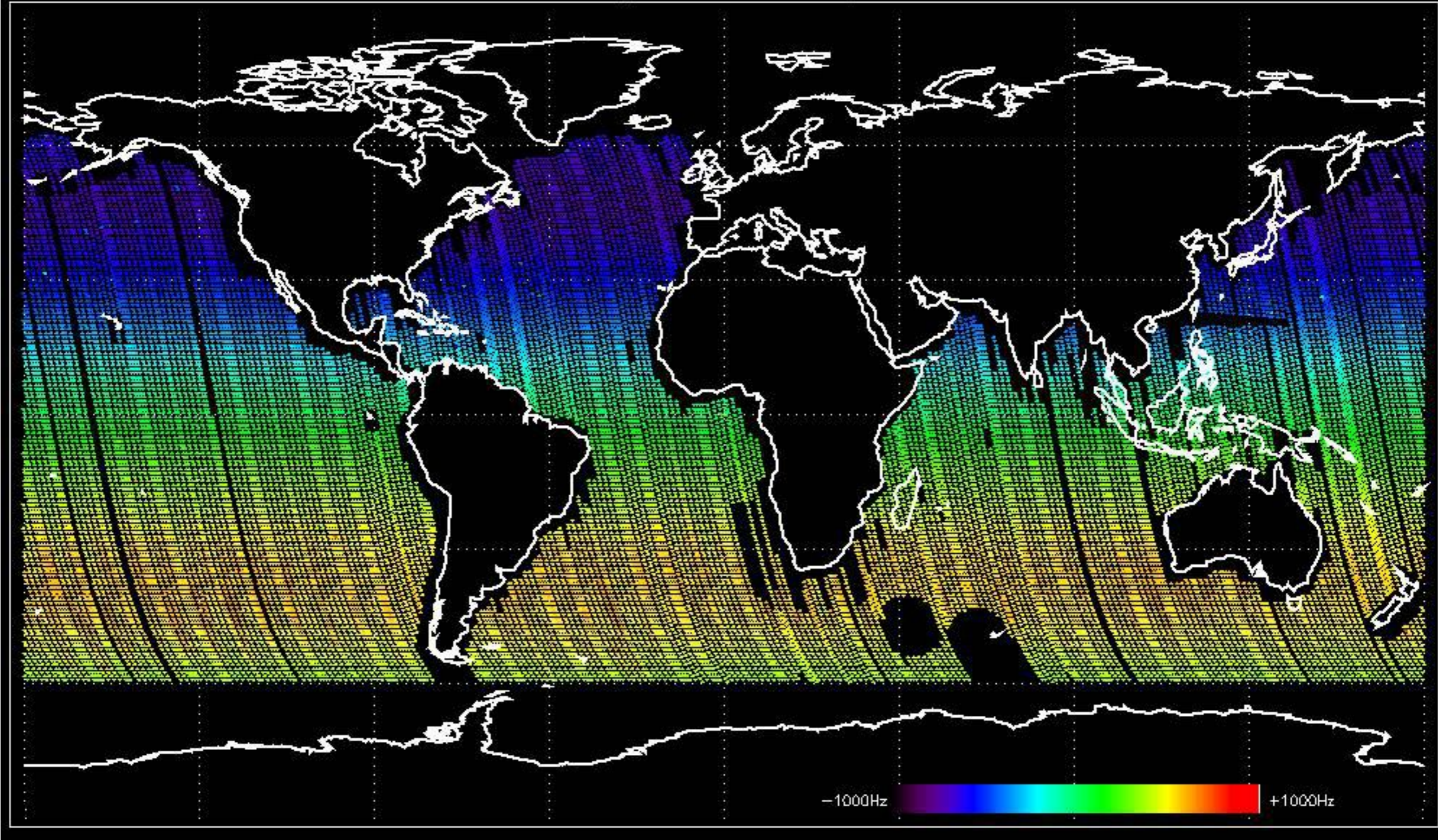
Doppler 'GM1' 'SS1' ascending



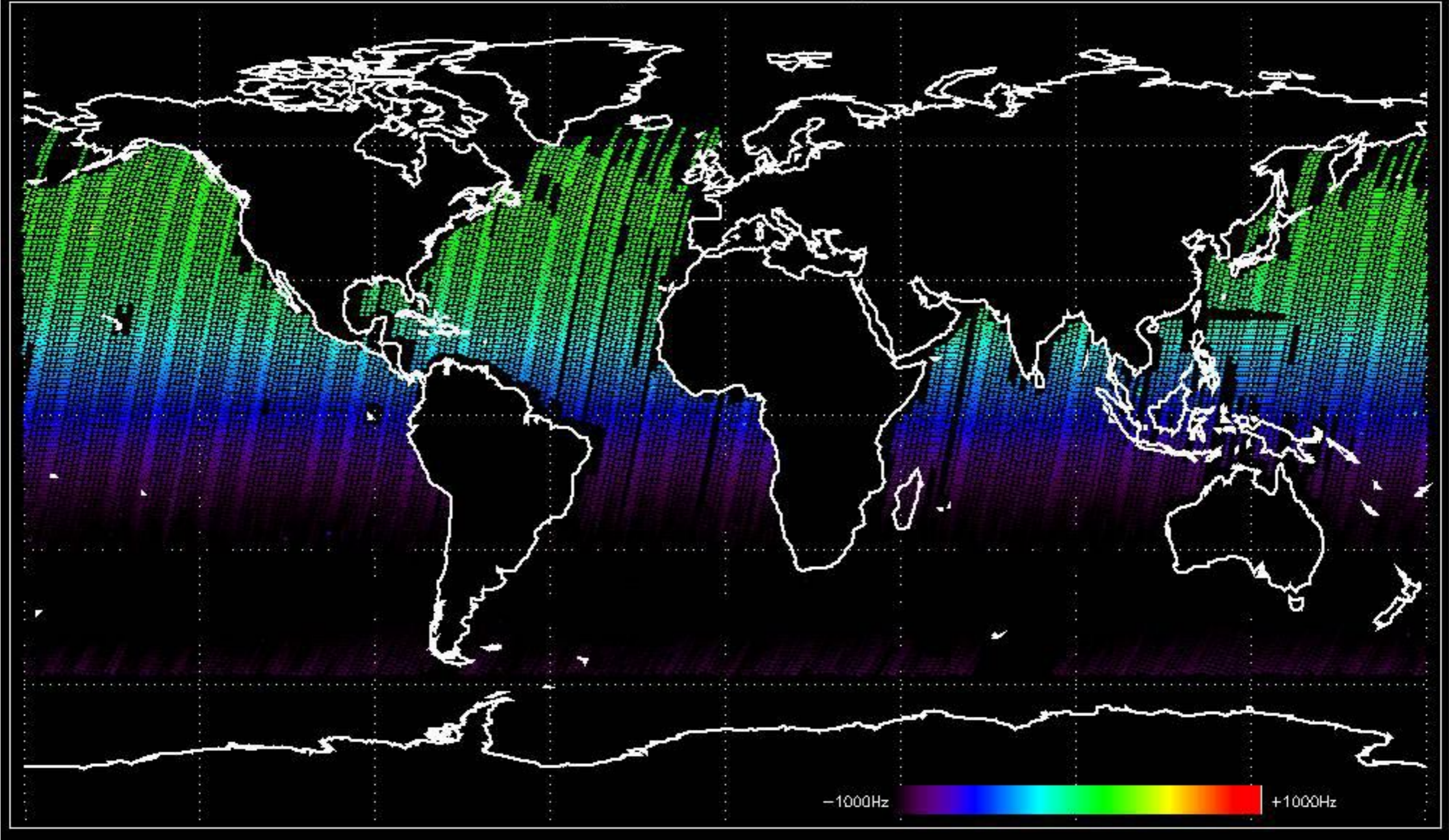
Doppler 'GM1' 'SS1' descending



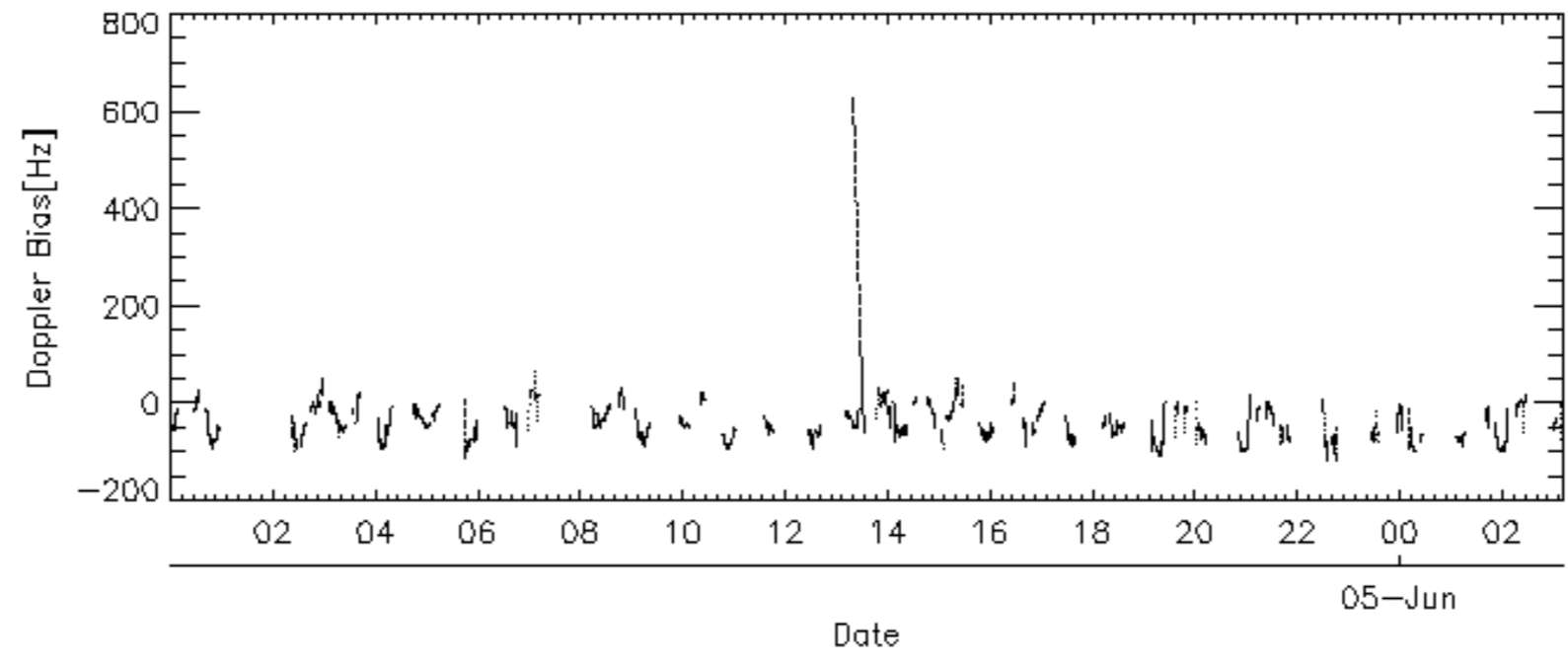
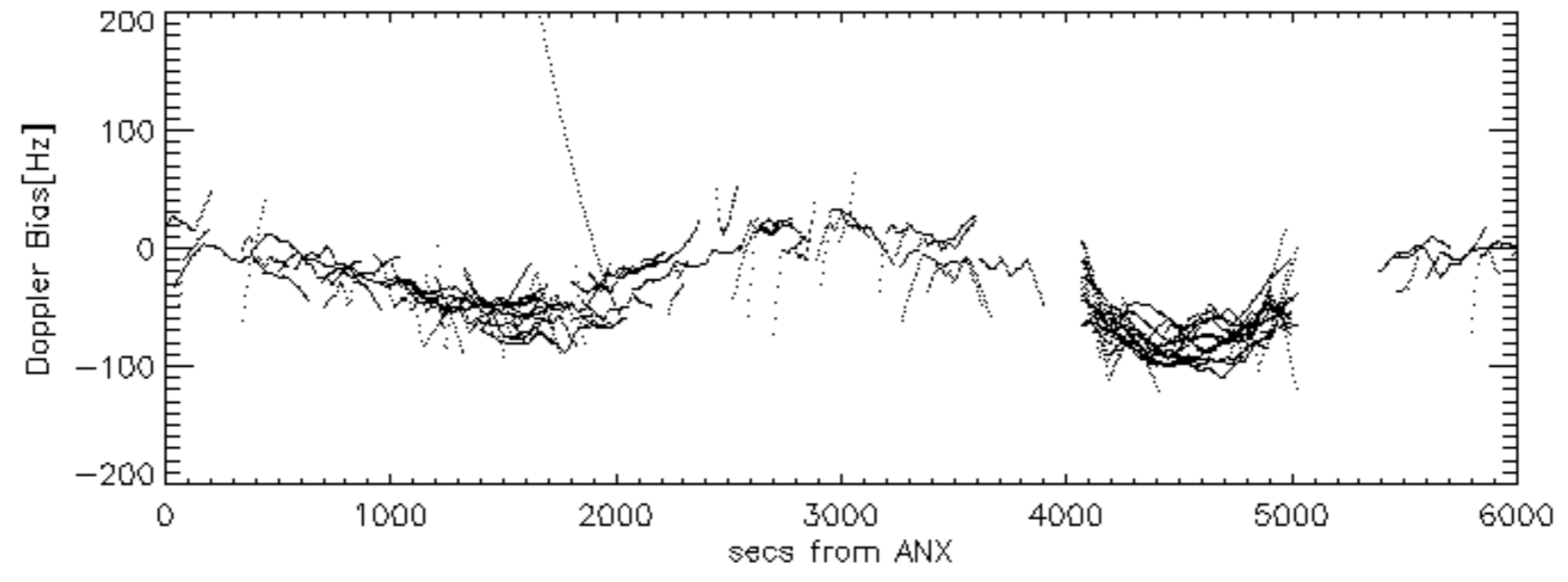
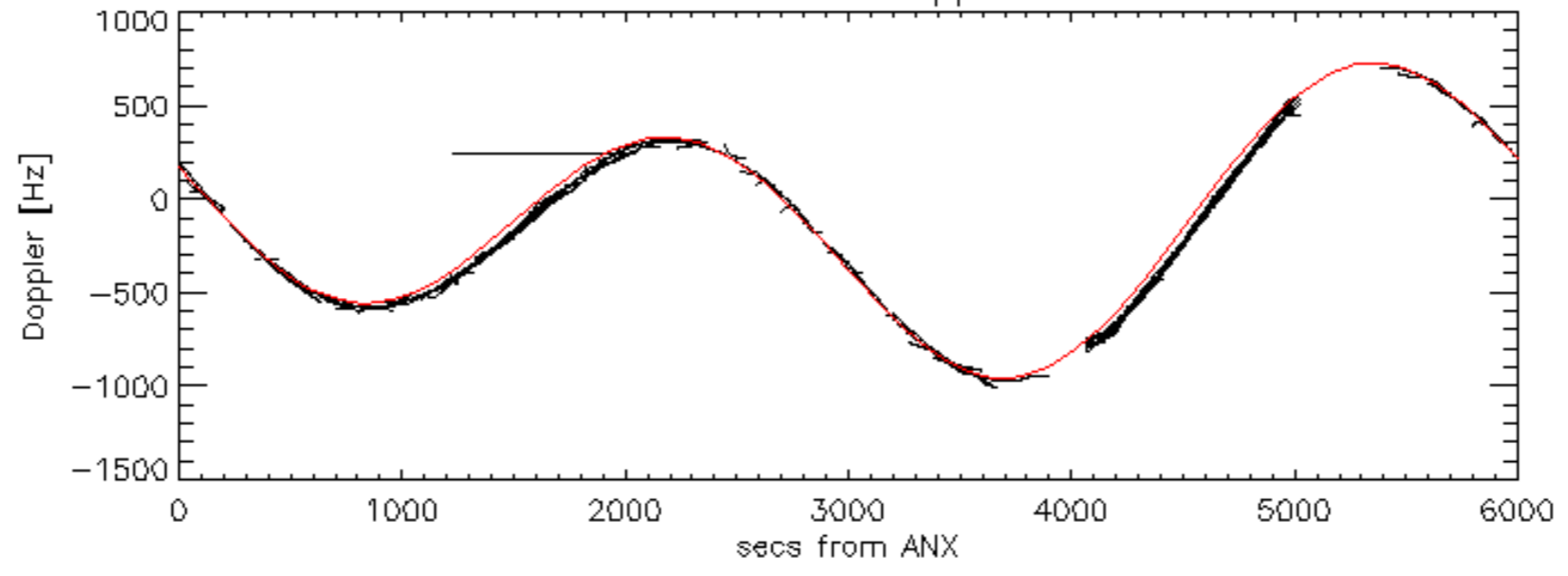
Doppler 'WVS' 'IS2' ascending

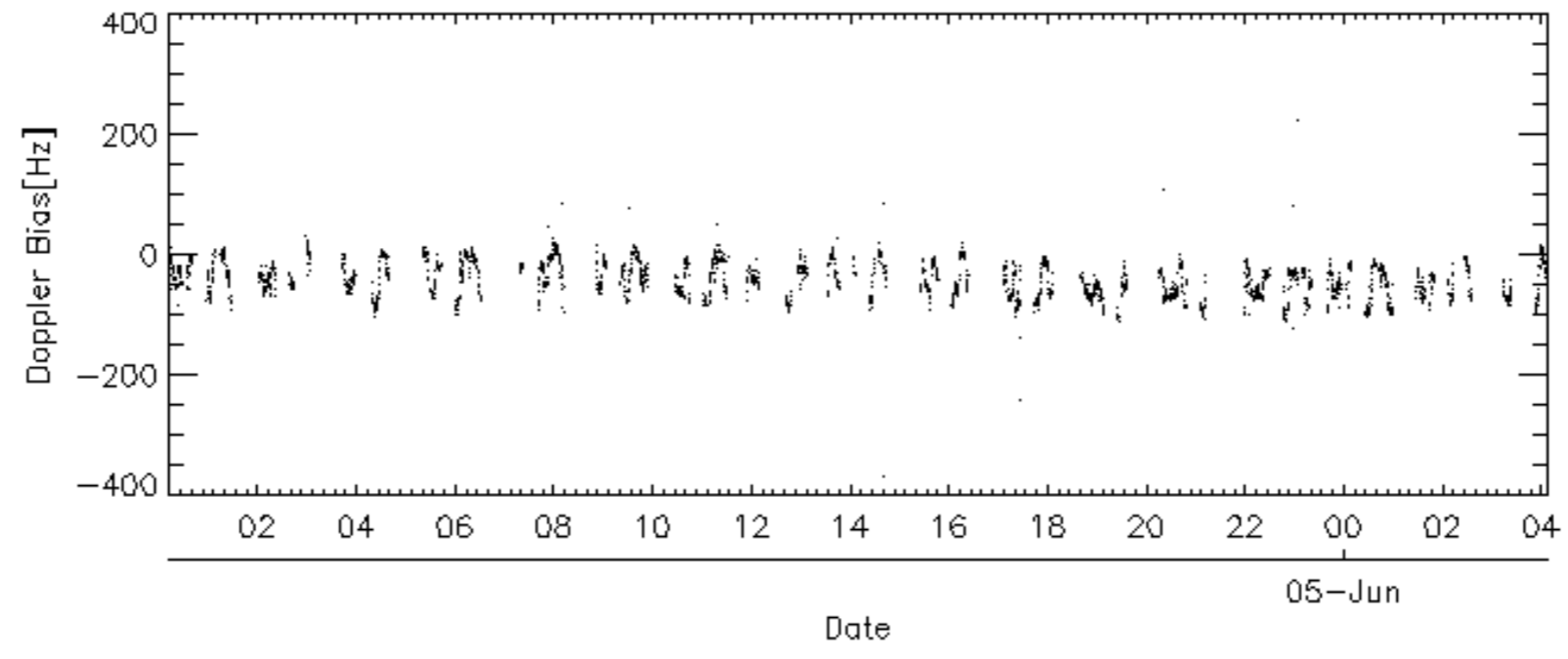
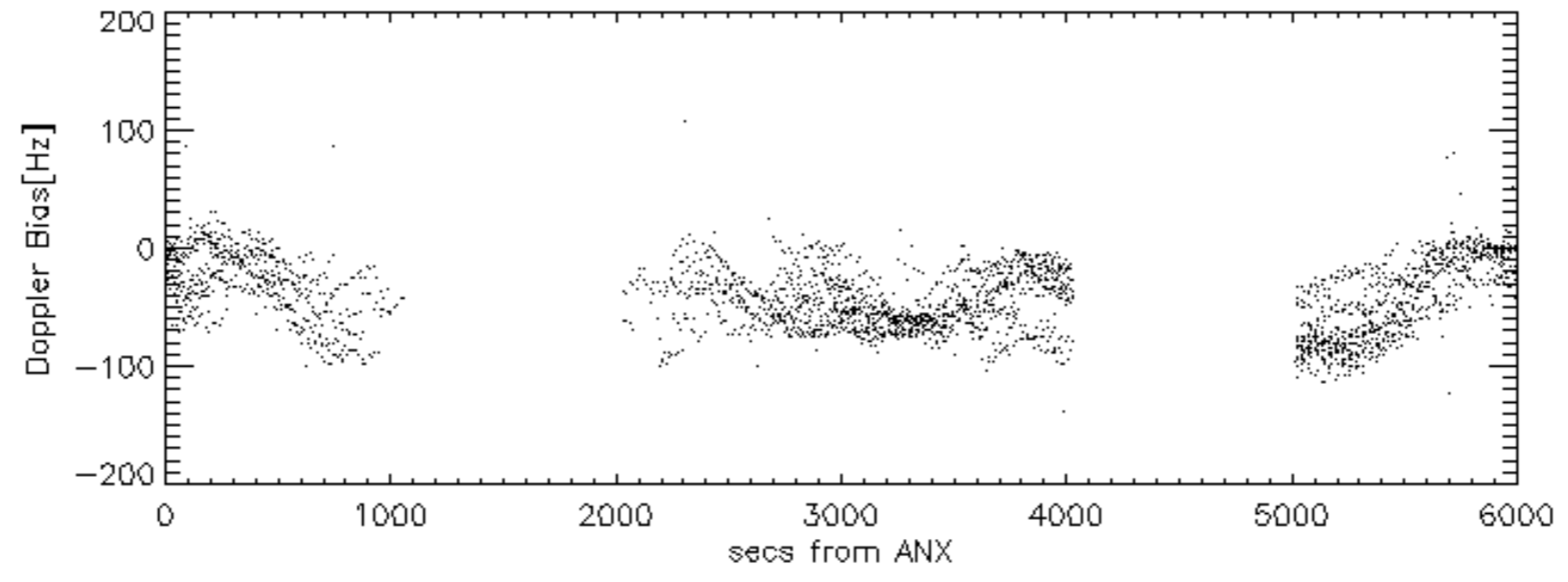
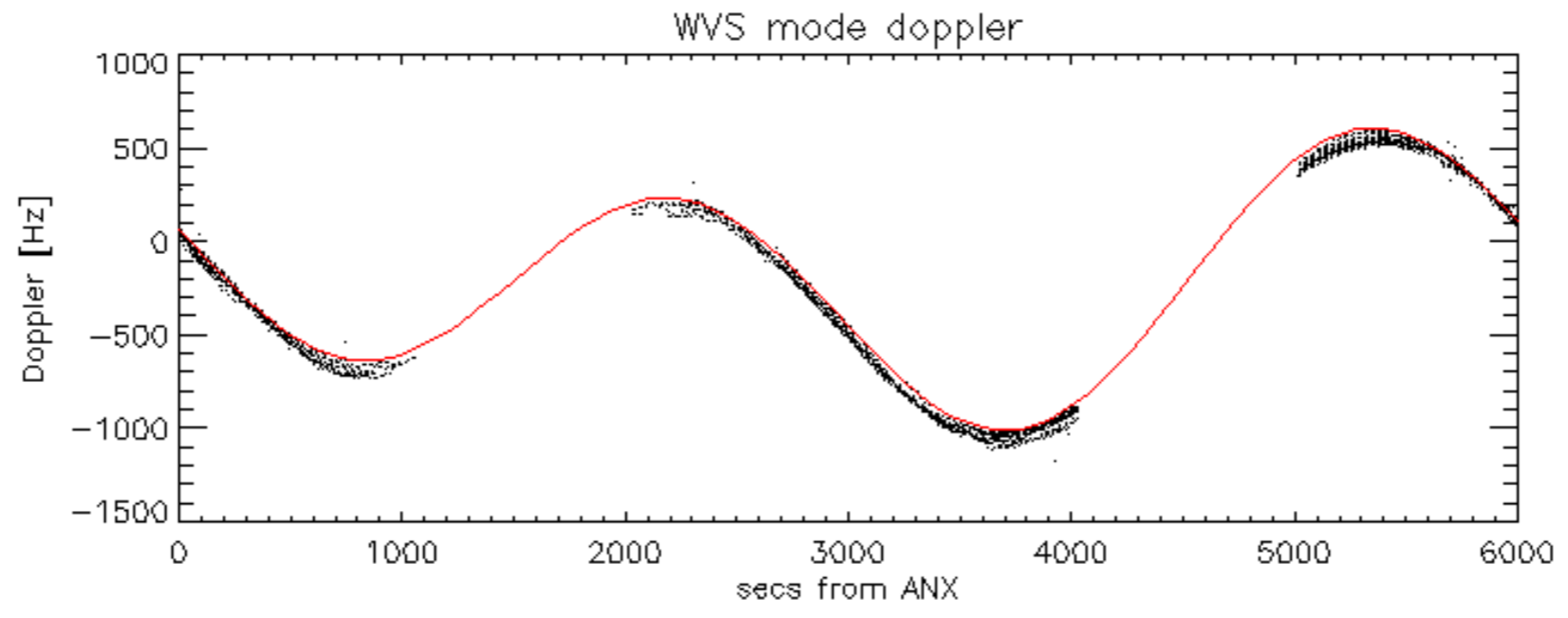


Doppler 'WVS' 'IS2' descending

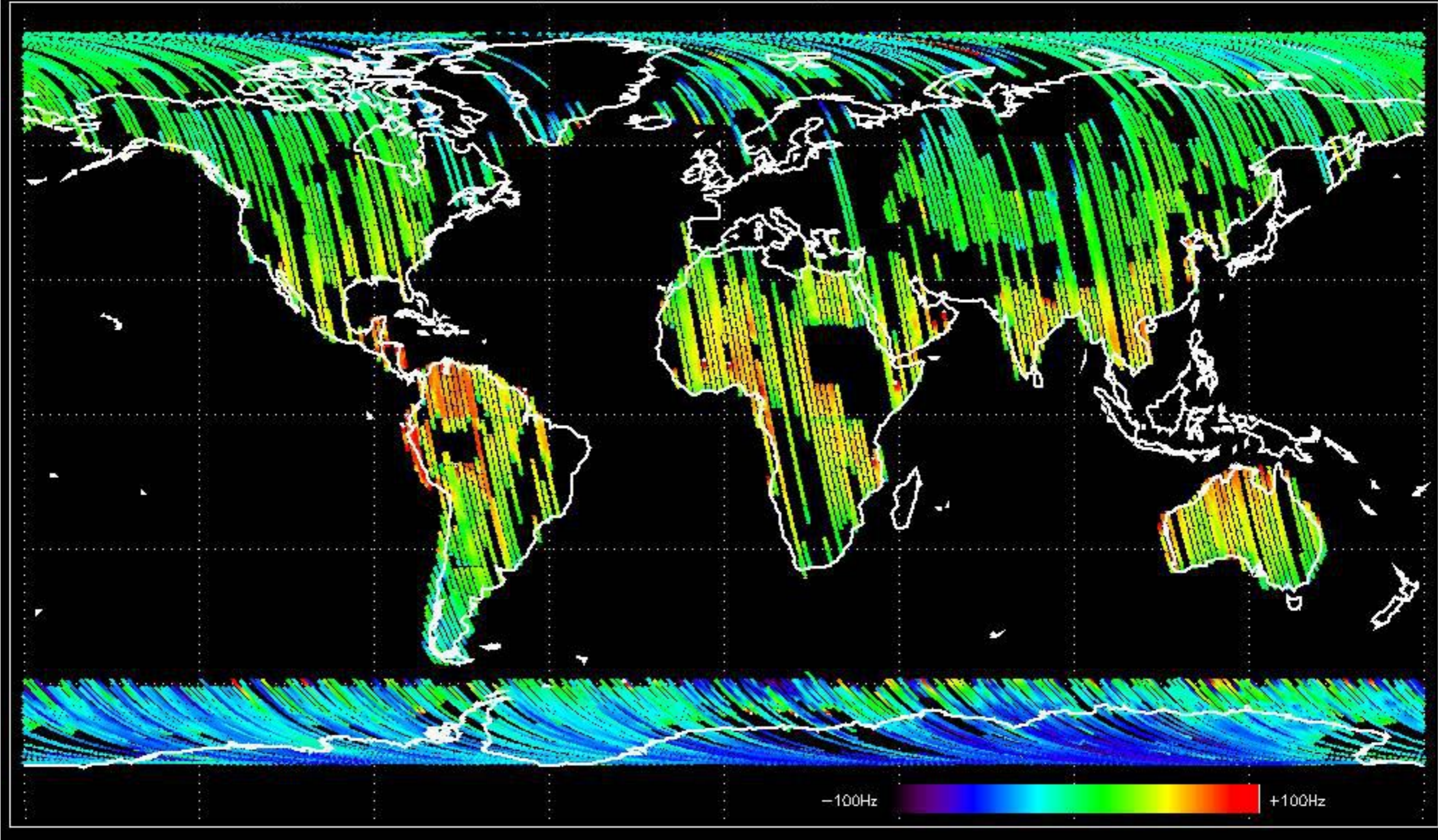


GM1 mode doppler

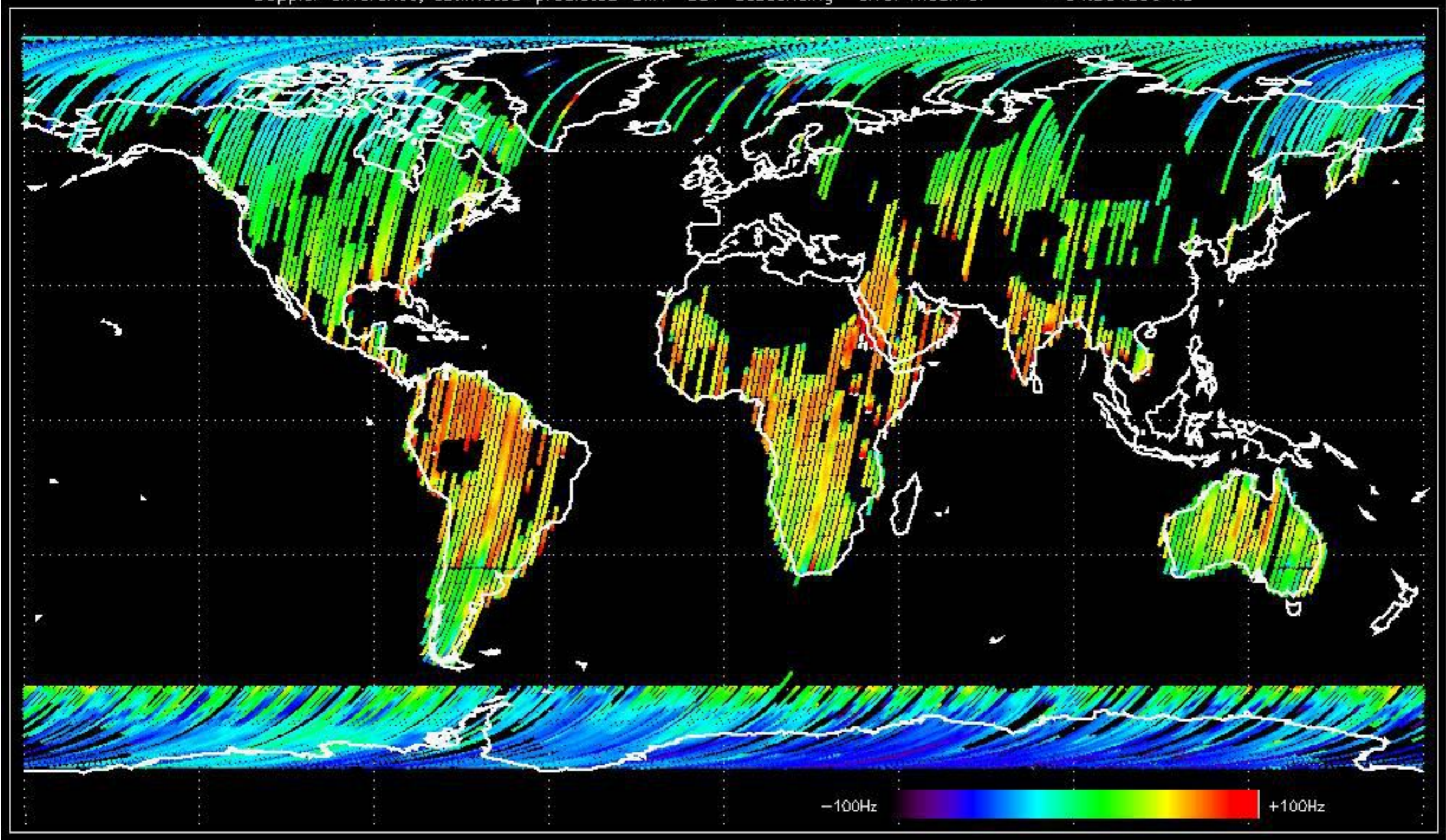




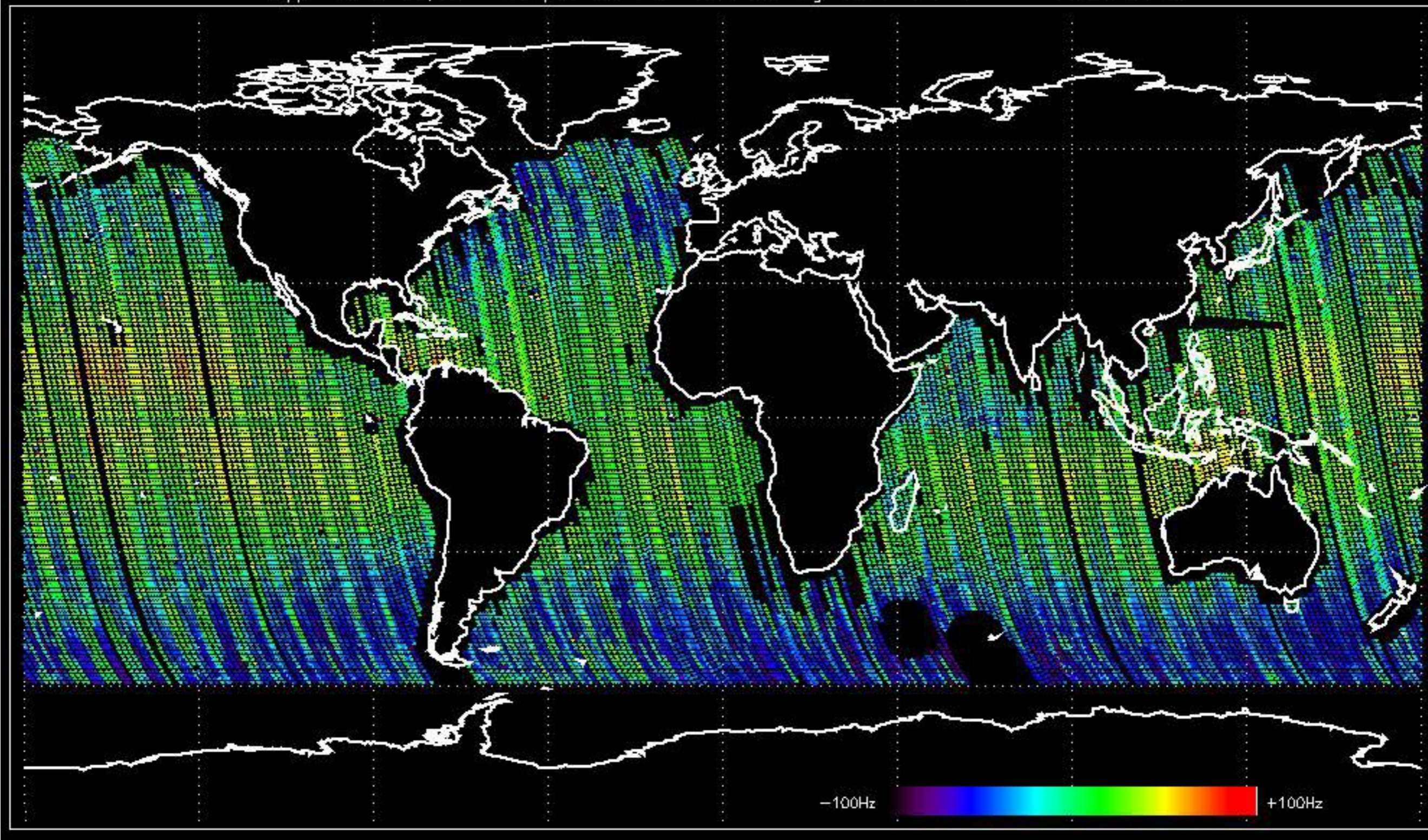
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.400742 Hz



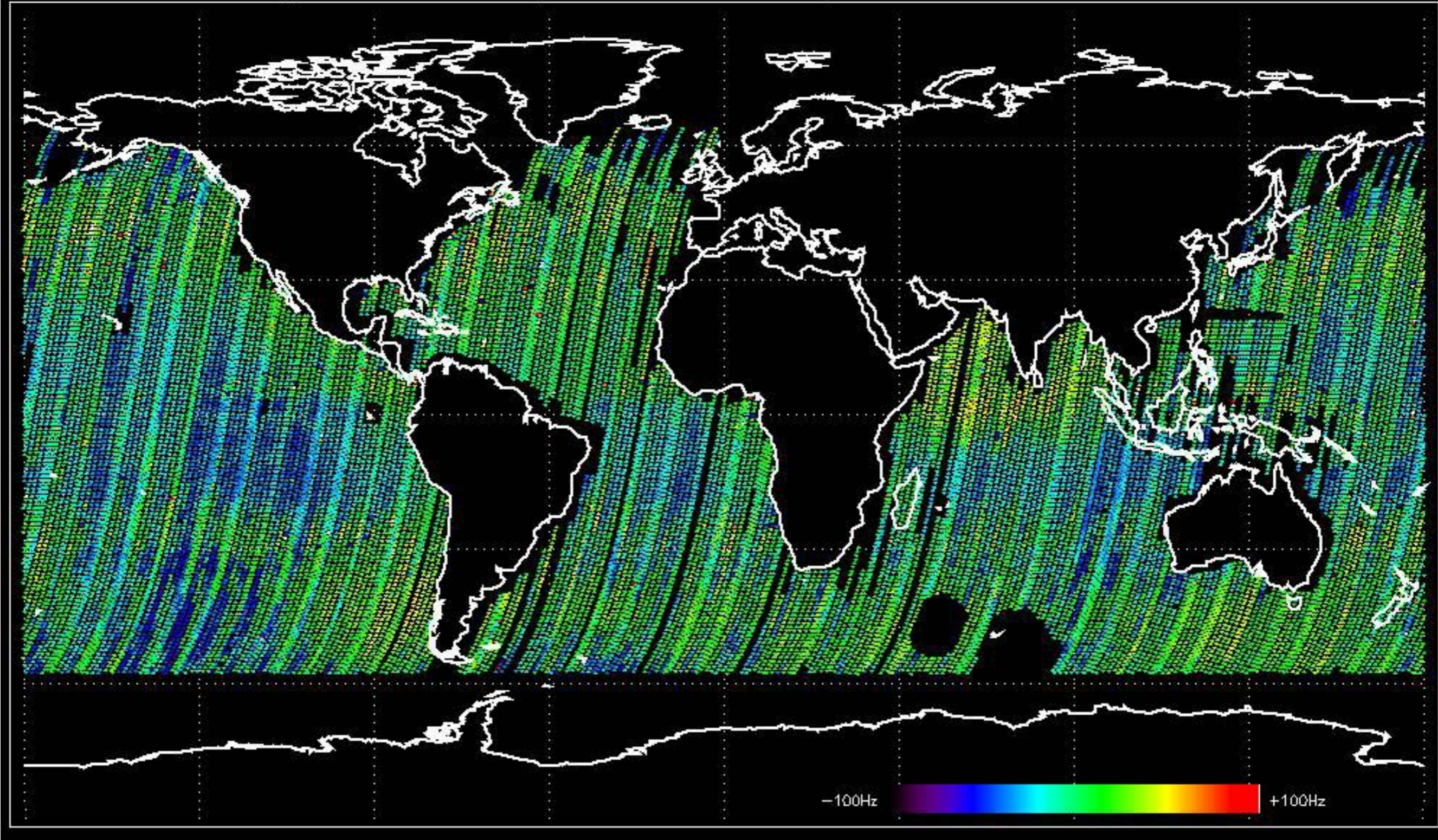
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -34.904596 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.089611 Hz

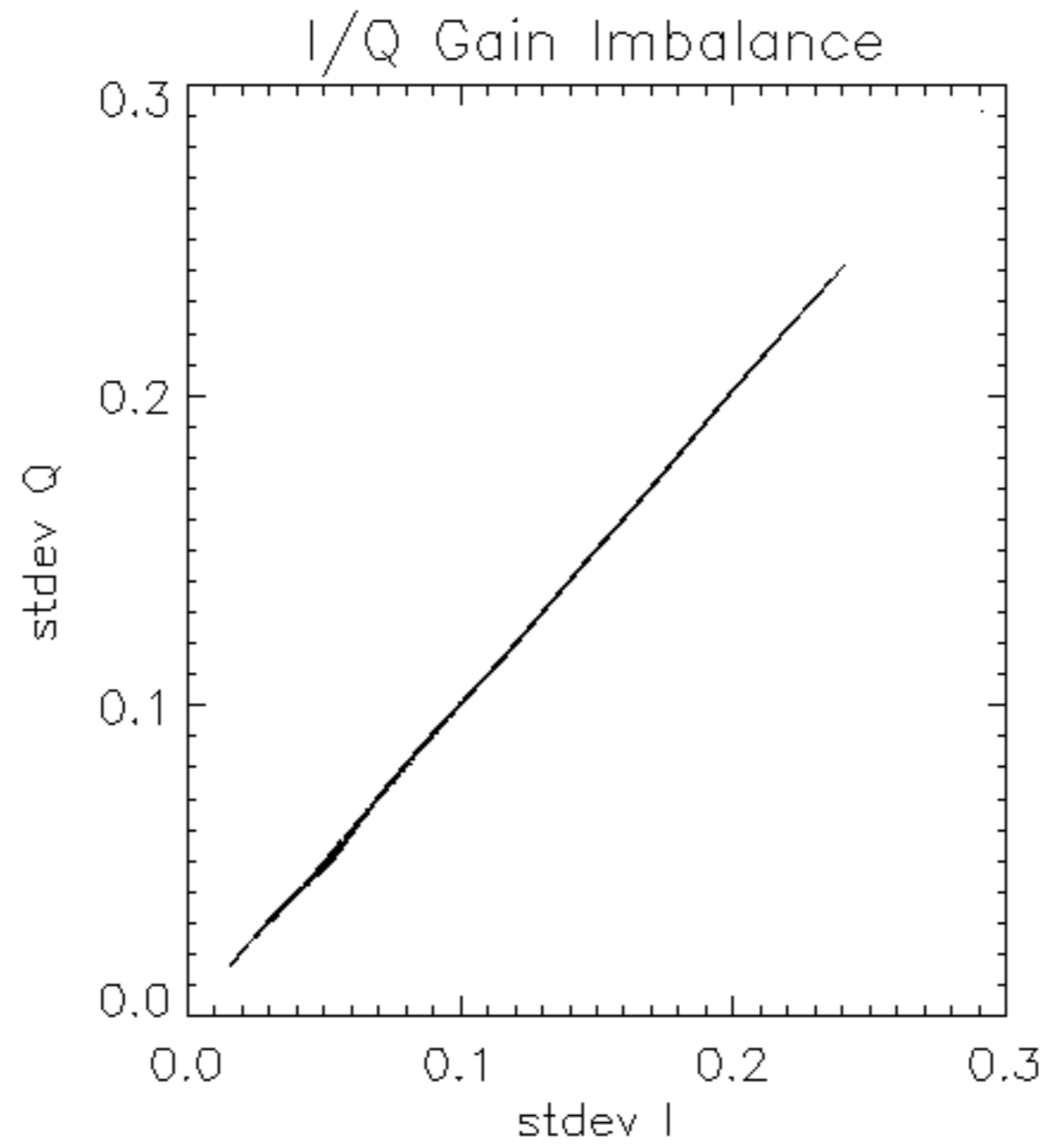


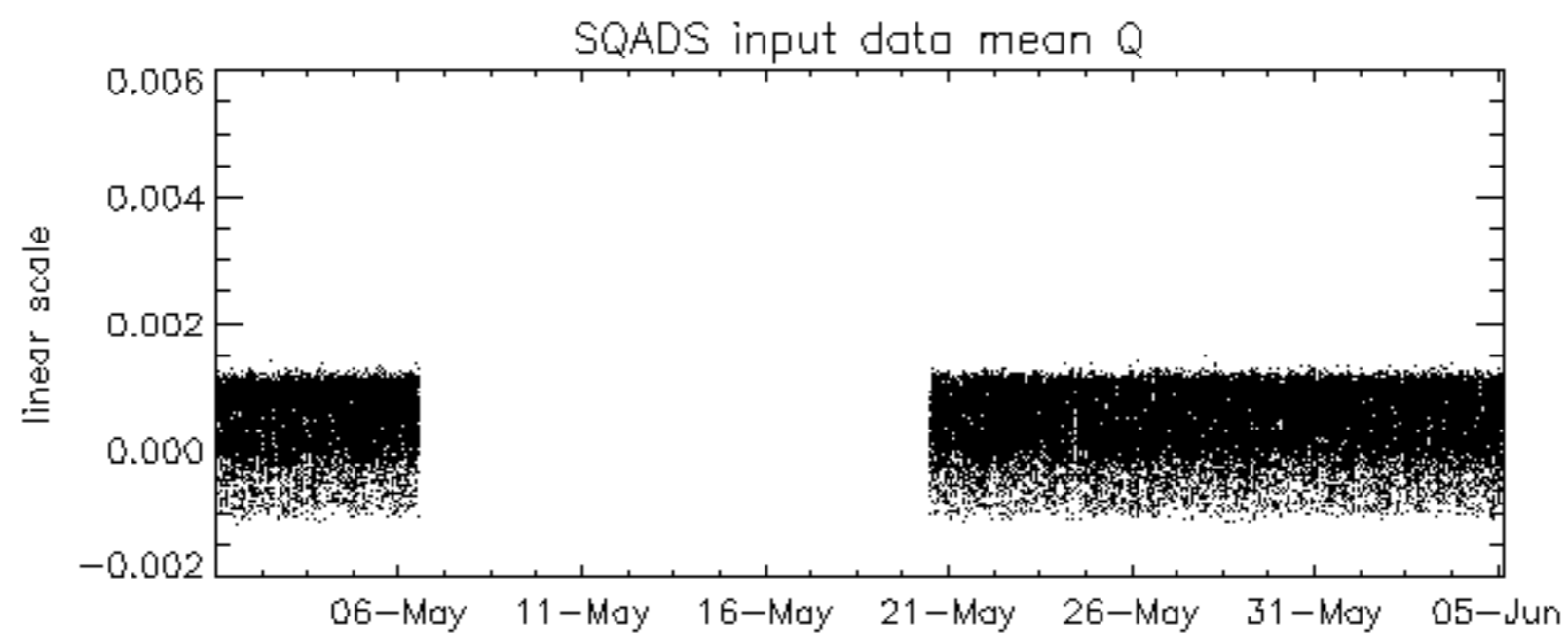
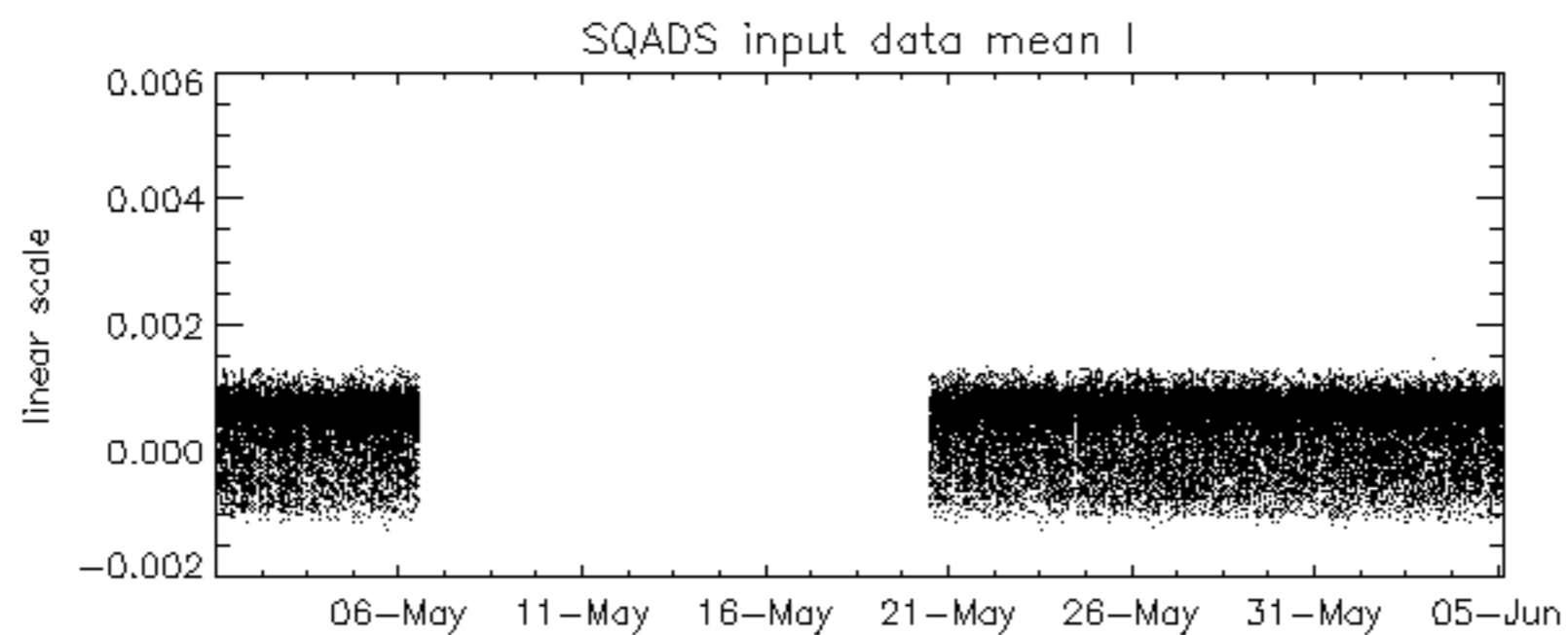
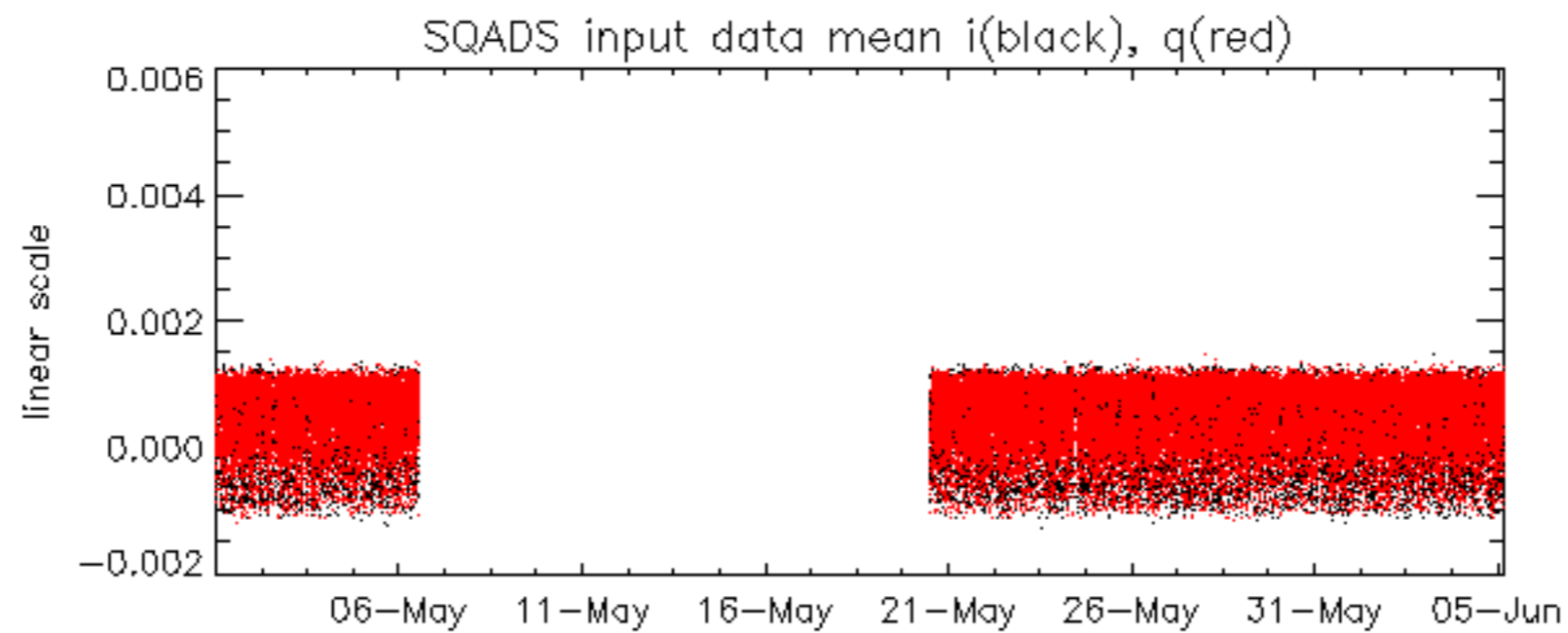
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -38.784944 Hz

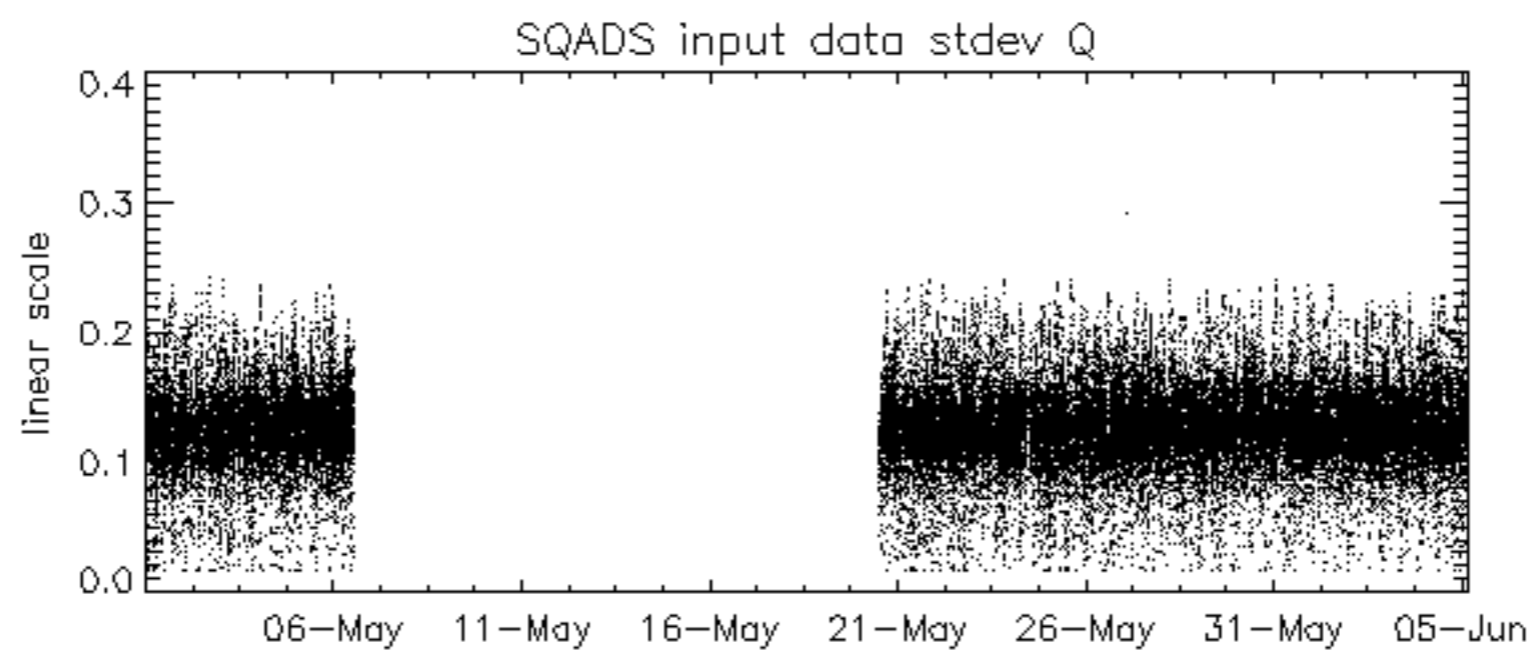
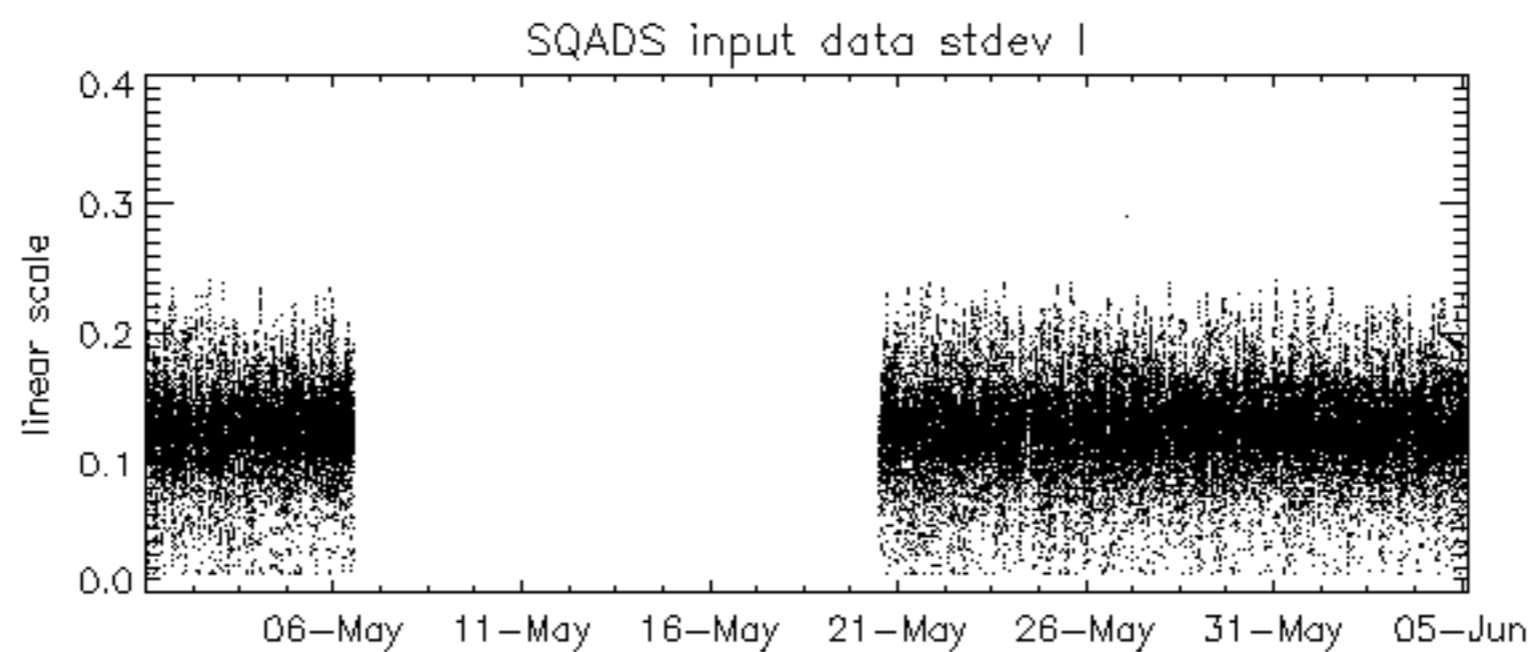
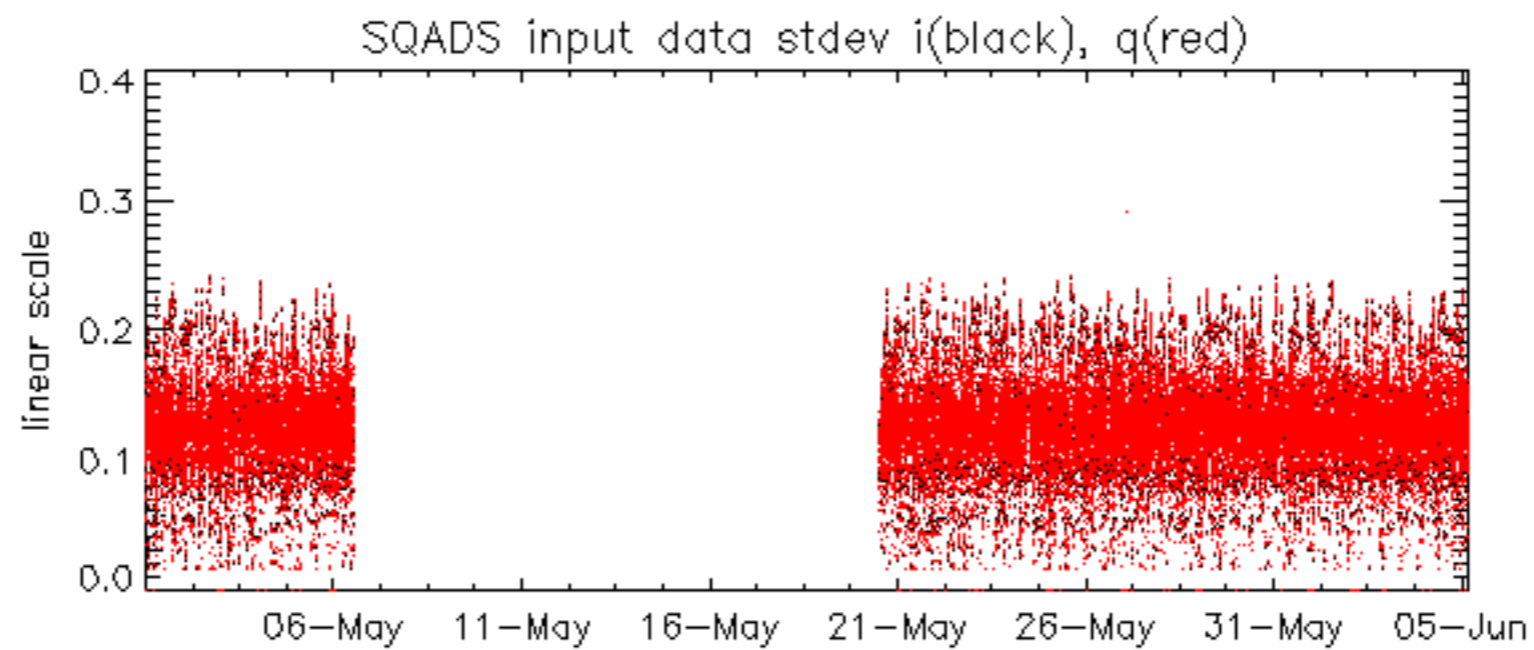


No anomalies observed on available MS products:

No anomalies observed.



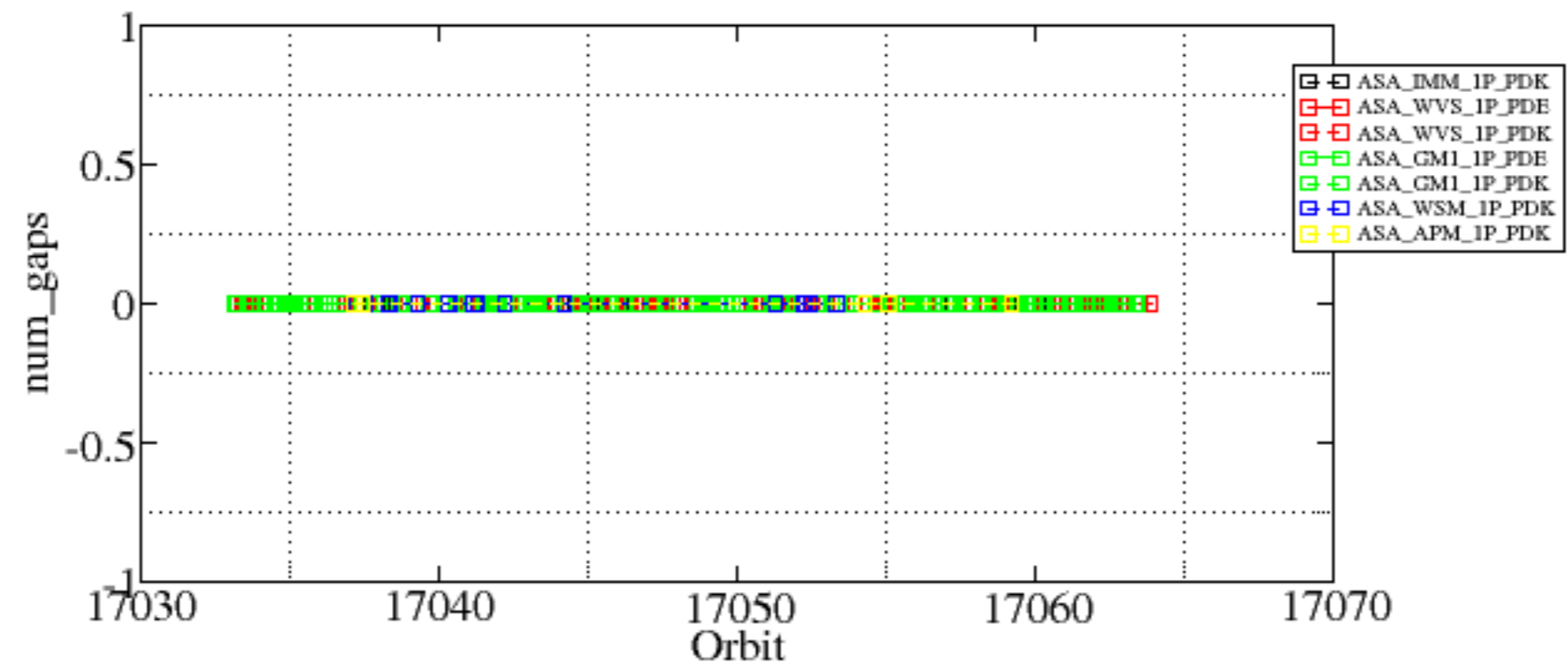


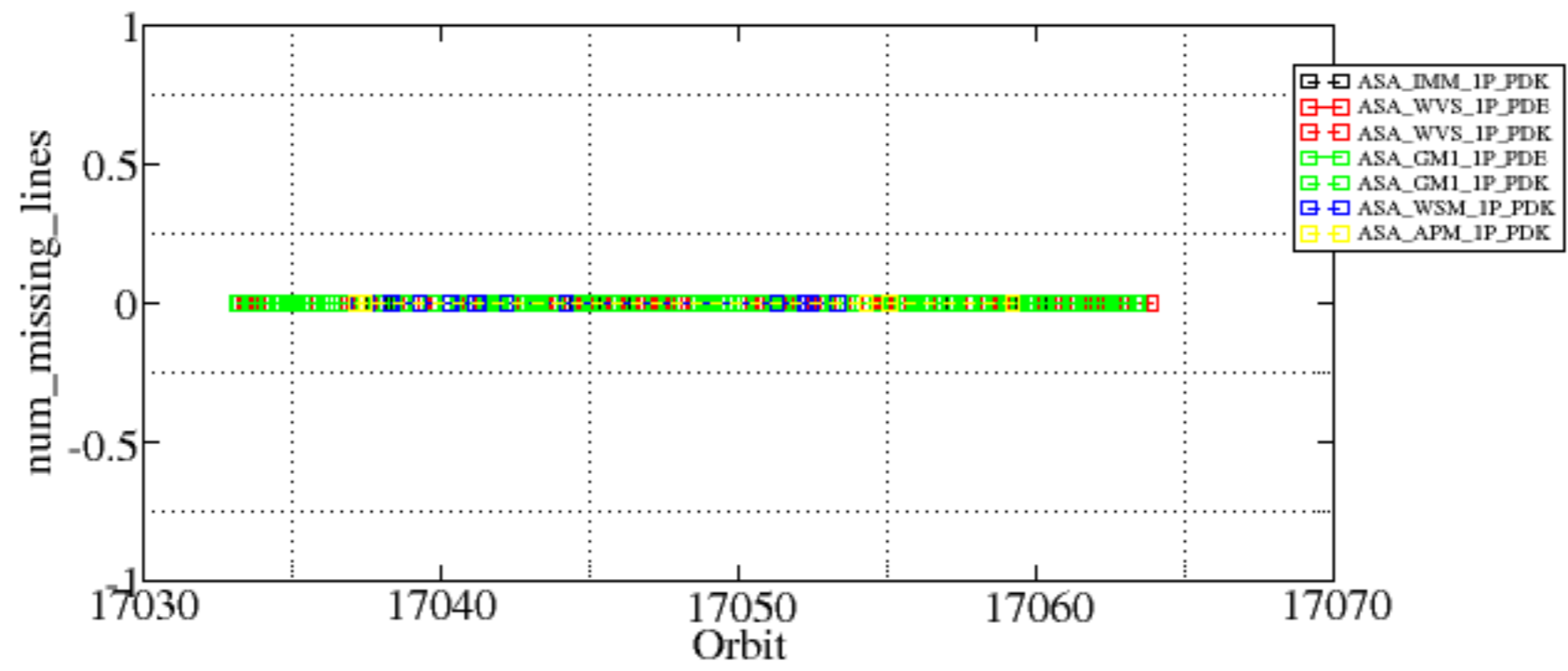


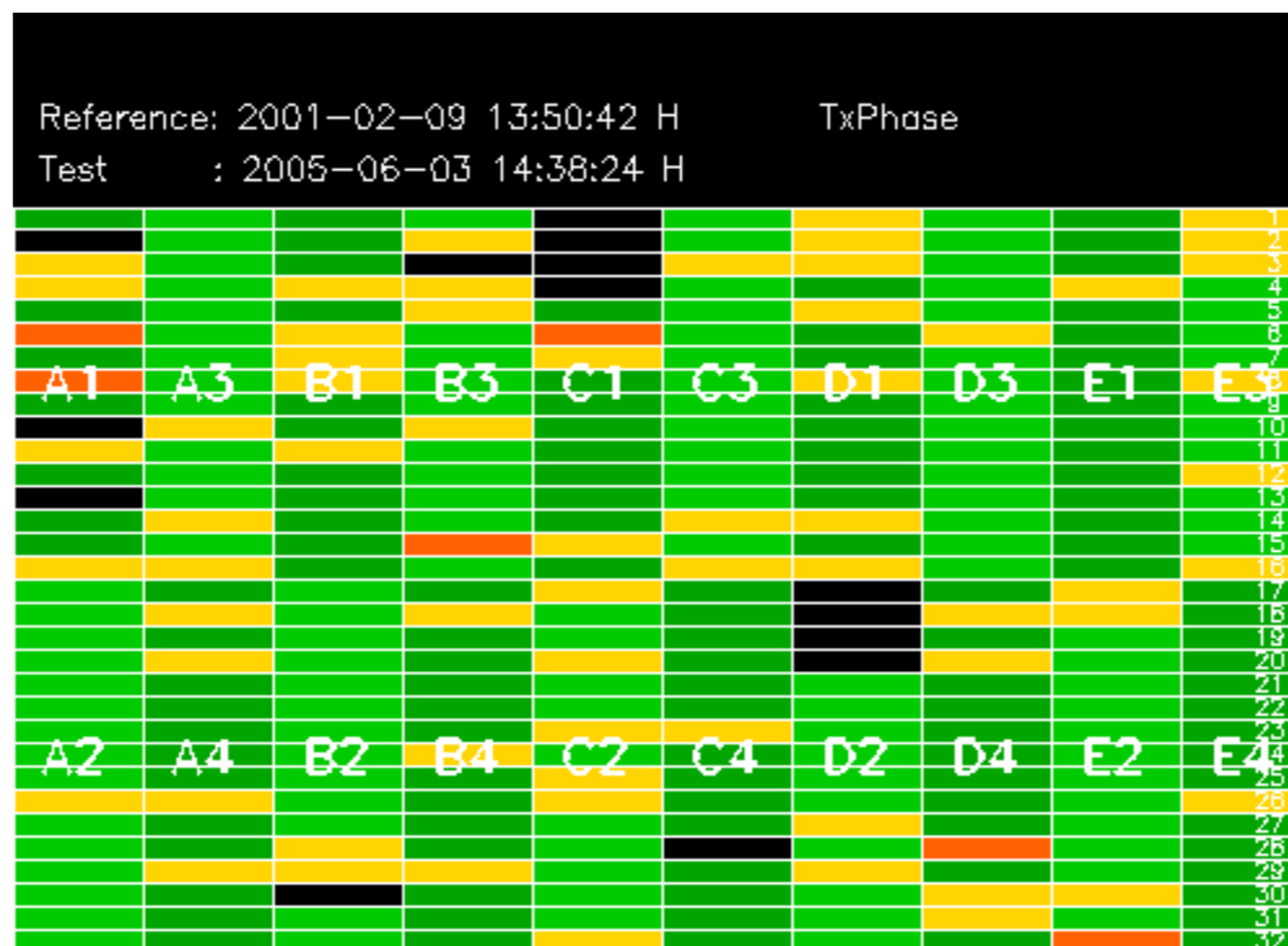
Summary of analysis for the last 3 days 2005060[345]

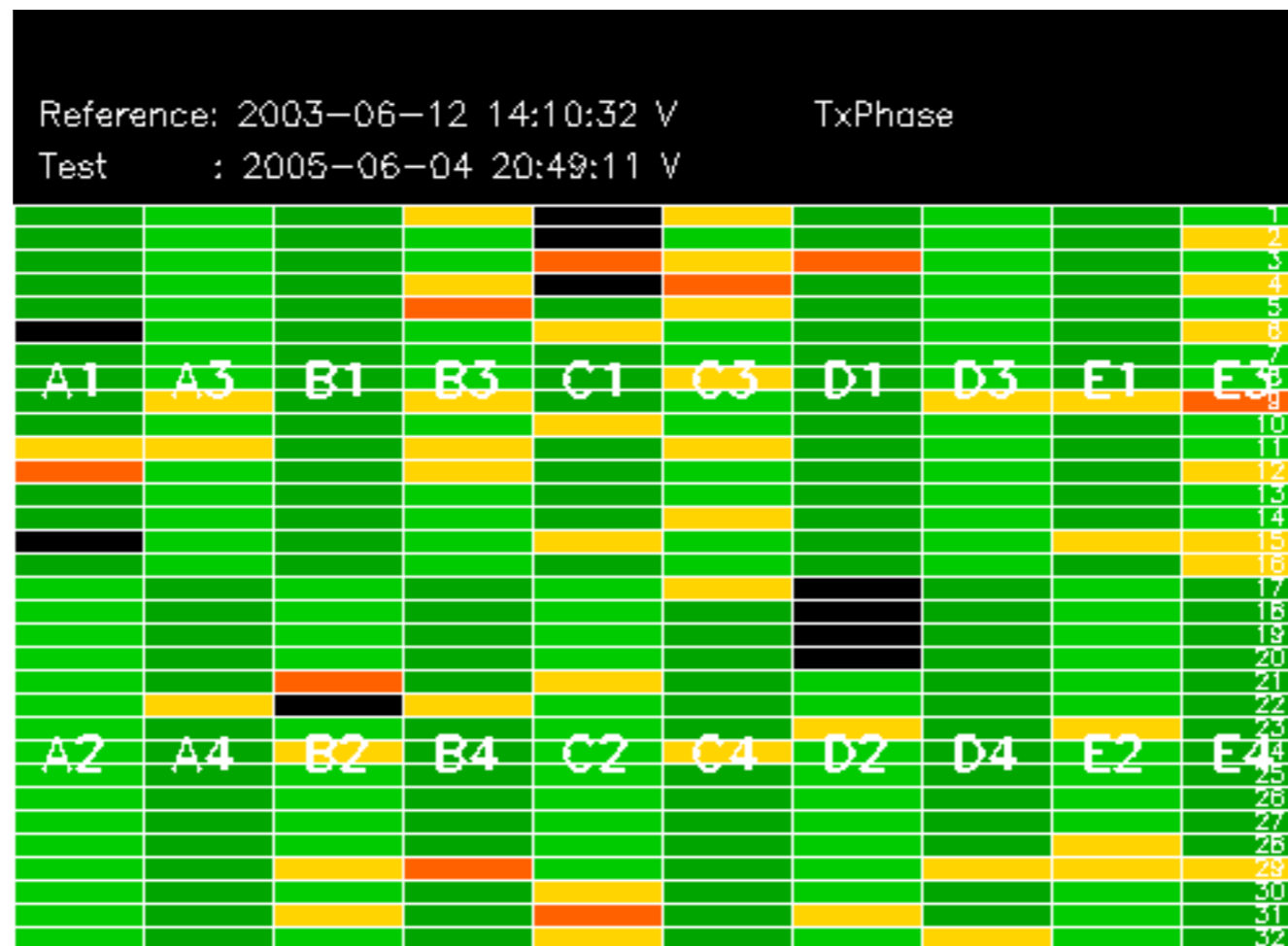
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

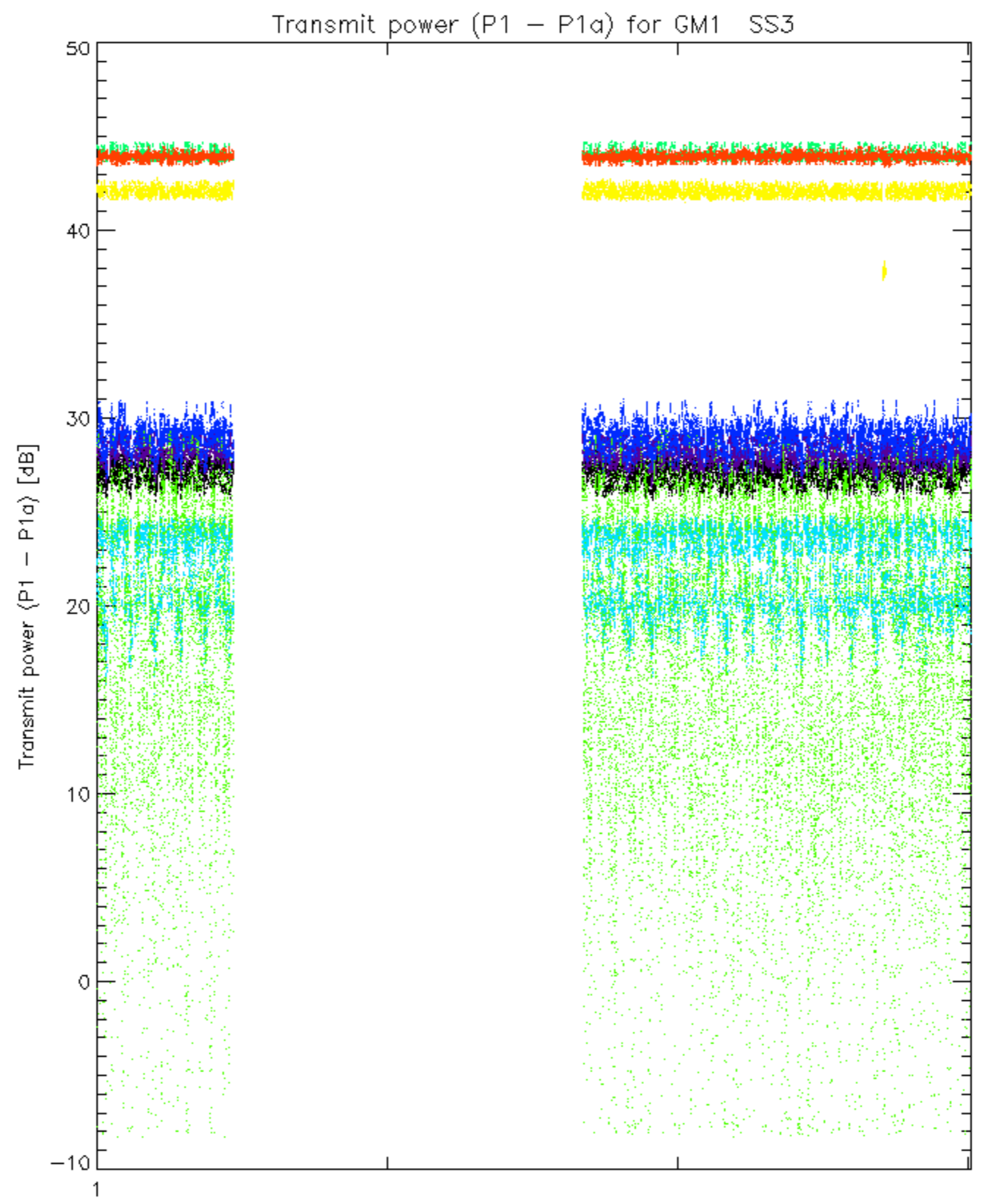
Filename	num_gaps	num_missing_lines
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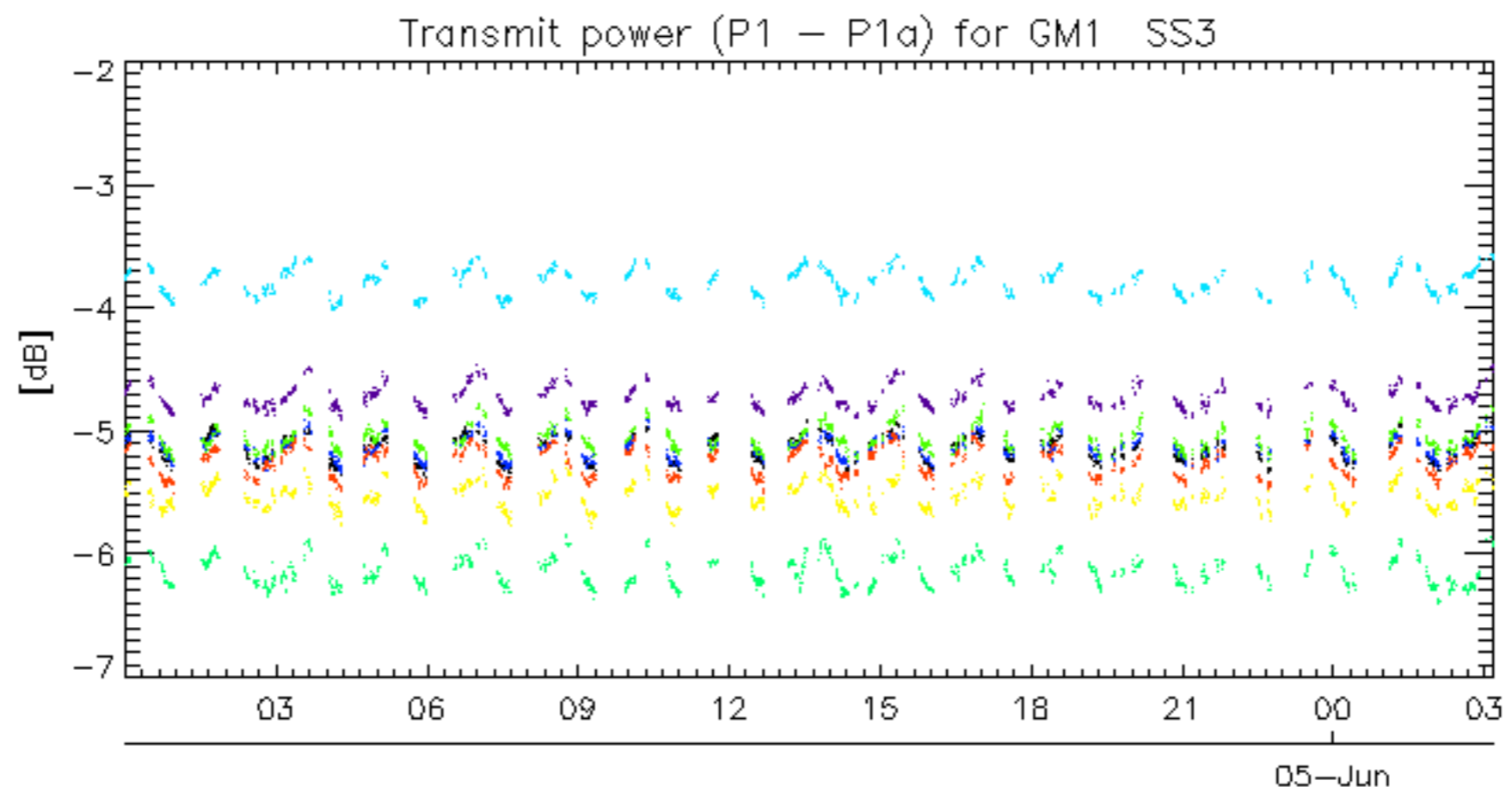




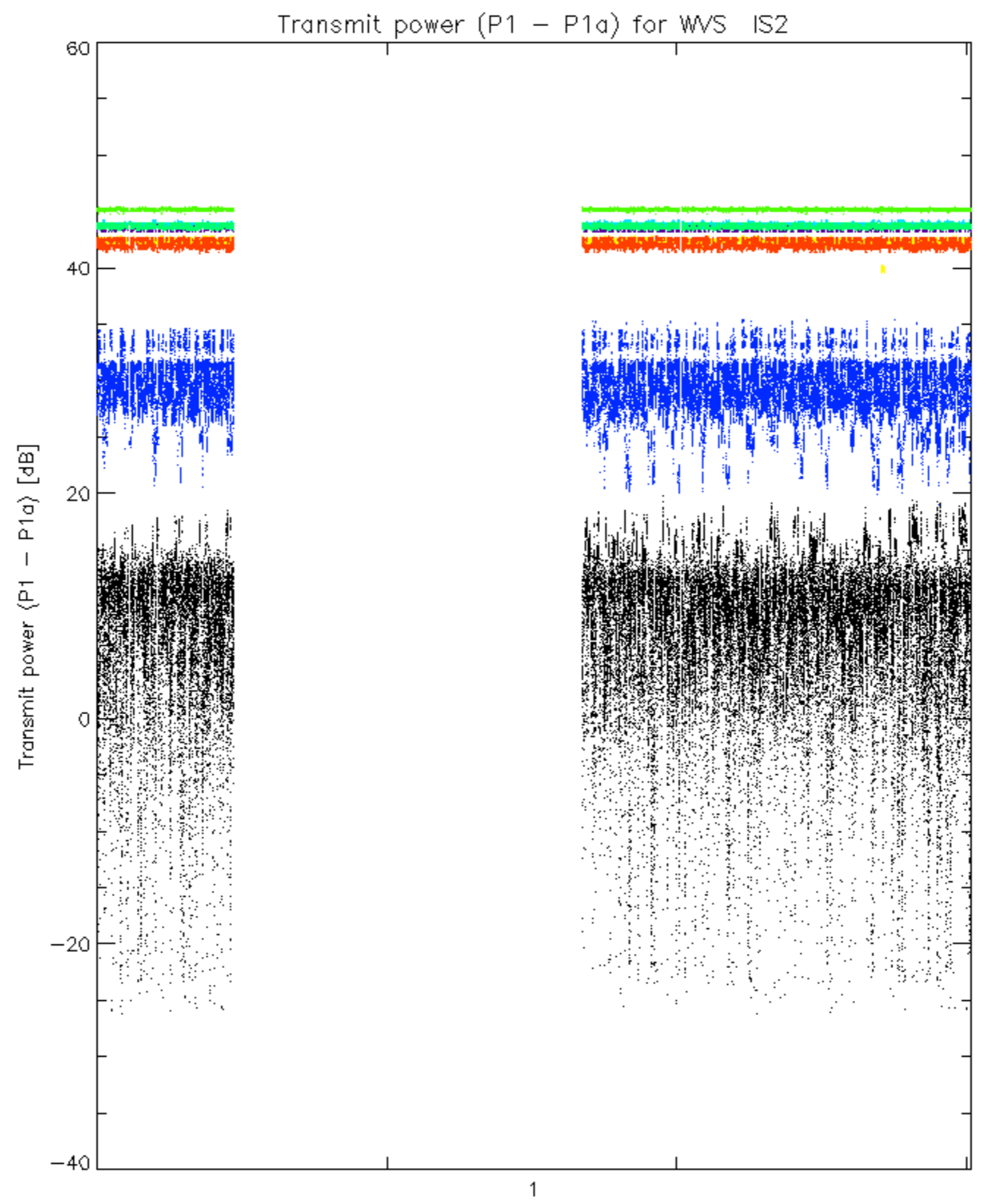




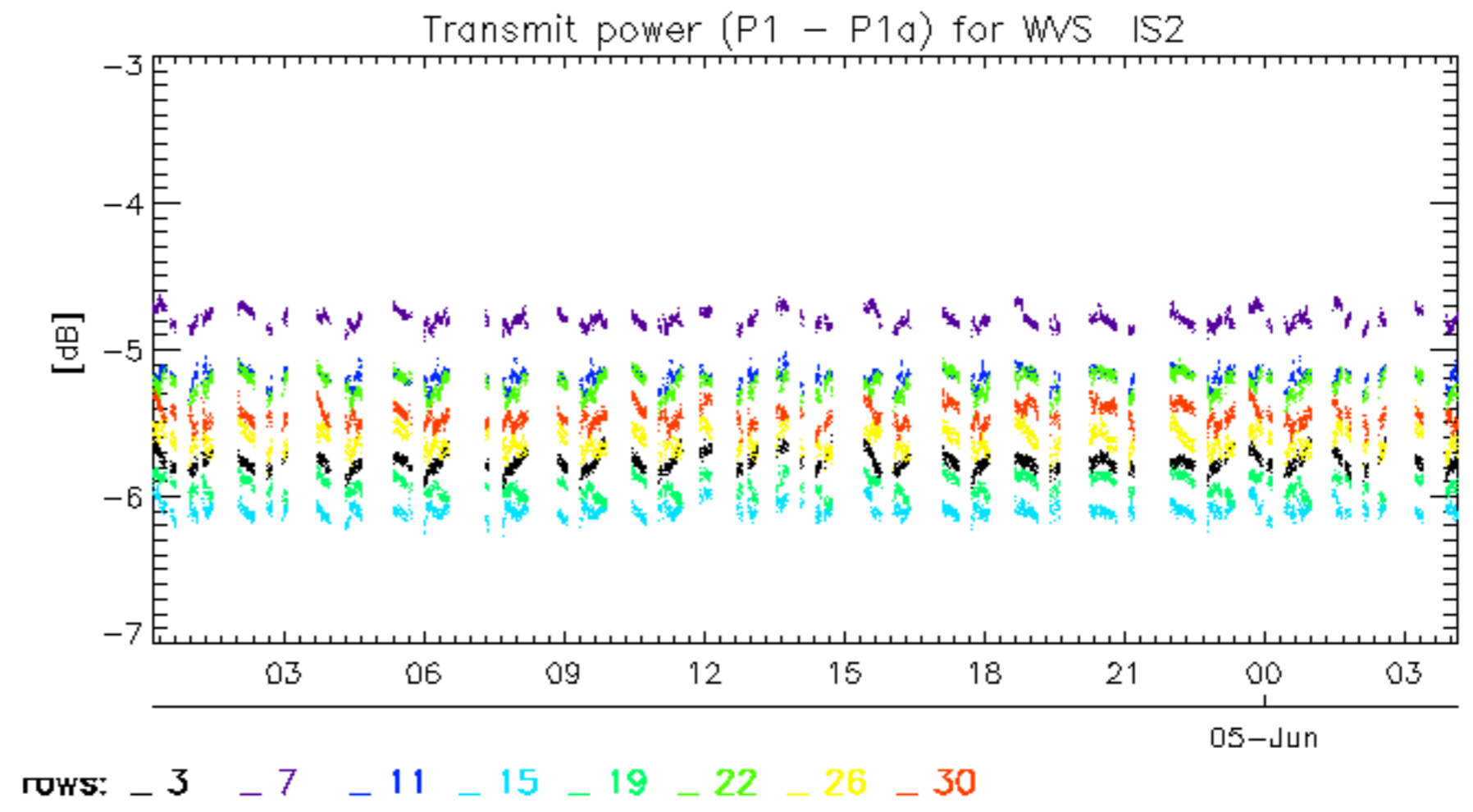
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.