

PRELIMINARY REPORT OF 061127

last update on Mon Nov 27 11:00:01 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 2006-11-26 00:00:00 to 2006-11-27 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	30	51	3	1	20
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	30	51	3	1	20
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	30	51	3	1	20
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	30	51	3	1	20

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	45	58	25	18	56
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	45	58	25	18	56
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	58	25	18	56
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	58	25	18	56

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	20061127 054051
H	20061126 061228

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	-3.960222	0.008438	-0.024497
7	P1	-3.153105	0.023291	-0.008149
11	P1	-4.132173	0.024684	0.012244
15	P1	-6.296286	0.014283	-0.049571
19	P1	-3.626841	0.062277	0.047587
22	P1	-4.672424	0.127383	0.138643
26	P1	-3.971472	0.084944	0.129998
30	P1	-5.895097	0.163406	0.140229
3	P1	-16.510370	0.235075	-0.133641
7	P1	-17.281994	0.173457	-0.023579
11	P1	-17.170973	0.454666	-0.118675
15	P1	-13.068528	0.131638	-0.012900
19	P1	-14.941452	0.367174	0.073600
22	P1	-15.853675	0.522635	0.099034
26	P1	-15.056808	0.197959	0.060004
30	P1	-17.438856	0.608946	-0.259641

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.844843	0.090886	0.033237
7	P2	-21.732189	0.093998	-0.009087
11	P2	-15.652861	0.102531	0.020369
15	P2	-7.124471	0.106277	0.000623
19	P2	-9.191758	0.104063	0.008735
22	P2	-18.233477	0.096120	-0.022447
26	P2	-16.551149	0.110355	-0.040598
30	P2	-19.477297	0.088432	0.005057

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.241189	0.008354	-0.027751
7	P3	-8.241189	0.008354	-0.027751
11	P3	-8.241189	0.008354	-0.027751
15	P3	-8.241189	0.008354	-0.027751
19	P3	-8.241189	0.008354	-0.027751
22	P3	-8.241189	0.008354	-0.027751
26	P3	-8.241235	0.008366	-0.027809
30	P3	-8.241235	0.008366	-0.027809

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	-3.912660	0.056628	0.007064
7	P1	-2.524076	0.334281	0.117229
11	P1	-2.862337	0.051180	0.041060
15	P1	-3.682456	0.057959	-0.014749
19	P1	-3.546042	0.114290	0.102371
22	P1	-5.056053	0.089647	0.127532
26	P1	-6.032484	0.186653	0.143163
30	P1	-5.339374	0.113789	0.075679
3	P1	-11.724913	0.138762	-0.021839
7	P1	-10.065041	0.439708	0.081744
11	P1	-10.330973	0.160668	0.044290
15	P1	-10.754377	0.217682	0.098327
19	P1	-15.802630	2.168092	0.566413
22	P1	-21.419041	1.588612	-0.428182
26	P1	-16.047297	0.397560	-0.075785
30	P1	-17.899500	0.416201	0.020945

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.457390	0.133074	-0.038497
7	P2	-22.212421	0.475754	-0.100987
11	P2	-10.937675	0.140564	-0.038930
15	P2	-4.969698	0.174383	-0.041852
19	P2	-6.951808	0.205898	-0.027550
22	P2	-8.262834	0.213097	0.011199
26	P2	-24.310610	0.356739	-0.113138
30	P2	-21.942959	0.227013	-0.029001

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.087635	0.003294	-0.029121
7	P3	-8.087617	0.003280	-0.029025
11	P3	-8.087681	0.003289	-0.029327
15	P3	-8.087596	0.003287	-0.029157
19	P3	-8.087635	0.003291	-0.029249
22	P3	-8.087540	0.003289	-0.029402
26	P3	-8.087680	0.003287	-0.029461
30	P3	-8.087769	0.003291	-0.029146

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	0.000544149
	stdev	1.79421e-07
MEAN Q	mean	0.000520456
	stdev	2.20907e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136096
	stdev	0.00111227
STDEV Q	mean	0.136456
	stdev	0.00112924



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006112[567]

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_1PNPDE20061126_004059_000000622053_00174_24777_9130.N1	1	0
ASA_IMM_1PNPDK20061126_083104_000000352053_00179_24782_4085.N1	0	24
ASA_WSM_1PNPDE20061125_112341_000001162053_00166_24769_8610.N1	0	14
ASA_WSM_1PNPDE20061125_144649_000000672053_00168_24771_8672.N1	0	34
ASA_WSM_1PNPDE20061125_144649_000004462053_00168_24771_8706.N1	0	34
ASA_WSM_1PNPDE20061126_183459_000000862053_00185_24788_9879.N1	0	39





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

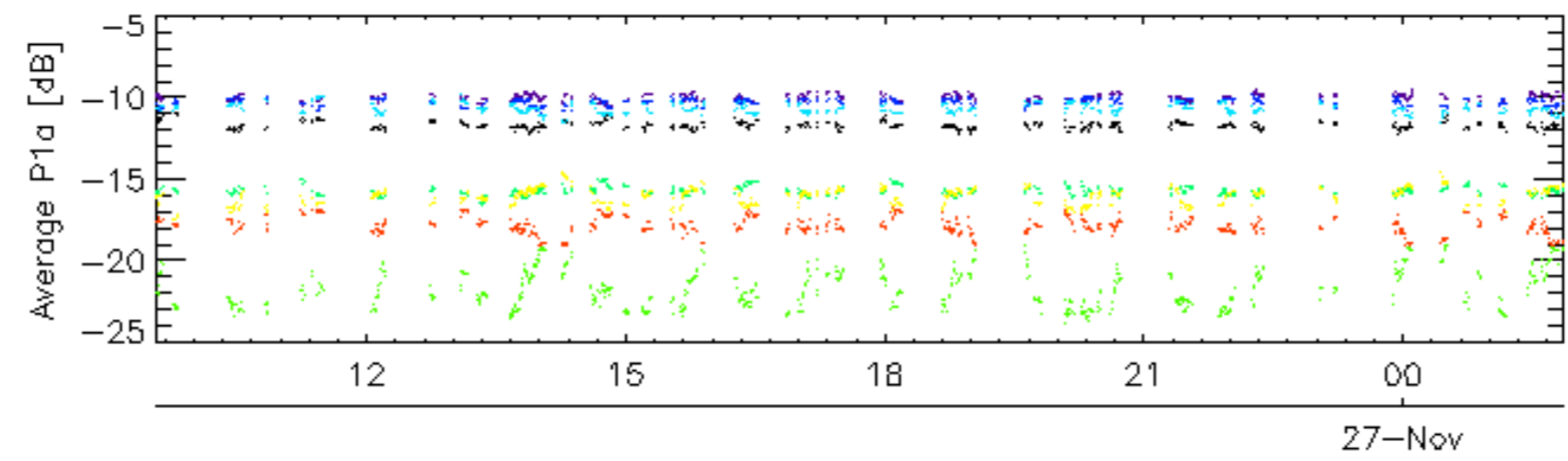
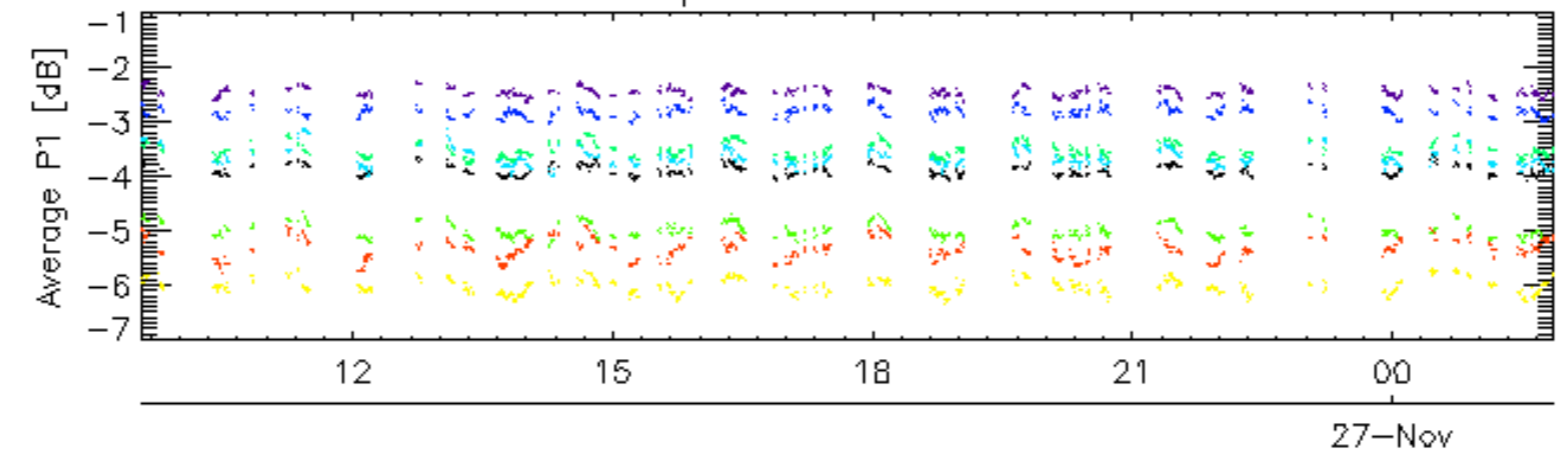
7.5 - Absolute Doppler for GM1

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

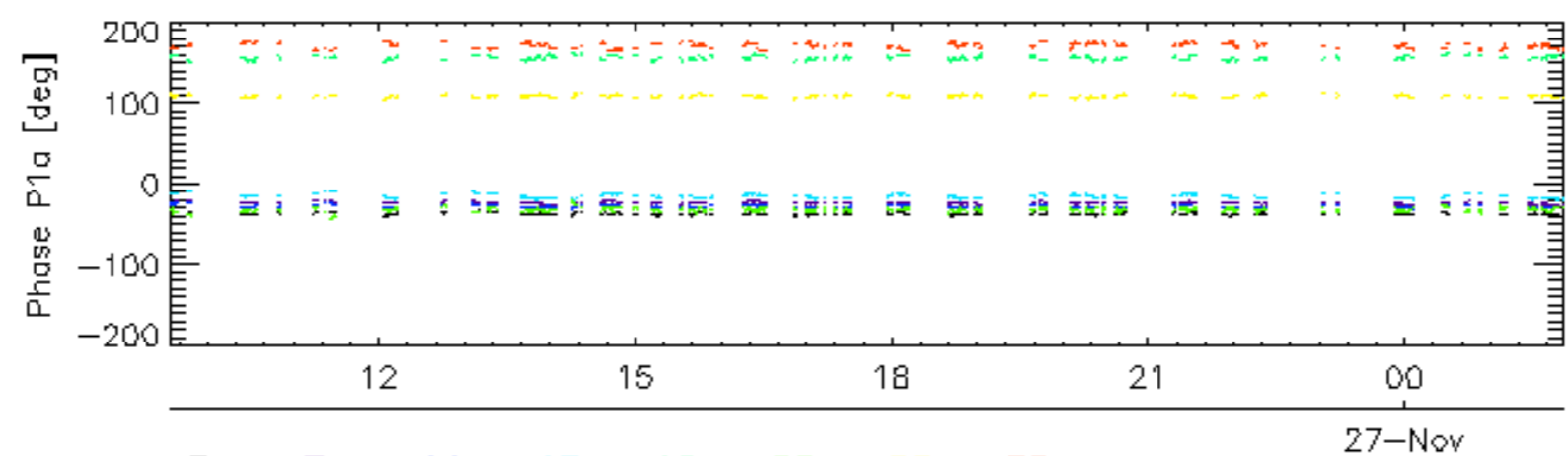
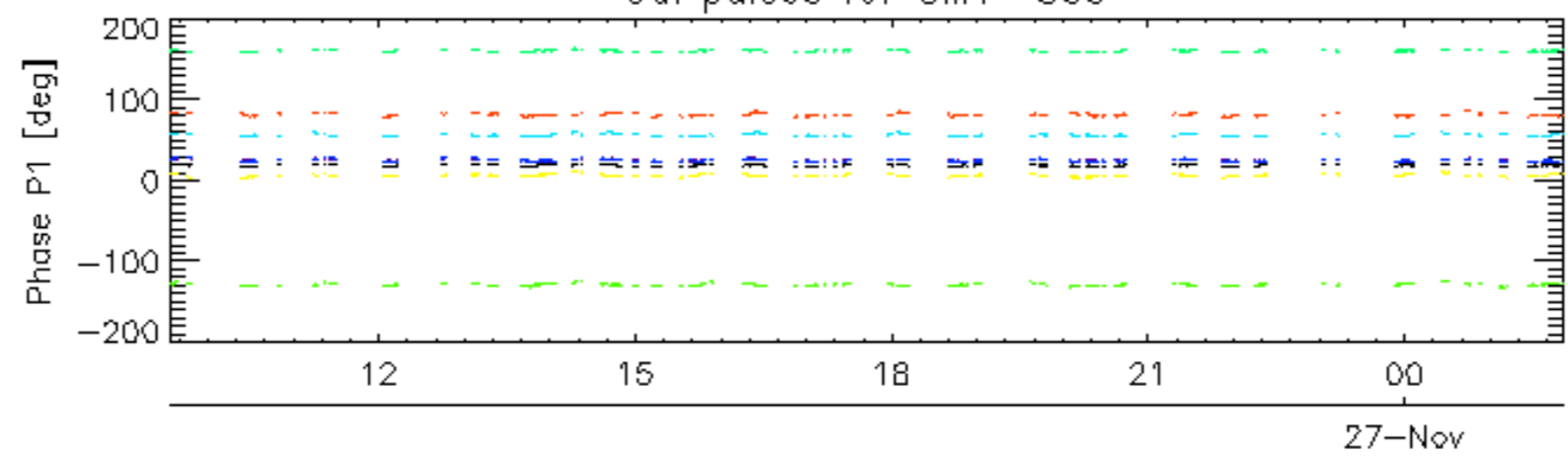
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

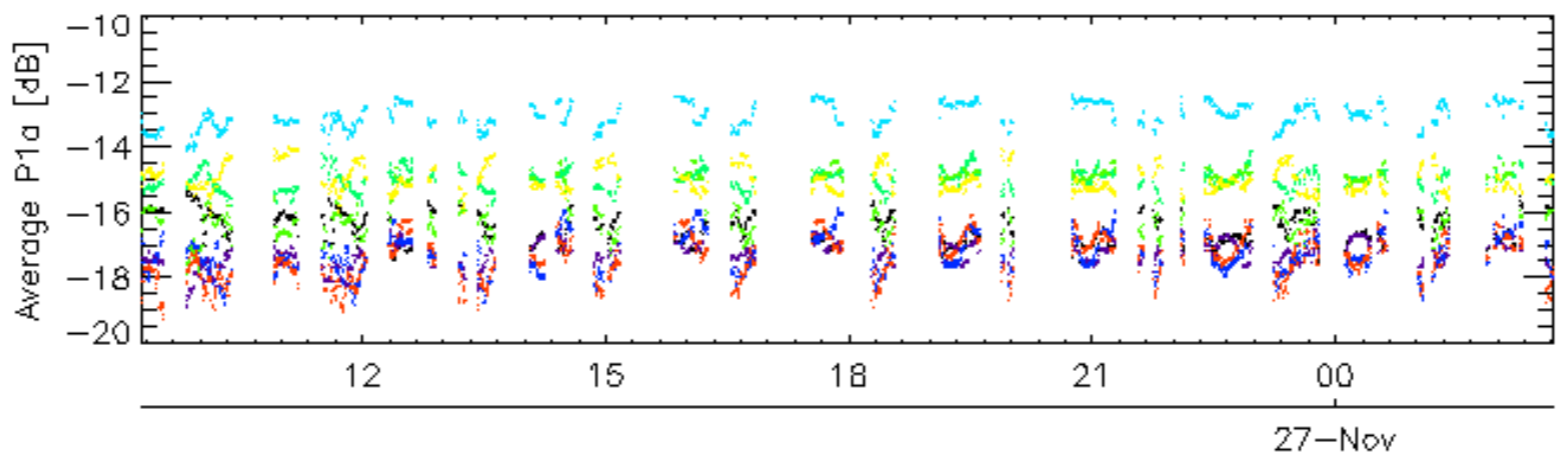
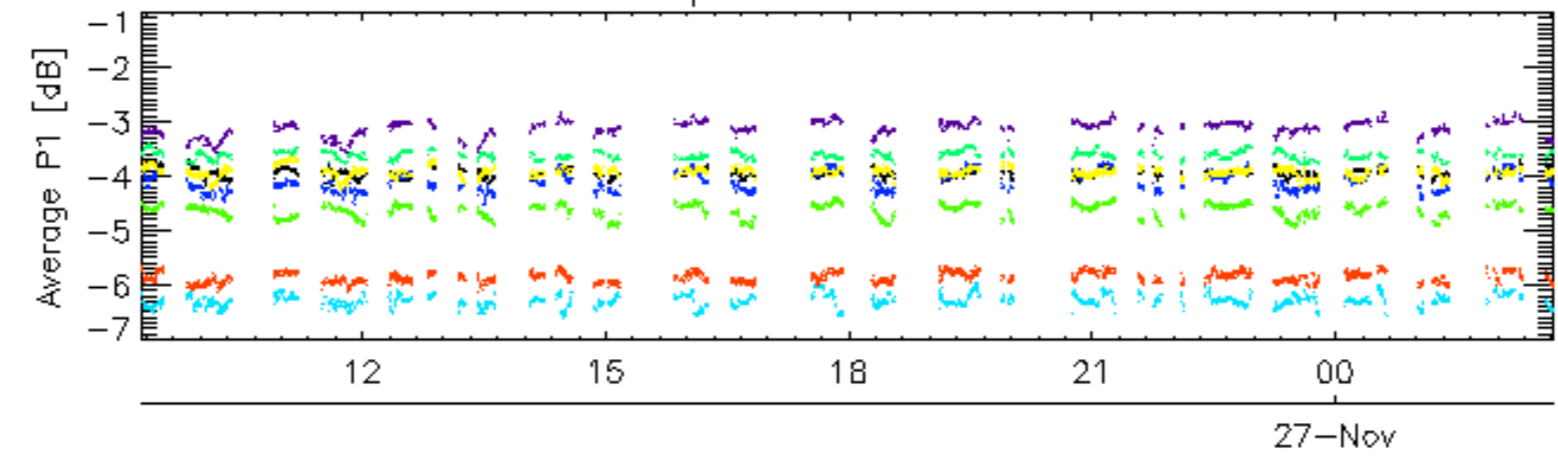


Cal pulses for GM1 SS3

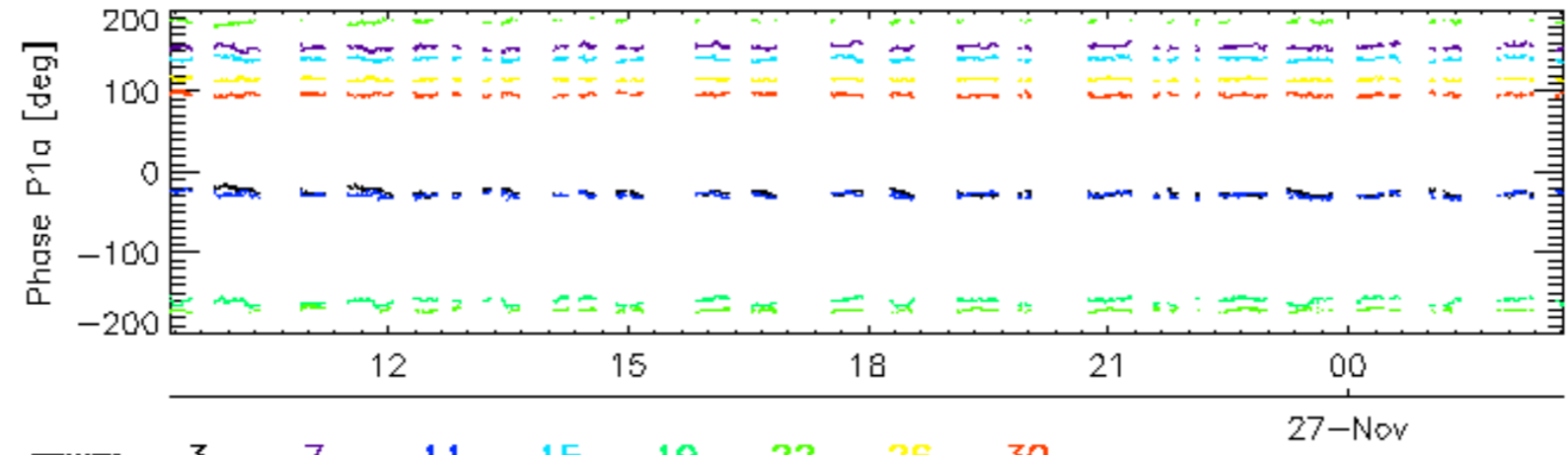
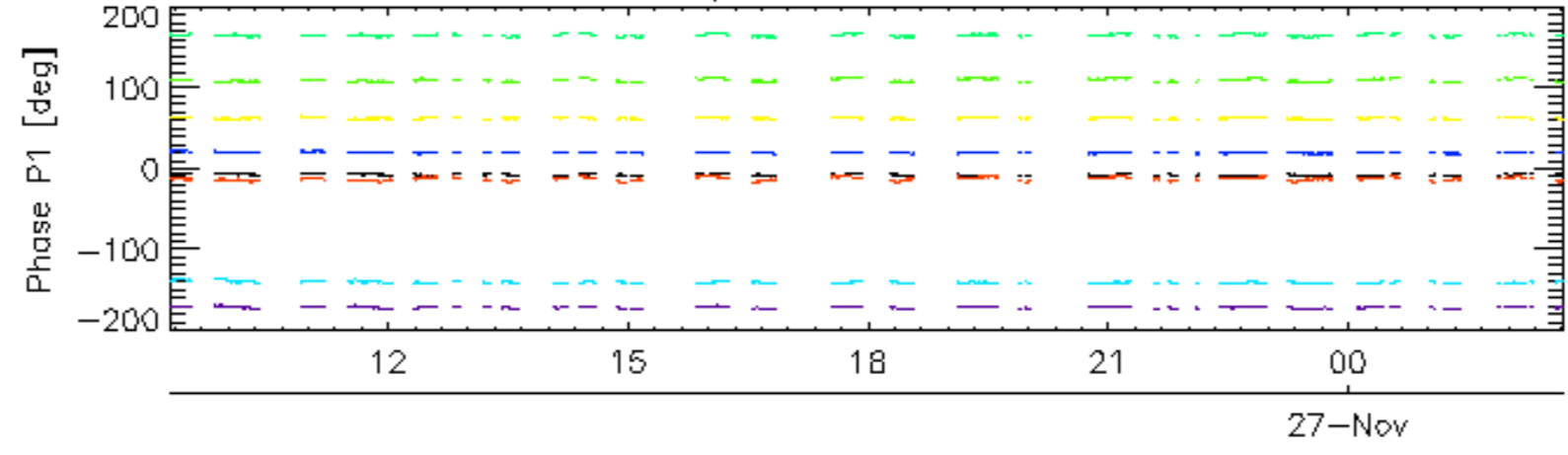


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

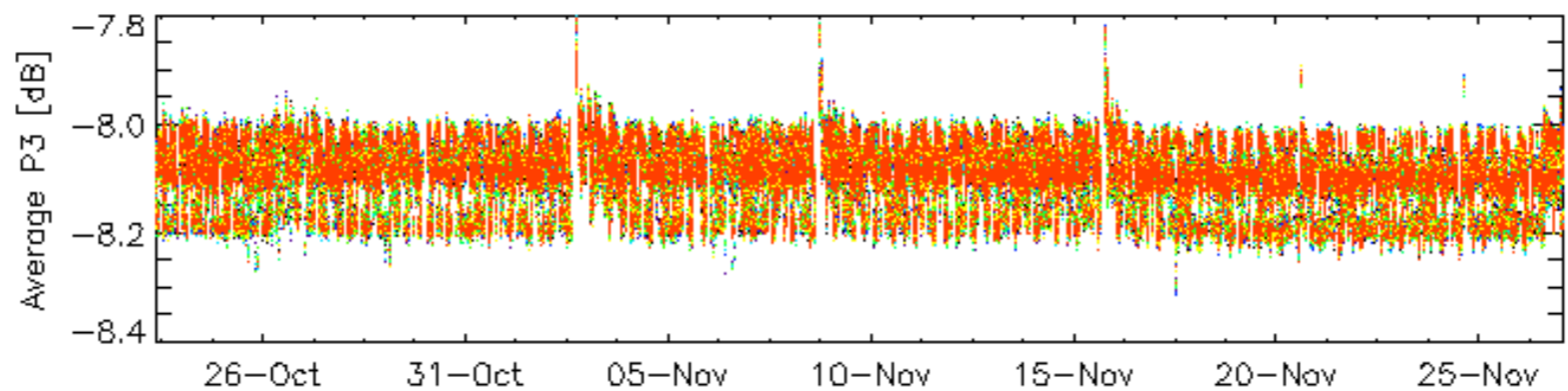
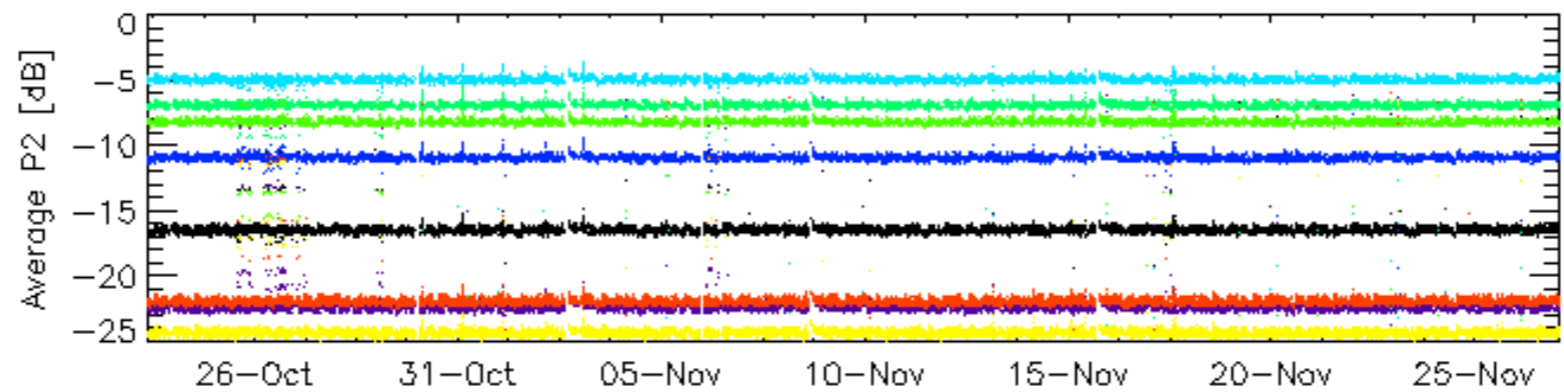
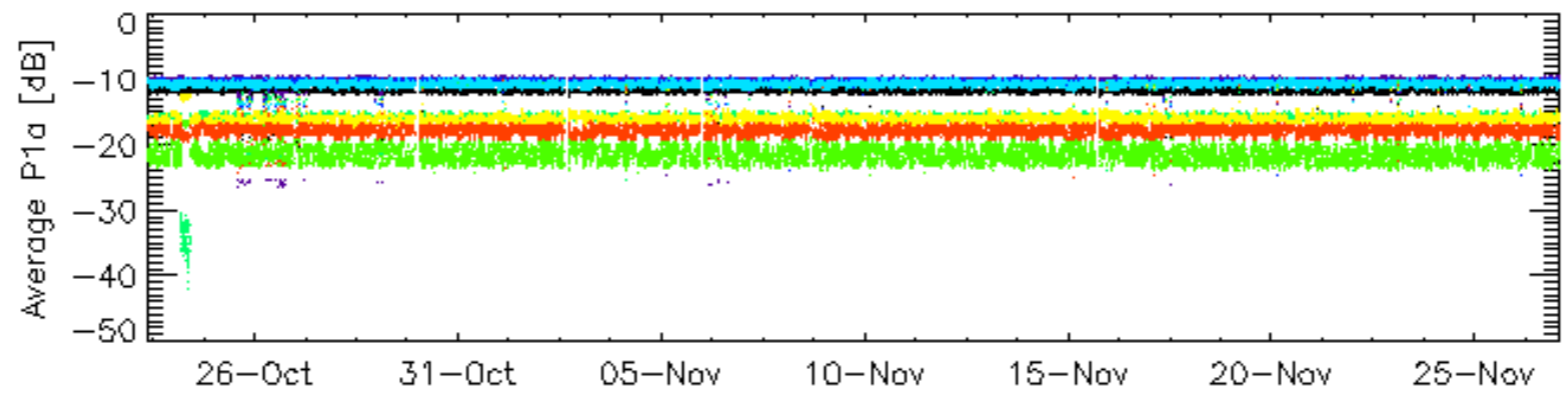
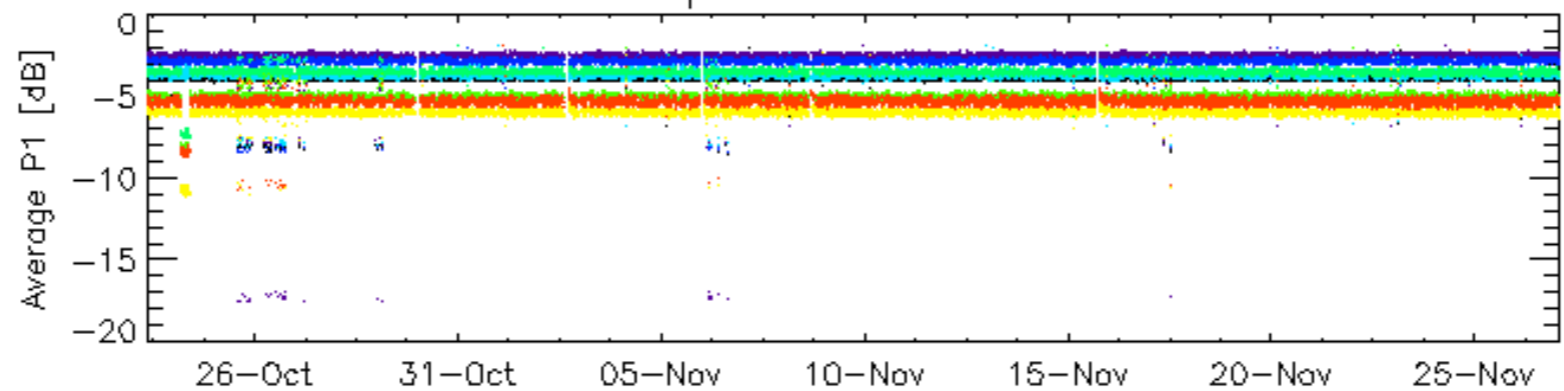


Cal pulses for WVS IS2



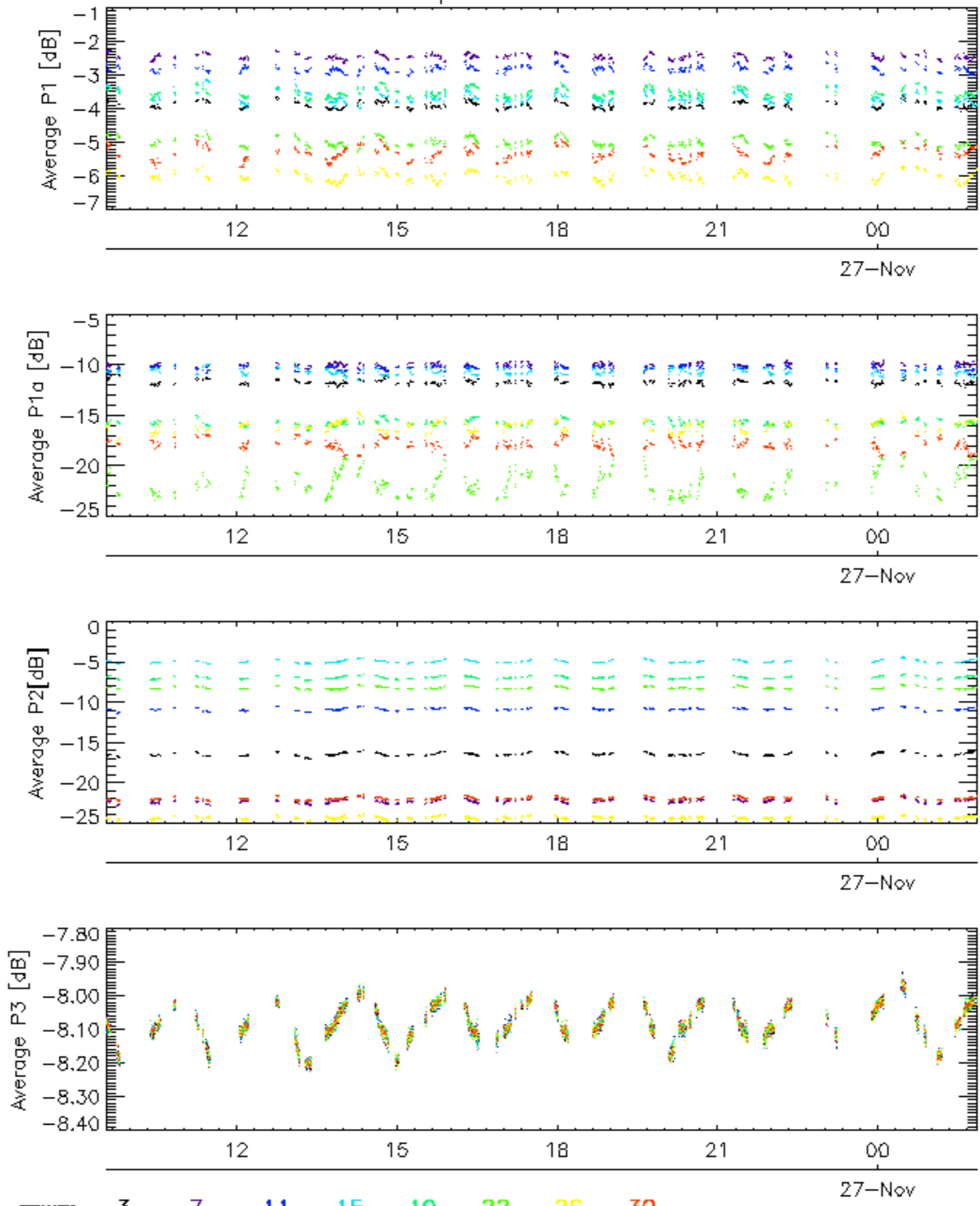
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

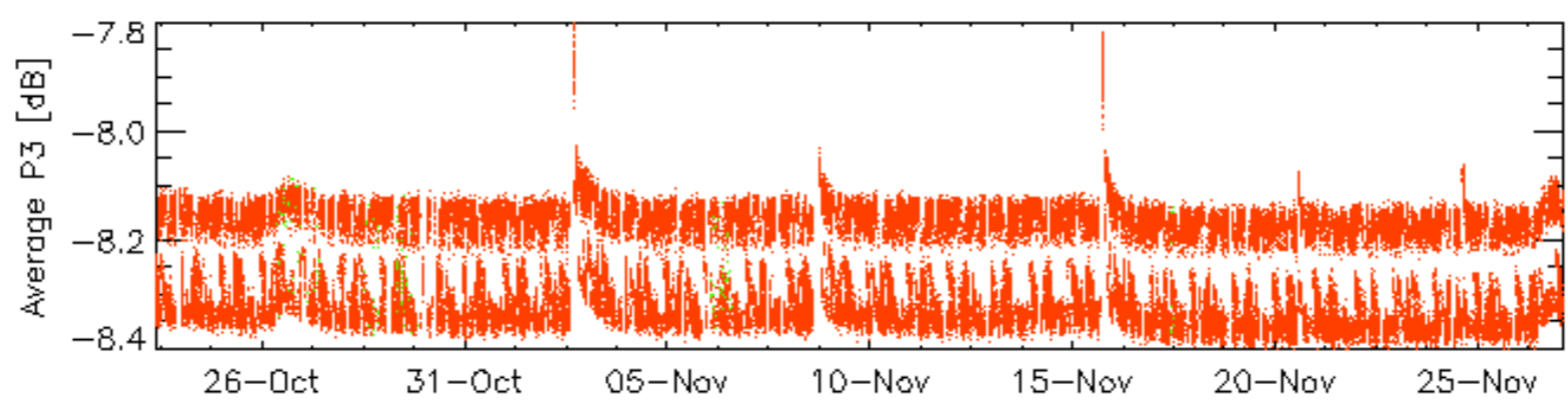
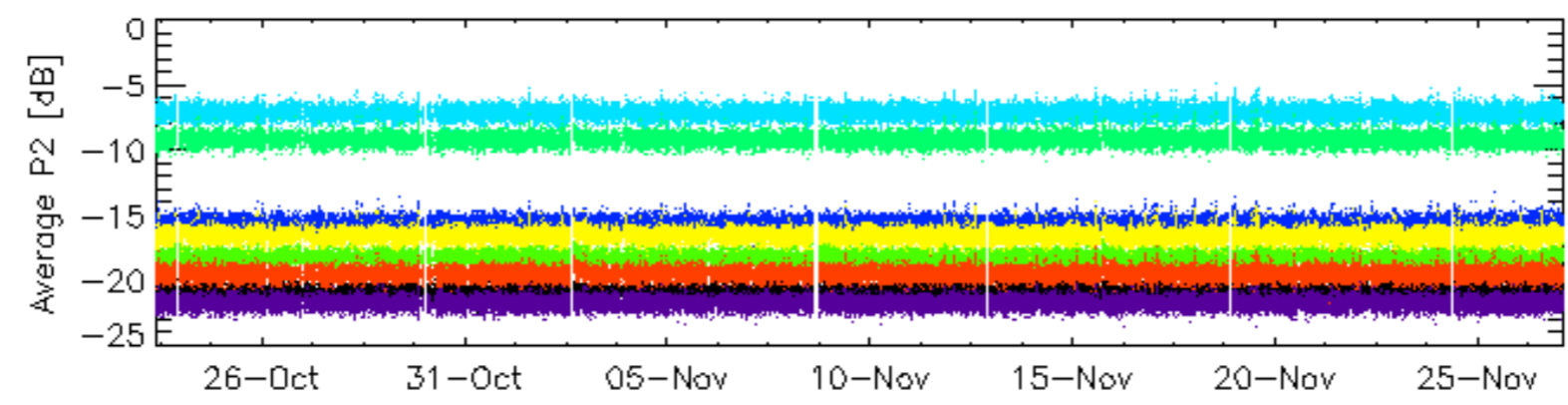
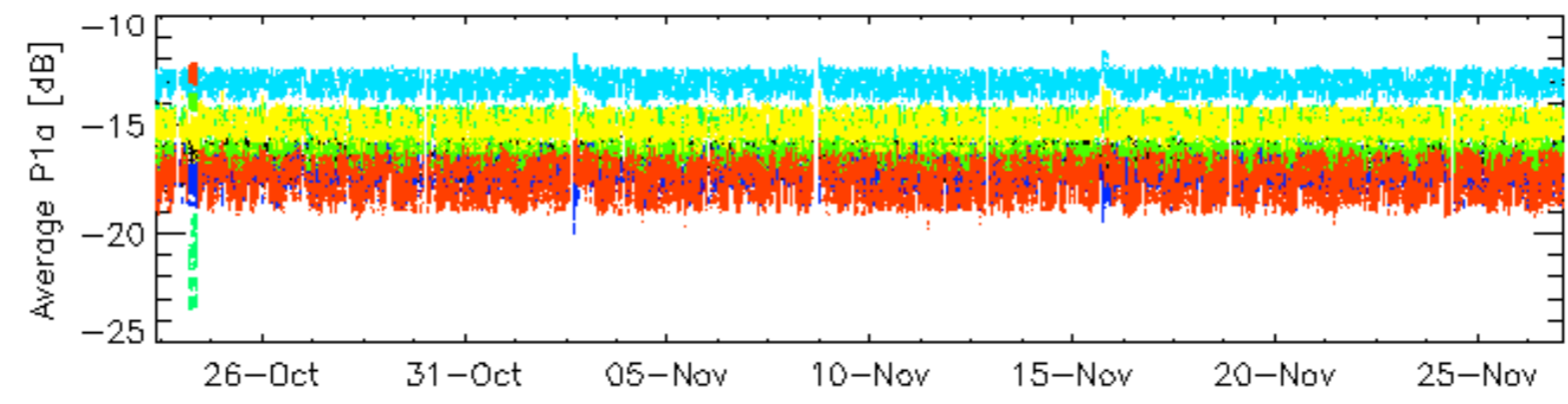
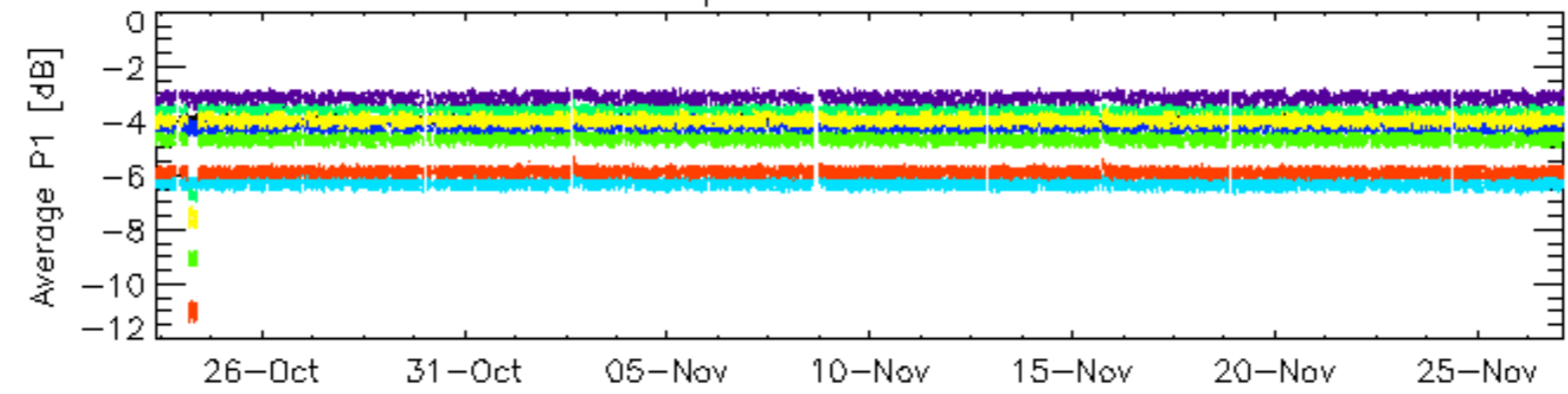


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

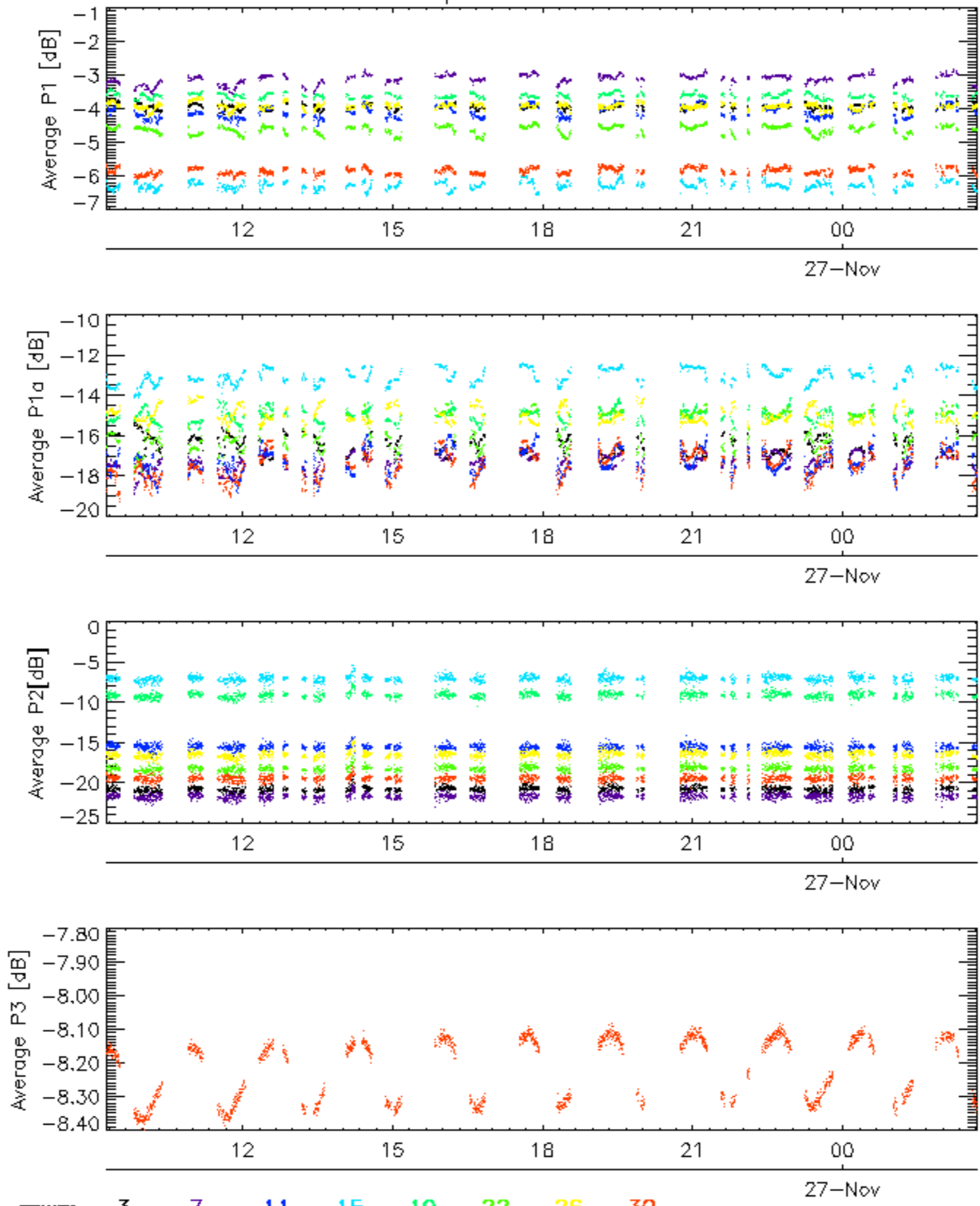


Cal pulses for WVS IS2

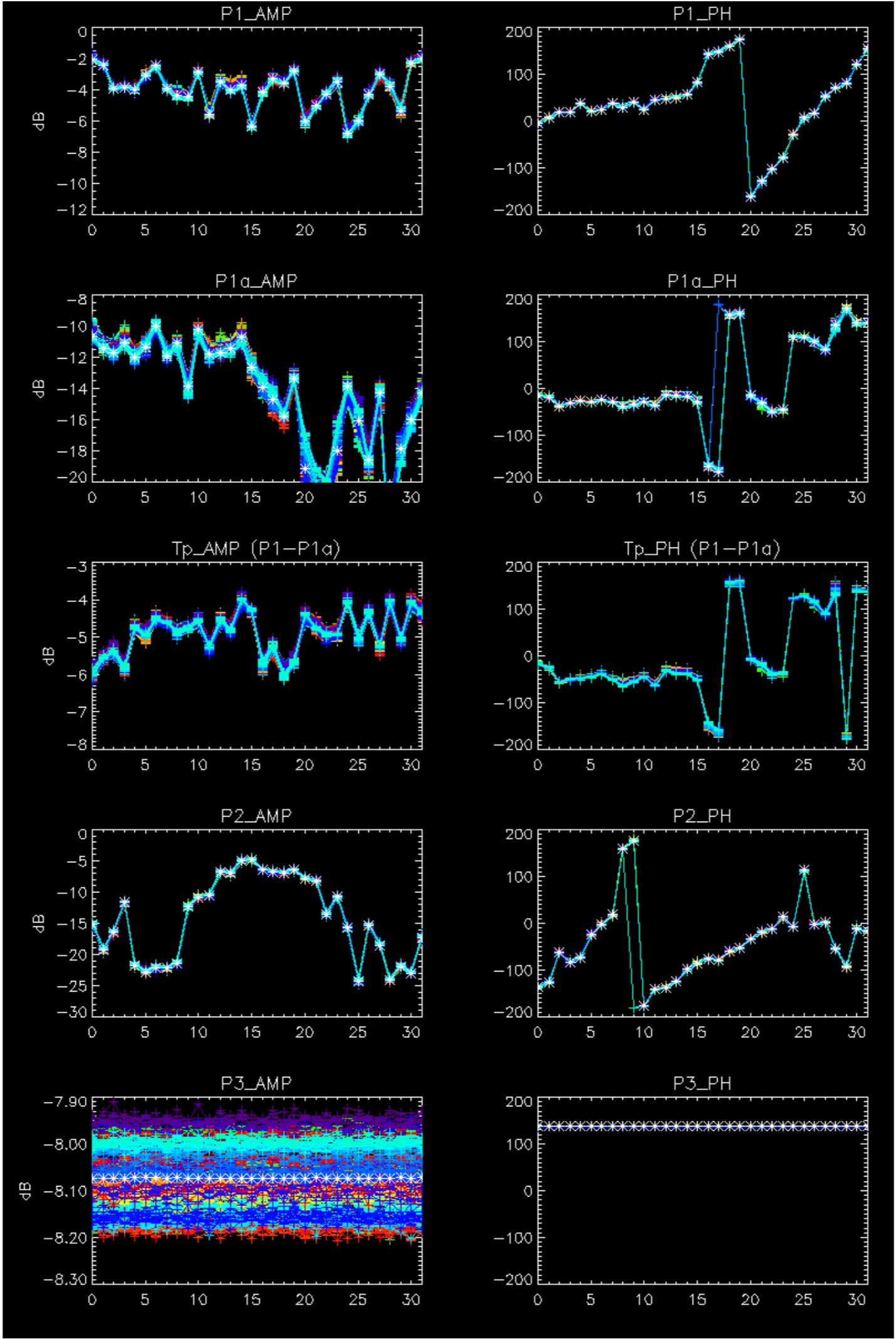


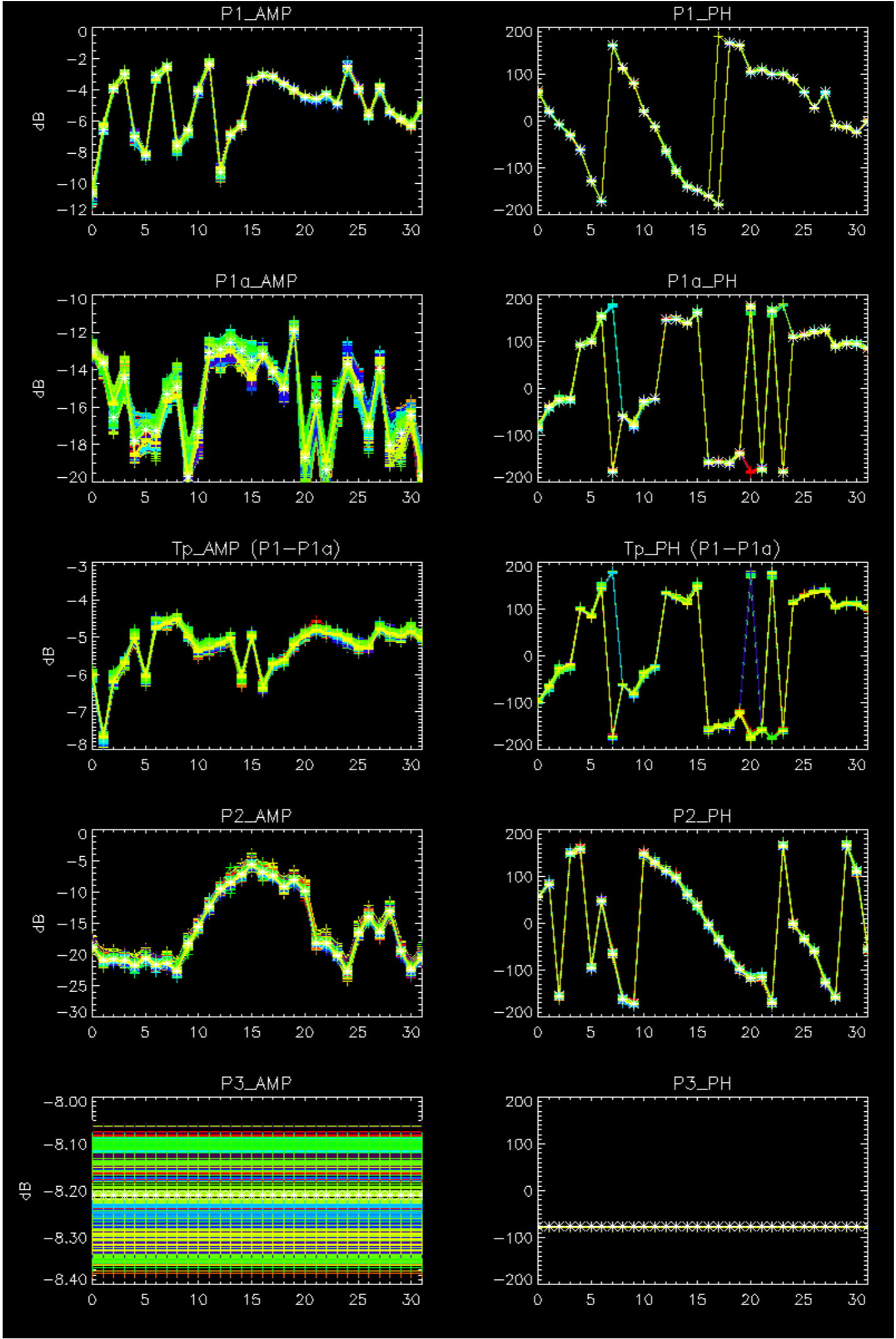
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



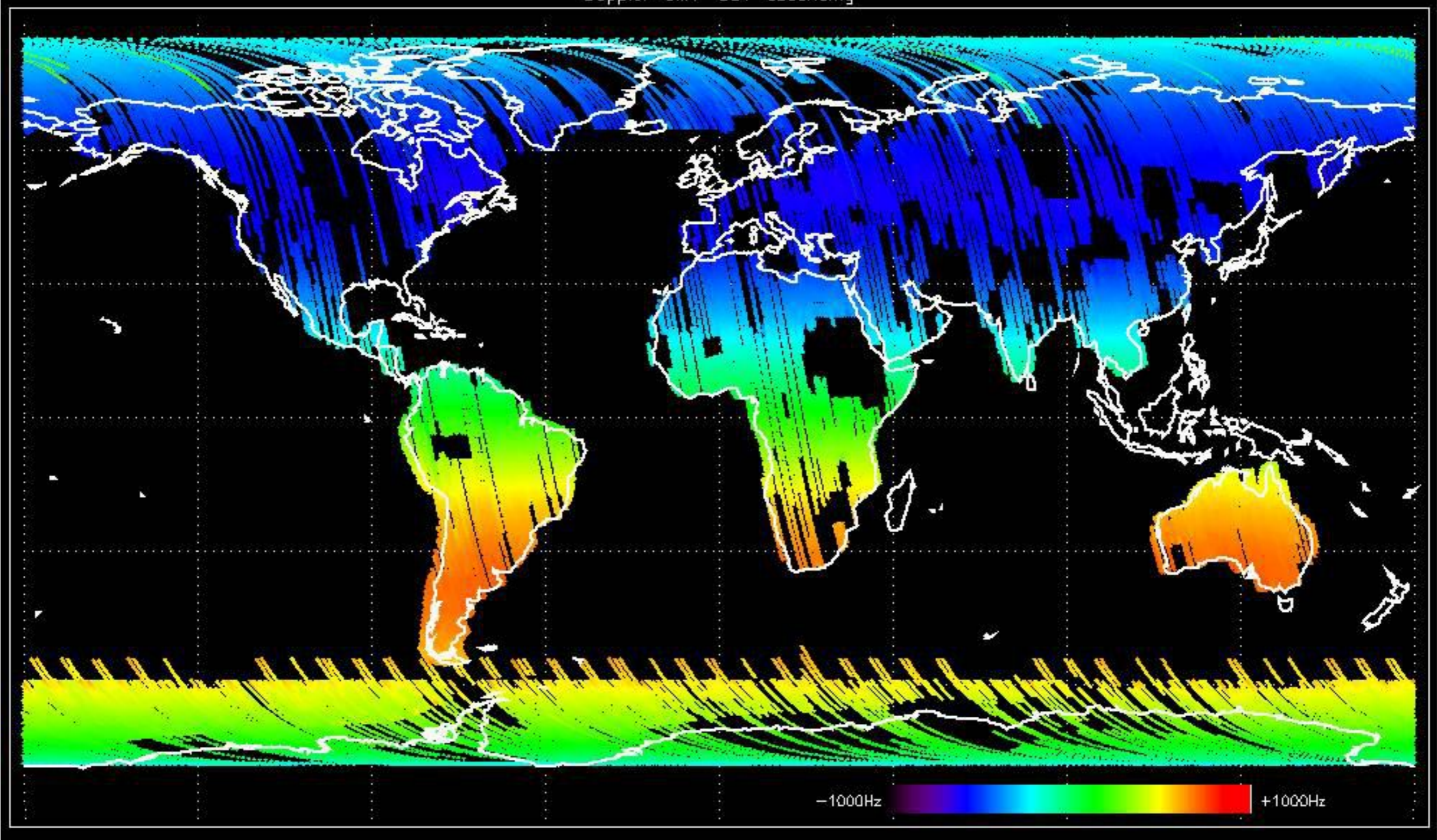
No anomalies observed.



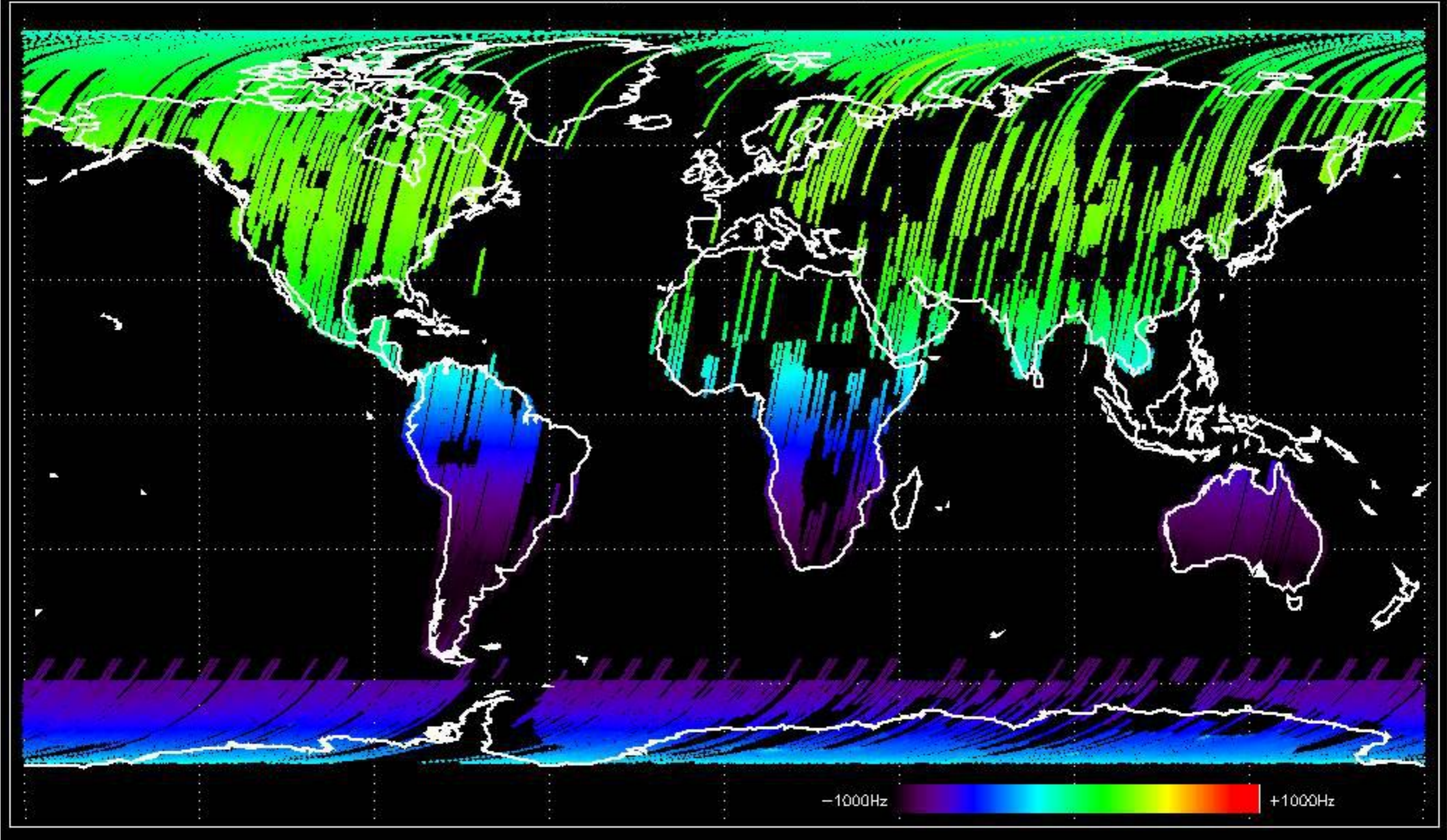


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

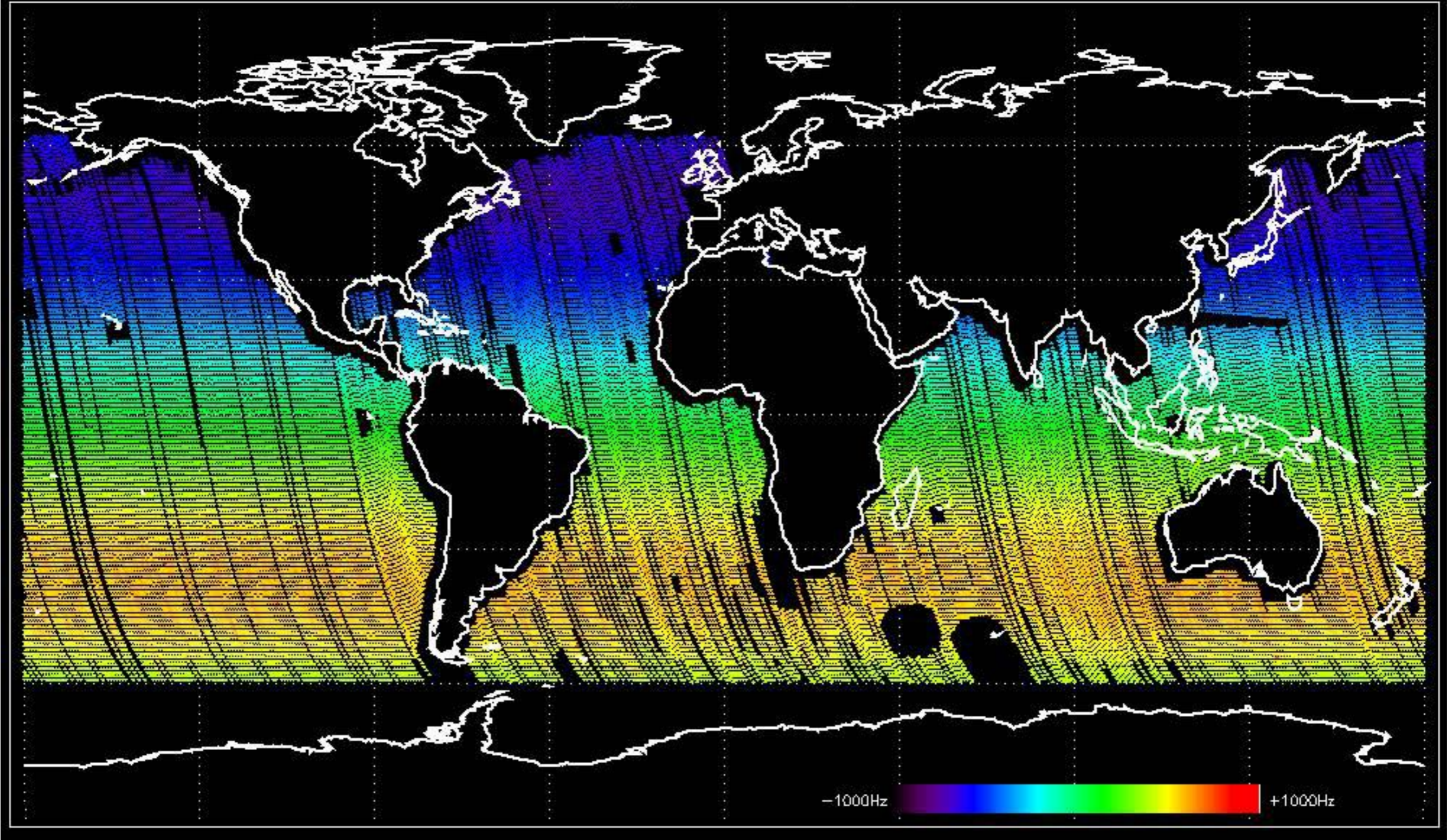
Doppler 'GM1' 'SS1' ascending



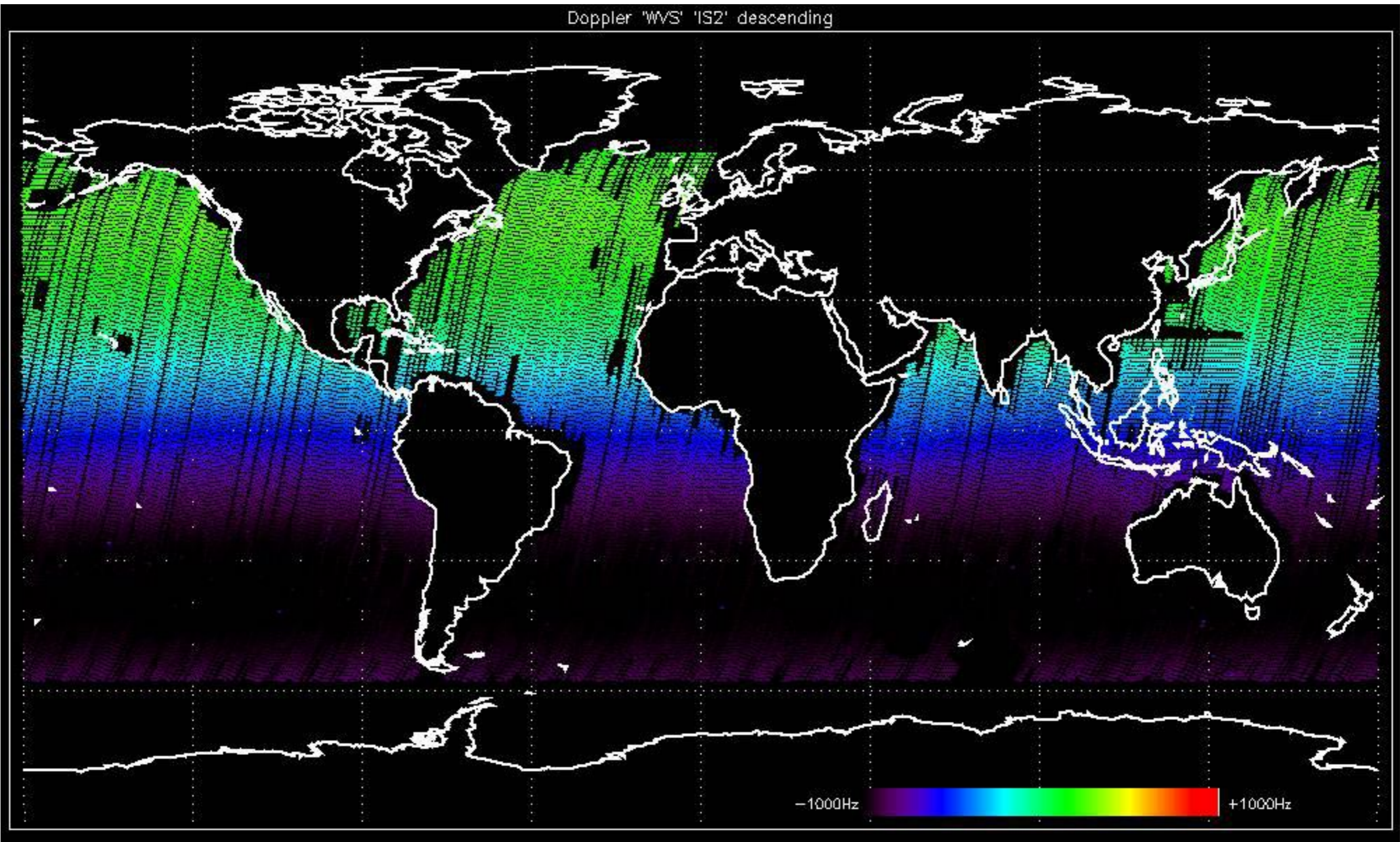
Doppler 'GM1' 'SS1' descending

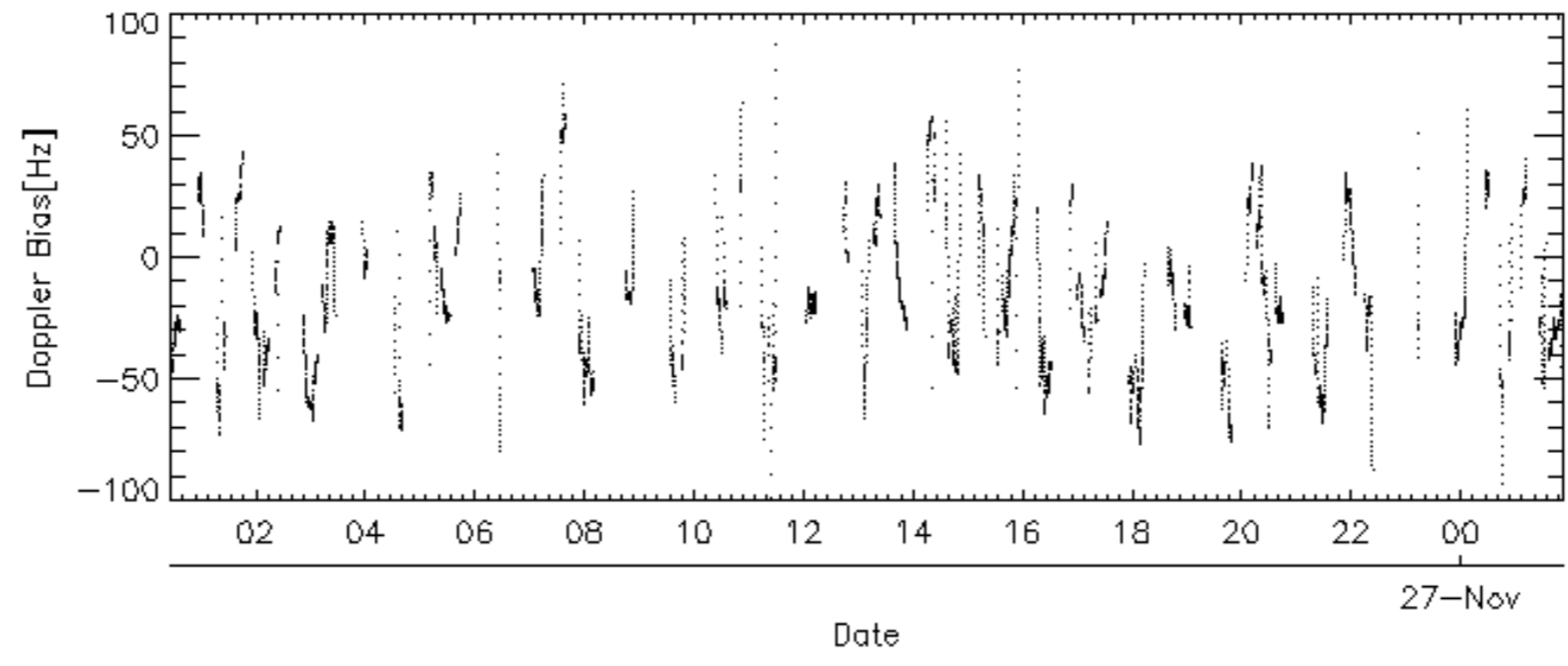
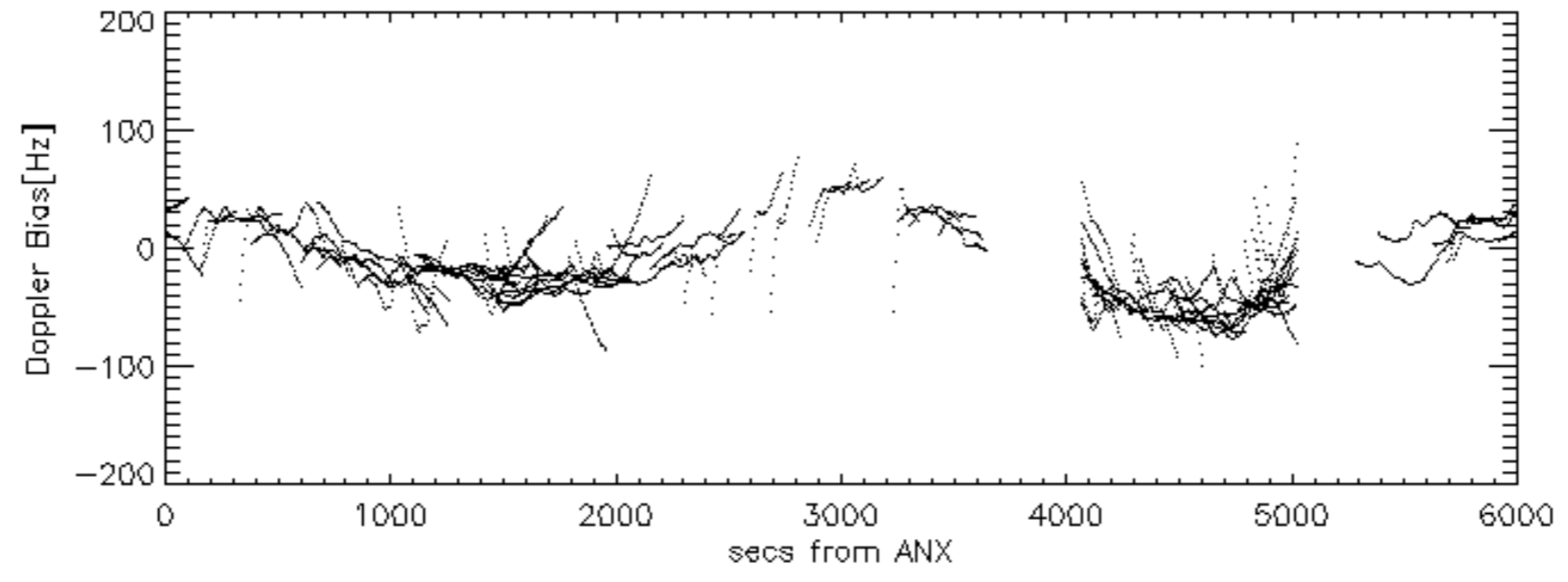
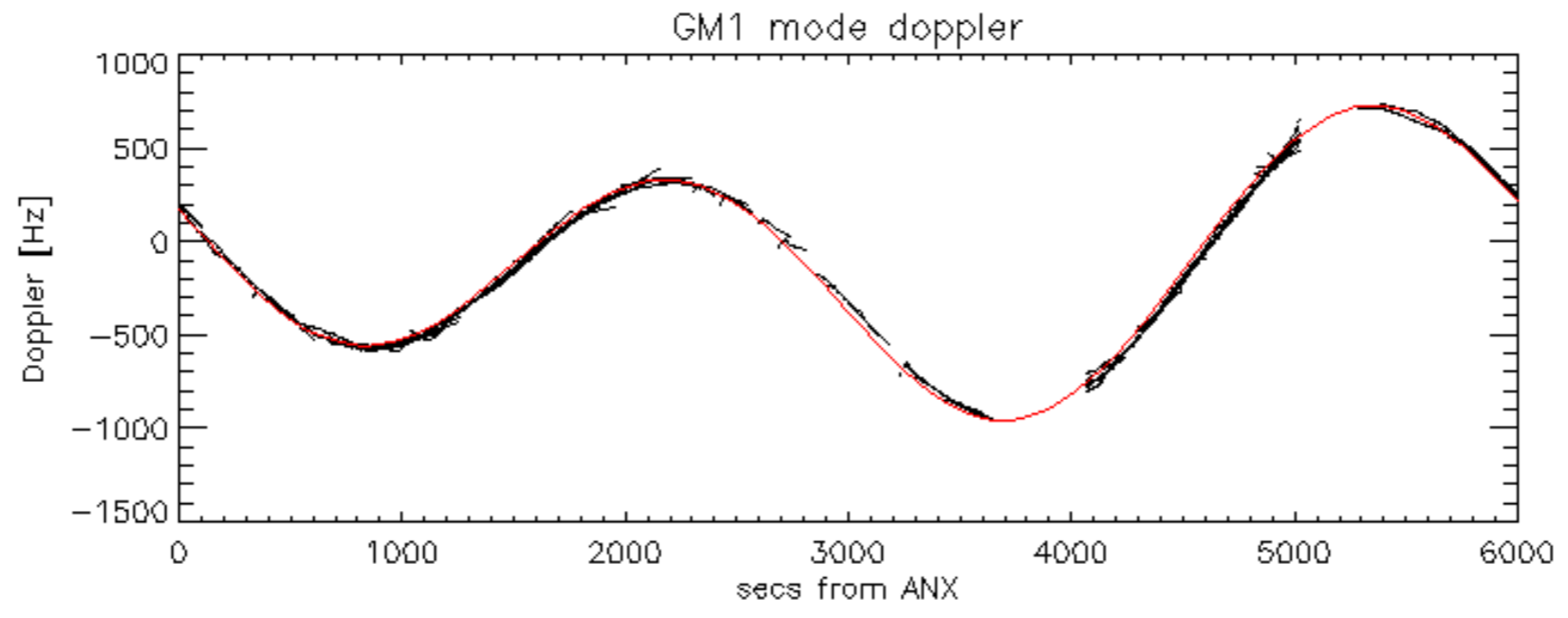


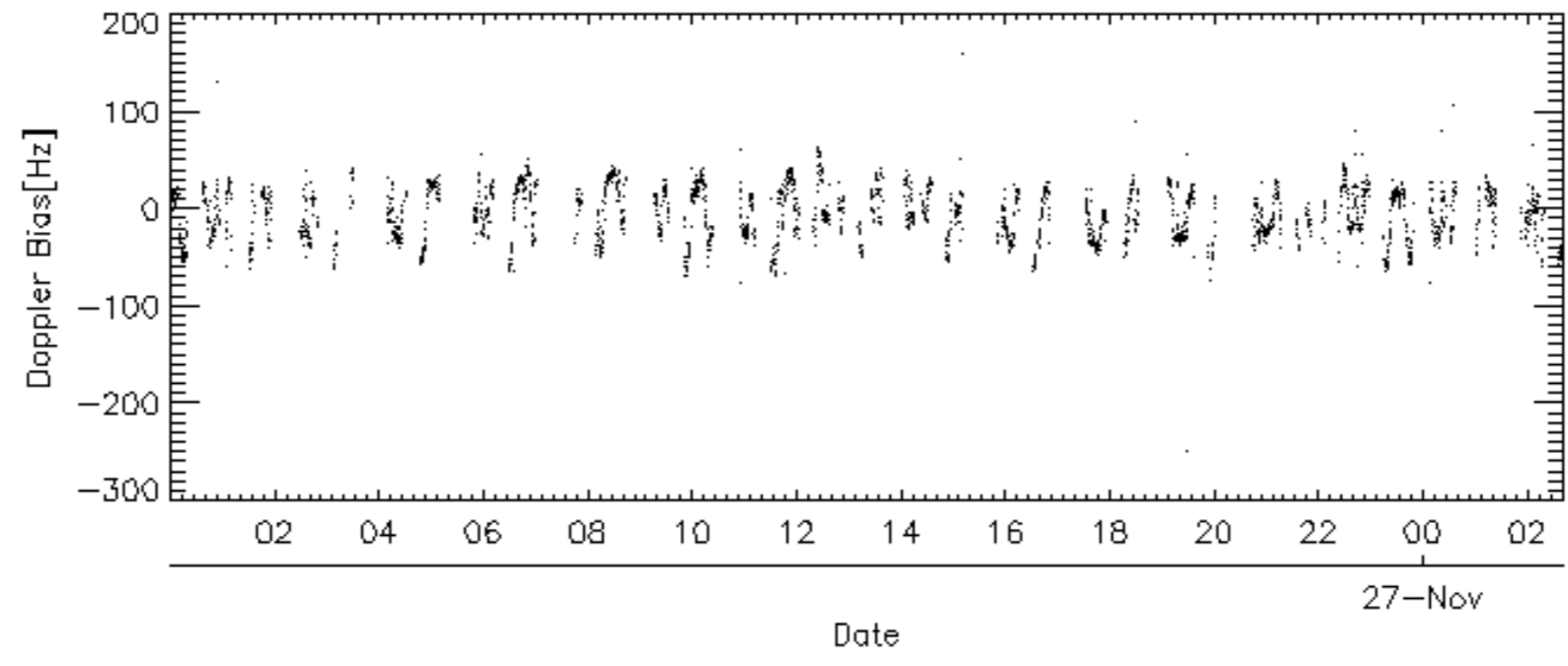
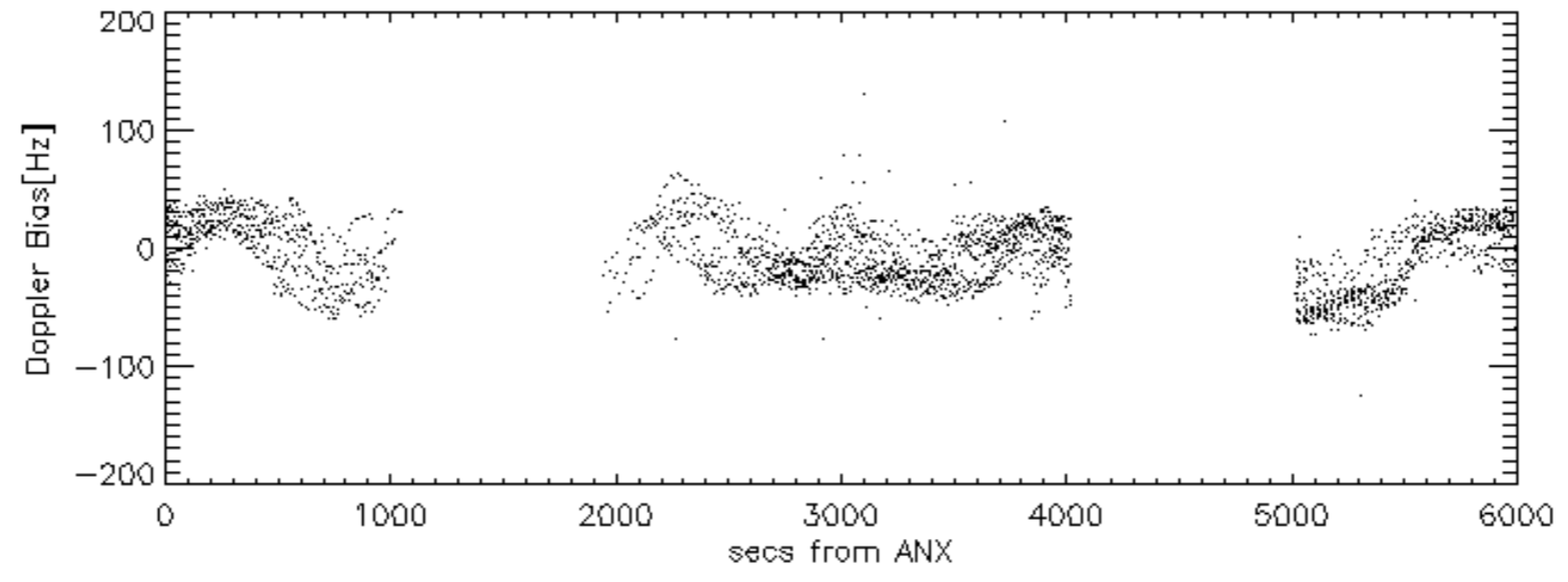
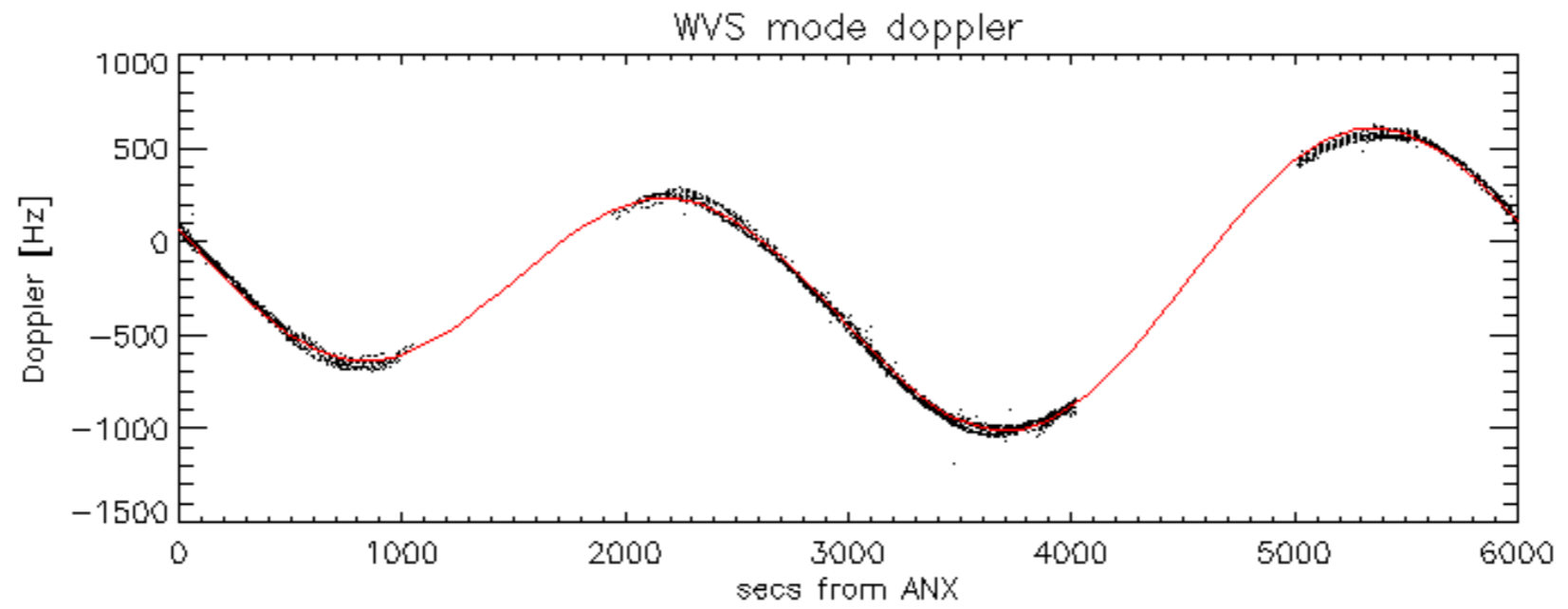
Doppler 'WVS' 'IS2' ascending



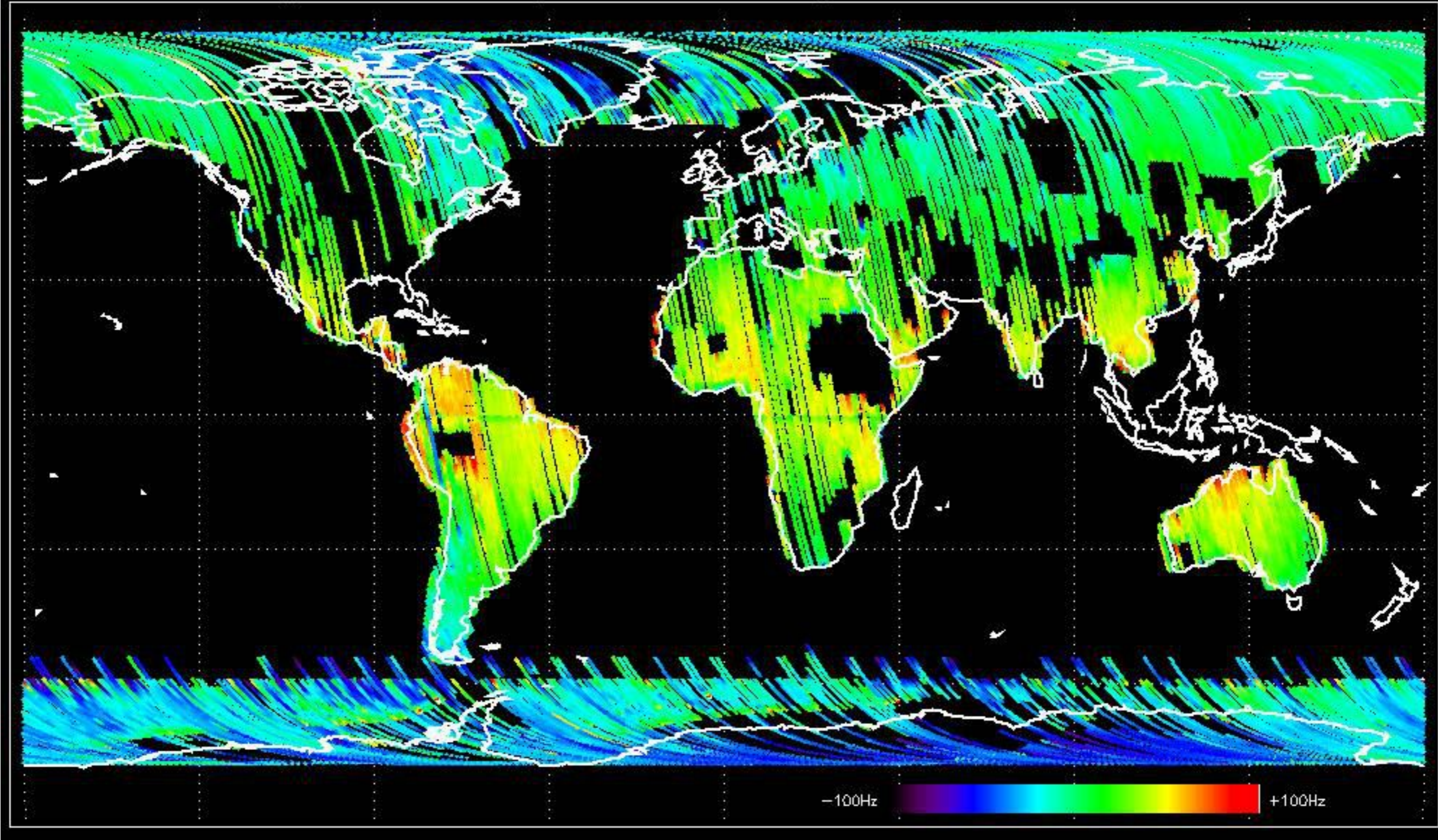
Doppler 'WVS' 'IS2' descending



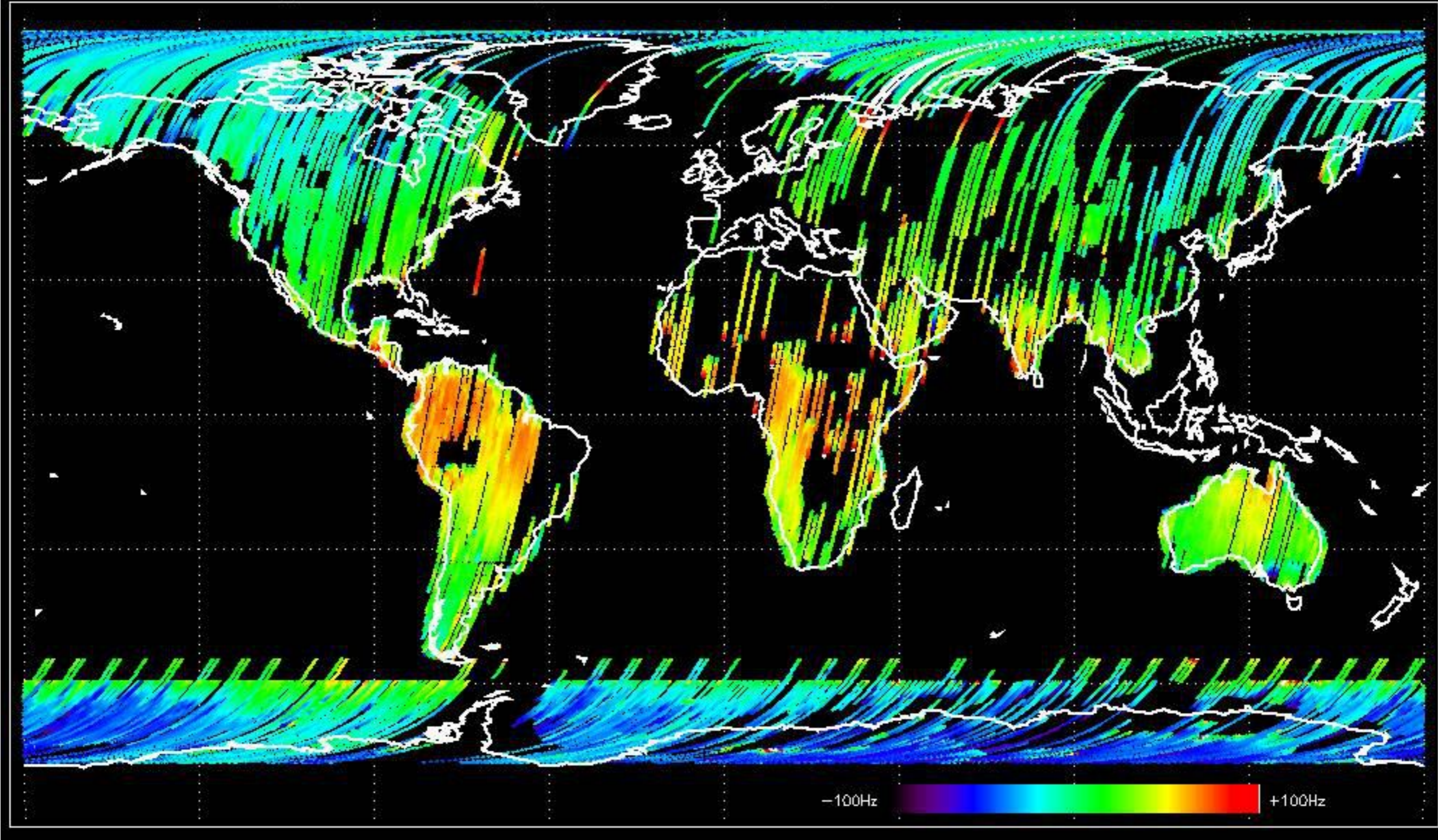




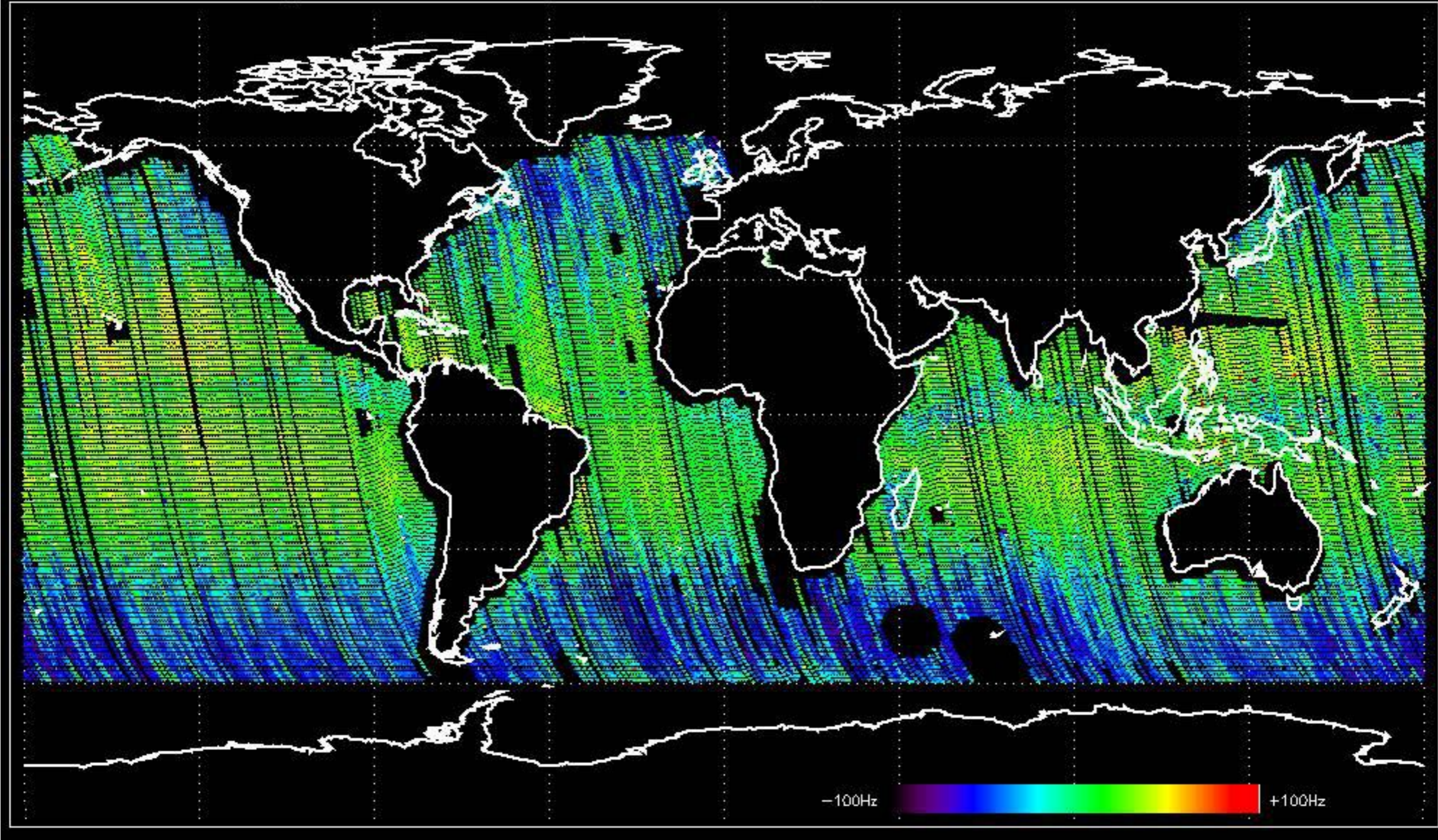
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.410554 Hz



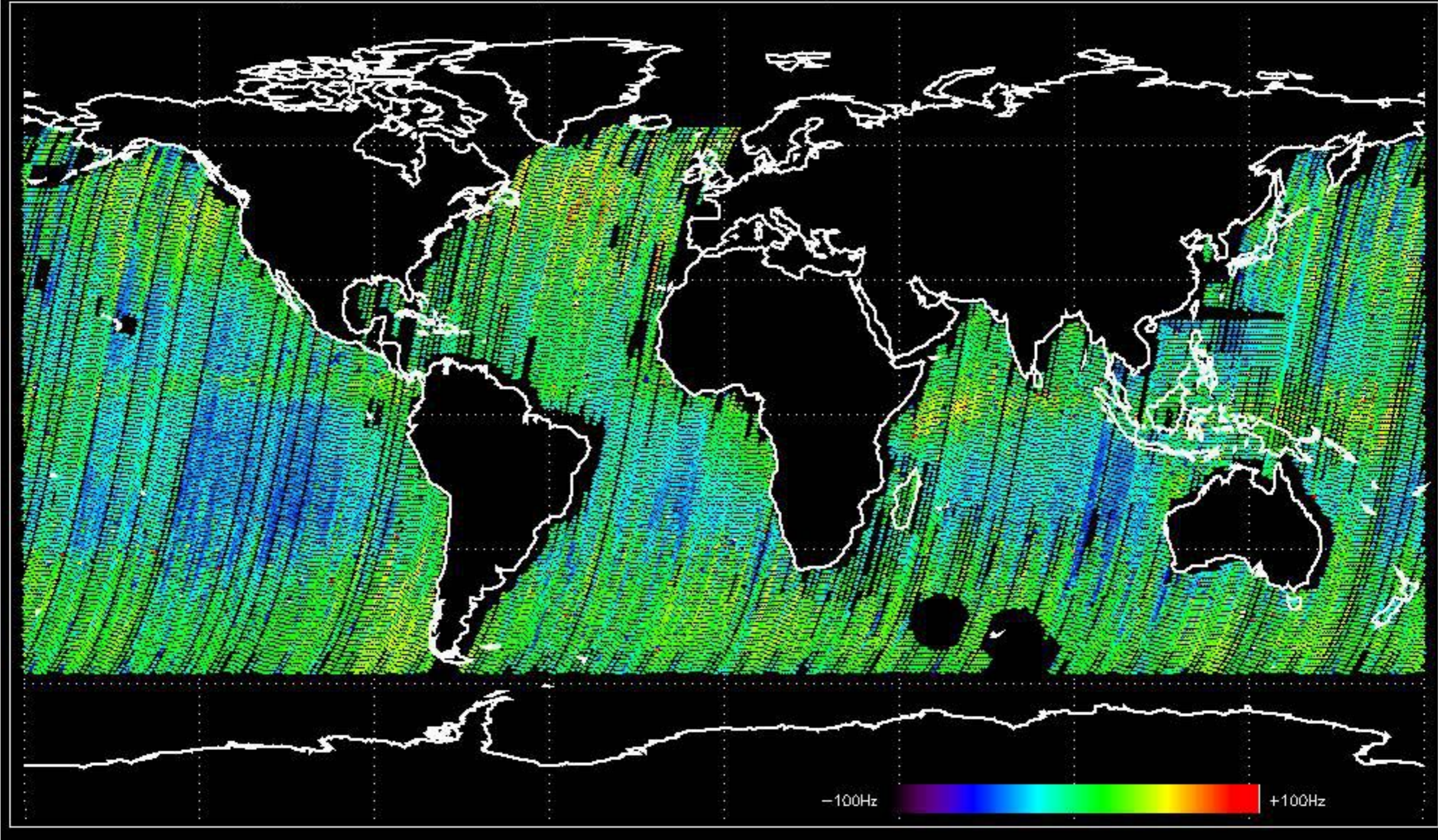
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.478007 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.6677575 Hz

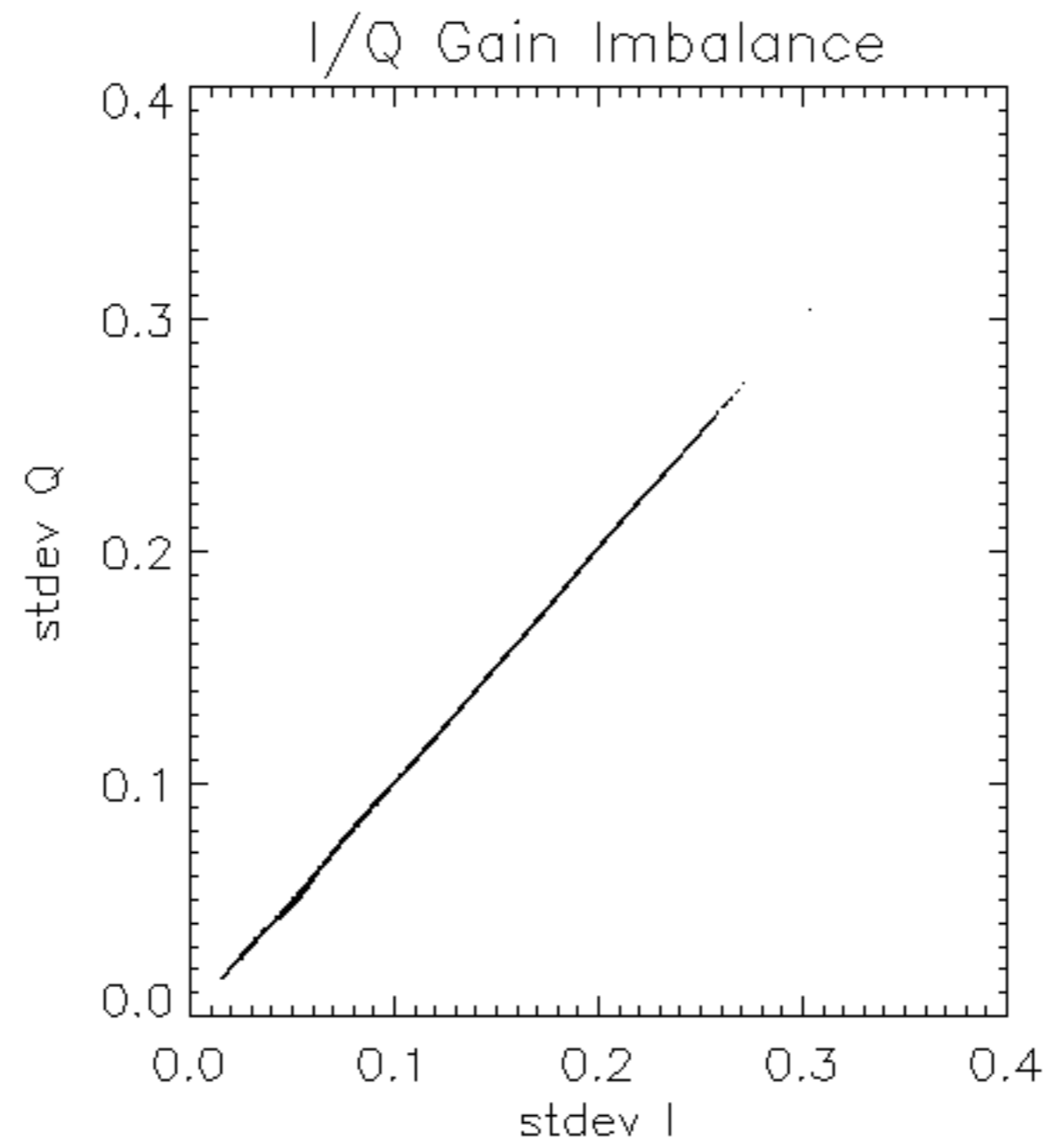


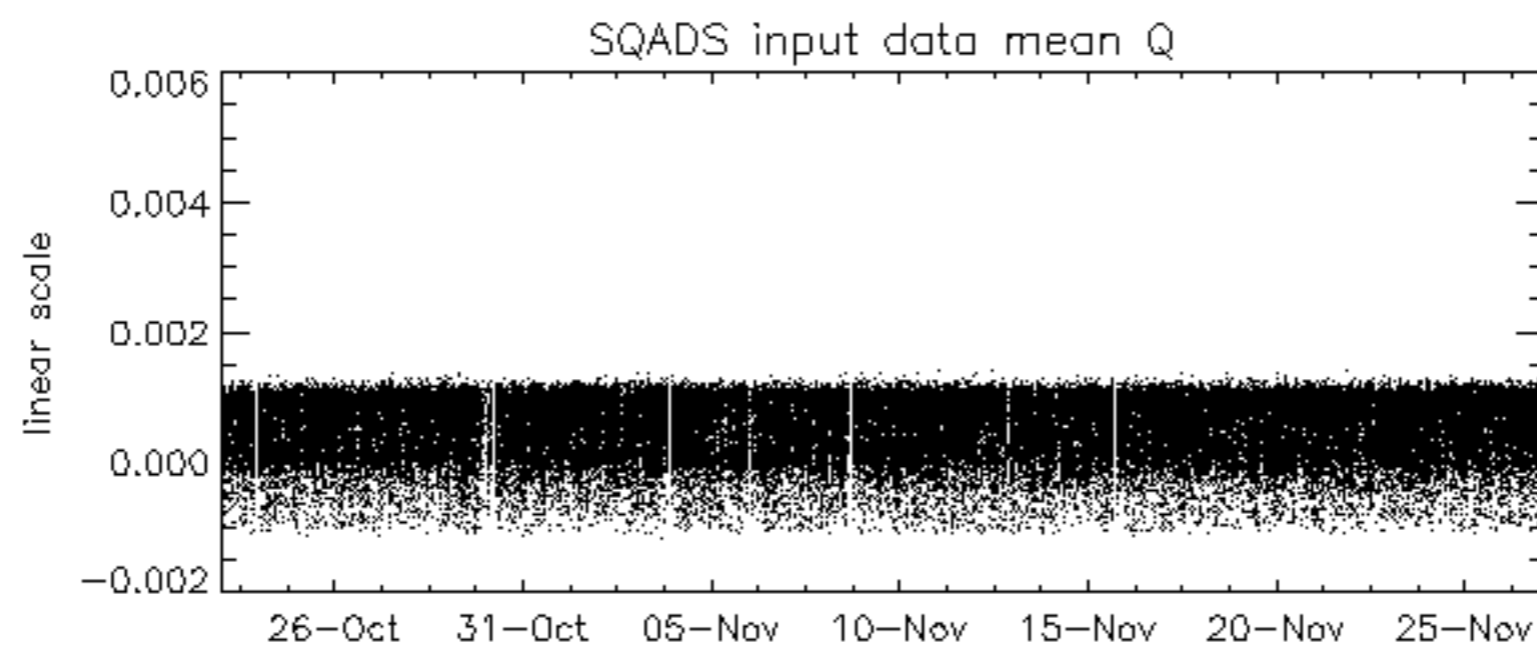
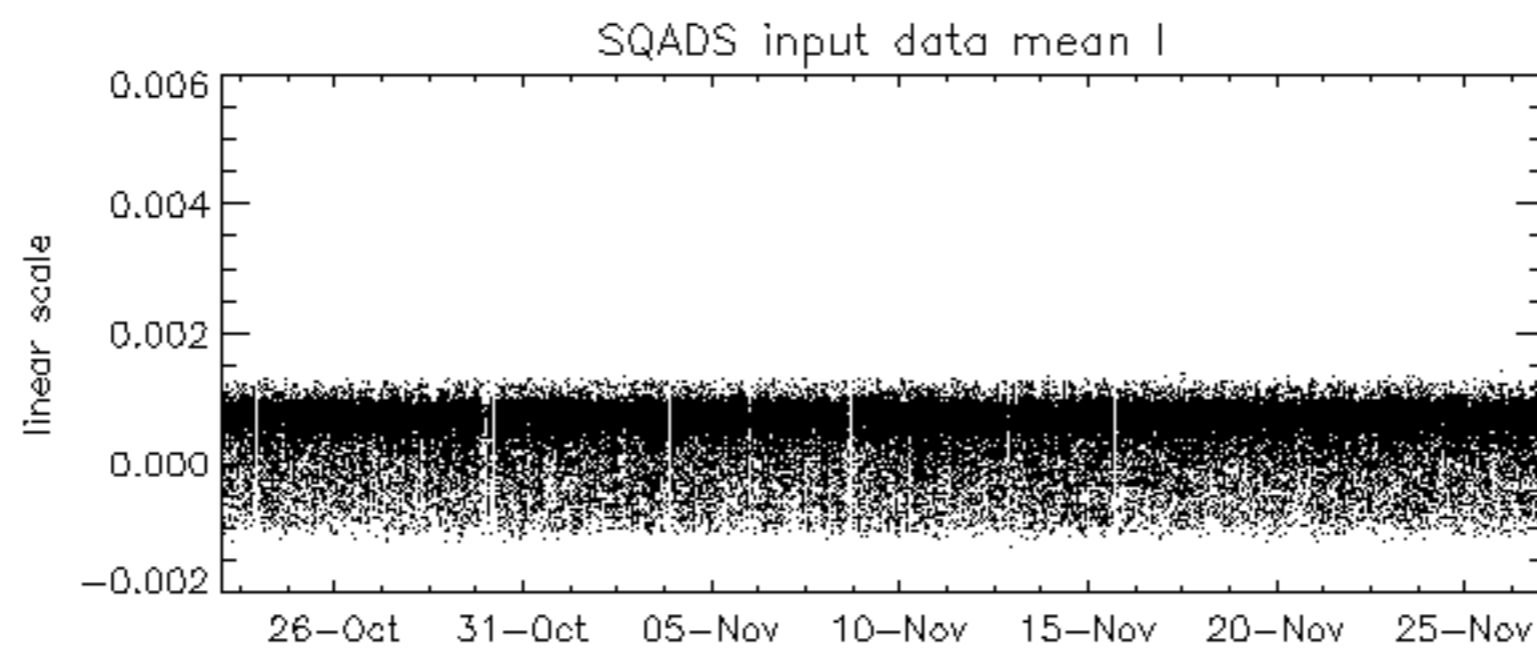
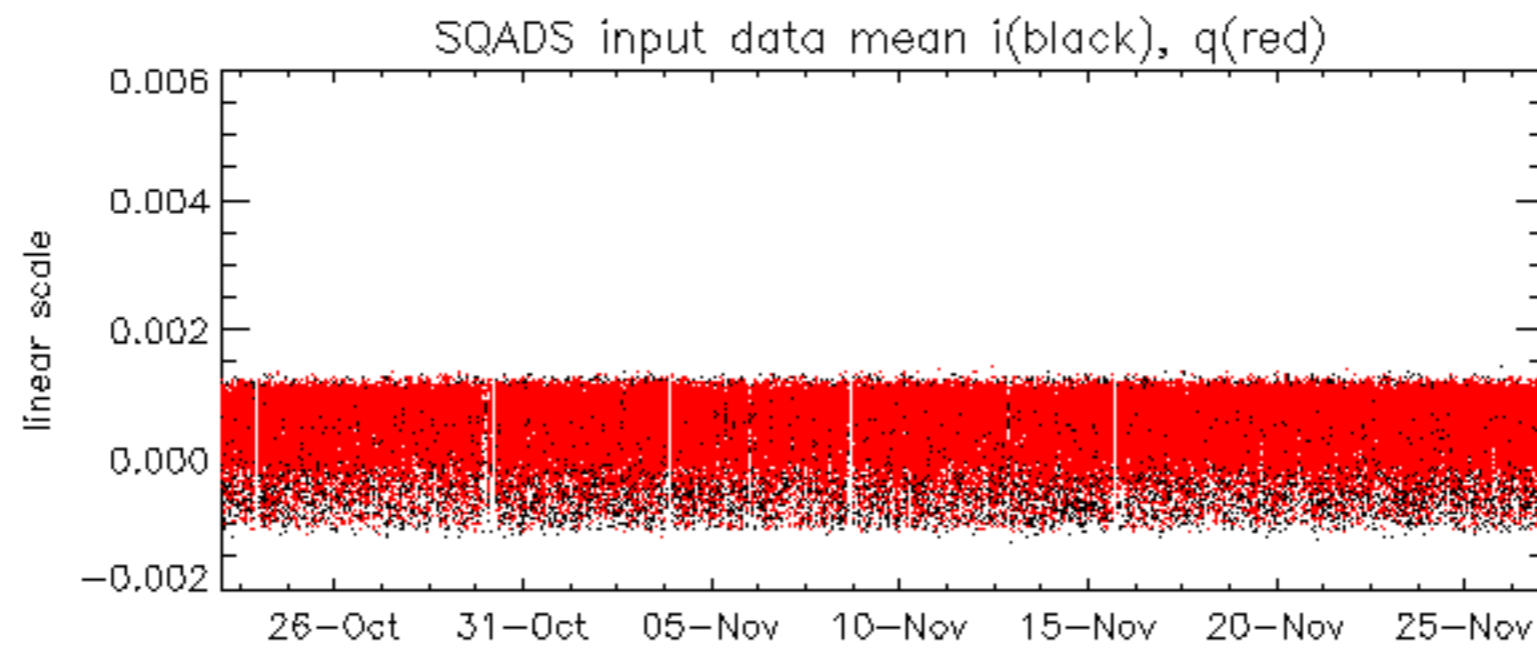
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.6073138 Hz

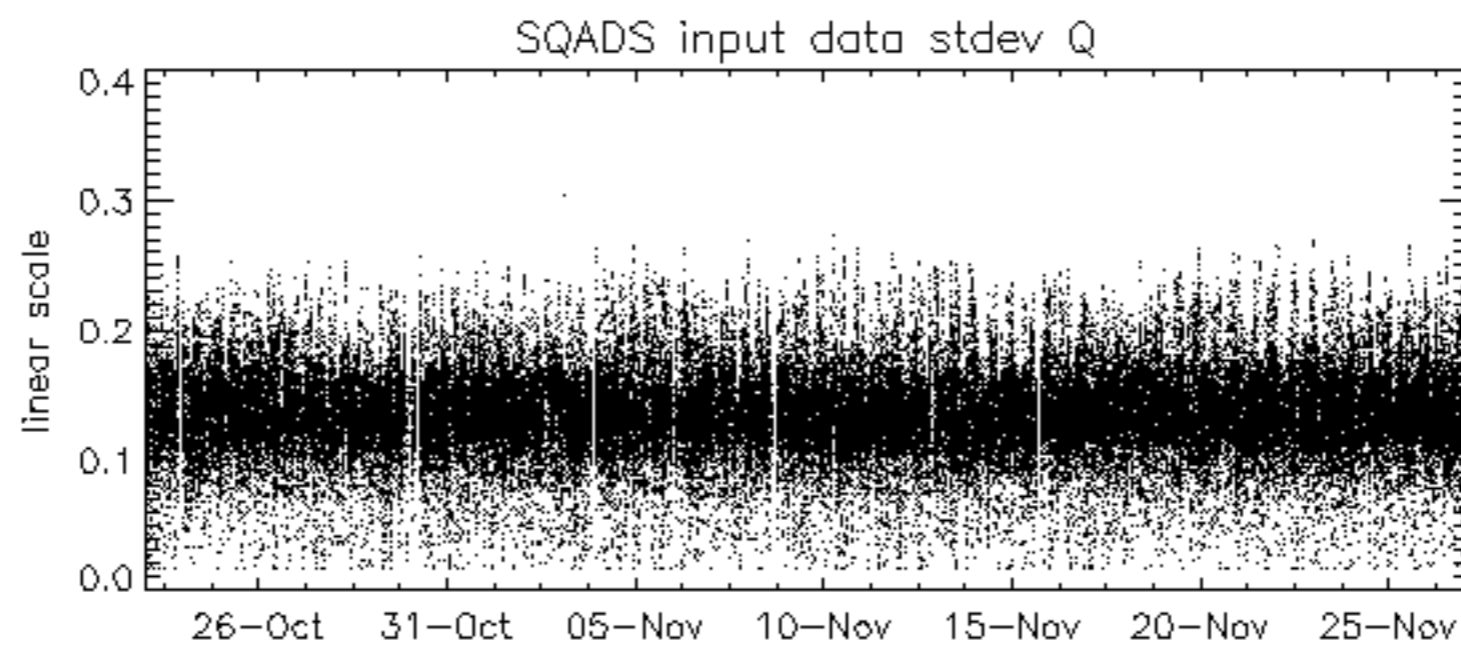
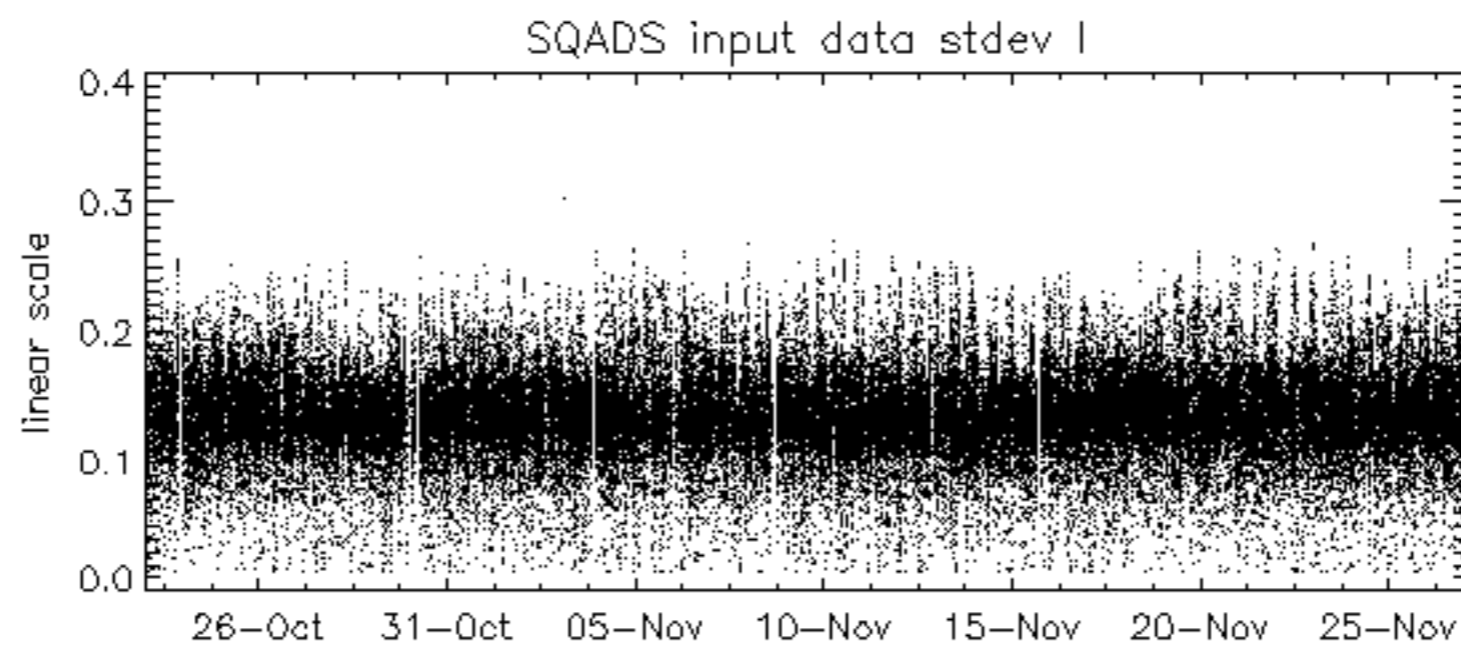
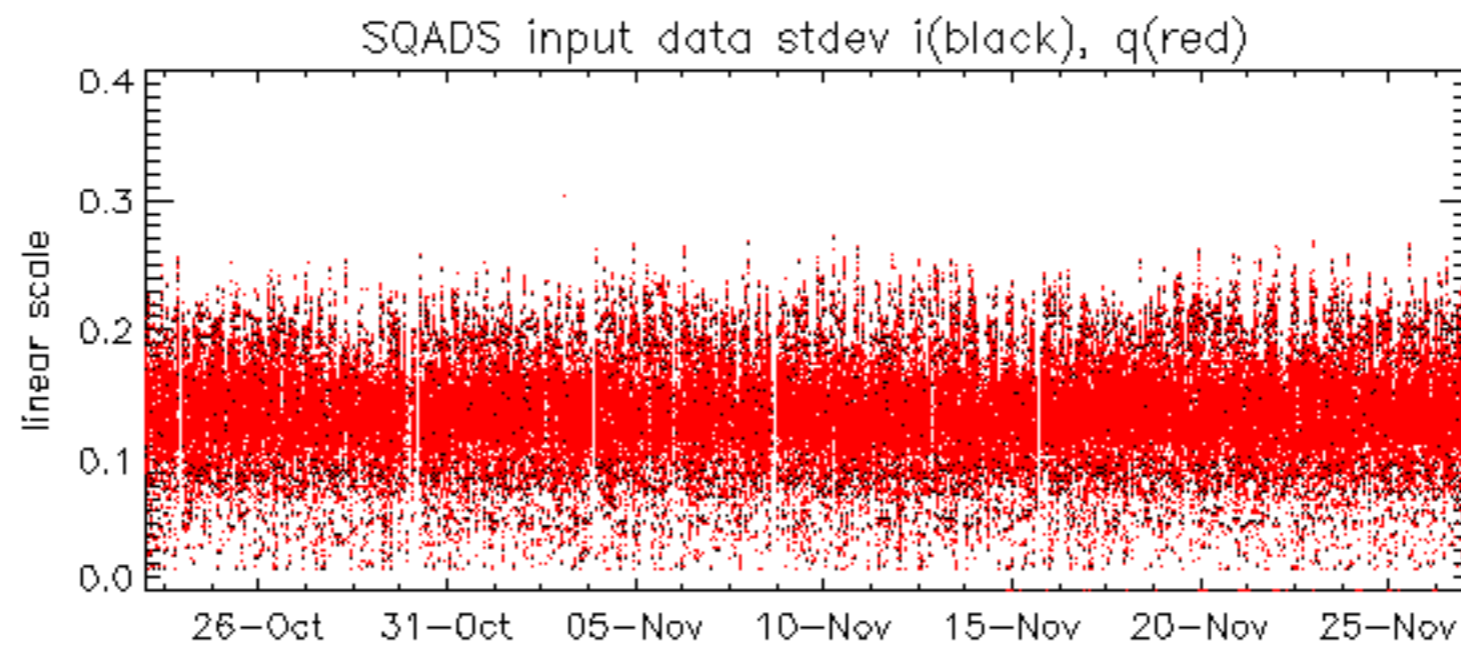


No anomalies observed on available MS products:

No anomalies observed.



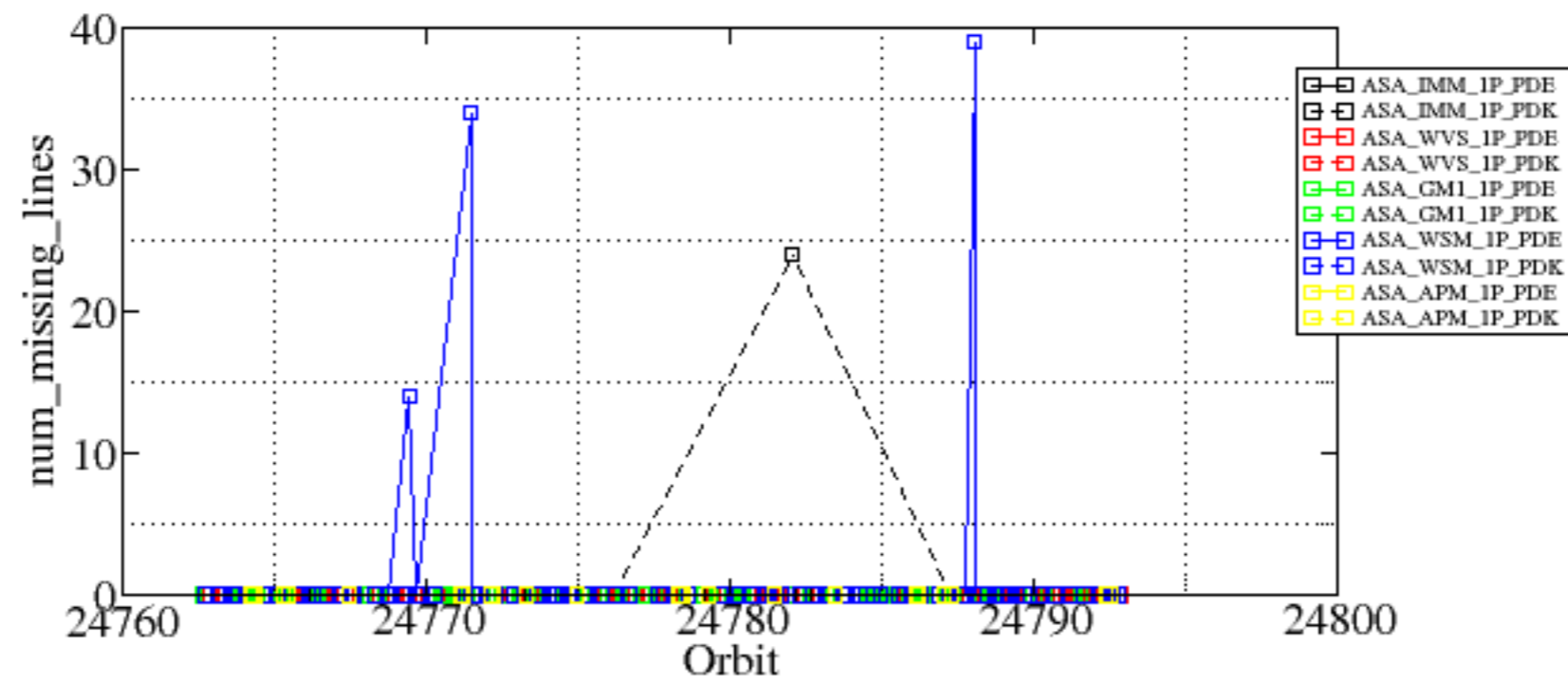




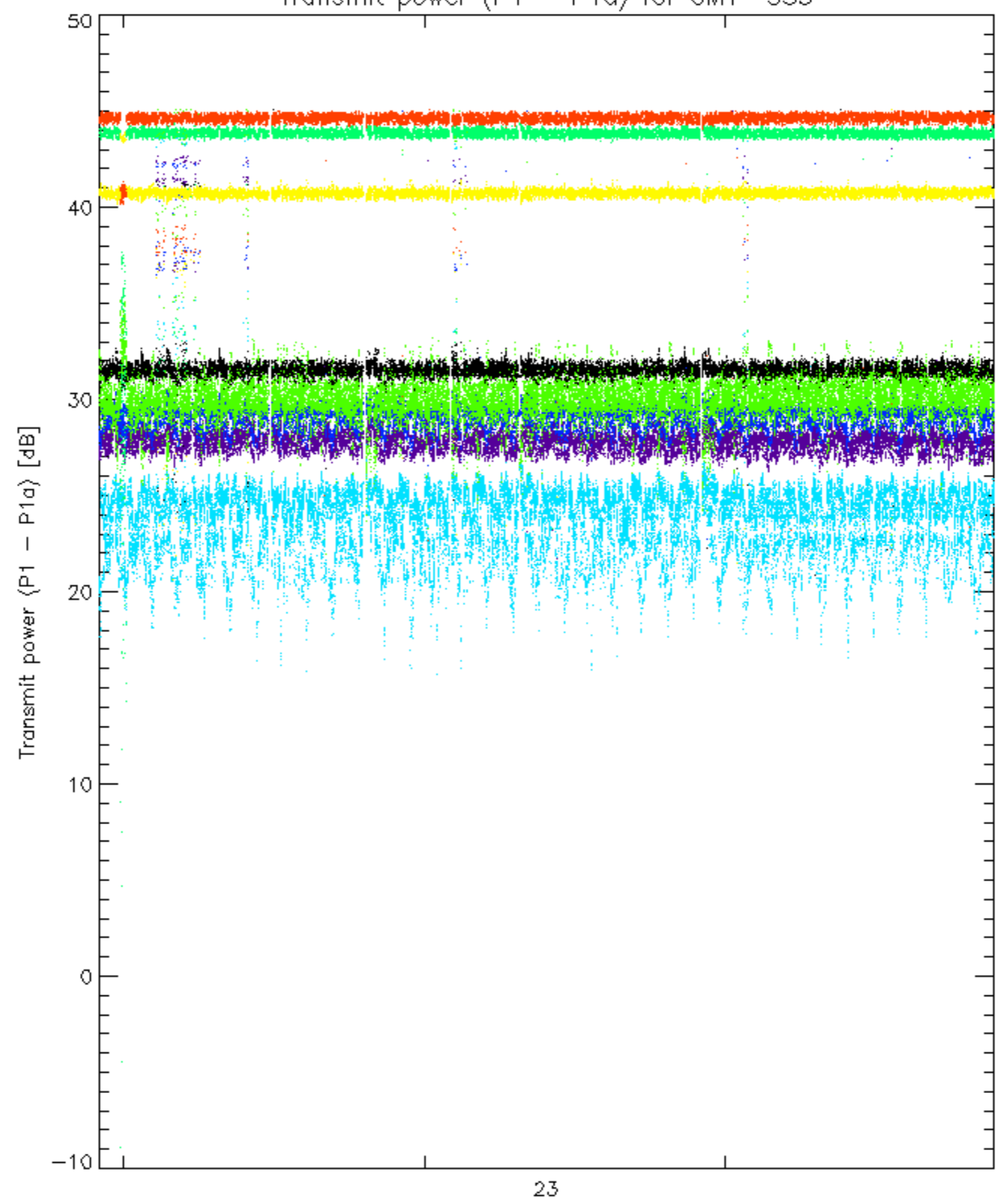
Summary of analysis for the last 3 days 2006112[567]

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

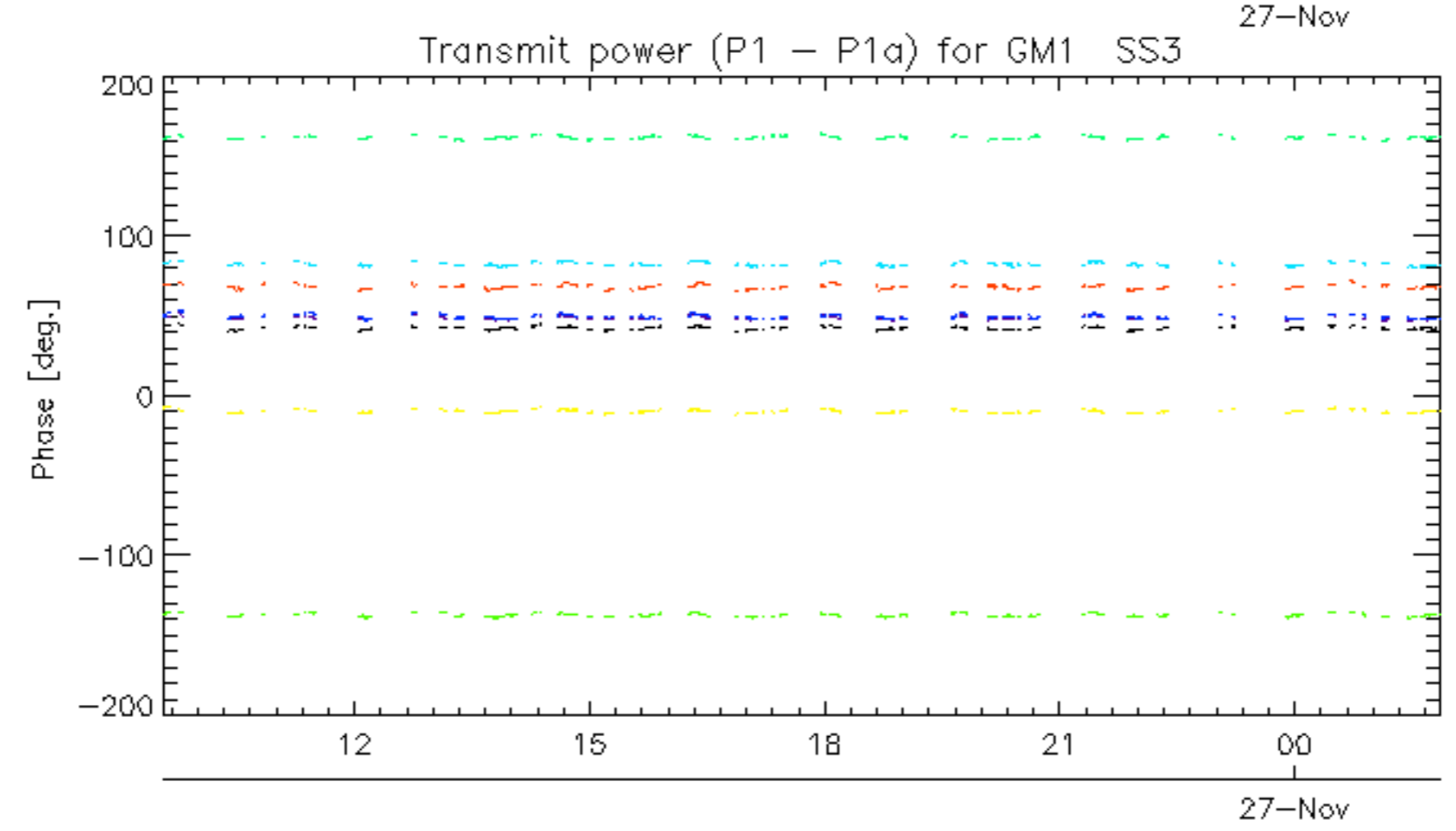
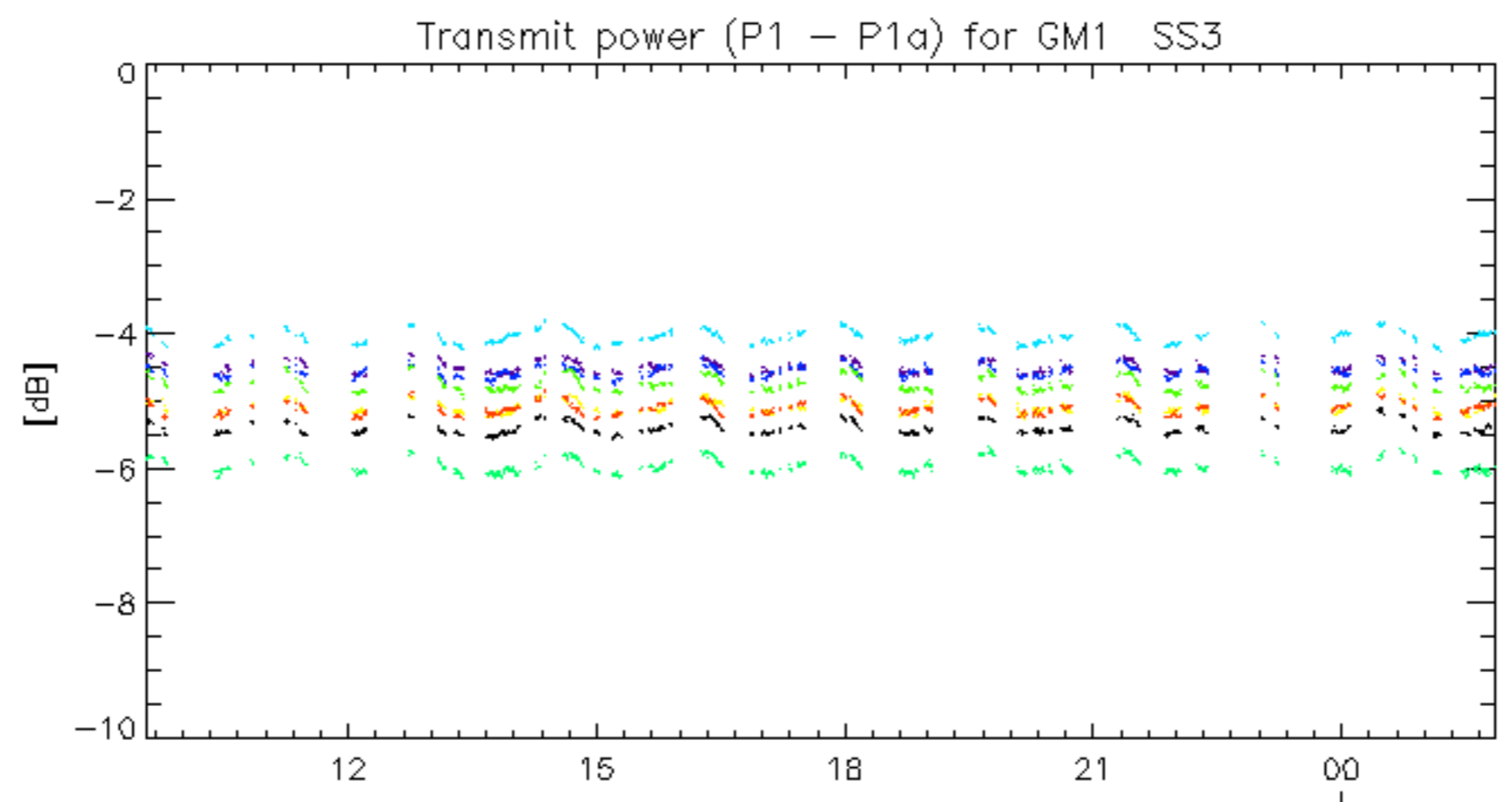
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061126_004059_000000622053_00174_24777_9130.N1	1	0
ASA_IMM_1PNPDK20061126_083104_000000352053_00179_24782_4085.N1	0	24
ASA_WSM_1PNPDE20061125_112341_000001162053_00166_24769_8610.N1	0	14
ASA_WSM_1PNPDE20061125_144649_000000672053_00168_24771_8672.N1	0	34
ASA_WSM_1PNPDE20061125_144649_000004462053_00168_24771_8706.N1	0	34
ASA_WSM_1PNPDE20061126_183459_000000862053_00185_24788_9879.N1	0	39



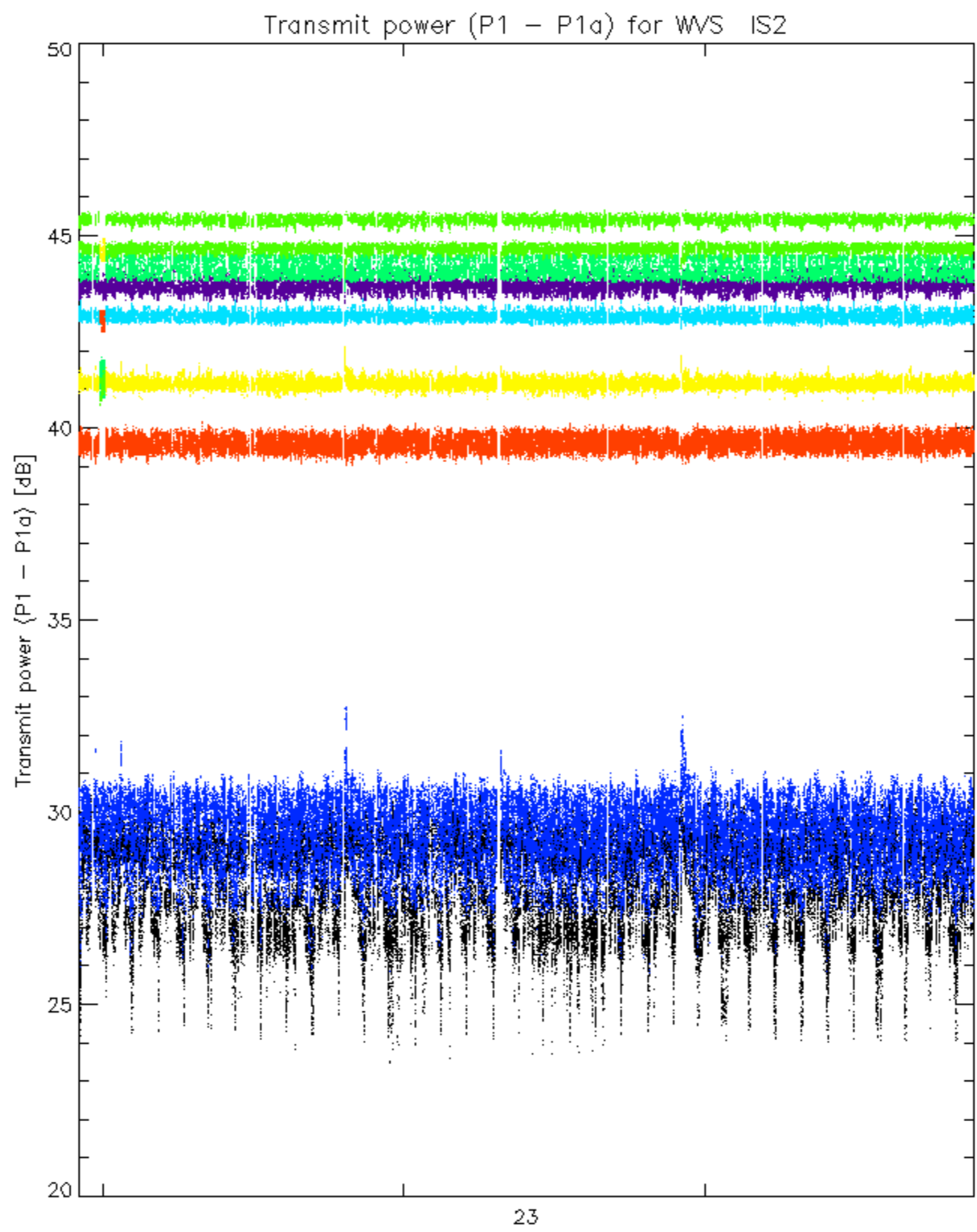
Transmit power (P1 - P1a) for GM1 SS3



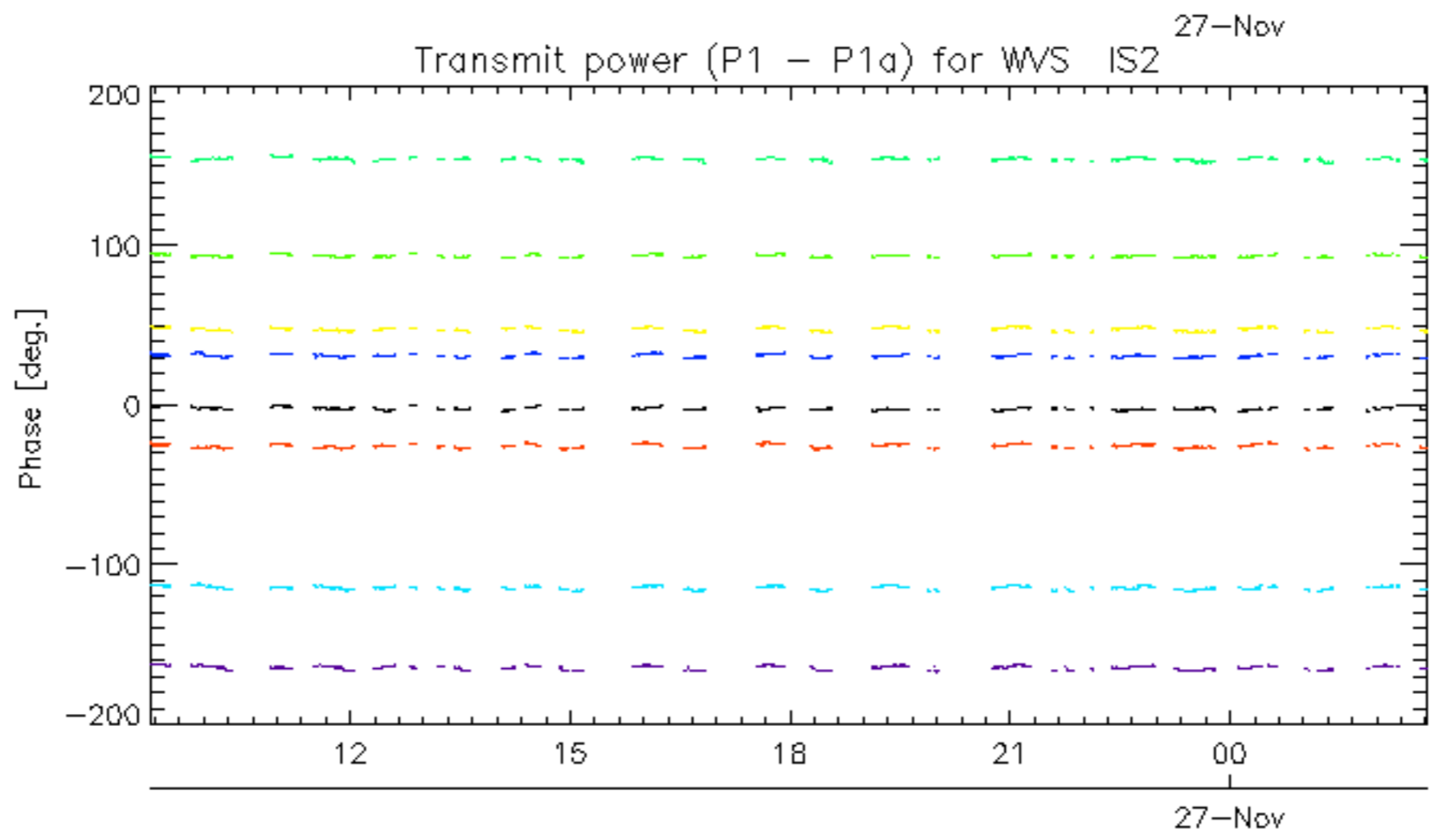
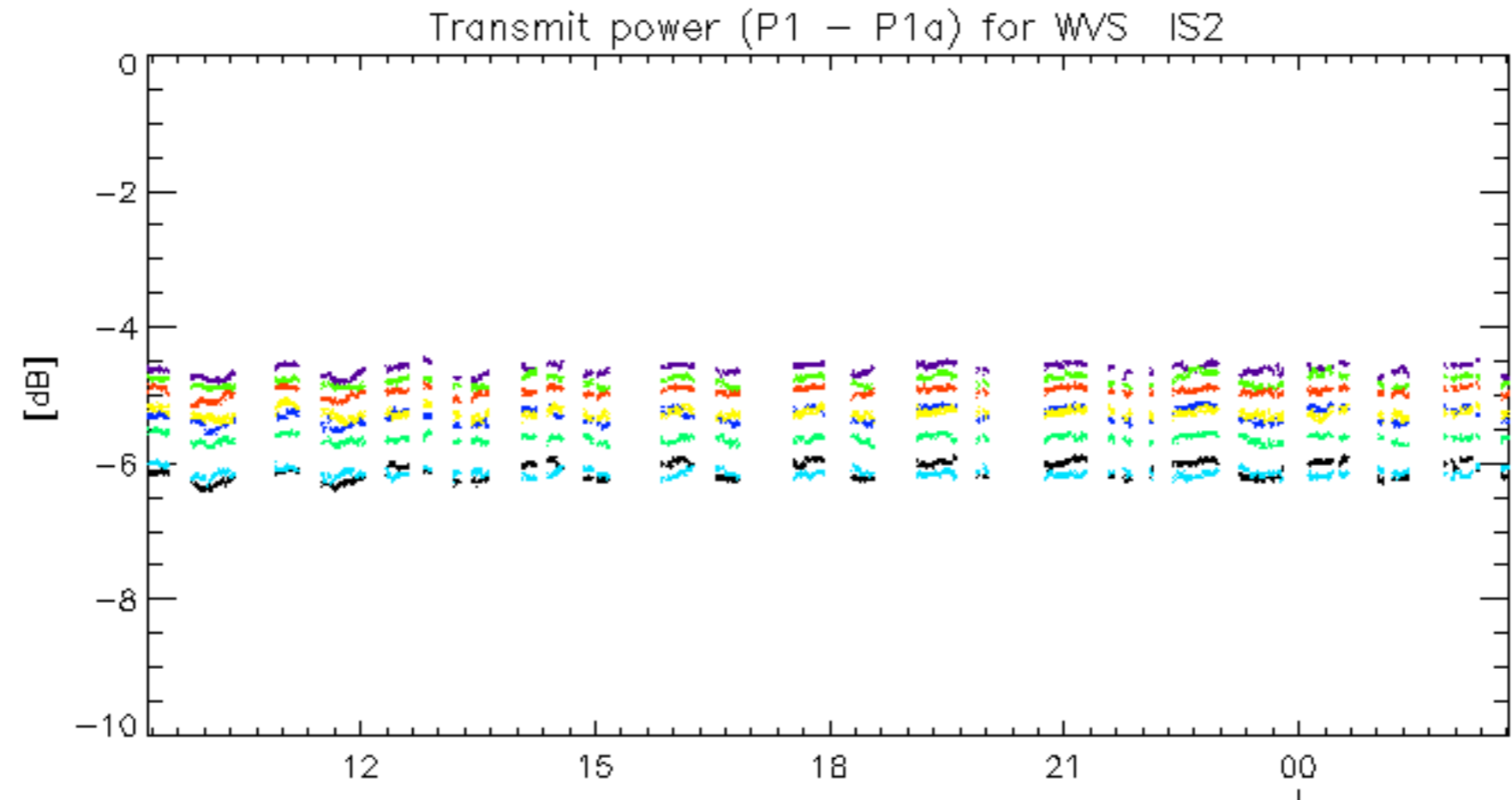
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.