

PRELIMINARY REPORT OF 061107

last update on Tue Nov 7 16:41:27 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 2006-11-06 00:00:00 to 2006-11-07 16:41:27

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	72	23	12	16
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	45	72	23	12	16
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	72	23	12	16
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	72	23	12	16

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	26	31	16	5	29
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	4	10	1	0	4
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	30	41	17	5	33
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	30	41	17	5	33
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	30	41	17	5	33

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	20061107 042859
H	20061106 050036

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
<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	-3.953765	0.009264	0.000366
7	P1	-3.110903	0.018550	-0.112189
11	P1	-4.110085	0.024758	-0.075139
15	P1	-6.246591	0.015512	-0.111437
19	P1	-3.596802	0.065427	-0.070684
22	P1	-4.647201	0.130288	-0.100324
26	P1	-3.999558	0.125161	0.082834
30	P1	-5.888850	0.238091	0.013263
3	P1	-16.566982	0.222121	0.309795
7	P1	-17.172205	0.180440	-0.283078
11	P1	-17.072418	0.427686	-0.185454
15	P1	-12.949606	0.116405	-0.365304
19	P1	-14.810788	0.369405	-0.324812
22	P1	-15.702615	0.498487	-0.631293
26	P1	-15.089692	0.234311	0.011112
30	P1	-17.150888	0.707141	-0.827972

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.837309	0.088235	-0.050230
7	P2	-21.746883	0.094738	0.059798
11	P2	-15.692635	0.106690	0.109634
15	P2	-7.091693	0.107939	-0.101599
19	P2	-9.154983	0.101354	-0.118774
22	P2	-18.180405	0.095764	-0.148684
26	P2	-16.476122	0.107415	-0.192684
30	P2	-19.469891	0.090440	-0.014140

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.215574	0.007520	-0.050395
7	P3	-8.215574	0.007520	-0.050395
11	P3	-8.215574	0.007520	-0.050395
15	P3	-8.215574	0.007520	-0.050395
19	P3	-8.215574	0.007520	-0.050395
22	P3	-8.215574	0.007520	-0.050395
26	P3	-8.215401	0.007535	-0.050188
30	P3	-8.215401	0.007535	-0.050188

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	-3.925458	0.187681	0.080536
7	P1	-2.621143	1.212863	0.398264
11	P1	-2.903339	0.149928	0.154250
15	P1	-3.701036	0.135931	0.109992
19	P1	-3.523628	0.147282	-0.085946
22	P1	-5.069100	0.109455	0.001382
26	P1	-5.999636	0.279913	-0.111436
30	P1	-5.301343	0.185569	-0.136505
3	P1	-11.755213	0.455688	0.212434
7	P1	-10.160348	1.537345	0.457412
11	P1	-10.419929	0.408309	0.413692
15	P1	-10.886559	0.554856	0.549871
19	P1	-15.753438	2.610416	-0.254208
22	P1	-21.149599	1.663992	-0.804038

26	P1	-15.944295	0.457923	-0.526438
30	P1	-17.981794	0.545351	0.361974

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.385017	0.280744	-0.314850
7	P2	-22.044727	1.573141	-0.774212
11	P2	-10.876244	0.242800	-0.275549
15	P2	-4.920986	0.070775	-0.172707
19	P2	-6.905128	0.147689	-0.191127
22	P2	-8.267813	0.509762	0.050714
26	P2	-24.169289	1.192499	-0.636268
30	P2	-21.878658	0.605597	-0.327424

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.069407	0.003249	-0.054780
7	P3	-8.069347	0.003222	-0.054892
11	P3	-8.069295	0.003228	-0.055360
15	P3	-8.069243	0.003225	-0.054533
19	P3	-8.069287	0.003229	-0.054725
22	P3	-8.069154	0.003233	-0.055080
26	P3	-8.069061	0.003219	-0.056139
30	P3	-8.069160	0.003224	-0.056357

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	0.000554935
	stdev	1.71648e-07
MEAN Q	mean	0.000521184
	stdev	2.18217e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137335
	stdev	0.00111648
STDEV Q	mean	0.137703
	stdev	0.00113380



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006110[567]

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_1PNPDK20061105_201452_000000352052_00386_24488_3554.N1	0	11
ASA_GM1_1PNPDK20061105_153556_000001872052_00383_24485_8060.N1	0	8
ASA_WSM_1PNPDE20061105_001112_000002612052_00374_24476_0001.N1	0	29
ASA_WSM_1PNPDE20061105_032220_000001472052_00376_24478_0001.N1	0	1
ASA_WSM_1PNPDE20061106_154250_000001702052_00398_24500_0001.N1	0	24



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"/>

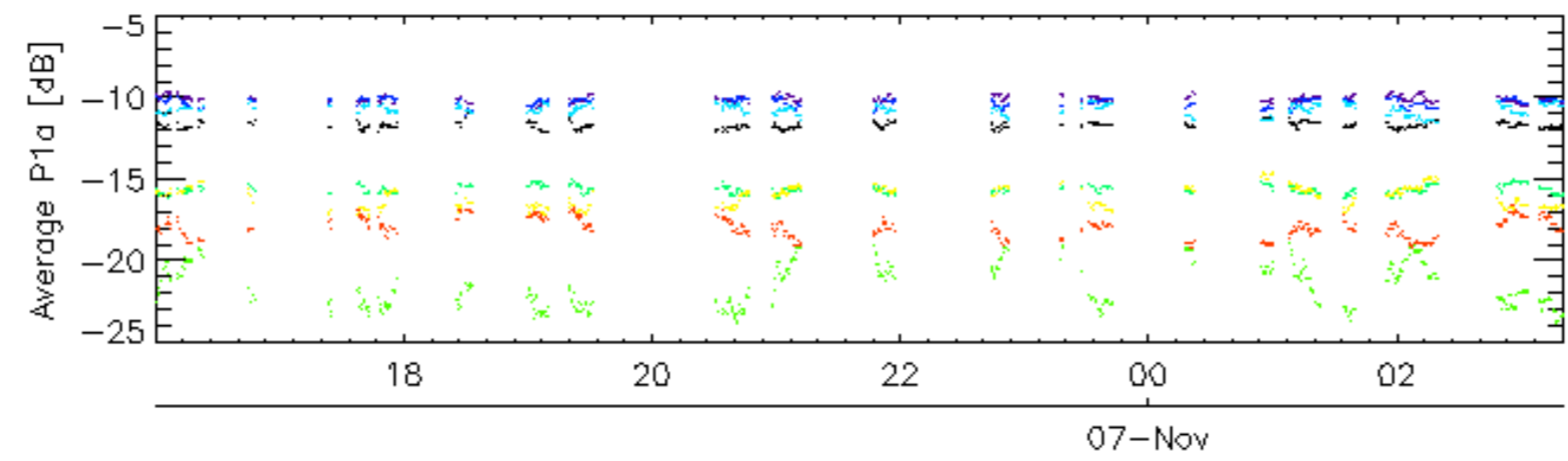
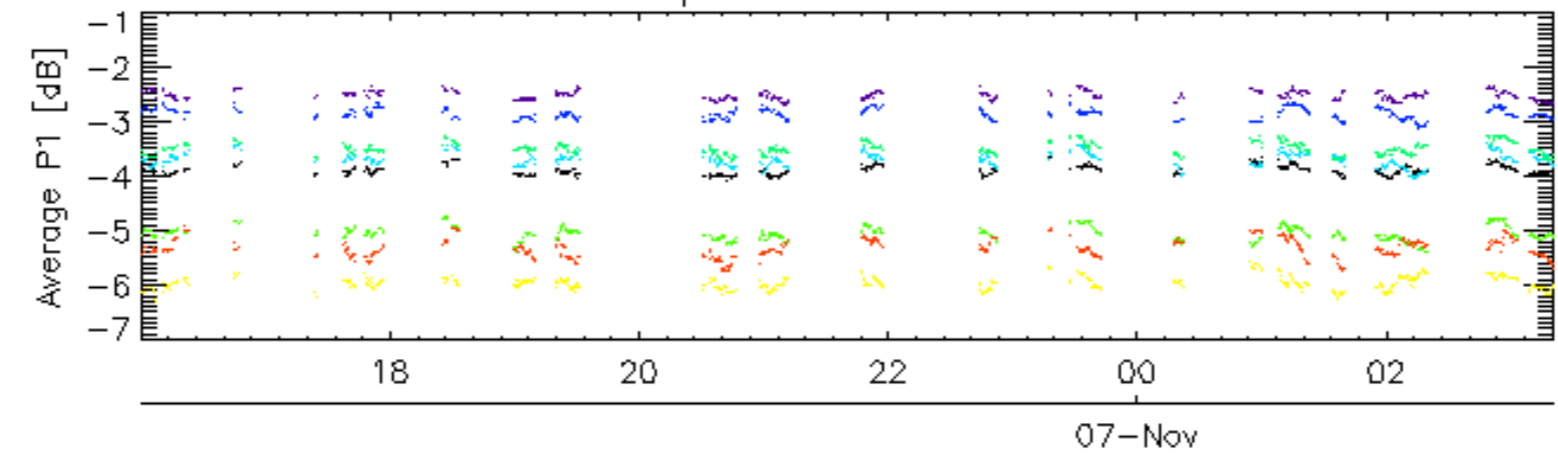
Descending

7.6 - Doppler evolution versus ANX for GM1

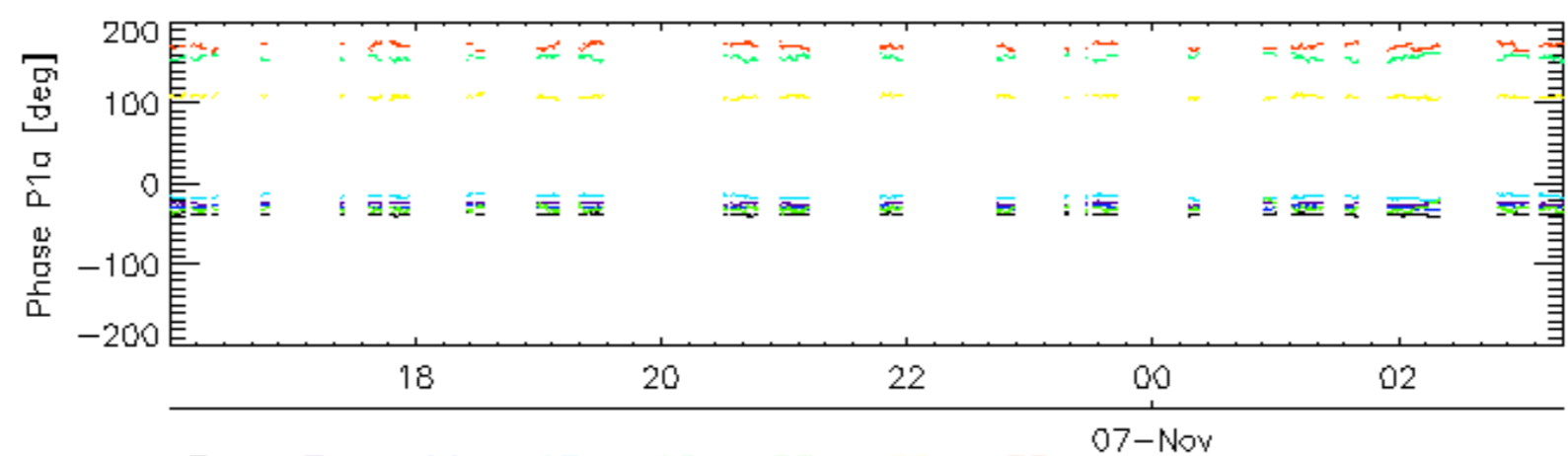
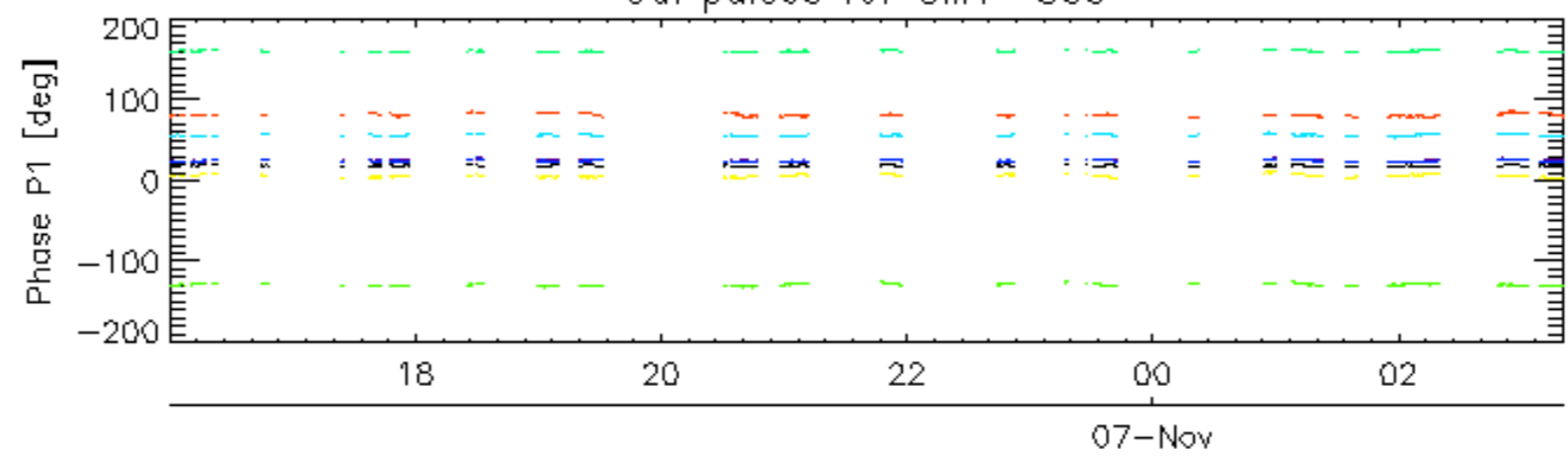
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

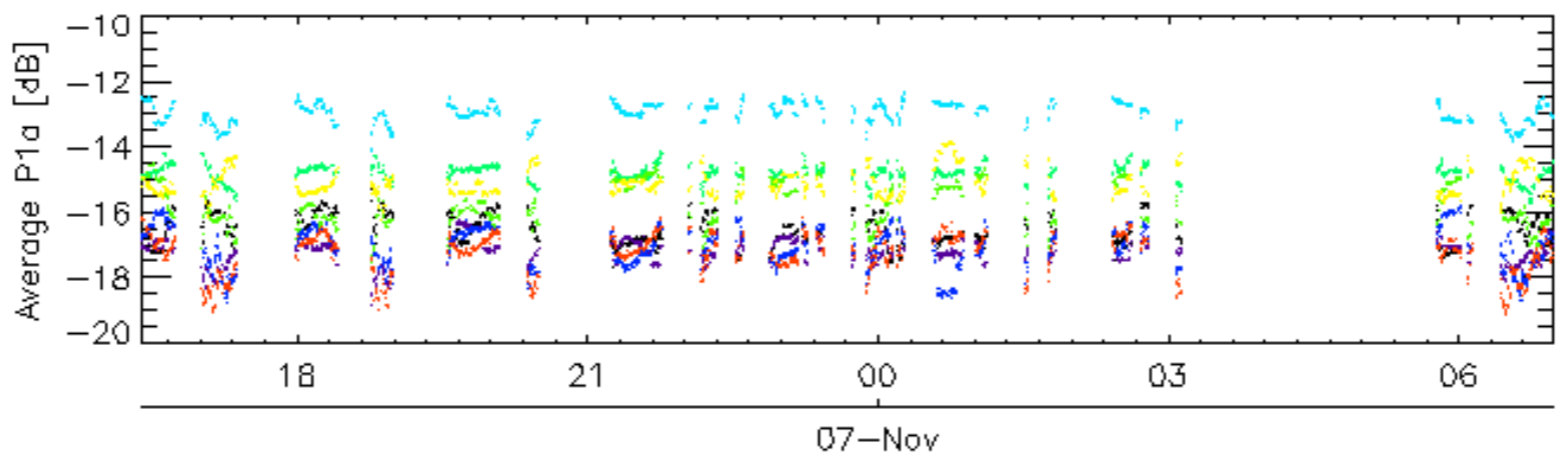
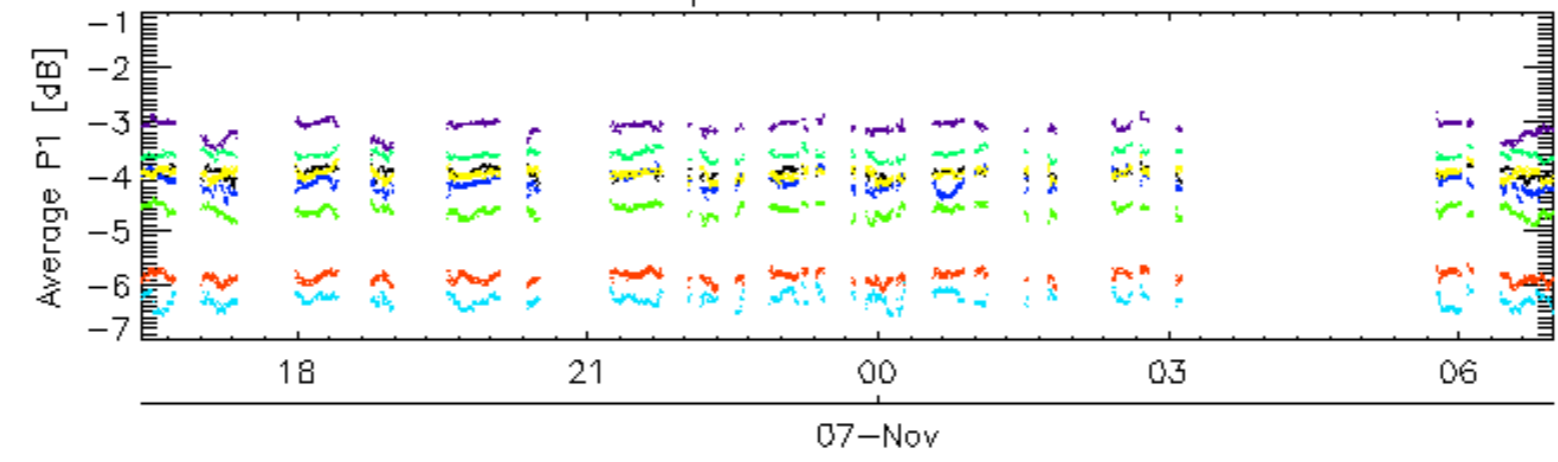


Cal pulses for GM1 SS3

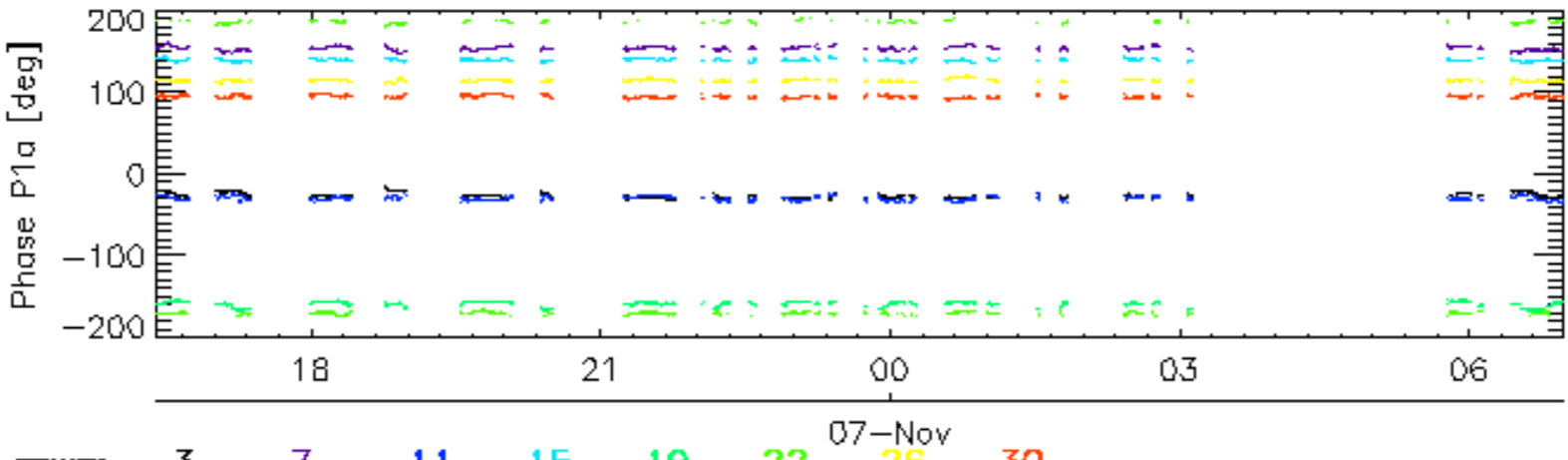
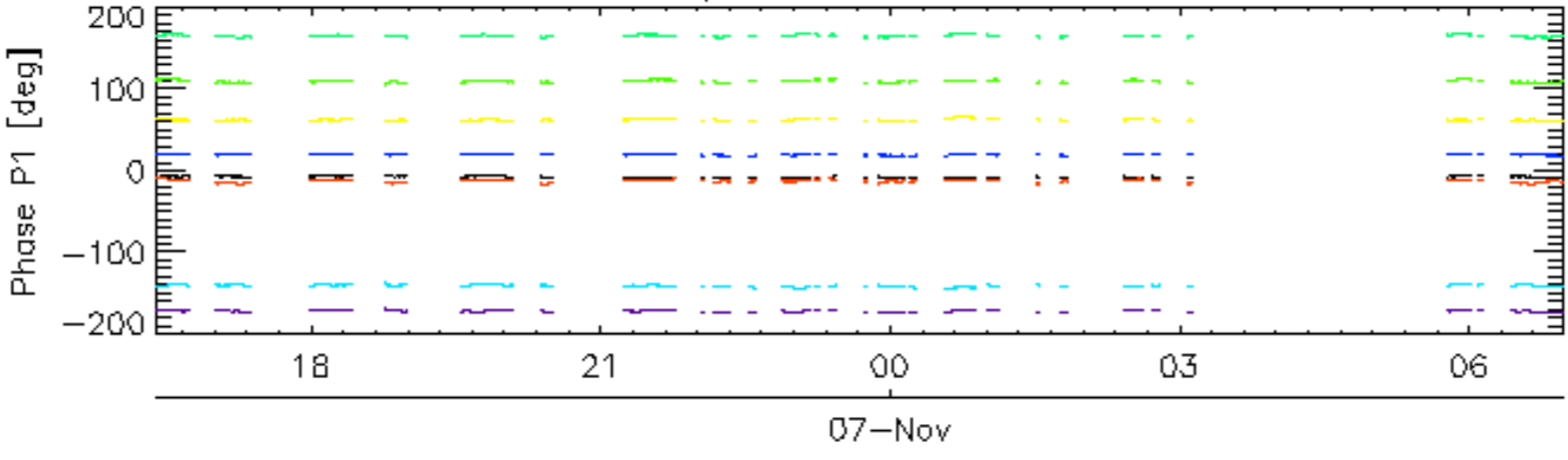


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

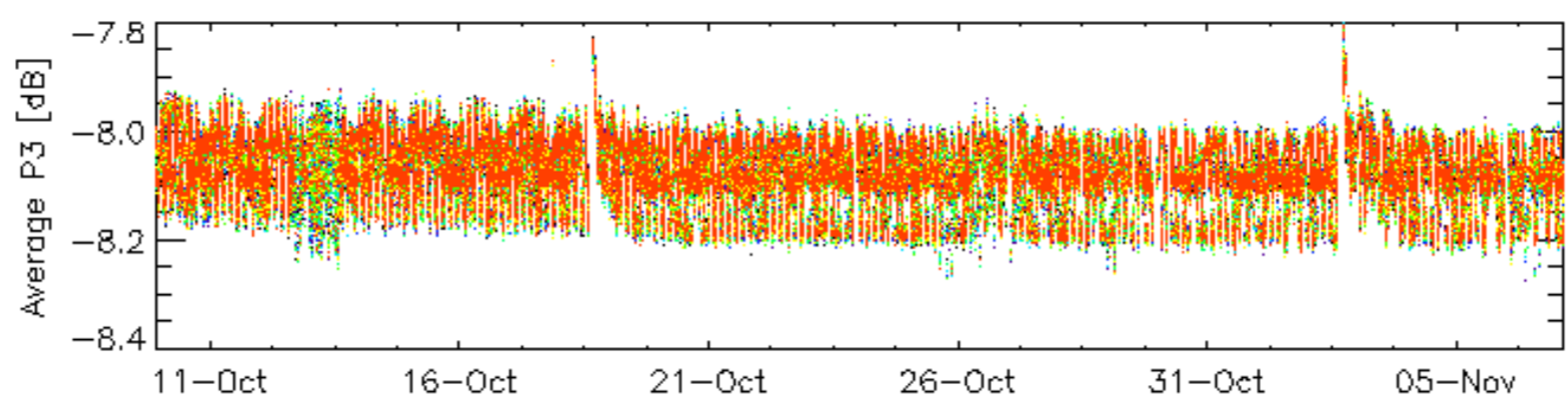
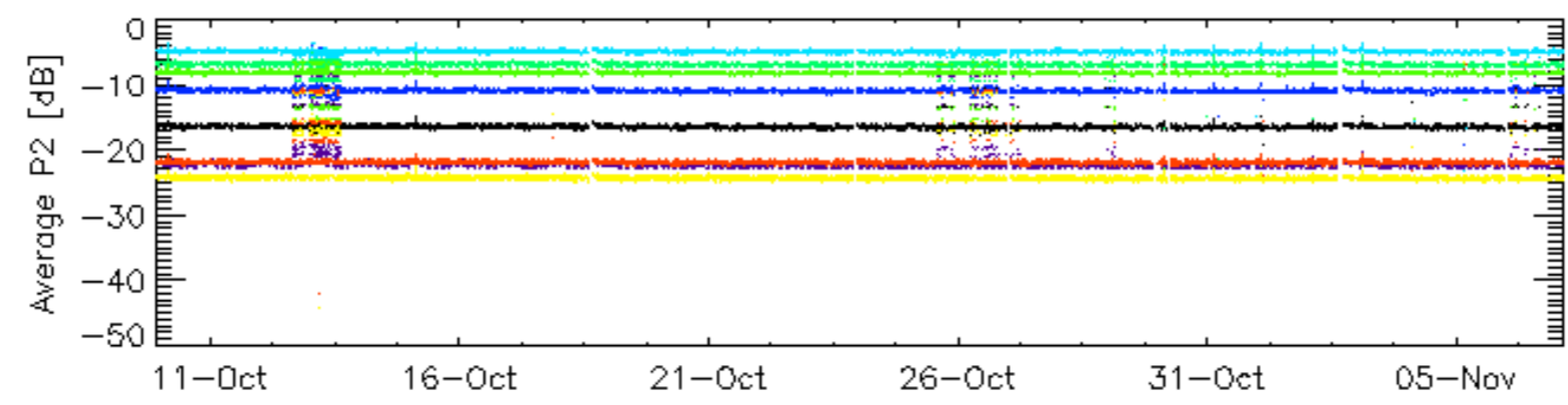
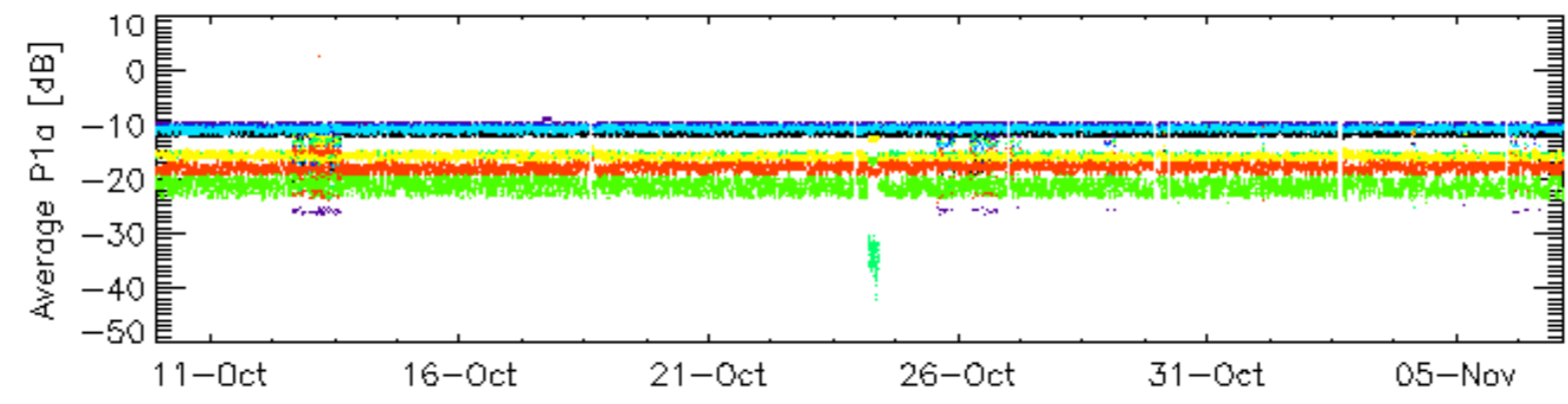
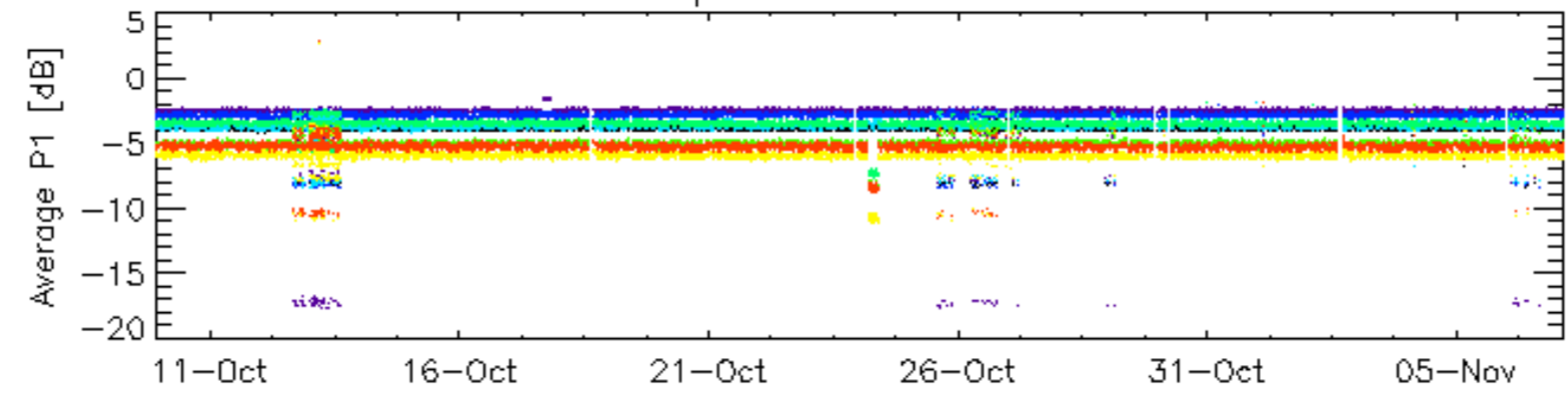


Cal pulses for WVS IS2



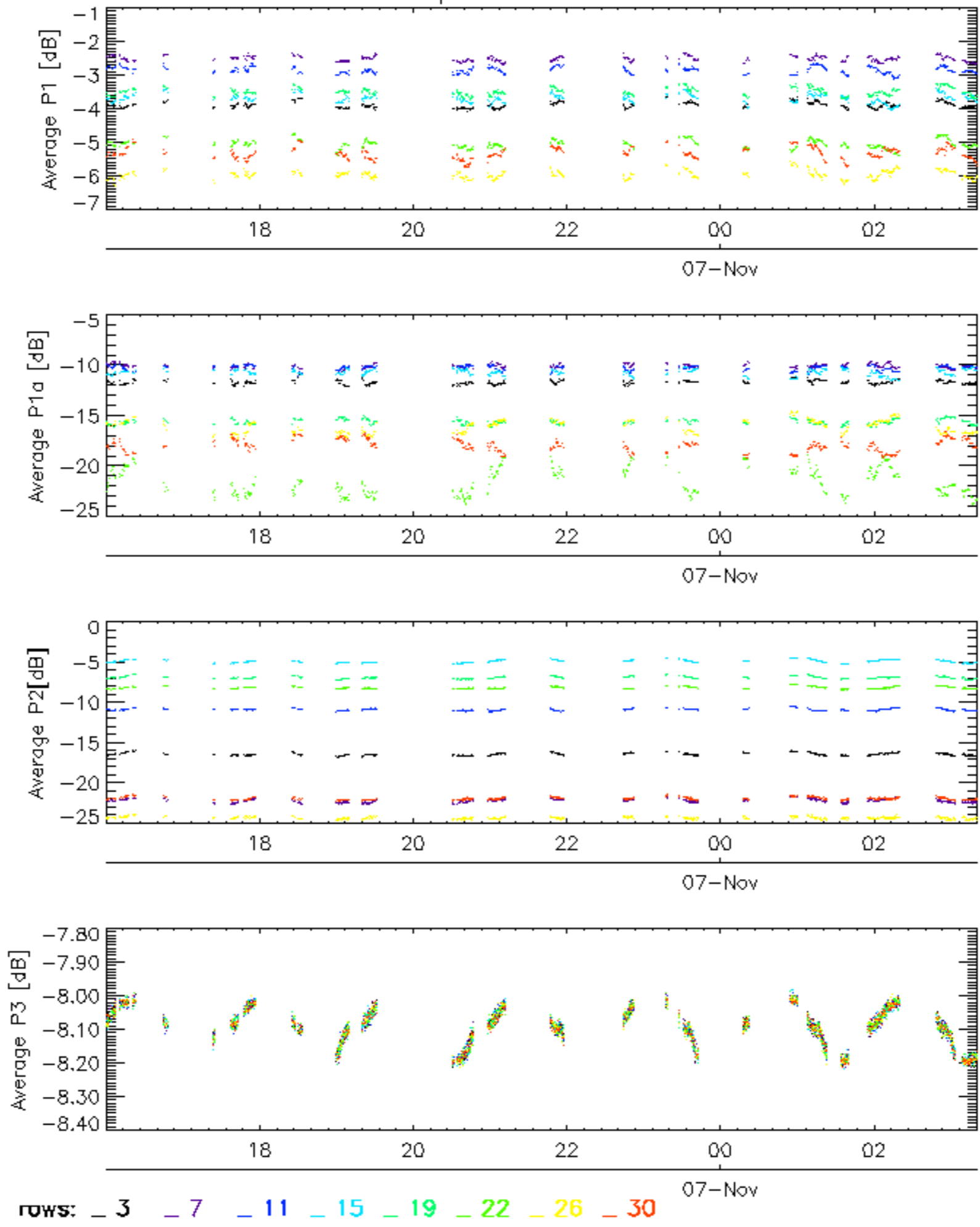
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

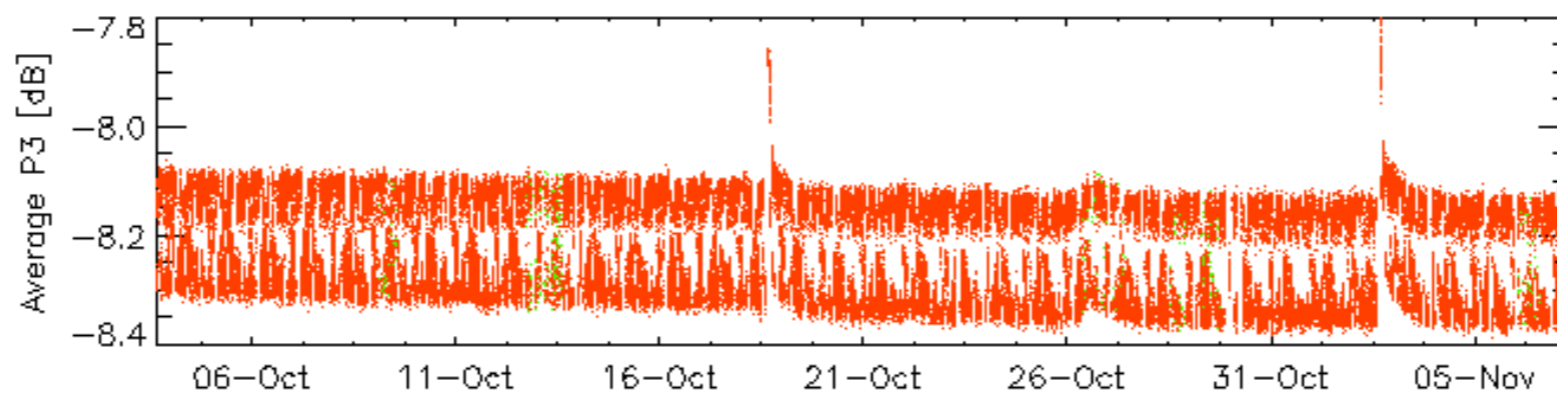
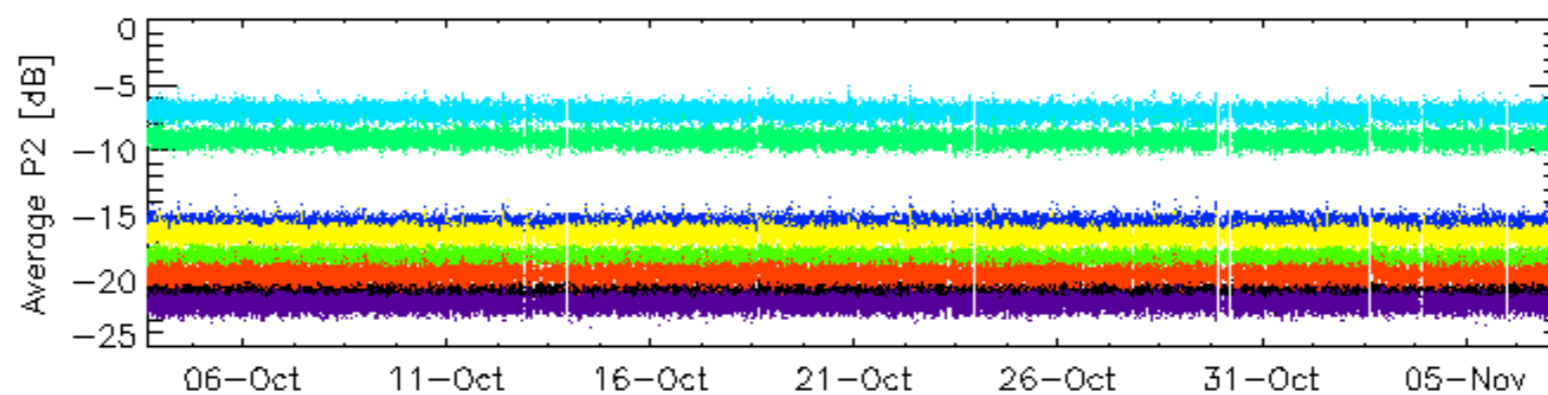
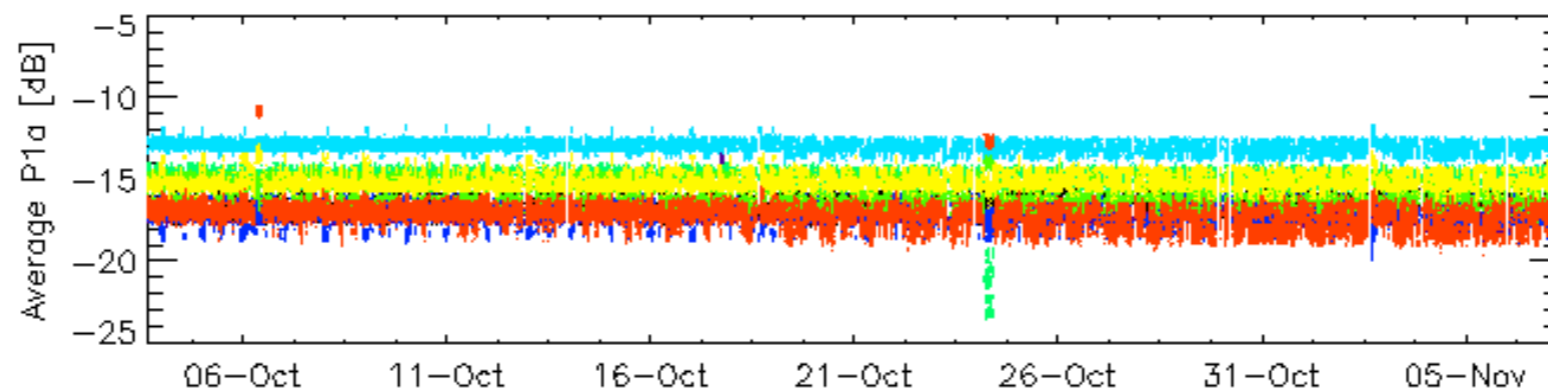
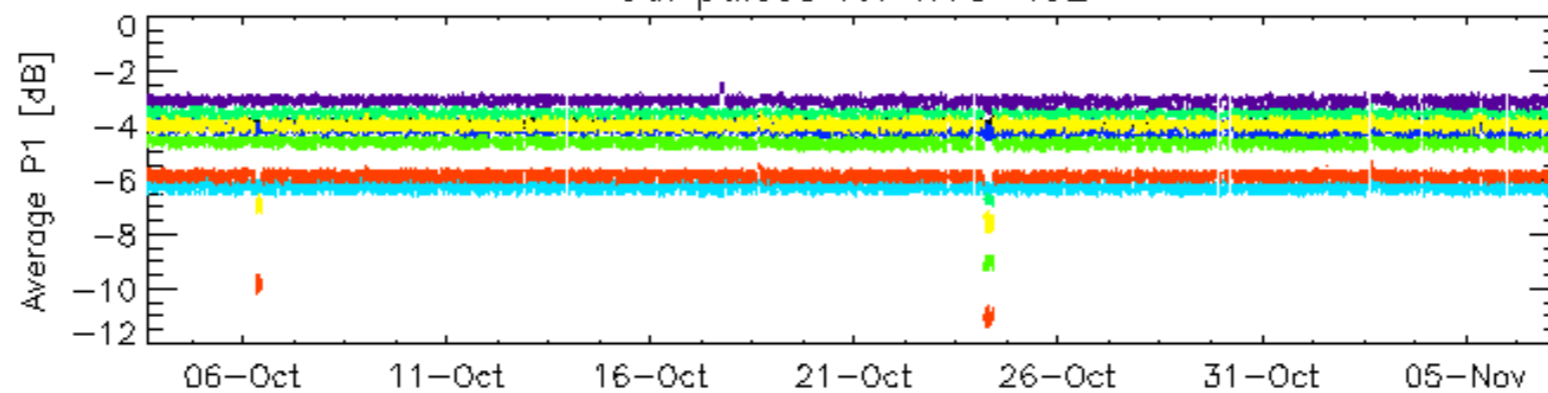


rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for GM1 SS3

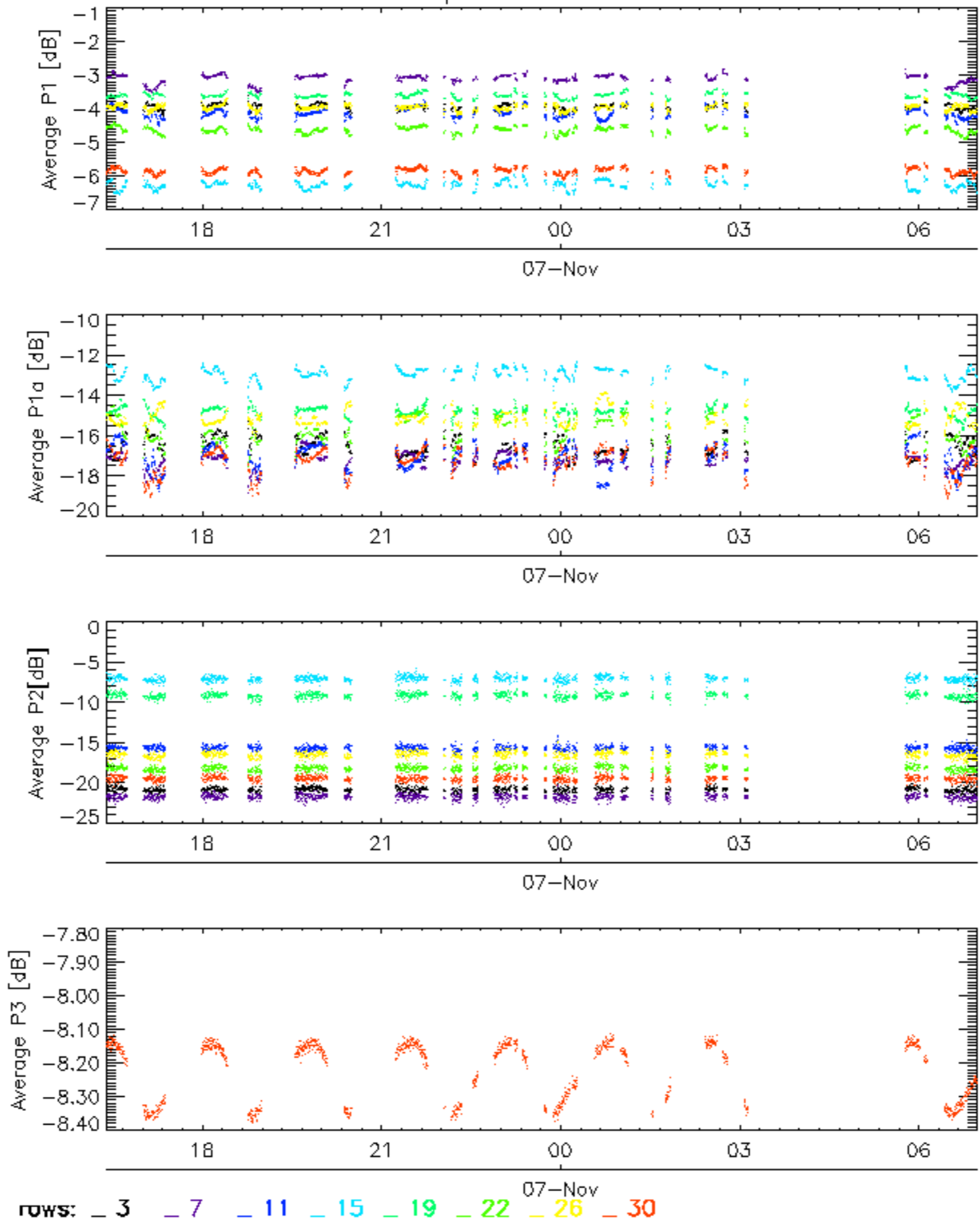


Cal pulses for WVS IS2



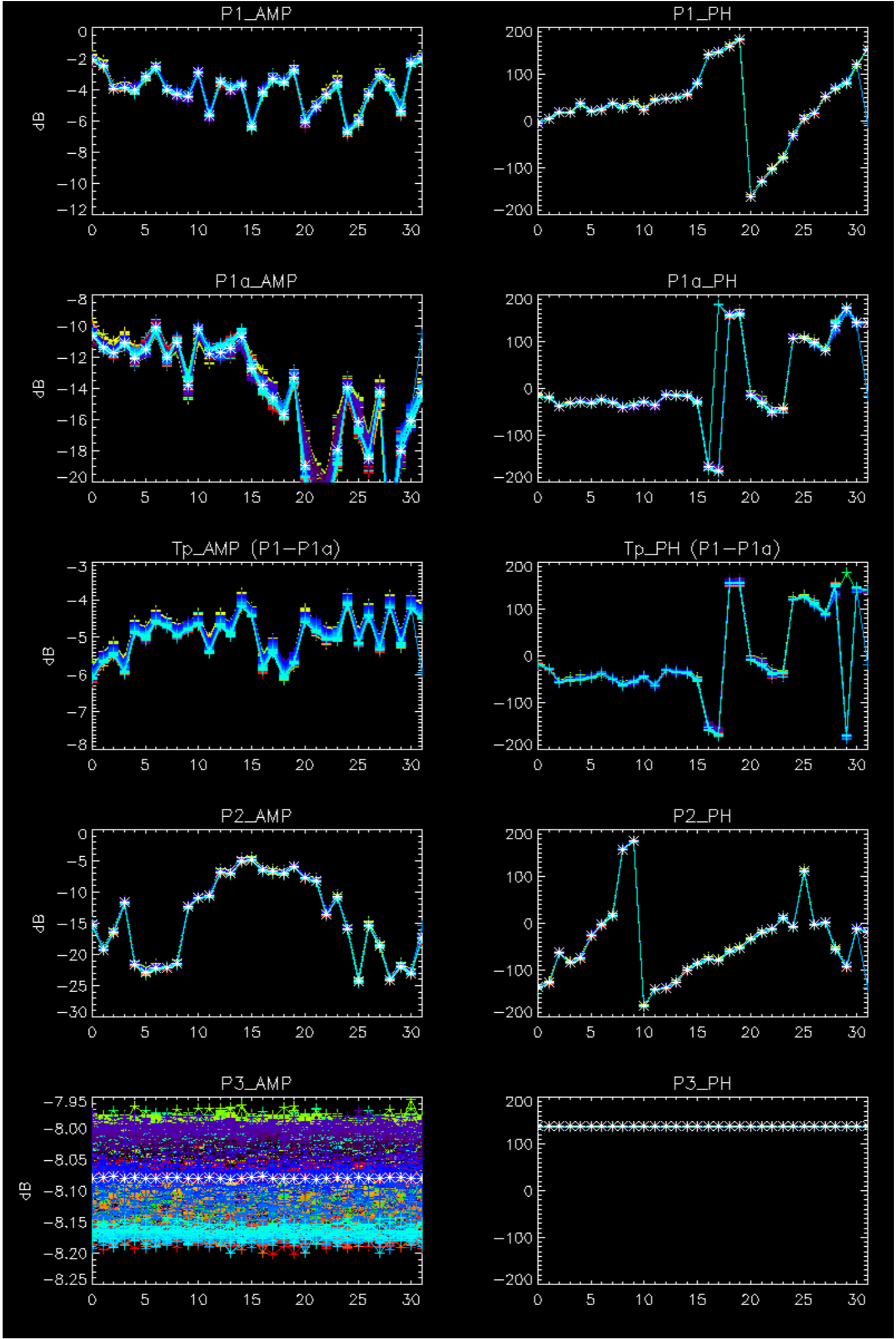
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

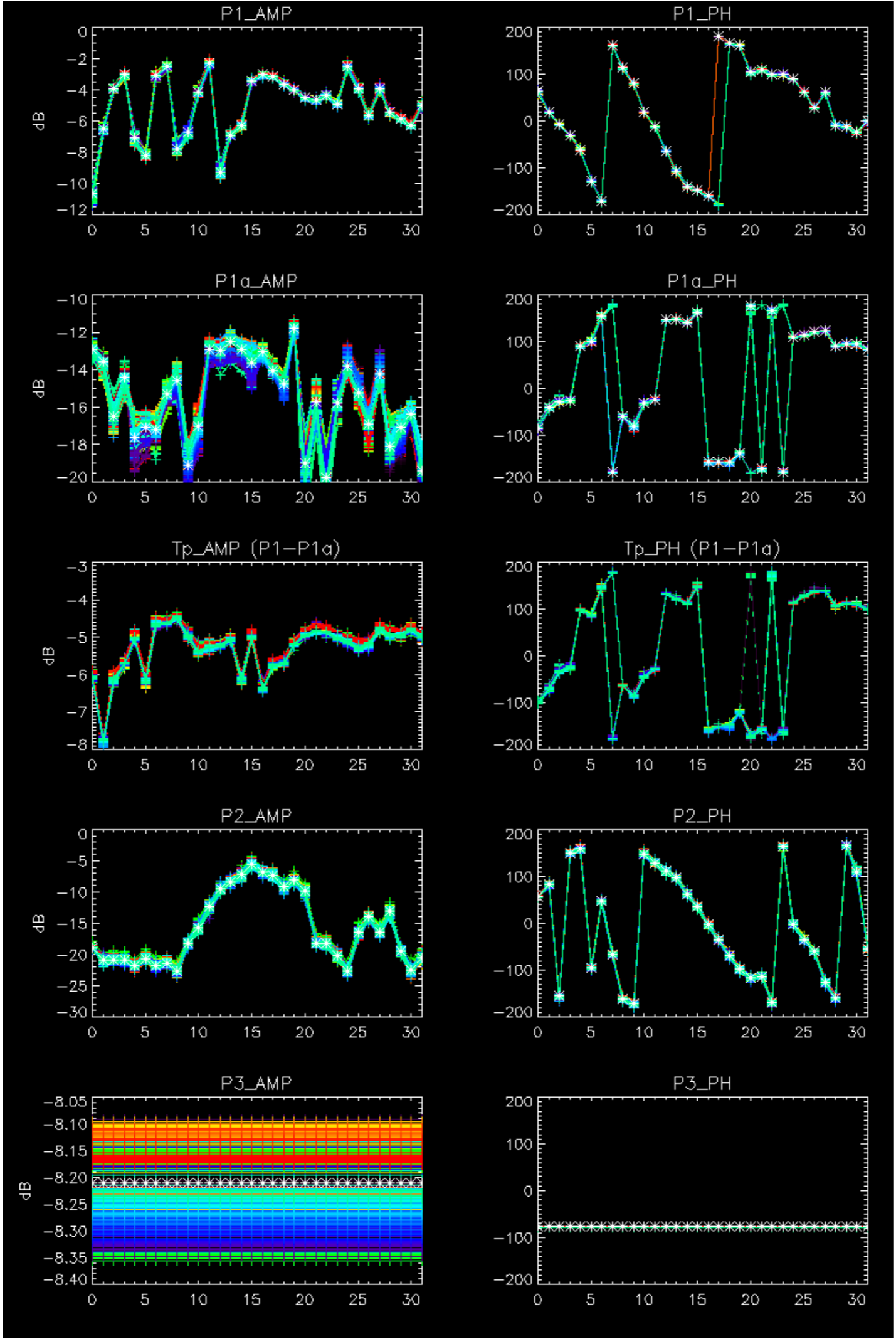
Cal pulses for WVS IS2



No anomalies observed on available browse products

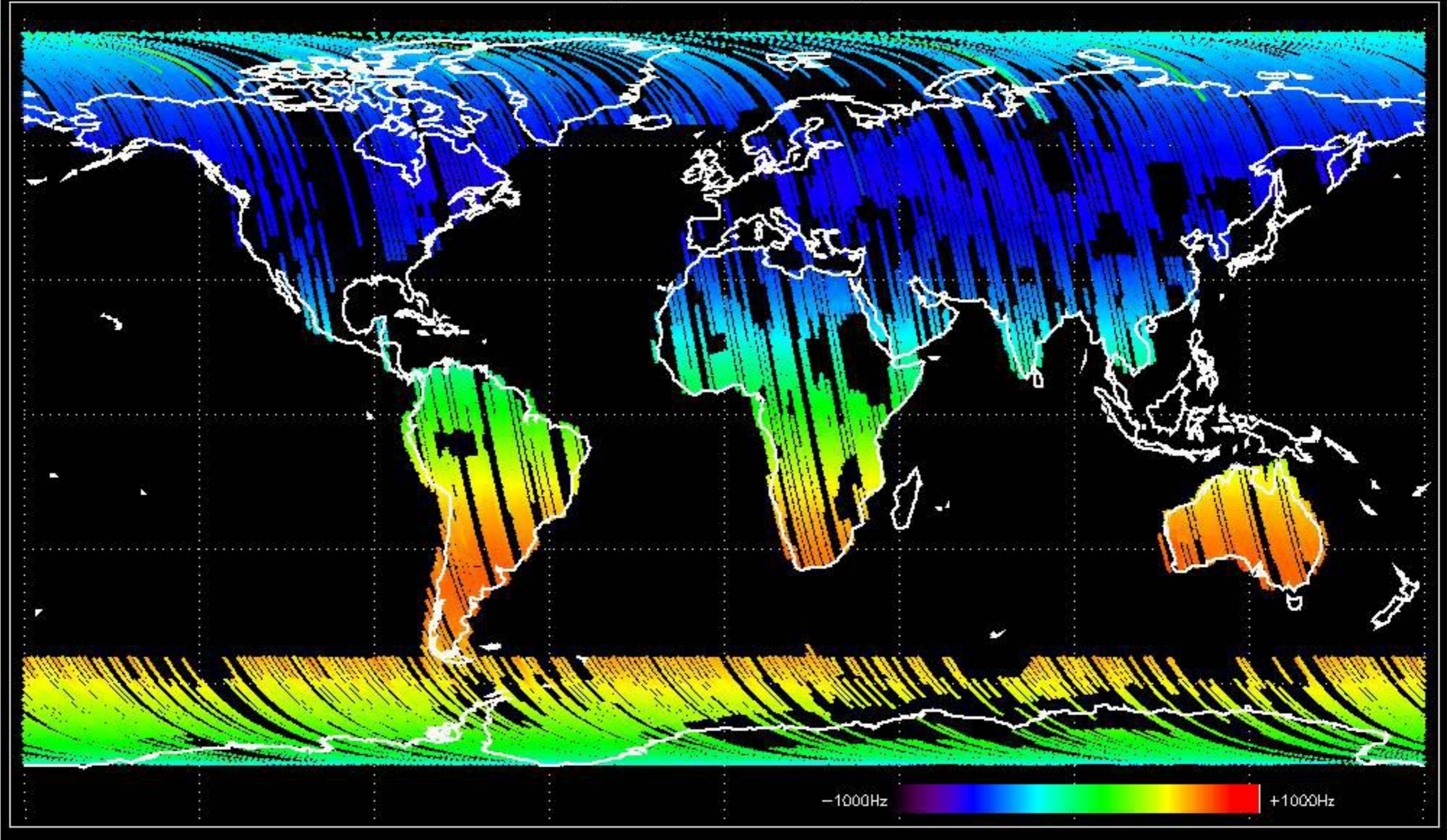
No anomalies observed.



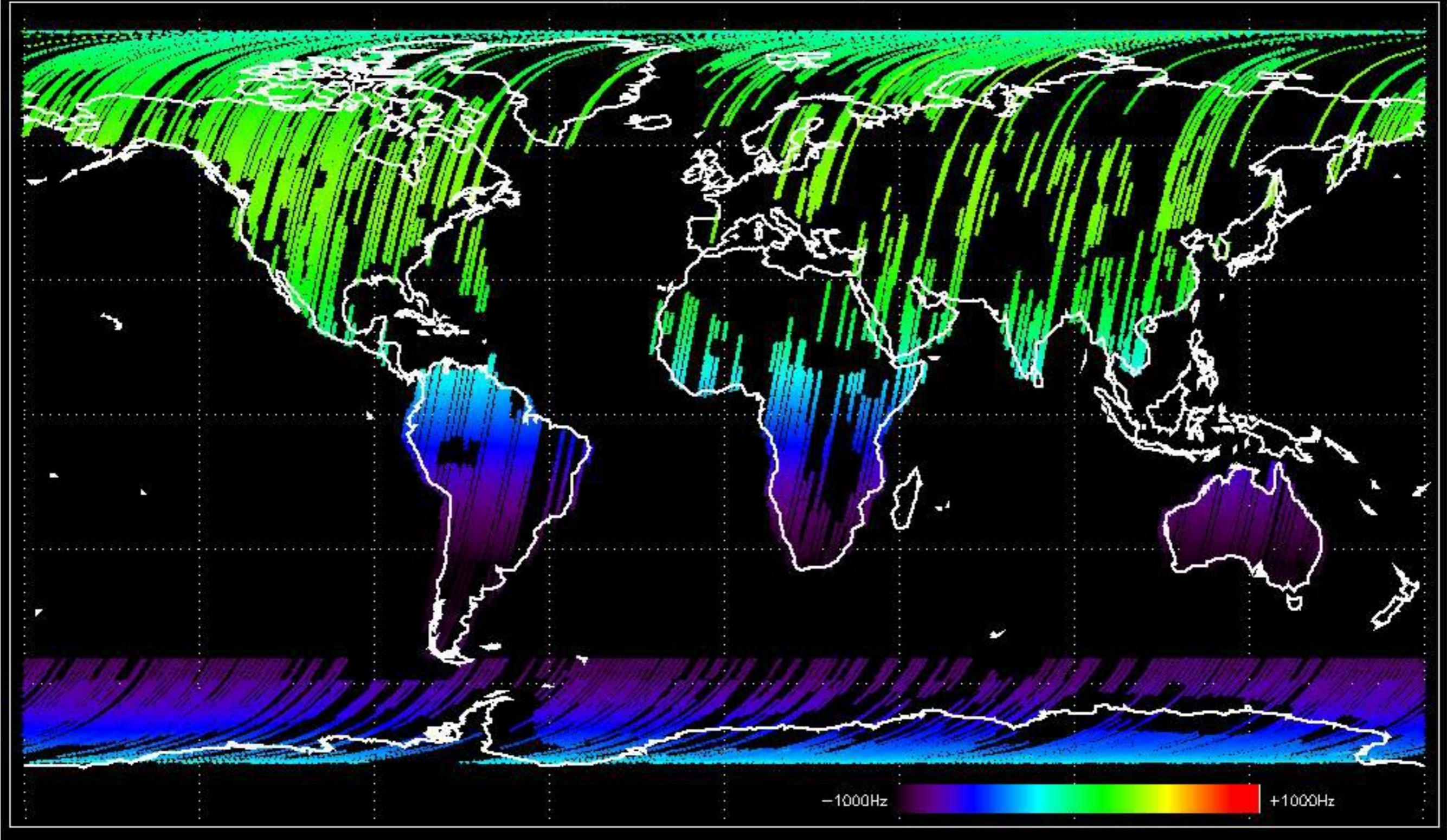


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

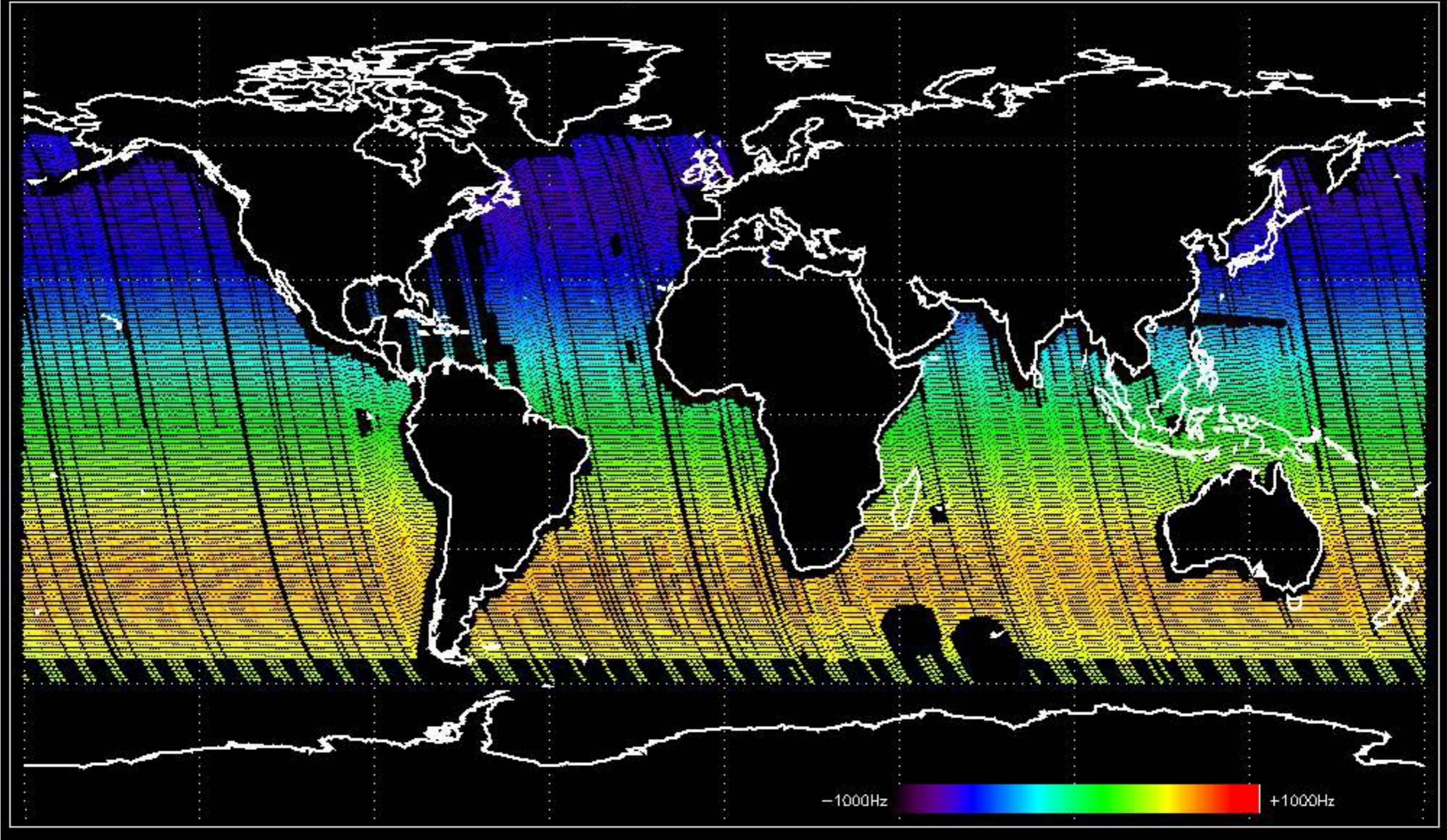
Doppler 'GM1' 'SS1' ascending



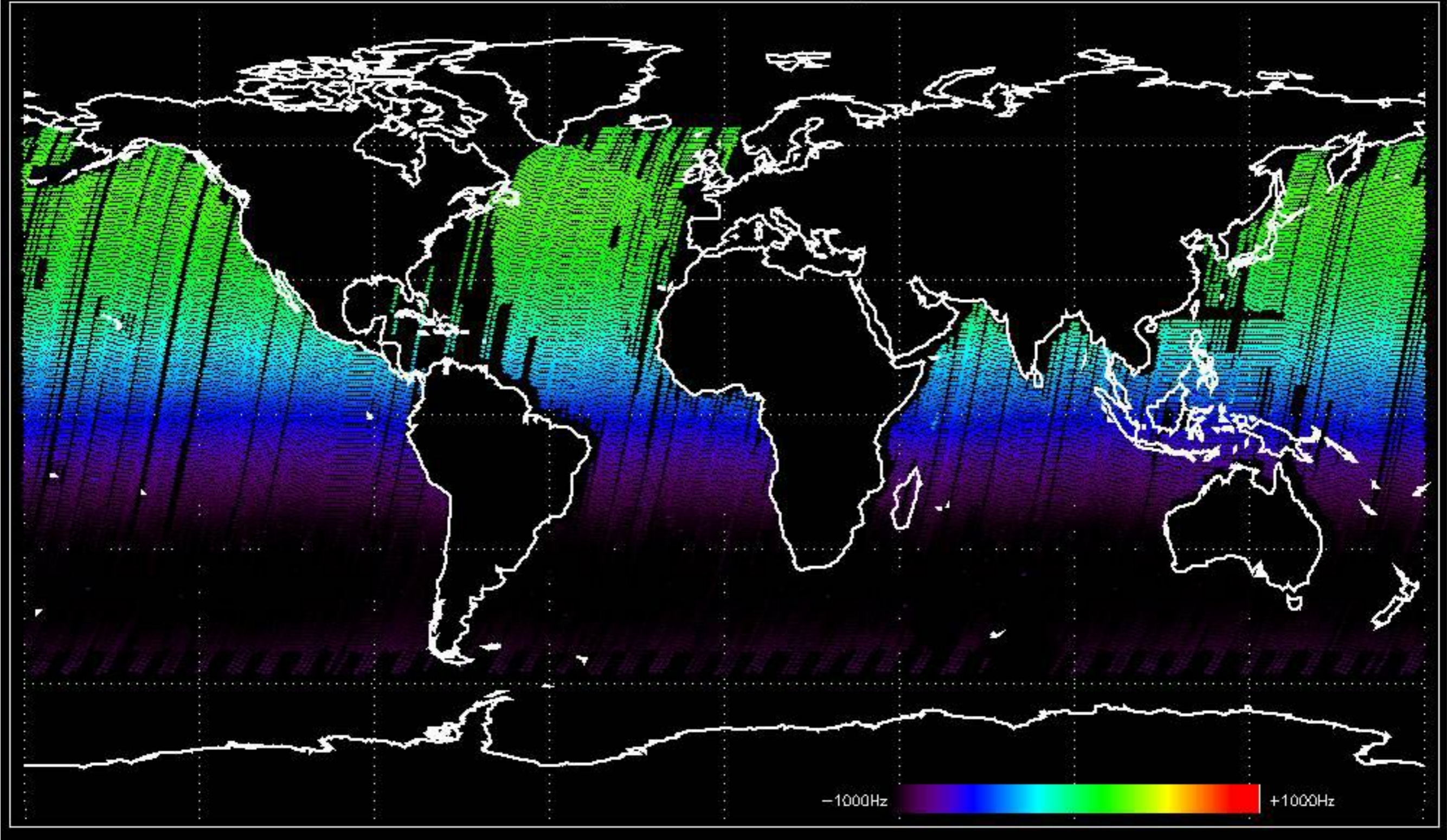
Doppler 'GM1' 'SS1' descending

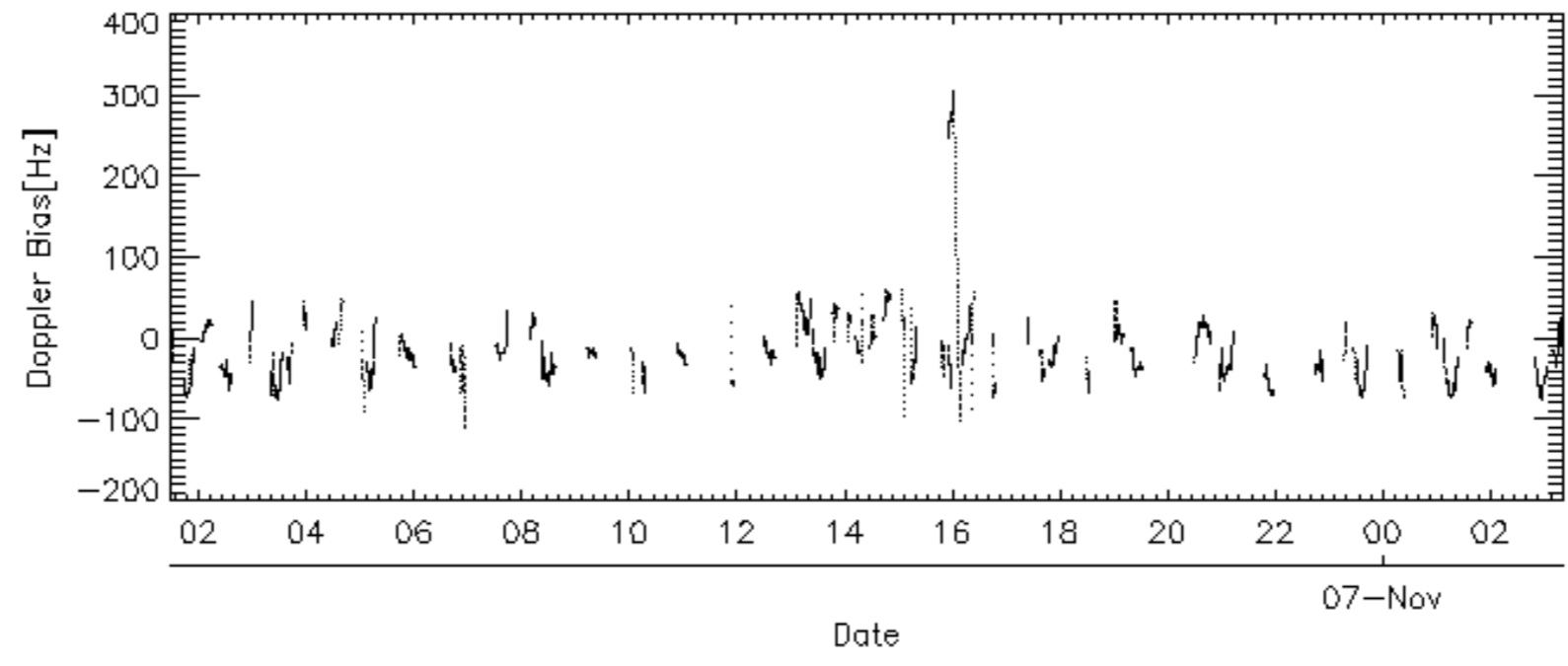
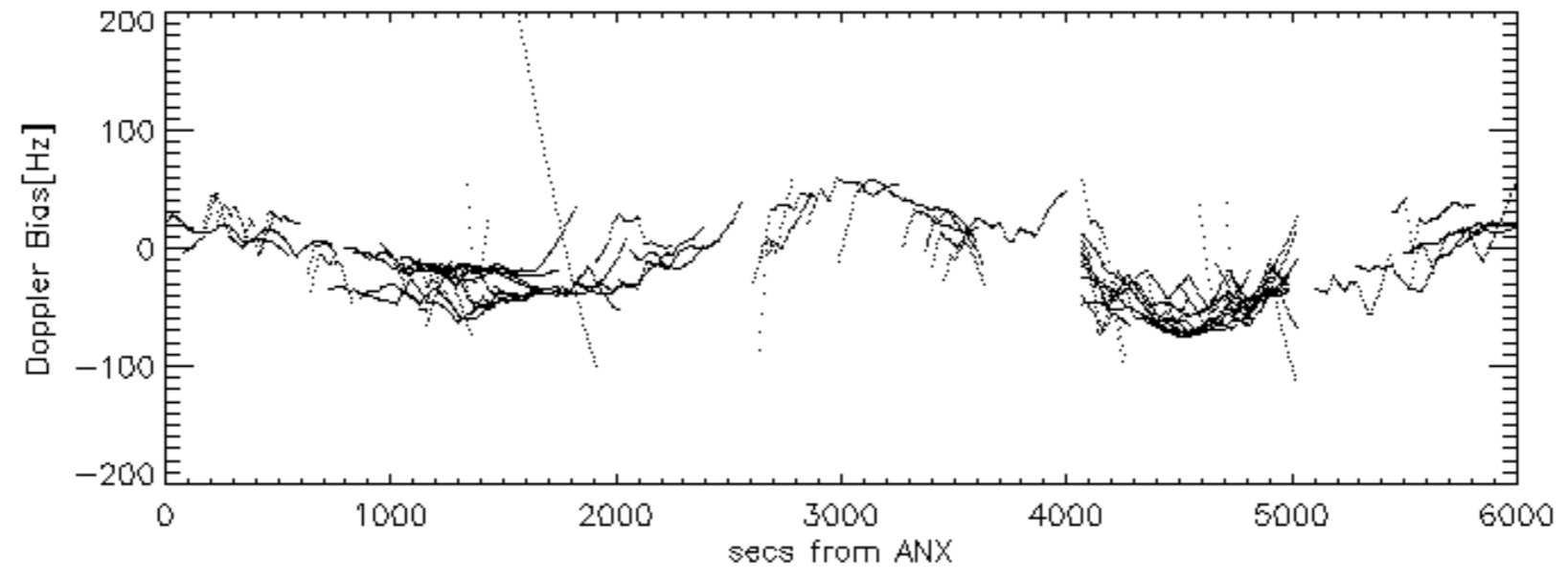
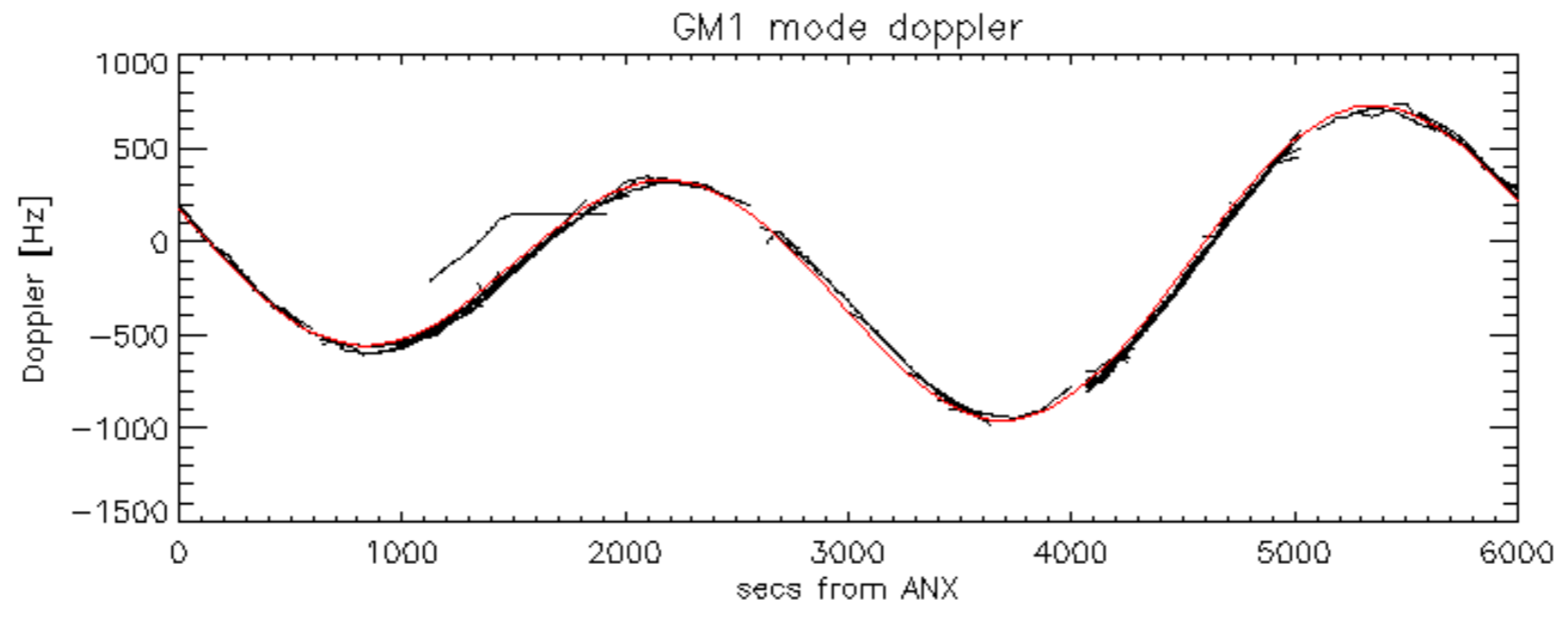


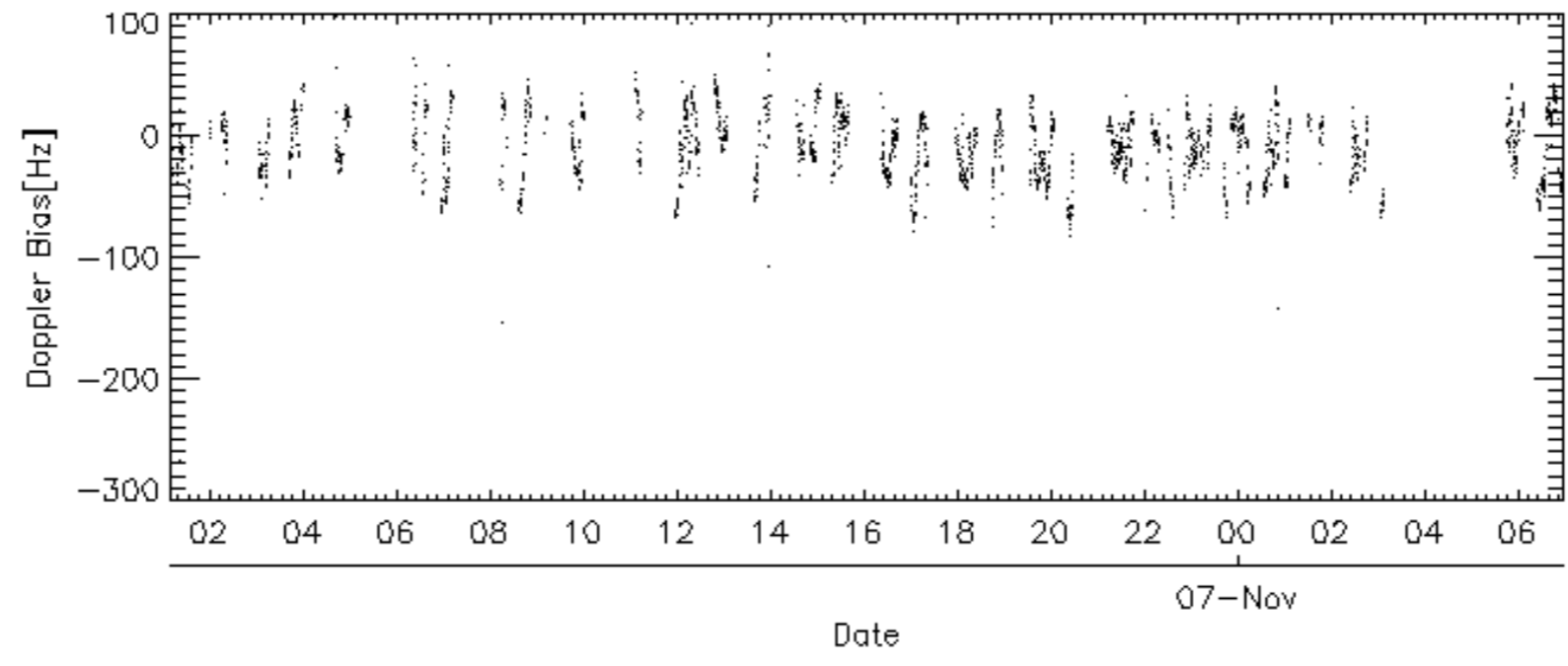
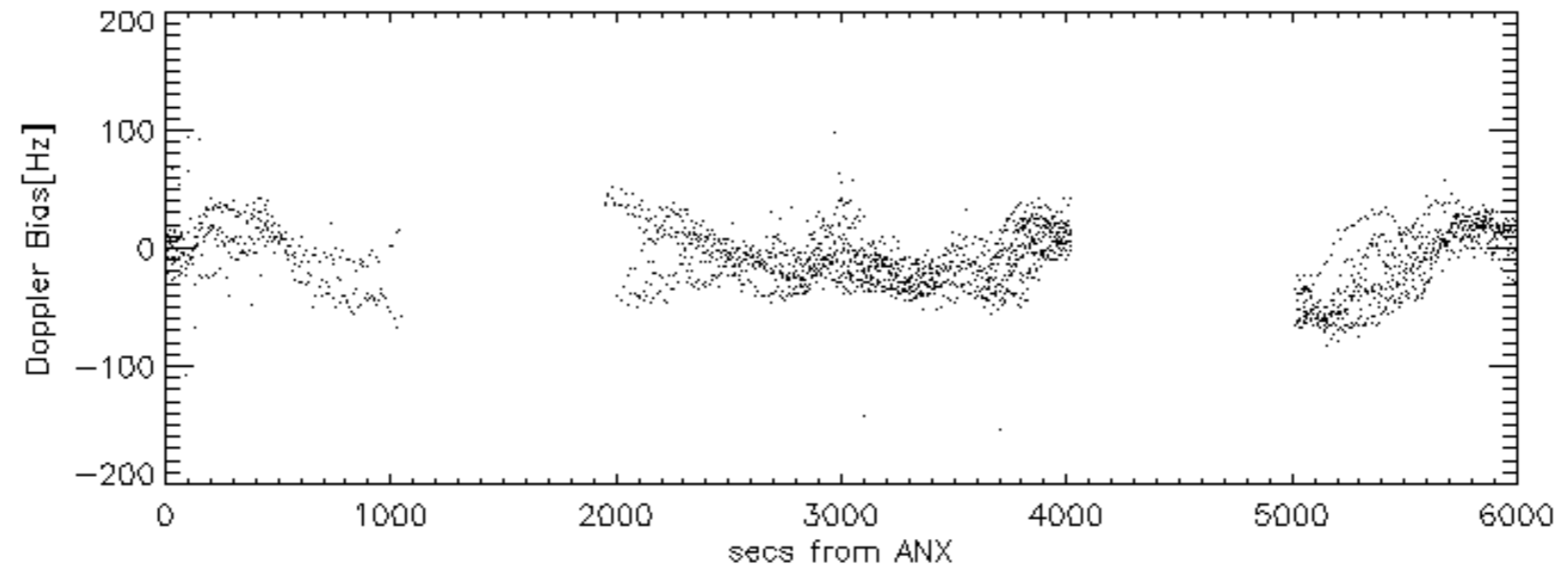
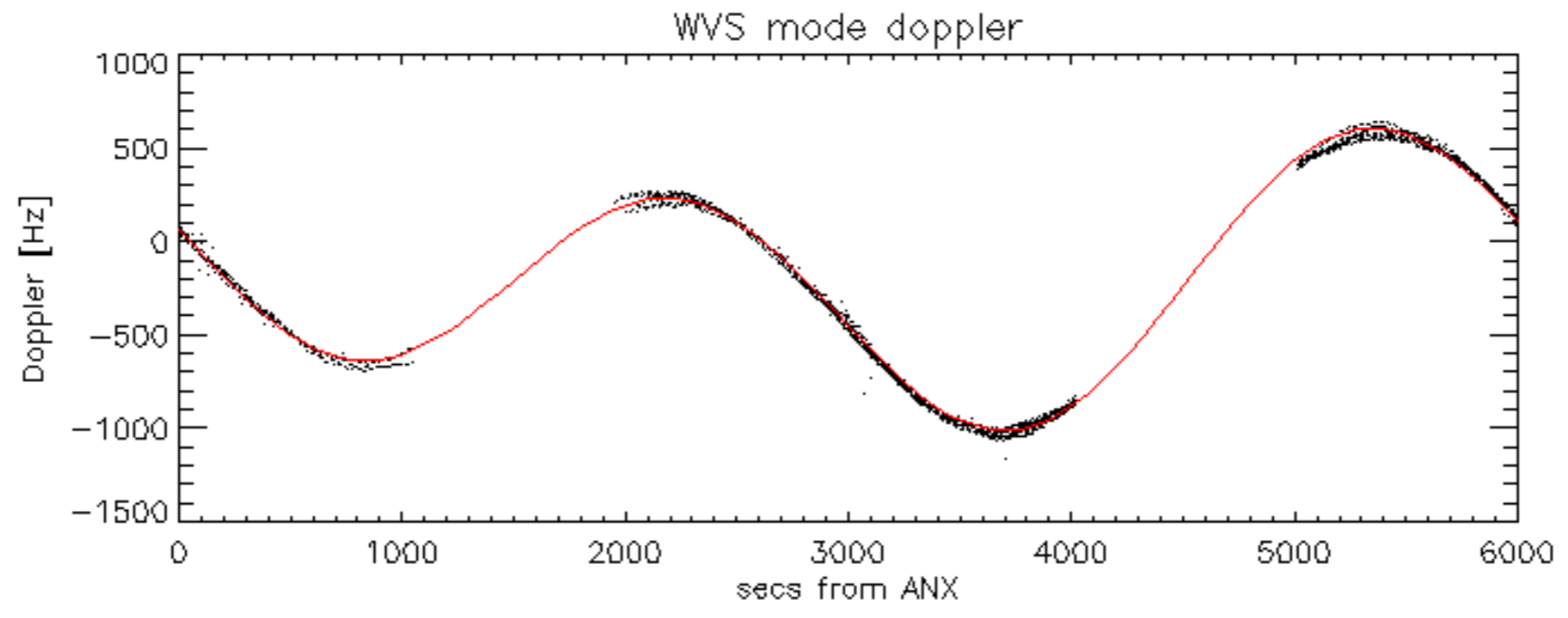
Doppler 'WVS' 'IS2' ascending



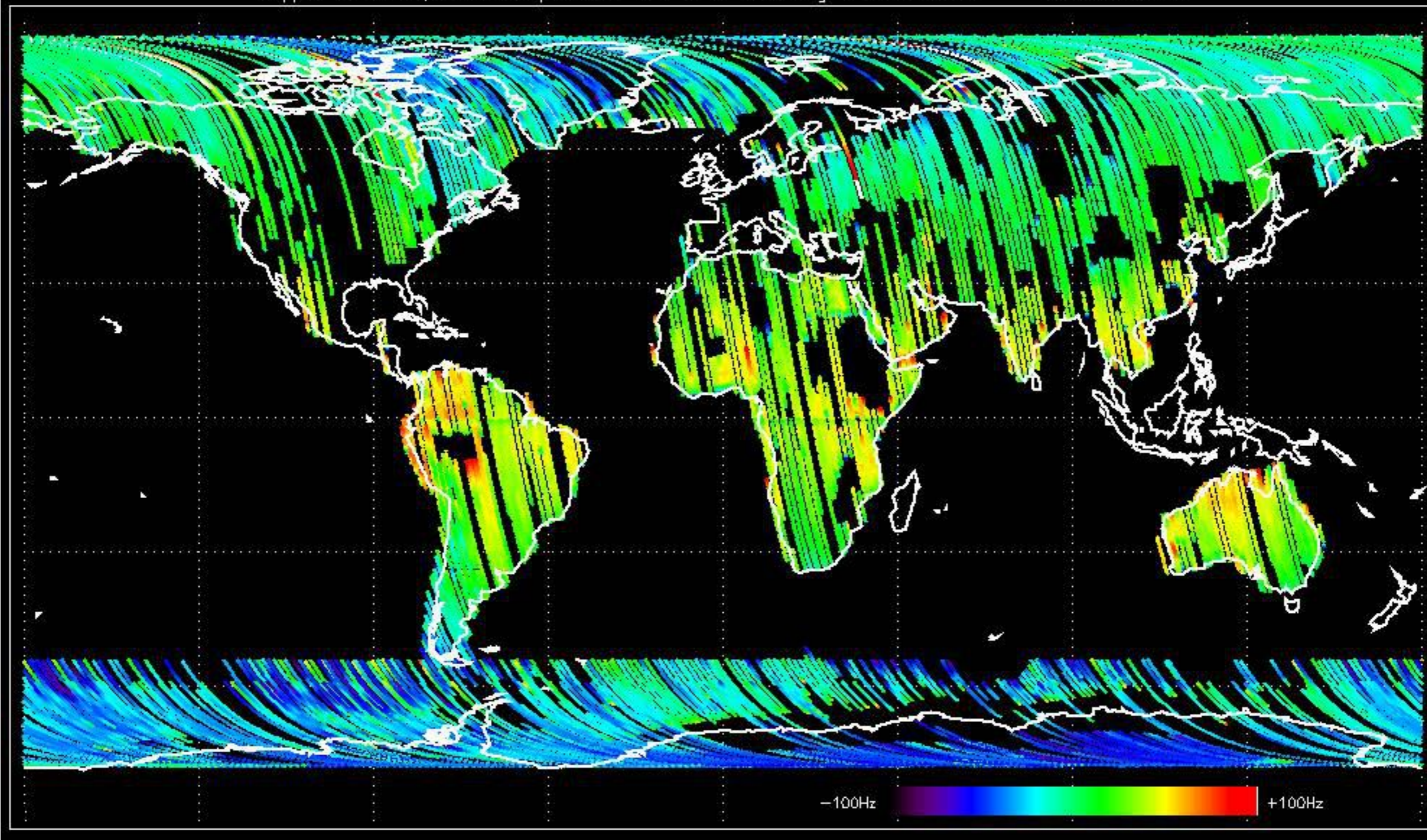
Doppler 'WVS' 'IS2' descending



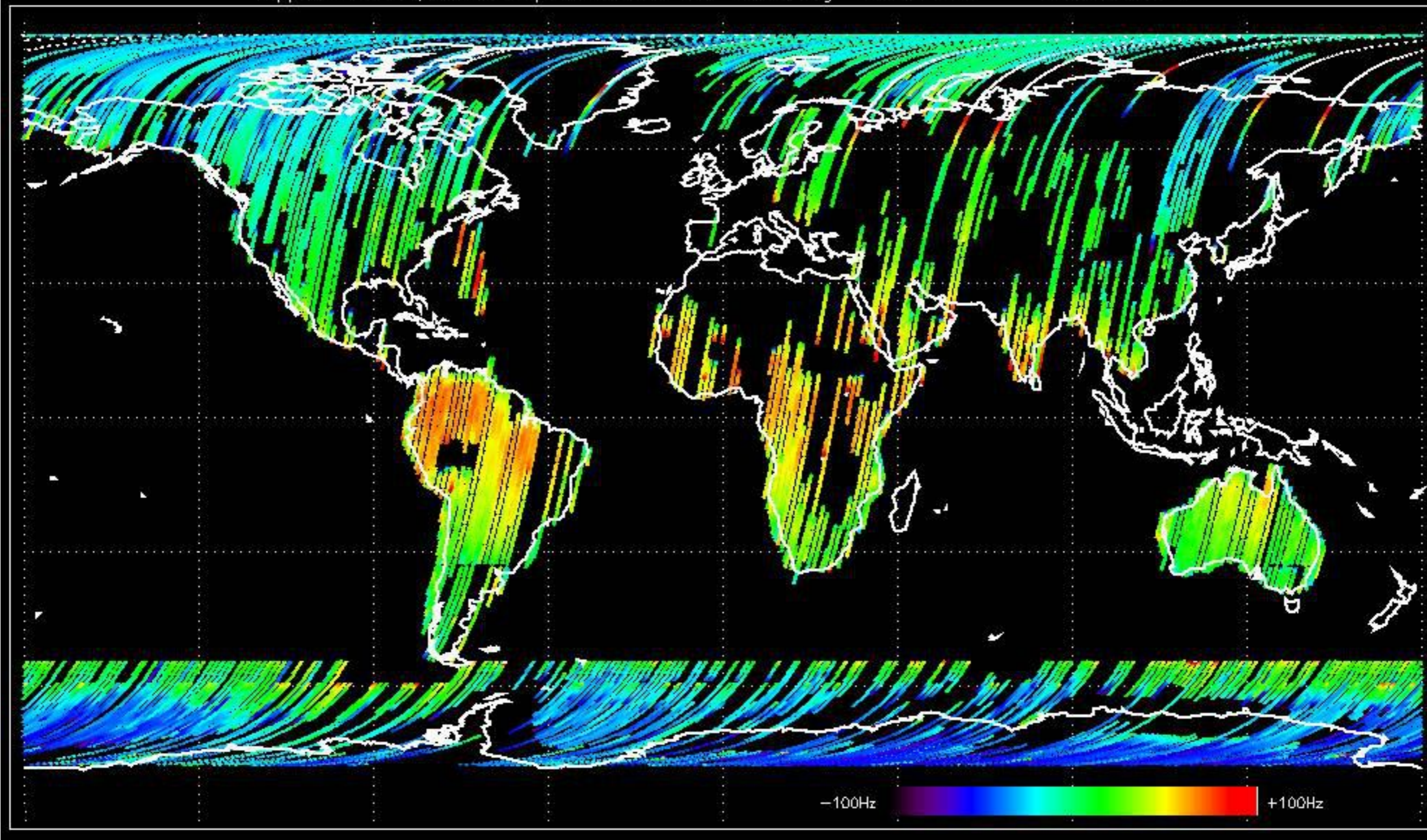




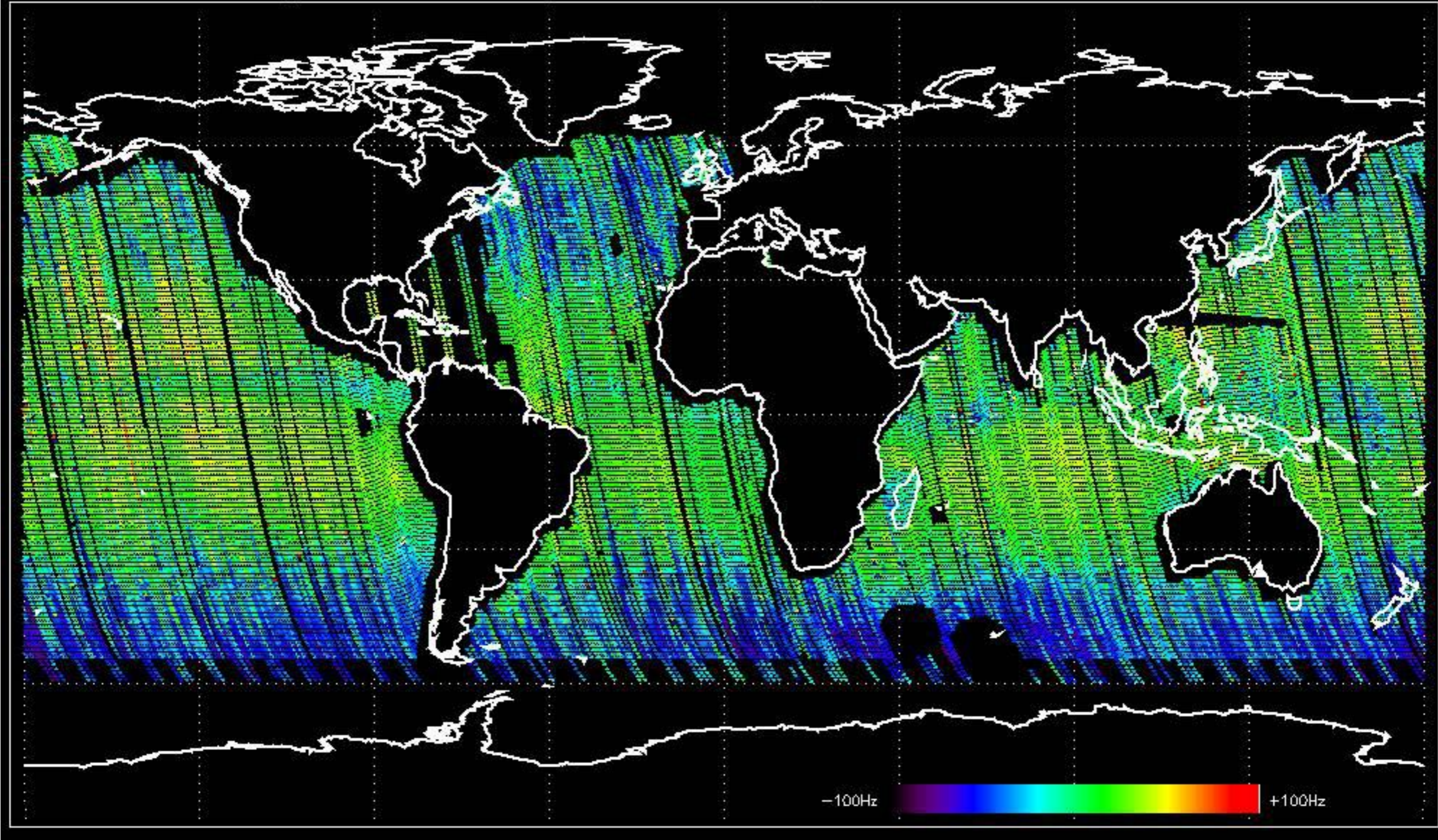
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.031797 Hz



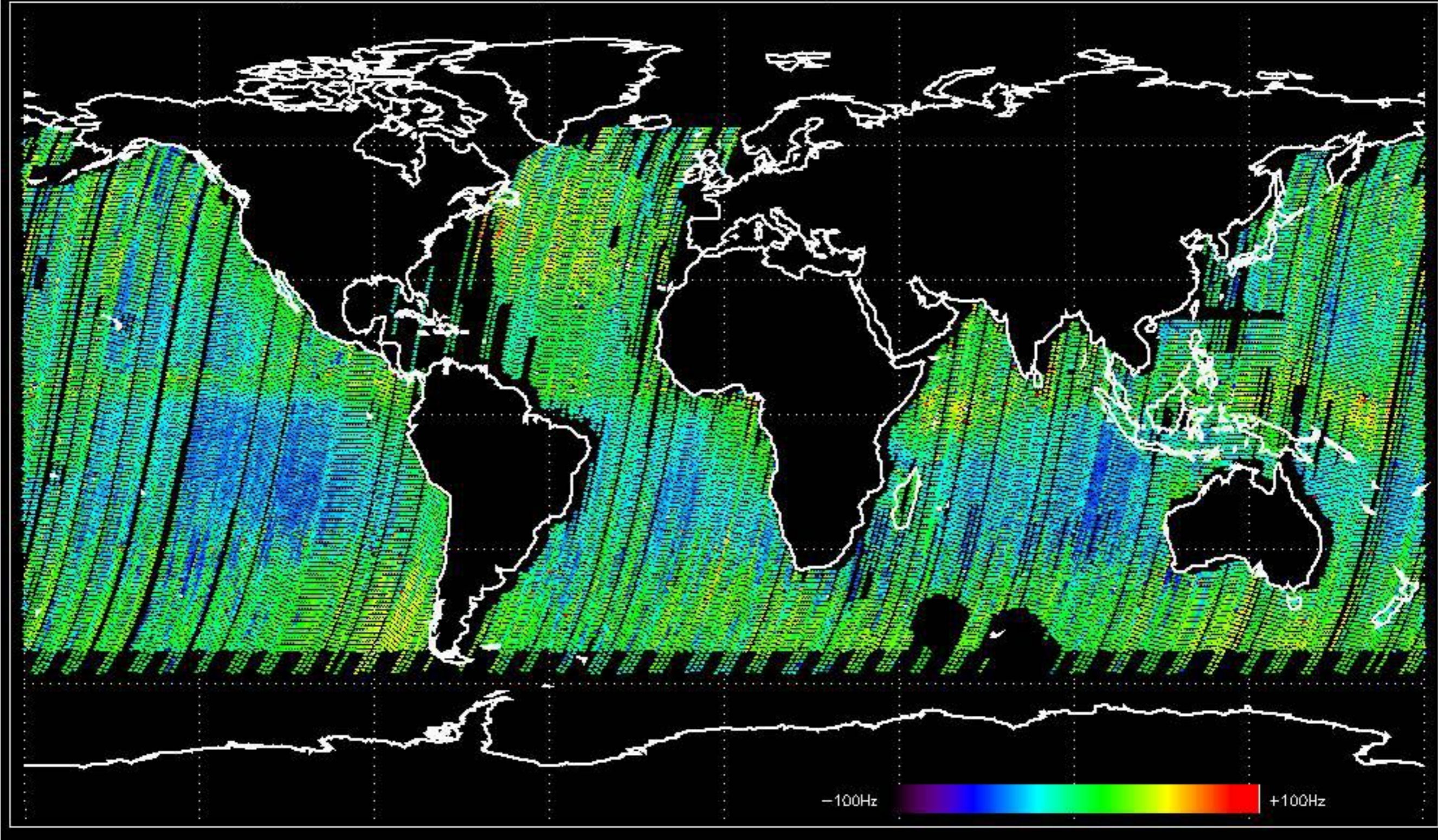
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.187015 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.6494438 Hz

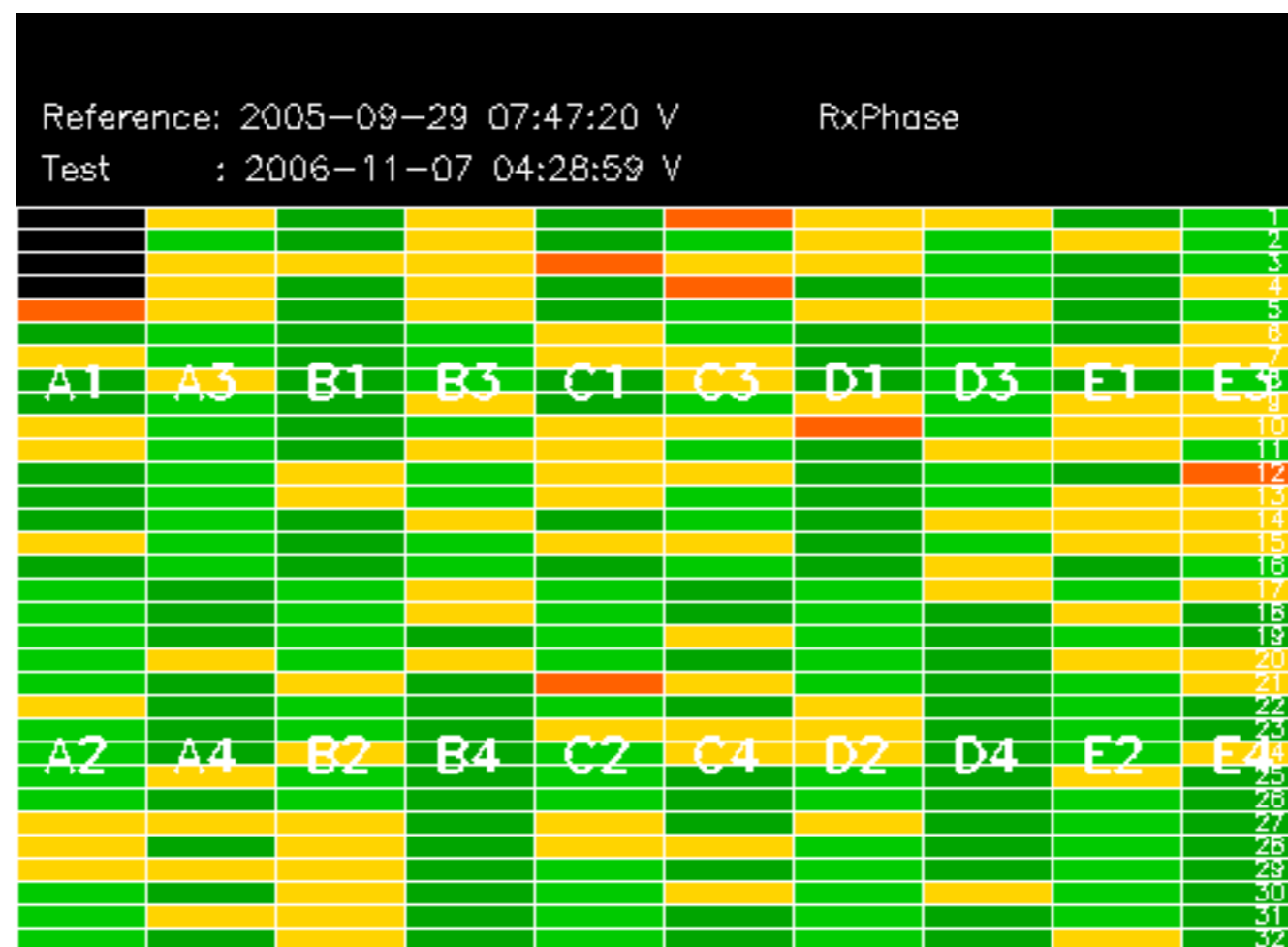


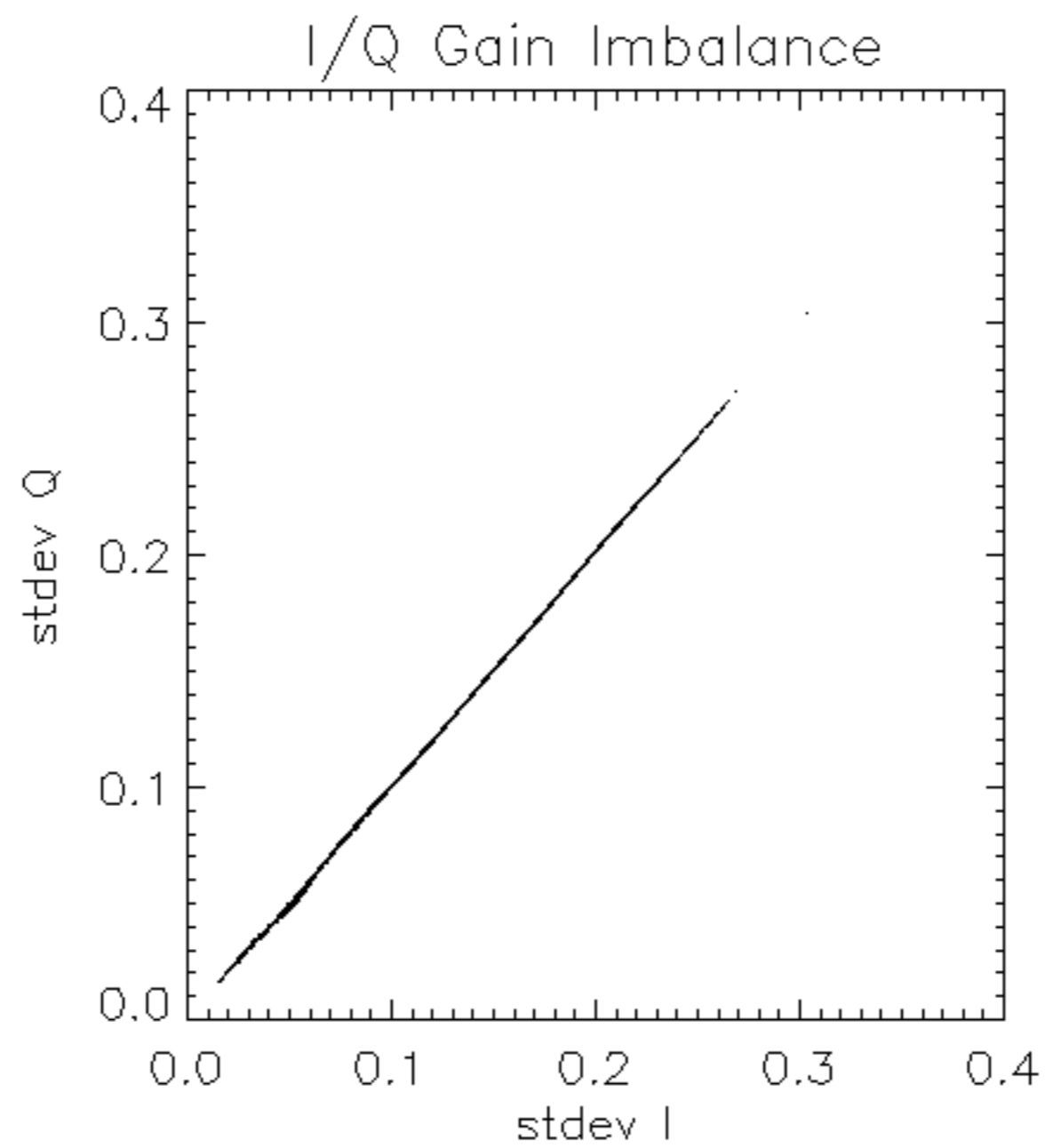
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.017066 Hz

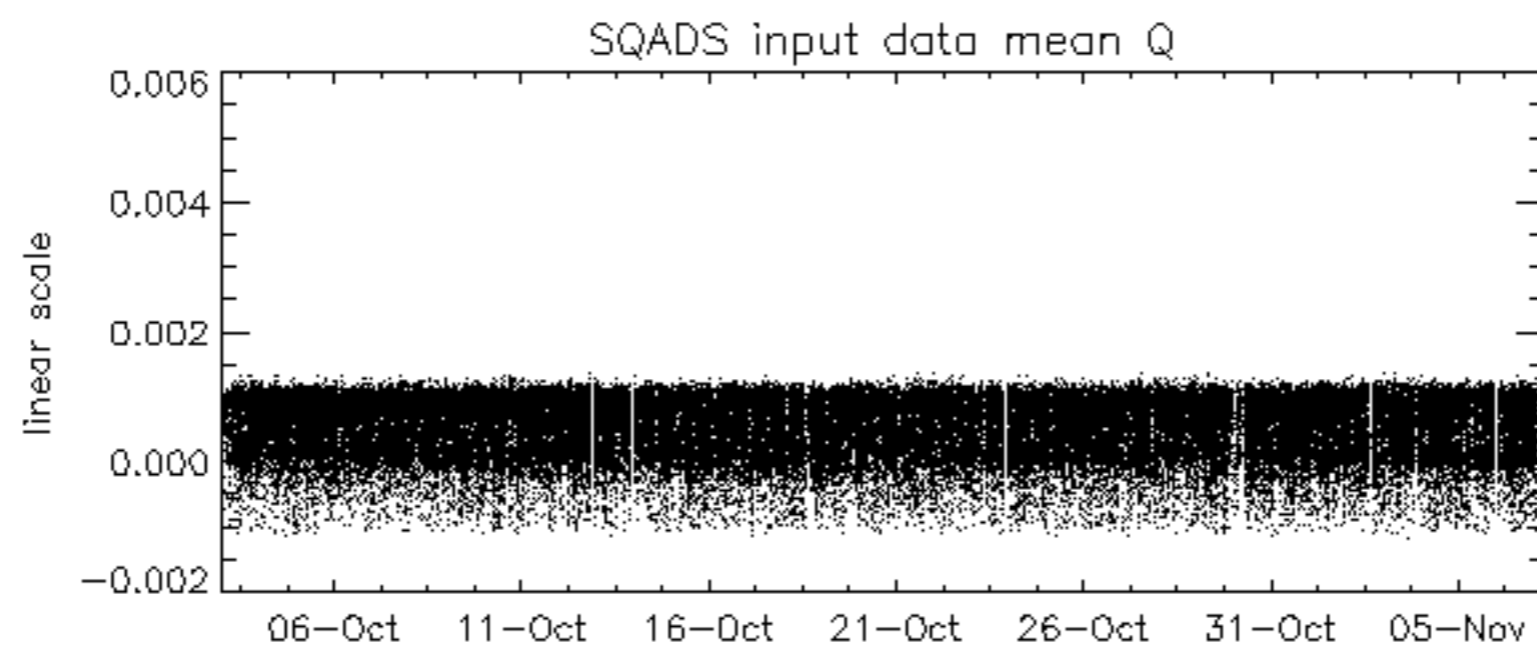
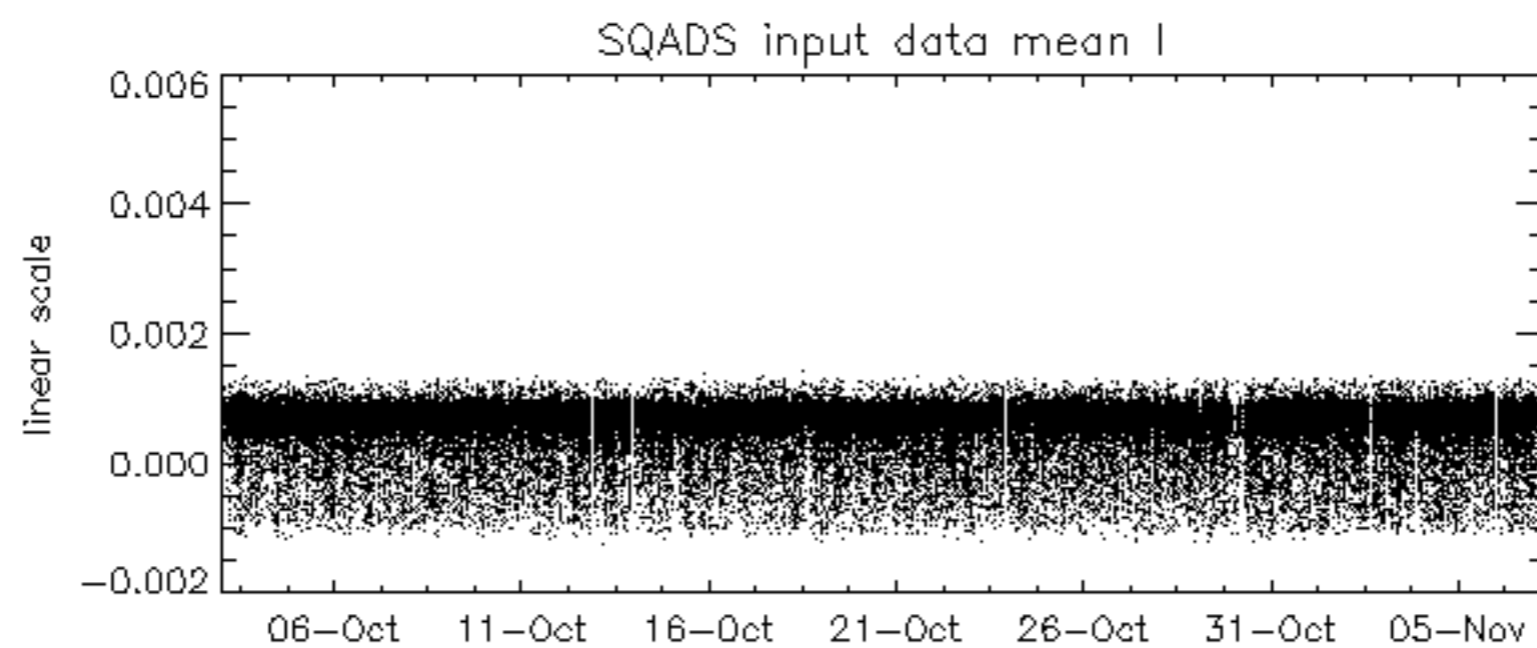
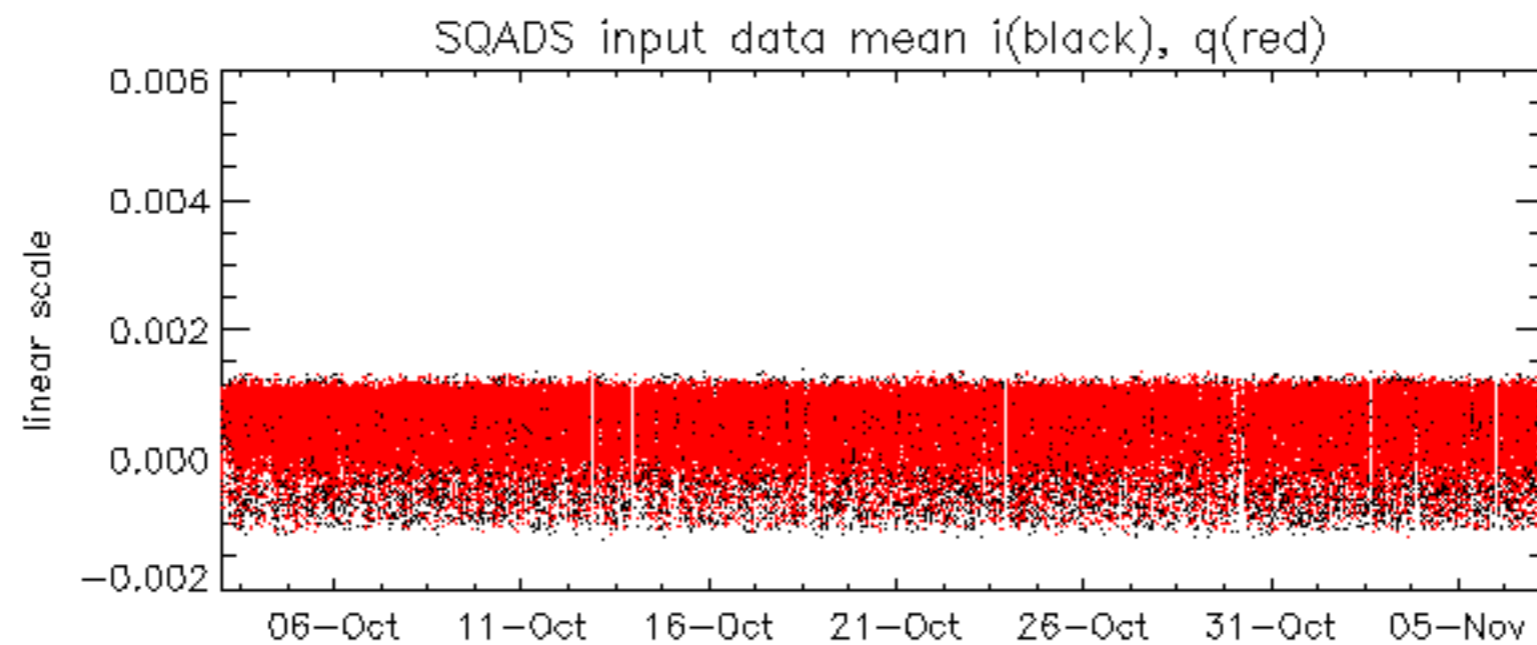


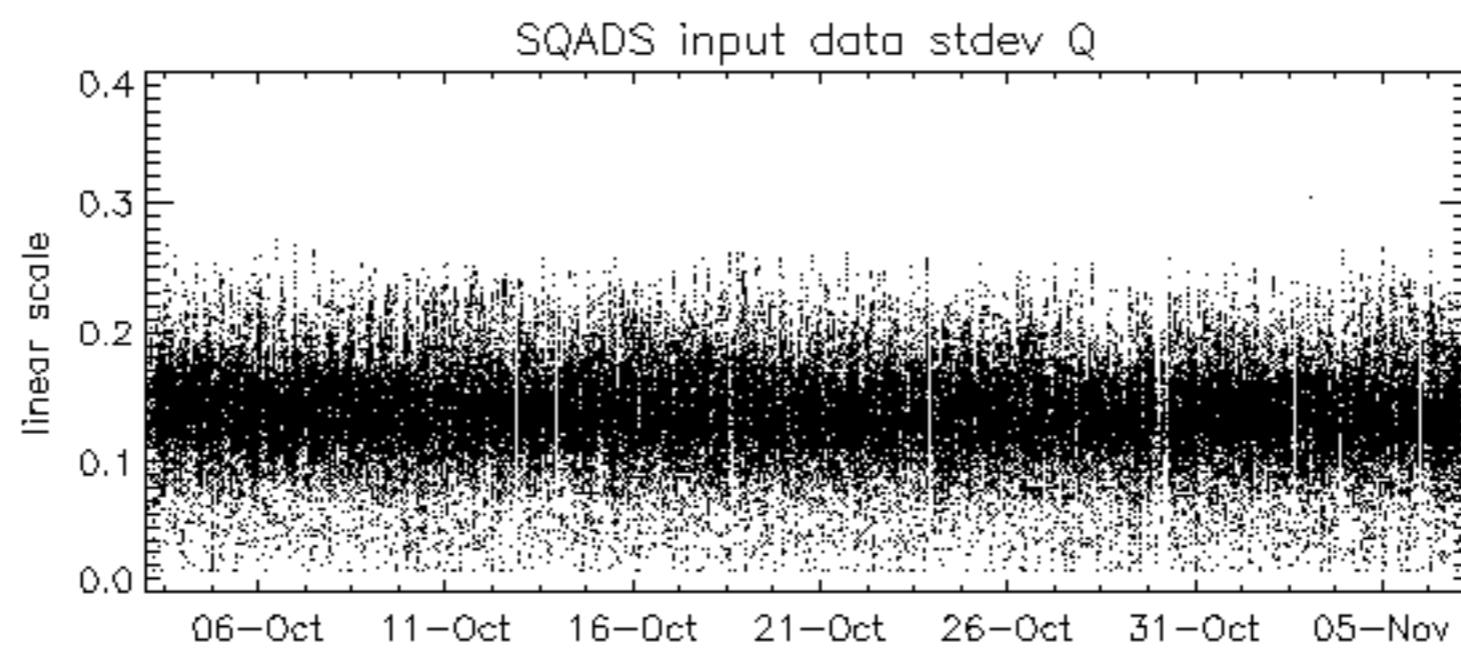
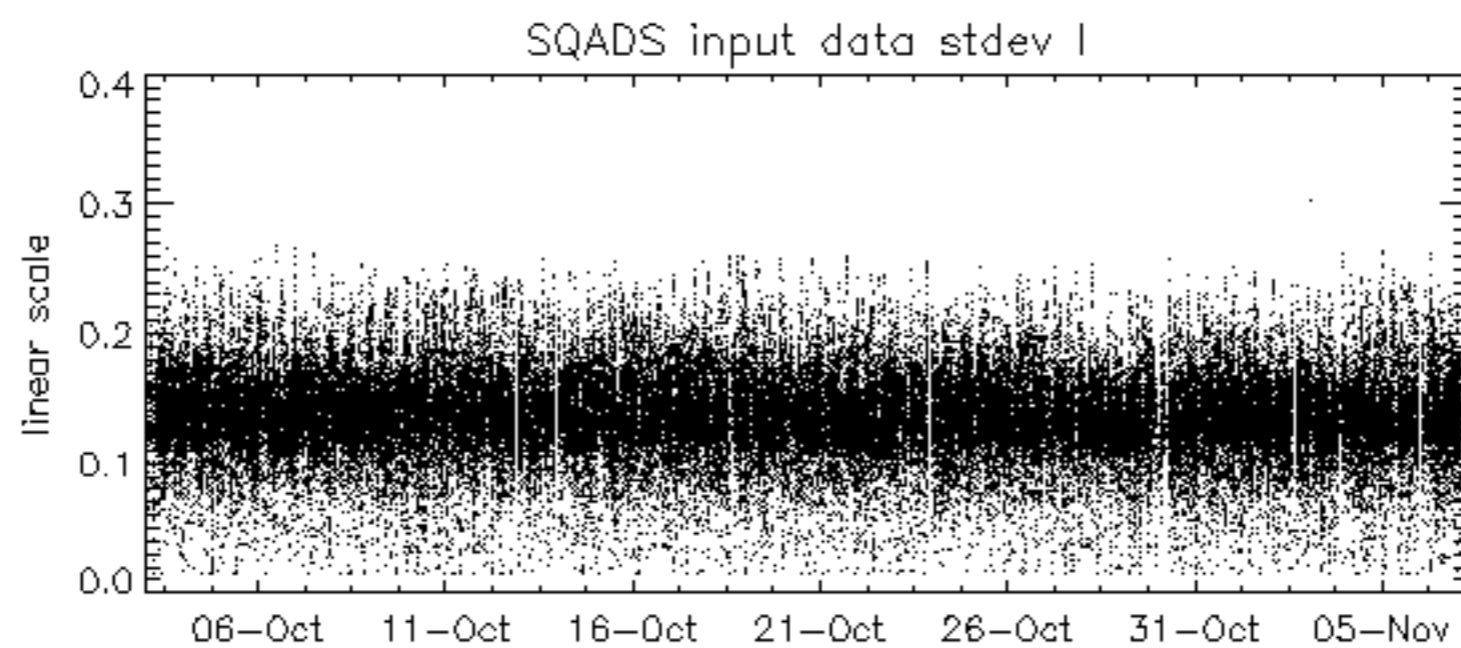
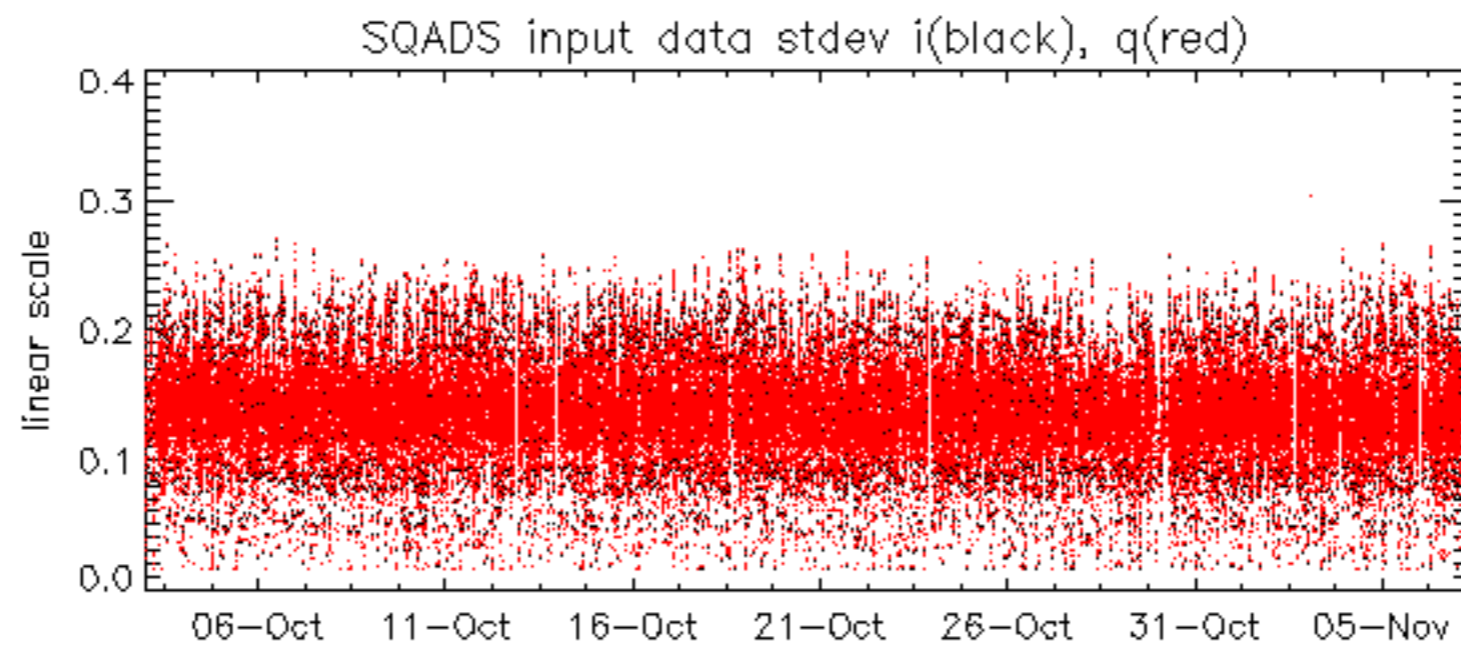
No anomalies observed on available MS products:

No anomalies observed.





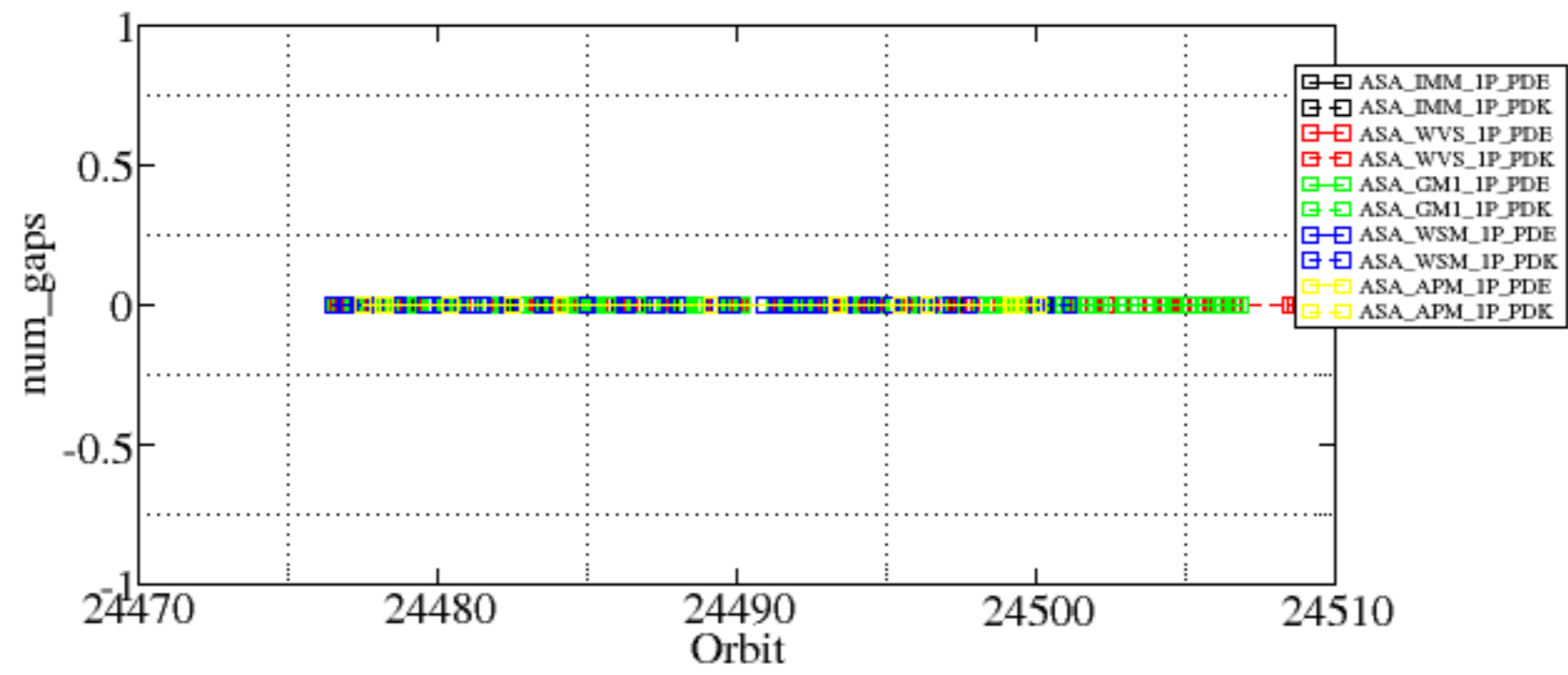


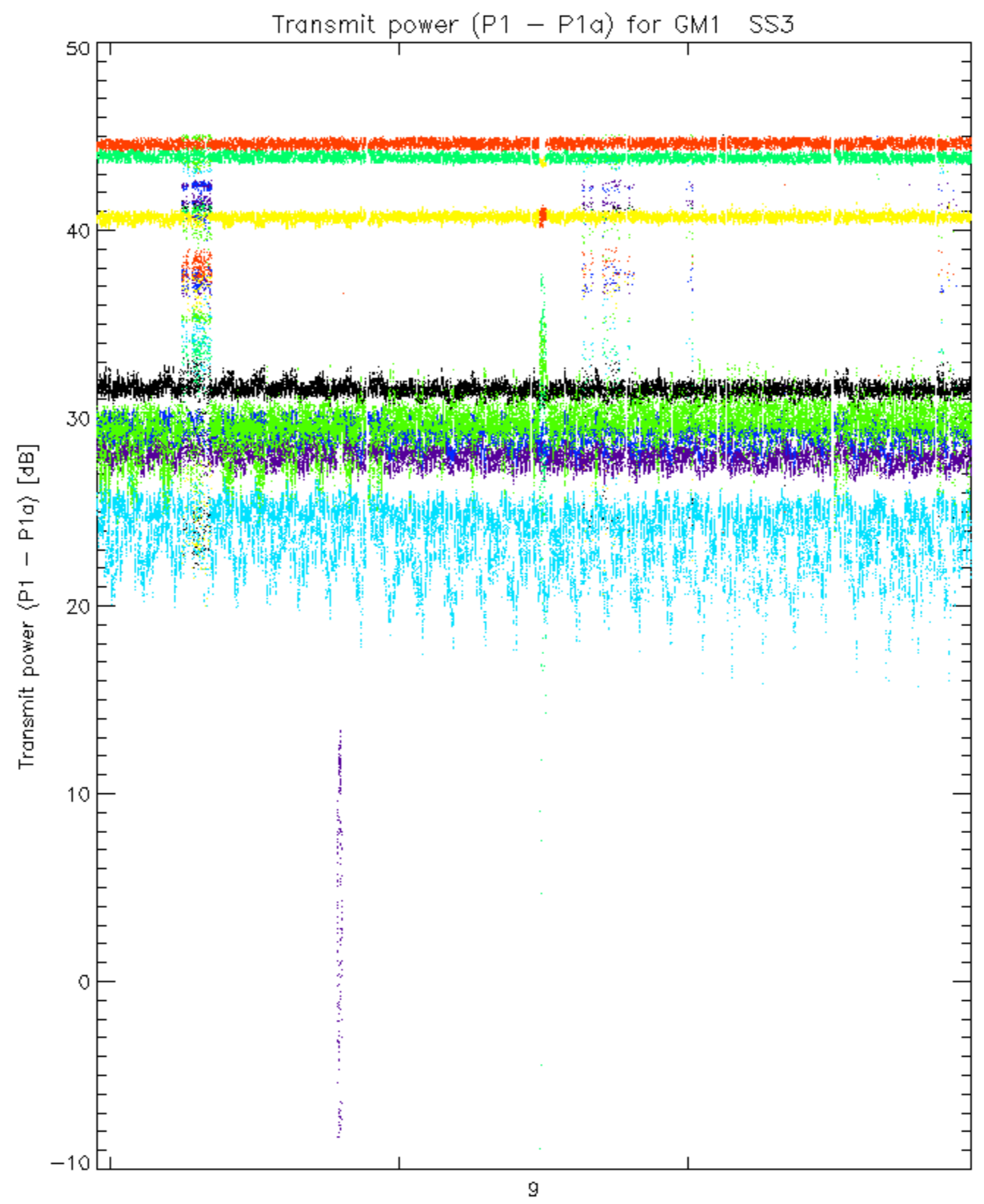


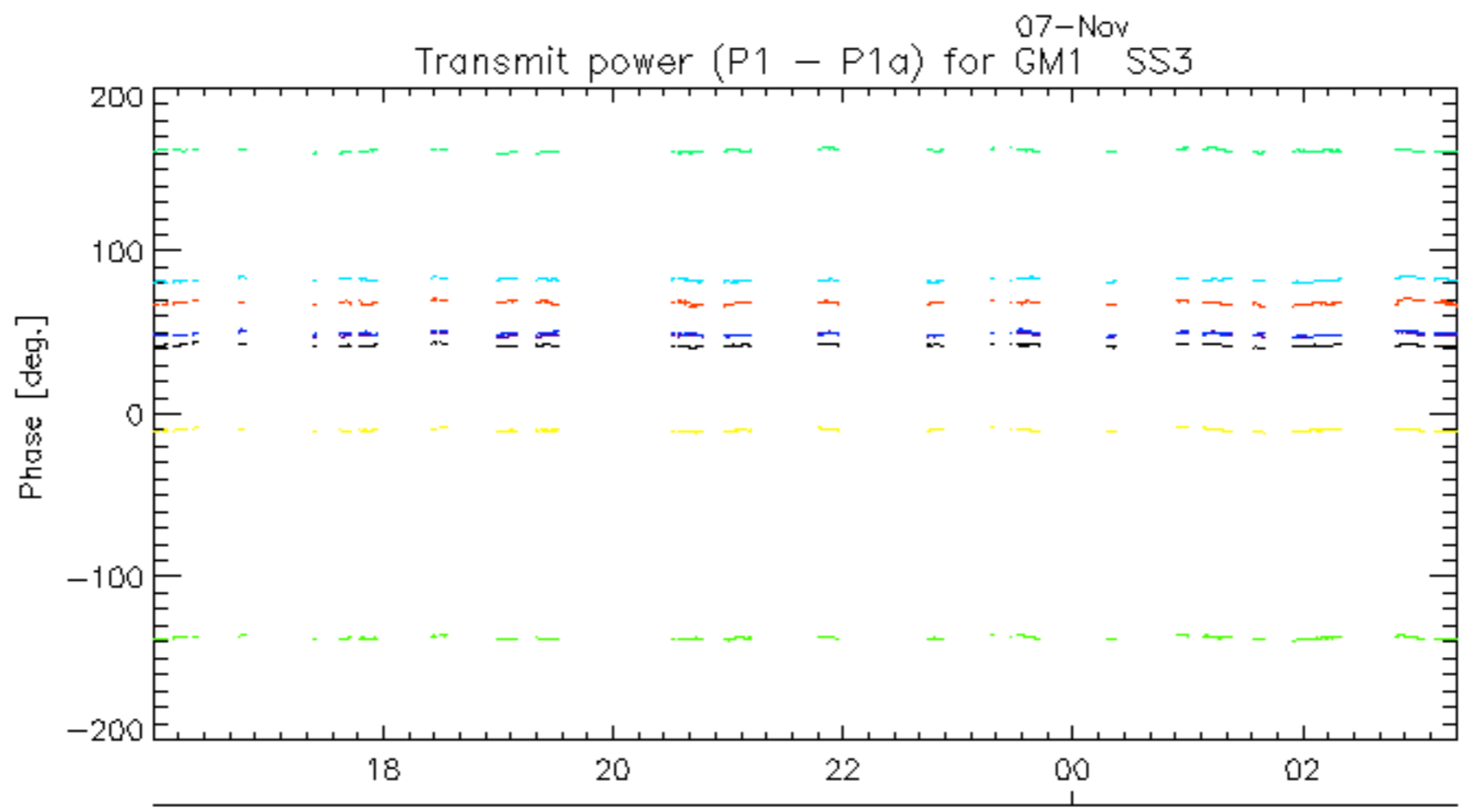
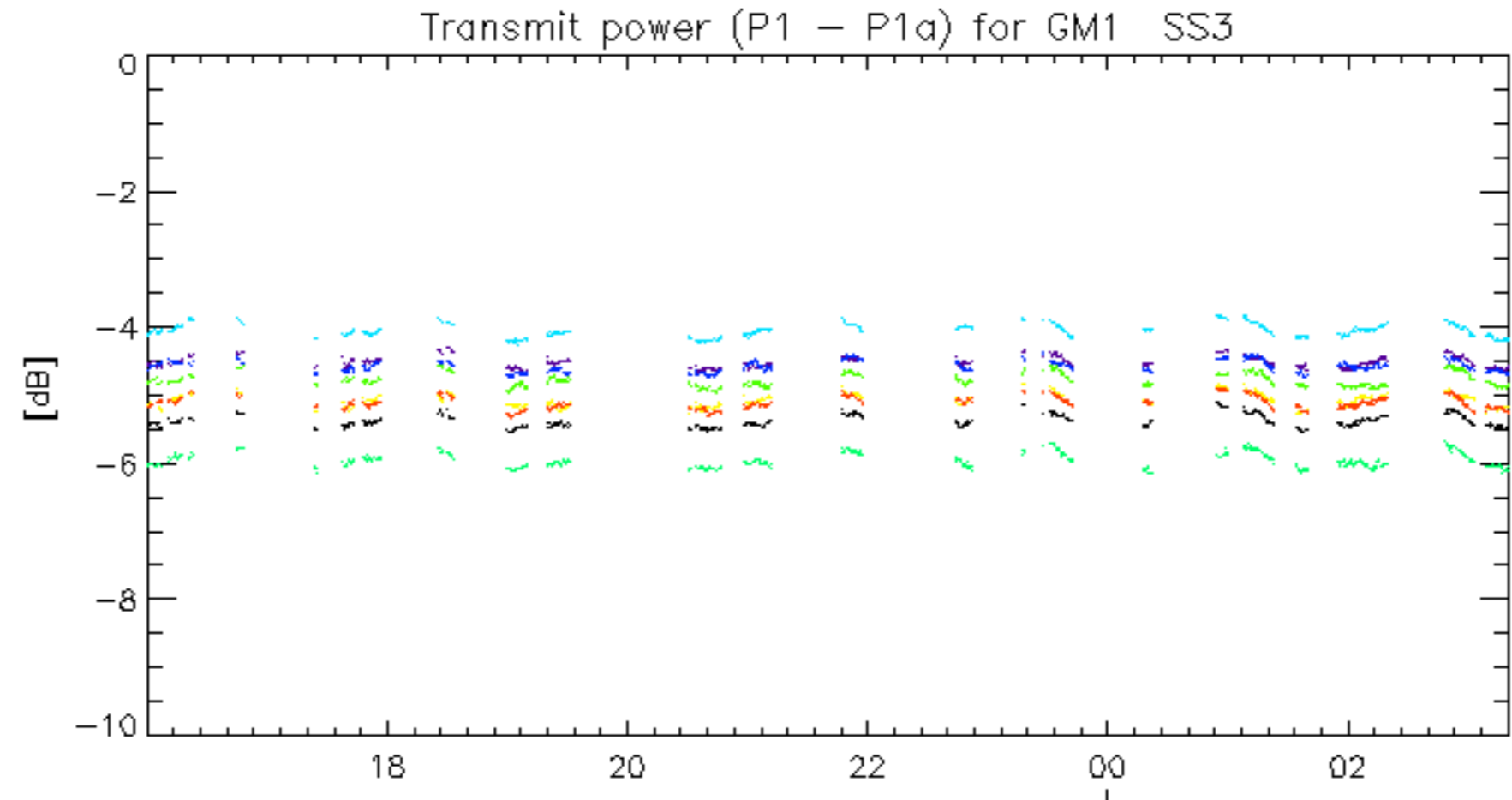
Summary of analysis for the last 3 days 2006110[567]

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_1PNPDK20061105_201452_00000352052_00386_24488_3554.N1	0	11
ASA_GM1_1PNPDK20061105_153556_000001872052_00383_24485_8060.N1	0	8
ASA_WSM_1PNPDE20061105_001112_000002612052_00374_24476_0001.N1	0	29
ASA_WSM_1PNPDE20061105_032220_000001472052_00376_24478_0001.N1	0	1
ASA_WSM_1PNPDE20061106_154250_000001702052_00398_24500_0001.N1	0	24

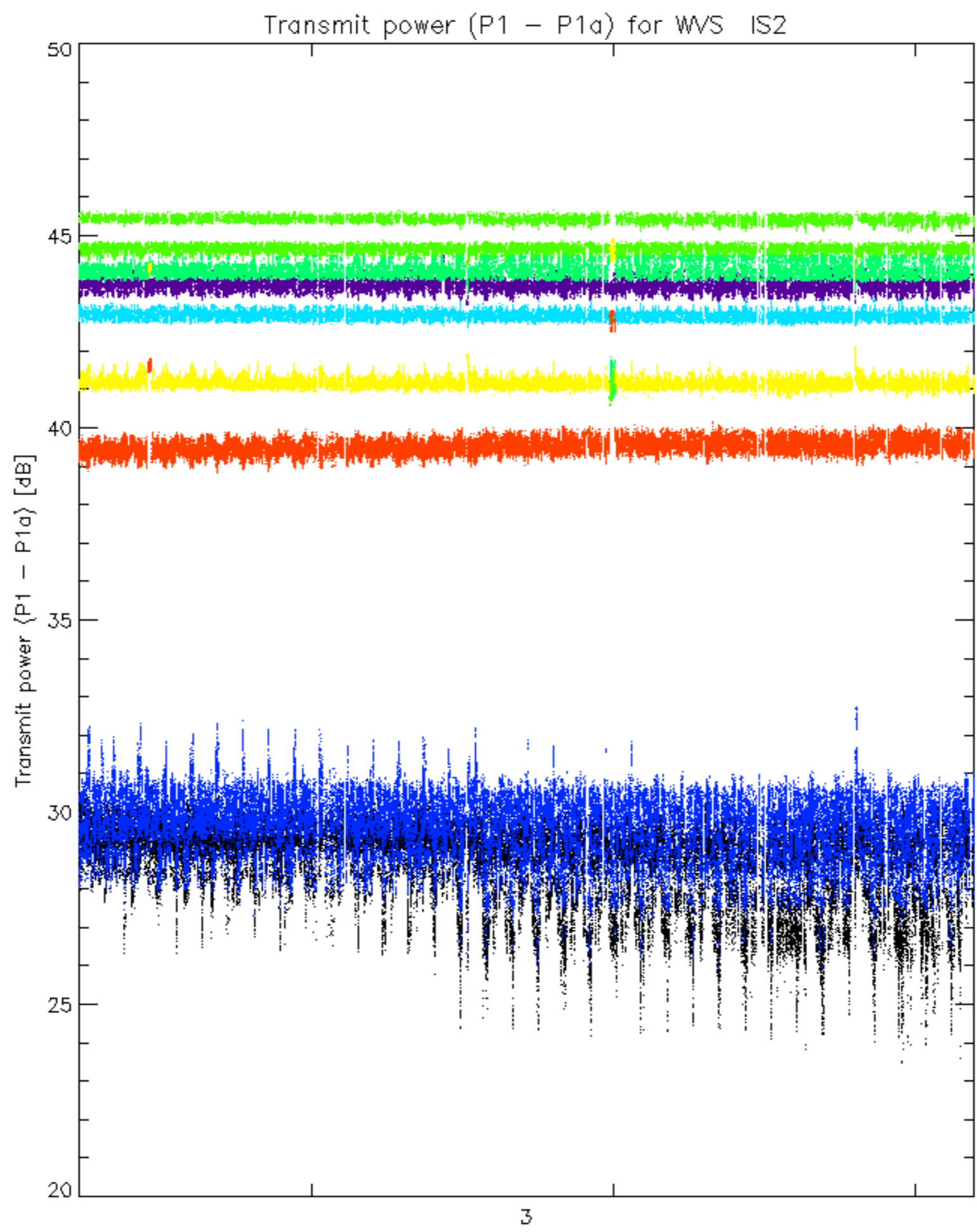




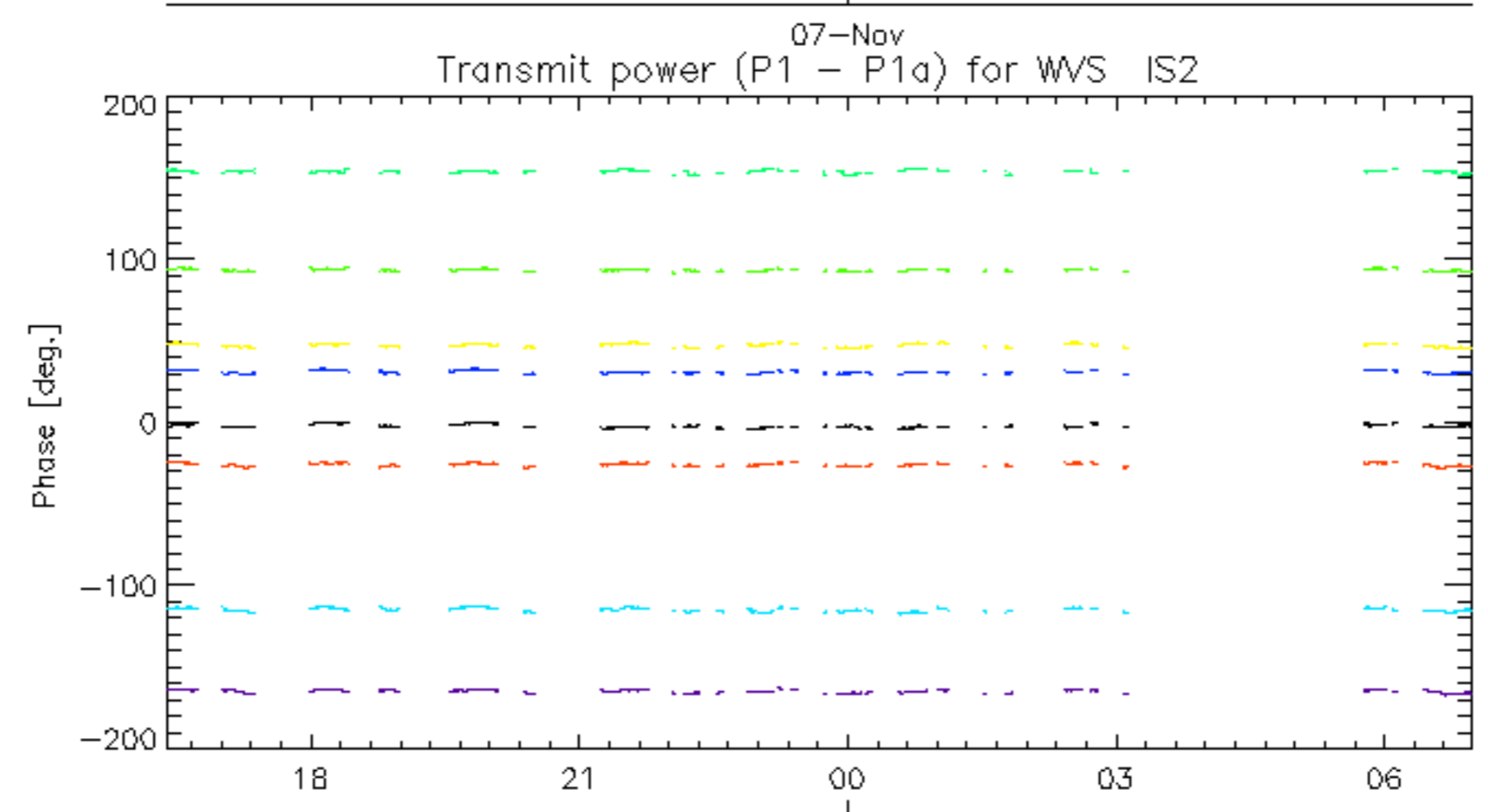
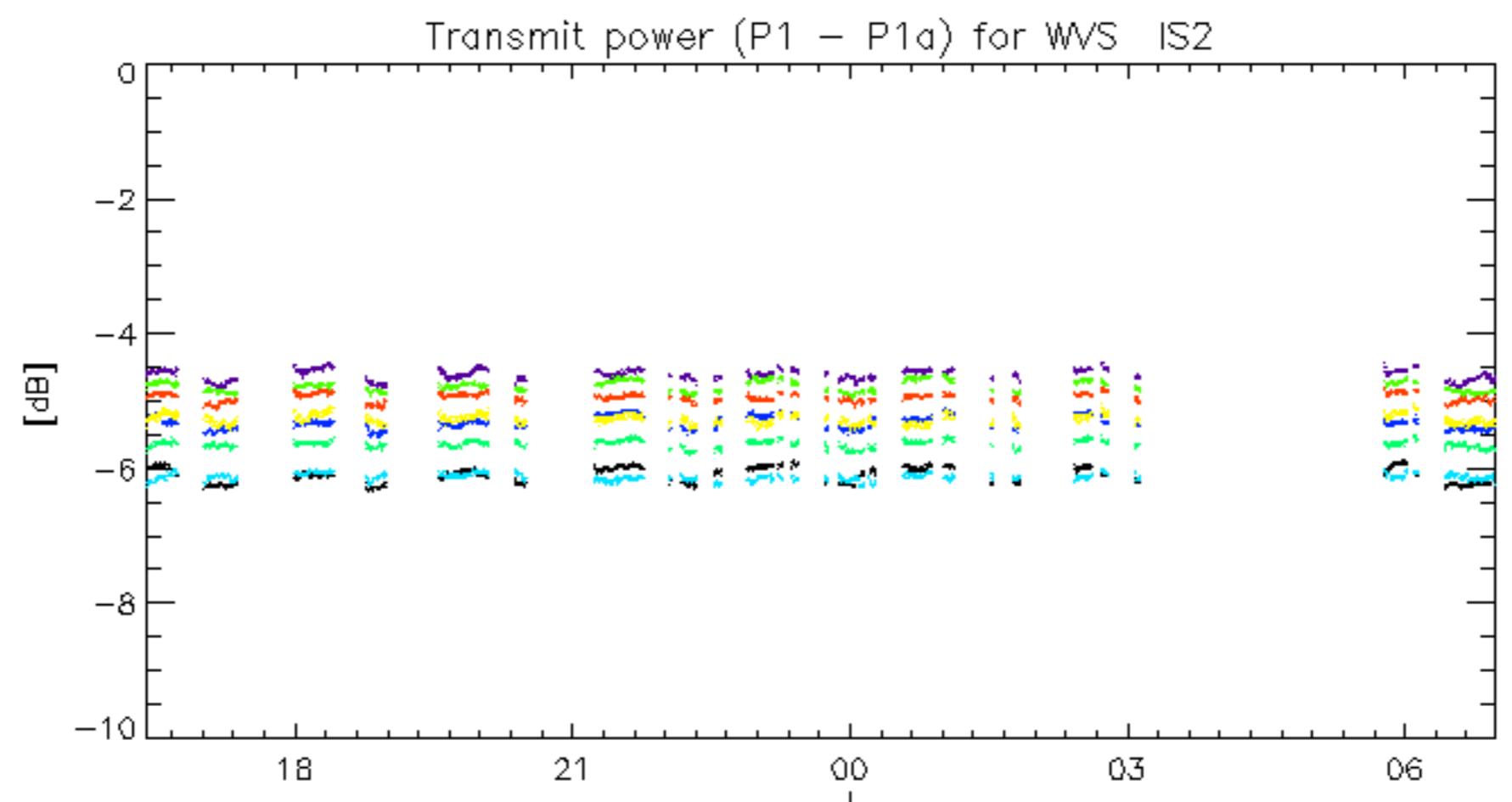


rows: **3** **7** **11** **15** **19** **22** **26** **30**

07-Nov



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



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

No unavailabilities during the reported period.