

PRELIMINARY REPORT OF 051231

last update on Sat Dec 31 16:42:41 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 2005-12-30 00:00:00 to 2005-12-31 16:42:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	0	22	0	24
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	0	22	0	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	0	22	0	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	0	22	0	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	44	31	15	41
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	44	31	15	41
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	44	31	15	41
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	44	31	15	41

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	20051229 100802
H	20051230 143812

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
<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	-3.681580	0.261148	-1.250548
7	P1	-2.730537	0.132678	-0.861398
11	P1	-4.141503	0.035208	0.083539
15	P1	-5.008081	1.793686	-3.432099
19	P1	-3.030618	0.070314	-0.652577
22	P1	-4.433361	0.024261	-0.196813
26	P1	-4.408936	0.064252	0.586713
30	P1	-5.646804	0.036508	-0.399714
3	P1	-15.672568	2.893234	-4.314695
7	P1	-15.216846	2.829320	-4.269345
11	P1	-16.294262	0.474898	-0.979981
15	P1	-12.645799	0.918132	-2.126591
19	P1	-13.404201	0.391126	-1.504768
22	P1	-15.904813	0.643877	-0.439029
26	P1	-15.010933	1.083756	-2.399538
30	P1	-15.461366	2.553894	-3.817603

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.800087	0.116236	0.357420
7	P2	-22.539997	0.106841	0.040253
11	P2	-16.505194	0.135725	0.460086
15	P2	-7.277102	0.106355	0.091278
19	P2	-9.211430	0.104215	0.006850
22	P2	-17.876043	0.113448	-0.238354
26	P2	-16.389521	0.132516	0.464760
30	P2	-19.798859	0.120481	0.383153

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.235460	0.007657	0.019021
7	P3	-8.235460	0.007657	0.019021
11	P3	-8.235460	0.007657	0.019021
15	P3	-8.235460	0.007657	0.019021
19	P3	-8.235460	0.007657	0.019021
22	P3	-8.235460	0.007657	0.019021
26	P3	-8.235460	0.007657	0.019021
30	P3	-8.235460	0.007657	0.019021

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	-3.710680	0.008545	-0.032972
7	P1	-2.770703	0.007585	0.011569
11	P1	-2.878299	0.009387	0.006371
15	P1	-3.421173	0.016620	-0.048249
19	P1	-3.393425	0.014408	-0.006535
22	P1	-5.125184	0.018820	-0.013147
26	P1	-5.853696	0.016510	-0.019019
30	P1	-5.279135	0.032905	0.012524
3	P1	-11.490120	0.041092	-0.033288
7	P1	-9.965858	0.047068	0.037749
11	P1	-10.056181	0.057275	-0.022348
15	P1	-10.565827	0.071199	-0.060097
19	P1	-15.520964	0.074083	0.019271
22	P1	-20.940704	0.946415	0.350726
26	P1	-17.131783	0.292622	0.291129
30	P1	-18.205166	0.284668	0.192996

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.590128	0.029518	0.129332
7	P2	-23.041796	0.055556	0.120450
11	P2	-11.575870	0.020102	0.177104
15	P2	-4.991390	0.021383	0.044039
19	P2	-6.973310	0.021375	0.009333
22	P2	-8.213193	0.022718	-0.015151
26	P2	-24.049213	0.030299	0.048585
30	P2	-22.135042	0.017395	-0.003896

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.077656	0.002435	0.005426
7	P3	-8.077849	0.002435	0.004564
11	P3	-8.077883	0.002422	0.004671
15	P3	-8.077780	0.002419	0.005366
19	P3	-8.077816	0.002438	0.005090
22	P3	-8.077733	0.002427	0.005267
26	P3	-8.077734	0.002411	0.005755
30	P3	-8.077618	0.002428	0.004825

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	0.000453715
	stdev	2.20989e-07
MEAN Q	mean	0.000464720
	stdev	2.37030e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128841
	stdev	0.00112740
STDEV Q	mean	0.129126
	stdev	0.00114003



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005123[901]

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_1PNPDE20051230_004338_00000602043_00446_20039_5183.N1	1	0
ASA_IMM_1PNPDK20051230_083344_00000502043_00451_20044_9925.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)

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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

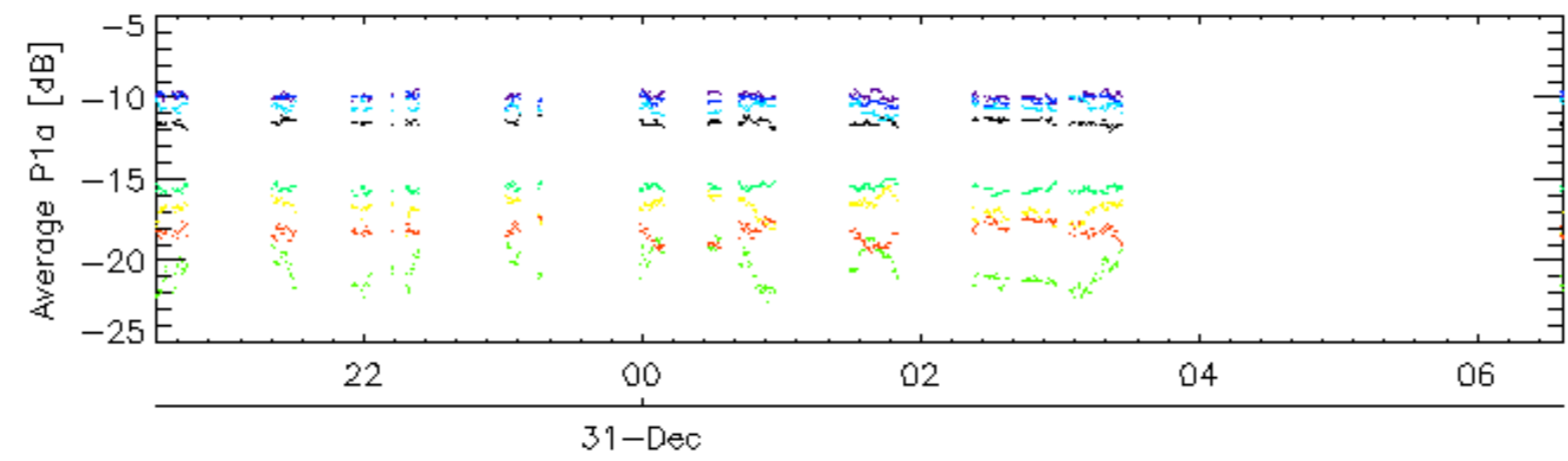
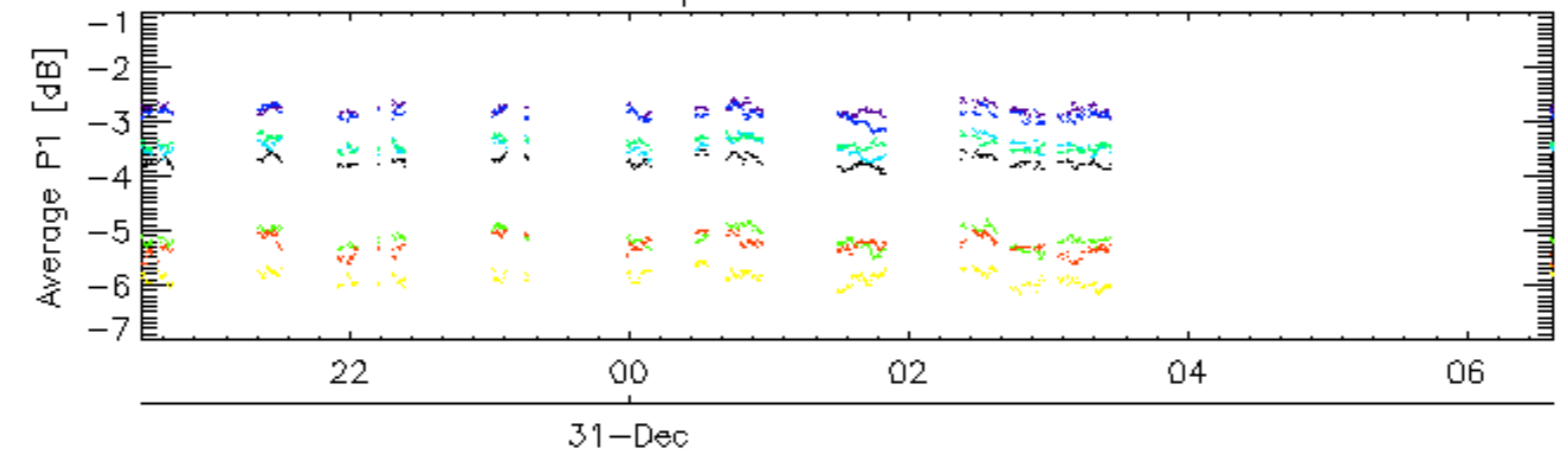
Ascending

Descending

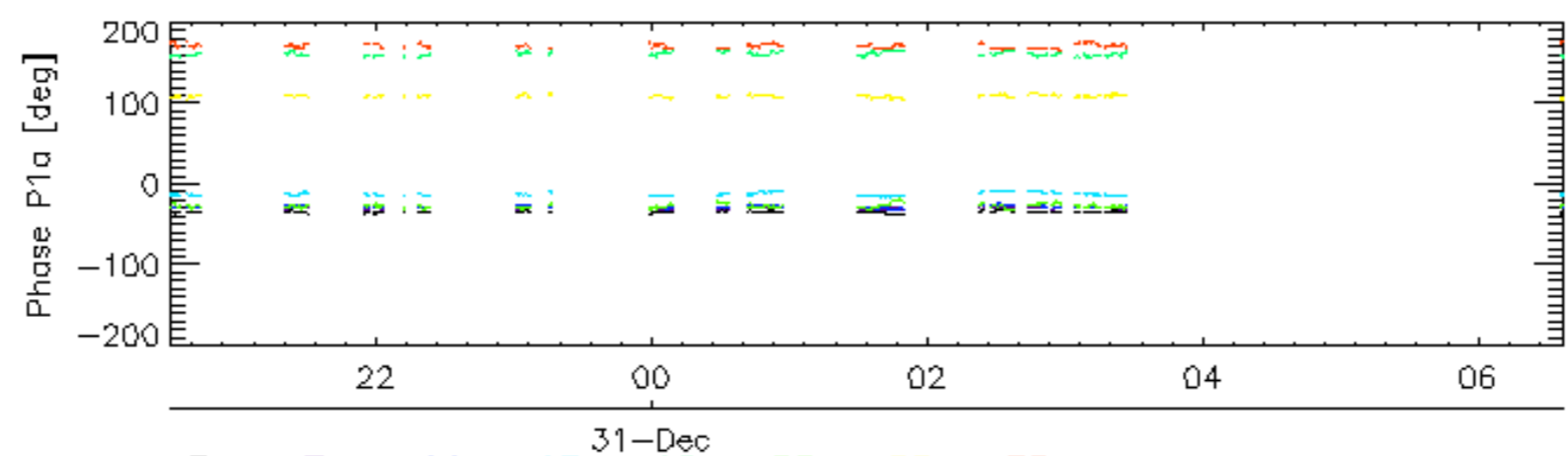
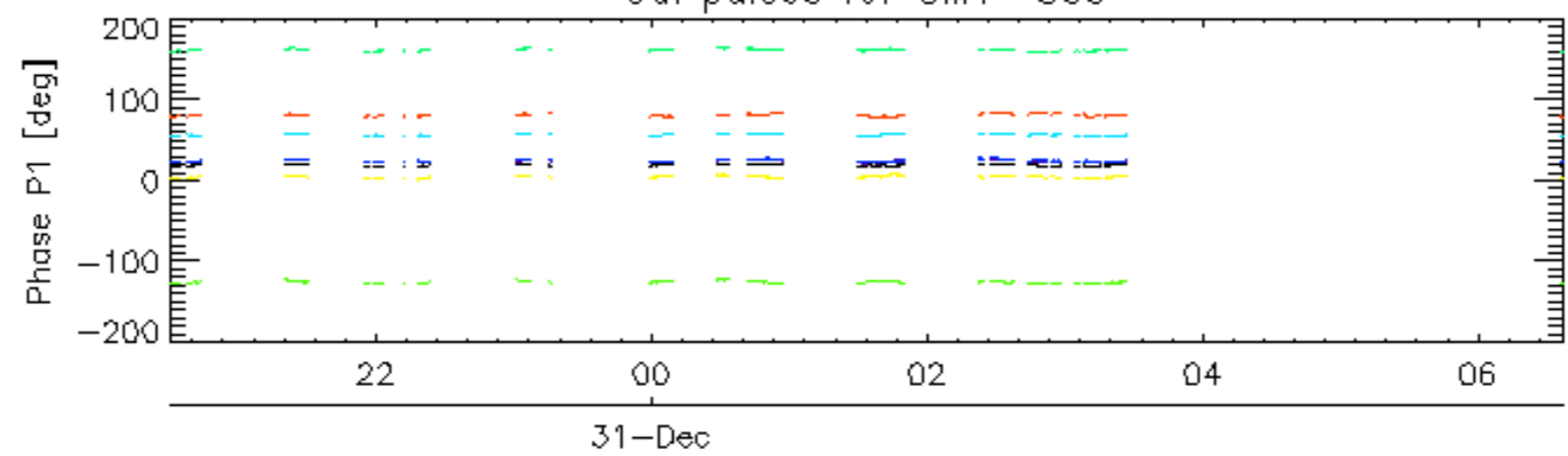
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

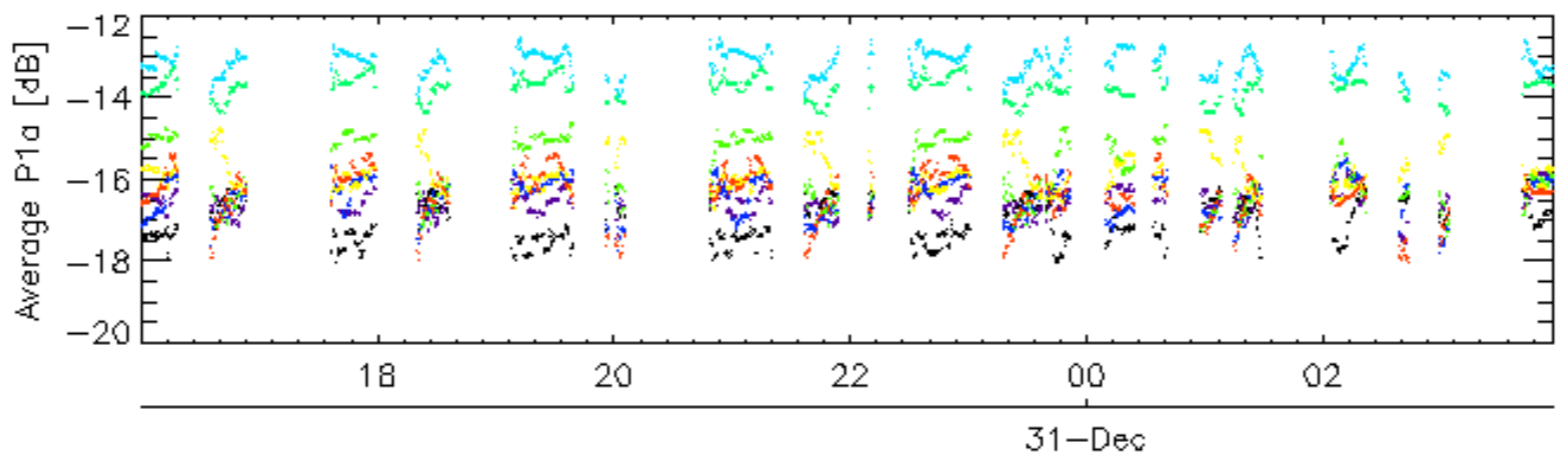
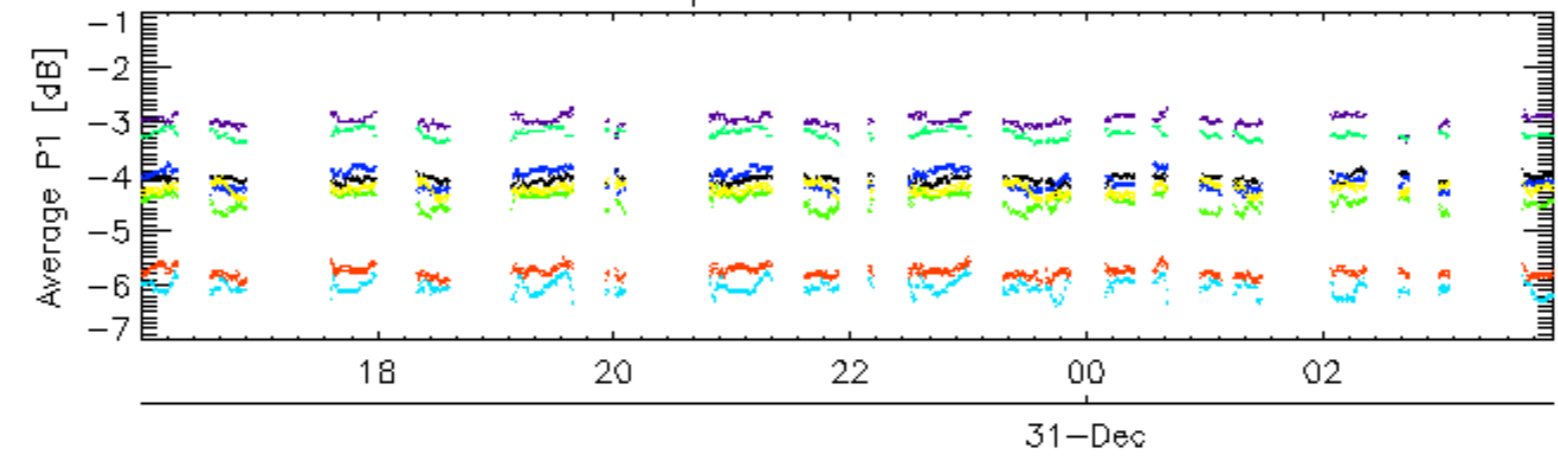


Cal pulses for GM1 SS3

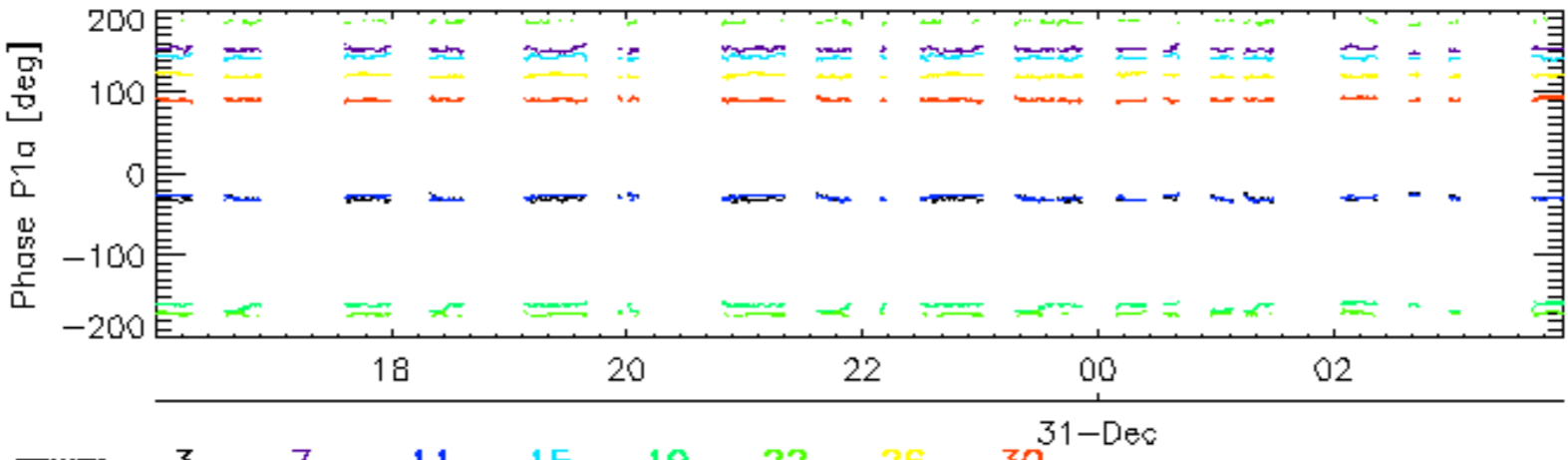
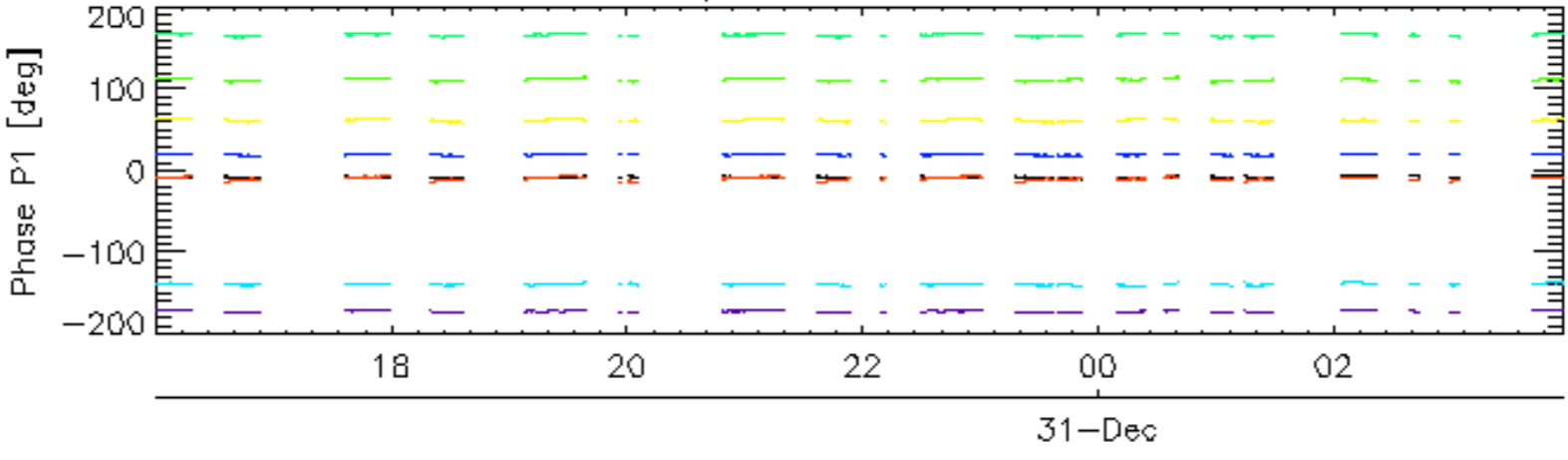


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

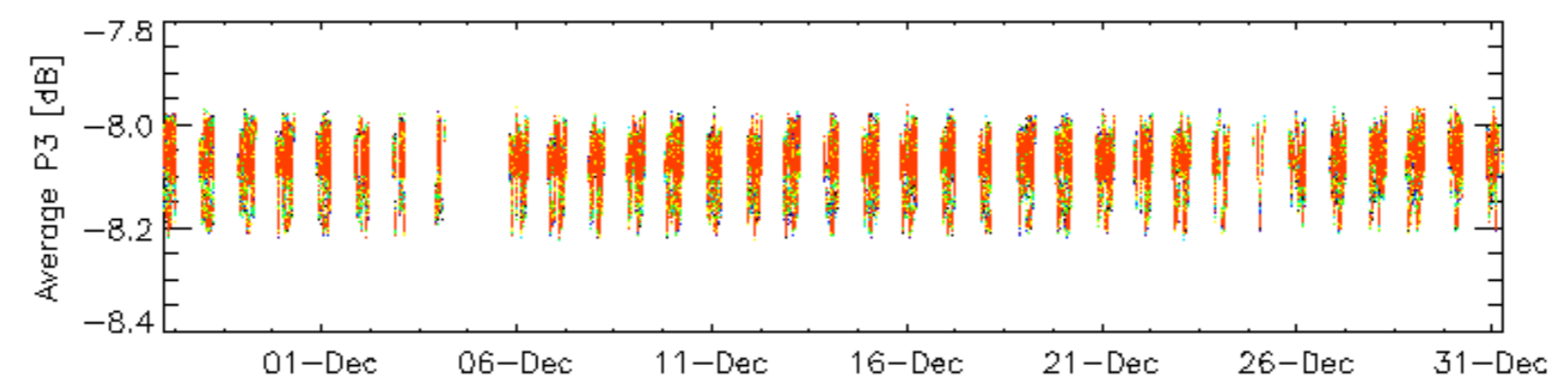
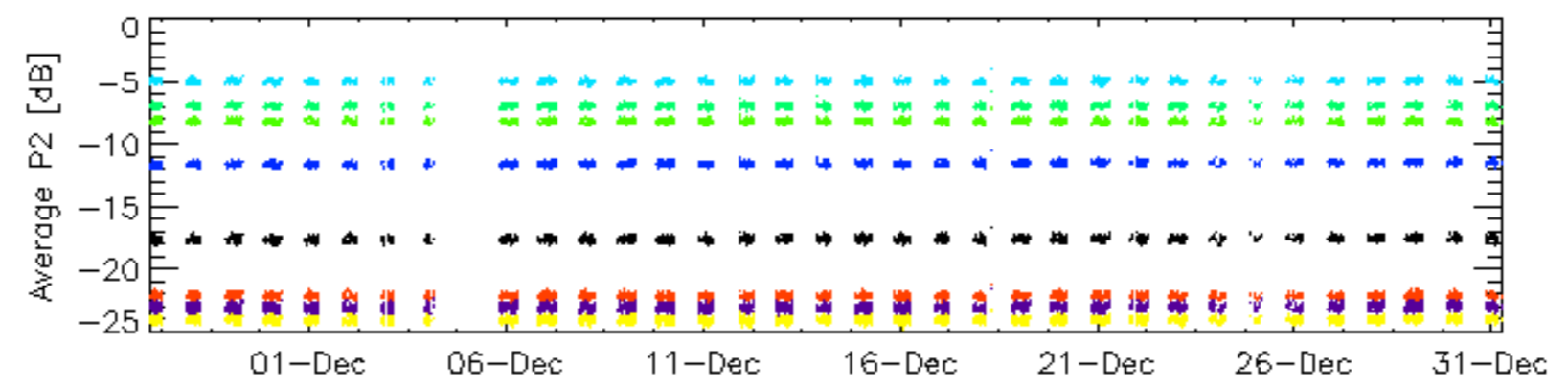
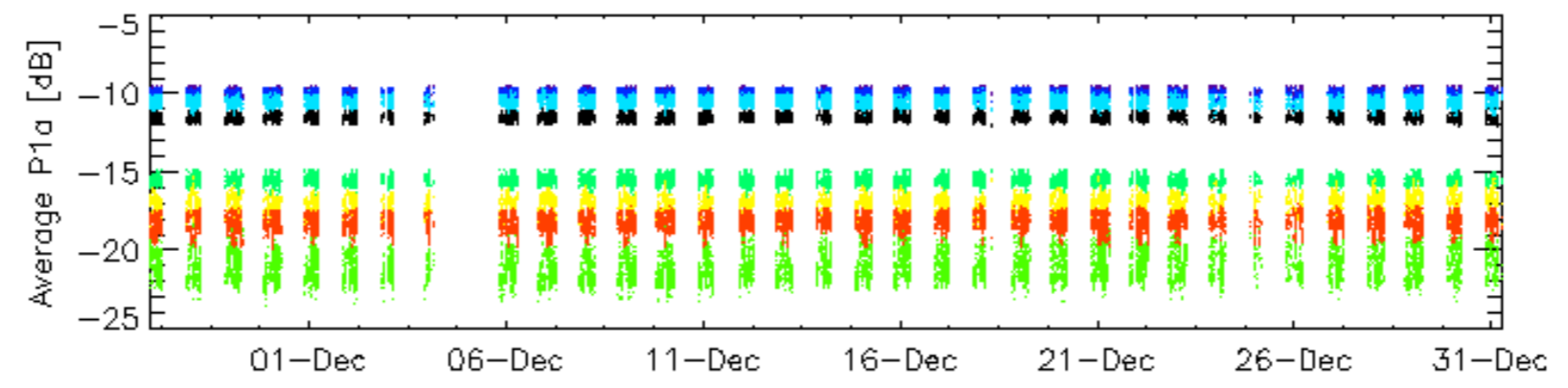
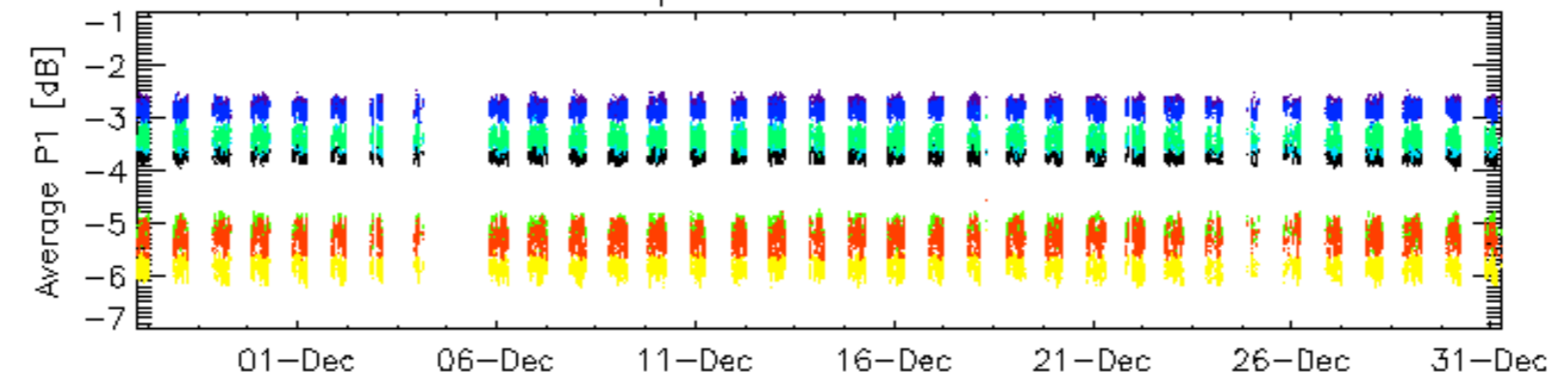


Cal pulses for WVS IS2



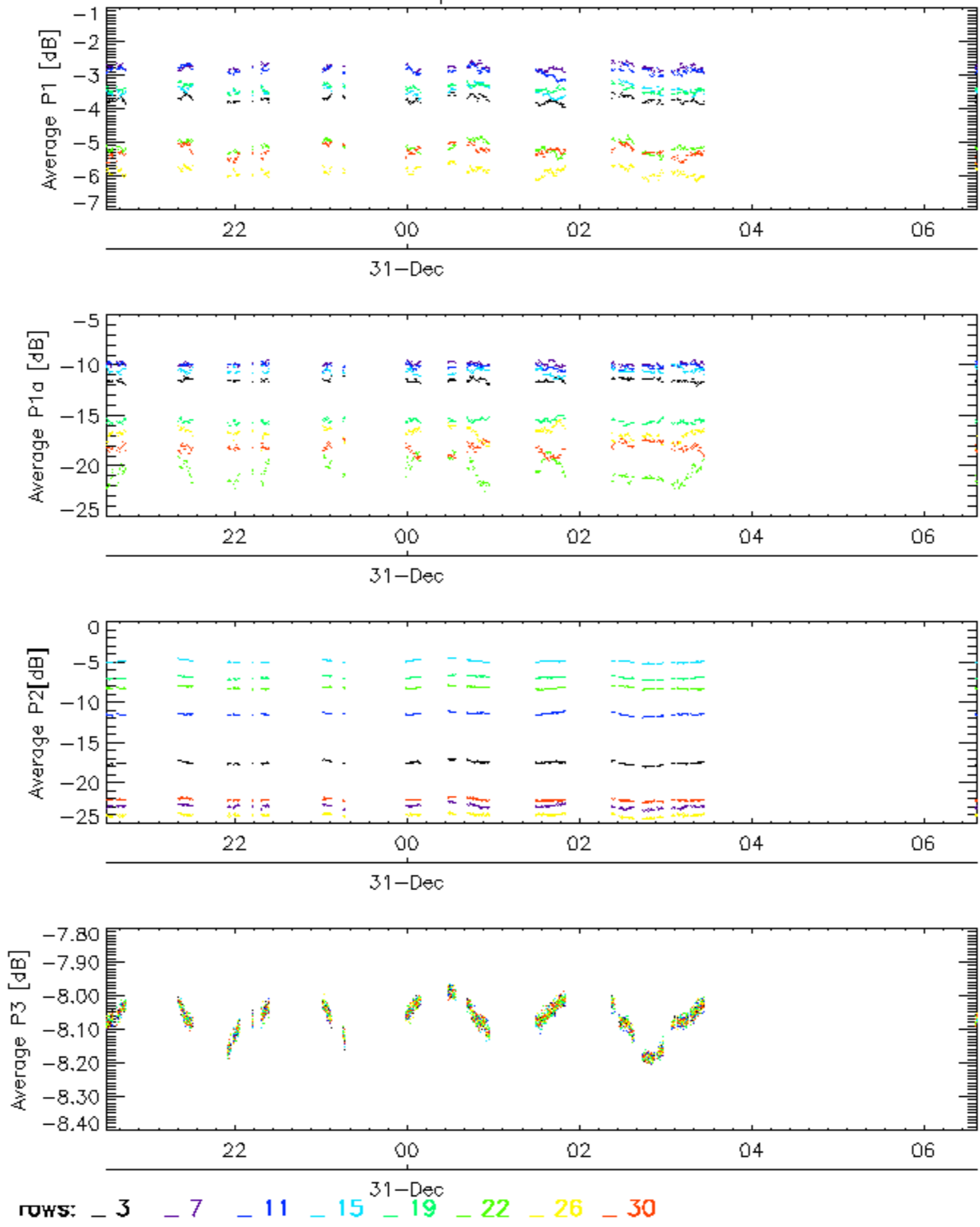
rows: 3 7 11 15 19 22 26 30 31-Dec

Cal pulses for GM1 SS3

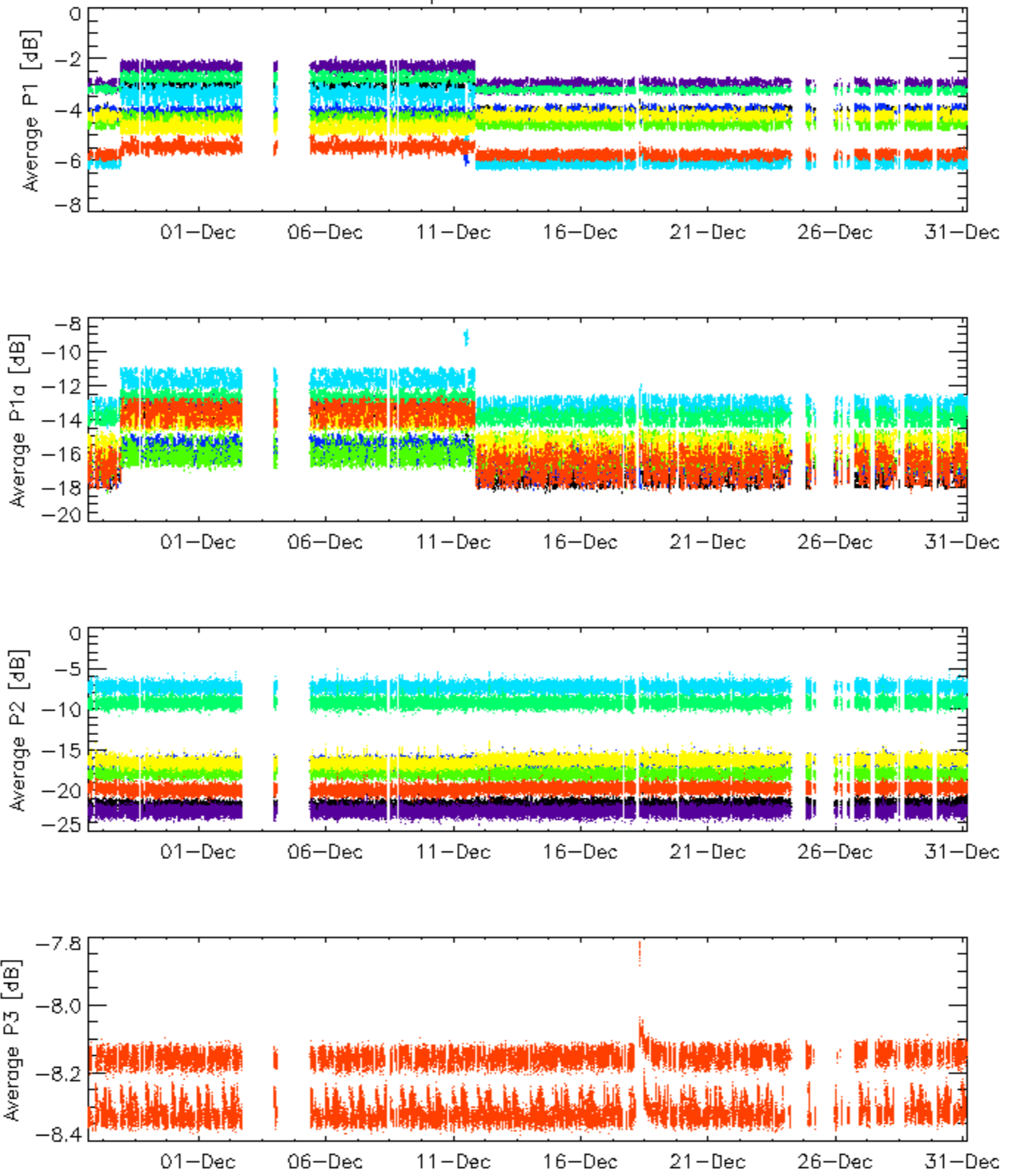


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

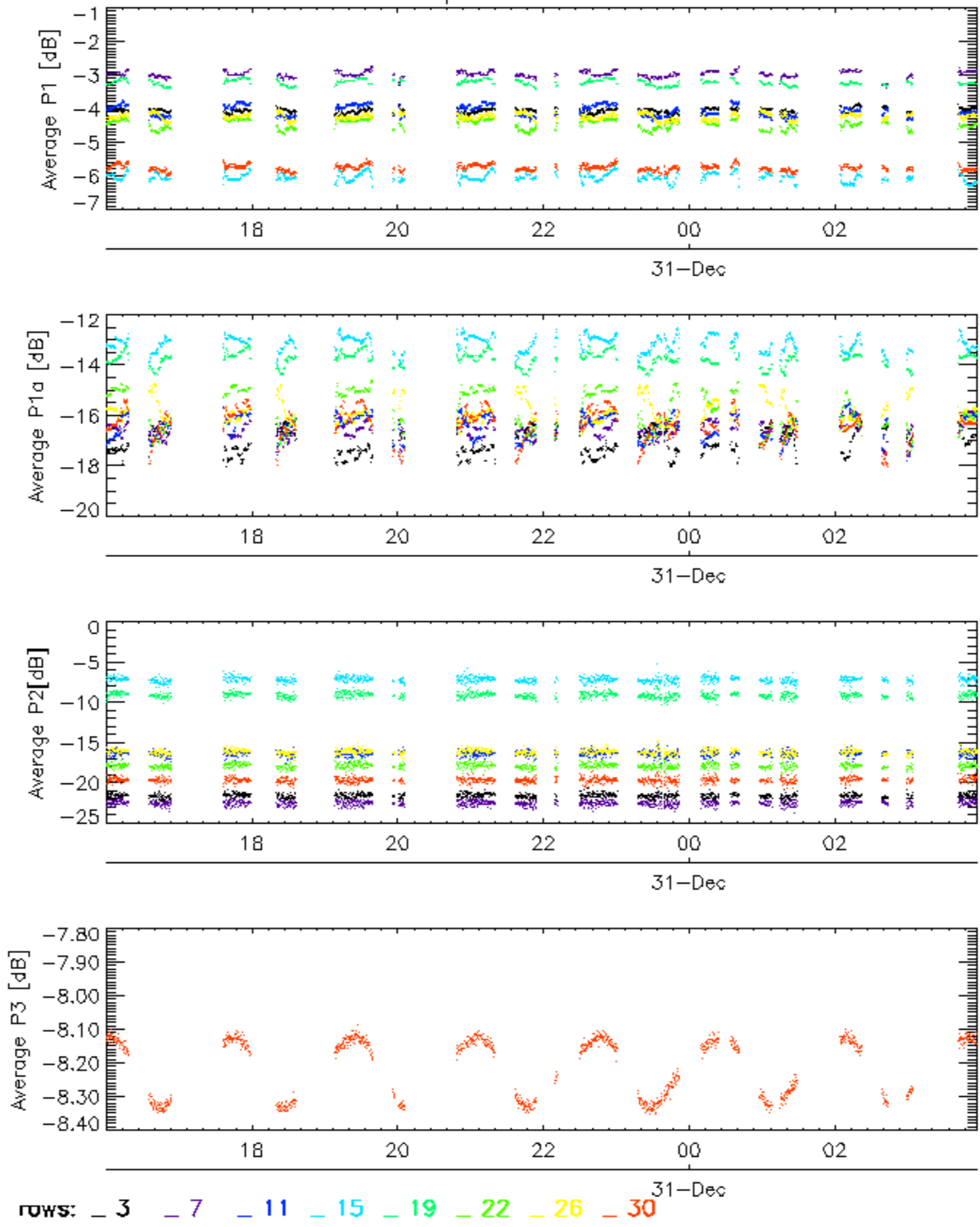


Cal pulses for WVS IS2

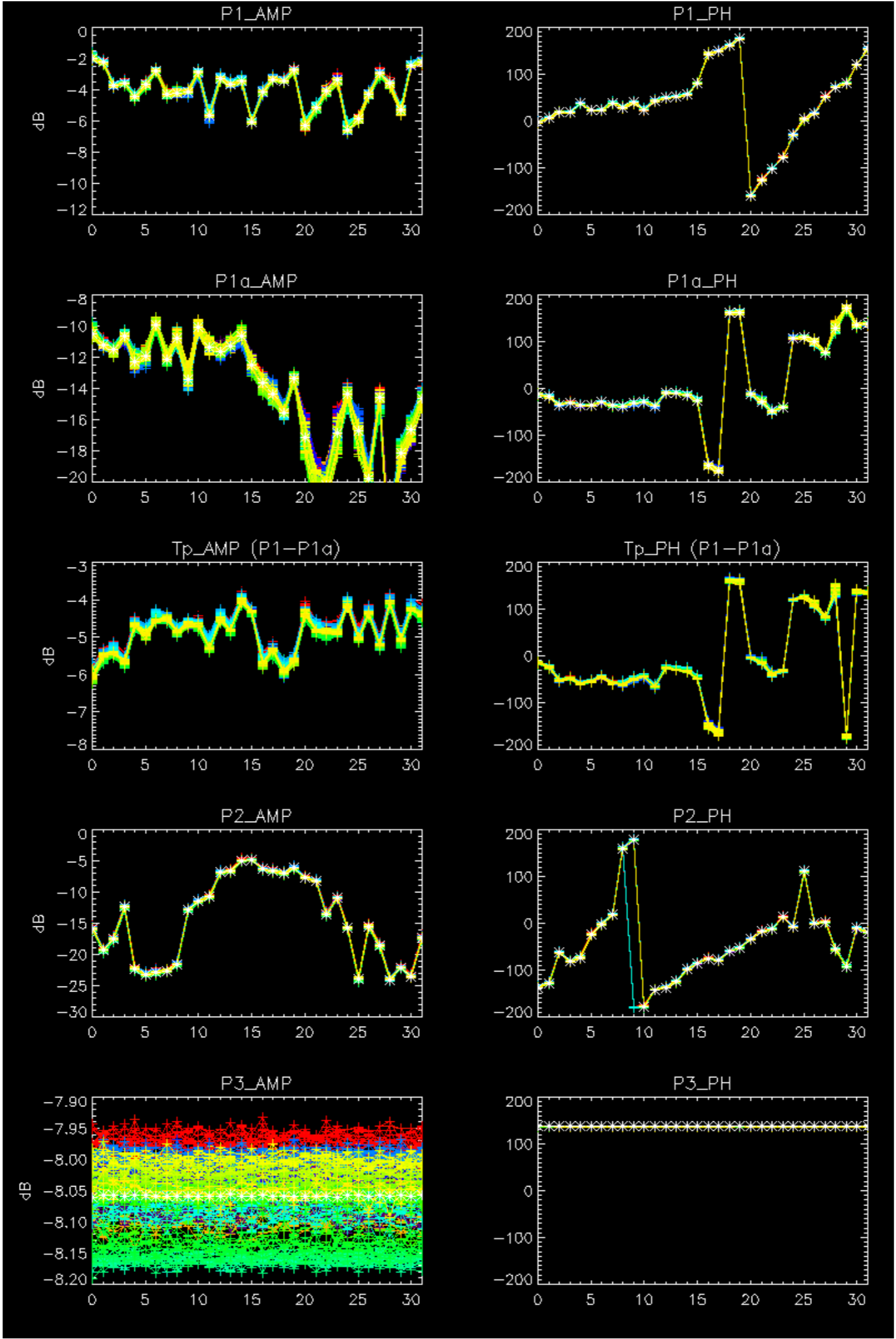


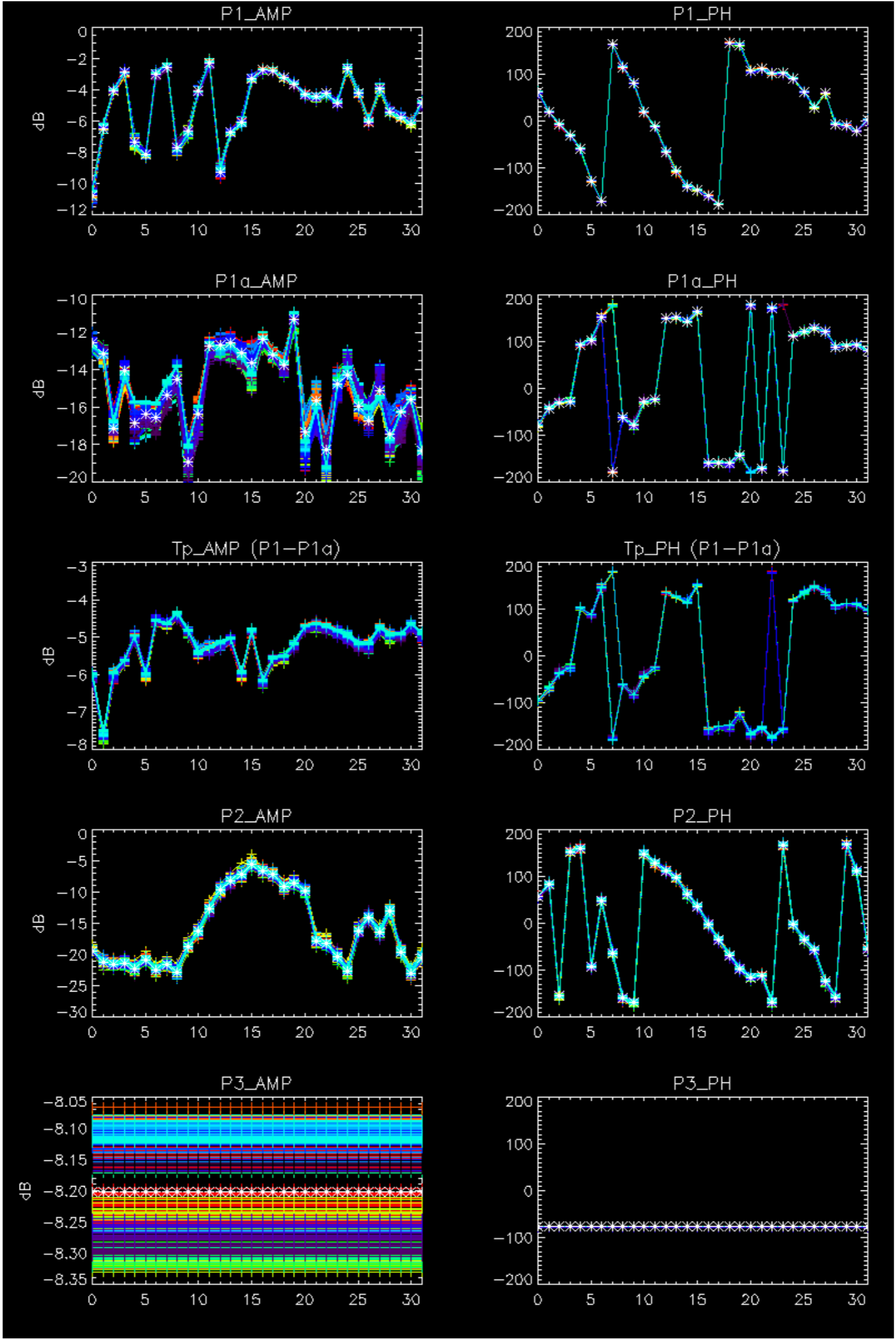
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



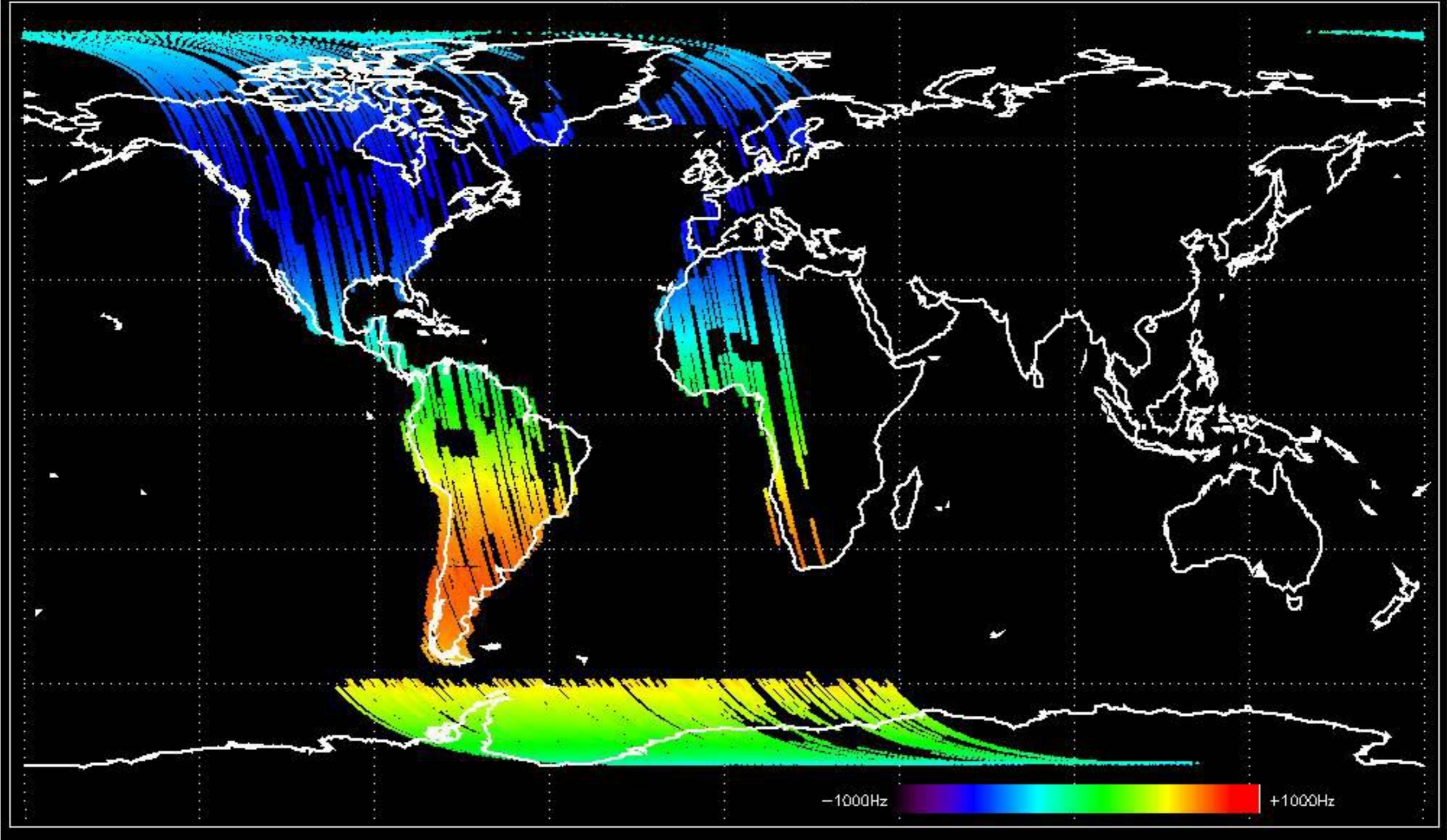
No anomalies observed.



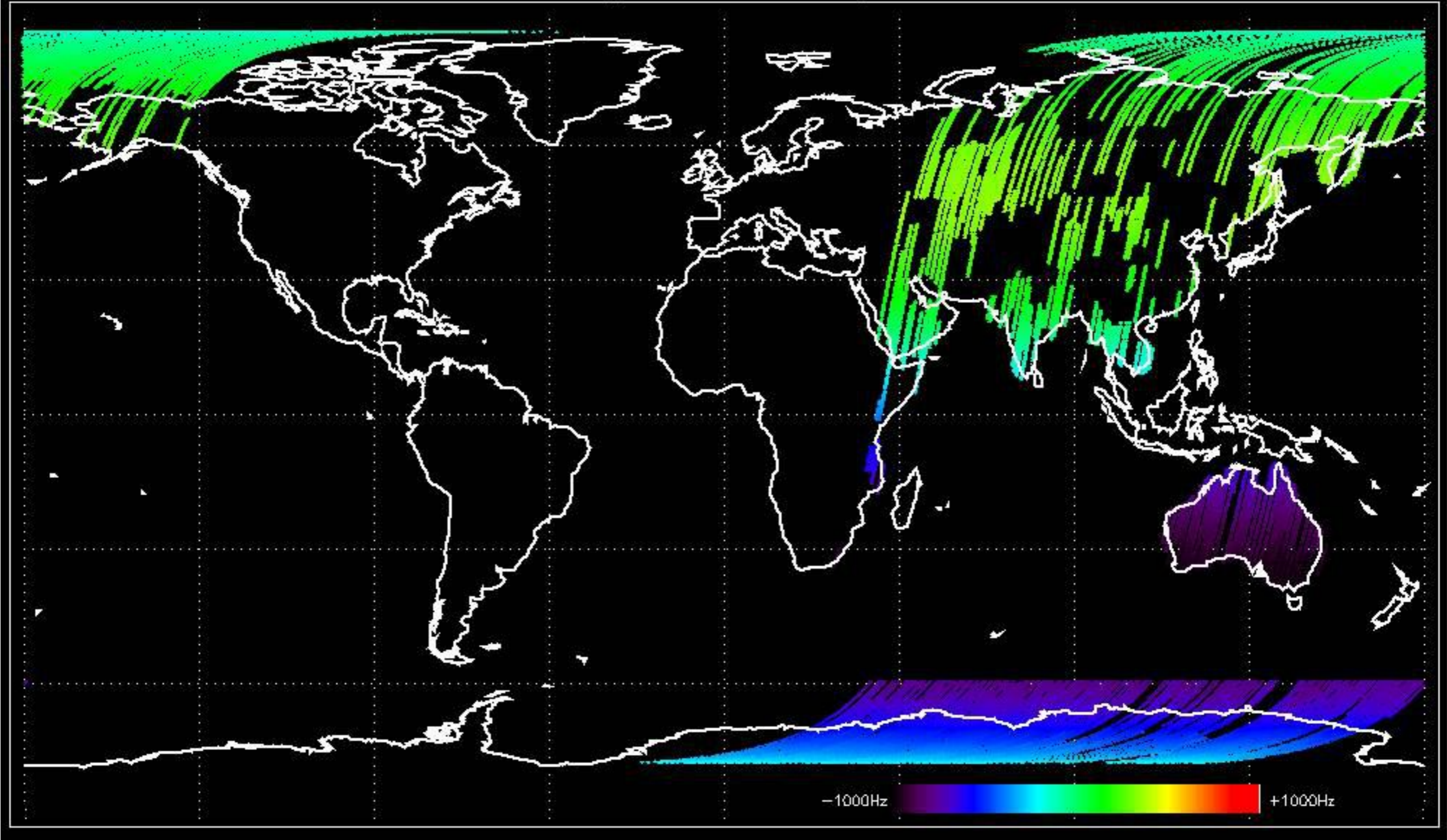


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

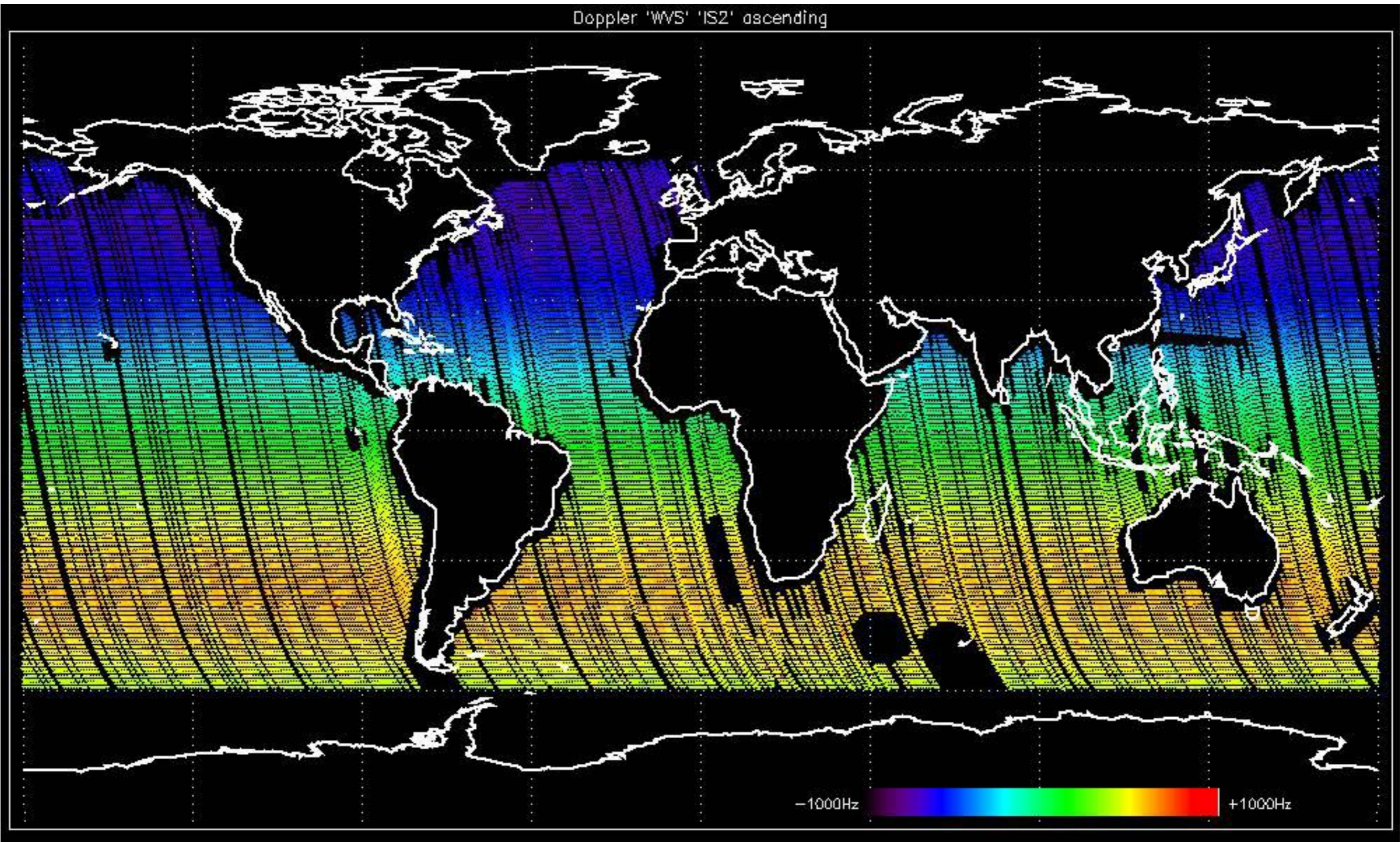
Doppler 'GM1' 'SS1' ascending



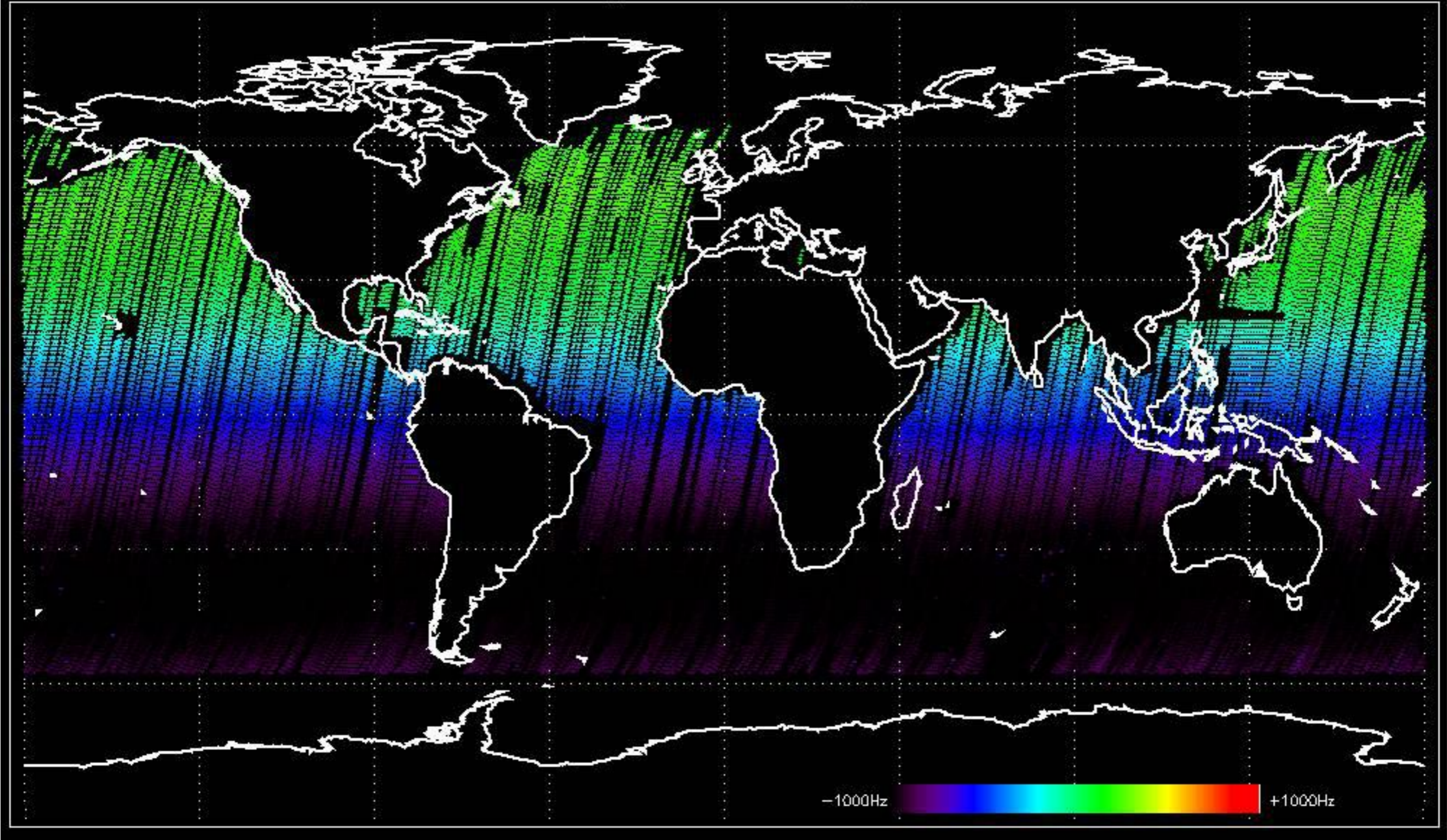
Doppler 'GM1' 'SS1' descending

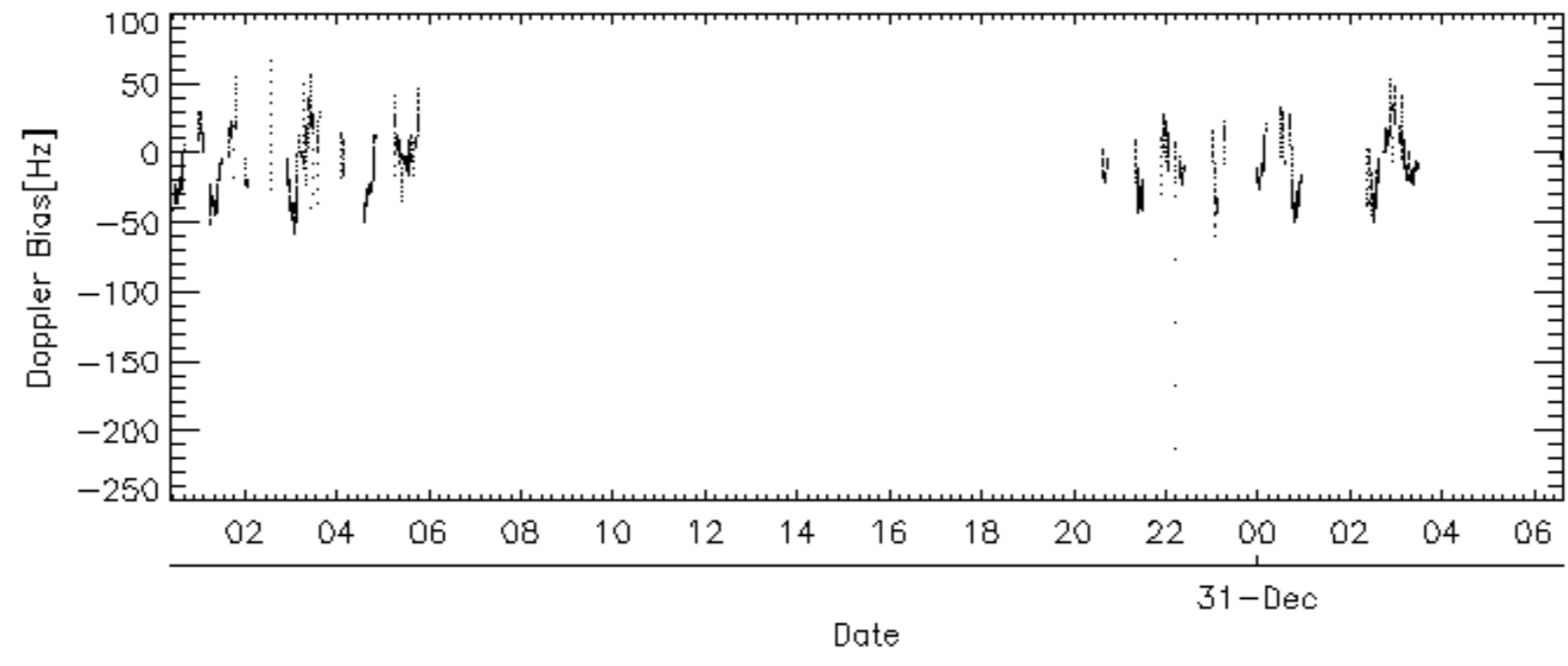
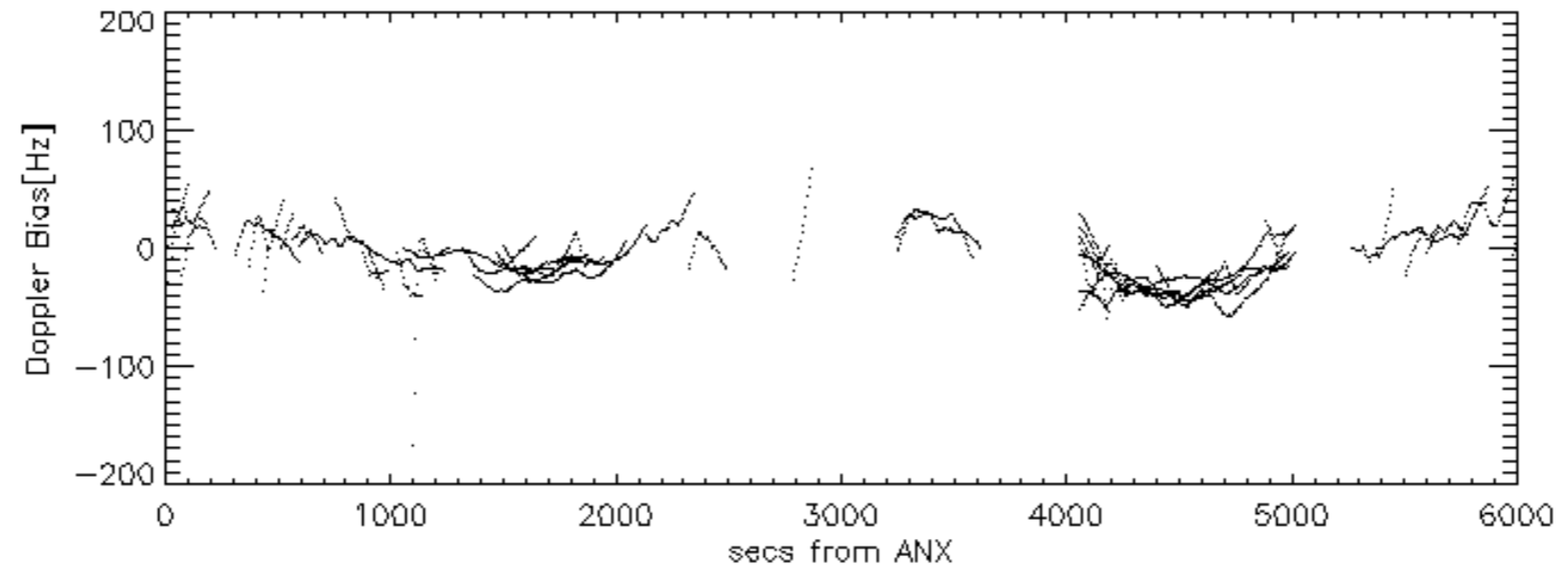
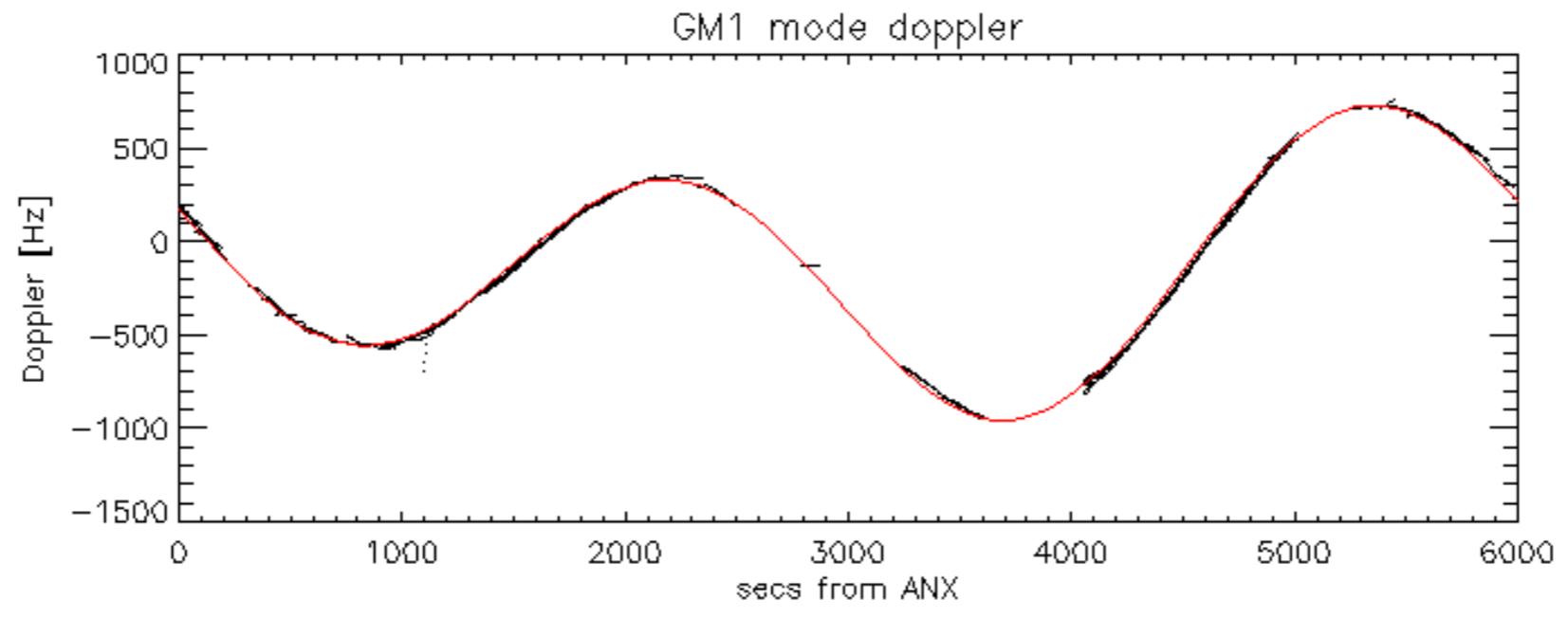


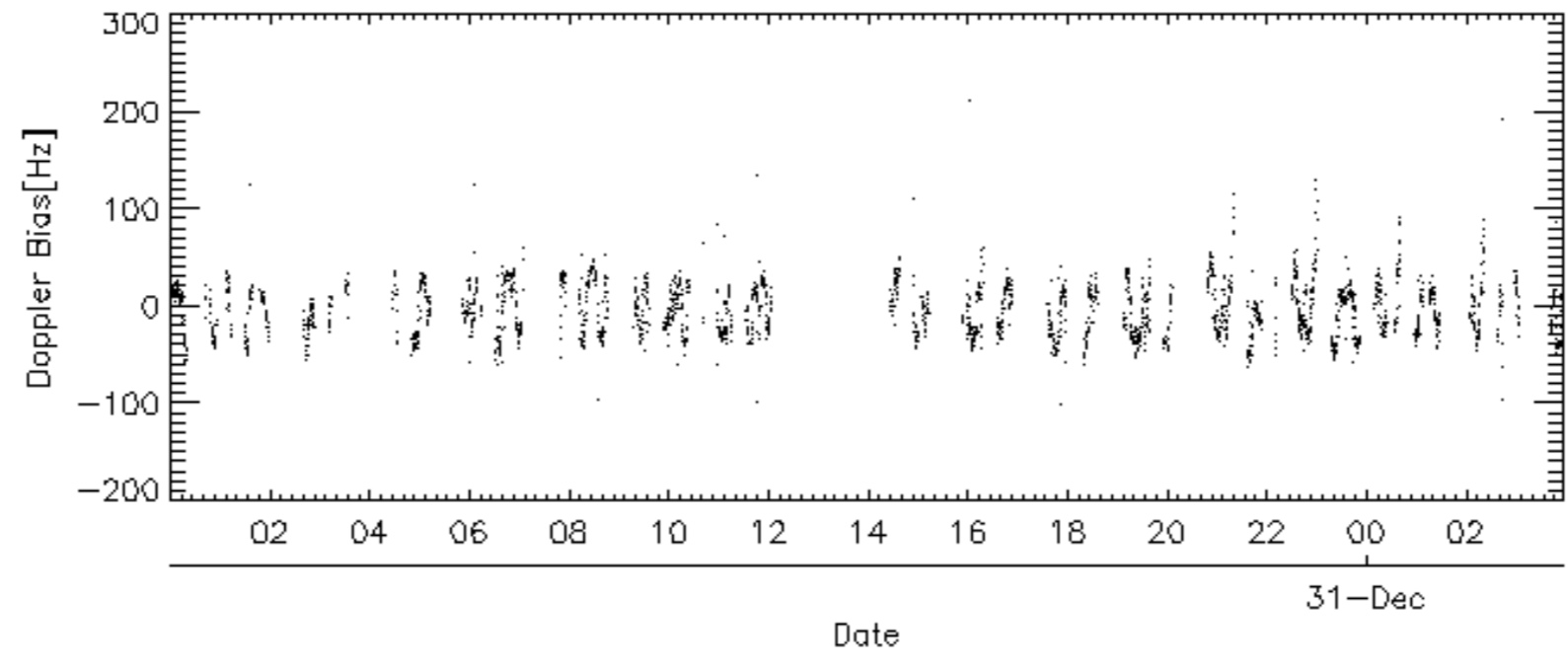
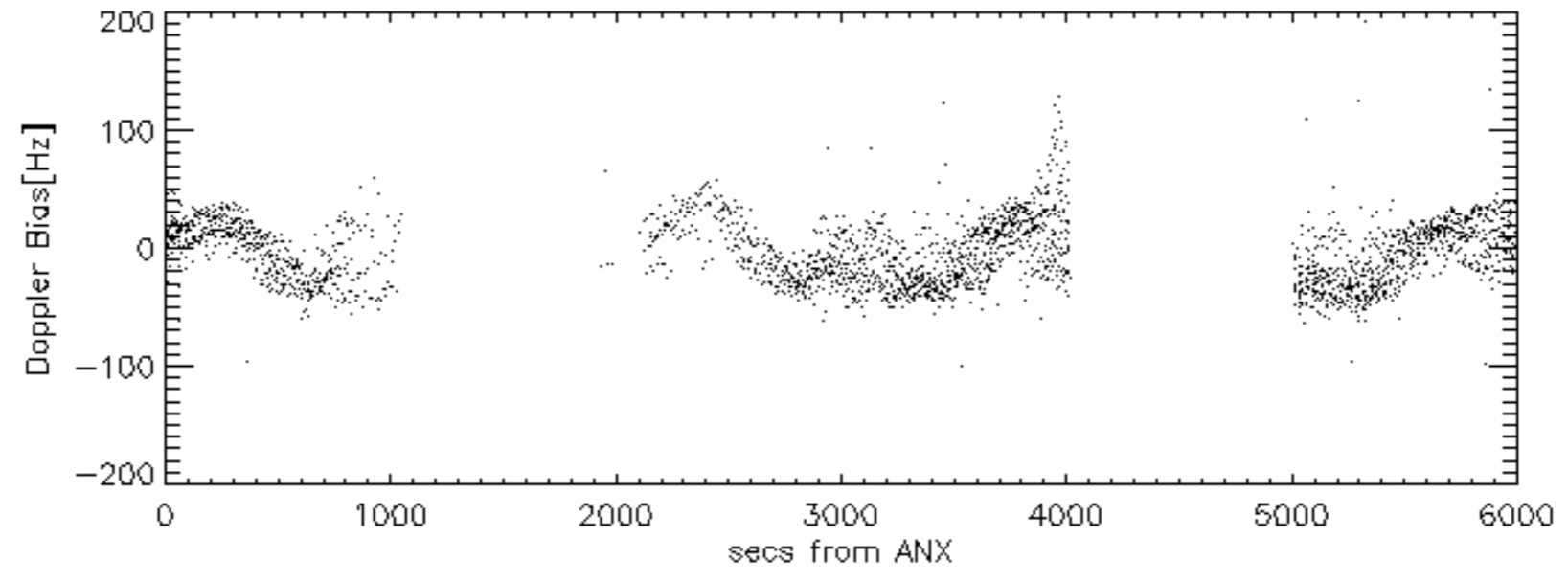
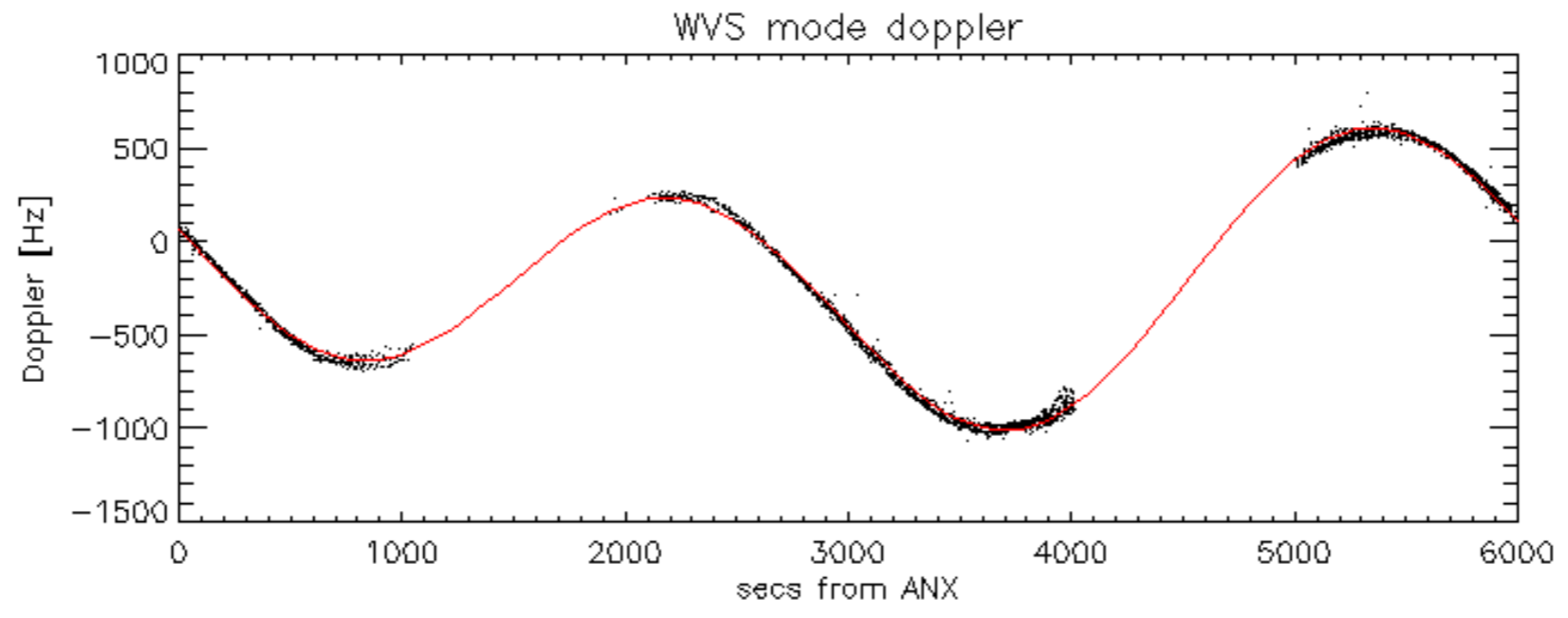
Doppler 'WVS' 'IS2' ascending



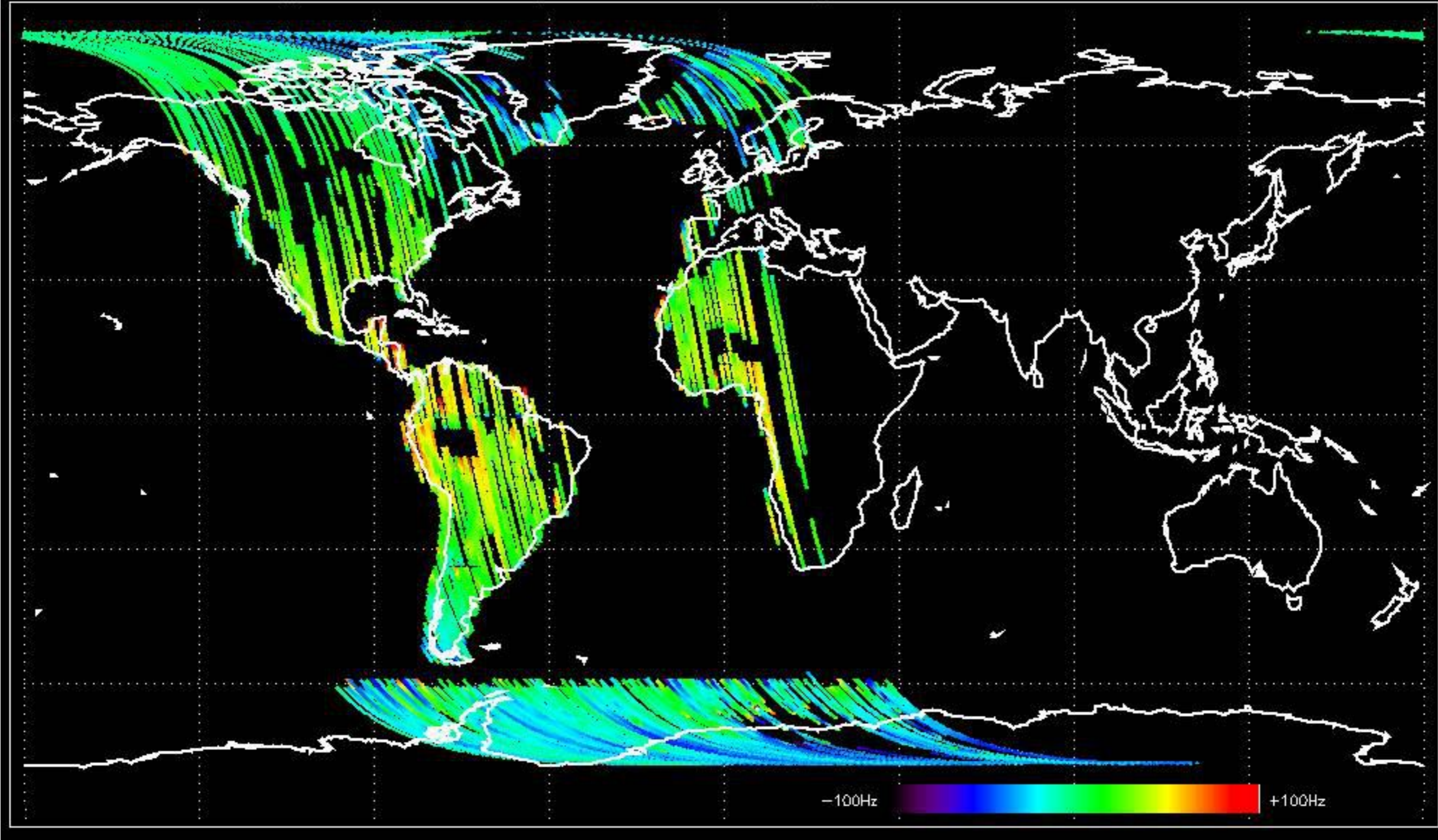
Doppler 'WVS' 'IS2' descending



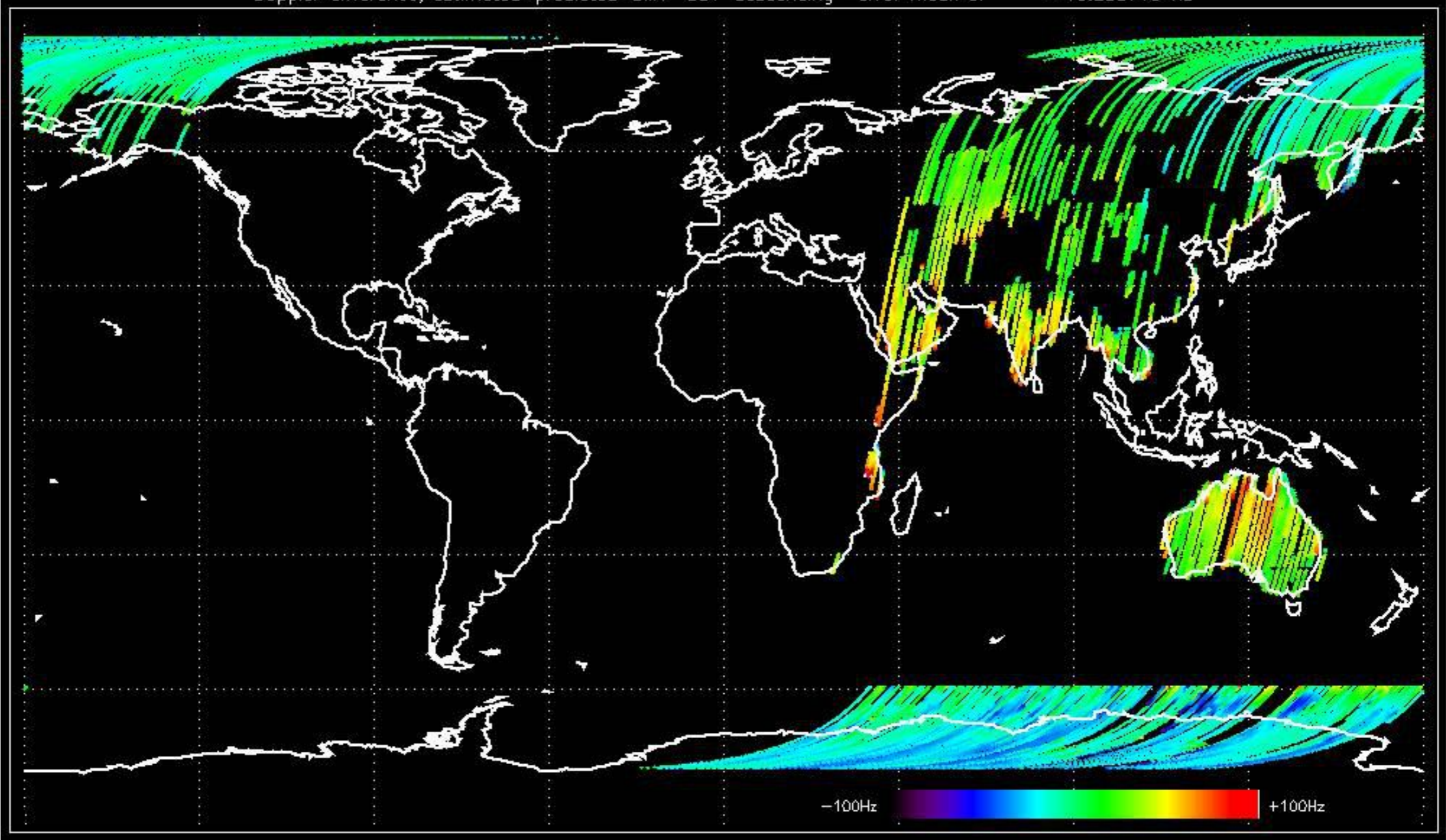




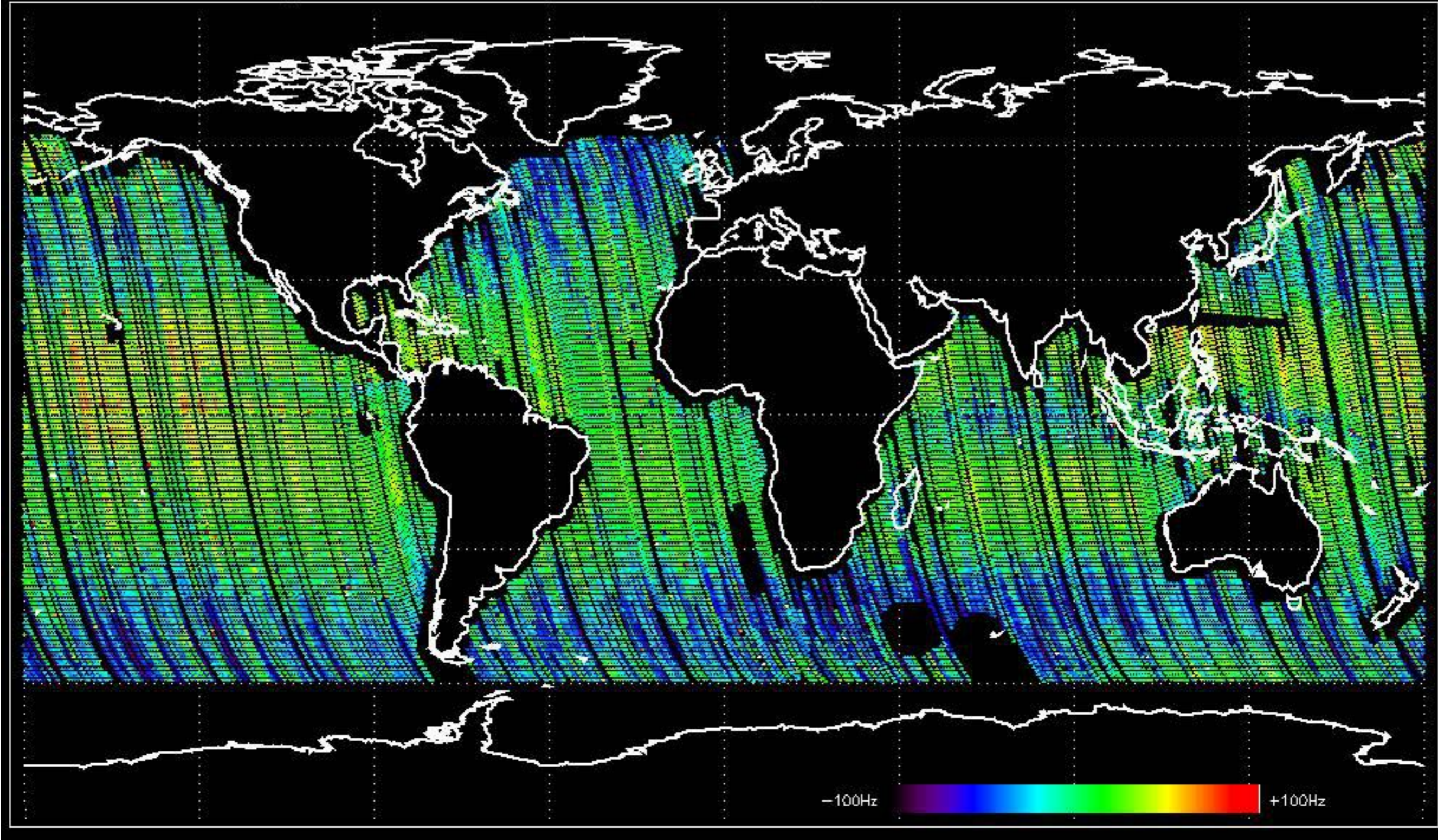
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -14.206755 Hz



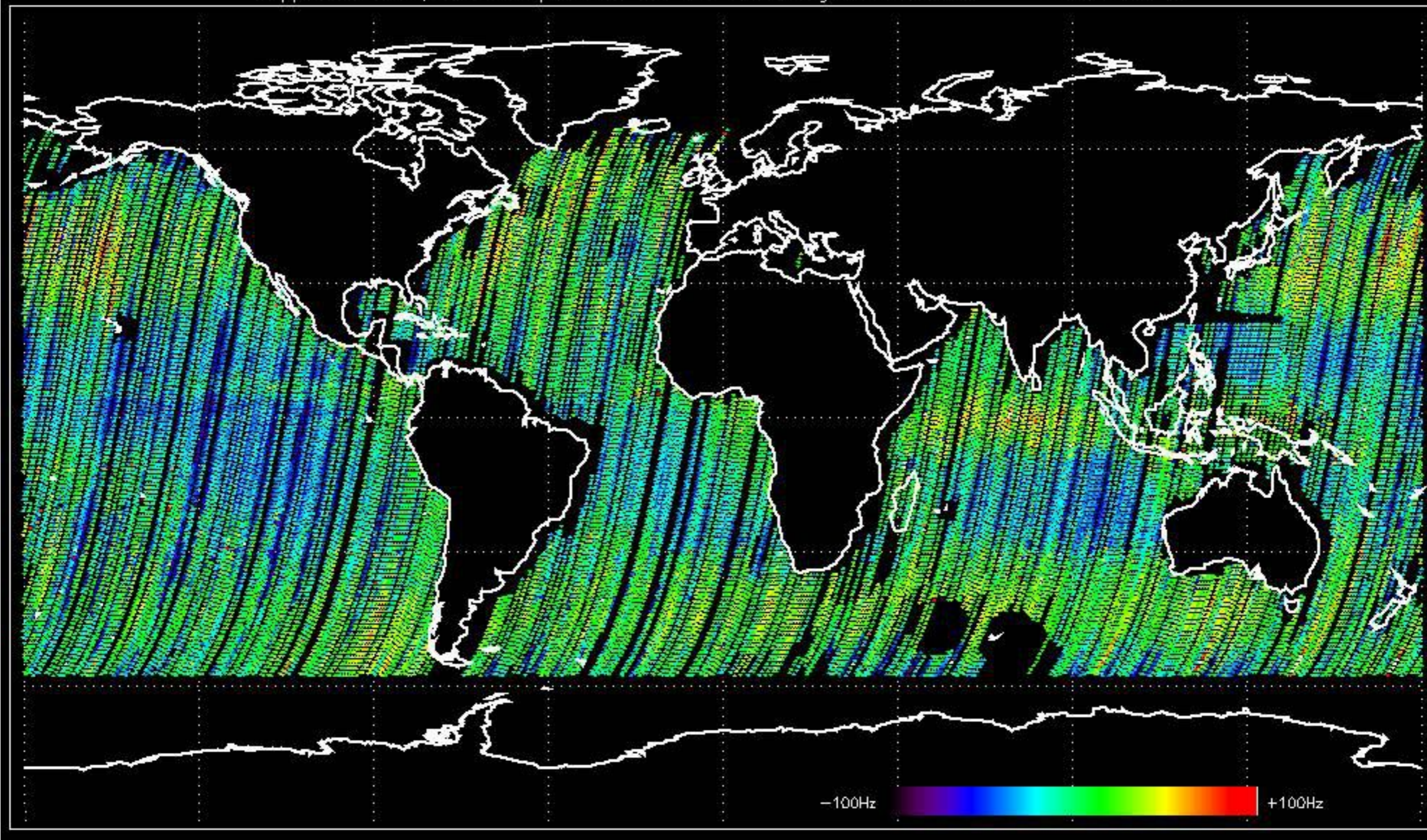
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.283715 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.716413 Hz

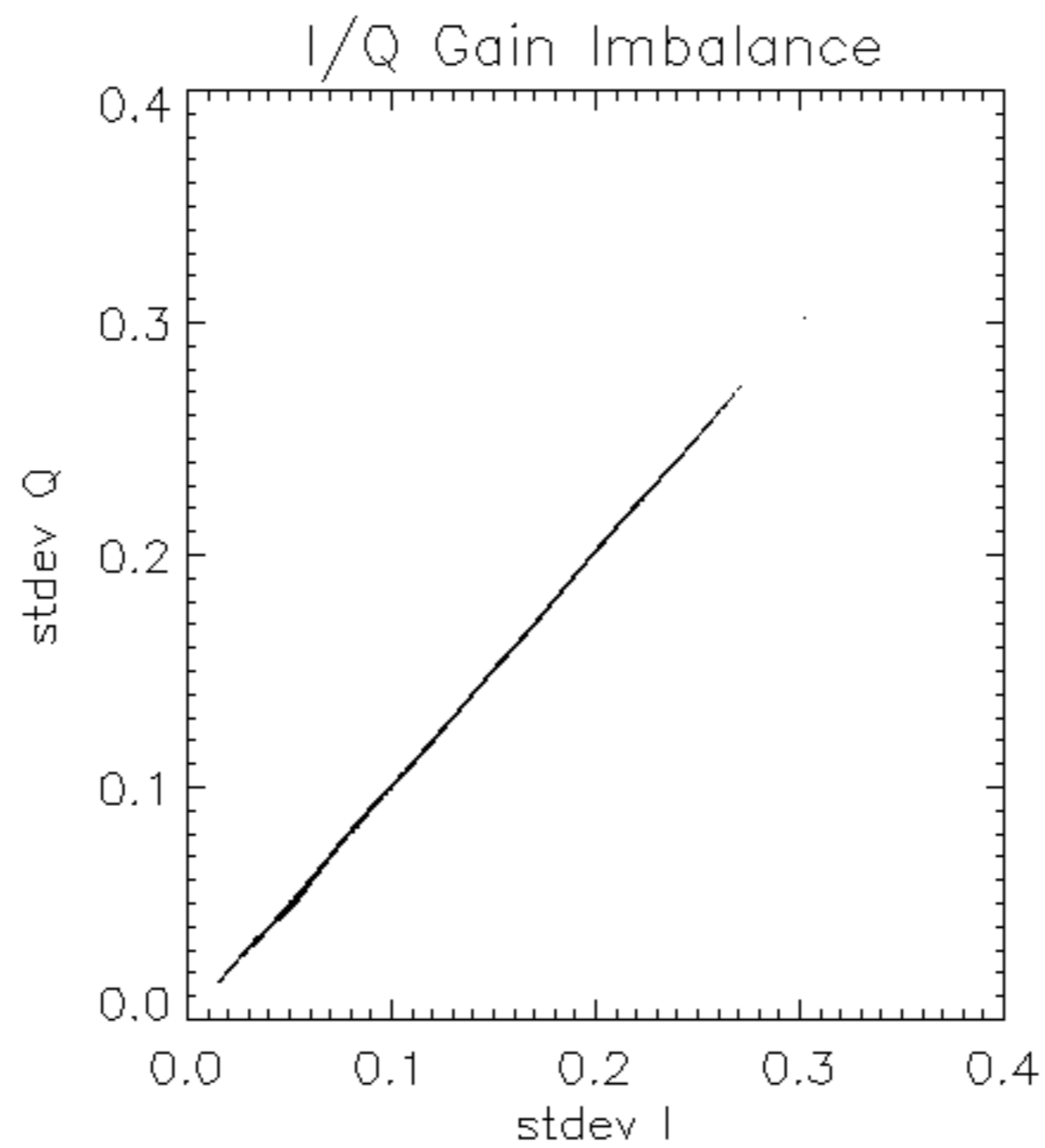


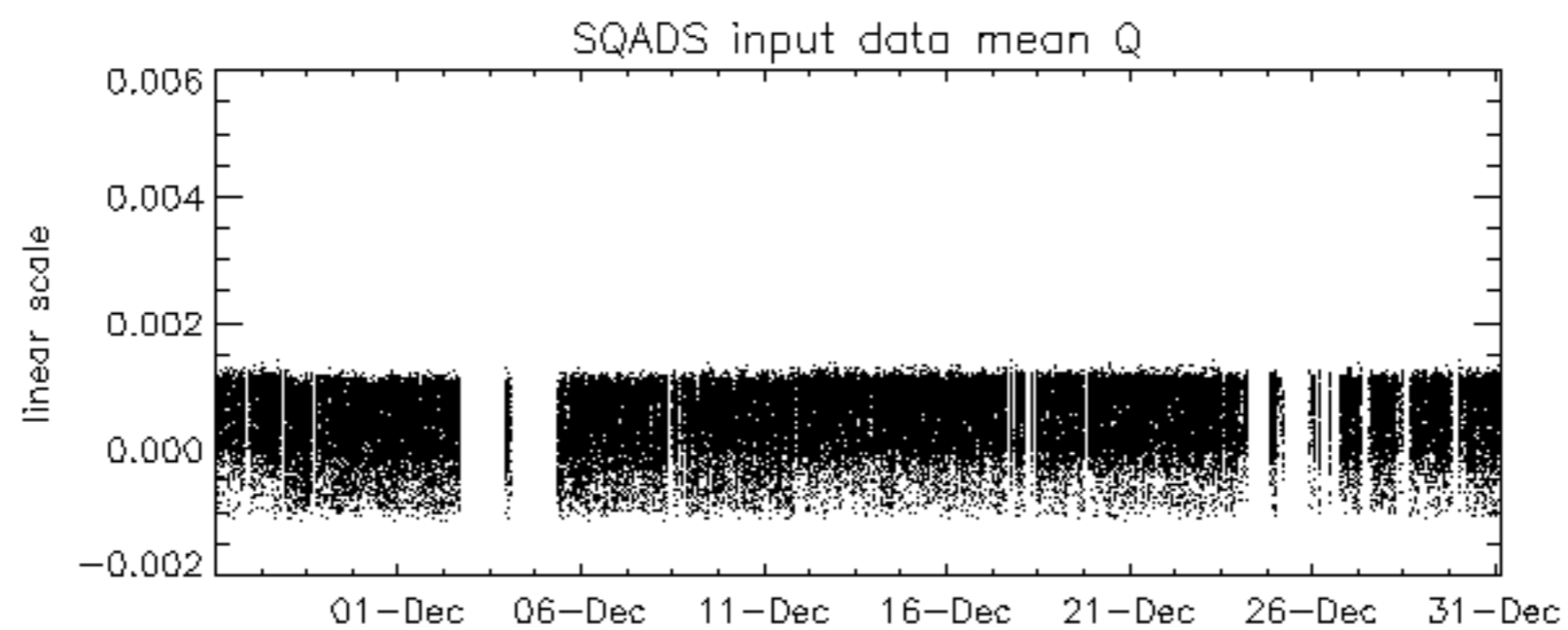
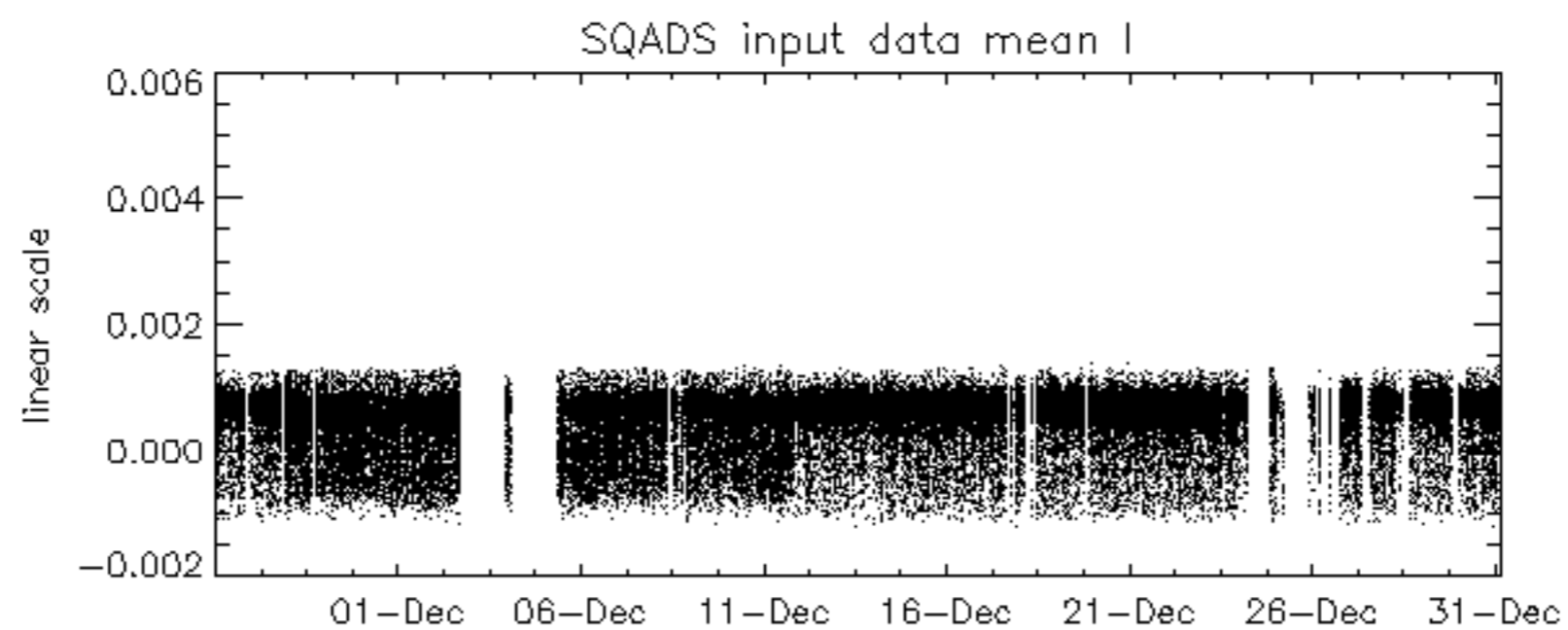
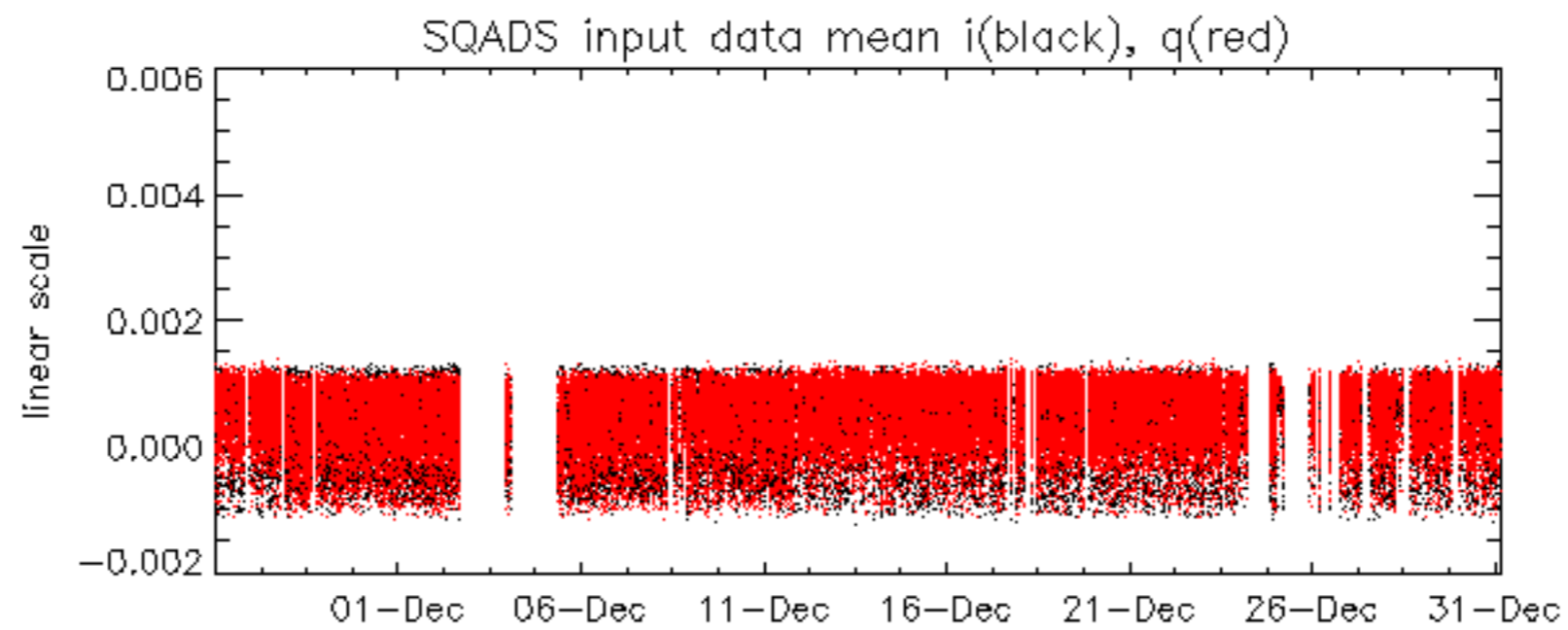
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -14.998670 Hz

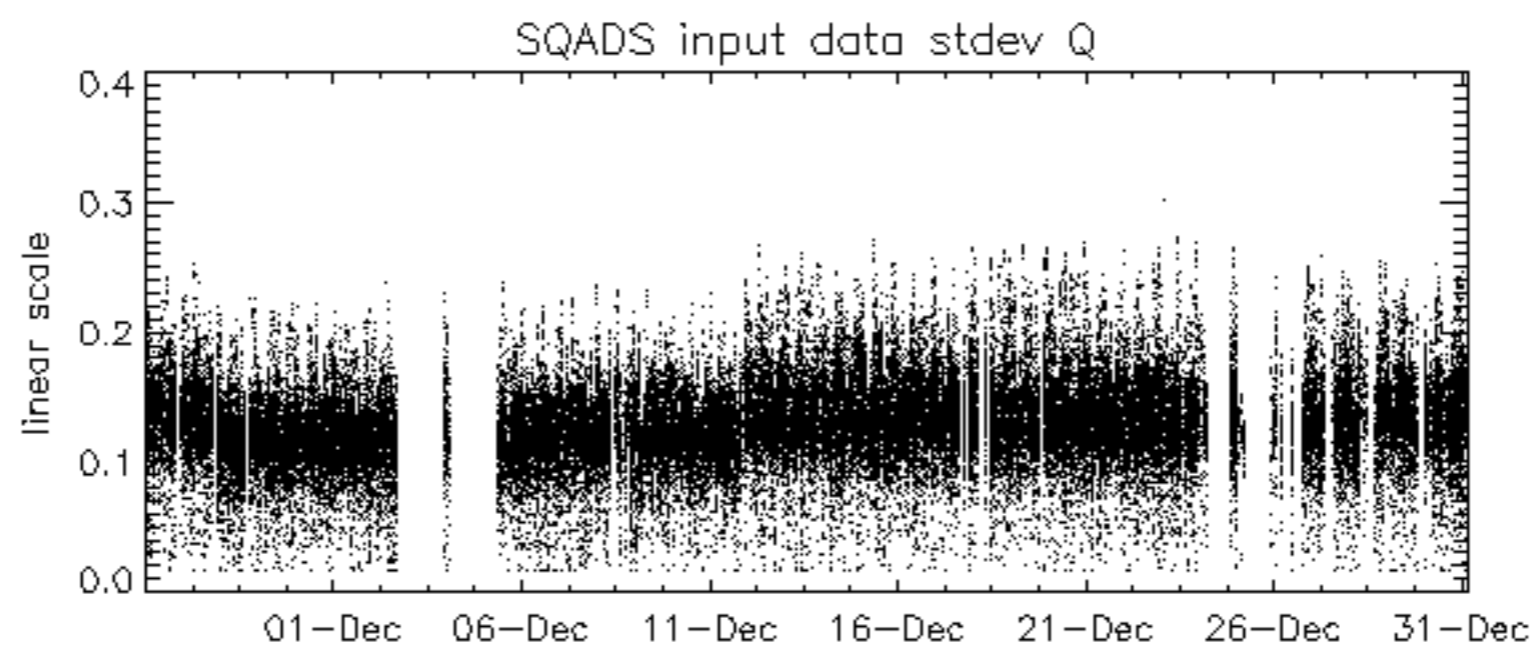
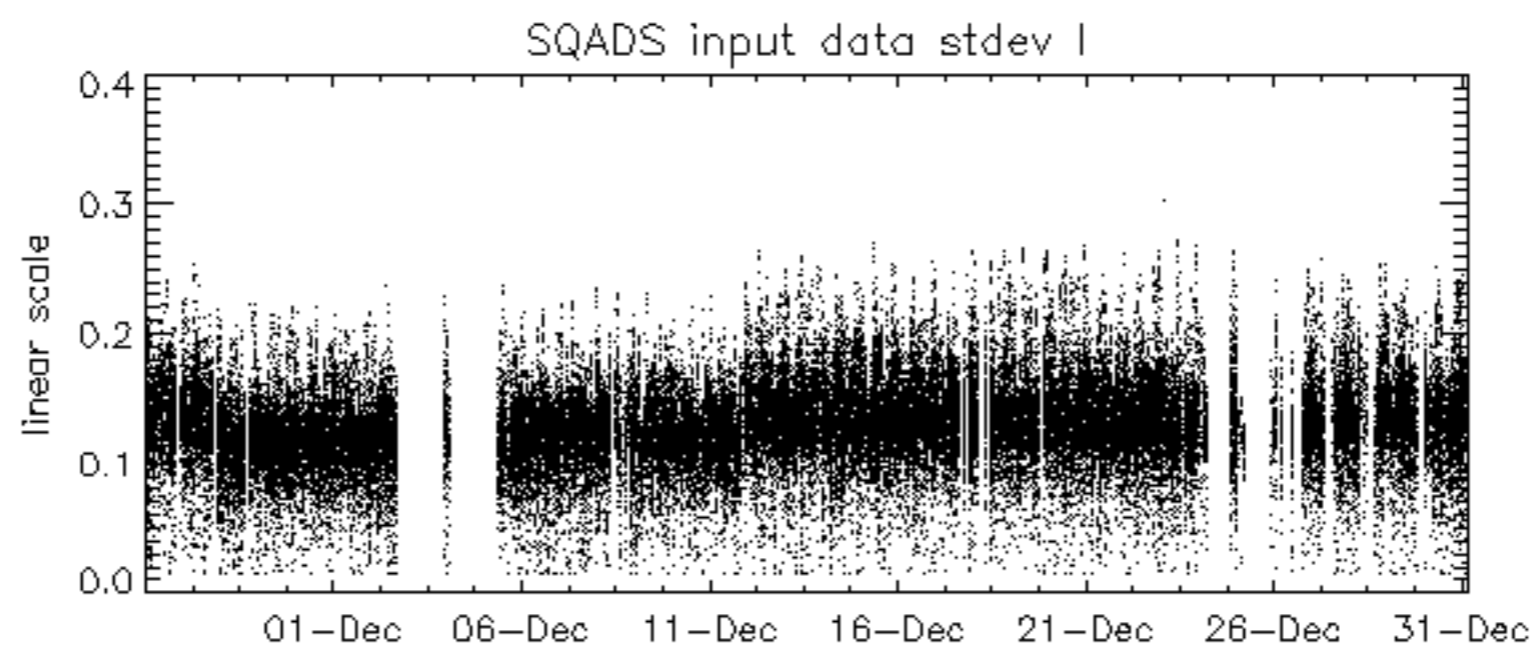
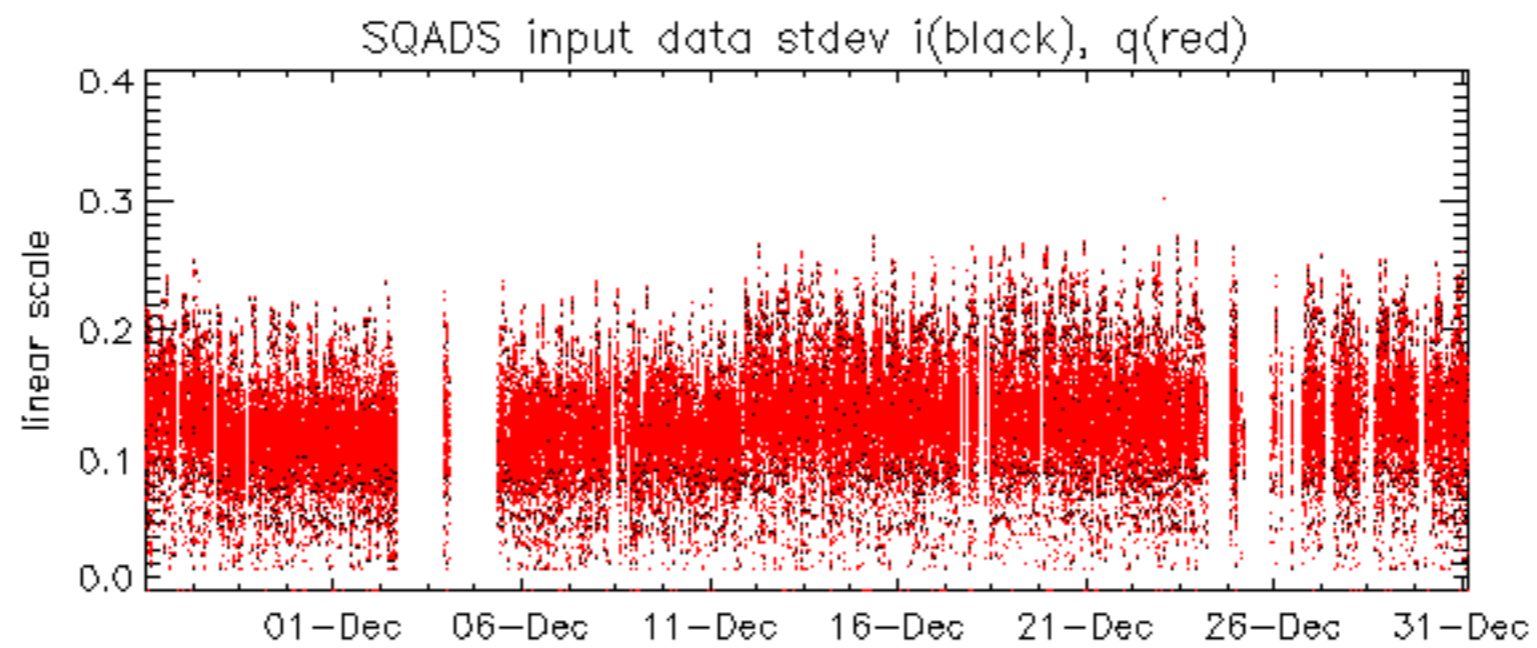


No anomalies observed on available MS products:

No anomalies observed.



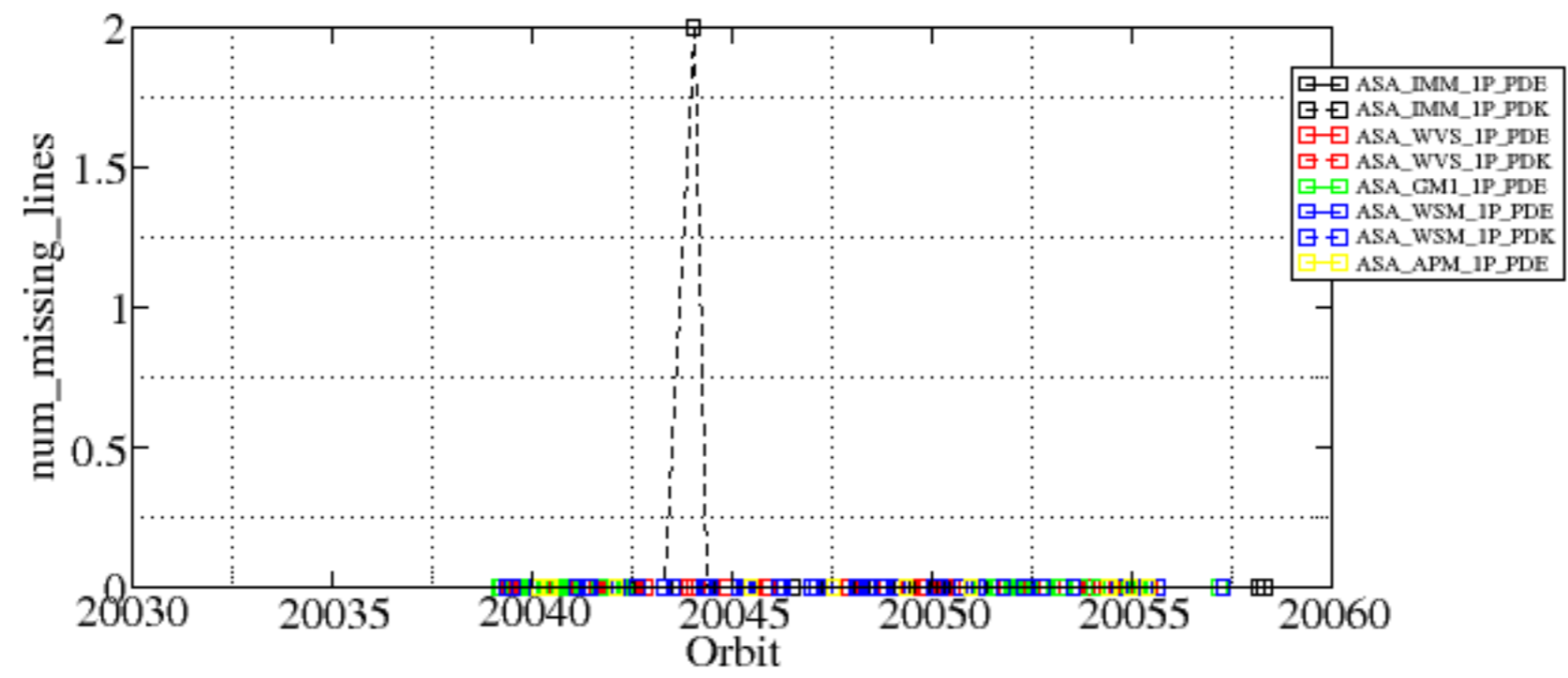




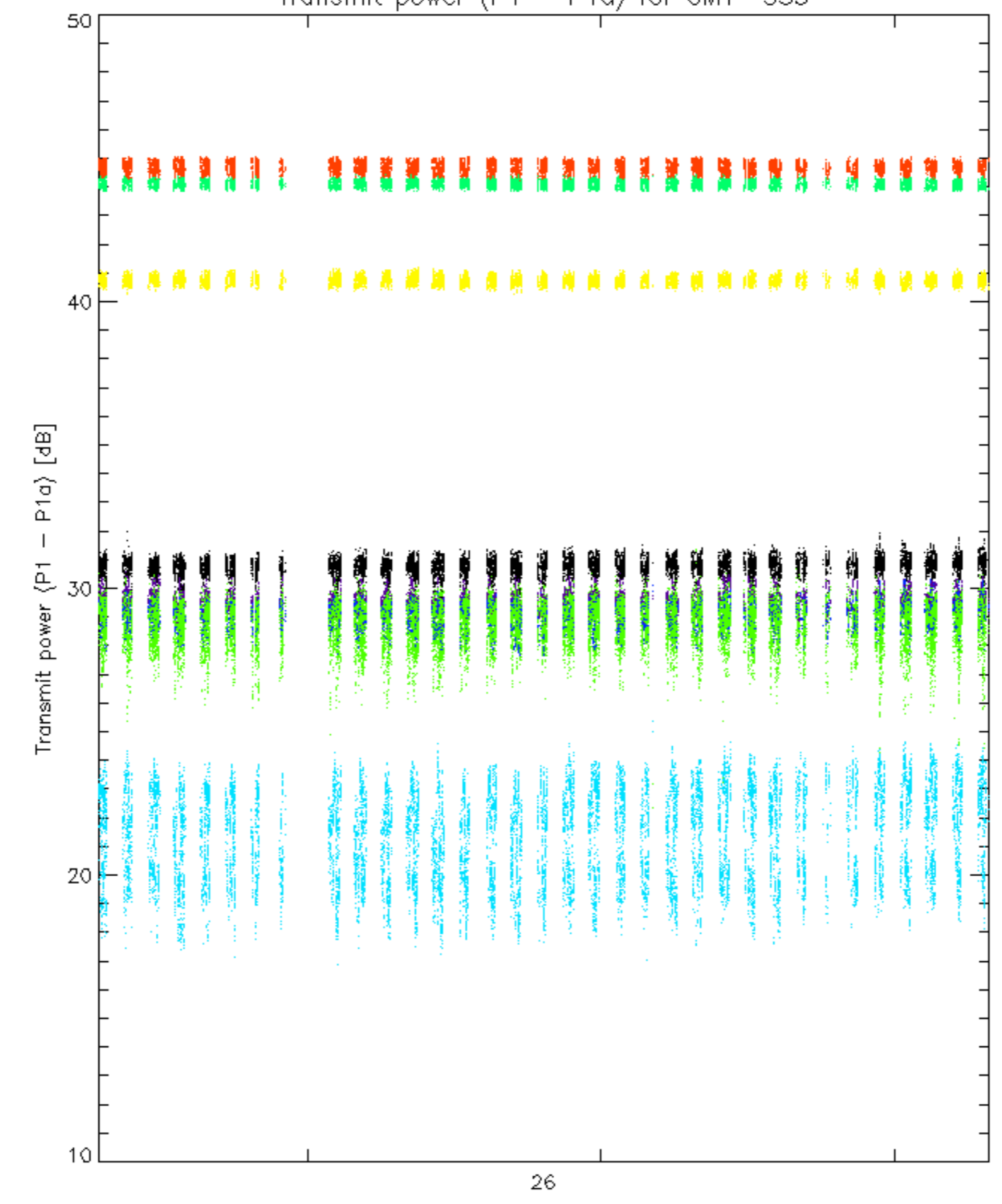
Summary of analysis for the last 3 days 2005123[901]

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

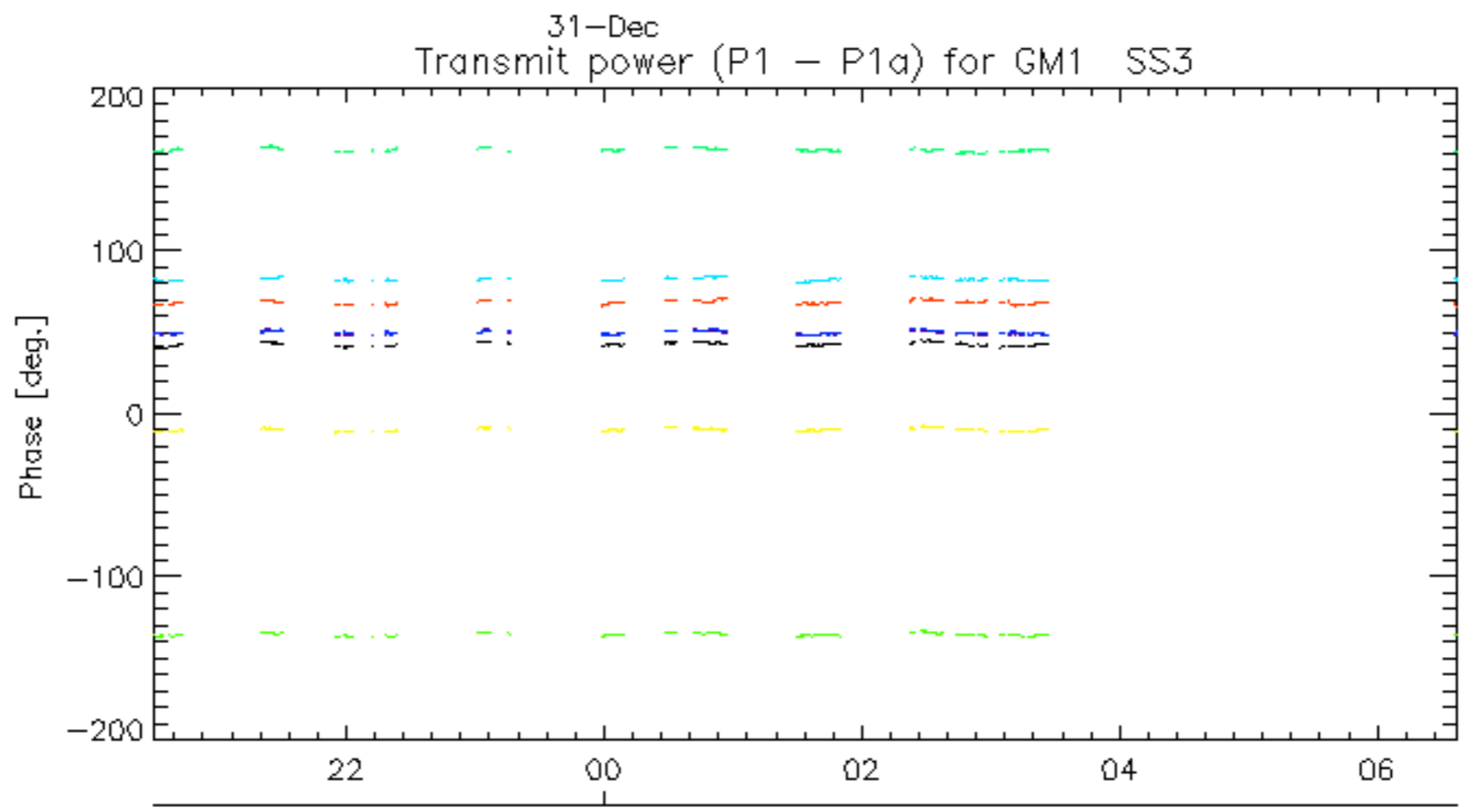
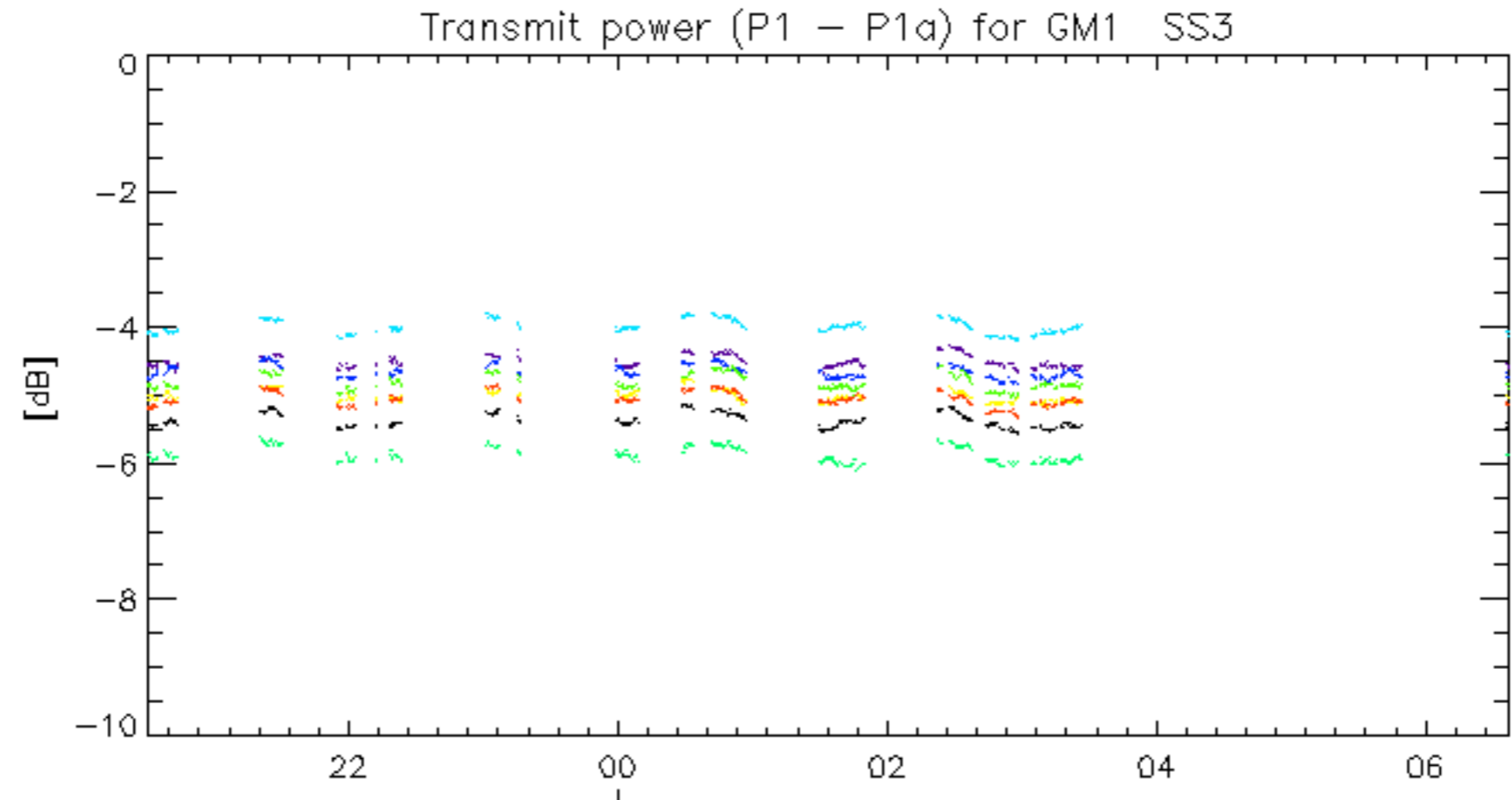
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051230_004338_000000602043_00446_20039_5183.N1	1	0
ASA_IMM_1PNPDK20051230_083344_000000502043_00451_20044_9925.N1	0	2



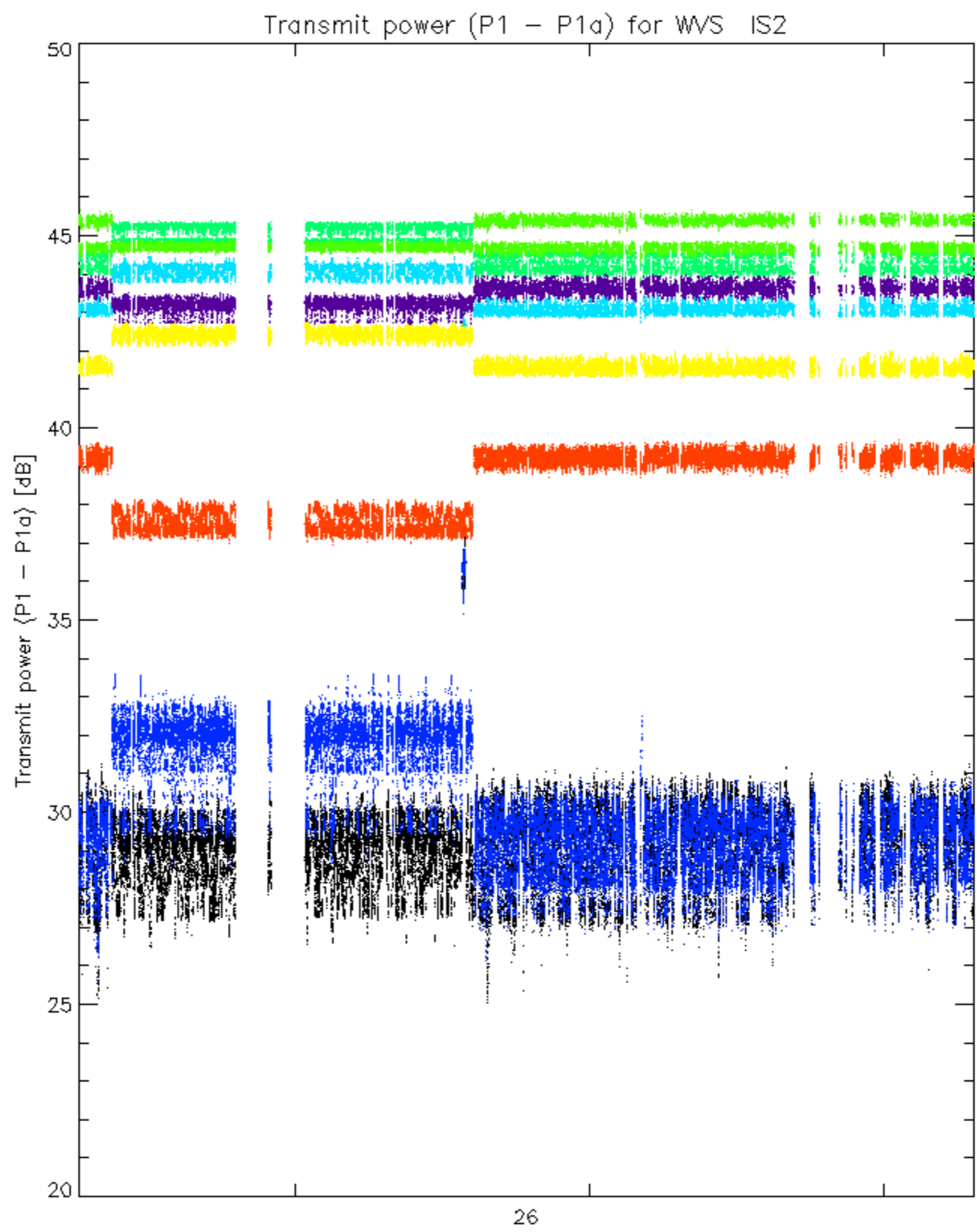
Transmit power (P1 - P1a) for GM1 SS3

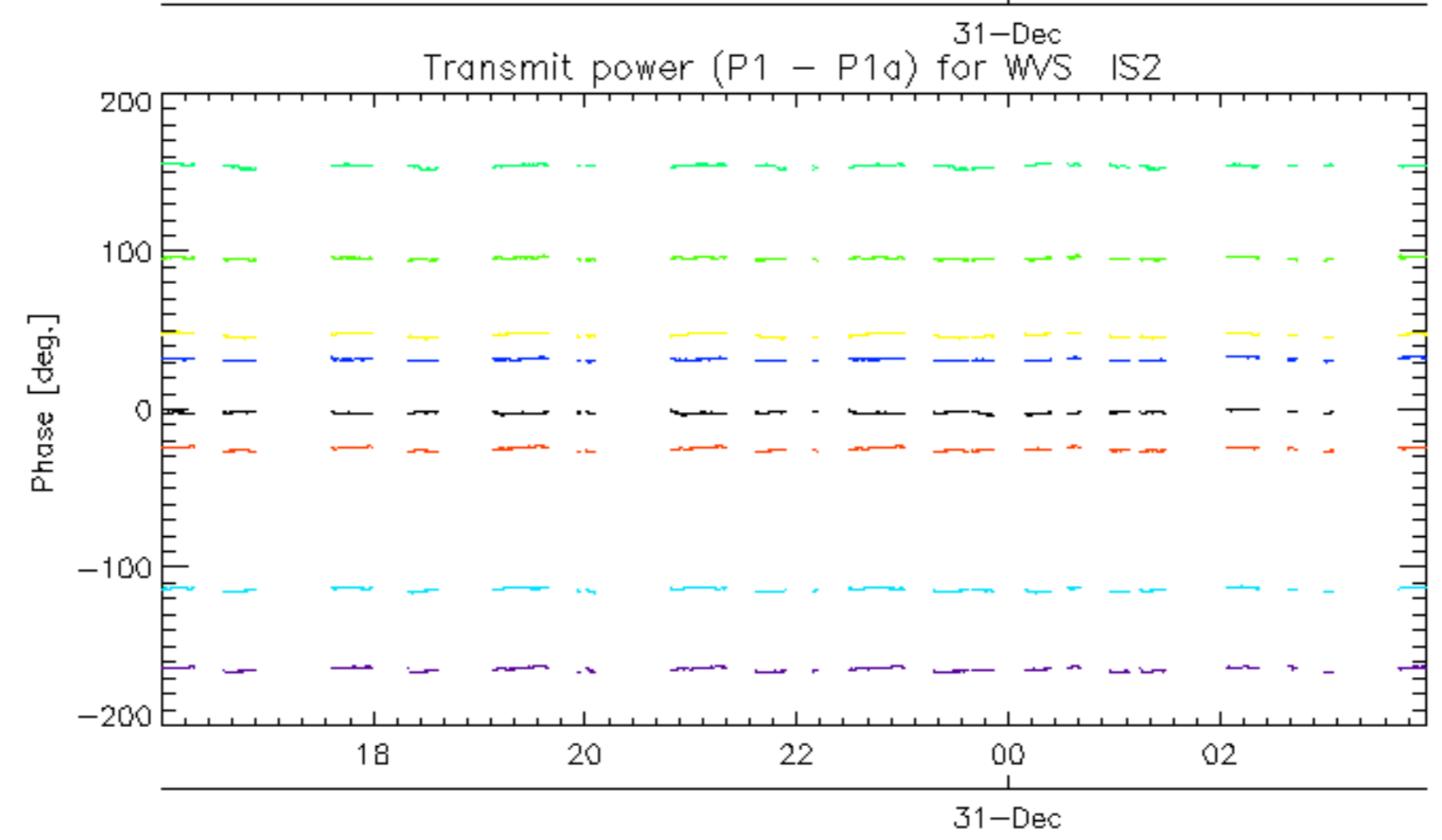
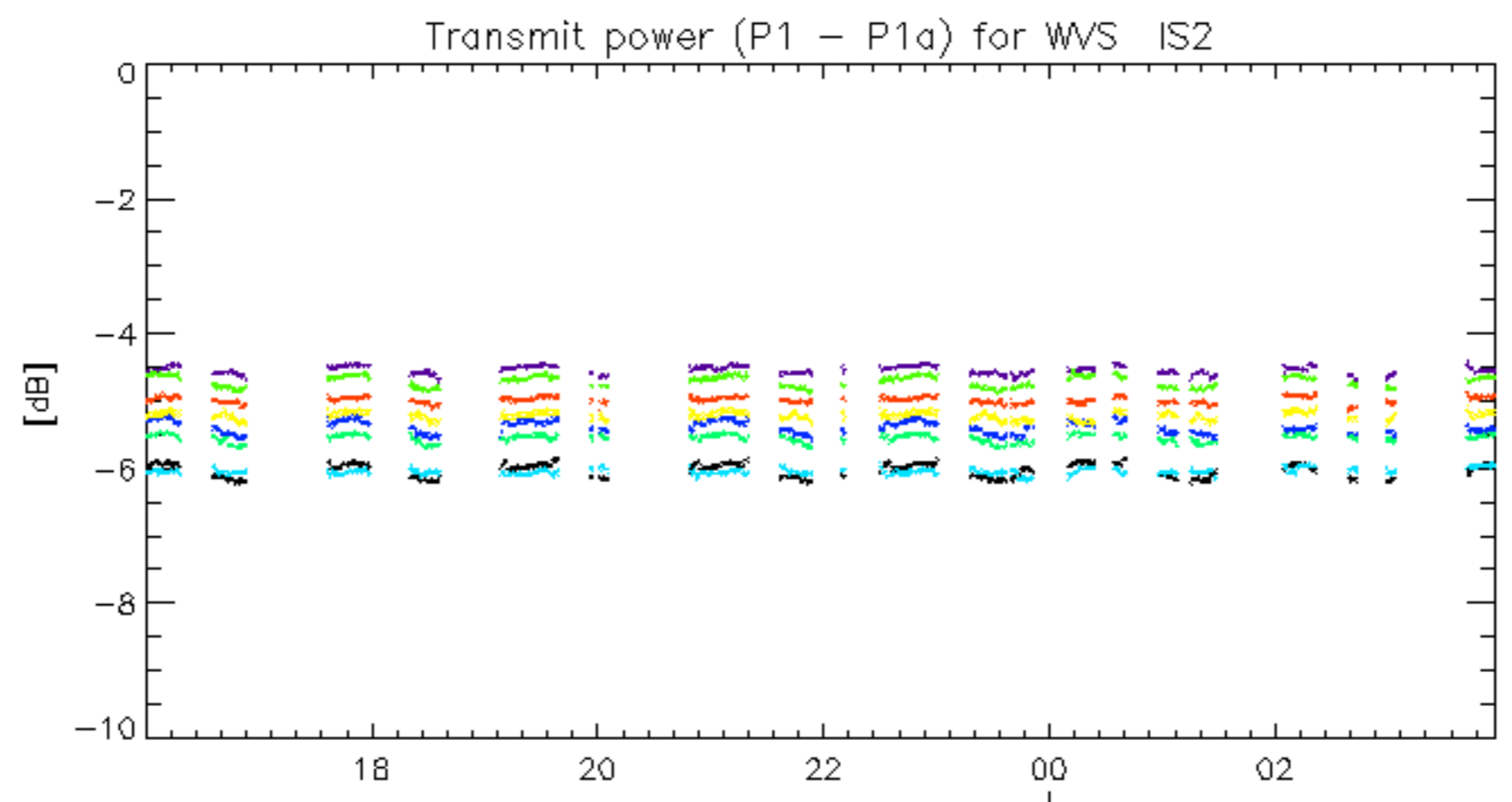


rows: 3 7 11 15 19 22 26 30



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





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

No unavailabilities during the reported period.