

PRELIMINARY REPORT OF 070102

last update on Tue Jan 2 16:24:07 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 2007-01-01 00:00:00 to 2007-01-02 16:24:07

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	48	54	34	4	61
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	48	54	34	4	61
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	54	34	4	61
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	48	54	34	4	61

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	20070101 054047
H	20070102 050910

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"/>

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4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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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	-3.960334	0.008199	-0.021179
7	P1	-3.134751	0.025084	0.046588
11	P1	-4.117790	0.026434	0.013914
15	P1	-6.326576	0.017160	-0.019656
19	P1	-3.663975	0.005540	-0.055724
22	P1	-4.662637	0.014244	-0.033011
26	P1	-3.962311	0.009126	-0.009103
30	P1	-5.902087	0.009367	-0.044533
3	P1	-16.543922	0.263861	-0.087260
7	P1	-17.279202	0.196422	0.133687
11	P1	-17.184132	0.493216	-0.052214
15	P1	-13.036954	0.138430	0.059647
19	P1	-15.010691	0.095902	-0.104678
22	P1	-15.824852	0.540496	0.127238
26	P1	-15.083981	0.189038	0.079184
30	P1	-17.514008	0.476853	0.100122

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.794216	0.095011	-0.009450
7	P2	-21.711710	0.093536	0.079221
11	P2	-15.563483	0.102302	0.002994
15	P2	-7.106593	0.109462	0.022254
19	P2	-9.187921	0.105723	0.025653
22	P2	-18.225101	0.099116	0.005604
26	P2	-16.594770	0.112123	-0.017323
30	P2	-19.448328	0.090158	-0.003376

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.237768	0.009107	0.000513
7	P3	-8.237768	0.009107	0.000513
11	P3	-8.237768	0.009107	0.000513

15	P3	-8.237768	0.009107	0.000513
19	P3	-8.237768	0.009107	0.000513
22	P3	-8.237768	0.009107	0.000513
26	P3	-8.237803	0.009107	0.000391
30	P3	-8.237803	0.009107	0.000391

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	-3.921386	0.015123	-0.003536
7	P1	-2.471771	0.015753	0.023493
11	P1	-2.852246	0.017717	0.026243
15	P1	-3.689701	0.032157	-0.021267
19	P1	-3.547184	0.020278	-0.012182
22	P1	-5.025248	0.024677	0.036336
26	P1	-6.032528	0.030713	-0.030974
30	P1	-5.346178	0.040535	-0.008175
3	P1	-11.741771	0.085885	0.032063
7	P1	-10.075585	0.083191	0.036650
11	P1	-10.357715	0.118706	-0.016628
15	P1	-10.714926	0.125476	-0.050584
19	P1	-15.728155	0.126862	-0.030803
22	P1	-21.584675	1.410904	-0.134963
26	P1	-16.058130	0.356407	0.006624
30	P1	-17.893816	0.375210	0.054407

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.467363	0.117667	-0.000506
7	P2	-22.218010	0.284655	0.009644
11	P2	-10.861846	0.116190	0.009159
15	P2	-4.981803	0.198011	-0.003439
19	P2	-6.964597	0.274330	-0.010386
22	P2	-8.246959	0.116056	-0.008454
26	P2	-24.317602	0.170384	-0.099592
30	P2	-21.950445	0.122912	0.035573

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.087776	0.005377	-0.022610
7	P3	-8.087603	0.005351	-0.022003
11	P3	-8.087694	0.005374	-0.022675
15	P3	-8.087544	0.005349	-0.022650
19	P3	-8.087579	0.005379	-0.022671
22	P3	-8.087544	0.005366	-0.021996
26	P3	-8.087683	0.005369	-0.023271
30	P3	-8.087644	0.005345	-0.022759

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	0.000560832
	stdev	1.66514e-07
MEAN Q	mean	0.000500324
	stdev	2.12858e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140089
	stdev	0.00123114
STDEV Q	mean	0.140487
	stdev	0.00125186



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007010[112]

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_WSM_1PNPDE20070101_001945_000003242054_00188_25292_5736.N1	0	36
ASA_WSM_1PNPDE20070101_162341_000002442054_00198_25302_6523.N1	0	51
ASA_WSM_1PNPDE20070101_180340_000001092054_00199_25303_6563.N1	0	10
ASA_WSM_1PNPDE20070101_234907_000002872054_00202_25306_7044.N1	0	36
ASA_WSM_1PNPDE20070102_012643_000001402054_00203_25307_7173.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

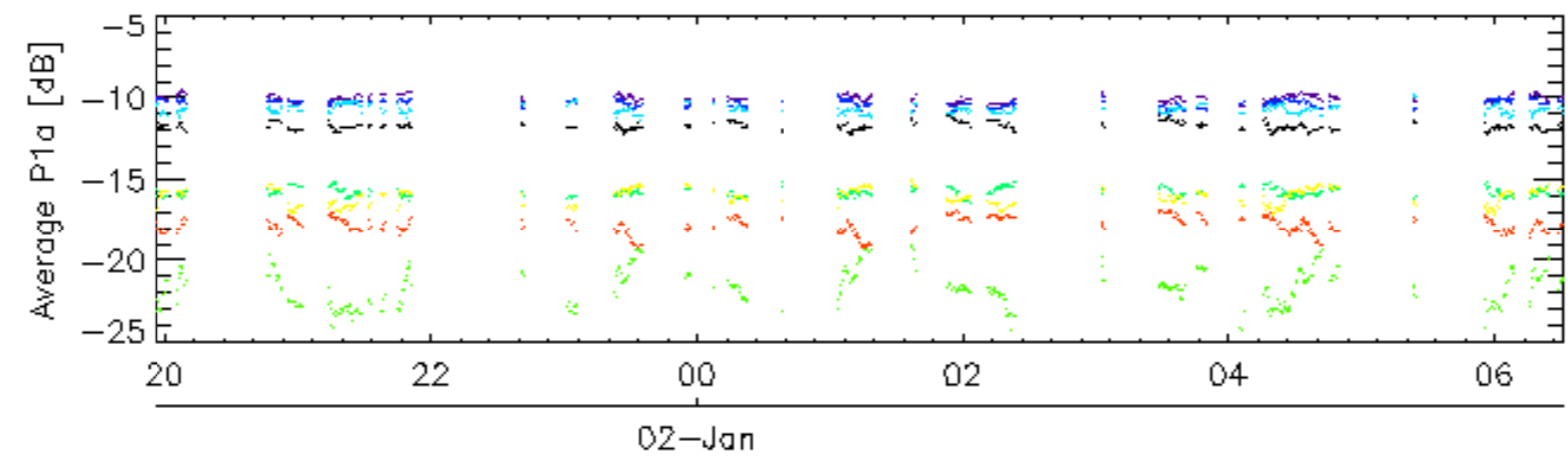
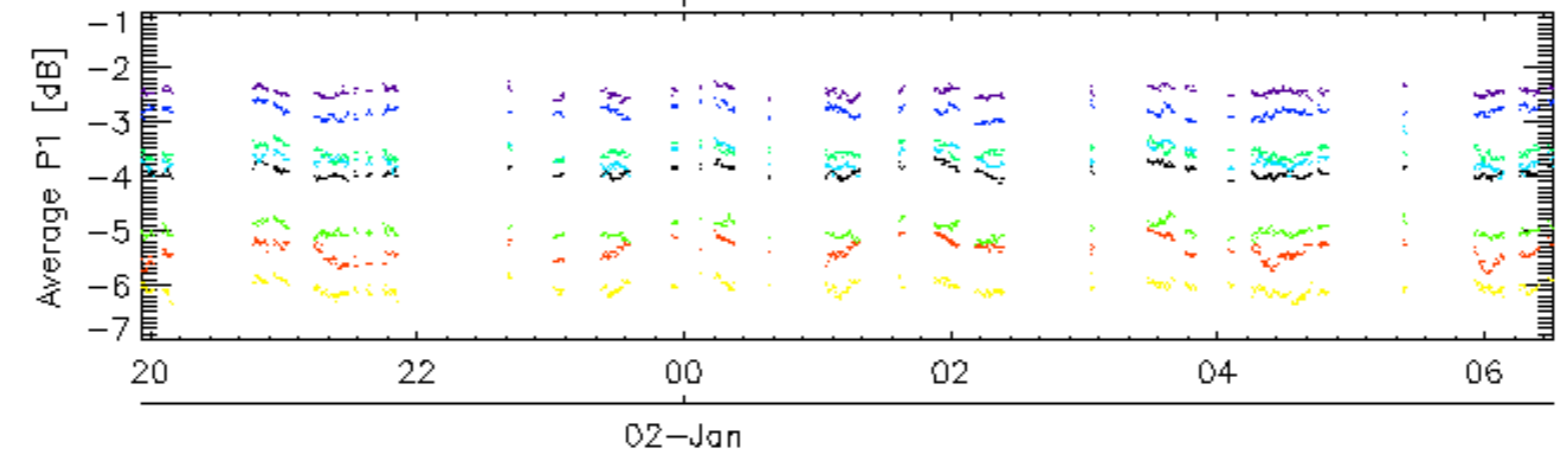
Ascending

Descending

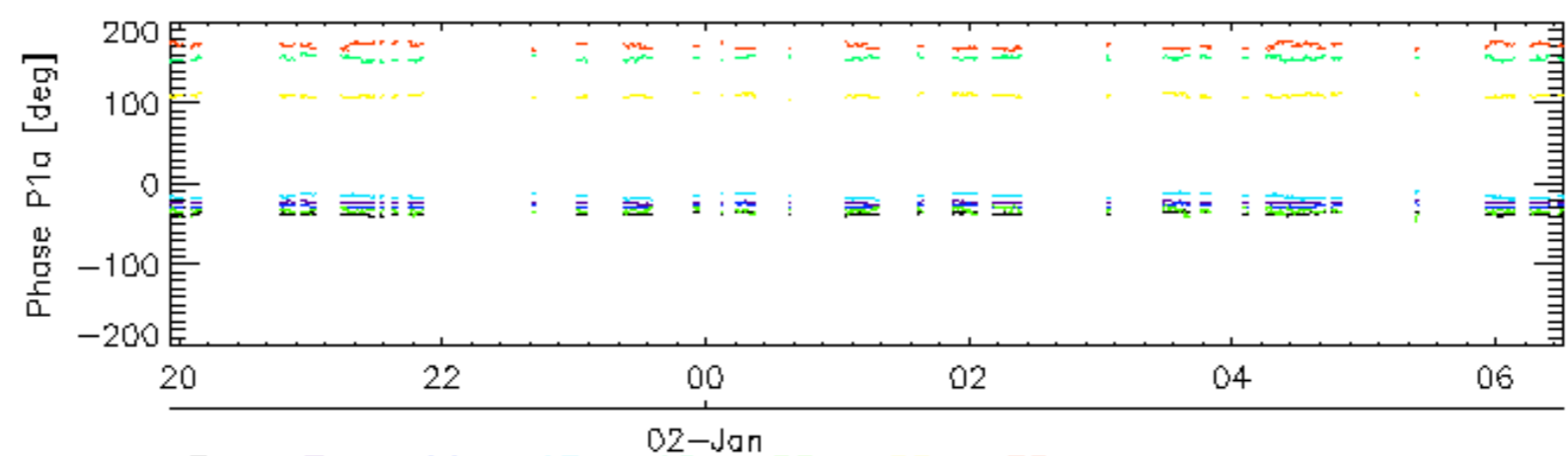
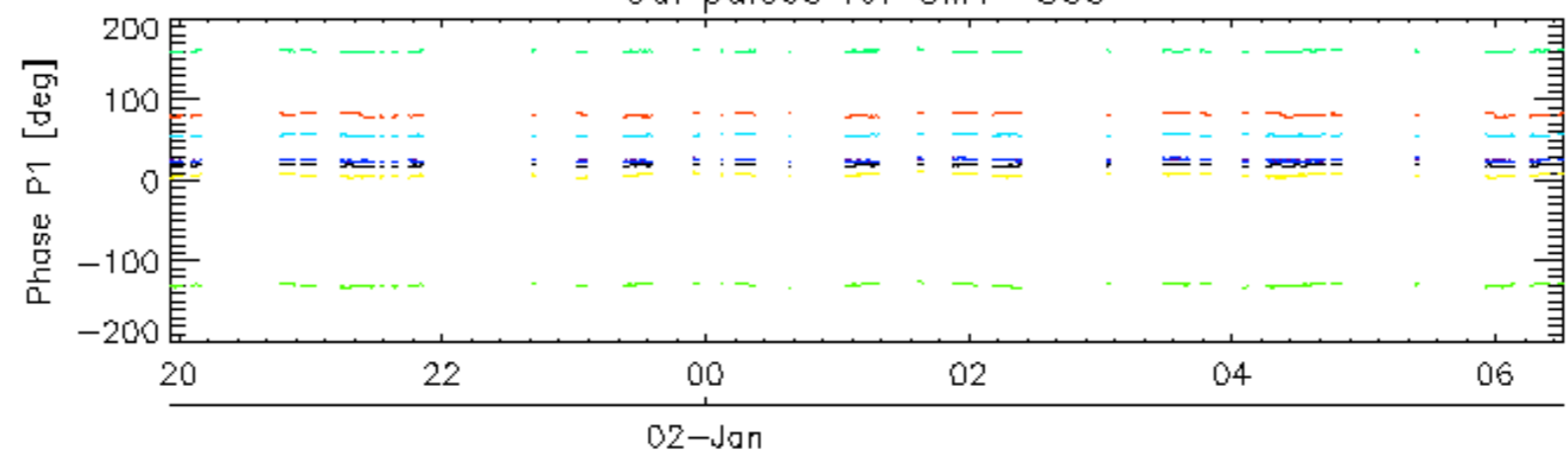
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

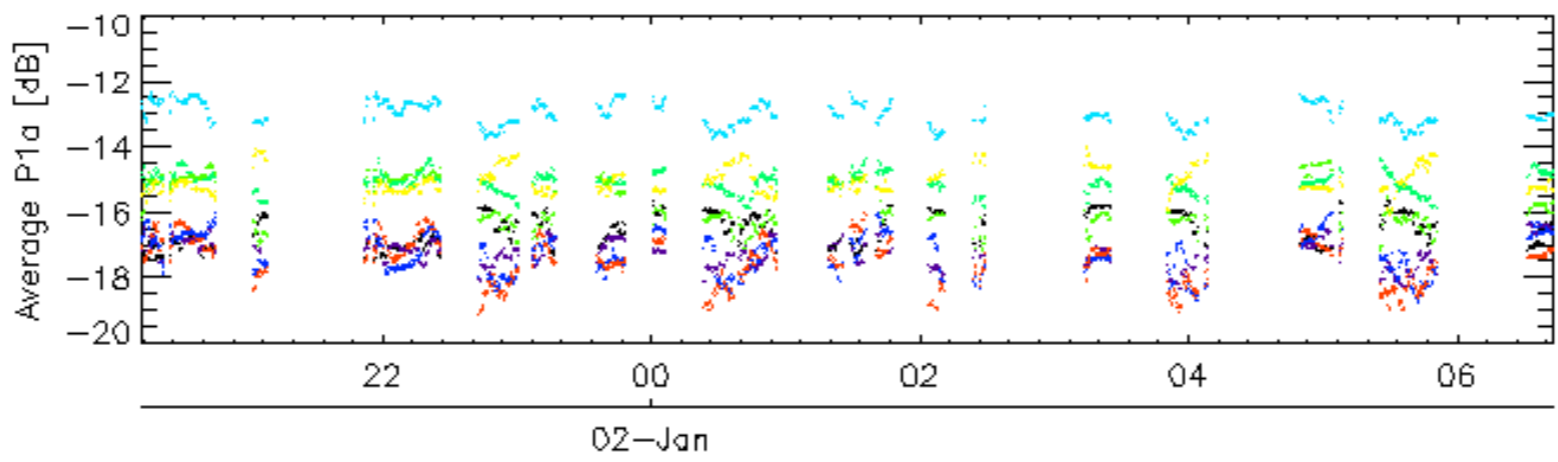
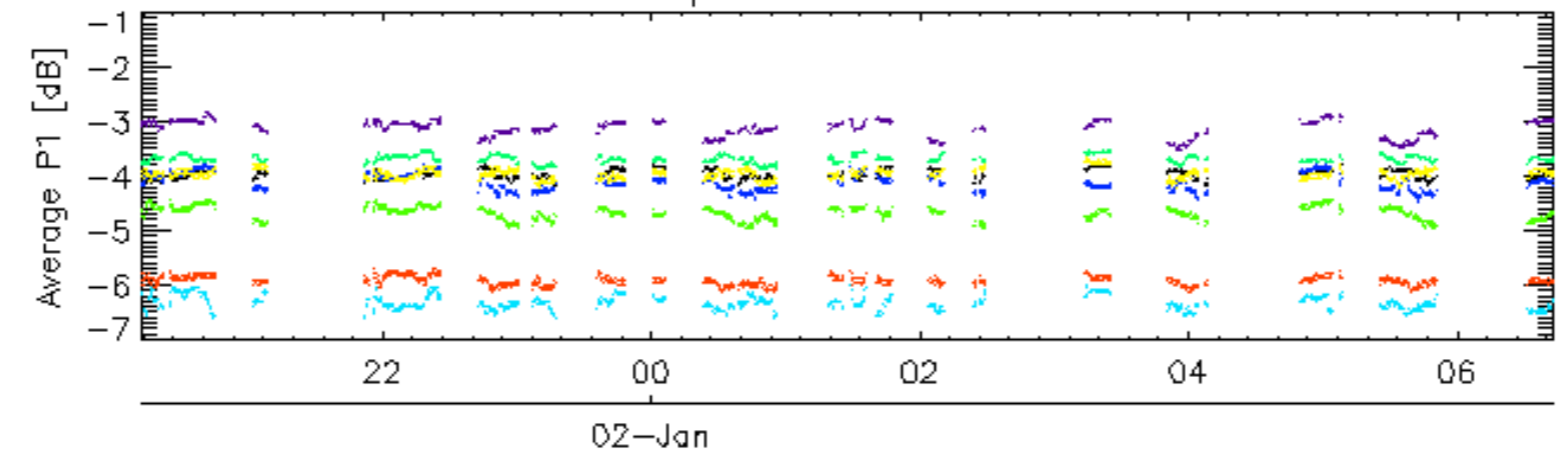


Cal pulses for GM1 SS3

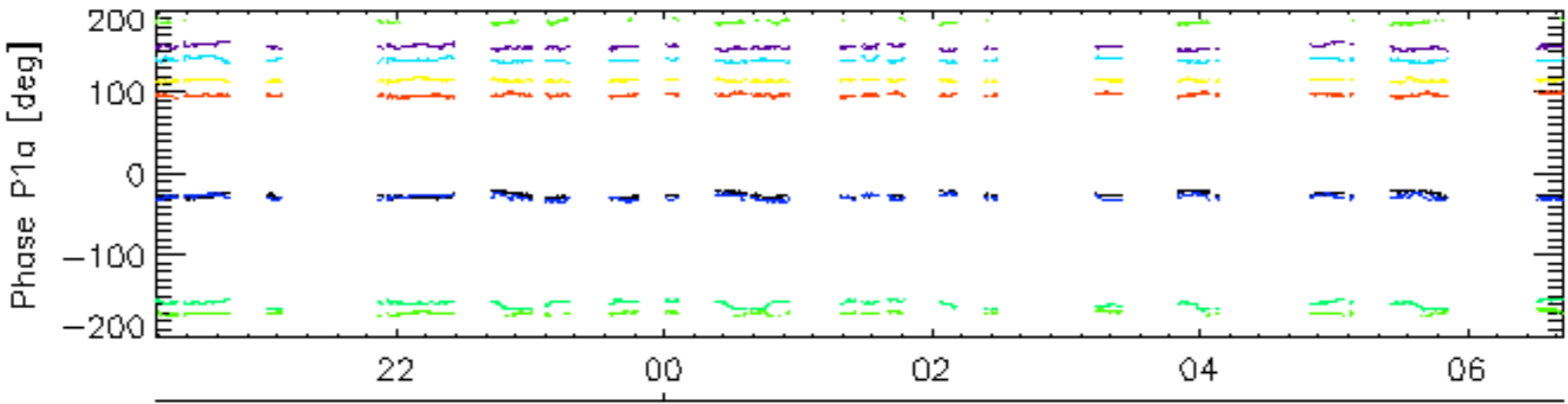
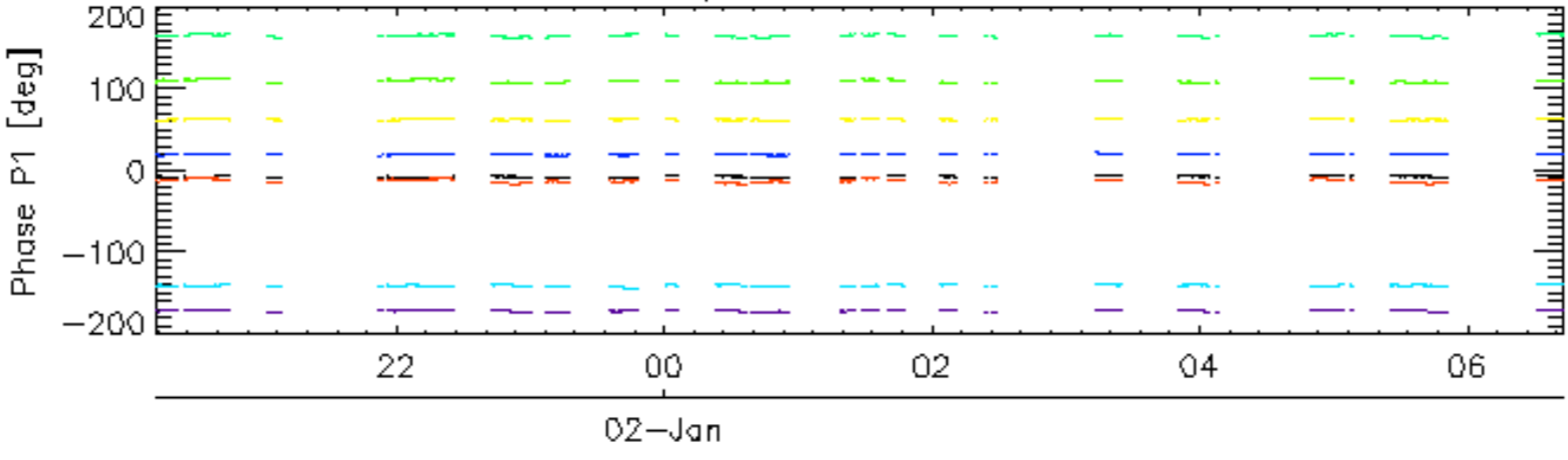


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

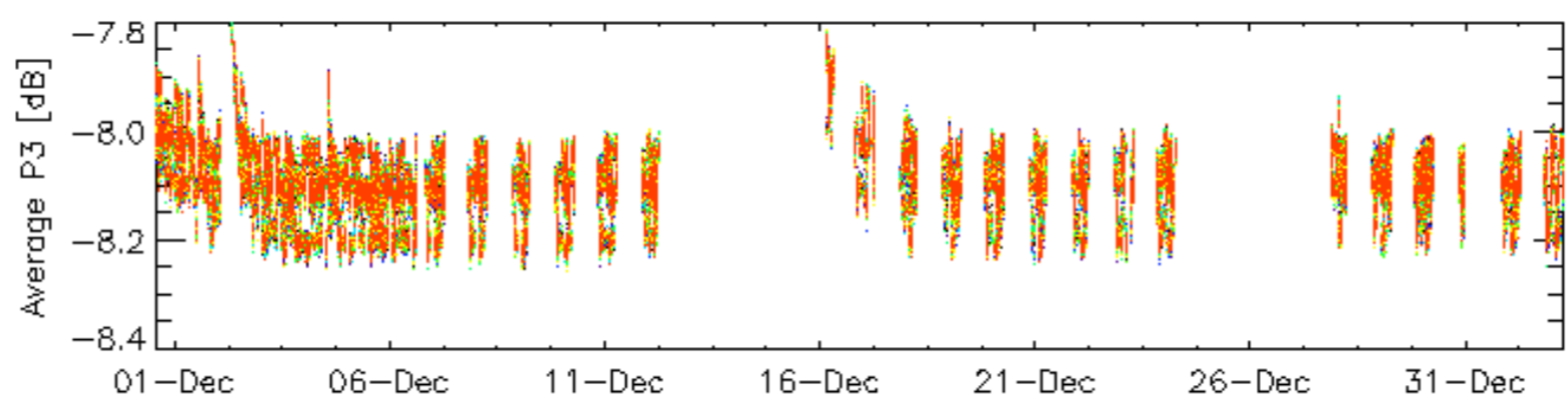
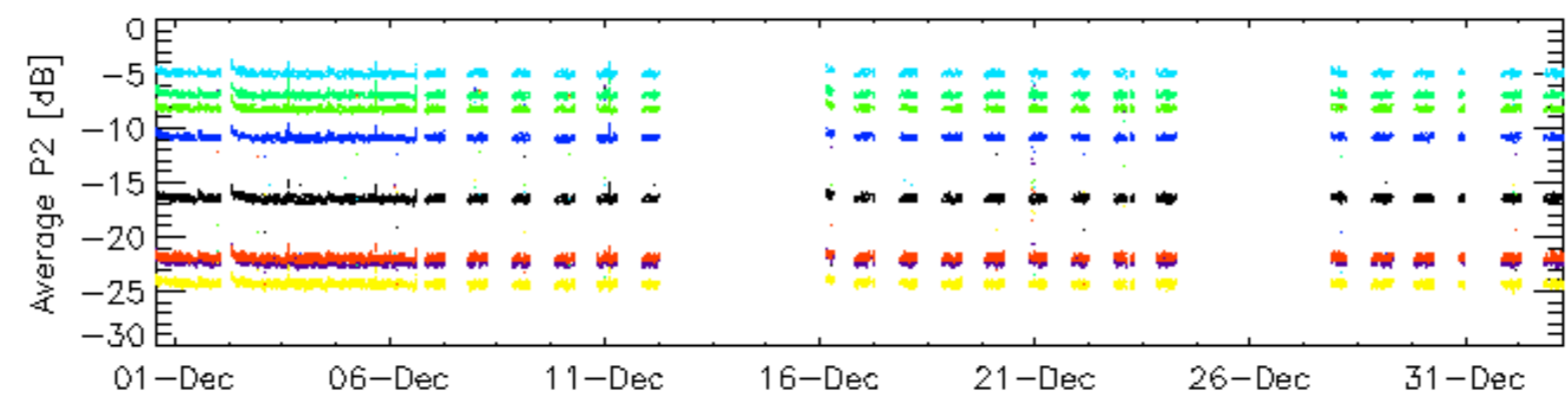
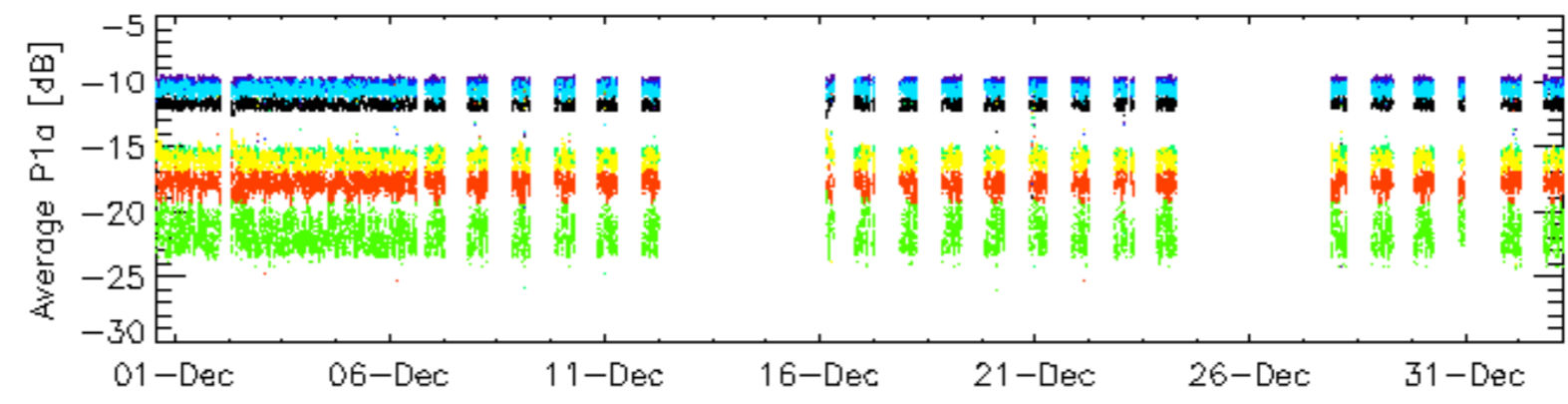
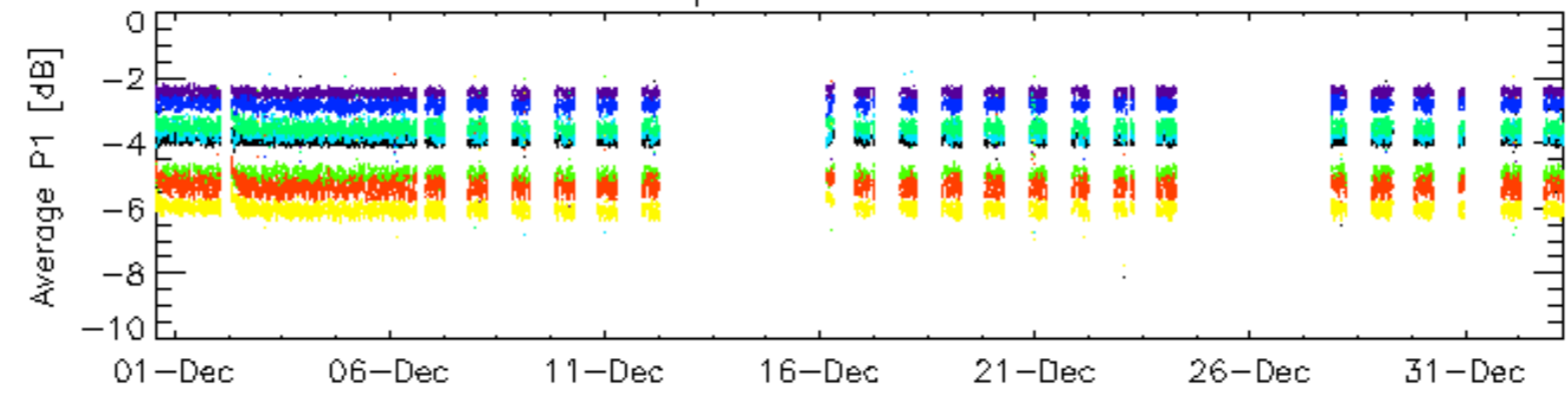


Cal pulses for WVS IS2



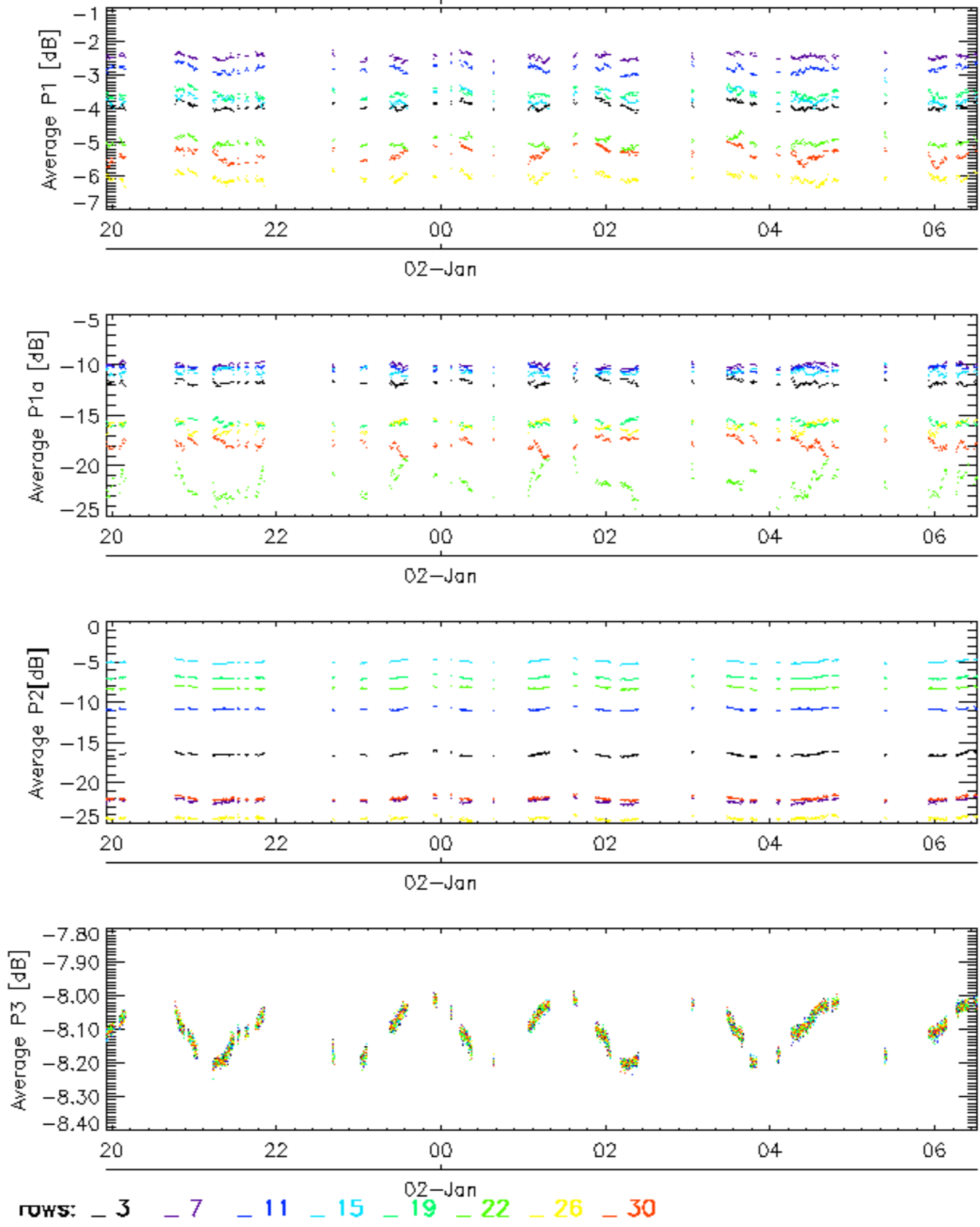
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

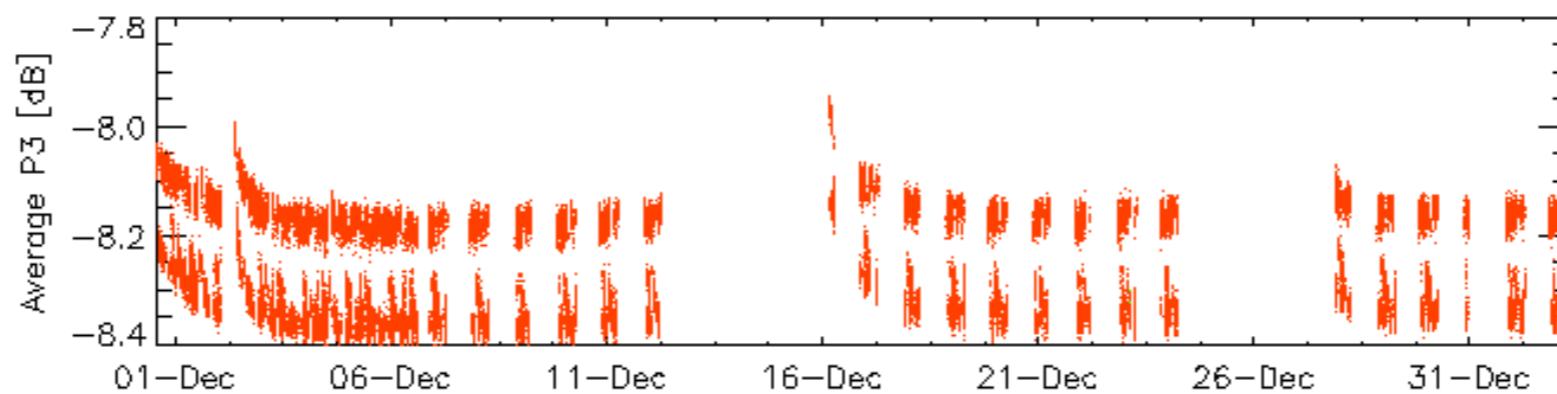
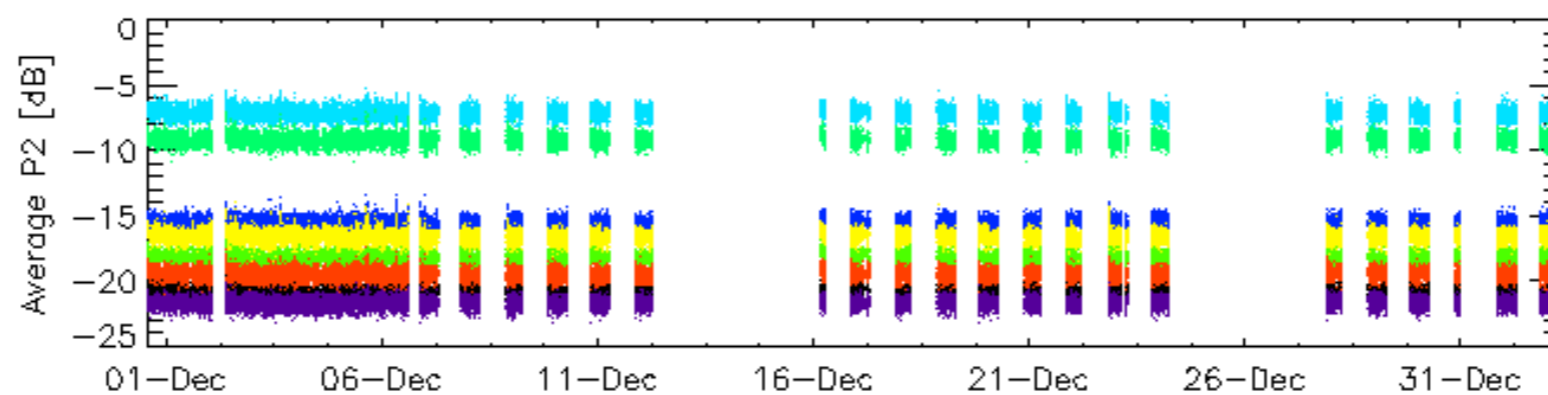
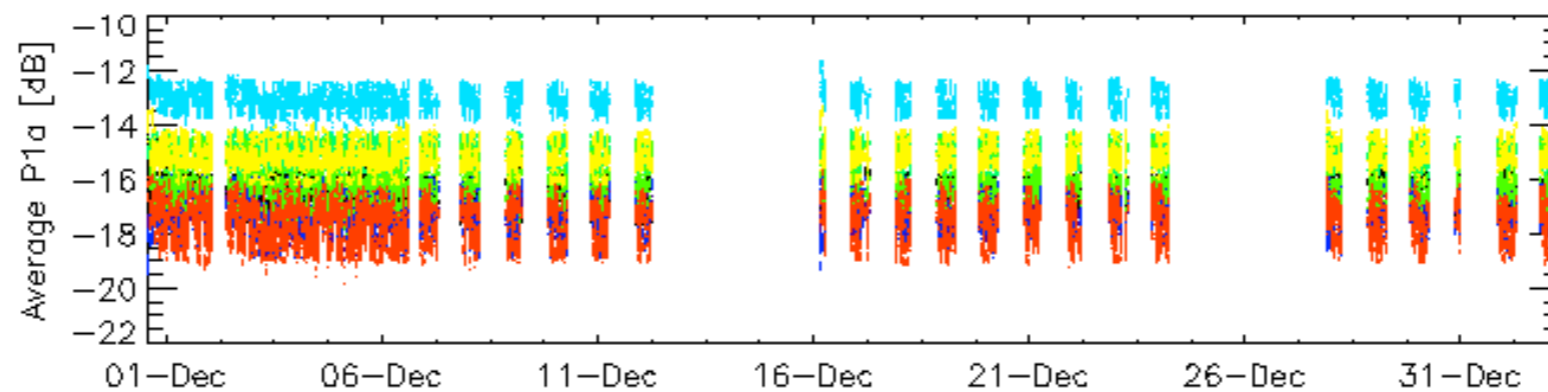
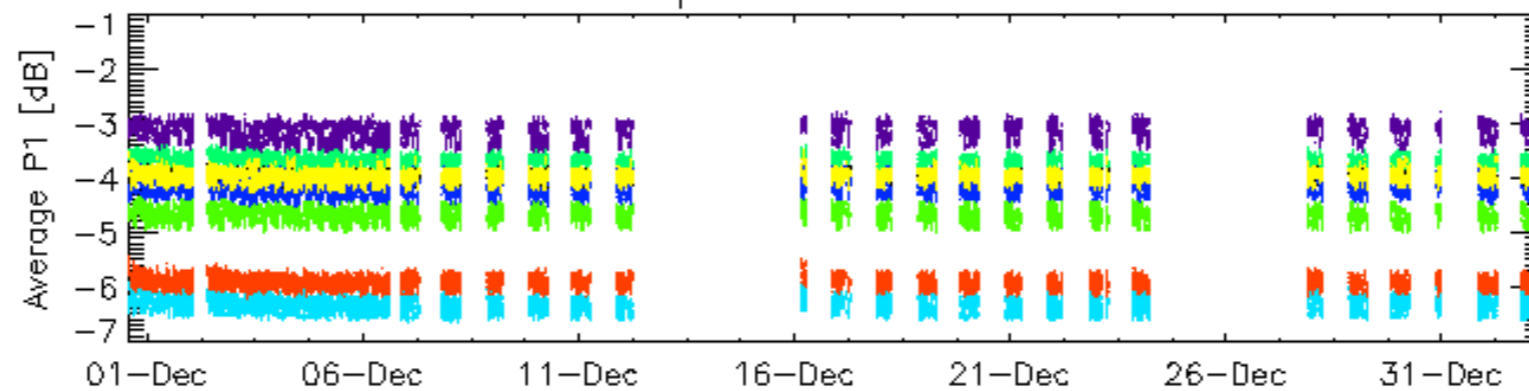


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

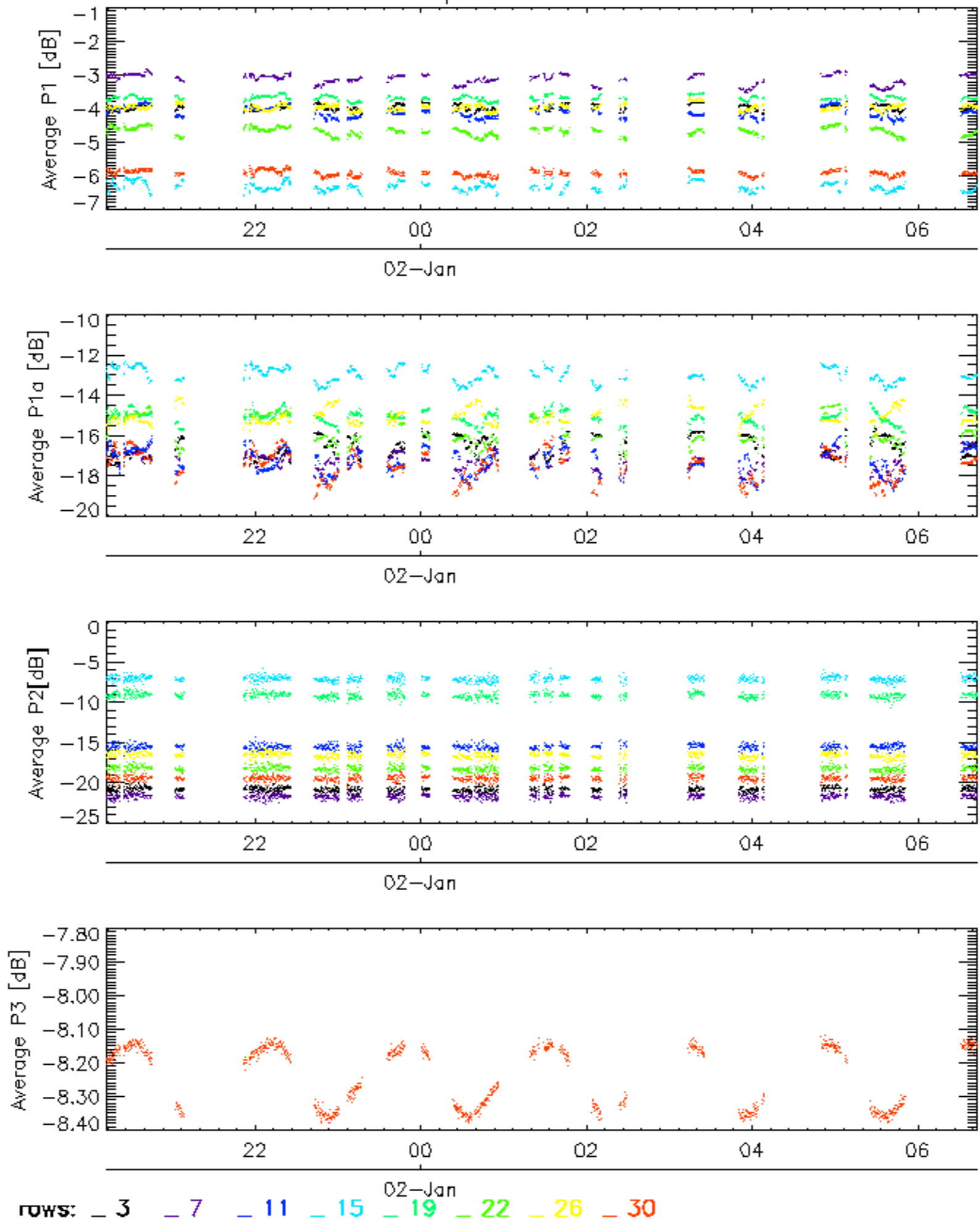


Cal pulses for WVS IS2

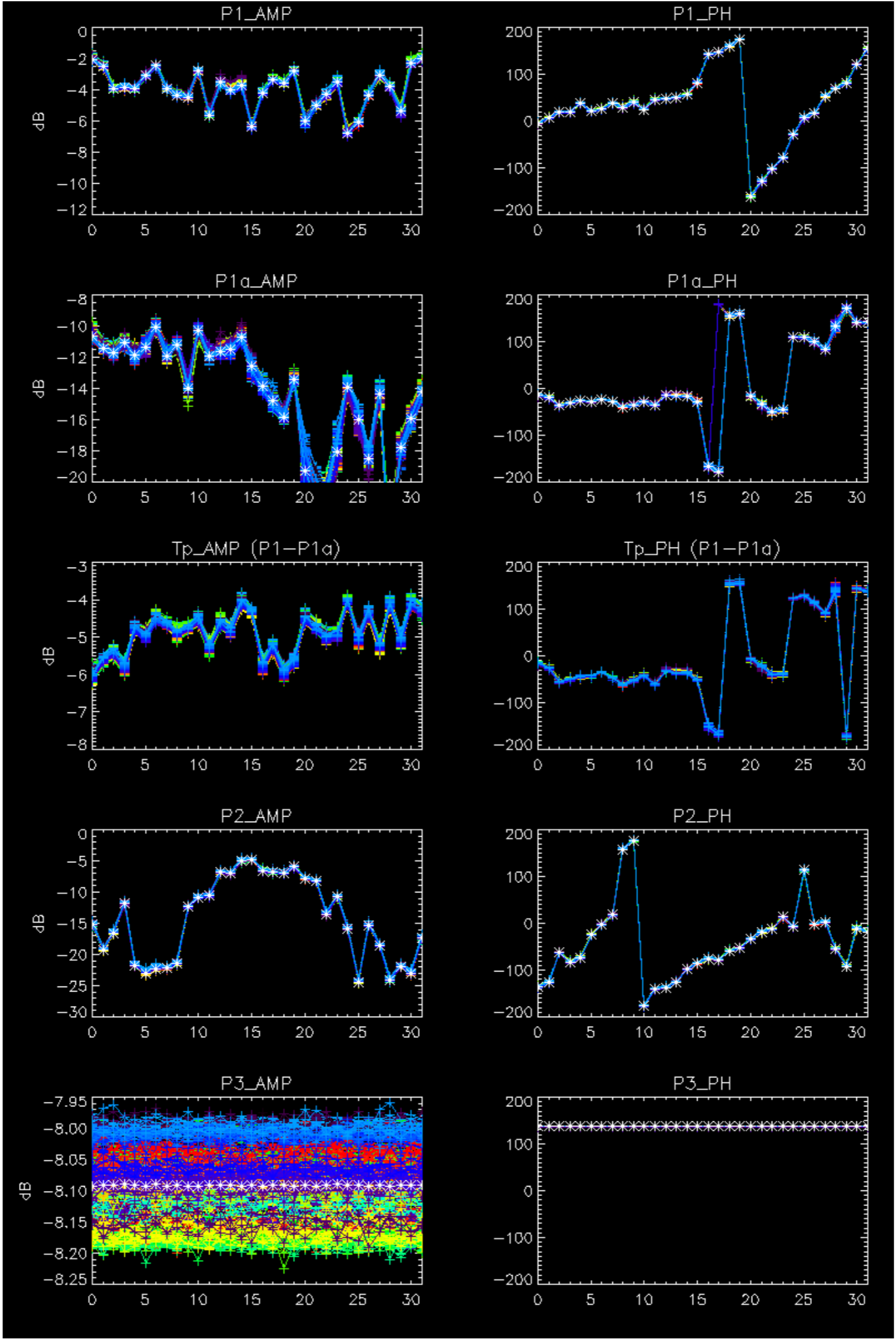


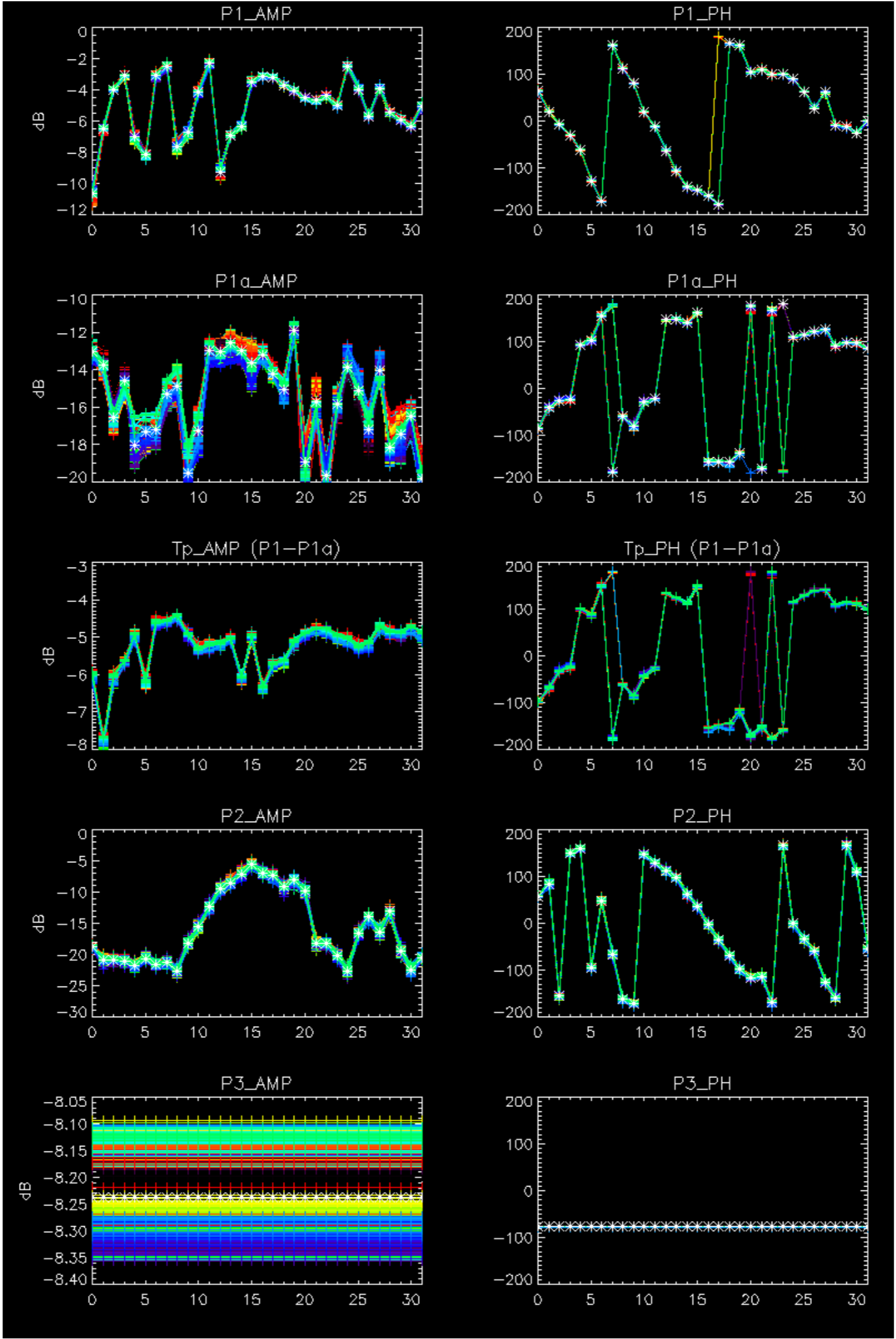
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



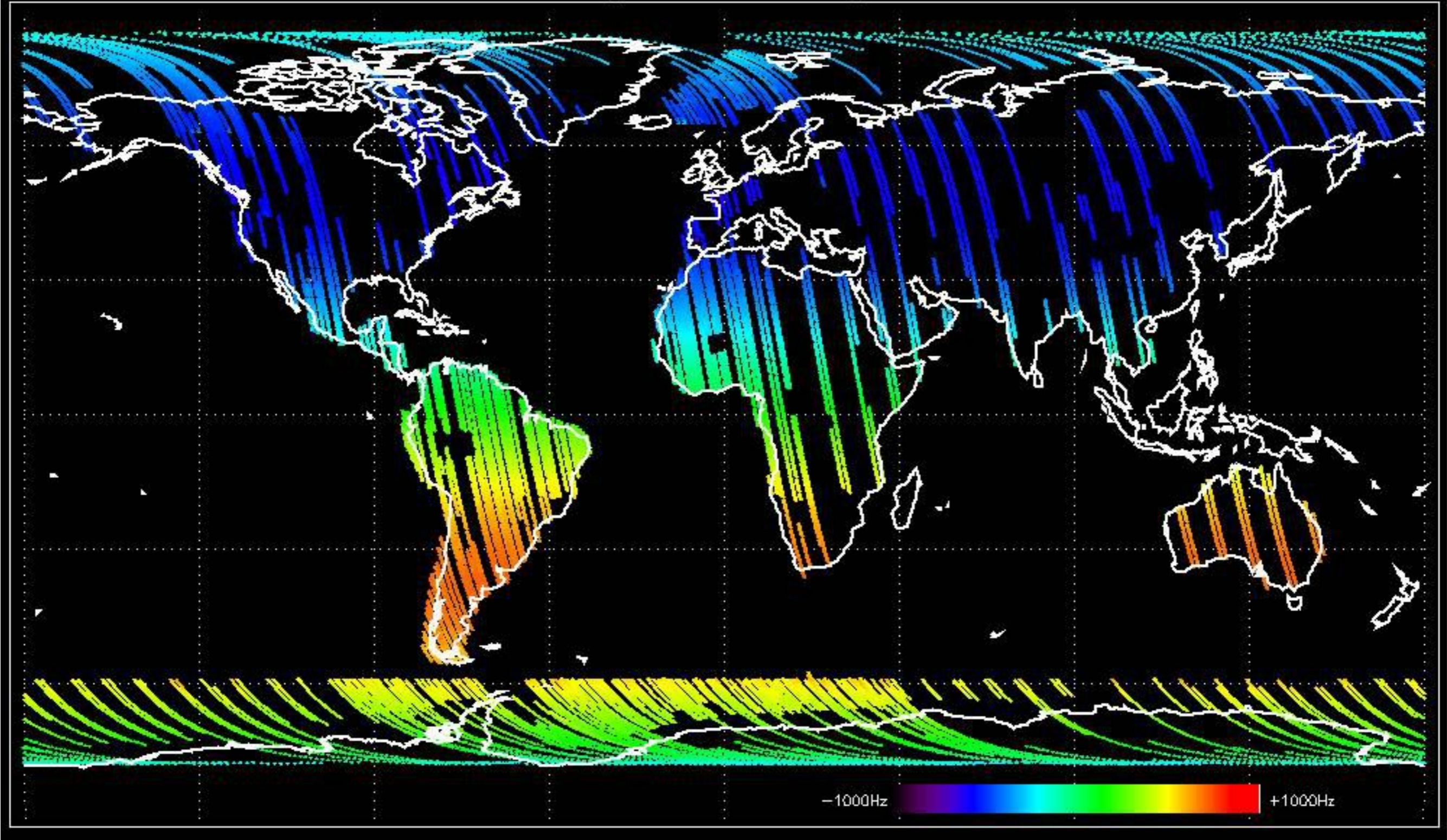
No anomalies observed.



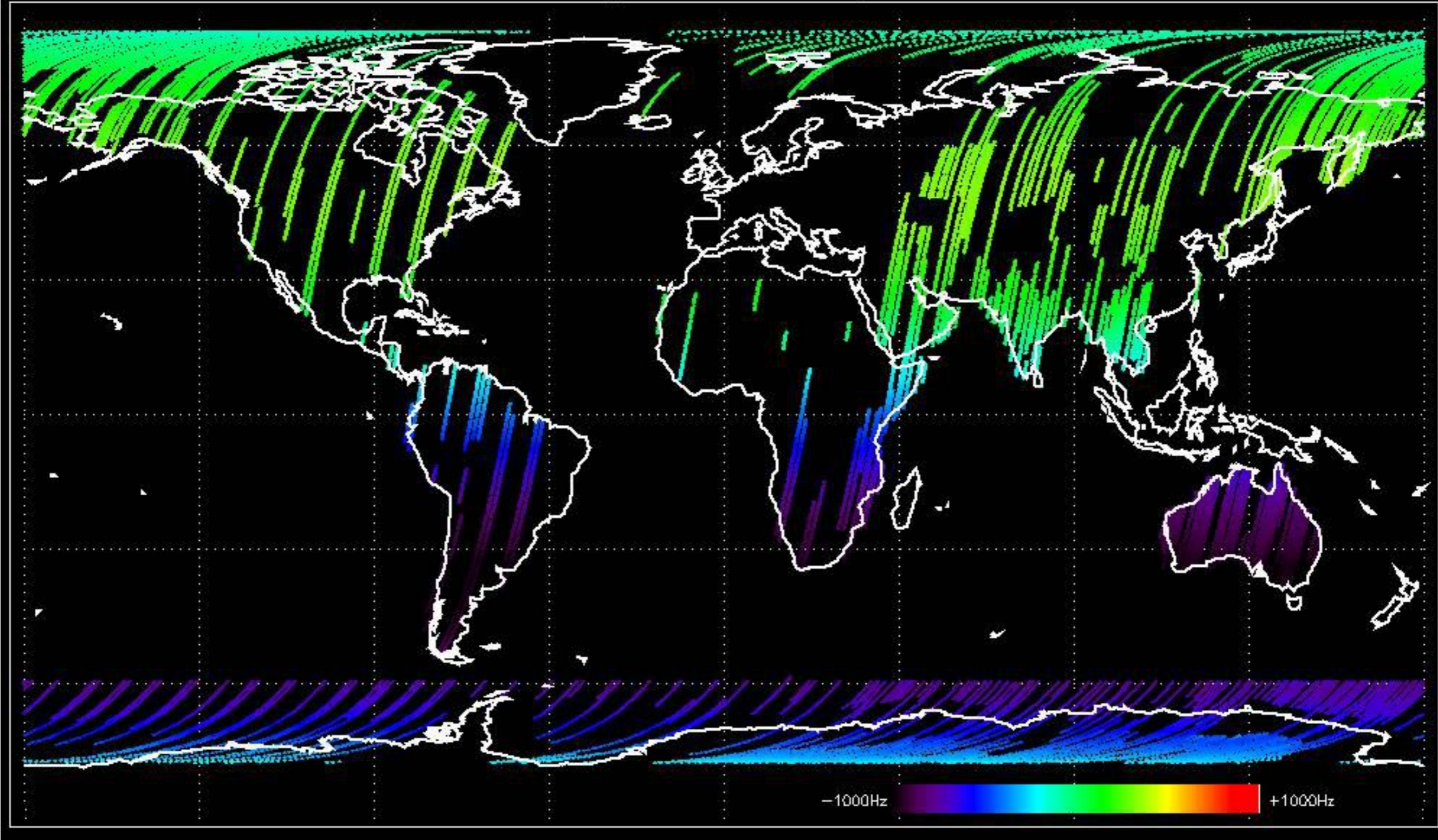


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

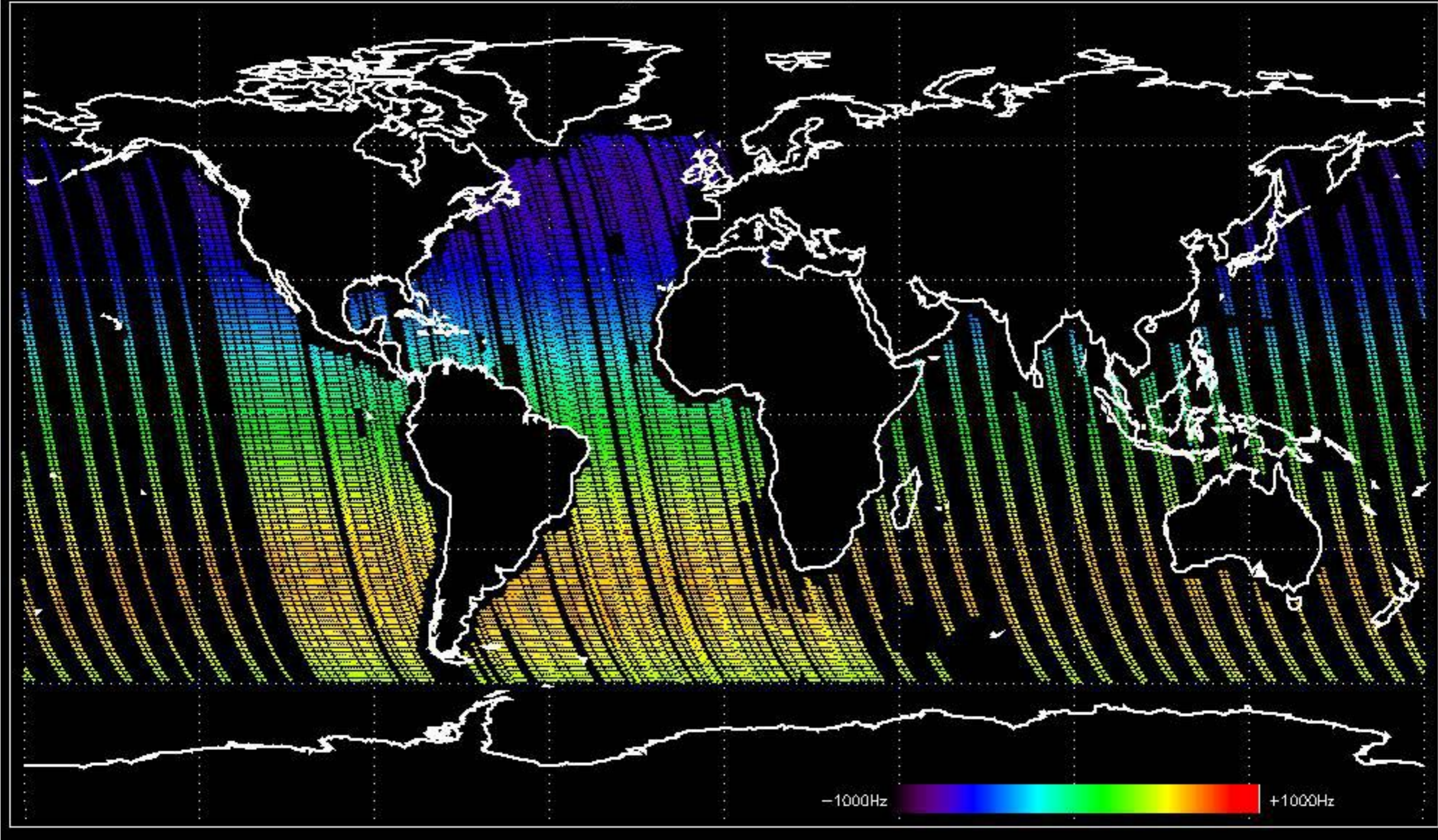
Doppler 'GM1' 'SS1' ascending



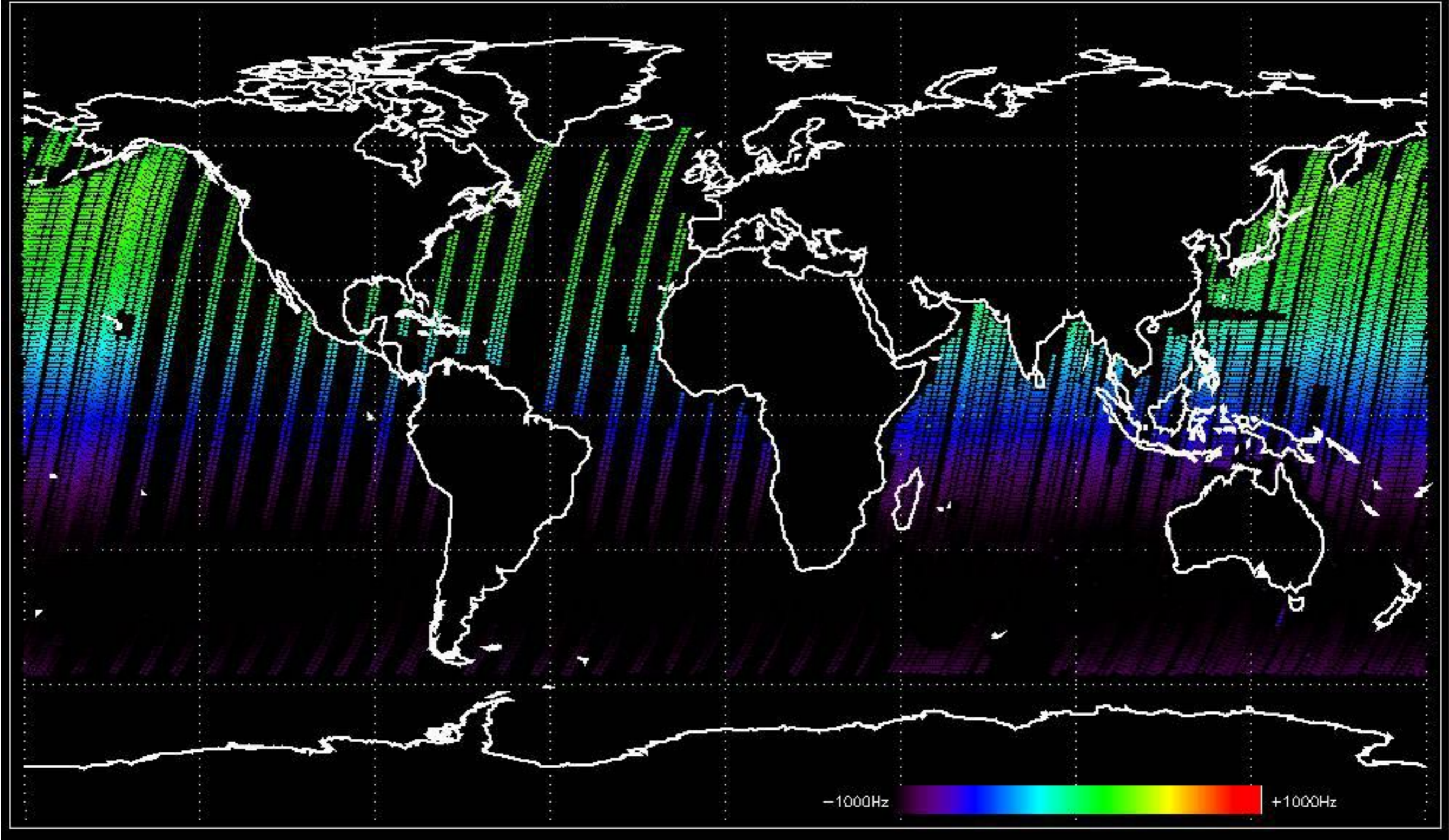
Doppler 'GM1' 'SS1' descending



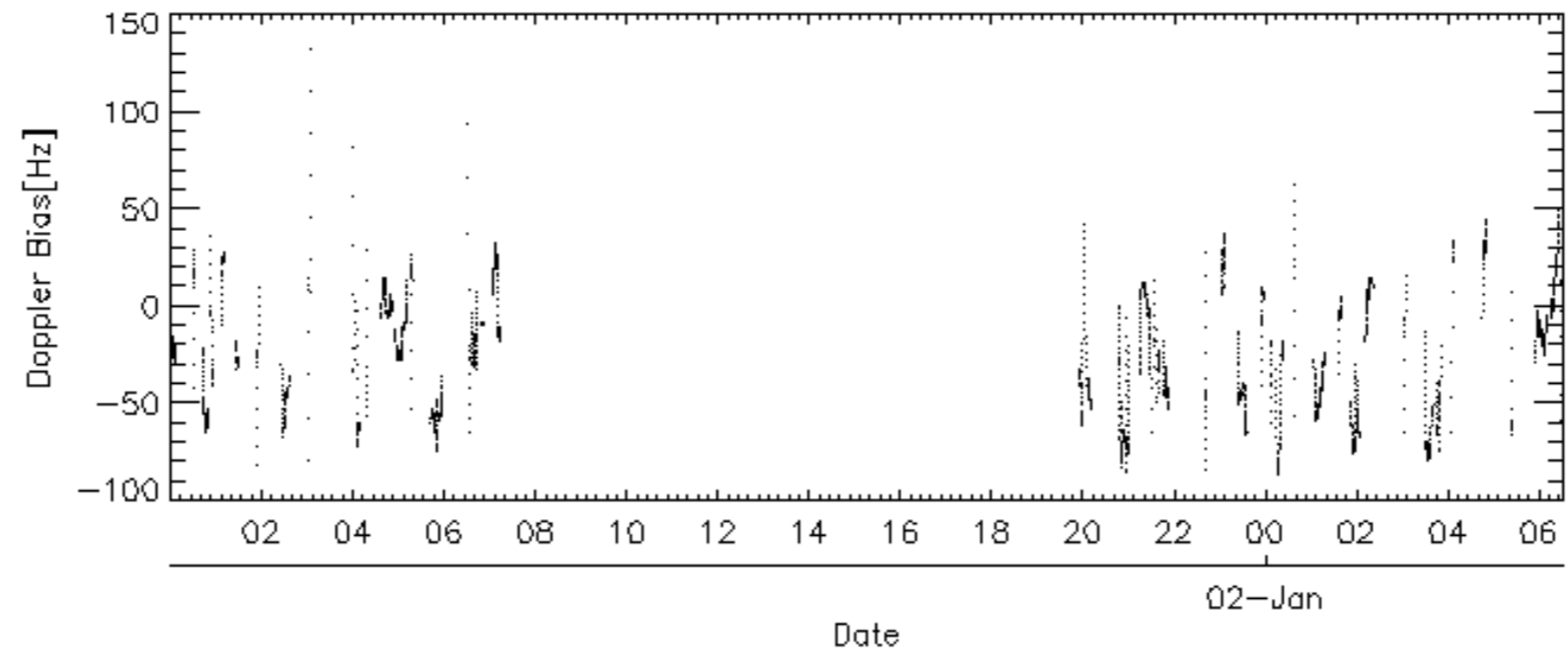
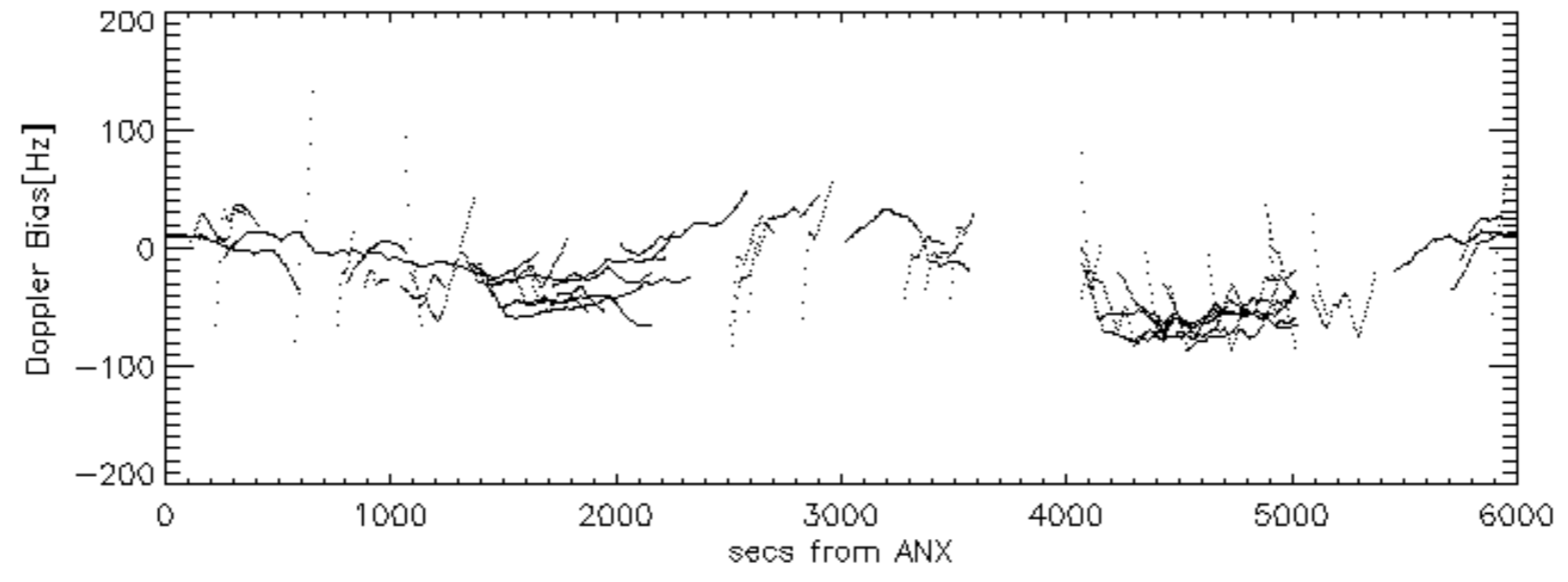
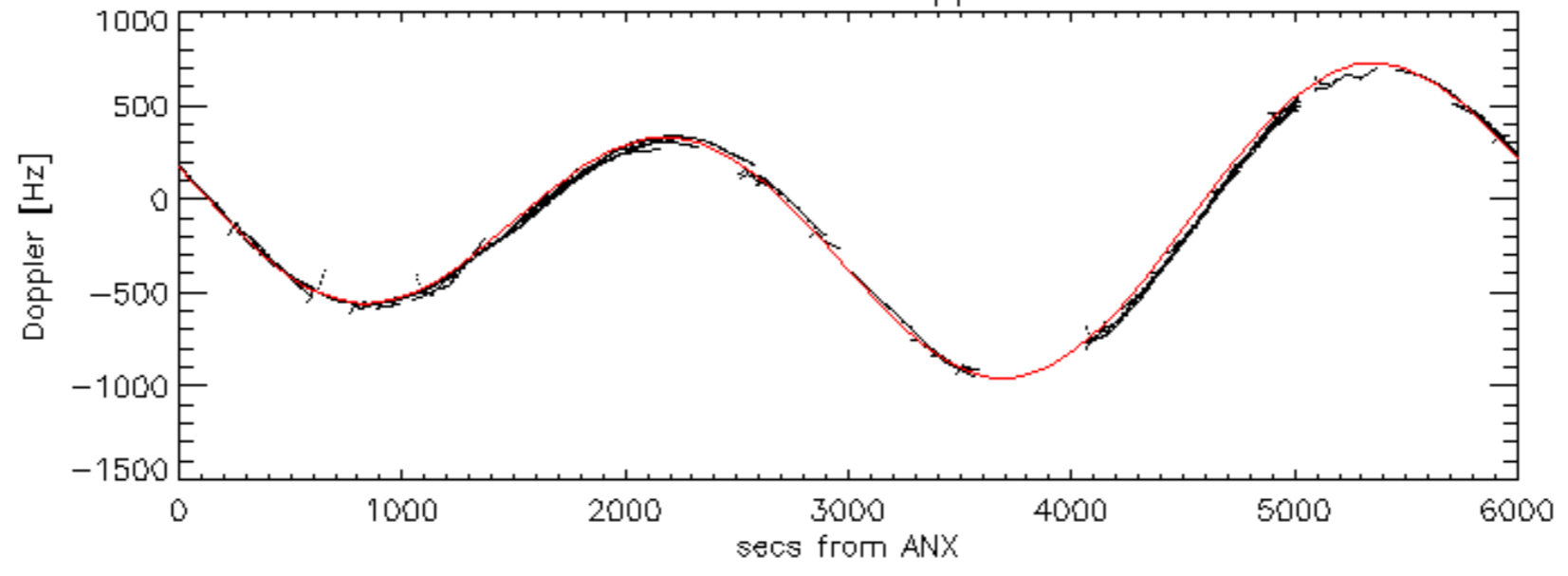
Doppler 'WVS' 'IS2' ascending

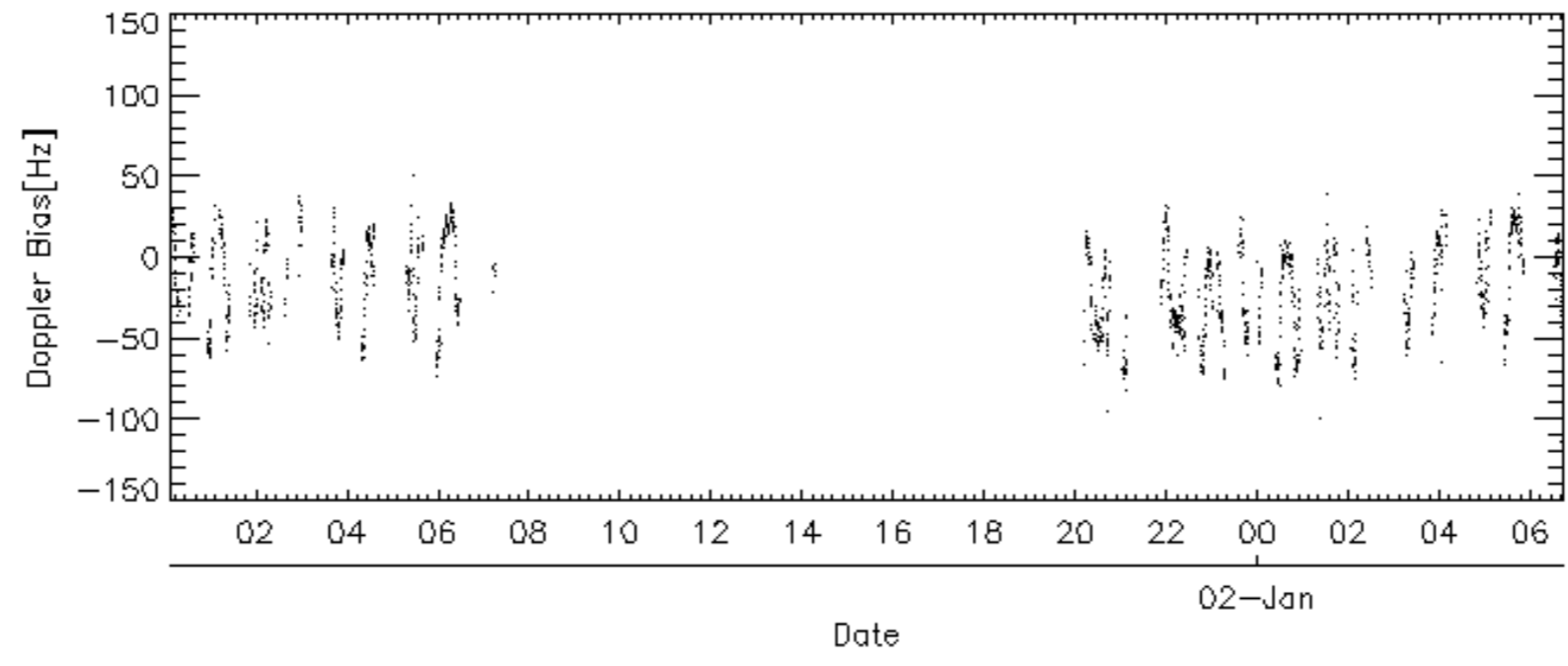
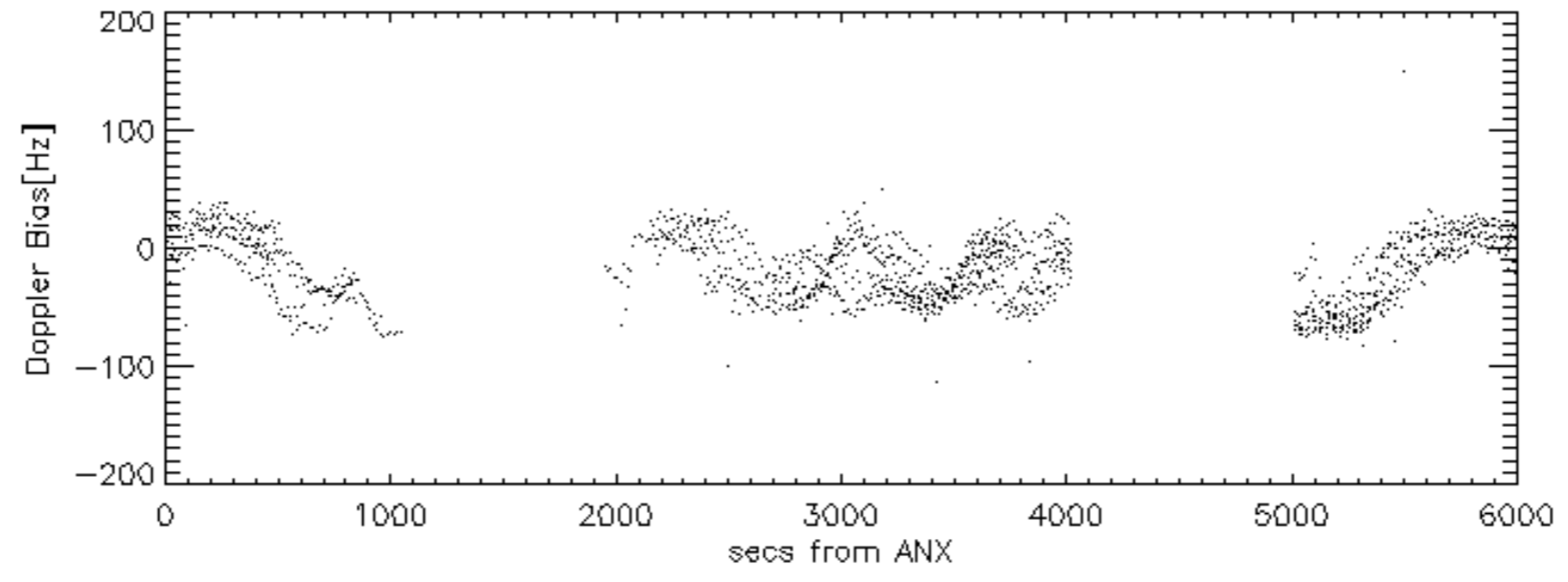
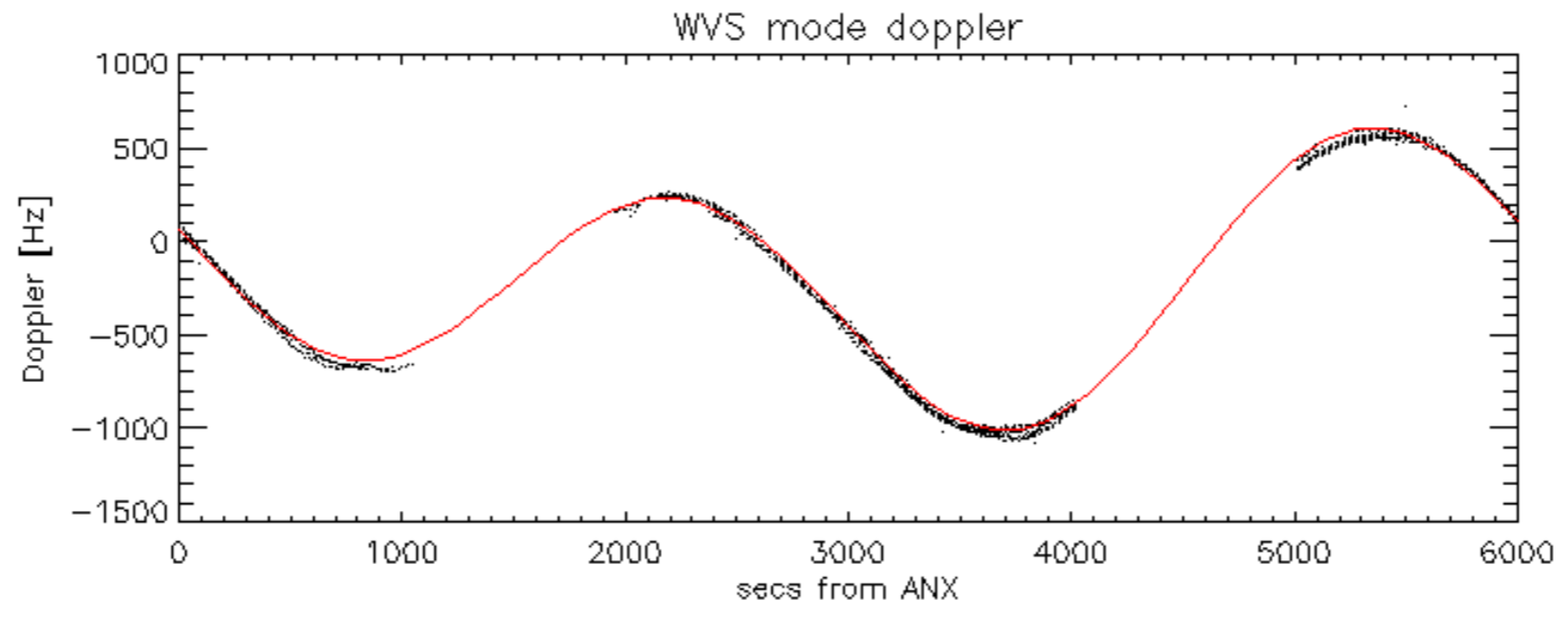


Doppler 'WVS' 'IS2' descending

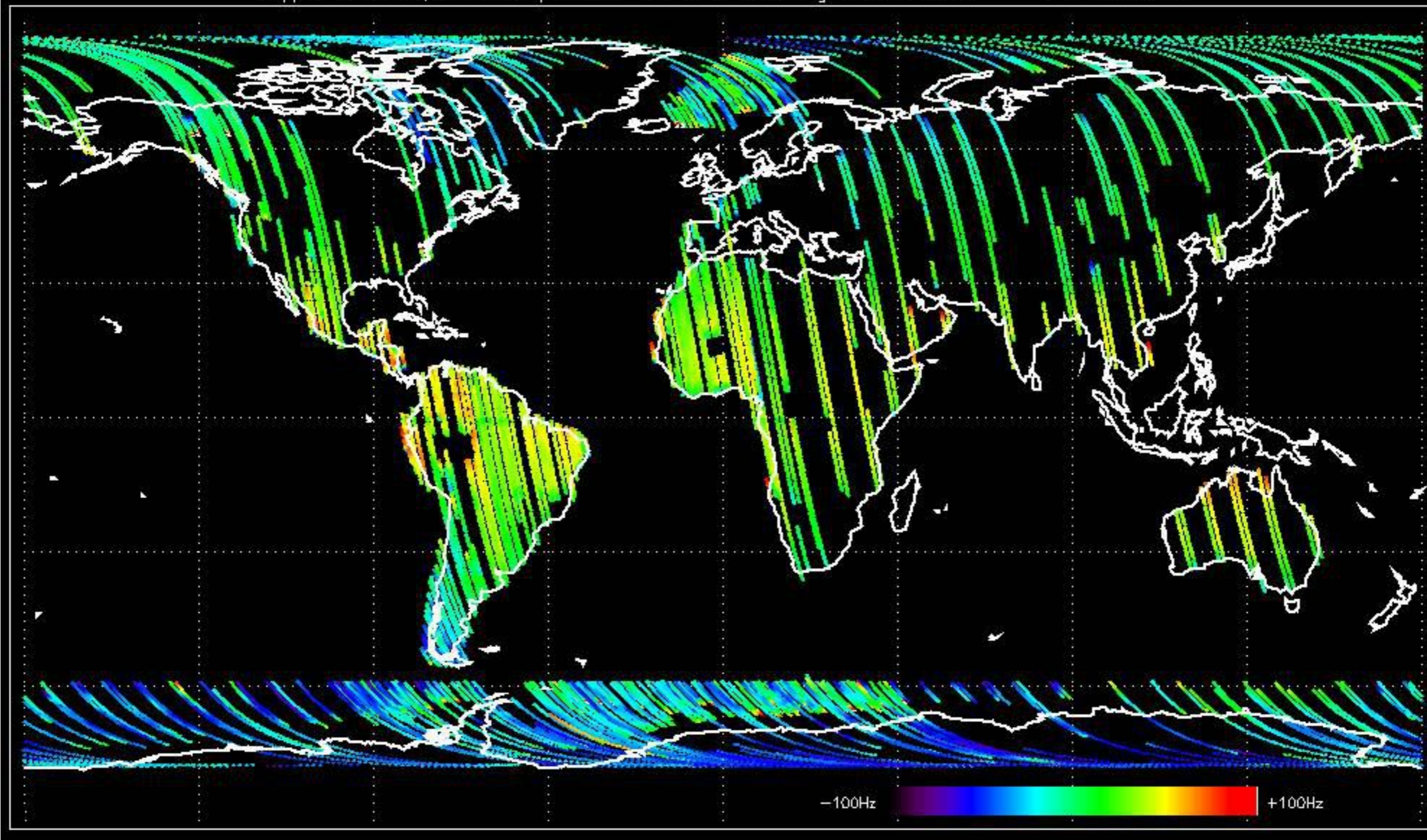


GM1 mode doppler

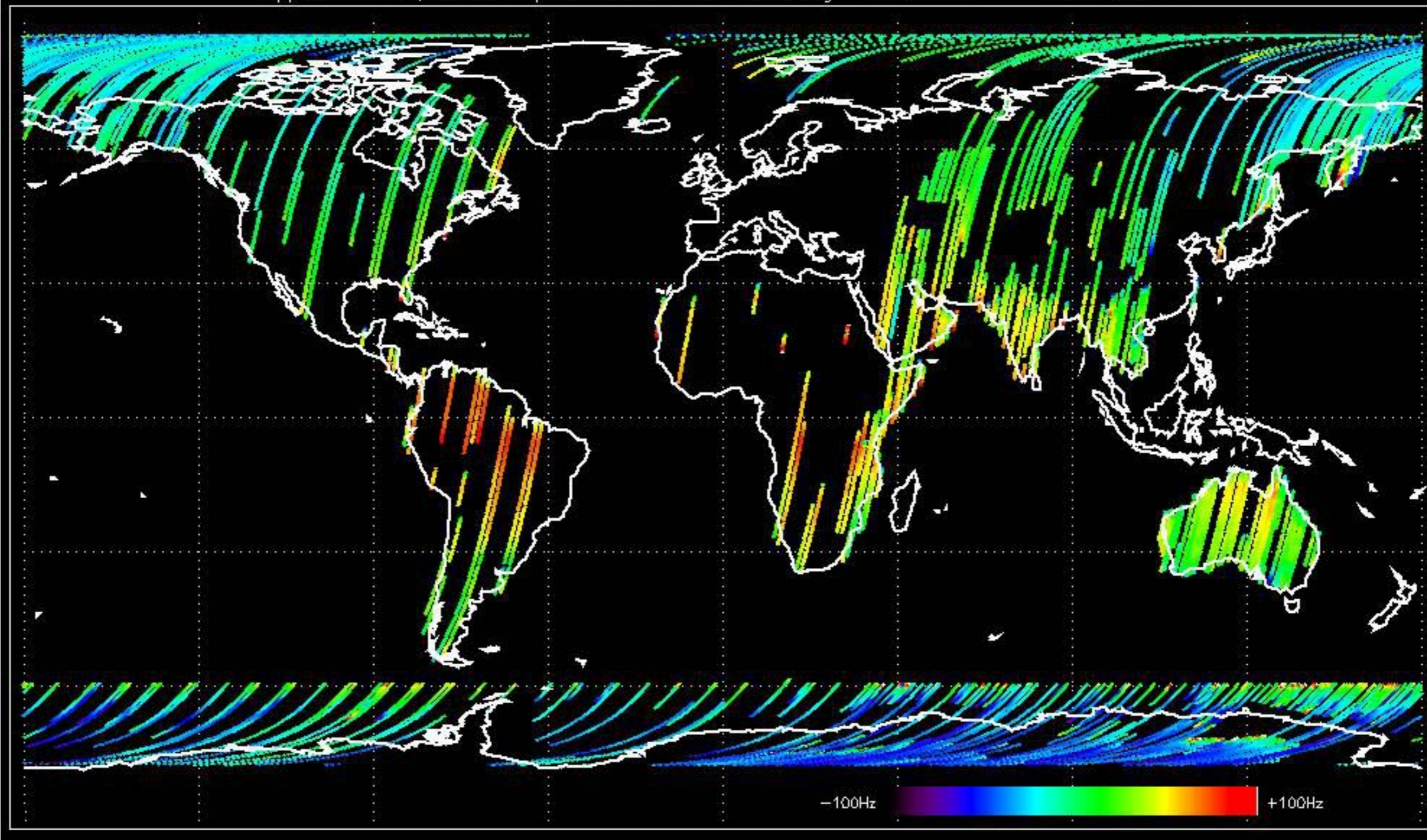




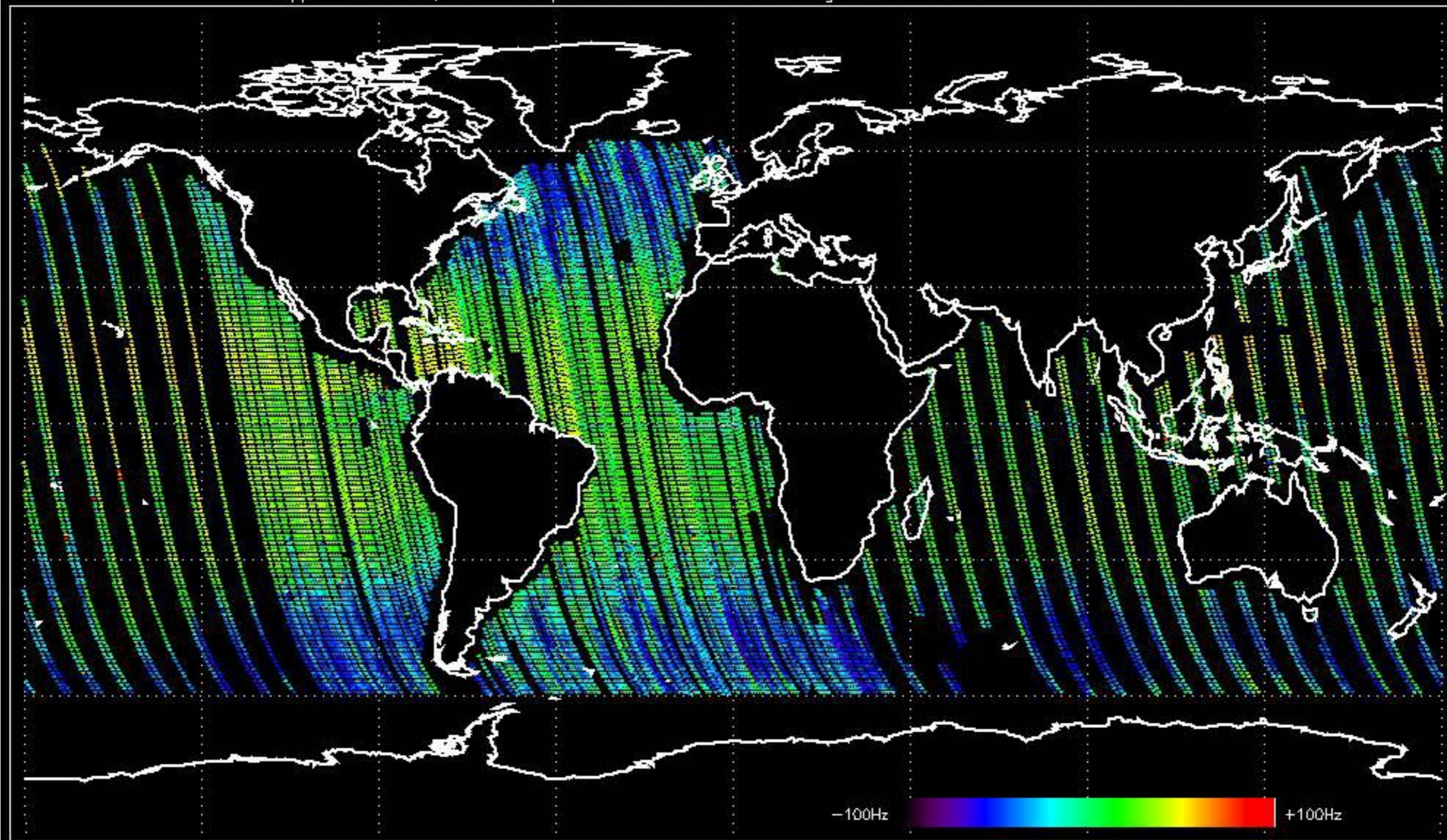
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.253549 Hz



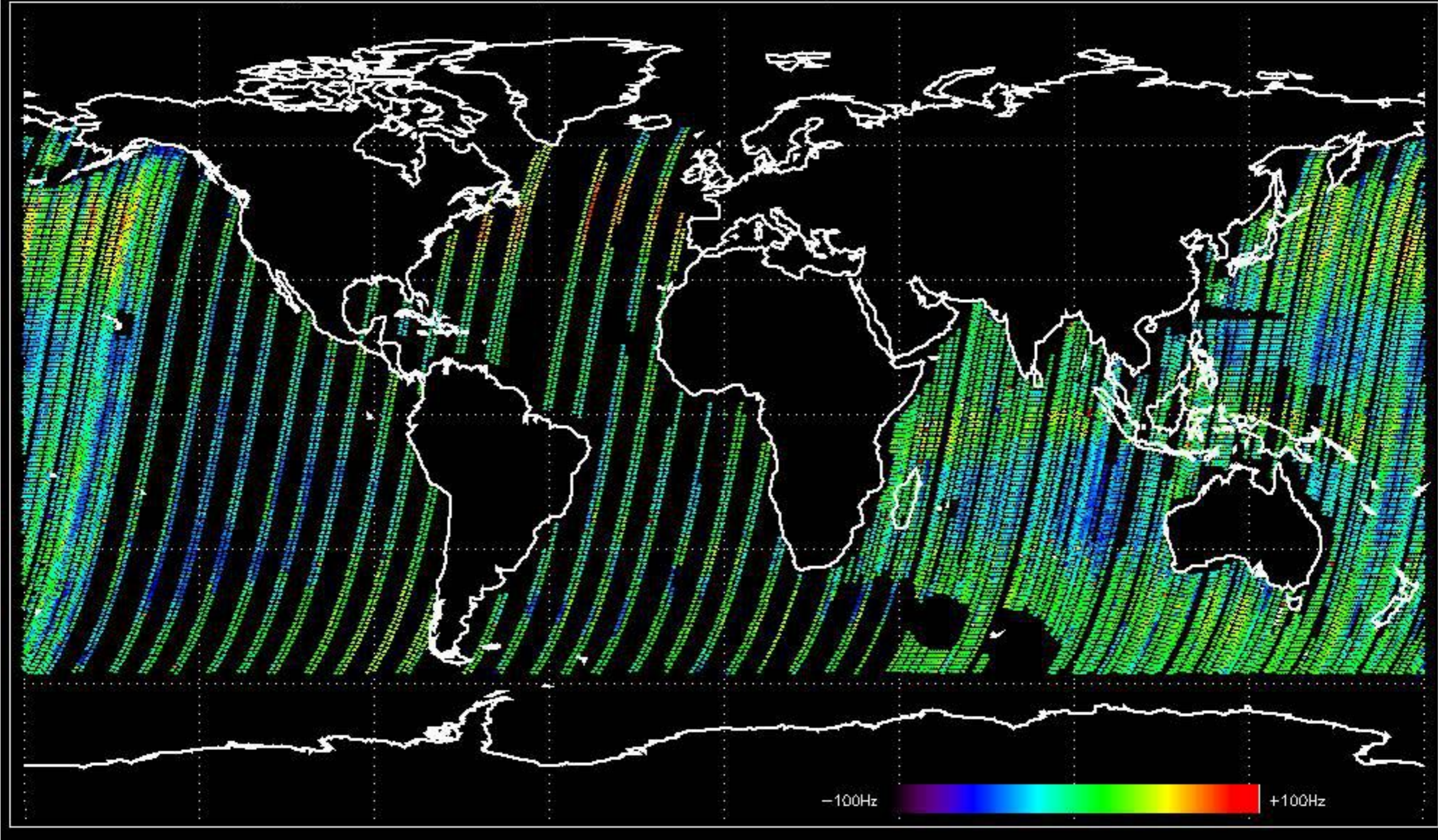
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.050324 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -13.602015 Hz

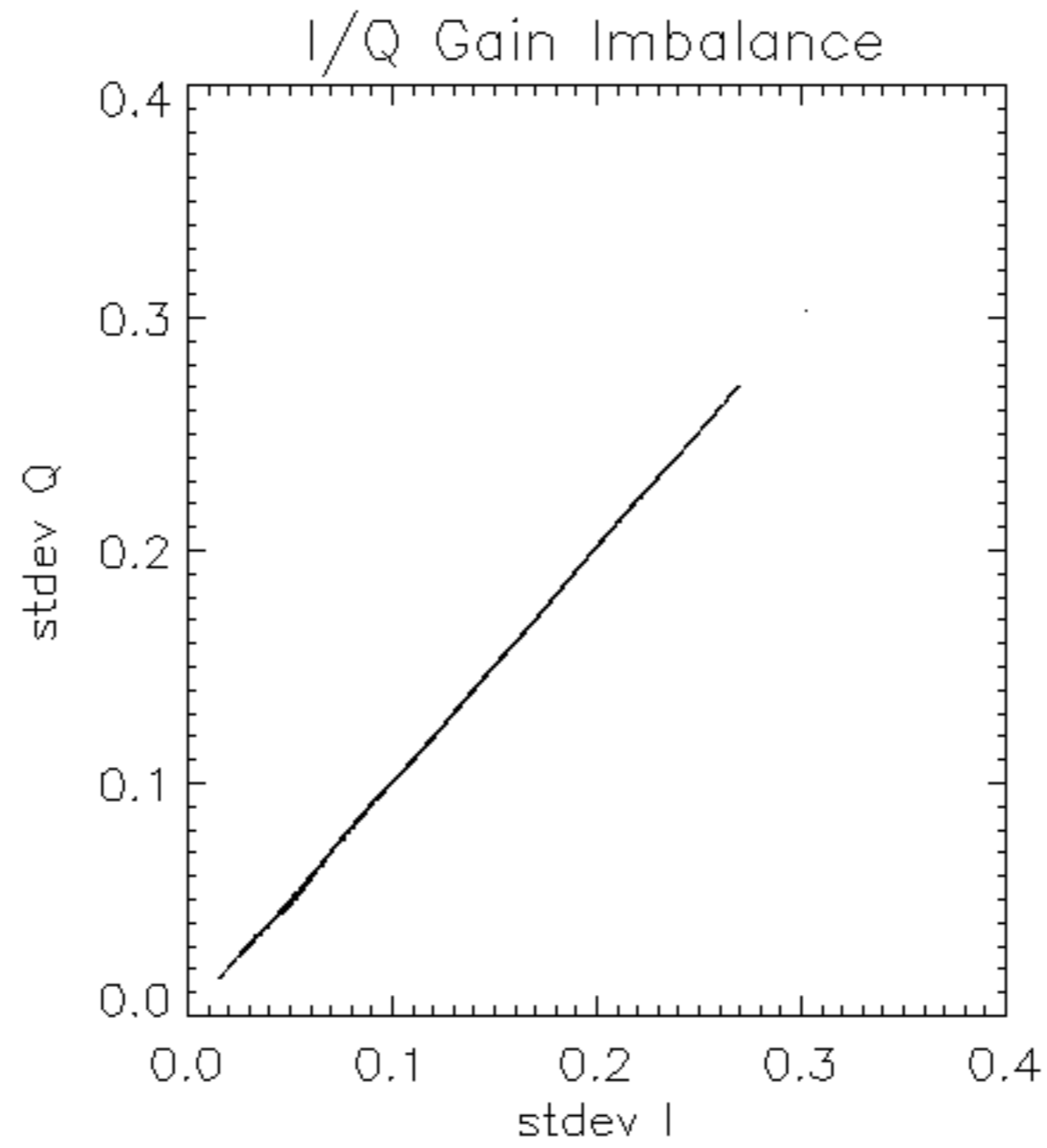


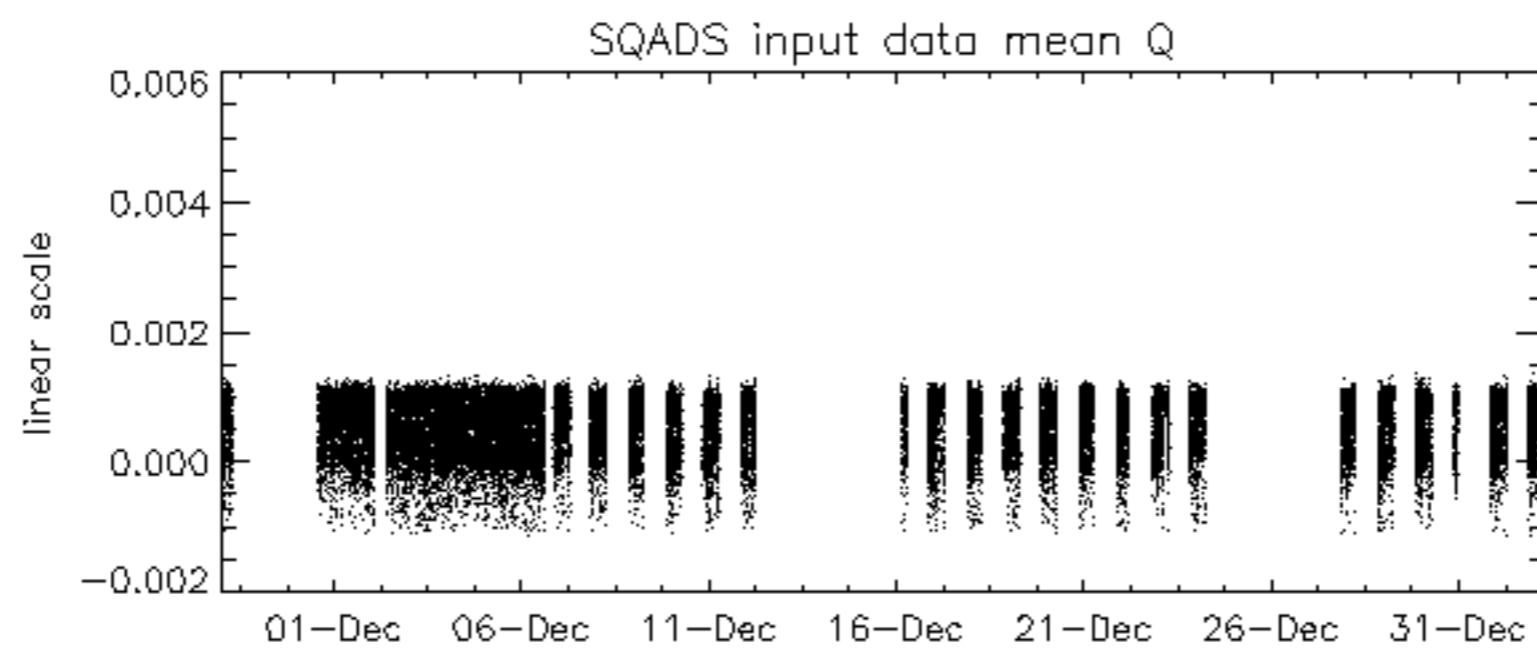
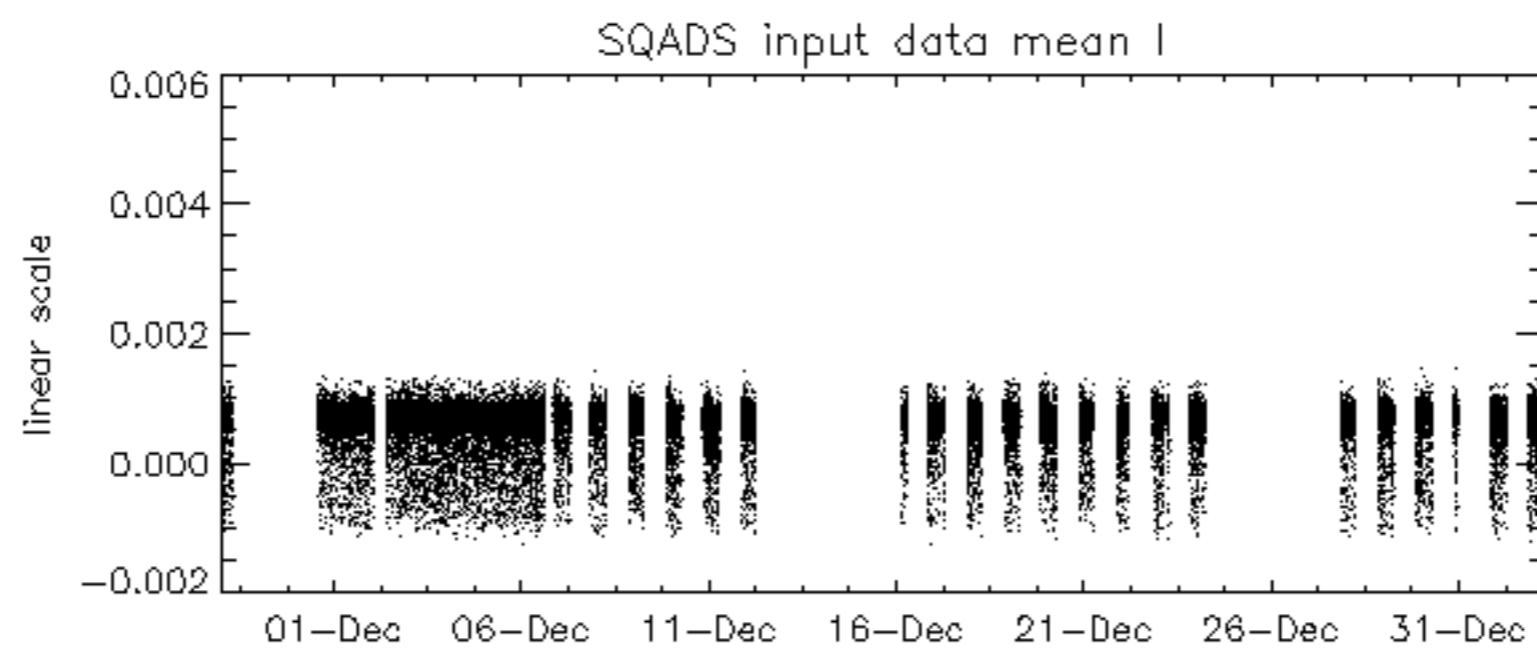
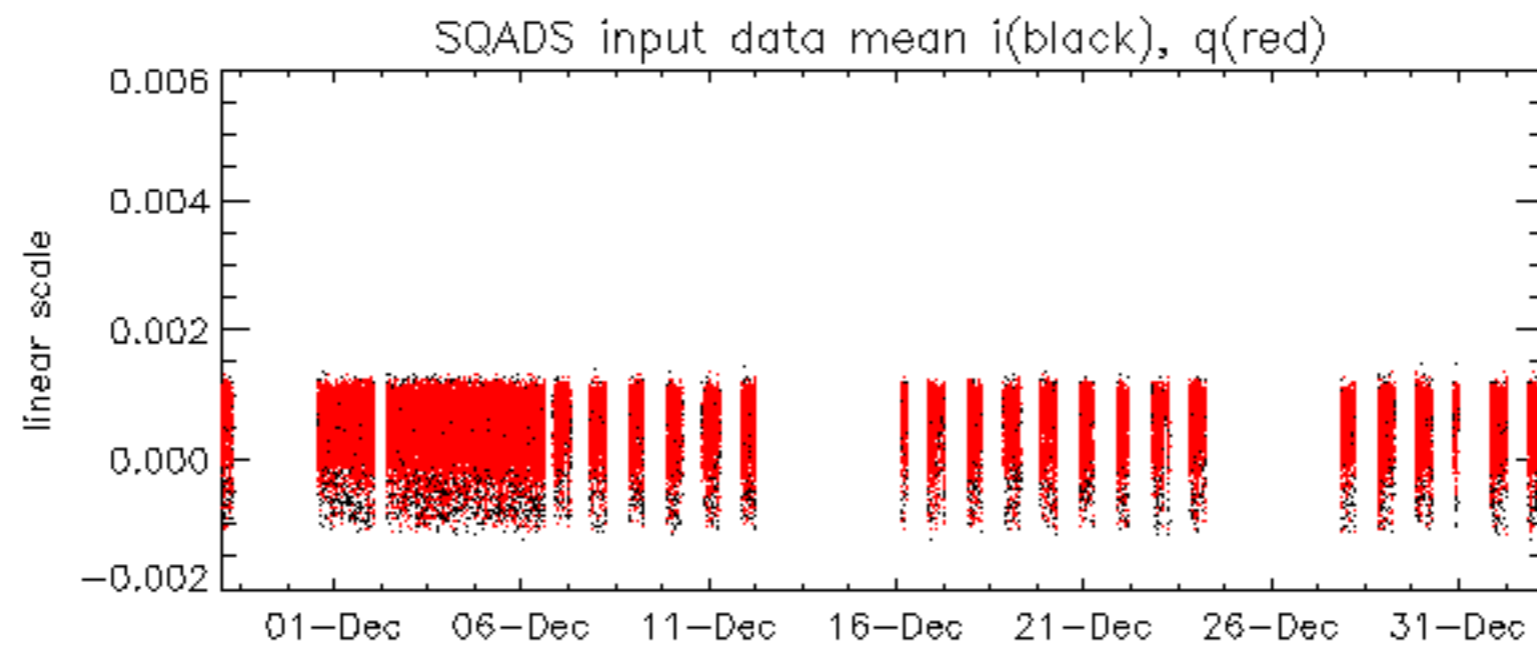
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.4332057 Hz

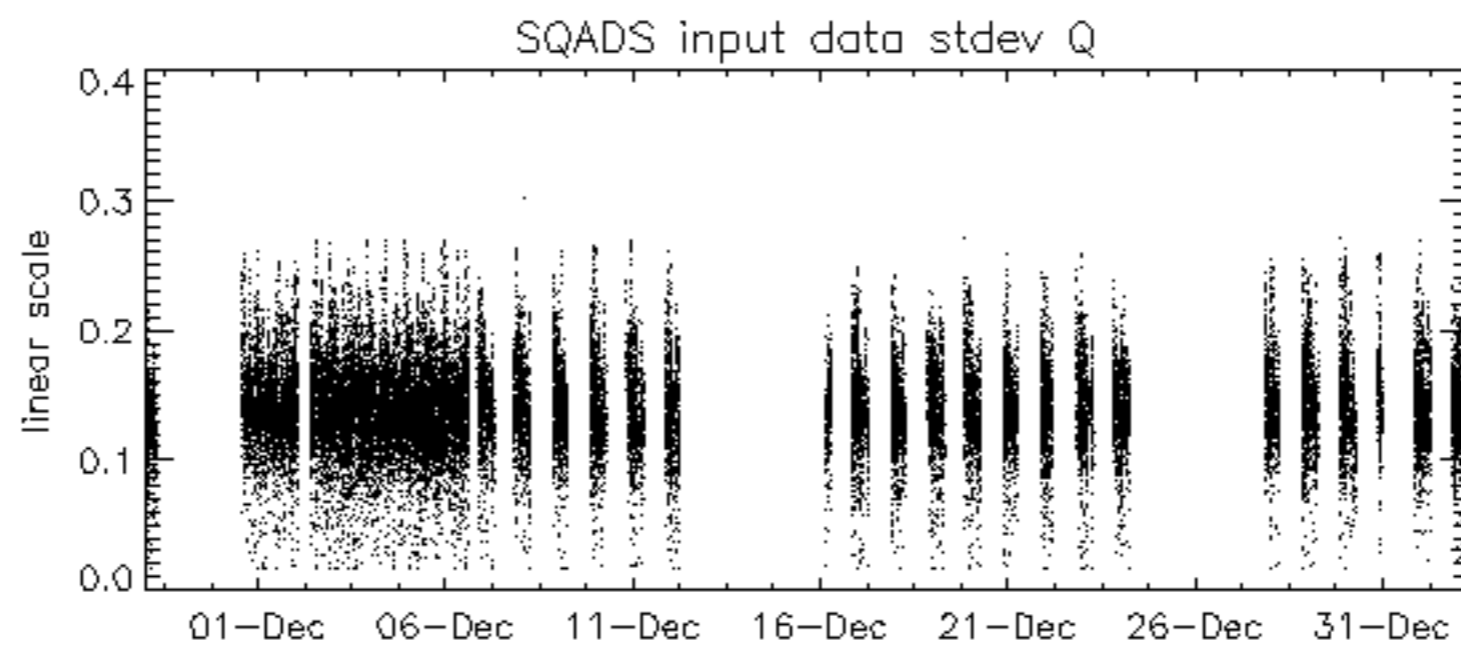
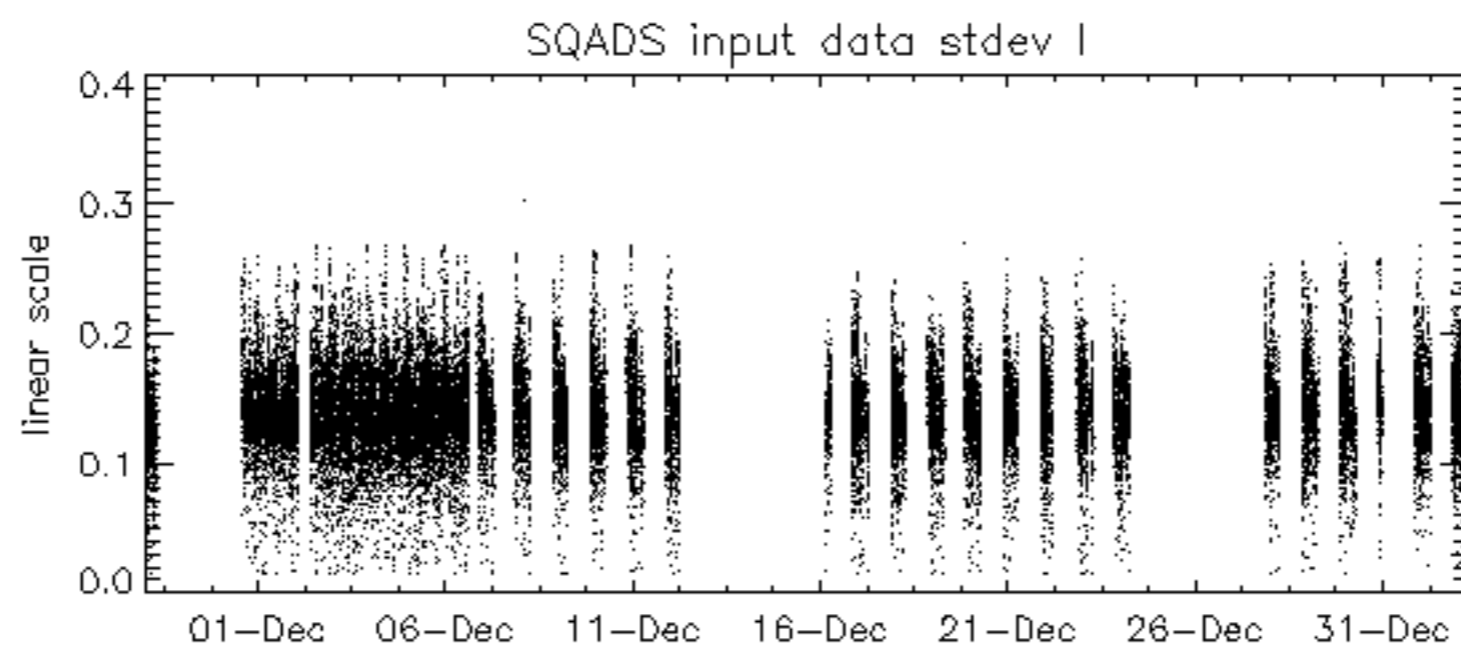
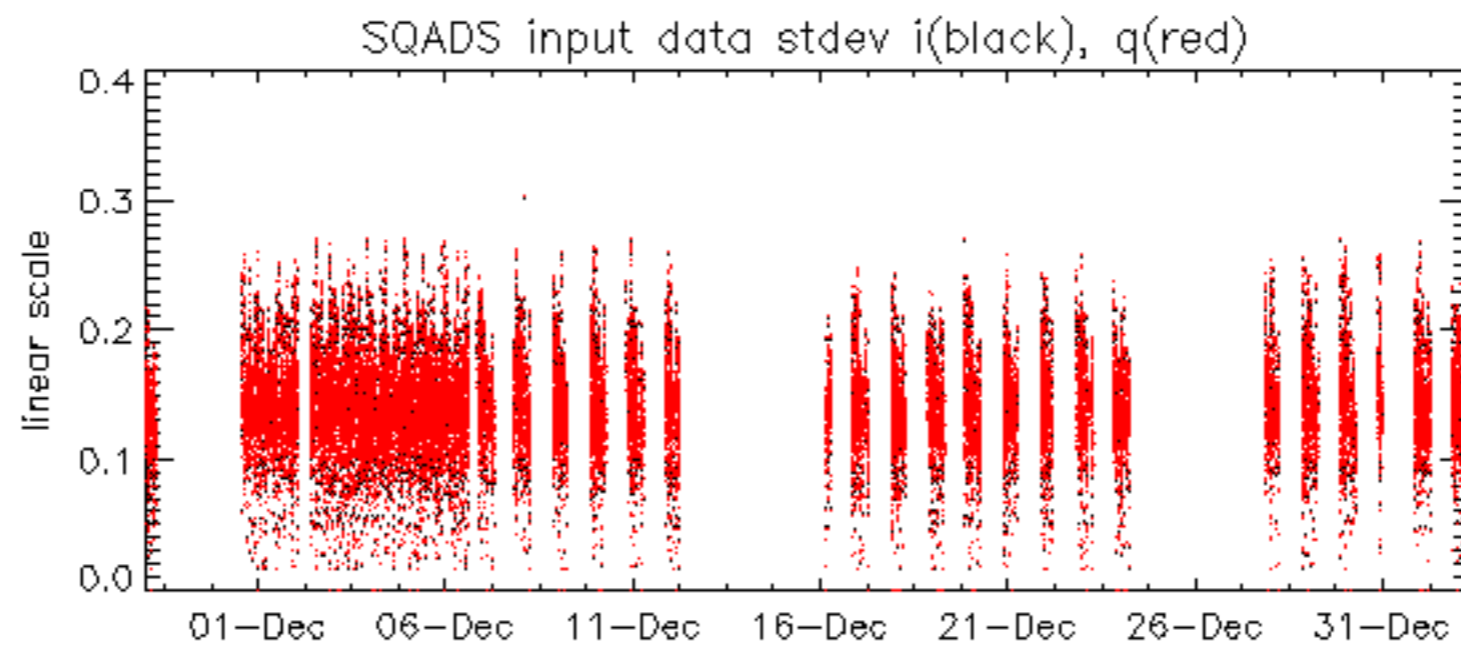


No anomalies observed on available MS products:

No anomalies observed.



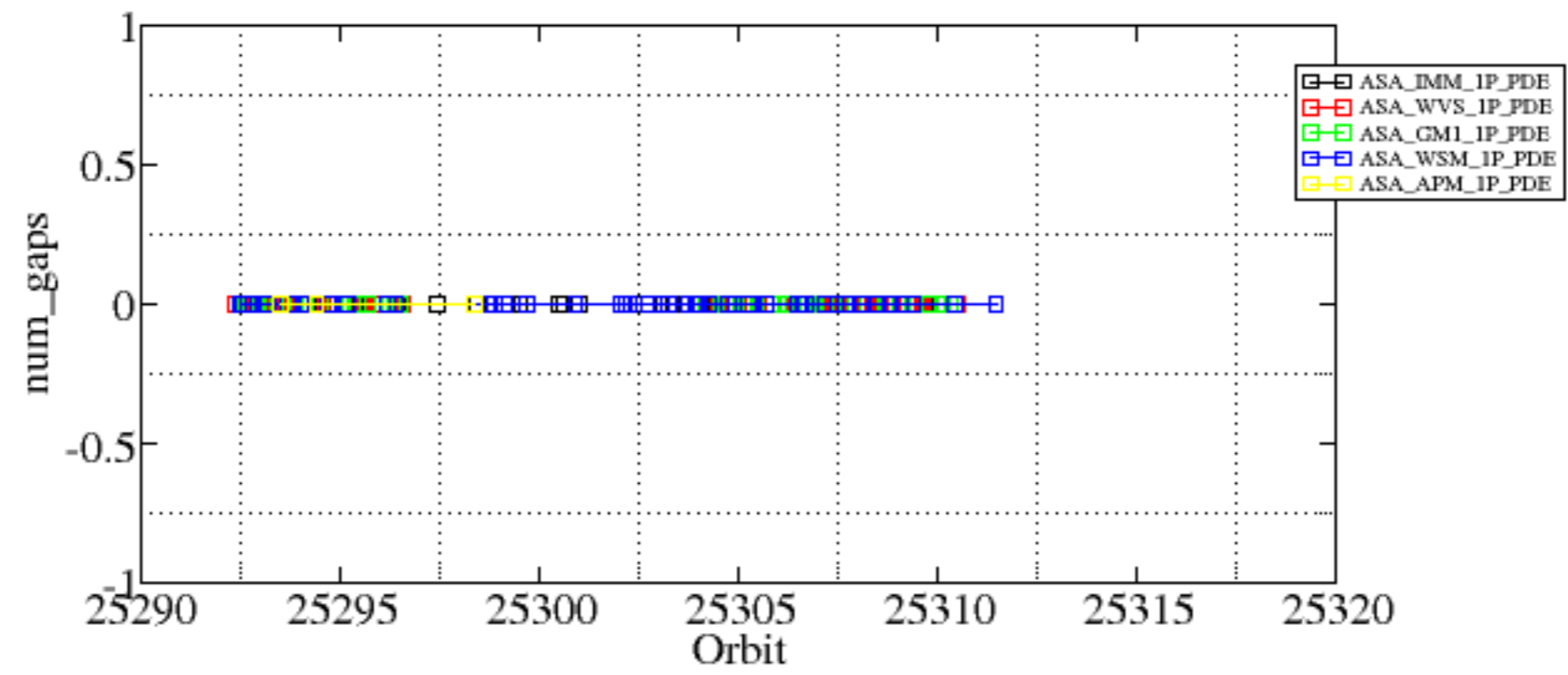


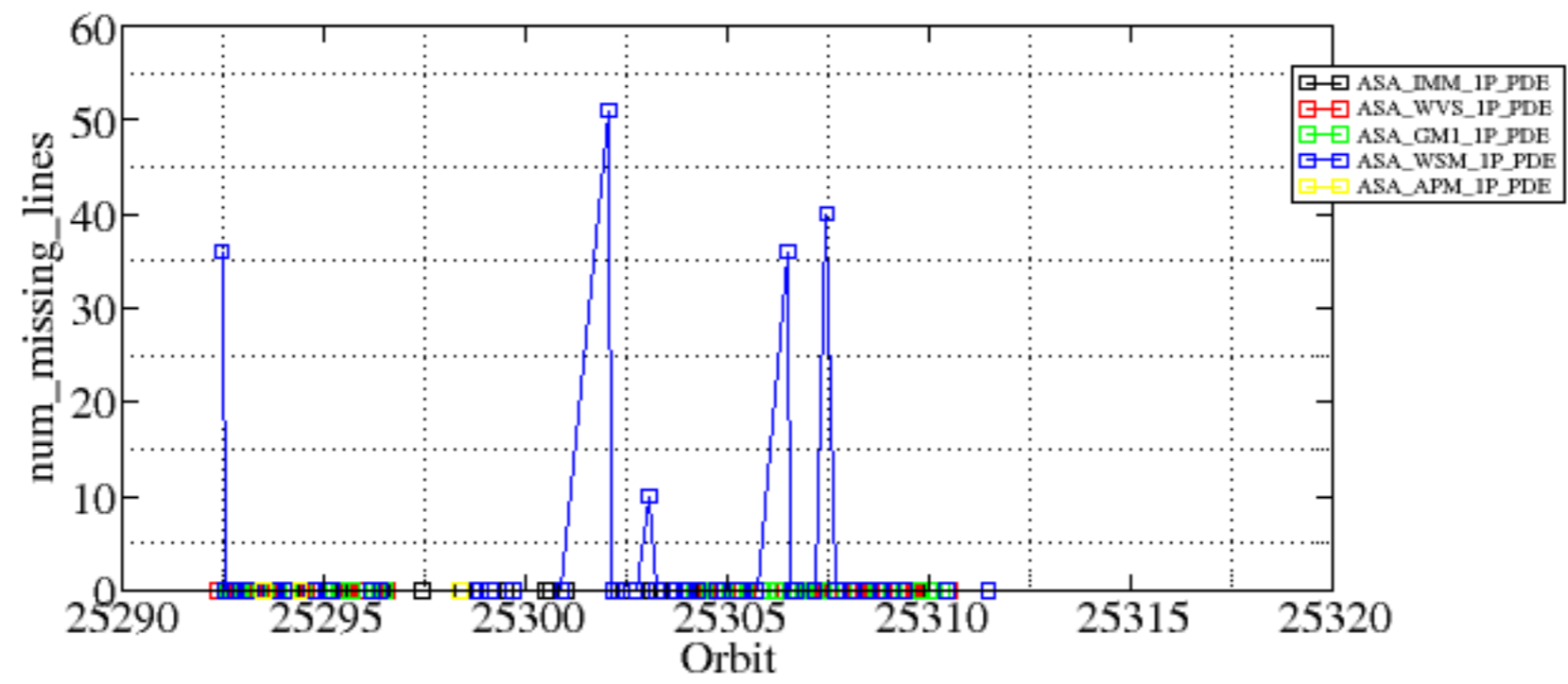


Summary of analysis for the last 3 days 2007010[112]

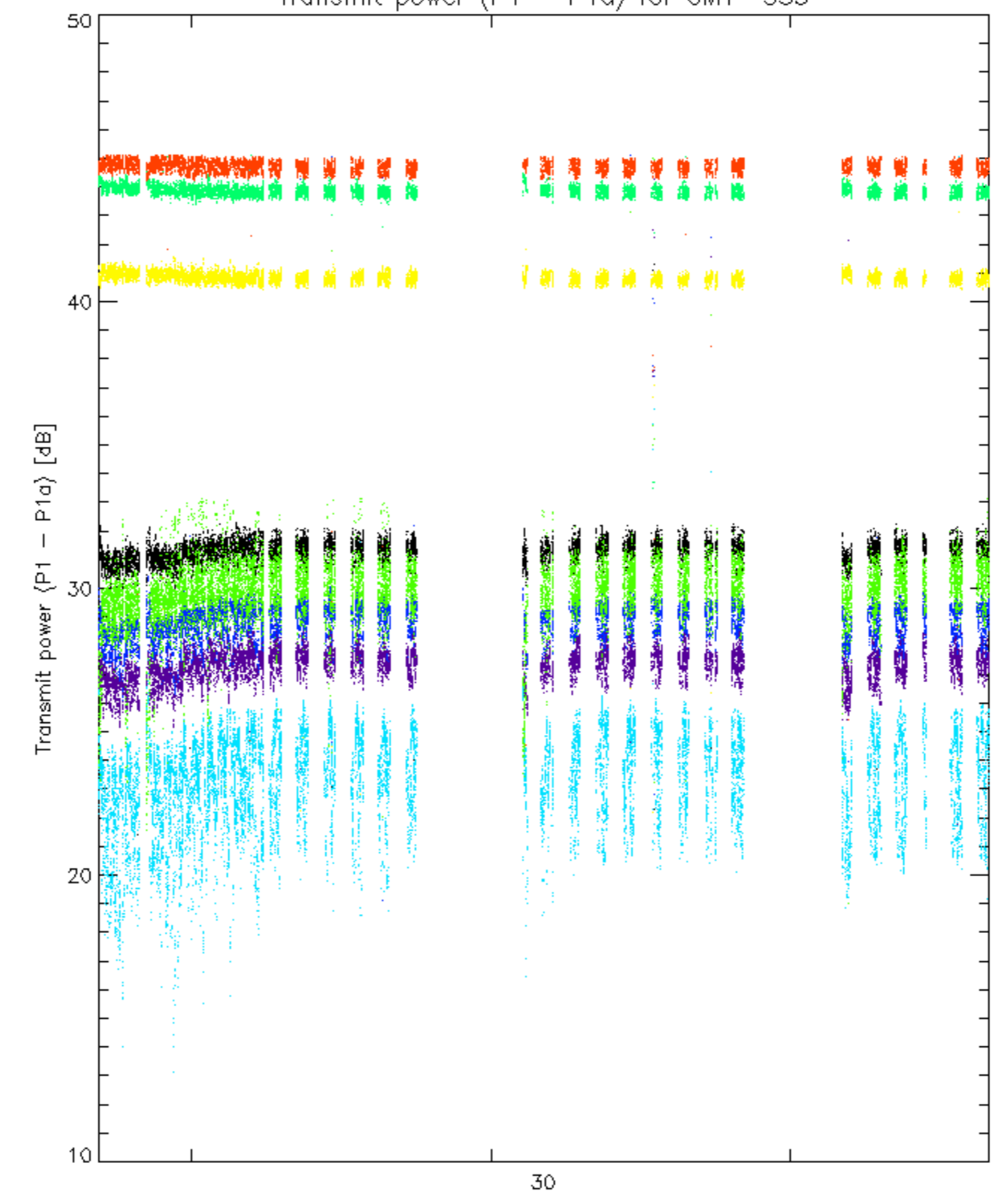
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20070101_001945_000003242054_00188_25292_5736.N1	0	36
ASA_WSM_1PNPDE20070101_162341_000002442054_00198_25302_6523.N1	0	51
ASA_WSM_1PNPDE20070101_180340_000001092054_00199_25303_6563.N1	0	10
ASA_WSM_1PNPDE20070101_234907_000002872054_00202_25306_7044.N1	0	36
ASA_WSM_1PNPDE20070102_012643_000001402054_00203_25307_7173.N1	0	40

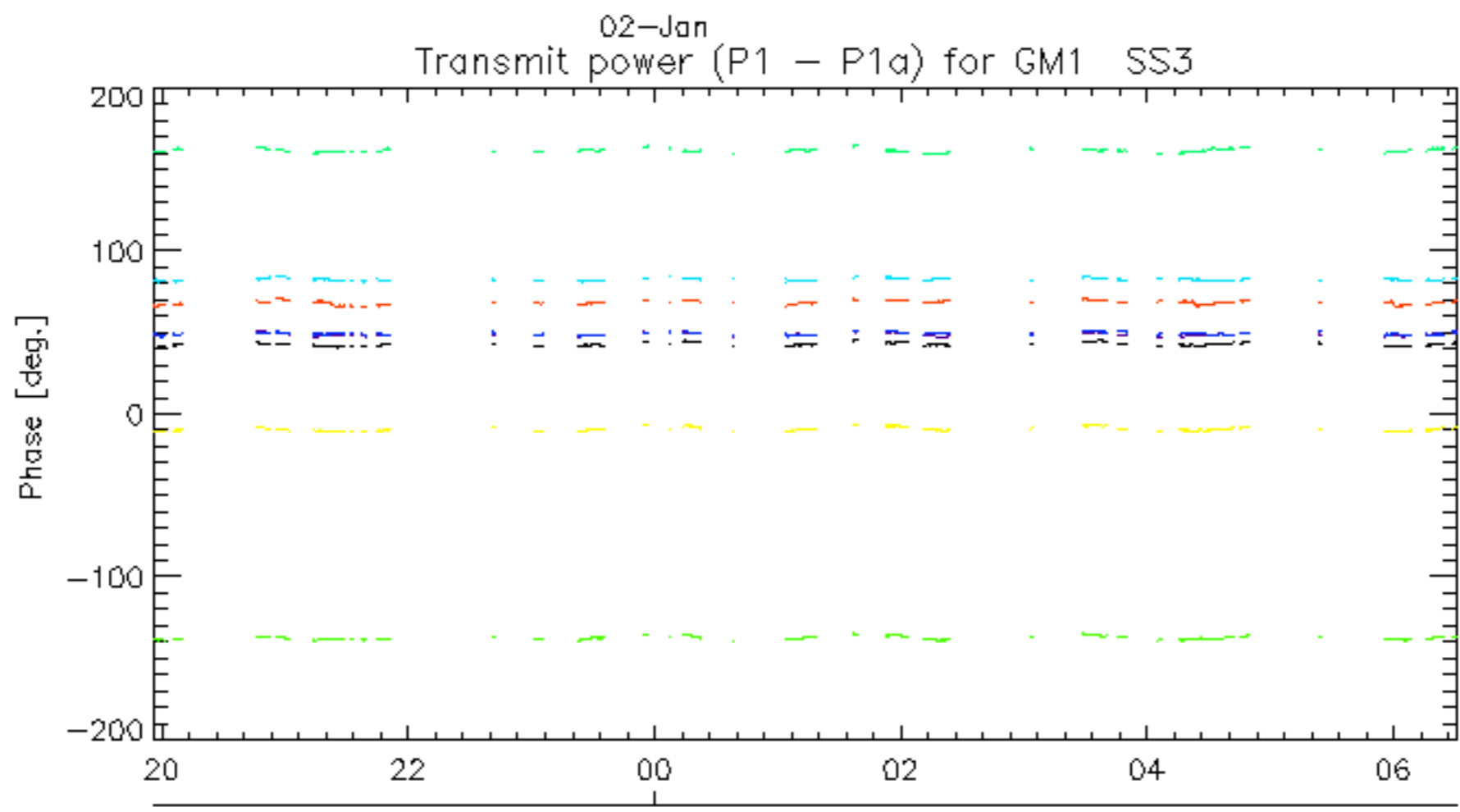
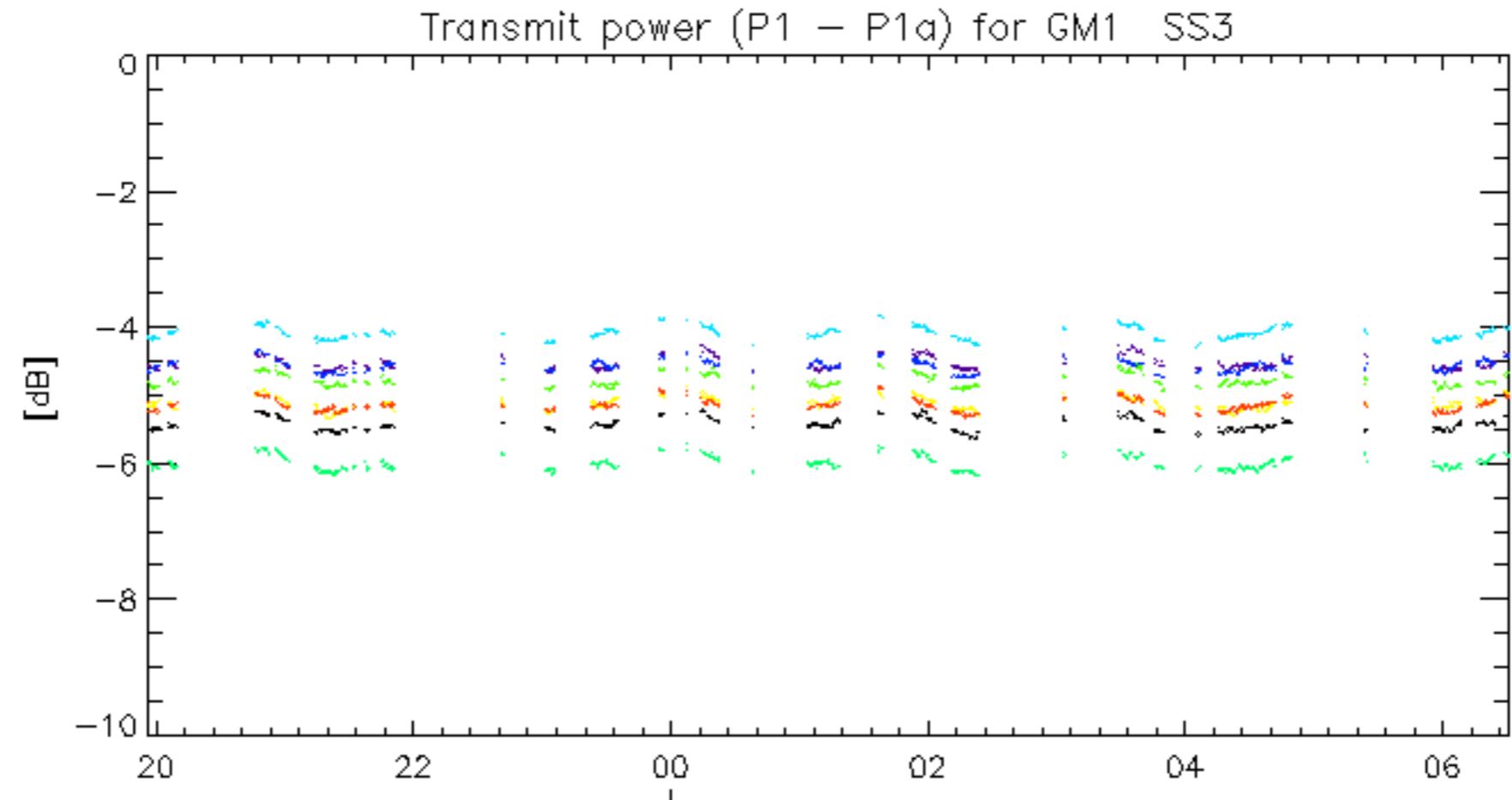




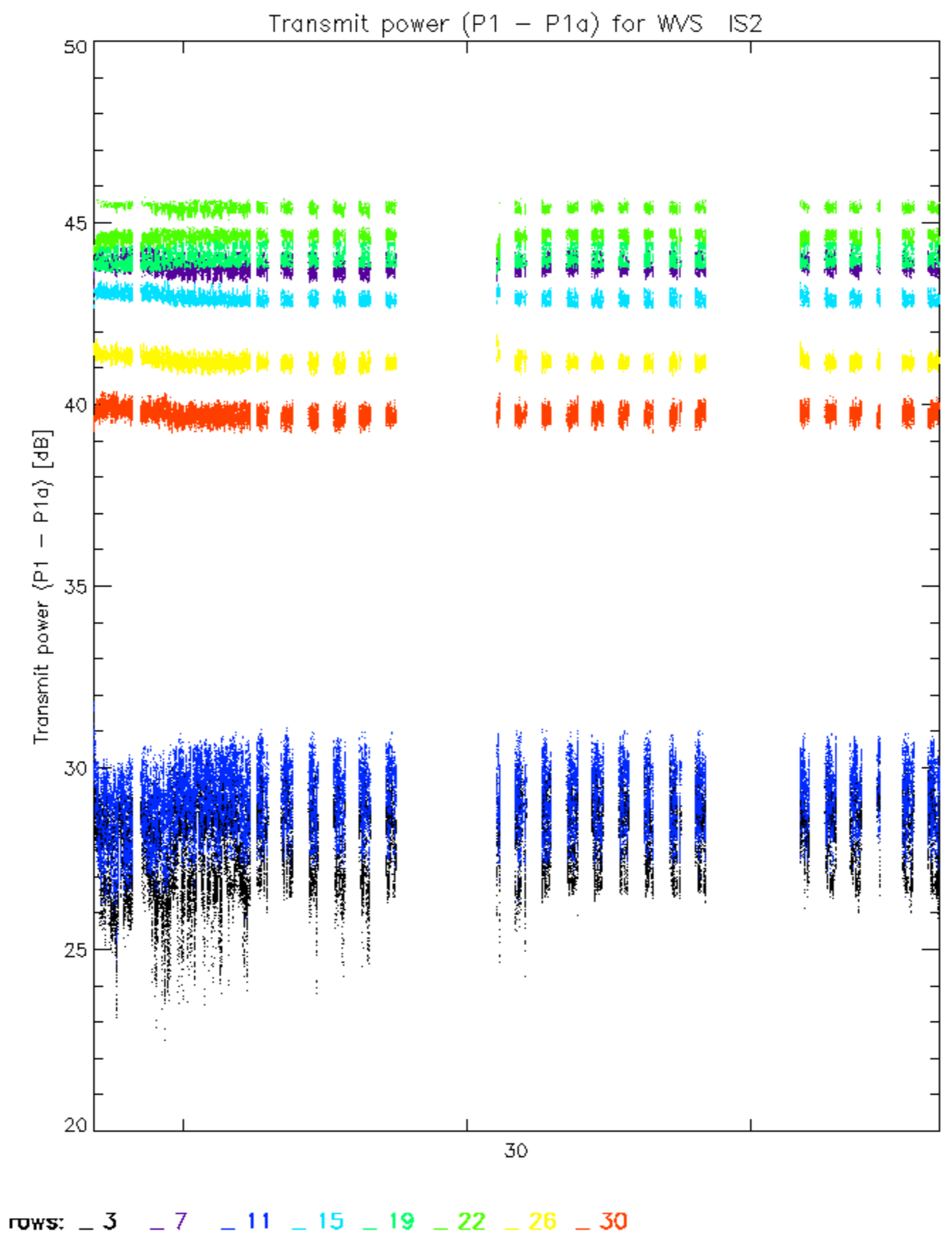
Transmit power (P1 - P1a) for GM1 SS3

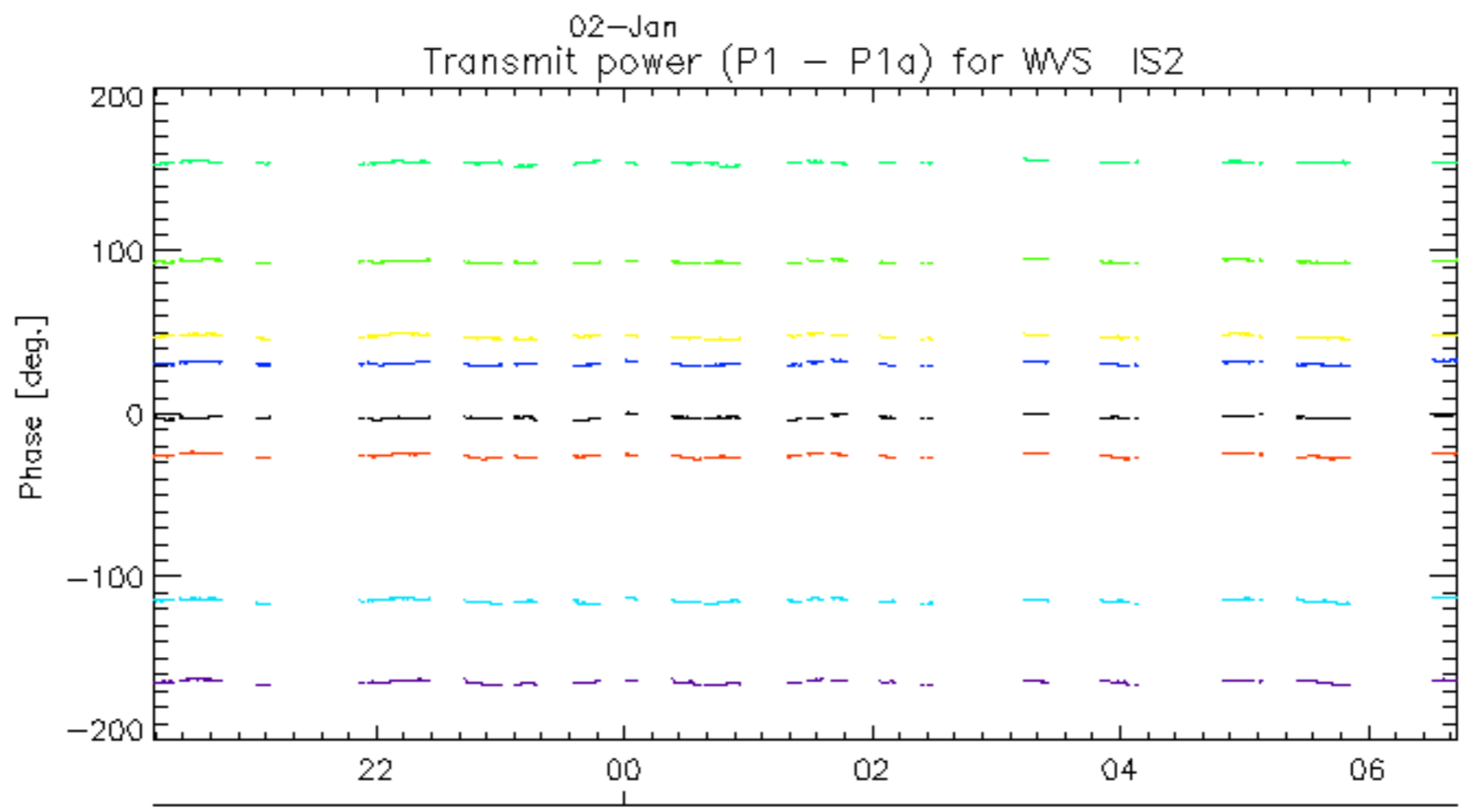
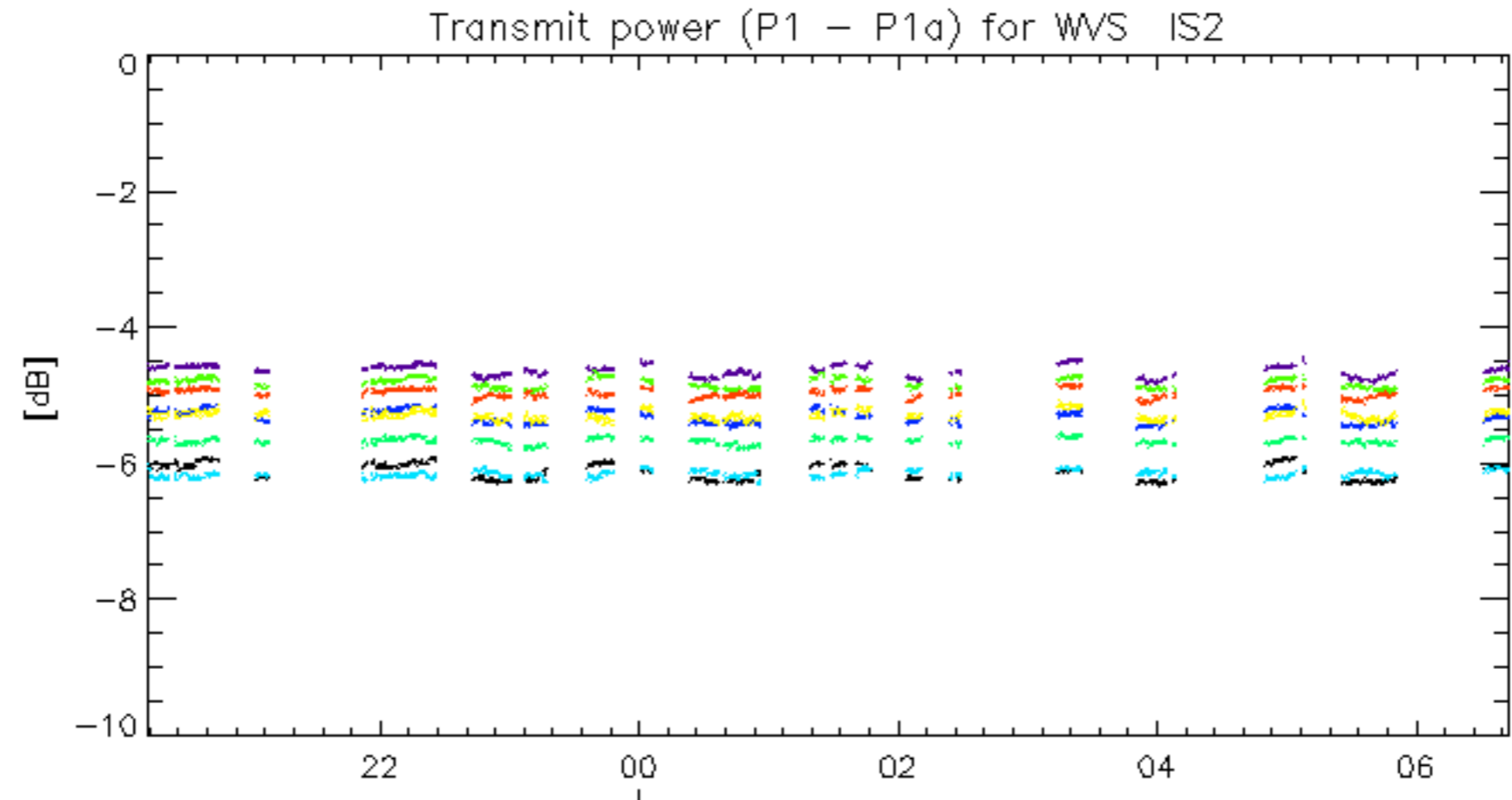


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





02-Jan
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.