

PRELIMINARY REPORT OF 060108

last update on Sun Jan 8 16:46:40 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 2006-01-07 00:00:00 to 2006-01-08 16:46:40

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	0	13	0	32
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	34	0	13	0	32
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	34	0	13	0	32
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	34	0	13	0	32

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	49	56	31	7	67
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	49	56	31	7	67
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	49	56	31	7	67
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	49	56	31	7	67

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	20060106 055503
H	20060107 084437

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	-3.852791	0.186379	-0.916848
7	P1	-2.851429	0.099643	-0.659986
11	P1	-4.128943	0.036595	0.093435
15	P1	-5.485066	1.275069	-2.599812
19	P1	-3.124202	0.051689	-0.508285
22	P1	-4.459357	0.023603	-0.145512
26	P1	-4.325426	0.049908	0.462475
30	P1	-5.701061	0.028616	-0.310813
3	P1	-16.263050	2.162681	-3.262492
7	P1	-15.826734	2.086112	-3.328600
11	P1	-16.425695	0.456184	-0.758655
15	P1	-12.930687	0.705076	-1.605453
19	P1	-13.619235	0.304042	-1.160457
22	P1	-15.953594	0.602481	-0.221264
26	P1	-15.345860	0.864982	-1.858361
30	P1	-15.986503	1.923602	-2.858130

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.733501	0.111758	0.303792
7	P2	-22.527353	0.104424	0.057527
11	P2	-16.427715	0.125572	0.359031
15	P2	-7.260019	0.106169	0.088586
19	P2	-9.204072	0.103809	0.028724
22	P2	-17.907137	0.108486	-0.160843
26	P2	-16.321217	0.126714	0.386430
30	P2	-19.742538	0.109409	0.306147

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.230934	0.007687	0.027295
7	P3	-8.230934	0.007687	0.027295
11	P3	-8.230934	0.007687	0.027295
15	P3	-8.230934	0.007687	0.027295
19	P3	-8.230934	0.007687	0.027295
22	P3	-8.230934	0.007687	0.027295
26	P3	-8.230934	0.007687	0.027295
30	P3	-8.230934	0.007687	0.027295

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	-3.713590	0.008506	-0.022652
7	P1	-2.765114	0.007758	0.004738
11	P1	-2.873591	0.009831	0.019209
15	P1	-3.428703	0.017169	-0.066516
19	P1	-3.389175	0.014305	0.027164
22	P1	-5.122247	0.019671	0.005500
26	P1	-5.852456	0.015654	-0.001610
30	P1	-5.272054	0.033096	0.051768
3	P1	-11.495433	0.037920	-0.046334
7	P1	-9.956420	0.048503	0.063075
11	P1	-10.057376	0.055151	-0.022818
15	P1	-10.573362	0.074478	-0.119952
19	P1	-15.511439	0.071684	0.074793
22	P1	-20.873066	1.003685	0.517225
26	P1	-17.063883	0.310290	0.456011
30	P1	-18.161394	0.282199	0.097759

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.551056	0.031651	0.211915
7	P2	-23.003168	0.058391	0.251702
11	P2	-11.533180	0.020711	0.206479
15	P2	-4.974634	0.022907	0.112895
19	P2	-6.963385	0.022224	0.075497
22	P2	-8.208078	0.022520	0.029537
26	P2	-24.029528	0.030065	0.128235
30	P2	-22.128296	0.017993	0.061542

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.073361	0.002555	0.028023
7	P3	-8.073496	0.002547	0.028285
11	P3	-8.073601	0.002532	0.027858
15	P3	-8.073520	0.002531	0.027926
19	P3	-8.073544	0.002548	0.028199
22	P3	-8.073375	0.002534	0.028537
26	P3	-8.073338	0.002528	0.028574
30	P3	-8.073361	0.002536	0.027693

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	0.000493562
	stdev	2.04645e-07
MEAN Q	mean	0.000487504
	stdev	2.31129e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.132523
	stdev	0.00117424
STDEV Q	mean	0.132832
	stdev	0.00118941



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006010[678]

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_1PNPDE20060106_054348_00000372044_00048_20142_5727.N1	1	0
ASA_IMM_1PNPDE20060107_005035_00002152044_00059_20153_5838.N1	1	0
ASA_WSM_1PNPDE20060108_011129_00002262044_00074_20168_7722.N1	0	60





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)



Ascending



Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler



Ascending



Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



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

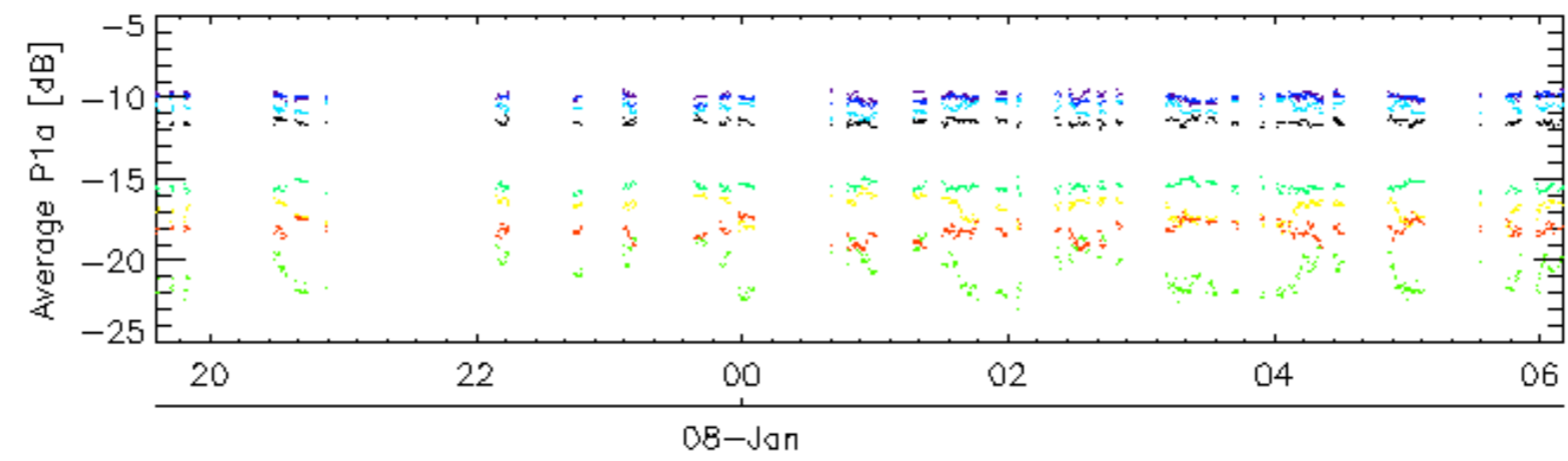
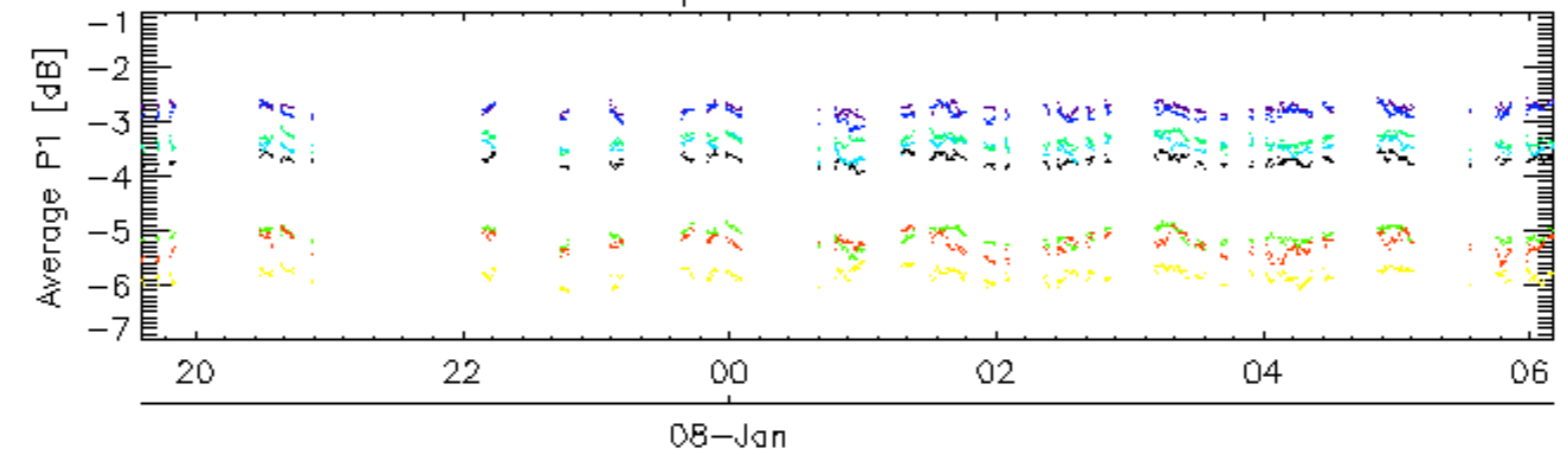
Ascending

Descending

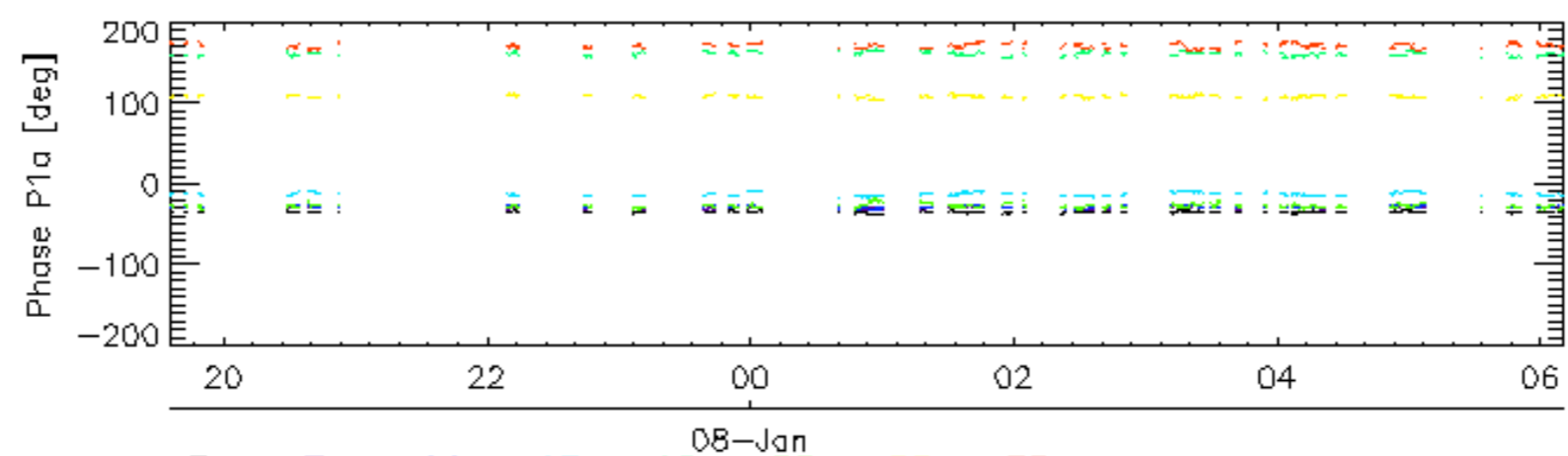
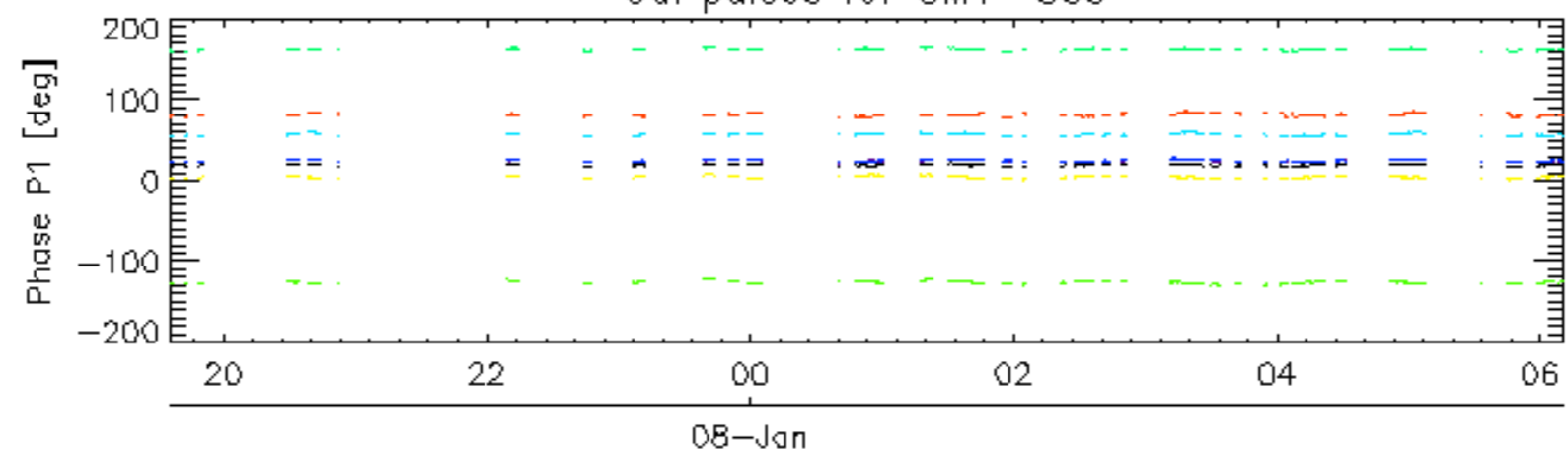
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

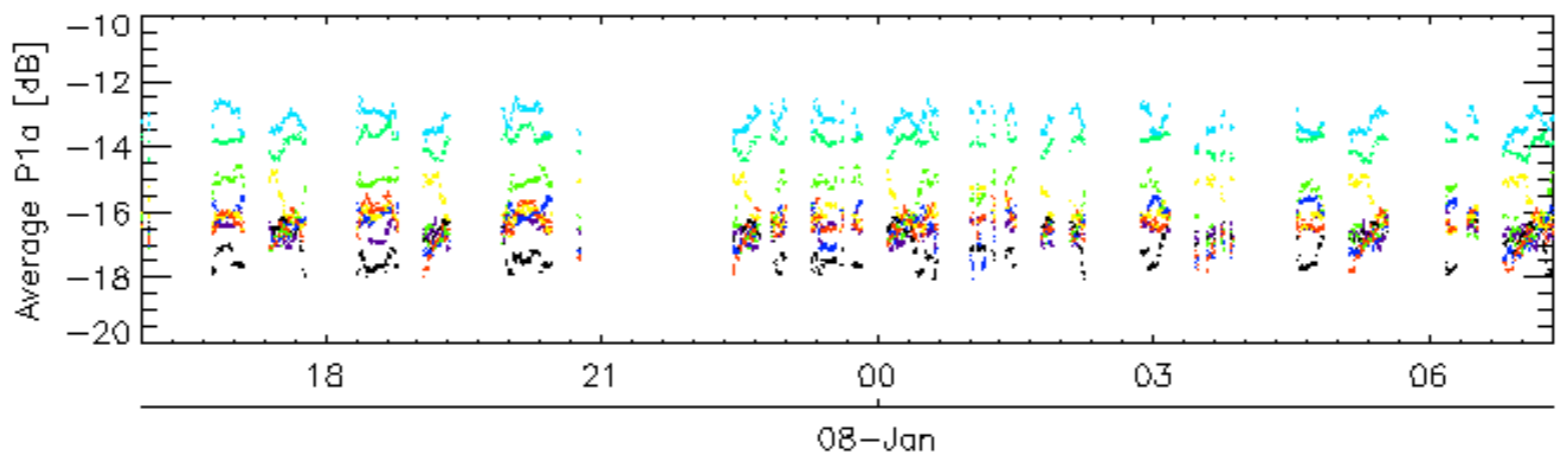
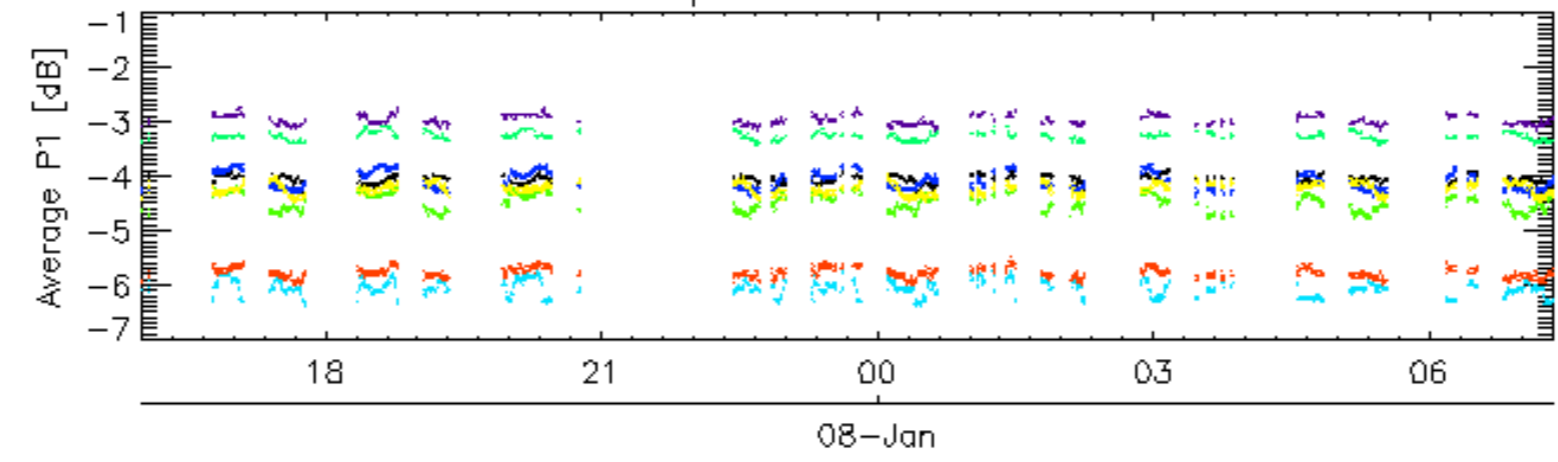


Cal pulses for GM1 SS3

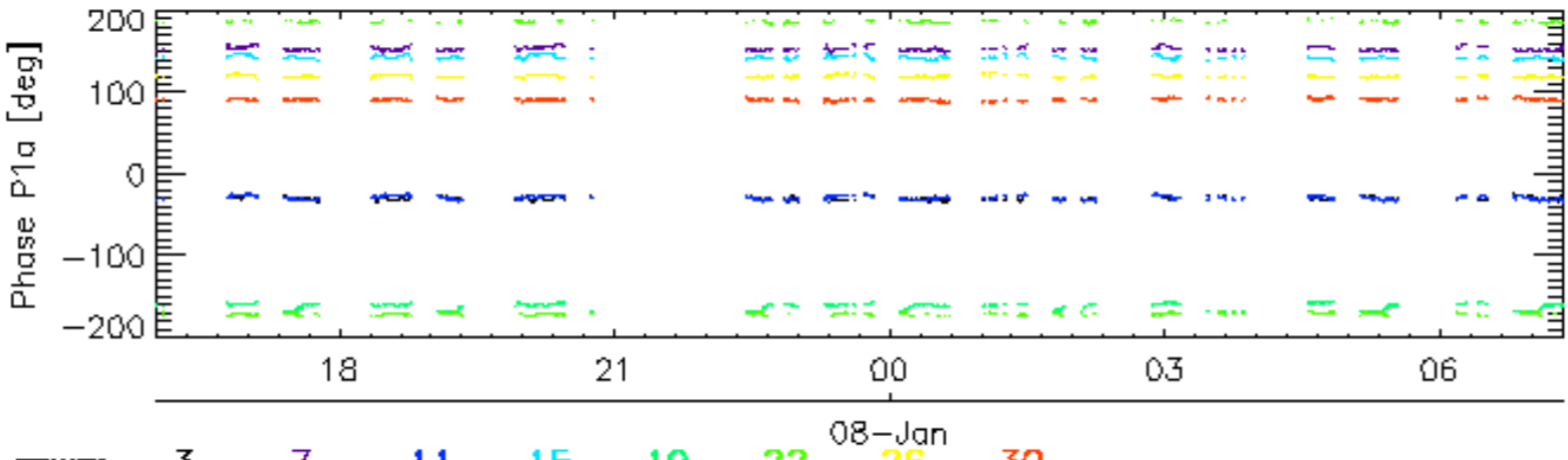
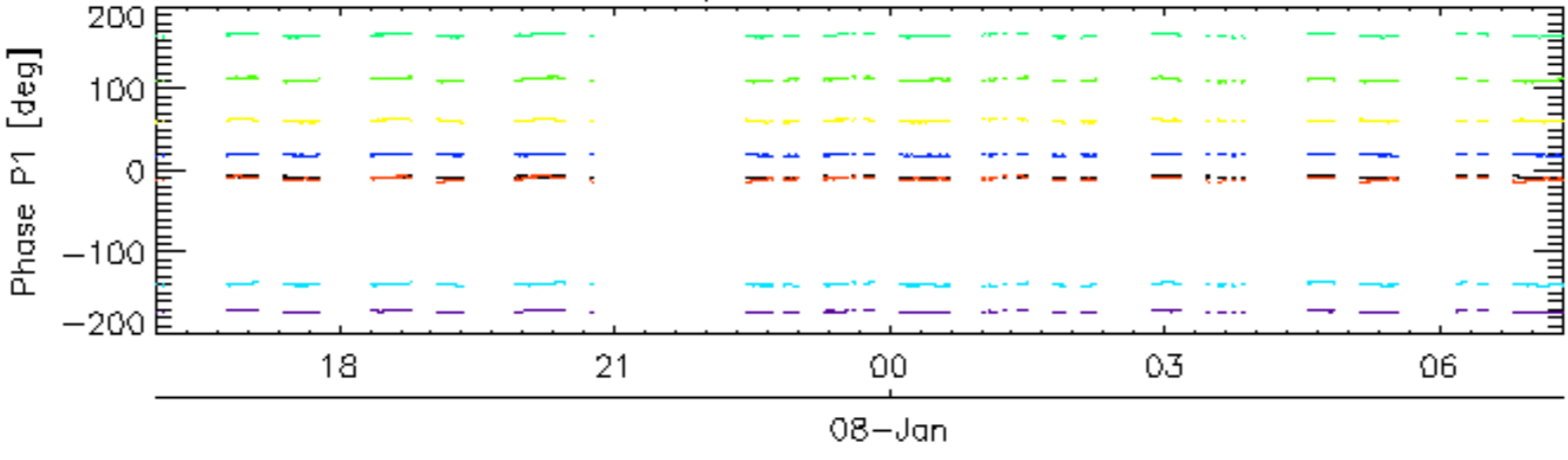


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

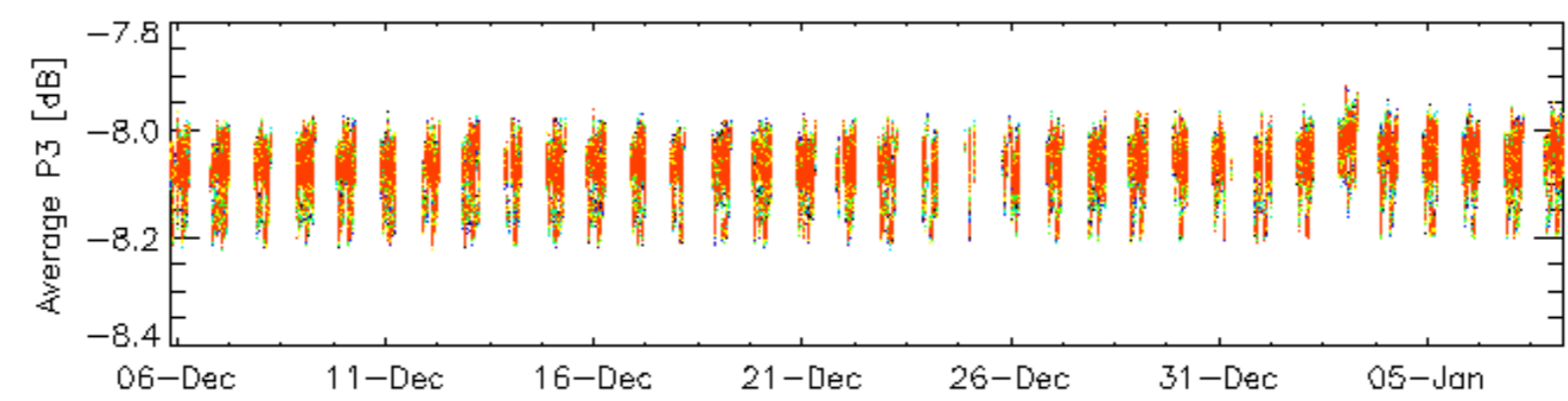
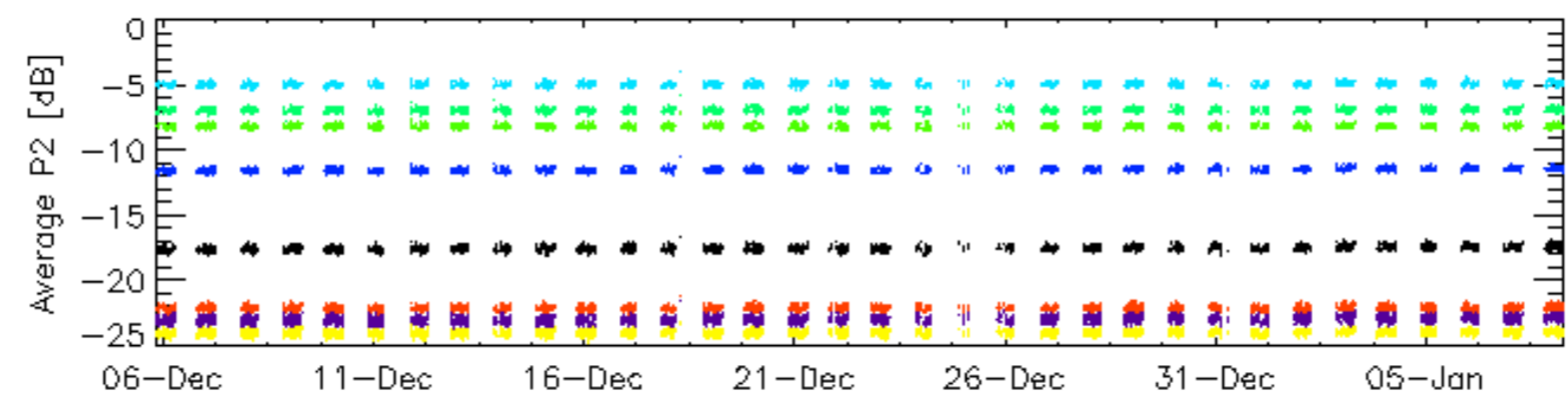
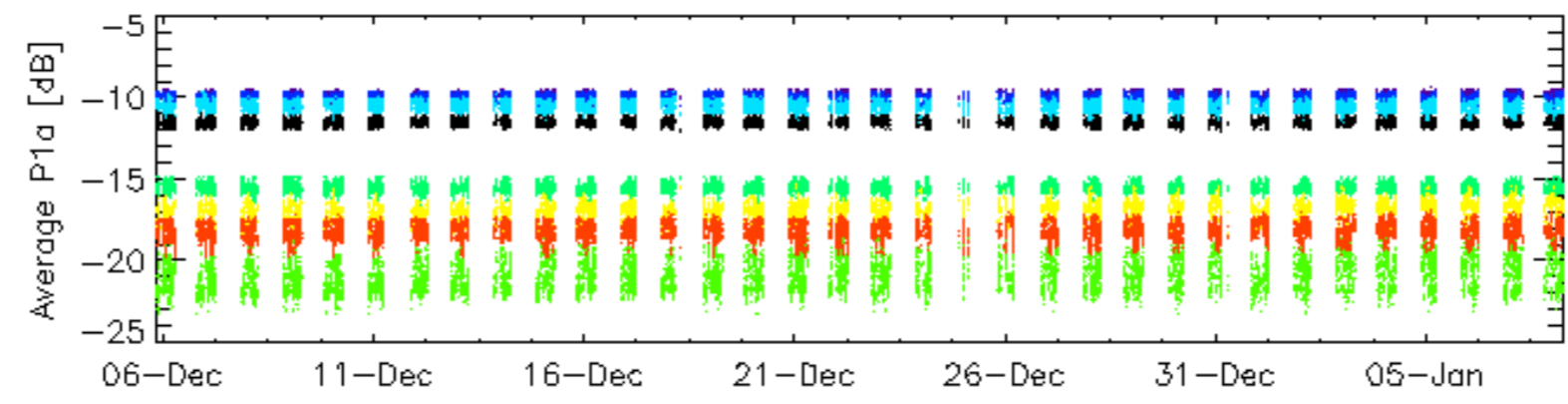
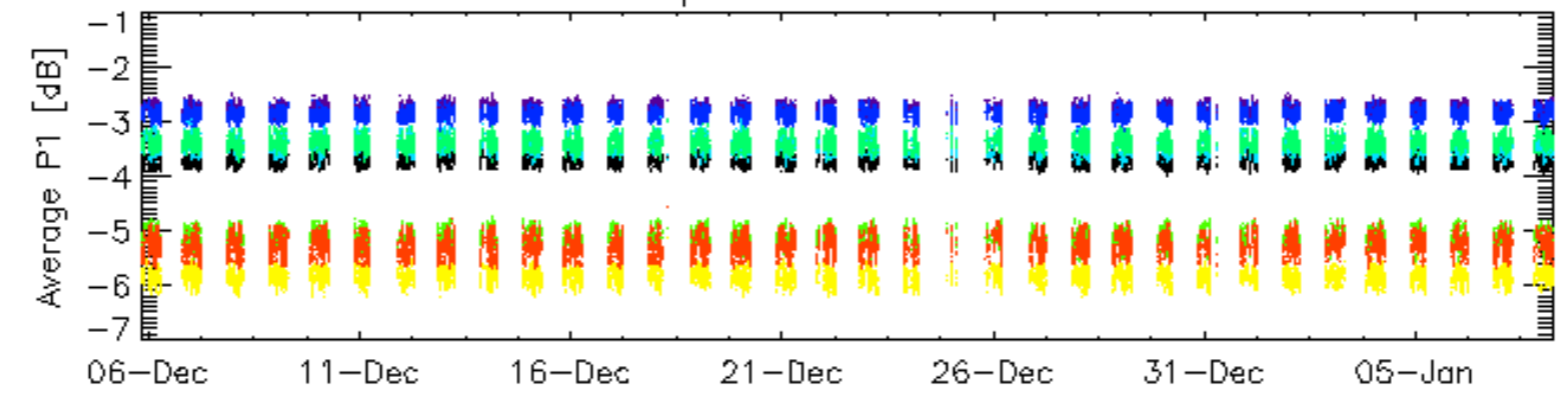


Cal pulses for WVS IS2



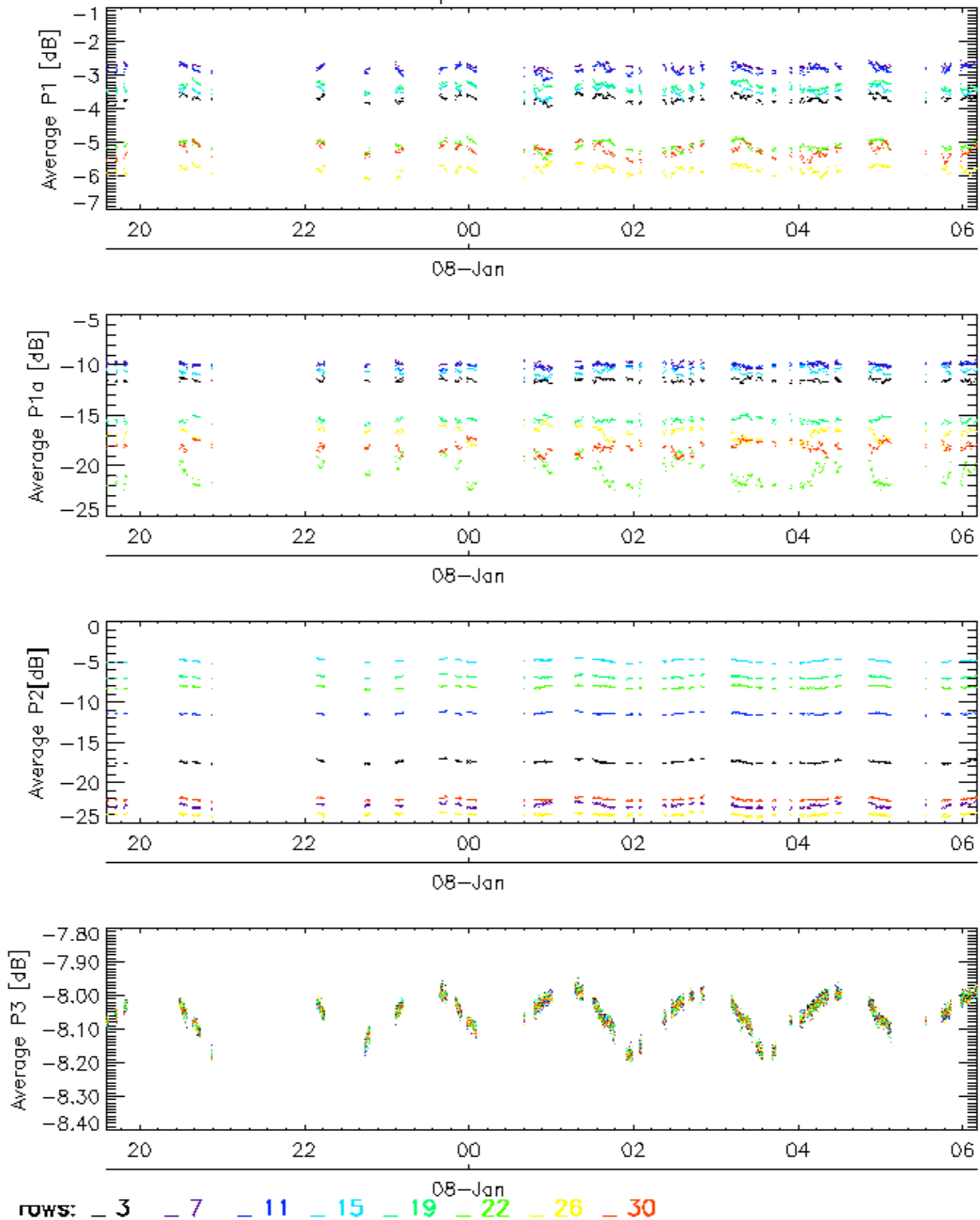
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

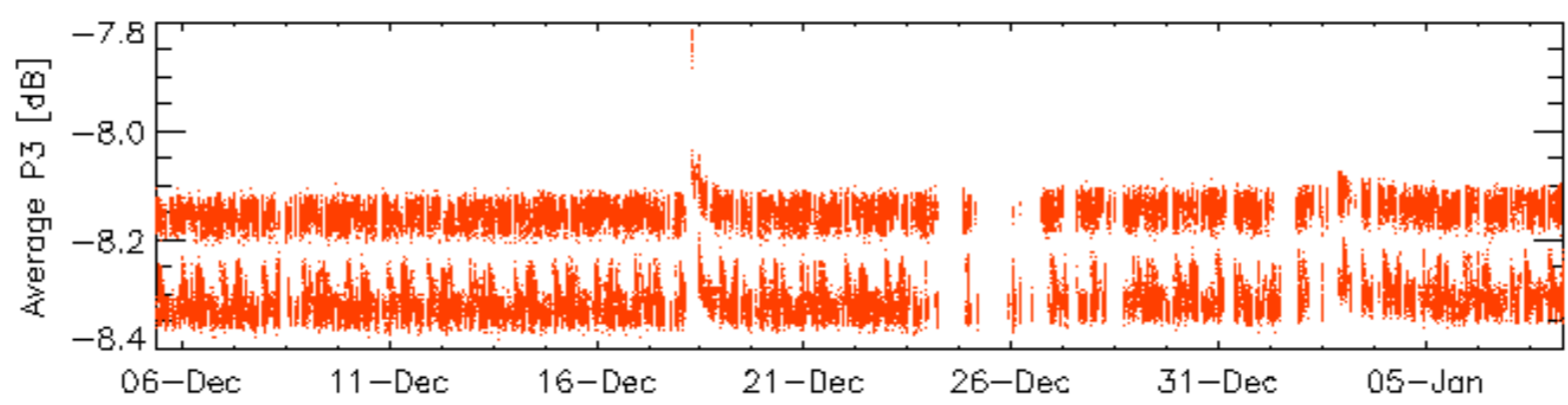
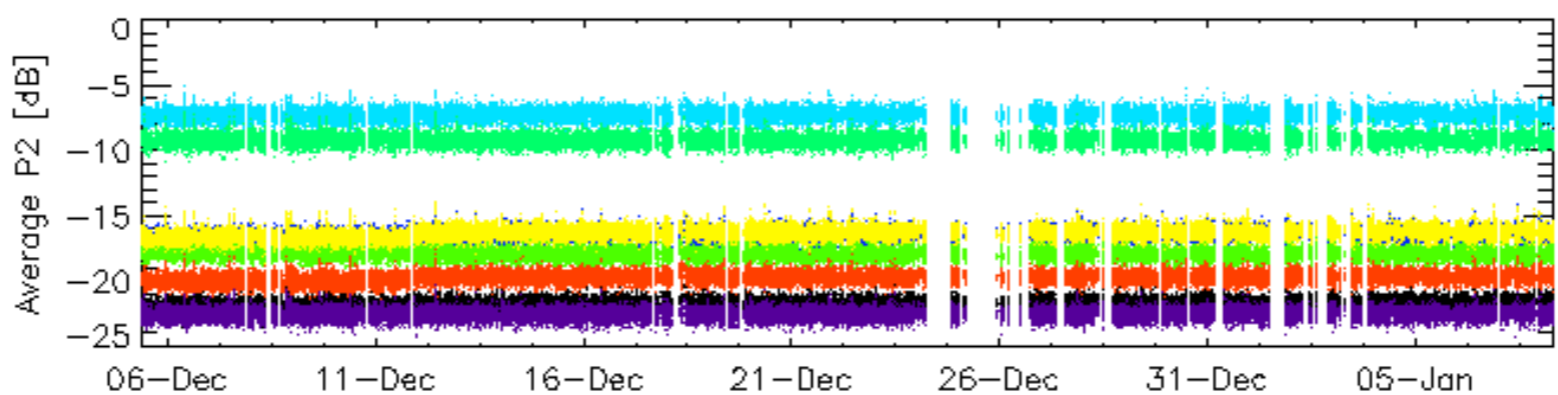
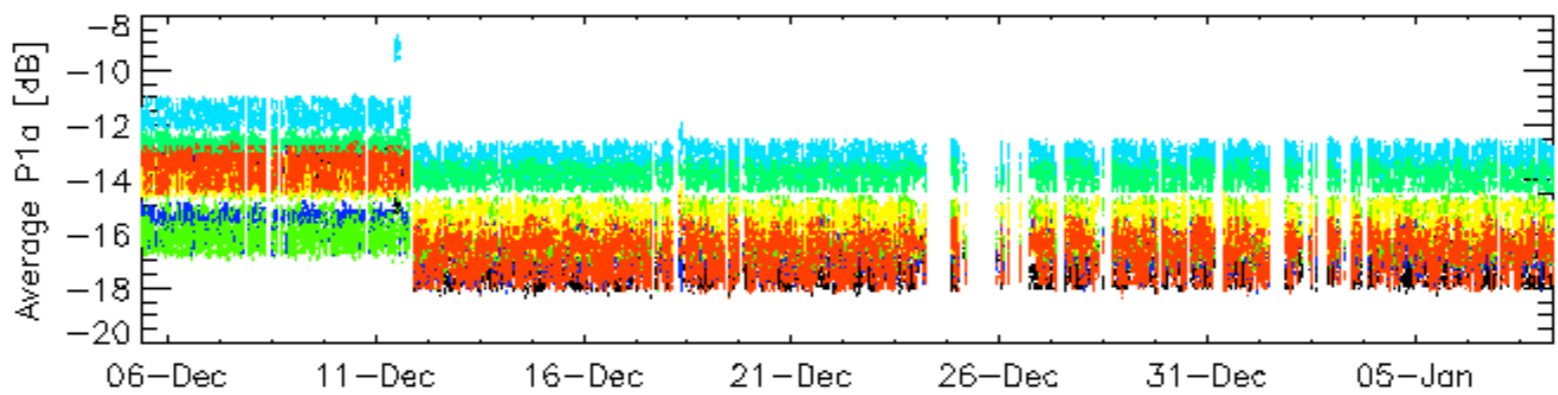
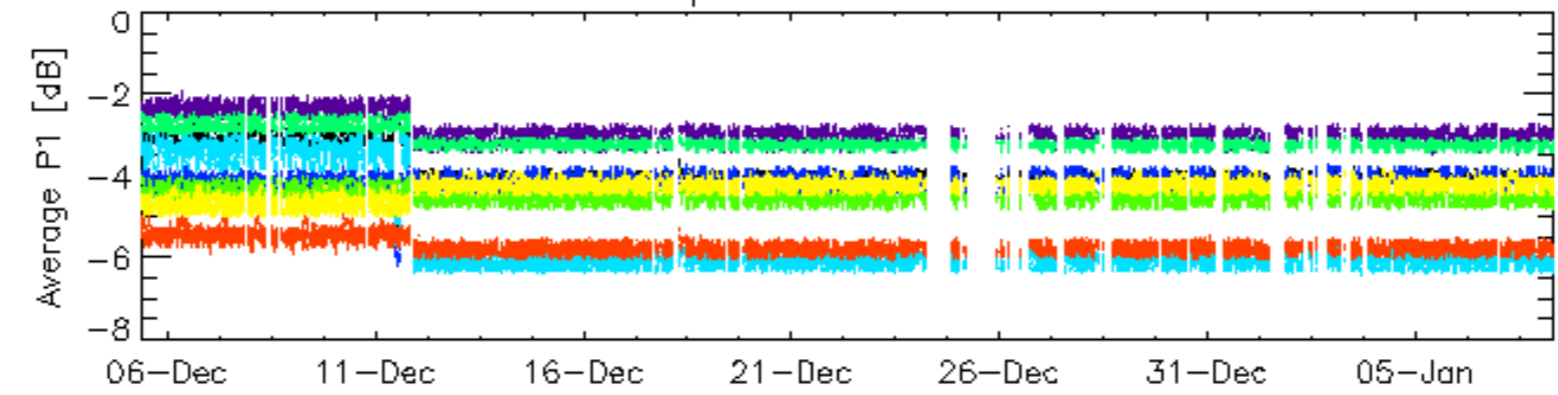


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

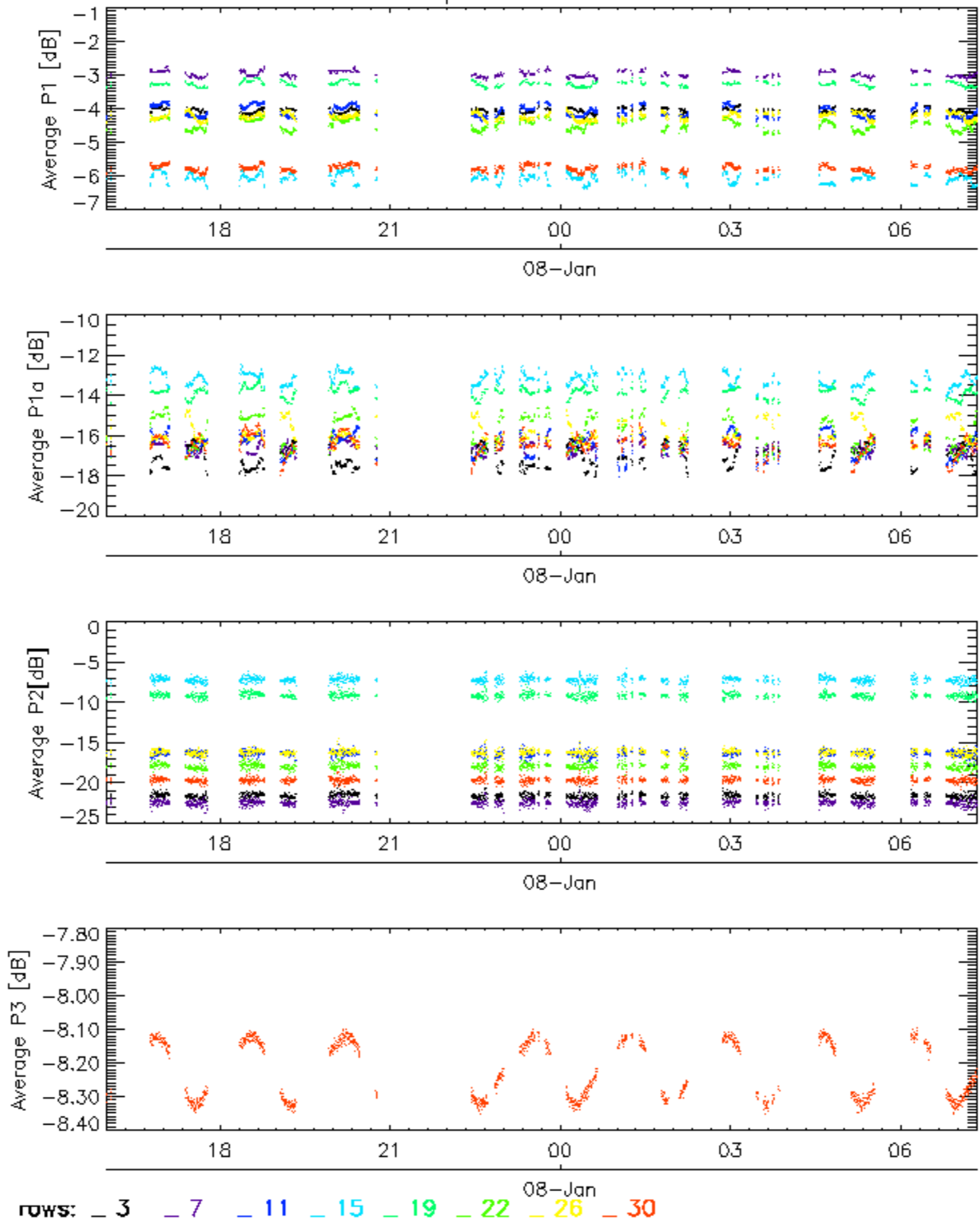


Cal pulses for WVS IS2

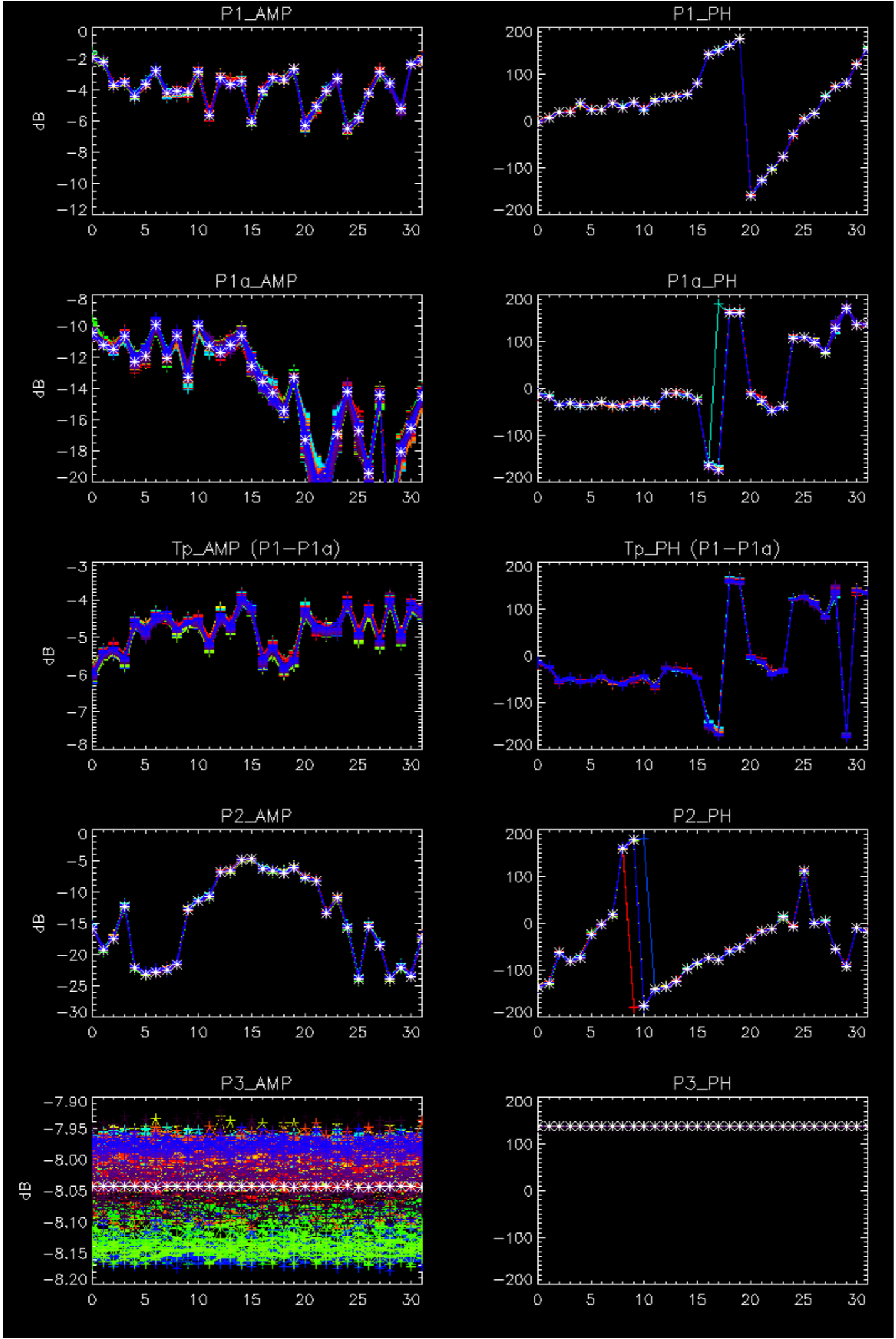


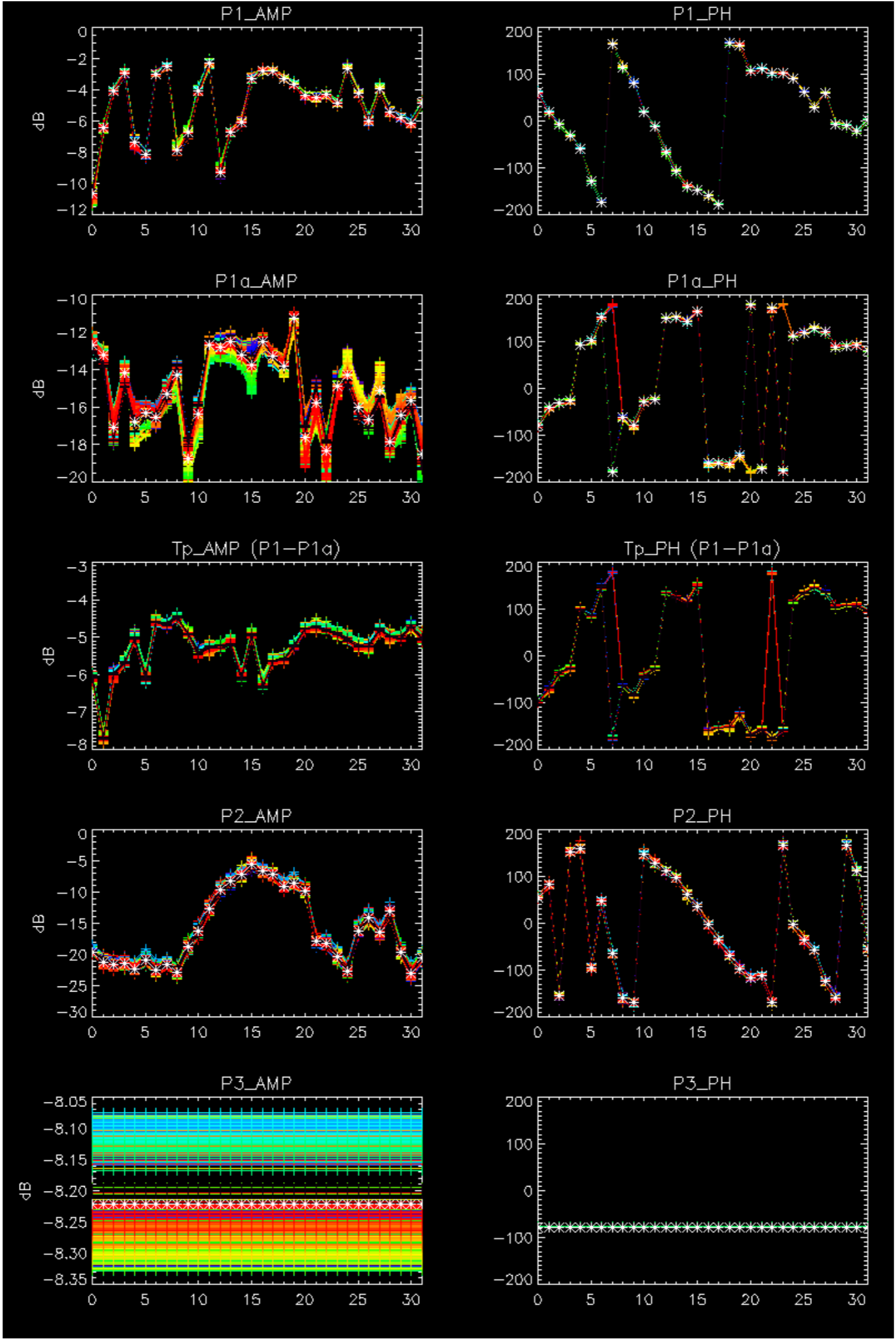
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



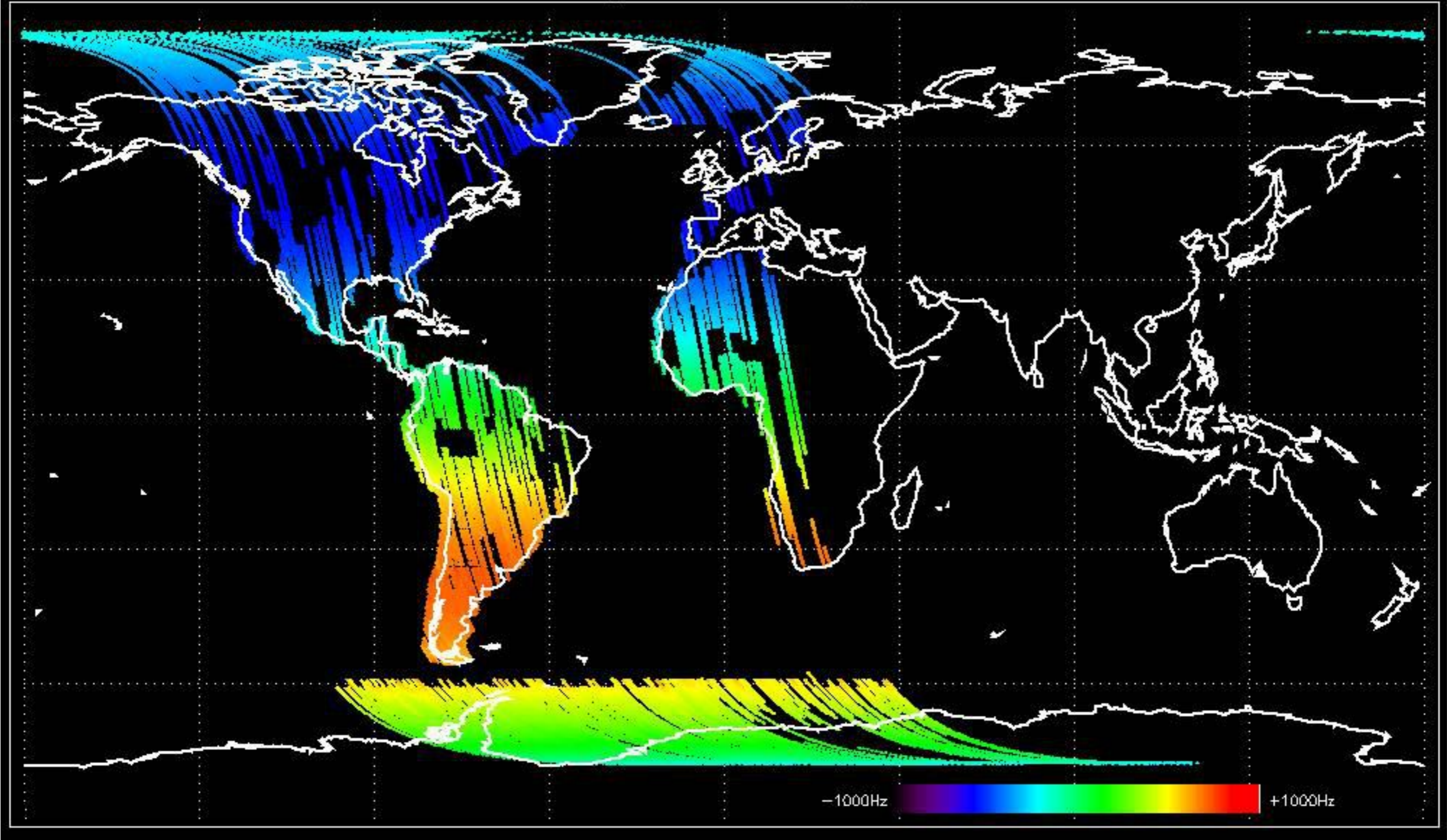
No anomalies observed.



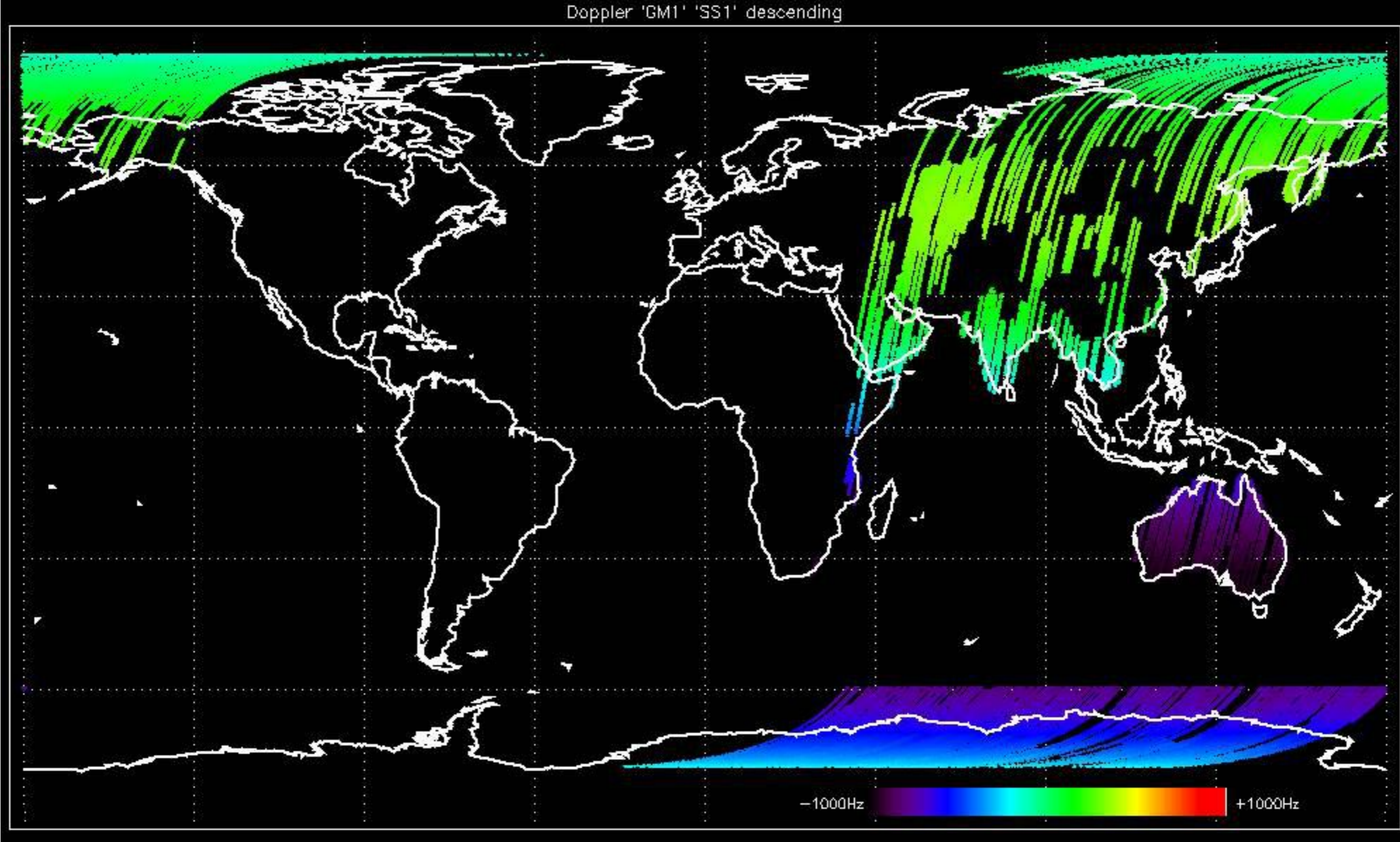


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

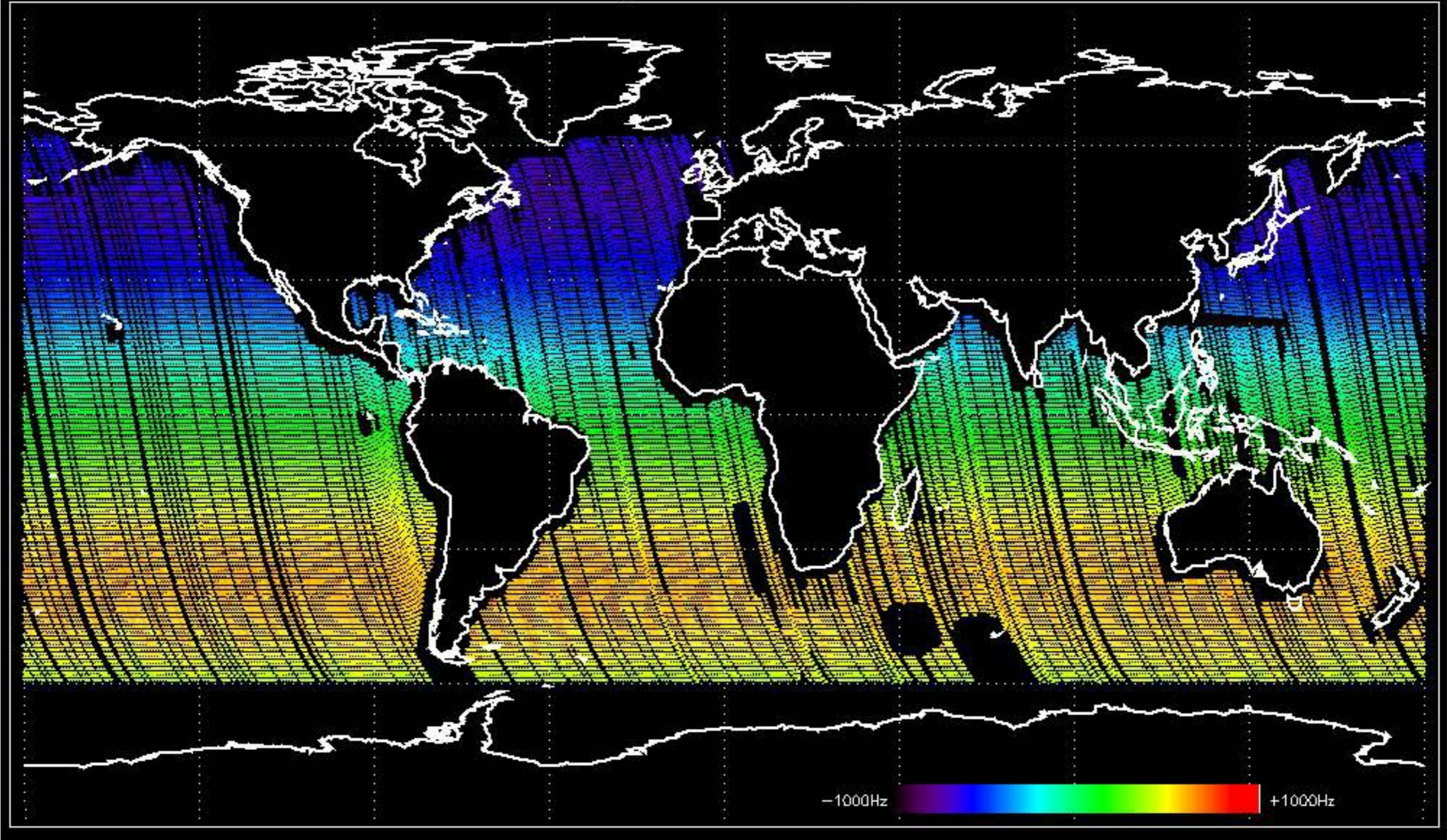
Doppler 'GM1' 'SS1' ascending



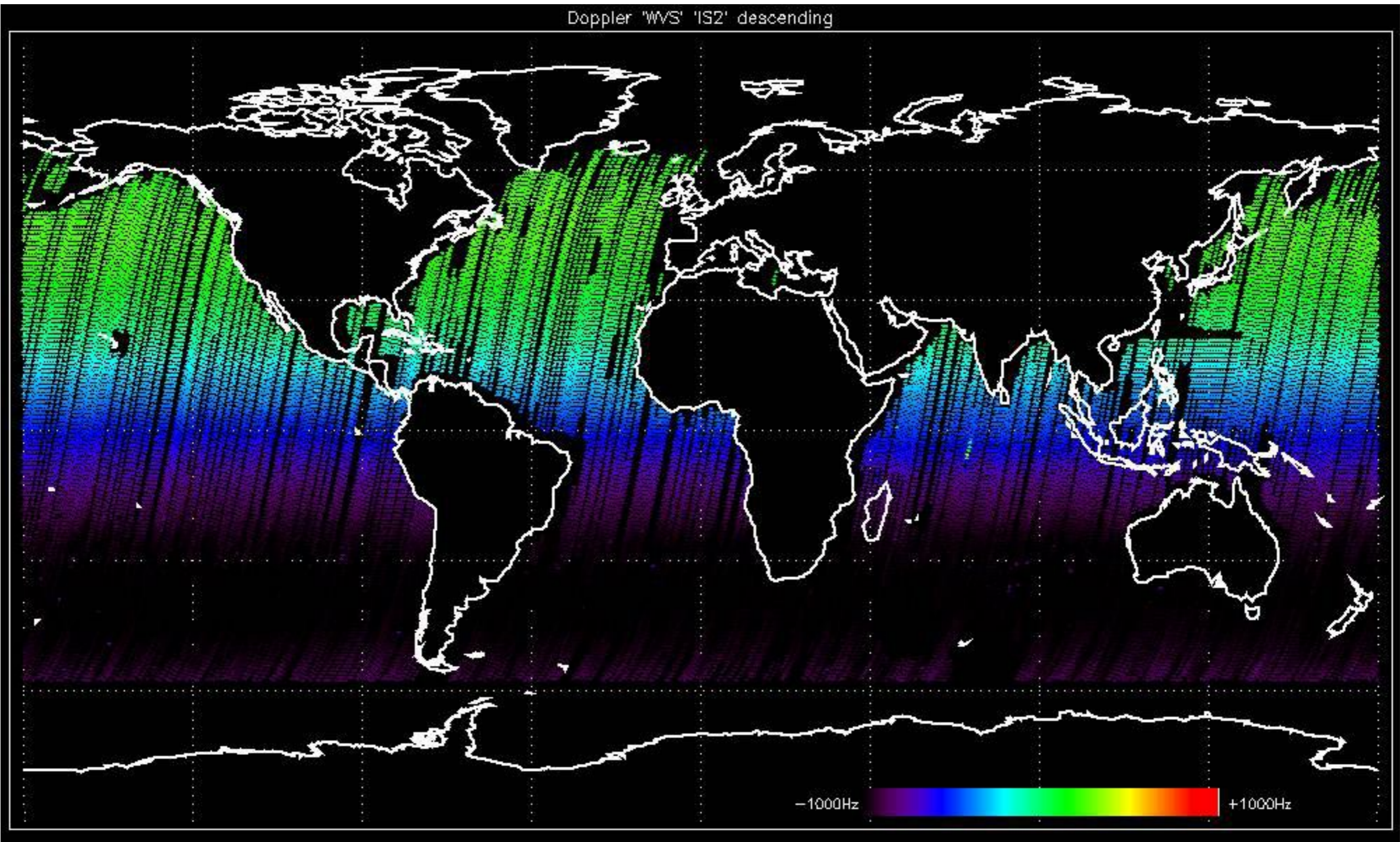
Doppler 'GM1' 'SS1' descending



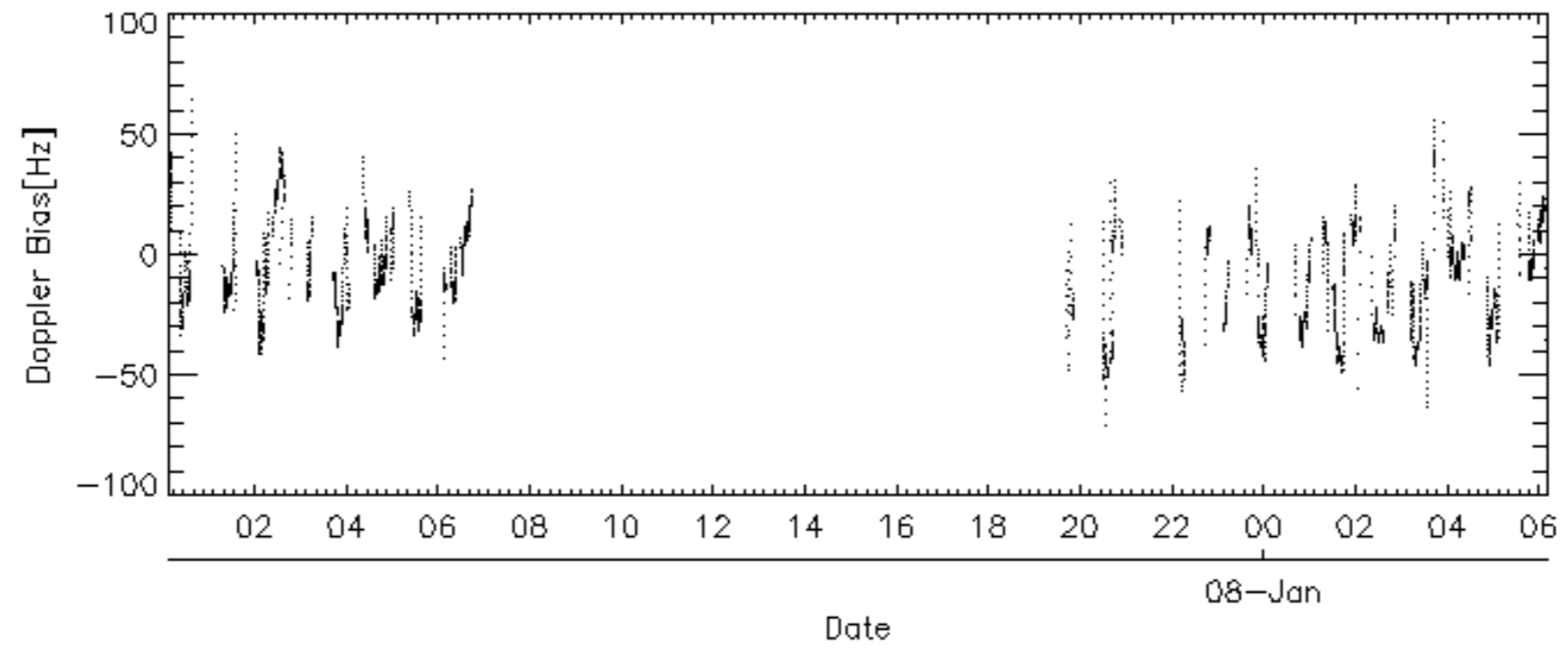
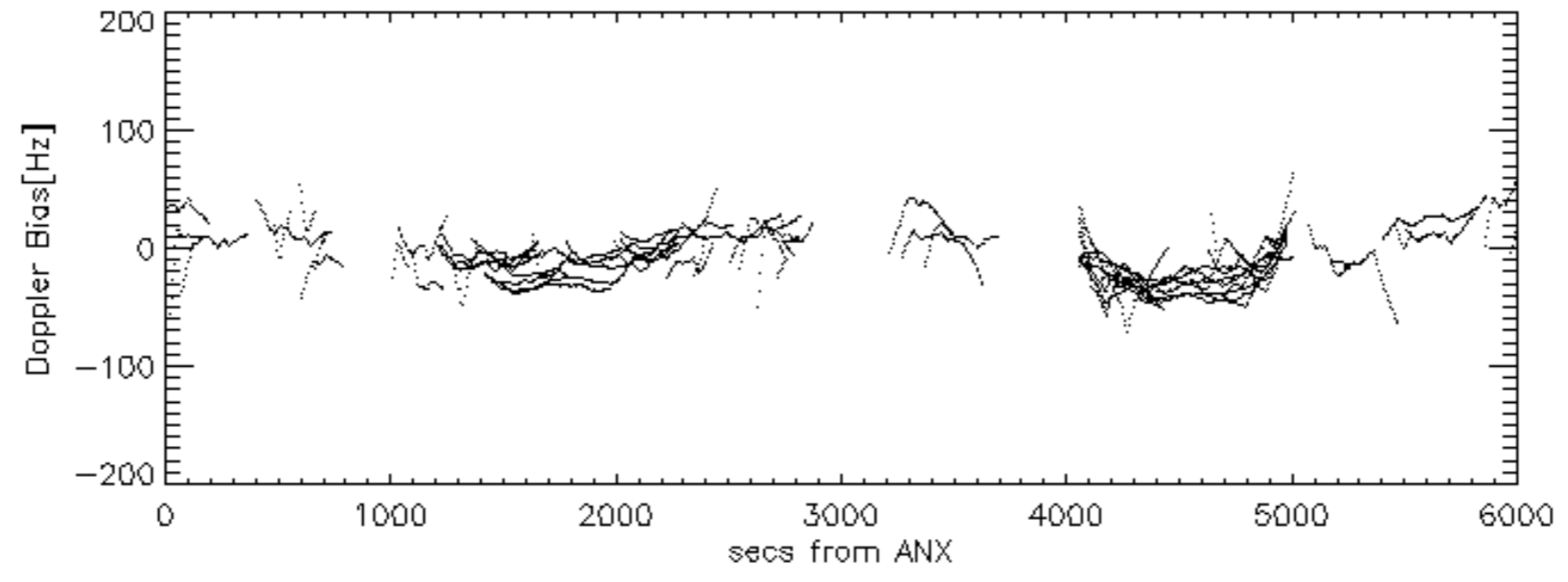
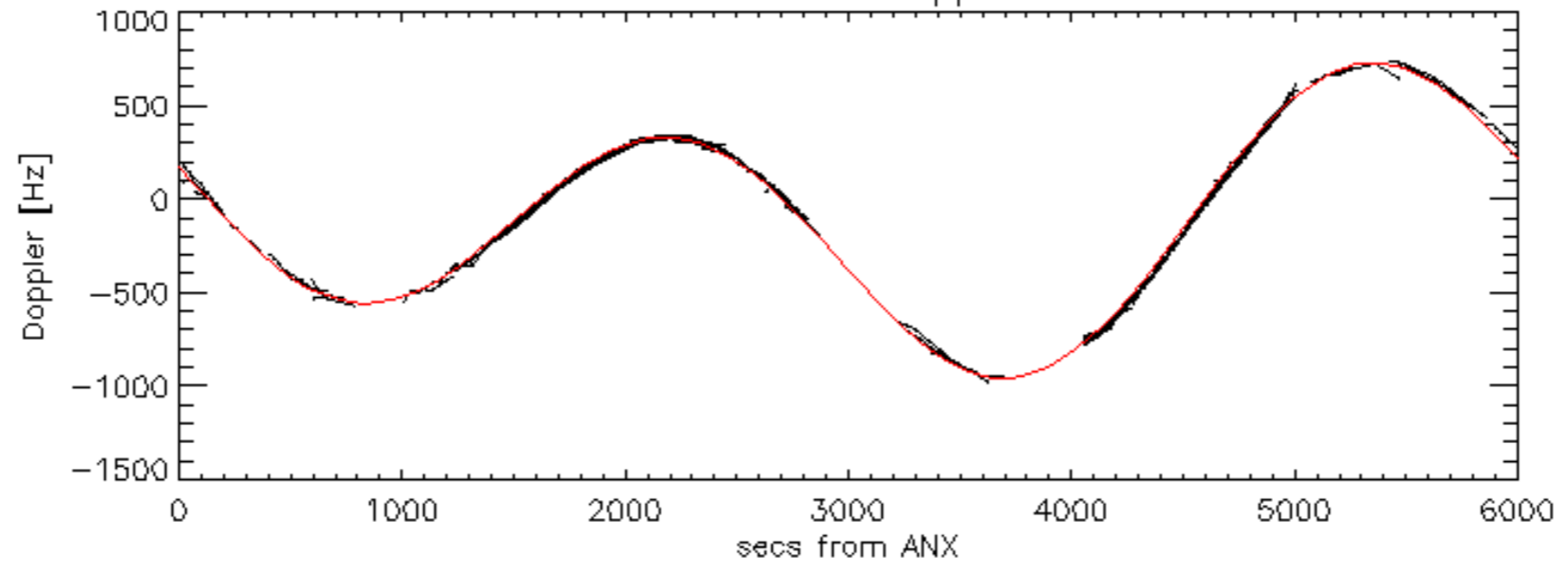
Doppler 'WVS' 'IS2' ascending

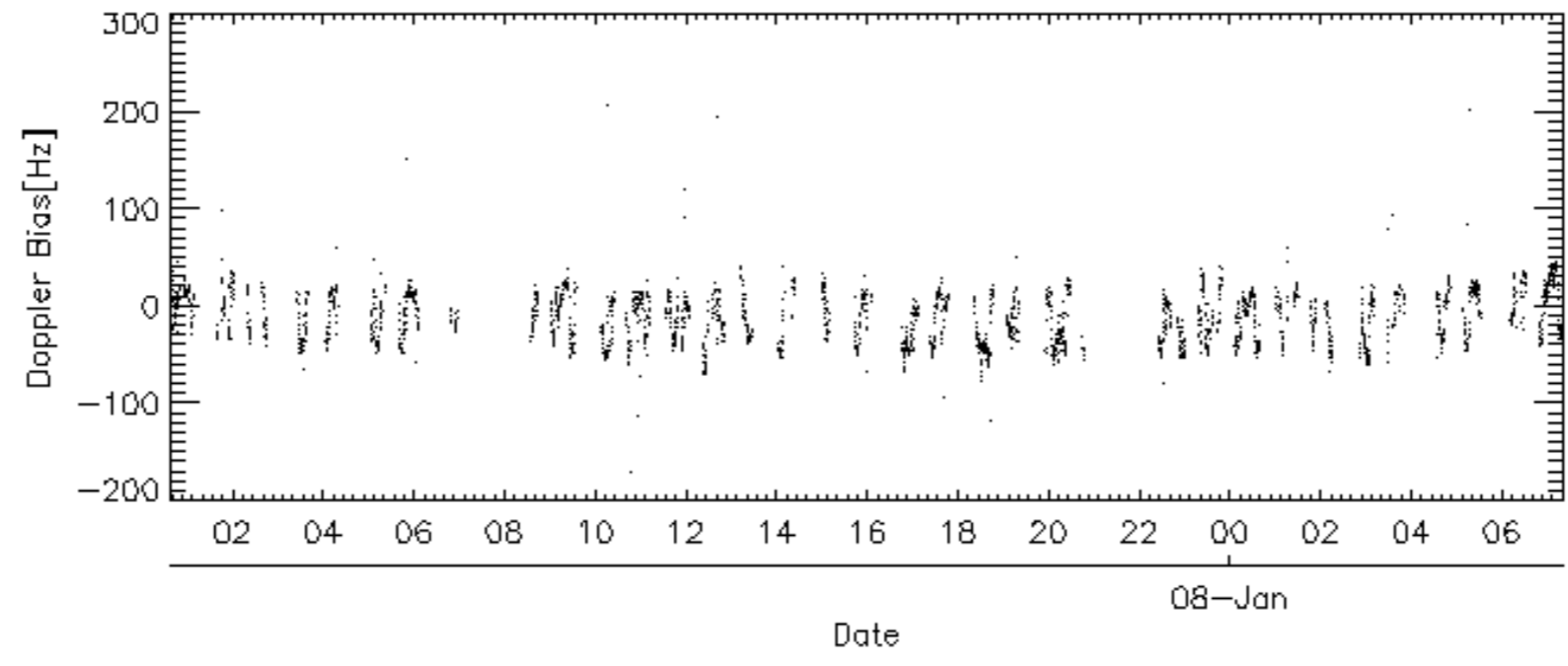
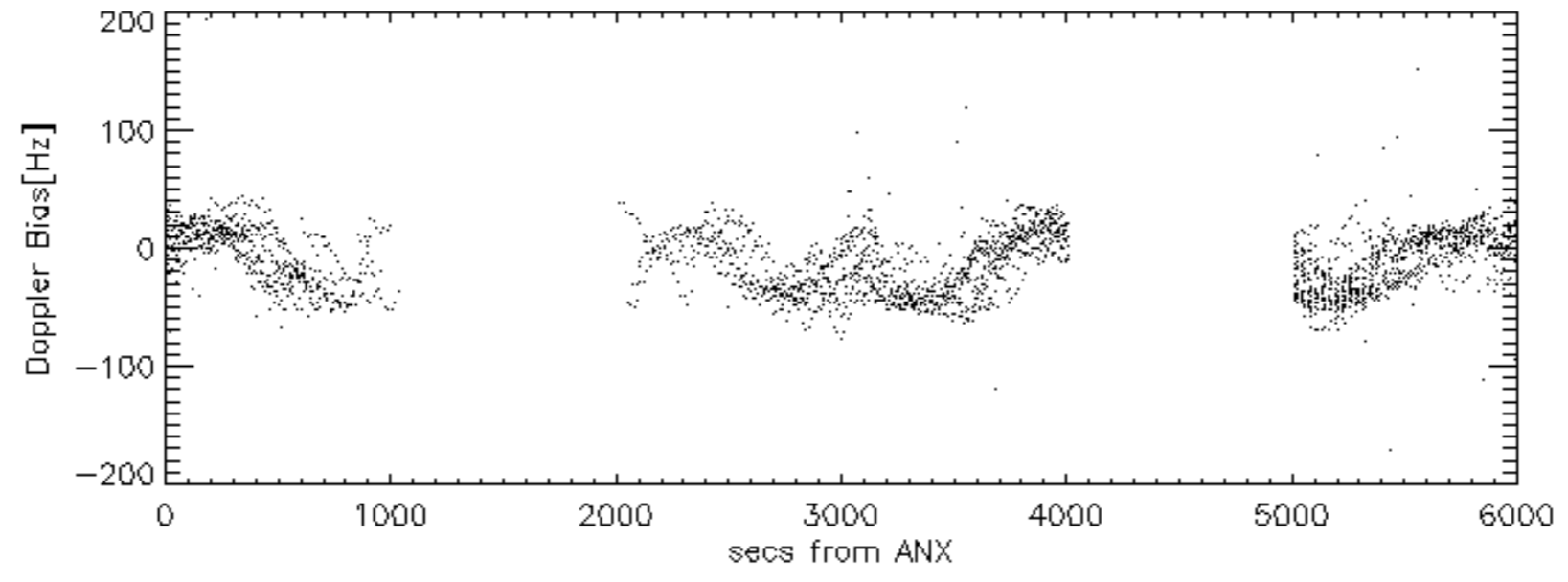
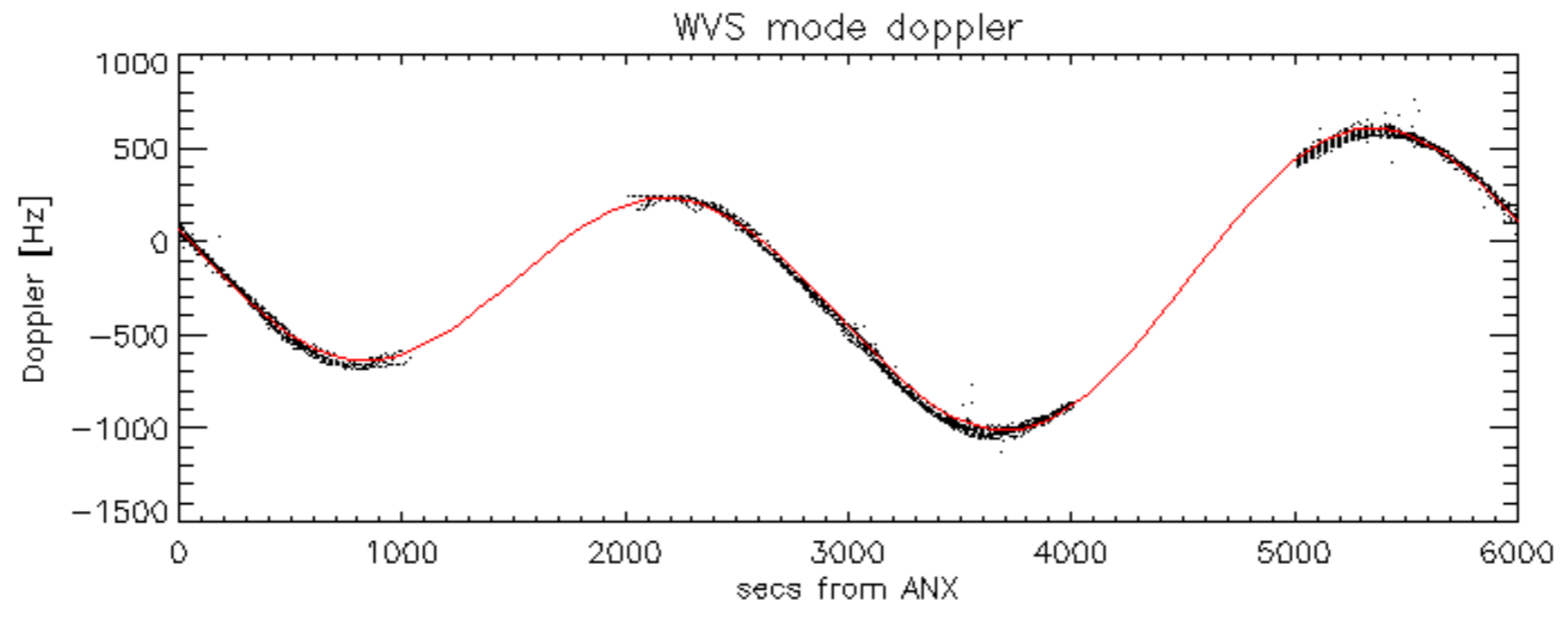


Doppler 'WVS' 'IS2' descending

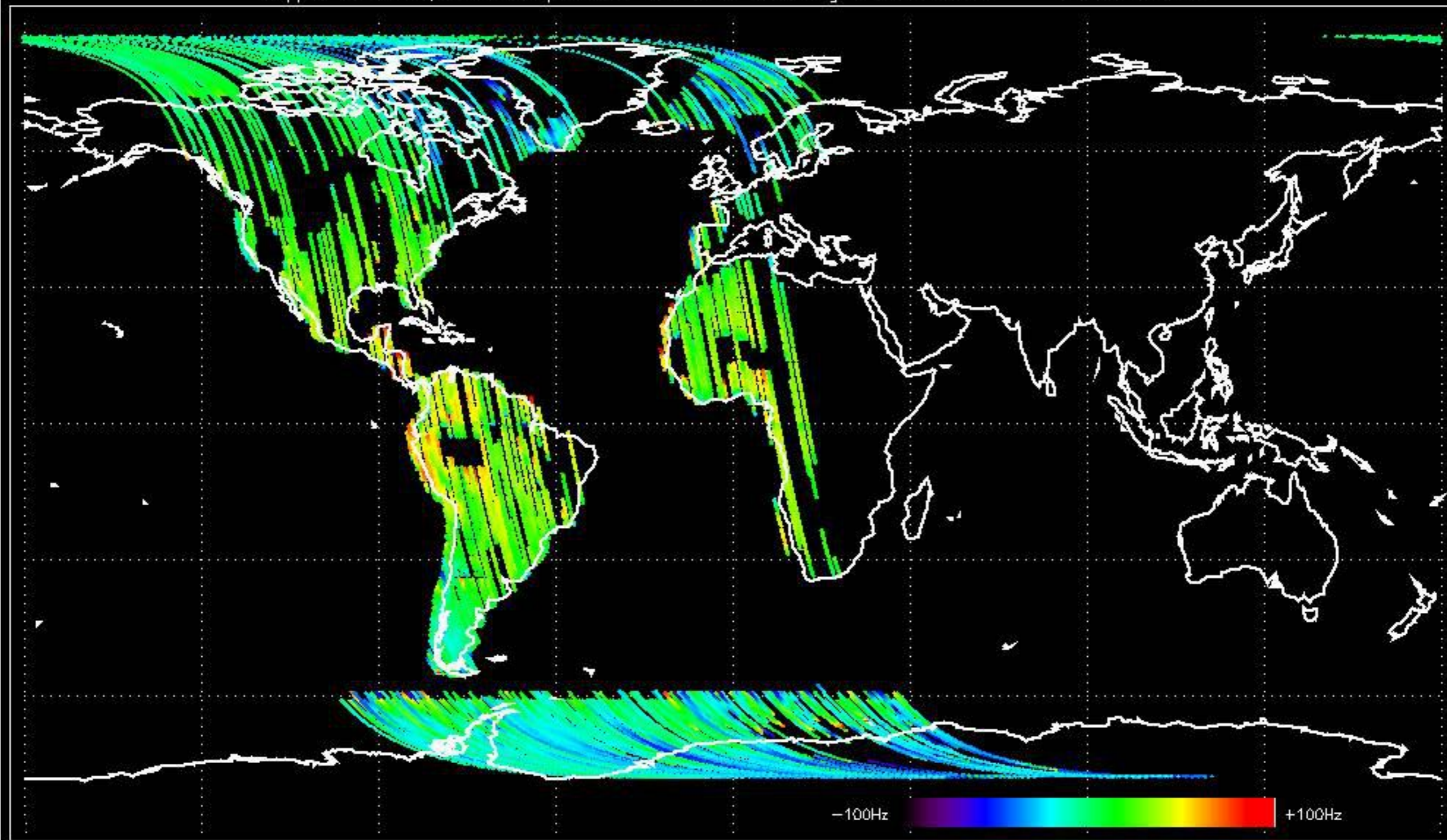


GM1 mode doppler

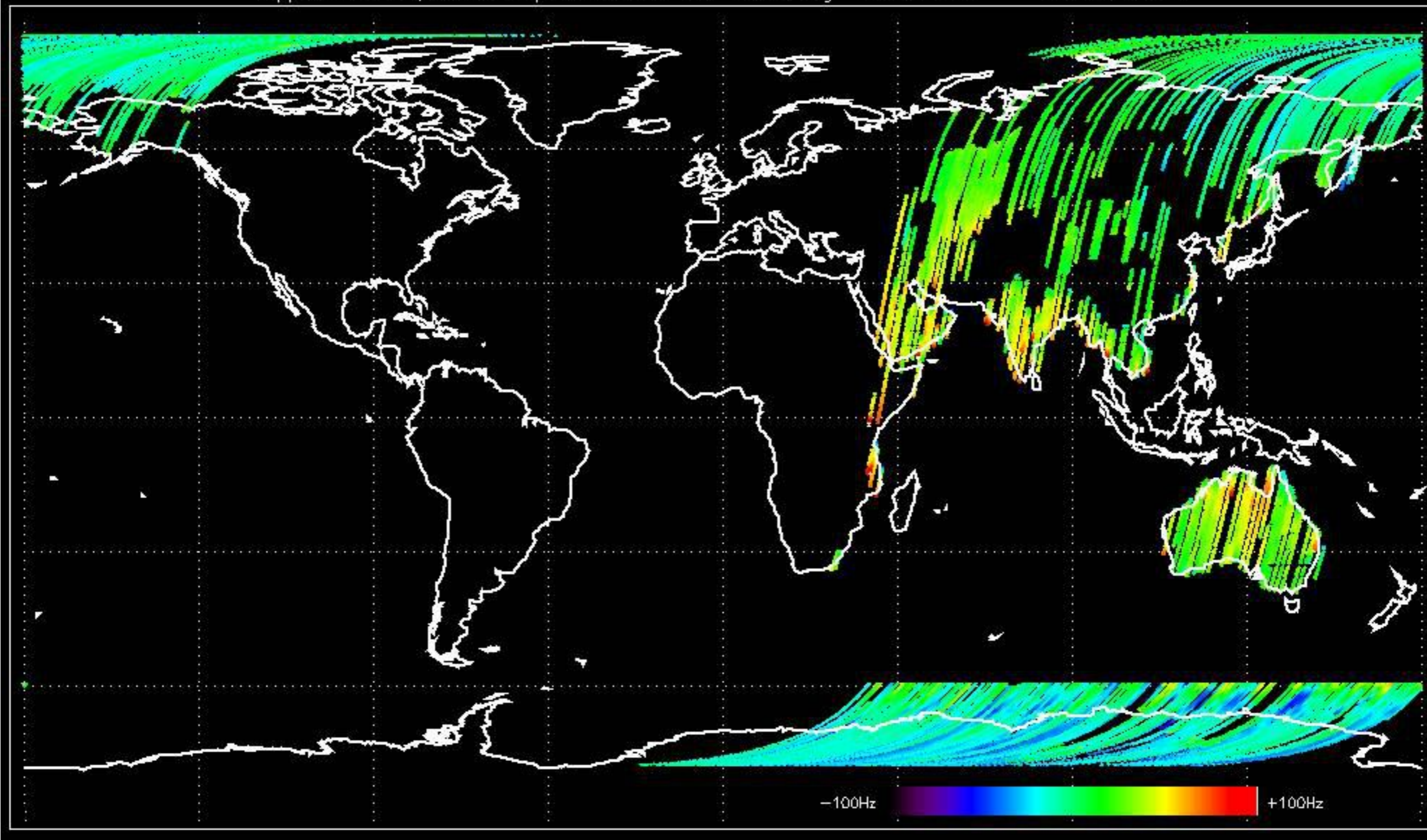




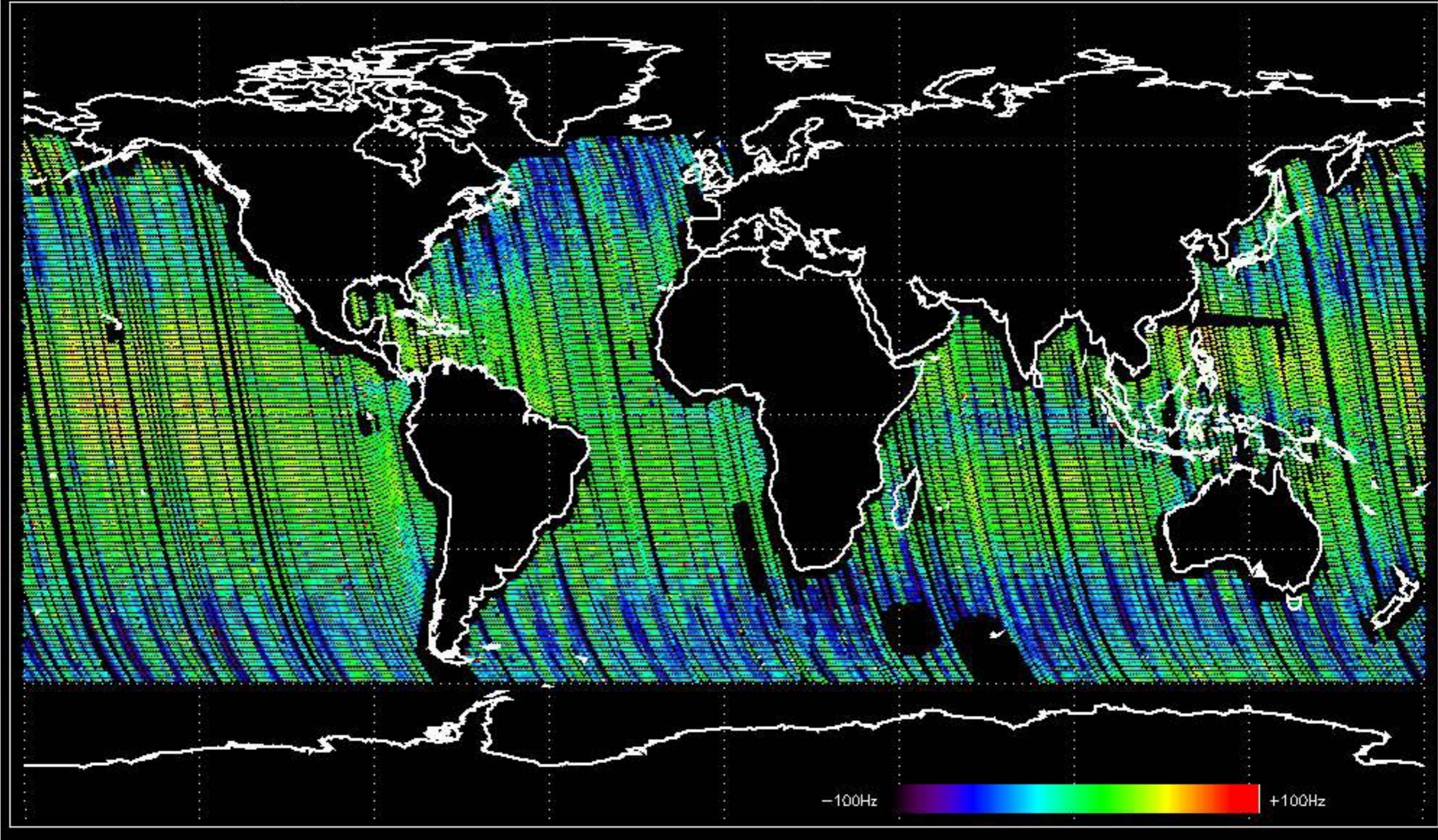
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.048175 Hz



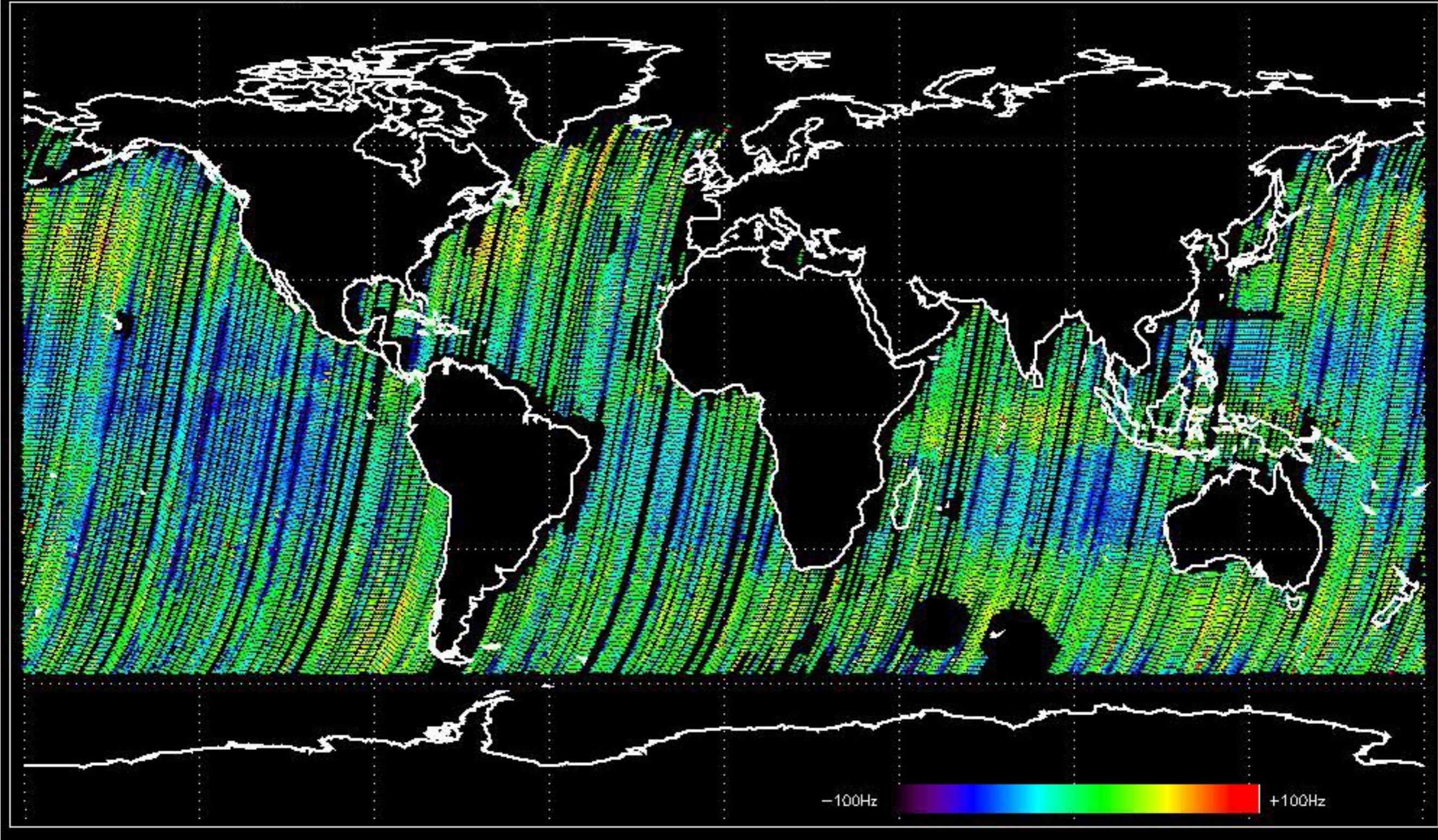
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.022916 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.1526892 Hz

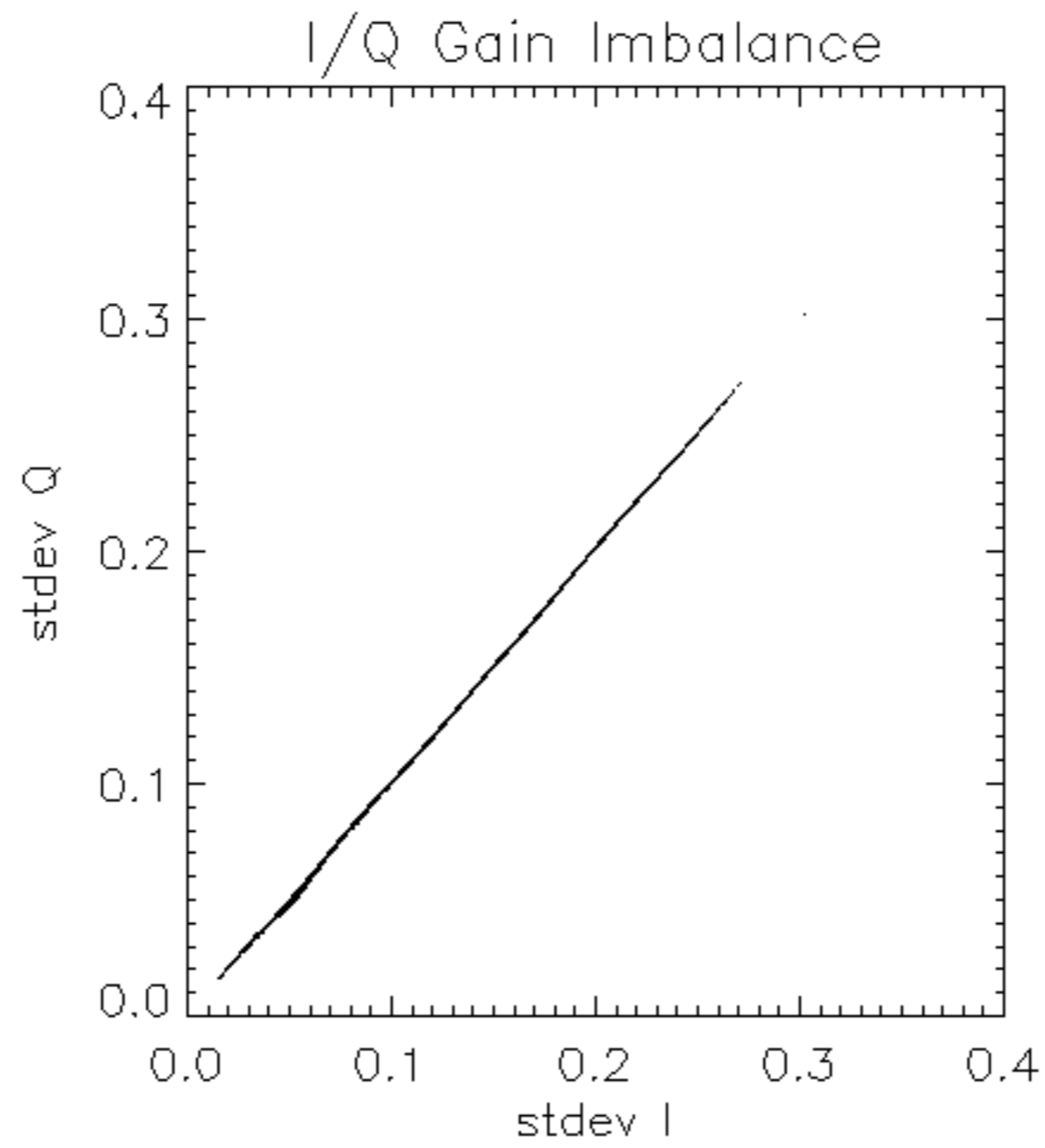


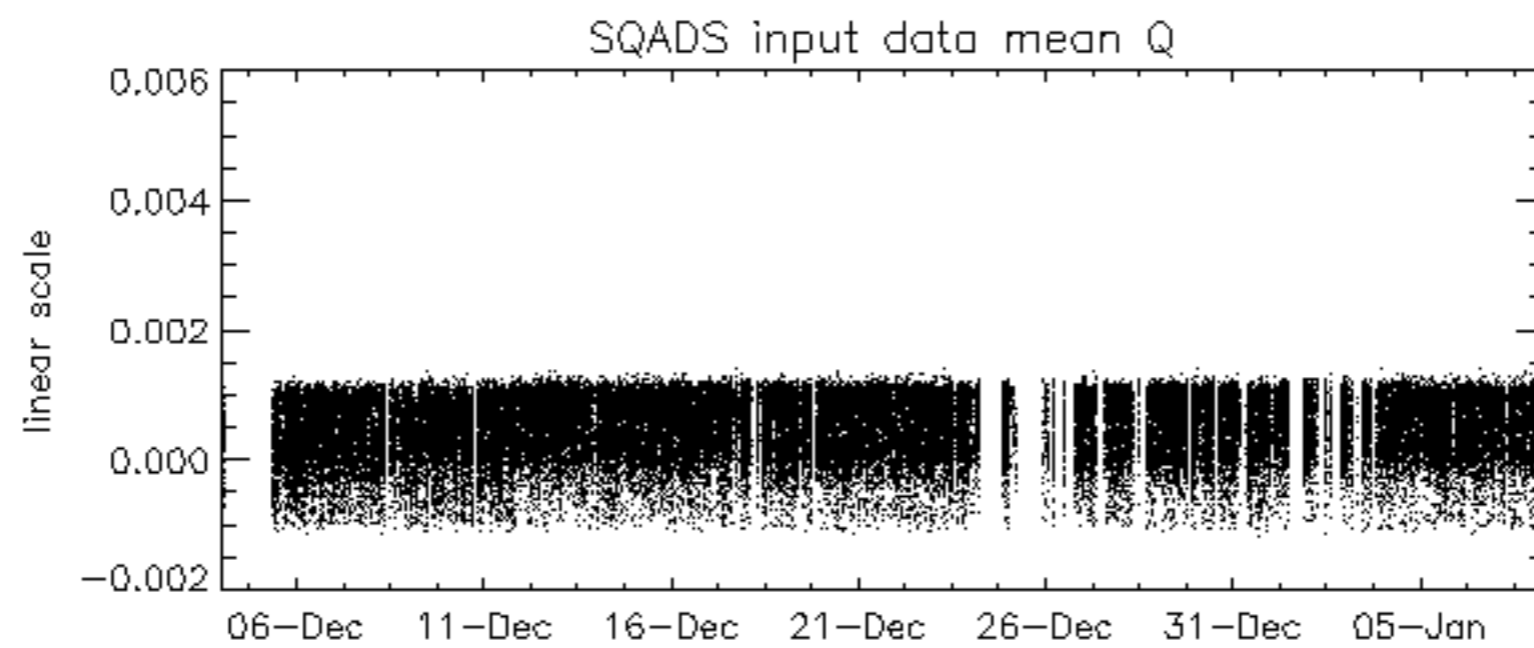
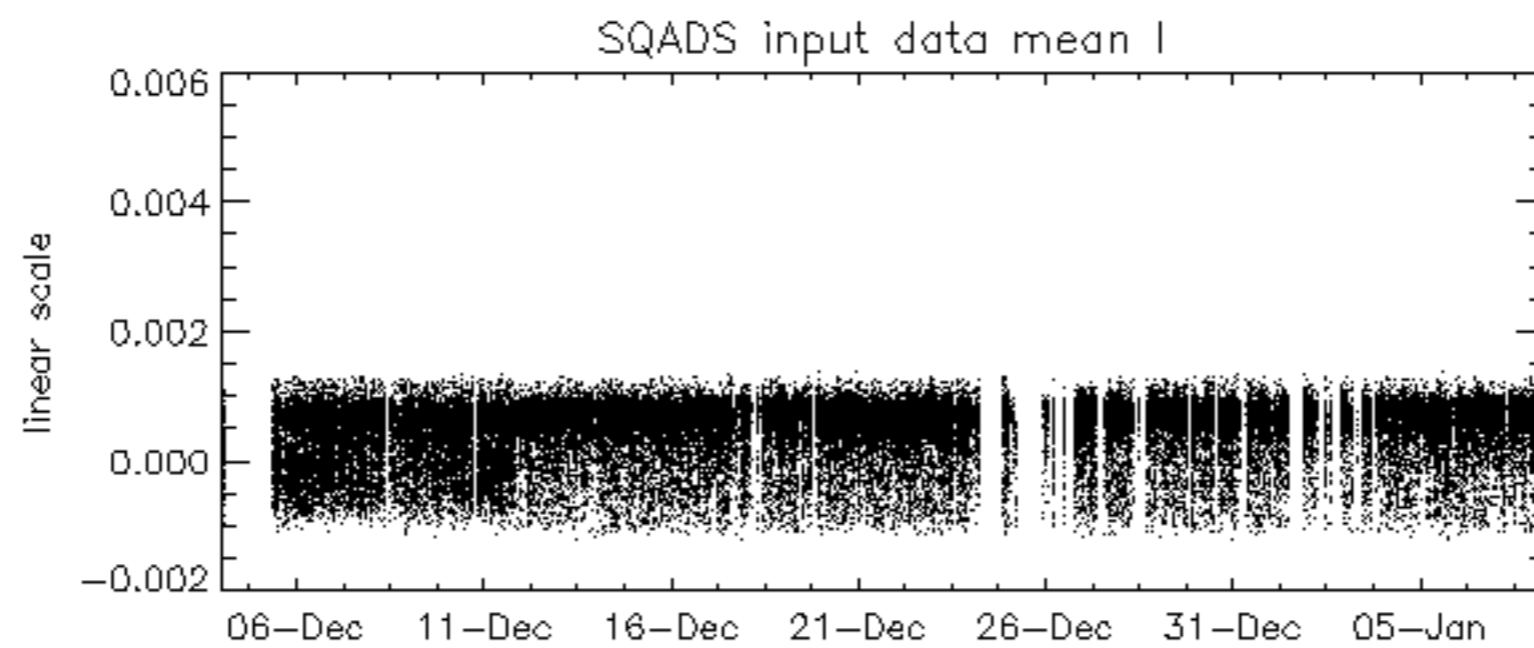
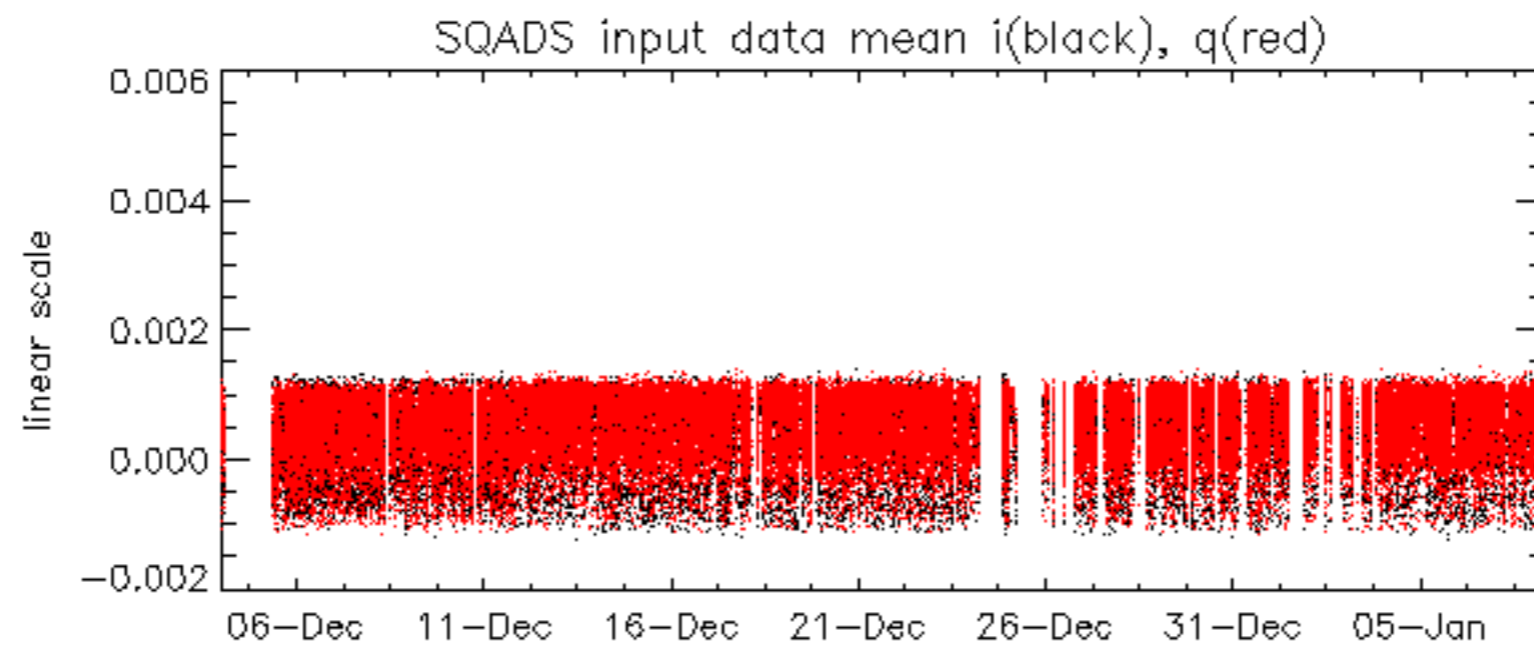
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.846822 Hz

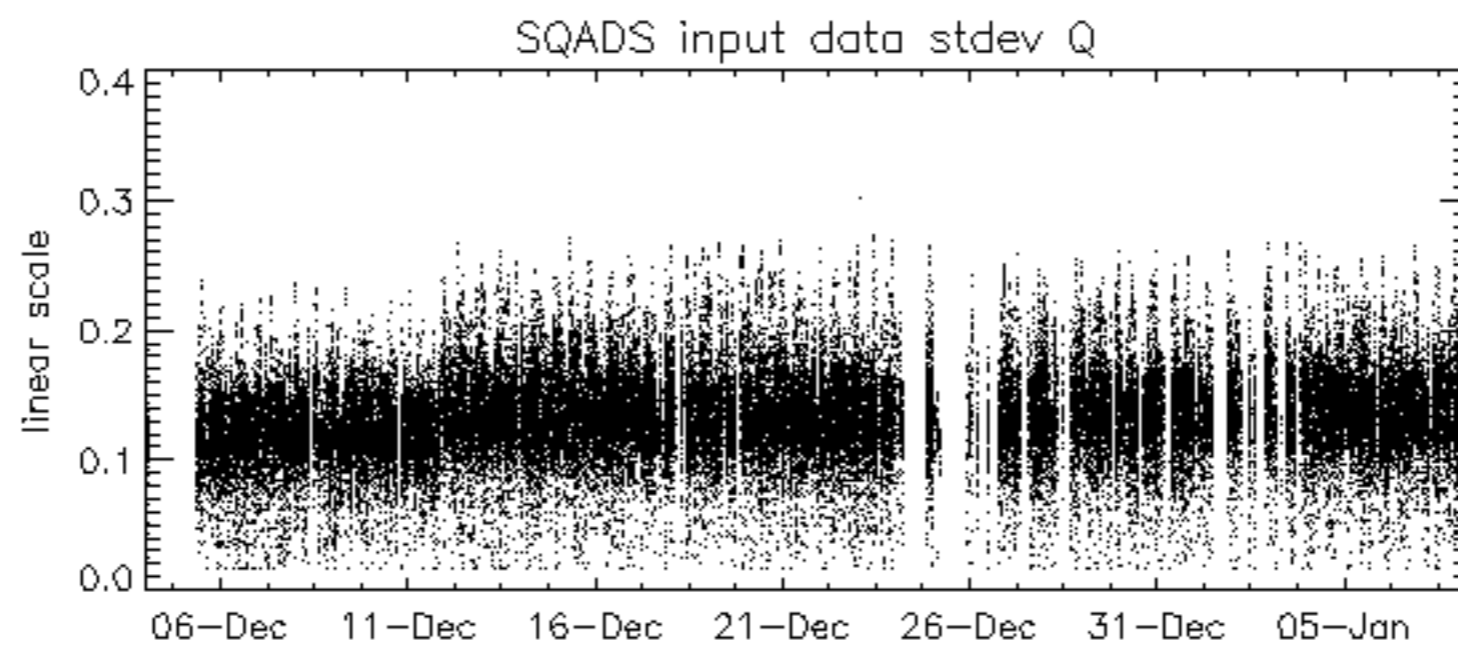
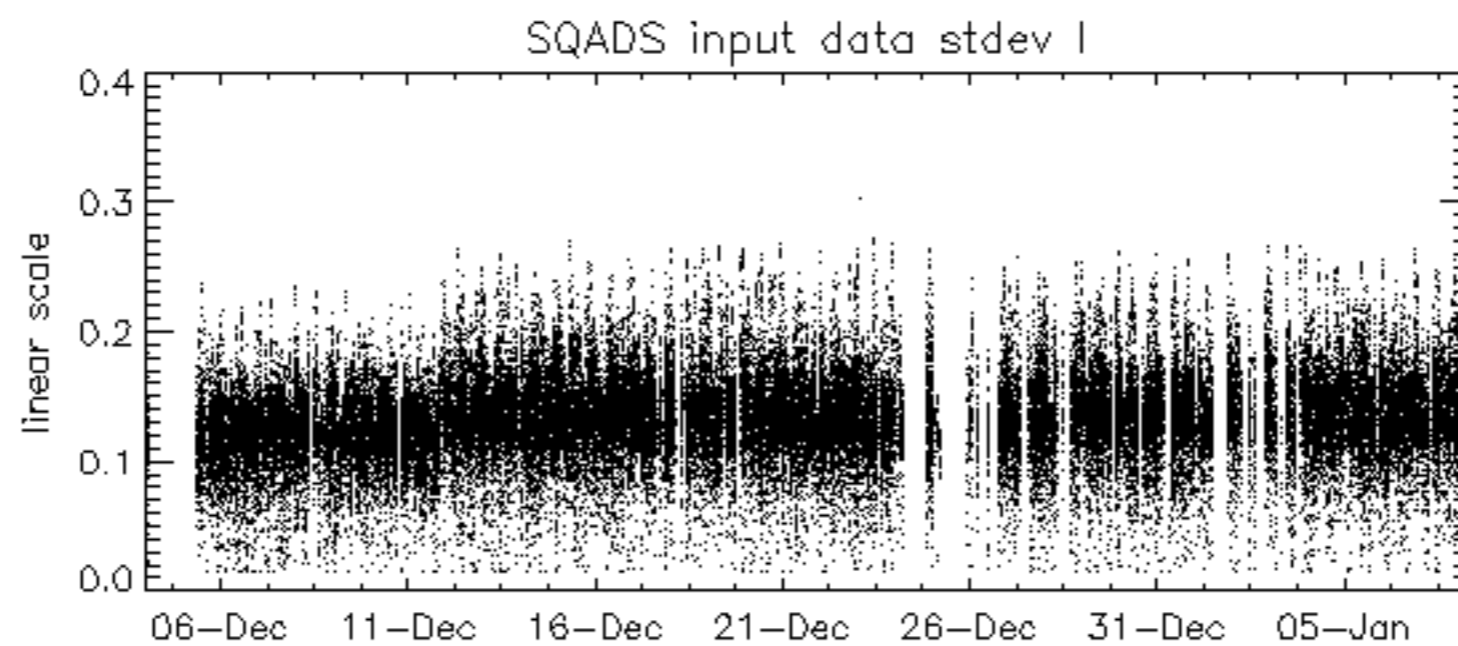
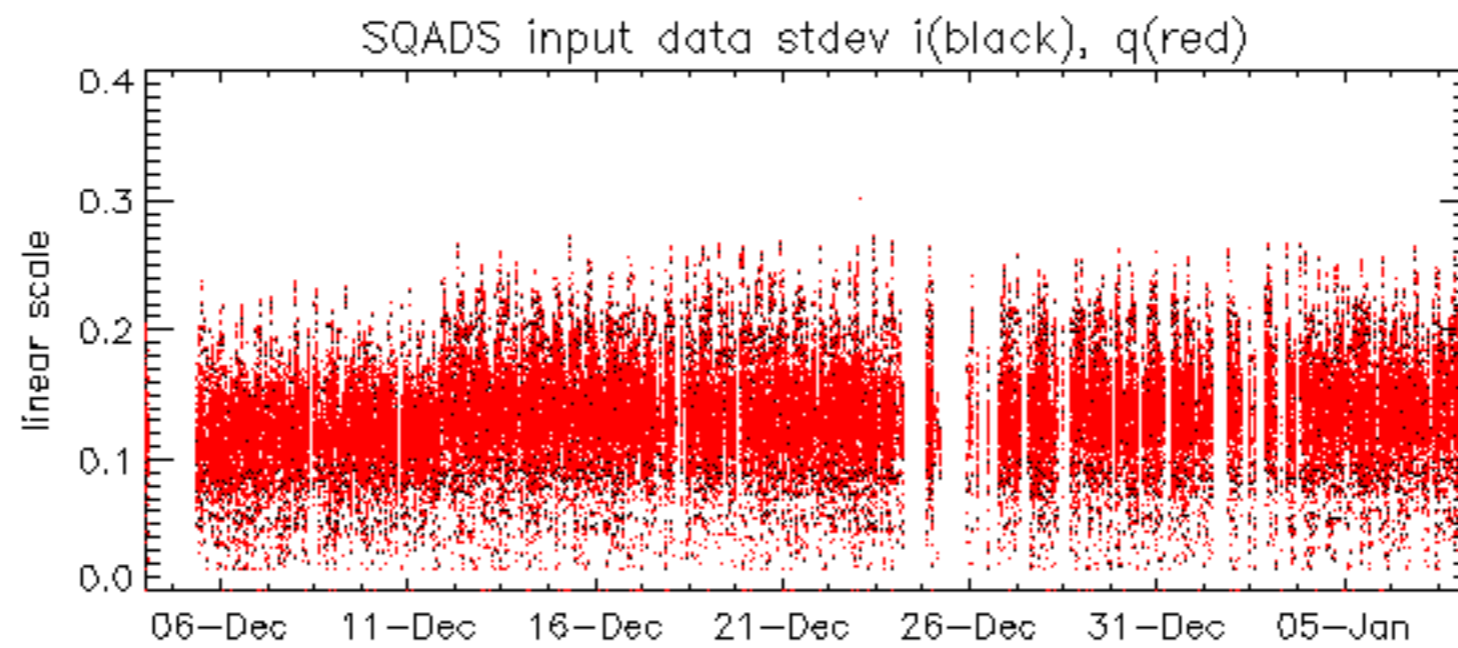


No anomalies observed on available MS products:

No anomalies observed.



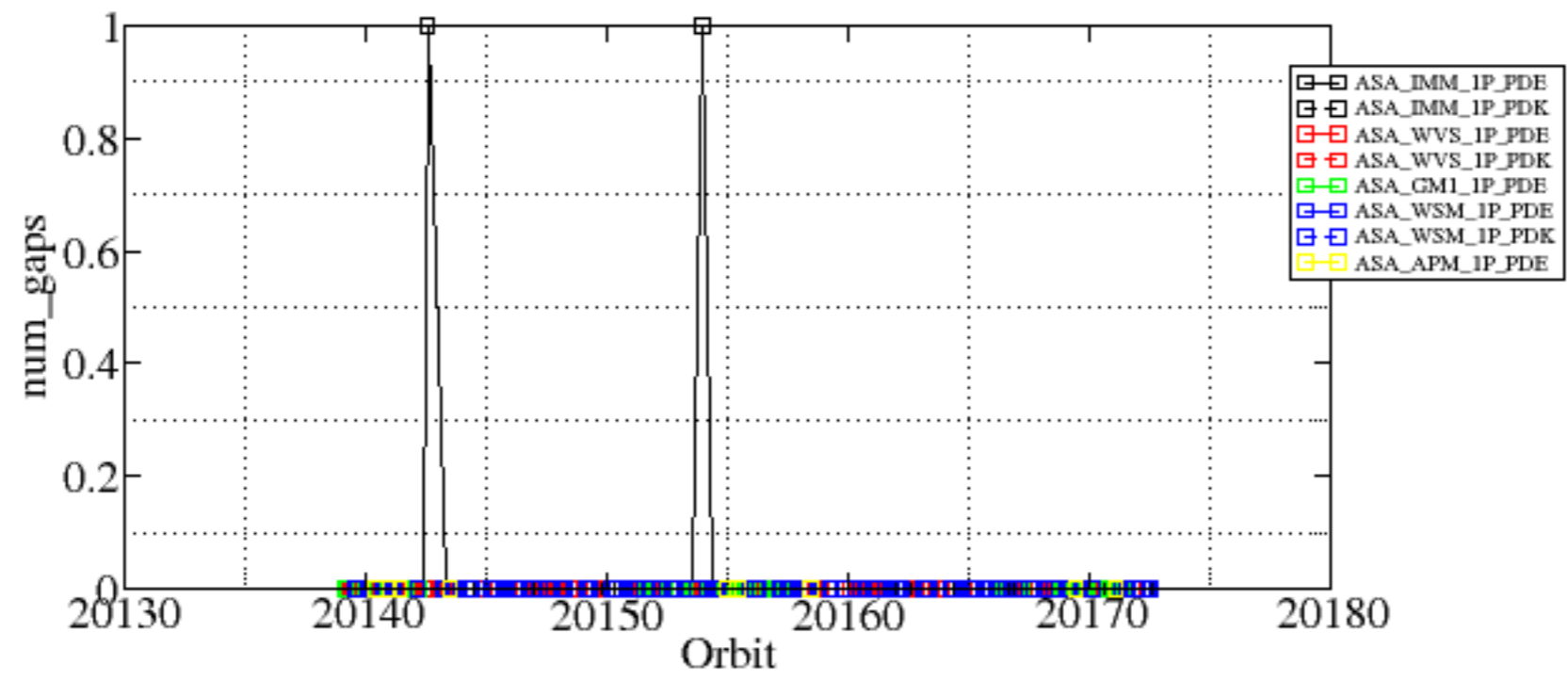


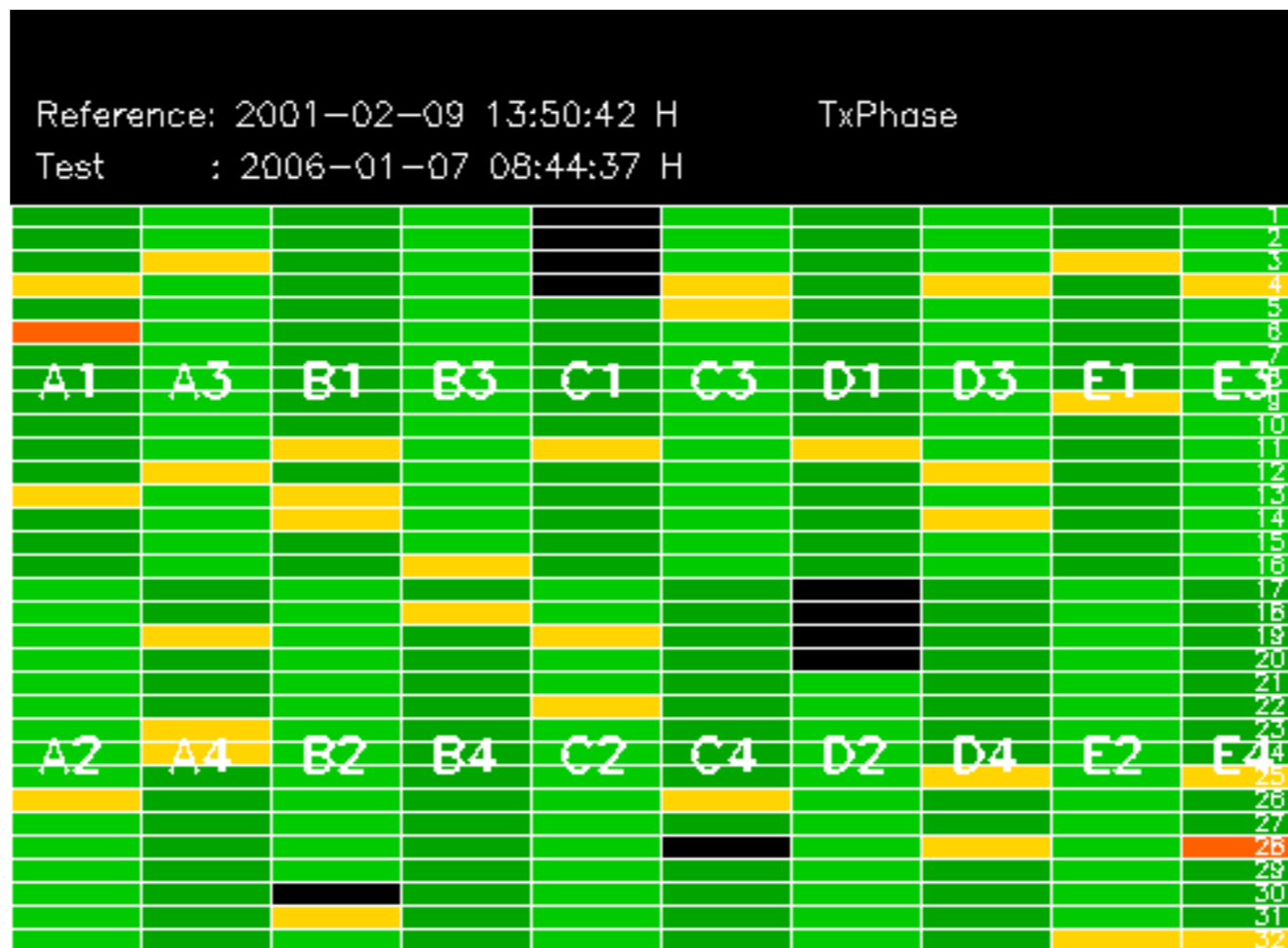


Summary of analysis for the last 3 days 2006010[678]

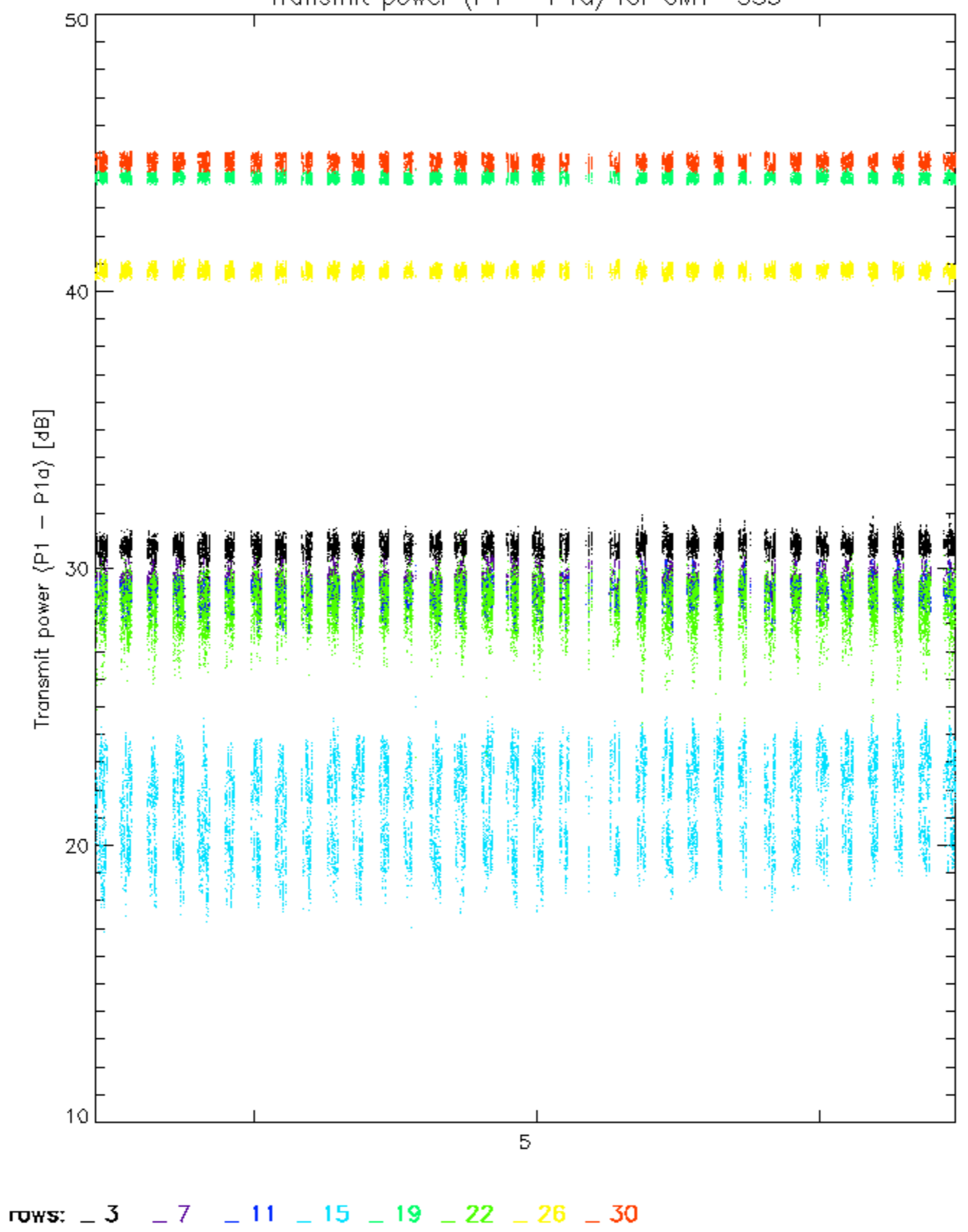
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

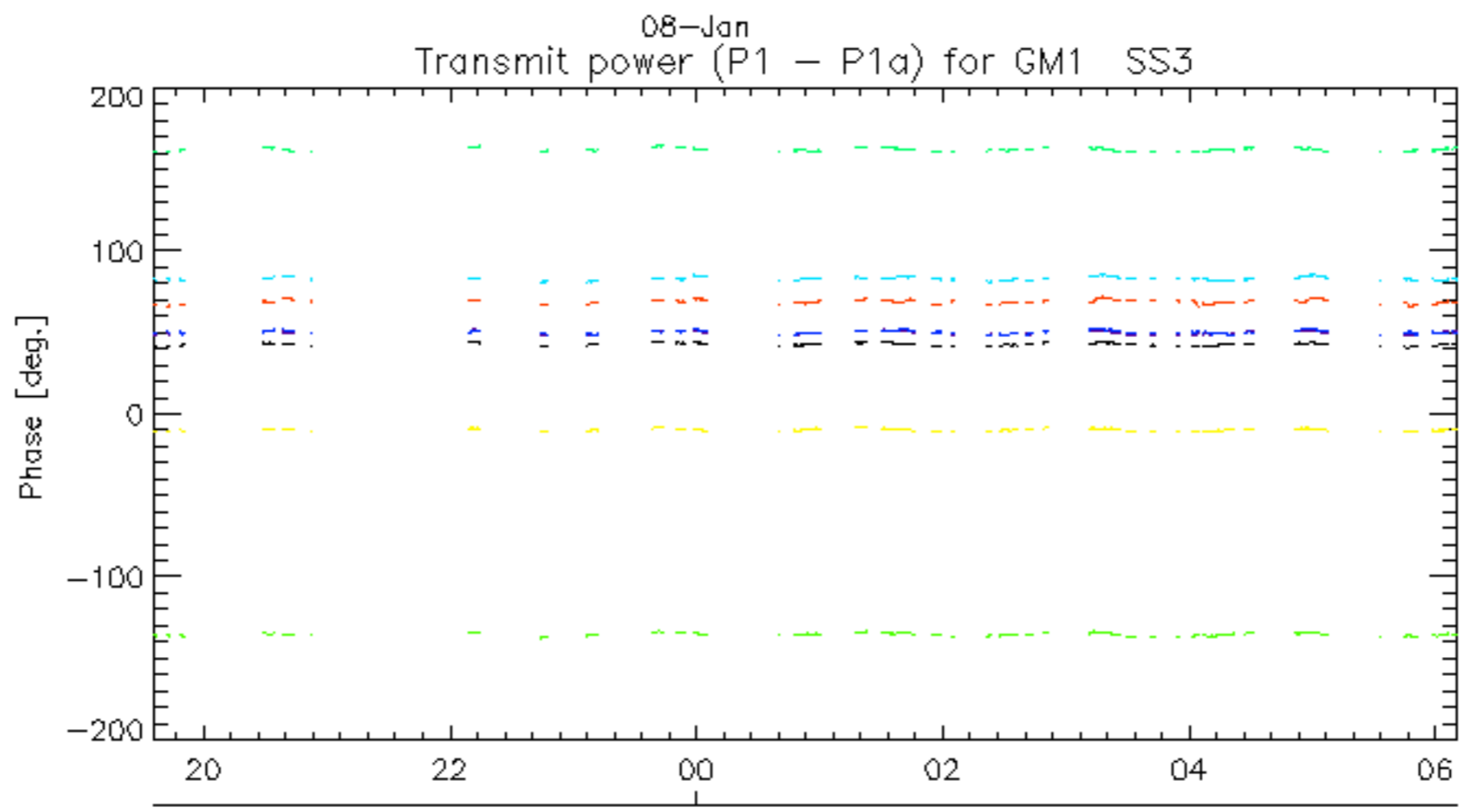
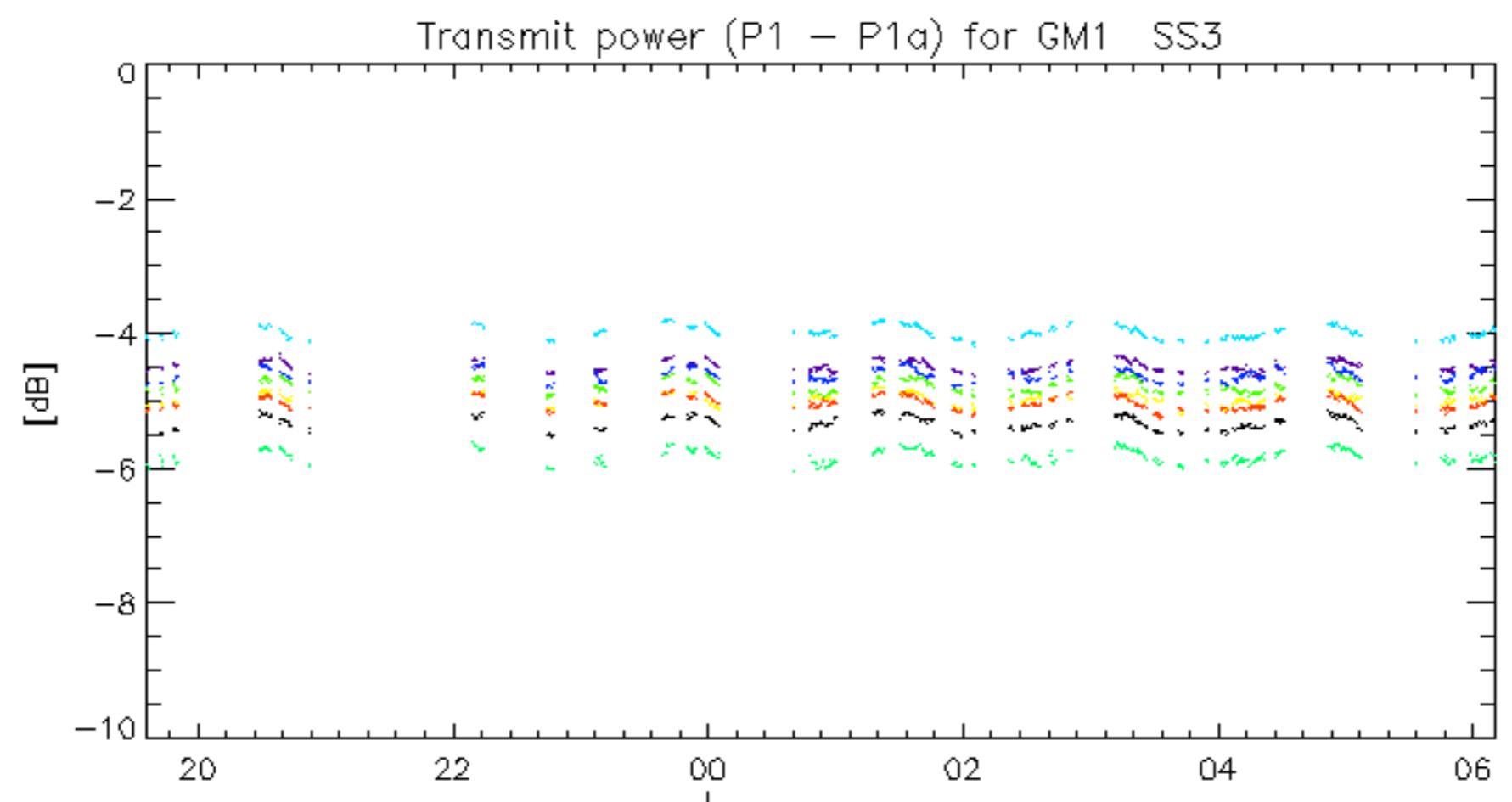
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060106_054348_00000372044_00048_20142_5727.N1	1	0
ASA_IMM_1PNPDE20060107_005035_000002152044_00059_20153_5838.N1	1	0
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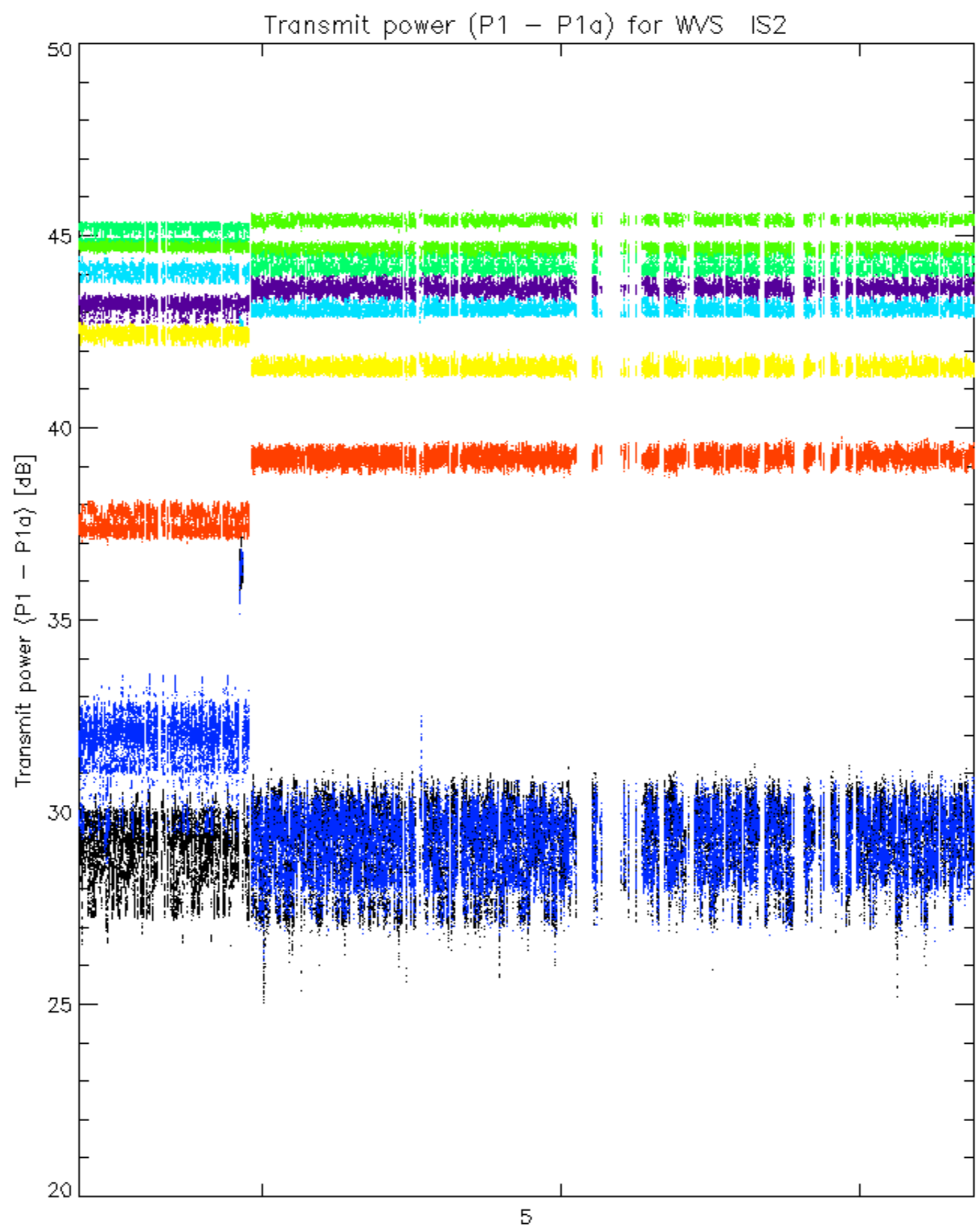


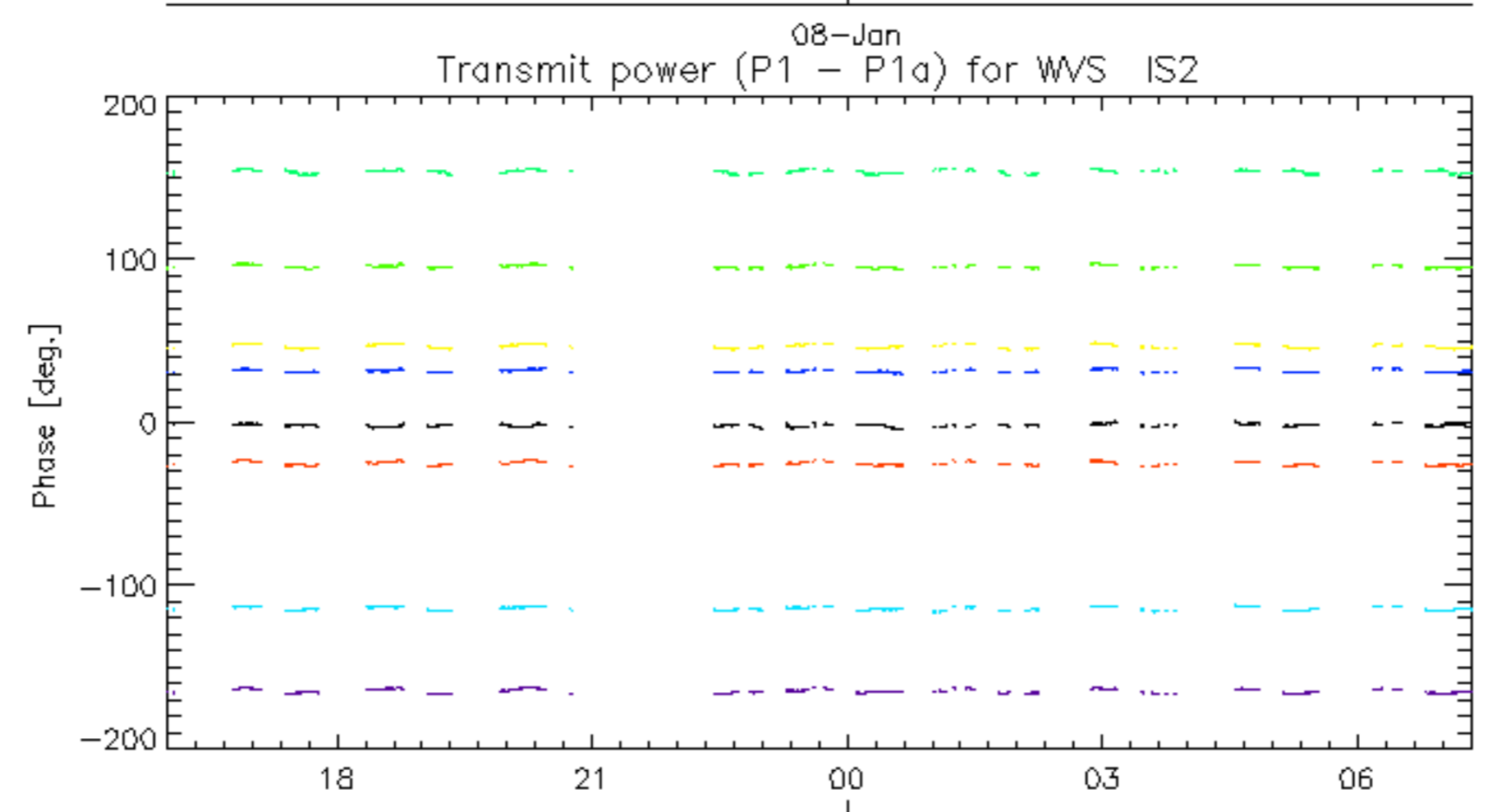
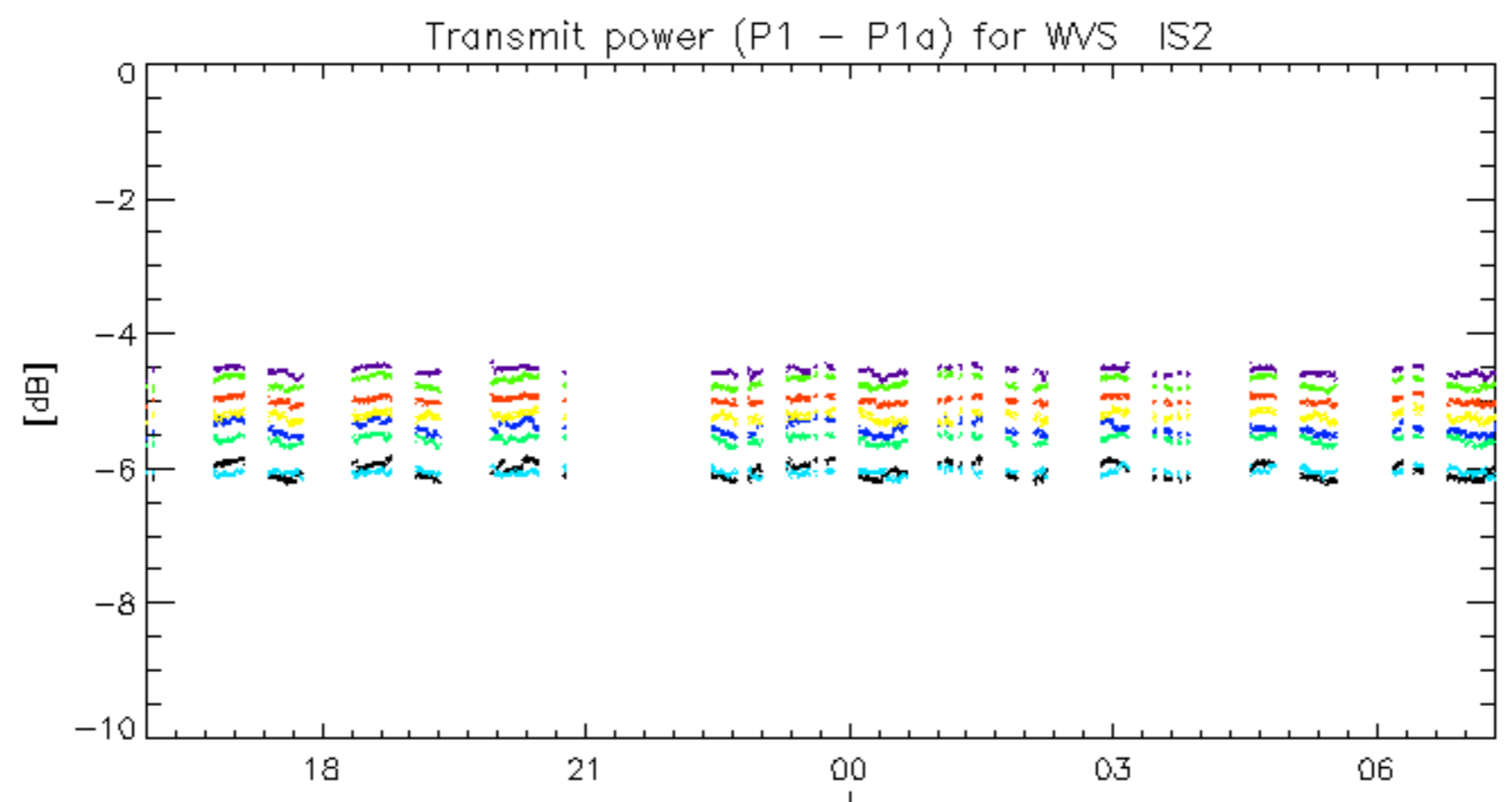
Transmit power (P1 - P1a) for GM1 SS3





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





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

No unavailabilities during the reported period.