

PRELIMINARY REPORT OF 060729

last update on Sat Jul 29 16:32:06 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 2006-07-28 00:00:00 to 2006-07-29 16:32:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	77	19	5	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	43	77	19	5	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	77	19	5	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	77	19	5	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	54	57	22	41
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	40	54	57	22	41
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	54	57	22	41
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	54	57	22	41

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	20060727 100811
H	20060728 143822

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
<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	-3.935041	0.011662	-0.026159
7	P1	-3.099726	0.010279	0.012793
11	P1	-4.085031	0.013630	0.006571
15	P1	-6.173674	0.011512	-0.007790
19	P1	-3.402751	0.009919	-0.050732
22	P1	-4.549794	0.010193	-0.028392
26	P1	-3.927544	0.020103	0.032091
30	P1	-5.762729	0.009403	-0.003438
3	P1	-16.519571	0.308277	-0.070360
7	P1	-17.192005	0.102504	-0.017755
11	P1	-16.981539	0.278384	-0.001920
15	P1	-13.105890	0.148936	0.049178
19	P1	-14.459282	0.053874	-0.119153
22	P1	-16.010849	0.427175	0.053946
26	P1	-15.120085	0.238854	0.085560
30	P1	-17.100857	0.346452	-0.033236

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.970110	0.087736	0.144247
7	P2	-21.912085	0.104905	0.083138
11	P2	-15.791197	0.121440	0.061989
15	P2	-7.128102	0.100081	0.027848
19	P2	-9.132664	0.091294	0.013733
22	P2	-18.148462	0.086182	0.008146
26	P2	-16.400038	0.093199	-0.016210
30	P2	-19.519880	0.092836	0.044662

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.174490	0.003011	0.003574
7	P3	-8.174490	0.003011	0.003574
11	P3	-8.174490	0.003011	0.003574
15	P3	-8.174490	0.003011	0.003574
19	P3	-8.174490	0.003011	0.003574
22	P3	-8.174490	0.003011	0.003574
26	P3	-8.174490	0.003011	0.003574
30	P3	-8.174490	0.003011	0.003574

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	-3.809913	0.023377	-0.079657
7	P1	-2.559016	0.007951	0.020457
11	P1	-2.857867	0.014374	0.012295
15	P1	-3.571299	0.029129	-0.040206
19	P1	-3.422342	0.025495	-0.031550
22	P1	-5.089522	0.019903	0.015152
26	P1	-5.859775	0.015905	-0.011353
30	P1	-5.194929	0.033753	-0.016517
3	P1	-11.595654	0.080100	-0.099015
7	P1	-9.968127	0.034342	0.028722
11	P1	-10.249608	0.056403	-0.007435
15	P1	-10.756399	0.144071	-0.011022
19	P1	-15.554014	0.534959	-0.138062
22	P1	-20.907110	1.243110	0.038374
26	P1	-16.286377	0.383795	0.225745
30	P1	-17.923018	0.412609	-0.174226

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.610729	0.071558	0.203310
7	P2	-22.389778	0.125773	0.147318
11	P2	-11.045478	0.041923	0.082806
15	P2	-4.909436	0.045827	0.038443
19	P2	-6.872639	0.041333	0.029237
22	P2	-8.195148	0.036704	0.020779
26	P2	-24.181931	0.061683	0.026238
30	P2	-22.011312	0.049584	0.049554

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013601	0.003752	0.010018
7	P3	-8.013587	0.003750	0.010313
11	P3	-8.013445	0.003762	0.009949
15	P3	-8.013507	0.003757	0.010201
19	P3	-8.013553	0.003752	0.010228
22	P3	-8.013627	0.003744	0.009913
26	P3	-8.013571	0.003749	0.009926
30	P3	-8.013556	0.003750	0.010164

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	0.000563212
	stdev	1.69149e-07
MEAN Q	mean	0.000538564
	stdev	2.14422e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137668
	stdev	0.00109629
STDEV Q	mean	0.138026
	stdev	0.00111408



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[789]

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_1PNPDE20060727_003438_000001152049_00431_23030_2088.N1	1	0
ASA_IMM_1PNPDE20060727_223929_000000352049_00445_23044_2153.N1	1	0
ASA_IMM_1PNPDE20060729_015644_000000802049_00461_23060_2372.N1	1	0
ASA_IMM_1PNPDK20060728_083400_000000372049_00451_23050_1001.N1	0	20
ASA_WSM_1PNPDE20060727_112619_000001282049_00438_23037_4683.N1	0	13
ASA_WSM_1PNPDE20060727_172658_000001032049_00442_23041_4706.N1	0	13
ASA_WSM_1PNPDE20060728_183647_000002932049_00457_23056_4791.N1	0	65





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

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

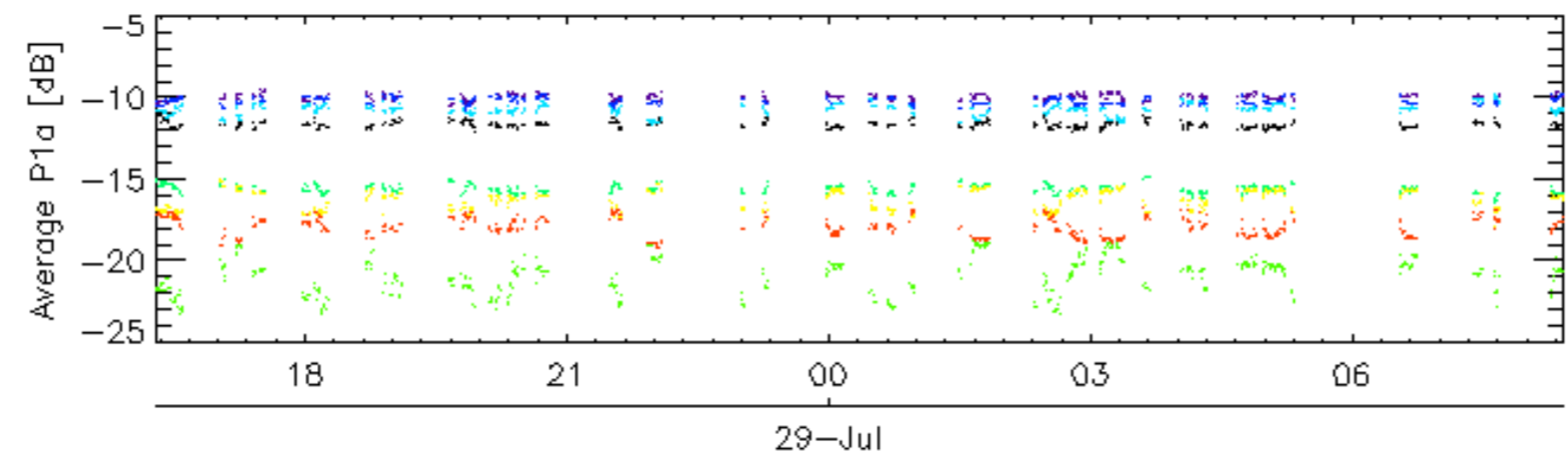
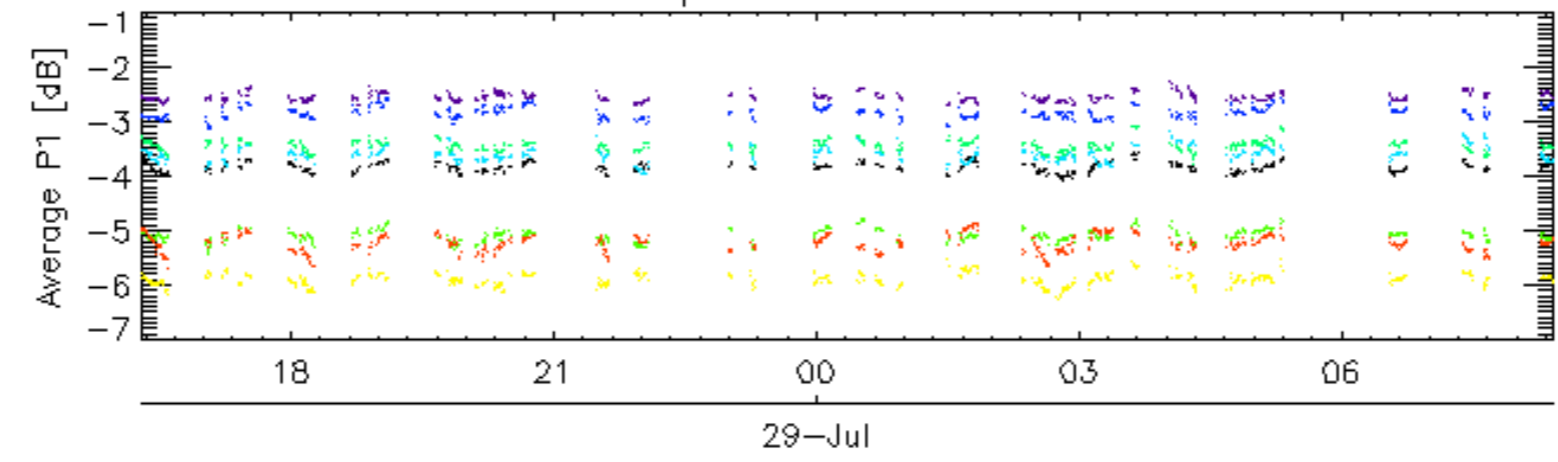
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

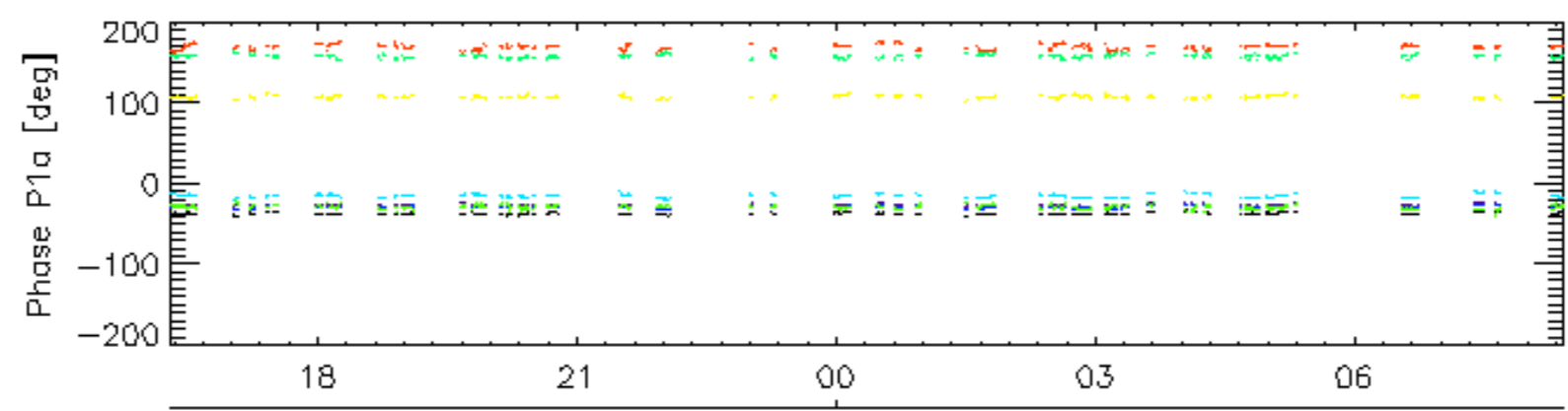
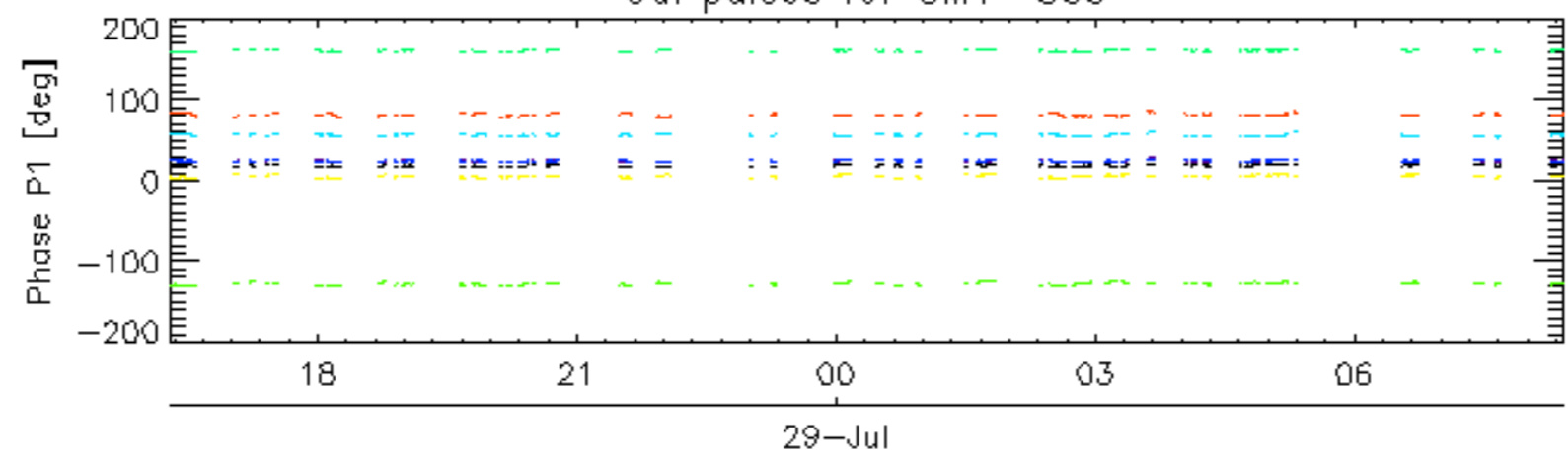
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

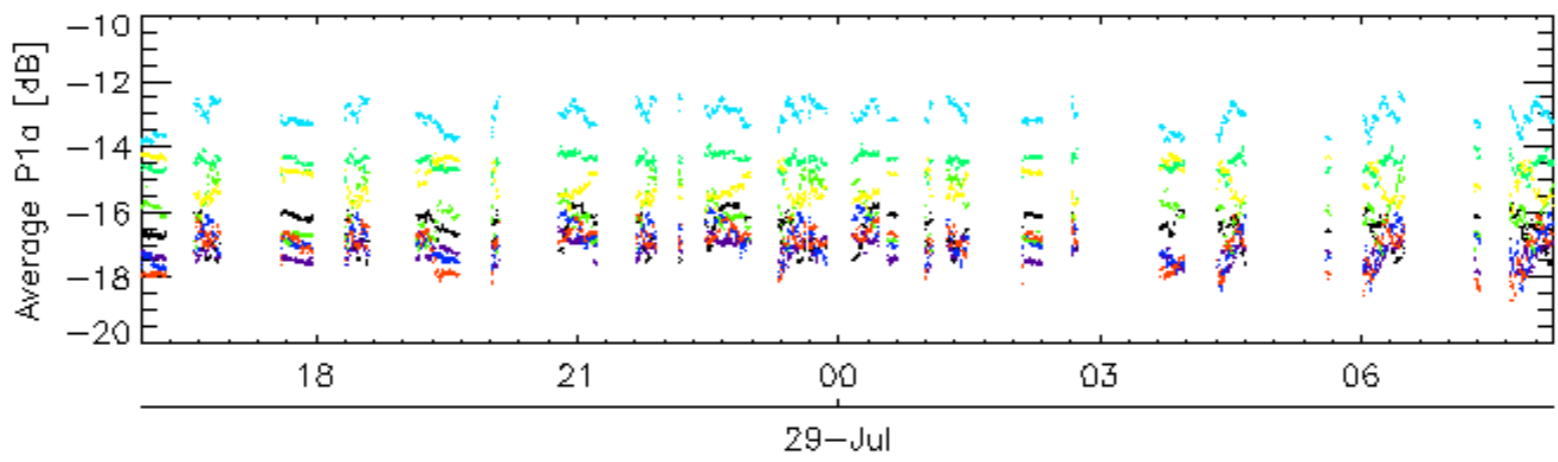
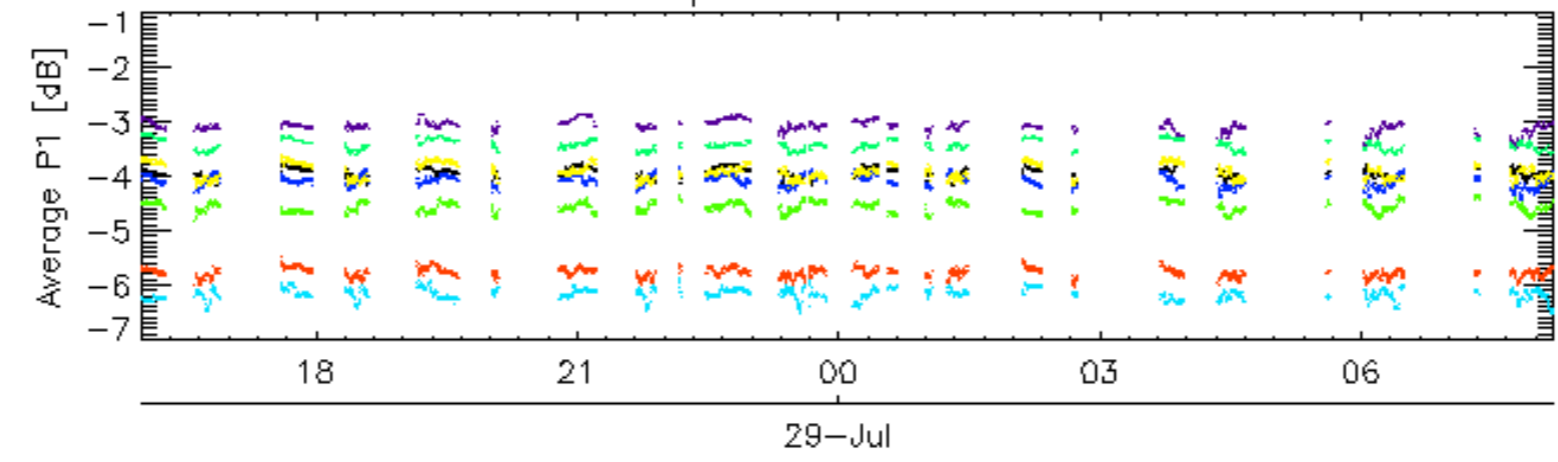


Cal pulses for GM1 SS3

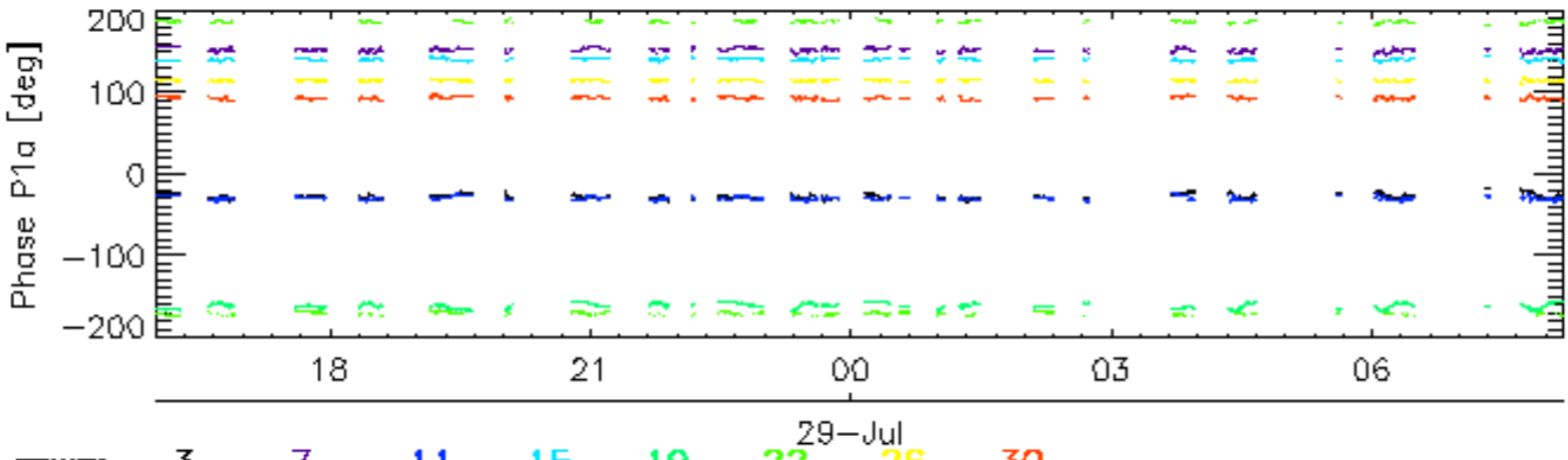
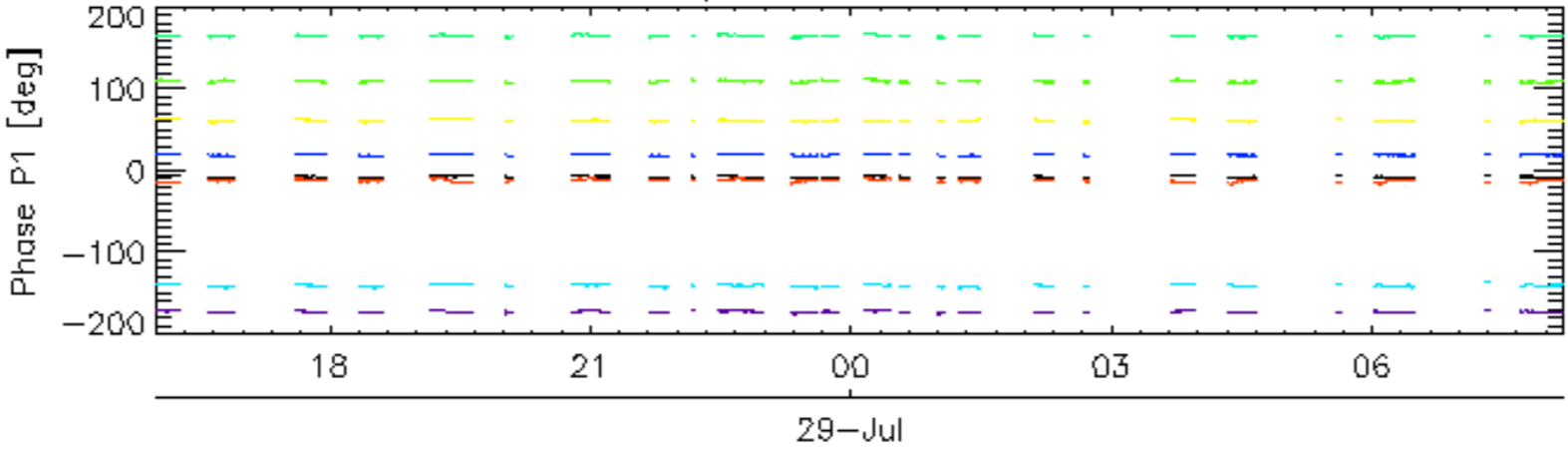


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

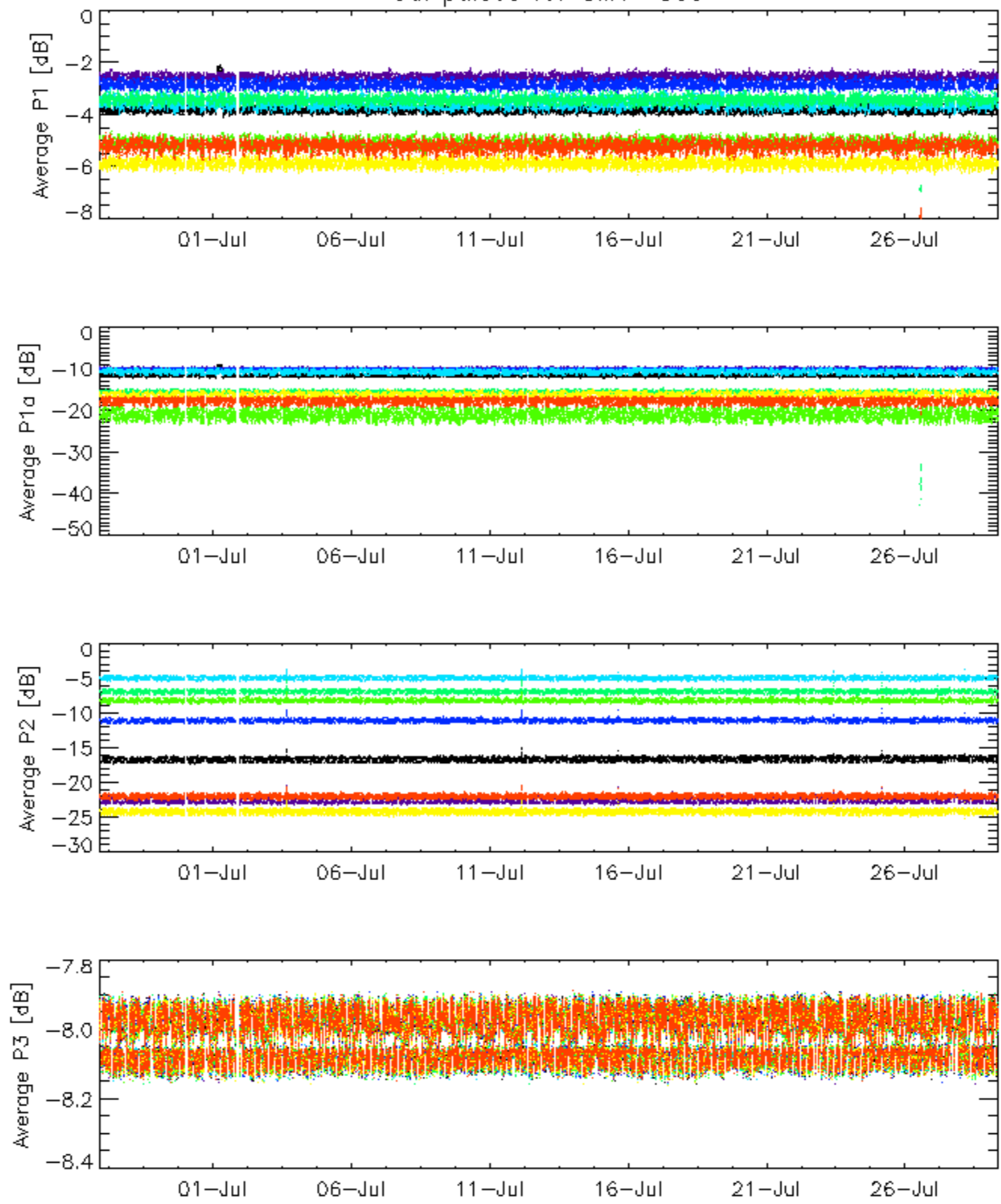


Cal pulses for WVS IS2



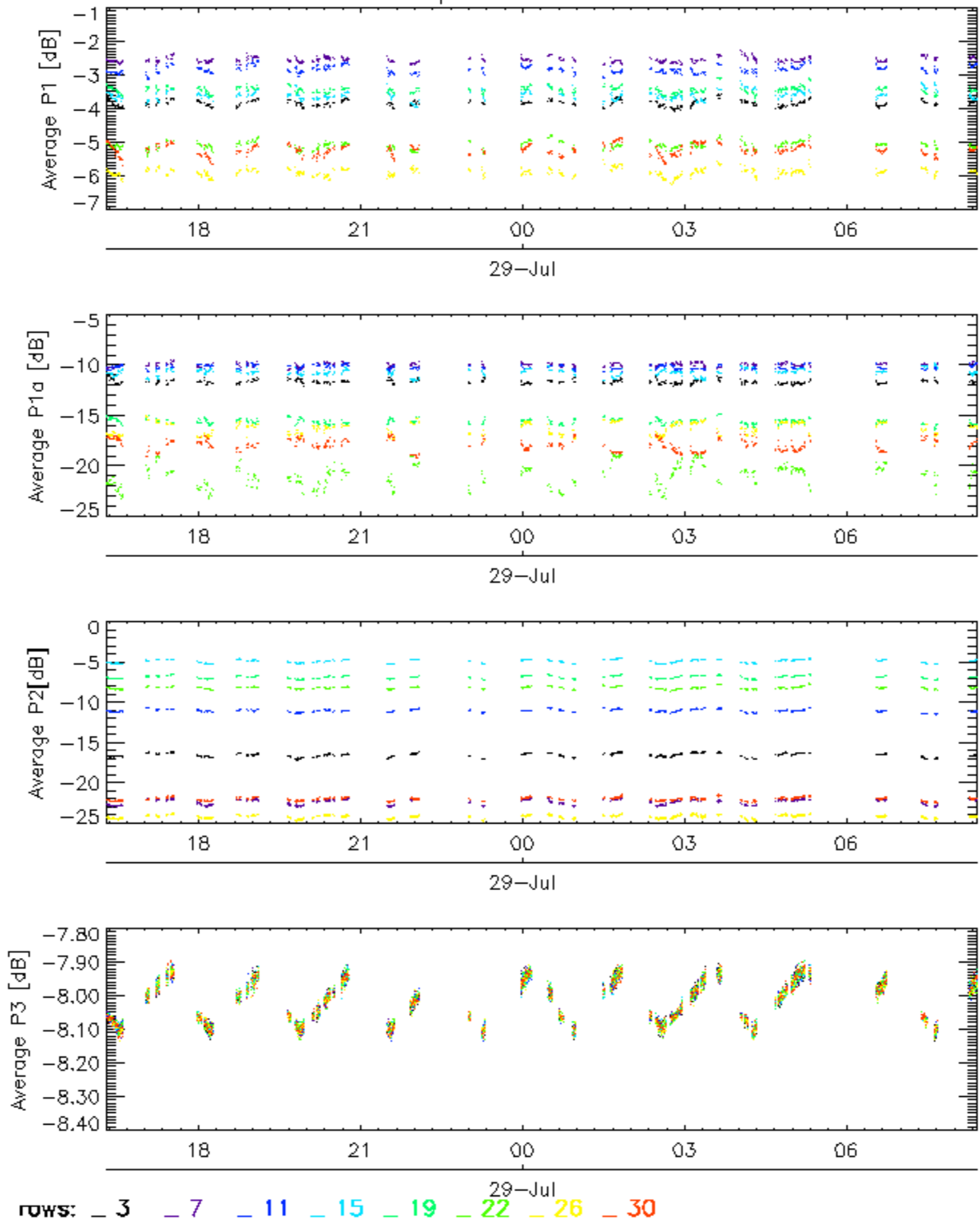
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

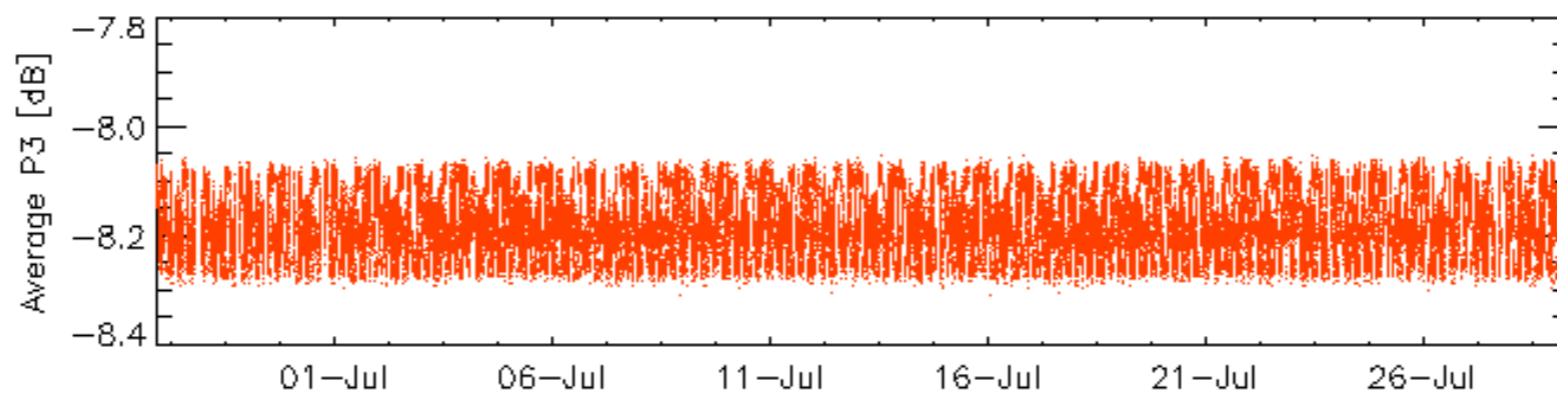
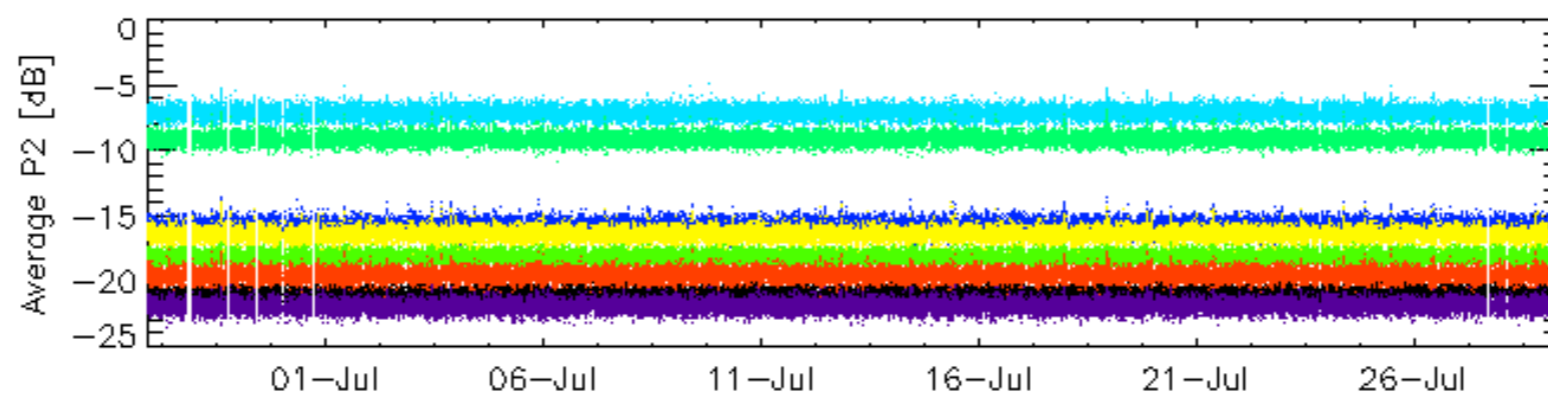
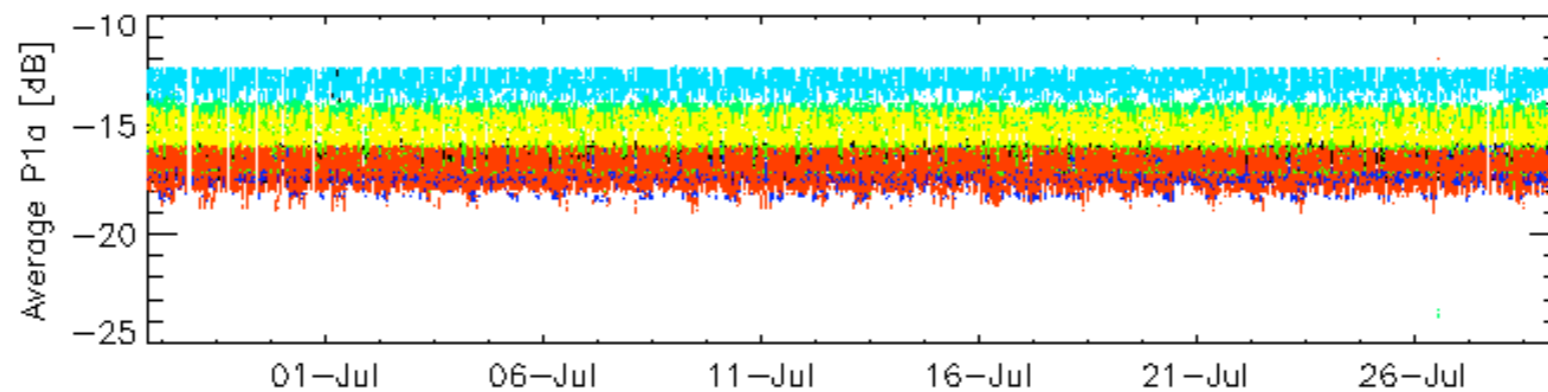
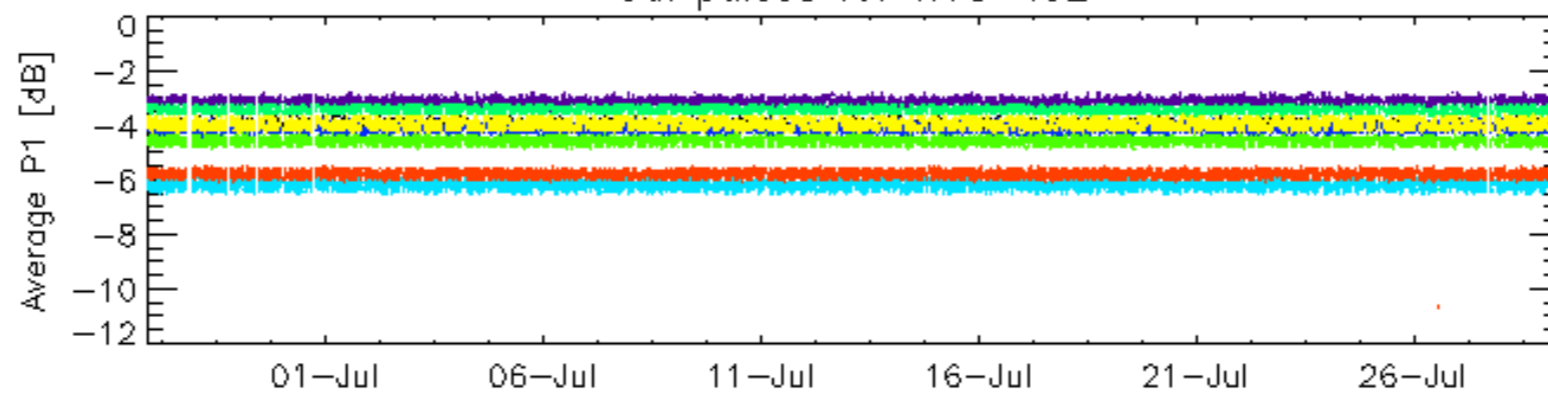


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

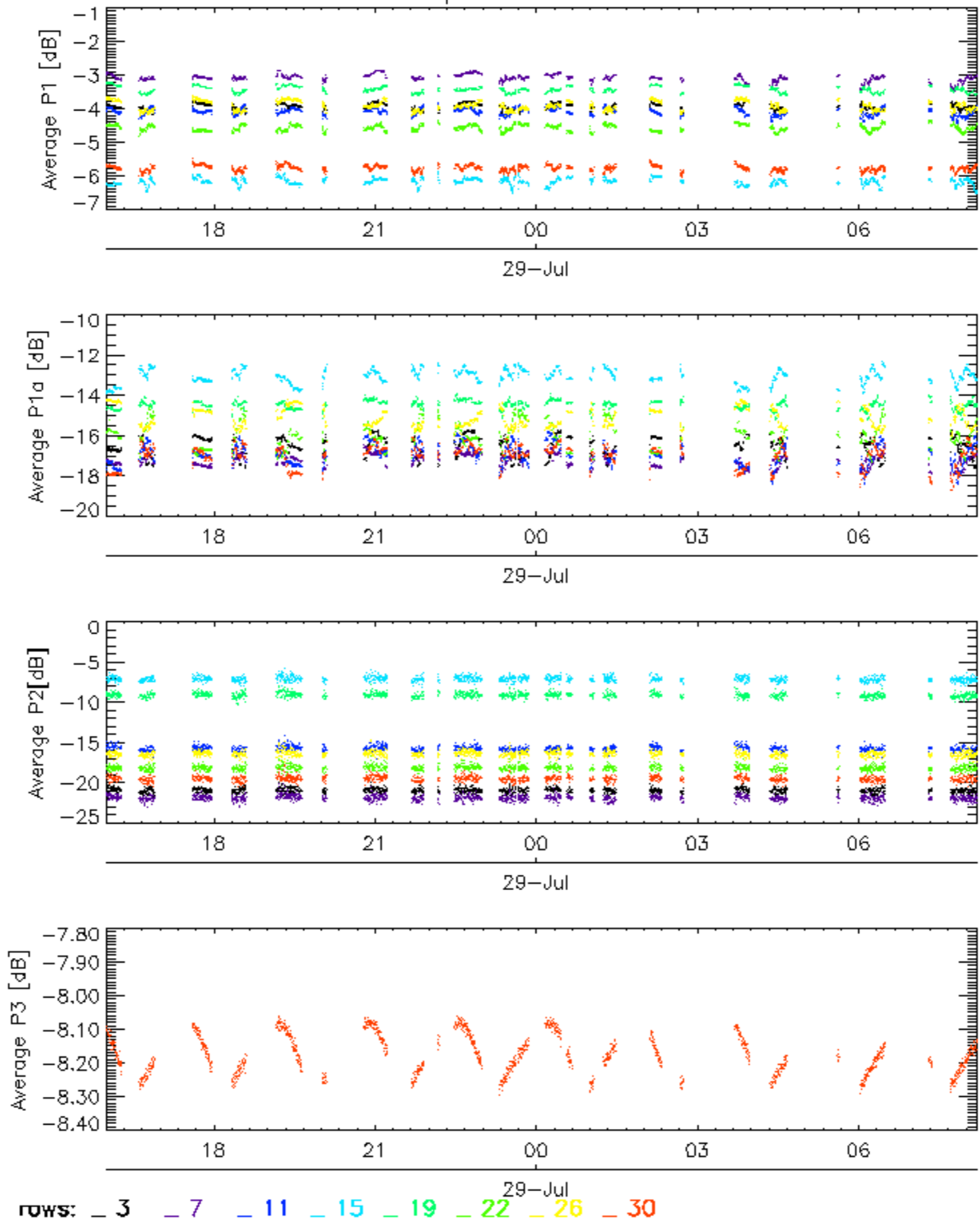


Cal pulses for WVS IS2

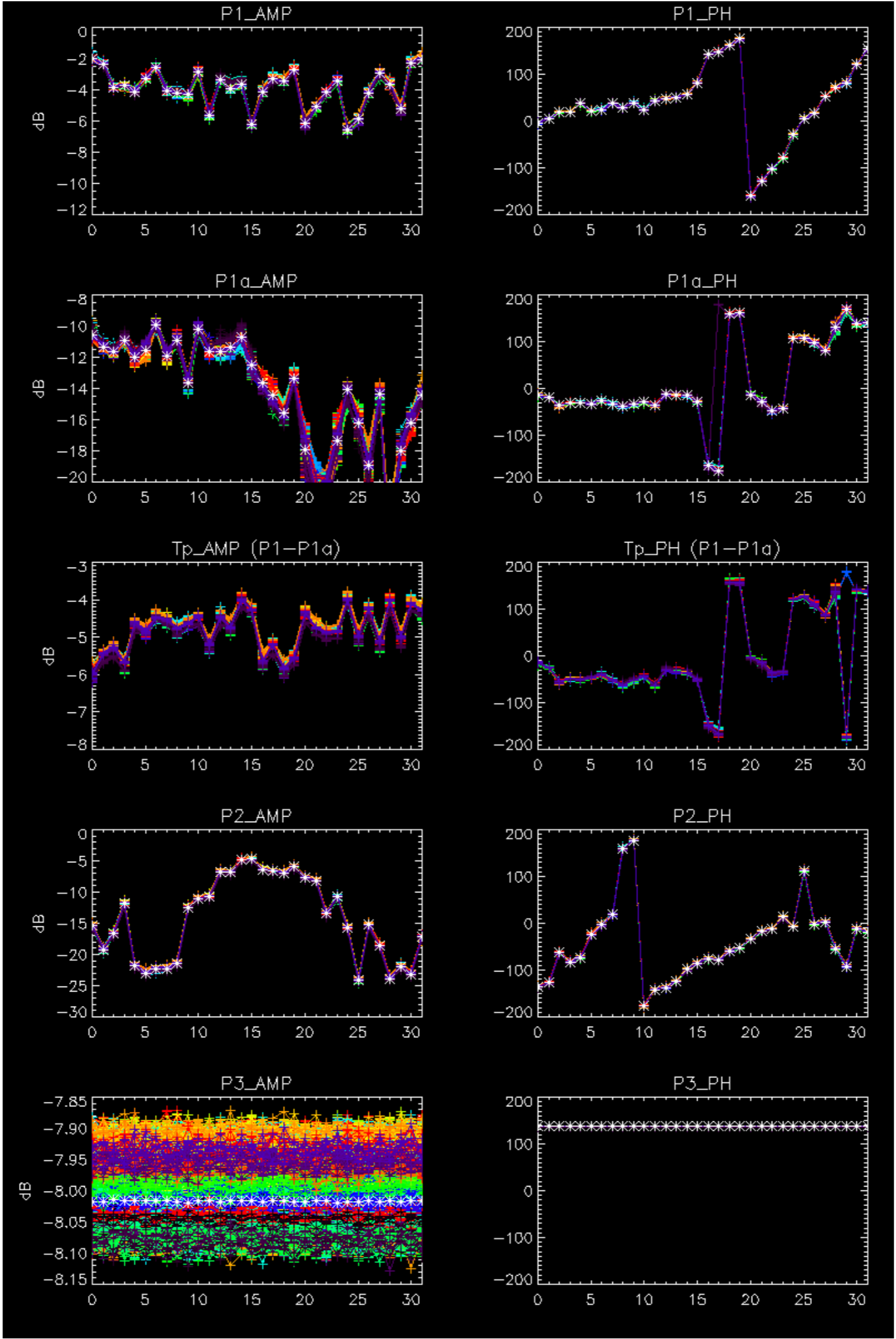


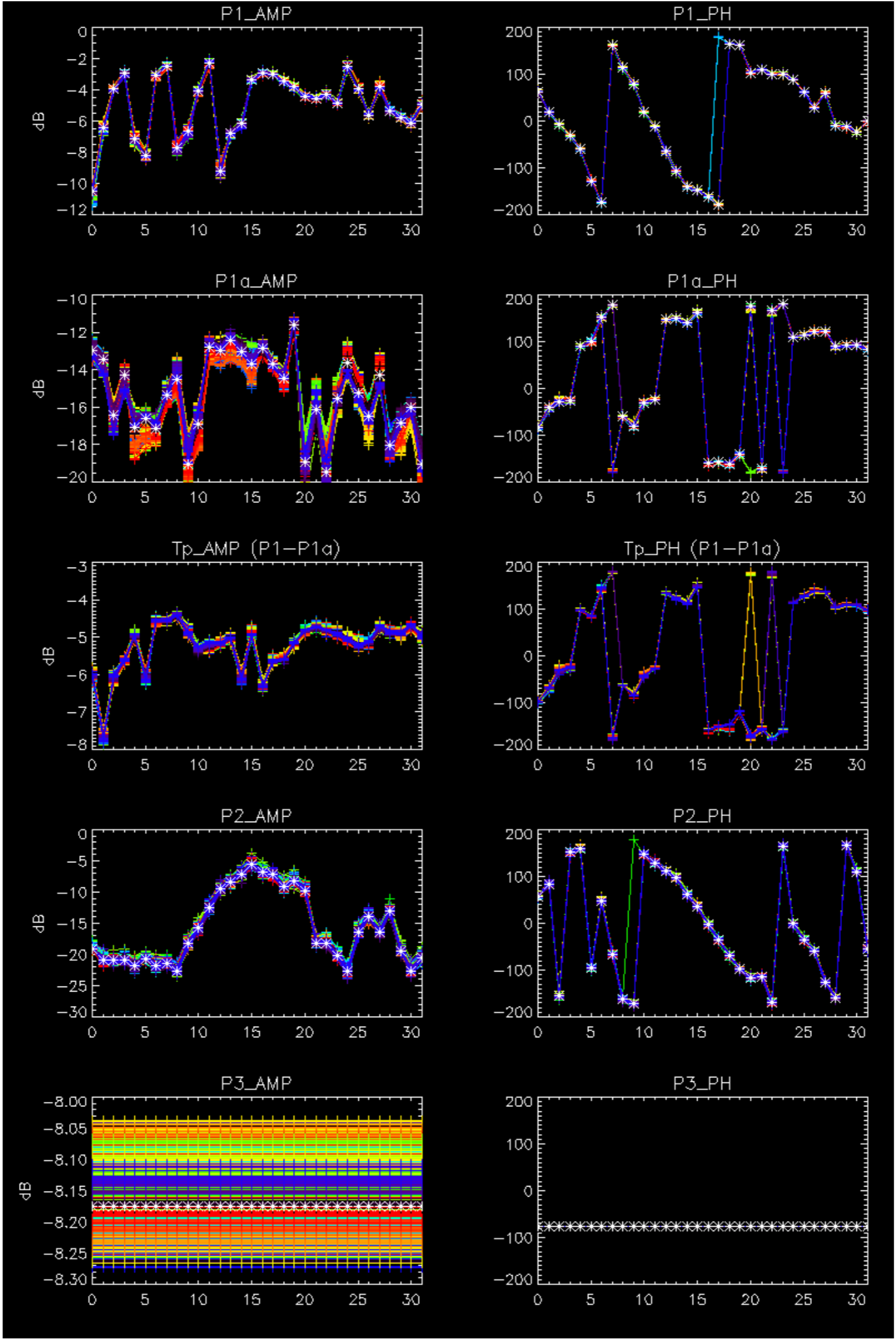
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



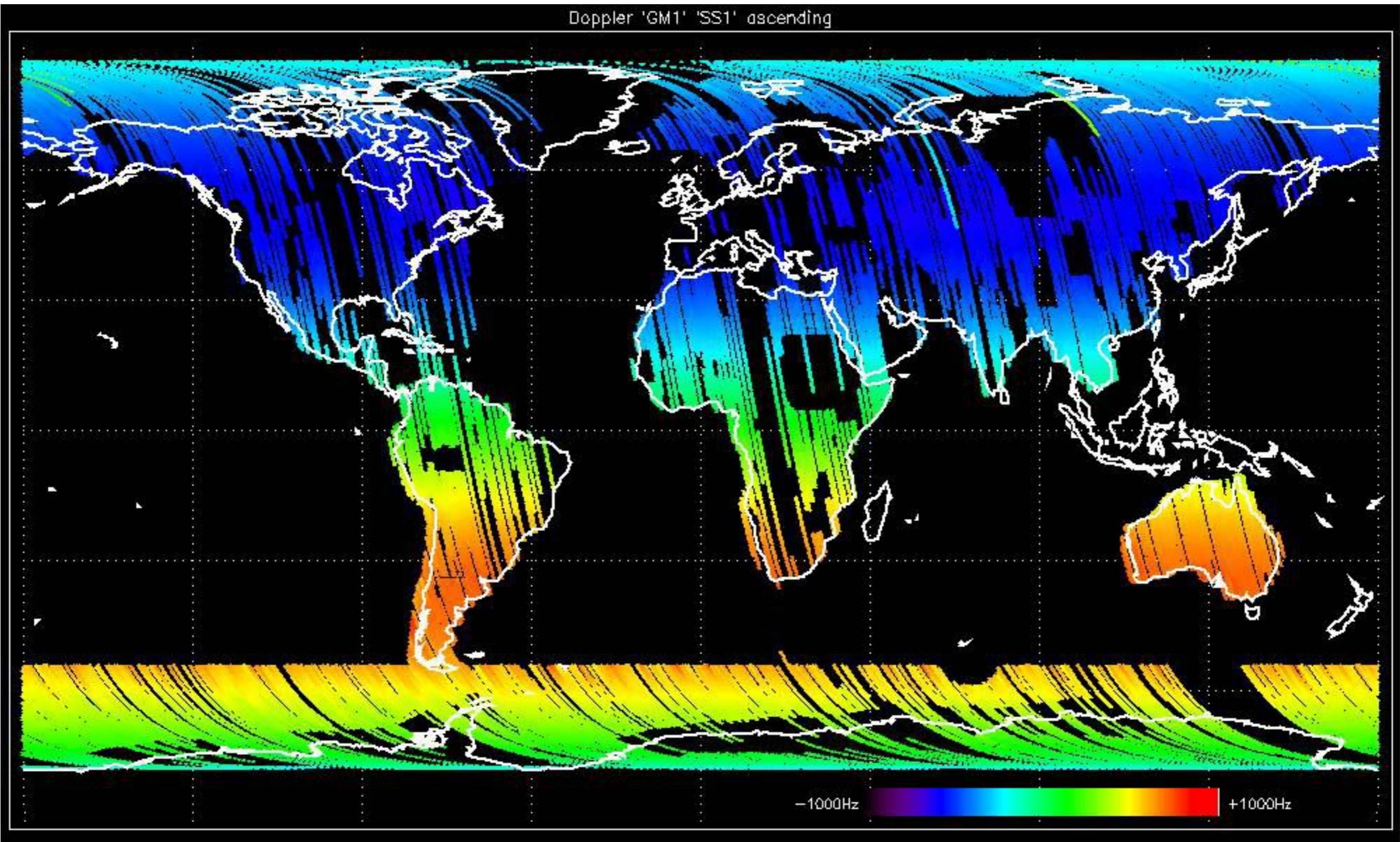
No anomalies observed.



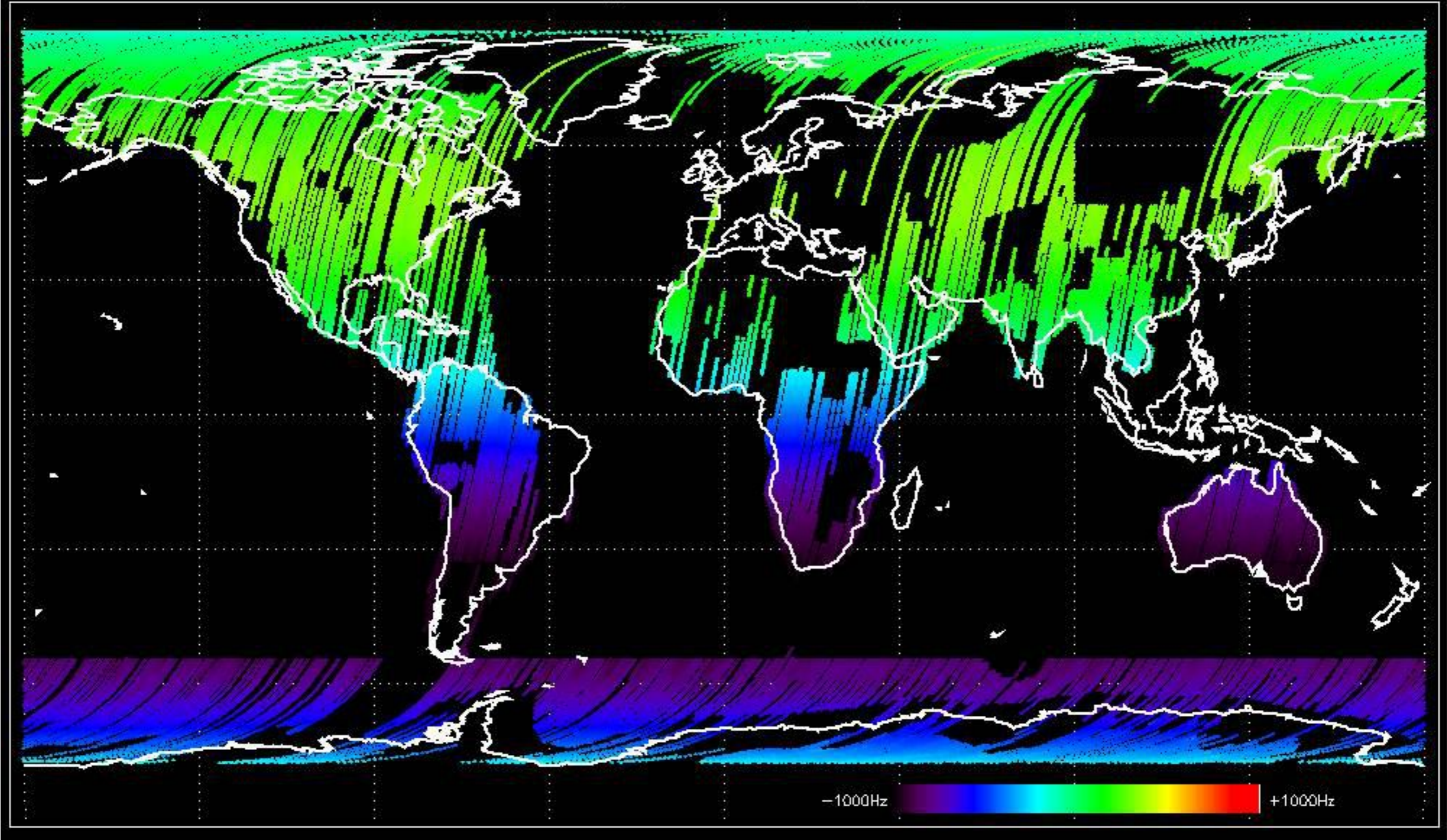


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

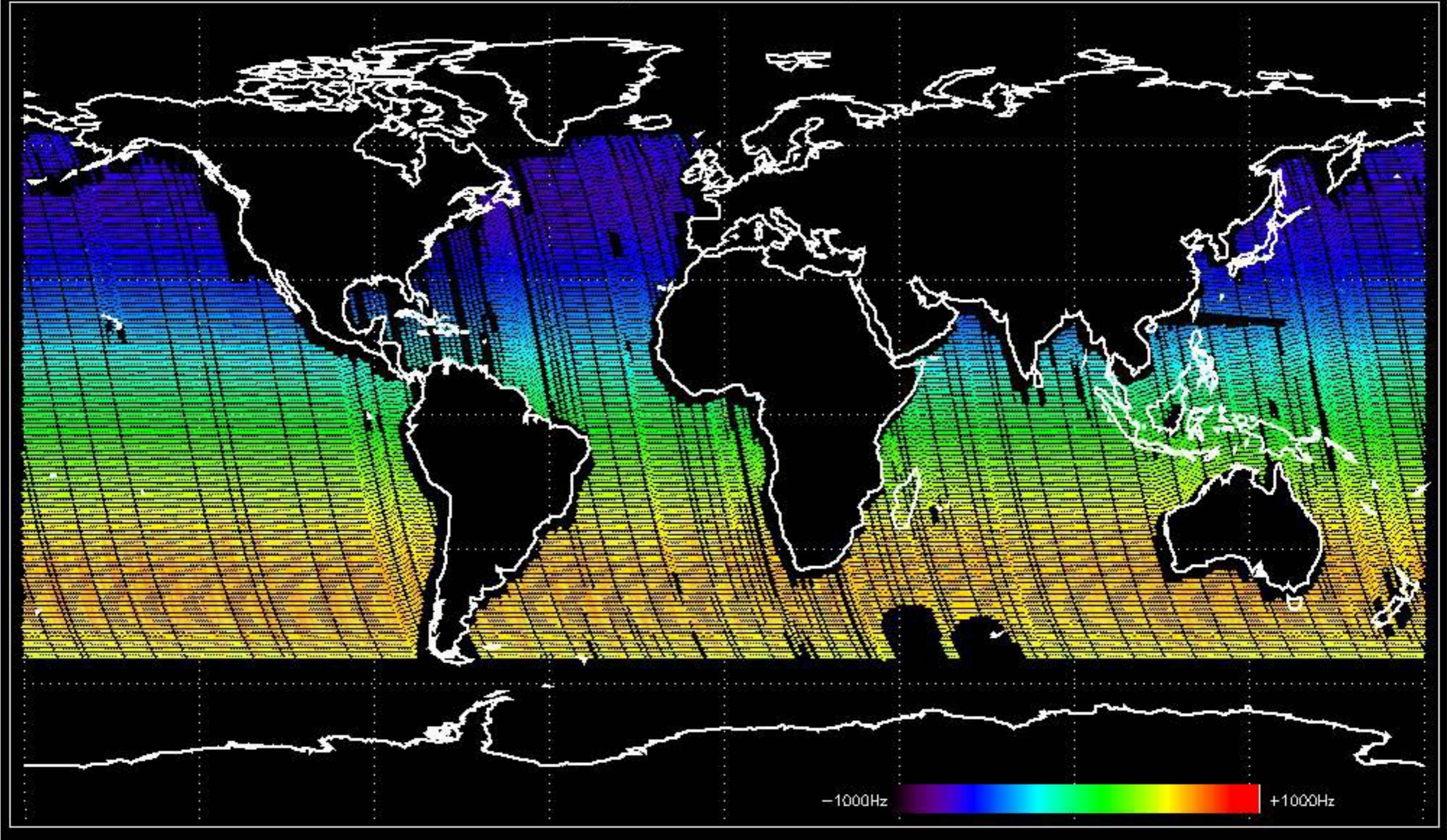
Doppler 'GM1' 'SS1' ascending



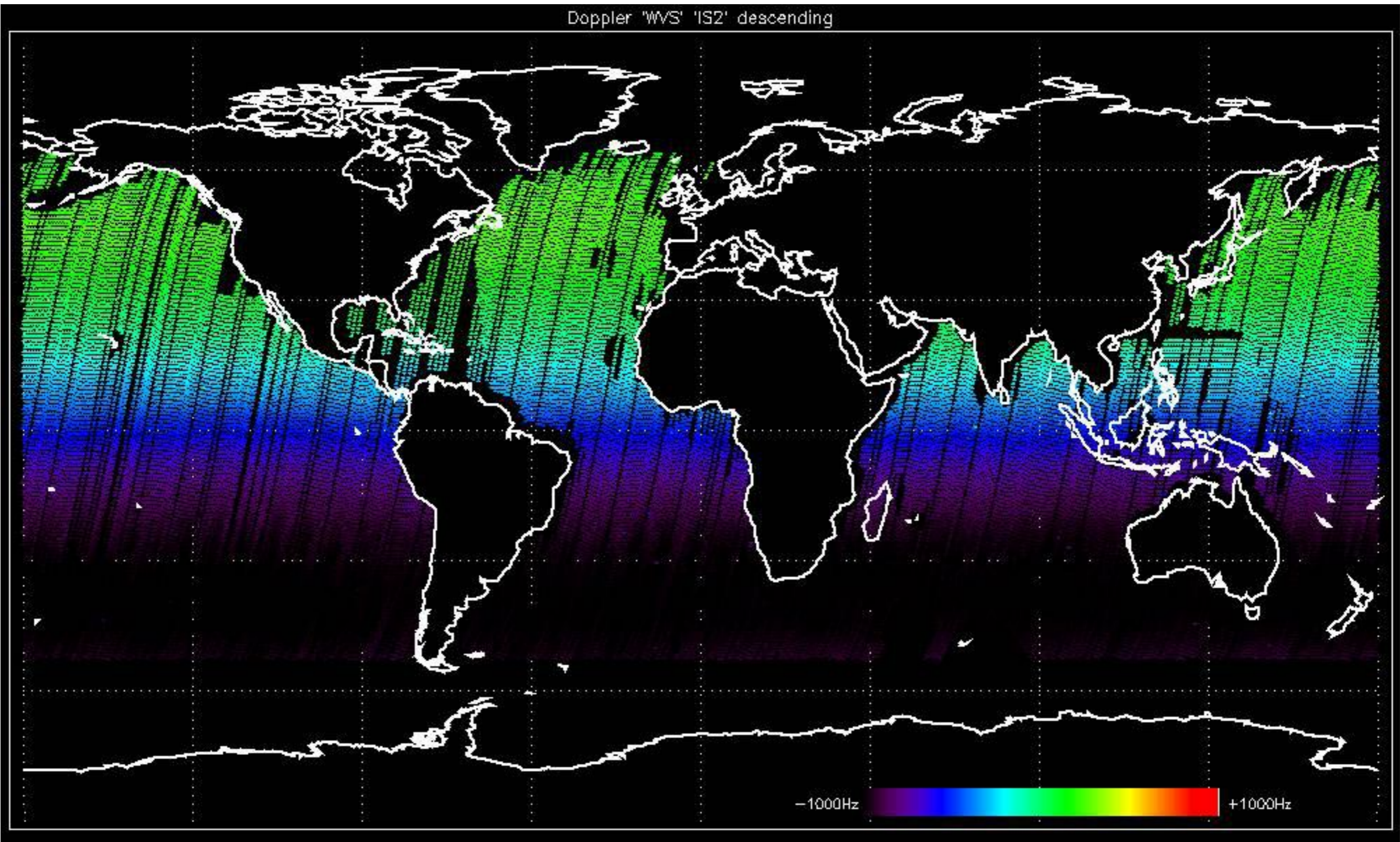
Doppler 'GM1' 'SS1' descending



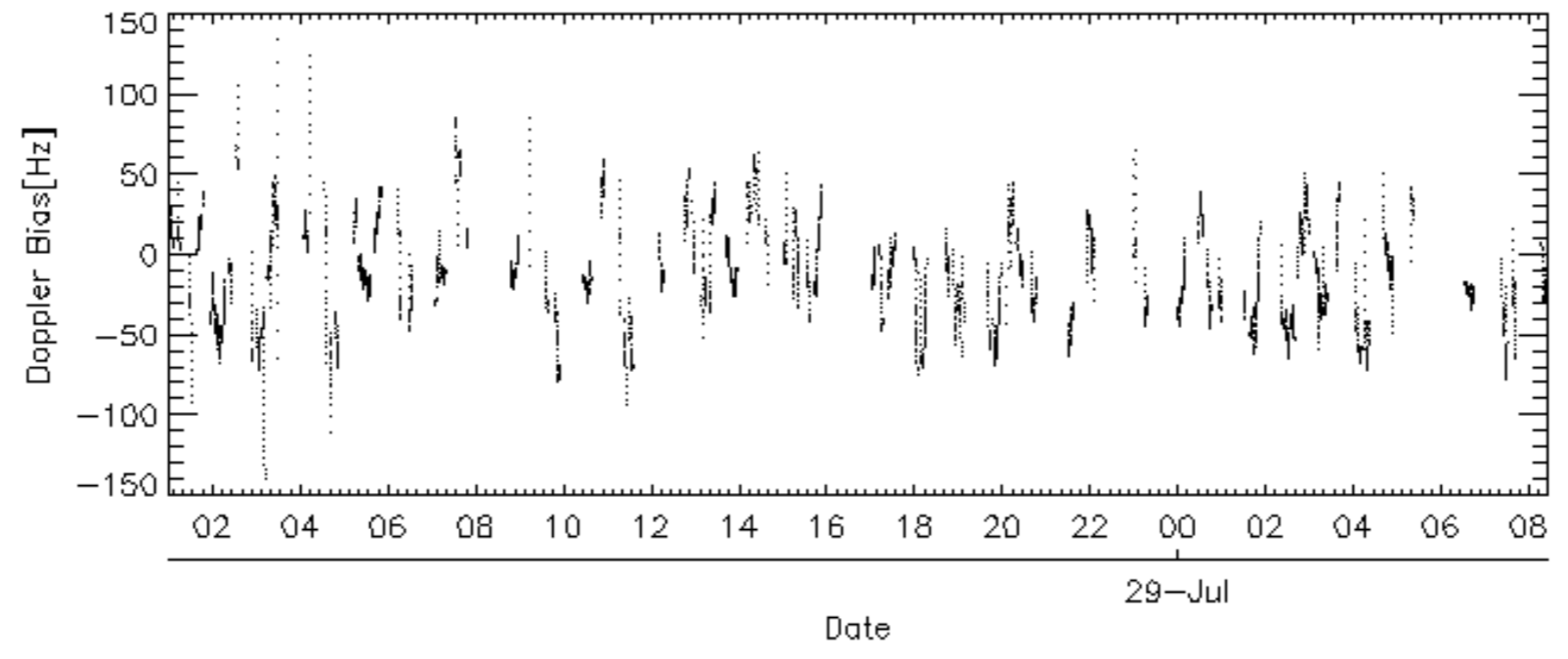
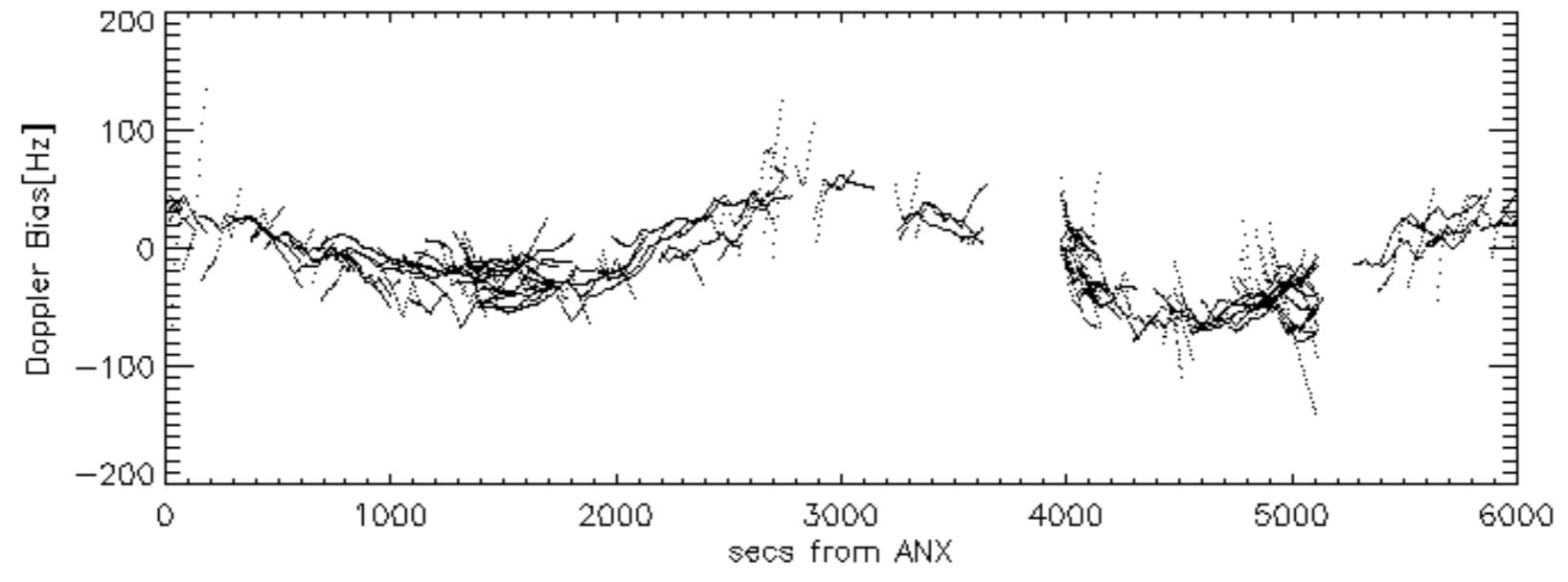
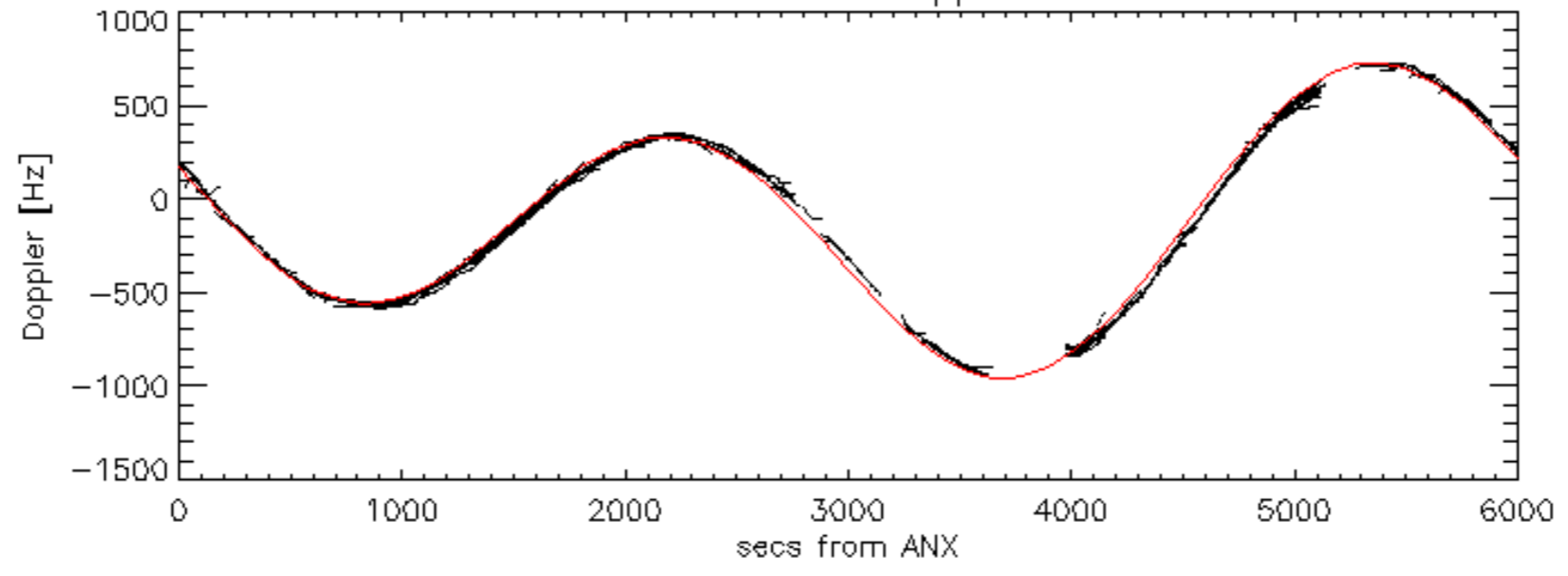
Doppler 'WVS' 'IS2' ascending

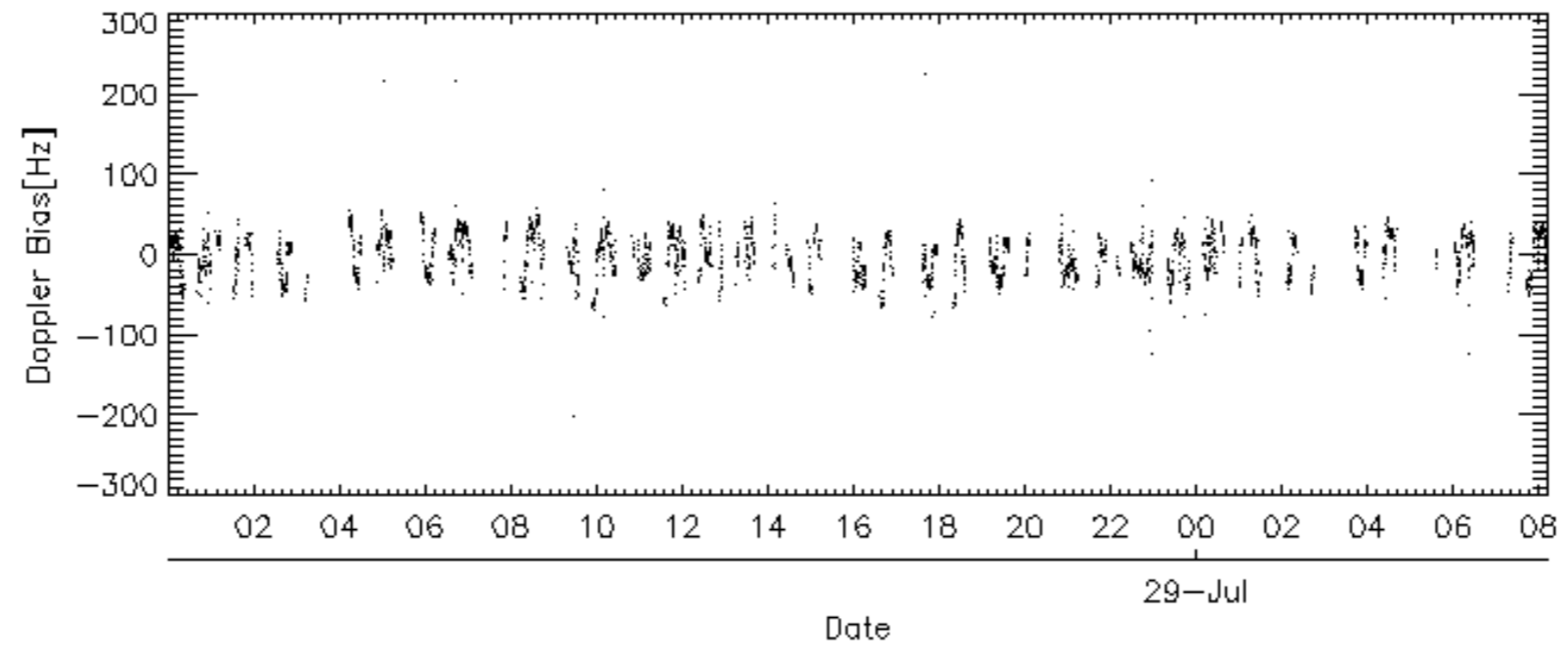
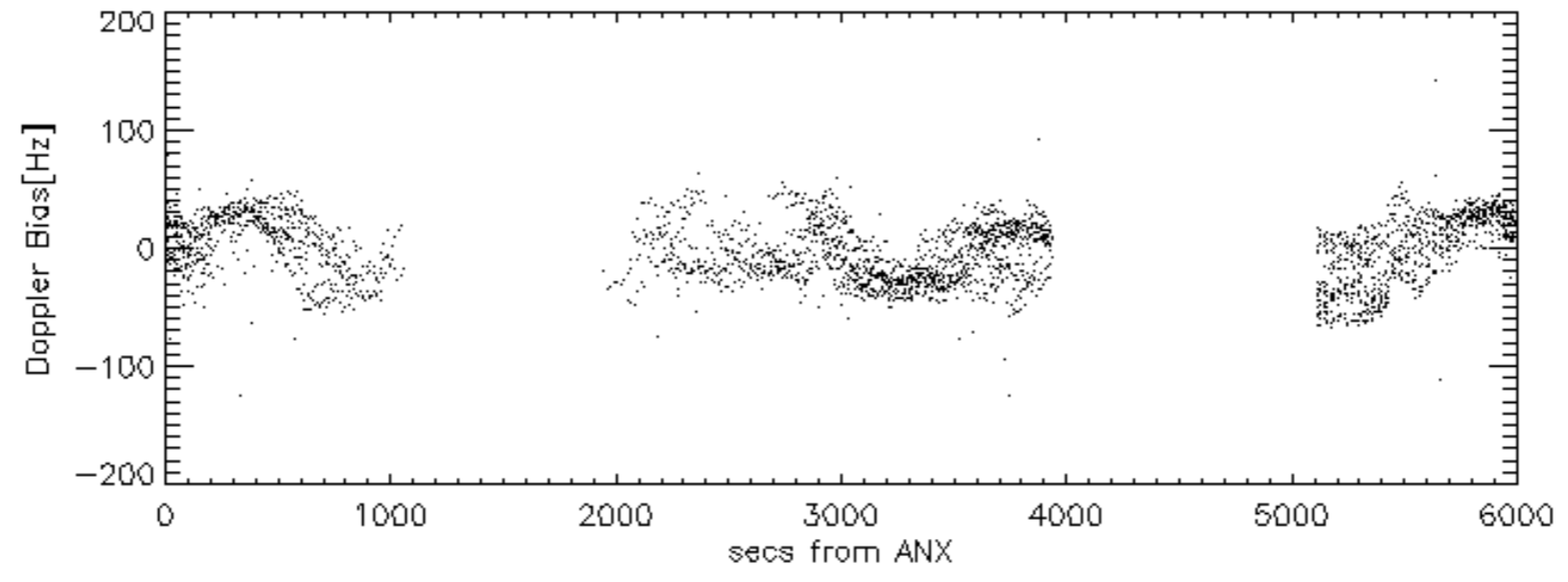
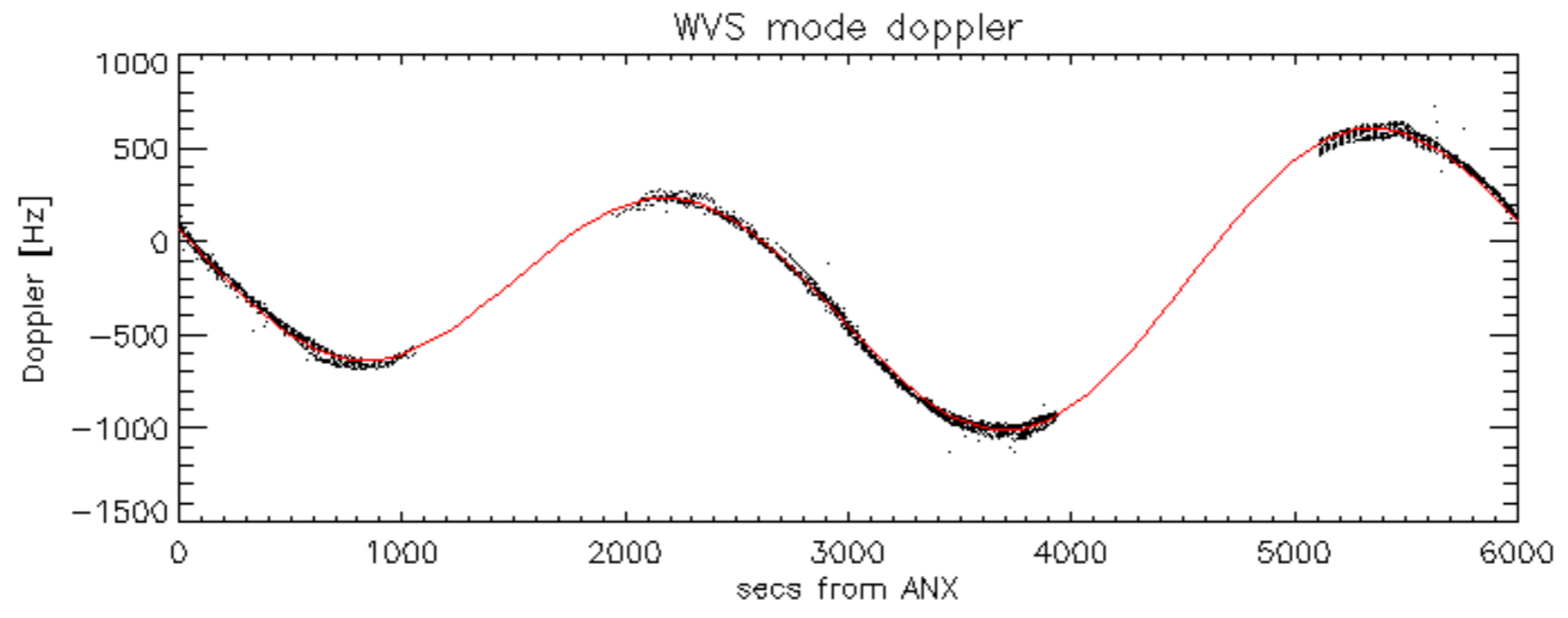


Doppler 'WVS' 'IS2' descending

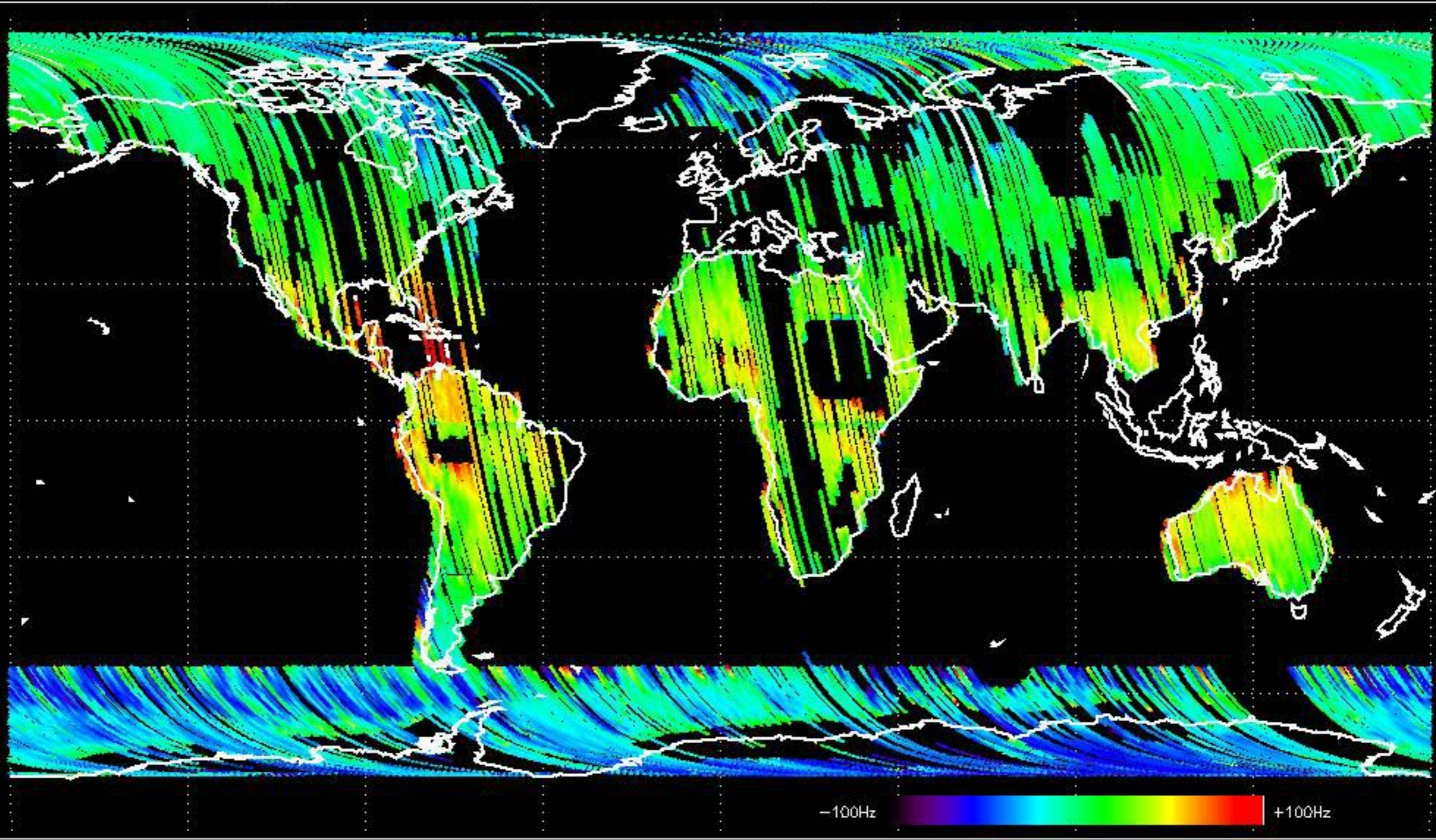


GM1 mode doppler

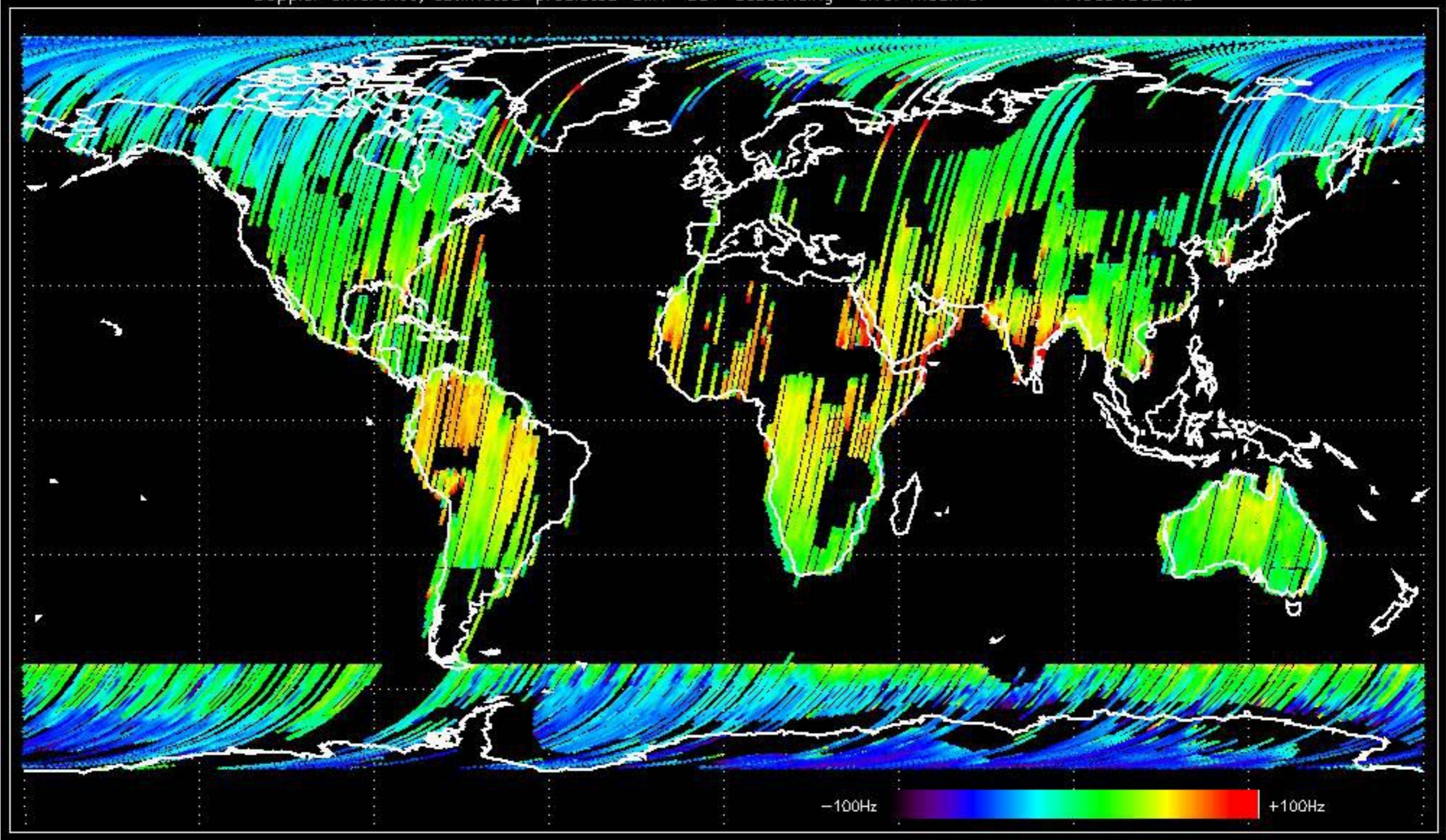




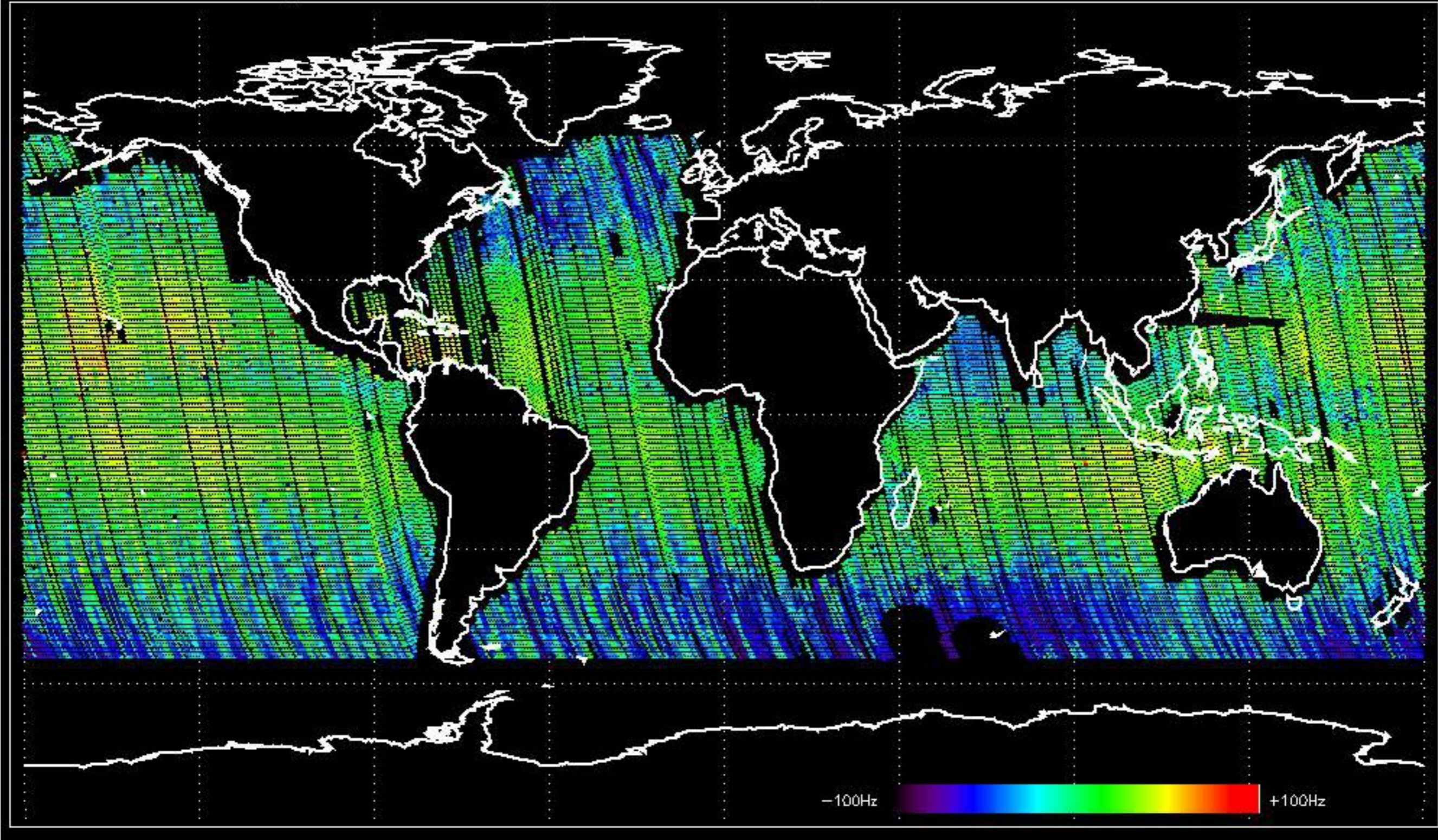
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.039109 Hz



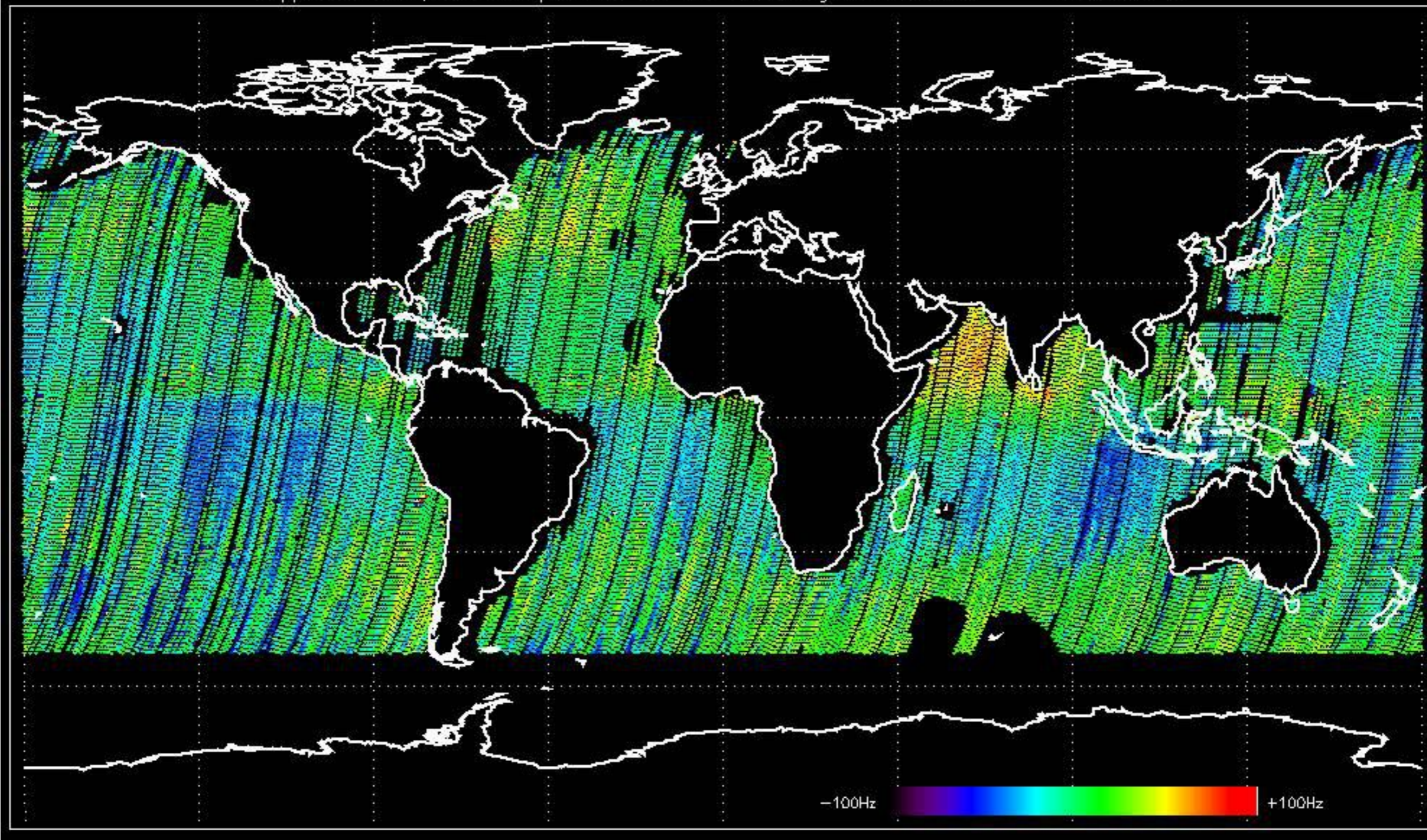
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.0094862 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.5128594 Hz

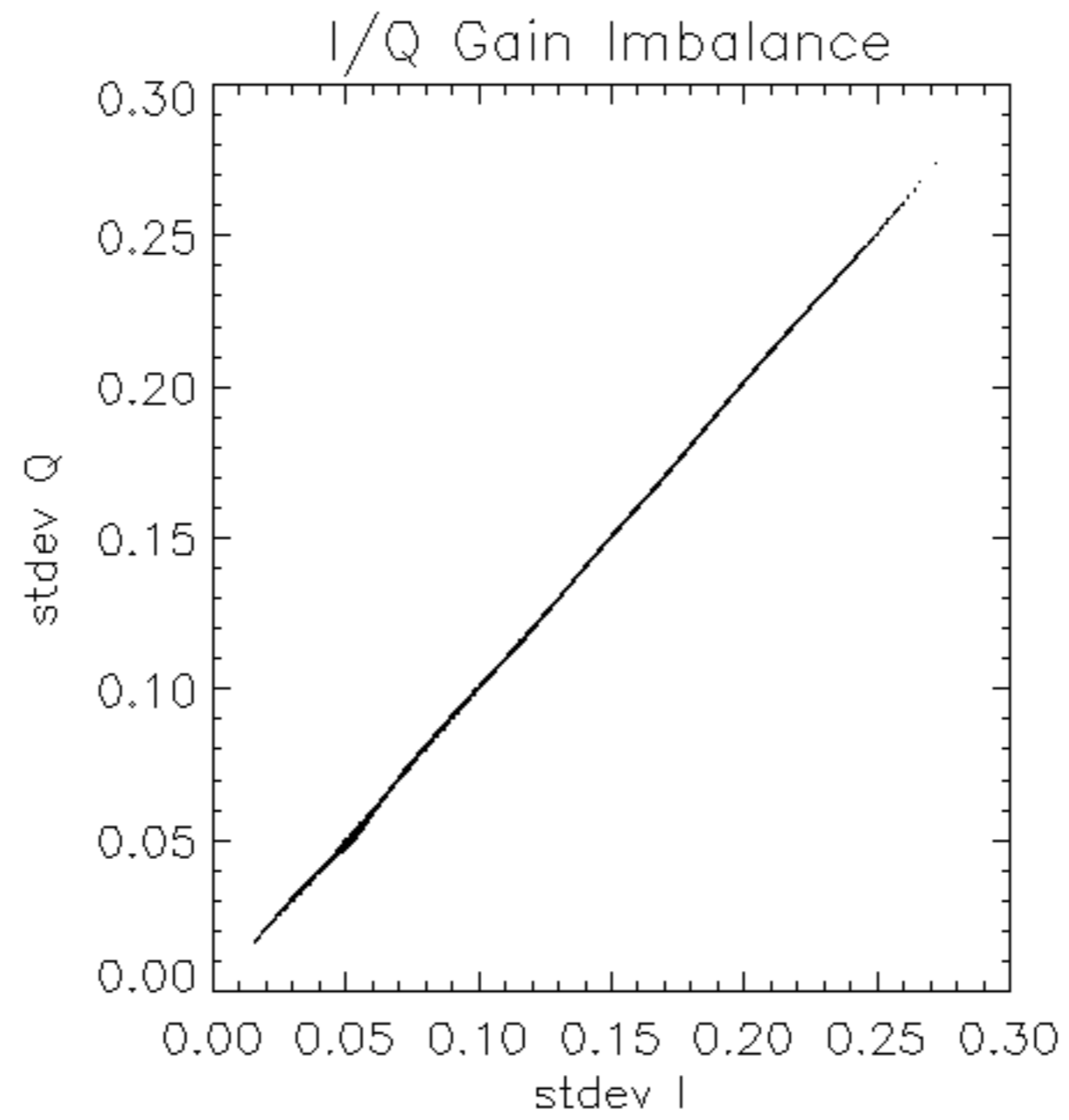


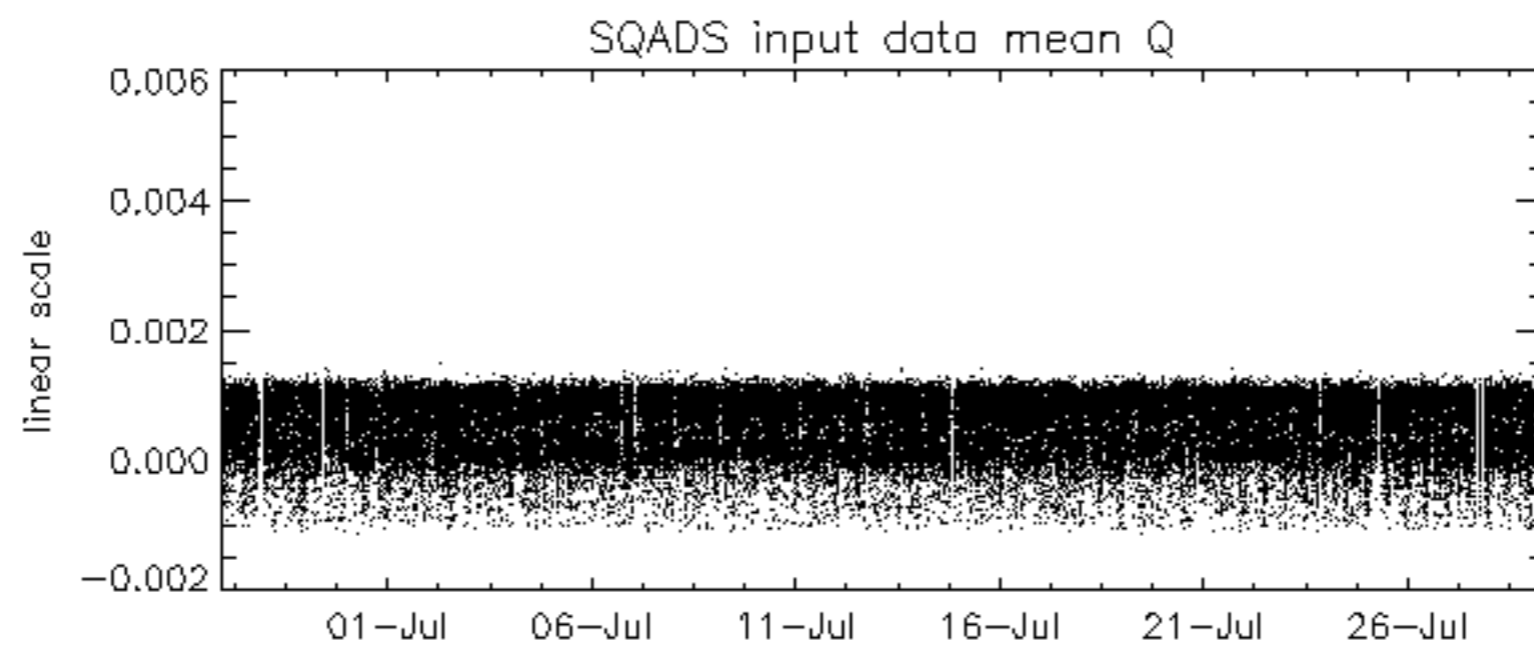
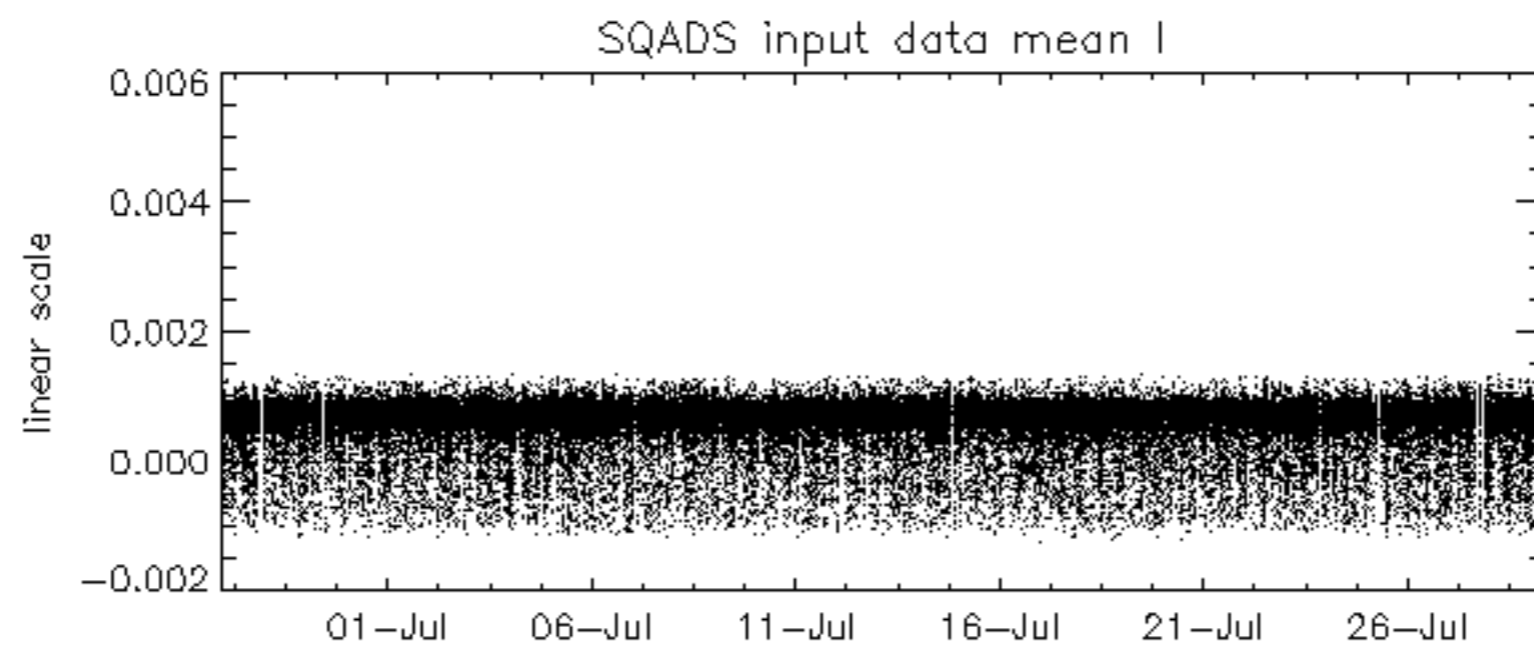
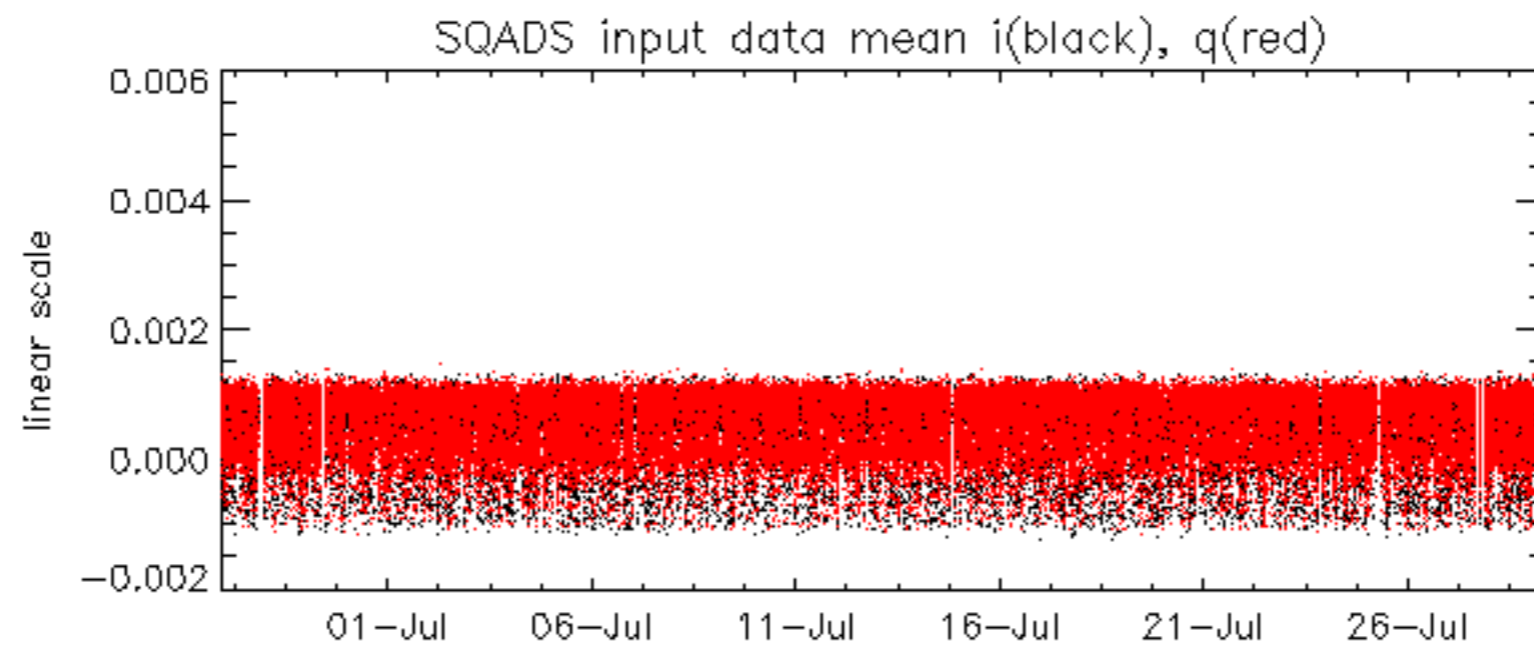
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.8327167 Hz

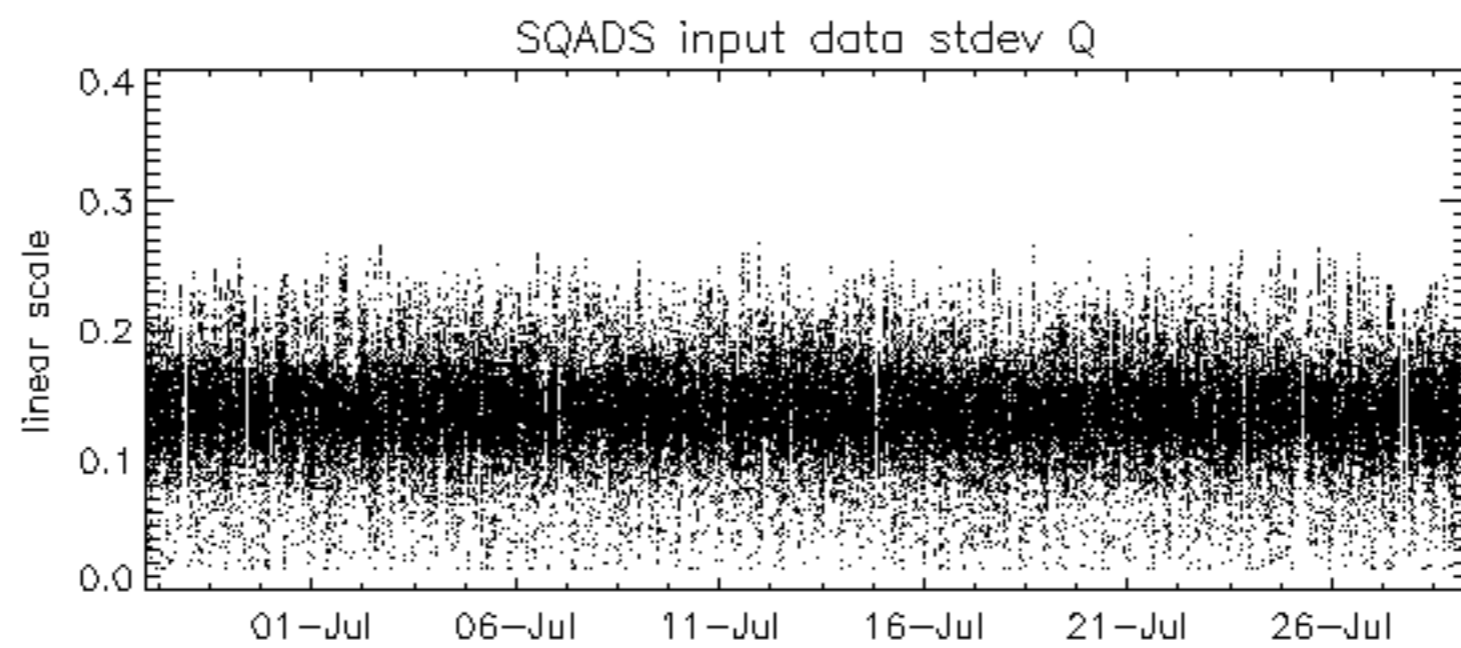
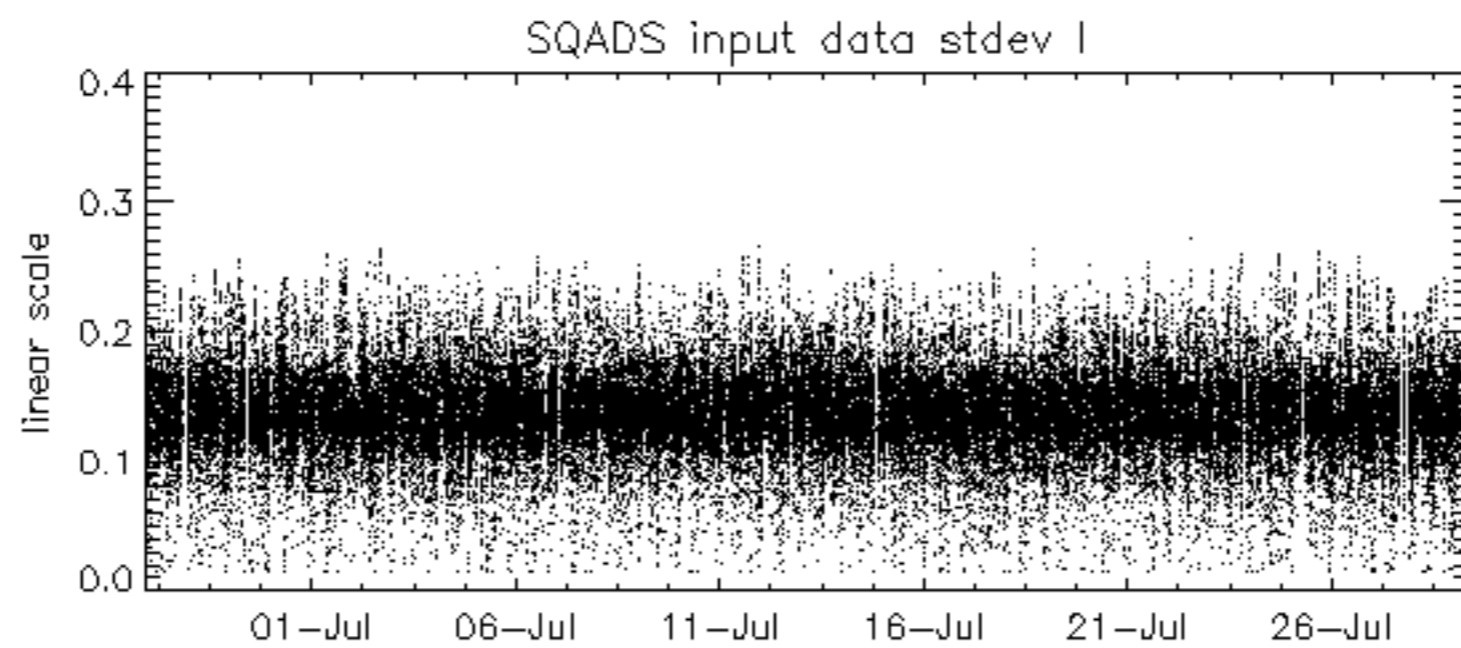
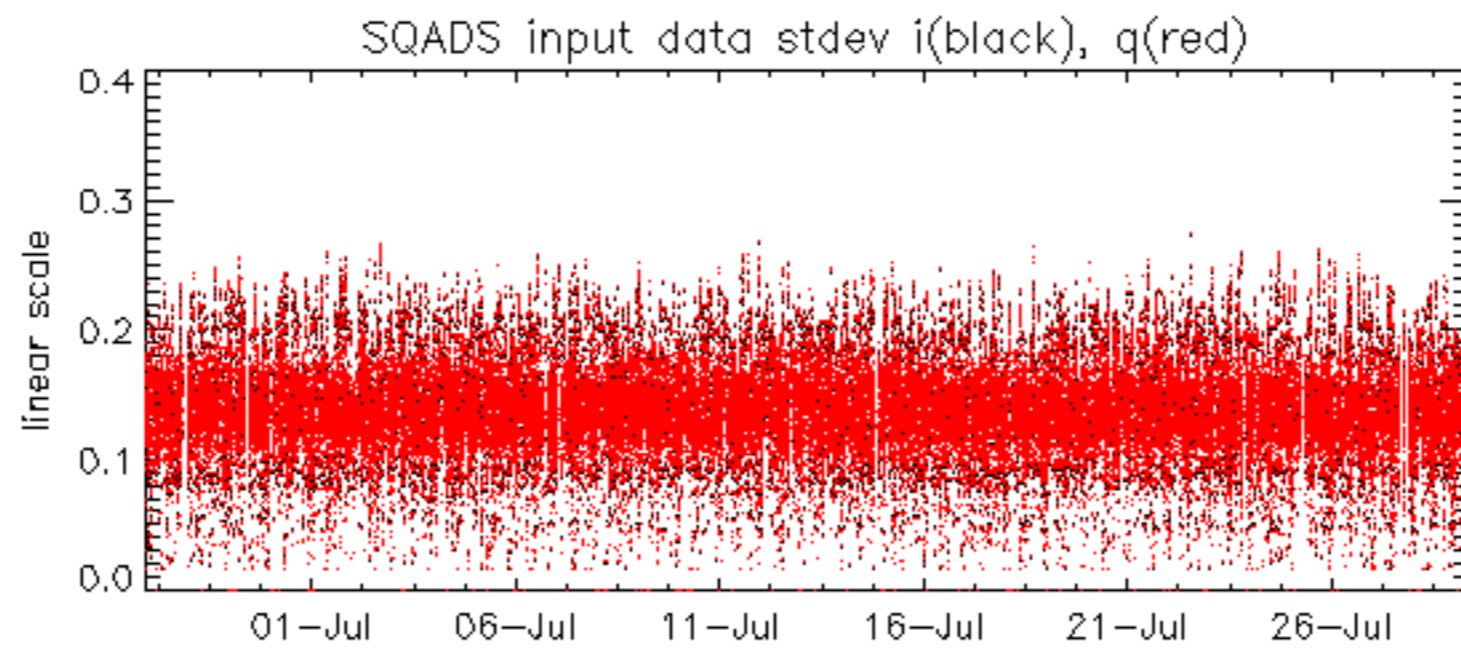


No anomalies observed on available MS products:

No anomalies observed.



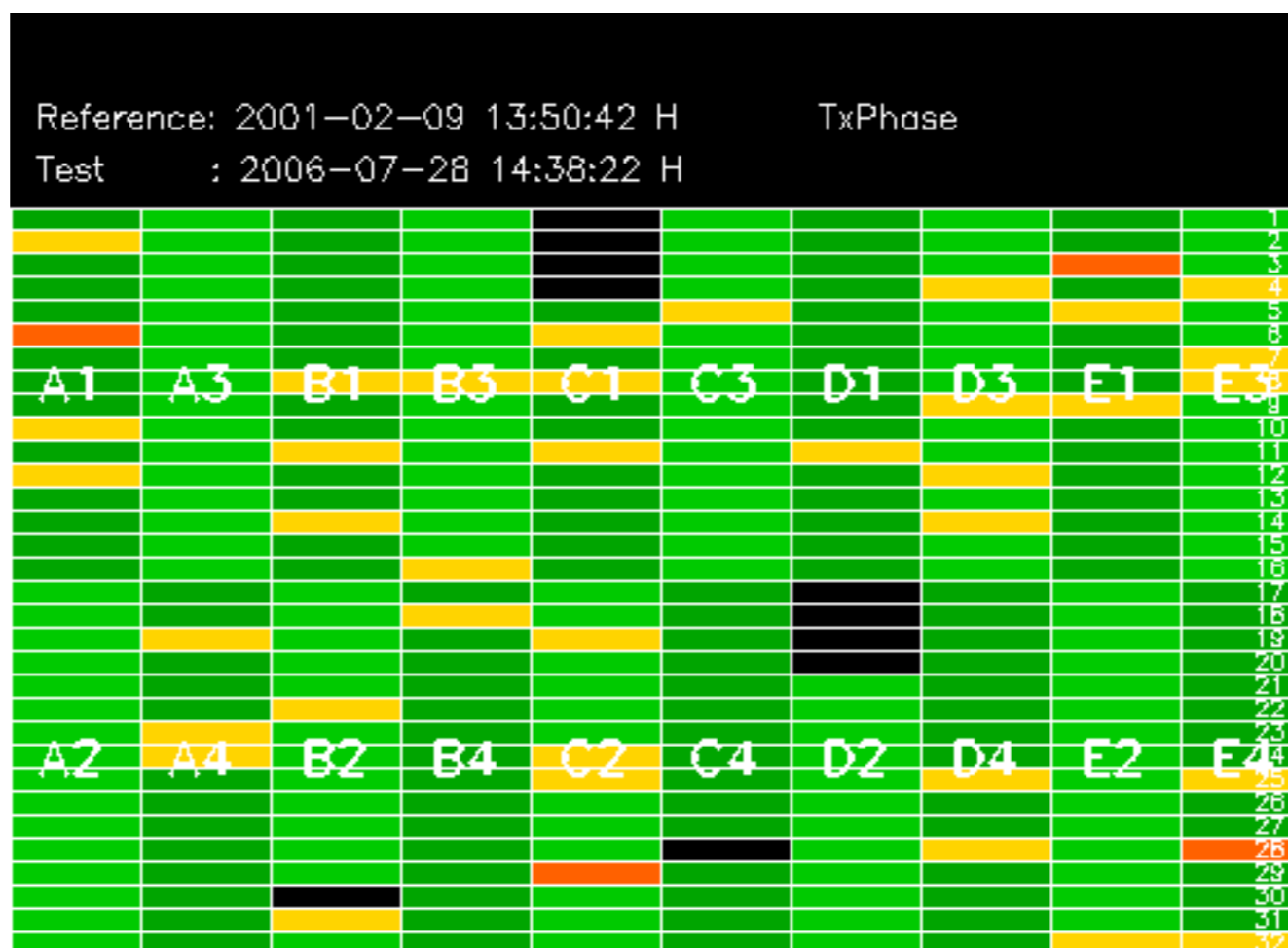


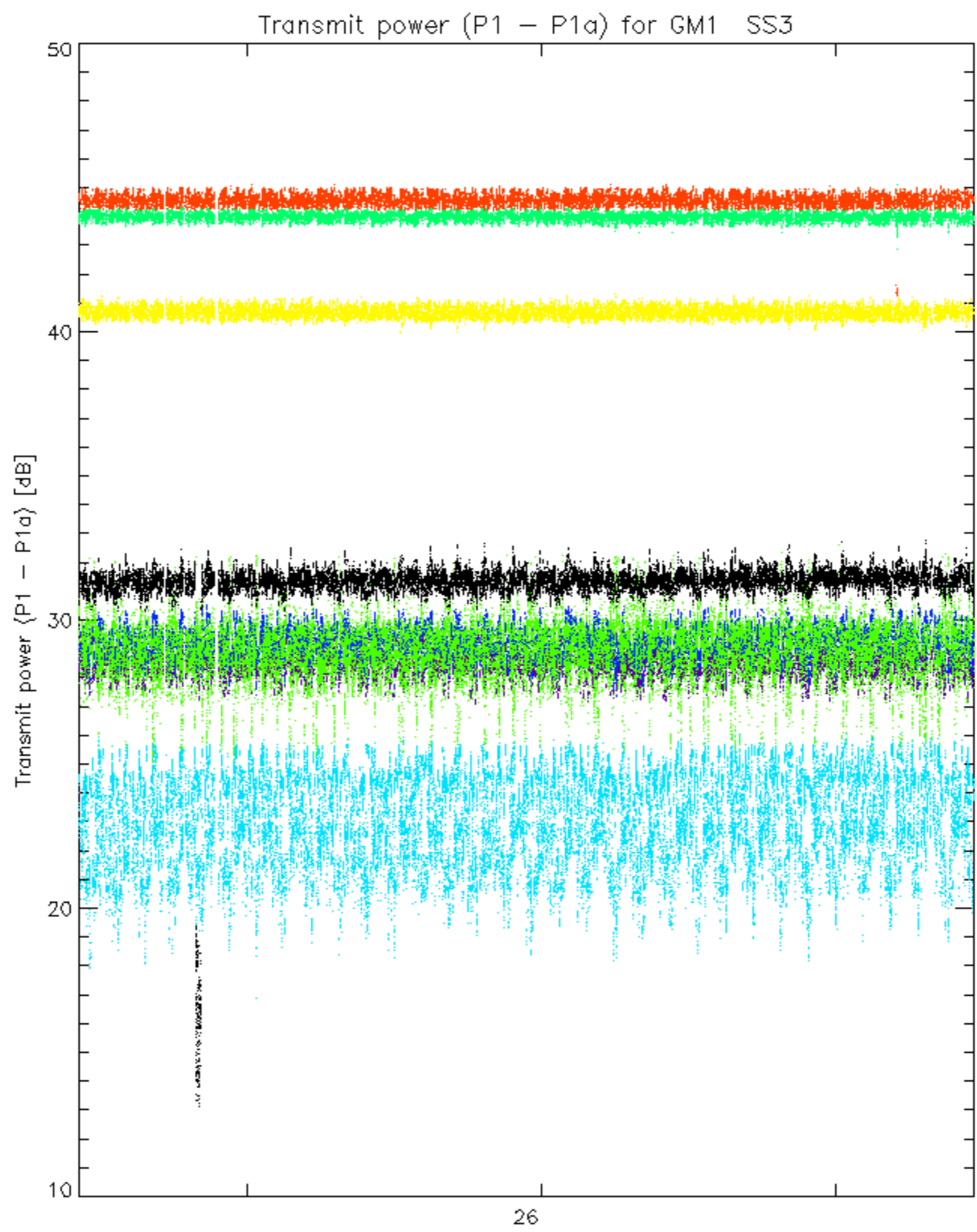


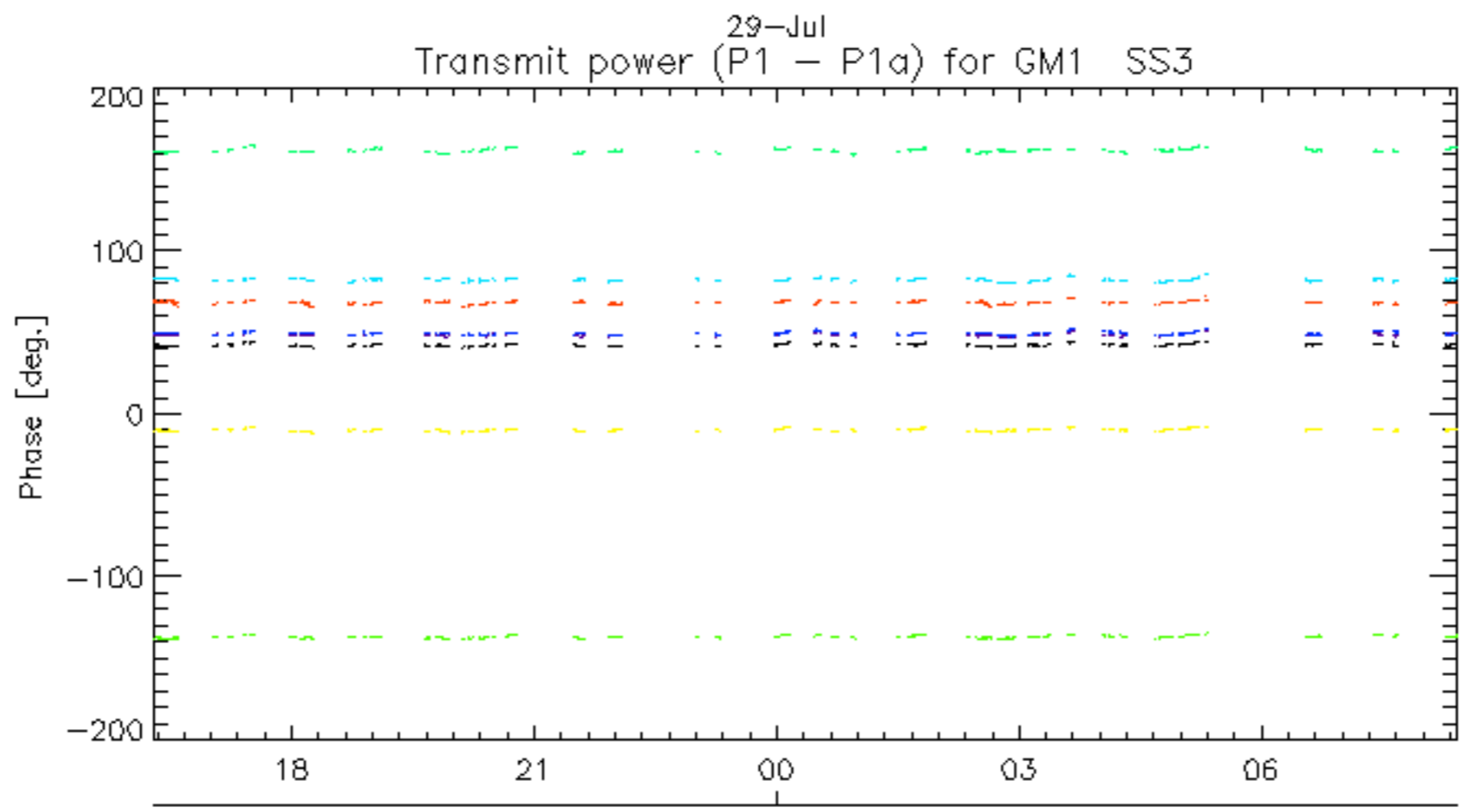
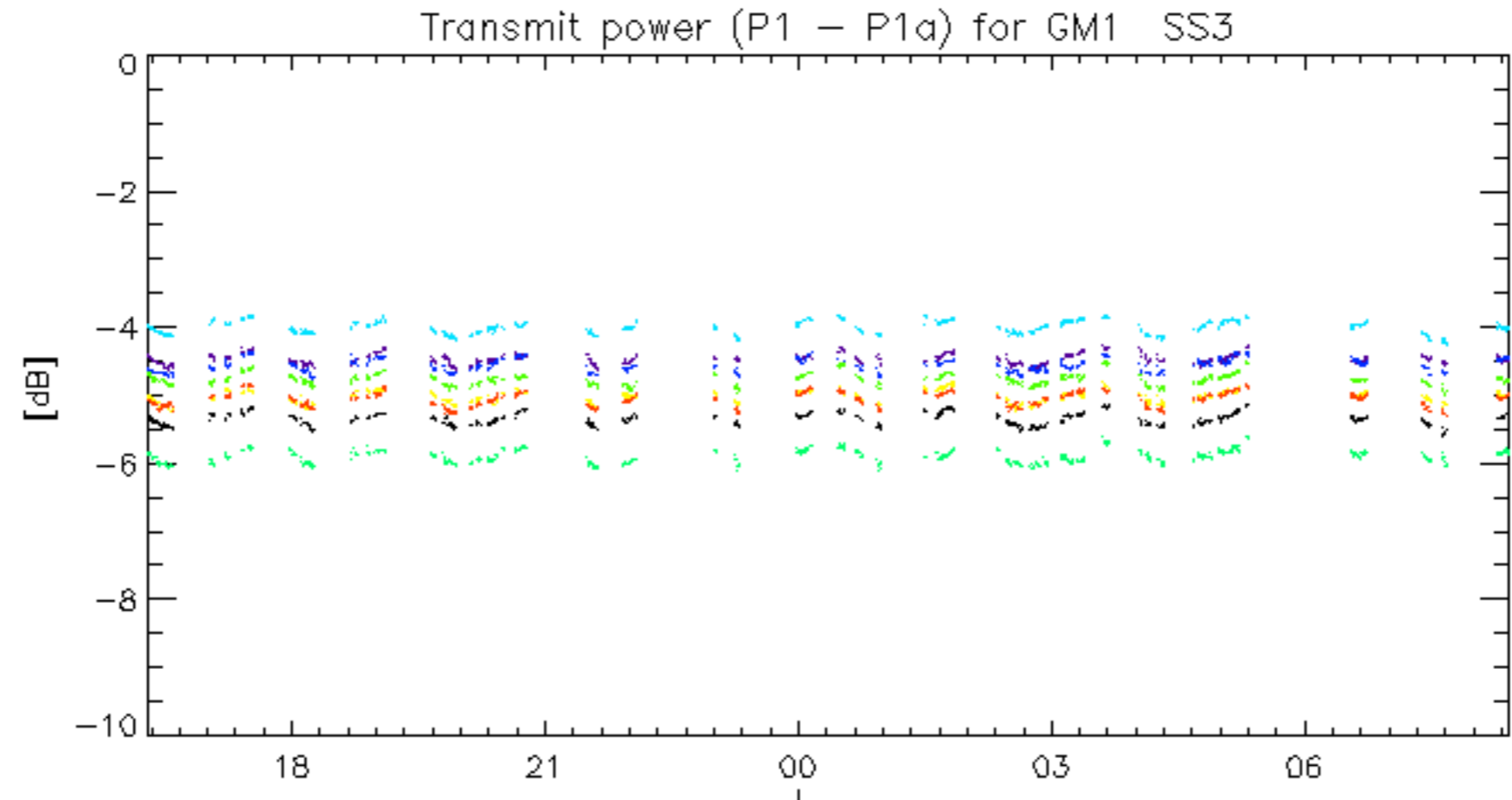
Summary of analysis for the last 3 days 2006072[789]

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

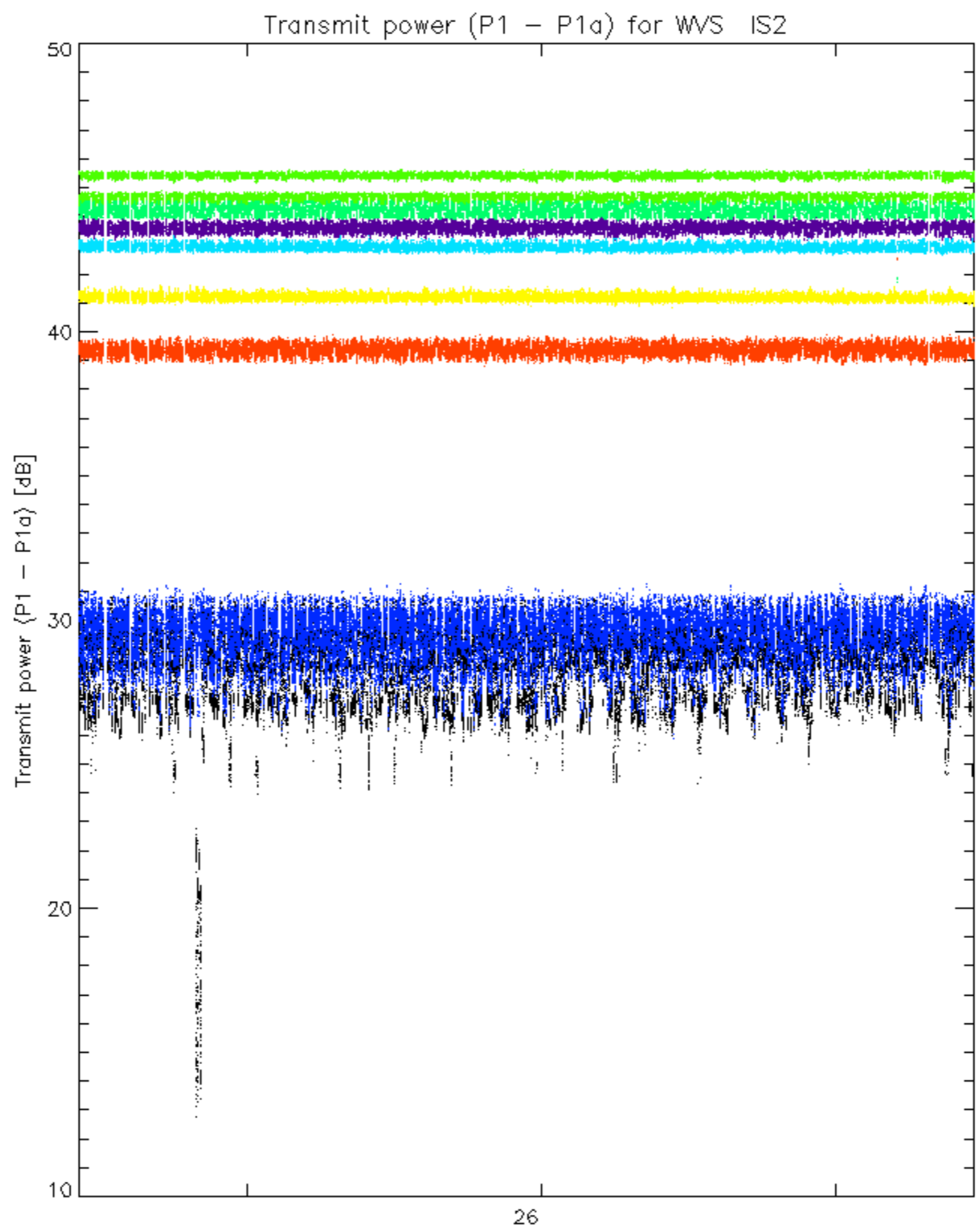
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060727_003438_000001152049_00431_23030_2088.N1	1	0
ASA_IMM_1PNPDE20060727_223929_000000352049_00445_23044_2153.N1	1	0
ASA_IMM_1PNPDE20060729_015644_000000802049_00461_23060_2372.N1	1	0
ASA_IMM_1PNPDK20060728_083400_000000372049_00451_23050_1001.N1	0	20
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ASA_WSM_1PNPDE20060727_172658_000001032049_00442_23041_4706.N1	0	13
ASA_WSM_1PNPDE20060728_183647_000002932049_00457_23056_4791.N1	0	65



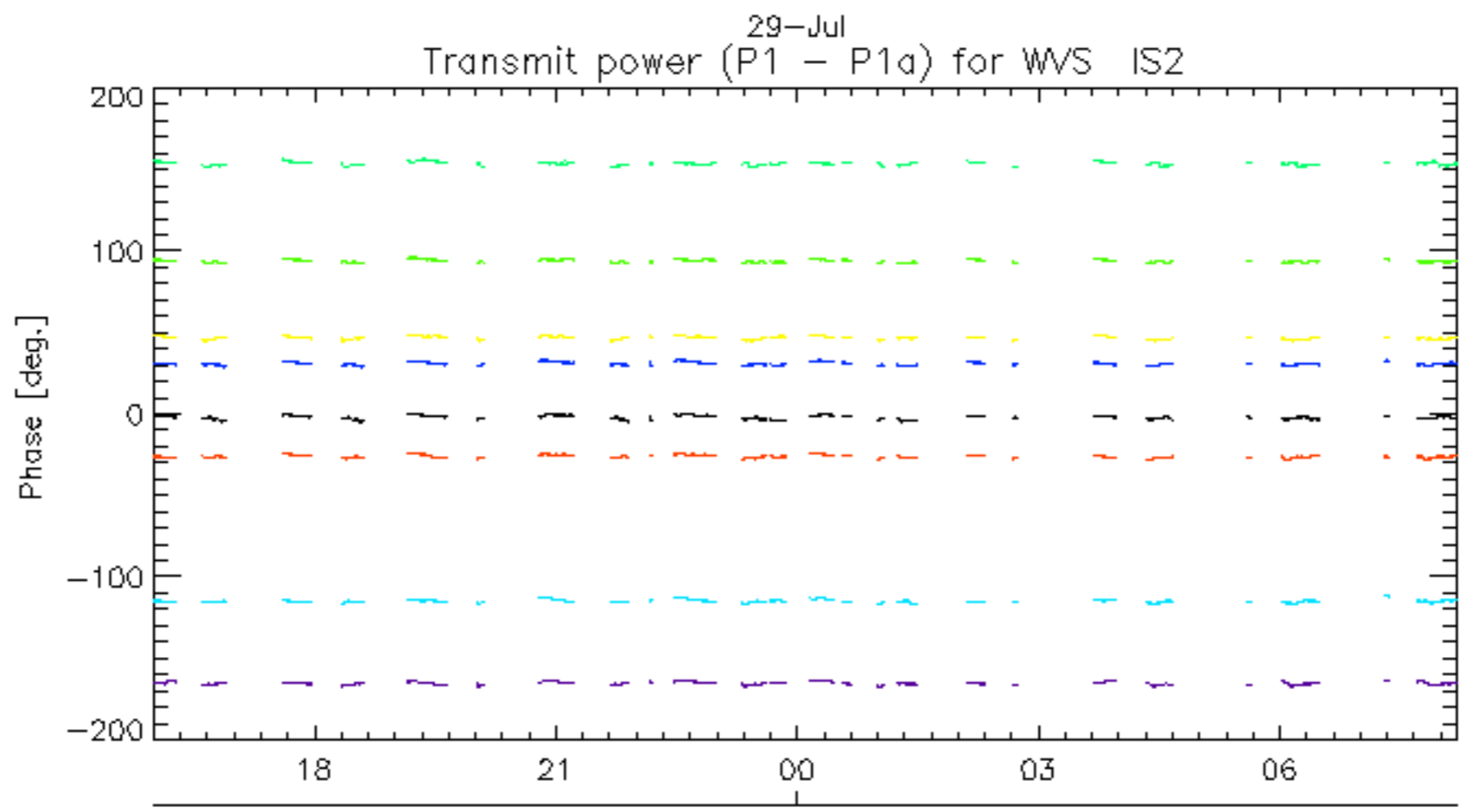
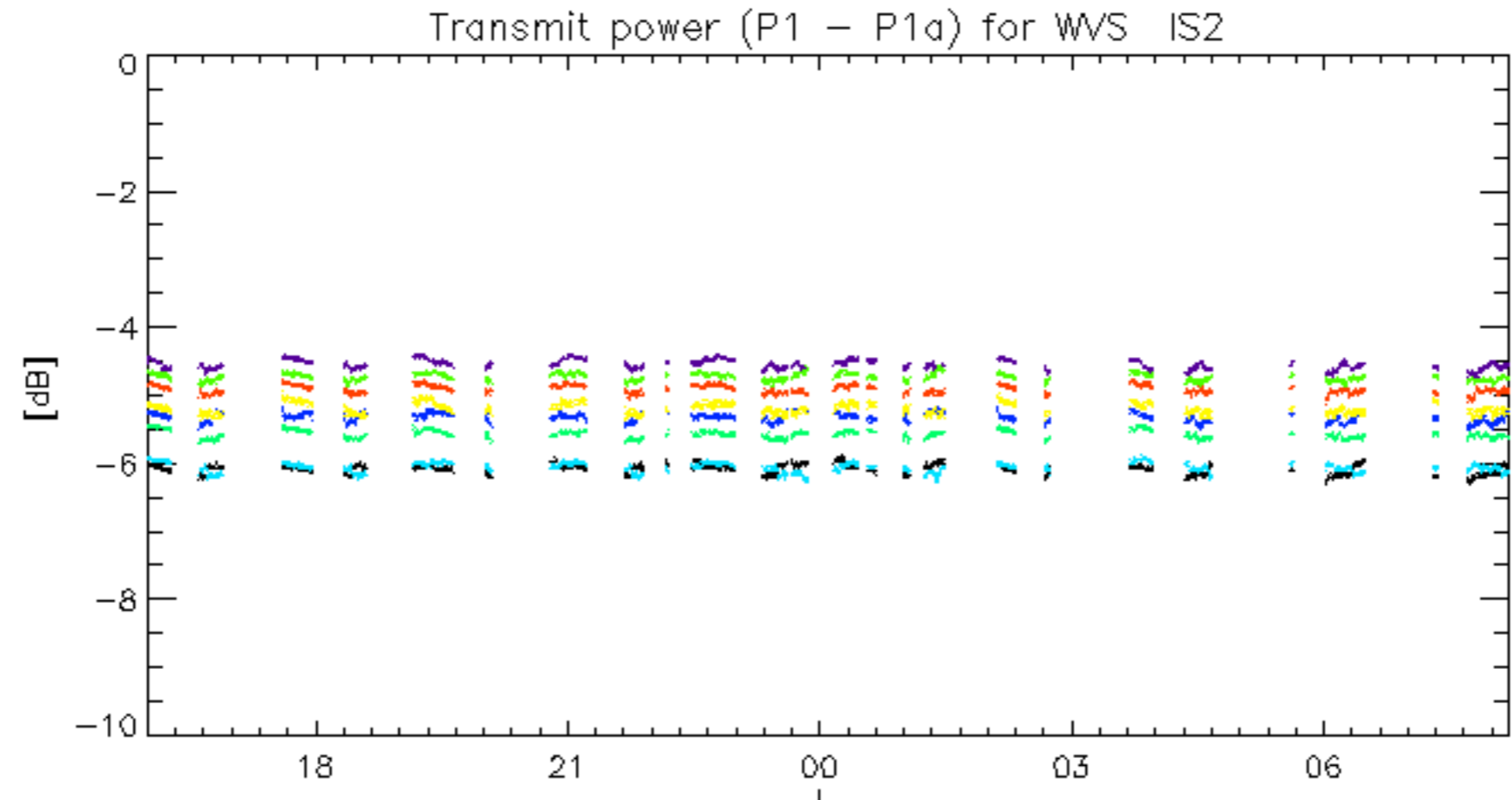




rows: 3 7 11 15 19 22 26 30



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



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

No unavailabilities during the reported period.