

PRELIMINARY REPORT OF 050119

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

last update on Wed Jan 19 11:08:44 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 2005-01-18 00:00:00 to 2005-01-19 11:08:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	24	35	5	1	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	24	35	5	1	2
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	24	35	5	1	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	24	35	5	1	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	40	50	6	13	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	40	50	6	13	5
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	40	50	6	13	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	40	50	6	13	5

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

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	20050118 173458
H	20050118 173338

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	-3.423398	0.007335	0.037448
7	P1	-3.084268	0.010247	0.019651
11	P1	-4.648414	0.020338	0.011441
15	P1	-5.648852	0.040086	0.021700
19	P1	-3.663492	0.006249	0.006013
22	P1	-4.570199	0.016644	0.023537
26	P1	-4.942003	0.026181	0.033316
30	P1	-7.130018	0.014352	-0.013076
3	P1	-15.926455	0.104848	0.045147
7	P1	-15.511176	0.095982	0.053610
11	P1	-20.805613	0.312300	-0.041889
15	P1	-11.630151	0.075986	0.045690
19	P1	-14.175457	0.031140	0.006066
22	P1	-16.008764	0.438127	0.175999
26	P1	-17.677839	0.228352	0.110994
30	P1	-17.875969	0.315152	-0.072893

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.305227	0.086536	0.104586
7	P2	-22.494350	0.171327	0.104150
11	P2	-14.766794	0.184515	0.173529
15	P2	-7.138240	0.114465	0.078884
19	P2	-9.727678	0.214352	0.125778
22	P2	-17.108879	0.098317	0.116461

26	P2	-16.521788	0.115290	0.091357
30	P2	-18.939354	0.082963	0.071226

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.200873	0.007005	0.027564
7	P3	-8.200943	0.007007	0.027977
11	P3	-8.200867	0.007006	0.027514
15	P3	-8.200895	0.007006	0.027659
19	P3	-8.200949	0.007008	0.028001
22	P3	-8.200915	0.007006	0.027811
26	P3	-8.200883	0.007005	0.027601
30	P3	-8.200645	0.007012	0.029790

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	-2.820000	0.011765	0.022177
7	P1	-2.954711	0.023856	0.020741
11	P1	-3.945205	0.025540	-0.016578
15	P1	-3.509489	0.029683	-0.023321
19	P1	-3.607785	0.012648	0.001507
22	P1	-5.643228	0.067794	-0.047358
26	P1	-6.579674	0.058447	-0.302410
30	P1	-6.297205	0.044308	-0.011761
3	P1	-10.773965	0.047849	0.015644
7	P1	-10.142979	0.136101	0.026292

11	P1	-12.506107	0.107808	-0.100241
15	P1	-11.751098	0.054849	-0.012052
19	P1	-15.634441	0.046081	0.038019
22	P1	-24.065332	1.853902	0.040285
26	P1	-14.936786	0.386232	-0.095715
30	P1	-20.051176	0.865211	0.180874

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.989943	0.036303	0.055481
7	P2	-22.549656	0.034493	0.093998
11	P2	-10.575010	0.038388	0.187177
15	P2	-5.041389	0.024871	0.019160
19	P2	-6.934312	0.036675	0.036197
22	P2	-7.258852	0.028402	0.063536
26	P2	-23.943443	0.019860	0.038972
30	P2	-21.984221	0.024943	0.038495

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.035073	0.002943	0.016348
7	P3	-8.035023	0.002946	0.016112
11	P3	-8.035042	0.002940	0.015921
15	P3	-8.035232	0.002939	0.016366
19	P3	-8.035028	0.002954	0.015919
22	P3	-8.035105	0.002931	0.016213
26	P3	-8.035072	0.002938	0.016319
30	P3	-8.035057	0.002937	0.016223

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	0.000470584
	stdev	2.18609e-07
MEAN Q	mean	0.000546607
	stdev	2.32735e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128703
	stdev	0.000959699
STDEV Q	mean	0.128939
	stdev	0.000970387



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005011[789]

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_1PNPDE20050117_165904_000002202033_00499_15082_0025.N1	0	2





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)

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

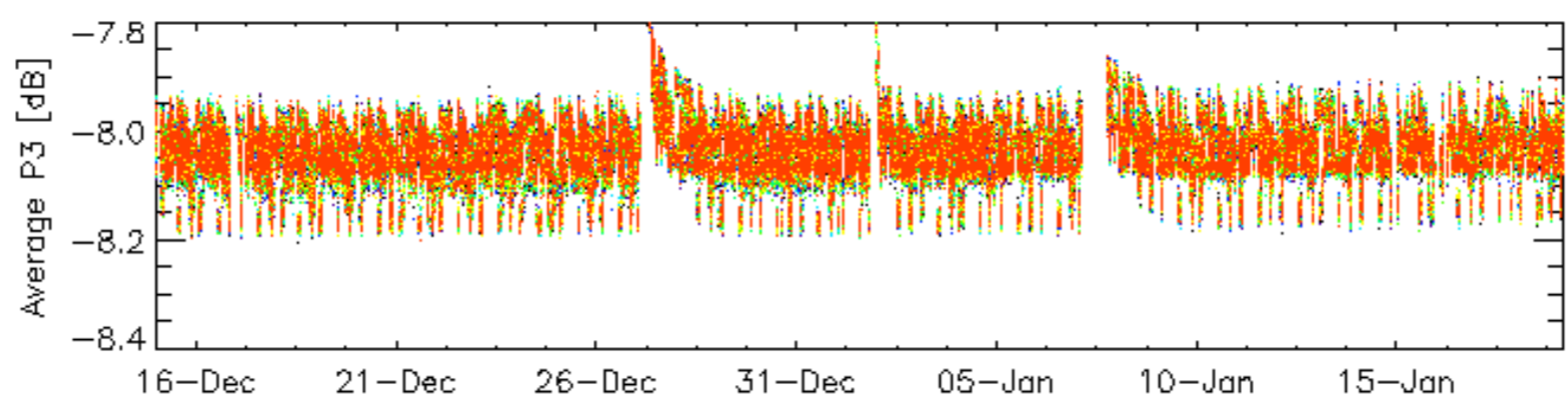
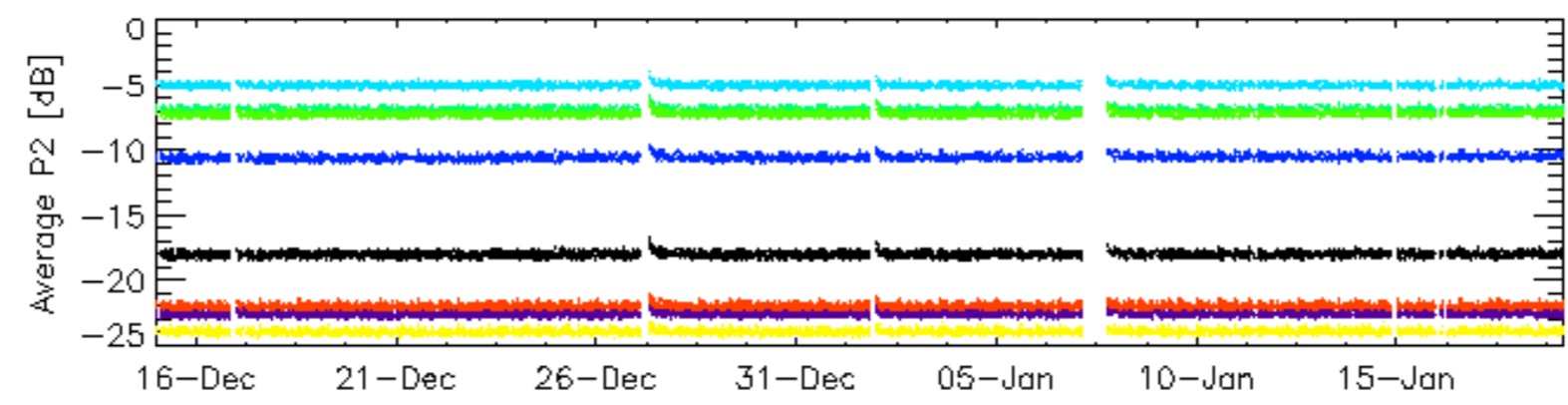
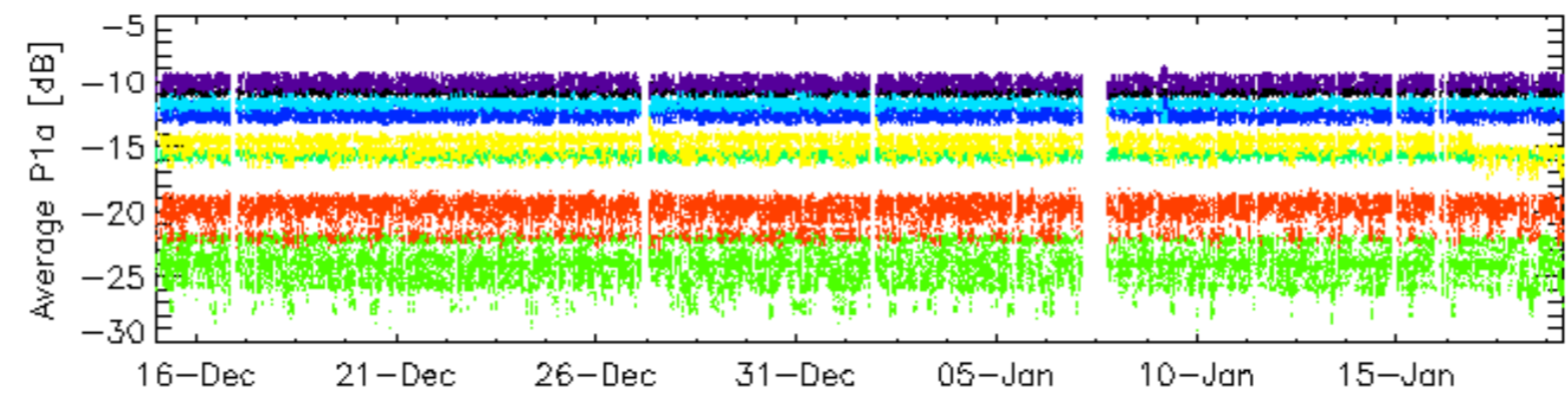
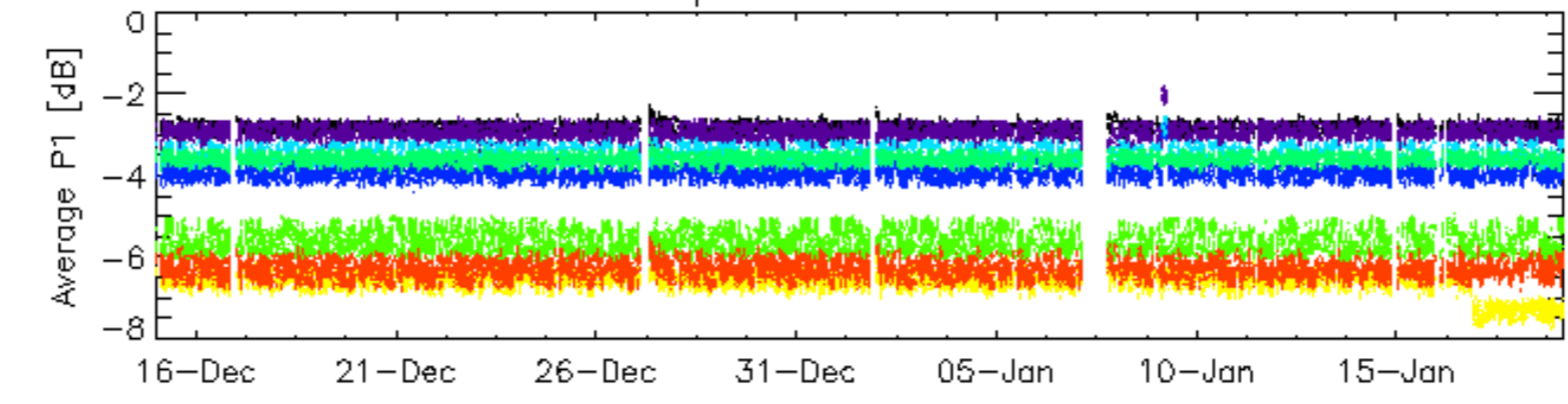
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

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

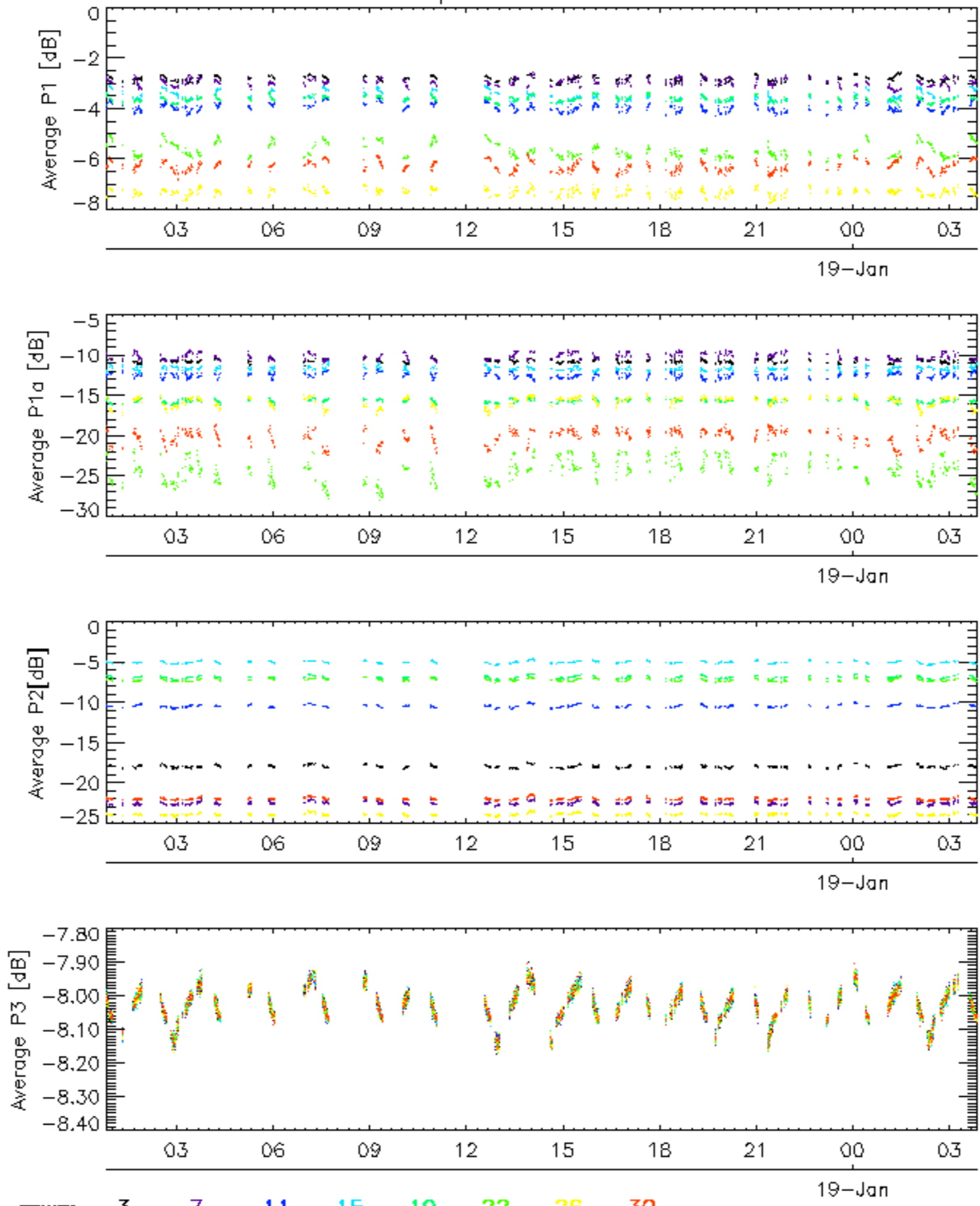
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Cal pulses for GM1 SS3

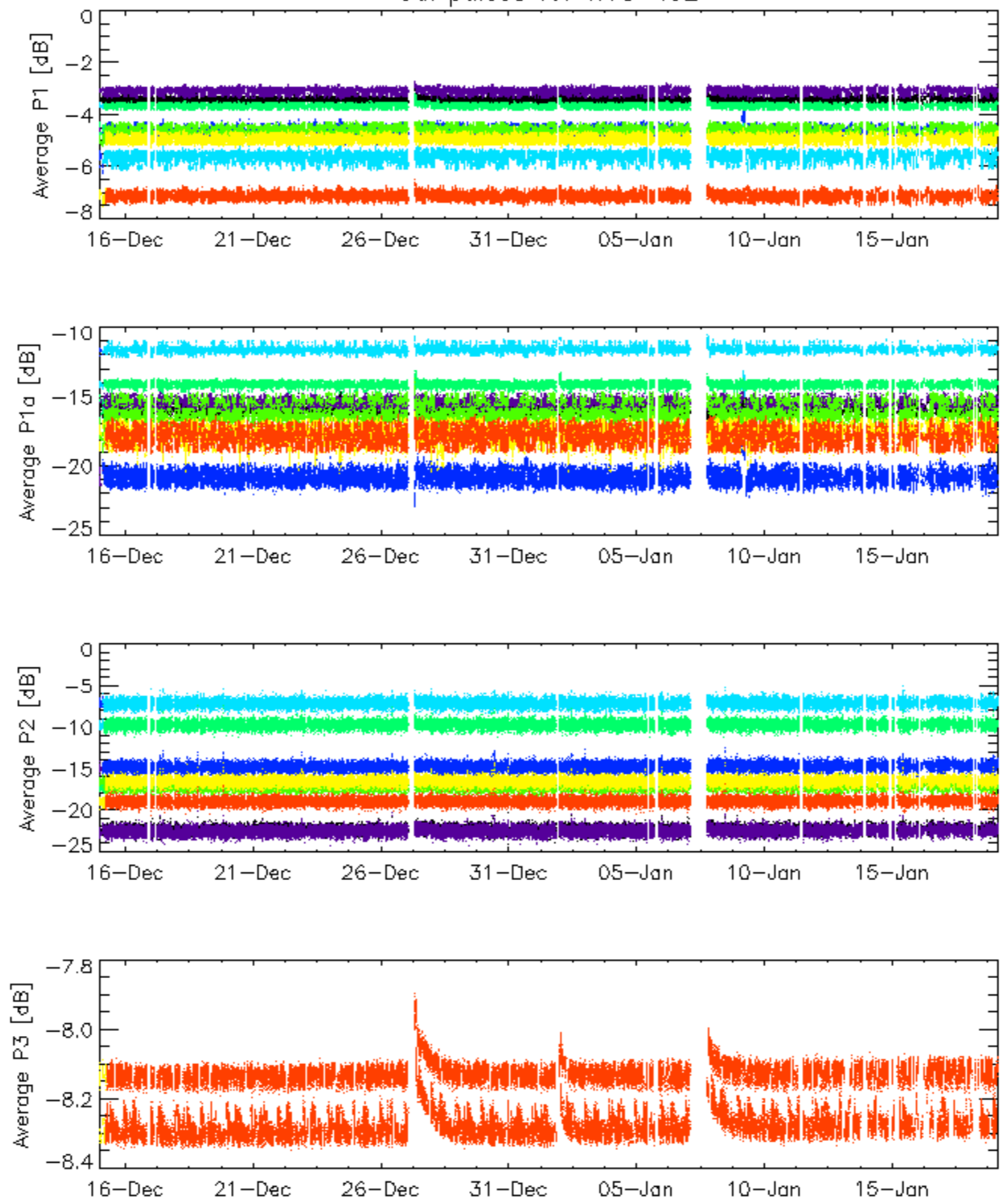


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

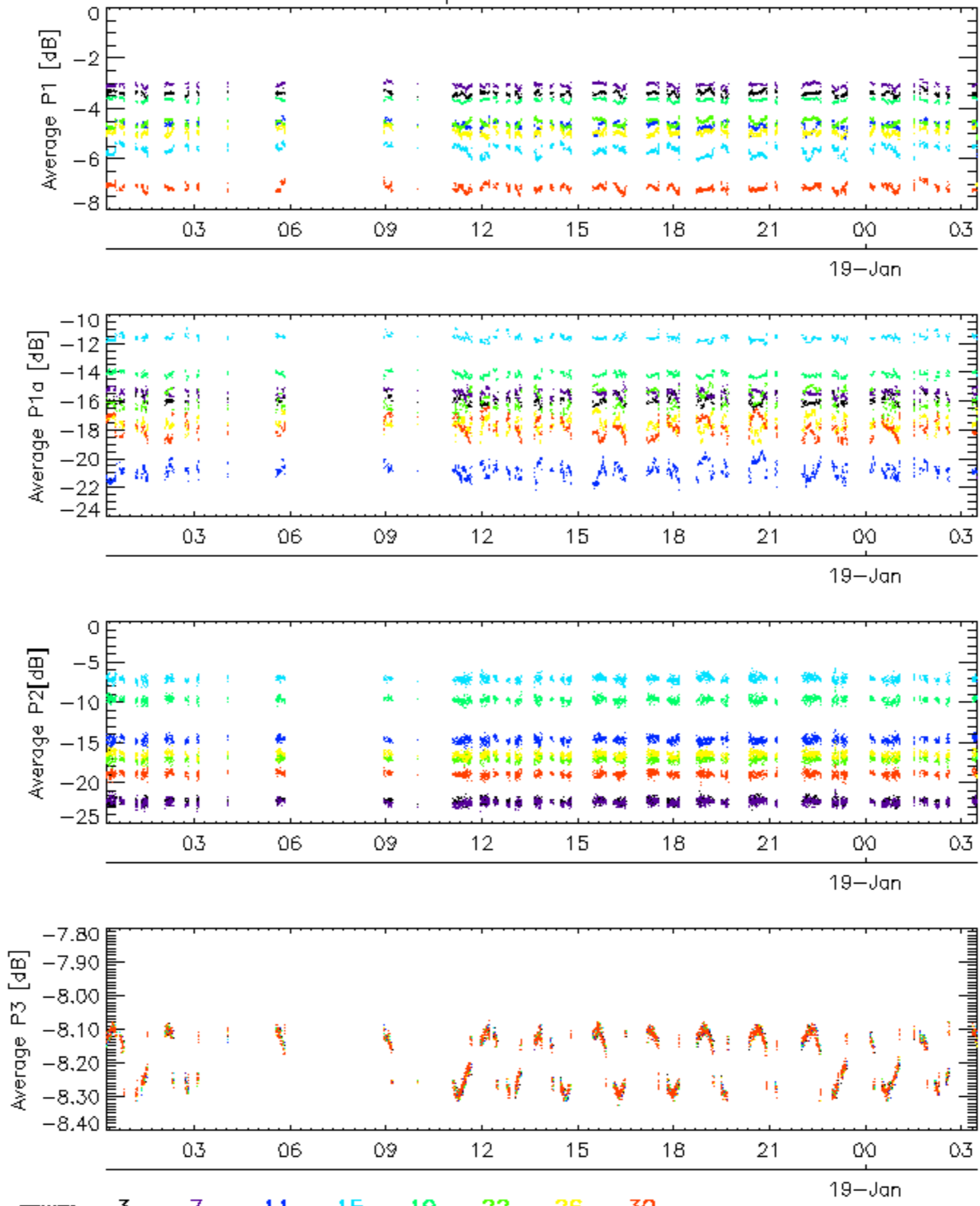


Cal pulses for WVS IS2



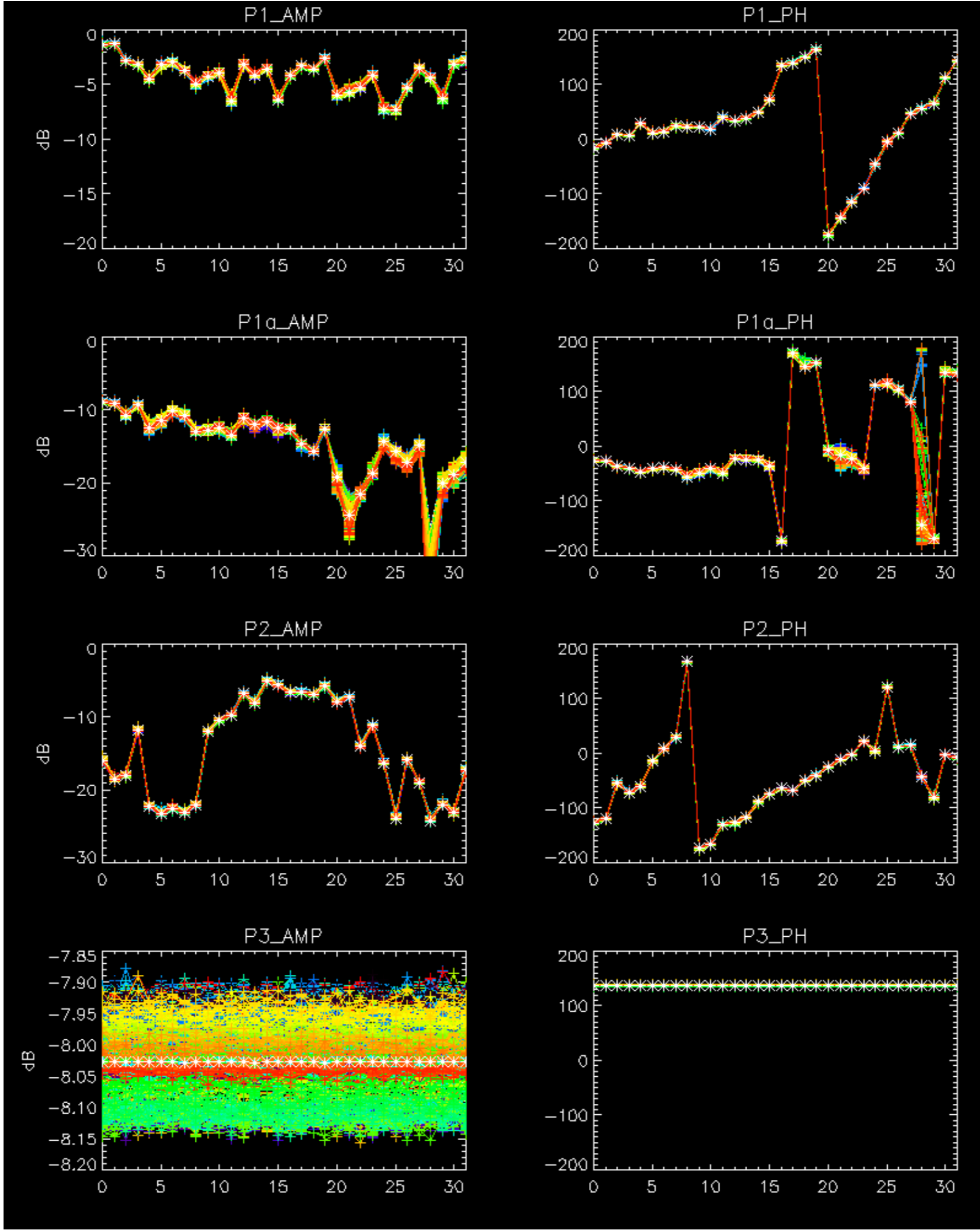
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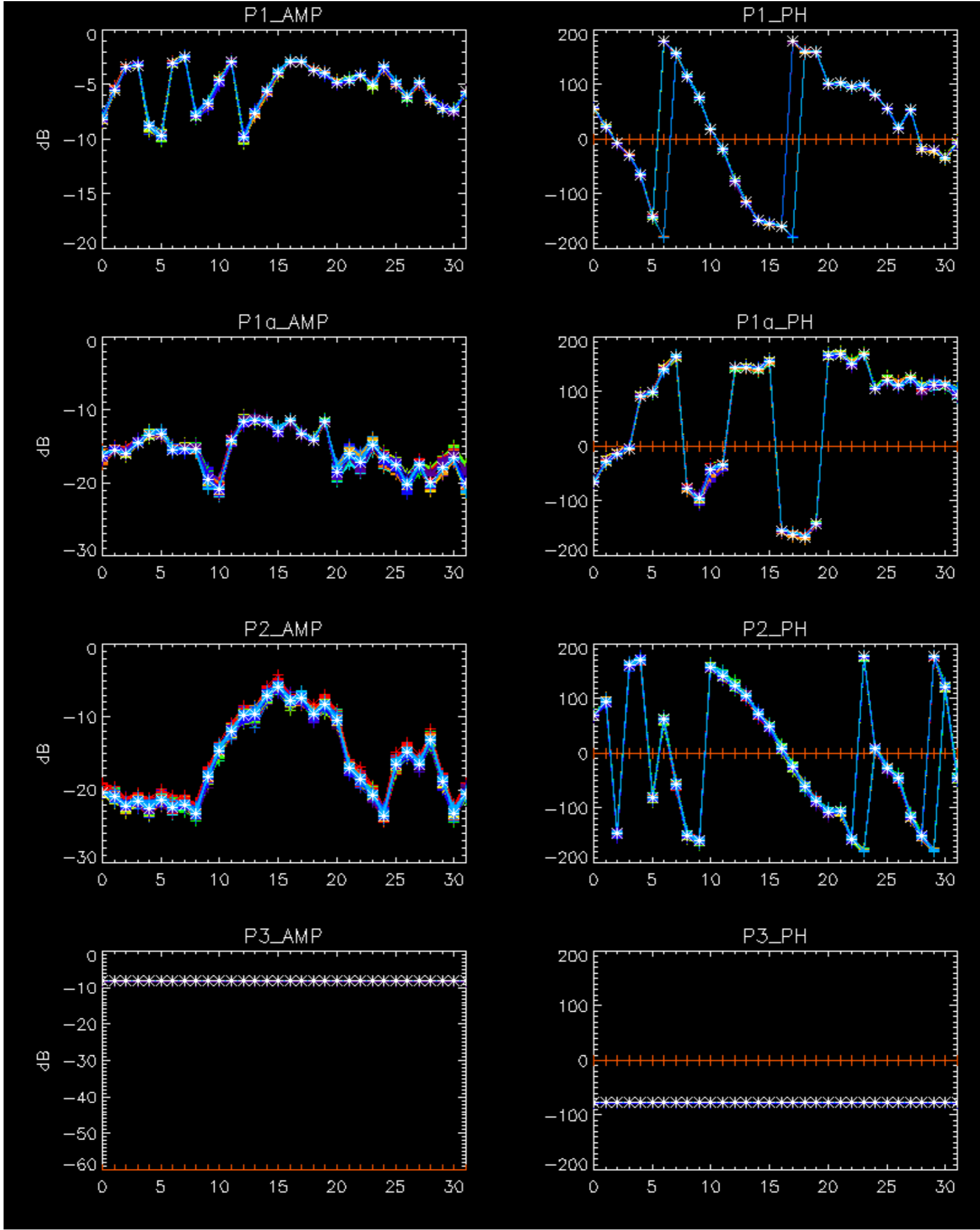
Cal pulses for WVS IS2



No anomalies observed on available browse products

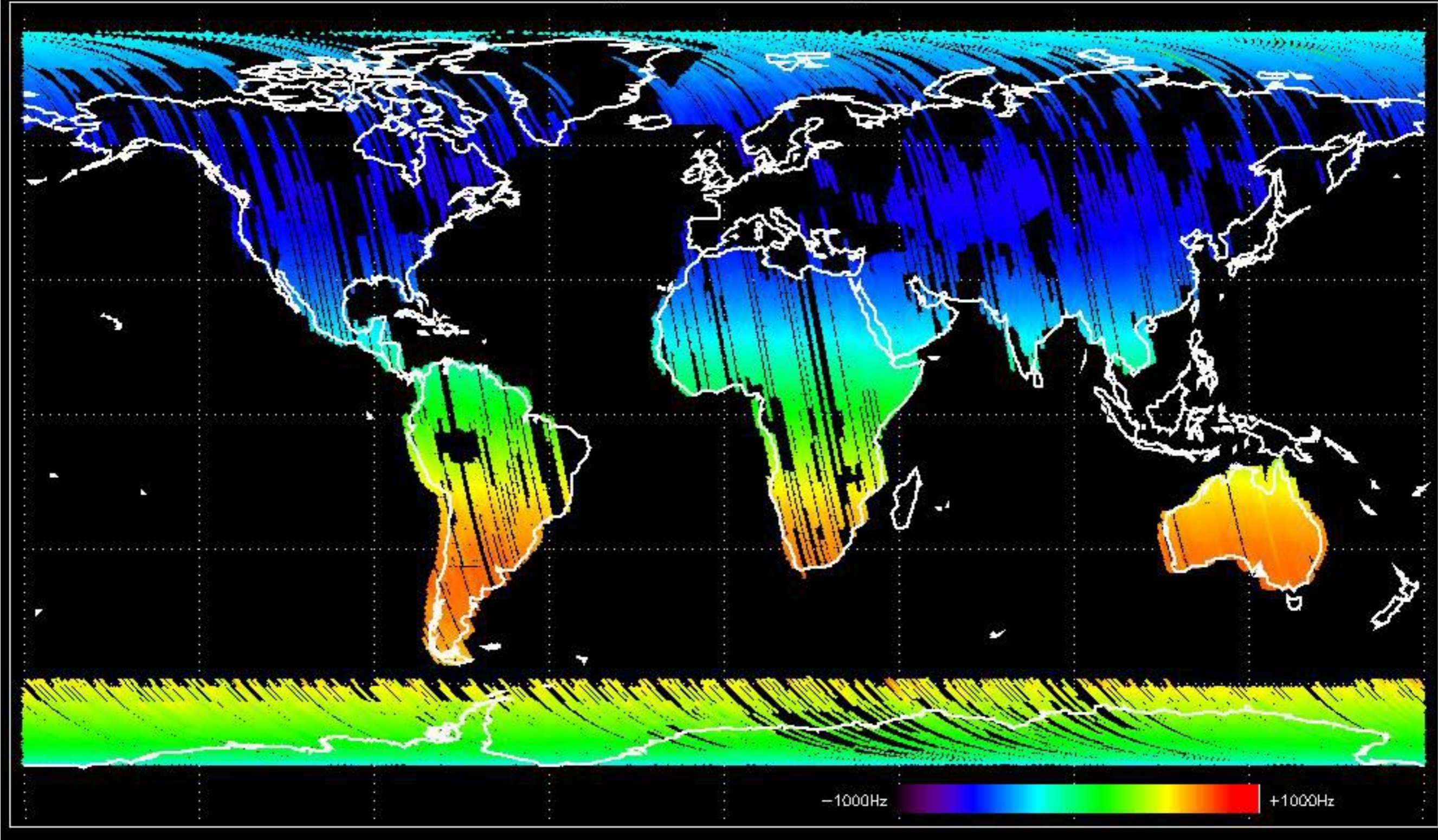
No anomalies observed.



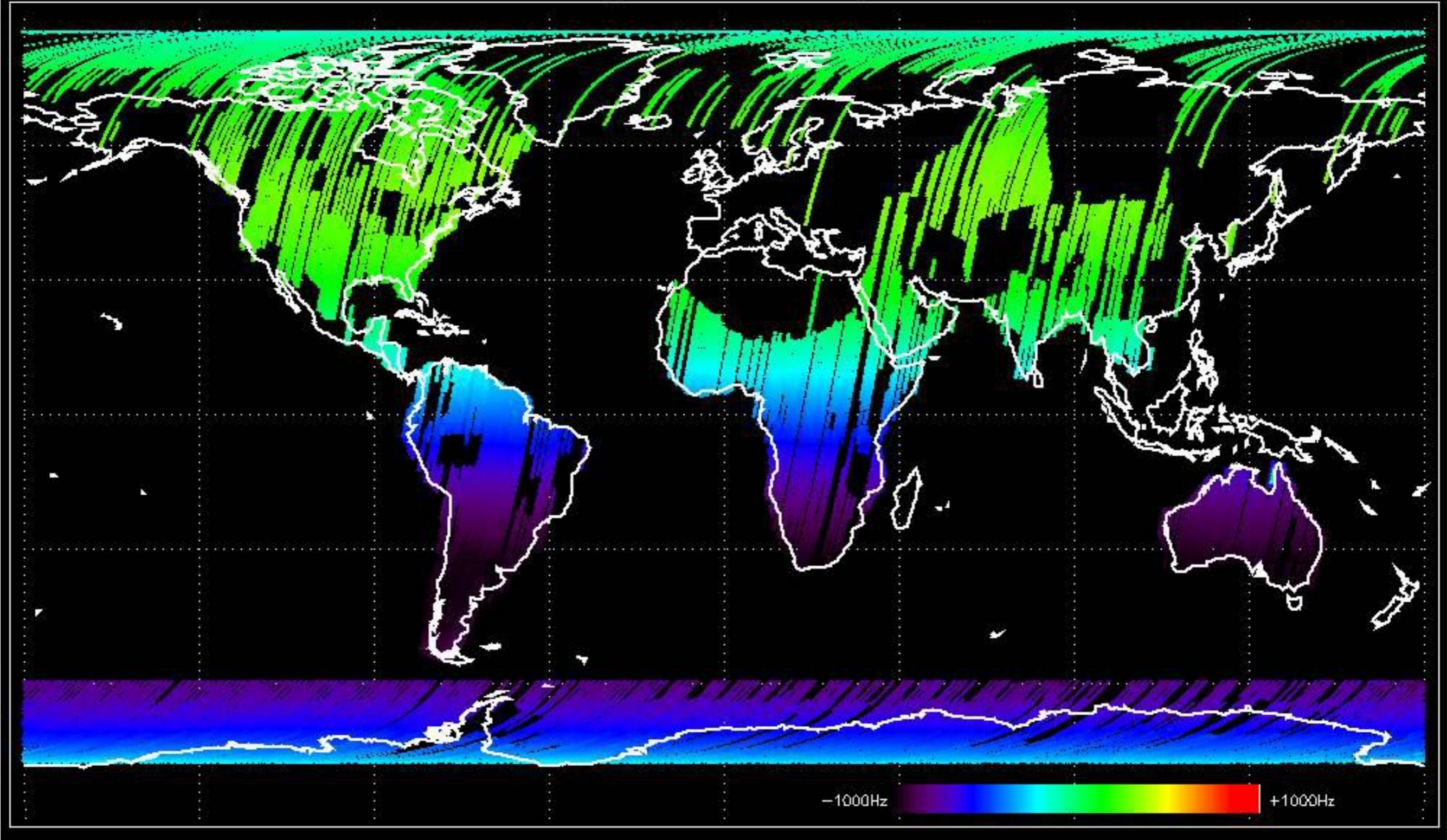


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

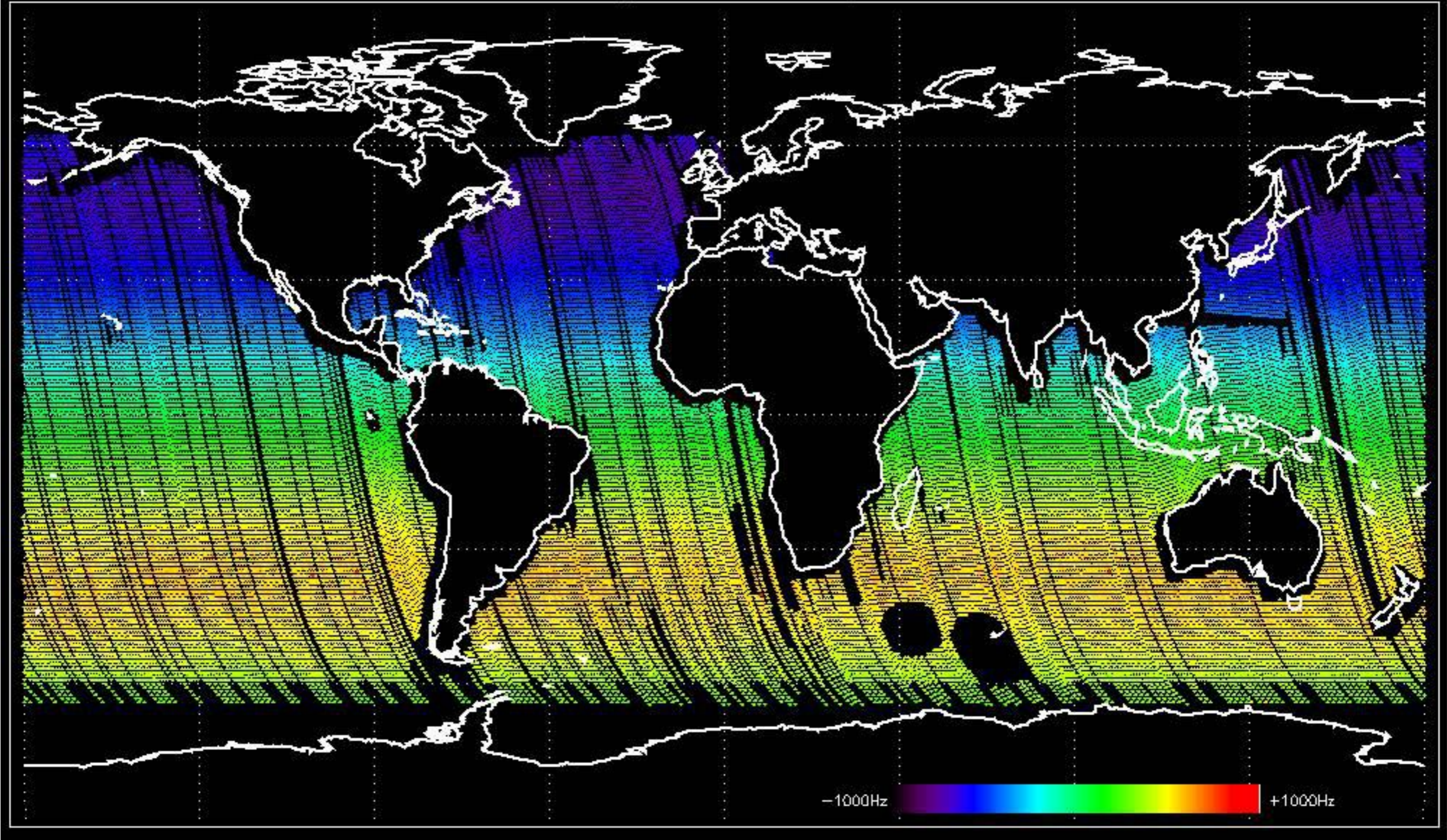
Doppler 'GM1' 'SS1' ascending



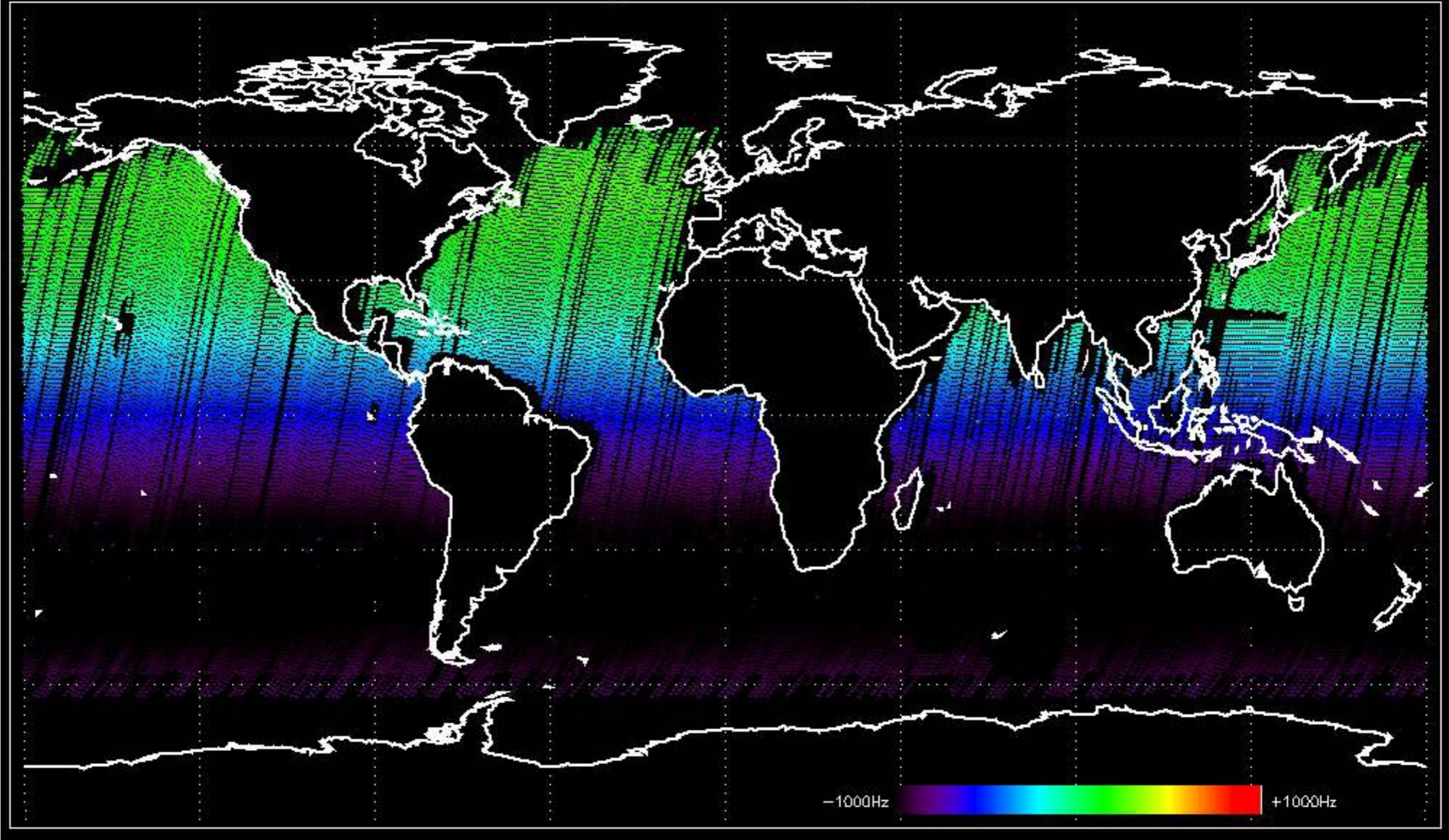
Doppler 'GM1' 'SS1' descending



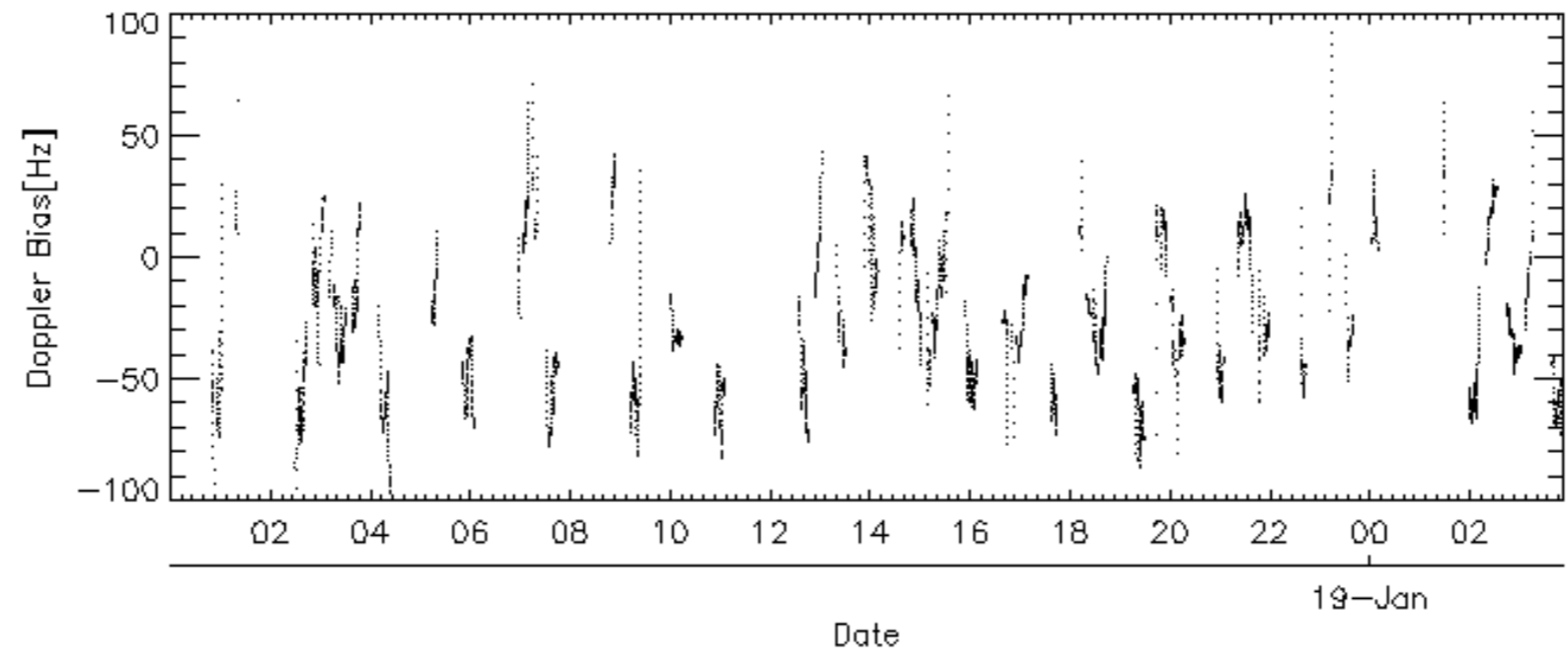
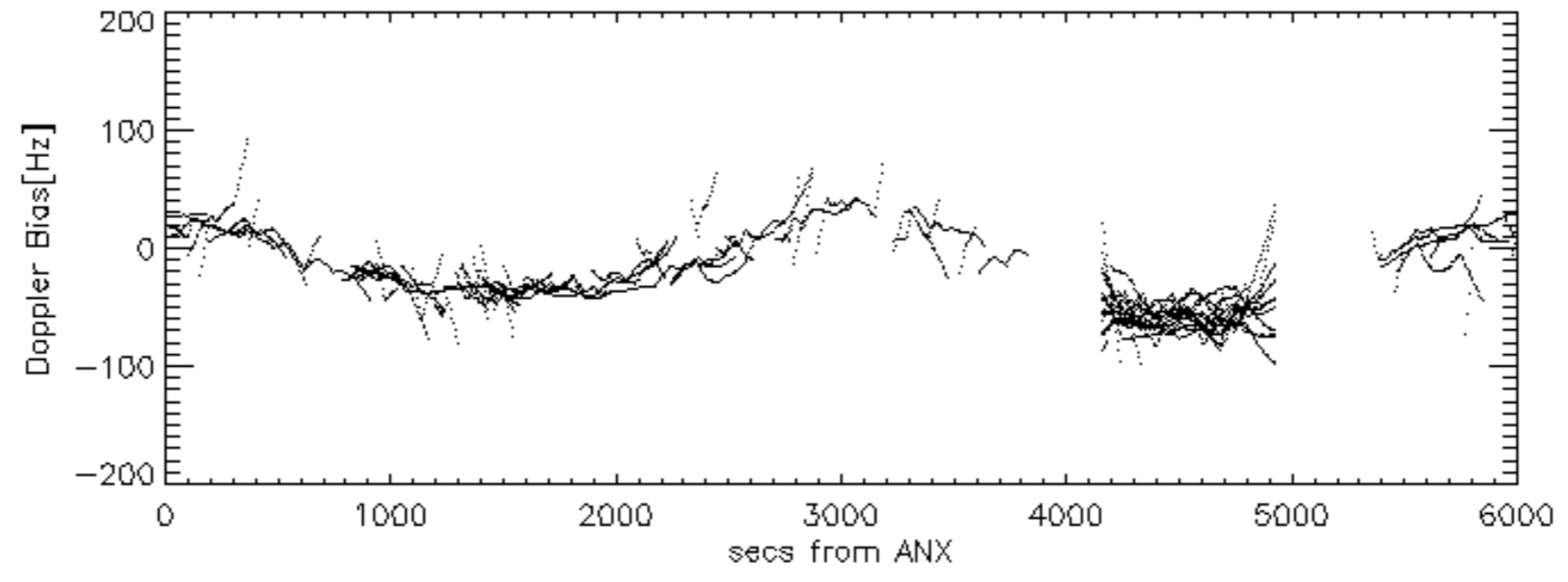
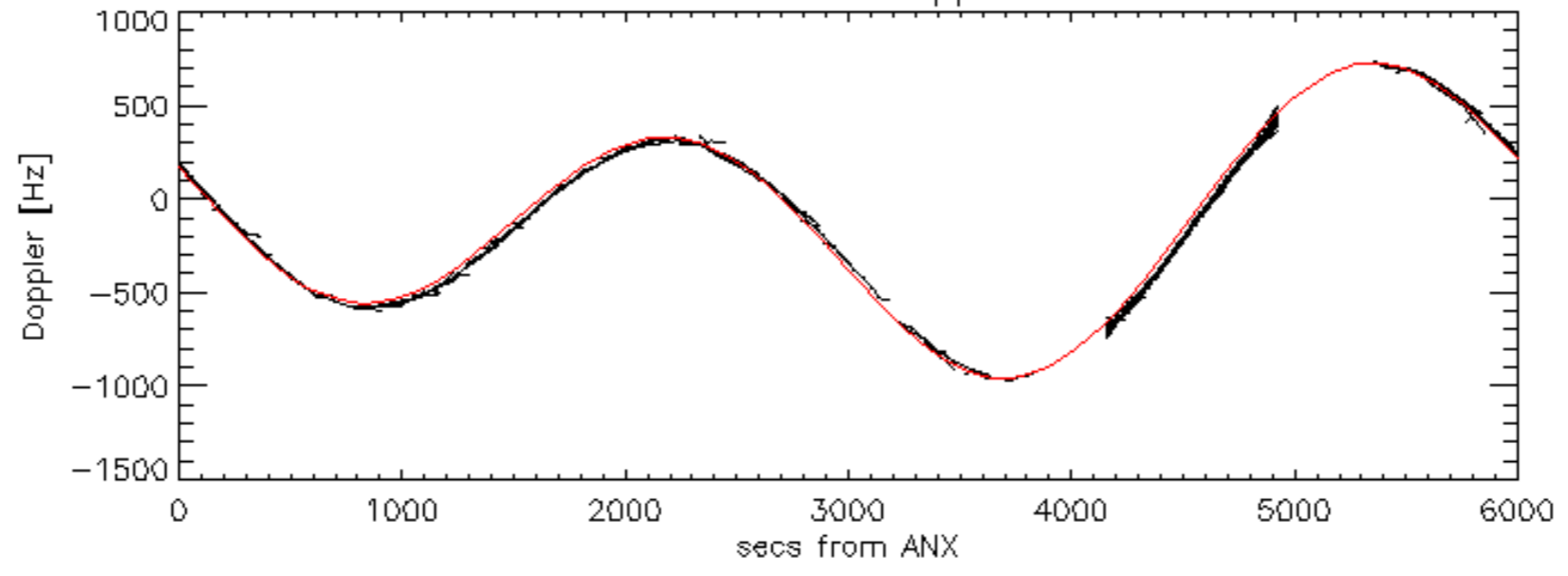
Doppler 'WVS' 'IS2' ascending

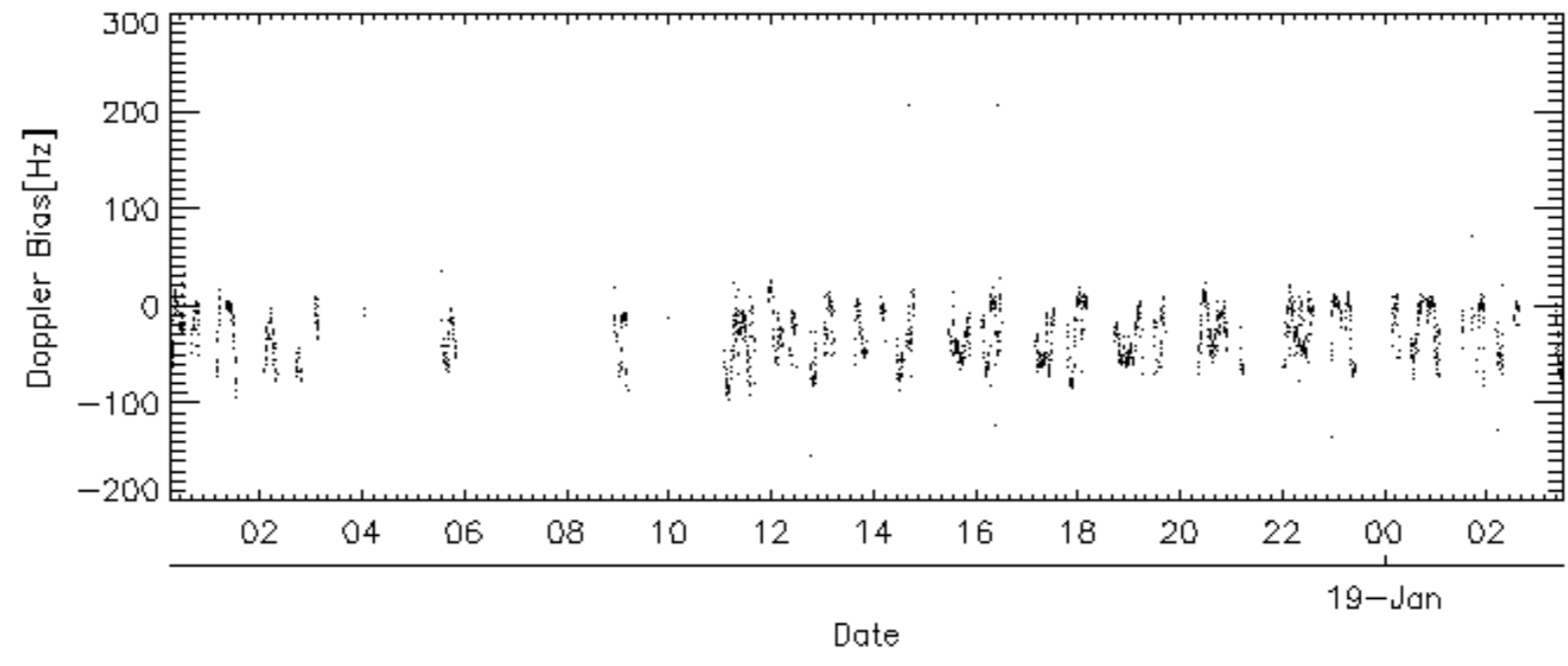
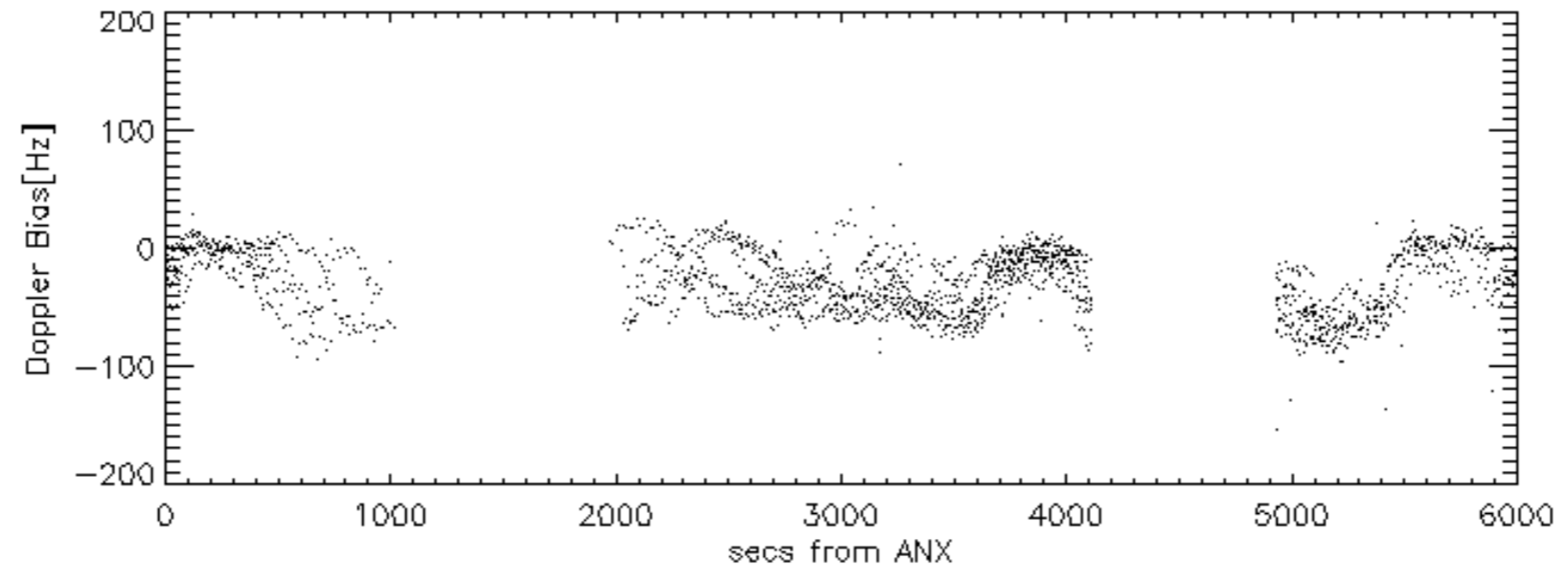
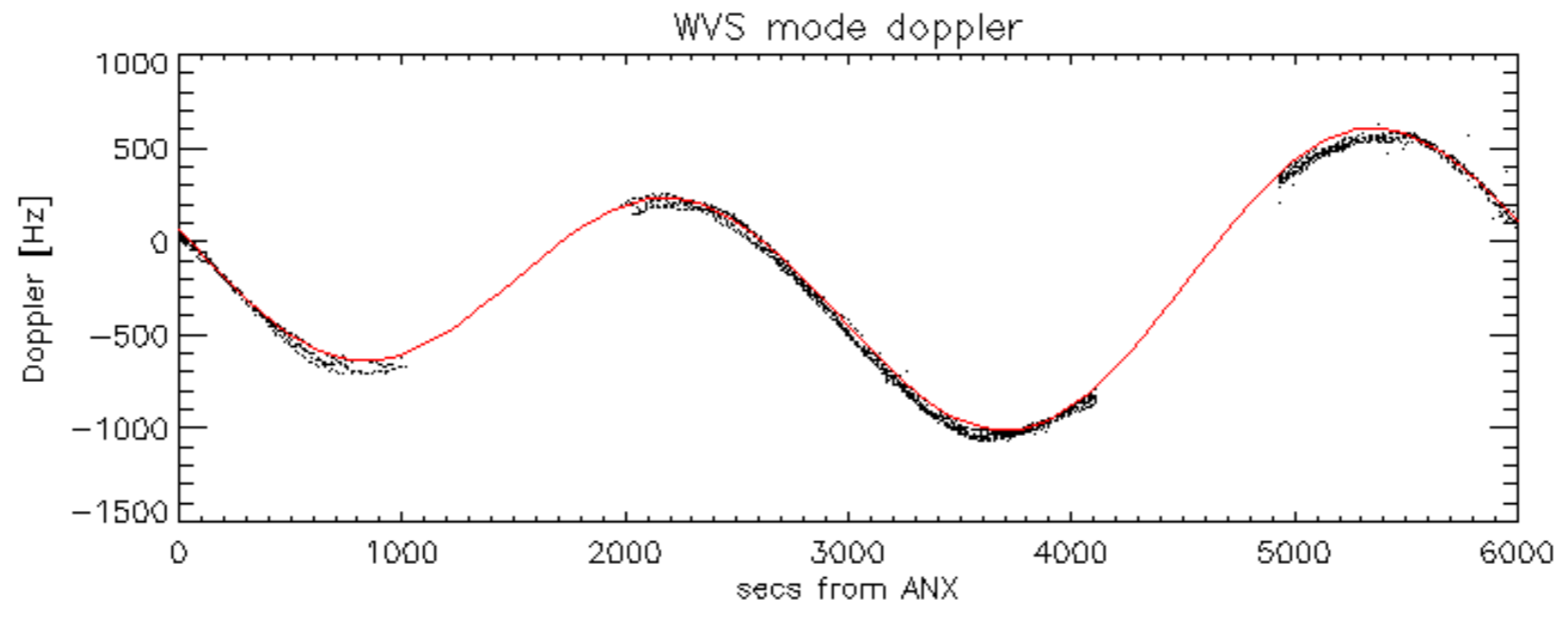


Doppler 'WVS' 'IS2' descending

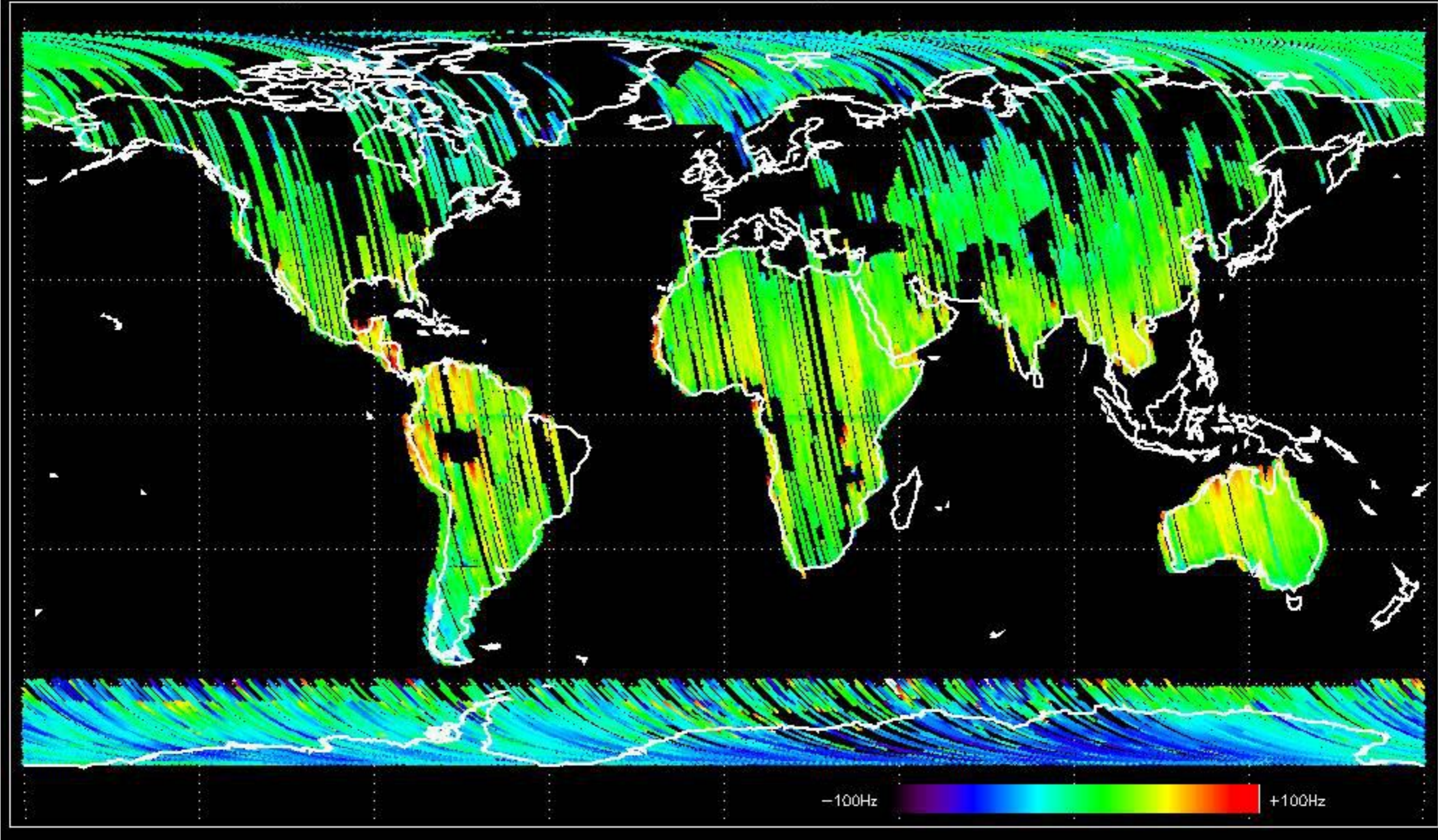


GM1 mode doppler

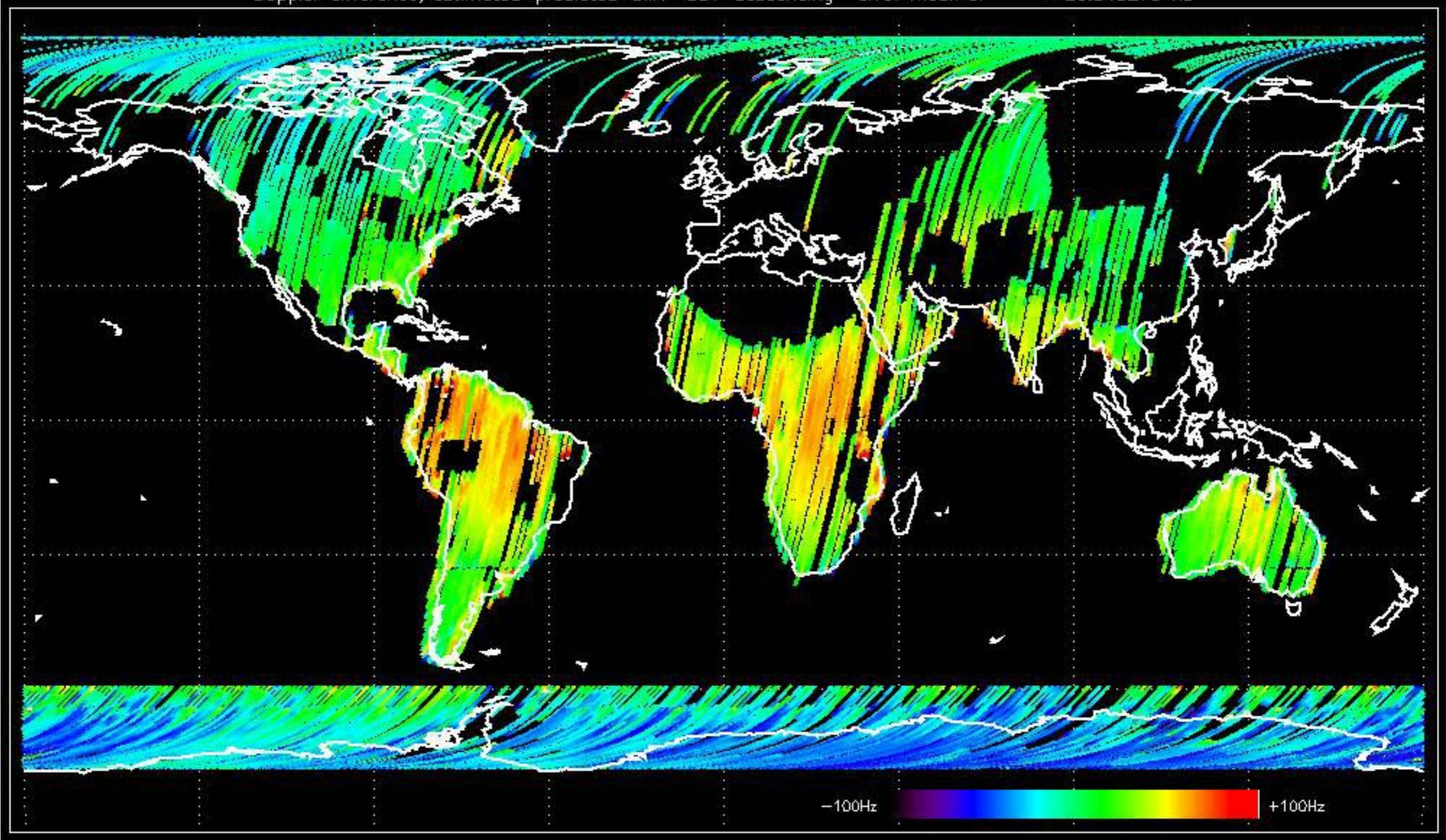




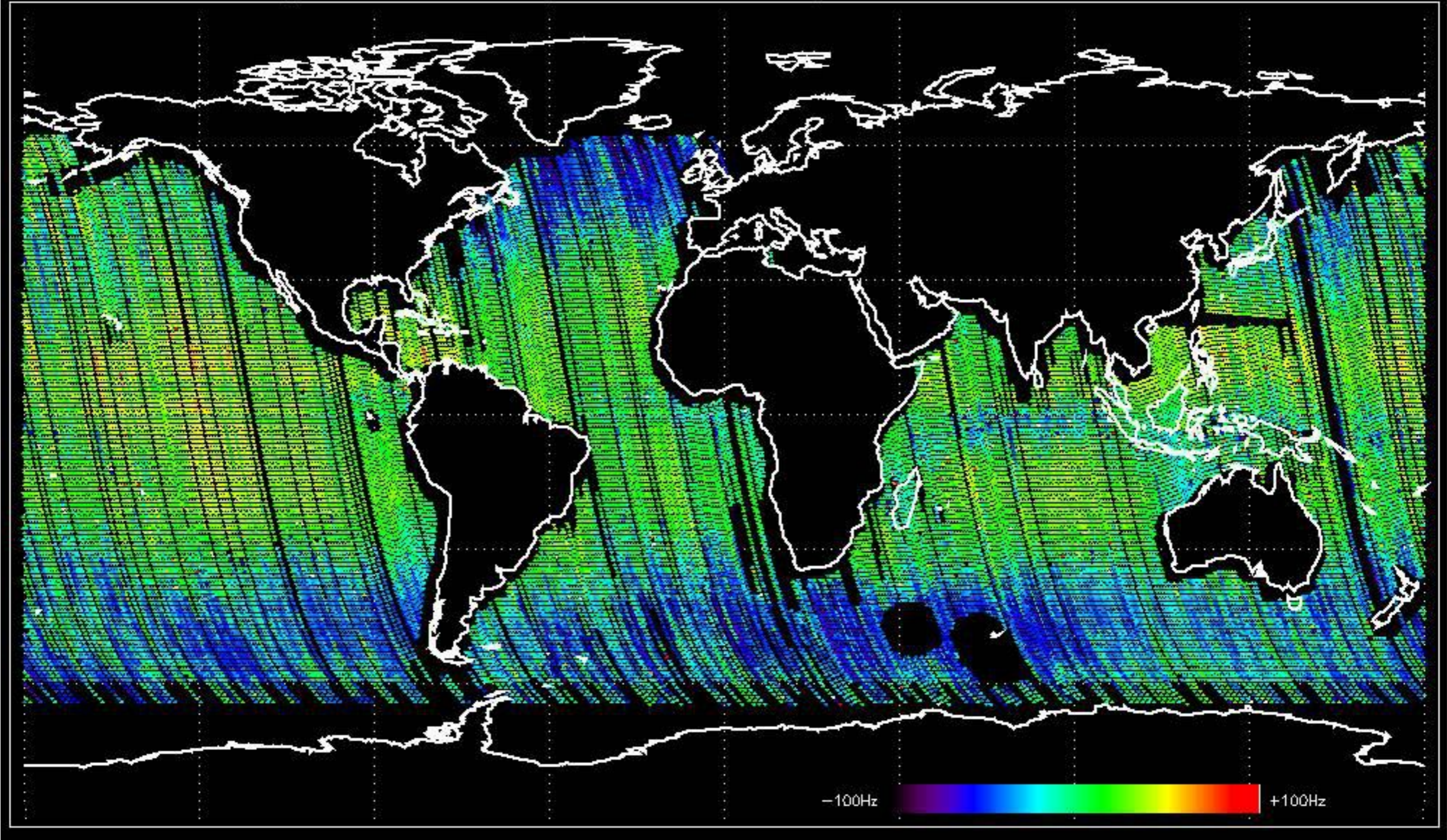
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -32.845922 Hz



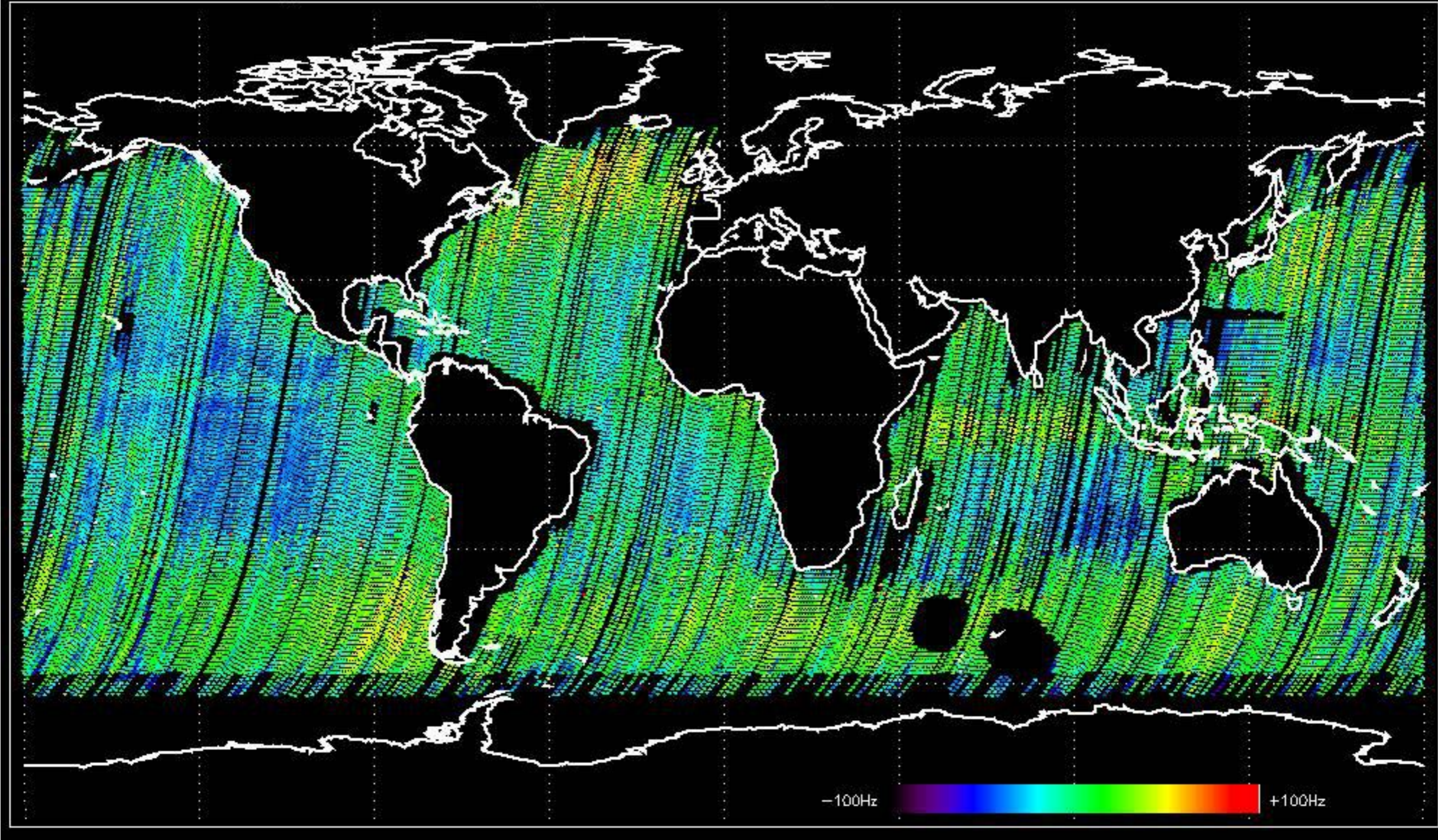
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.318279 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -34.705472 Hz

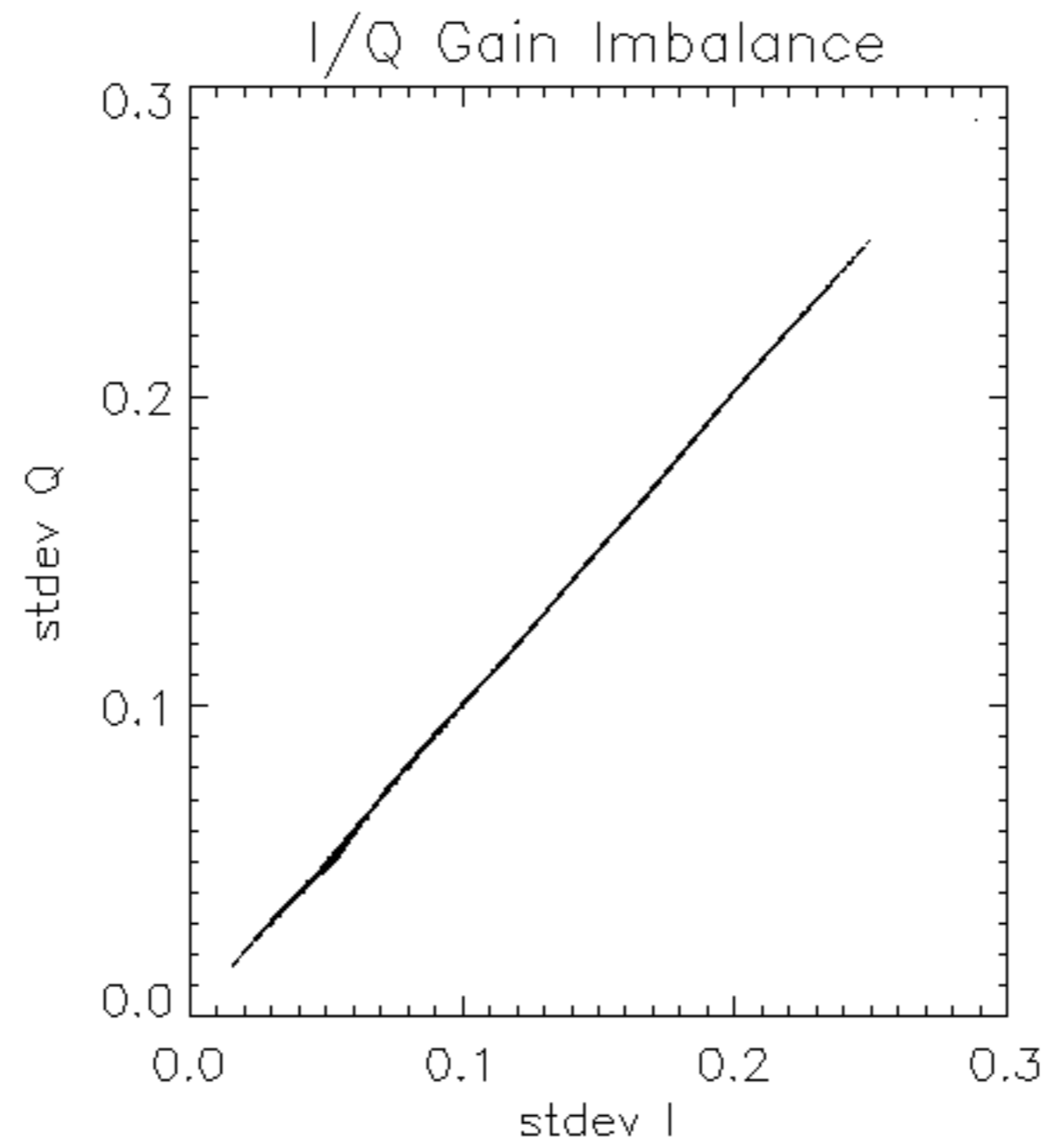


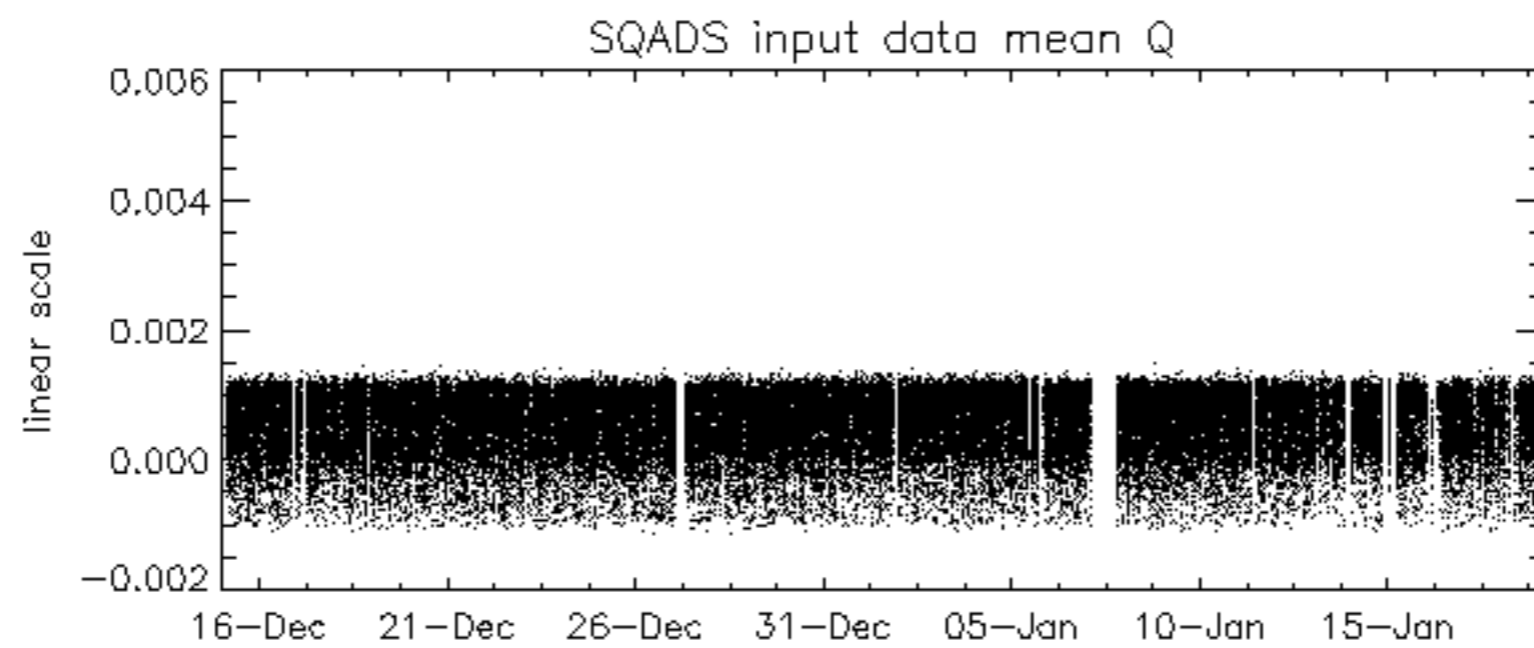
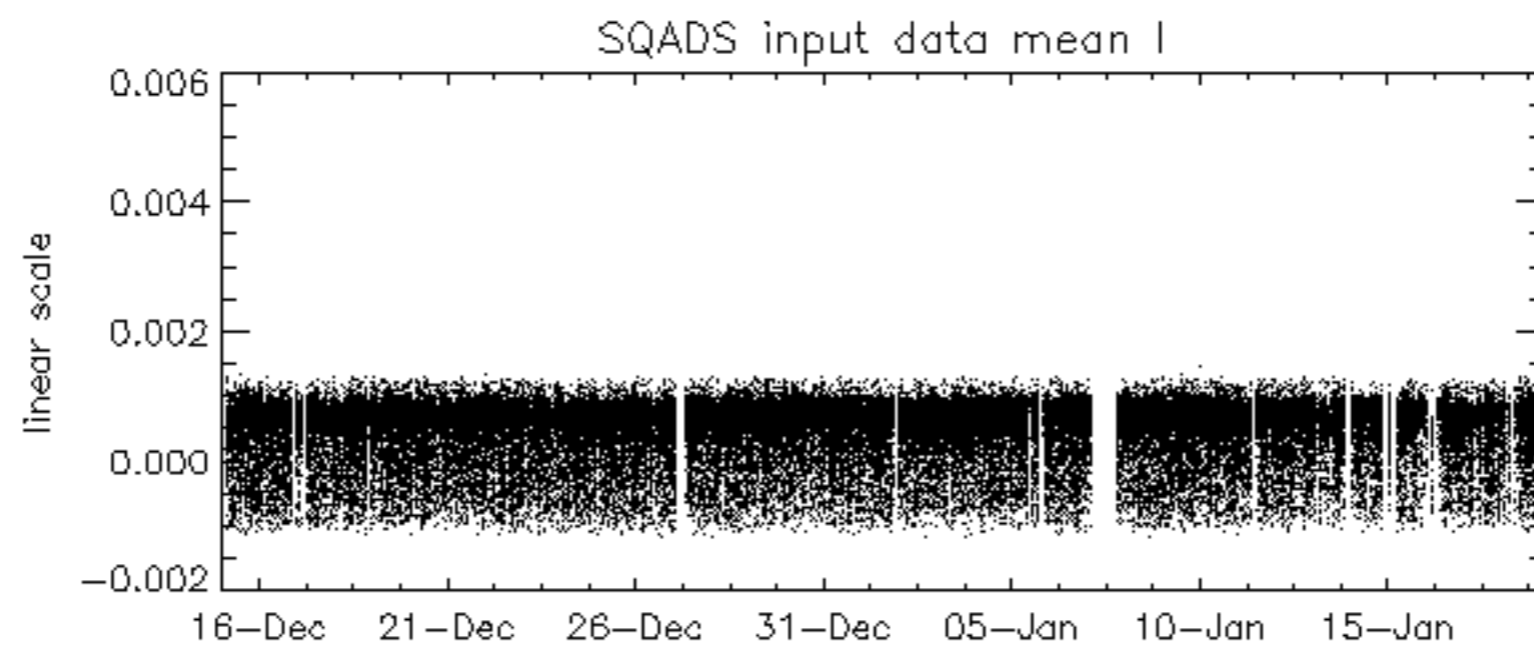
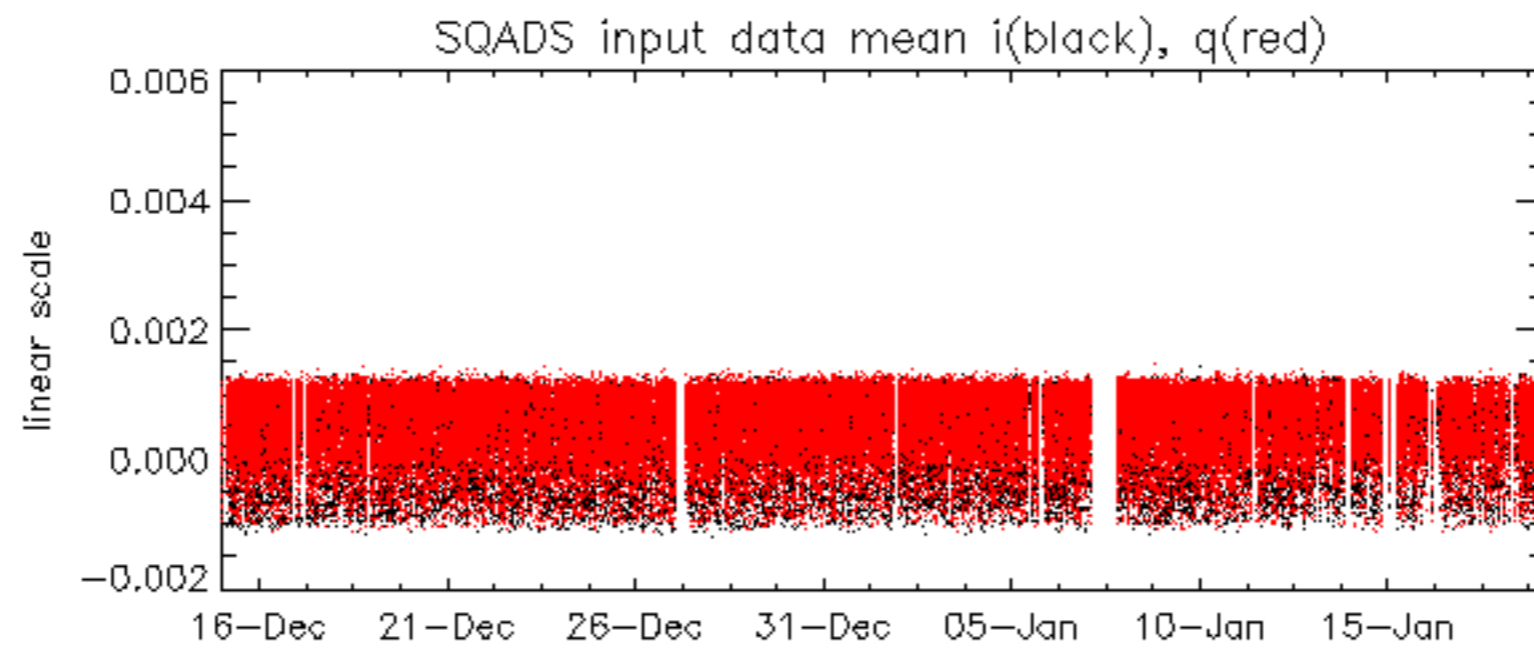
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.587086 Hz

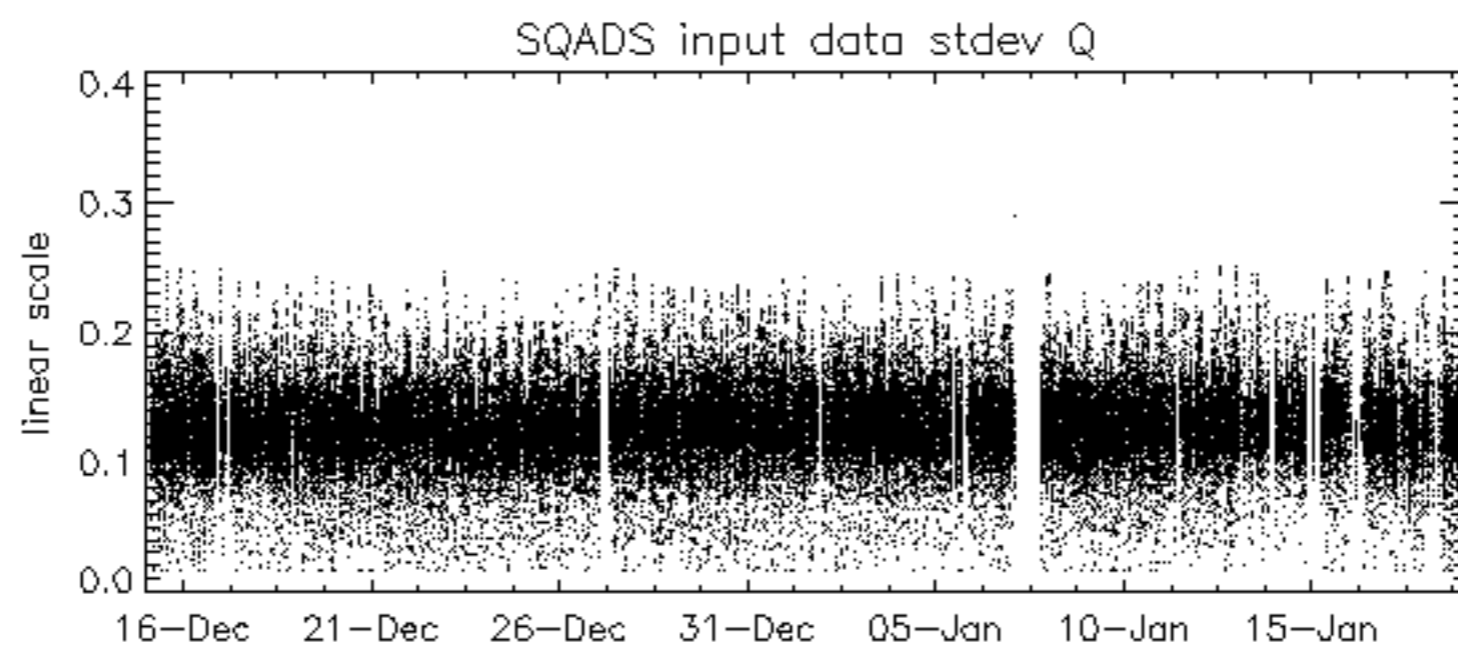
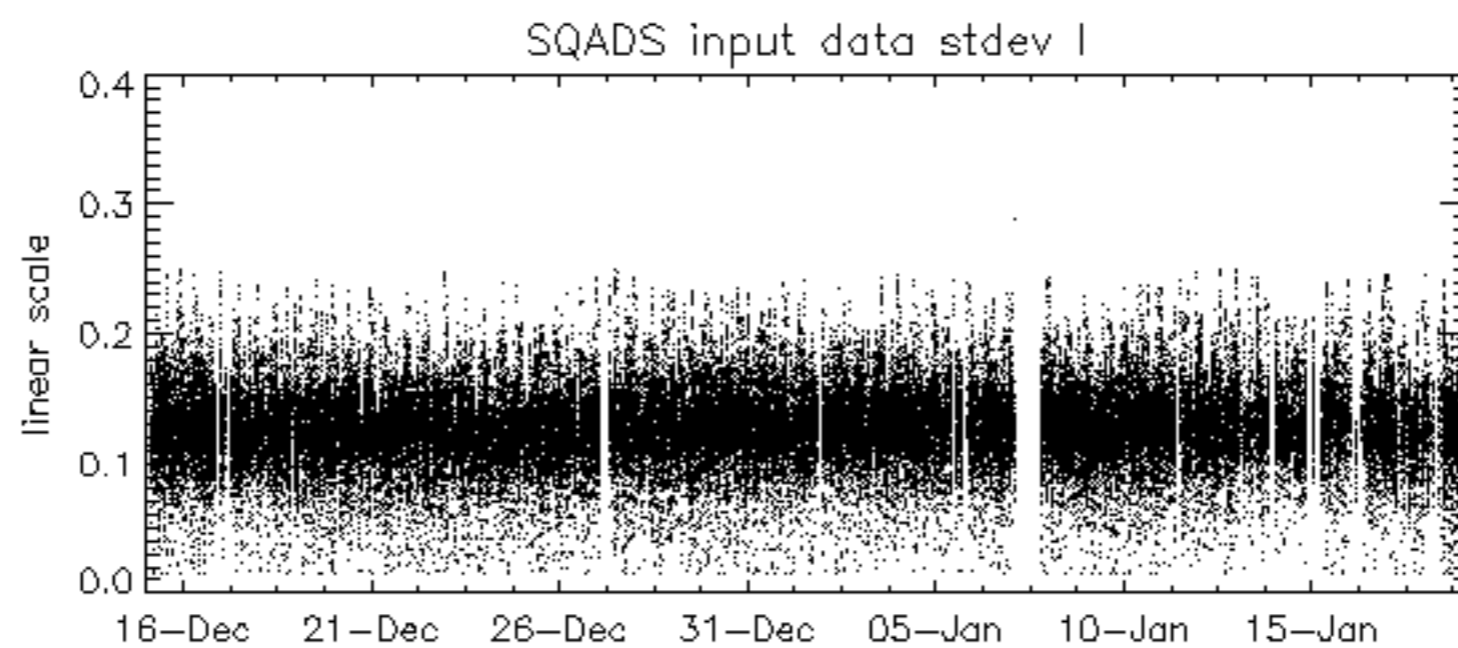
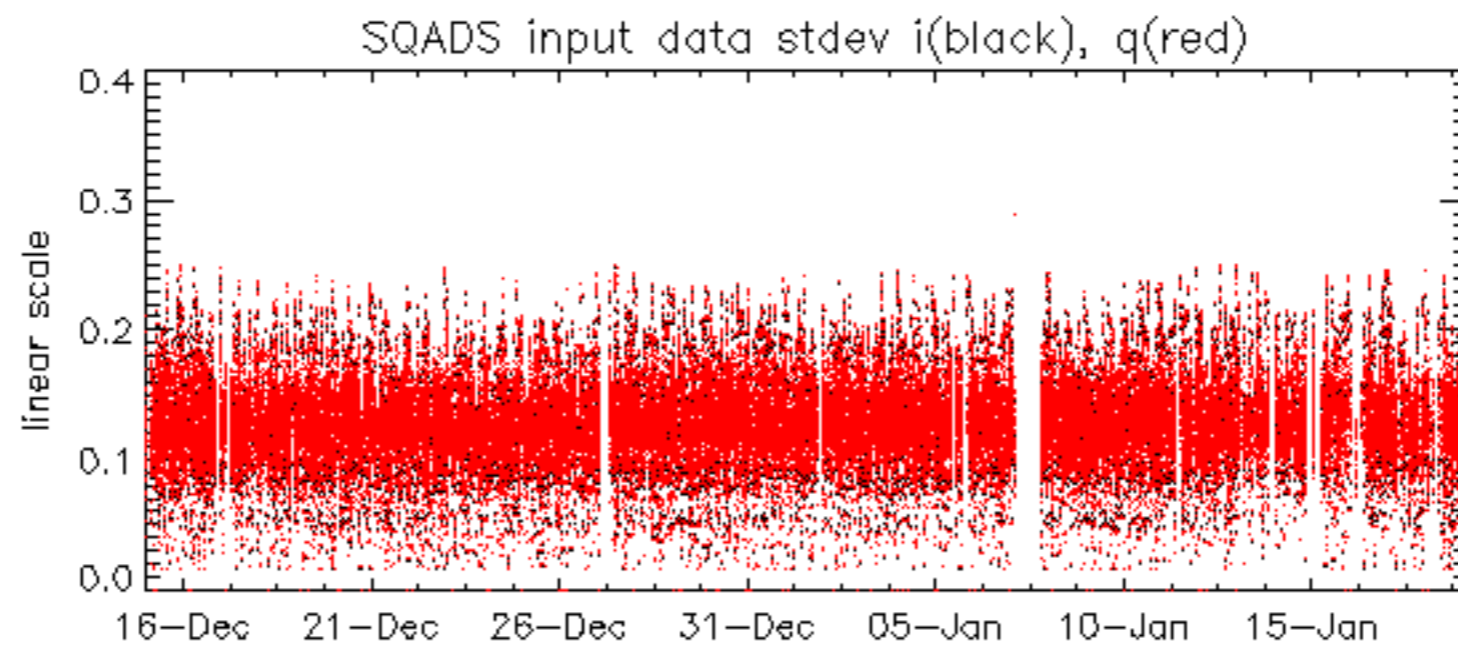


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The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

No anomalies observed.



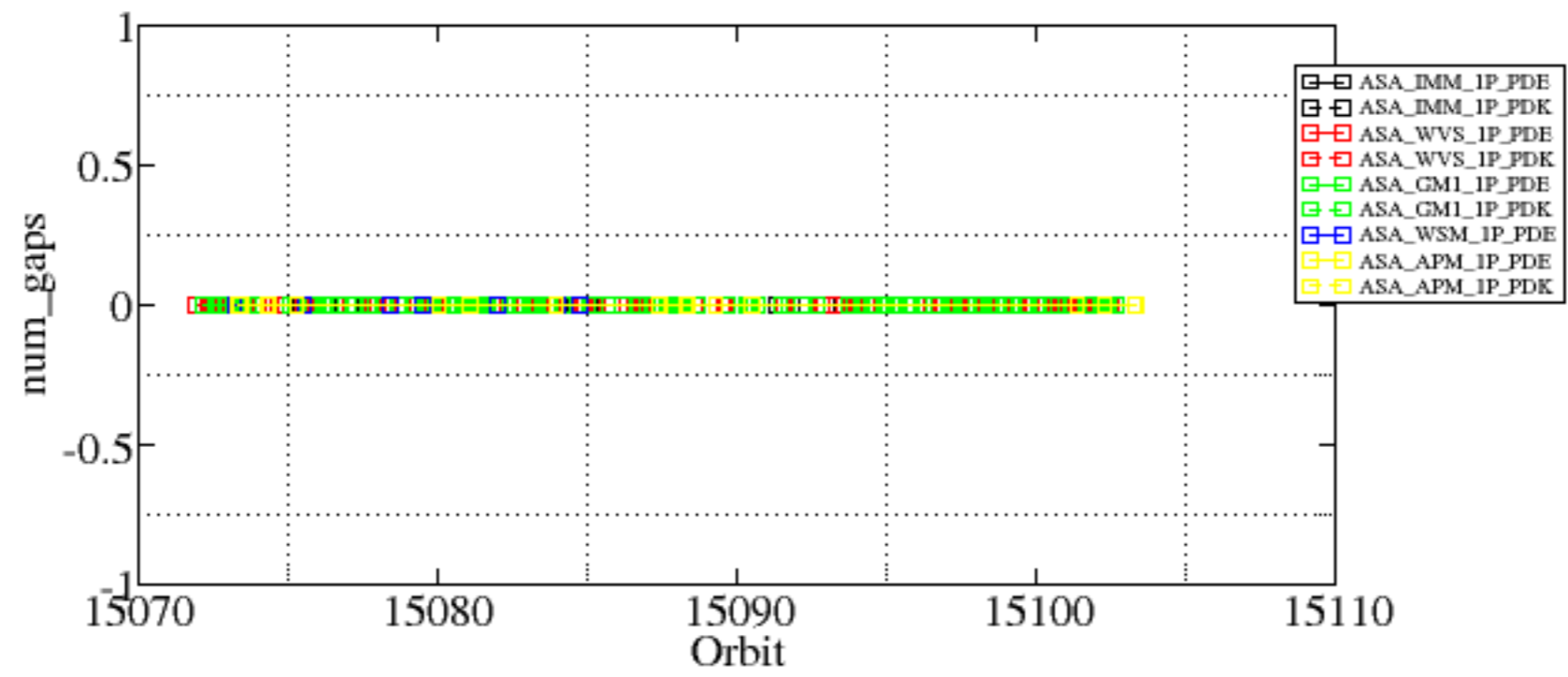


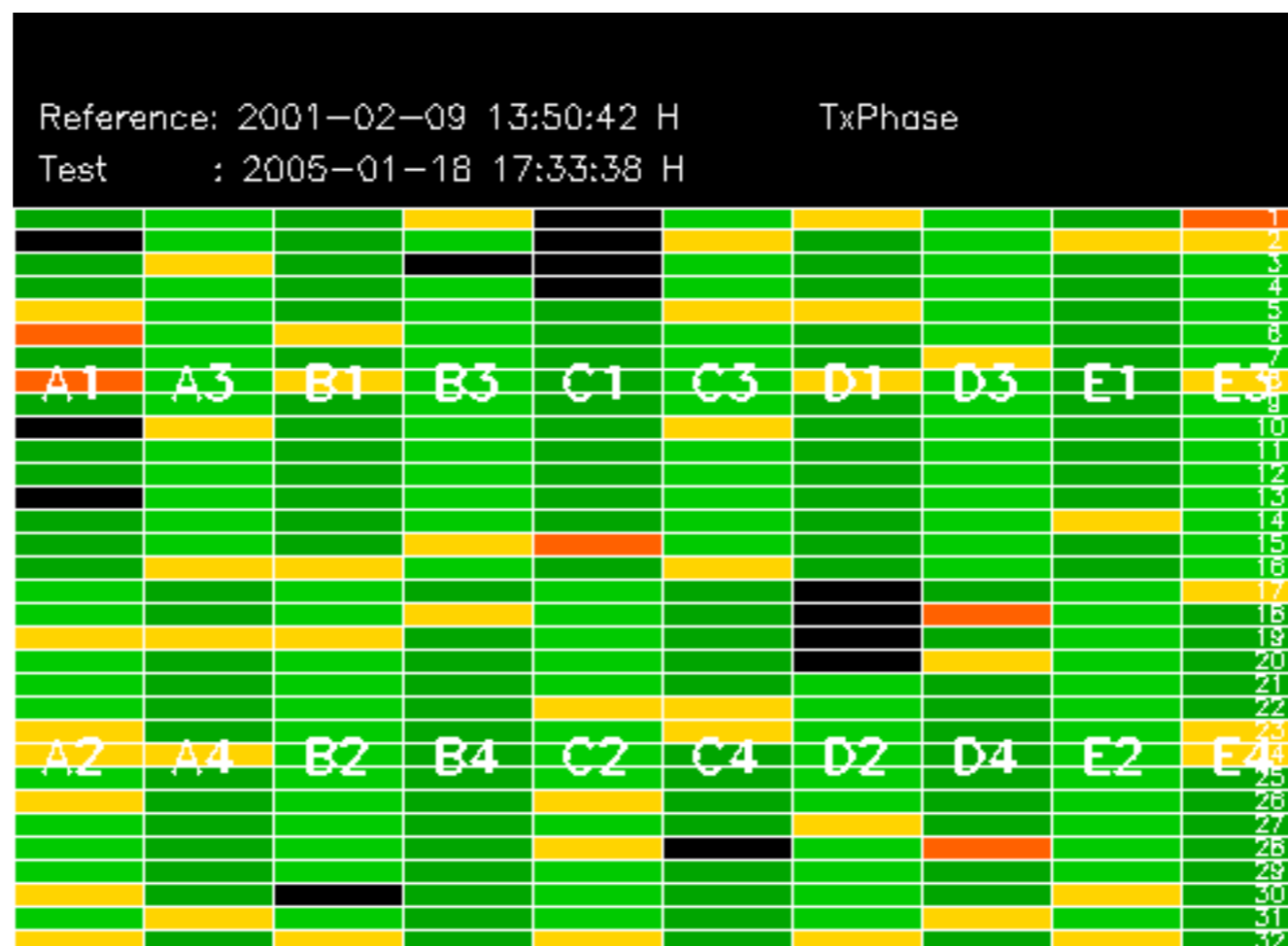


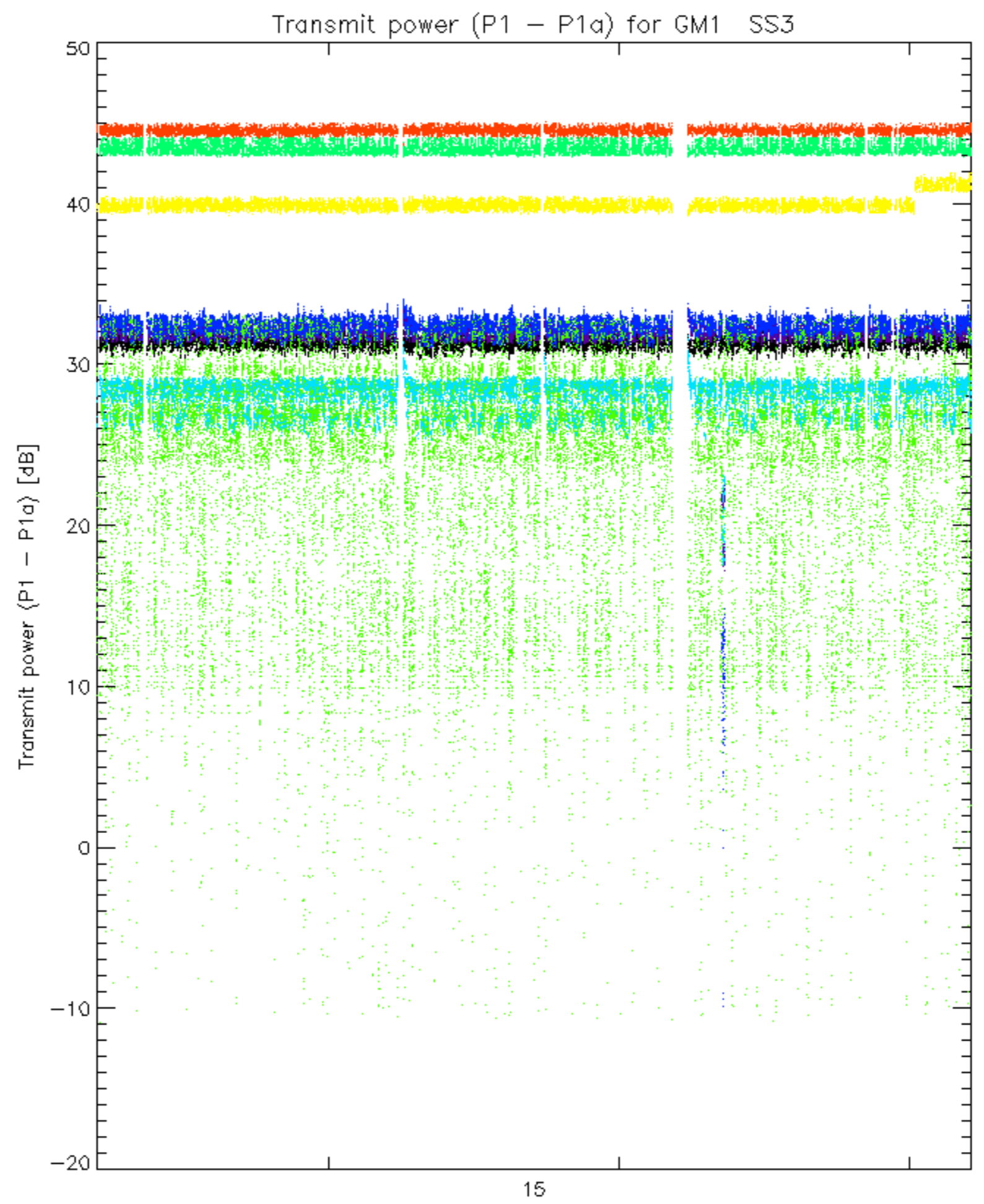
Summary of analysis for the last 3 days 2005011[789]

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

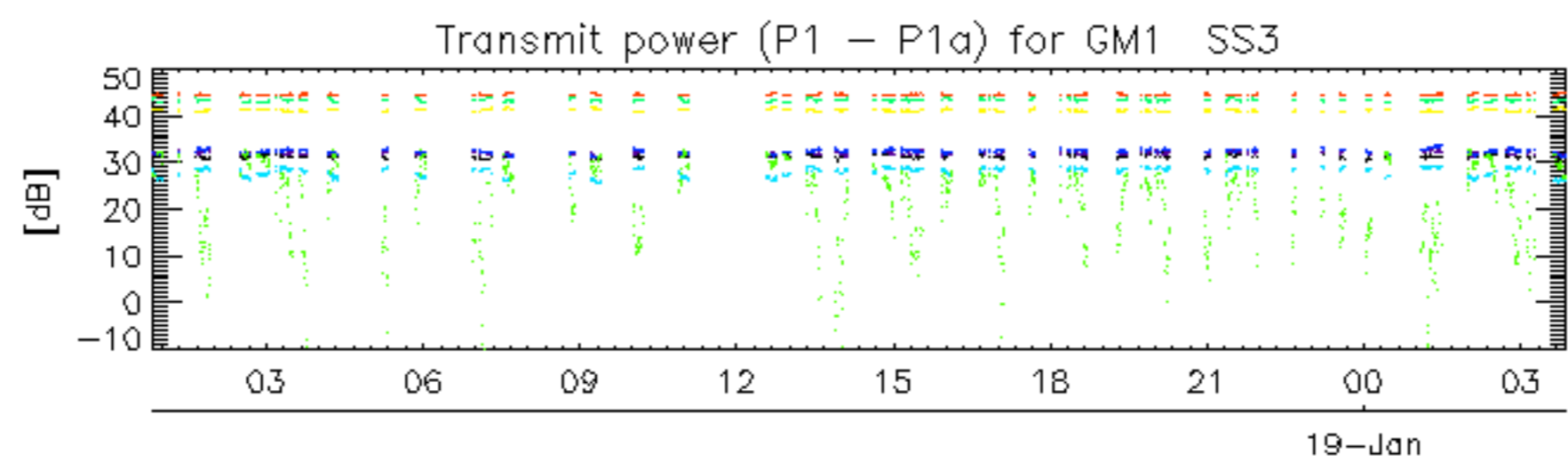
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050117_165904_000002202033_00499_15082_0025.N1	0	2



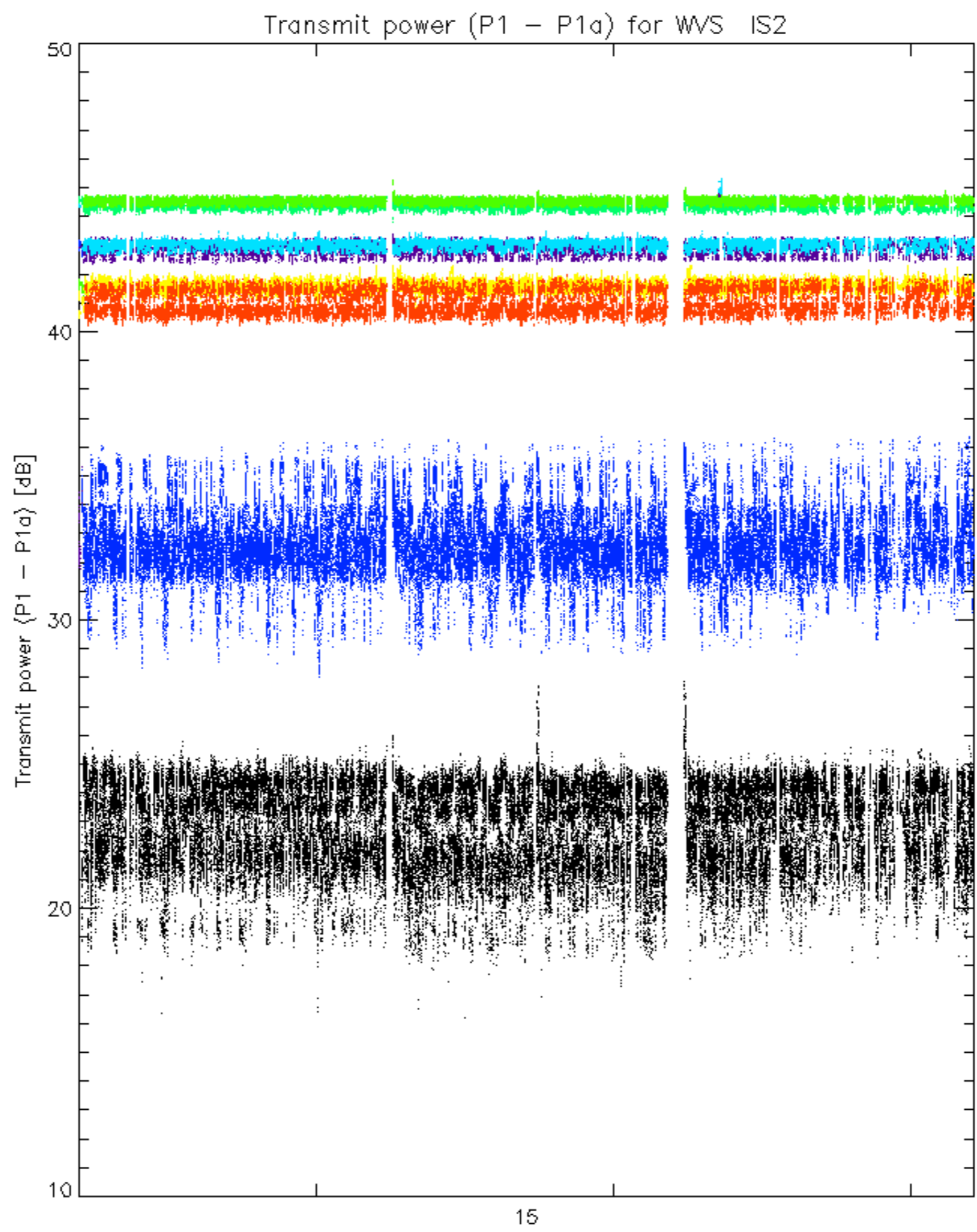




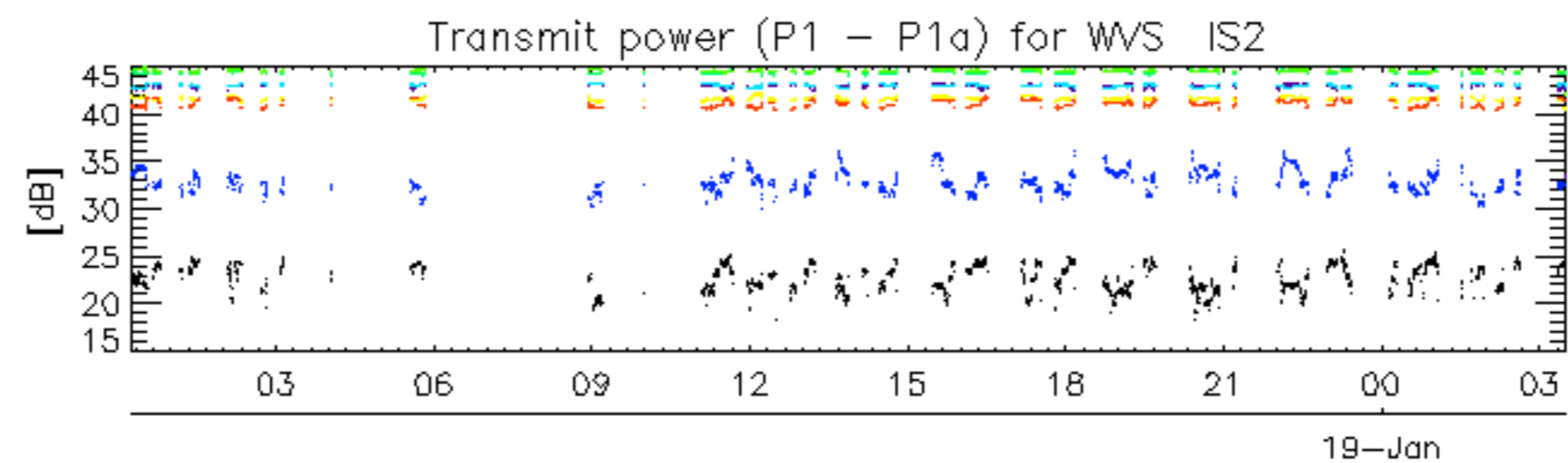
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.