

PRELIMINARY REPORT OF 050416

last update on Sat Apr 16 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 2005-04-15 00:00:00 to 2005-04-16 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	26	54	3	4	2
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	26	54	3	4	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	26	54	3	4	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	26	54	3	4	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	43	47	4	13	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	43	47	4	13	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	43	47	4	13	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	43	47	4	13	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	20050415 033426
H	20050414 040603

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	-3.344728	0.013525	-0.006058
7	P1	-3.116313	0.009373	-0.006164
11	P1	-4.671497	0.031468	0.000595
15	P1	-5.614089	0.042781	0.057981
19	P1	-3.700919	0.003983	-0.022425
22	P1	-4.543273	0.011841	-0.071672
26	P1	-4.915515	0.019681	0.040502
30	P1	-7.186183	0.022044	0.057329
3	P1	-15.809950	0.336369	0.055328
7	P1	-15.533053	0.083542	0.009410
11	P1	-21.075695	0.452000	-0.323214
15	P1	-11.539893	0.053934	0.141665
19	P1	-14.314487	0.027672	0.001748
22	P1	-15.758322	0.314258	-0.252612
26	P1	-17.636044	0.178979	0.031669
30	P1	-17.930099	0.379021	0.158932

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.052820	0.082010	0.041514
7	P2	-22.230524	0.096963	0.049699
11	P2	-14.257064	0.109589	0.158250
15	P2	-7.056145	0.091770	-0.036760
19	P2	-9.642662	0.094647	-0.028125
22	P2	-16.887720	0.096082	0.029577
26	P2	-16.452421	0.094102	-0.032229
30	P2	-18.829950	0.085720	0.005998

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.166681	0.004563	-0.003794
7	P3	-8.166681	0.004563	-0.003794
11	P3	-8.166680	0.004563	-0.003789
15	P3	-8.166680	0.004563	-0.003789
19	P3	-8.166680	0.004563	-0.003789
22	P3	-8.166680	0.004563	-0.003789
26	P3	-8.166680	0.004563	-0.003789
30	P3	-8.166681	0.004563	-0.003791

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	-2.722461	0.026706	-0.078328
7	P1	-3.010082	0.046648	0.014296
11	P1	-3.982043	0.027485	-0.019099
15	P1	-3.546042	0.036576	-0.014155
19	P1	-3.611284	0.013841	-0.030087
22	P1	-5.715084	0.041120	0.067291
26	P1	-7.299053	0.026106	-0.024374
30	P1	-6.267757	0.059232	-0.086288
3	P1	-10.707091	0.166171	-0.105134
7	P1	-10.342597	0.176640	-0.052104
11	P1	-12.536653	0.139897	-0.094500
15	P1	-11.709599	0.101477	0.021701
19	P1	-15.589128	0.051275	-0.074131
22	P1	-24.771765	1.488405	-0.525316
26	P1	-15.545545	0.237686	-0.161161
30	P1	-20.150623	1.229125	0.159614

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.755365	0.039738	0.024685
7	P2	-22.312523	0.045022	0.048878
11	P2	-10.097119	0.058586	0.043939
15	P2	-5.013480	0.032720	-0.088706
19	P2	-6.854557	0.048799	-0.075013
22	P2	-7.081038	0.038252	-0.024137
26	P2	-23.864487	0.036598	-0.064159
30	P2	-21.899361	0.041807	-0.044680

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.002006	0.003442	-0.017740
7	P3	-8.002174	0.003431	-0.017403
11	P3	-8.002067	0.003437	-0.017635
15	P3	-8.002104	0.003440	-0.017777
19	P3	-8.002239	0.003439	-0.017769
22	P3	-8.002129	0.003426	-0.017611
26	P3	-8.002136	0.003433	-0.017547
30	P3	-8.002066	0.003434	-0.017805

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	0.000476148
	stdev	2.18726e-07
MEAN Q	mean	0.000488108
	stdev	2.34478e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129334
	stdev	0.00105689
STDEV Q	mean	0.129598
	stdev	0.00106870



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005041[456]

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_1PNPDK20050415_124323_000000532036_00253_16339_2504.N1	1	0
ASA_WVS_1PNPDE20050414_053950_000000002036_00234_16320_8284.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)

<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

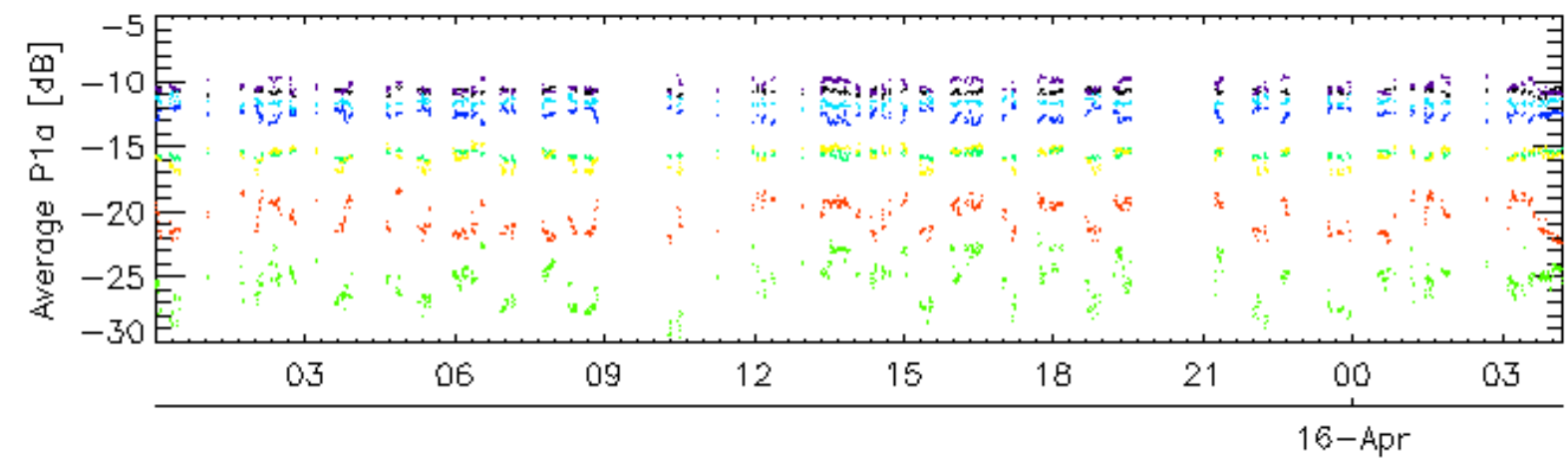
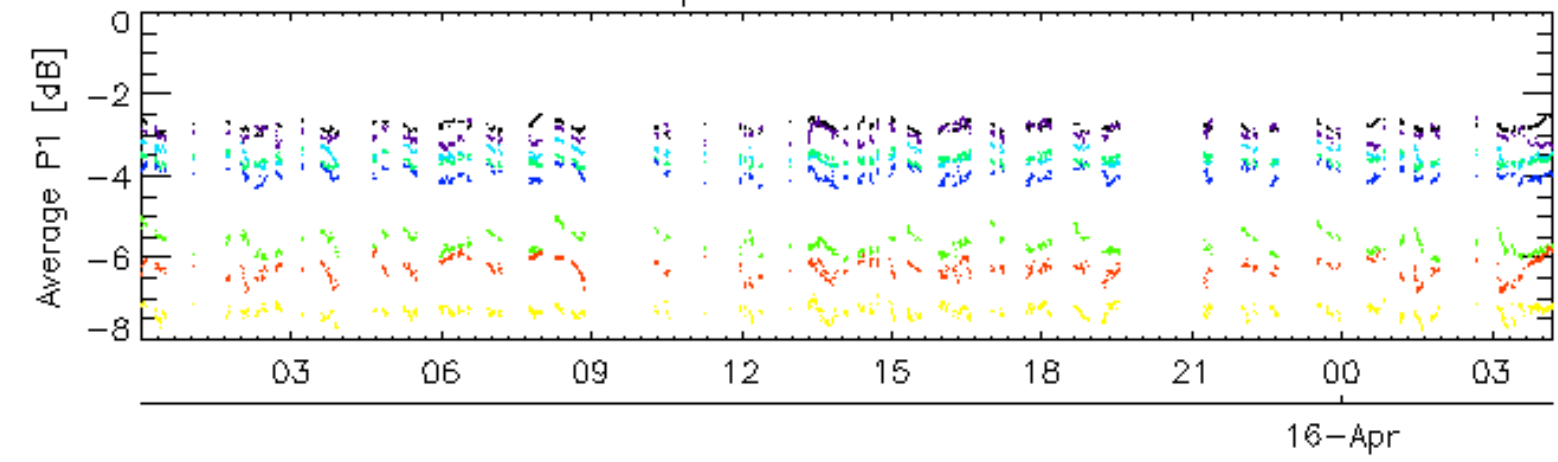
Ascending

Descending

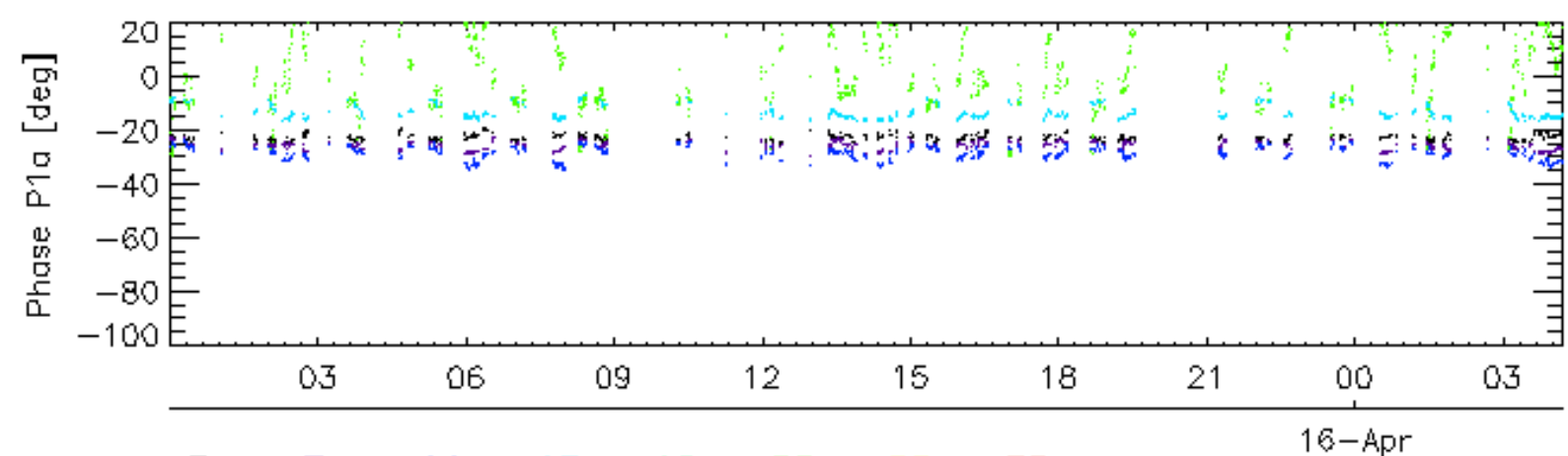
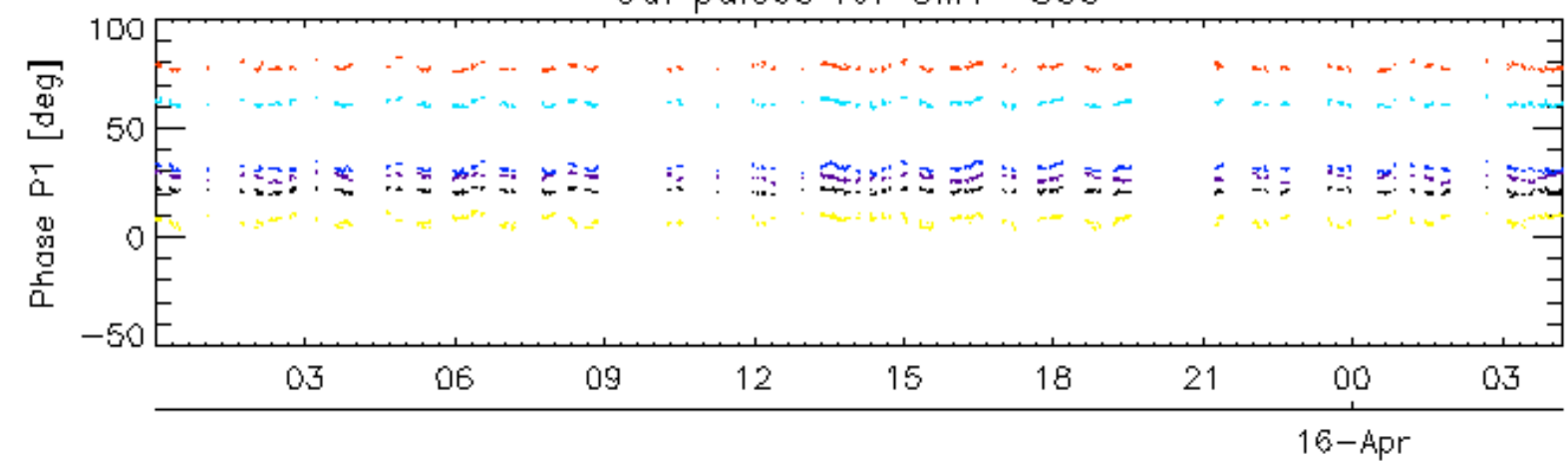
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

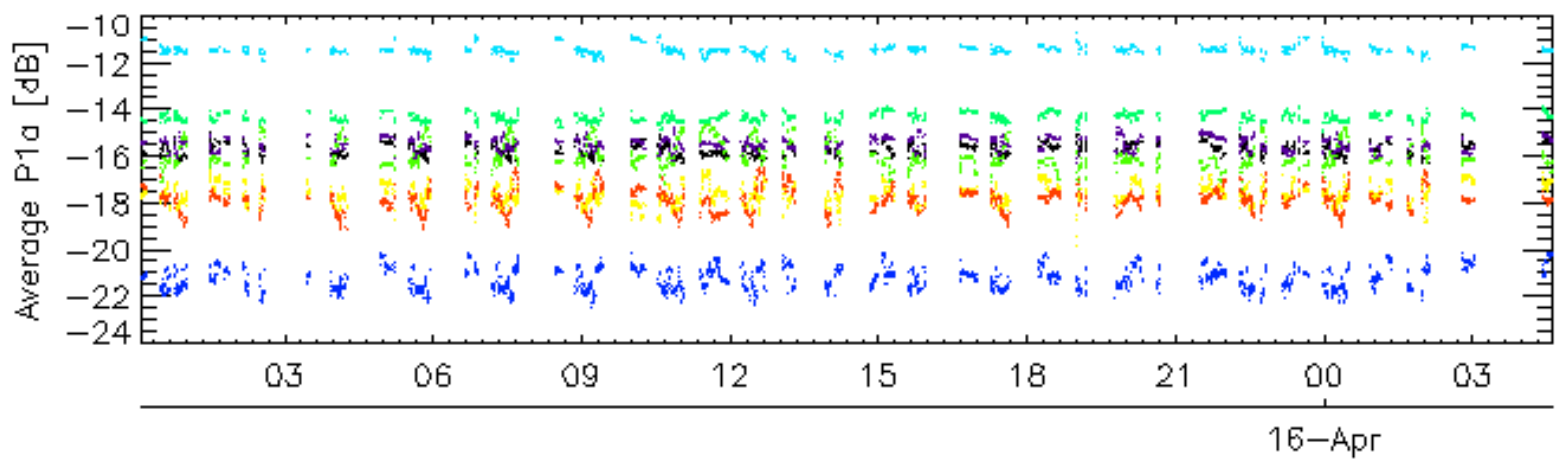
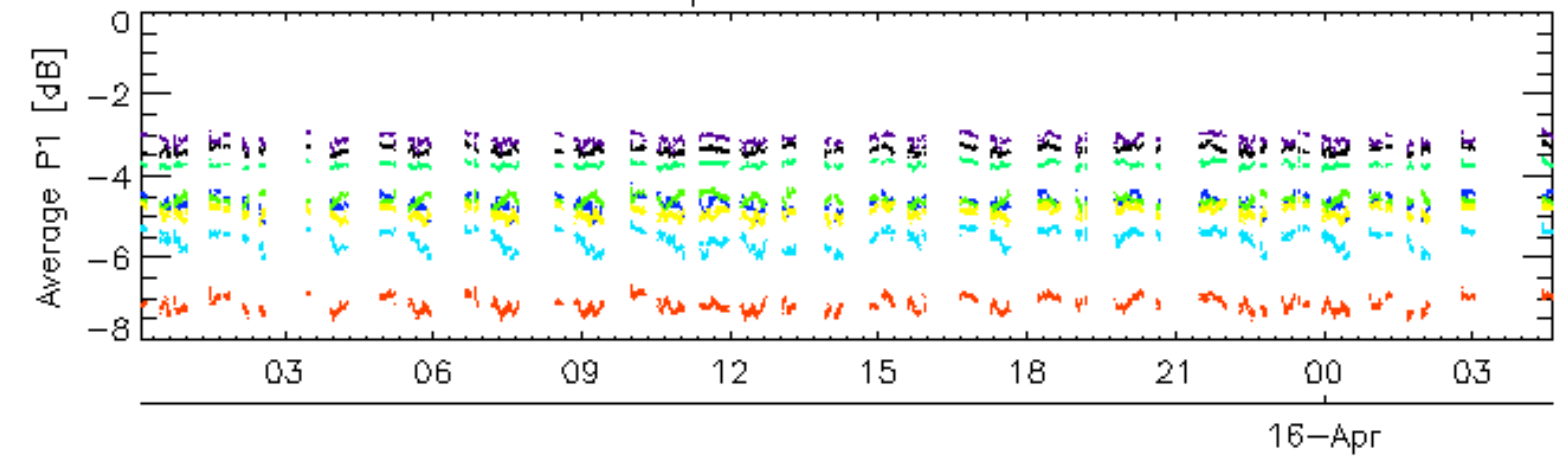


Cal pulses for GM1 SS3

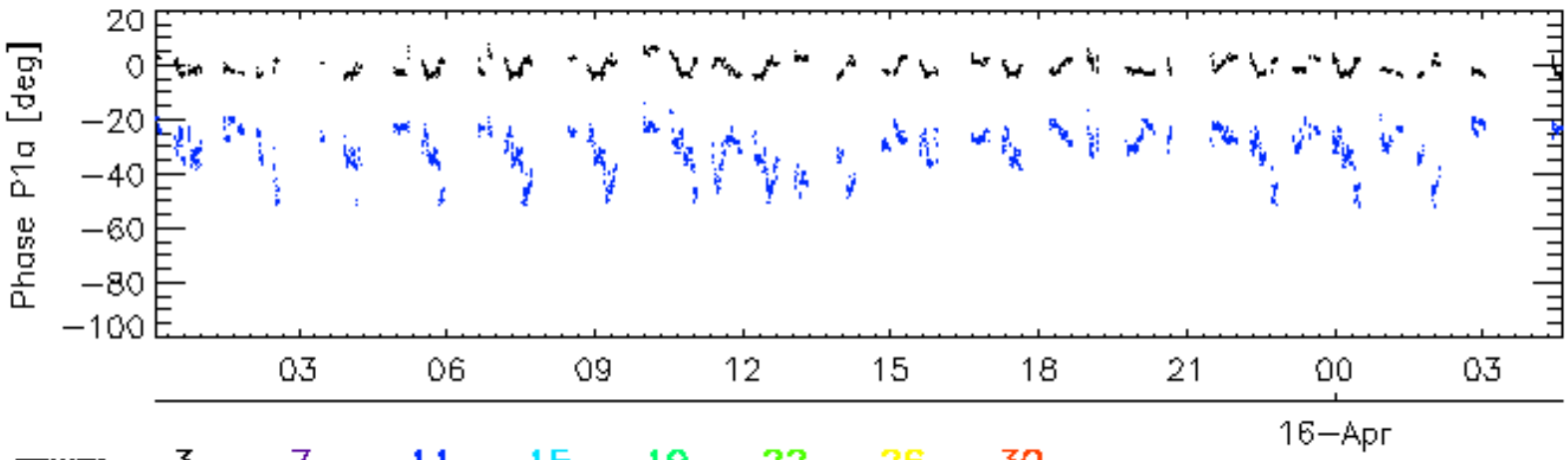
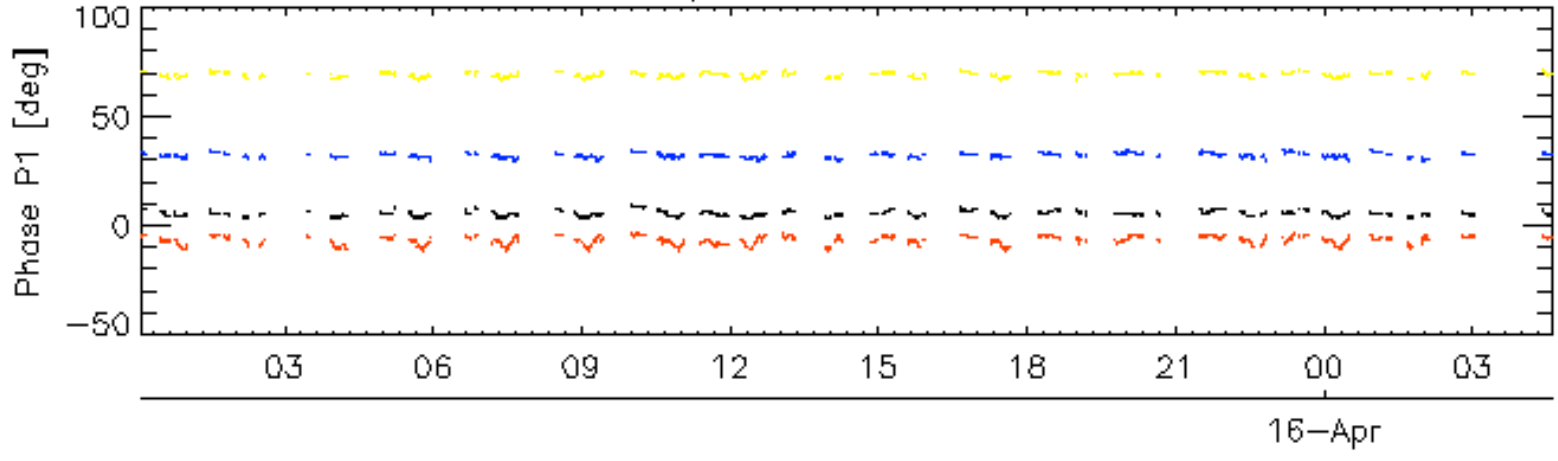


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

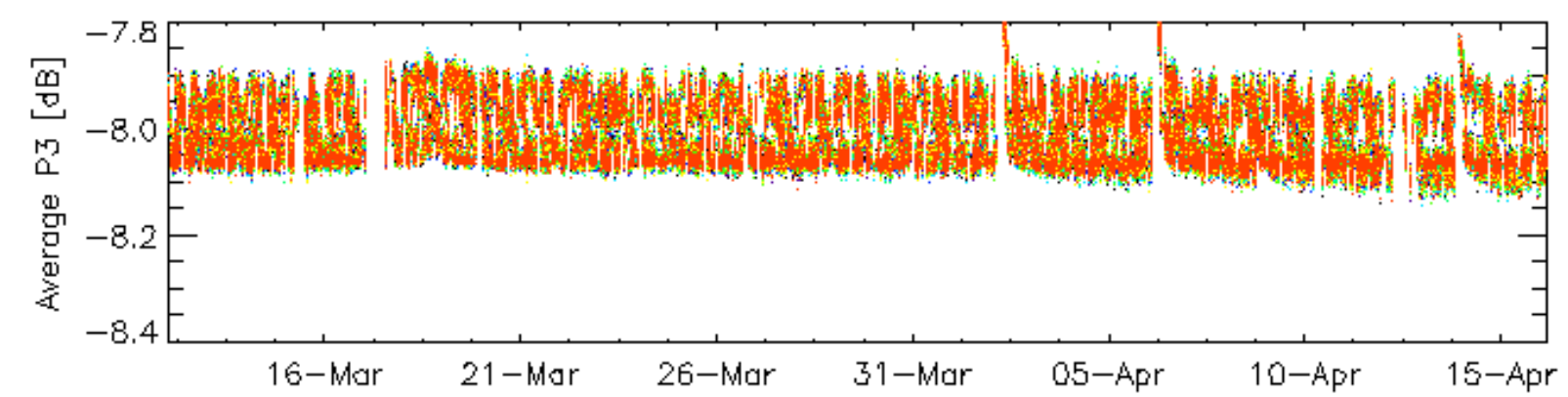
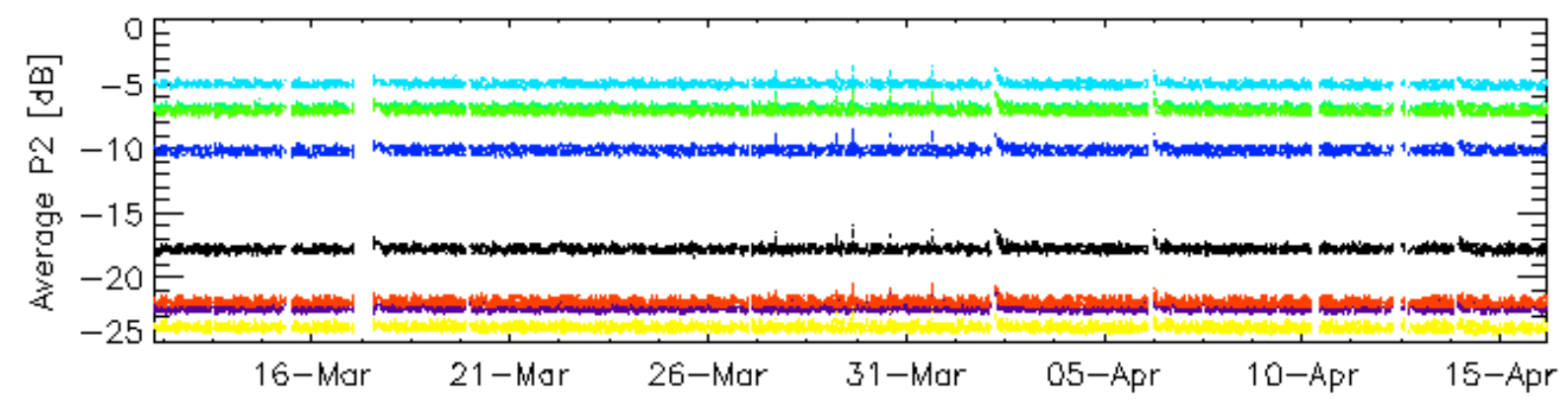
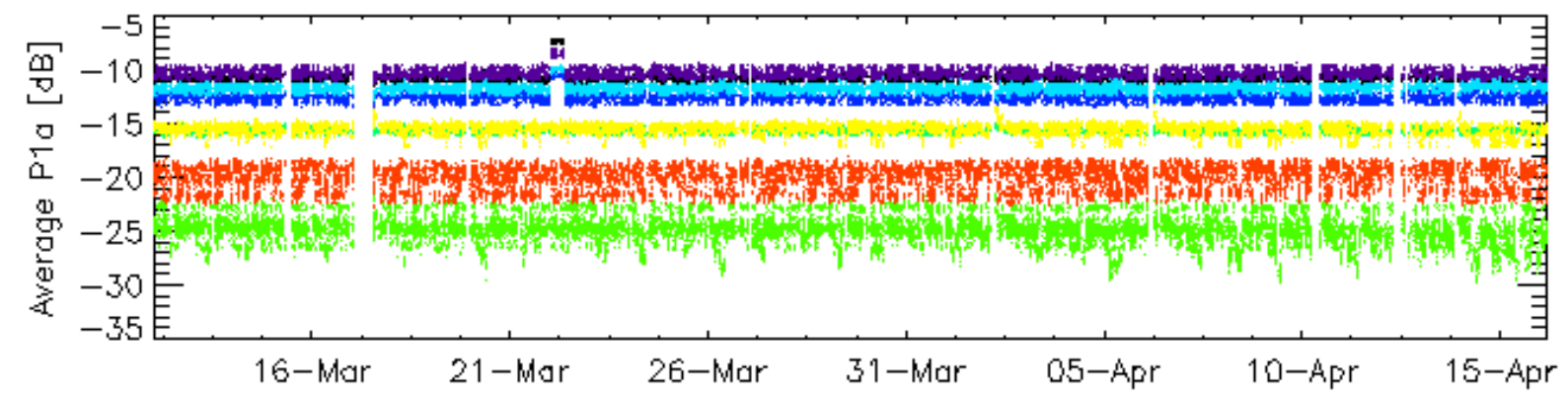
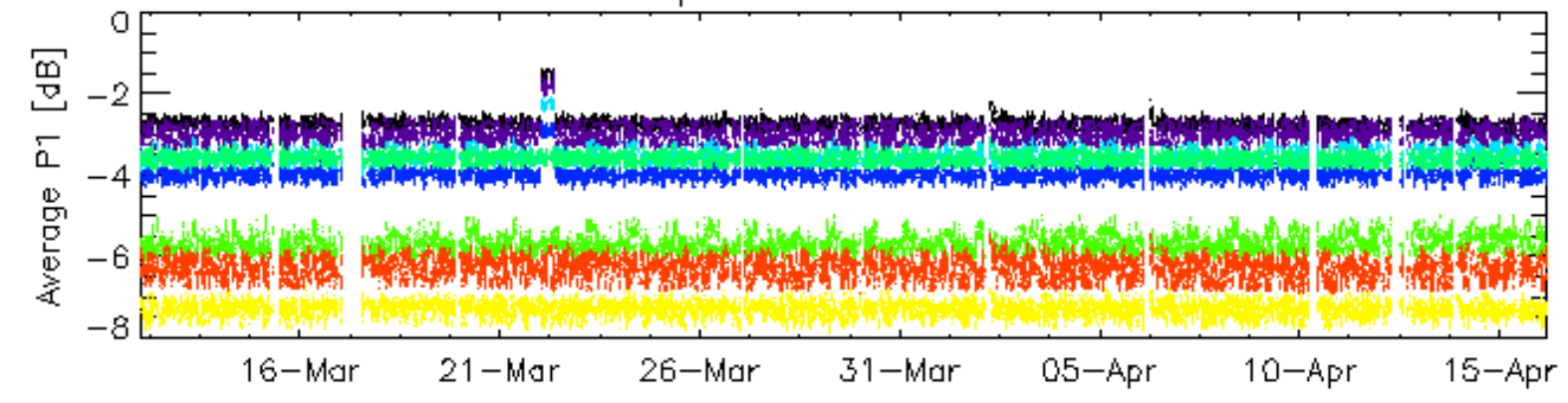


Cal pulses for WVS IS2



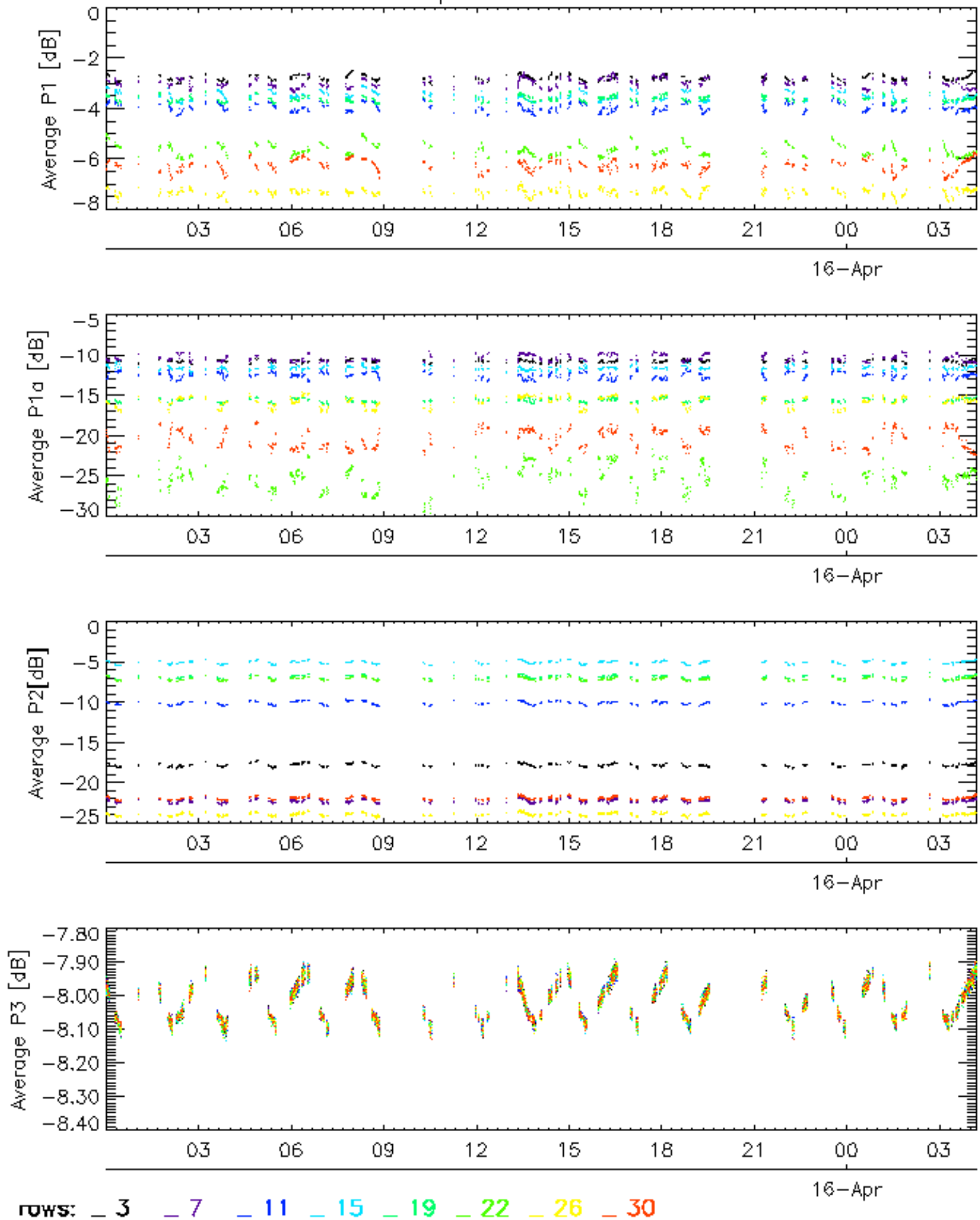
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

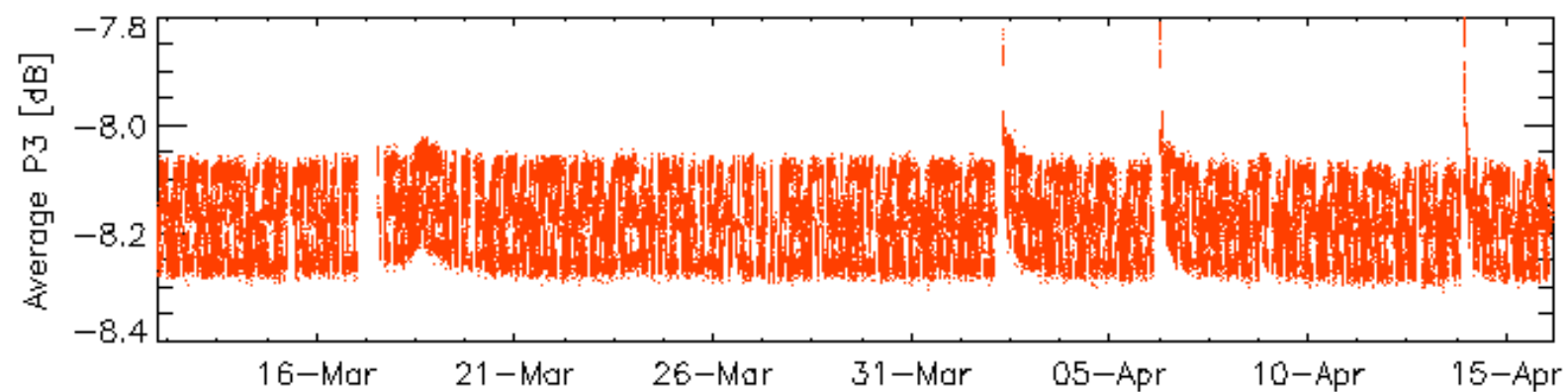
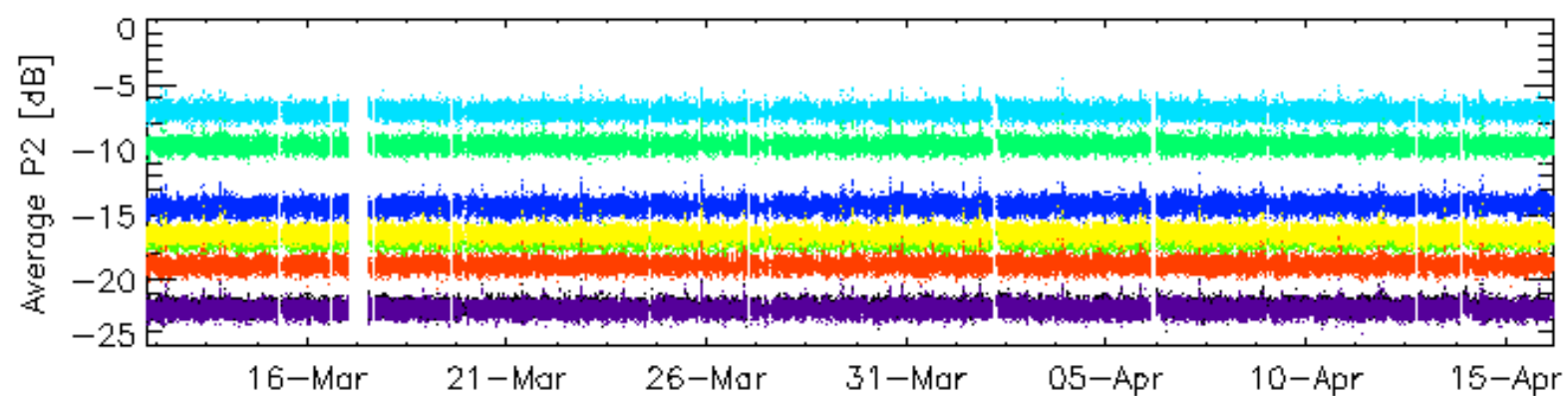
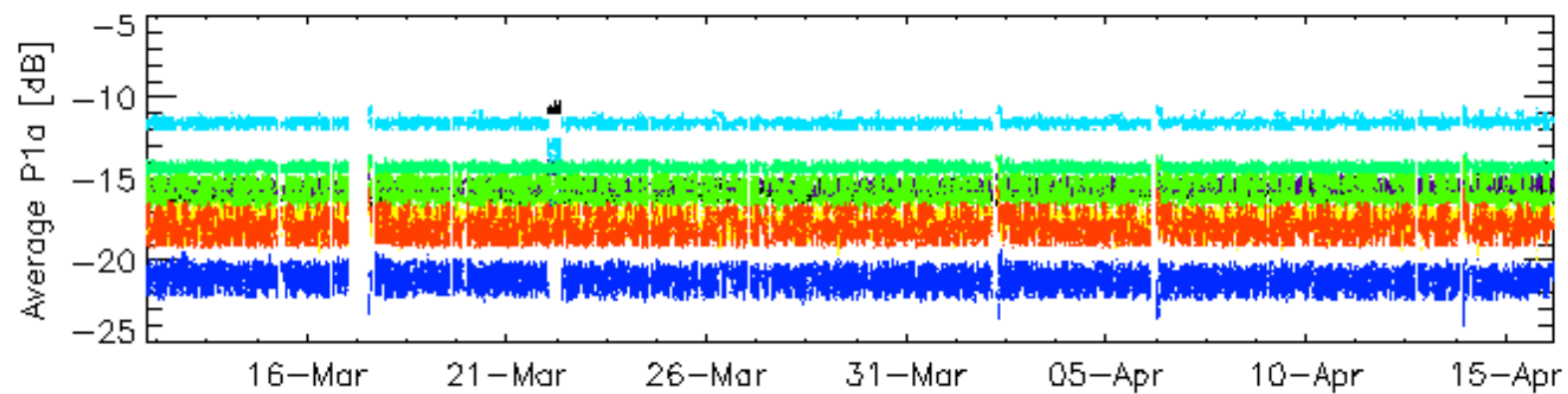
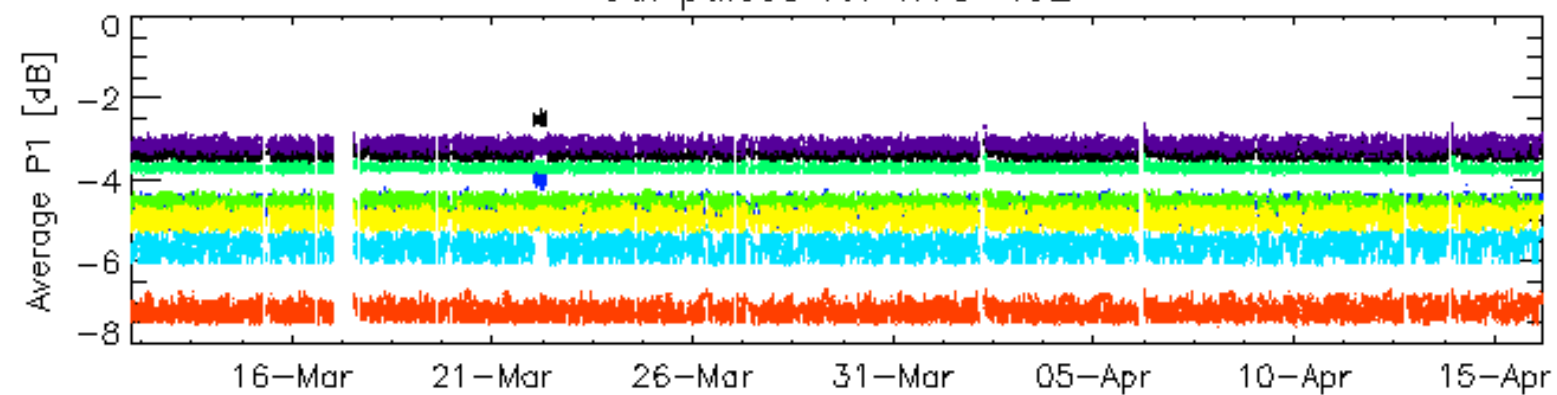


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

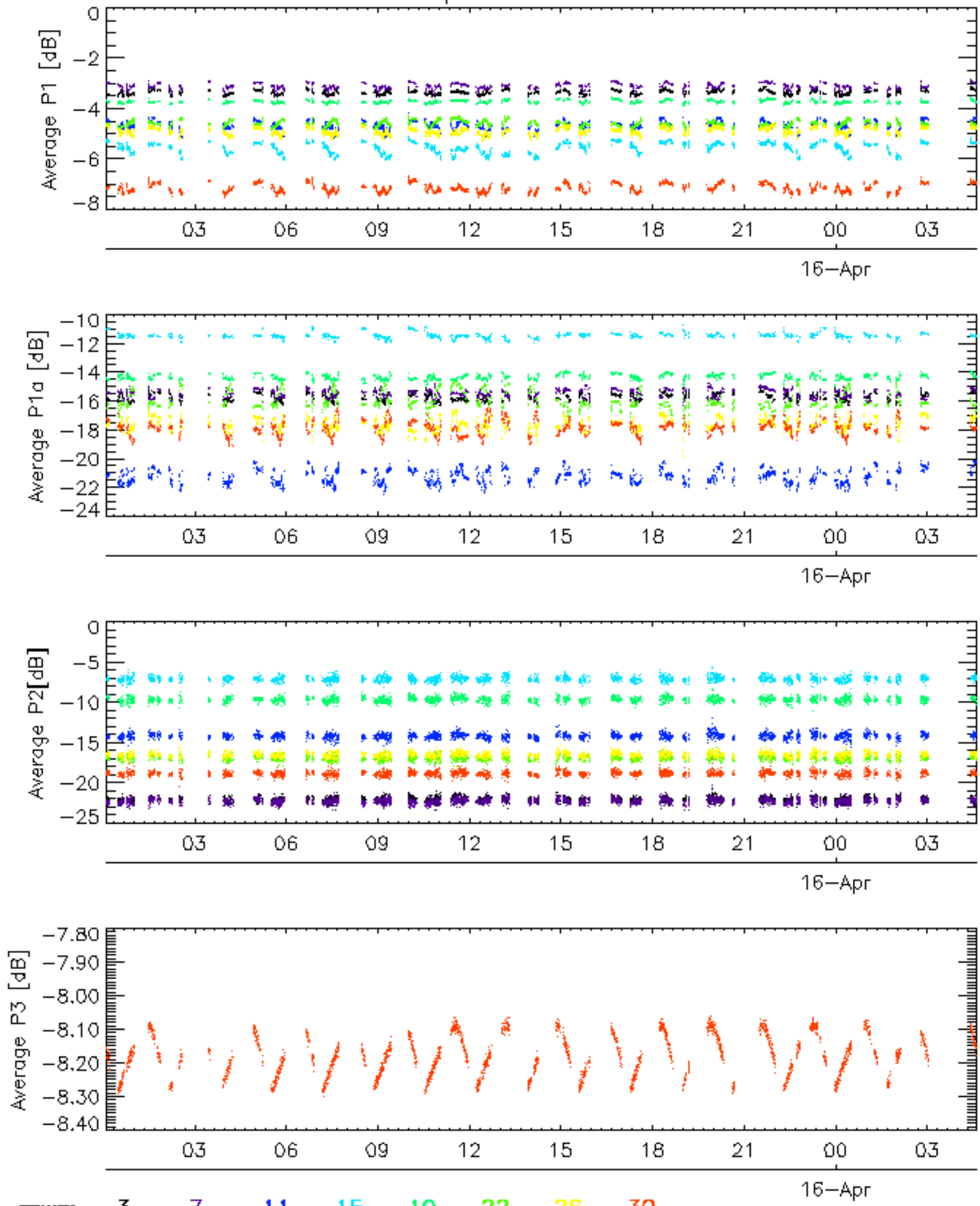


Cal pulses for WVS IS2



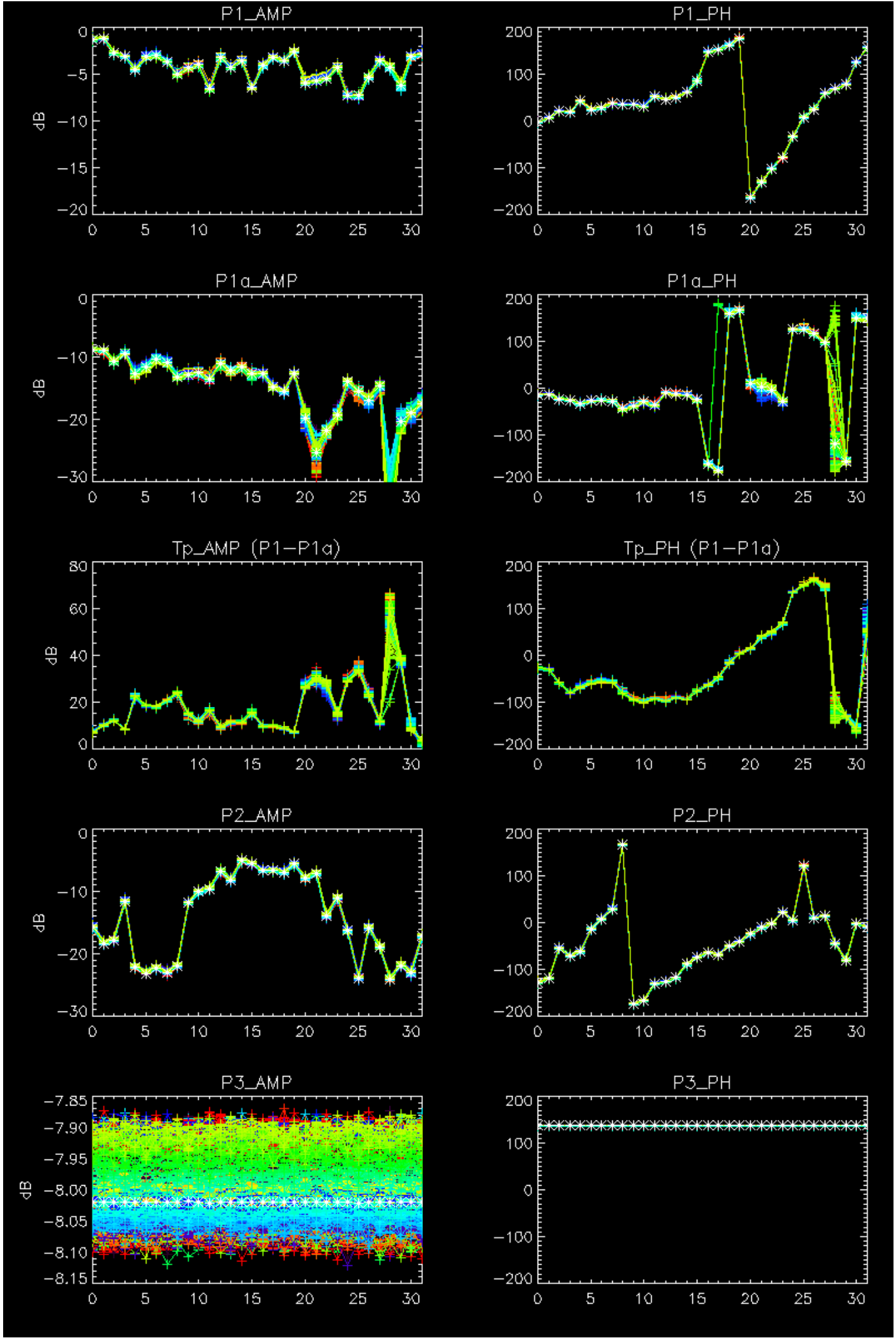
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

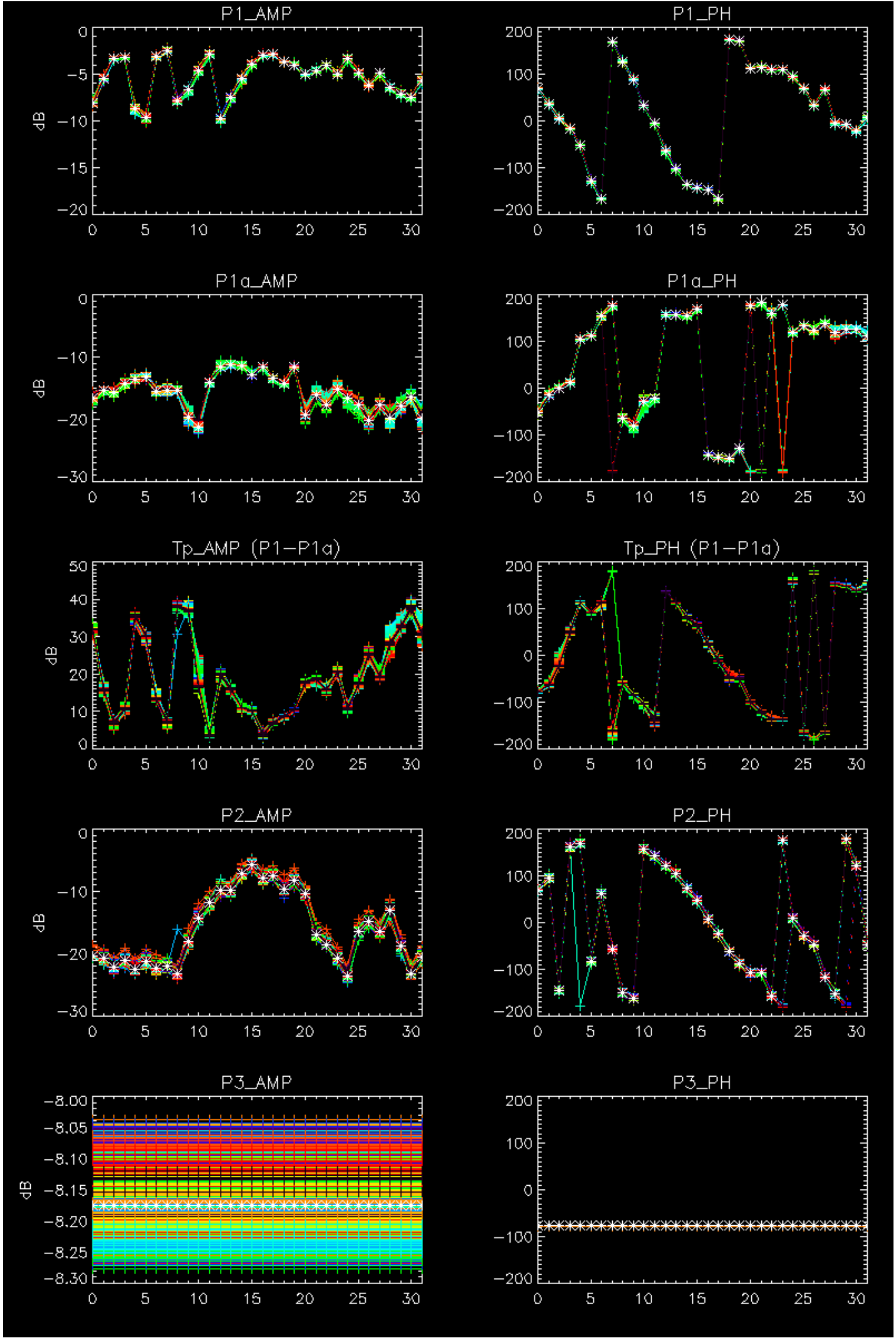
Cal pulses for WVS IS2



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

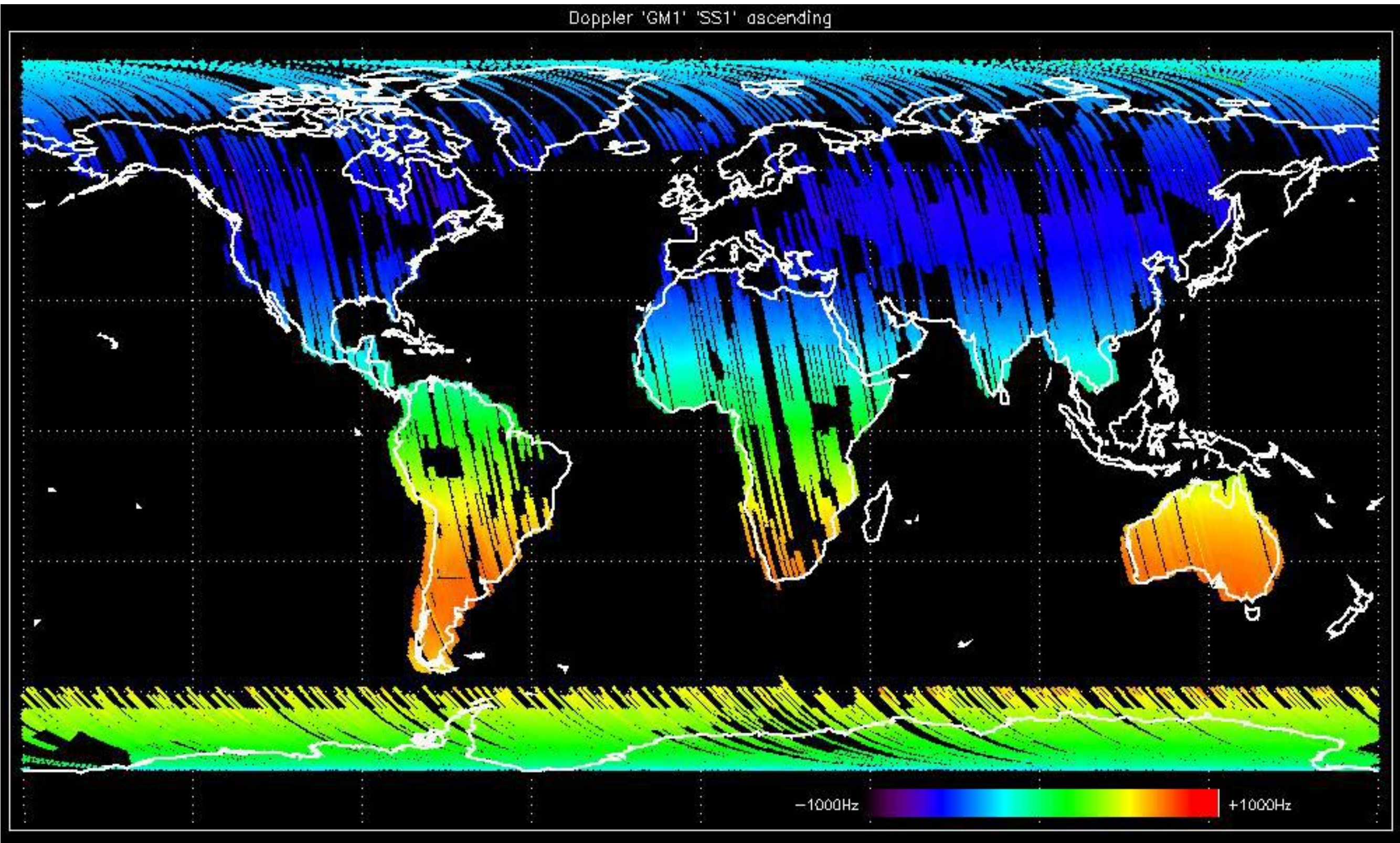
No anomalies observed.



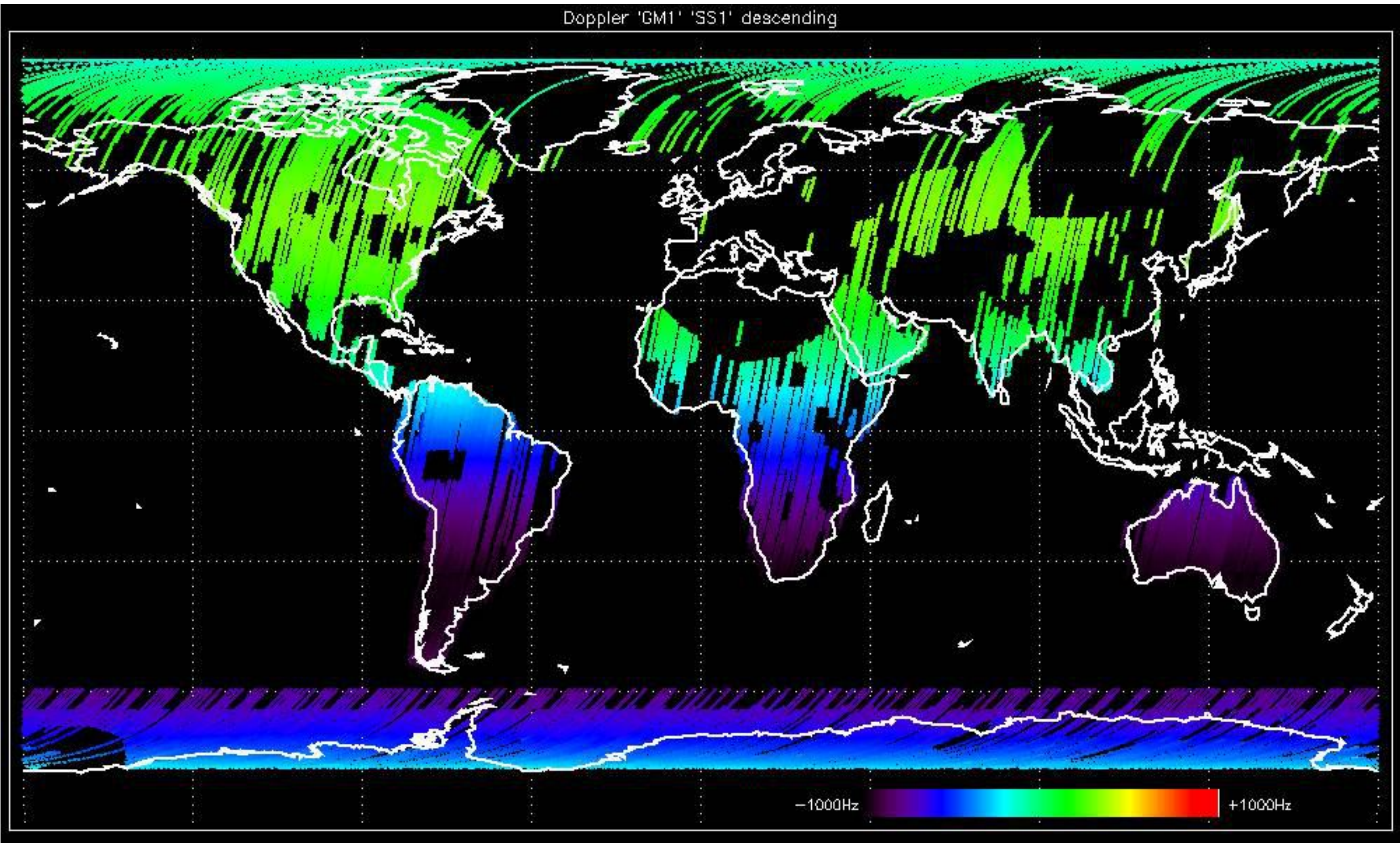


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

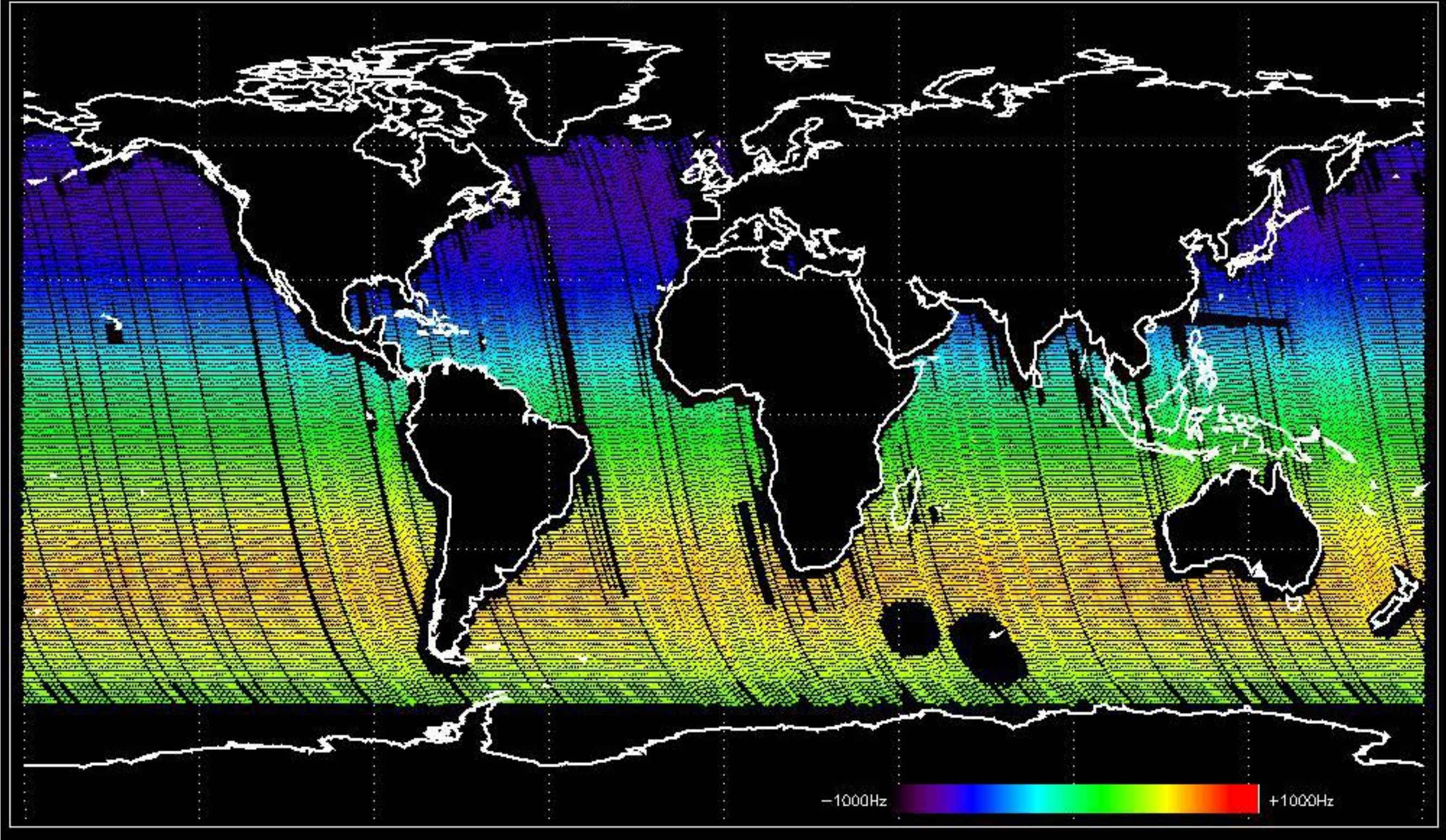
Doppler 'GM1' 'SS1' ascending



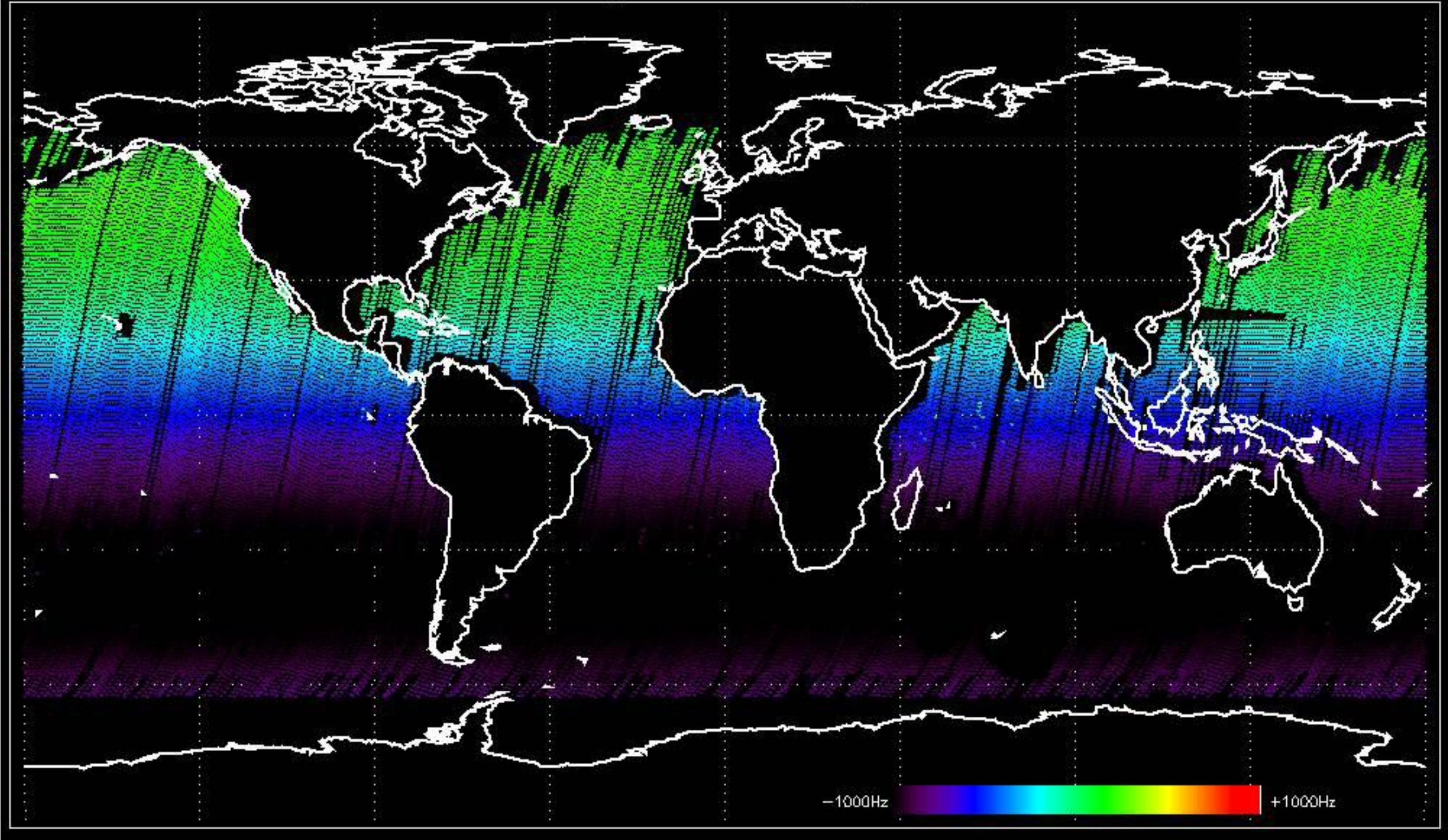
Doppler 'GM1' 'SS1' descending



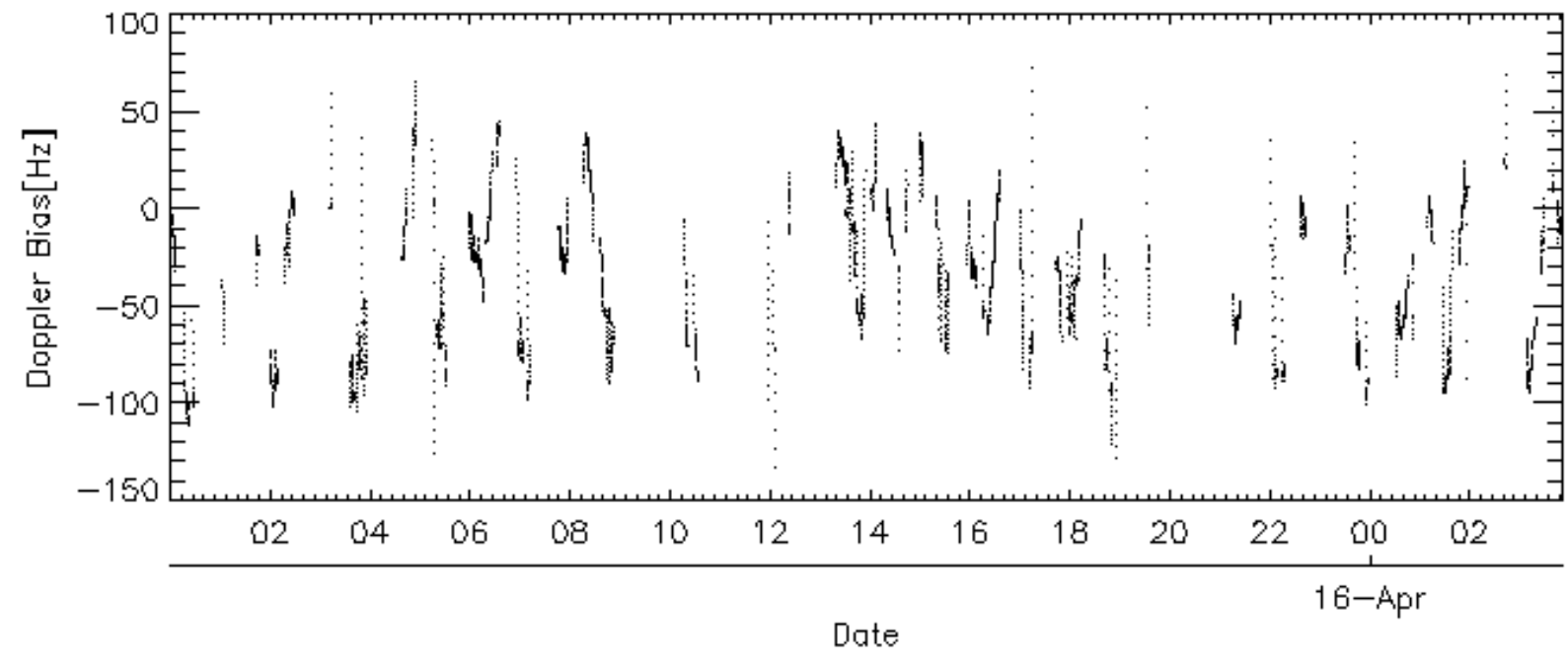
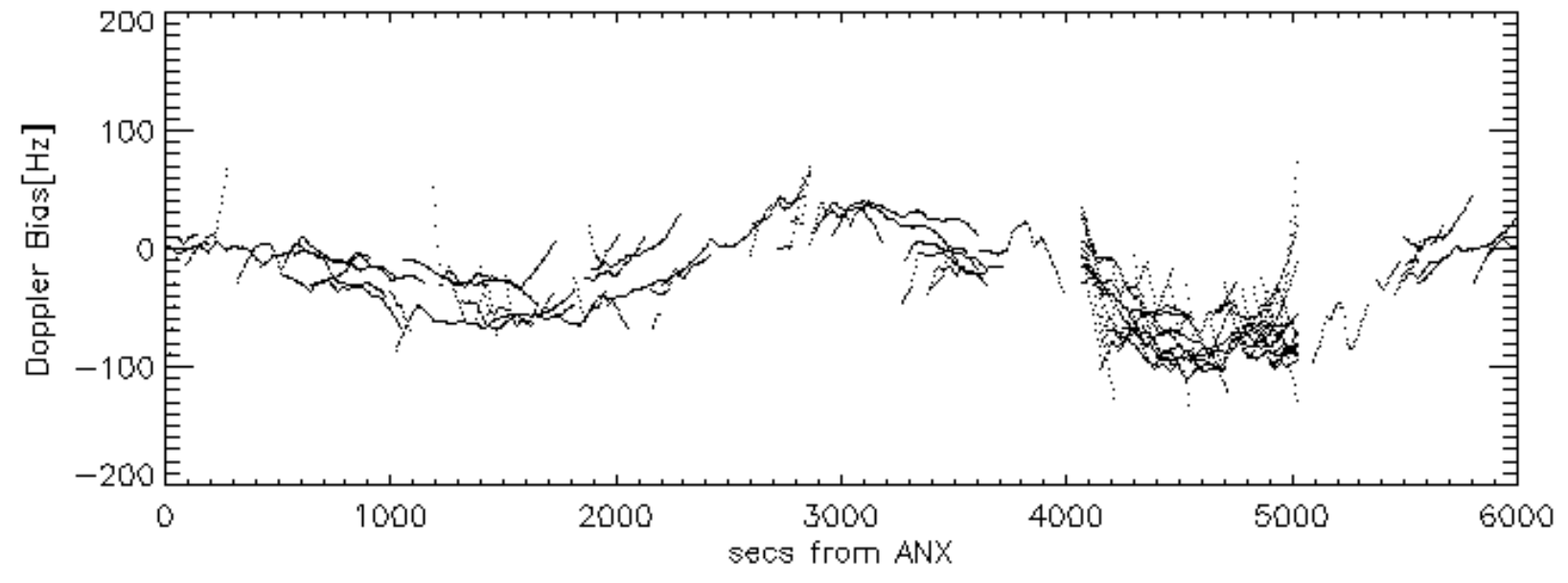
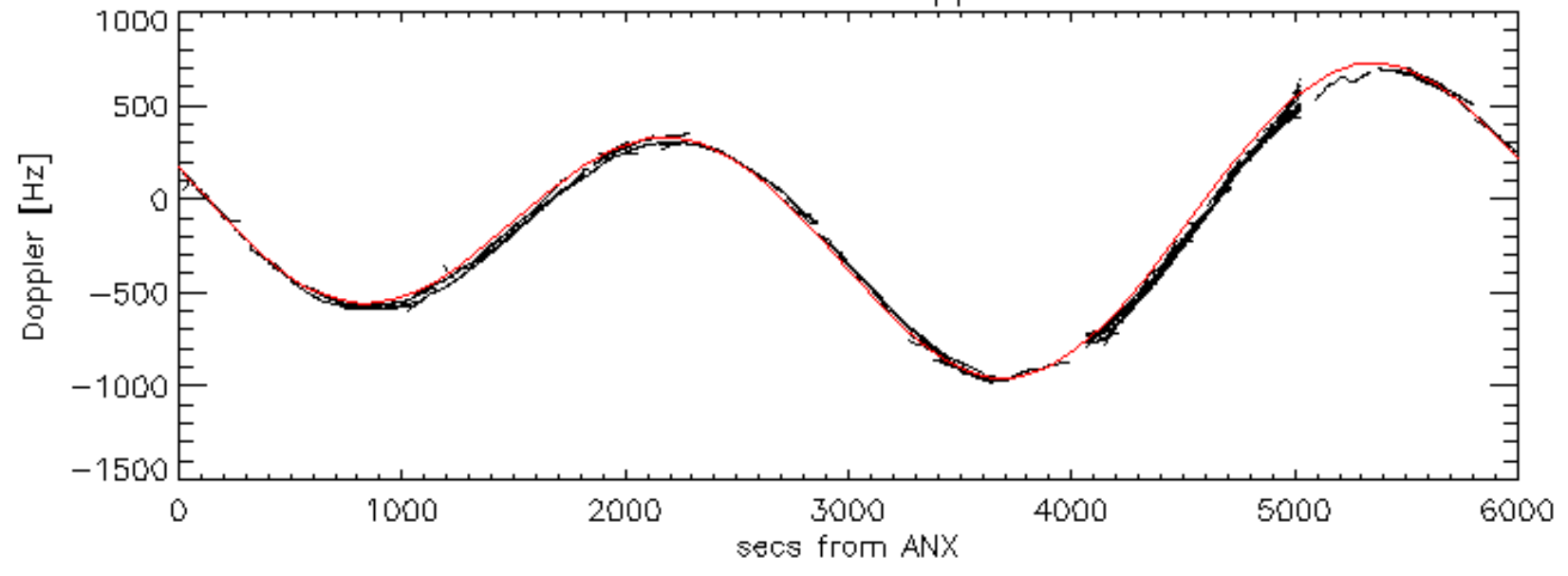
Doppler 'WVS' 'IS2' ascending

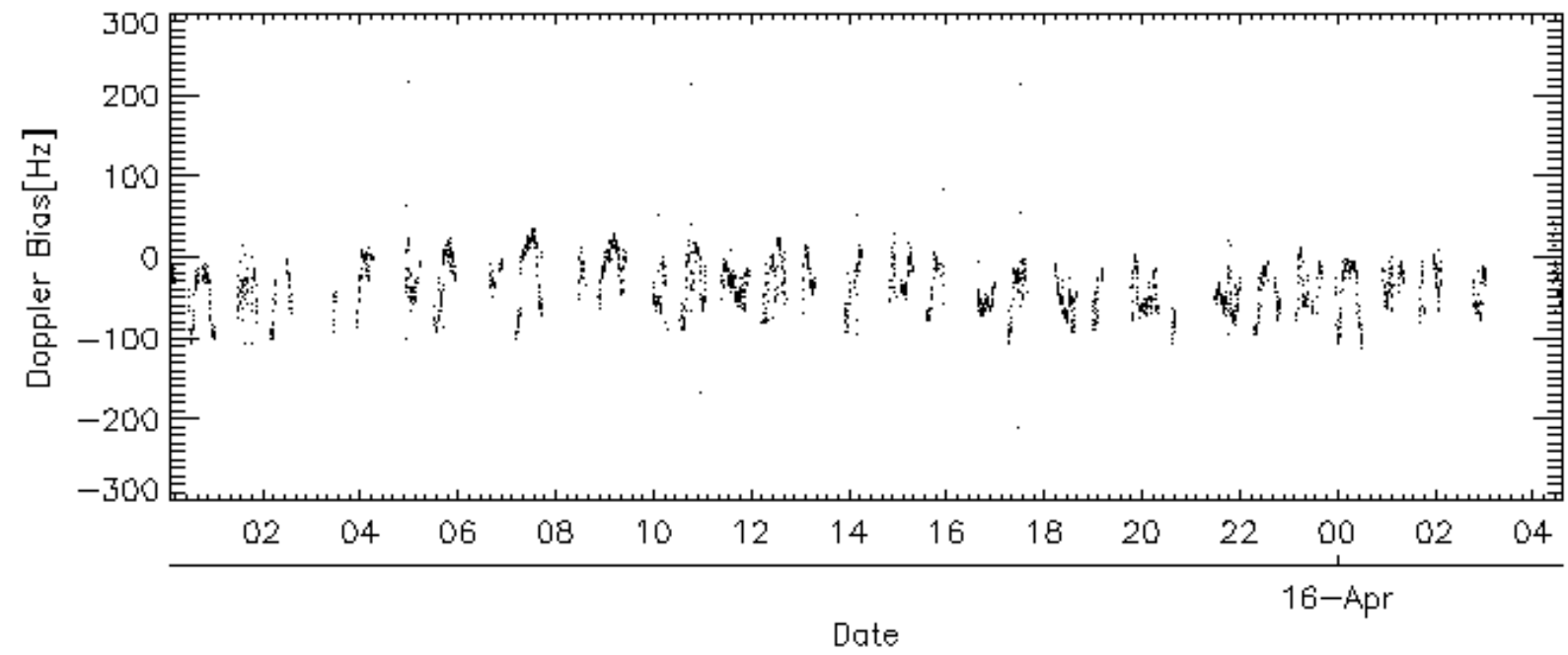
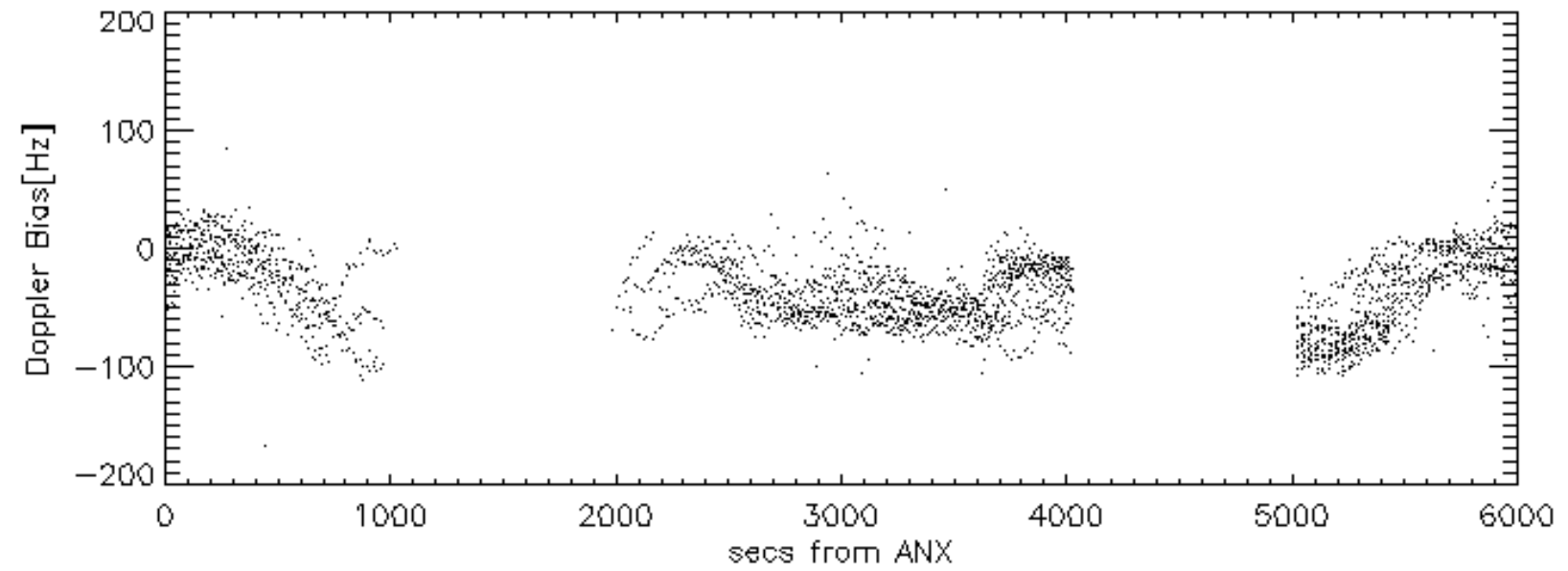
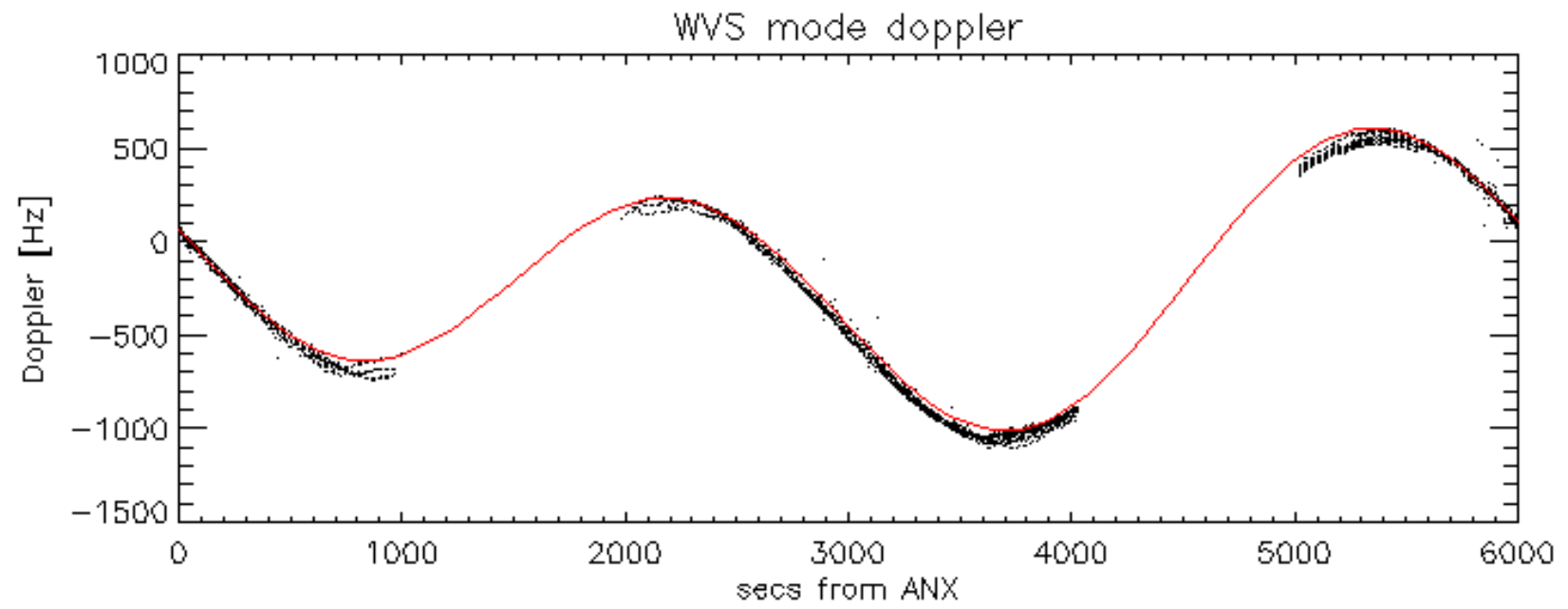


Doppler 'WVS' 'IS2' descending

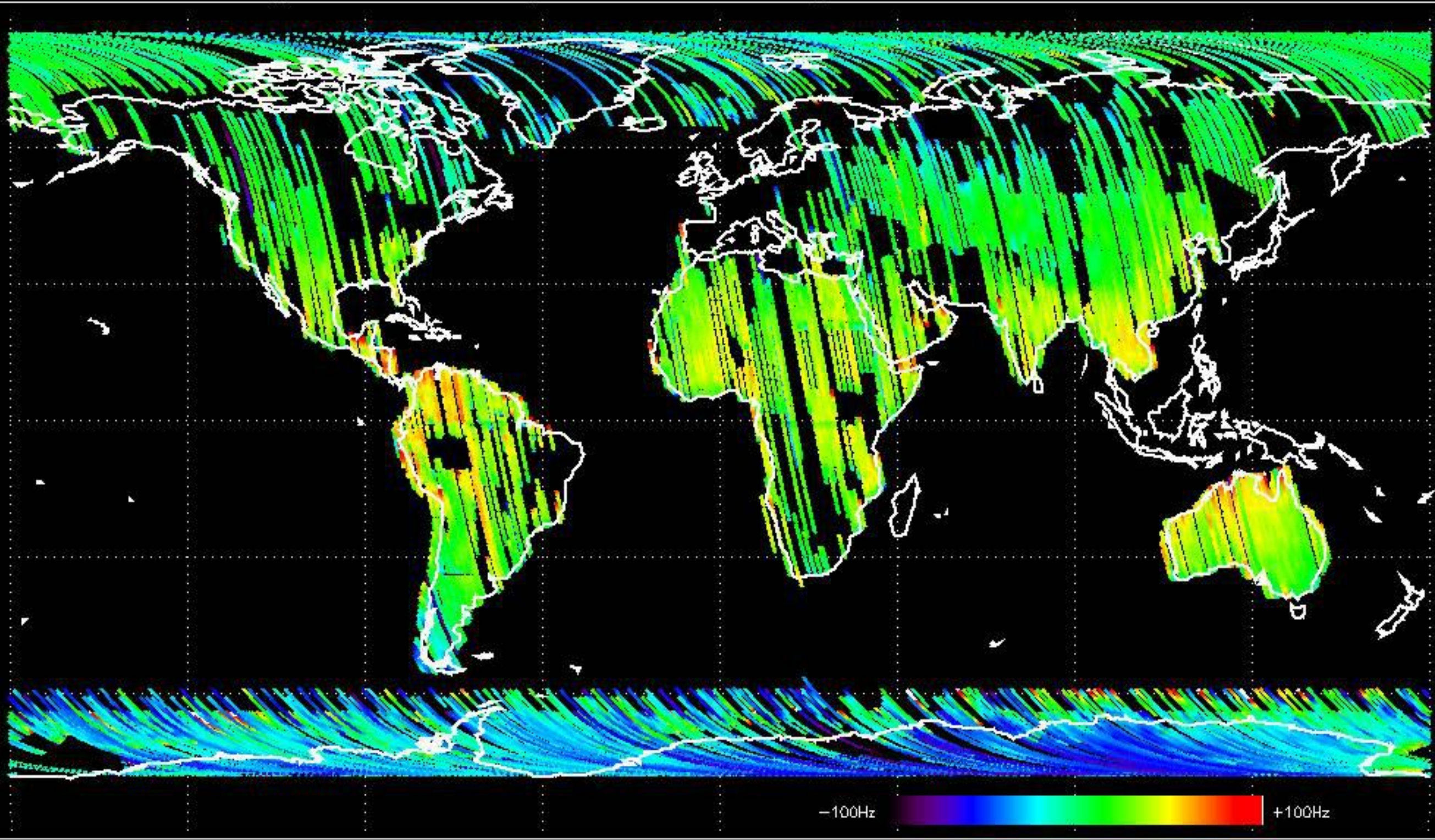


GM1 mode doppler



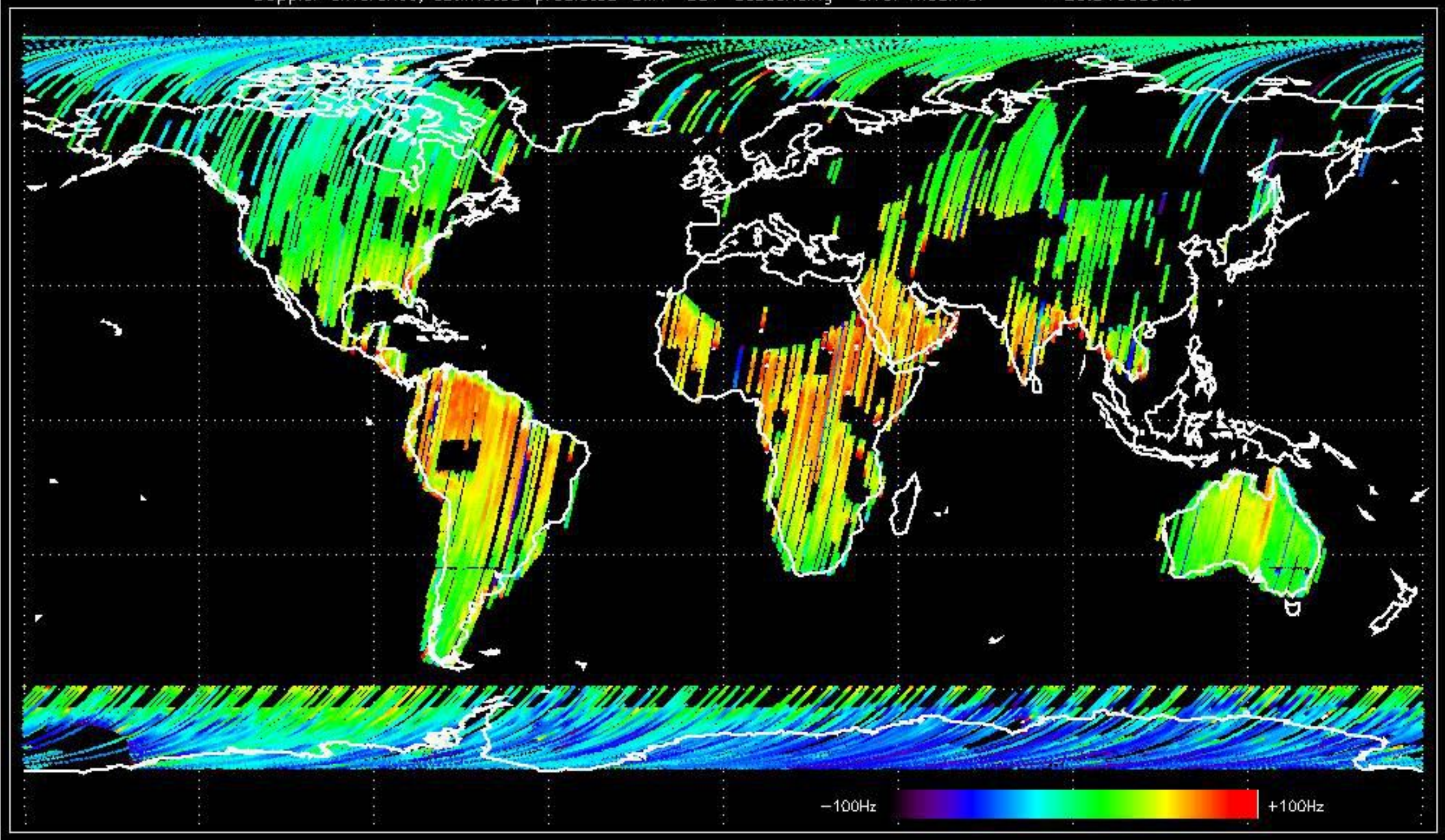


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -36.792730 Hz

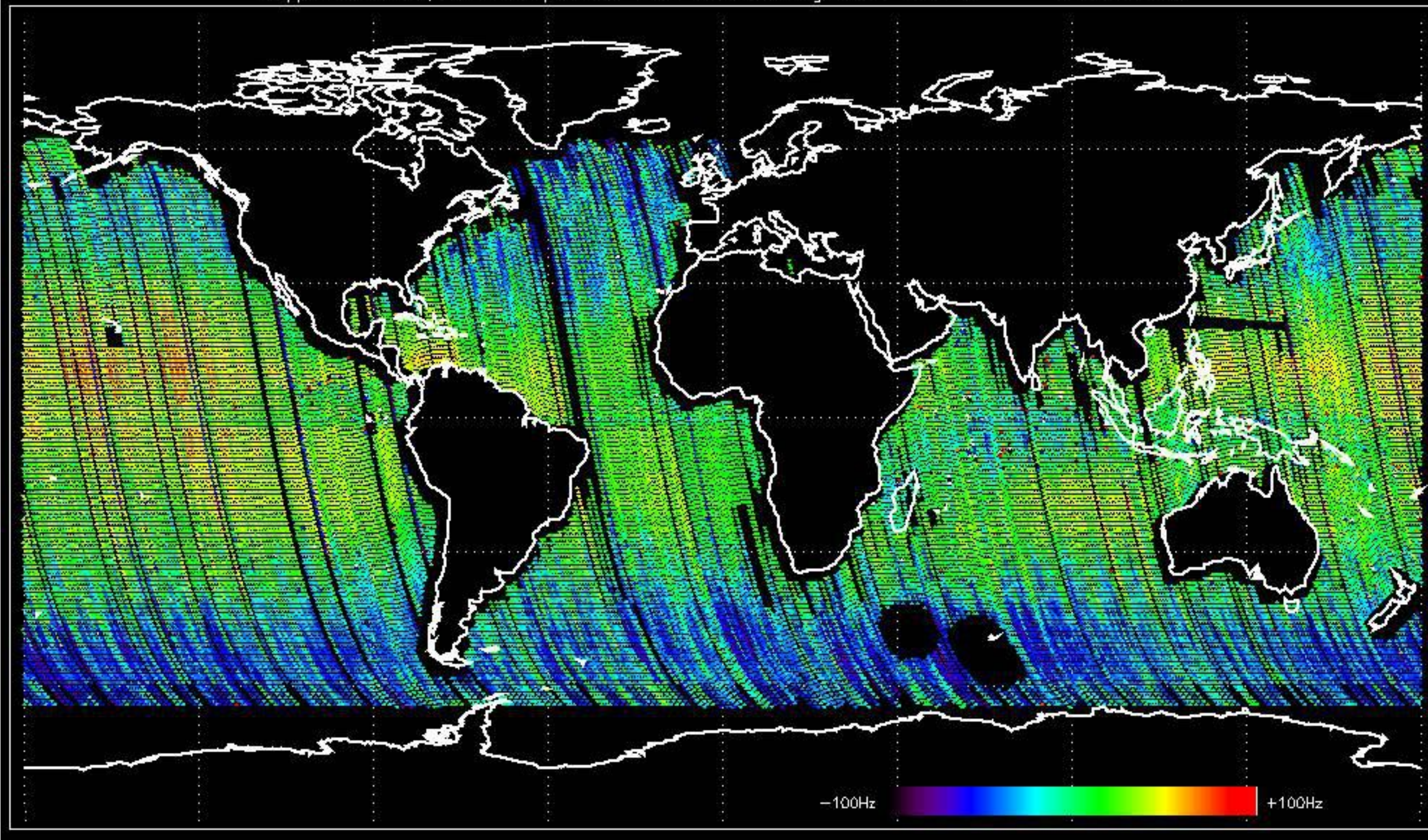


-100Hz +100Hz

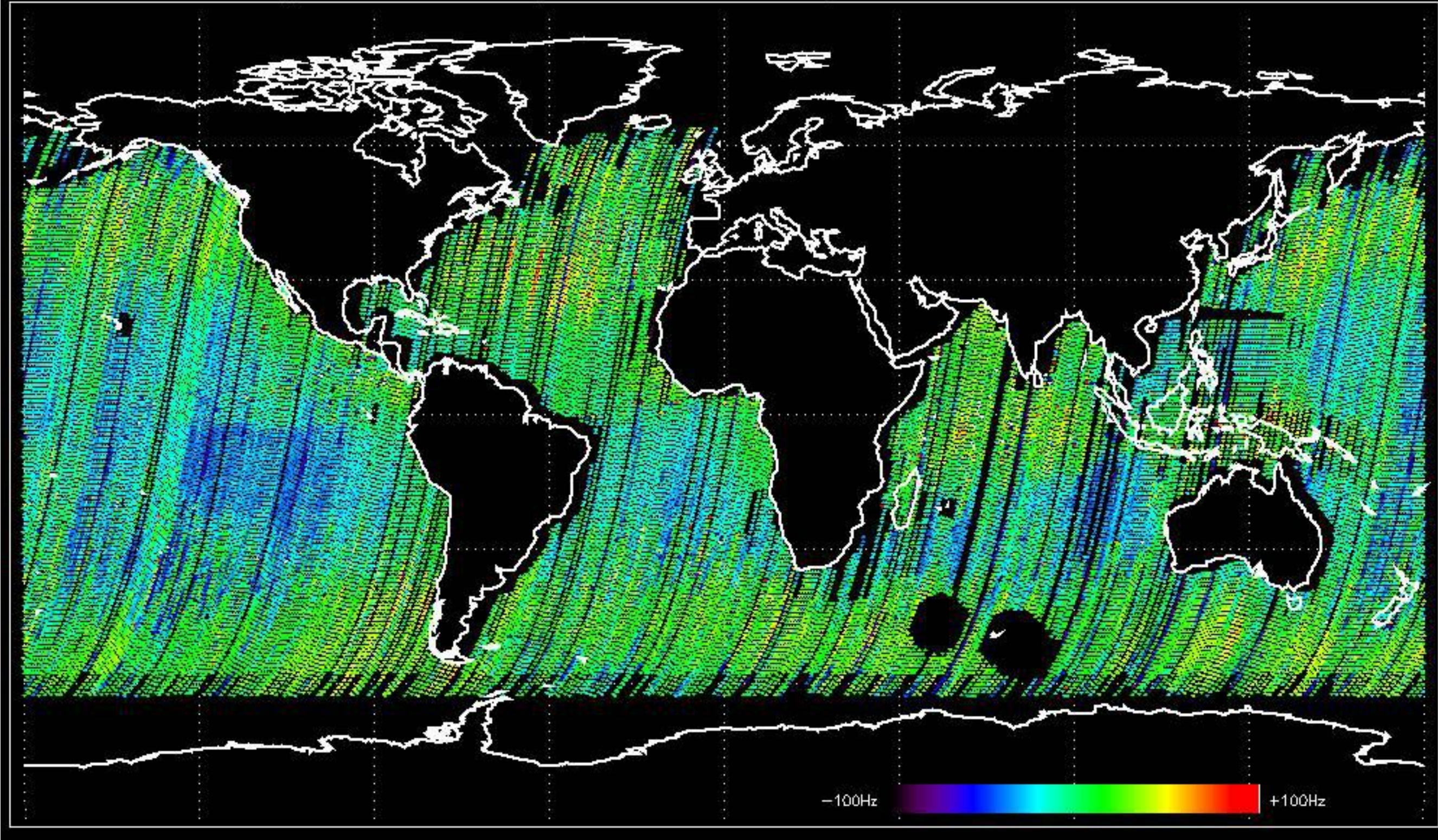
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -29.916653 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.199515 Hz

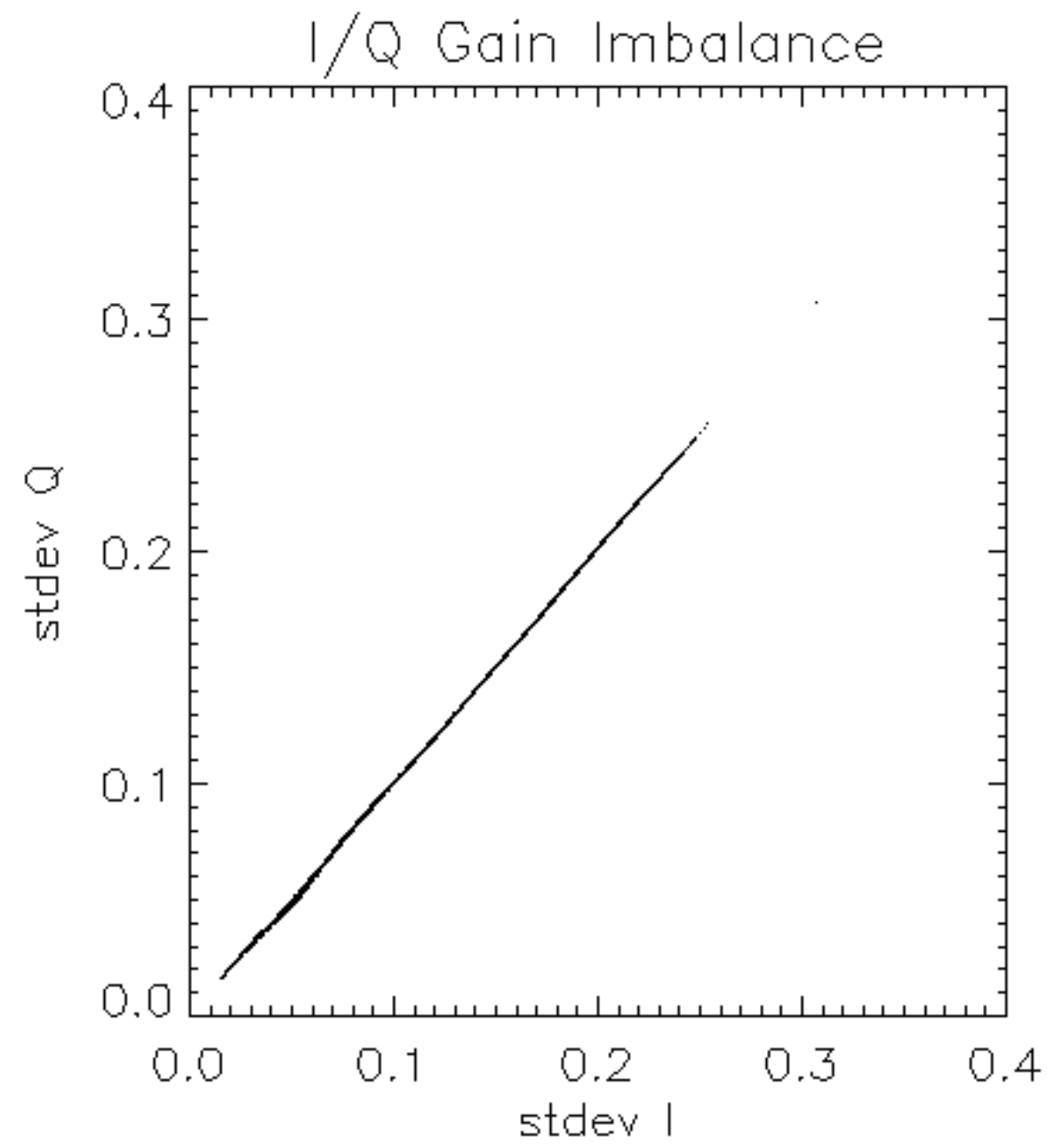


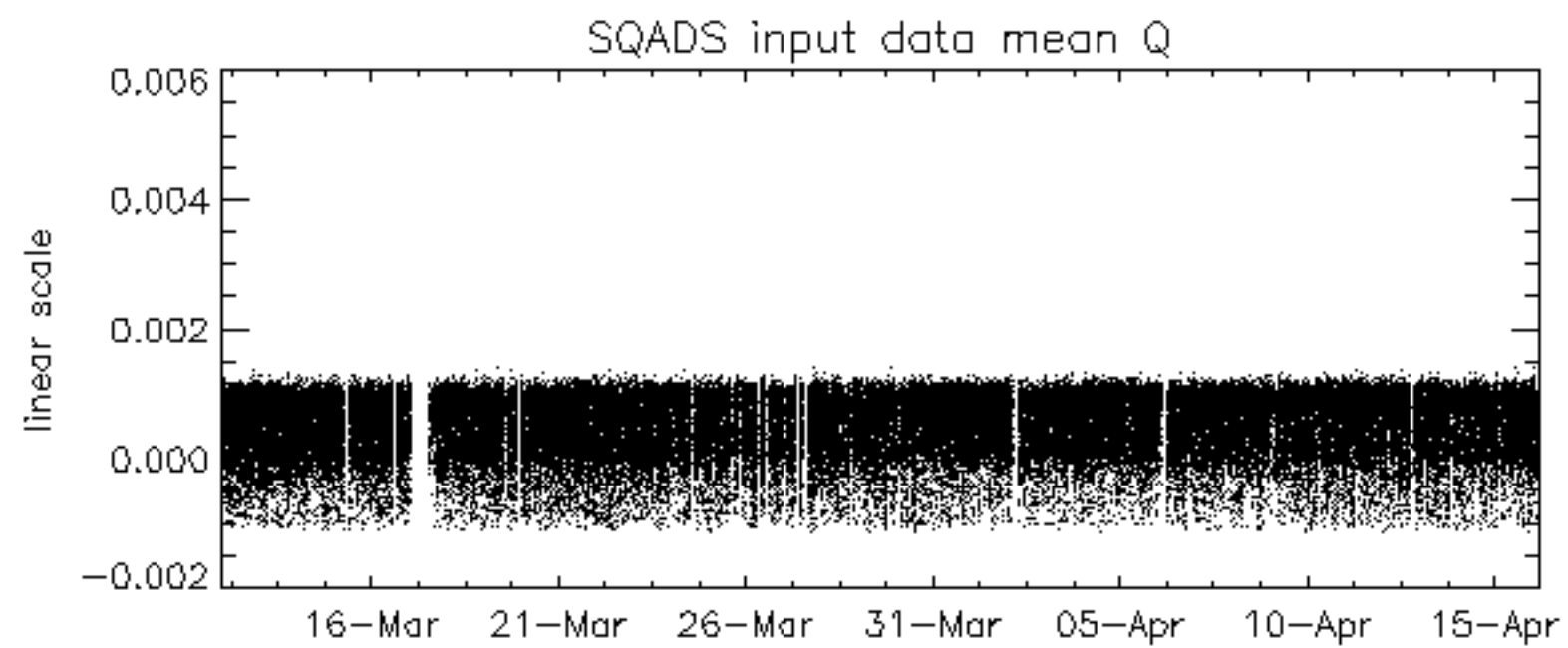
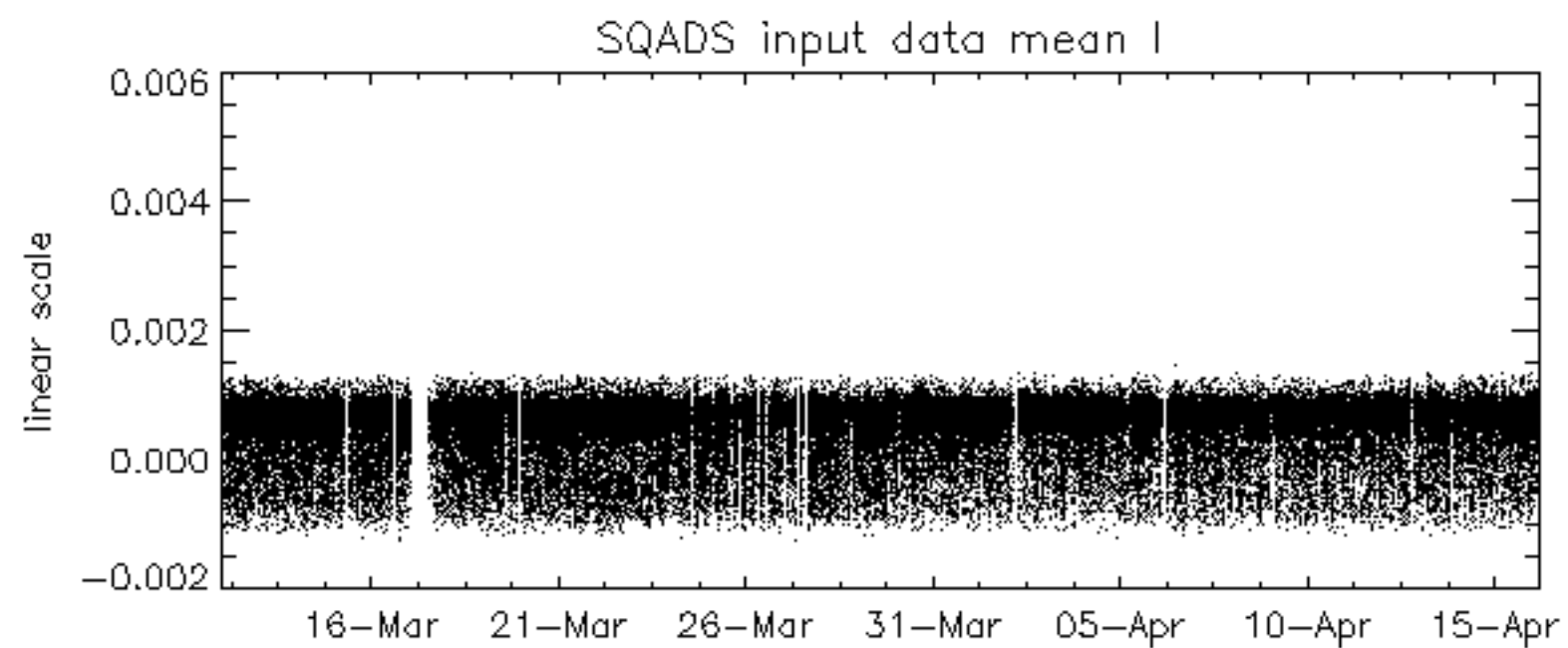
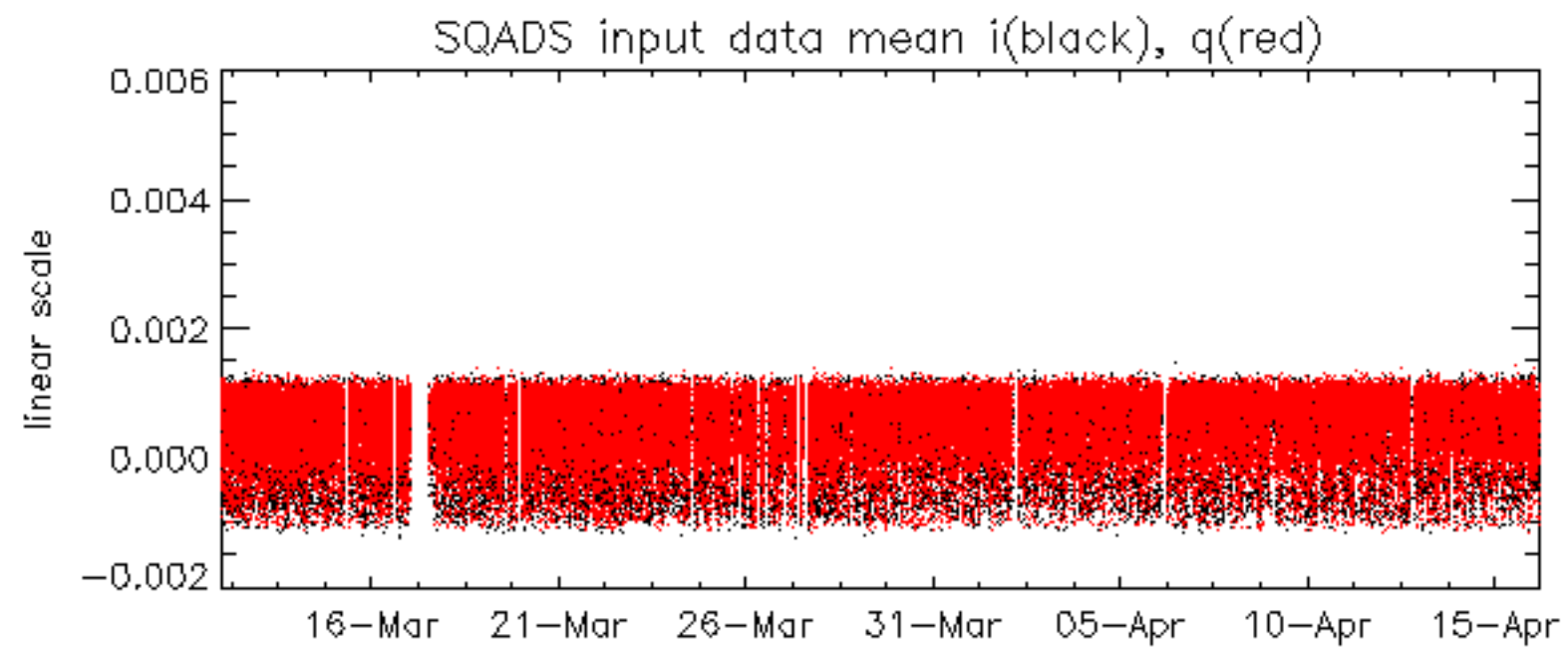
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -38.368945 Hz

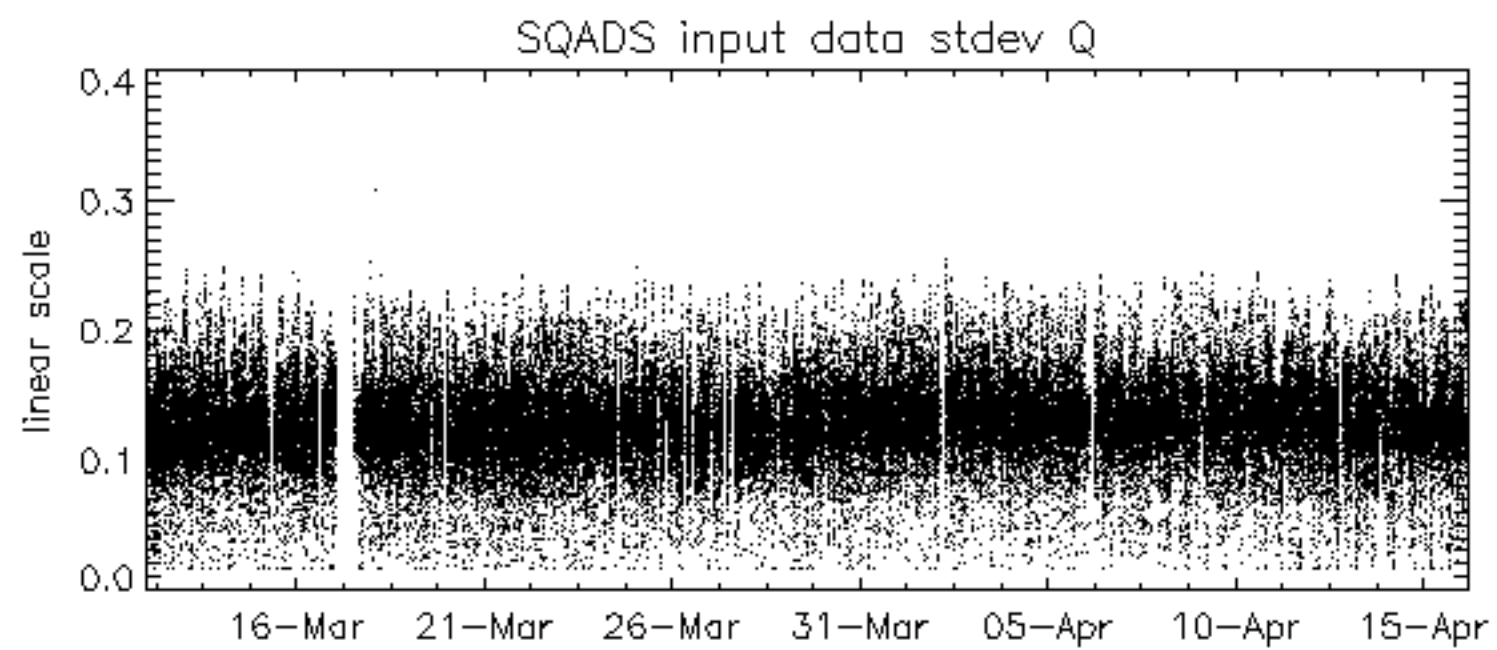
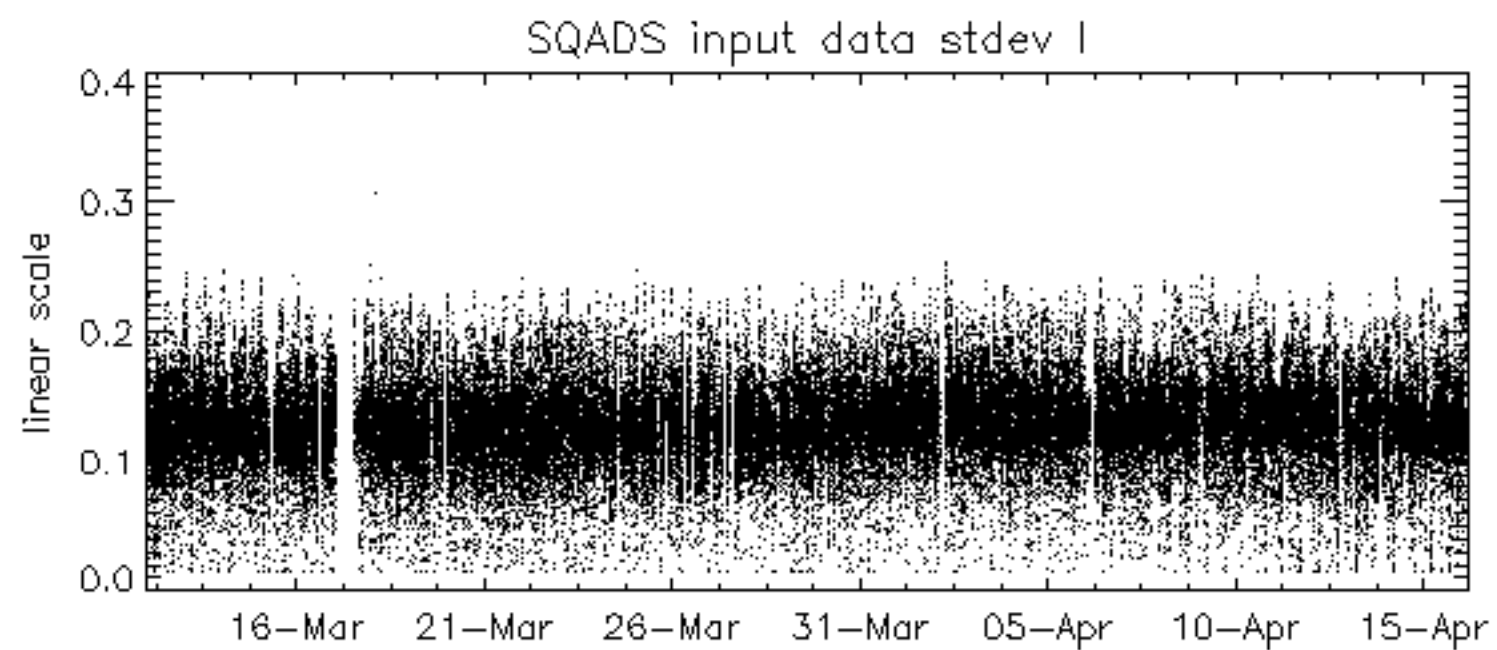
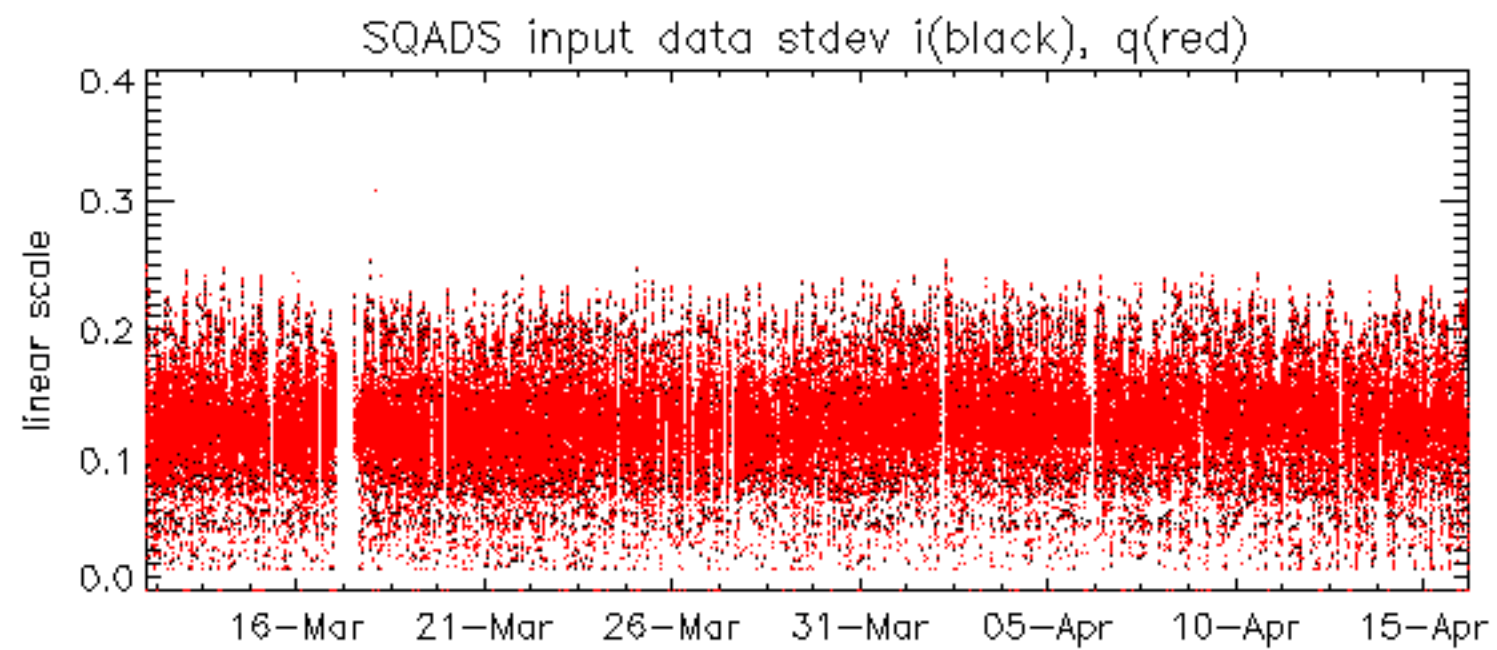


No anomalies observed on available MS products:

No anomalies observed.



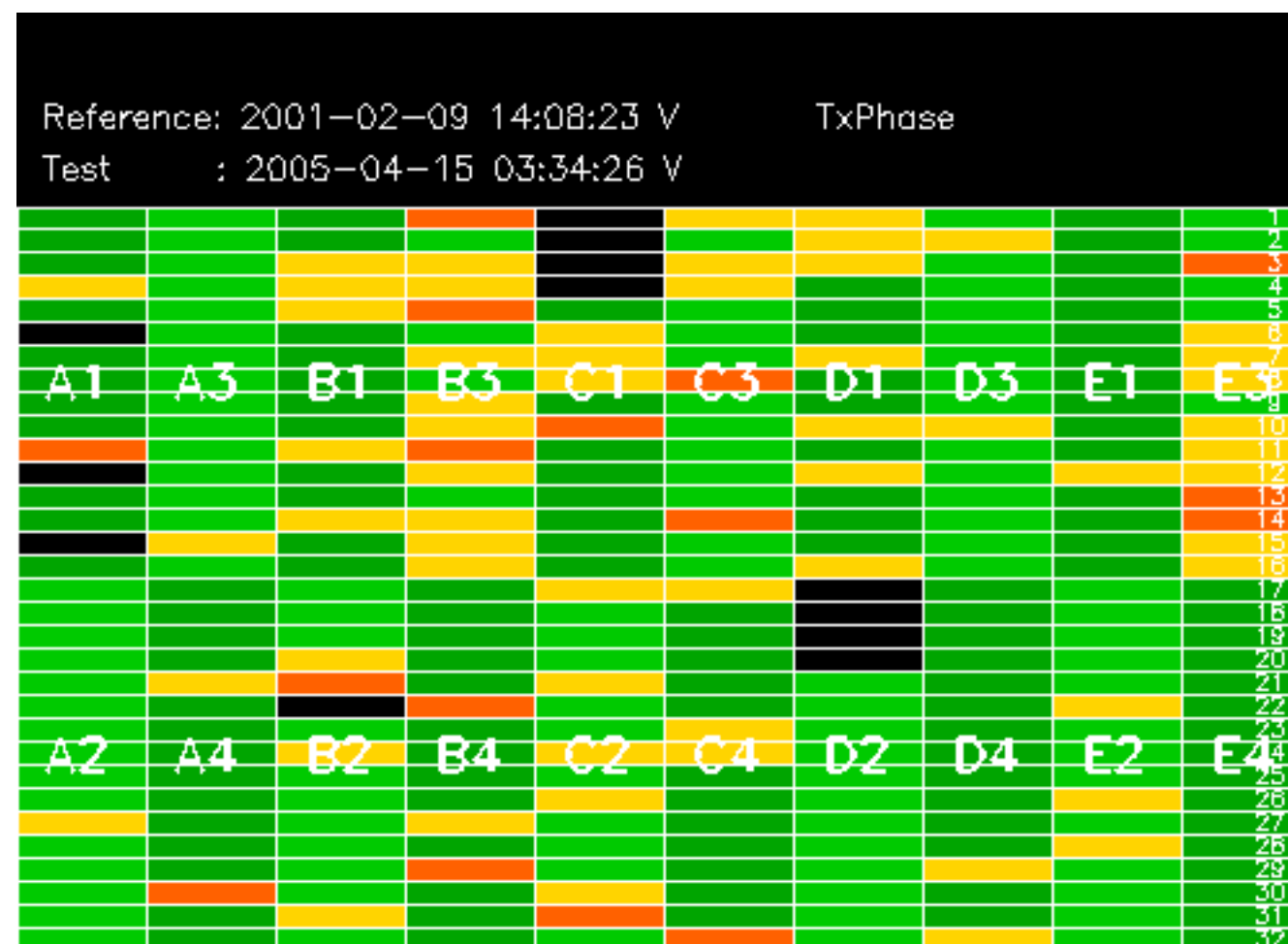


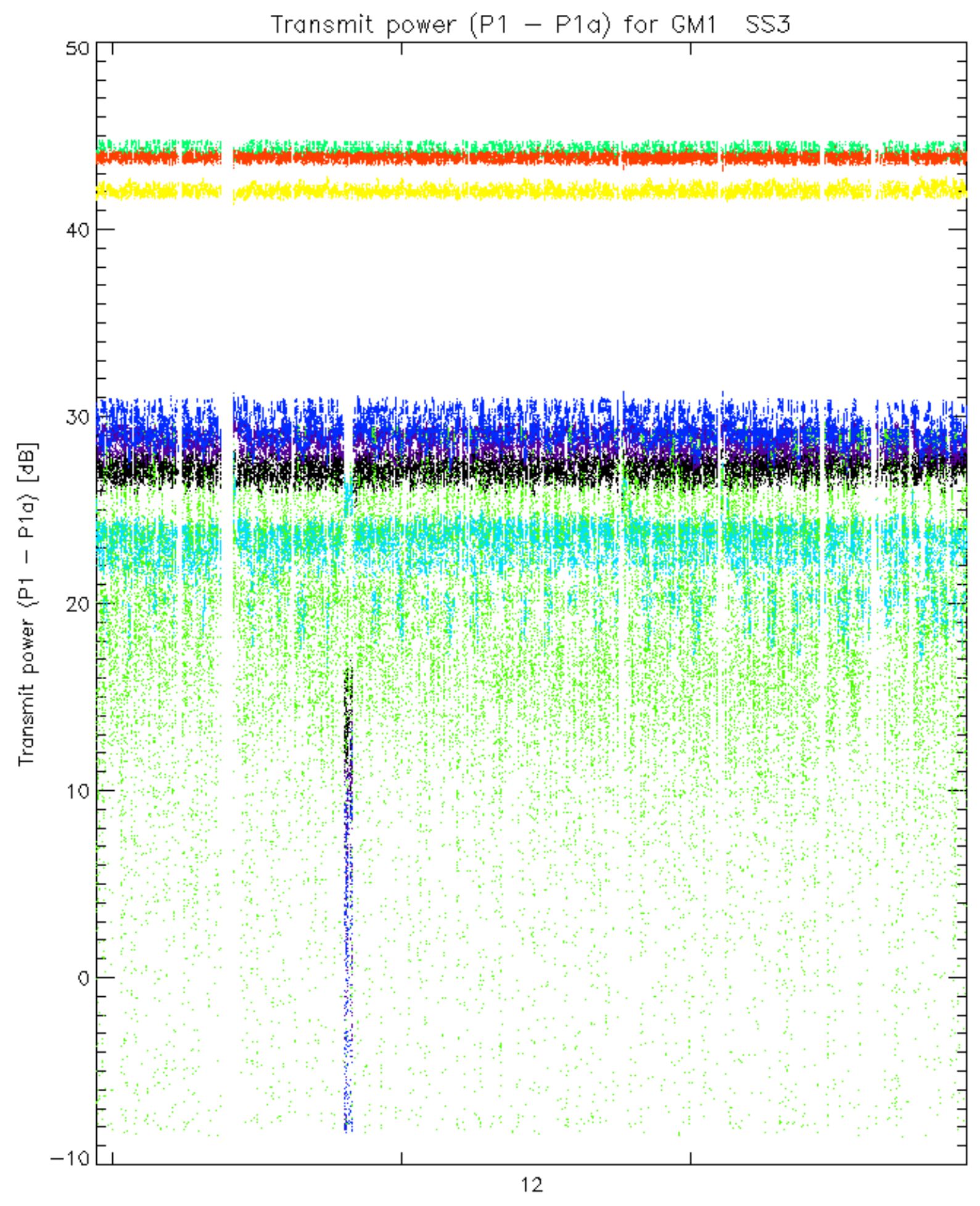


Summary of analysis for the last 3 days 2005041[456]

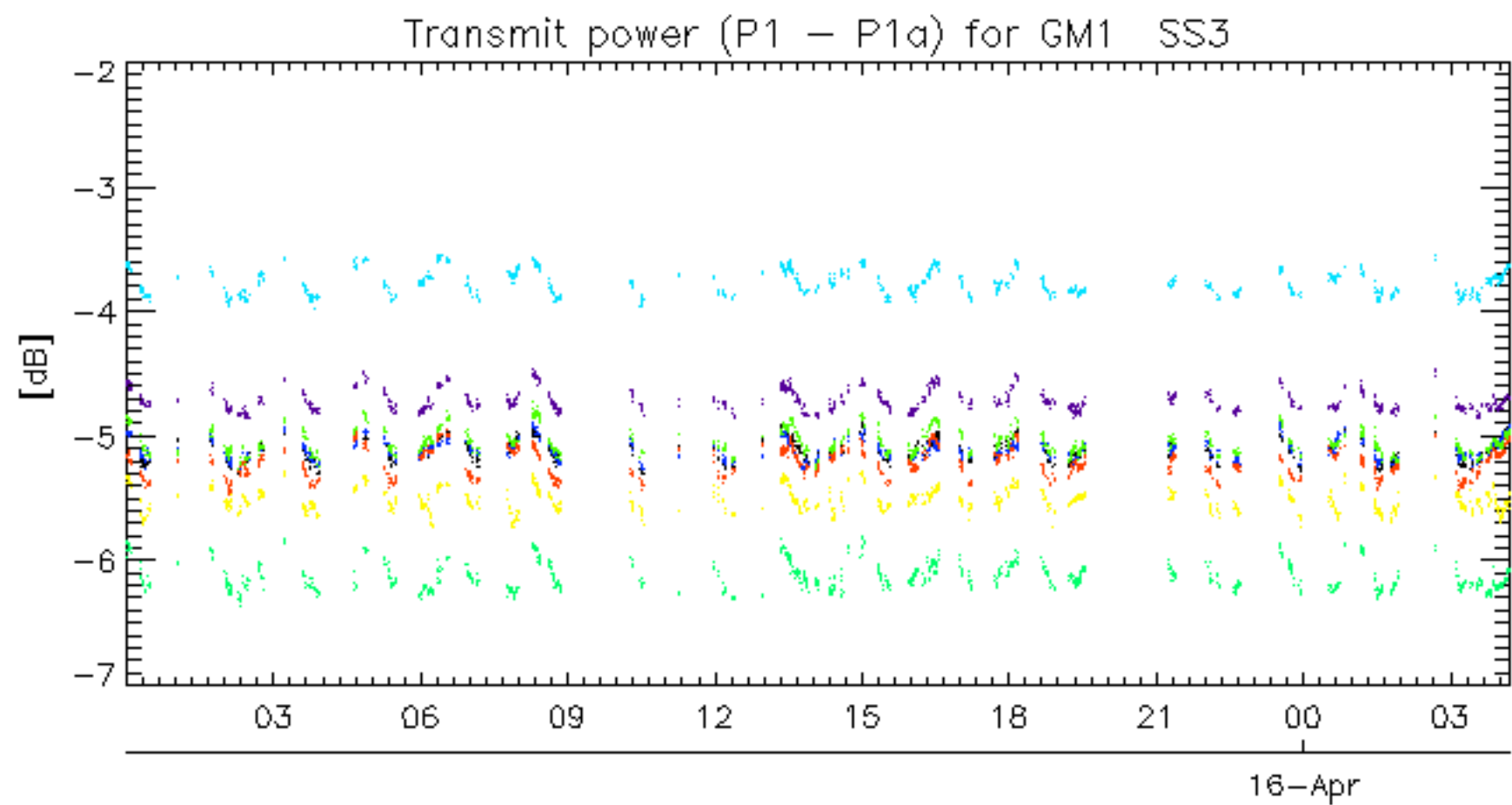
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050415_124323_000000532036_00253_16339_2504.N1	1	0
ASA_WVS_1PNPDE20050414_053950_00000002036_00234_16320_8284.N1	0	64

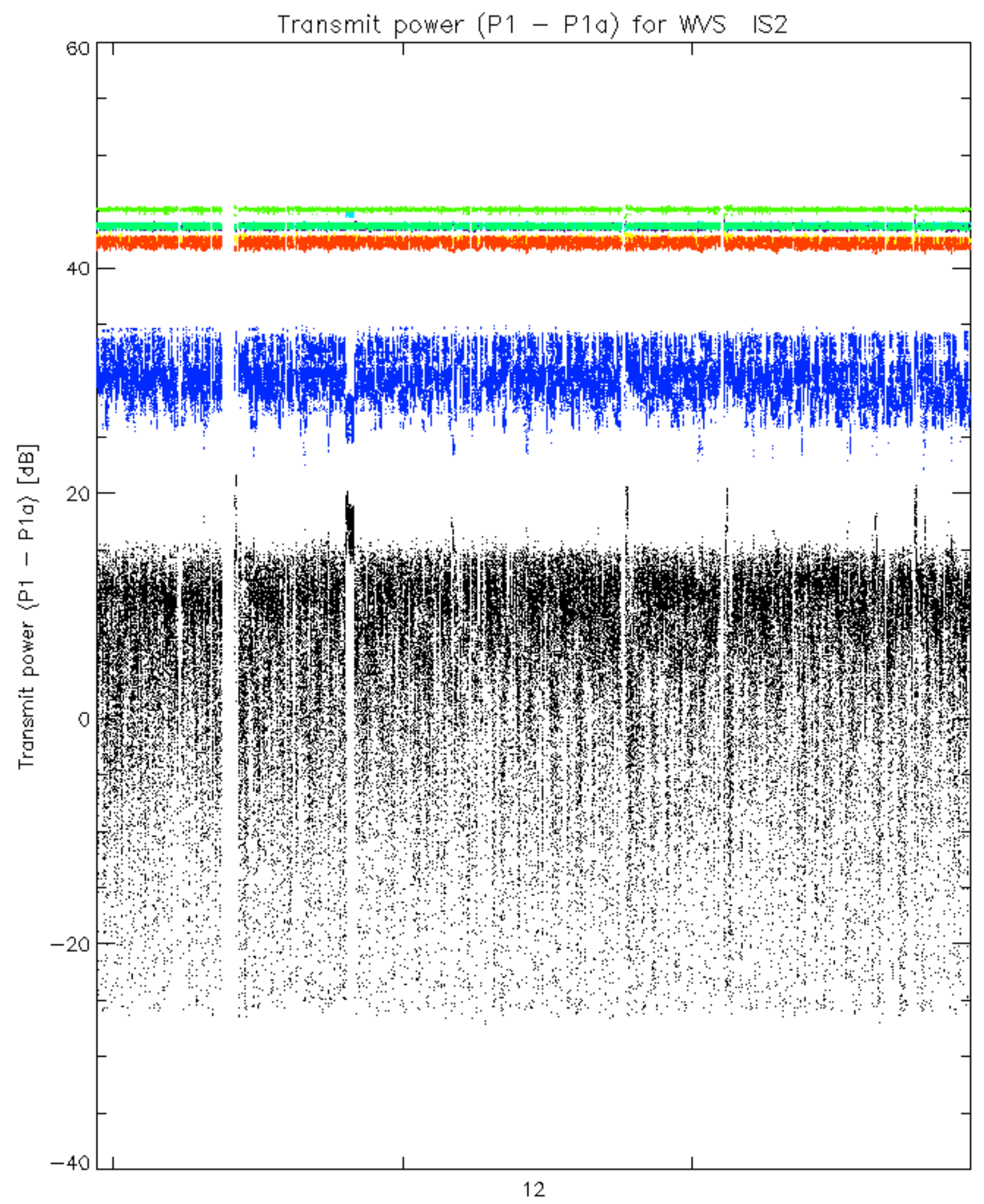




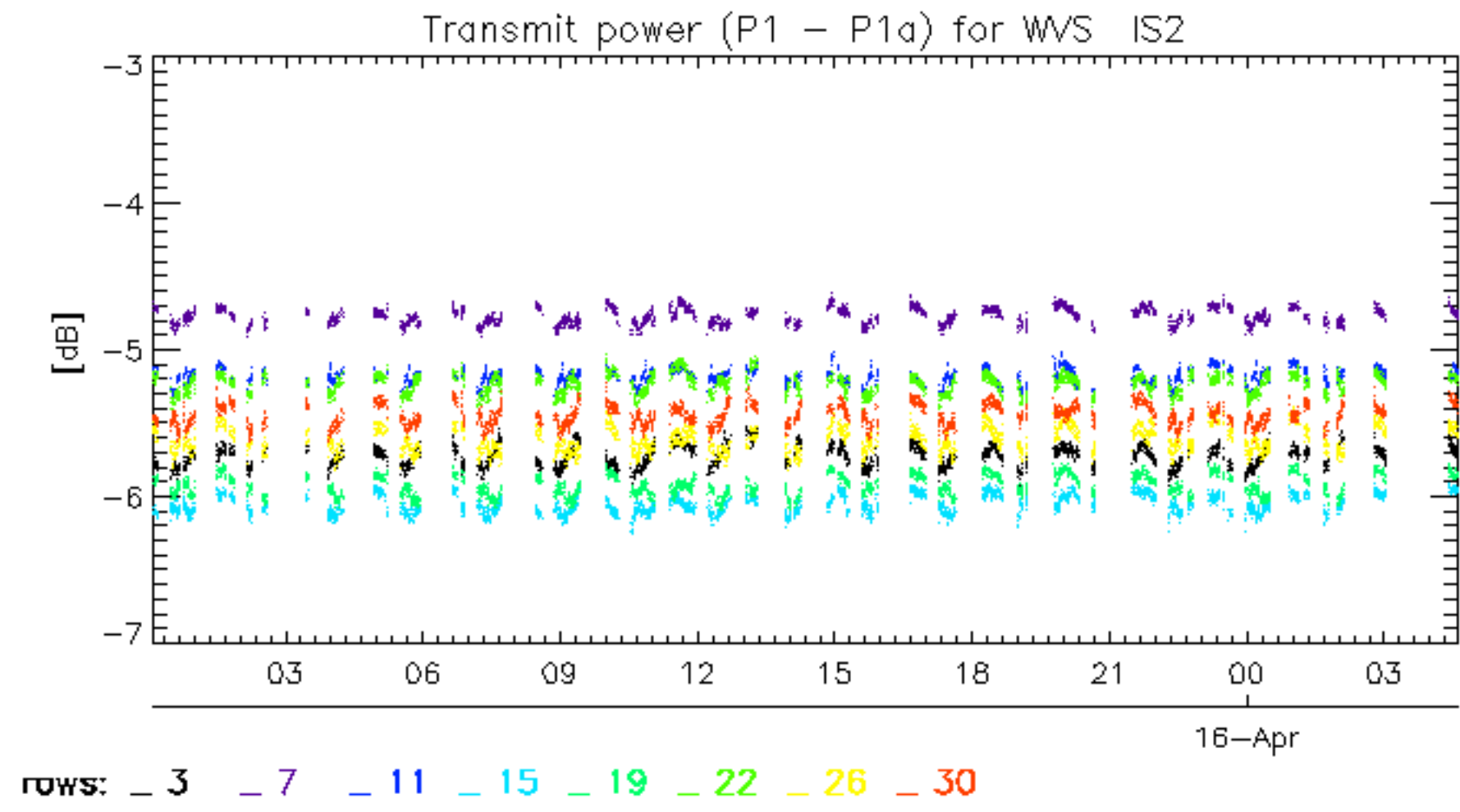
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.