

PRELIMINARY REPORT OF 051005

last update on Wed Oct 5 16:37:32 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 2005-10-04 00:00:00 to 2005-10-05 16:37:32

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	44	74	21	3	5
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	44	74	21	3	5
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	44	74	21	3	5
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	44	74	21	3	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	38	52	38	11	42
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	52	38	11	42
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	38	52	38	11	42
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	52	38	11	42

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	20051003 054052
H	20051004 050915

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

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	-3.520763	0.075657	-0.257580
7	P1	-3.011574	0.039836	0.475404
11	P1	-4.336181	0.157363	1.063146
15	P1	-5.897147	0.051488	-0.526098
19	P1	-3.286318	0.200643	0.816775
22	P1	-4.513319	0.024658	0.297137
26	P1	-4.521568	0.112580	0.848865
30	P1	-6.159188	0.596853	2.124722
3	P1	-15.864176	1.925244	0.715945
7	P1	-16.664513	5.135153	0.114735
11	P1	-18.828524	14.119349	9.253319
15	P1	-13.532097	10.303609	-1.485766
19	P1	-13.826887	0.295444	1.225453
22	P1	-17.254564	24.787769	1.329877
26	P1	-17.921404	22.790066	3.430197
30	P1	-17.748007	9.489386	3.545927

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.813944	0.103416	-0.242631
7	P2	-22.470427	0.297623	-1.175586
11	P2	-15.766623	2.782969	-4.617924
15	P2	-7.187737	0.121071	-0.188149
19	P2	-9.216543	0.211367	0.458125
22	P2	-17.361629	0.270490	-1.315403
26	P2	-16.239191	0.140518	0.646974
30	P2	-19.392609	0.250401	-1.065946

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172248	0.004631	-0.031942
7	P3	-8.172248	0.004631	-0.031942
11	P3	-8.172248	0.004631	-0.031942
15	P3	-8.172248	0.004631	-0.031942
19	P3	-8.172248	0.004631	-0.031942
22	P3	-8.172248	0.004631	-0.031942
26	P3	-8.172248	0.004631	-0.031942
30	P3	-8.172248	0.004631	-0.031942

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	-3.249516	0.297188	-1.391376
7	P1	-2.958389	0.072249	0.275530
11	P1	-3.309853	0.343309	1.749743
15	P1	-3.492714	0.034999	0.378191
19	P1	-3.370317	0.074810	0.297095
22	P1	-5.232686	0.203557	0.598774
26	P1	-6.107092	0.839329	1.887591
30	P1	-5.416363	0.474830	1.258852
3	P1	-11.463665	0.498255	-0.237912
7	P1	-11.571865	21.779160	3.143167
11	P1	-12.888313	42.105995	6.880697
15	P1	-12.829291	36.829212	4.475809
19	P1	-15.313421	0.228386	-0.168029
22	P1	-22.163113	6.686959	7.120866
26	P1	-17.095602	6.010672	-1.515570
30	P1	-19.617294	1.996699	2.059157

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.592850	0.065209	-0.452226
7	P2	-22.724745	0.335169	-1.394201
11	P2	-11.033010	1.189910	-3.113348
15	P2	-4.947813	0.049963	0.292637
19	P2	-6.774096	0.119281	-0.229019
22	P2	-7.685278	0.282697	-1.551235
26	P2	-23.884882	0.042908	0.181051
30	P2	-22.060963	0.065550	-0.084656

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014157	0.002955	-0.026968
7	P3	-8.014178	0.002965	-0.027438
11	P3	-8.013975	0.002963	-0.027035
15	P3	-8.014042	0.002963	-0.027138
19	P3	-8.014196	0.002958	-0.027072
22	P3	-8.014039	0.002960	-0.027240
26	P3	-8.014247	0.002959	-0.027396
30	P3	-8.014134	0.002967	-0.027088

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	0.000524386
	stdev	1.87807e-07
MEAN Q	mean	0.000522706
	stdev	2.18542e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.134616
	stdev	0.00107799
STDEV Q	mean	0.134927
	stdev	0.00109261



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005100[345]

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_1PNPDE20051004_003705_000001542041_00202_18793_7333.N1	1	0
ASA_IMM_1PNPDK20051004_123413_000000812041_00210_18801_5176.N1	1	0
ASA_GM1_1PNPDK20051004_092122_000006762041_00208_18799_7351.N1	0	15
ASA_GM1_1PNPDK20051004_151128_000011352041_00211_18802_7392.N1	0	9
ASA_WSM_1PNPDE20051003_020026_000000852041_00189_18780_2057.N1	0	22
ASA_WSM_1PNPDE20051003_043835_000001282041_00191_18782_2079.N1	0	37
ASA_WSM_1PNPDE20051003_162343_000000912041_00198_18789_2129.N1	0	58
ASA_WSM_1PNPDE20051005_015357_000001592041_00218_18809_2400.N1	0	48
ASA_APM_1PNPDE20051004_141145_000000612041_00211_18802_1628.N1	0	22



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"/>

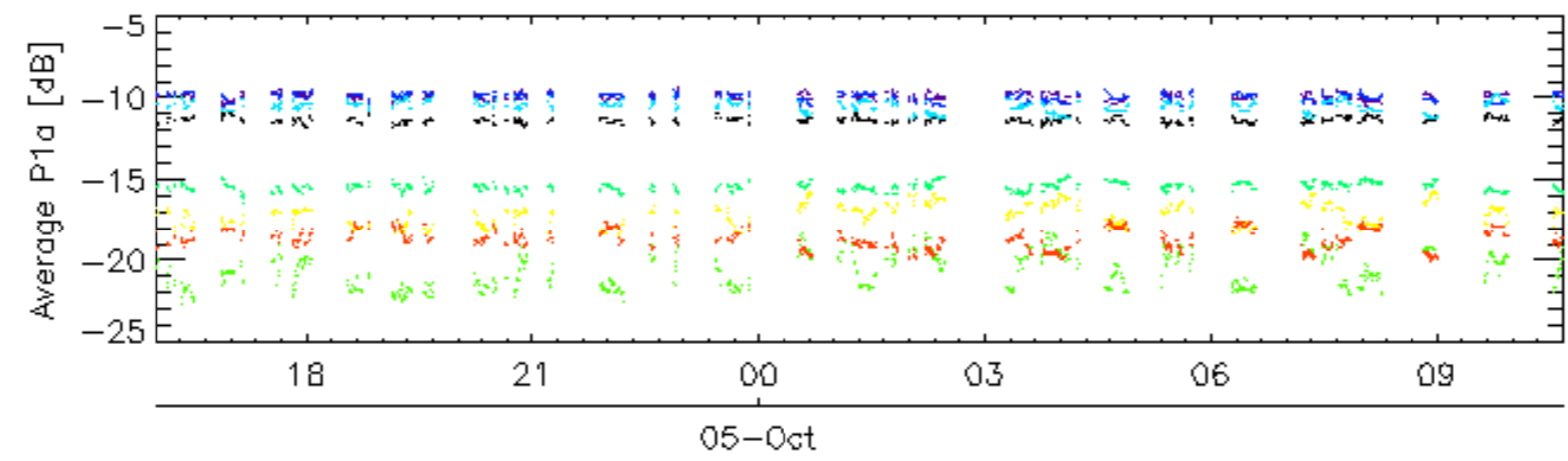
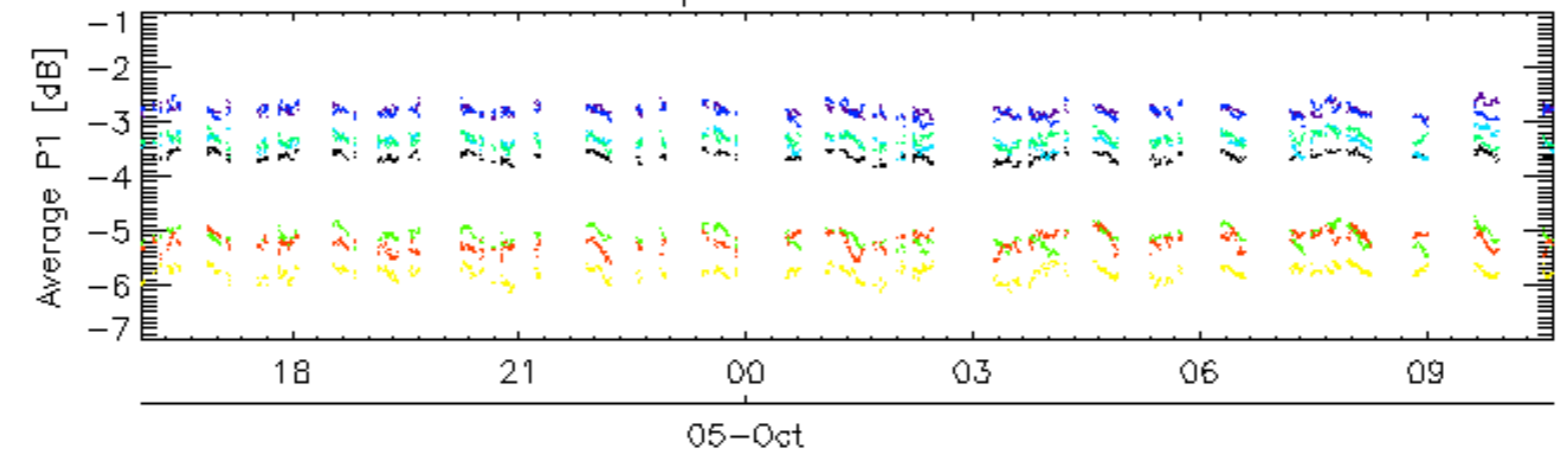
Descending

7.6 - Doppler evolution versus ANX for GM1

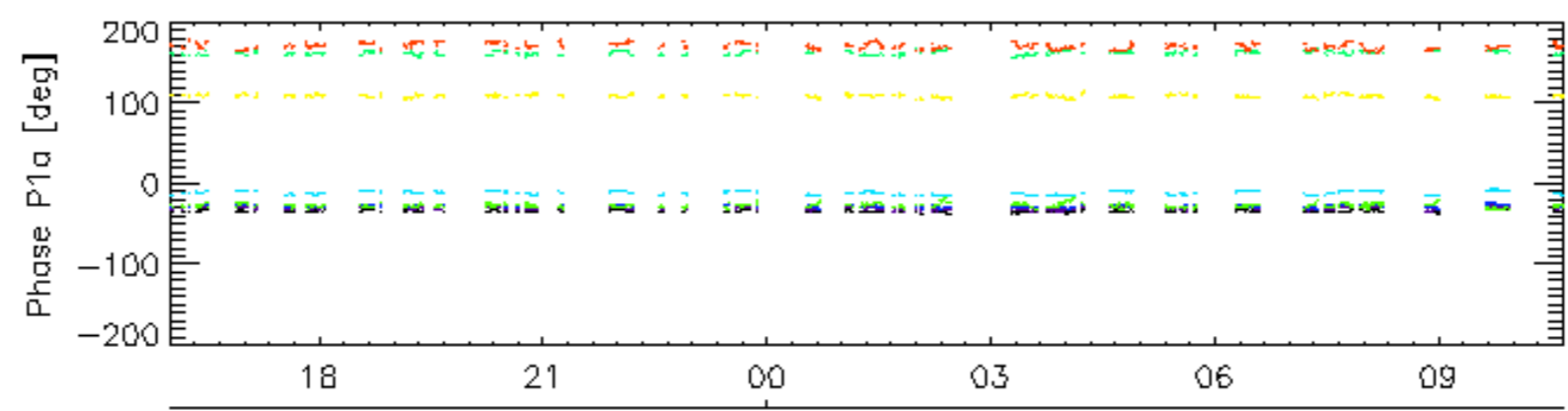
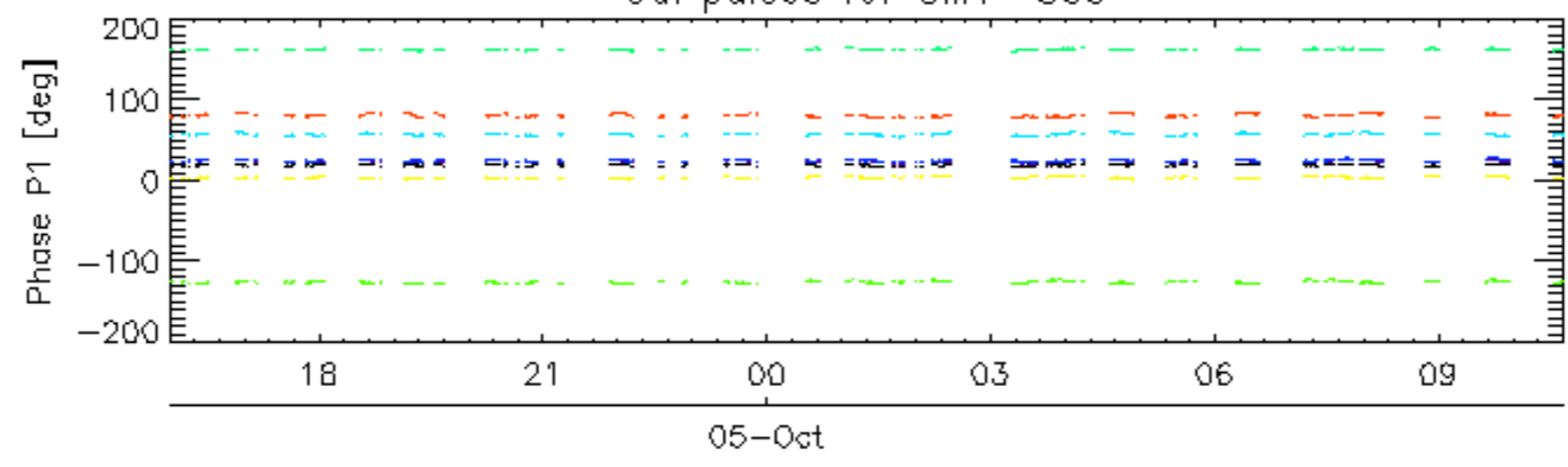
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

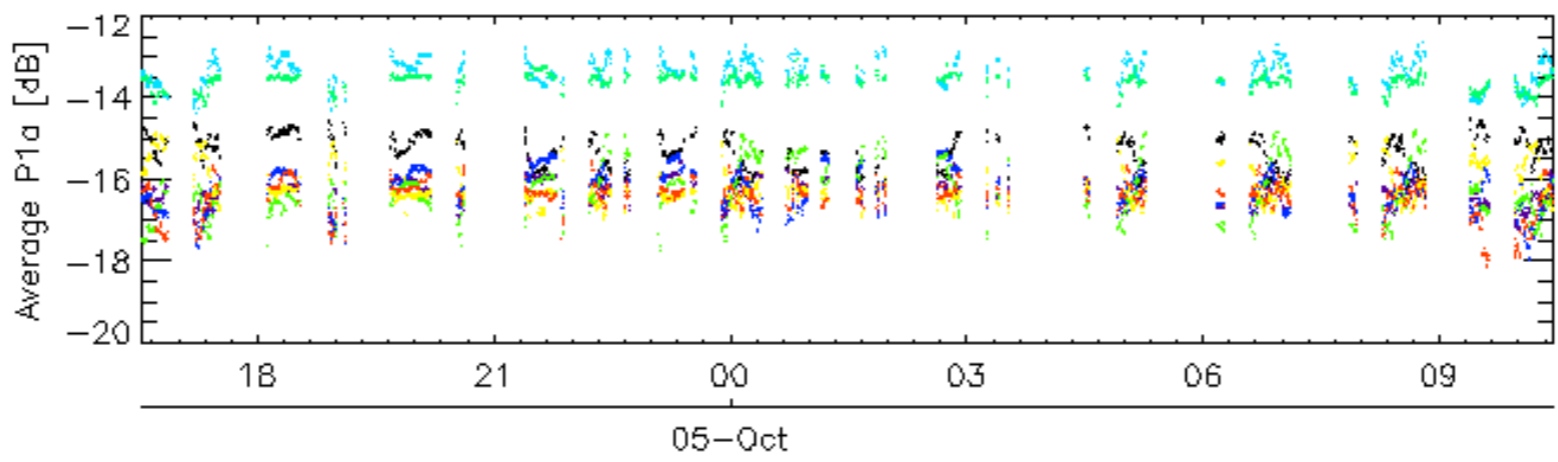
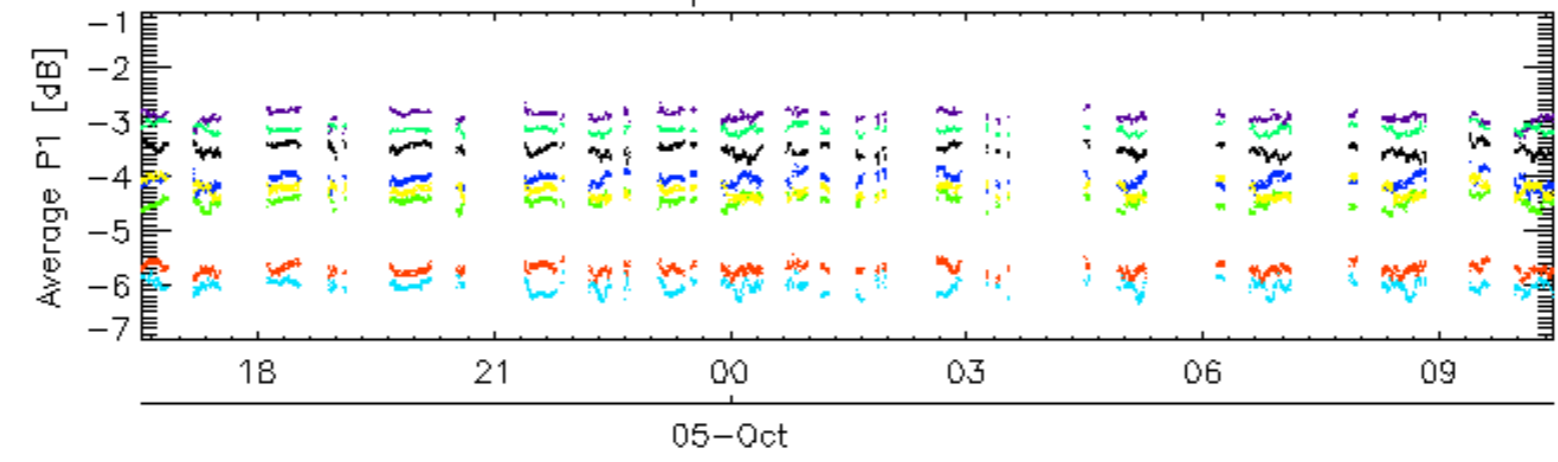


Cal pulses for GM1 SS3

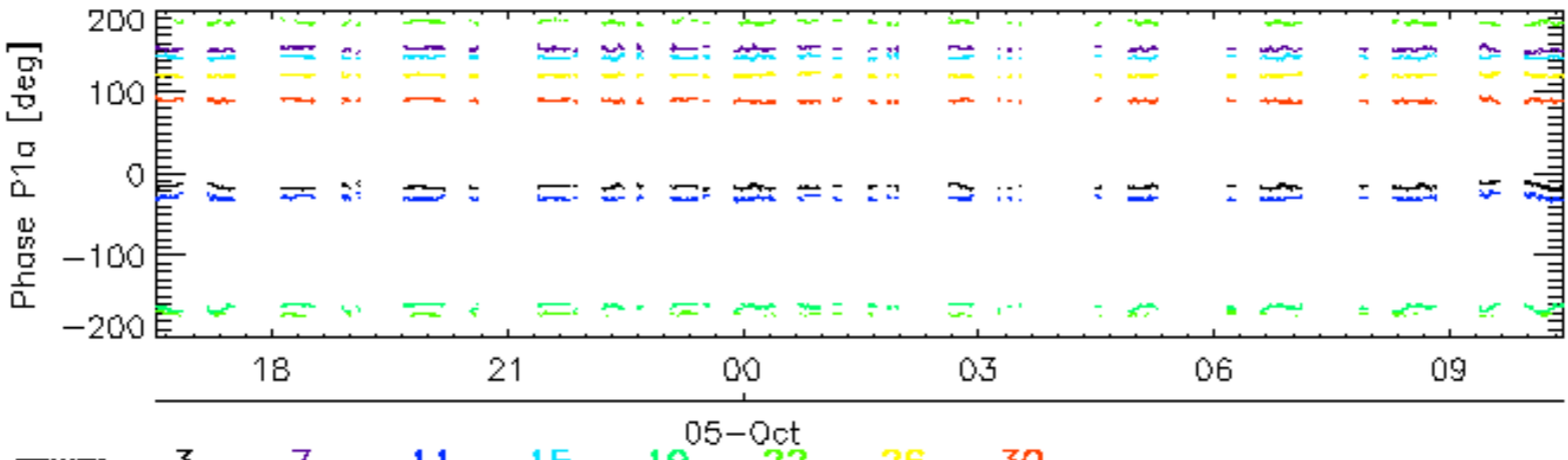
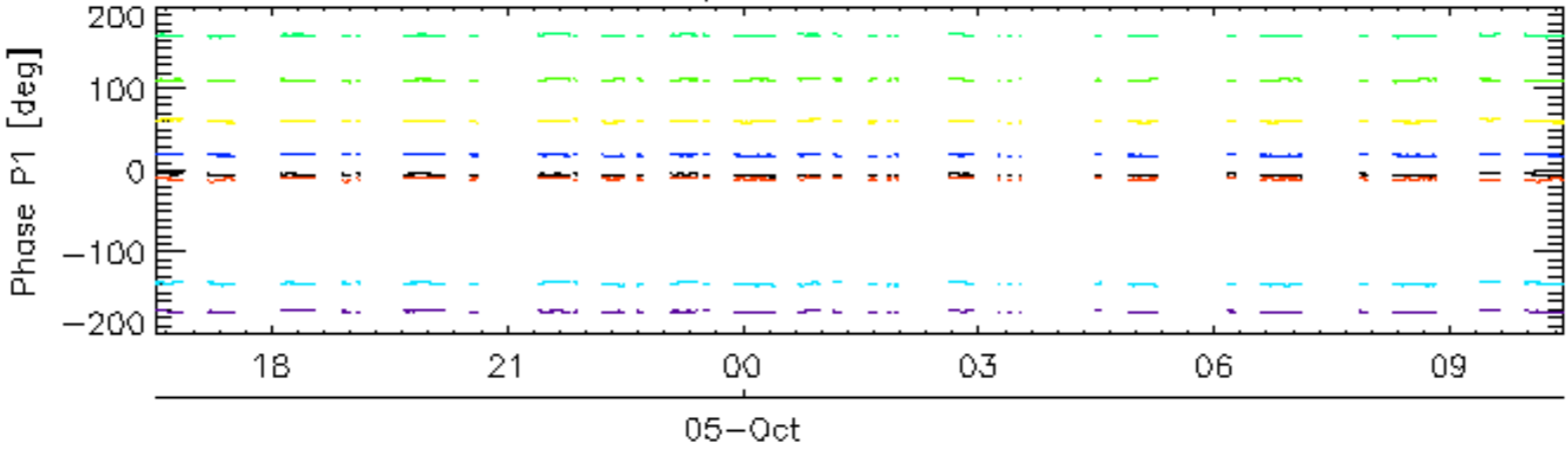


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

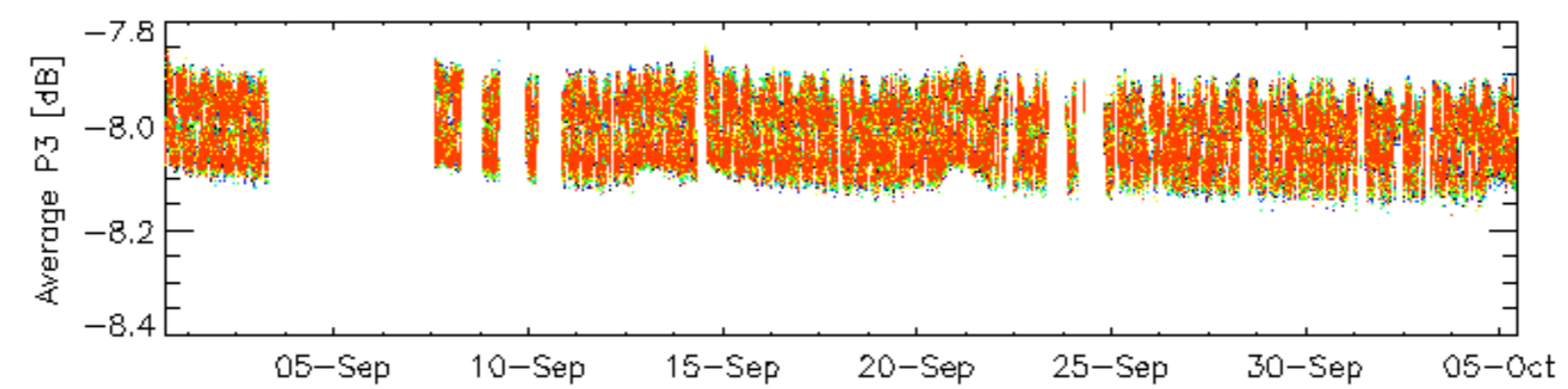
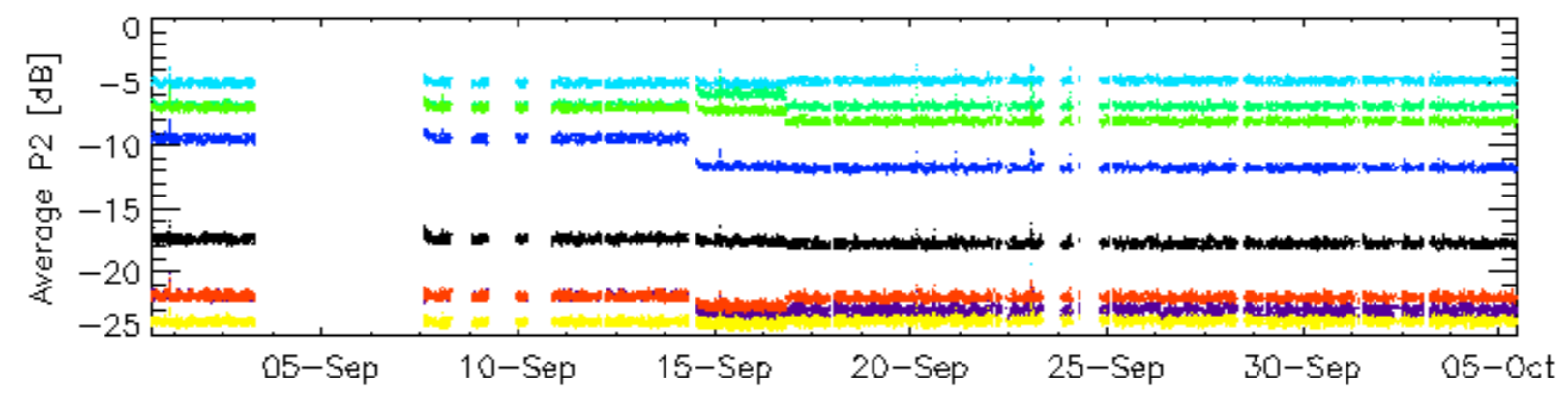
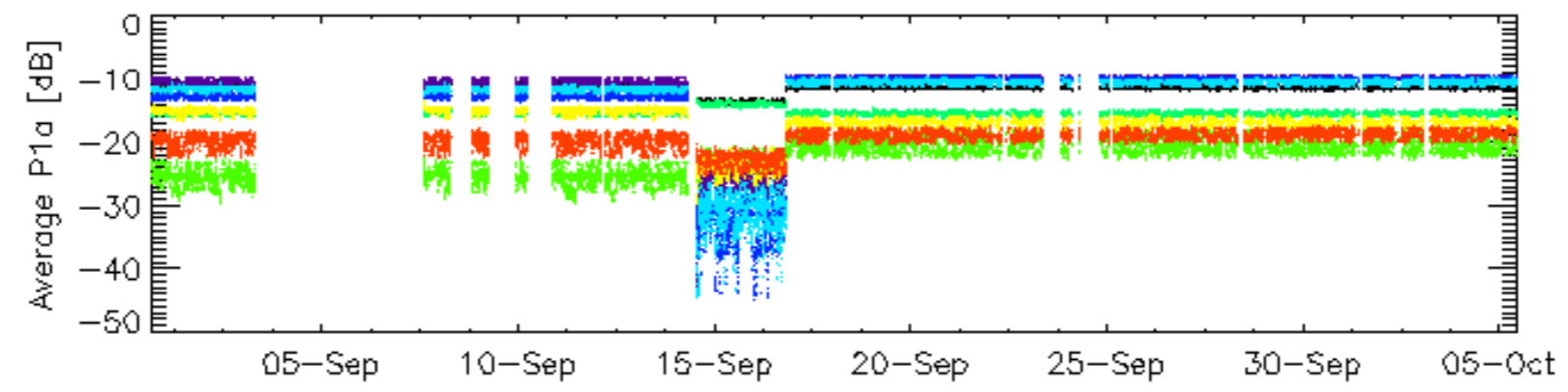
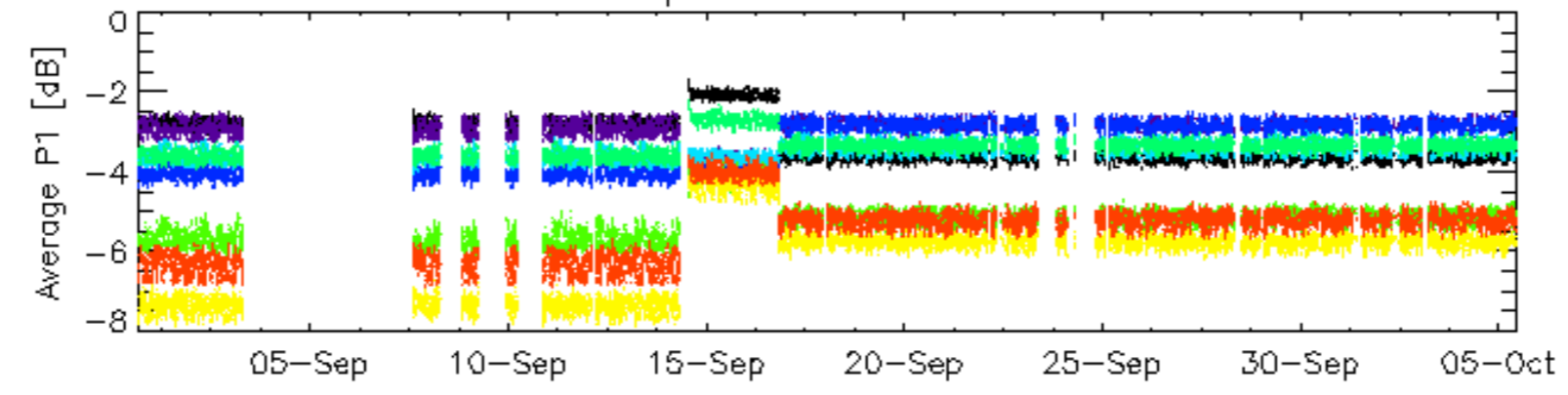


Cal pulses for WVS IS2



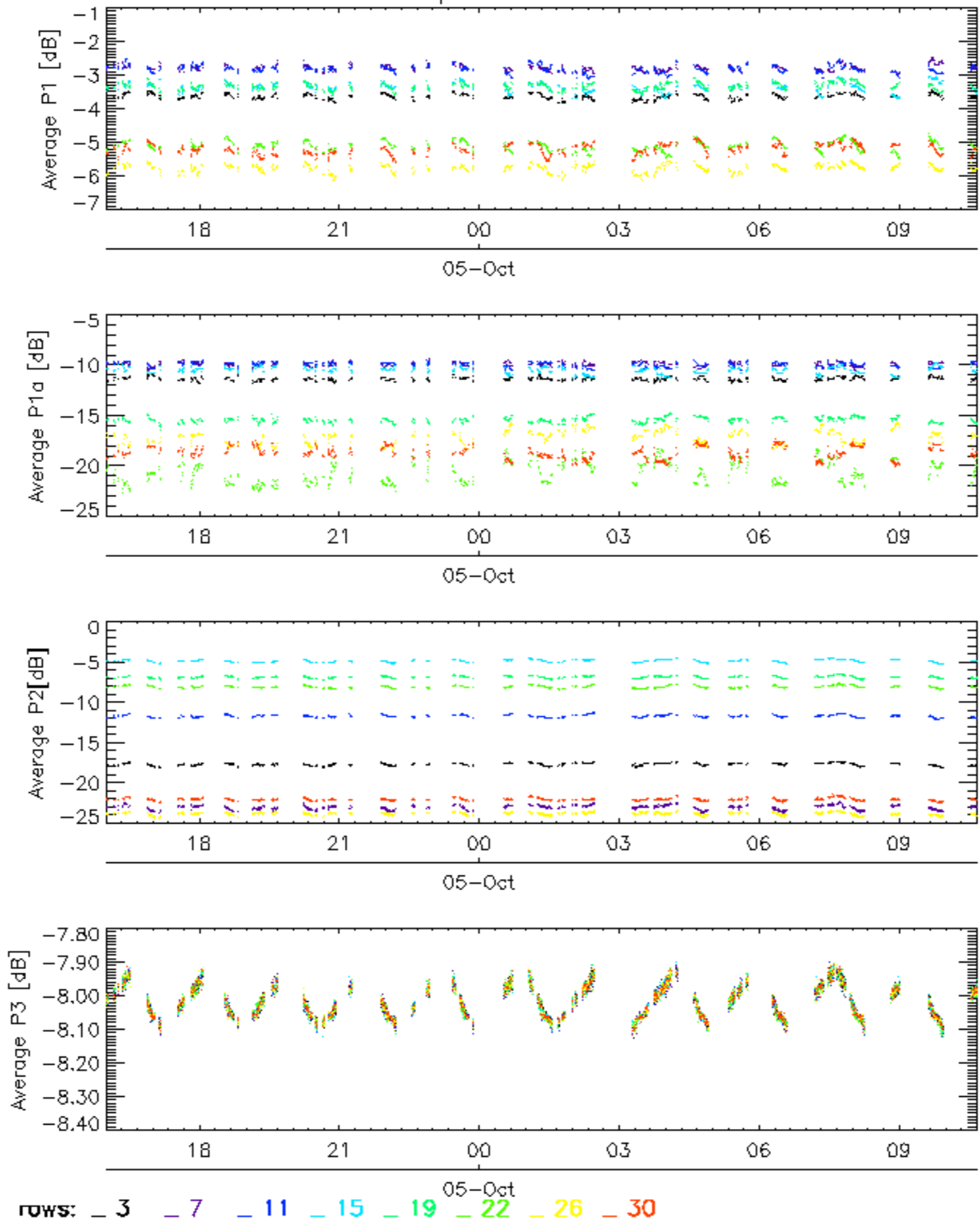
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

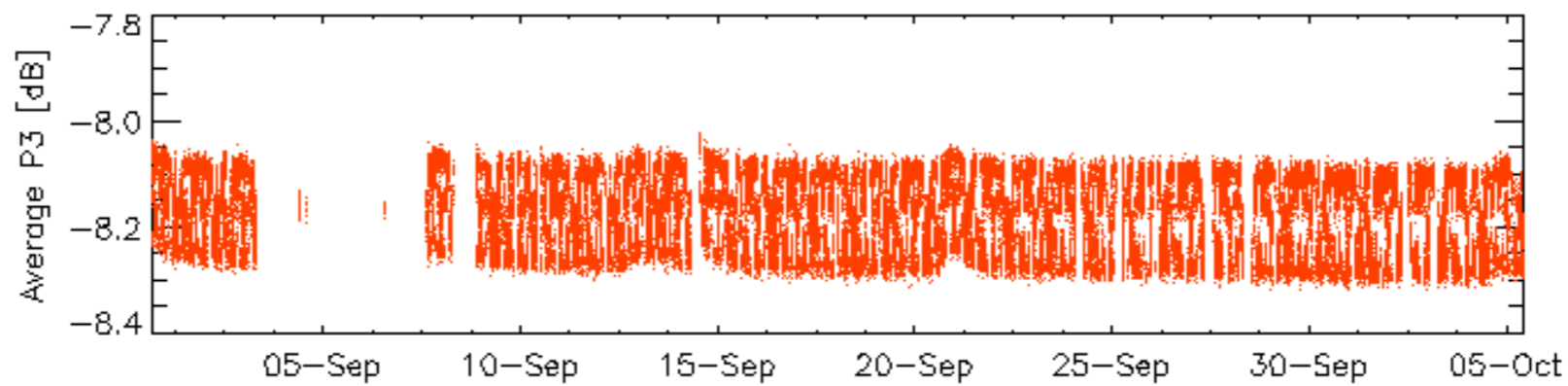
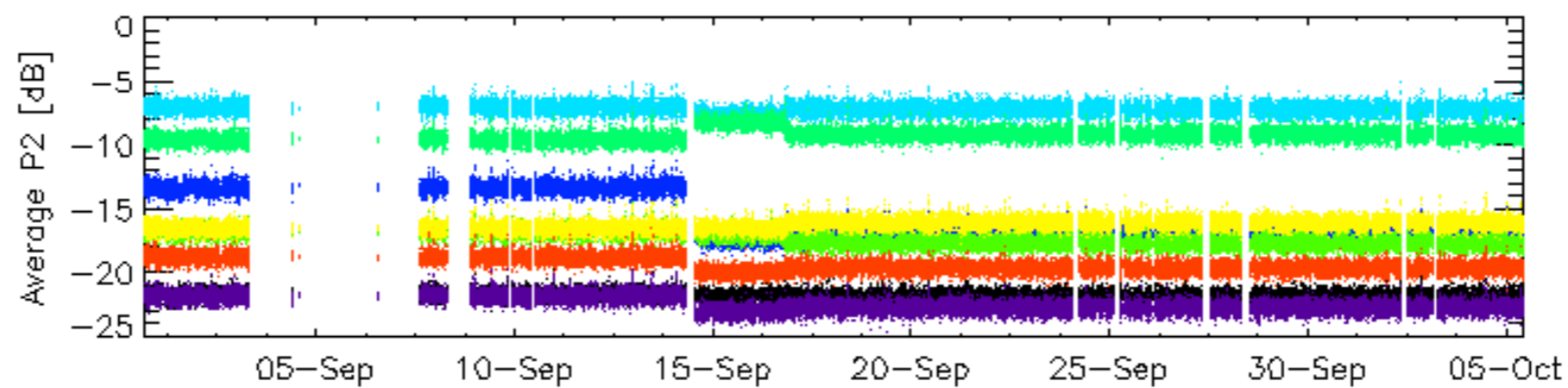
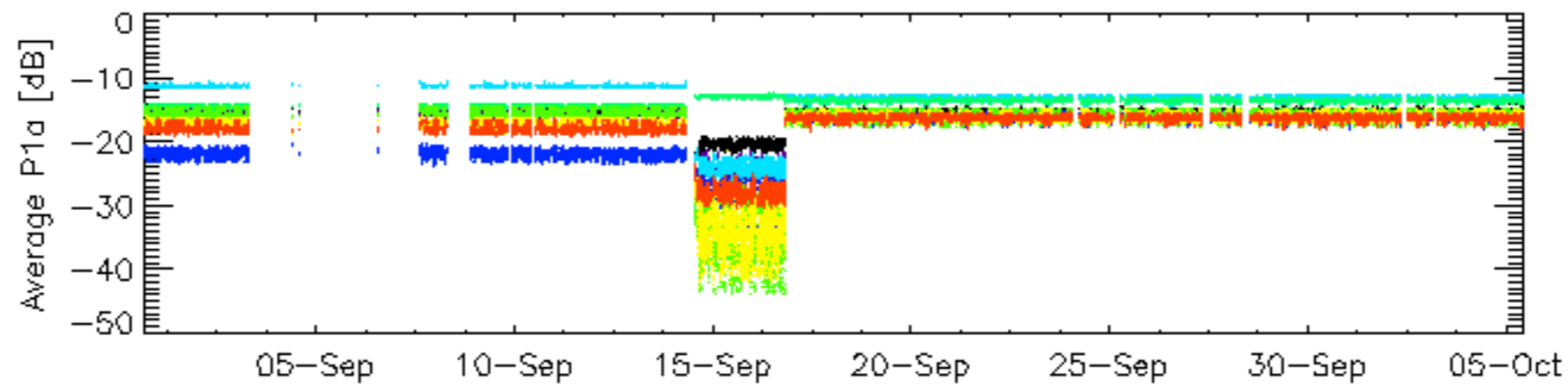
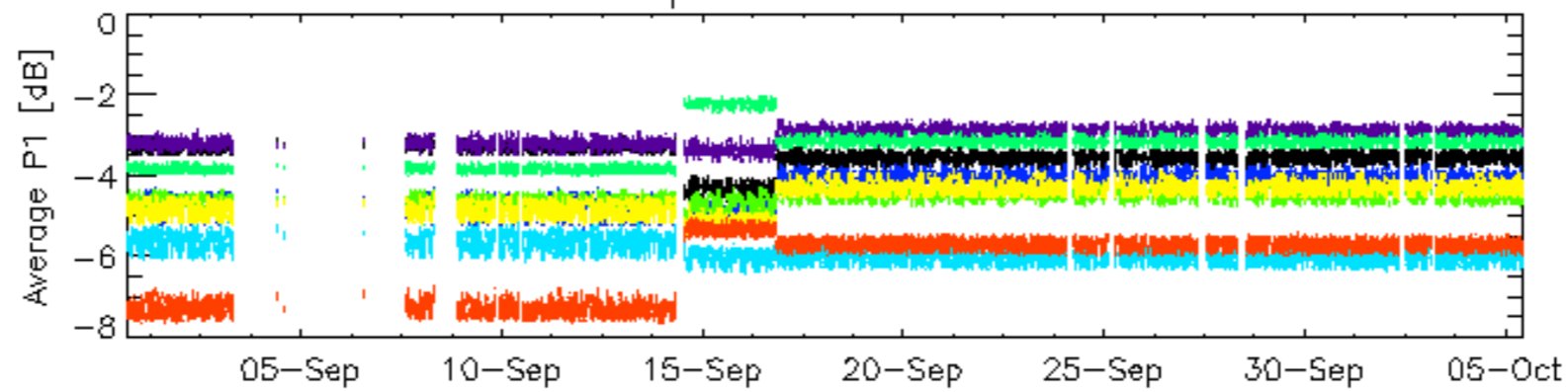


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

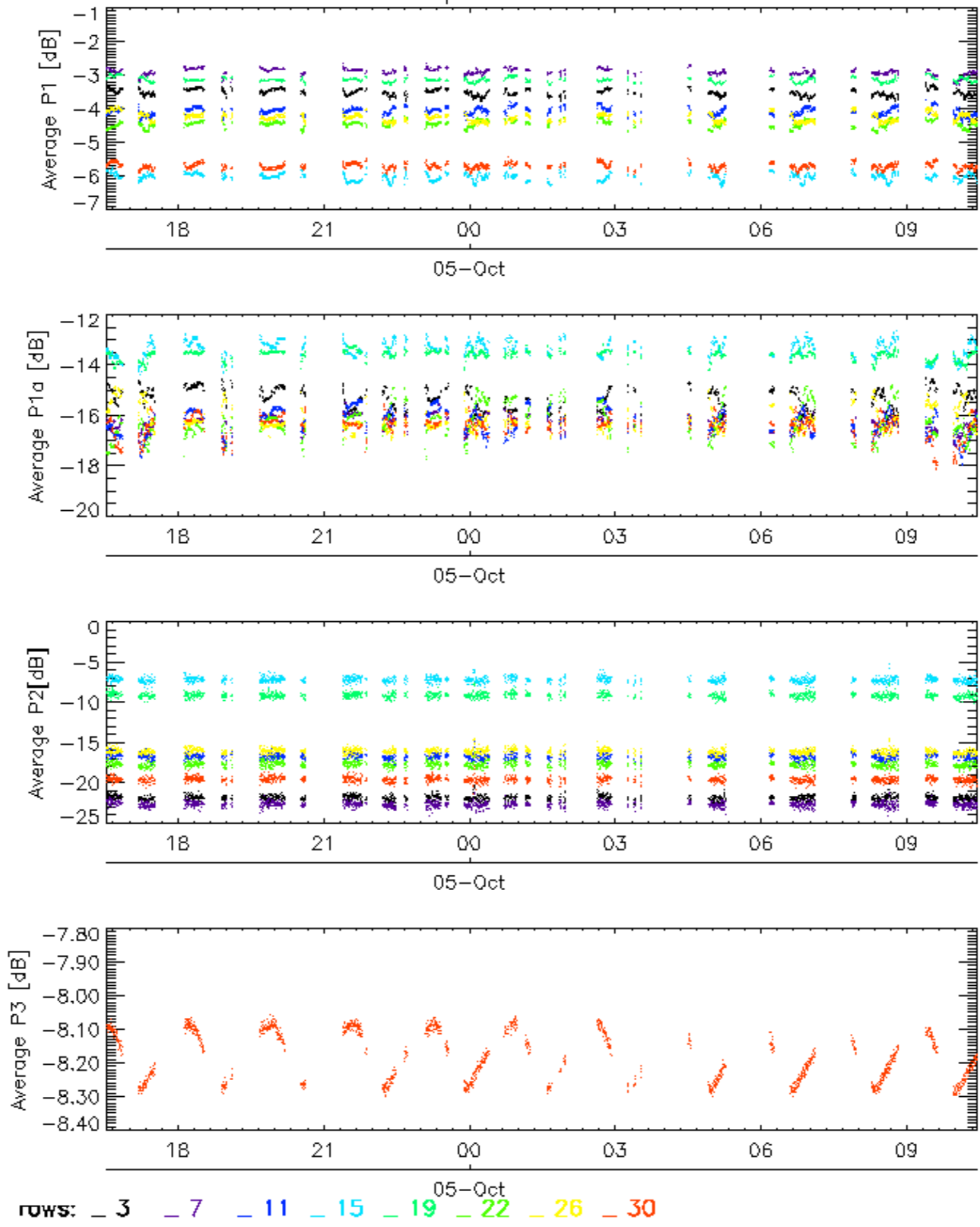


Cal pulses for WVS IS2

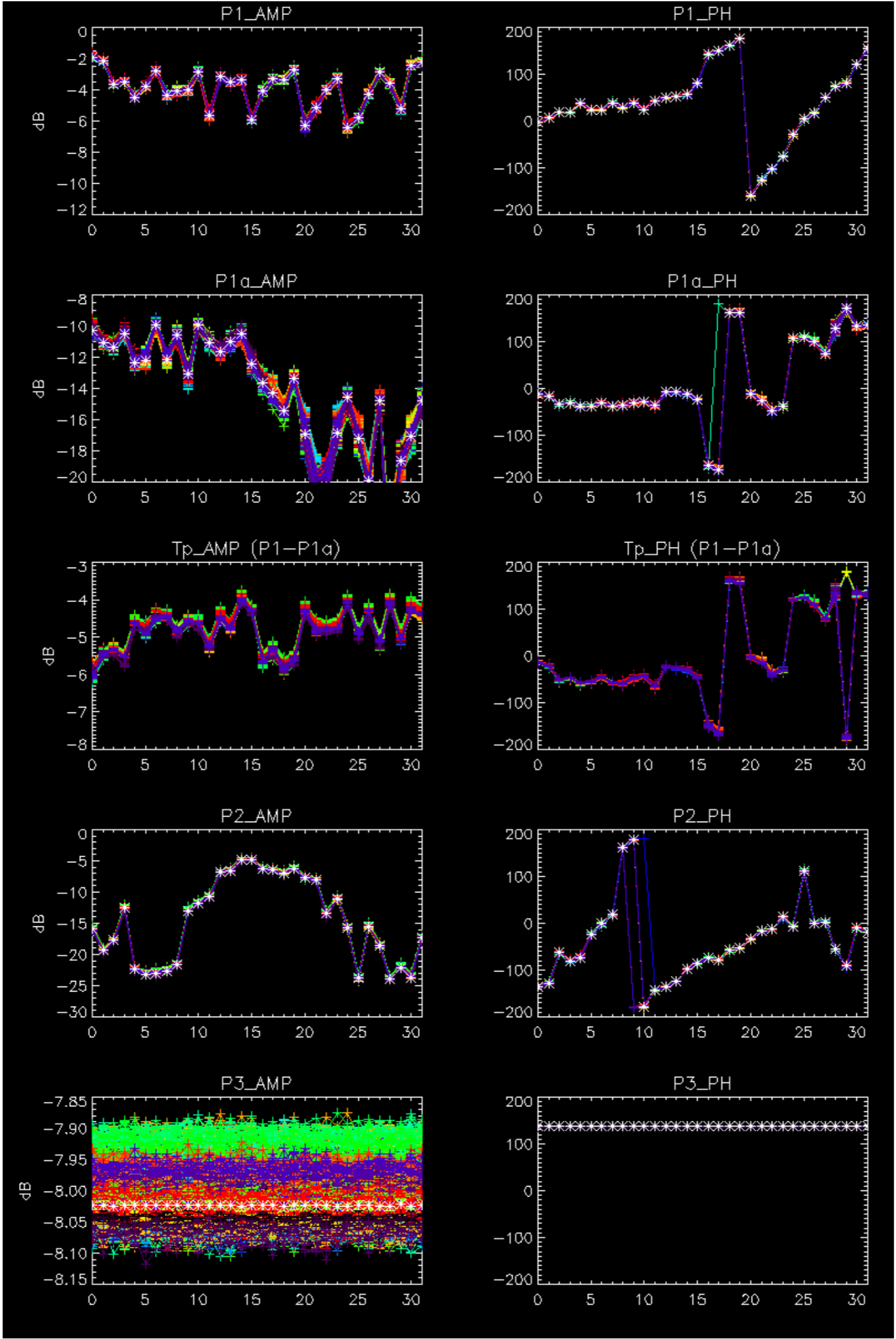


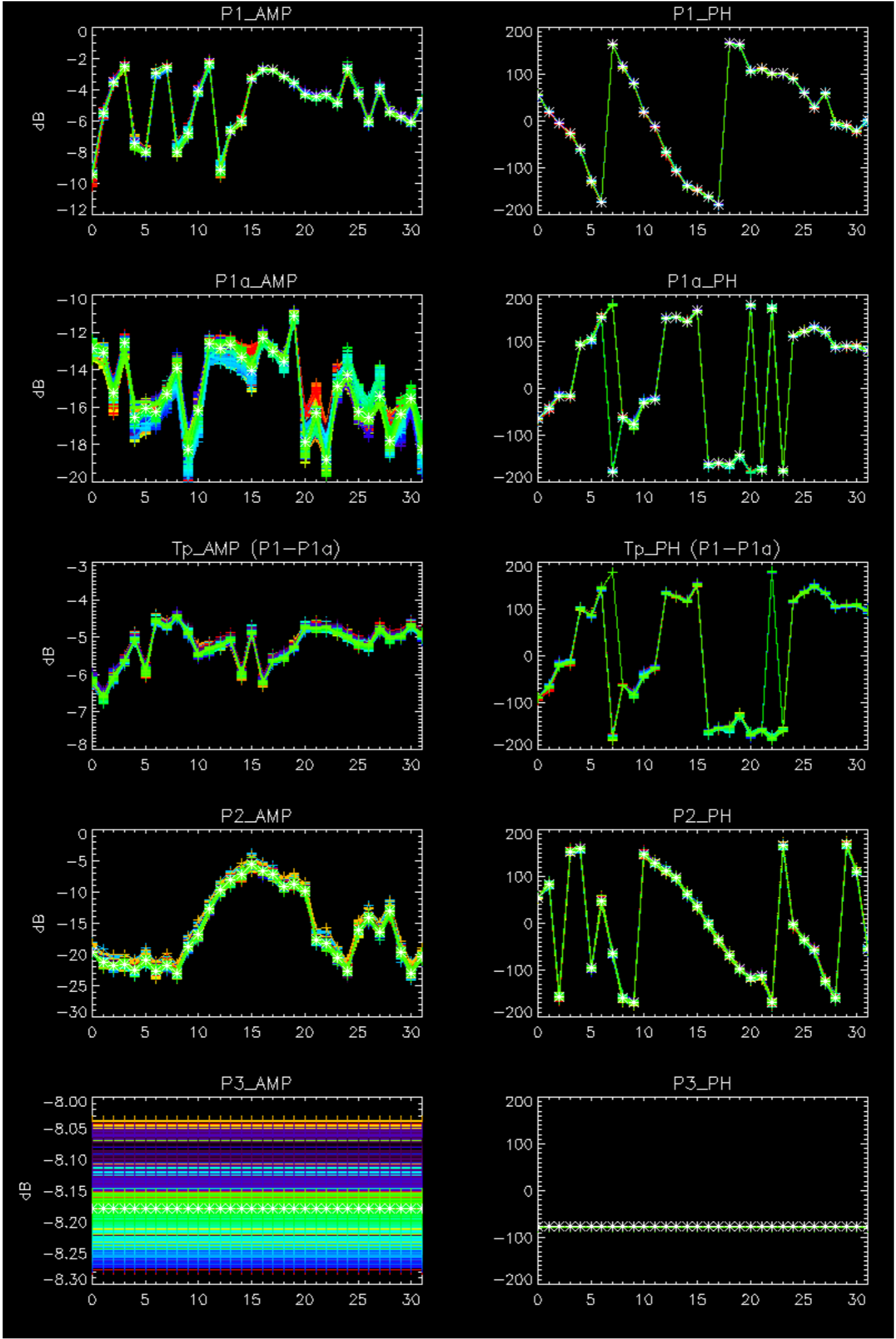
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



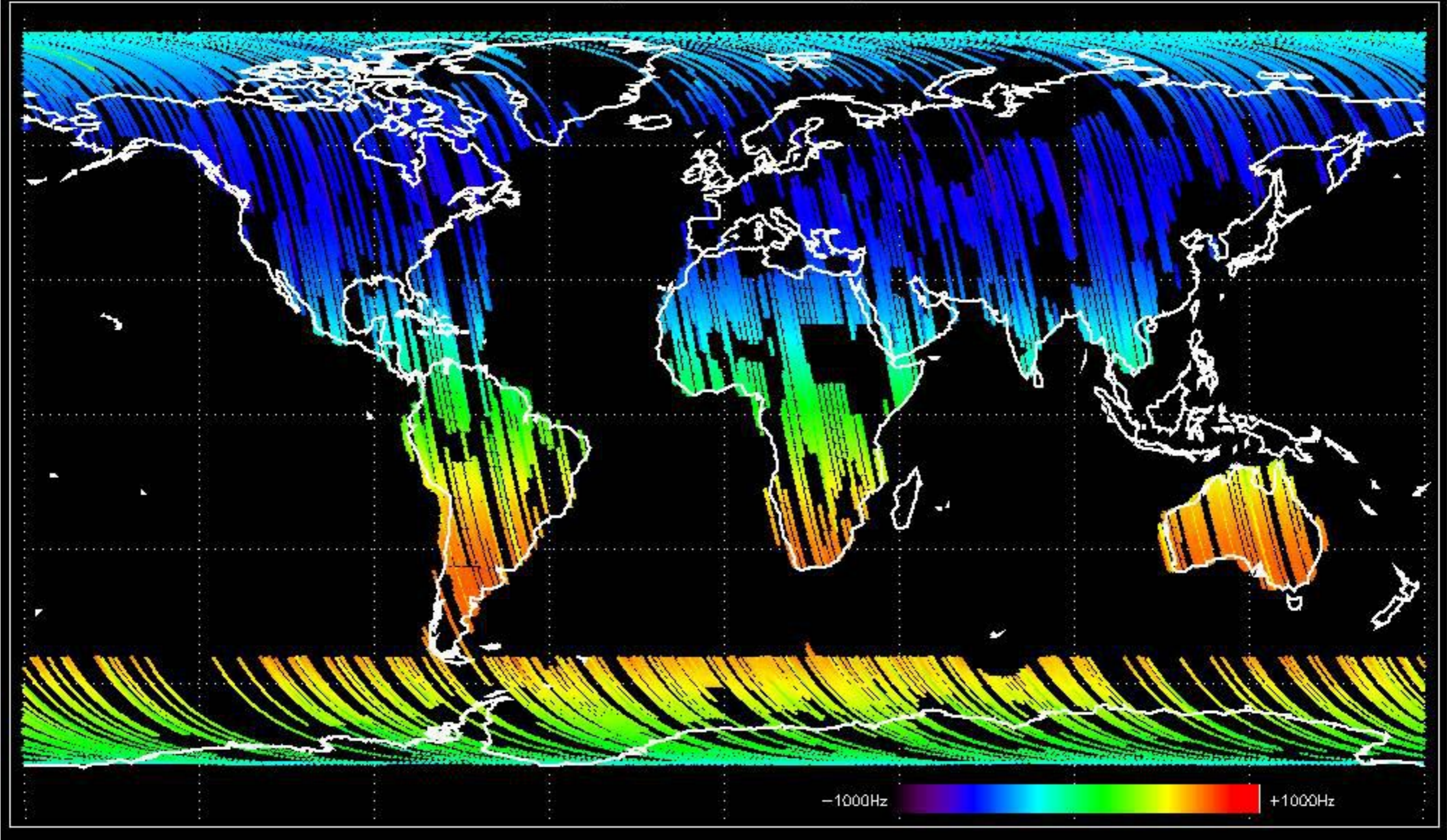
No anomalies observed.



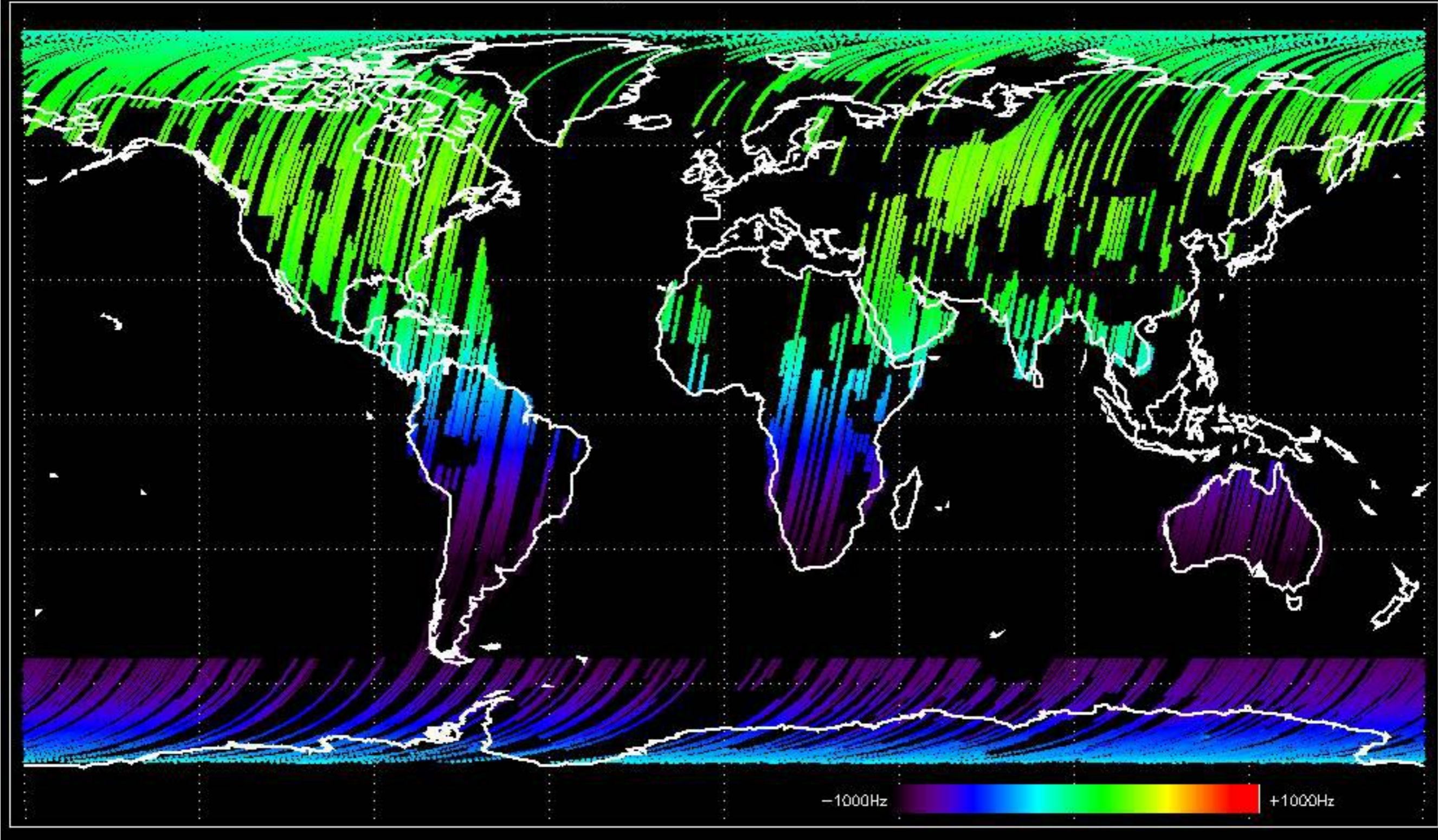


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

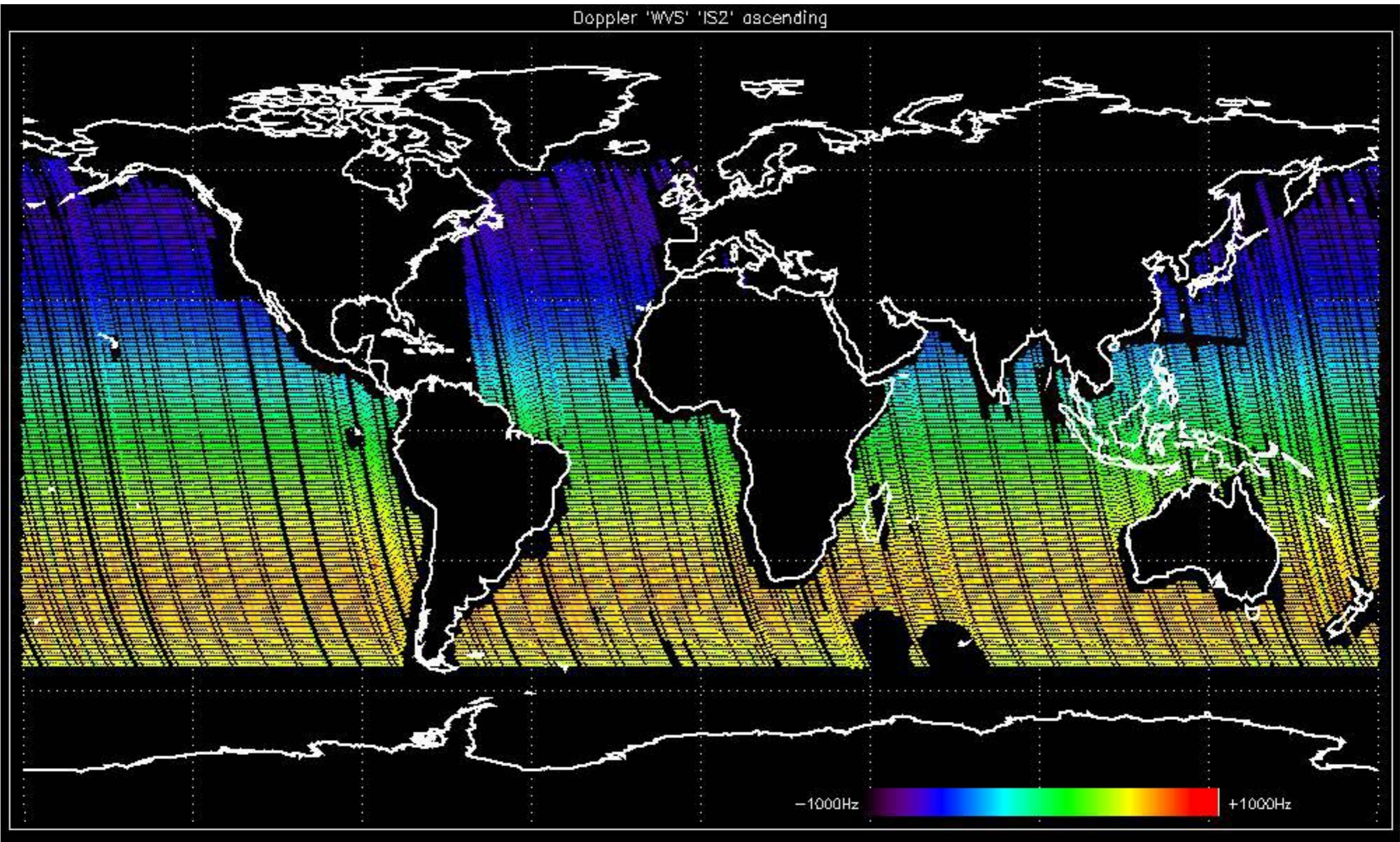
Doppler 'GM1' 'SS1' ascending



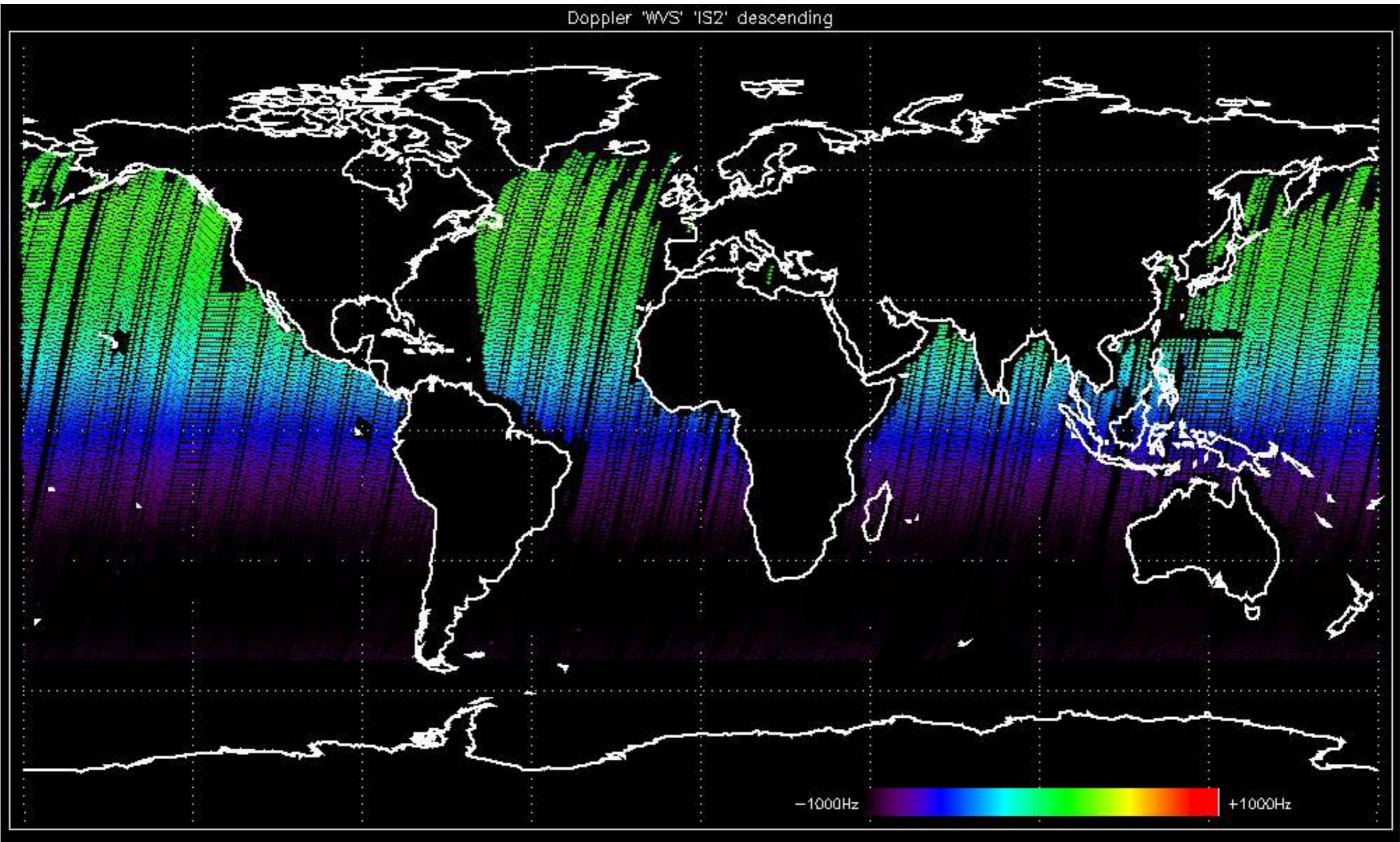
Doppler 'GM1' 'SS1' descending



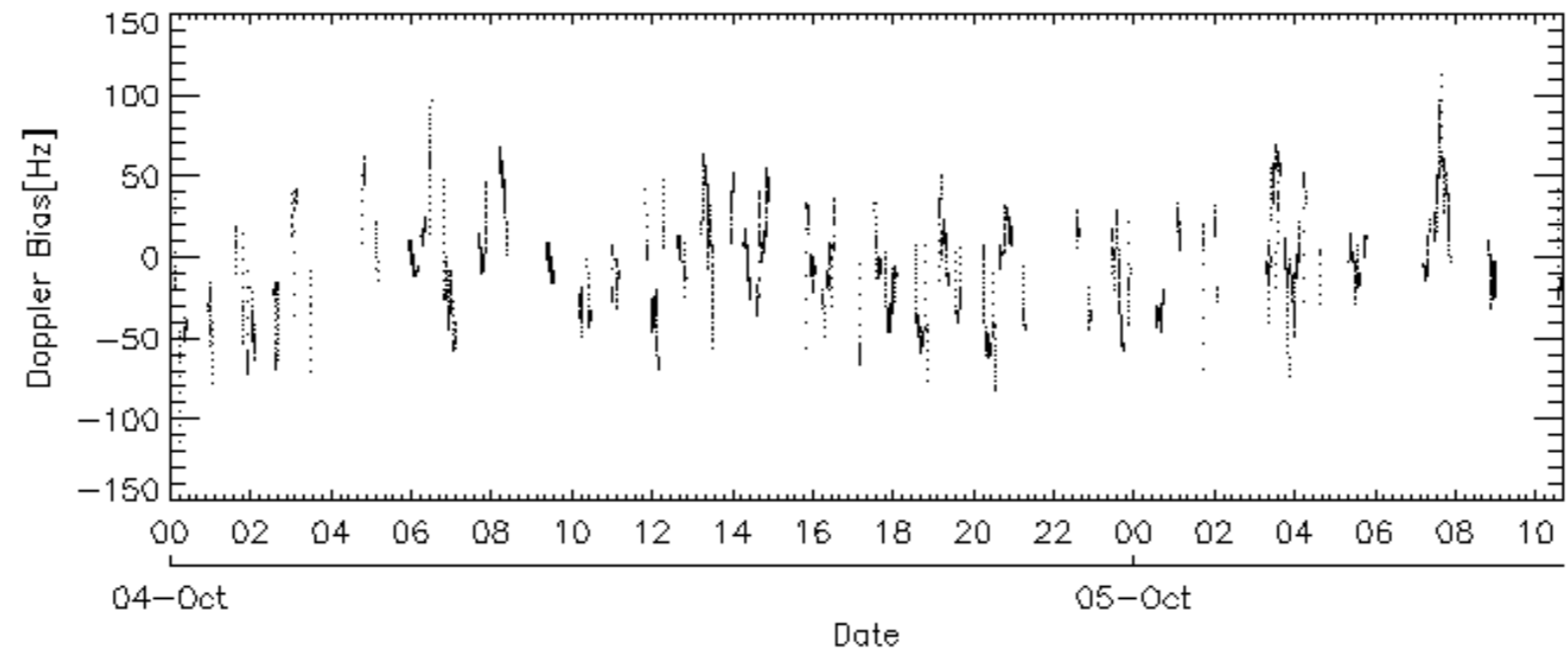
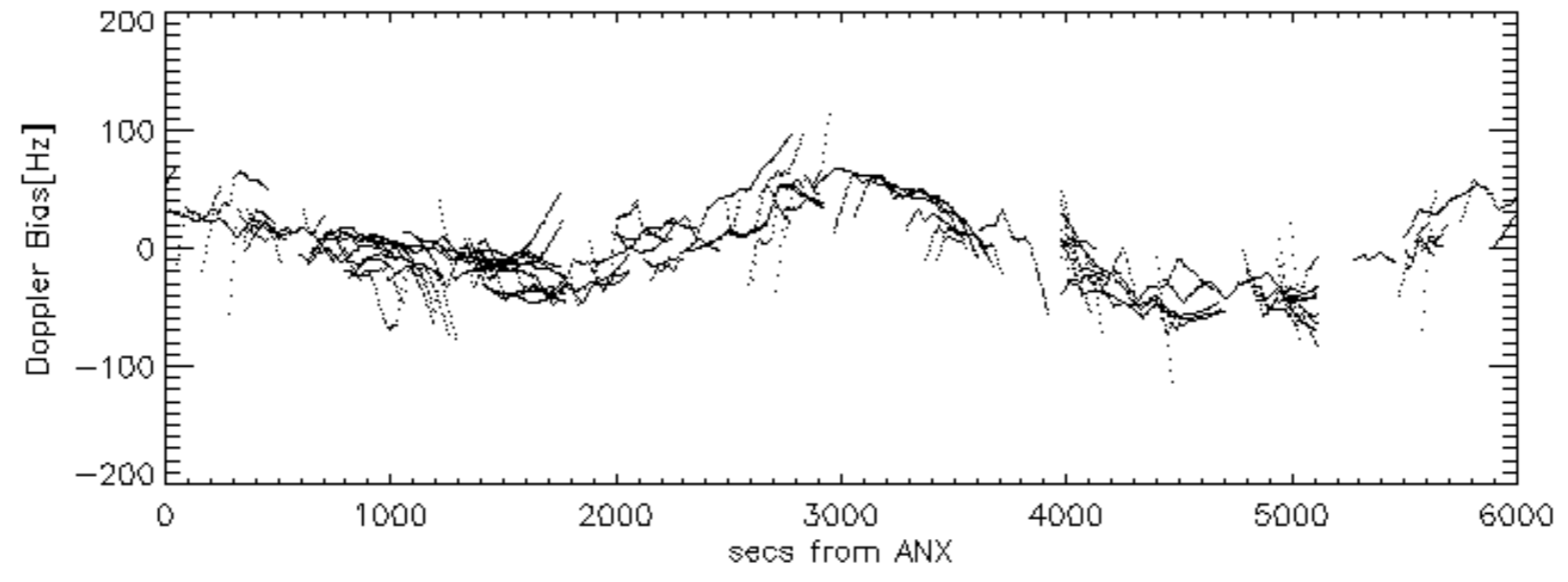
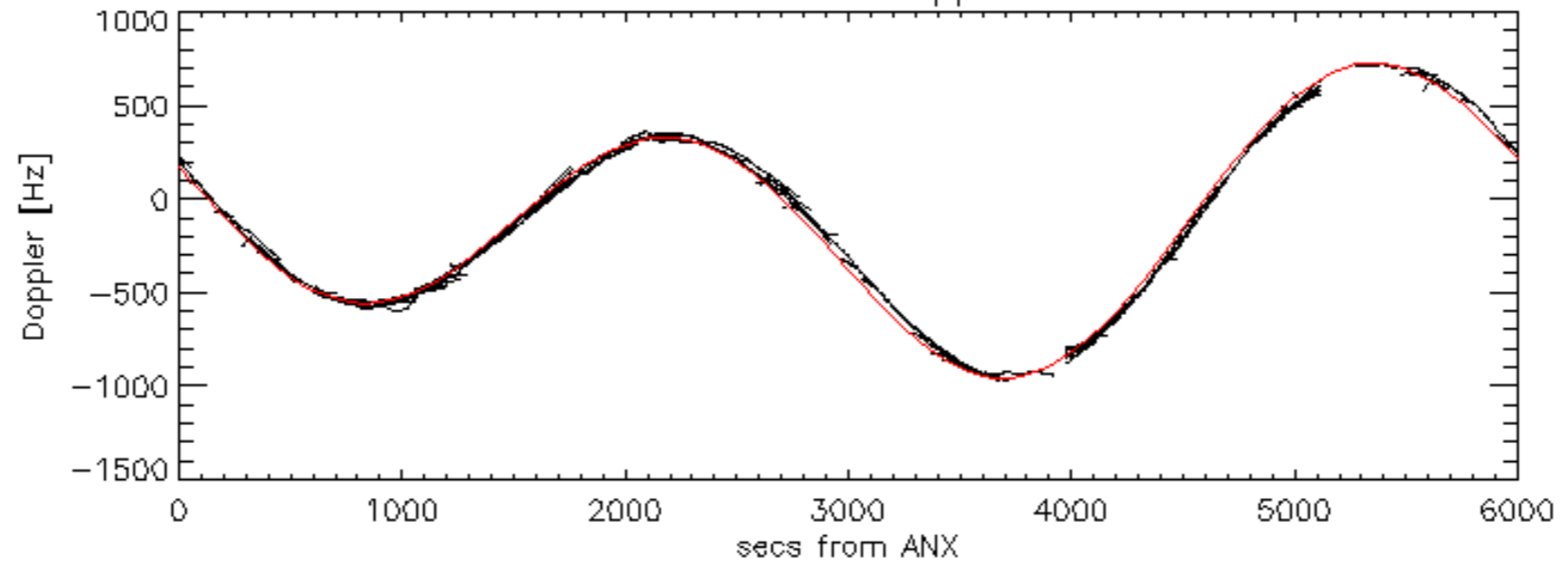
Doppler 'WVS' 'IS2' ascending

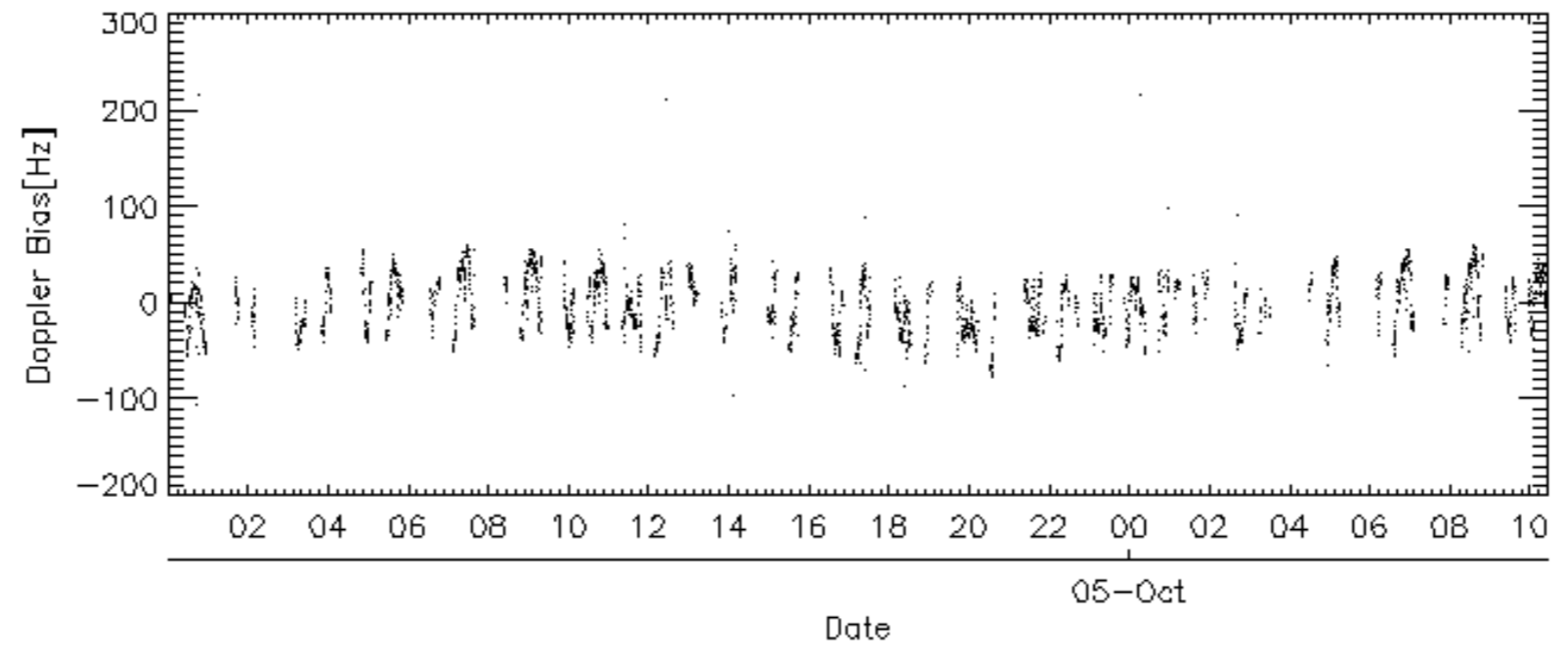
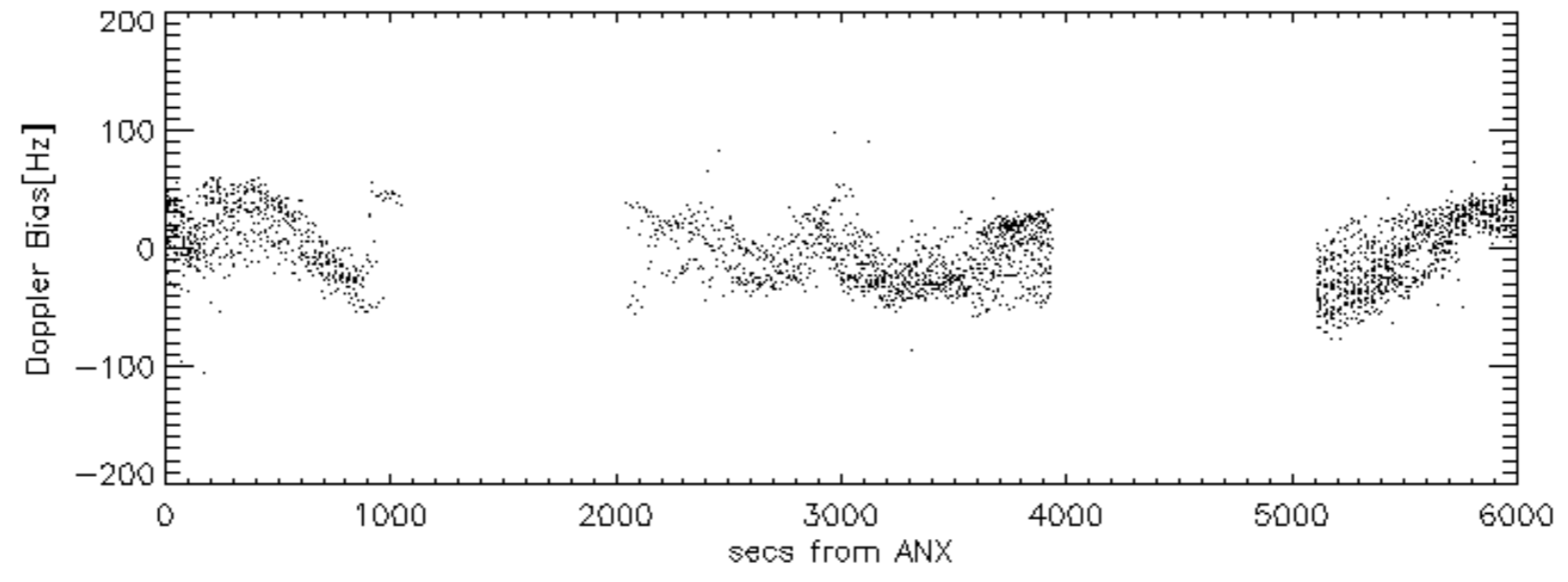
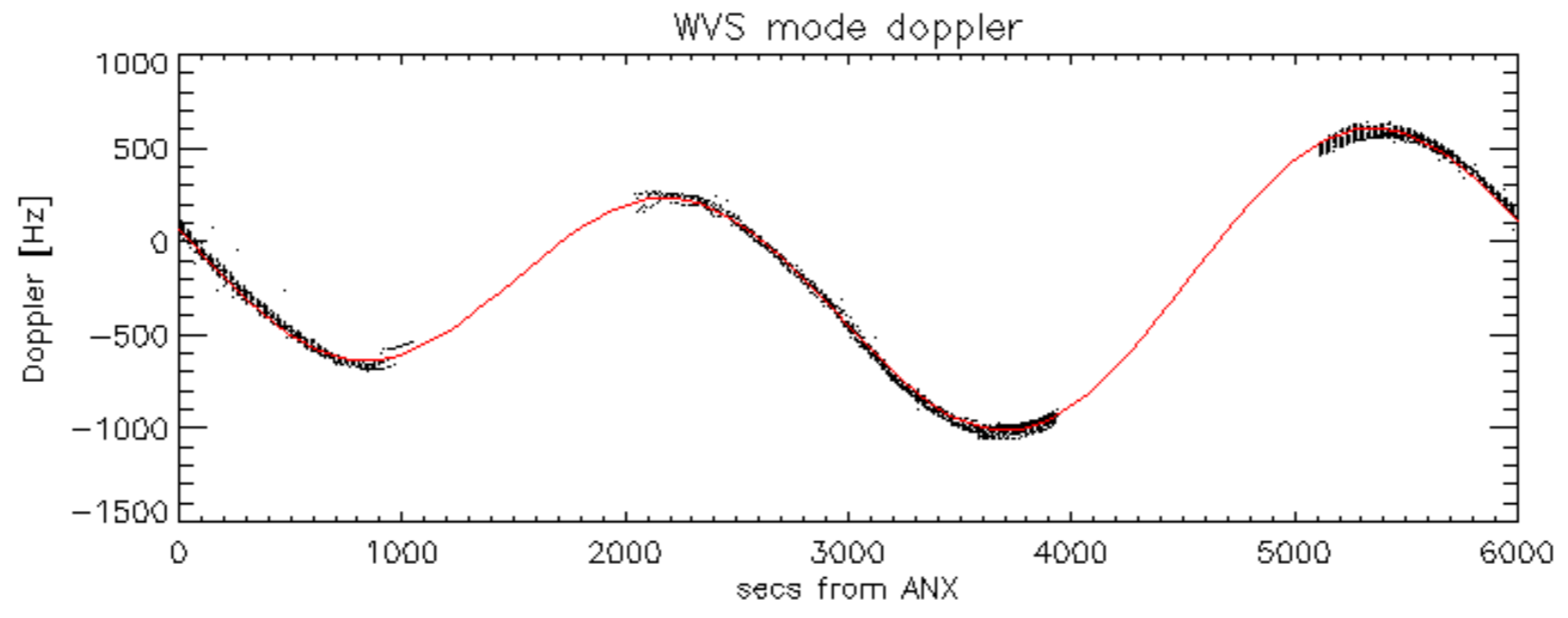


Doppler 'WVS' 'IS2' descending

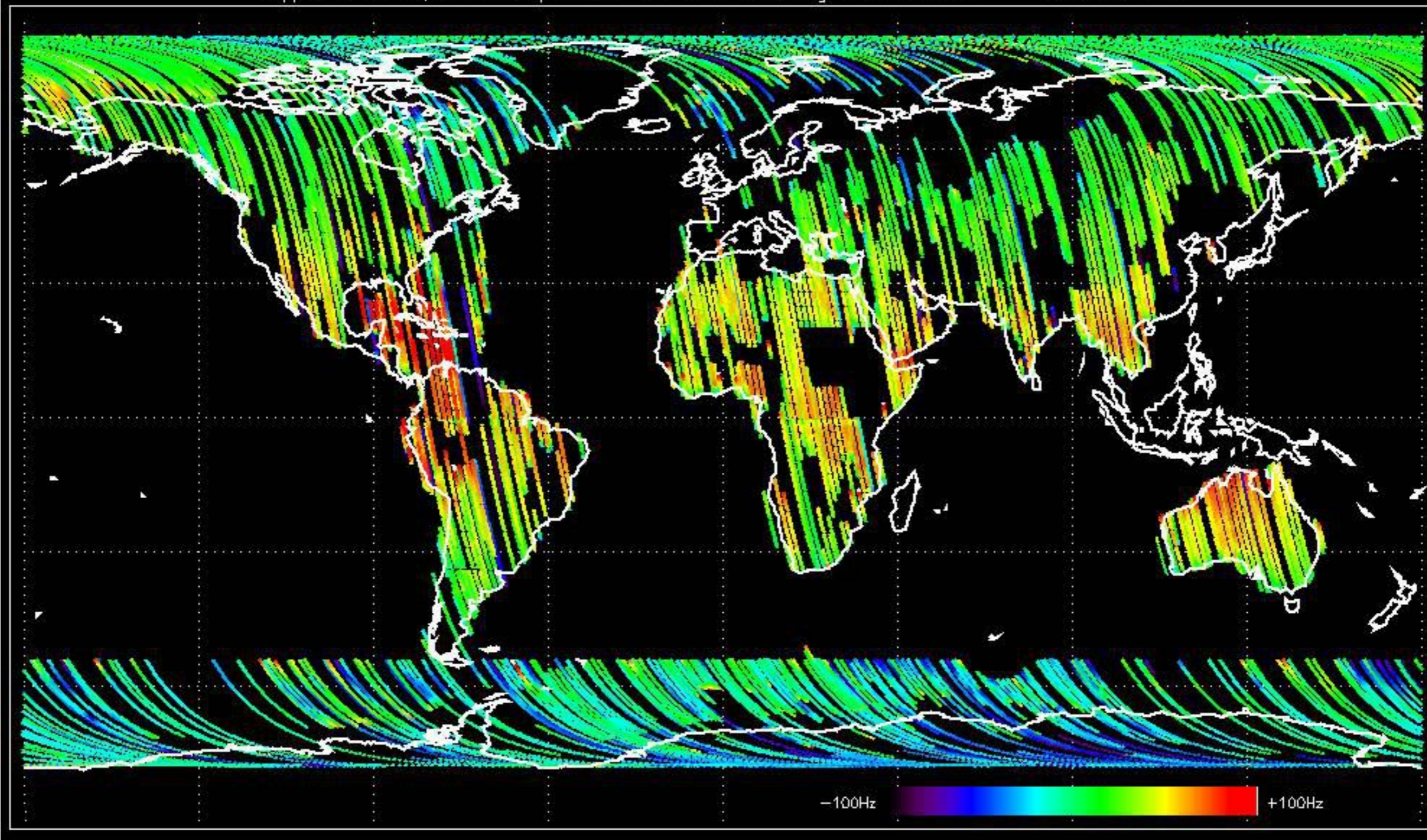


GM1 mode doppler

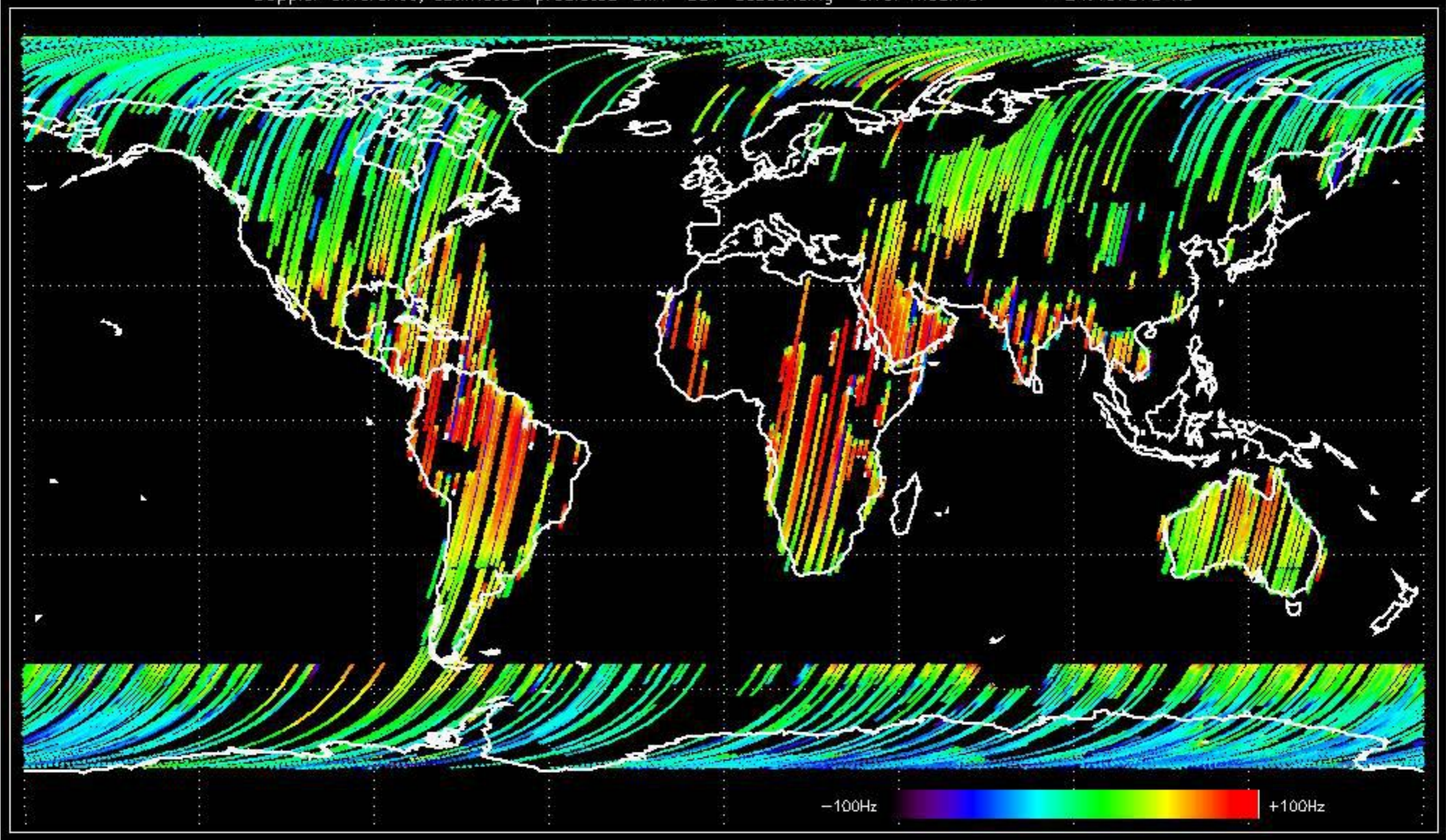




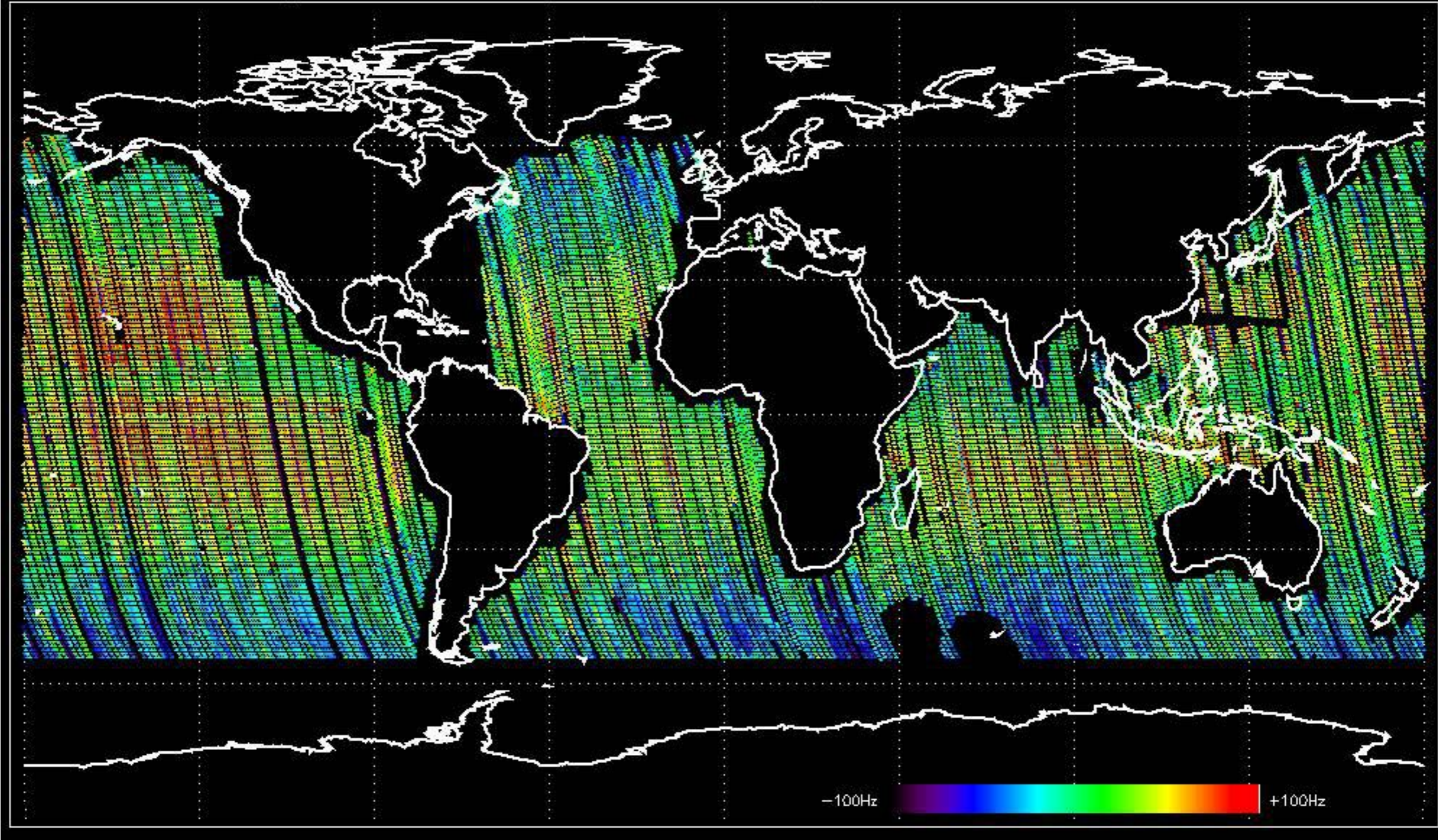
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -26.877282 Hz



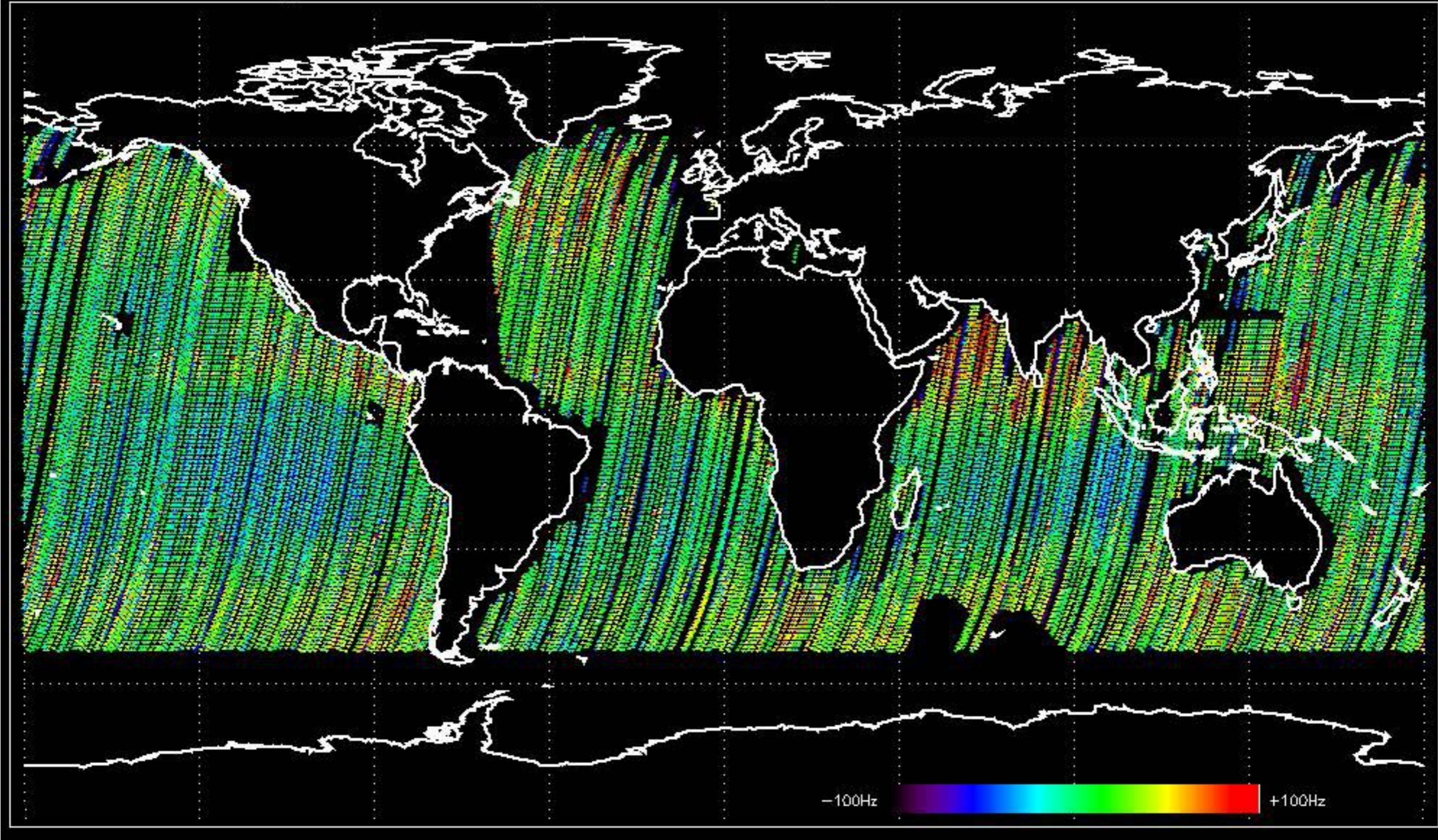
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -24.407578 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -21.922418 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -27.216744 Hz

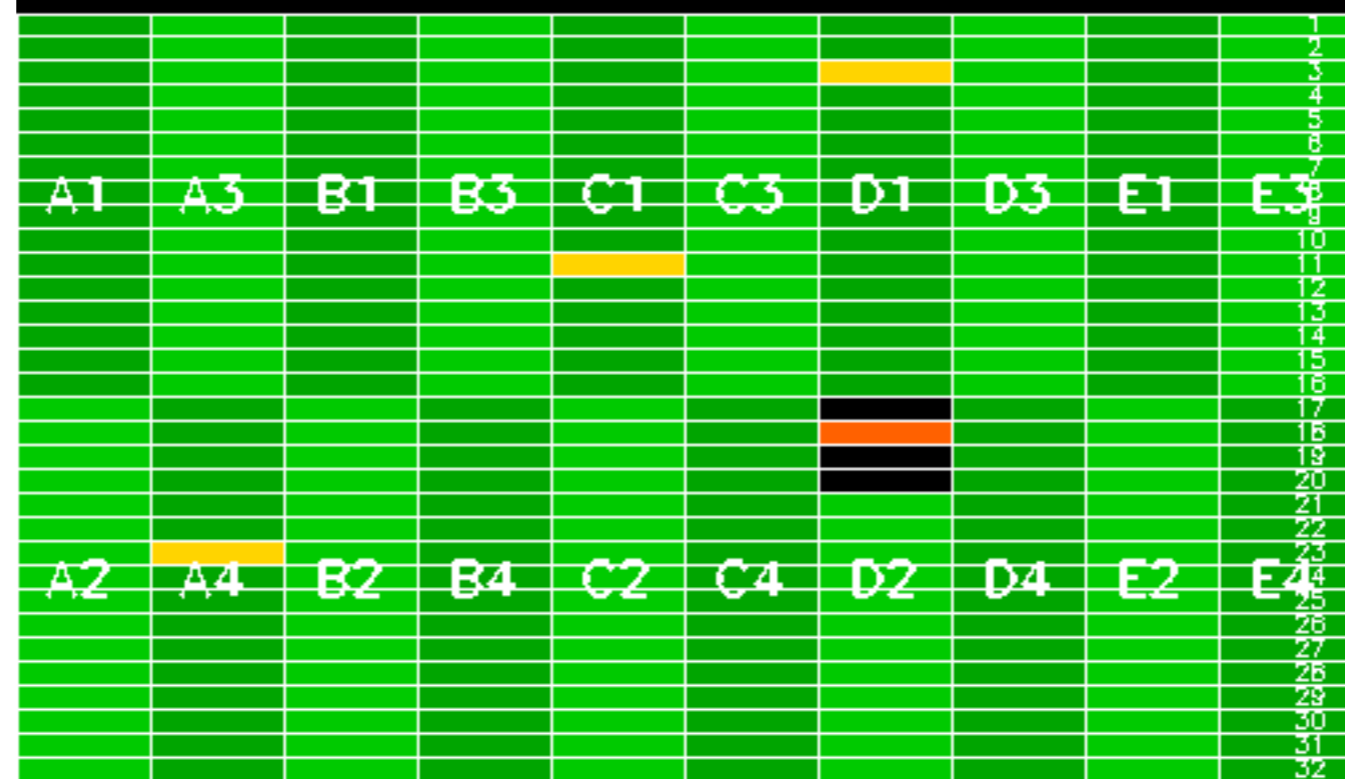


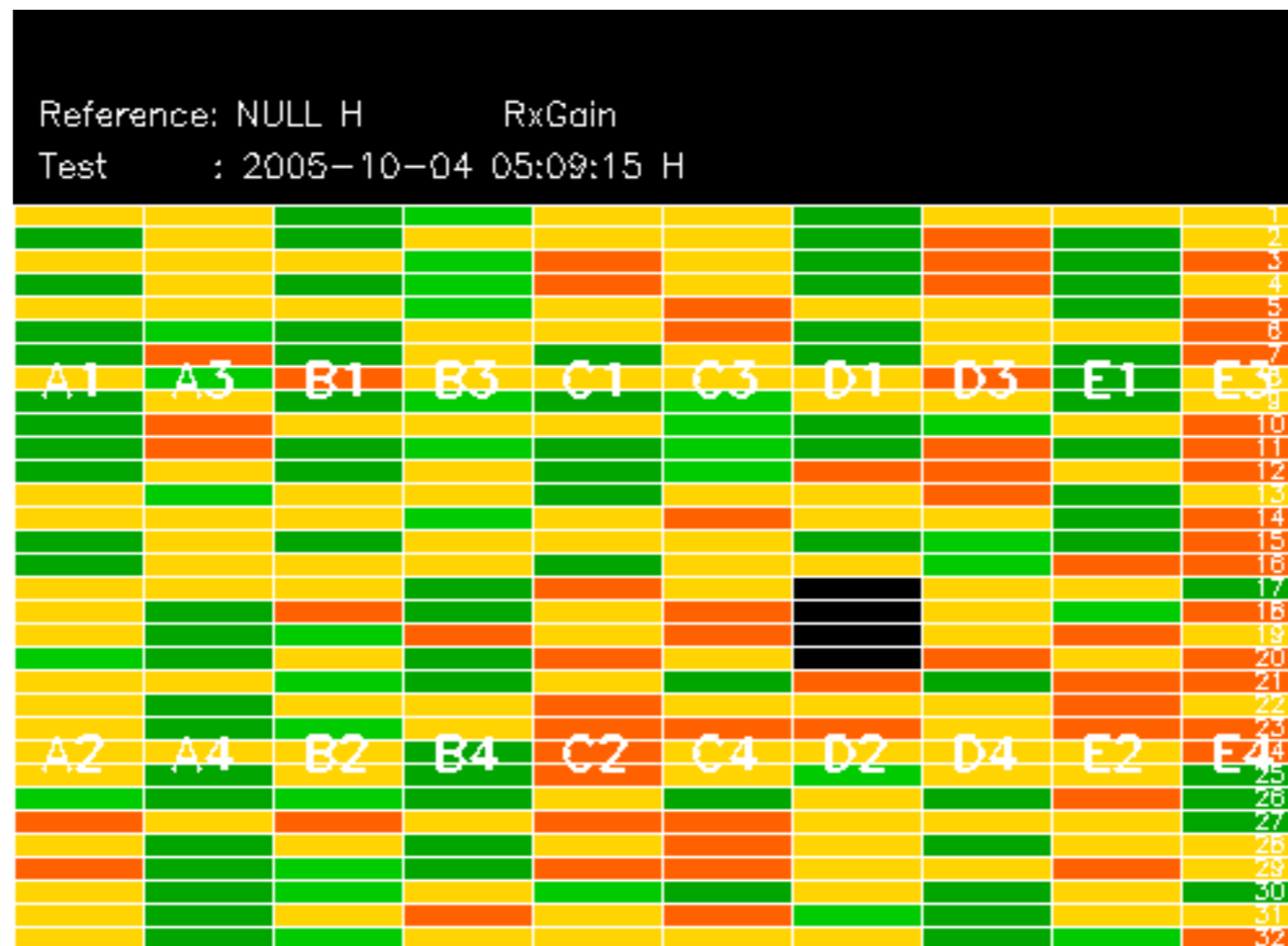
No anomalies observed on available MS products:

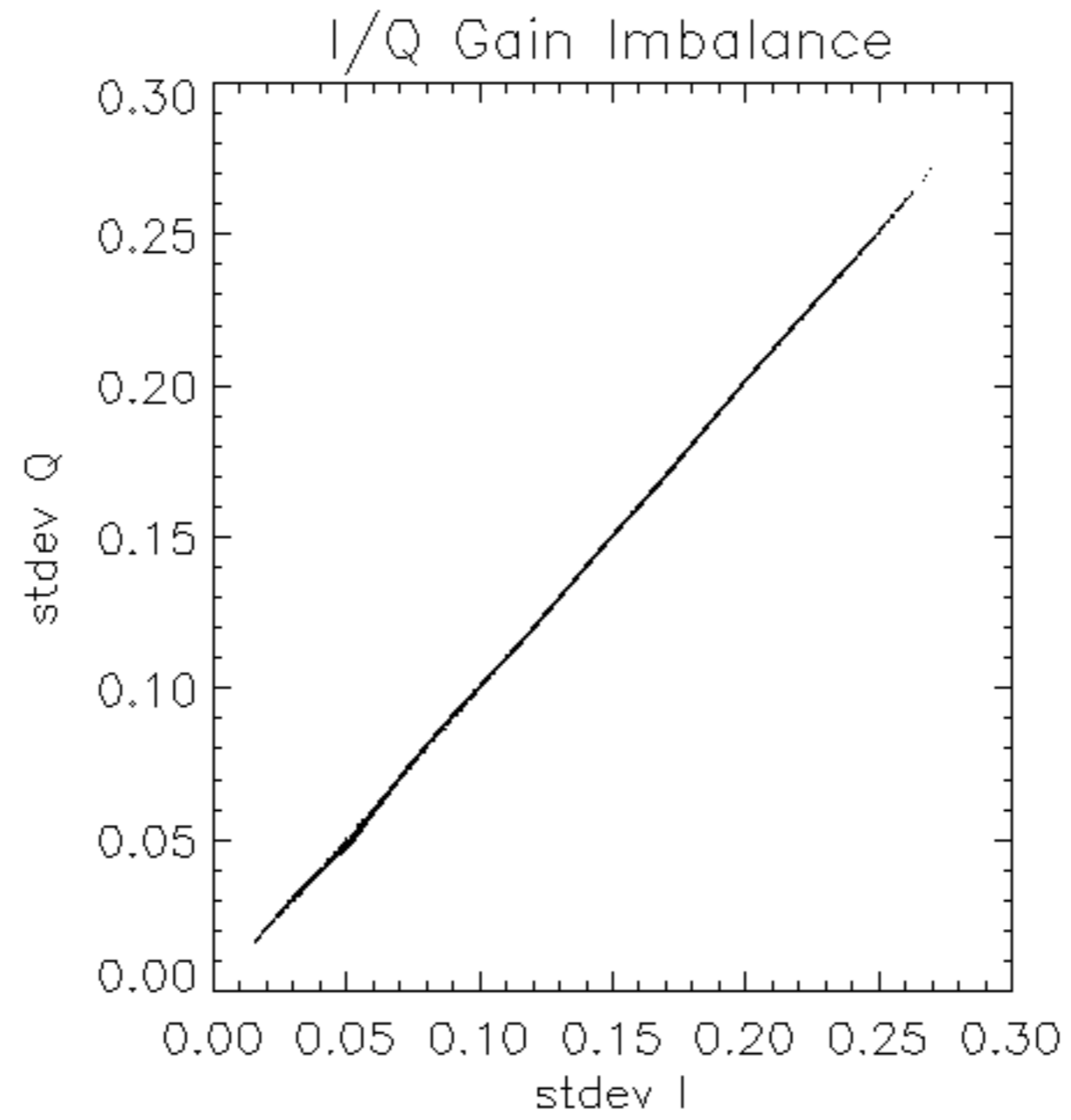
No anomalies observed.

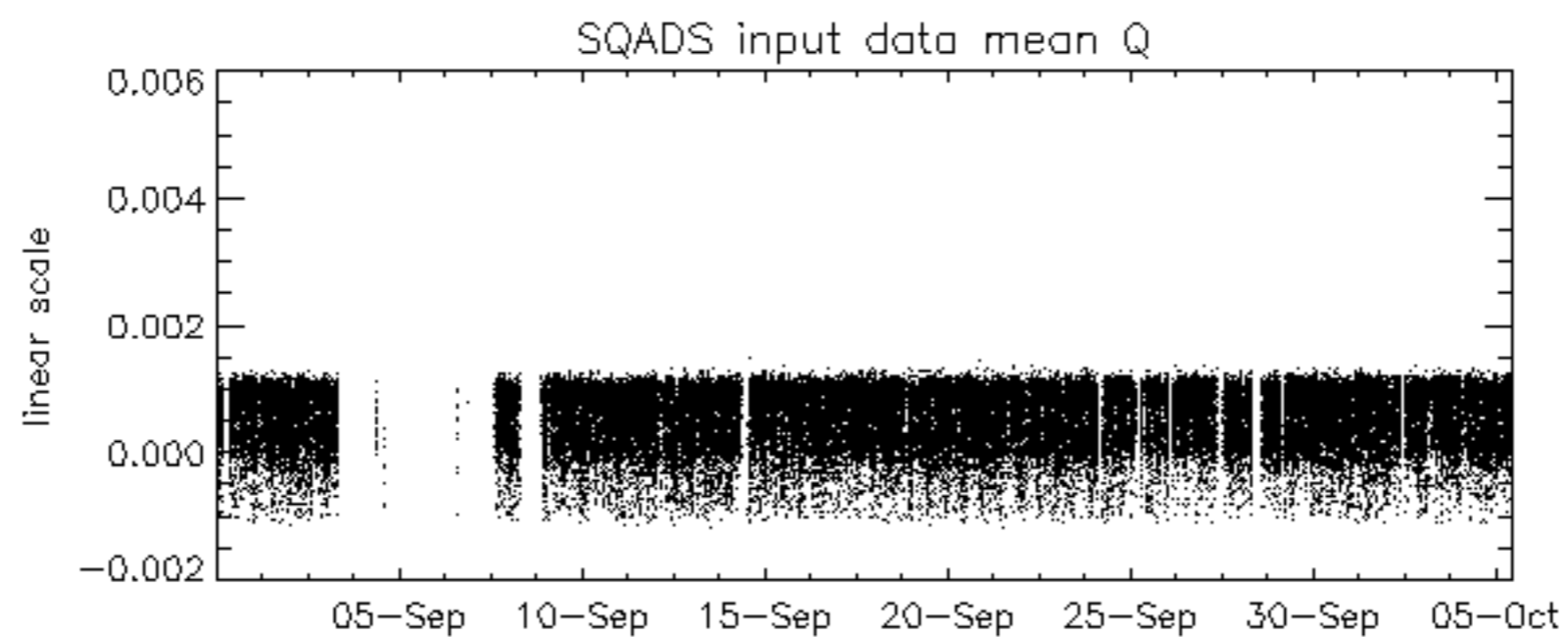
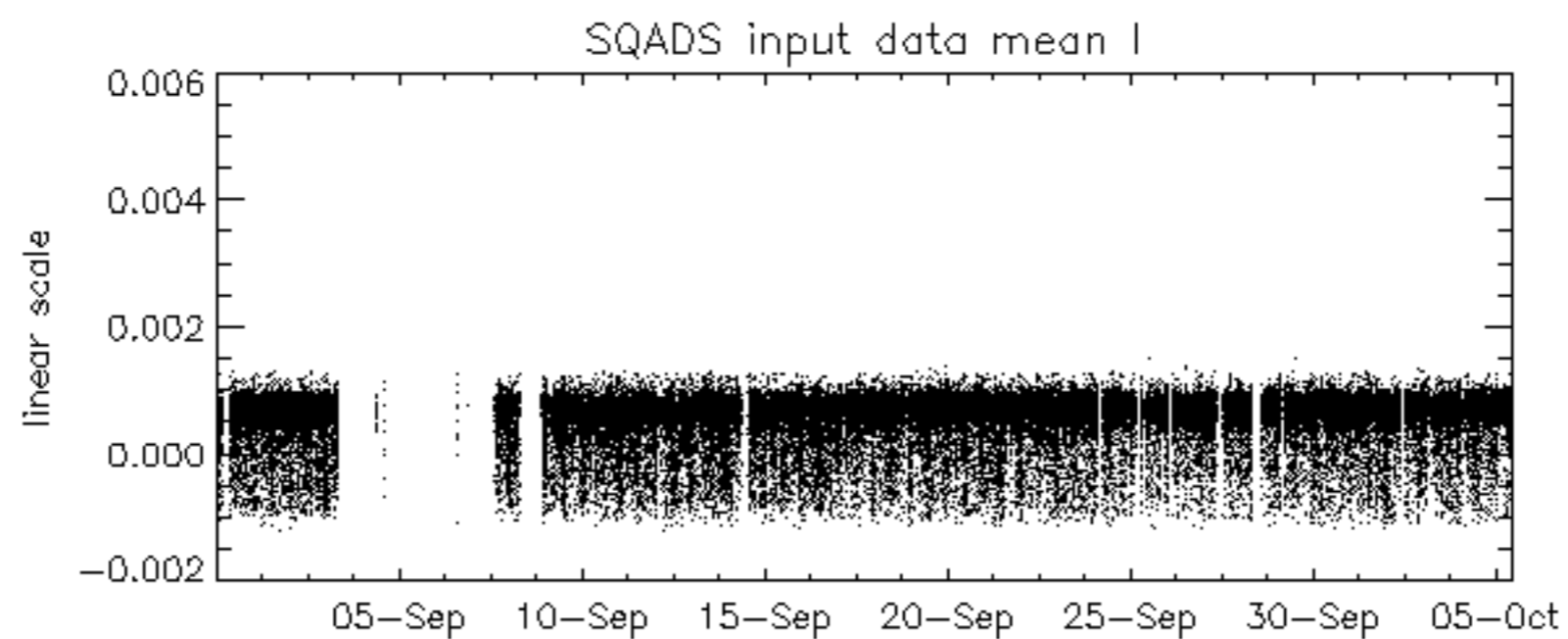
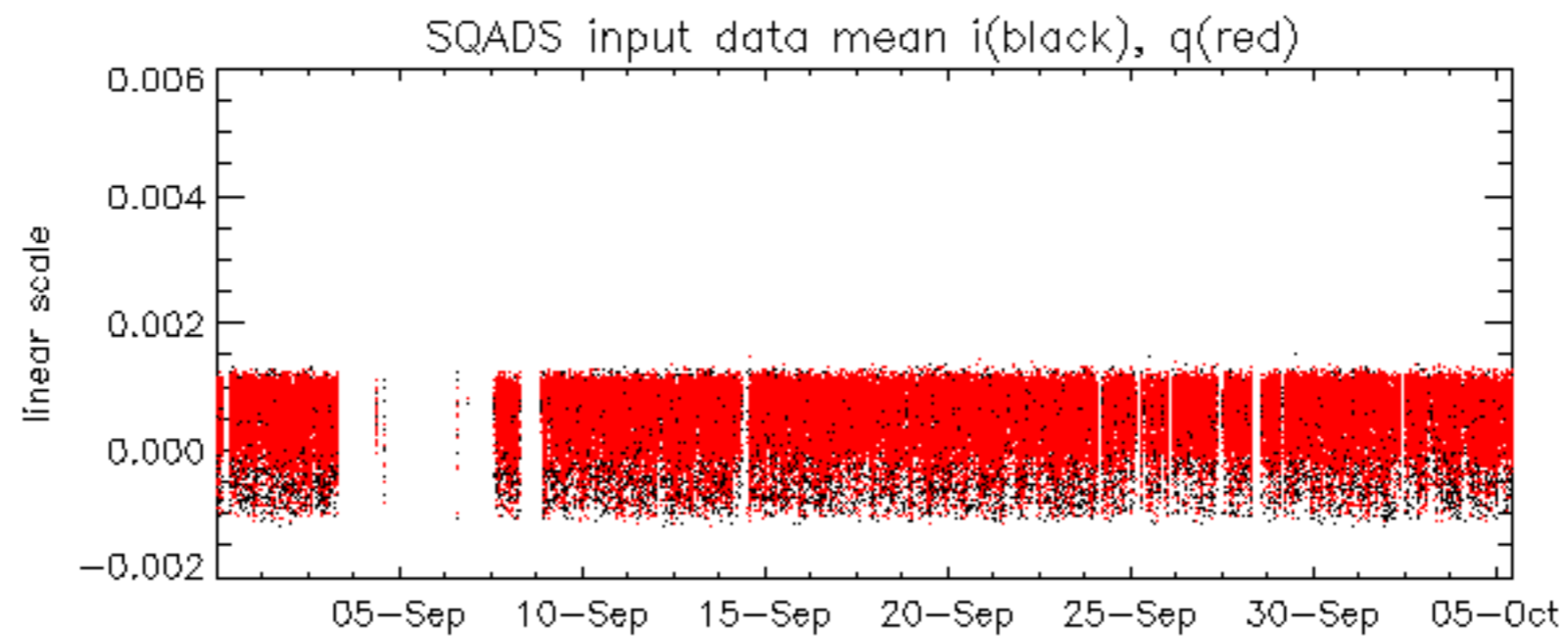
Reference: 2001-02-09 13:50:42 H RxGain

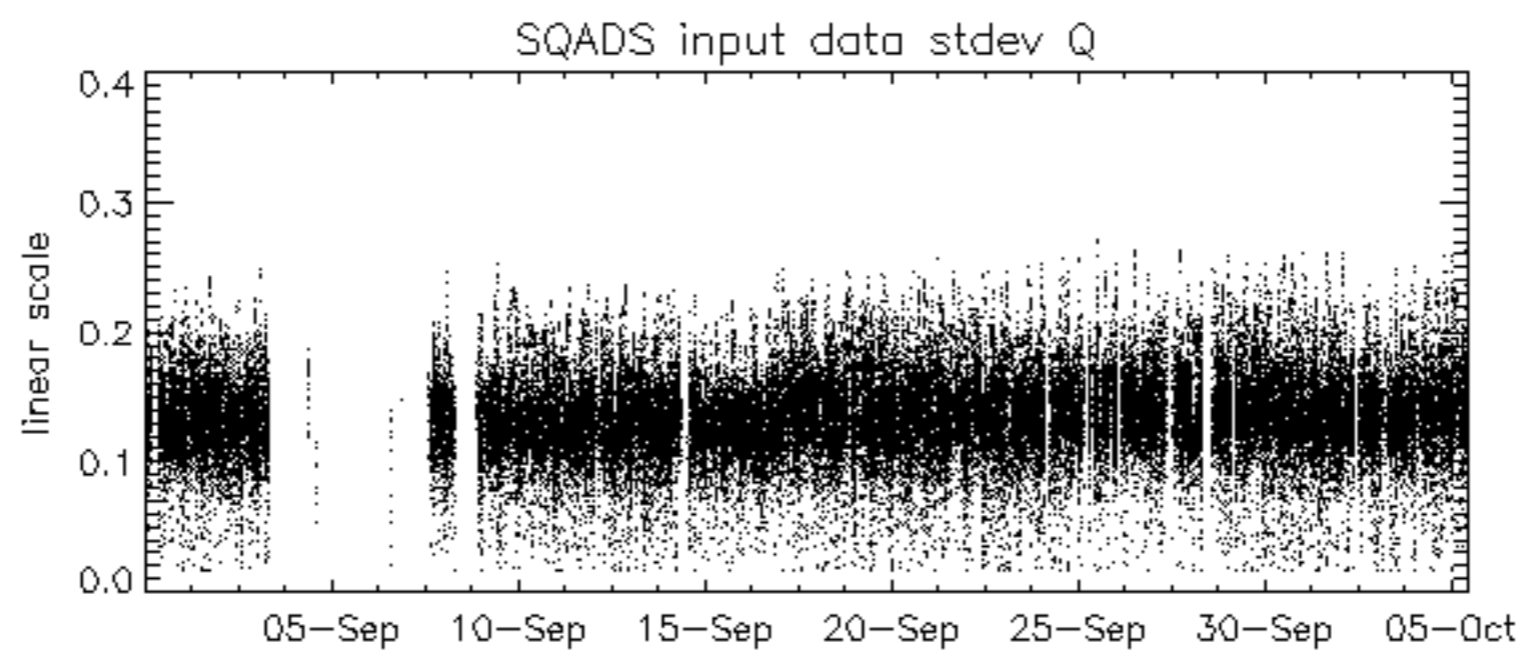
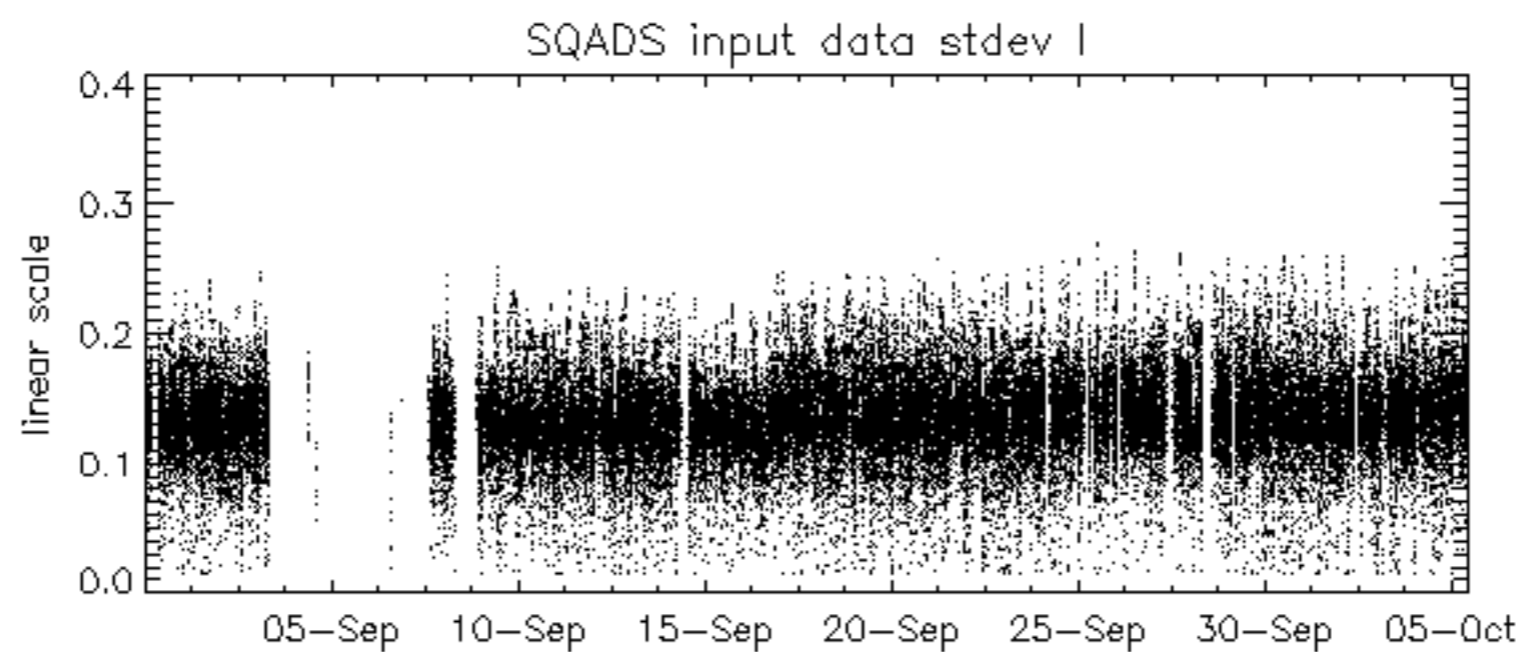
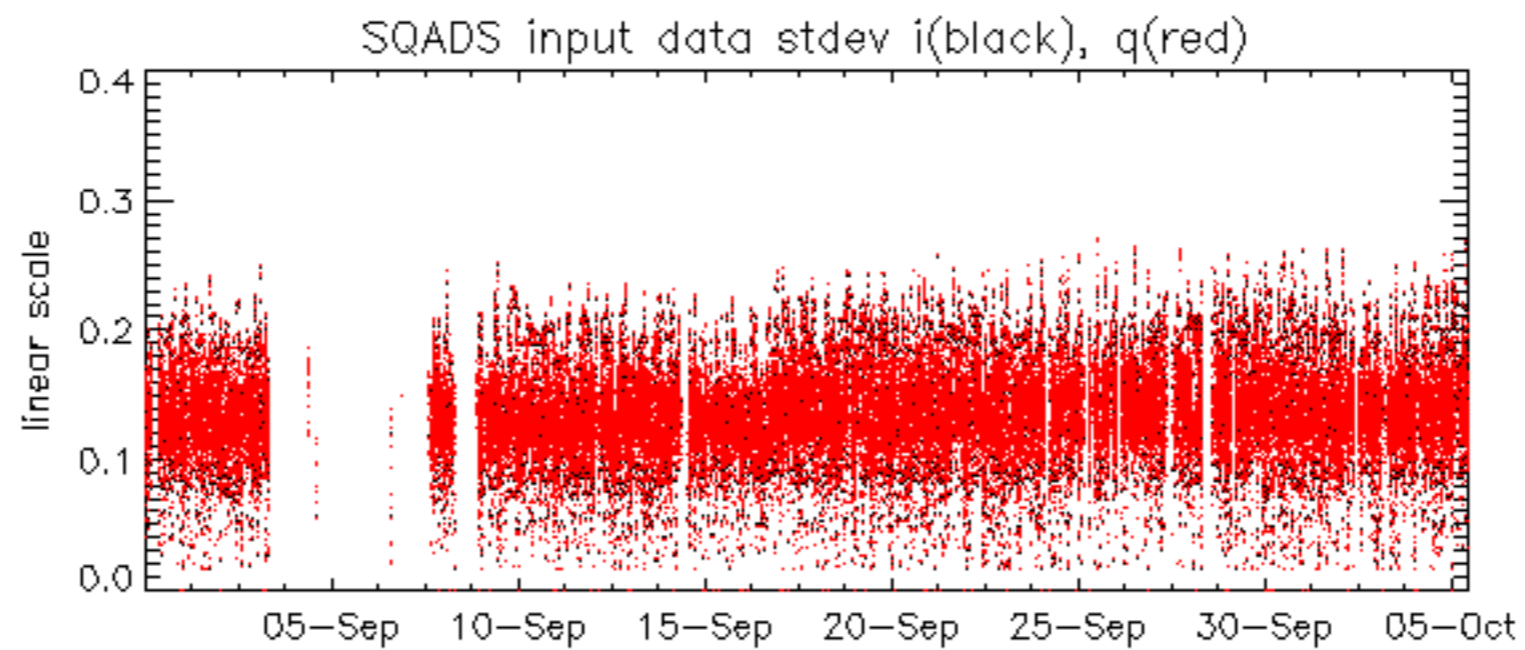
Test : 2005-10-04 05:09:15 H







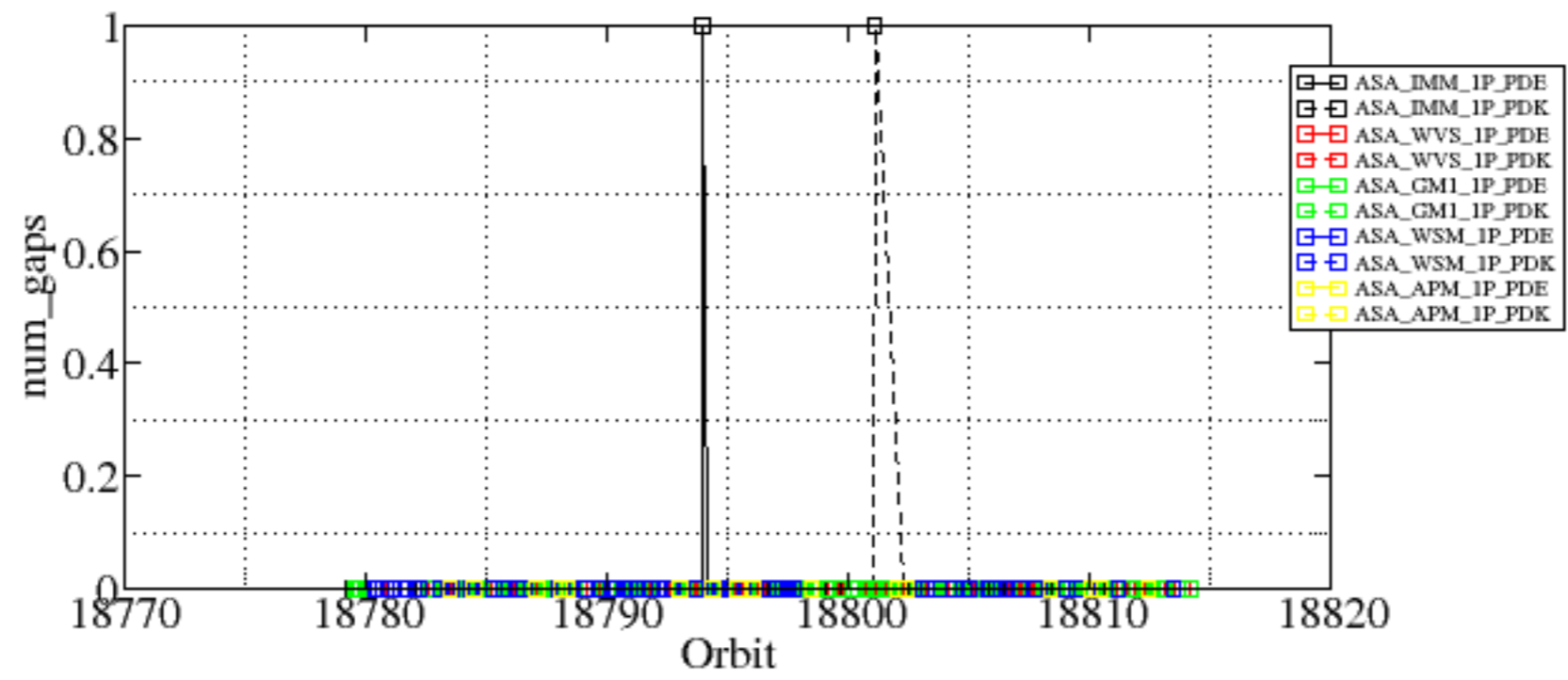


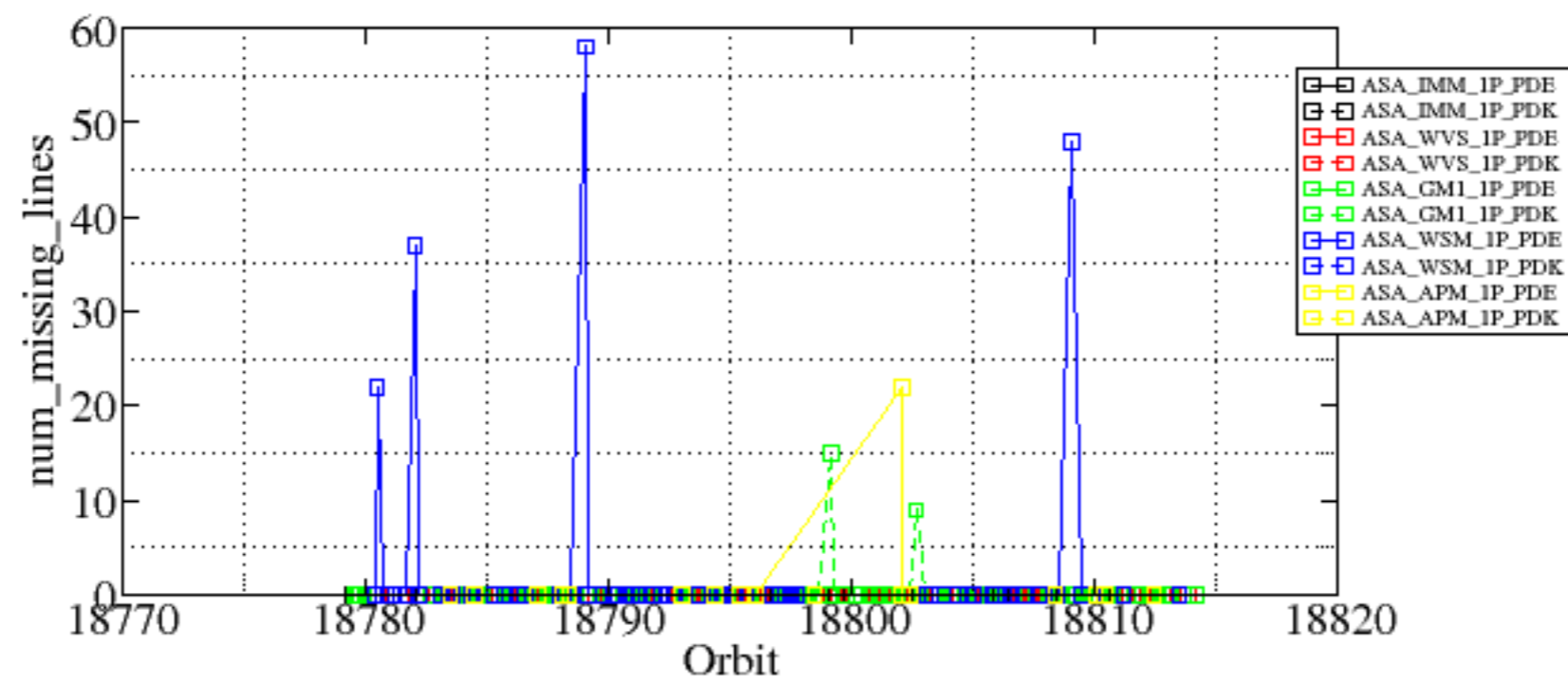


Summary of analysis for the last 3 days 2005100[345]

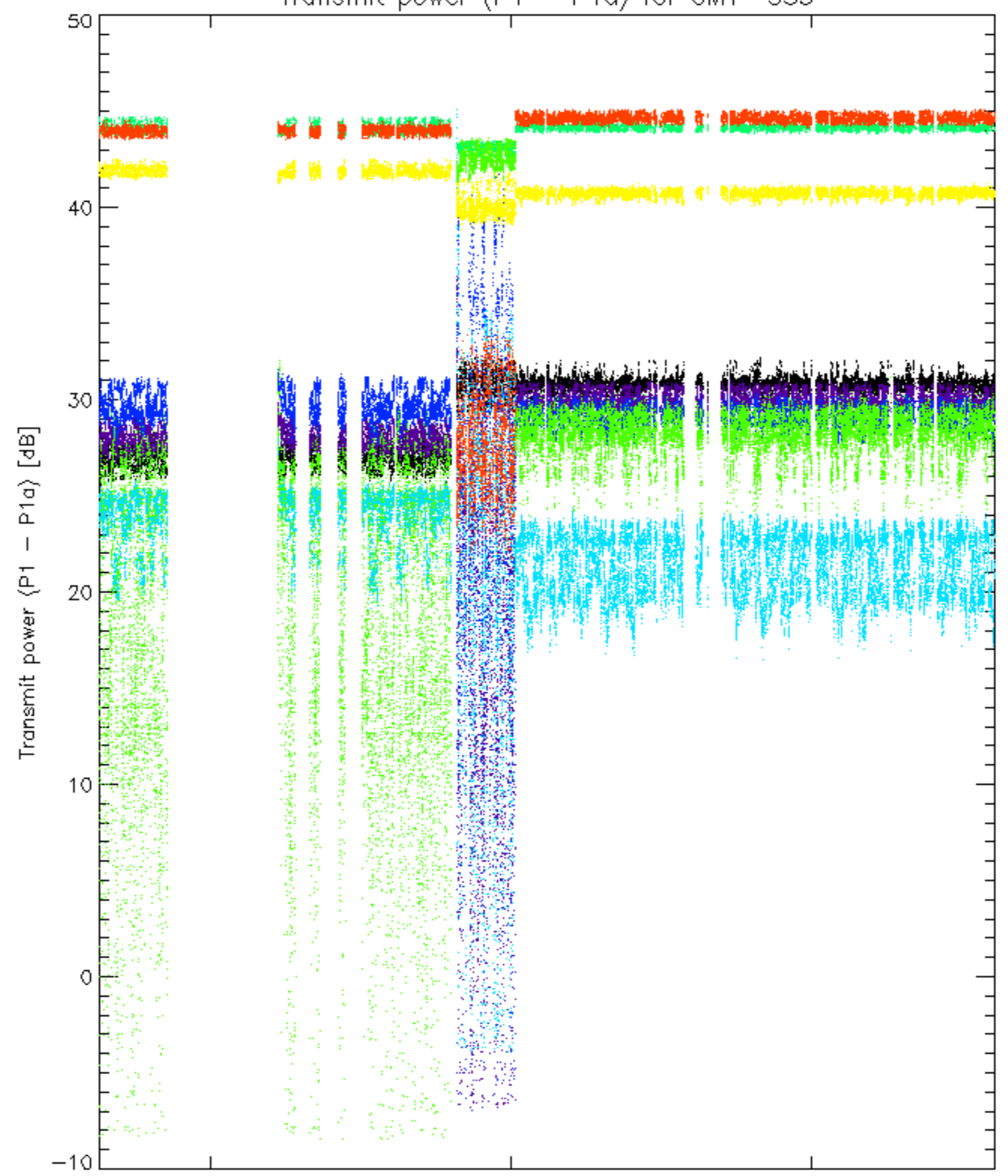
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051004_003705_000001542041_00202_18793_7333.N1	1	0
ASA_IMM_1PNPDK20051004_123413_000000812041_00210_18801_5176.N1	1	0
ASA_GM1_1PNPDK20051004_092122_000006762041_00208_18799_7351.N1	0	15
ASA_GM1_1PNPDK20051004_151128_000011352041_00211_18802_7392.N1	0	9
ASA_WSM_1PNPDE20051003_020026_000000852041_00189_18780_2057.N1	0	22
ASA_WSM_1PNPDE20051003_043835_000001282041_00191_18782_2079.N1	0	37
ASA_WSM_1PNPDE20051003_162343_000000912041_00198_18789_2129.N1	0	58
ASA_WSM_1PNPDE20051005_015357_000001592041_00218_18809_2400.N1	0	48
ASA_APM_1PNPDE20051004_141145_000000612041_00211_18802_1628.N1	0	22

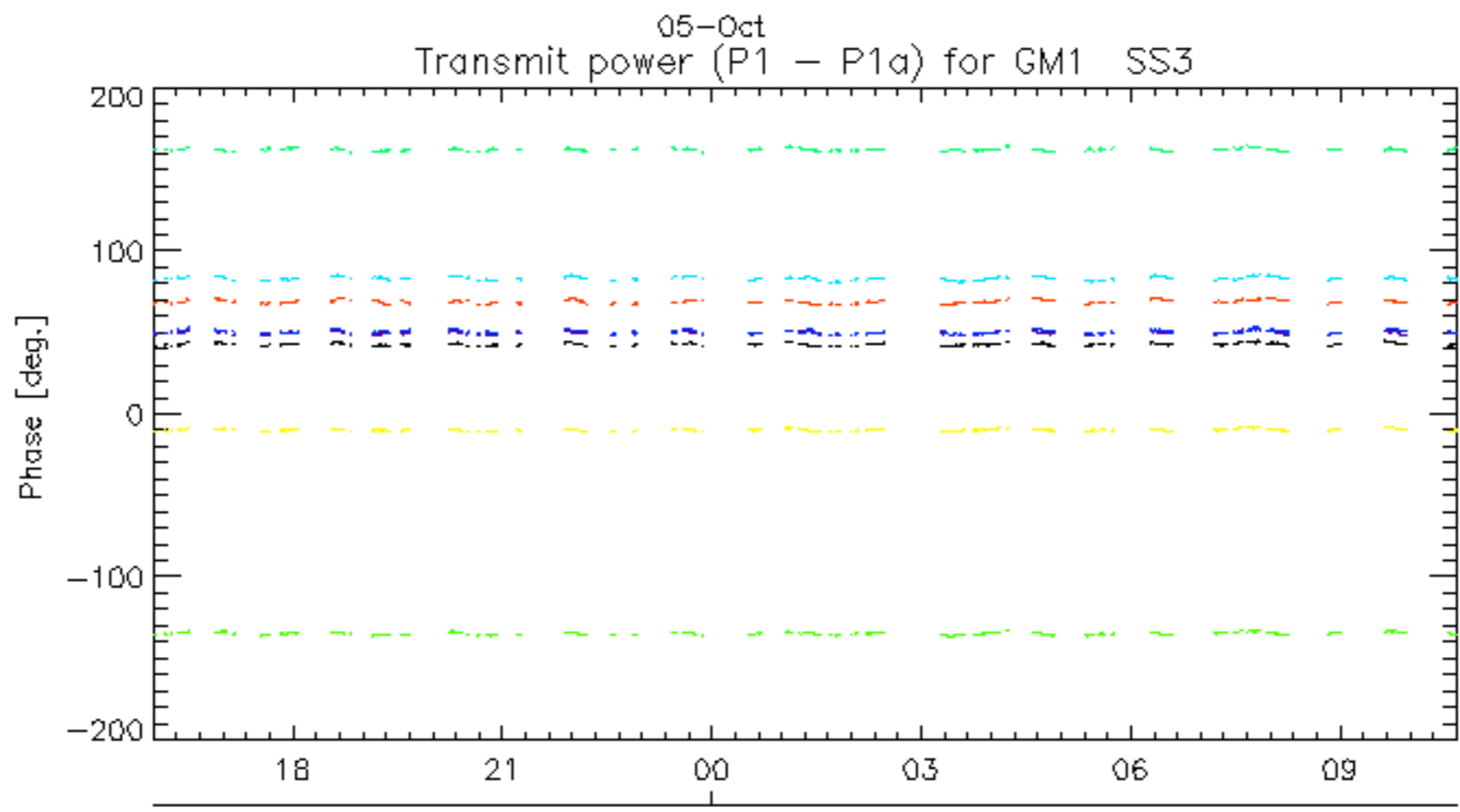
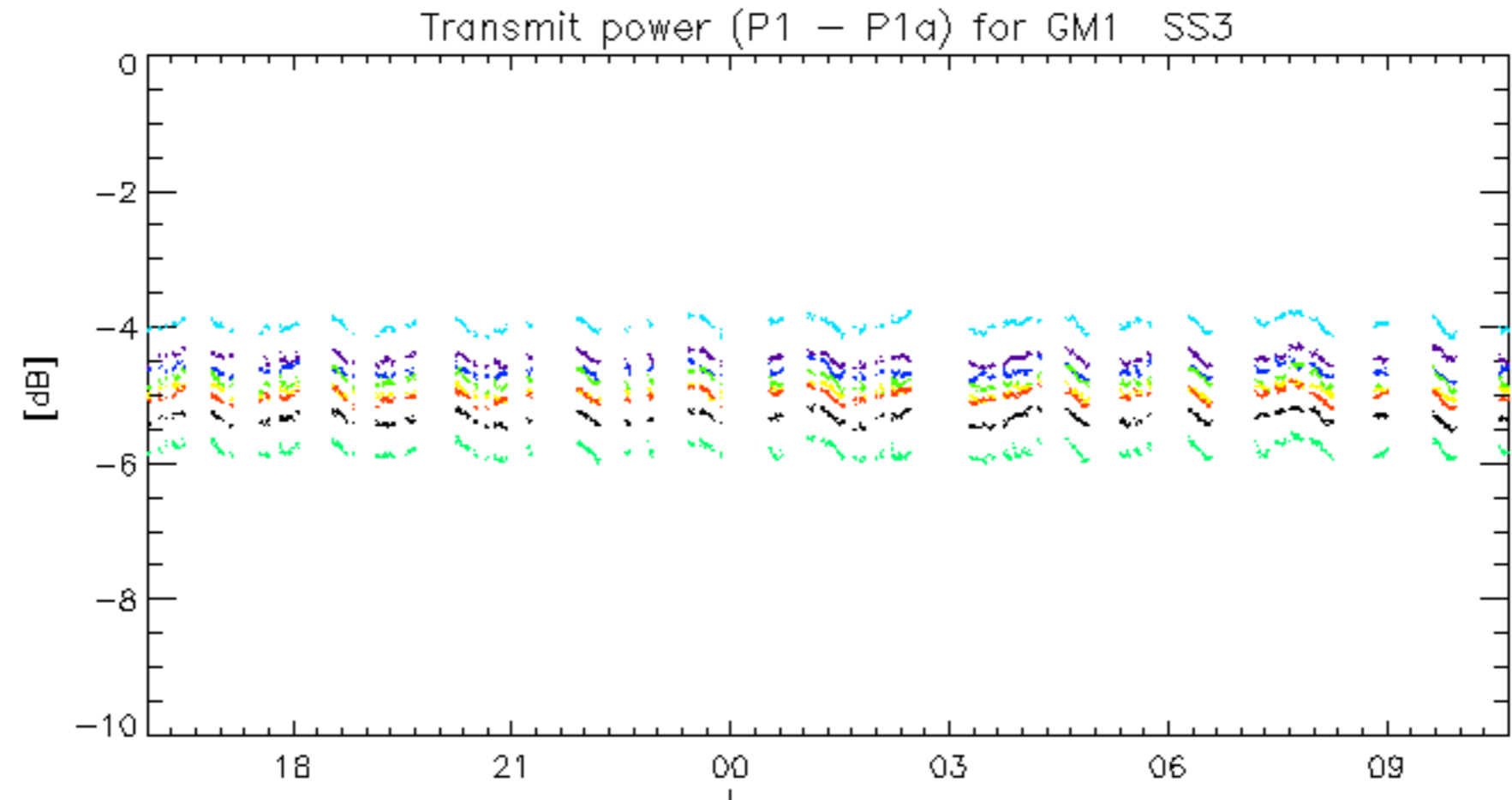




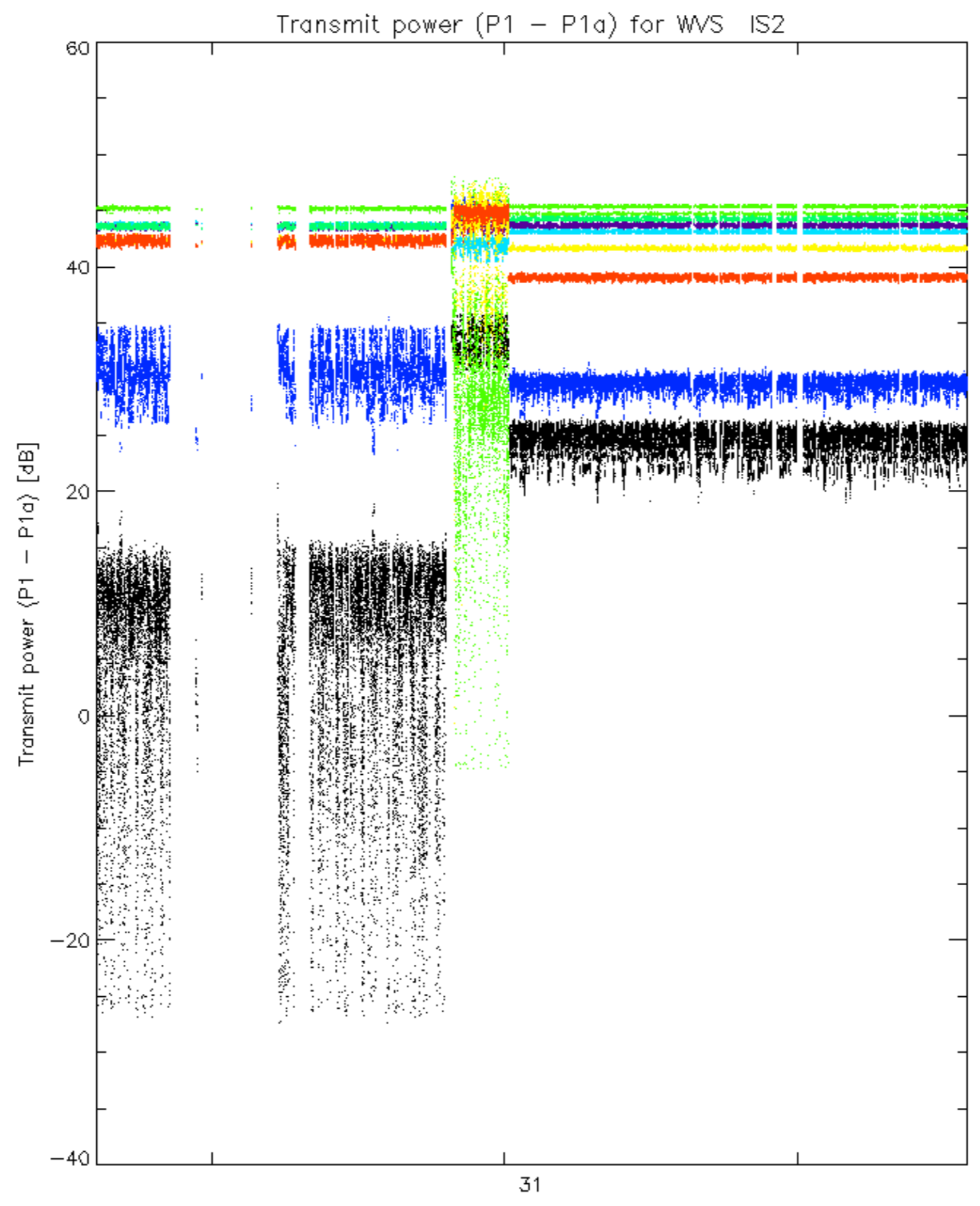
Transmit power (P1 - P1a) for GM1 SS3

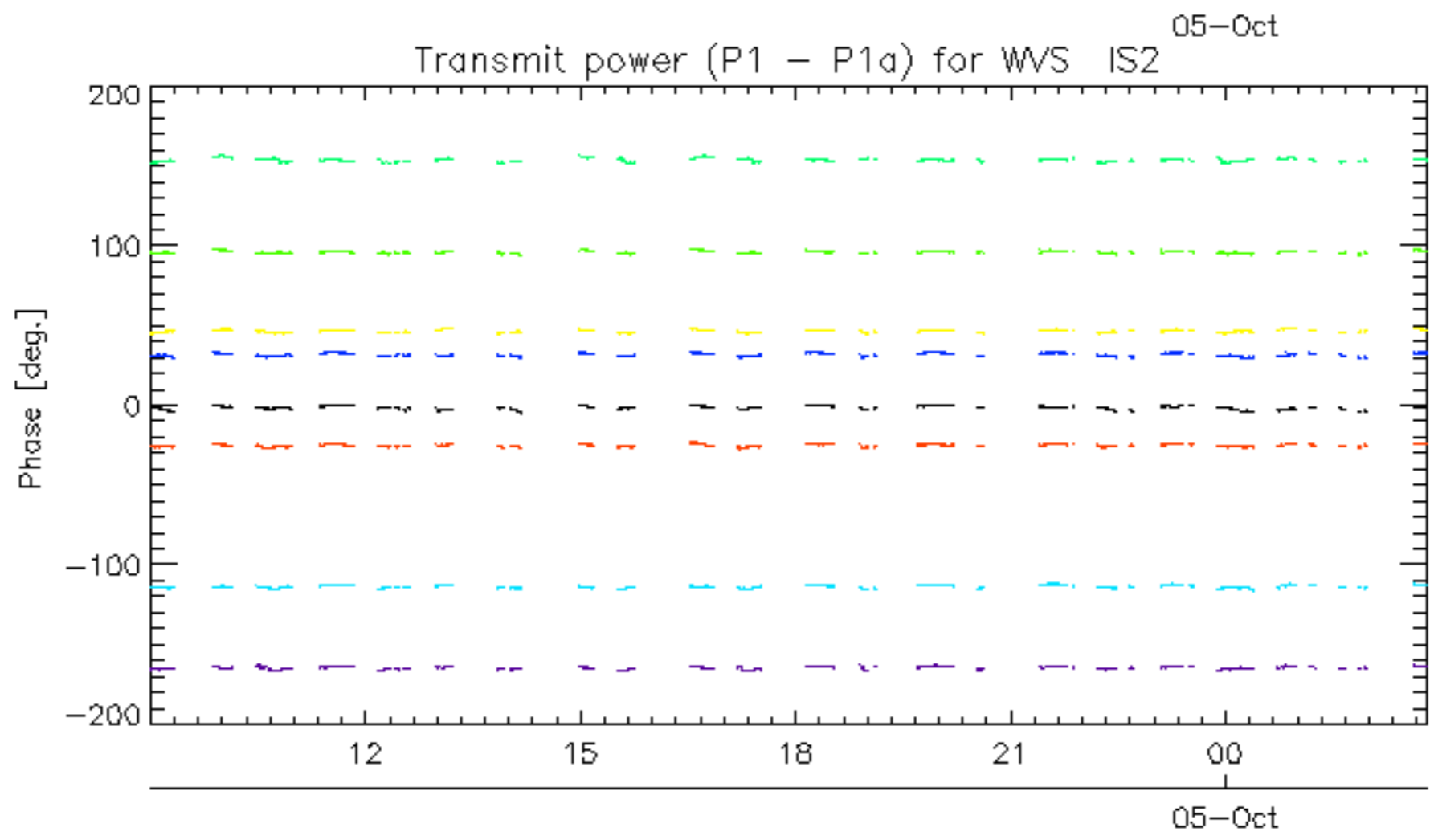
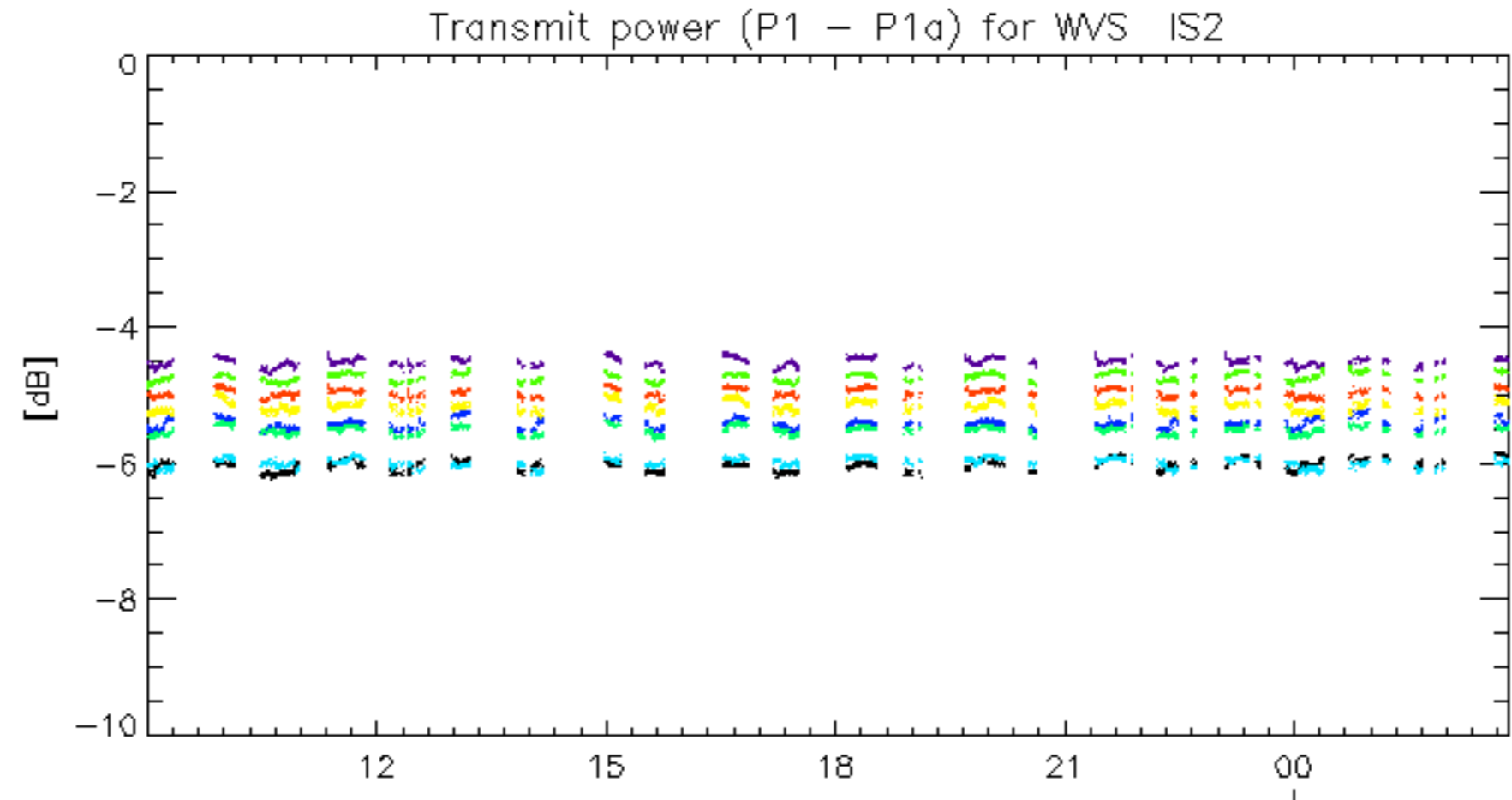


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.