

PRELIMINARY REPORT OF 050130

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Sun Jan 30 11:02:06 GMT 2005

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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 2005-01-29 00:00:00 to 2005-01-30 11:02:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	41	4	3	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	41	4	3	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	27	41	4	3	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	41	4	3	4

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	8	7	0	8	4
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	8	7	0	8	4
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	8	7	0	8	4
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	8	7	0	8	4

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

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied. No anomalies observed on available MS products:

Polarisation	Start Time
V	20050129 064404
H	20050128 071541

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		
⊗		⊗	
⊗		⊗	
⊗		⊗	
⊗		⊗	

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	-3.409419	0.008276	0.034178
7	P1	-3.086038	0.017101	0.041135
11	P1	-4.658783	0.024942	-0.006678
15	P1	-5.634755	0.061389	-0.092178
19	P1	-3.670172	0.011815	0.033801
22	P1	-4.565163	0.016580	0.042431
26	P1	-4.964034	0.072241	0.141228
30	P1	-7.134745	0.016062	-0.023771
3	P1	-15.915284	0.105081	0.053146
7	P1	-15.525221	0.168207	0.109393
11	P1	-20.776716	0.668846	-0.359841
15	P1	-11.630689	0.107779	0.096291
19	P1	-14.191767	0.055741	0.074904
22	P1	-15.963976	0.432710	0.310032
26	P1	-17.647306	0.231531	0.152668
30	P1	-17.880142	0.331814	-0.125813

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.260483	0.086966	0.129110
7	P2	-22.424623	0.318804	-0.014025
11	P2	-14.665190	0.411077	0.003178
15	P2	-7.131847	0.148639	0.164691
19	P2	-9.765177	0.580469	0.401502
22	P2	-17.059048	0.099868	0.093621
26	P2	-16.528696	0.168914	0.208587

30	P2	-18.924496	0.079943	0.053490
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P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.190274	0.006627	0.015447
7	P3	-8.190297	0.006629	0.015543
11	P3	-8.190206	0.006625	0.015010
15	P3	-8.190330	0.006633	0.015671
19	P3	-8.190240	0.006628	0.015144
22	P3	-8.190356	0.006630	0.015885
26	P3	-8.190371	0.006638	0.016013
30	P3	-8.190824	0.006608	0.007915

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1
<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	-2.807091	0.019097	0.043799
7	P1	-2.960883	0.068647	-0.018897
11	P1	-3.950907	0.030551	-0.023546
15	P1	-3.519573	0.030334	-0.045925
19	P1	-3.602713	0.013847	0.024699
22	P1	-5.665043	0.066956	-0.085549
26	P1	-6.810039	0.170261	-1.090295
30	P1	-6.285298	0.045549	0.016596
3	P1	-10.772957	0.086059	0.035125
7	P1	-10.150489	0.185648	-0.009830
11	P1	-12.530601	0.130833	-0.087206

15	P1	-11.758641	0.076432	-0.028880
19	P1	-15.614056	0.054609	0.103629
22	P1	-24.070545	1.727816	0.043770
26	P1	-15.114820	0.459704	-1.024180
30	P1	-20.037695	0.864609	0.133455

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.959837	0.049469	0.100208
7	P2	-22.500452	0.119863	0.155053
11	P2	-10.503489	0.051437	0.233169
15	P2	-5.024785	0.023927	0.048920
19	P2	-6.910307	0.035727	0.069934
22	P2	-7.230583	0.049238	0.081246
26	P2	-23.916958	0.087499	0.087591
30	P2	-21.964590	0.054427	0.050634

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.026073	0.002860	0.018228
7	P3	-8.026137	0.002861	0.018129
11	P3	-8.026149	0.002857	0.017988
15	P3	-8.026230	0.002859	0.018552
19	P3	-8.026148	0.002867	0.017792
22	P3	-8.026187	0.002847	0.018144
26	P3	-8.026069	0.002866	0.018001
30	P3	-8.026183	0.002862	0.018090

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	0.000470427
	stdev	2.16680e-07
MEAN Q	mean	0.000542889
	stdev	2.30971e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128878
	stdev	0.000971805
STDEV Q	mean	0.129114
	stdev	0.000983086



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005012[890]

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_1PNPDE20050128_010032_000000622034_00145_15229_1250.N1	0	117
ASA_IMM_1PNPDE20050128_025859_000000162034_00147_15231_1348.N1	0	102
ASA_WVS_1PNPDE20050129_002200_000000292034_00159_15243_6202.N1	0	160
ASA_WVS_1PNPDE20050129_013525_000004652034_00160_15244_6206.N1	0	16

ASA_WVS_1PNPDE20050129_220938_000004342034_00172_15256_6211.N1	0	24
ASA_WVS_1PNPDE20050129_234953_000002102034_00173_15257_6212.N1	0	40
ASA_GM1_1PNPDE20050128_195236_000002052034_00157_15241_8159.N1	0	43
ASA_GM1_1PNPDE20050128_195900_000001262034_00157_15241_8164.N1	0	50
ASA_GM1_1PNPDE20050128_210352_000005792034_00157_15241_8147.N1	0	54
ASA_GM1_1PNPDE20050128_211420_000005732034_00158_15242_8150.N1	0	43
ASA_GM1_1PNPDE20050128_213832_000002292034_00158_15242_8155.N1	0	6
ASA_GM1_1PNPDE20050128_222241_000002052034_00158_15242_8157.N1	0	29
ASA_GM1_1PNPDE20050129_013021_000000962034_00160_15244_8152.N1	0	198
ASA_GM1_1PNPDE20050129_014352_000007732034_00160_15244_8144.N1	0	15
ASA_GM1_1PNPDE20050129_020902_000003802034_00160_15244_8149.N1	0	45
ASA_GM1_1PNPDE20050129_205956_000001932034_00172_15256_8167.N1	0	21
ASA_WSM_1PNPDE20050128_065653_000000672034_00149_15233_2102.N1	0	357
ASA_WSM_1PNPDK20050129_081020_000001532034_00164_15248_3807.N1	0	2
ASA_APM_1PNPDE20050128_014243_000000622034_00146_15230_6459.N1	0	42
ASA_APM_1PNPDE20050128_045507_000000622034_00148_15232_6470.N1	0	15
ASA_APM_1PNPDE20050128_045908_000000602034_00148_15232_6471.N1	0	5

⊗

⊗

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

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

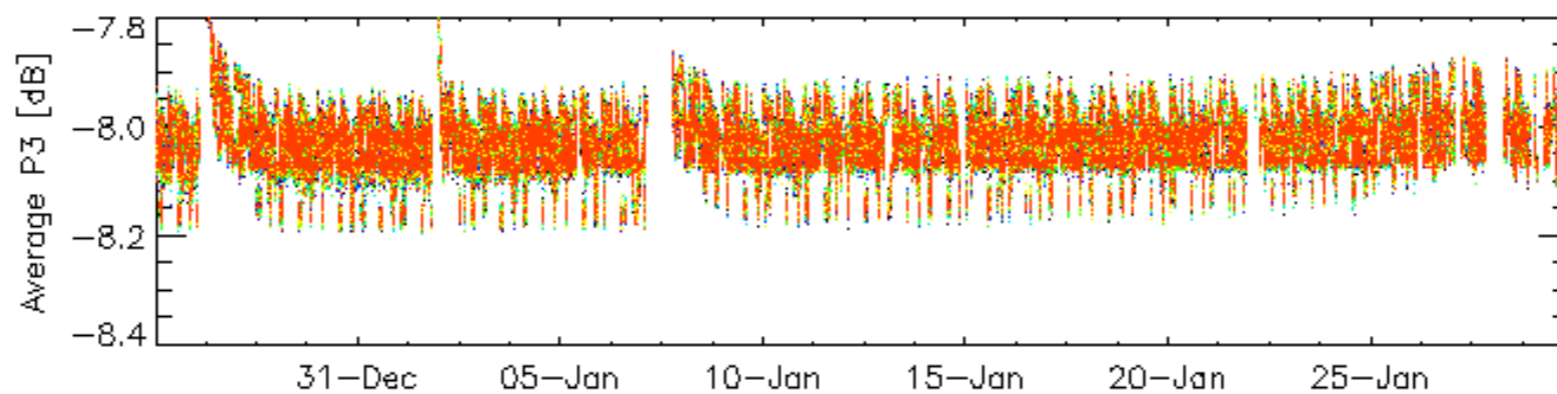
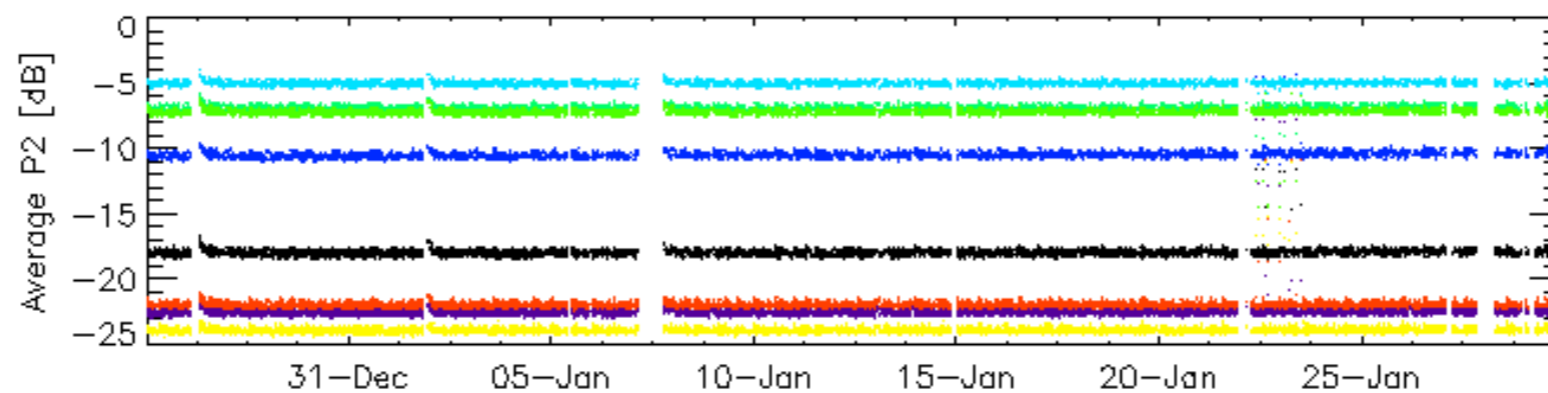
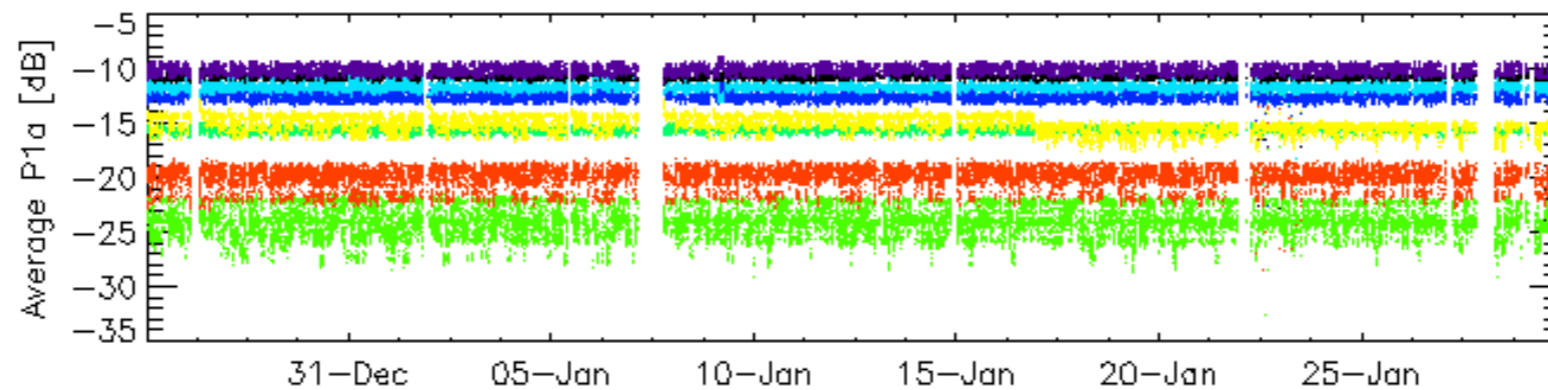
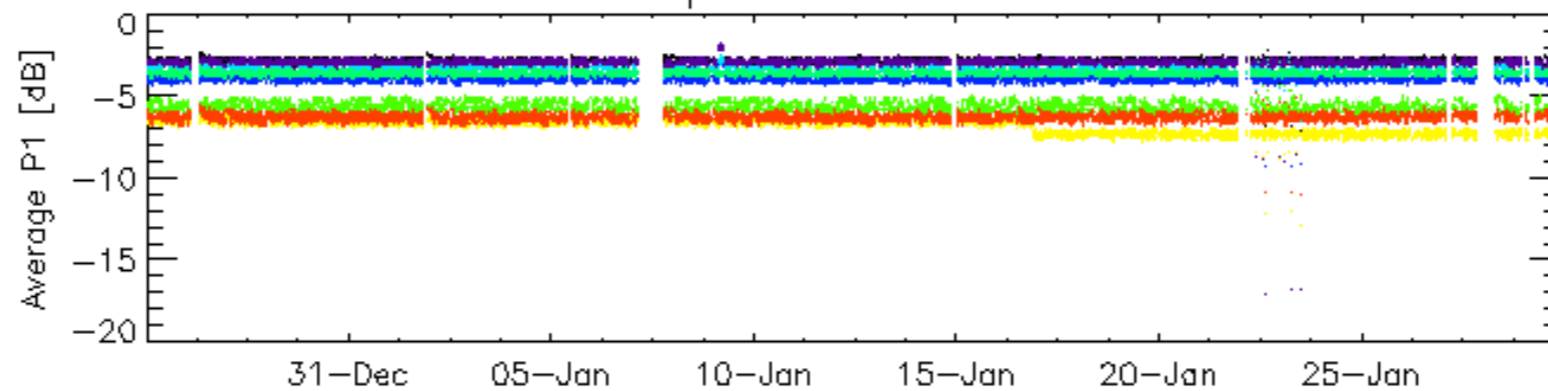
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

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

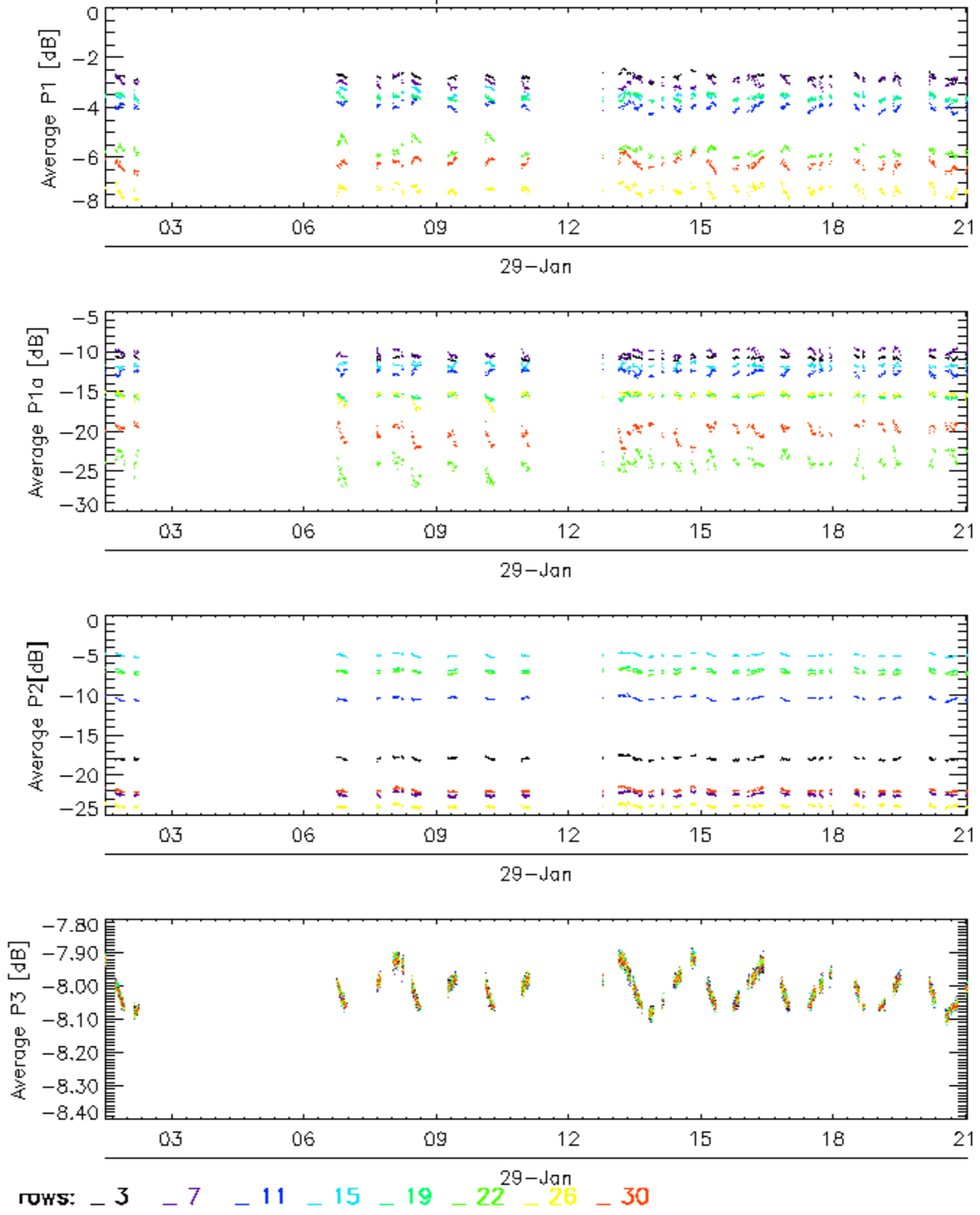
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Cal pulses for GM1 SS3

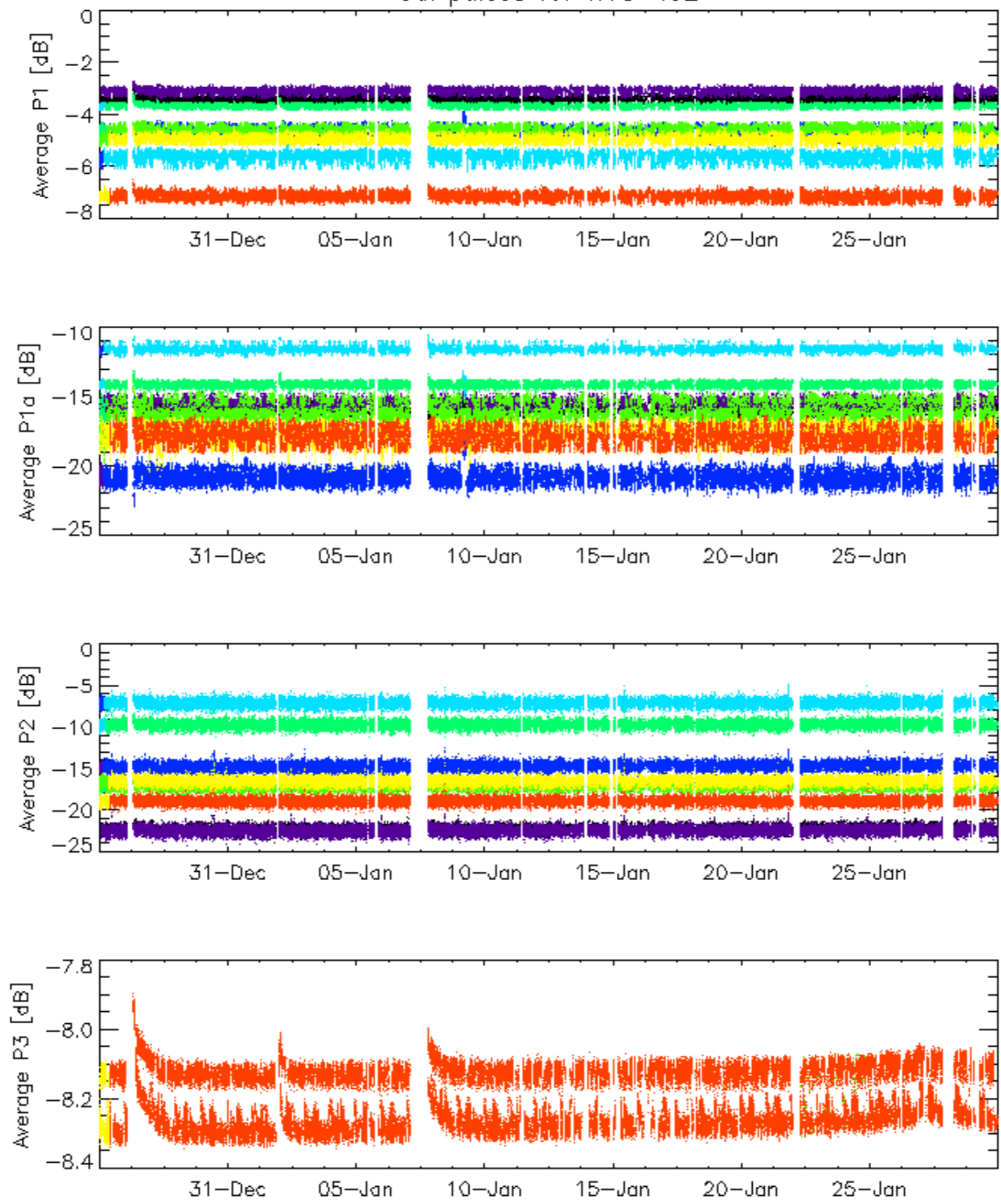


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

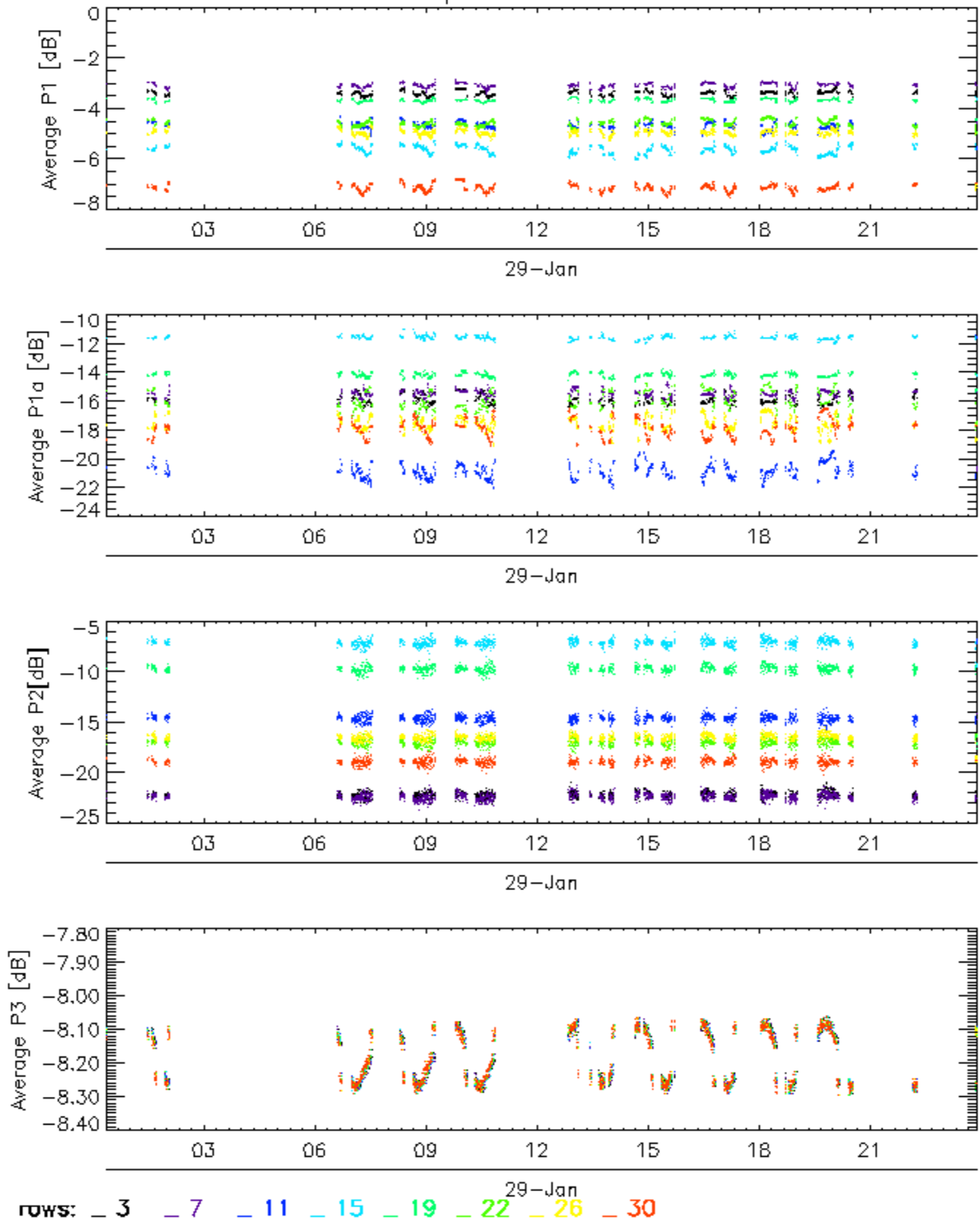


Cal pulses for WVS IS2

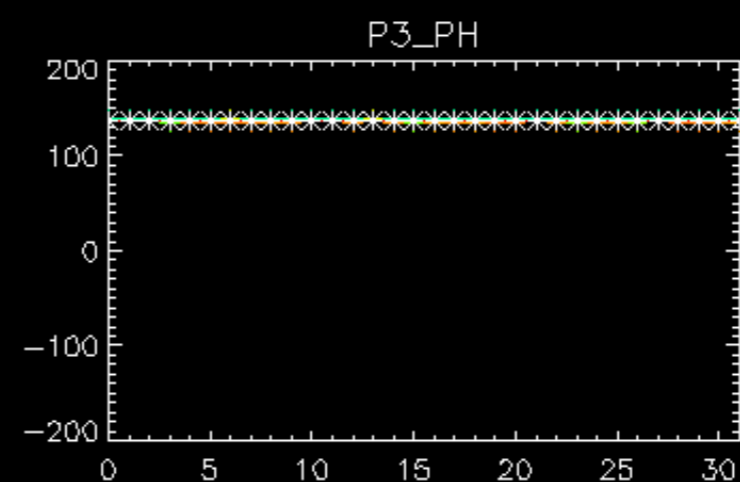
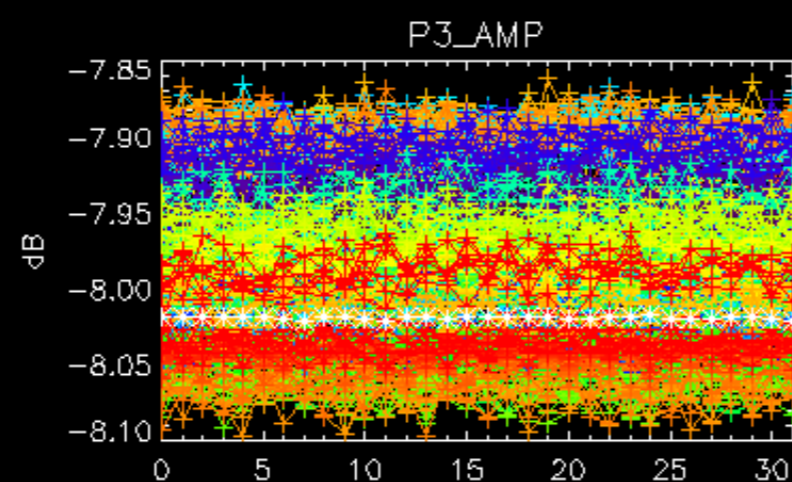
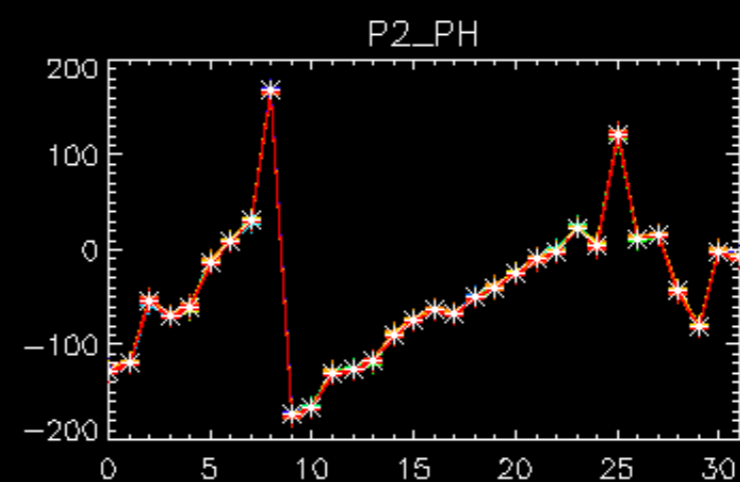
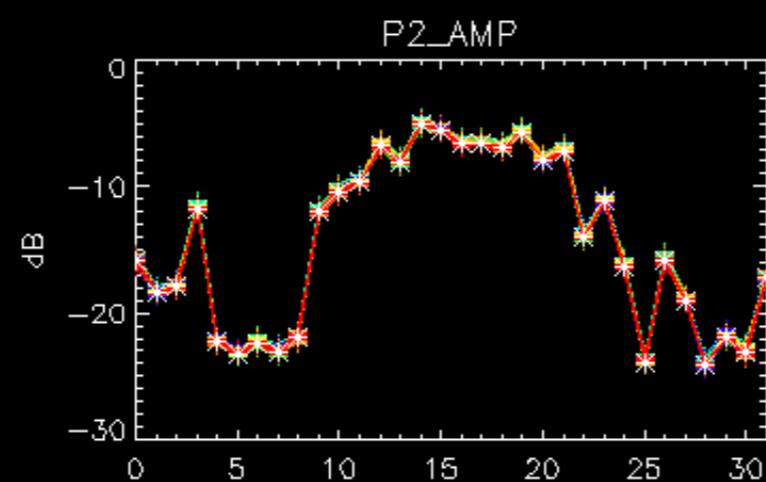
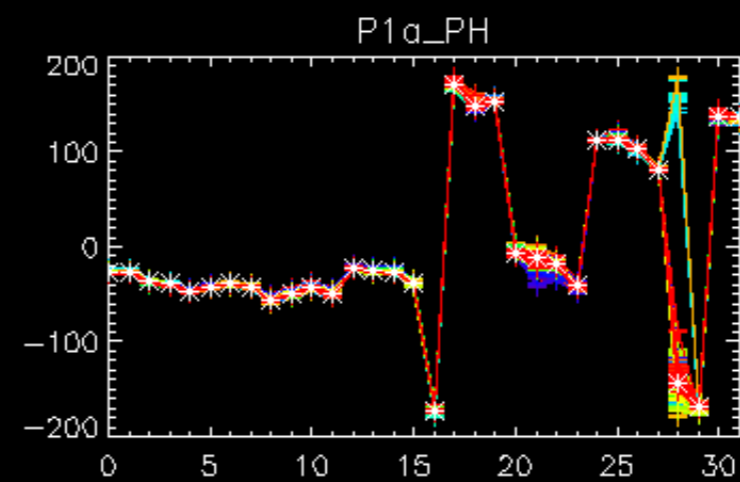
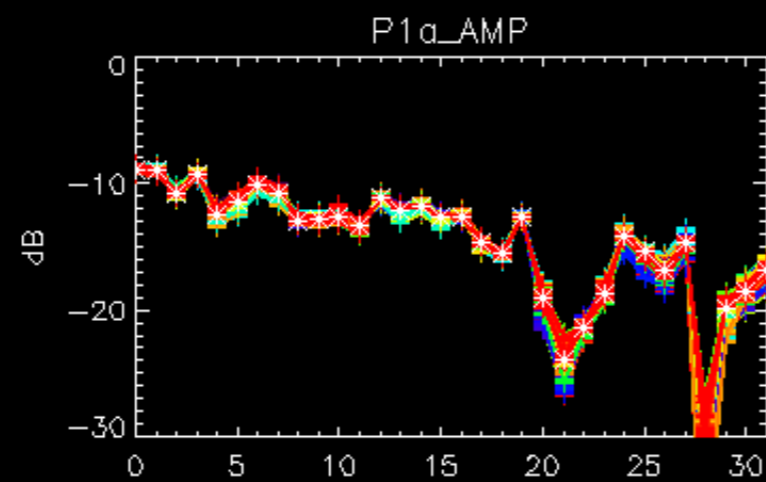
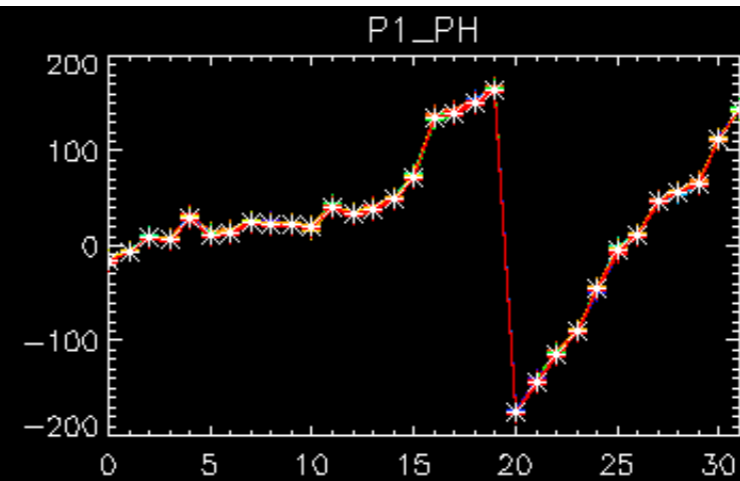
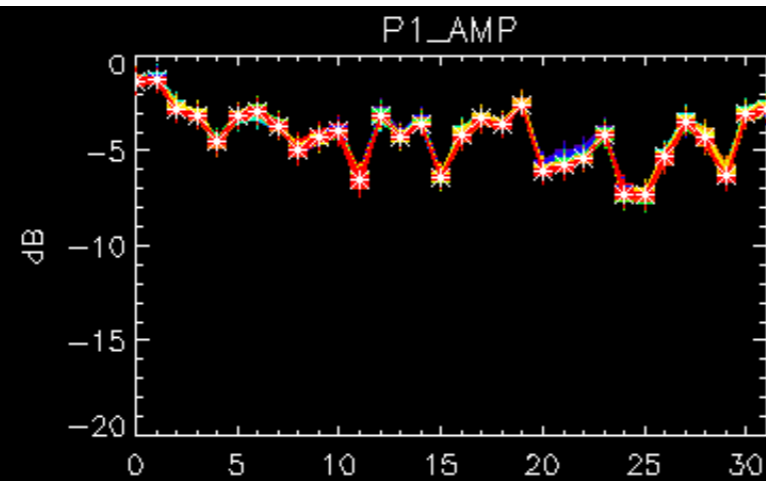


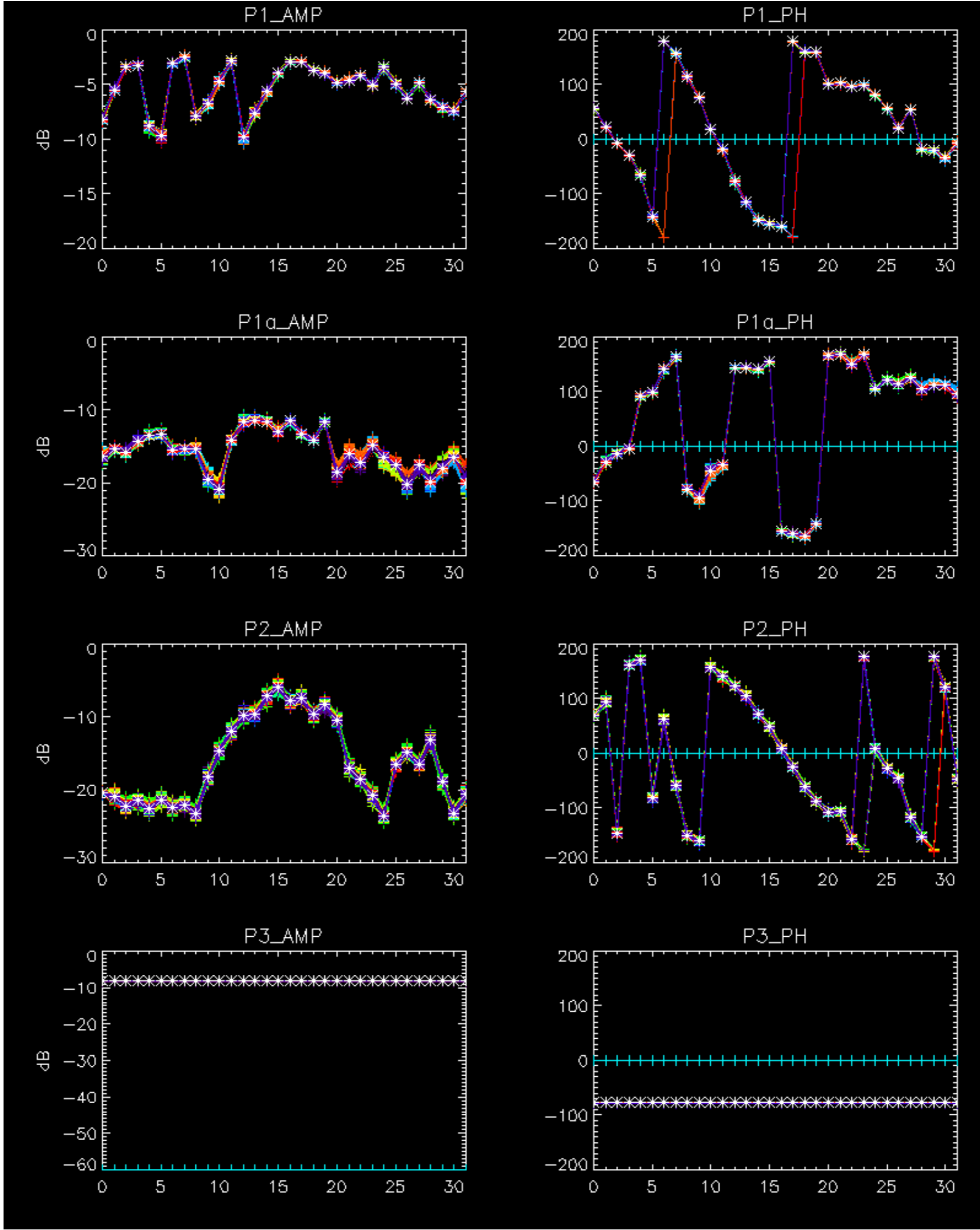
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



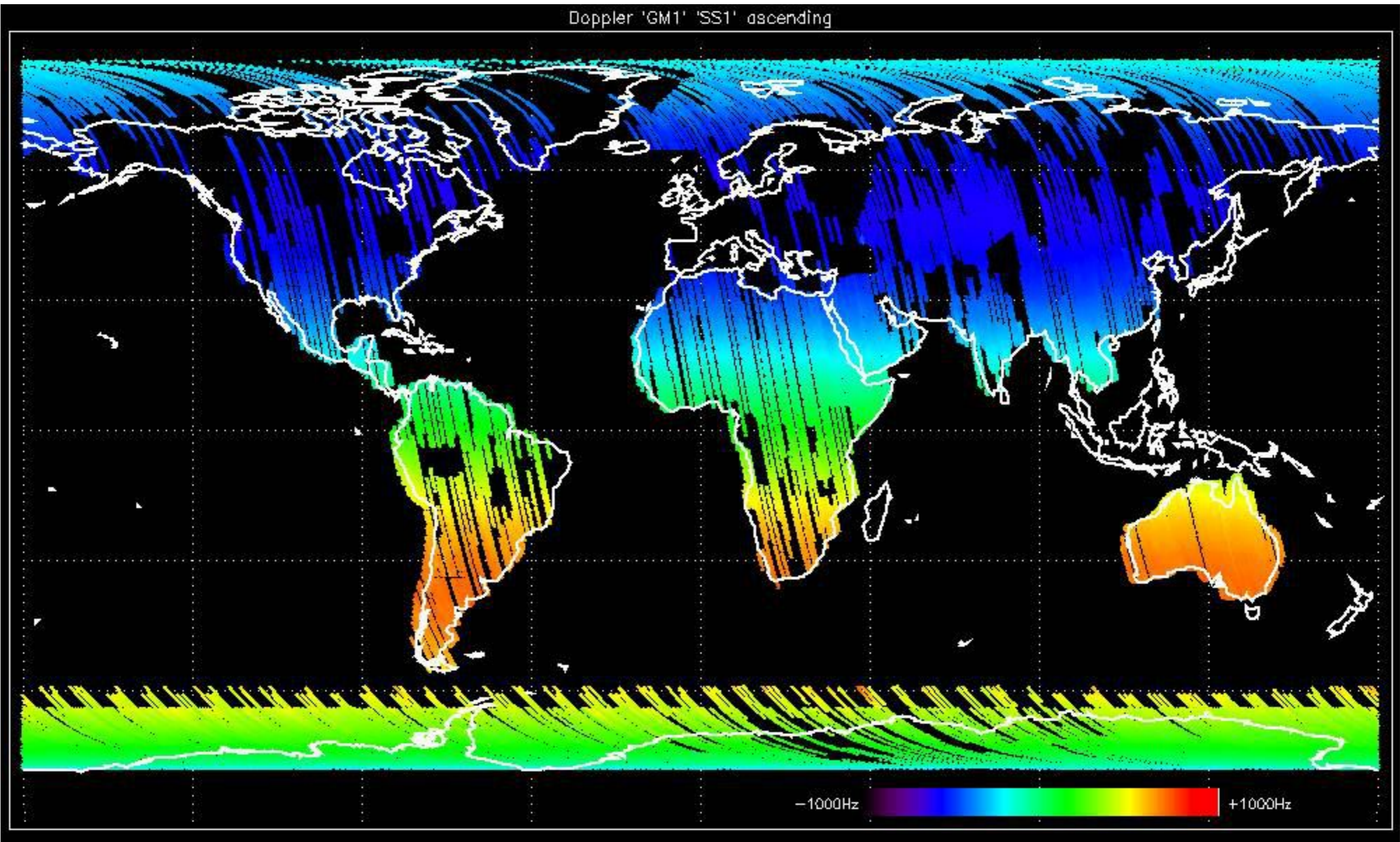
No anomalies observed.



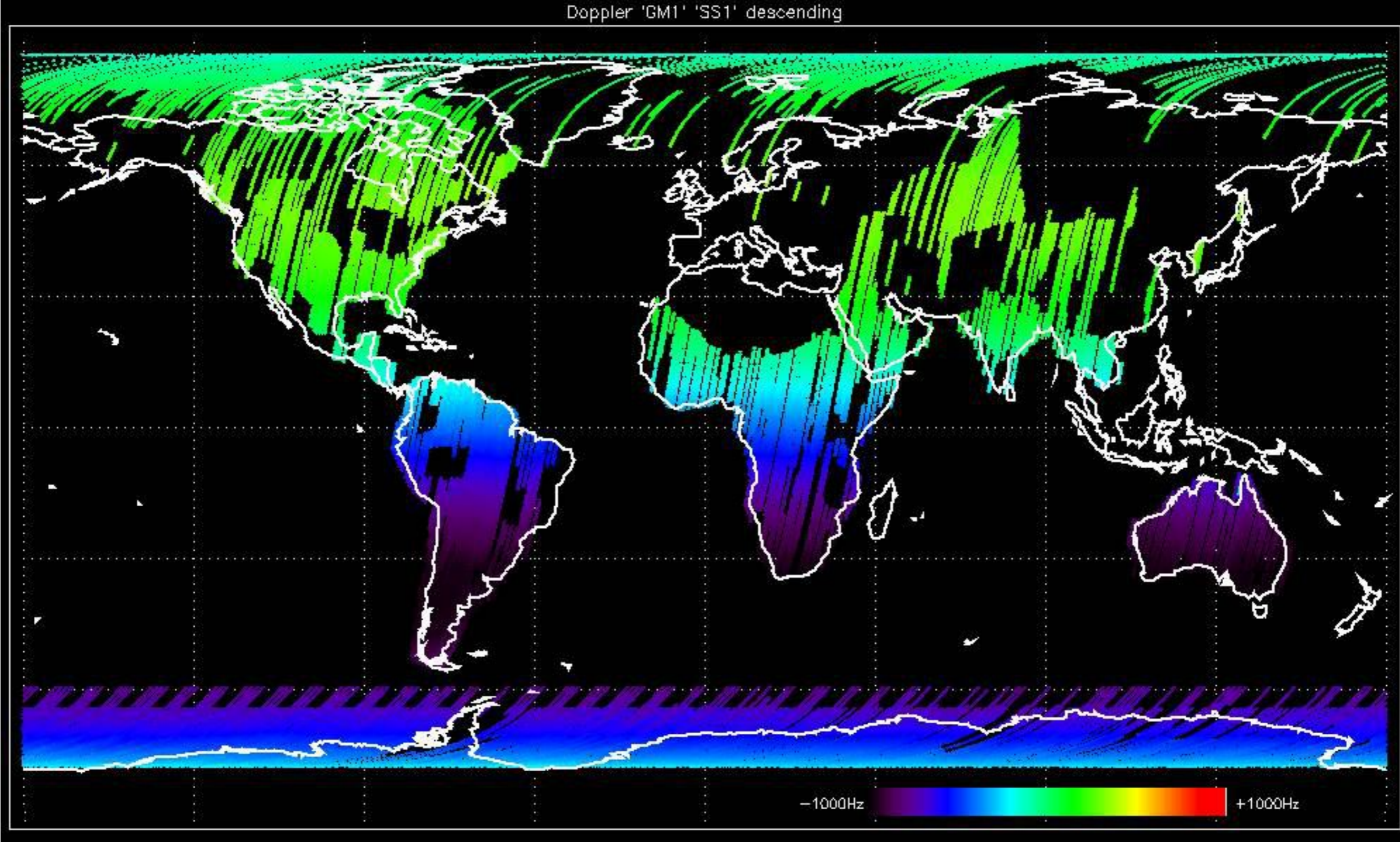


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

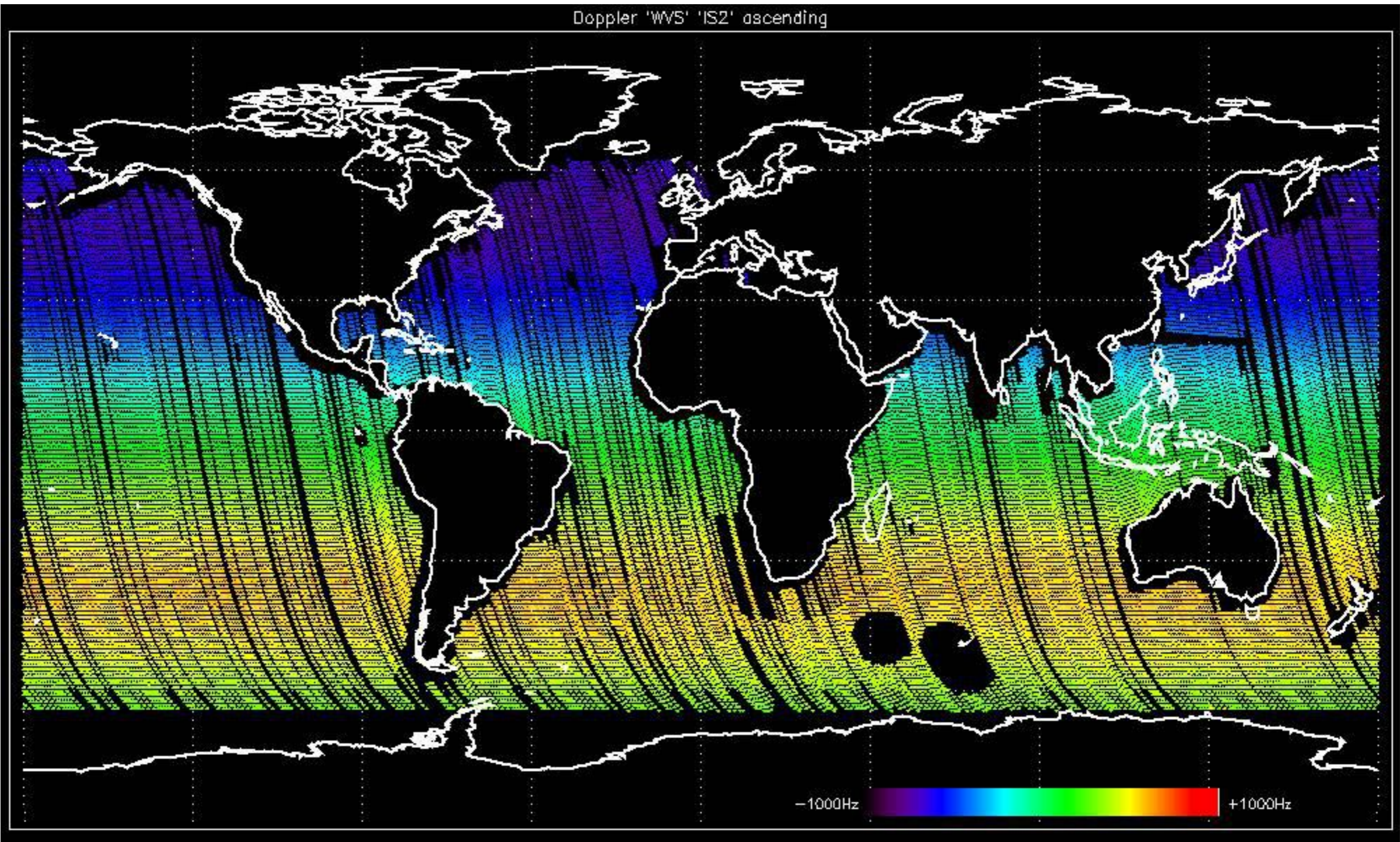
Doppler 'GM1' 'SS1' ascending



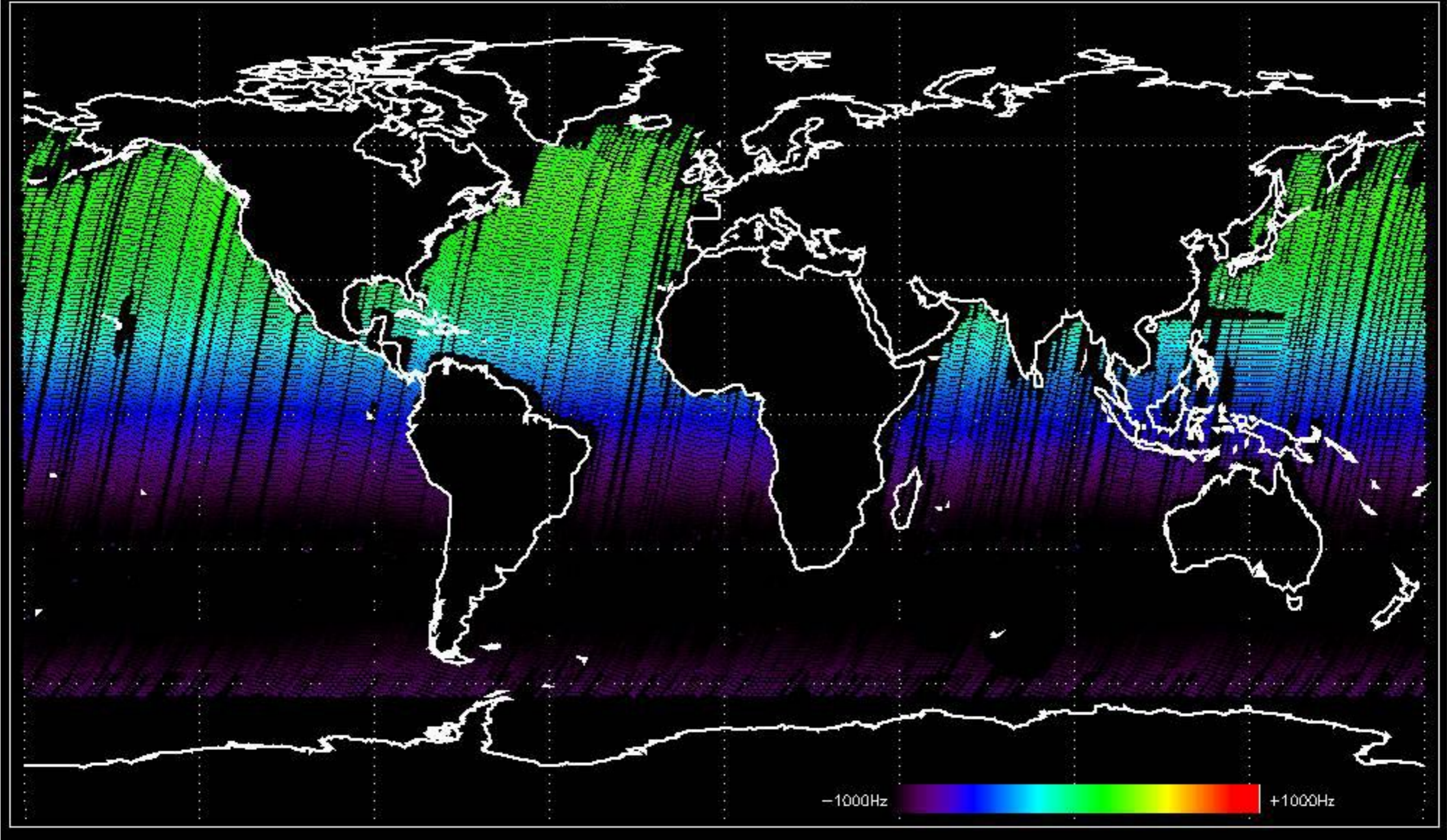
Doppler 'GM1' 'SS1' descending



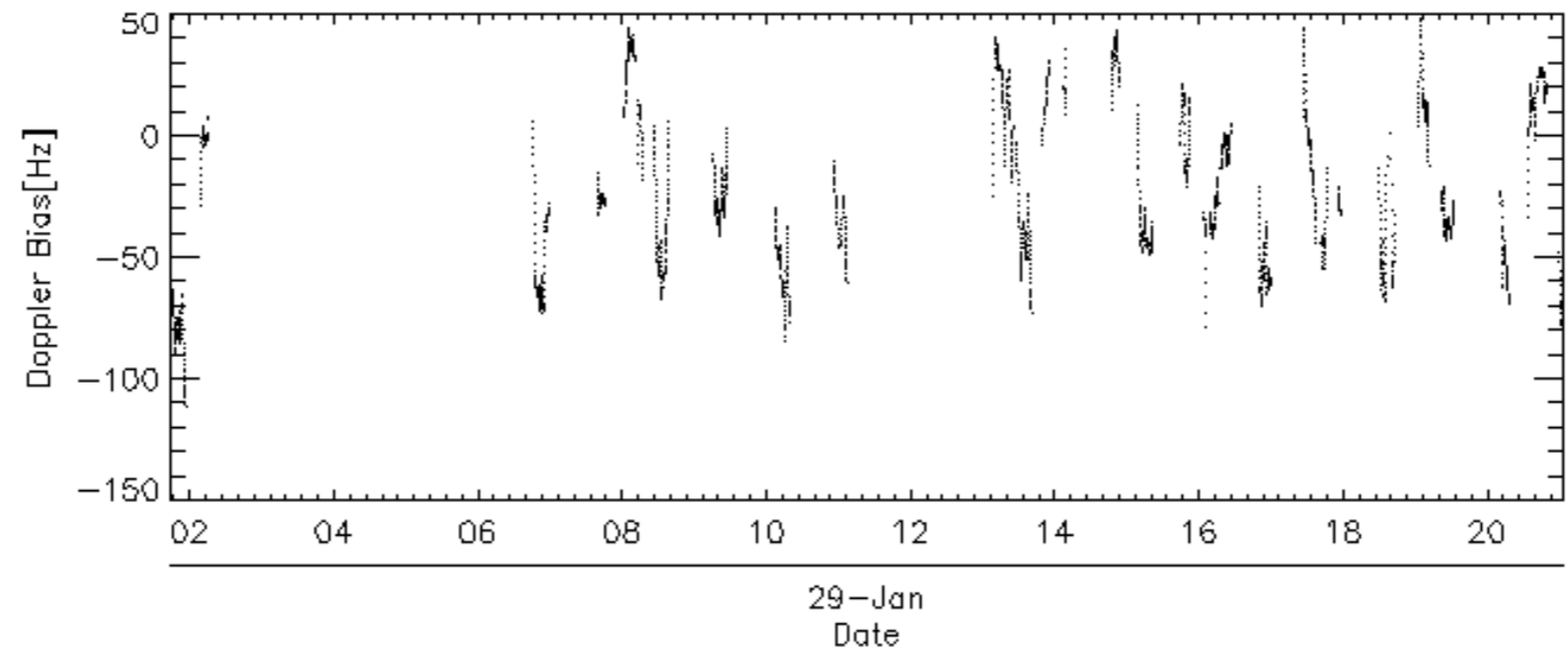
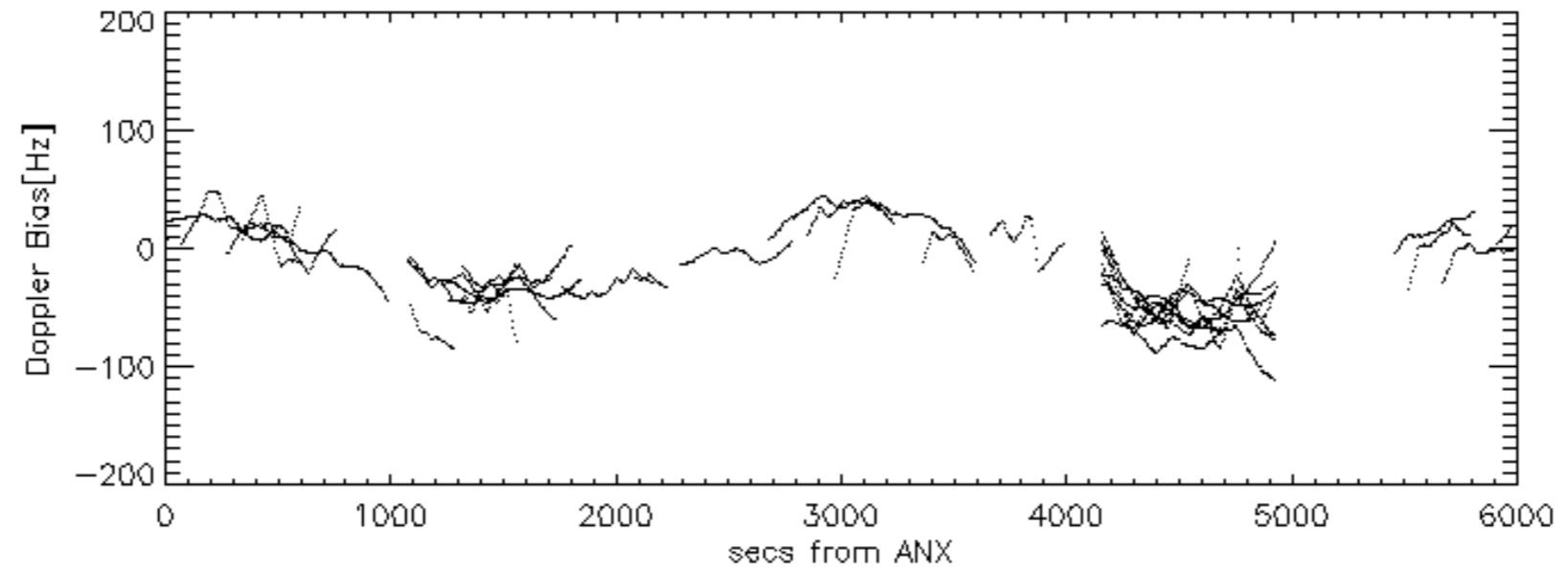
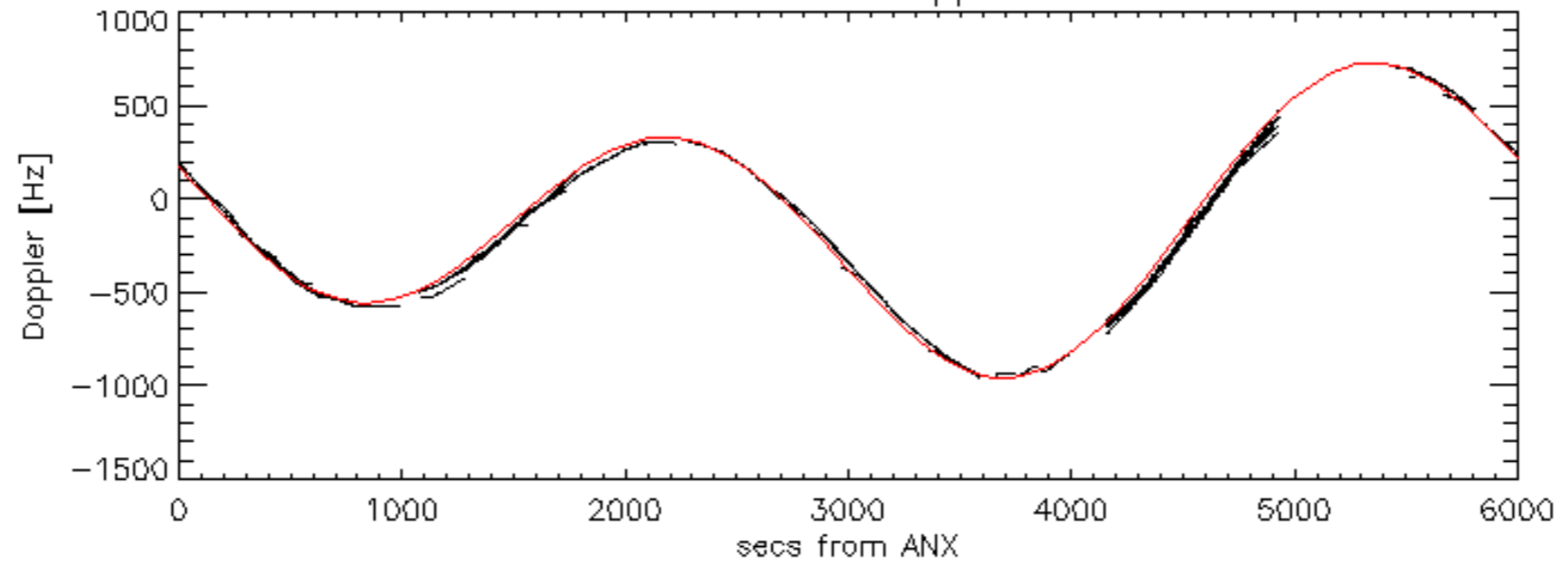
Doppler 'WVS' 'IS2' ascending

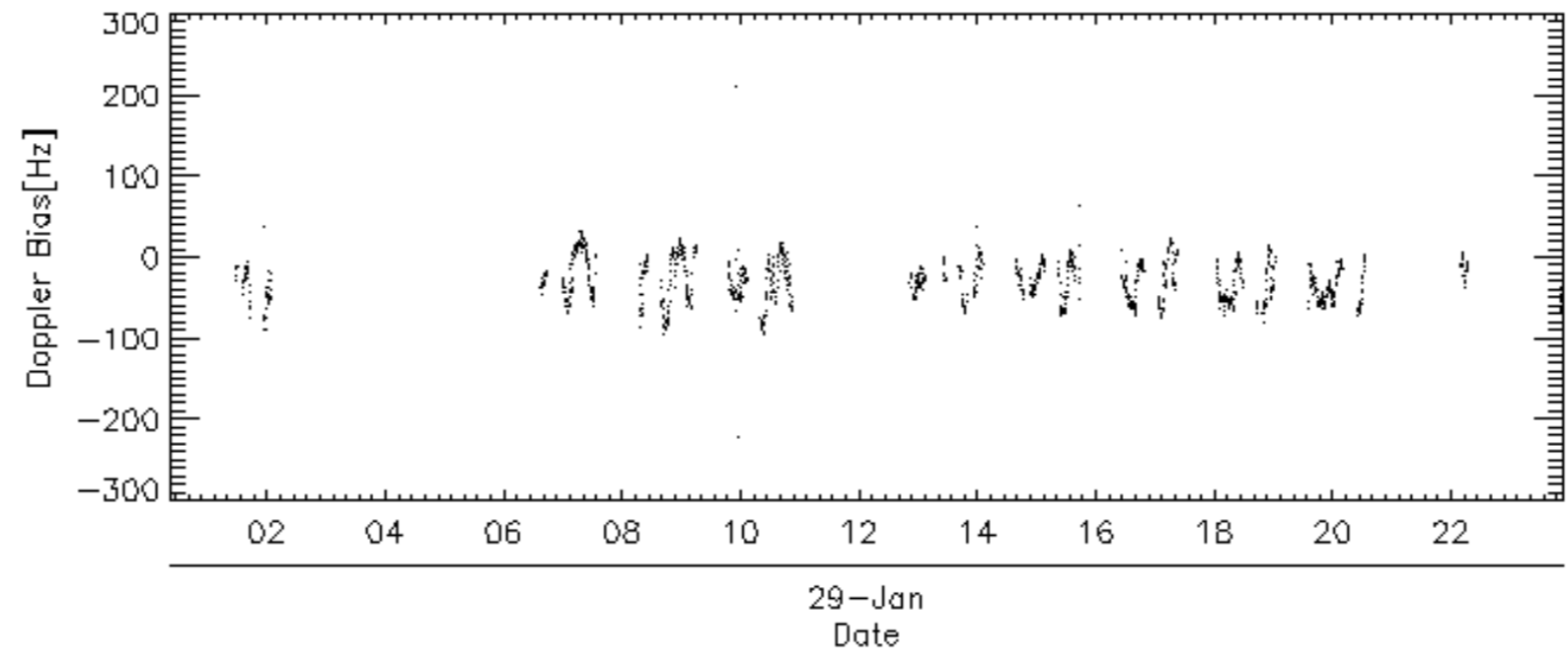
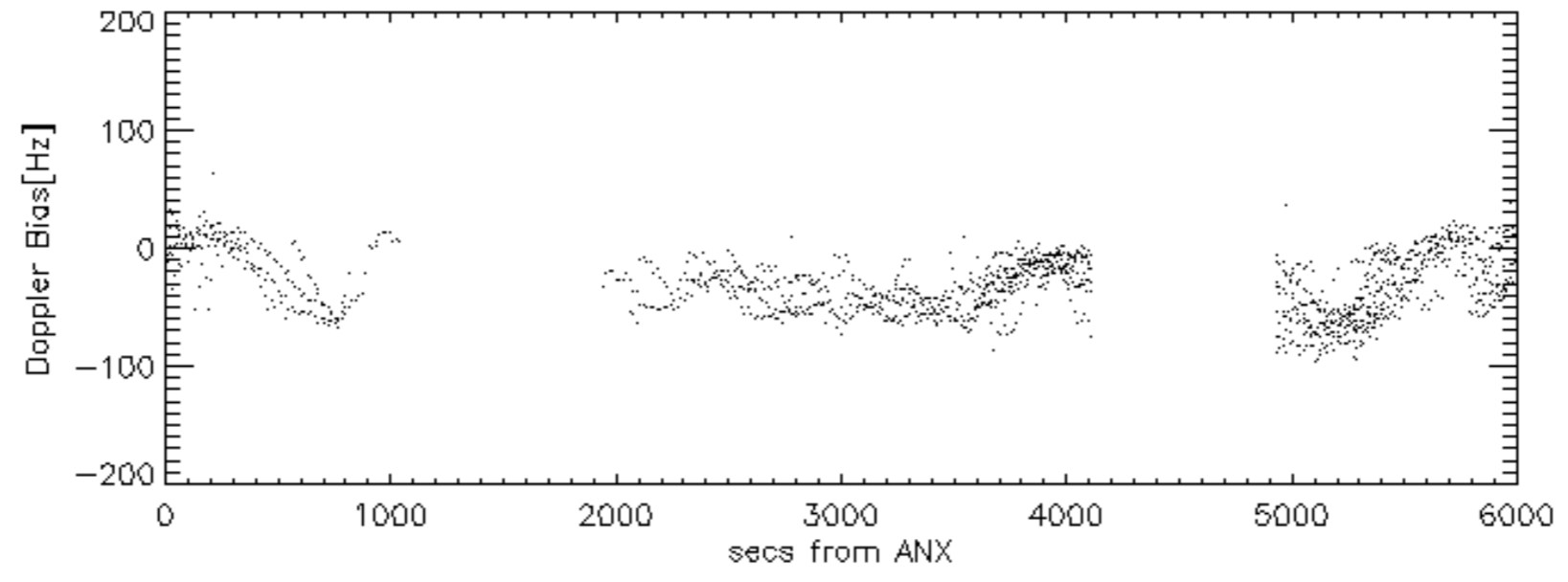
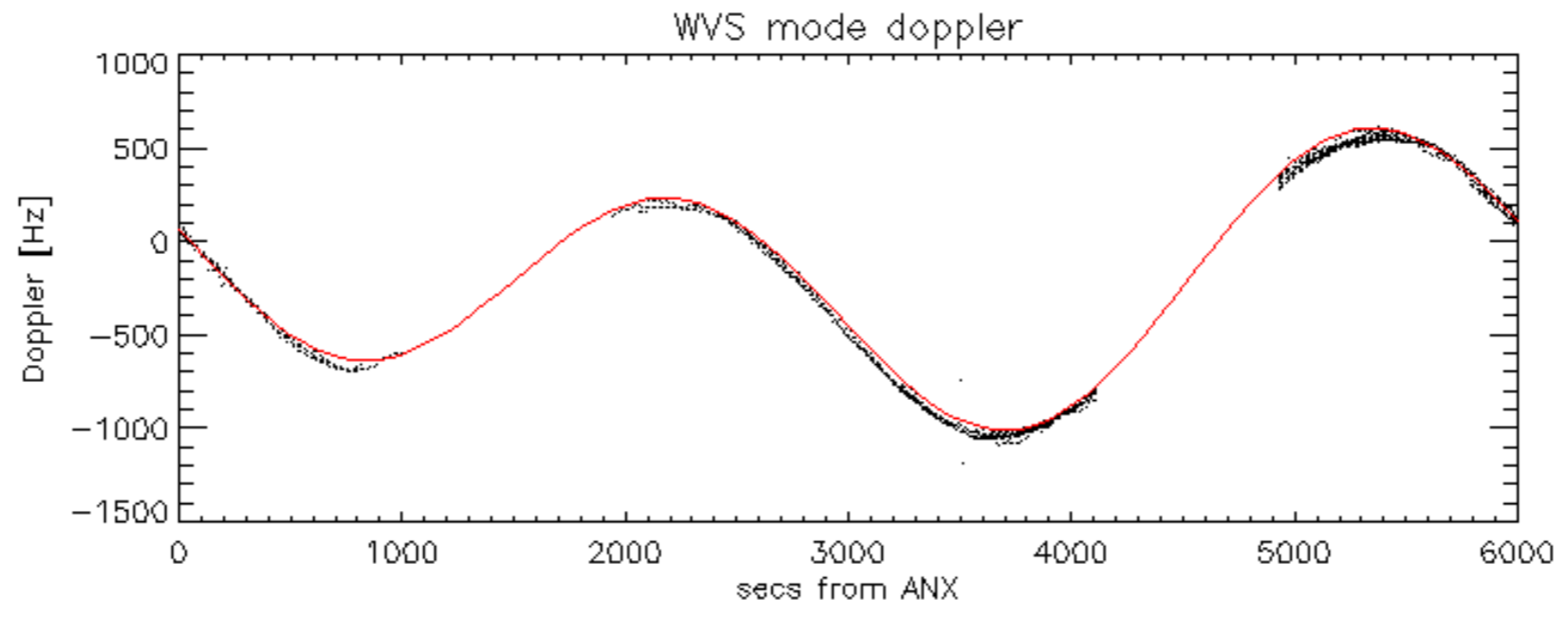


Doppler 'WVS' 'IS2' descending

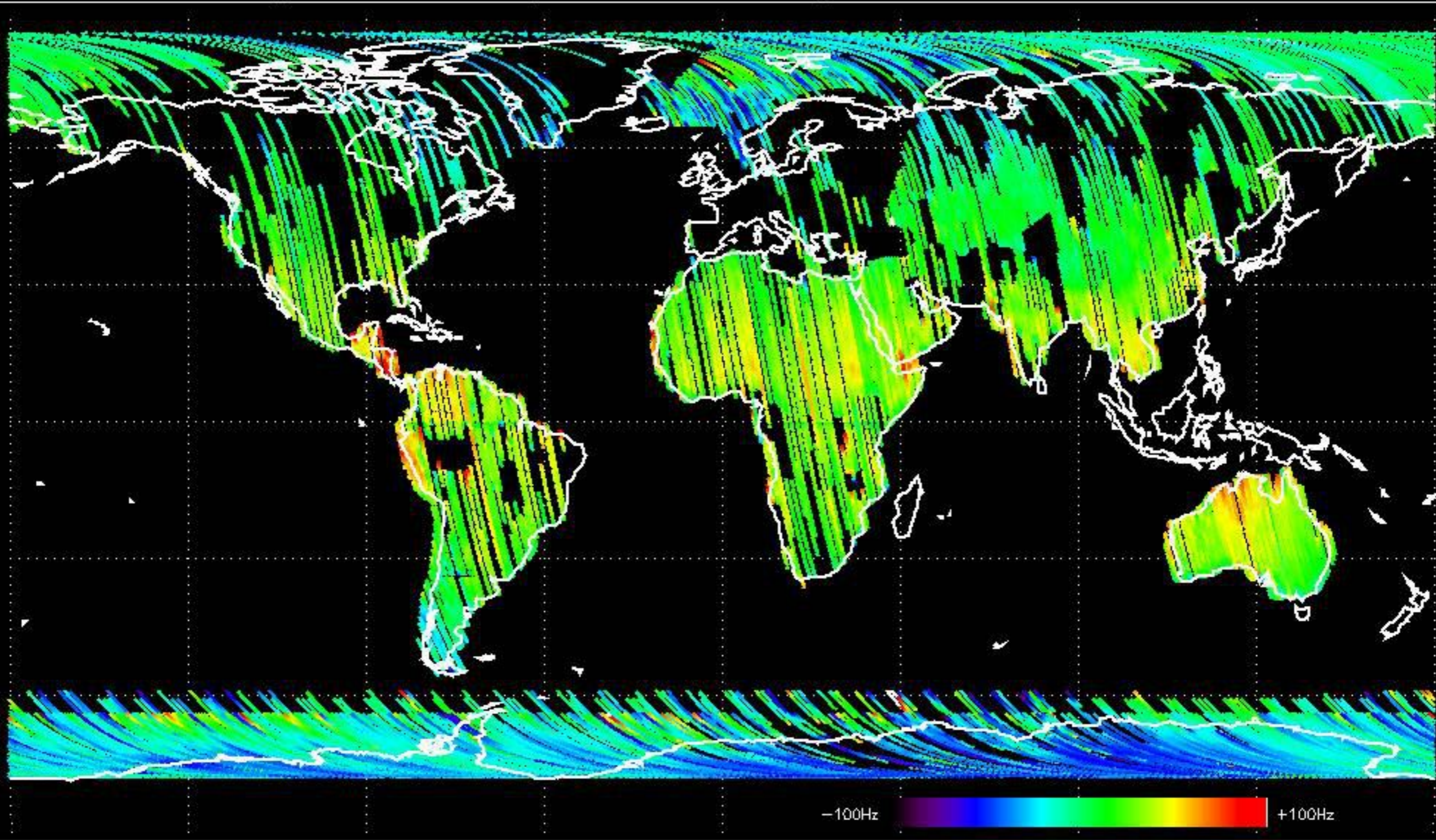


GM1 mode doppler

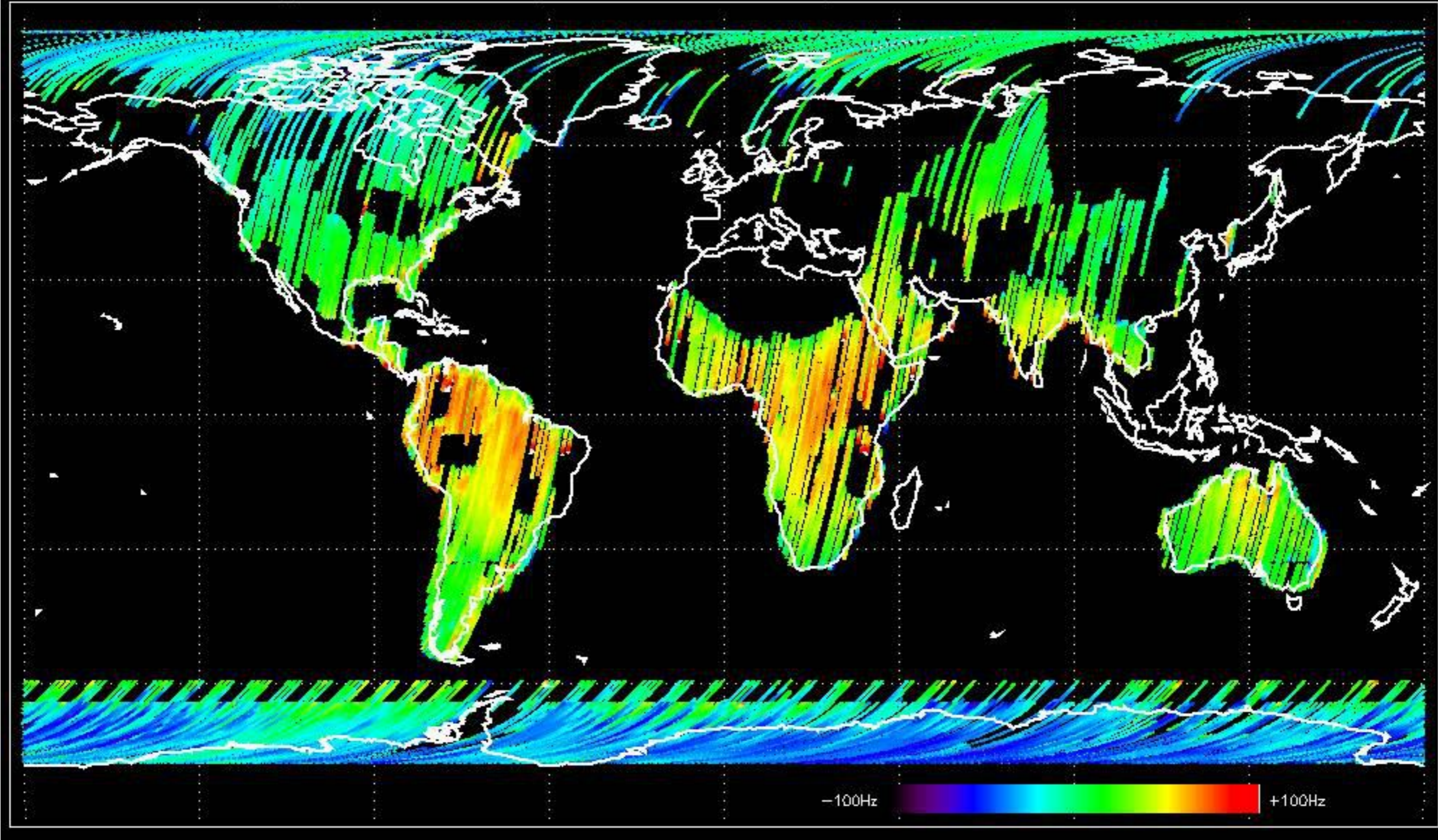




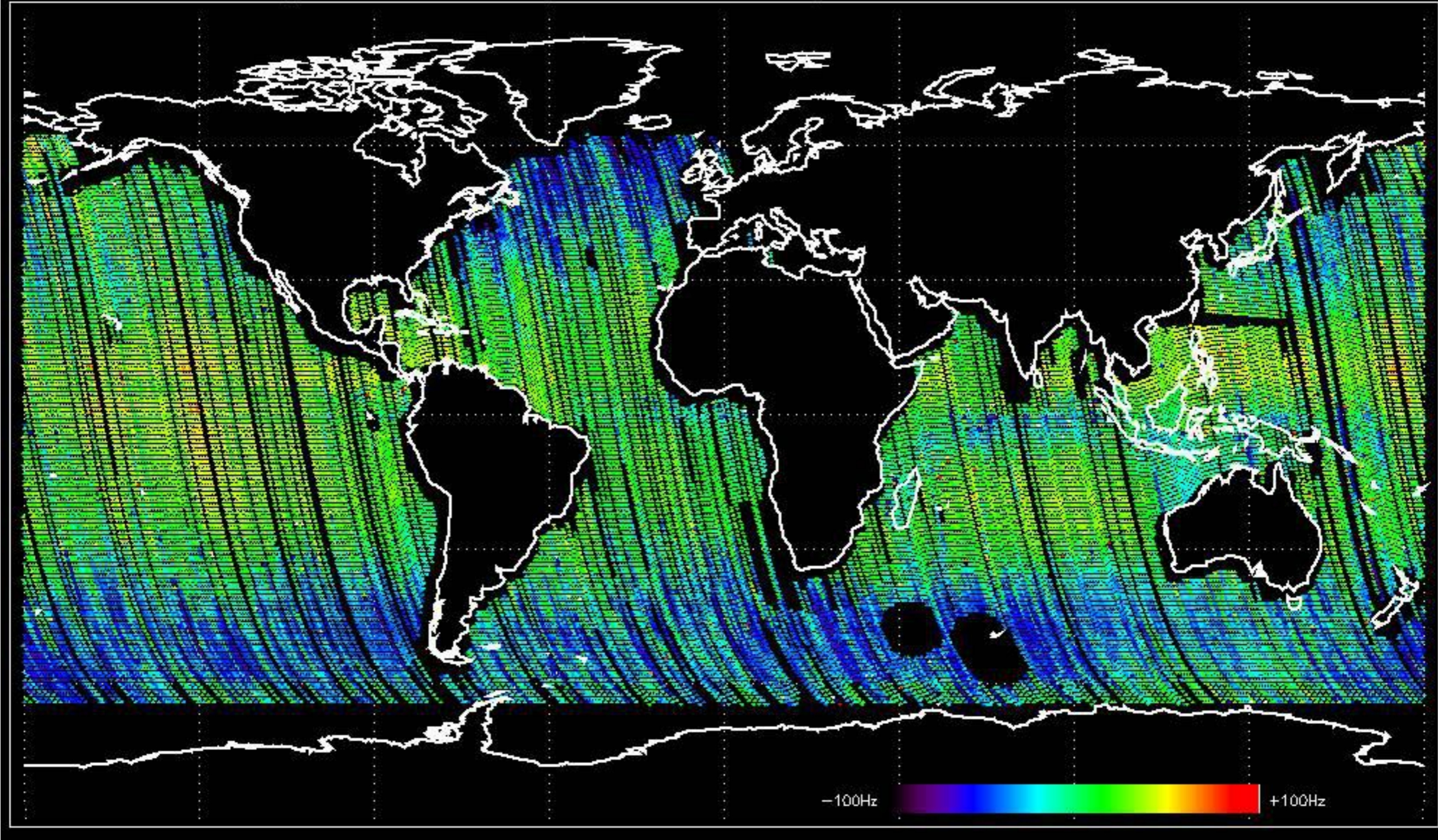
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -32.755927 Hz



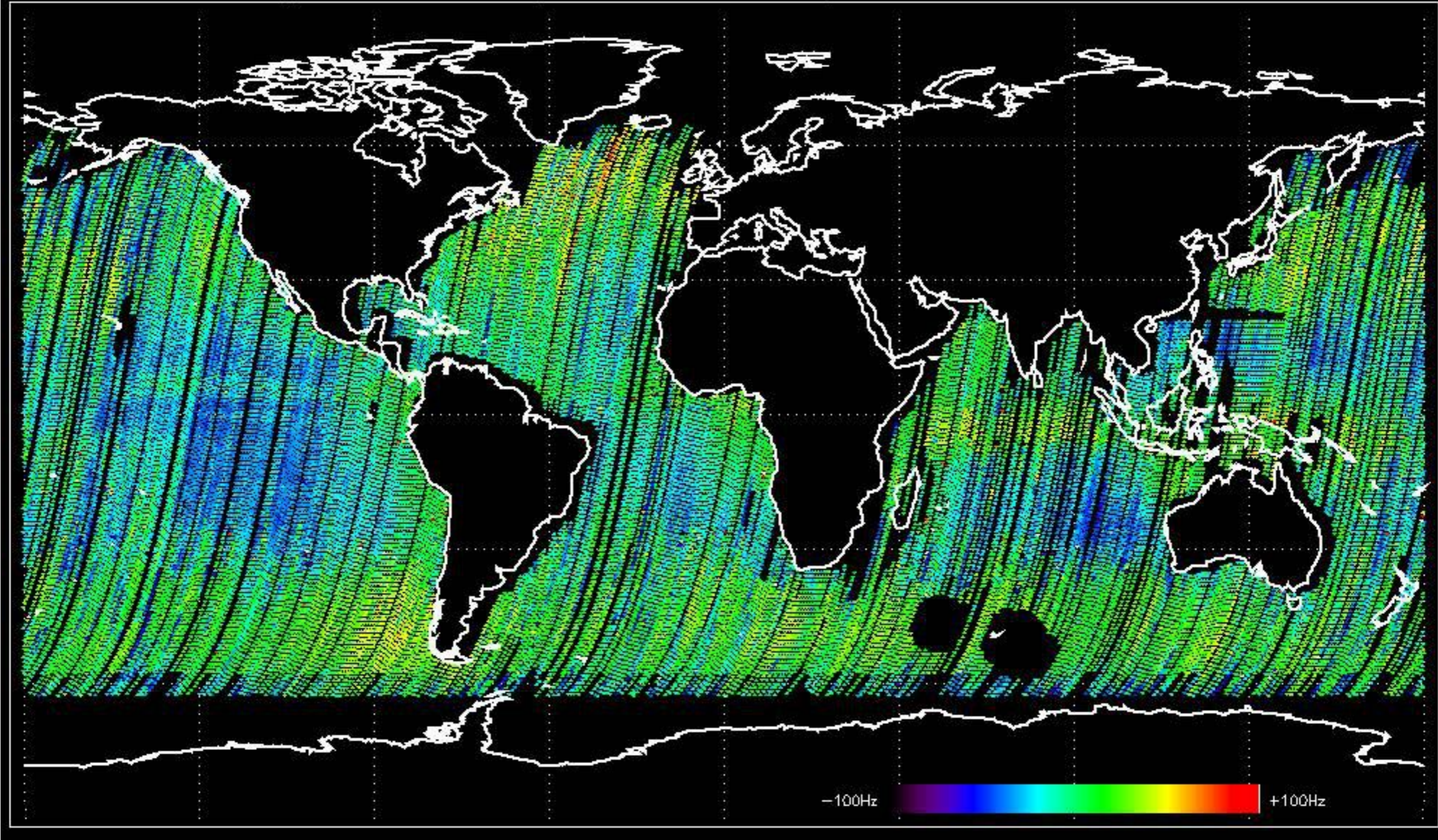
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.331851 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -35.437906 Hz

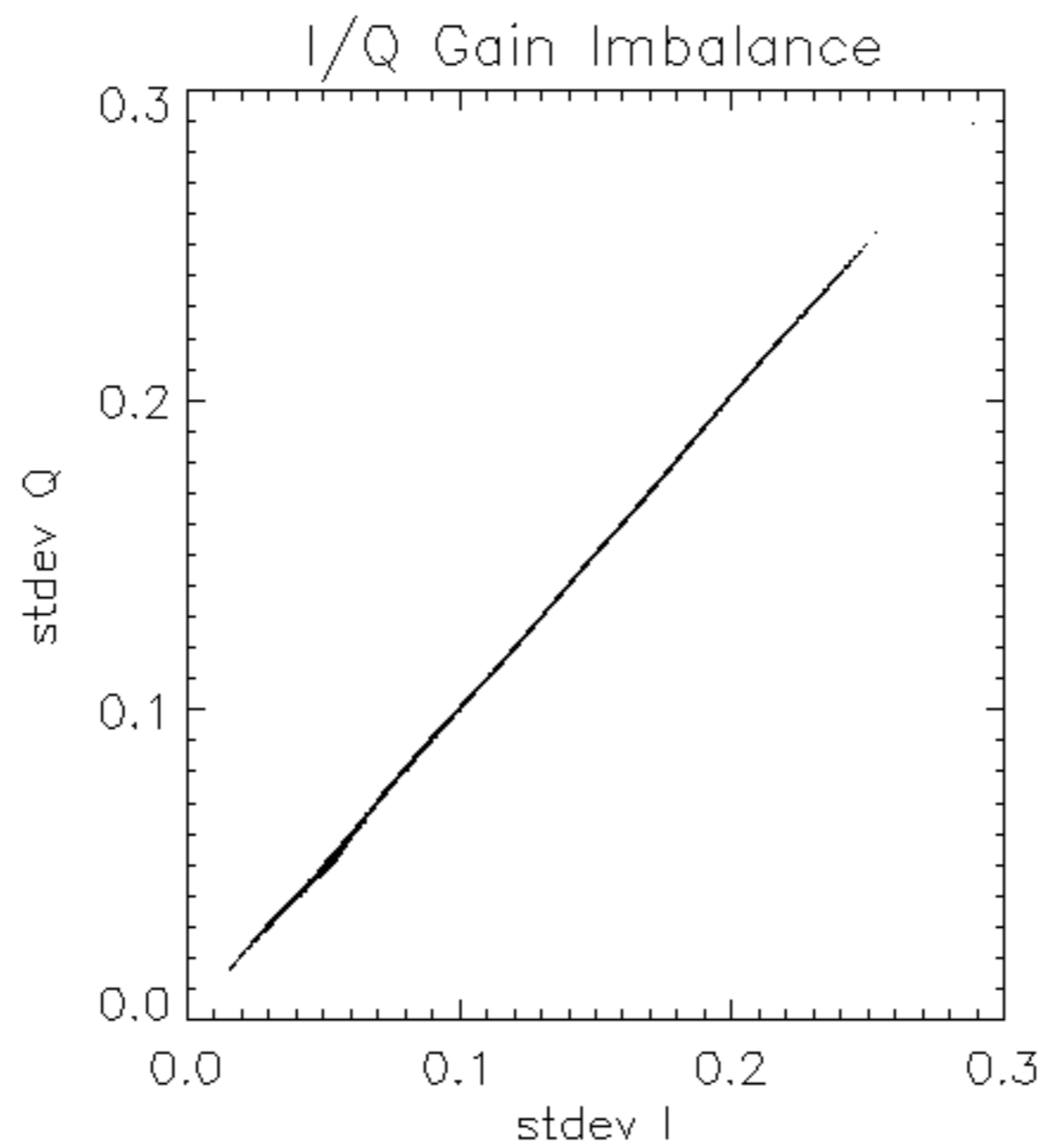


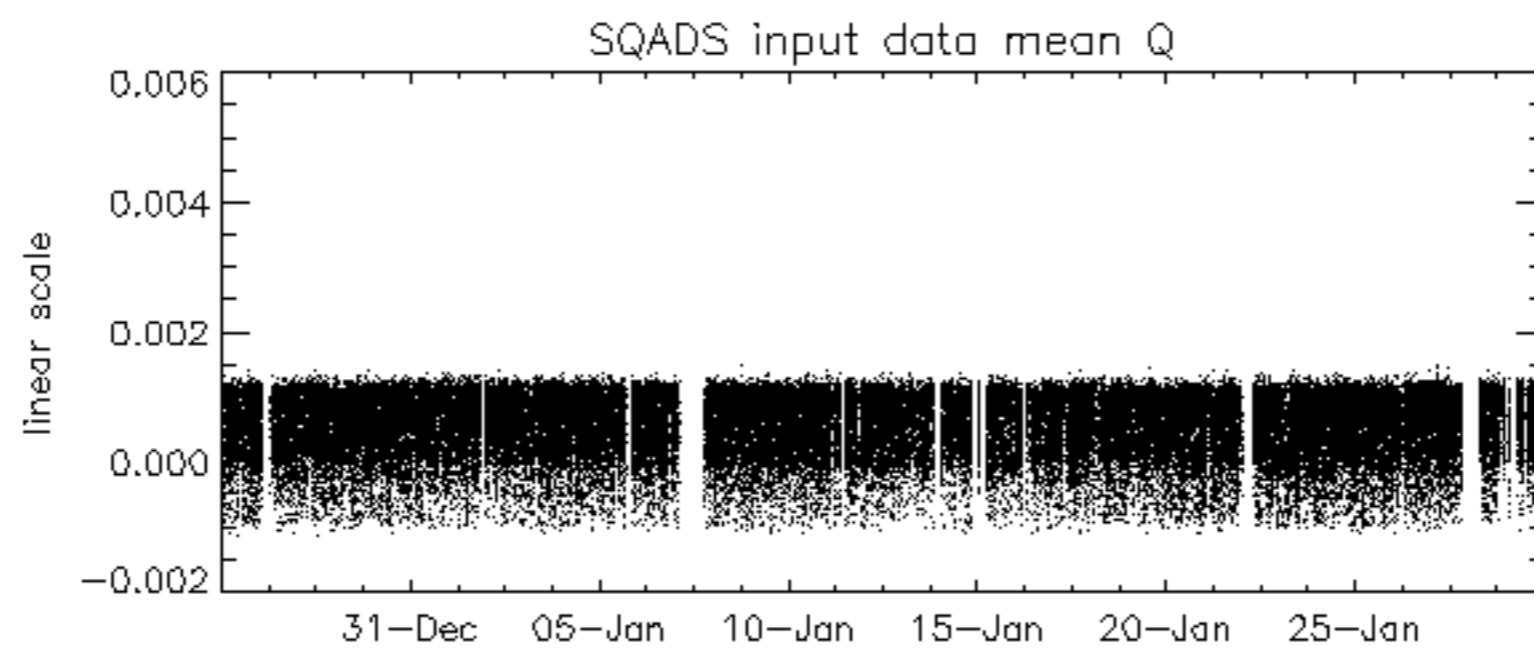
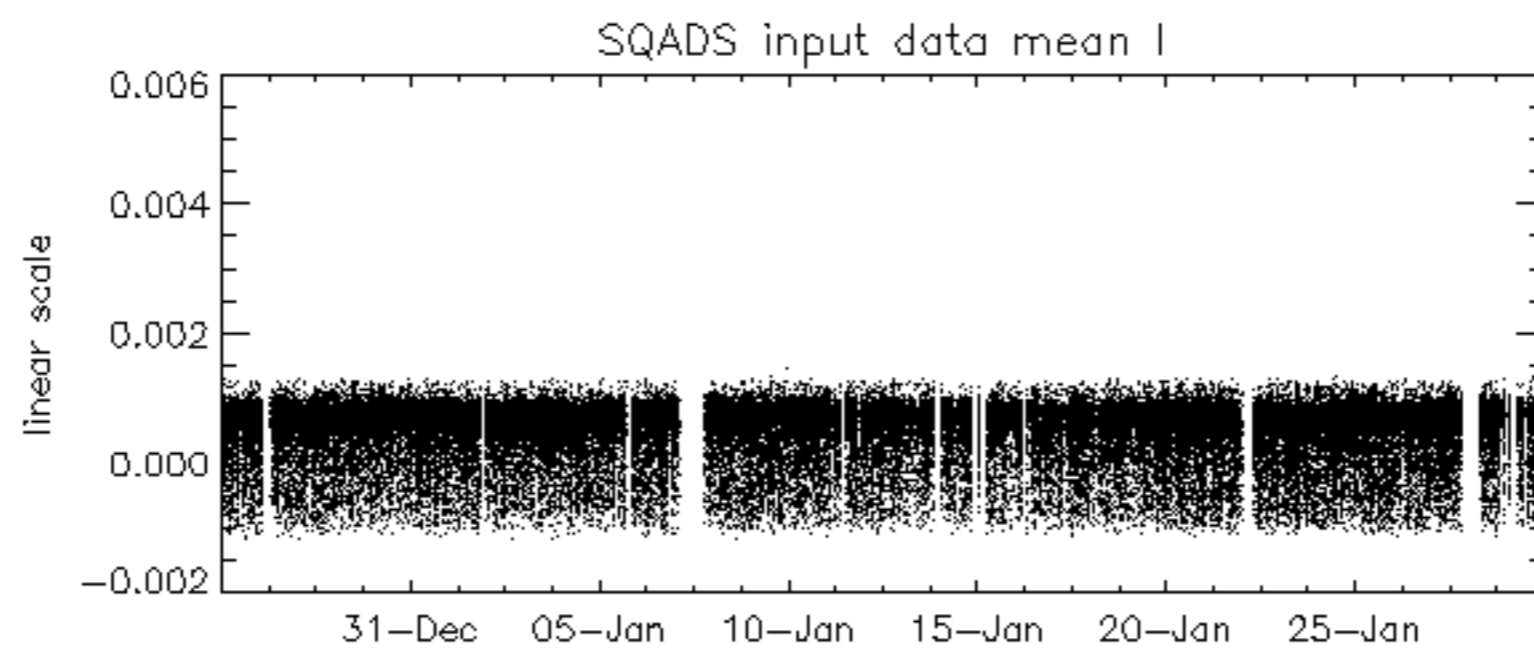
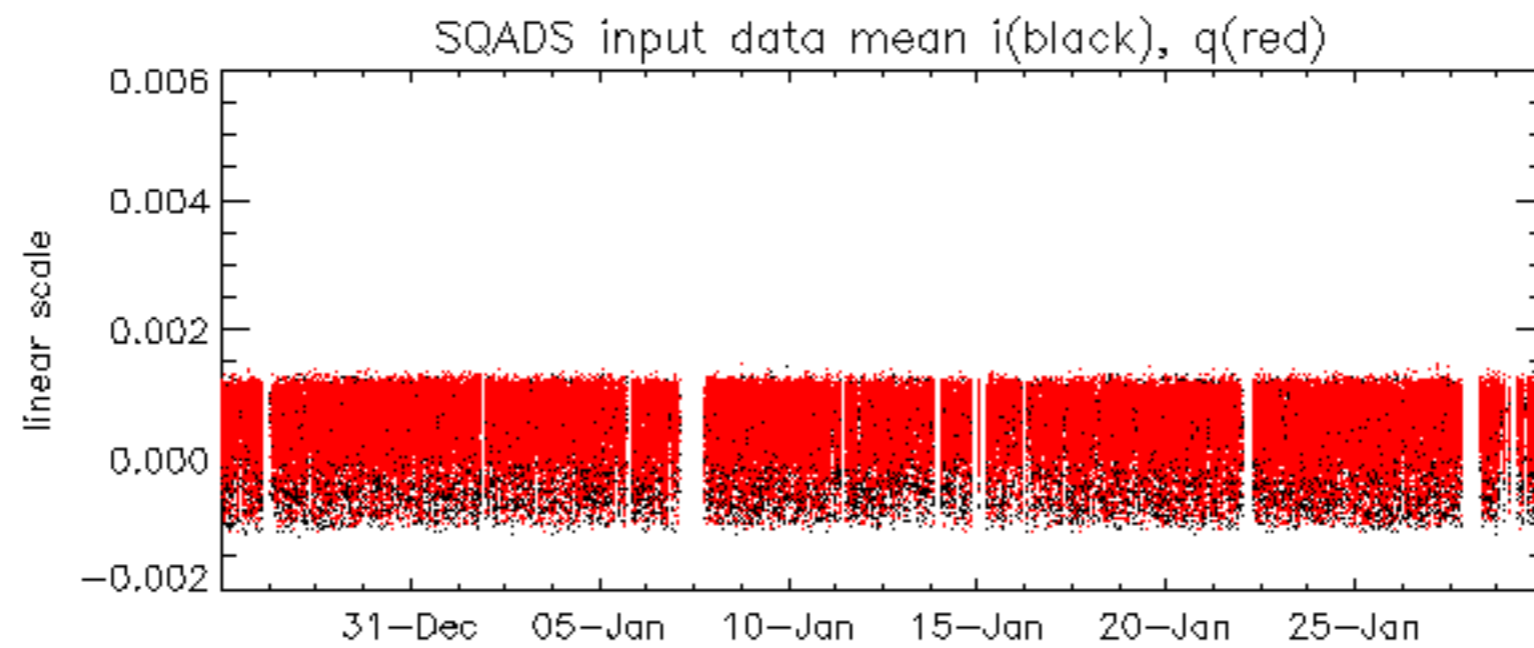
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.062190 Hz

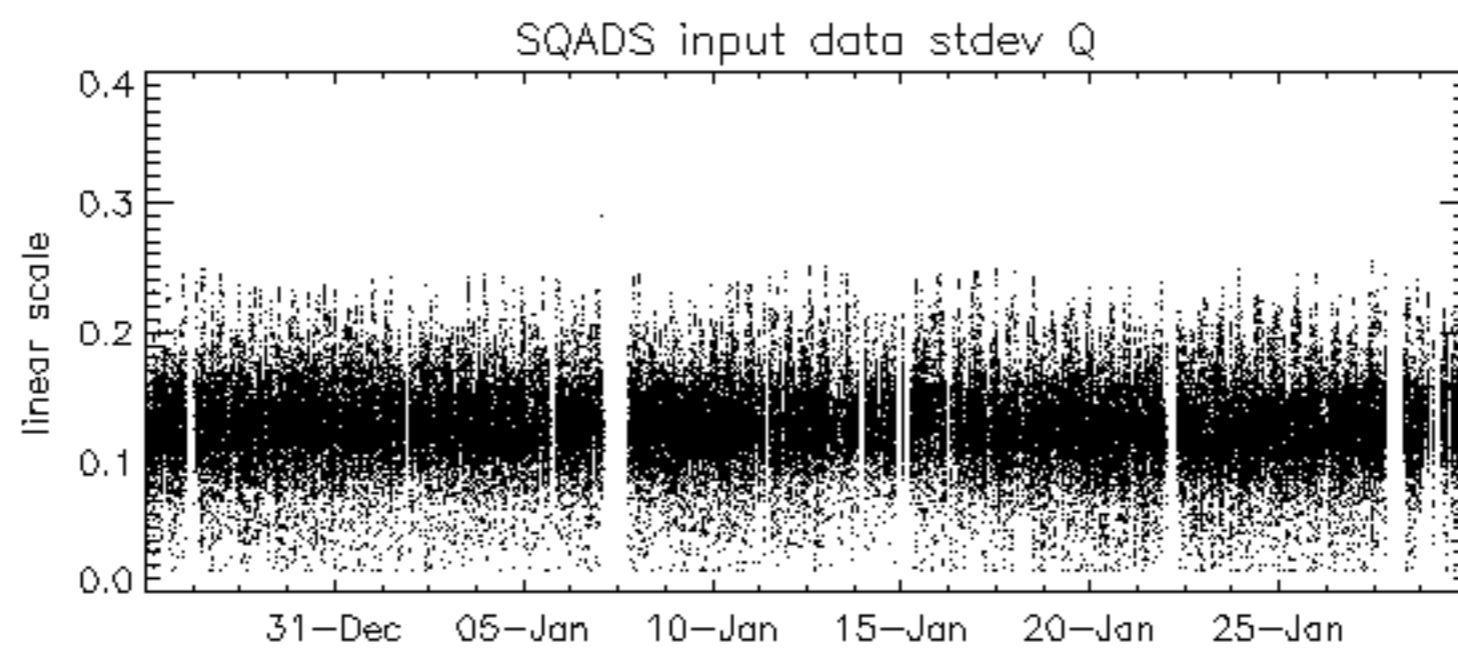
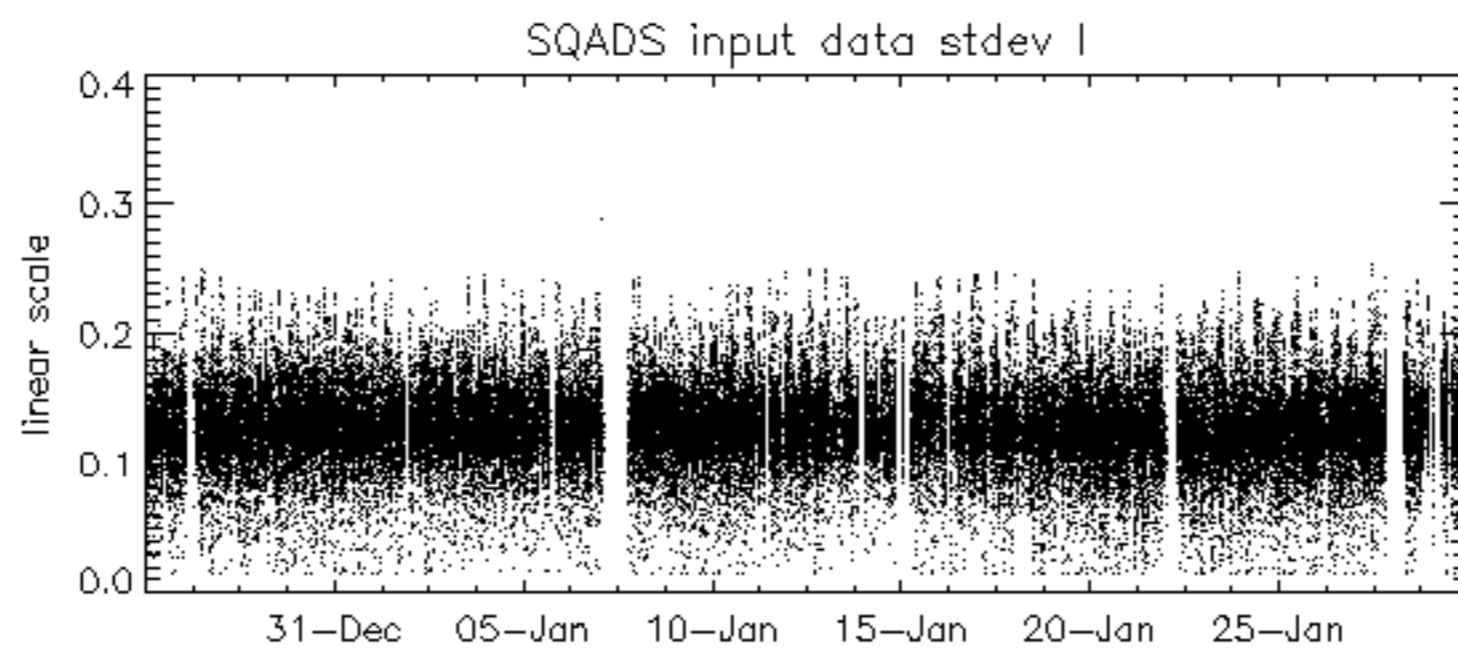
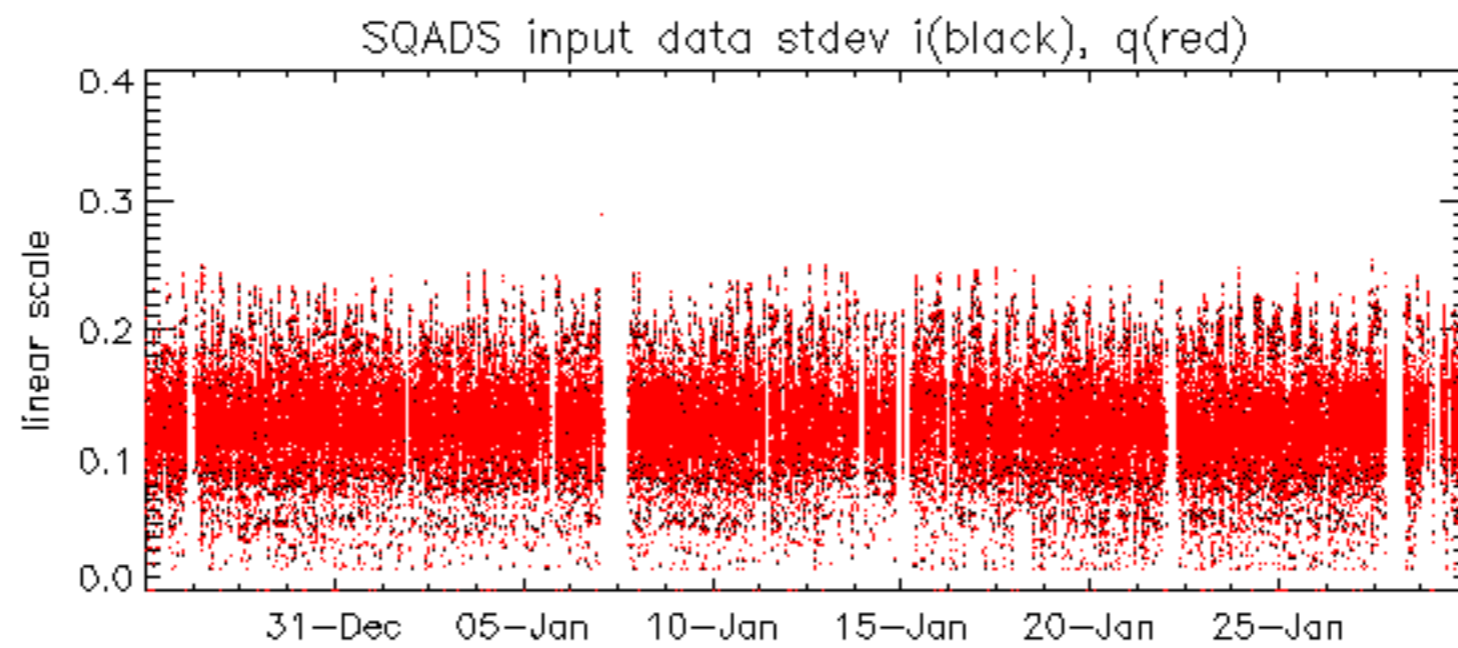


The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

No anomalies observed.



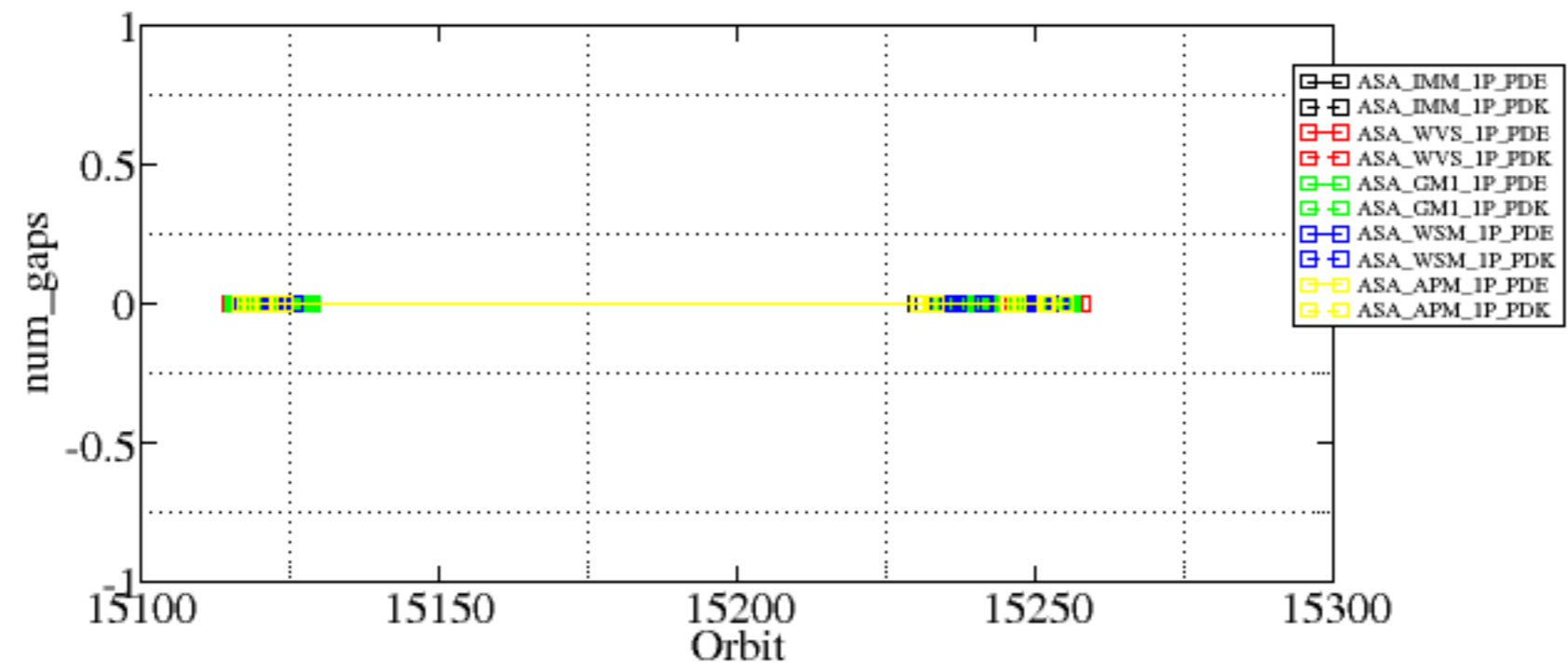


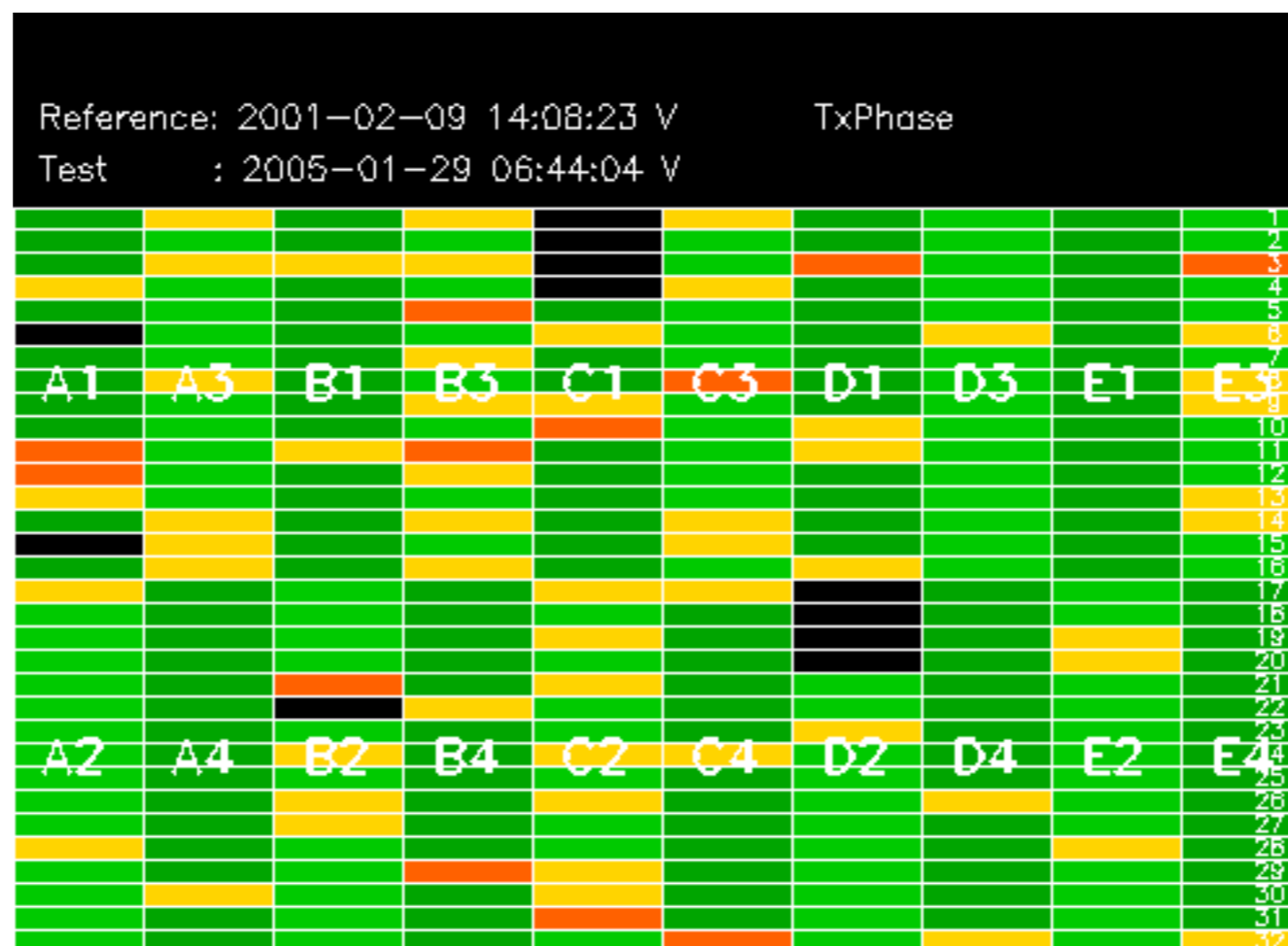


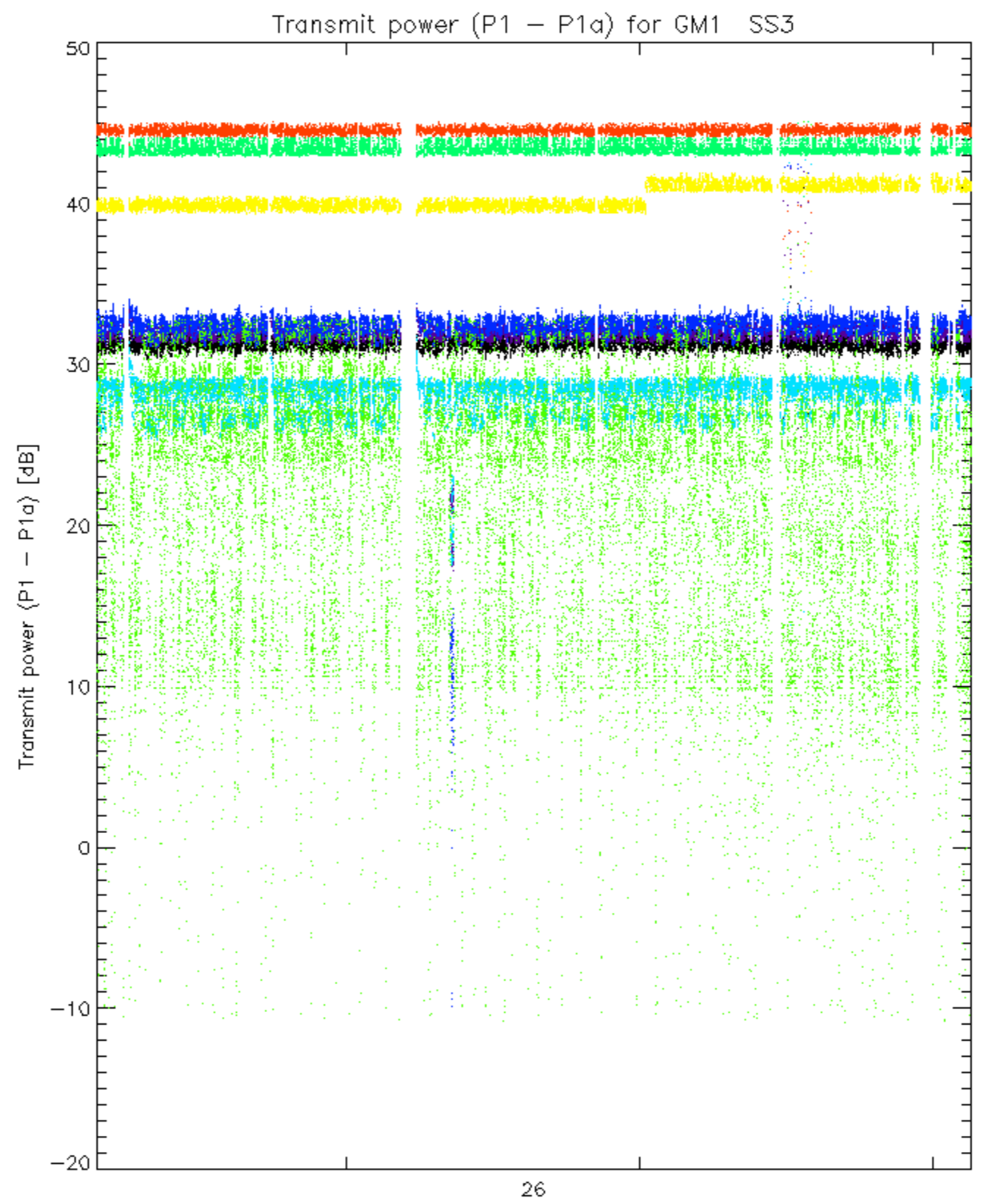
Summary of analysis for the last 3 days 2005012[890]

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

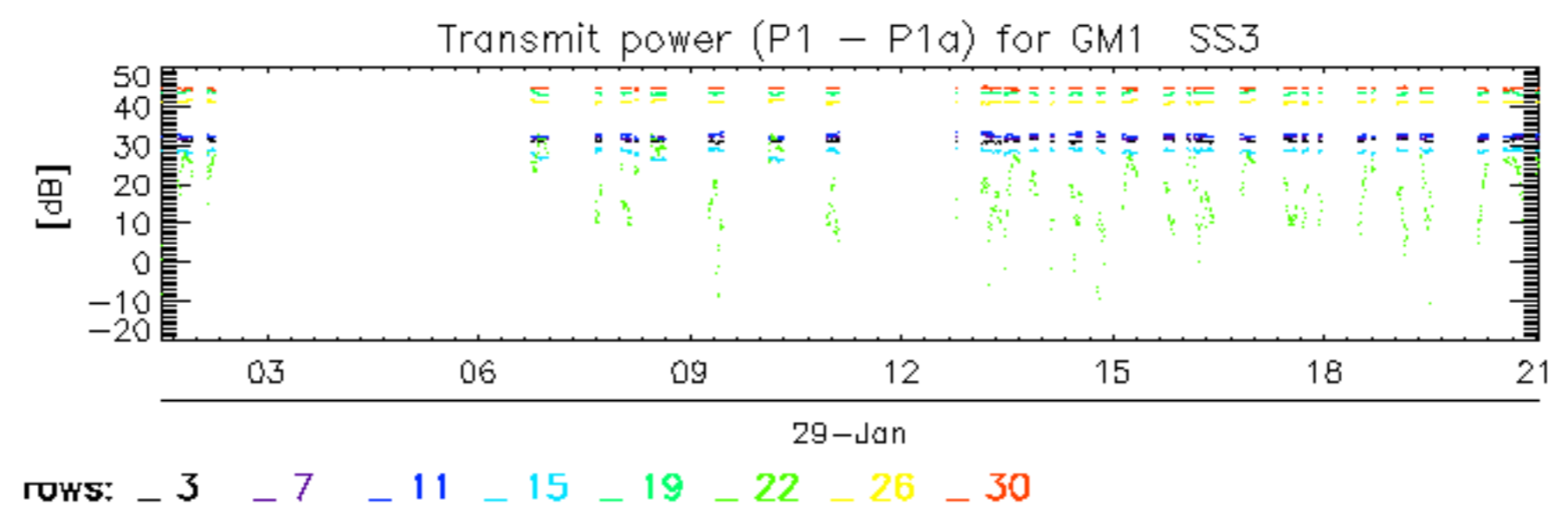
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050128_010032_000000622034_00145_15229_1250.N1	0	117
ASA_IMM_1PNPDE20050128_025859_000000162034_00147_15231_1348.N1	0	102
ASA_WVS_1PNPDE20050129_002200_000000292034_00159_15243_6202.N1	0	160
ASA_WVS_1PNPDE20050129_013525_0000004652034_00160_15244_6206.N1	0	16
ASA_WVS_1PNPDE20050129_220938_0000004342034_00172_15256_6211.N1	0	24
ASA_WVS_1PNPDE20050129_234953_0000002102034_00173_15257_6212.N1	0	40
ASA_GM1_1PNPDE20050128_195236_0000002052034_00157_15241_8159.N1	0	43
ASA_GM1_1PNPDE20050128_195900_0000001262034_00157_15241_8164.N1	0	50
ASA_GM1_1PNPDE20050128_210352_0000005792034_00157_15241_8147.N1	0	54
ASA_GM1_1PNPDE20050128_211420_0000005732034_00158_15242_8150.N1	0	43
ASA_GM1_1PNPDE20050128_213832_0000002292034_00158_15242_8155.N1	0	6
ASA_GM1_1PNPDE20050128_222241_0000002052034_00158_15242_8157.N1	0	29
ASA_GM1_1PNPDE20050129_013021_0000000962034_00160_15244_8152.N1	0	198
ASA_GM1_1PNPDE20050129_014352_0000007732034_00160_15244_8144.N1	0	15
ASA_GM1_1PNPDE20050129_020902_0000003802034_00160_15244_8149.N1	0	45
ASA_GM1_1PNPDE20050129_205956_0000001932034_00172_15256_8167.N1	0	21
ASA_WSM_1PNPDE20050128_065653_0000000672034_00149_15233_2102.N1	0	357
ASA_WSM_1PNPDK20050129_081020_0000001532034_00164_15248_3807.N1	0	2
ASA_APM_1PNPDE20050128_014243_0000000622034_00146_15230_6459.N1	0	42
ASA_APM_1PNPDE20050128_045507_0000000622034_00148_15232_6470.N1	0	15
ASA_APM_1PNPDE20050128_045908_0000000602034_00148_15232_6471.N1	0	5

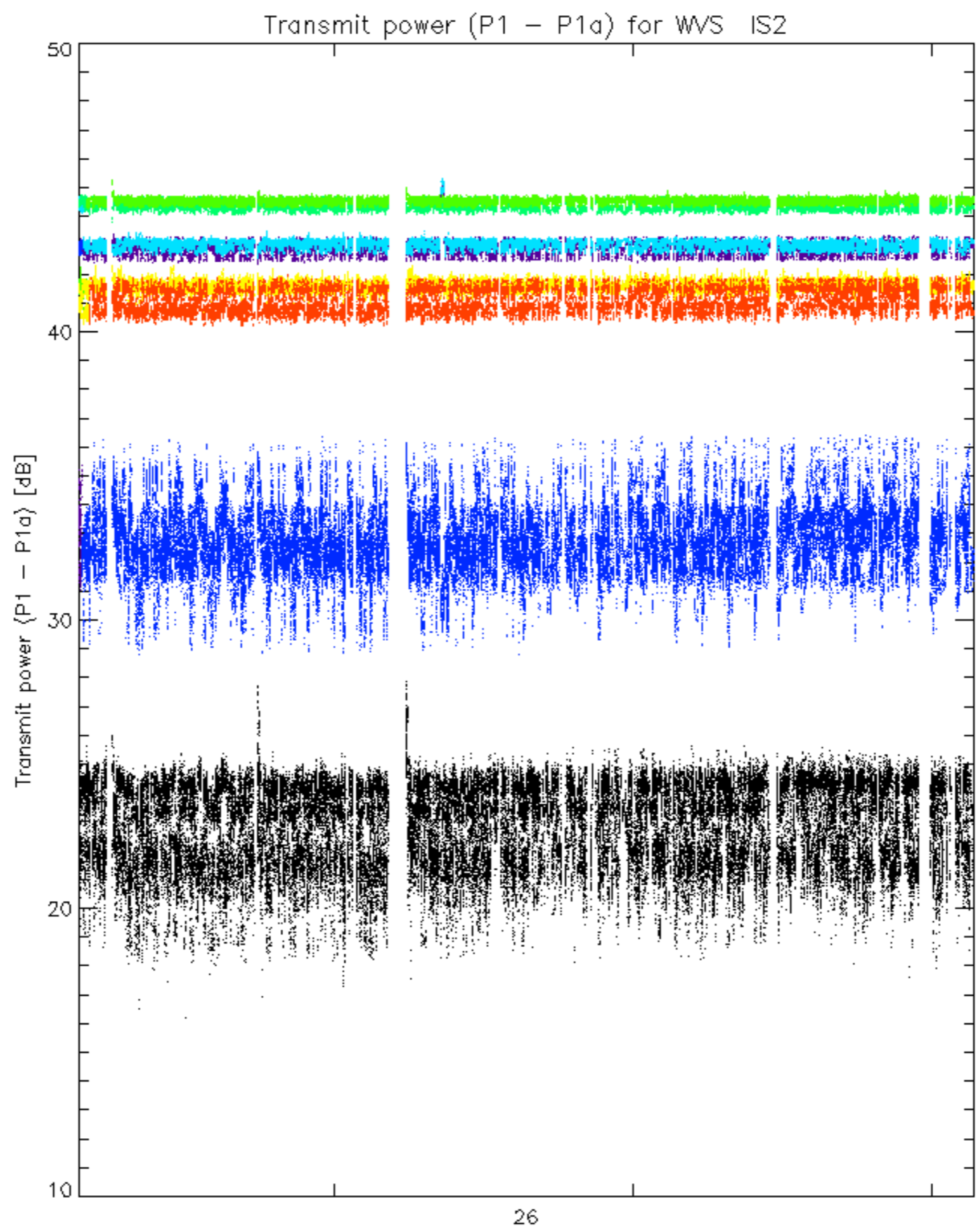




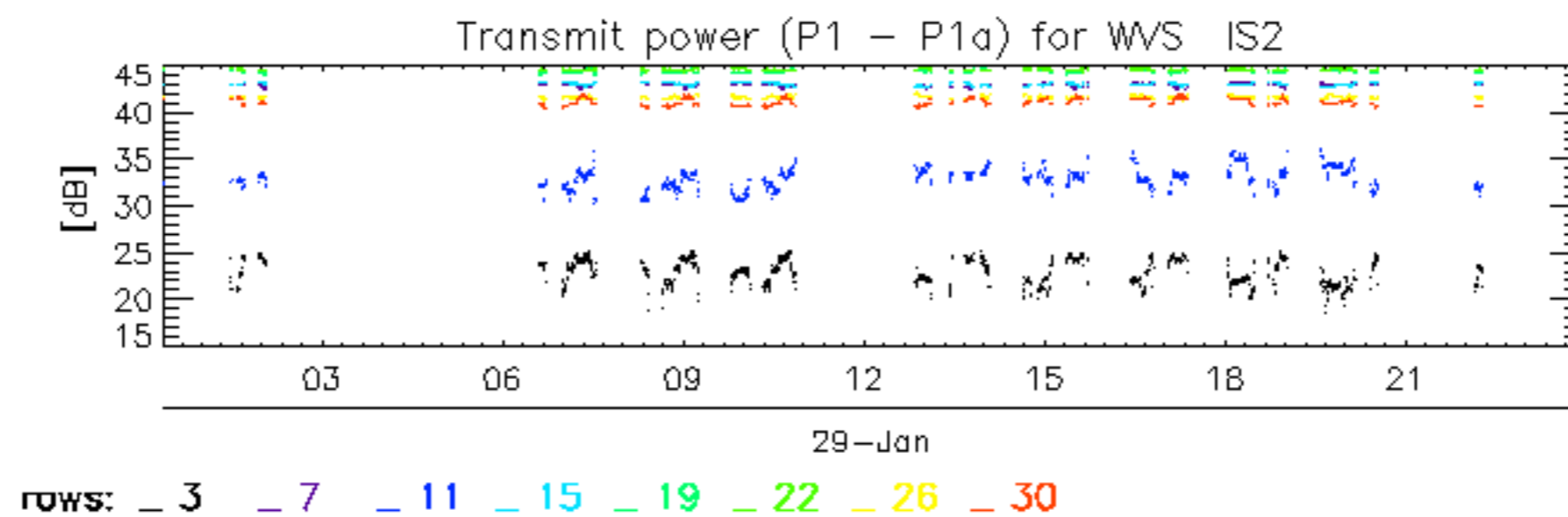


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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No unavailabilities during the reported period.