

PRELIMINARY REPORT OF 060114

last update on Sat Jan 14 16:41:15 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 2006-01-13 00:00:00 to 2006-01-14 16:41:15

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	28	0	7	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	28	0	7	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	28	0	7	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	28	0	7	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	53	24	8	63
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	53	24	8	63
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	53	24	8	63
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	53	24	8	63

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	20060114 064354
H	20060113 071531

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	-4.026858	0.047418	-0.101787
7	P1	-2.972898	0.034884	-0.109218
11	P1	-4.117294	0.037939	0.091179
15	P1	-5.975402	0.263375	-0.455287
19	P1	-3.217849	0.015511	-0.119944
22	P1	-4.483263	0.020926	-0.009417
26	P1	-4.238907	0.019506	0.105857
30	P1	-5.757586	0.013710	-0.052418
3	P1	-16.872131	0.645853	-0.602413
7	P1	-16.442503	0.559821	-0.718669
11	P1	-16.562170	0.396039	-0.131018
15	P1	-13.218489	0.314394	-0.190286
19	P1	-13.828240	0.123678	-0.232397
22	P1	-15.986028	0.577209	0.259036
26	P1	-15.697971	0.404812	-0.410956
30	P1	-16.520401	0.691287	-0.406365

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.679165	0.100641	0.193509
7	P2	-22.511887	0.098864	0.084540
11	P2	-16.364851	0.107365	0.176266
15	P2	-7.239527	0.101834	0.069480
19	P2	-9.196950	0.098926	0.083308
22	P2	-17.934982	0.098905	0.002560
26	P2	-16.247673	0.104730	0.130997
30	P2	-19.680361	0.088885	0.109686

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.223516	0.007804	0.038041
7	P3	-8.223516	0.007804	0.038041
11	P3	-8.223516	0.007804	0.038041
15	P3	-8.223516	0.007804	0.038041
19	P3	-8.223516	0.007804	0.038041
22	P3	-8.223516	0.007804	0.038041
26	P3	-8.223516	0.007804	0.038041
30	P3	-8.223516	0.007804	0.038041

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	-3.716037	0.008516	-0.010322
7	P1	-2.761813	0.007778	0.023639
11	P1	-2.868468	0.010093	0.026271
15	P1	-3.437016	0.017520	-0.059240
19	P1	-3.385749	0.014184	0.044007
22	P1	-5.120501	0.020378	0.013115
26	P1	-5.851866	0.015540	0.004232
30	P1	-5.267784	0.032356	0.075474
3	P1	-11.502244	0.034519	-0.041149
7	P1	-9.943628	0.048821	0.078676
11	P1	-10.058238	0.051980	-0.016050
15	P1	-10.583564	0.077523	-0.117471
19	P1	-15.503875	0.068118	0.113001
22	P1	-20.790461	1.055292	0.474608
26	P1	-16.993563	0.317880	0.505384
30	P1	-18.155991	0.283862	0.011262

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.516483	0.032971	0.256595
7	P2	-22.962246	0.059245	0.306694
11	P2	-11.503458	0.021087	0.218738
15	P2	-4.956784	0.023860	0.130737
19	P2	-6.951597	0.022865	0.109311
22	P2	-8.202741	0.022815	0.056390
26	P2	-24.011097	0.028604	0.153226
30	P2	-22.119436	0.017841	0.089148

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.068159	0.002557	0.043690
7	P3	-8.068173	0.002562	0.044437
11	P3	-8.068337	0.002561	0.043958
15	P3	-8.068258	0.002553	0.044331
19	P3	-8.068283	0.002555	0.043914
22	P3	-8.068058	0.002549	0.044320
26	P3	-8.068072	0.002541	0.044543
30	P3	-8.068111	0.002556	0.043437

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	0.000529948
	stdev	1.87653e-07
MEAN Q	mean	0.000508234
	stdev	2.24001e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136081
	stdev	0.00119672
STDEV Q	mean	0.136415
	stdev	0.00121429



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006011[234]

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_1PNPDE20060113_042639_00000522044_00147_20241_0106.N1	1	0
ASA_IMM_1PNPDE20060114_003120_000001252044_00159_20253_0148.N1	1	0
ASA_WSM_1PNPDE20060112_150453_000001282044_00140_20234_0188.N1	0	19
ASA_WSM_1PNPDE20060112_182736_000002982044_00142_20236_0208.N1	0	15







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

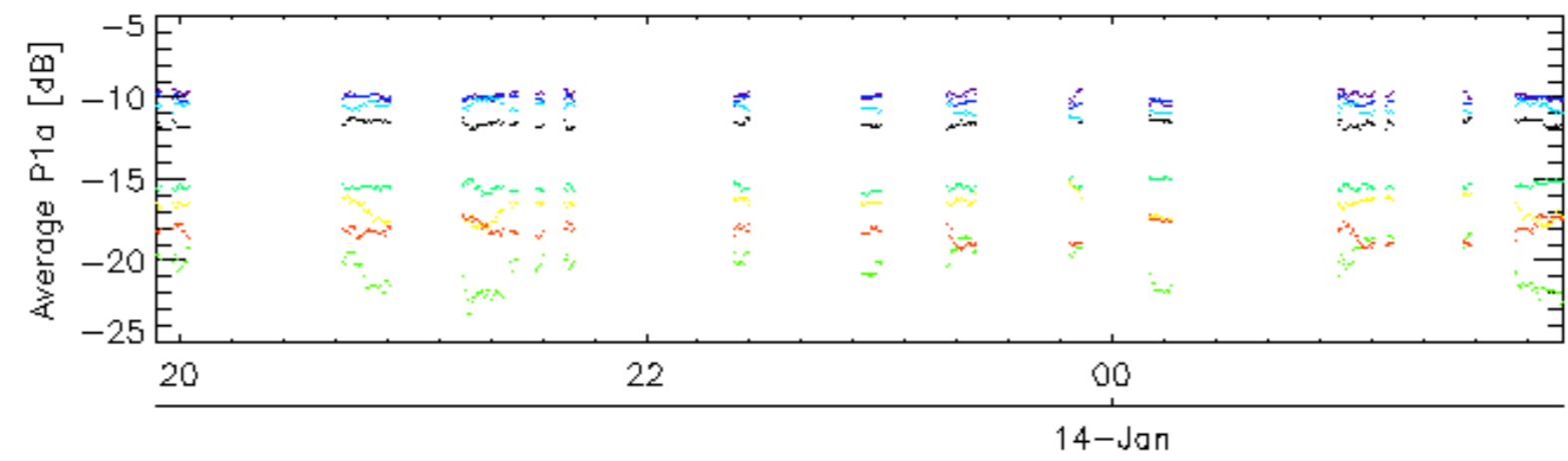
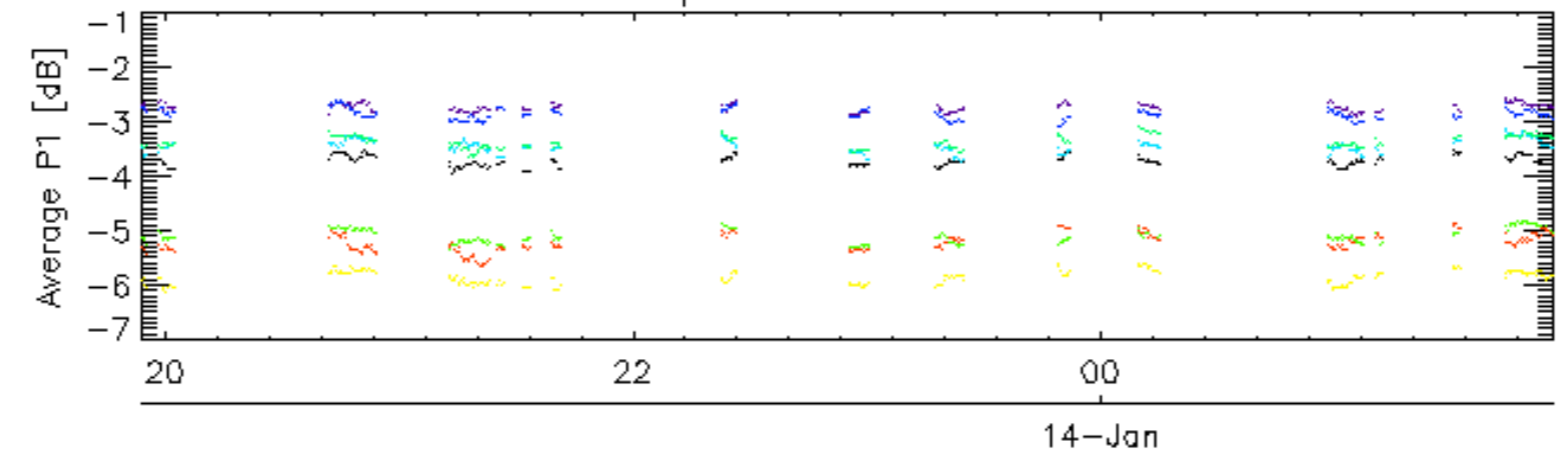
7.5 - Absolute Doppler for GM1

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

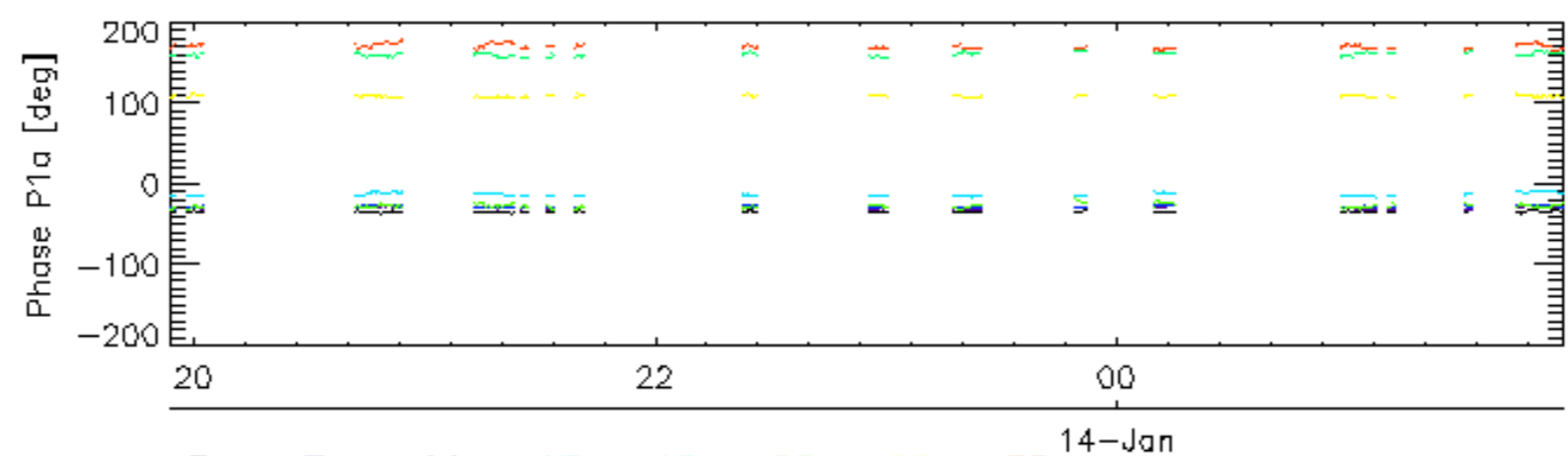
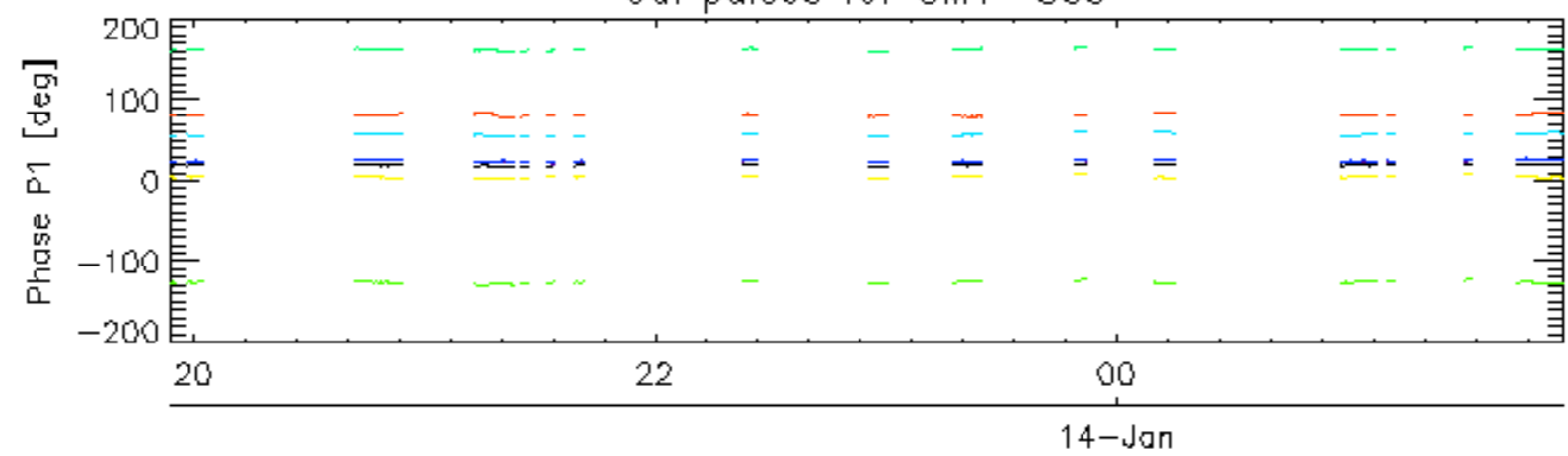
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

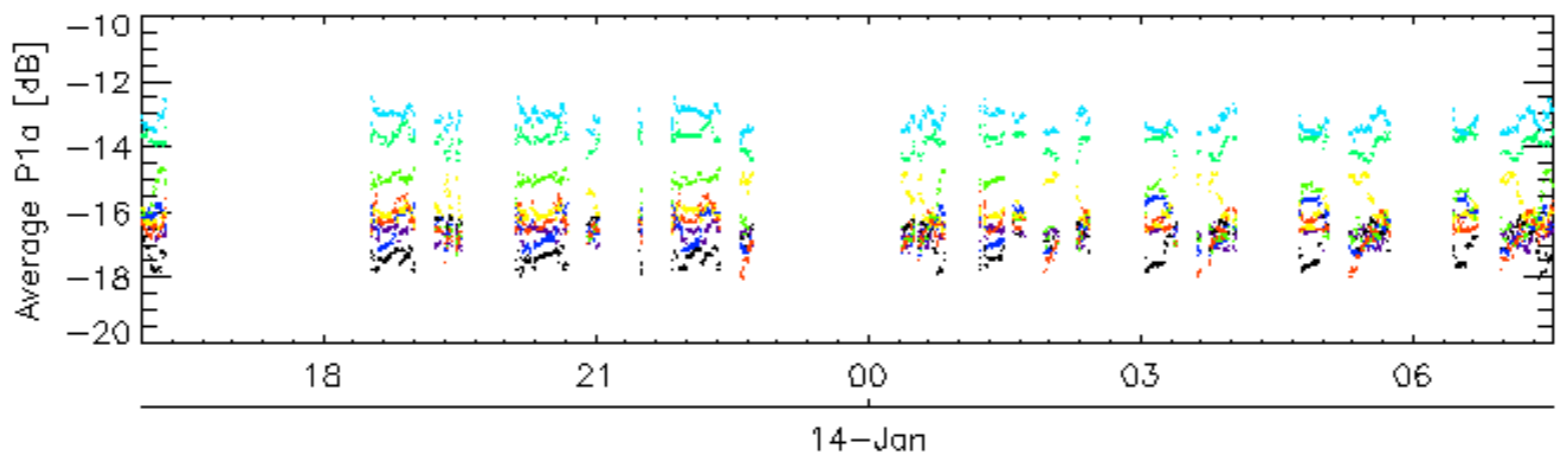
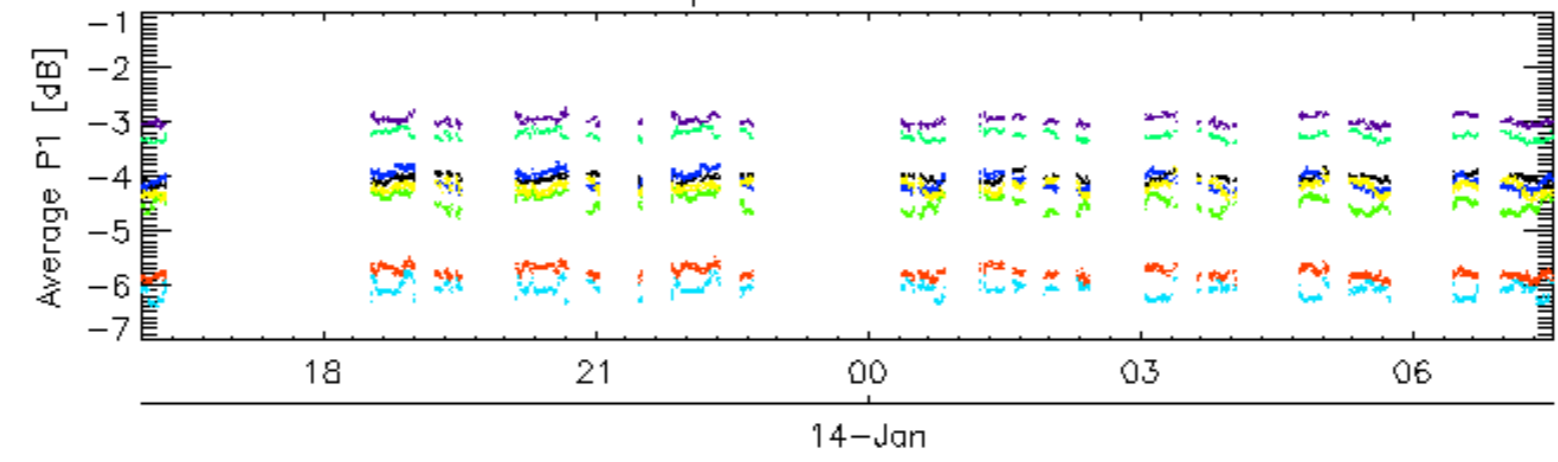


Cal pulses for GM1 SS3

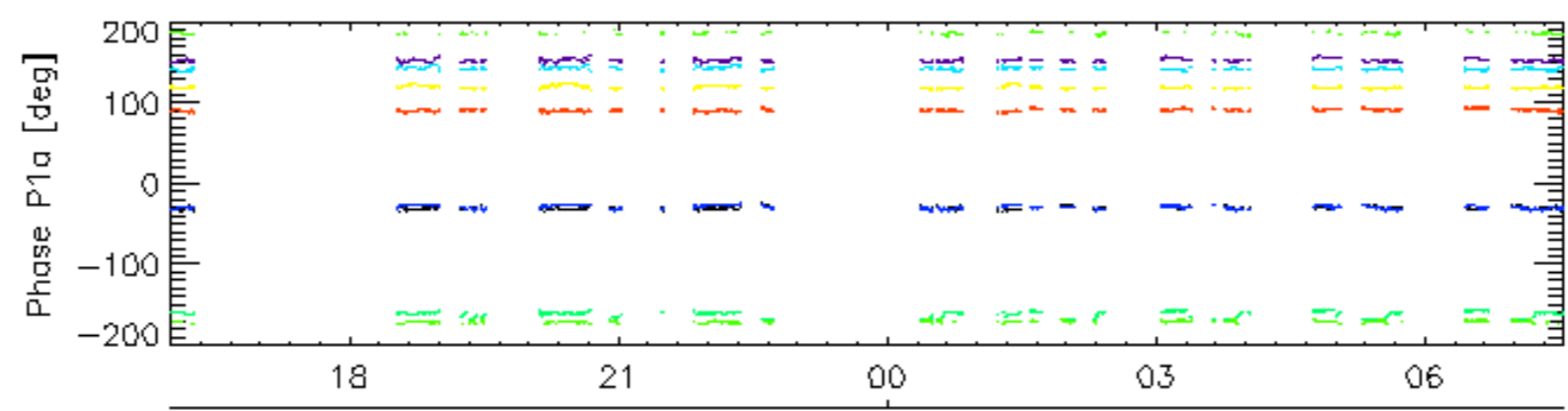
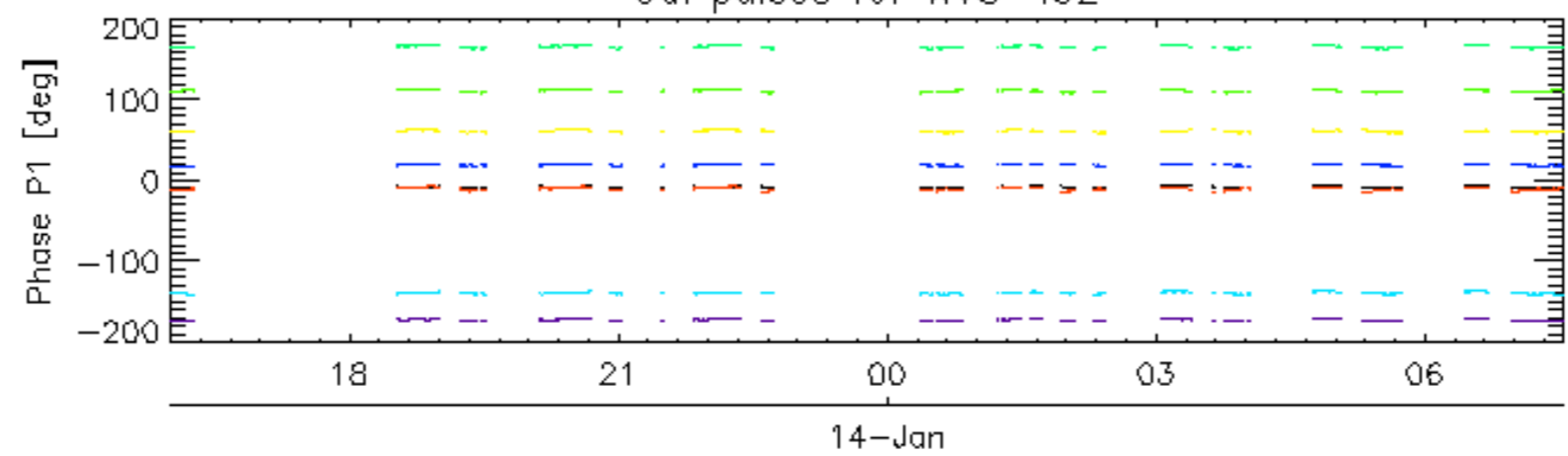


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 14-Jan

Cal pulses for WVS IS2

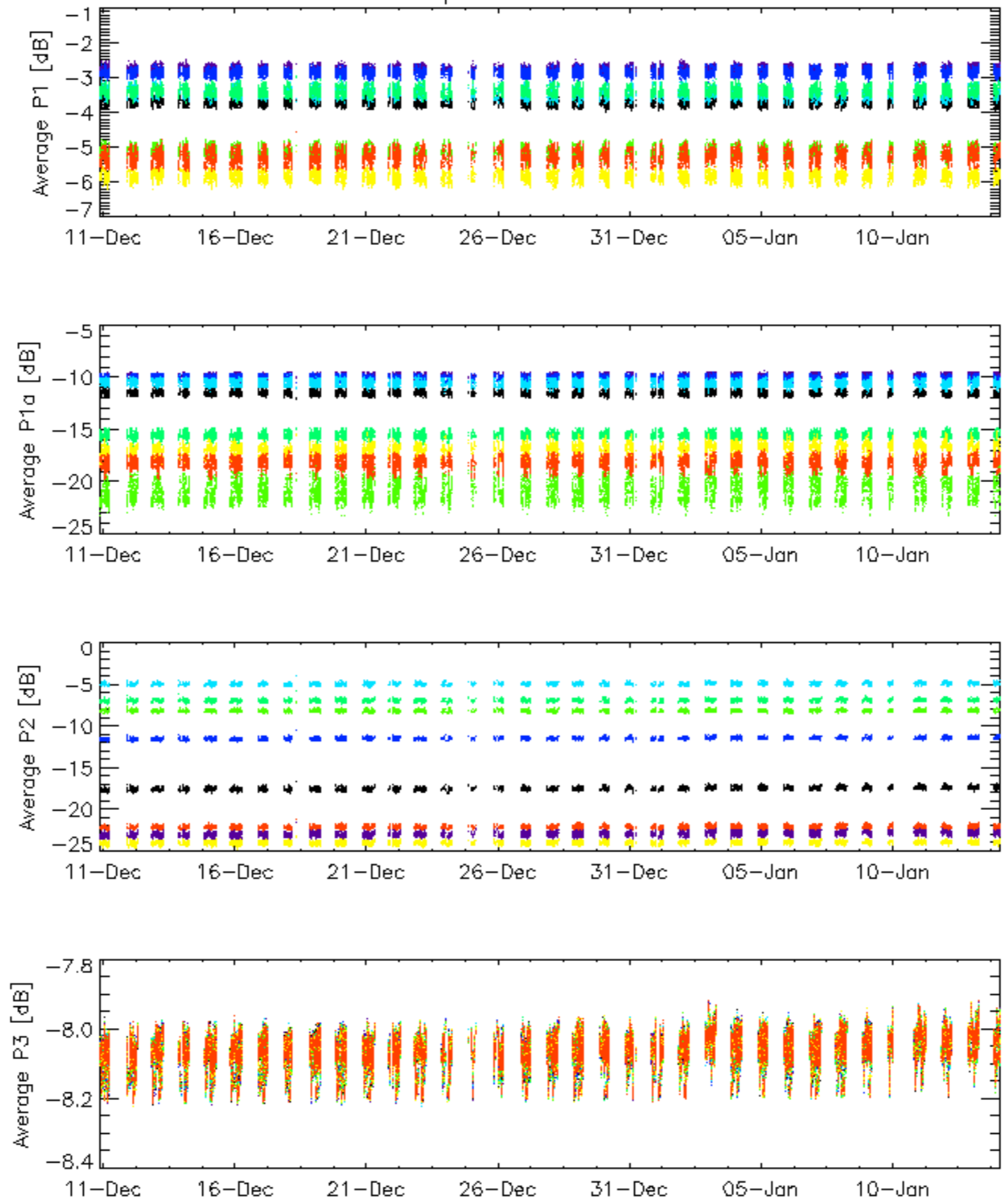


Cal pulses for WVS IS2



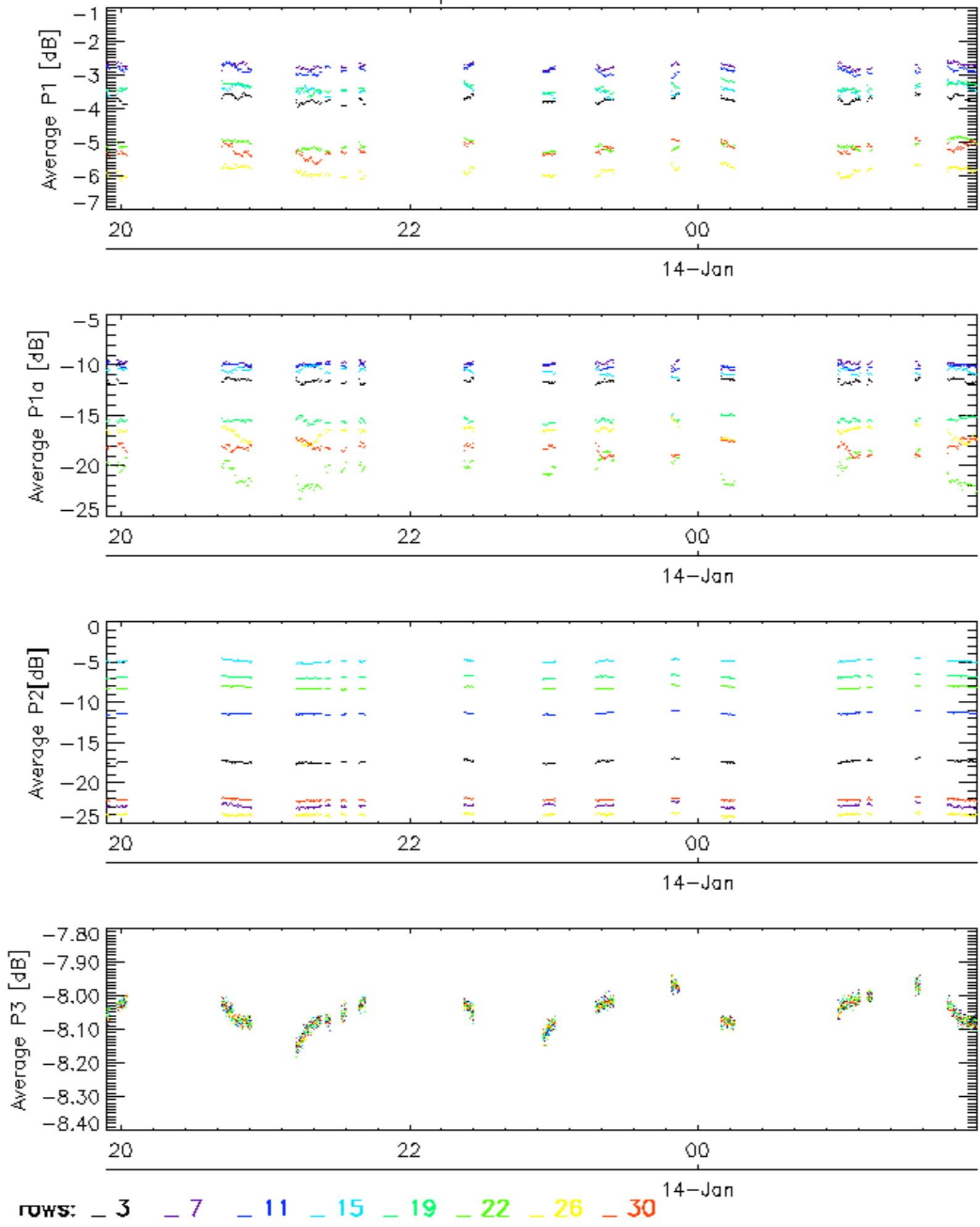
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

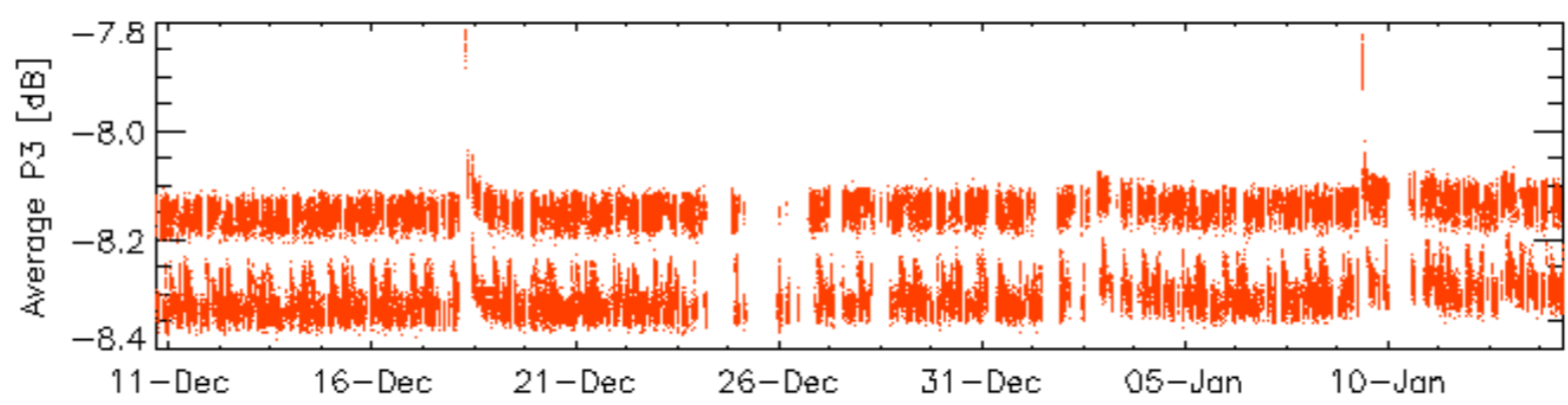
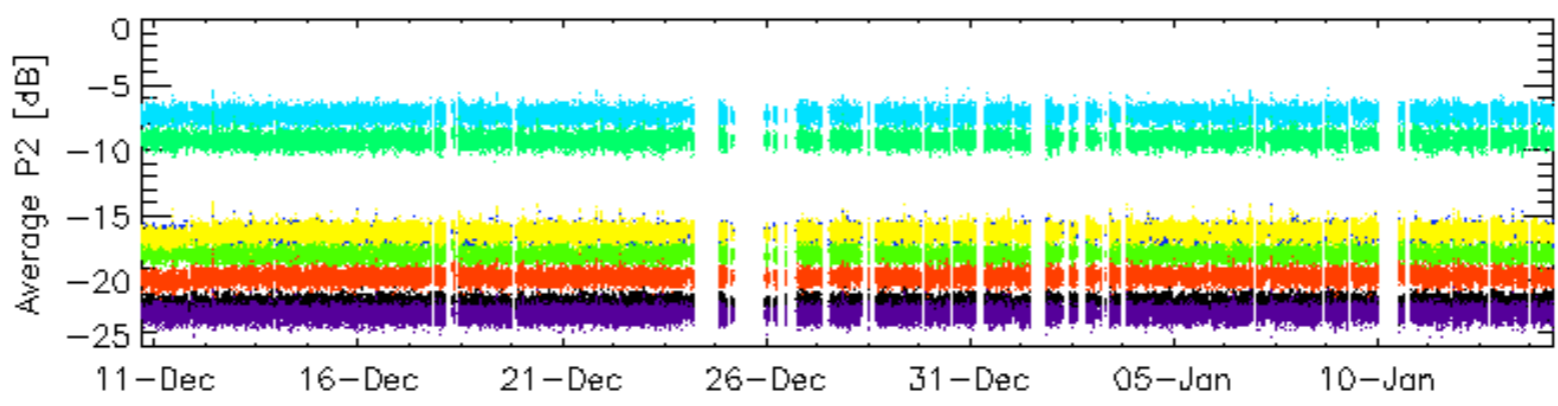
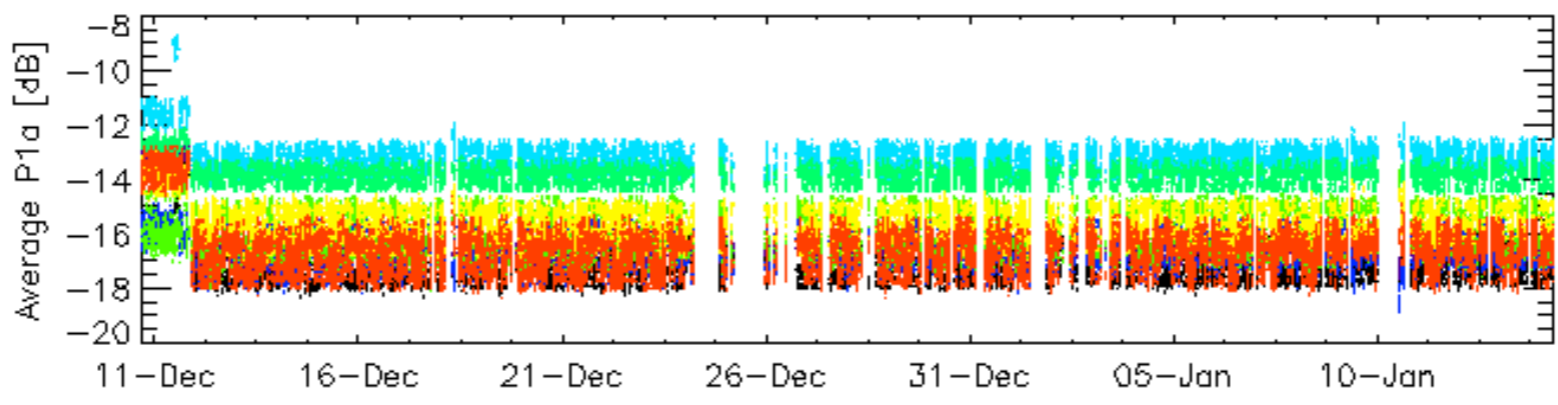
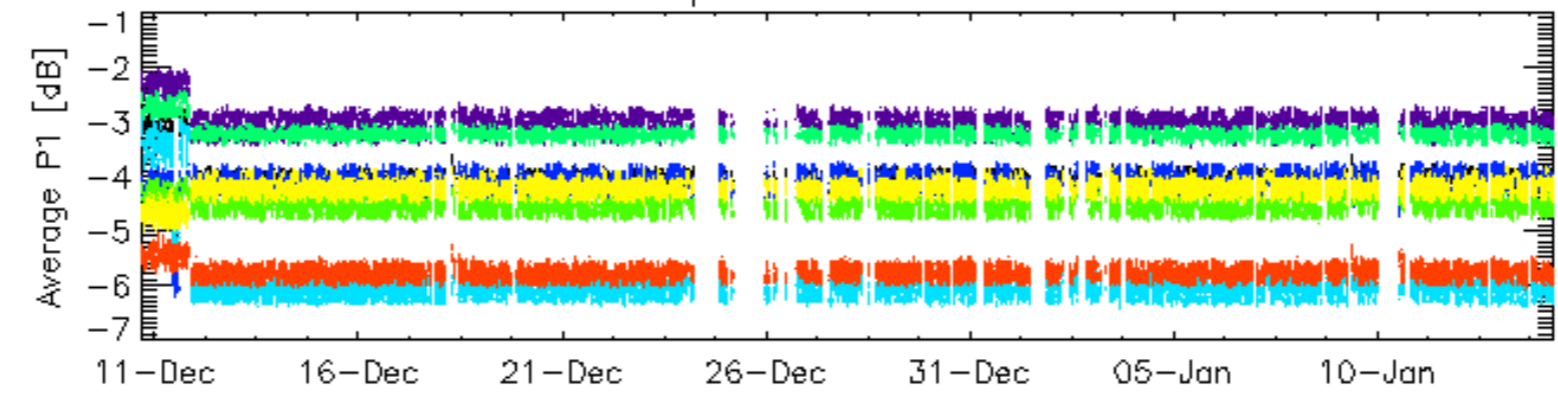


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

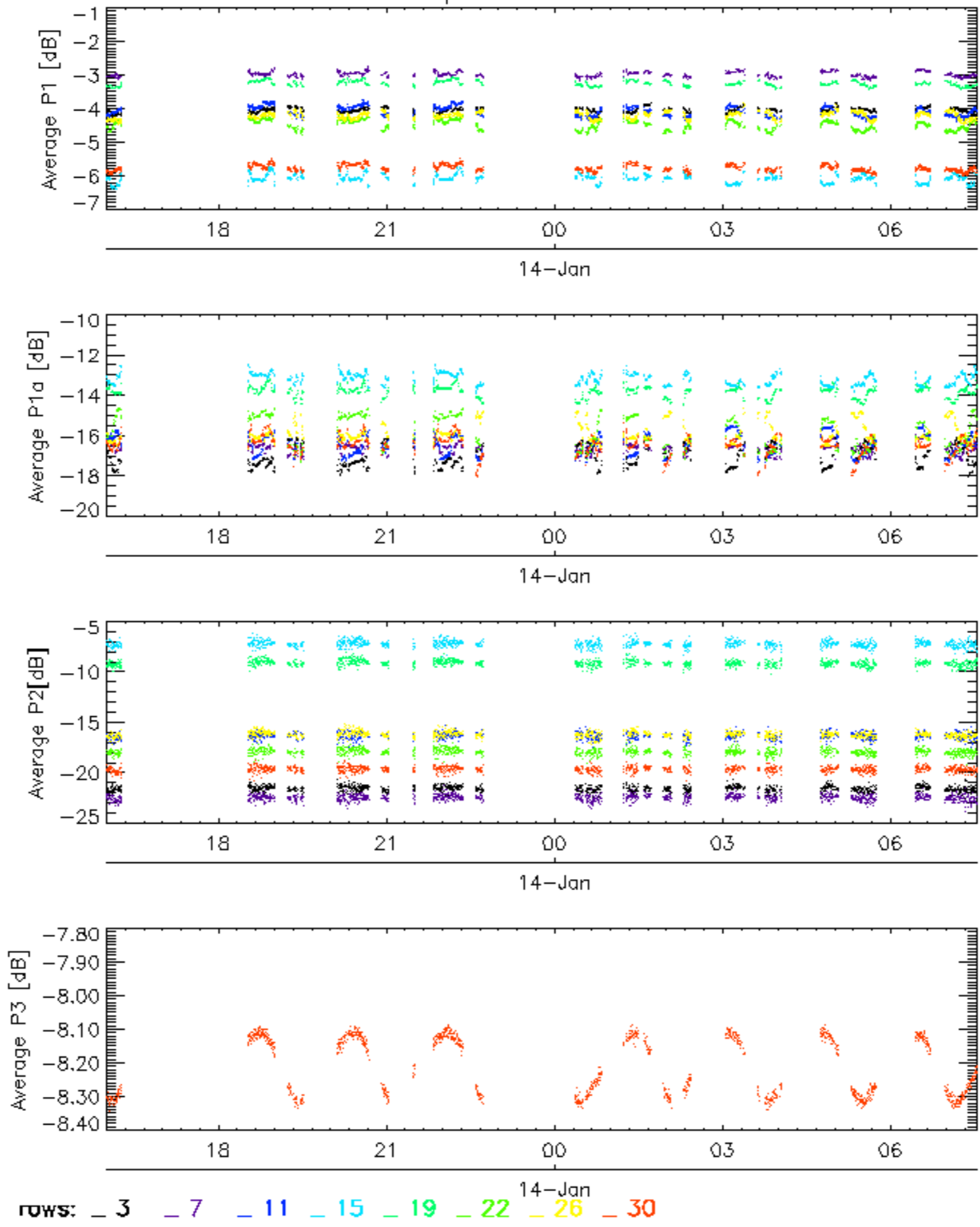


Cal pulses for WVS IS2

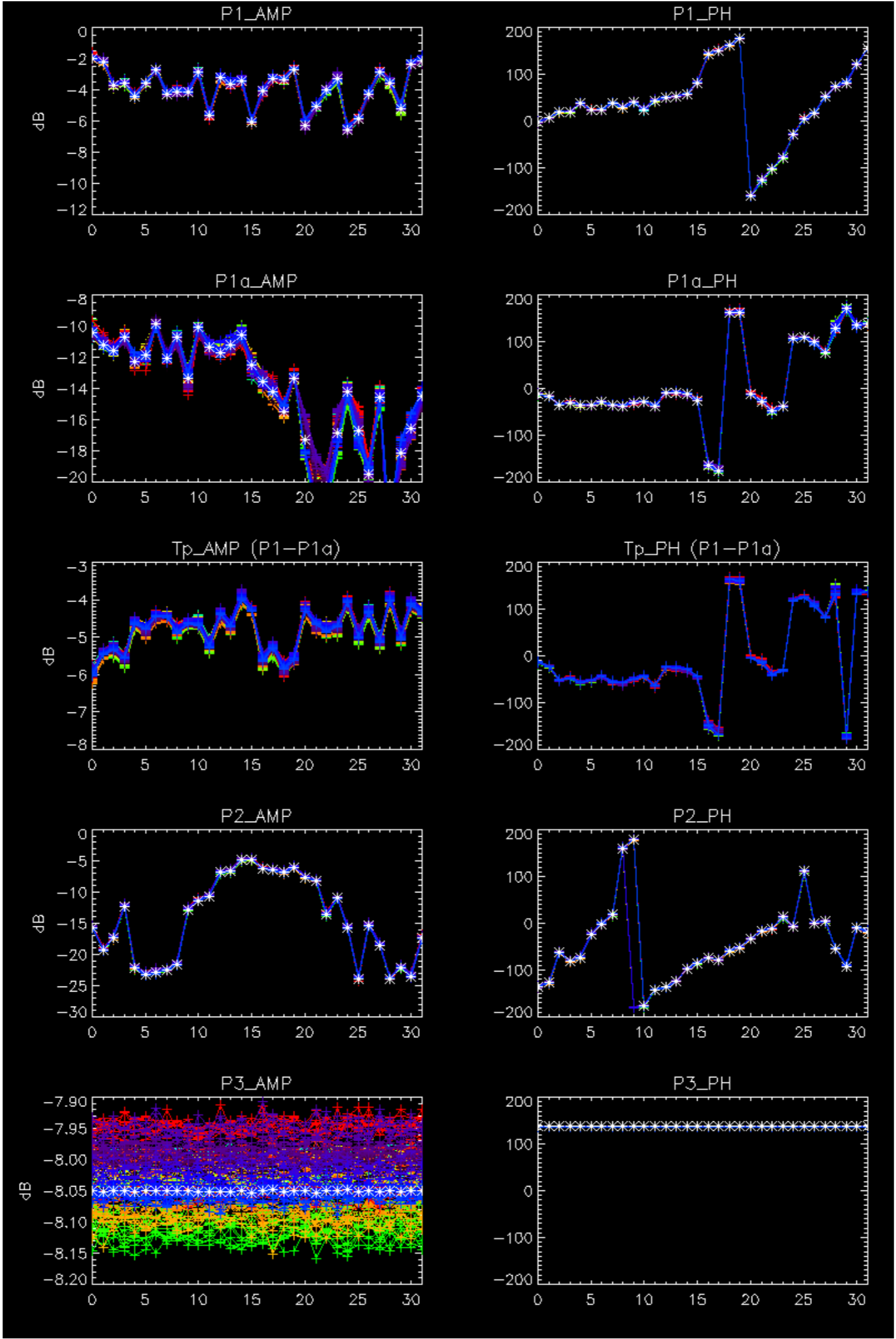


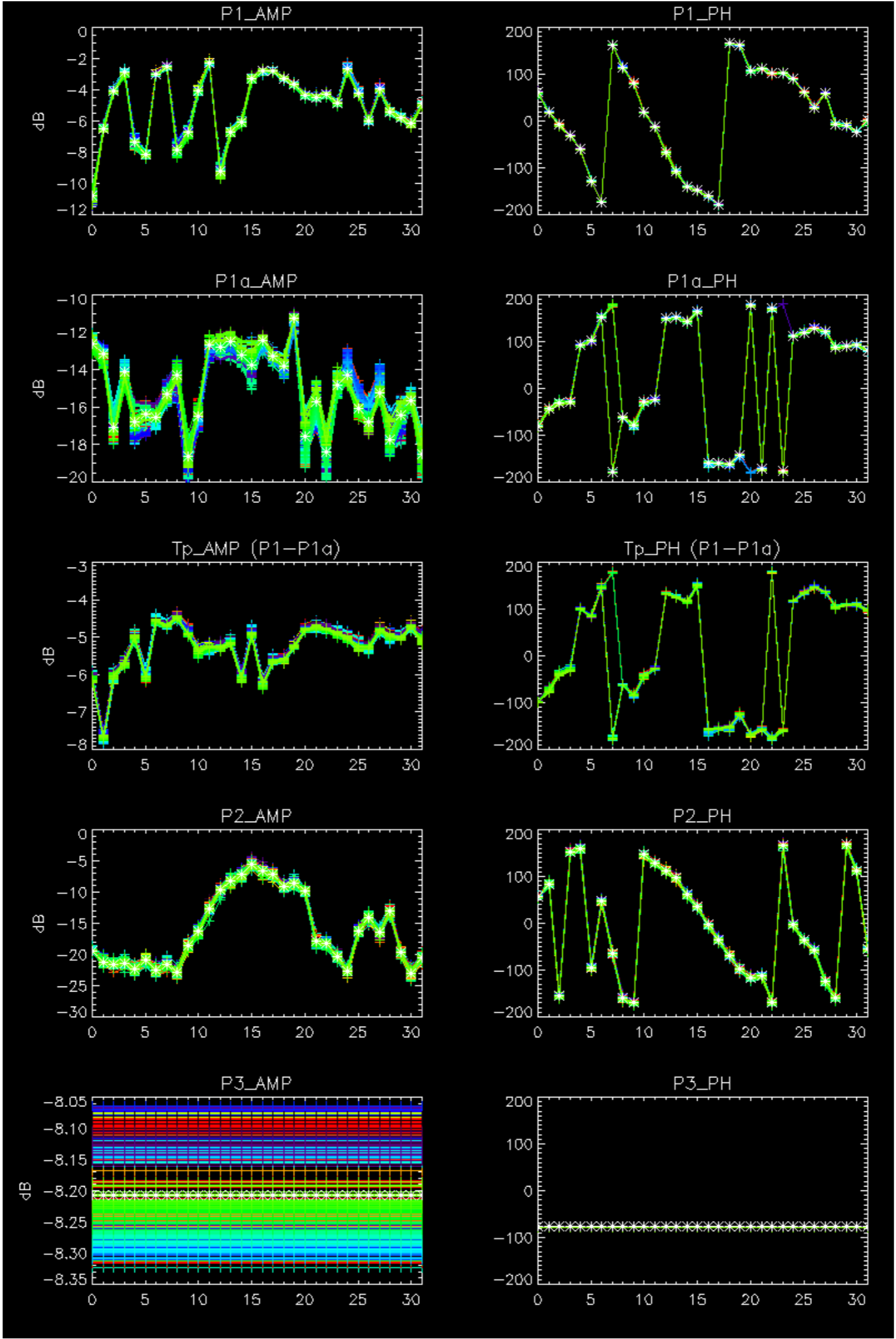
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



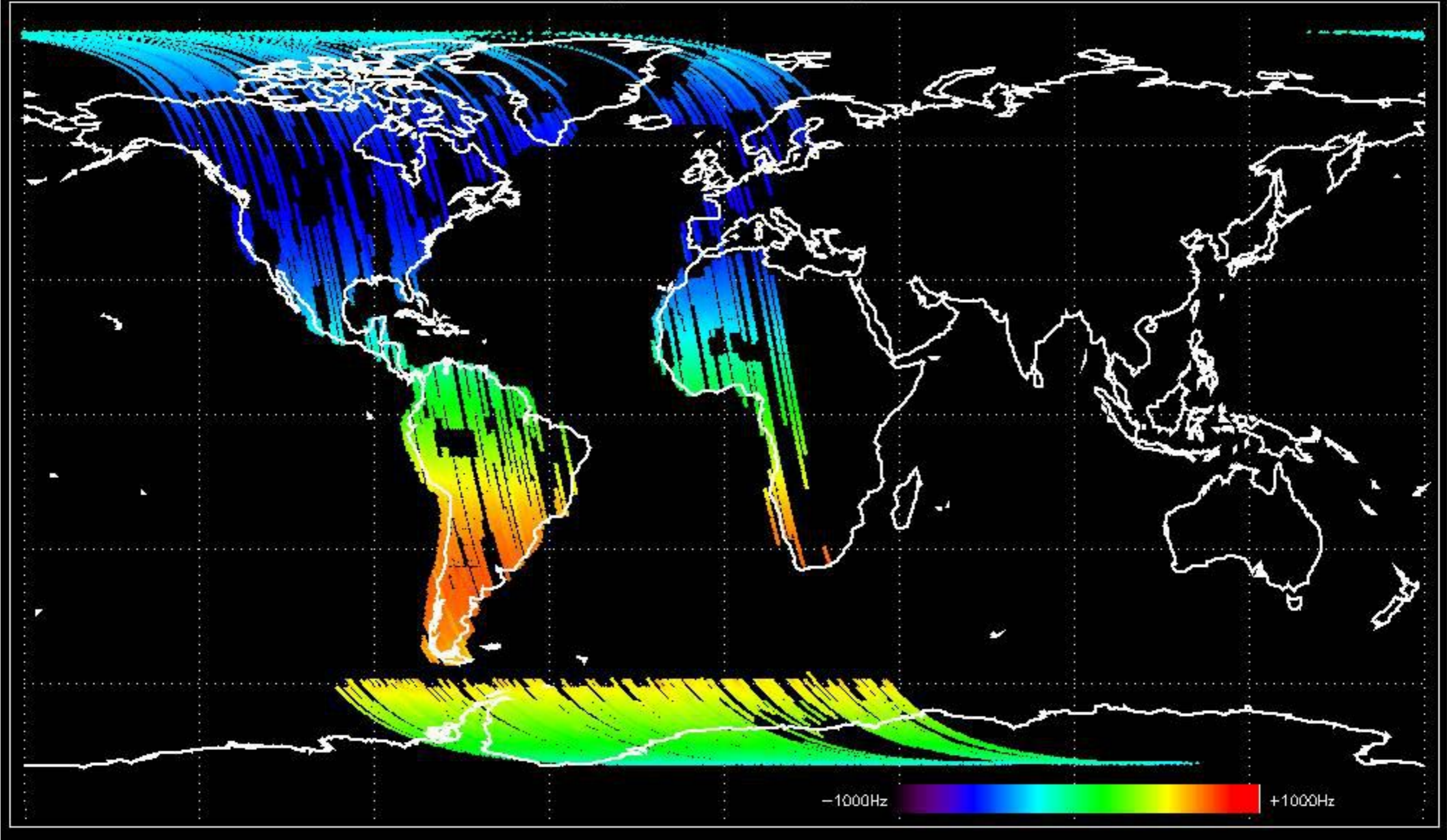
No anomalies observed.



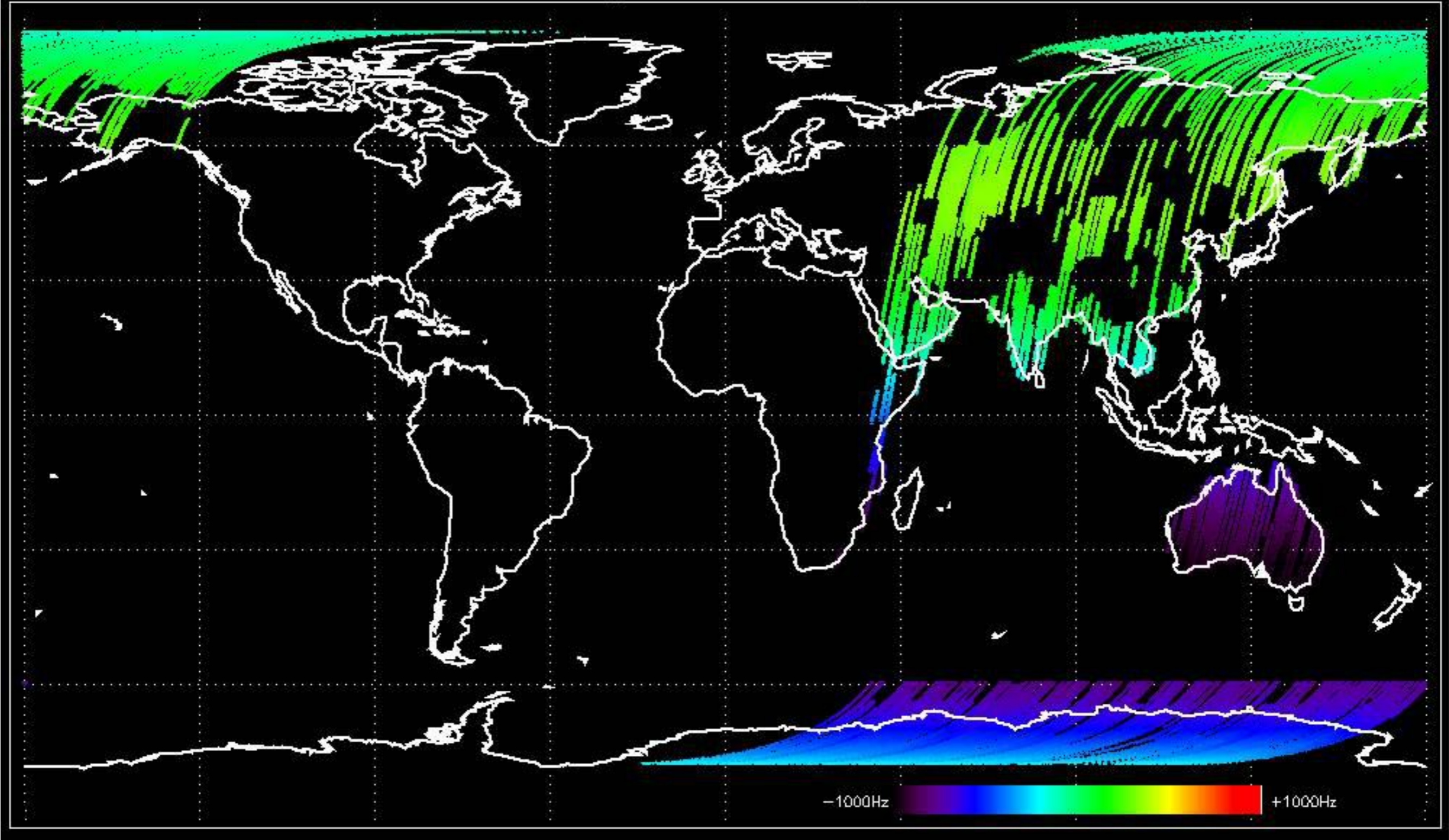


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

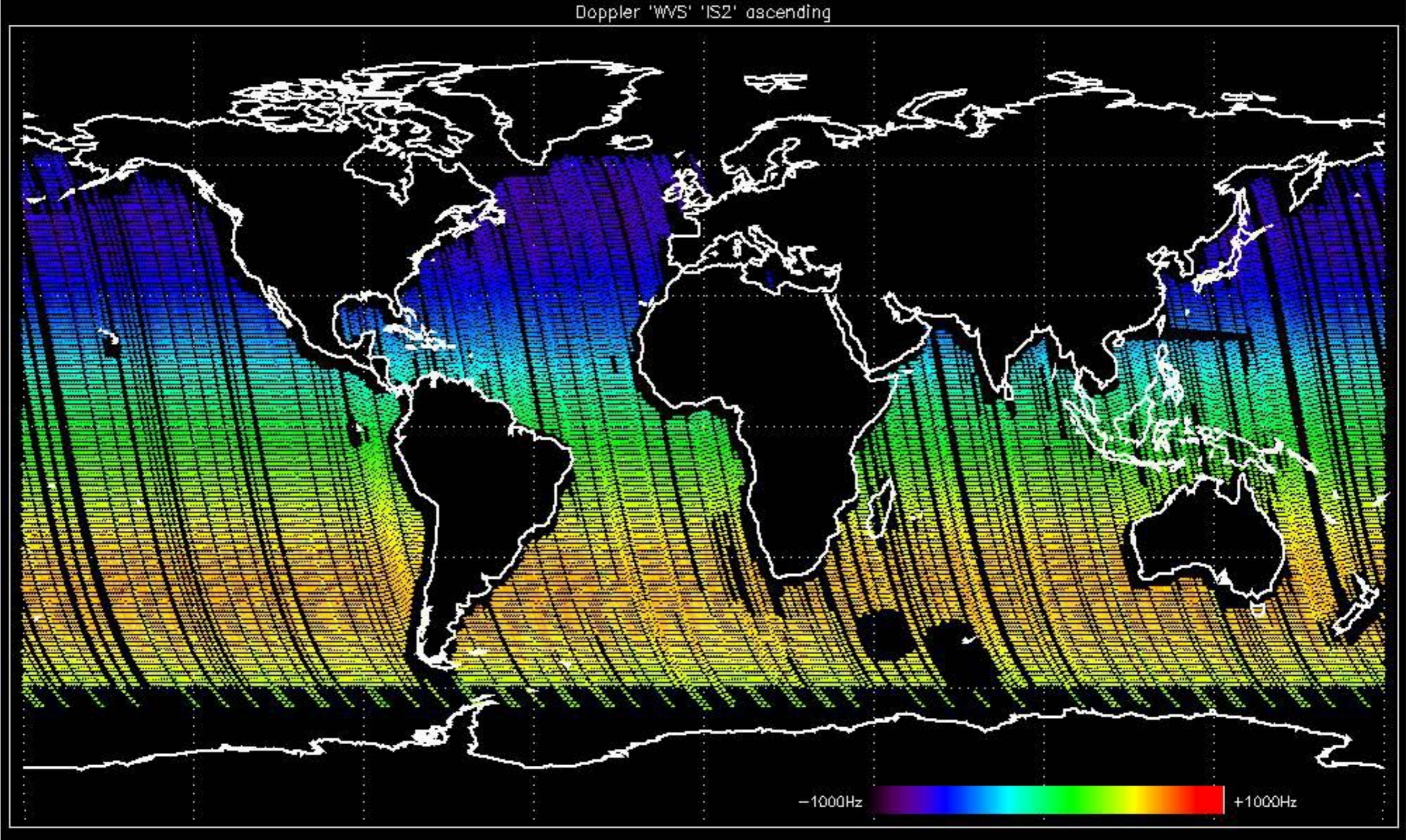
Doppler 'GM1' 'SS1' ascending



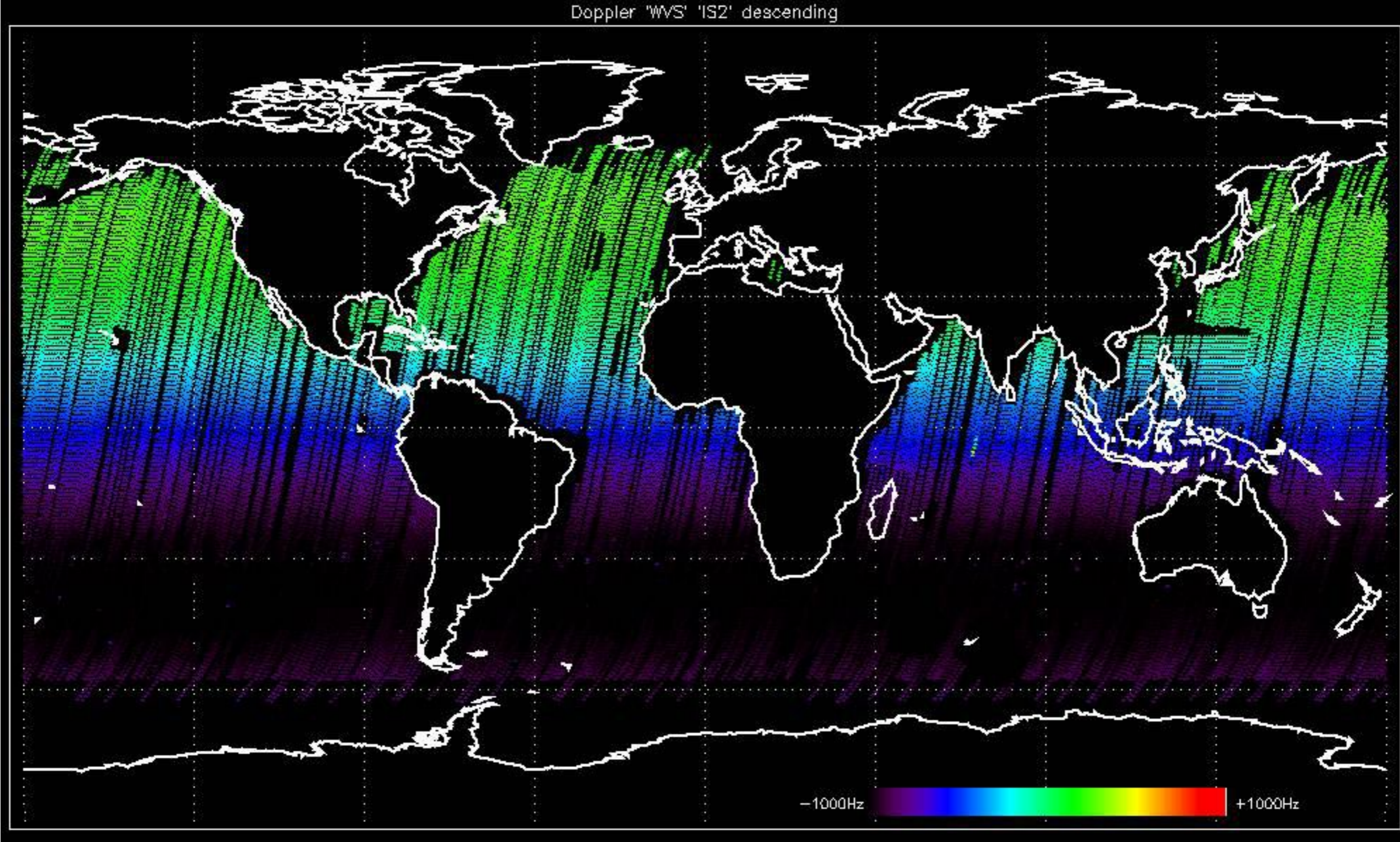
Doppler 'GM1' 'SS1' descending



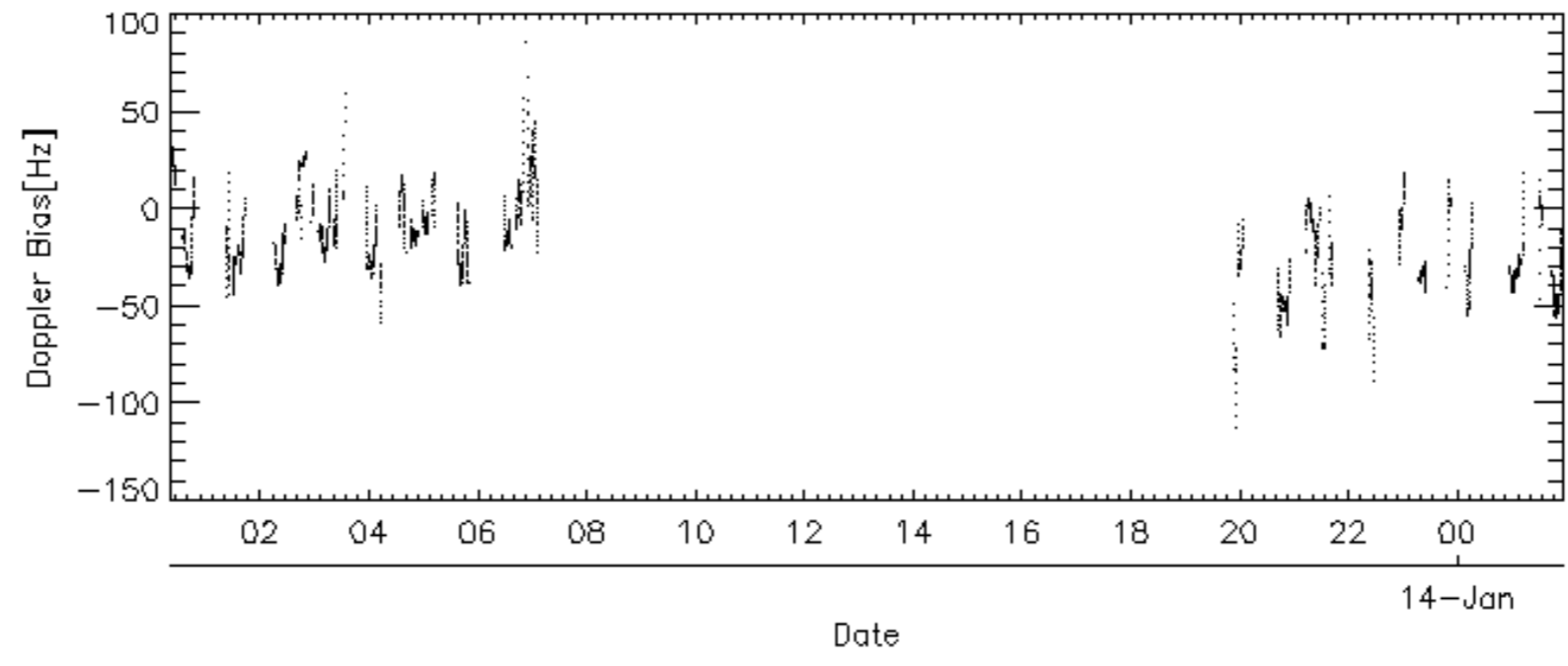
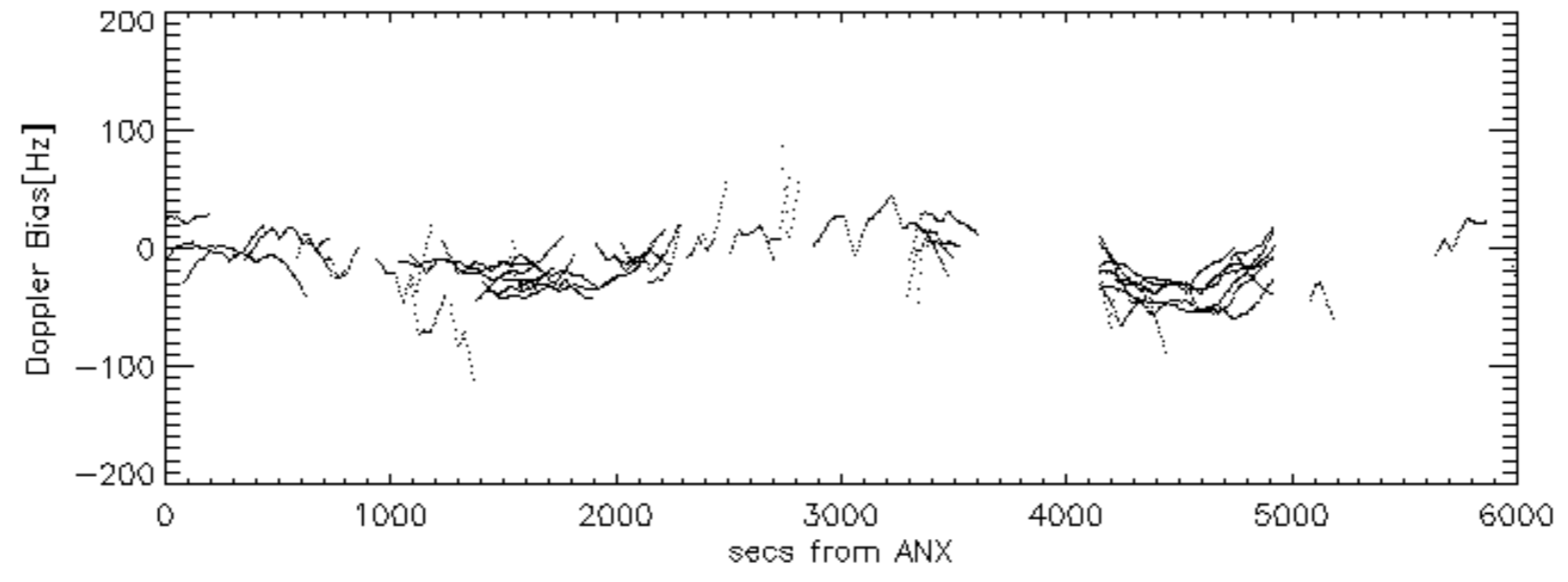
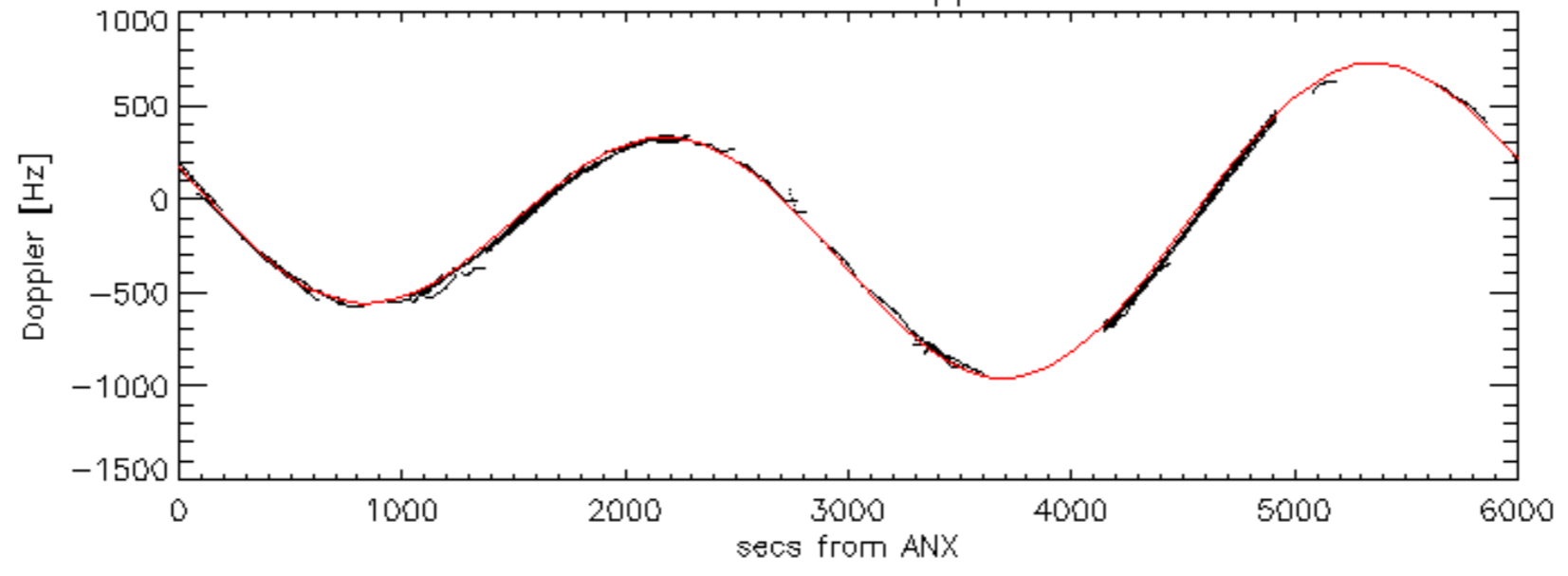
Doppler 'WVS' 'IS2' ascending

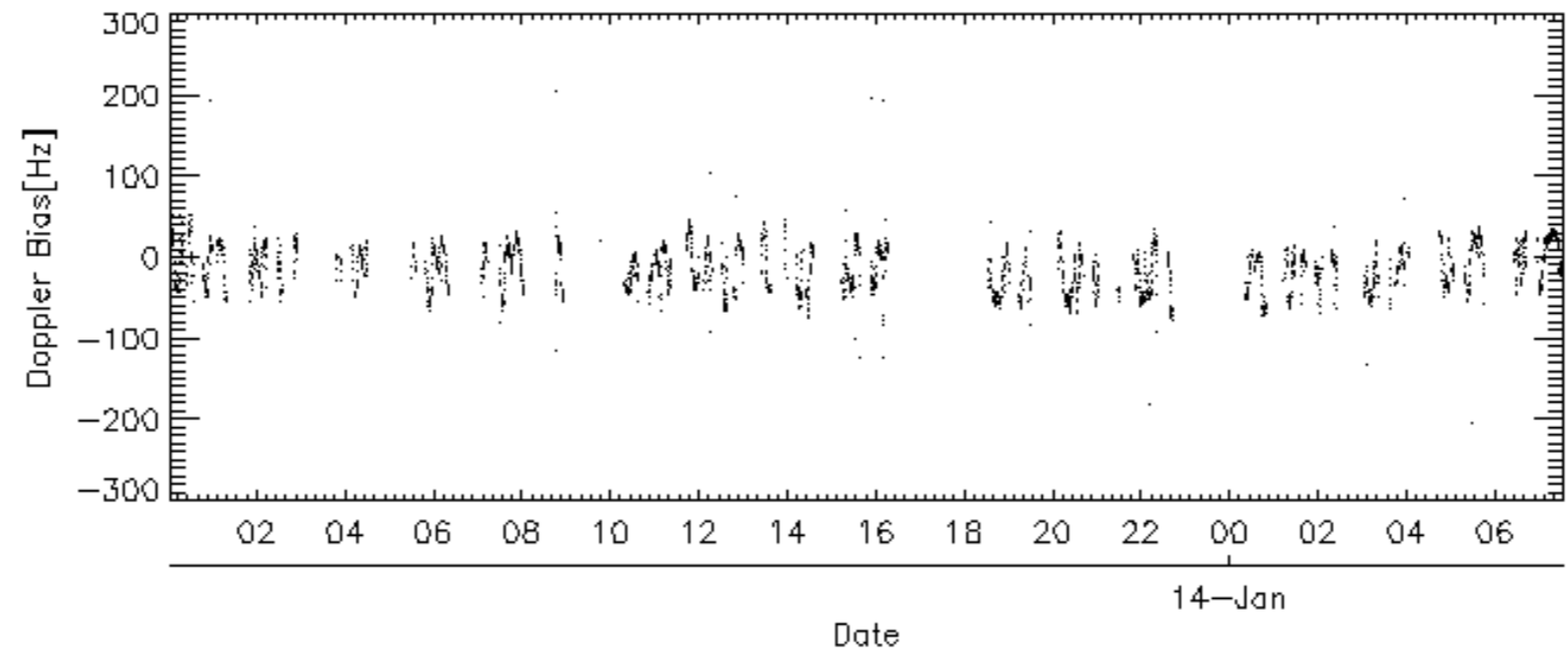
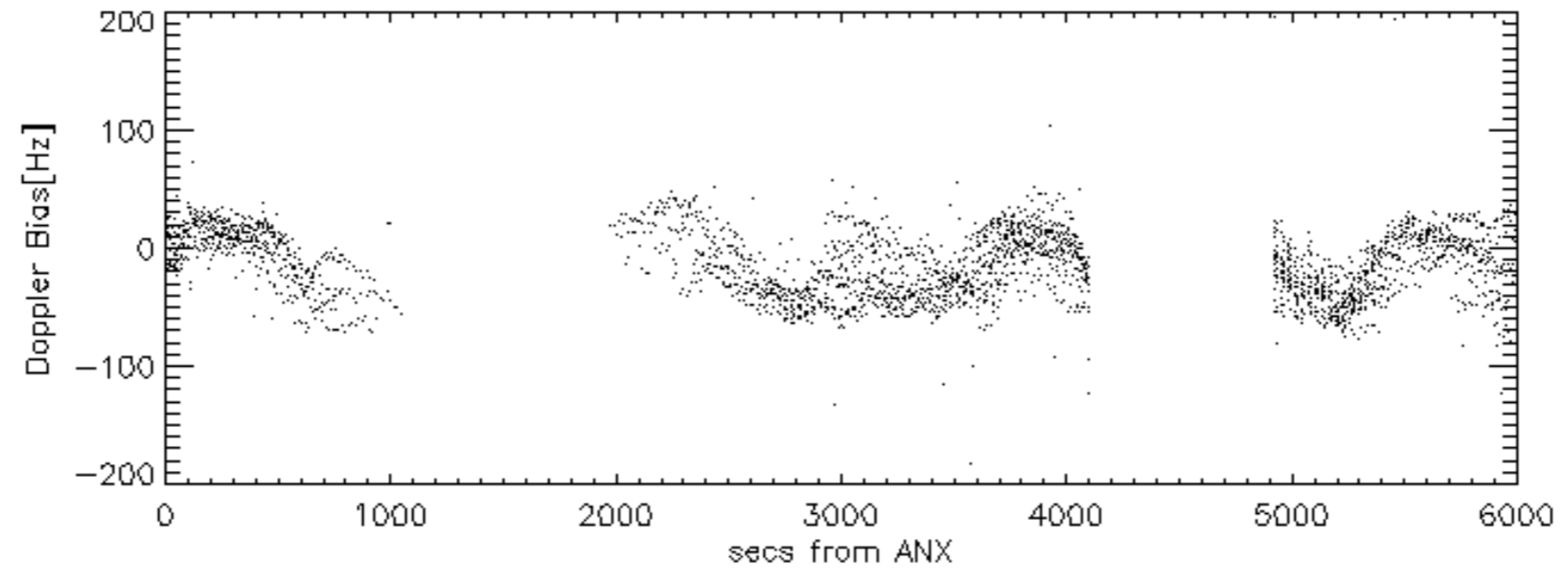
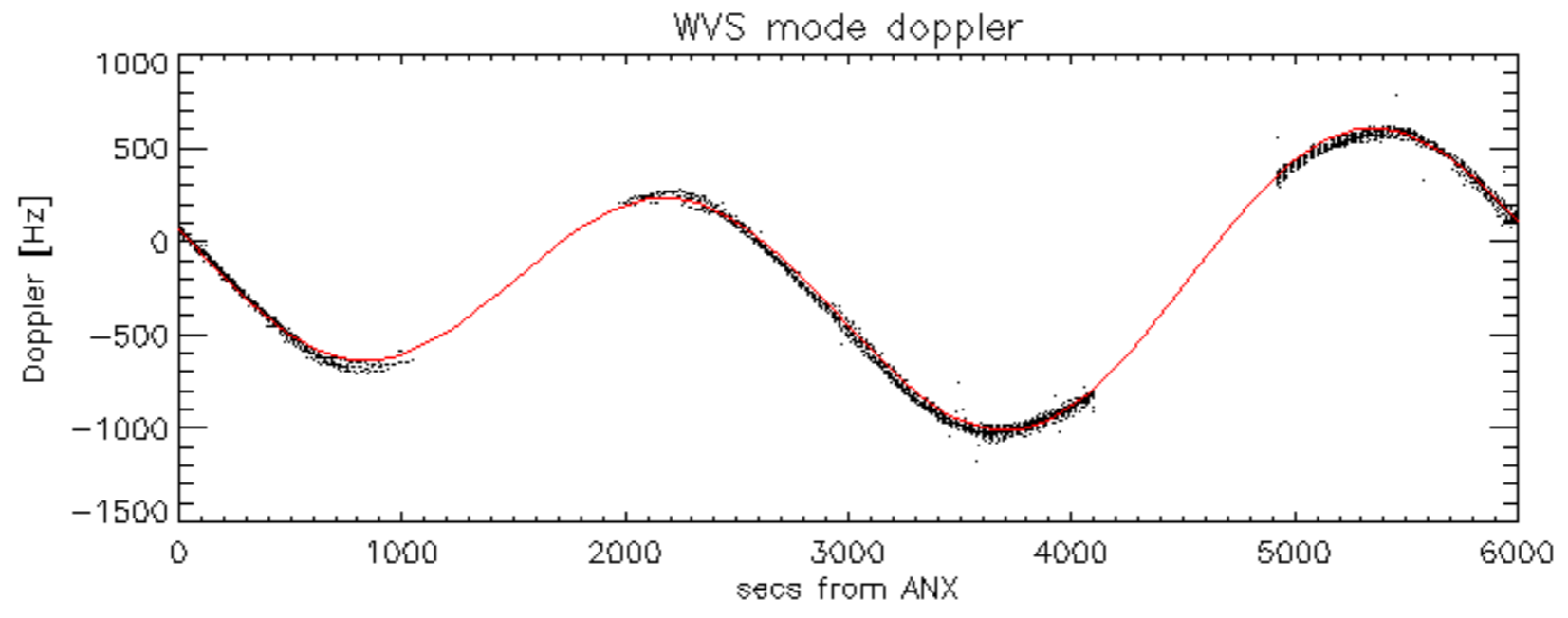


Doppler 'WVS' 'IS2' descending

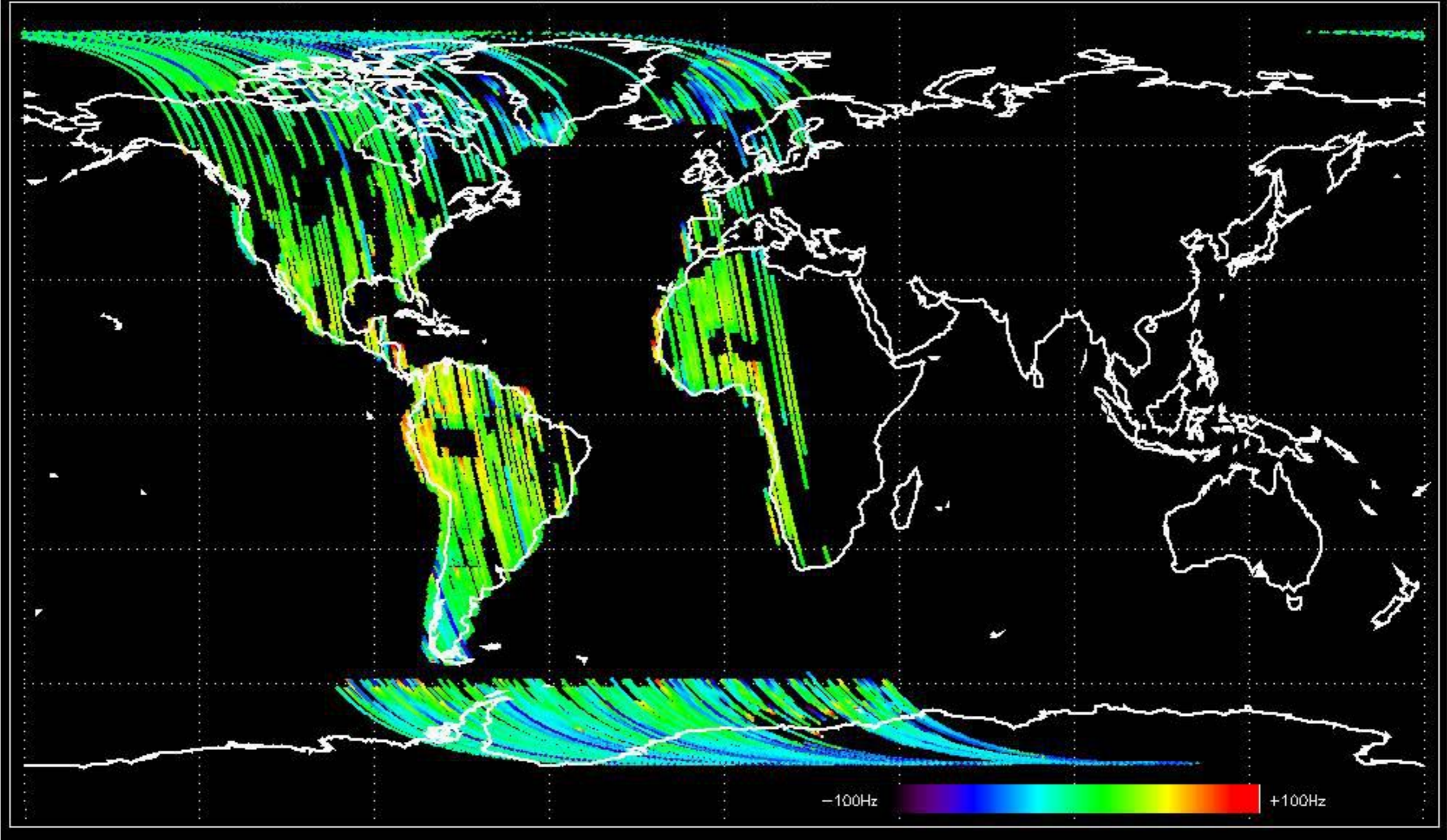


GM1 mode doppler

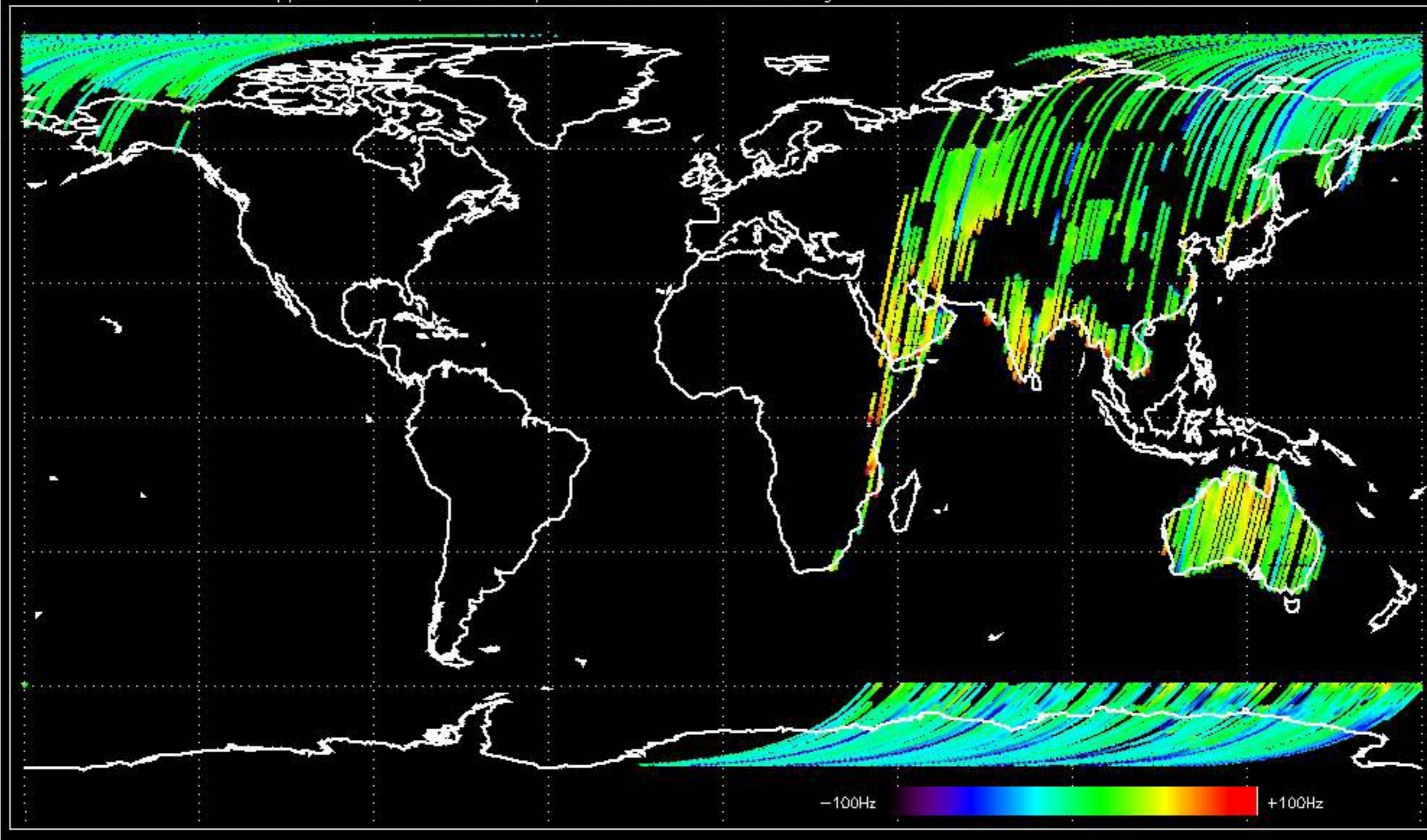




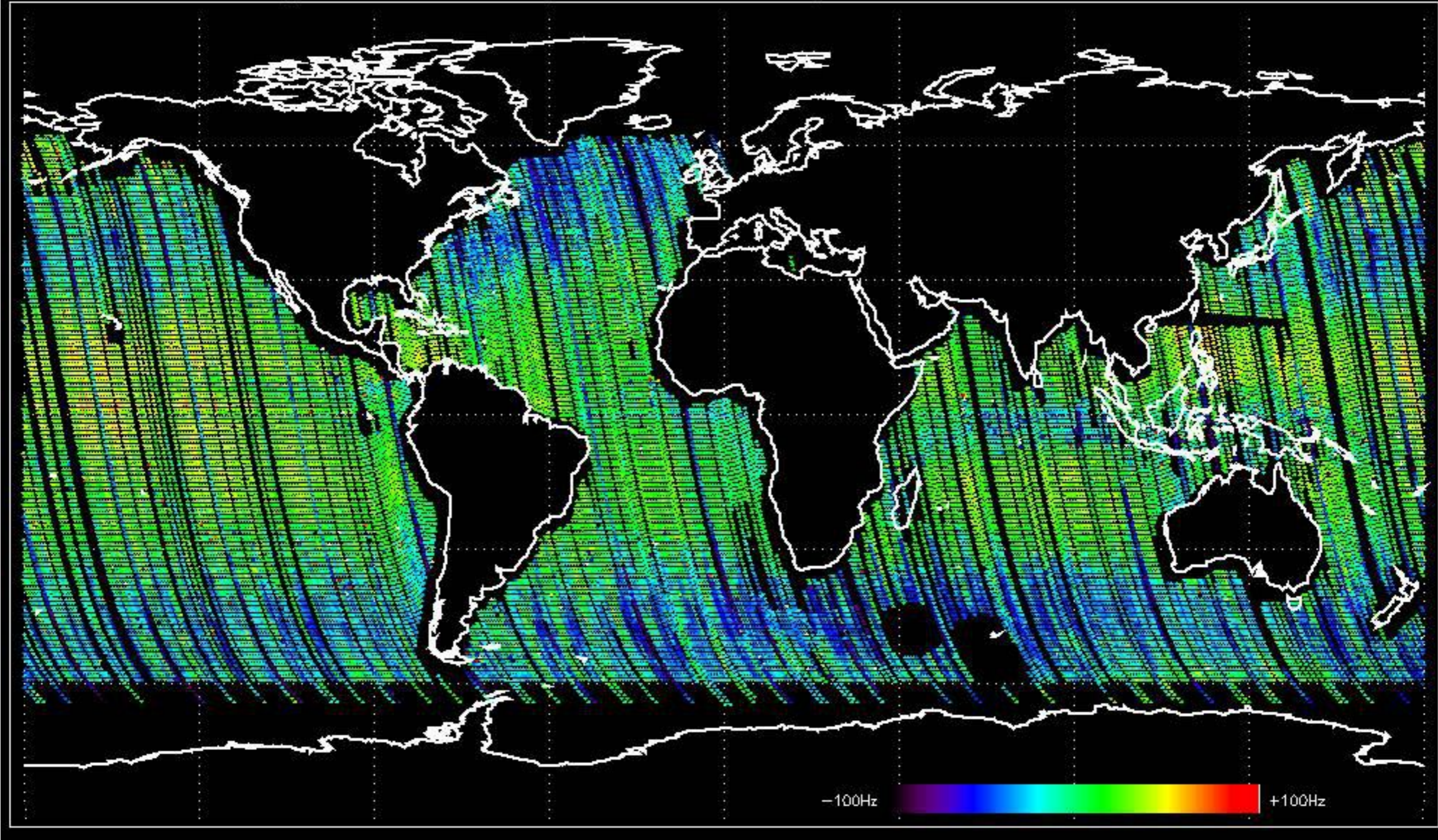
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.926215 Hz



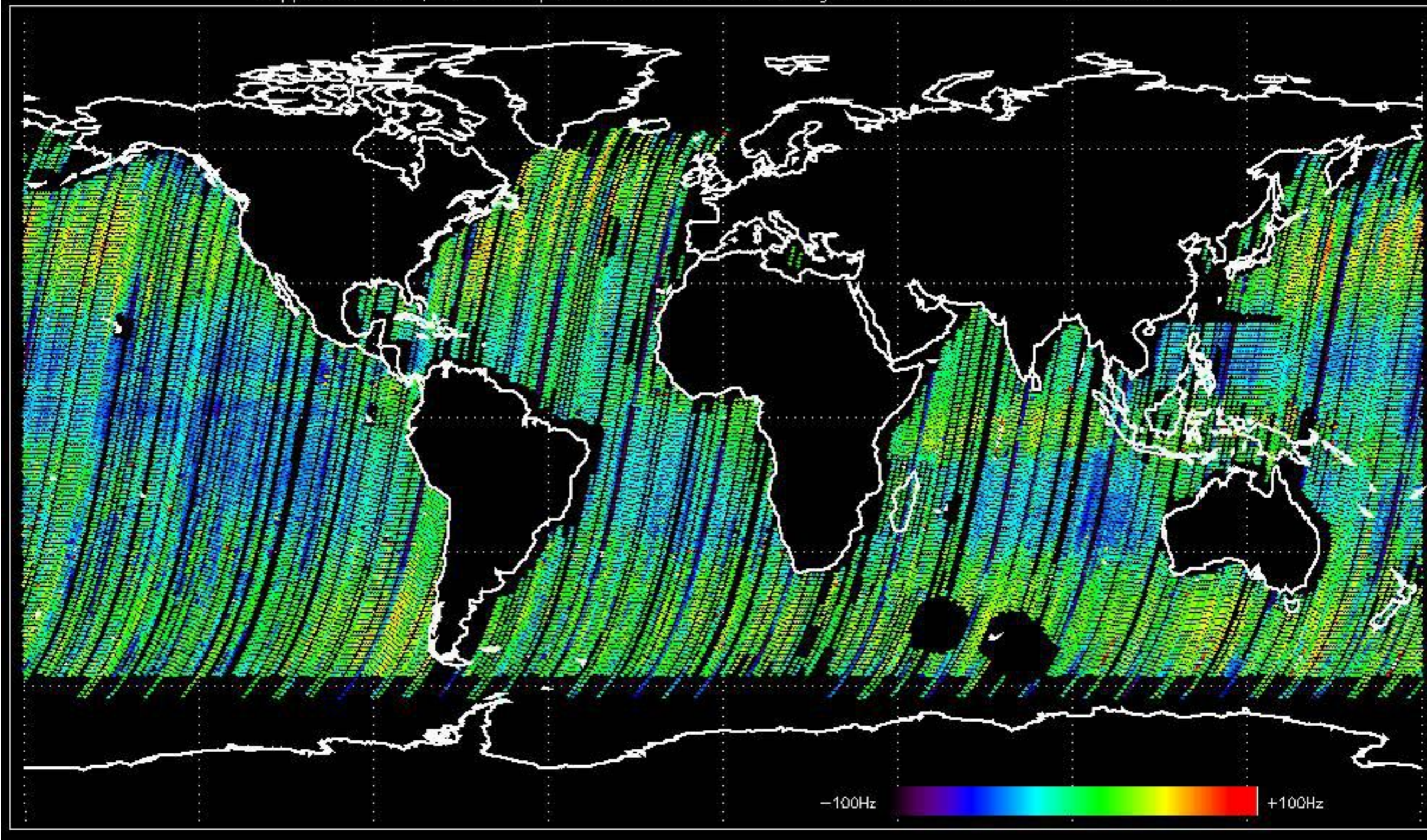
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.915383 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.4302135 Hz

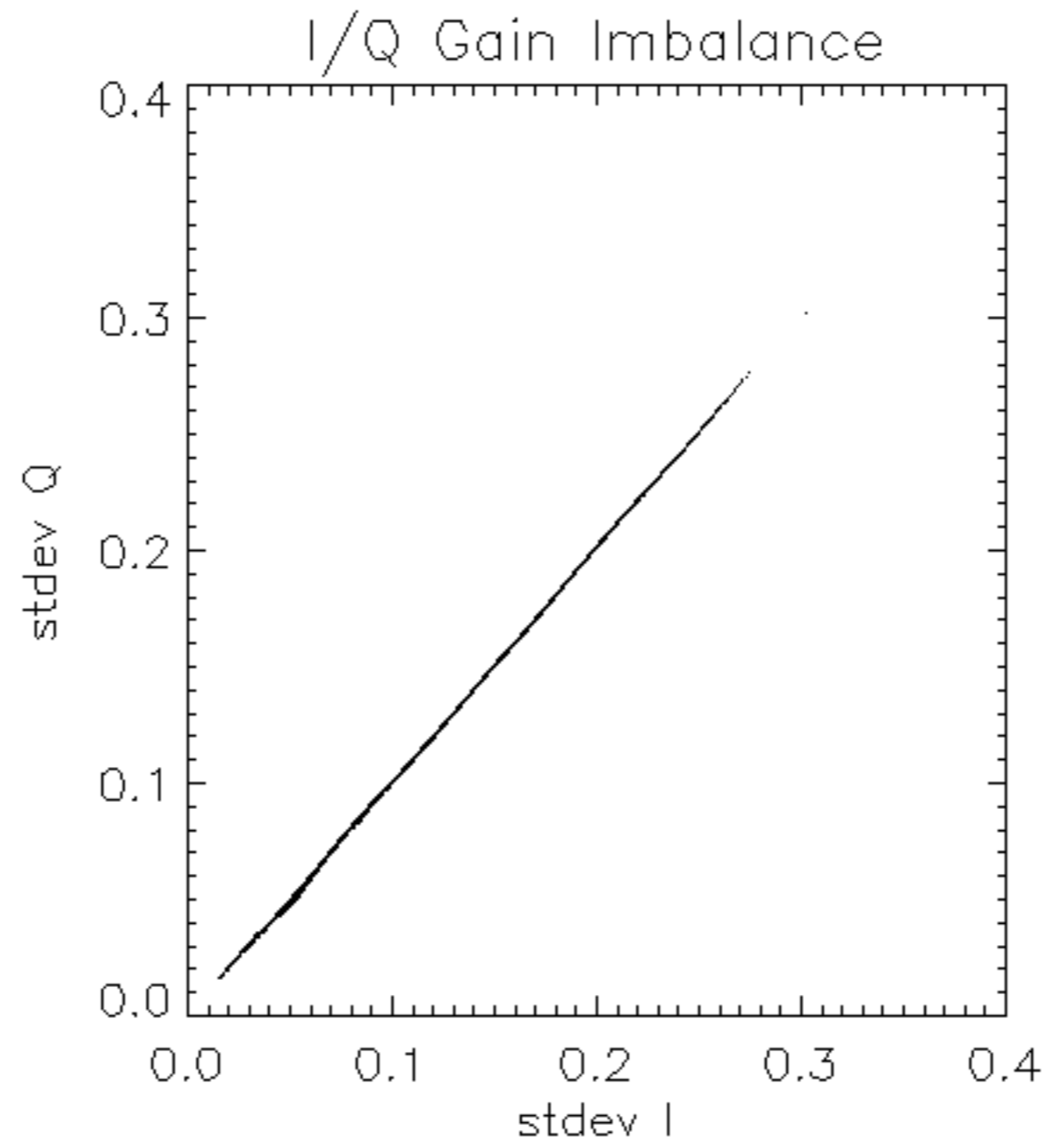


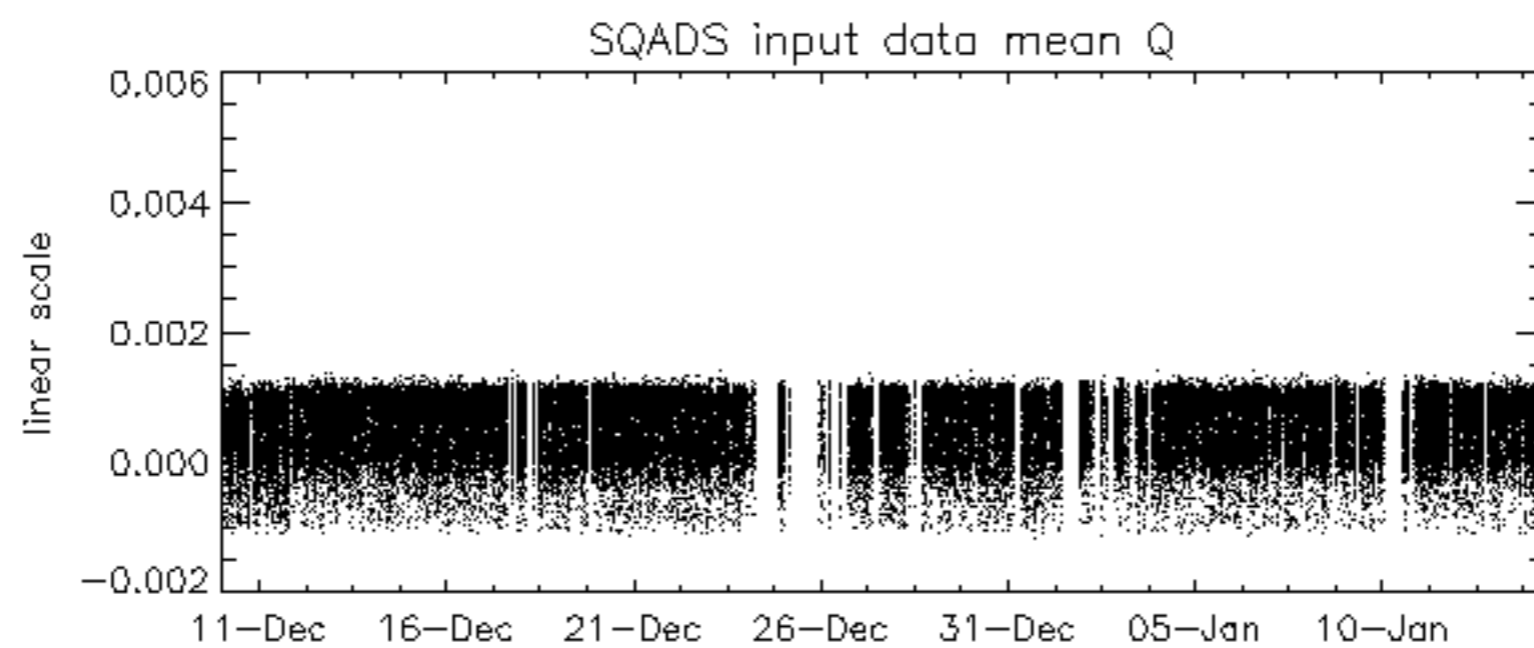
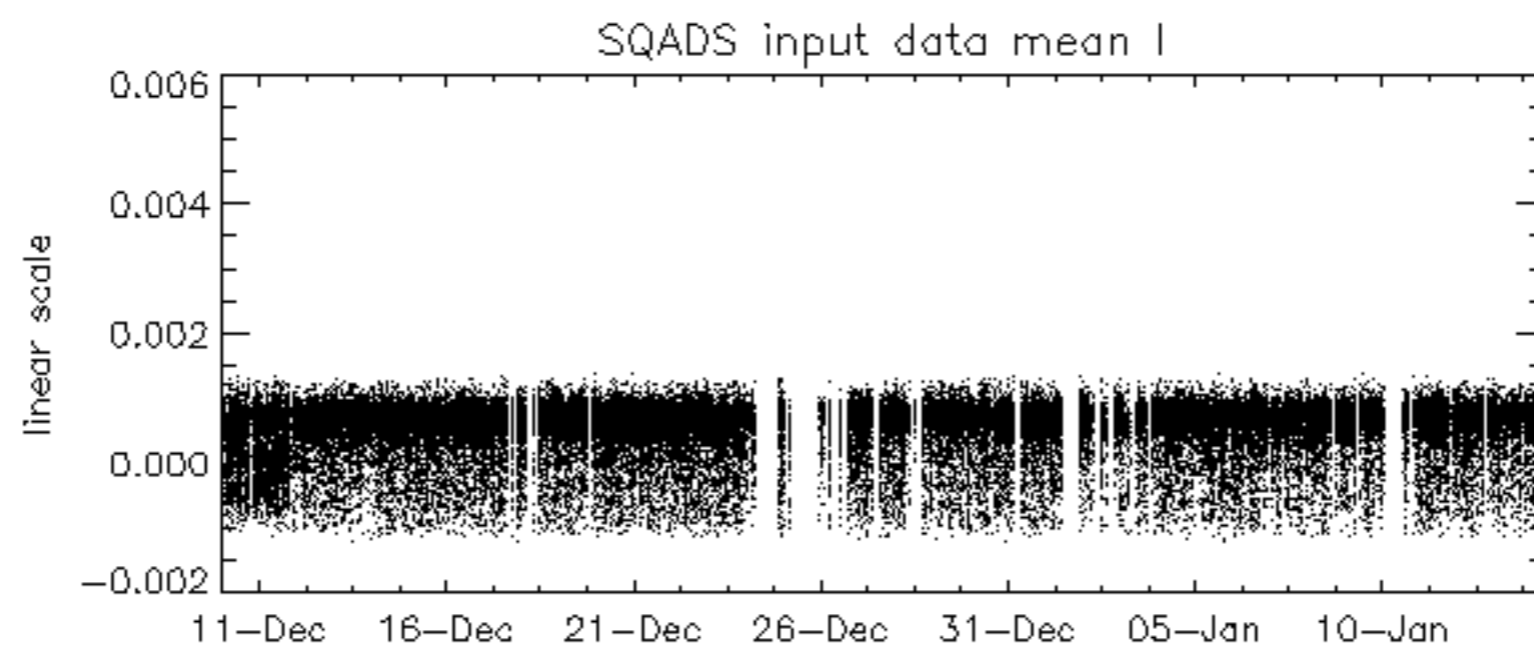
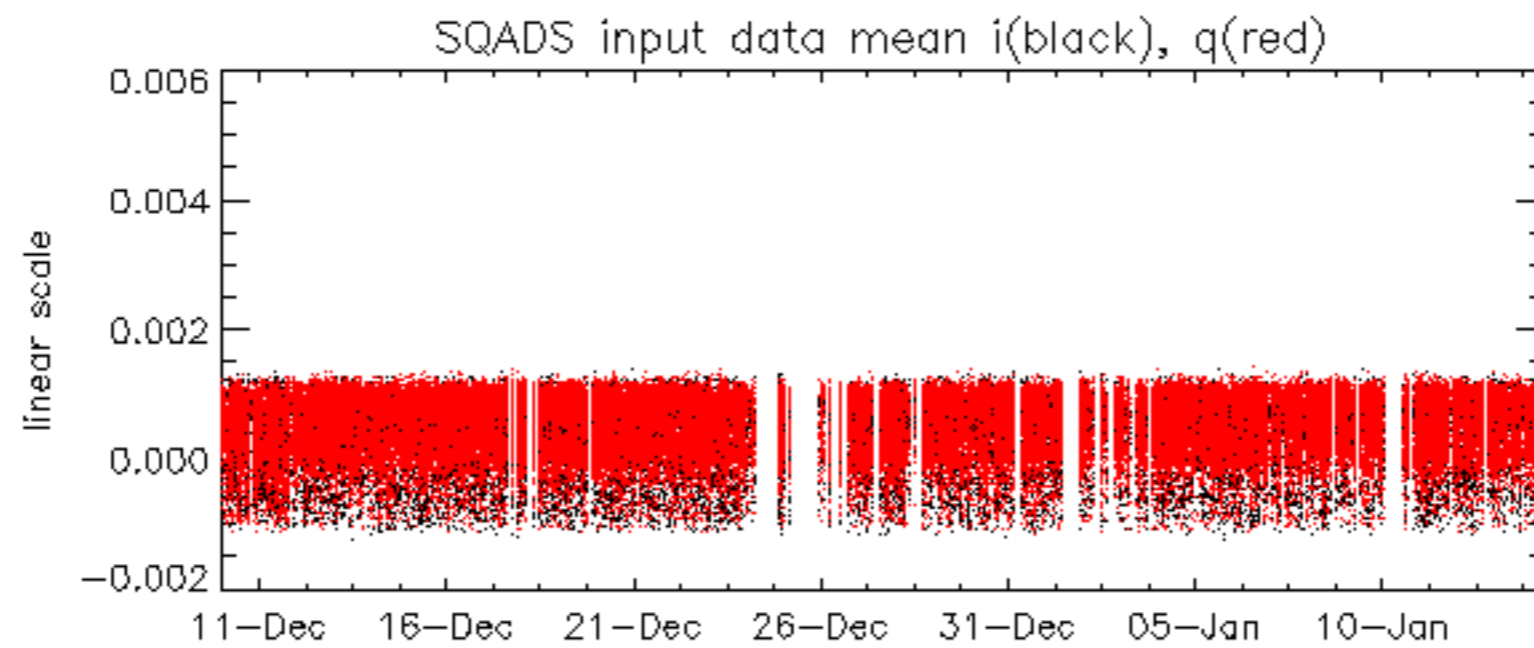
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.248774 Hz

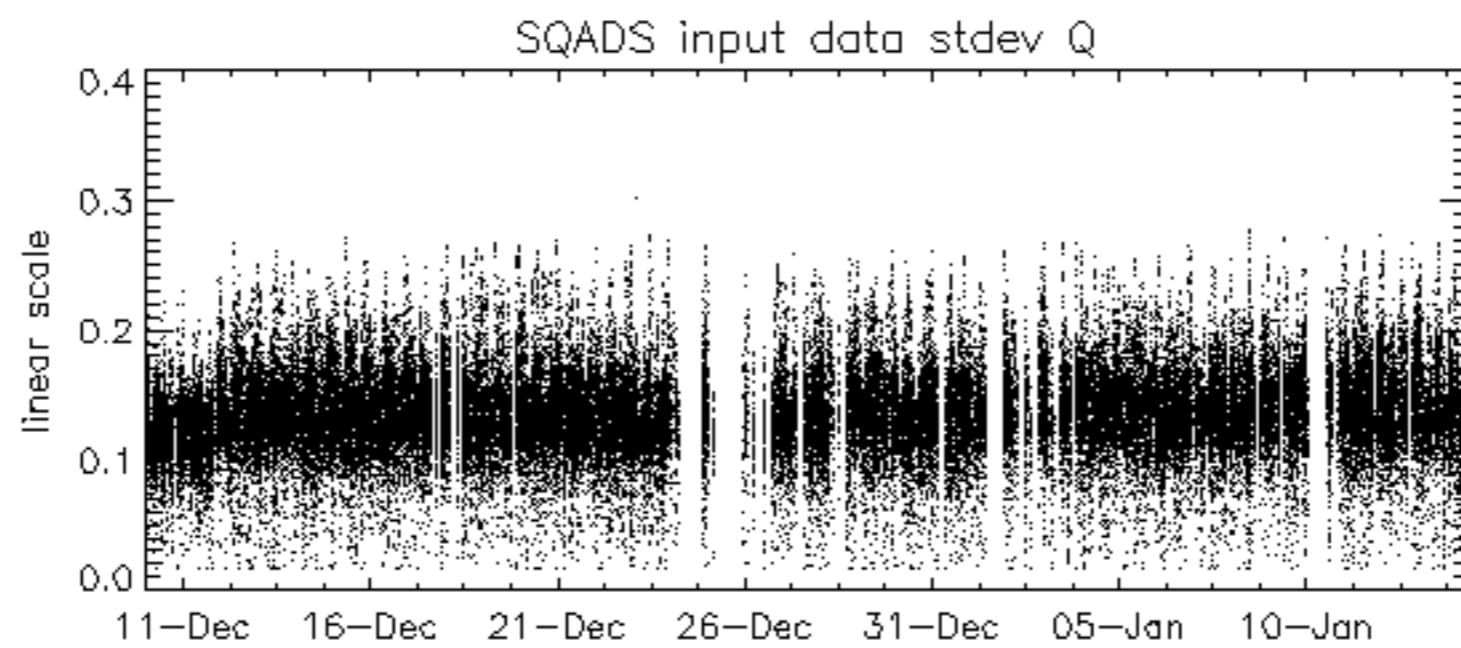
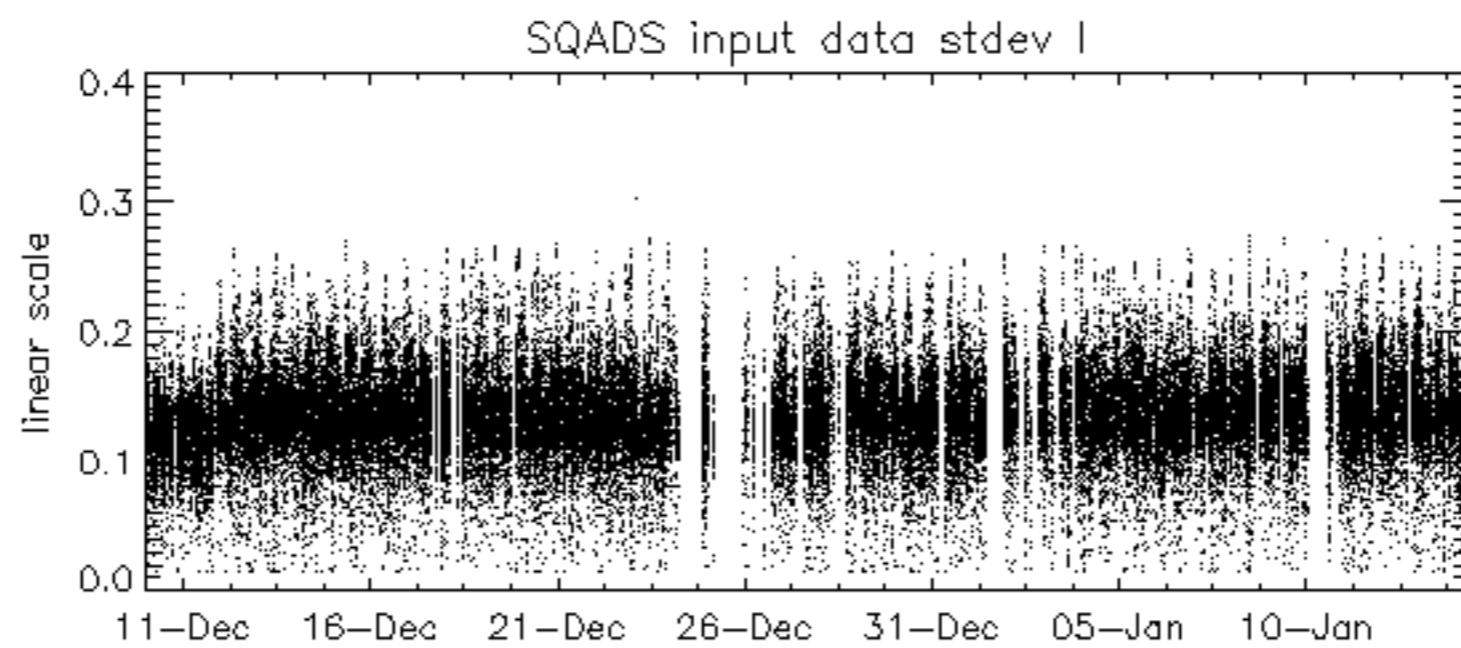
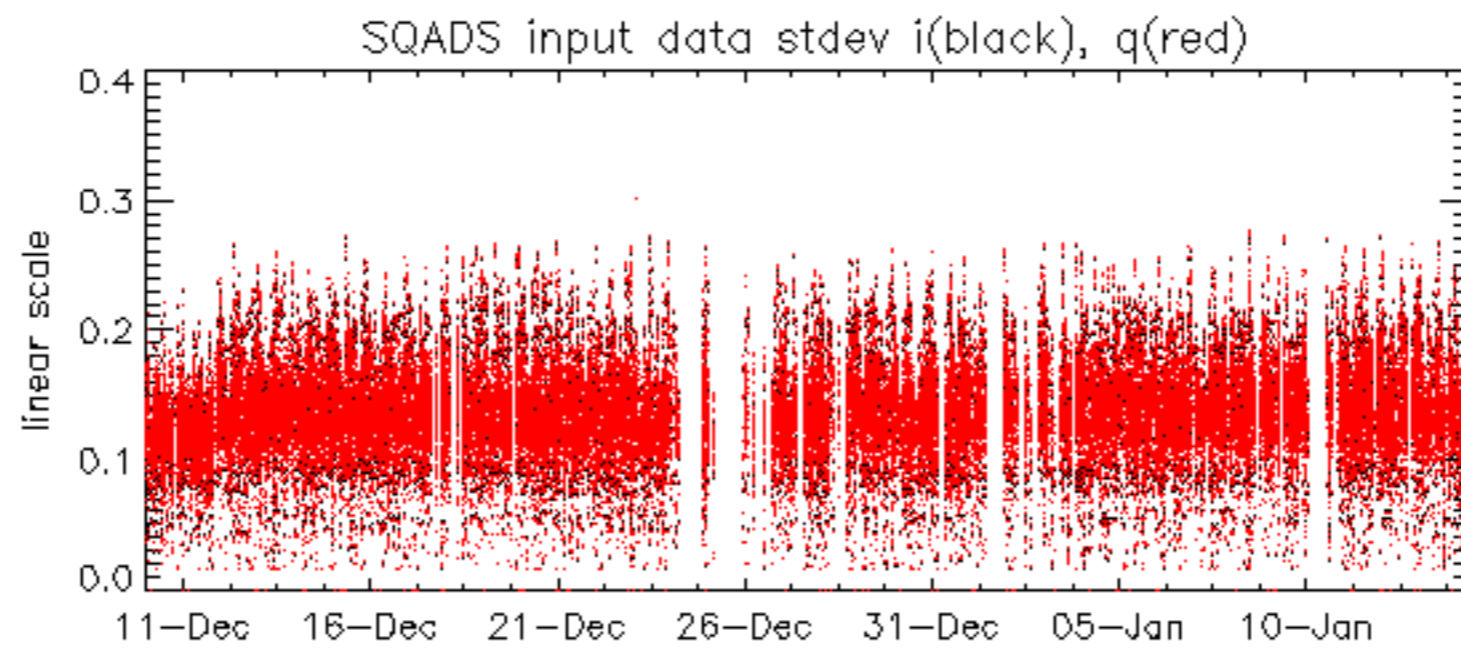


No anomalies observed on available MS products:

No anomalies observed.



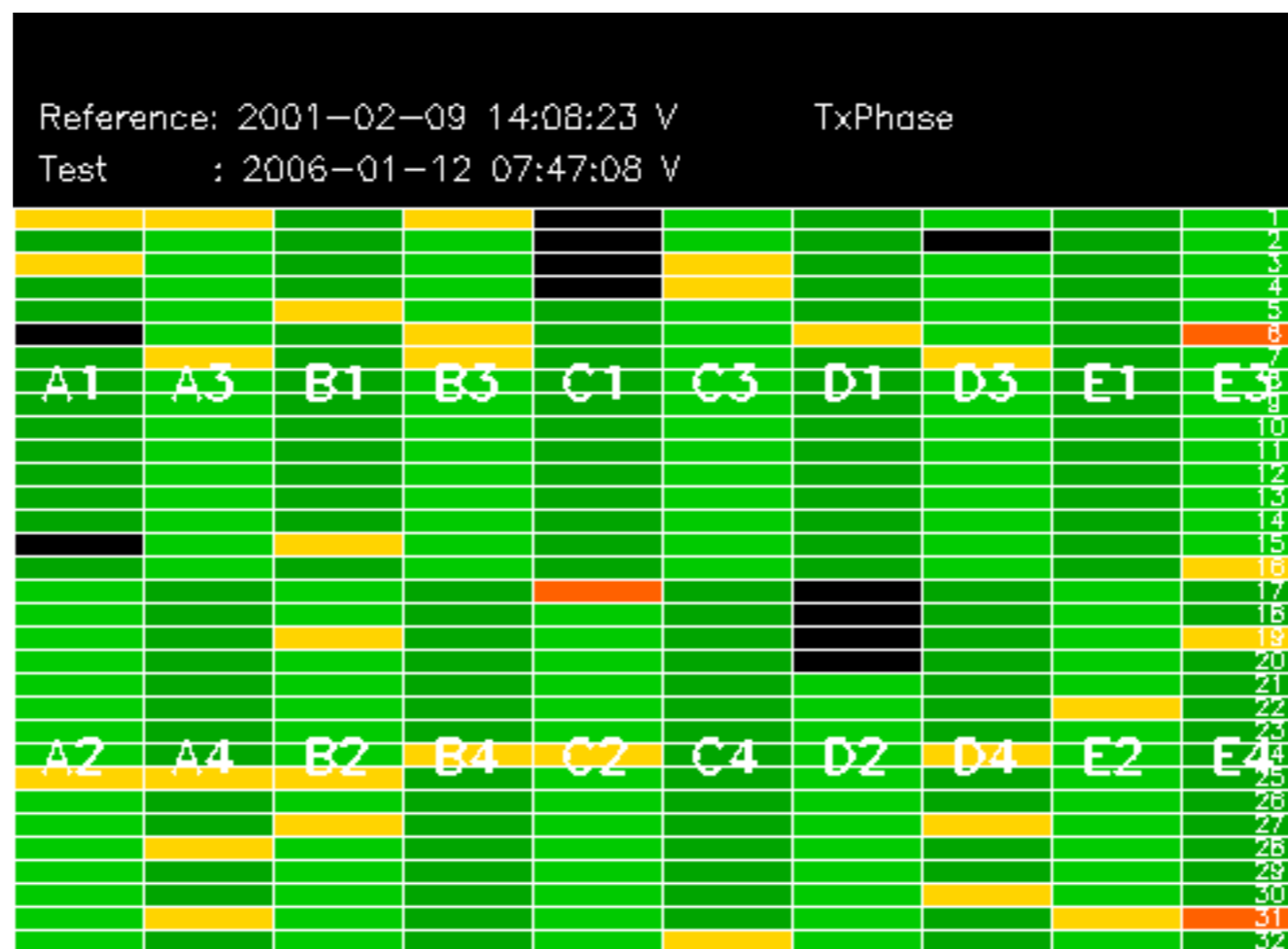




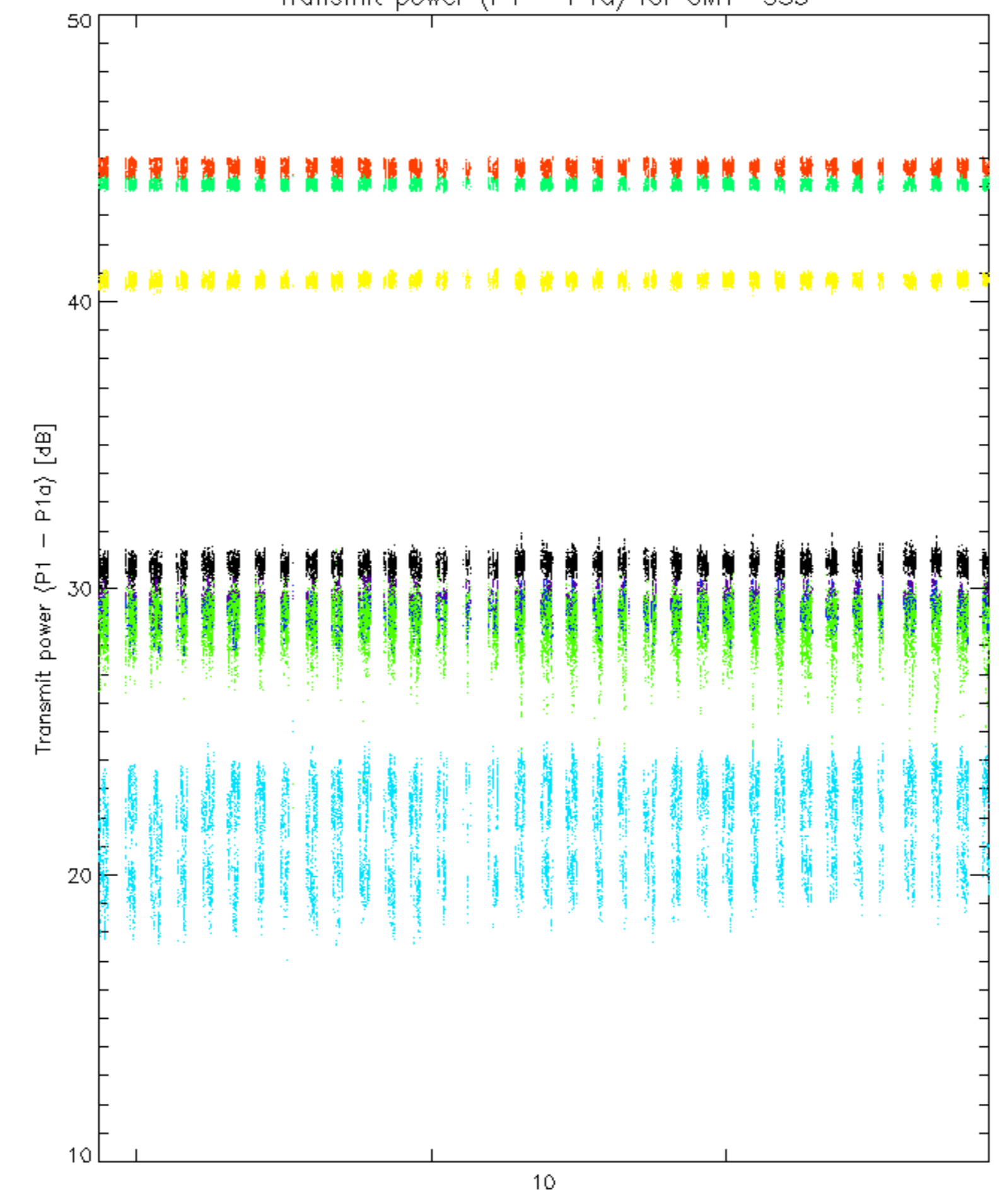
Summary of analysis for the last 3 days 2006011[234]

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

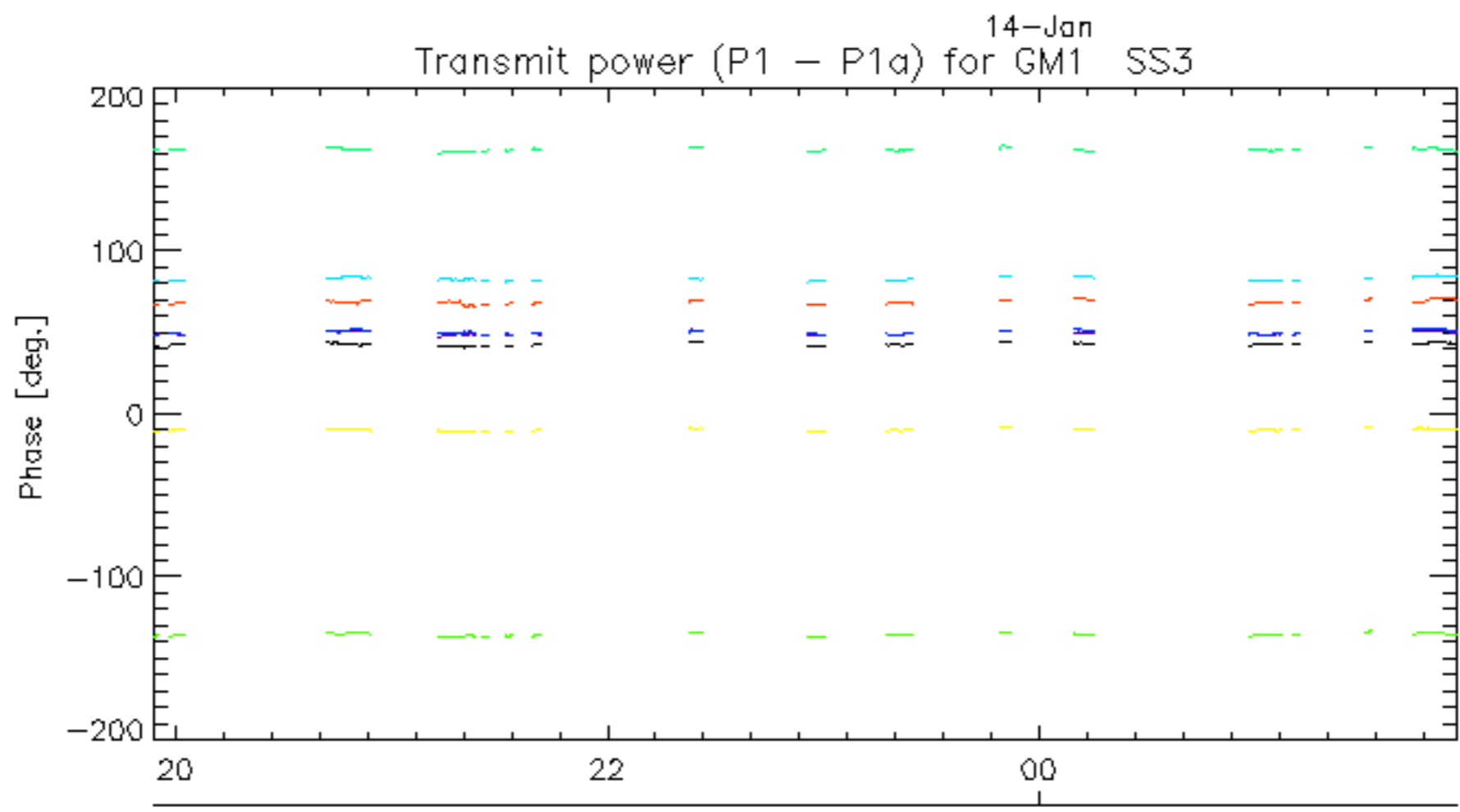
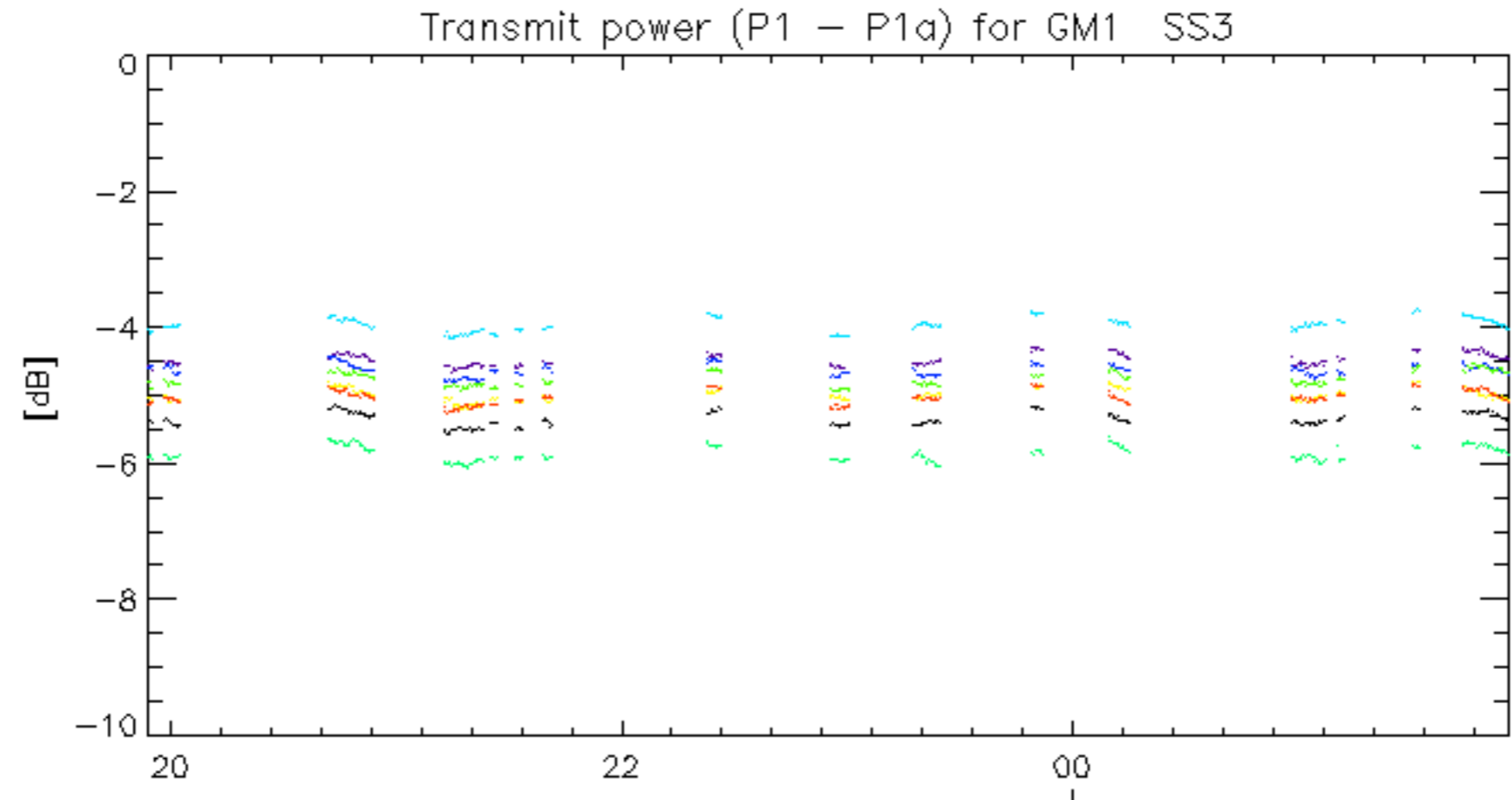
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060113_042639_00000522044_00147_20241_0106.N1	1	0
ASA_IMM_1PNPDE20060114_003120_000001252044_00159_20253_0148.N1	1	0
ASA_WSM_1PNPDE20060112_150453_000001282044_00140_20234_0188.N1	0	19
ASA_WSM_1PNPDE20060112_182736_000002982044_00142_20236_0208.N1	0	15



Transmit power (P1 - P1a) for GM1 SS3



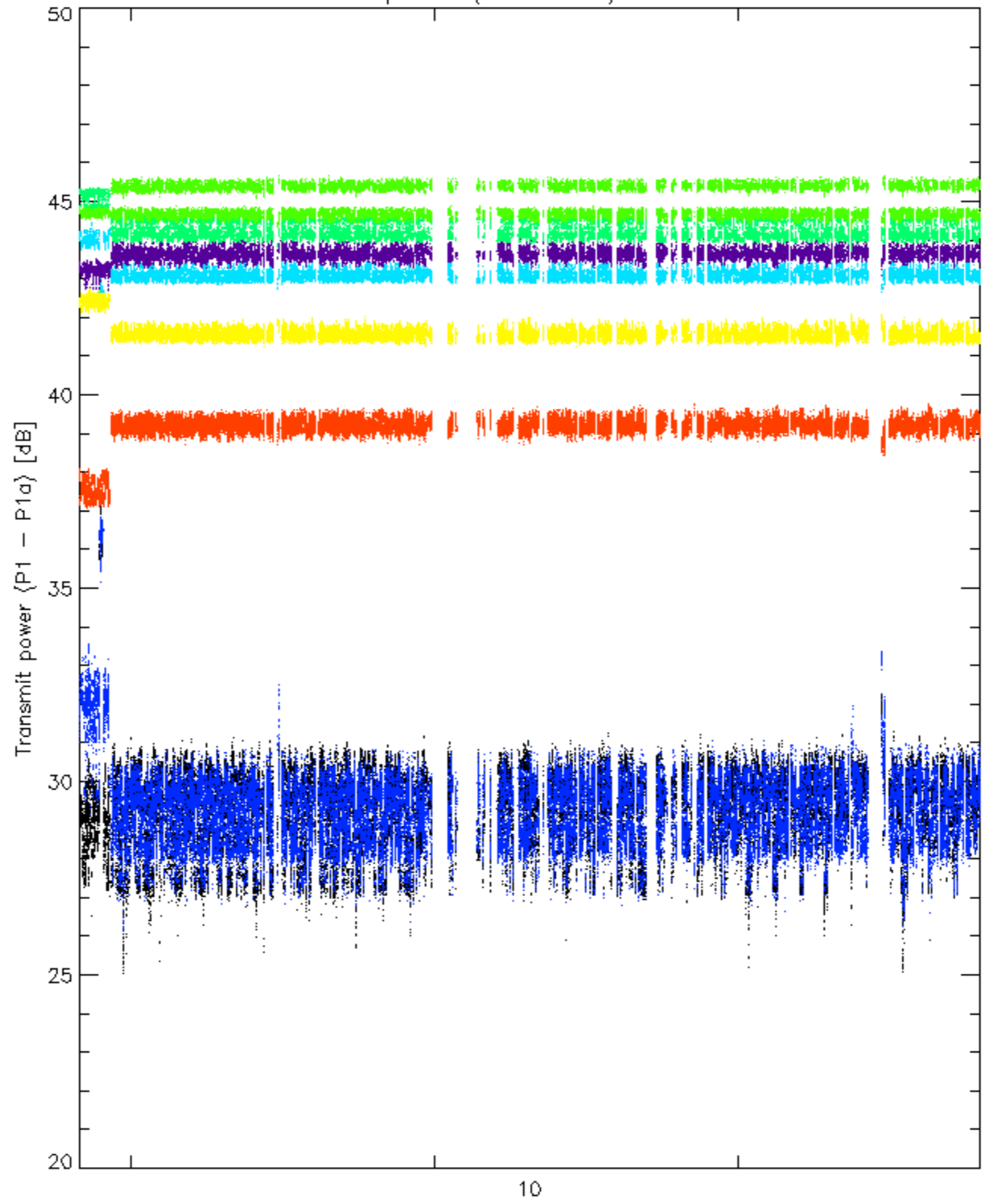
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



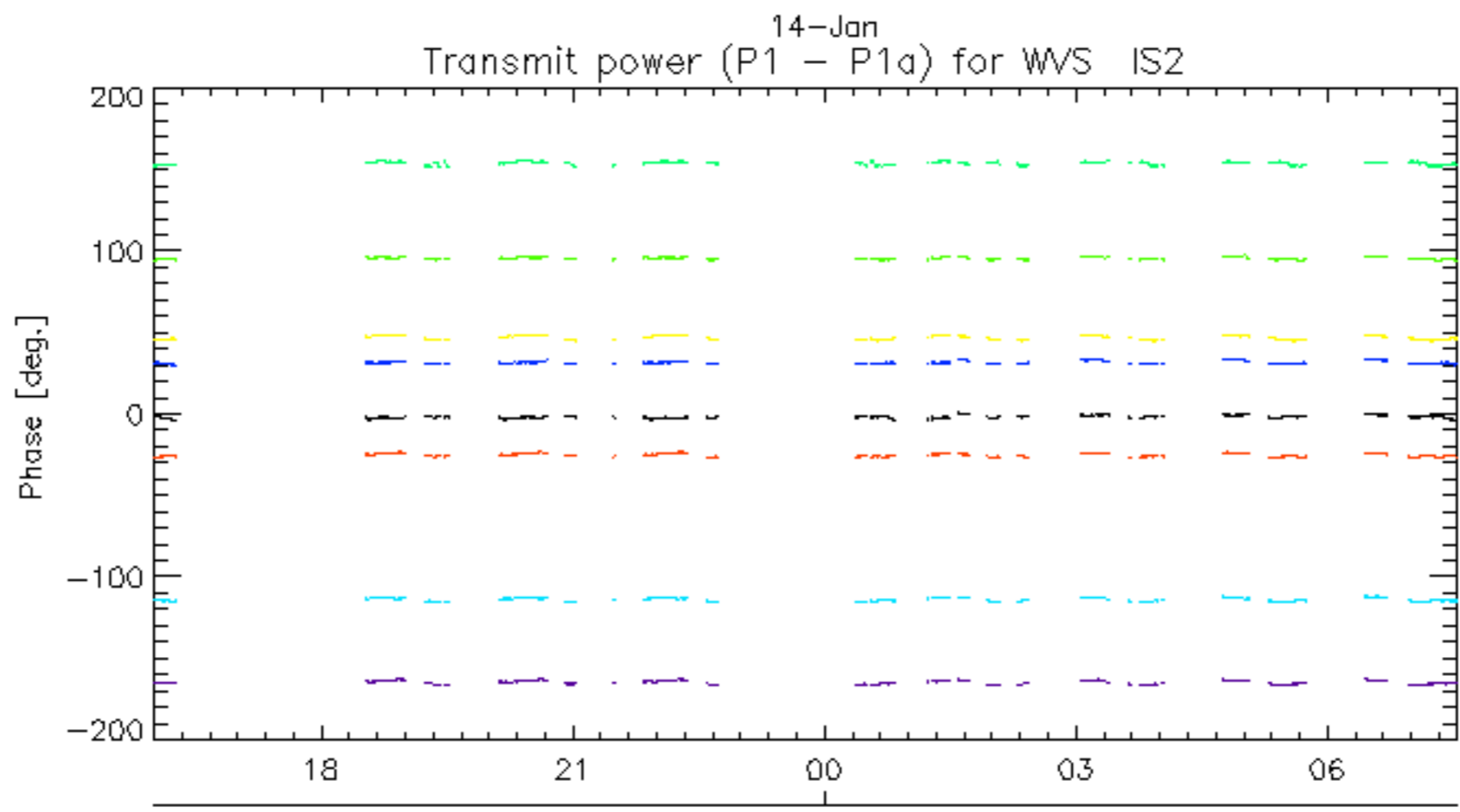
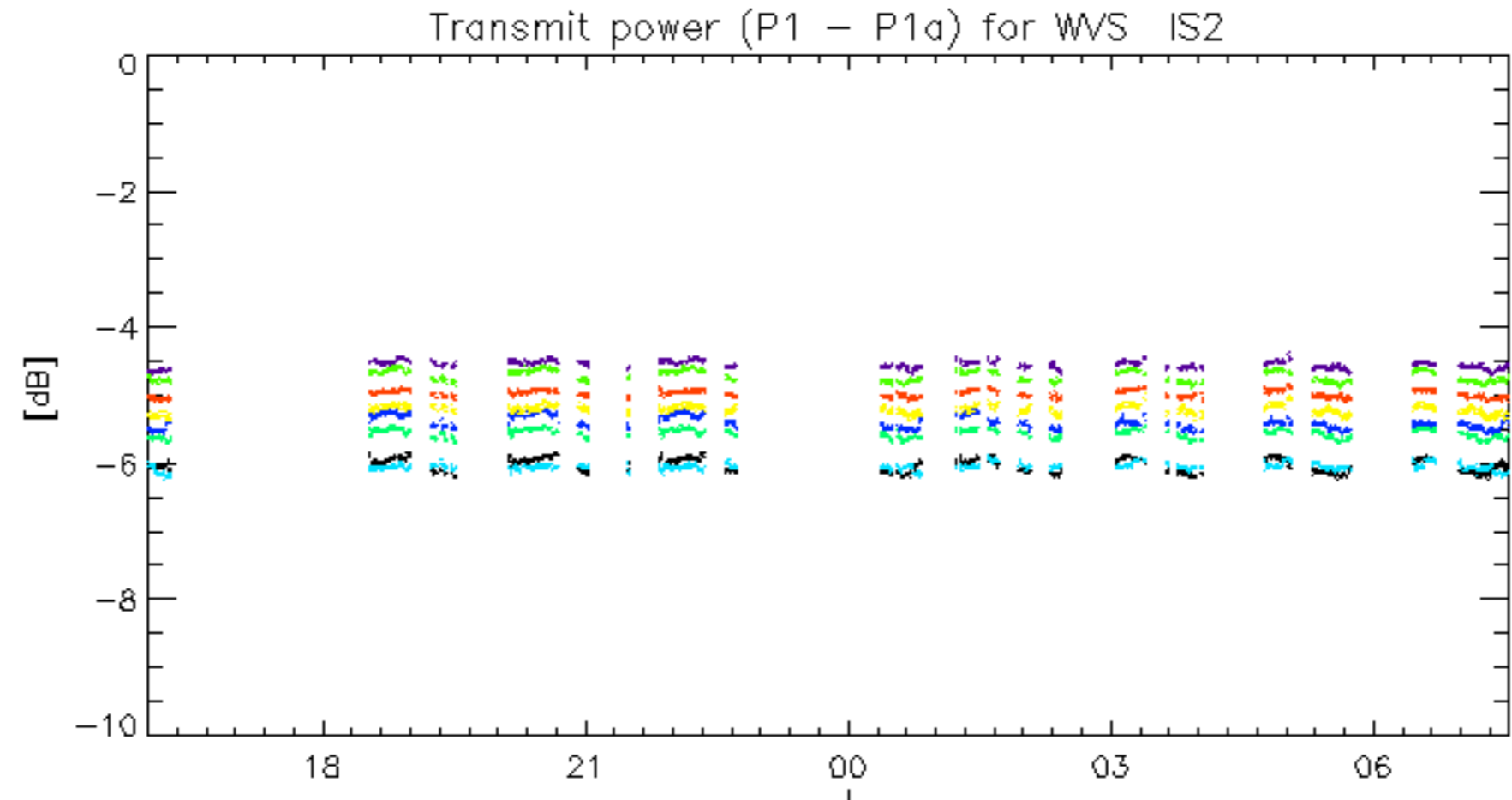
rows: **3** **7** **11** **15** **19** **22** **26** **30**

14-Jan

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.