

PRELIMINARY REPORT OF 061116

last update on Thu Nov 16 16:52:41 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 2006-11-15 00:00:00 to 2006-11-16 16:52:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	37	63	7	6	12
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	63	7	6	12
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	63	7	6	12
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	63	7	6	12

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	42	50	26	13	53
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	42	50	26	13	53
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	50	26	13	53
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	50	26	13	53

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20061113 180516
H	20061116 062649

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

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	-3.955202	0.008985	0.003561
7	P1	-3.132982	0.022183	-0.084503
11	P1	-4.125898	0.024091	-0.041392
15	P1	-6.269670	0.014701	-0.092482
19	P1	-3.608190	0.064275	-0.016661
22	P1	-4.662076	0.129285	0.007156
26	P1	-3.976307	0.087889	0.073688
30	P1	-5.881001	0.168742	0.027287
3	P1	-16.518862	0.230885	0.123130
7	P1	-17.226522	0.201043	-0.242381
11	P1	-17.129911	0.442331	-0.151711
15	P1	-13.016036	0.126146	-0.212316
19	P1	-14.875789	0.371194	-0.152074
22	P1	-15.816292	0.507348	-0.331675
26	P1	-15.070287	0.216054	0.071753
30	P1	-17.329449	0.586838	-0.568154

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.845758	0.088916	-0.014453
7	P2	-21.735413	0.092986	0.022481
11	P2	-15.670900	0.103736	0.067045
15	P2	-7.108753	0.106743	-0.061524
19	P2	-9.175858	0.102082	-0.074802
22	P2	-18.209459	0.095332	-0.094336
26	P2	-16.515272	0.108490	-0.143806
30	P2	-19.471678	0.088563	-0.012511

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.226724	0.008093	-0.038492
7	P3	-8.226724	0.008093	-0.038492
11	P3	-8.226724	0.008093	-0.038492
15	P3	-8.226724	0.008093	-0.038492
19	P3	-8.226724	0.008093	-0.038492
22	P3	-8.226724	0.008093	-0.038492
26	P3	-8.226859	0.008116	-0.038077
30	P3	-8.226859	0.008116	-0.038077

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	-3.924624	0.160674	0.098415
7	P1	-2.597060	1.027066	0.421352
11	P1	-2.890565	0.127925	0.139807
15	P1	-3.693438	0.119576	0.063169
19	P1	-3.529357	0.127598	-0.005229
22	P1	-5.059293	0.096083	0.001696
26	P1	-6.010634	0.237422	0.015858
30	P1	-5.312629	0.160950	-0.024820
3	P1	-11.750677	0.387497	0.220173
7	P1	-10.138325	1.300724	0.453526
11	P1	-10.398148	0.357392	0.344896
15	P1	-10.844570	0.490362	0.406539
19	P1	-15.759196	2.237283	0.085412
22	P1	-21.220385	1.634335	-0.667628

26	P1	-15.978711	0.429812	-0.253241
30	P1	-17.956493	0.520010	0.139099

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.407717	0.251158	-0.244708
7	P2	-22.087540	1.362897	-0.666821
11	P2	-10.896340	0.221606	-0.194711
15	P2	-4.937348	0.081330	-0.080019
19	P2	-6.921877	0.163089	-0.095299
22	P2	-8.274659	0.444625	0.134507
26	P2	-24.207558	1.017410	-0.577403
30	P2	-21.896088	0.516842	-0.300711

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.074452	0.003249	-0.030606
7	P3	-8.074332	0.003228	-0.030970
11	P3	-8.074396	0.003234	-0.031316
15	P3	-8.074309	0.003229	-0.030910
19	P3	-8.074406	0.003235	-0.031089
22	P3	-8.074249	0.003238	-0.031088
26	P3	-8.074403	0.003222	-0.031413
30	P3	-8.074430	0.003233	-0.031523

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	0.000544708
	stdev	1.77635e-07
MEAN Q	mean	0.000518694
	stdev	2.20495e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136310
	stdev	0.00111324
STDEV Q	mean	0.136667
	stdev	0.00113018



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006111[456]

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_WSM_1PNPDE20061114_033934_000001462053_00004_24607_0001.N1	0	1
ASA_WSM_1PNPDE20061114_231143_000000972053_00016_24619_0001.N1	0	56
ASA_WSM_1PNPDK20061114_095012_000000852053_00008_24611_0057.N1	0	43





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

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)

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

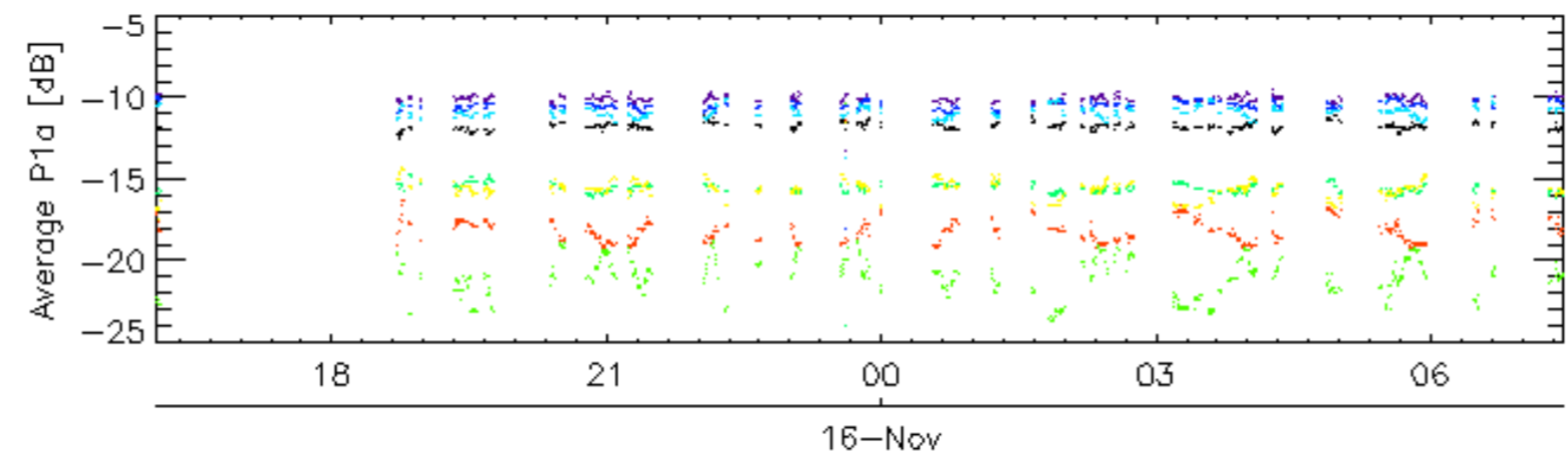
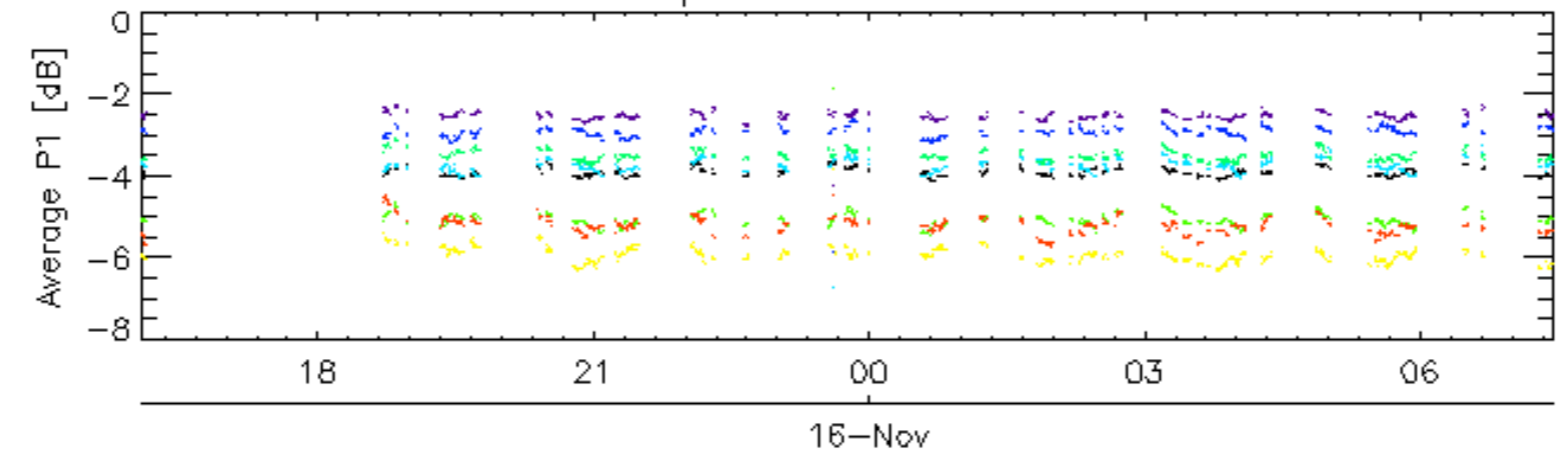
7.5 - Absolute Doppler for GM1

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

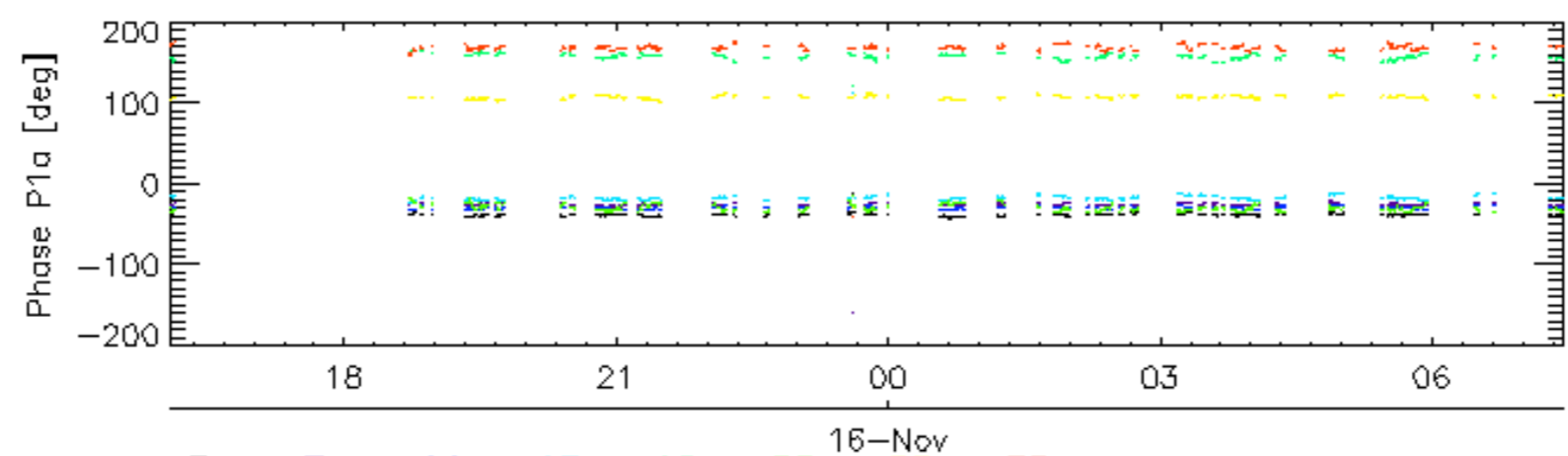
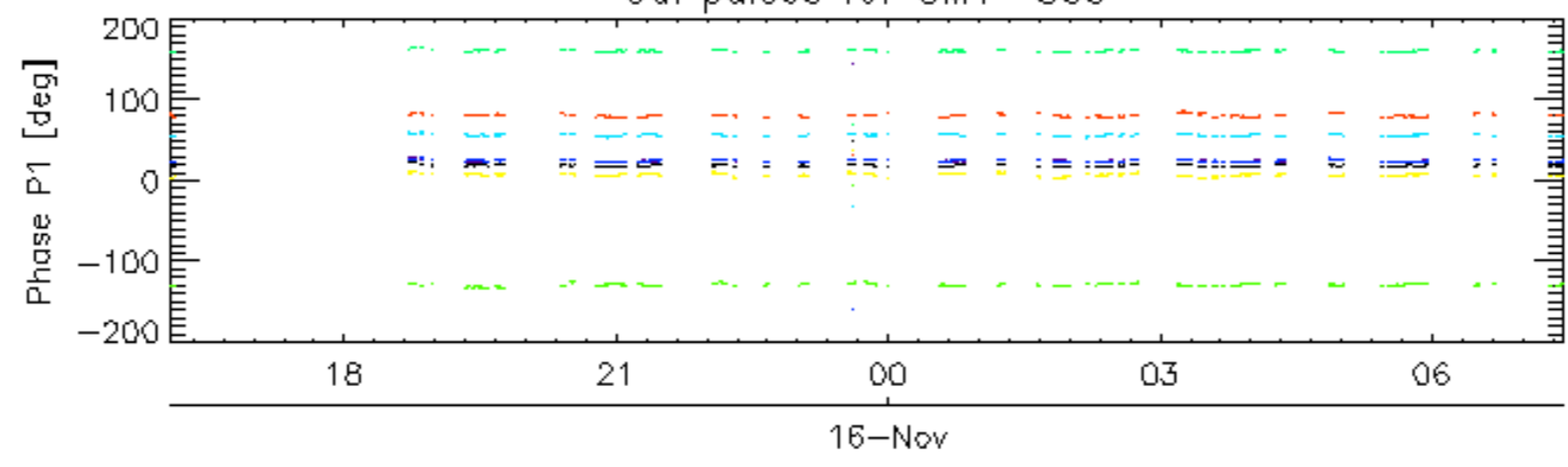
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

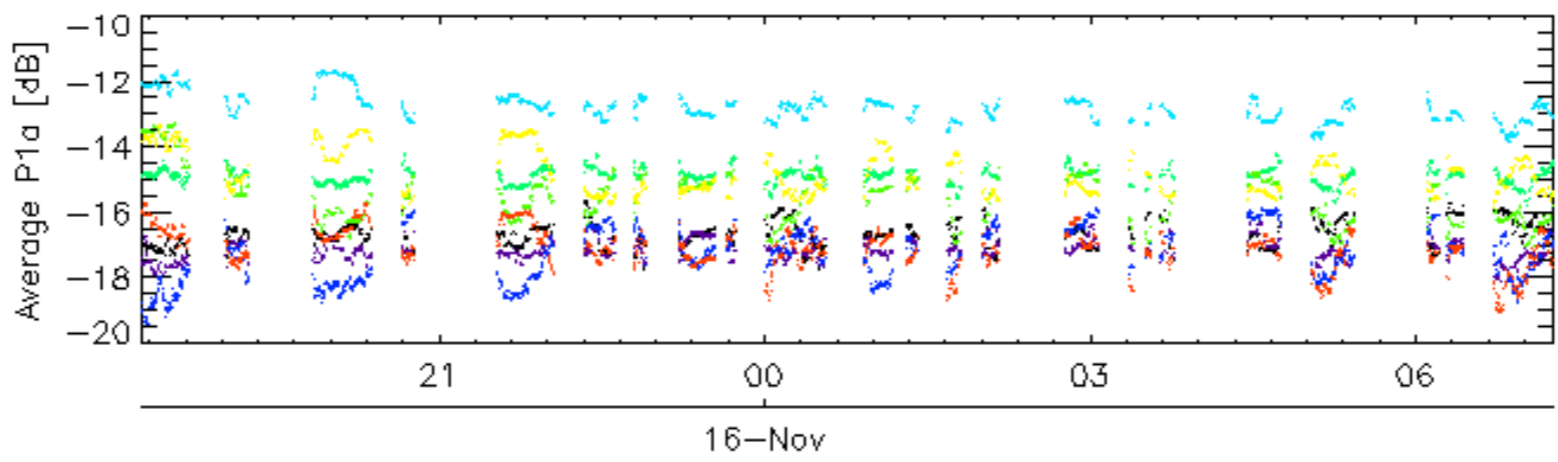
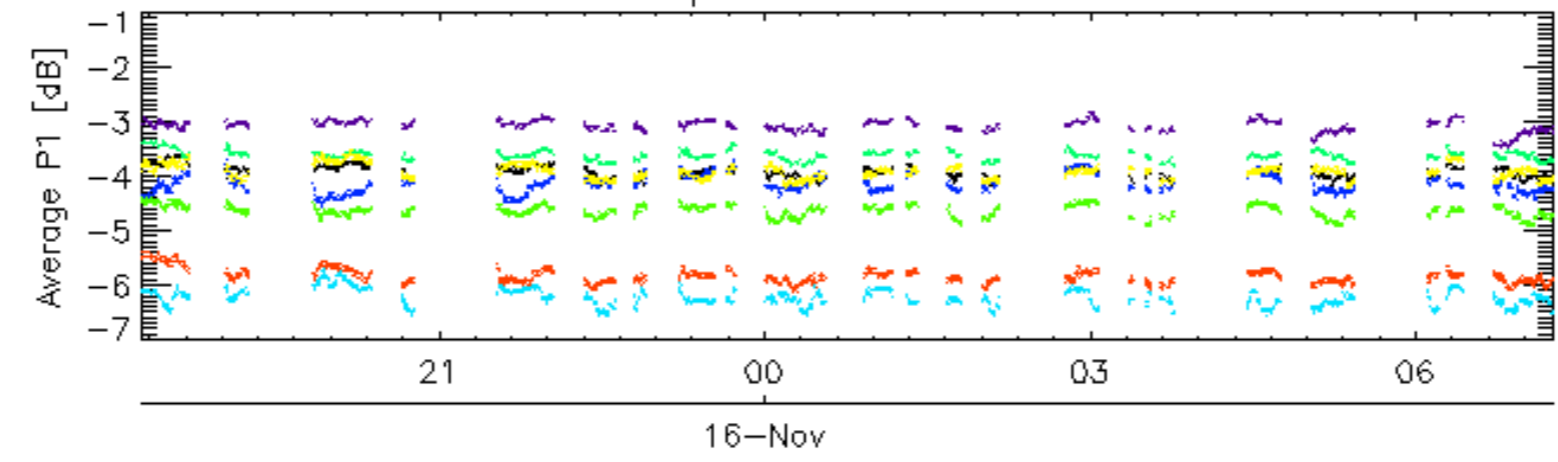


Cal pulses for GM1 SS3

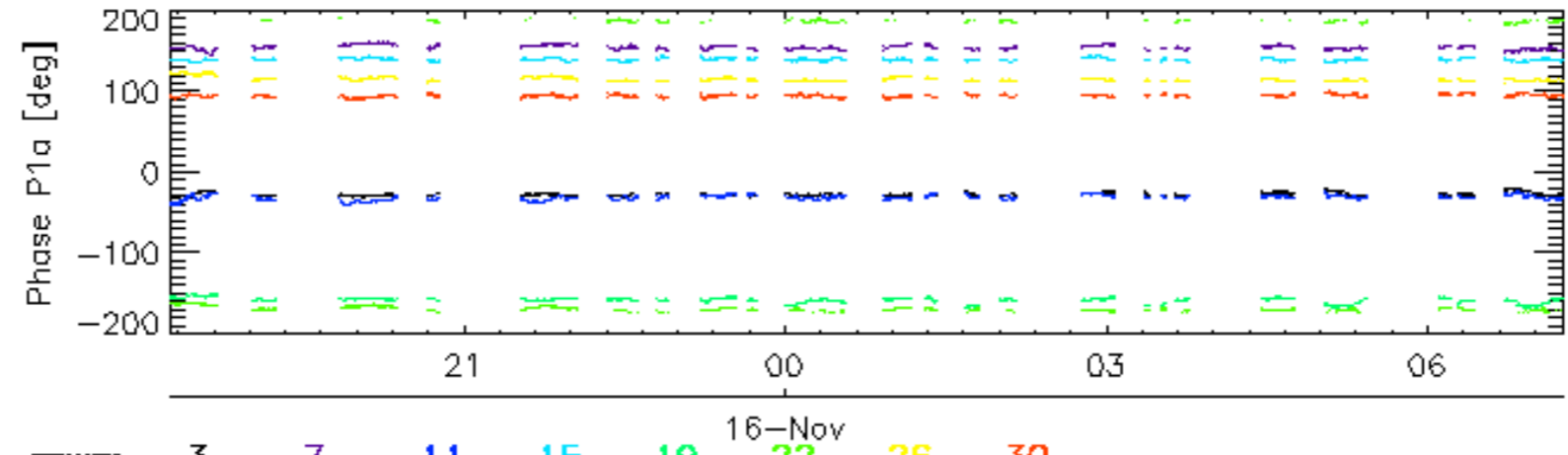
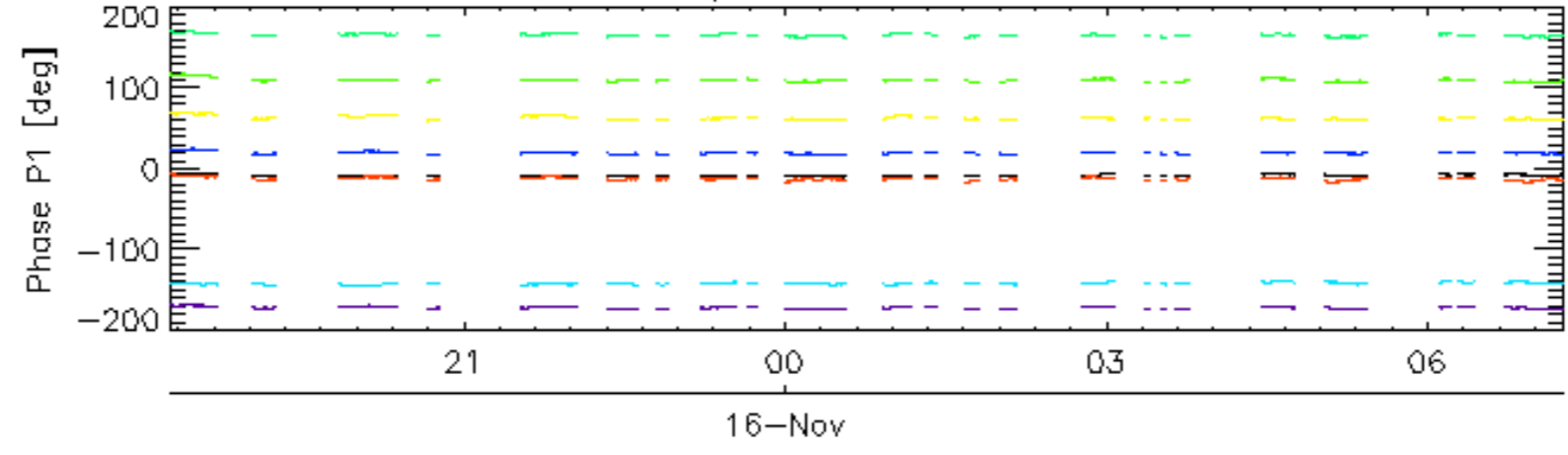


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

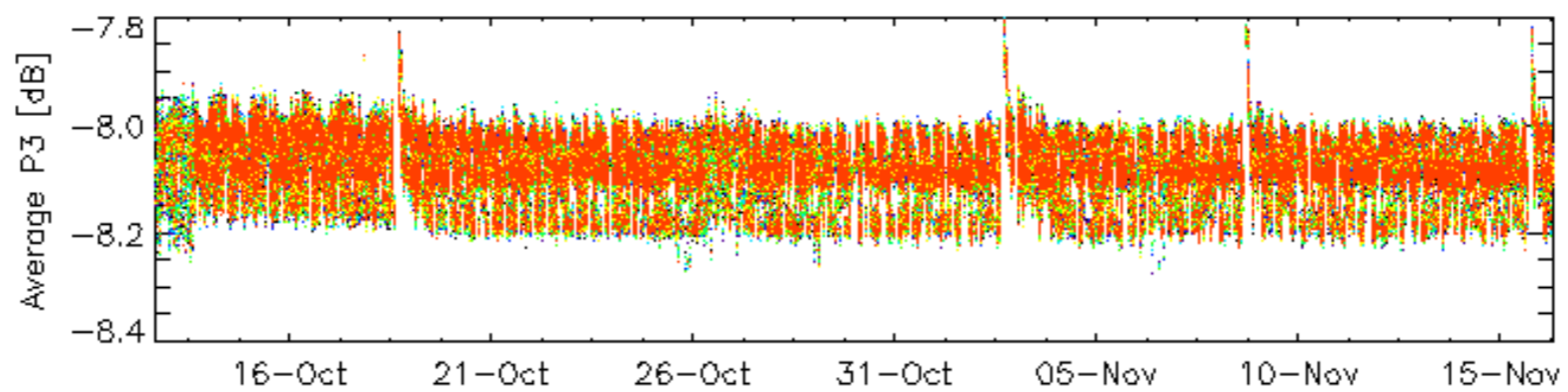
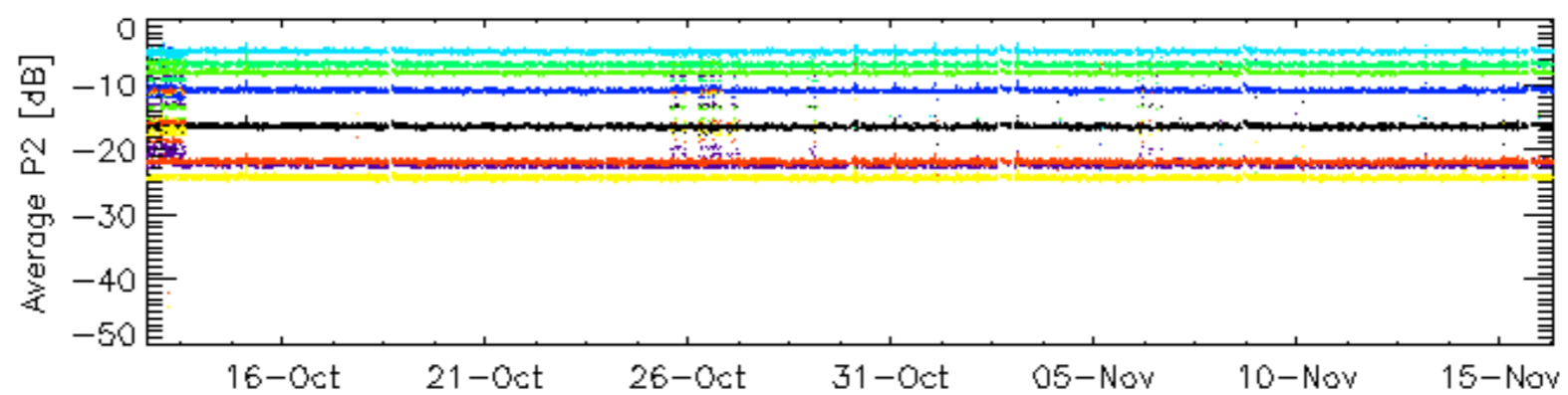
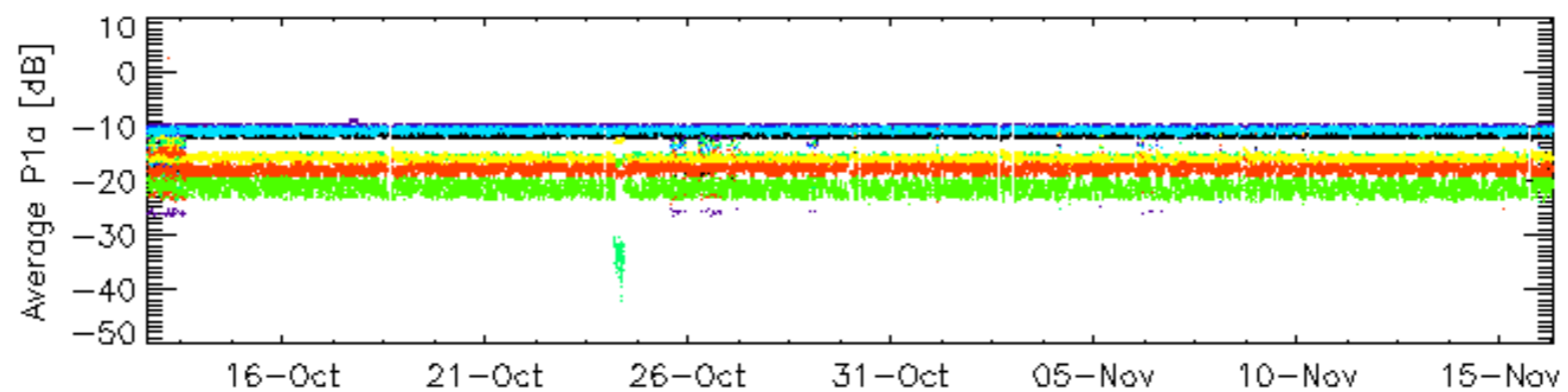
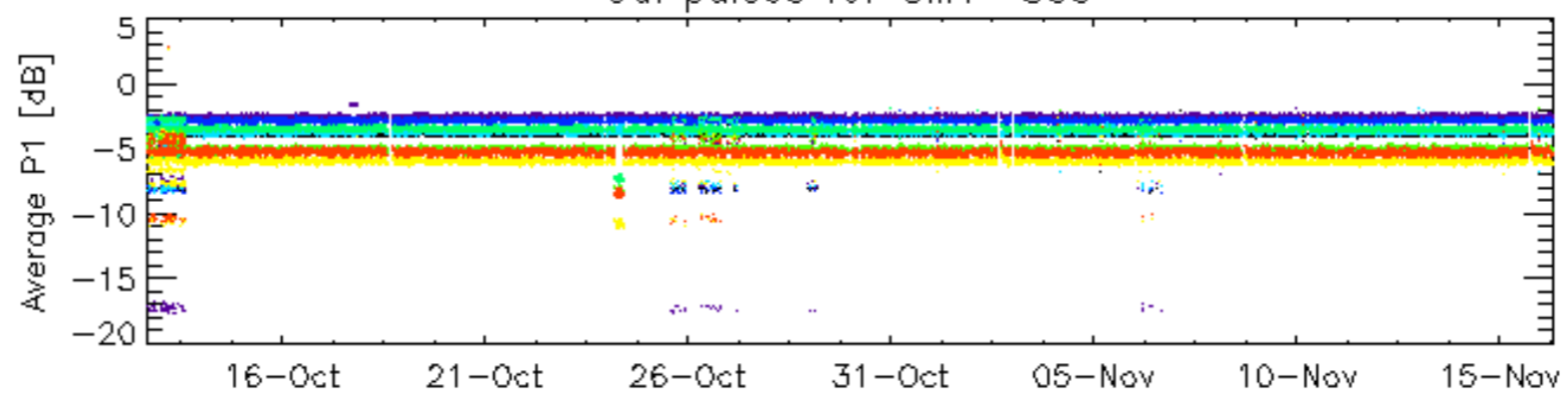


Cal pulses for WVS IS2



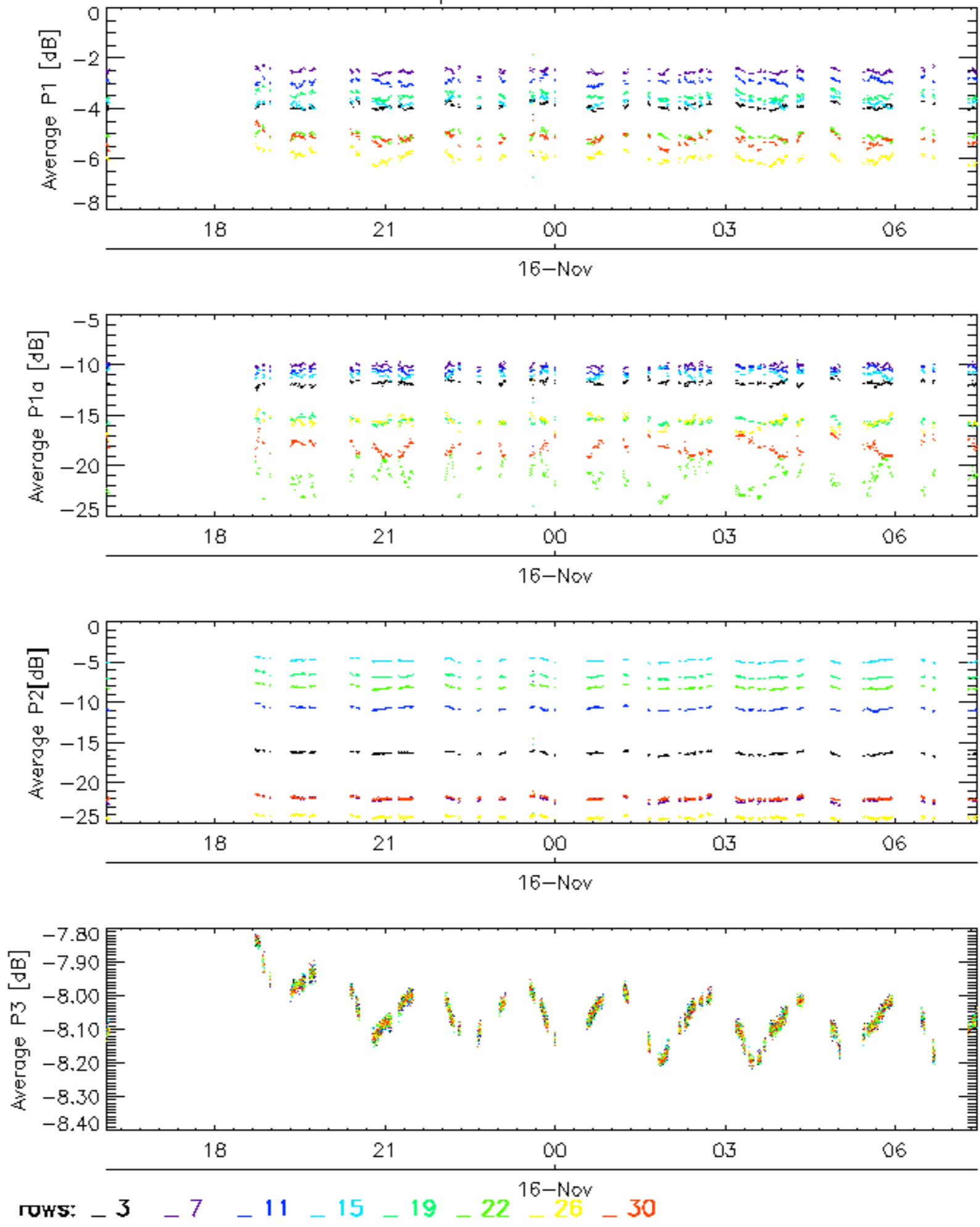
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

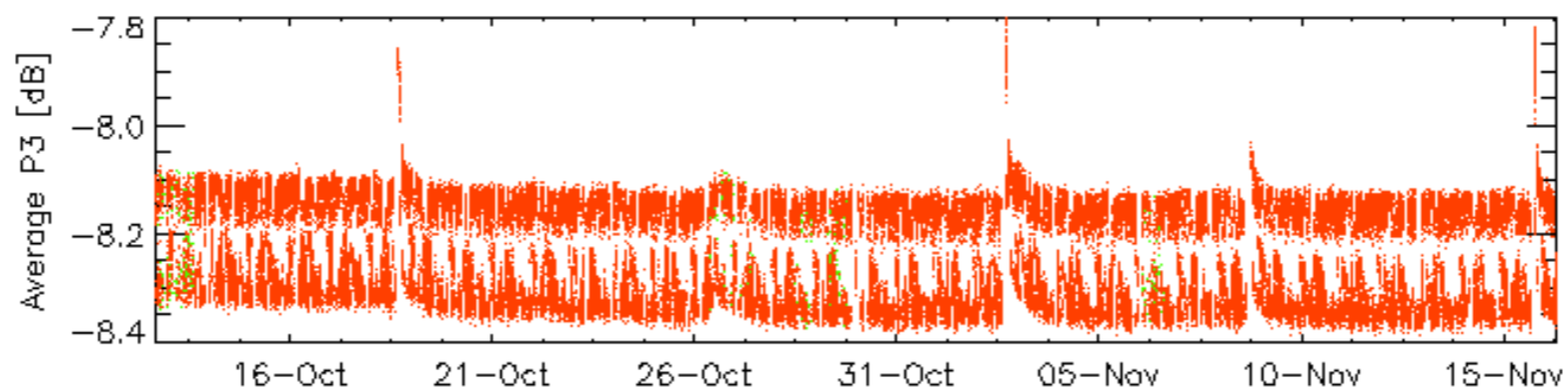
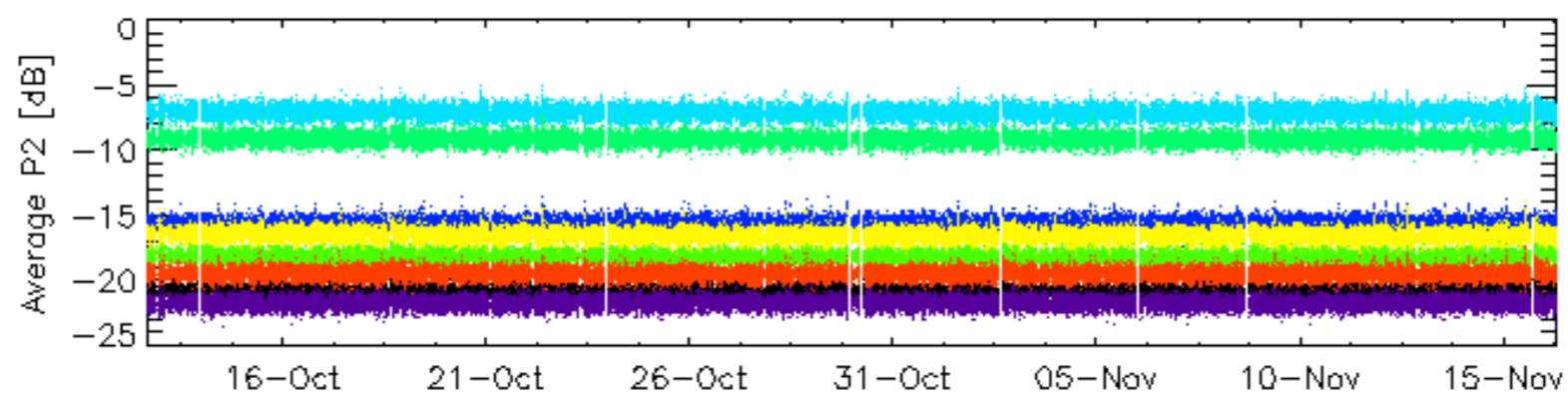
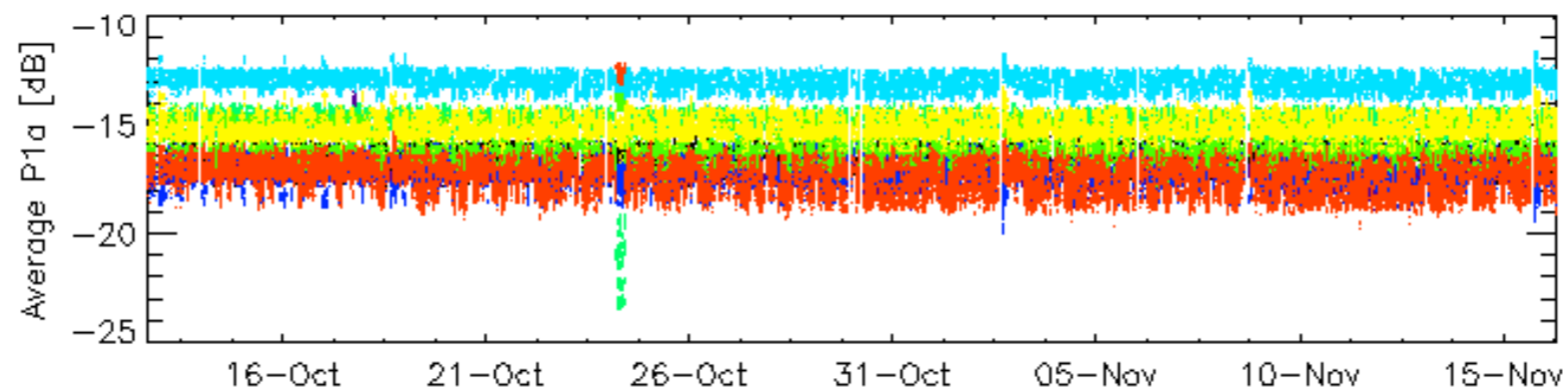
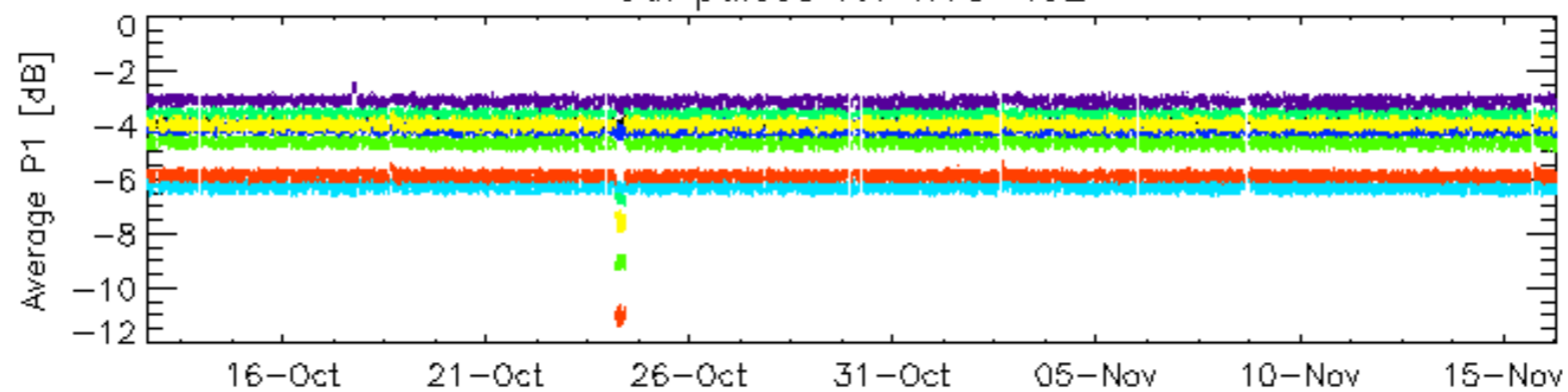


rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

Cal pulses for GM1 SS3

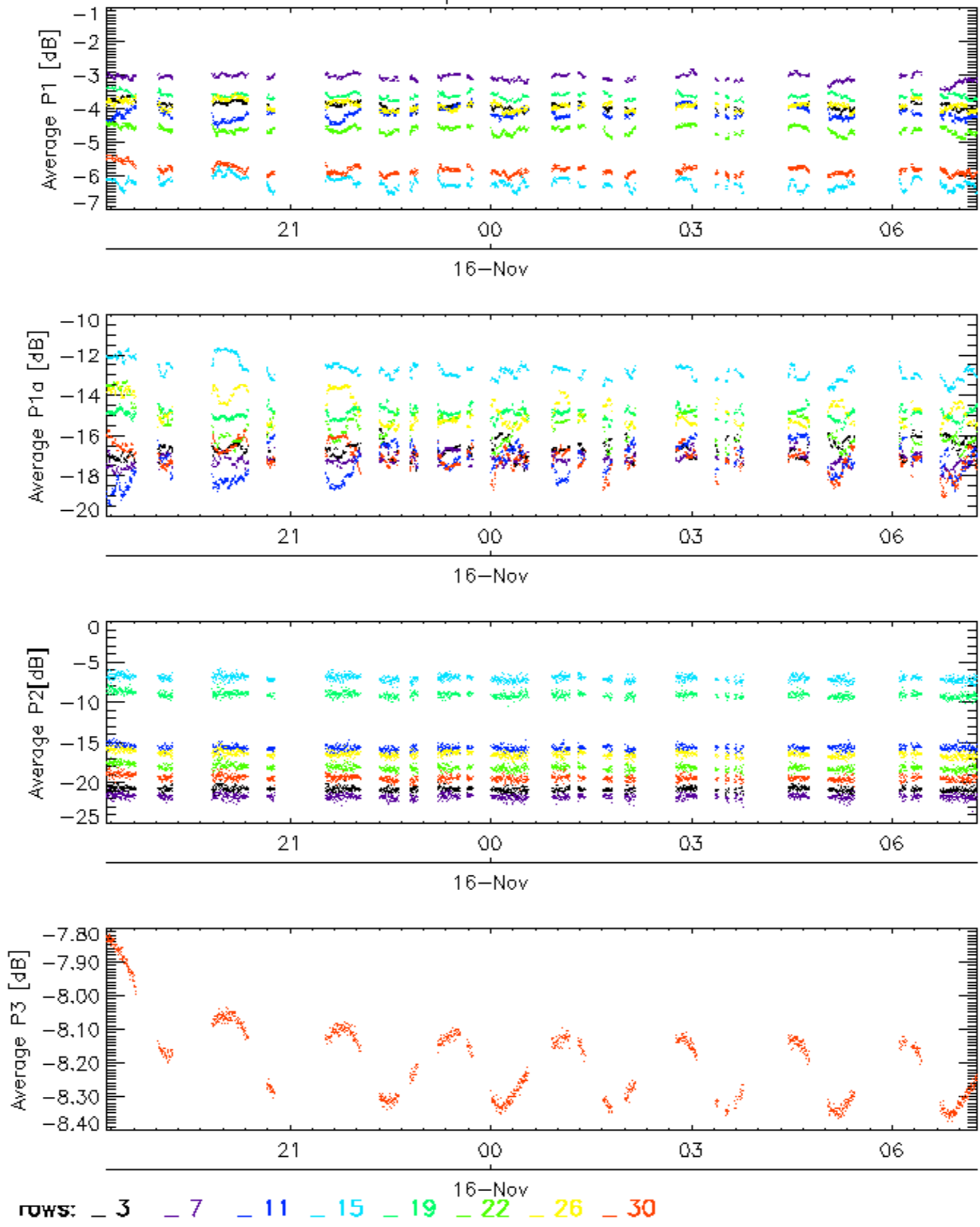


Cal pulses for WVS IS2



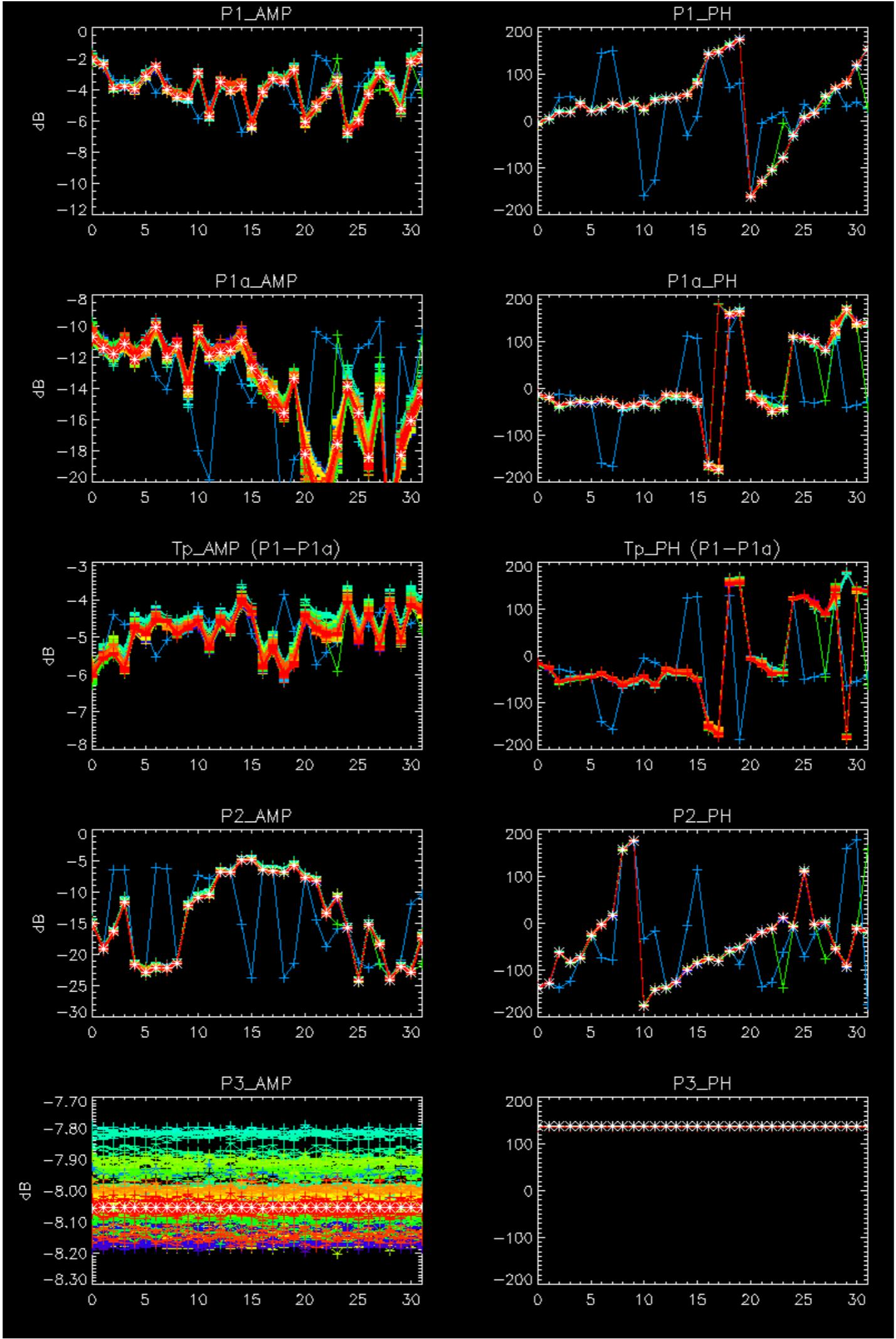
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

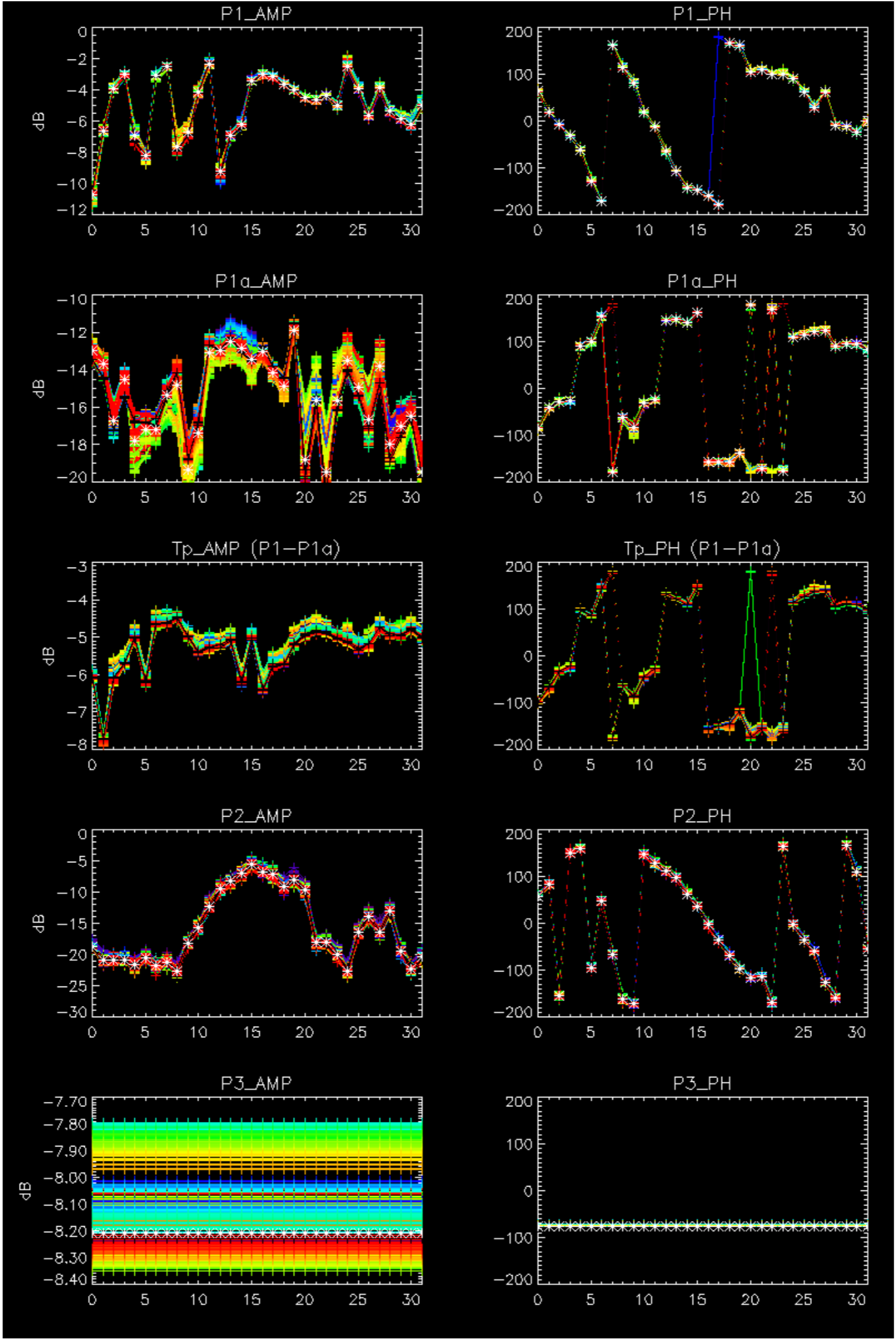
Cal pulses for WVS IS2



No anomalies observed on available browse products

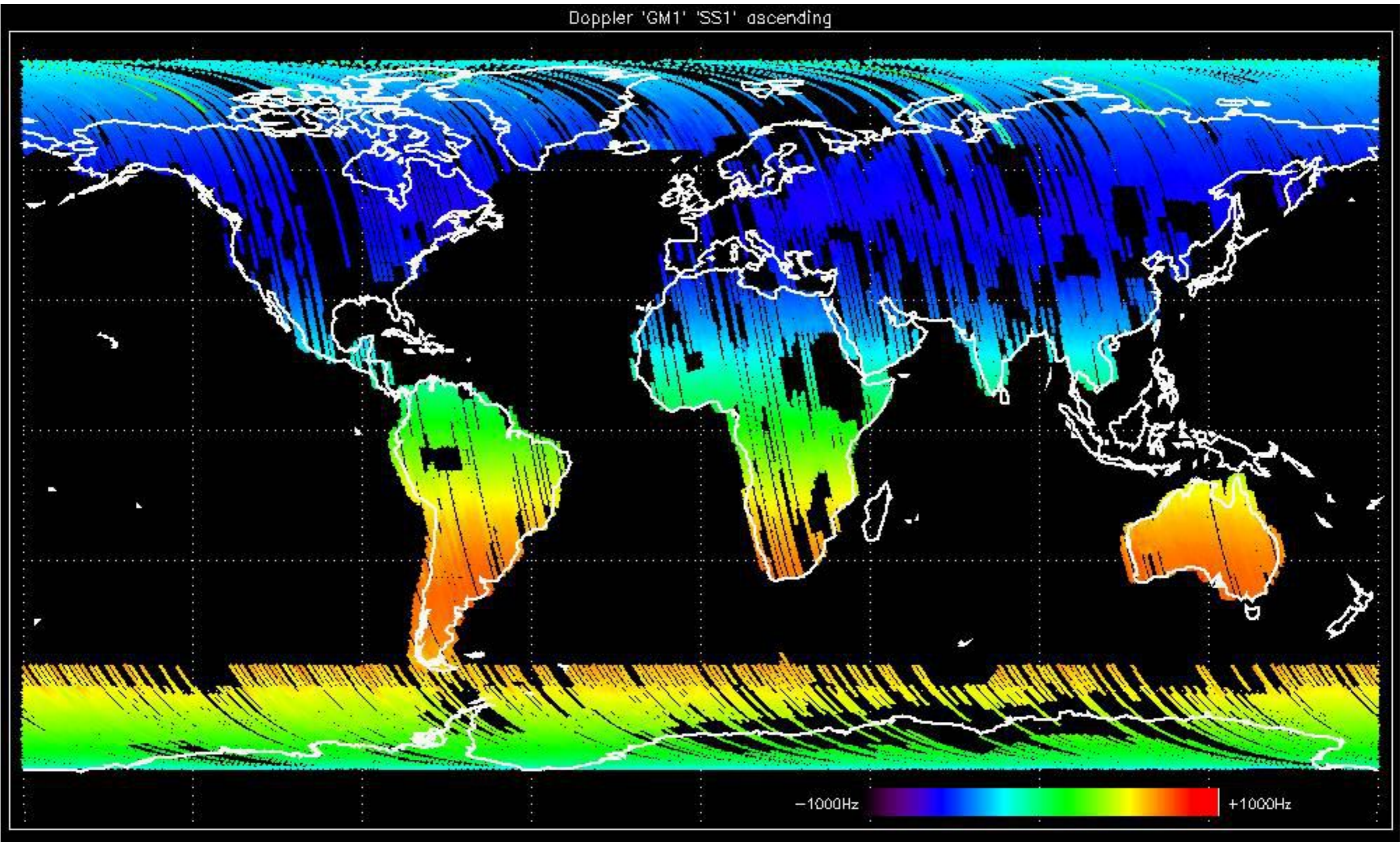
No anomalies observed.



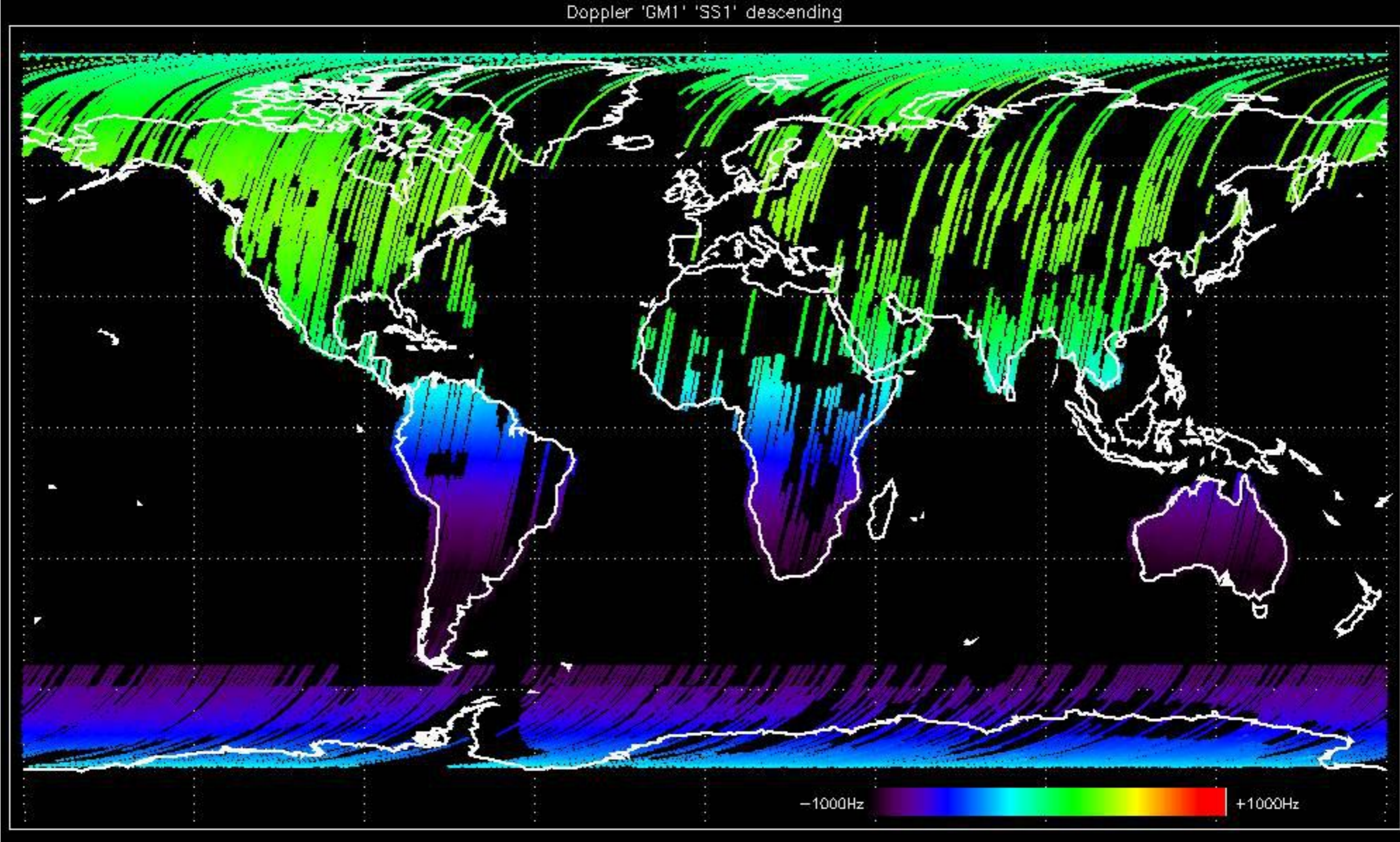


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

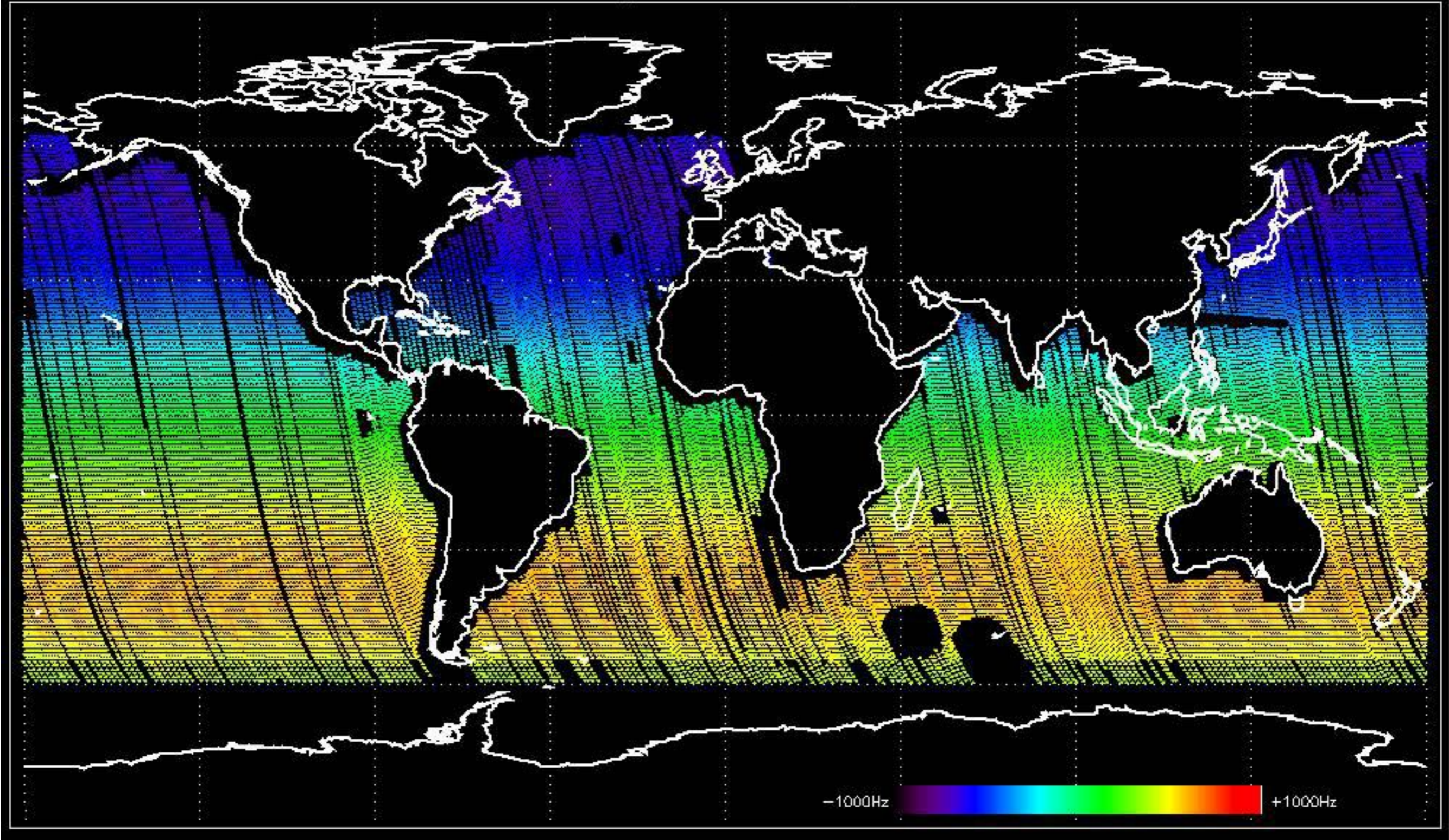
Doppler 'GM1' 'SS1' ascending



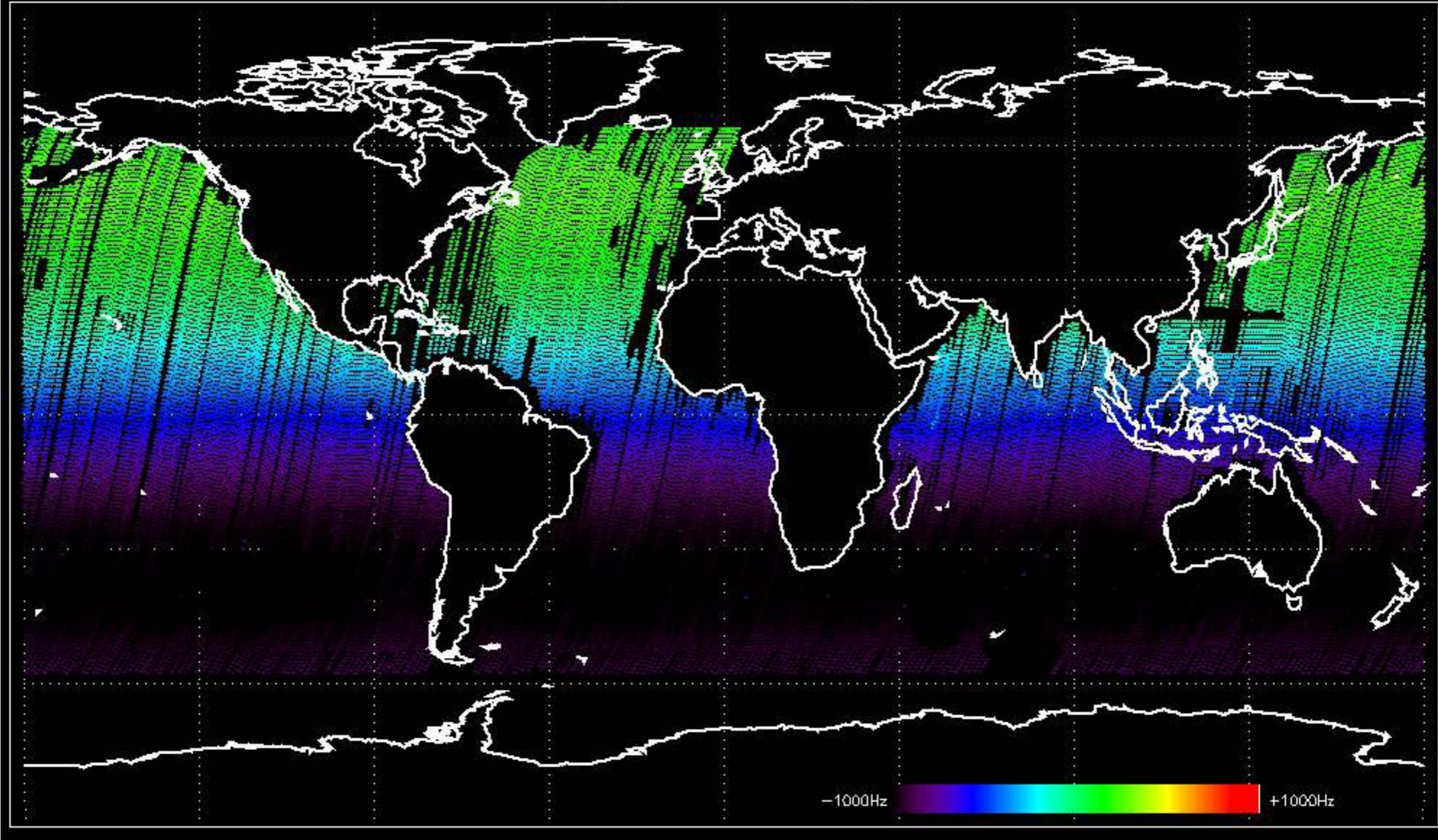
Doppler 'GM1' 'SS1' descending



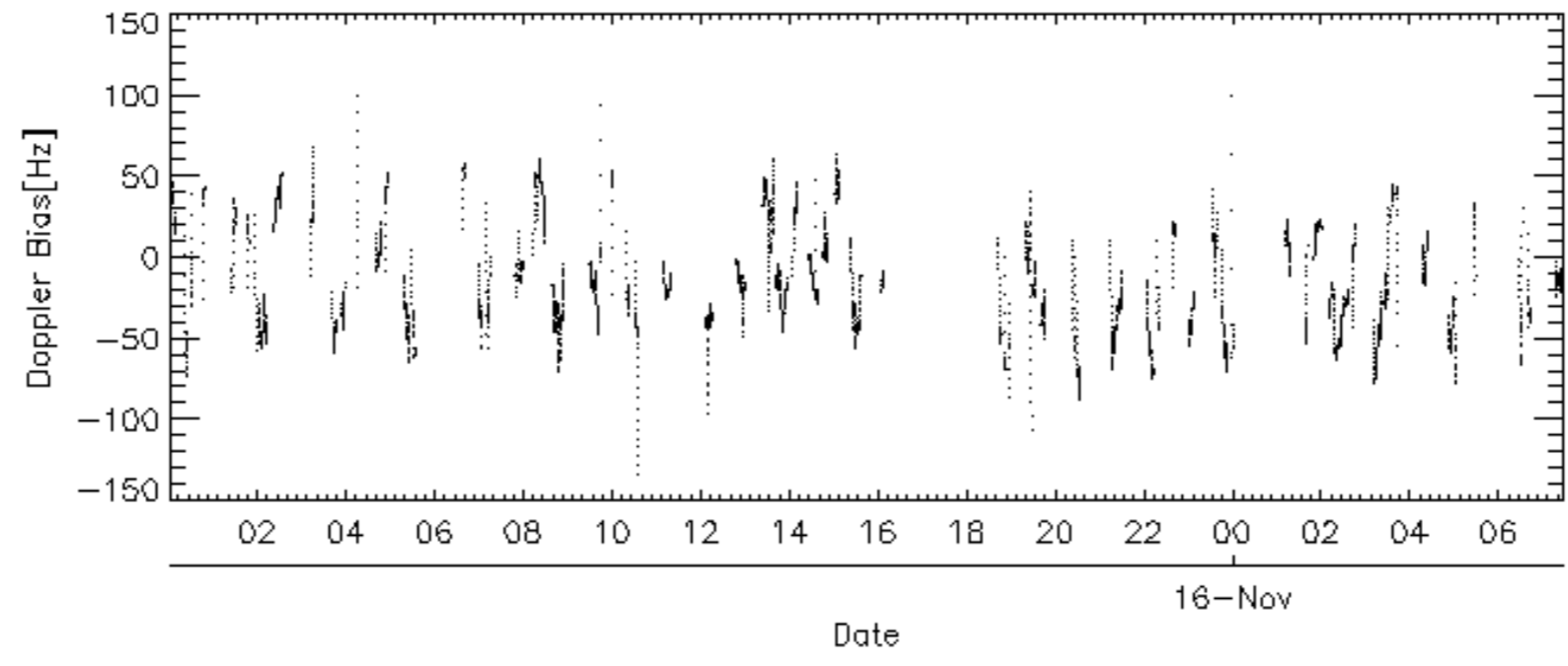
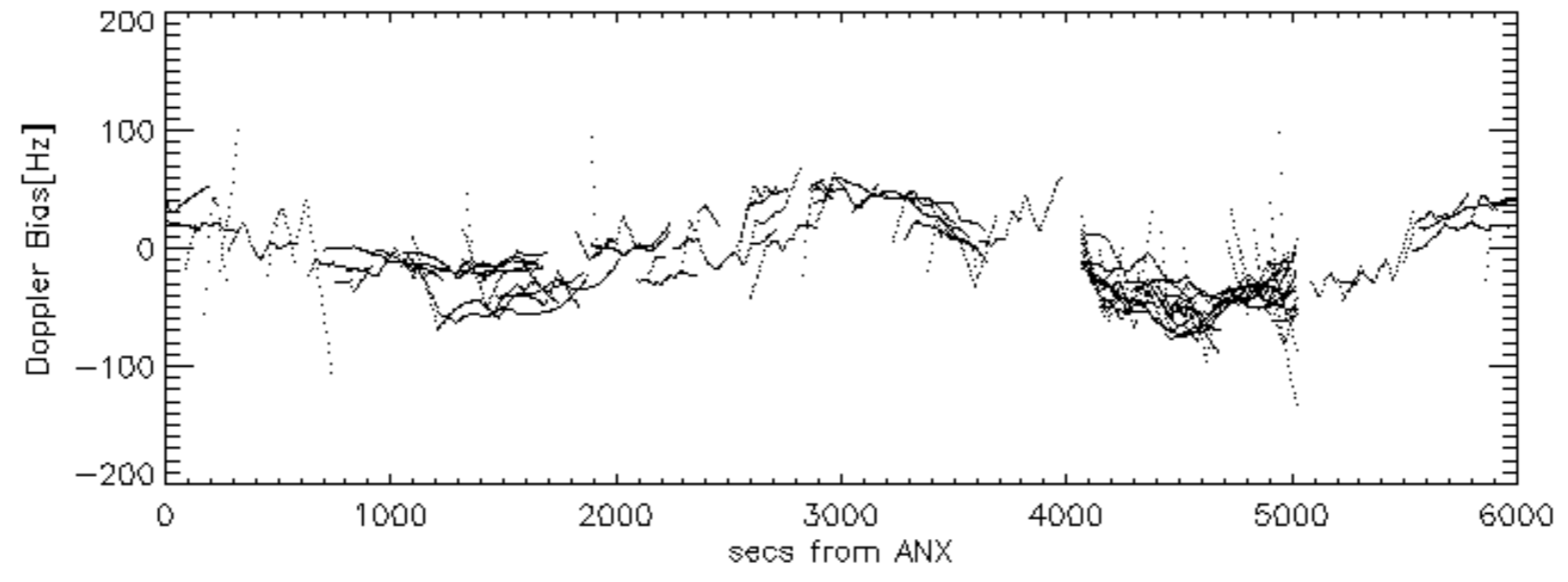
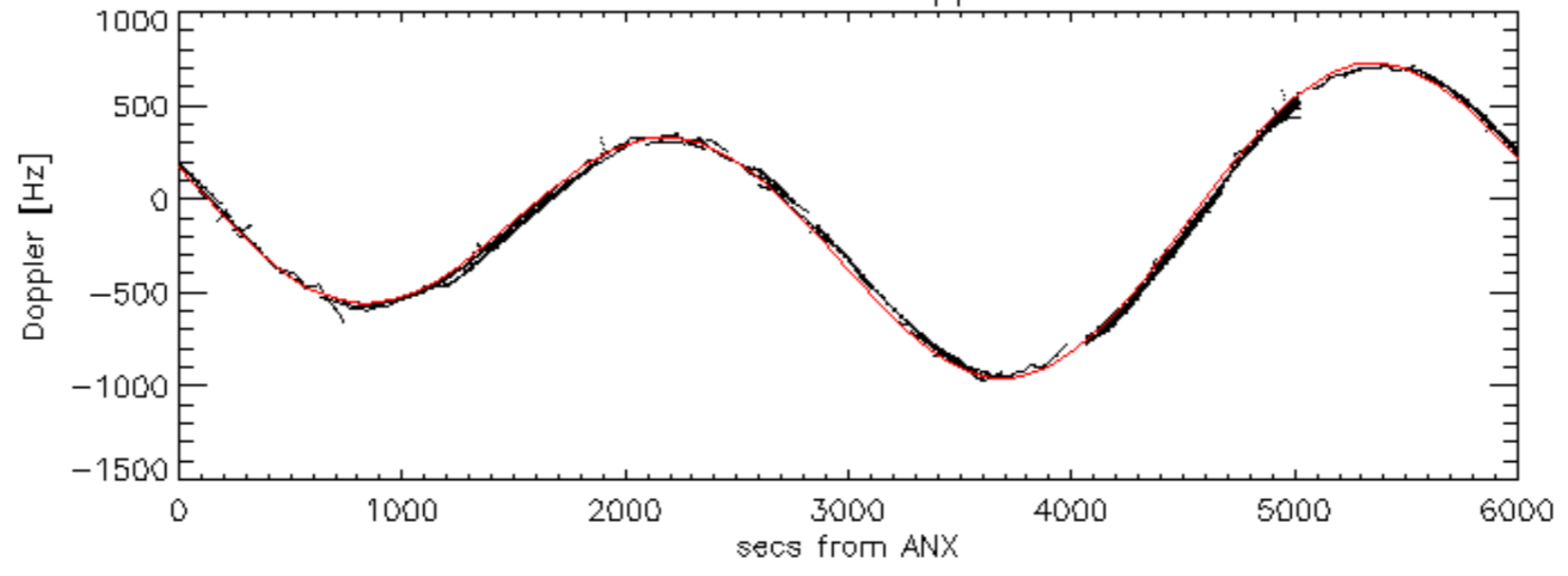
Doppler 'WVS' 'IS2' ascending

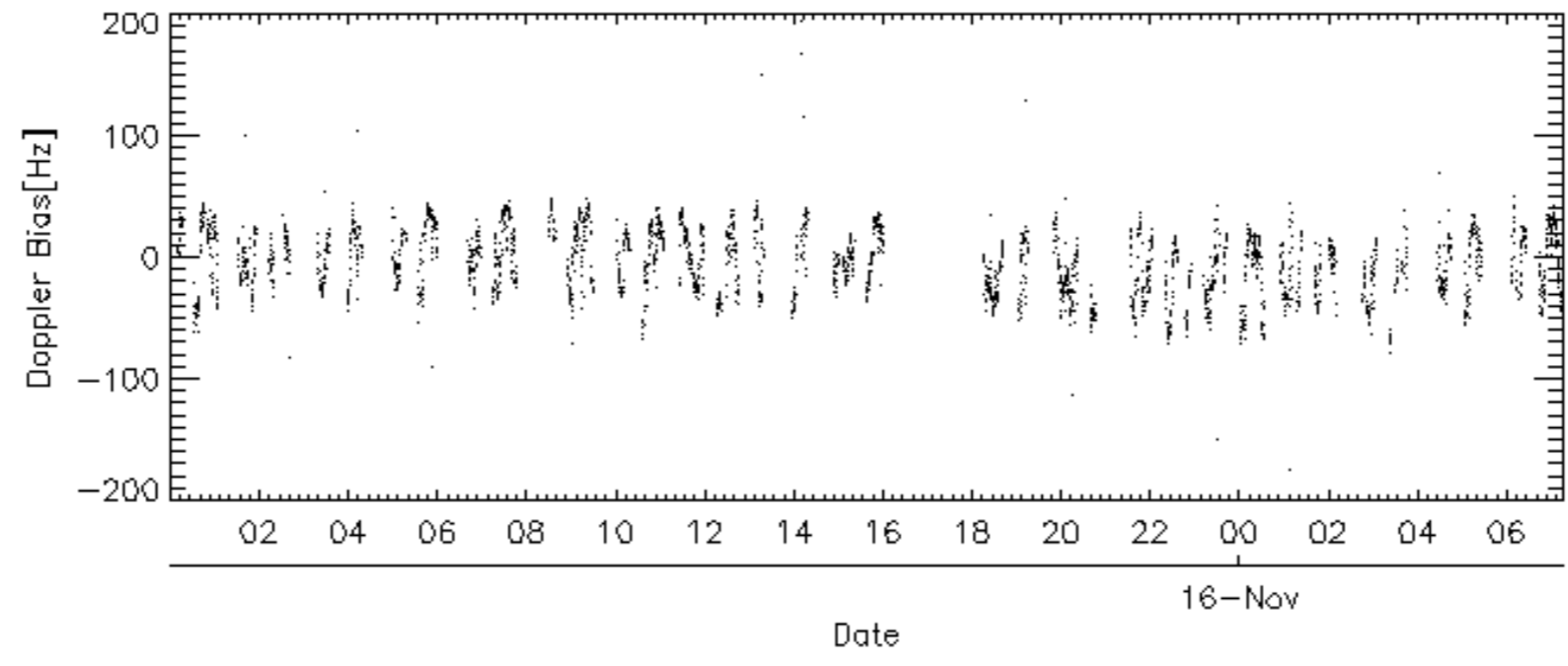
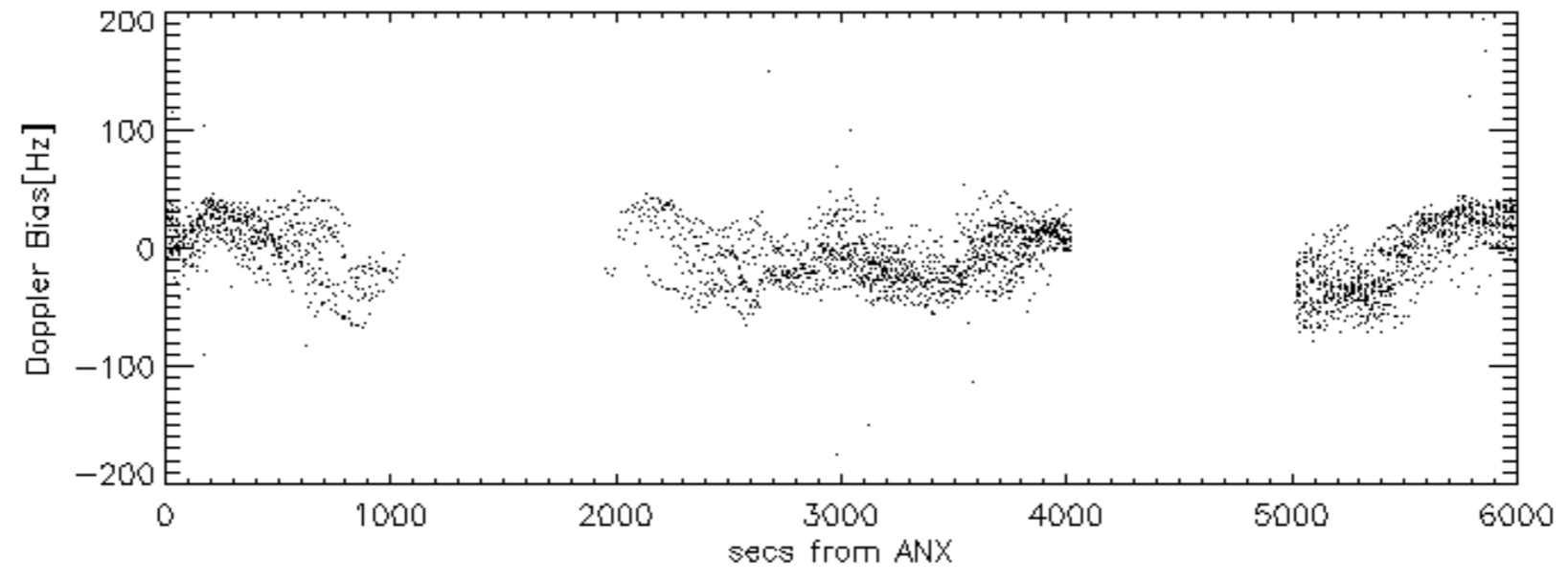
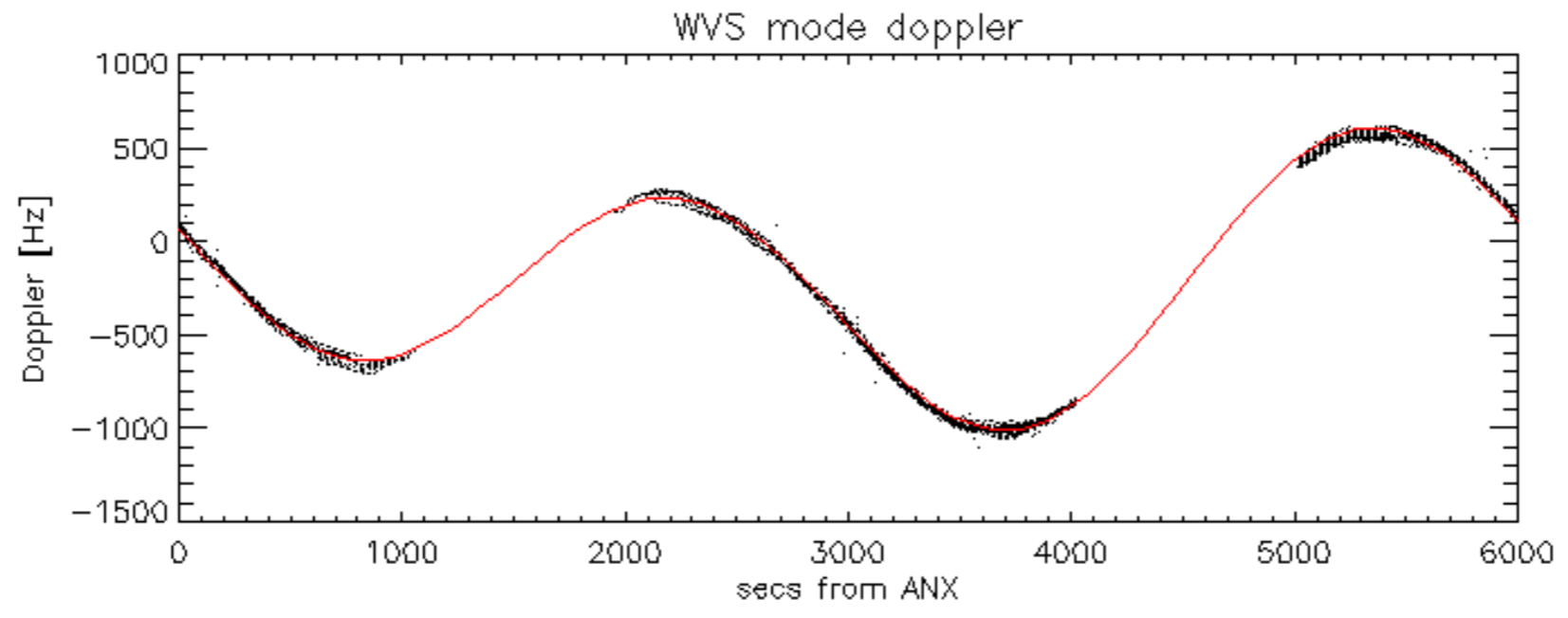


Doppler 'WVS' 'IS2' descending

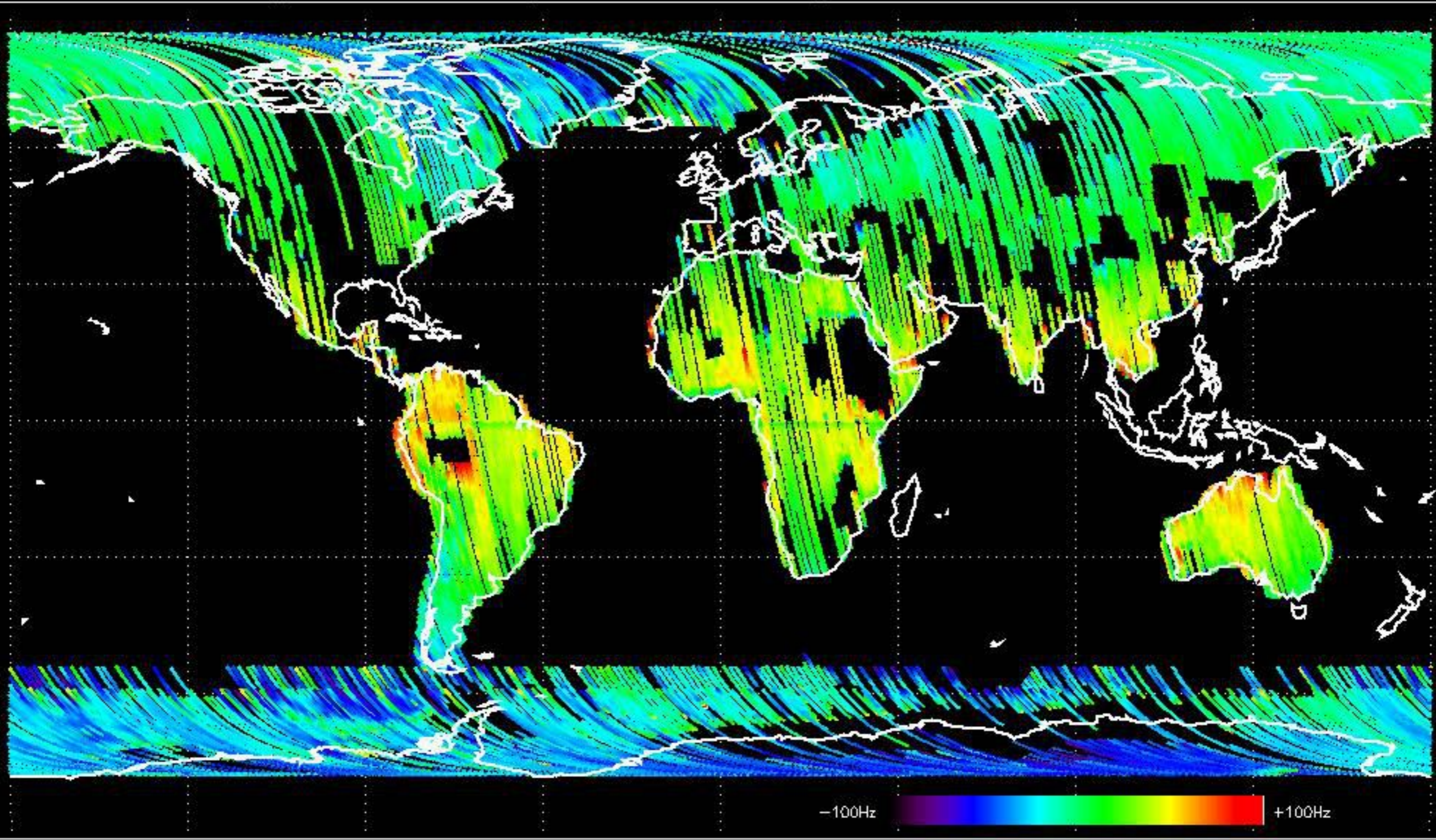


GM1 mode doppler

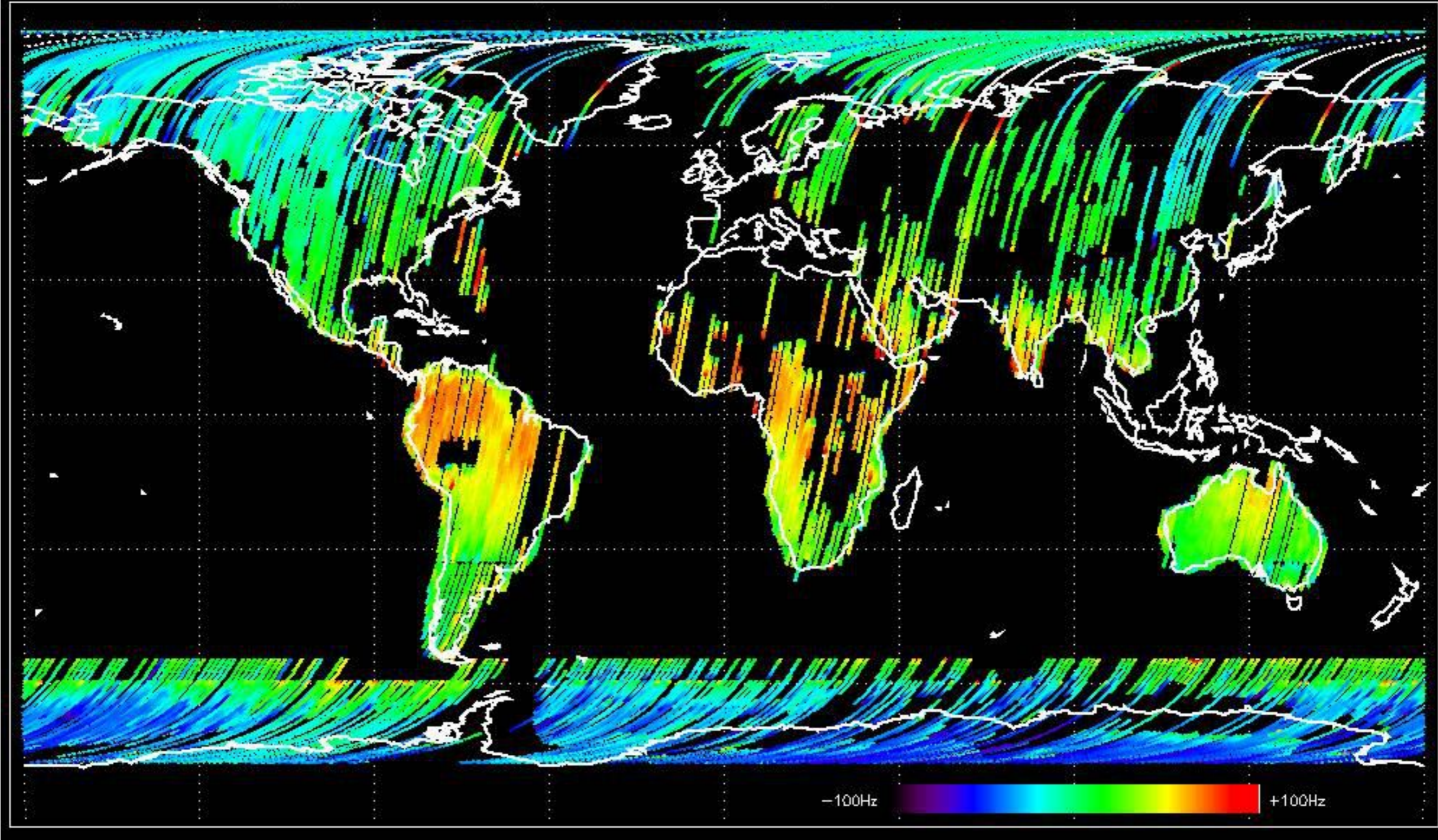




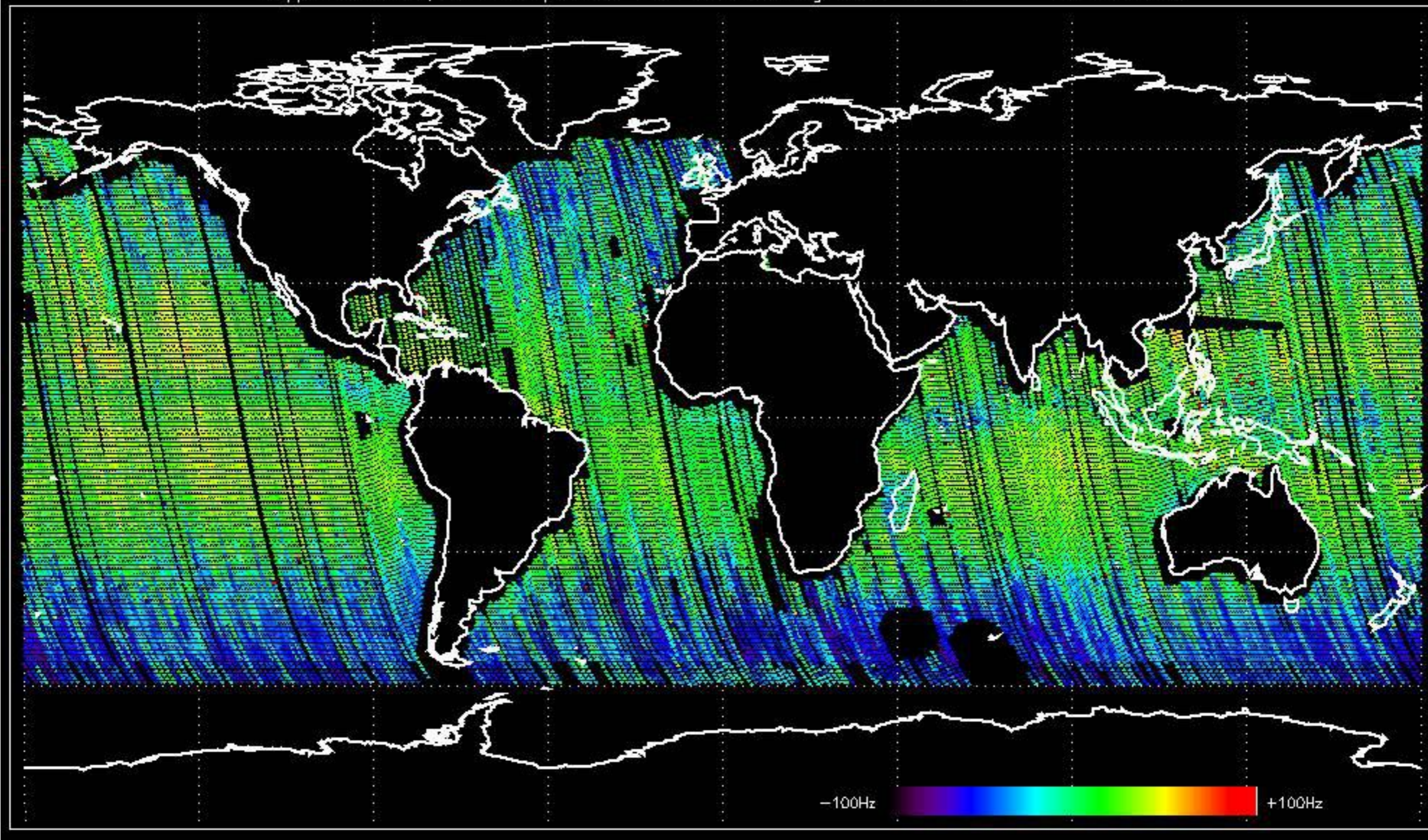
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.307201 Hz



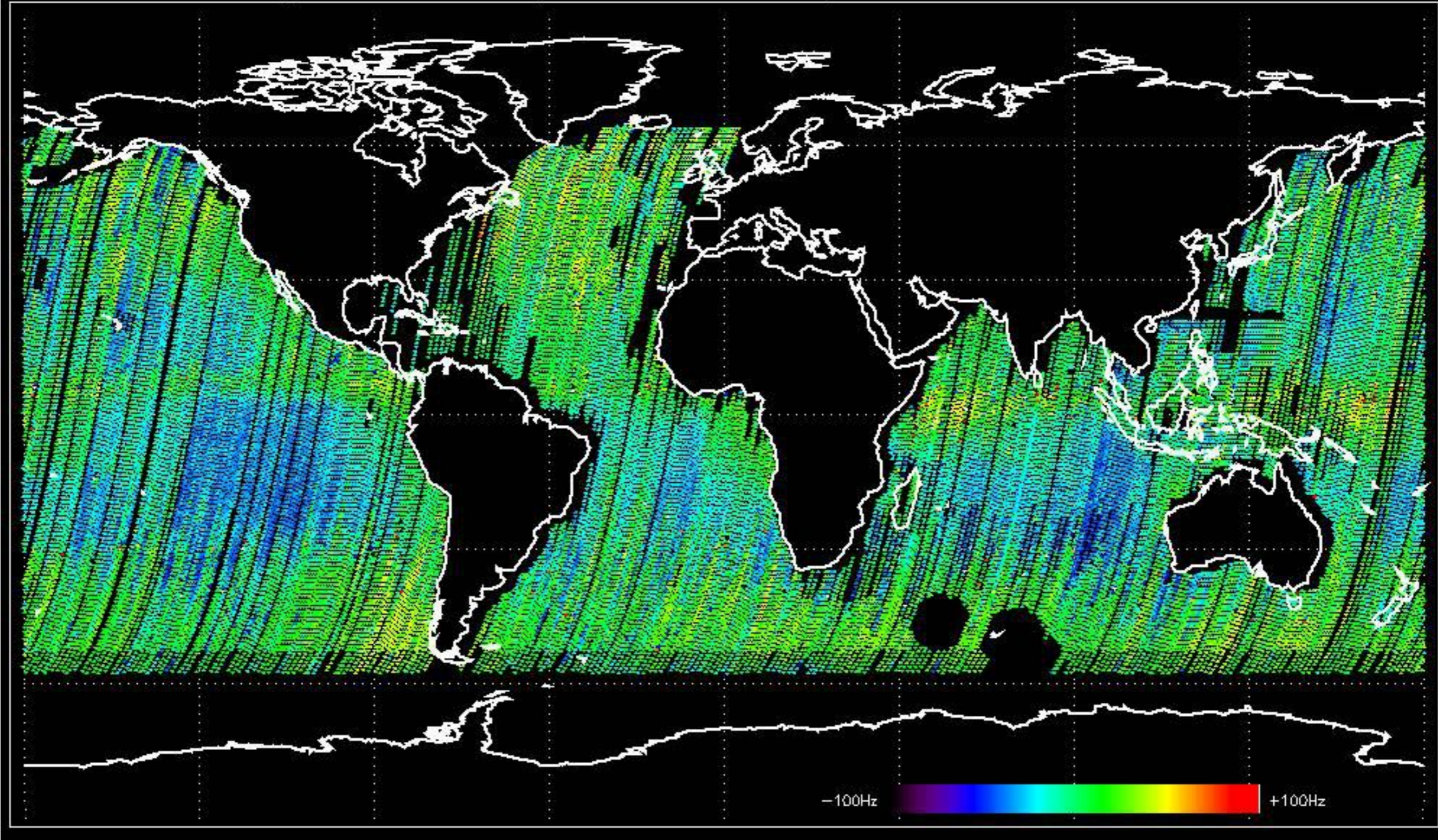
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.430543 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5167322 Hz

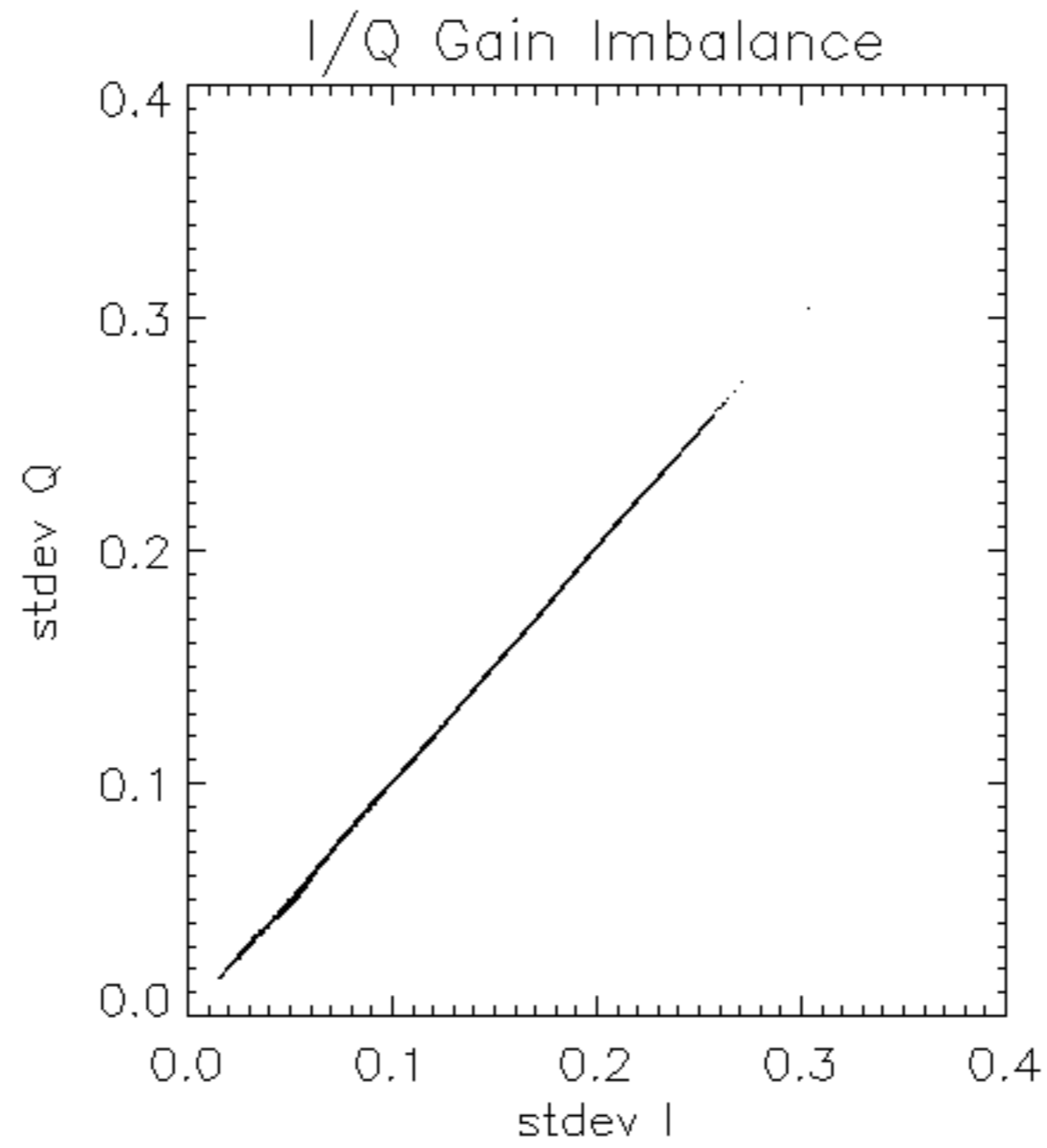


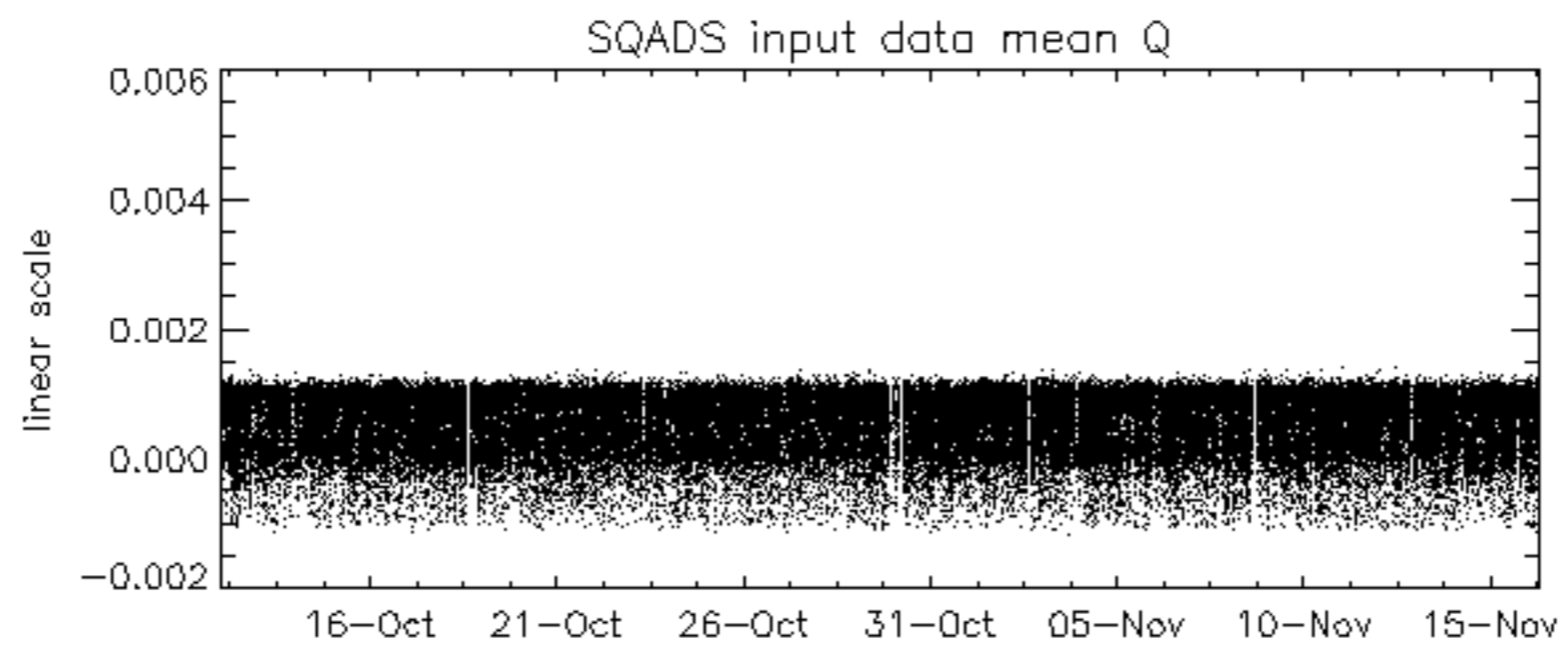
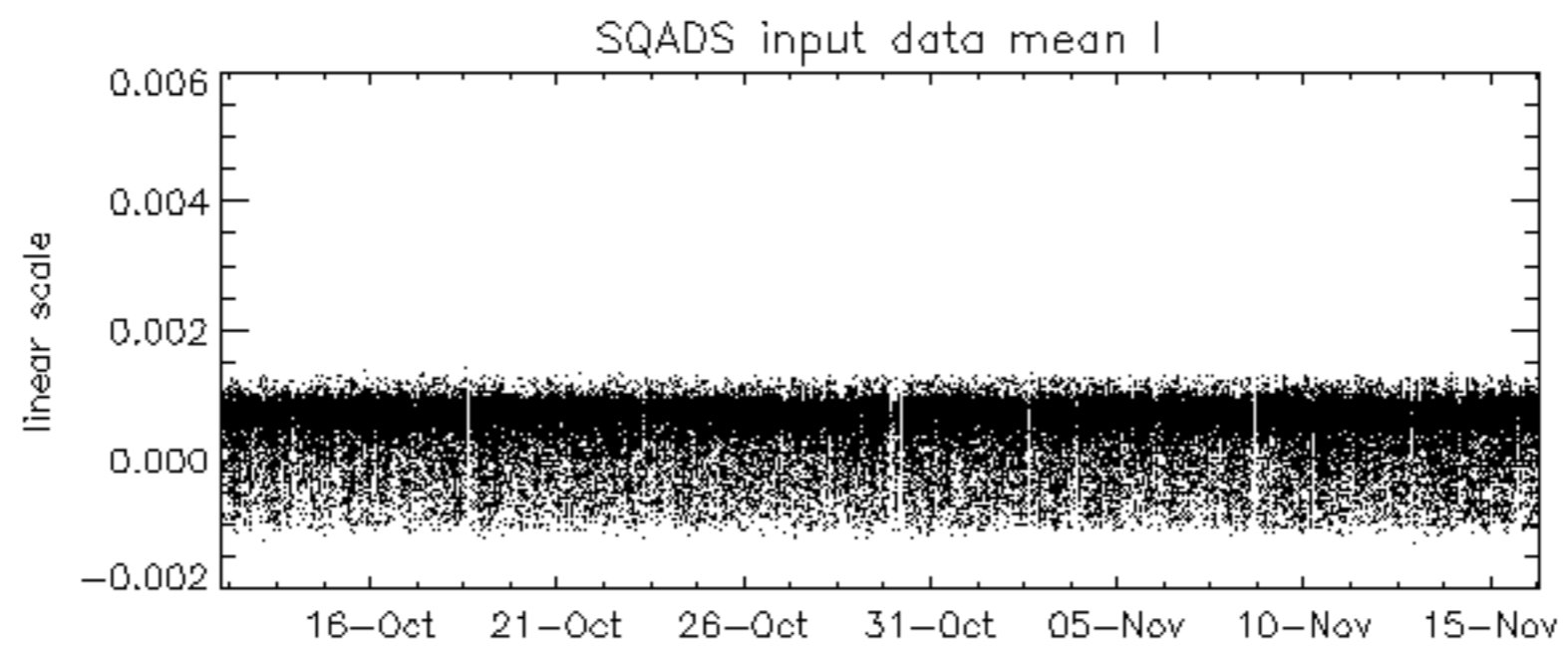
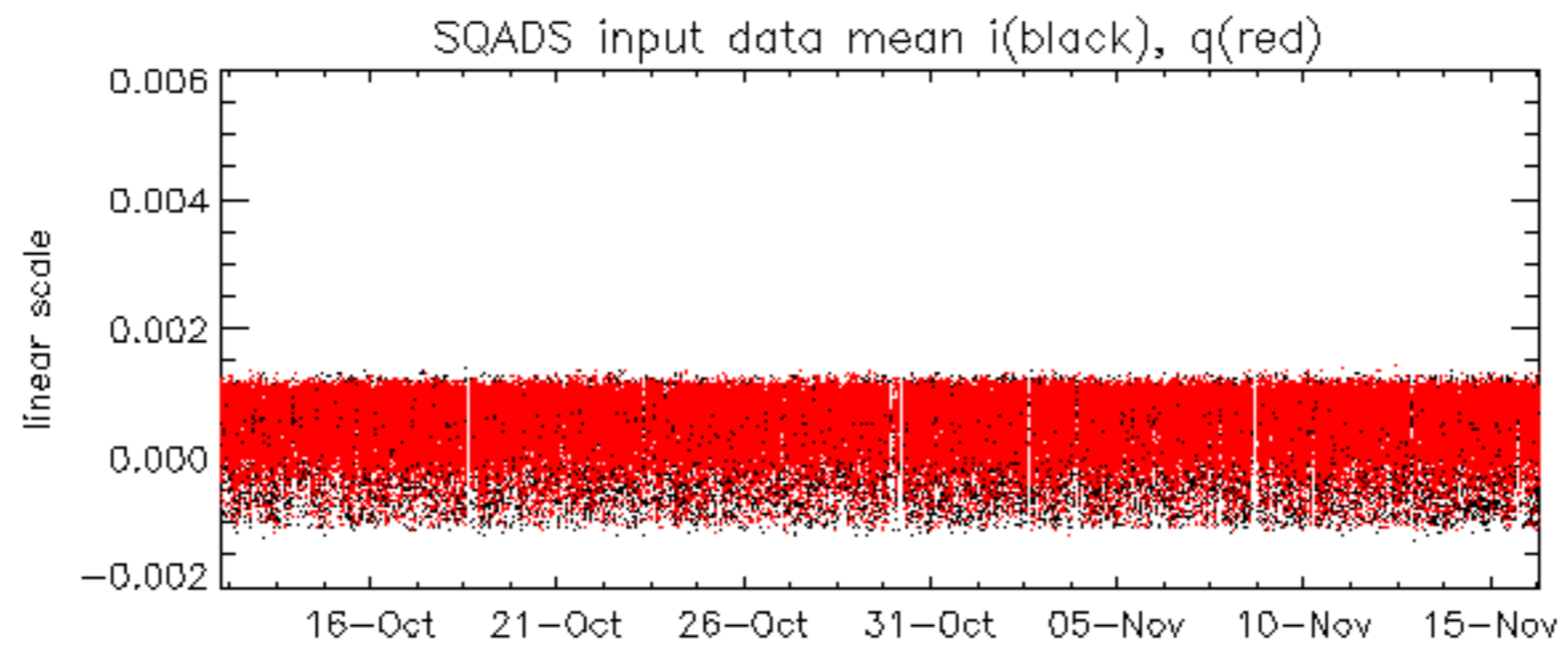
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6855625 Hz

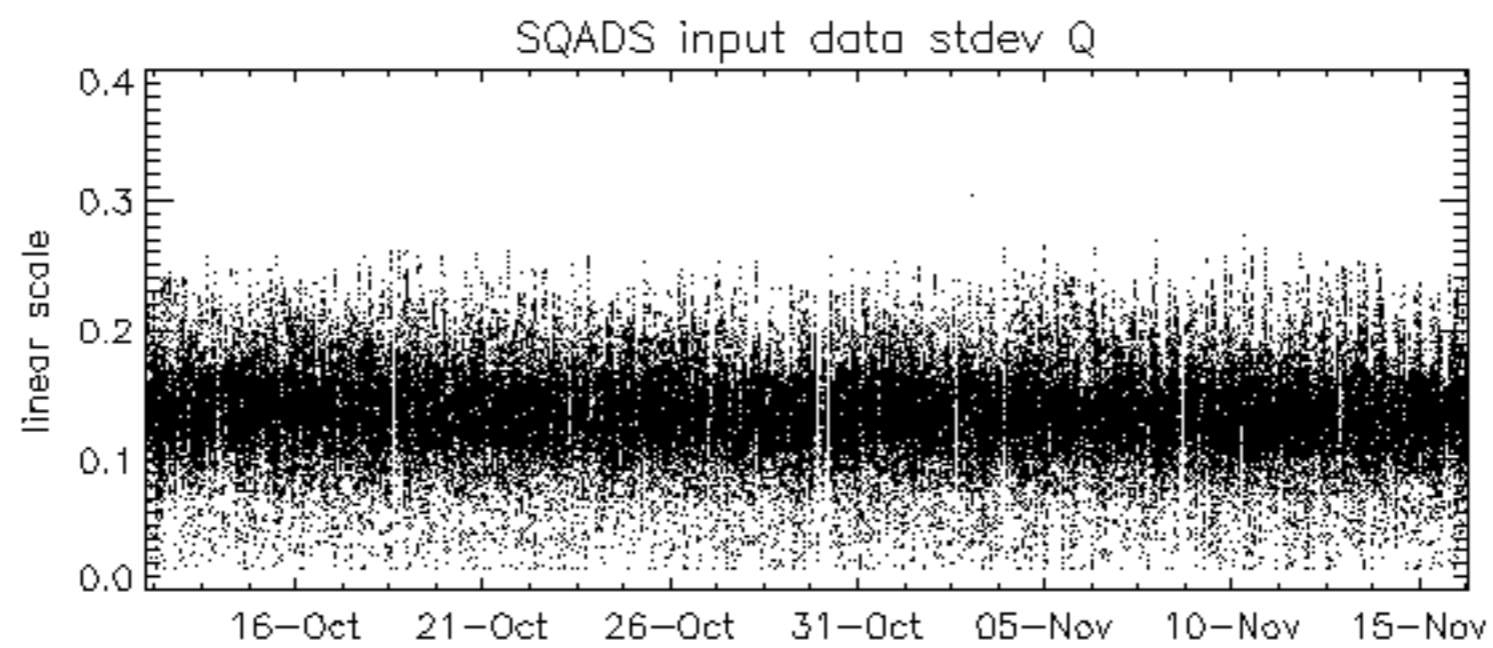
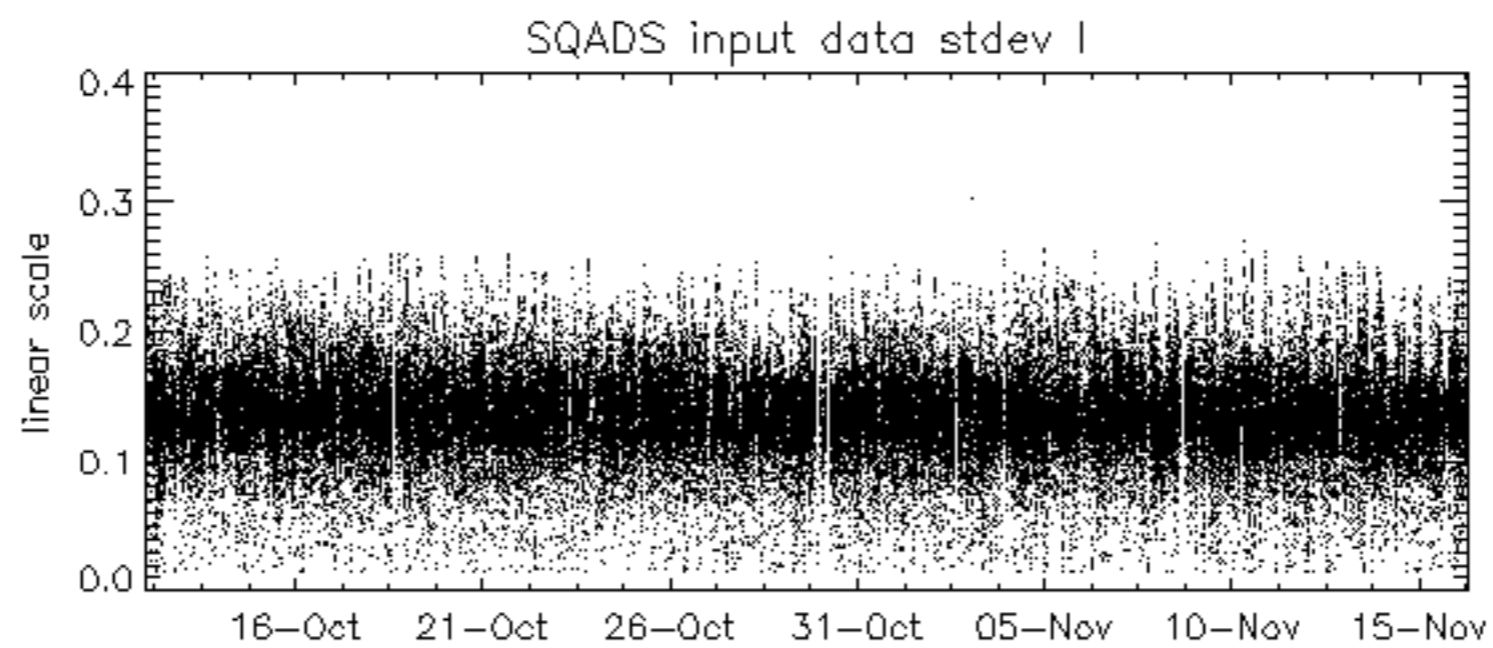
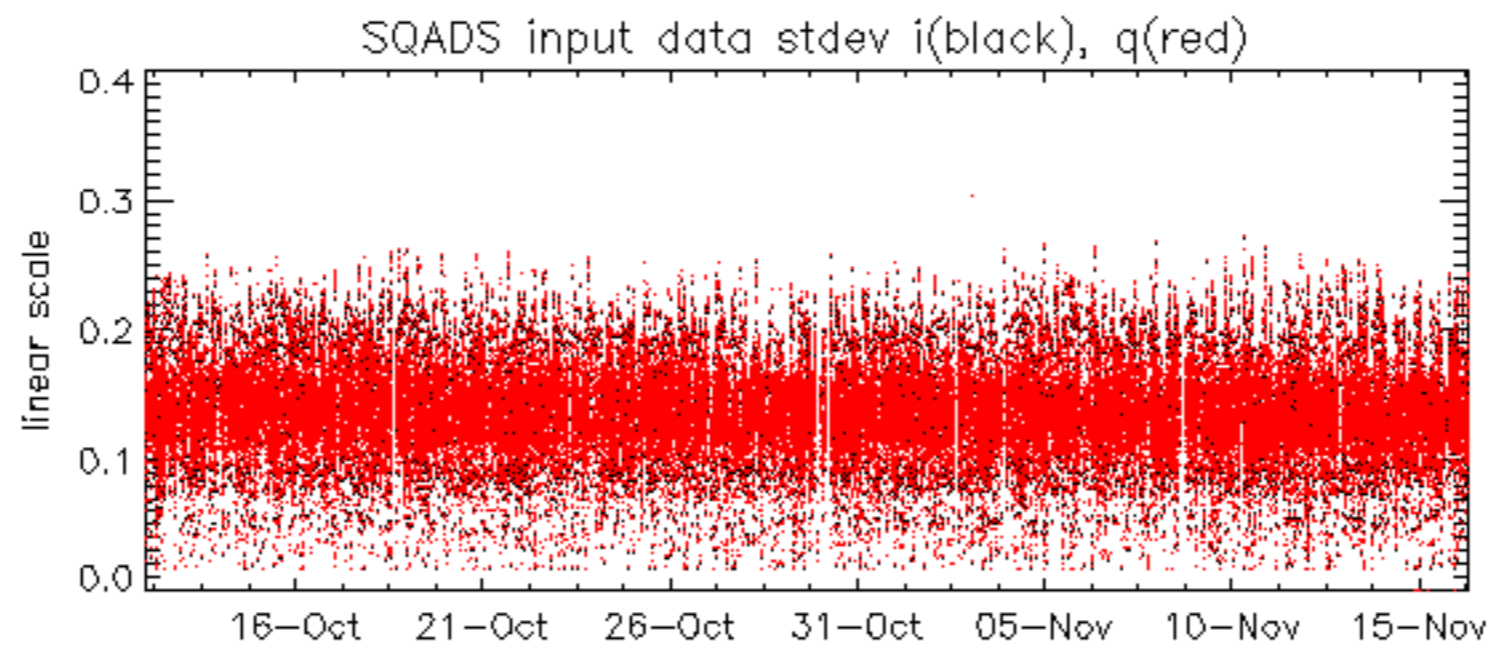


No anomalies observed on available MS products:

No anomalies observed.



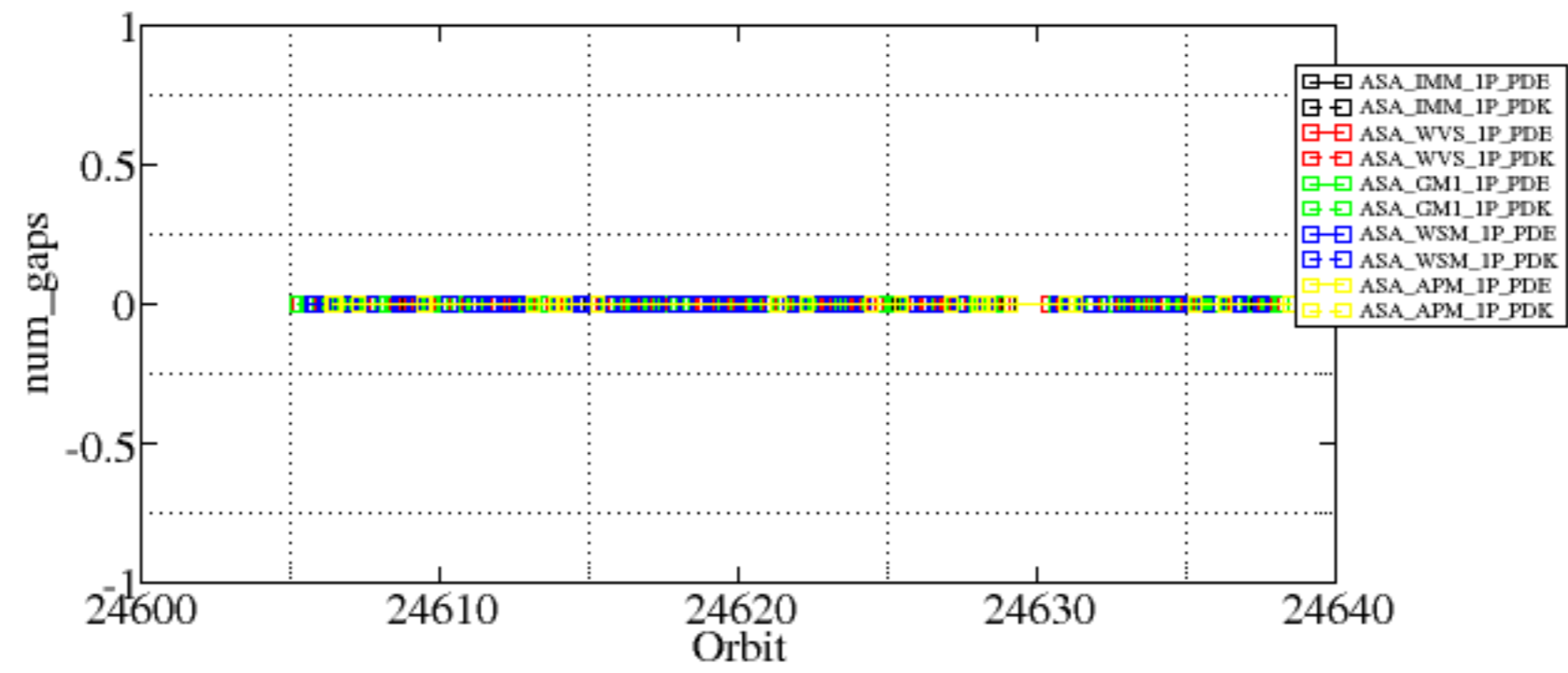


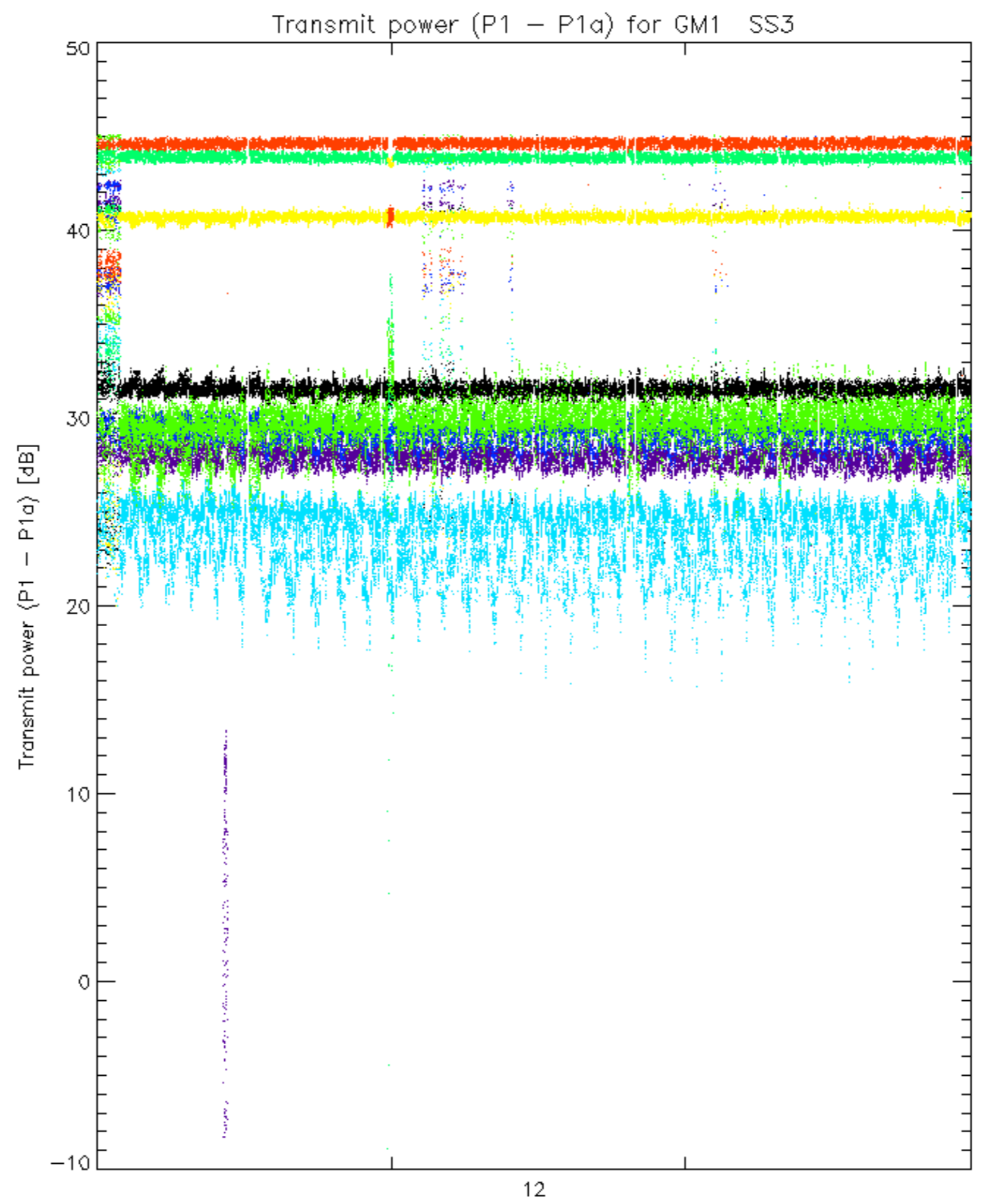


Summary of analysis for the last 3 days 2006111[456]

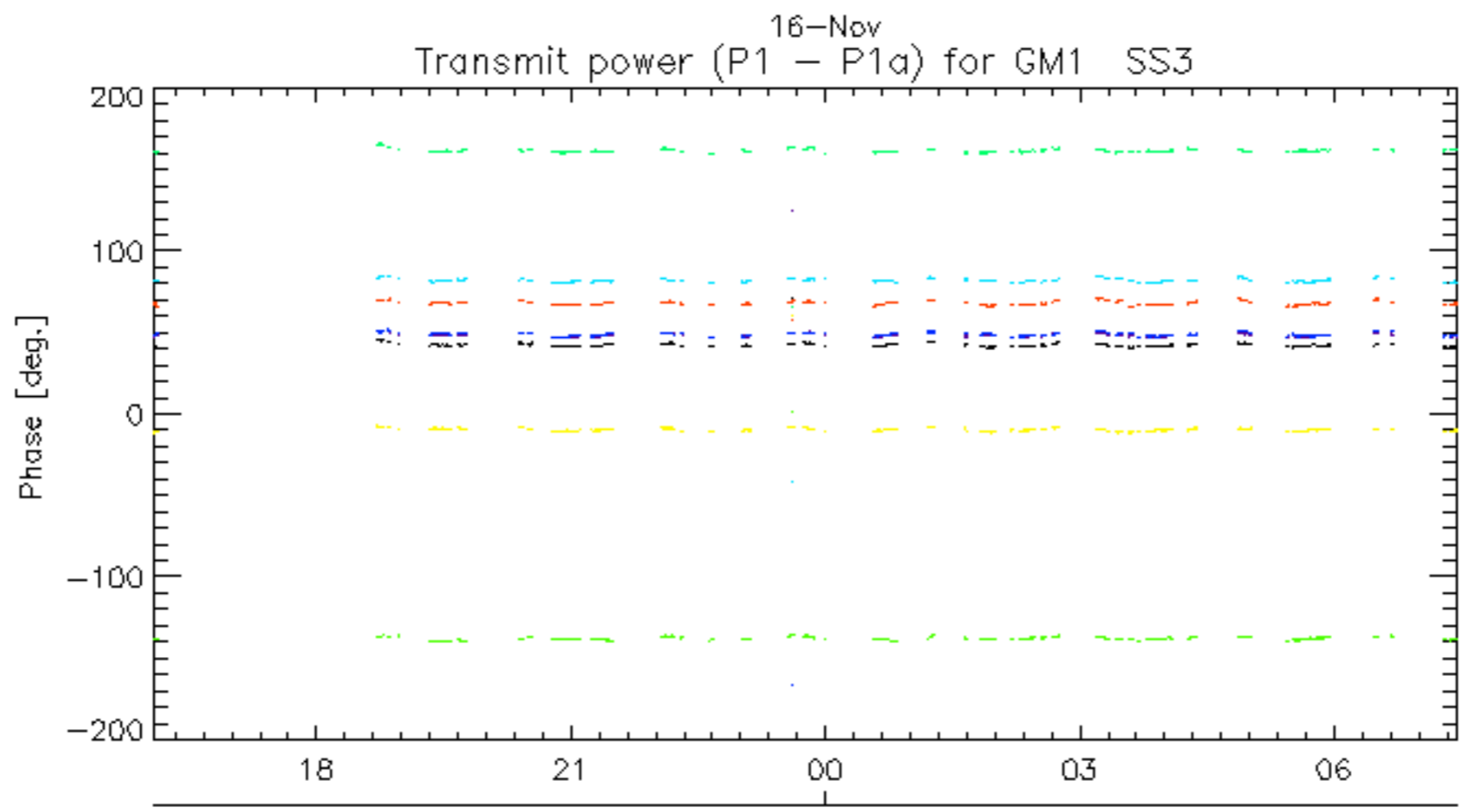
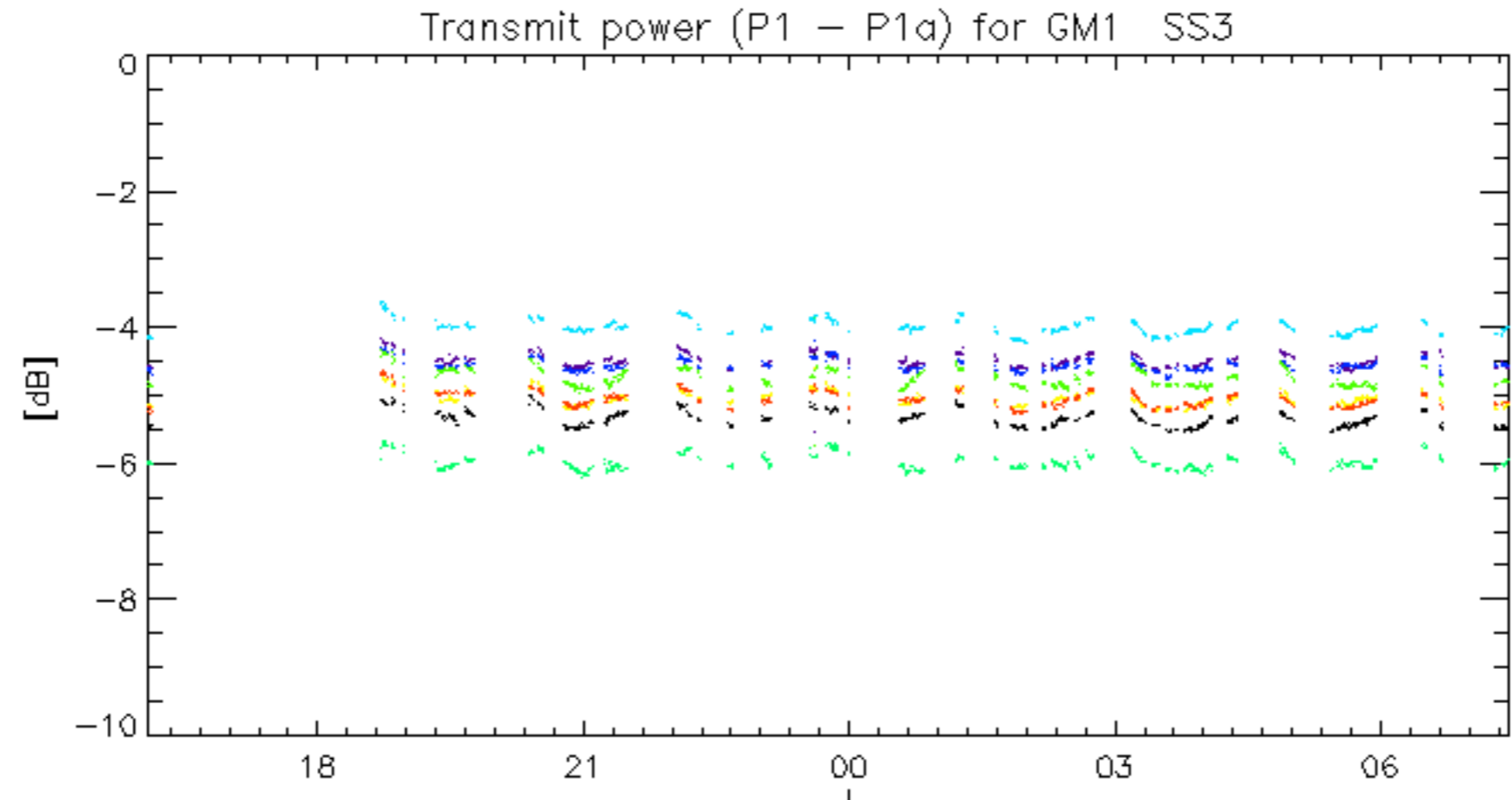
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061114_033934_000001462053_00004_24607_0001.N1	0	1
ASA_WSM_1PNPDE20061114_231143_000000972053_00016_24619_0001.N1	0	56
ASA_WSM_1PNPDK20061114_095012_000000852053_00008_24611_0057.N1	0	43

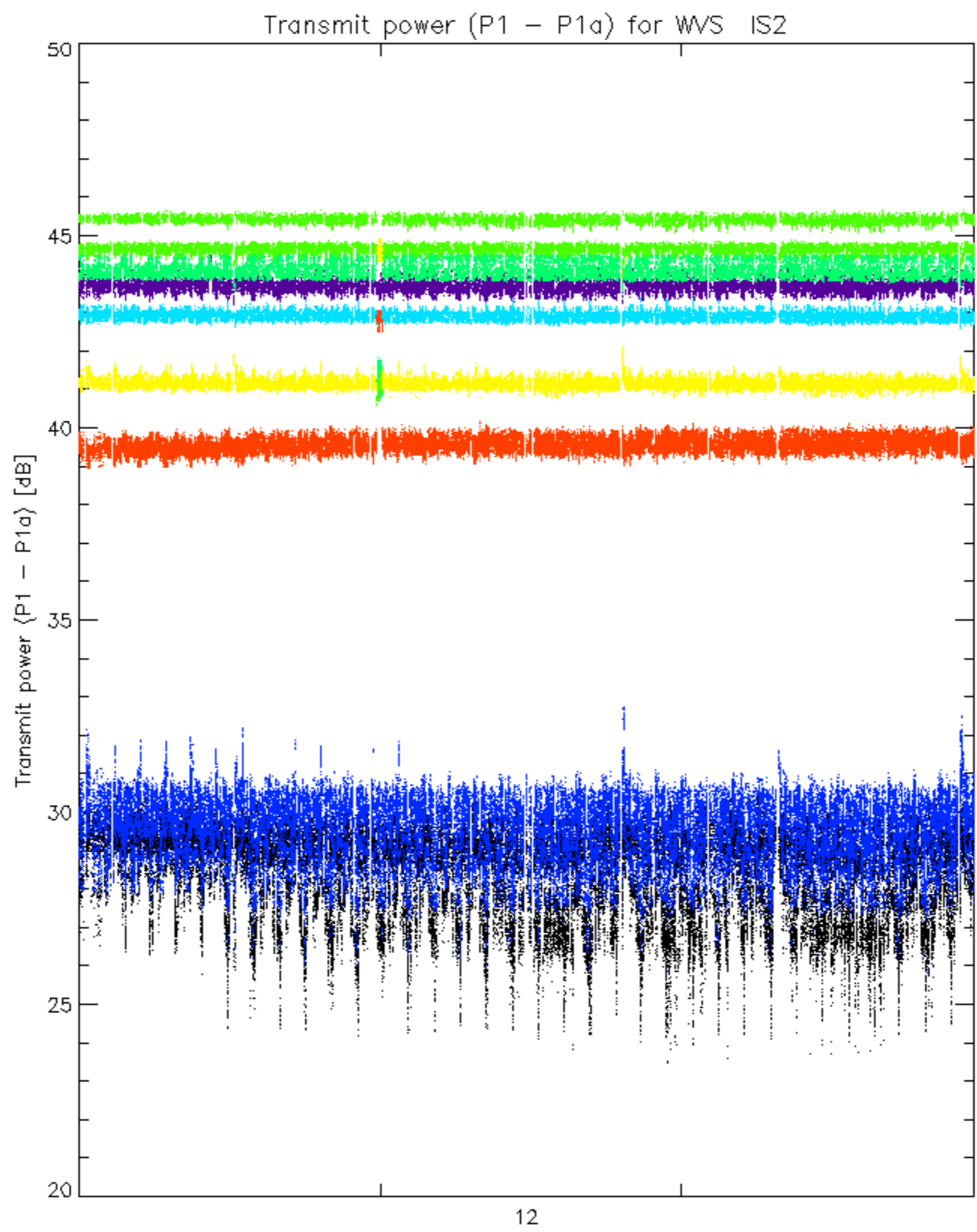


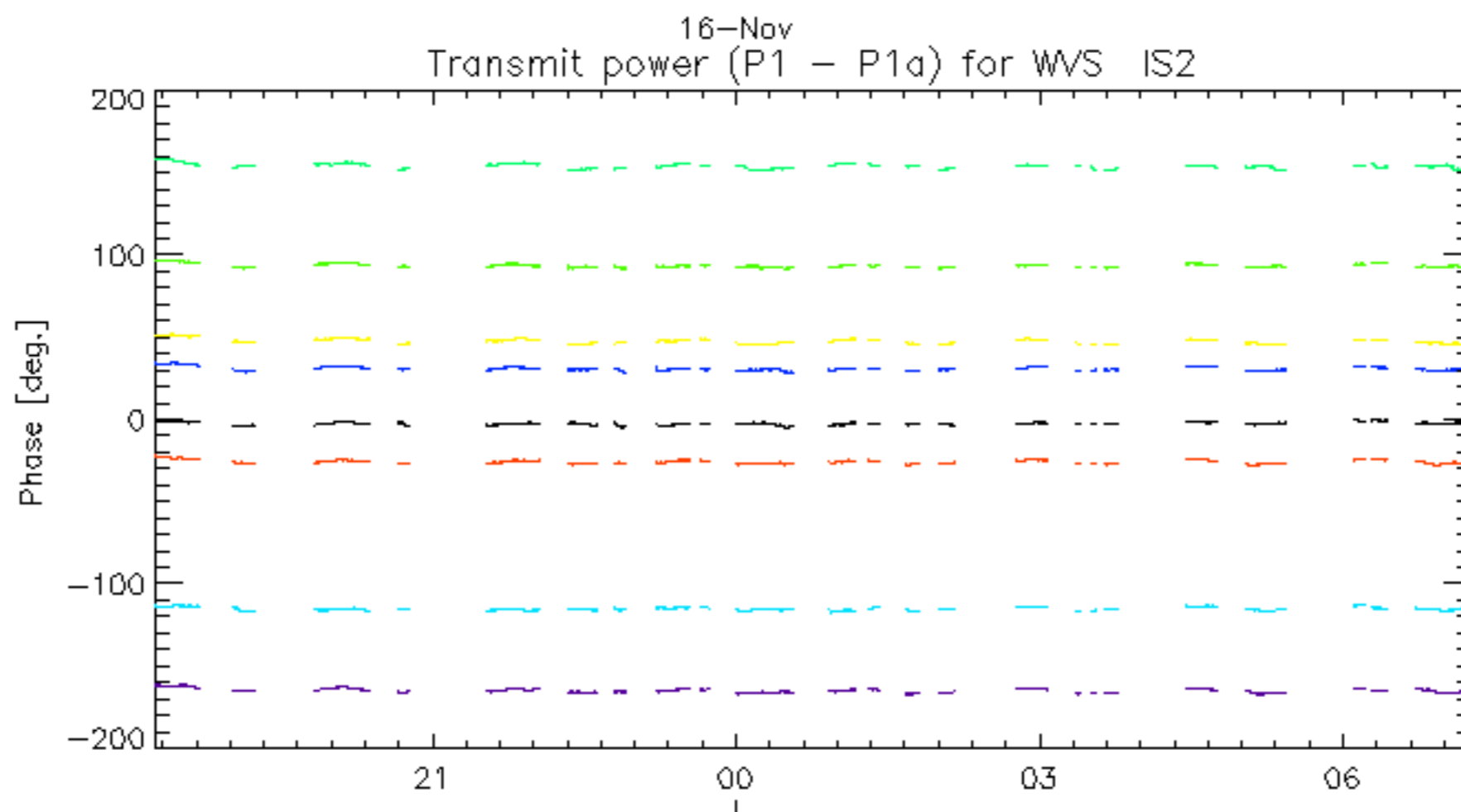
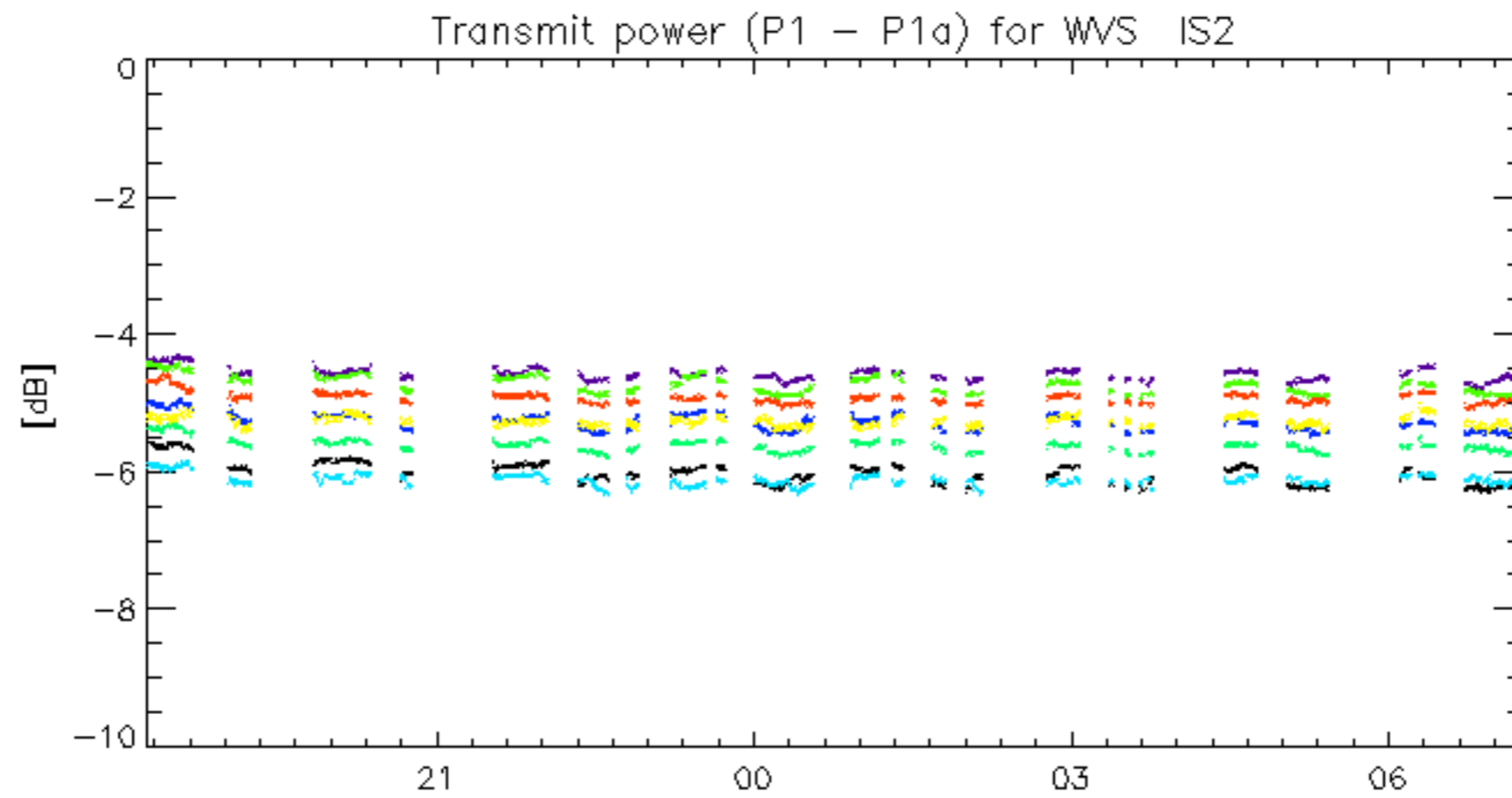


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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16-Nov
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No unavailabilities during the reported period.