

PRELIMINARY REPORT OF 060308

last update on Wed Mar 8 16:25:49 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 2006-03-07 00:00:00 to 2006-03-08 16:25:49

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	68	15	0	5
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	68	15	0	5
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	68	15	0	5
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	68	15	0	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	42	30	10	52
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	42	30	10	52
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	42	30	10	52
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	42	30	10	52

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	20060307 042850
H	20060308 071825

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

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	-4.002882	0.009689	-0.016079
7	P1	-3.002264	0.008791	-0.032877
11	P1	-4.070344	0.021146	0.057465
15	P1	-6.073395	0.022029	-0.042839
19	P1	-3.283301	0.006772	-0.039111
22	P1	-4.459178	0.015123	0.007306
26	P1	-4.209489	0.119612	0.029037
30	P1	-5.808707	0.170707	-0.109962
3	P1	-16.976707	0.249674	-0.075679
7	P1	-16.697586	0.103055	-0.127336
11	P1	-16.511000	0.330198	0.143071
15	P1	-13.058146	0.095643	0.035498
19	P1	-13.917262	0.056796	-0.082550
22	P1	-15.595526	0.479437	0.112951
26	P1	-15.762117	0.328337	-0.077916
30	P1	-16.478132	0.331764	0.036943

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.424013	0.087140	0.128277
7	P2	-22.393934	0.093582	0.051250
11	P2	-16.233404	0.099866	0.040658
15	P2	-7.168094	0.098657	0.007201
19	P2	-9.135561	0.090786	0.007183
22	P2	-17.933559	0.090502	-0.032816
26	P2	-16.207439	0.093932	-0.015631
30	P2	-19.641315	0.083954	-0.040380

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.193882	0.006328	-0.010021
7	P3	-8.193882	0.006328	-0.010021
11	P3	-8.193882	0.006328	-0.010021
15	P3	-8.193882	0.006328	-0.010021
19	P3	-8.193882	0.006328	-0.010021
22	P3	-8.193882	0.006328	-0.010021
26	P3	-8.193882	0.006328	-0.010021
30	P3	-8.193882	0.006328	-0.010022

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	-3.872466	4.351514	0.051190
7	P1	-2.872890	4.565835	0.104354
11	P1	-3.056734	4.594968	0.062629
15	P1	-3.703174	4.553164	0.055292
19	P1	-3.498709	4.418179	0.031351
22	P1	-5.289137	4.054465	0.031982
26	P1	-6.009868	4.301816	0.135112
30	P1	-5.332315	4.099224	0.026220
3	P1	-11.669095	2.848077	0.069686
7	P1	-10.062250	3.152499	0.048136
11	P1	-10.352800	3.139152	-0.041756
15	P1	-10.896811	3.130166	-0.024113
19	P1	-15.487182	2.305004	-0.019054
22	P1	-20.318836	2.813915	0.104486

26	P1	-16.343031	2.907608	0.167707
30	P1	-18.375648	2.067670	-0.053634

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.125889	2.996943	0.137142
7	P2	-22.550215	3.490397	0.014676
11	P2	-11.300444	3.259015	0.102306
15	P2	-4.946974	4.236014	0.057386
19	P2	-6.953239	3.813222	0.056881
22	P2	-8.237388	3.577928	0.016668
26	P2	-23.860987	3.591865	-0.086214
30	P2	-22.019321	3.396779	-0.050341

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024182	0.002666	-0.003842
7	P3	-8.024176	0.002664	-0.003985
11	P3	-8.024204	0.002672	-0.003801
15	P3	-8.024311	0.002667	-0.004304
19	P3	-8.024191	0.002683	-0.003388
22	P3	-8.024301	0.002661	-0.003997
26	P3	-8.024274	0.002668	-0.003504
30	P3	-8.024157	0.002663	-0.003726

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	0.000552793
	stdev	1.77252e-07
MEAN Q	mean	0.000511565
	stdev	2.22043e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137938
	stdev	0.00119296
STDEV Q	mean	0.138297
	stdev	0.00121083



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006030[678]

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_1PNPDE20060307_003803_000000502045_00403_20998_5624.N1	1	0
ASA_IMM_1PNPDE20060307_115630_000002682045_00410_21005_5678.N1	1	0
ASA_WVS_1PNPDE20060306_220602_000000002045_00401_20996_0000.N1	1	0
ASA_WVS_1PNPDE20060306_220602_000000002045_00401_20996_0002.N1	1	0
ASA_WSM_1PNPDE20060307_164740_000001842045_00413_21008_0007.N1	0	8



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

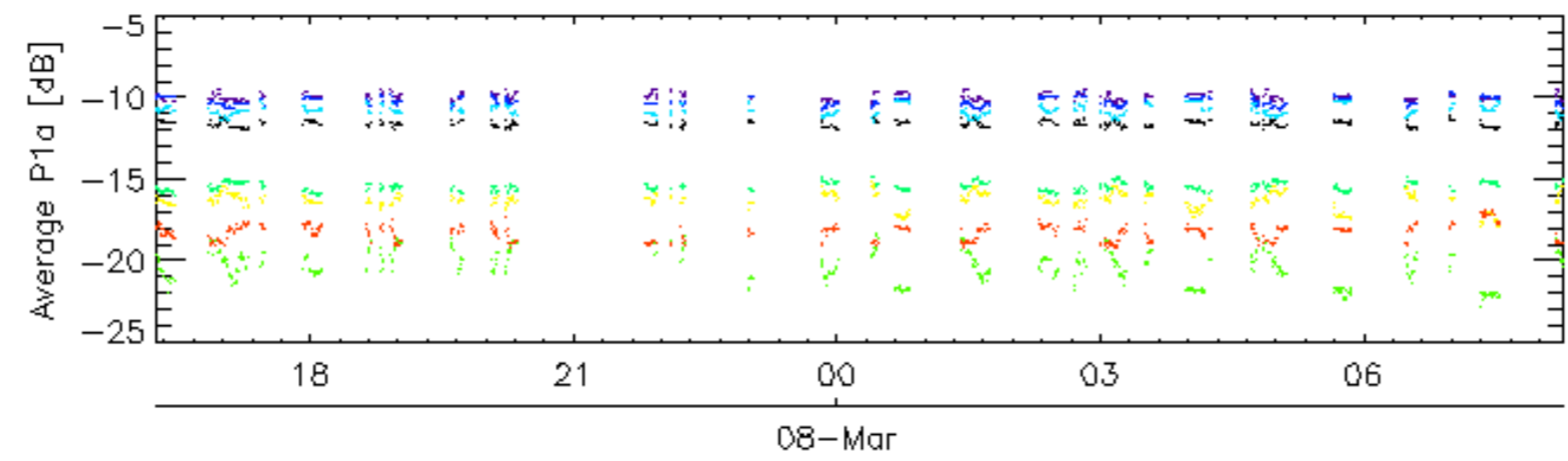
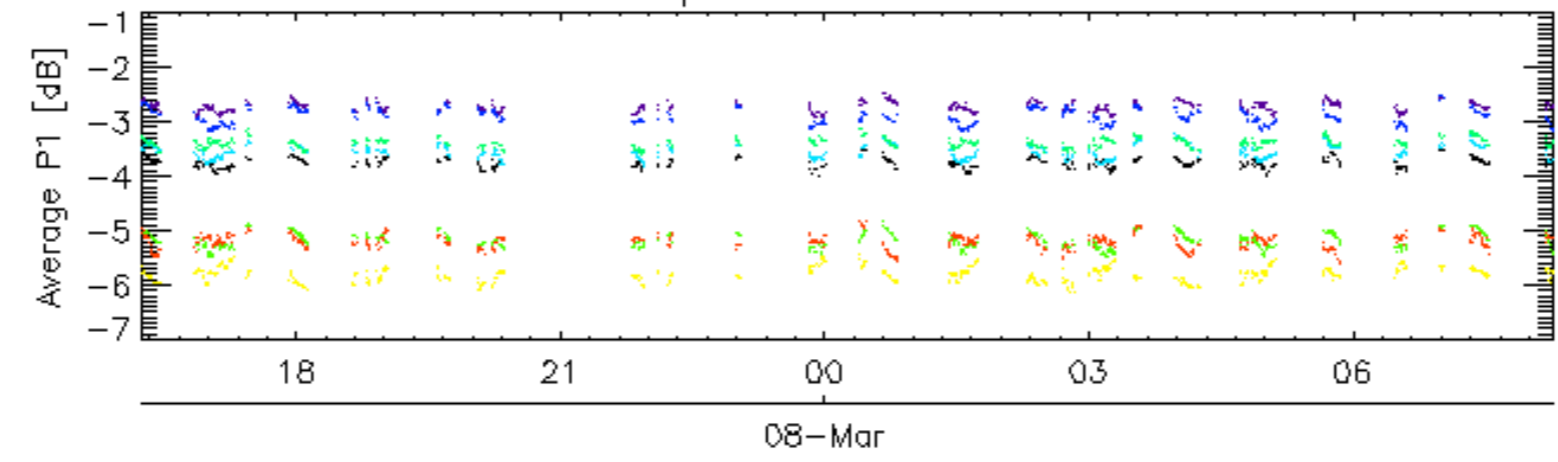
Ascending

Descending

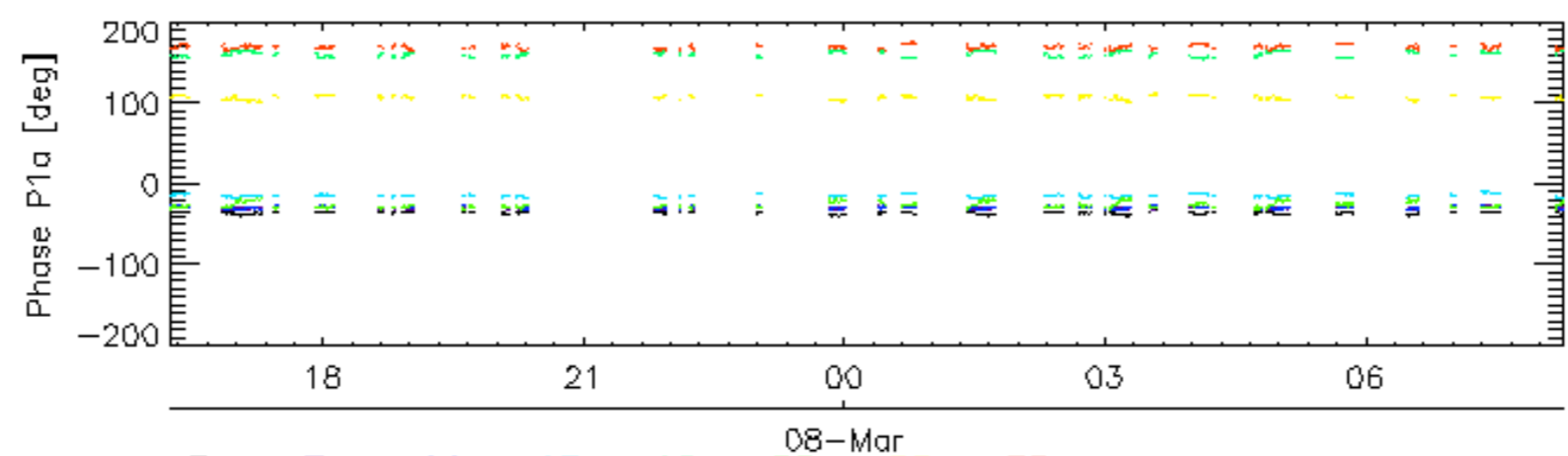
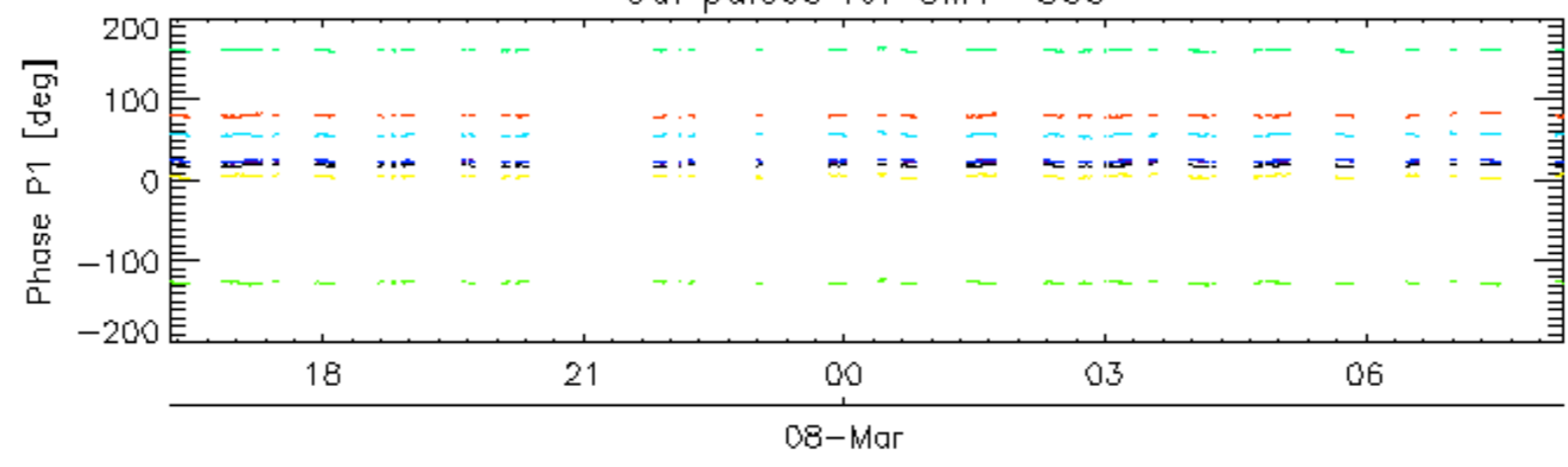
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

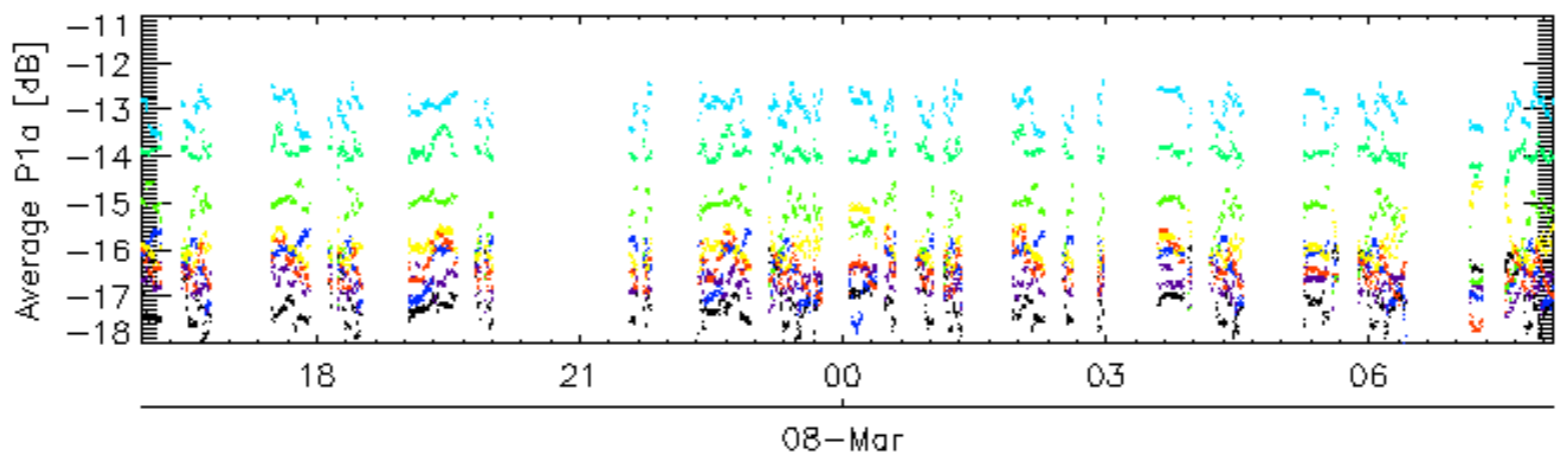
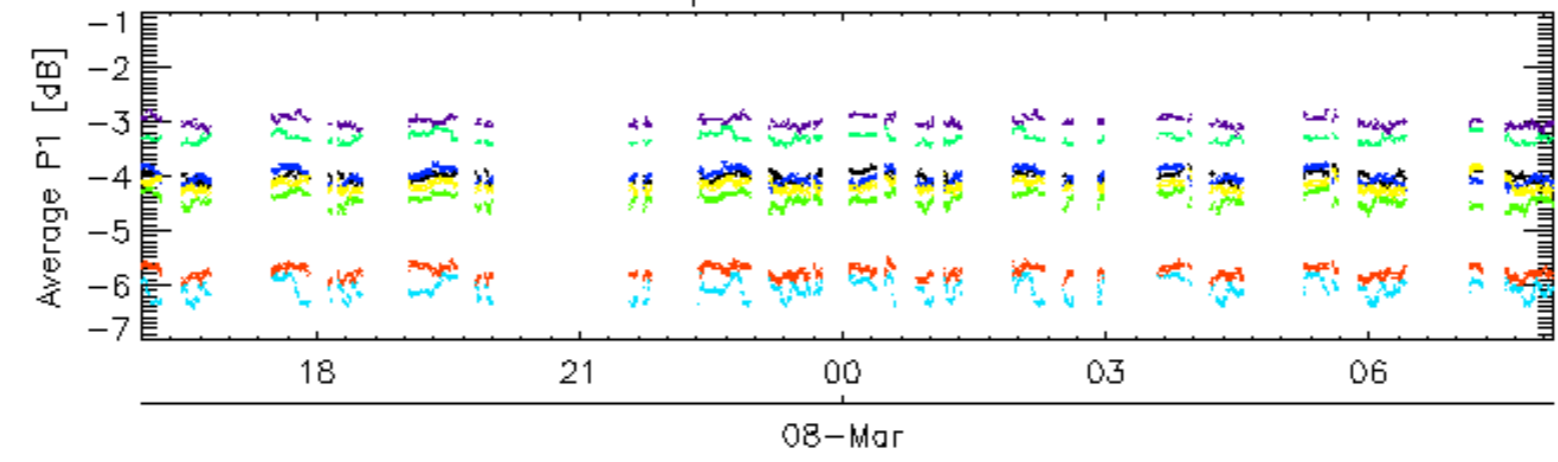


Cal pulses for GM1 SS3

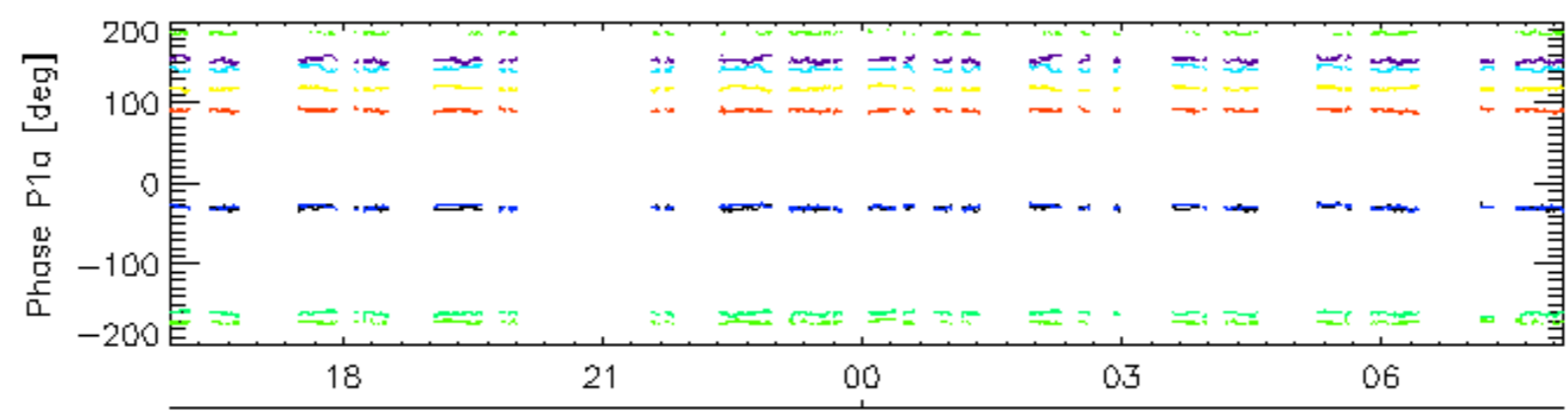
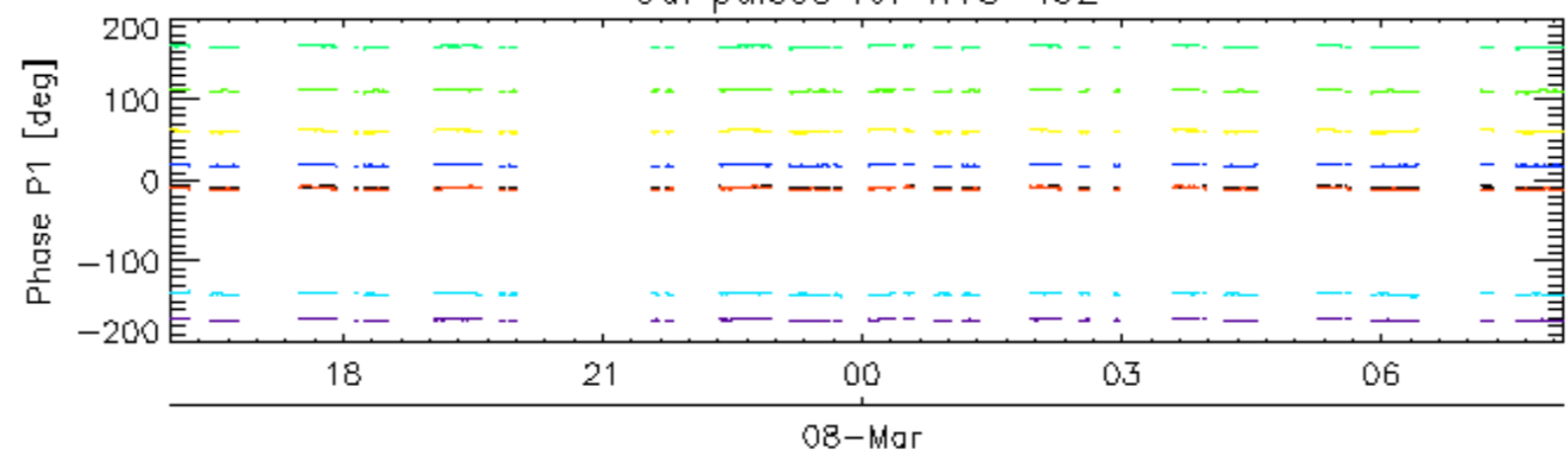


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

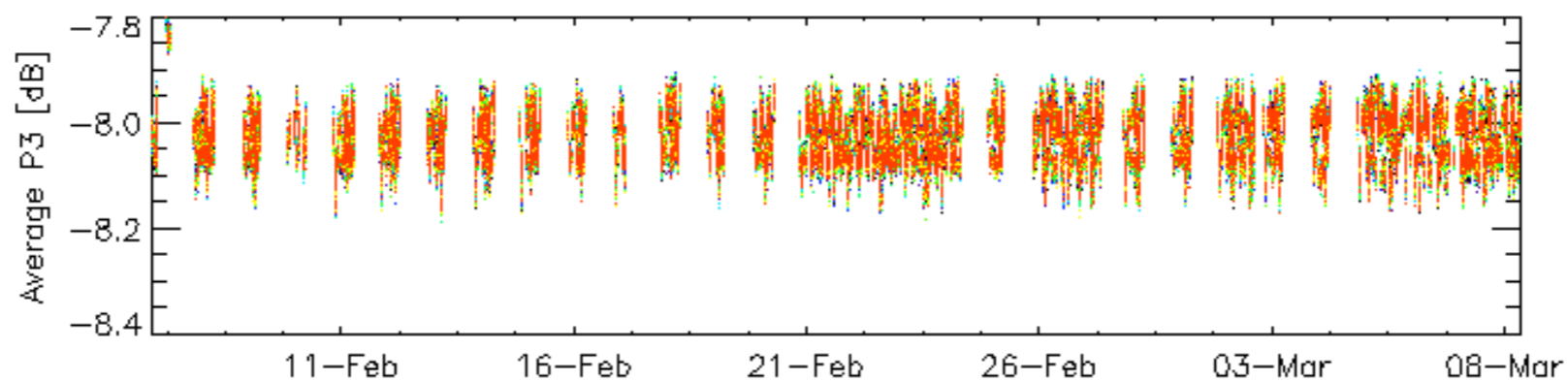
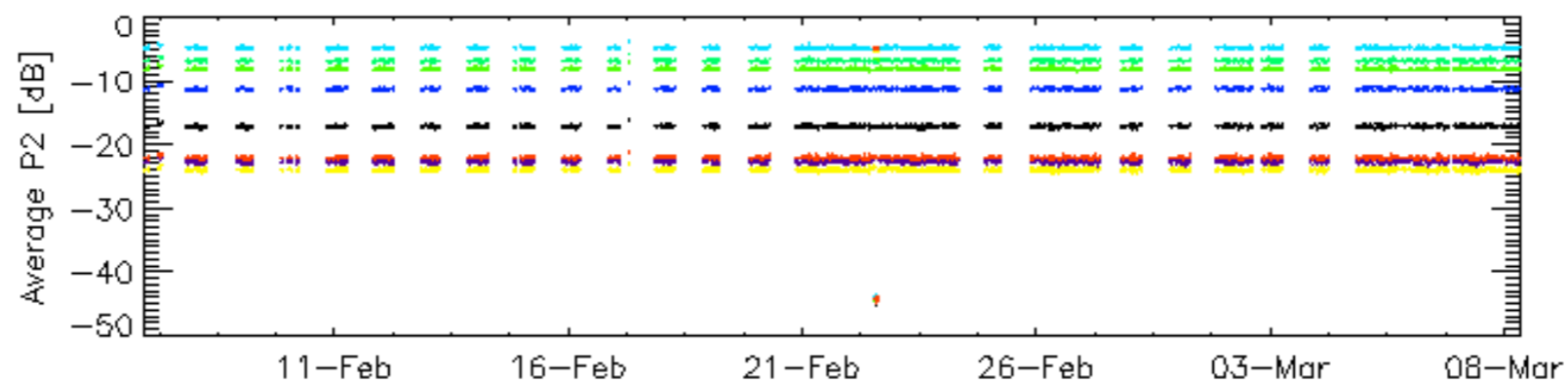
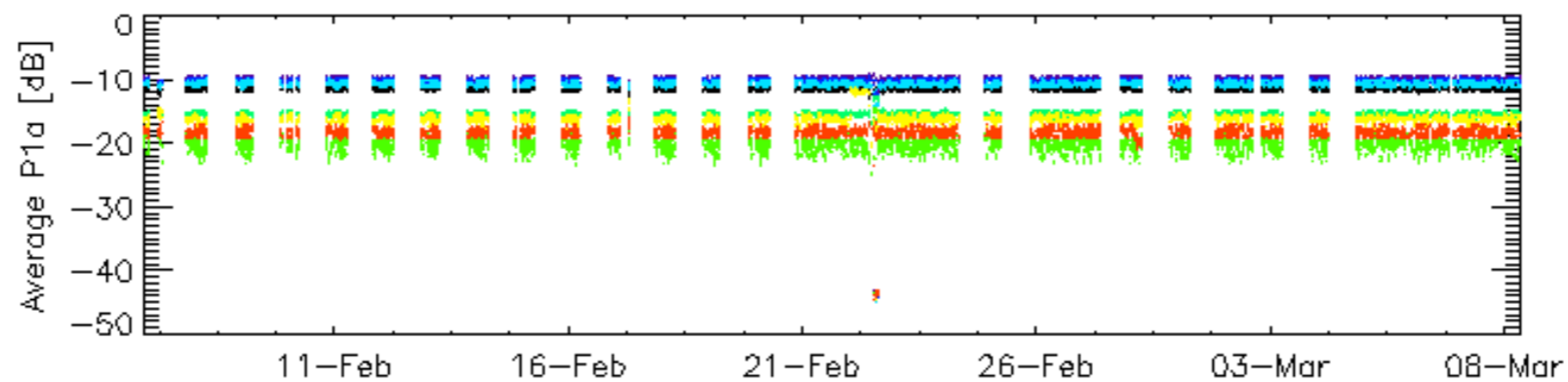
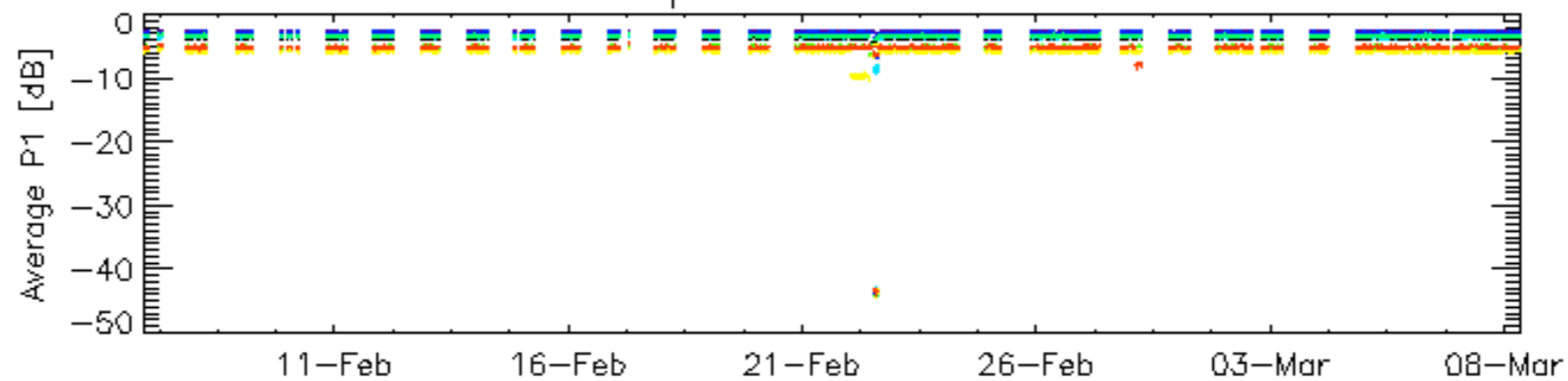


Cal pulses for WVS IS2



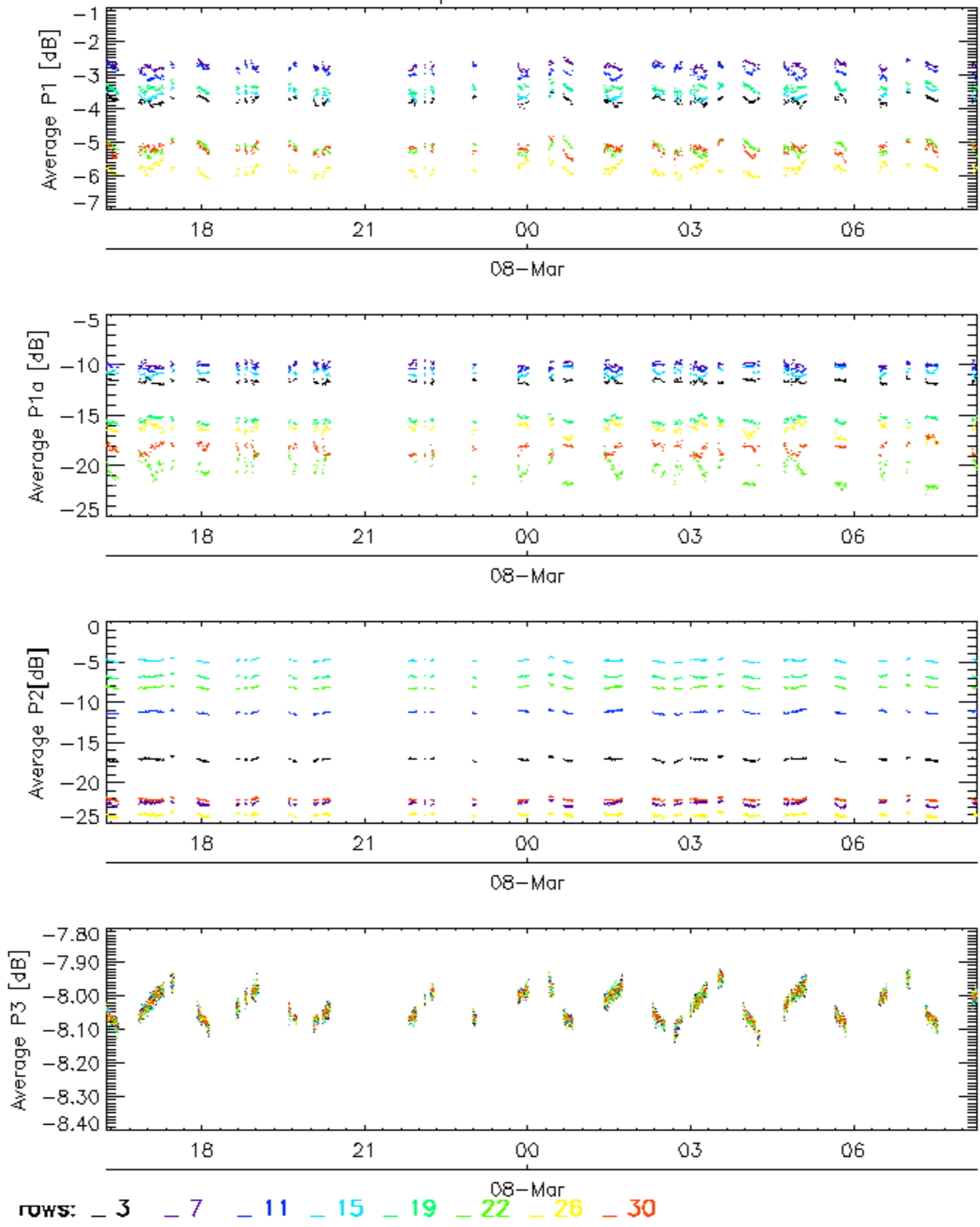
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

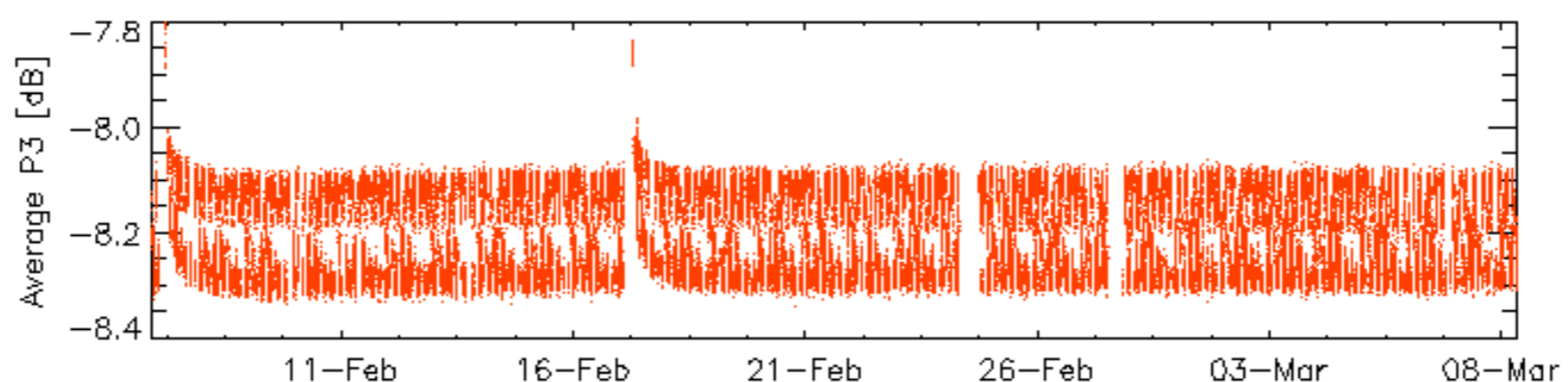
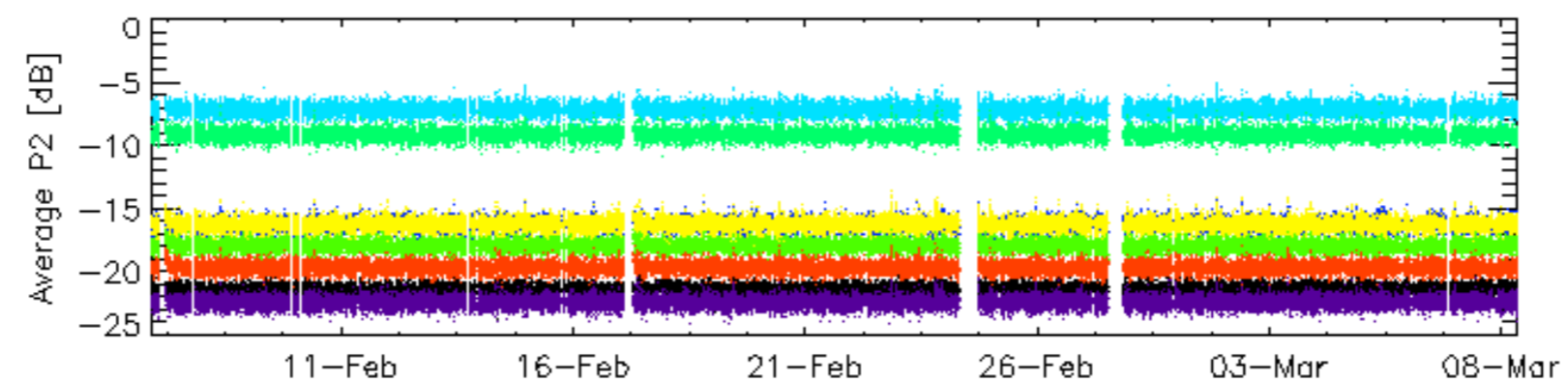
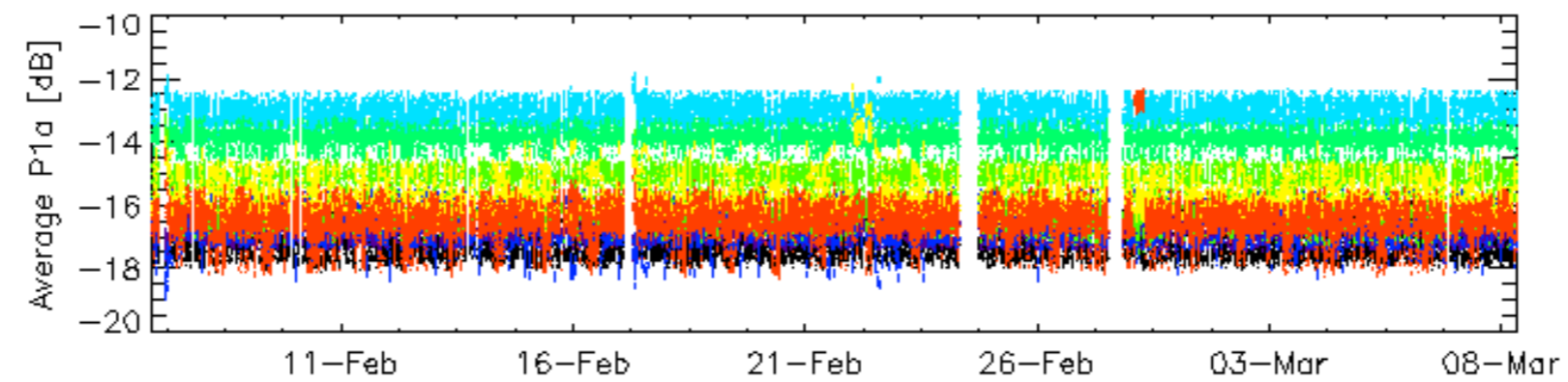
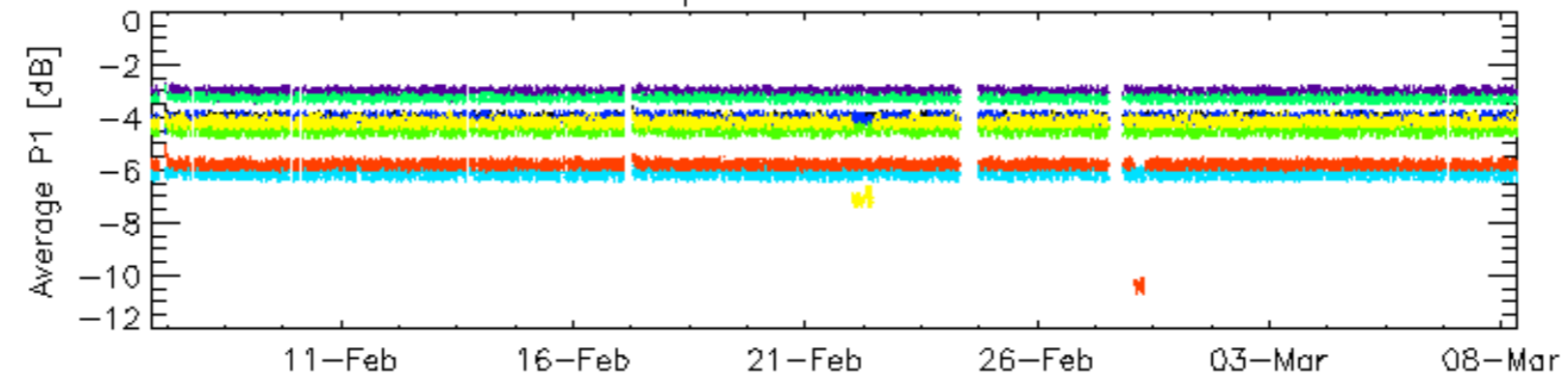


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

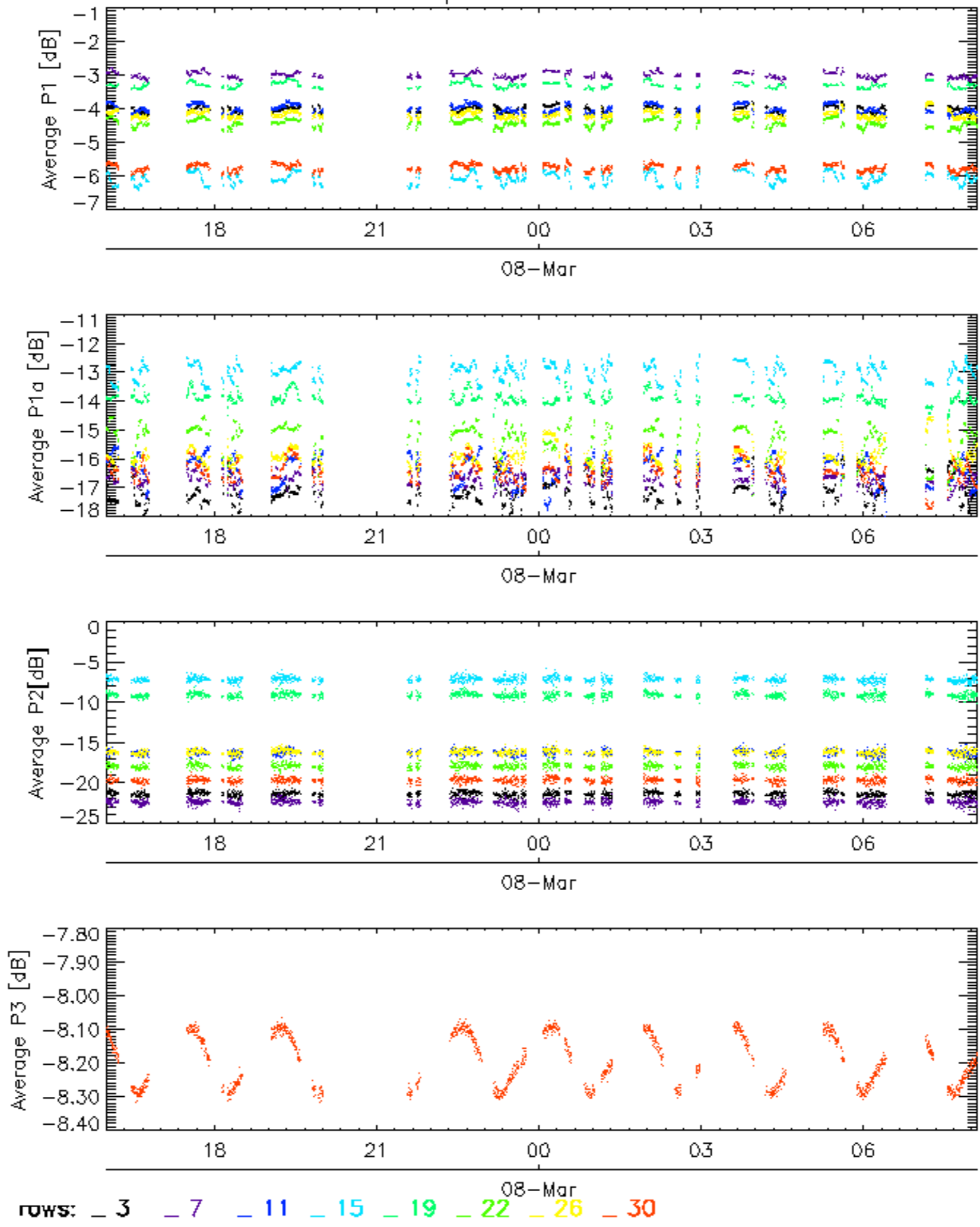


Cal pulses for WVS IS2



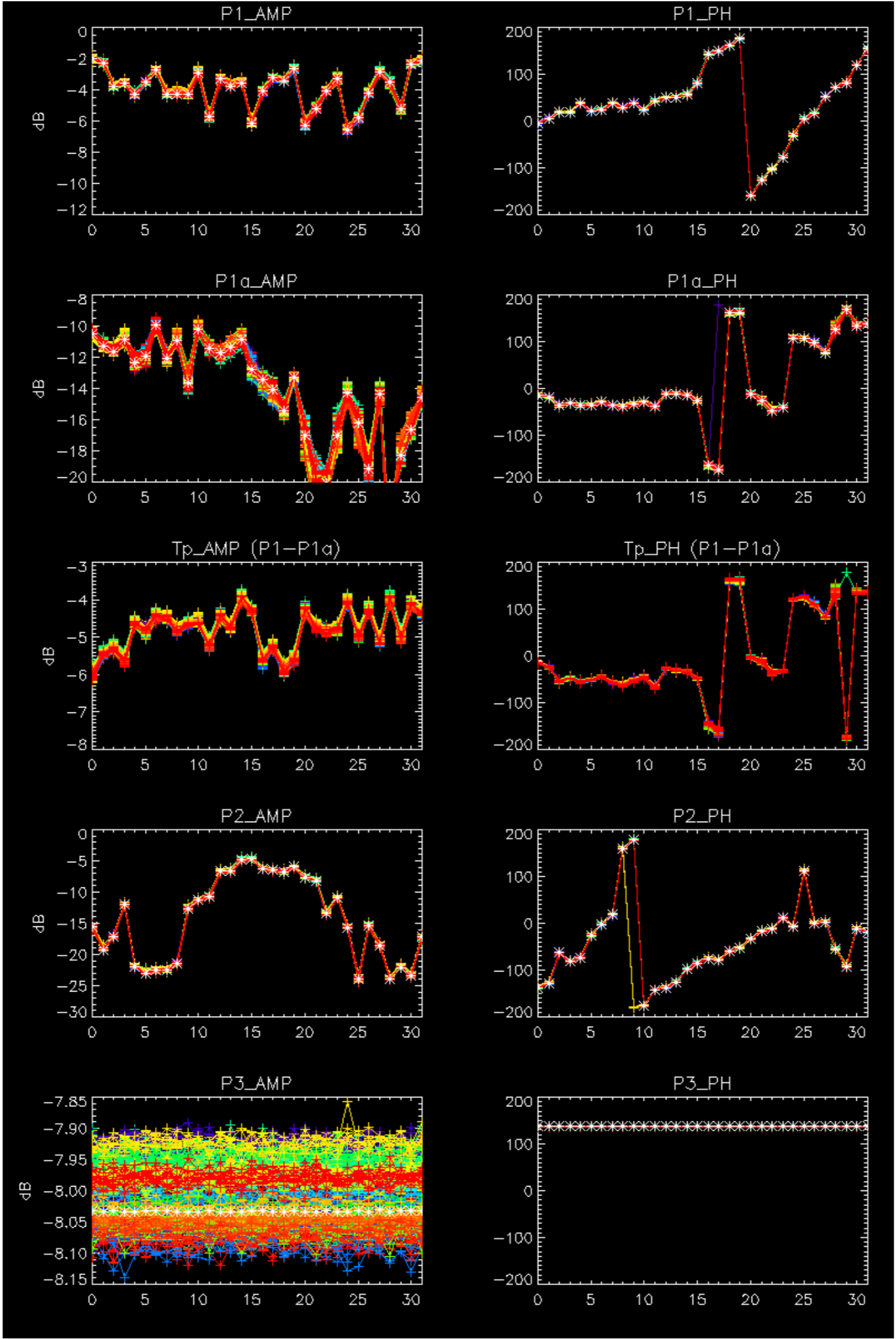
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

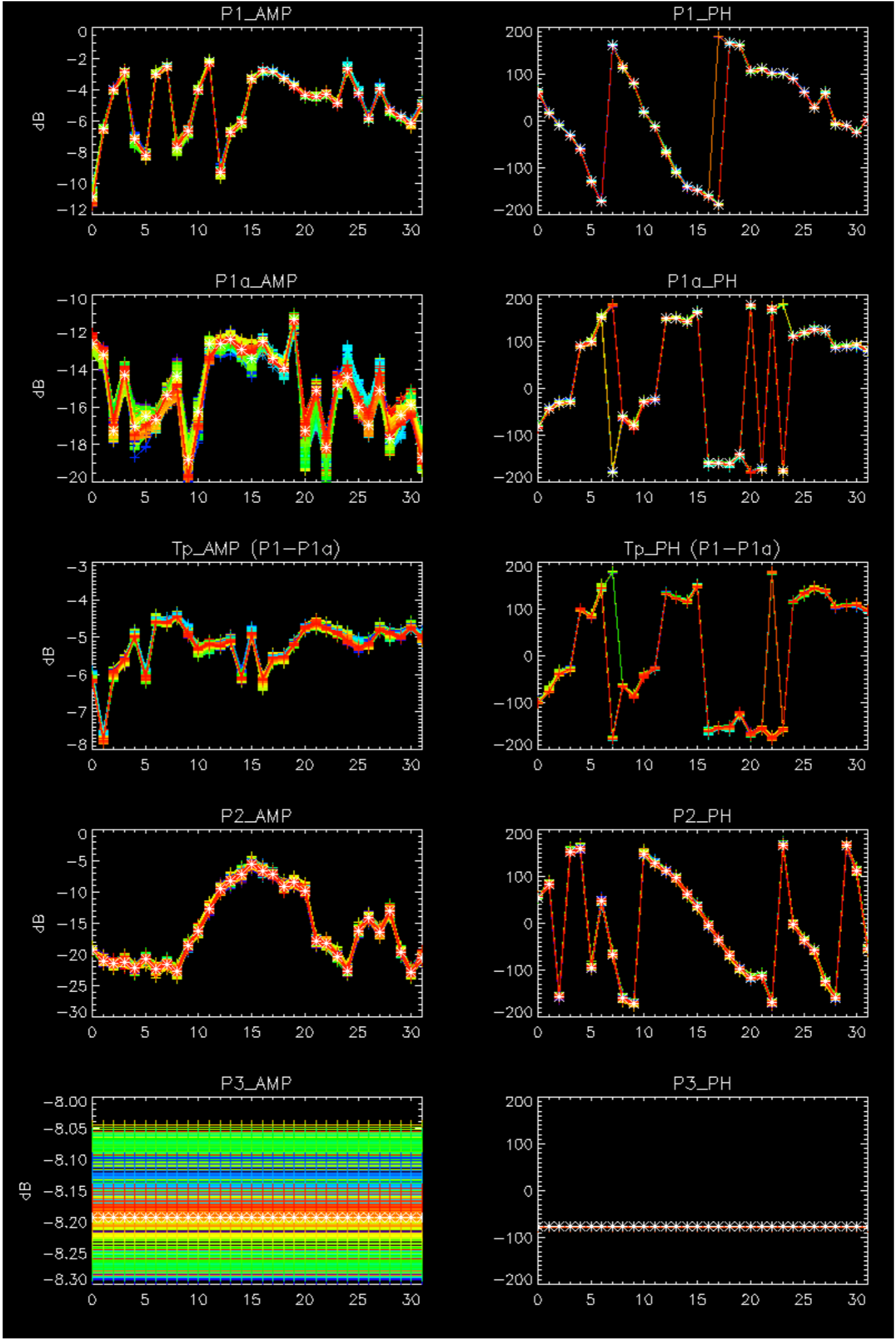
Cal pulses for WVS IS2



No anomalies observed on available browse products

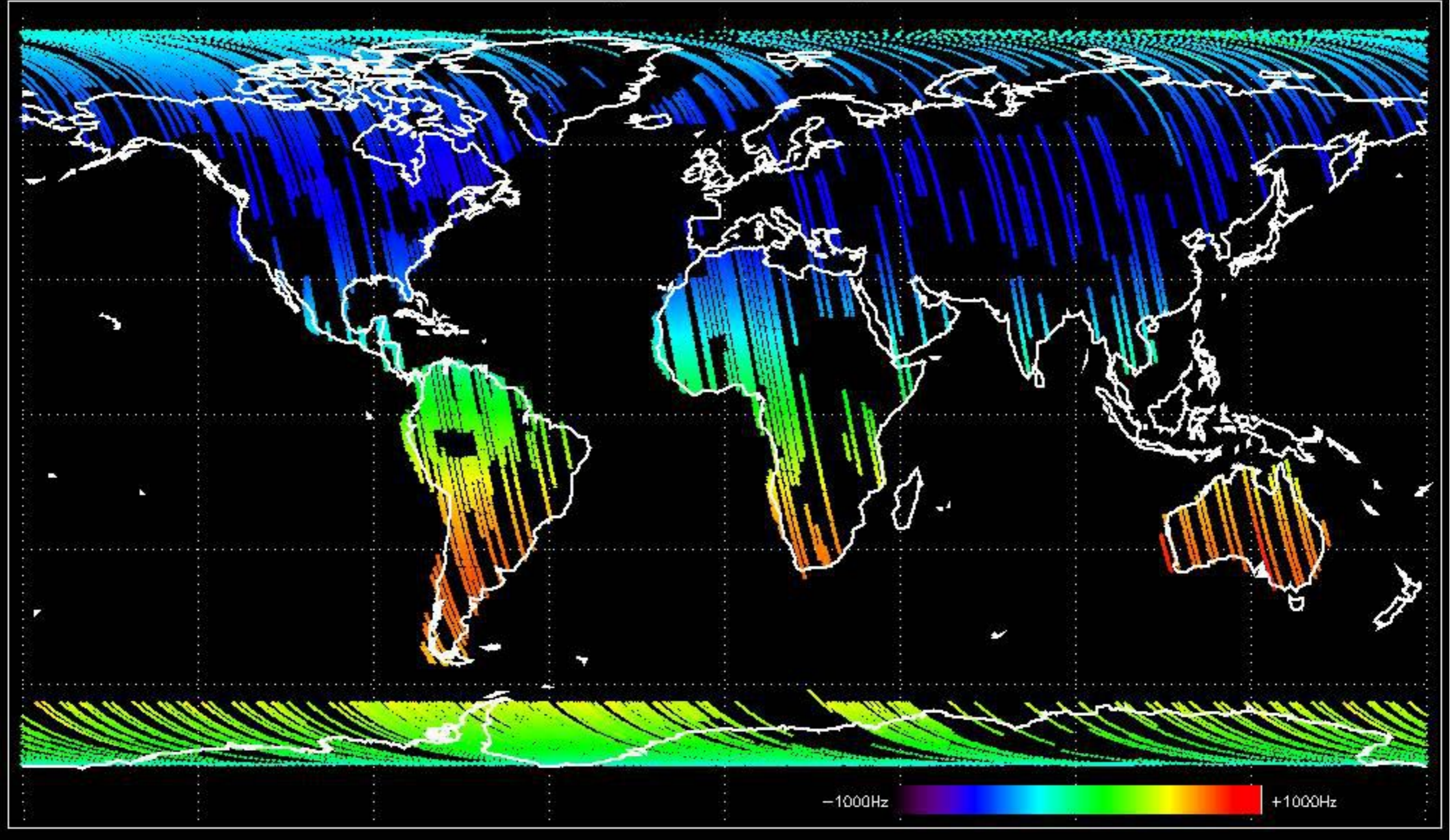
No anomalies observed.



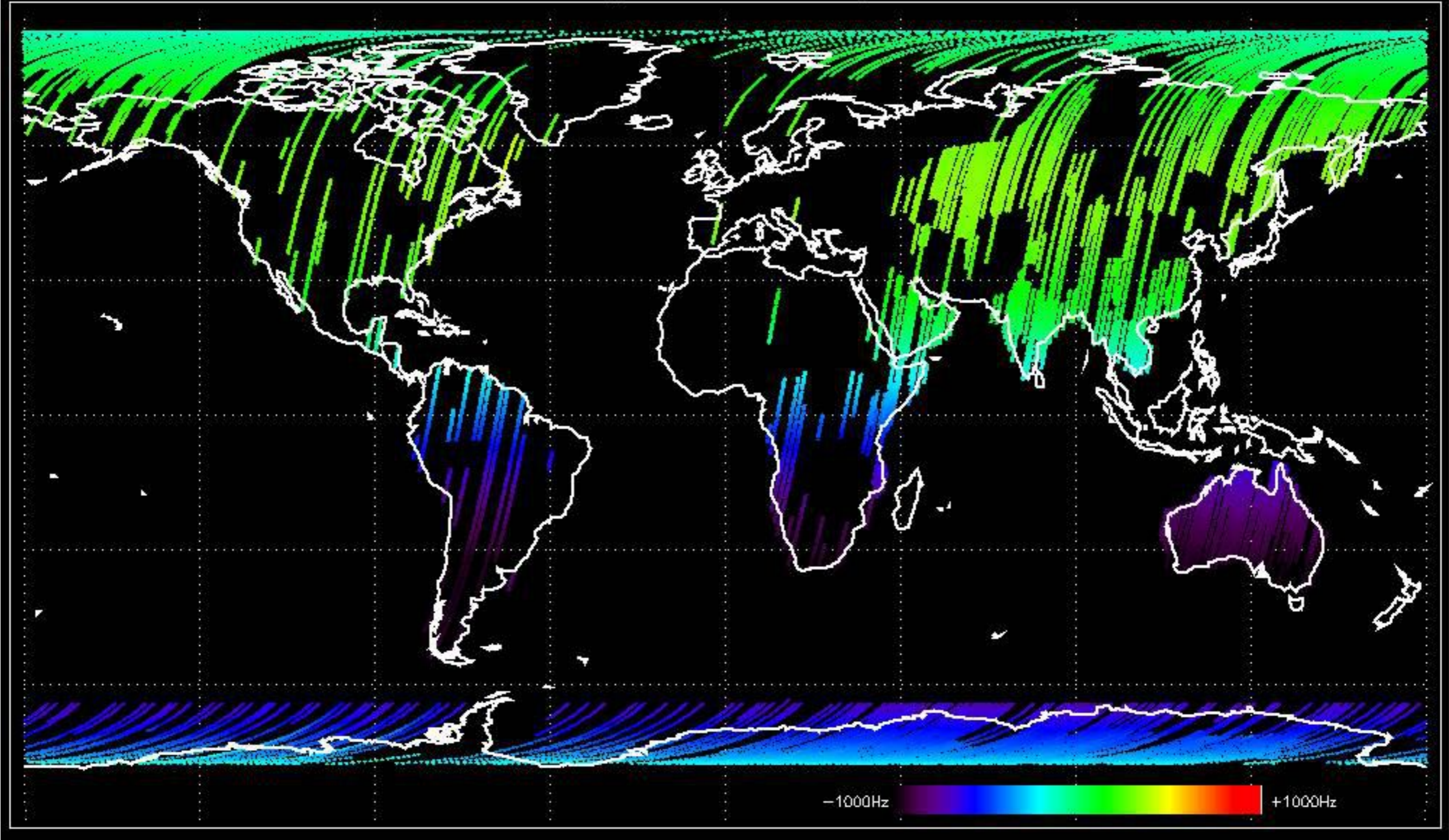


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

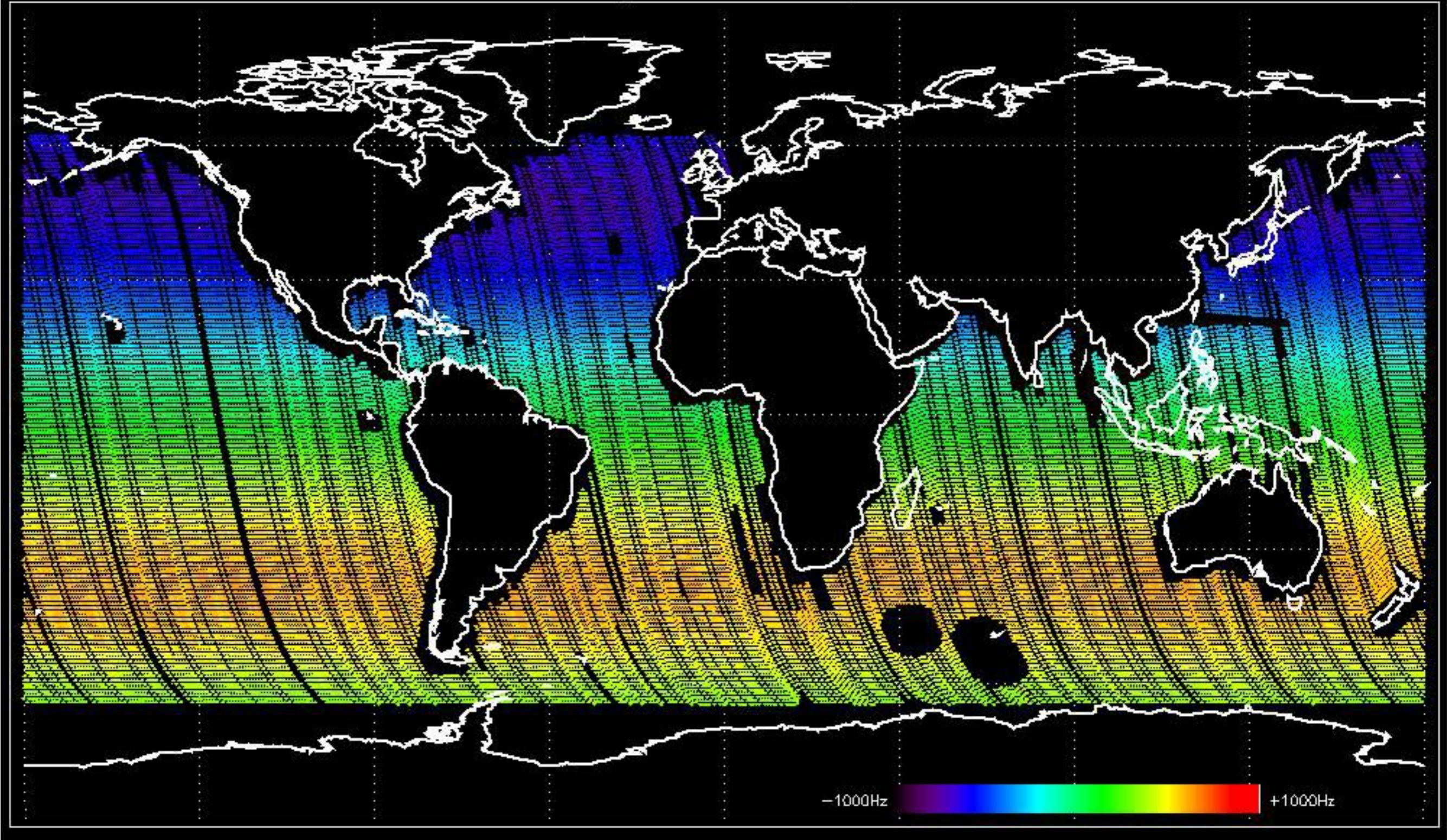
Doppler 'GM1' 'SS1' ascending



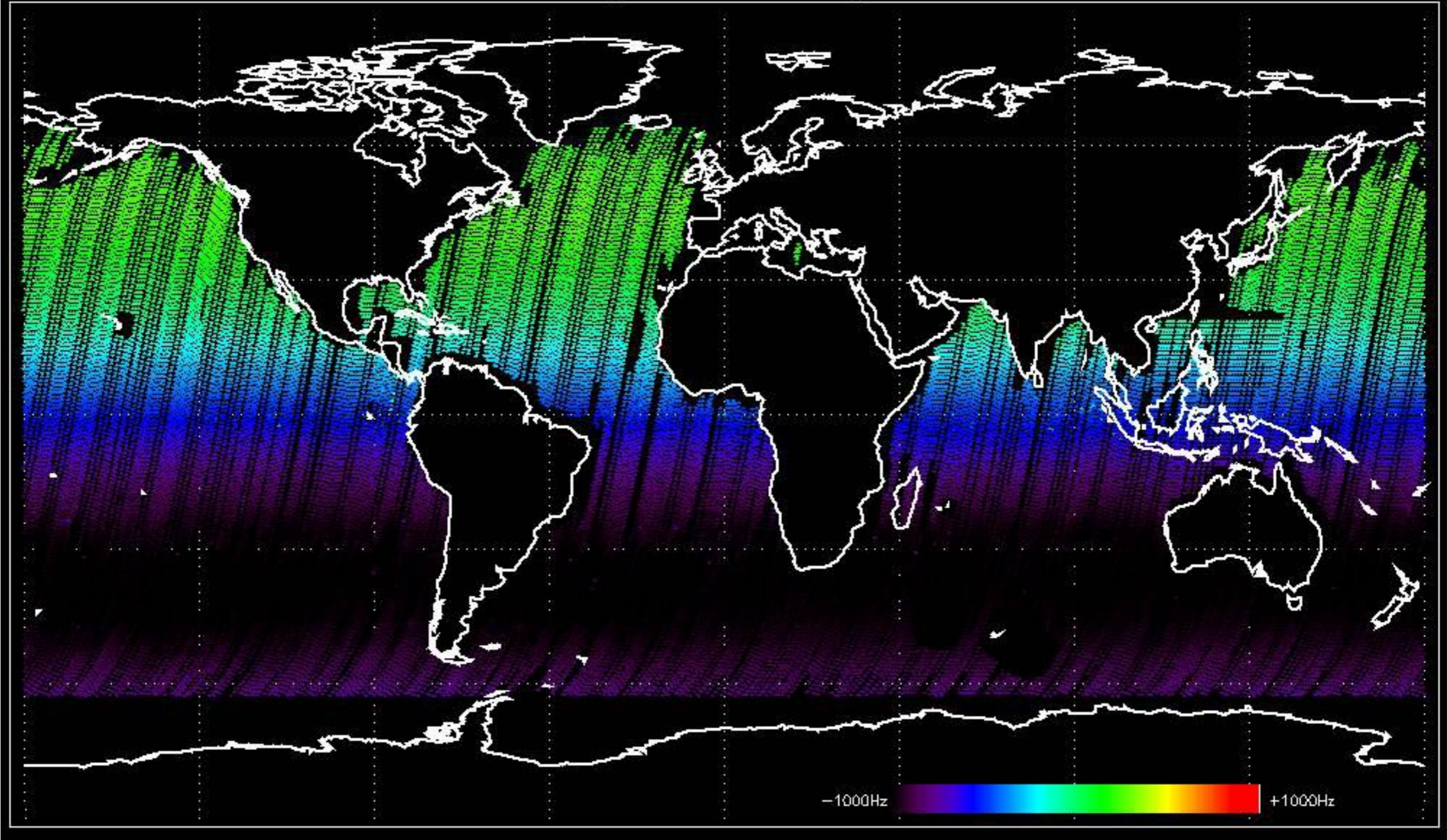
Doppler 'GM1' 'SS1' descending



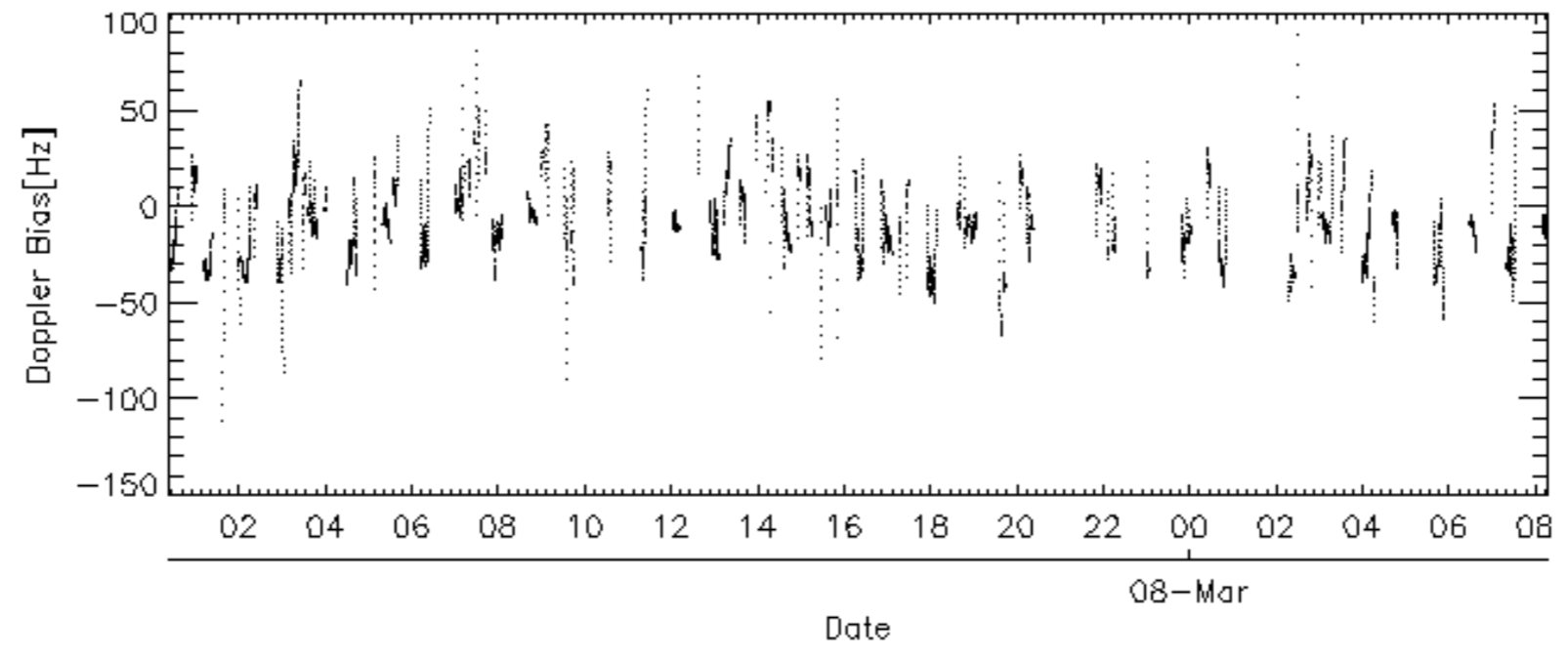
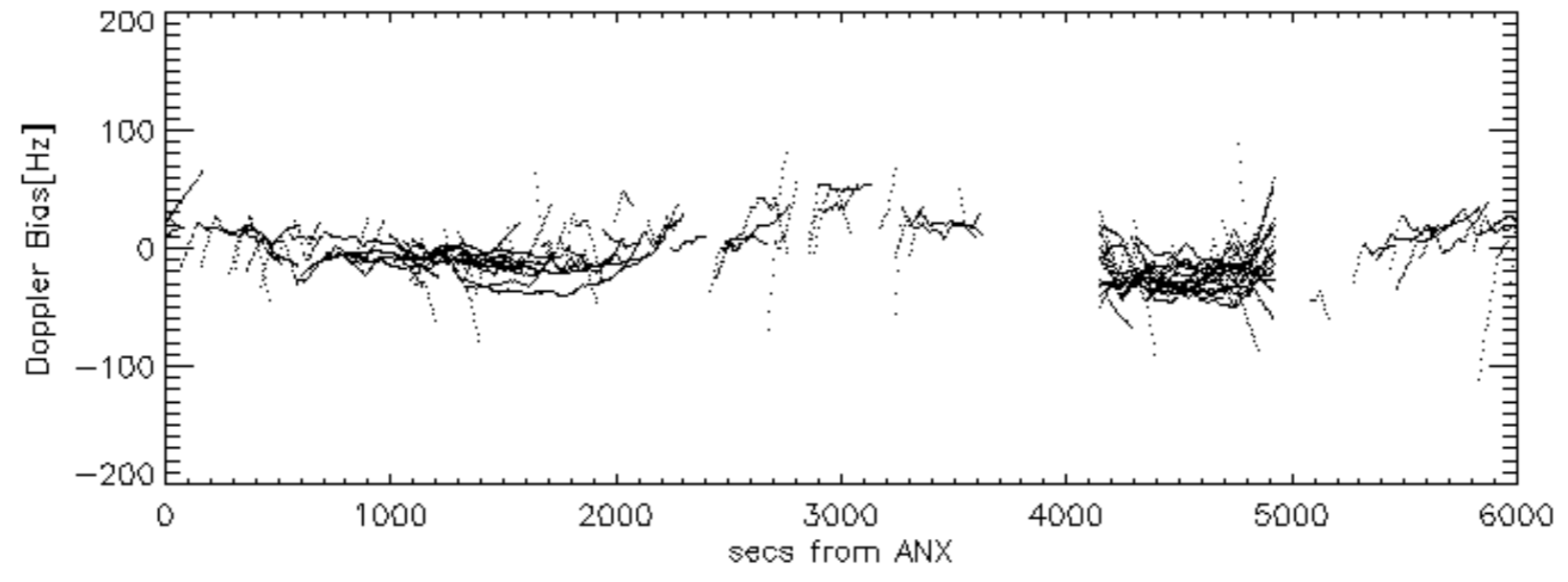
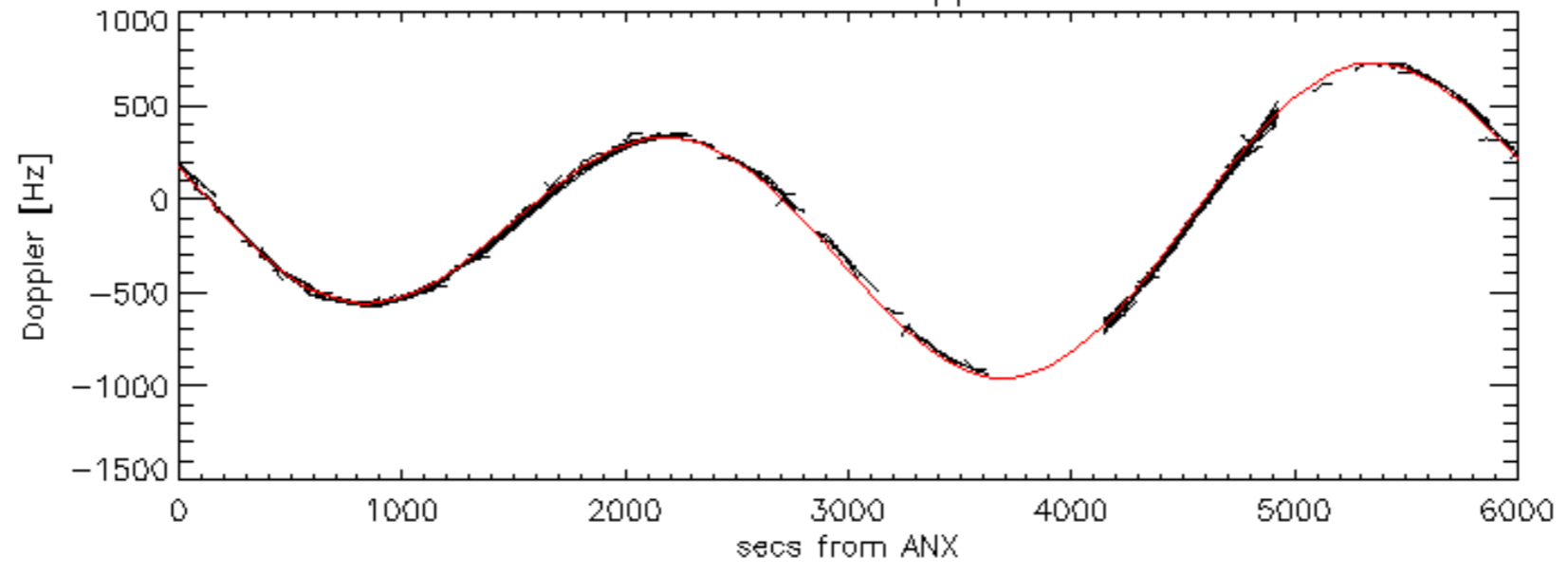
Doppler 'WVS' 'IS2' ascending

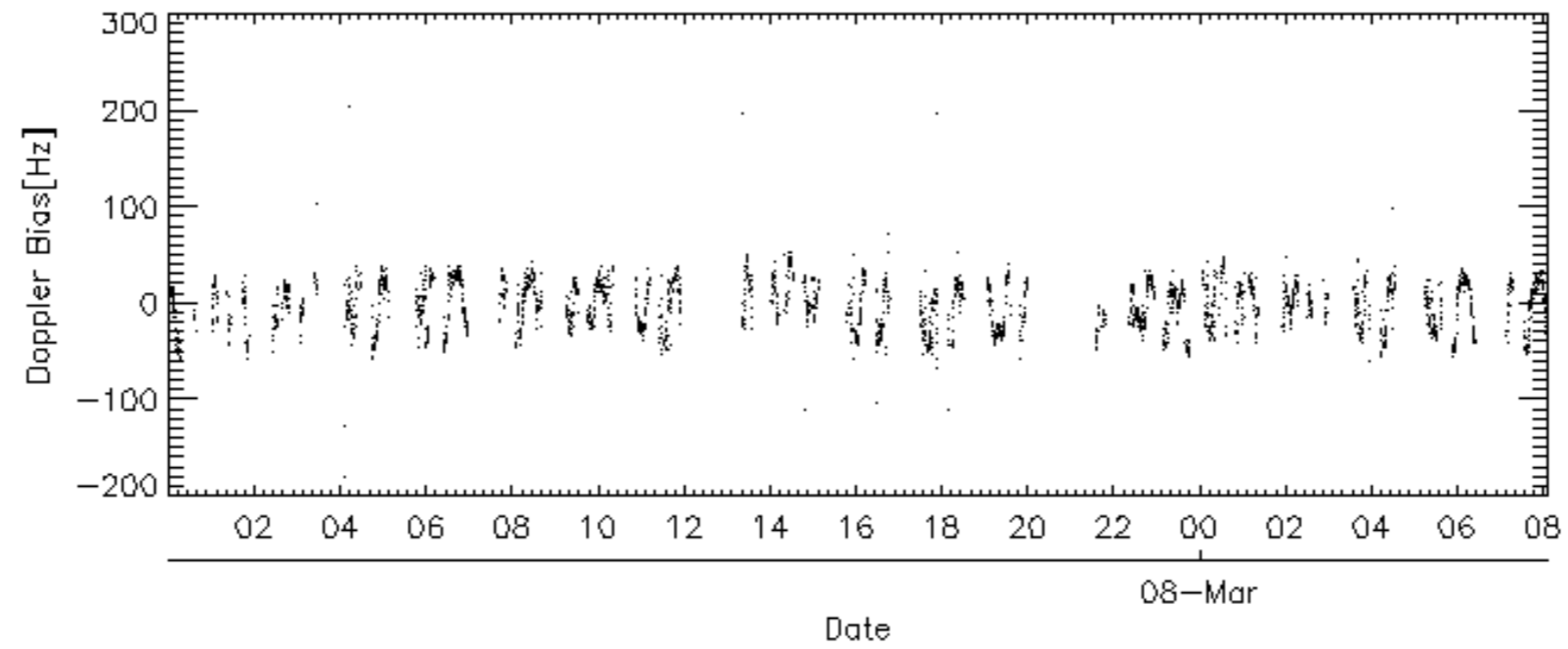
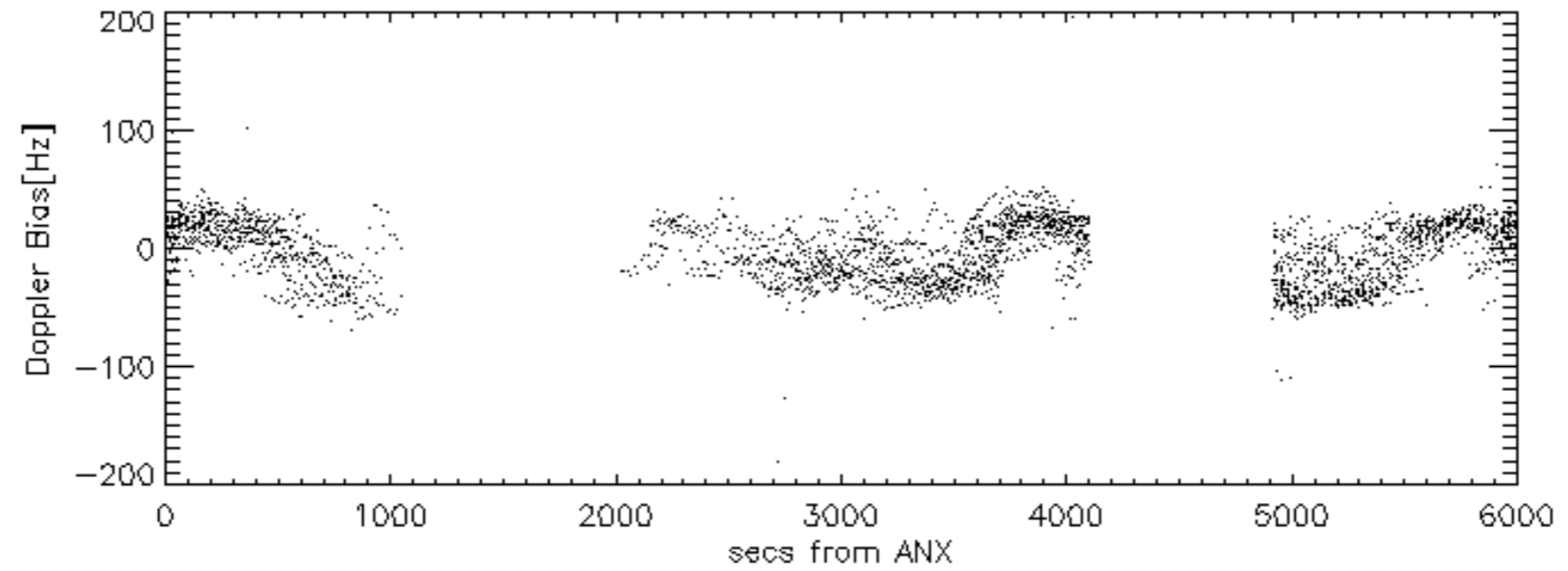
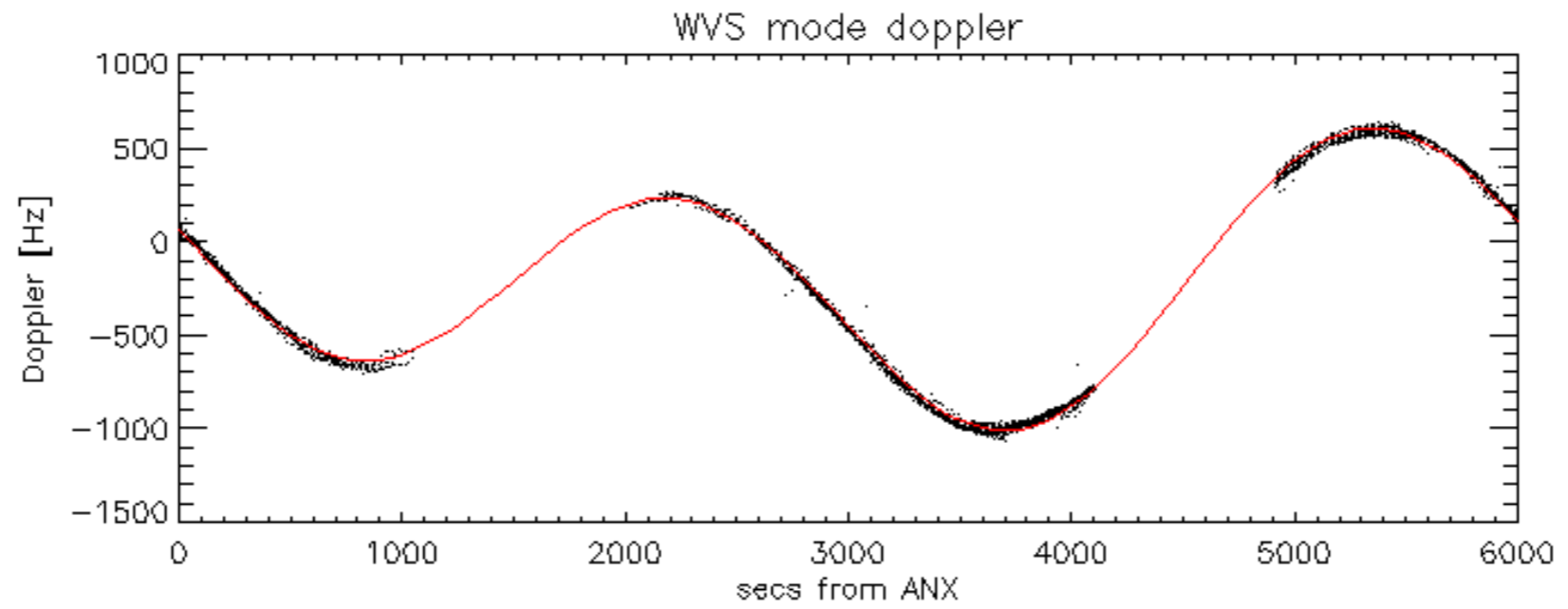


Doppler 'WVS' 'IS2' descending

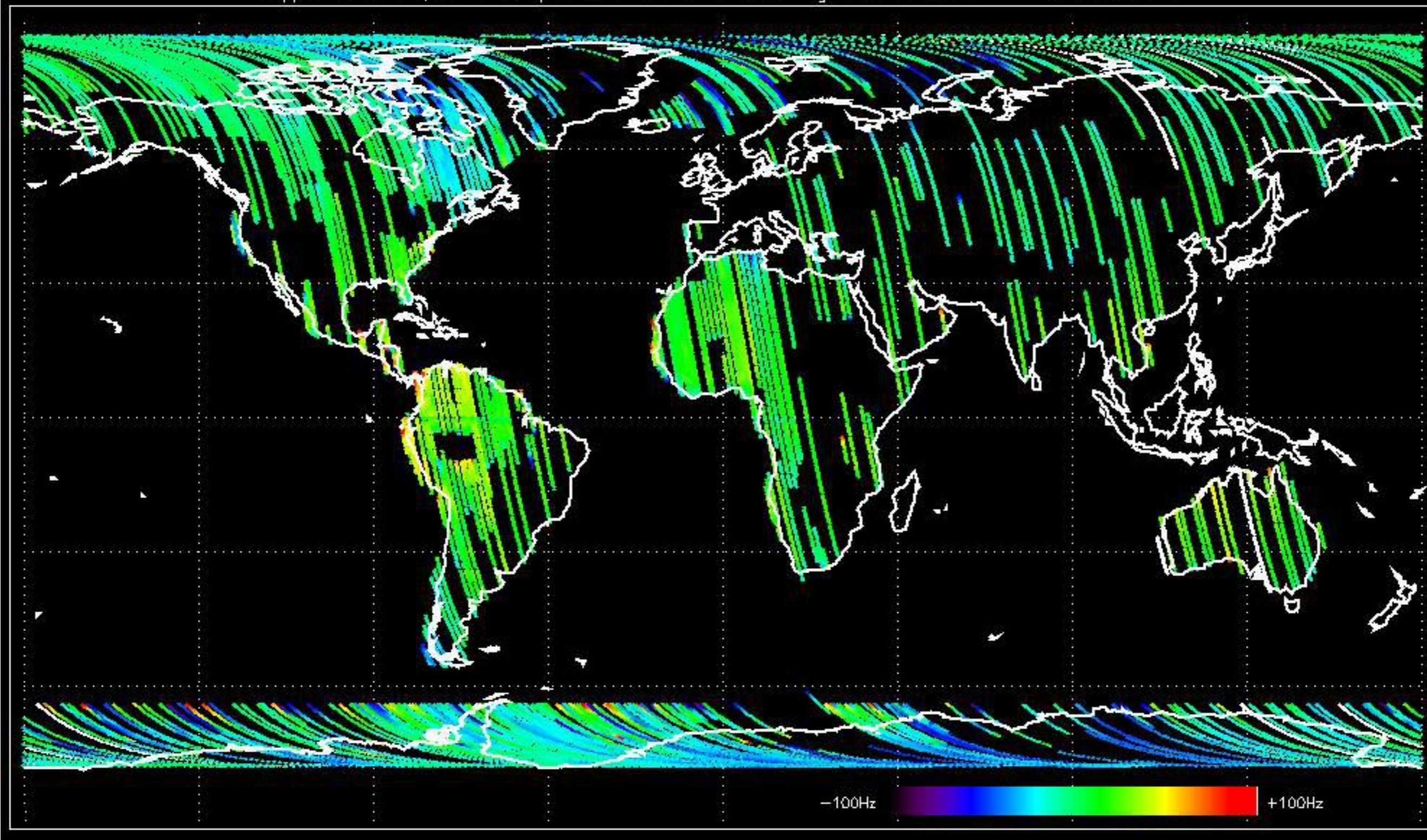


GM1 mode doppler

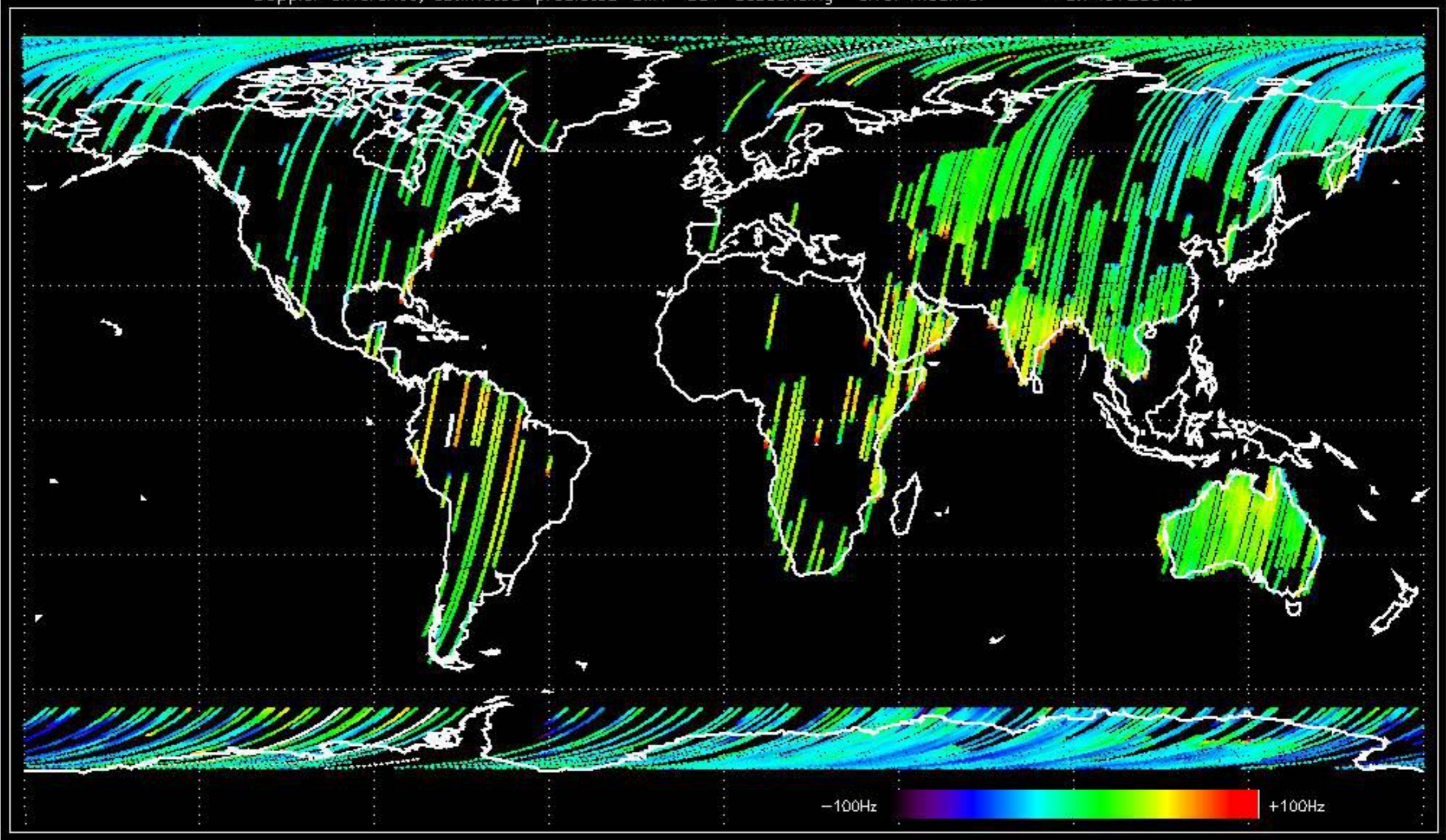




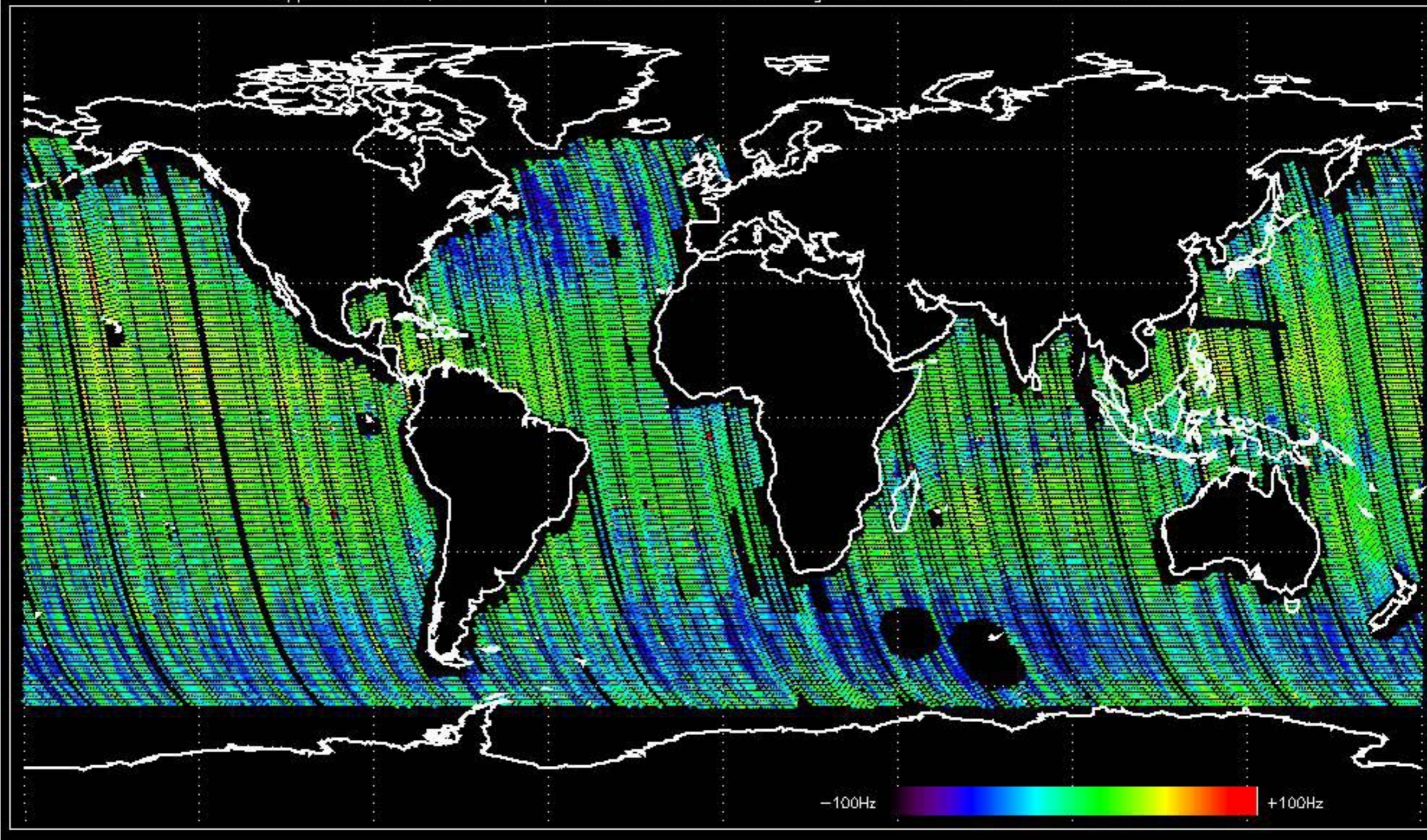
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.9551862 Hz



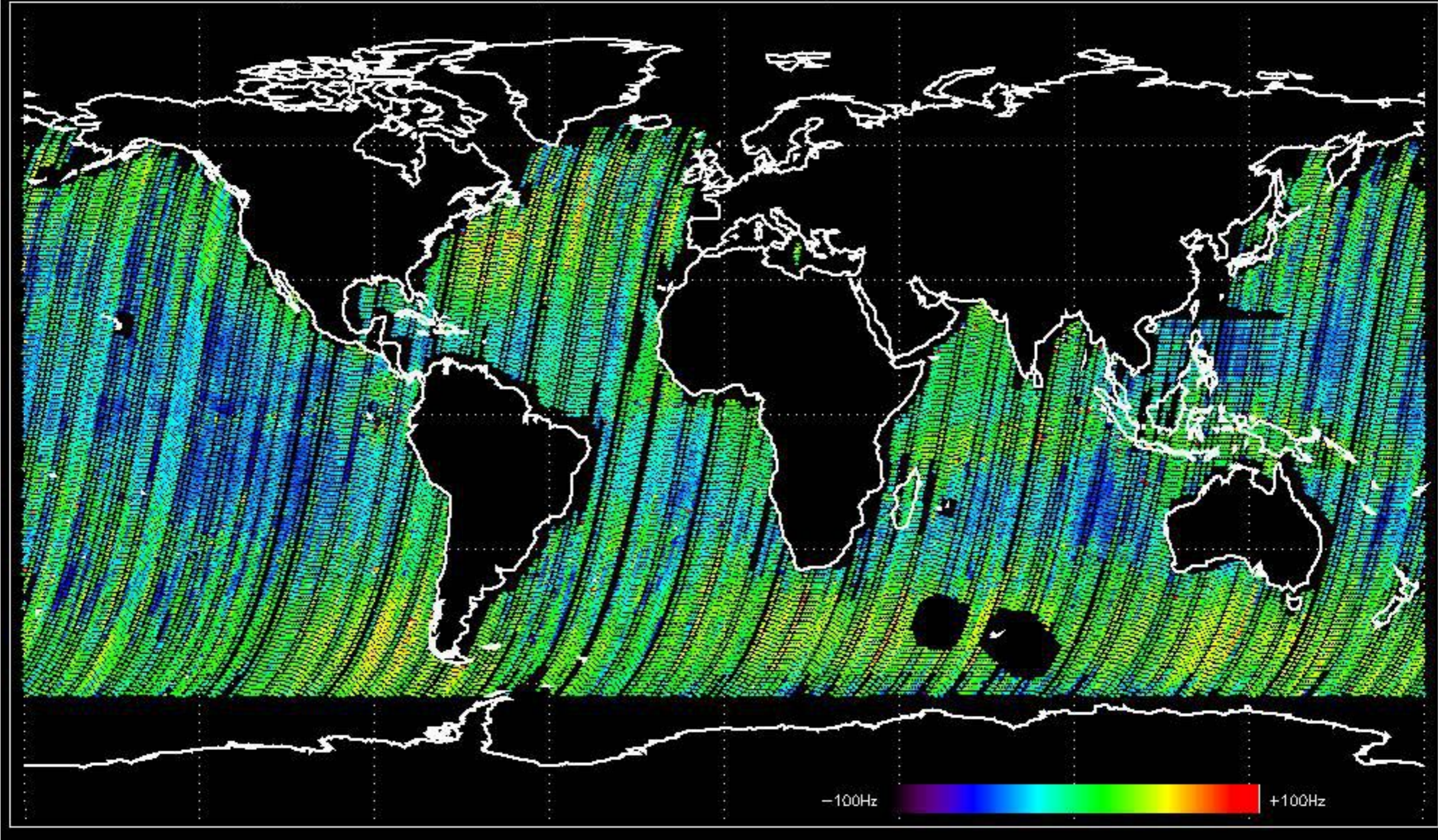
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.7497283 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.7578557 Hz

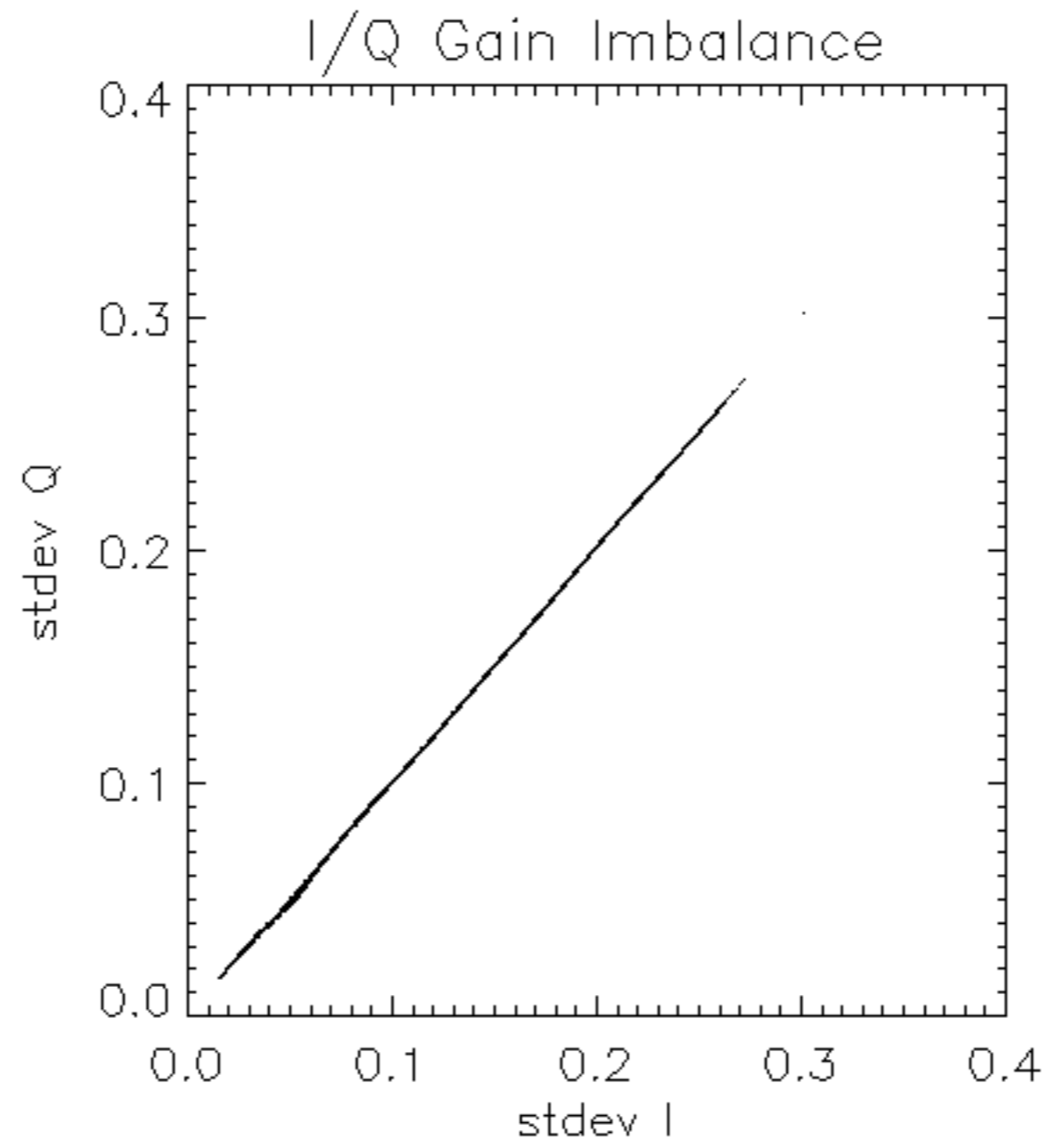


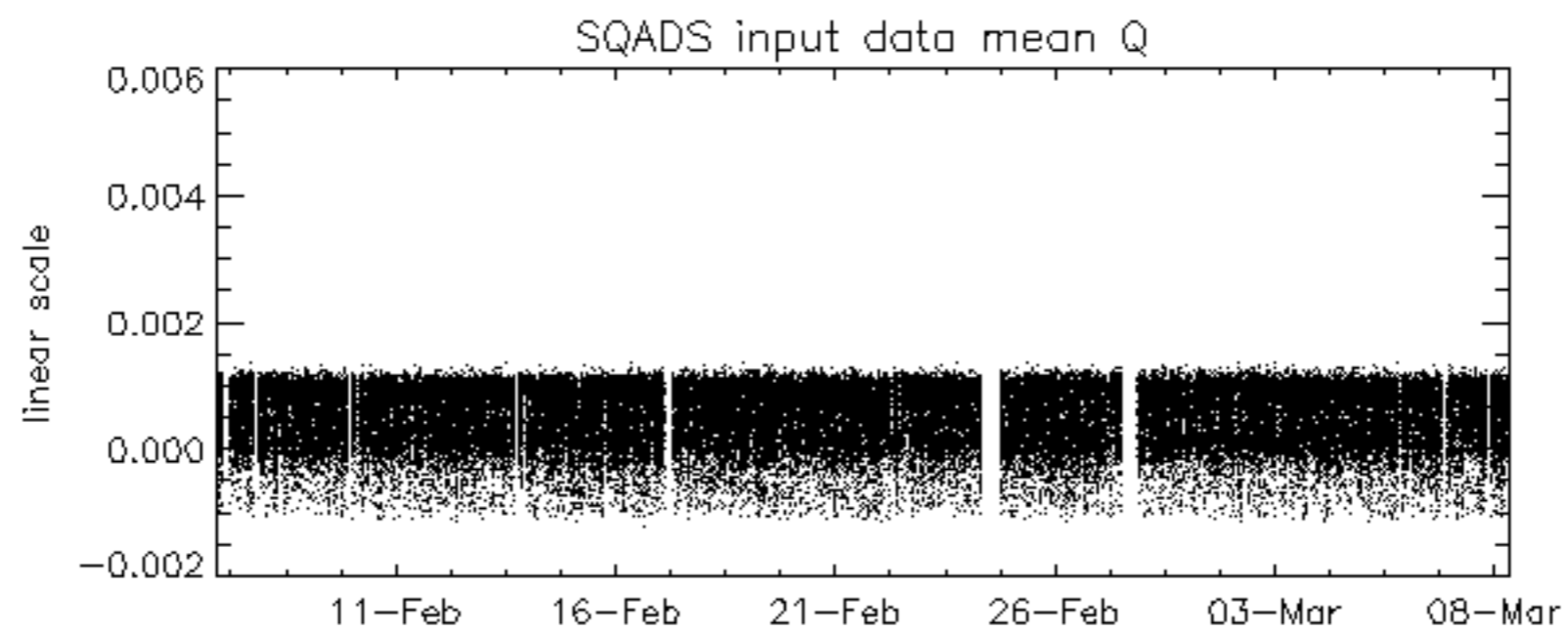
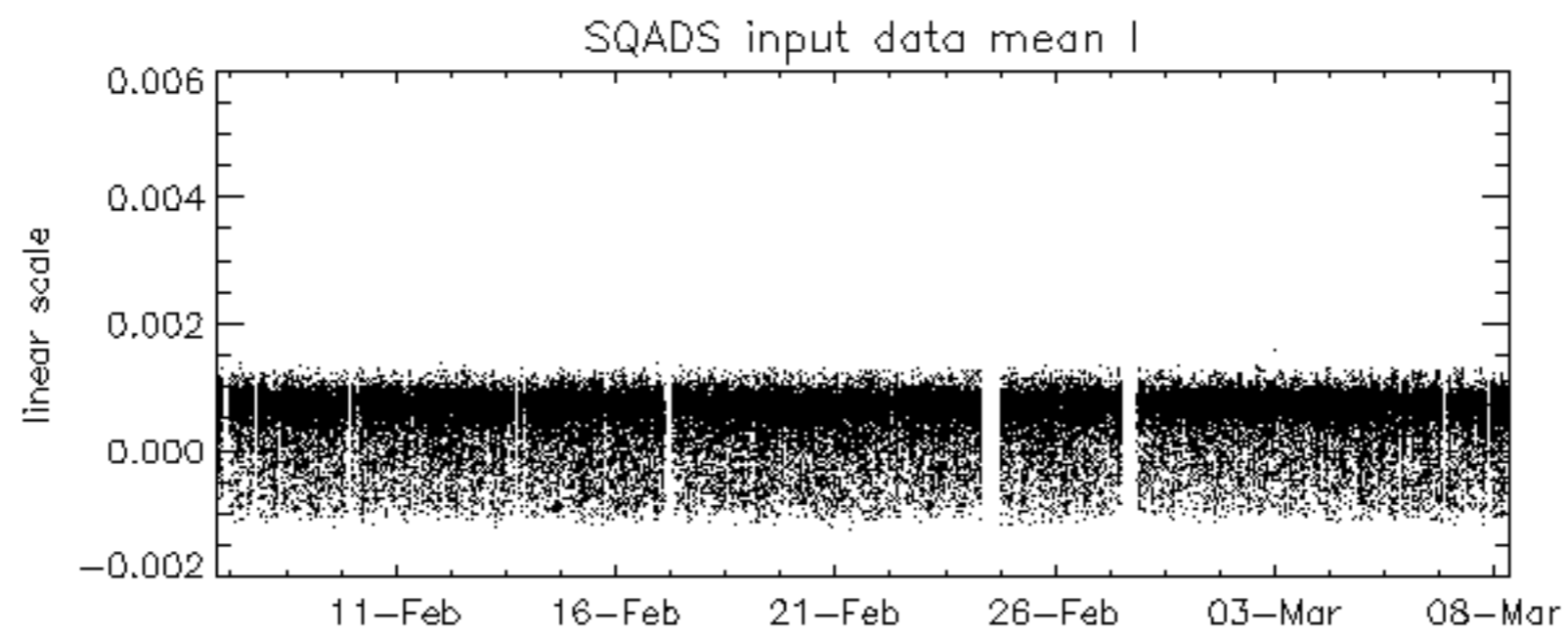
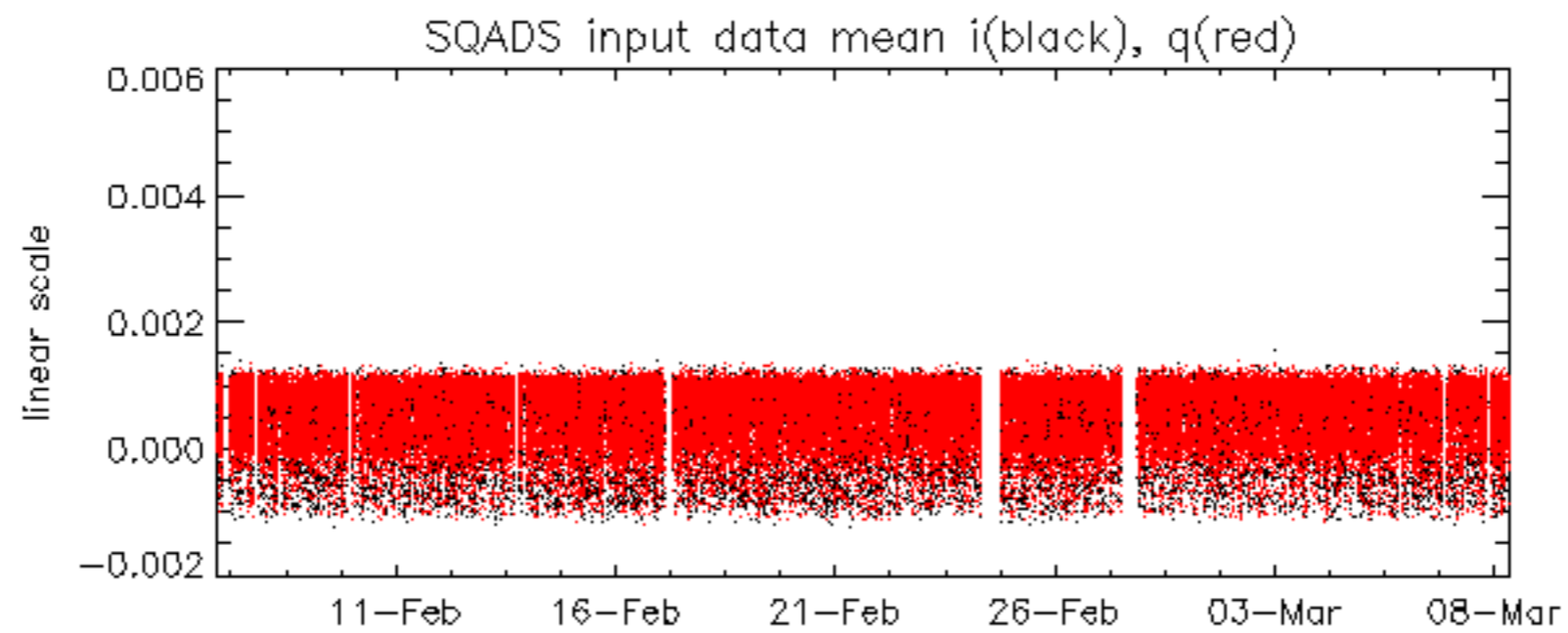
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.1804140 Hz

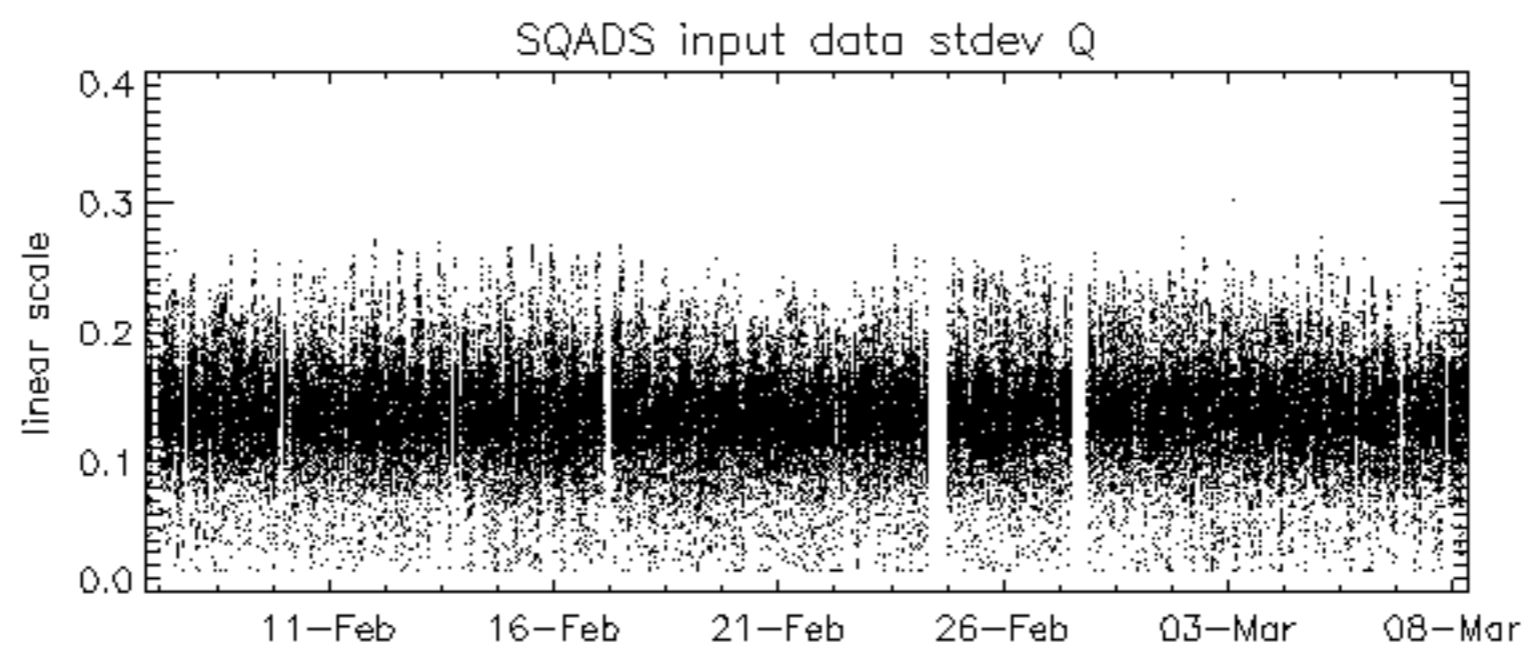
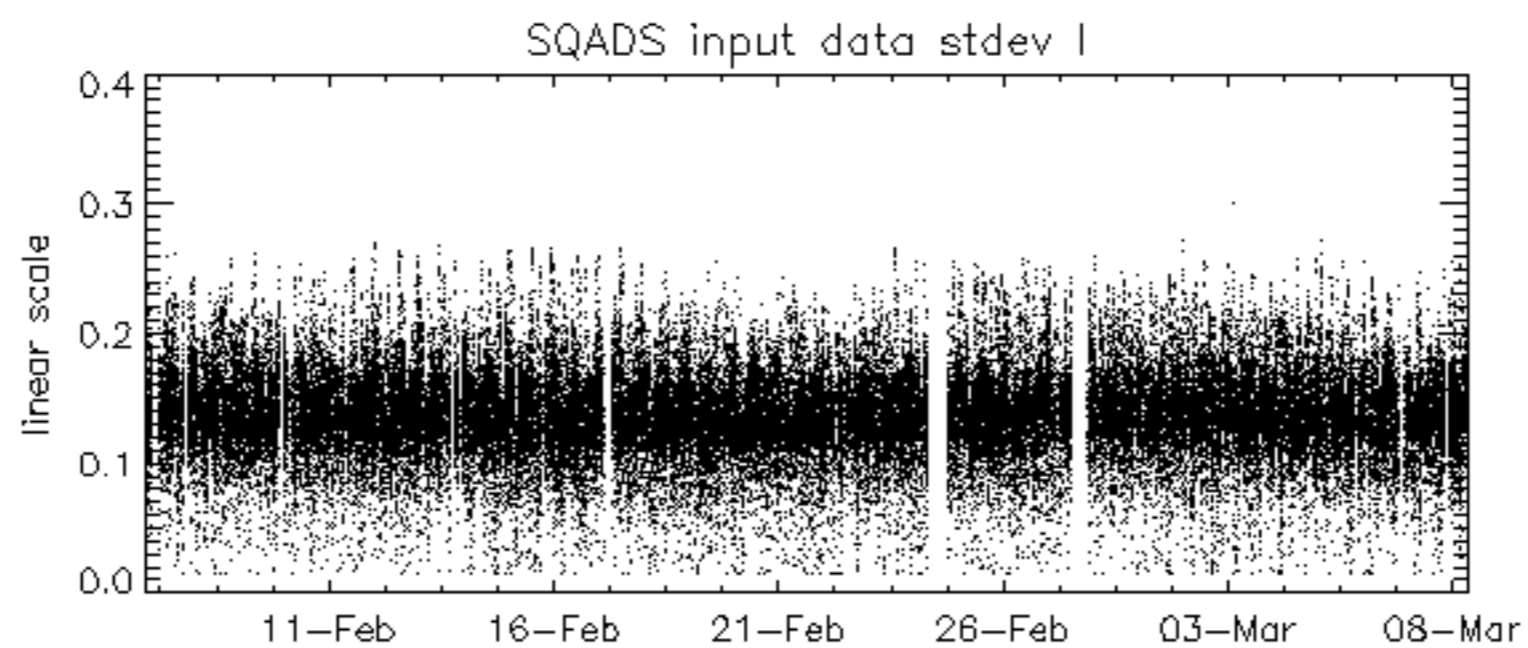
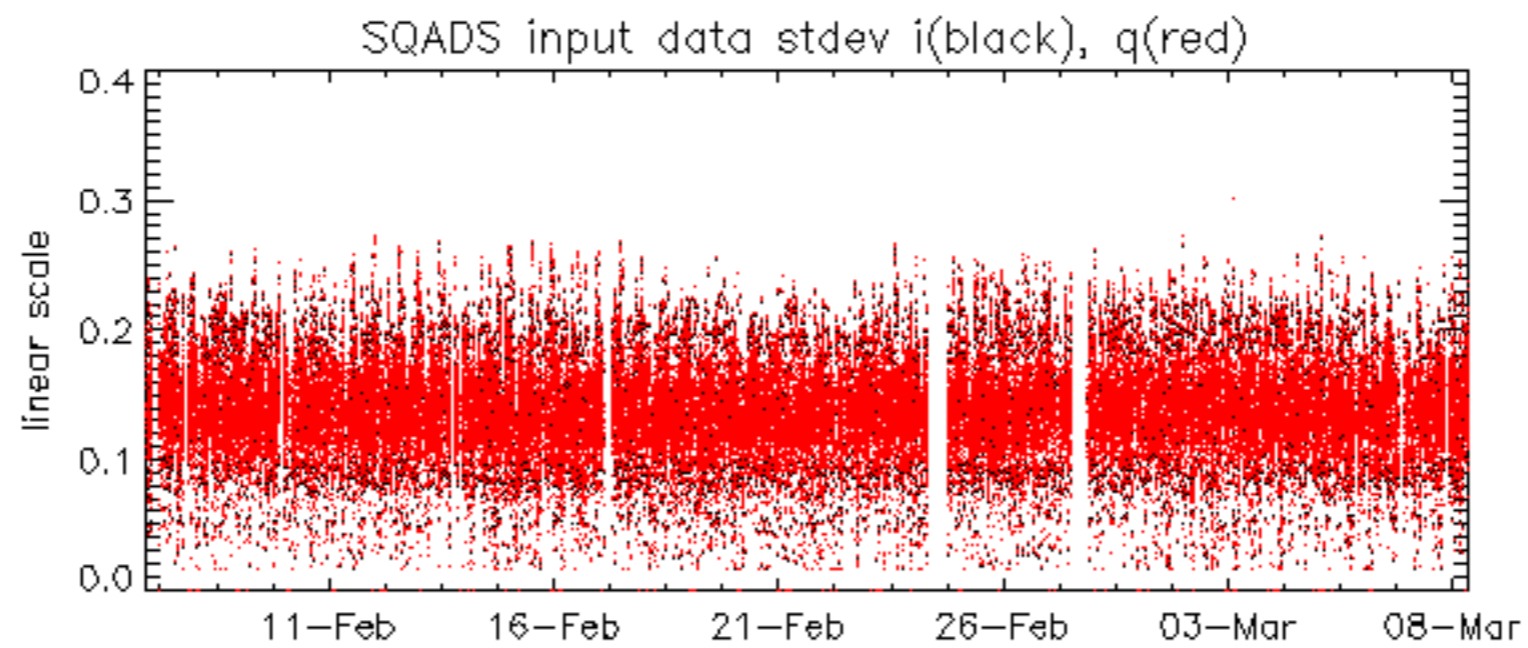


No anomalies observed on available MS products:

No anomalies observed.



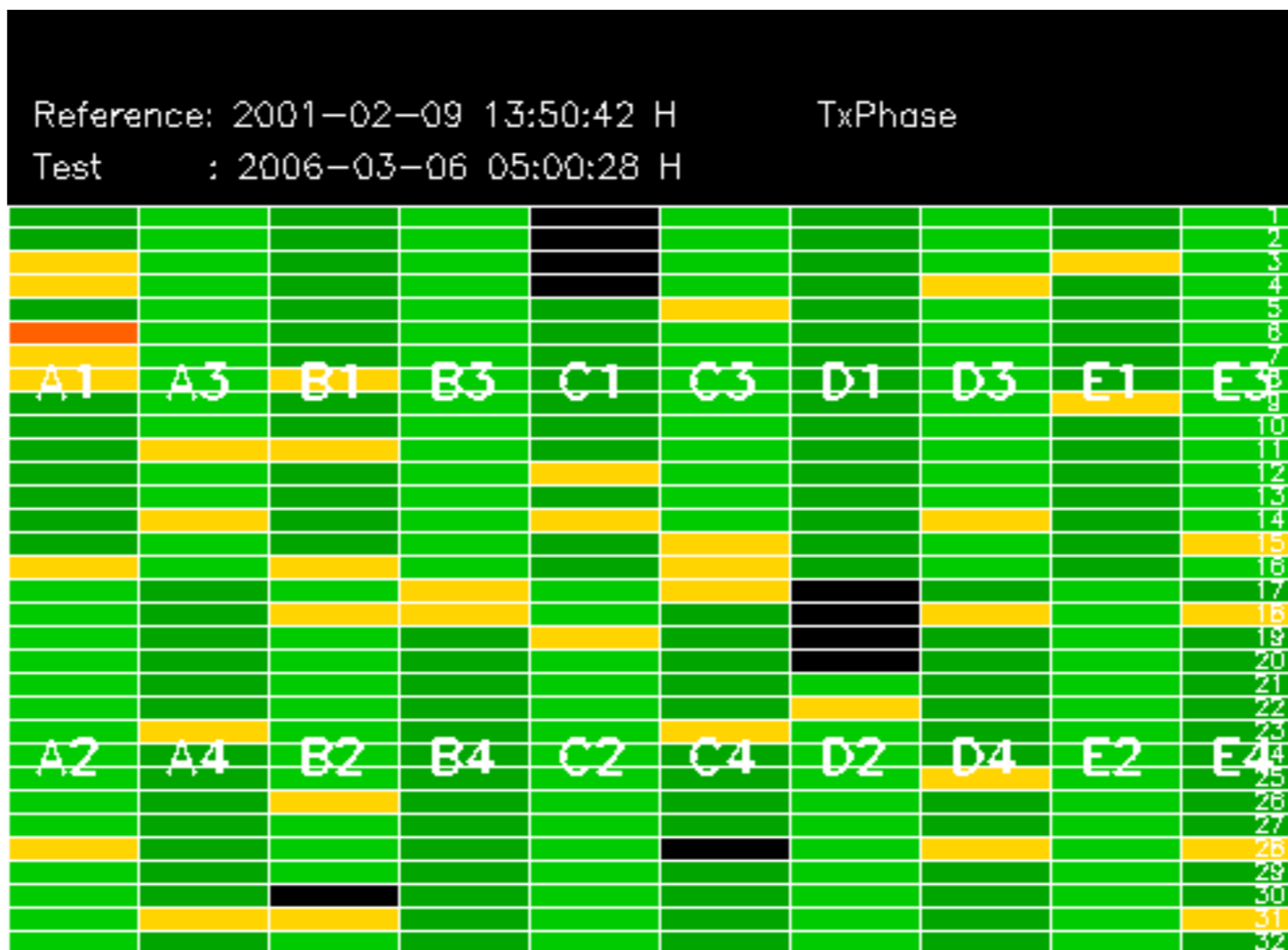


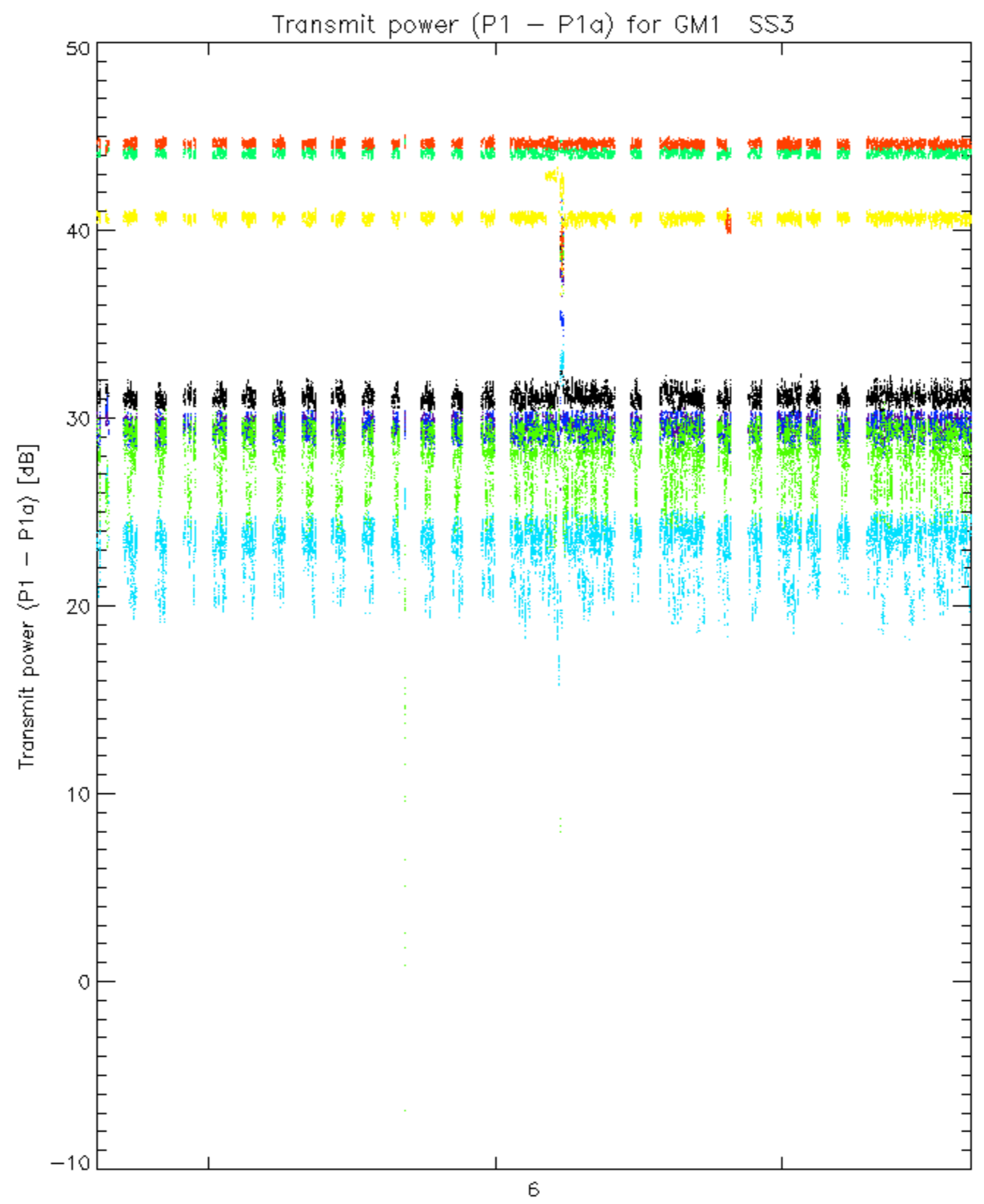


Summary of analysis for the last 3 days 2006030[678]

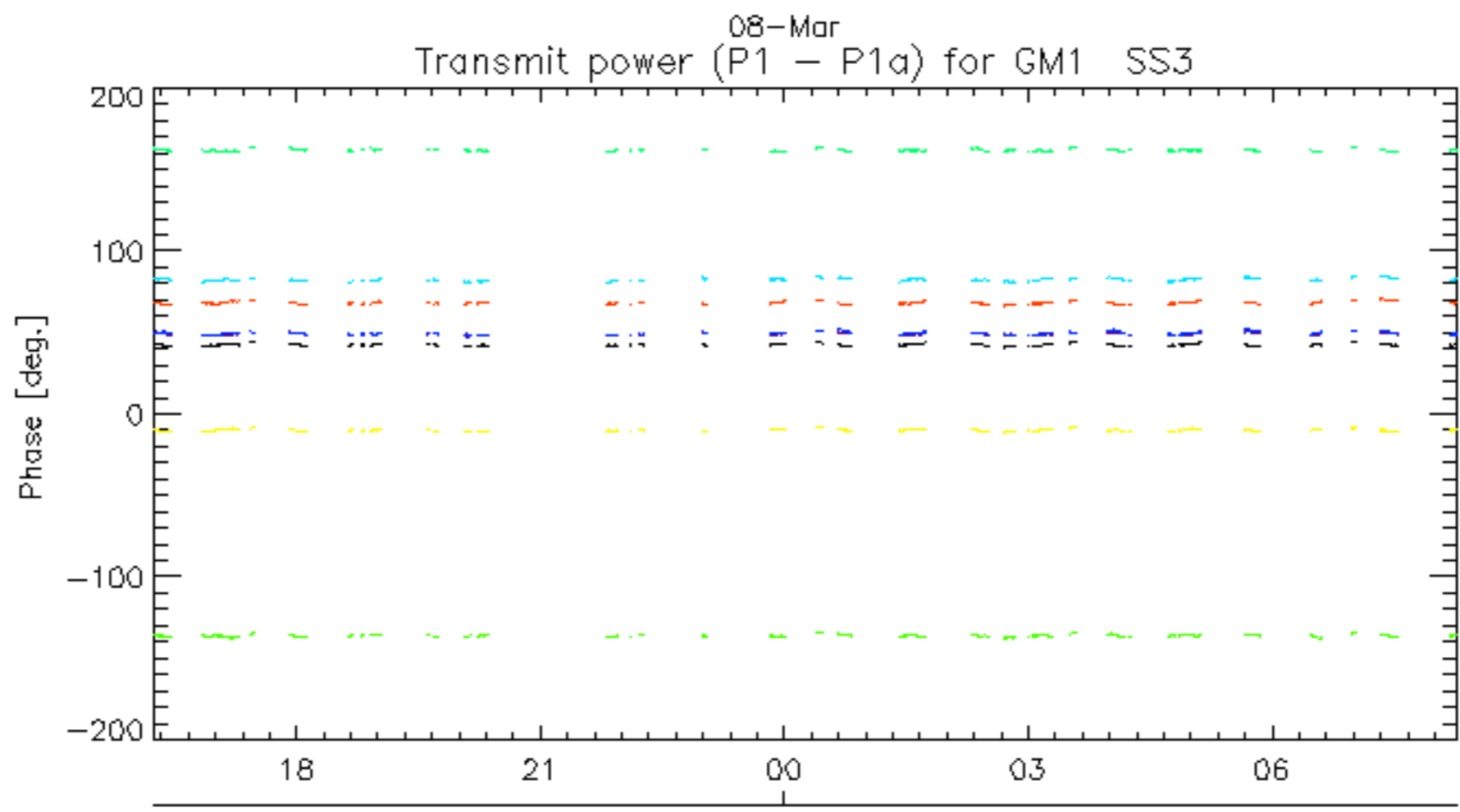
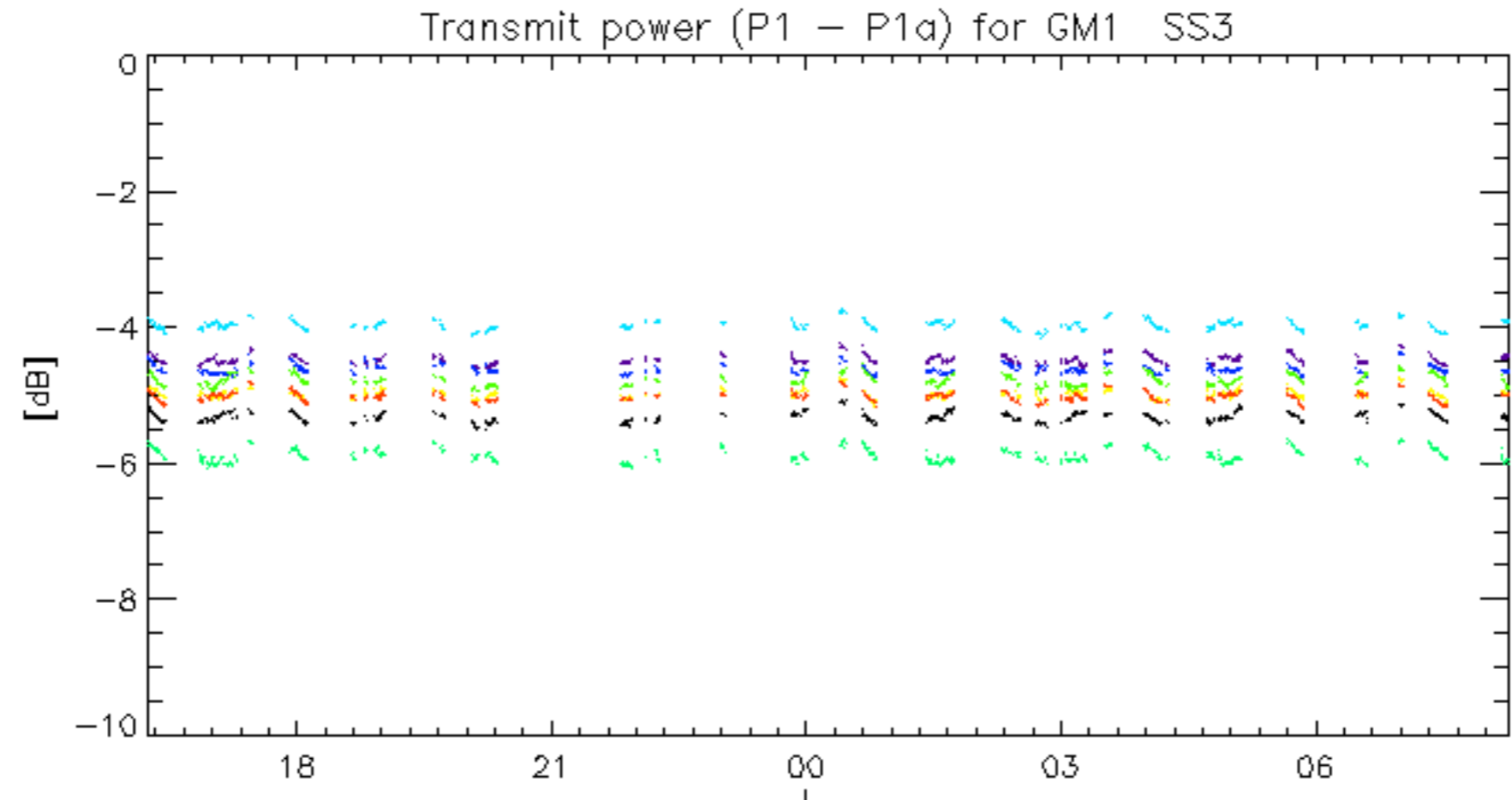
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060307_003803_000000502045_00403_20998_5624.N1	1	0
ASA_IMM_1PNPDE20060307_115630_000002682045_00410_21005_5678.N1	1	0
ASA_WVS_1PNPDE20060306_220602_000000002045_00401_20996_0000.N1	1	0
ASA_WVS_1PNPDE20060306_220602_000000002045_00401_20996_0002.N1	1	0
ASA_WSM_1PNPDE20060307_164740_000001842045_00413_21008_0007.N1	0	8
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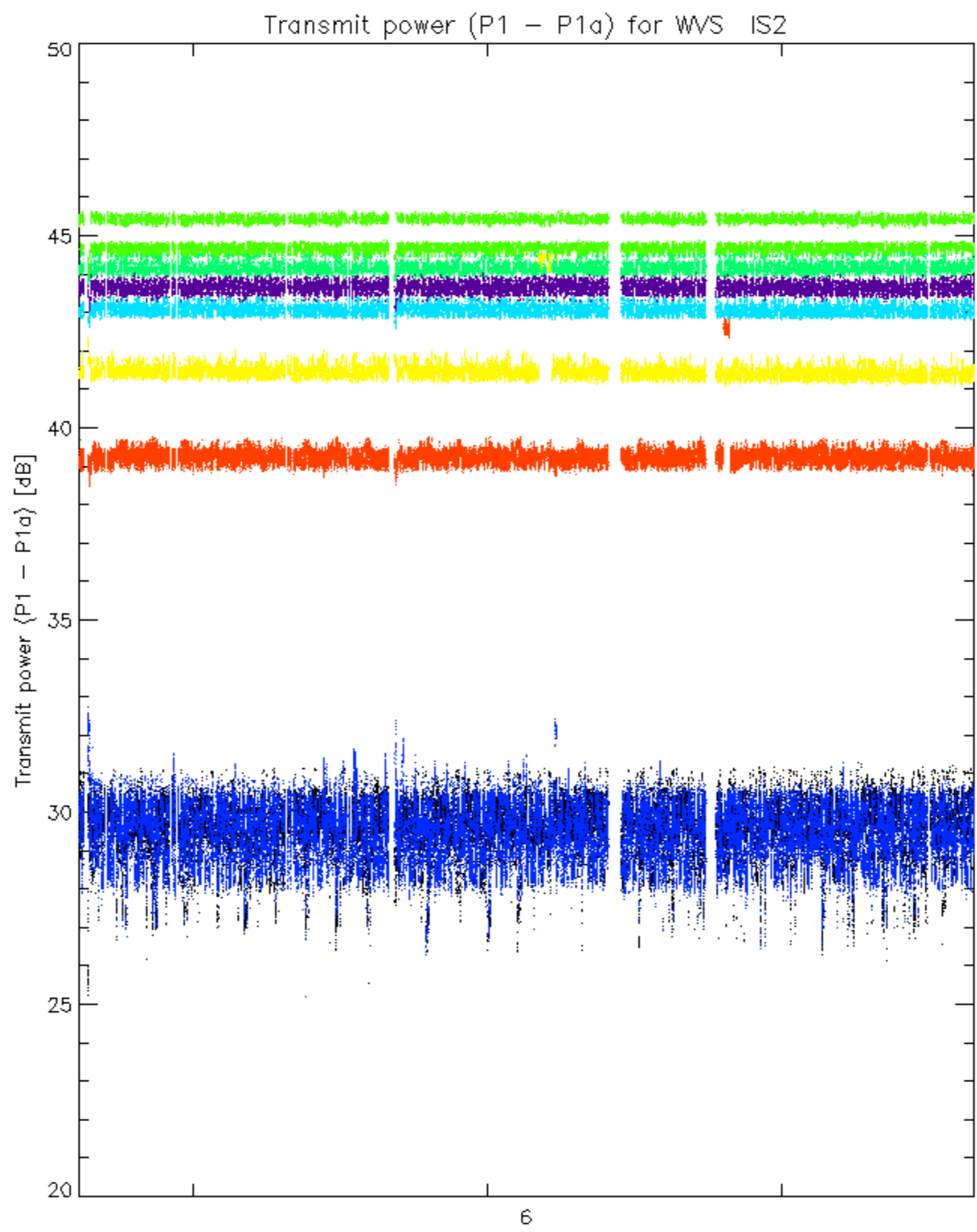




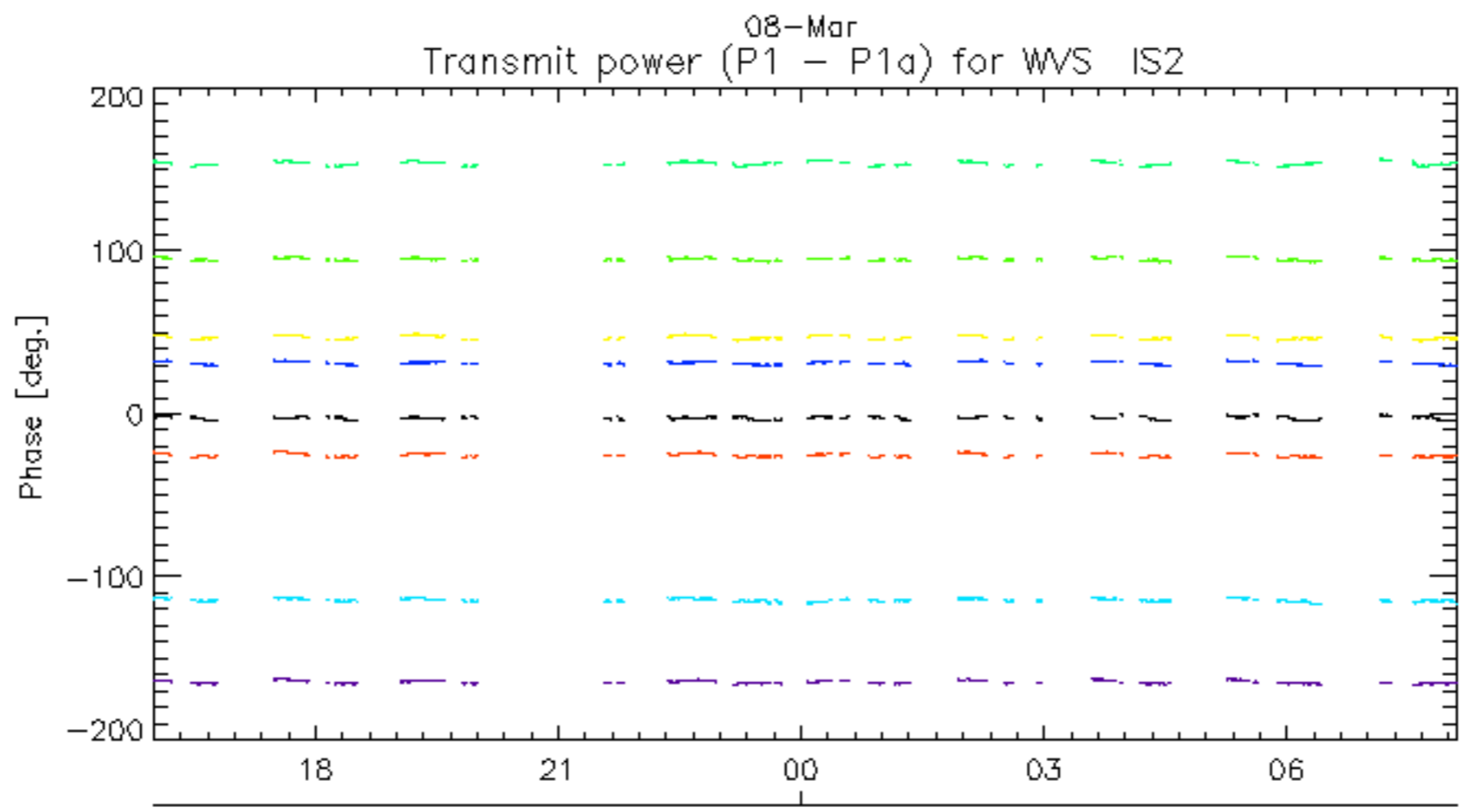
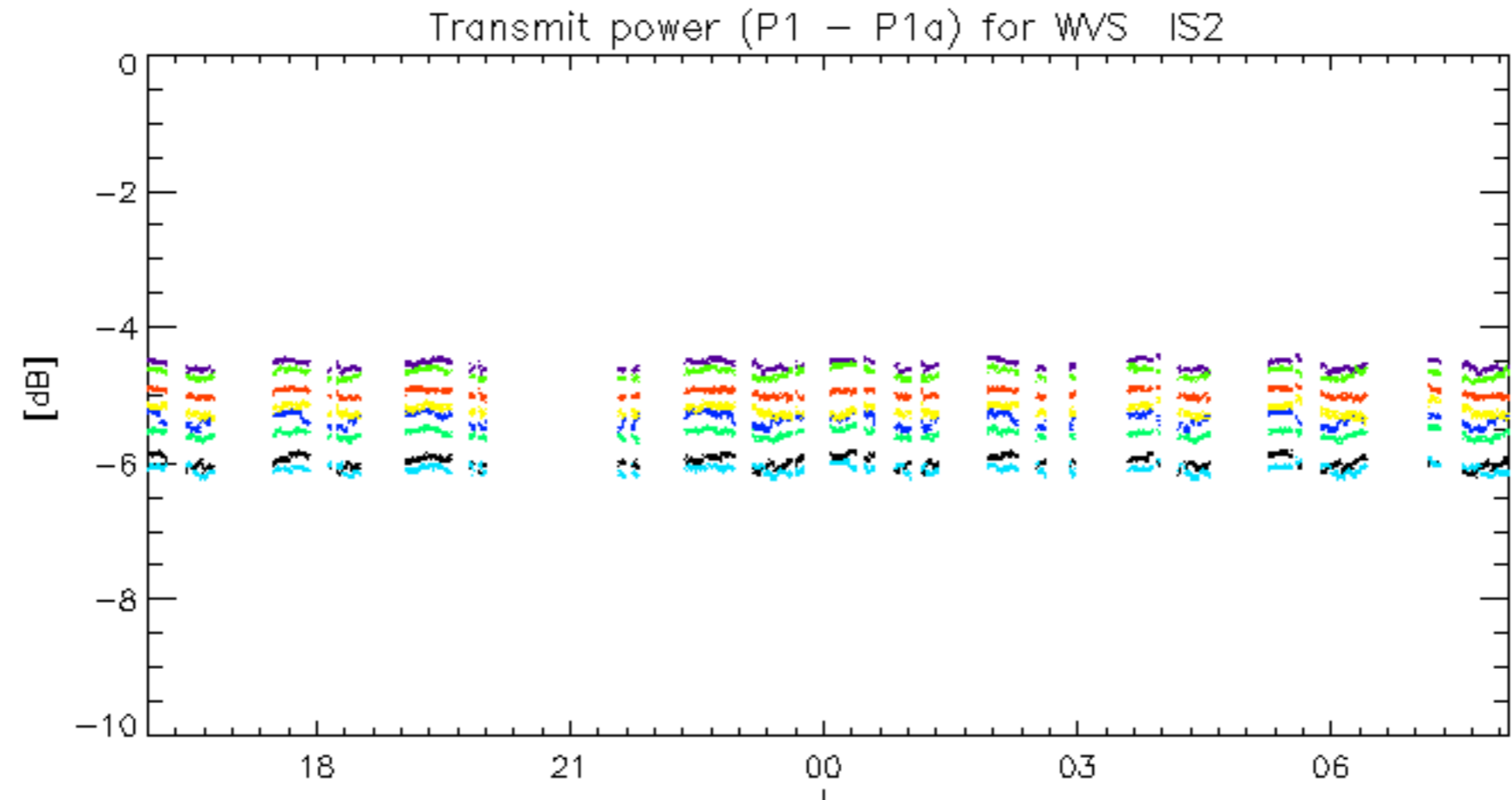
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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08-Mar
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No unavailabilities during the reported period.