

PRELIMINARY REPORT OF 061230

last update on Sat Dec 30 16:20:53 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 2006-12-29 00:00:00 to 2006-12-30 16:20:53

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	46	57	37	10	81
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	46	57	37	10	81
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	57	37	10	81
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	46	57	37	10	81

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	20061229 071539

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"/>

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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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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	-3.960541	0.008045	-0.019582
7	P1	-3.137668	0.025176	0.040176
11	P1	-4.117687	0.026543	0.013422
15	P1	-6.325529	0.016676	-0.019670
19	P1	-3.656721	0.005731	-0.060764
22	P1	-4.658604	0.014191	-0.030648
26	P1	-3.958674	0.009344	-0.019291
30	P1	-5.896429	0.009450	-0.047865
3	P1	-16.541256	0.259914	-0.106463
7	P1	-17.284502	0.194235	0.074538
11	P1	-17.188629	0.489072	0.036931
15	P1	-13.047473	0.138057	0.085267
19	P1	-15.001421	0.095362	-0.084631
22	P1	-15.820326	0.548064	0.062502
26	P1	-15.079000	0.190317	0.034366
30	P1	-17.511959	0.476747	0.104947

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.796644	0.095462	0.019906
7	P2	-21.715586	0.094220	0.062464
11	P2	-15.568632	0.102811	0.020848
15	P2	-7.108016	0.109447	0.013086
19	P2	-9.188210	0.106489	0.007422
22	P2	-18.228783	0.099302	0.027372
26	P2	-16.589697	0.112878	-0.046948
30	P2	-19.451963	0.090038	0.009208

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.238175	0.009085	0.003498
7	P3	-8.238175	0.009085	0.003498
11	P3	-8.238175	0.009085	0.003498

15	P3	-8.238175	0.009085	0.003498
19	P3	-8.238175	0.009085	0.003498
22	P3	-8.238175	0.009085	0.003498
26	P3	-8.238211	0.009086	0.003341
30	P3	-8.238211	0.009086	0.003341

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	-3.918810	0.014990	-0.014322
7	P1	-2.471827	0.016052	0.013626
11	P1	-2.850916	0.017809	-0.001758
15	P1	-3.687054	0.031832	-0.032089
19	P1	-3.544457	0.019034	-0.009326
22	P1	-5.024271	0.024156	0.012951
26	P1	-6.029856	0.029061	-0.022246
30	P1	-5.345744	0.039315	-0.001221
3	P1	-11.739747	0.084855	0.009637
7	P1	-10.068684	0.087371	-0.016250
11	P1	-10.346808	0.129028	-0.061323
15	P1	-10.710027	0.117946	-0.063703
19	P1	-15.726094	0.124441	0.007894
22	P1	-21.607395	1.400554	0.038490
26	P1	-16.070292	0.345461	0.057199
30	P1	-17.877090	0.365029	-0.063552

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.466330	0.119320	0.012308
7	P2	-22.224682	0.269831	0.041164
11	P2	-10.869425	0.125922	0.048586
15	P2	-4.984426	0.213388	0.007466
19	P2	-6.964921	0.279135	-0.004215
22	P2	-8.248813	0.128314	0.005330
26	P2	-24.317600	0.175775	-0.037515
30	P2	-21.949816	0.138753	0.016524

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.087898	0.005156	-0.009509
7	P3	-8.087805	0.005129	-0.009068
11	P3	-8.087902	0.005144	-0.008892
15	P3	-8.087767	0.005133	-0.009086
19	P3	-8.087763	0.005152	-0.009404
22	P3	-8.087711	0.005138	-0.009093
26	P3	-8.087935	0.005145	-0.009766
30	P3	-8.087808	0.005117	-0.009941

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	0.000562447
	stdev	1.65359e-07
MEAN Q	mean	0.000506954
	stdev	2.14457e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139780
	stdev	0.00121074
STDEV Q	mean	0.140175
	stdev	0.00123107



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006122[890]

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_1PNPDE20061229_042632_00000762054_00147_25251_2047.N1	1	0
ASA_WSM_1PNPDE20061220_113811_00000852054_00023_25127_6009.N1	0	46
ASA_WSM_1PNPDE20061220_150157_000002852054_00025_25129_6077.N1	0	24
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
ASA_WSM_1PNPDE20061228_182821_00000852054_00142_25246_1151.N1	0	72
ASA_WSM_1PNPDE20061229_001400_000005752054_00145_25249_1910.N1	0	36
ASA_WSM_1PNPDE20061229_015235_000002022054_00146_25250_1940.N1	0	40
ASA_WSM_1PNPDE20061229_161732_000002202054_00155_25259_2583.N1	0	21
ASA_WSM_1PNPDE20061229_234323_000001832054_00159_25263_3237.N1	0	36
ASA_WSM_1PNPDE20061229_234323_000001832054_00159_25263_3683.N1	0	36



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)
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<input type="checkbox"/>

Ascending

<input type="checkbox"/>

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>

Ascending

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

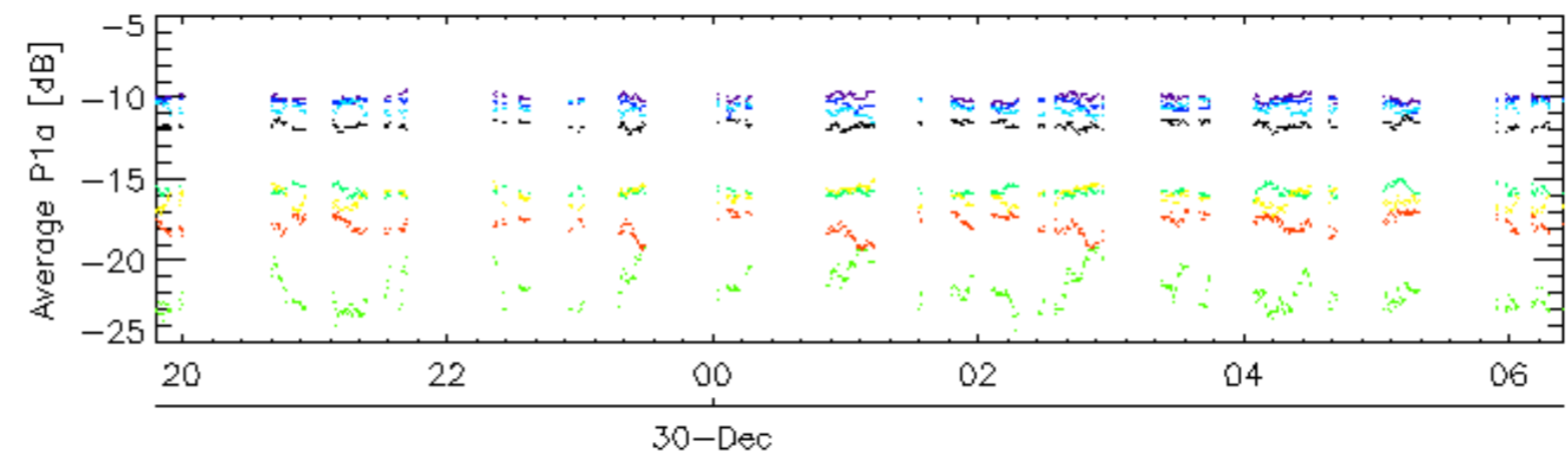
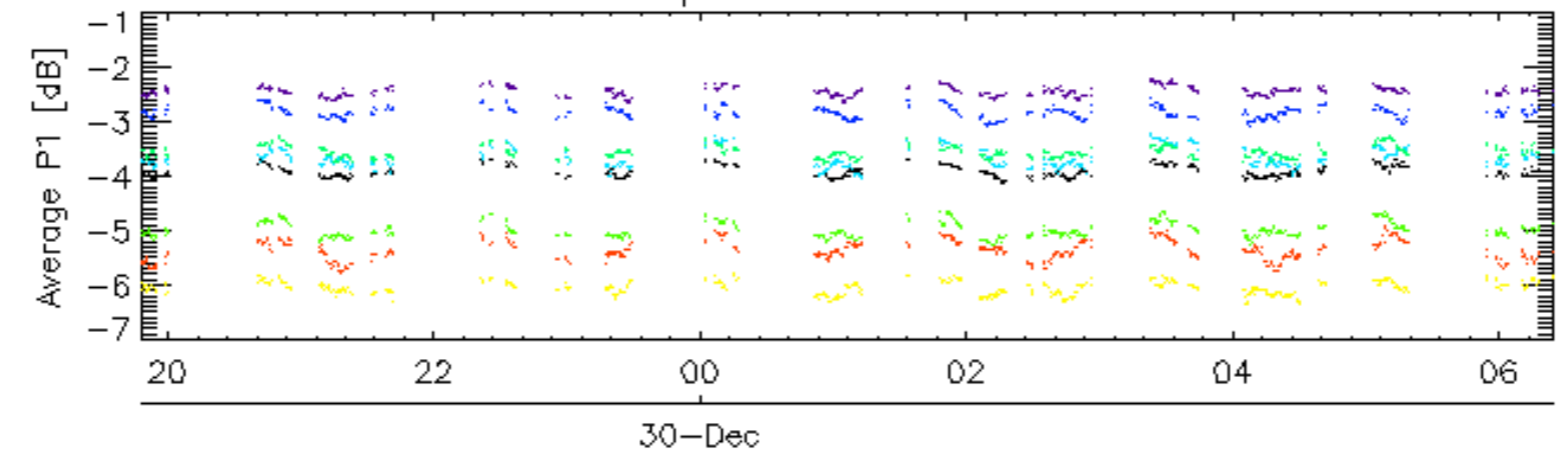
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

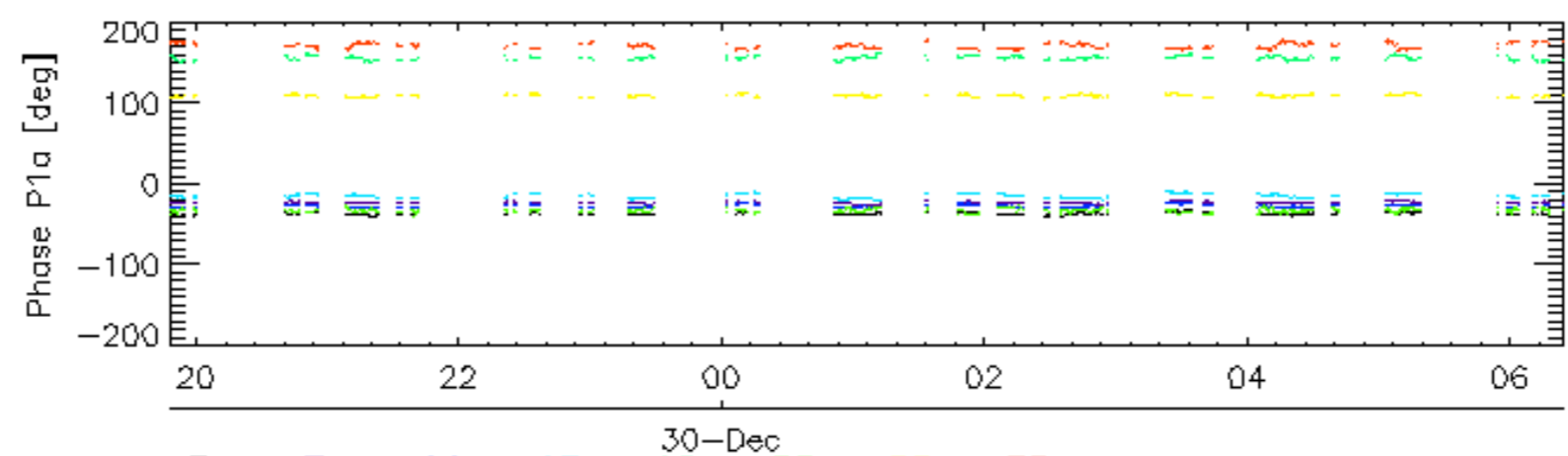
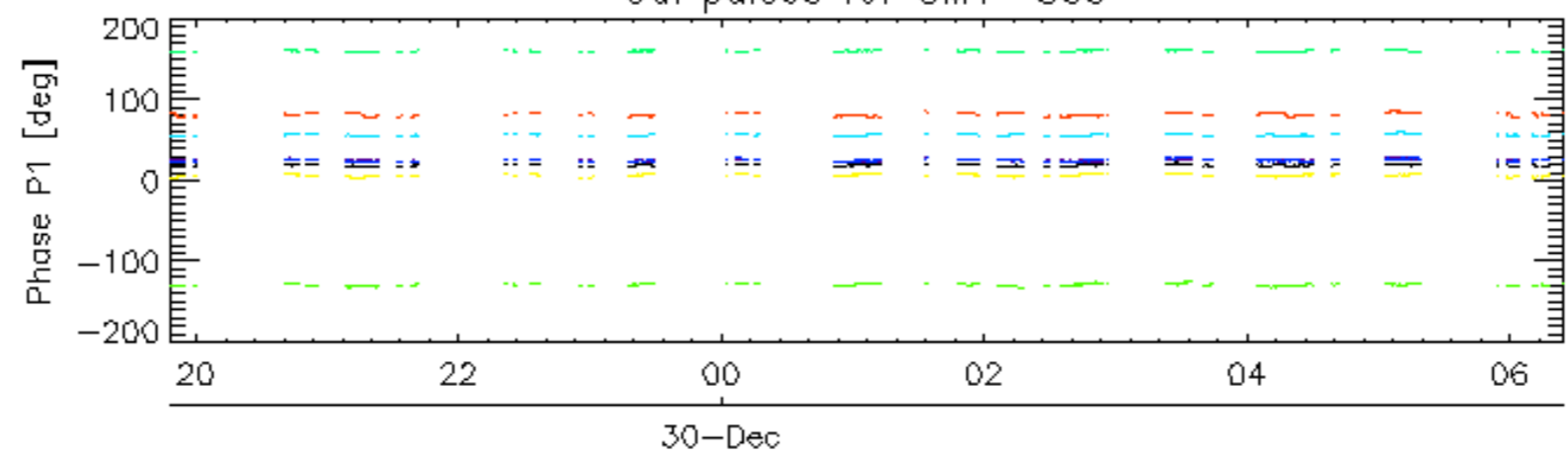
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

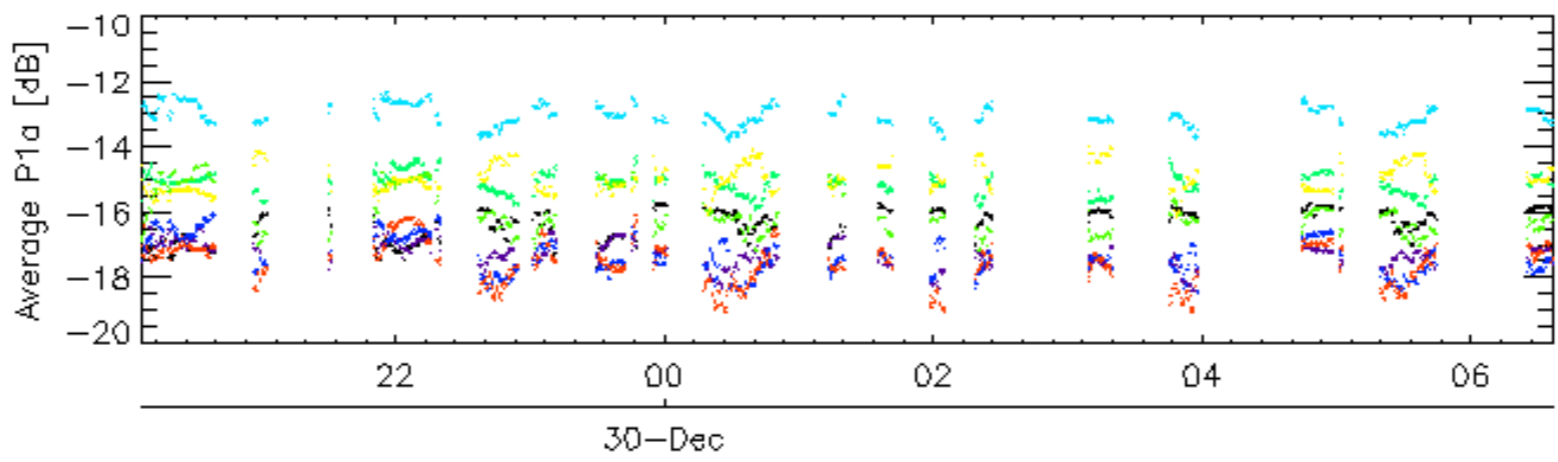
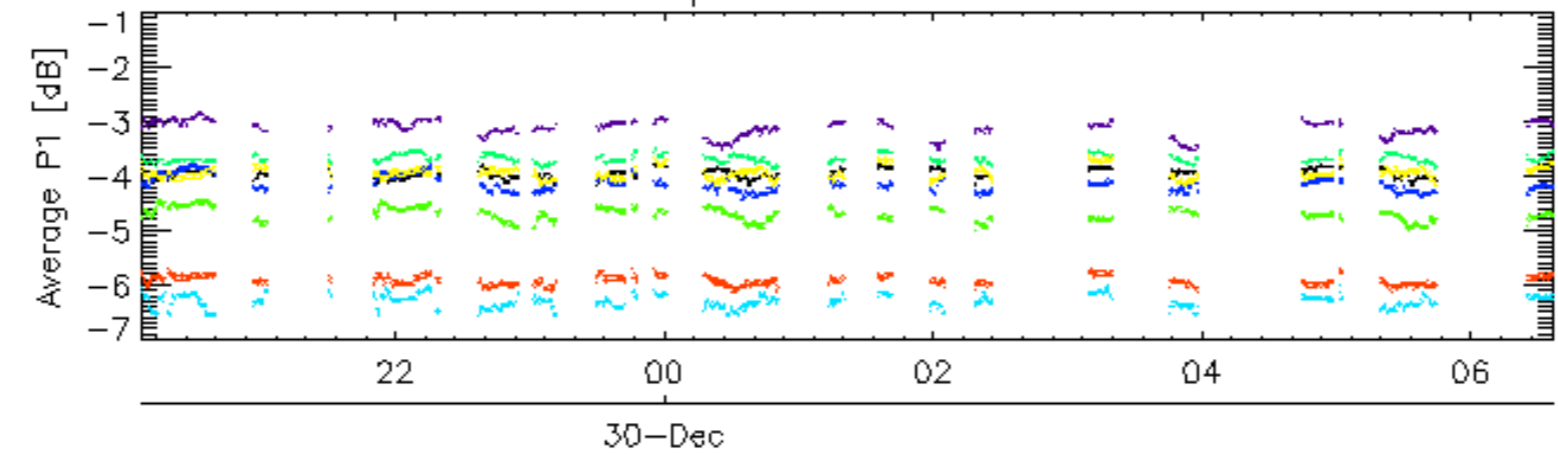


Cal pulses for GM1 SS3

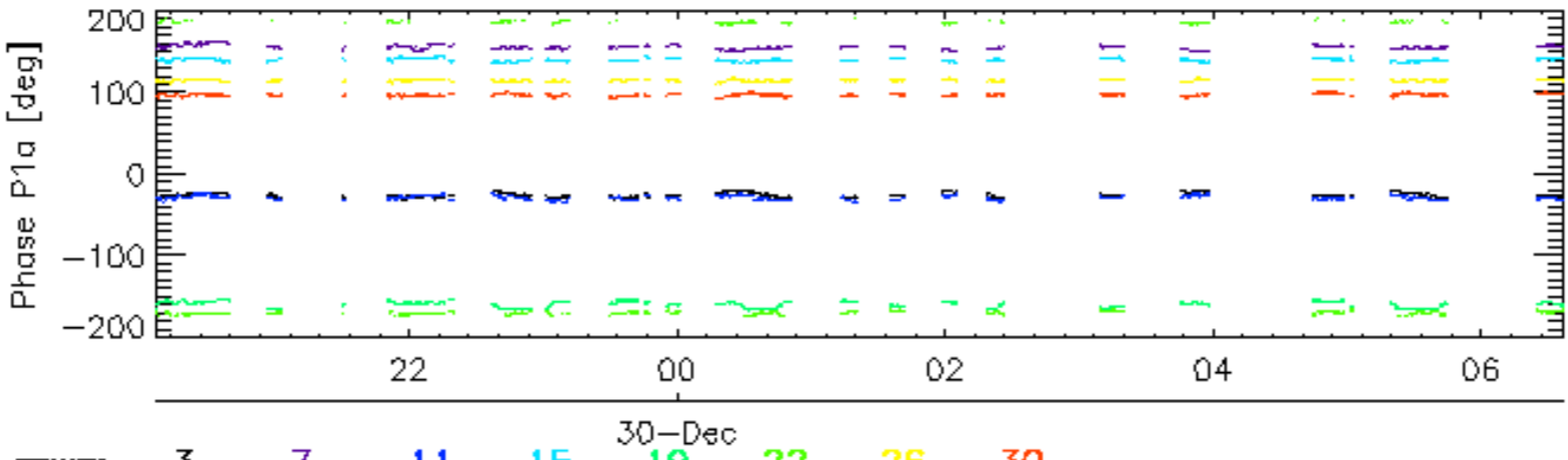
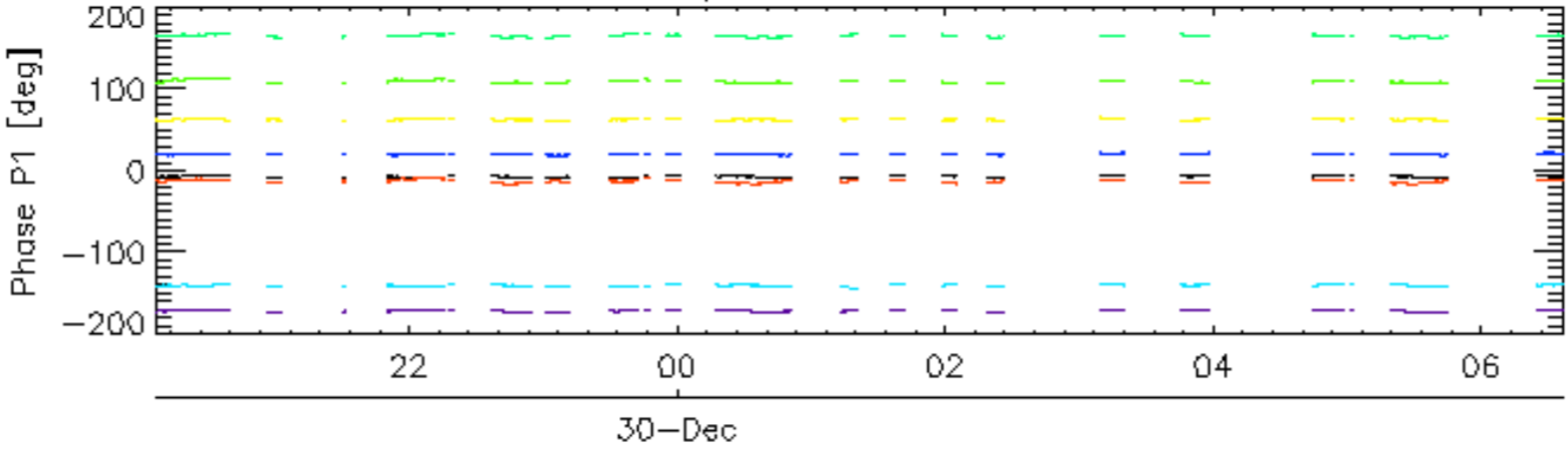


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

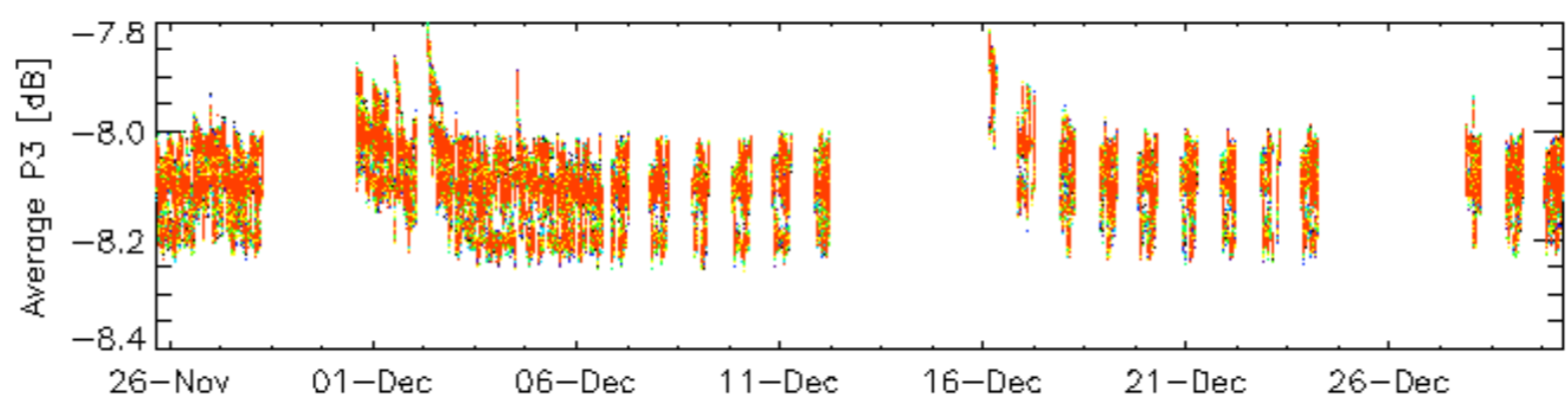
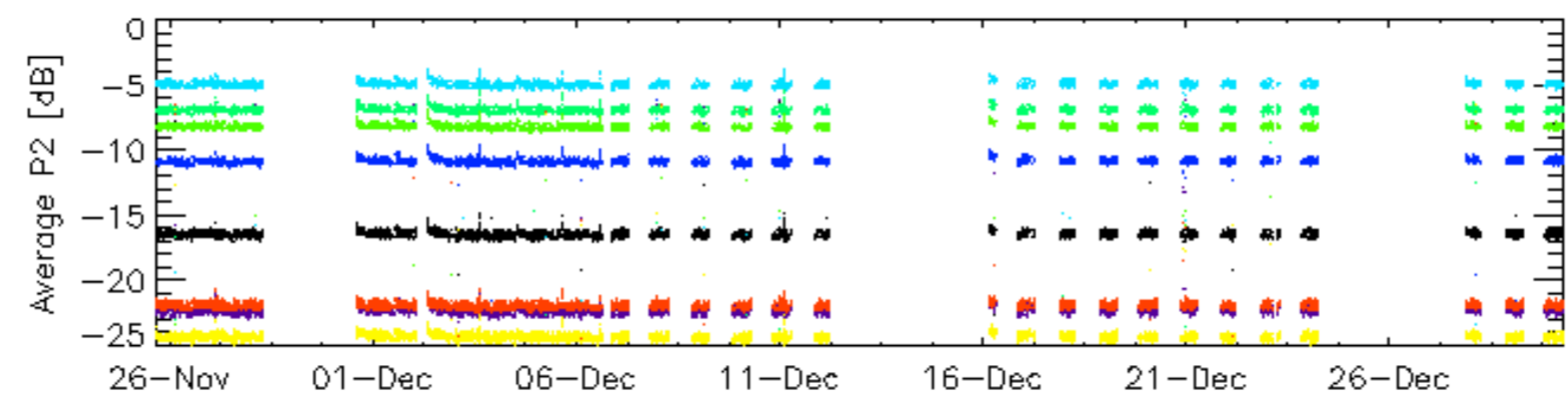
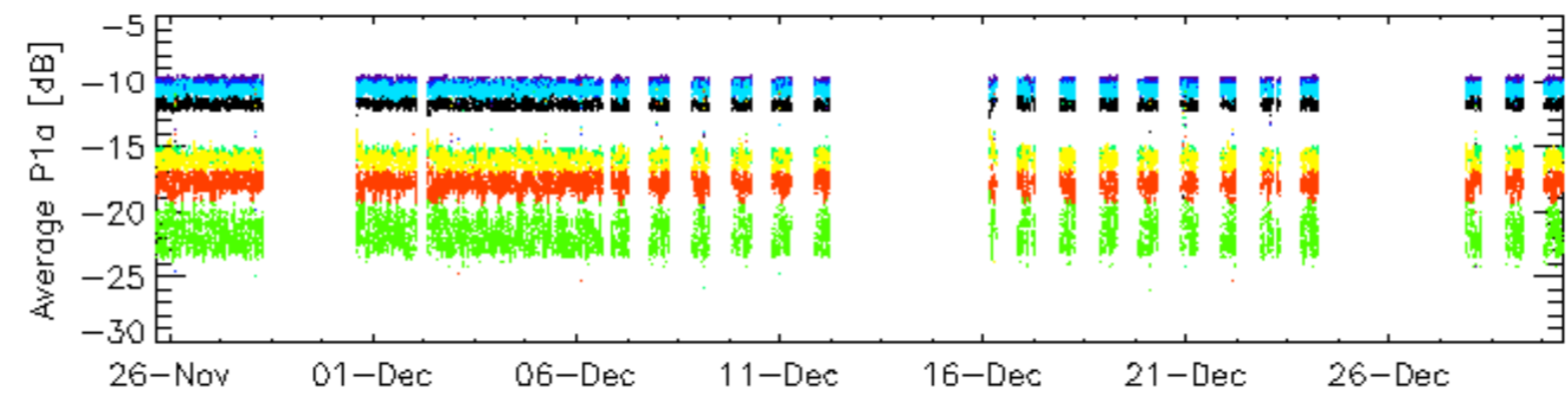
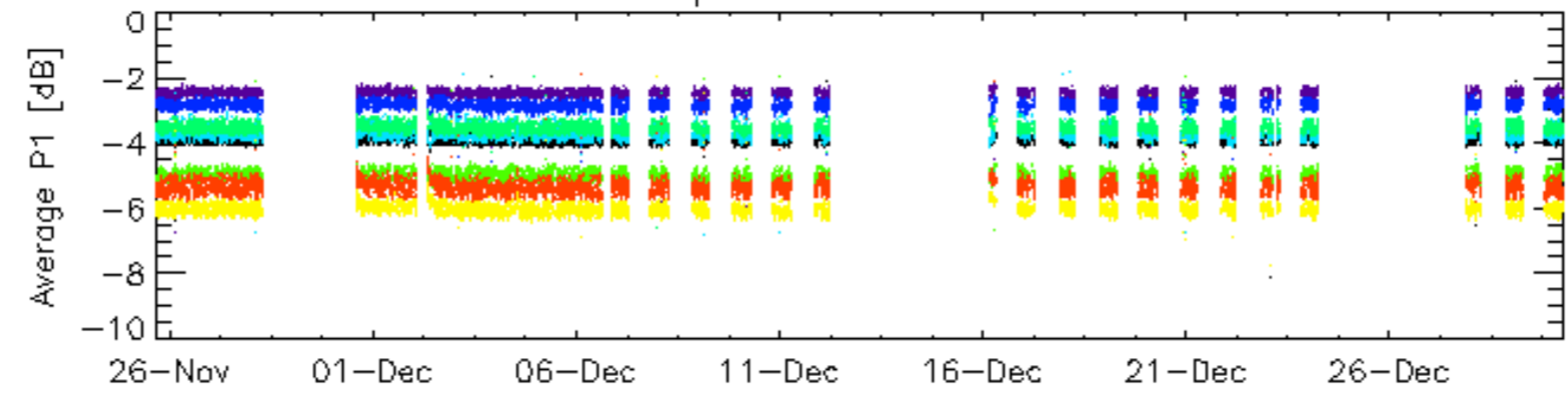


Cal pulses for WVS IS2



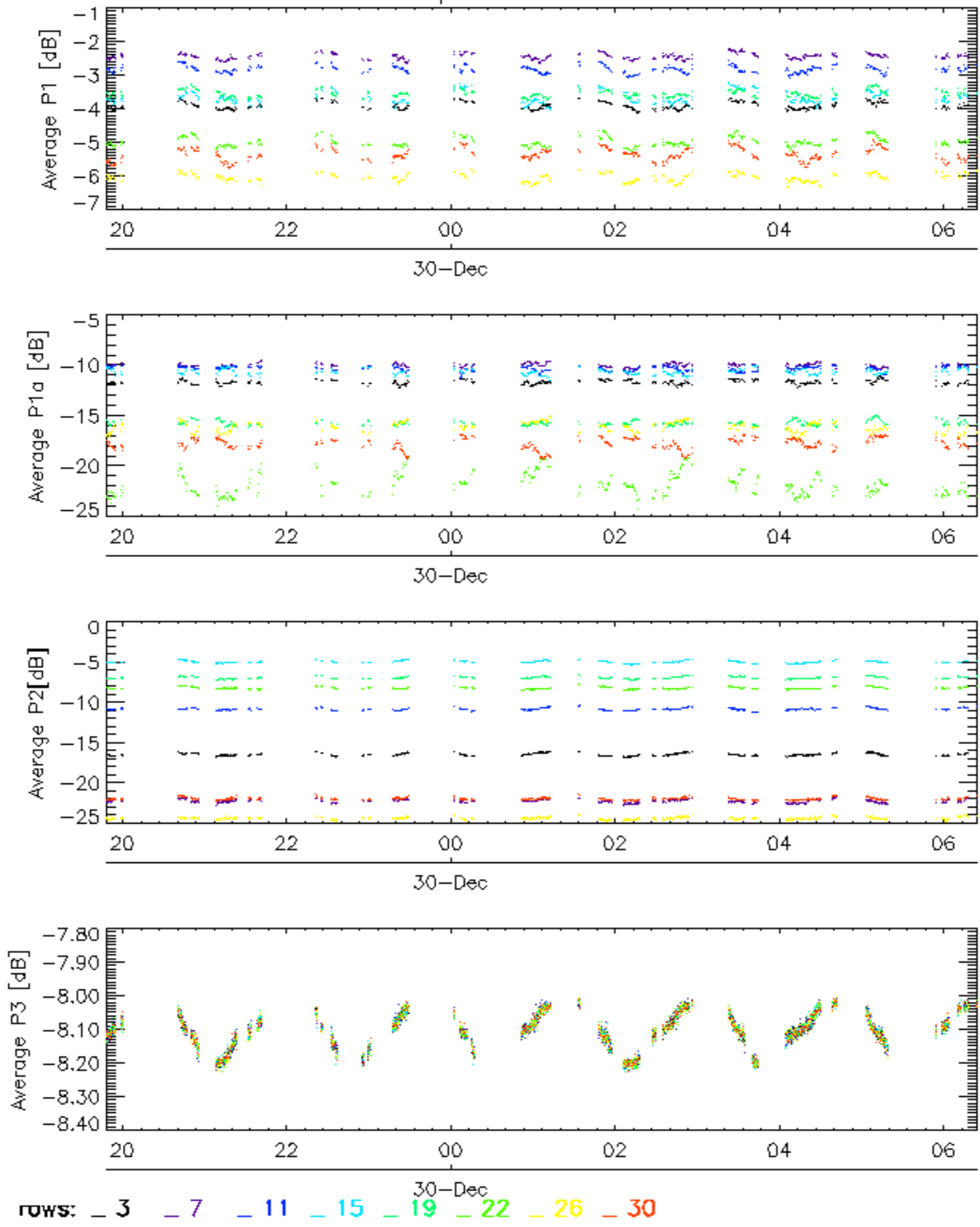
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

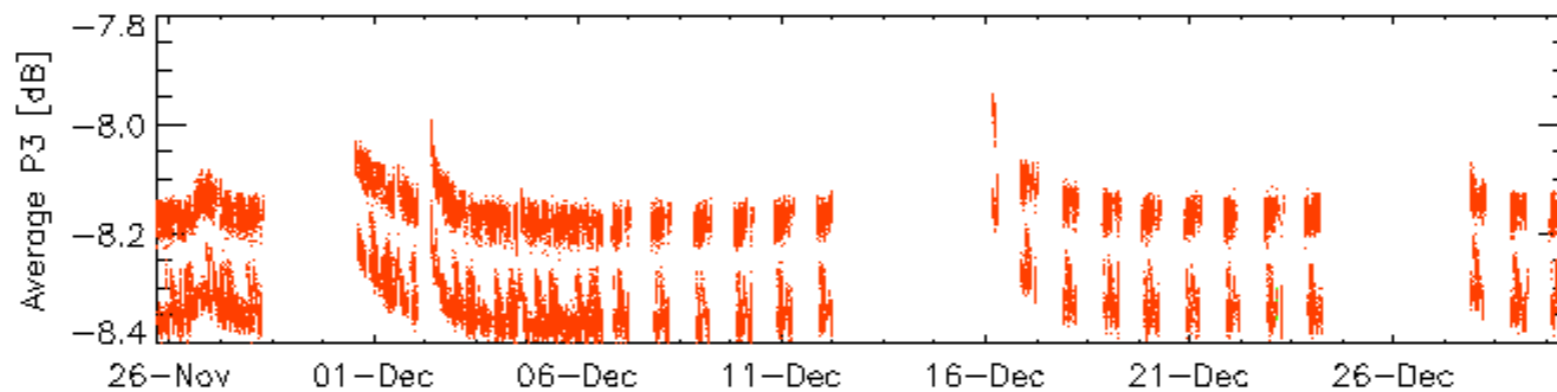
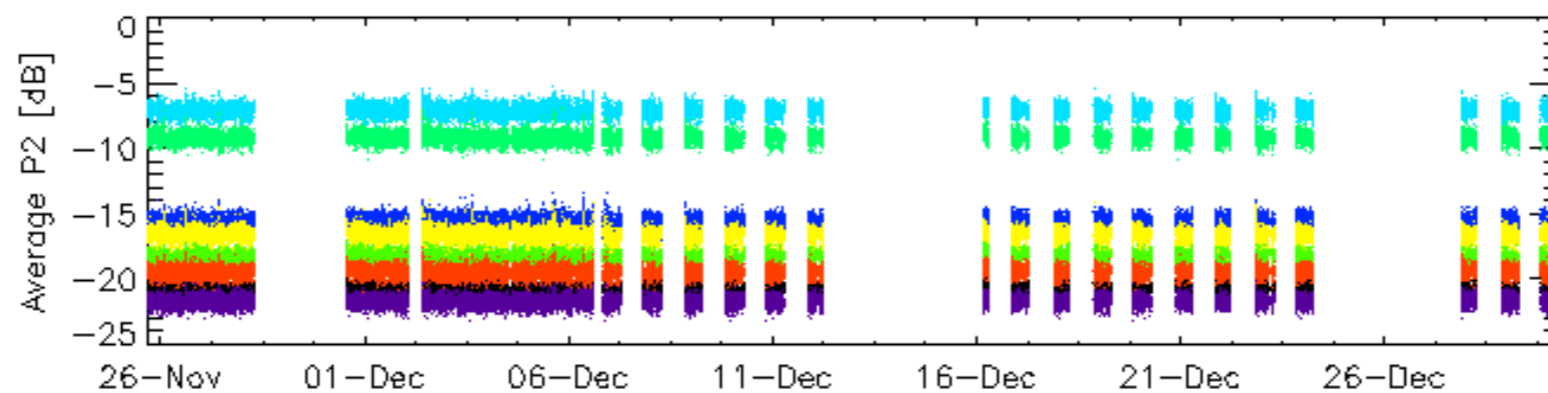
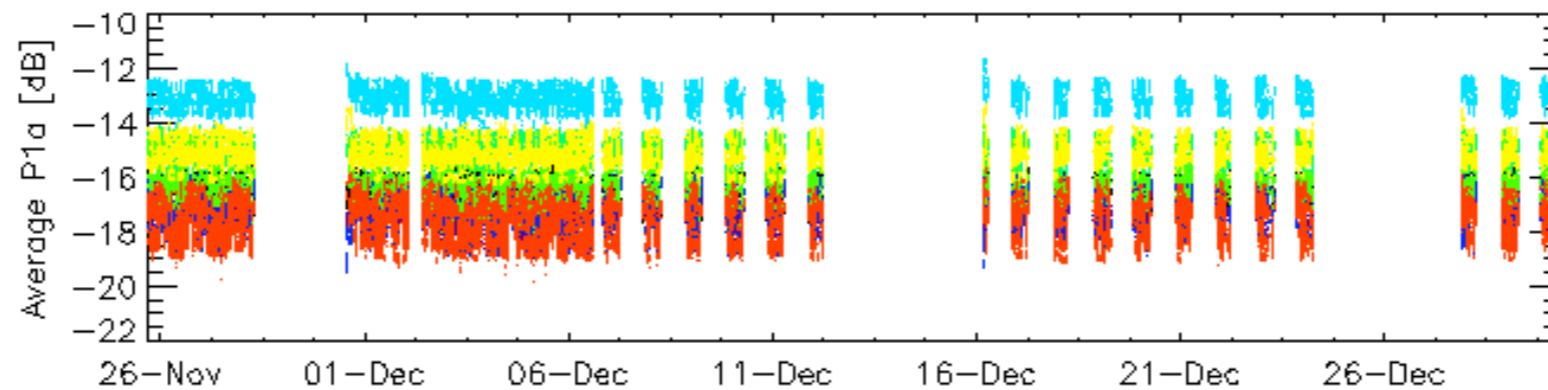
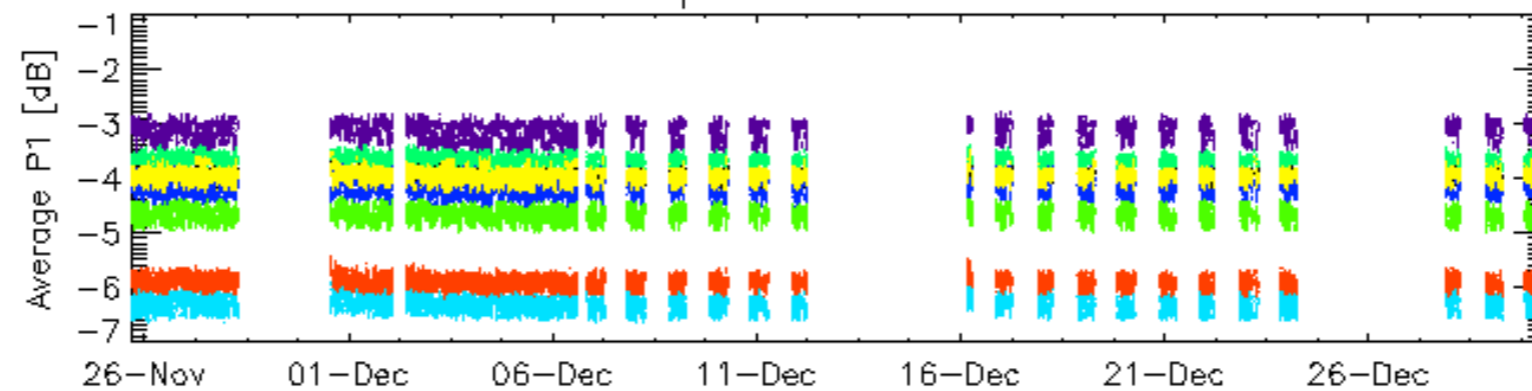


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

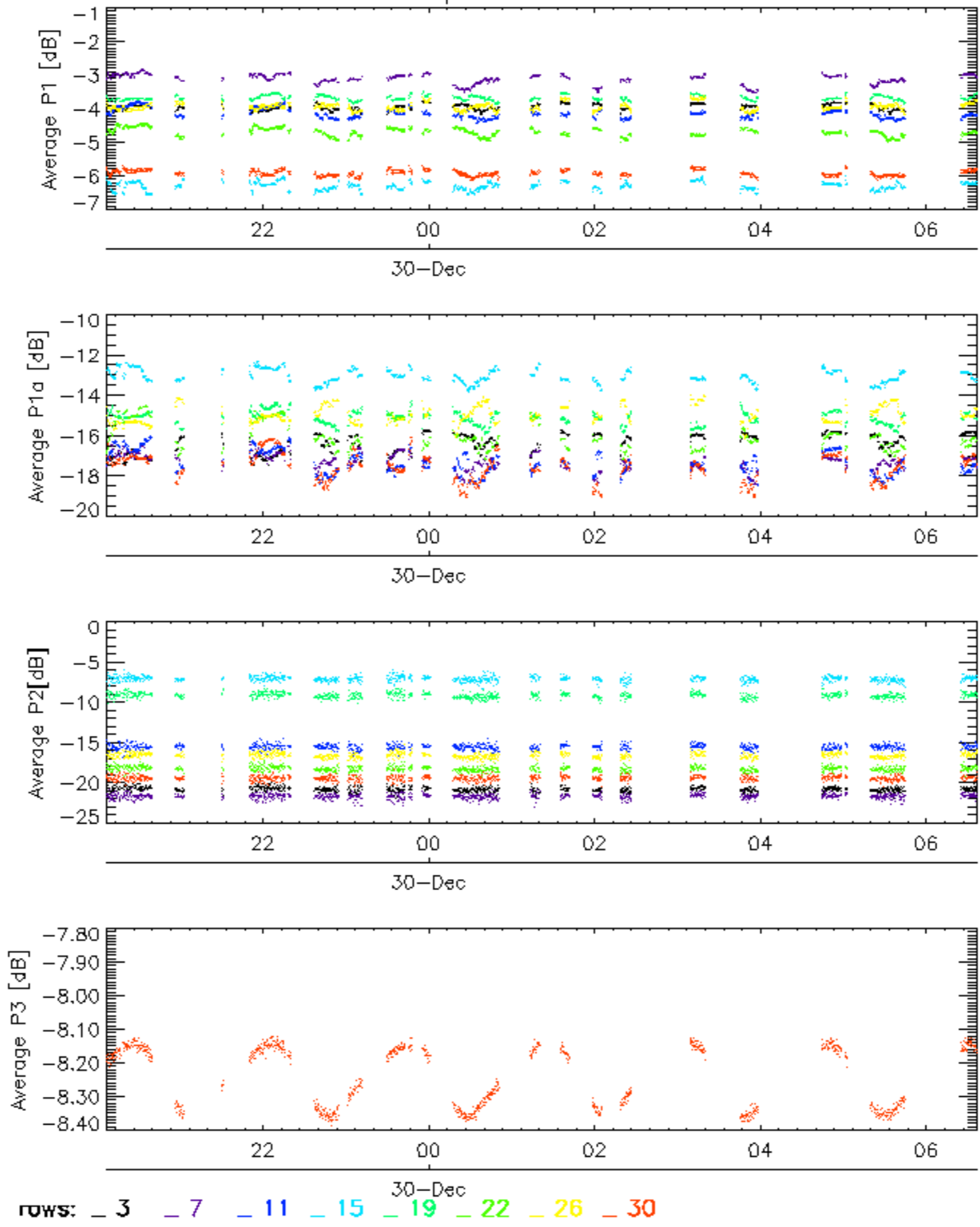


Cal pulses for WVS IS2

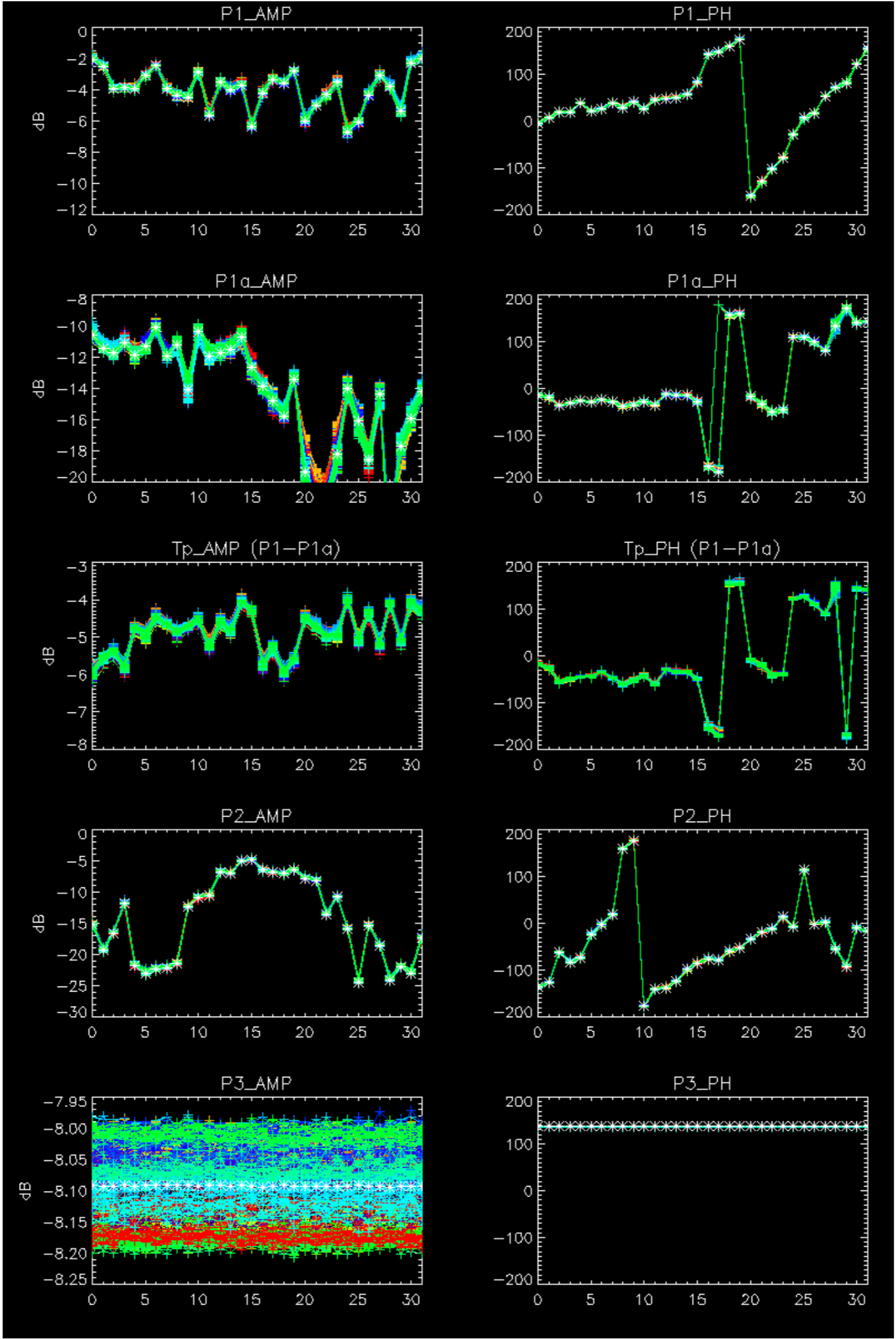


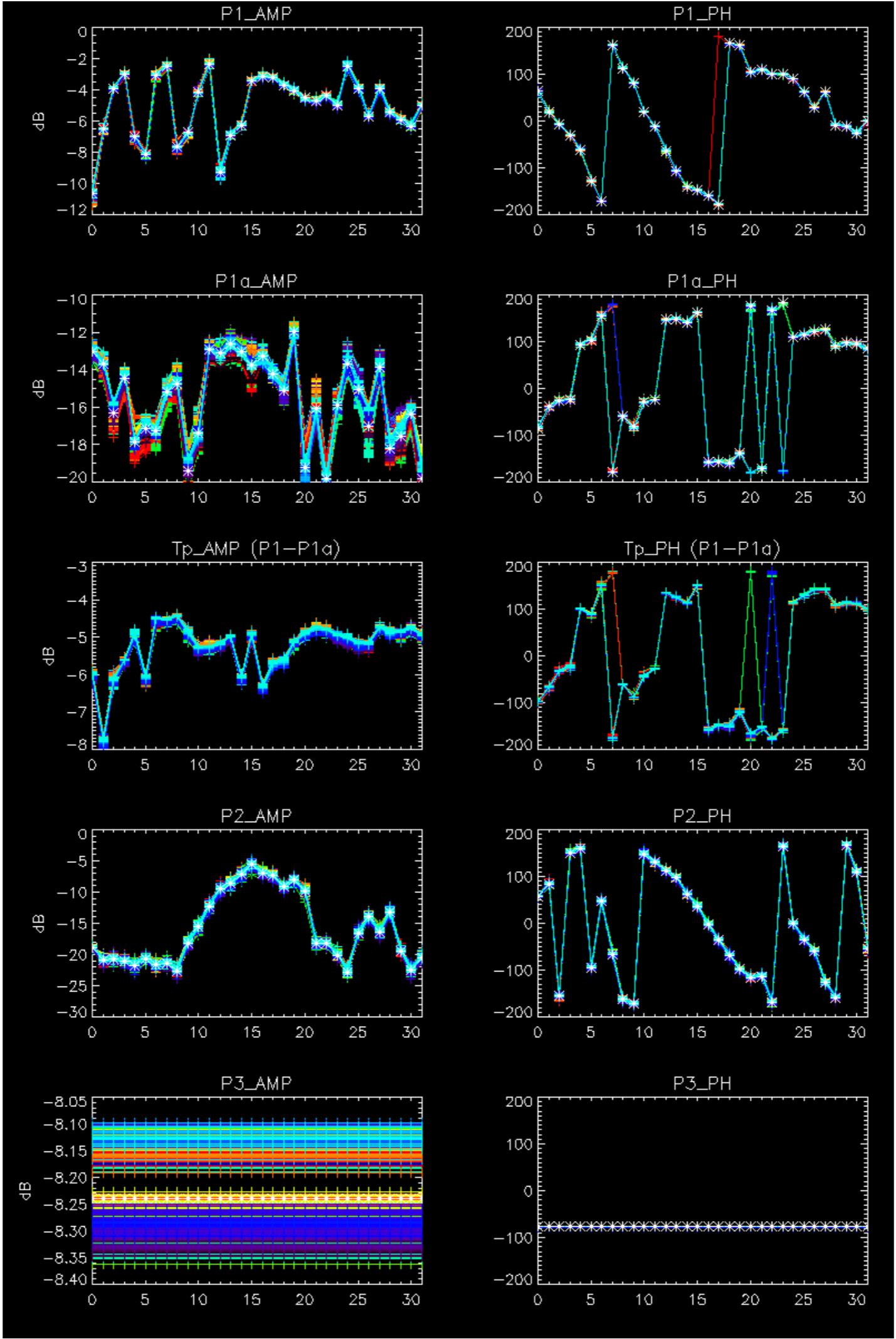
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



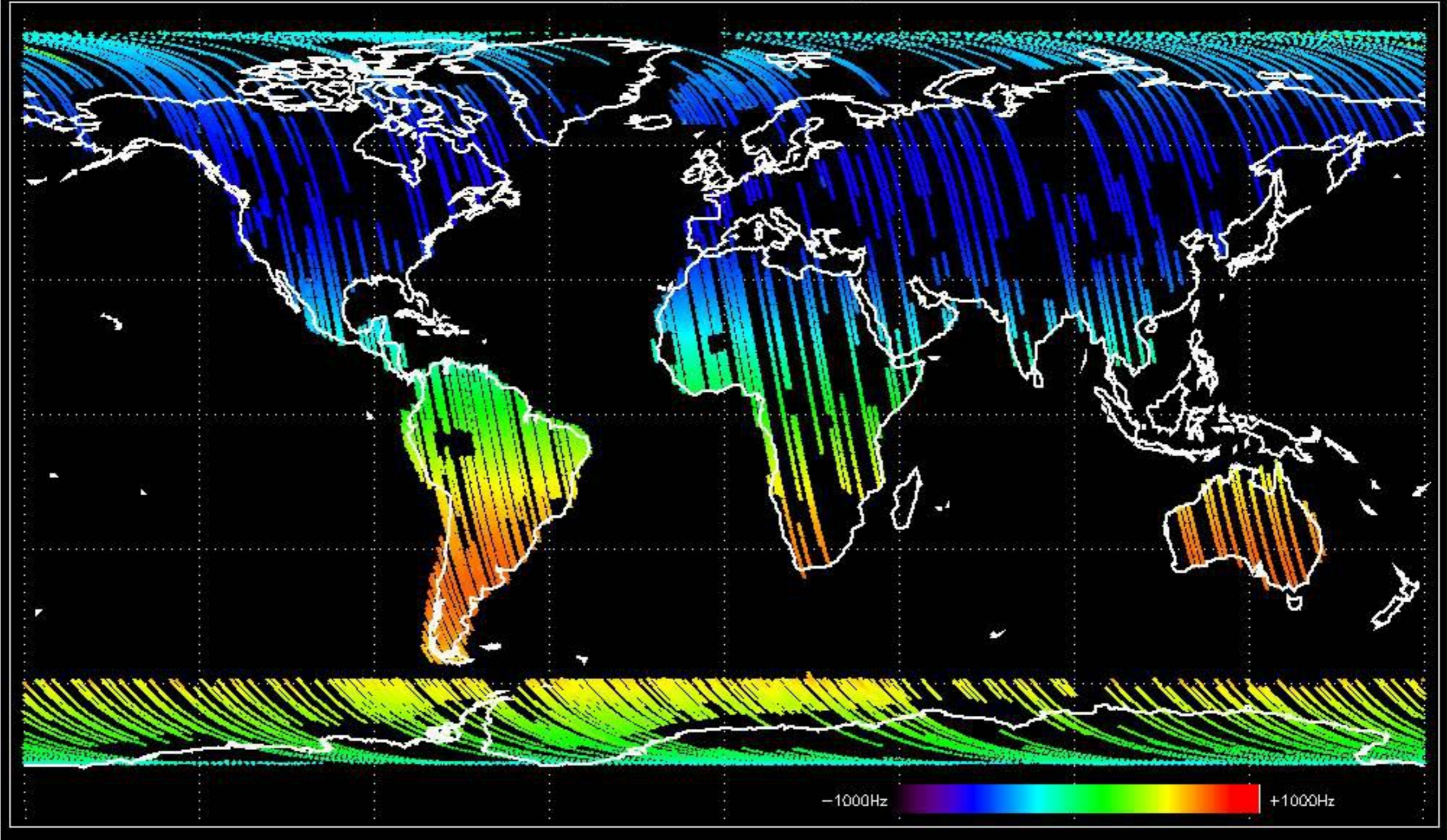
No anomalies observed.



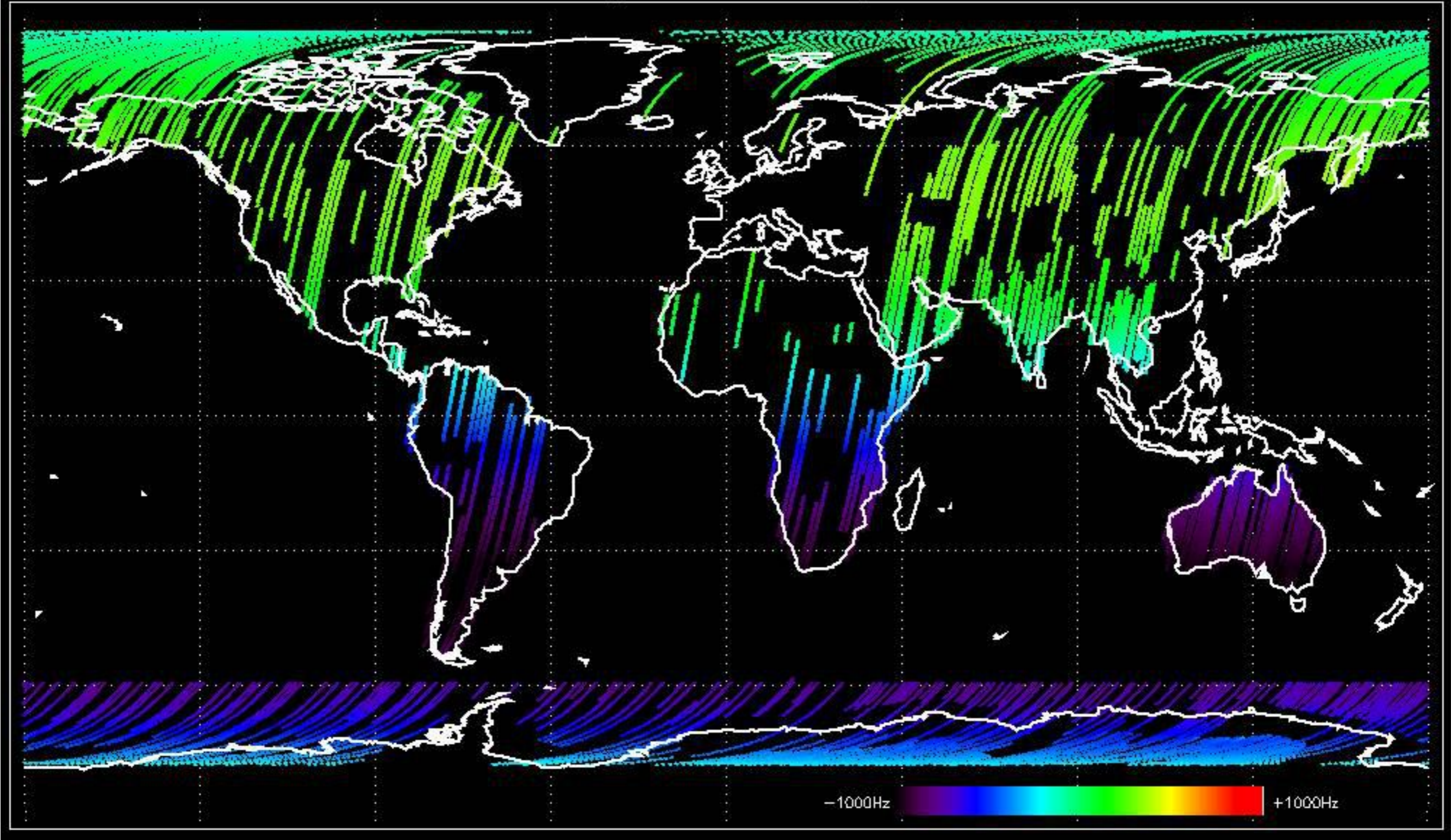


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

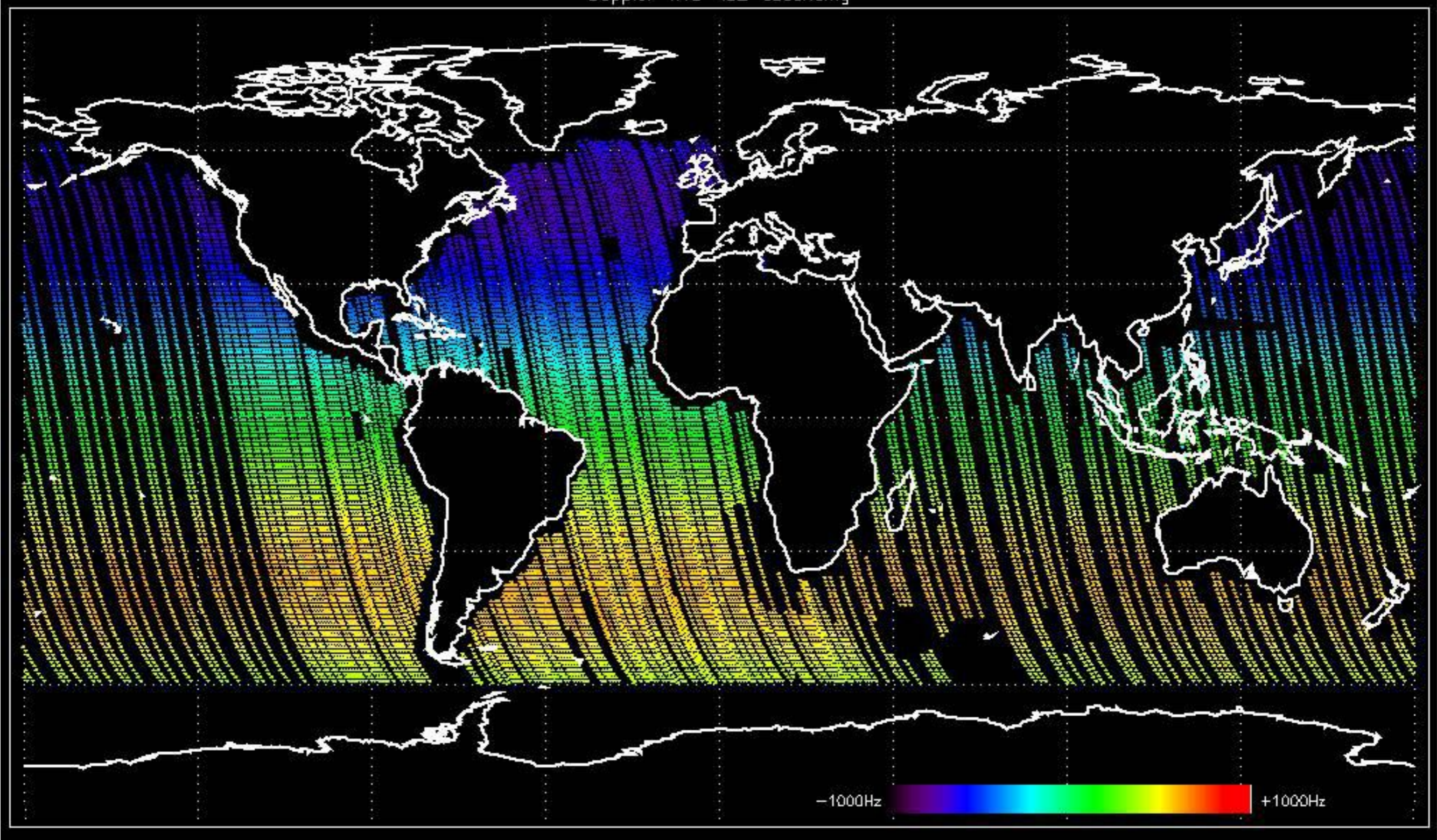
Doppler 'GM1' 'SS1' ascending



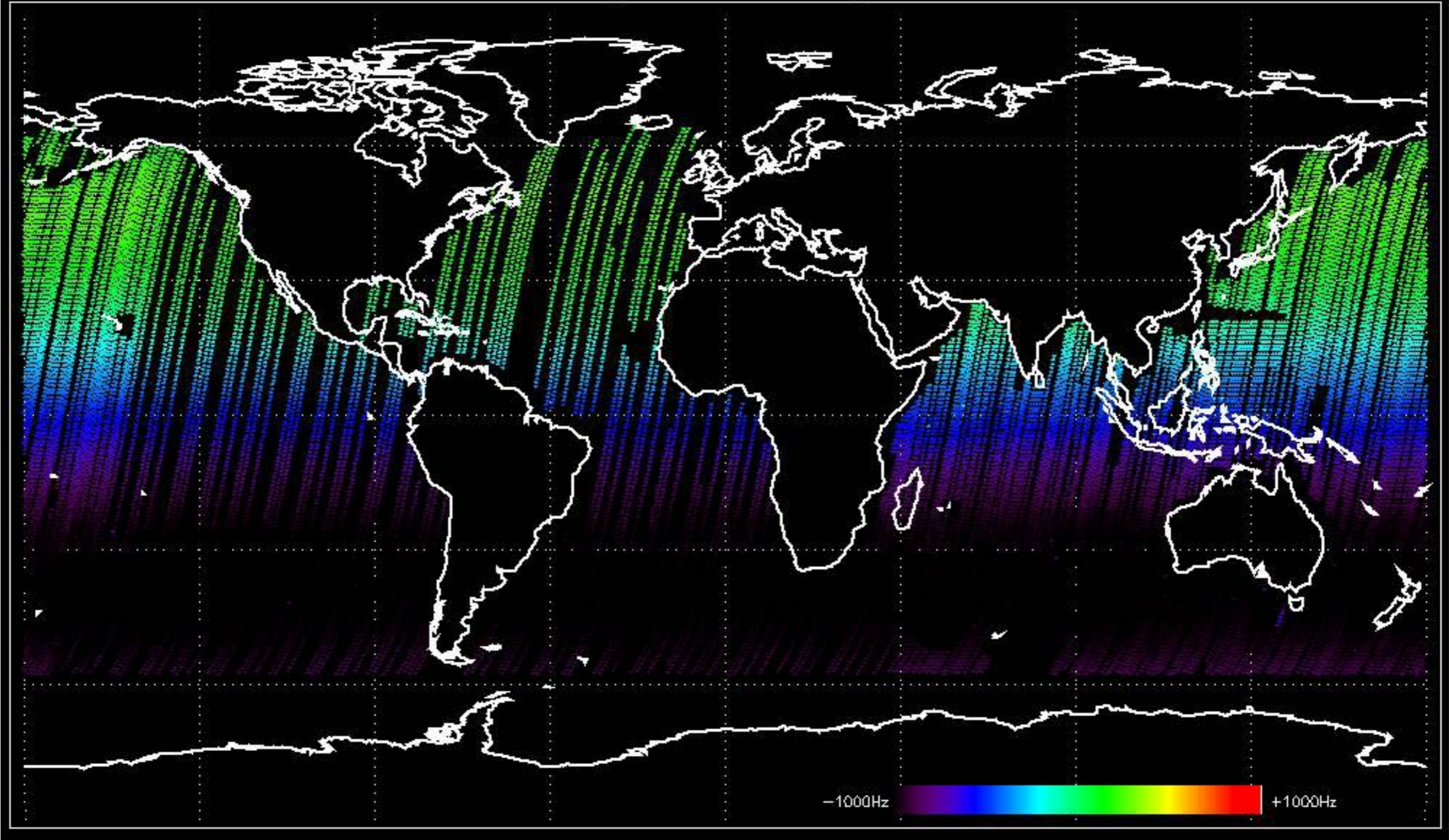
Doppler 'GM1' 'SS1' descending

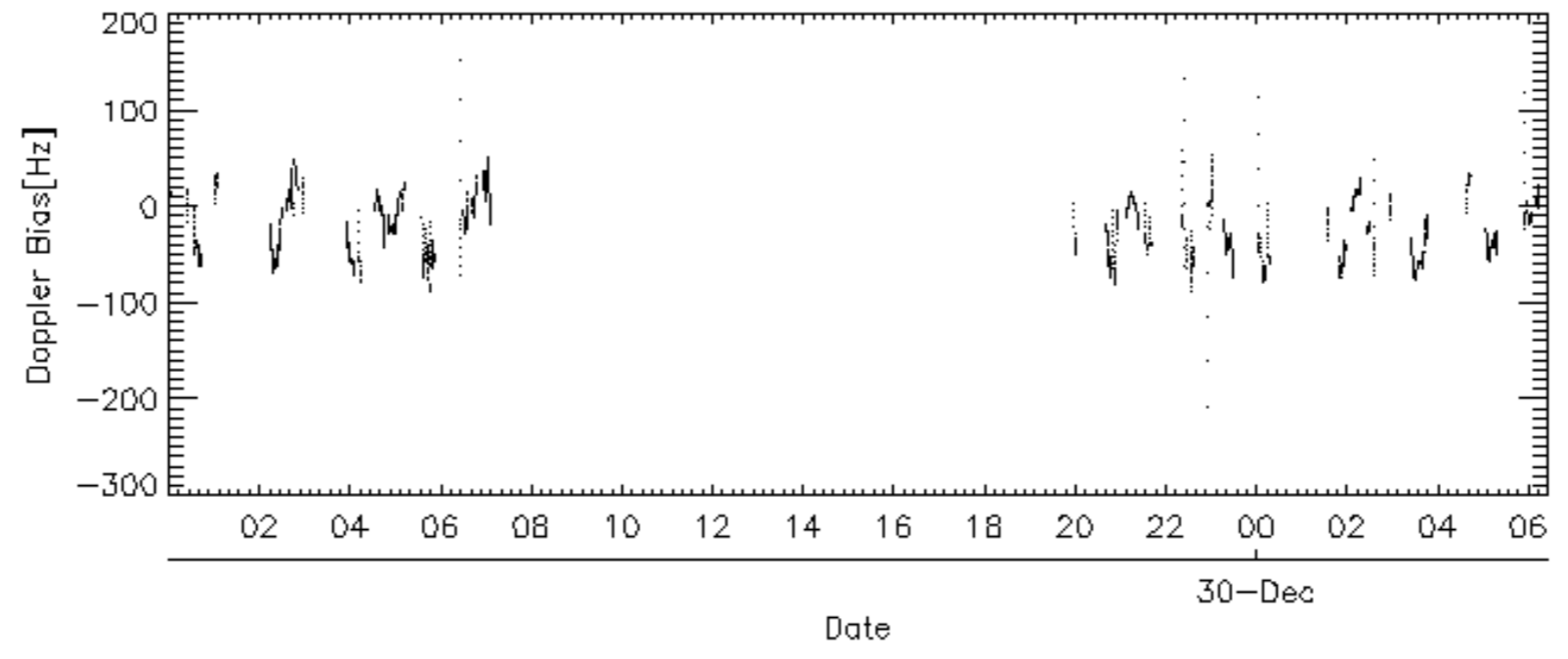
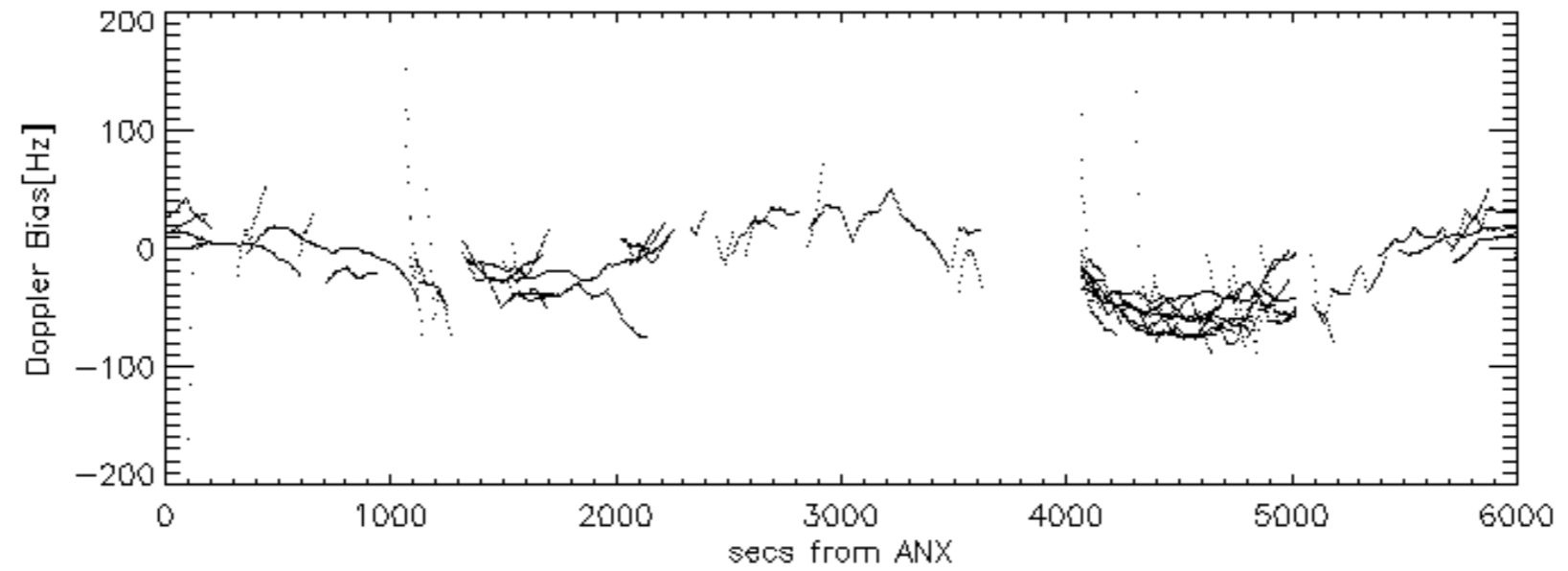
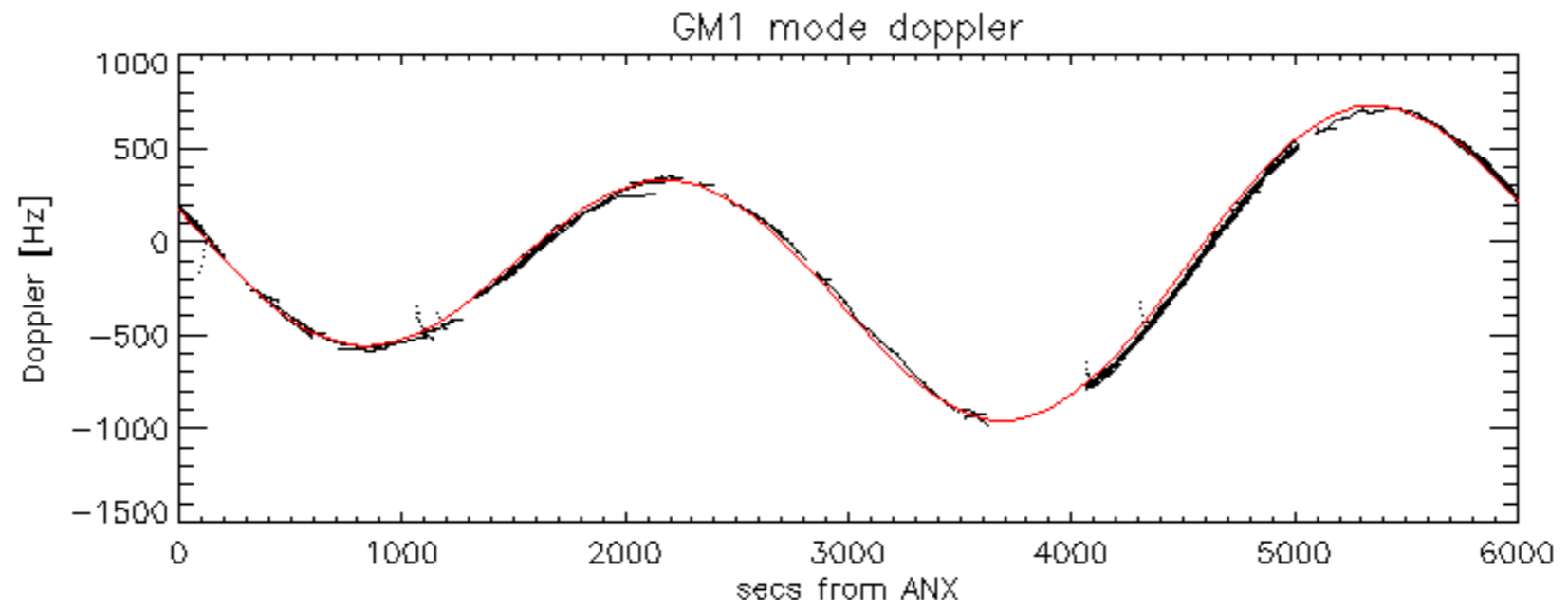


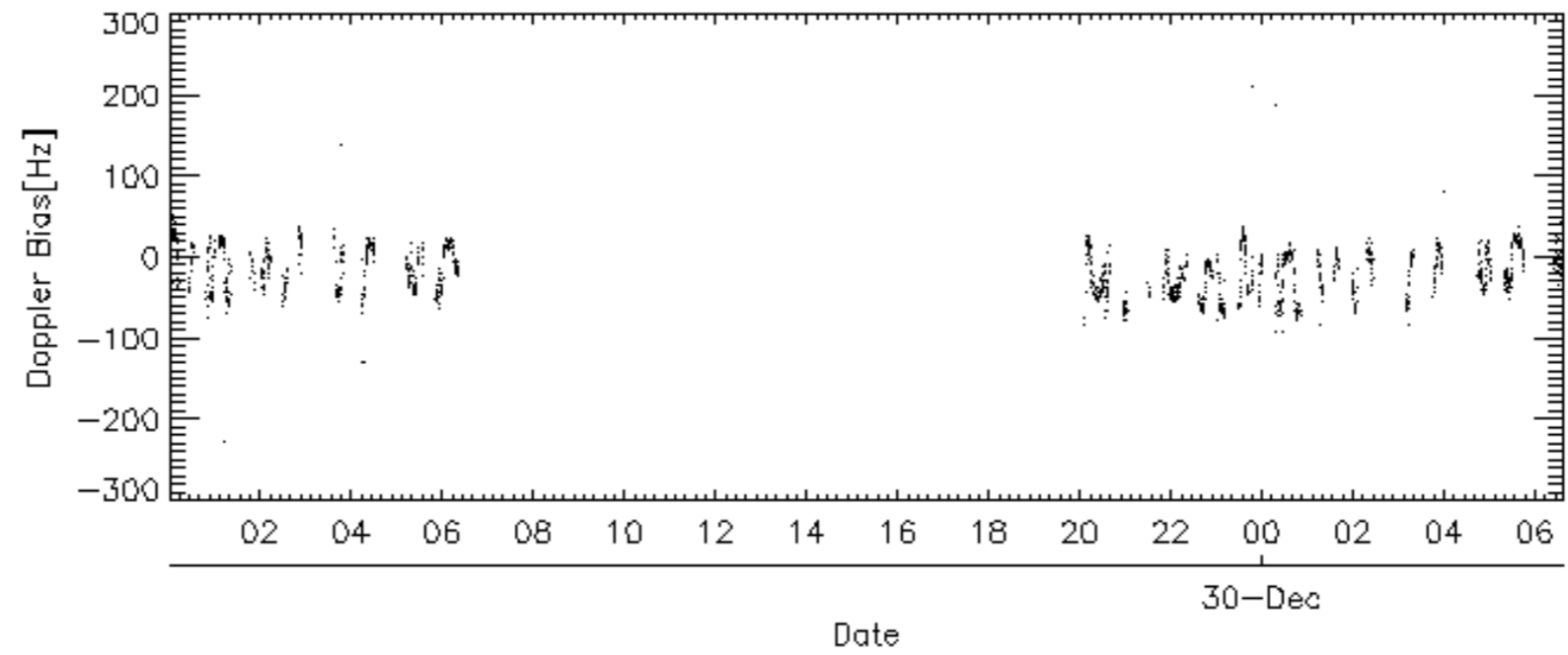
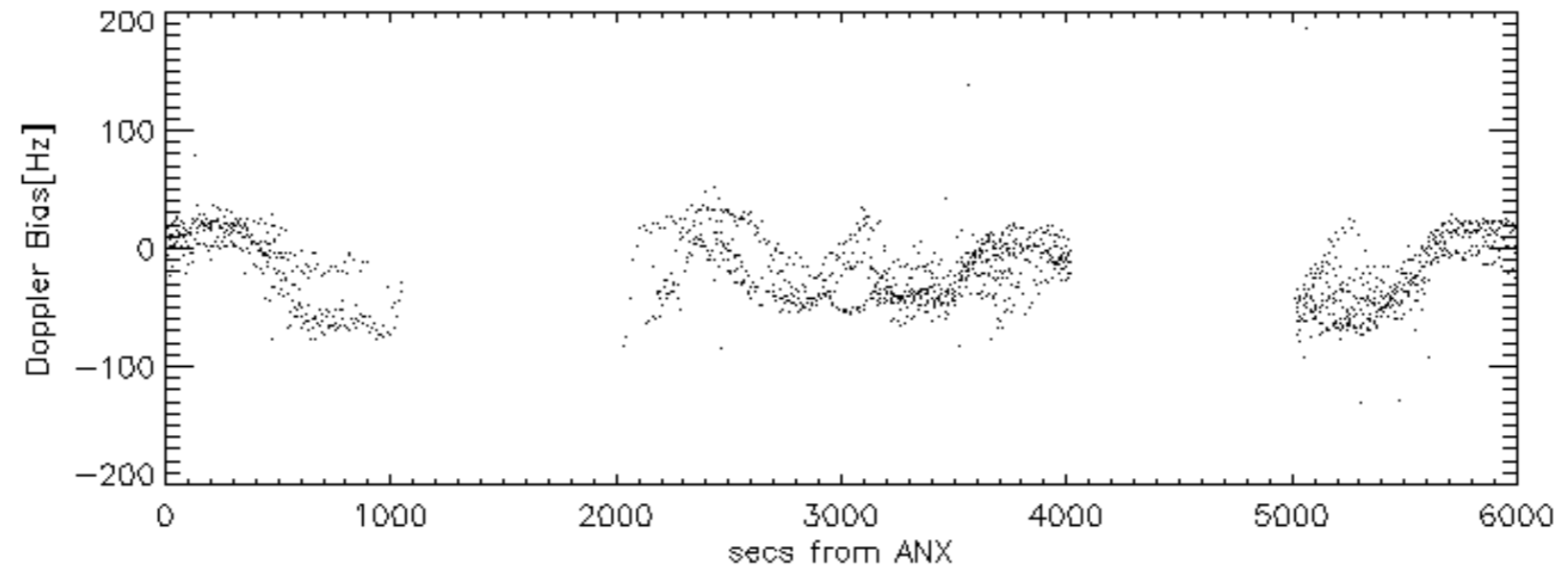
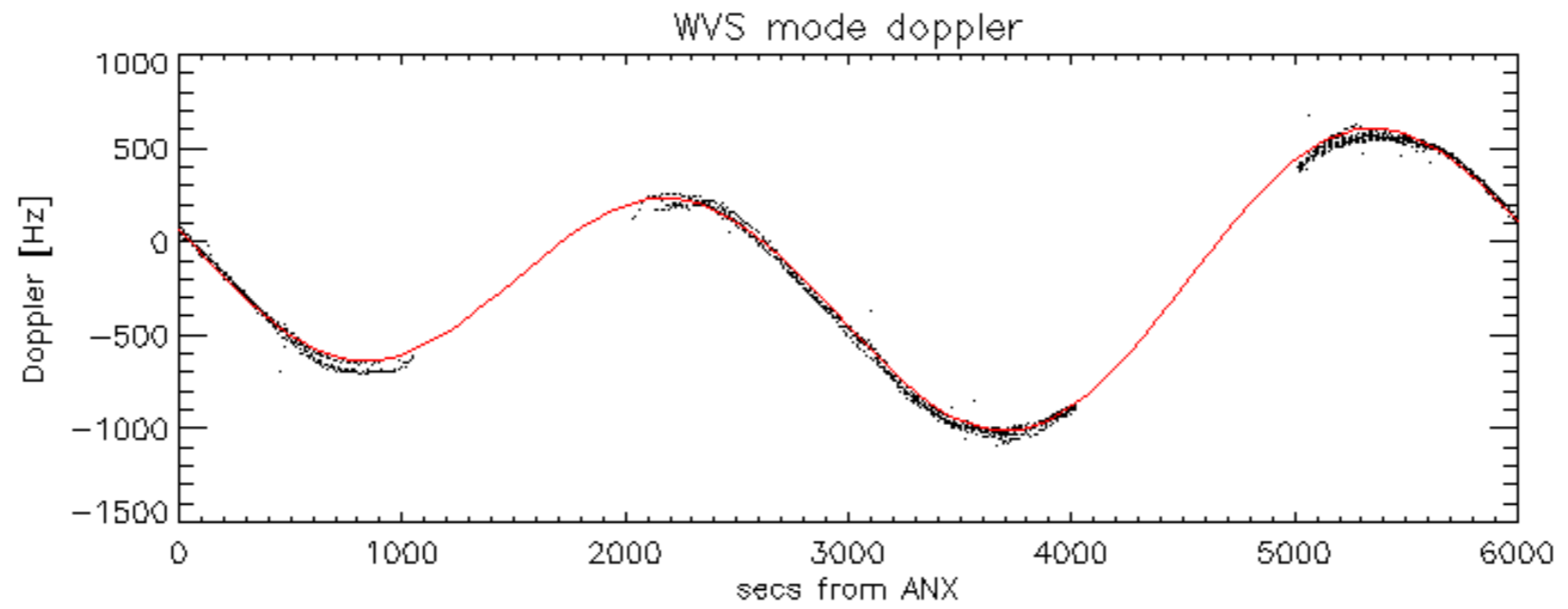
Doppler 'WVS' 'IS2' ascending



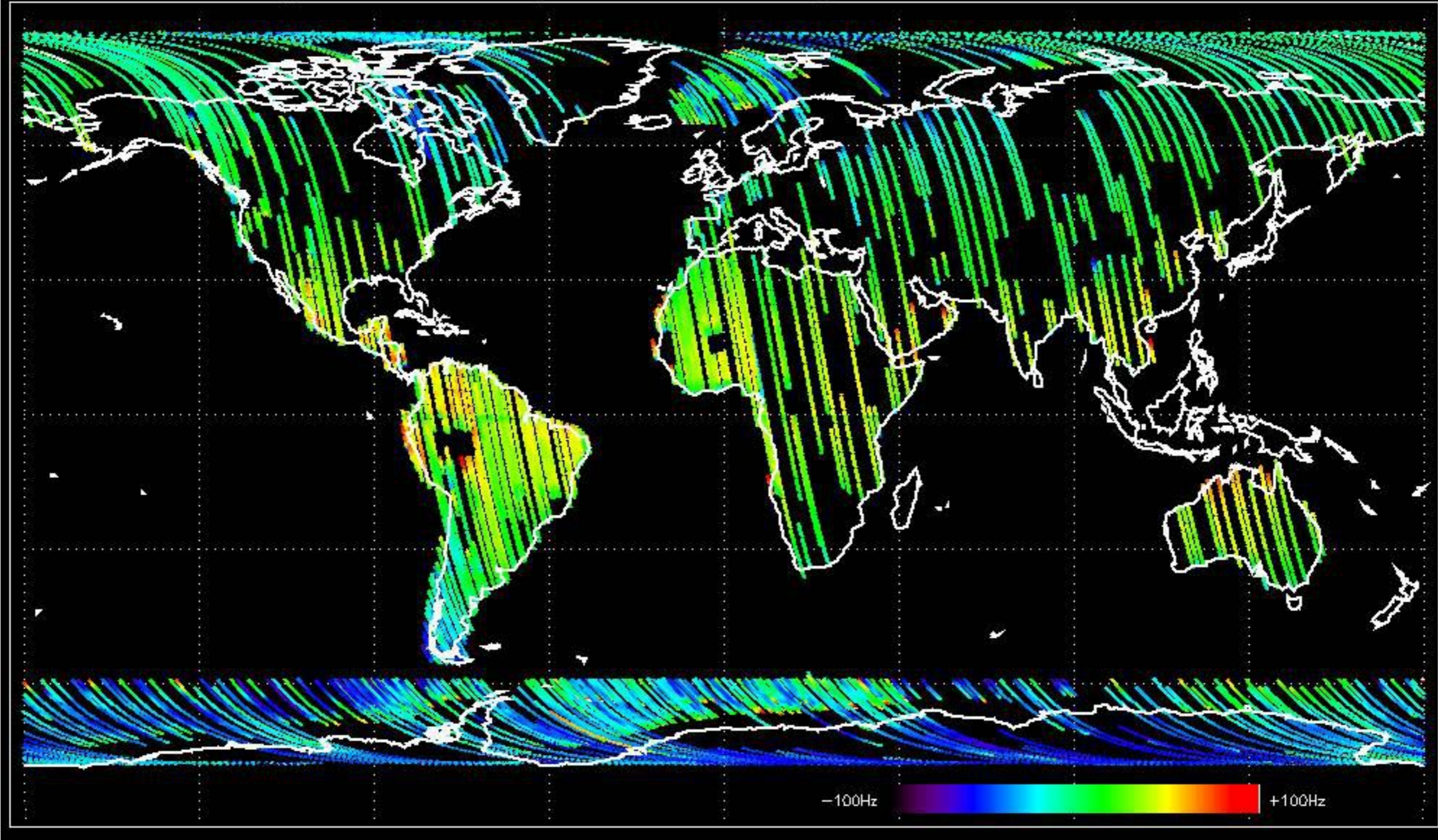
Doppler 'WVS' 'IS2' descending



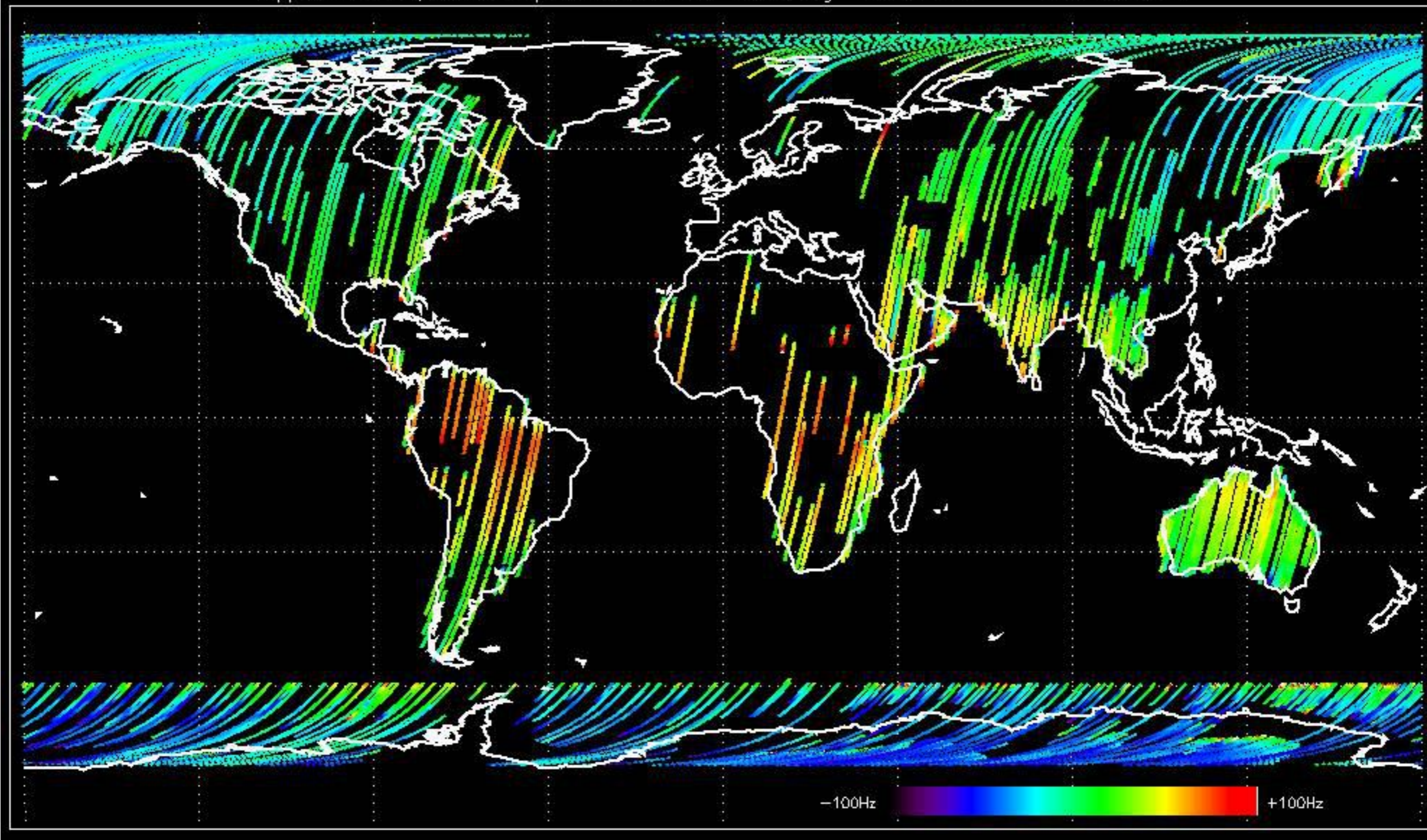




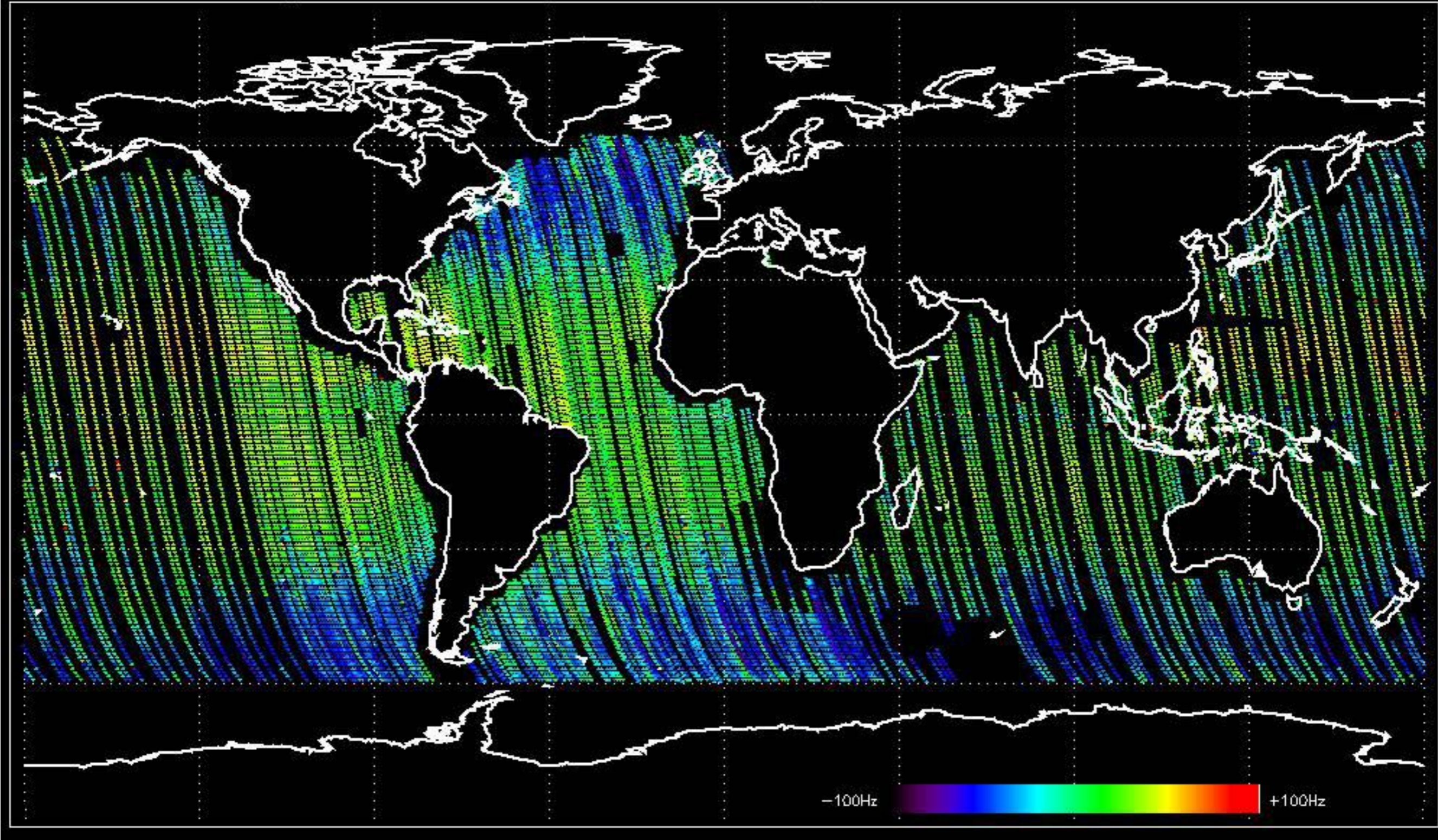
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.713187 Hz



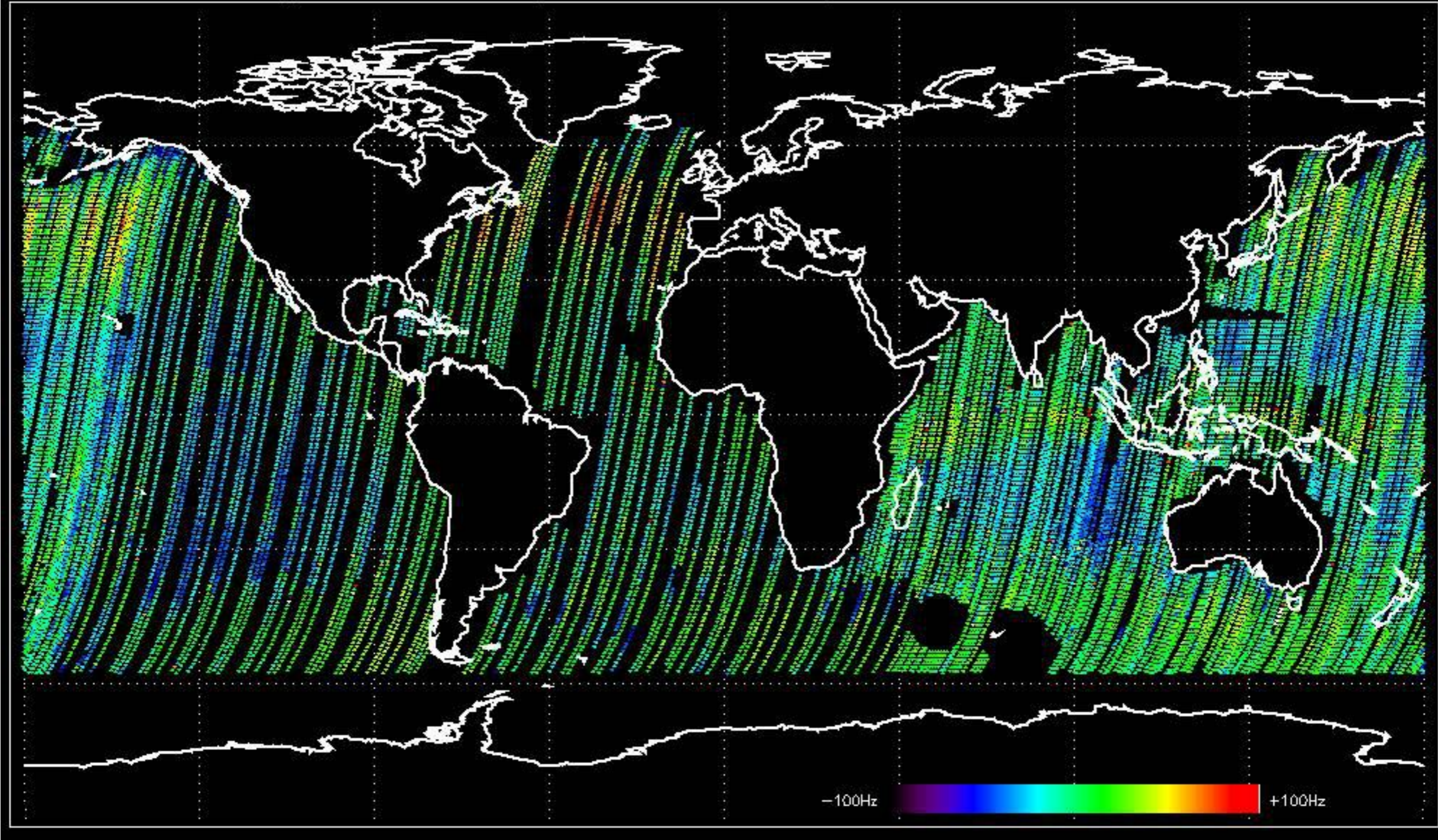
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.291765 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -12.228777 Hz

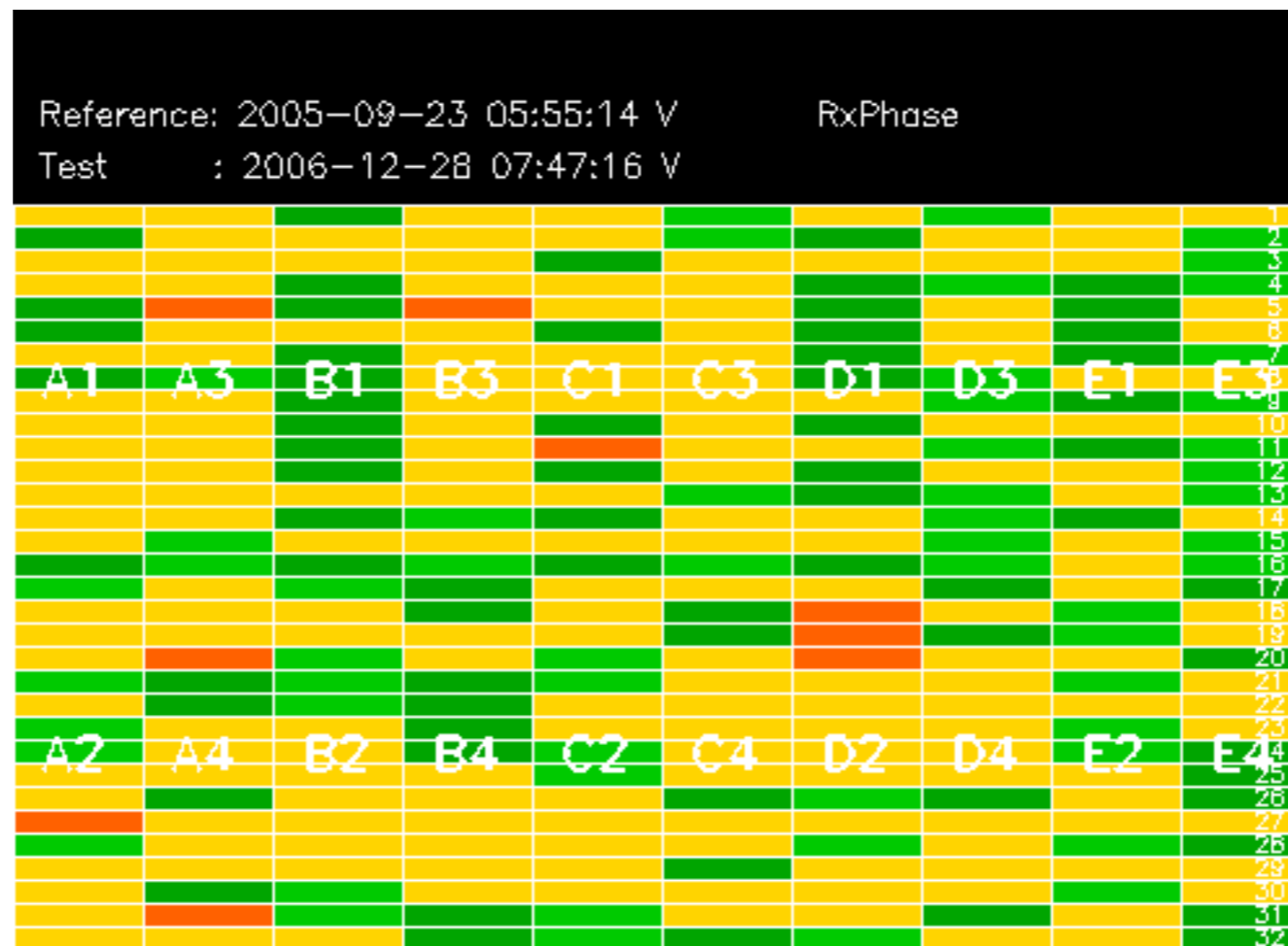


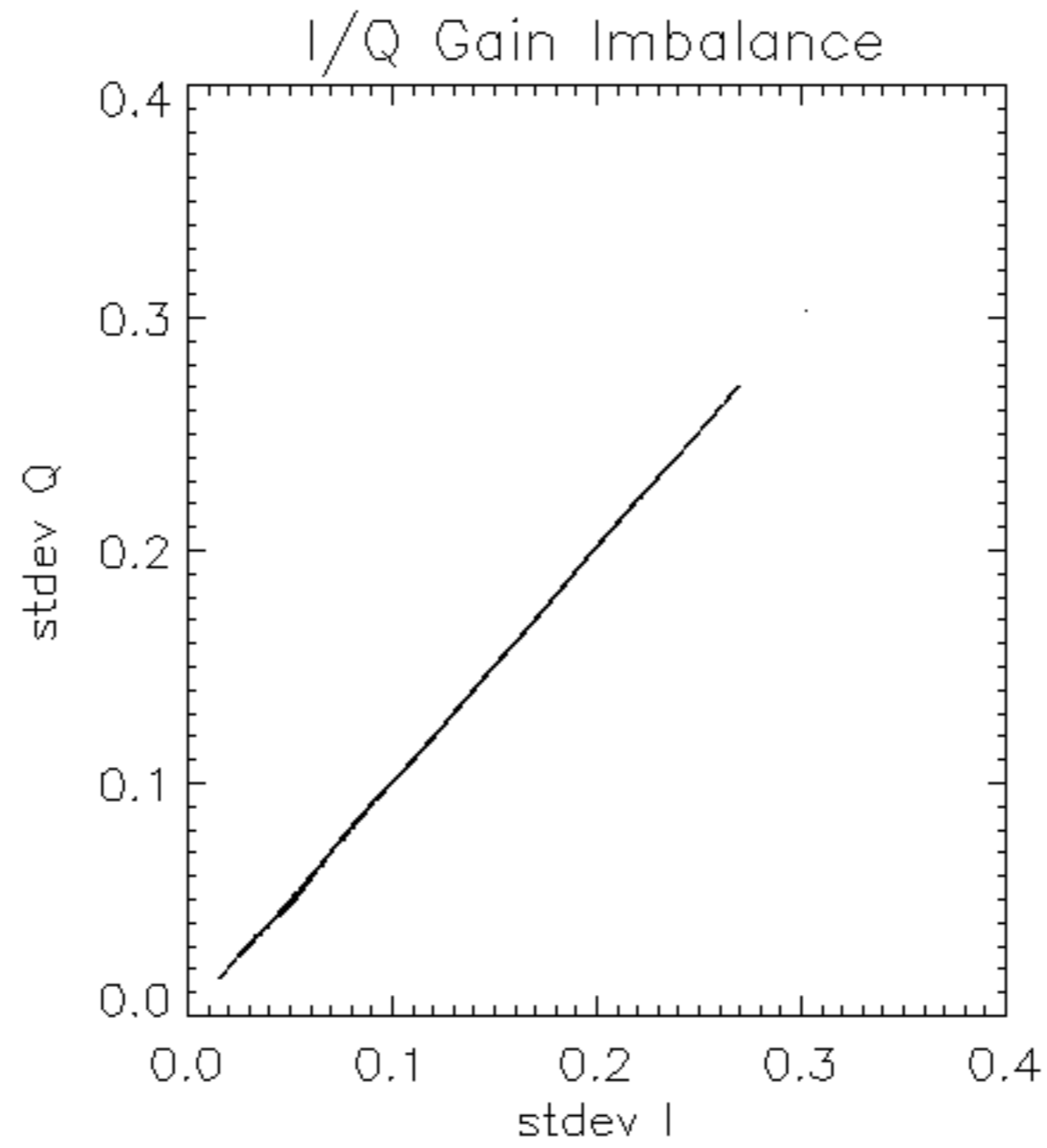
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.9547342 Hz

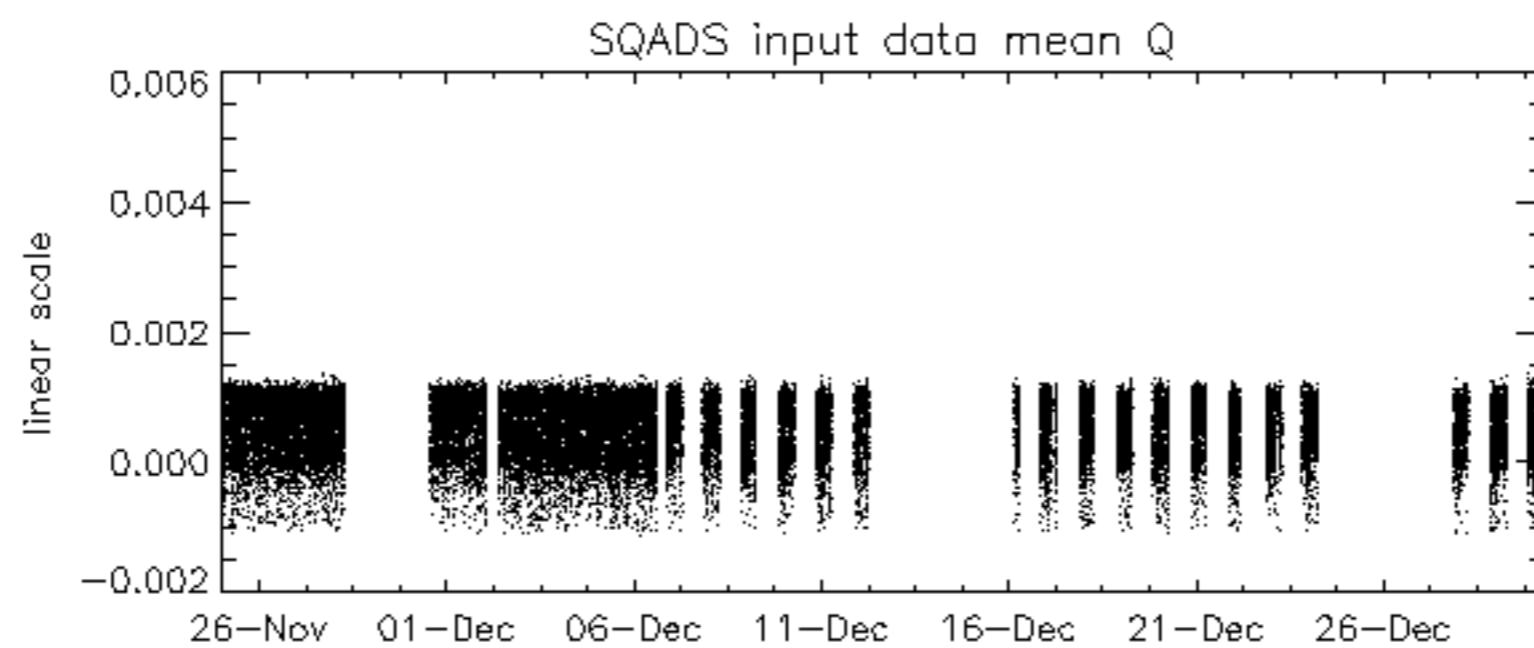
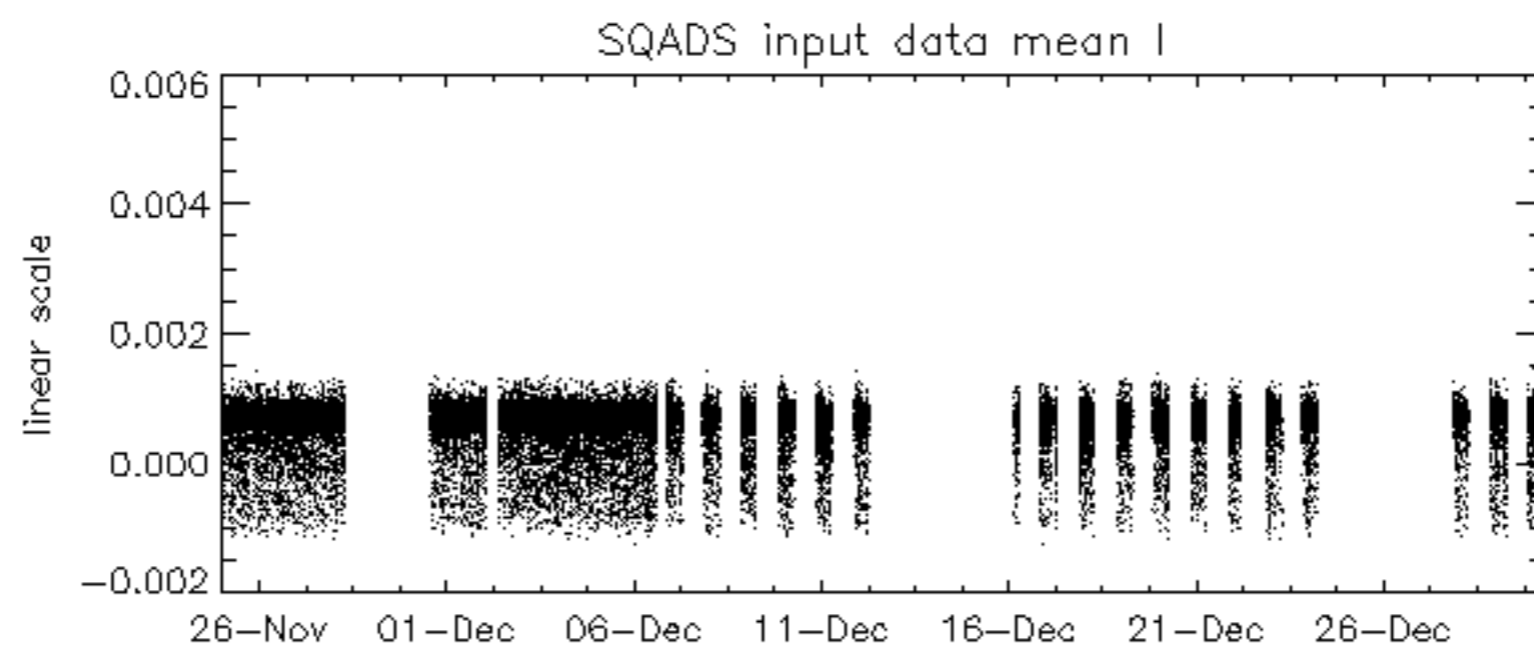
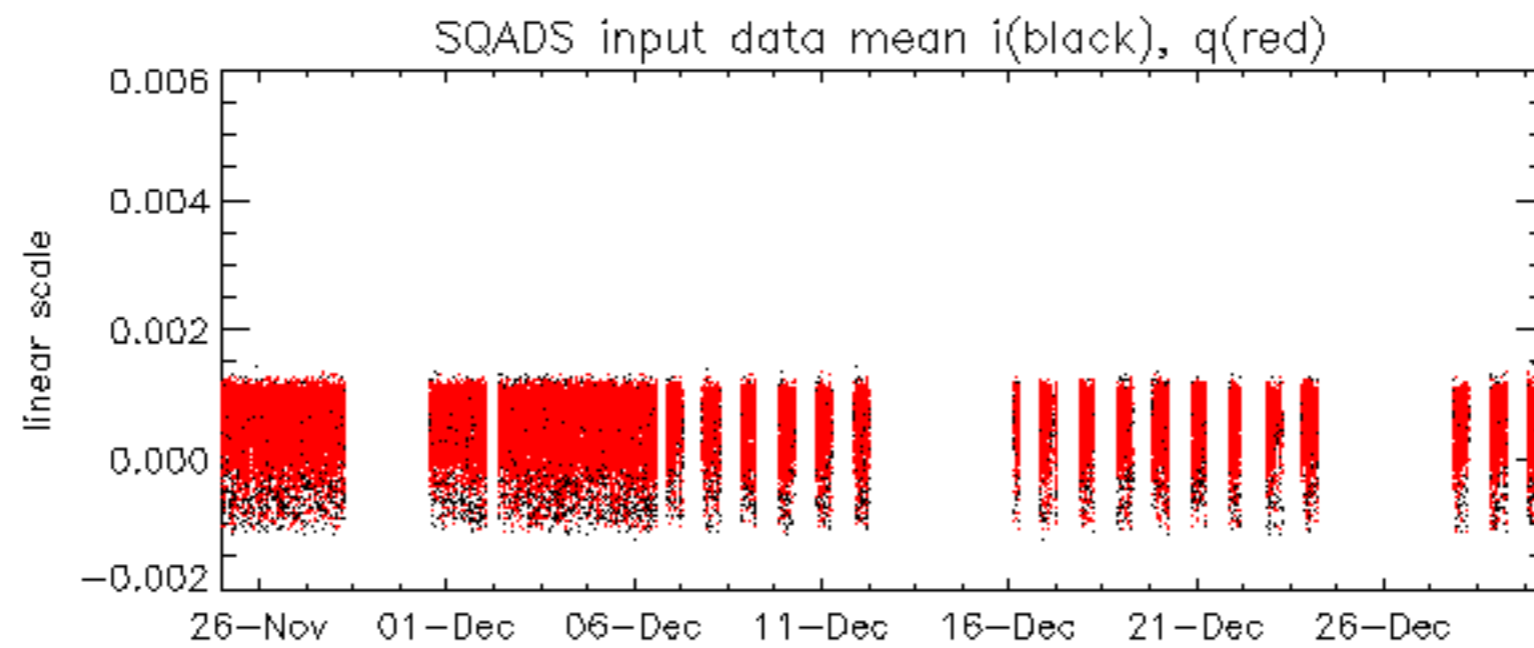


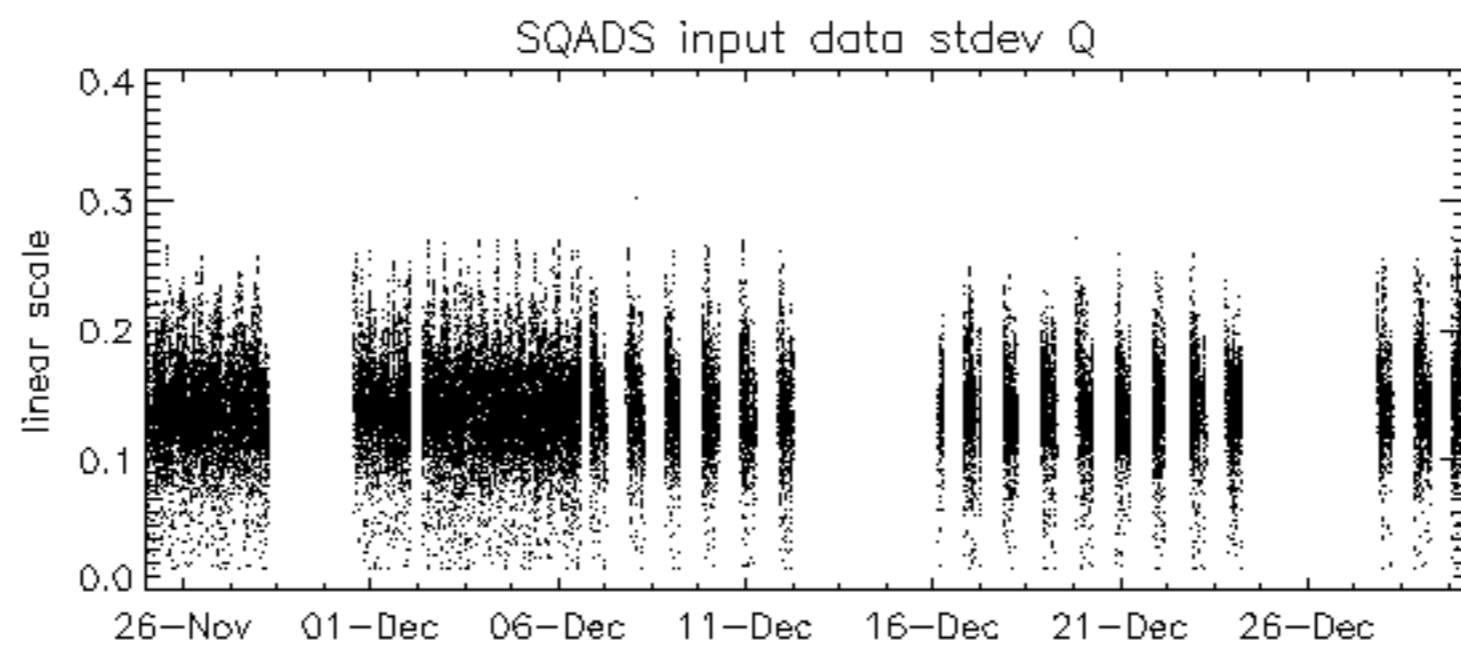
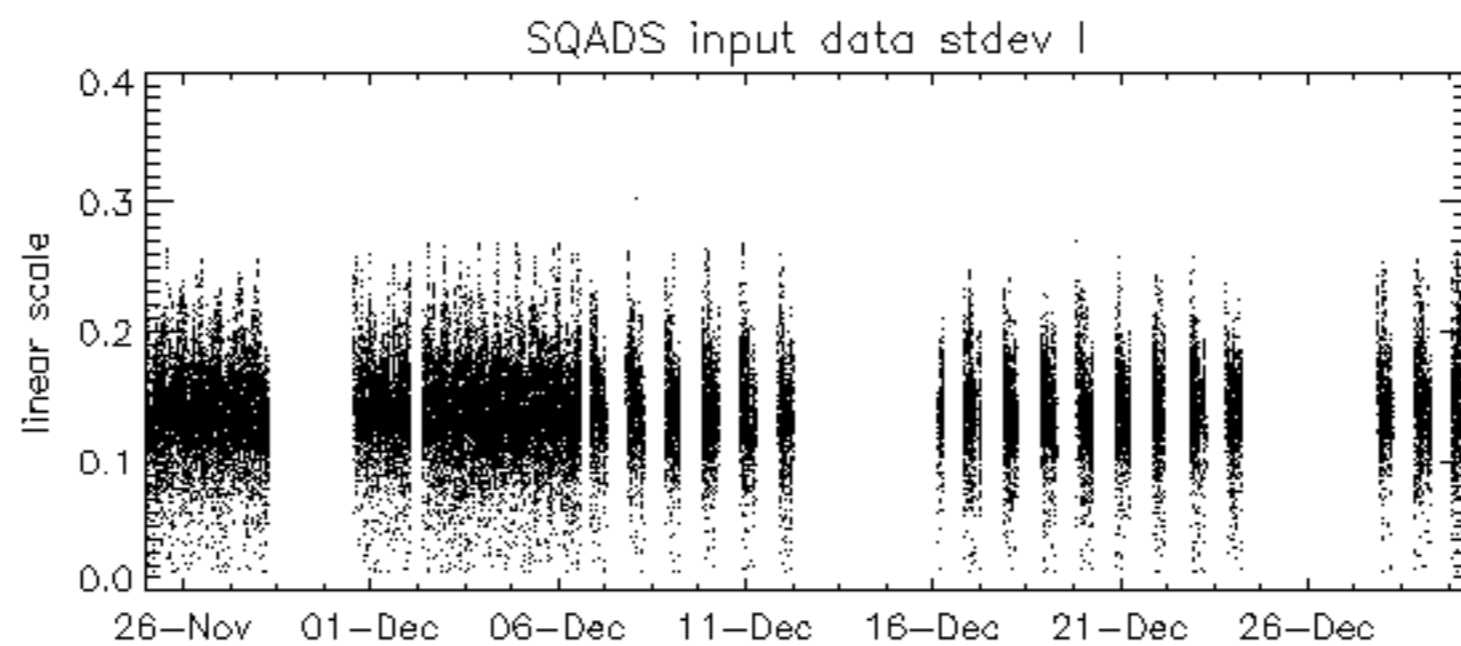
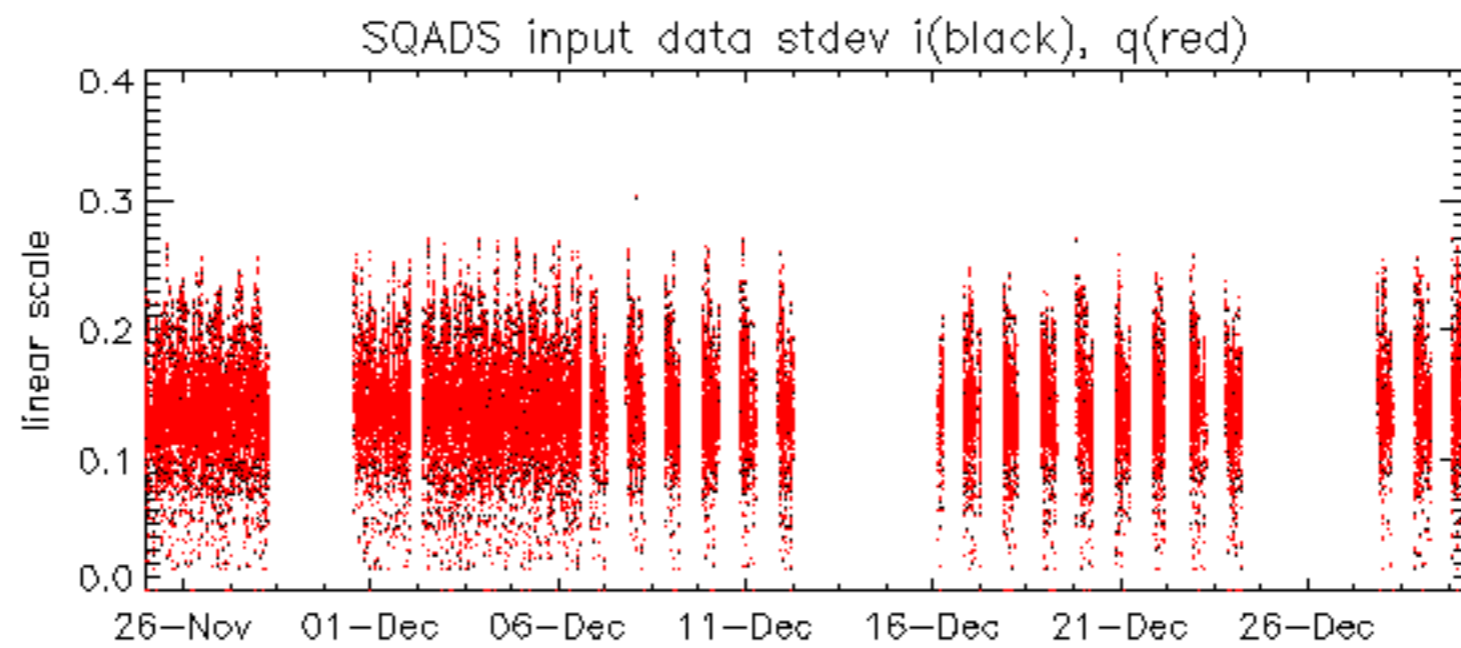
No anomalies observed on available MS products:

No anomalies observed.





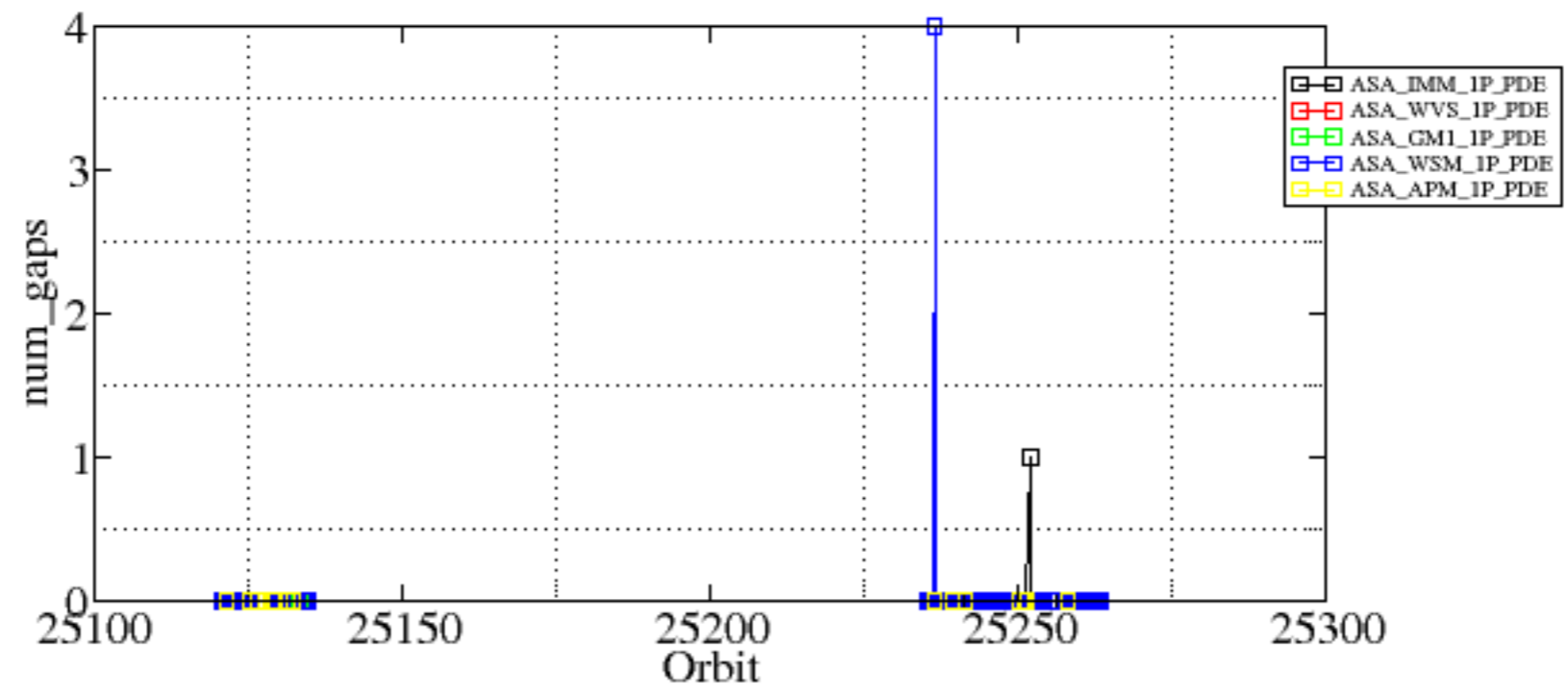


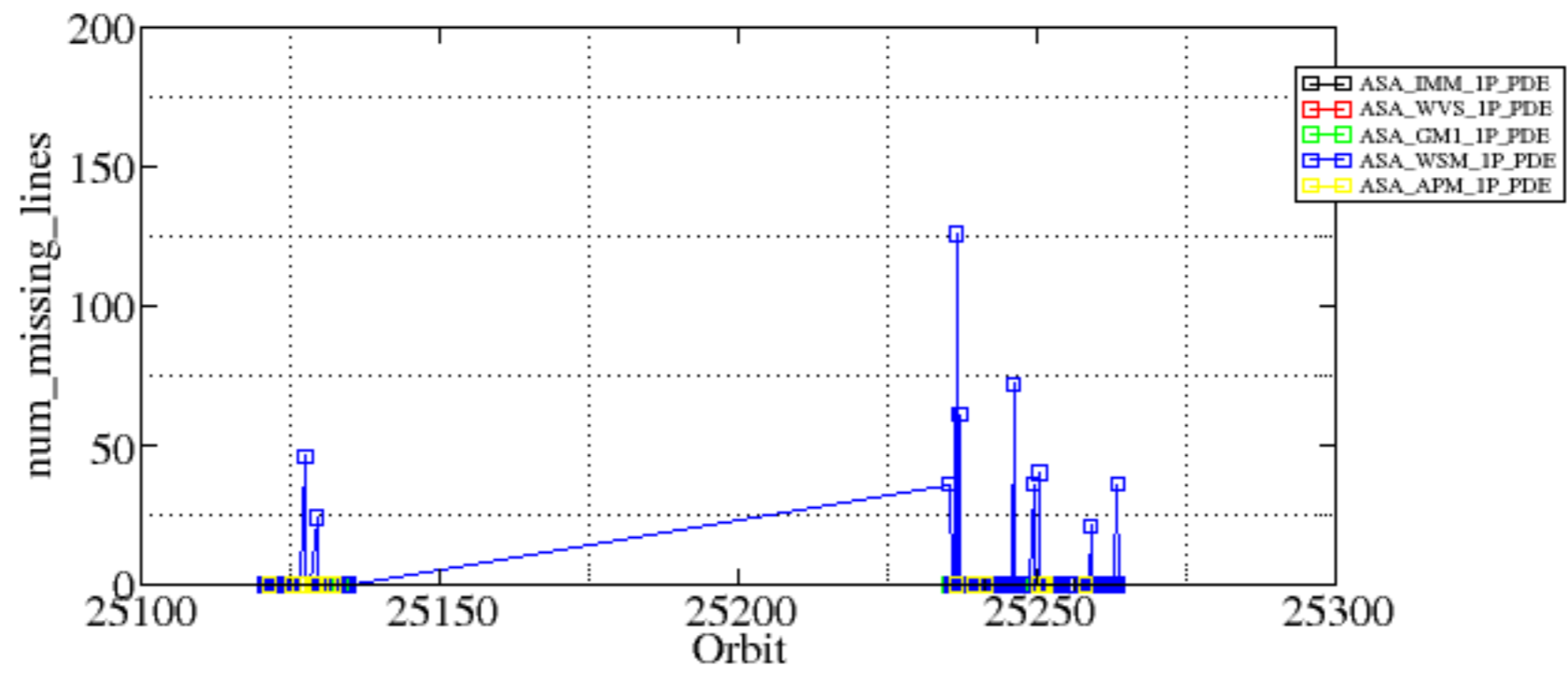


Summary of analysis for the last 3 days 2006122[890]

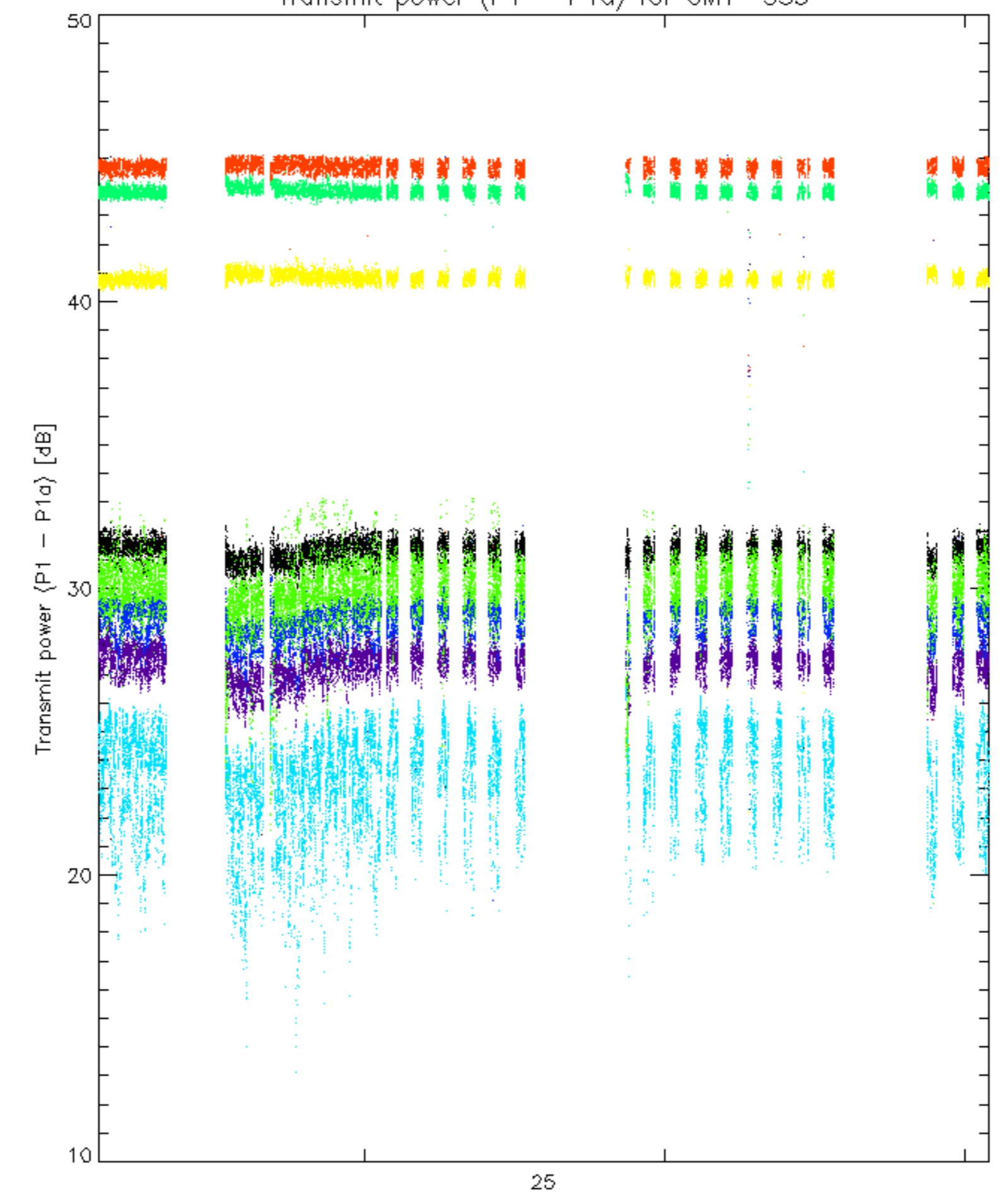
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061229_042632_000000762054_00147_25251_2047.N1	1	0
ASA_WSM_1PNPDE20061220_113811_000000852054_00023_25127_6009.N1	0	46
ASA_WSM_1PNPDE20061220_150157_000002852054_00025_25129_6077.N1	0	24
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
ASA_WSM_1PNPDE20061228_182821_000000852054_00142_25246_1151.N1	0	72
ASA_WSM_1PNPDE20061229_001400_000005752054_00145_25249_1910.N1	0	36
ASA_WSM_1PNPDE20061229_015235_000002022054_00146_25250_1940.N1	0	40
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ASA_WSM_1PNPDE20061229_234323_000001832054_00159_25263_3237.N1	0	36
ASA_WSM_1PNPDE20061229_234323_000001832054_00159_25263_3683.N1	0	36
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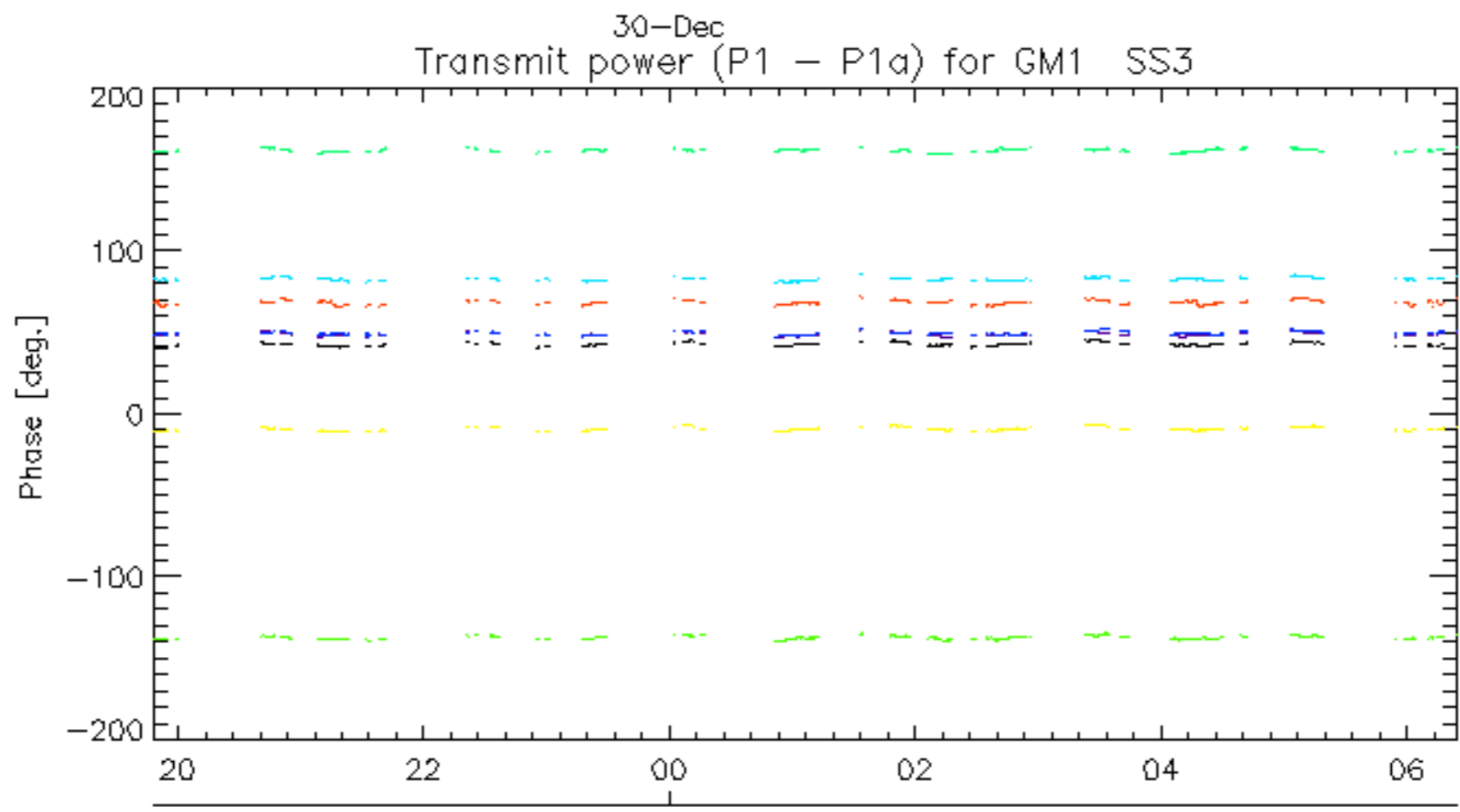
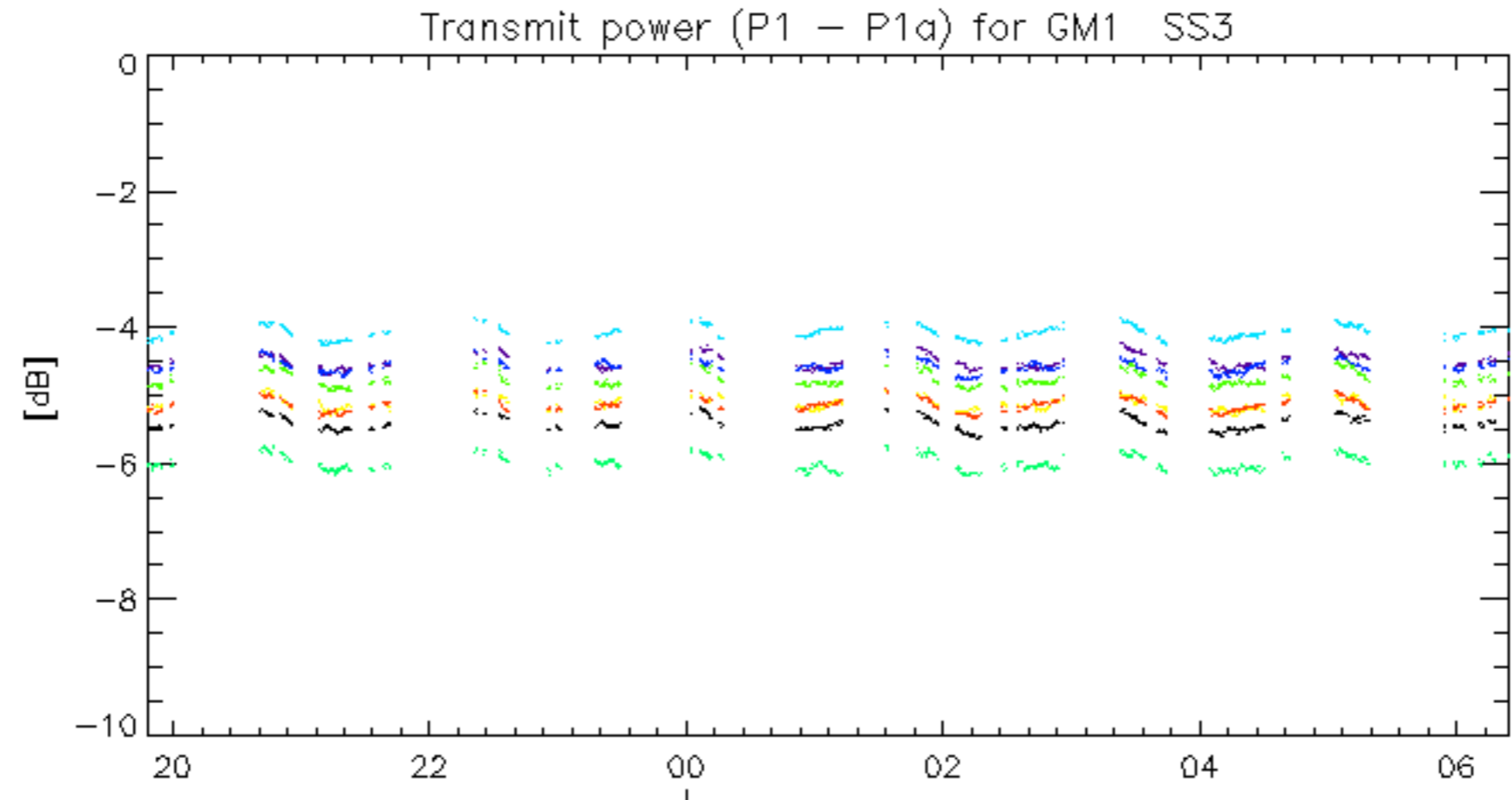




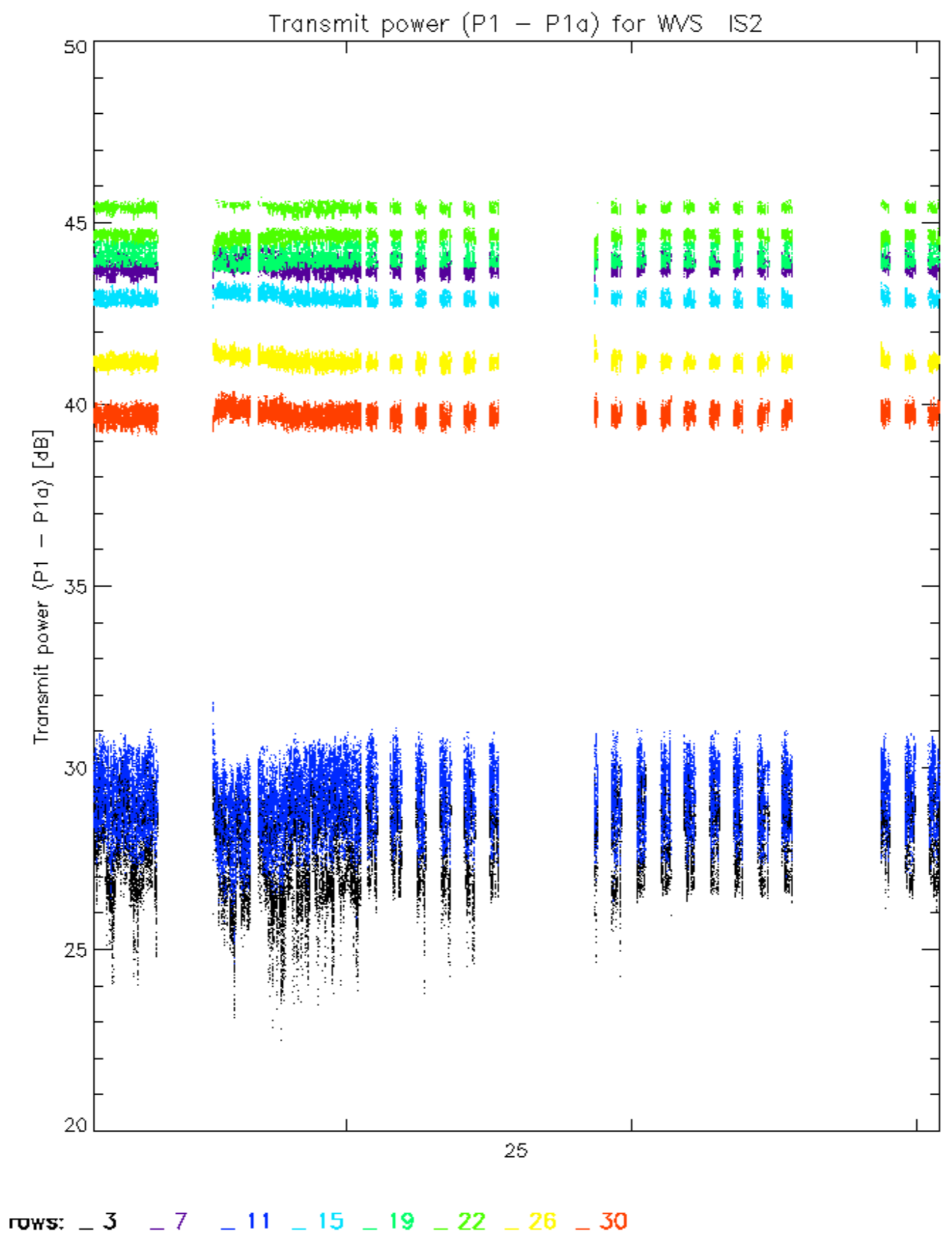
Transmit power (P1 - P1a) for GM1 SS3

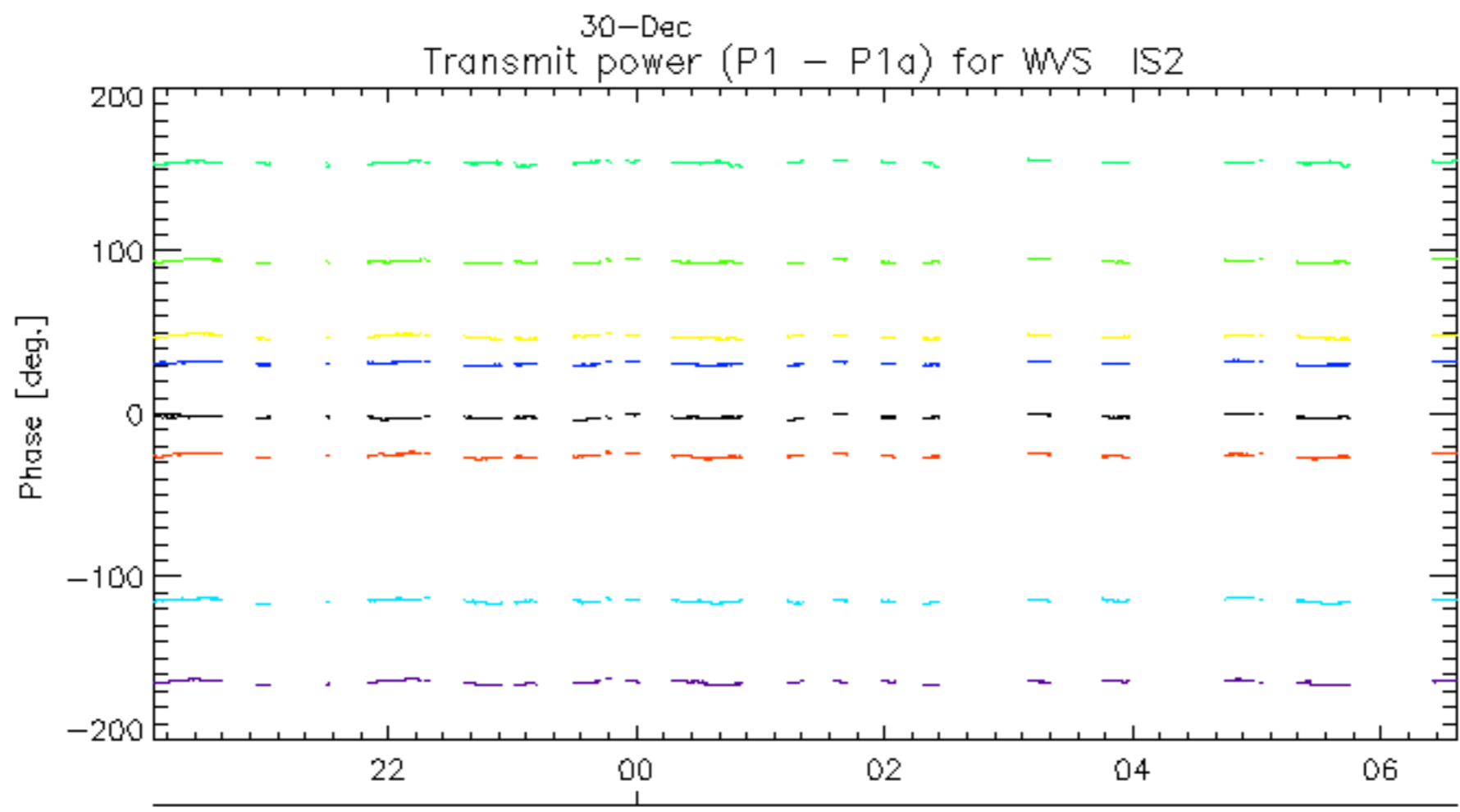
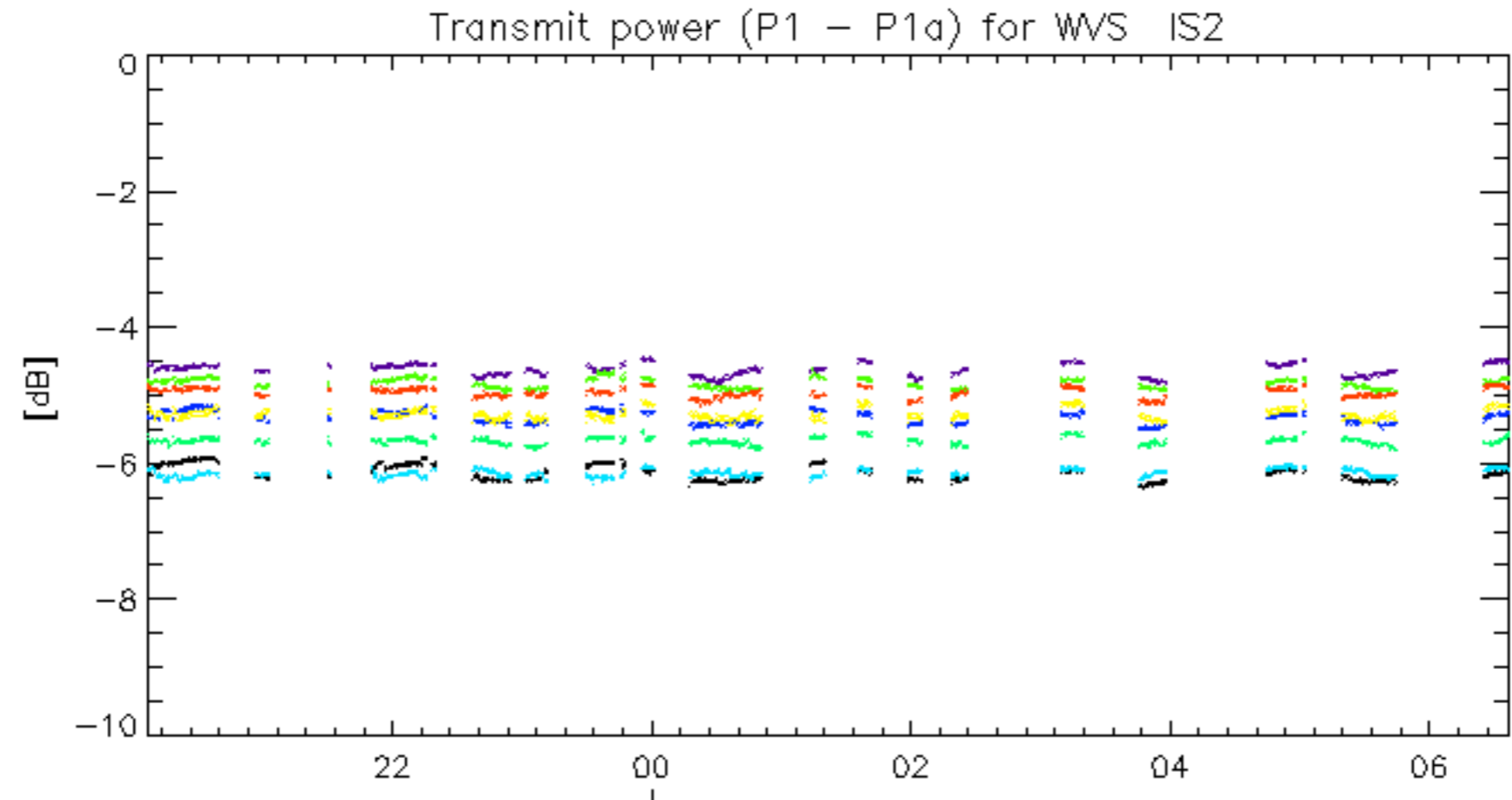


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No unavailabilities during the reported period.