

PRELIMINARY REPORT OF 061012

last update on Thu Oct 12 16:44:44 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 2006-10-11 00:00:00 to 2006-10-12 16:44:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	44	80	18	13	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	44	80	18	13	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	80	18	13	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	80	18	13	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	58	8	4	24
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	58	8	4	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	58	8	4	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	58	8	4	24

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	20061011 170203
H	20061012 062650

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
☒	☒
☒	☒
☒	☒
☒	☒

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
☒
☒

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	-3.945938	0.010522	-0.016545
7	P1	-3.074227	0.010407	-0.013051
11	P1	-4.081788	0.022764	-0.028218
15	P1	-6.197591	0.016199	-0.042039
19	P1	-3.546801	0.008101	-0.051321
22	P1	-4.600998	0.010737	0.005694
26	P1	-3.988174	0.063665	-0.083900
30	P1	-5.842158	0.100668	-0.114116
3	P1	-16.633131	0.219837	-0.108816
7	P1	-17.114216	0.105652	0.014424
11	P1	-16.926094	0.387141	-0.299349
15	P1	-12.840050	0.104429	0.036506
19	P1	-14.662827	0.053214	-0.035451
22	P1	-15.630674	0.473346	0.373297
26	P1	-15.144300	0.258677	0.231772
30	P1	-16.940220	0.470176	0.160077

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.816311	0.086484	-0.029537
7	P2	-21.795858	0.096736	0.092994
11	P2	-15.736893	0.108219	0.008197
15	P2	-7.077419	0.106055	0.051612
19	P2	-9.125715	0.096957	0.021717
22	P2	-18.131292	0.093562	-0.008056
26	P2	-16.424980	0.100695	0.021258
30	P2	-19.467798	0.093491	0.001132

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194551	0.006567	-0.019872
7	P3	-8.194551	0.006567	-0.019872
11	P3	-8.194551	0.006567	-0.019872
15	P3	-8.194551	0.006567	-0.019872
19	P3	-8.194551	0.006567	-0.019872
22	P3	-8.194551	0.006567	-0.019872
26	P3	-8.194431	0.006571	-0.019501
30	P3	-8.194431	0.006571	-0.019501

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	-3.880549	0.028523	-0.051609
7	P1	-2.551123	0.118211	-0.034643
11	P1	-2.903963	0.029841	-0.042383
15	P1	-3.693066	0.040223	-0.117512
19	P1	-3.461038	0.013637	0.001912
22	P1	-5.101601	0.023015	0.006571
26	P1	-5.901540	0.107980	-0.062292
30	P1	-5.227338	0.117032	-0.068868
3	P1	-11.681459	0.088290	-0.089417
7	P1	-10.049520	0.172298	-0.089779
11	P1	-10.398521	0.088613	-0.077931
15	P1	-10.891267	0.177304	-0.234723
19	P1	-15.553527	0.101749	0.087669
22	P1	-20.971819	1.287147	-0.245002

26	P1	-15.815272	0.435742	0.334087
30	P1	-18.084135	0.415526	0.090601

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.367809	0.067930	0.079023
7	P2	-22.103024	0.219828	0.206604
11	P2	-10.863068	0.061363	0.120144
15	P2	-4.851566	0.033109	0.039116
19	P2	-6.829335	0.040445	0.072503
22	P2	-8.156108	0.070892	0.018878
26	P2	-24.177847	0.152217	0.005783
30	P2	-21.941921	0.093715	0.090154

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.043264	0.003508	-0.007624
7	P3	-8.043228	0.003504	-0.007901
11	P3	-8.043259	0.003503	-0.007589
15	P3	-8.043304	0.003510	-0.007946
19	P3	-8.043311	0.003507	-0.007908
22	P3	-8.043318	0.003507	-0.007780
26	P3	-8.043221	0.003515	-0.007470
30	P3	-8.043160	0.003504	-0.007522

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	0.000569925
	stdev	1.62341e-07
MEAN Q	mean	0.000527173
	stdev	2.12962e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138936
	stdev	0.00113395
STDEV Q	mean	0.139310
	stdev	0.00115243



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006101[012]

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_1PNPDE20061011_060049_000001152052_00020_24122_7000.N1	1	0
ASA_GM1_1PNPDK20061011_152004_000006522052_00025_24127_6288.N1	0	6
ASA_WSM_1PNPDE20061010_002924_000001462052_00002_24104_4027.N1	0	29
ASA_WSM_1PNPDE20061010_231135_000001152052_00016_24118_4051.N1	0	14
ASA_WSM_1PNPDE20061010_231135_000001152052_00016_24118_4059.N1	0	14



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

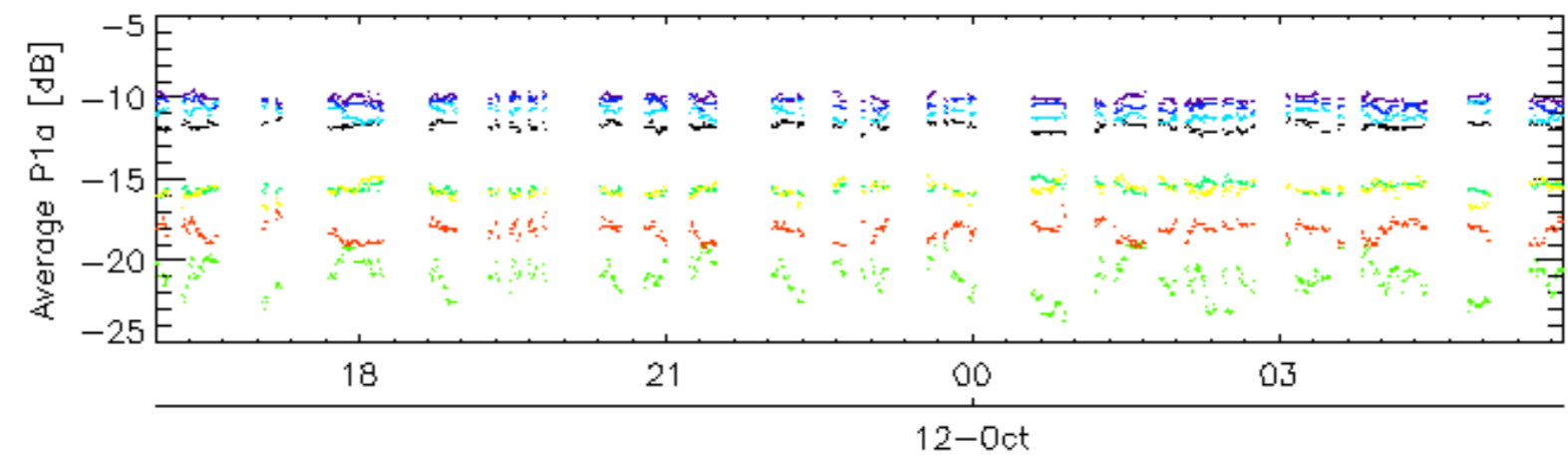
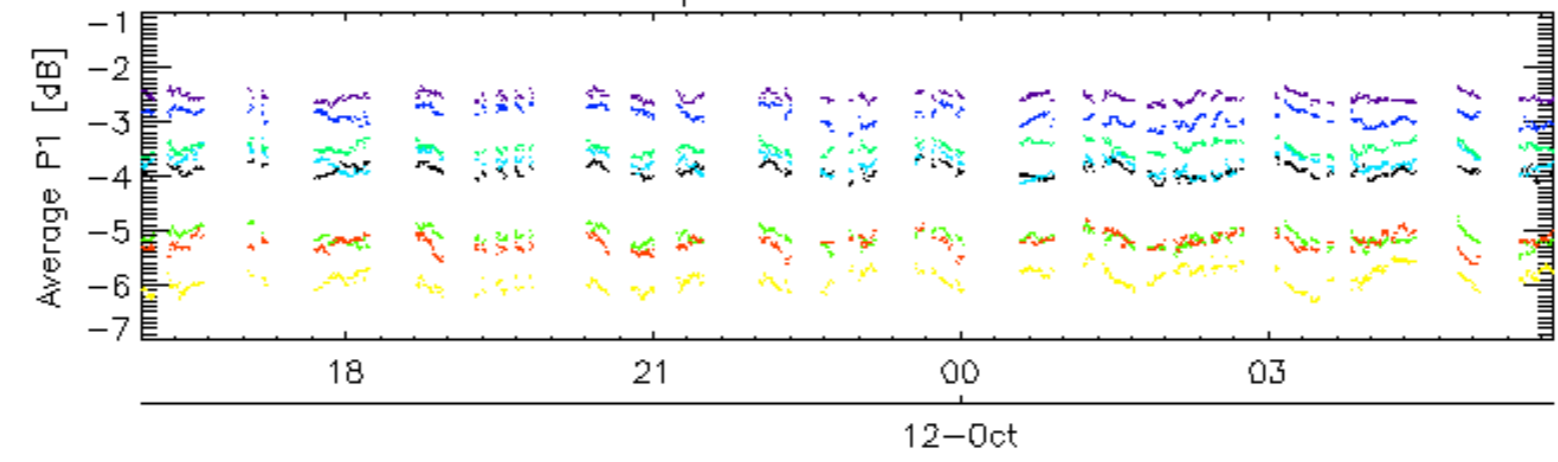
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	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

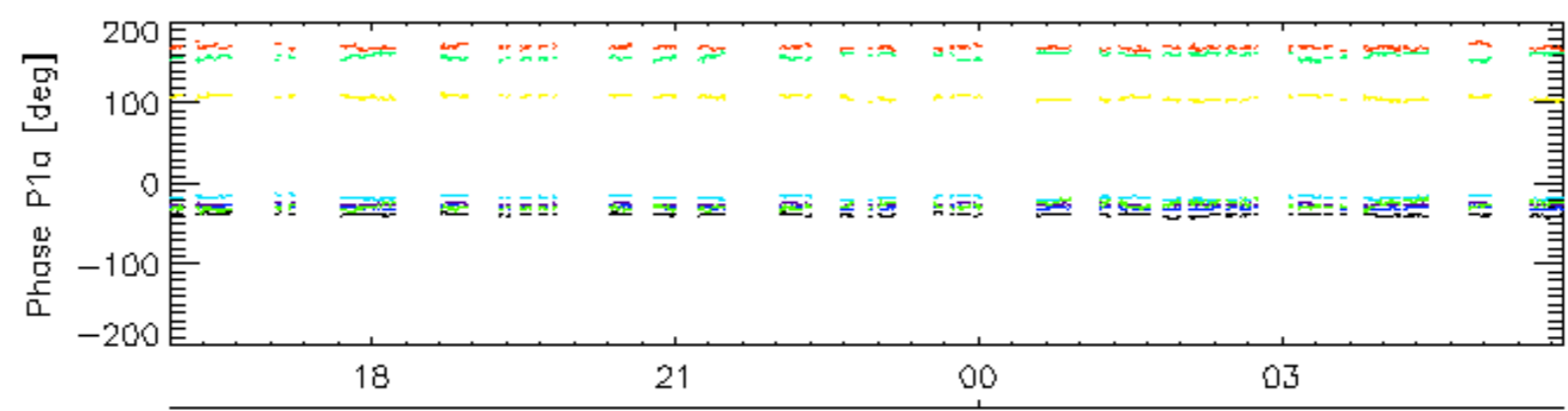
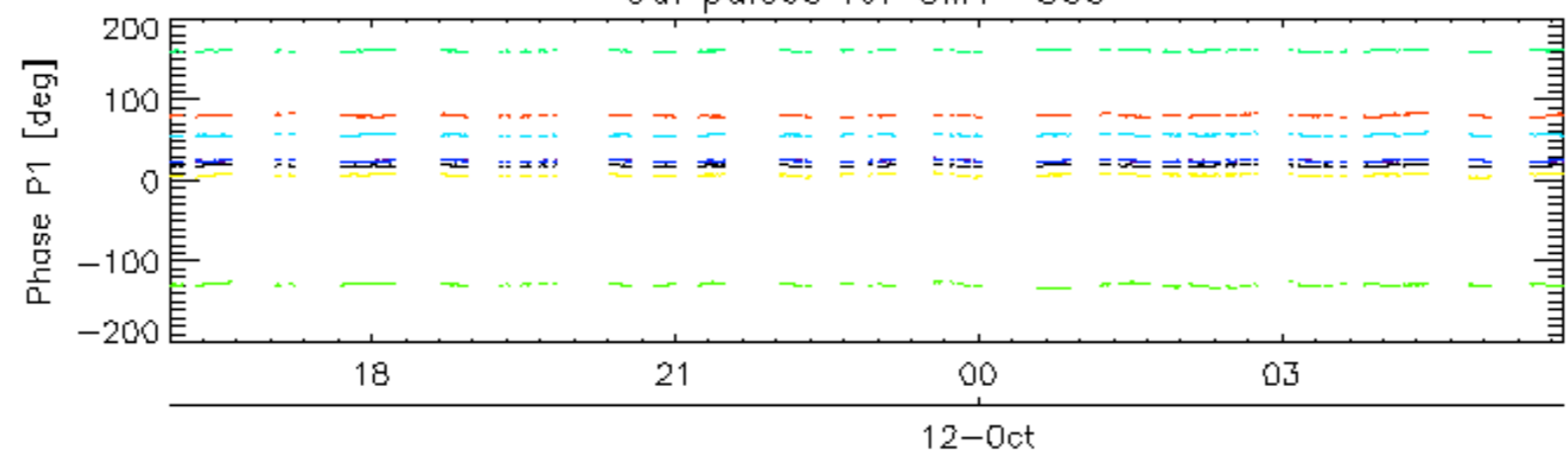
Evolution Doppler error versus ANX

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

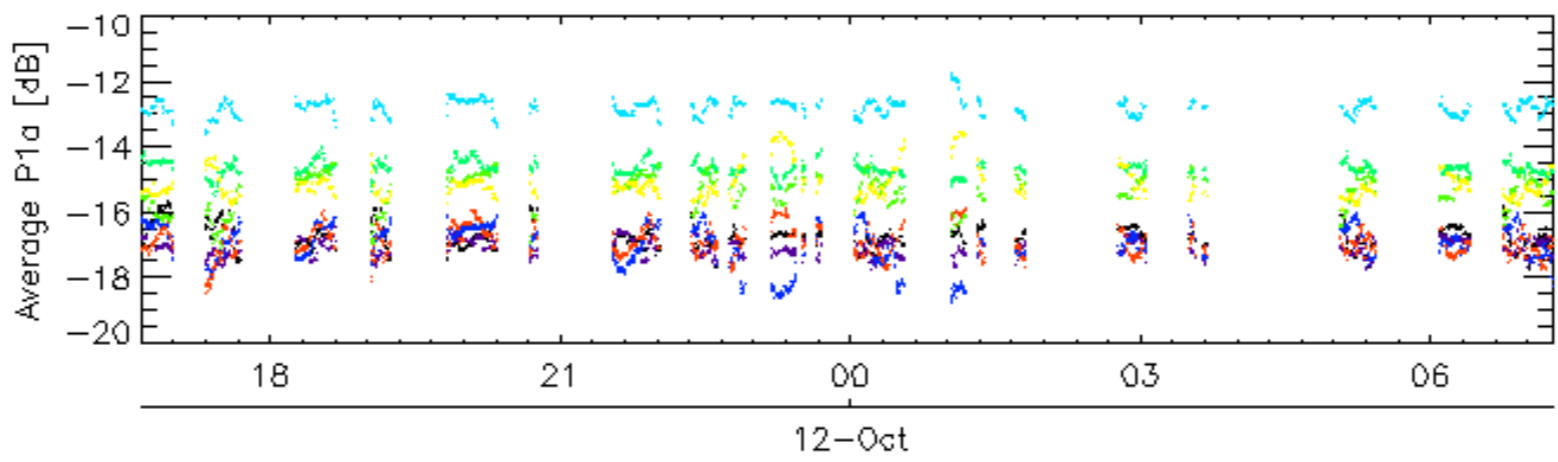
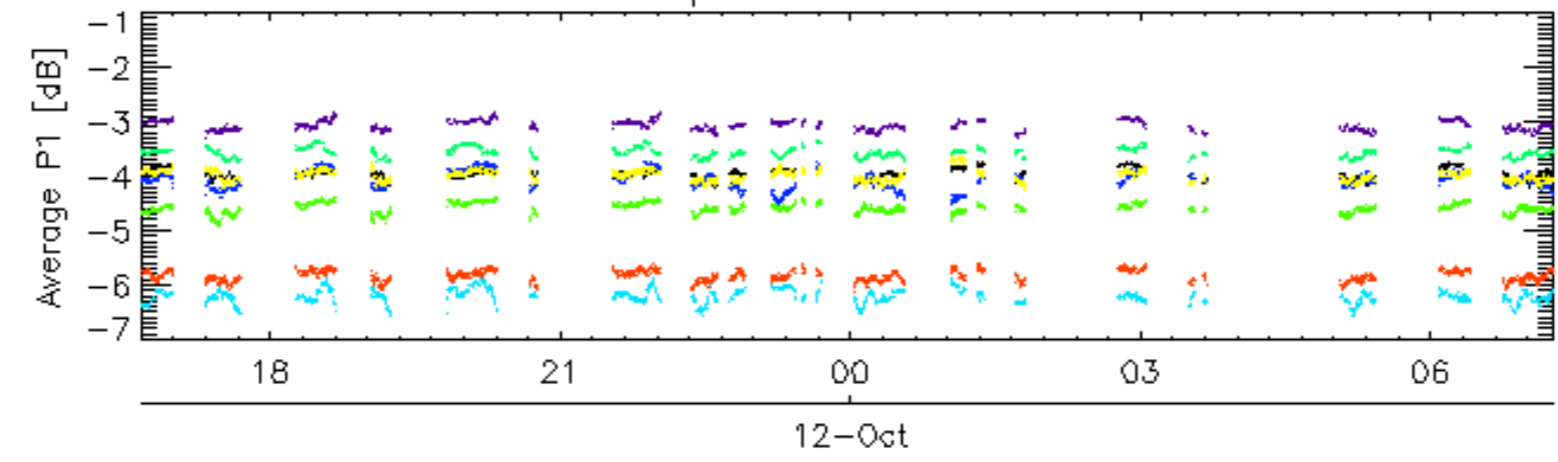


Cal pulses for GM1 SS3

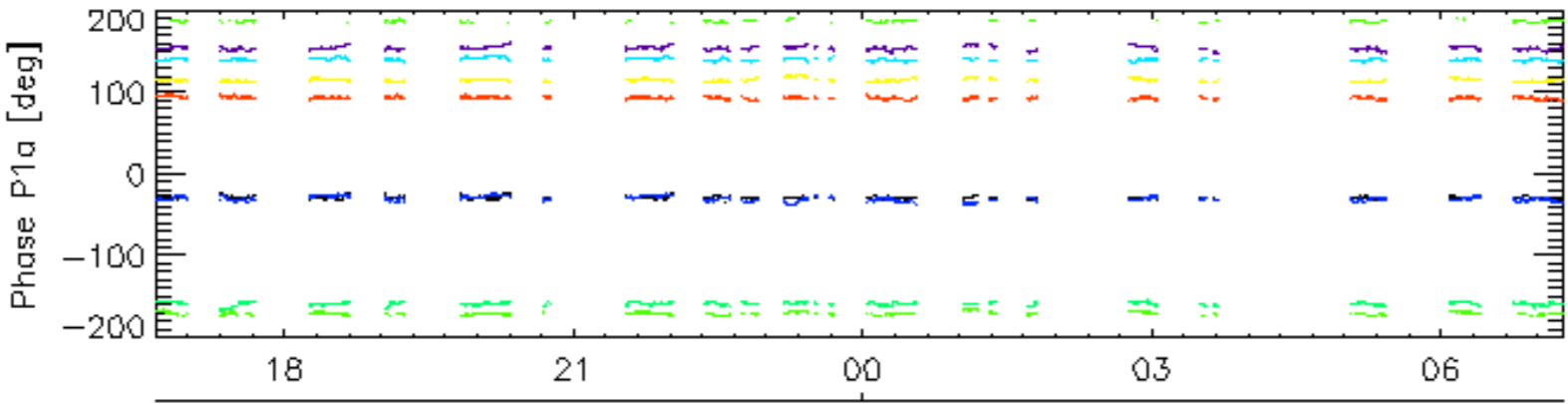
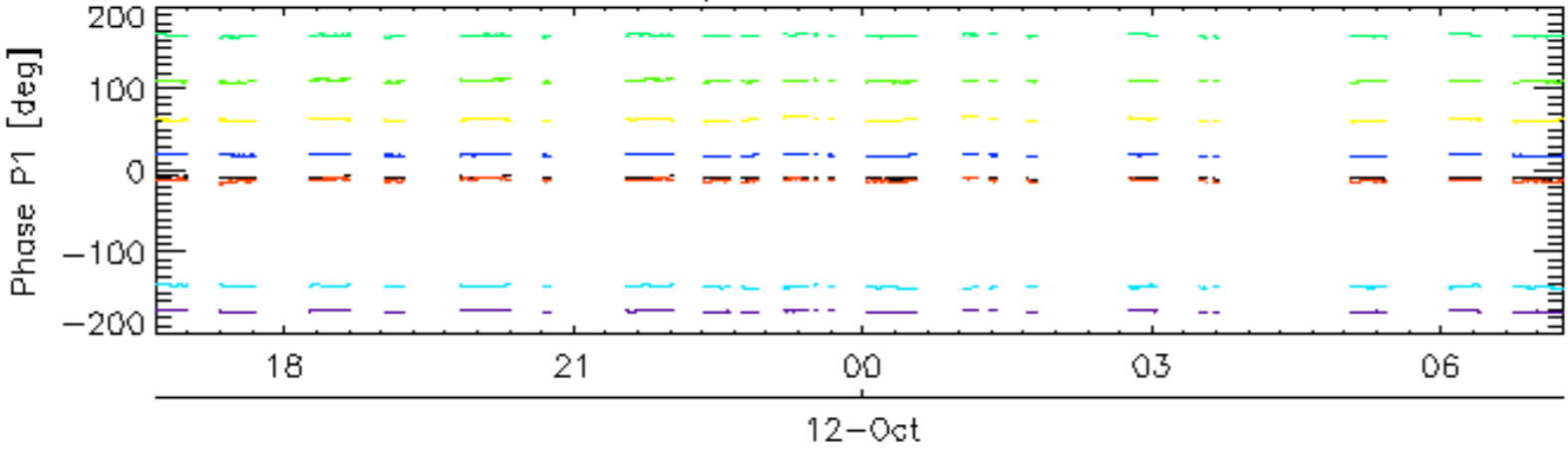


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 12-Oct

Cal pulses for WVS IS2

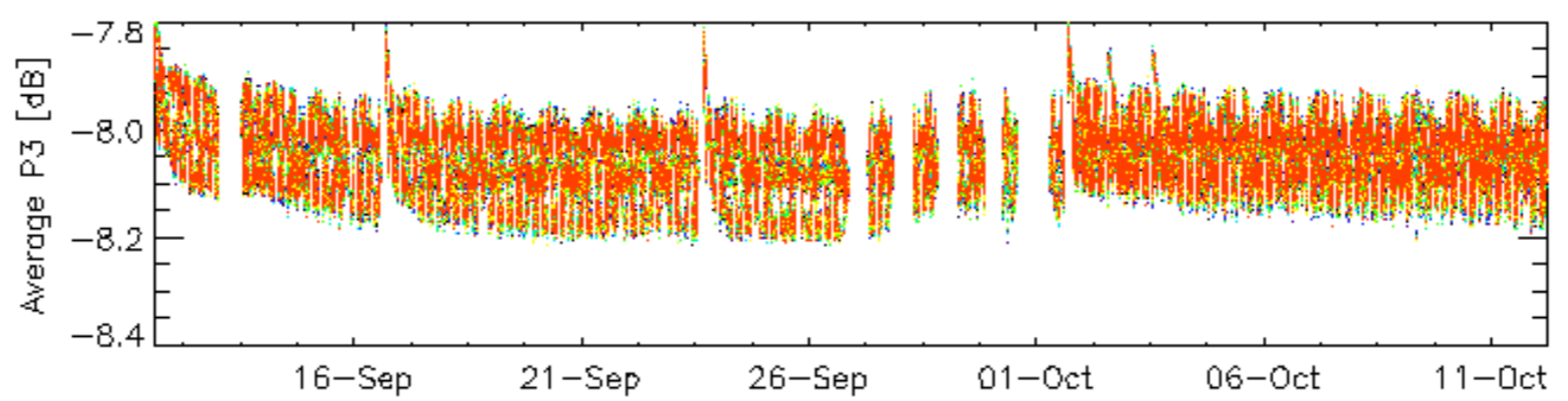
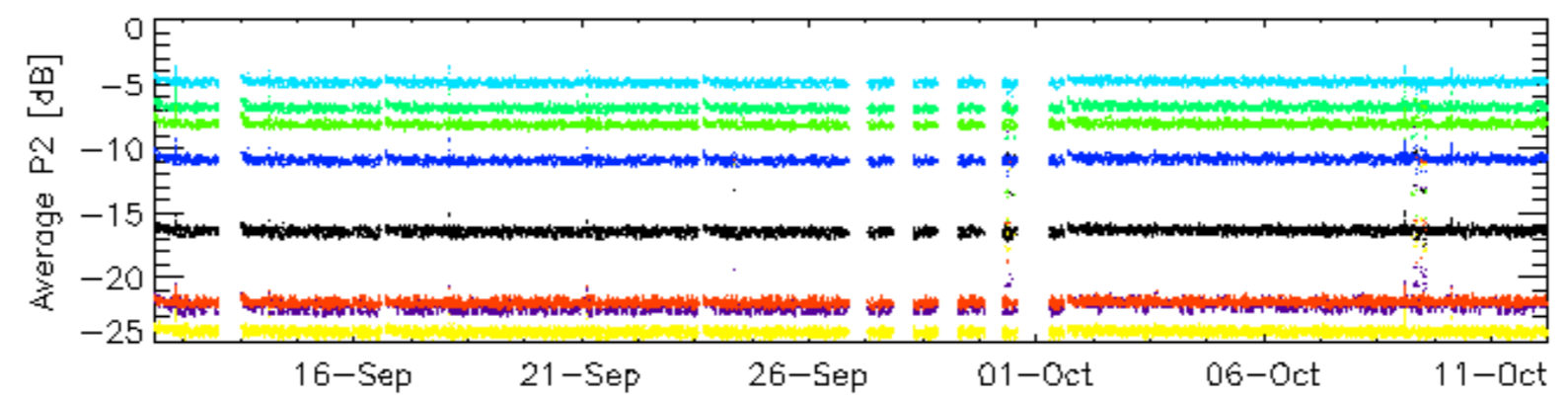
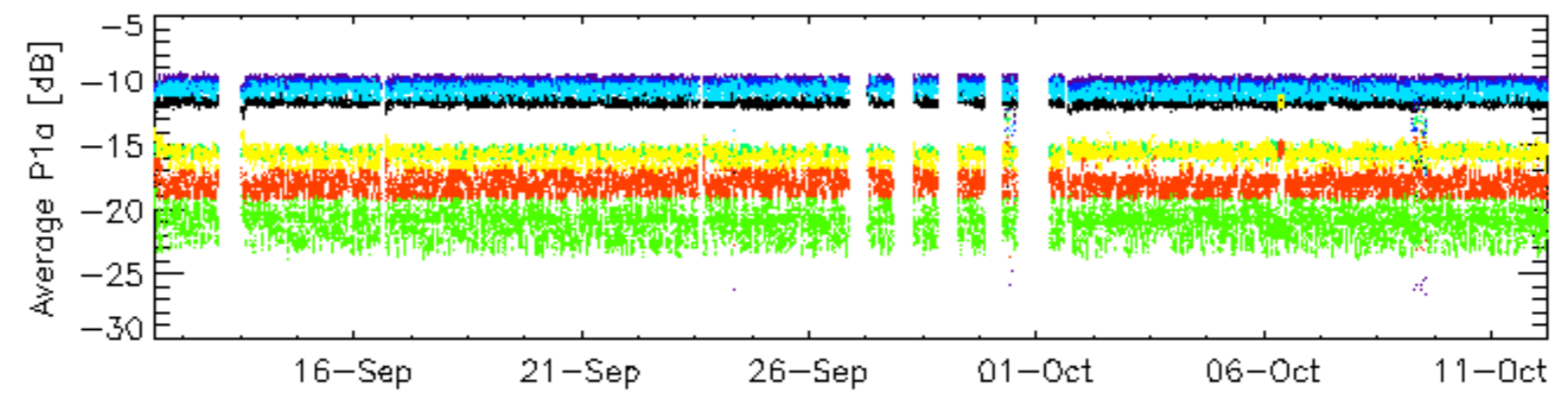
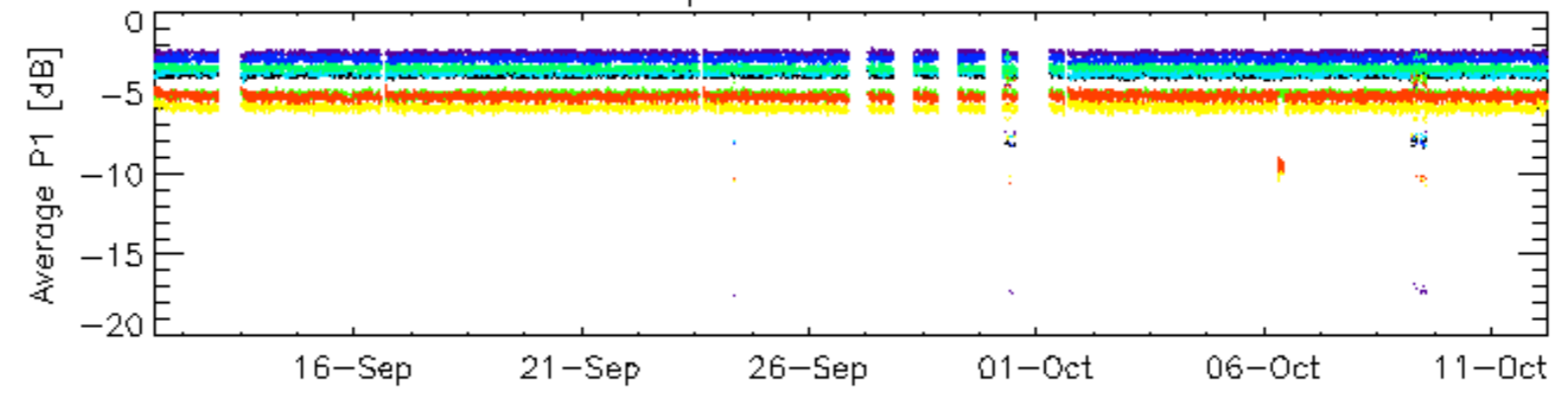


Cal pulses for WVS IS2



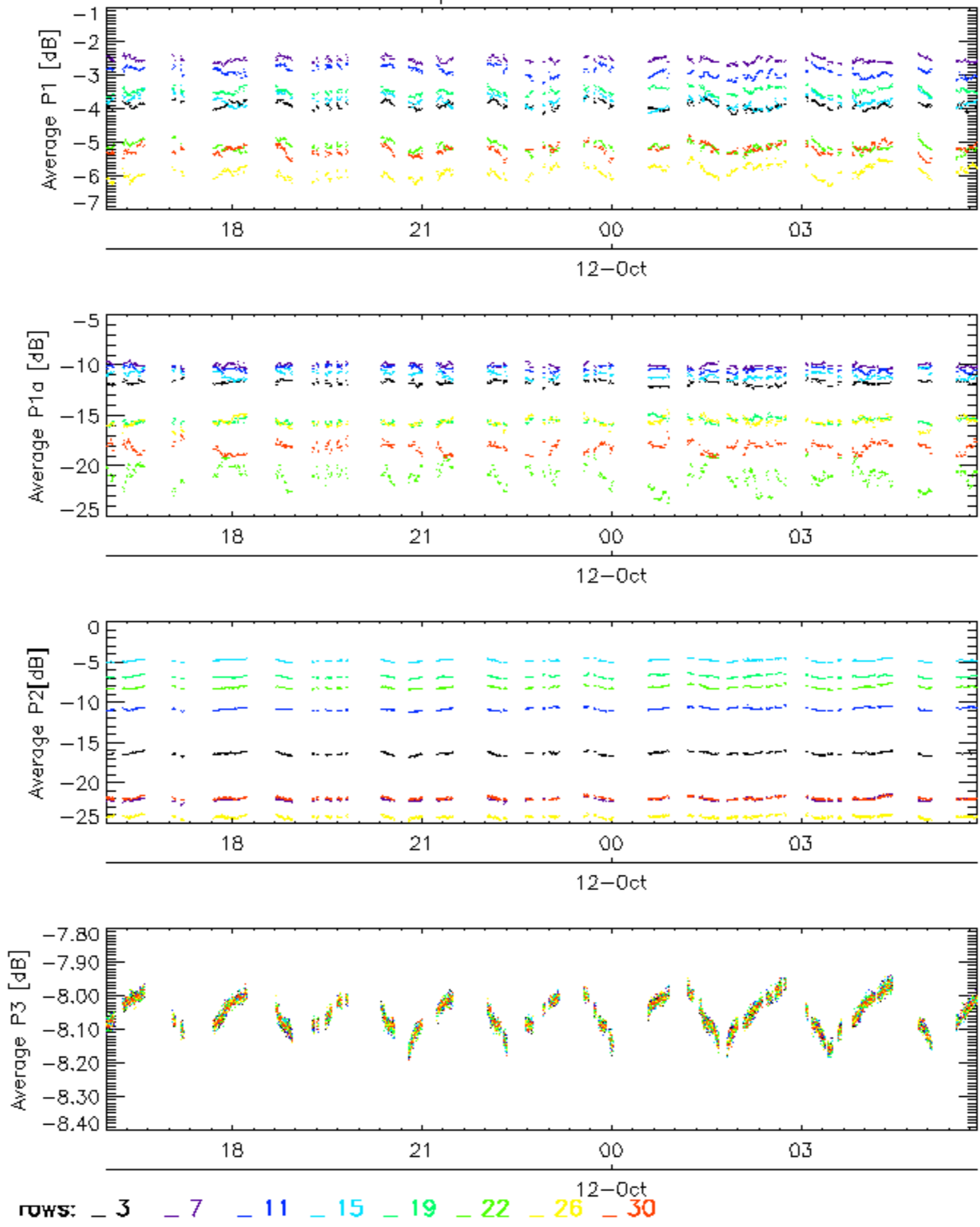
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

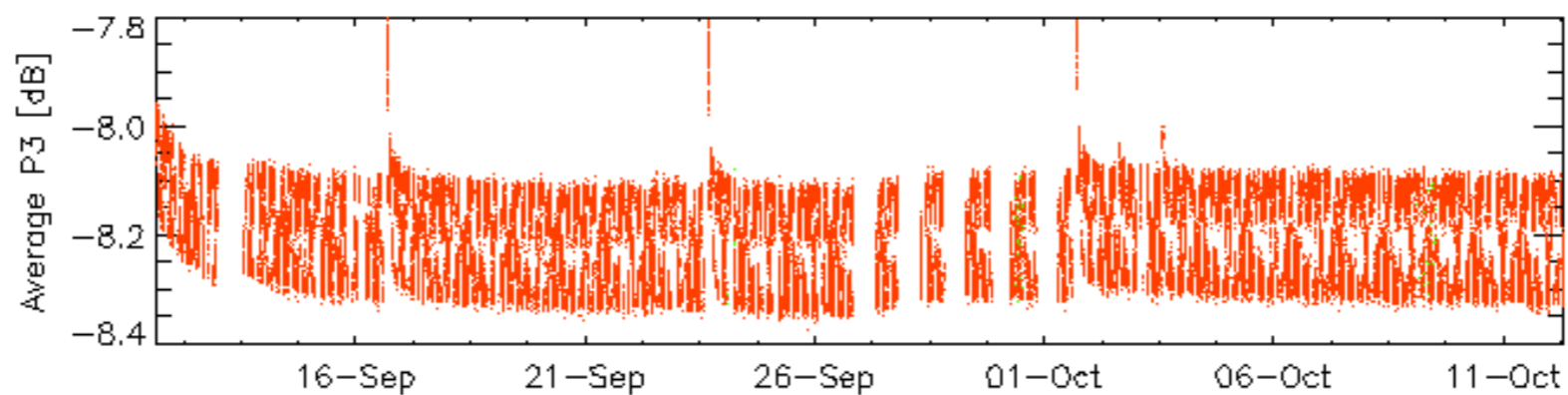
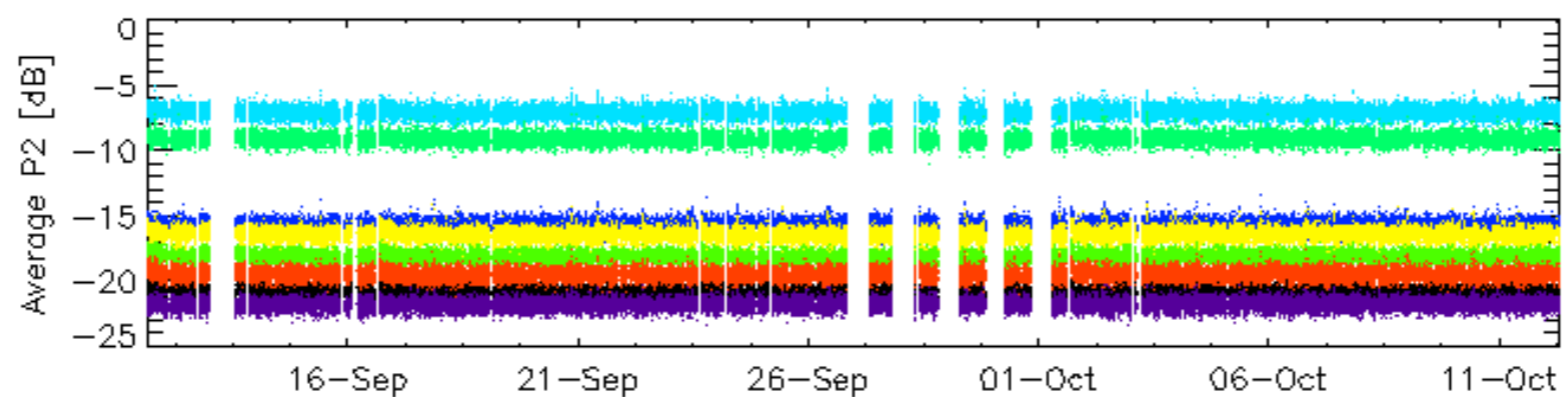
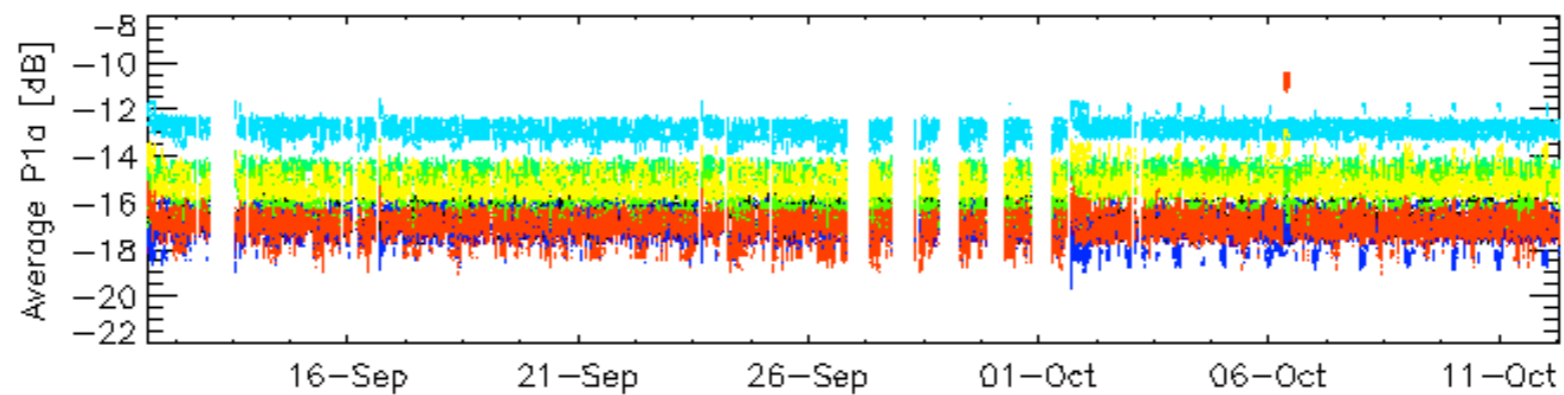
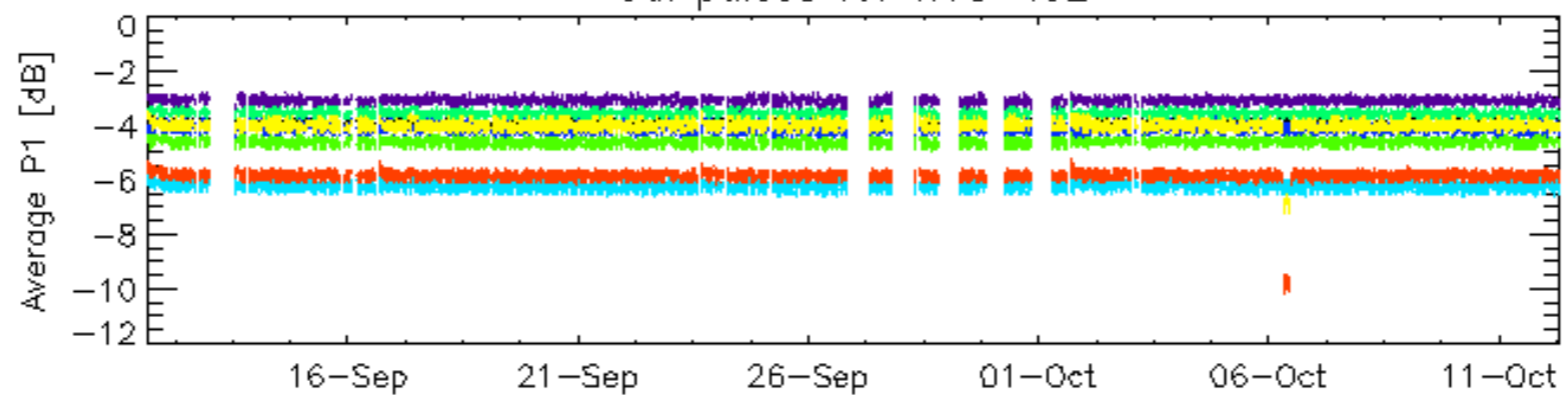


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

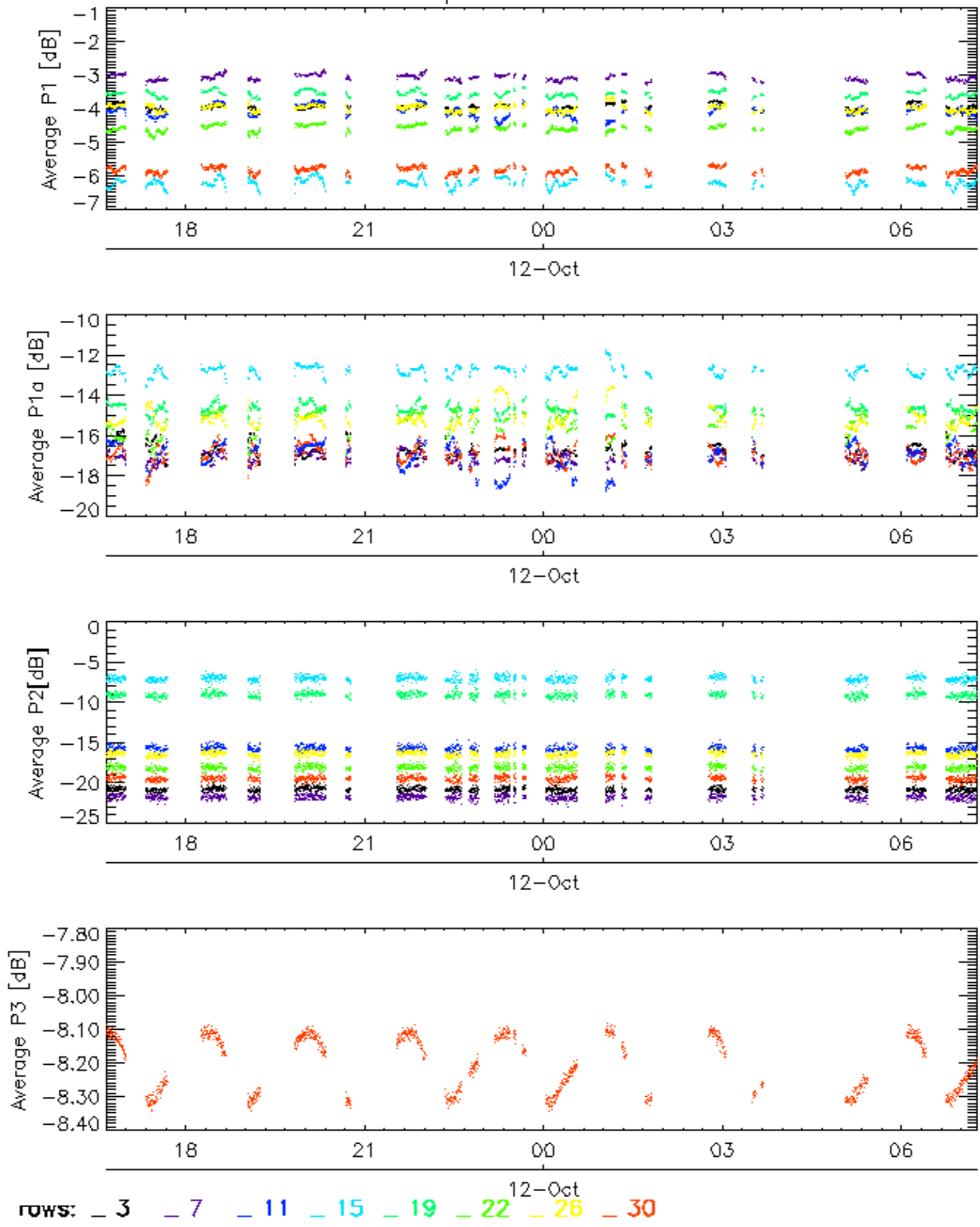


Cal pulses for WVS IS2



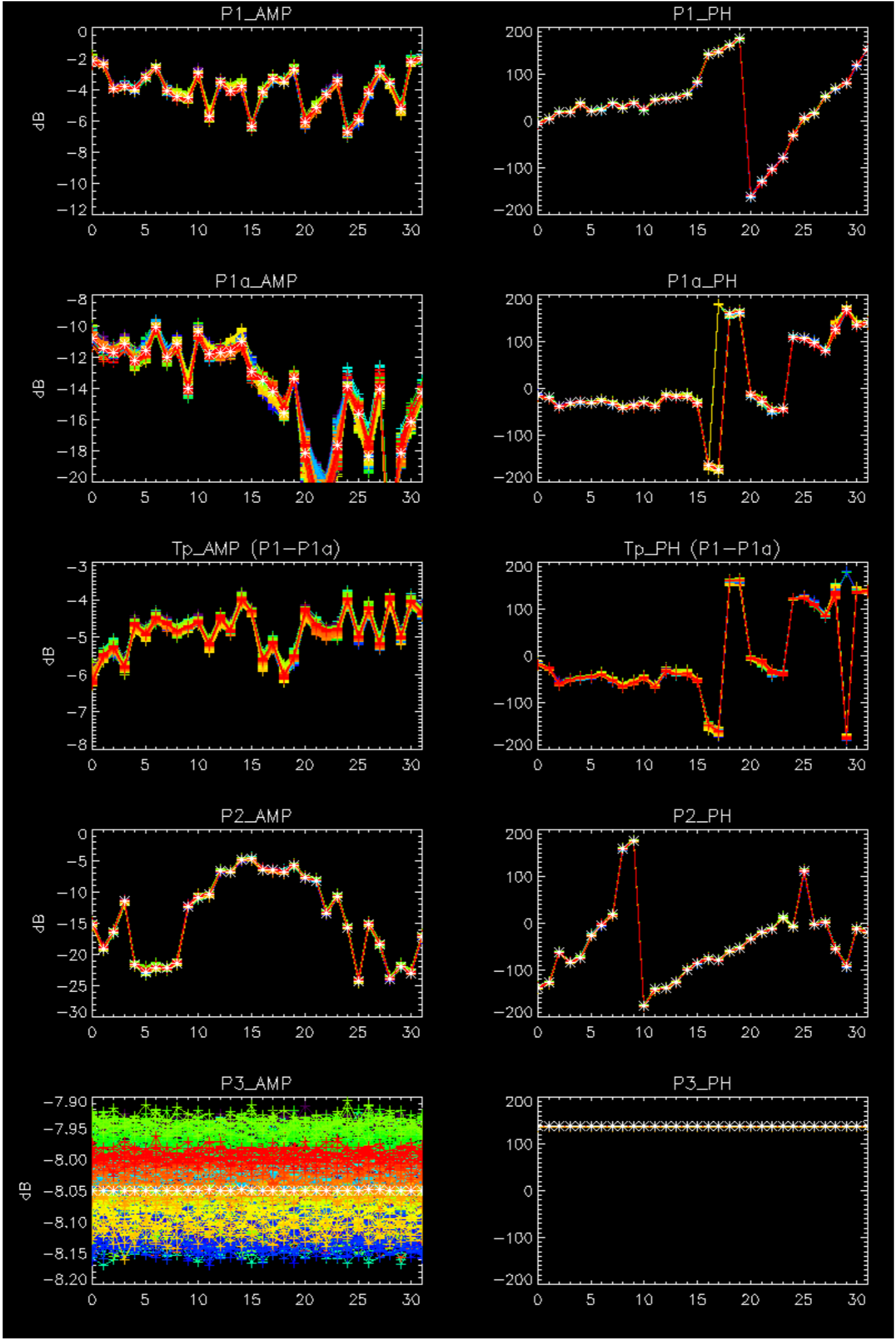
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

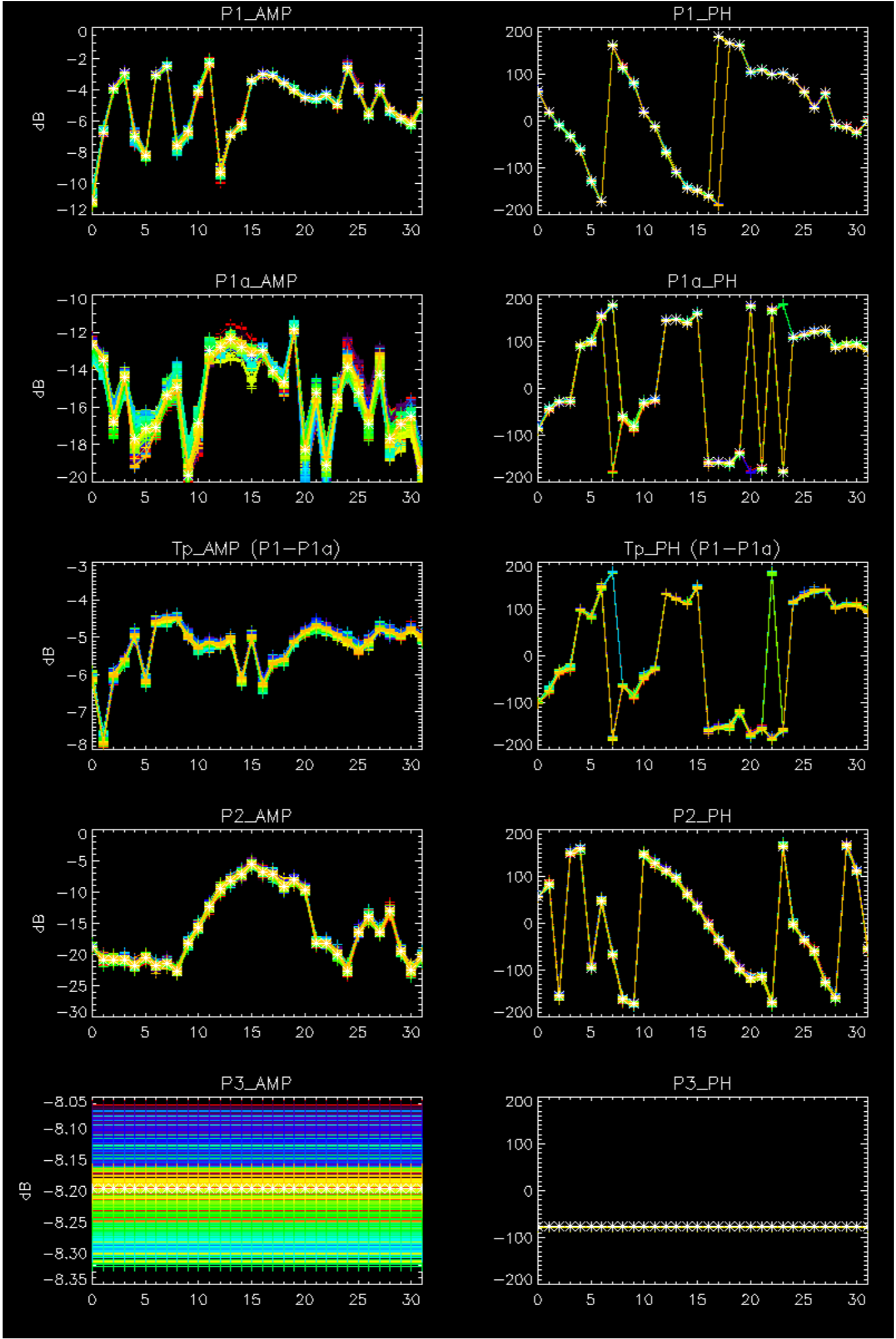
Cal pulses for WVS IS2



No anomalies observed on available browse products

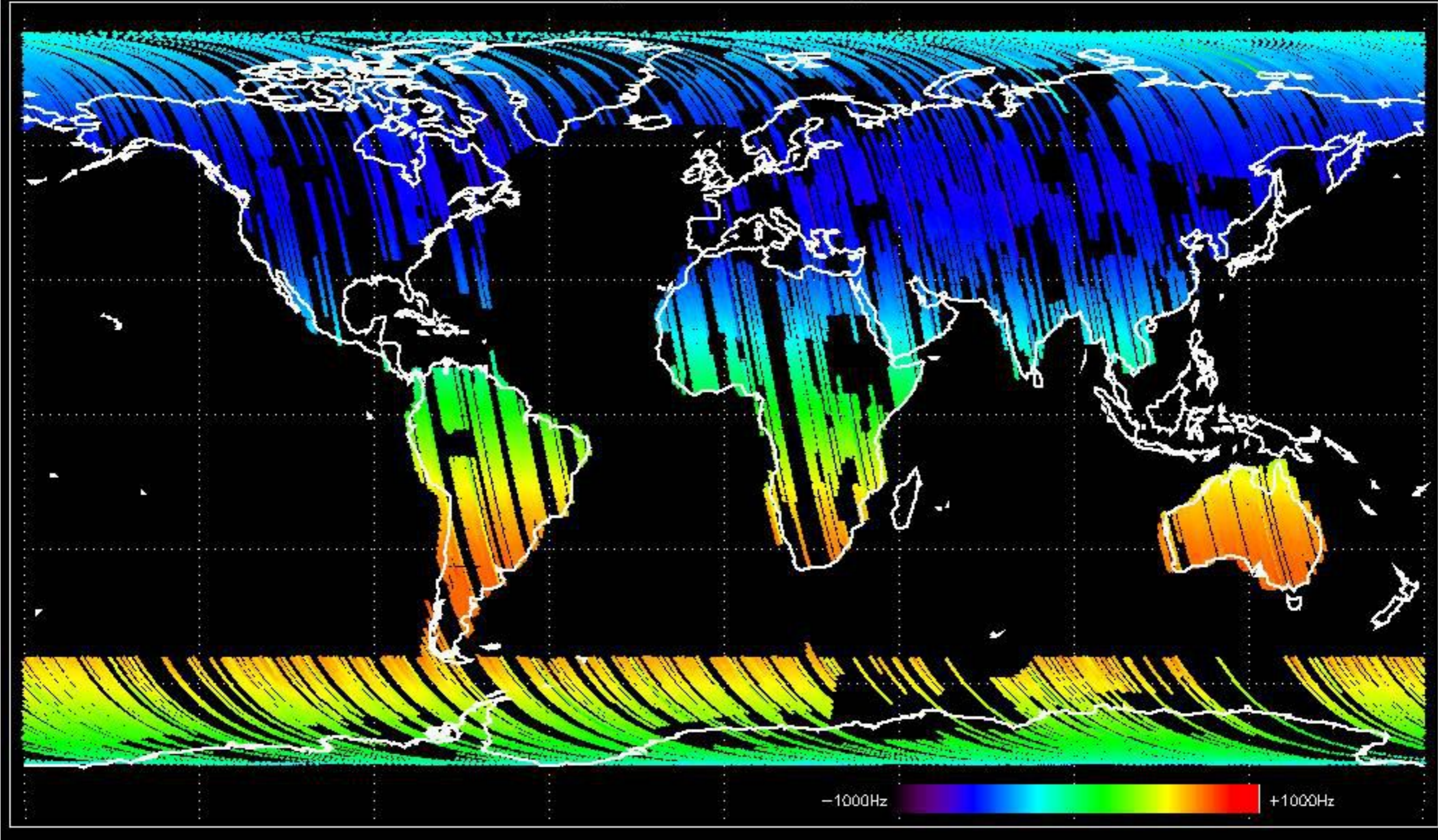
No anomalies observed.



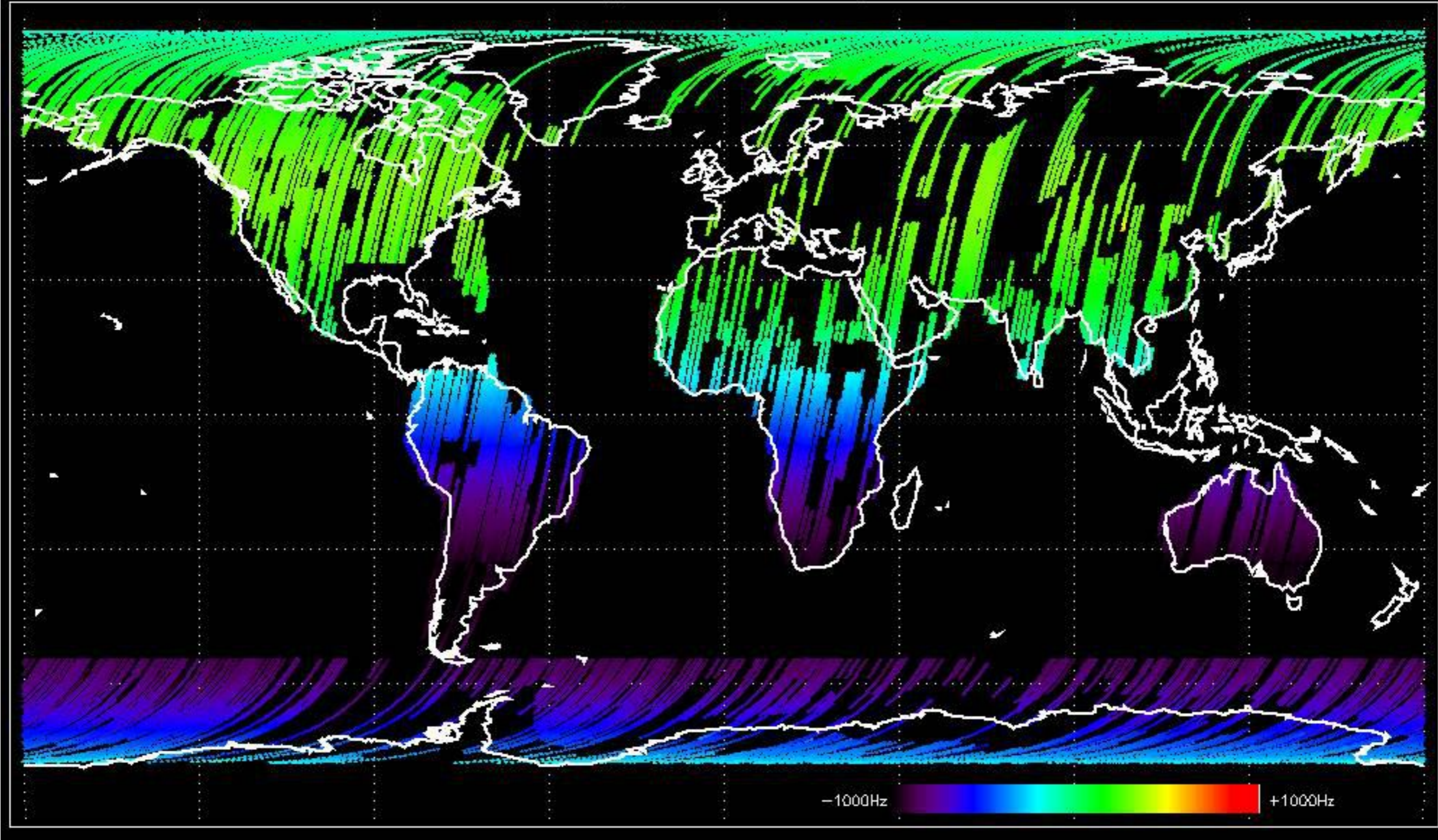


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

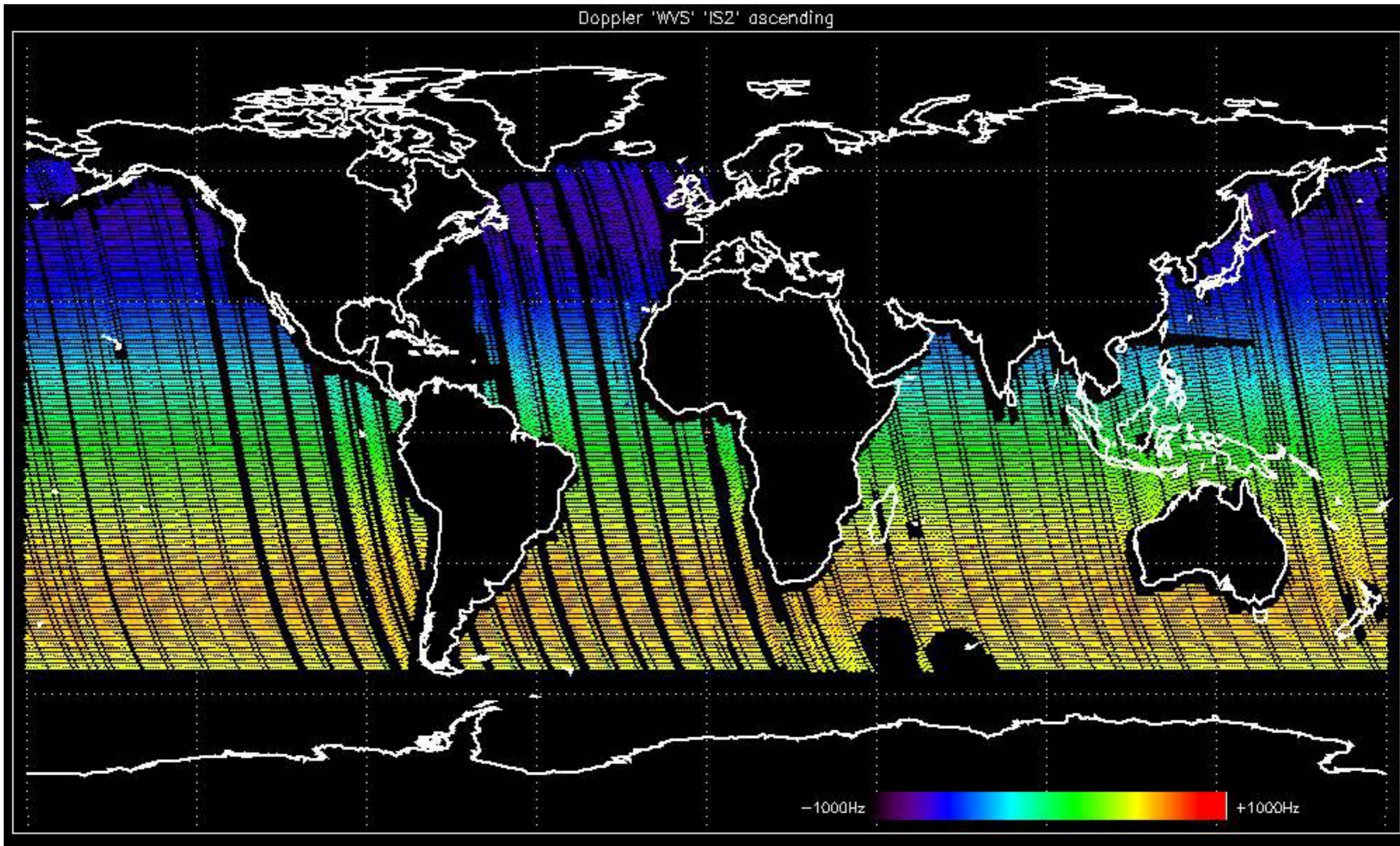
Doppler 'GM1' 'SS1' ascending



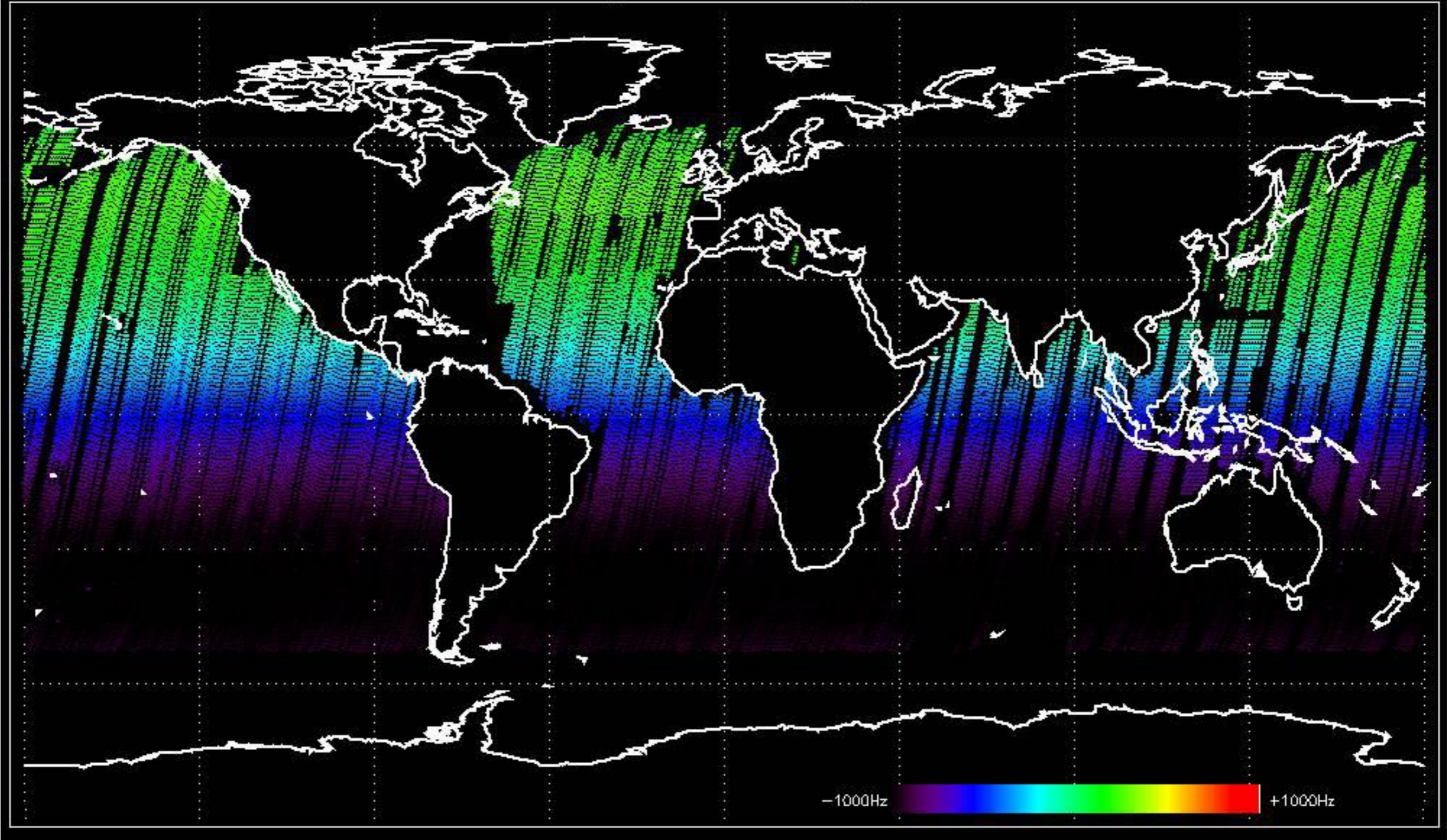
Doppler 'GM1' 'SS1' descending



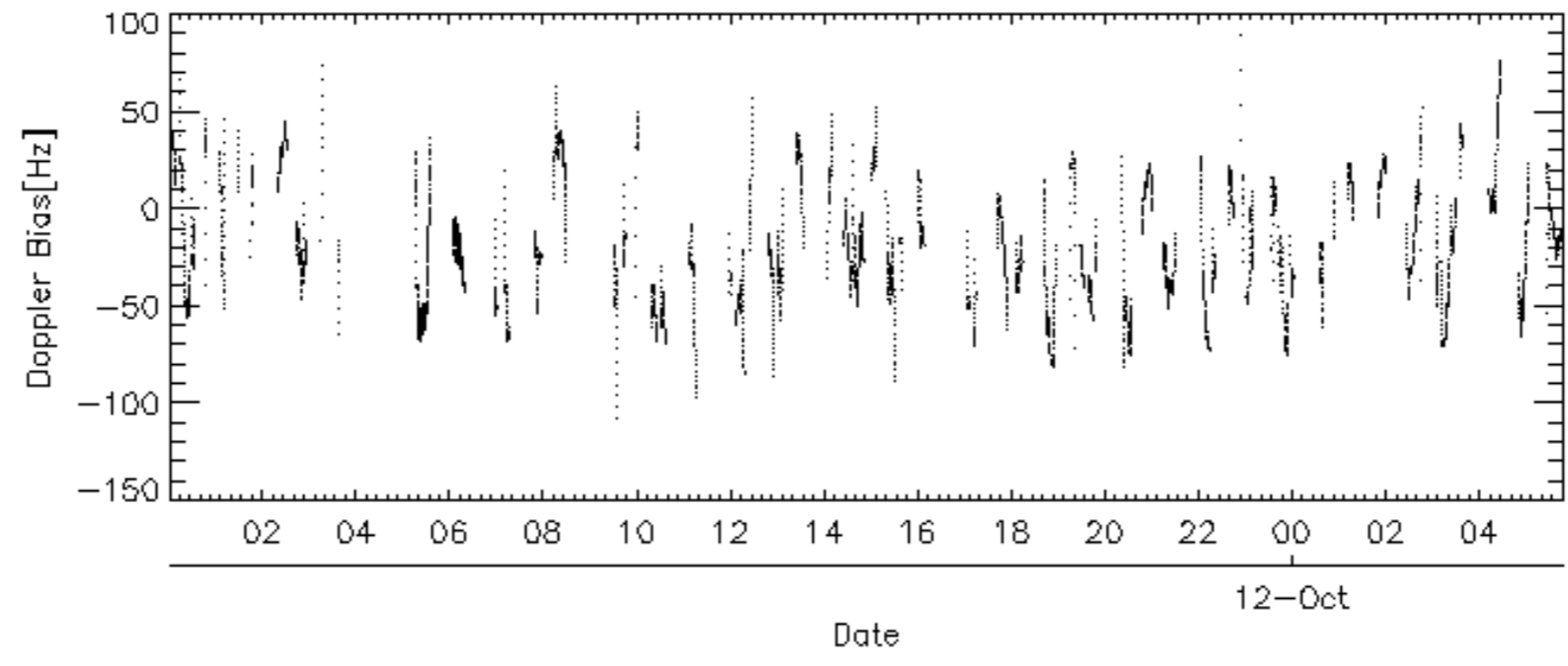
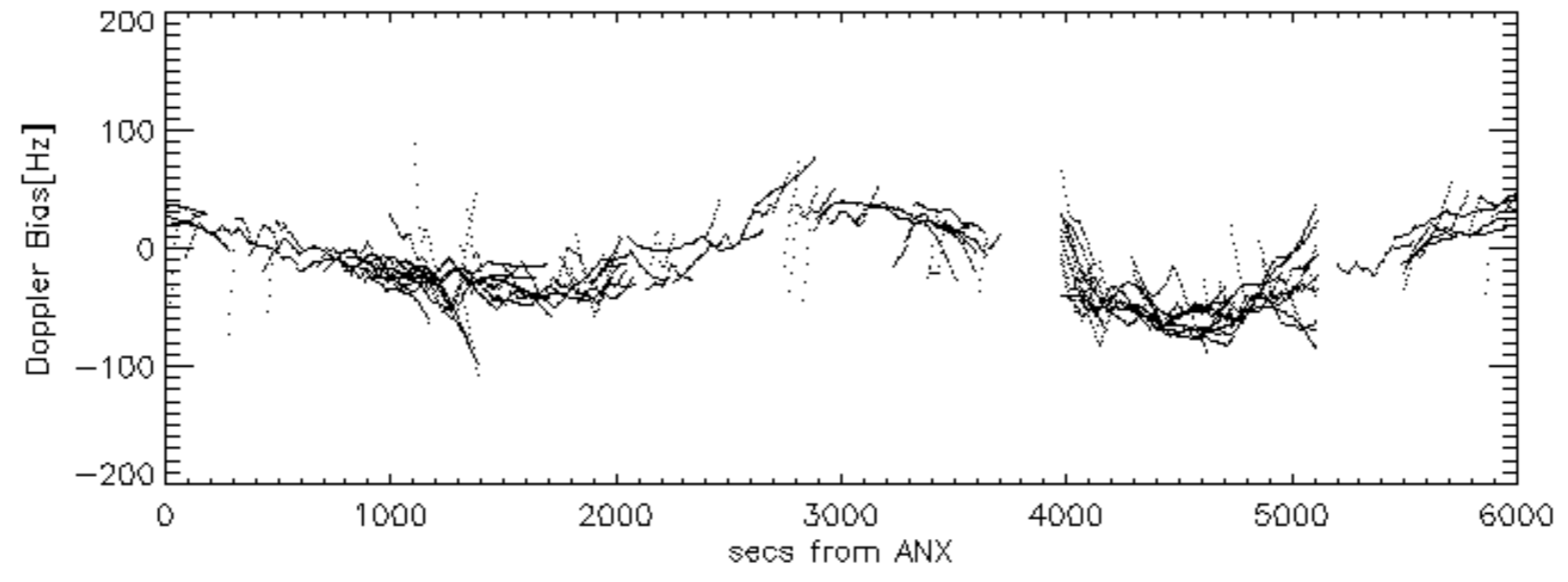
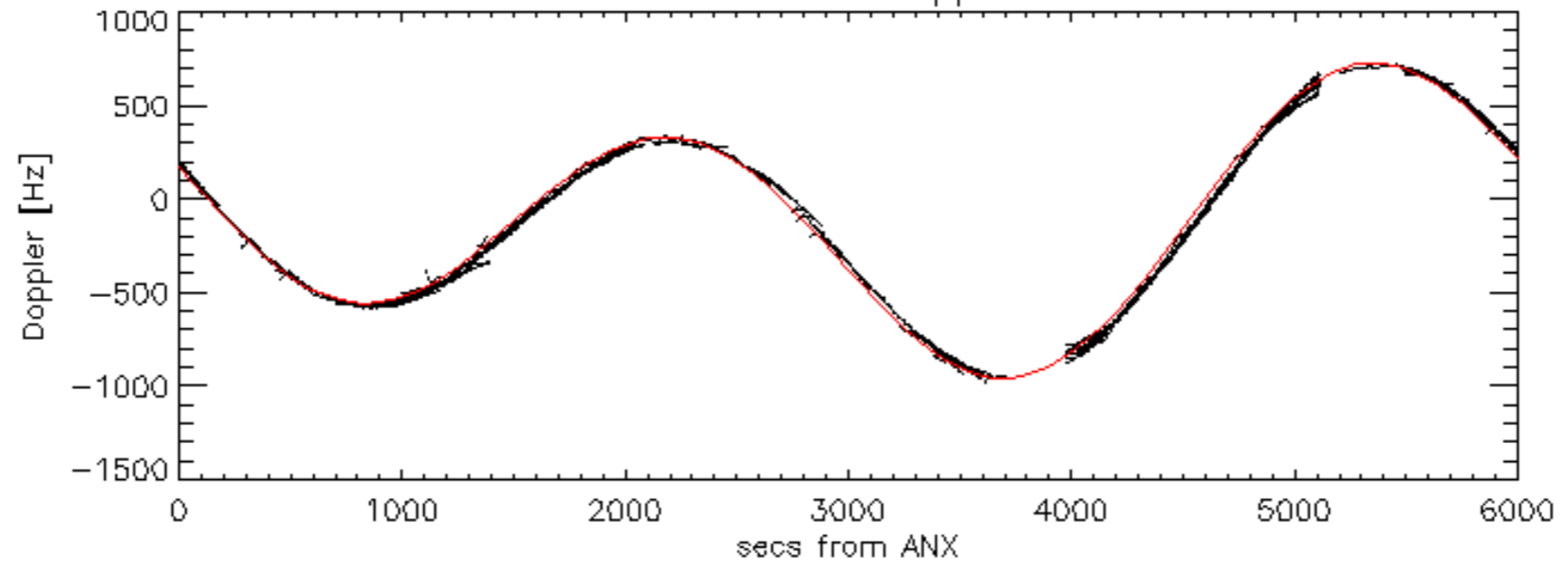
Doppler 'WVS' 'IS2' ascending

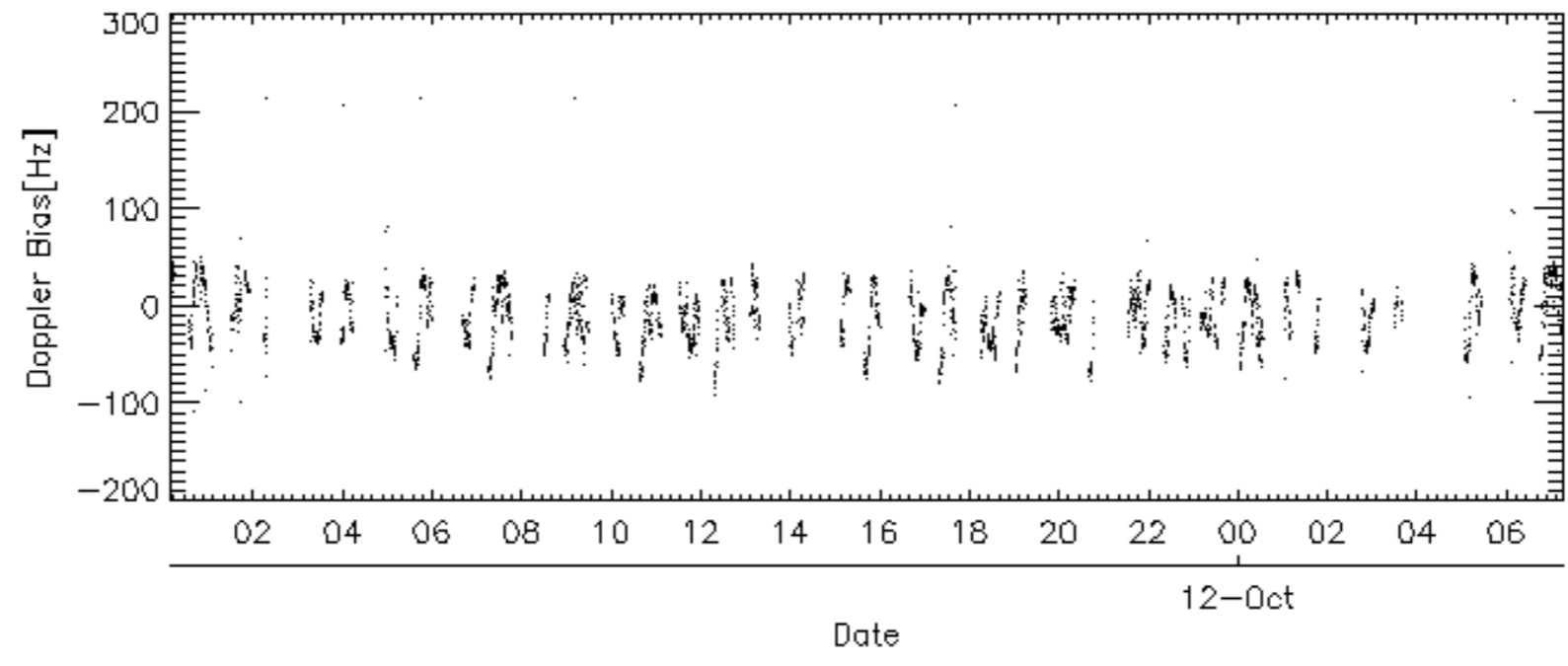
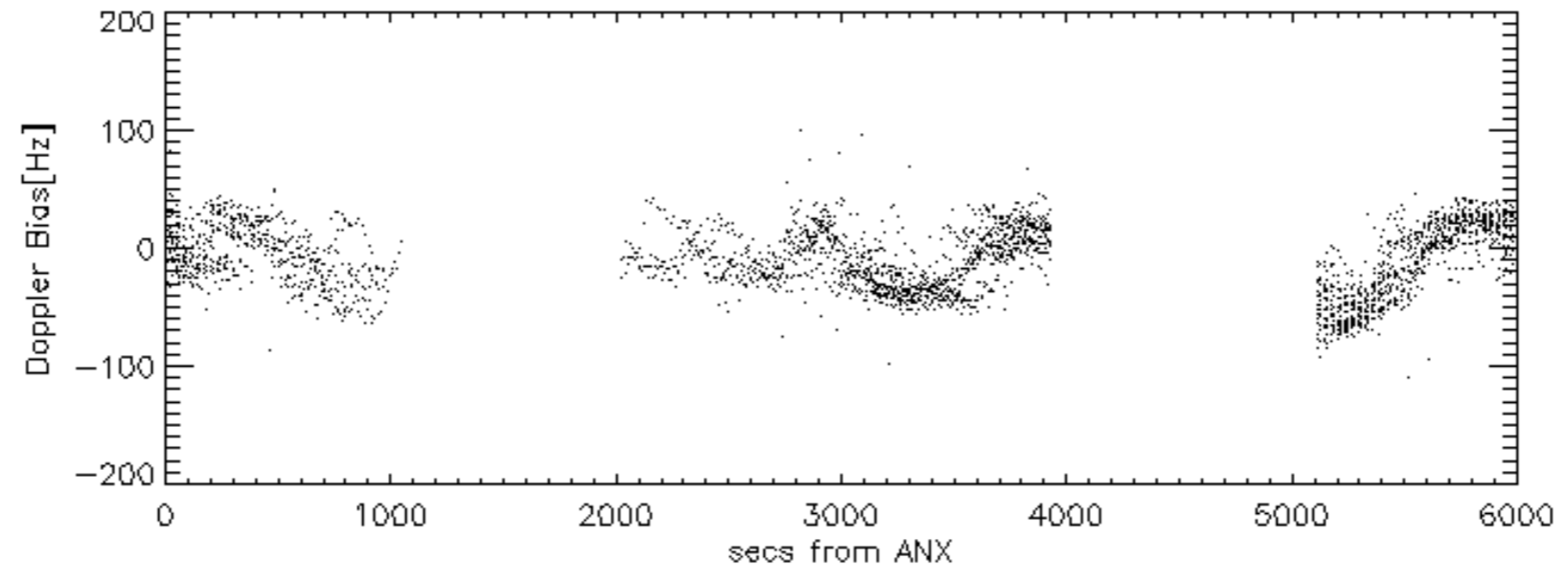
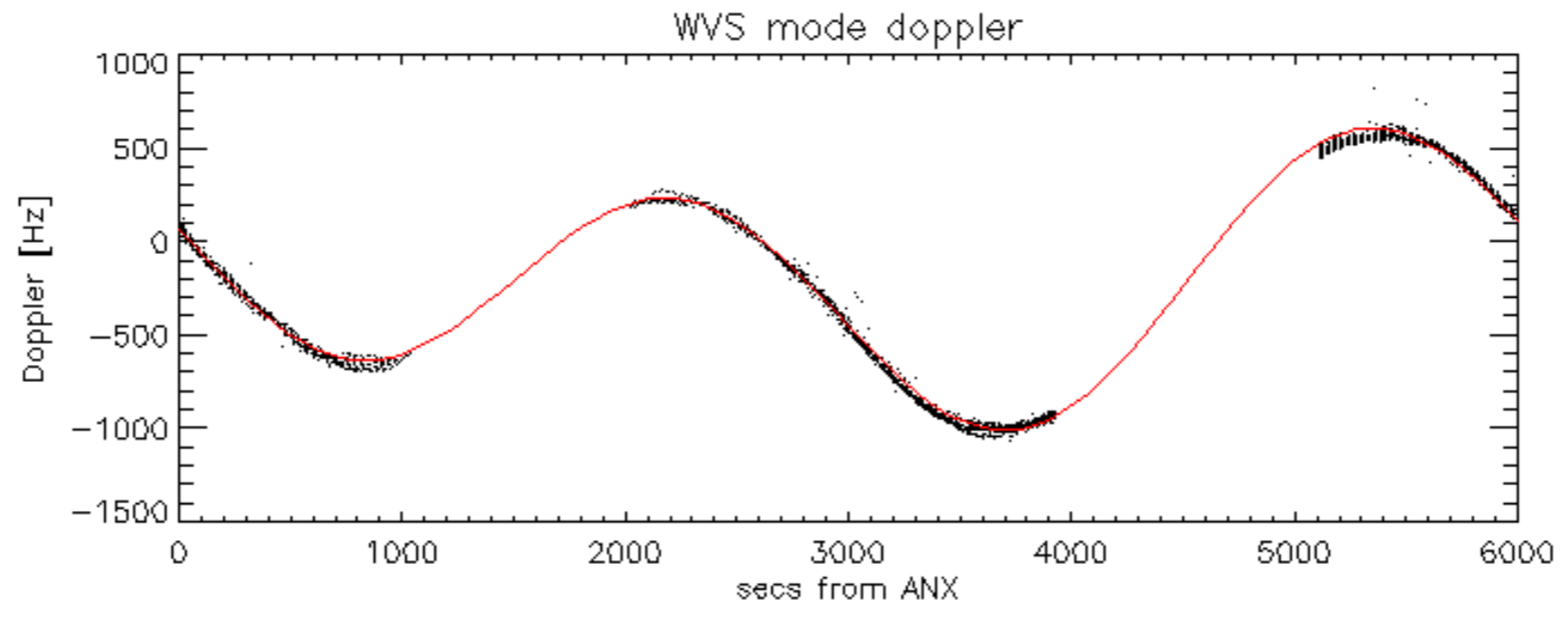


Doppler 'WVS' 'IS2' descending

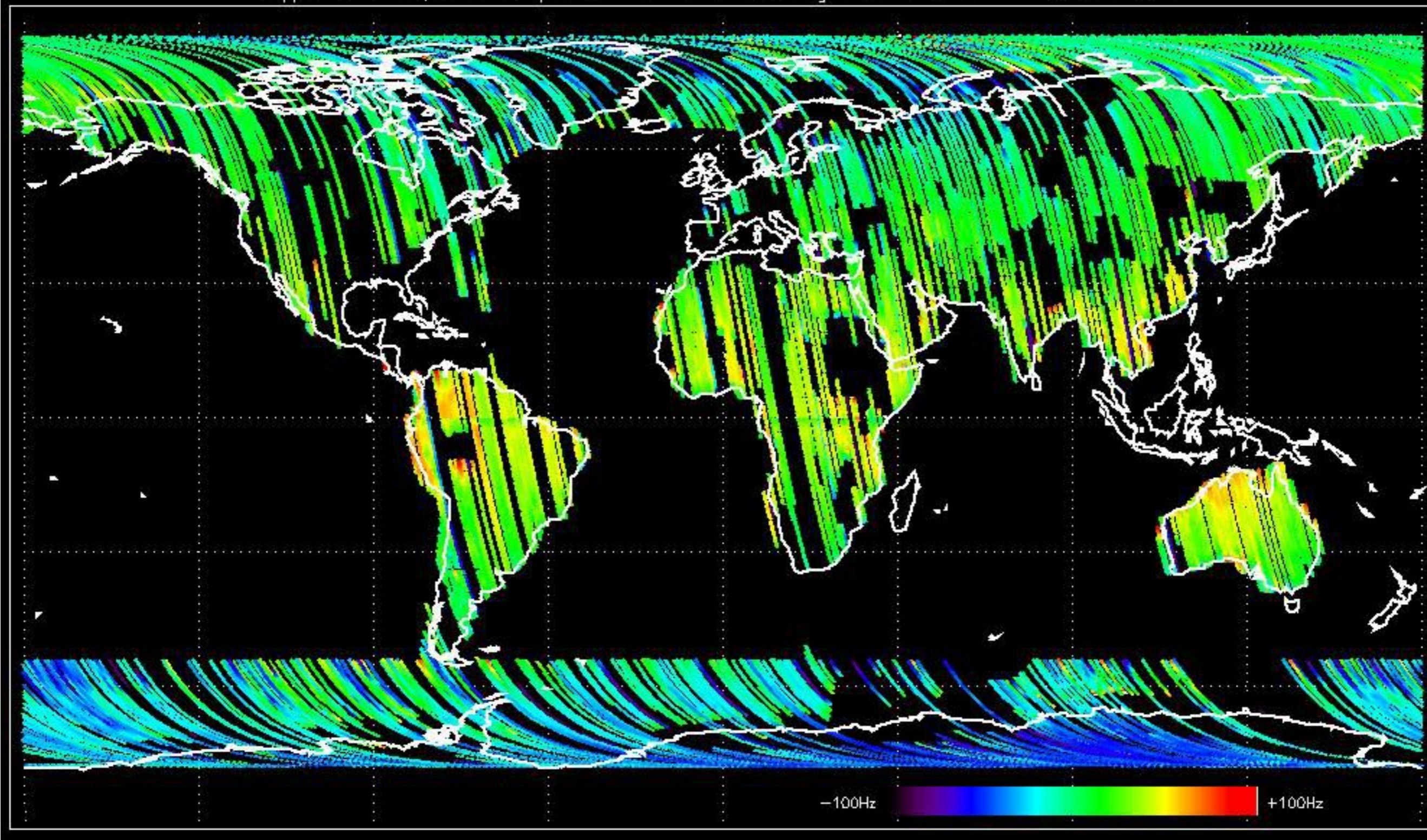


GM1 mode doppler

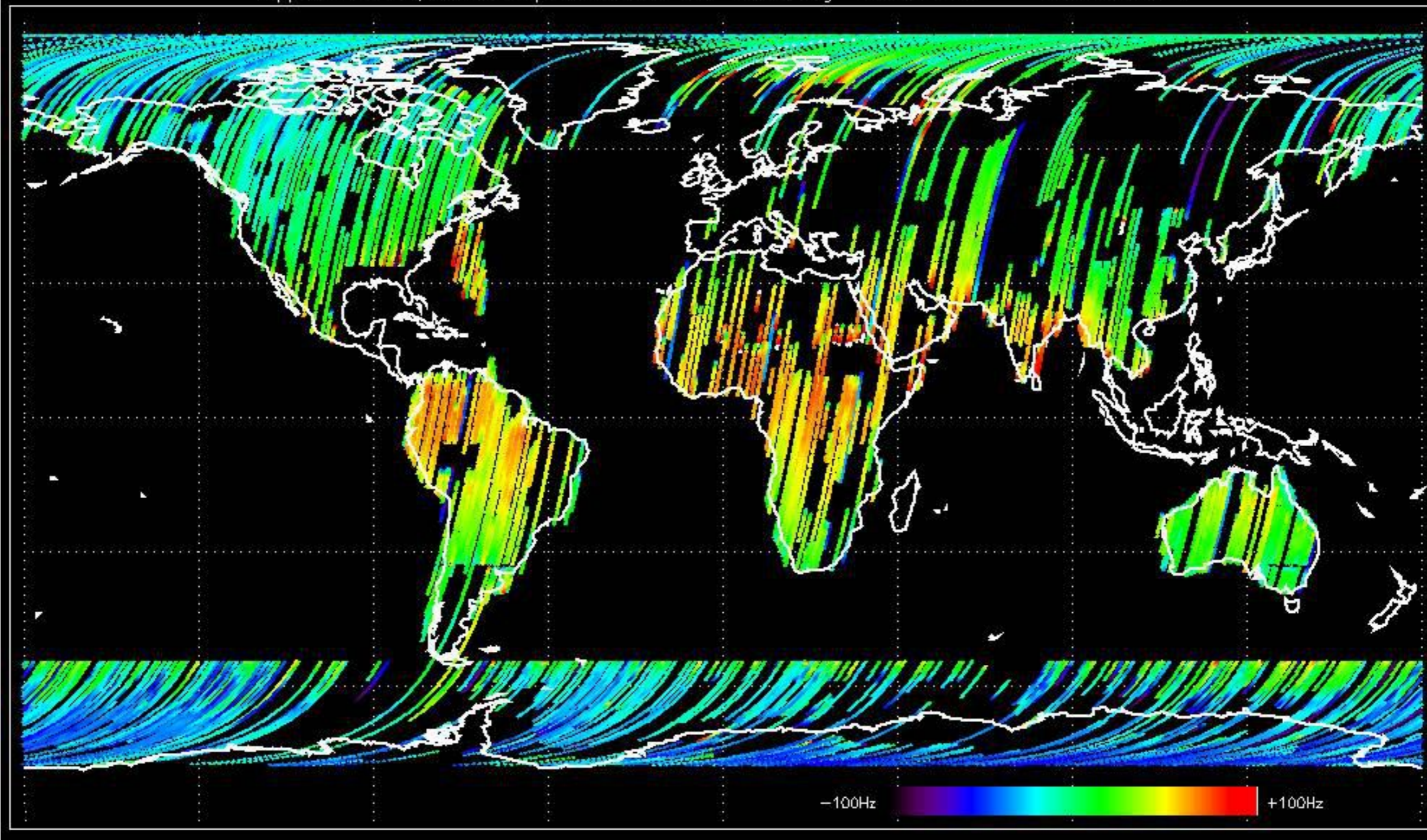




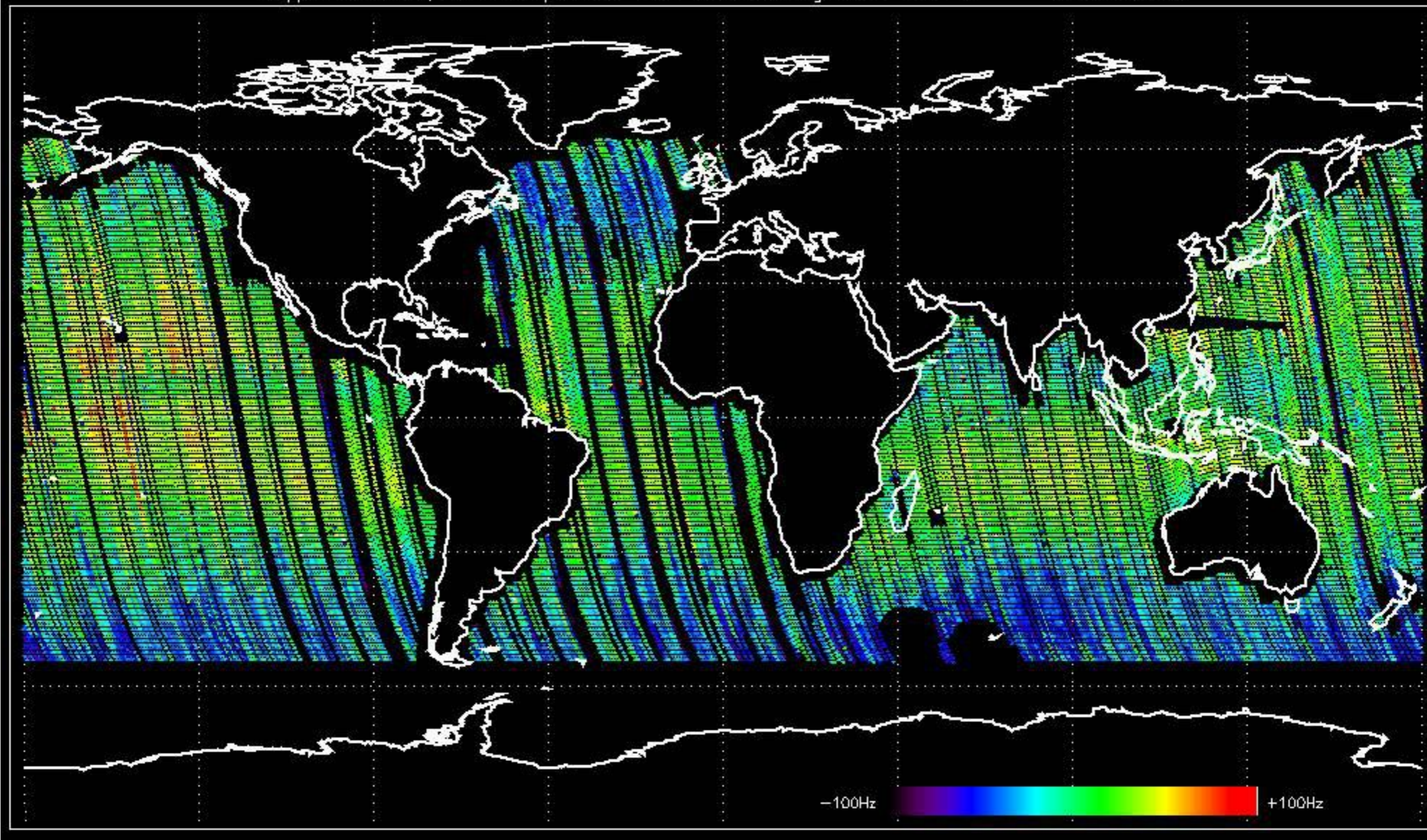
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.805619 Hz



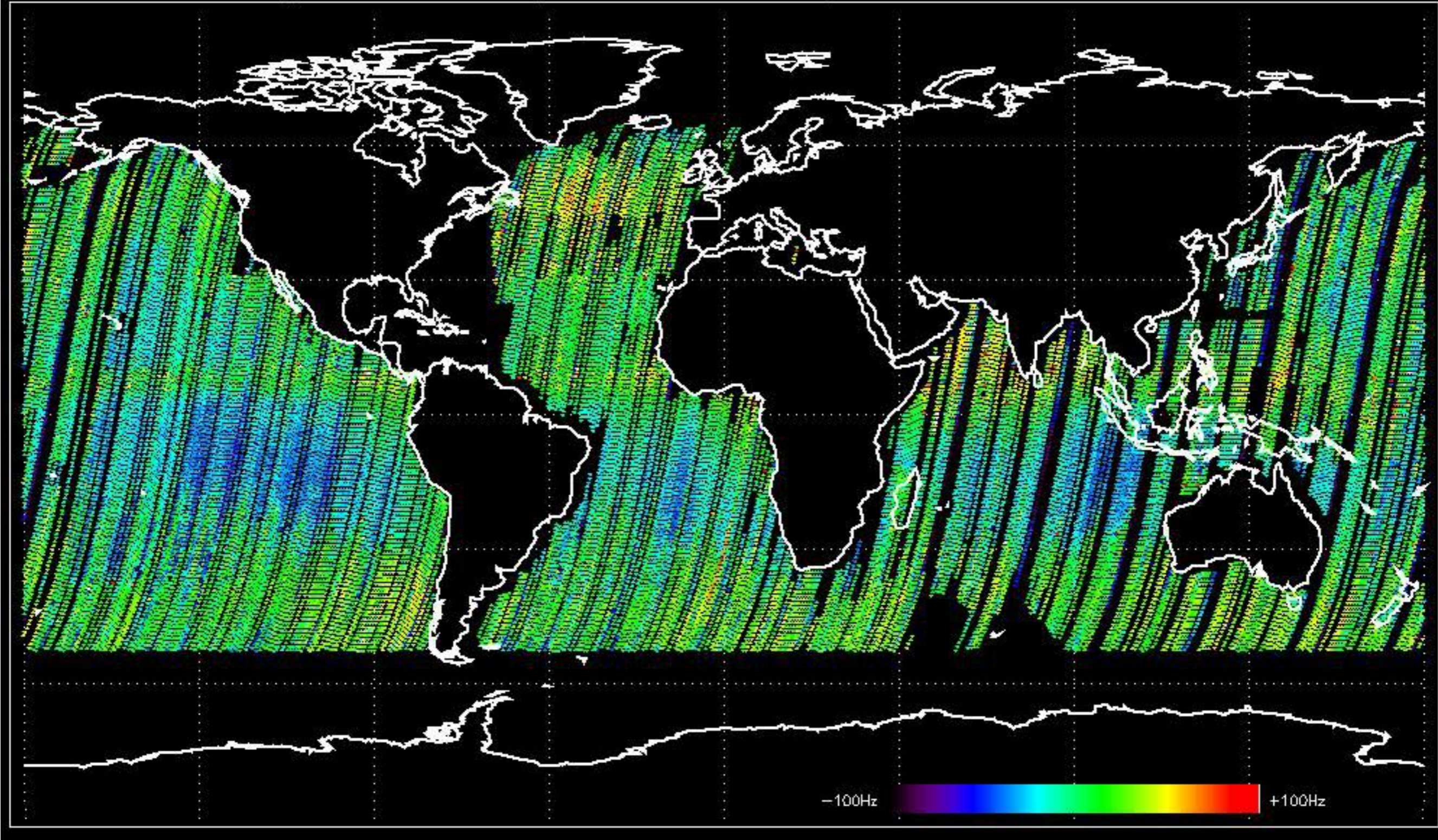
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.489784 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.1948350 Hz

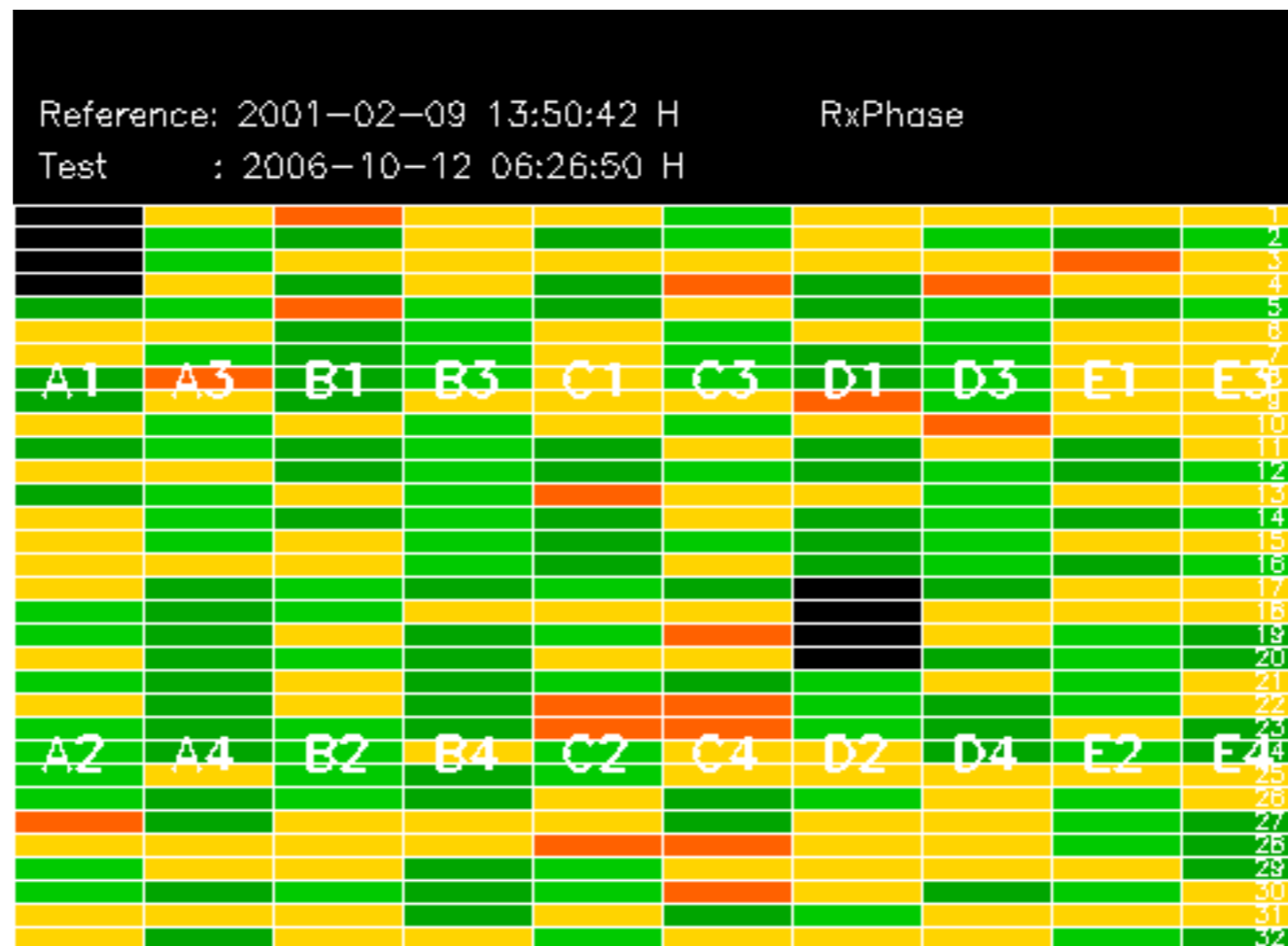


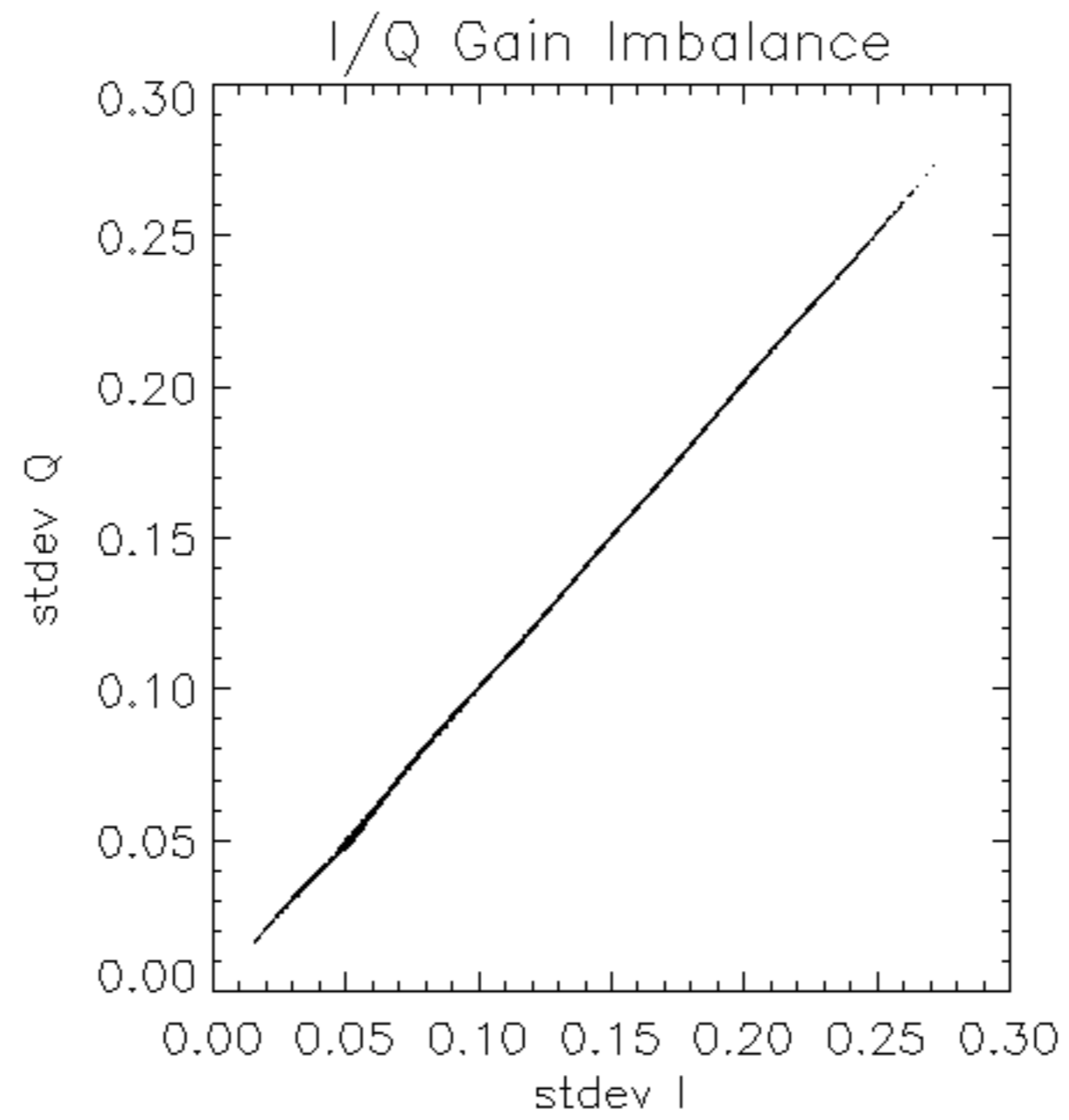
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -16.068279 Hz

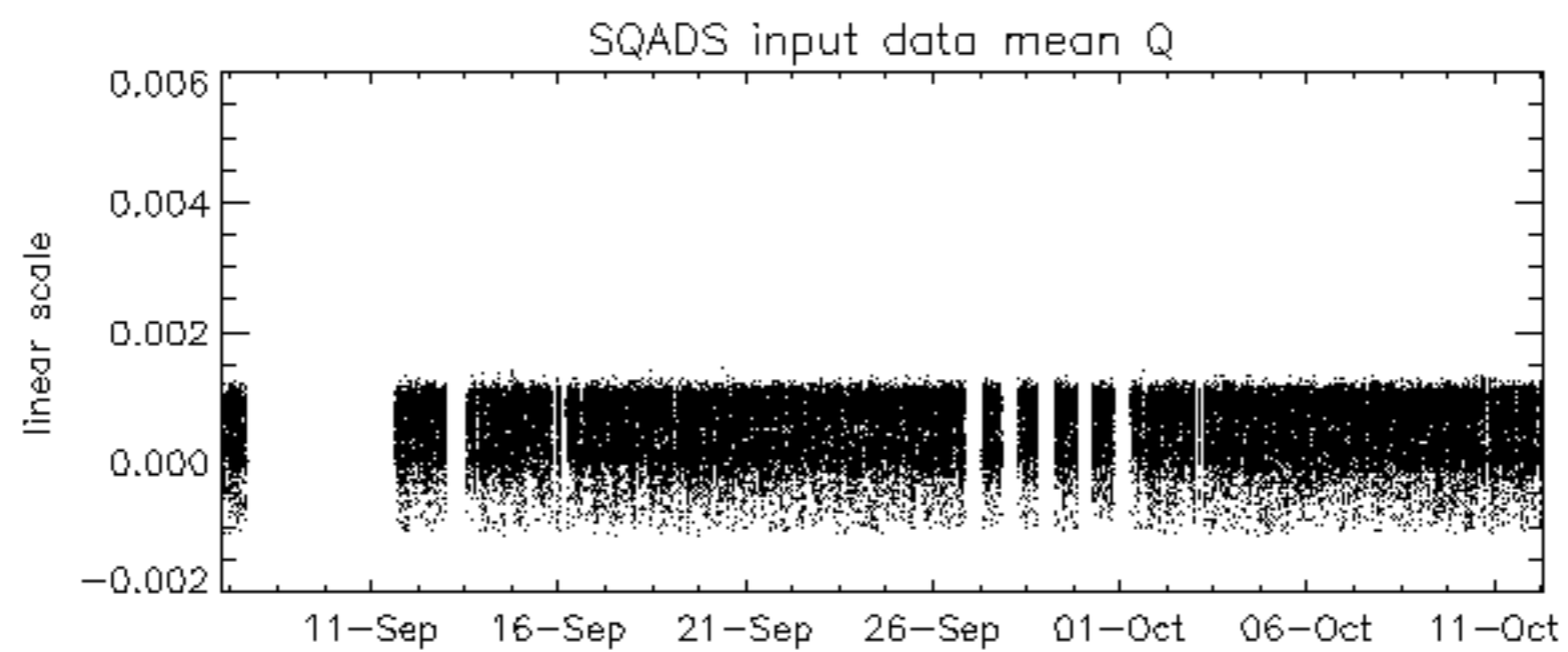
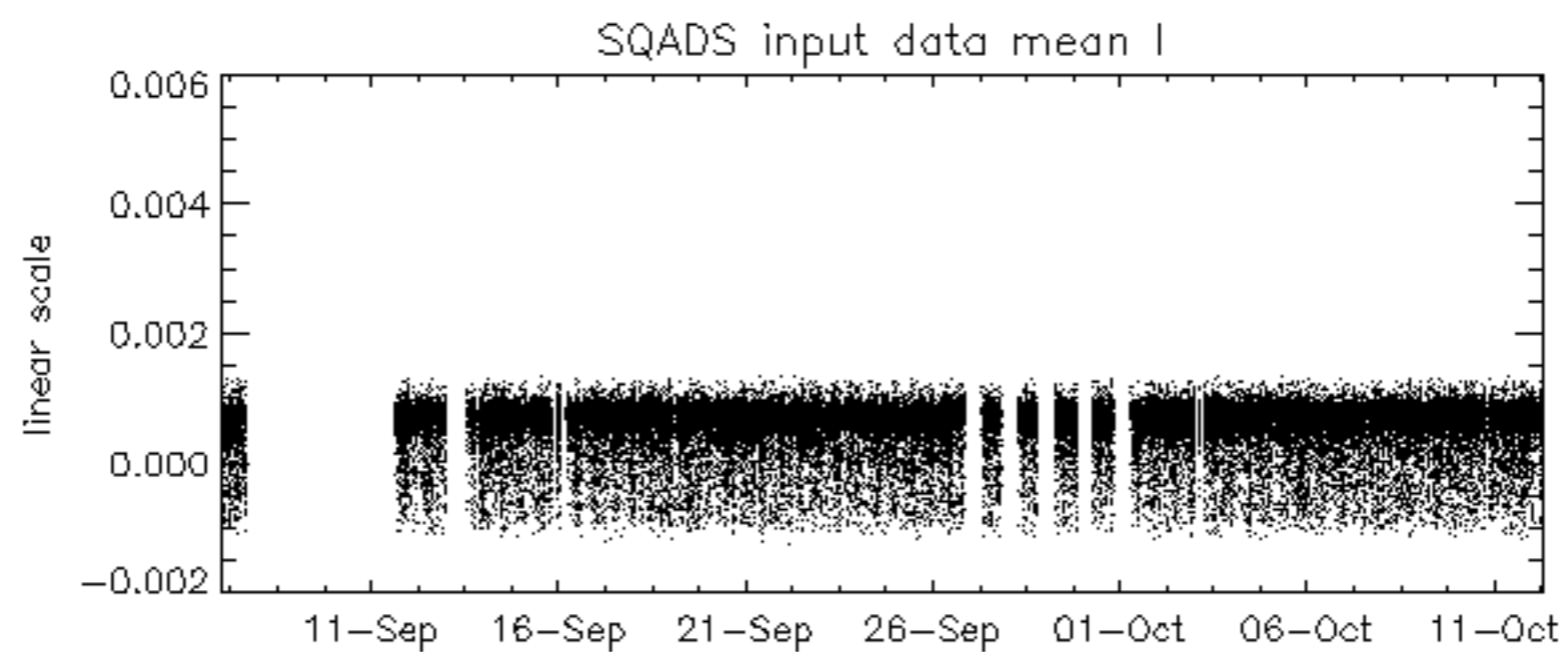
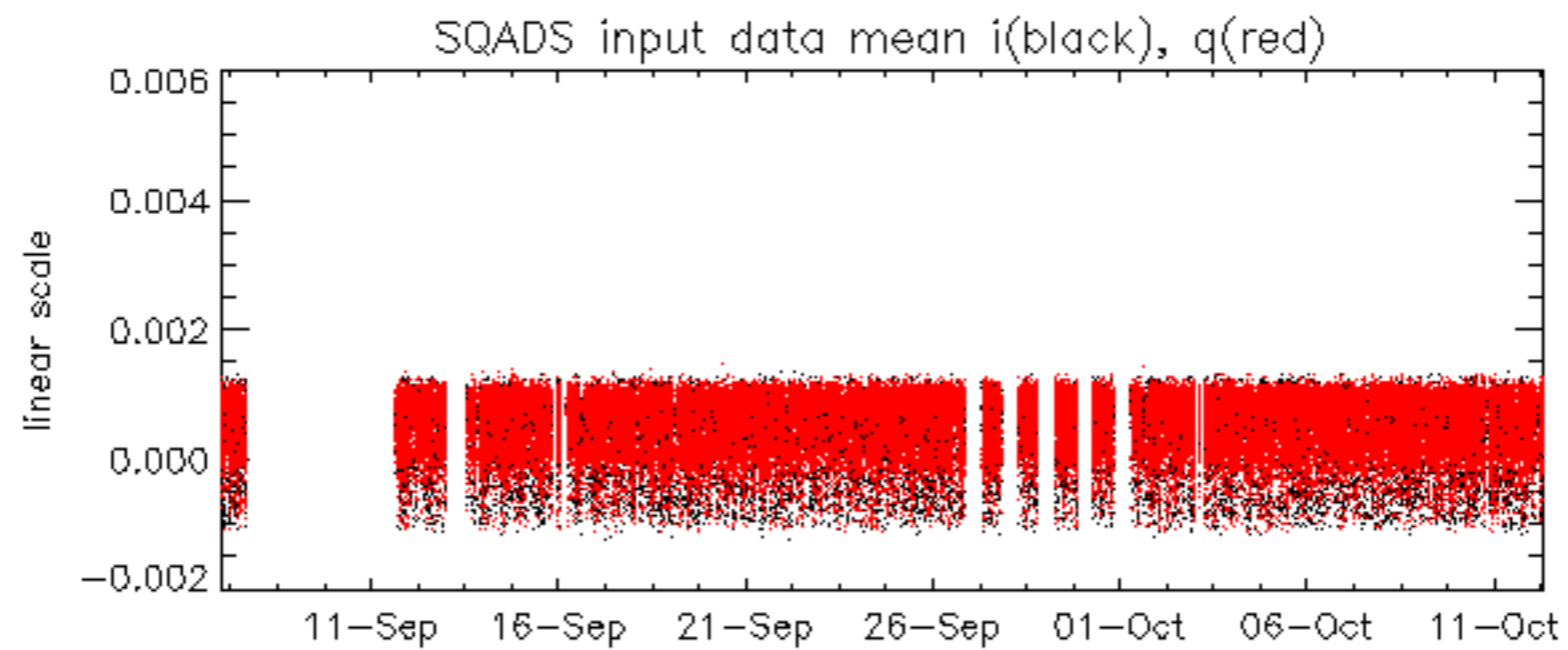


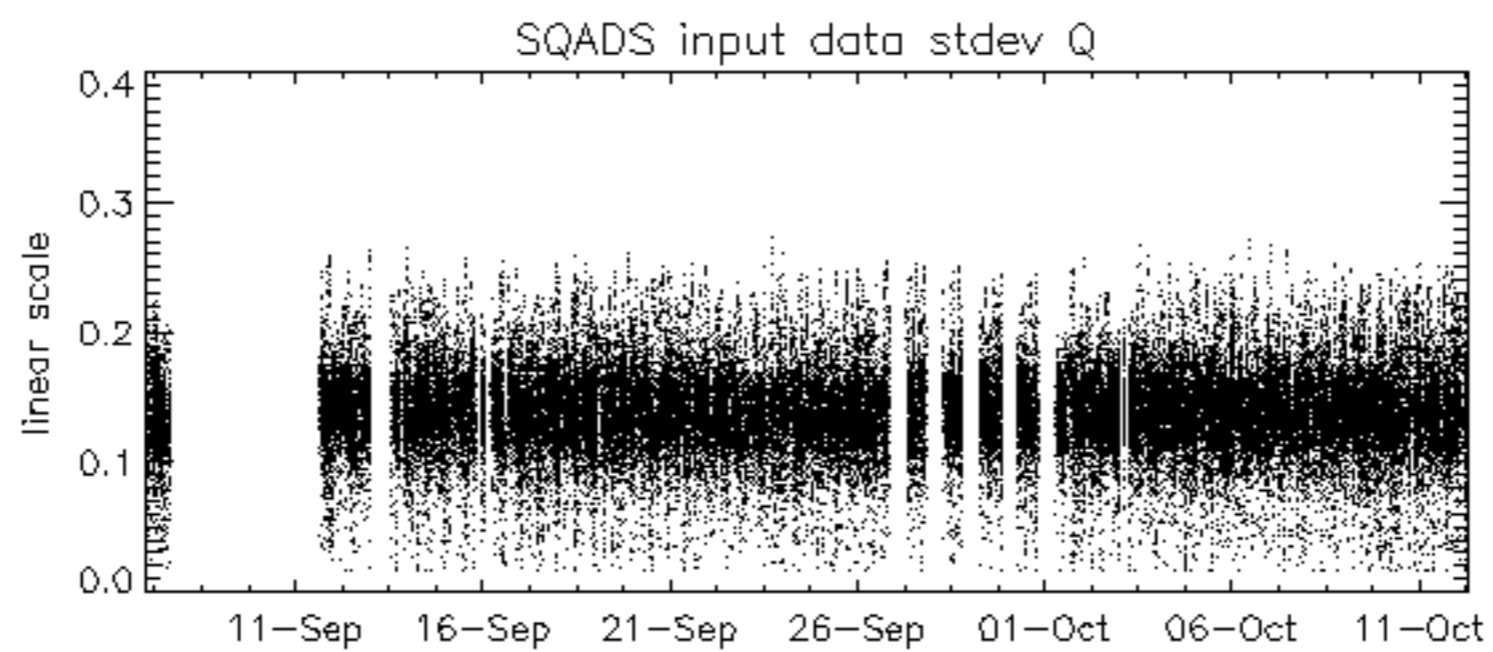
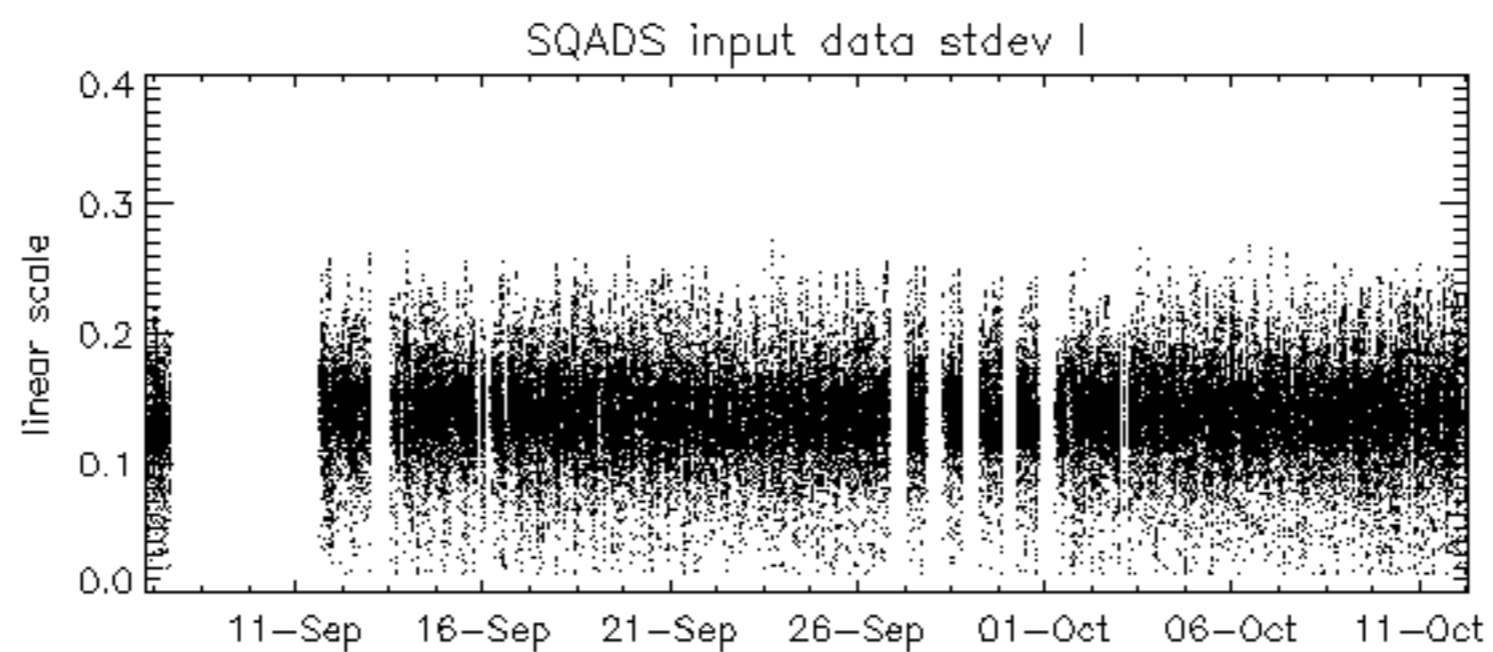
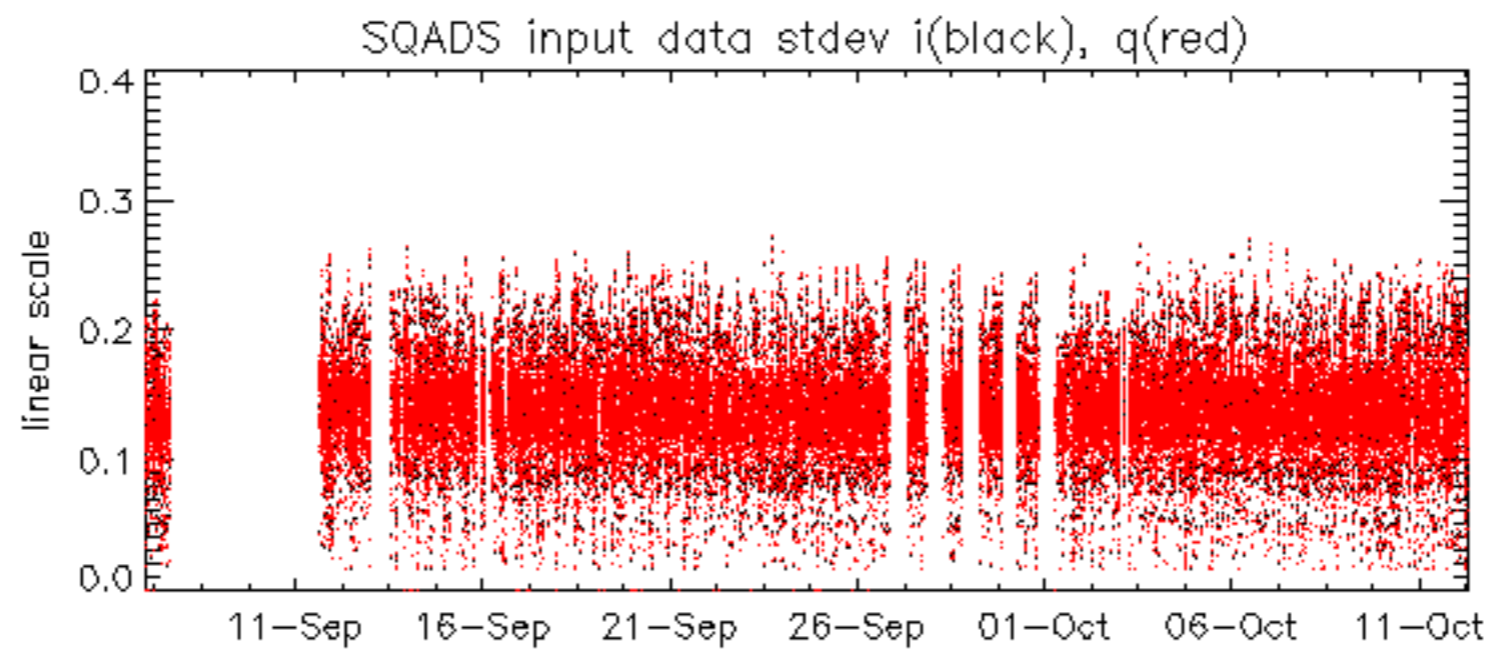
No anomalies observed on available MS products:

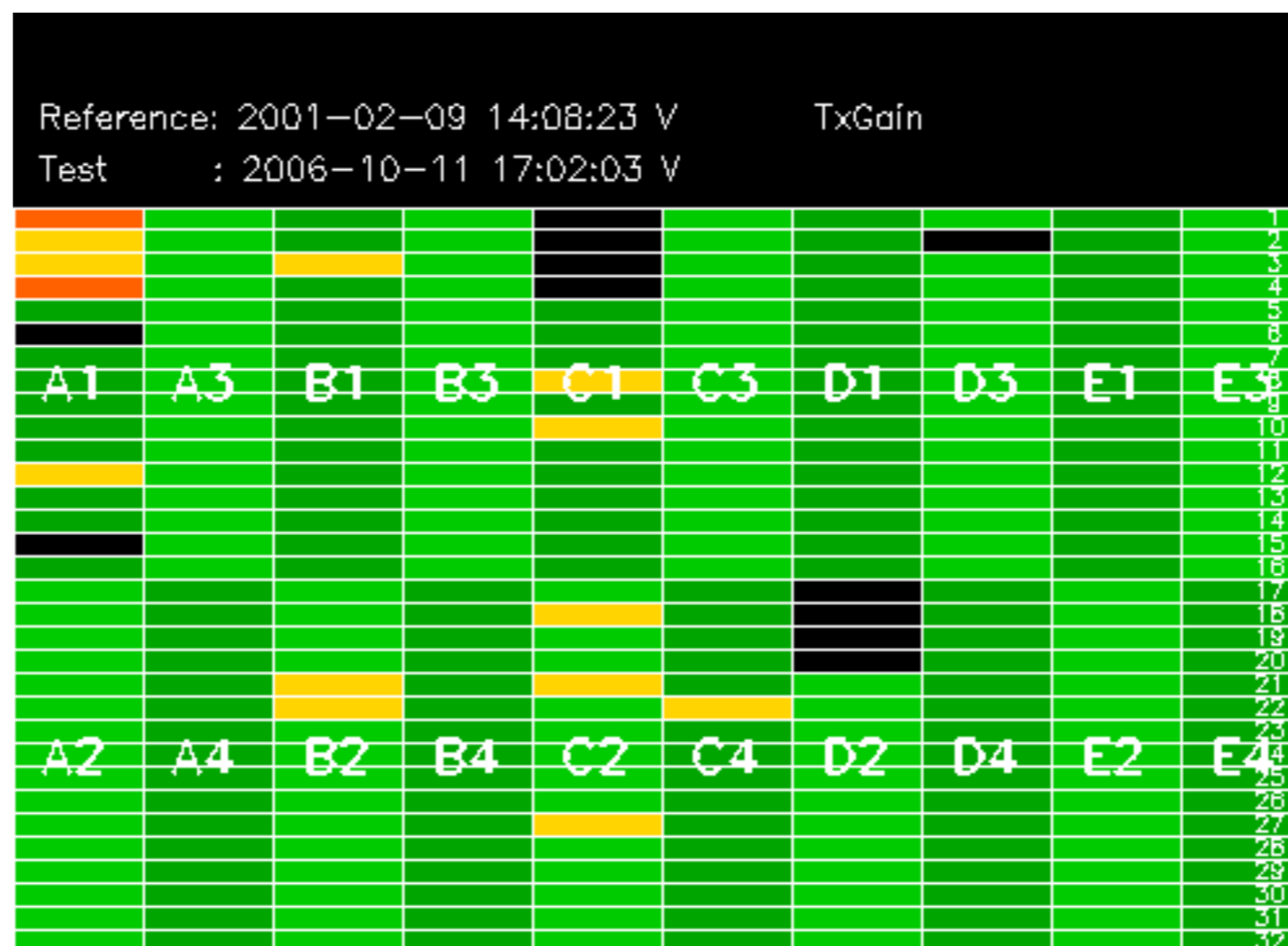
No anomalies observed.









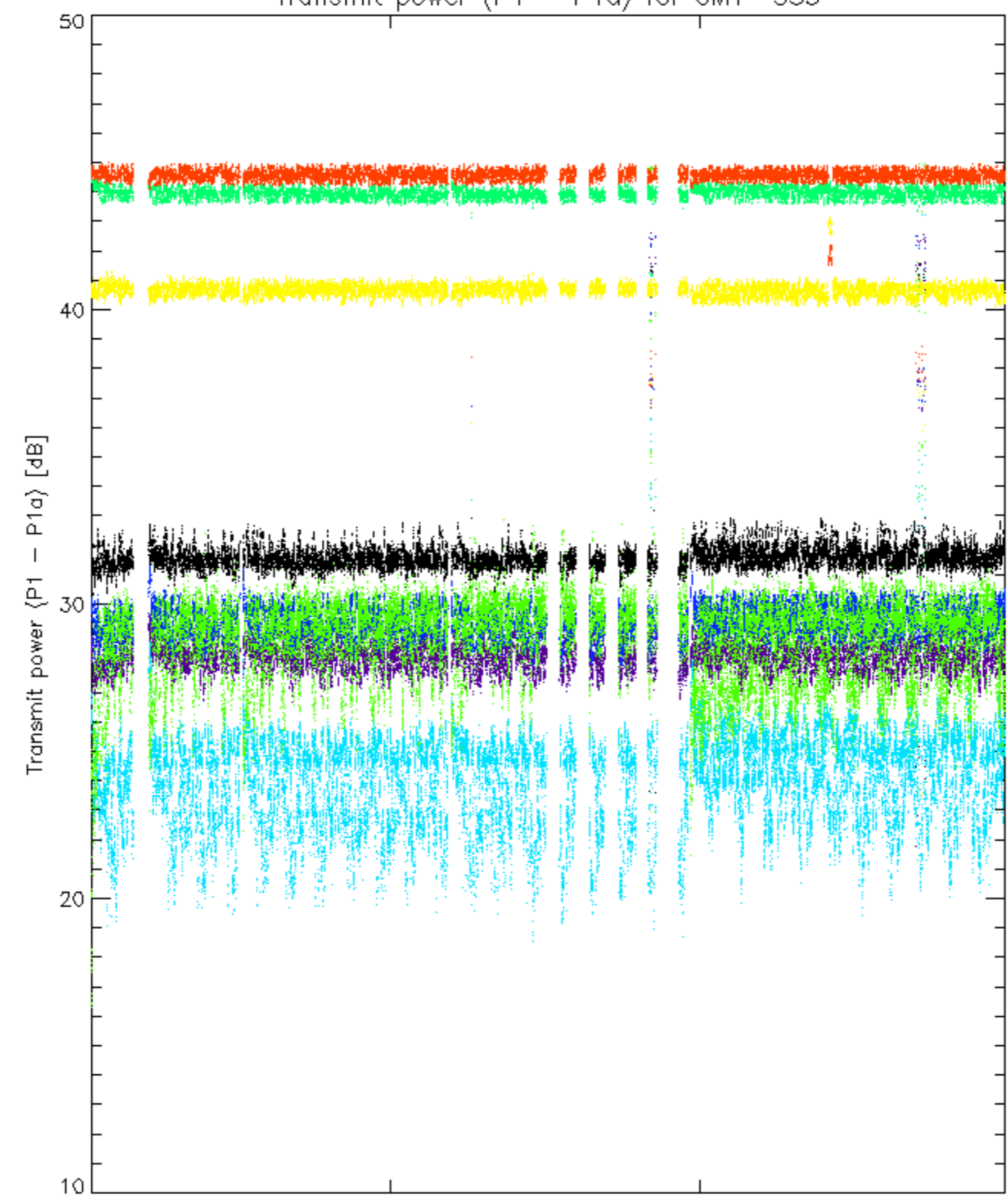


Summary of analysis for the last 3 days 2006101[012]

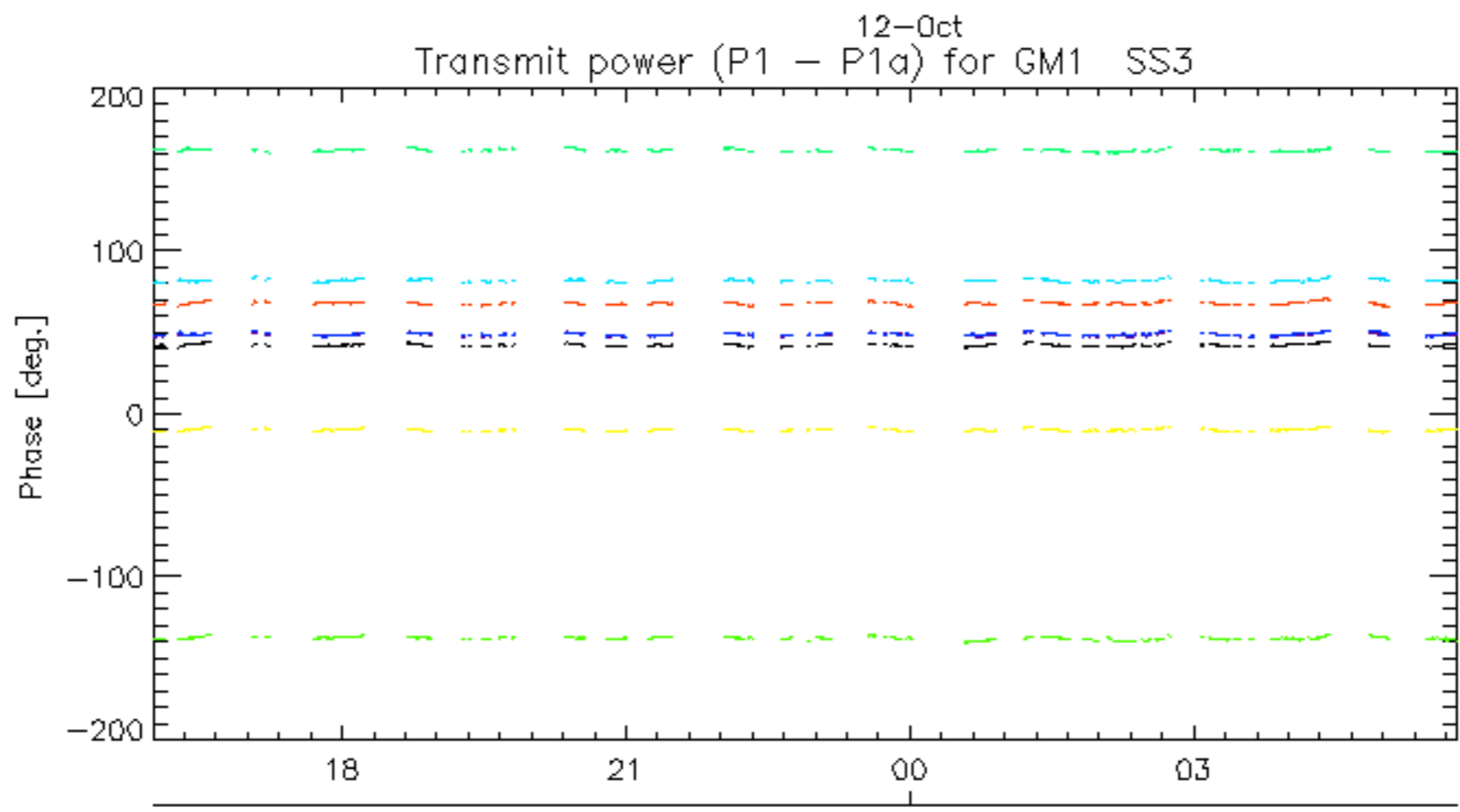
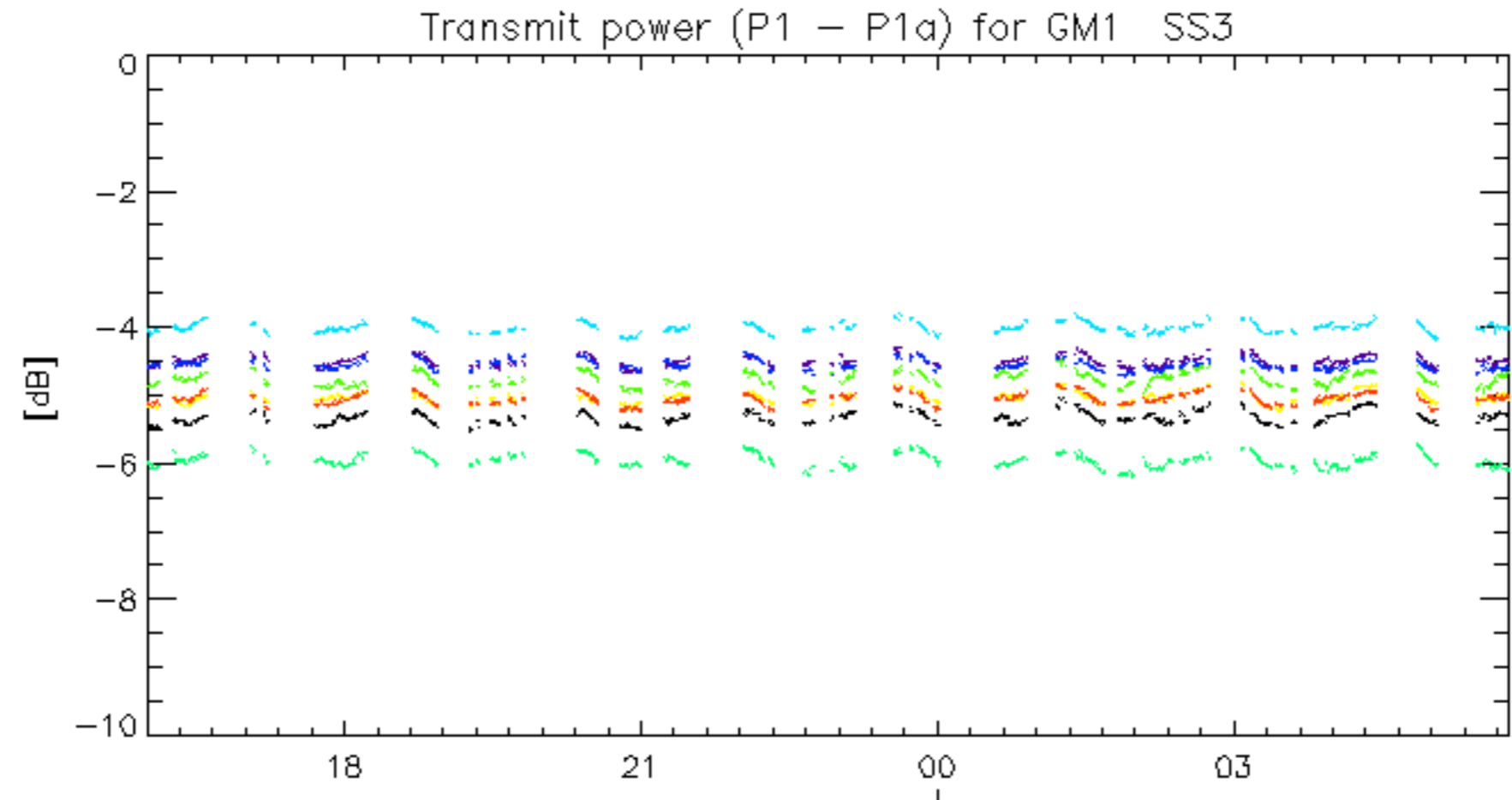
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061011_060049_000001152052_00020_24122_7000.N1	1	0
ASA_GM1_1PNPDK20061011_152004_000006522052_00025_24127_6288.N1	0	6
ASA_WSM_1PNPDE20061010_002924_000001462052_00002_24104_4027.N1	0	29
ASA_WSM_1PNPDE20061010_231135_000001152052_00016_24118_4051.N1	0	14
ASA_WSM_1PNPDE20061010_231135_000001152052_00016_24118_4059.N1	0	14
ASA_WSM_1PNPDE20061010_235746_000002072052_00016_24118_4062.N1	0	35

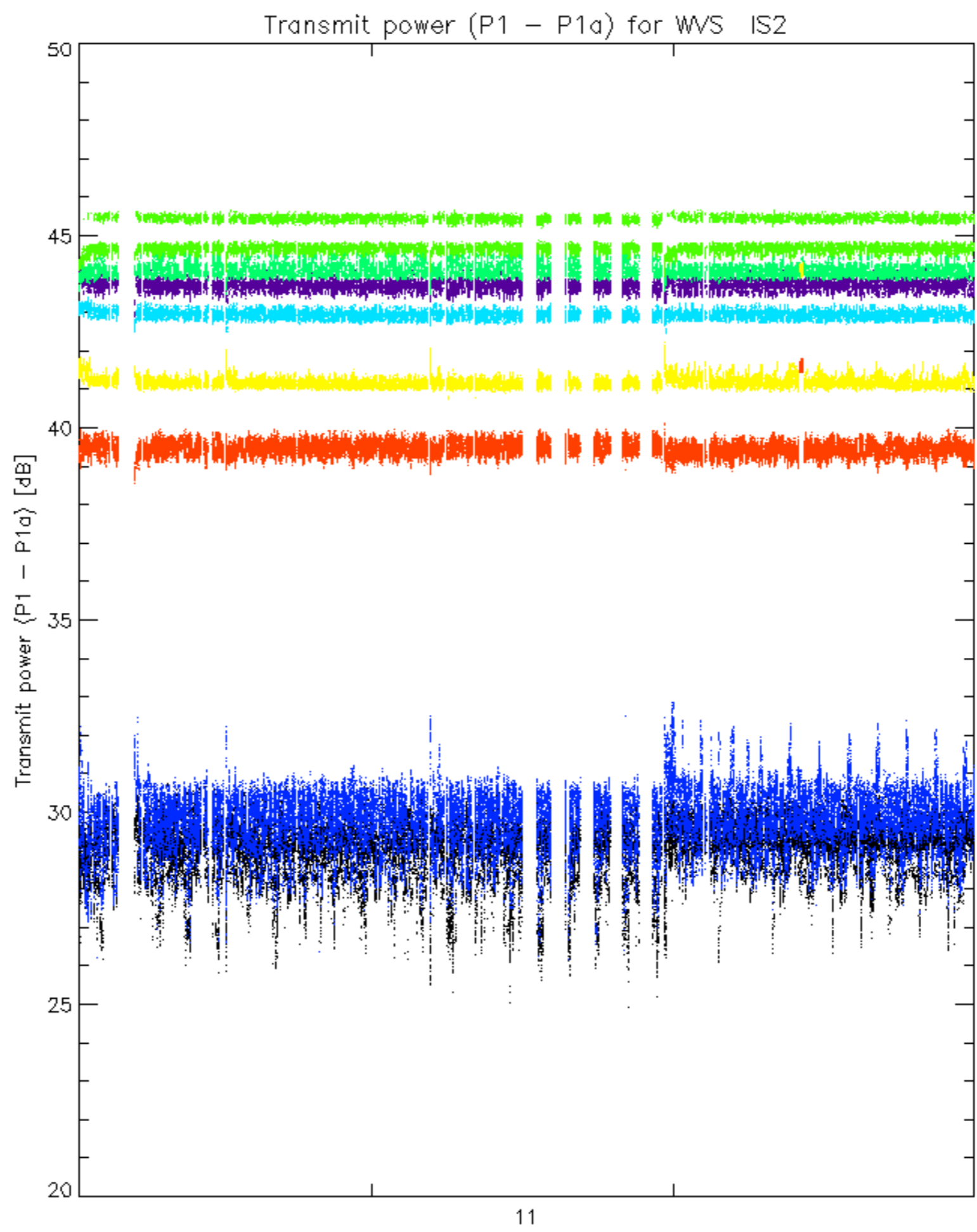
Transmit power (P1 - P1a) for GM1 SS3



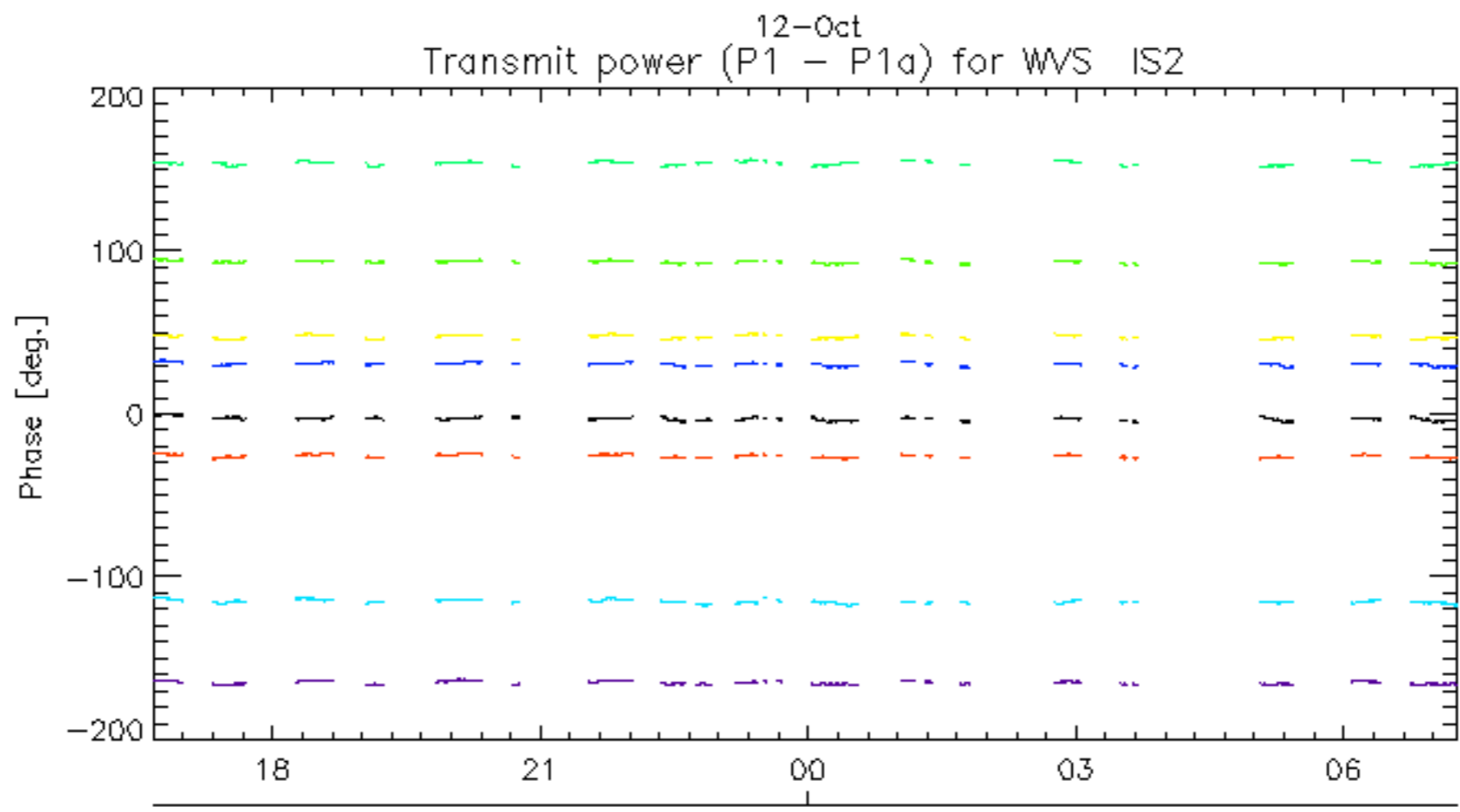
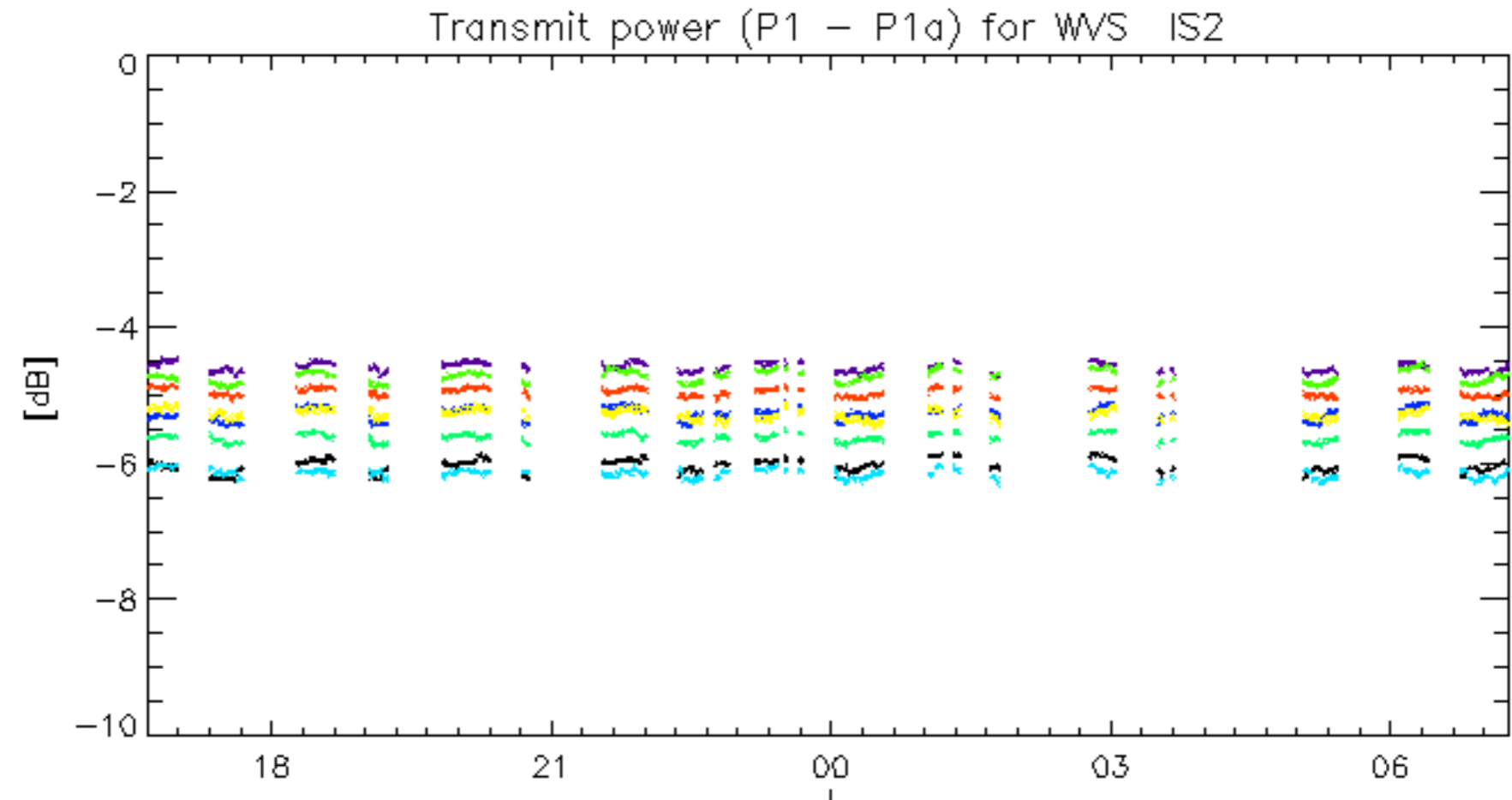
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



12-Oct
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.