

PRELIMINARY REPORT OF 060323

last update on Thu Mar 23 16:34:05 GMT 2006

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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 2006-03-22 00:00:00 to 2006-03-23 16:34:05

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	2	4	0	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	2	4	0	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	2	4	0	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	2	4	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	11	15	0	3	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	11	15	0	3	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	11	15	0	3	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	11	15	0	3	0

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060323 074708
H	20060322 081845

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	-4.002114	0.009315	-0.003652
7	P1	-3.009940	0.008467	-0.027750
11	P1	-4.059199	0.019235	-0.000351
15	P1	-6.089528	0.021041	-0.067136
19	P1	-3.296617	0.006651	-0.048744
22	P1	-4.459889	0.014354	-0.030729
26	P1	-4.180248	0.113013	0.219981
30	P1	-5.787360	0.171754	0.125758
3	P1	-16.981615	0.250185	0.062928
7	P1	-16.733963	0.101766	-0.112937
11	P1	-16.484152	0.318629	0.076933
15	P1	-13.049777	0.093530	-0.044586
19	P1	-13.947104	0.051937	-0.110421
22	P1	-15.573569	0.458248	-0.115259
26	P1	-15.746148	0.374154	0.015007
30	P1	-16.497417	0.322353	-0.159857

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.385845	0.086596	0.069776
7	P2	-22.357176	0.095995	0.125398
11	P2	-16.222252	0.100437	0.025125
15	P2	-7.163724	0.098206	-0.017442
19	P2	-9.132290	0.090785	-0.022727
22	P2	-17.947079	0.088817	-0.078304
26	P2	-16.215599	0.094656	-0.061445
30	P2	-19.649103	0.084486	-0.039401

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194110	0.005734	-0.008757
7	P3	-8.194110	0.005734	-0.008757
11	P3	-8.194110	0.005734	-0.008757
15	P3	-8.194110	0.005734	-0.008757
19	P3	-8.194110	0.005734	-0.008757
22	P3	-8.194110	0.005734	-0.008757
26	P3	-8.194110	0.005734	-0.008757
30	P3	-8.194111	0.005734	-0.008755

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	-3.831327	2.702189	0.353832
7	P1	-2.814778	2.837179	0.423730
11	P1	-3.011486	2.856797	0.404743
15	P1	-3.655838	2.832231	0.434985
19	P1	-3.456563	2.743431	0.360049
22	P1	-5.254246	2.522645	0.332780
26	P1	-5.914155	2.703543	0.703974
30	P1	-5.259588	2.563512	0.461472
3	P1	-11.640830	1.779744	0.275835
7	P1	-10.034410	1.970936	0.300502
11	P1	-10.336073	1.964627	0.281292
15	P1	-10.884109	1.978295	0.269067
19	P1	-15.456086	1.460173	0.235027
22	P1	-20.321438	2.130105	0.116778

26	P1	-16.281513	1.976394	0.137713
30	P1	-18.295906	1.680868	0.413707

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.080729	1.871918	0.091901
7	P2	-22.531120	2.196058	-0.074109
11	P2	-11.262444	2.032023	0.184988
15	P2	-4.902287	2.639653	0.344091
19	P2	-6.909729	2.375839	0.317653
22	P2	-8.201996	2.227946	0.260404
26	P2	-23.909847	2.243499	-0.313457
30	P2	-22.040743	2.116196	-0.190039

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.022576	0.002539	0.002926
7	P3	-8.022593	0.002534	0.003196
11	P3	-8.022545	0.002551	0.003146
15	P3	-8.022681	0.002544	0.003213
19	P3	-8.022568	0.002546	0.002887
22	P3	-8.022653	0.002538	0.003198
26	P3	-8.022650	0.002541	0.002990
30	P3	-8.022499	0.002547	0.003186

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	0.000560183
	stdev	1.73056e-07
MEAN Q	mean	0.000519093
	stdev	2.19583e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138355
	stdev	0.00117996
STDEV Q	mean	0.138720
	stdev	0.00119819



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006032[123]

The assumptions 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_1PNPDE20060322_022153_000000622046_00118_21214_1325.N1	1	0
ASA_GM1_1PNPDK20060322_104938_000006342046_00123_21219_0707.N1	0	21
ASA_GM1_1PNPDK20060322_134342_000003622046_00124_21220_0718.N1	0	22
ASA_WSM_1PNPDE20060321_042632_000001842046_00105_21201_1778.N1	0	60
ASA_WSM_1PNPDE20060321_063926_000000852046_00106_21202_1792.N1	0	1

ASA_WSM_1PNPDE20060321_201133_000000862046_00114_21210_1877.N1	0	20
ASA_WSM_1PNPDE20060321_233728_000001282046_00116_21212_1914.N1	0	34
ASA_WSM_1PNPDE20060322_171612_000000672046_00127_21223_2011.N1	0	65
ASA_WSM_1PNPDE20060323_022501_000001282046_00132_21228_2100.N1	0	40

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

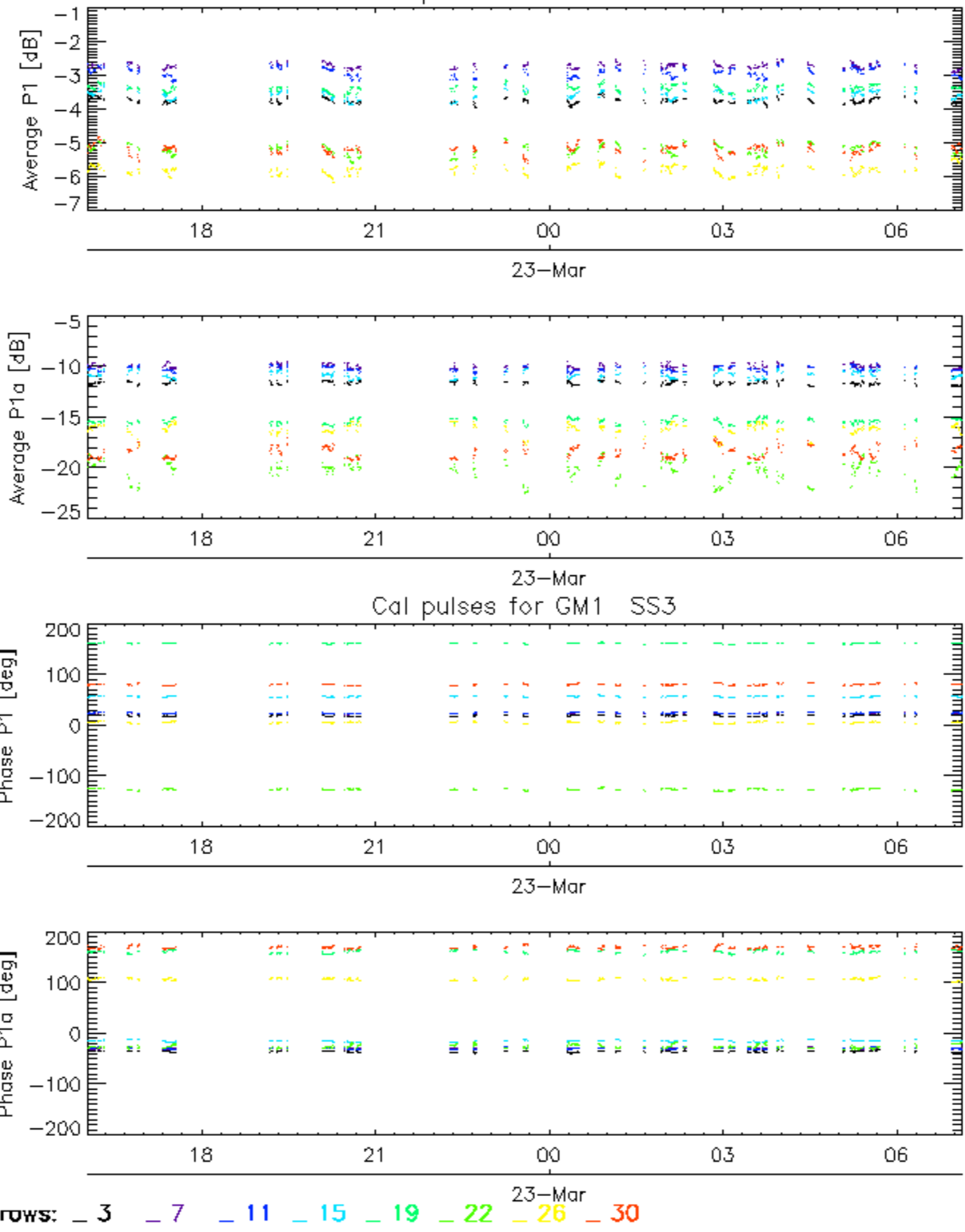
7.5 - Absolute Doppler for GM1

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

7.6 - Doppler evolution versus ANX for GM1

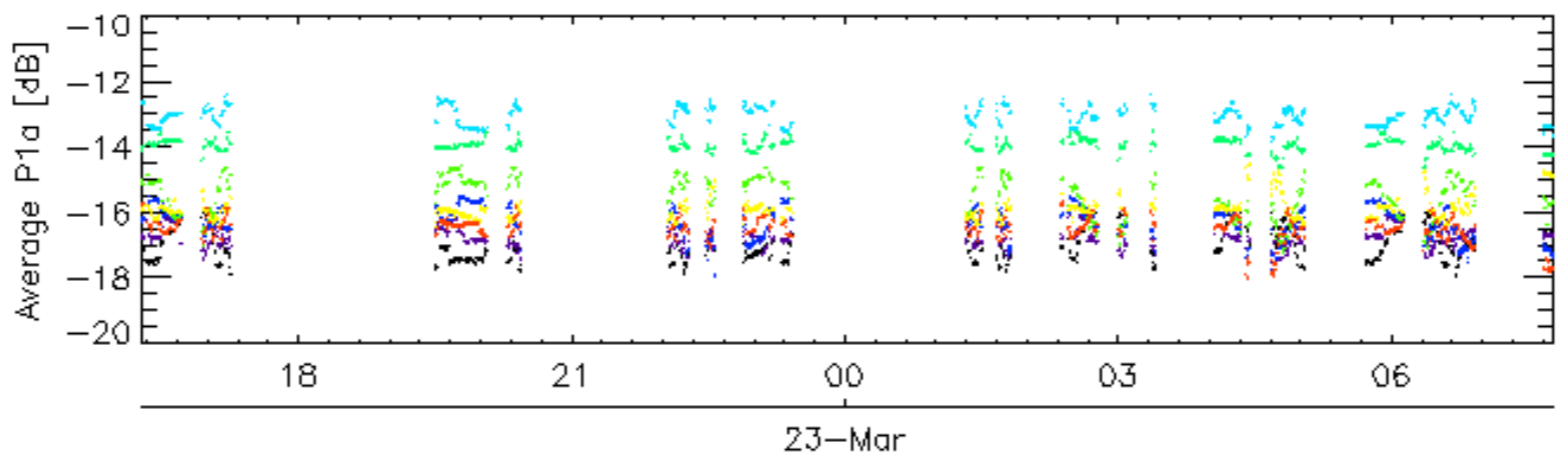
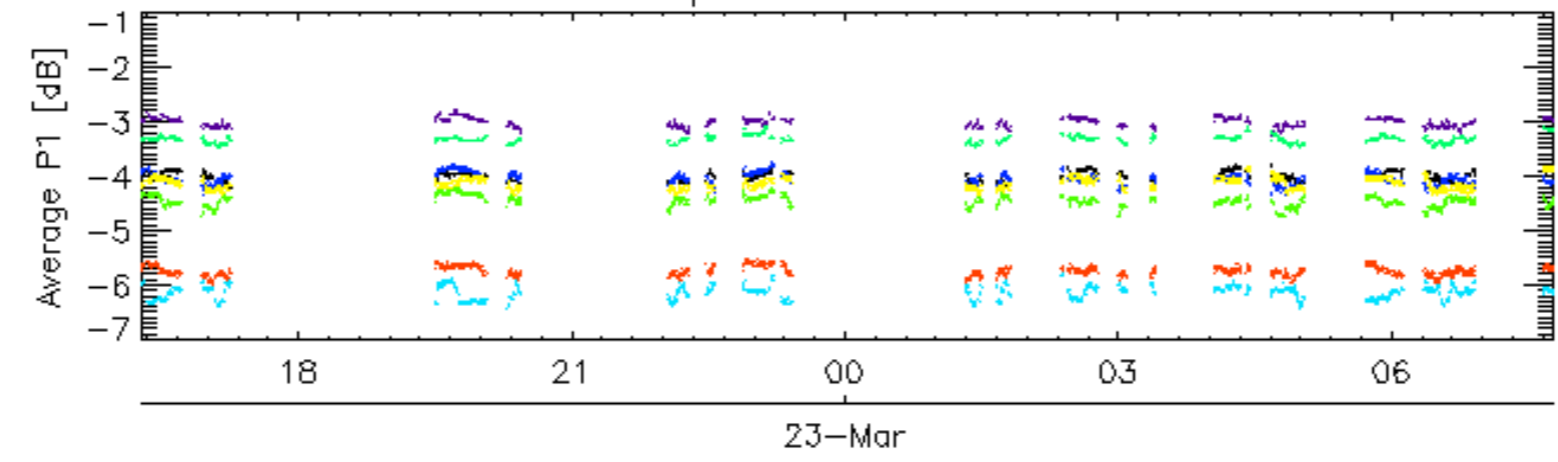
Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

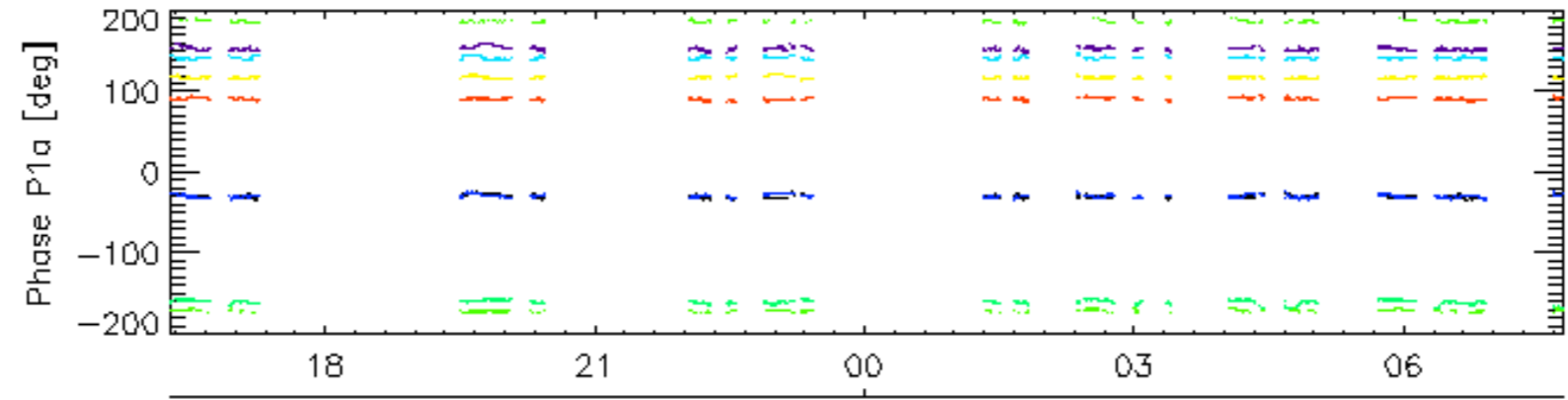
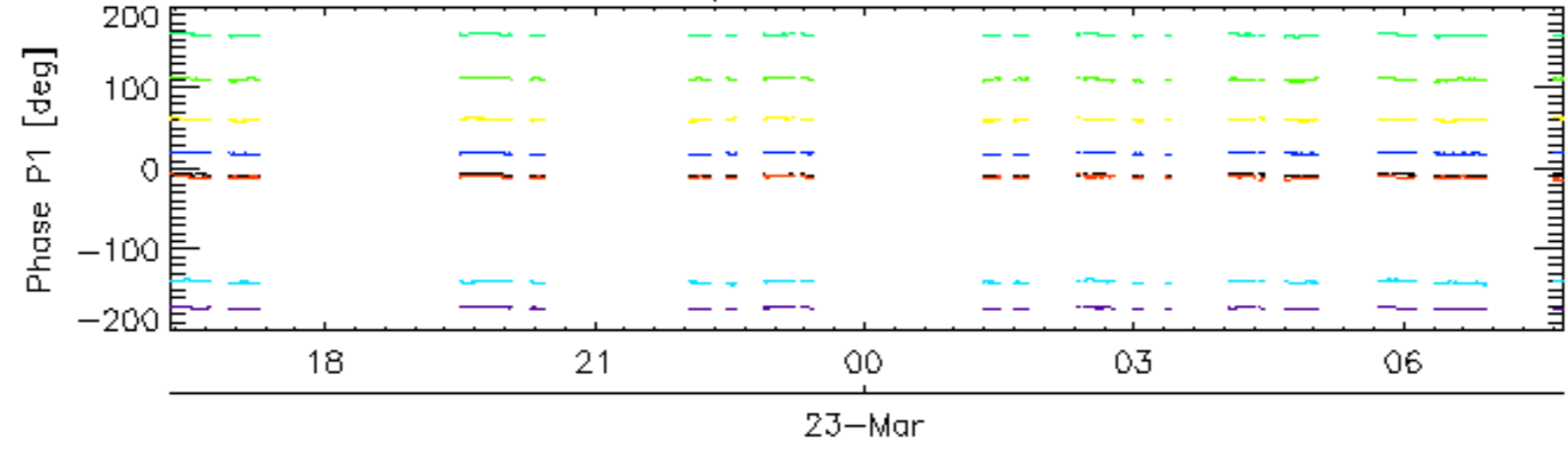


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

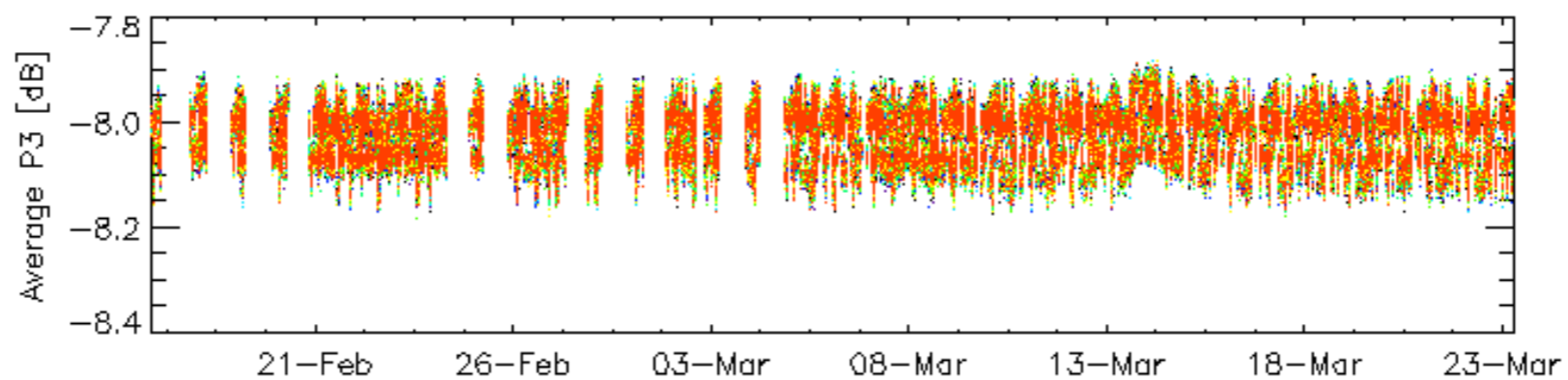
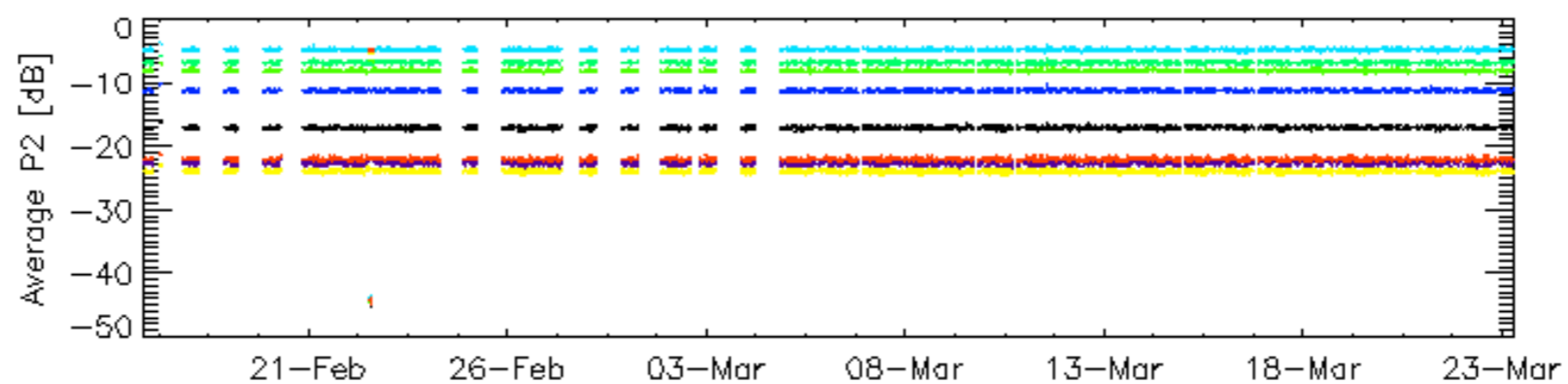
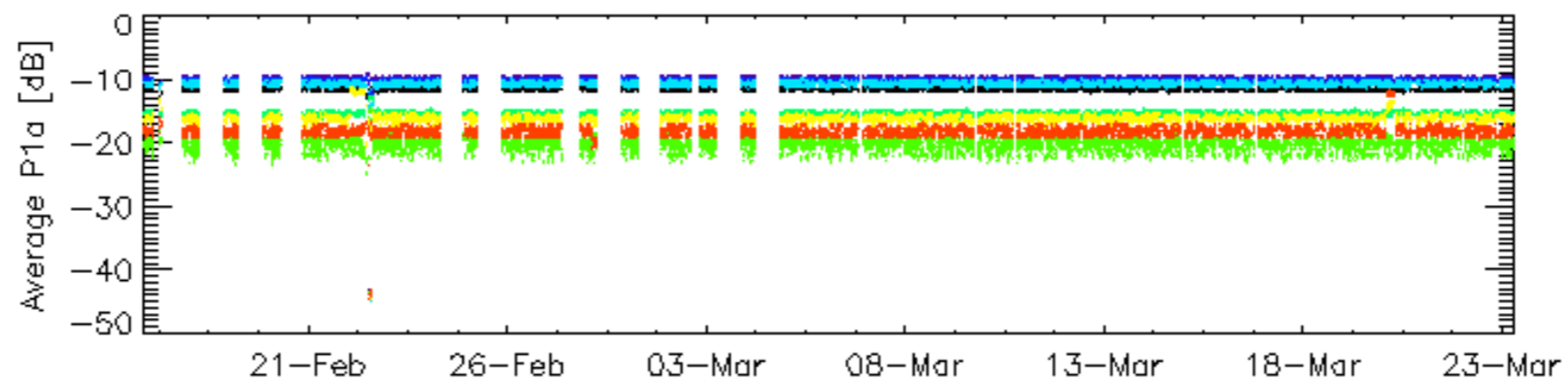
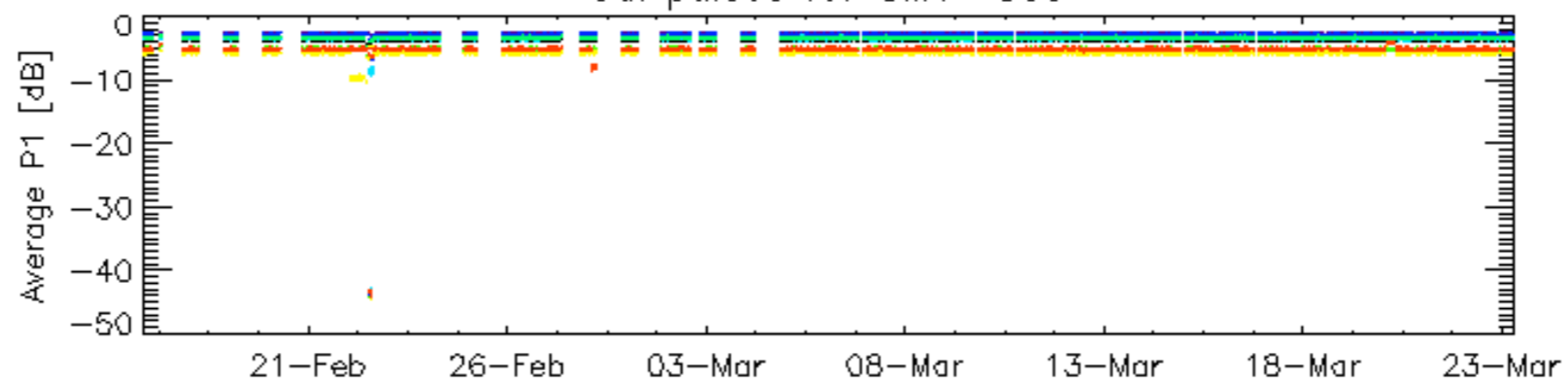


Cal pulses for WVS IS2



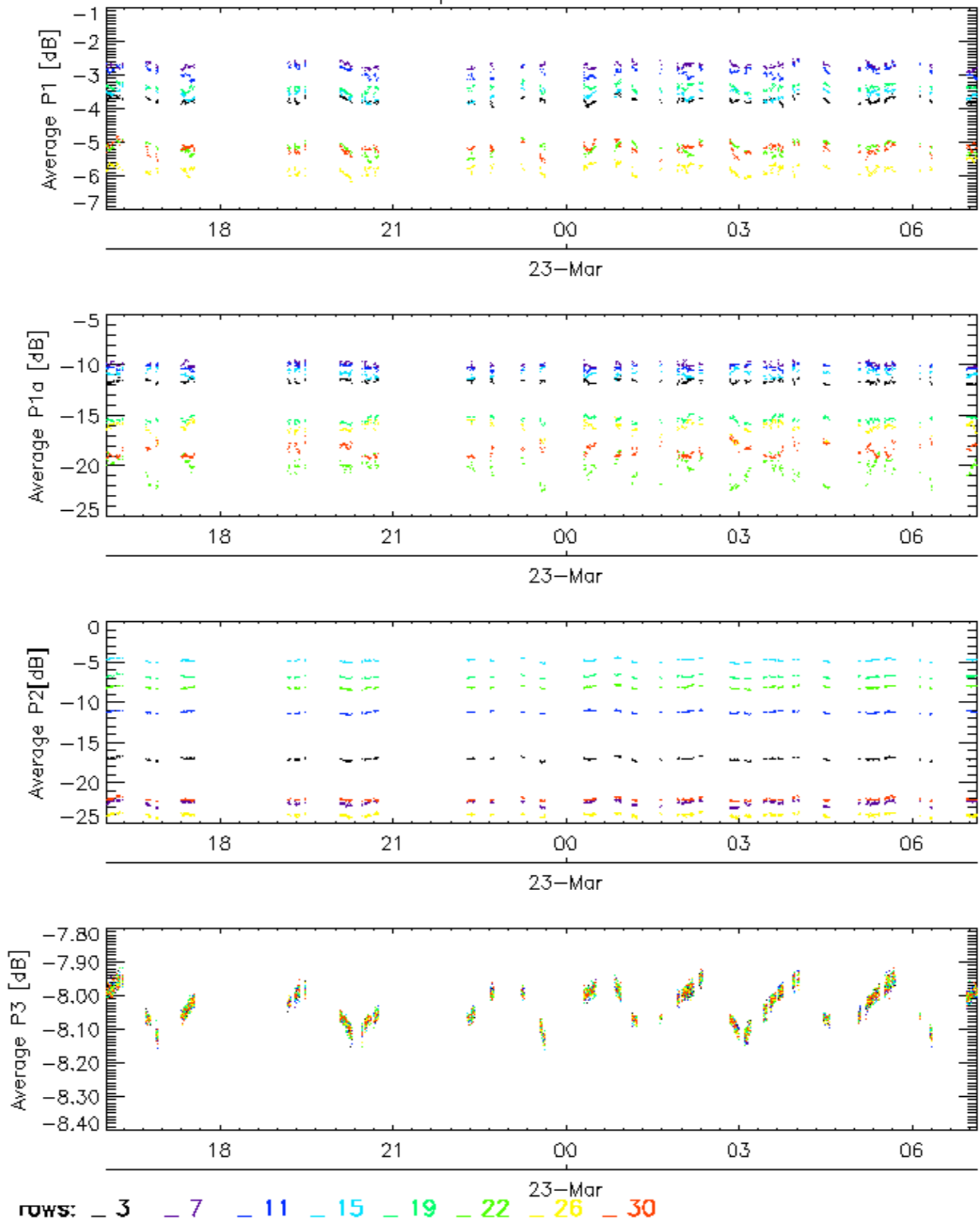
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

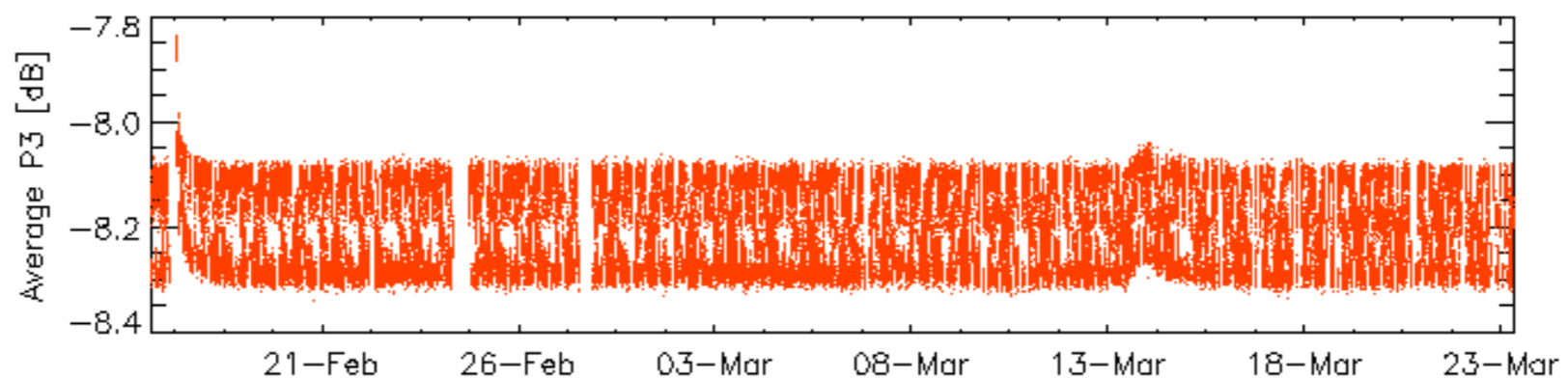
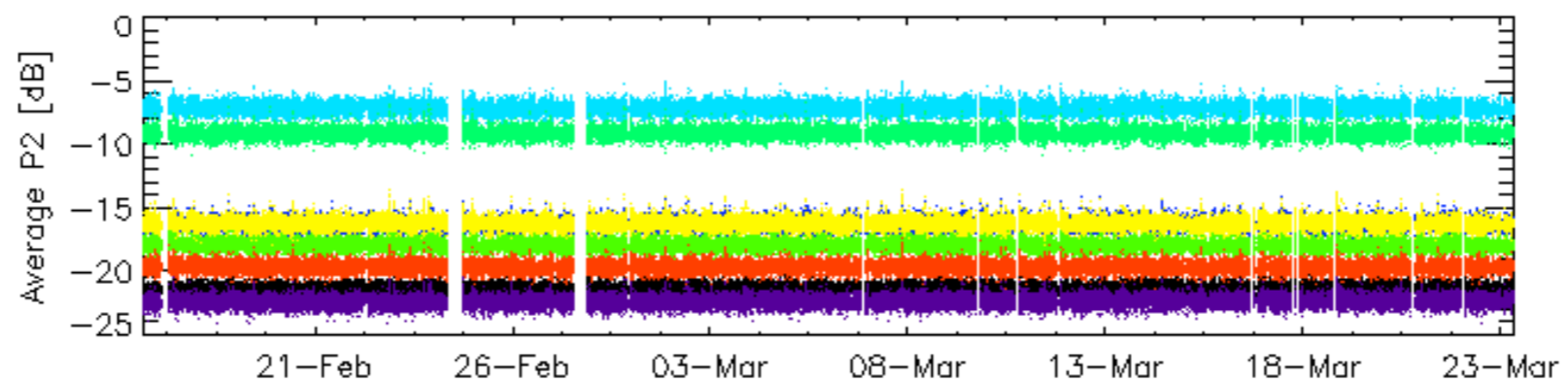
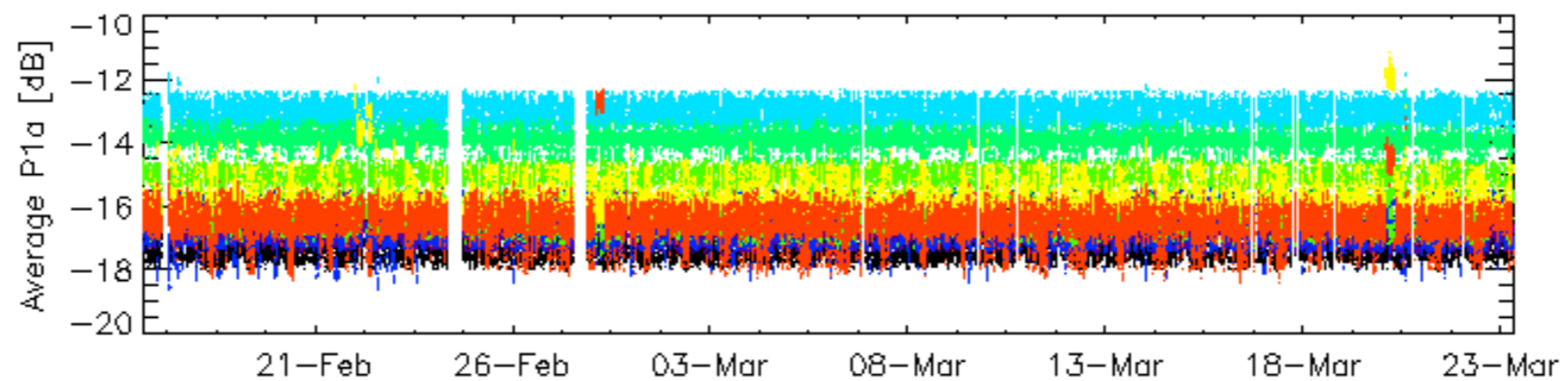
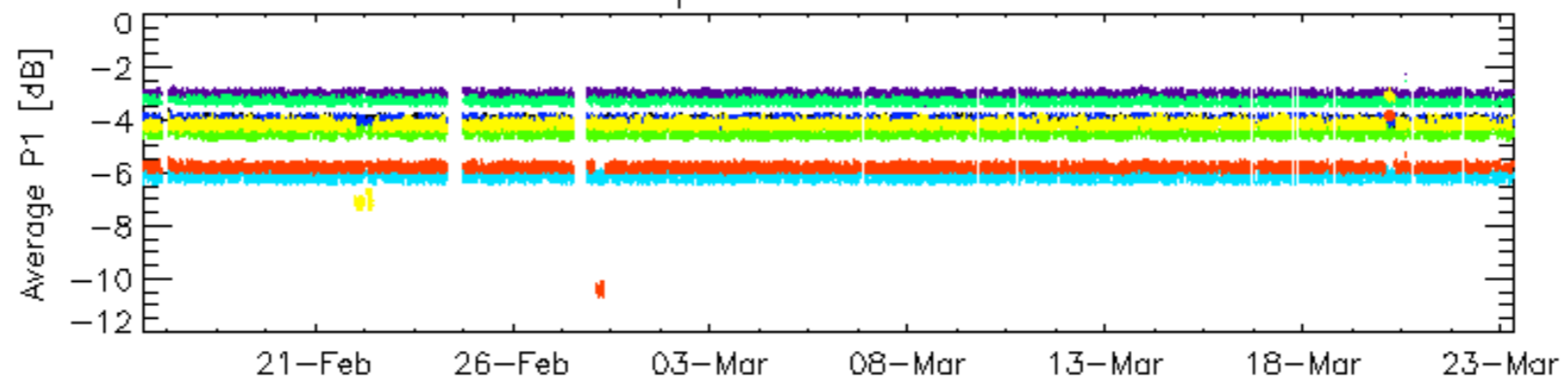


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

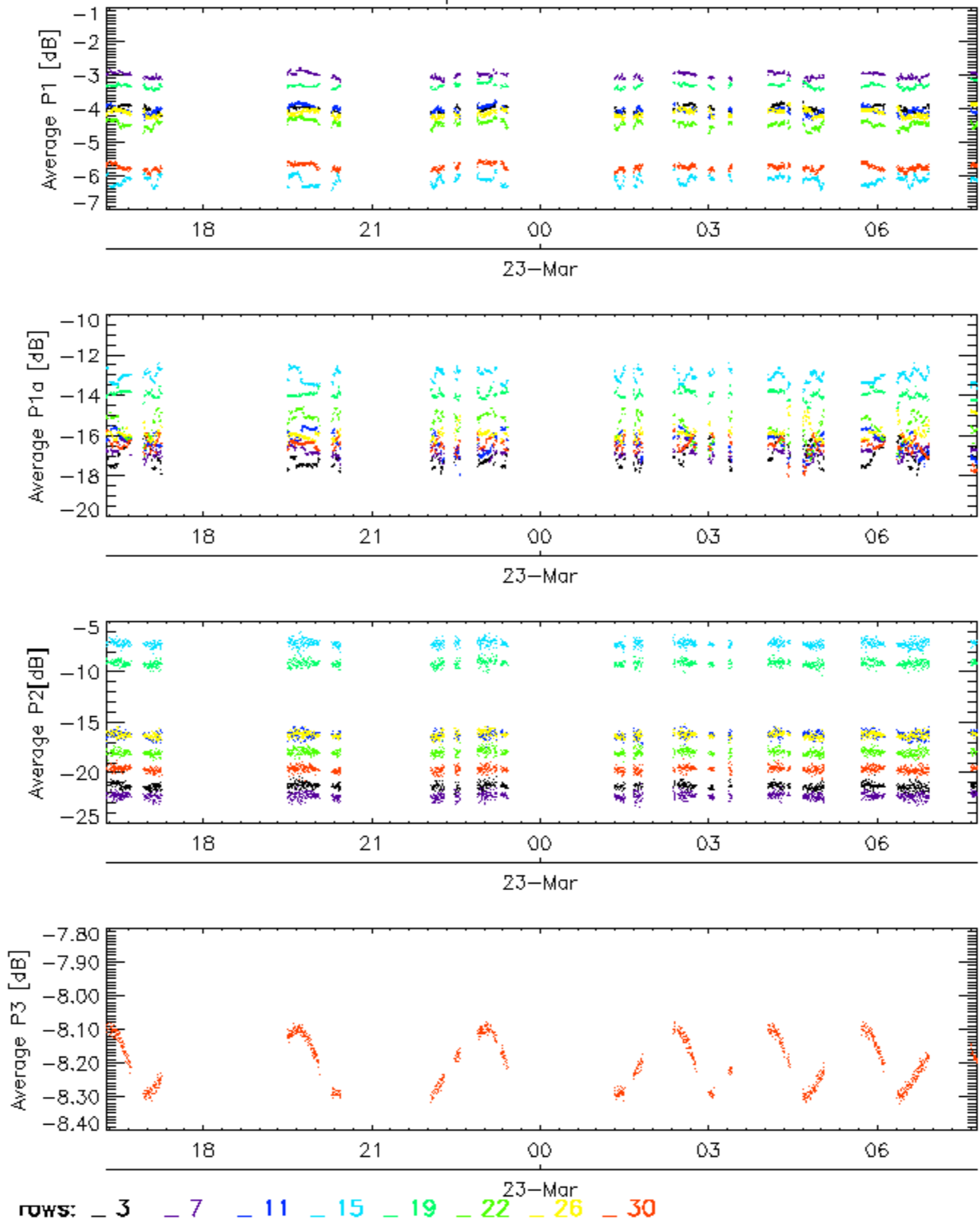


Cal pulses for WVS IS2



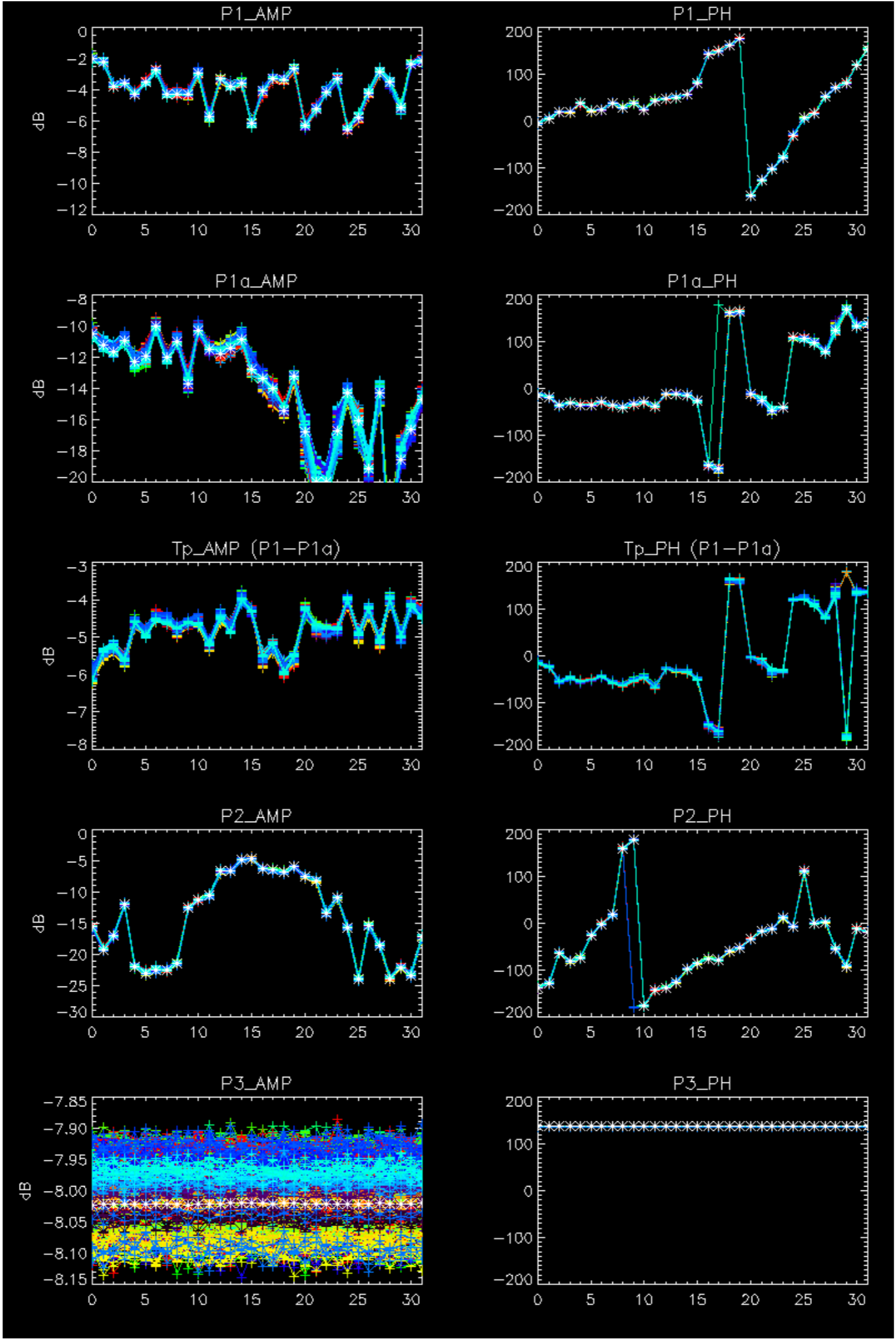
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

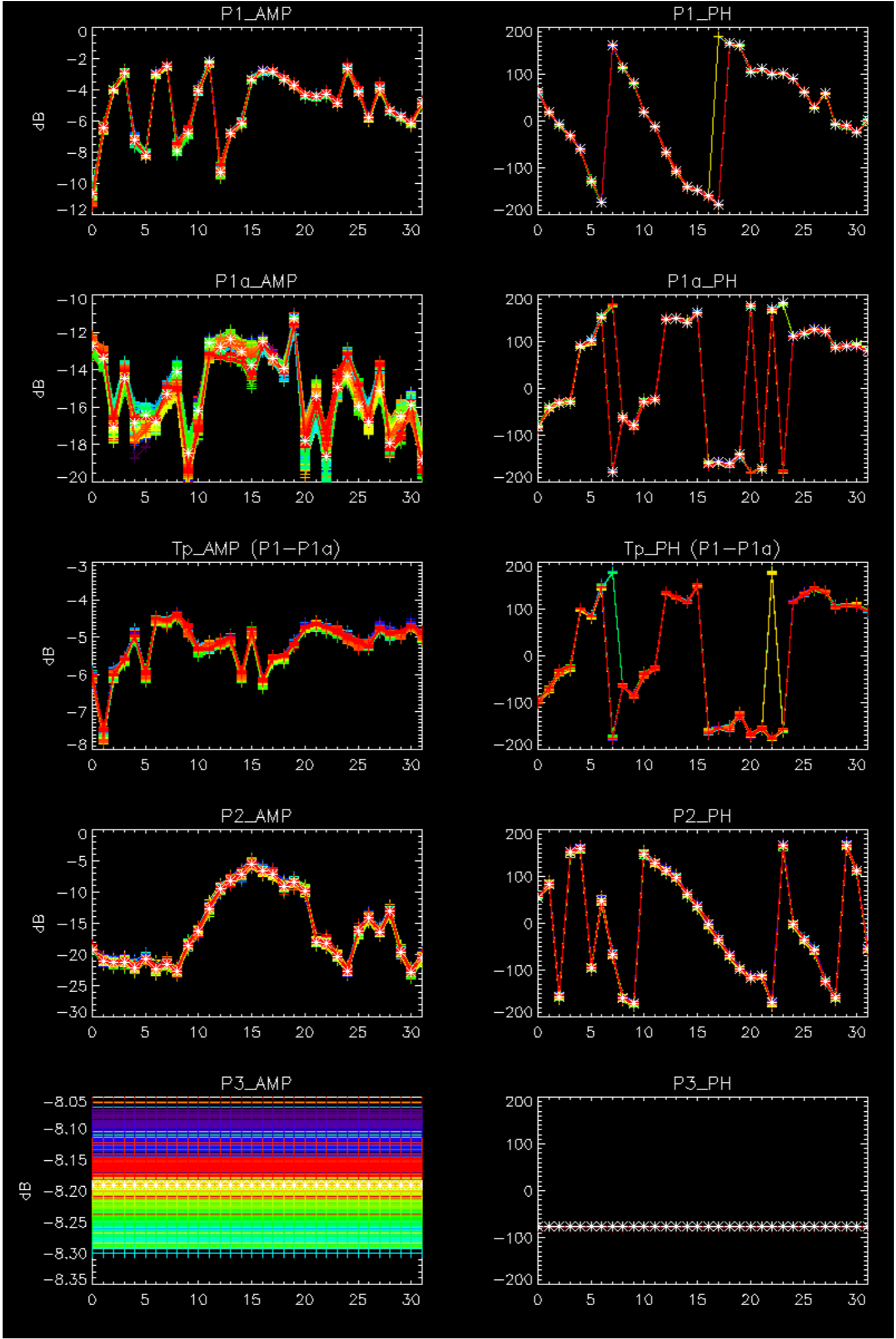
Cal pulses for WVS IS2



No anomalies observed on available browse products

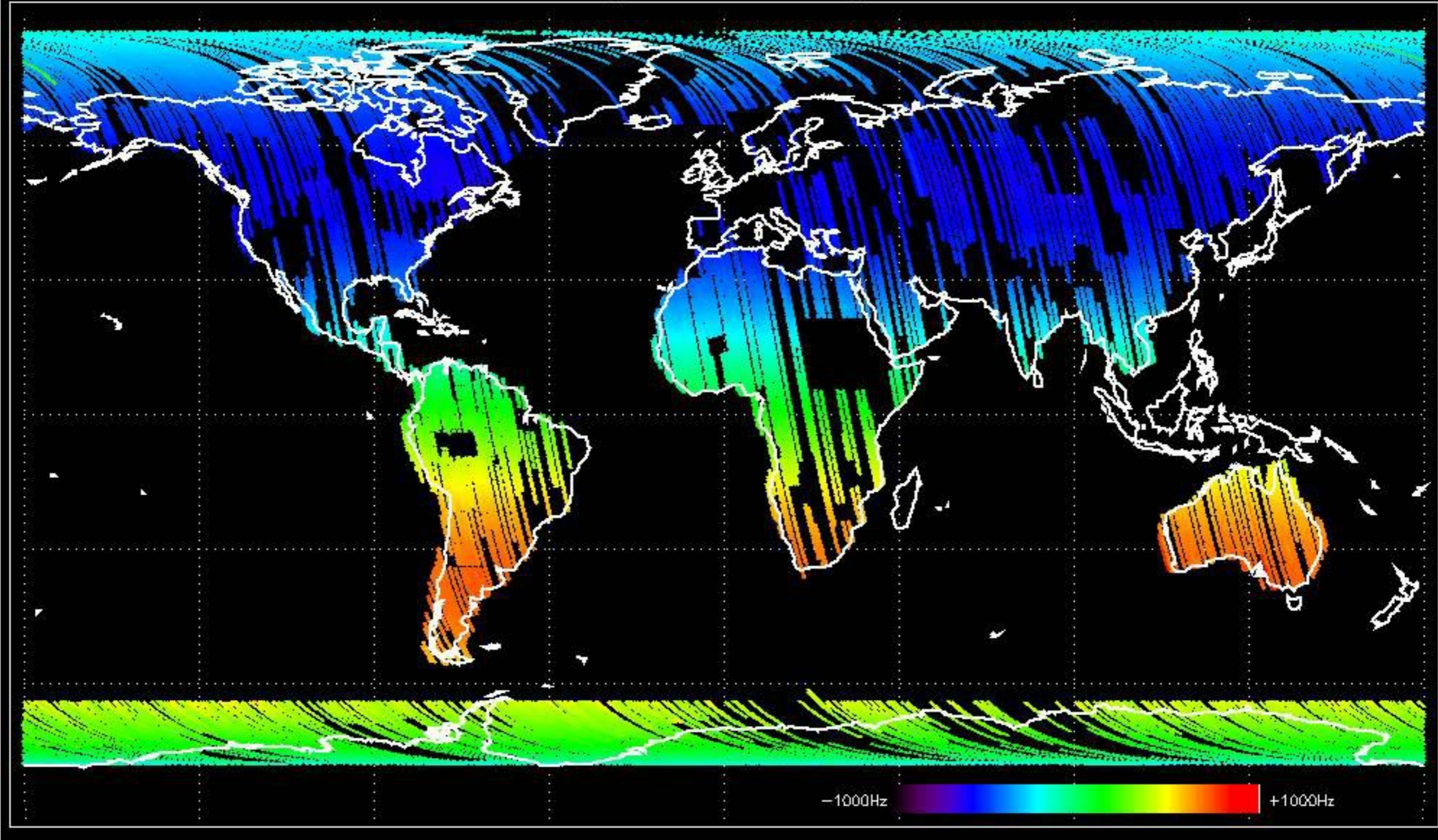
No anomalies observed.



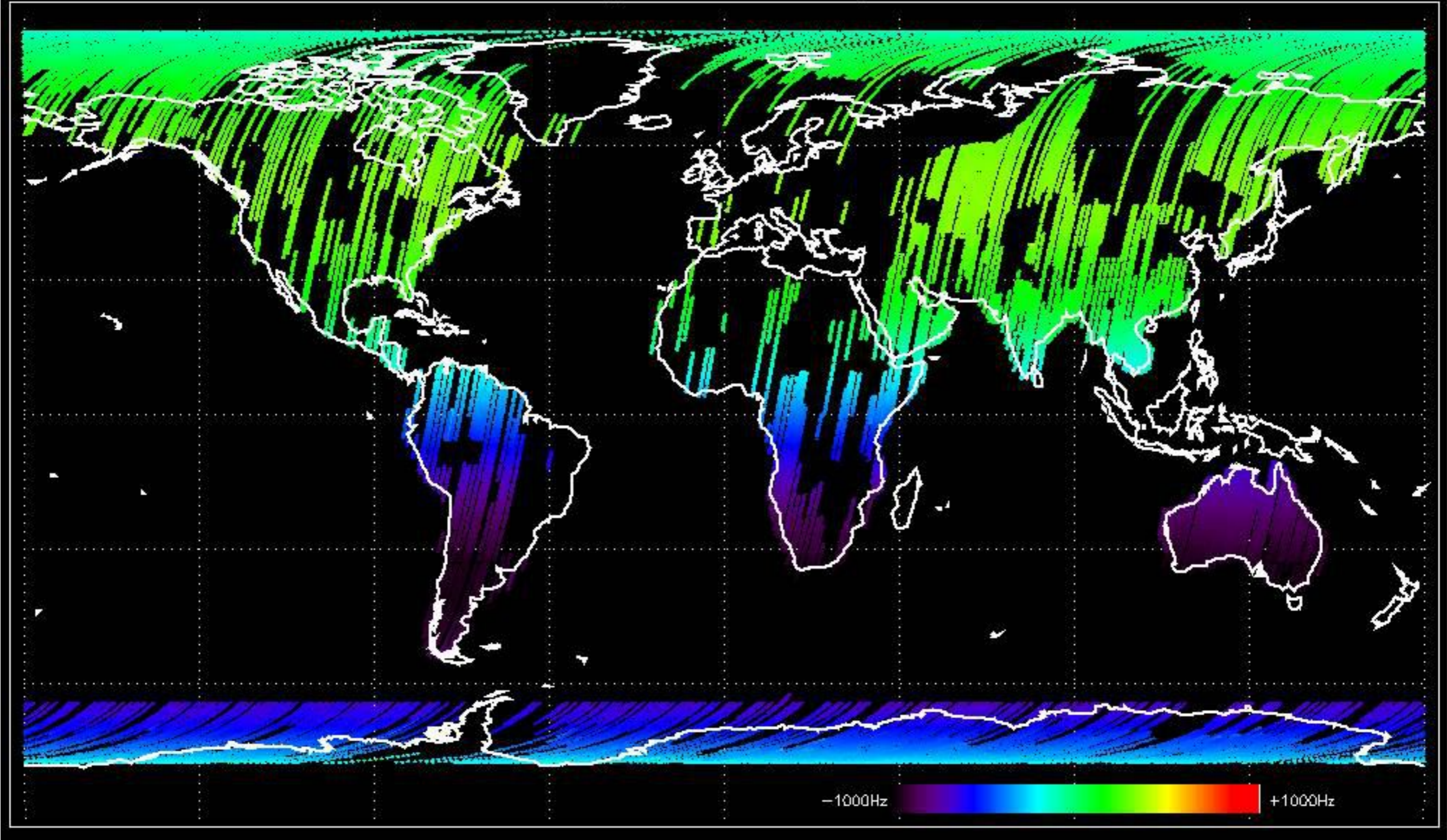


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

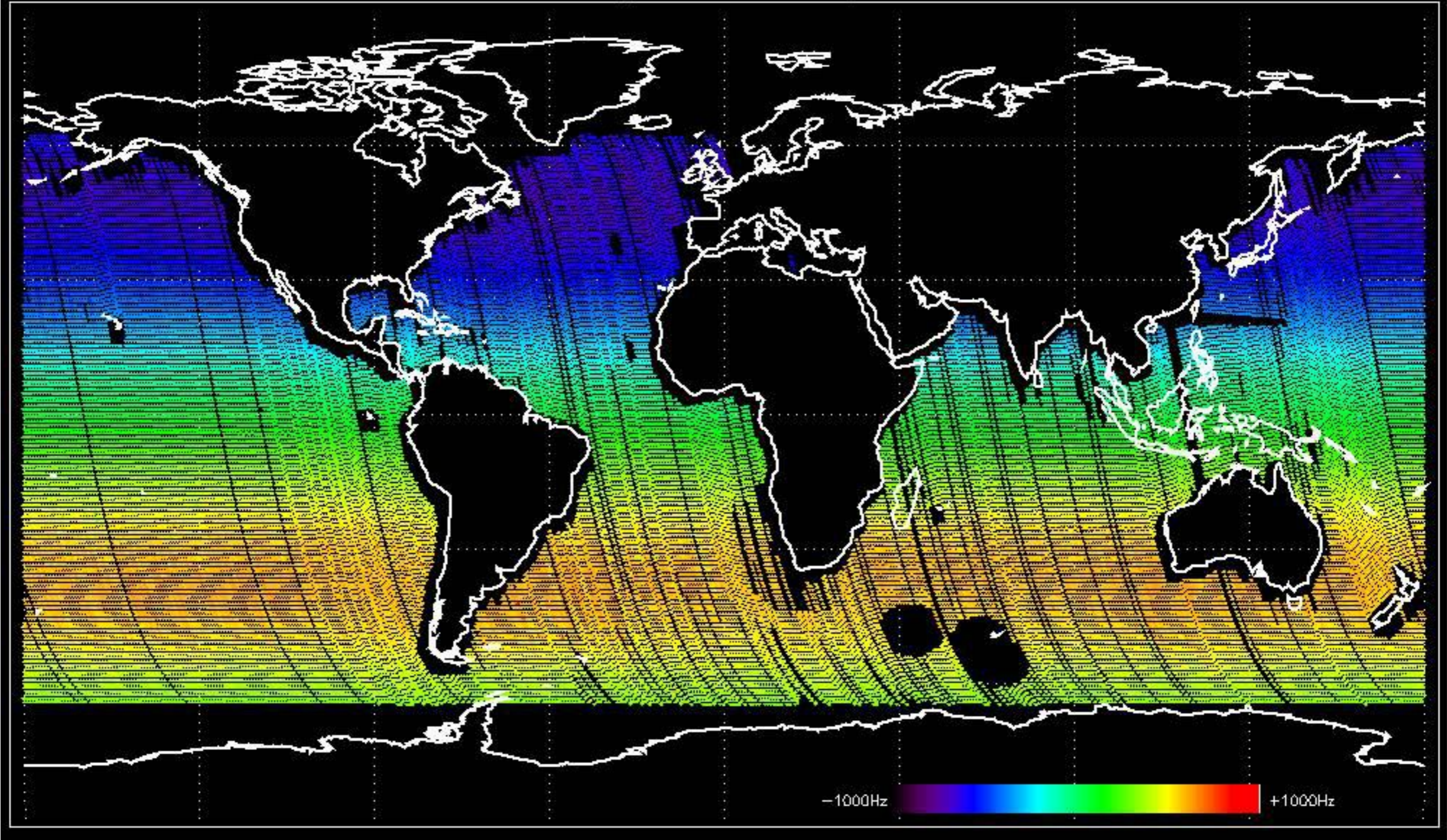
Doppler 'GM1' 'SS1' ascending



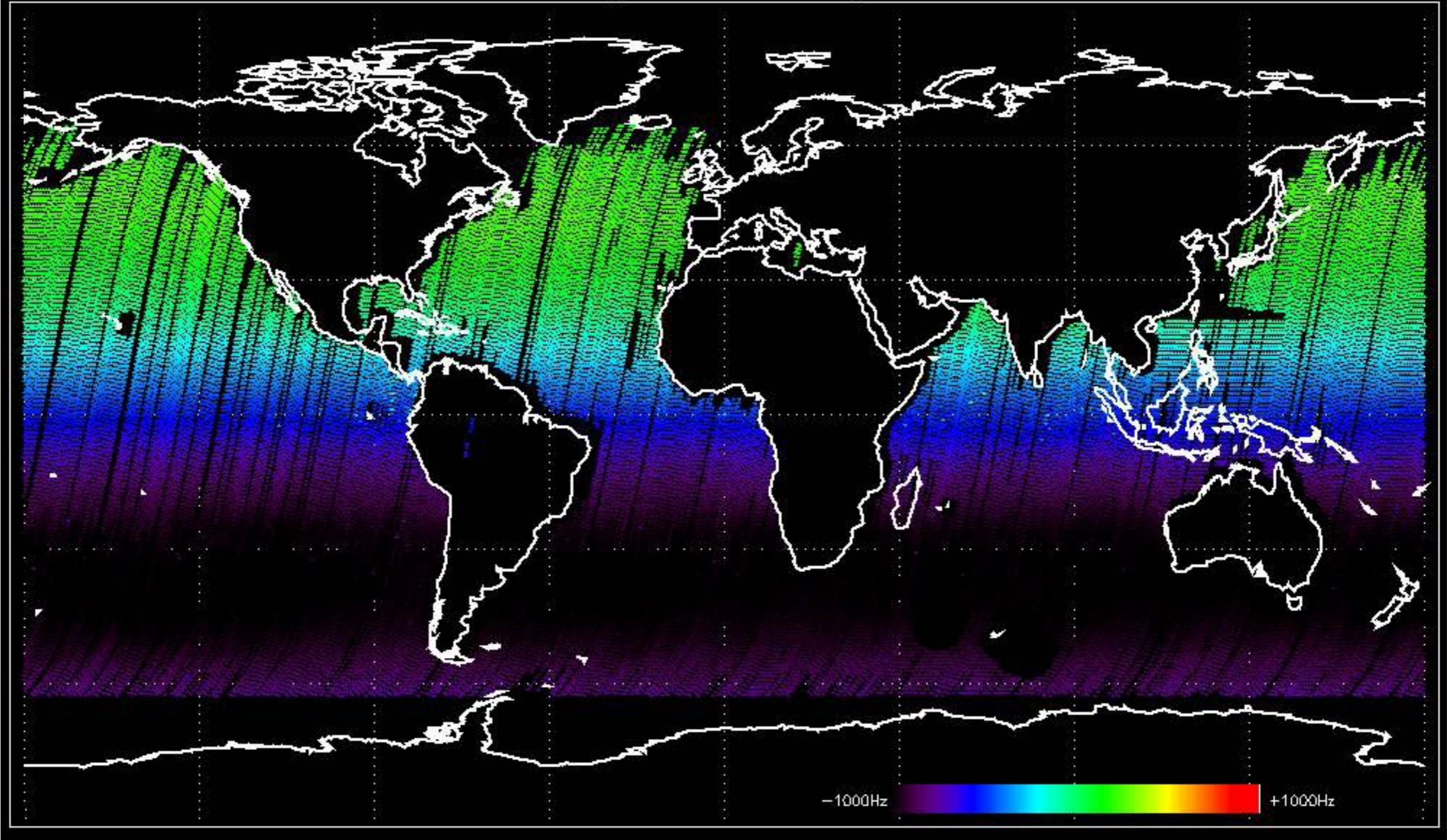
Doppler 'GM1' 'SS1' descending



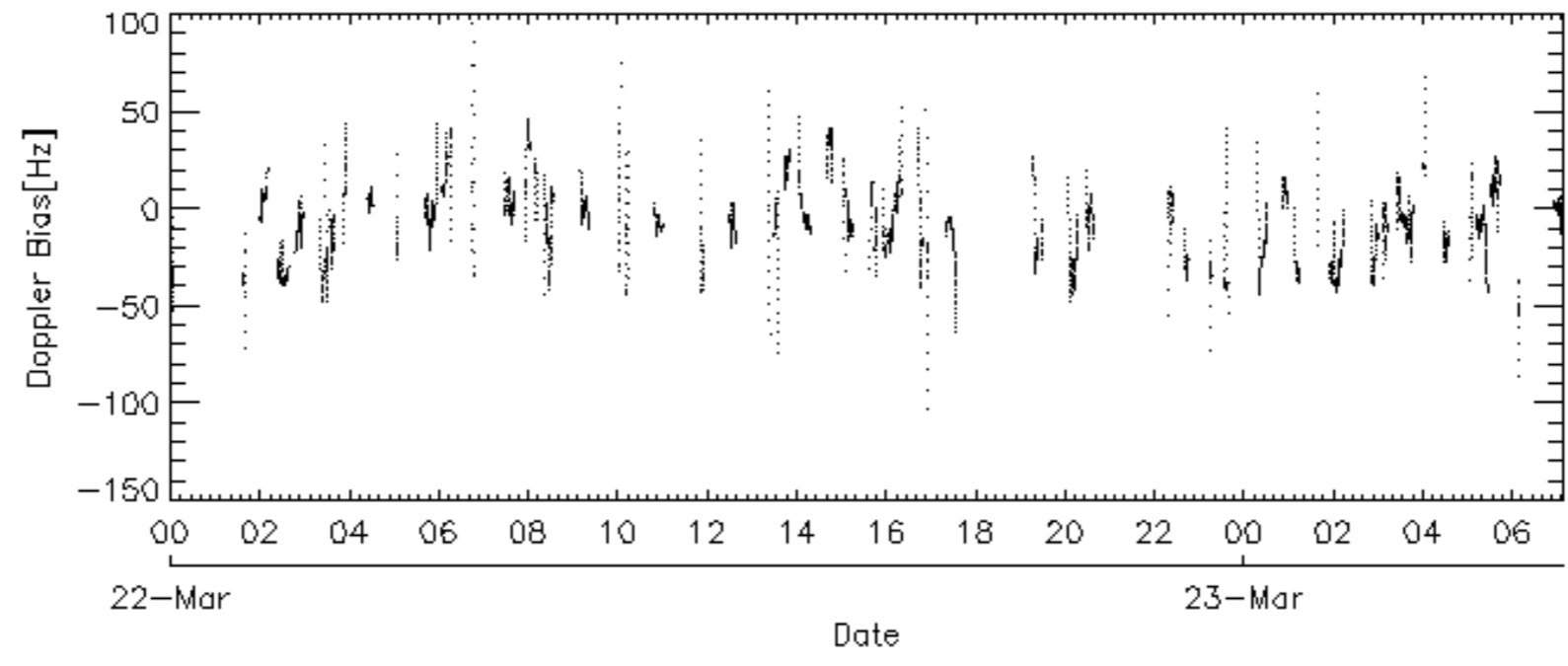
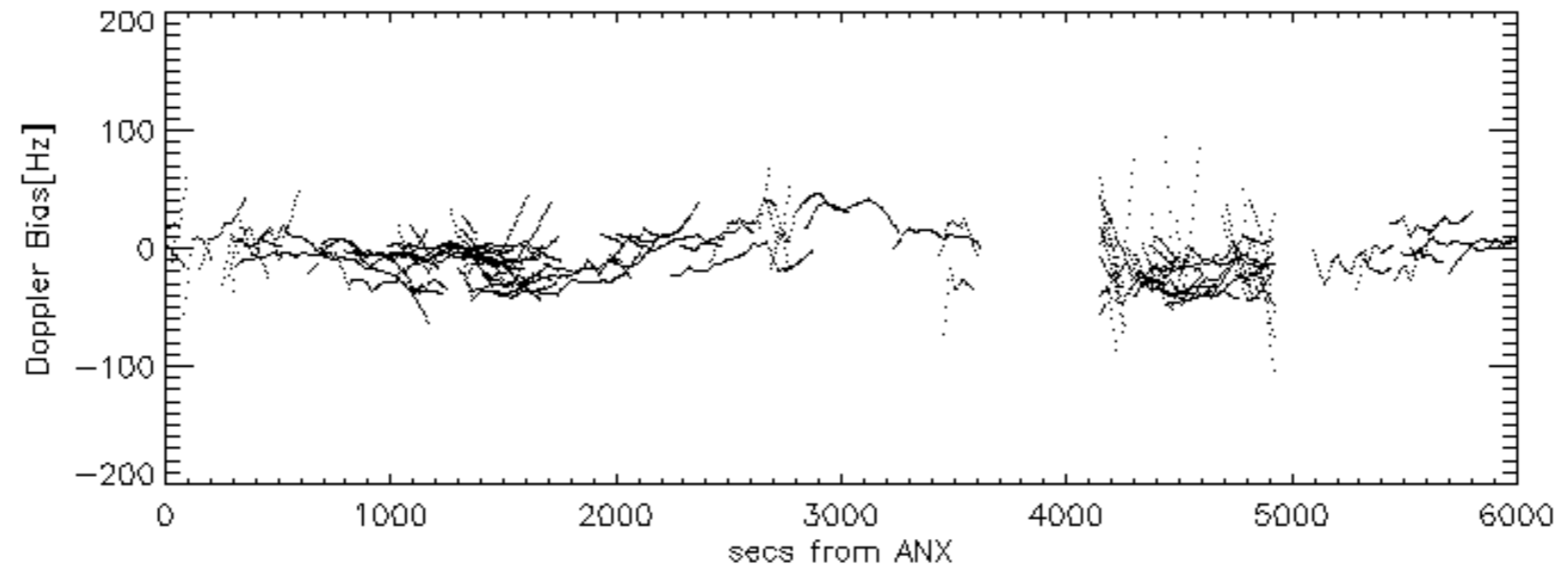
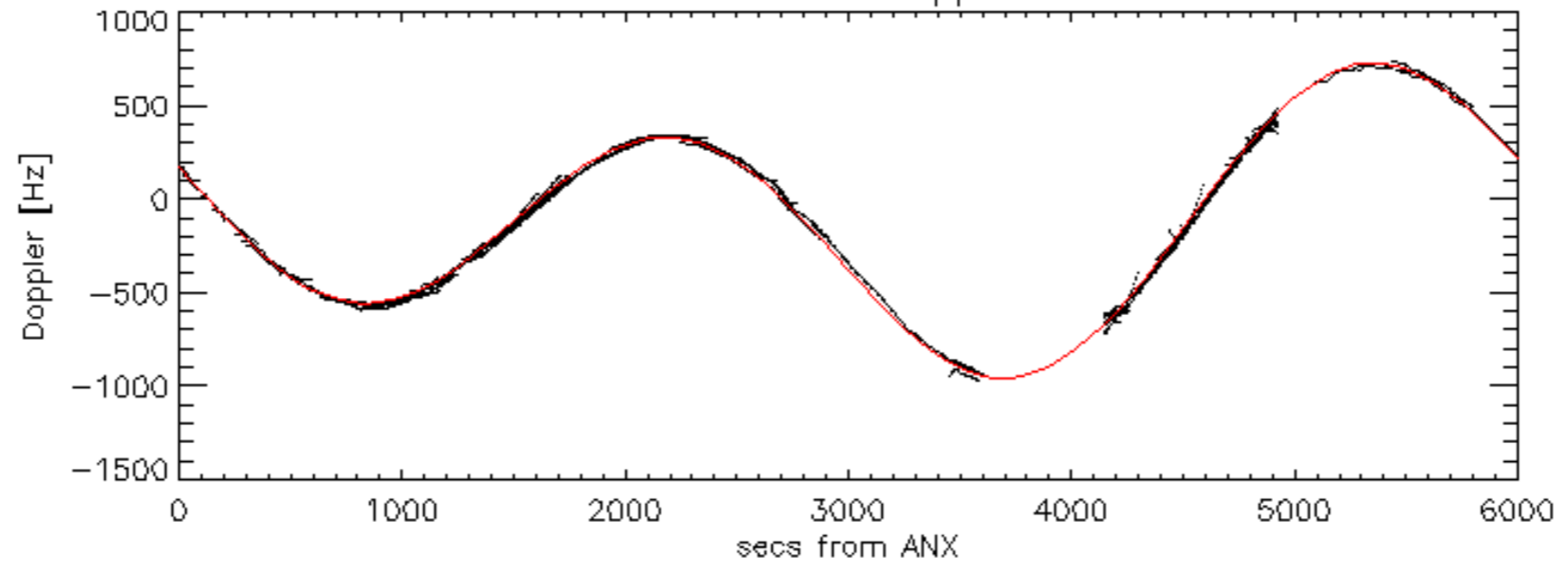
Doppler 'WVS' 'IS2' ascending

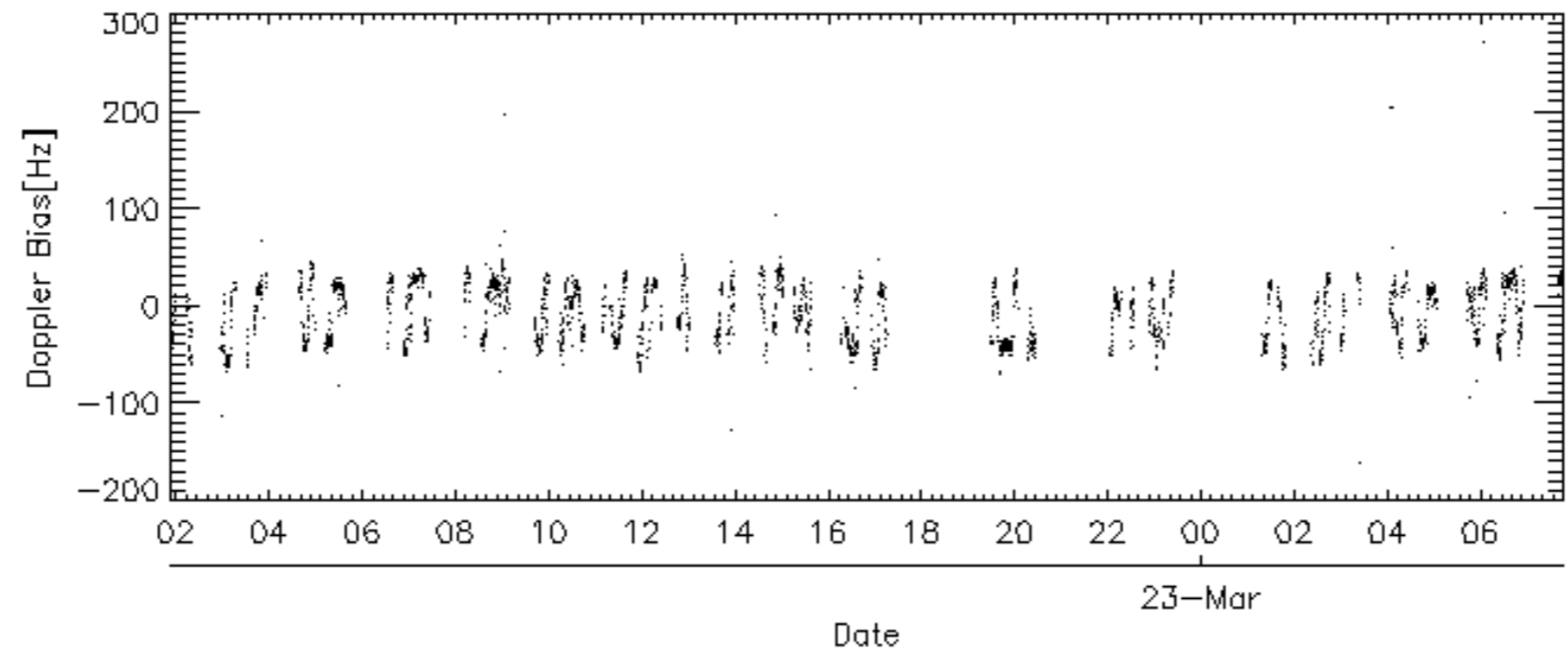
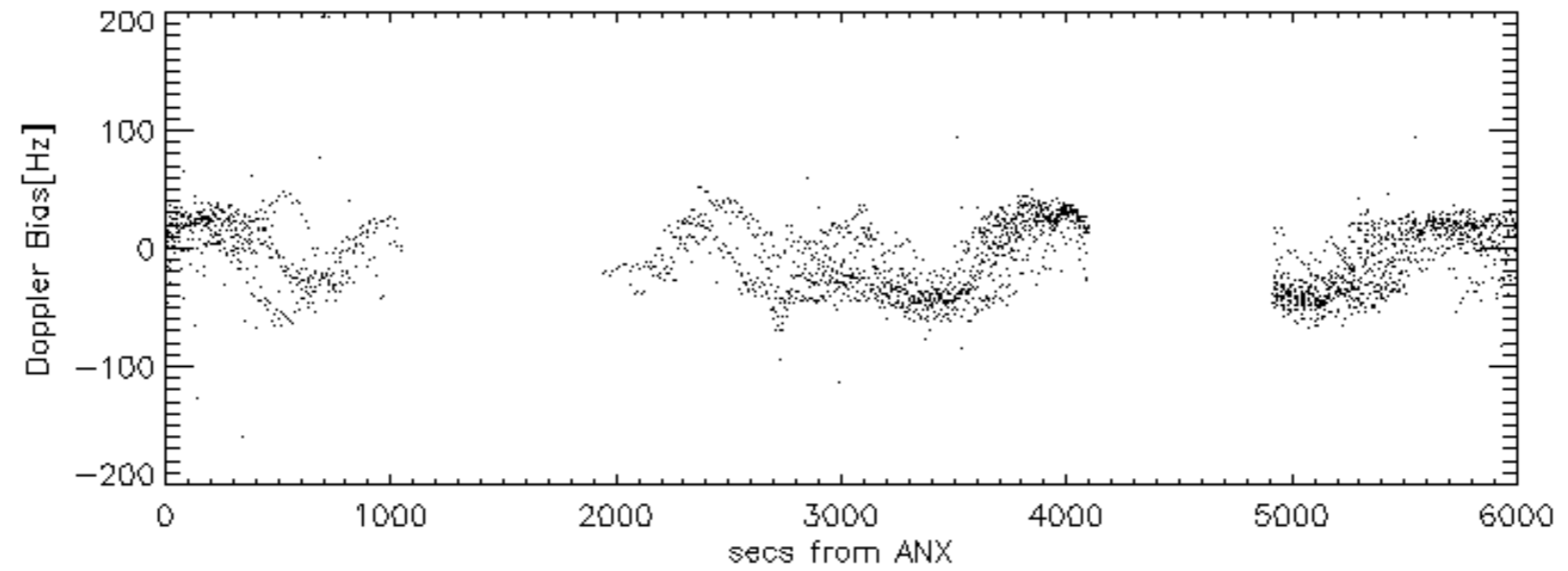
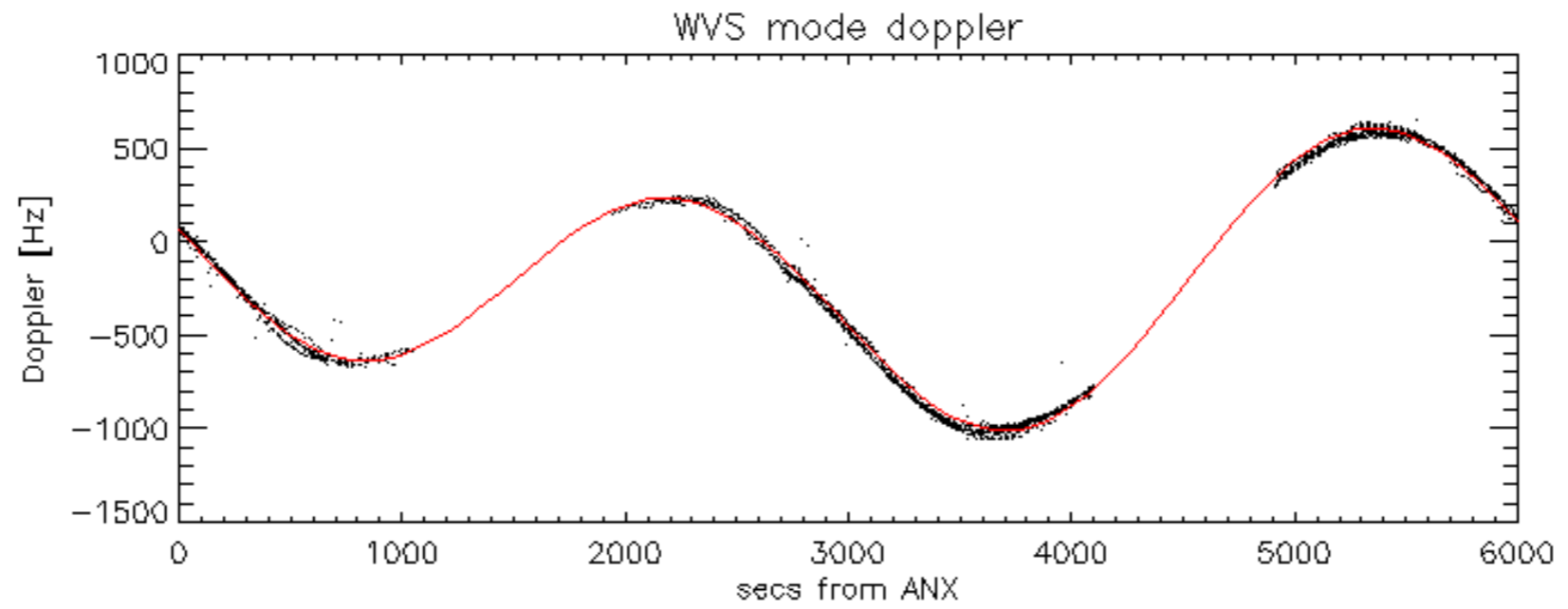


Doppler 'WVS' 'IS2' descending

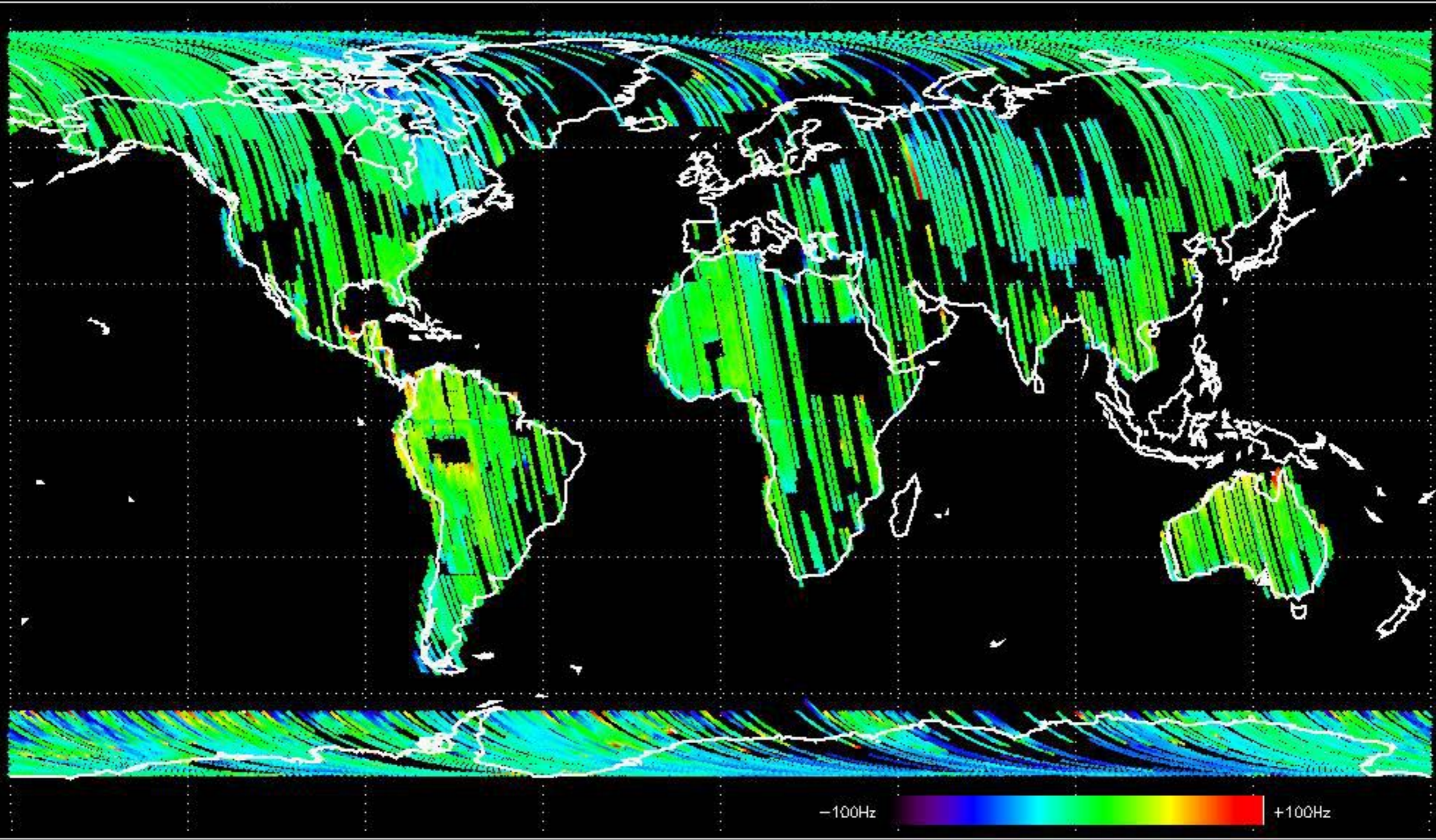


GM1 mode doppler



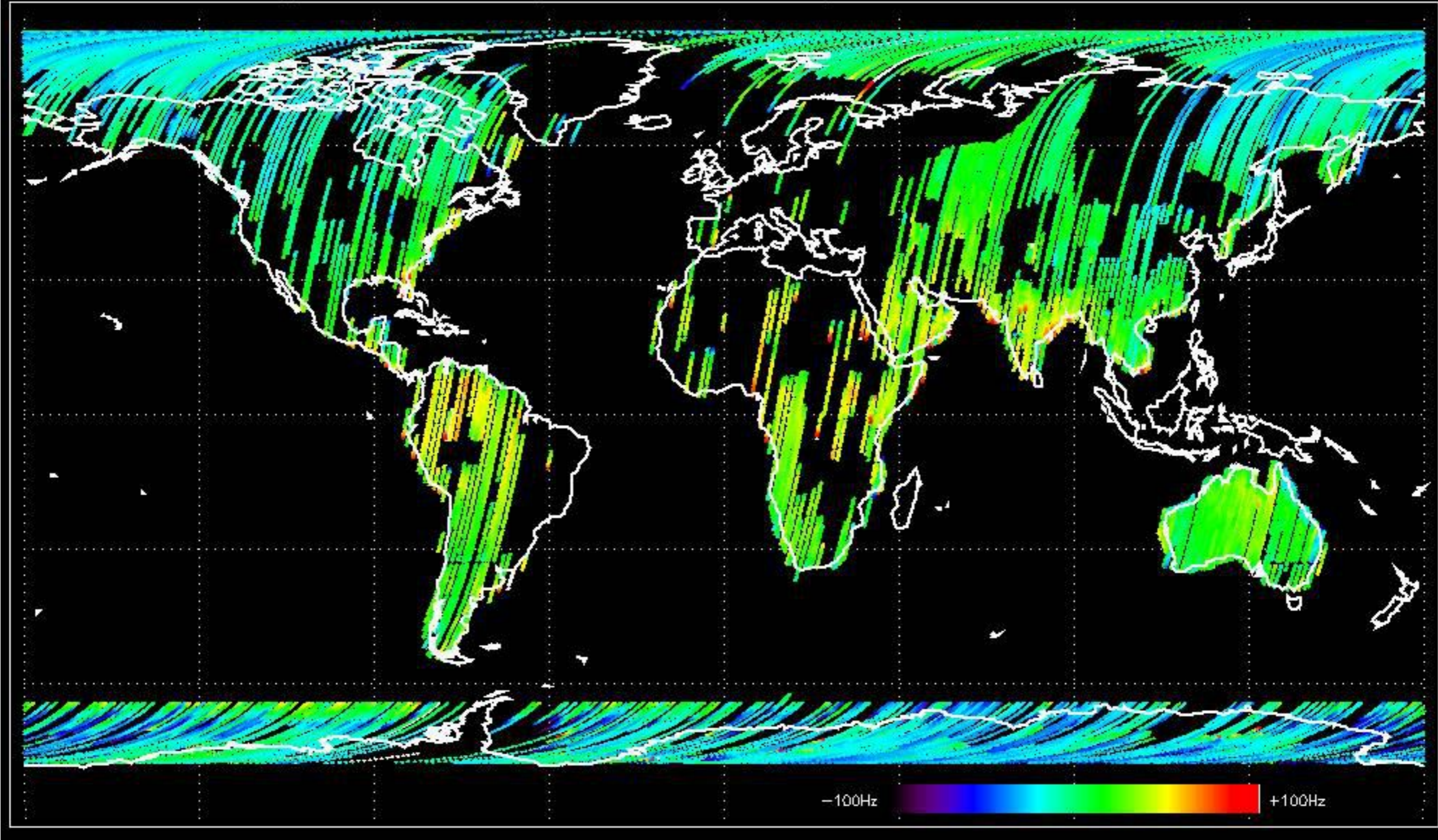


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.7645488 Hz

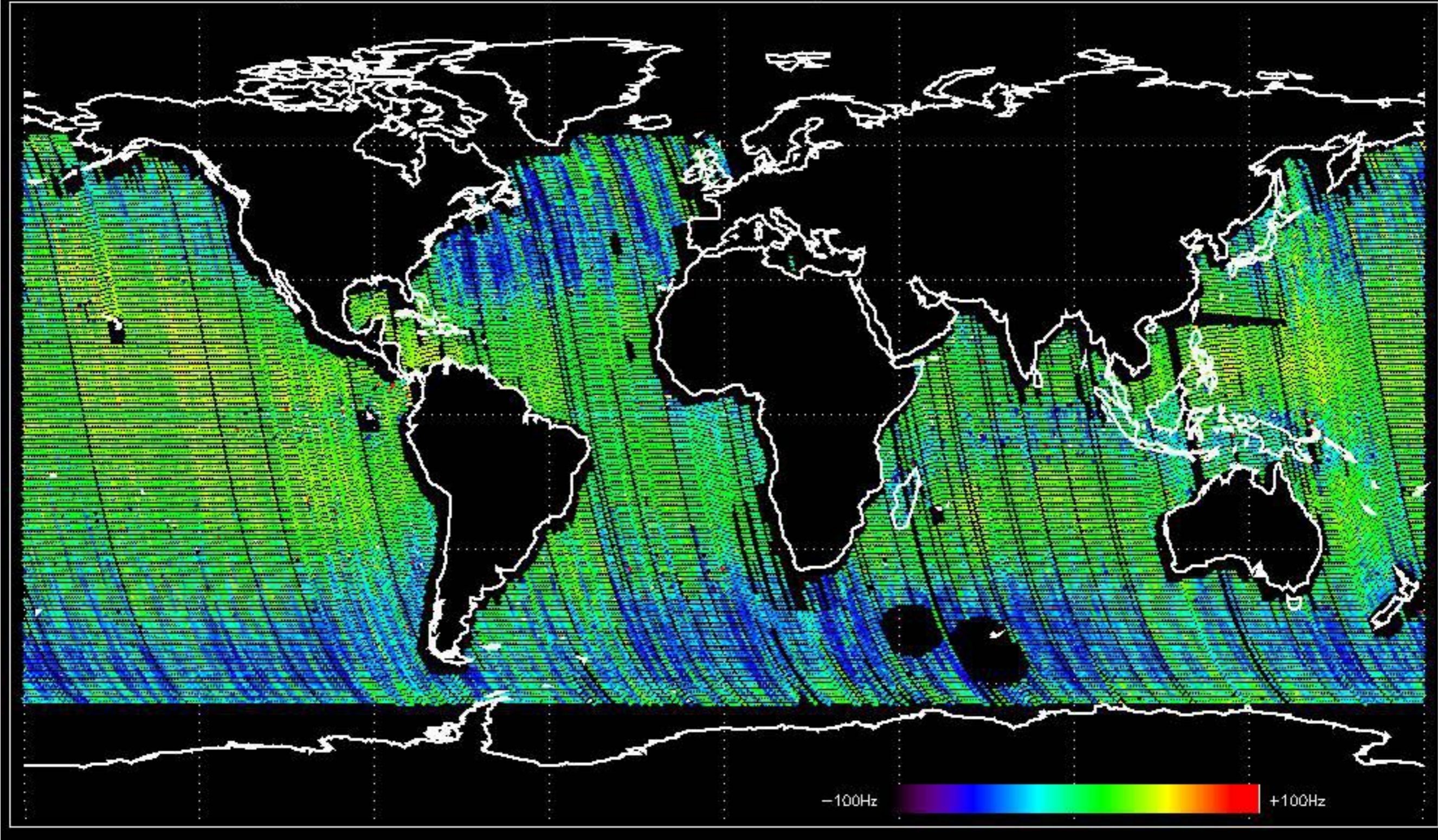


-100Hz +100Hz

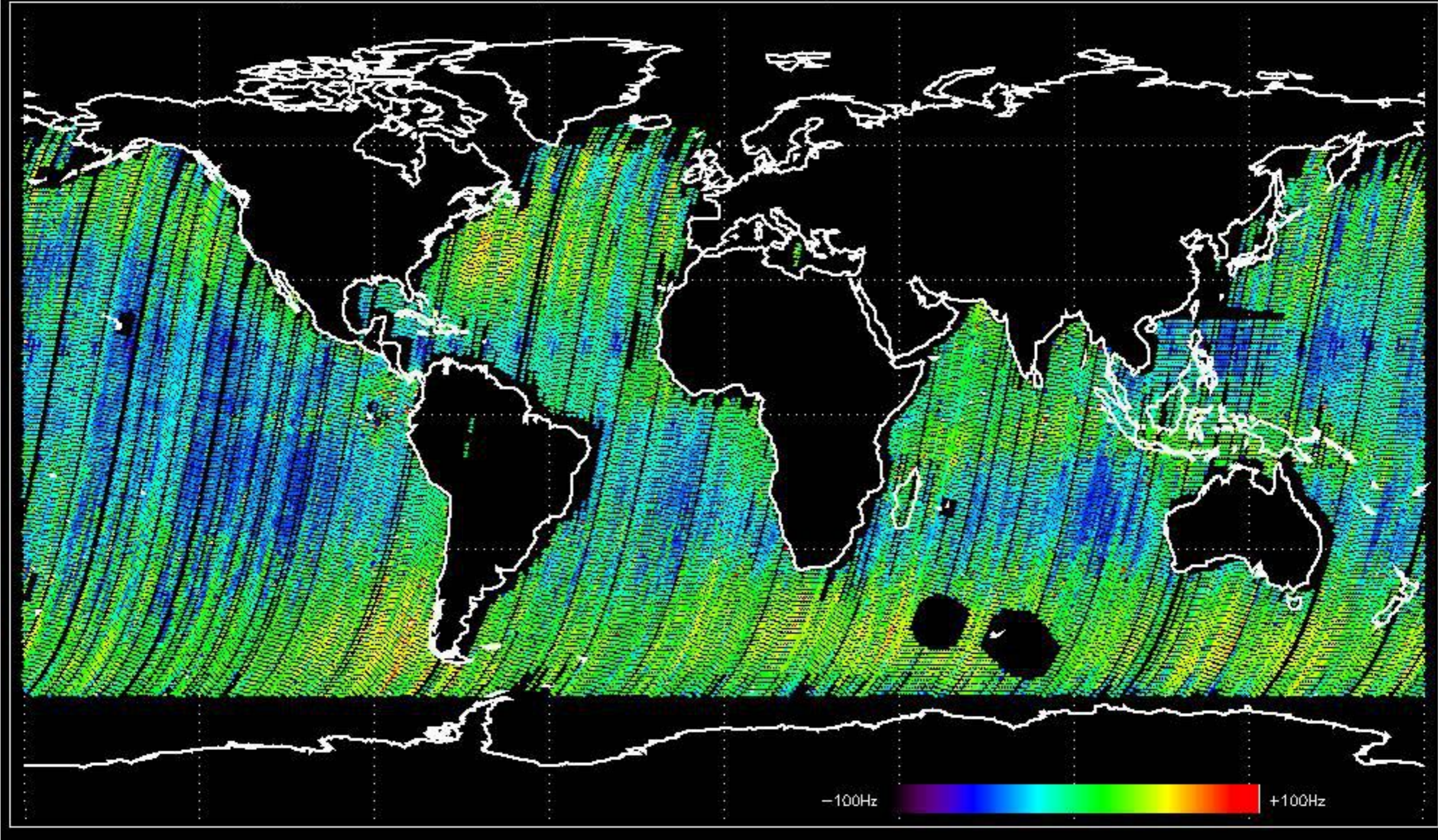
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.9263833 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5424021 Hz

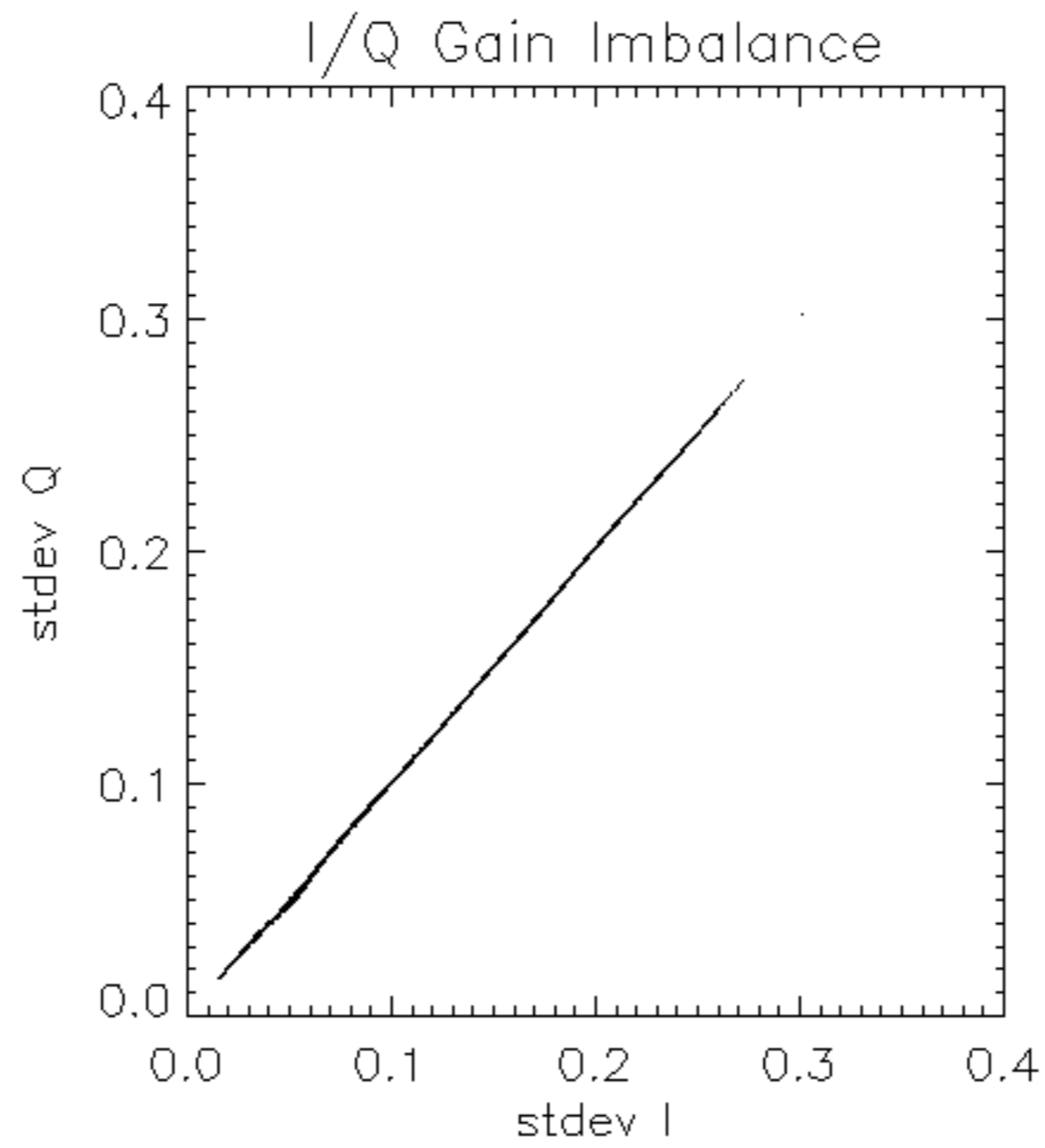


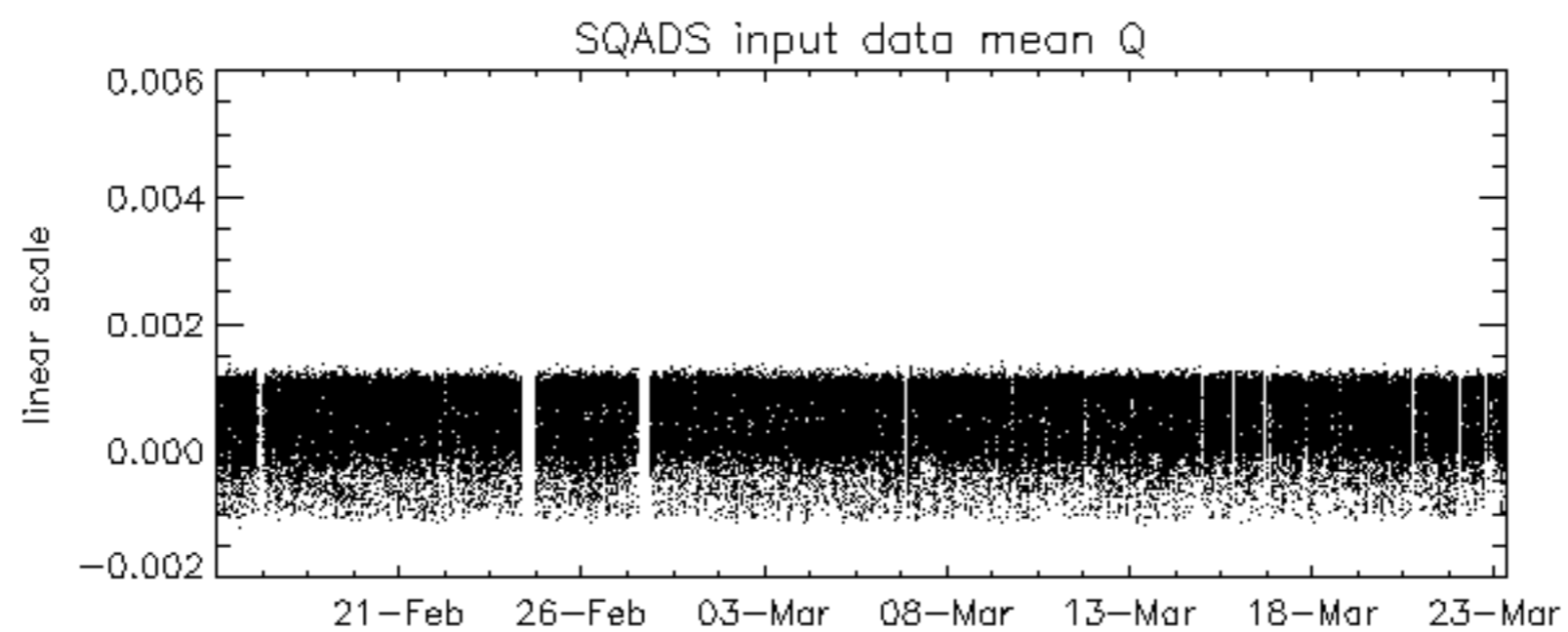
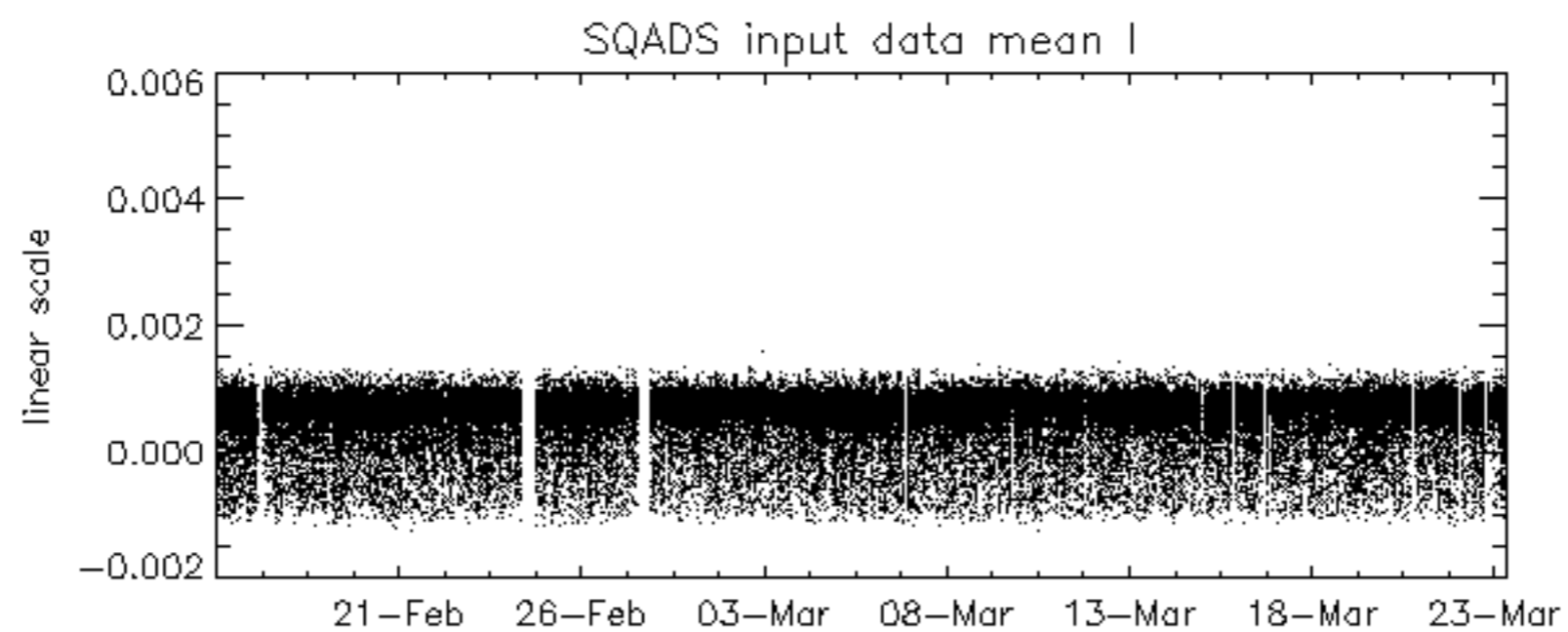
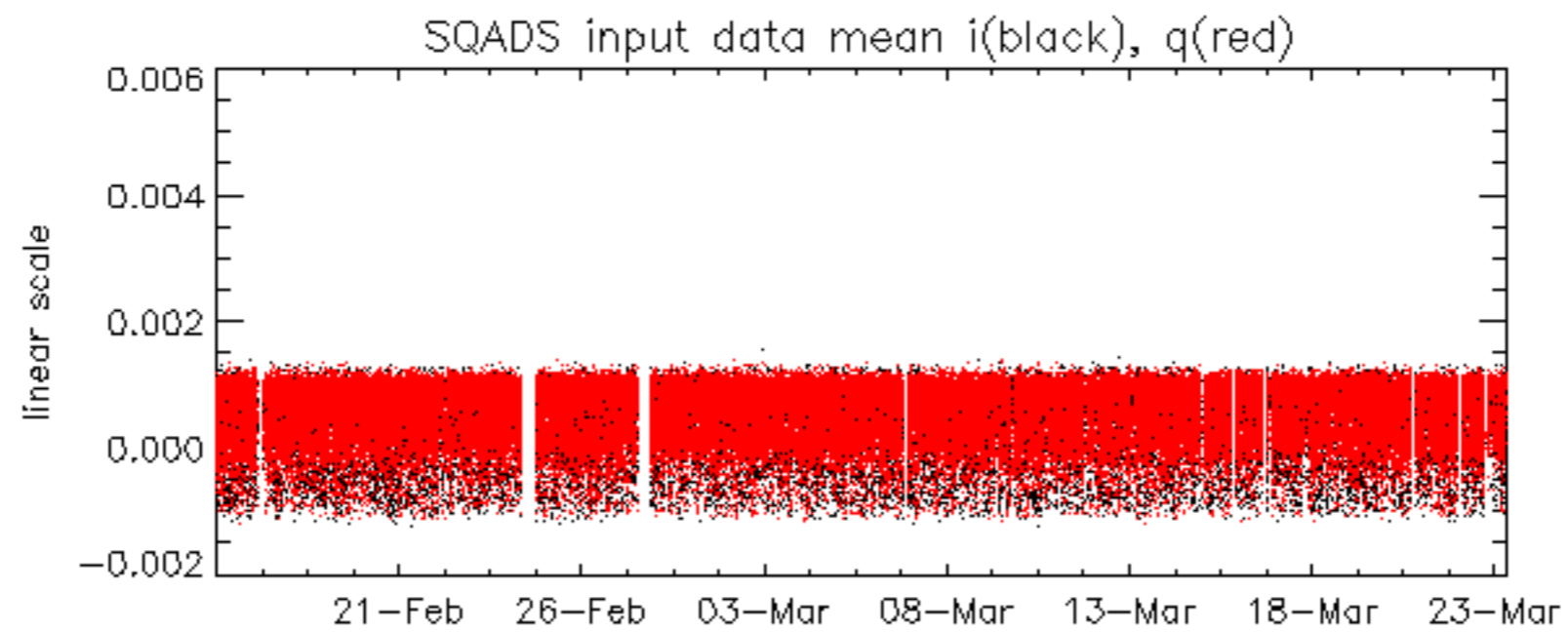
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.1882157 Hz

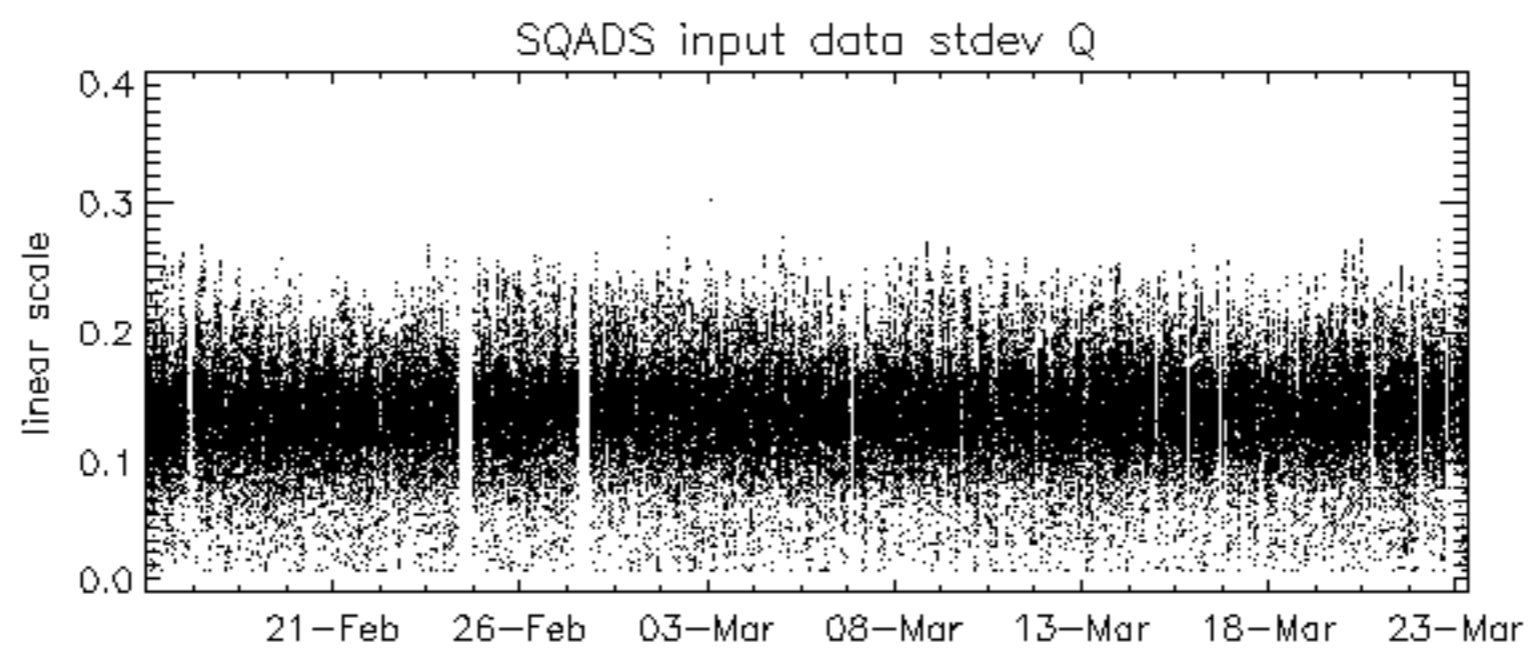
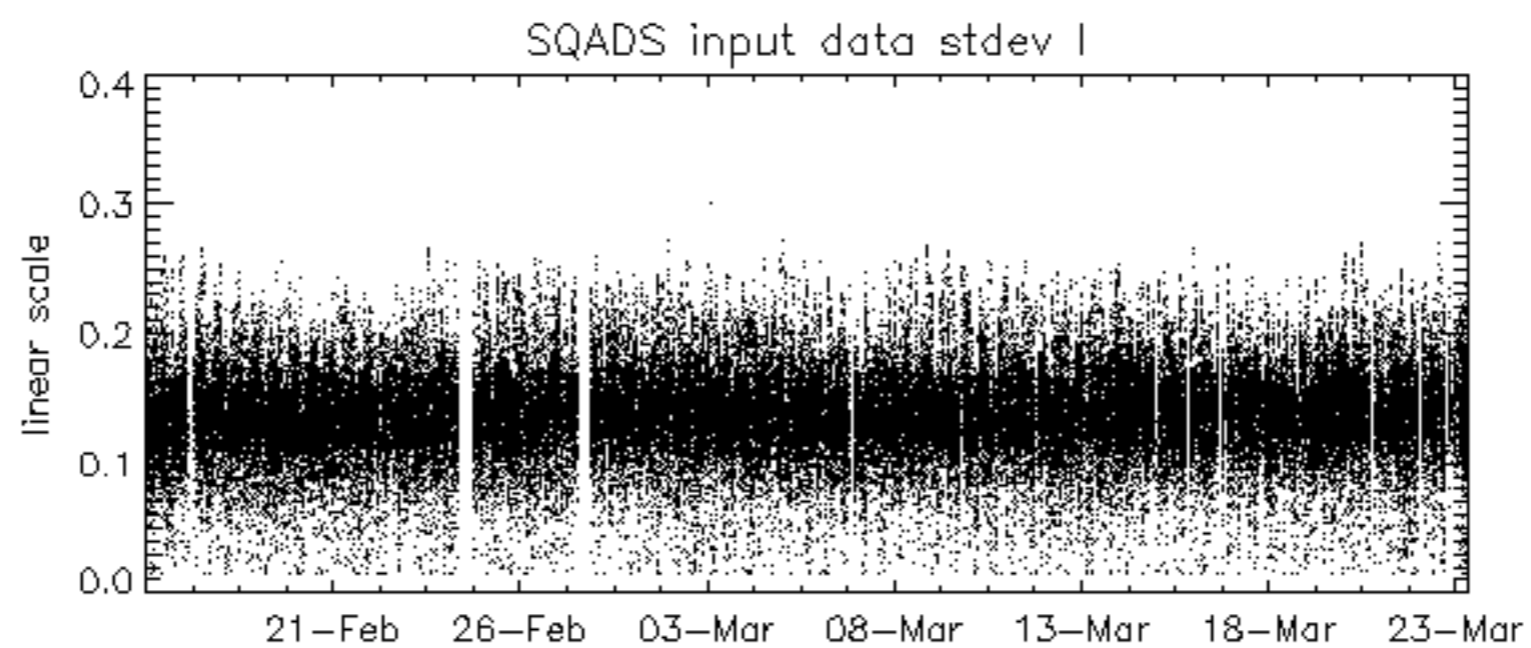
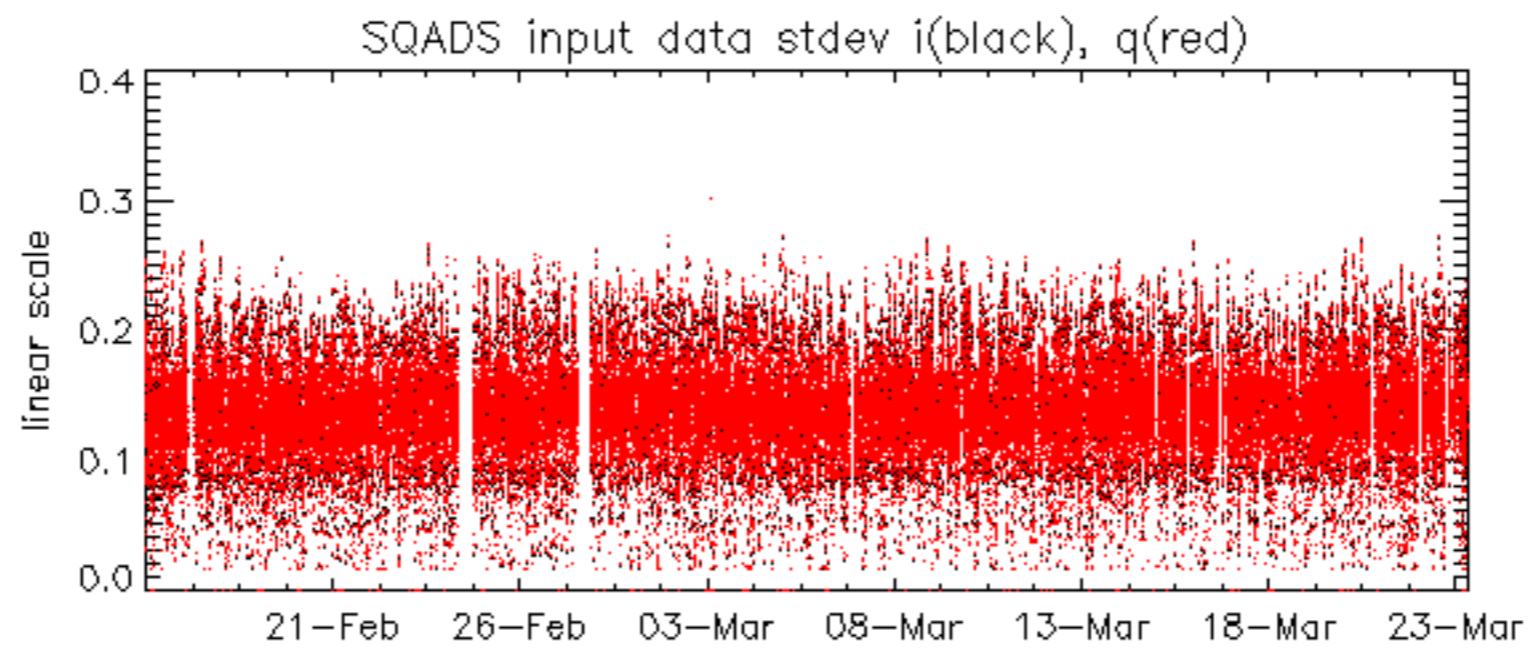


No anomalies observed on available MS products:

No anomalies observed.



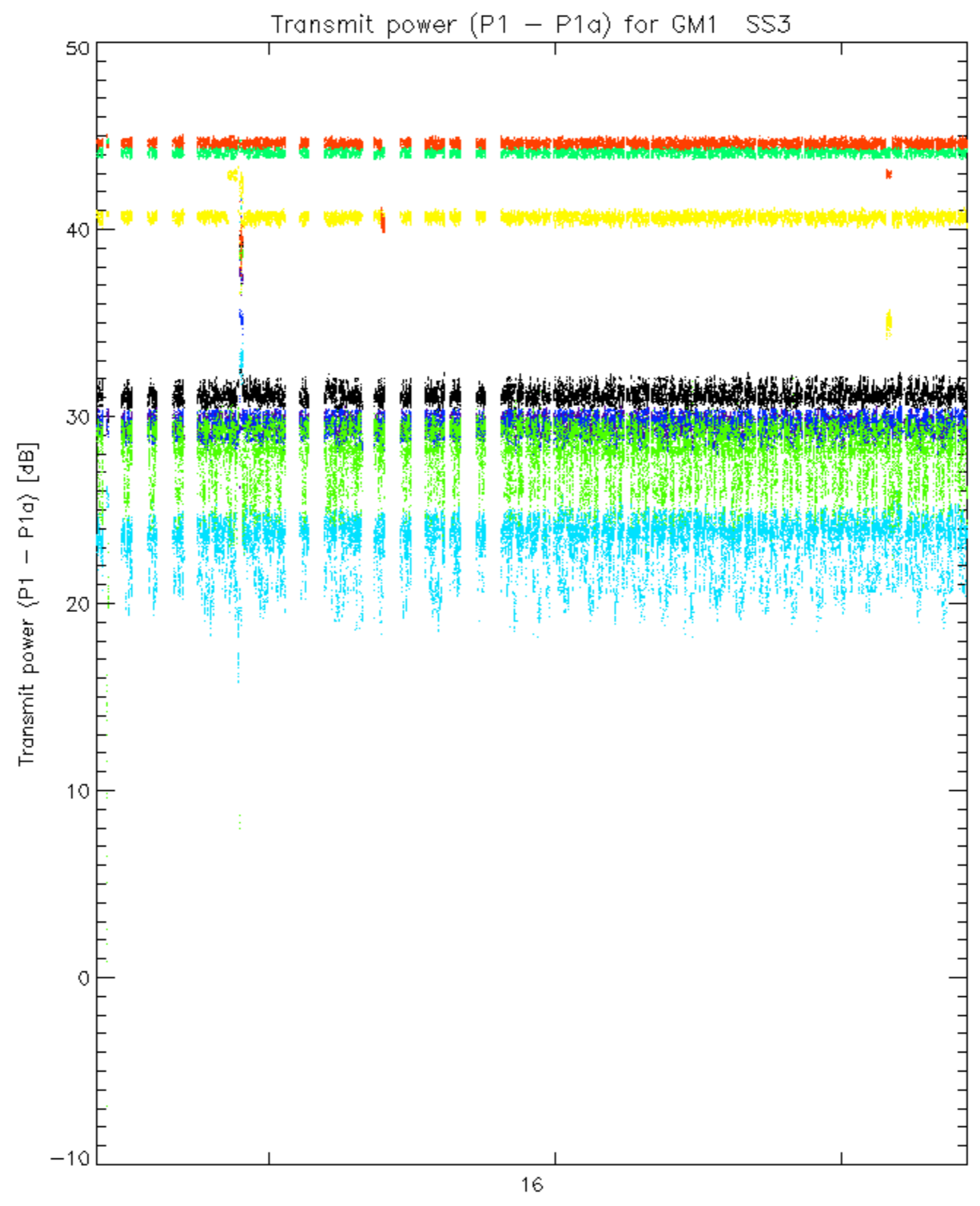




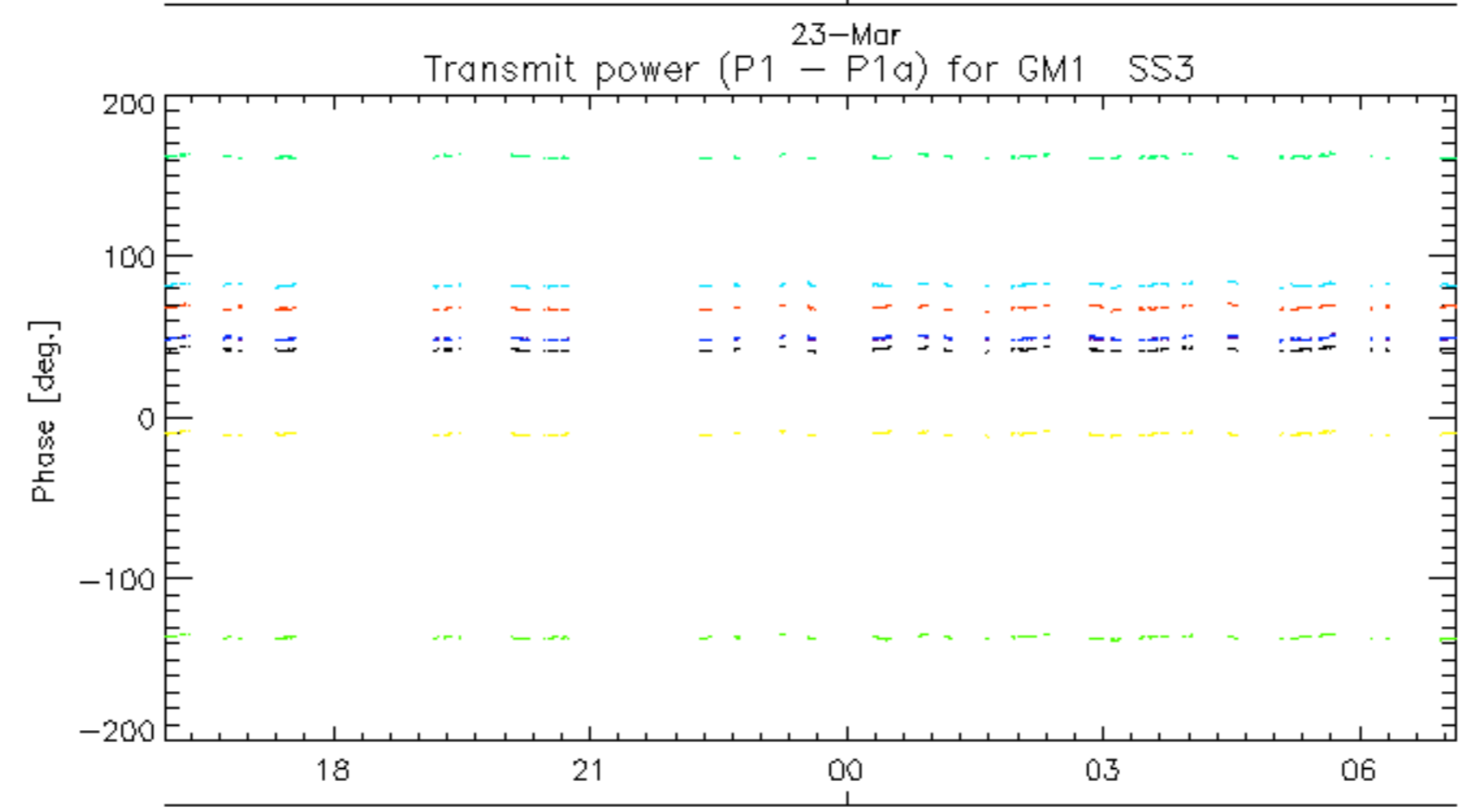
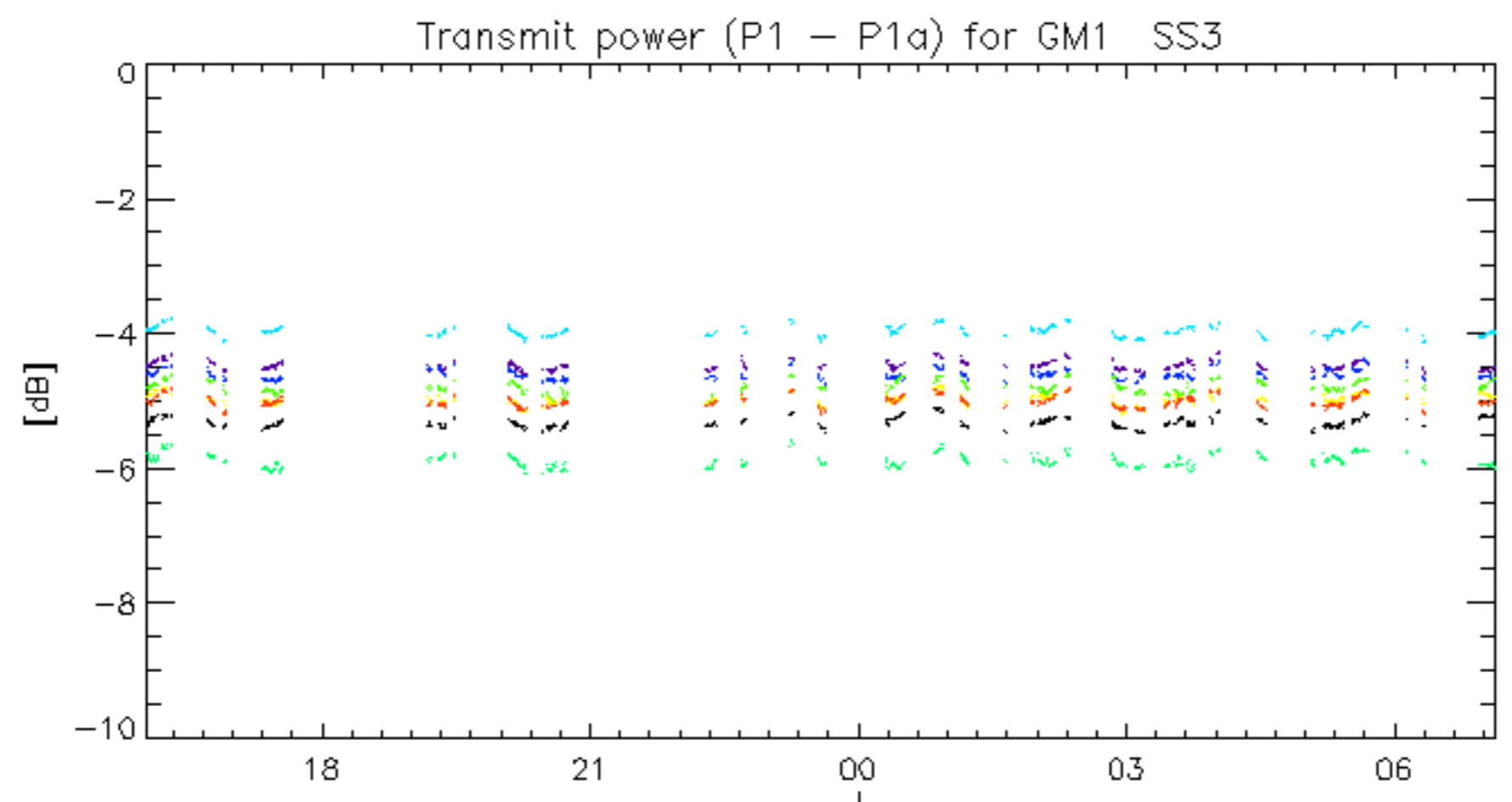
Summary of analysis for the last 3 days 2006032[123]

The assumptions is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

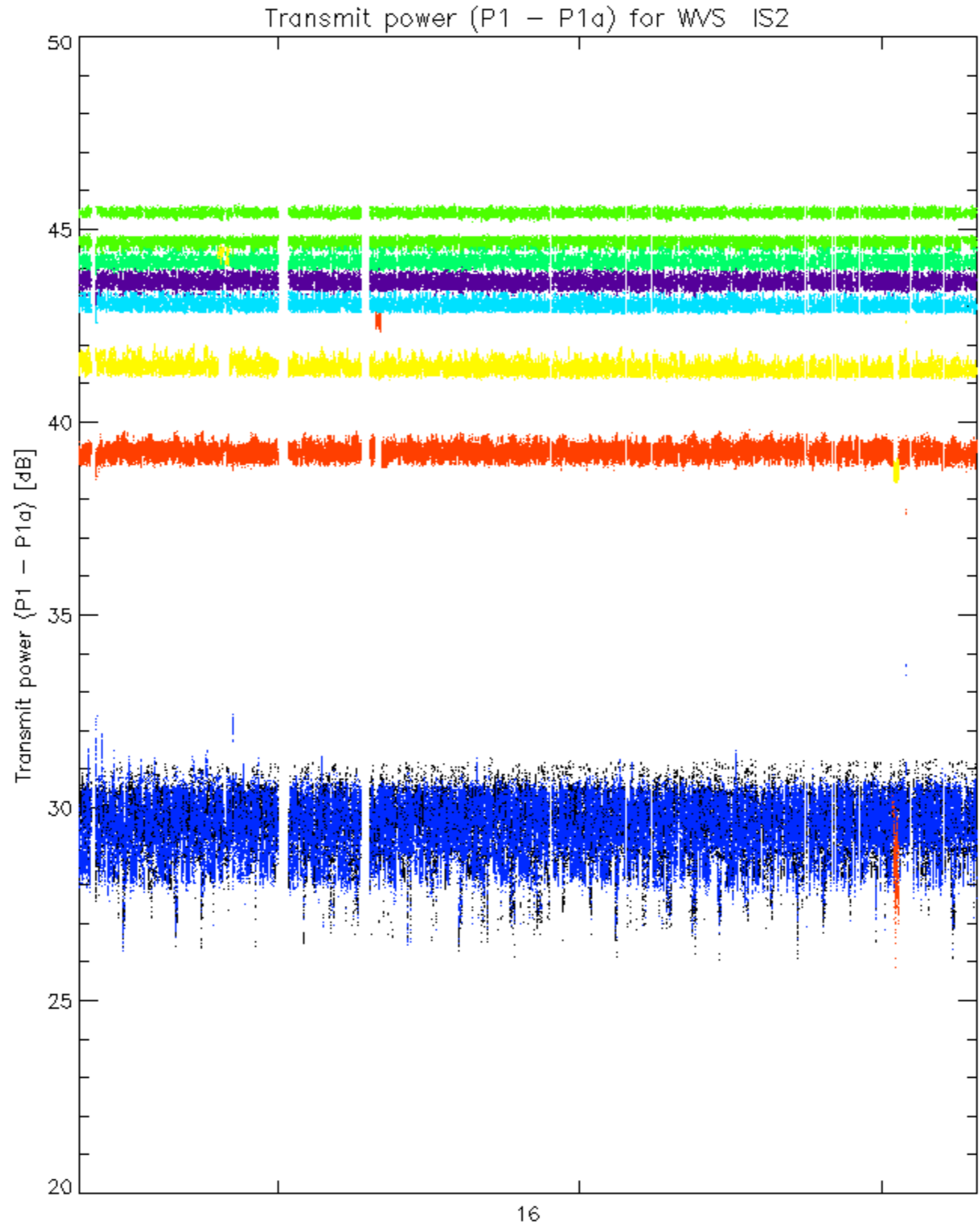
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060322_022153_00000622046_00118_21214_1325.N1	1	0
ASA_GM1_1PNPDK20060322_104938_000006342046_00123_21219_0707.N1	0	21
ASA_GM1_1PNPDK20060322_134342_000003622046_00124_21220_0718.N1	0	22
ASA_WSM_1PNPDE20060321_042632_000001842046_00105_21201_1778.N1	0	60
ASA_WSM_1PNPDE20060321_063926_000000852046_00106_21202_1792.N1	0	1
ASA_WSM_1PNPDE20060321_201133_000000862046_00114_21210_1877.N1	0	20
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ASA_WSM_1PNPDE20060322_171612_000000672046_00127_21223_2011.N1	0	65
ASA_WSM_1PNPDE20060323_022501_000001282046_00132_21228_2100.N1	0	40



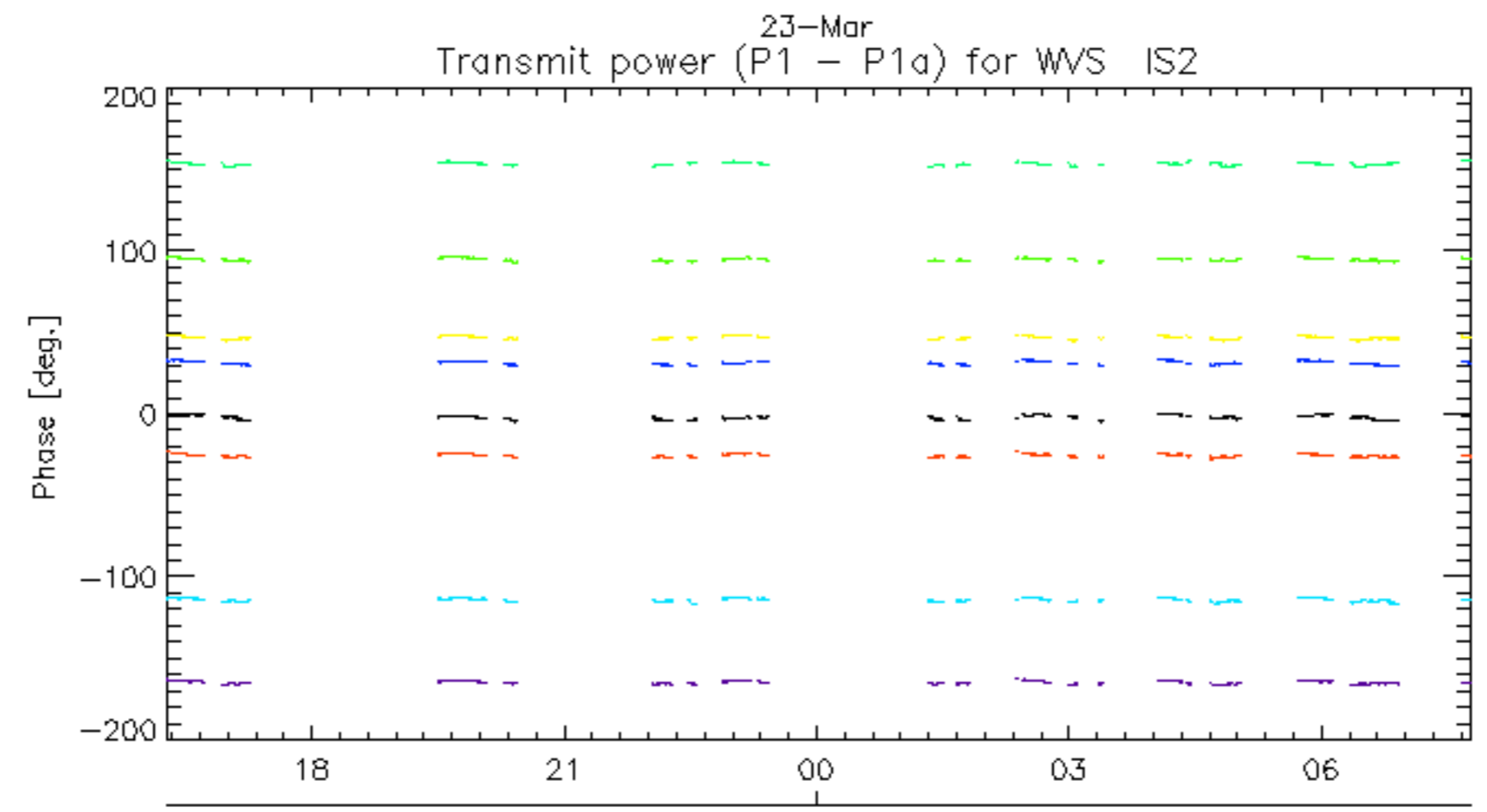
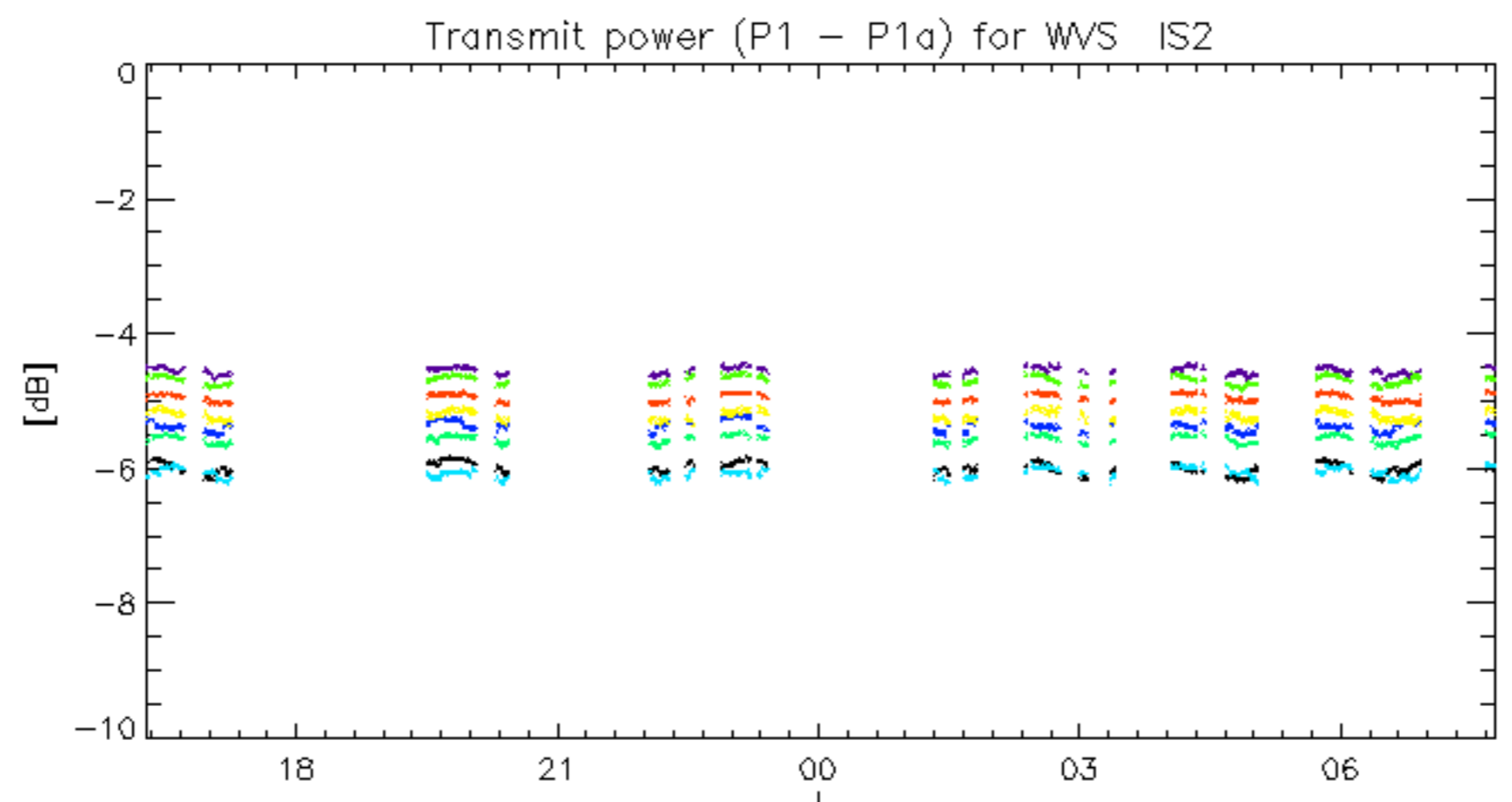
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



23-Mar
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.