

PRELIMINARY REPORT OF 061228

last update on Thu Dec 28 16:20:59 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 2006-12-27 00:00:00 to 2006-12-28 16:20:59

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	18	21	33	11	55
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	18	21	33	11	55
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	18	21	33	11	55
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	18	21	33	11	55

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	20061228 074716
H	20061221 062648

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

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.963005	0.007954	-0.018492
7	P1	-3.140478	0.024959	0.031406
11	P1	-4.118001	0.026713	0.018443
15	P1	-6.325064	0.016515	-0.050747
19	P1	-3.652897	0.005834	-0.063285
22	P1	-4.656673	0.014161	-0.020580
26	P1	-3.958717	0.009344	-0.027503
30	P1	-5.892790	0.009479	-0.044360
3	P1	-16.549818	0.256253	-0.139987
7	P1	-17.287157	0.191909	0.065891
11	P1	-17.189623	0.484514	0.107367
15	P1	-13.050205	0.137614	0.046970
19	P1	-14.992675	0.094848	-0.068562
22	P1	-15.807932	0.553032	0.062937
26	P1	-15.079614	0.186342	-0.038417
30	P1	-17.505268	0.476457	0.025344

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.801174	0.095000	0.039277
7	P2	-21.722366	0.094536	0.061267
11	P2	-15.578486	0.103846	0.063182
15	P2	-7.111259	0.110115	0.023263
19	P2	-9.189417	0.106459	-0.011588
22	P2	-18.230293	0.099762	0.029167
26	P2	-16.586899	0.113884	-0.059282
30	P2	-19.457903	0.090102	0.009568

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.240557	0.009108	0.012413
7	P3	-8.240557	0.009108	0.012413
11	P3	-8.240557	0.009108	0.012413

15	P3	-8.240557	0.009108	0.012413
19	P3	-8.240557	0.009108	0.012413
22	P3	-8.240557	0.009108	0.012413
26	P3	-8.240592	0.009108	0.012215
30	P3	-8.240592	0.009108	0.012215

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	-3.918566	0.014467	-0.026608
7	P1	-2.474517	0.015933	0.003045
11	P1	-2.851058	0.017733	-0.015781
15	P1	-3.687897	0.031521	-0.044846
19	P1	-3.544504	0.019003	-0.015628
22	P1	-5.026247	0.023711	-0.010532
26	P1	-6.028304	0.028740	-0.024314
30	P1	-5.345176	0.039556	-0.001286
3	P1	-11.741719	0.082640	-0.024550
7	P1	-10.064311	0.088567	-0.071091
11	P1	-10.341419	0.125528	-0.083128
15	P1	-10.712017	0.120759	-0.070236
19	P1	-15.728780	0.123212	0.013429
22	P1	-21.593946	1.411368	0.117028
26	P1	-16.064838	0.343568	0.071411
30	P1	-17.881527	0.367436	-0.082172

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.466524	0.121432	0.006426
7	P2	-22.224358	0.271388	0.060541
11	P2	-10.877472	0.130627	0.075764
15	P2	-4.984566	0.231891	0.004627
19	P2	-6.964392	0.270230	-0.029095
22	P2	-8.250099	0.134019	-0.003299
26	P2	-24.318539	0.175701	0.001076
30	P2	-21.947626	0.148035	0.006883

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.089412	0.005102	0.003963
7	P3	-8.089367	0.005083	0.003748
11	P3	-8.089472	0.005101	0.003917
15	P3	-8.089231	0.005091	0.004642
19	P3	-8.089328	0.005104	0.004225
22	P3	-8.089281	0.005090	0.004474
26	P3	-8.089463	0.005099	0.003960
30	P3	-8.089262	0.005071	0.003282

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	0.000560158
	stdev	1.67160e-07
MEAN Q	mean	0.000508223
	stdev	2.13966e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139440
	stdev	0.00119571
STDEV Q	mean	0.139833
	stdev	0.00121577



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006122[678]

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_1PNPDE20061226_201156_000000492054_00114_25218_7986.N1	0	14
ASA_GM1_1PNPDE20061227_205519_000005192054_00129_25233_9869.N1	7	280
ASA_GM1_1PNPDE20061227_224834_000000902054_00130_25234_9940.N1	5	0
ASA_WSM_1PNPDE20061226_000916_000005742054_00102_25206_6895.N1	0	36
ASA_WSM_1PNPDE20061226_014553_000002442054_00103_25207_6968.N1	0	30
ASA_WSM_1PNPDE20061226_042643_000001842054_00105_25209_8829.N1	0	60
ASA_WSM_1PNPDE20061226_233738_000001412054_00116_25220_8721.N1	0	37
ASA_WSM_1PNPDE20061227_011513_000004412054_00117_25221_8723.N1	0	41
ASA_WSM_1PNPDE20061228_004637_000001412054_00131_25235_0200.N1	0	36
ASA_WSM_1PNPDE20061228_022833_000001222054_00132_25236_0262.N1	4	126
ASA_WSM_1PNPDE20061228_032459_000001282054_00133_25237_0362.N1	0	61



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)

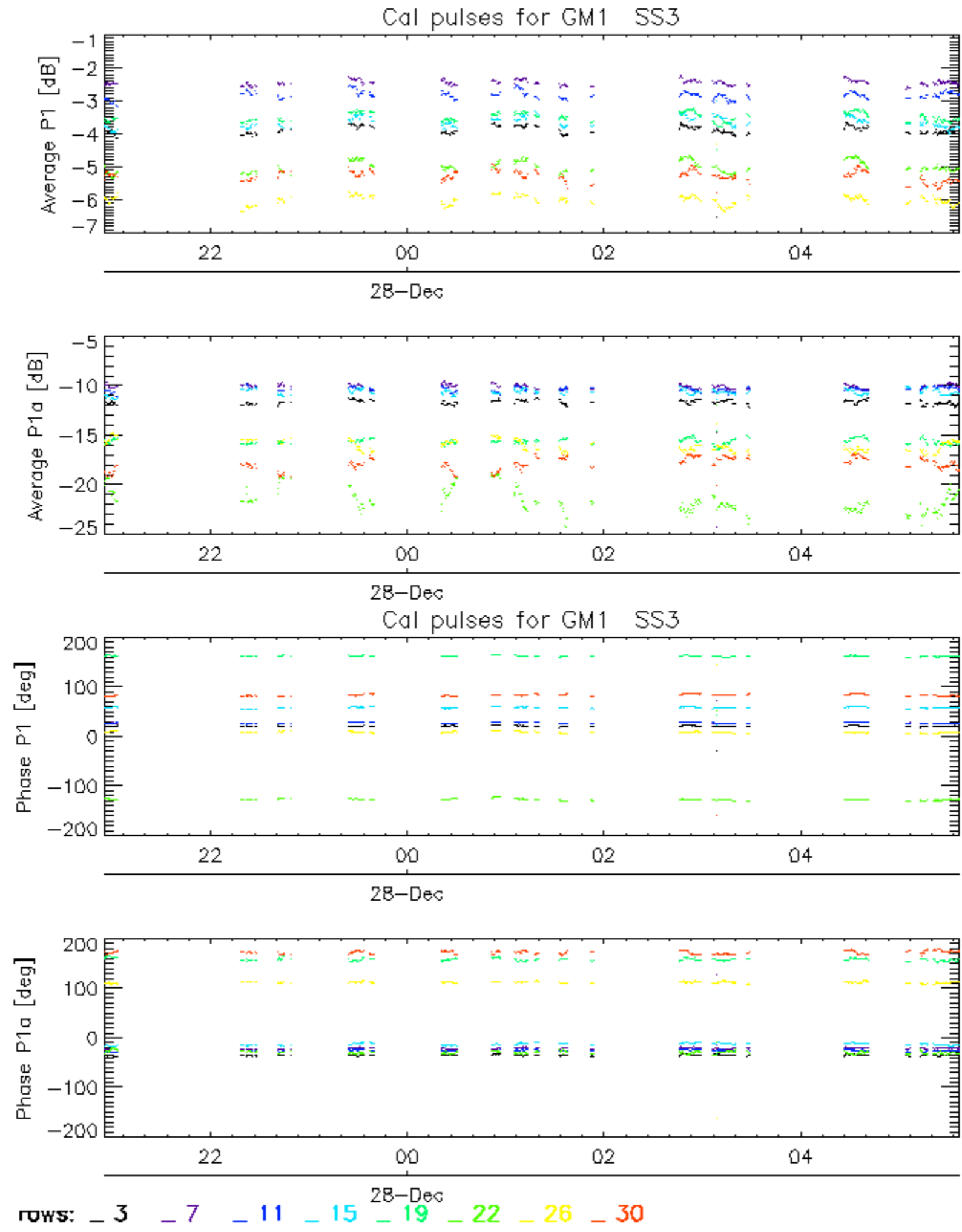
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

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

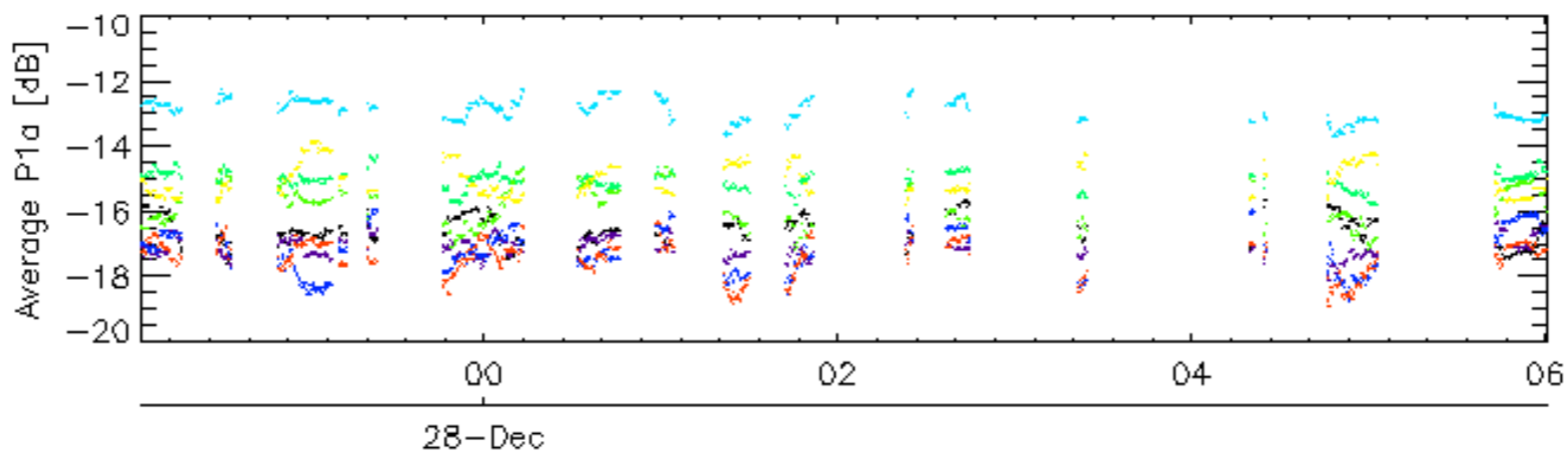
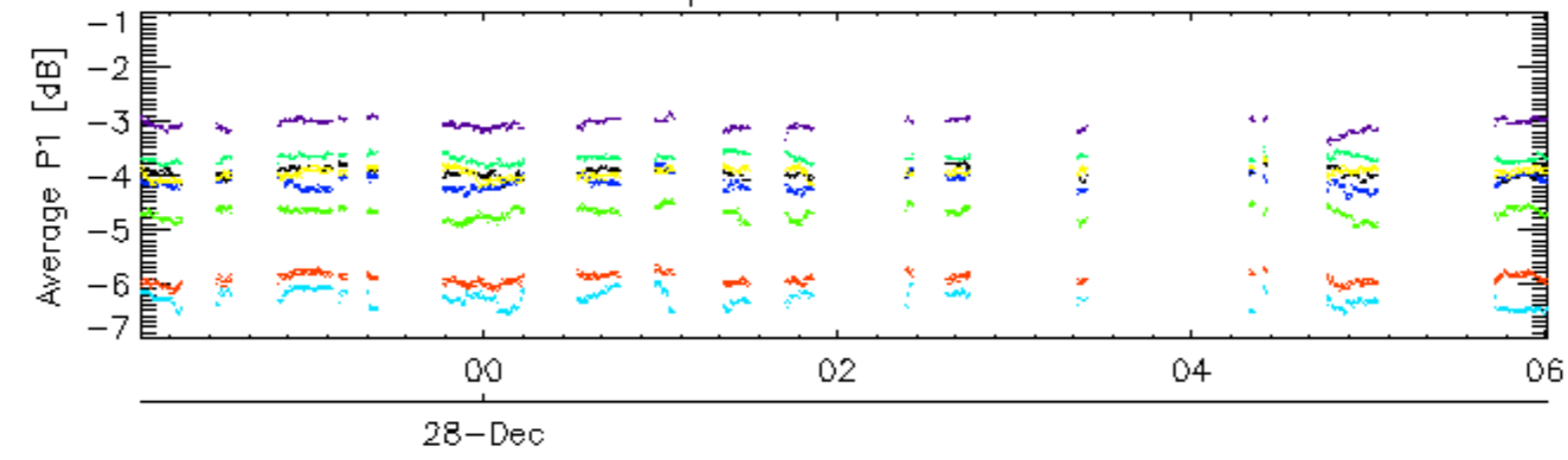
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

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

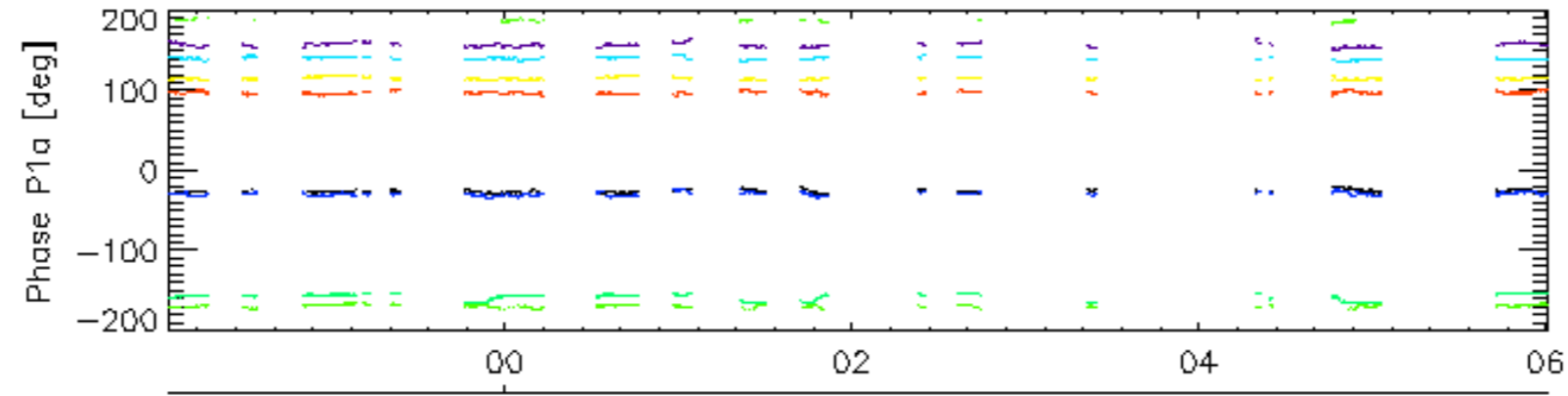
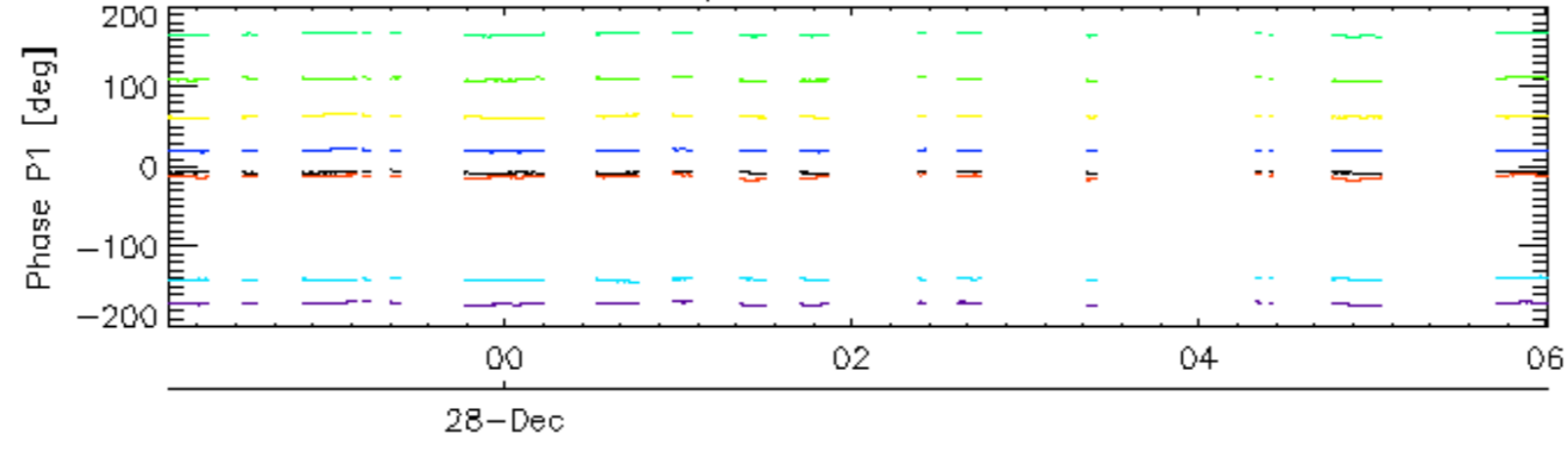
<input type="checkbox"/>



Cal pulses for WVS IS2

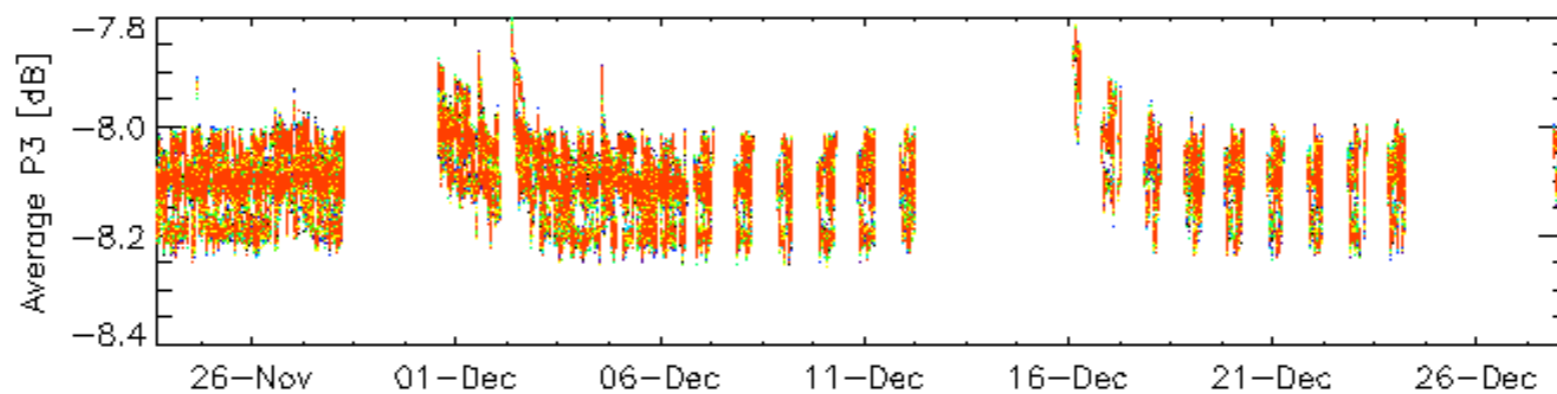
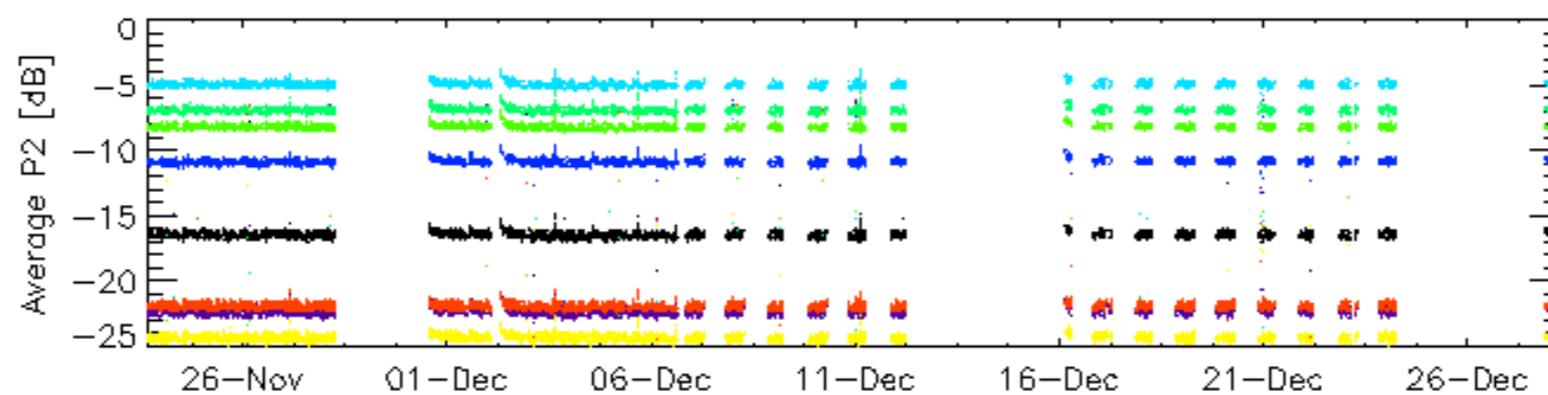
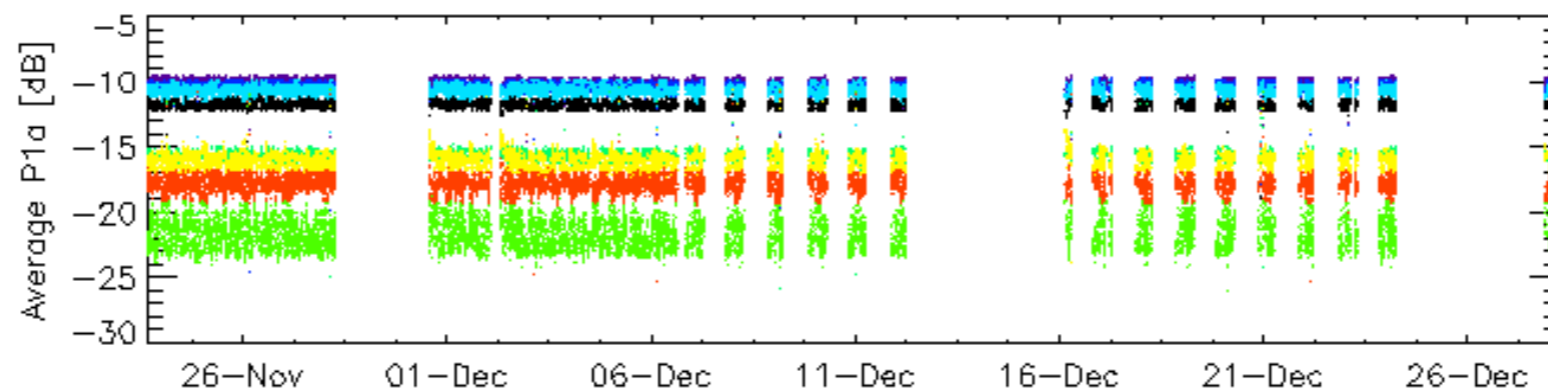
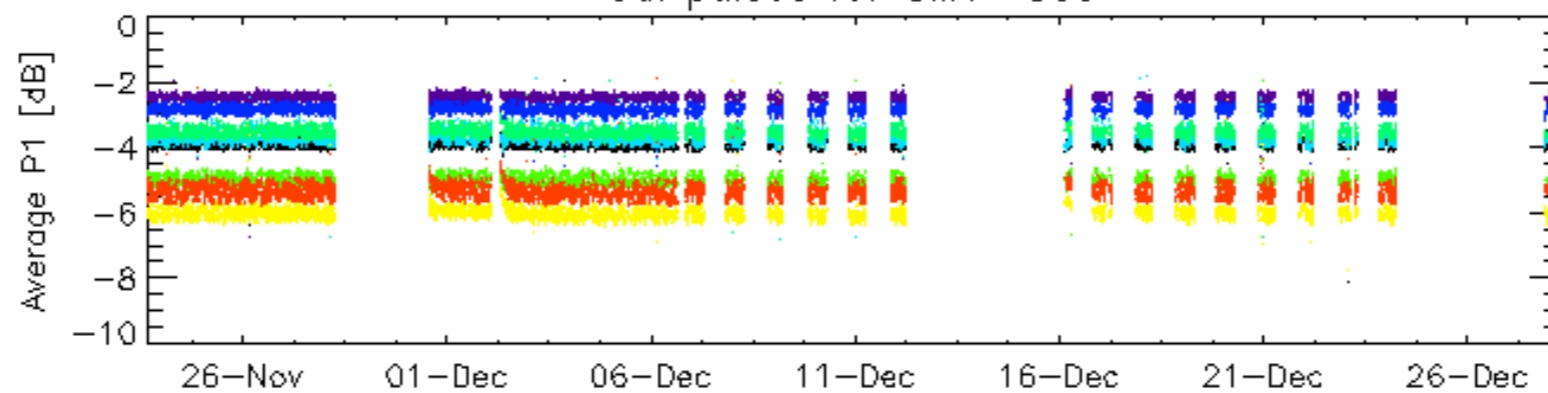


Cal pulses for WVS IS2



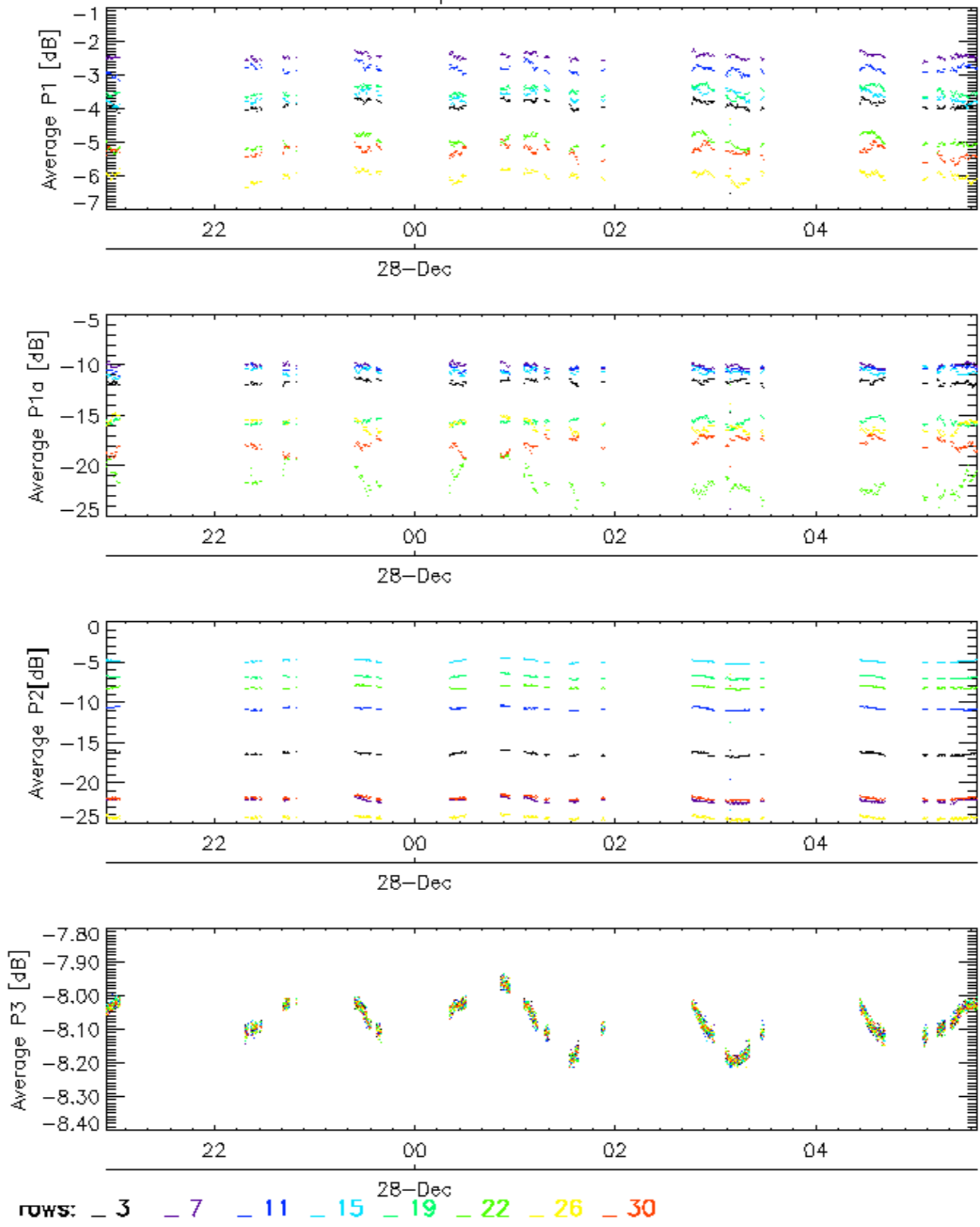
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

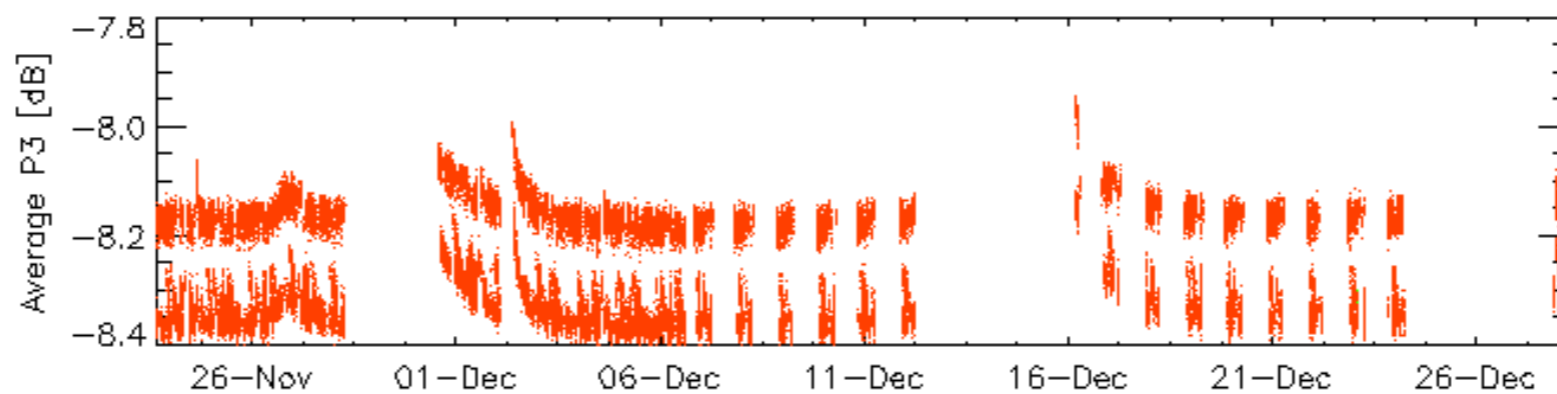
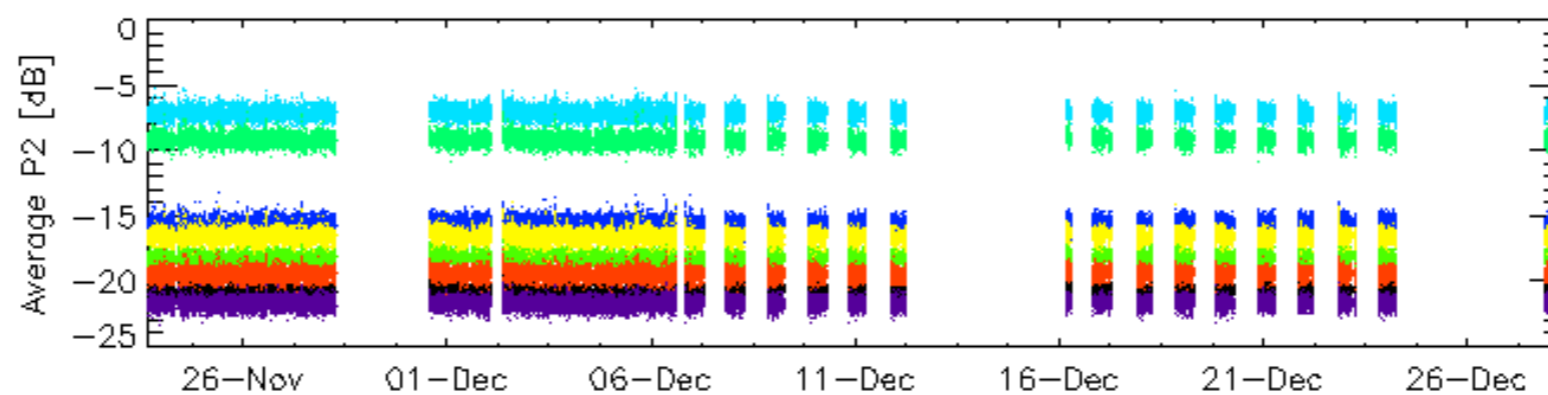
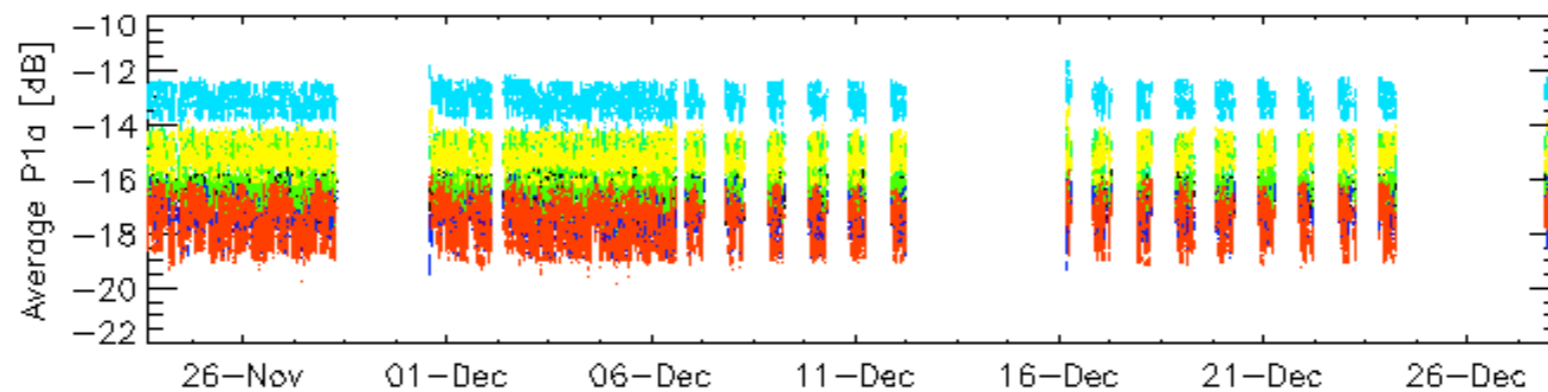
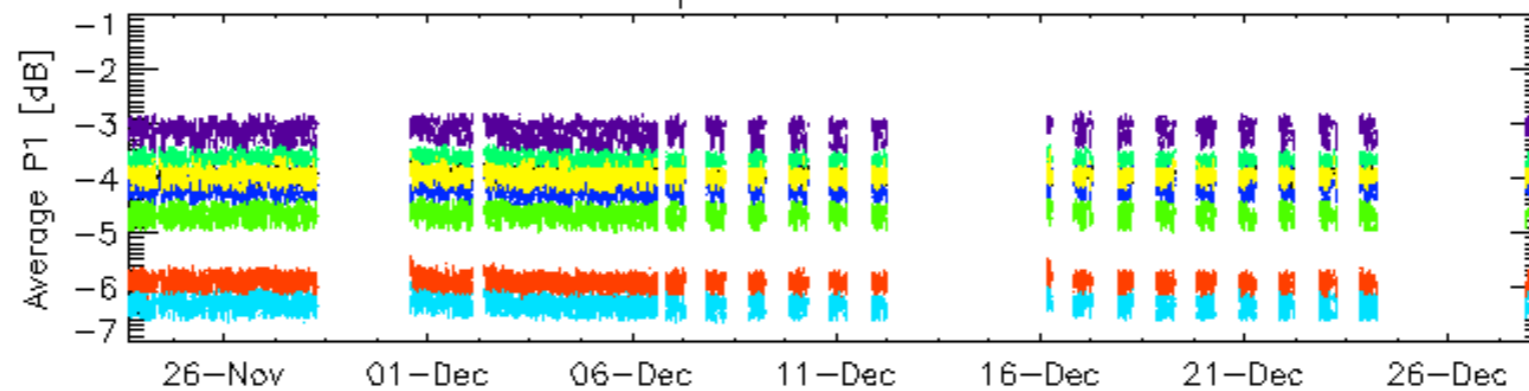


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

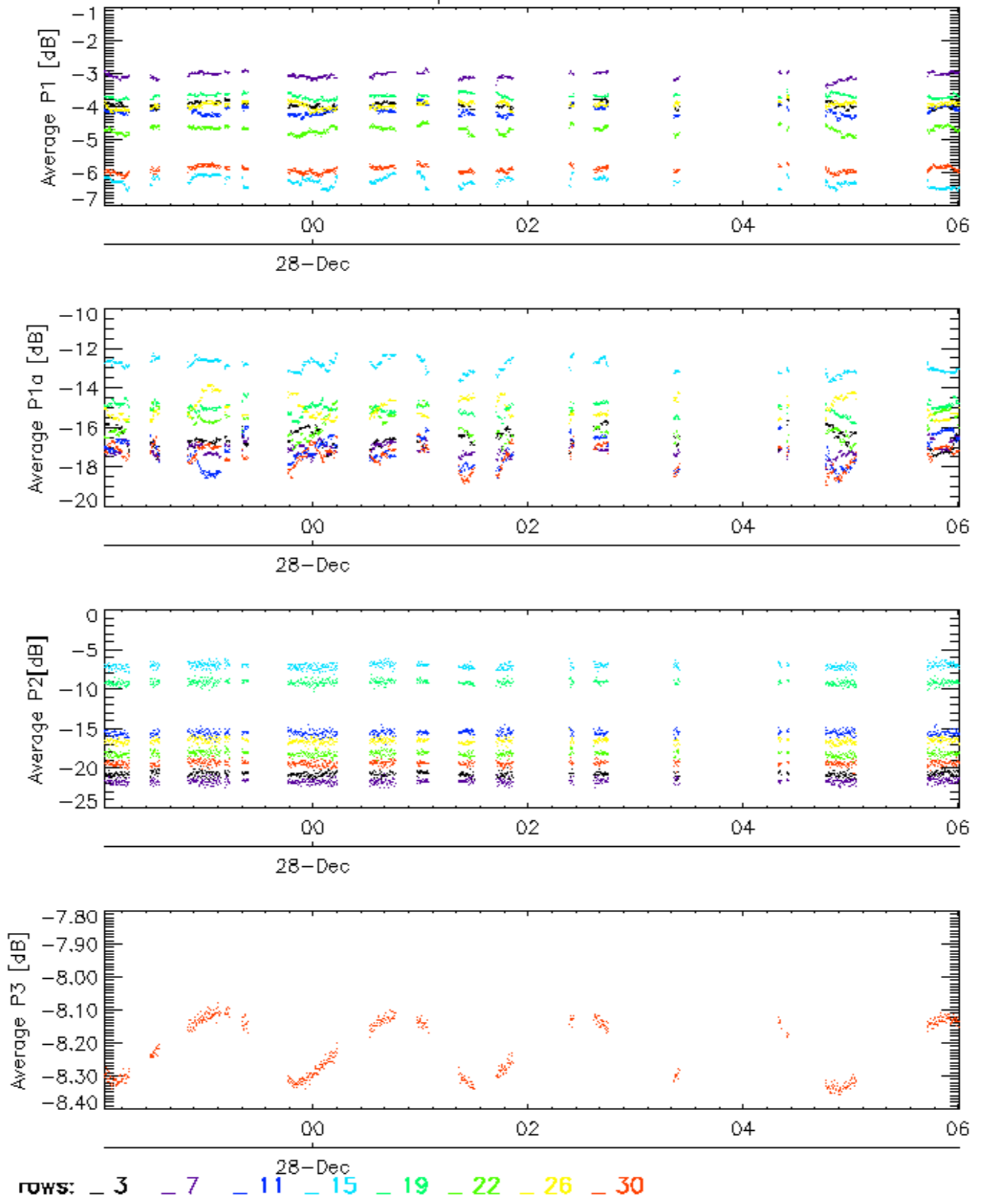


Cal pulses for WVS IS2

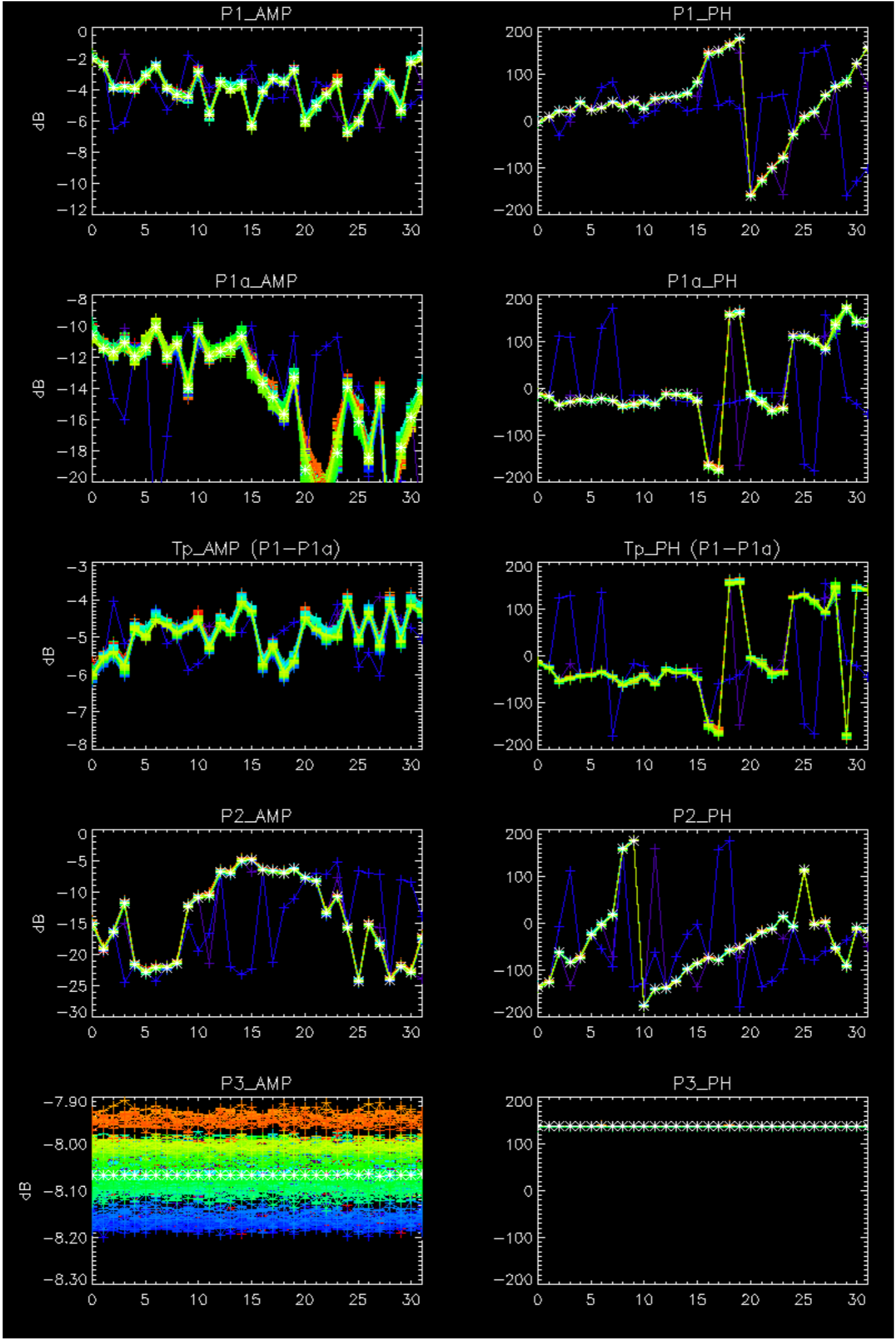


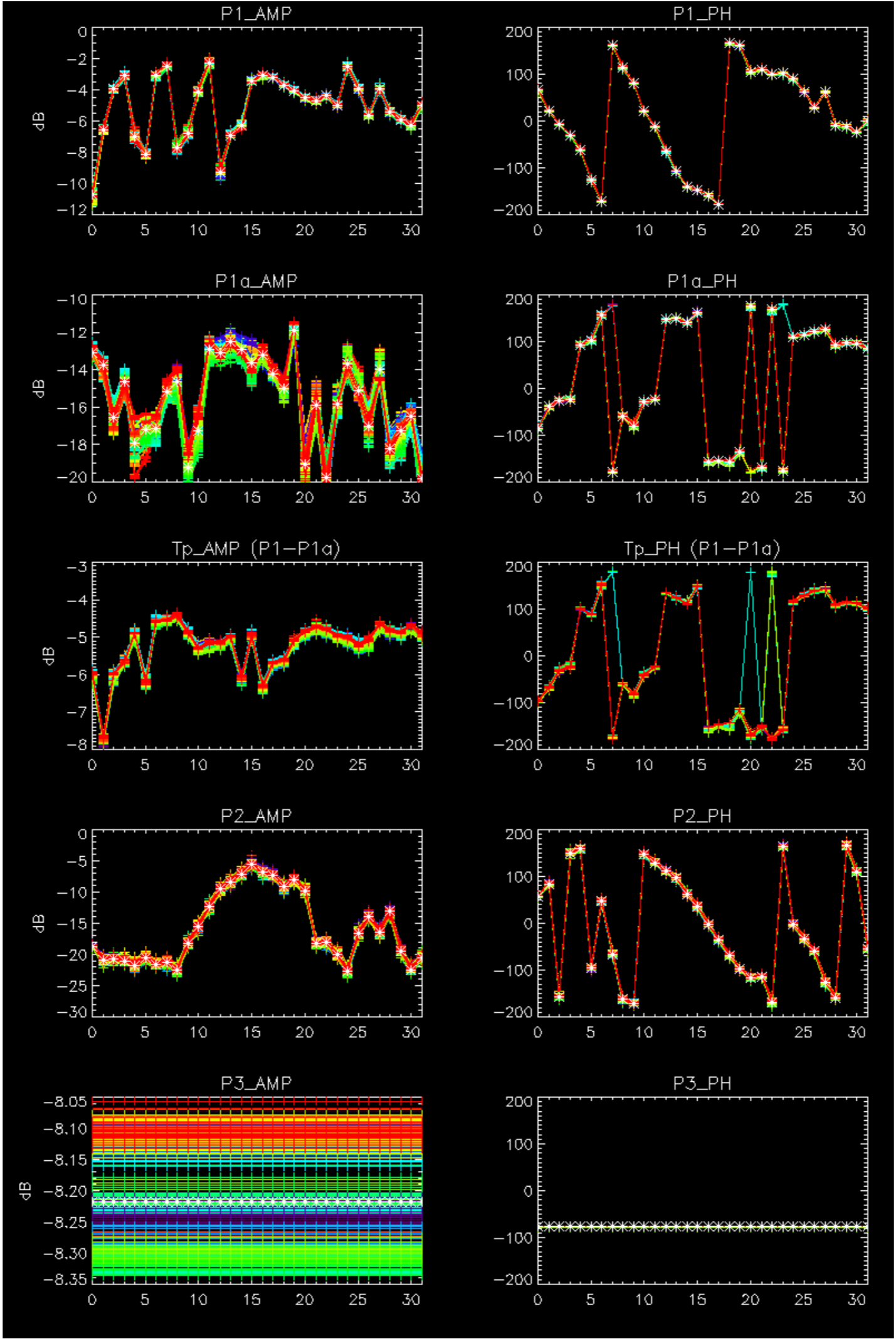
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



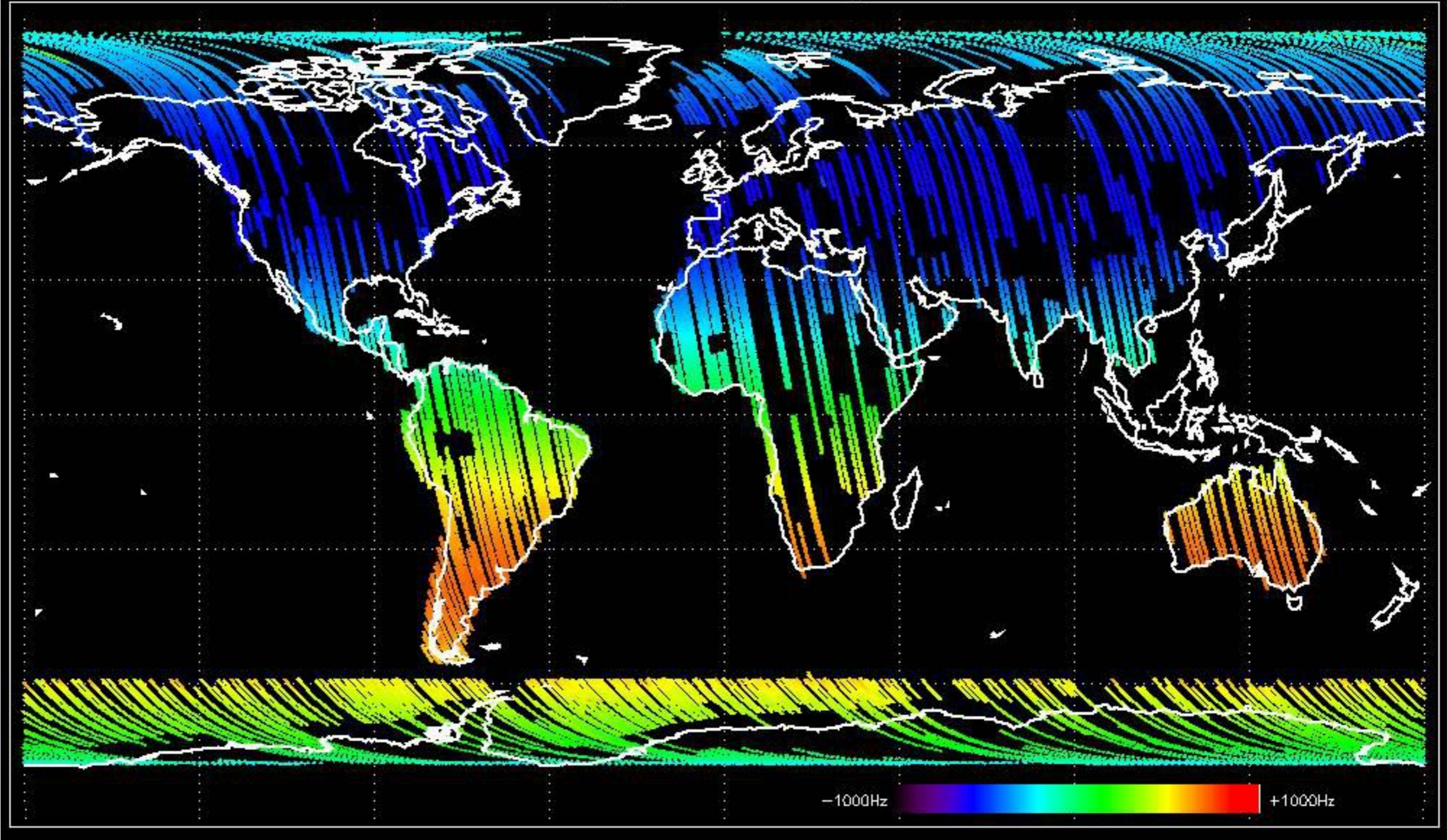
No anomalies observed.



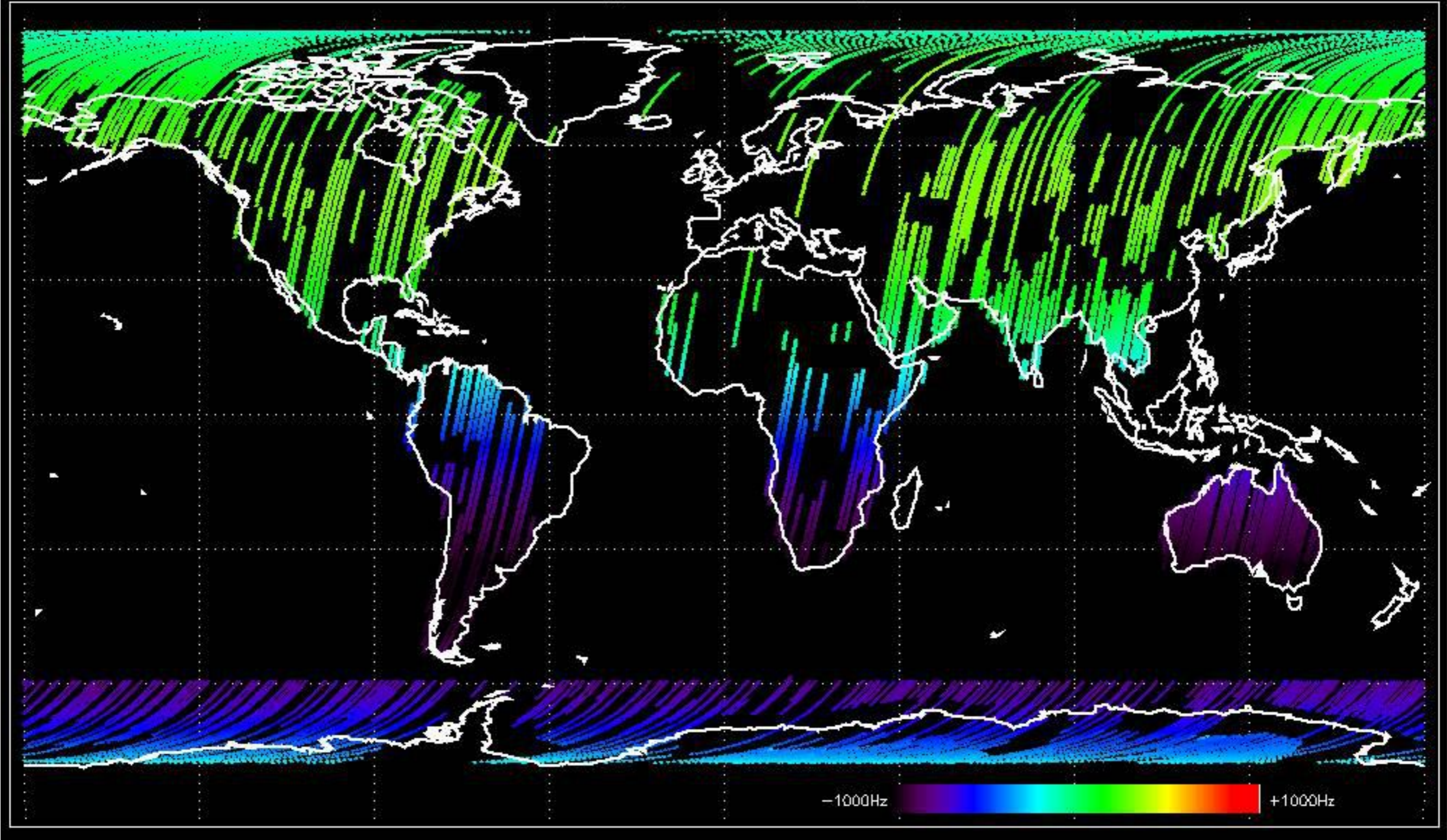


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

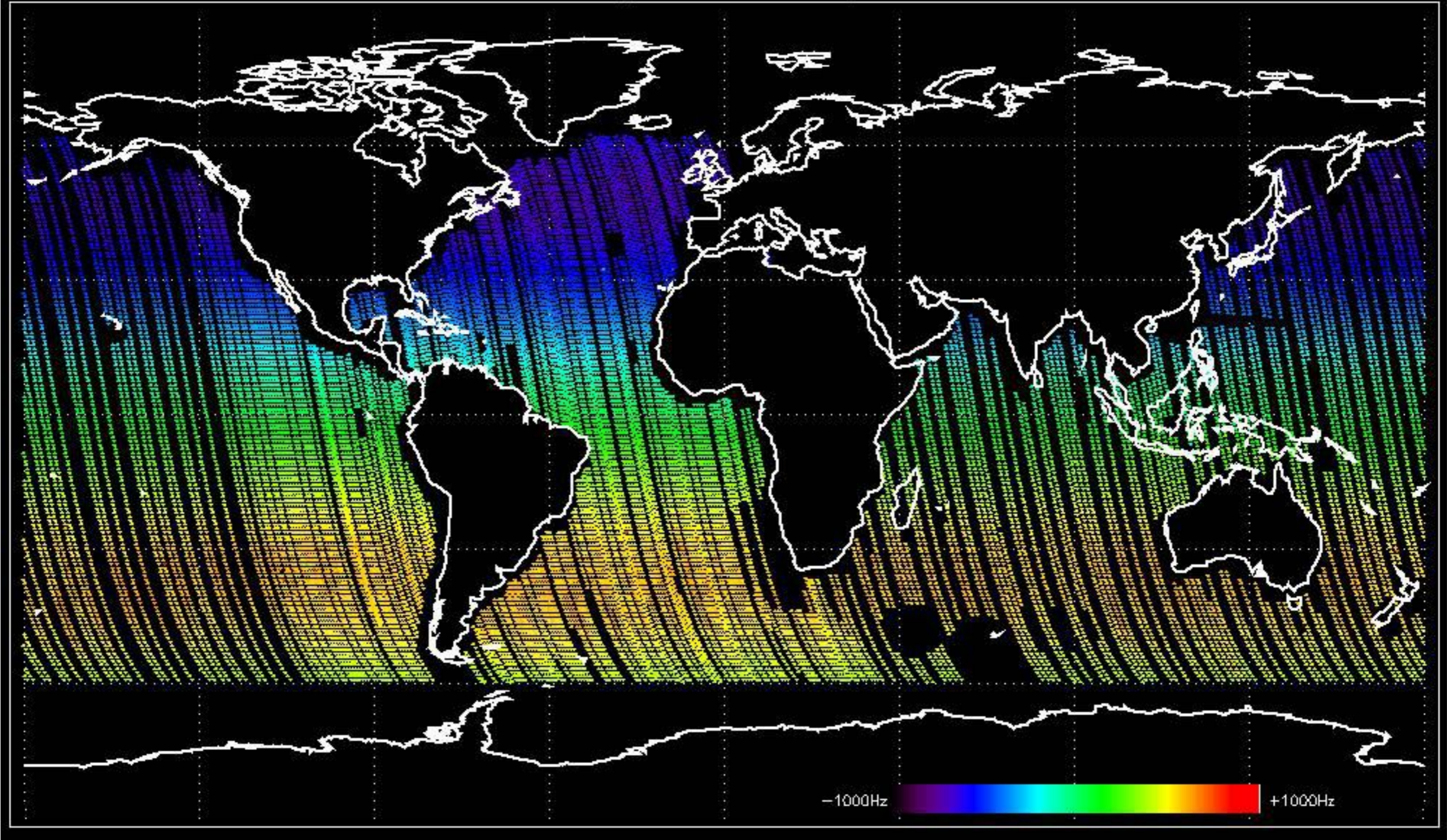
Doppler 'GM1' 'SS1' ascending



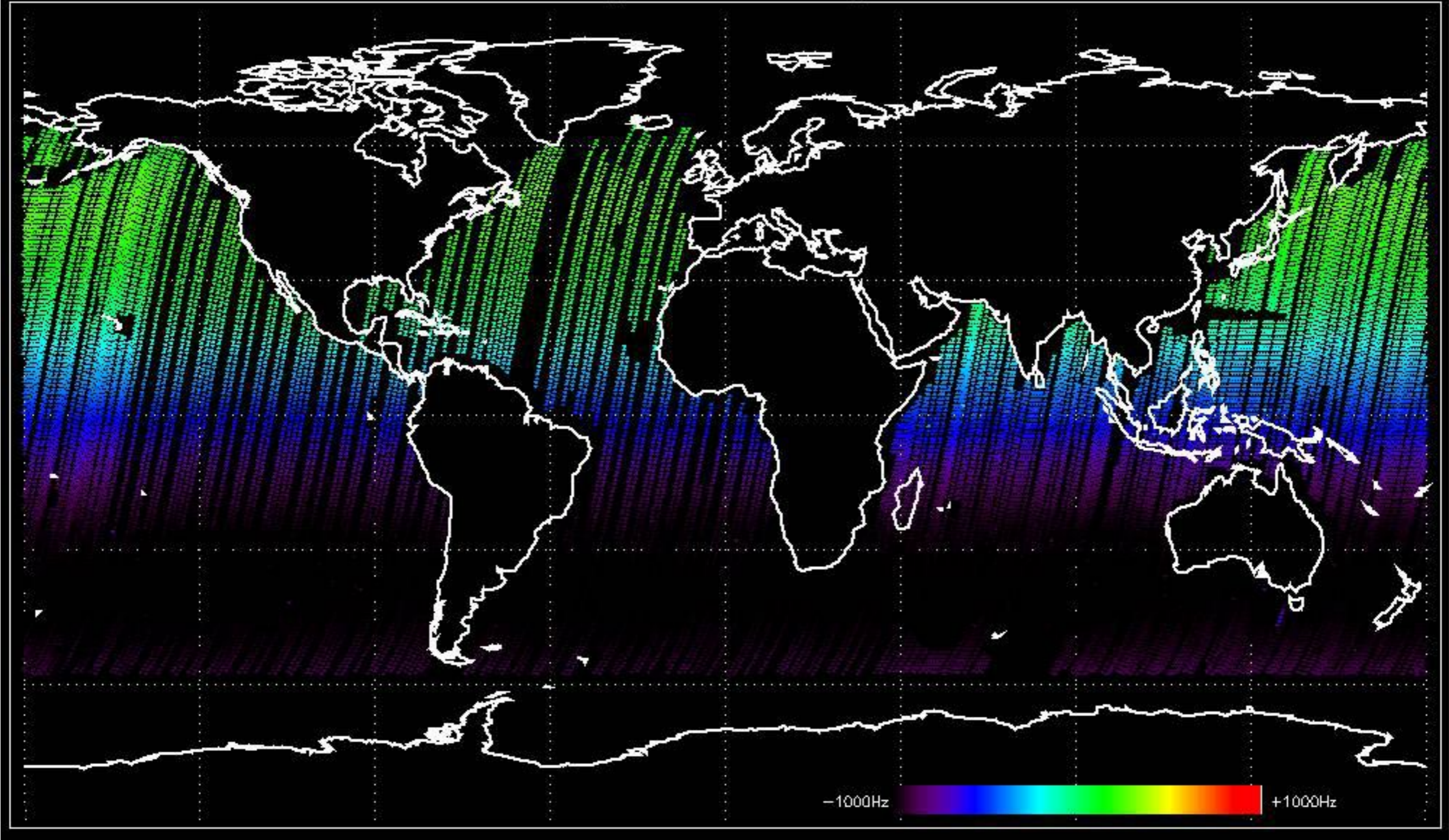
Doppler 'GM1' 'SS1' descending



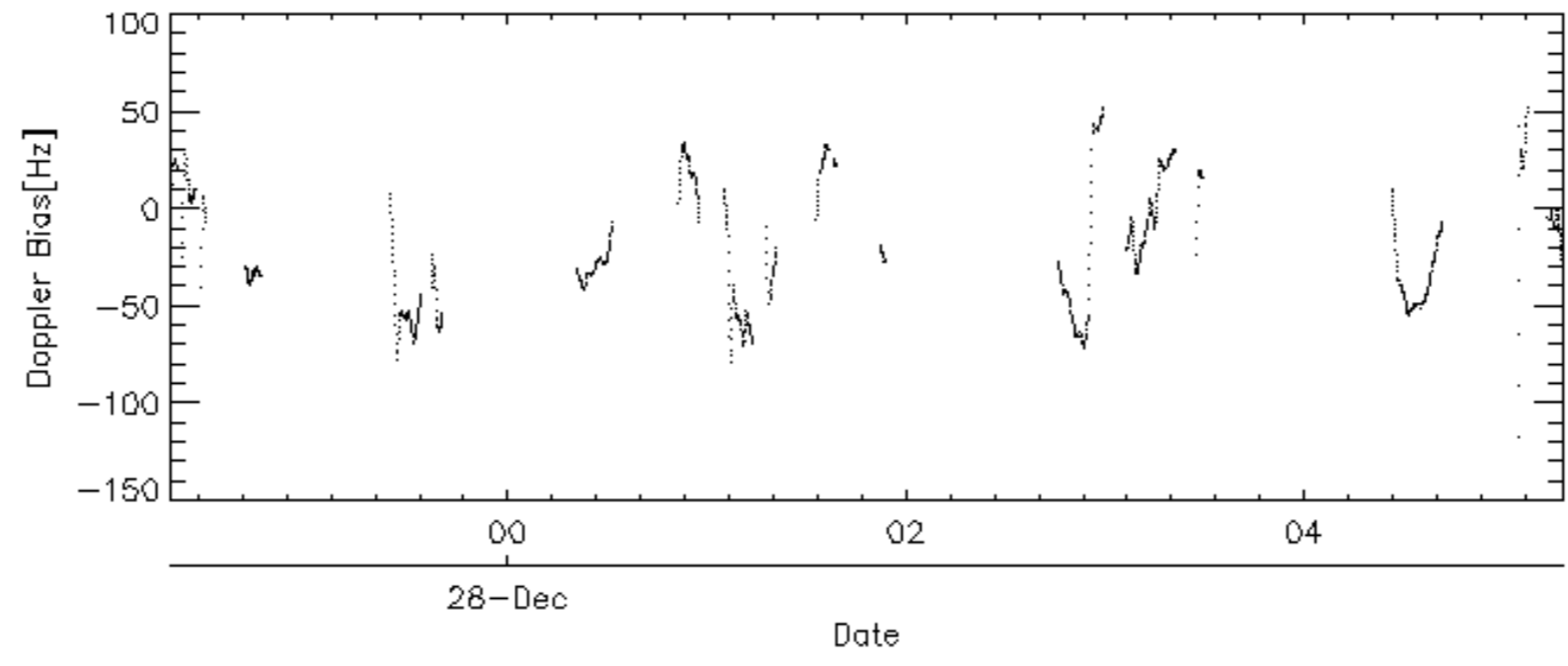
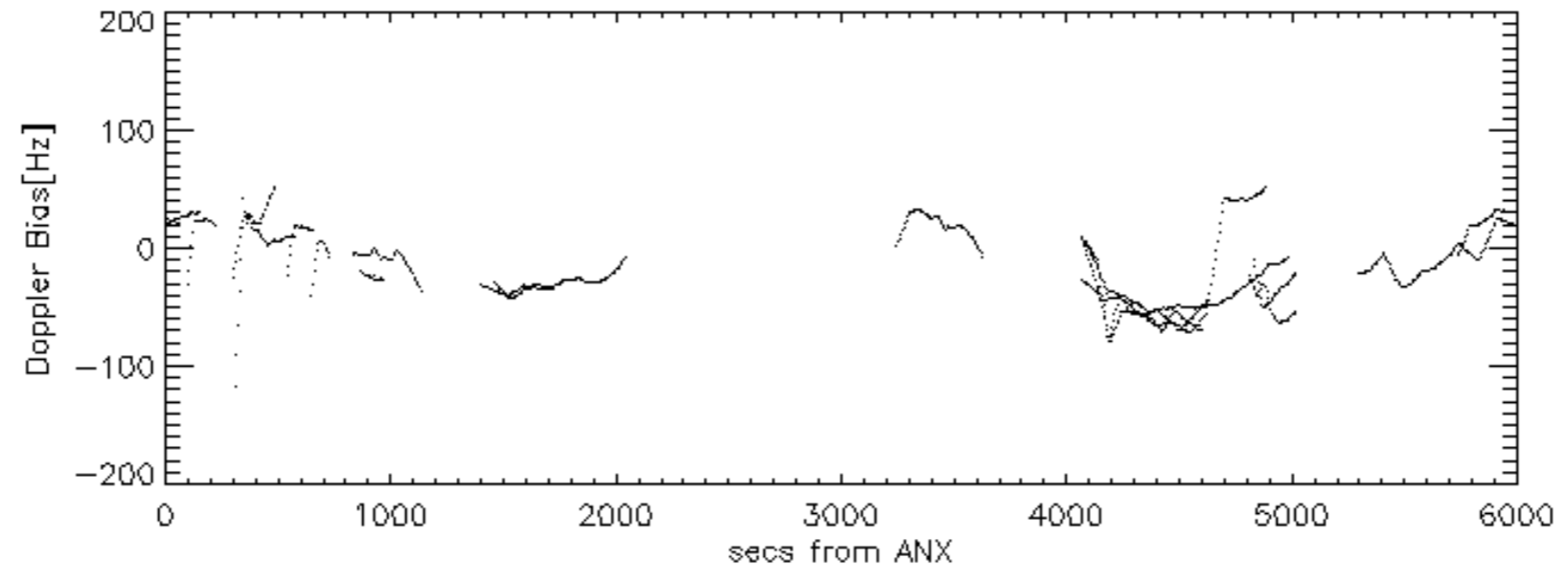
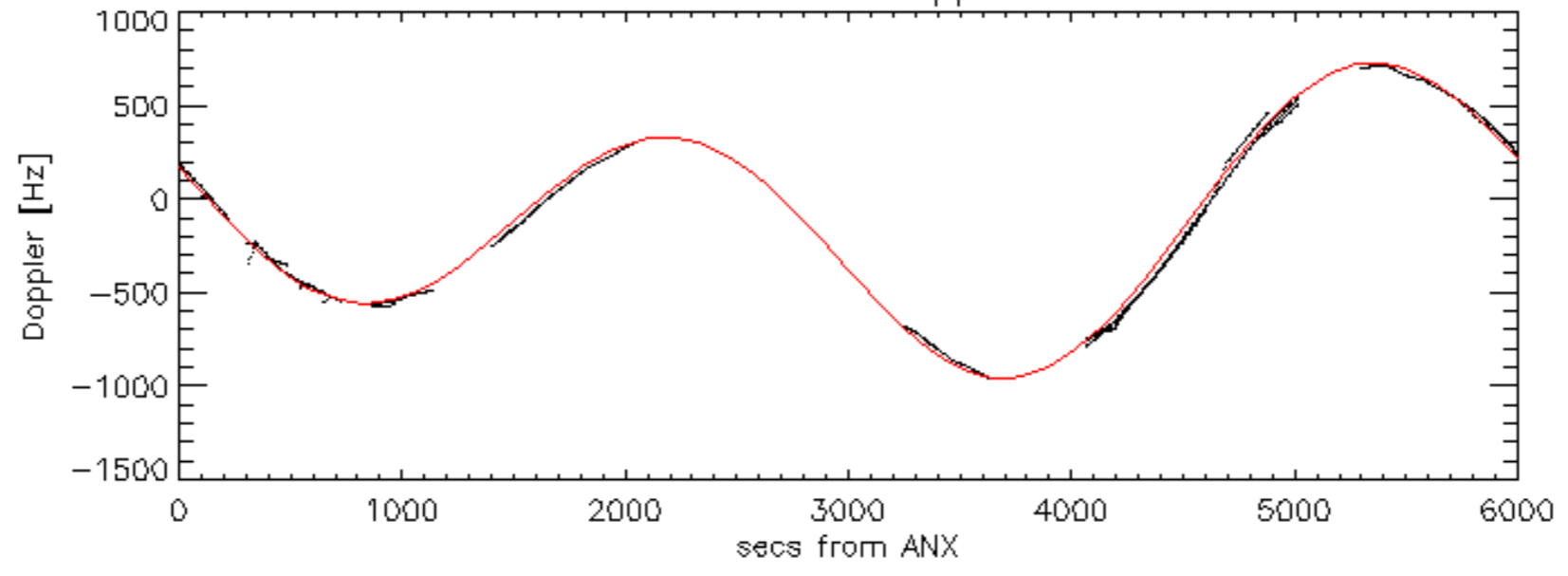
Doppler 'WVS' 'IS2' ascending

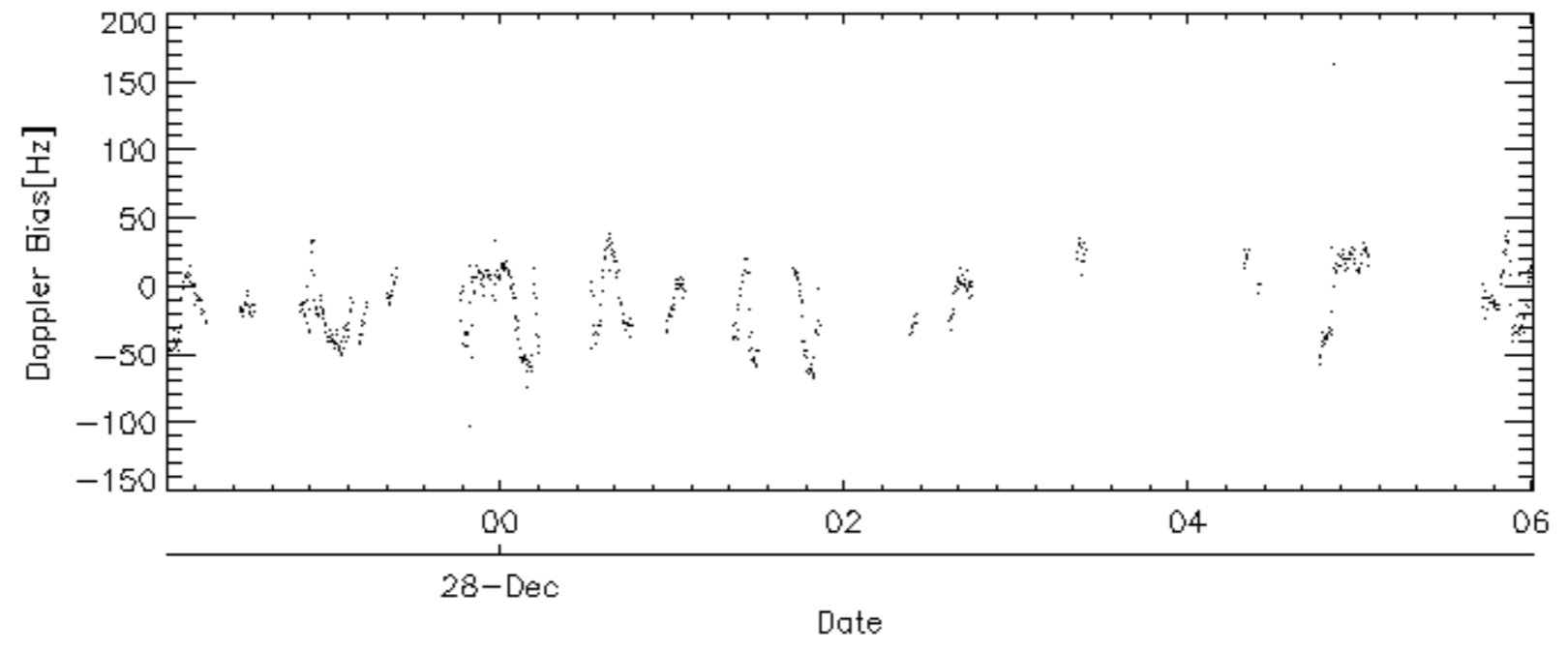
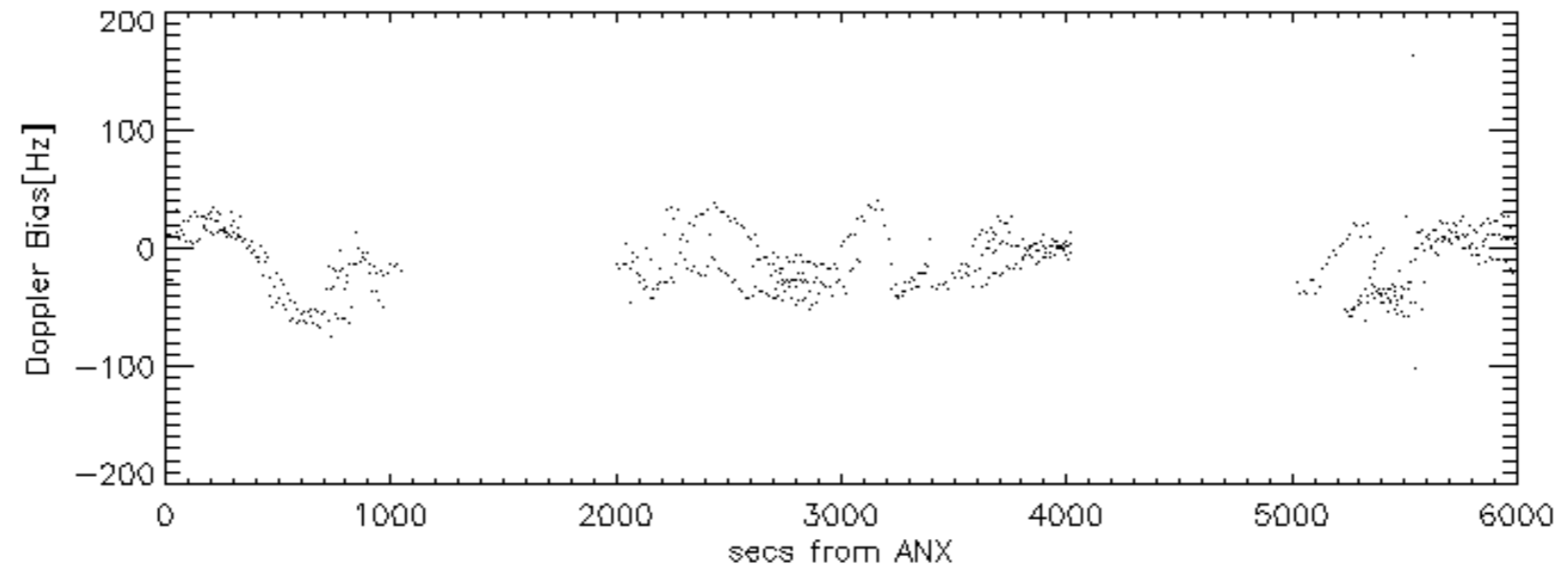
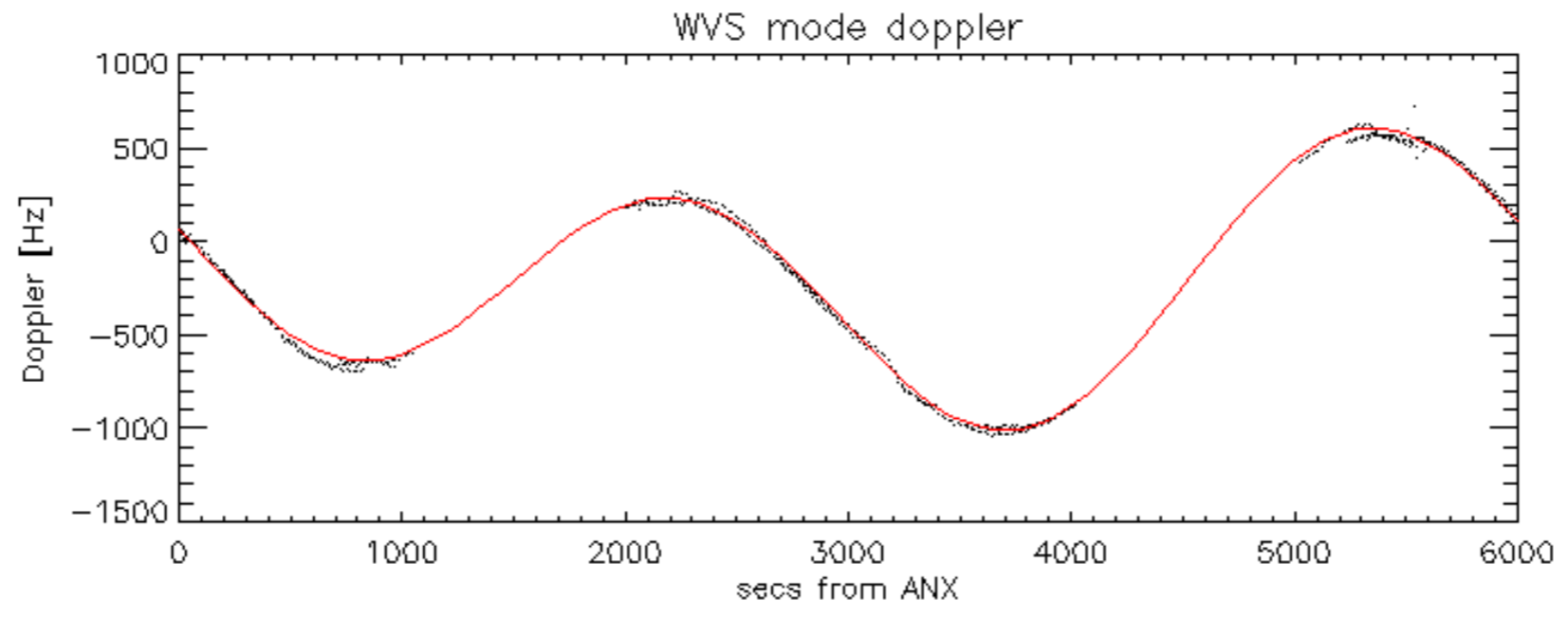


Doppler 'WVS' 'IS2' descending

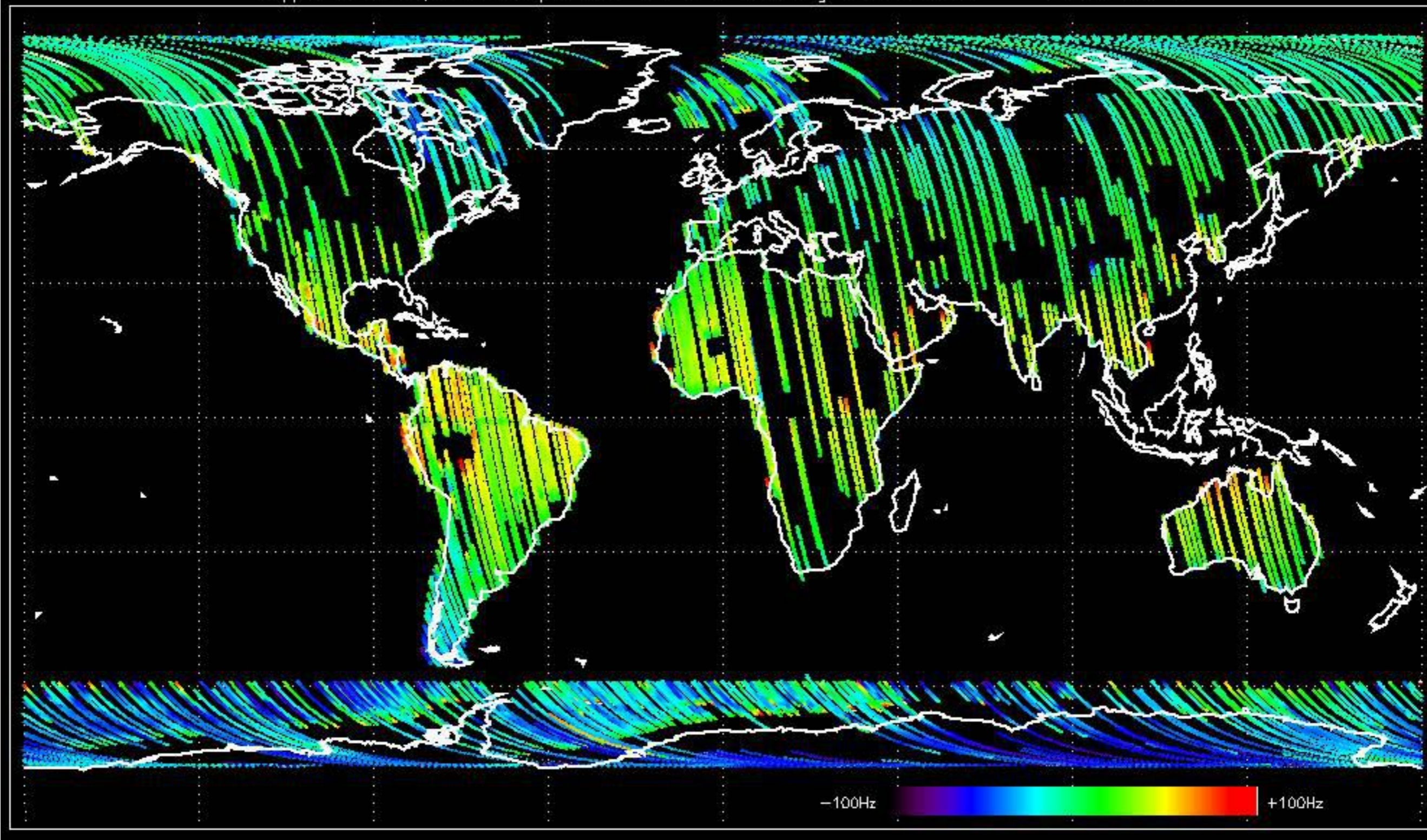


GM1 mode doppler

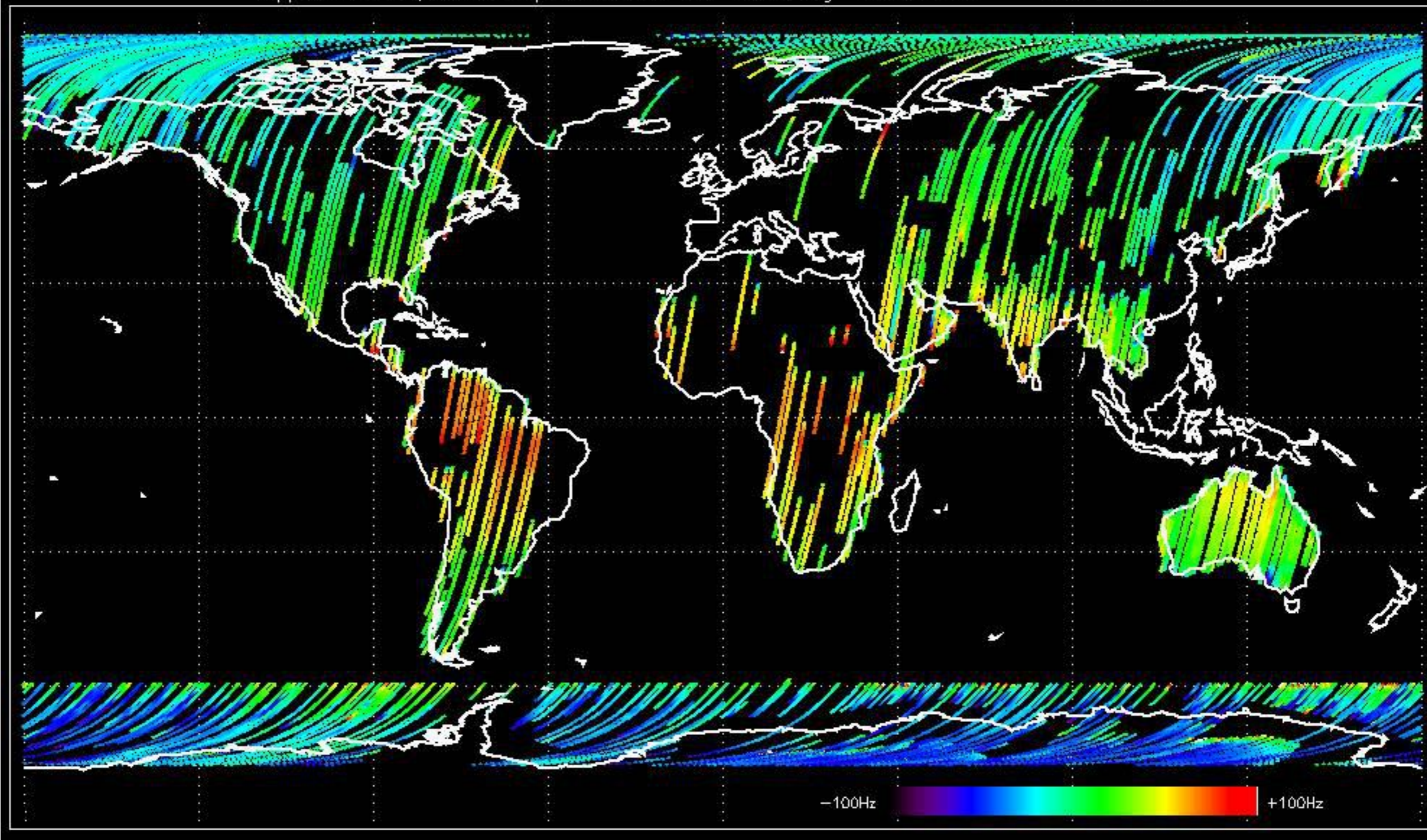




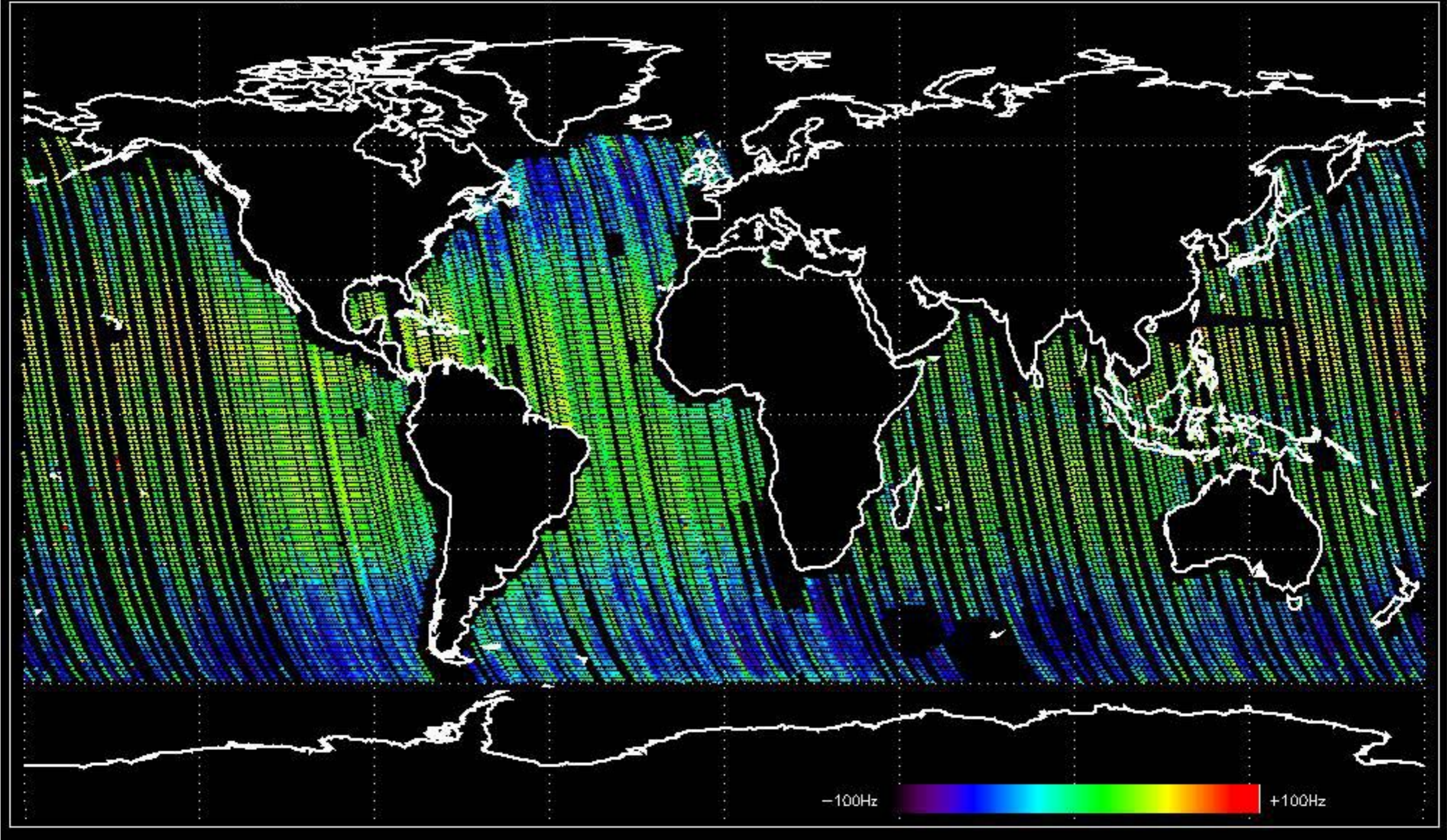
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.828469 Hz



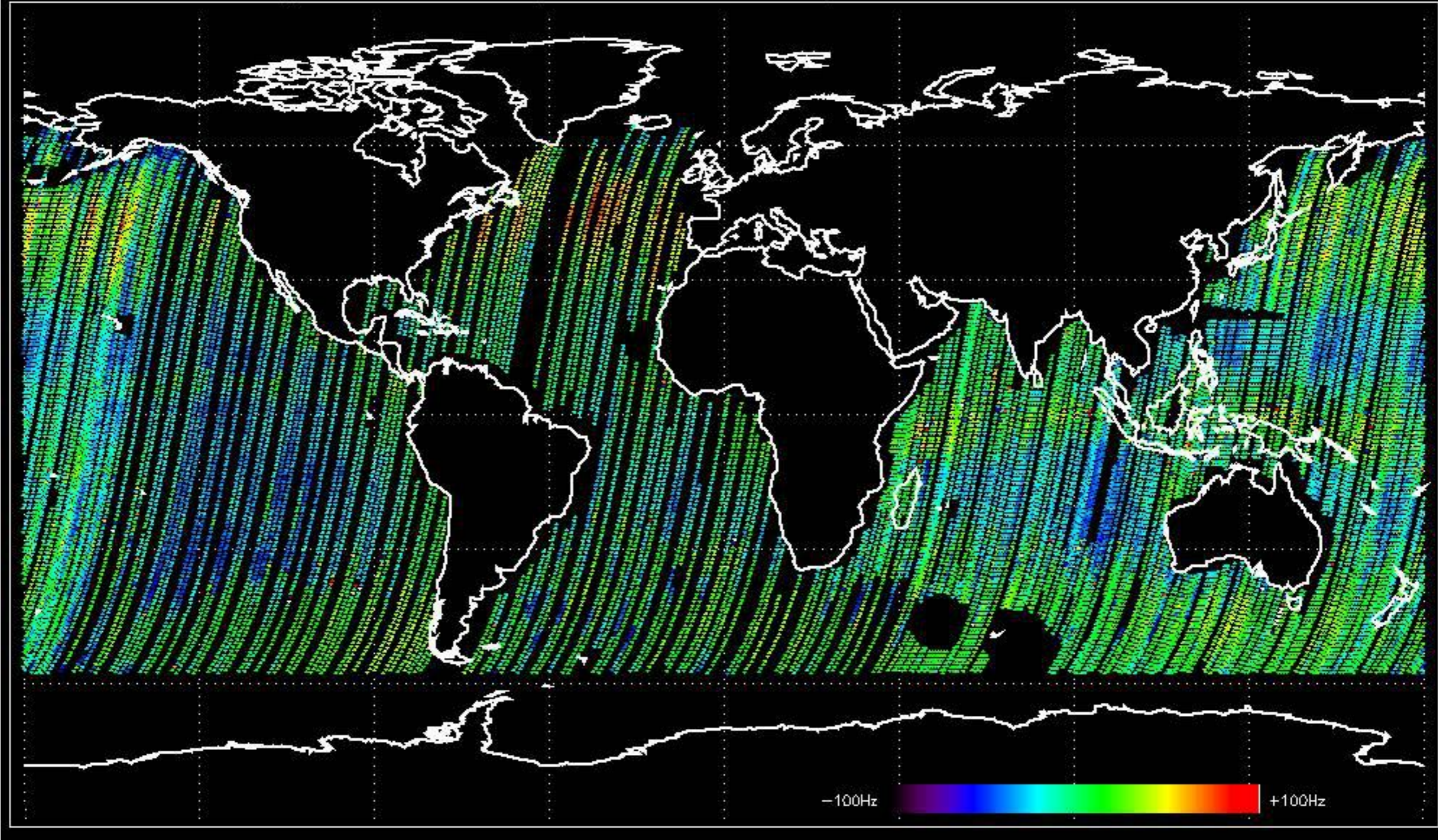
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.230297 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.461374 Hz

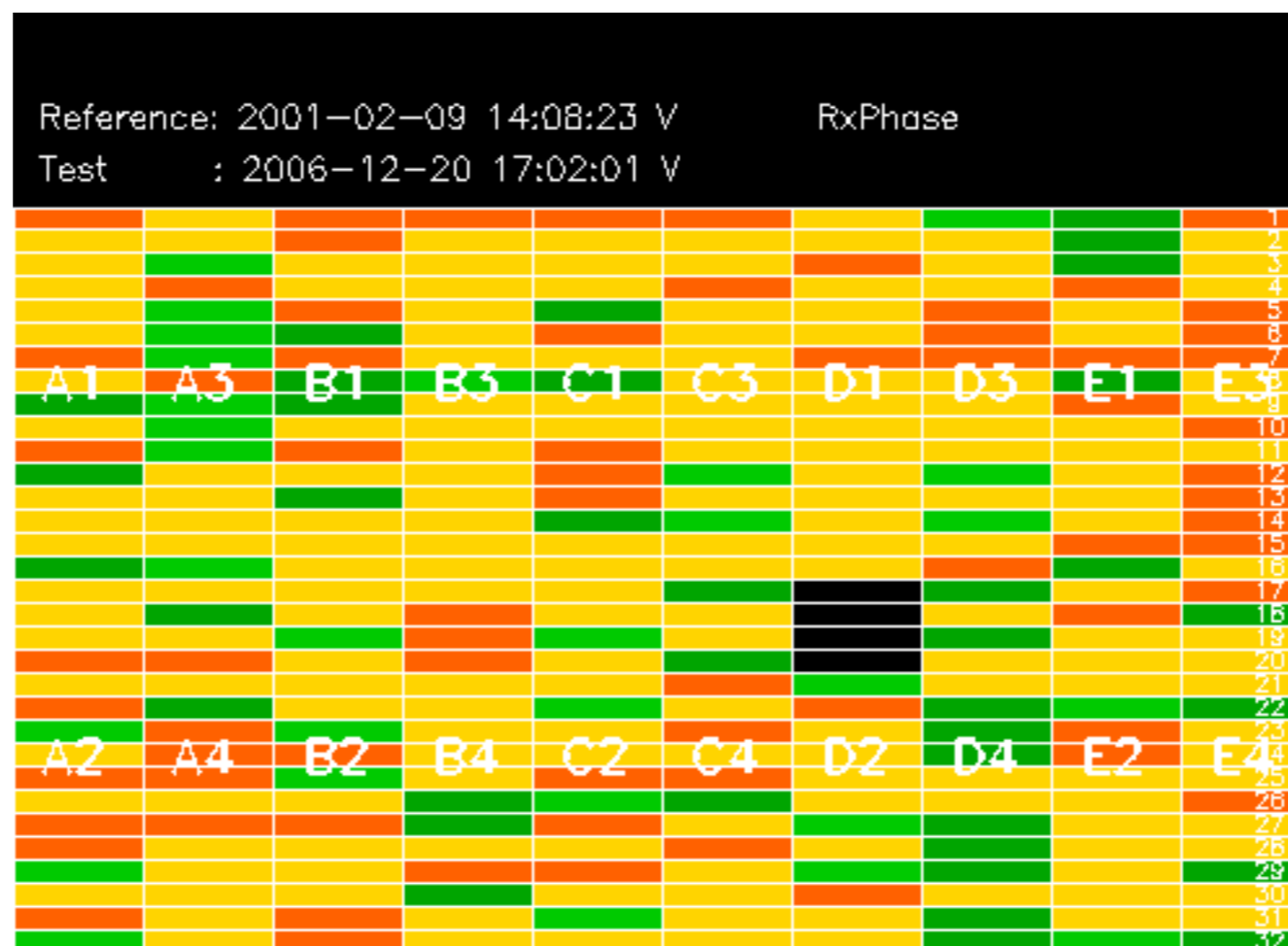


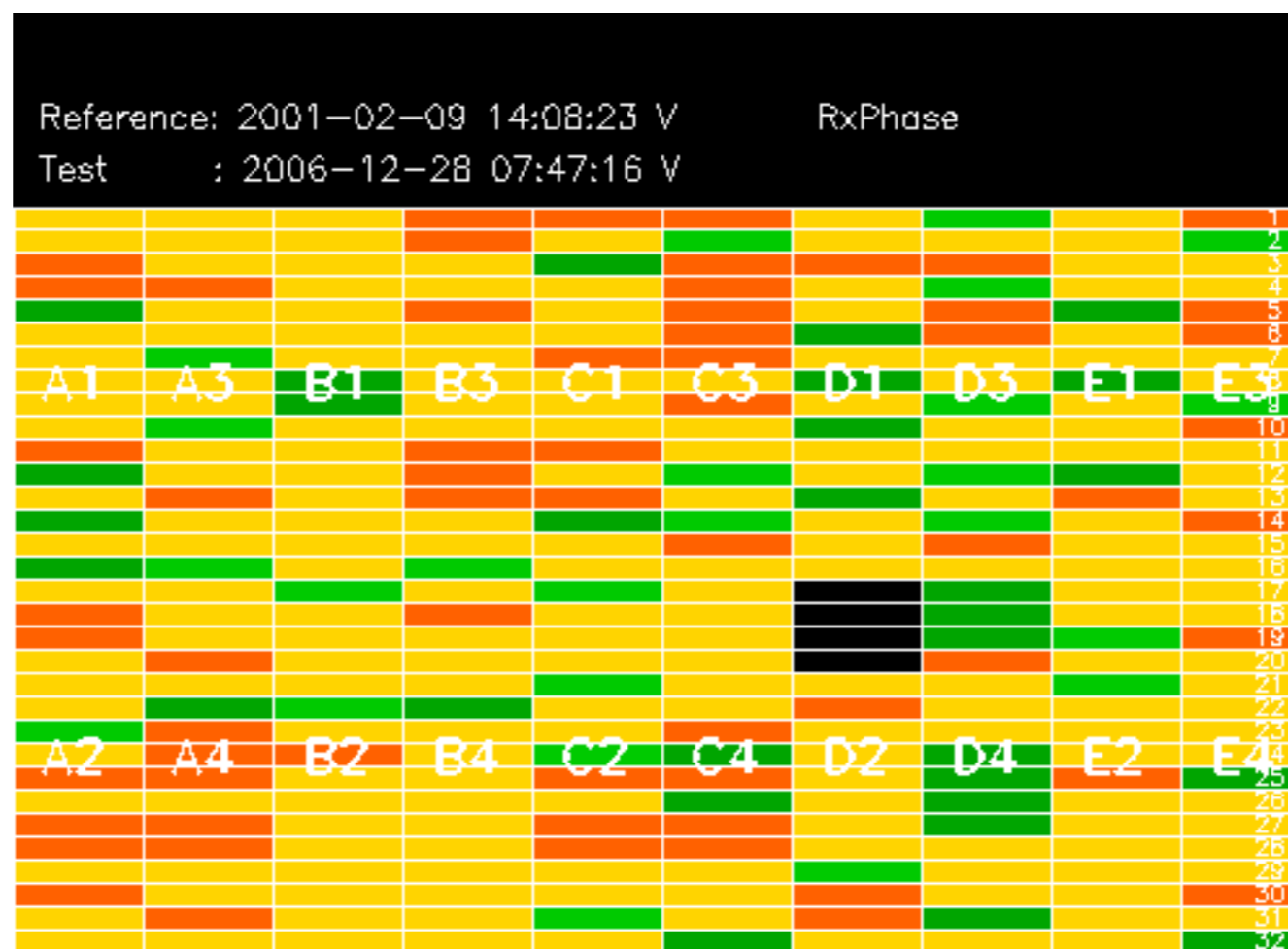
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.3252009 Hz

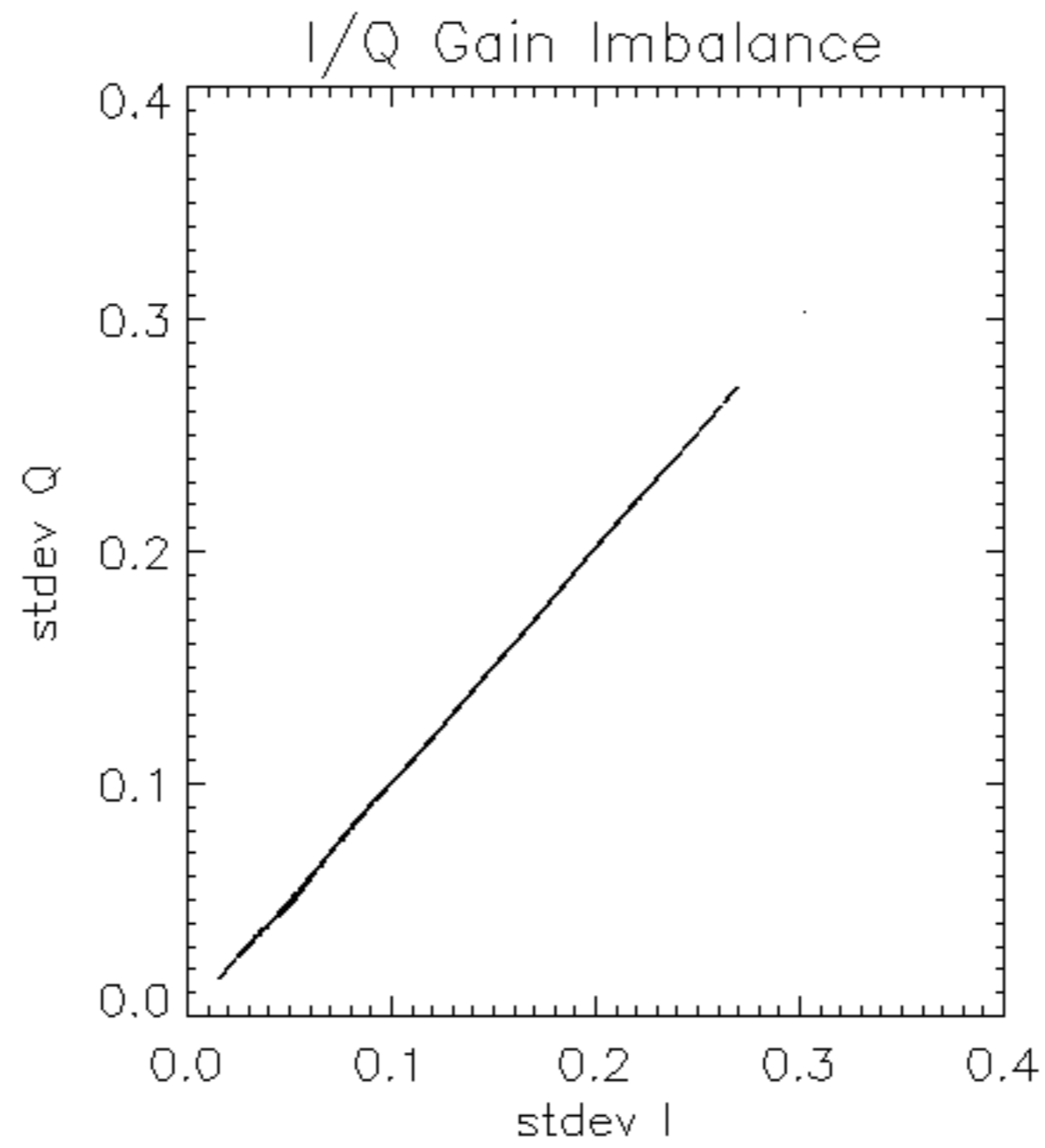


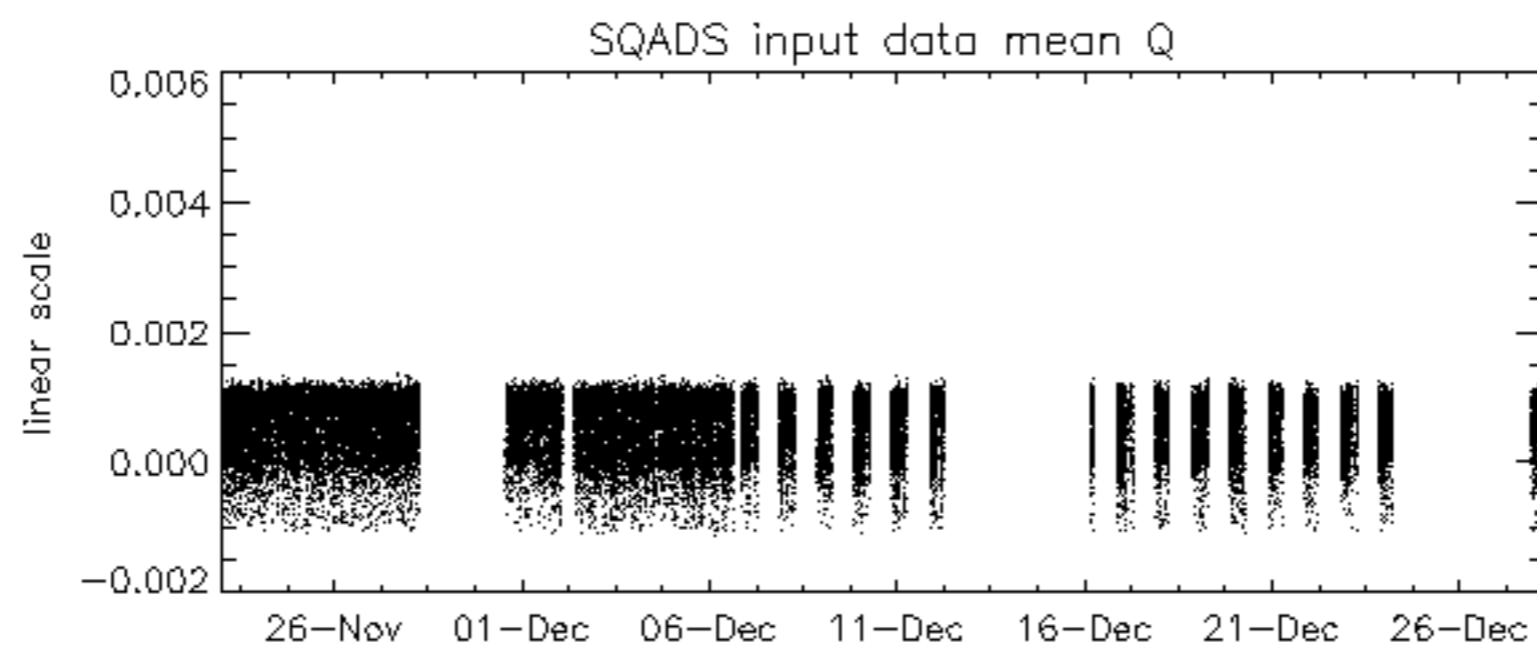
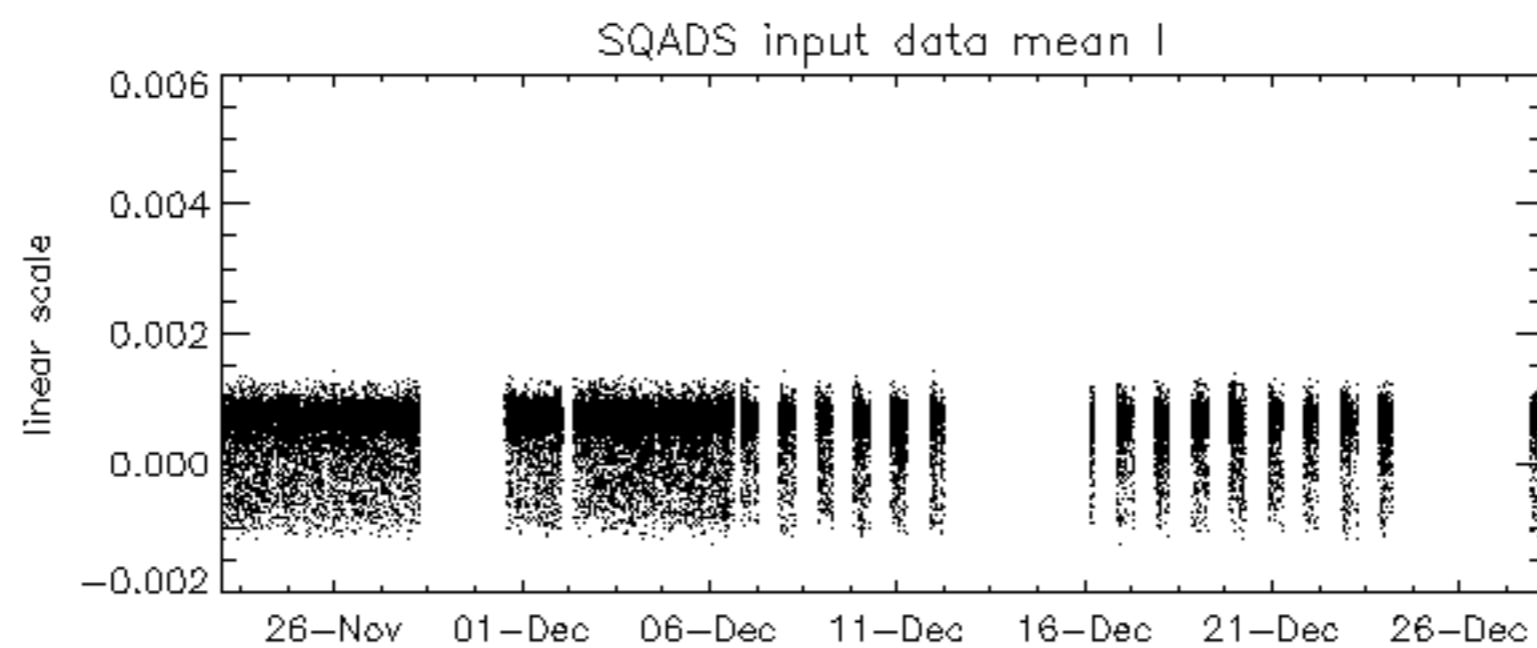
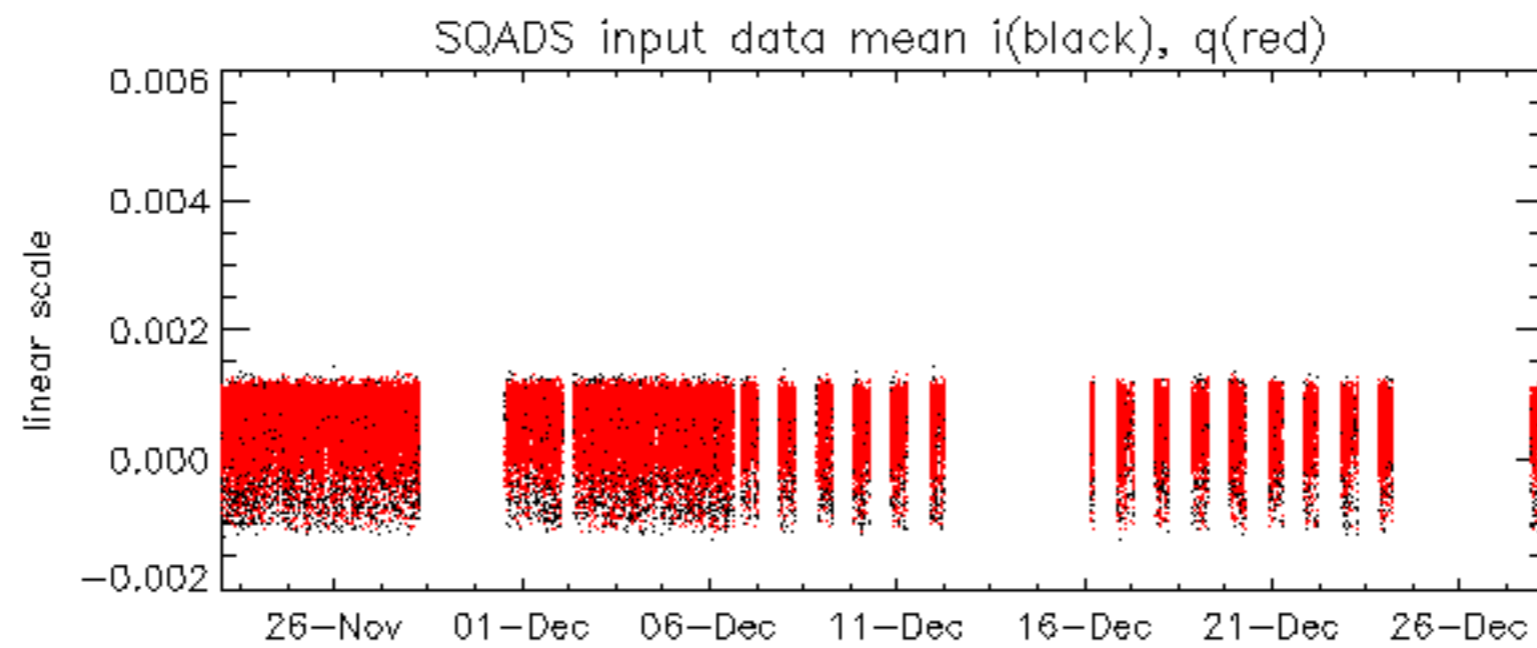
No anomalies observed on available MS products:

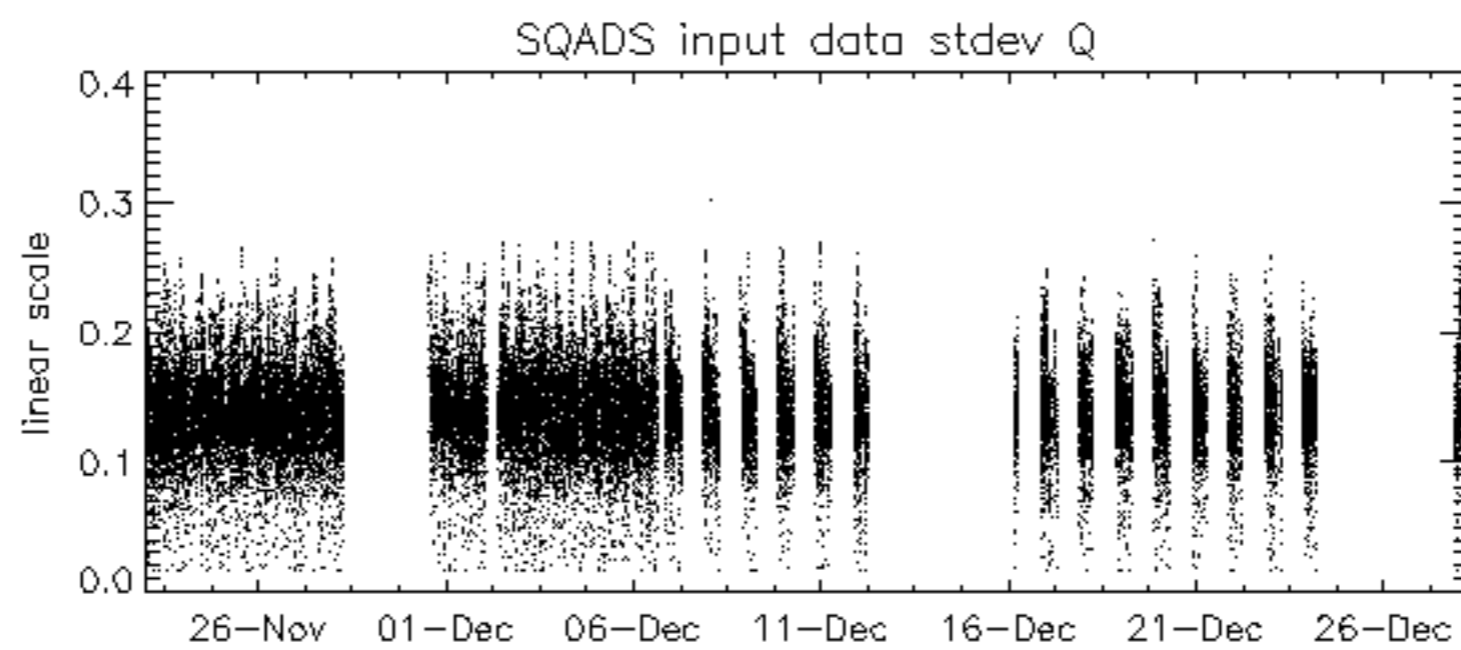
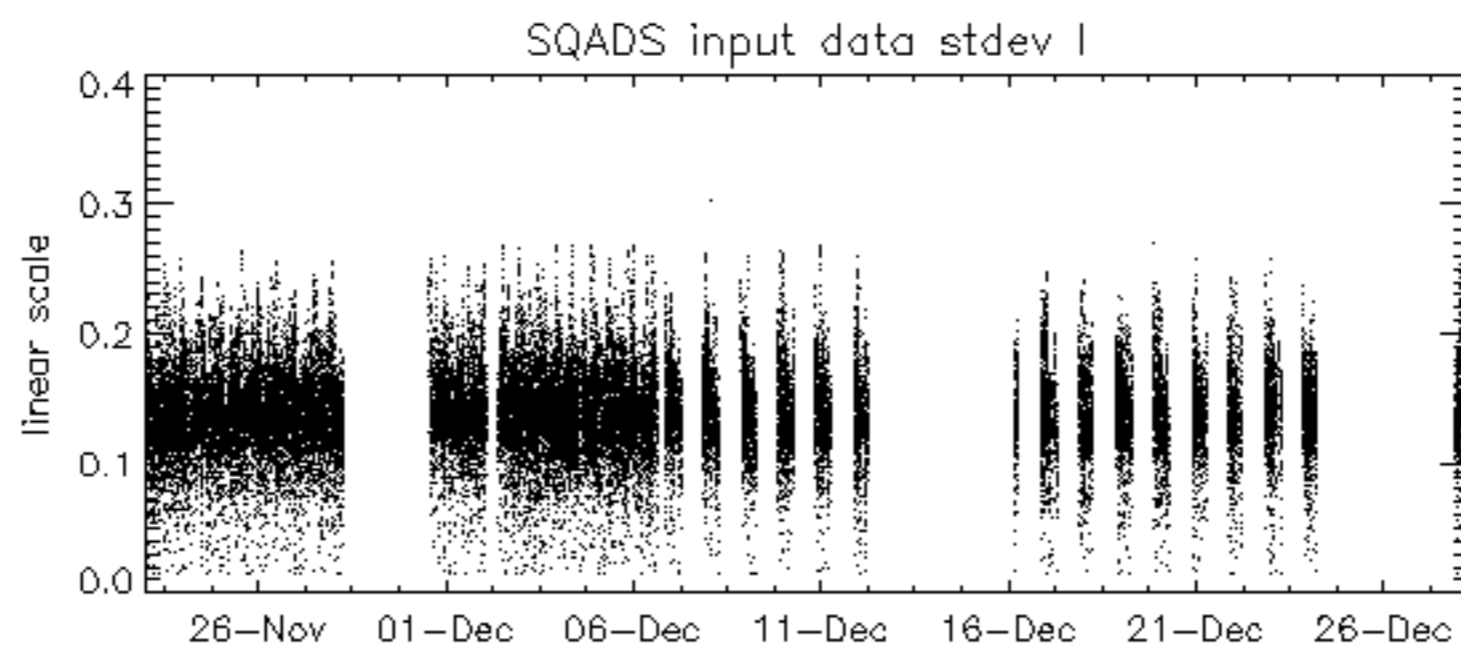
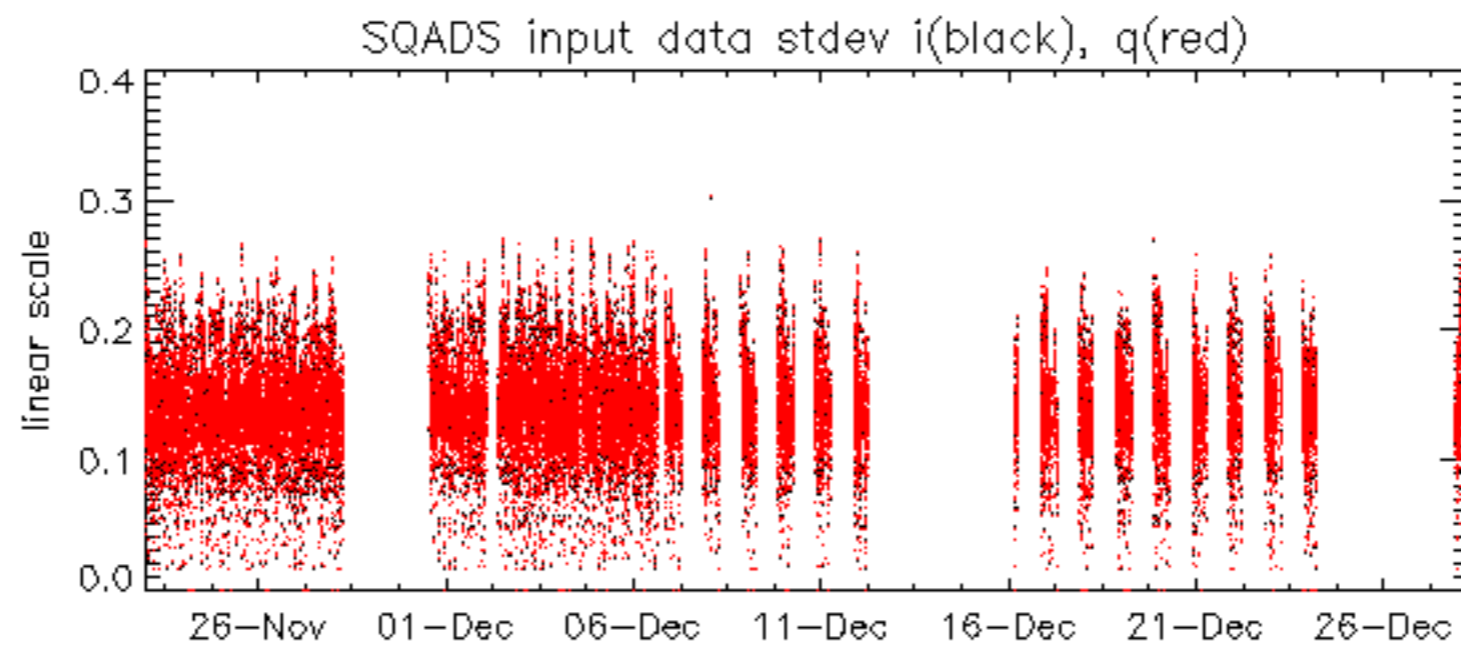
No anomalies observed.







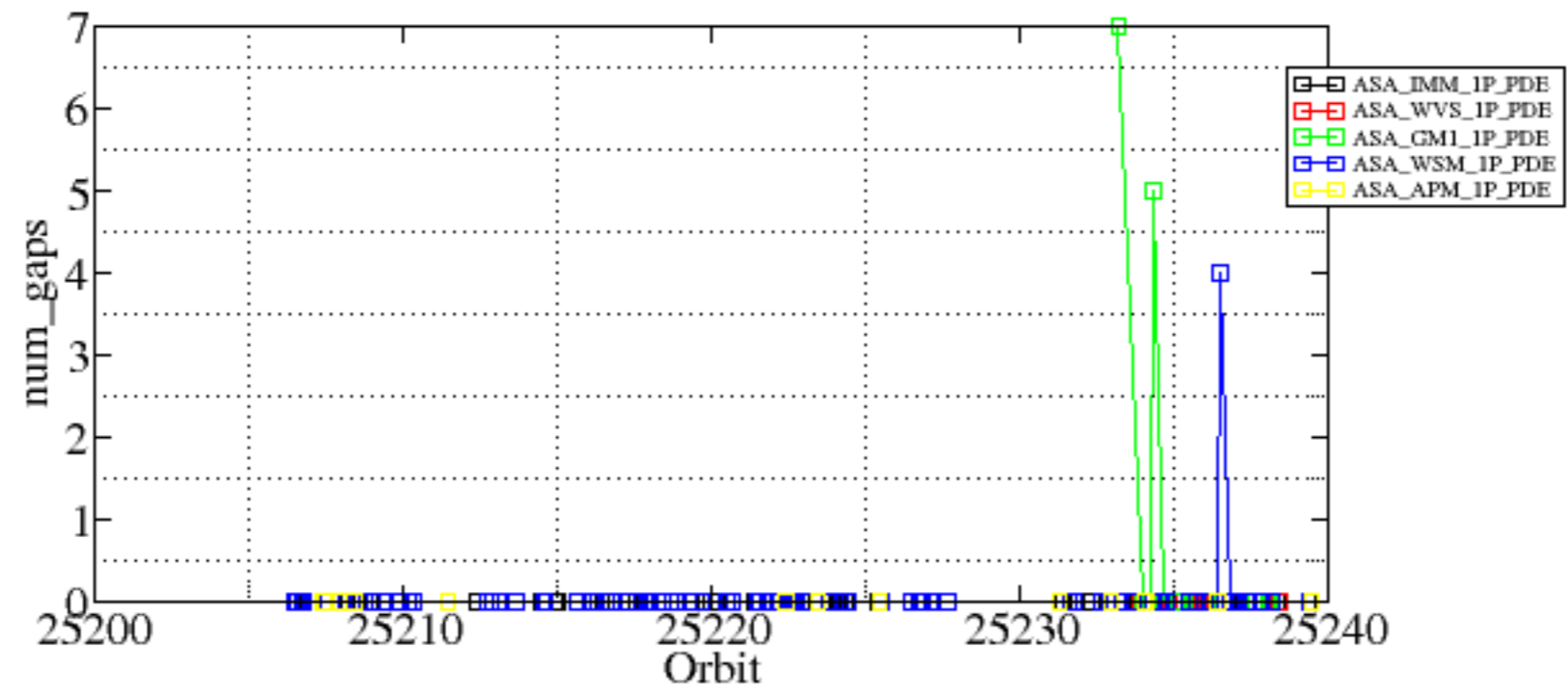


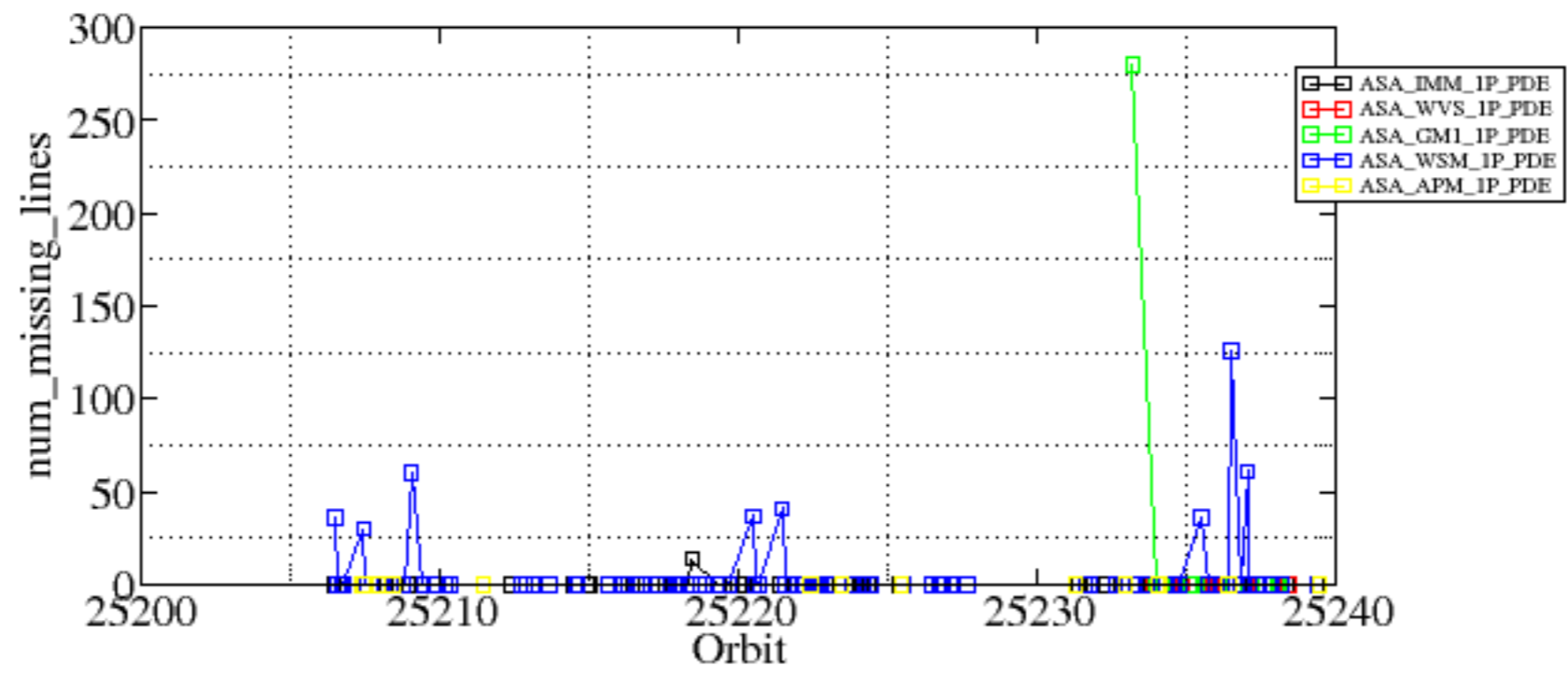


Summary of analysis for the last 3 days 2006122[678]

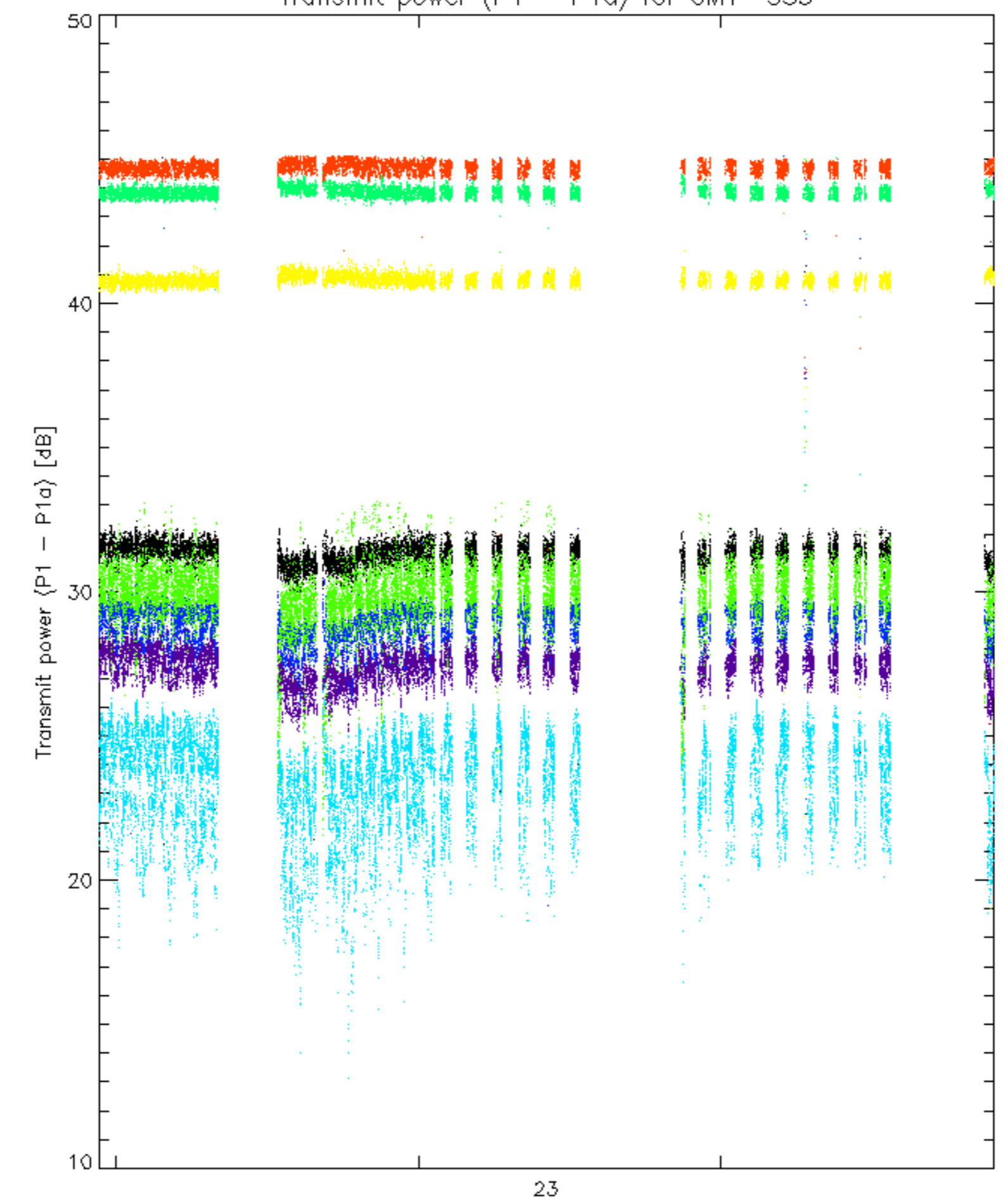
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061226_201156_000000492054_00114_25218_7986.N1	0	14
ASA_GM1_1PNPDE20061227_205519_000005192054_00129_25233_9869.N1	7	280
ASA_GM1_1PNPDE20061227_224834_000000902054_00130_25234_9940.N1	5	0
ASA_WSM_1PNPDE20061226_000916_000005742054_00102_25206_6895.N1	0	36
ASA_WSM_1PNPDE20061226_014553_000002442054_00103_25207_6968.N1	0	30
ASA_WSM_1PNPDE20061226_042643_000001842054_00105_25209_8829.N1	0	60
ASA_WSM_1PNPDE20061226_233738_000001412054_00116_25220_8721.N1	0	37
ASA_WSM_1PNPDE20061227_011513_000004412054_00117_25221_8723.N1	0	41
ASA_WSM_1PNPDE20061228_004637_000001412054_00131_25235_0200.N1	0	36
ASA_WSM_1PNPDE20061228_022833_000001222054_00132_25236_0262.N1	4	126
ASA_WSM_1PNPDE20061228_032459_000001282054_00133_25237_0362.N1	0	61

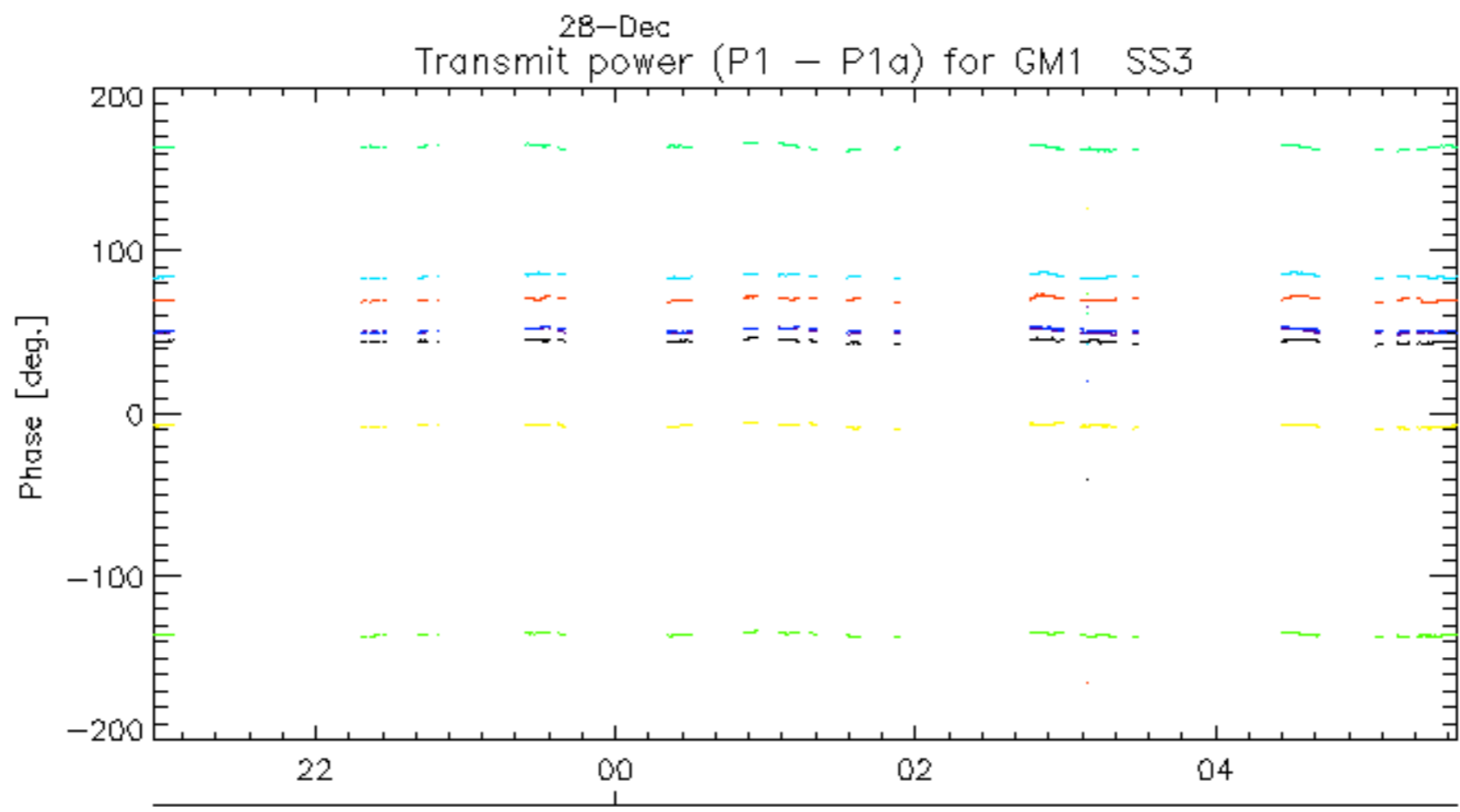
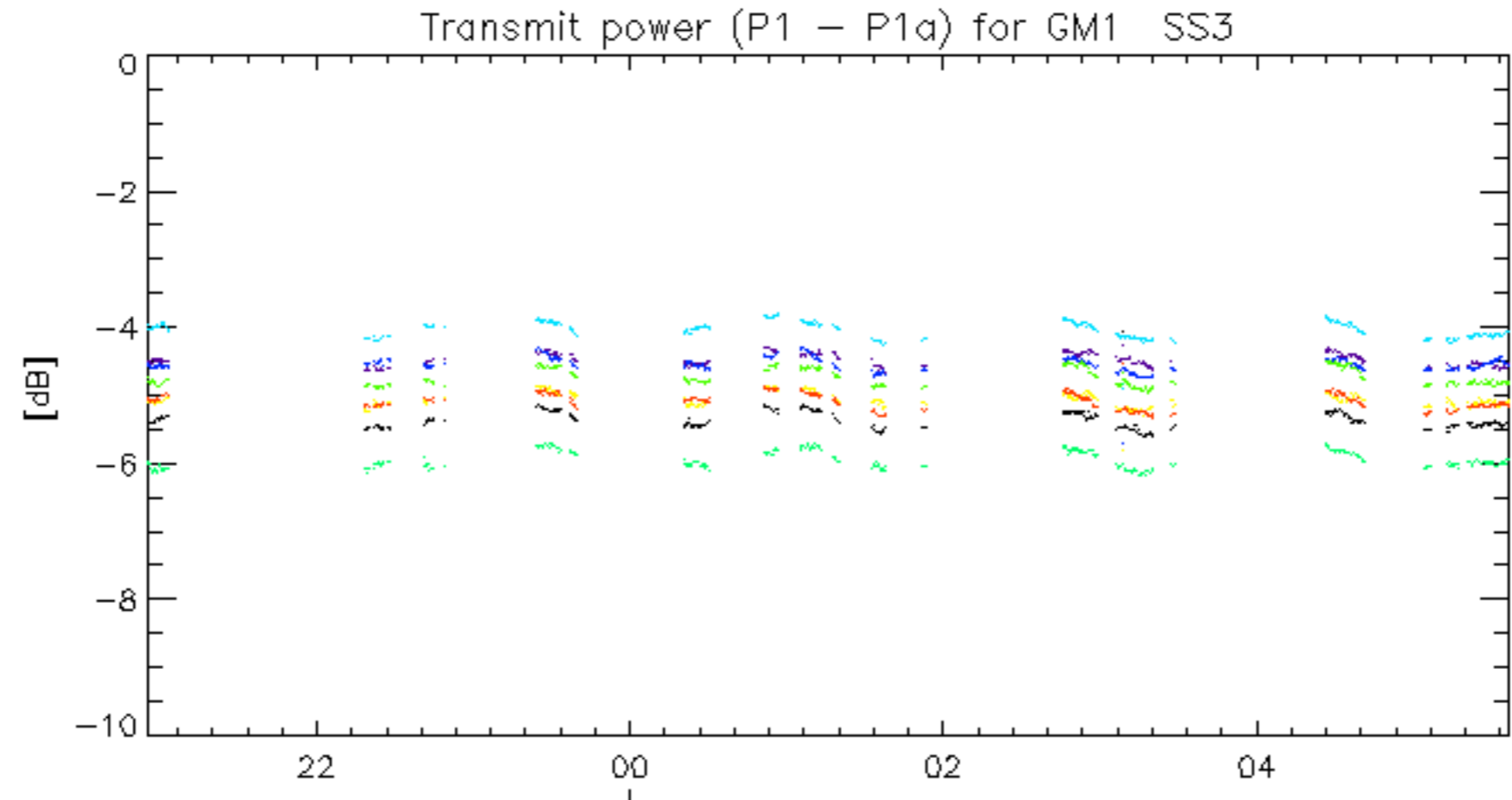




Transmit power (P1 - P1a) for GM1 SS3

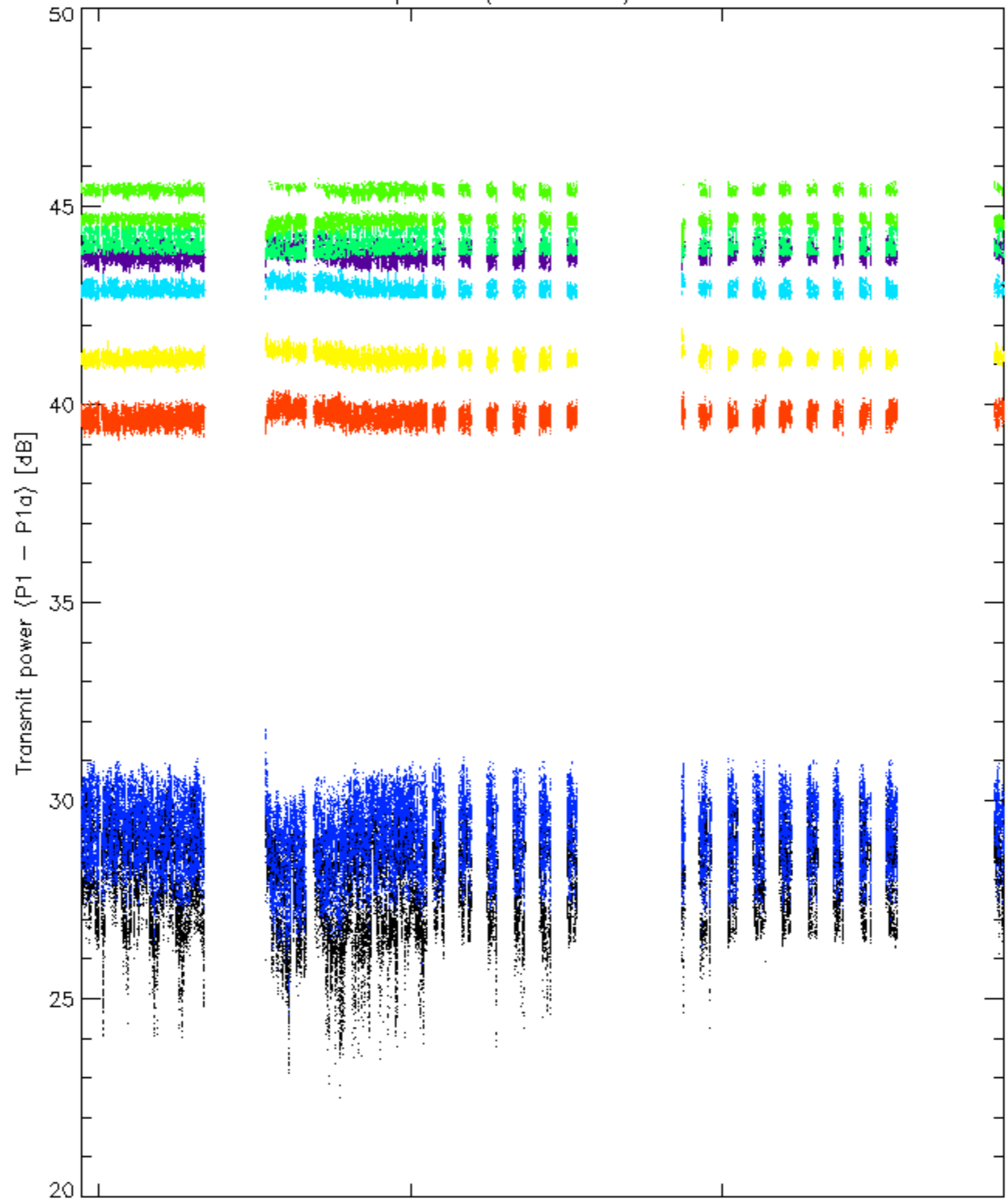


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

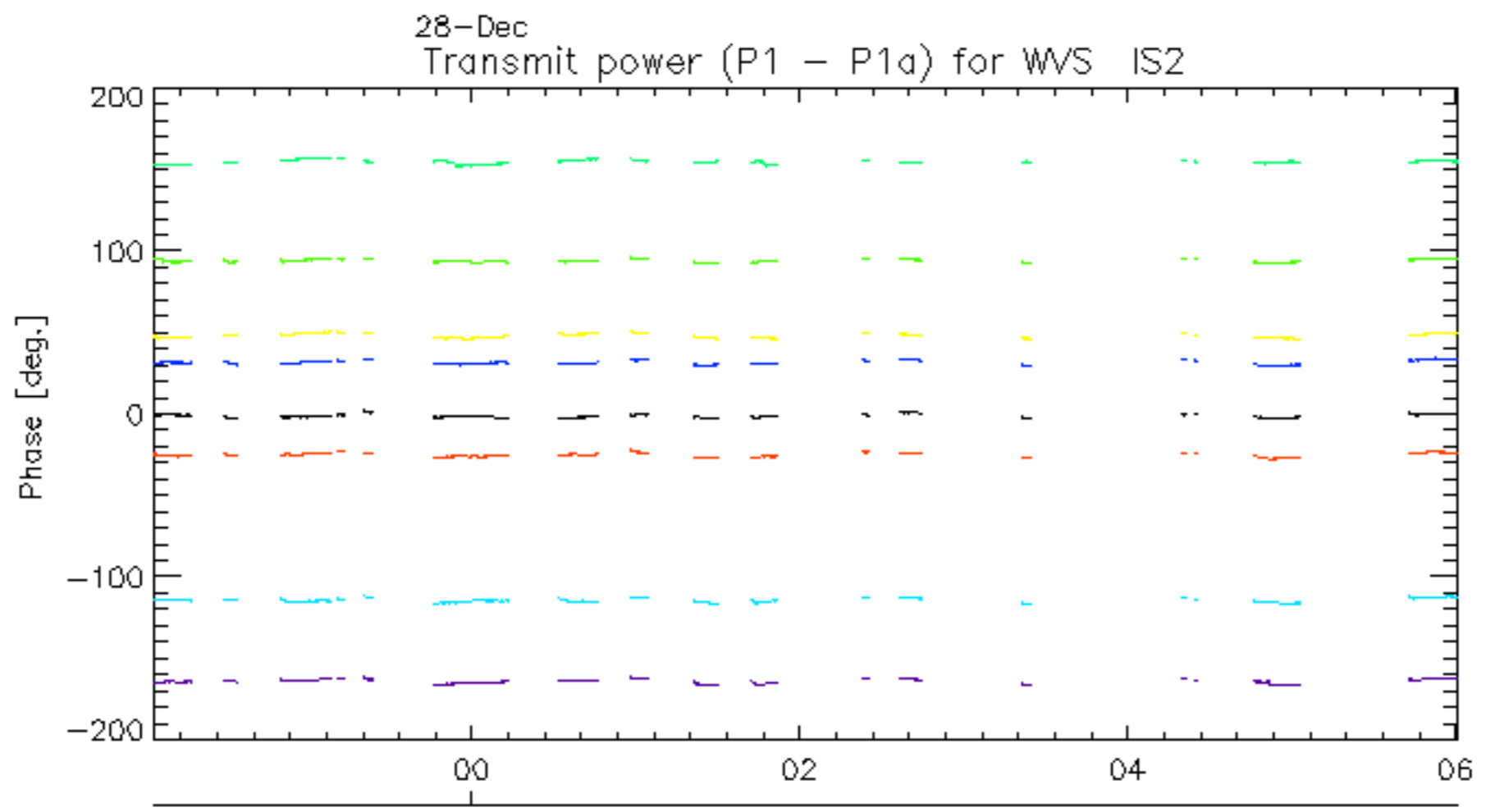
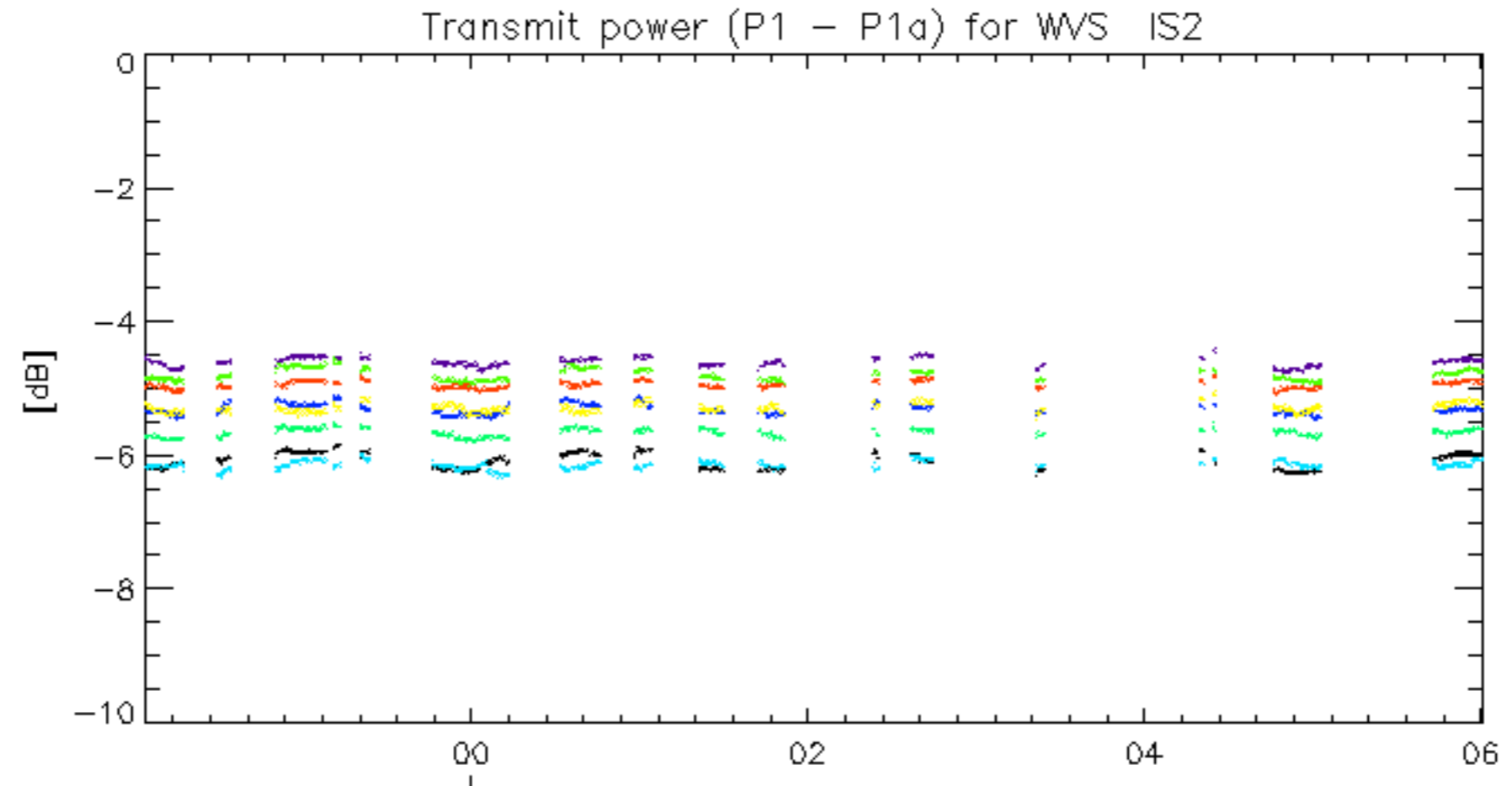


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

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.