

PRELIMINARY REPORT OF 050219

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

last update on Tue Feb 22 08:44:57 GMT 2005

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2005-02-21 00:00:00 to 2005-02-22 08:44:57

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	25	0	0	5
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	25	0	0	5
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	27	25	0	0	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	25	0	0	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	43	6	6	1
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	38	43	6	6	1
ASA_CON_AXVIEC20041215_175442_20030601_000000_20051231_000000	38	43	6	6	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	43	6	6	1

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 product acquired in 18-FEB-2001 is corrupted

Polarisation	Start Time
V	20050217 100807
H	20050218 143818

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.385255	0.008620	0.049065
7	P1	-3.081433	0.007659	-0.010962
11	P1	-4.674871	0.019234	-0.031556
15	P1	-5.655208	0.030455	-0.004183
19	P1	-3.665703	0.004142	-0.003908
22	P1	-4.543451	0.013803	0.047116
26	P1	-4.943302	0.013777	-0.007878
30	P1	-7.159581	0.017334	-0.037845
3	P1	-15.927311	0.090459	-0.101749
7	P1	-15.514388	0.060294	-0.009418
11	P1	-20.887928	0.250758	-0.075997
15	P1	-11.591730	0.028557	0.035912
19	P1	-14.204015	0.025408	-0.094067
22	P1	-15.819736	0.354386	0.238750
26	P1	-17.601931	0.225339	-0.005133
30	P1	-17.918898	0.398864	-0.011362

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.174246	0.085515	0.157889
7	P2	-22.367426	0.104897	0.140108
11	P2	-14.587097	0.101006	0.171647
15	P2	-7.080039	0.094743	0.055623
19	P2	-9.672926	0.093721	0.053487
22	P2	-16.990345	0.093830	0.116230
26	P2	-16.469677	0.091402	0.049836
30	P2	-18.901196	0.079368	0.035119

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175399	0.005727	0.029399
7	P3	-8.175399	0.005727	0.029399
11	P3	-8.175399	0.005727	0.029399
15	P3	-8.175399	0.005727	0.029399
19	P3	-8.175399	0.005727	0.029399
22	P3	-8.175399	0.005727	0.029399
26	P3	-8.175291	0.005726	0.029187
30	P3	-8.175291	0.005726	0.029187

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-2.769305	0.020652	0.088045
7	P1	-2.984222	0.084189	-0.035457
11	P1	-3.967966	0.024840	-0.035792
15	P1	-3.541201	0.023745	-0.032771
19	P1	-3.593251	0.014508	0.019146
22	P1	-5.708361	0.054894	-0.066372
26	P1	-7.313201	0.032212	0.053039
30	P1	-6.254111	0.042222	0.064208
3	P1	-10.756096	0.099088	0.028615
7	P1	-10.204589	0.202138	-0.141171
11	P1	-12.560949	0.131158	-0.041820
15	P1	-11.754951	0.085094	0.024722
19	P1	-15.577868	0.057176	0.024616
22	P1	-24.213219	1.421268	-0.354377

26	P1	-15.585851	0.240054	0.241629
30	P1	-20.092789	0.920970	-0.215941

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.882389	0.048417	0.147121
7	P2	-22.424635	0.143366	0.060637
11	P2	-10.357067	0.056081	0.248051
15	P2	-4.997612	0.020853	0.046842
19	P2	-6.862606	0.031377	0.090079
22	P2	-7.168348	0.054092	0.124445
26	P2	-23.871305	0.109055	0.041843
30	P2	-21.937950	0.063867	0.043594

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.007898	0.002526	0.034070
7	P3	-8.007959	0.002537	0.034419
11	P3	-8.007911	0.002540	0.034313
15	P3	-8.007914	0.002533	0.033692
19	P3	-8.007987	0.002549	0.034296
22	P3	-8.007968	0.002534	0.034330
26	P3	-8.007800	0.002537	0.033929
30	P3	-8.007932	0.002537	0.033684

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	0.000468413
	stdev	2.17987e-07
MEAN Q	mean	0.000537826
	stdev	2.31285e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128892
	stdev	0.000983487
STDEV Q	mean	0.129137
	stdev	0.000994167



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005021[789]

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_IMM_1PNPDE20050217_003420_000001522034_00431_15515_2702.N1	1	0







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)


Acsending

<input type="checkbox"/>
Descending

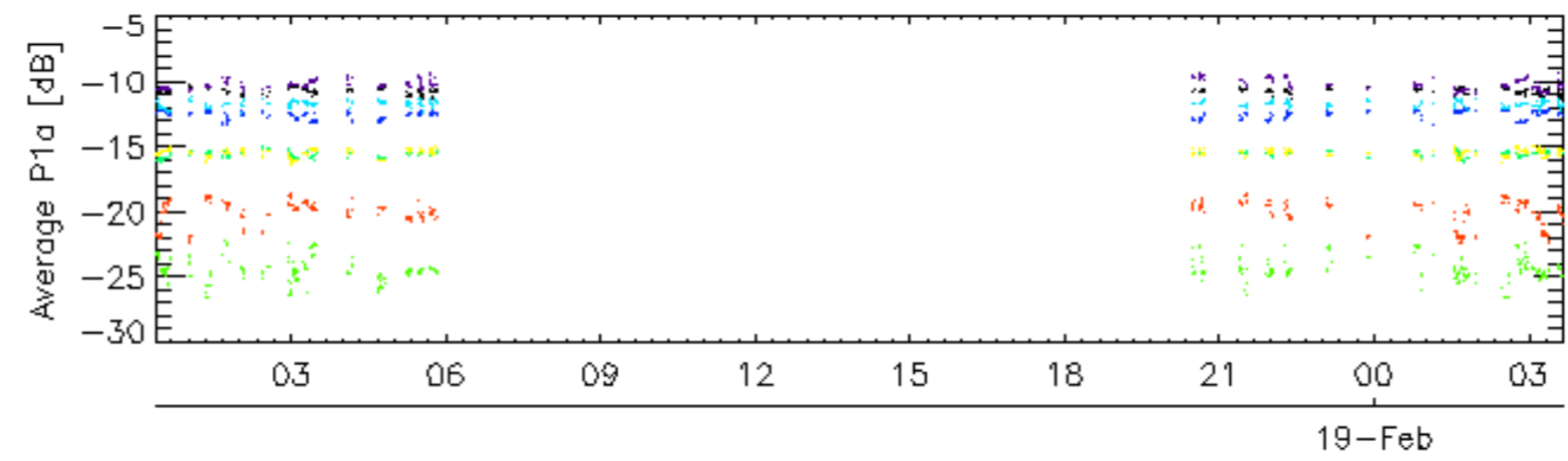
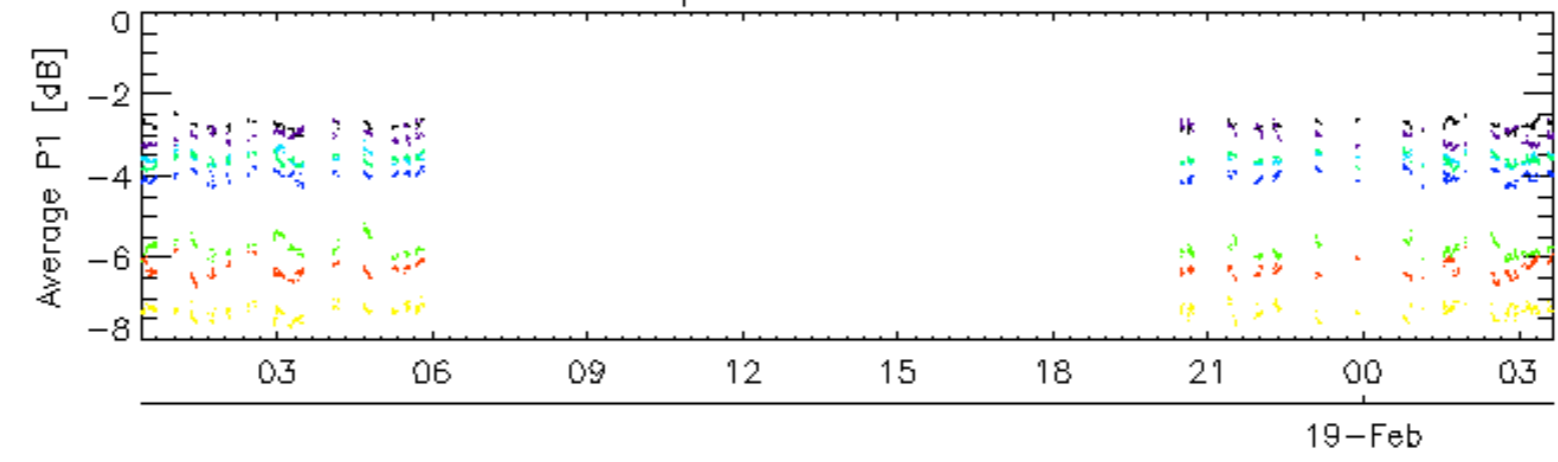
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

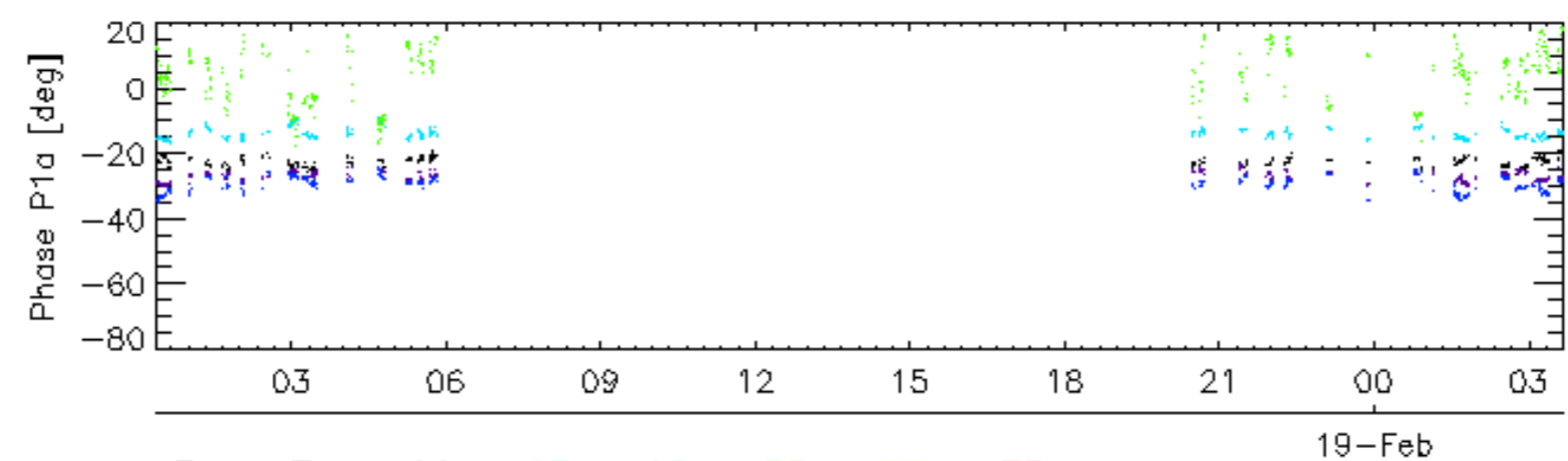
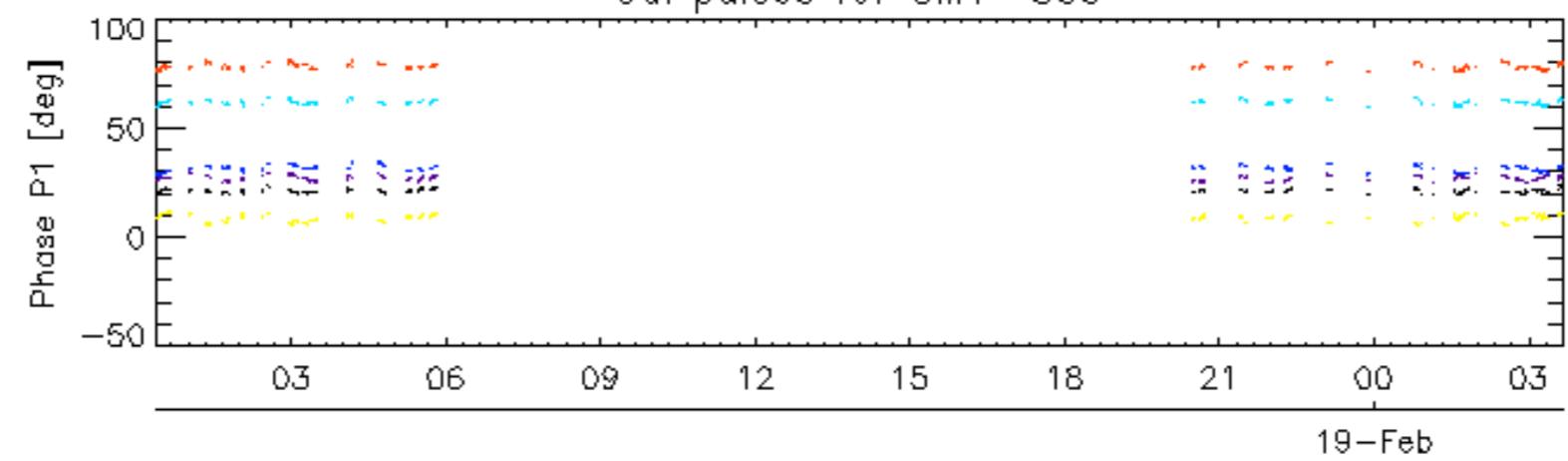
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

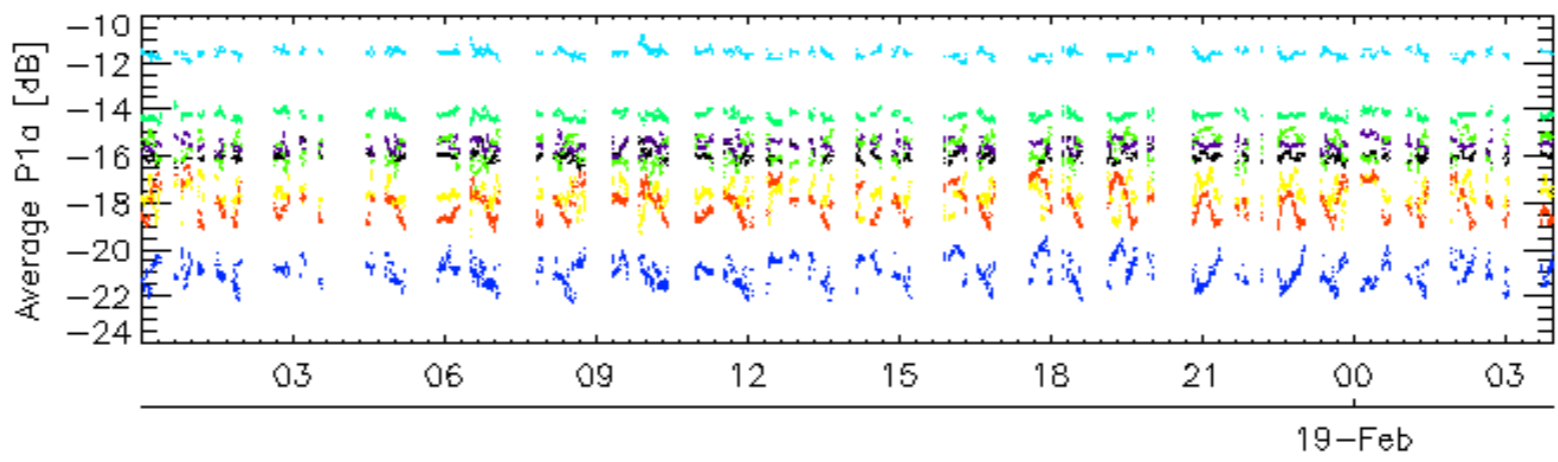
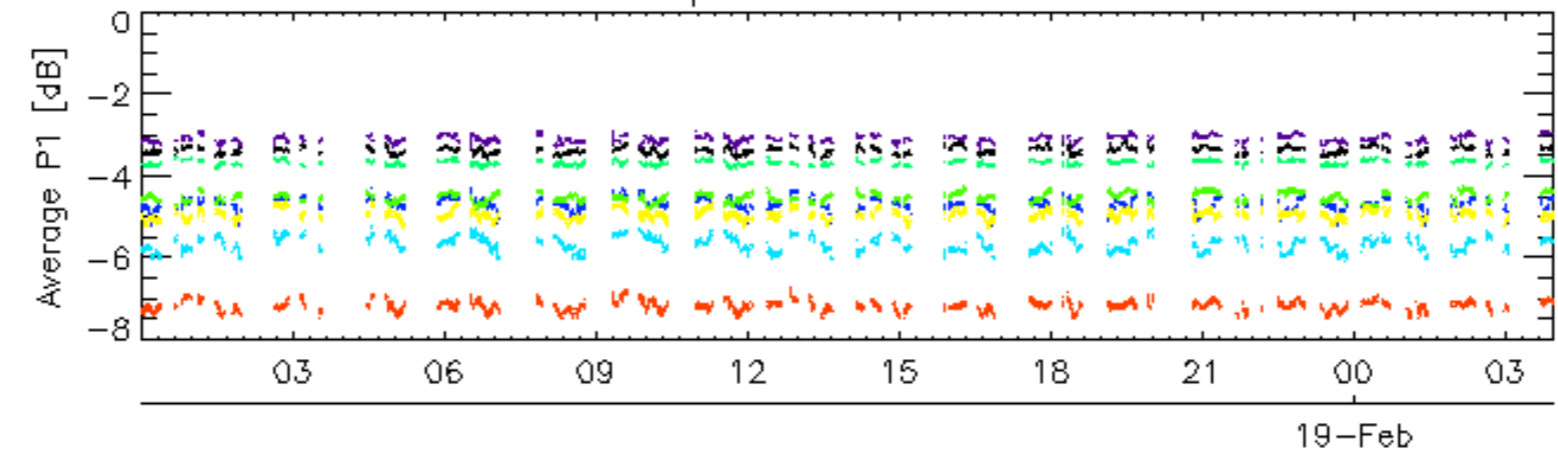


Cal pulses for GM1 SS3

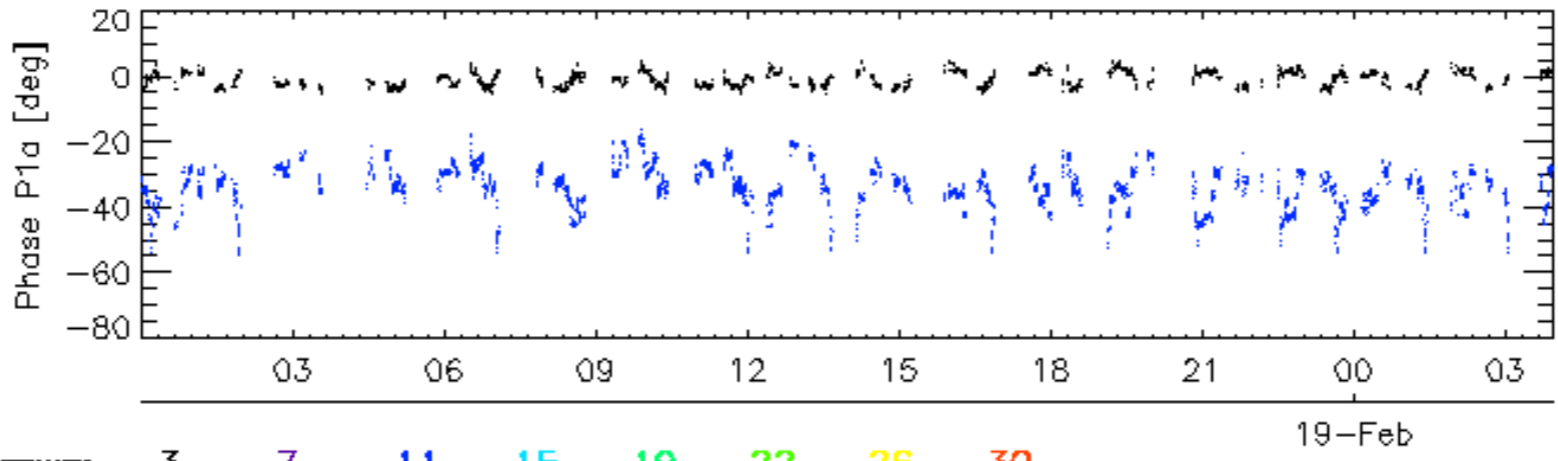
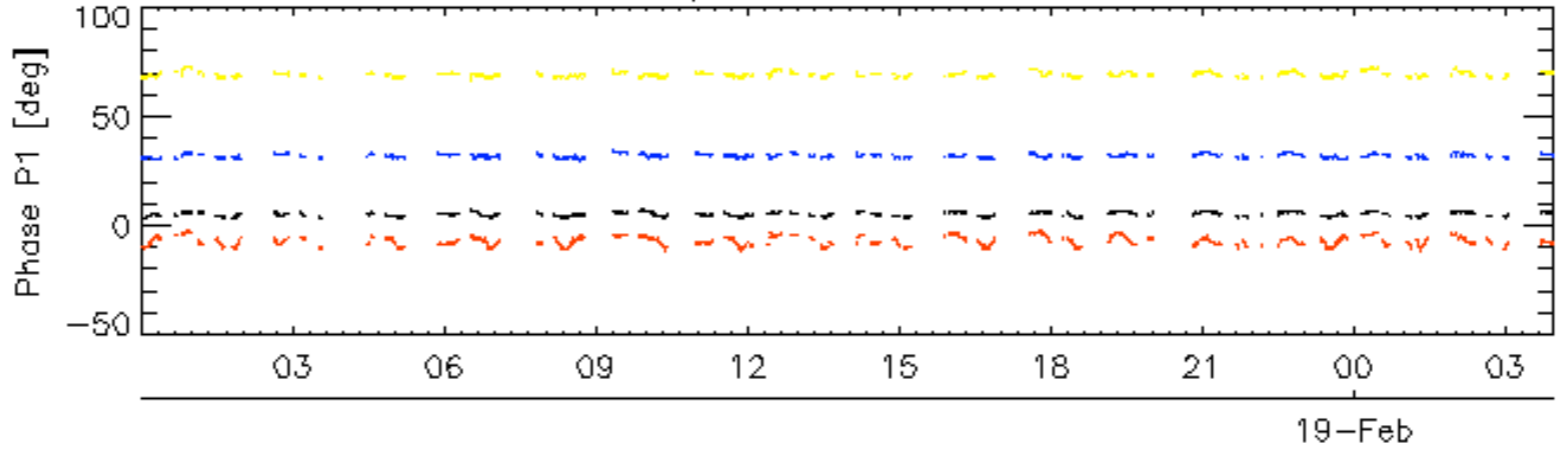


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

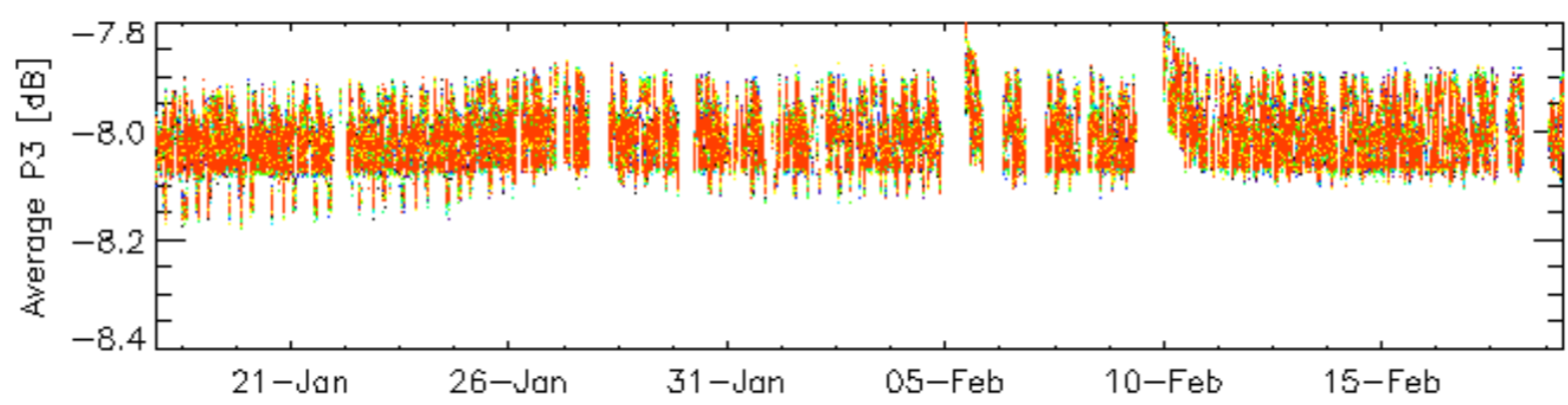
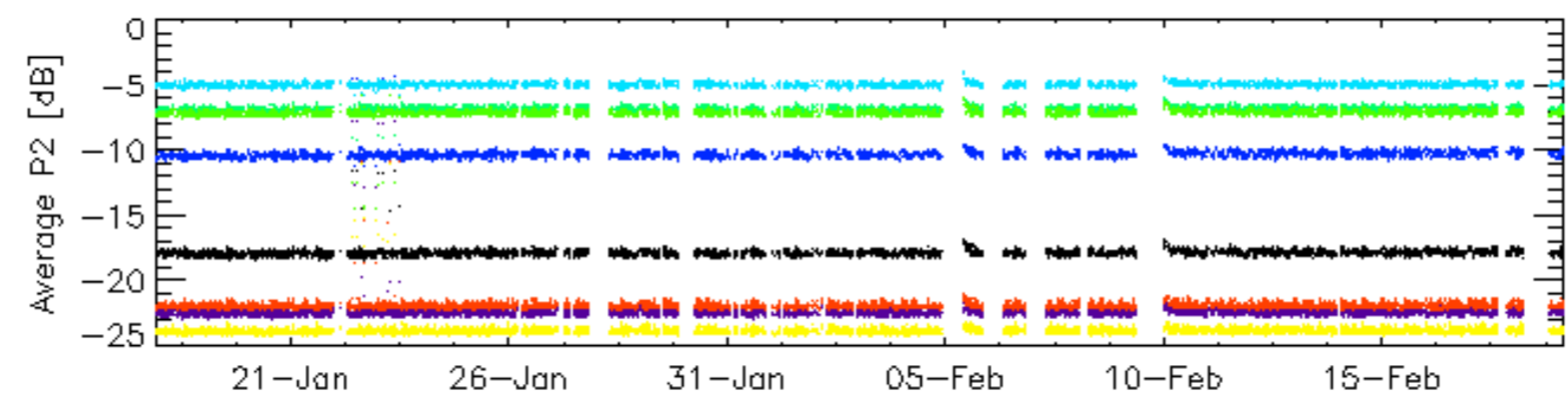
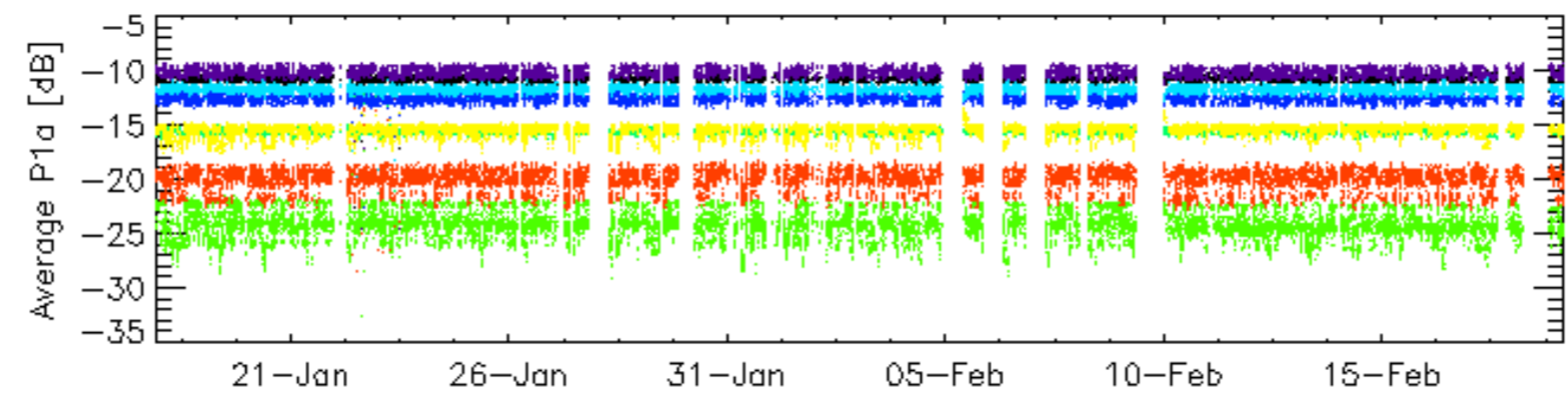
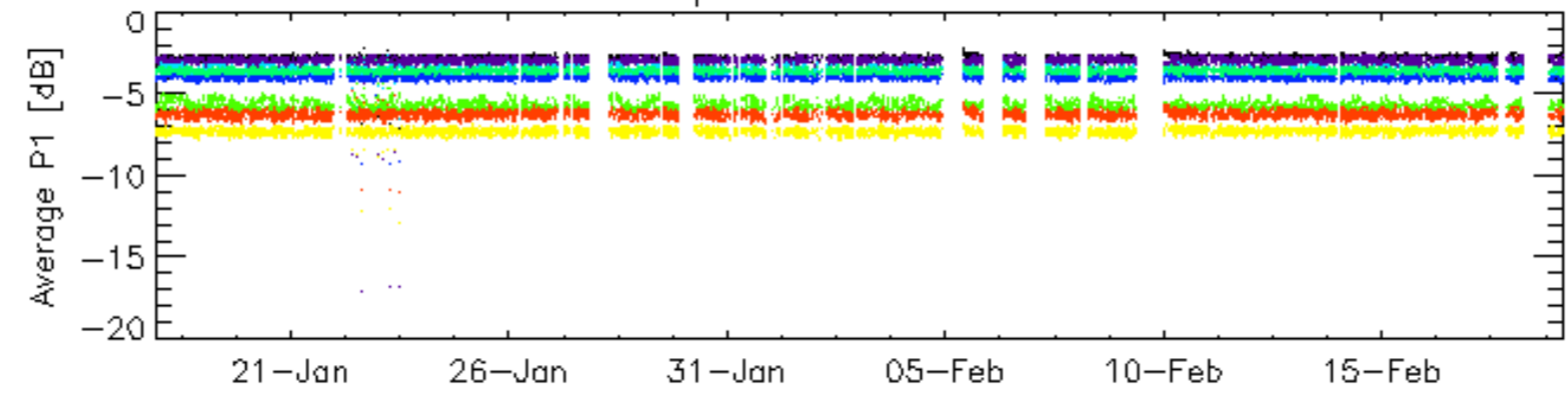


Cal pulses for WVS IS2



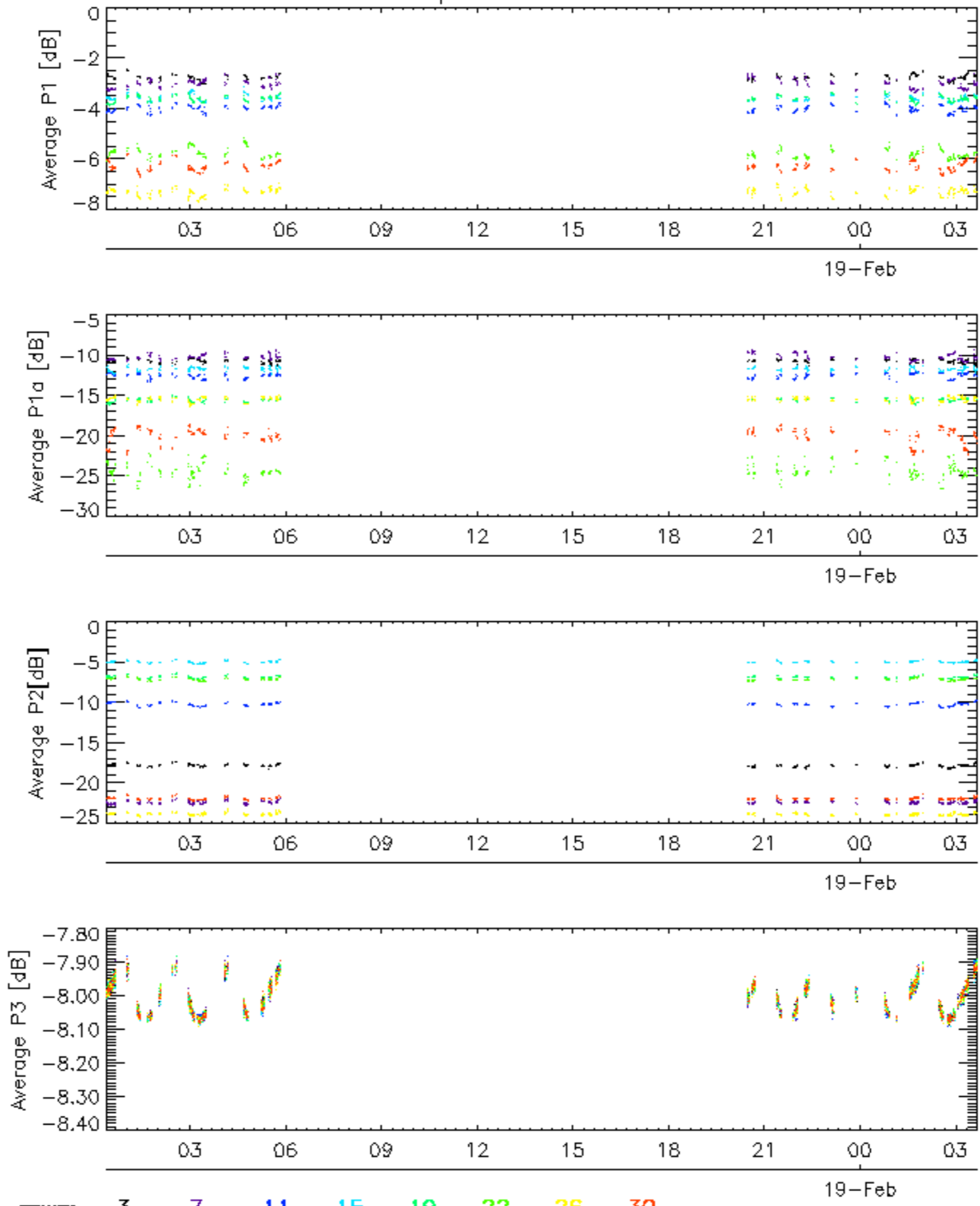
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

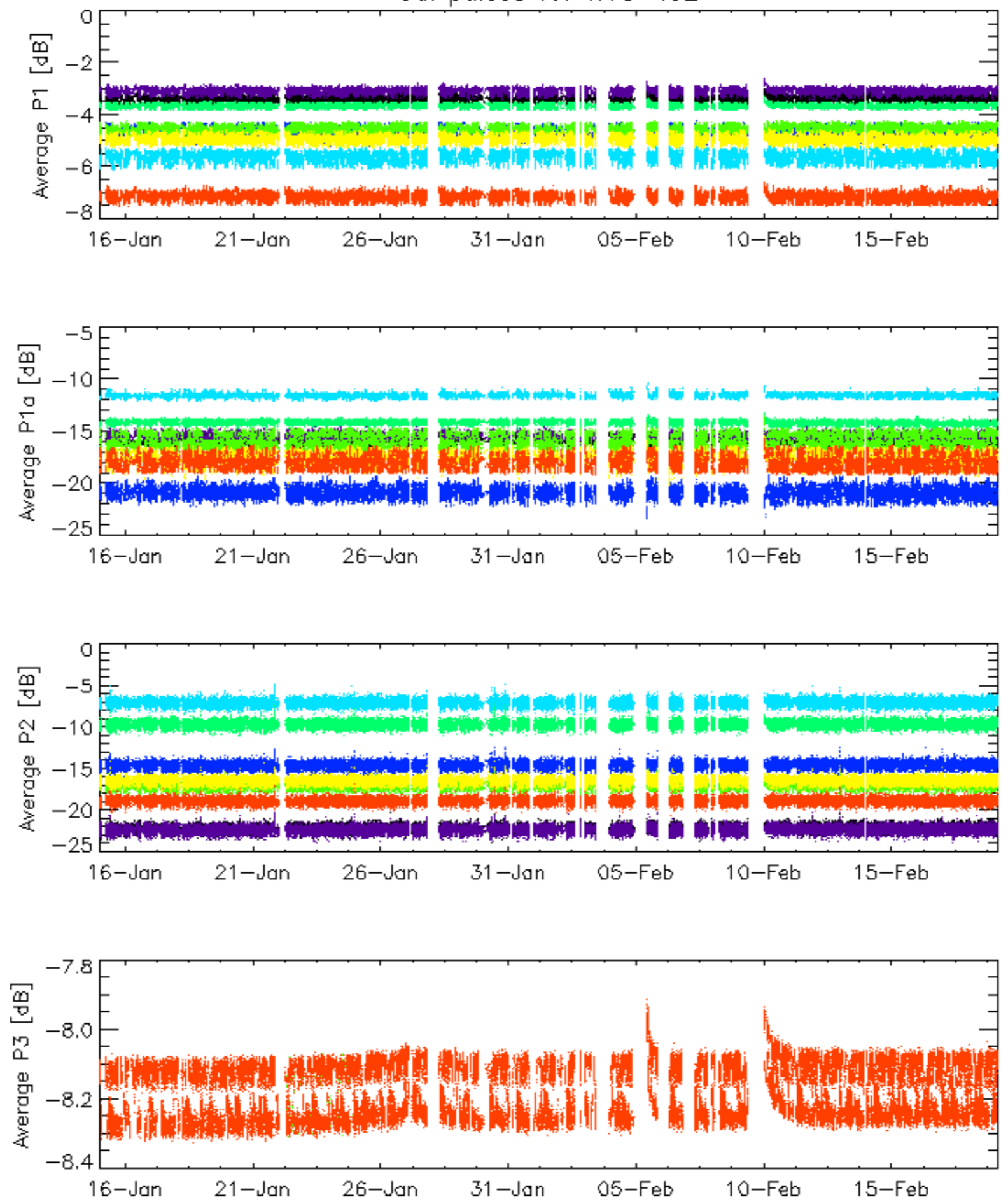


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

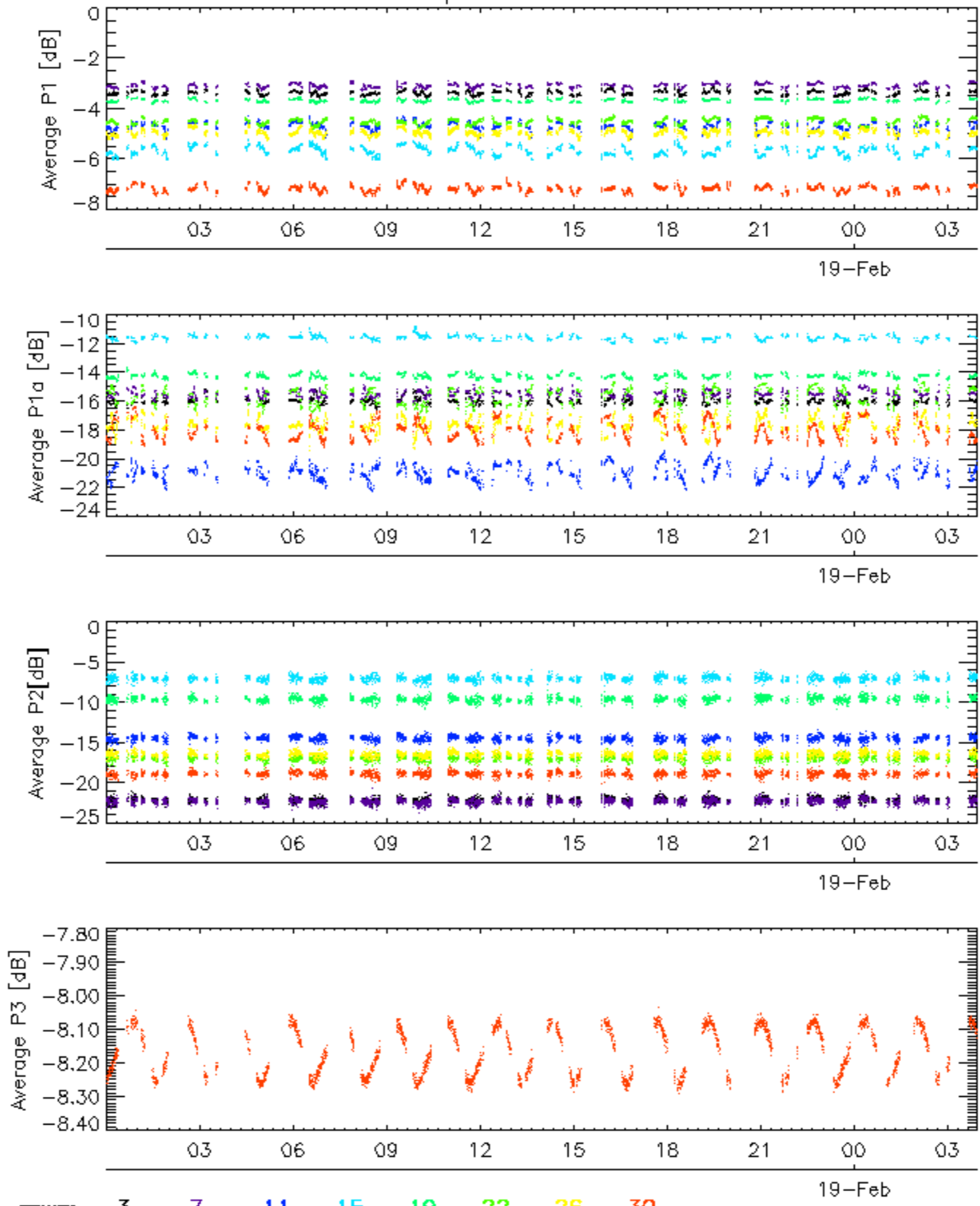


Cal pulses for WVS IS2



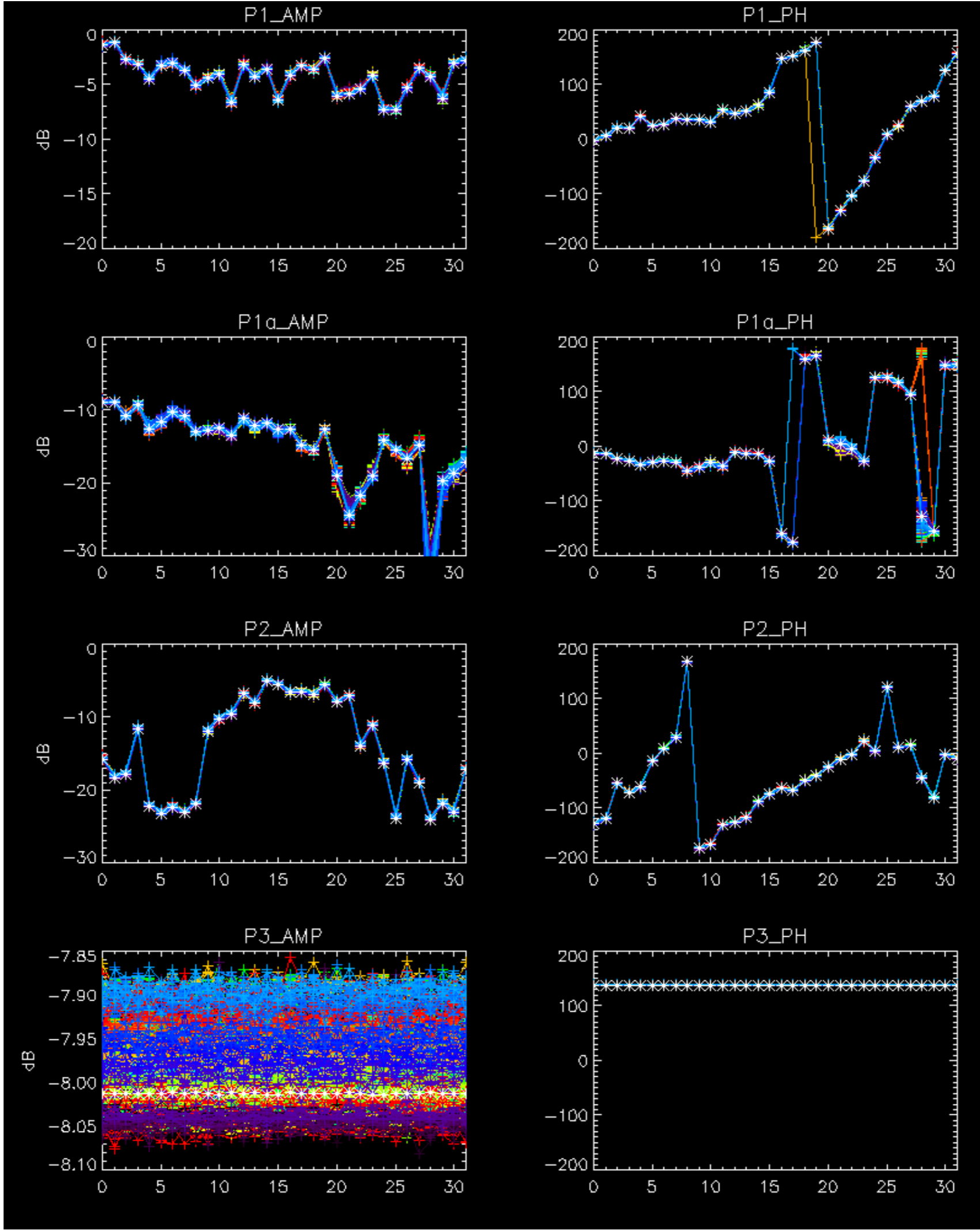
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

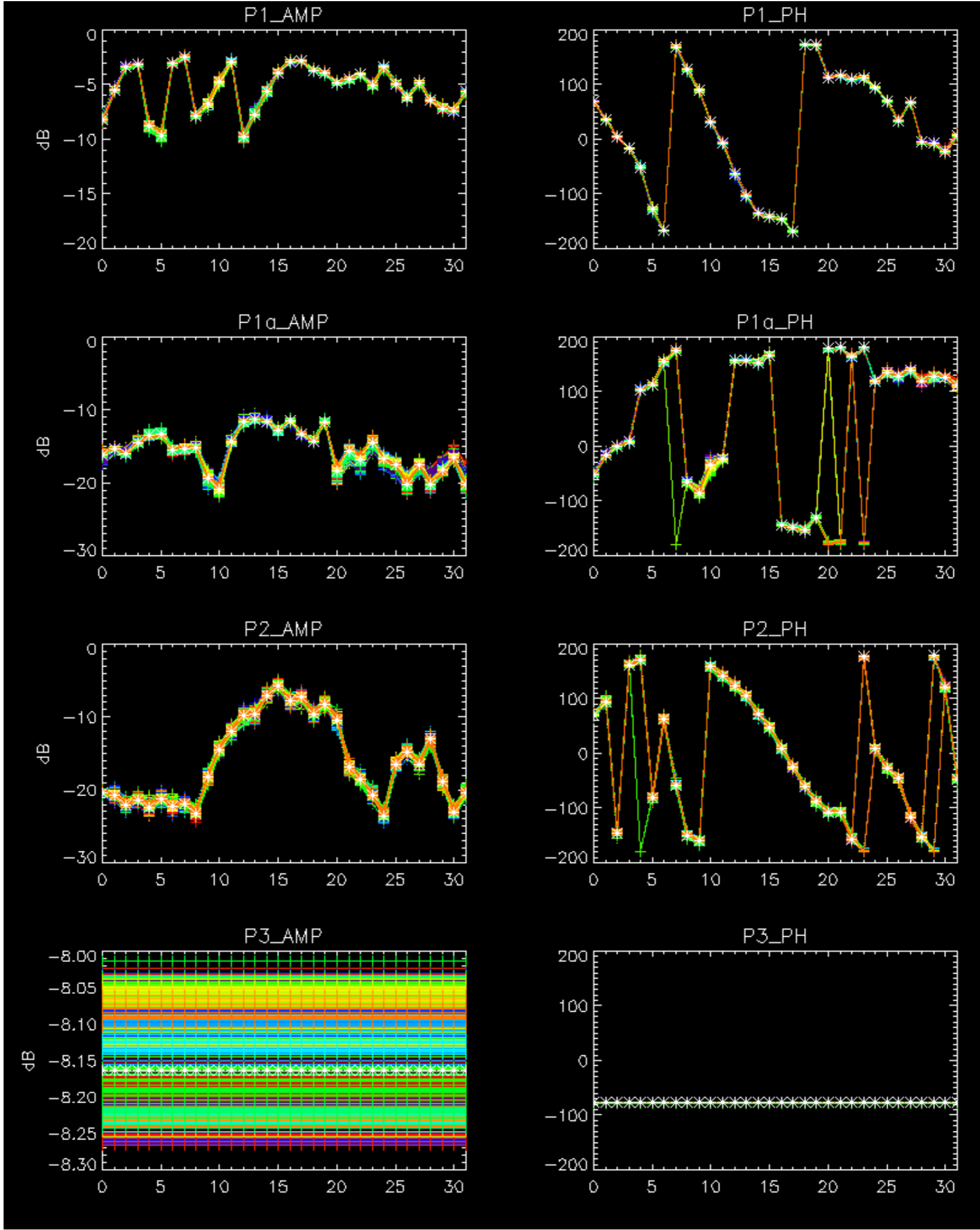
Cal pulses for WVS IS2



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

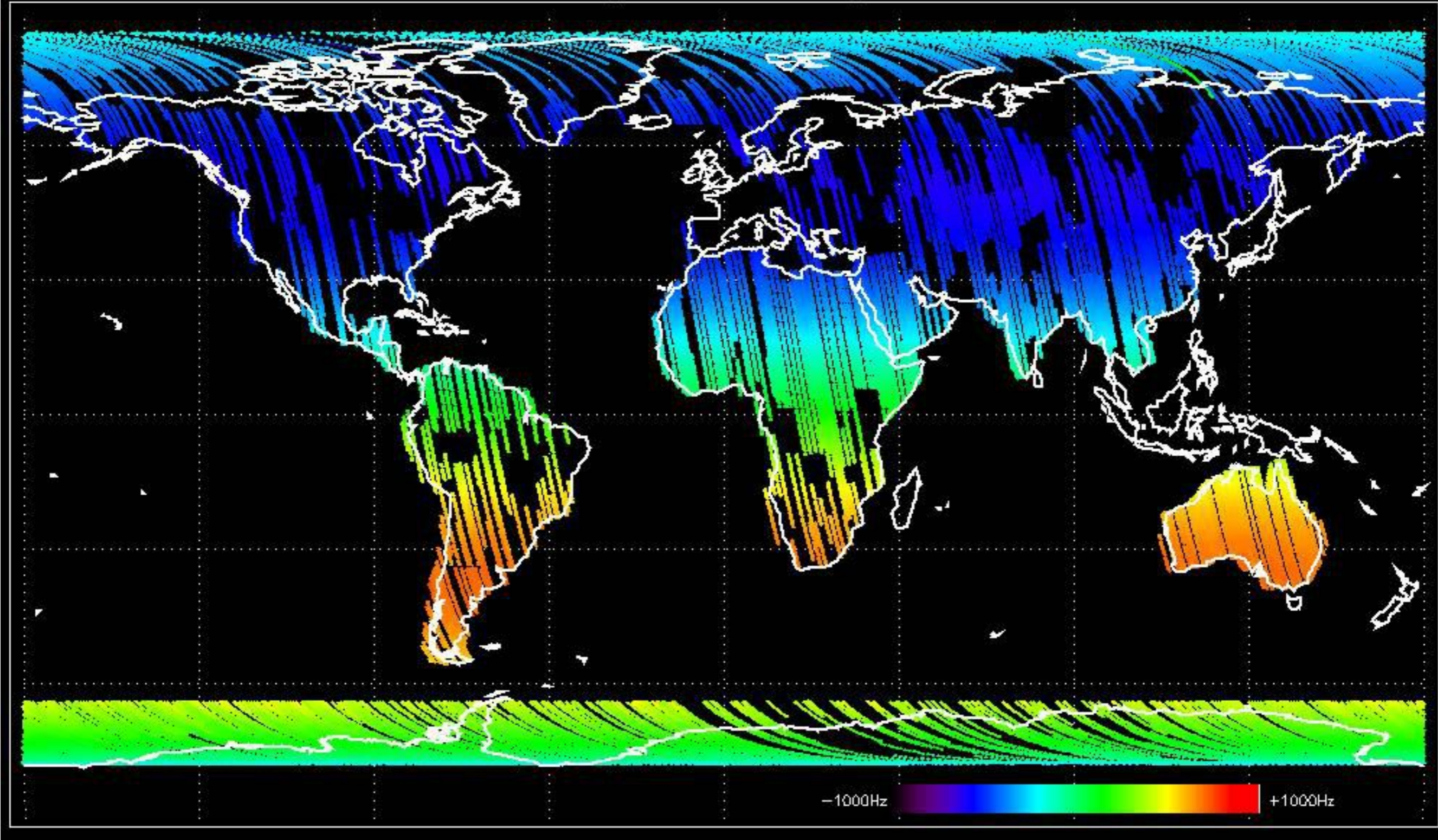
No anomalies observed.



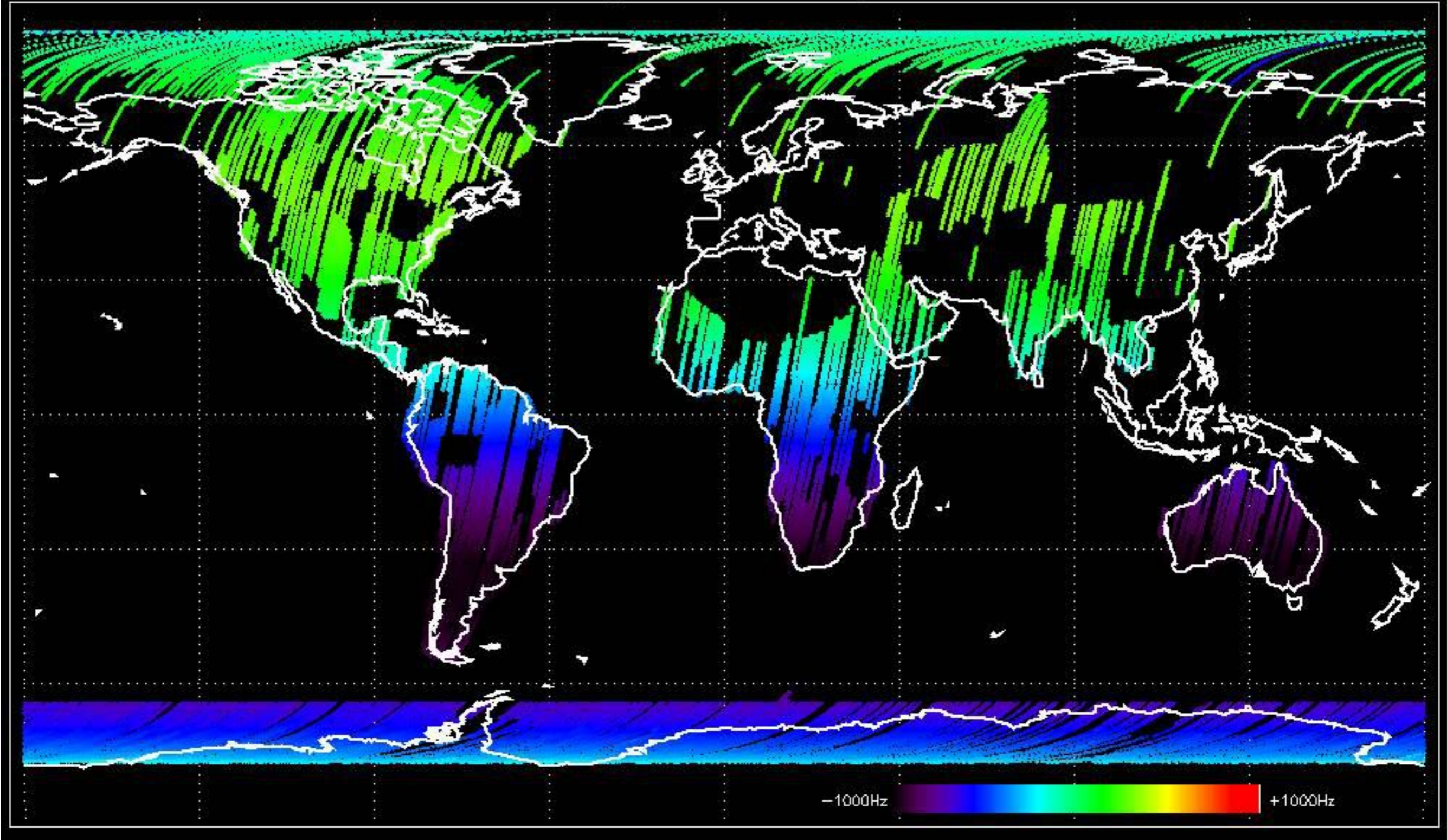


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

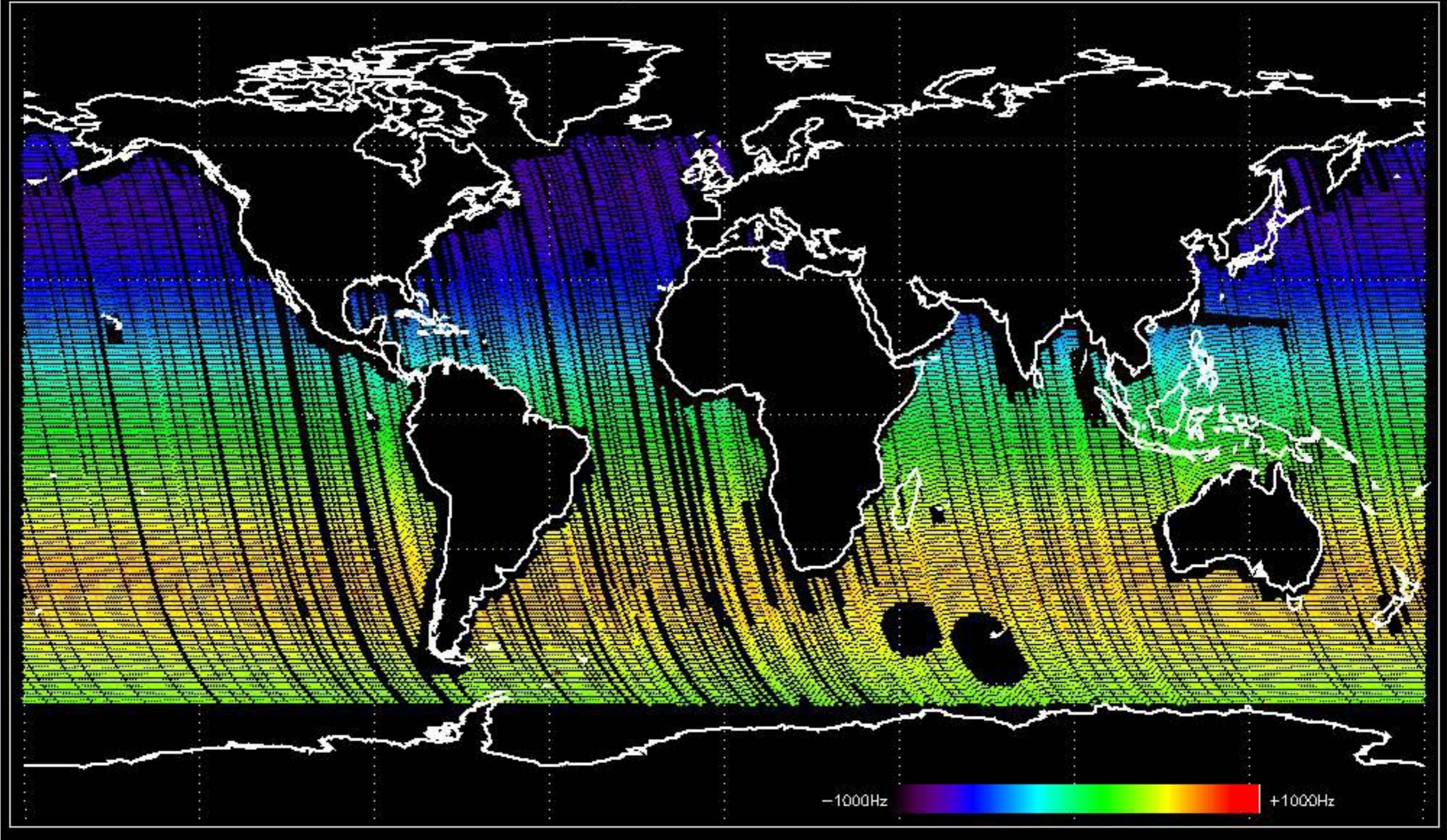
Doppler 'GM1' 'SS1' ascending



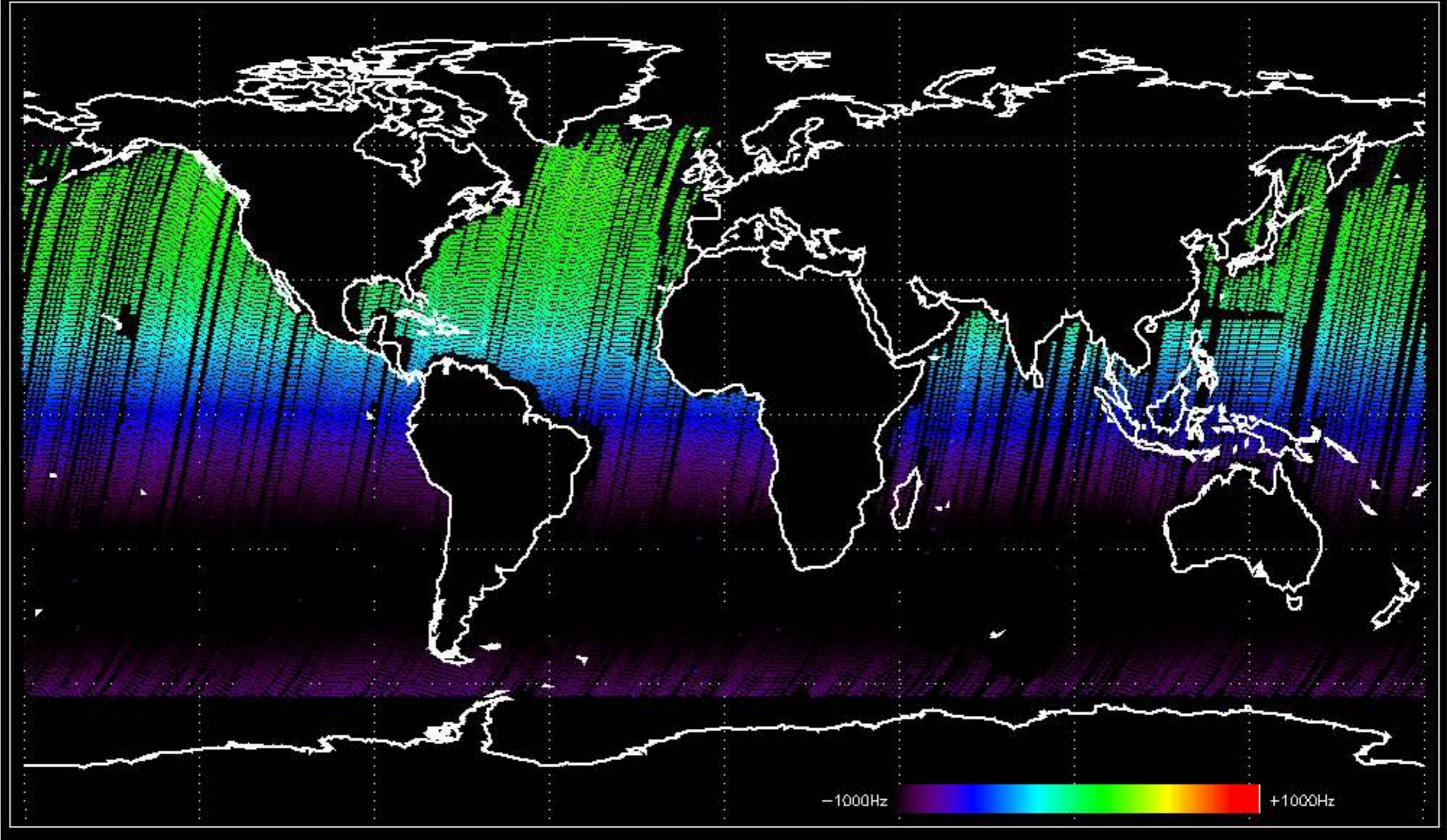
Doppler 'GM1' 'SS1' descending

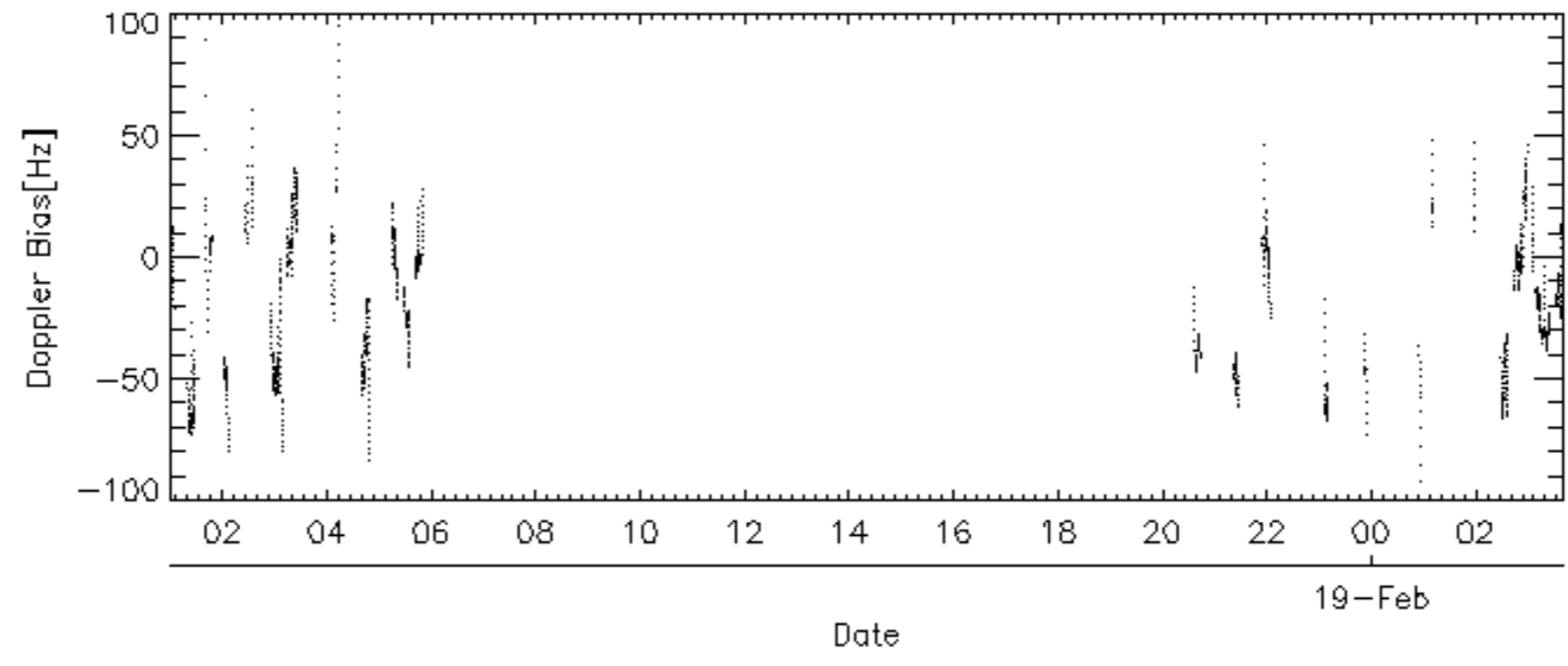
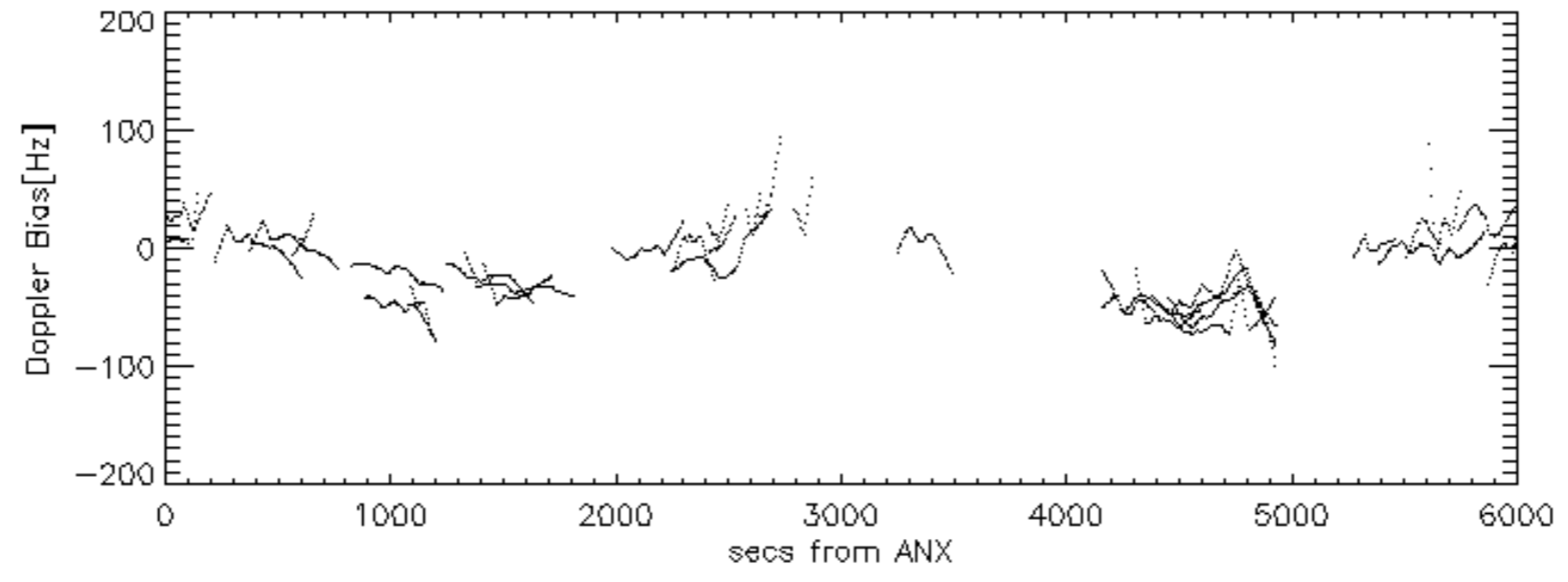
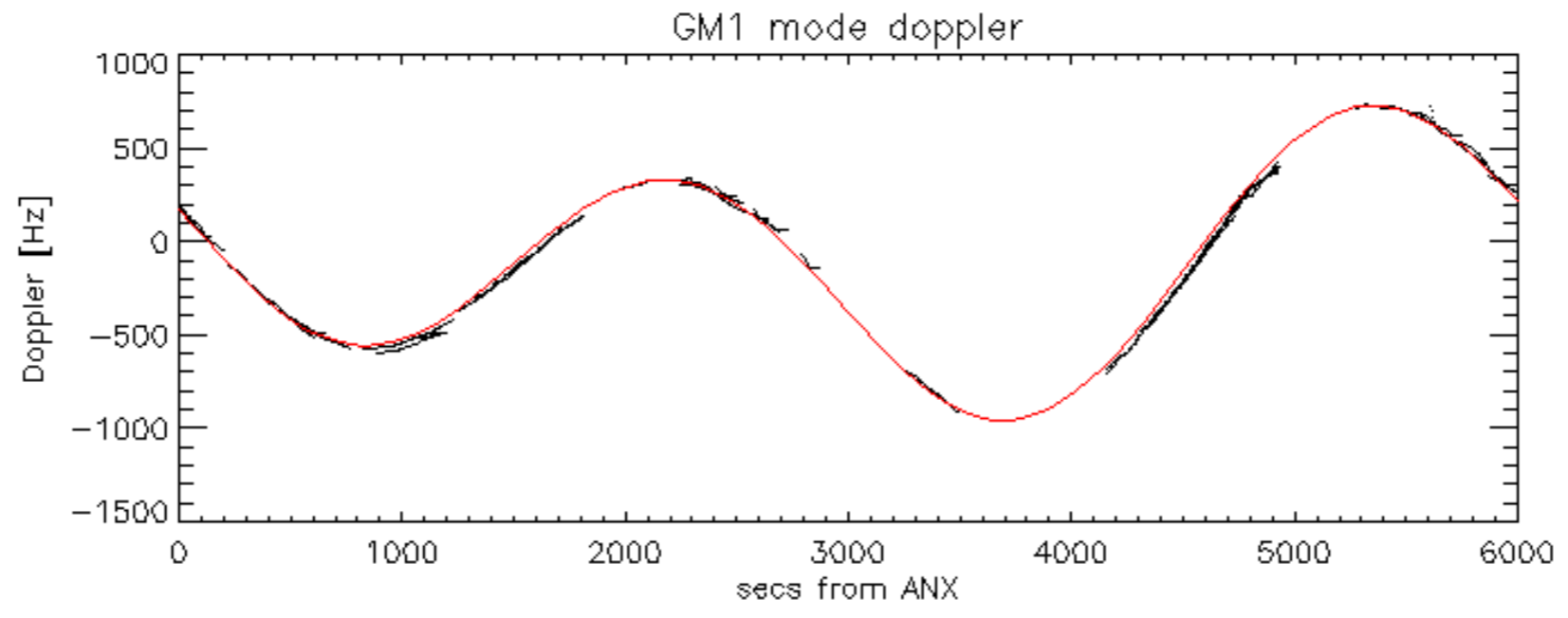


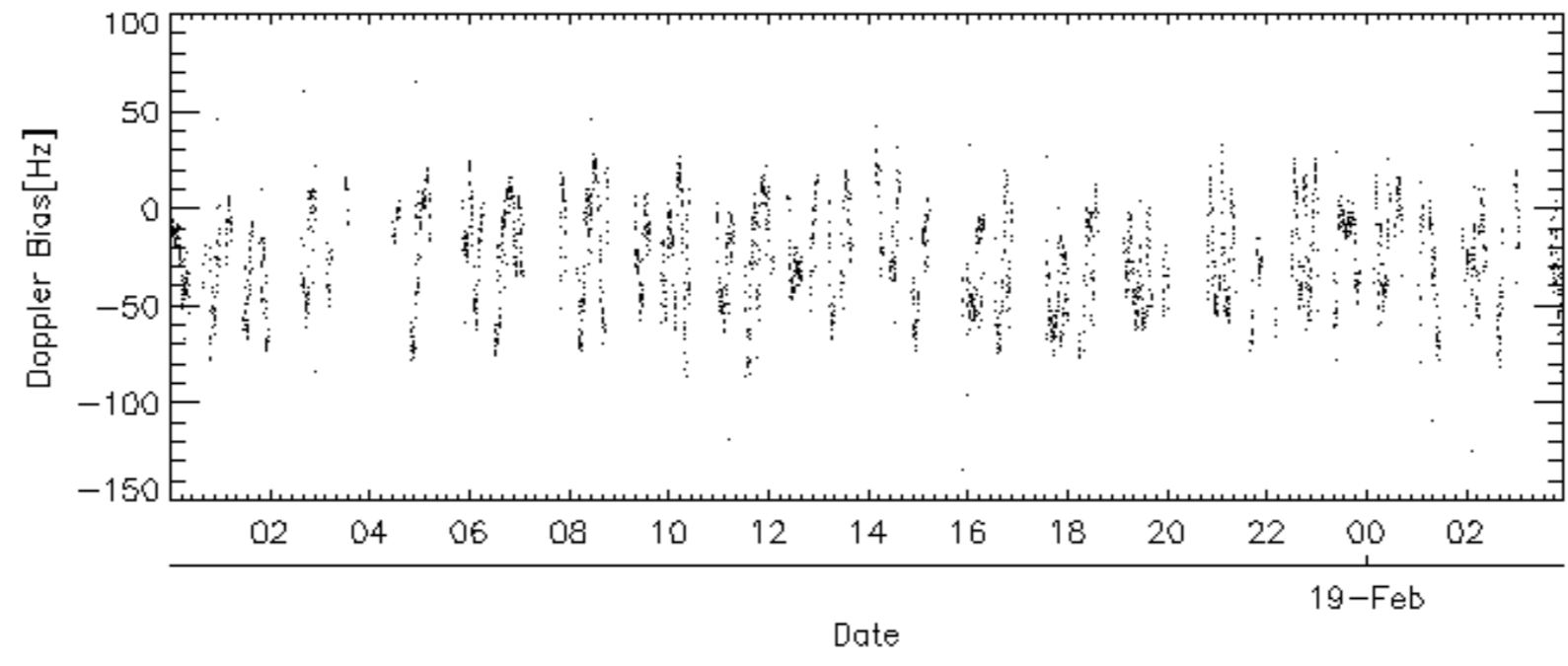
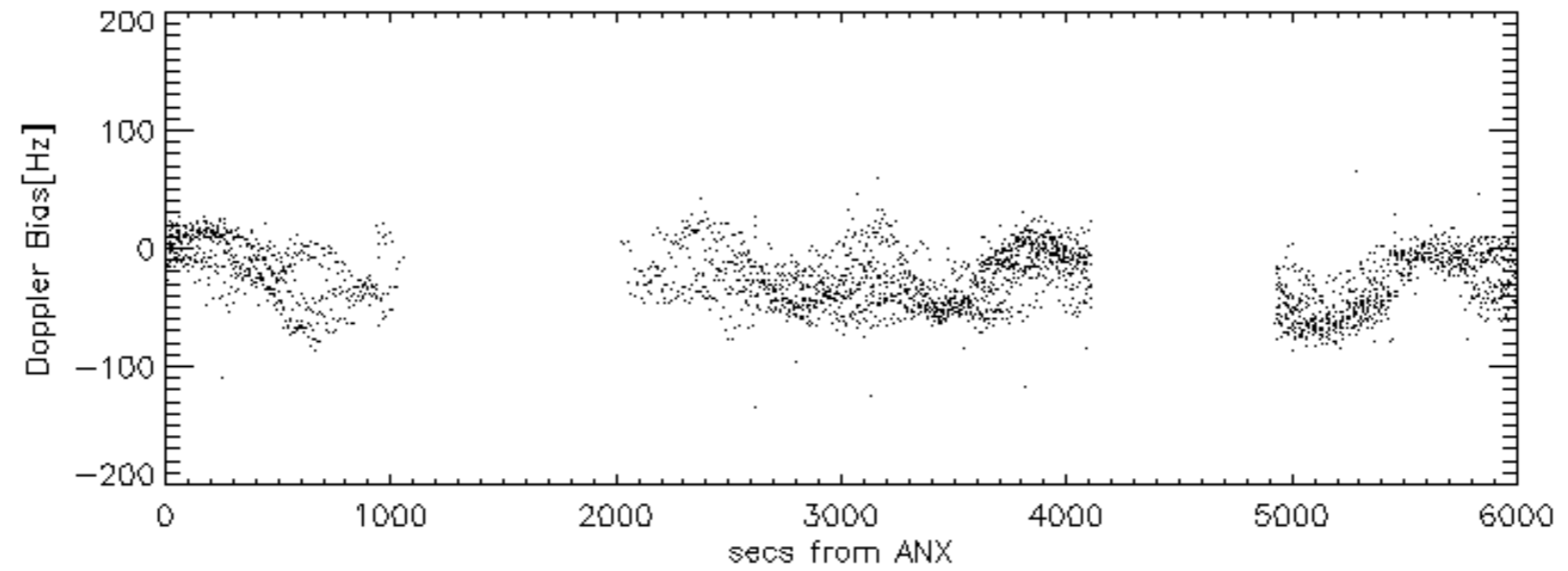
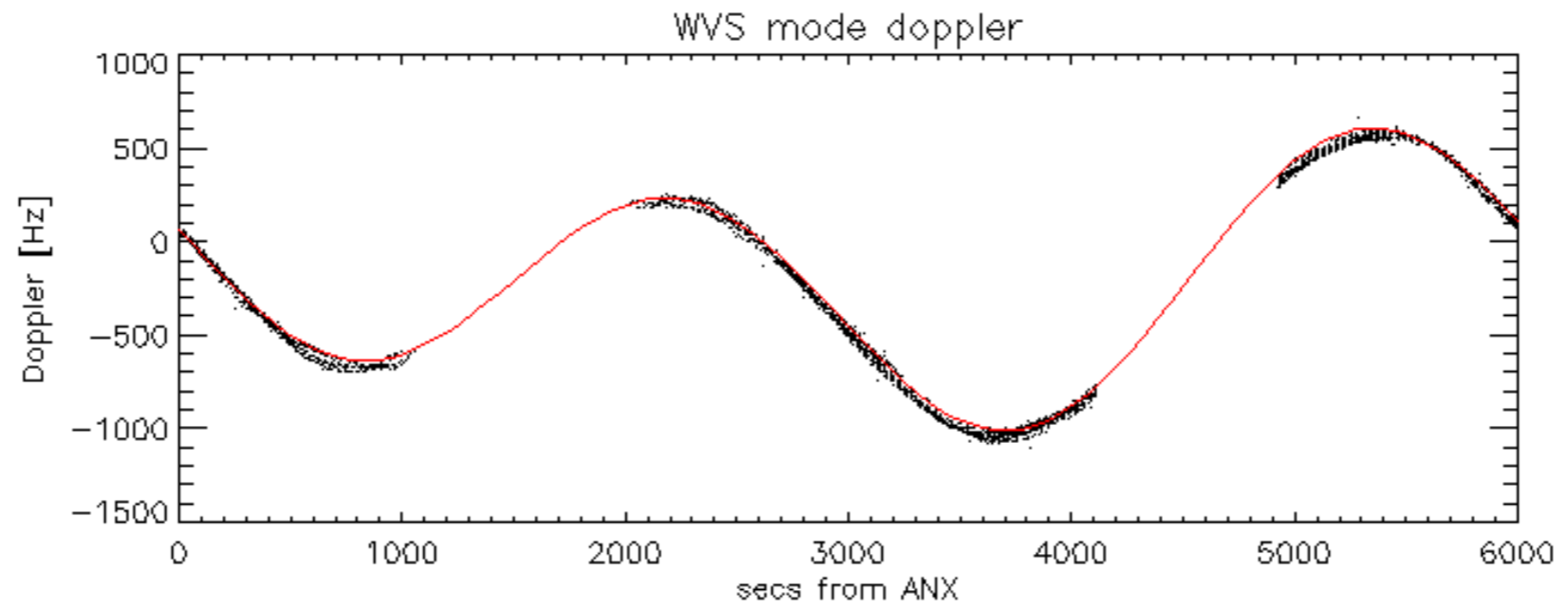
Doppler 'WVS' 'IS2' ascending



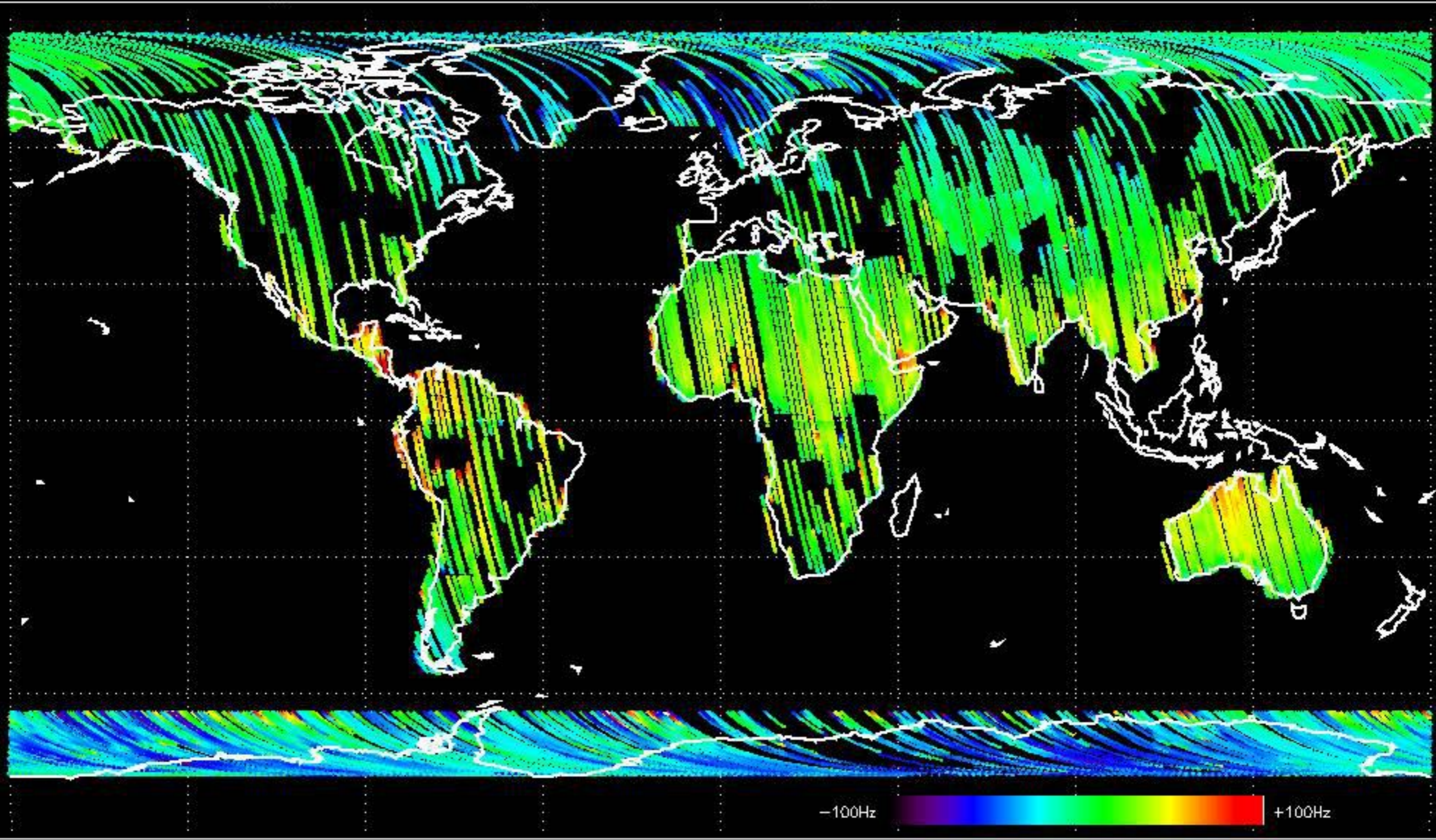
Doppler 'WVS' 'IS2' descending



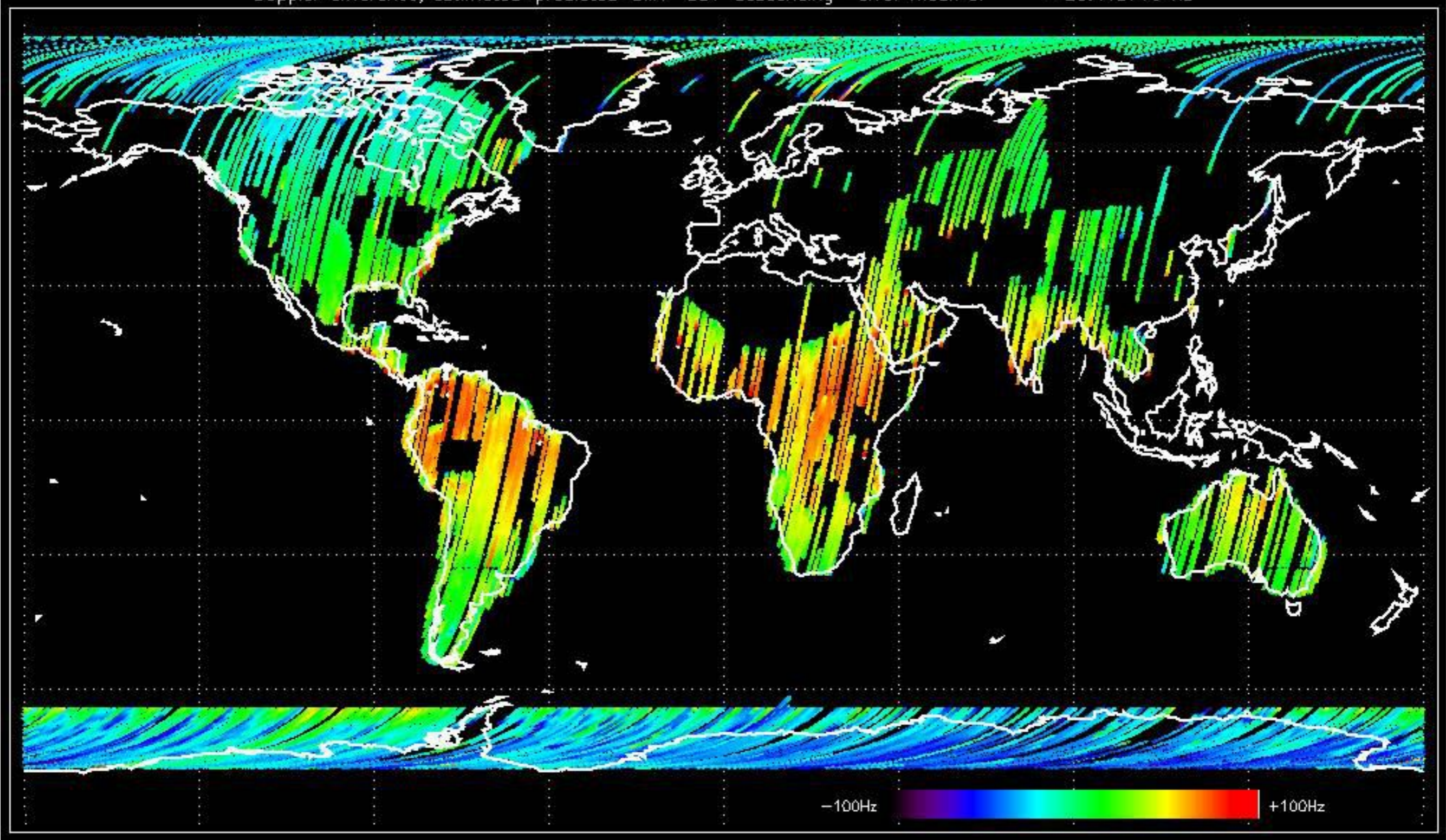




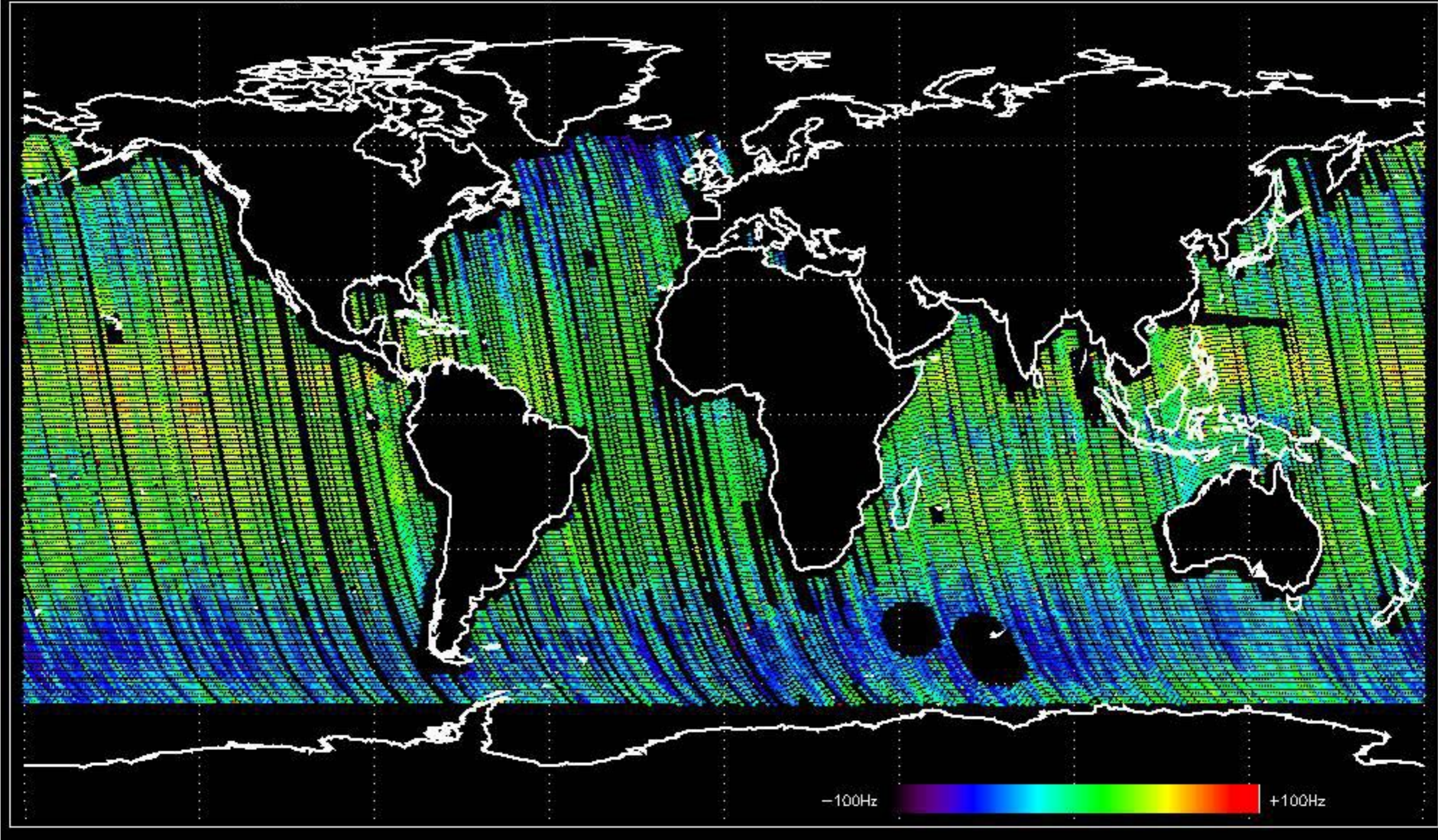
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.501263 Hz



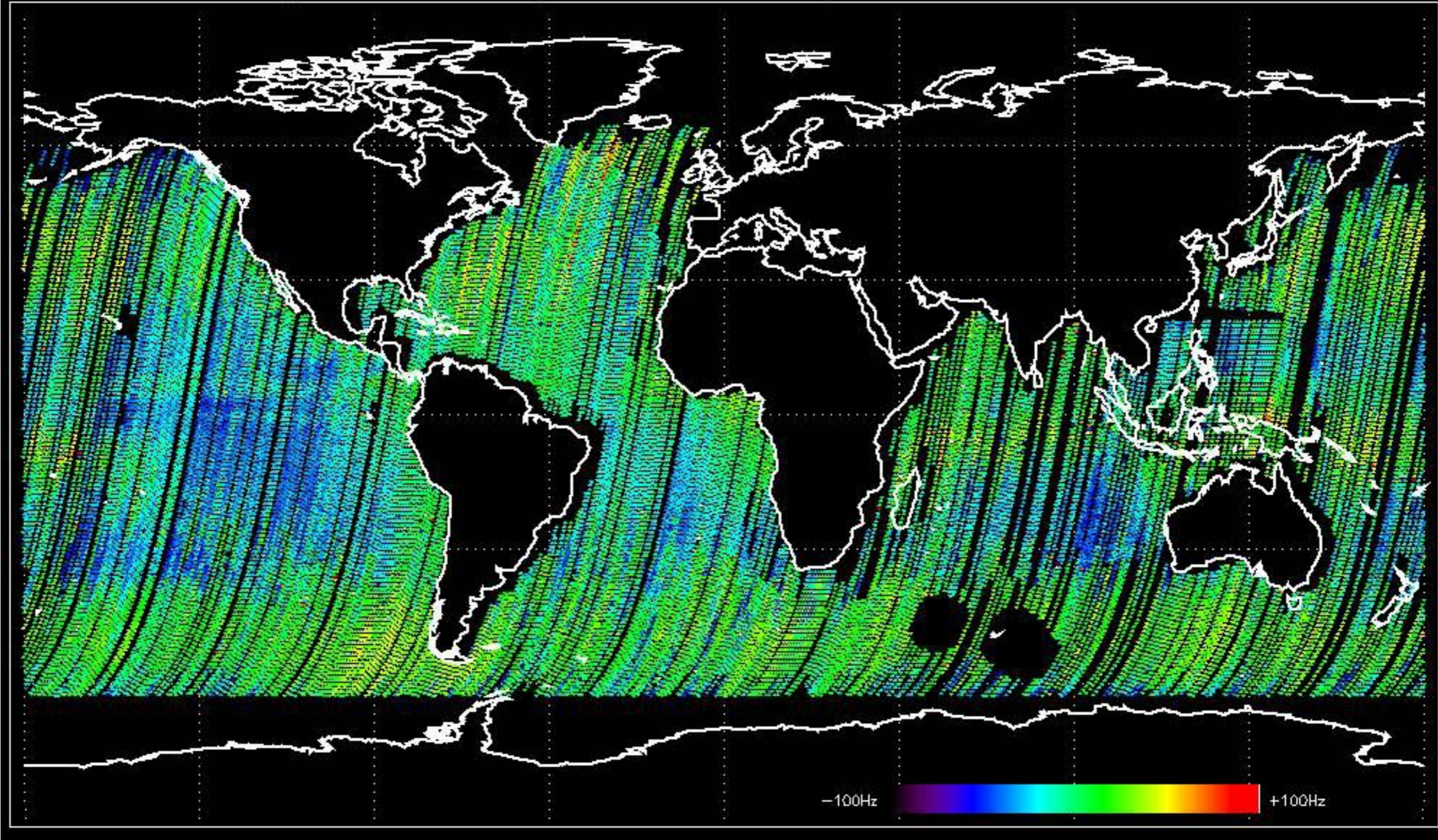
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -28.413716 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -33.422860 Hz

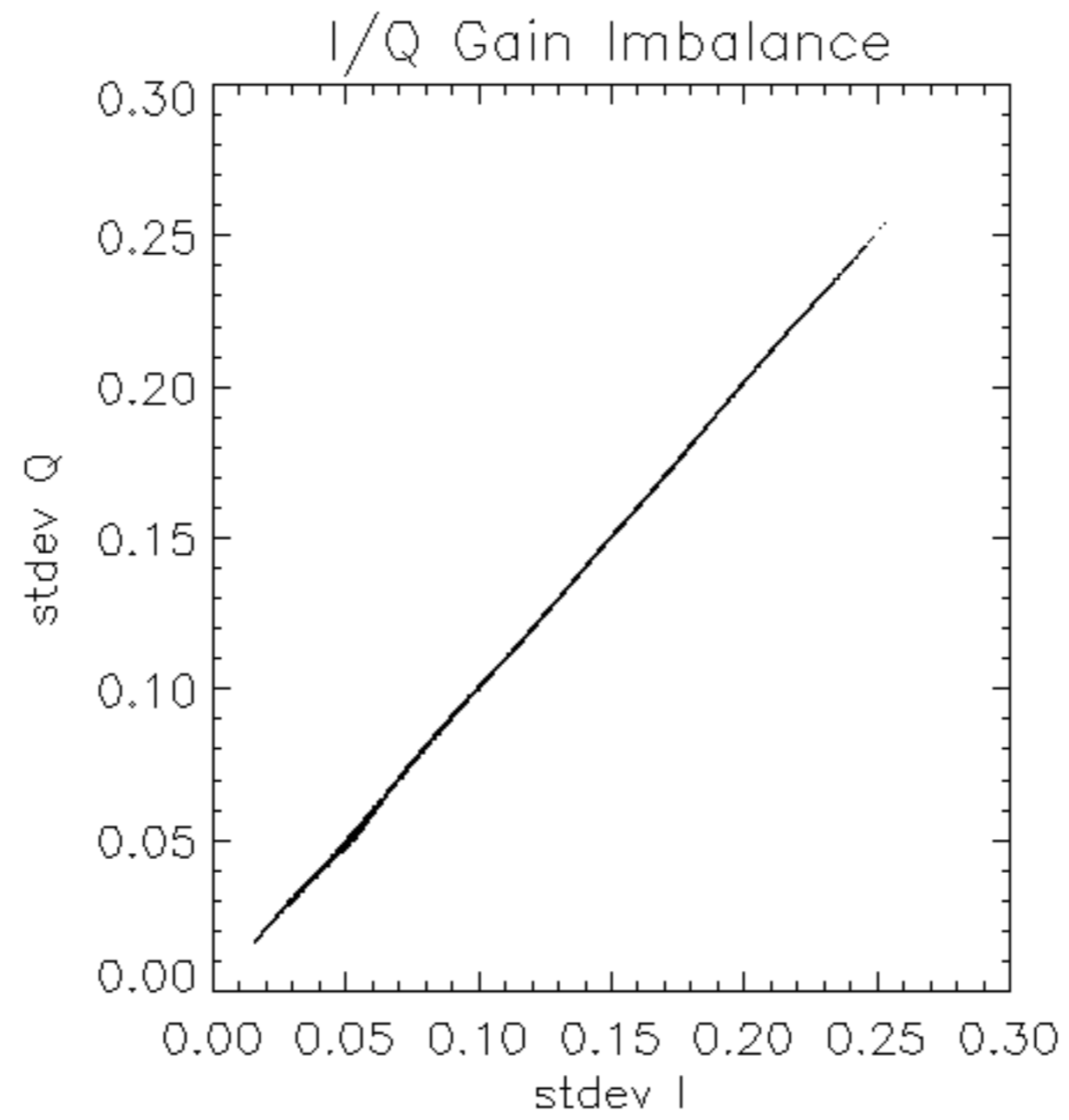


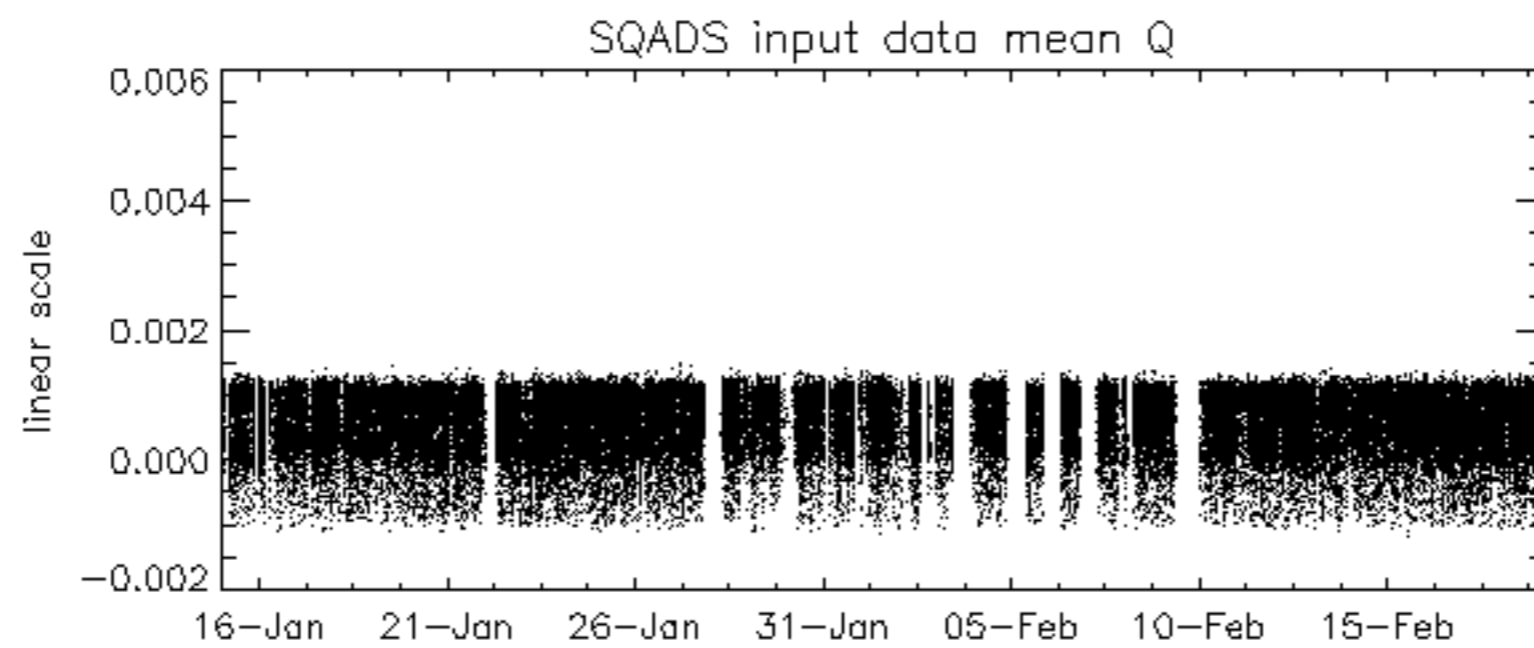
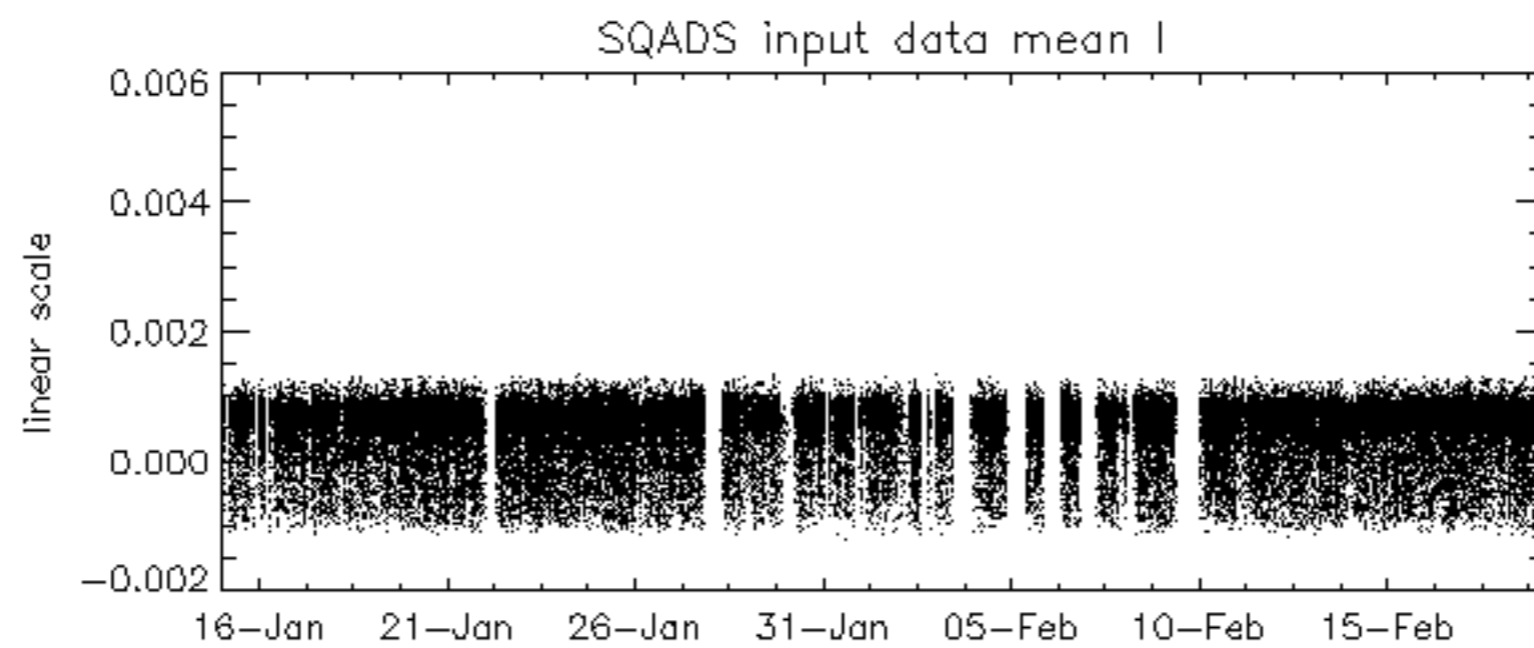
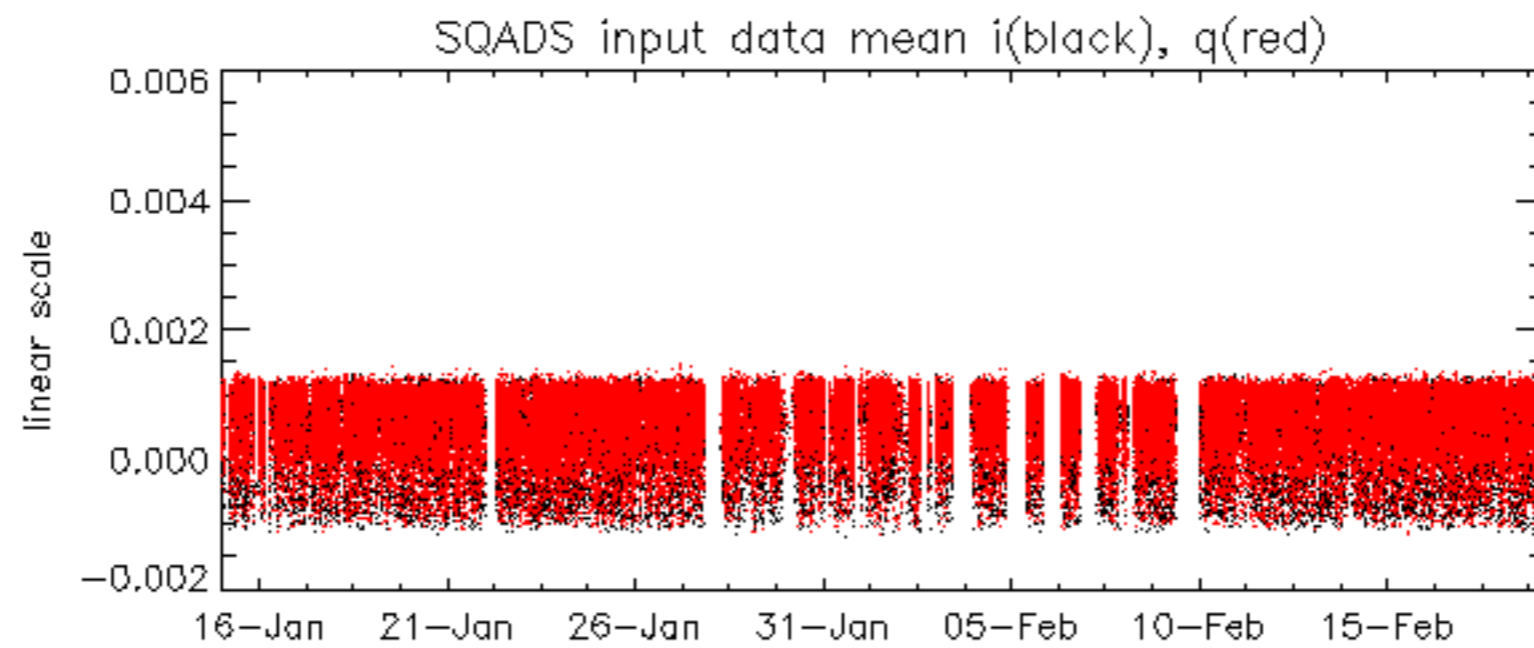
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.806547 Hz

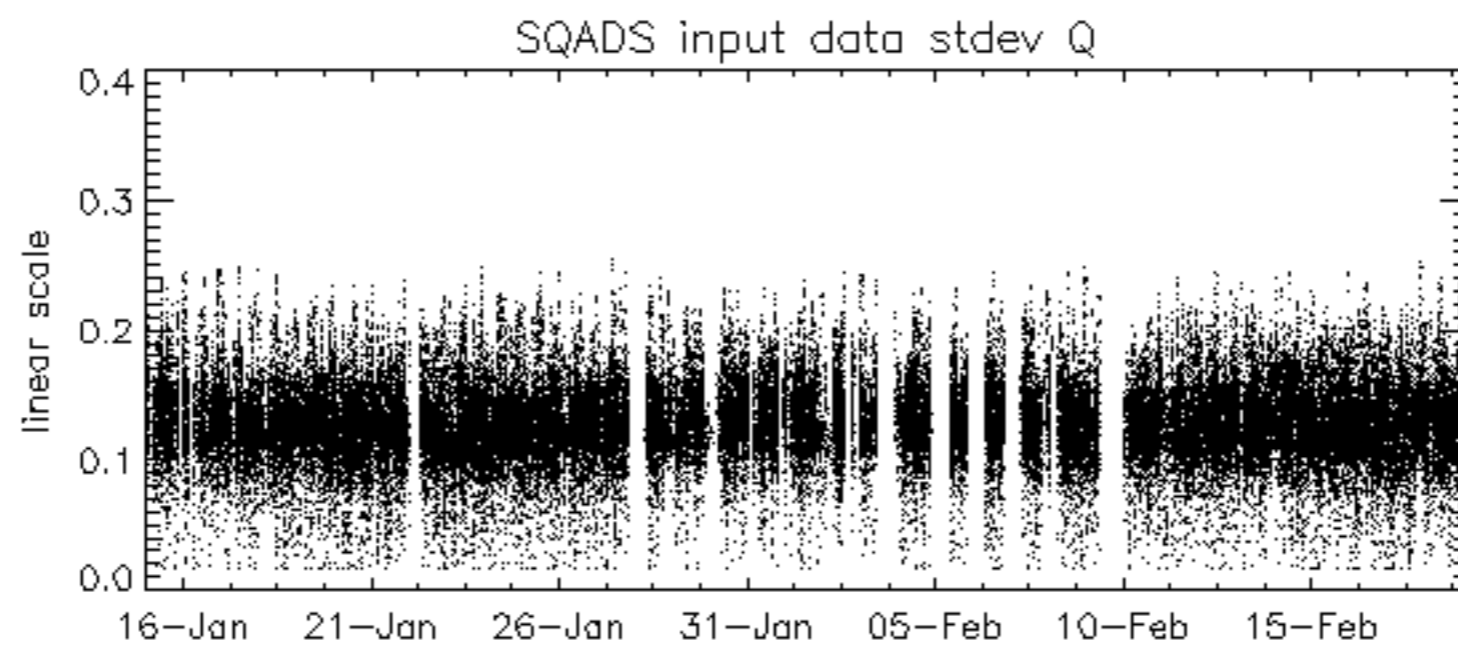
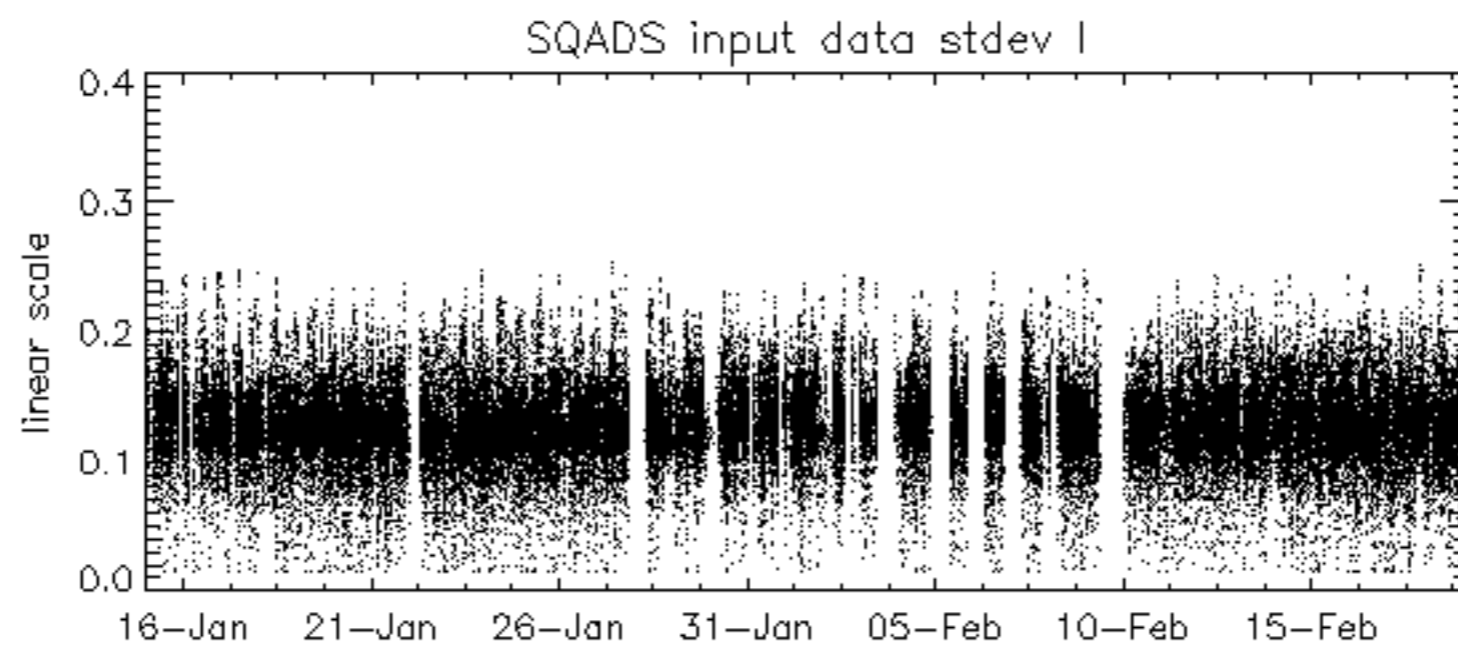
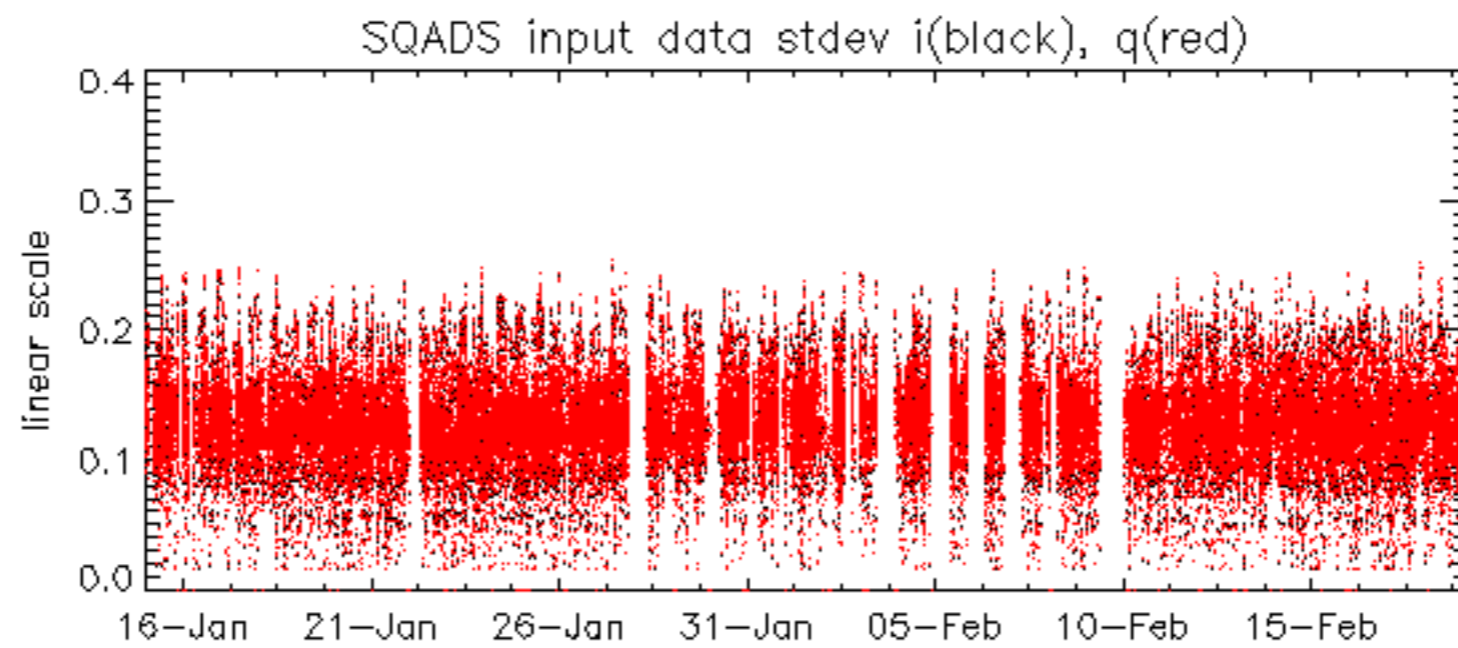


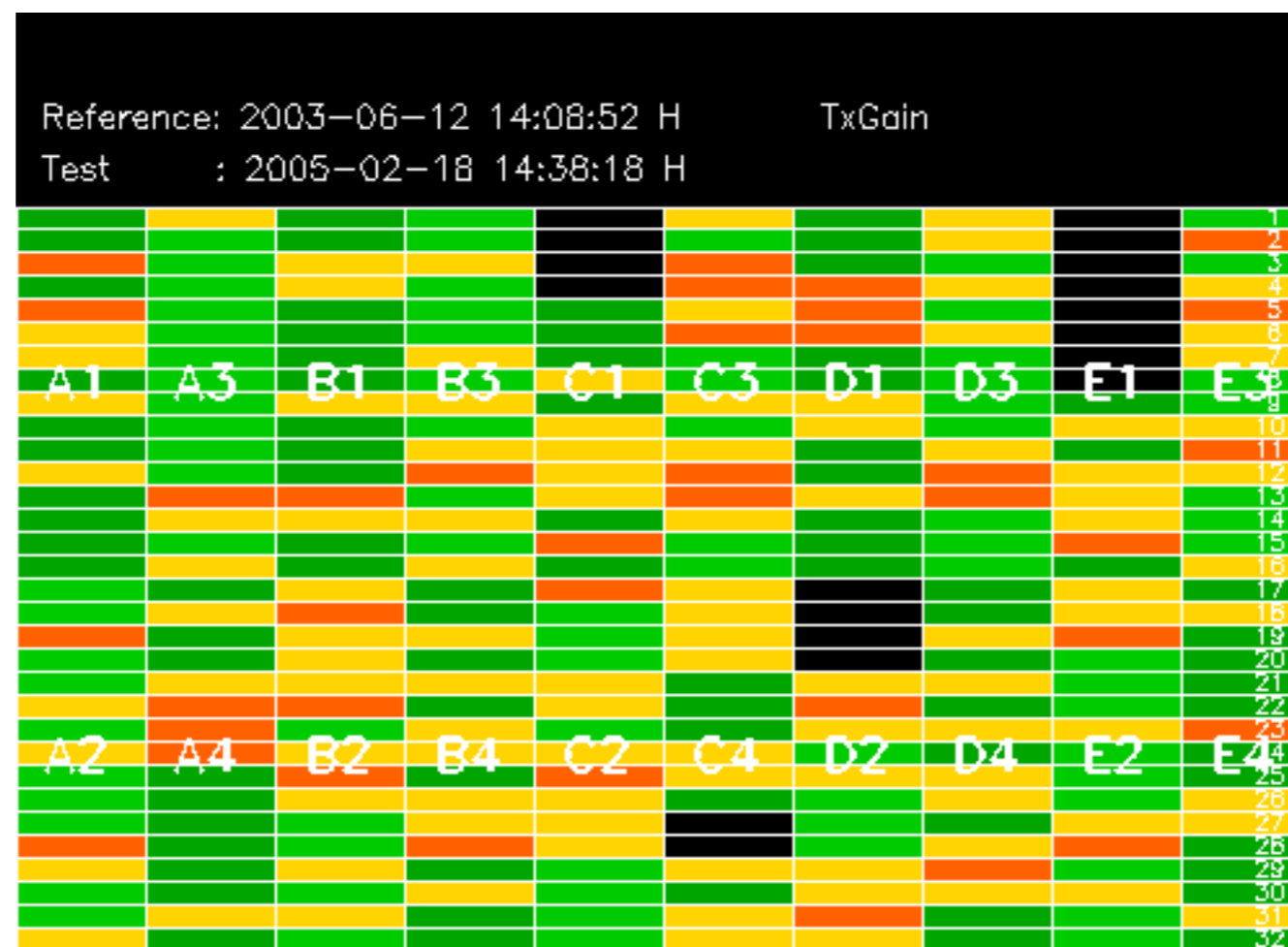
The MS product acquired in 18-FEB-2001 is corrupted

No anomalies observed.





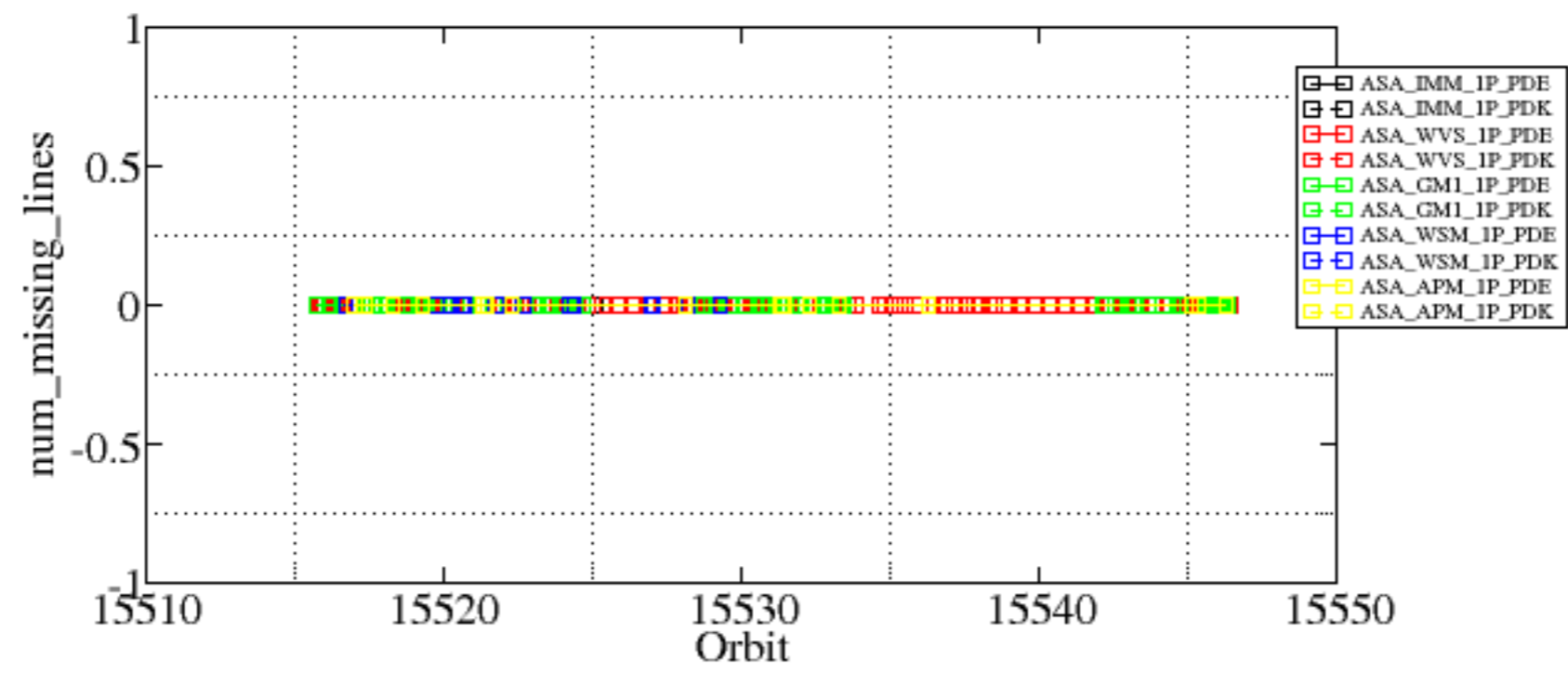


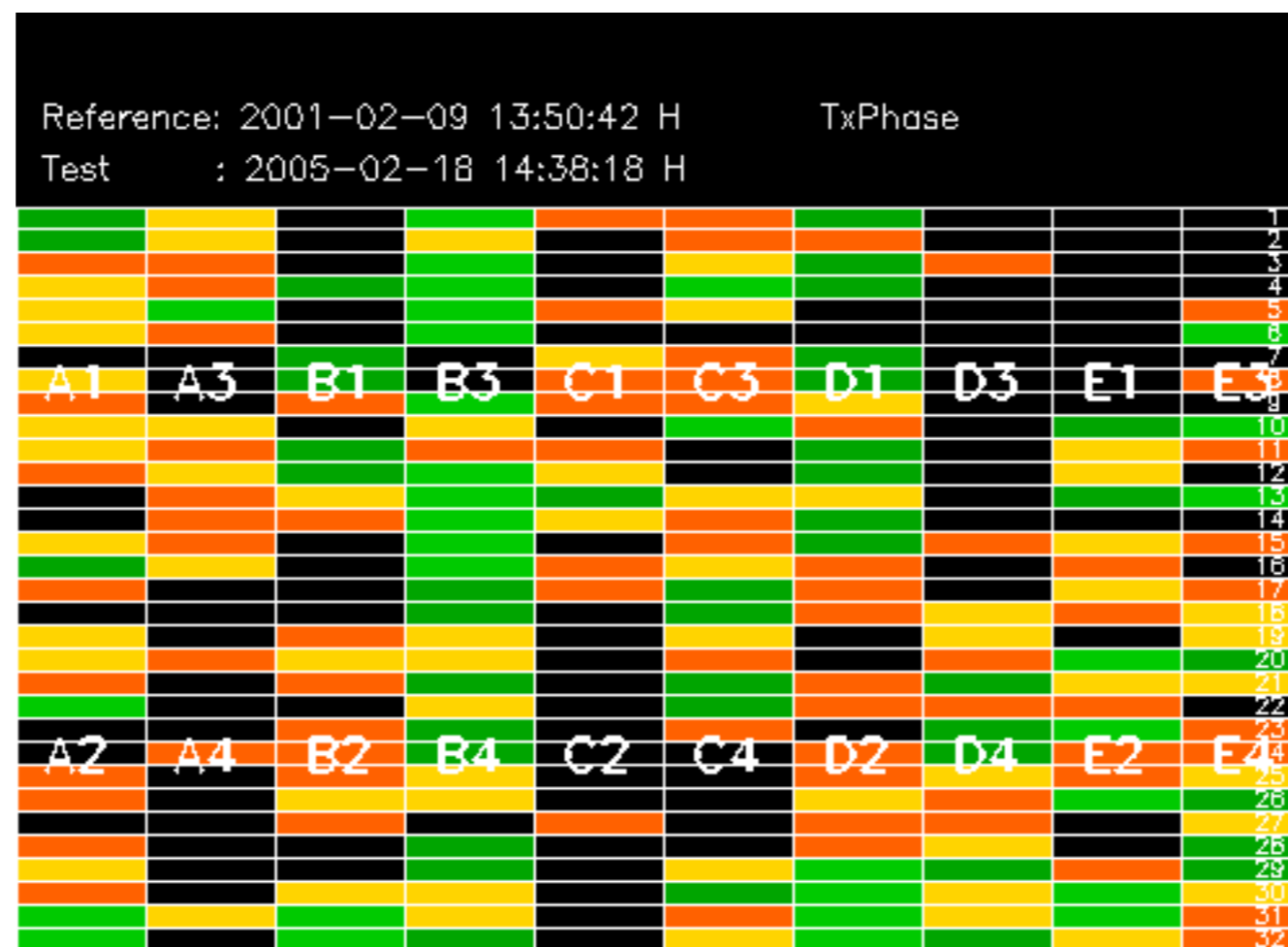


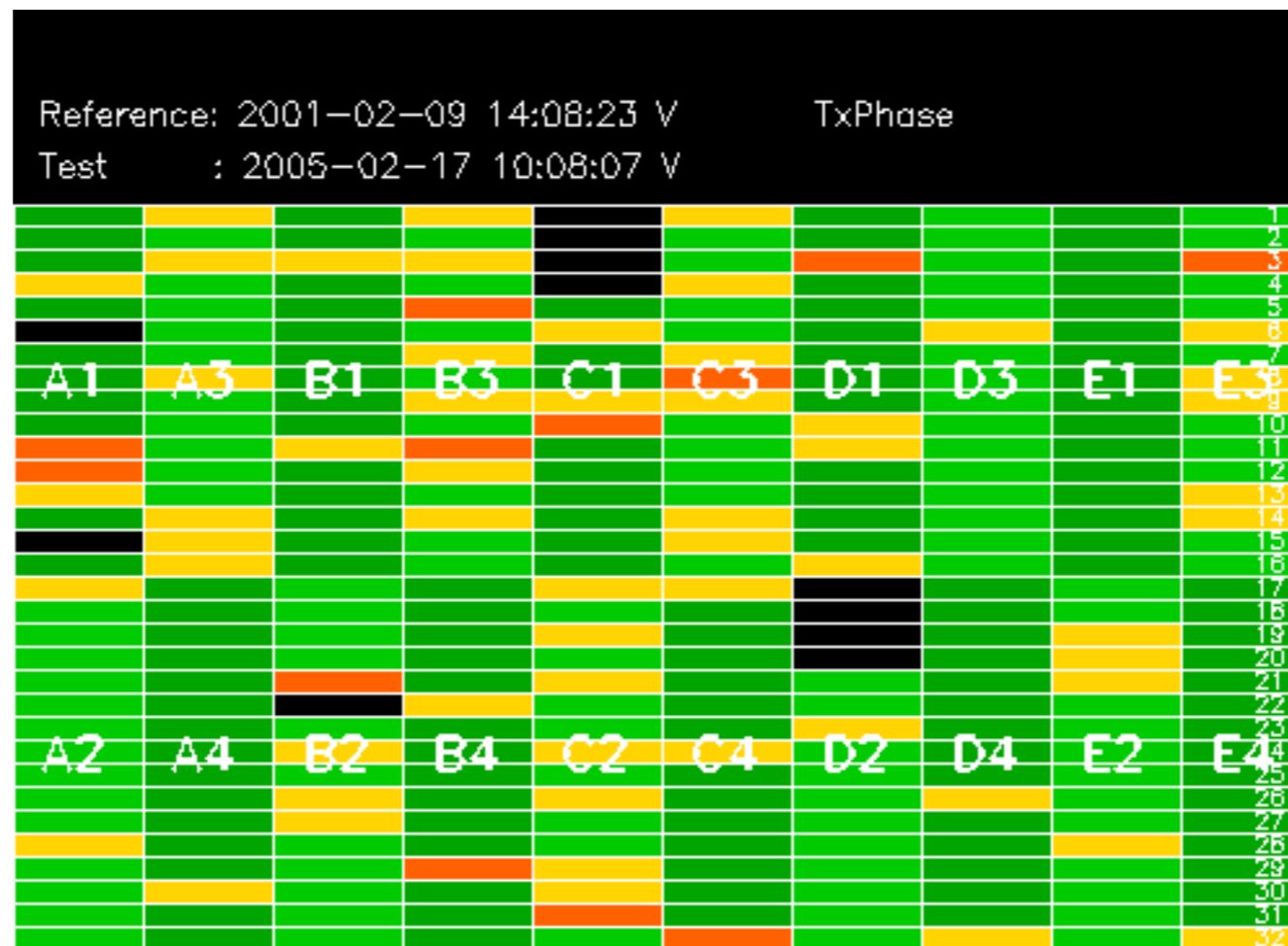
Summary of analysis for the last 3 days 2005021[789]

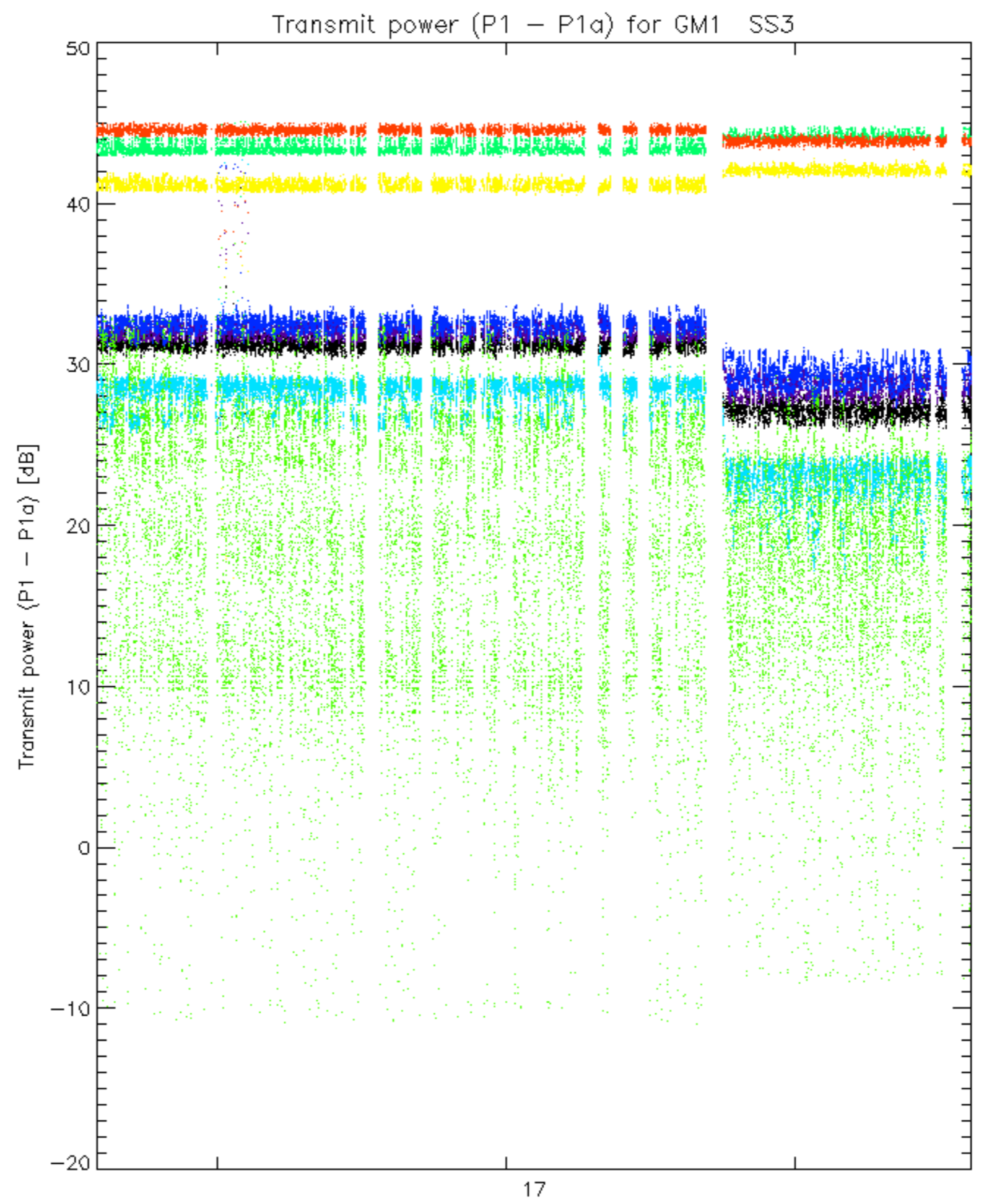
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050217_003420_000001522034_00431_15515_2702.N1	1	0

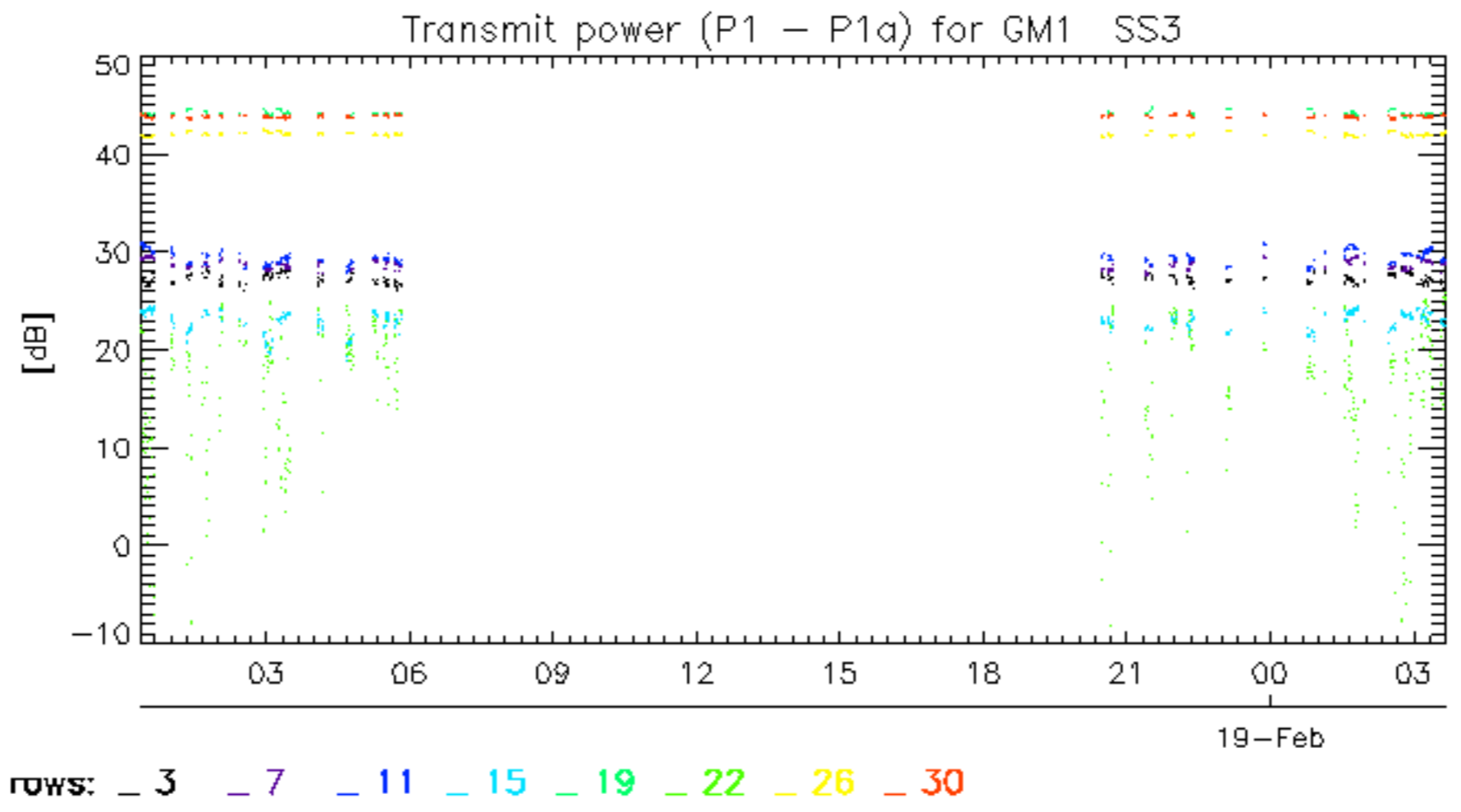


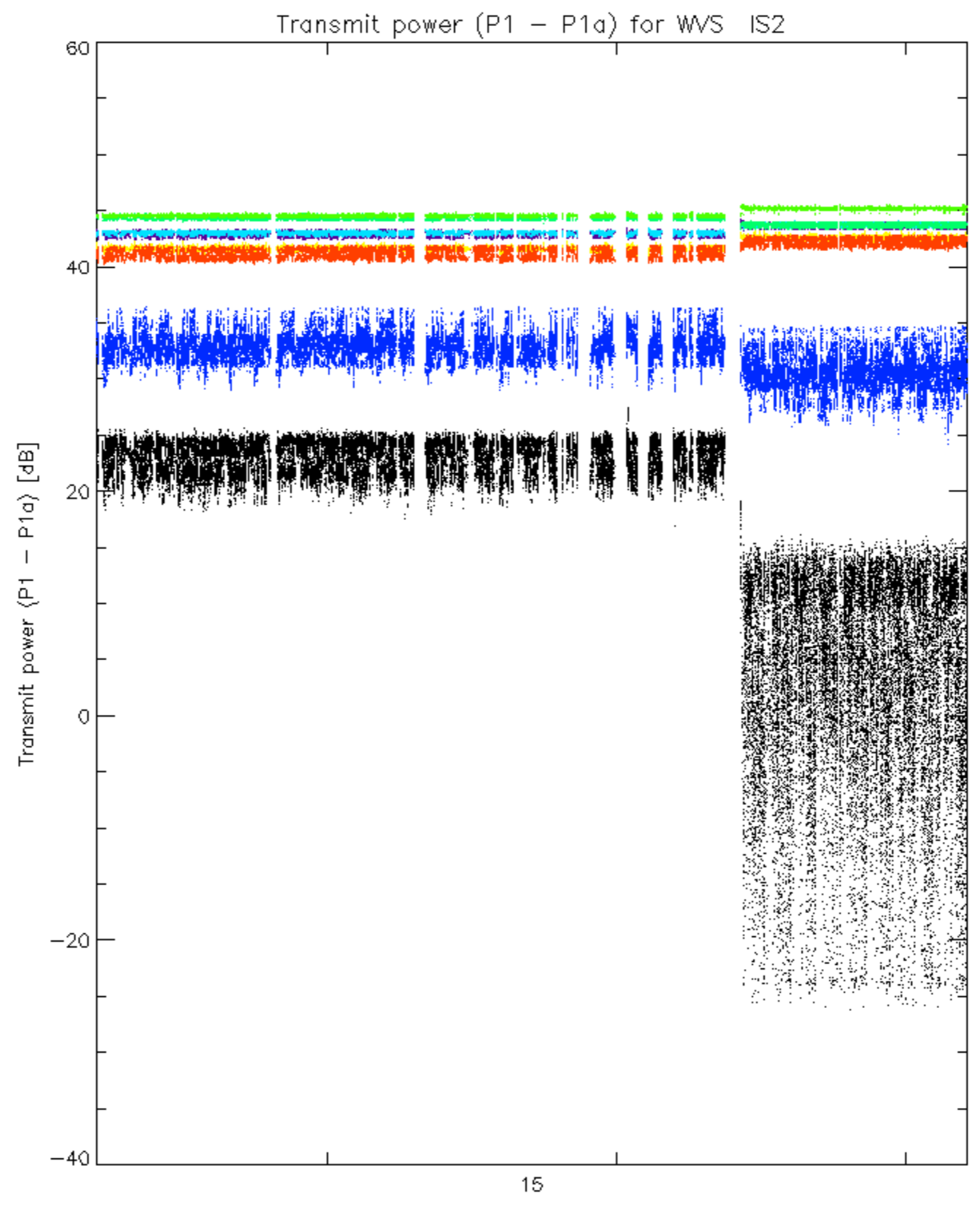




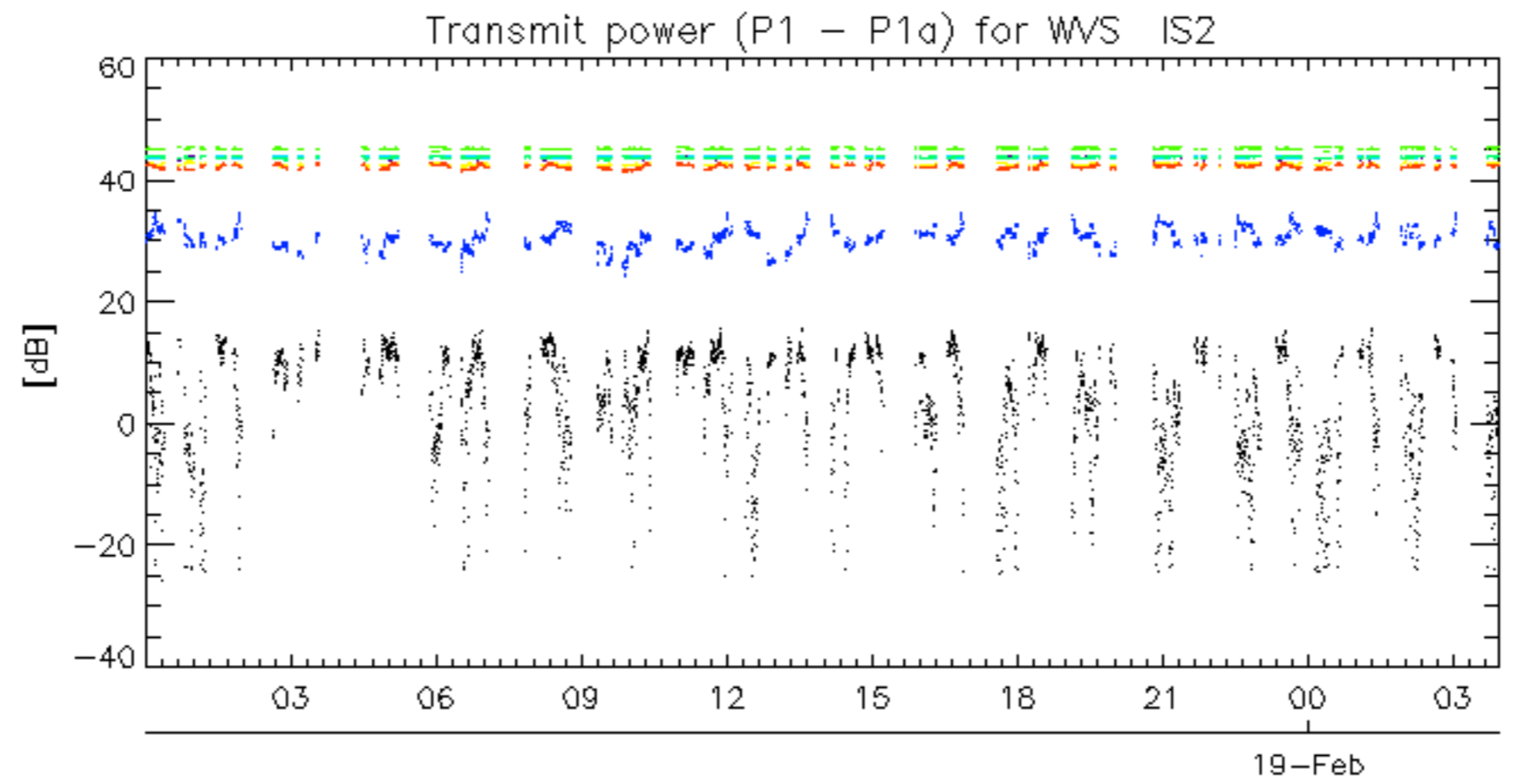


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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



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

No unavailabilities during the reported period.