

PRELIMINARY REPORT OF 050501

last update on Sun May 1 10:50:01 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 2005-04-30 00:00:00 to 2005-05-01 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	15	40	3	3	1
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	15	40	3	3	1
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	15	40	3	3	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	15	40	3	3	1

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	47	70	4	14	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	47	70	4	14	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	47	70	4	14	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	47	70	4	14	4

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	20050430 204912
H	20050429 143825

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	-3.348036	0.006741	0.007803
7	P1	-3.115162	0.011705	0.030136
11	P1	-4.670588	0.026670	0.033195
15	P1	-5.585707	0.043523	0.119026
19	P1	-3.711584	0.004139	-0.029179
22	P1	-4.570431	0.012356	-0.062107
26	P1	-4.896398	0.020007	0.049921
30	P1	-7.163064	0.026309	0.076807
3	P1	-15.783673	0.079343	0.221923
7	P1	-15.524624	0.084390	0.106973
11	P1	-21.204515	0.240431	-0.170815
15	P1	-11.479856	0.031867	0.137540
19	P1	-14.322025	0.031380	-0.038408
22	P1	-15.860976	0.323612	-0.234456
26	P1	-17.630159	0.180391	0.040741
30	P1	-17.881514	0.312422	0.075296

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.044720	0.082818	-0.012148
7	P2	-22.221603	0.103554	-0.034526
11	P2	-14.185917	0.110324	0.169535
15	P2	-7.074800	0.092685	-0.062562
19	P2	-9.650144	0.095240	-0.004597
22	P2	-16.881792	0.097362	-0.012648
26	P2	-16.468204	0.096774	-0.049155
30	P2	-18.825916	0.085978	0.013919

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.167002	0.004164	-0.000889
7	P3	-8.167002	0.004164	-0.000889
11	P3	-8.167001	0.004164	-0.000890
15	P3	-8.167001	0.004164	-0.000890
19	P3	-8.167001	0.004164	-0.000890
22	P3	-8.167001	0.004164	-0.000890
26	P3	-8.167001	0.004164	-0.000890
30	P3	-8.167001	0.004164	-0.000890

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	-2.750563	0.012195	-0.053340
7	P1	-3.009010	0.031195	0.041993
11	P1	-3.981697	0.016608	0.047063
15	P1	-3.542531	0.021587	0.076938
19	P1	-3.622020	0.014599	-0.028696
22	P1	-5.685530	0.046717	0.109155
26	P1	-7.309566	0.024872	-0.030615
30	P1	-6.275726	0.062022	0.012786
3	P1	-10.754200	0.044992	-0.038967
7	P1	-10.393110	0.150537	-0.116659
11	P1	-12.557436	0.097386	0.013494
15	P1	-11.681916	0.069938	0.186263
19	P1	-15.607514	0.059744	-0.045717
22	P1	-25.046551	1.787188	-1.005597
26	P1	-15.610667	0.276760	-0.252404
30	P1	-20.180748	1.247447	-0.254365

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.750963	0.039586	-0.043927
7	P2	-22.289082	0.047209	0.045183
11	P2	-10.059706	0.058206	0.079546
15	P2	-5.048583	0.037791	-0.116472
19	P2	-6.876828	0.053024	-0.076000
22	P2	-7.089565	0.038855	-0.055594
26	P2	-23.889240	0.038508	-0.084551
30	P2	-21.916372	0.043431	-0.075276

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.003049	0.003653	-0.003629
7	P3	-8.003119	0.003644	-0.003635
11	P3	-8.003049	0.003641	-0.003247
15	P3	-8.003190	0.003649	-0.003667
19	P3	-8.003150	0.003646	-0.003333
22	P3	-8.003167	0.003631	-0.003489
26	P3	-8.003153	0.003645	-0.003273
30	P3	-8.003118	0.003653	-0.003360

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	0.000477386
	stdev	2.16485e-07
MEAN Q	mean	0.000492176
	stdev	2.34889e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129049
	stdev	0.00104639
STDEV Q	mean	0.129309
	stdev	0.00105783



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005043[901]

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

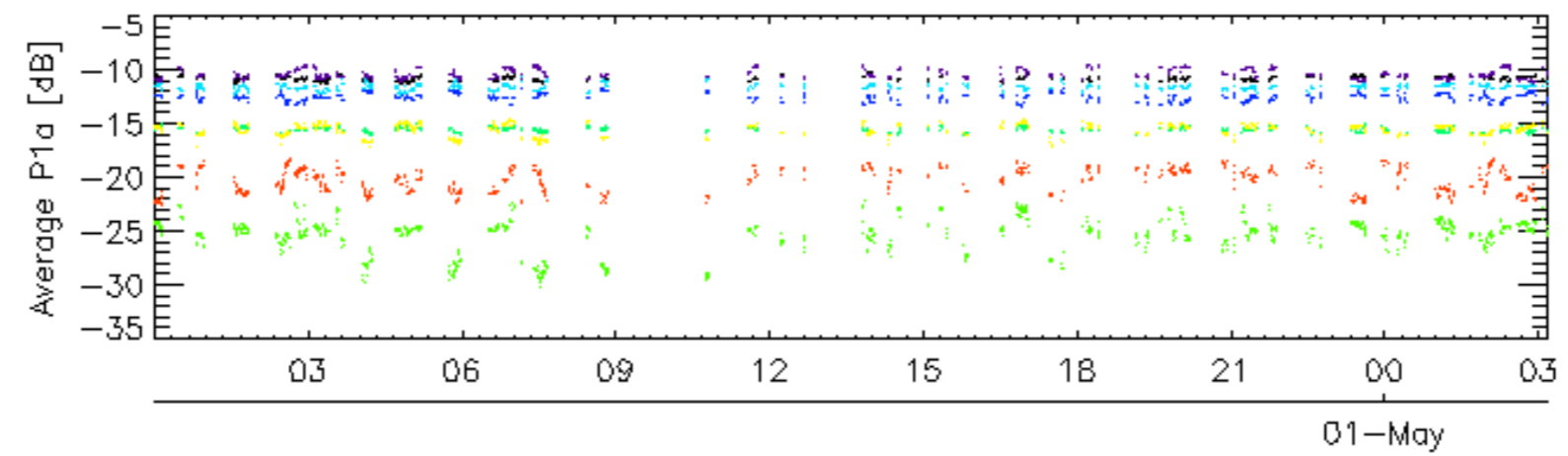
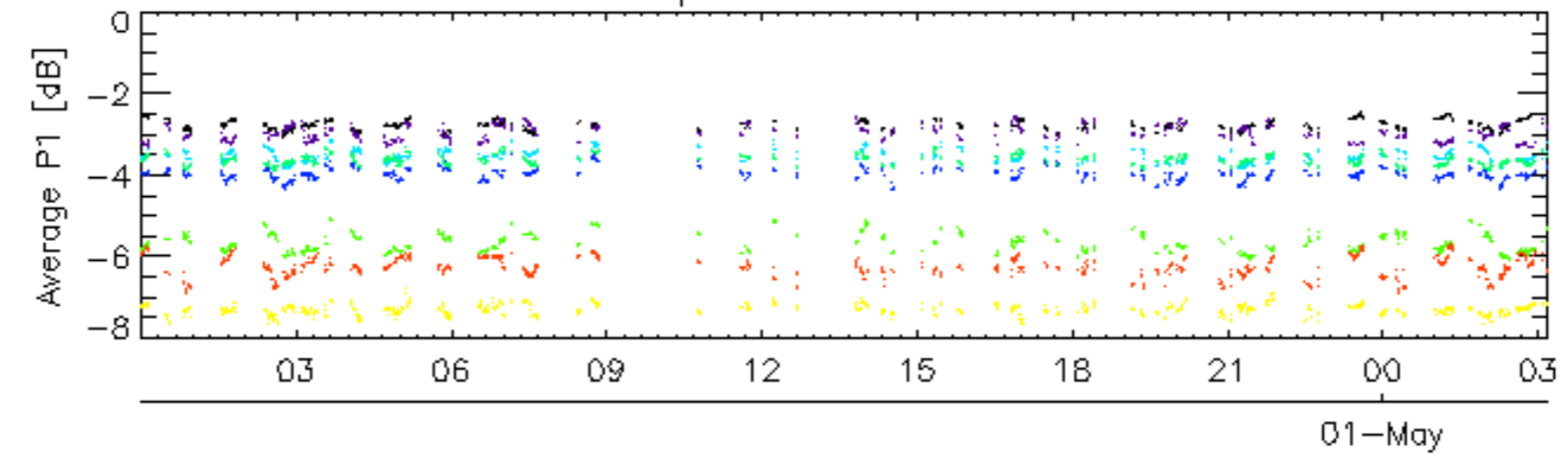
Ascending

Descending

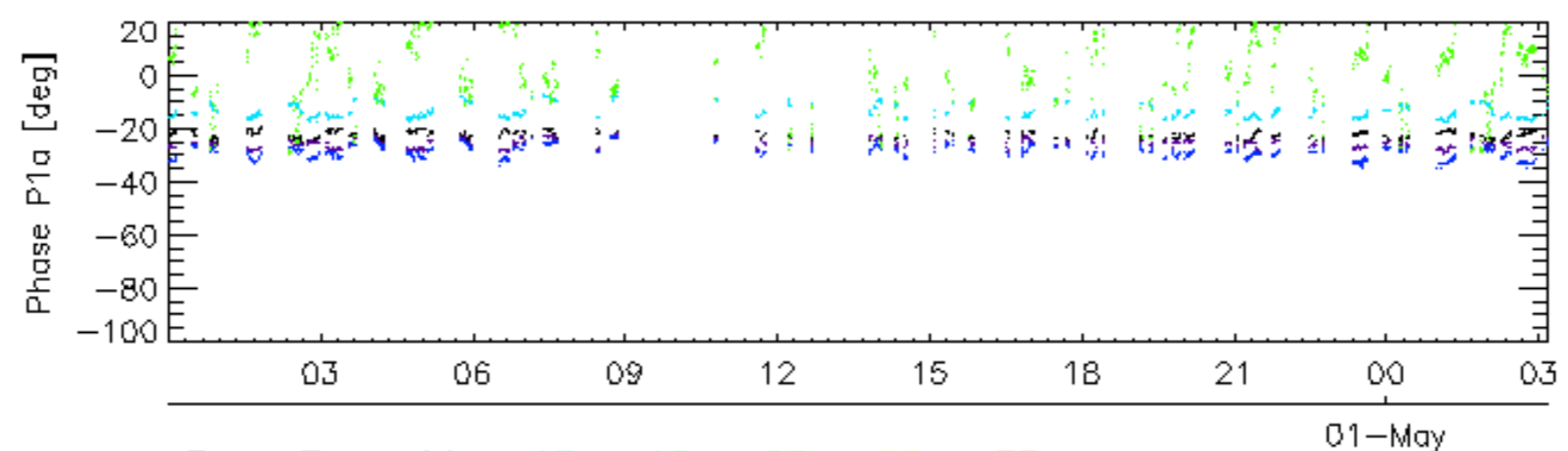
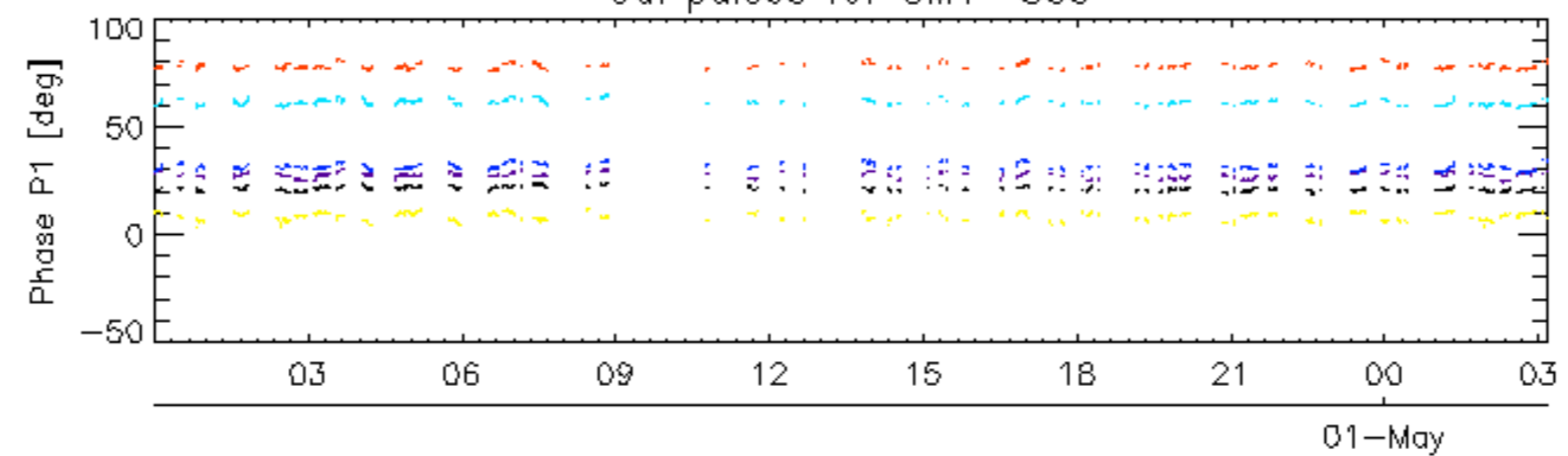
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

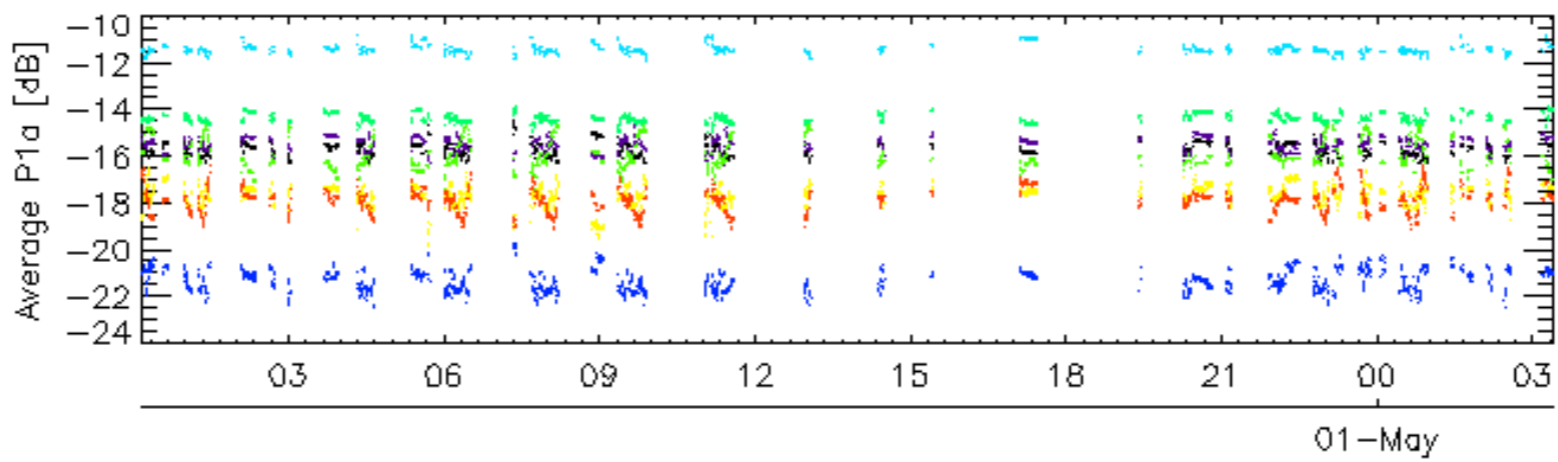
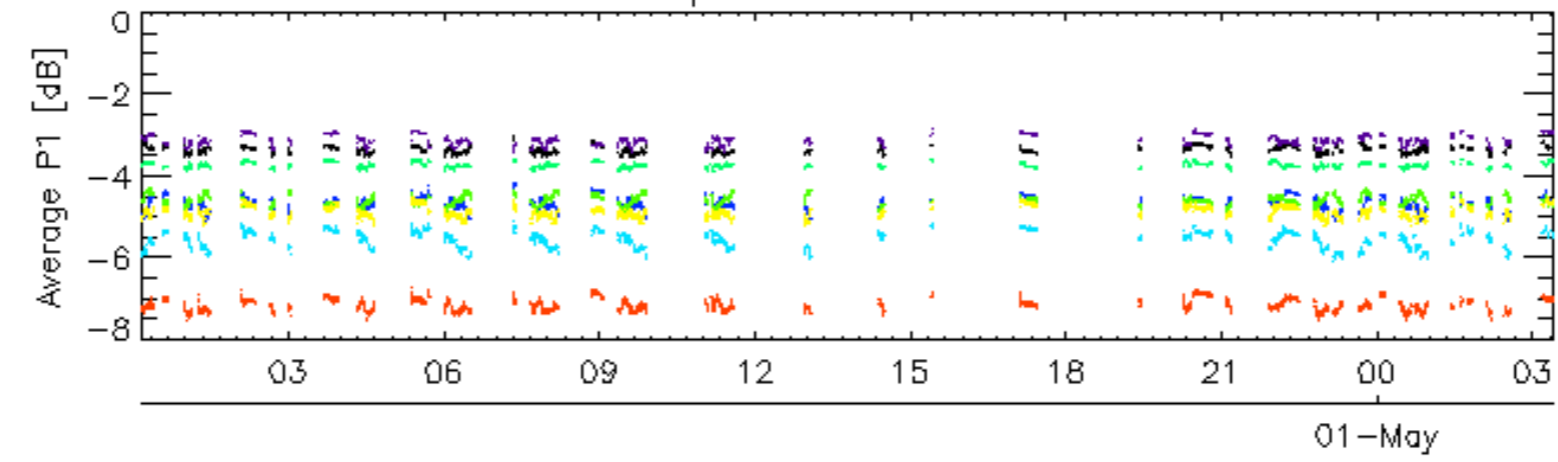


Cal pulses for GM1 SS3

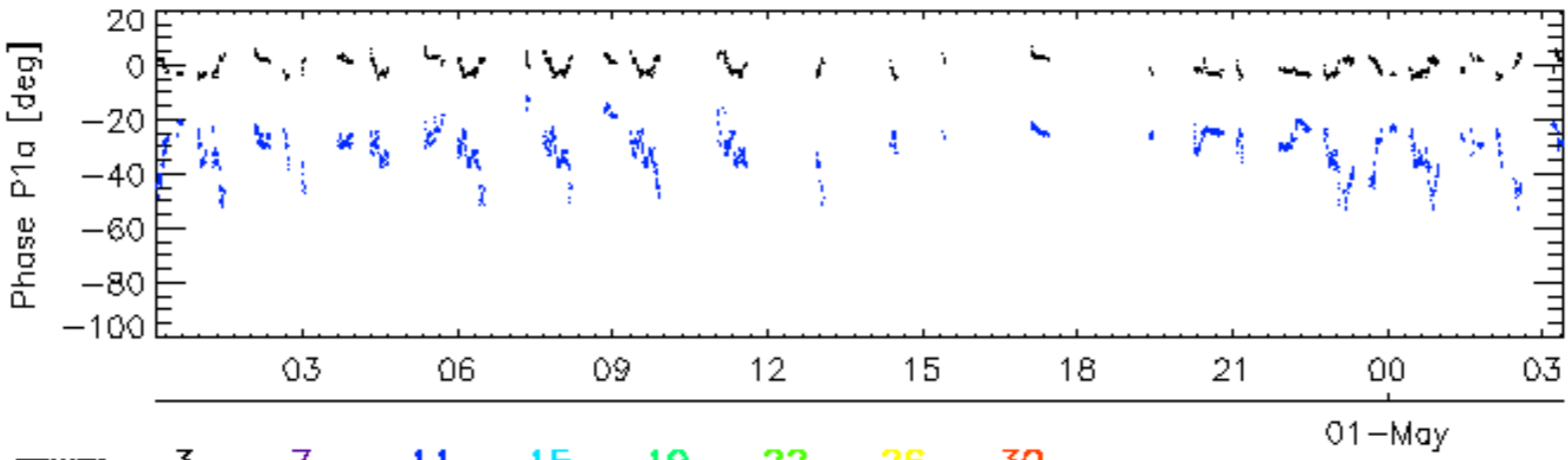
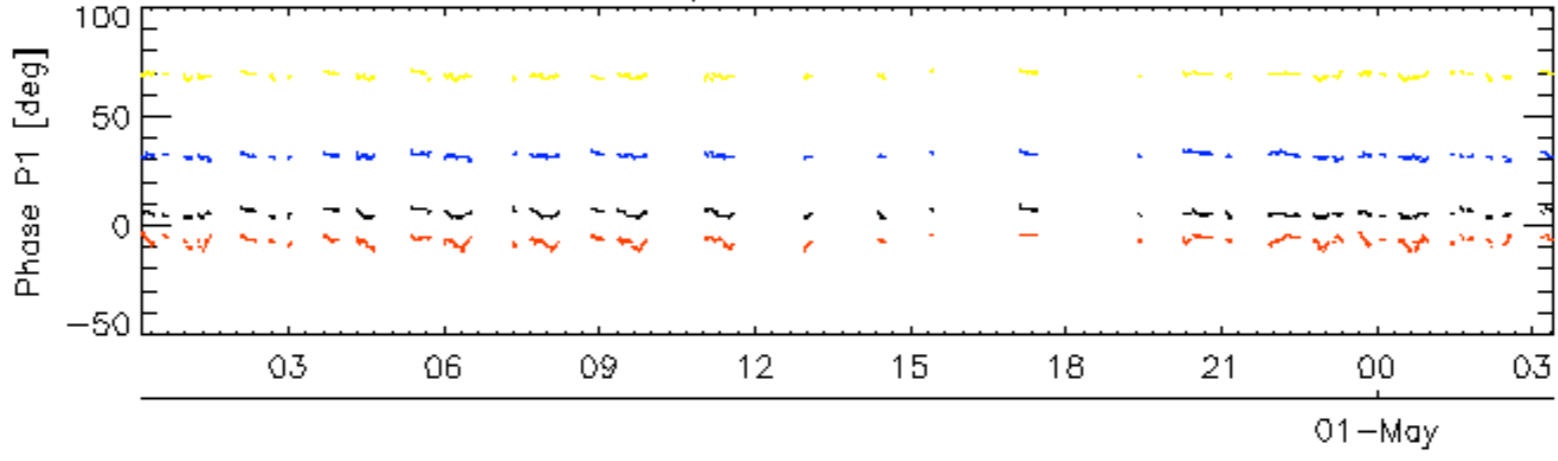


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

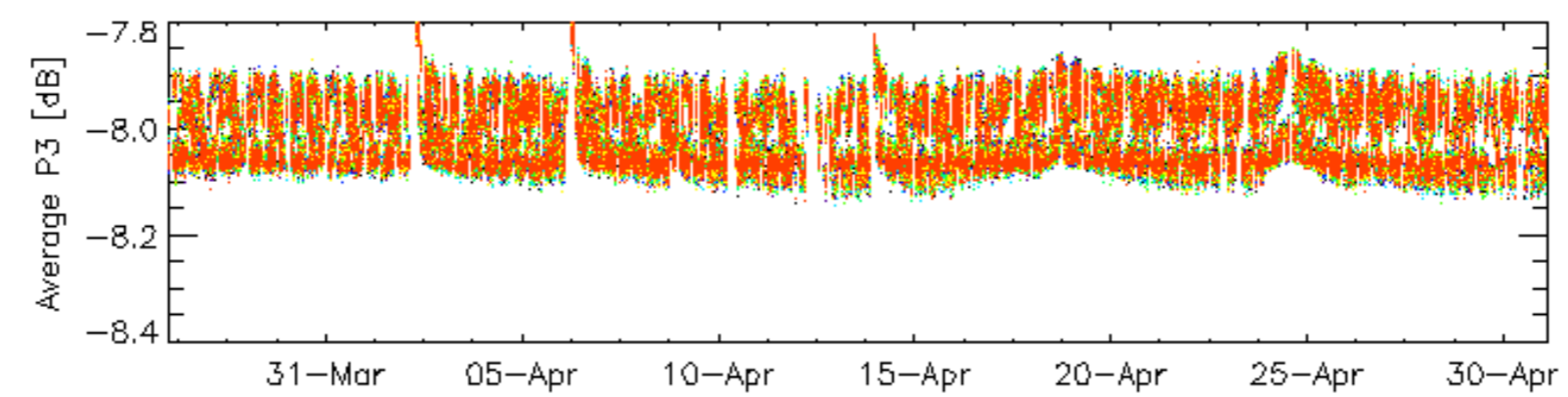
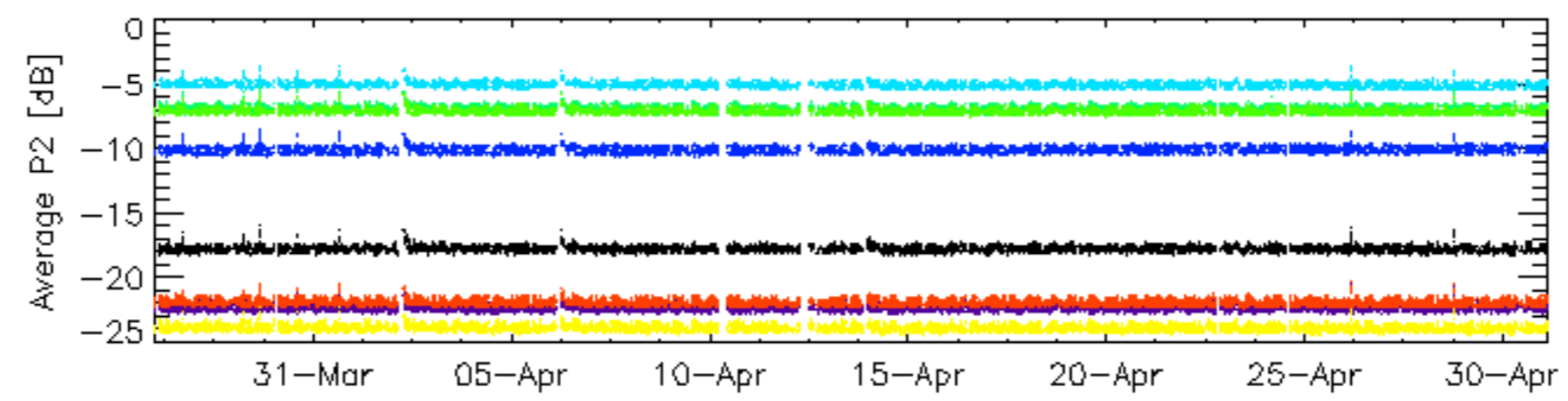
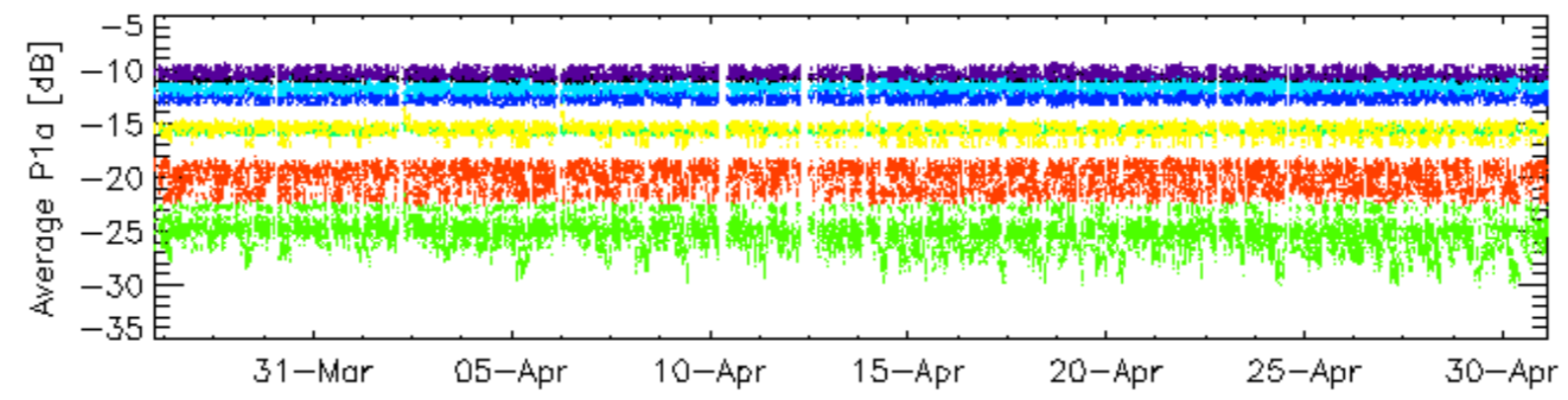
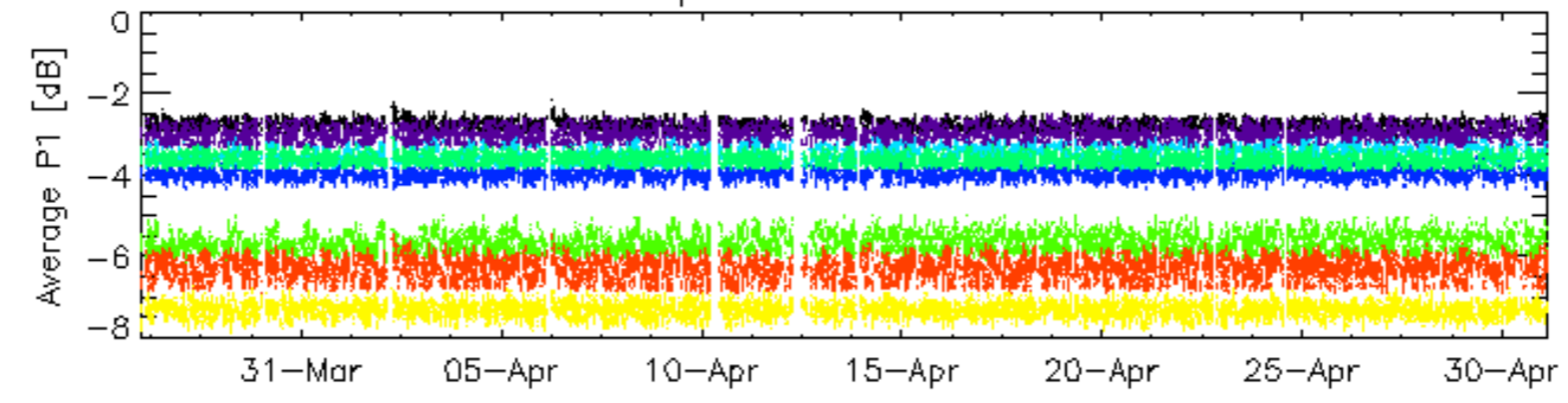


Cal pulses for WVS IS2



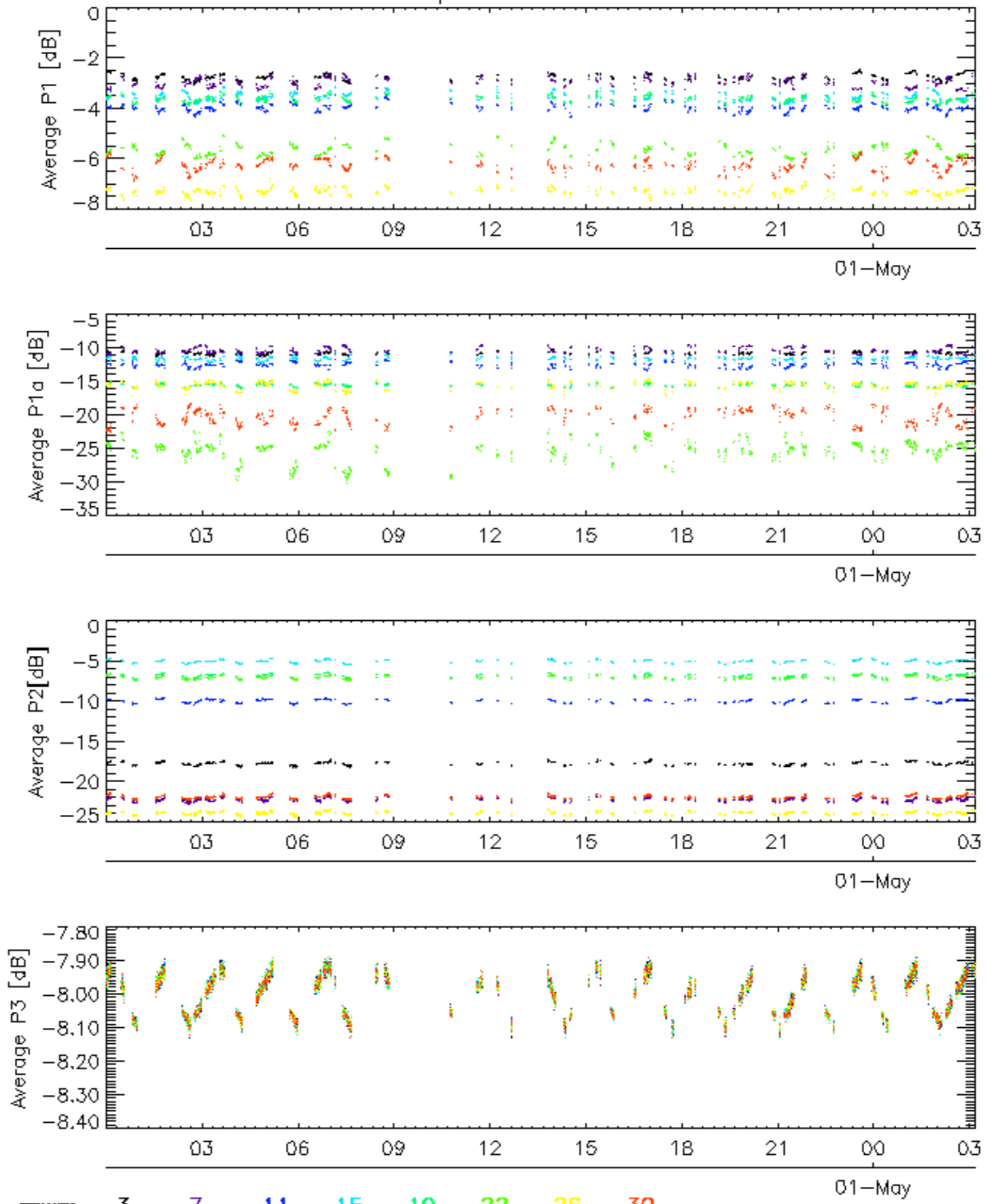
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Cal pulses for GM1 SS3

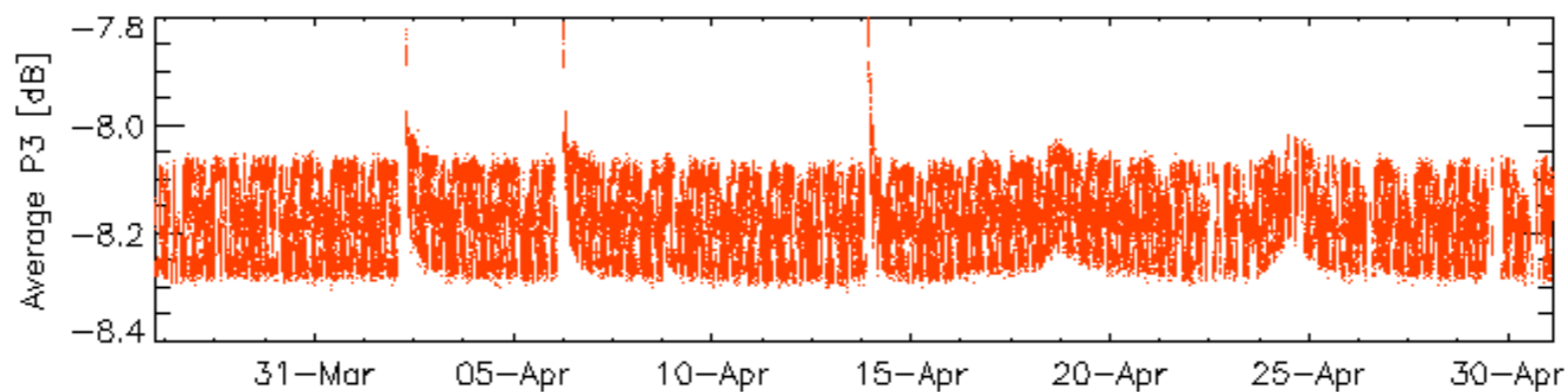
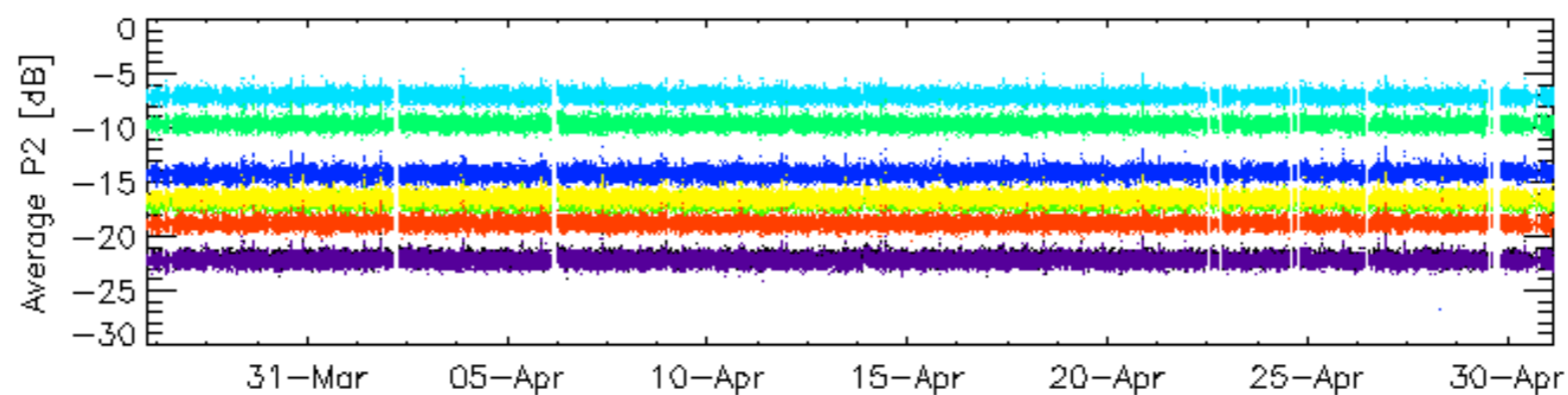
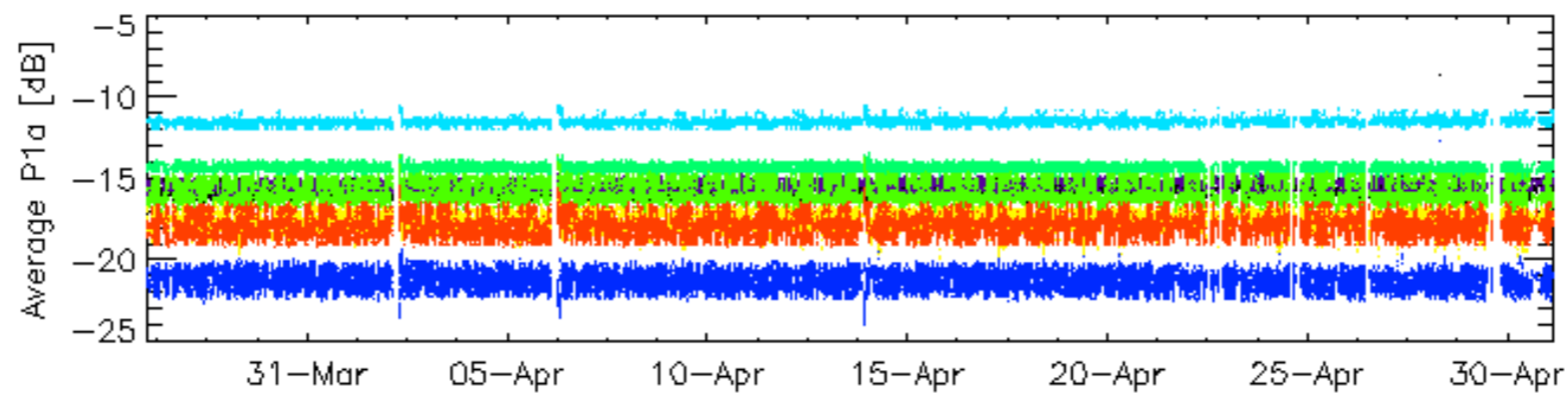
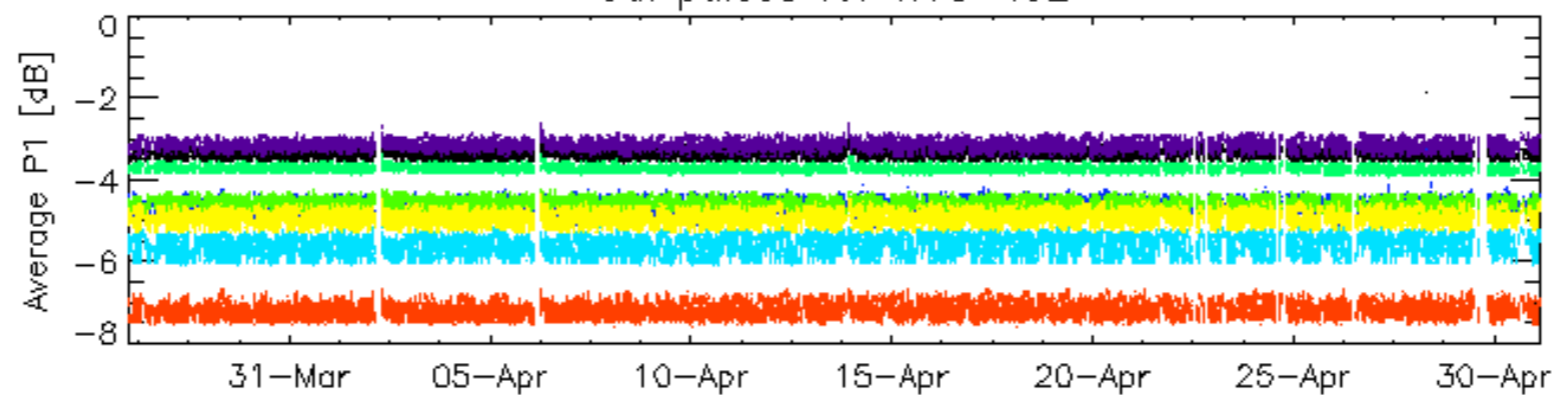


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

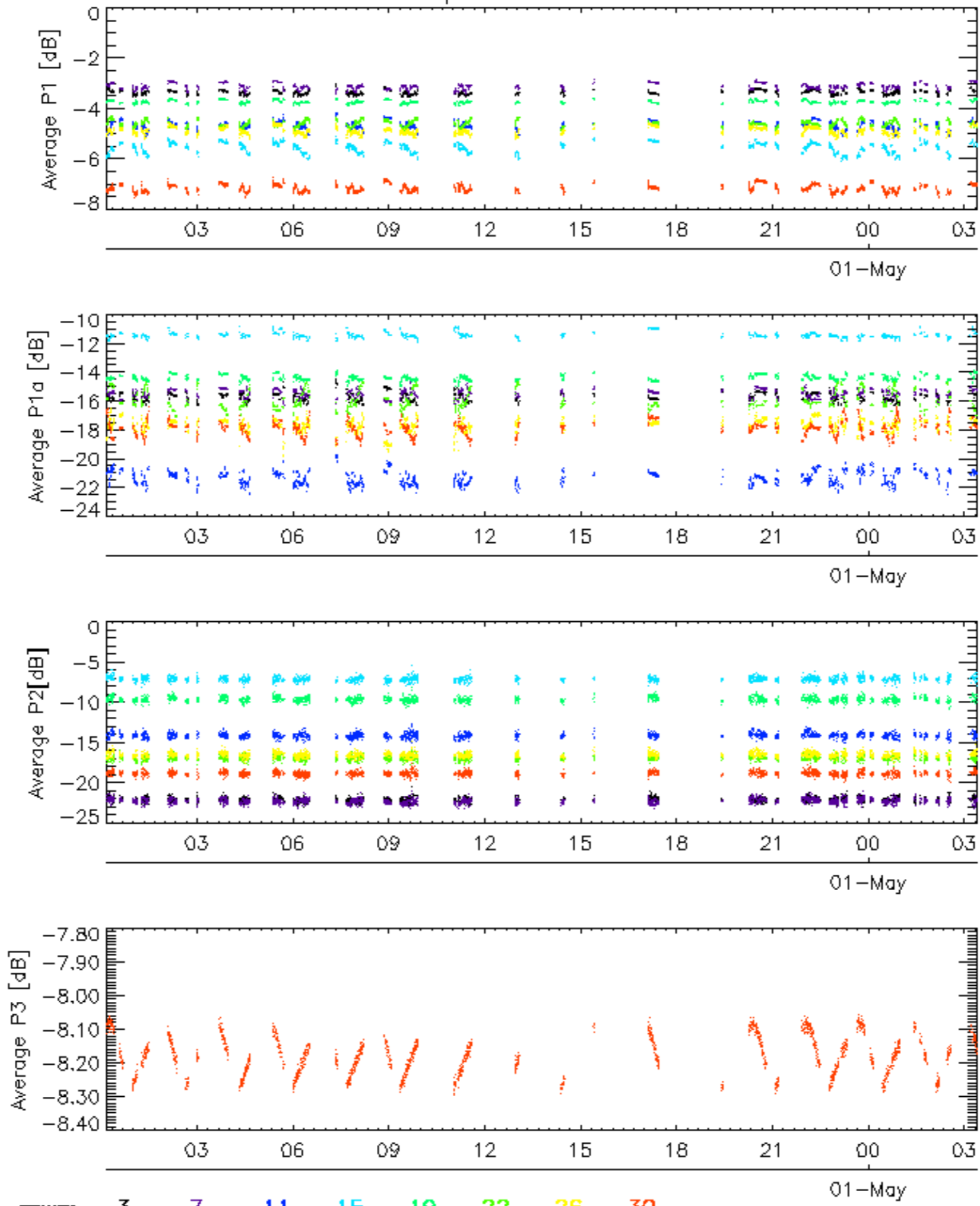


Cal pulses for WVS IS2



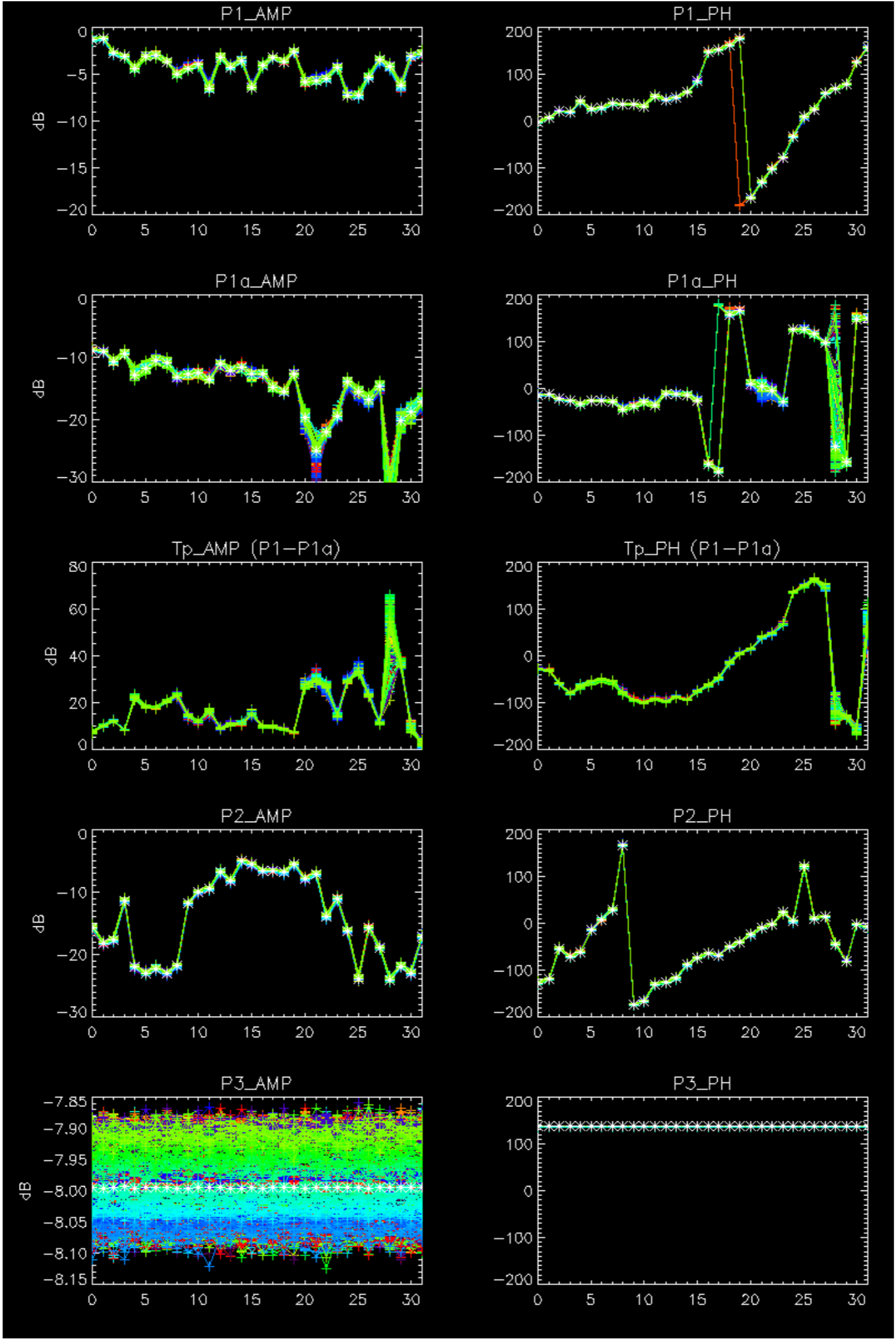
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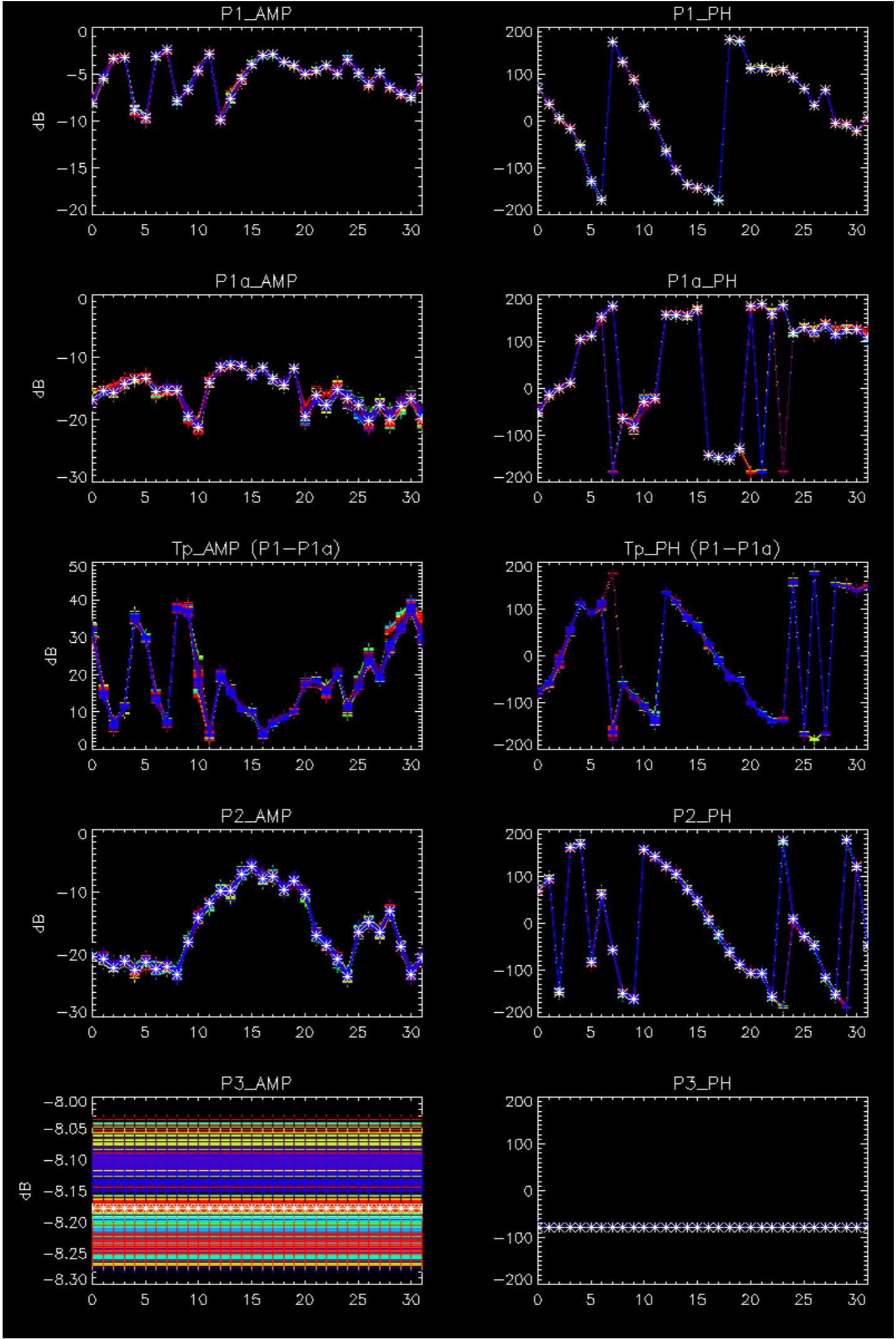
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

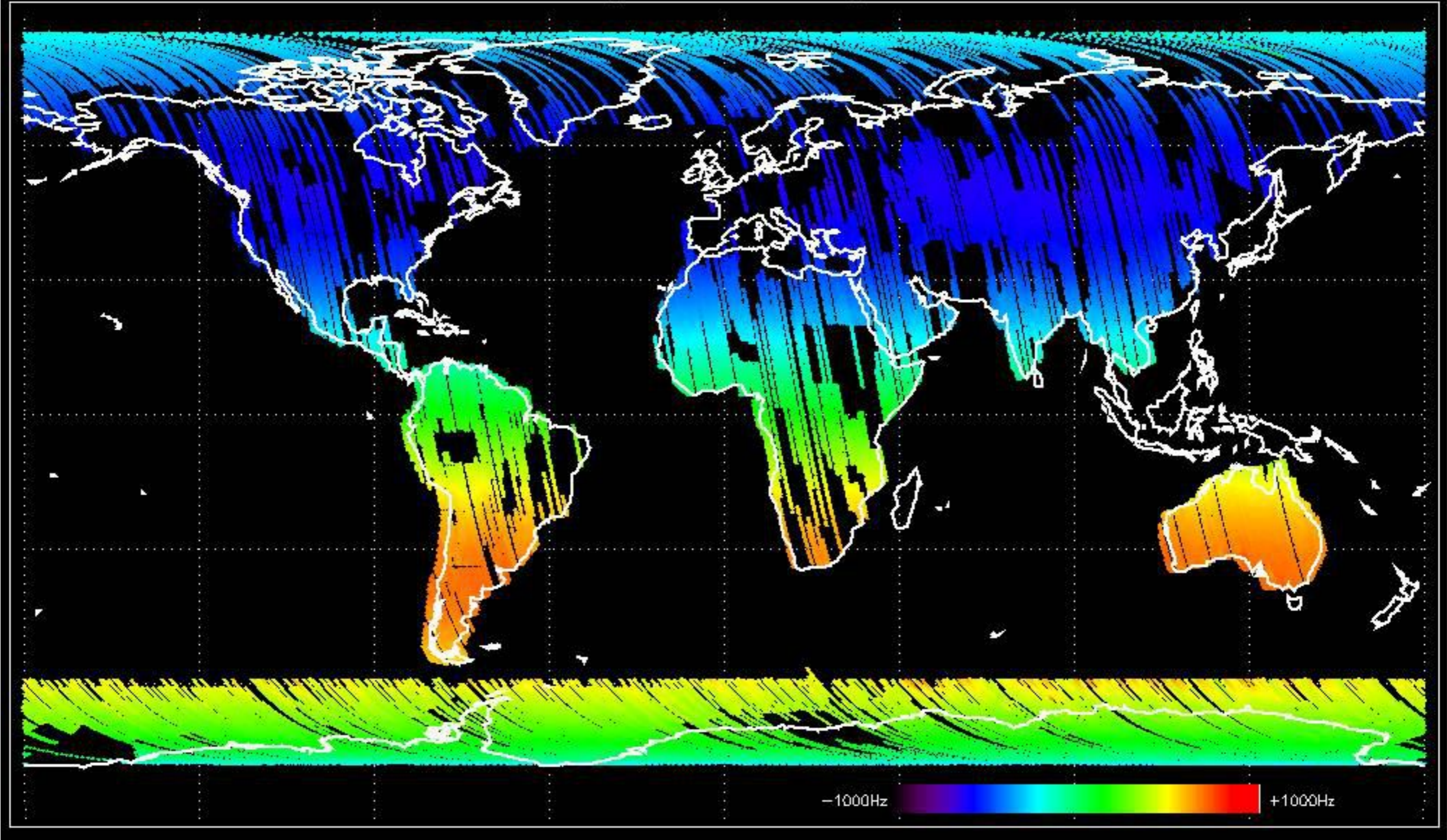
No anomalies observed.



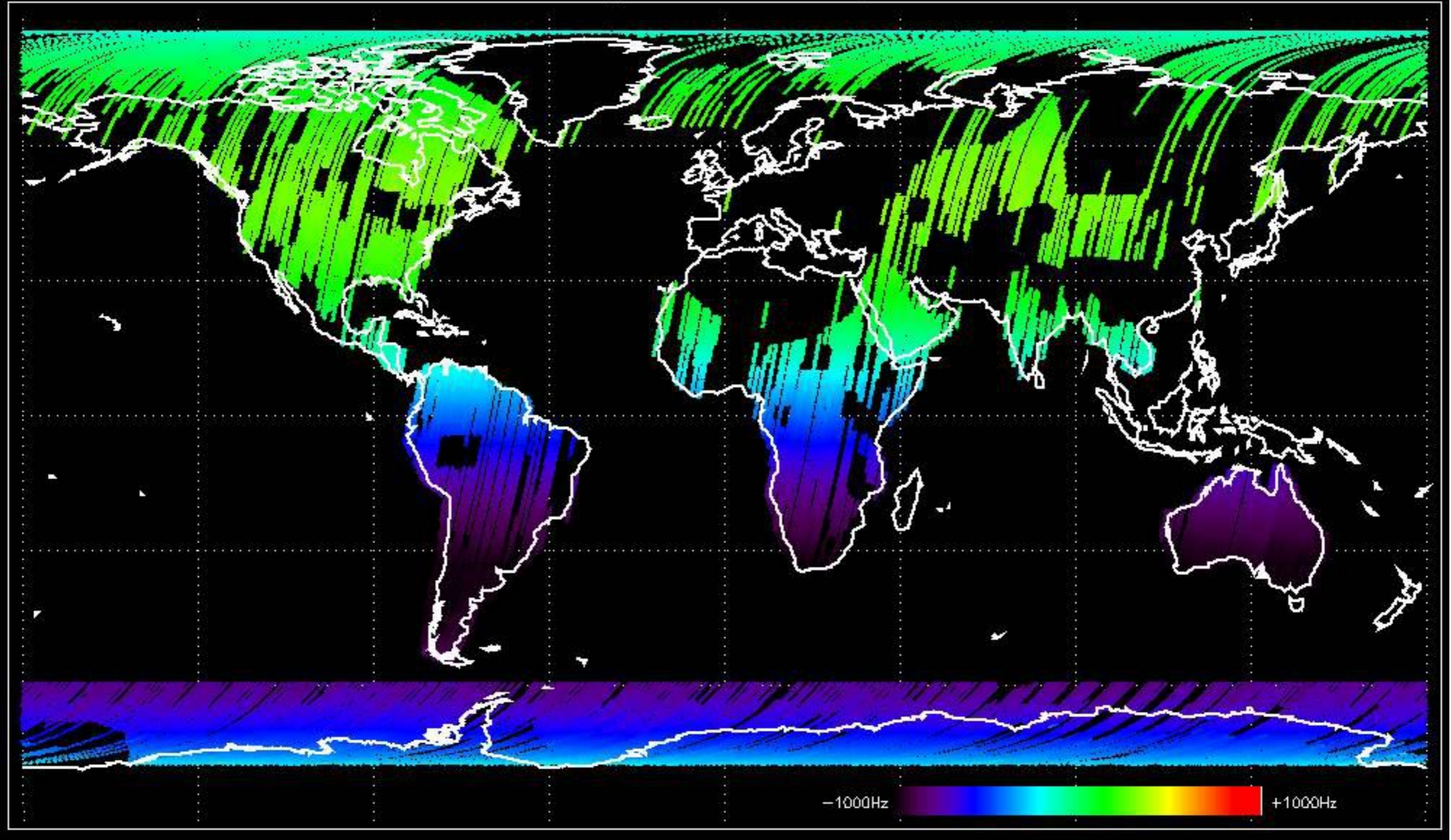


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

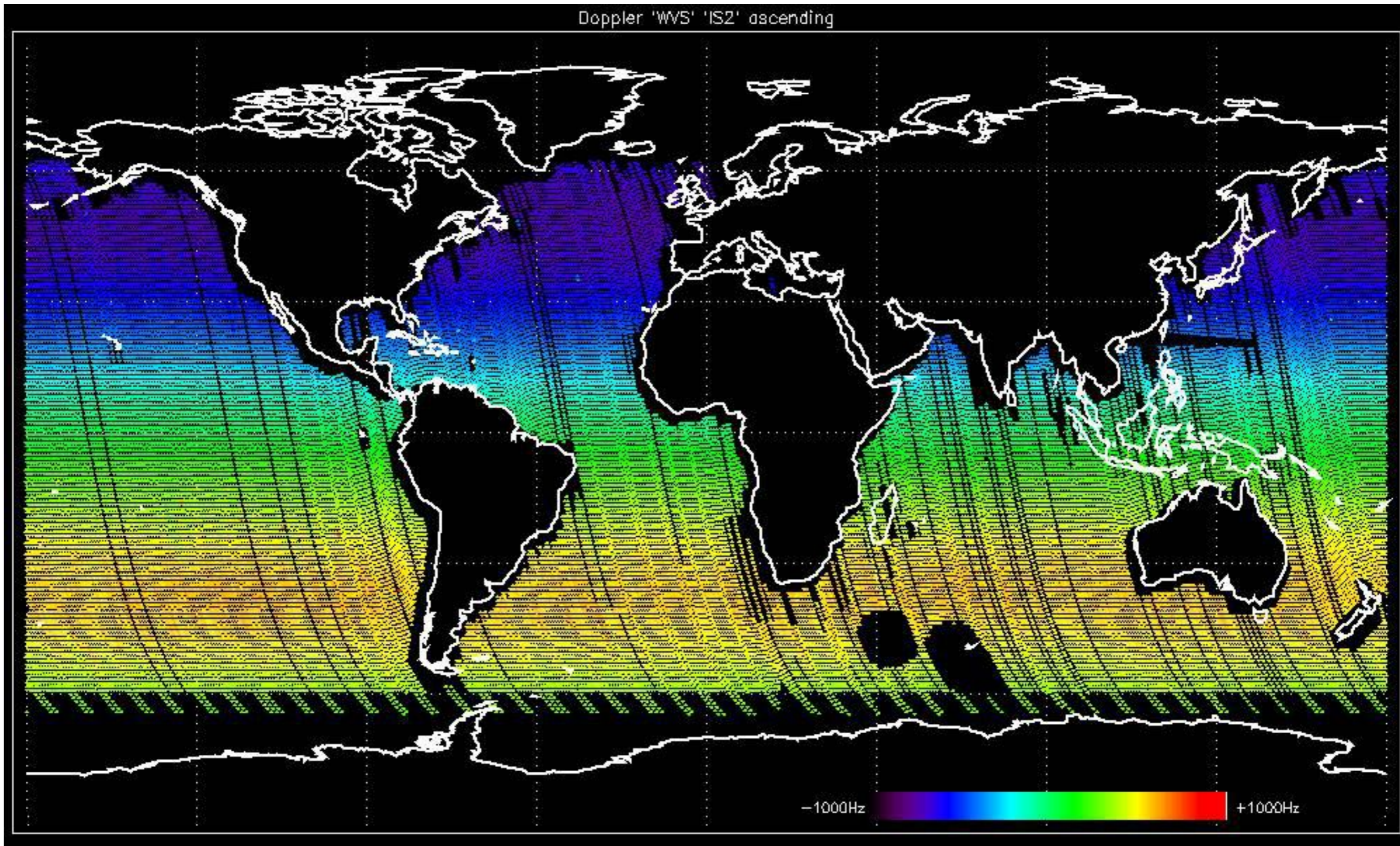
Doppler 'GM1' 'SS1' ascending



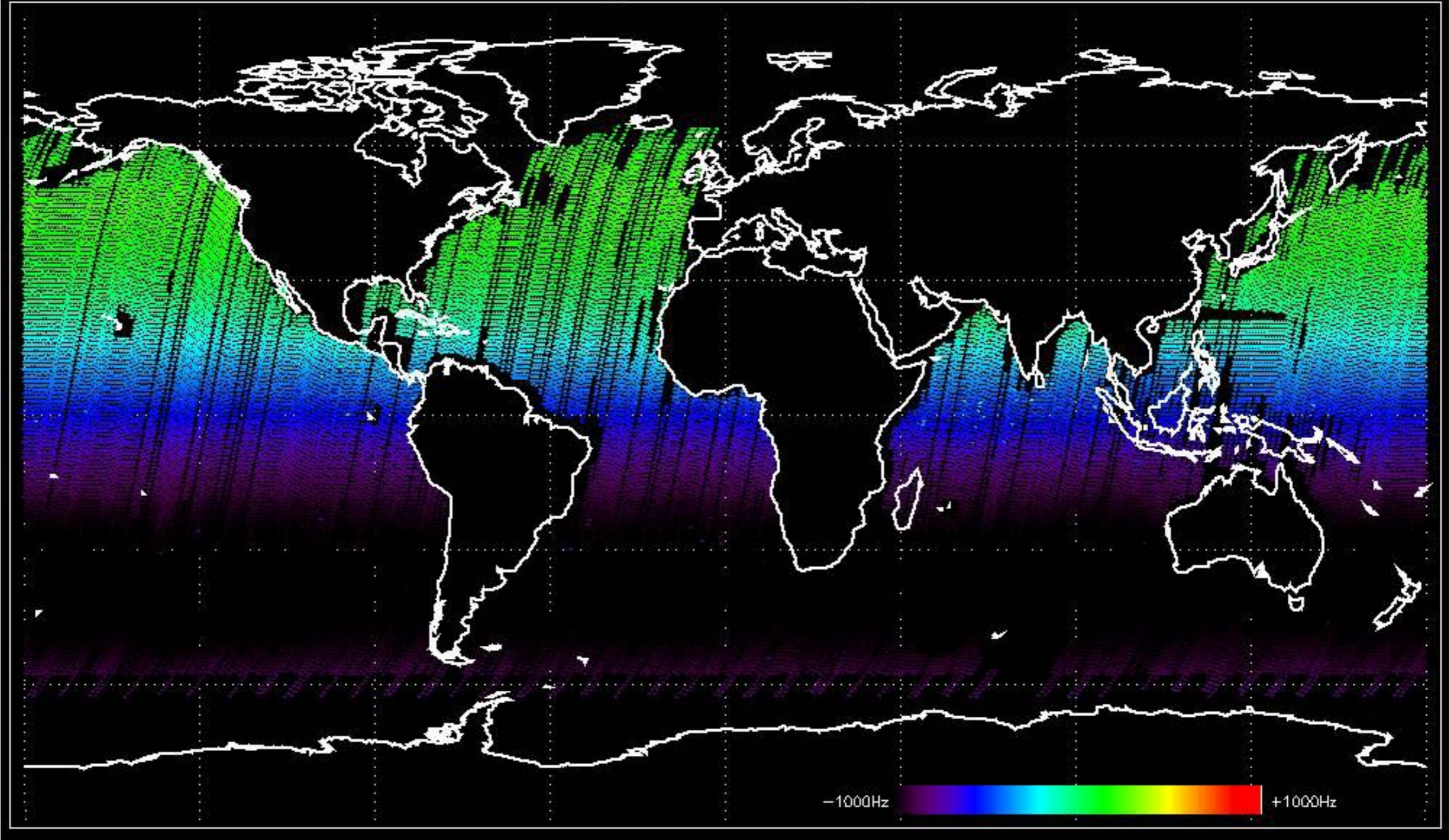
Doppler 'GM1' 'SS1' descending



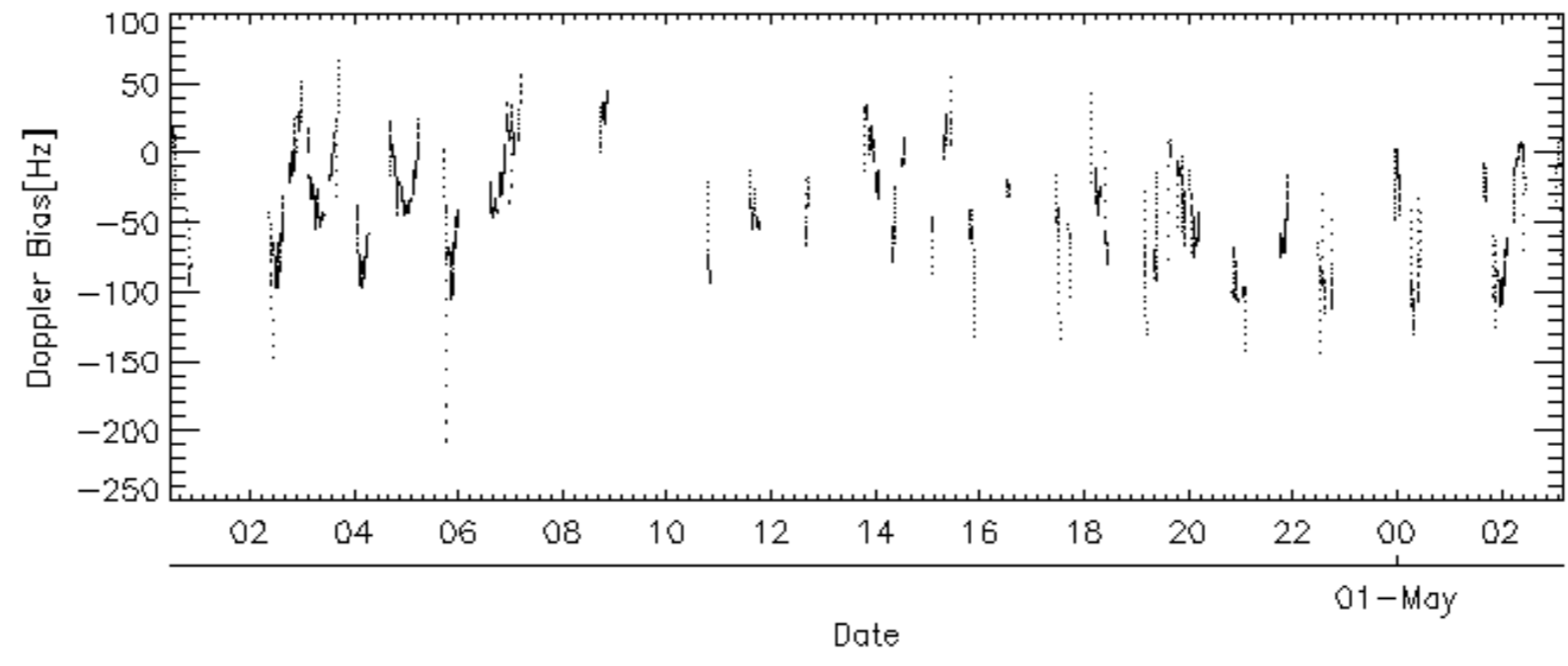
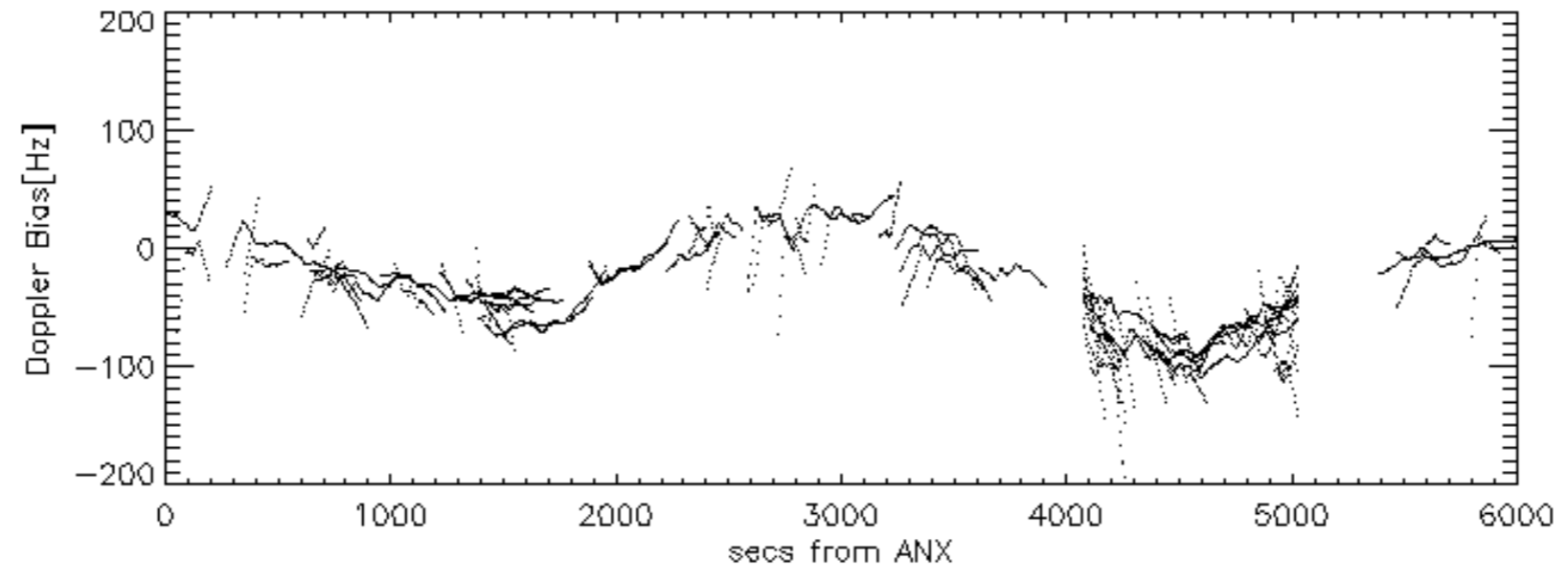
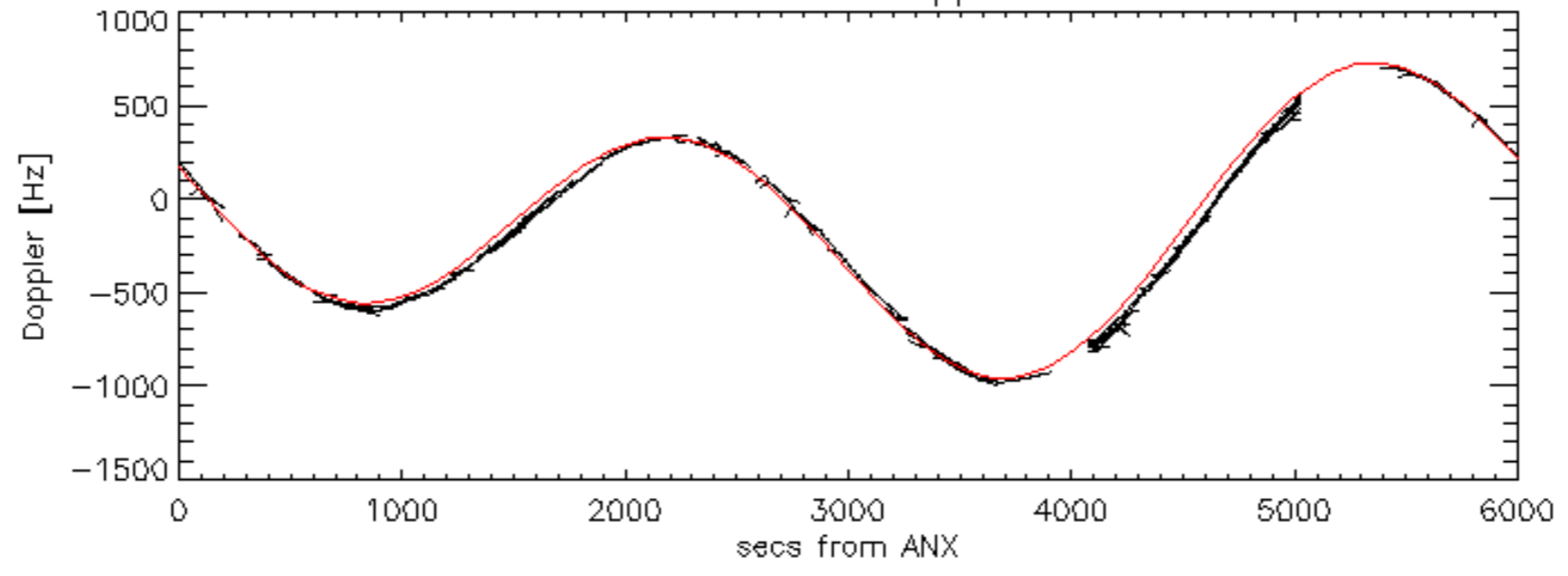
Doppler 'WVS' 'IS2' ascending

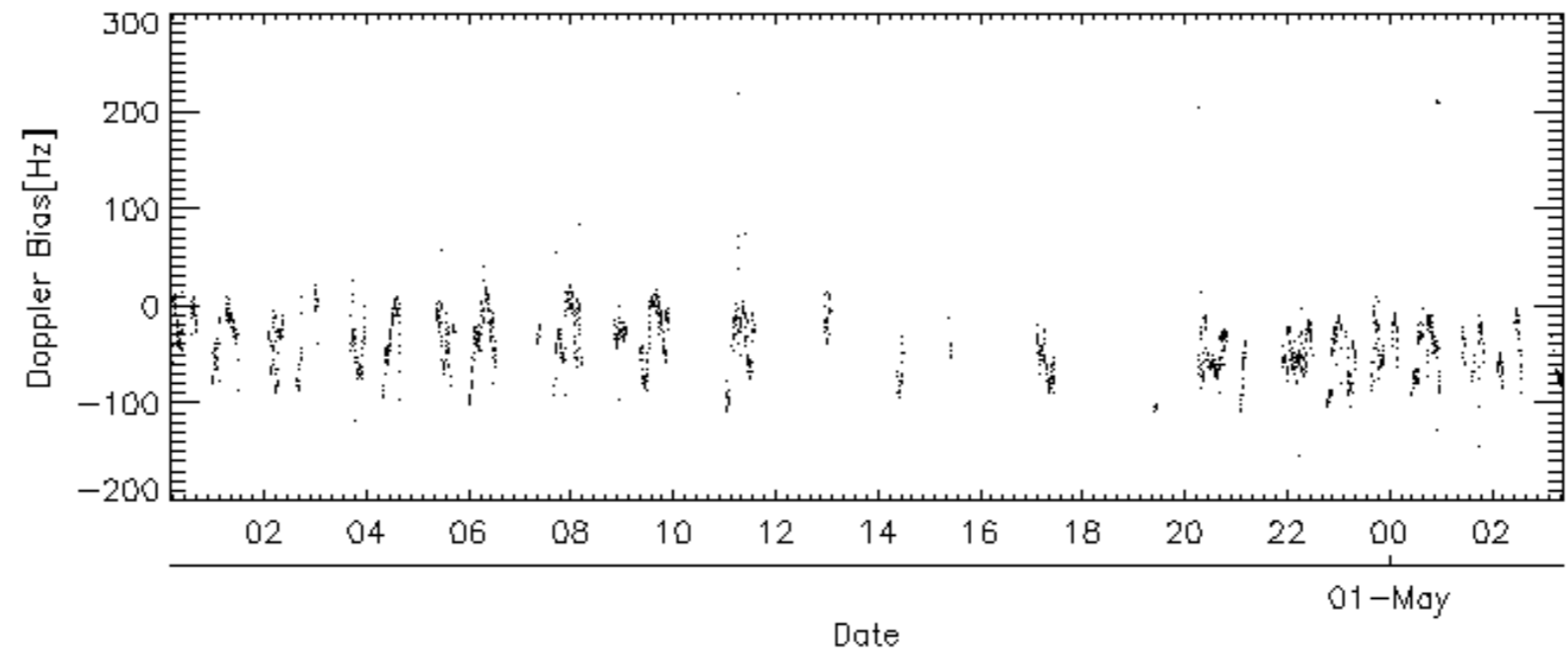
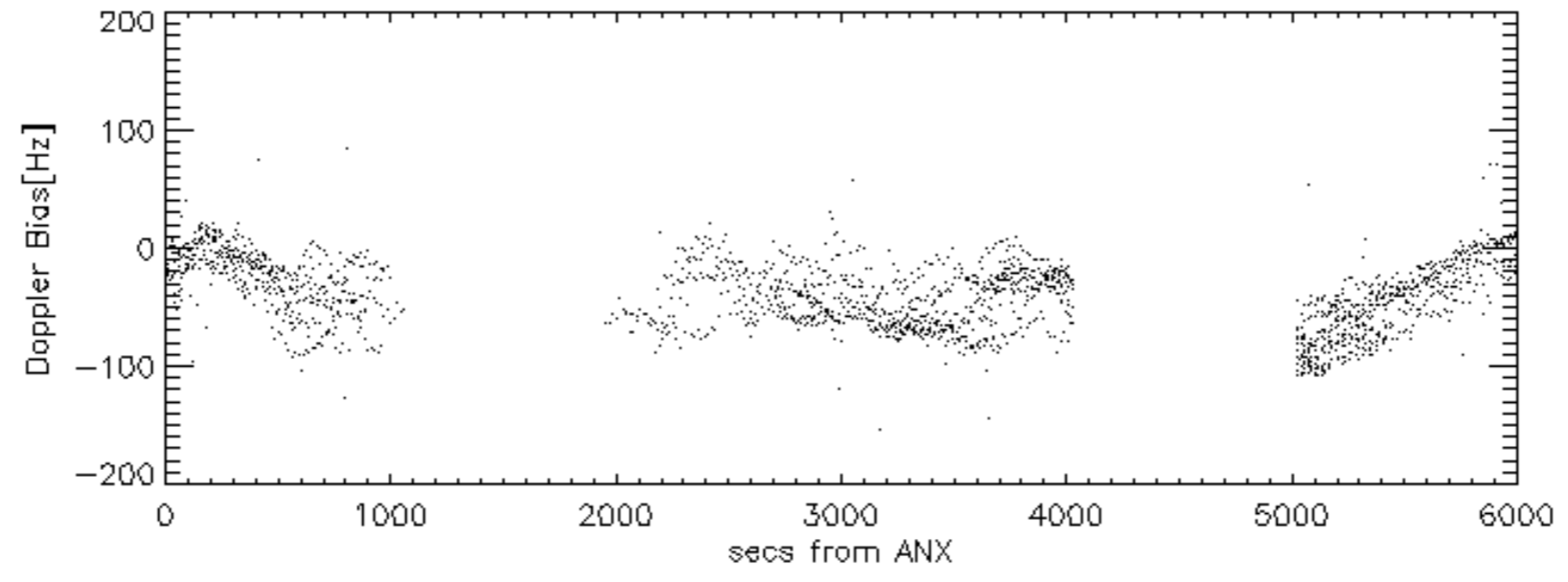
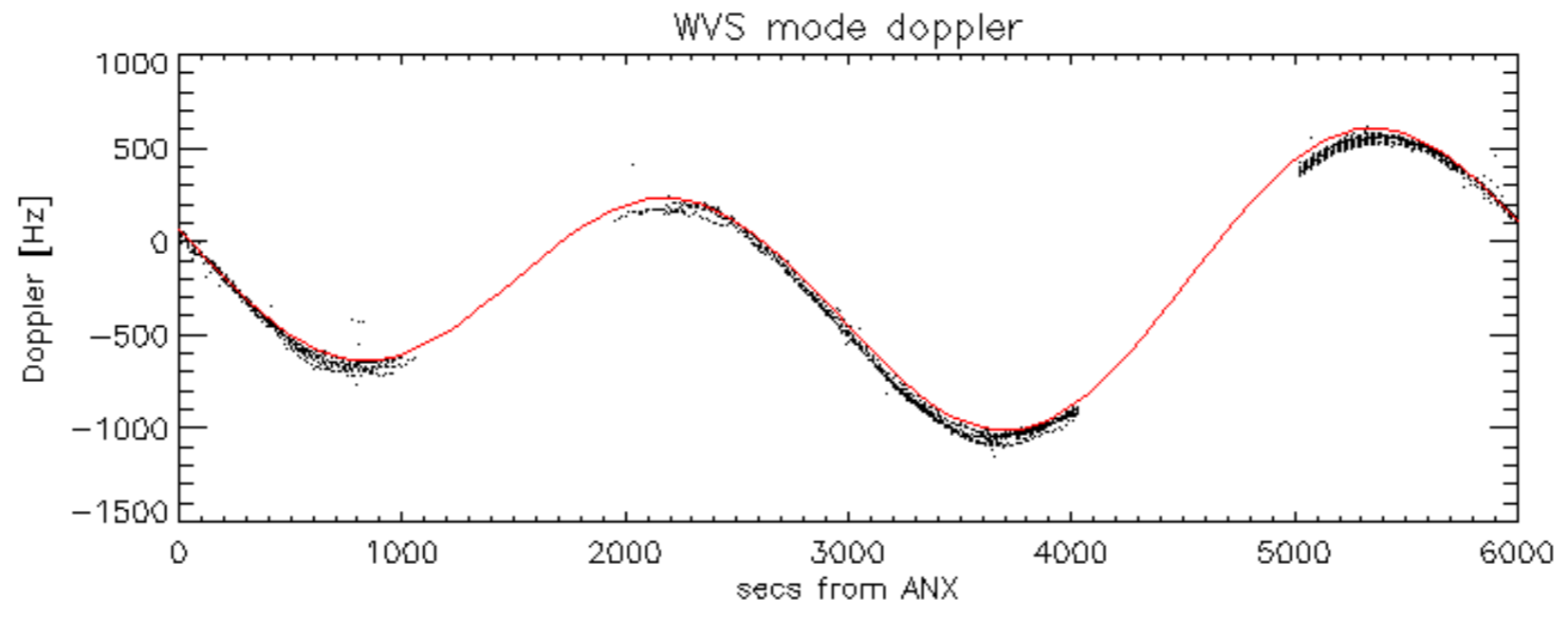


Doppler 'WVS' 'IS2' descending

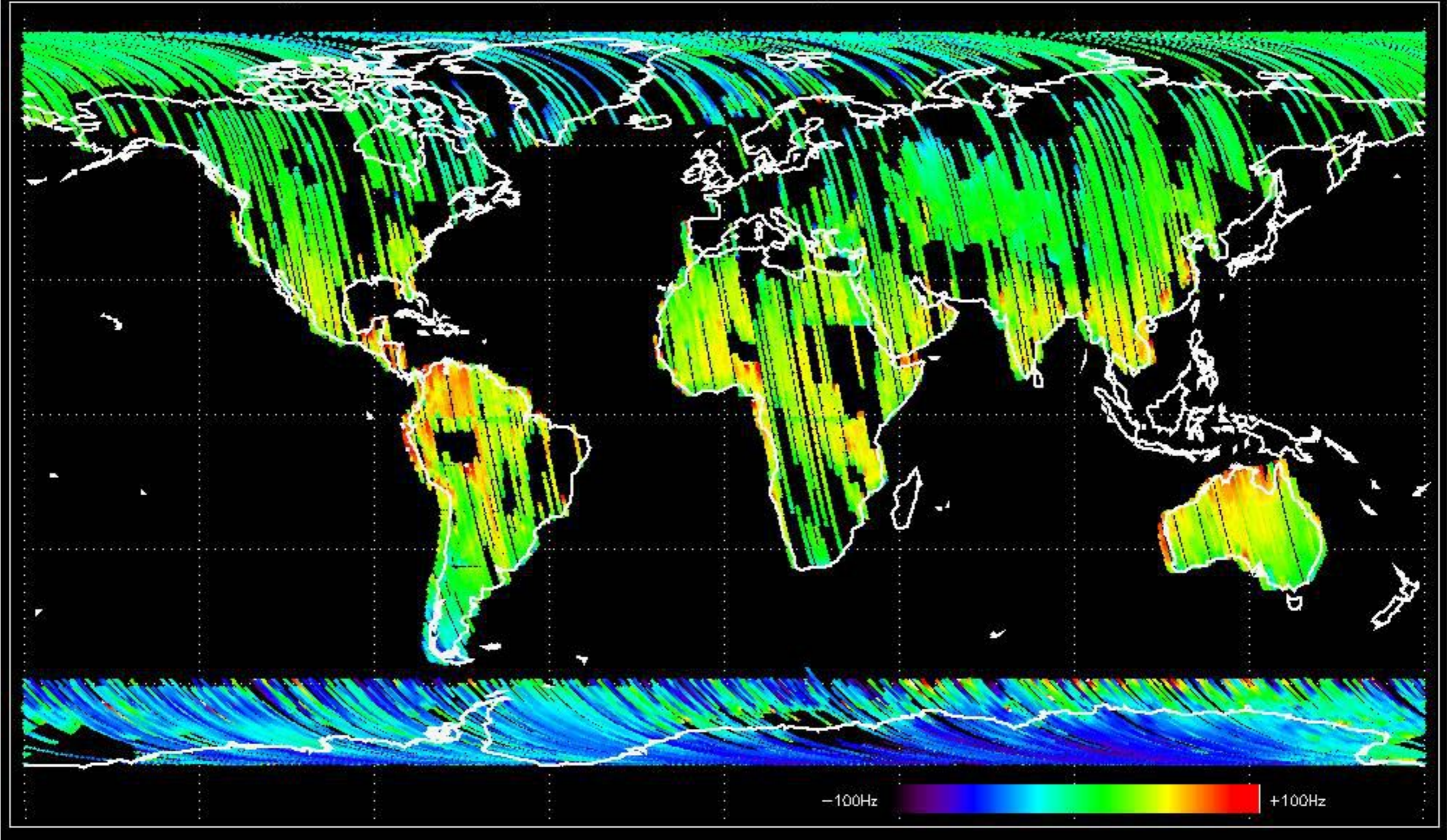


GM1 mode doppler

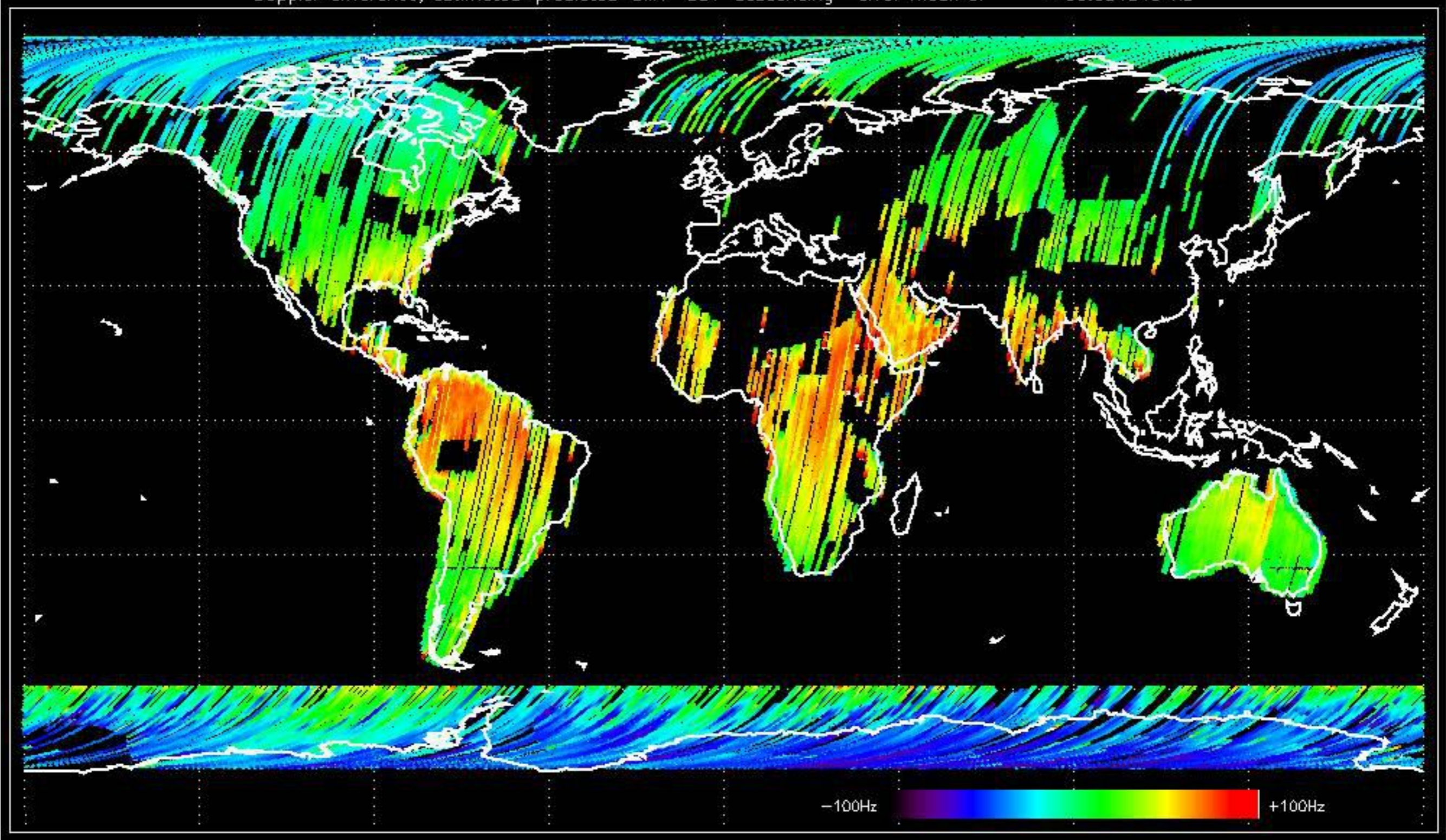




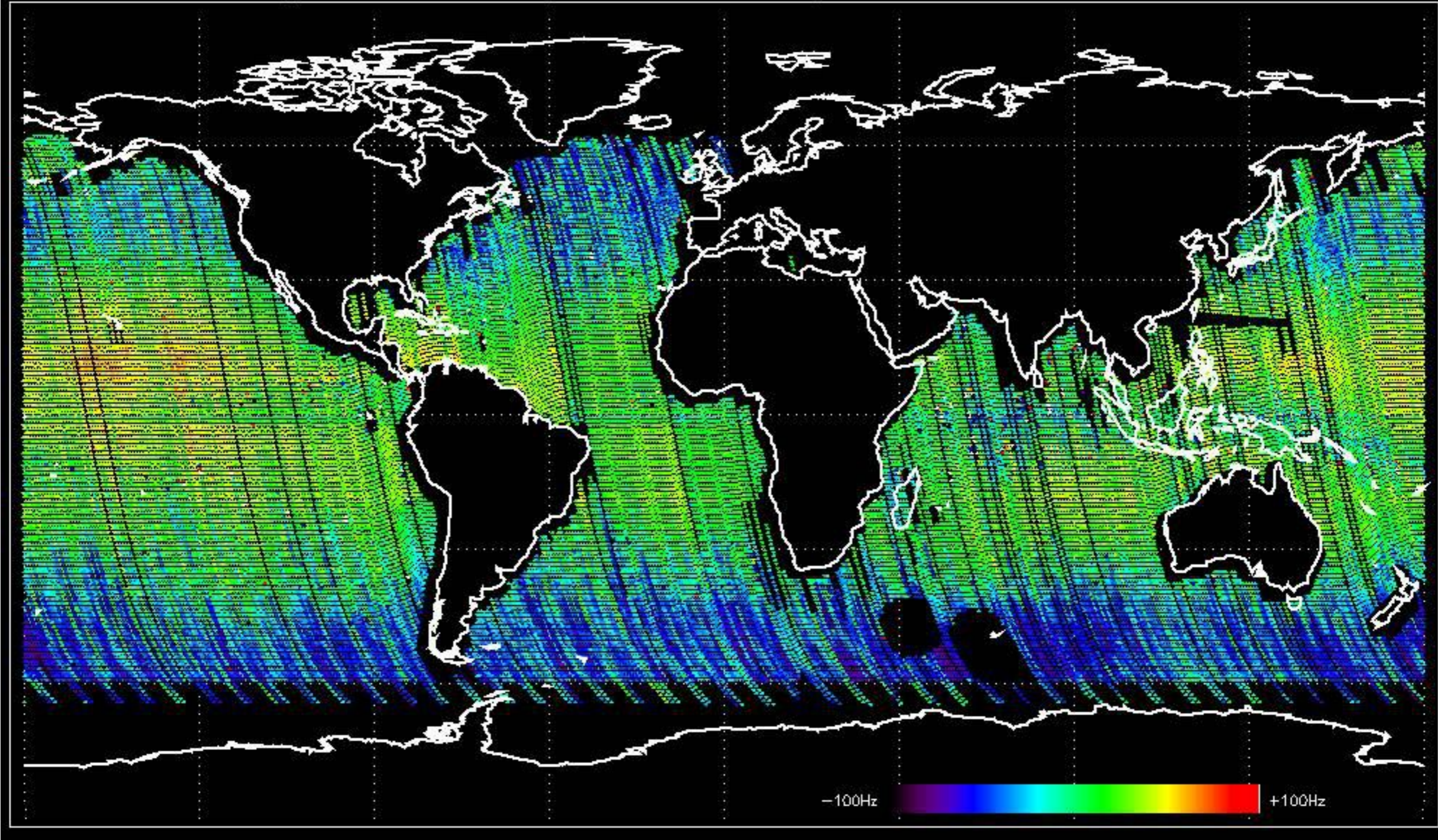
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -38.016662 Hz



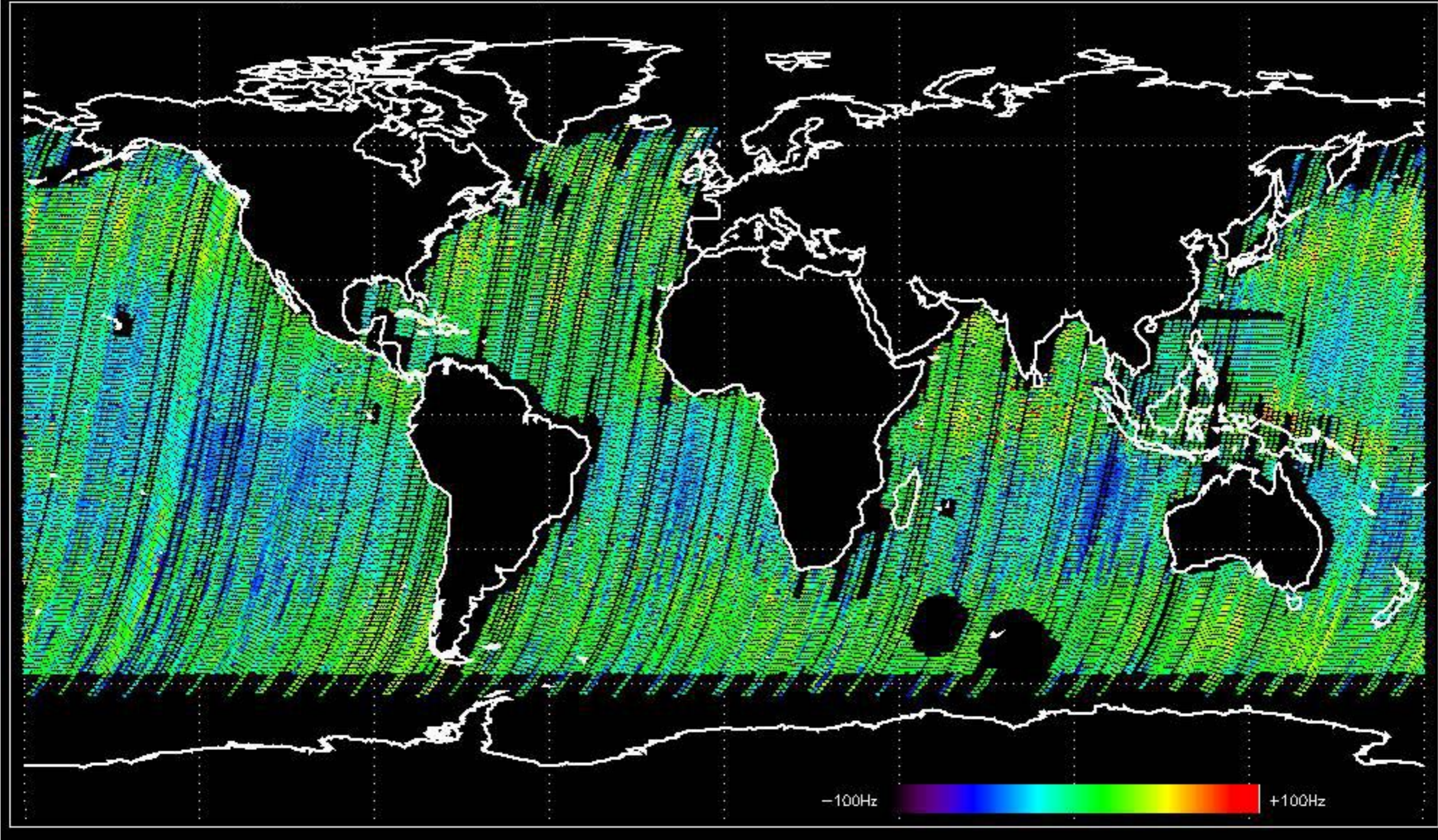
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -30.081349 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -33.586563 Hz

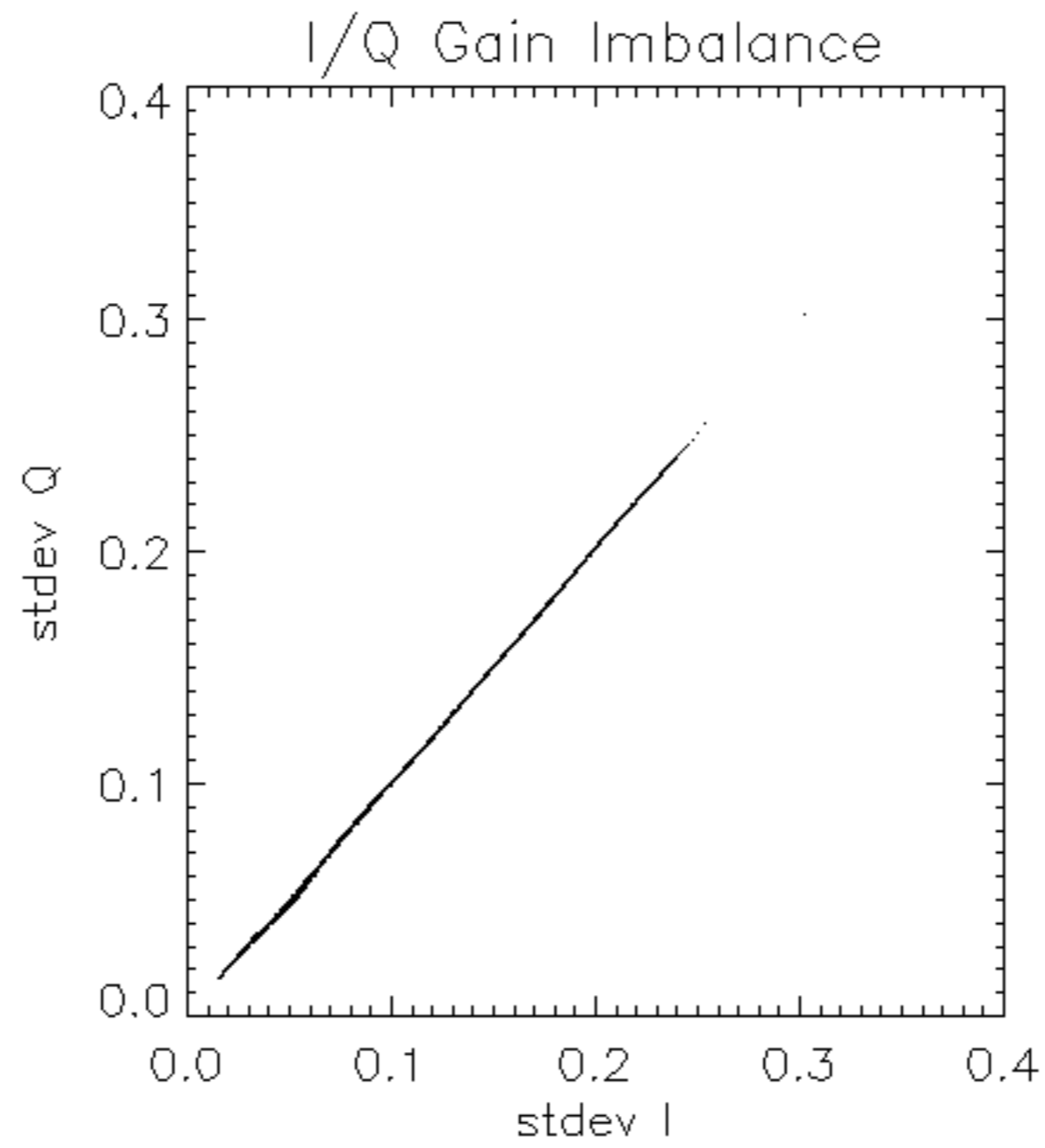


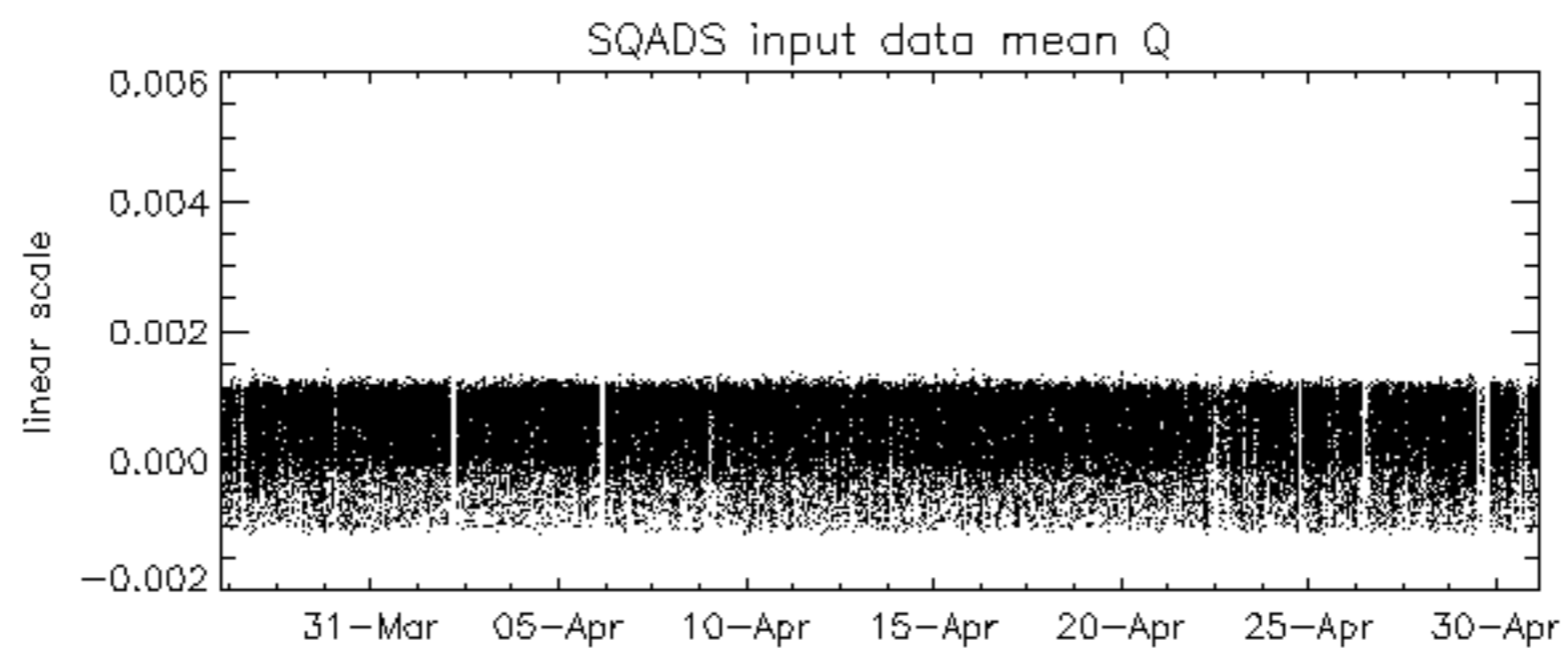
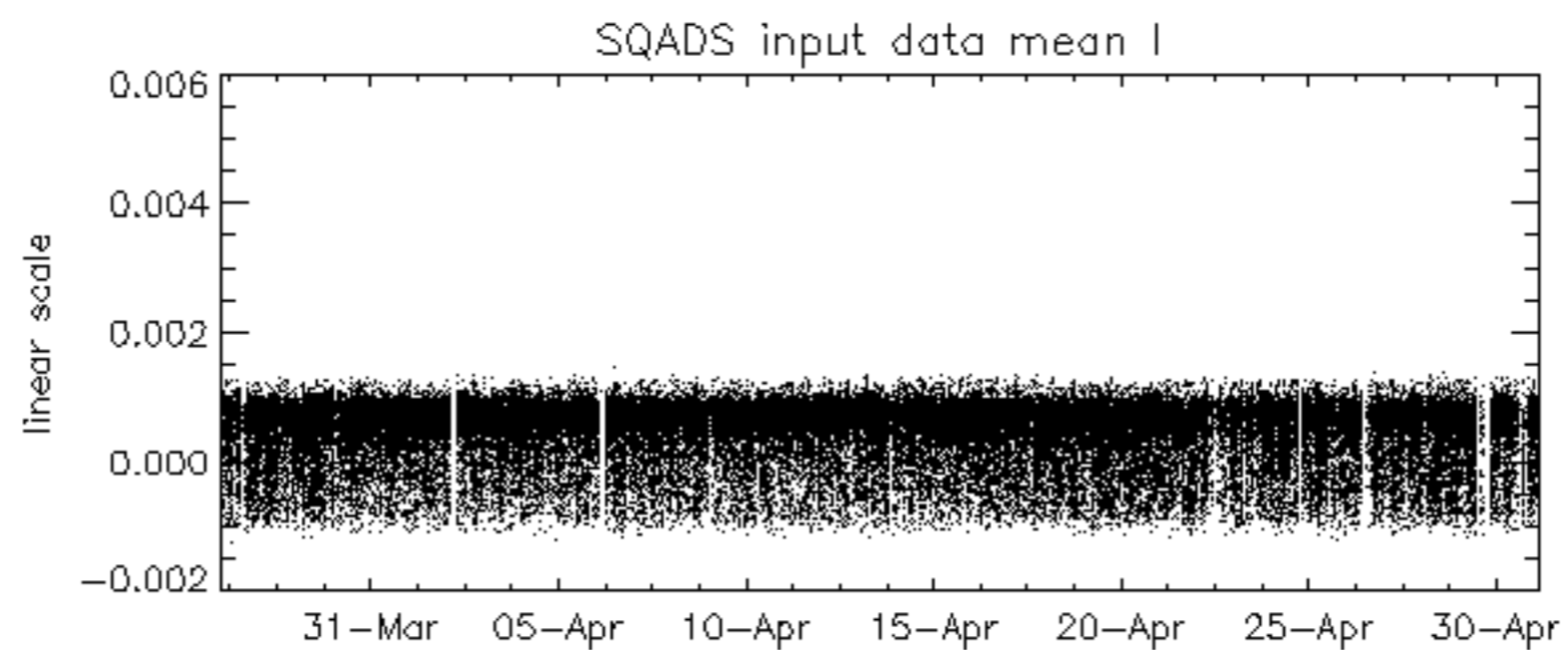
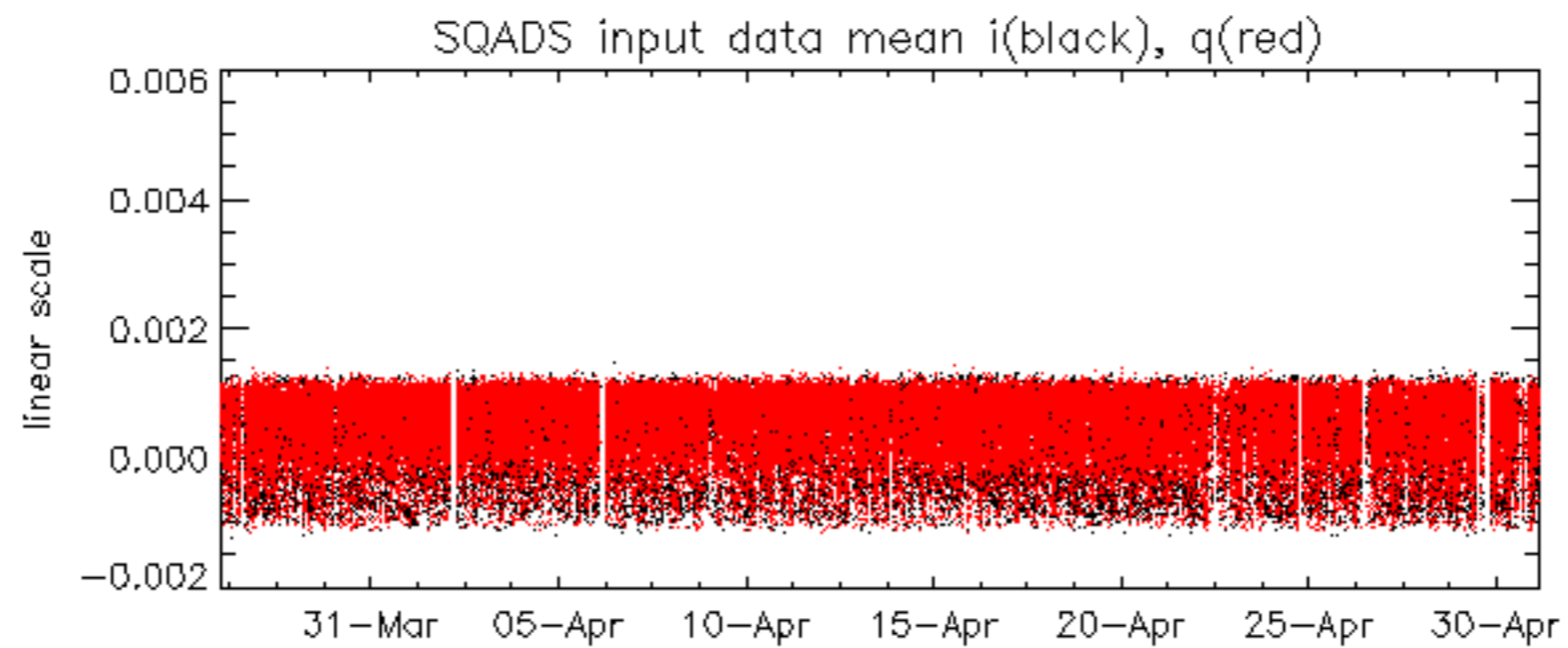
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.400514 Hz

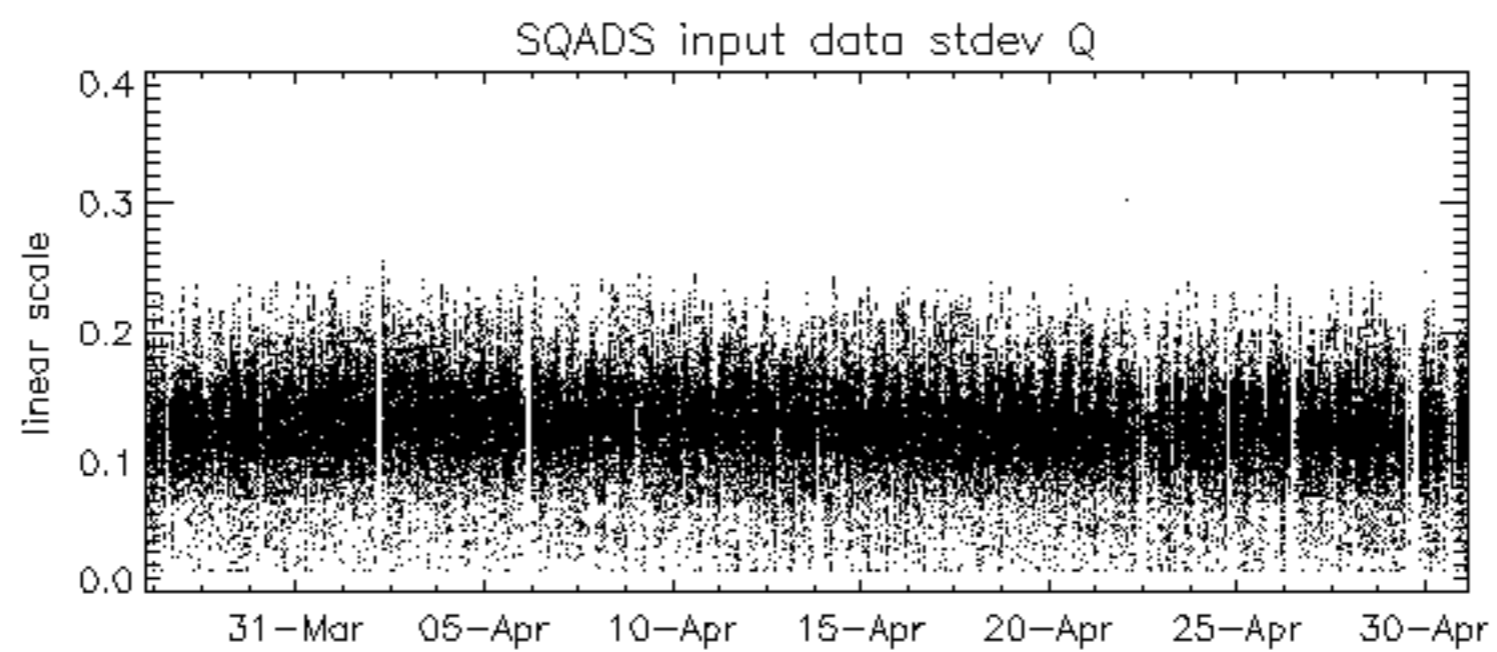
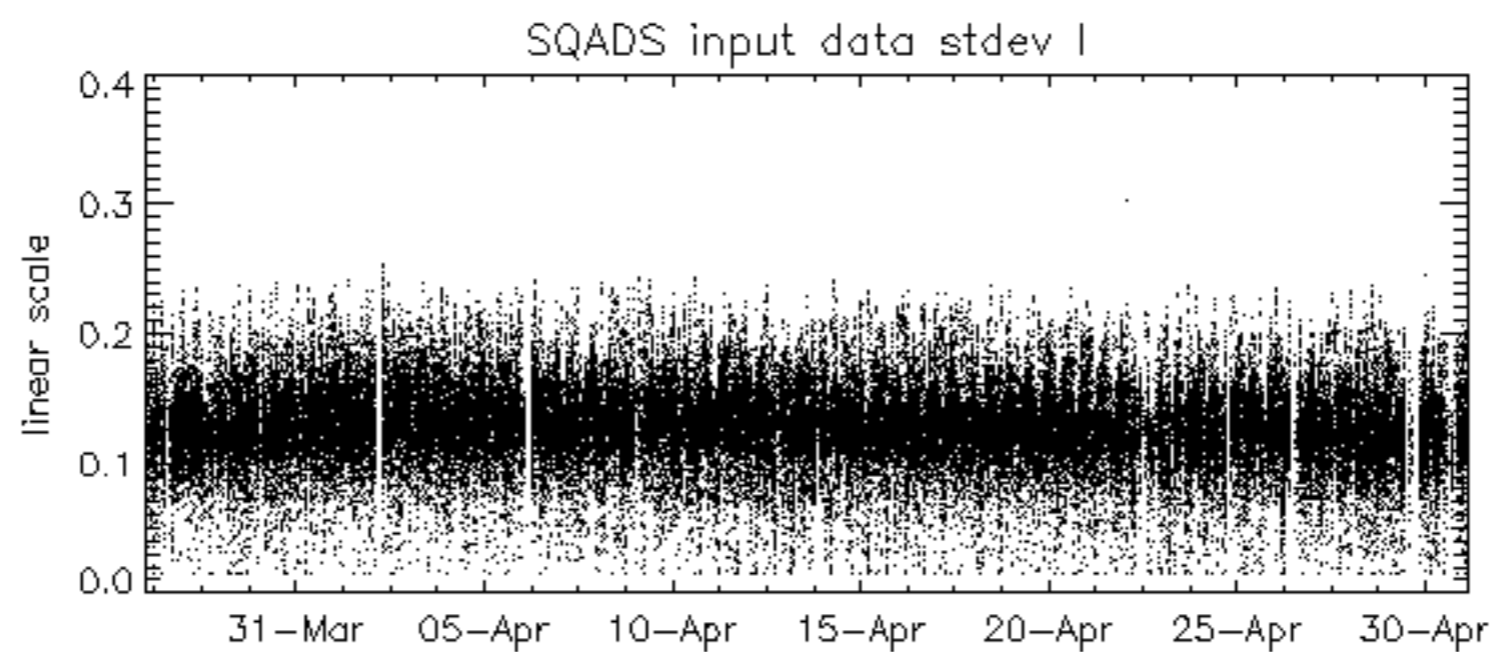
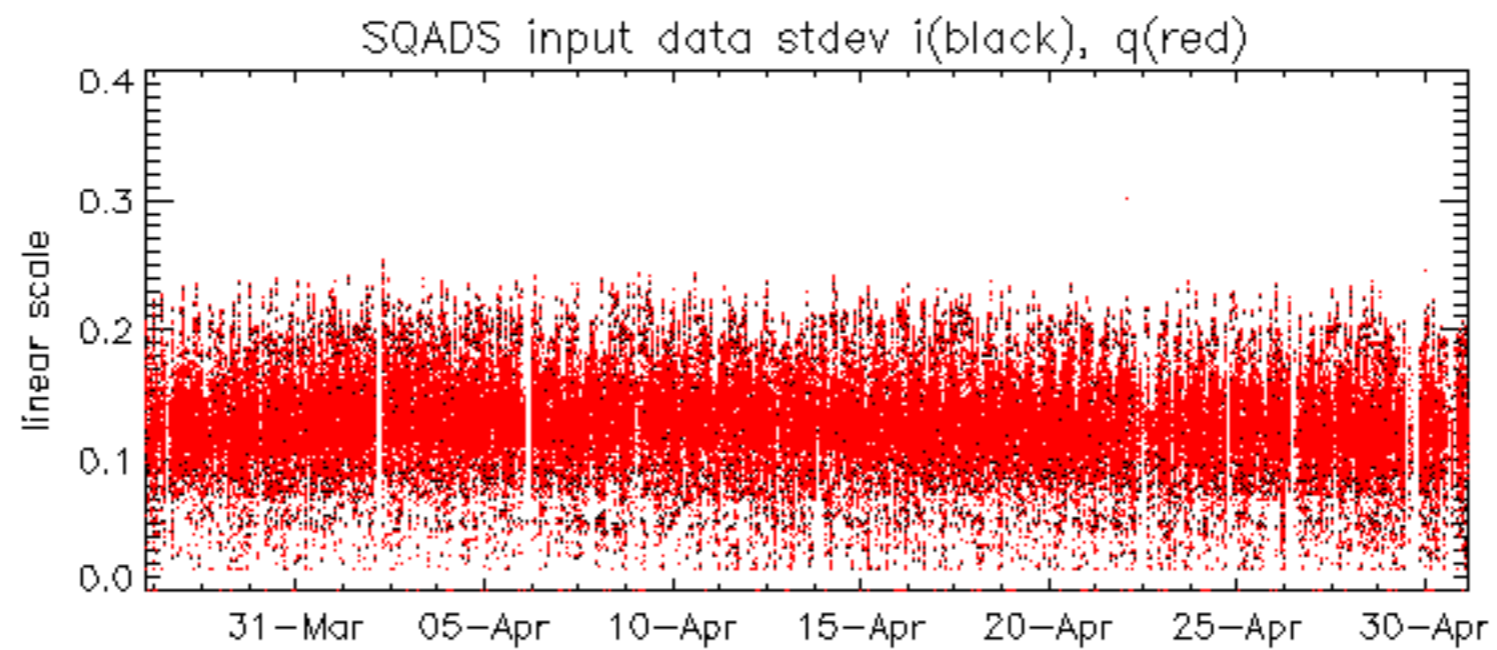


No anomalies observed on available MS products:

No anomalies observed.



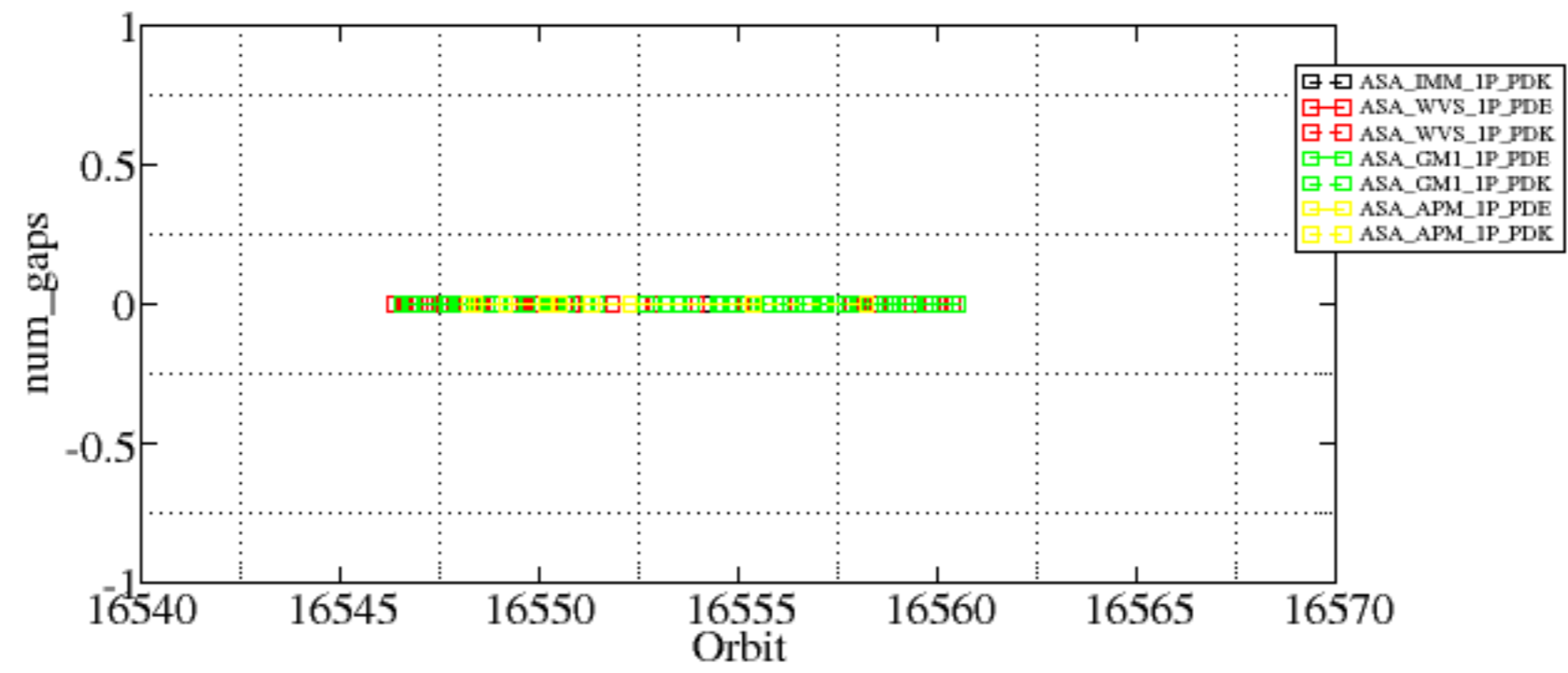


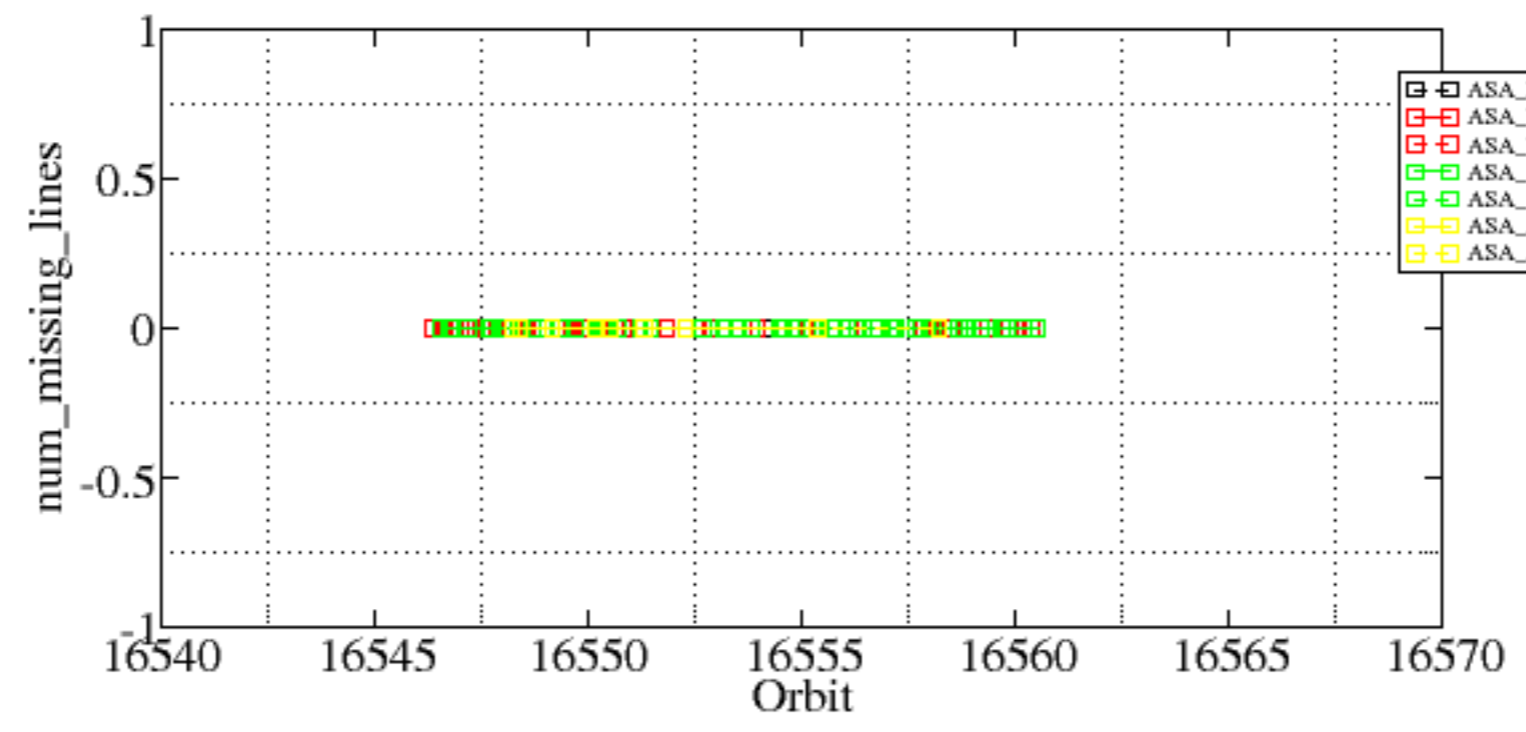


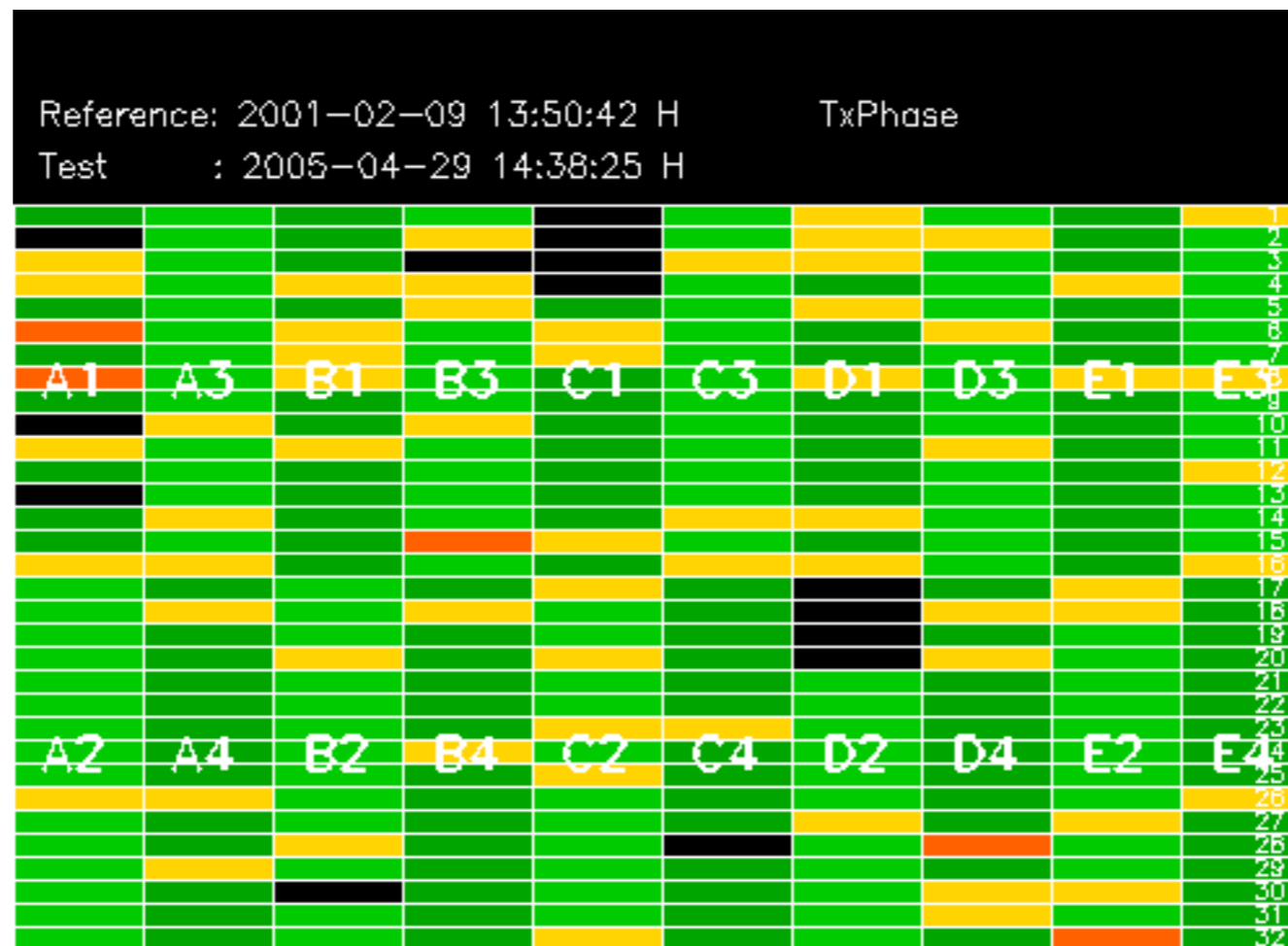
Summary of analysis for the last 3 days 2005043[901]

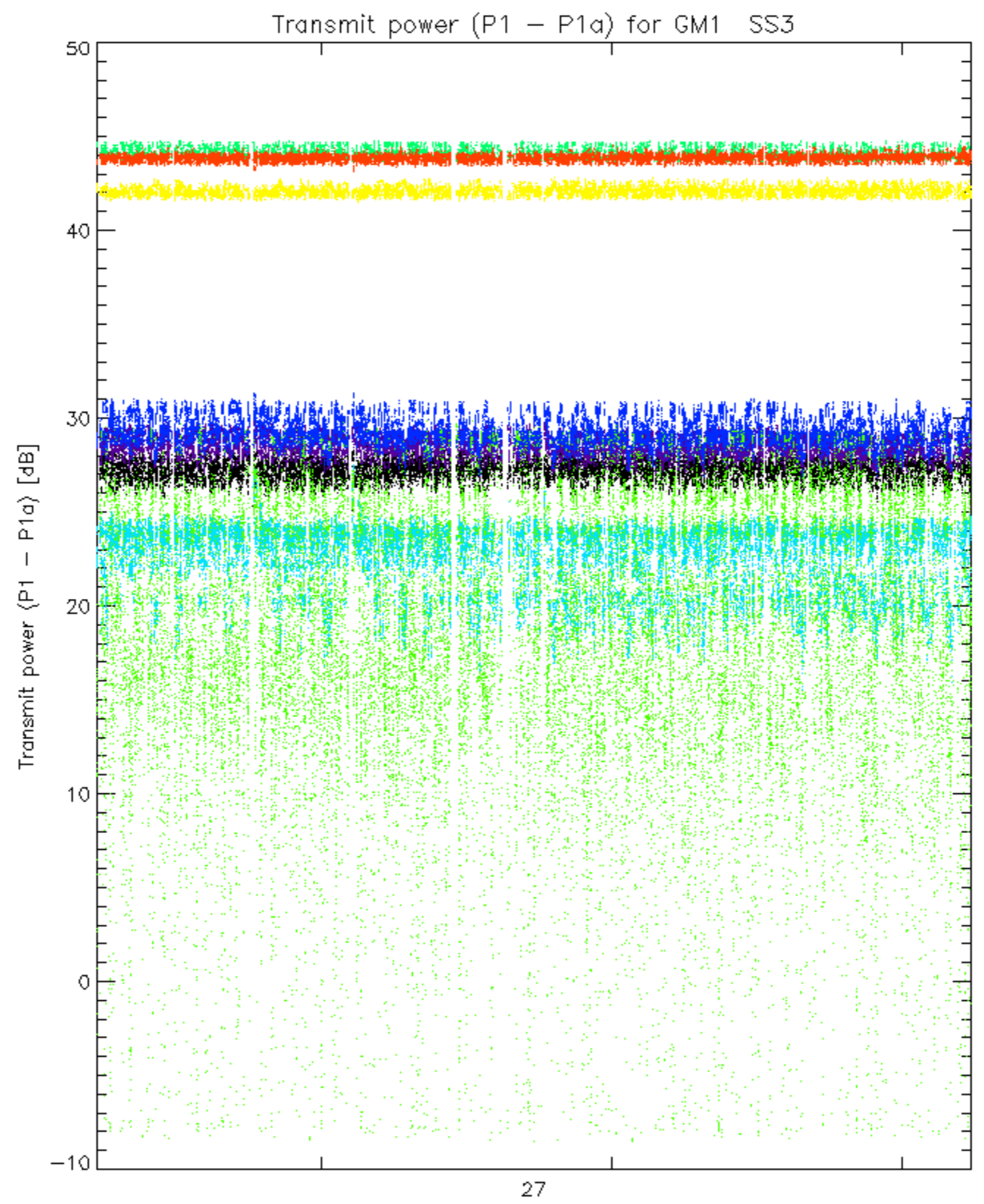
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines

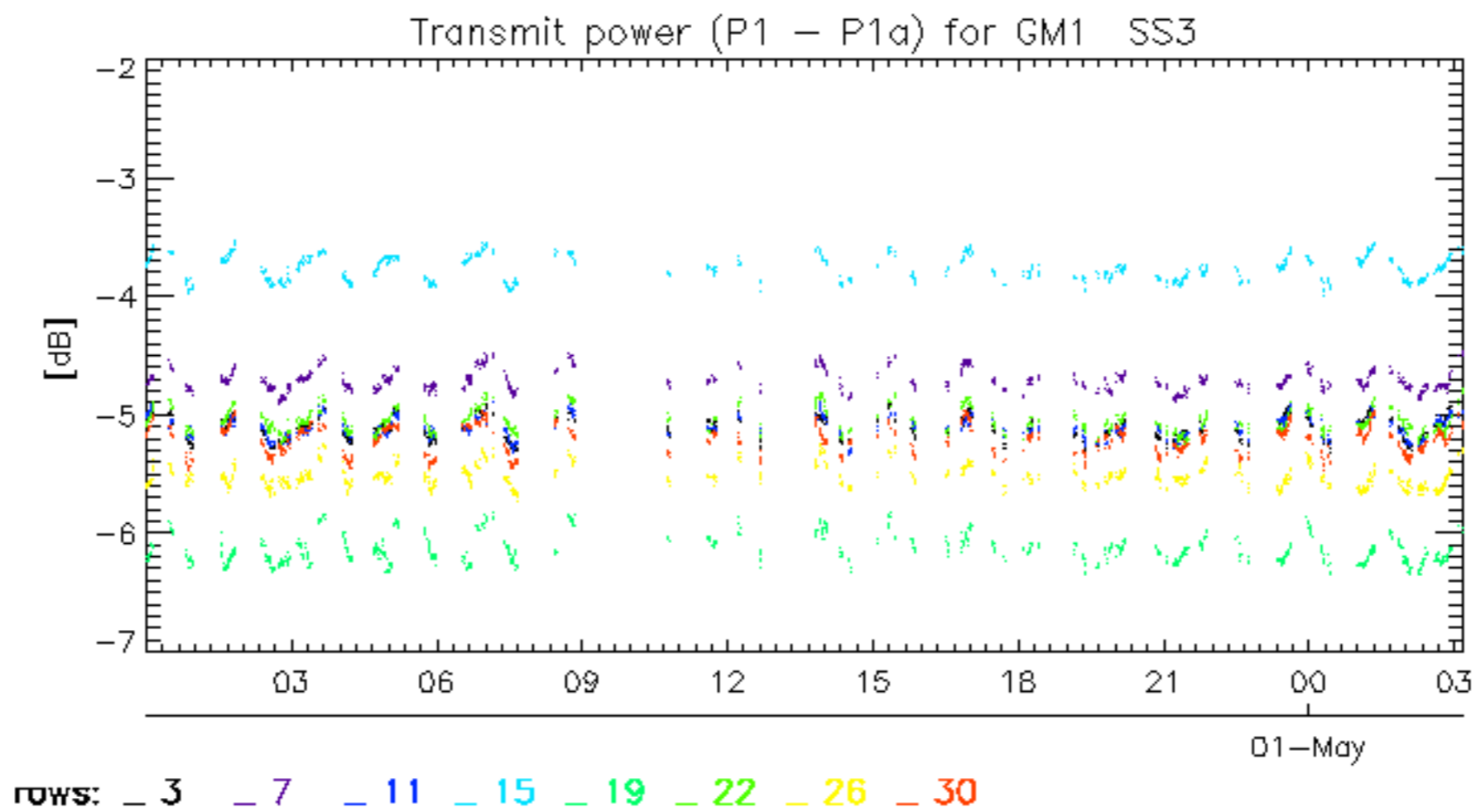


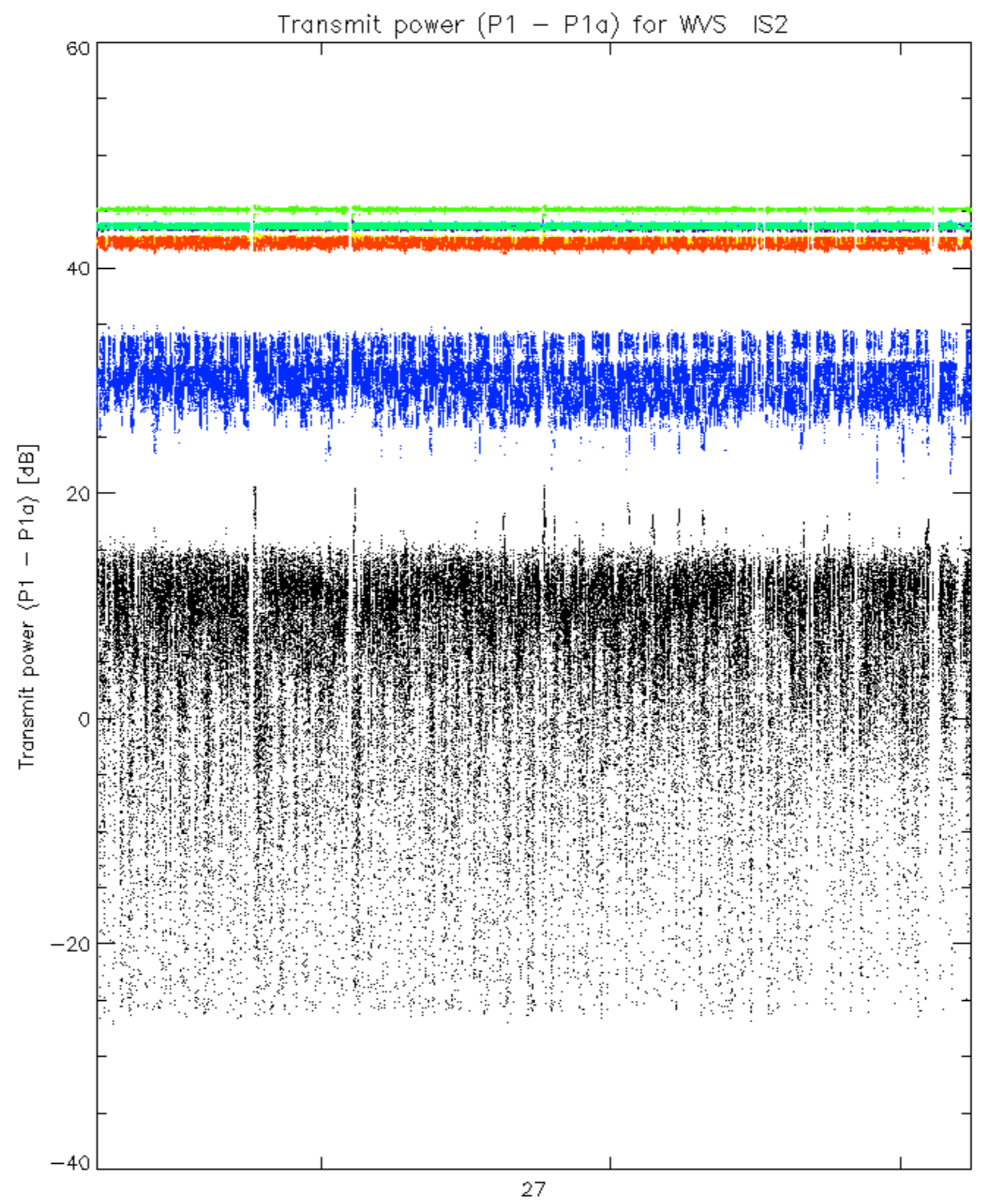




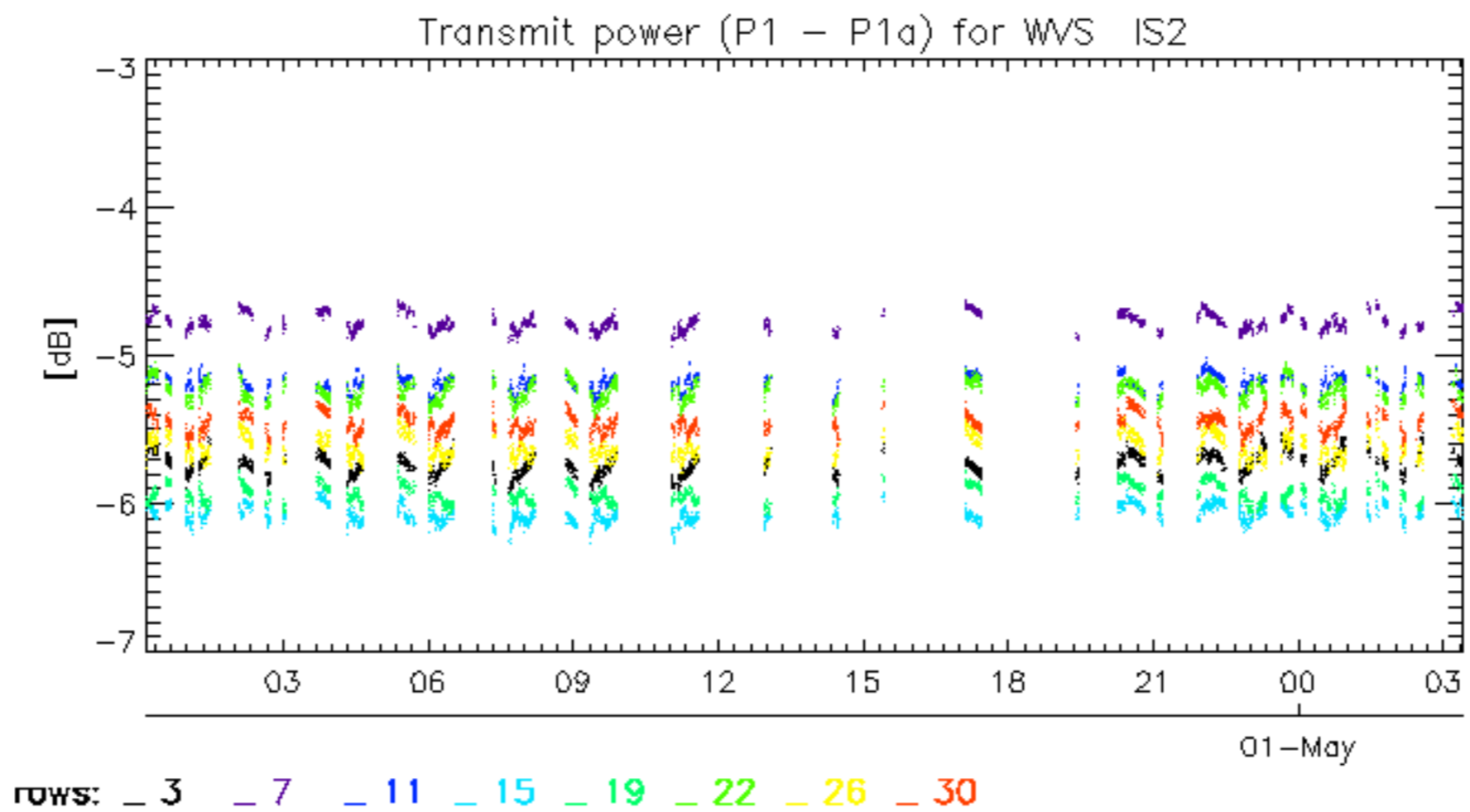


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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



No unavailabilities during the reported period.