

PRELIMINARY REPORT OF 051208

last update on Thu Dec 8 16:42:44 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 2005-12-07 00:00:00 to 2005-12-08 16:42:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	42	0	16	0	21
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	42	0	16	0	21
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	0	16	0	21
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	42	0	16	0	21

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	41	44	37	10	42
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	41	44	37	10	42
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	44	37	10	42
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	41	44	37	10	42

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	20051208 074716
H	20051207 081853

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	-3.547781	0.145198	0.305475
7	P1	-2.821620	0.103259	0.783259
11	P1	-4.142866	0.017491	-0.014722
15	P1	-5.400395	1.394178	3.202709
19	P1	-3.081723	0.049249	0.547760
22	P1	-4.455914	0.019625	0.192861
26	P1	-4.347324	0.050971	-0.542607
30	P1	-5.683959	0.028323	0.351625
3	P1	-15.274879	1.622852	1.152964
7	P1	-15.655465	2.128402	3.861649
11	P1	-16.397718	0.425890	0.869758
15	P1	-13.021627	0.810543	2.205539
19	P1	-13.524814	0.281193	1.268112
22	P1	-16.164051	0.568826	0.945230
26	P1	-15.348763	0.957692	2.336745
30	P1	-15.916974	2.040296	3.588896

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.877014	0.103009	-0.060167
7	P2	-22.564621	0.101348	0.048102
11	P2	-16.591927	0.114289	-0.105771
15	P2	-7.275030	0.100951	-0.061188
19	P2	-9.224531	0.098201	0.033979
22	P2	-17.868631	0.105935	0.131634
26	P2	-16.311182	0.125584	-0.488763
30	P2	-19.750568	0.110916	-0.372013

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.232616	0.007274	-0.017581
7	P3	-8.232616	0.007274	-0.017581
11	P3	-8.232616	0.007274	-0.017581
15	P3	-8.232616	0.007274	-0.017581
19	P3	-8.232616	0.007274	-0.017581
22	P3	-8.232616	0.007274	-0.017581
26	P3	-8.232616	0.007274	-0.017581
30	P3	-8.232616	0.007274	-0.017581

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	-3.690911	0.007852	-0.036348
7	P1	-2.783381	0.010816	0.006621
11	P1	-2.874550	0.013736	-0.019842
15	P1	-3.396008	0.021592	-0.050177
19	P1	-3.378015	0.013335	-0.036652
22	P1	-5.114792	0.019843	-0.043467
26	P1	-5.822018	0.016200	-0.062809
30	P1	-5.265769	0.032391	-0.045047
3	P1	-11.463916	0.041560	-0.045320
7	P1	-9.970106	0.045835	-0.000502
11	P1	-10.047662	0.060946	-0.025441
15	P1	-10.566236	0.084504	-0.060319
19	P1	-15.503076	0.073813	-0.025555
22	P1	-20.921383	0.965813	-0.112127

26	P1	-17.221386	0.305387	0.148446
30	P1	-18.340813	0.316099	0.014881

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.653009	0.030640	0.076563
7	P2	-23.063395	0.062652	0.051450
11	P2	-11.677469	0.022939	0.112006
15	P2	-4.975896	0.021533	-0.035976
19	P2	-6.954631	0.021841	-0.030108
22	P2	-8.172517	0.024003	-0.074602
26	P2	-24.033884	0.031972	-0.061790
30	P2	-22.112240	0.020665	-0.023580

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.072137	0.002487	-0.015194
7	P3	-8.072162	0.002492	-0.015684
11	P3	-8.072062	0.002478	-0.015520
15	P3	-8.072141	0.002489	-0.015189
19	P3	-8.072337	0.002499	-0.015168
22	P3	-8.072177	0.002490	-0.015470
26	P3	-8.072110	0.002476	-0.015672
30	P3	-8.072043	0.002489	-0.014932

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	0.000487915
	stdev	2.08974e-07
MEAN Q	mean	0.000497169
	stdev	2.34882e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.131147
	stdev	0.00111290
STDEV Q	mean	0.131450
	stdev	0.00112664



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005120[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_WSM_1PNPDE20051206_014940_000002812043_00103_19696_2963.N1	0	3
ASA_WSM_1PNPDE20051206_042641_000001832043_00105_19698_2974.N1	0	61
ASA_WSM_1PNPDE20051206_143021_000000852043_00111_19704_3065.N1	0	40
ASA_WSM_1PNPDE20051207_011642_000003672043_00117_19710_3119.N1	0	35
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3149.N1	0	18

ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3182.N1	0	18
ASA_WSM_1PNPDE20051207_144158_000002082043_00125_19718_3195.N1	0	38
ASA_WSM_1PNPDE20051208_032332_000002442043_00133_19726_3277.N1	0	35

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

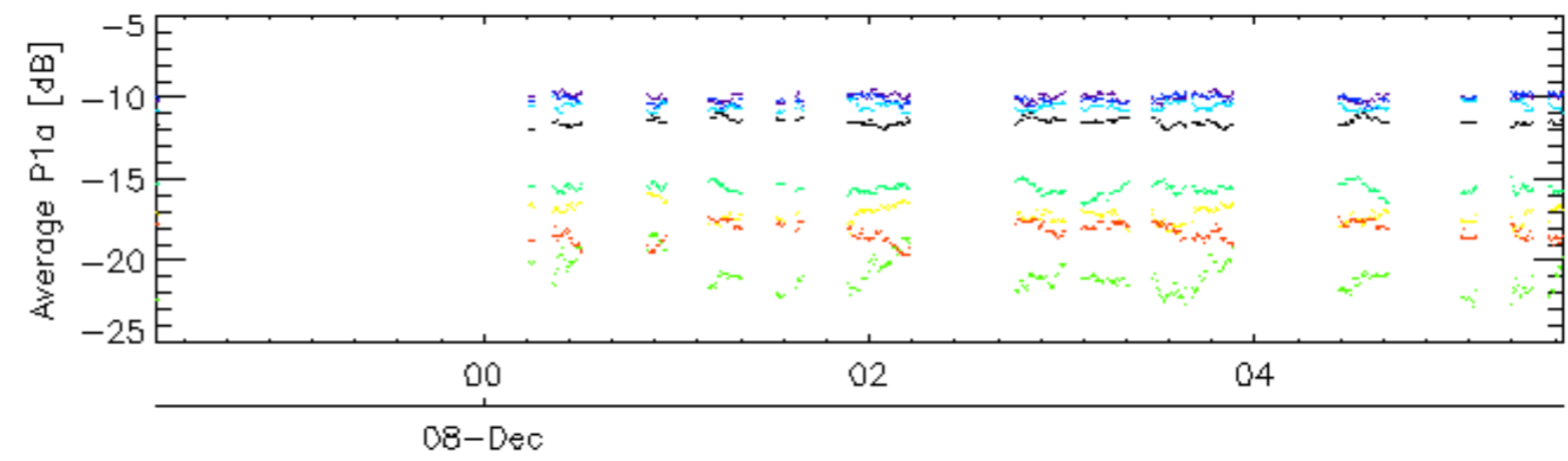
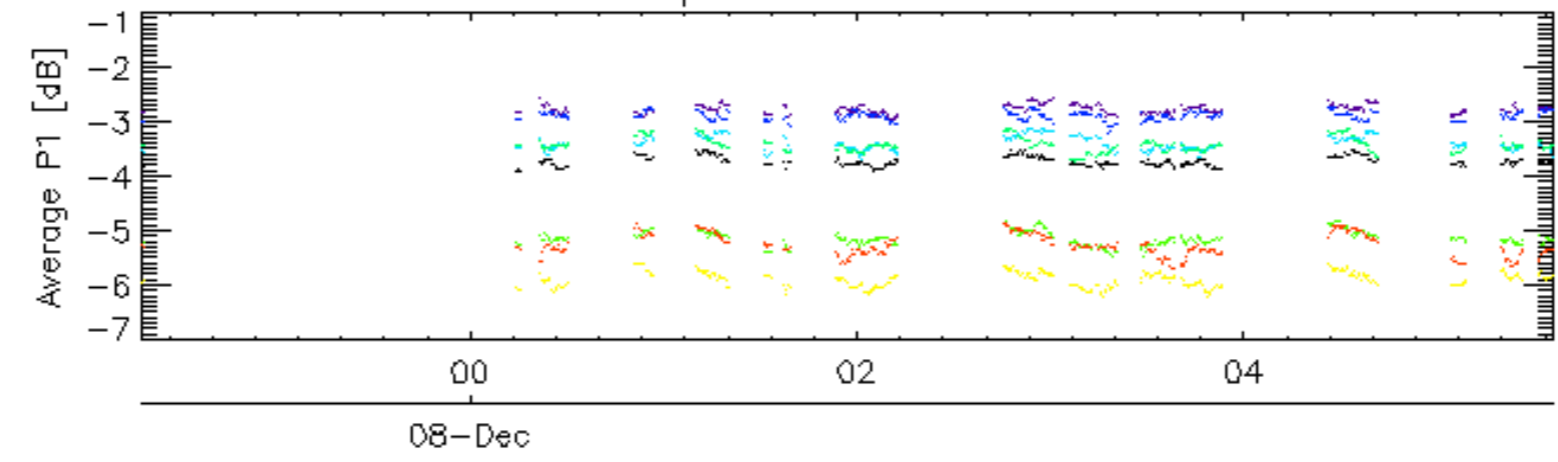
7.5 - Absolute Doppler for GM1

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

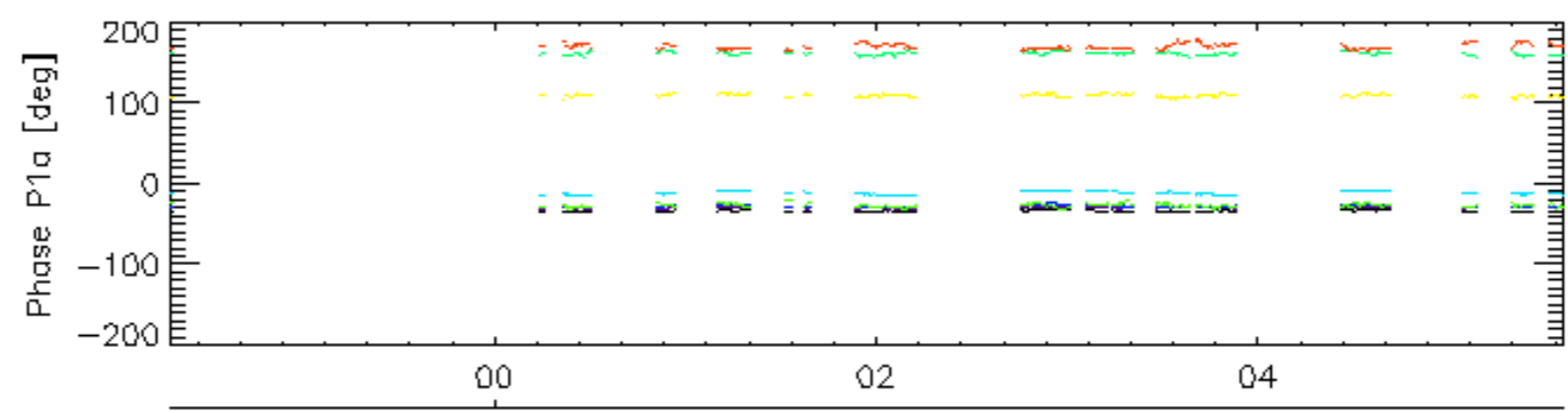
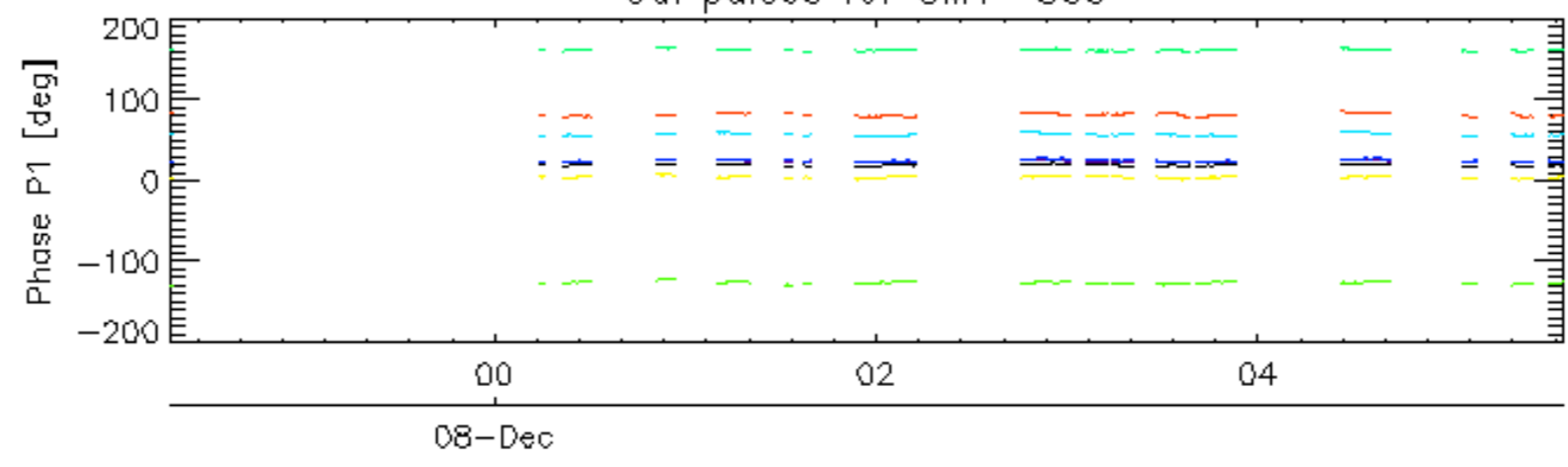
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

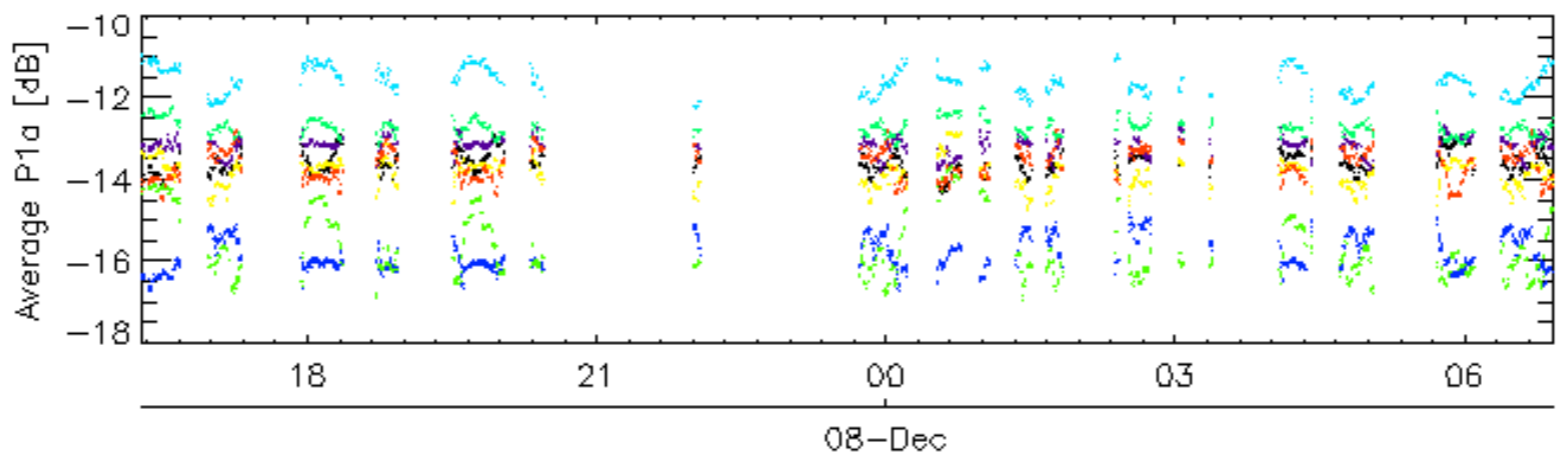
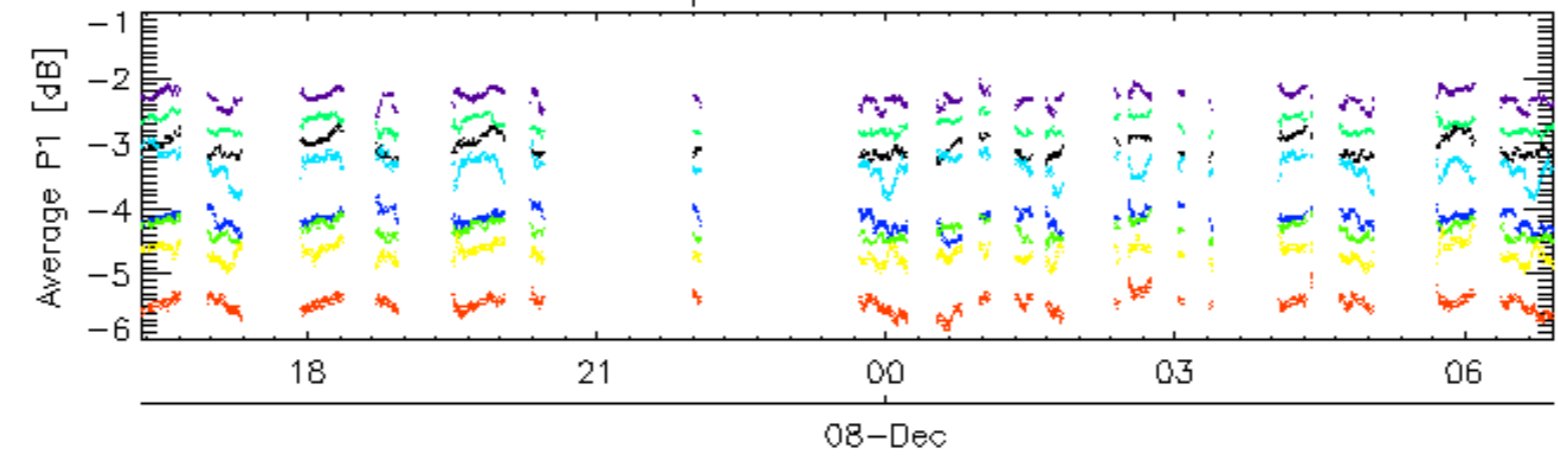


Cal pulses for GM1 SS3

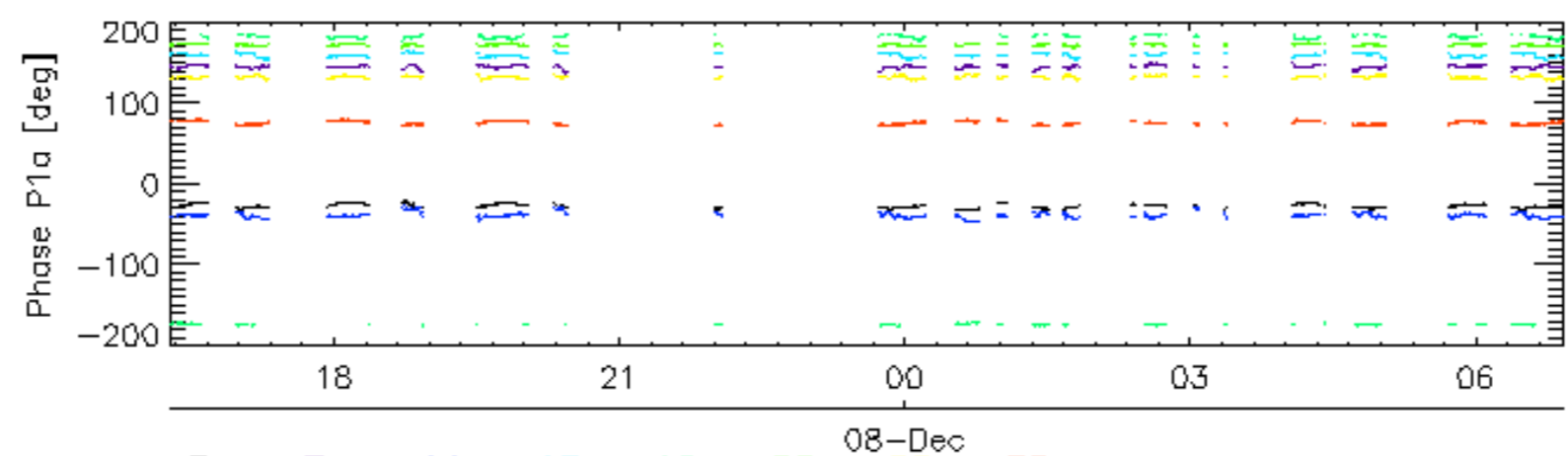
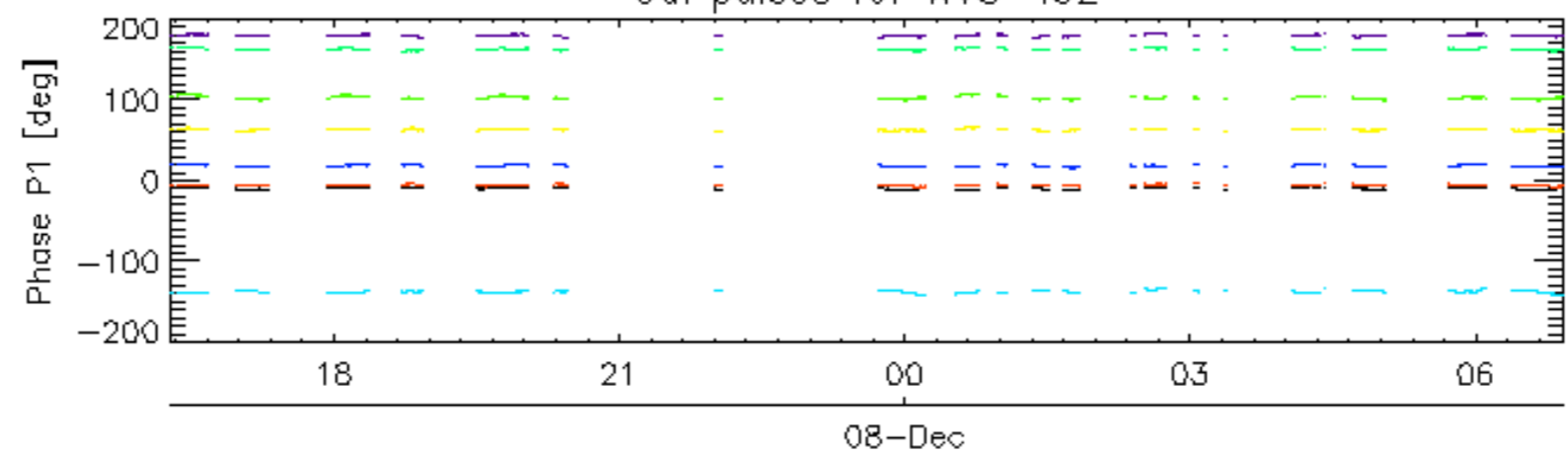


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

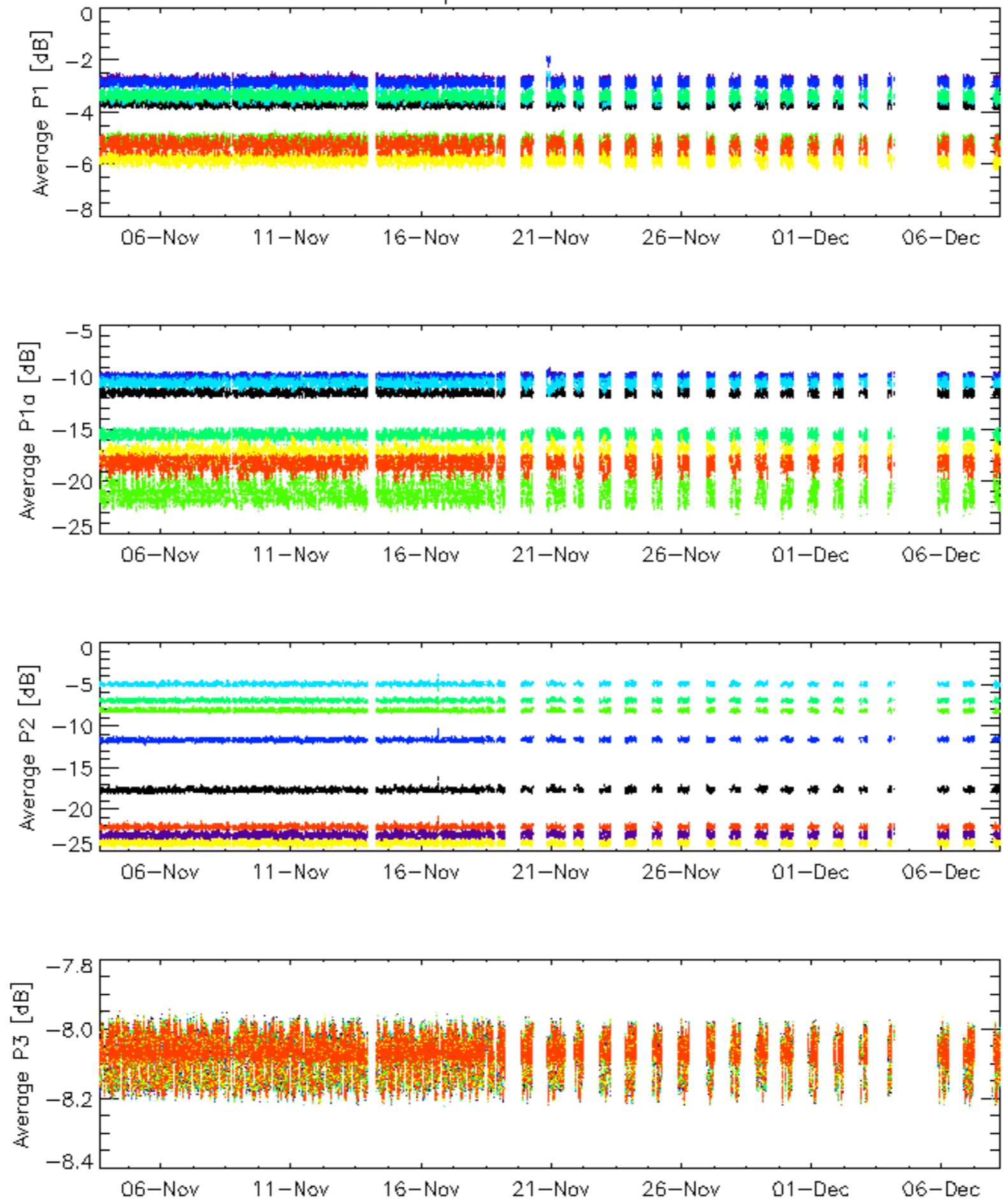


Cal pulses for WVS IS2



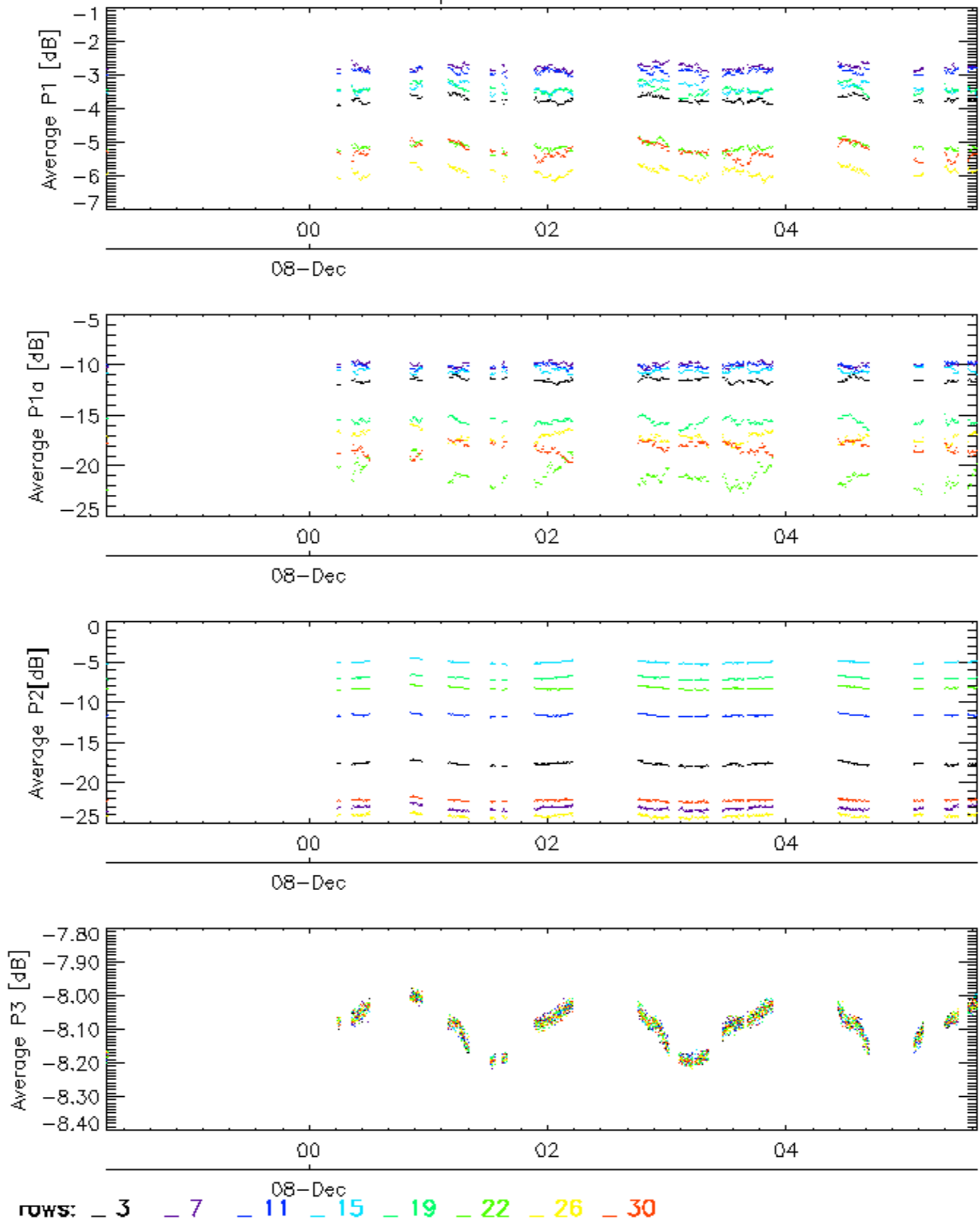
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

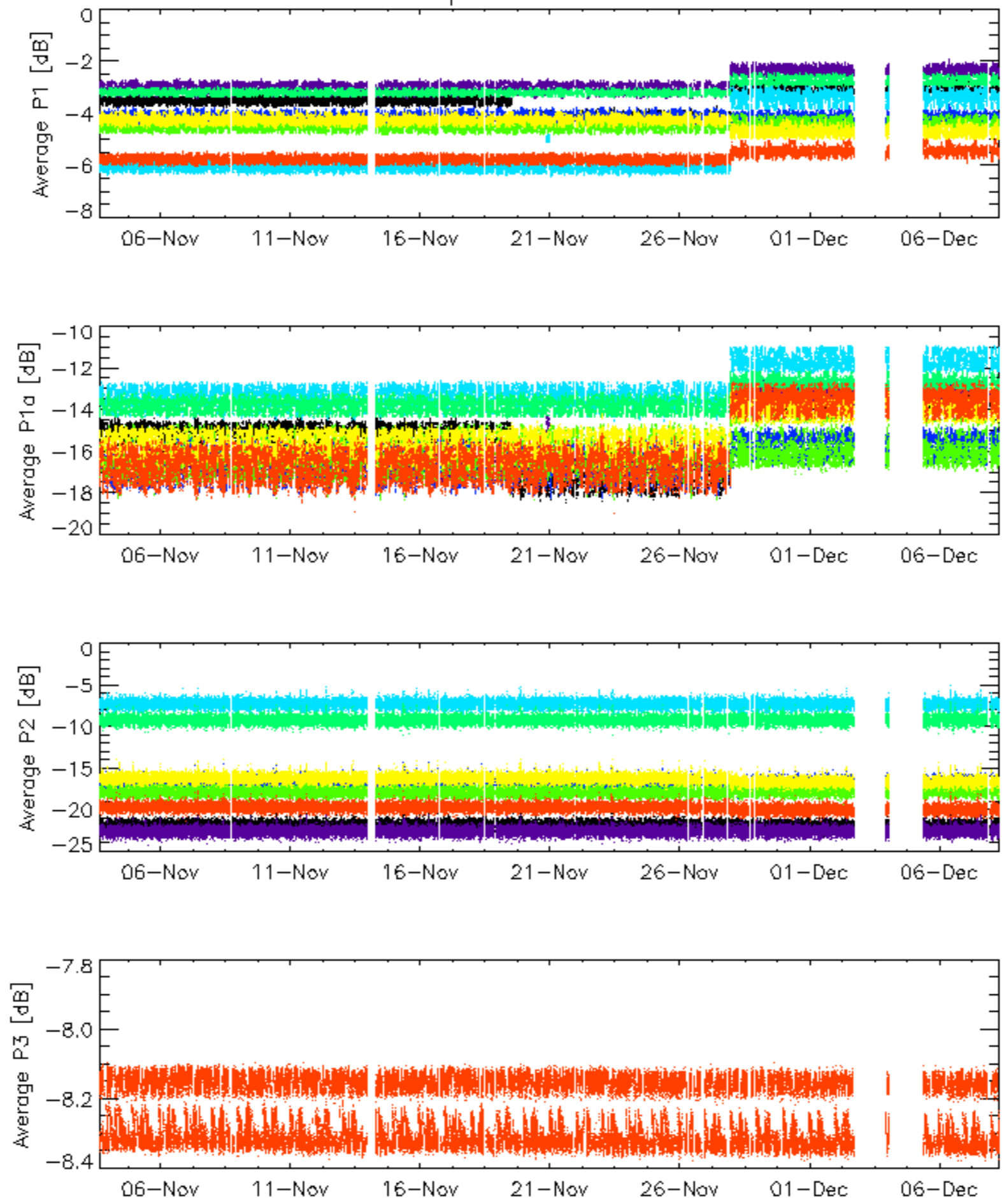


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

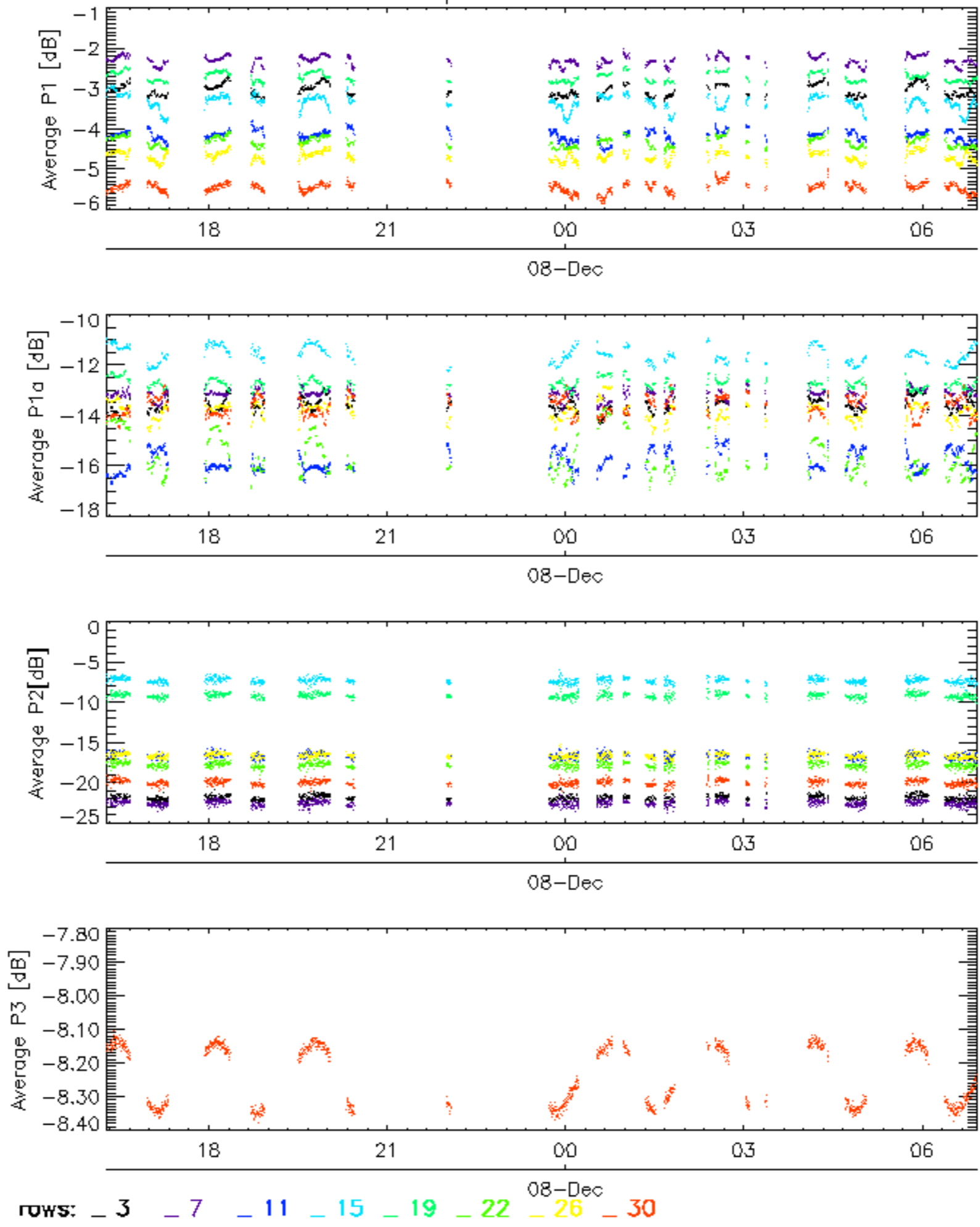


Cal pulses for WVS IS2



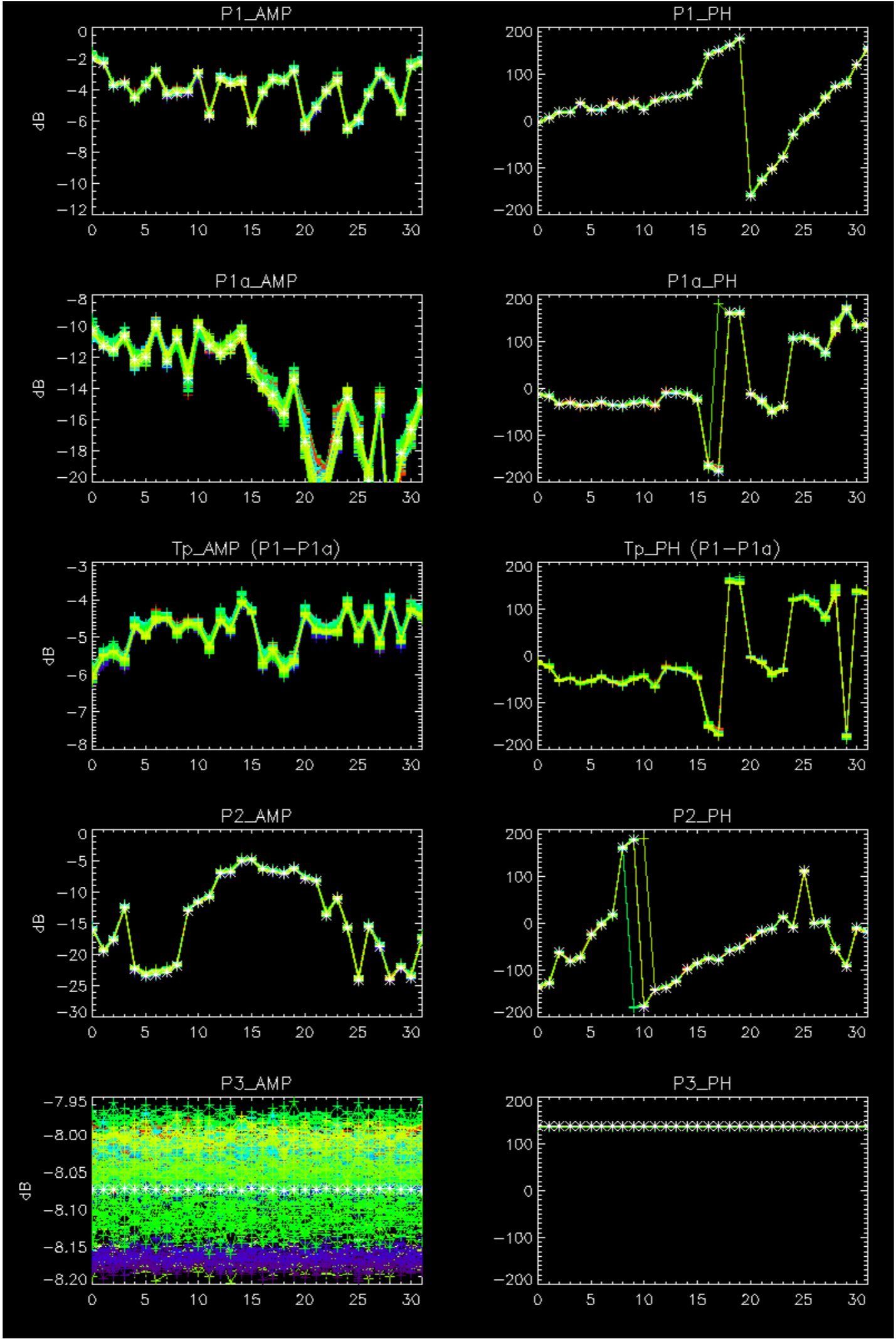
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

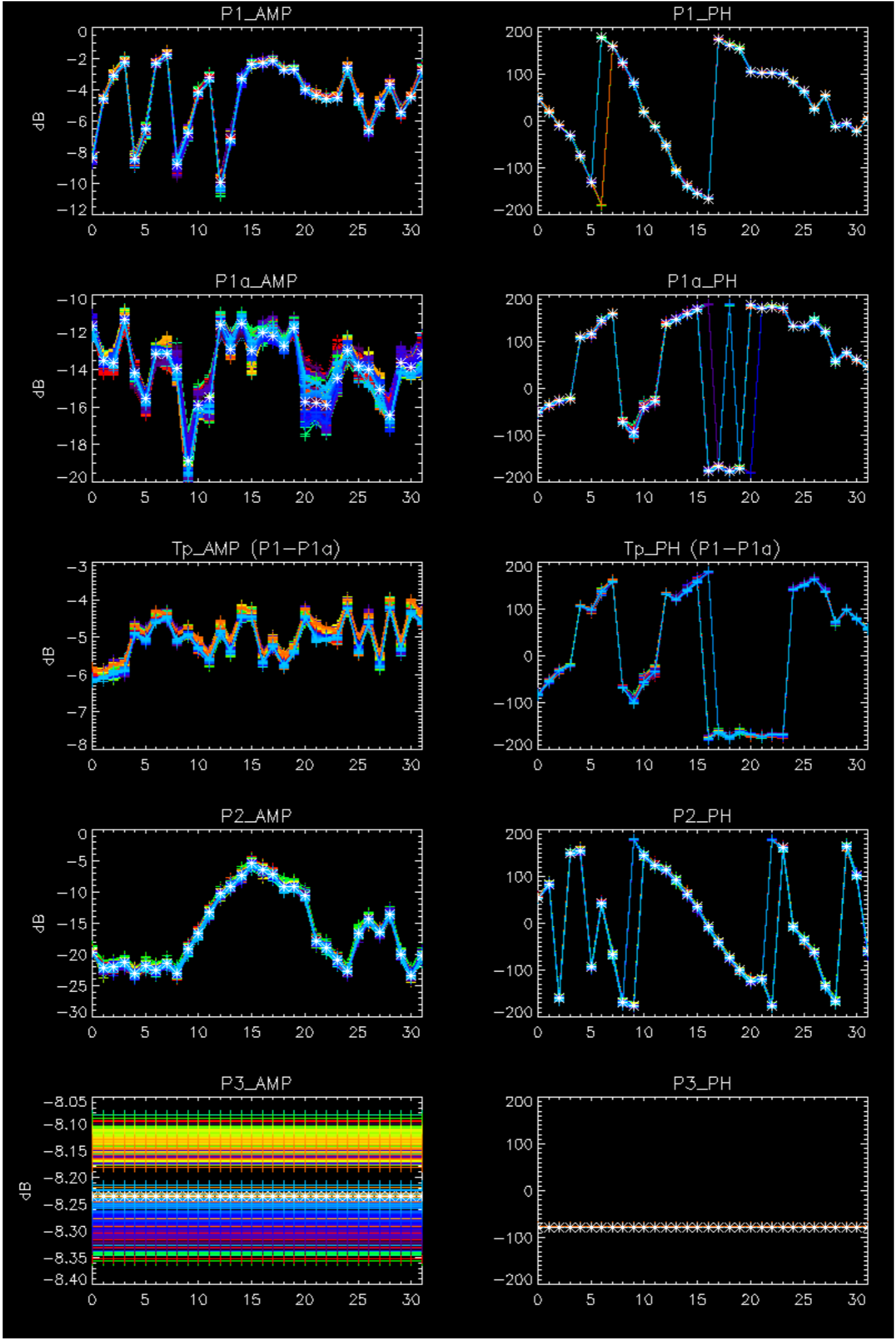
Cal pulses for WVS IS2



No anomalies observed on available browse products

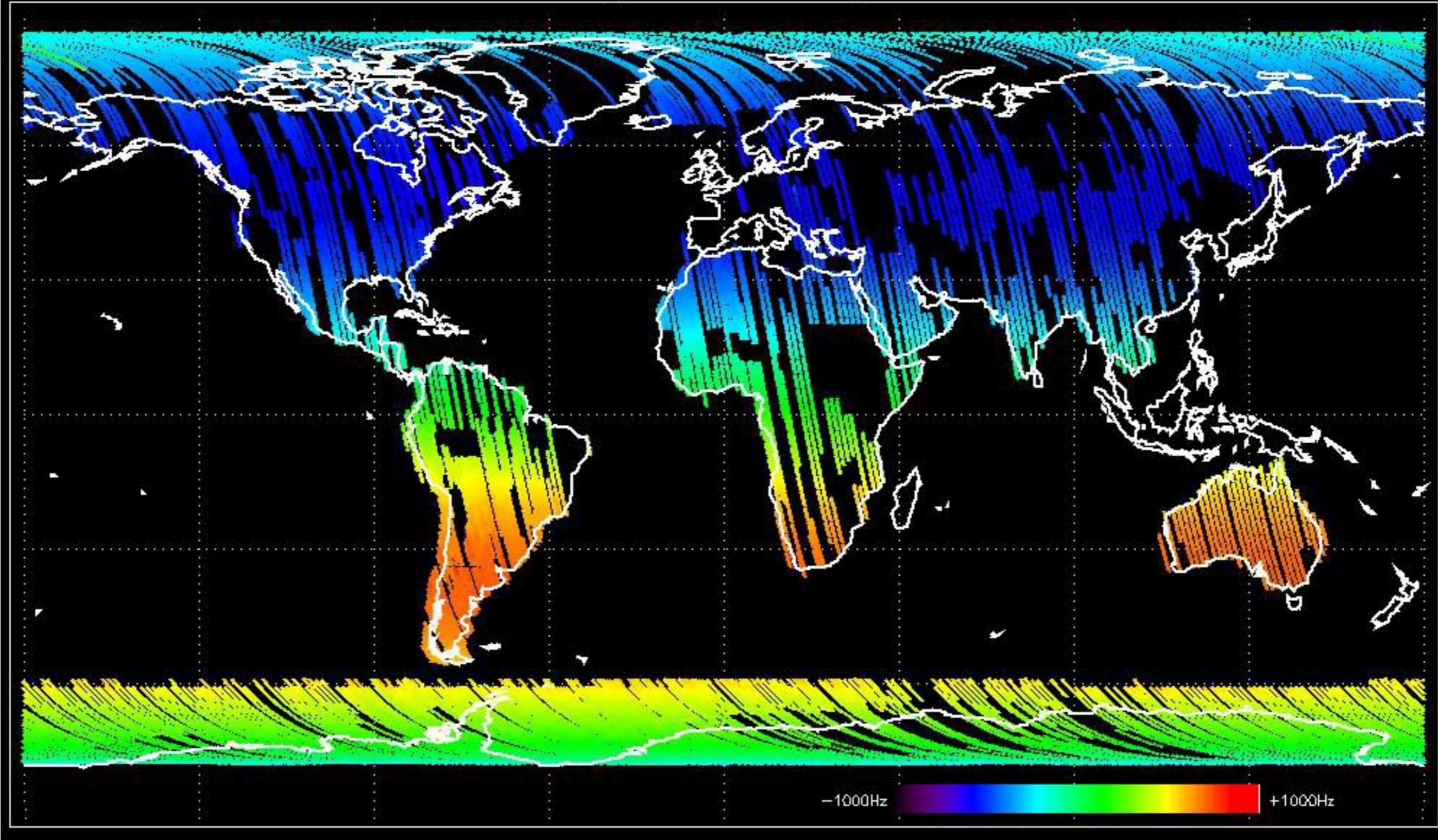
No anomalies observed.



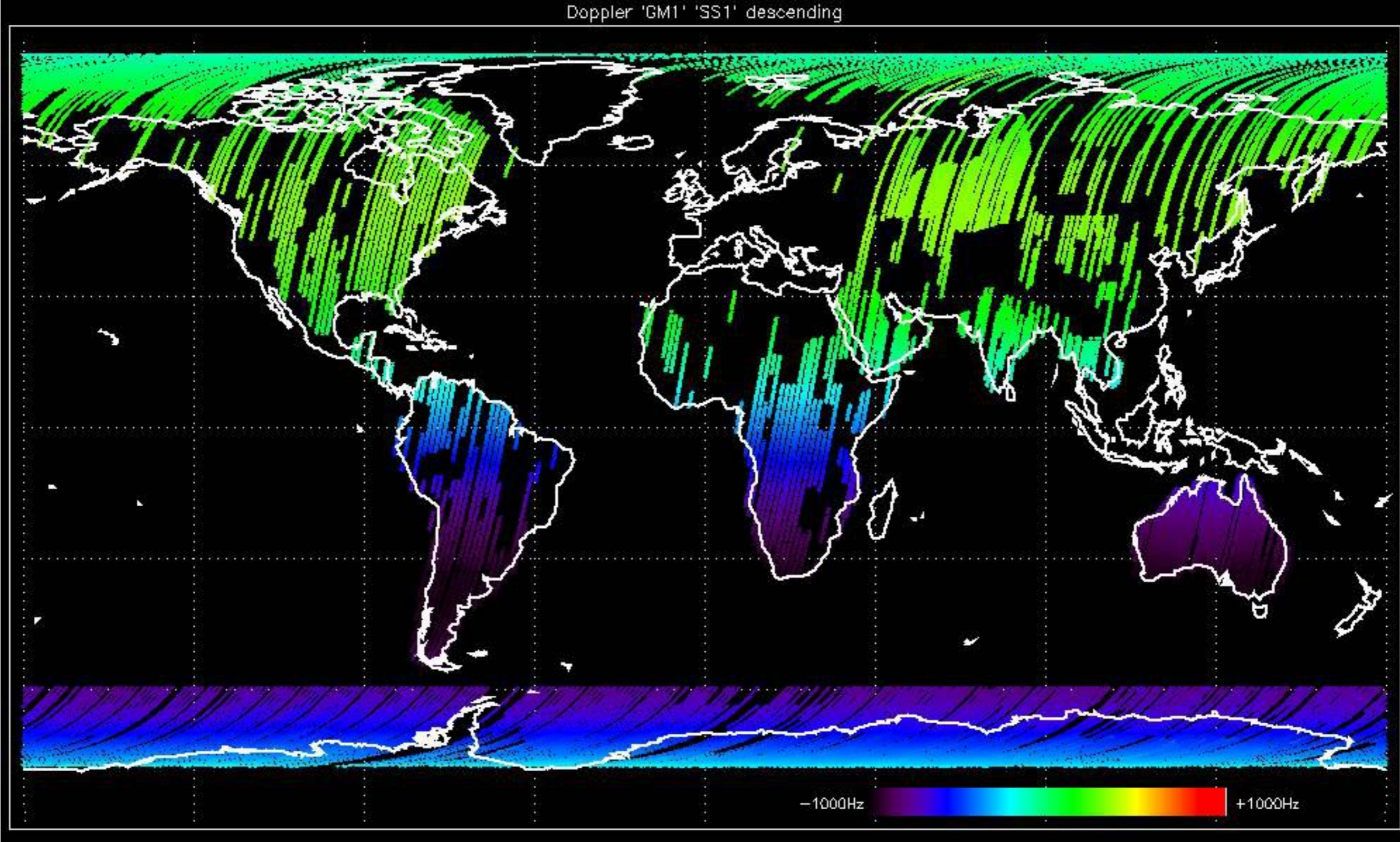


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

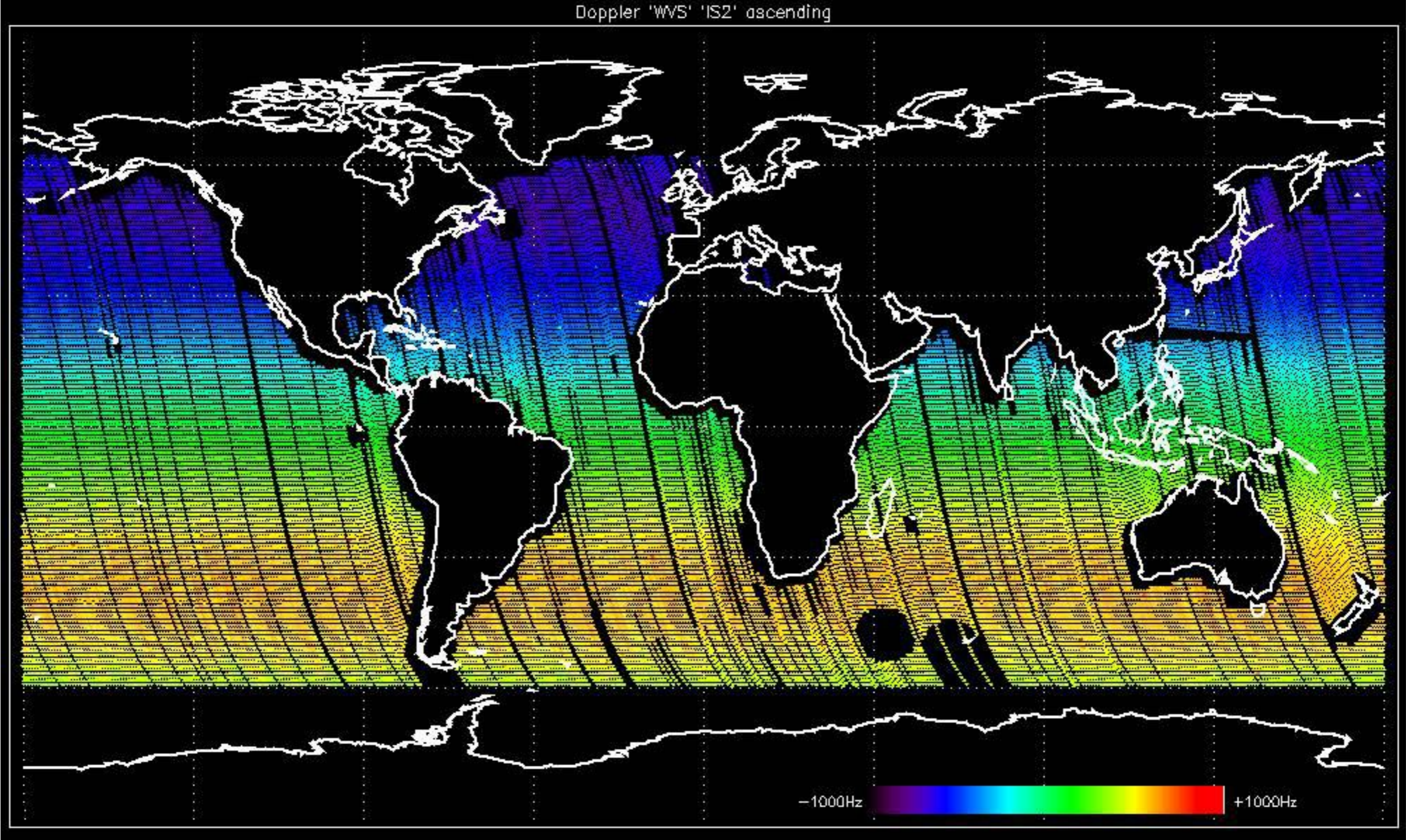
Doppler 'GM1' 'SS1' ascending



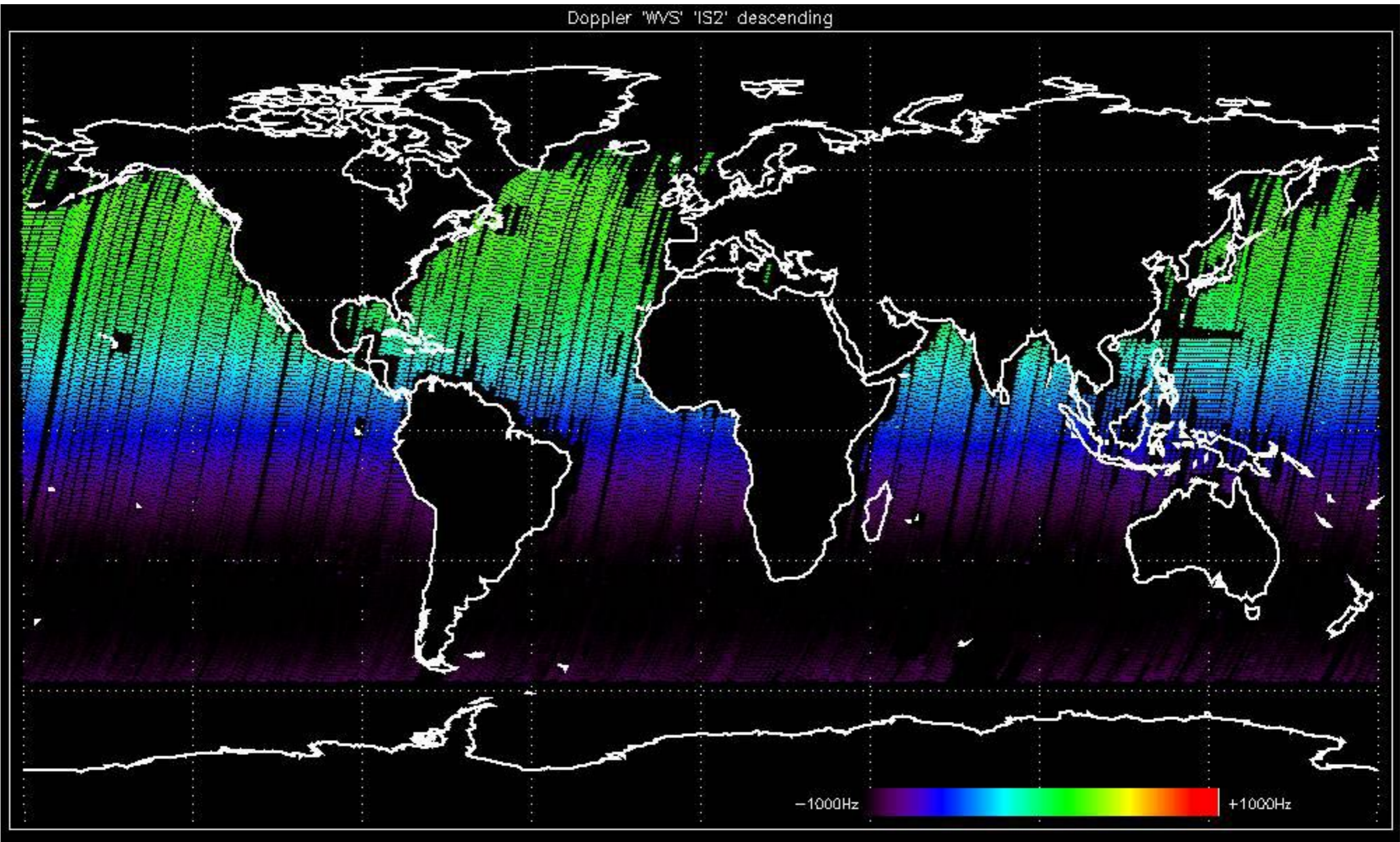
Doppler 'GM1' 'SS1' descending

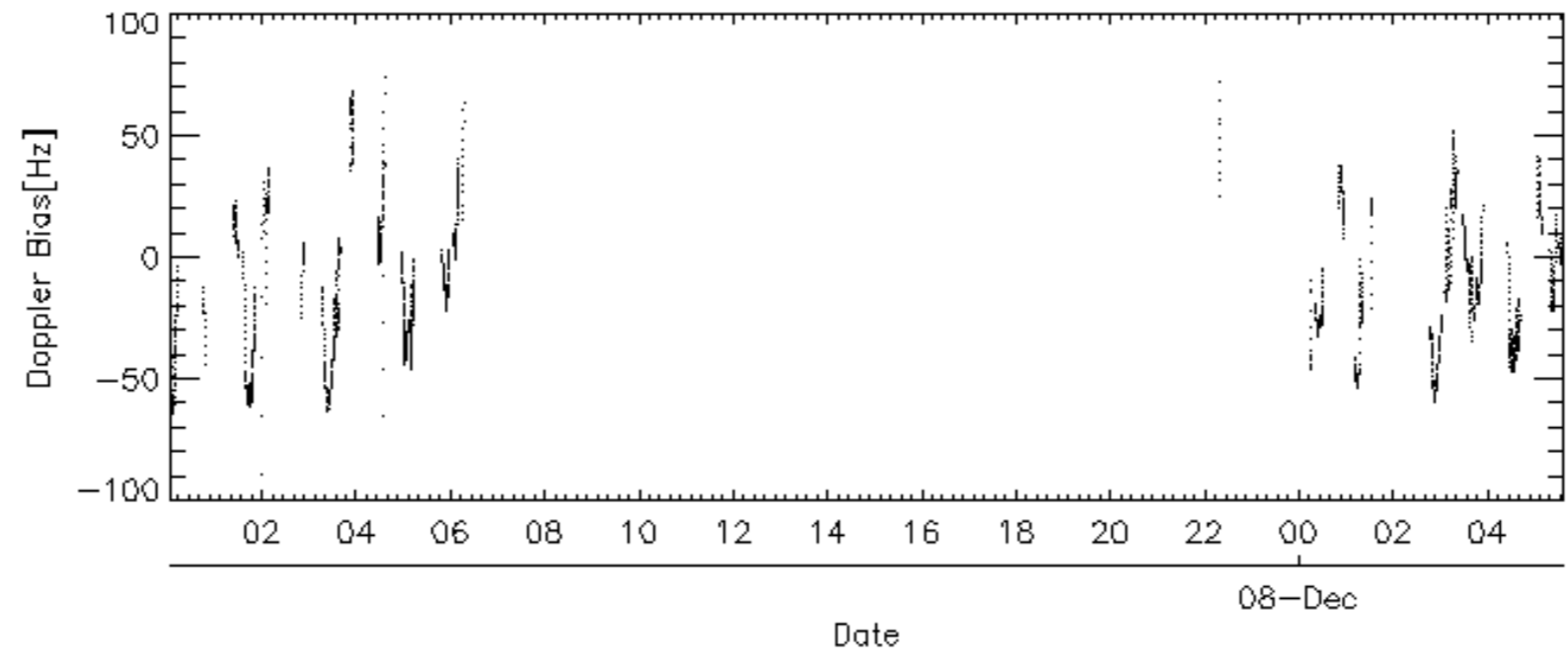
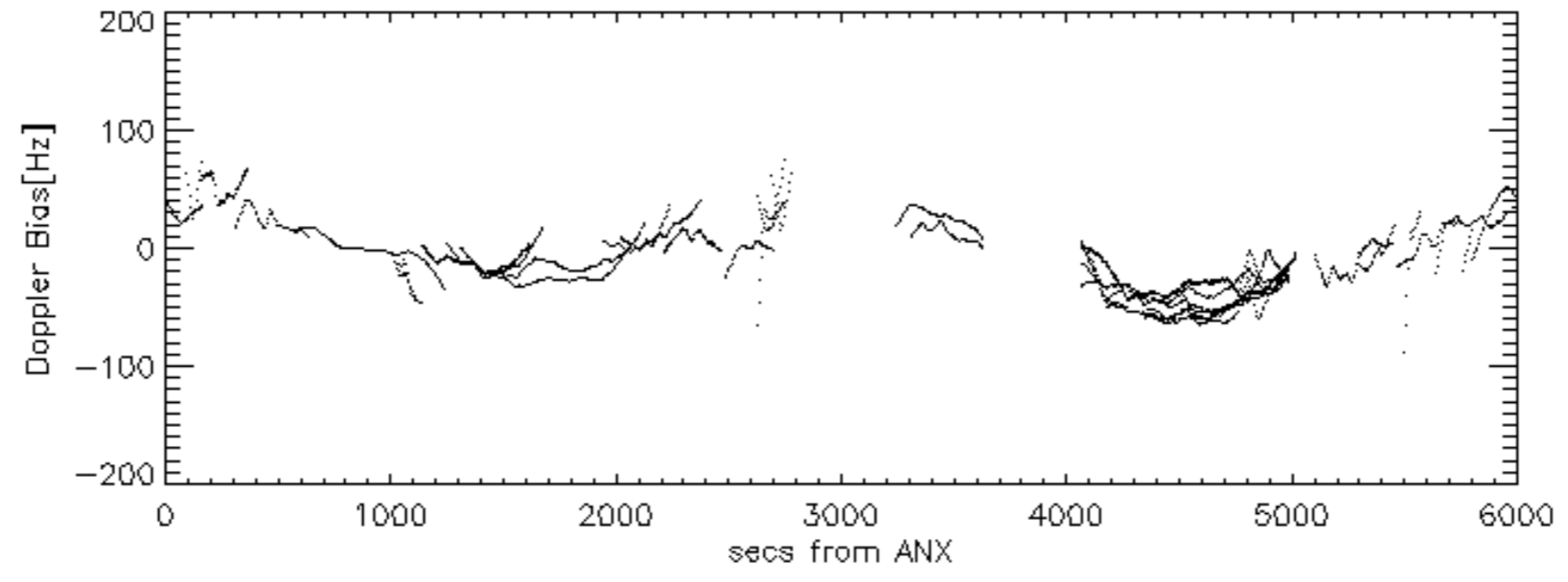
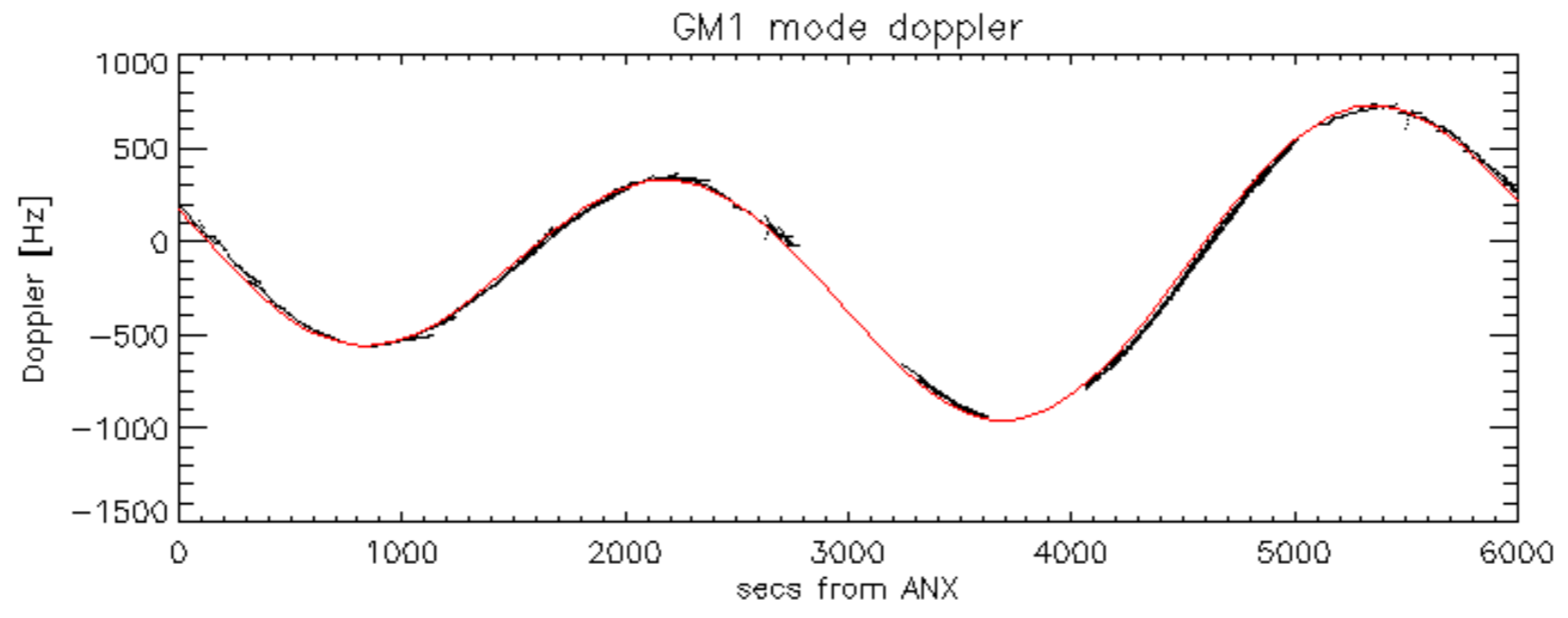


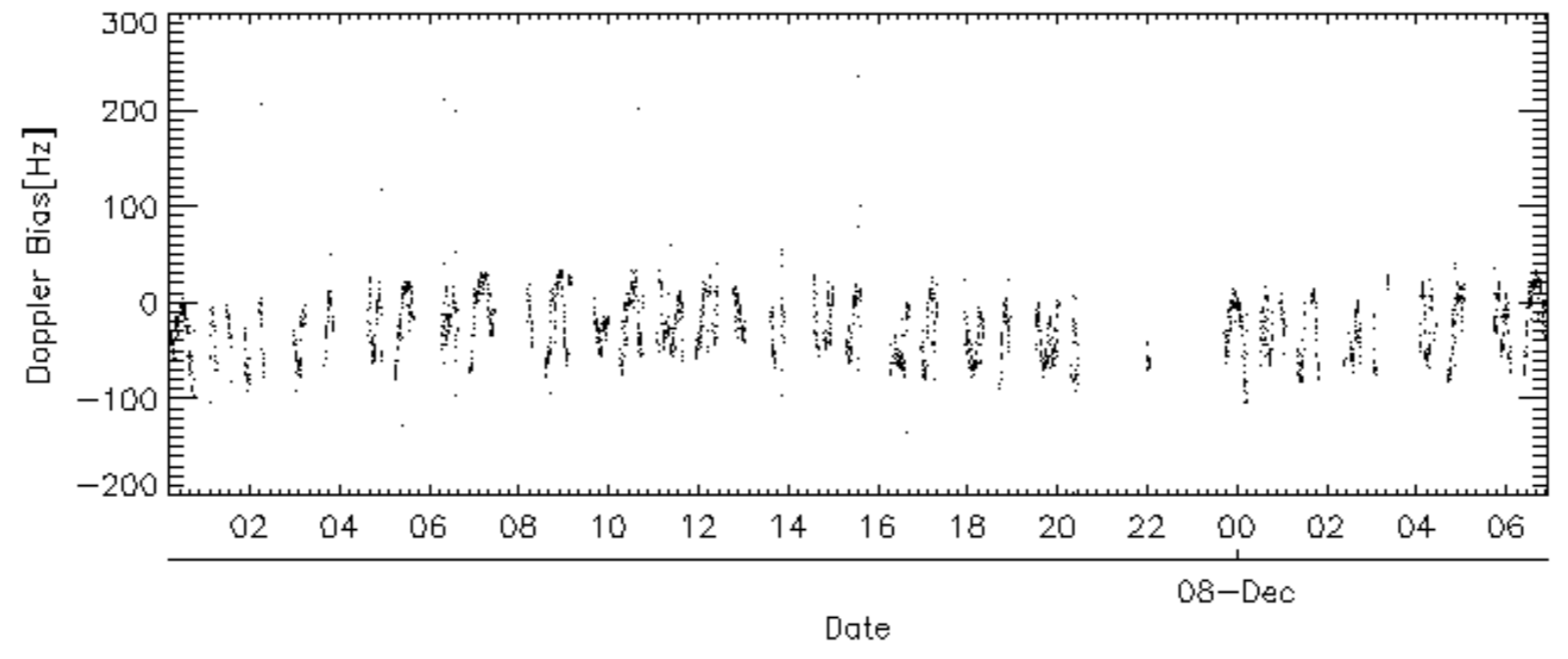
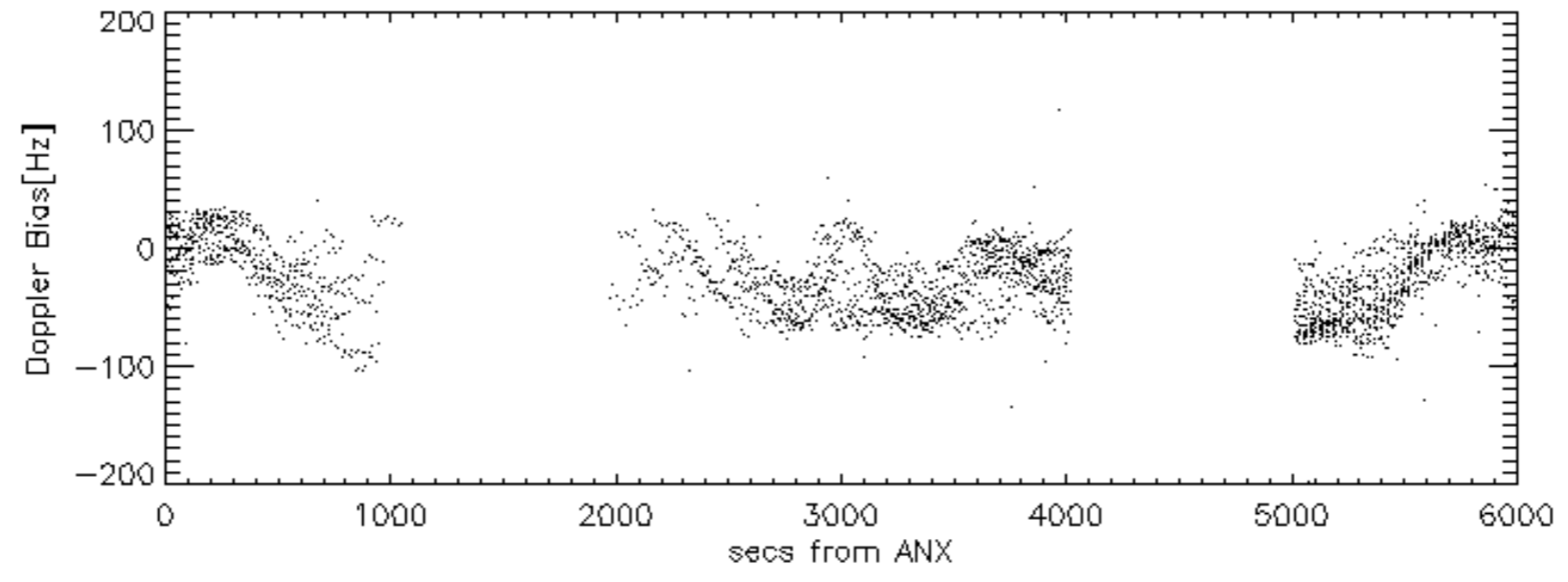
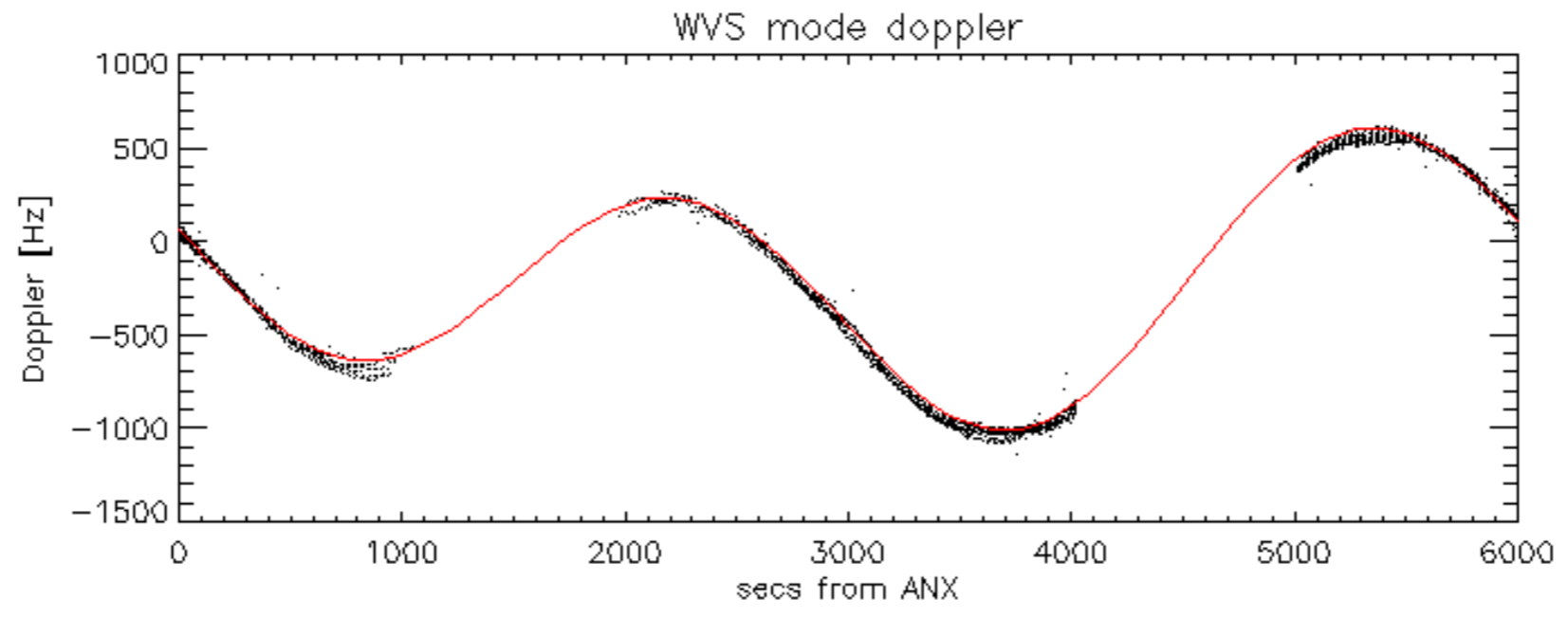
Doppler 'WVS' 'IS2' ascending



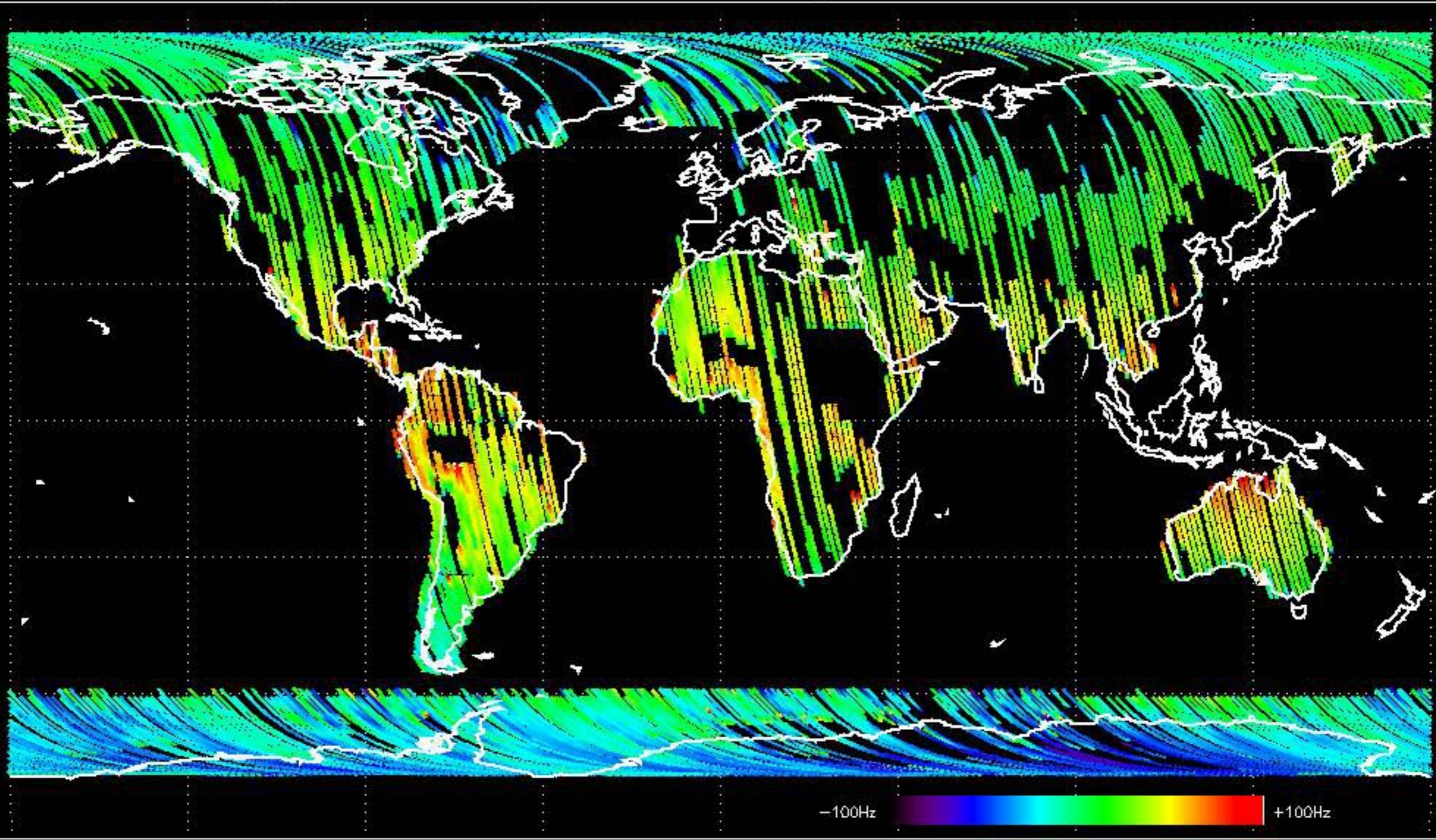
Doppler 'WVS' 'IS2' descending



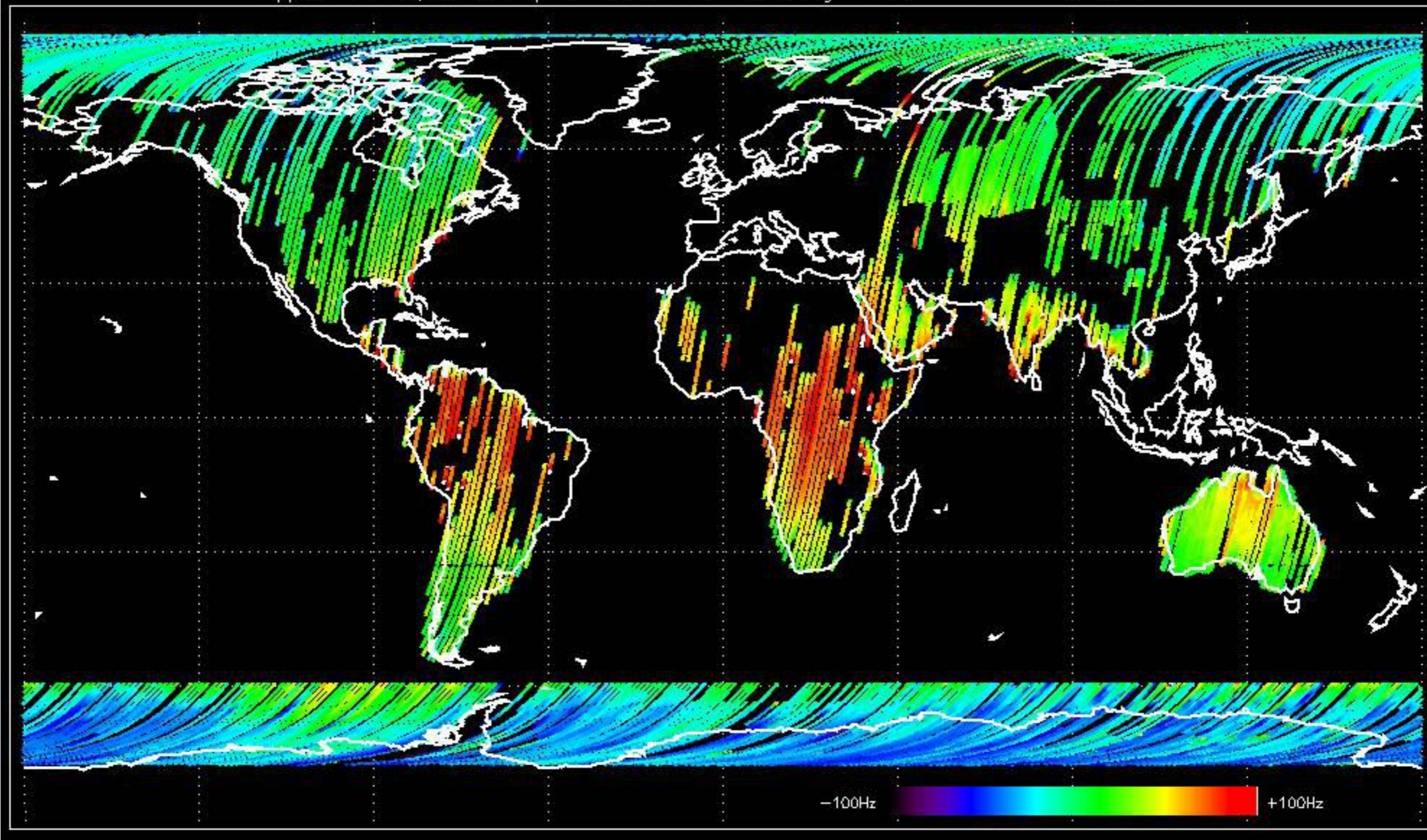




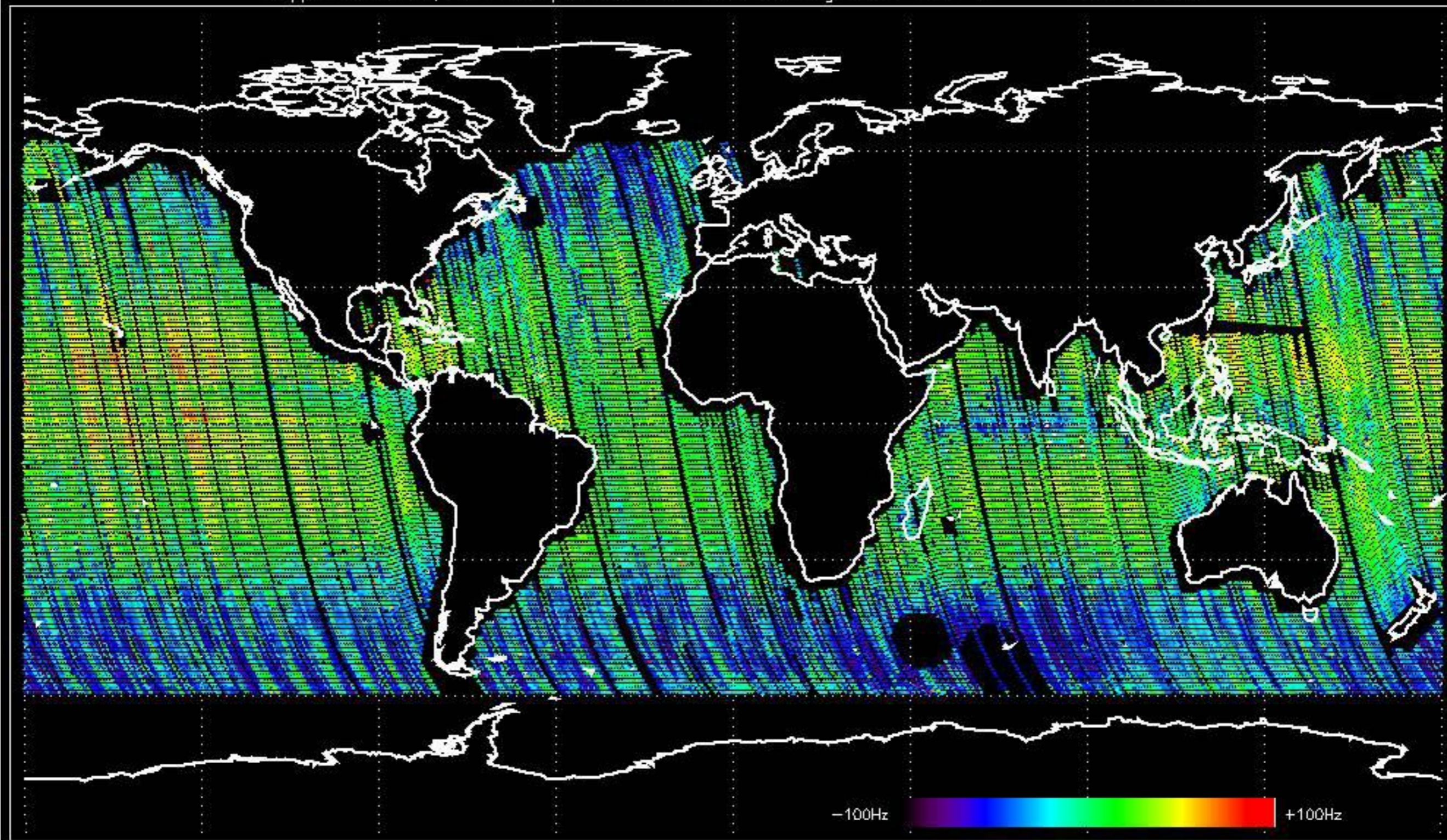
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.007894 Hz



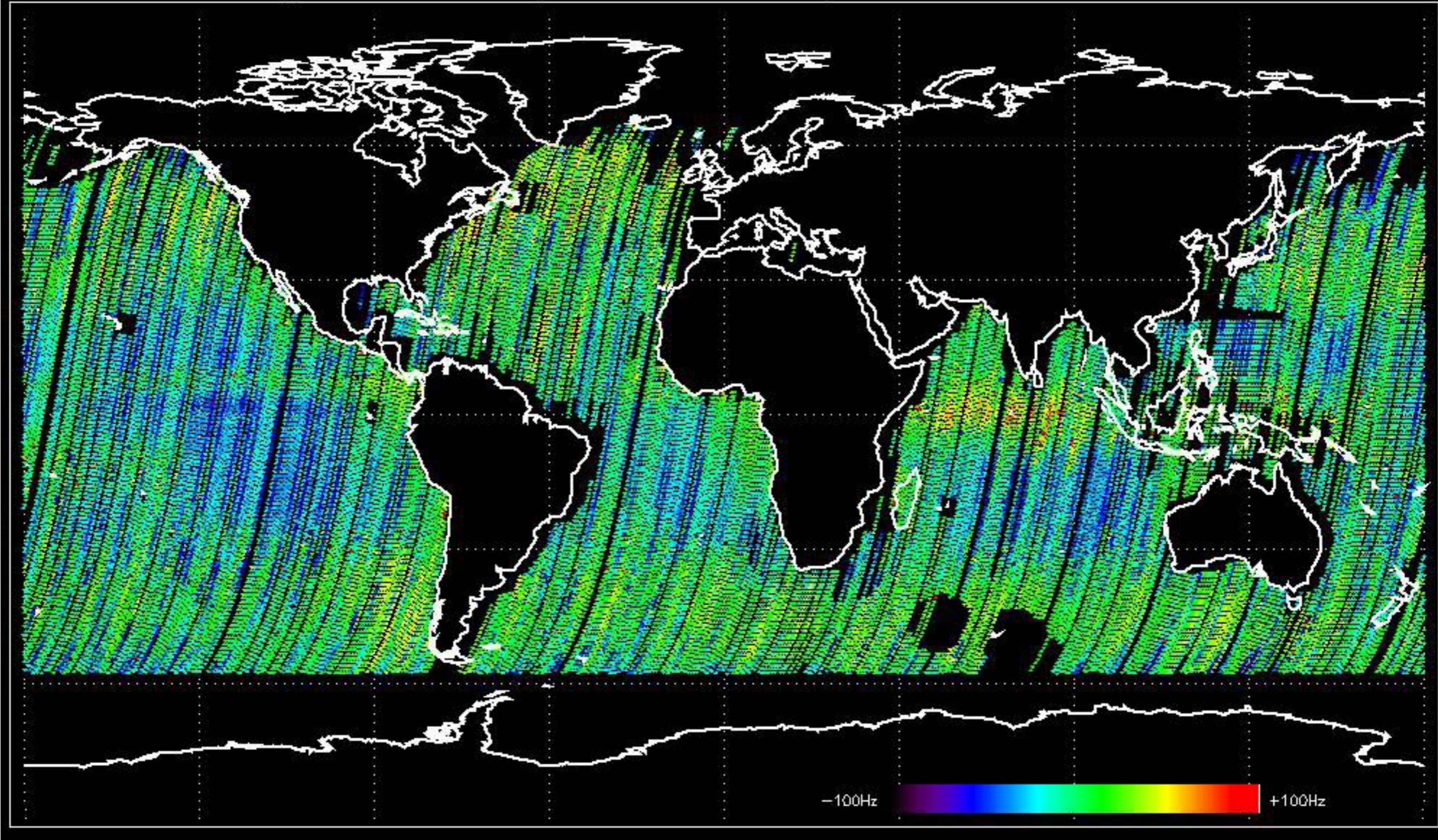
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.652706 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.0675420 Hz

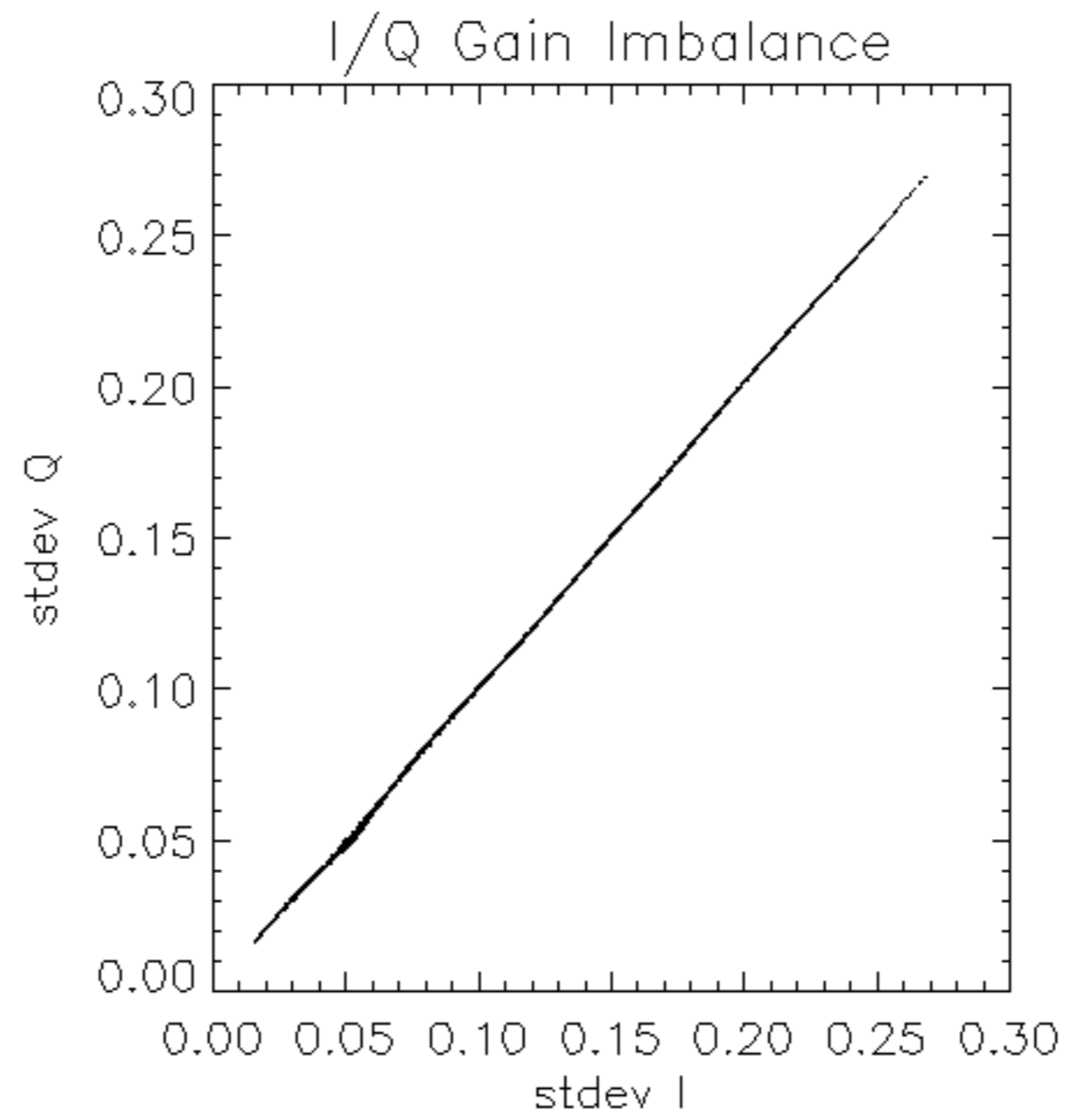


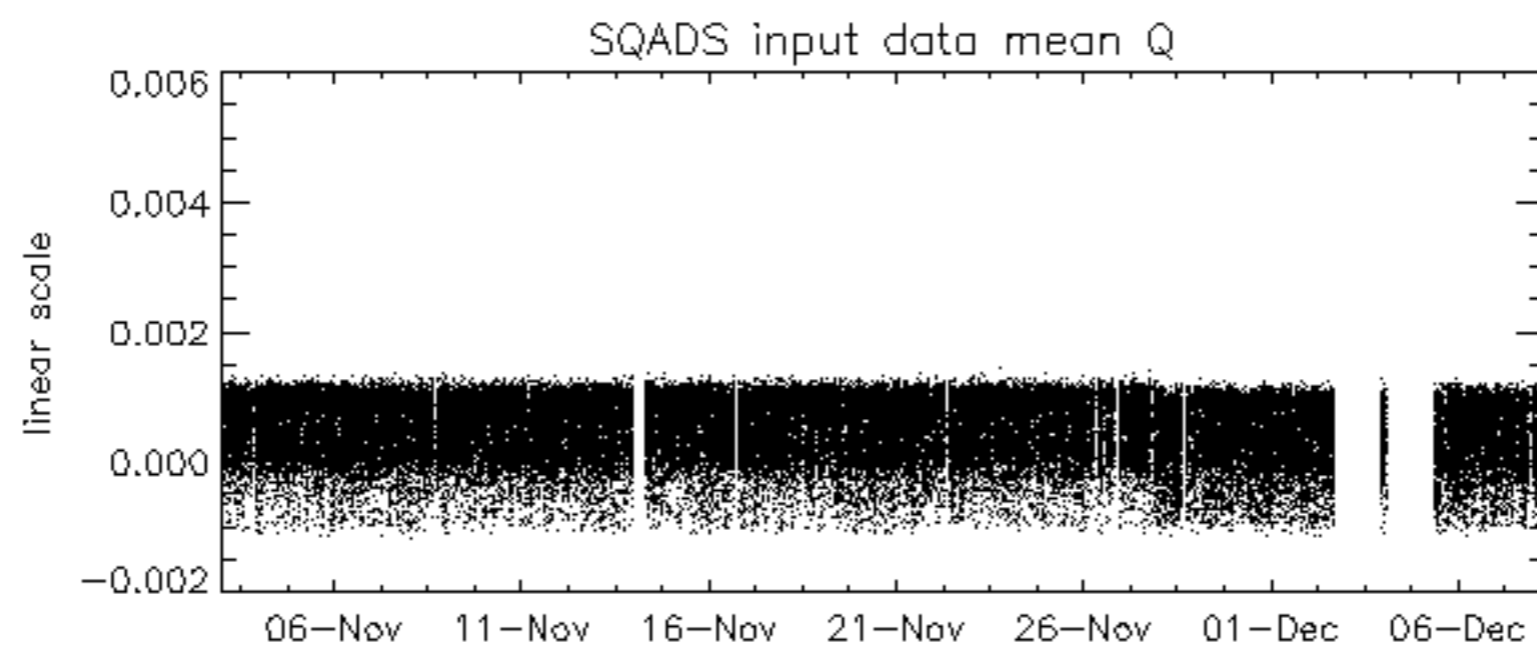
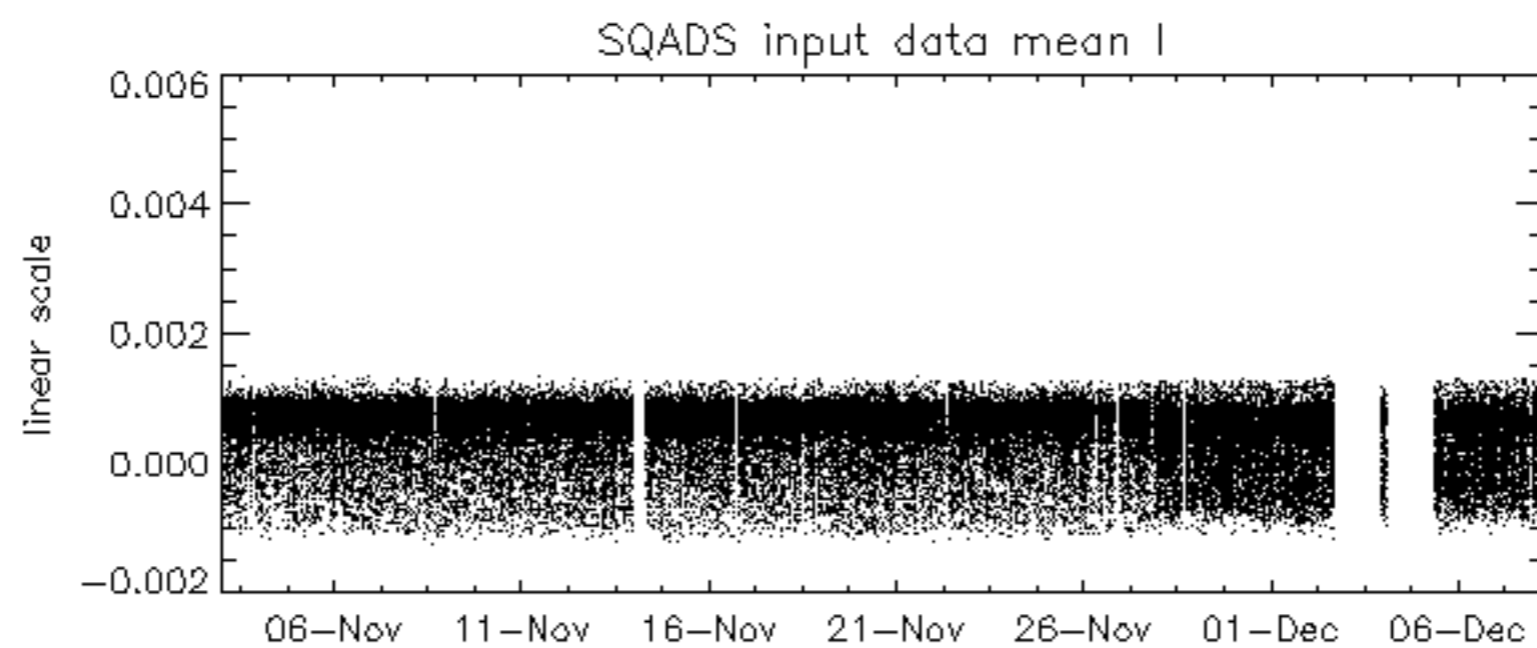
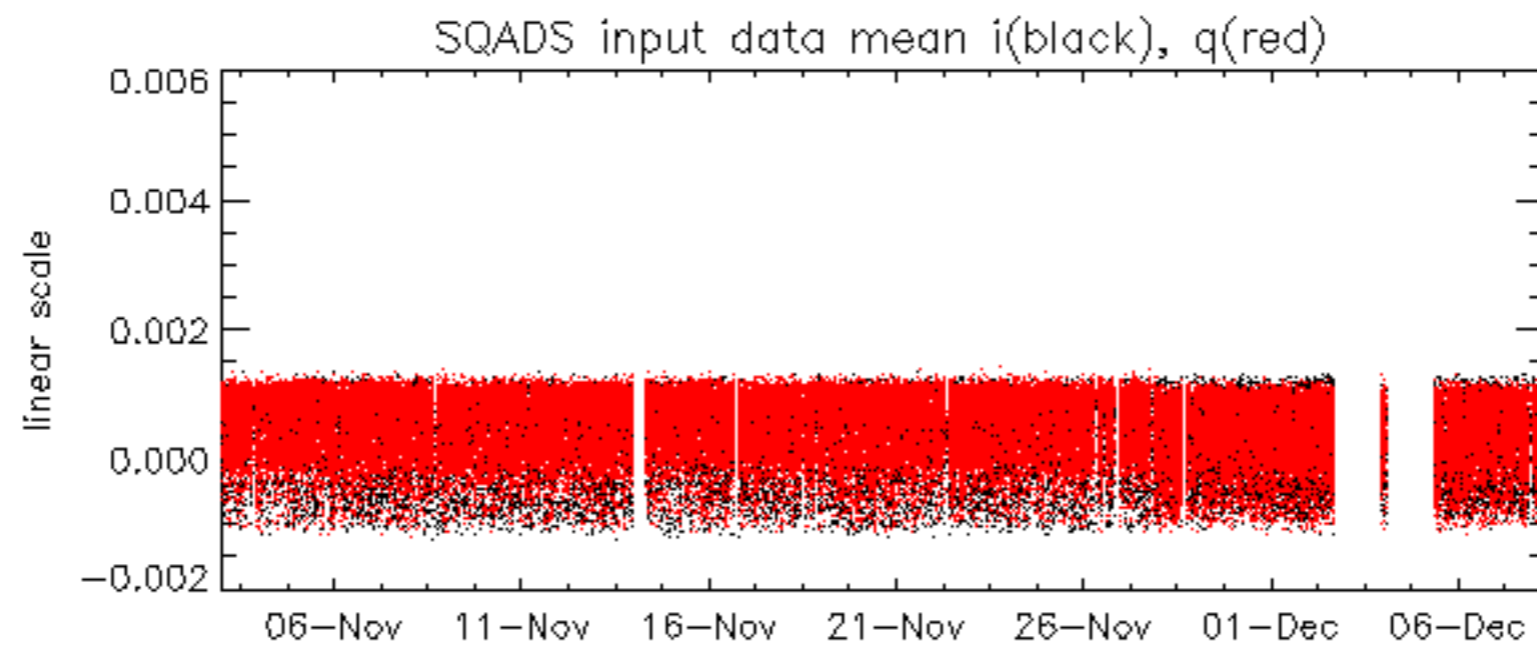
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.380146 Hz

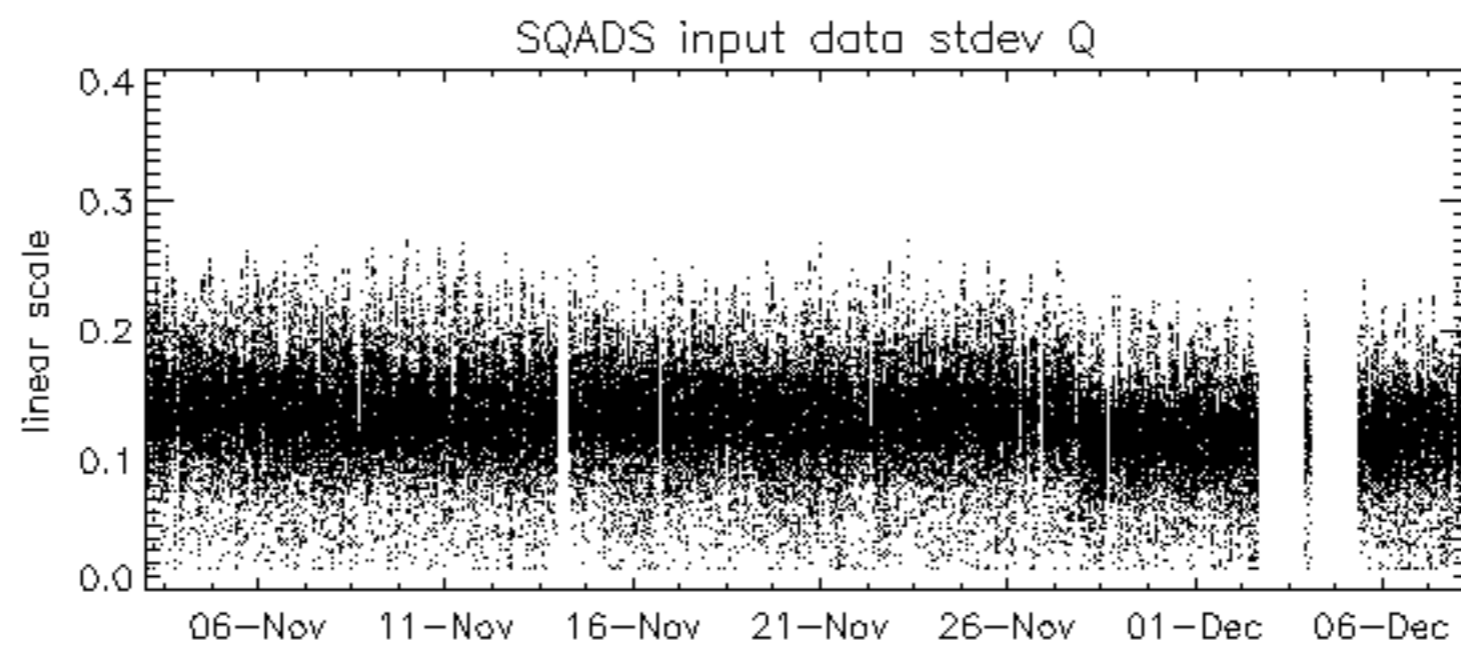
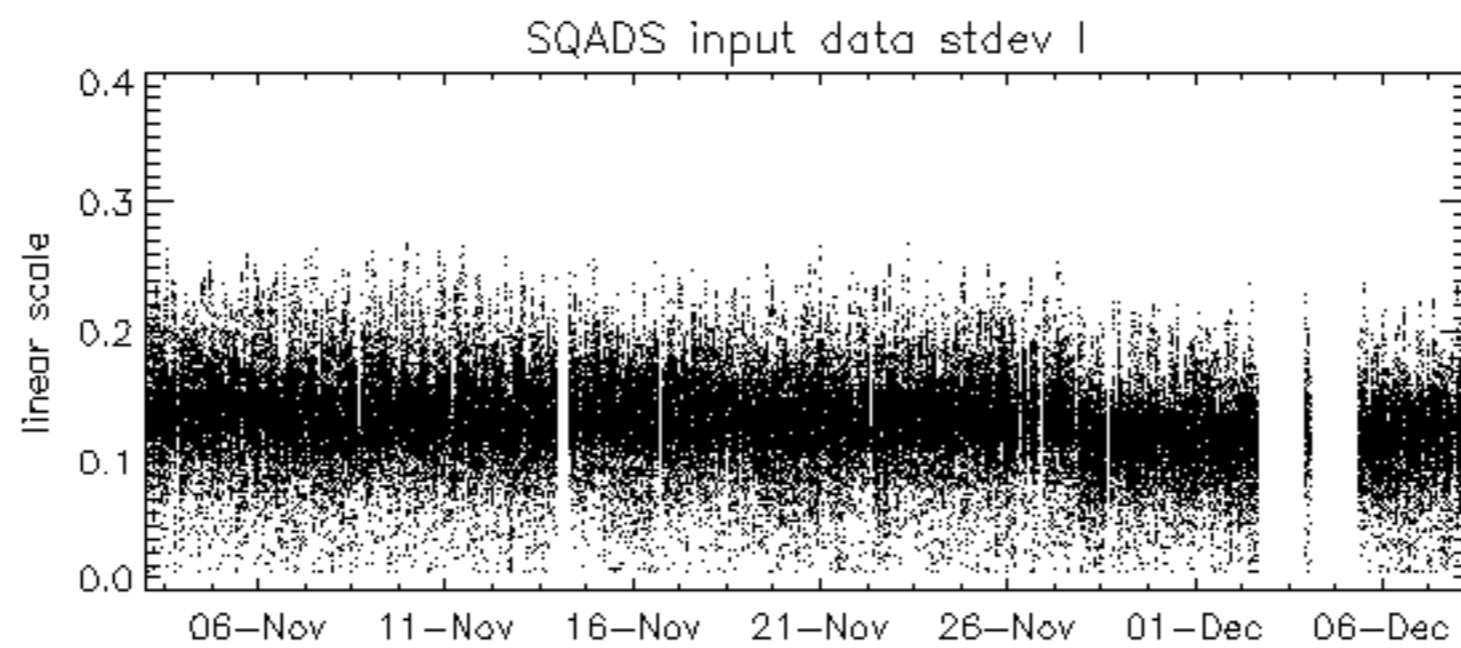
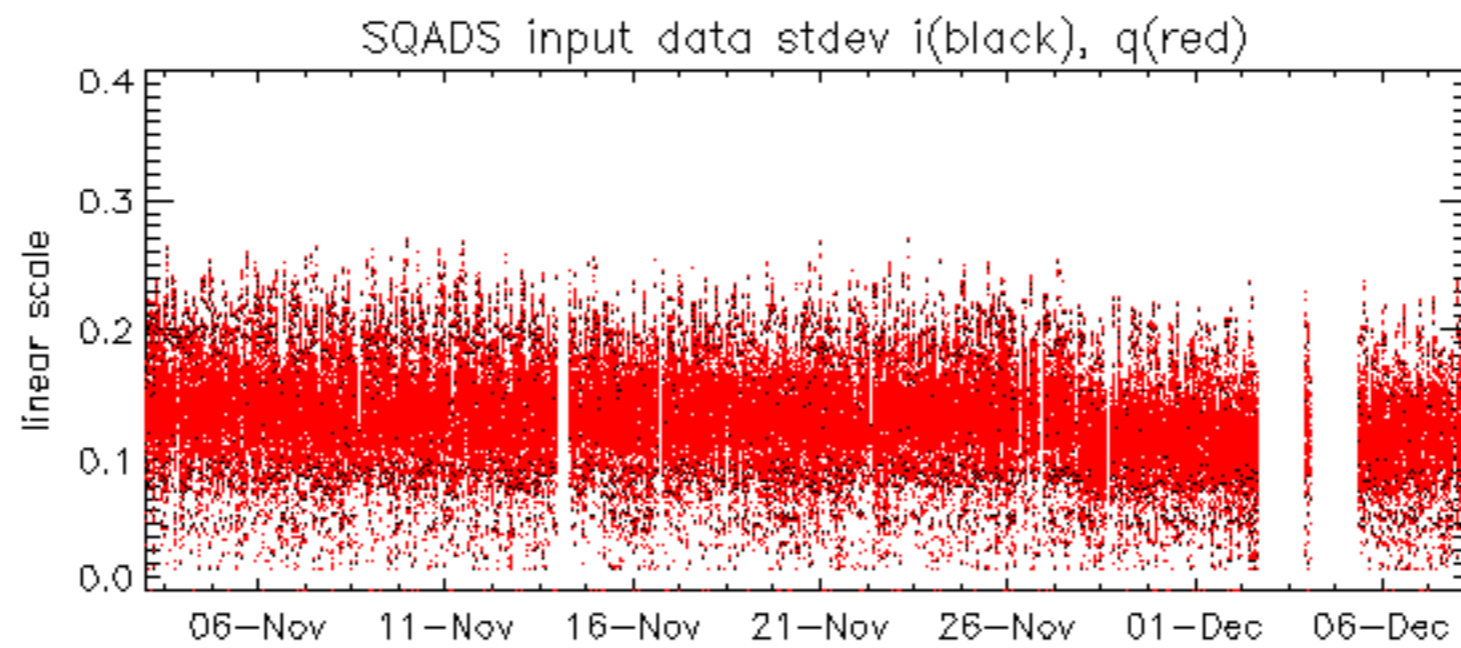


No anomalies observed on available MS products:

No anomalies observed.



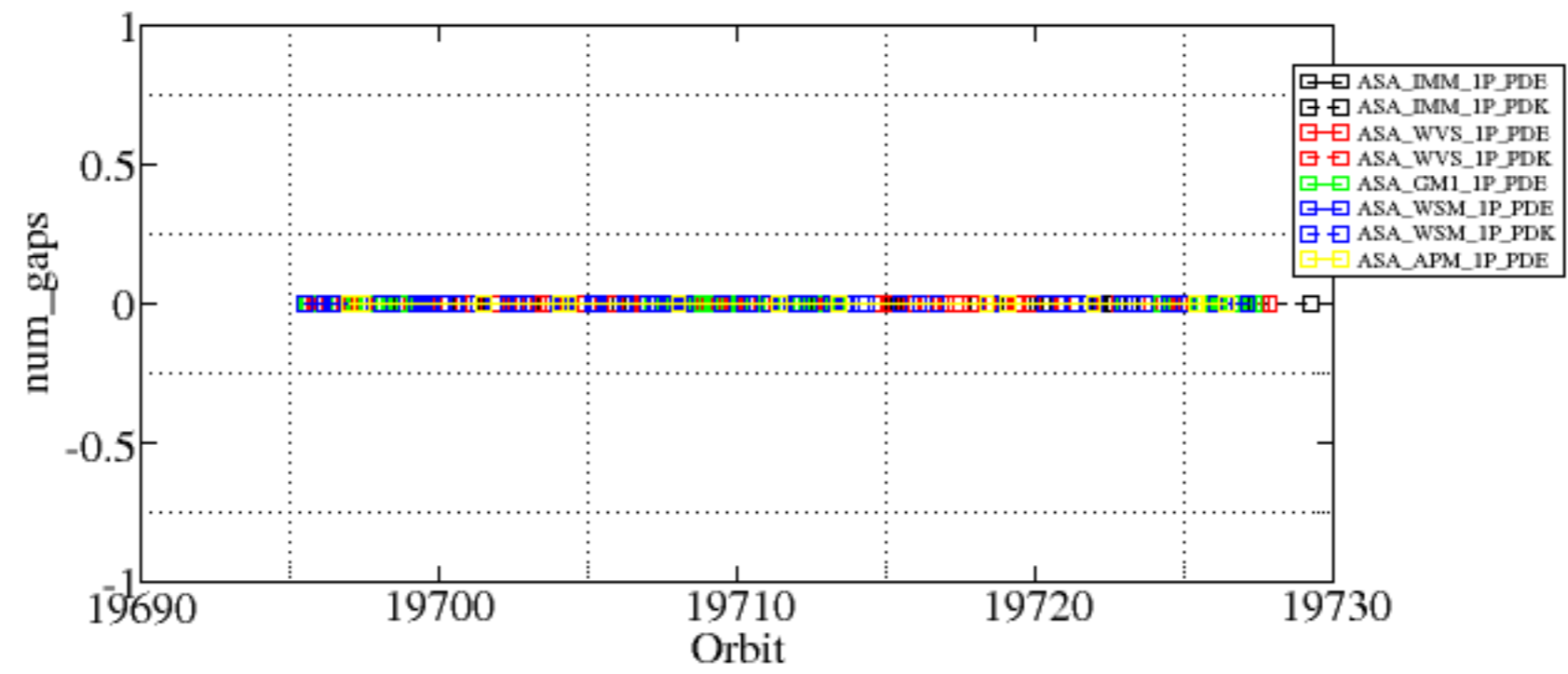


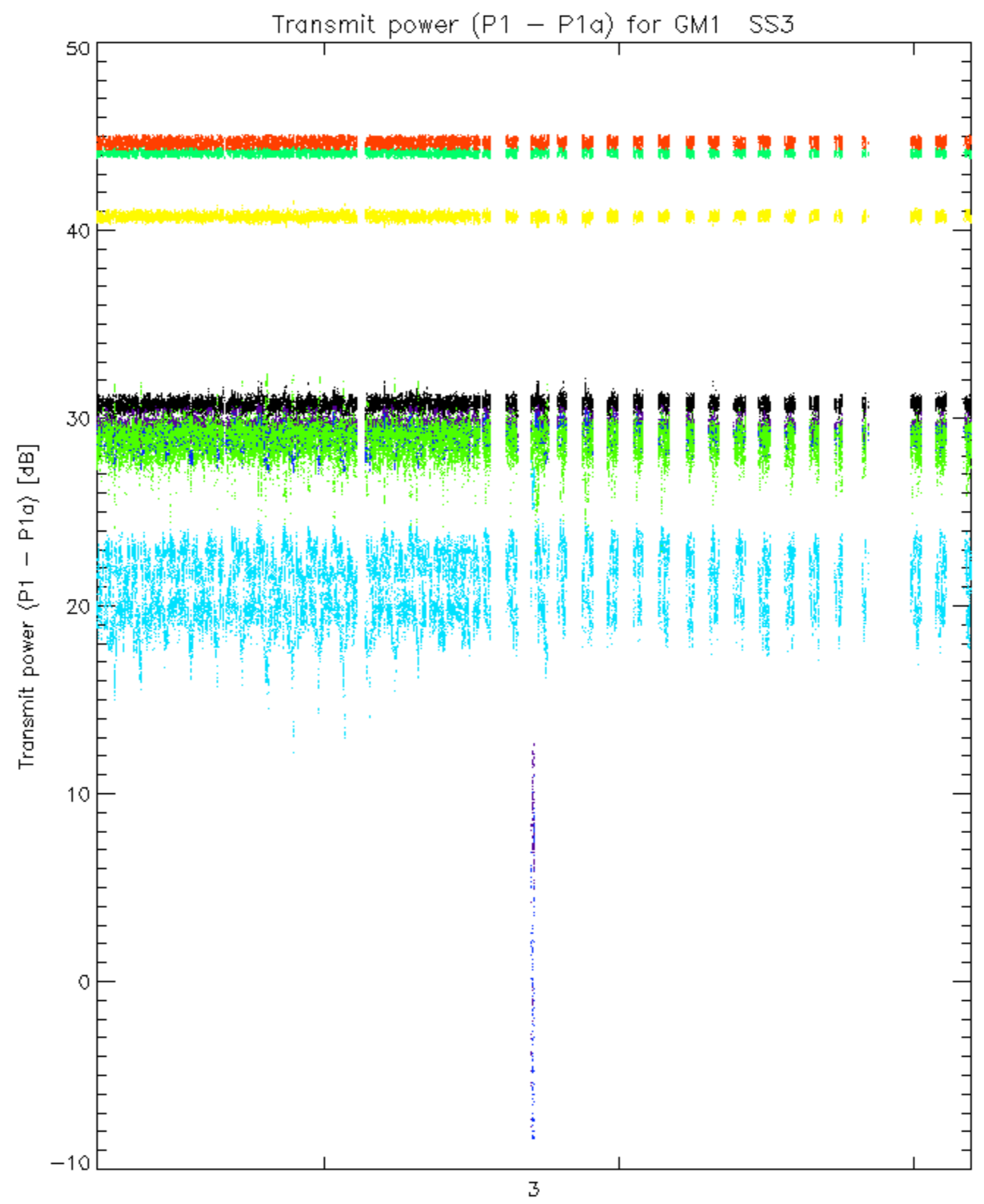


Summary of analysis for the last 3 days 2005120[678]

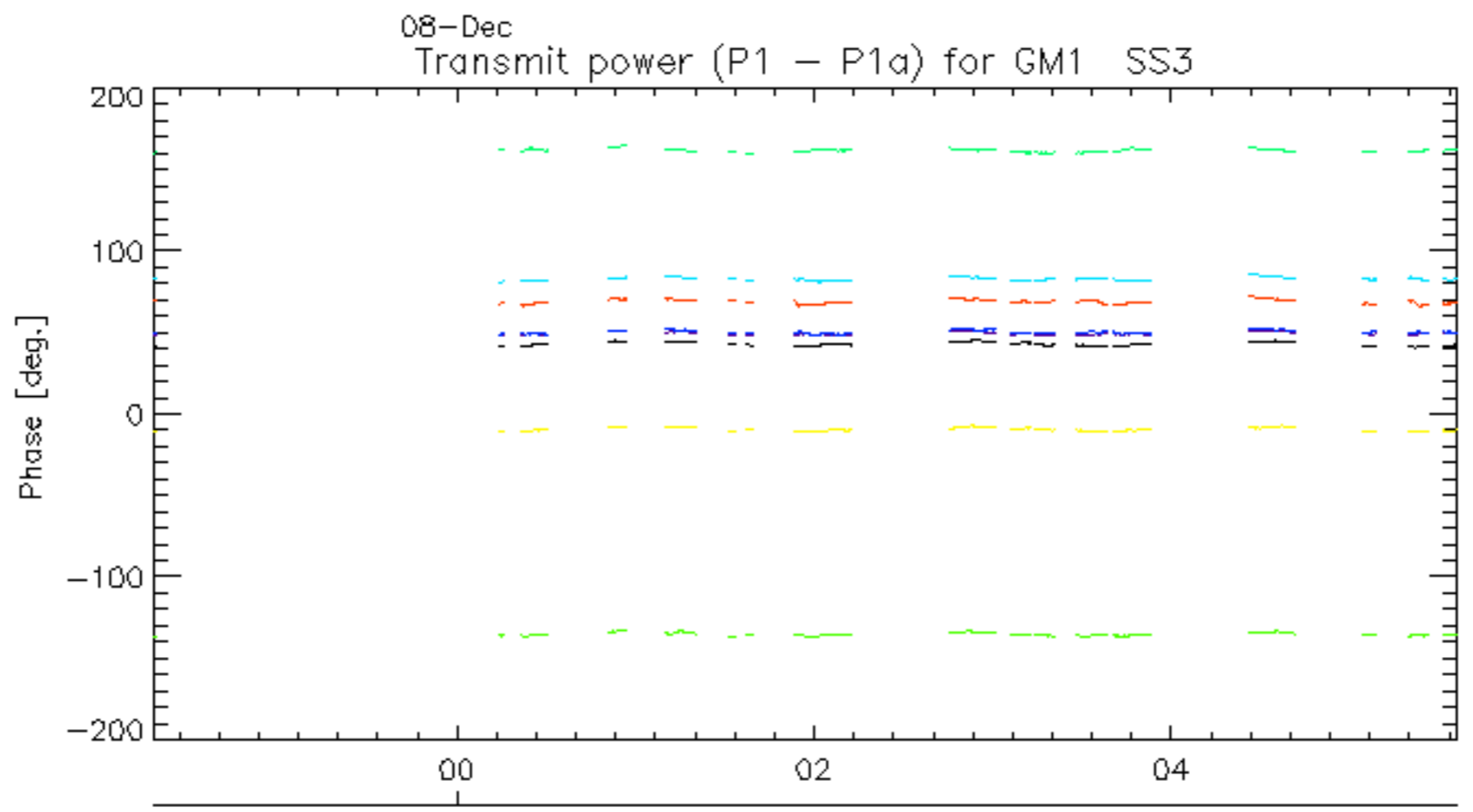
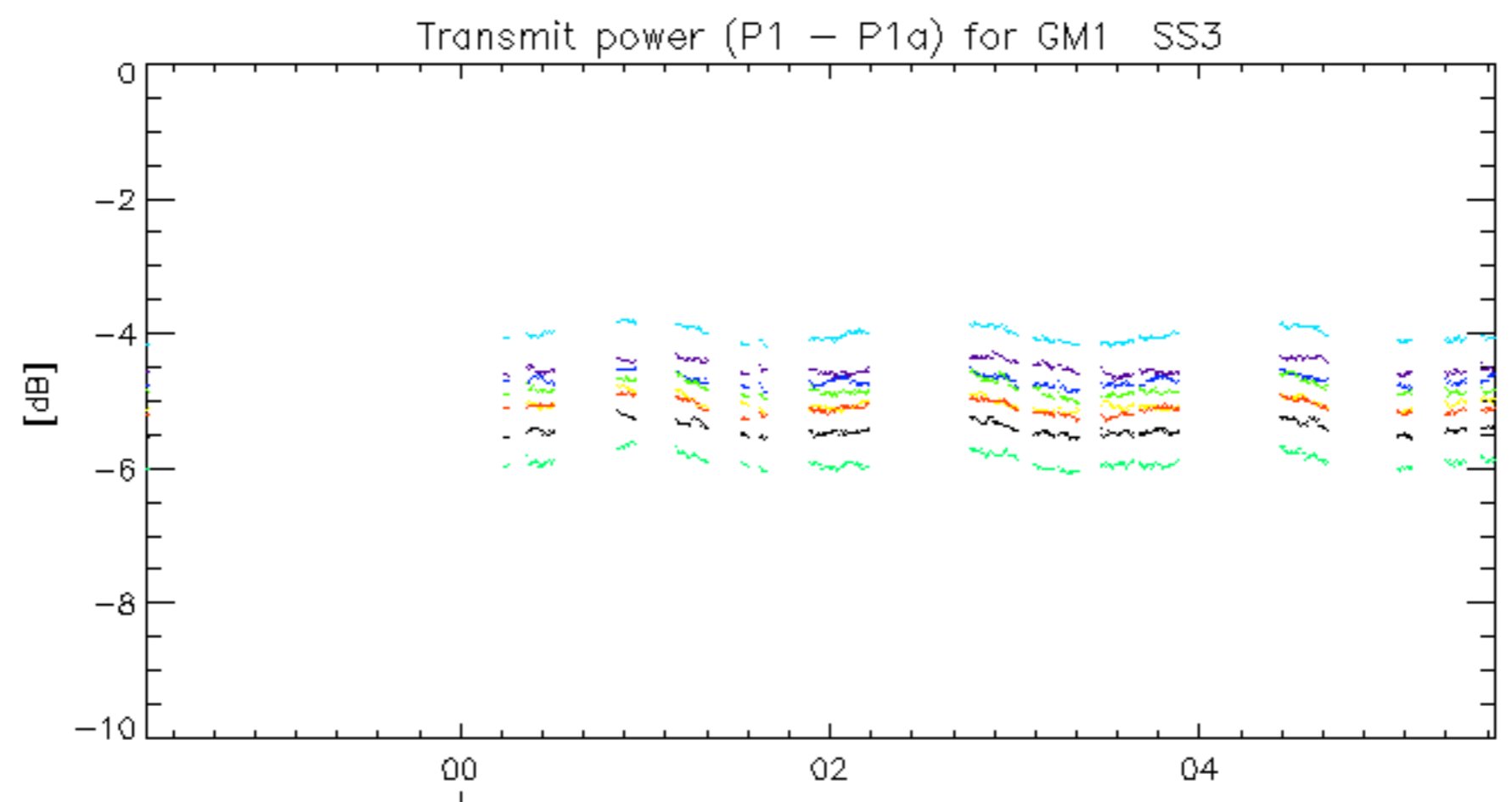
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20051206_014940_000002812043_00103_19696_2963.N1	0	3
ASA_WSM_1PNPDE20051206_042641_000001832043_00105_19698_2974.N1	0	61
ASA_WSM_1PNPDE20051206_143021_000000852043_00111_19704_3065.N1	0	40
ASA_WSM_1PNPDE20051207_011642_000003672043_00117_19710_3119.N1	0	35
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3149.N1	0	18
ASA_WSM_1PNPDE20051207_062903_000001402043_00120_19713_3182.N1	0	18
ASA_WSM_1PNPDE20051207_144158_000002082043_00125_19718_3195.N1	0	38
ASA_WSM_1PNPDE20051208_032332_000002442043_00133_19726_3277.N1	0	35

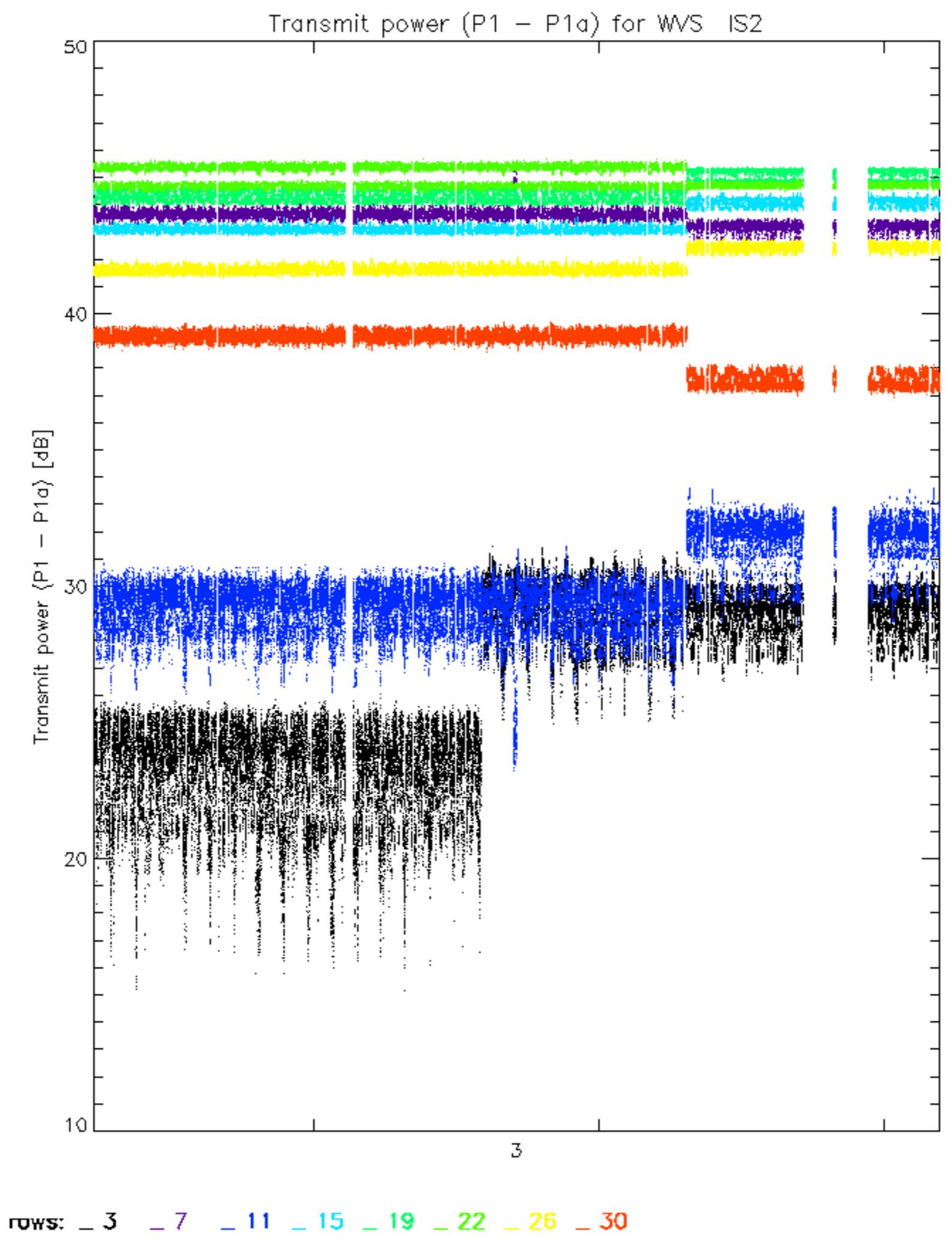


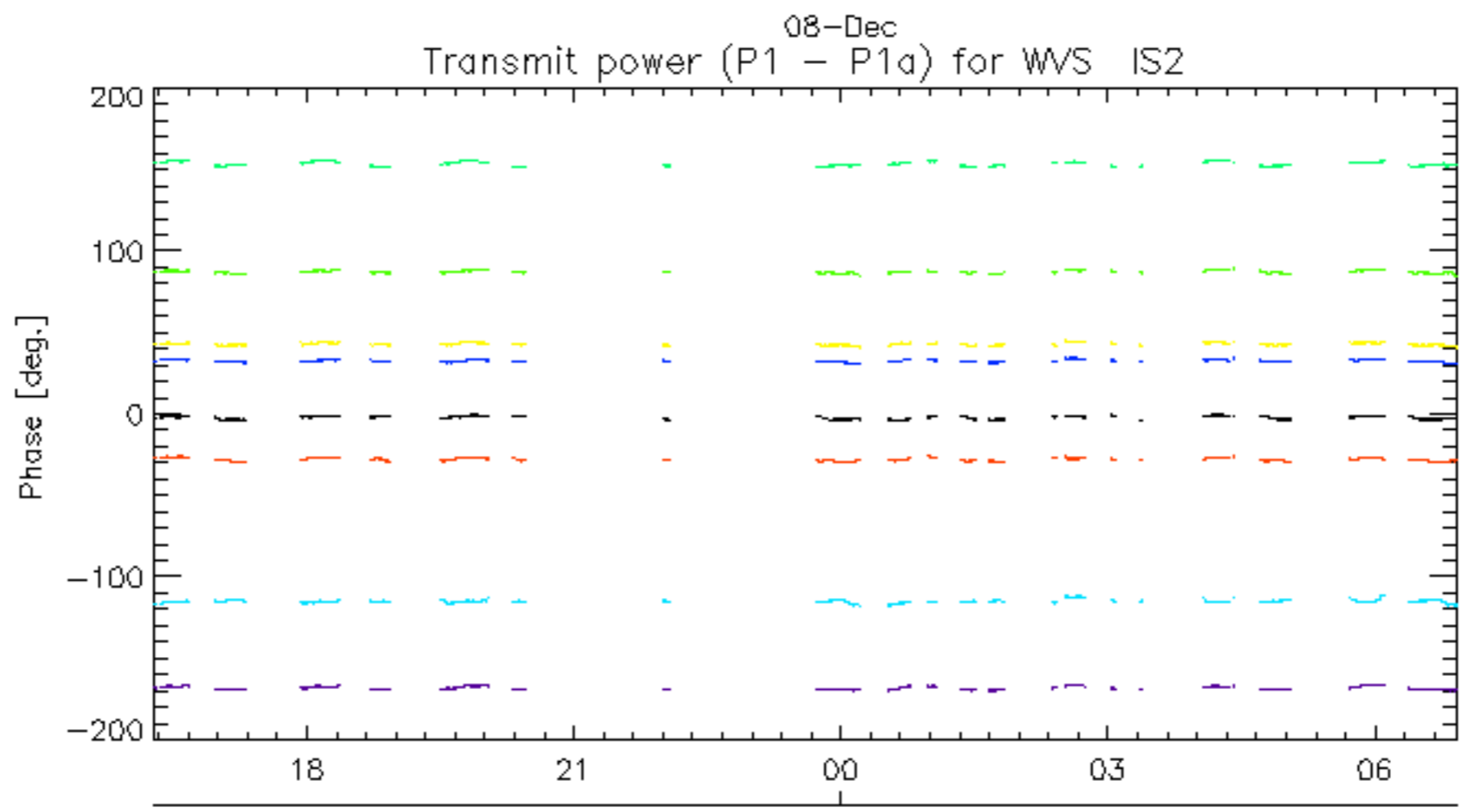
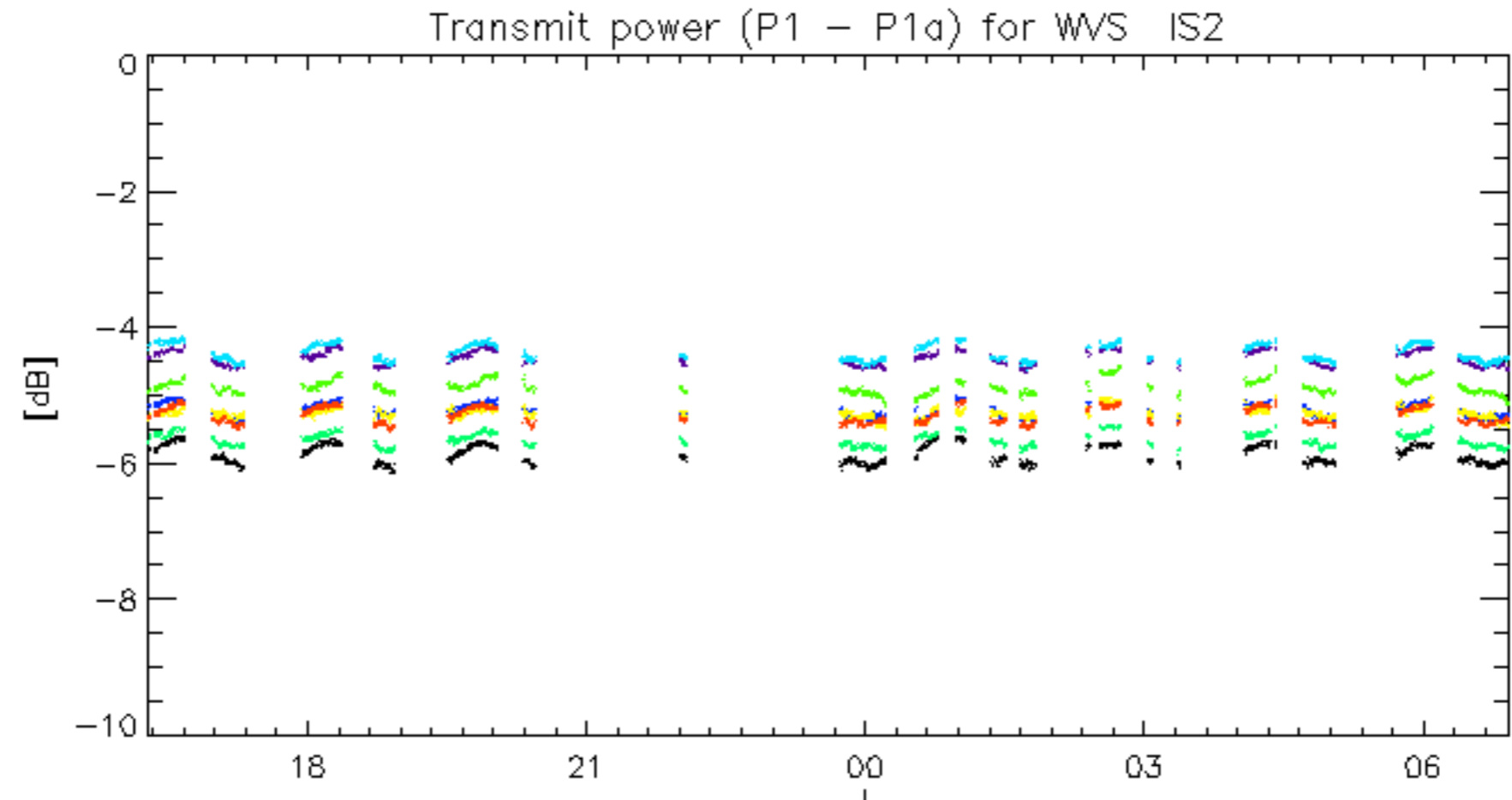


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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No unavailabilities during the reported period.