

PRELIMINARY REPORT OF 050403

last update on Sun Apr 3 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 2005-04-02 00:00:00 to 2005-04-03 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	25	46	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	25	46	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	25	46	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	25	46	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	43	43	3	4	4
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	43	43	3	4	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	43	43	3	4	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	43	43	3	4	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	20050401 055512
H	20050402 084448

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒

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	-3.349093	0.013520	0.034785
7	P1	-3.108488	0.008230	-0.036899
11	P1	-4.682970	0.030193	0.041233
15	P1	-5.638628	0.038147	0.048684
19	P1	-3.691488	0.003759	-0.019633
22	P1	-4.523447	0.011927	-0.037281
26	P1	-4.933217	0.017935	0.049810
30	P1	-7.196291	0.018662	0.004121
3	P1	-15.873291	0.328571	0.221945
7	P1	-15.534975	0.069644	-0.022042
11	P1	-21.004963	0.452867	-0.119712
15	P1	-11.570216	0.048935	0.025921
19	P1	-14.308878	0.024516	-0.019165
22	P1	-15.667507	0.306897	-0.196146
26	P1	-17.622128	0.192132	-0.065888
30	P1	-17.965723	0.434977	0.090024

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.068985	0.081728	0.066631
7	P2	-22.250957	0.095061	0.085298
11	P2	-14.334995	0.109603	0.237217
15	P2	-7.043259	0.090478	-0.009639
19	P2	-9.633073	0.093790	-0.011741
22	P2	-16.900606	0.093781	0.056453
26	P2	-16.442486	0.092713	0.002383
30	P2	-18.840292	0.084003	0.051322

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.165566	0.004745	0.004818
7	P3	-8.165566	0.004745	0.004818
11	P3	-8.165566	0.004745	0.004818
15	P3	-8.165566	0.004745	0.004818
19	P3	-8.165566	0.004745	0.004818
22	P3	-8.165566	0.004745	0.004818
26	P3	-8.165566	0.004745	0.004818
30	P3	-8.165566	0.004745	0.004818

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	-2.710893	0.026318	0.029707
7	P1	-3.023236	0.048672	0.036998
11	P1	-3.985278	0.026537	0.016906
15	P1	-3.555776	0.034378	0.042481
19	P1	-3.603275	0.013819	-0.022473
22	P1	-5.739717	0.035503	0.027401
26	P1	-7.292311	0.025228	0.003894
30	P1	-6.237771	0.052019	-0.029571
3	P1	-10.707549	0.172528	0.067026
7	P1	-10.338944	0.177746	0.043720
11	P1	-12.528832	0.136278	0.044132
15	P1	-11.734679	0.102863	0.081575
19	P1	-15.574674	0.046898	-0.021395
22	P1	-24.590467	1.209811	-0.203773
26	P1	-15.490165	0.182323	-0.038599
30	P1	-20.205379	1.202021	0.021430

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.769161	0.037815	0.087177
7	P2	-22.335215	0.041523	0.082476
11	P2	-10.124981	0.055810	0.162691
15	P2	-4.985343	0.026295	-0.026565
19	P2	-6.830866	0.039600	0.000501
22	P2	-7.078433	0.035281	0.043626
26	P2	-23.846180	0.032446	0.011820
30	P2	-21.885740	0.038276	0.025288

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.997148	0.003128	0.004210
7	P3	-7.997240	0.003128	0.003924
11	P3	-7.997192	0.003131	0.003864
15	P3	-7.997253	0.003133	0.004118
19	P3	-7.997179	0.003143	0.004081
22	P3	-7.997271	0.003123	0.003799
26	P3	-7.997231	0.003133	0.003736
30	P3	-7.997099	0.003132	0.003775

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	0.000456975
	stdev	2.25976e-07
MEAN Q	mean	0.000474314
	stdev	2.35322e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128306
	stdev	0.00105442
STDEV Q	mean	0.128559
	stdev	0.00106601



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005040[123]

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_1PNPDE20050401_054357_000000352036_00048_16134_6891.N1	1	0
ASA_WVS_1PNPDE20050401_212056_000000002036_00057_16143_7917.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"/>
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

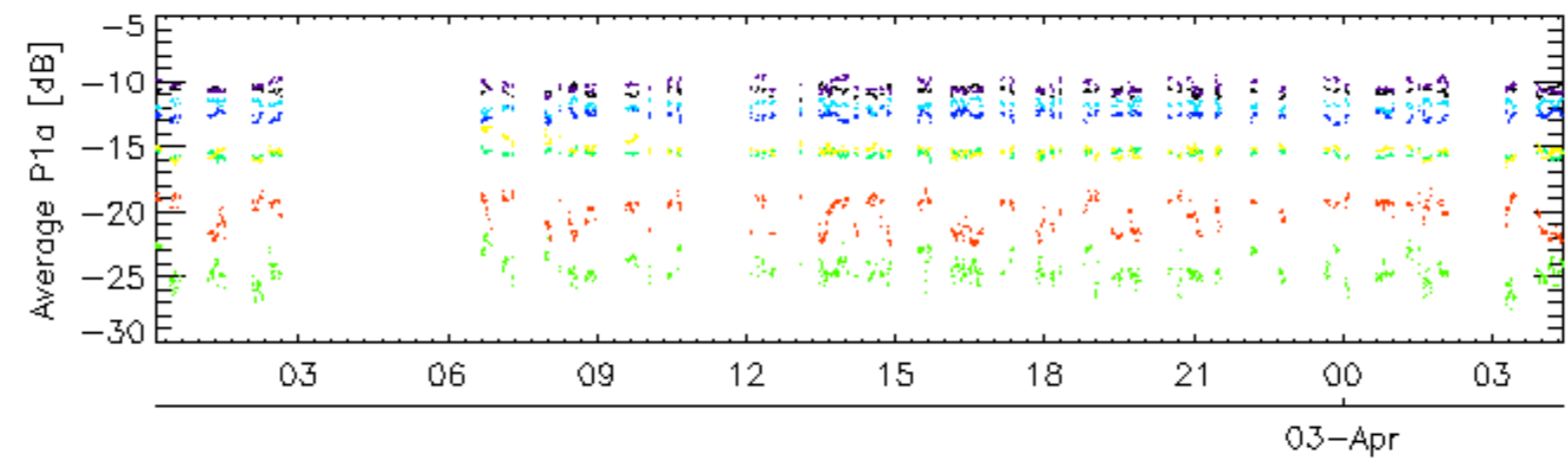
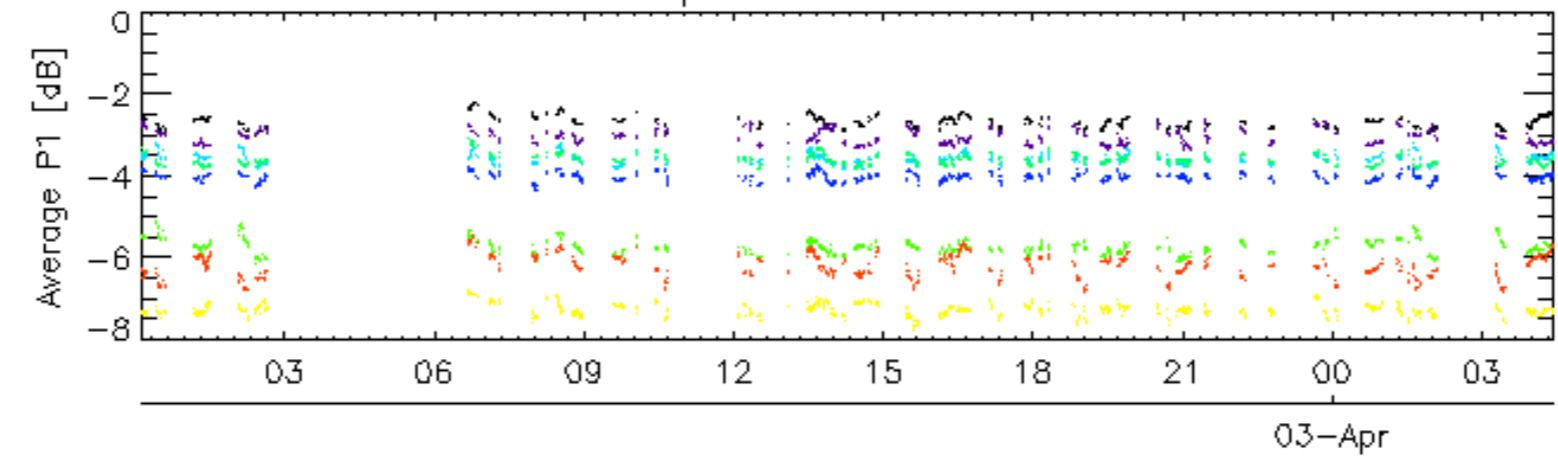
Ascending

Descending

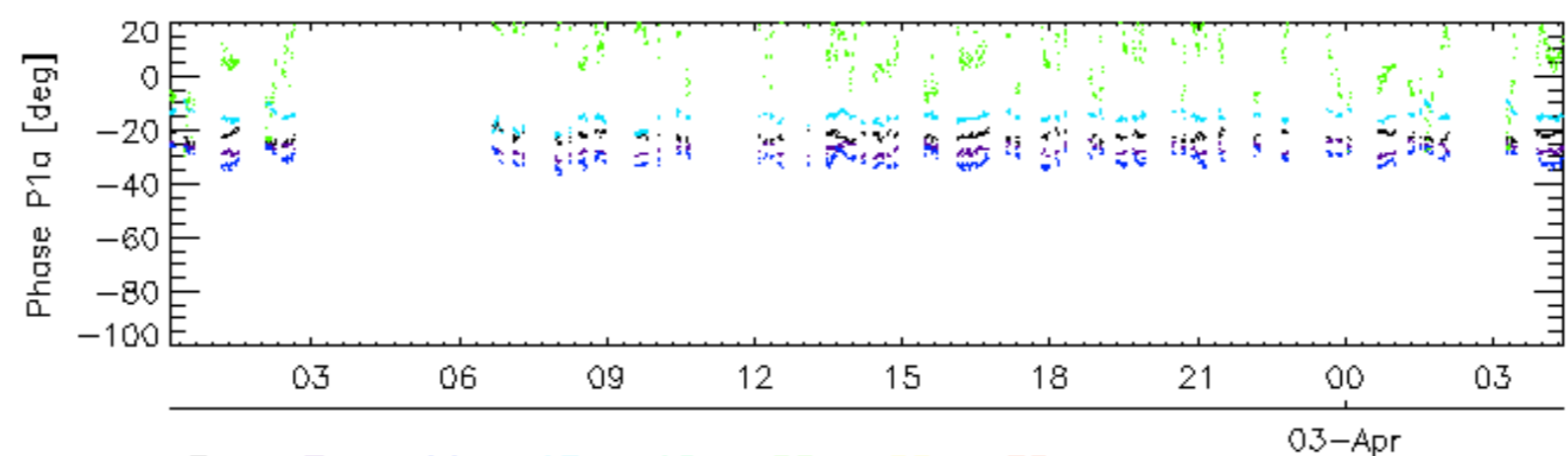
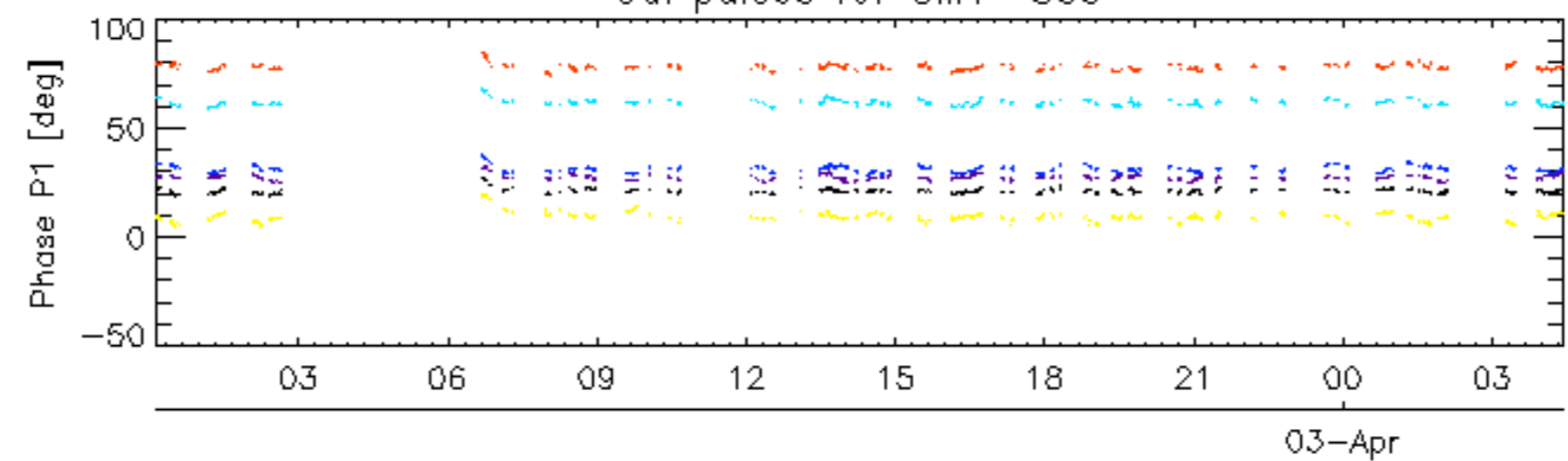
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

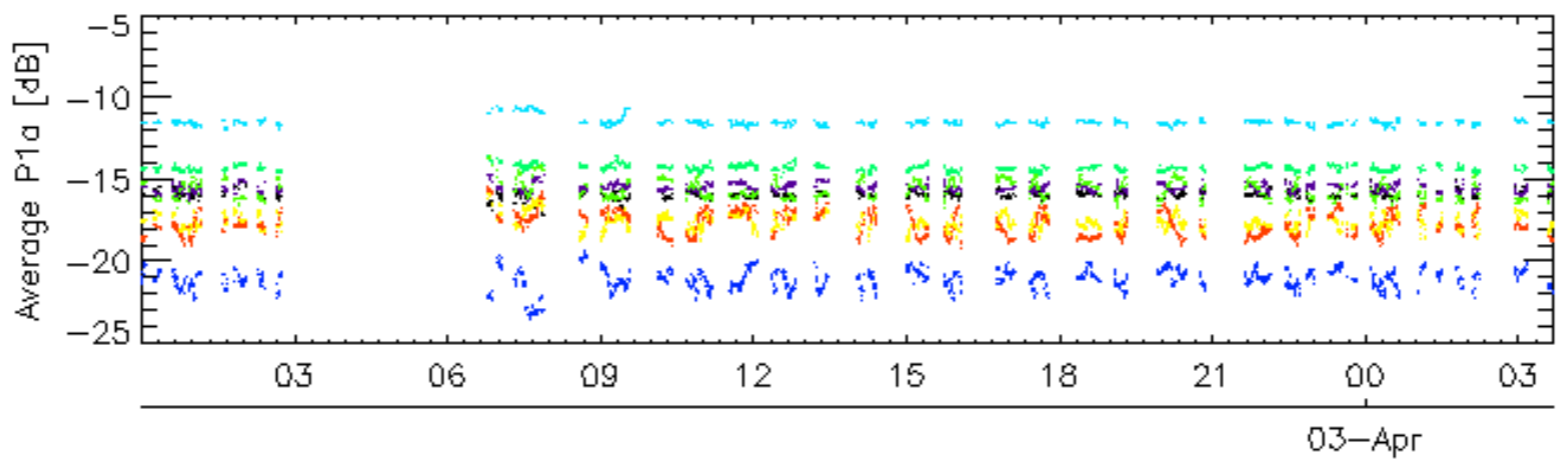
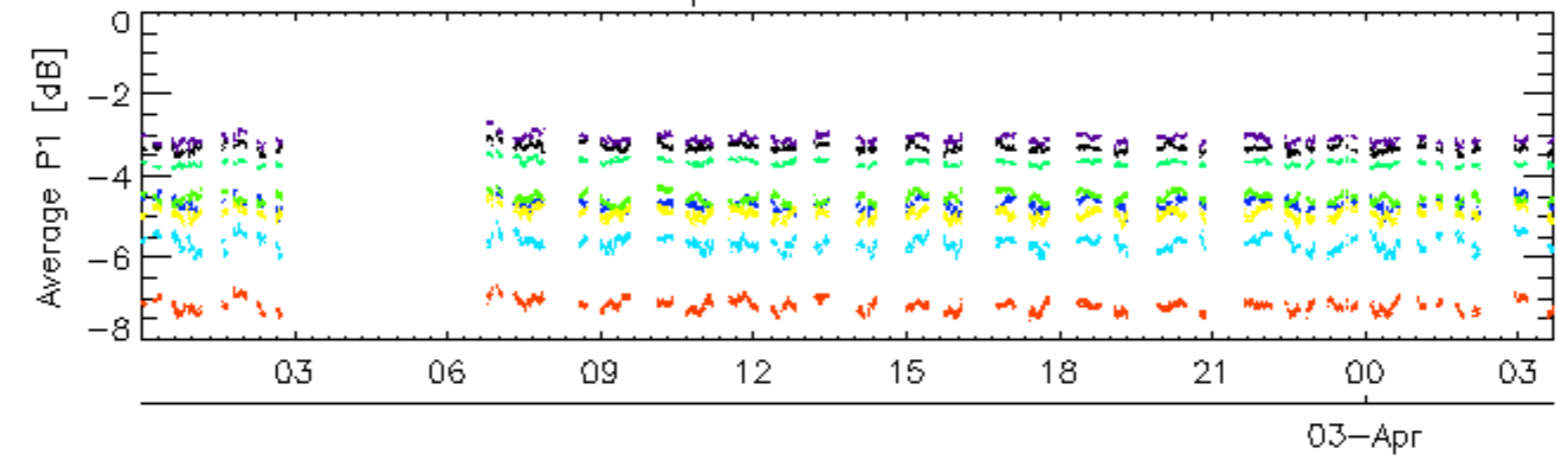


Cal pulses for GM1 SS3

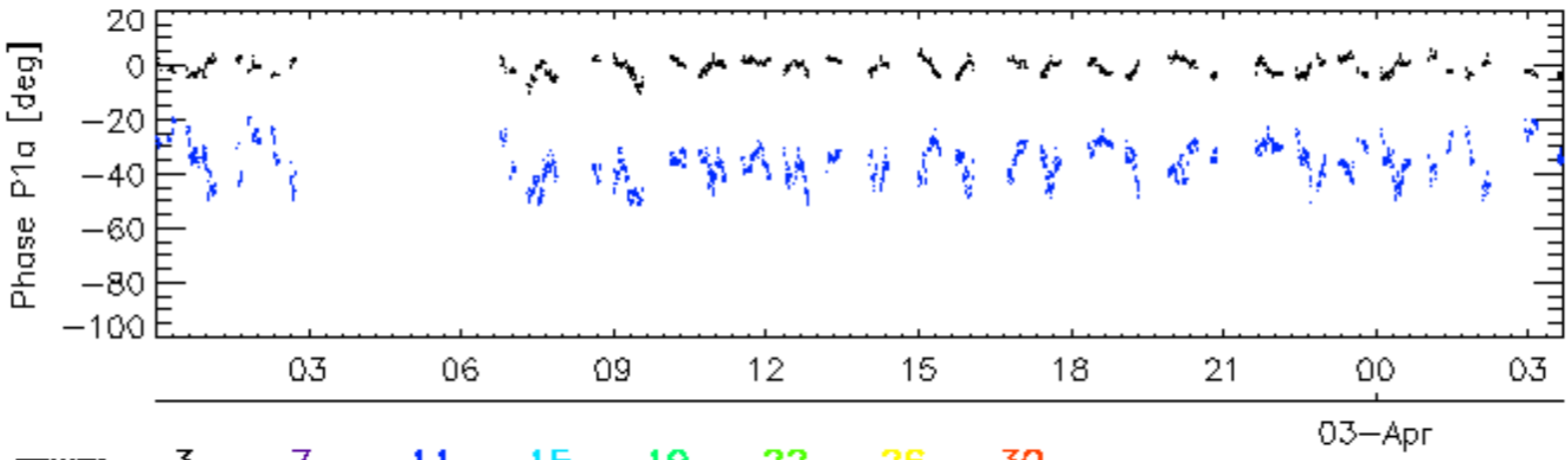
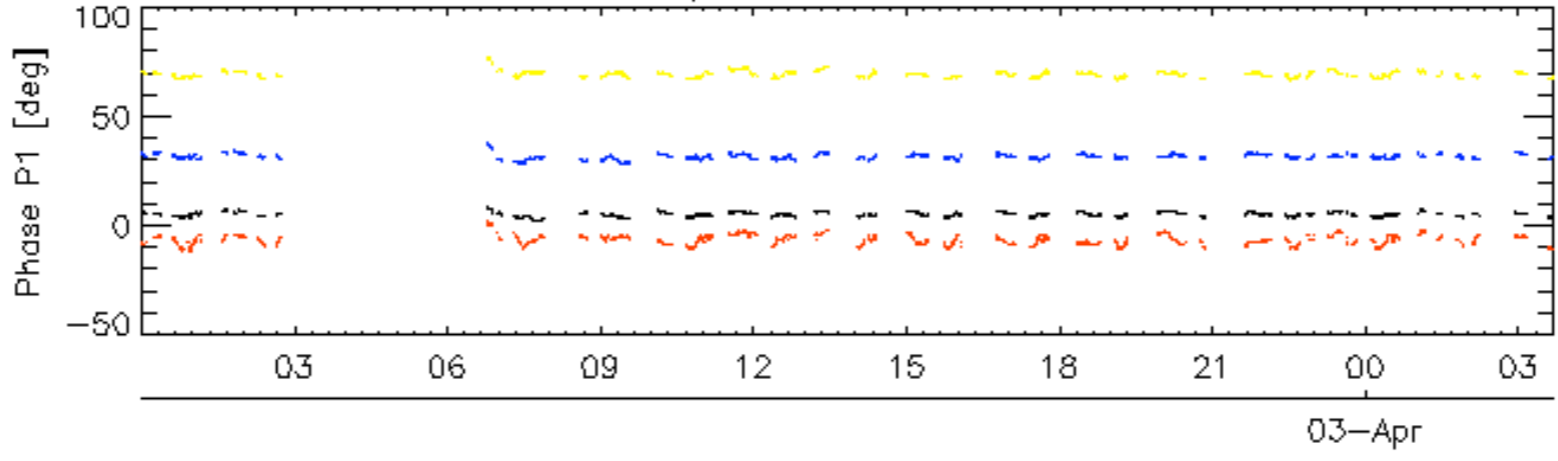


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

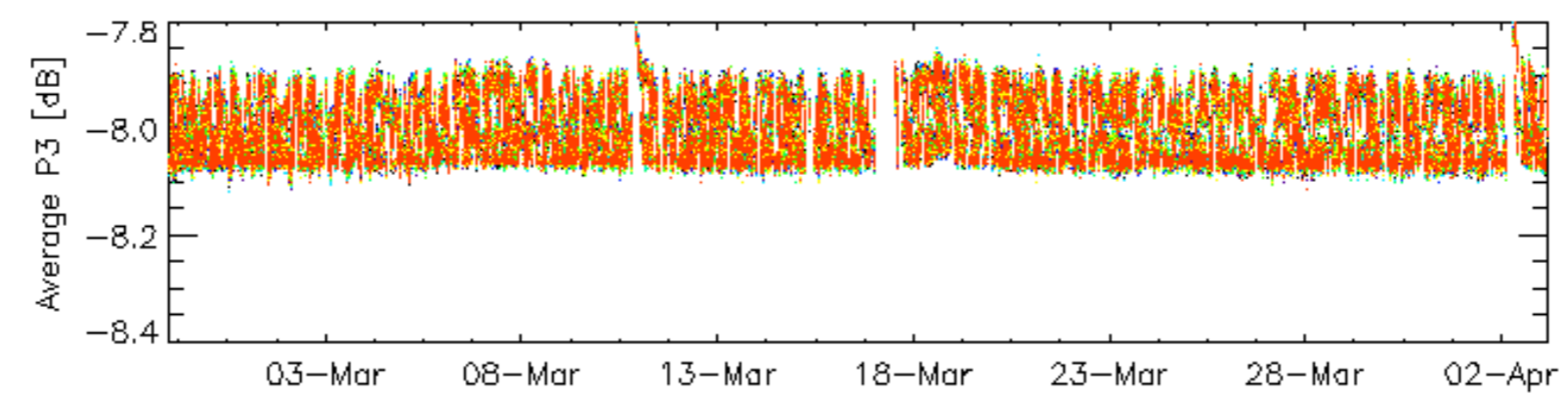
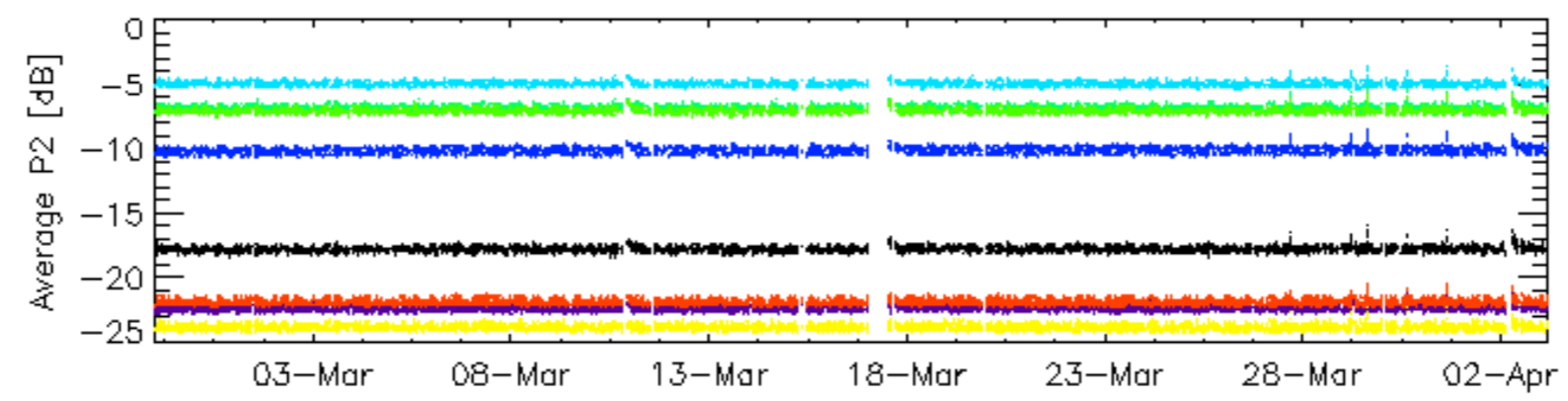
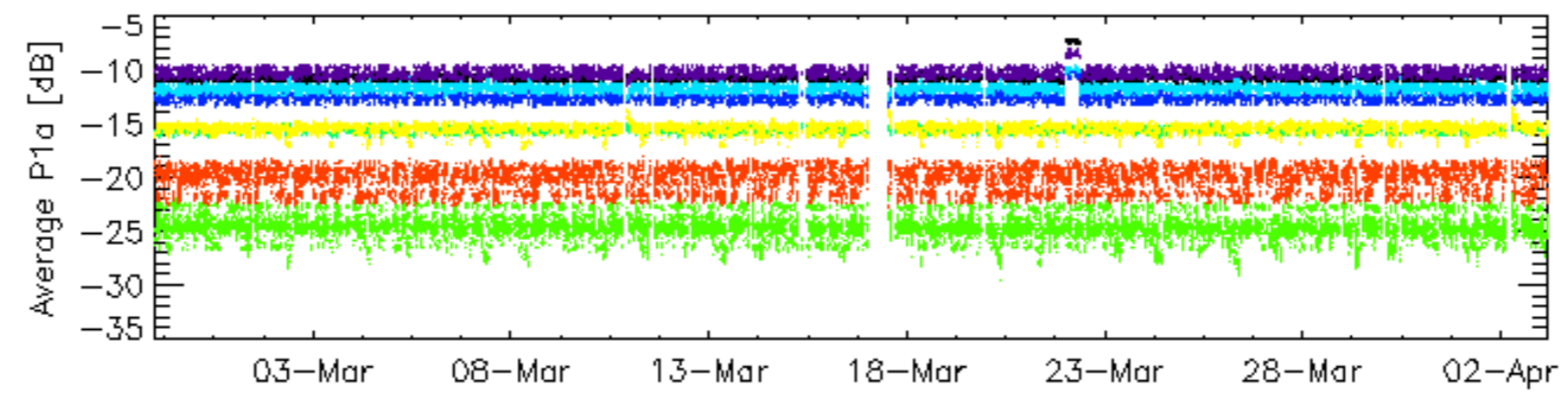
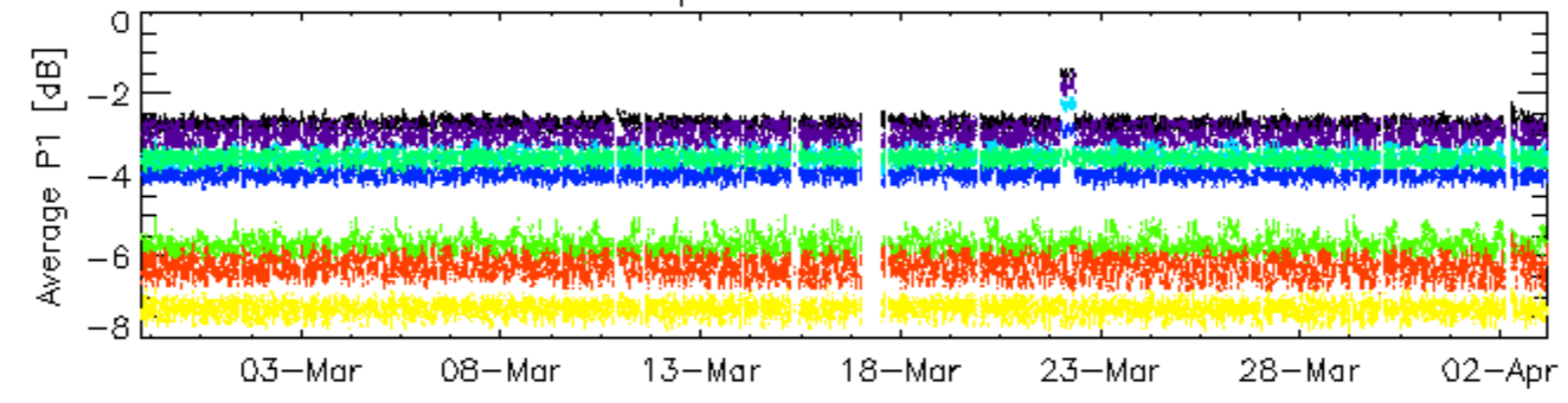


Cal pulses for WVS IS2



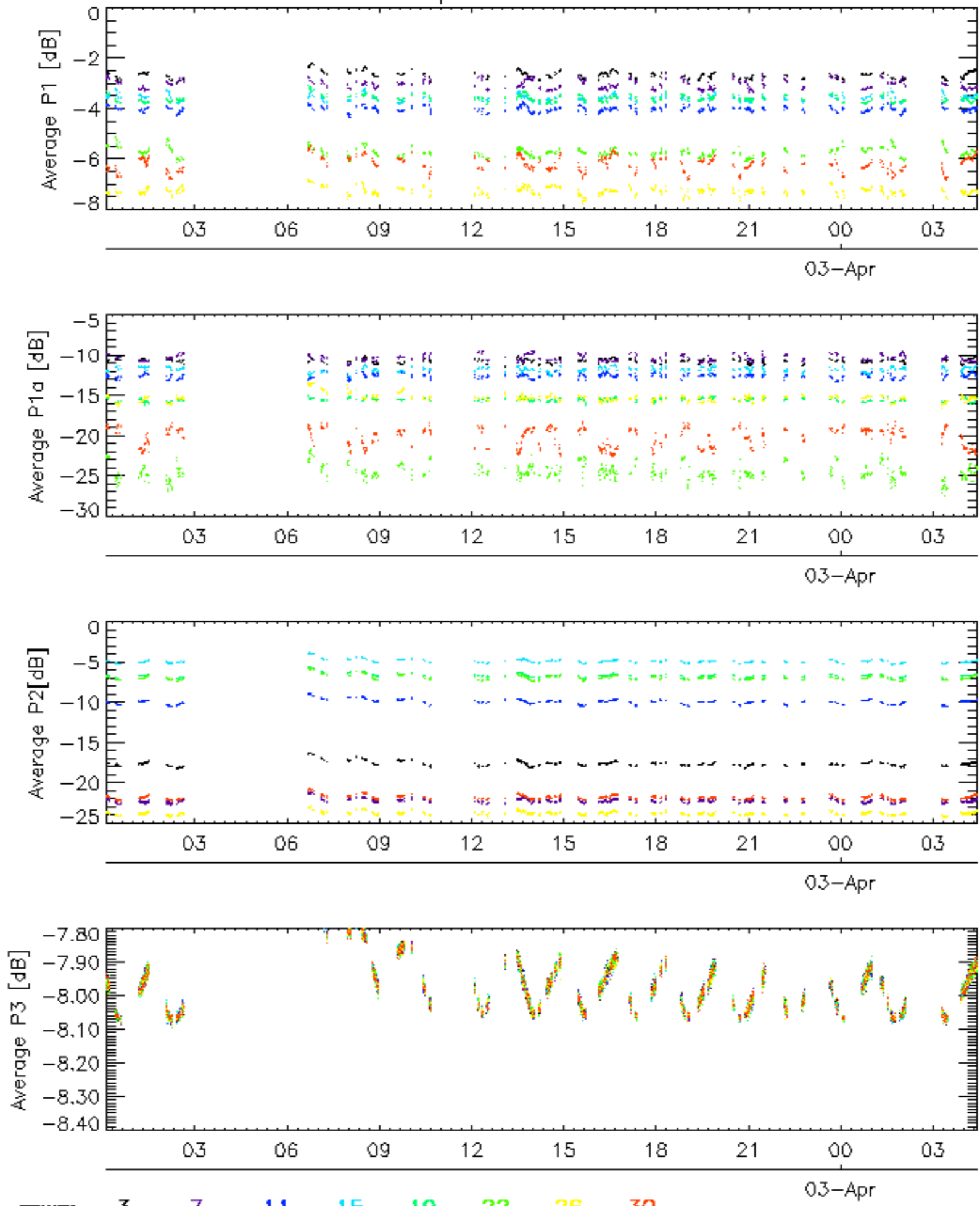
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

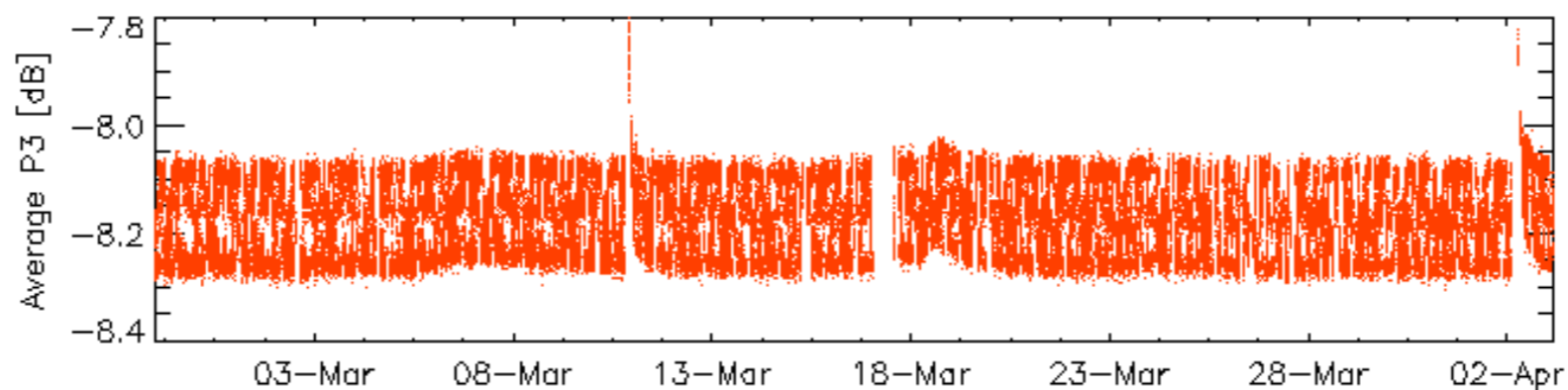
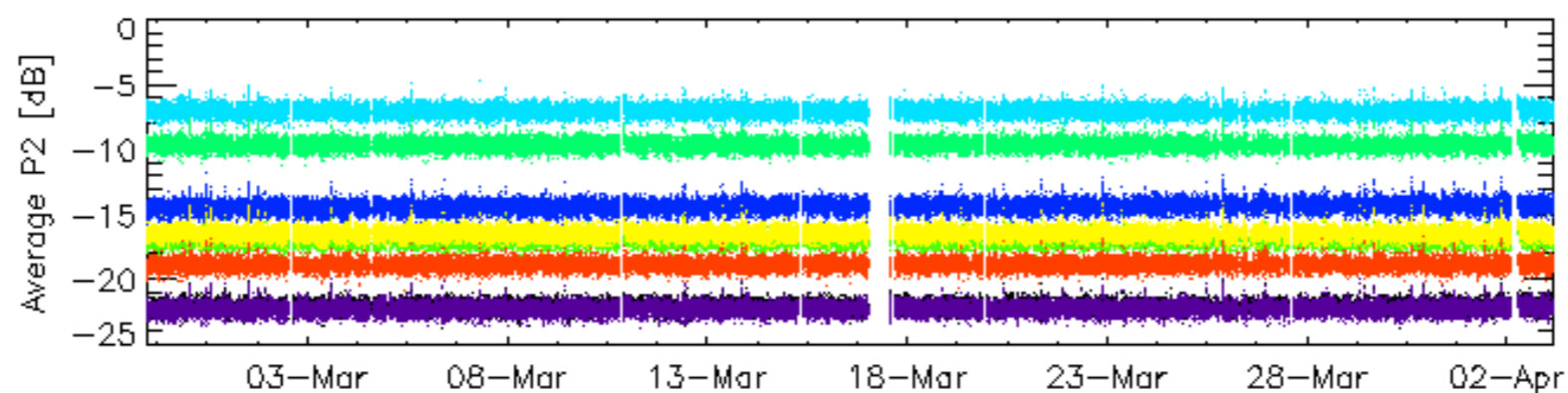
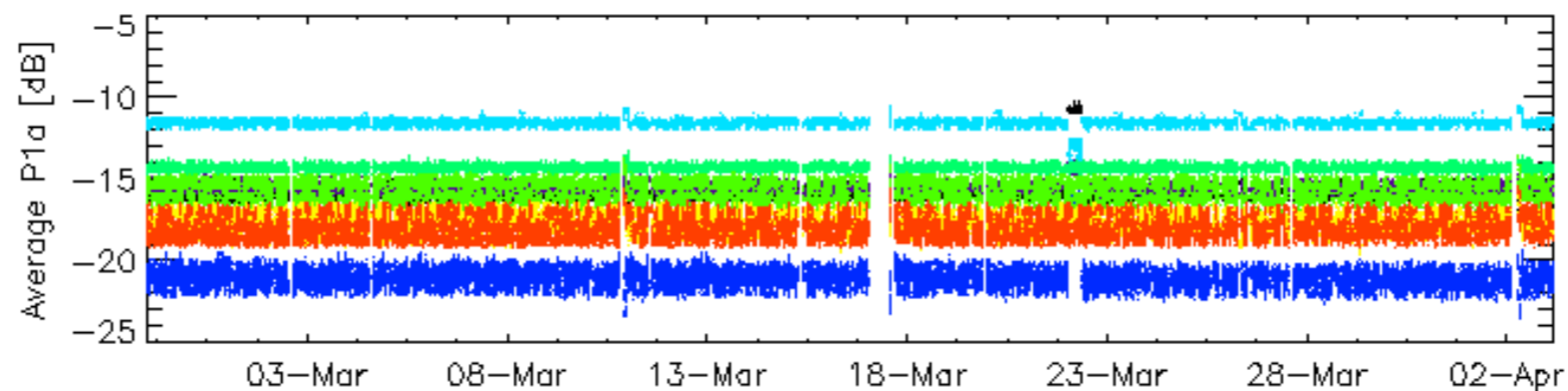
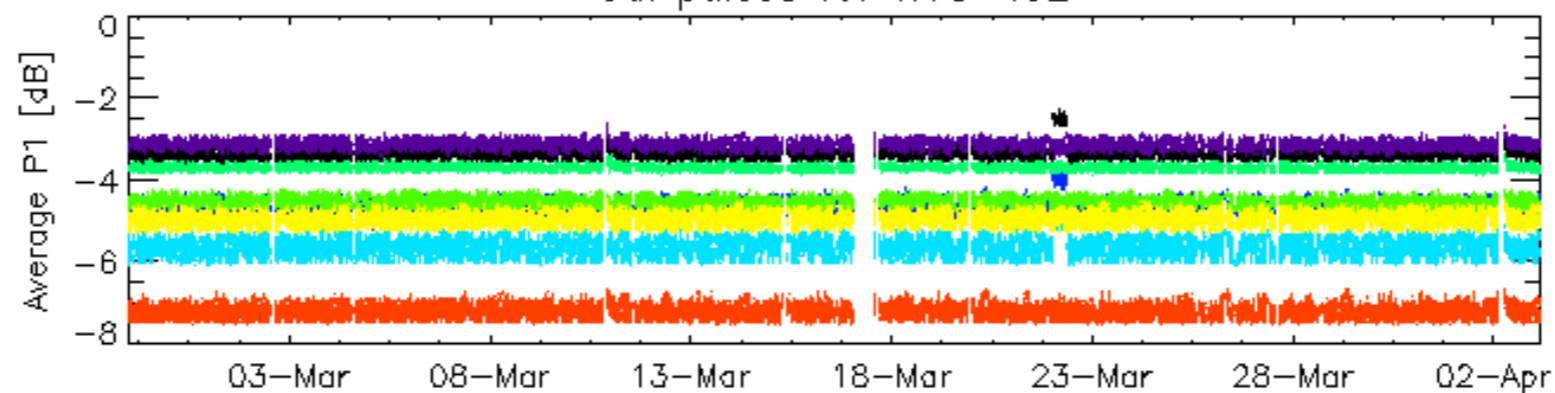


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

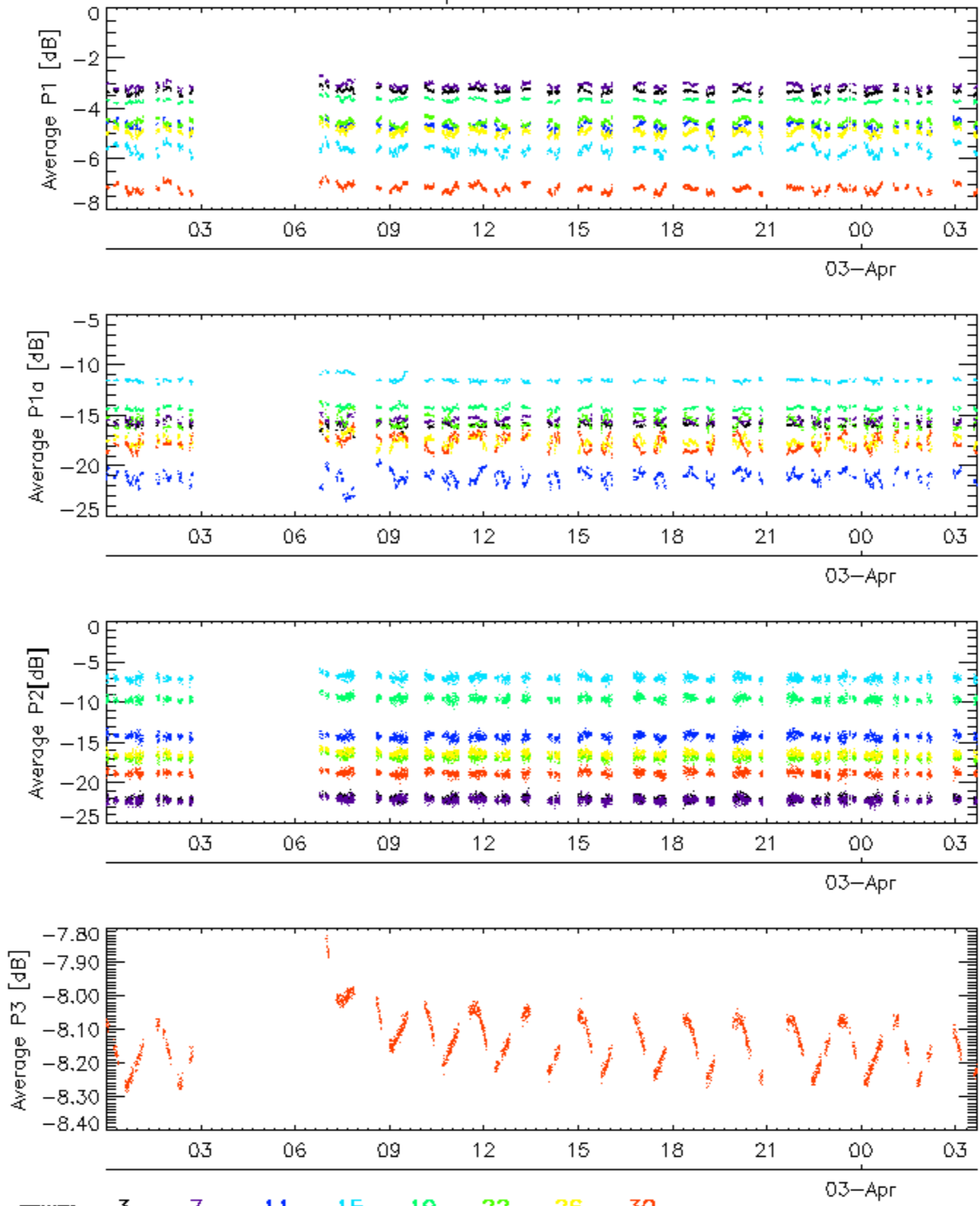


Cal pulses for WVS IS2



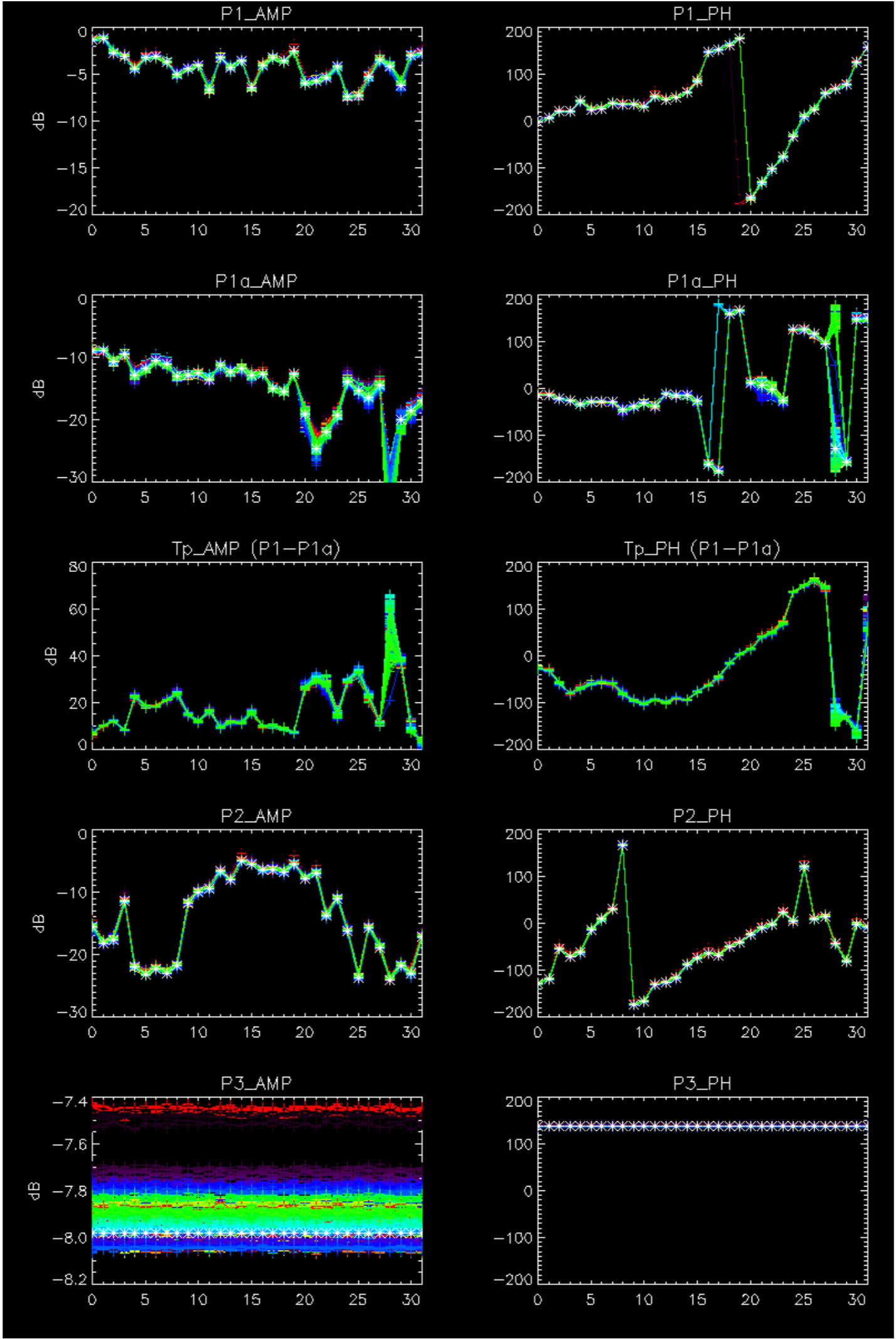
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

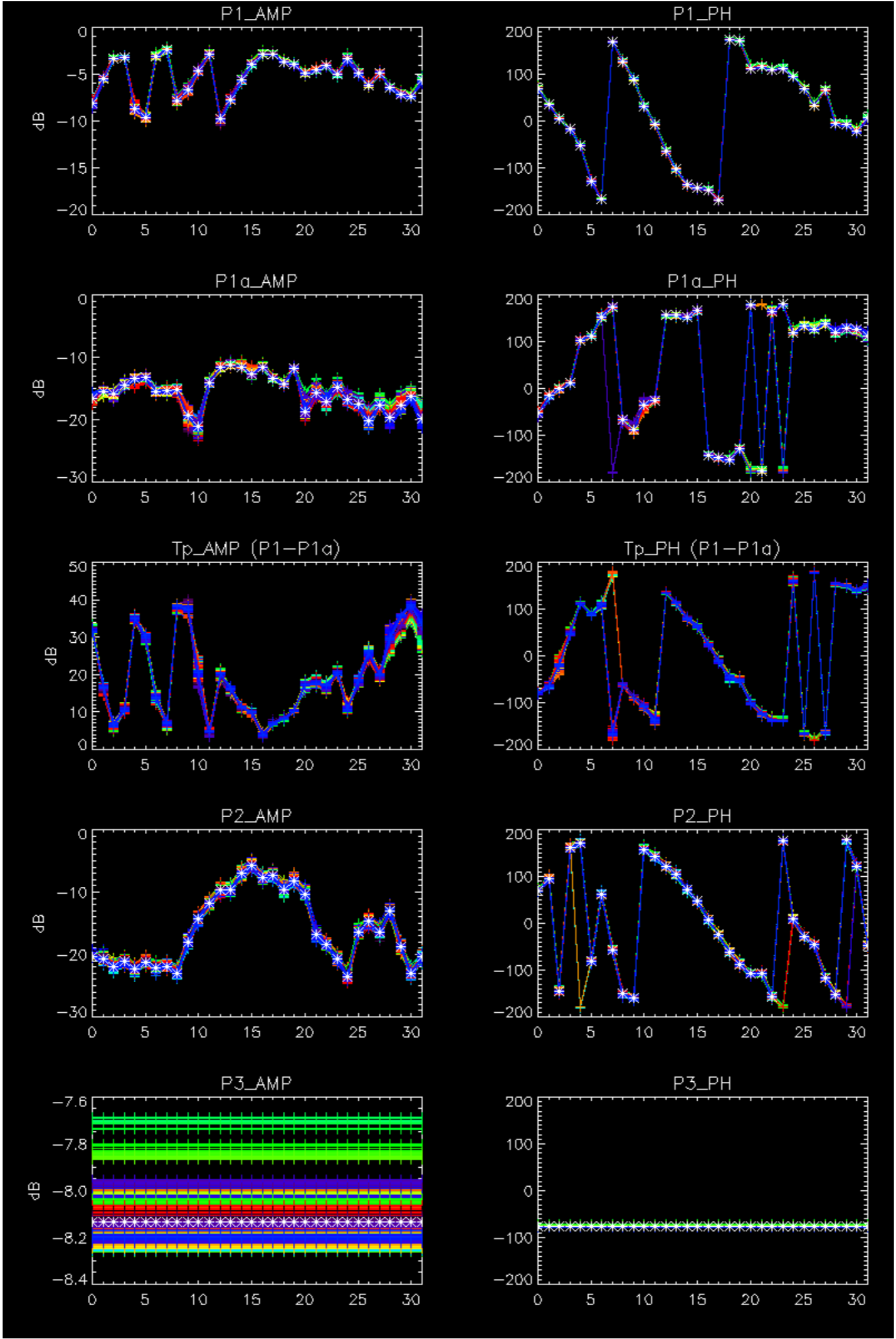
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

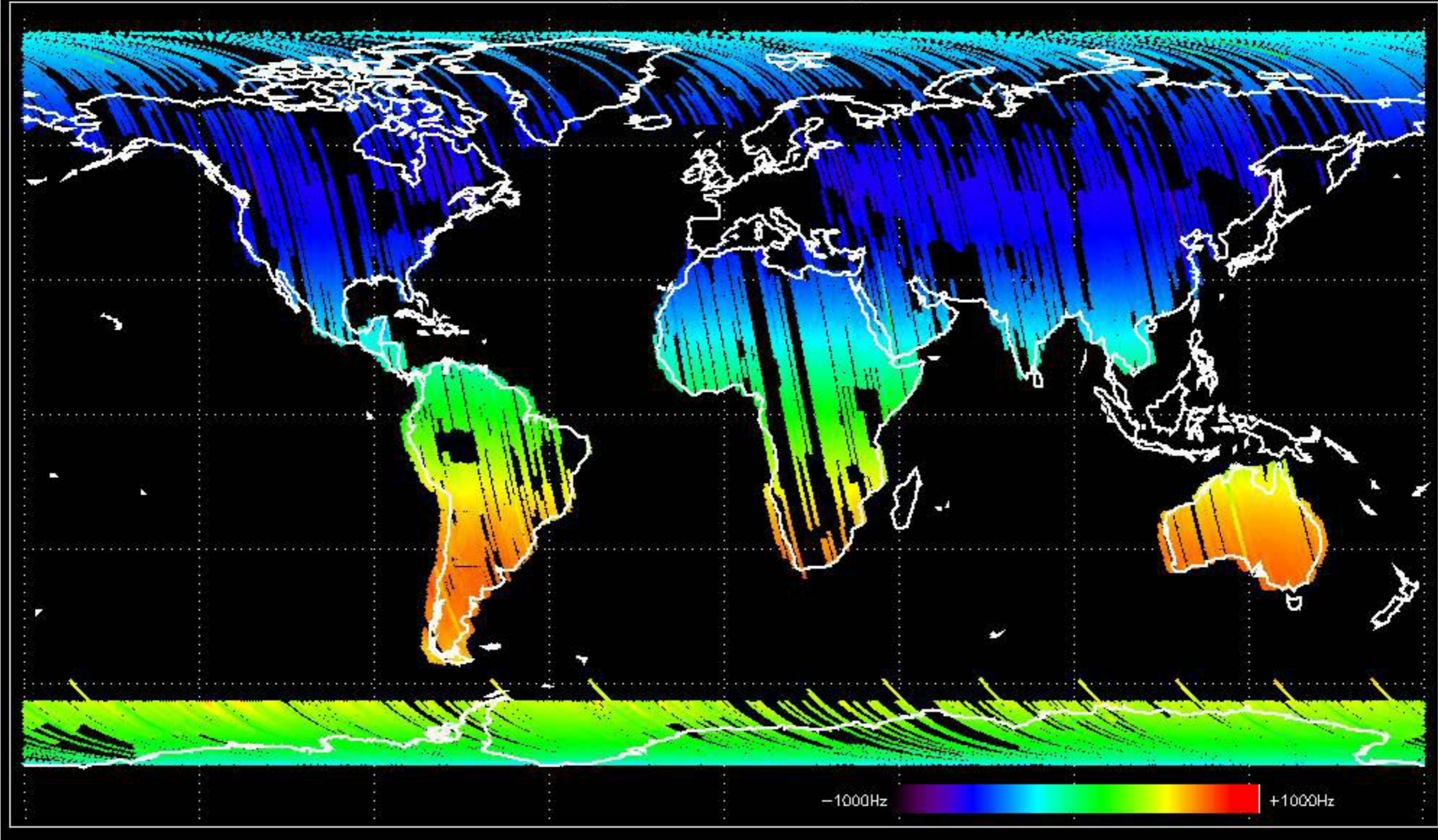
No anomalies observed.



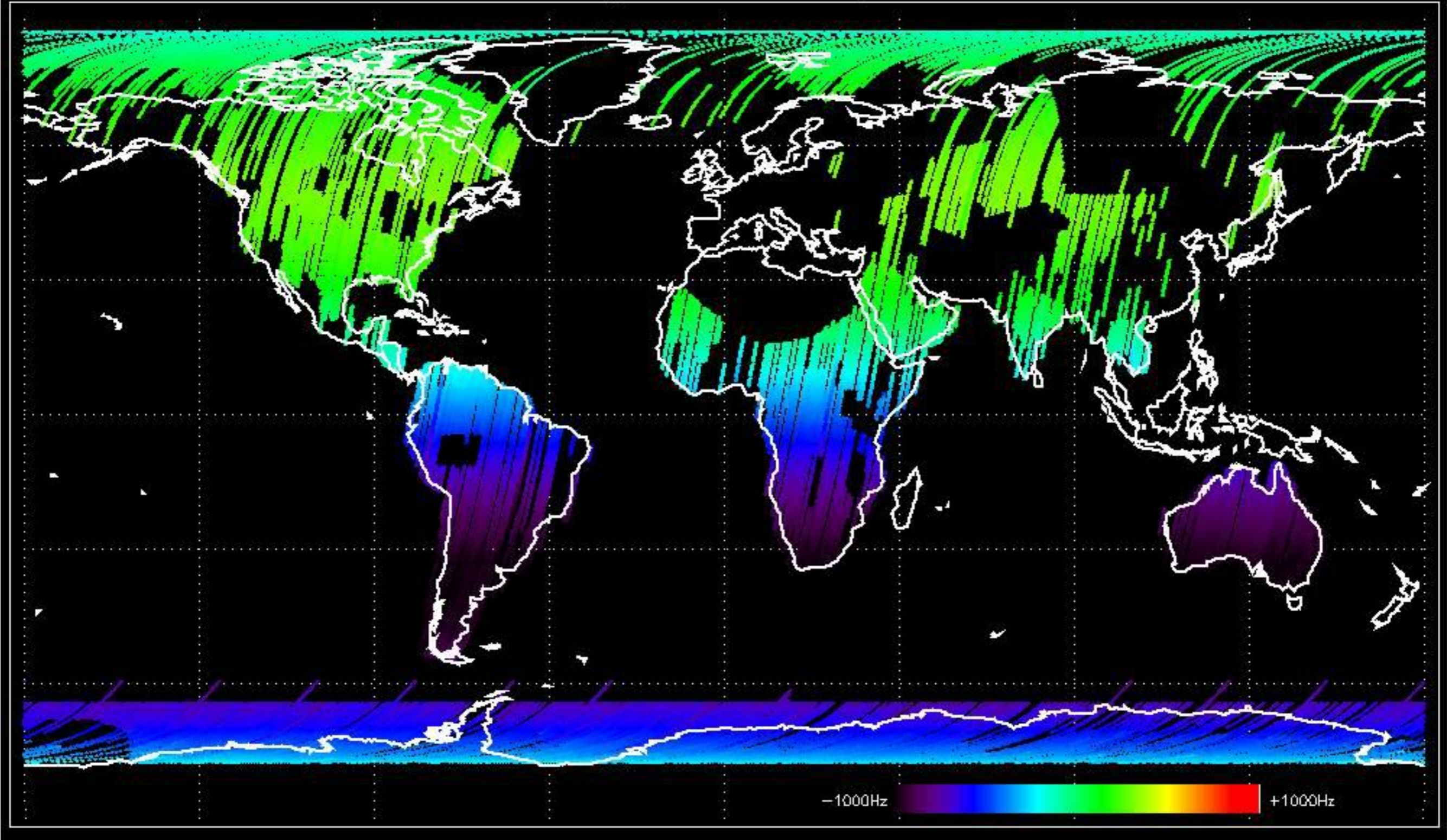


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

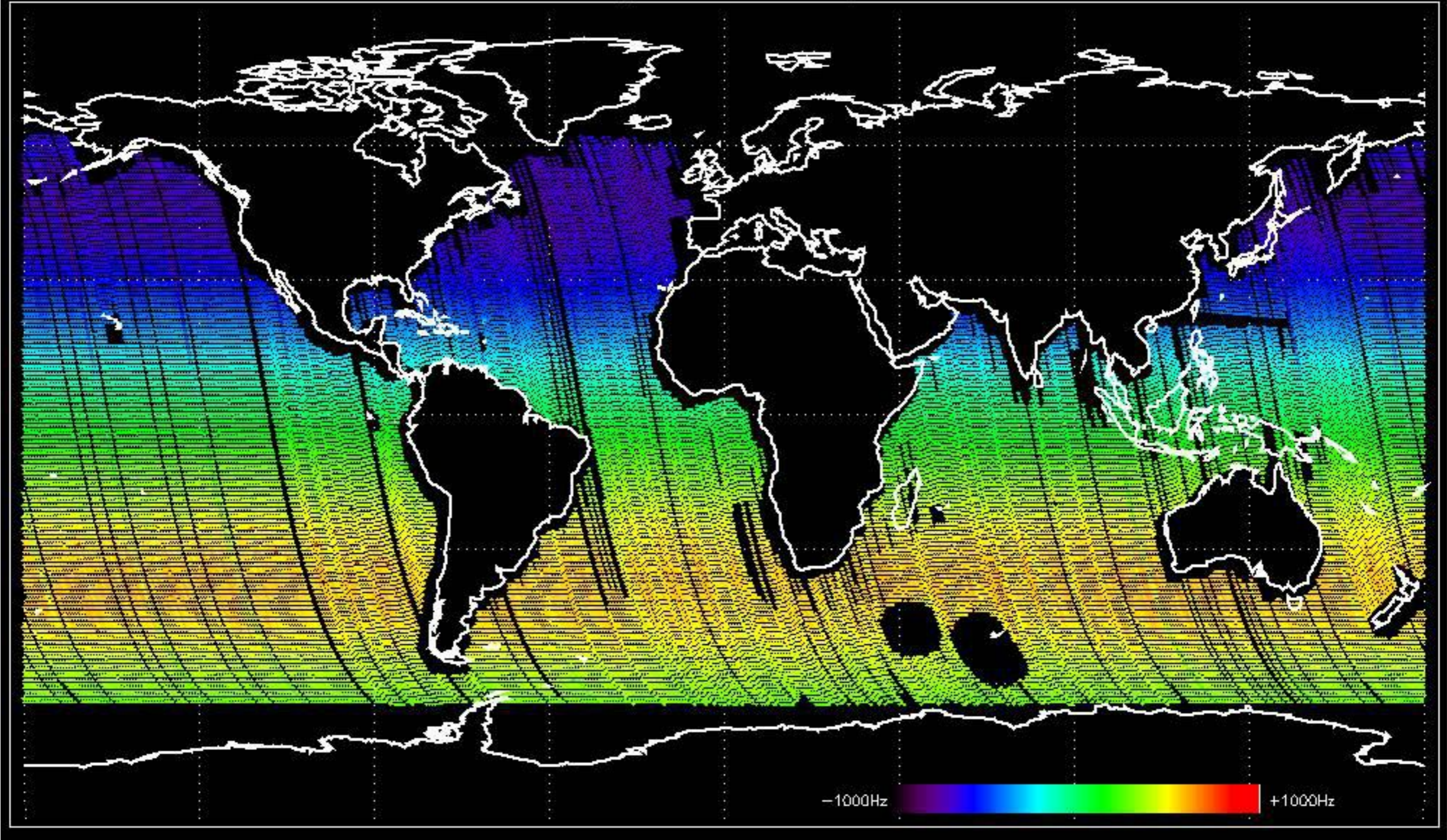
Doppler 'GM1' 'SS1' ascending



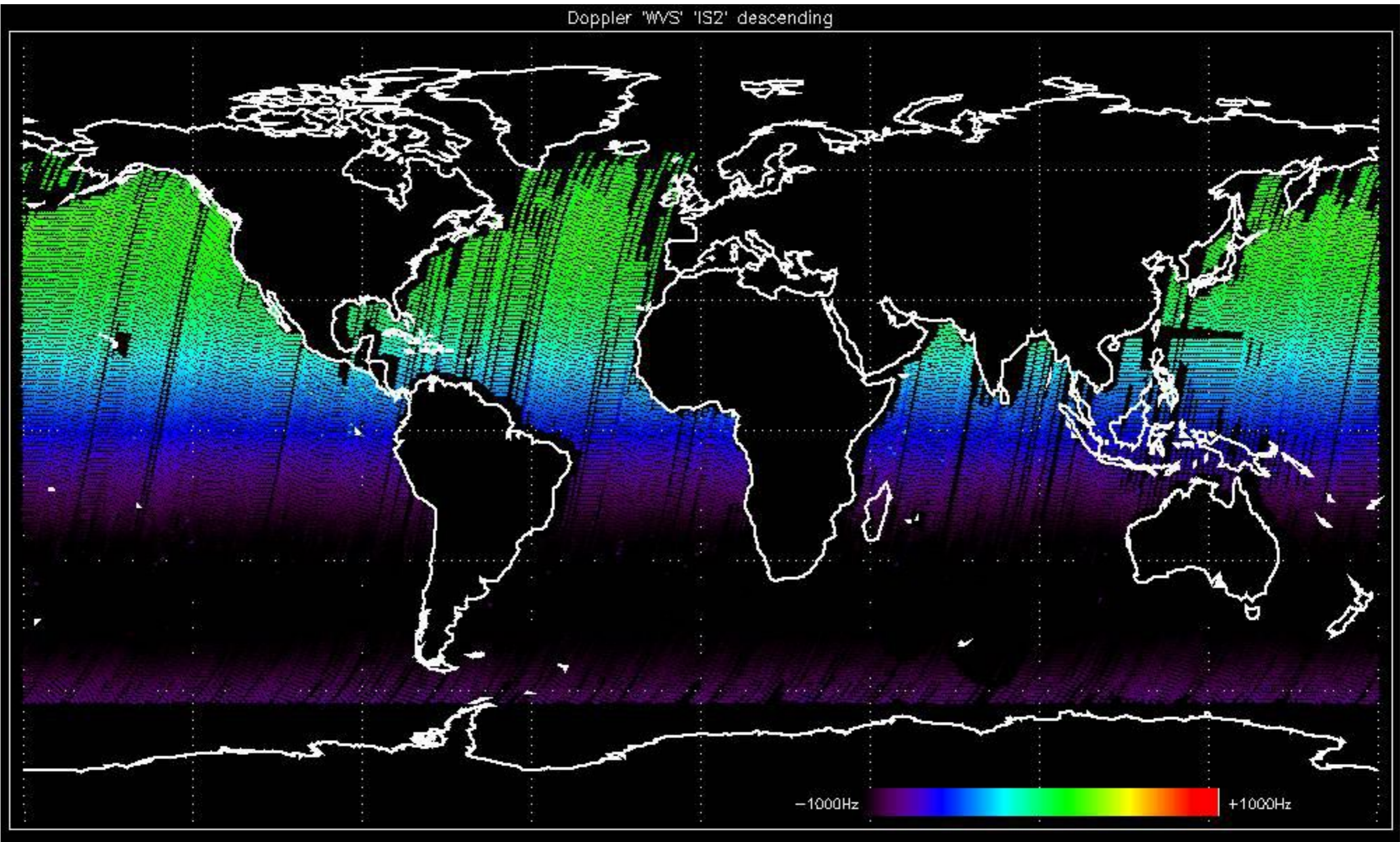
Doppler 'GM1' 'SS1' descending



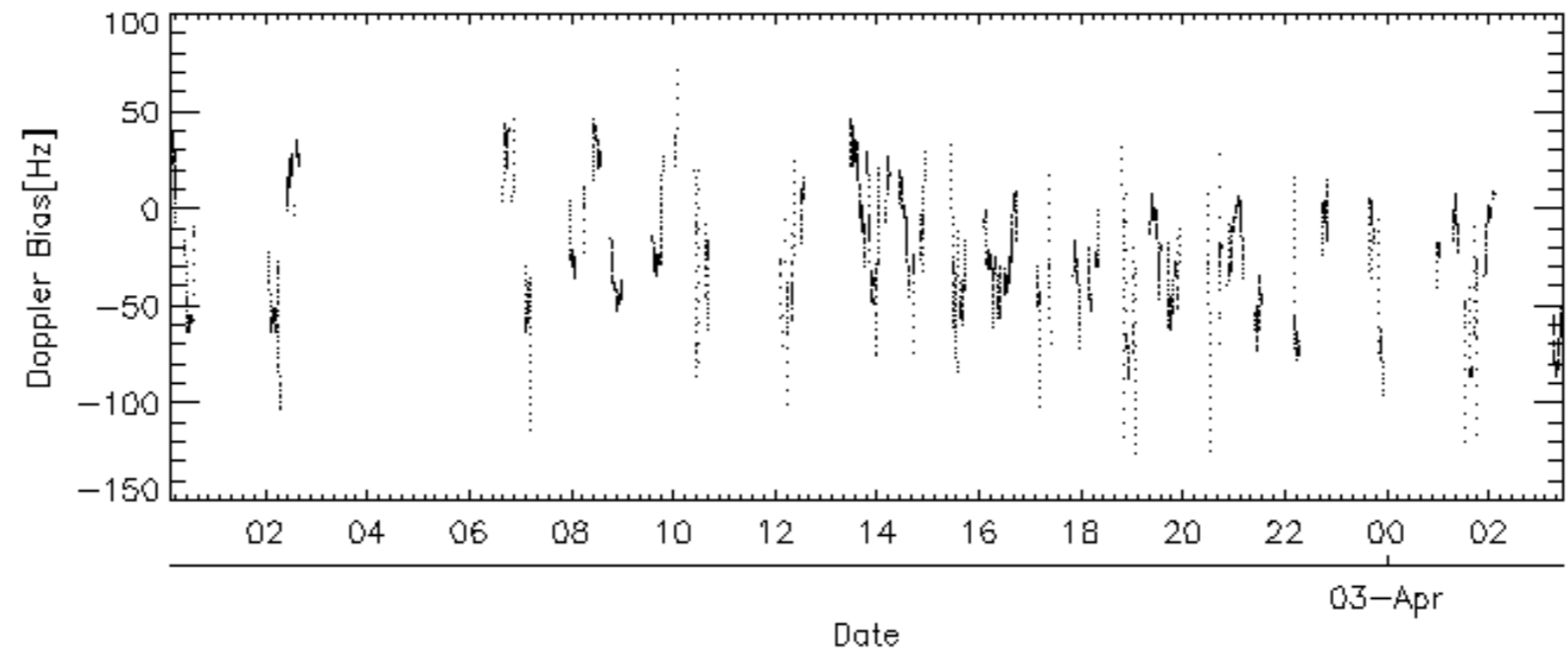
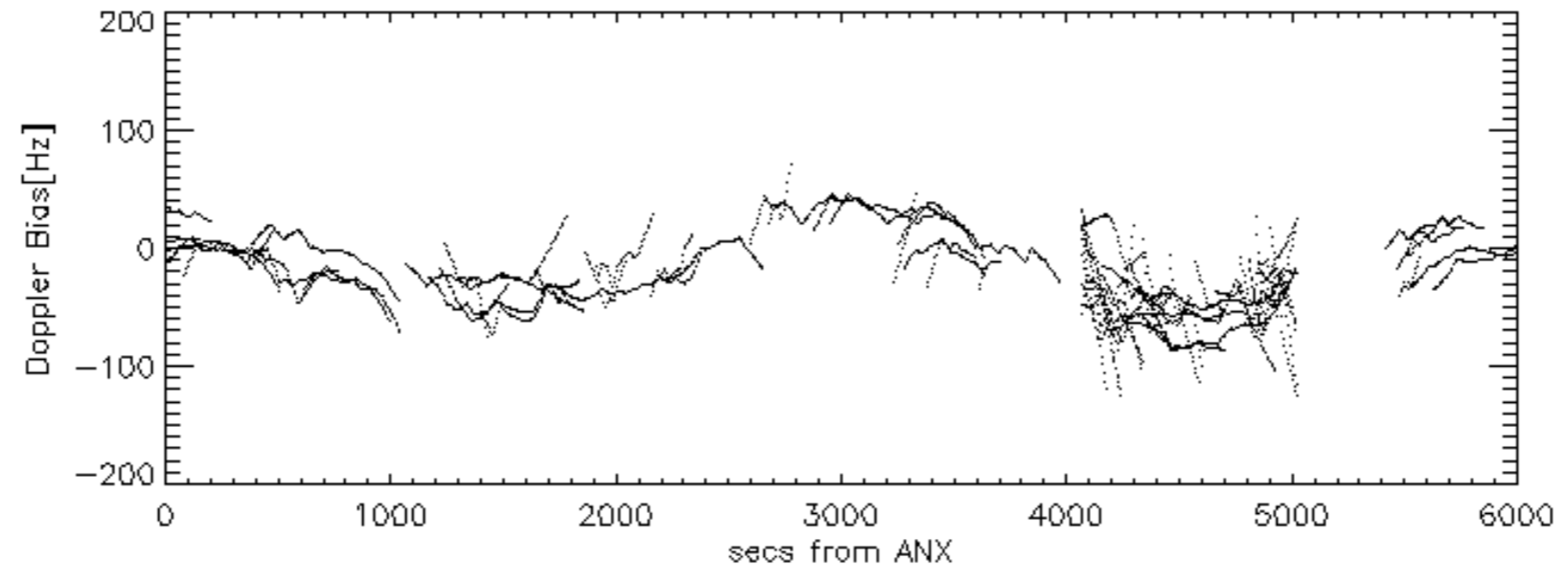
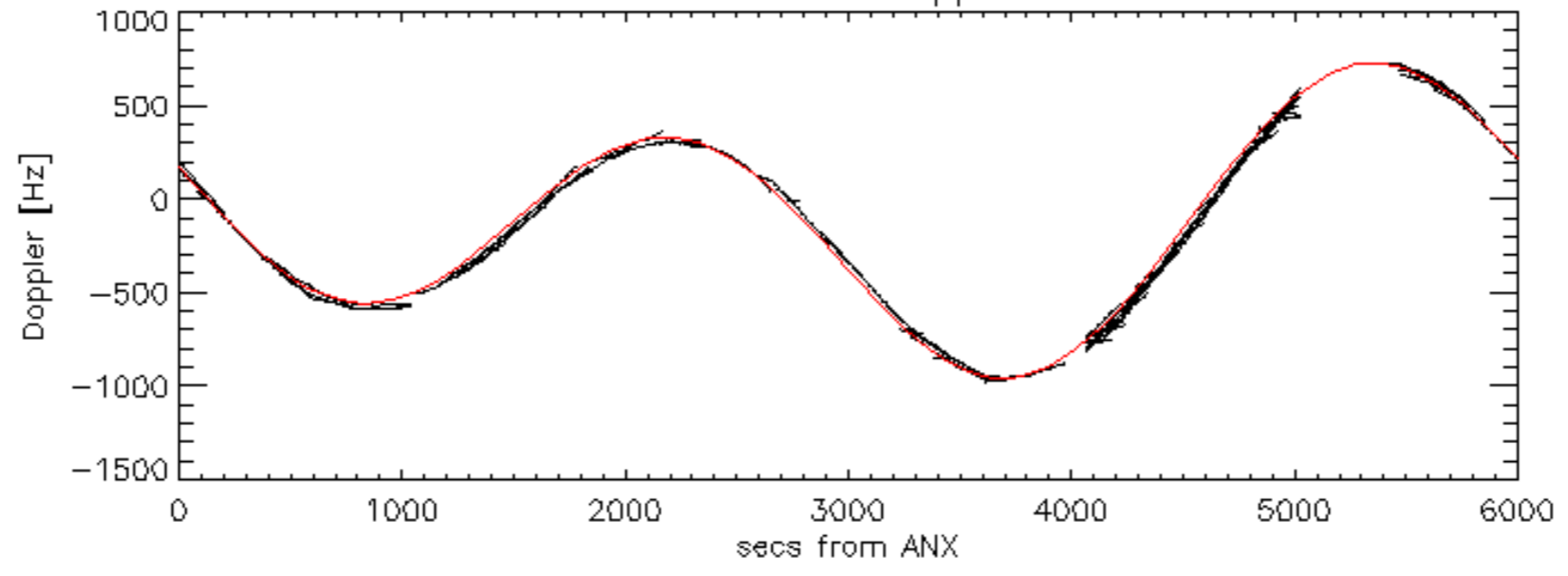
Doppler 'WVS' 'IS2' ascending

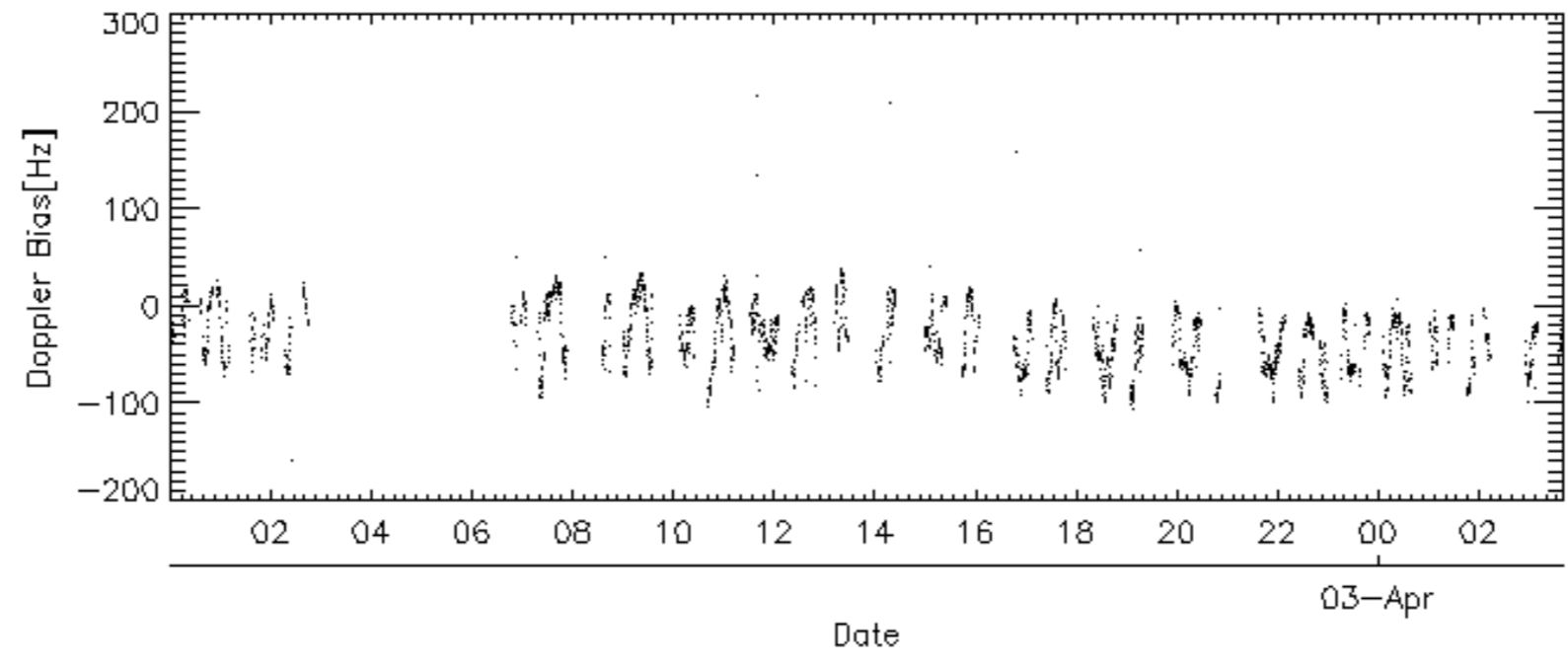
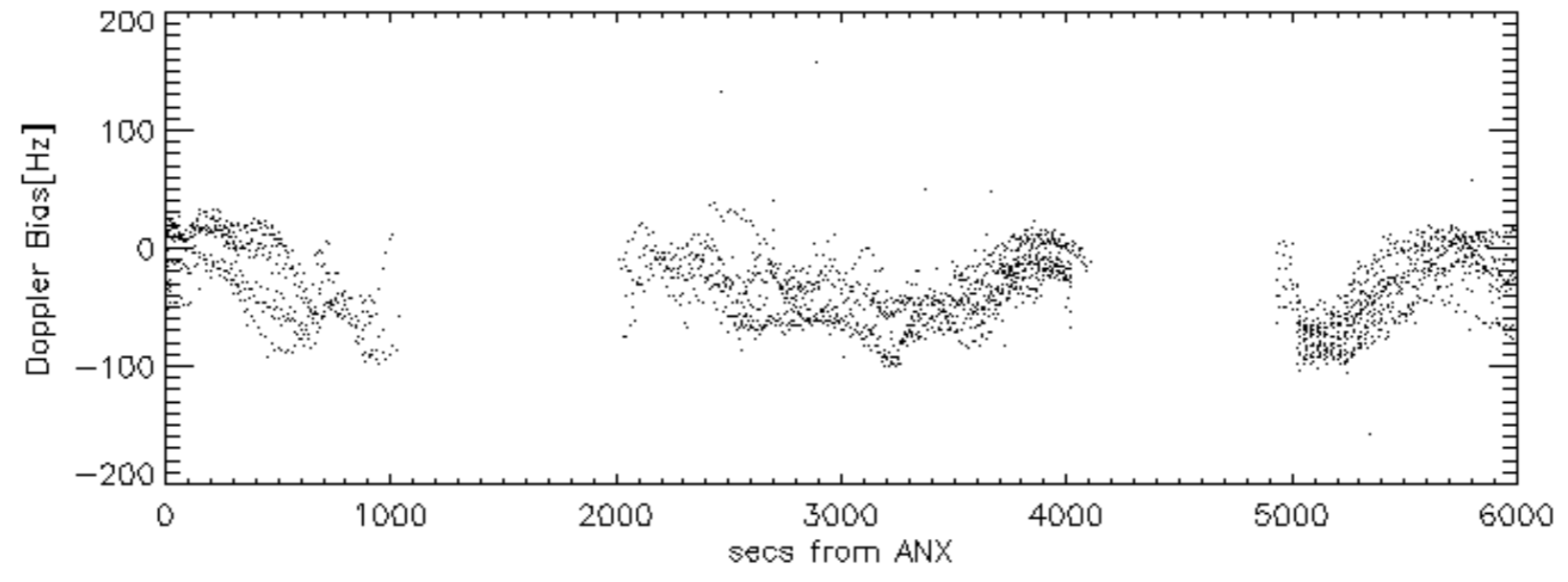
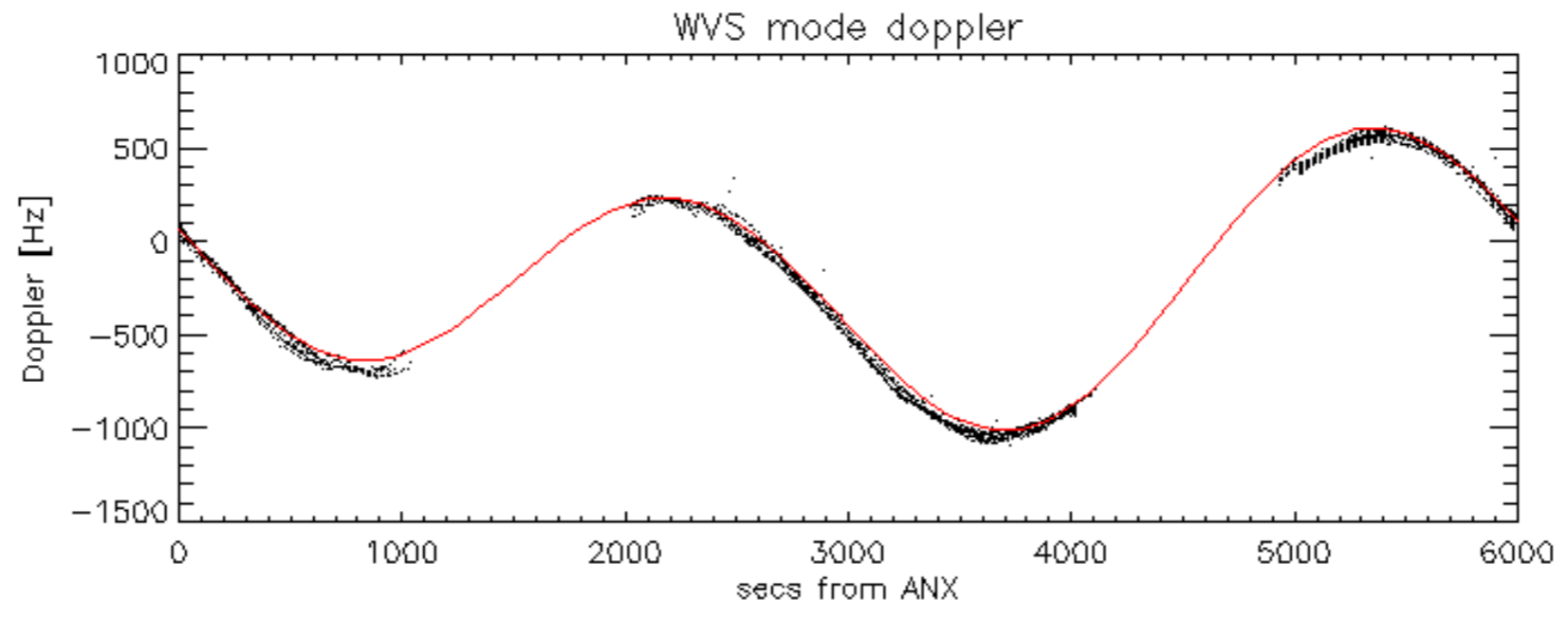


Doppler 'WVS' 'IS2' descending

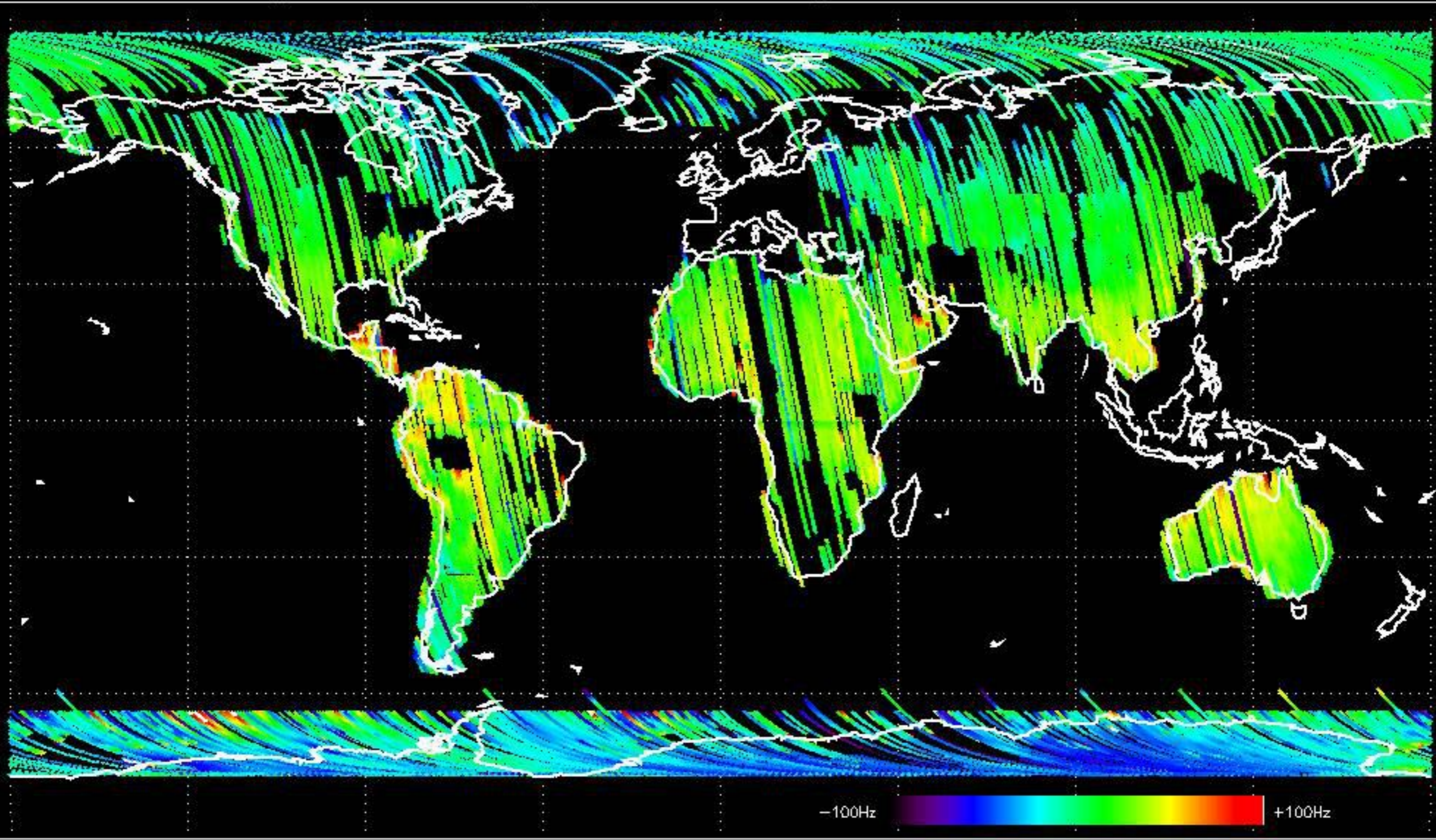


GM1 mode doppler

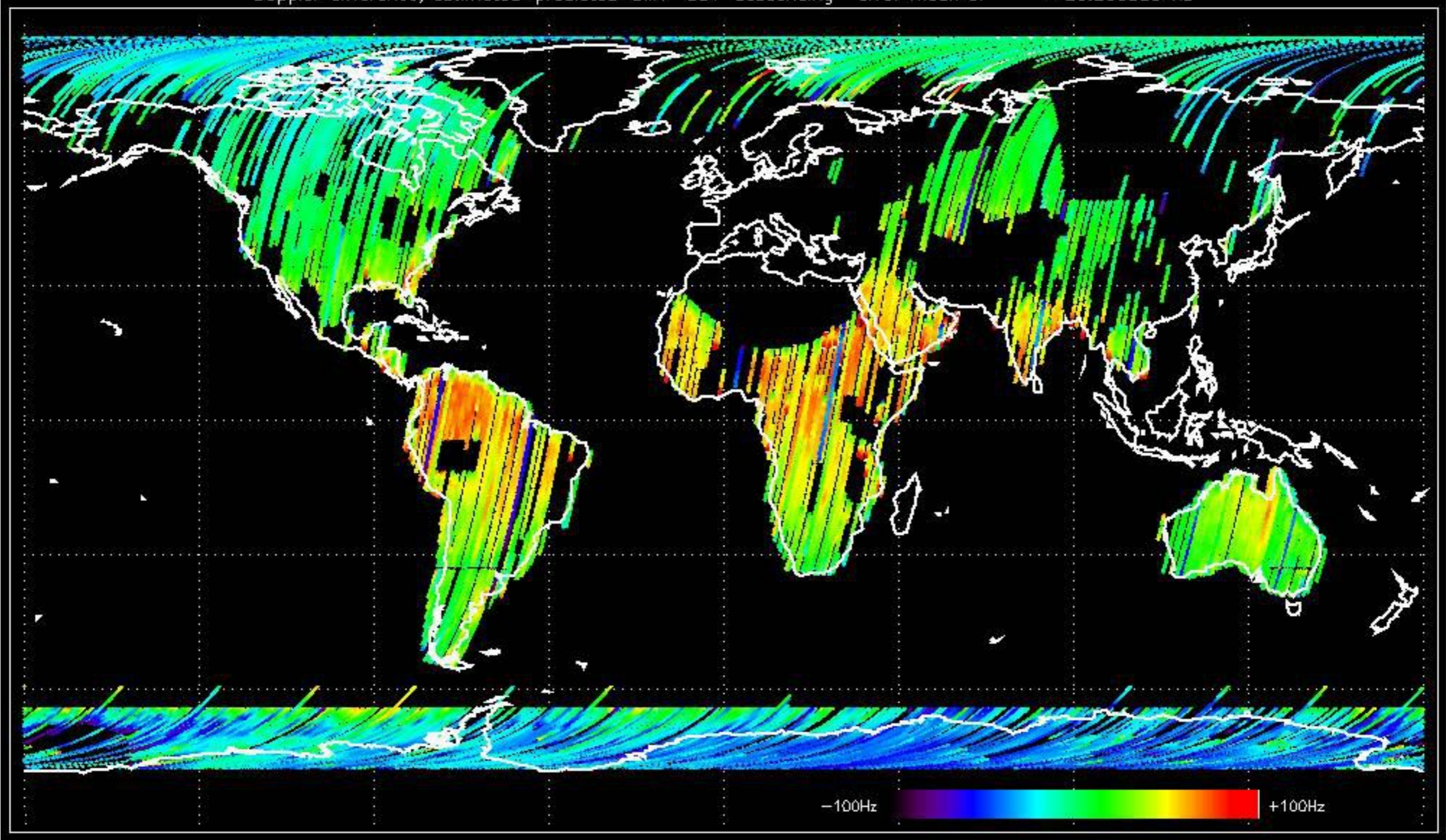




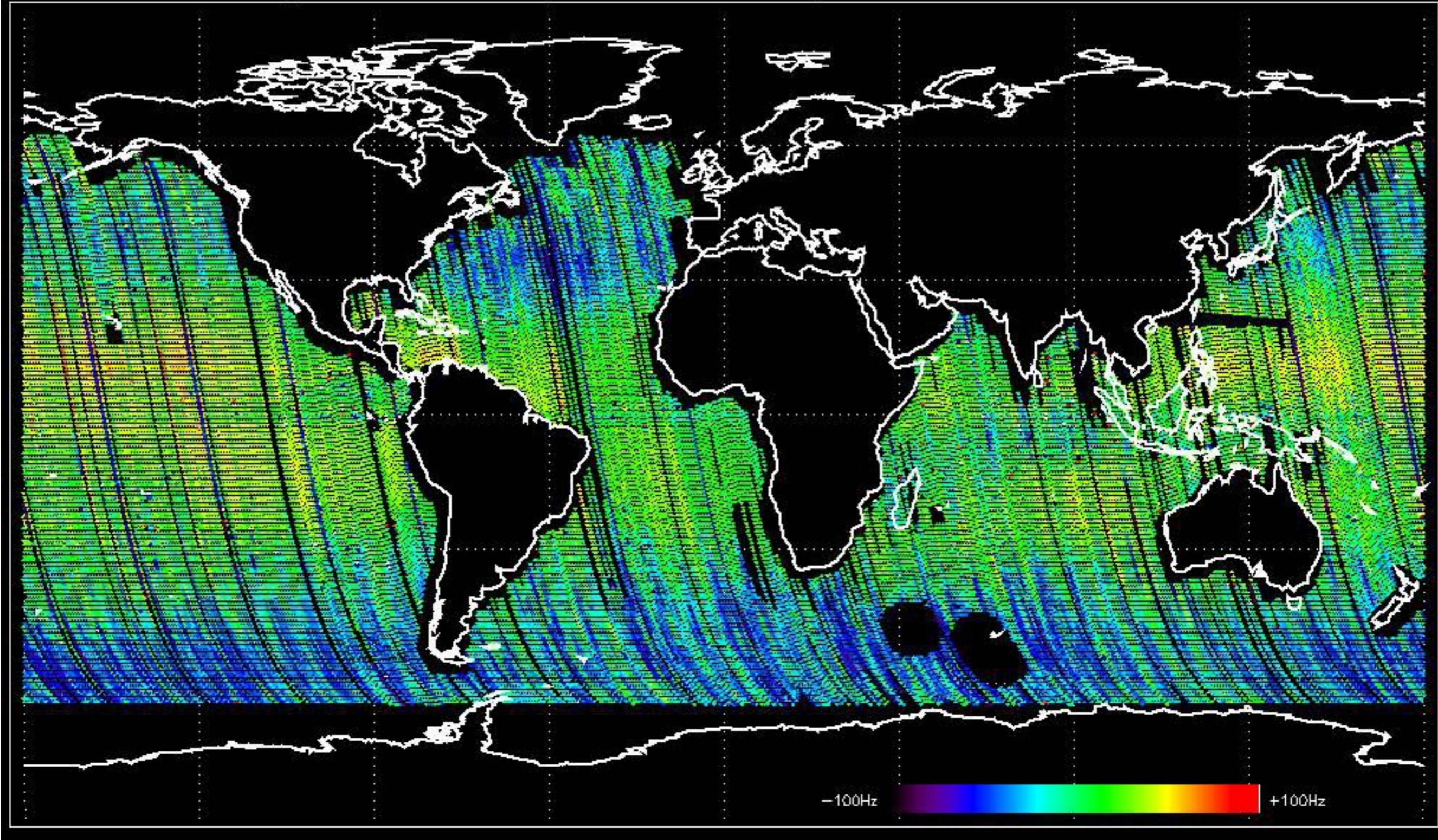
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -33.086789 Hz



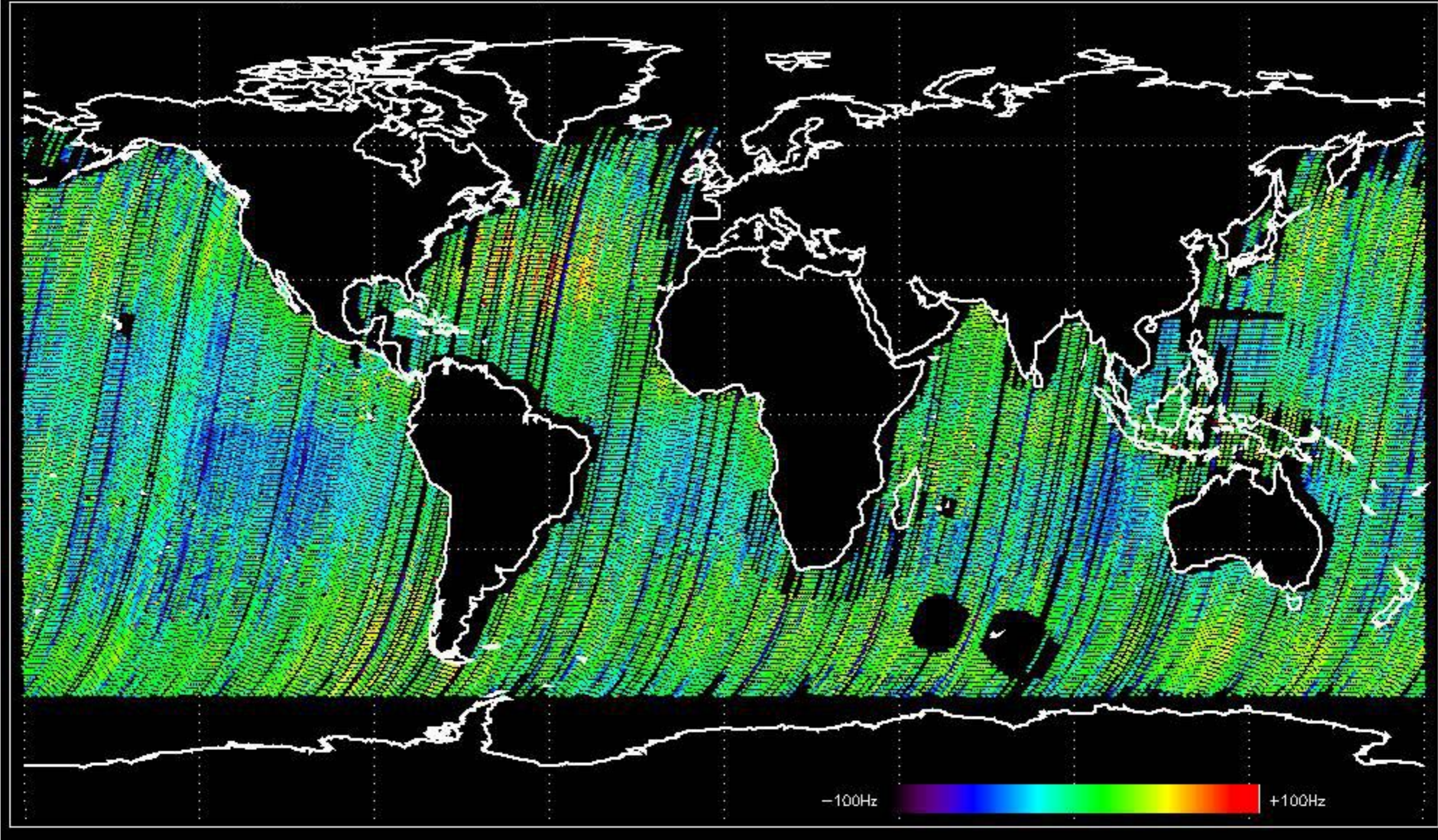
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.260550 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.876076 Hz

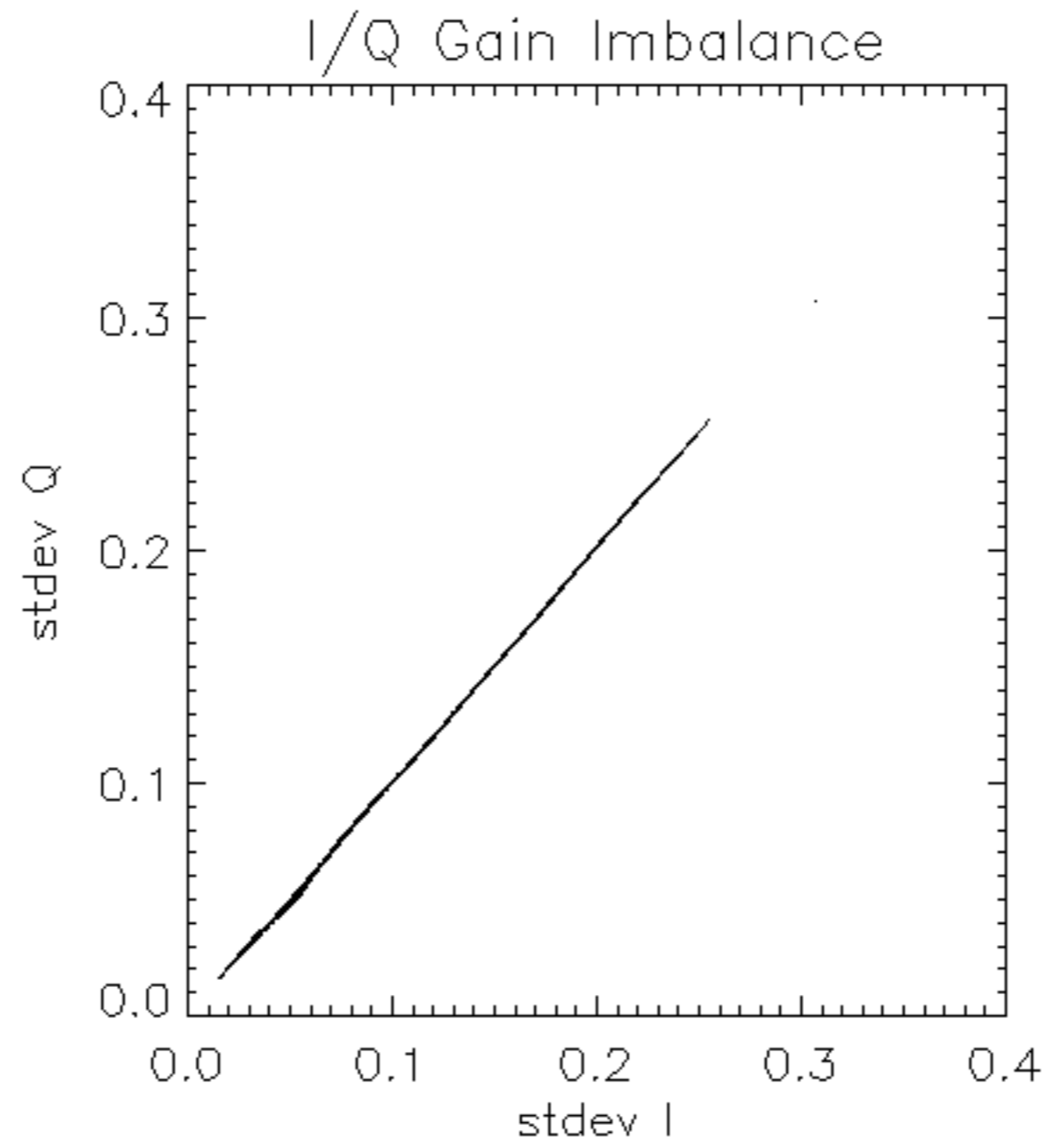


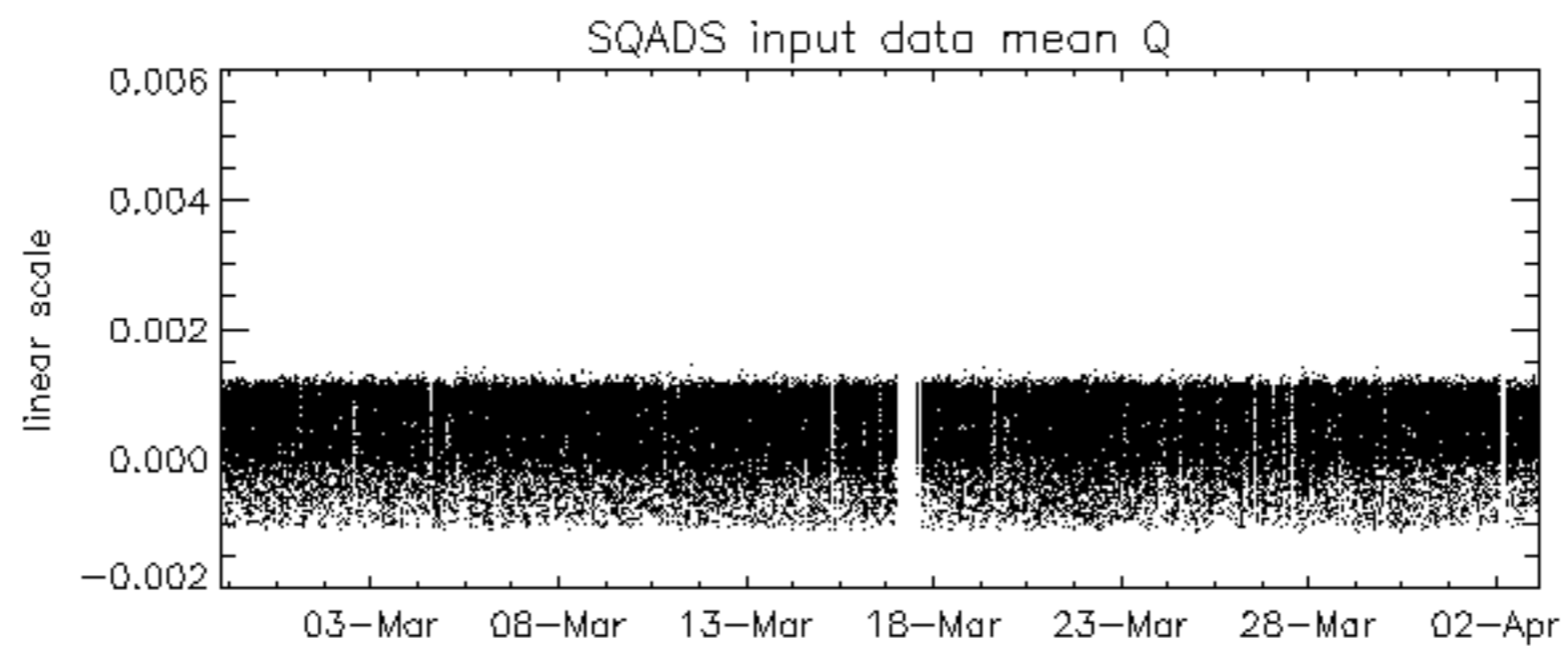
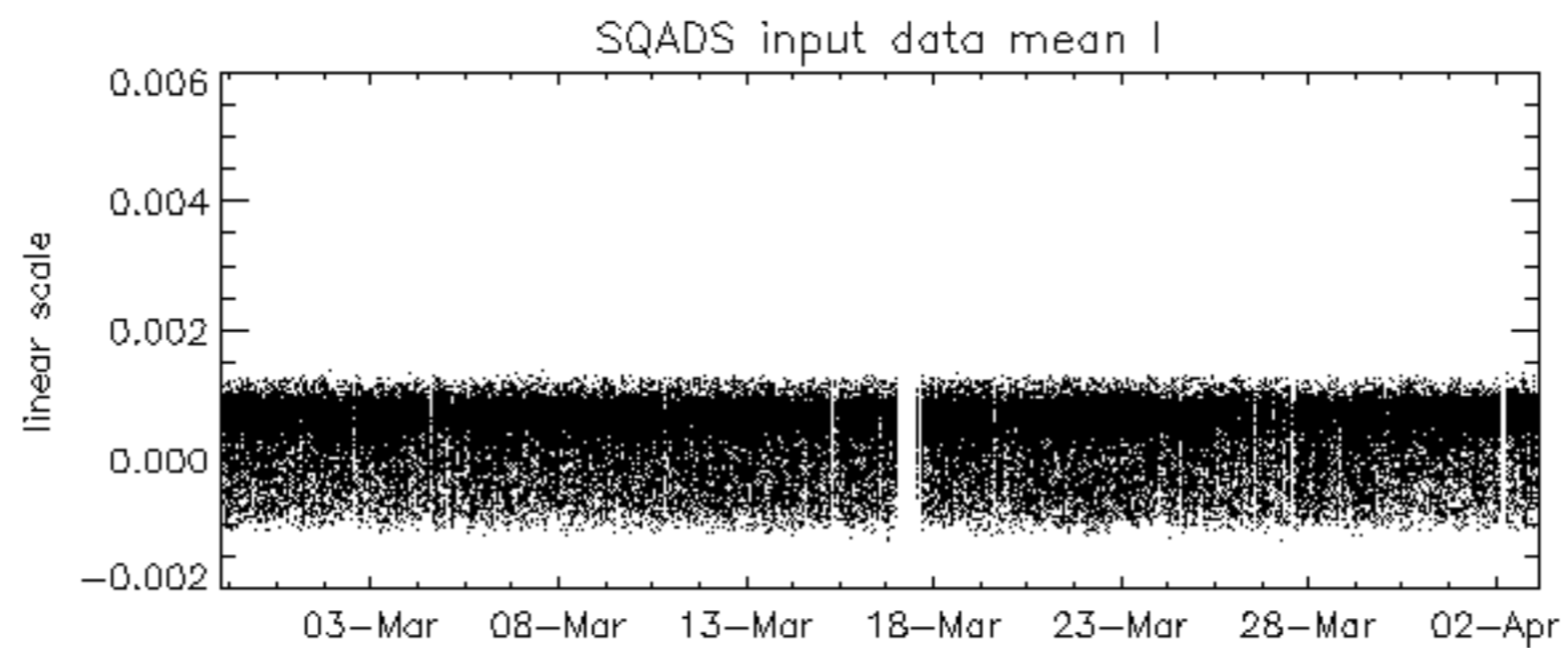
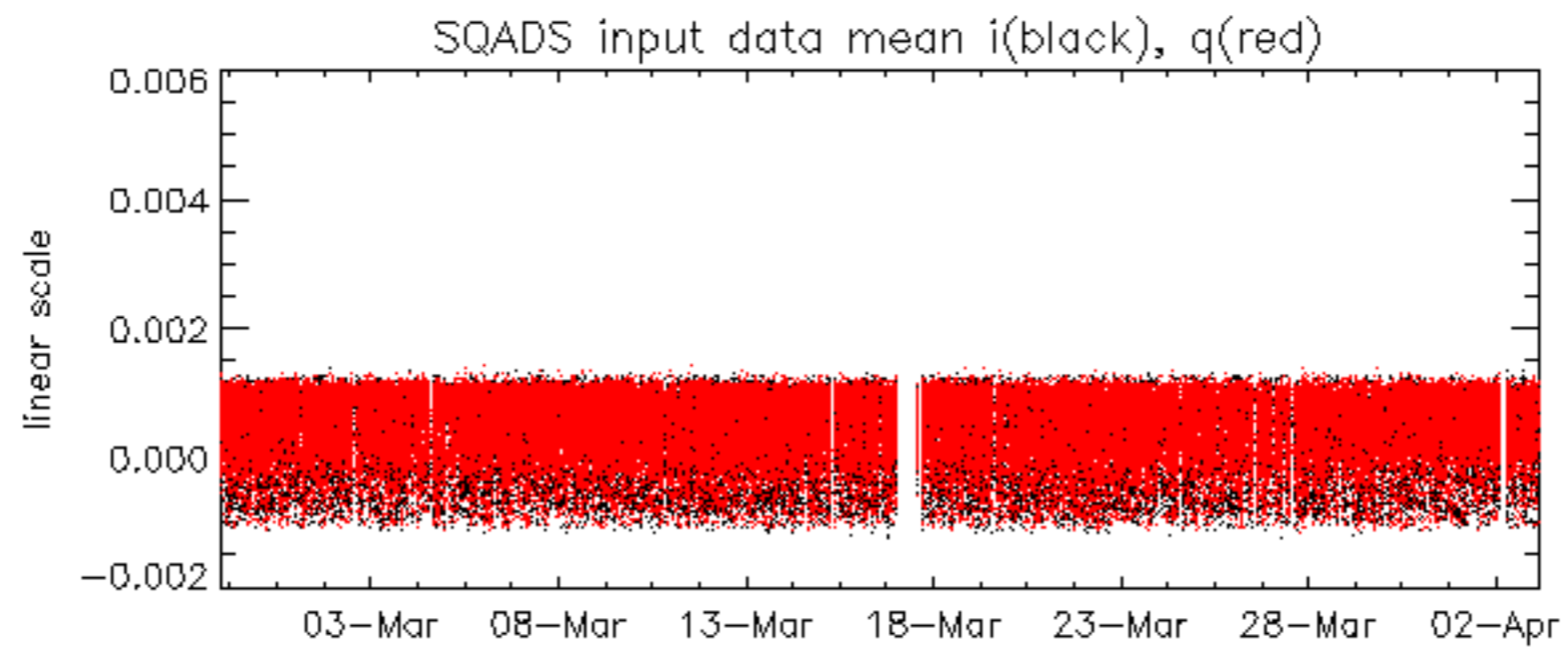
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.848066 Hz

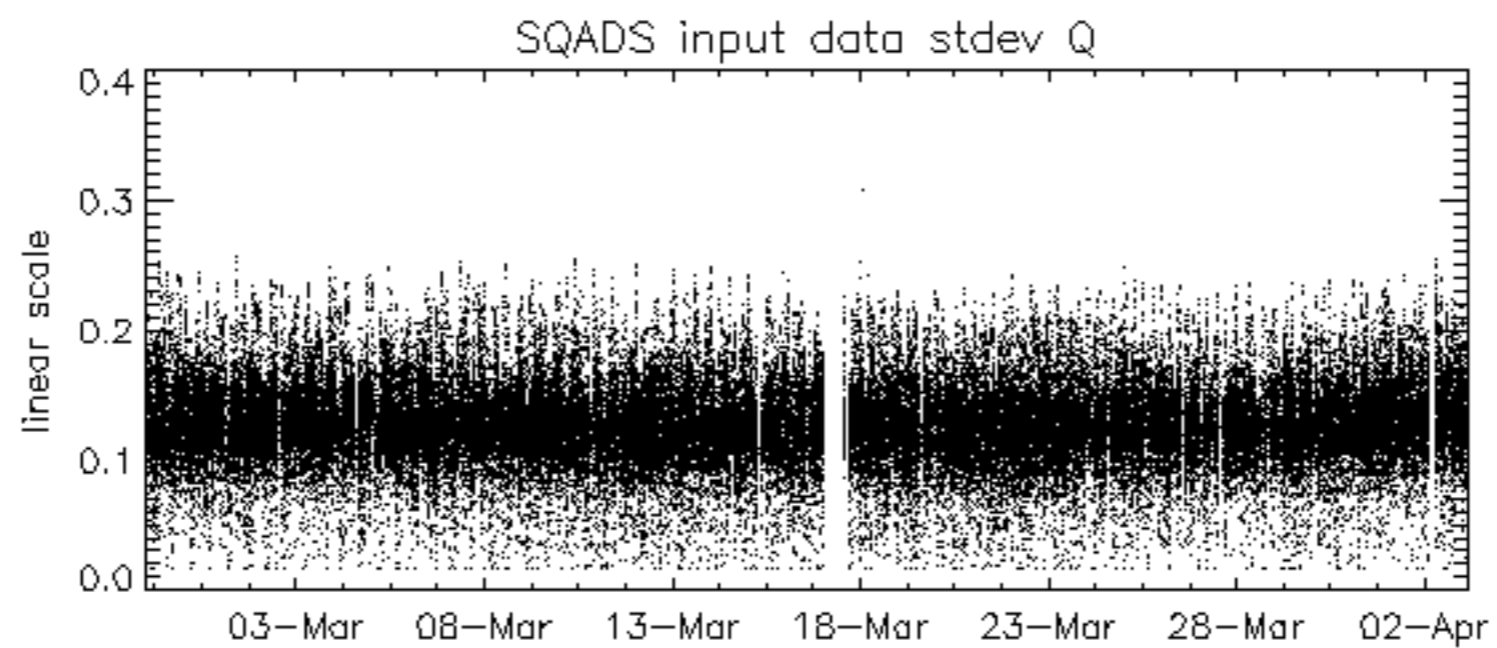
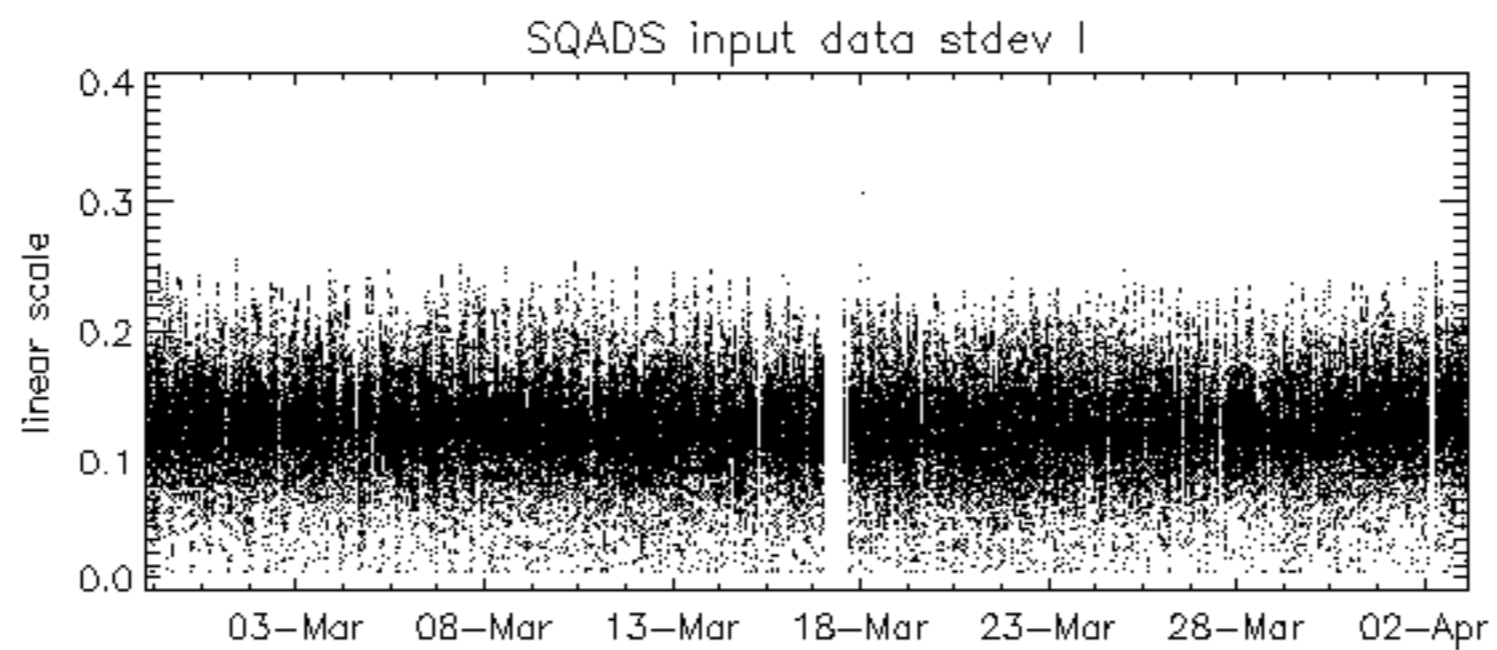
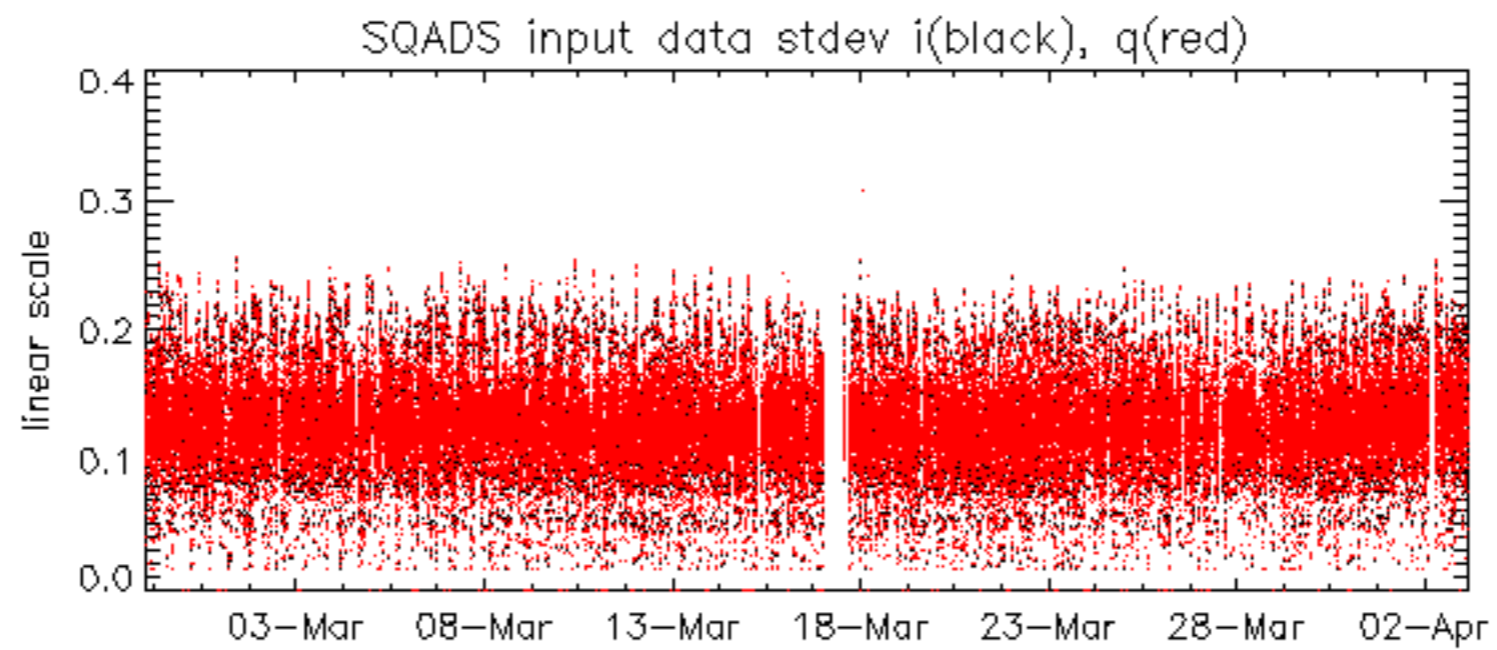


No anomalies observed on available MS products:

No anomalies observed.



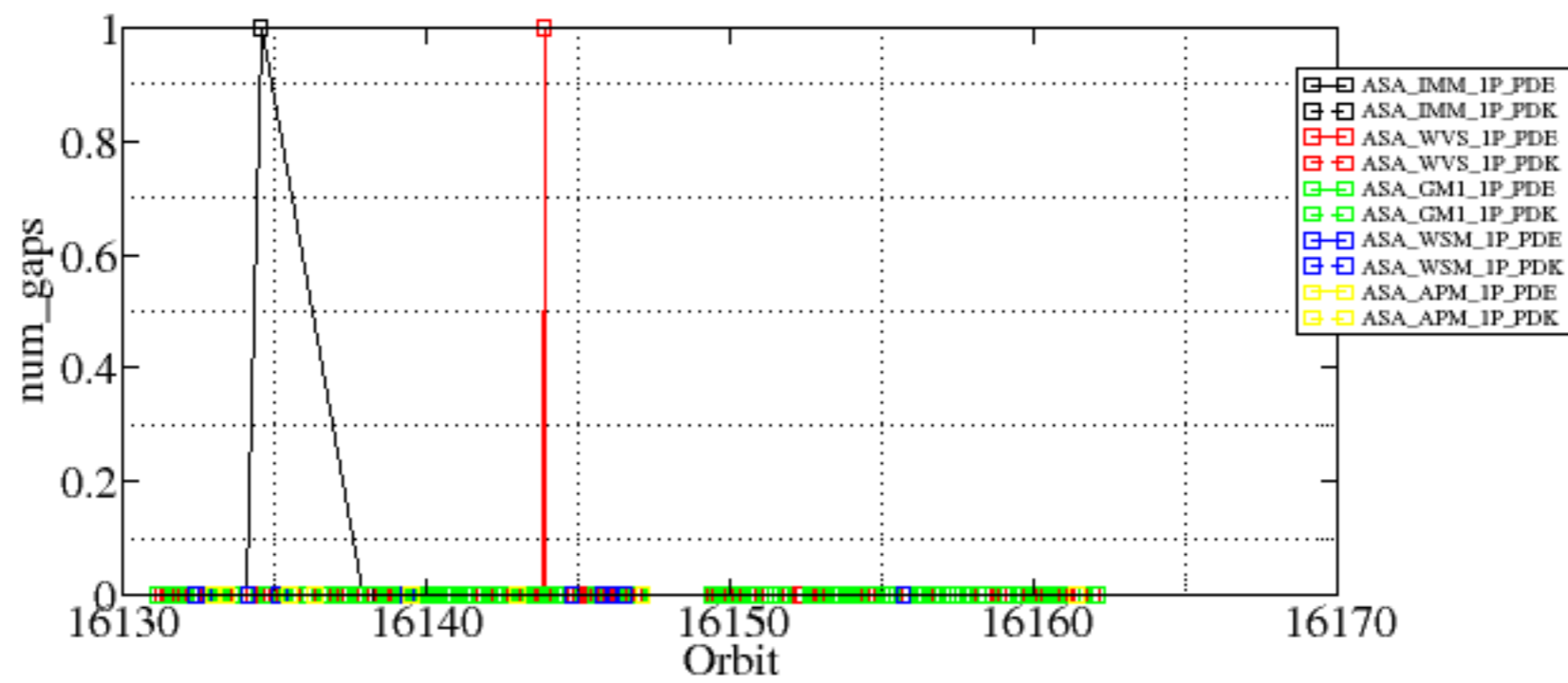


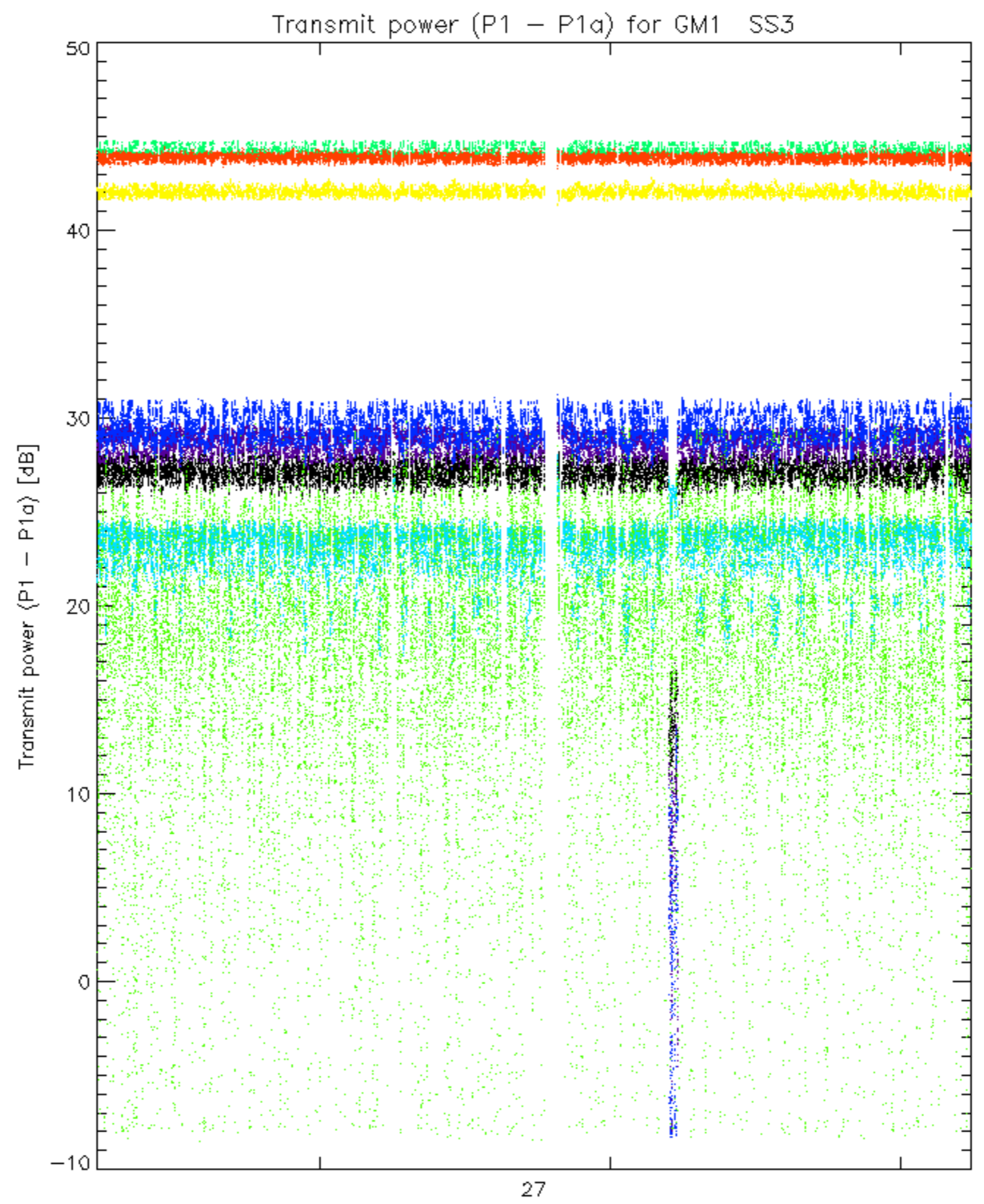


Summary of analysis for the last 3 days 2005040[123]

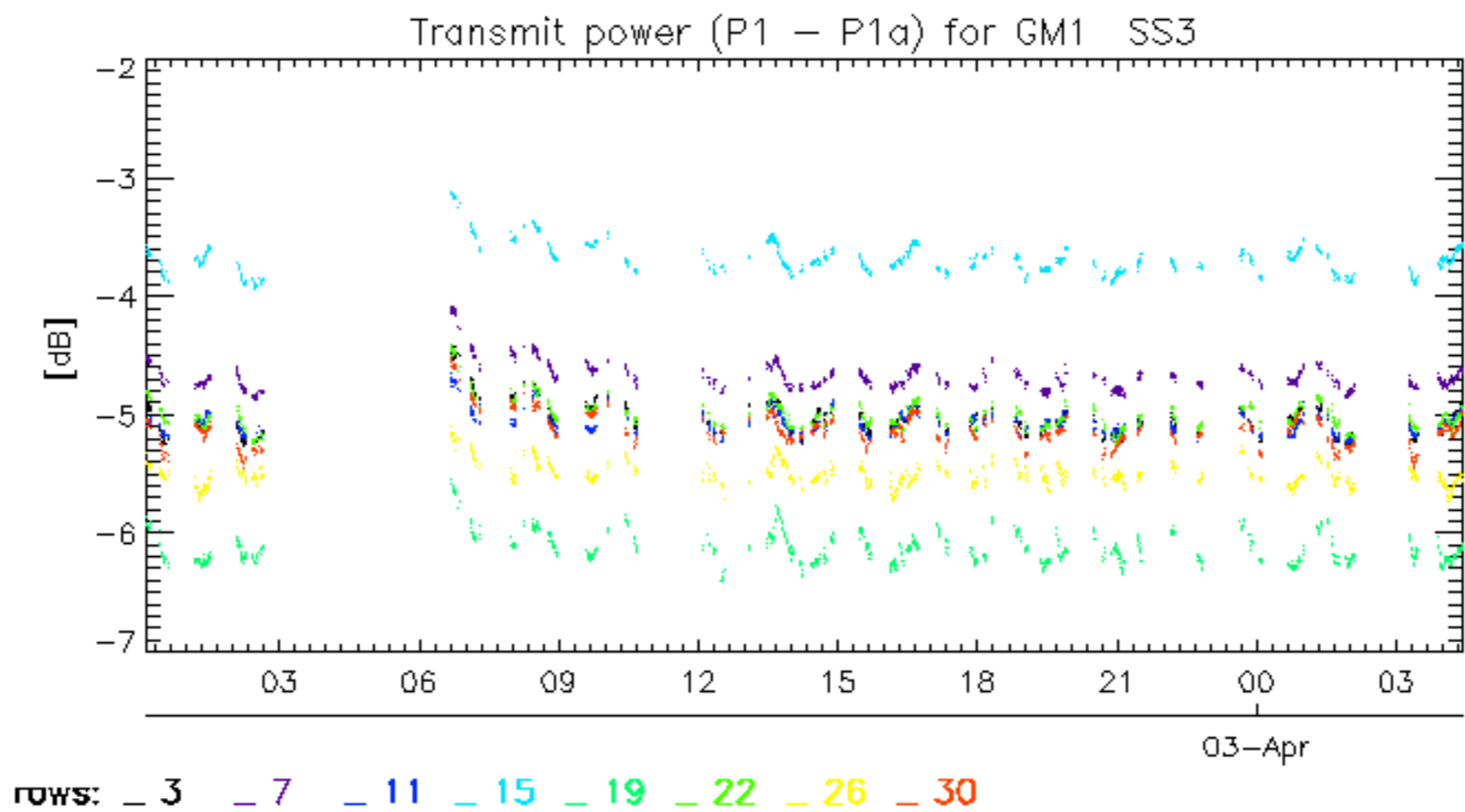
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

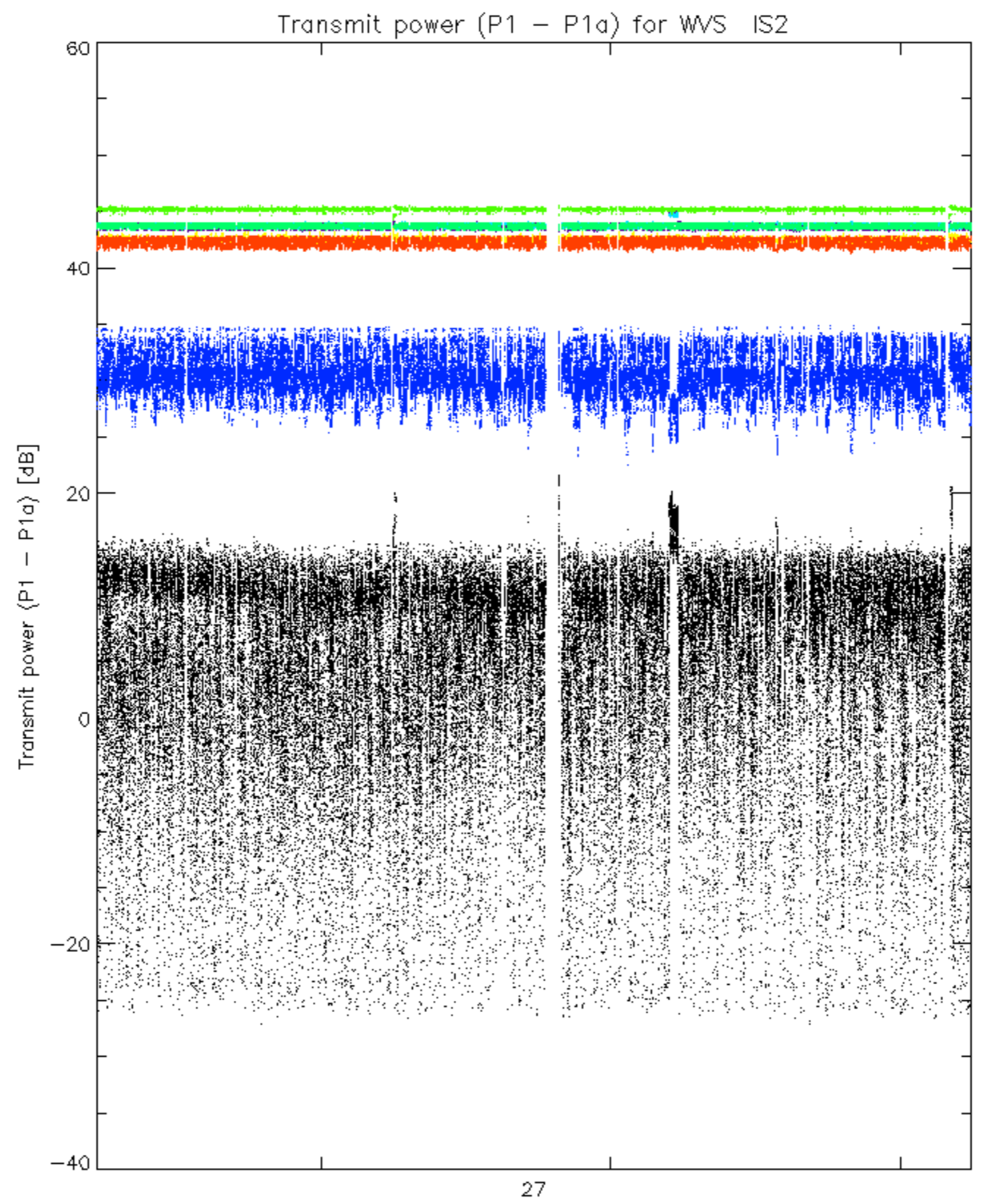
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050401_054357_000000352036_00048_16134_6891.N1	1	0
ASA_WVS_1PNPDE20050401_212056_00000002036_00057_16143_7917.N1	1	0



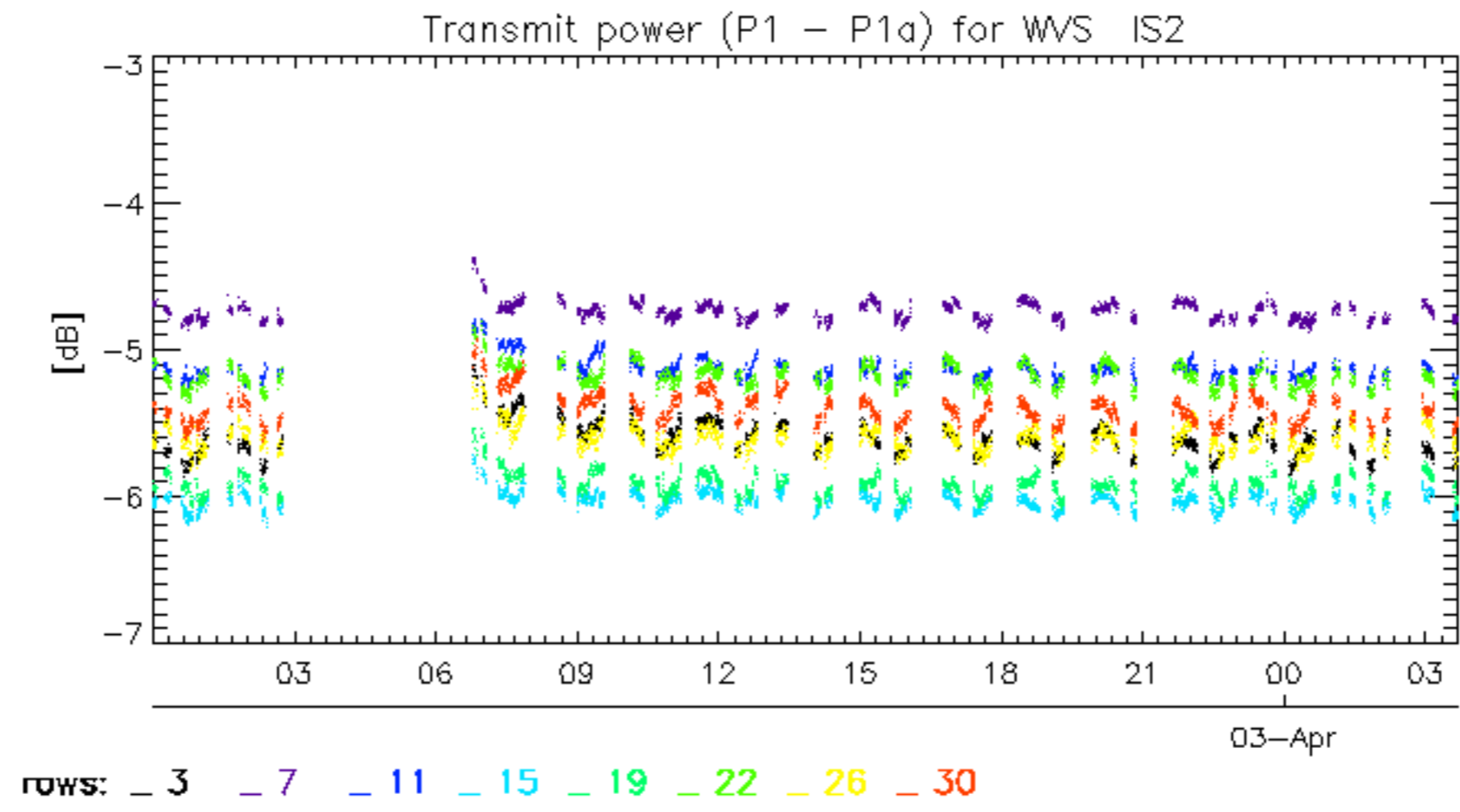


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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



No unavailabilities during the reported period.