

PRELIMINARY REPORT OF 050904

last update on Sun Sep 4 10:50:01 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 2005-09-03 00:00:00 to 2005-09-04 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	25	58	10	2	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	25	58	10	2	0
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	25	58	10	2	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	25	58	10	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	34	50	37	10	39
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	34	50	37	10	39
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	34	50	37	10	39
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	34	50	37	10	39

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	20050902 033423
H	20050903 030246

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
<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	-3.300968	0.027435	0.073021
7	P1	-3.178511	0.024579	0.015235
11	P1	-4.726923	0.033613	-0.018684
15	P1	-5.623238	0.050709	-0.016643
19	P1	-3.815758	0.004267	-0.014306
22	P1	-4.617683	0.011708	-0.002510
26	P1	-4.825544	0.022951	0.006360
30	P1	-7.250064	0.026140	-0.072128
3	P1	-15.539698	0.073921	-0.014688
7	P1	-15.558351	0.145269	-0.124398
11	P1	-21.804096	0.358674	-0.045795
15	P1	-11.317554	0.124704	-0.084070
19	P1	-14.519315	0.034632	-0.028613
22	P1	-15.546606	0.328306	0.243259
26	P1	-17.256172	0.175275	0.161953
30	P1	-17.861818	0.303599	-0.105961

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.744074	0.086741	0.119654
7	P2	-21.883463	0.101697	0.151789
11	P2	-13.449070	0.113202	0.194366
15	P2	-7.045563	0.093784	0.035795
19	P2	-9.581920	0.097938	0.031765
22	P2	-16.807070	0.101137	0.039287
26	P2	-16.503292	0.101084	0.016734
30	P2	-18.804178	0.088817	-0.000097

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.156104	0.003577	0.005955
7	P3	-8.156104	0.003577	0.005955
11	P3	-8.156104	0.003577	0.005955
15	P3	-8.156104	0.003577	0.005955
19	P3	-8.156104	0.003577	0.005955
22	P3	-8.156104	0.003577	0.005955
26	P3	-8.156111	0.003577	0.005954
30	P3	-8.156111	0.003577	0.005954

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	-2.802169	0.092873	0.106401
7	P1	-2.973511	0.065918	0.084501
11	P1	-4.035842	0.026050	-0.034106
15	P1	-3.639389	0.062878	0.031839
19	P1	-3.632219	0.013919	-0.006126
22	P1	-5.707057	0.041930	-0.035768
26	P1	-7.362085	0.030061	0.022042
30	P1	-6.293504	0.071011	0.027702
3	P1	-10.952754	0.053073	-0.021224
7	P1	-10.491615	0.168279	-0.016612
11	P1	-12.660629	0.098738	-0.054476
15	P1	-11.631732	0.122297	-0.112854
19	P1	-15.465161	0.054993	0.035339
22	P1	-25.452026	2.003495	0.359291
26	P1	-15.199356	0.238211	0.204000
30	P1	-20.088449	1.342477	0.077975

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.454222	0.048738	0.155734
7	P2	-21.987150	0.035475	0.081530
11	P2	-9.495035	0.068094	0.181296
15	P2	-5.081306	0.037935	0.044662
19	P2	-6.850750	0.058517	0.066443
22	P2	-7.028485	0.041289	0.051731
26	P2	-23.950396	0.035477	0.031081
30	P2	-21.932026	0.042434	0.039592

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.999900	0.004172	-0.001953
7	P3	-7.999974	0.004170	-0.002110
11	P3	-7.999958	0.004167	-0.001934
15	P3	-7.999859	0.004175	-0.002024
19	P3	-7.999924	0.004172	-0.001994
22	P3	-7.999922	0.004169	-0.002044
26	P3	-7.999782	0.004169	-0.002080
30	P3	-7.999804	0.004165	-0.001782

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	0.000438497
	stdev	2.30499e-07
MEAN Q	mean	0.000469355
	stdev	2.38349e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.126775
	stdev	0.00100501
STDEV Q	mean	0.127030
	stdev	0.00101445



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005090[234]

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_1PNPDE20050902_155120_000001062040_00254_18344_4314.N1	1	0
ASA_IMM_1PNPDK20050902_124321_000000532040_00253_18343_3026.N1	1	0



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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

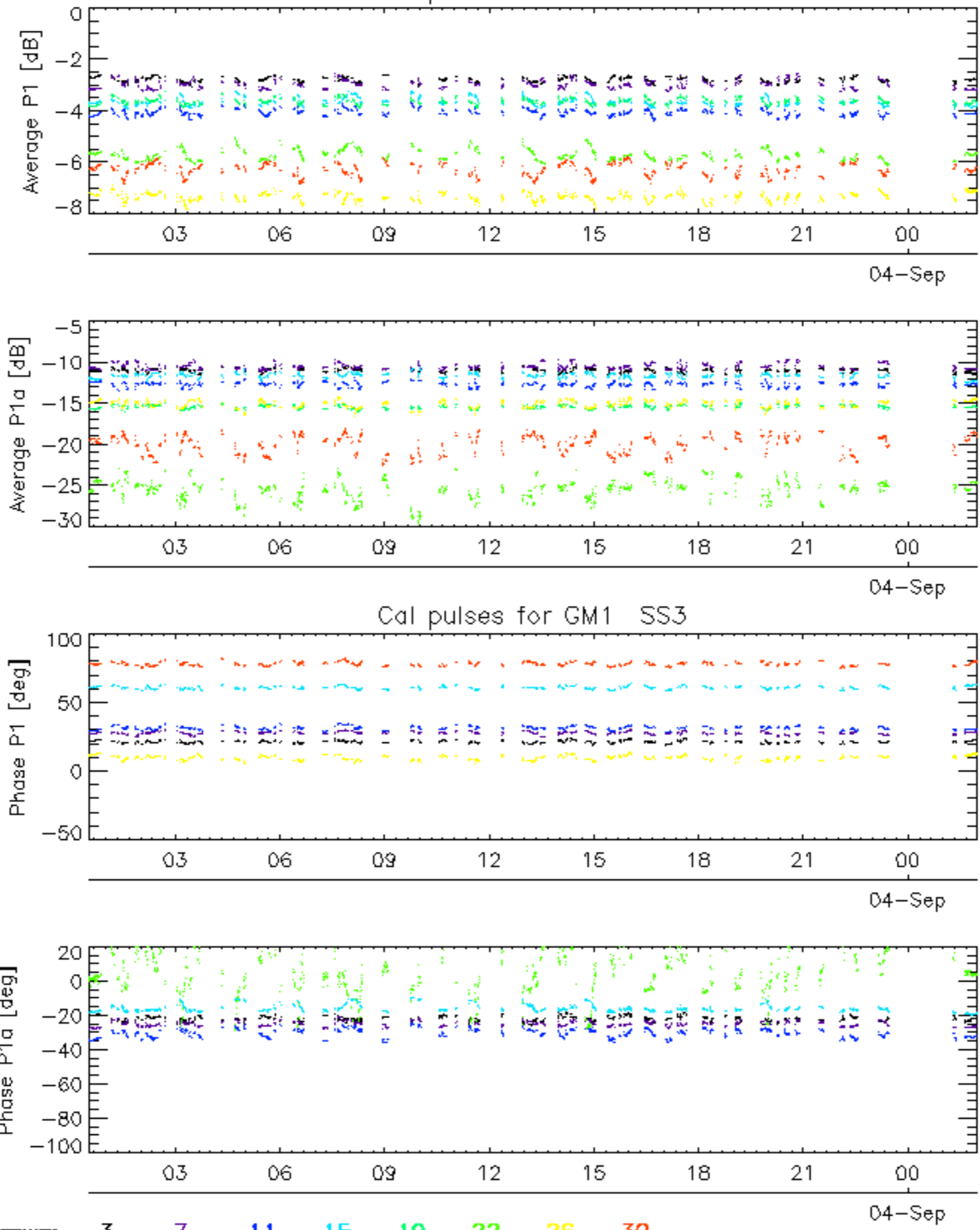
Ascending

Descending

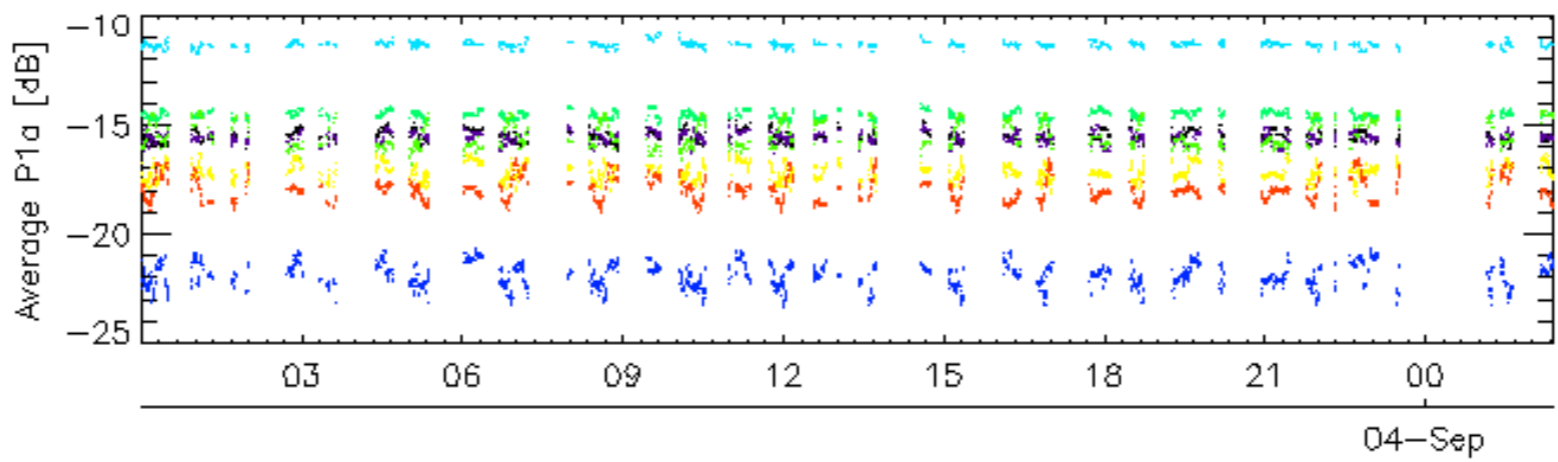
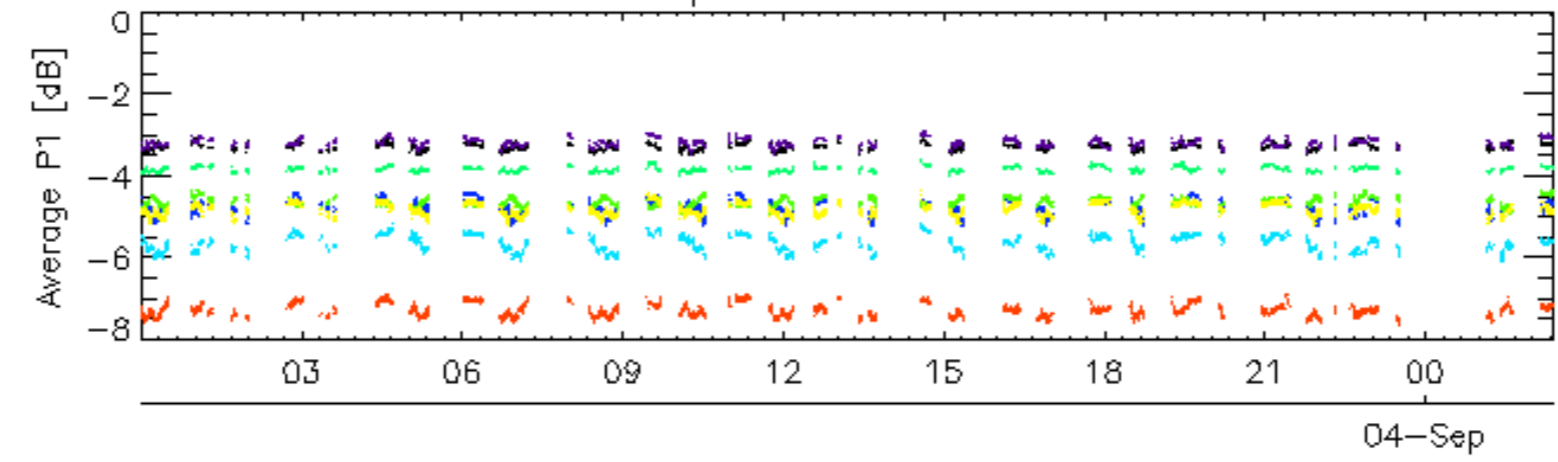
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

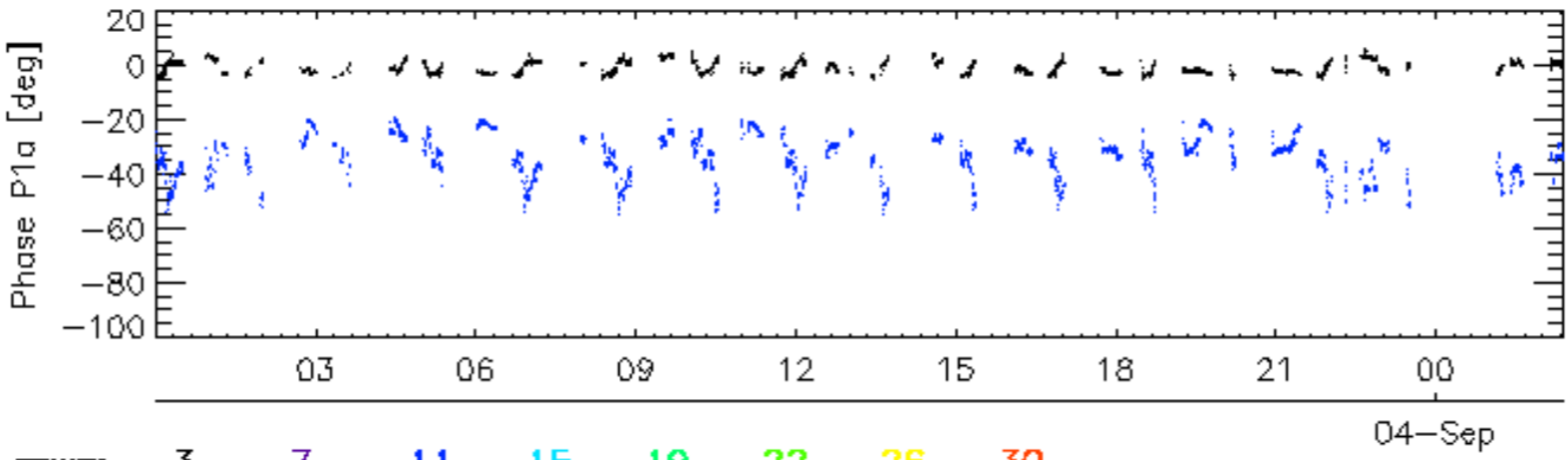
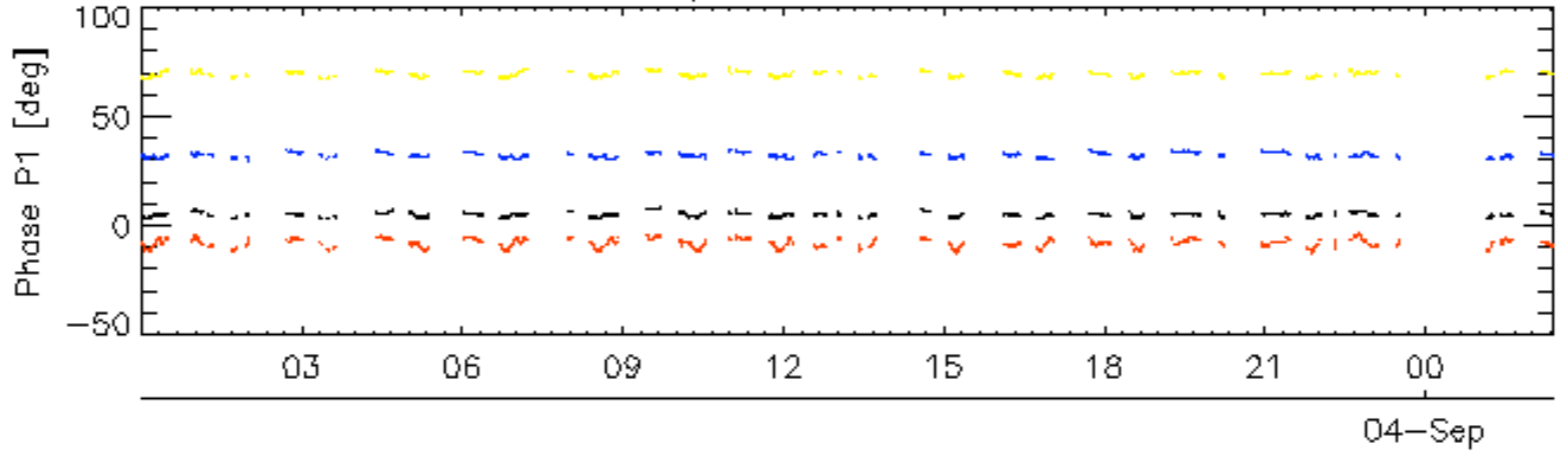
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

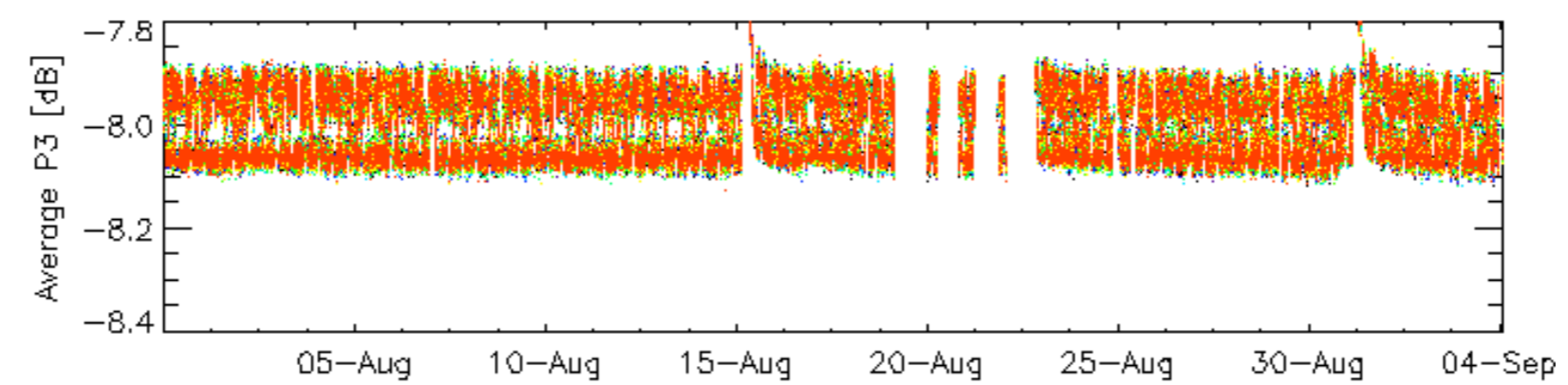
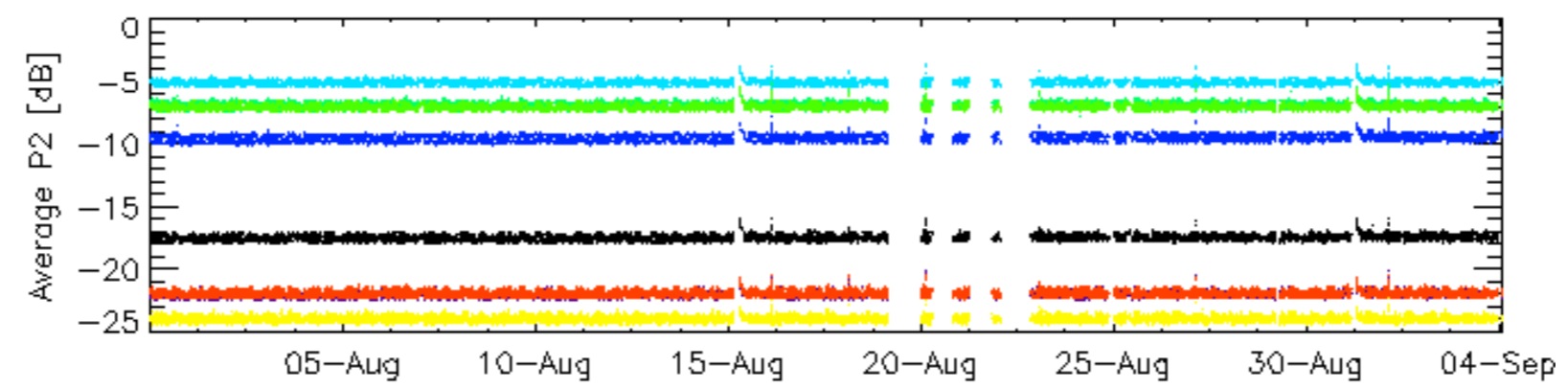
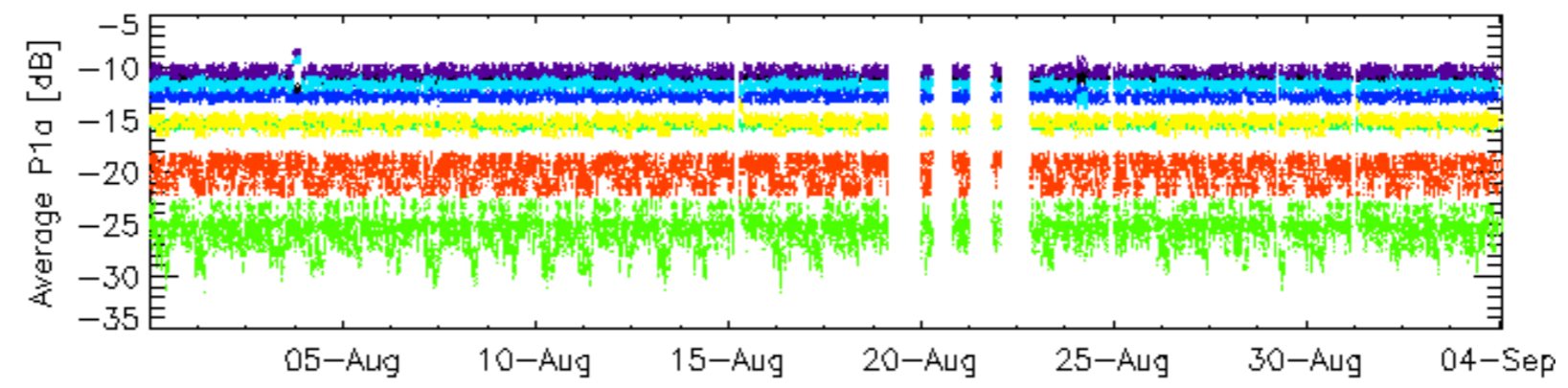
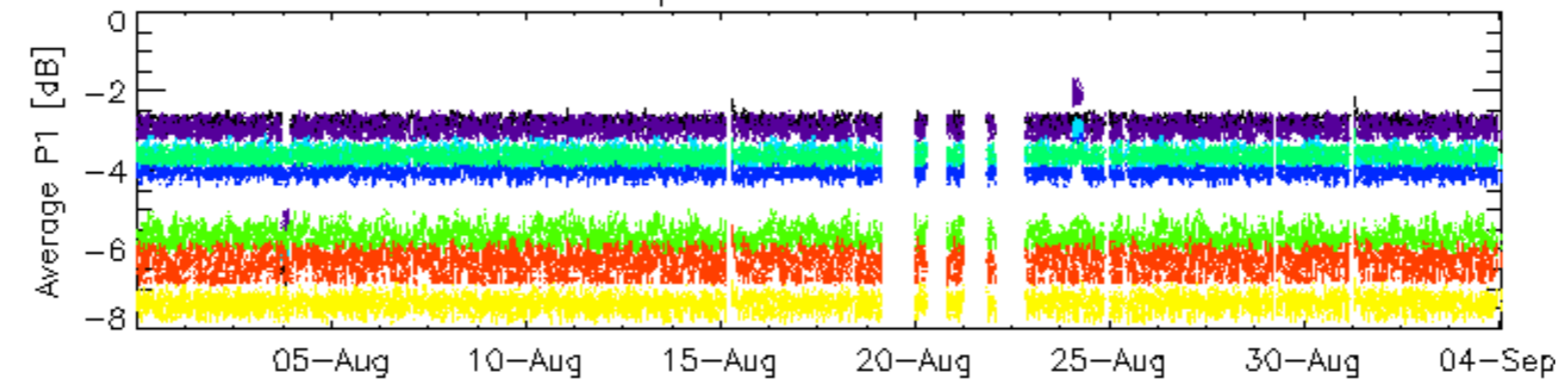


Cal pulses for WVS IS2



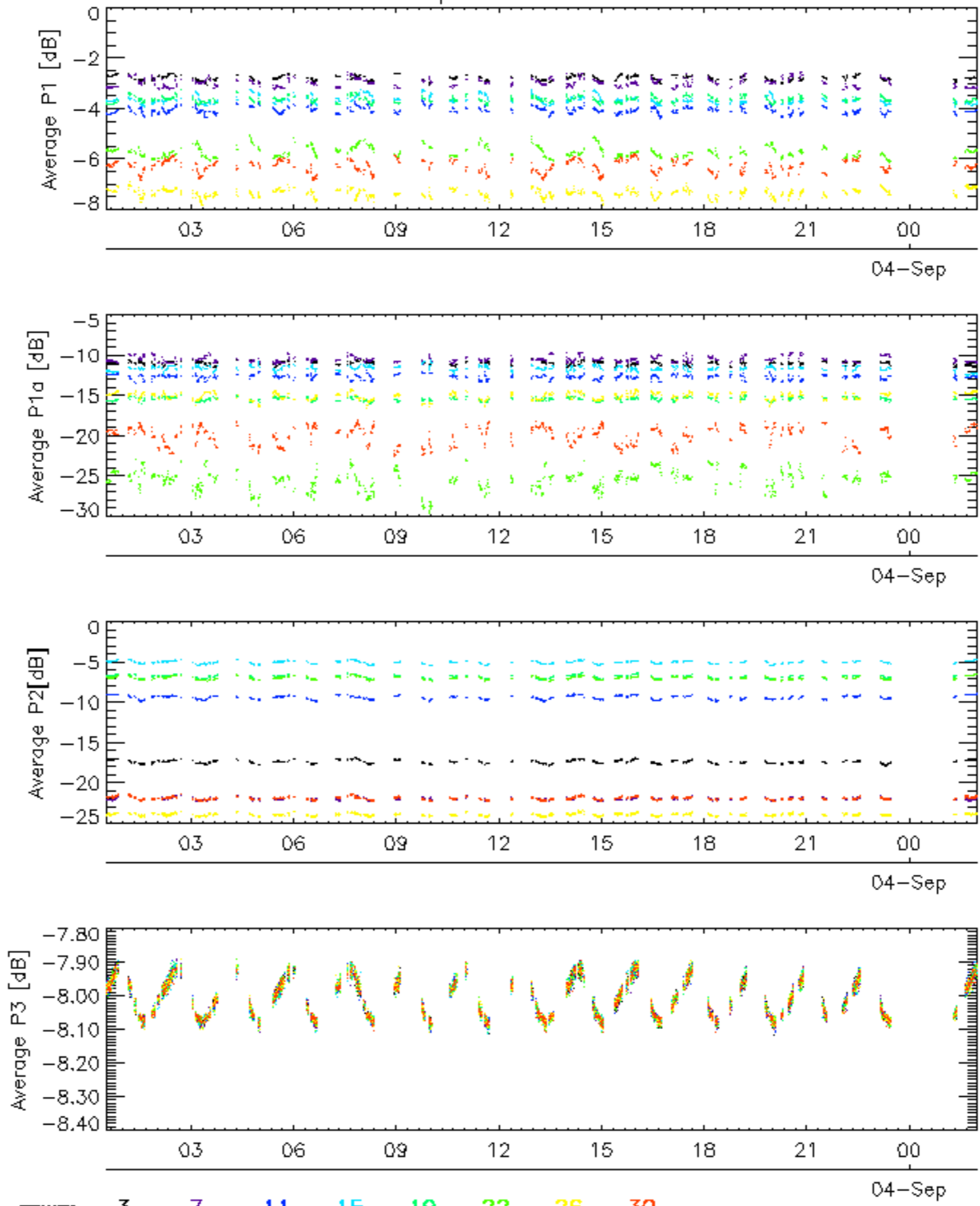
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



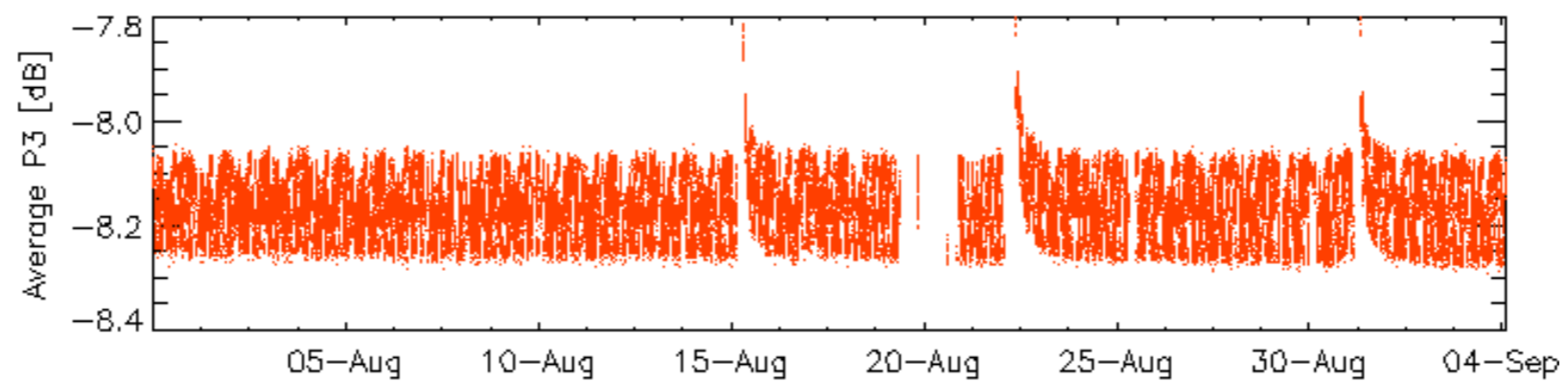
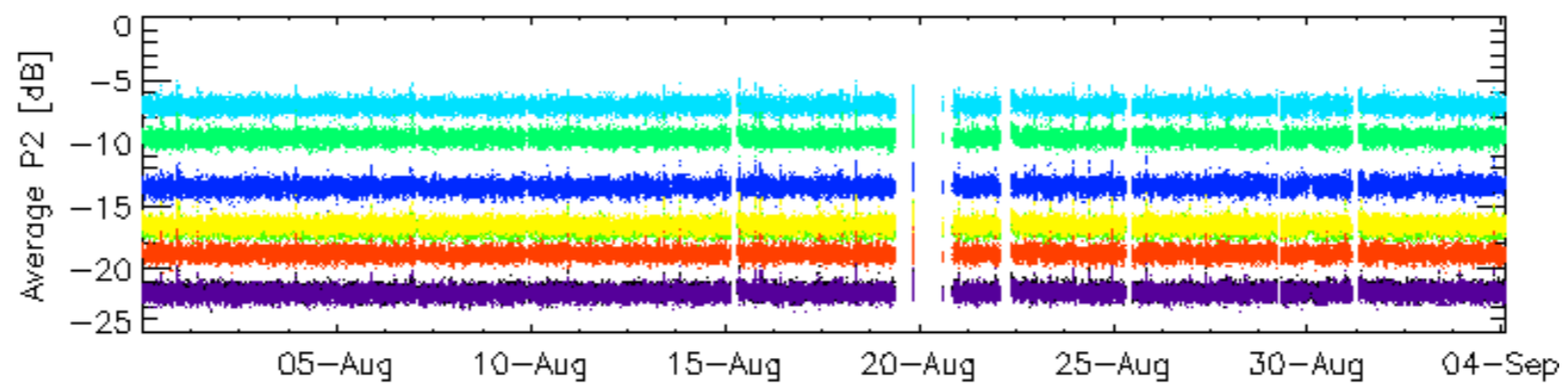
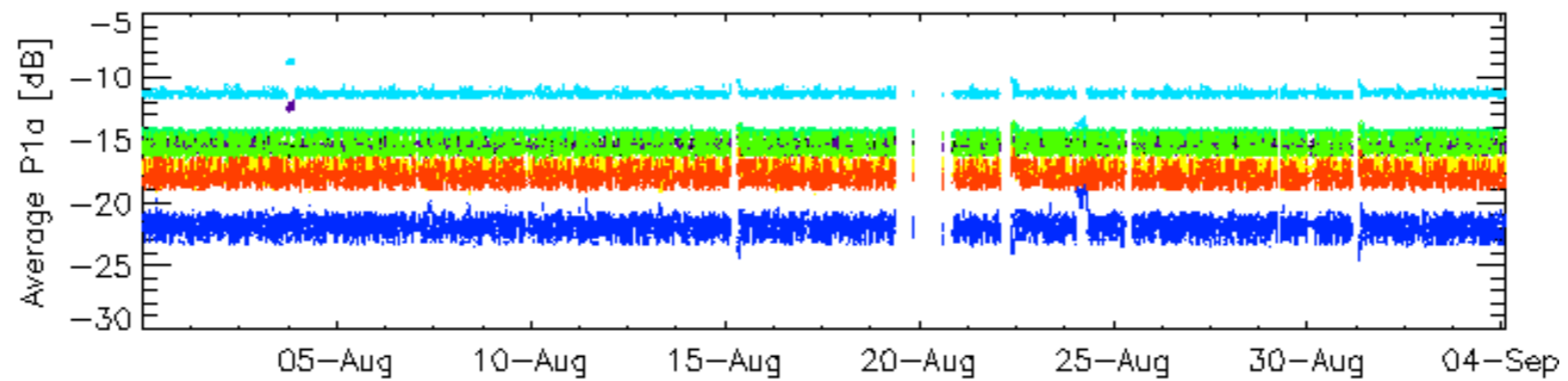
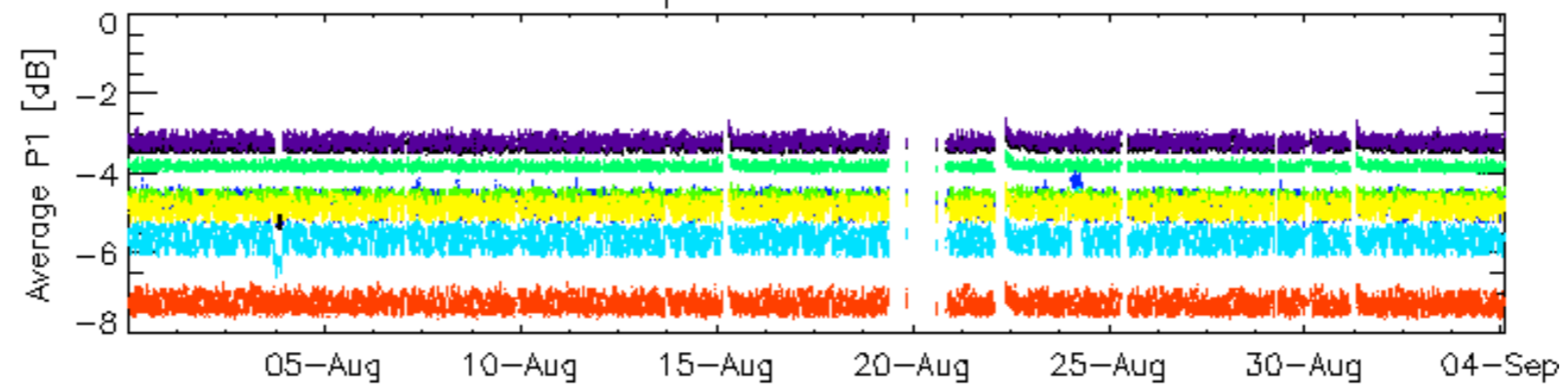
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



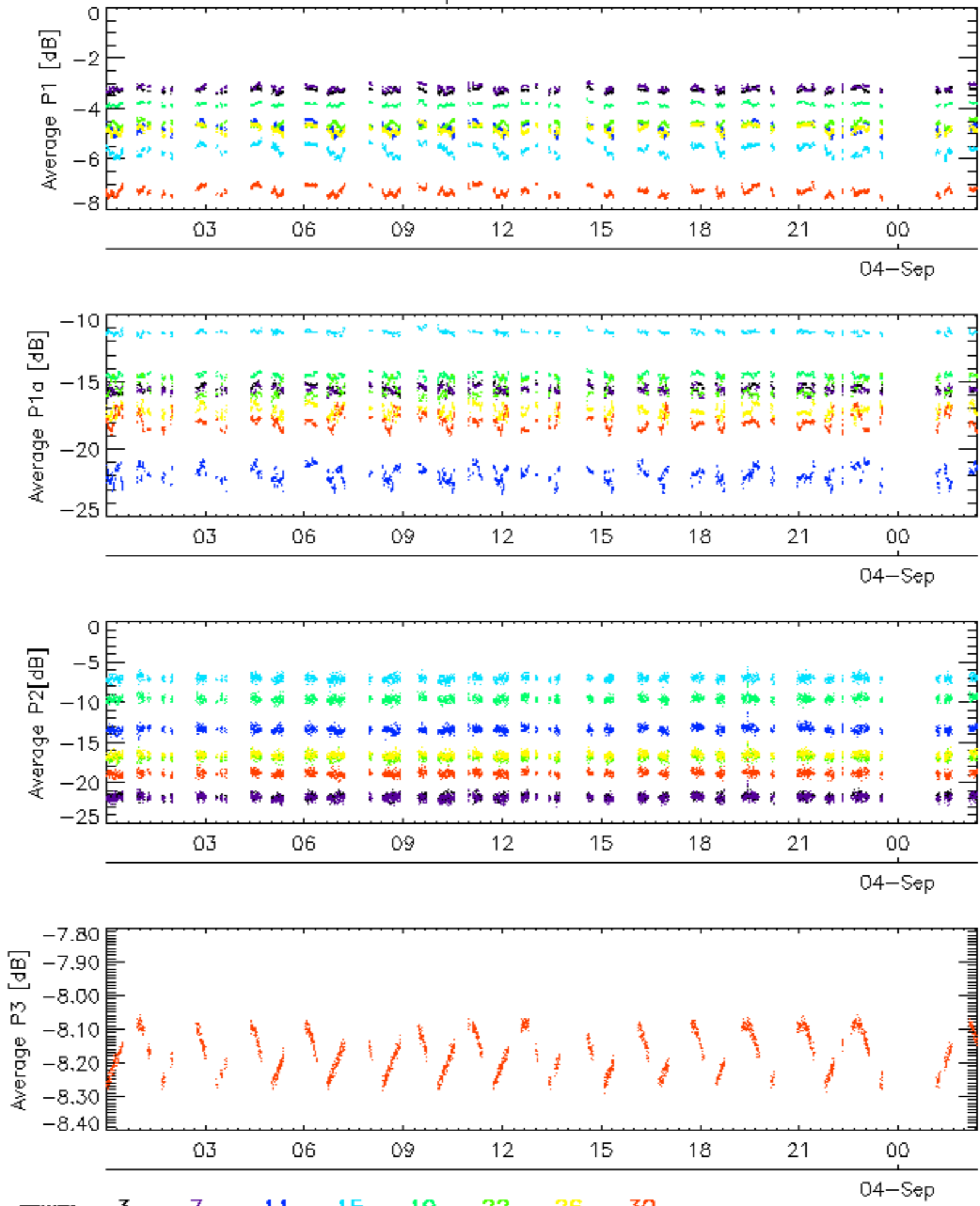
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

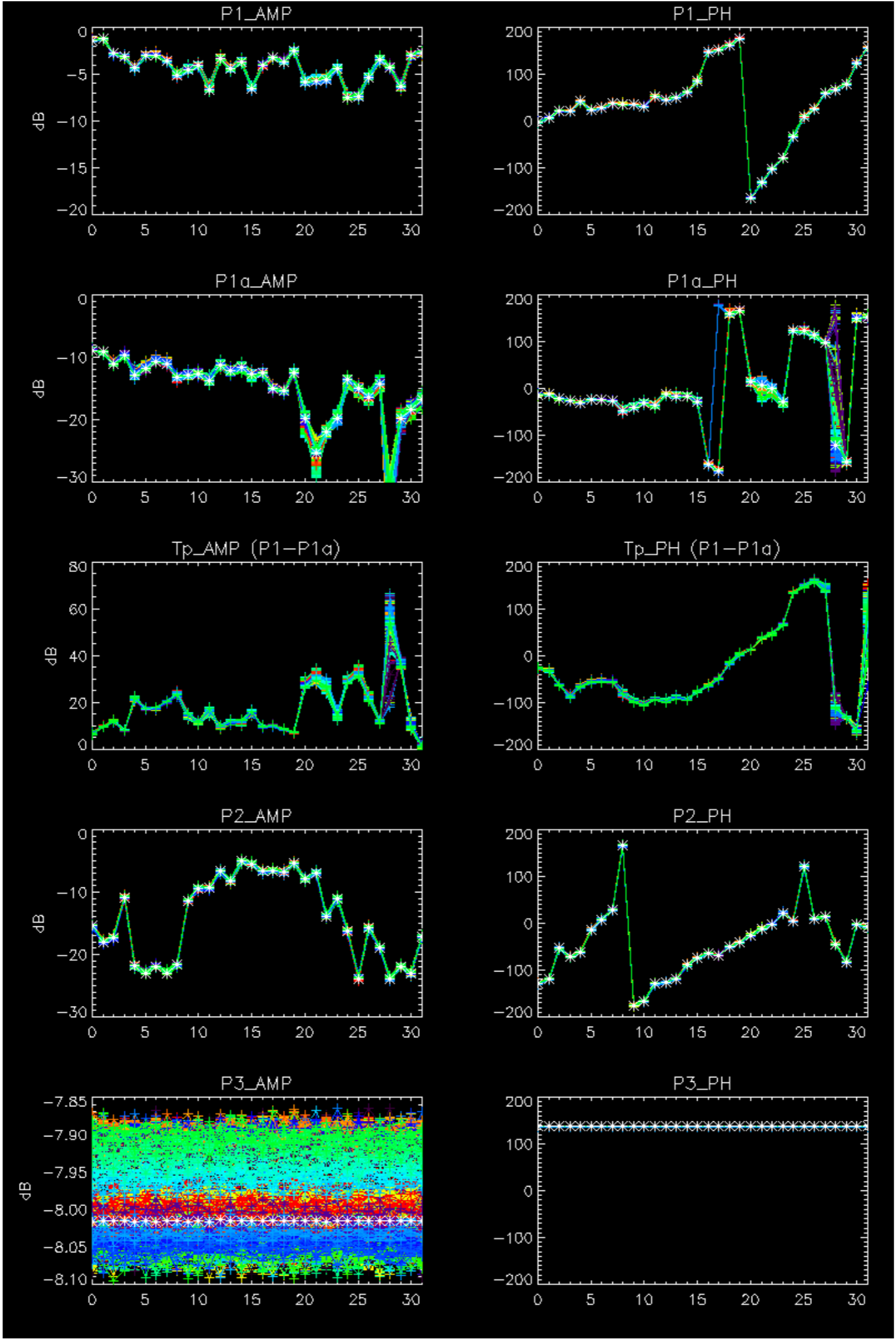


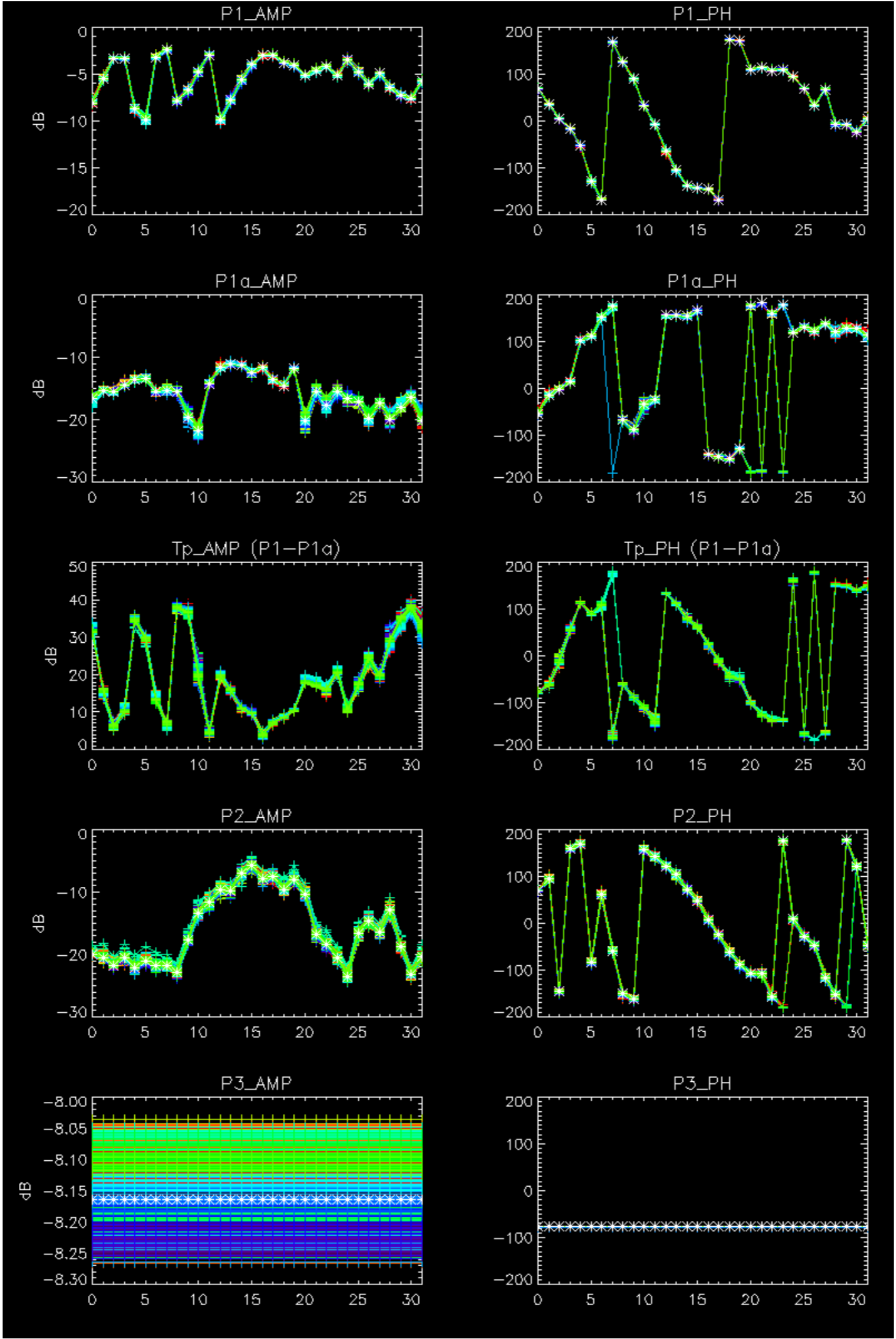
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



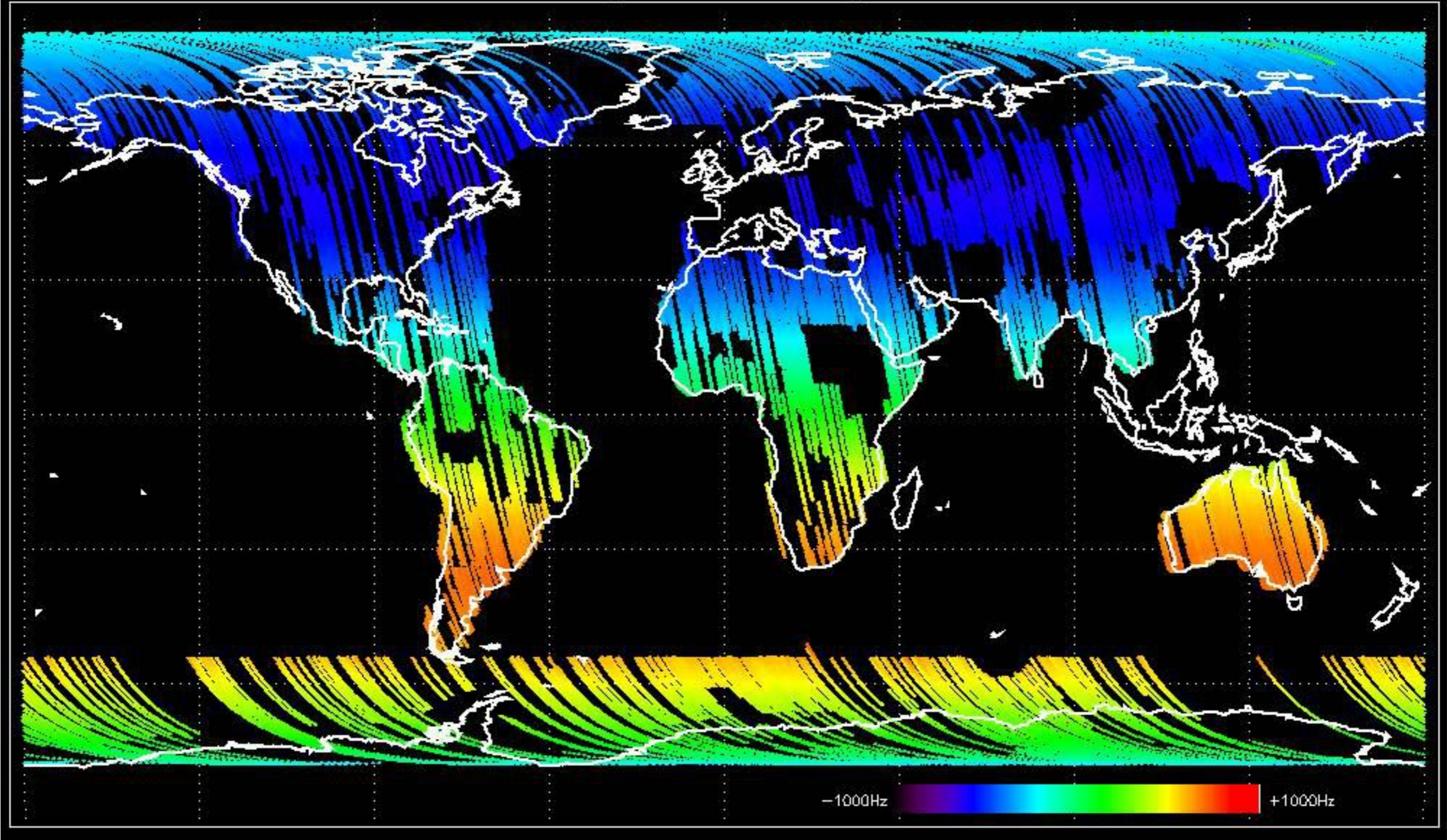
No anomalies observed.



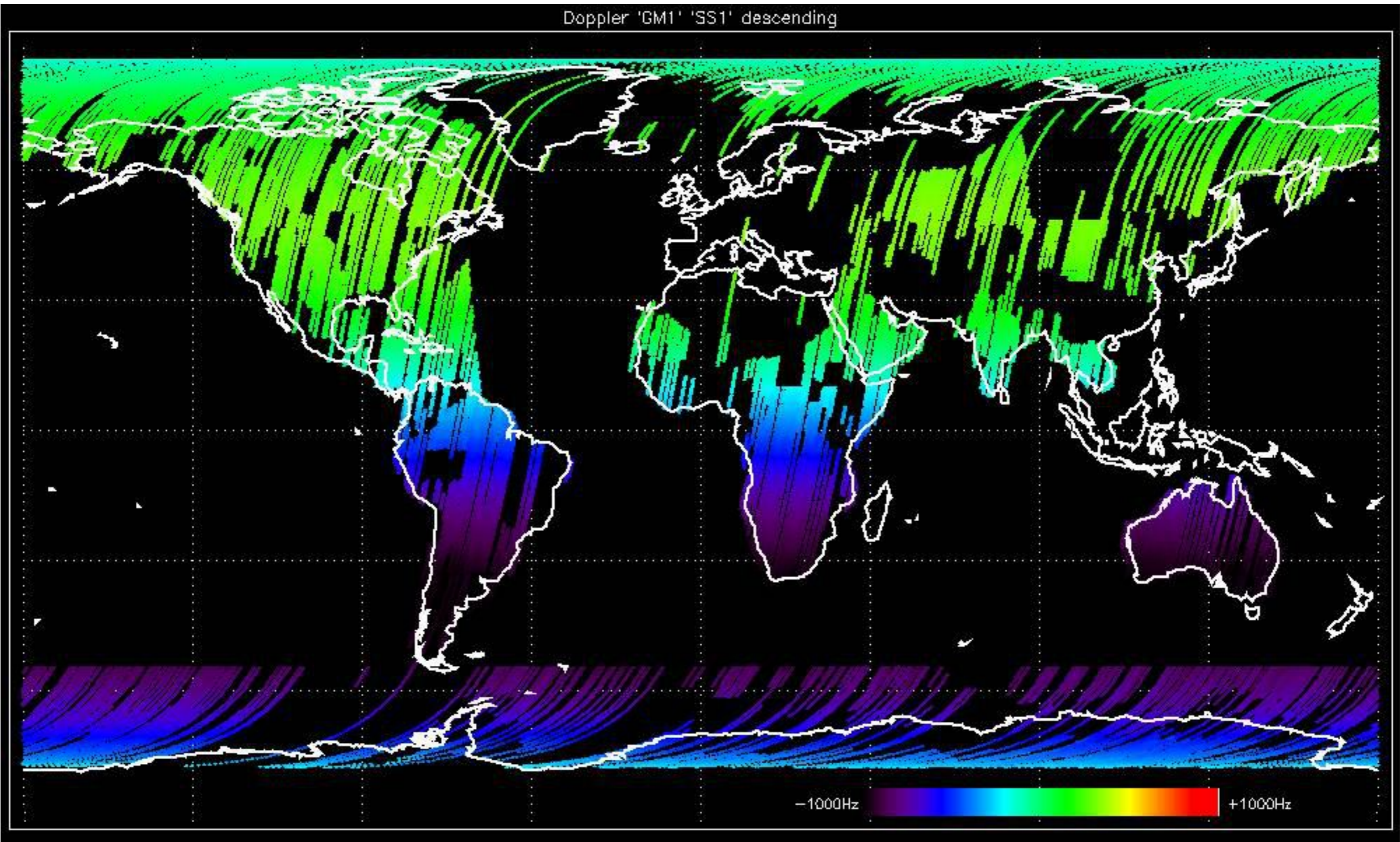


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

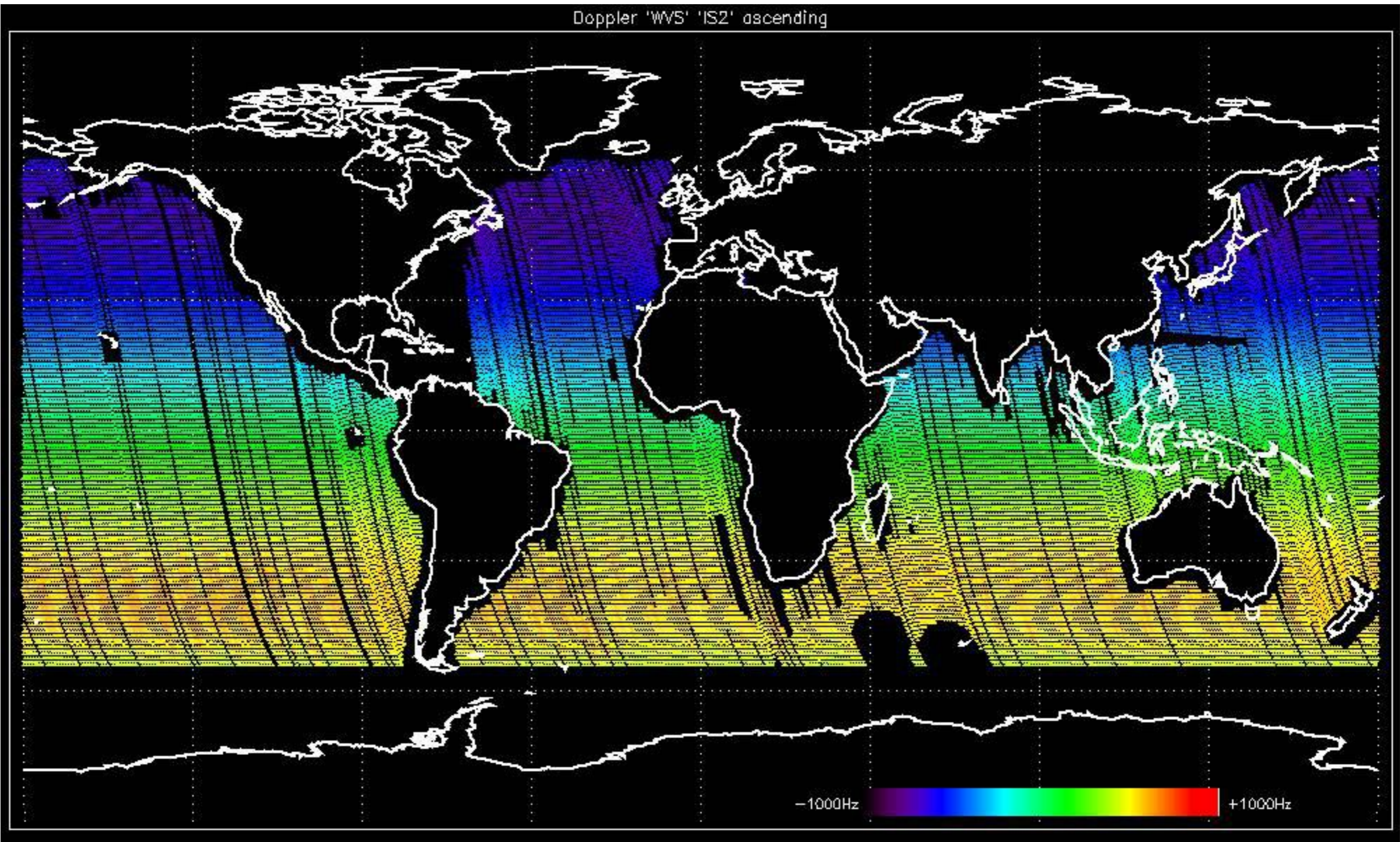
Doppler 'GM1' 'SS1' ascending



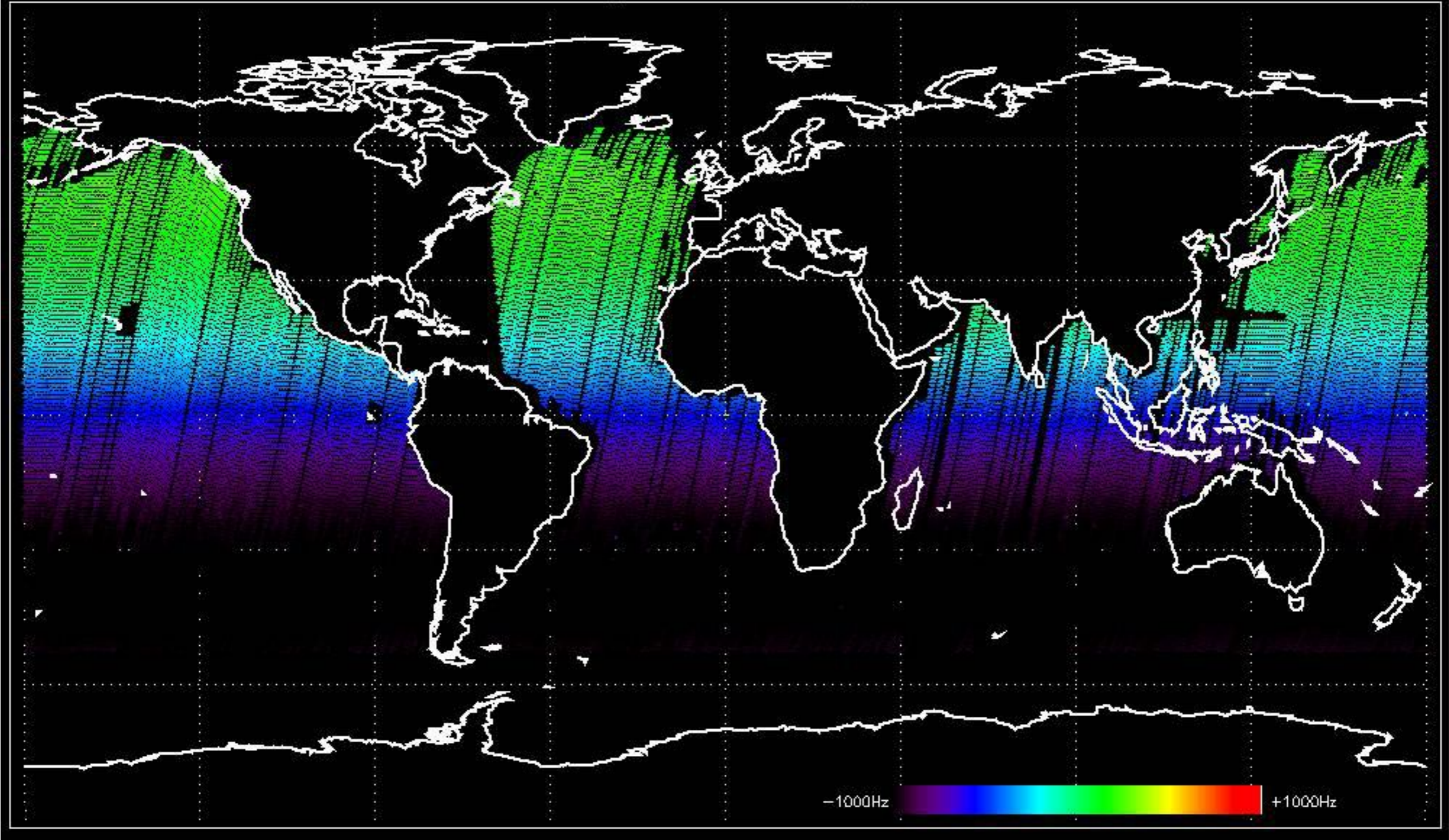
Doppler 'GM1' 'SS1' descending



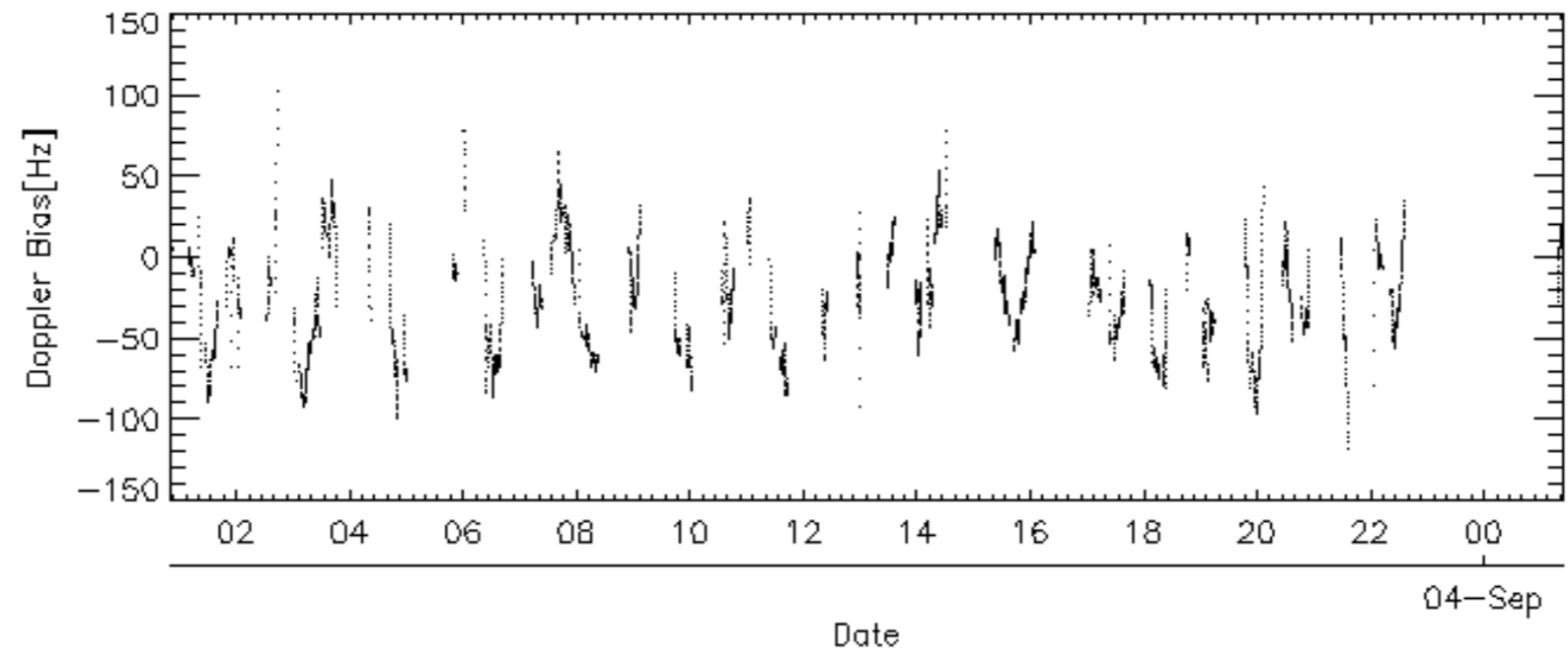
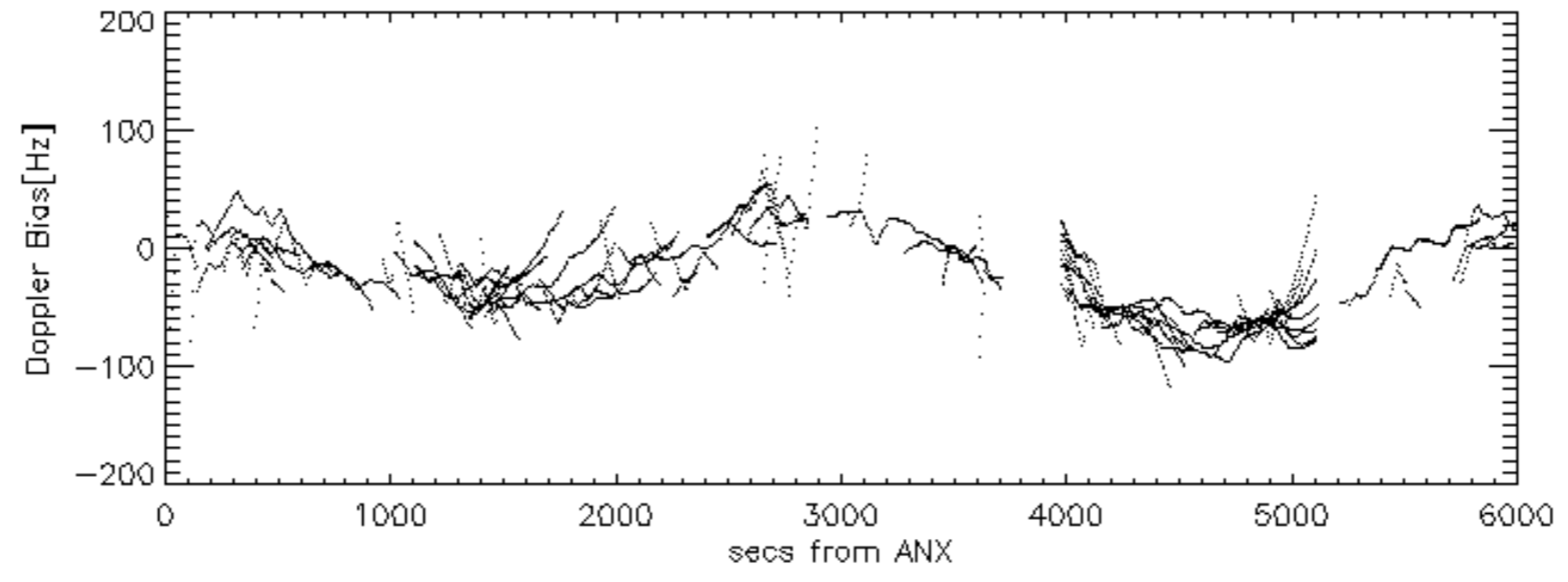
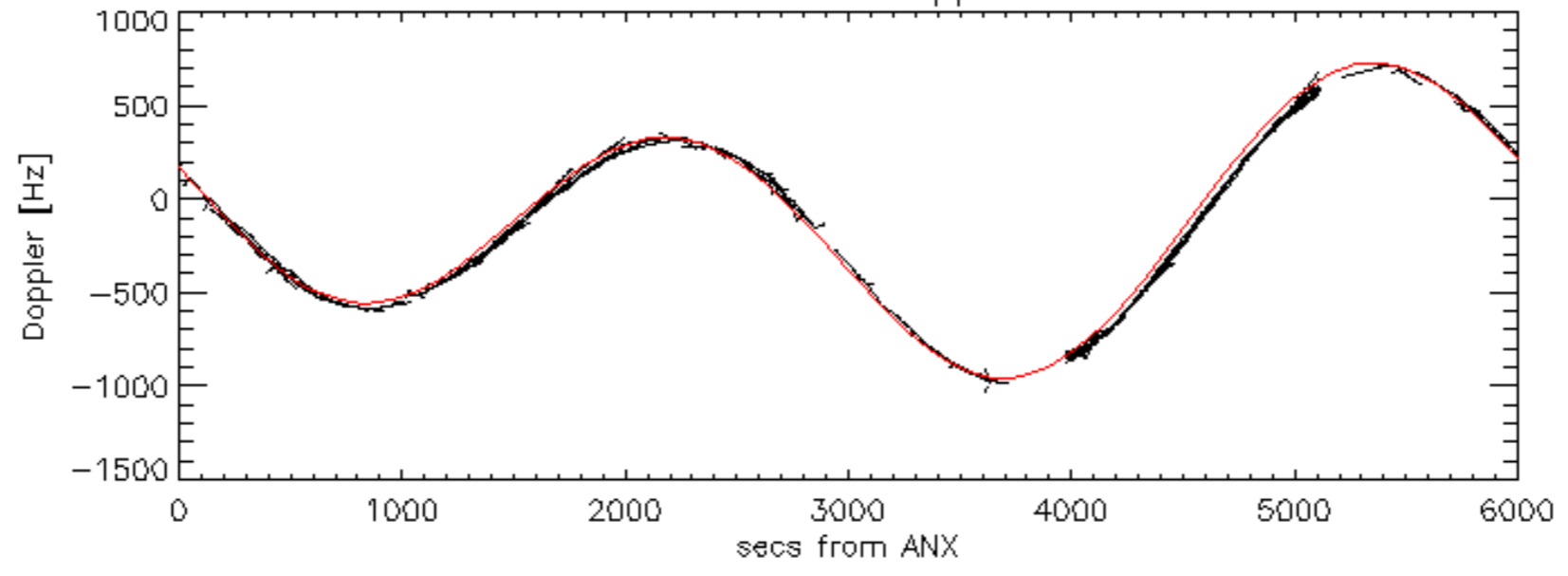
Doppler 'WVS' 'IS2' ascending

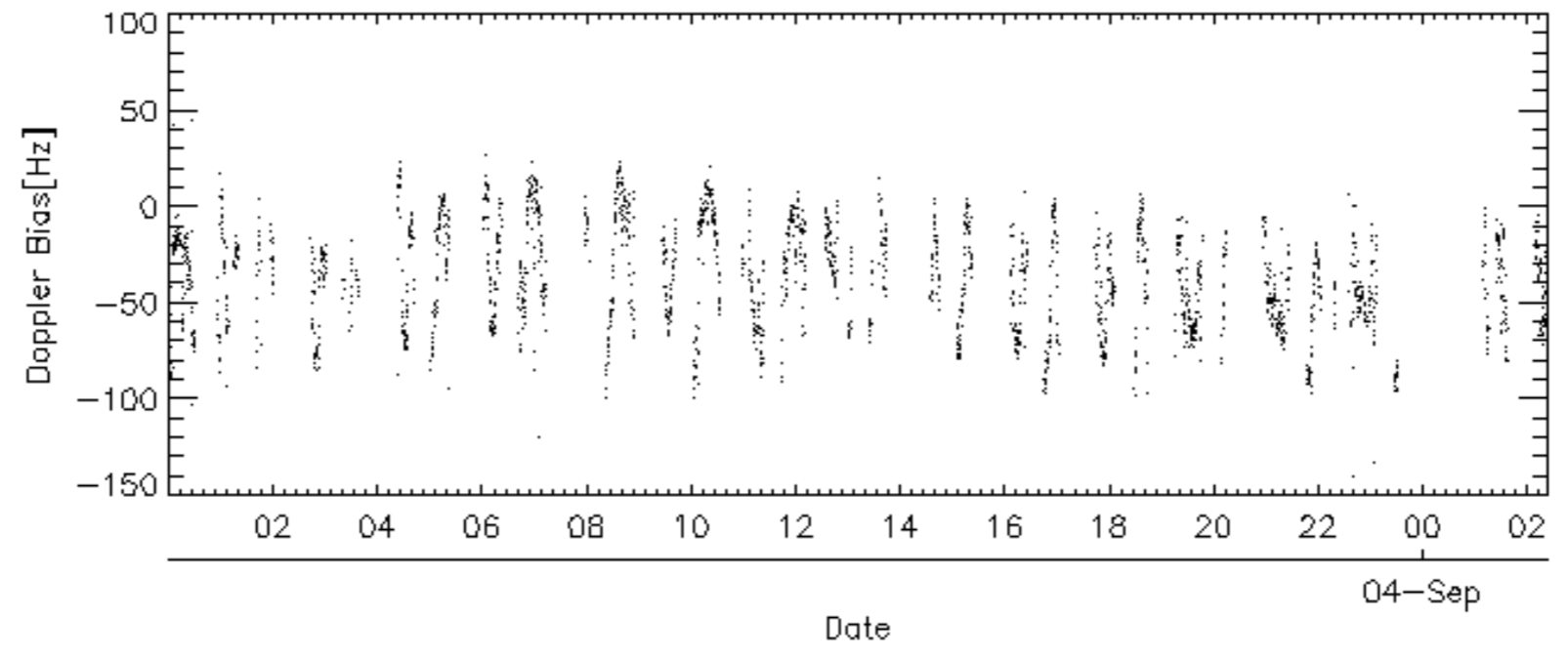
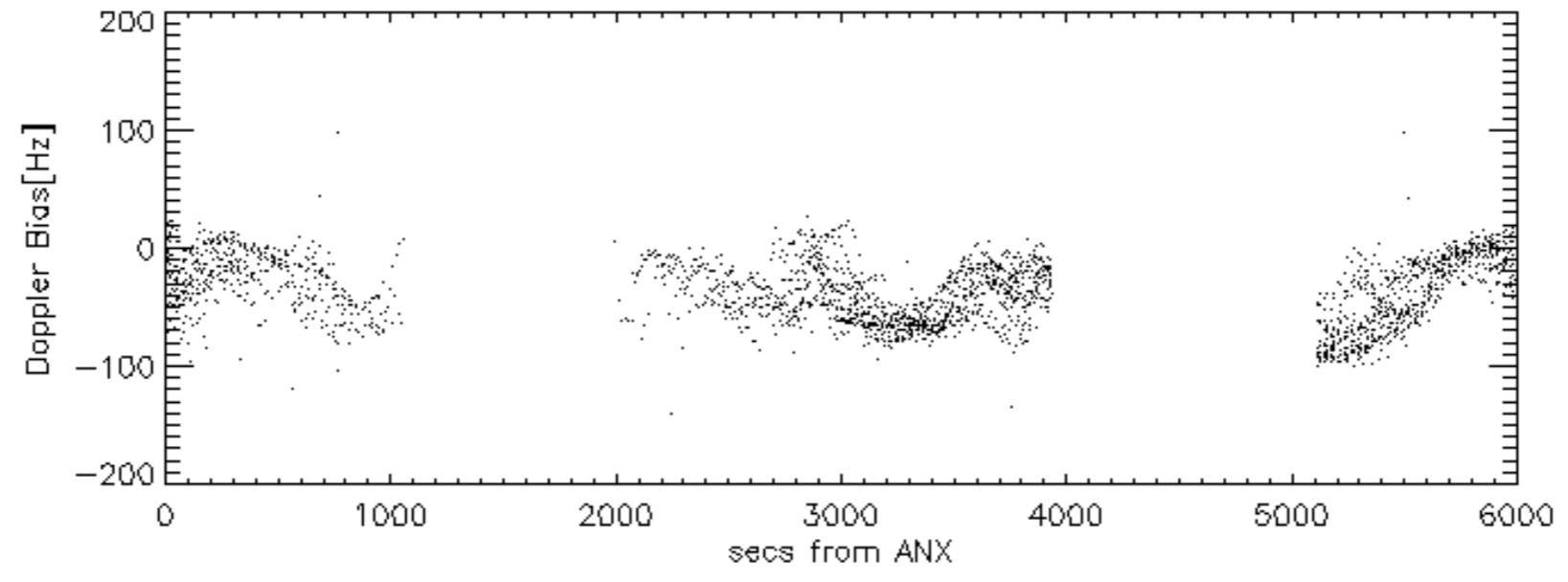
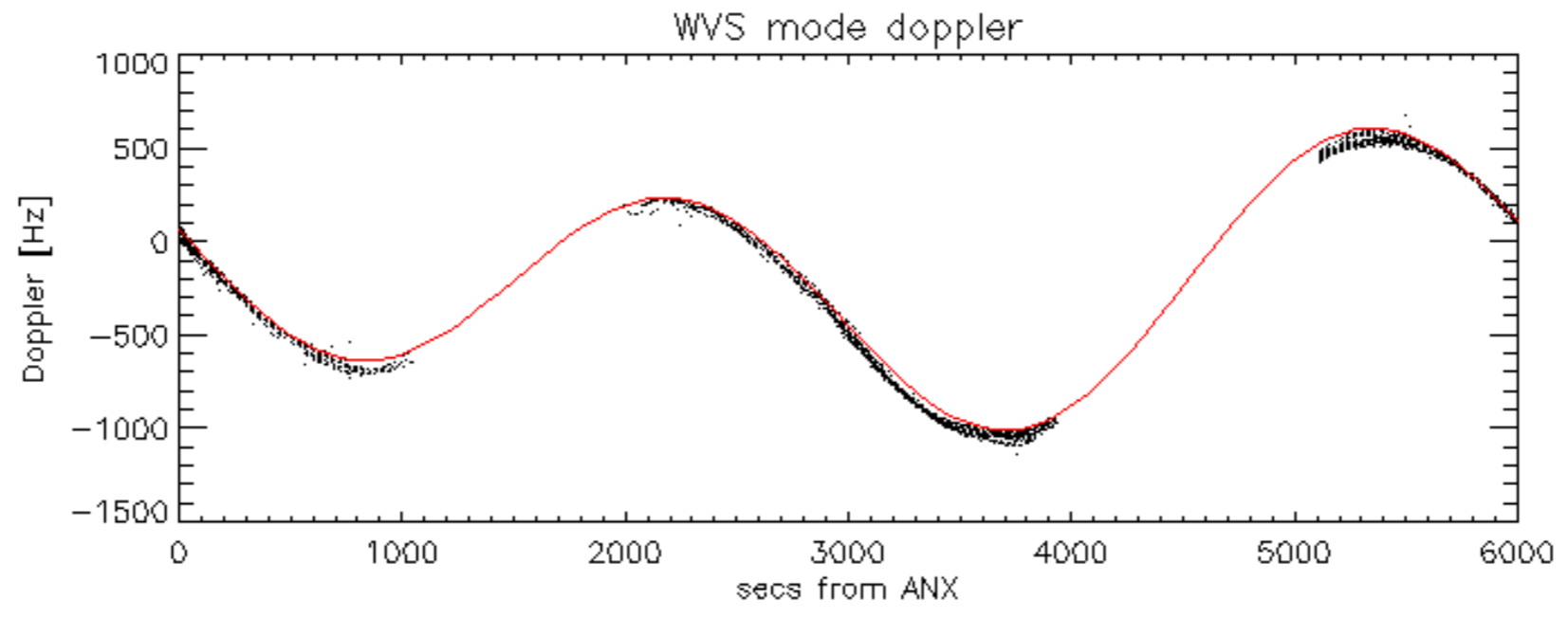


Doppler 'WVS' 'IS2' descending

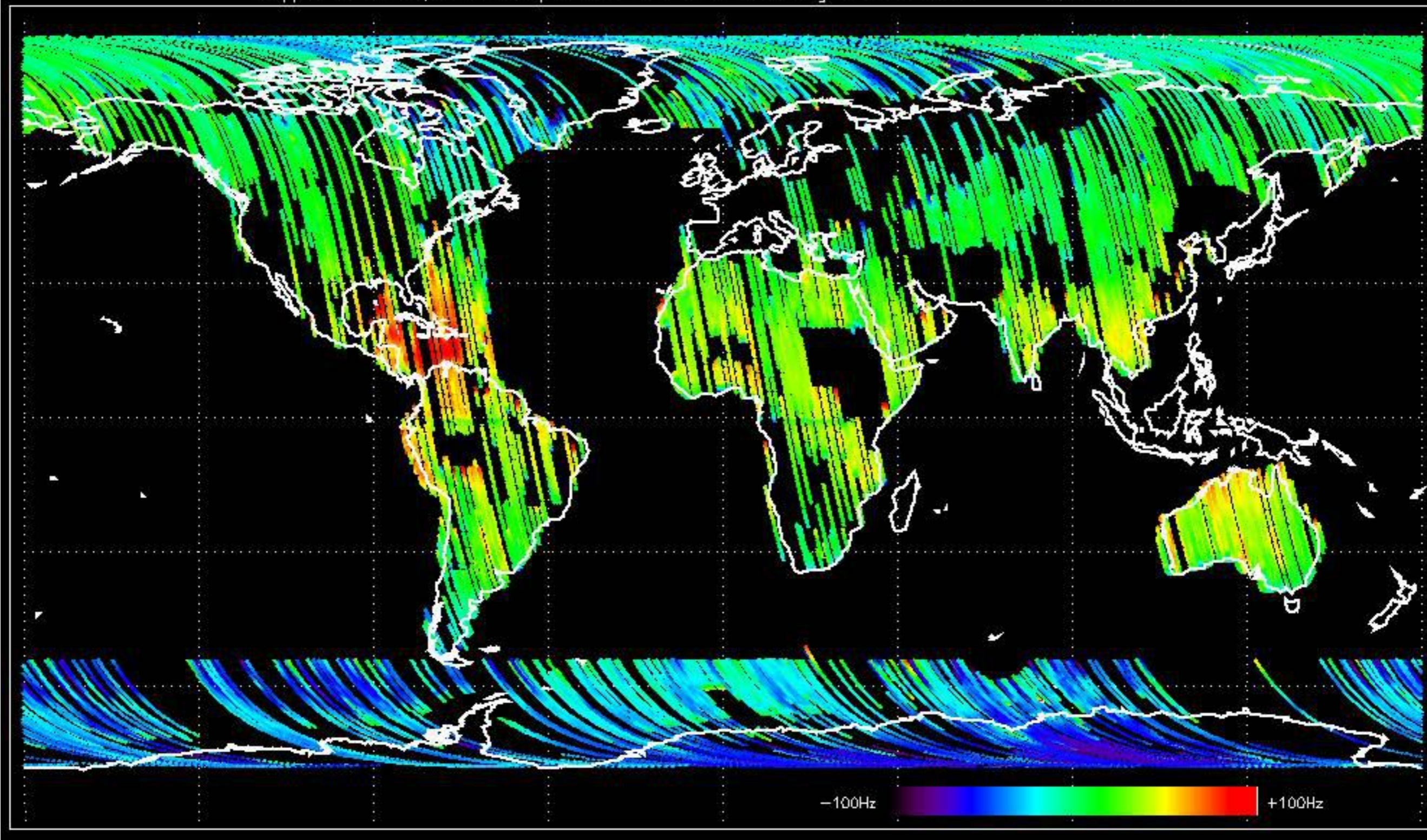


GM1 mode doppler

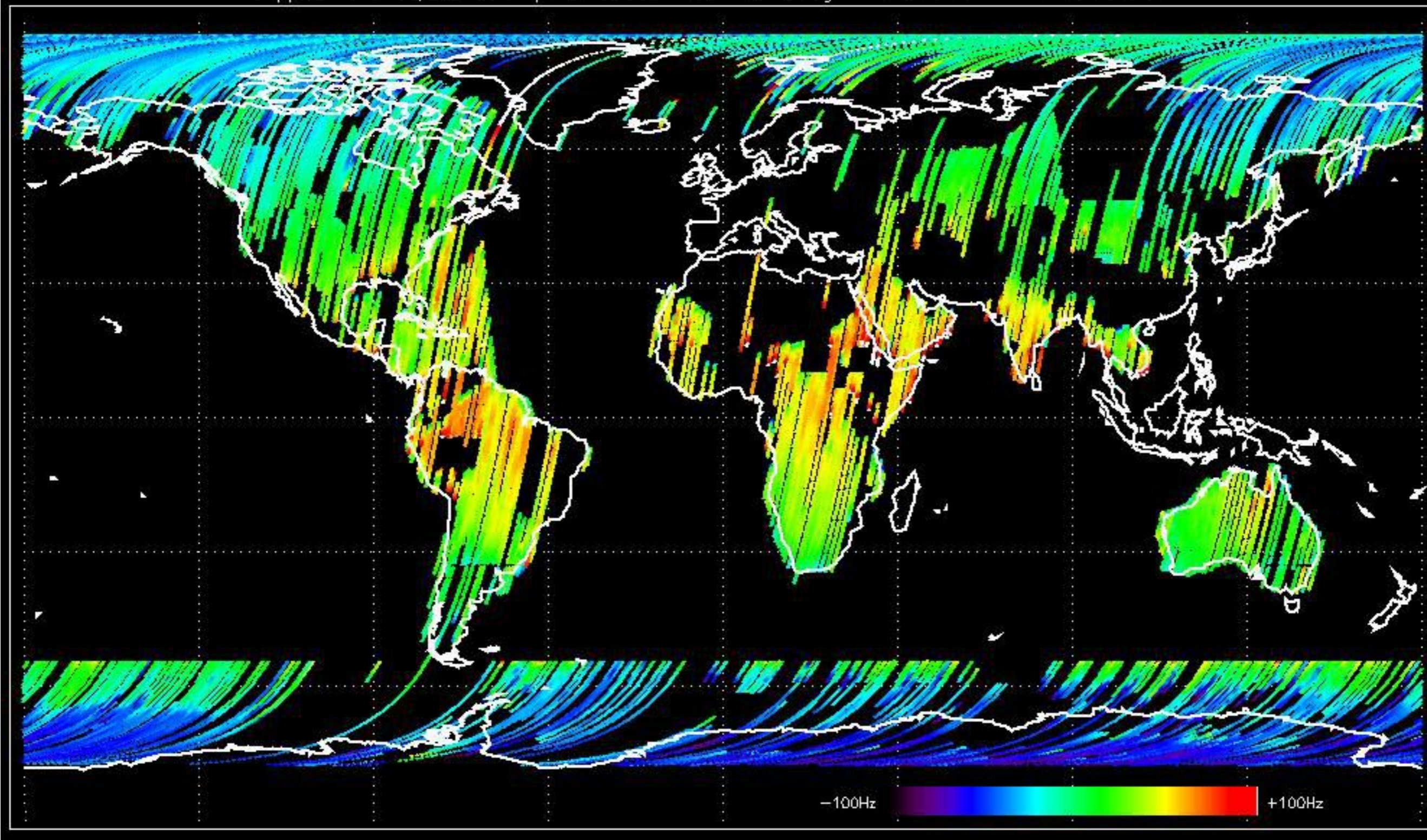




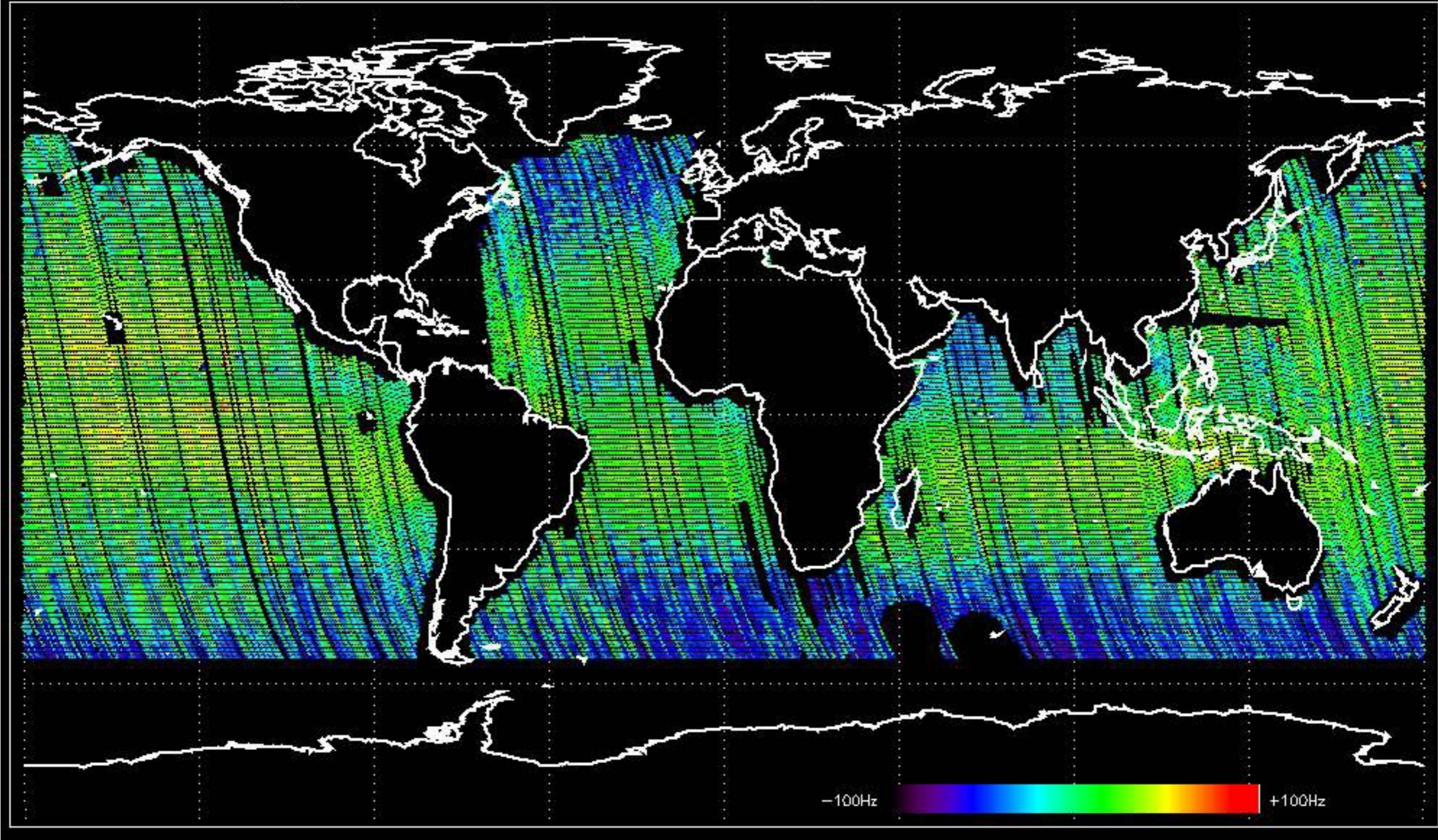
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -32.971464 Hz



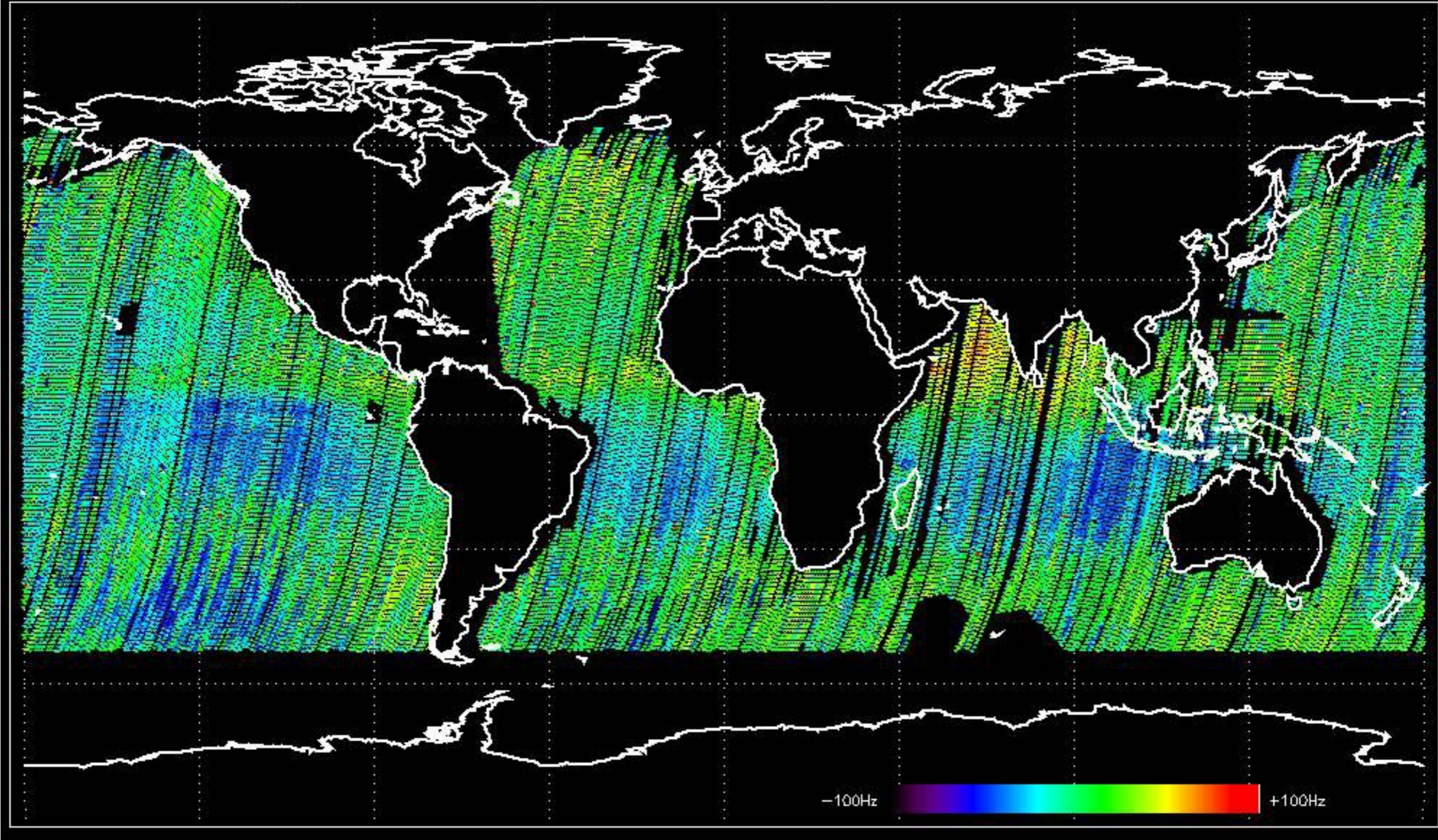
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -22.764596 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -34.274918 Hz

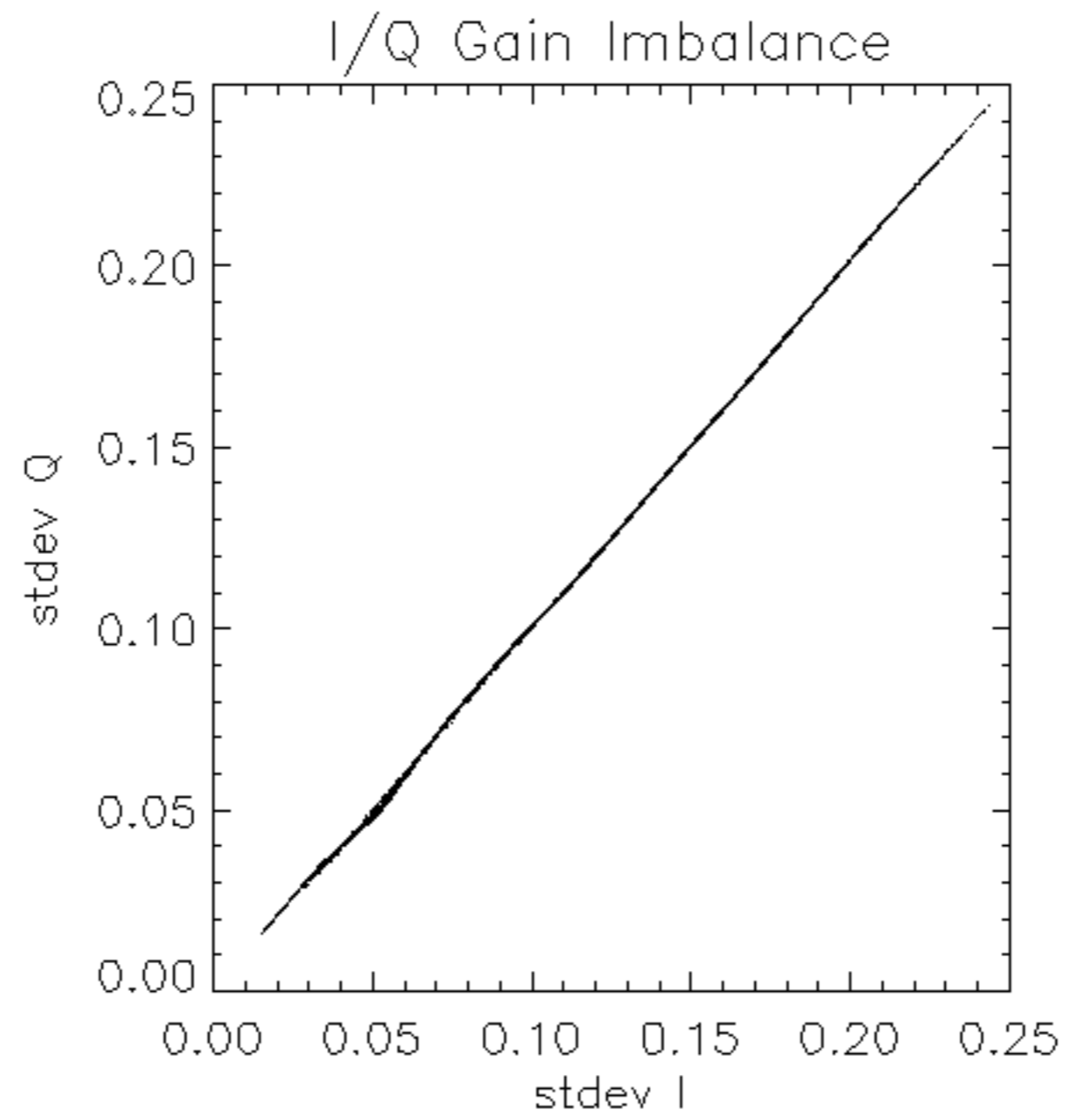


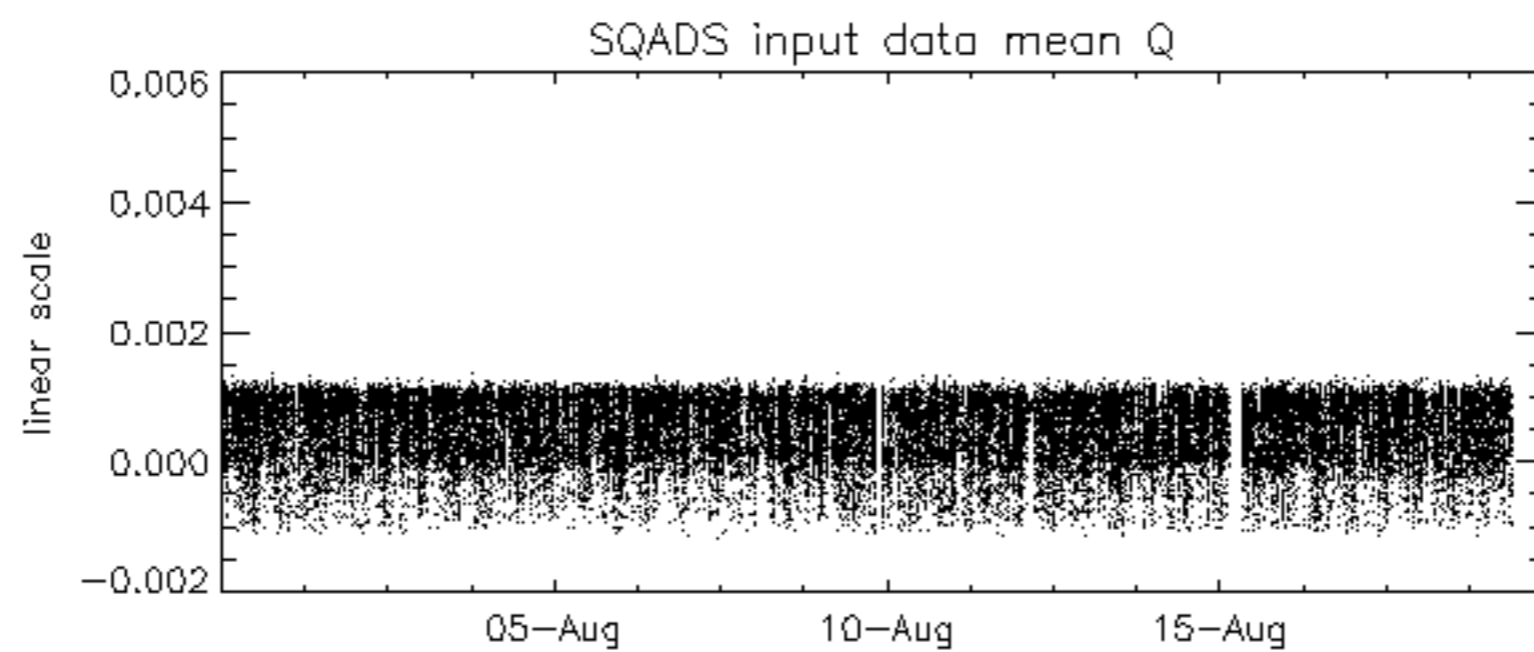
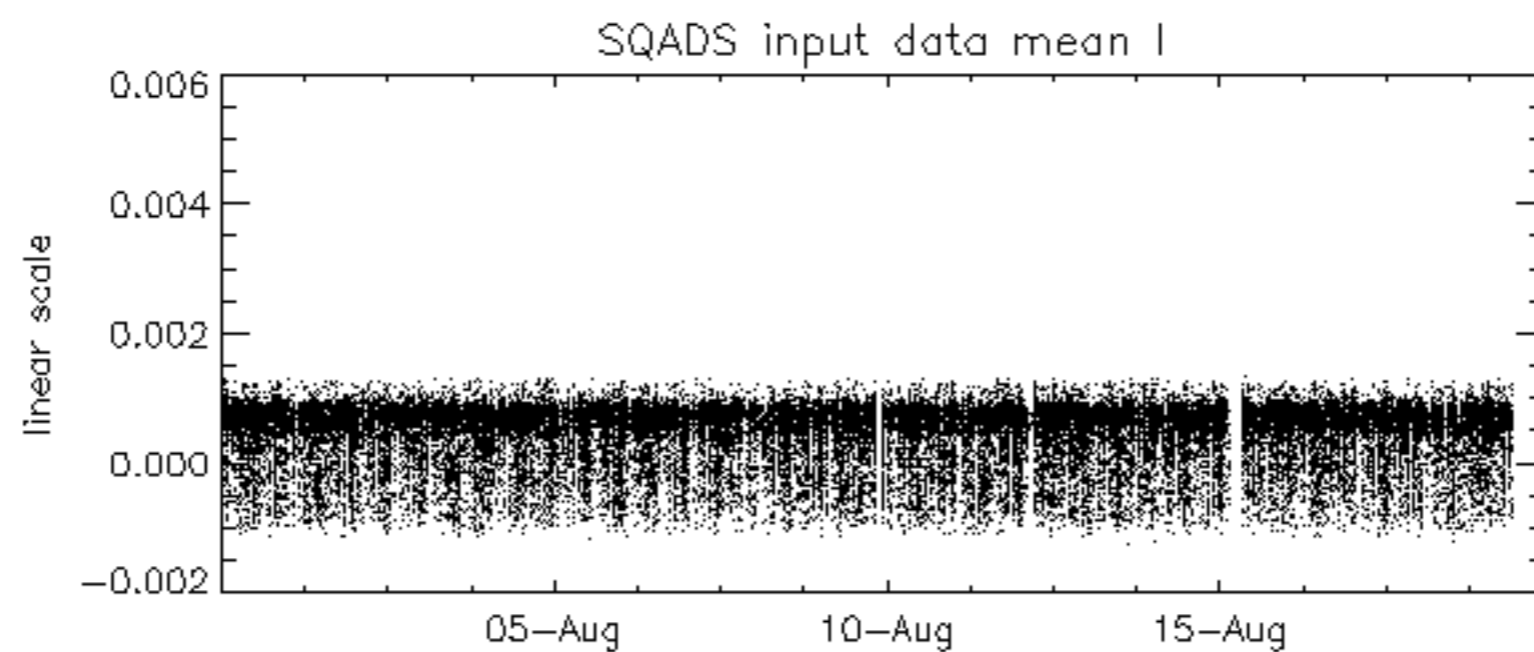
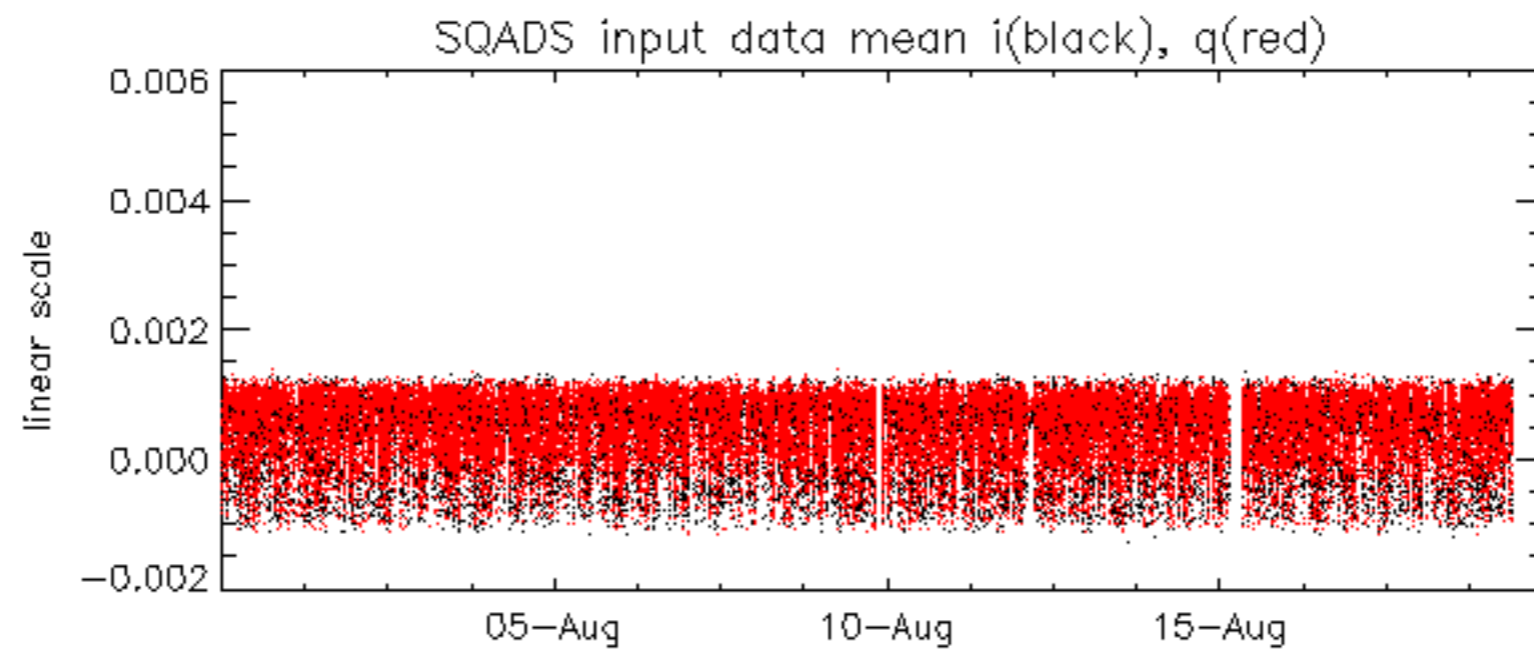
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -38.245978 Hz

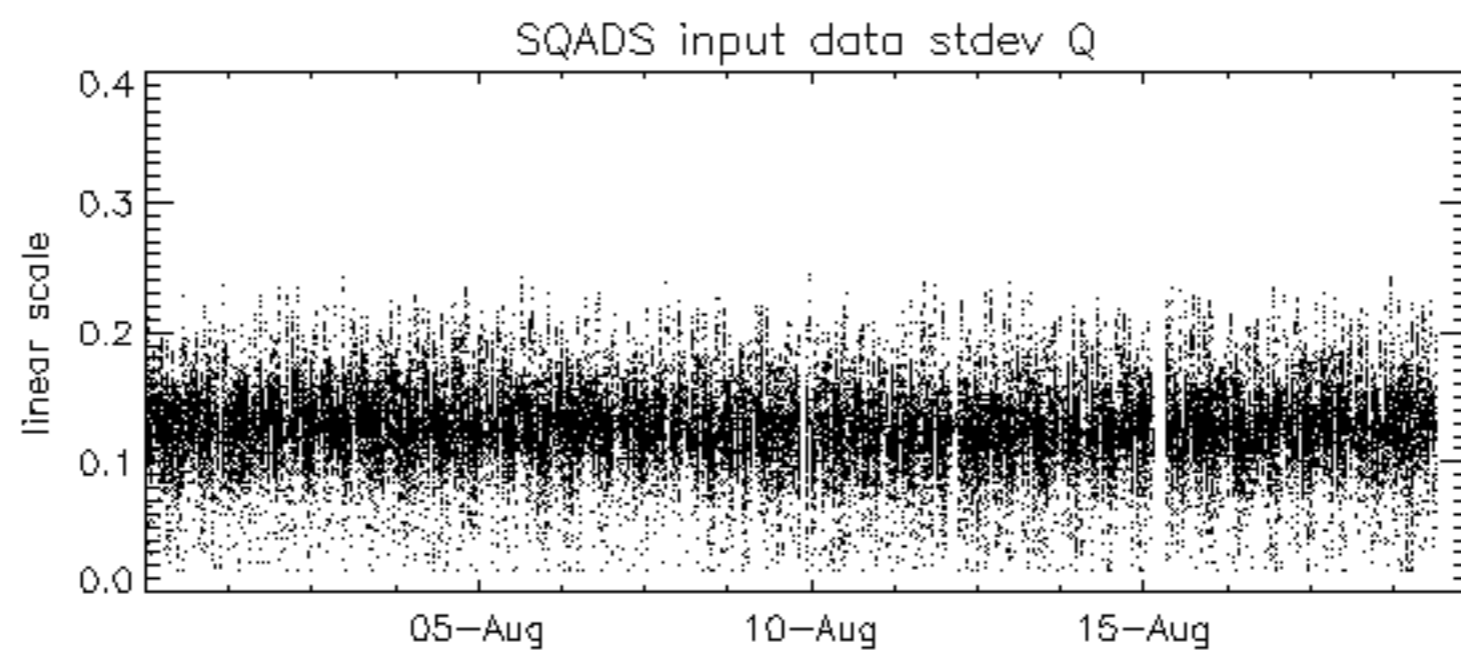
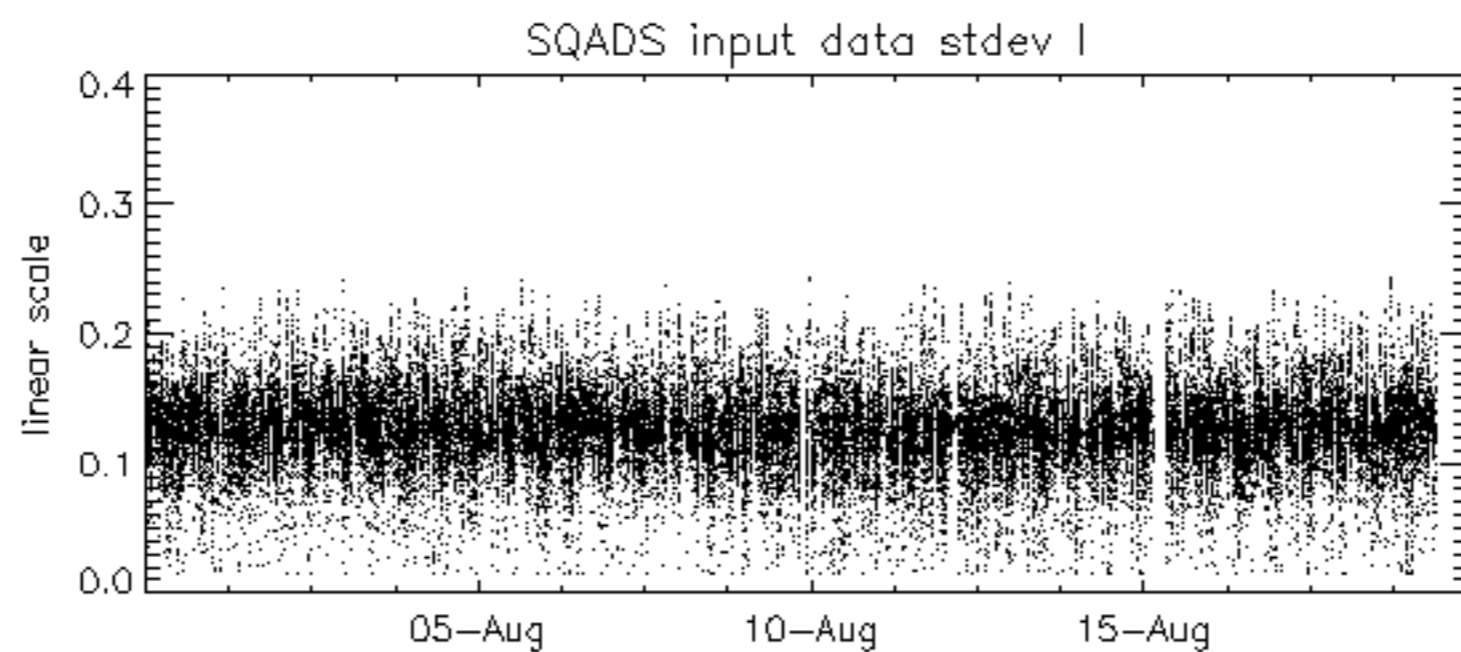
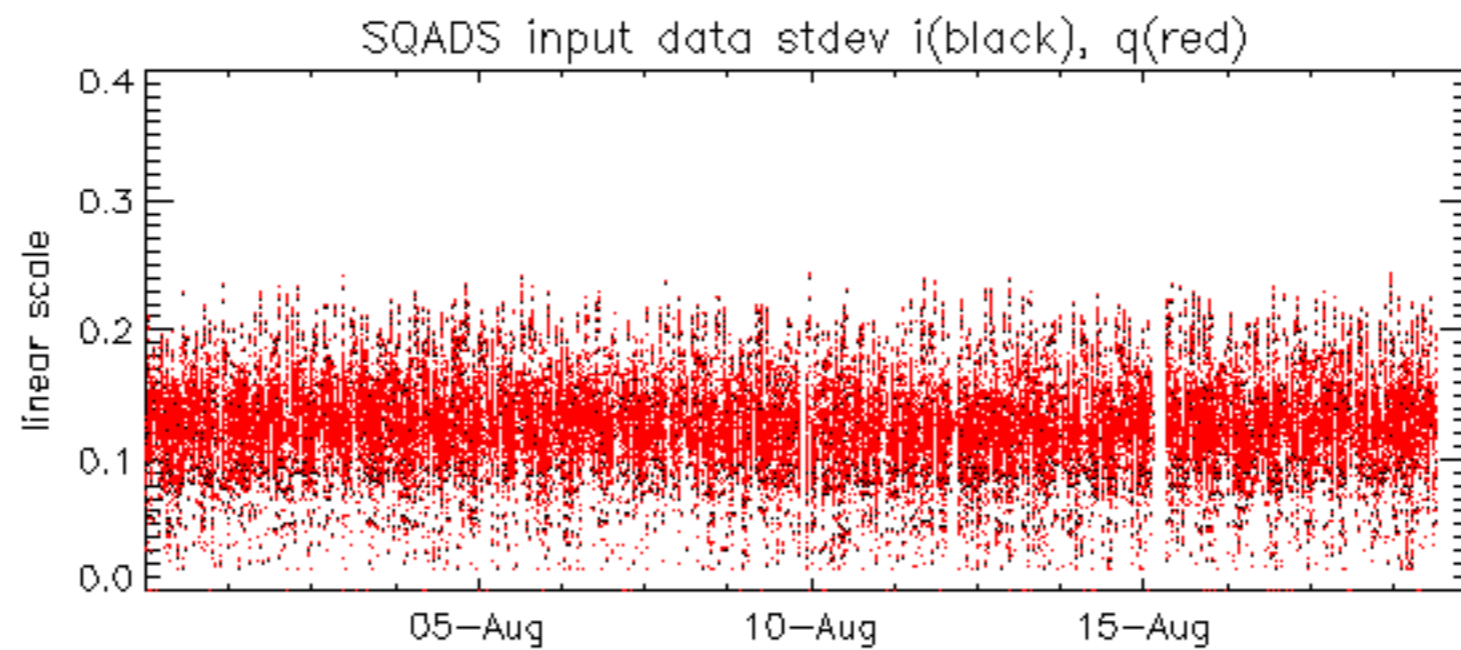


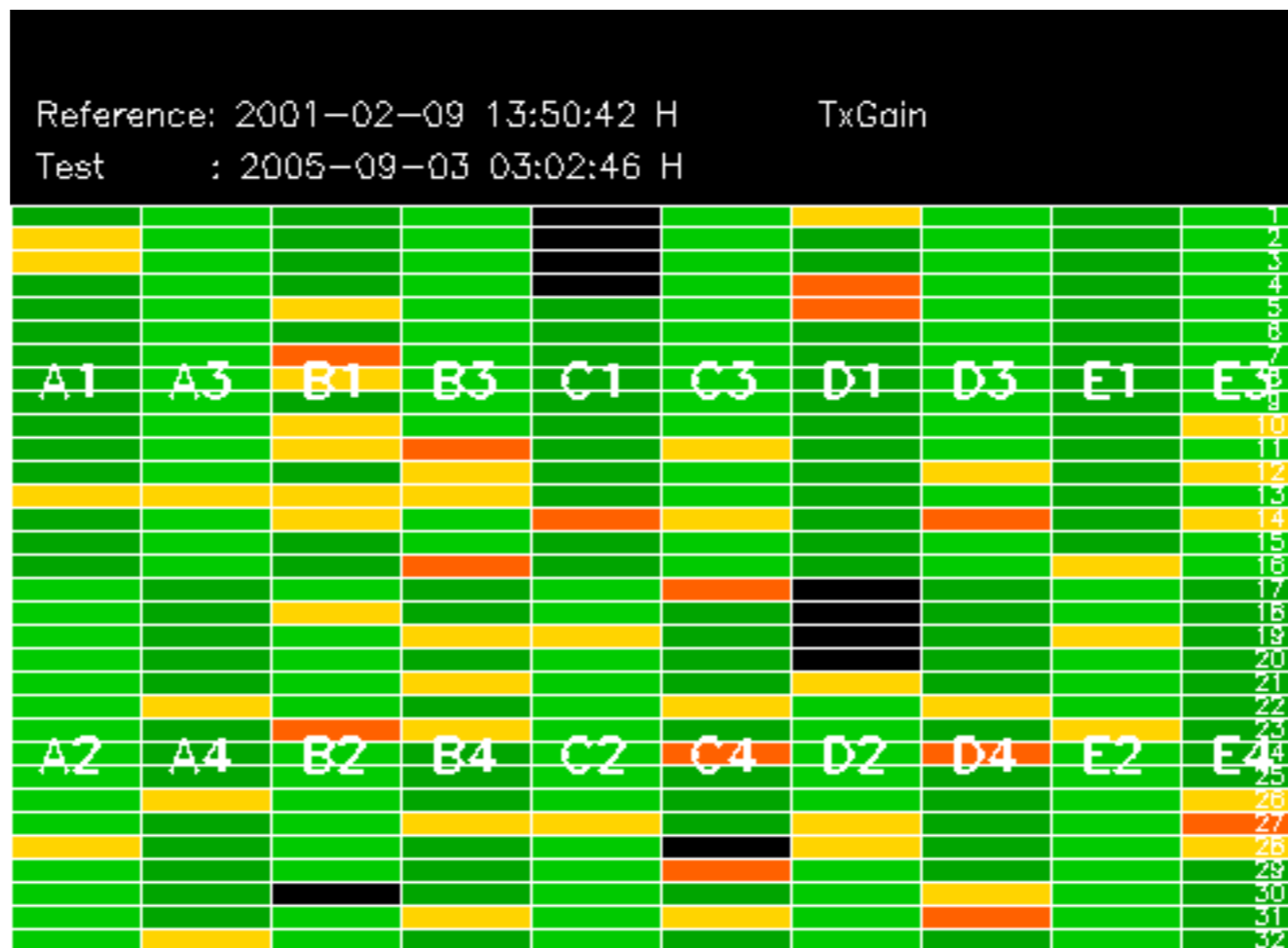
No anomalies observed on available MS products:

No anomalies observed.





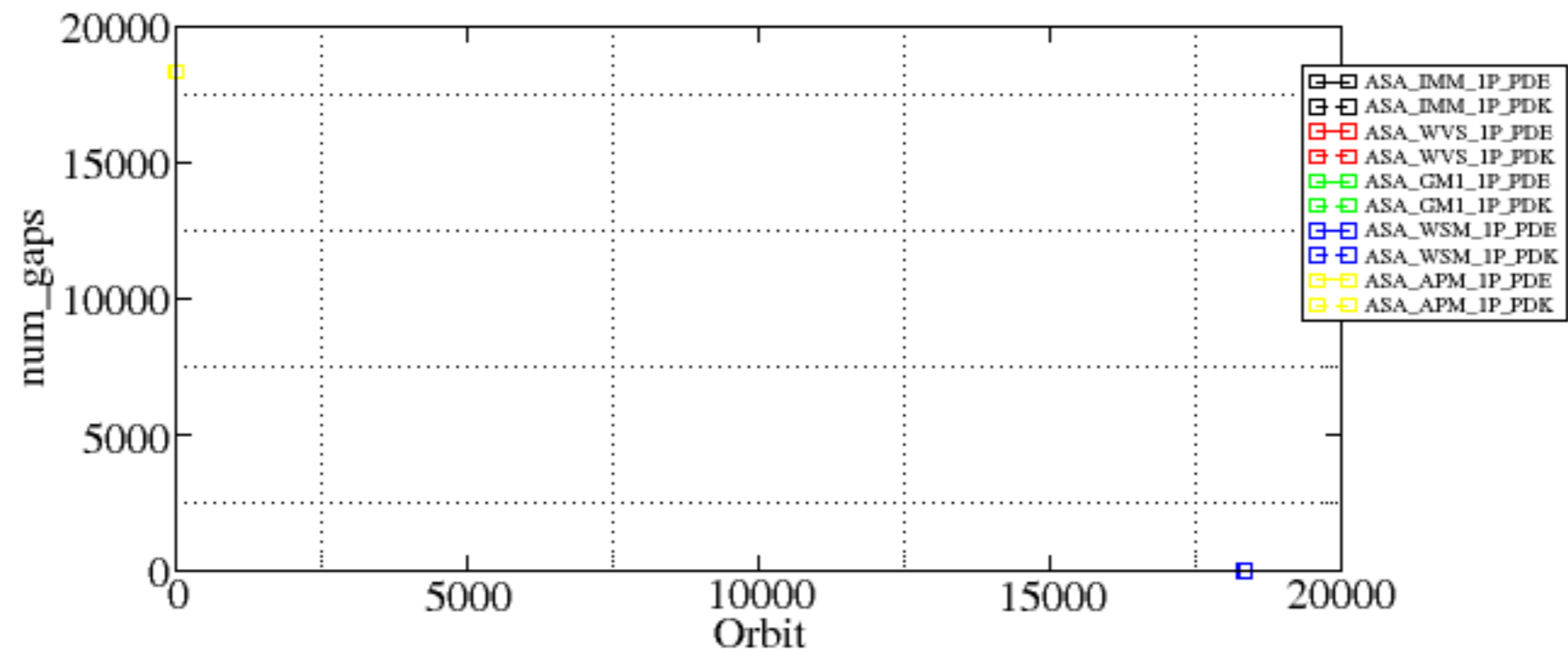


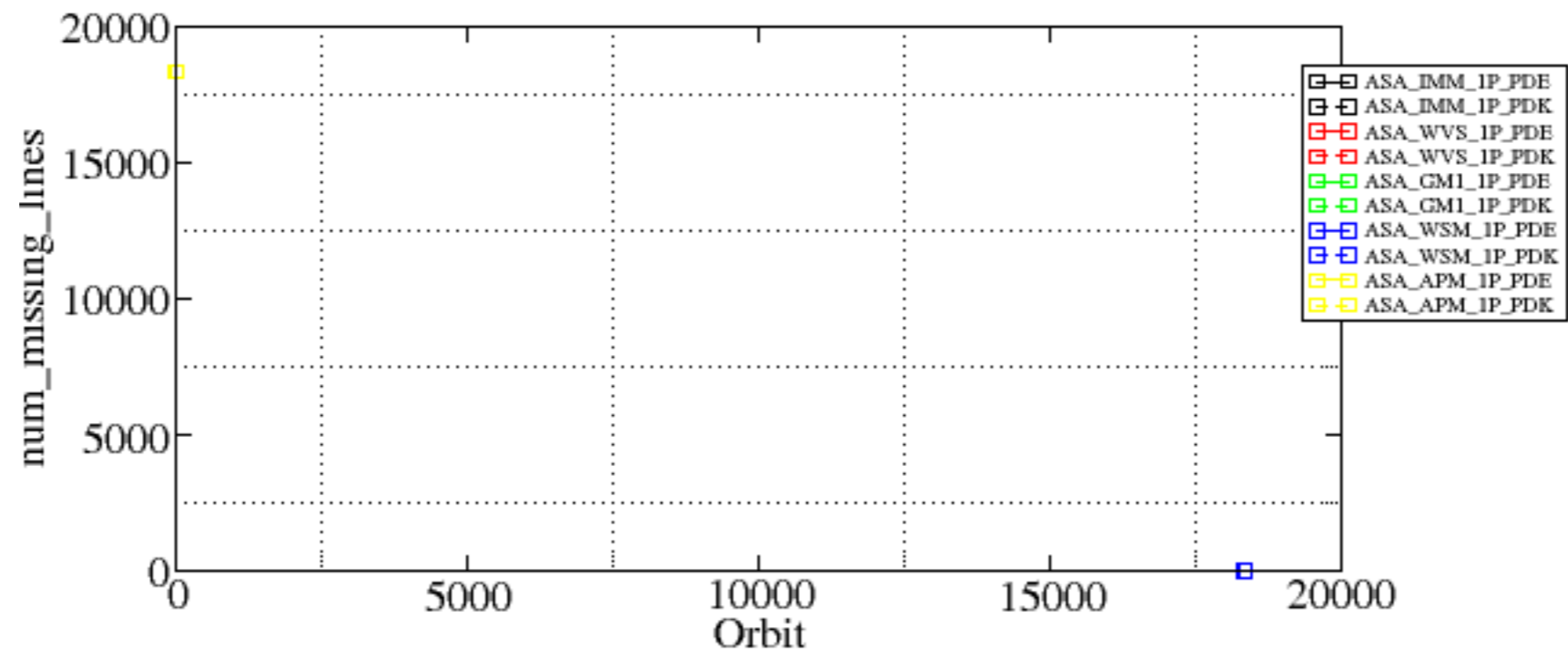


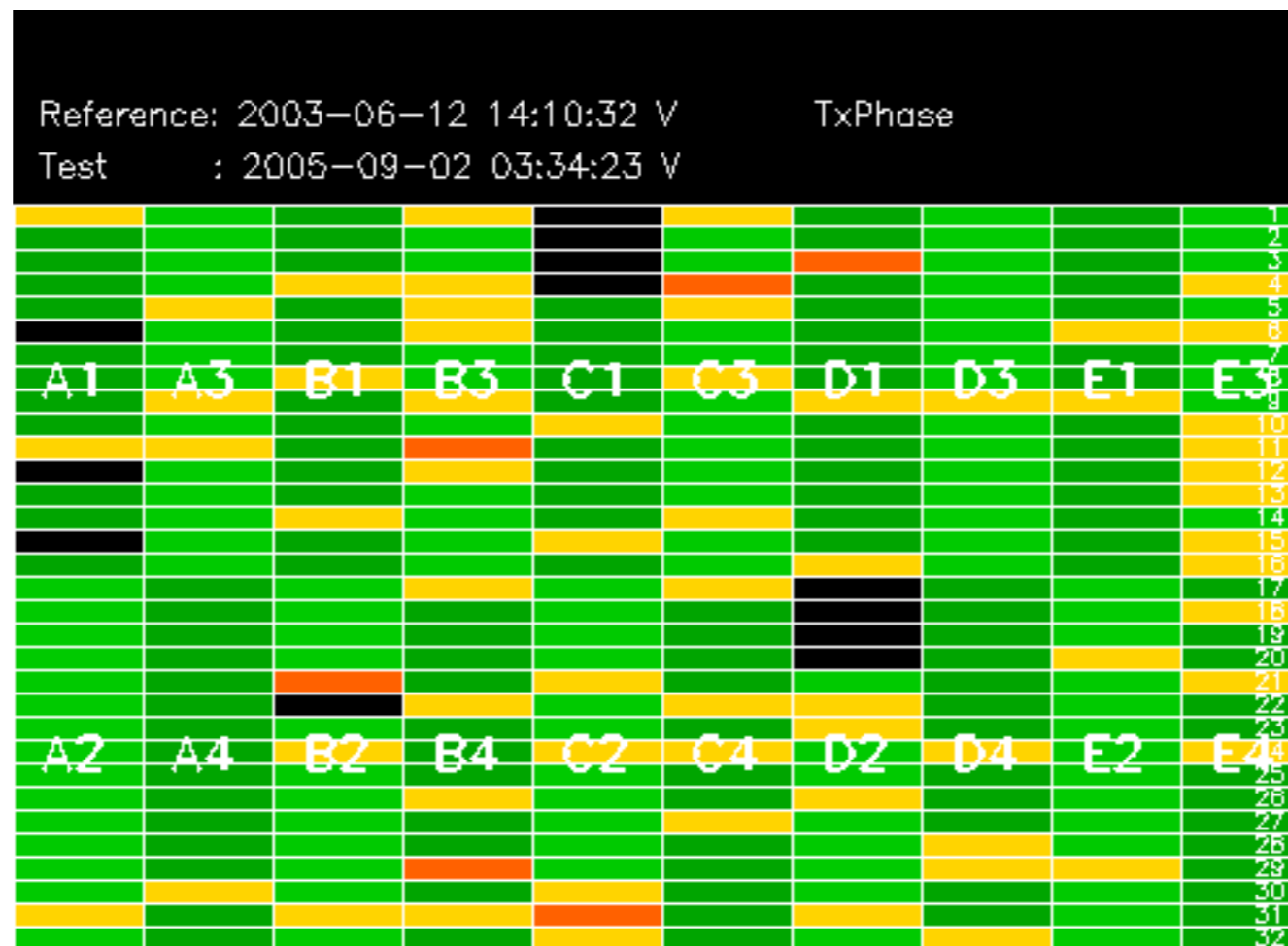
Summary of analysis for the last 3 days 2005090[234]

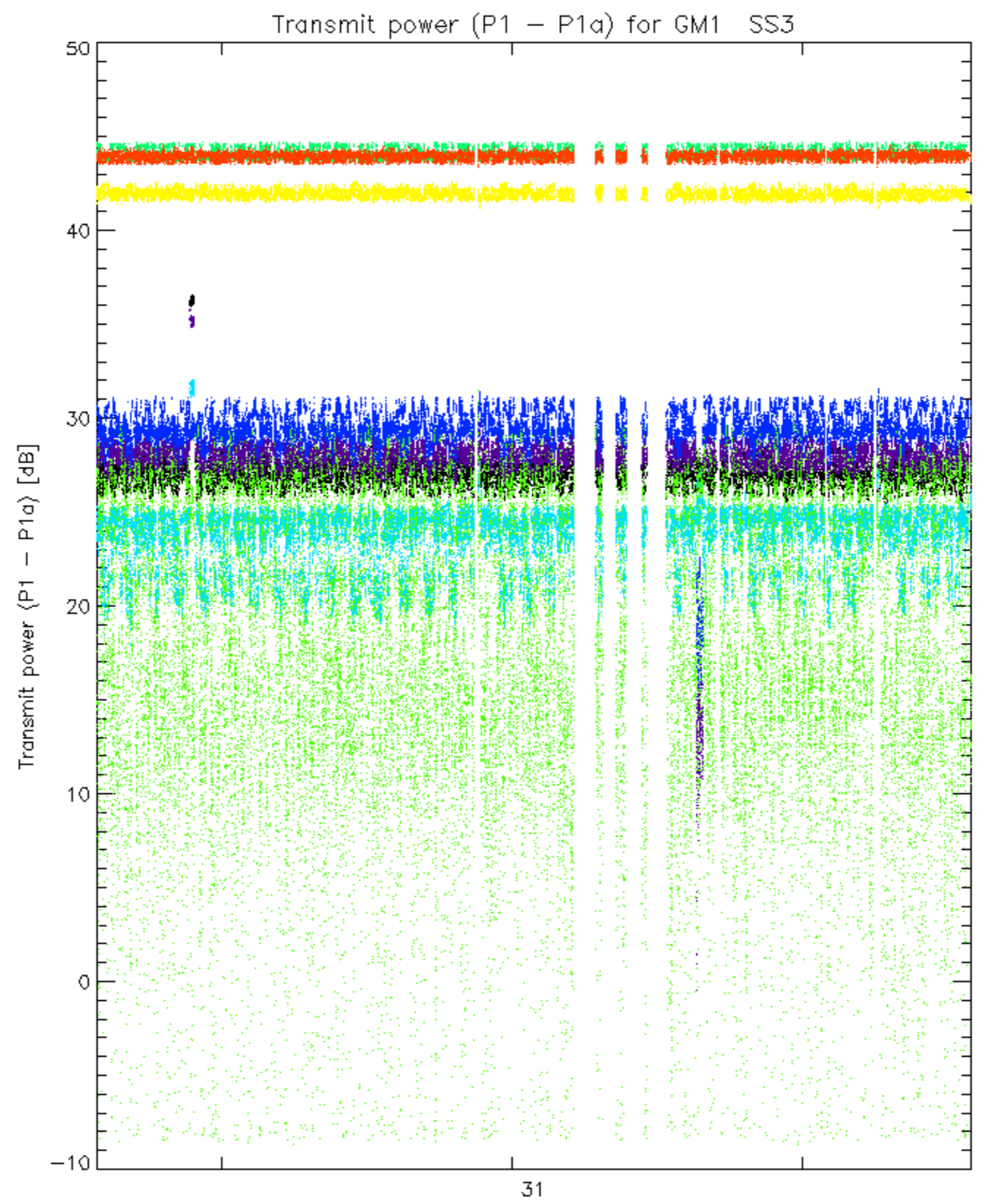
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050902_155120_000001062040_00254_18344_4314.N1	1	0
ASA_IMM_1PNPK20050902_124321_00000532040_00253_18343_3026.N1	1	0

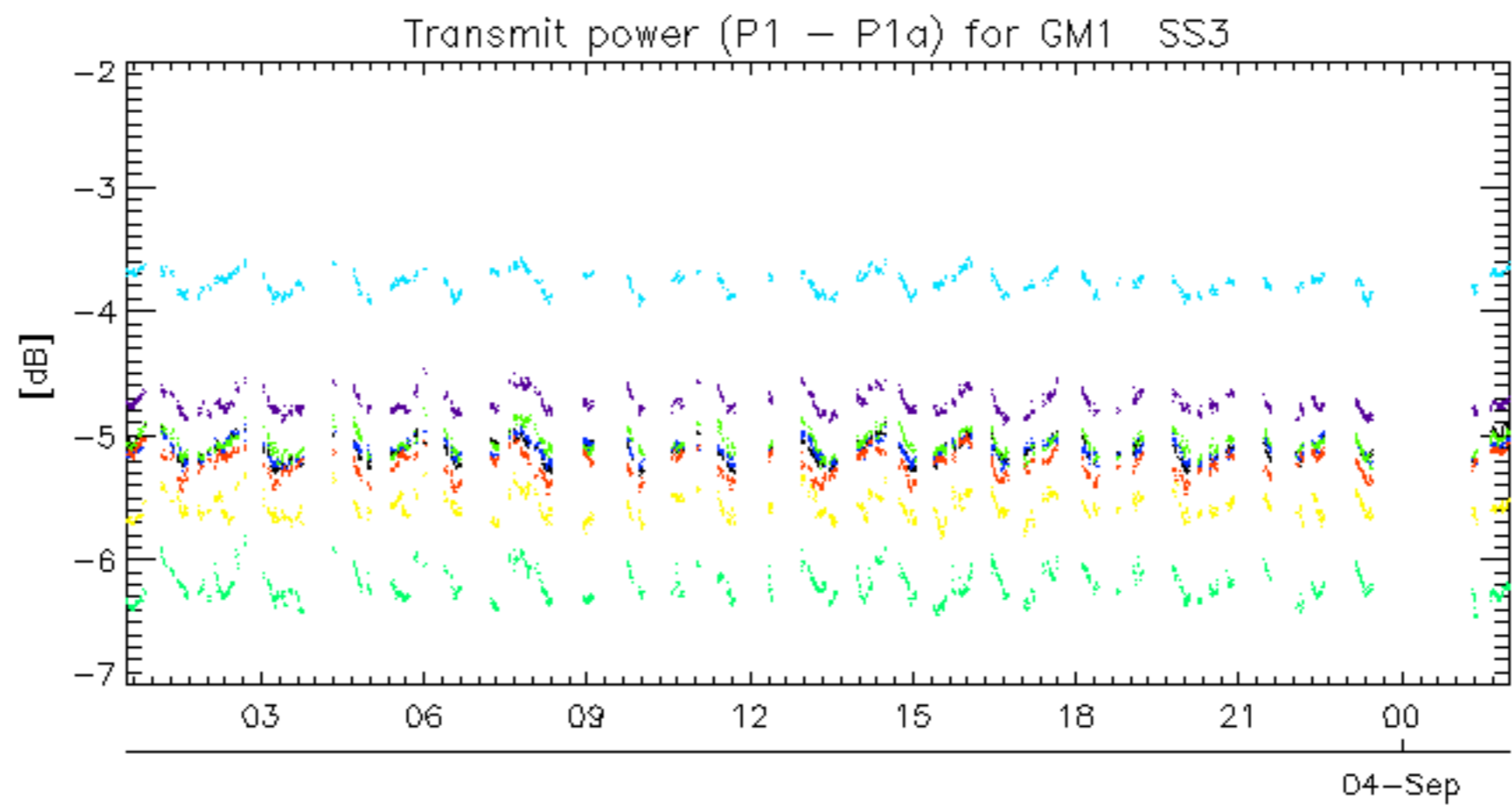




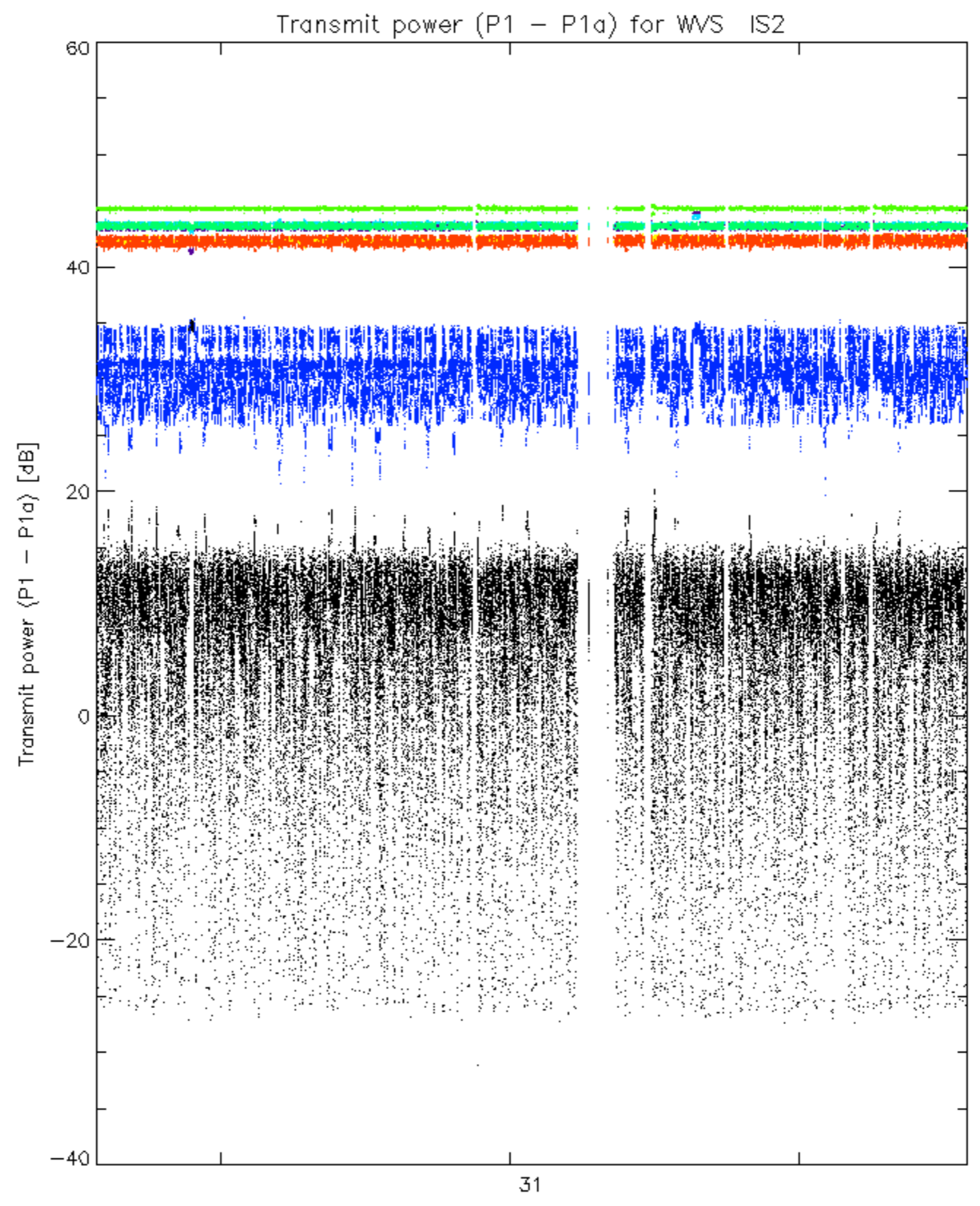




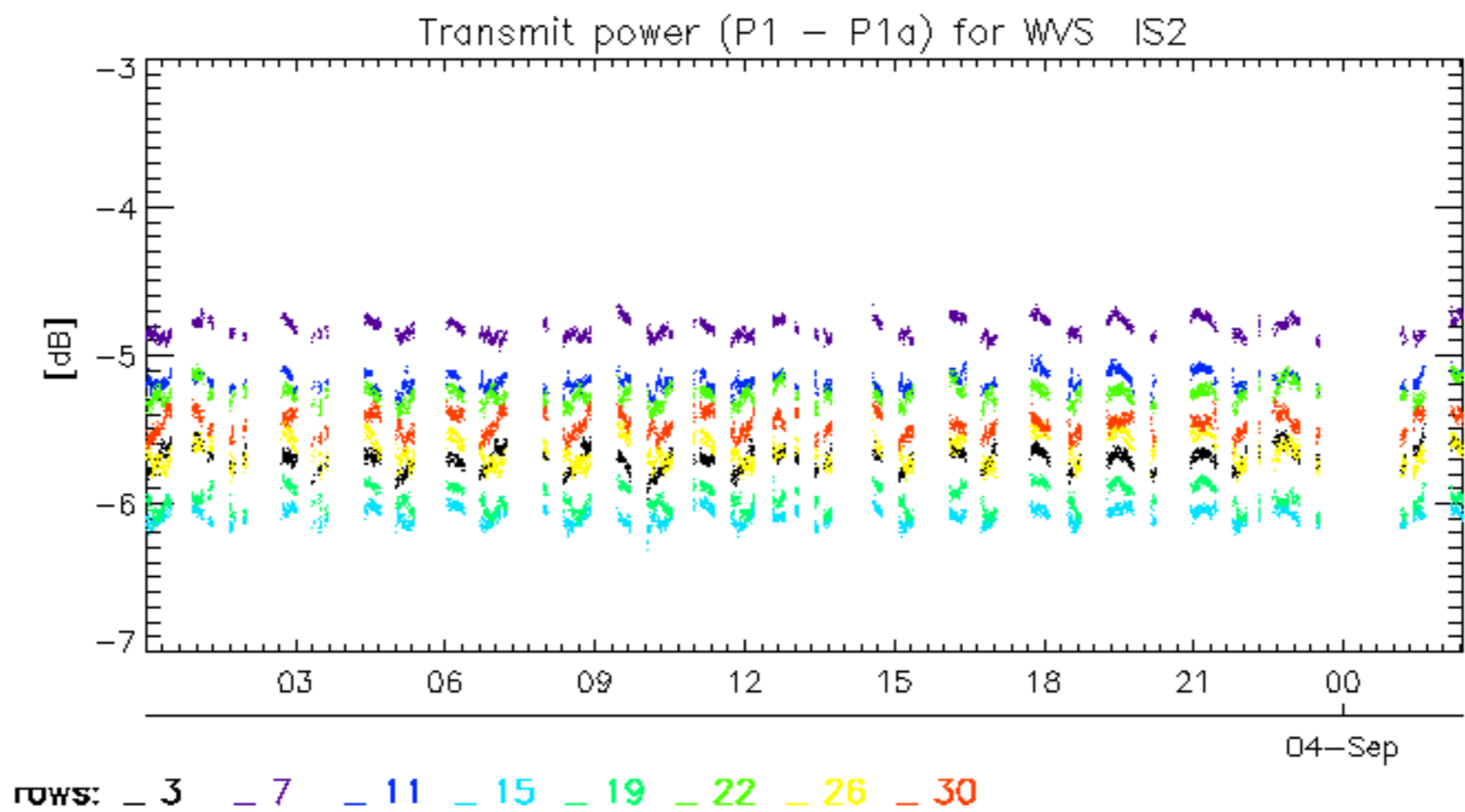
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.