

PRELIMINARY REPORT OF 070117

last update on Wed Jan 17 16:30:38 GMT 2007

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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 2007-01-16 00:00:00 to 2007-01-17 16:30:38

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	48	66	10	1	0
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	48	66	10	1	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	66	10	1	0
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	48	66	10	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	46	49	38	7	65
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	46	49	38	7	65
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	49	38	7	65
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	46	49	38	7	65

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	20070116 042853
H	20070117 071828

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	-3.963710	0.007413	-0.012326
7	P1	-3.133477	0.046639	0.016978
11	P1	-4.116633	0.025070	-0.015072
15	P1	-6.334568	0.016716	-0.039765
19	P1	-3.685434	0.006164	-0.056731
22	P1	-4.679451	0.016400	-0.039696
26	P1	-3.952173	0.009969	0.010660
30	P1	-5.916870	0.008696	-0.022527
3	P1	-16.518671	0.253653	0.042802
7	P1	-17.264425	0.182901	0.039163
11	P1	-17.270805	0.447029	-0.062534
15	P1	-13.035847	0.125946	-0.031872
19	P1	-15.088363	0.111337	-0.121088
22	P1	-15.807001	0.549236	0.035641
26	P1	-15.025769	0.186711	-0.026581
30	P1	-17.534966	0.495524	-0.075343

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.781763	0.090001	0.012090
7	P2	-21.667187	0.088413	0.030833
11	P2	-15.530748	0.099790	0.010647
15	P2	-7.092011	0.103243	-0.000564
19	P2	-9.171965	0.096852	0.012377
22	P2	-18.220367	0.089402	-0.025133
26	P2	-16.593884	0.102268	-0.009398
30	P2	-19.432598	0.084369	0.017477

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.236444	0.008392	-0.023481
7	P3	-8.236444	0.008392	-0.023481
11	P3	-8.236444	0.008392	-0.023481
15	P3	-8.236444	0.008392	-0.023481
19	P3	-8.236444	0.008392	-0.023481
22	P3	-8.236444	0.008392	-0.023481
26	P3	-8.236470	0.008392	-0.023410
30	P3	-8.236470	0.008392	-0.023410

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	-3.919557	0.013551	-0.011694
7	P1	-2.471105	0.068932	0.037372
11	P1	-2.829634	0.015908	0.017560
15	P1	-3.711867	0.032470	-0.050227
19	P1	-3.549845	0.018768	-0.035802
22	P1	-5.003324	0.022812	0.011477
26	P1	-6.039058	0.025826	-0.057648
30	P1	-5.346370	0.037119	-0.033454
3	P1	-11.722650	0.078588	-0.008827
7	P1	-10.038004	0.092442	0.069272
11	P1	-10.364758	0.092397	-0.026301
15	P1	-10.740791	0.162210	-0.034210
19	P1	-15.744360	0.106658	-0.074948
22	P1	-21.517923	1.479298	0.152077
26	P1	-15.963669	0.323368	0.132858
30	P1	-17.932899	0.379526	-0.128942

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.420618	0.100260	0.070627
7	P2	-22.180468	0.237025	-0.012268
11	P2	-10.826784	0.092499	0.019653
15	P2	-4.954794	0.210480	0.002289
19	P2	-6.940860	0.214025	0.010477
22	P2	-8.229884	0.124221	-0.019469
26	P2	-24.340542	0.161652	-0.059947
30	P2	-21.899519	0.140592	0.046365

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.085947	0.003224	-0.013463
7	P3	-8.085716	0.003199	-0.013438
11	P3	-8.085907	0.003222	-0.013360
15	P3	-8.085746	0.003212	-0.013981
19	P3	-8.085846	0.003223	-0.013375
22	P3	-8.085719	0.003220	-0.014212
26	P3	-8.086078	0.003217	-0.013468
30	P3	-8.085803	0.003201	-0.012983

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	0.000571418
	stdev	1.62963e-07
MEAN Q	mean	0.000509666
	stdev	2.10797e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140463
	stdev	0.00116591
STDEV Q	mean	0.140862
	stdev	0.00118573



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007011[567]

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_WVS_1PNPDK20070115_150216_000000002054_00397_25501_7820.N1	1	0
ASA_WVS_1PNPDK20070115_150216_000000002054_00397_25501_7978.N1	1	0
ASA_GM1_1PNPDK20070115_091257_000003202054_00394_25498_7135.N1	0	7
ASA_GM1_1PNPDK20070115_134639_000003622054_00396_25500_7796.N1	0	14
ASA_GM1_1PNPDK20070116_183117_000003082054_00414_25518_9835.N1	0	19
ASA_WSM_1PNPDE20070115_112055_000000852054_00395_25499_8381.N1	0	28
ASA_WSM_1PNPDE20070115_185945_000000912054_00400_25504_8532.N1	0	2
ASA_WSM_1PNPDE20070116_150734_000001762054_00412_25516_9712.N1	0	36



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

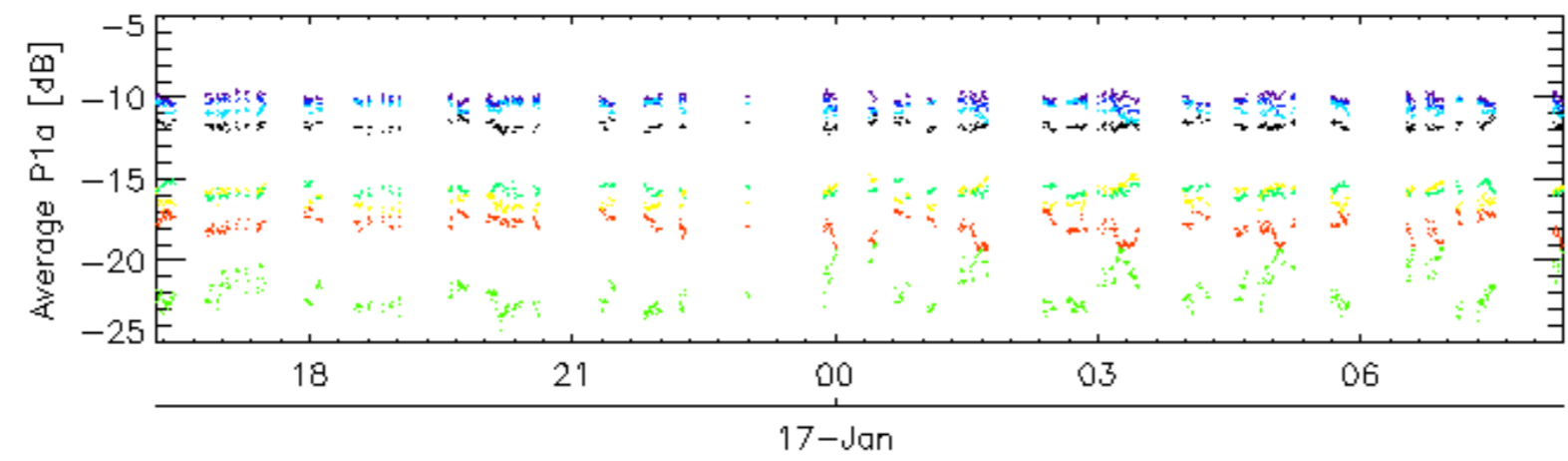
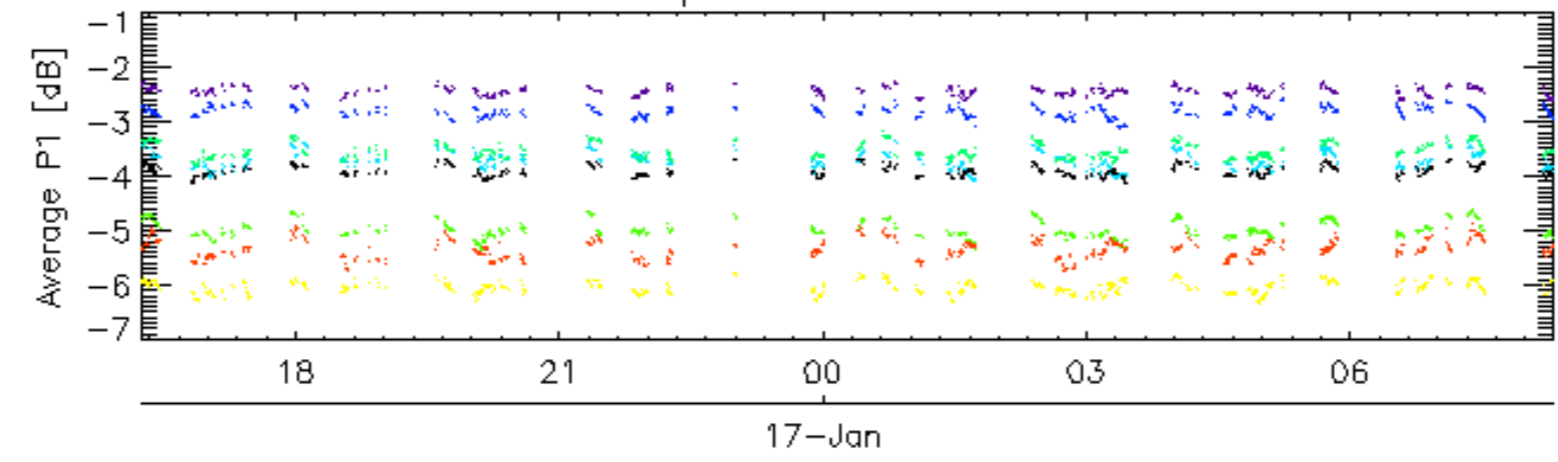
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

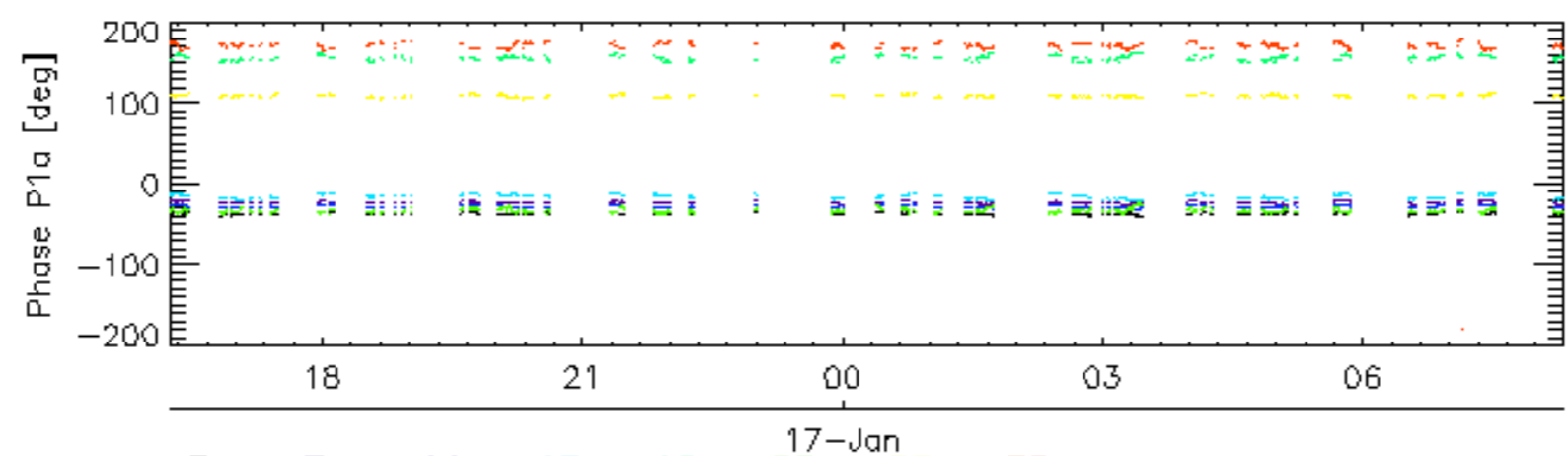
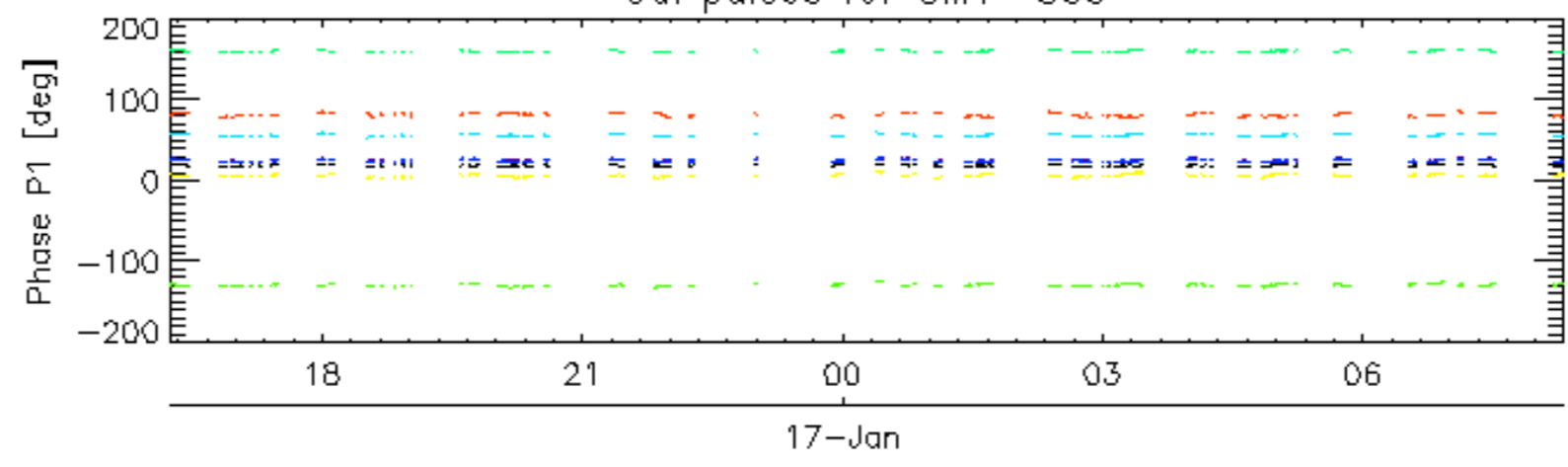
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

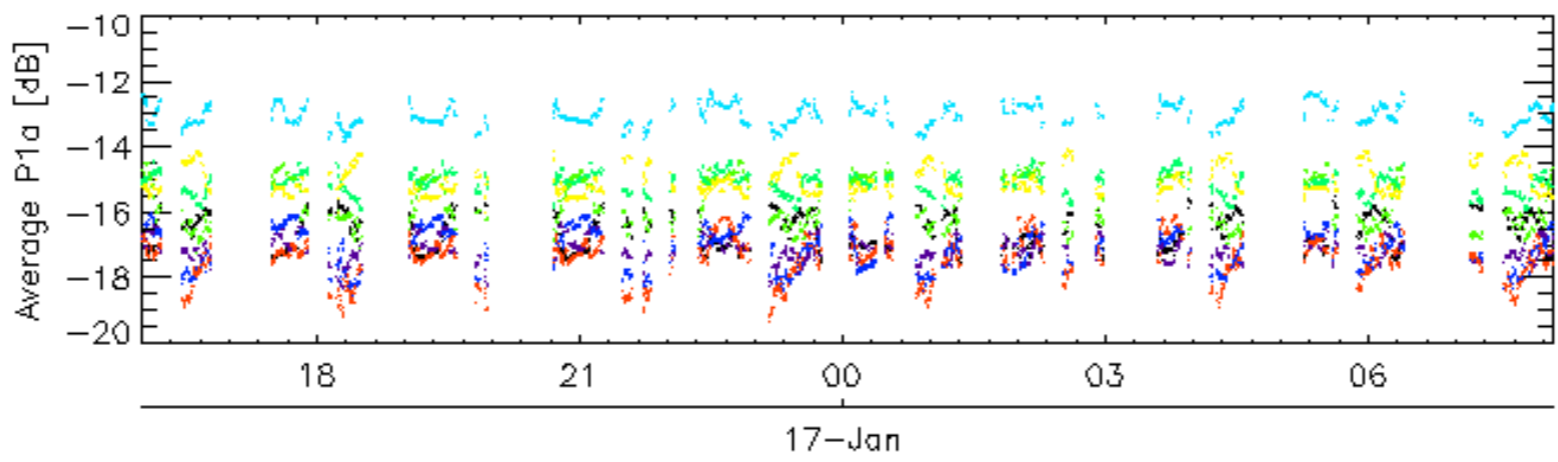
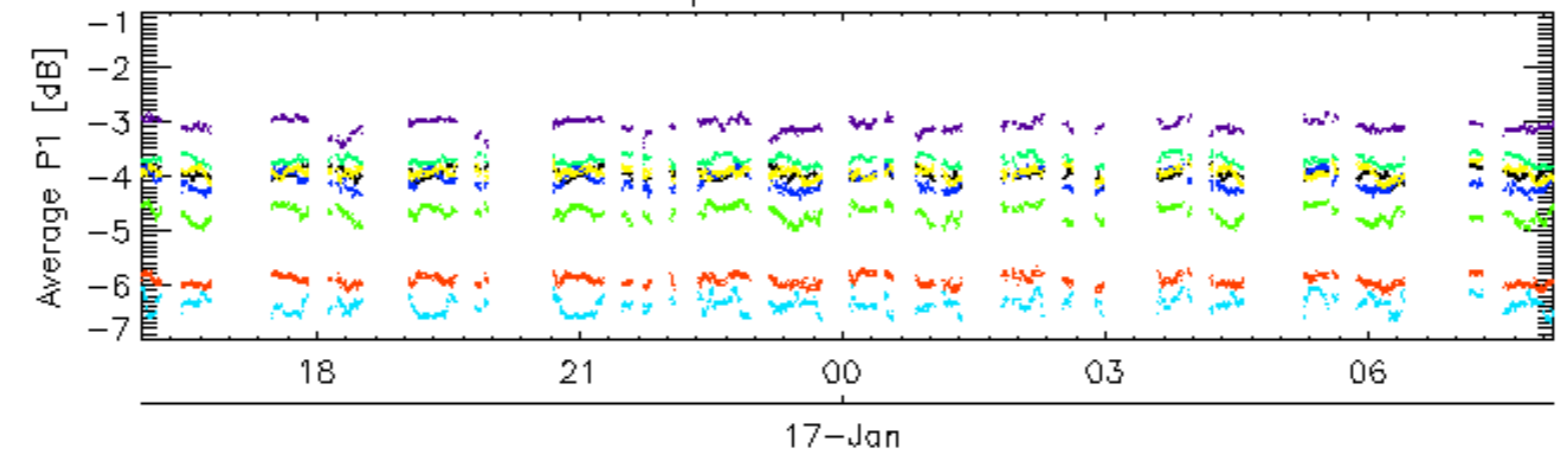


Cal pulses for GM1 SS3

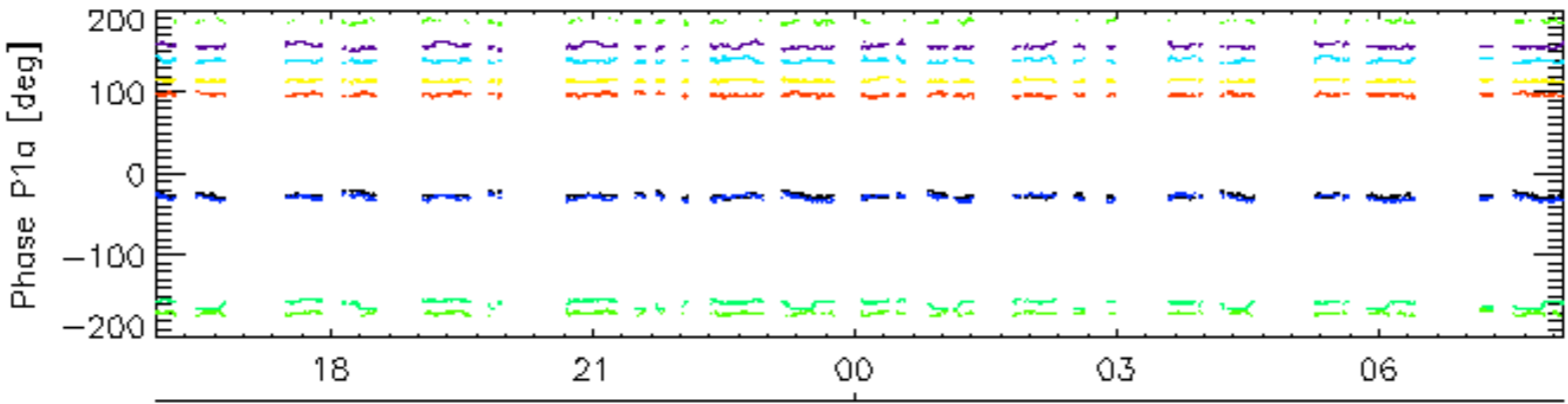
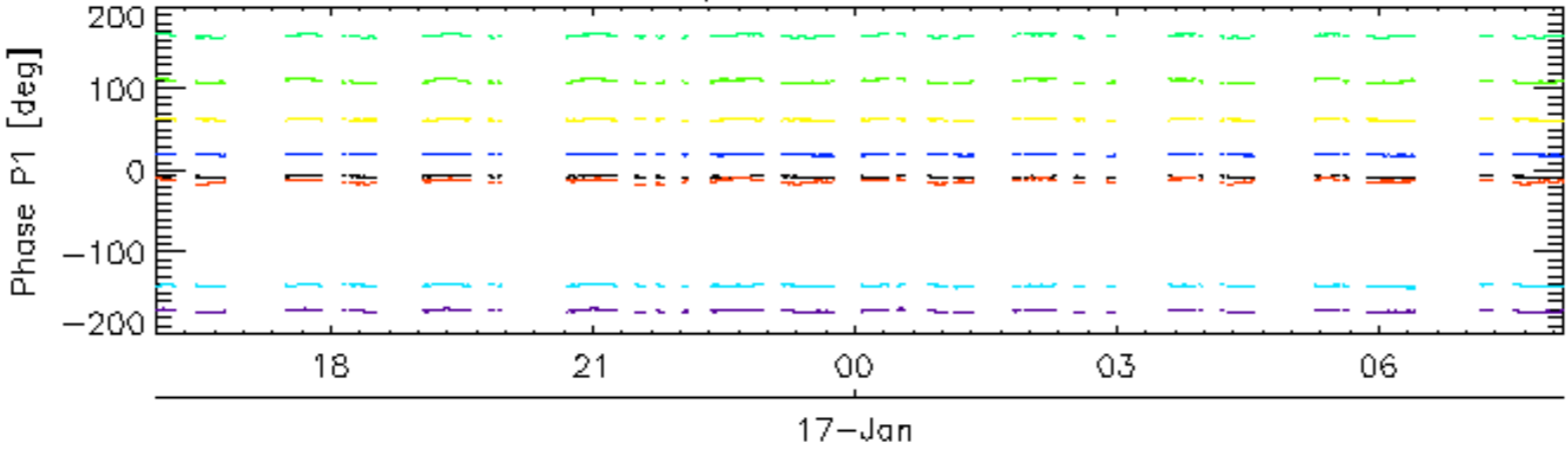


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

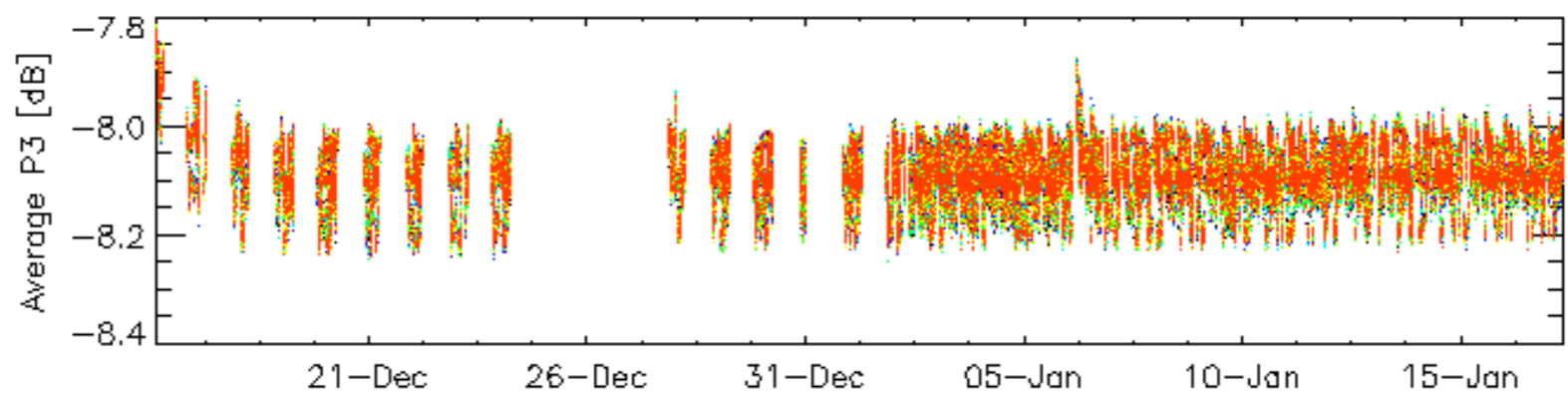
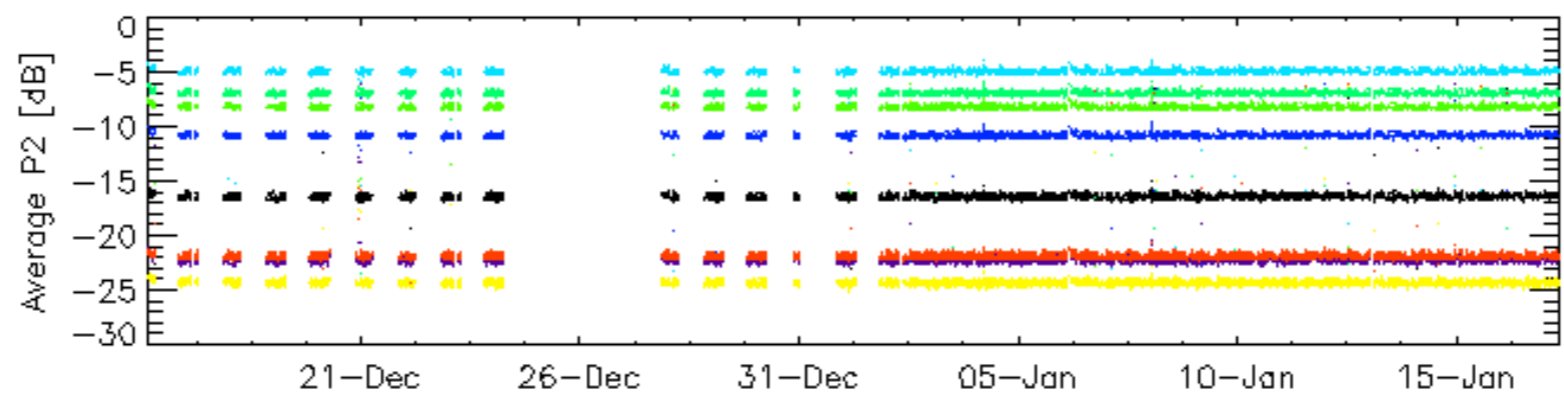
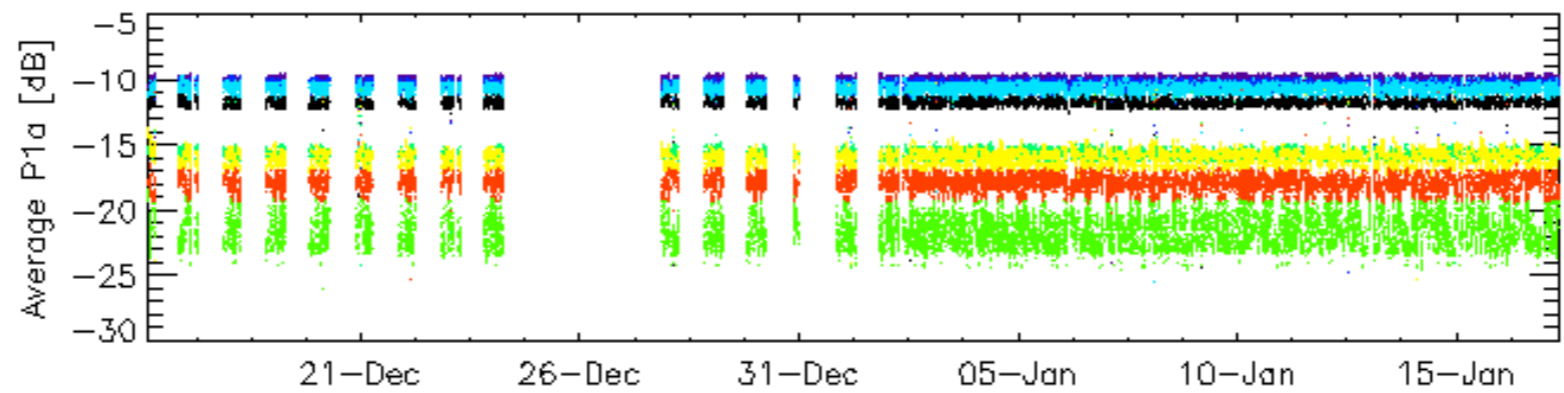
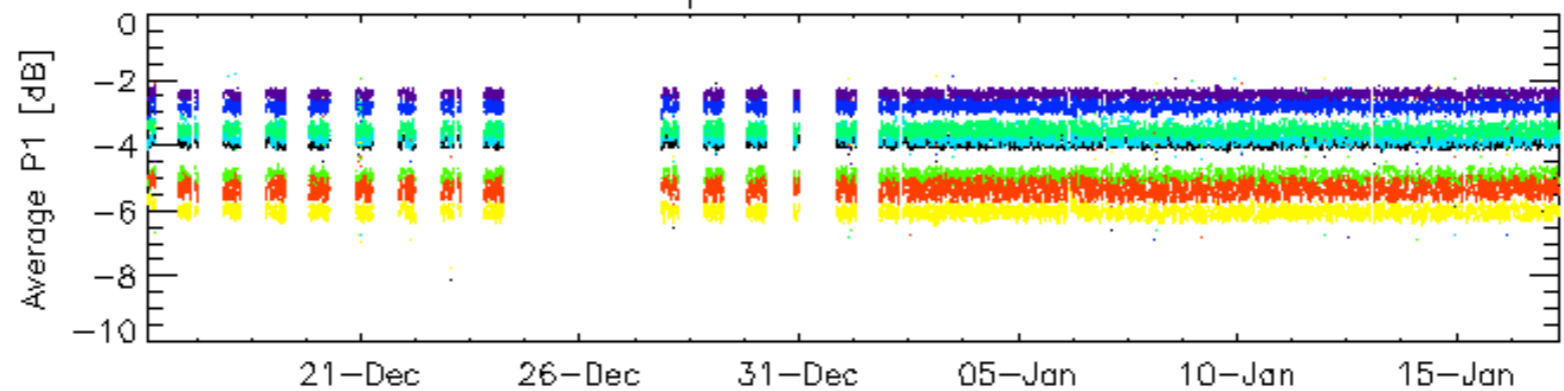


Cal pulses for WVS IS2



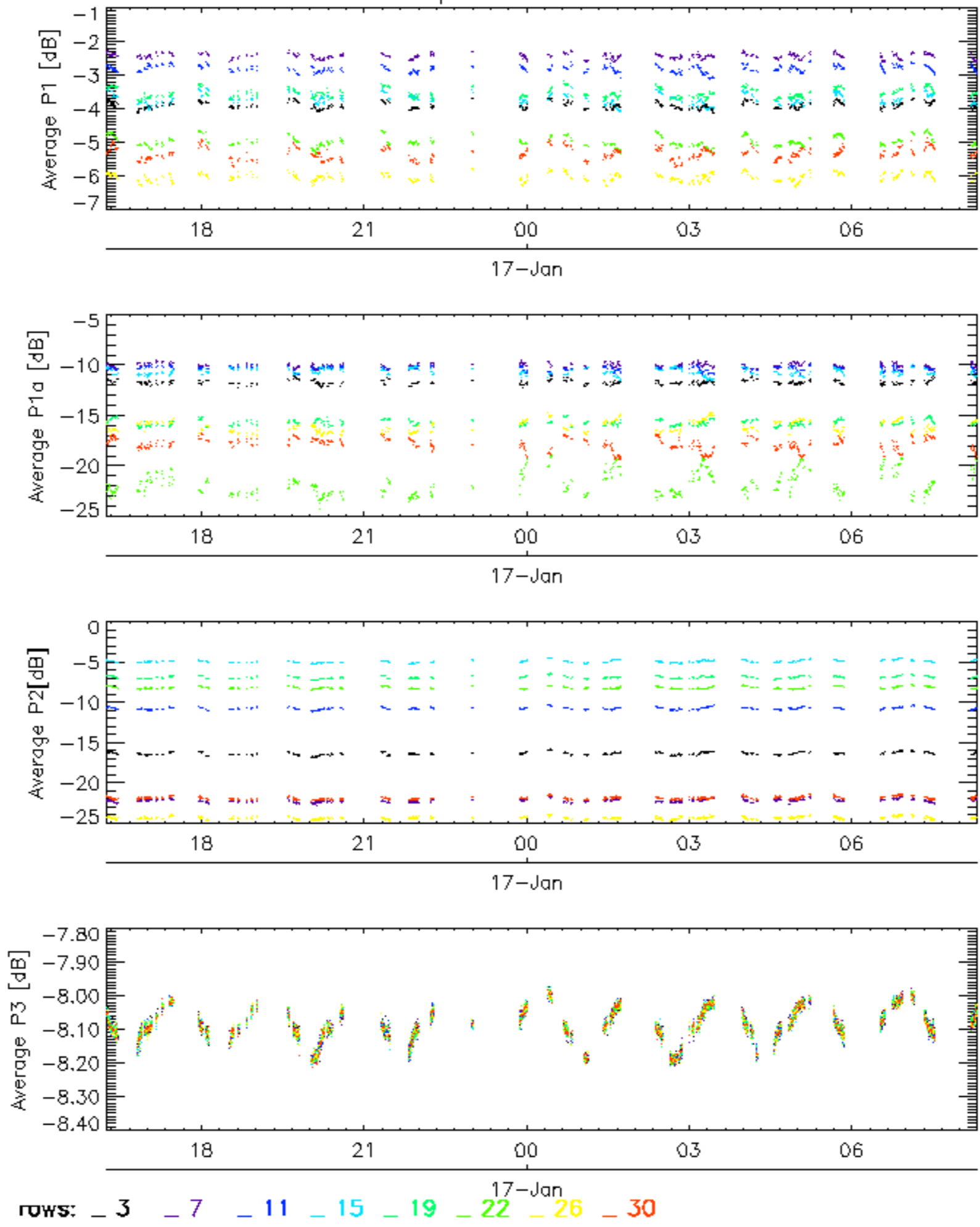
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

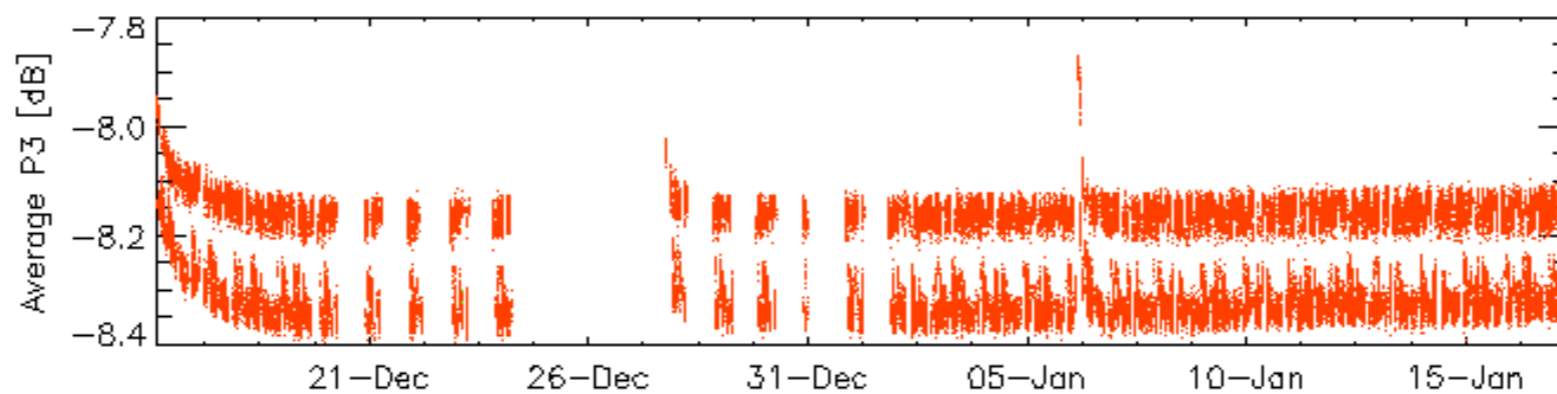
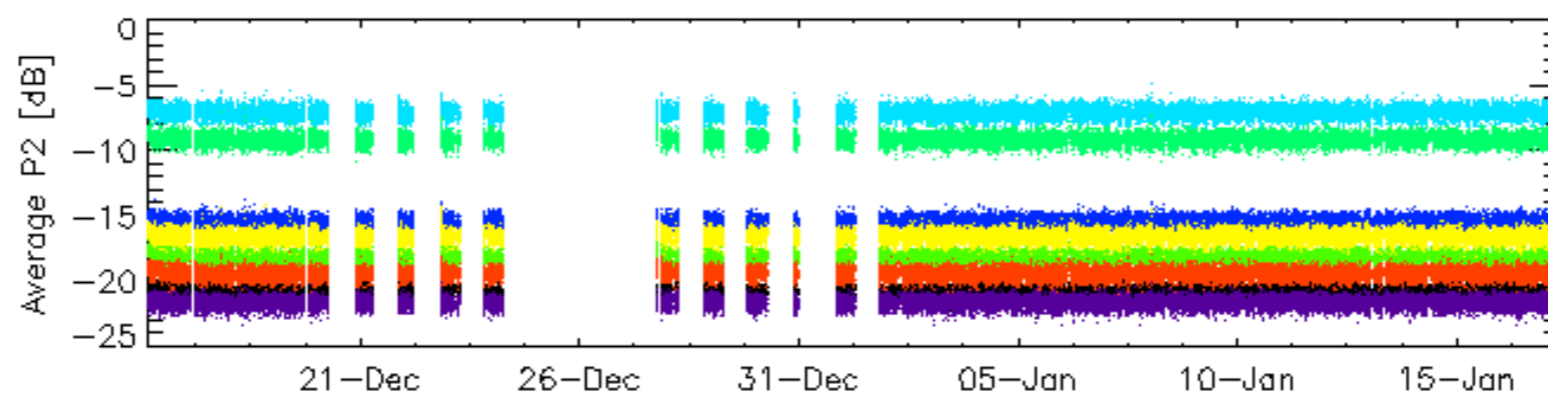
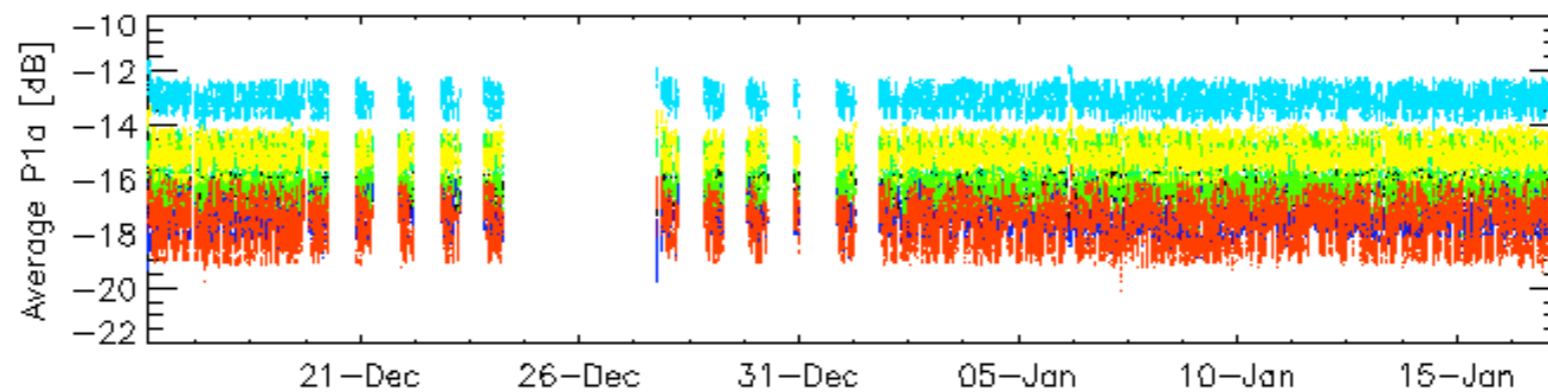
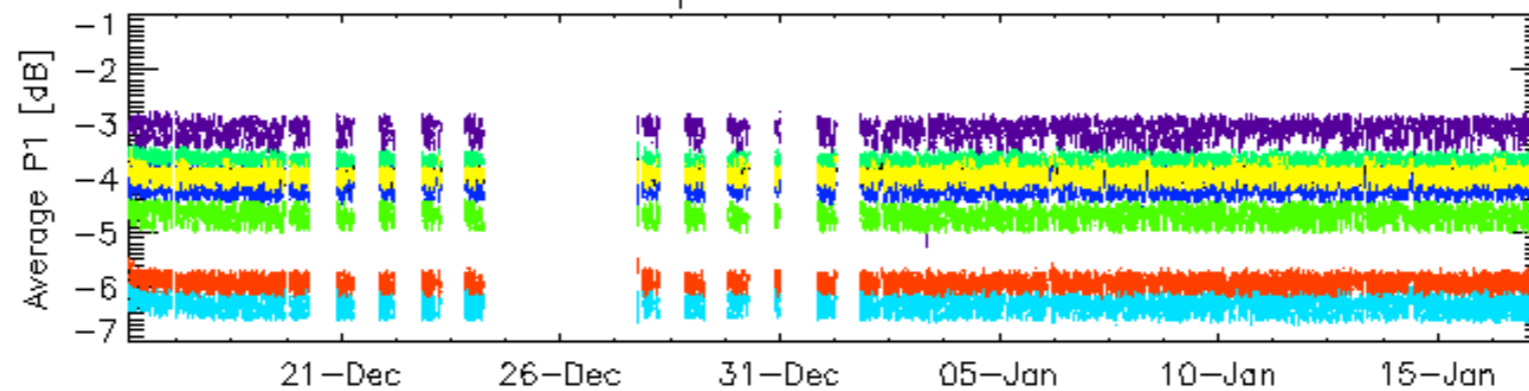


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

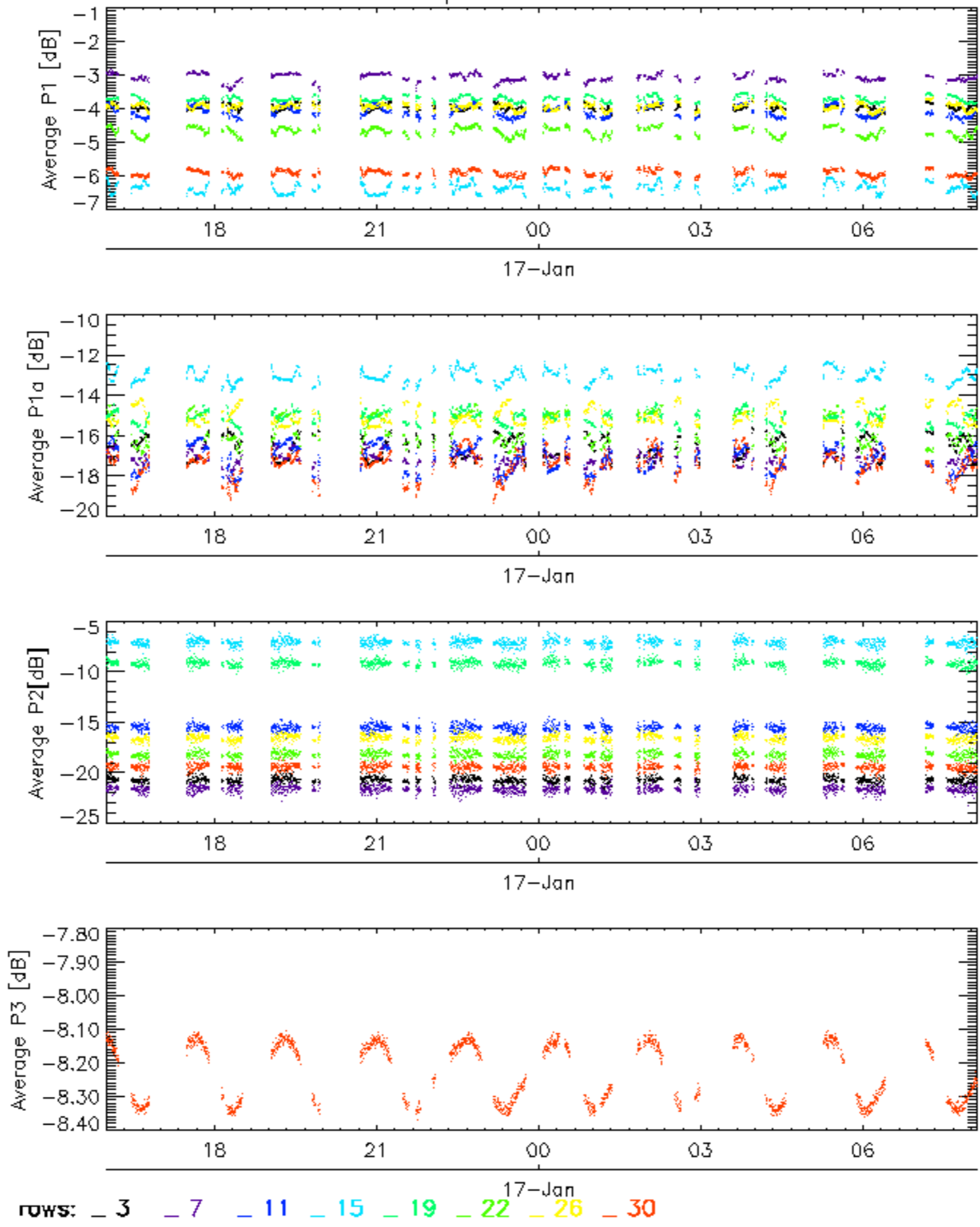


Cal pulses for WVS IS2

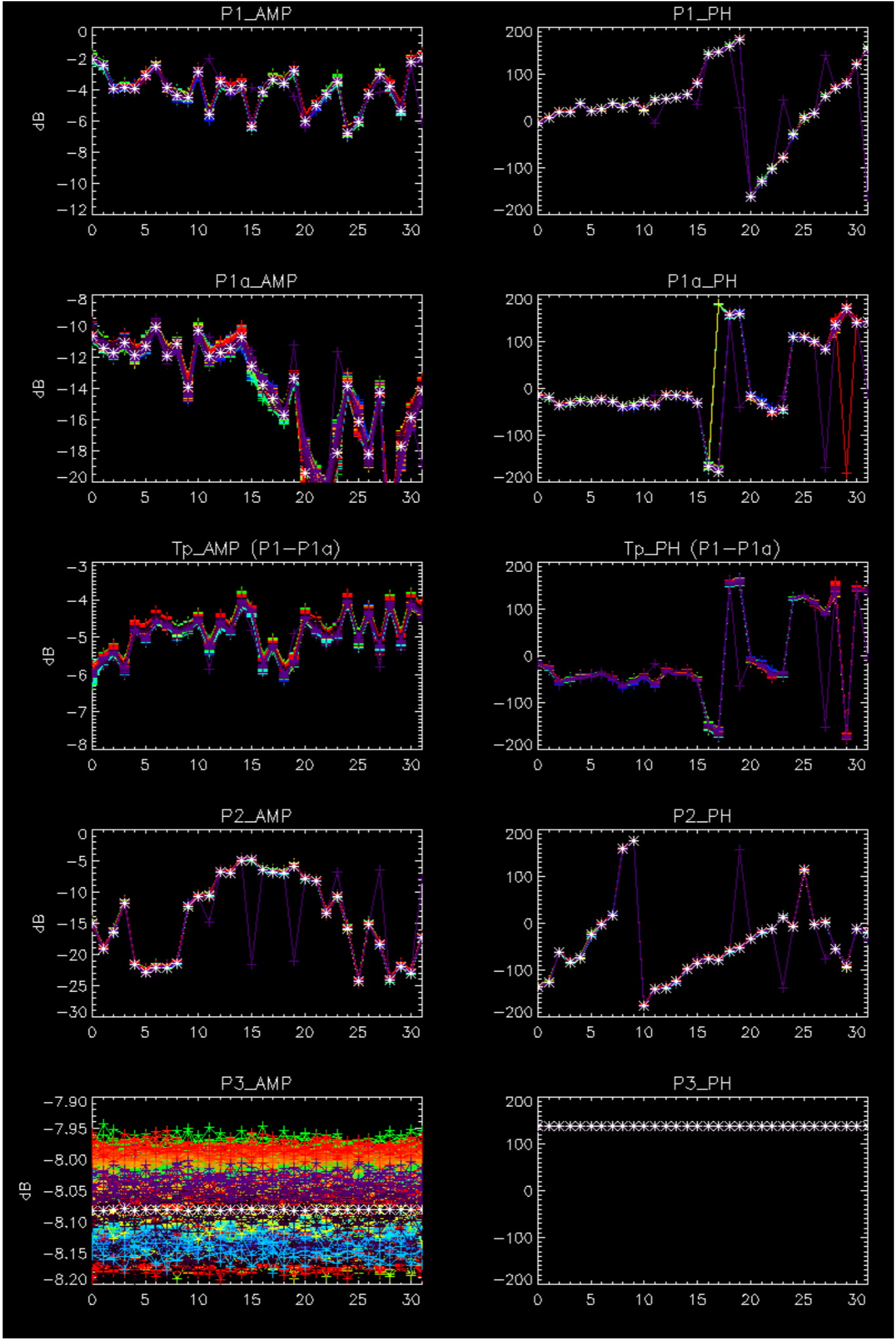


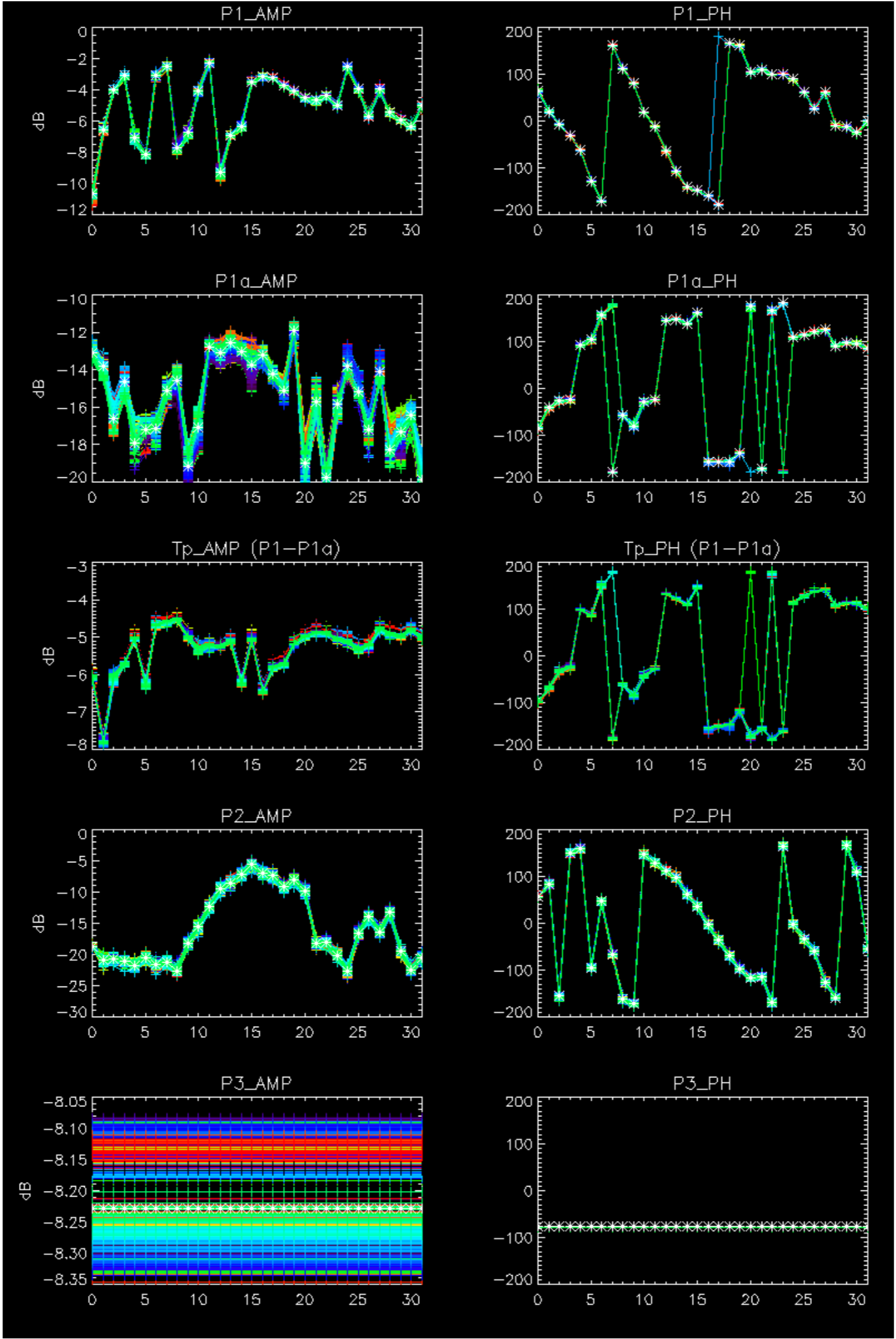
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



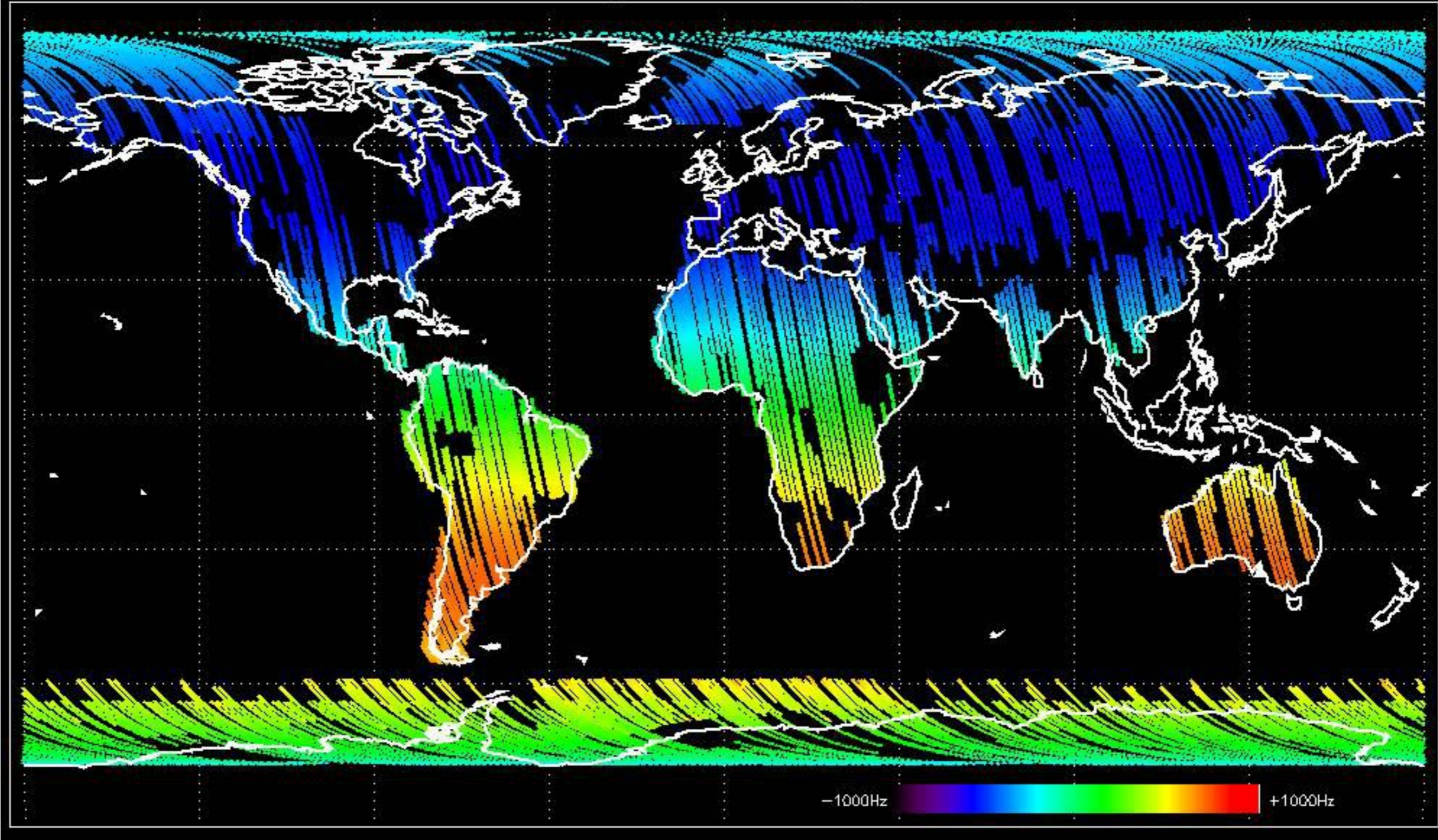
No anomalies observed.



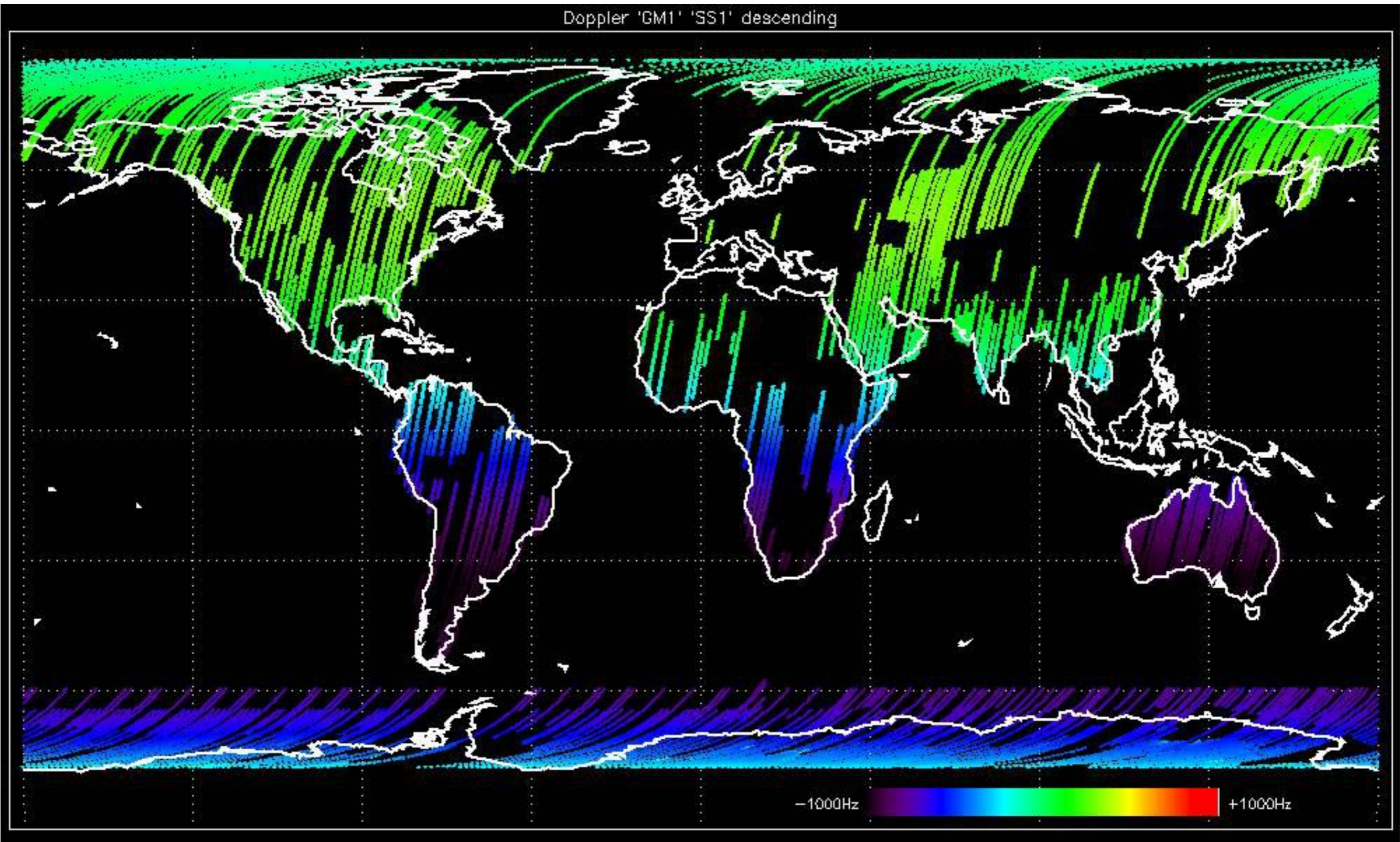


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

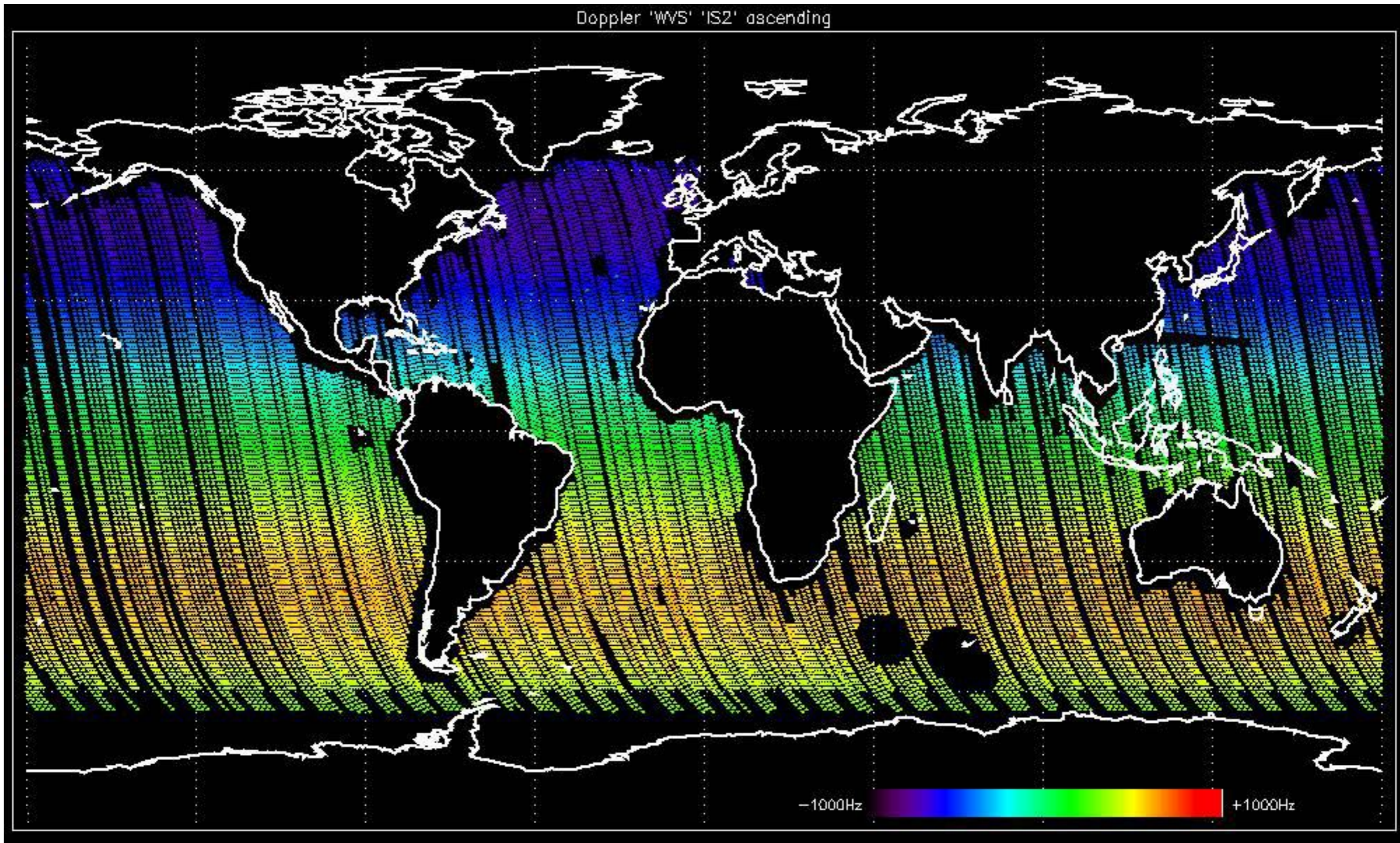
Doppler 'GM1' 'SS1' ascending



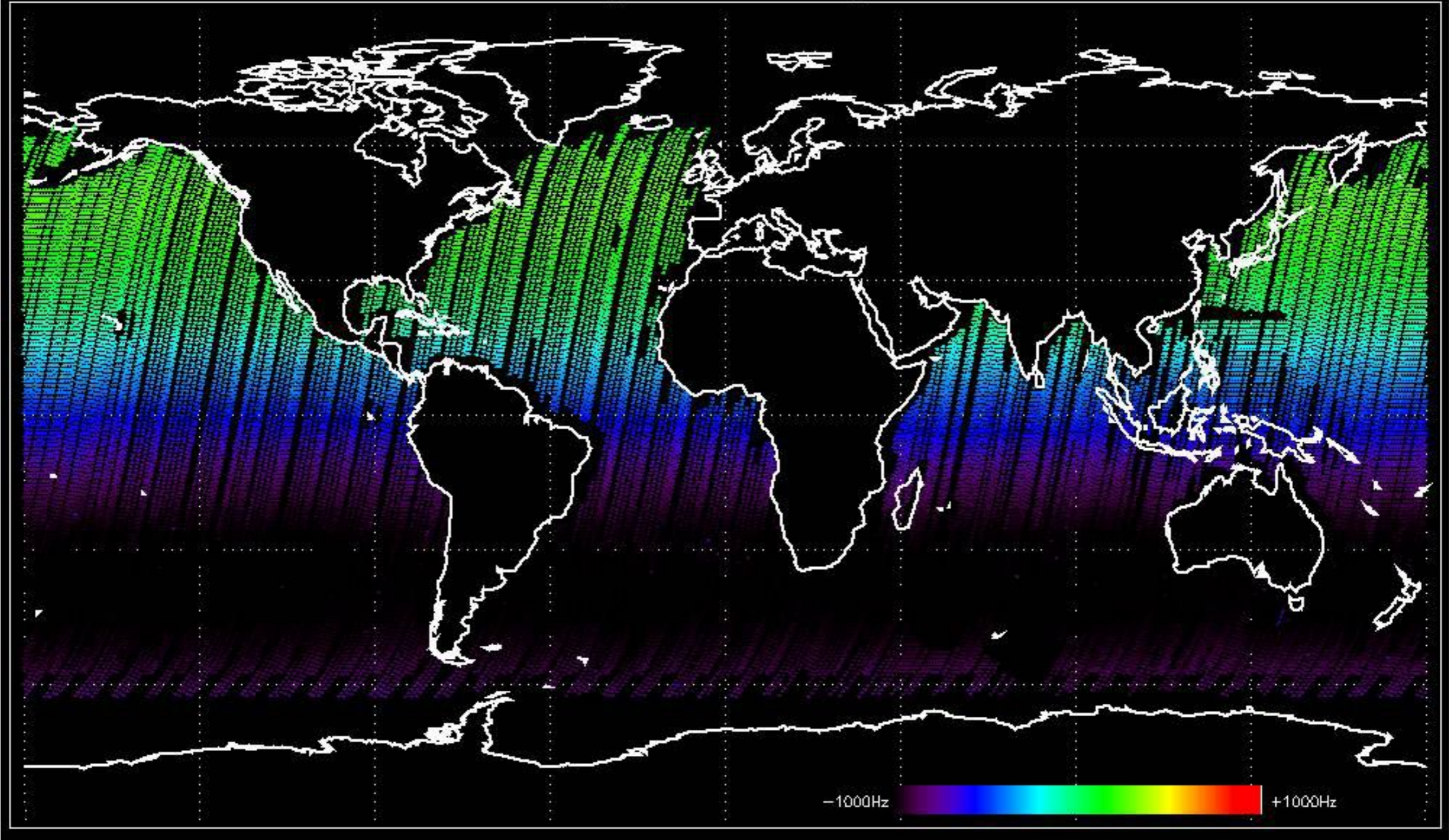
Doppler 'GM1' 'SS1' descending



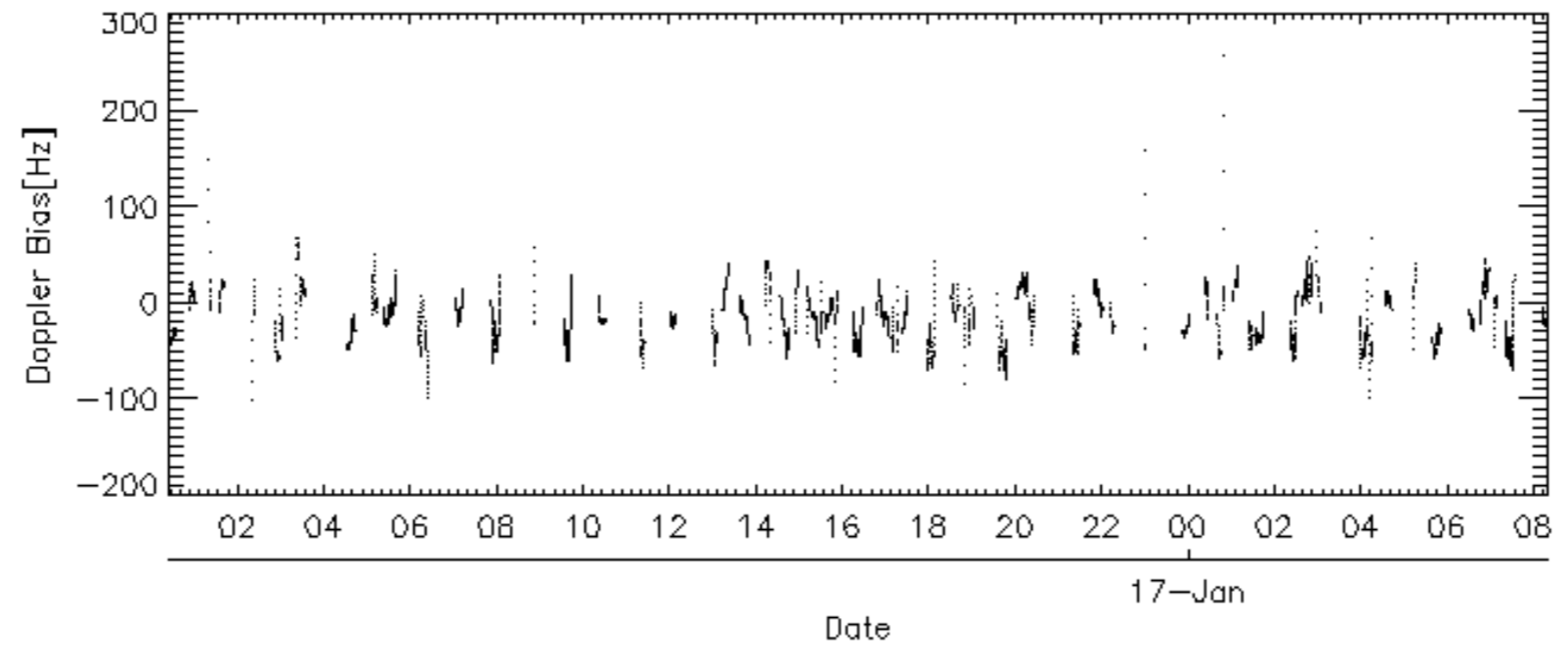
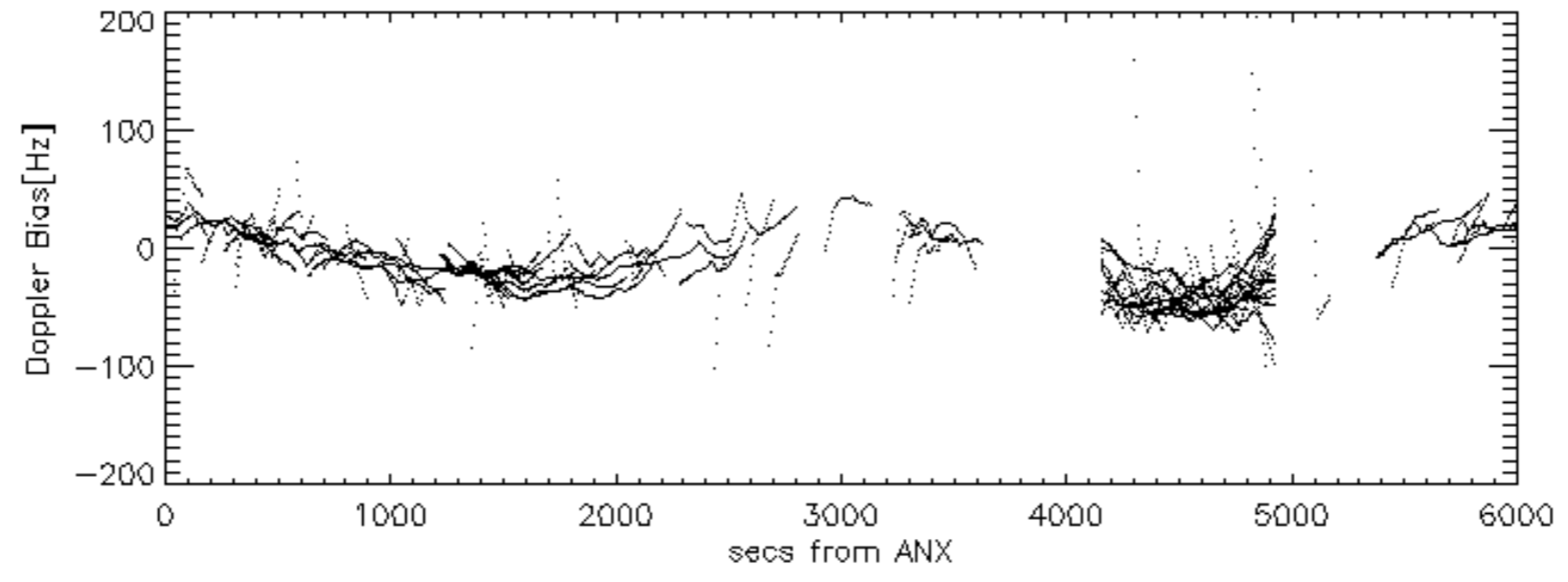
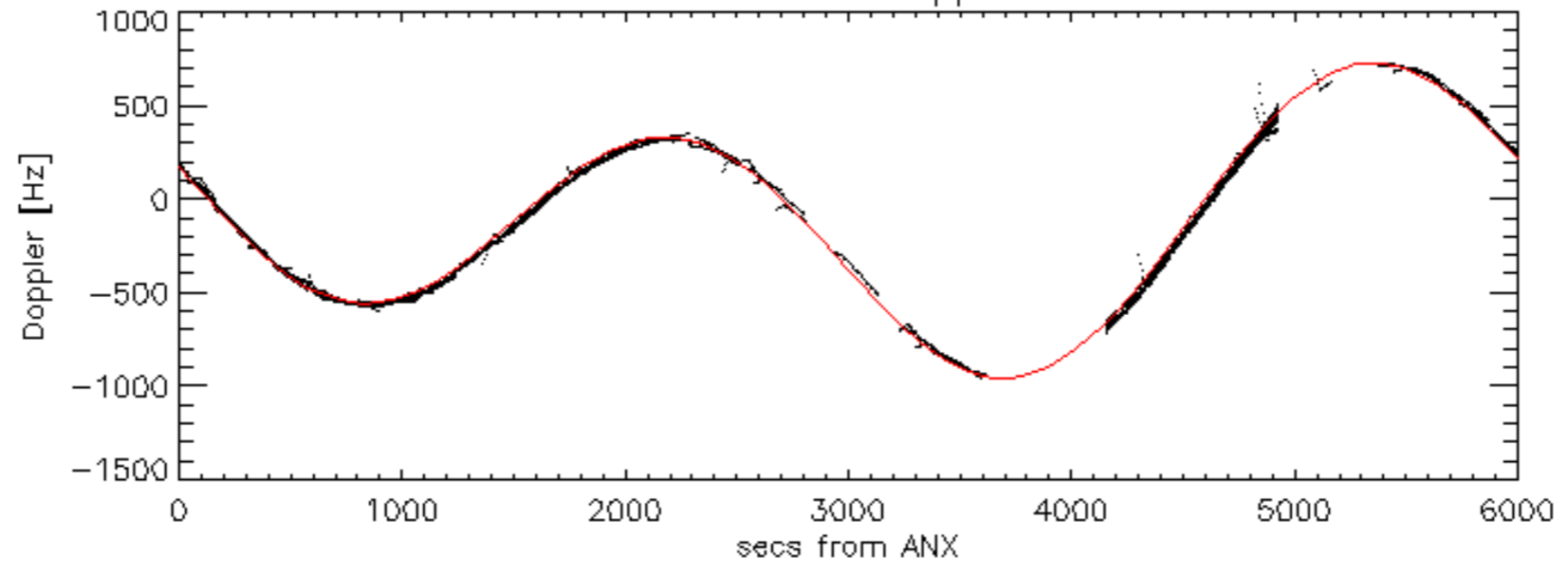
Doppler 'WVS' 'IS2' ascending

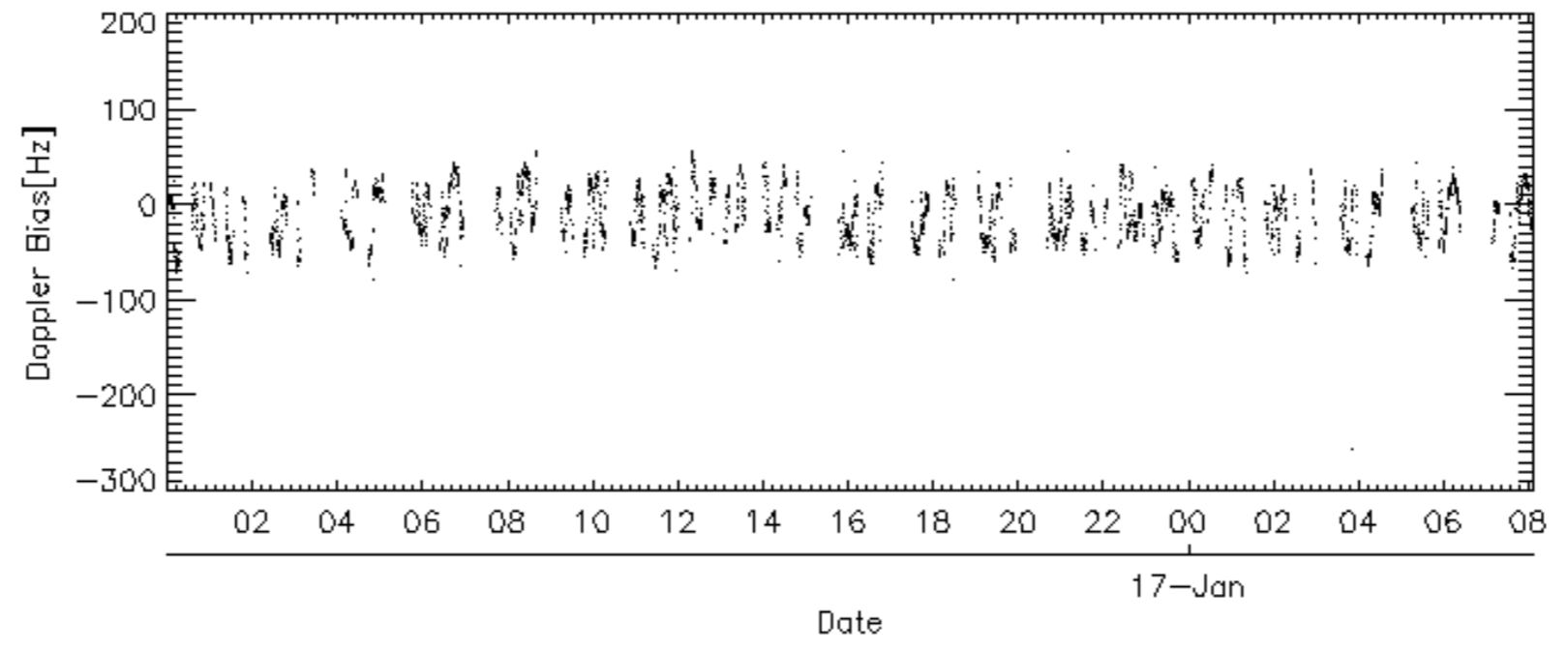
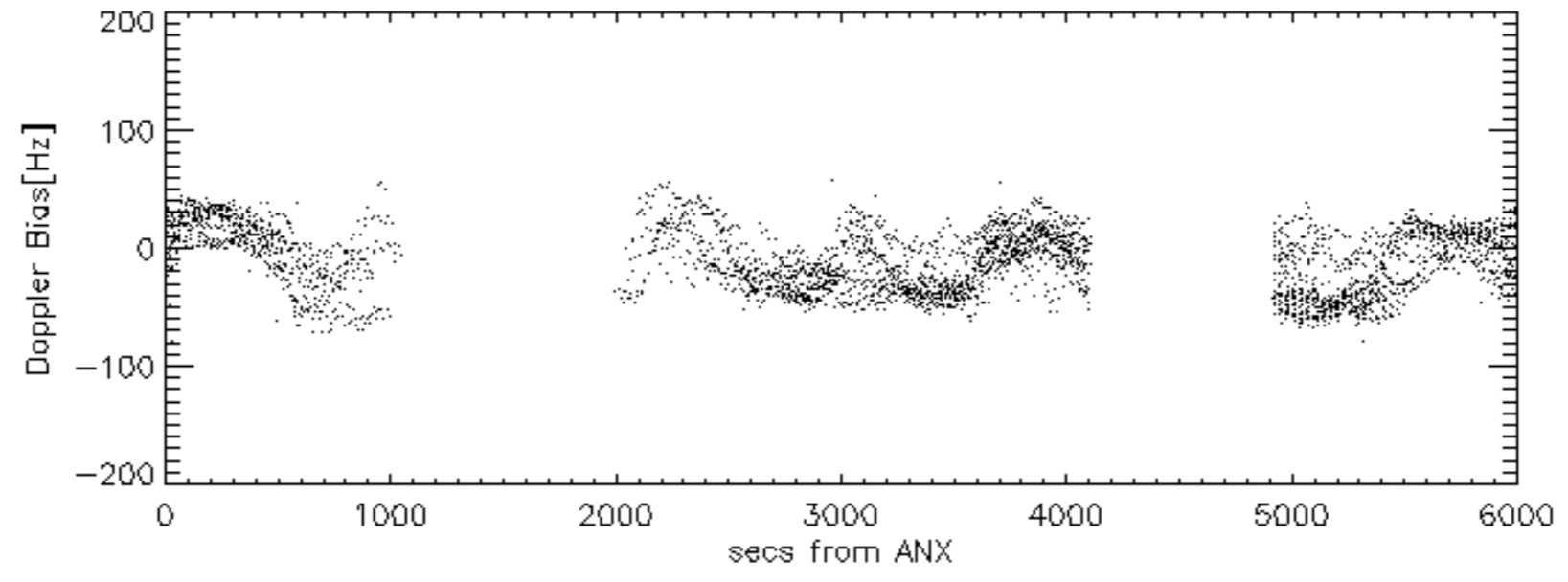
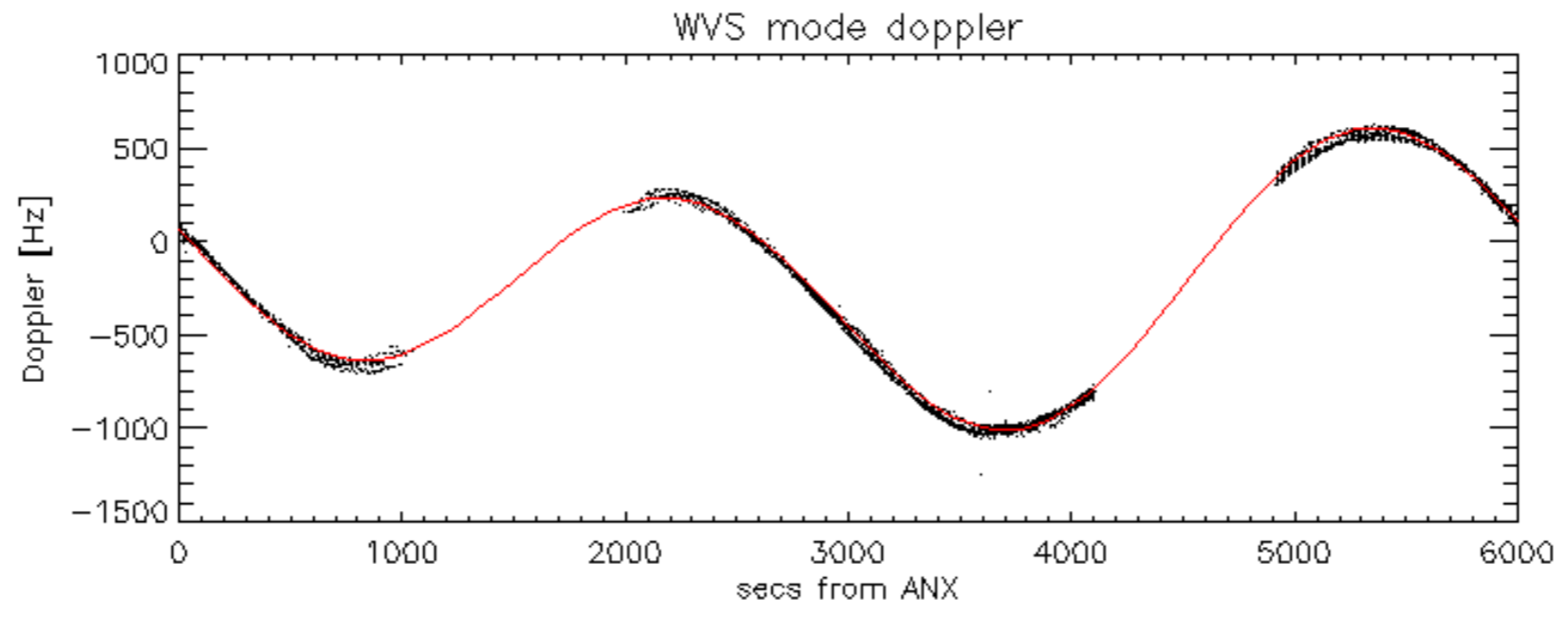


Doppler 'WVS' 'IS2' descending

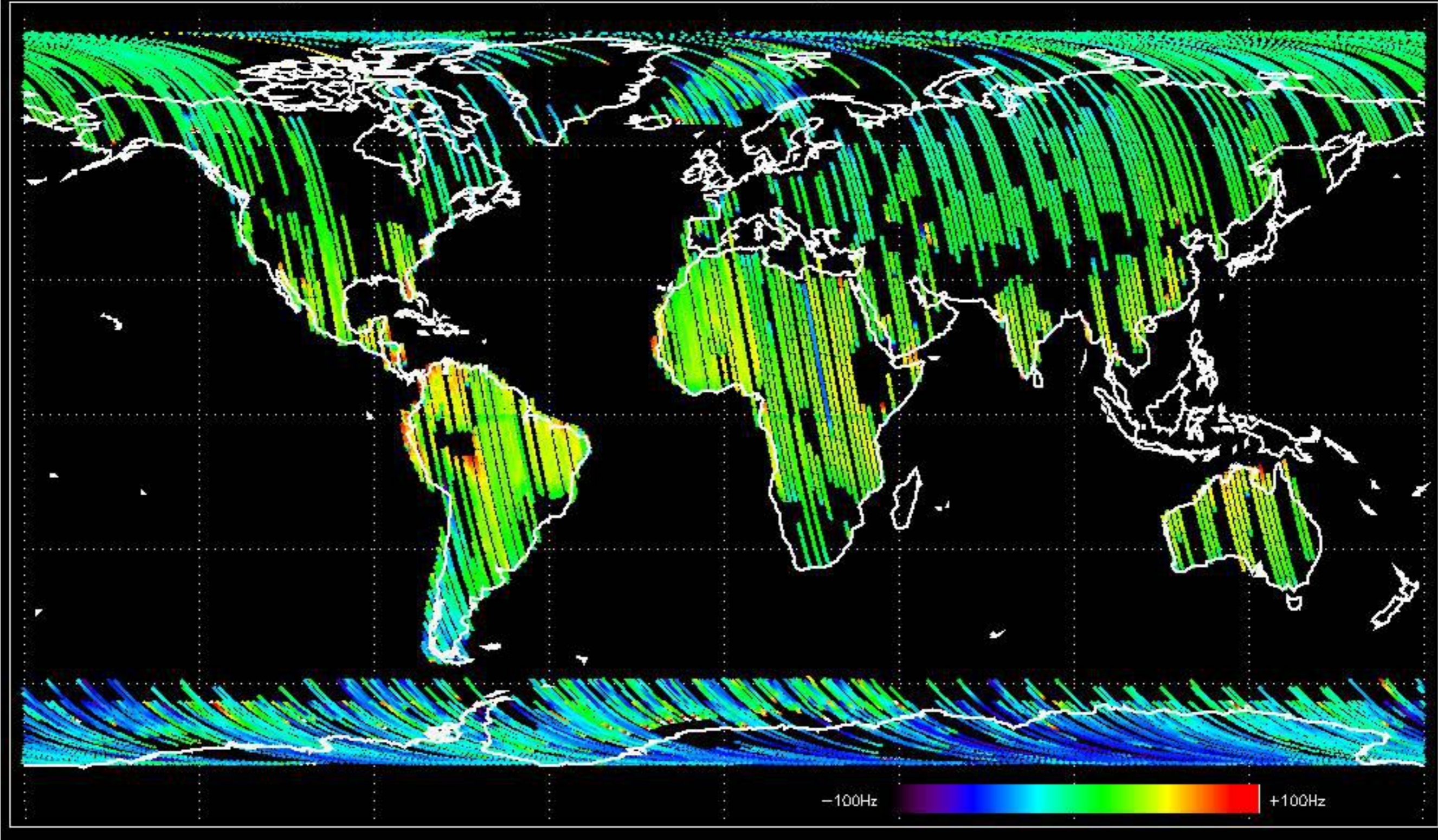


GM1 mode doppler

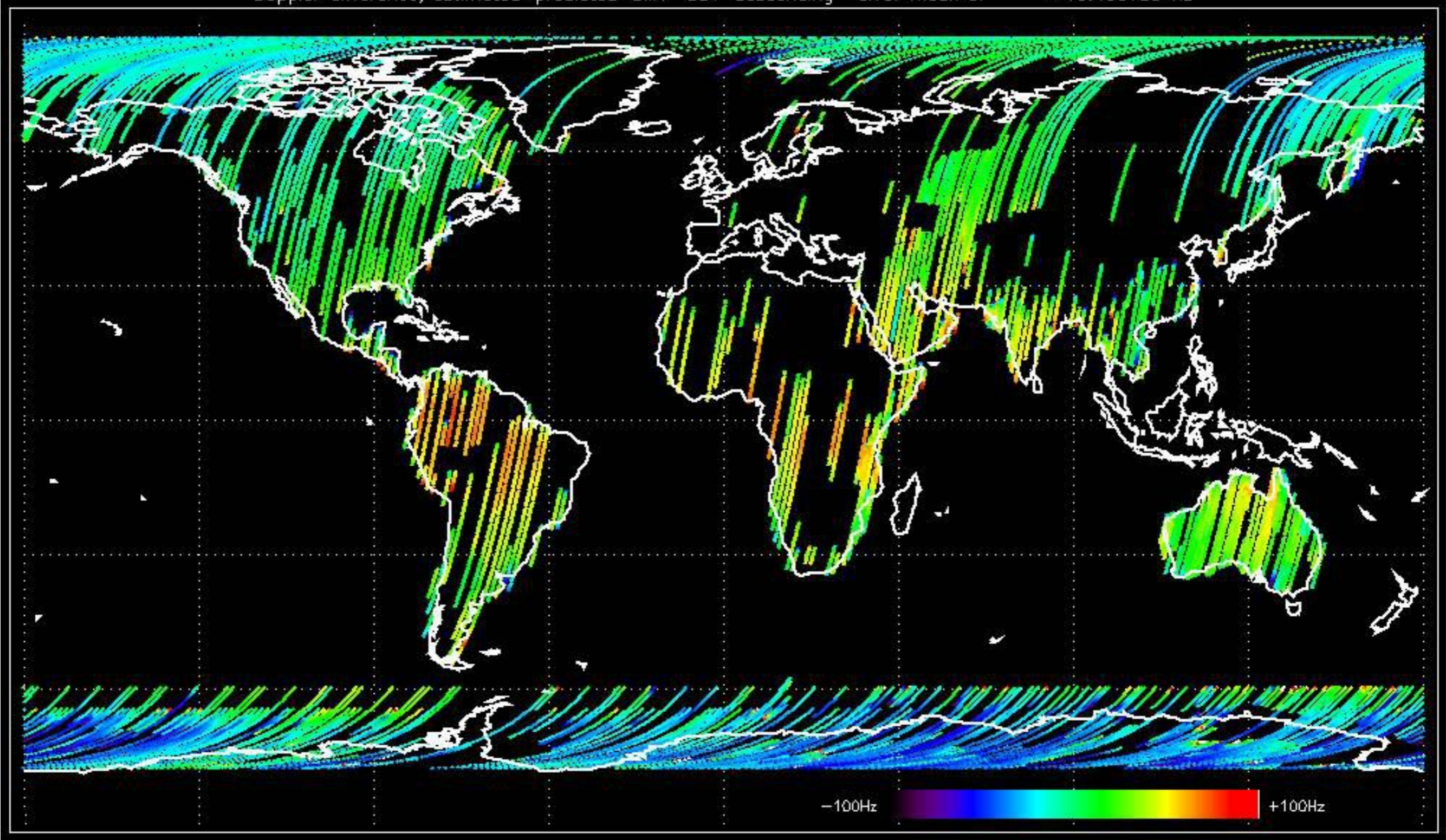




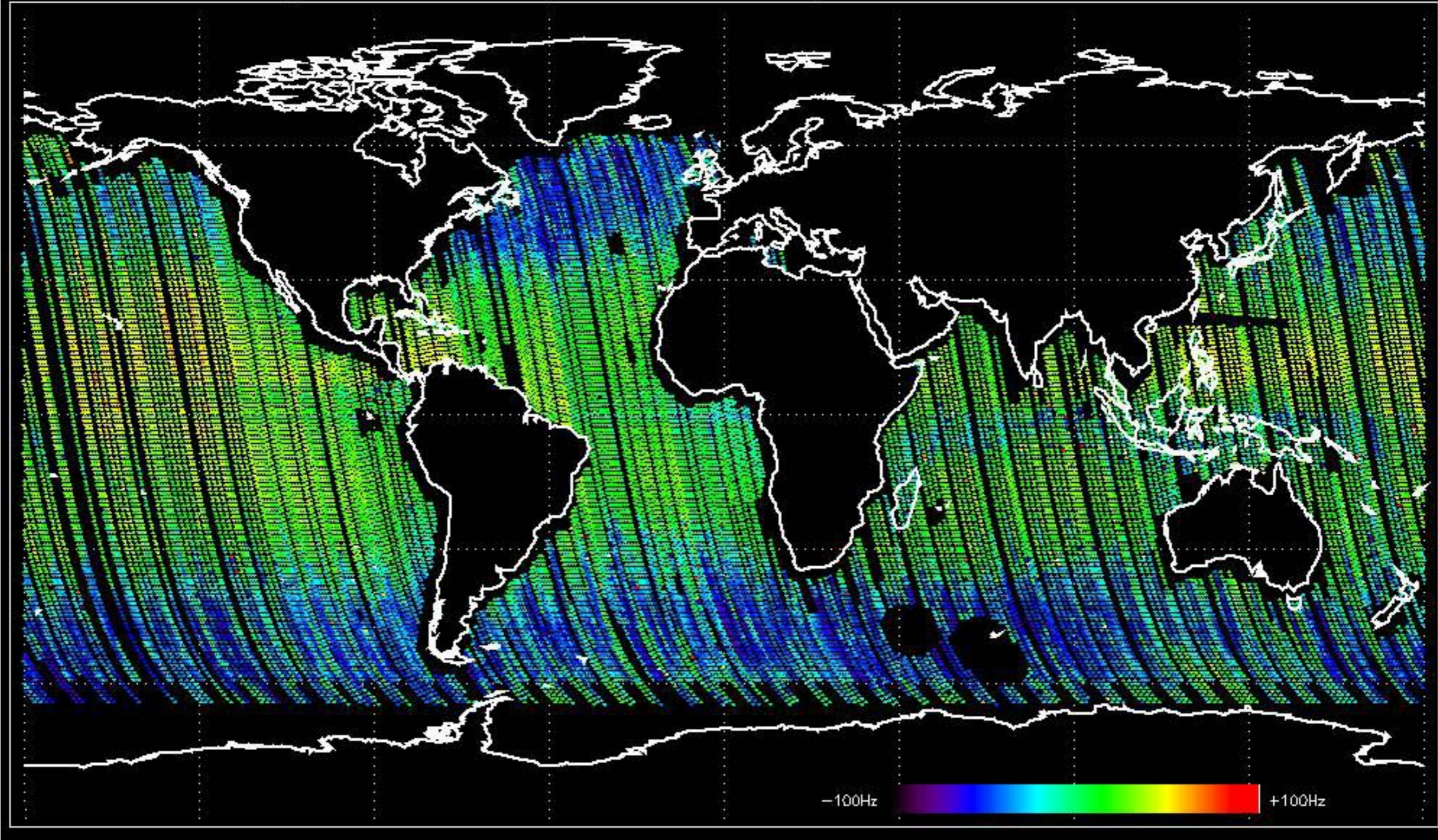
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.541329 Hz



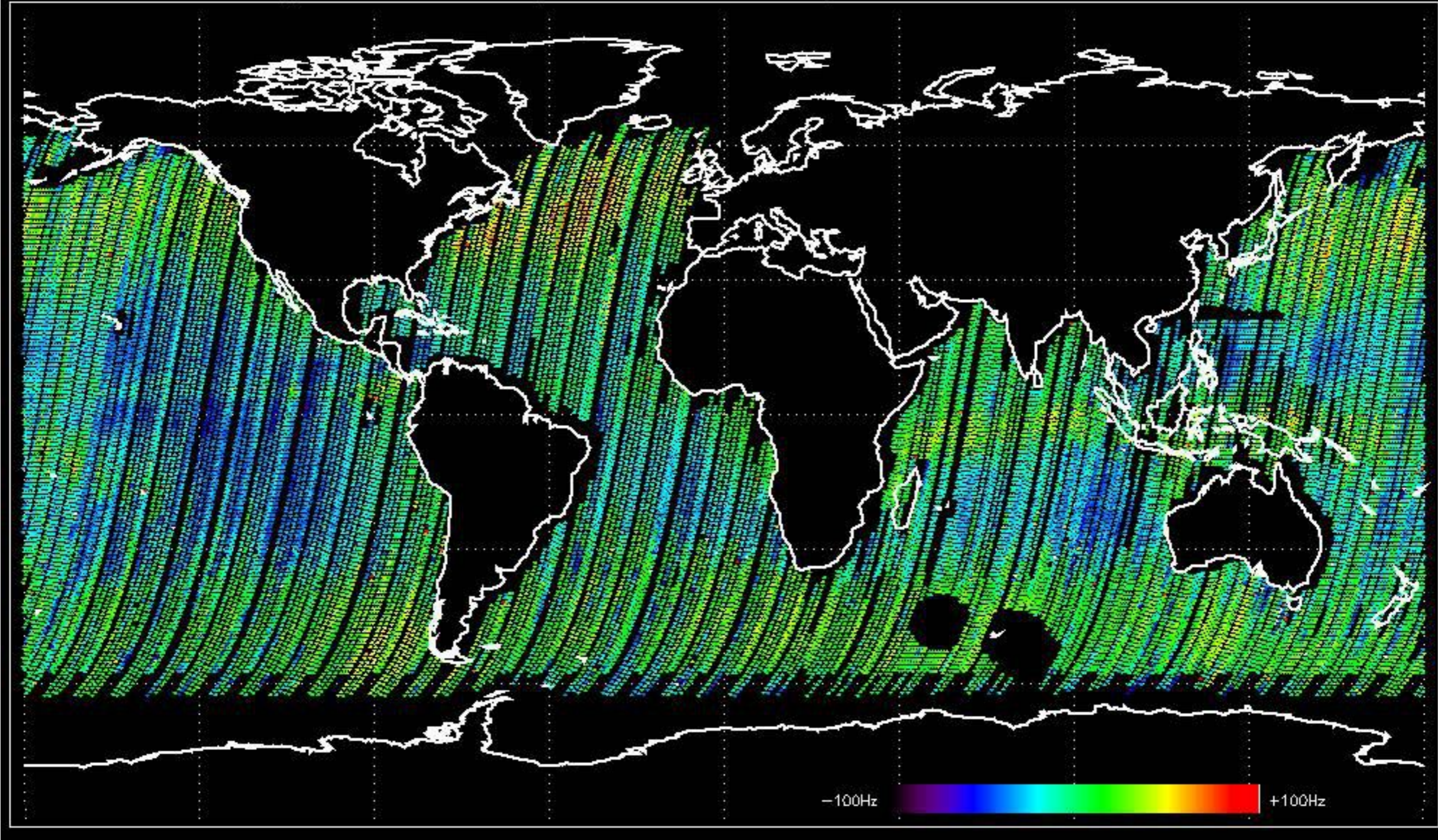
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.466159 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.459918 Hz

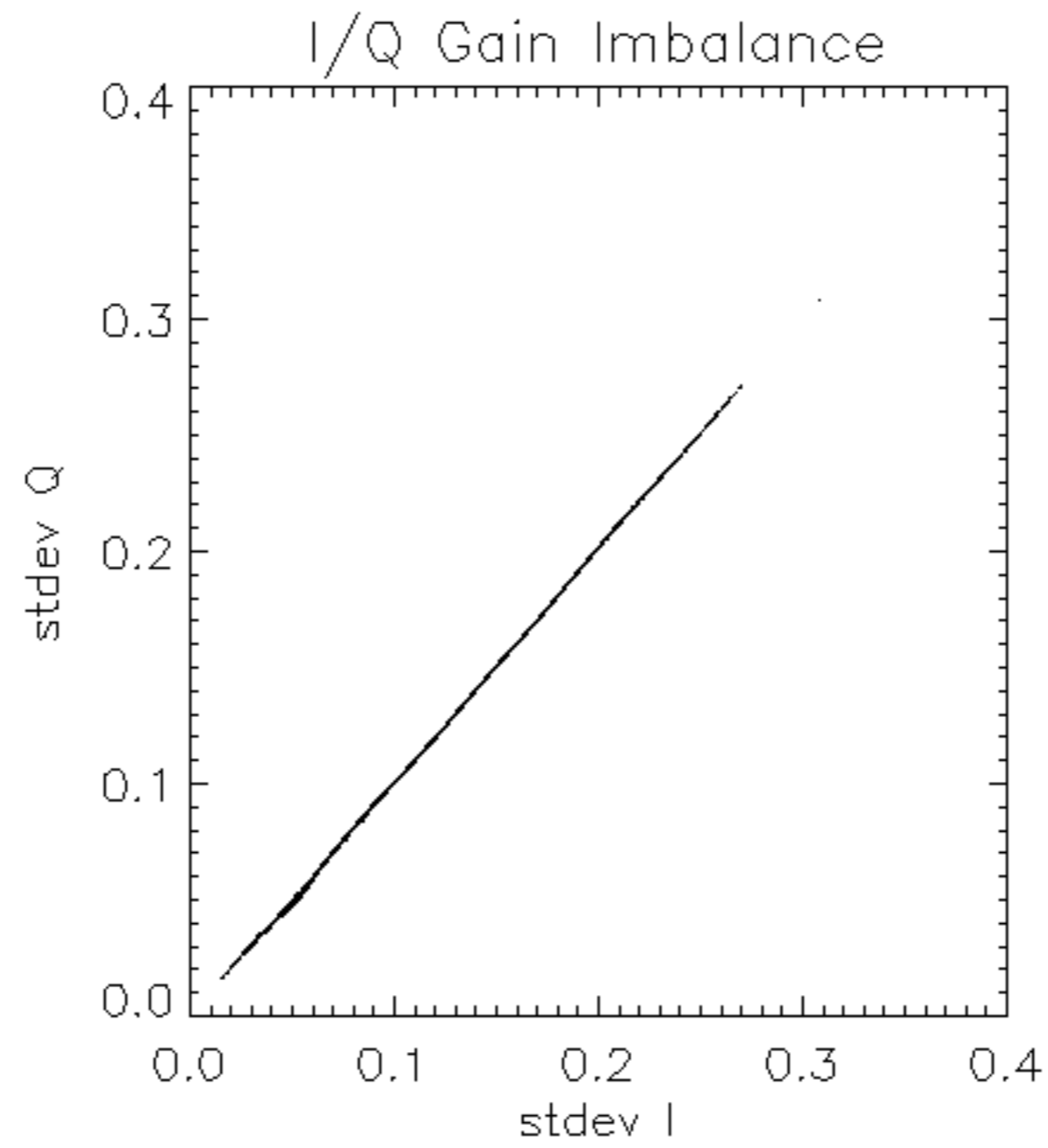


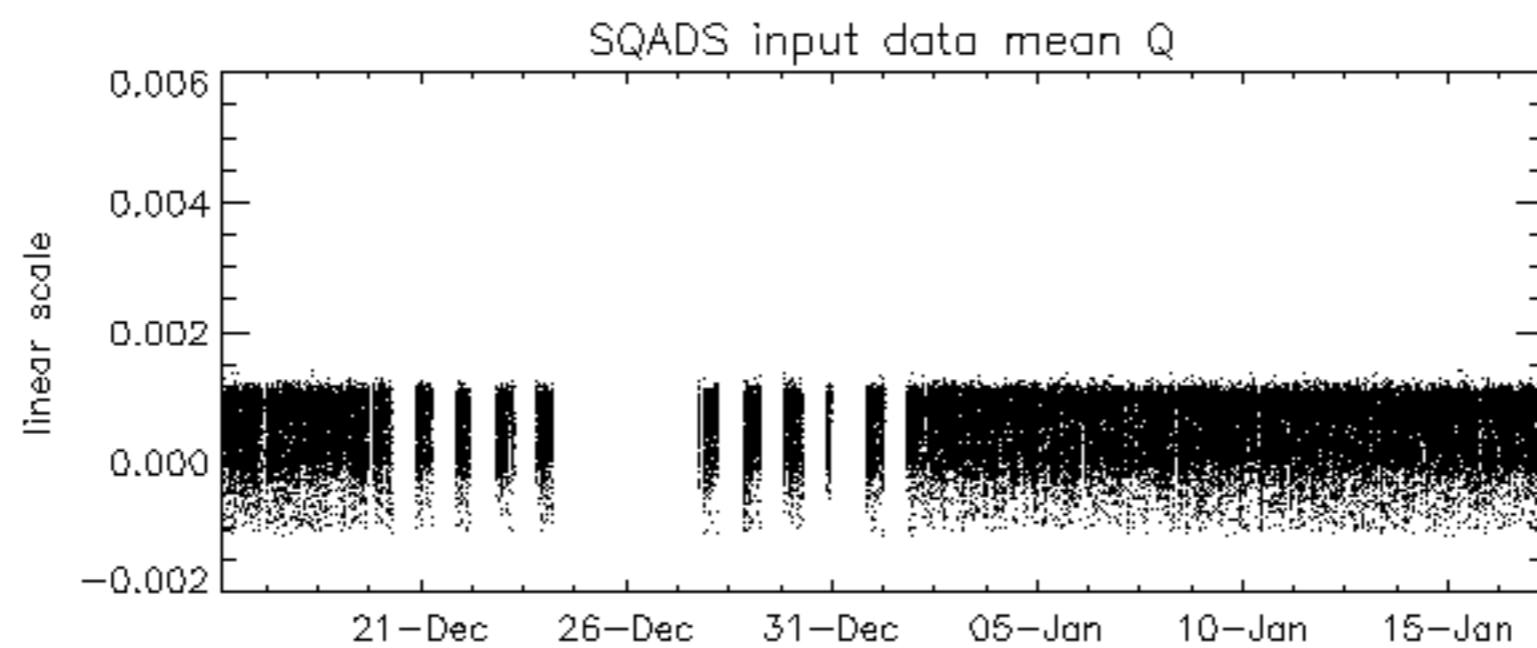
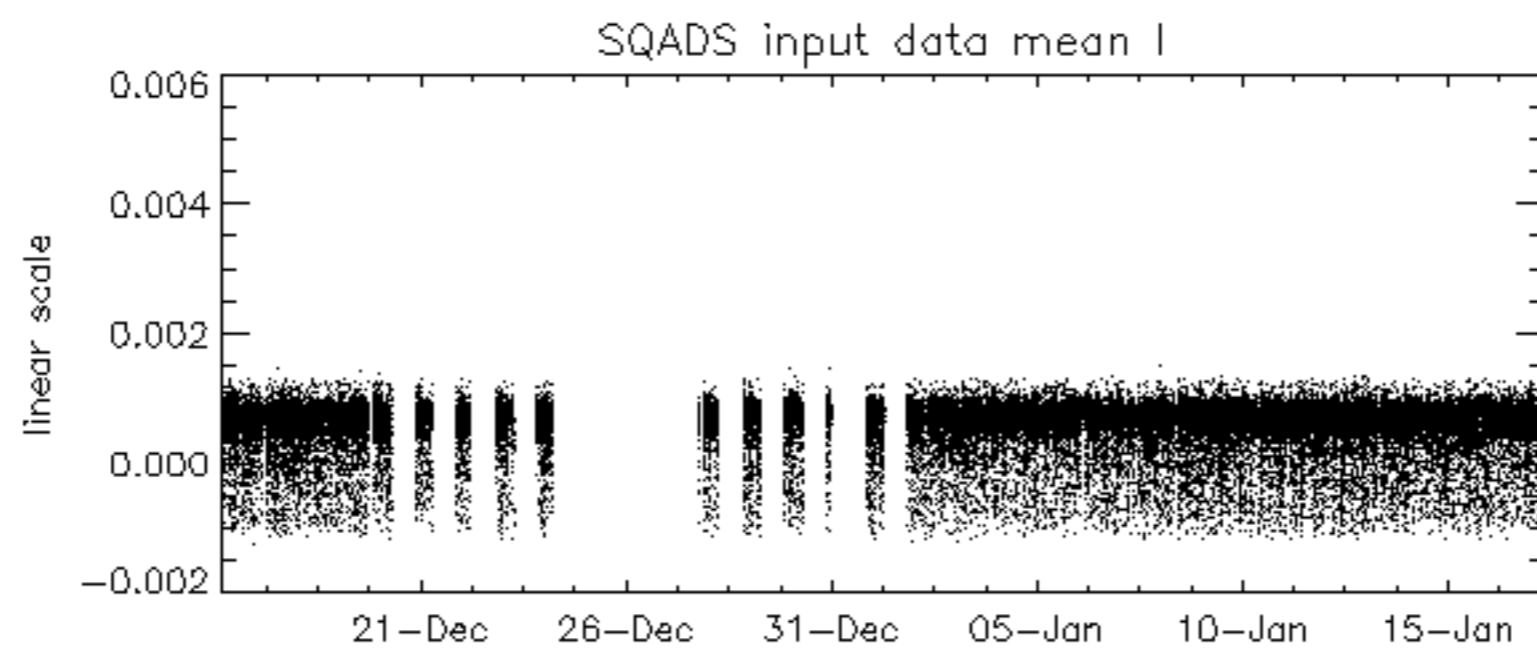
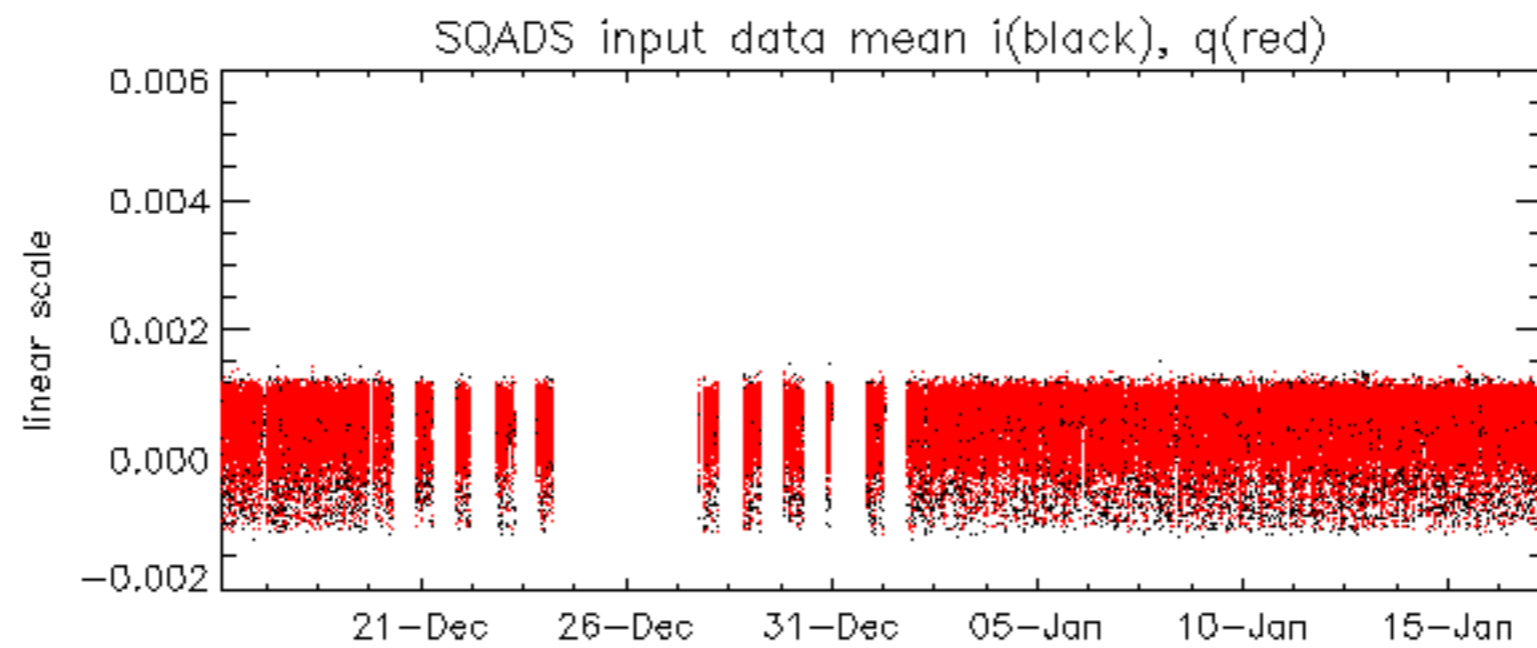
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -12.857665 Hz

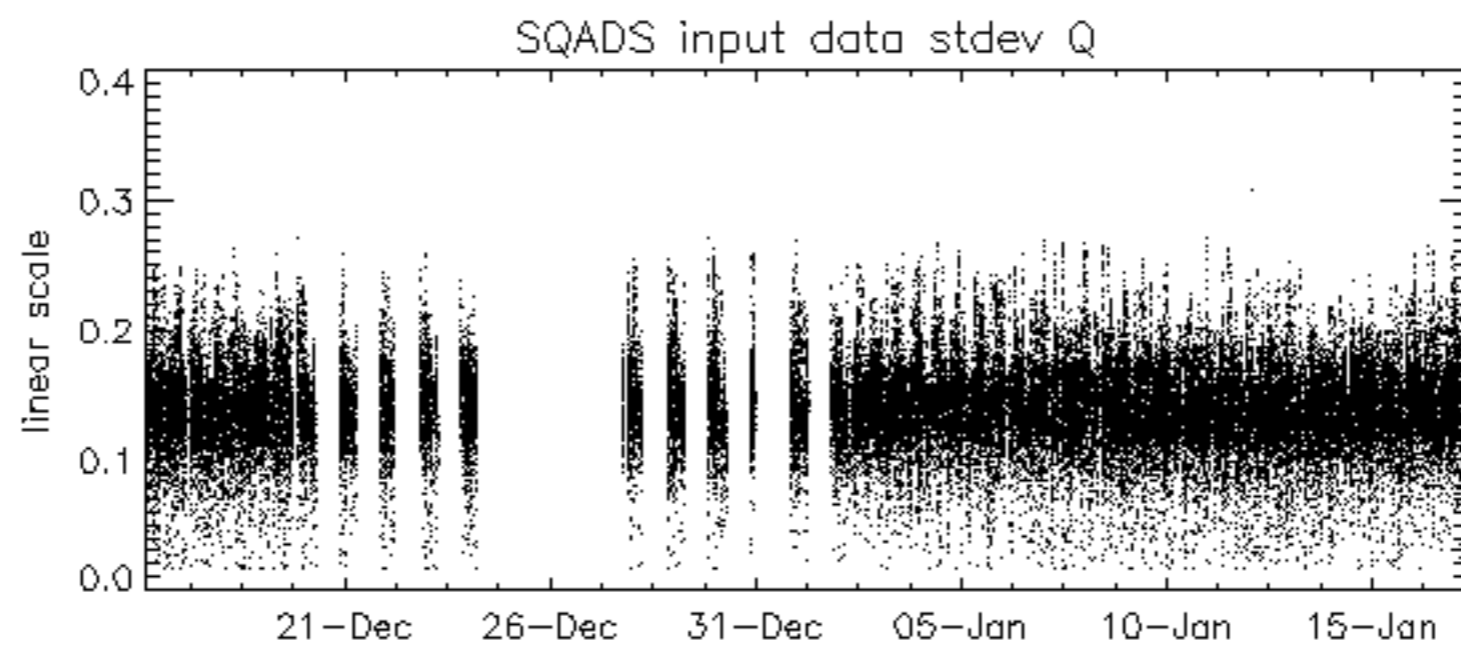
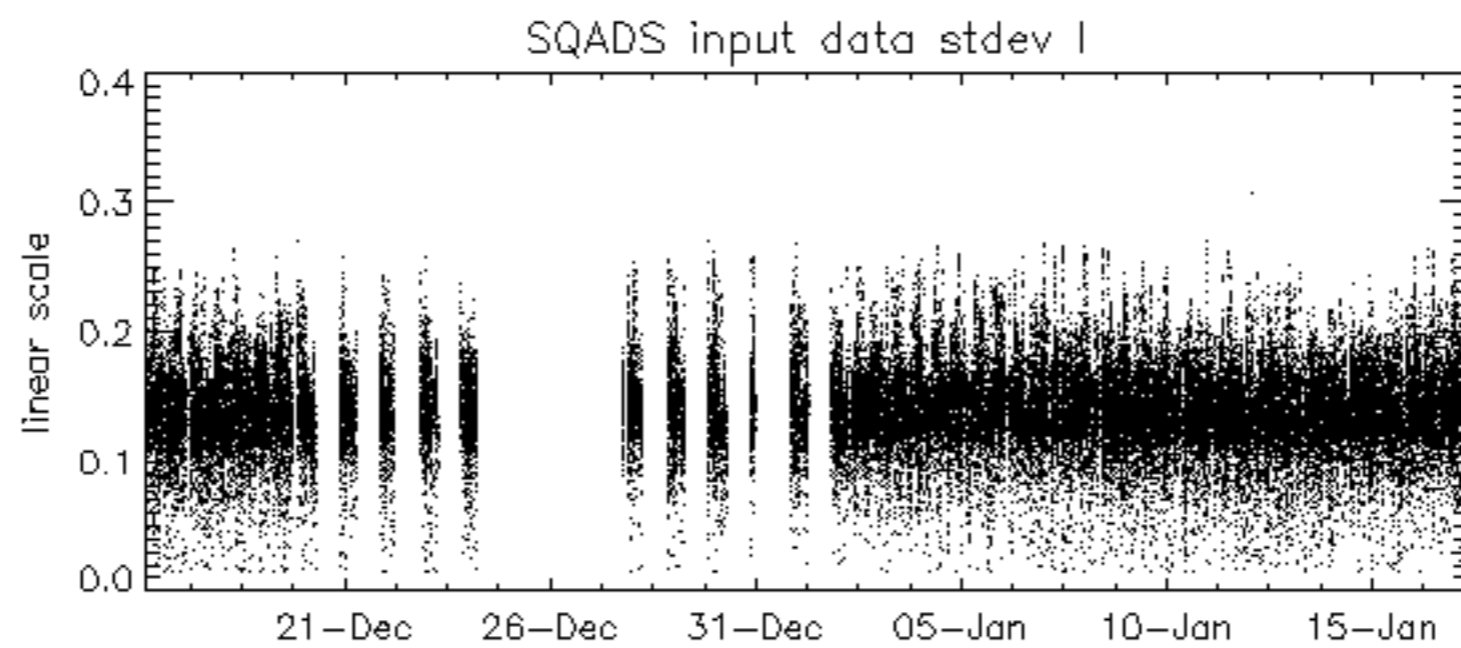
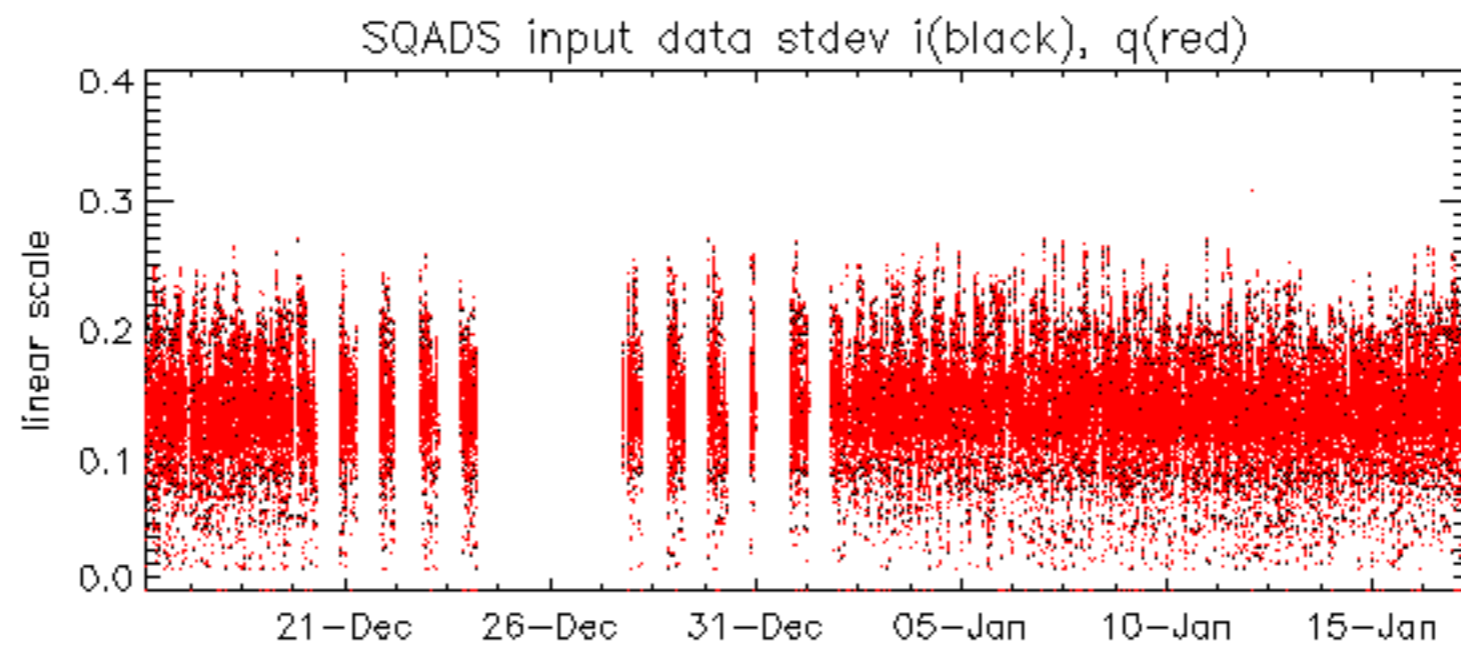


No anomalies observed on available MS products:

No anomalies observed.





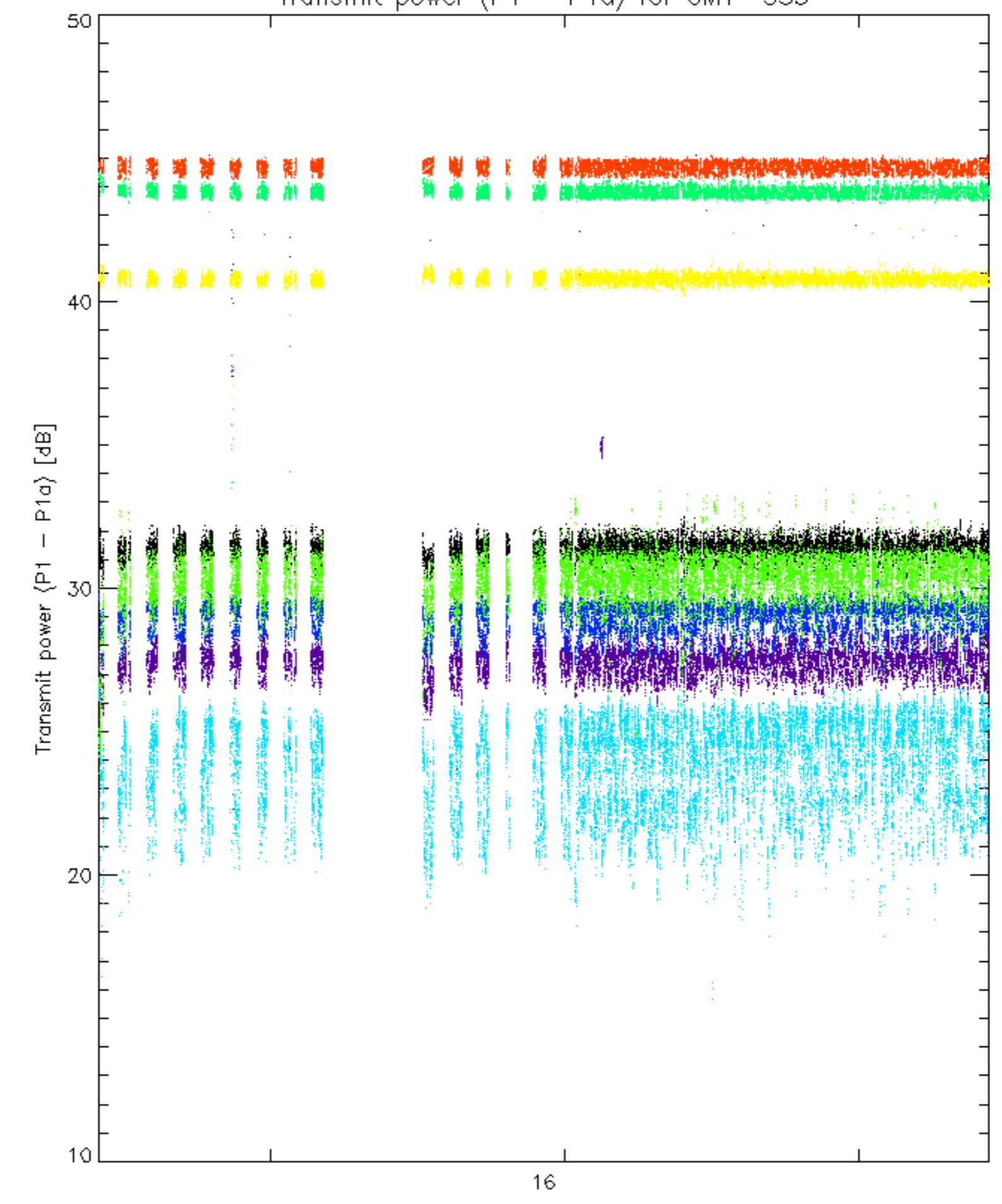


Summary of analysis for the last 3 days 2007011[567]

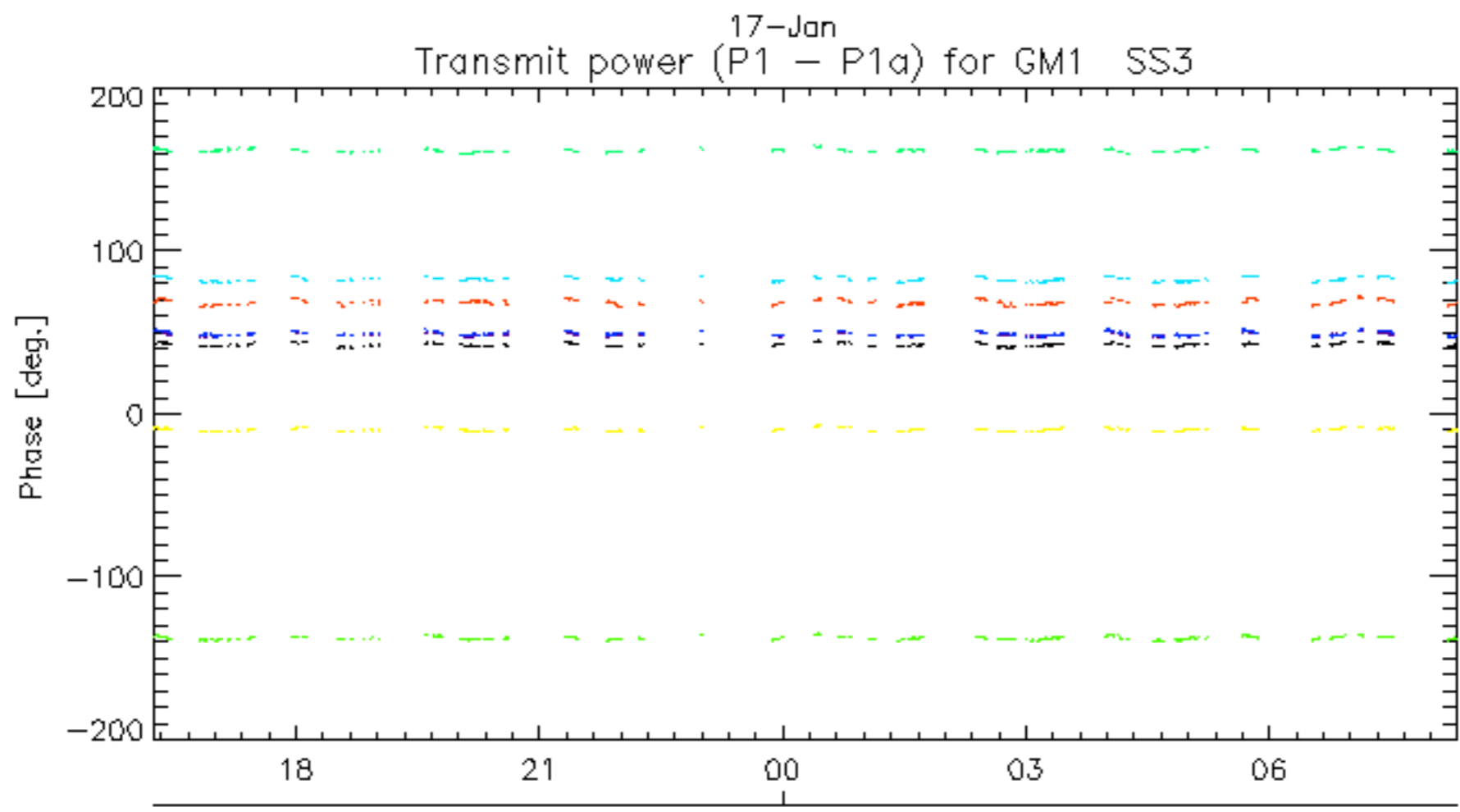
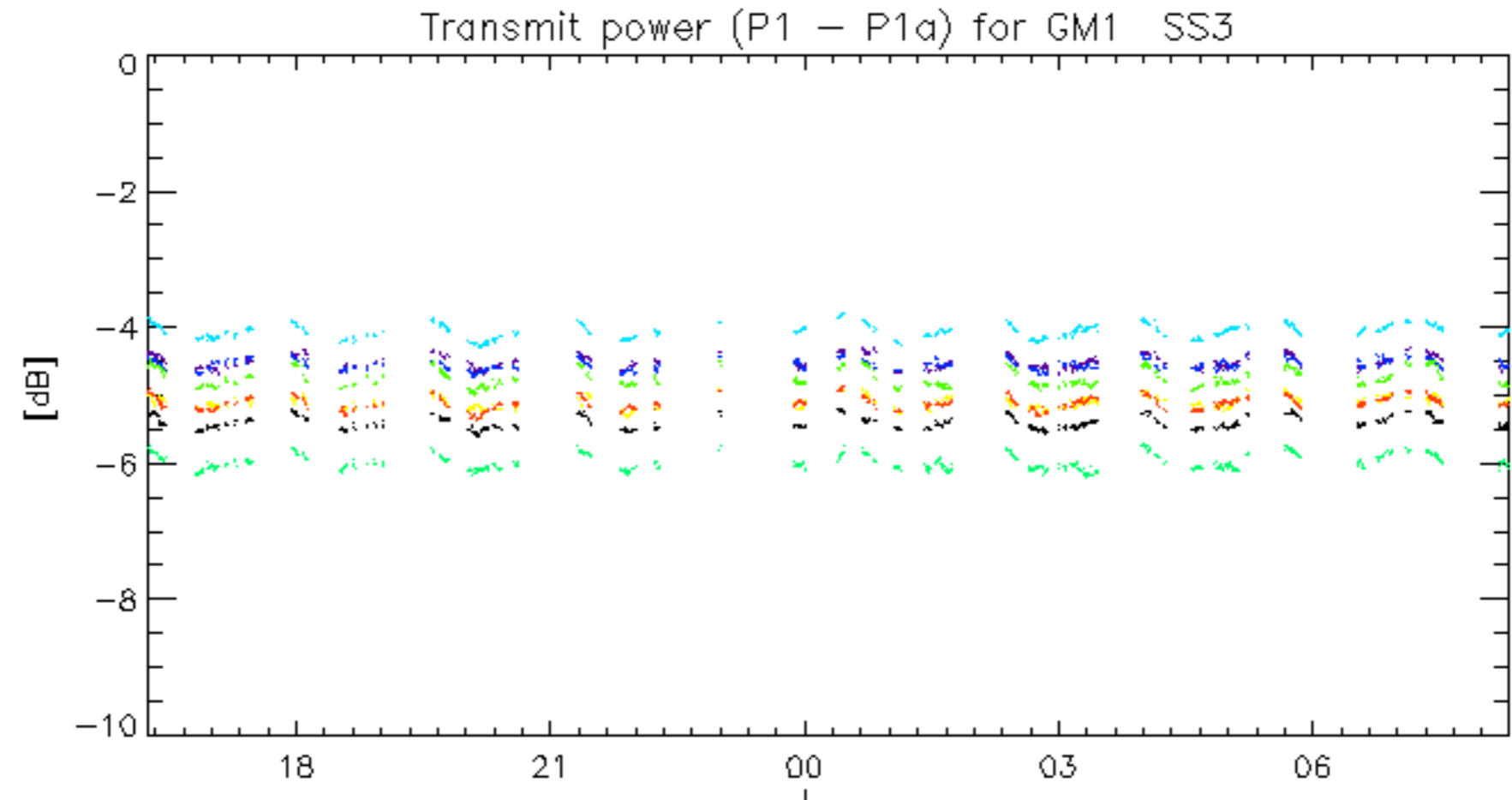
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WVS_1PNPDK20070115_150216_00000002054_00397_25501_7820.N1	1	0
ASA_WVS_1PNPDK20070115_150216_00000002054_00397_25501_7978.N1	1	0
ASA_GM1_1PNPDK20070115_091257_000003202054_00394_25498_7135.N1	0	7
ASA_GM1_1PNPDK20070115_134639_000003622054_00396_25500_7796.N1	0	14
ASA_GM1_1PNPDK20070116_183117_000003082054_00414_25518_9835.N1	0	19
ASA_WSM_1PNPDE20070115_112055_000000852054_00395_25499_8381.N1	0	28
ASA_WSM_1PNPDE20070115_185945_000000912054_00400_25504_8532.N1	0	2
ASA_WSM_1PNPDE20070116_150734_000001762054_00412_25516_9712.N1	0	36

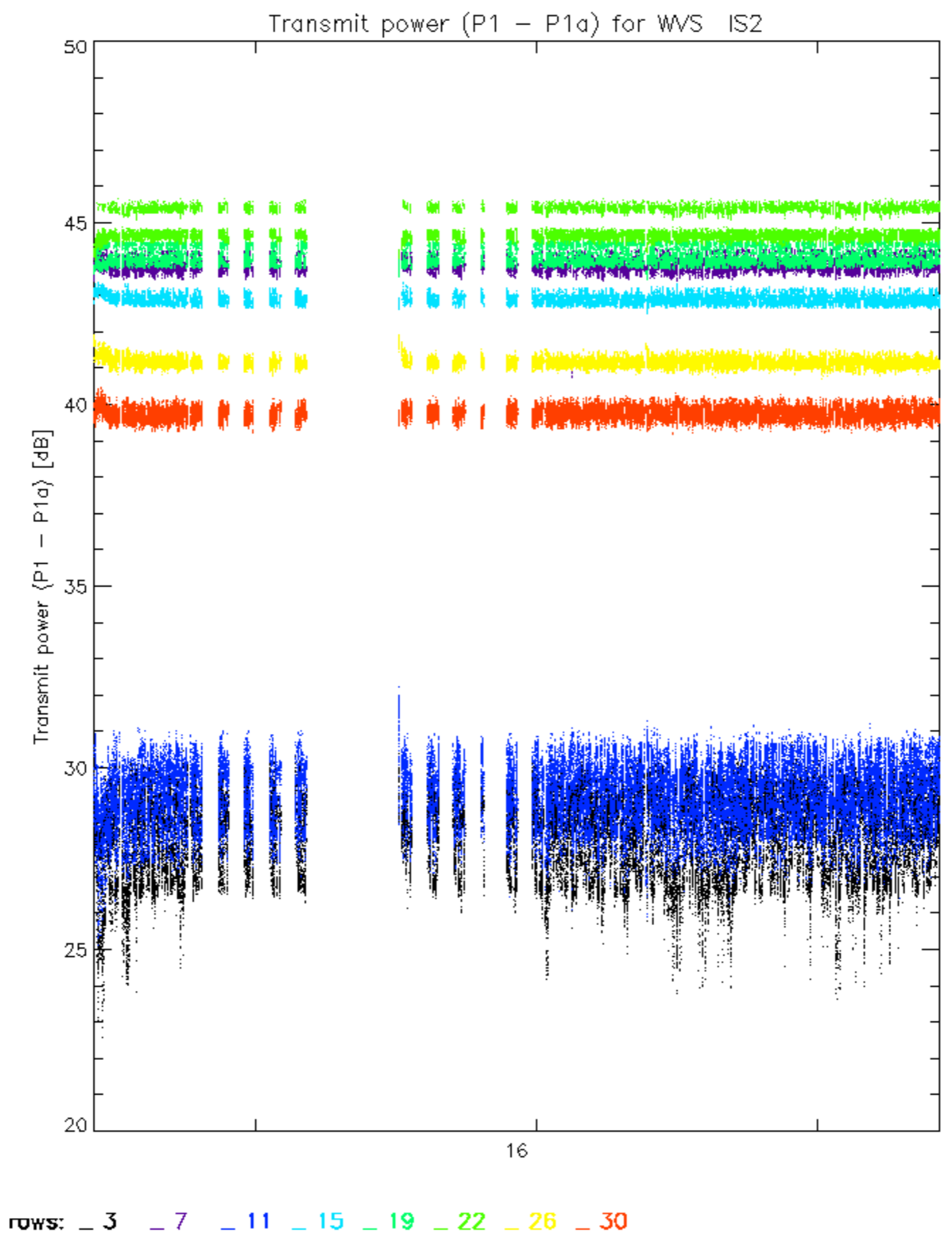
Transmit power (P1 - P1a) for GM1 SS3

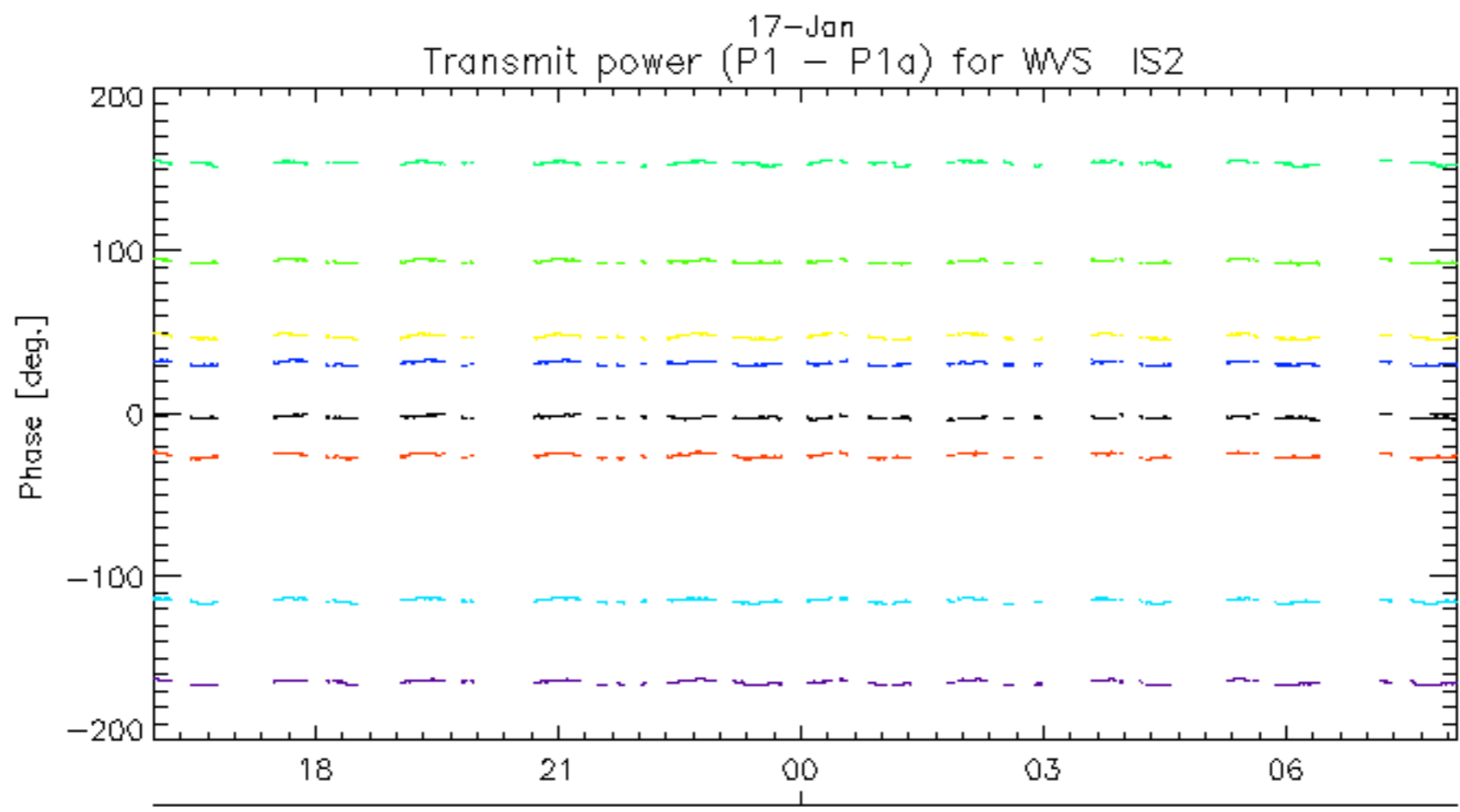
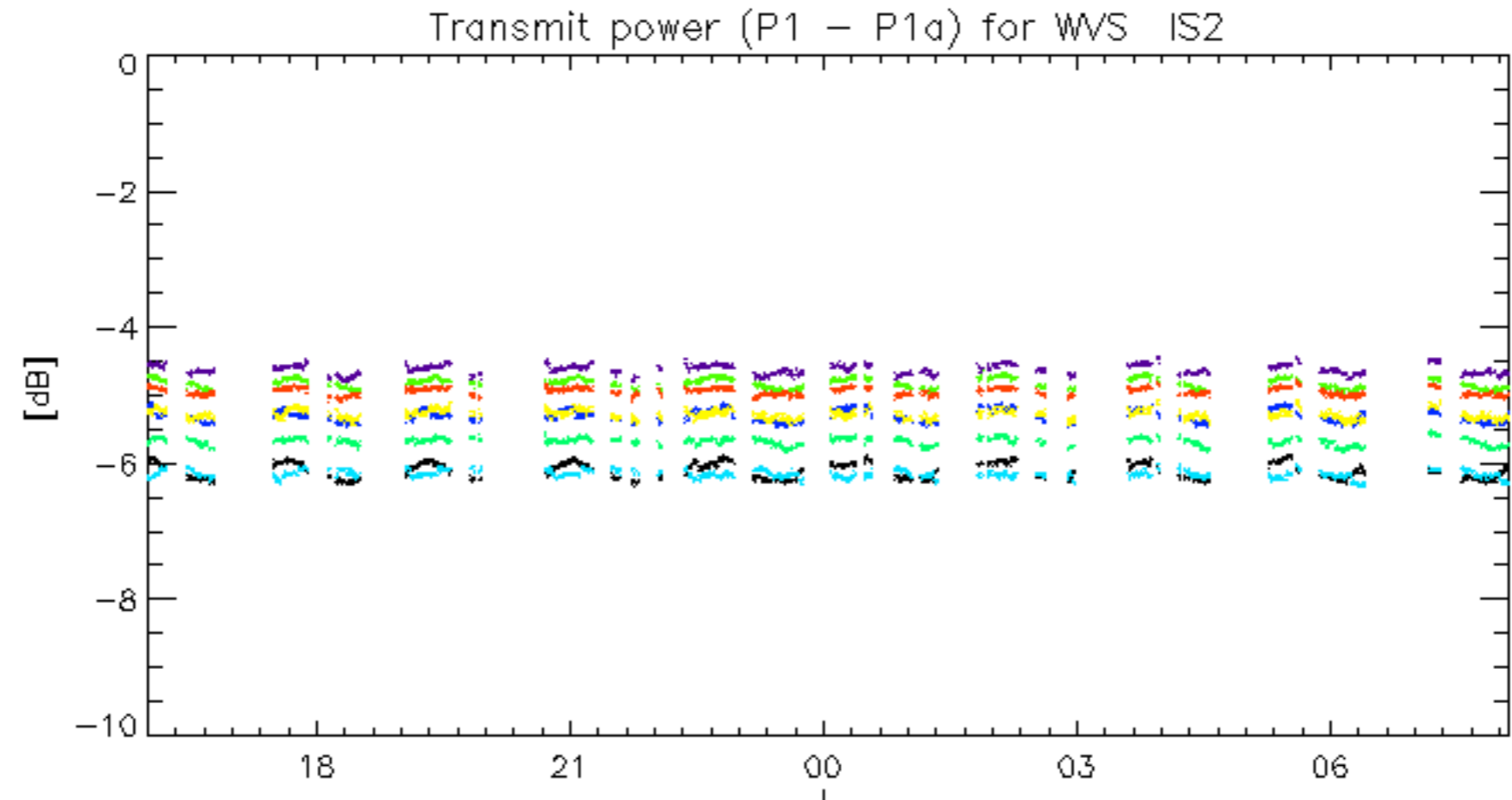


rows: 3 7 11 15 19 22 26 30



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





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

No unavailabilities during the reported period.