

PRELIMINARY REPORT OF 050712

last update on Tue Jul 12 07:01:59 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 2005-07-11 00:00:00 to 2005-07-12 07:01:59

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	26	34	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	26	34	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	26	34	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	26	34	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	34	42	17	9	43
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	34	42	17	9	43
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	34	42	17	9	43
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	34	42	17	9	43

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	20050711 180523
H	20050710 183700

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	-3.325568	0.007225	0.021437
7	P1	-3.140769	0.014825	0.008655
11	P1	-4.655200	0.033335	-0.065778
15	P1	-5.522575	0.044644	-0.070148
19	P1	-3.777837	0.046203	-0.085307
22	P1	-4.607266	0.067822	-0.058561
26	P1	-4.854206	0.070324	-0.030988
30	P1	-7.189284	0.160663	-0.149455
3	P1	-15.561275	0.095849	-0.021929
7	P1	-15.565388	0.107298	0.076858
11	P1	-21.517086	0.279631	-0.232513
15	P1	-11.284773	0.047666	0.007928
19	P1	-14.480657	0.259507	-0.164584
22	P1	-15.849297	0.352660	0.236175
26	P1	-17.585249	0.284695	0.333339
30	P1	-17.768047	0.349812	0.137744

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.920246	0.082034	0.142407
7	P2	-22.107952	0.103962	0.204522
11	P2	-13.796810	0.099639	0.256923
15	P2	-7.118995	0.091647	0.072491
19	P2	-9.604897	0.090923	0.024106
22	P2	-16.868204	0.091577	0.033717
26	P2	-16.508579	0.092445	0.020014
30	P2	-18.789003	0.079266	-0.010139

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.160269	0.002891	0.011277
7	P3	-8.160269	0.002891	0.011277
11	P3	-8.160269	0.002891	0.011277
15	P3	-8.160269	0.002891	0.011277
19	P3	-8.160269	0.002891	0.011277
22	P3	-8.160269	0.002891	0.011277
26	P3	-8.160269	0.002891	0.011277
30	P3	-8.160269	0.002891	0.011277

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	-2.790979	0.014261	0.015229
7	P1	-2.948297	0.031187	-0.013058
11	P1	-3.982208	0.017944	-0.040000
15	P1	-3.546496	0.024169	-0.048009
19	P1	-3.673756	0.123635	-0.115566
22	P1	-5.667506	0.117597	-0.120020
26	P1	-7.369395	0.207321	-0.179163
30	P1	-6.312694	0.115647	-0.083868
3	P1	-10.828781	0.041907	0.001316
7	P1	-10.422437	0.159924	-0.073396
11	P1	-12.583840	0.111512	-0.040512
15	P1	-11.616957	0.080596	-0.003096
19	P1	-15.704672	1.439279	-0.309682
22	P1	-25.945076	3.795067	0.530822
26	P1	-15.497342	0.449112	0.270711
30	P1	-20.187366	1.277026	0.081439

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.669094	0.049151	0.152135
7	P2	-22.083914	0.038510	0.082736
11	P2	-9.780144	0.060241	0.172926
15	P2	-5.131958	0.046452	-0.005239
19	P2	-6.911380	0.060709	0.007960
22	P2	-7.094540	0.040406	0.012761
26	P2	-23.965923	0.043123	-0.030528
30	P2	-21.960251	0.038862	0.007645

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.996995	0.004178	-0.005406
7	P3	-7.997030	0.004169	-0.005499
11	P3	-7.997116	0.004157	-0.005089
15	P3	-7.997118	0.004171	-0.005464
19	P3	-7.997092	0.004178	-0.005522
22	P3	-7.997100	0.004166	-0.005641
26	P3	-7.997262	0.004161	-0.005231
30	P3	-7.997134	0.004165	-0.005461

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	0.000462404
	stdev	2.15858e-07
MEAN Q	mean	0.000501015
	stdev	2.30221e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127618
	stdev	0.000962678
STDEV Q	mean	0.127848
	stdev	0.000973064



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005071[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_WSM_1PNPDE20050710_141215_00000672038_00483_17571_3333.N1	0	39
ASA_WSM_1PNPDE20050711_015643_00000672038_00490_17578_3437.N1	0	32
ASA_WSM_1PNPDE20050711_141432_00000672038_00497_17585_3591.N1	0	1
ASA_WSM_1PNPDE20050711_184226_00002312038_00500_17588_3621.N1	0	40







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)


Acsending

<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

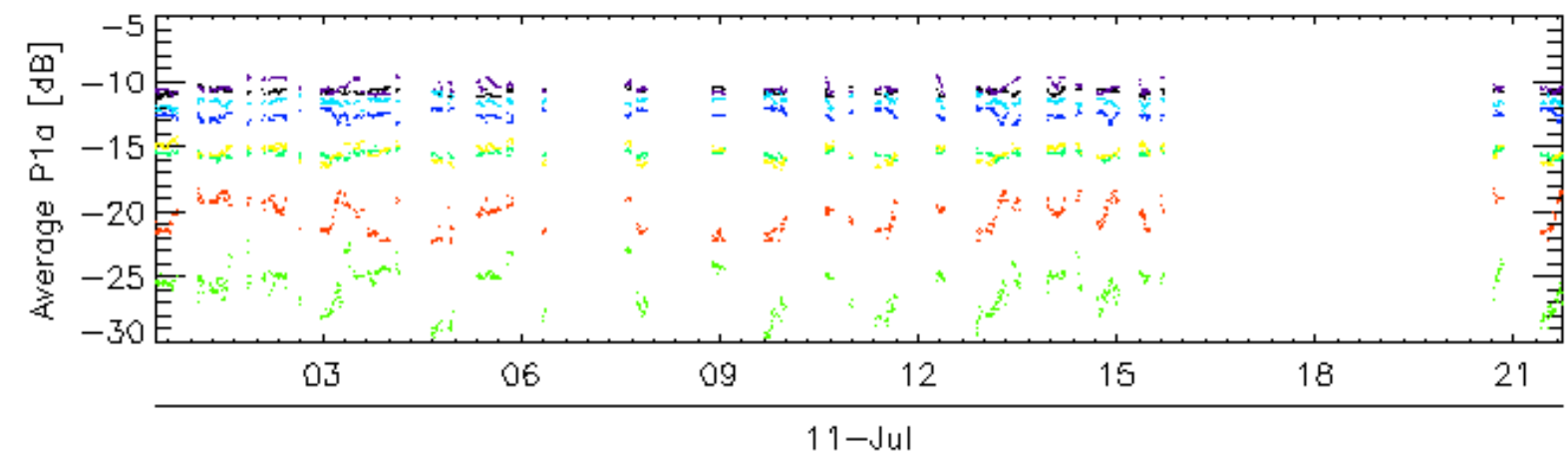
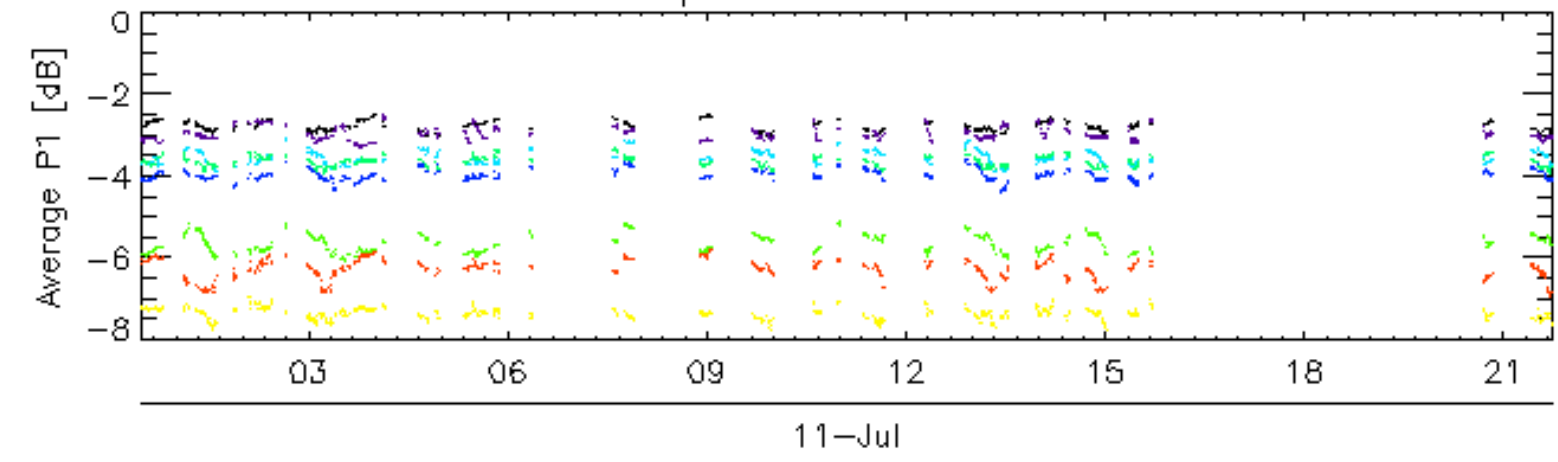
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

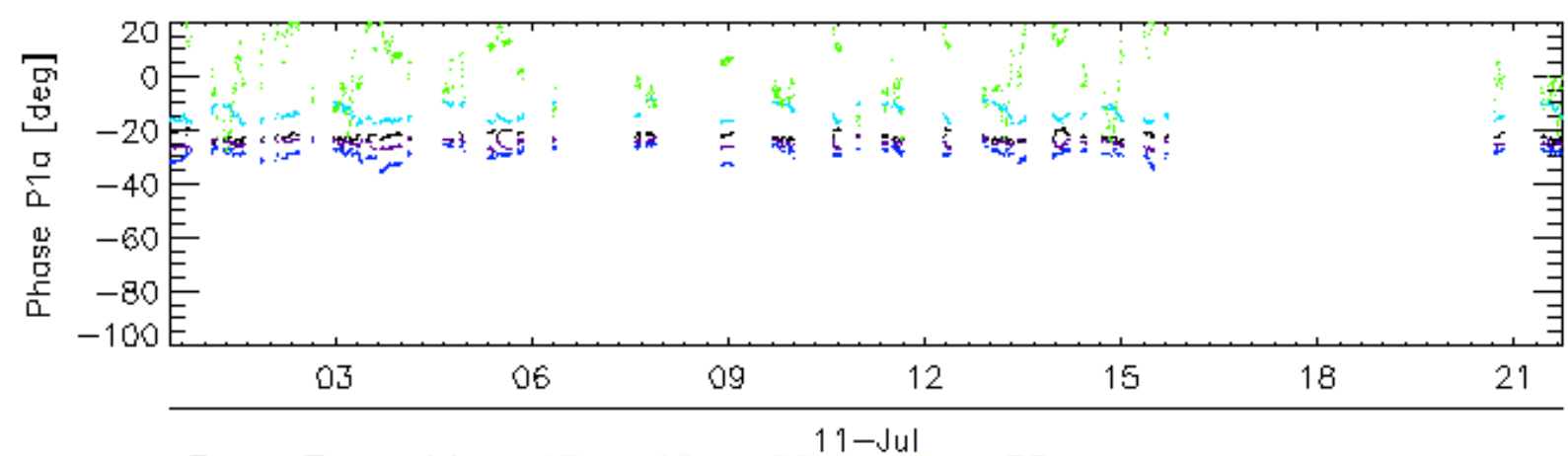
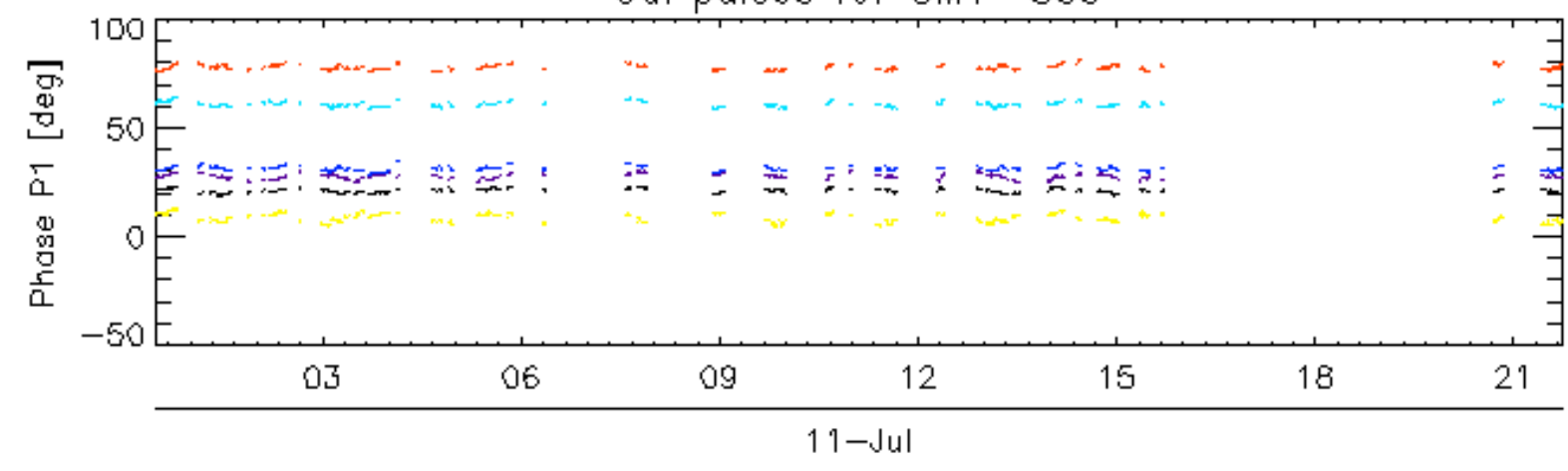
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

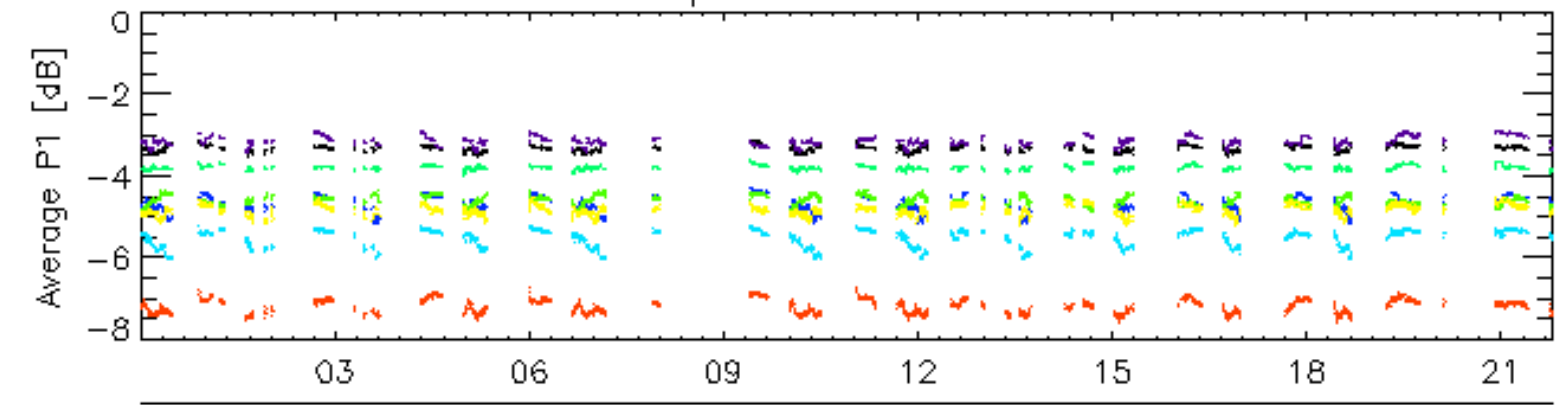


Cal pulses for GM1 SS3

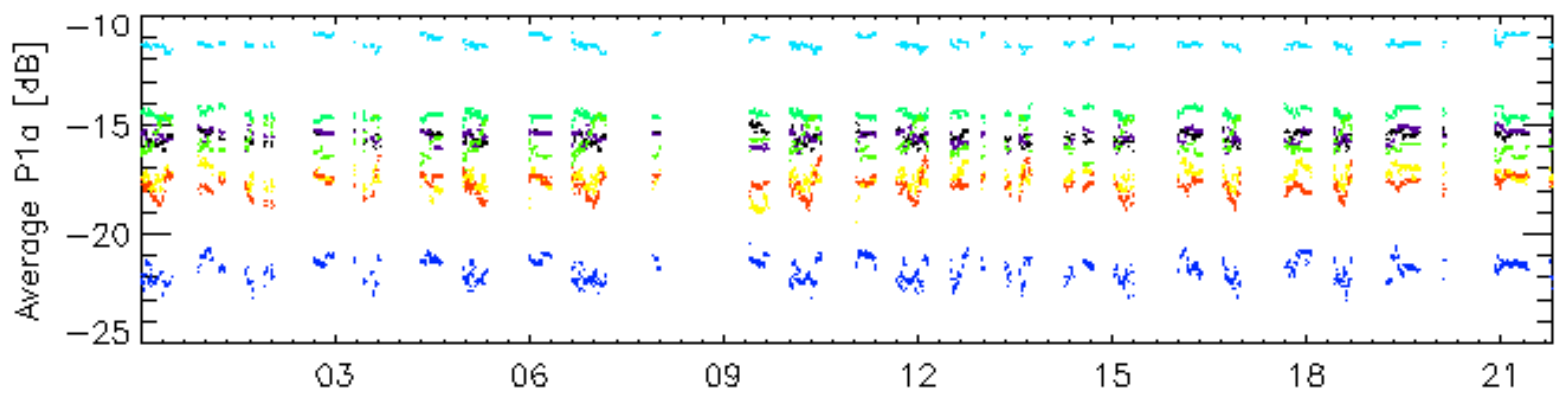


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

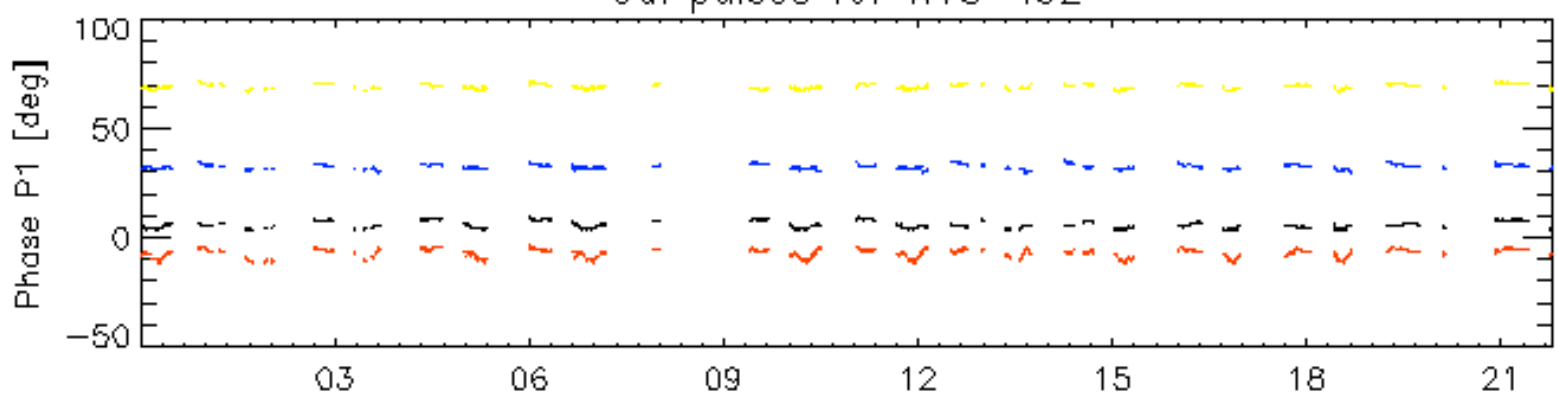


11-Jul

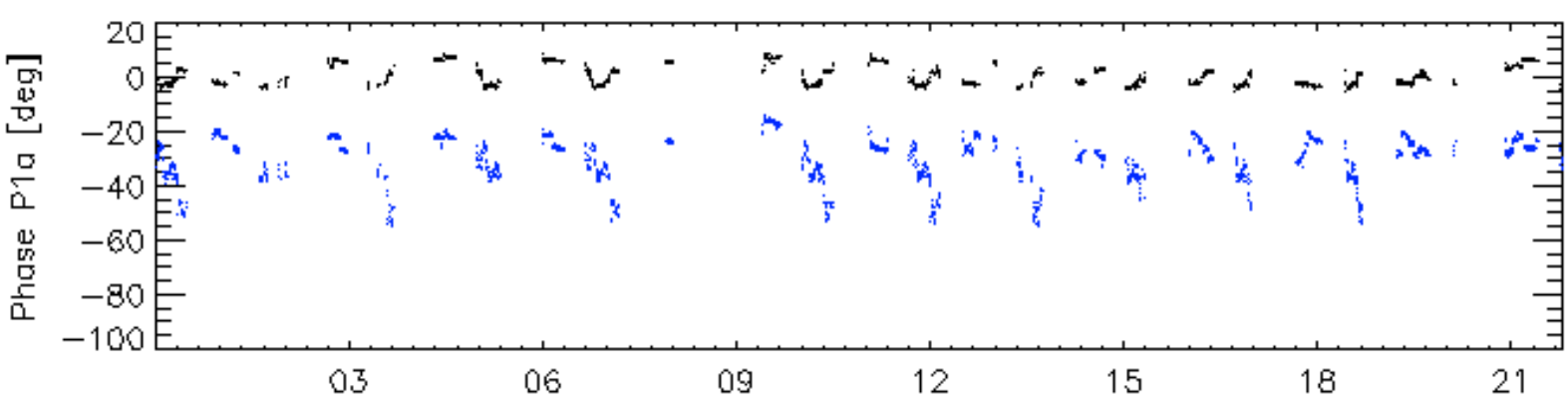


11-Jul

Cal pulses for WVS IS2



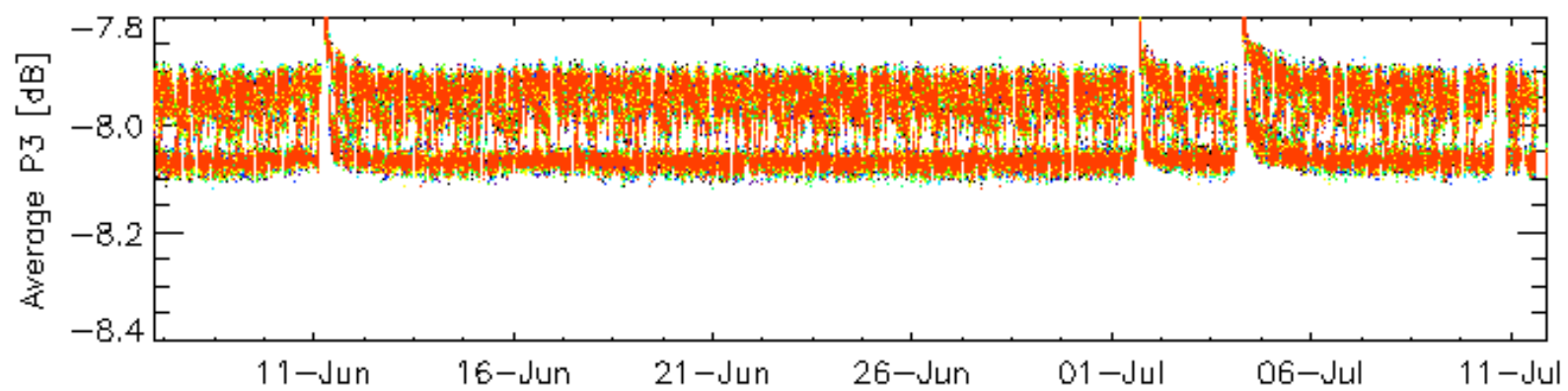
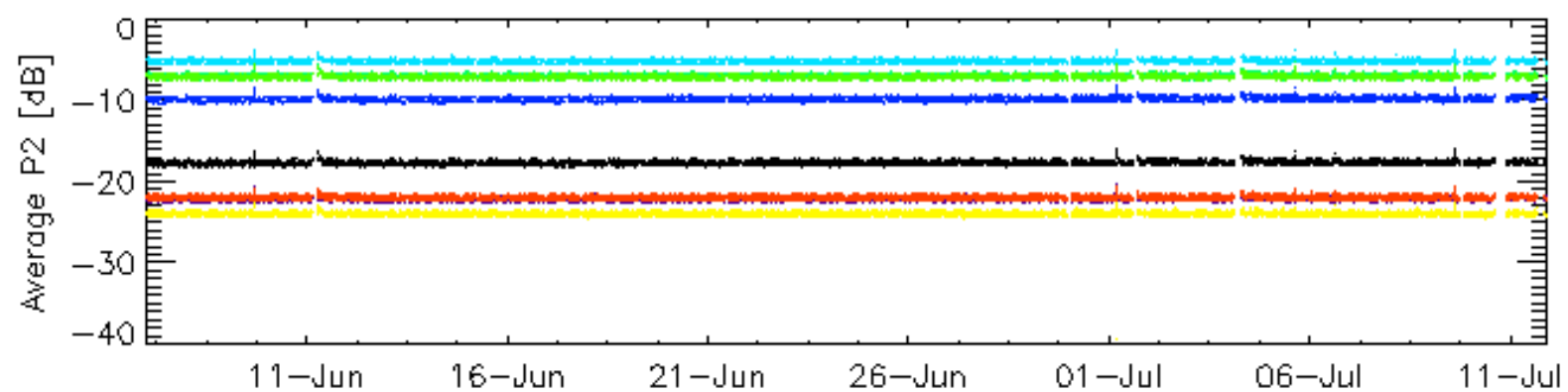
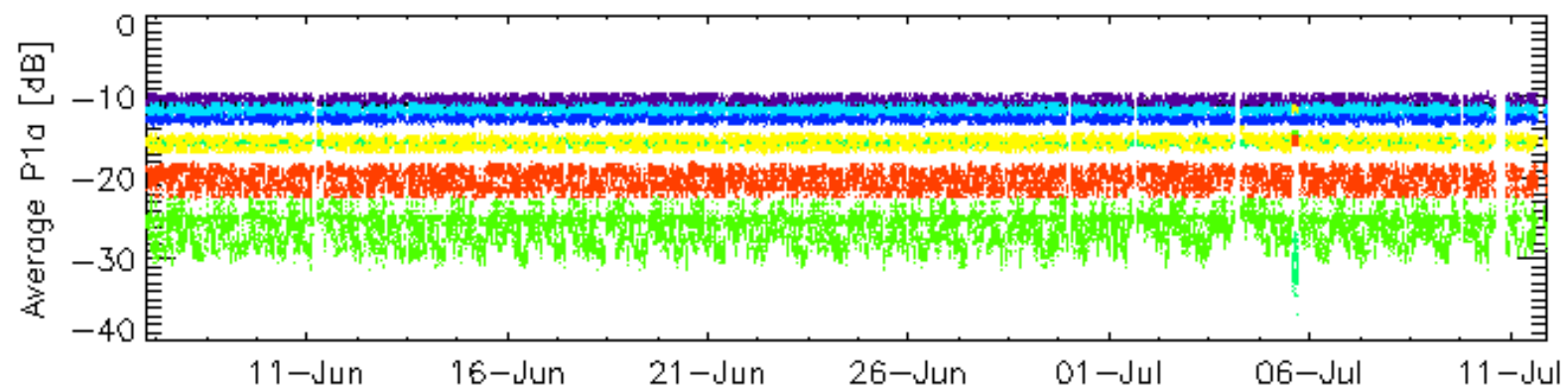
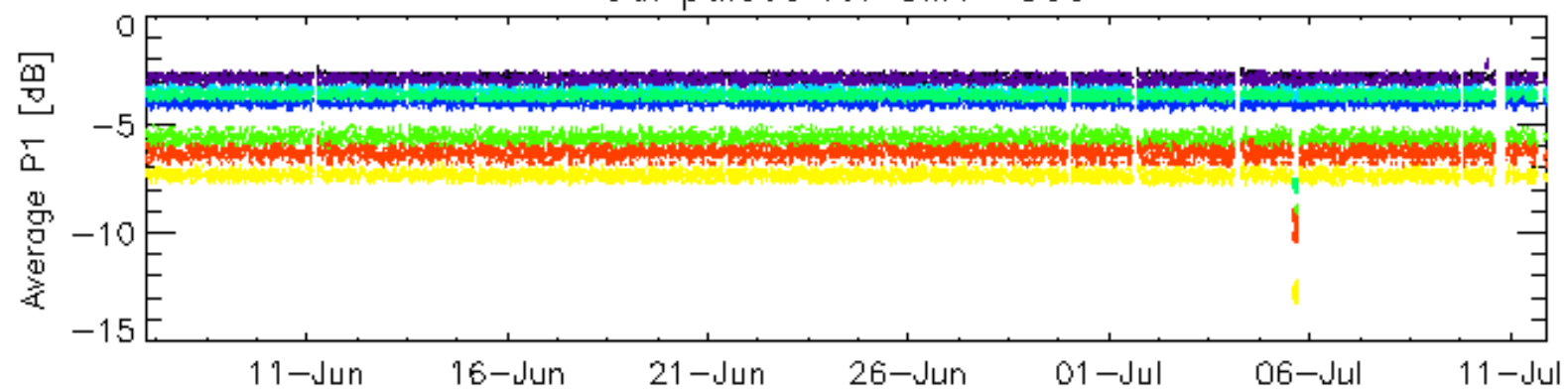
11-Jul



11-Jul

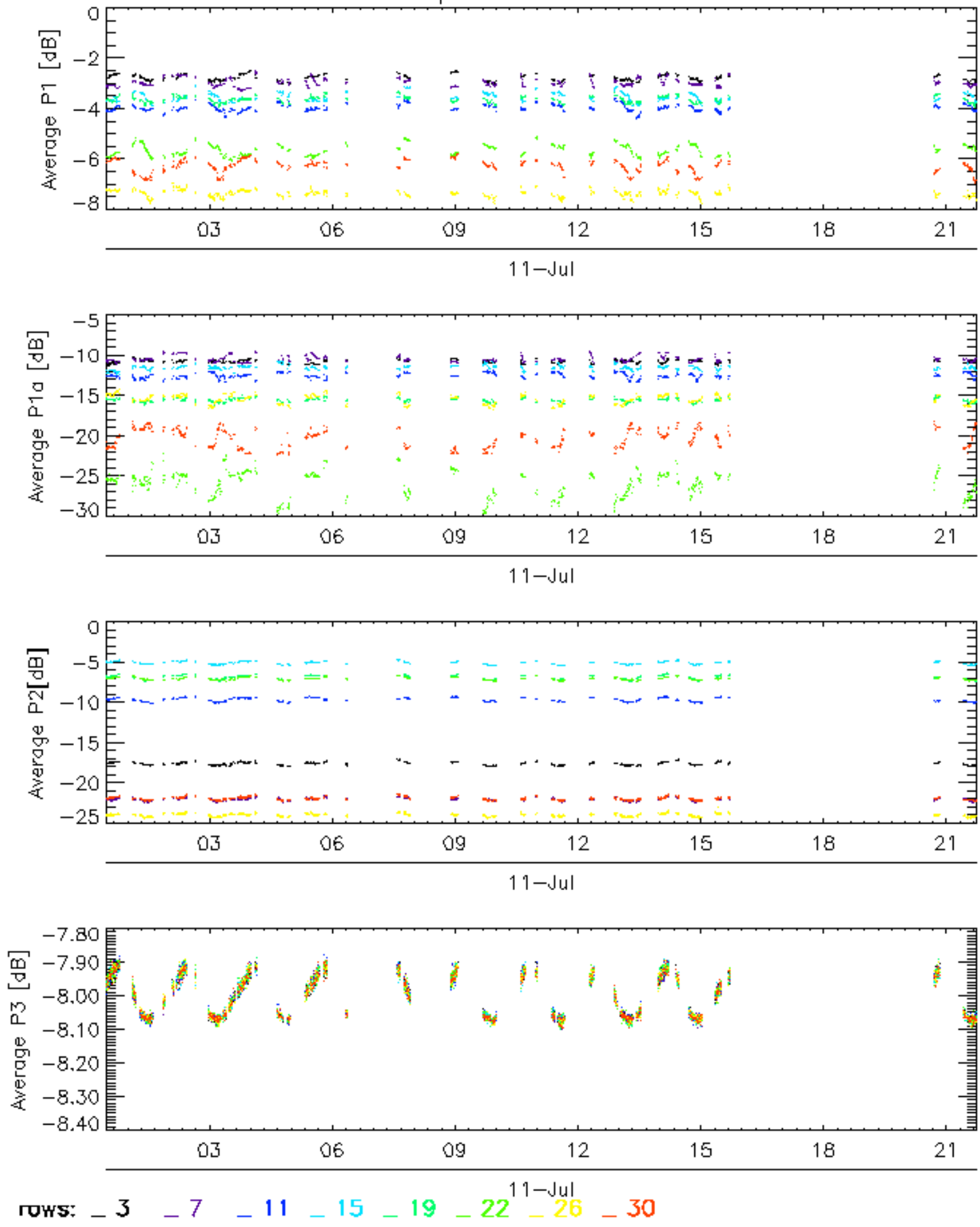
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

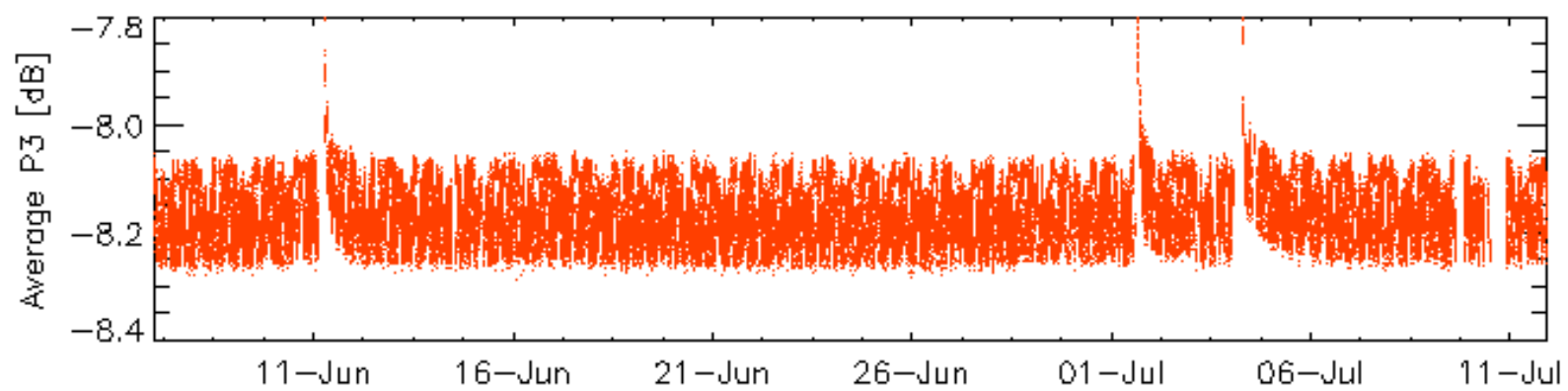
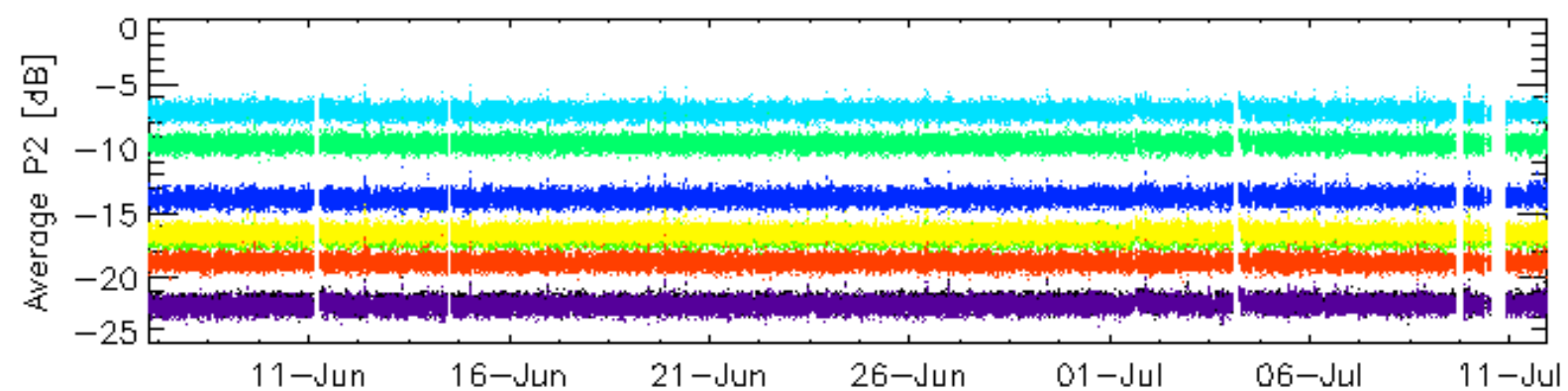
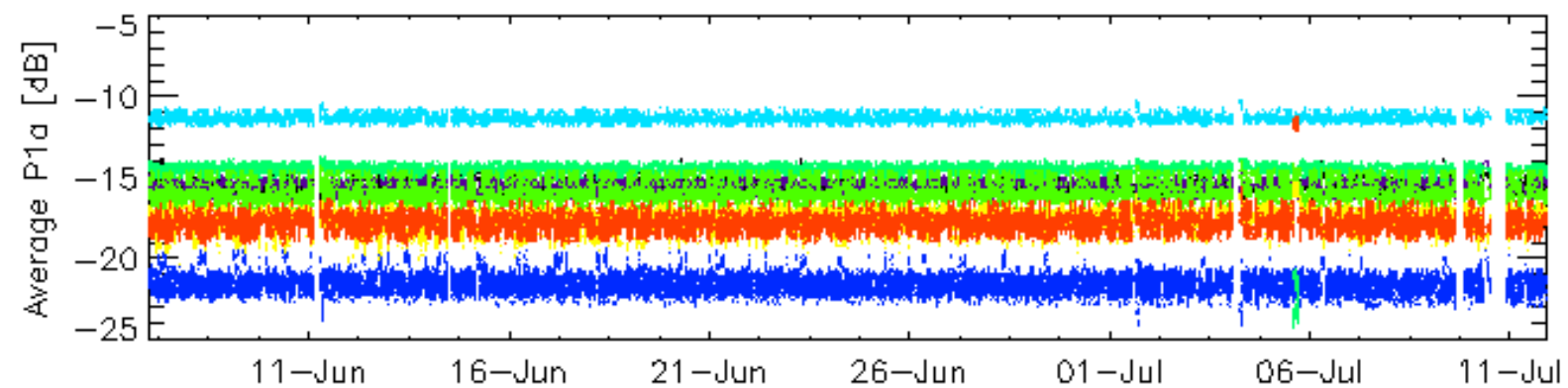
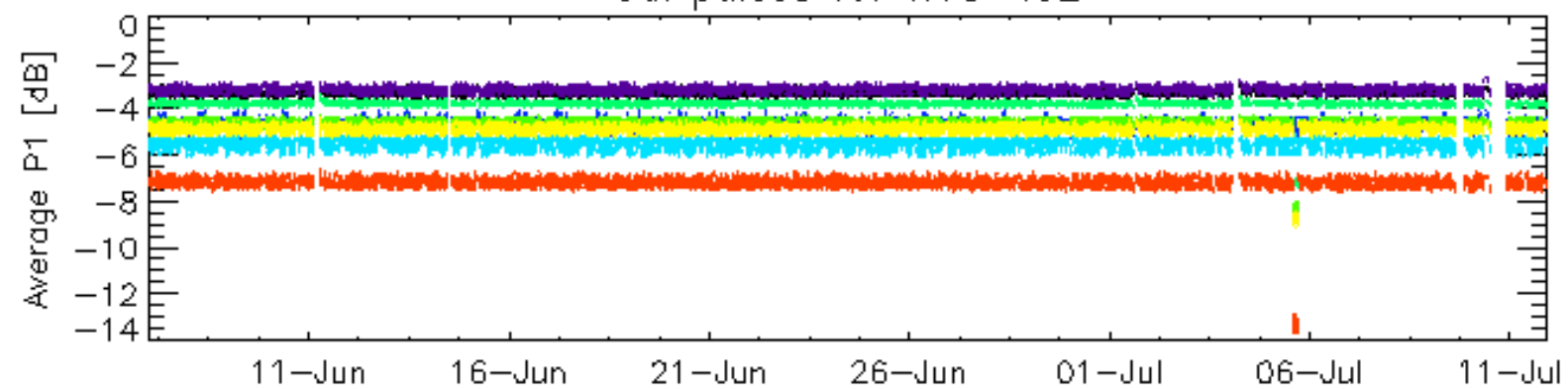


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

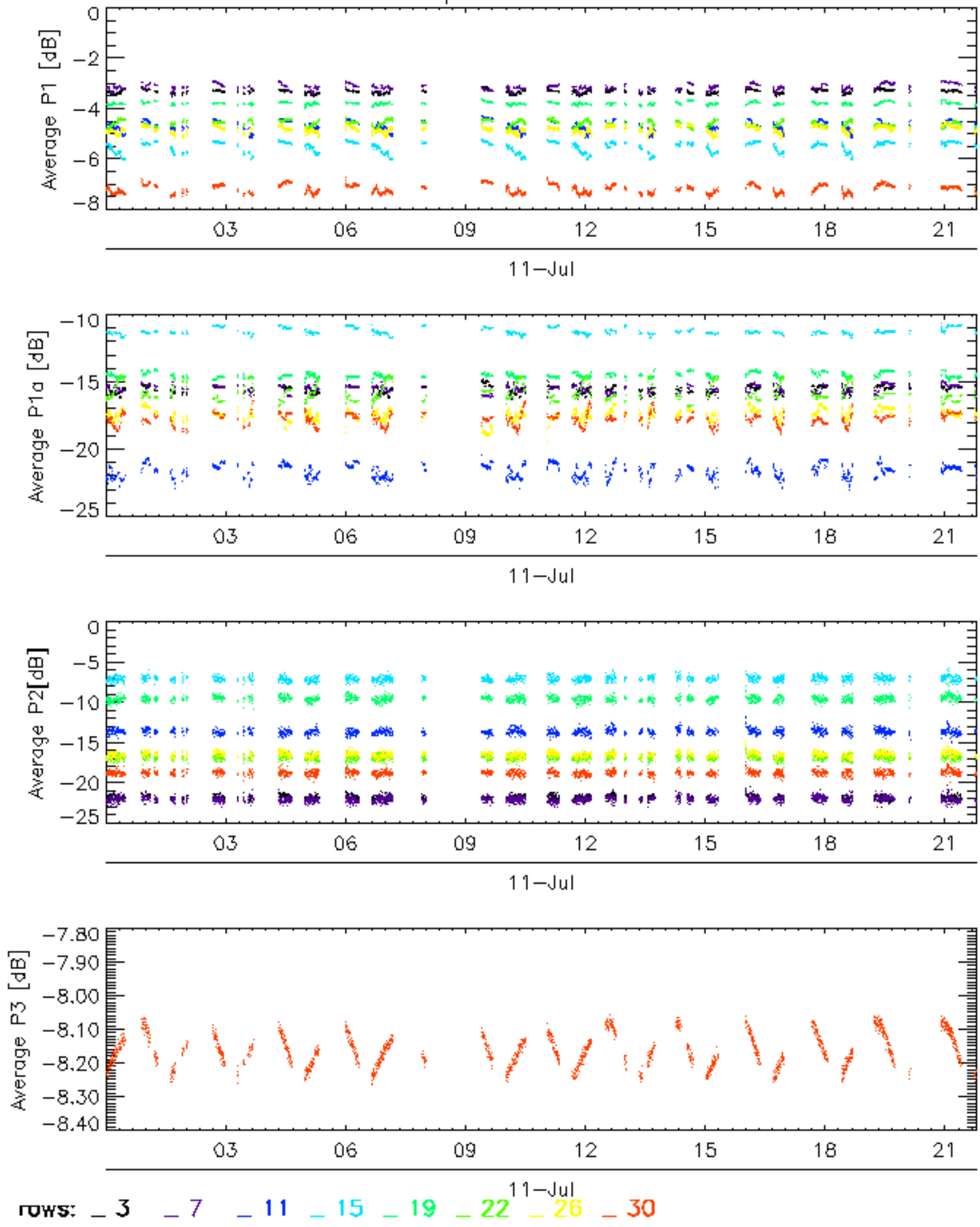


Cal pulses for WVS IS2

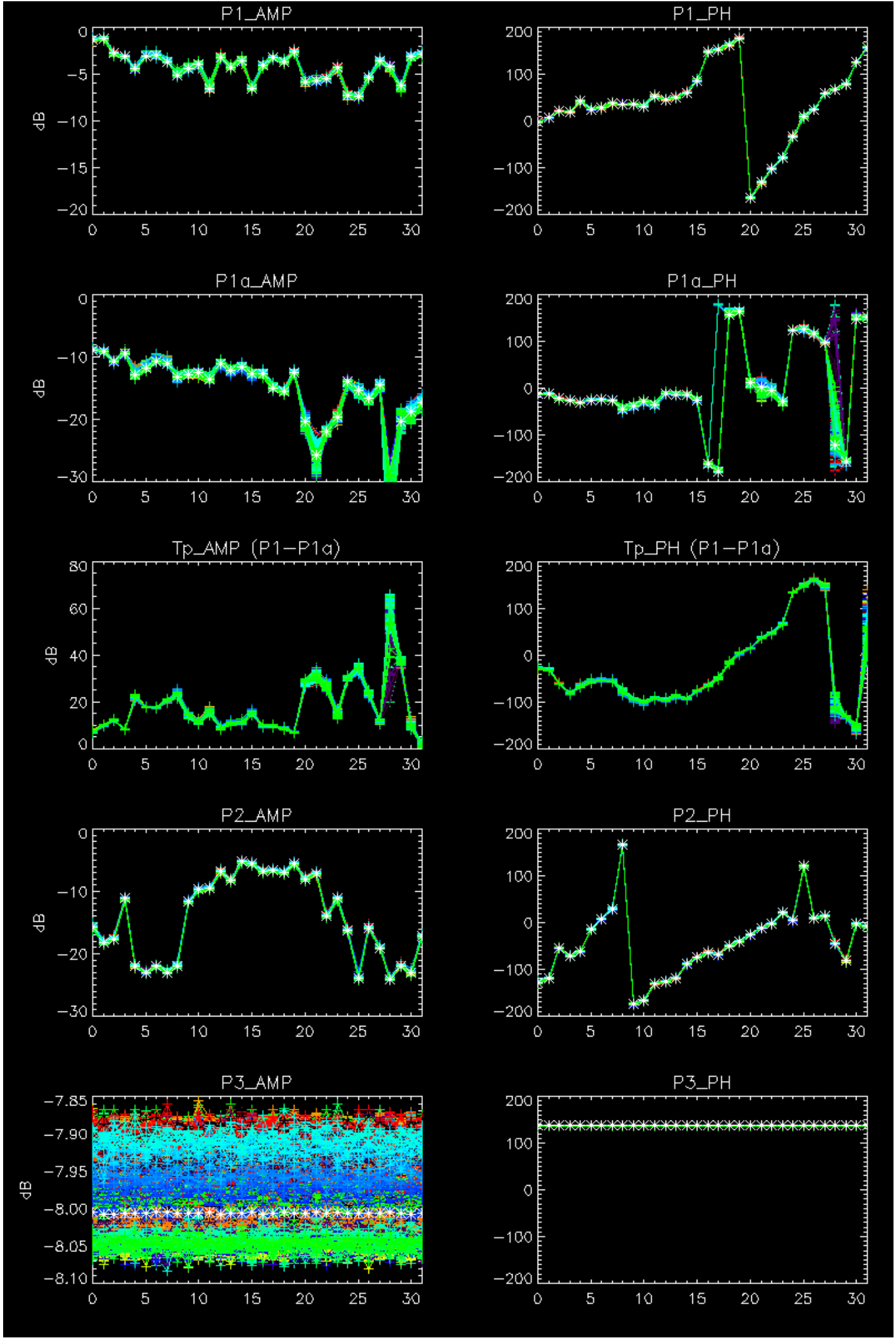


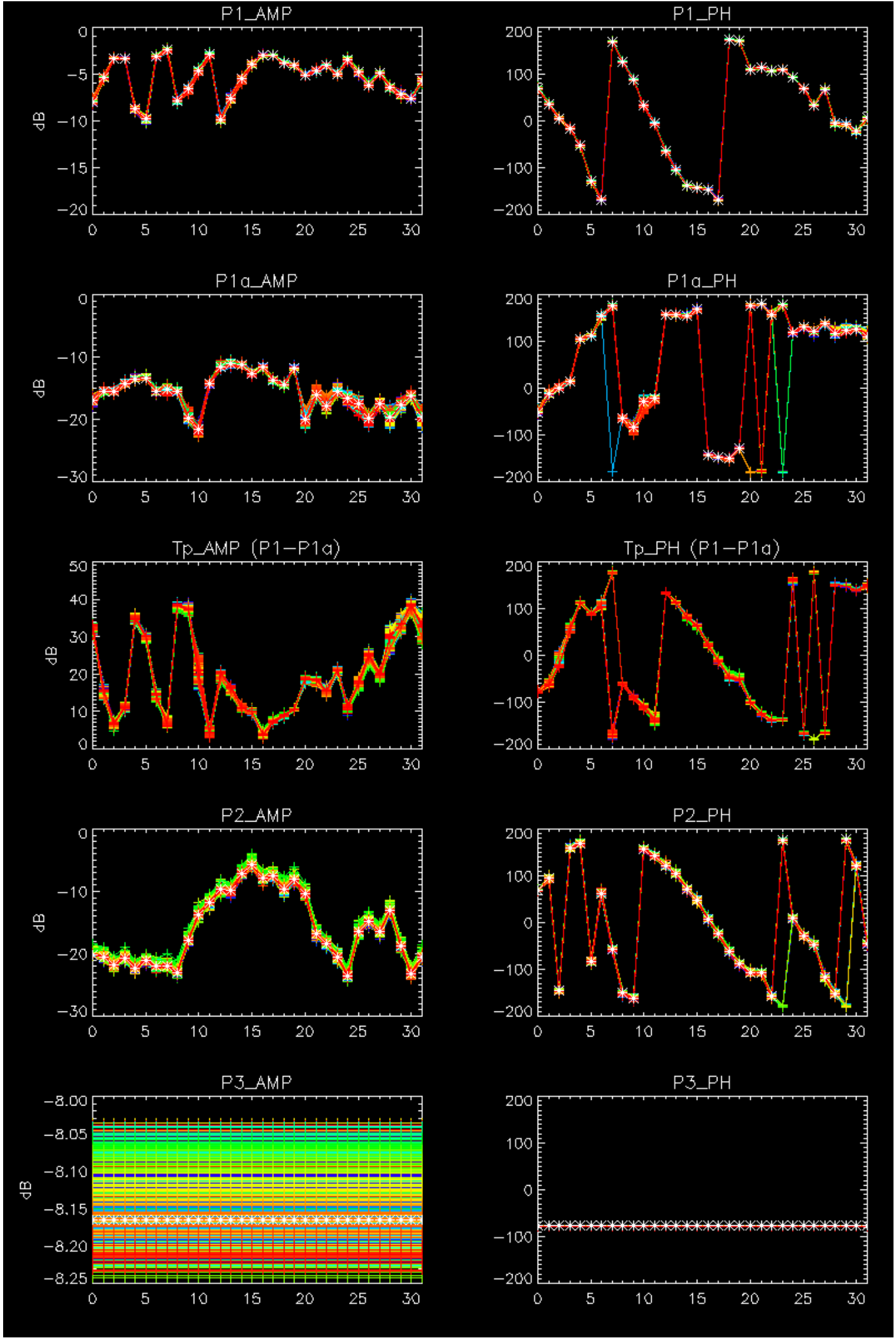
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



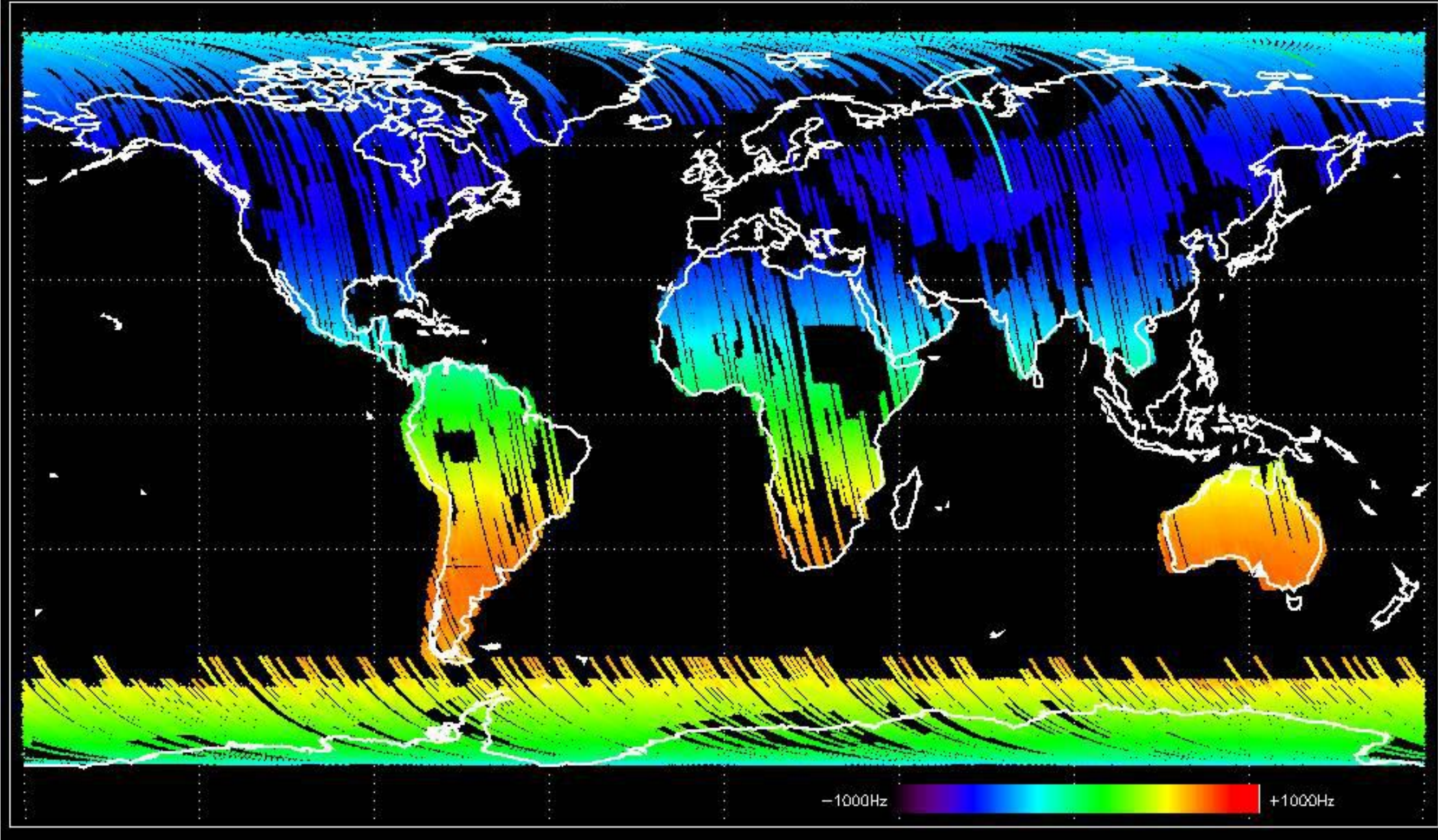
No anomalies observed.



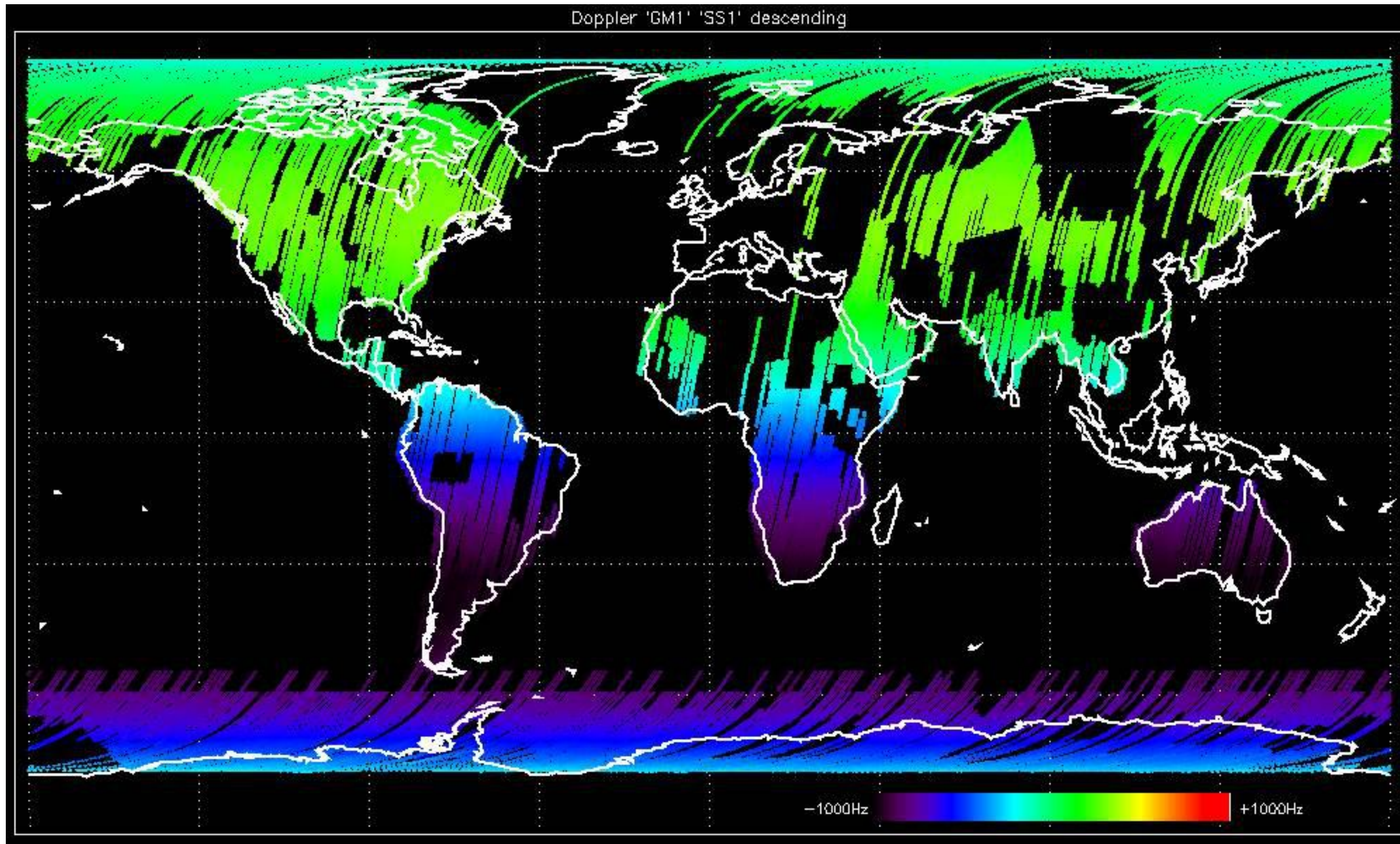


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

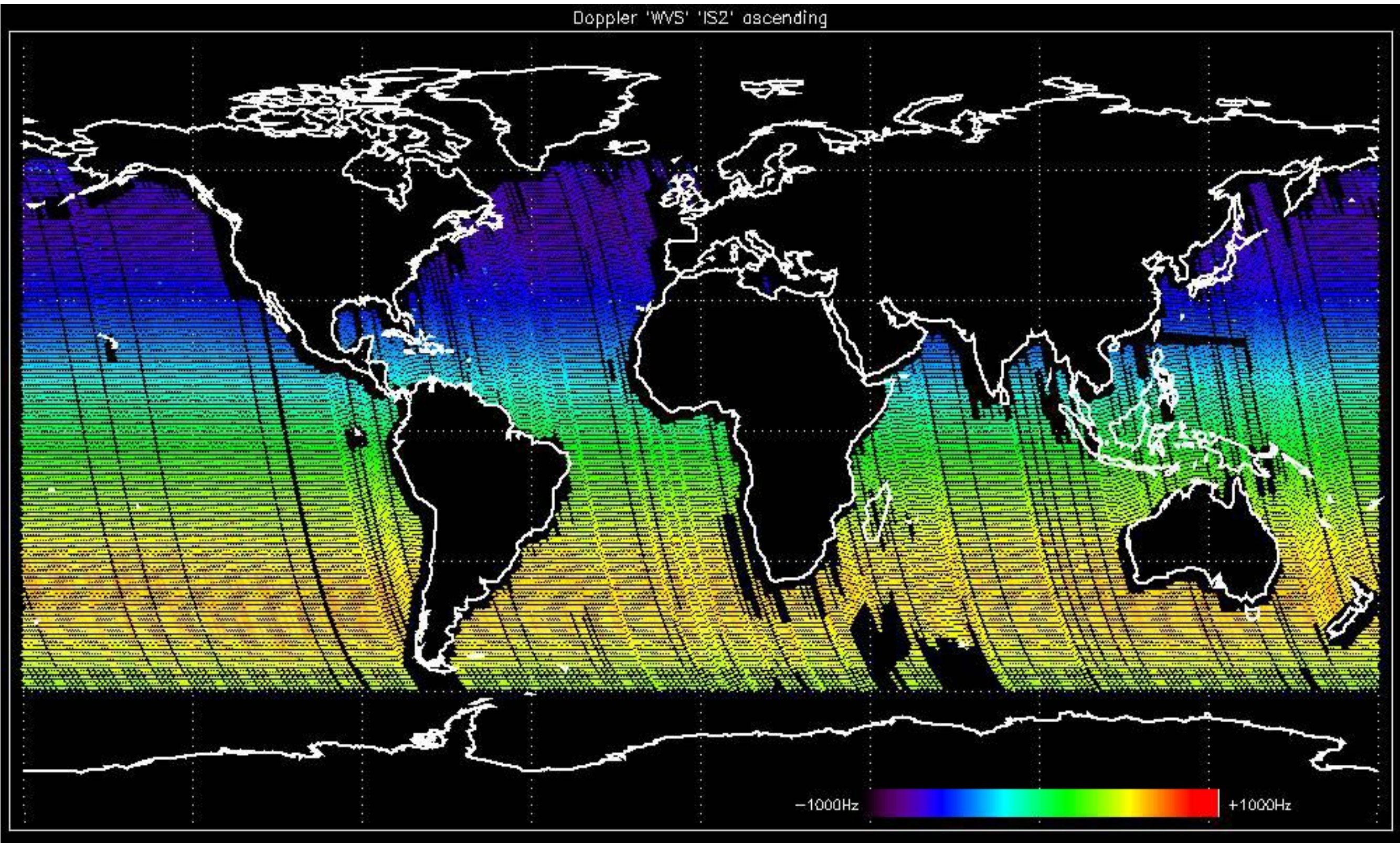
Doppler 'GM1' 'SS1' ascending



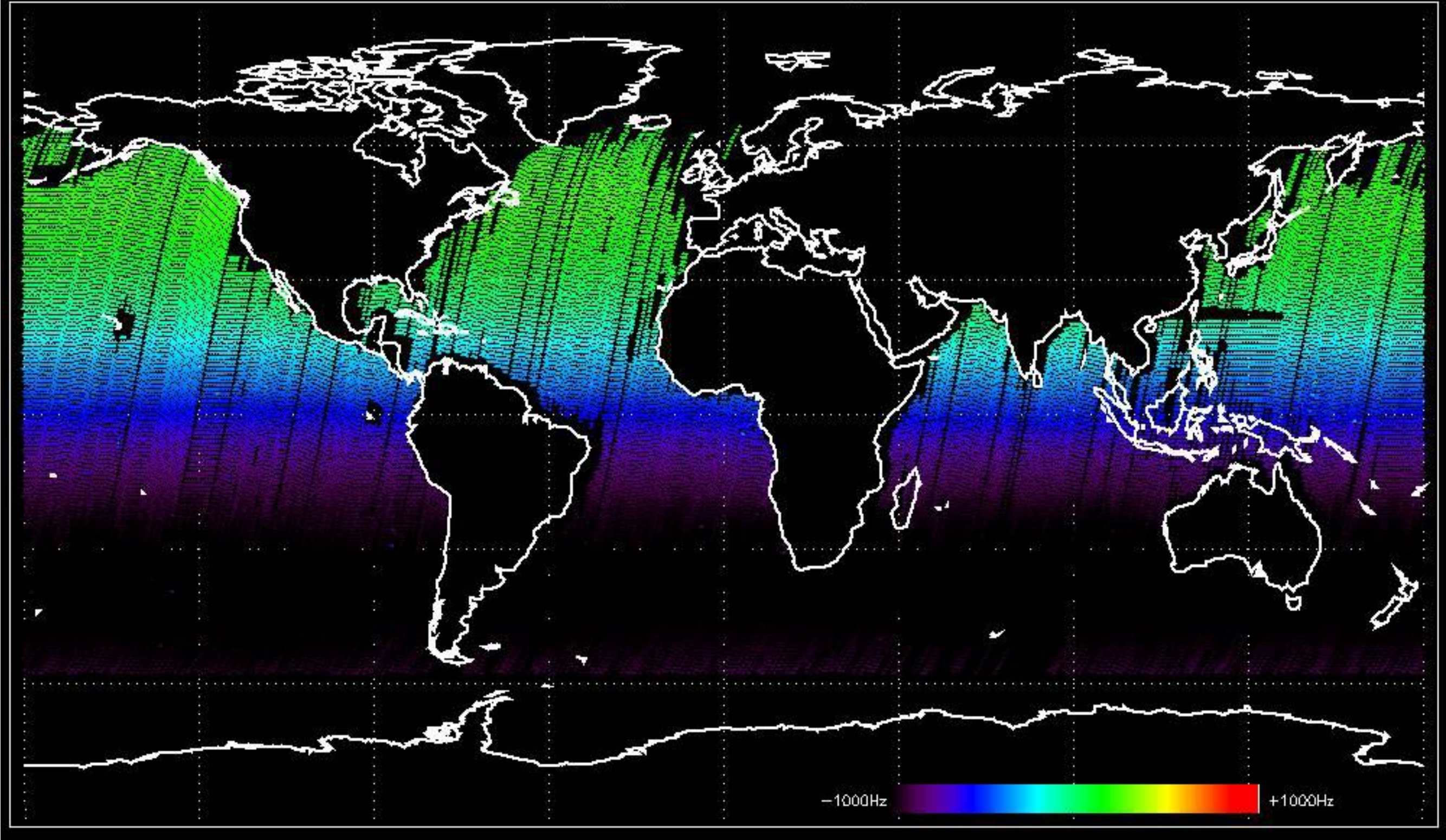
Doppler 'GM1' 'SS1' descending



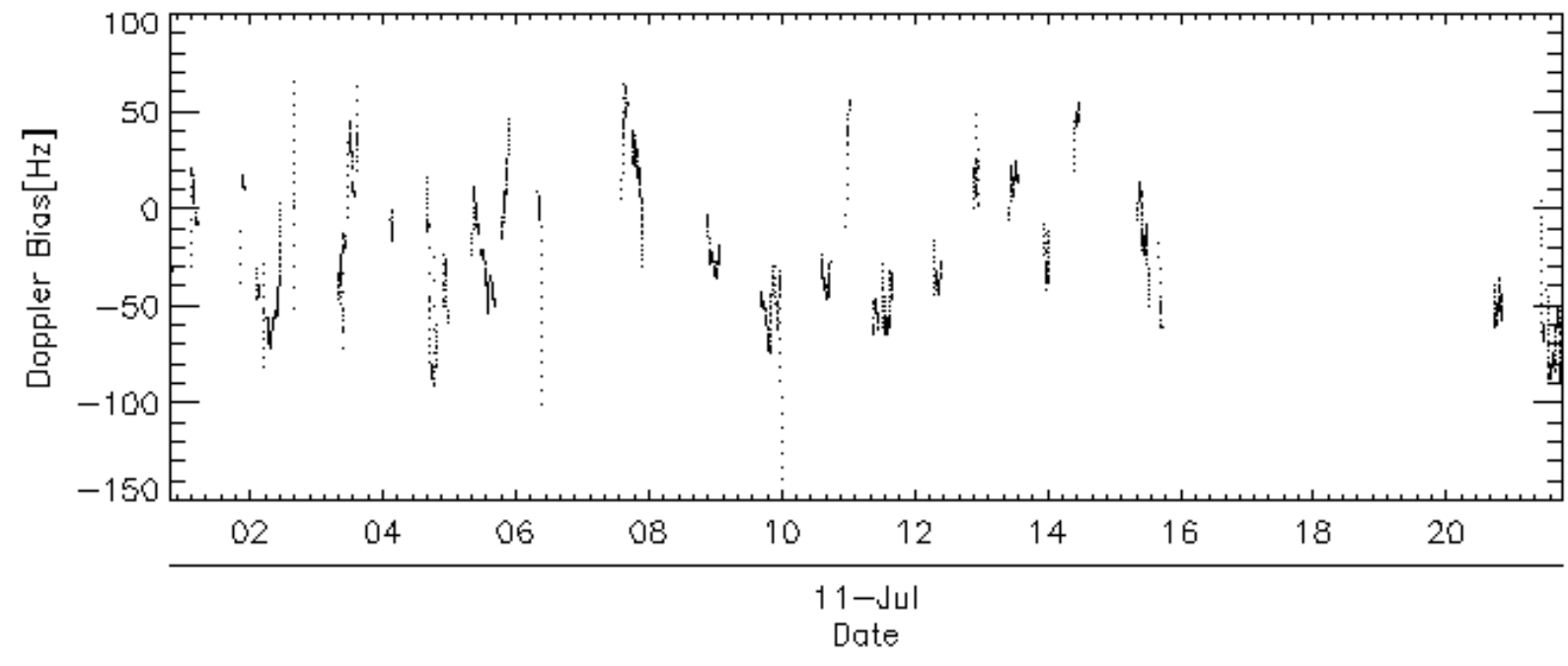
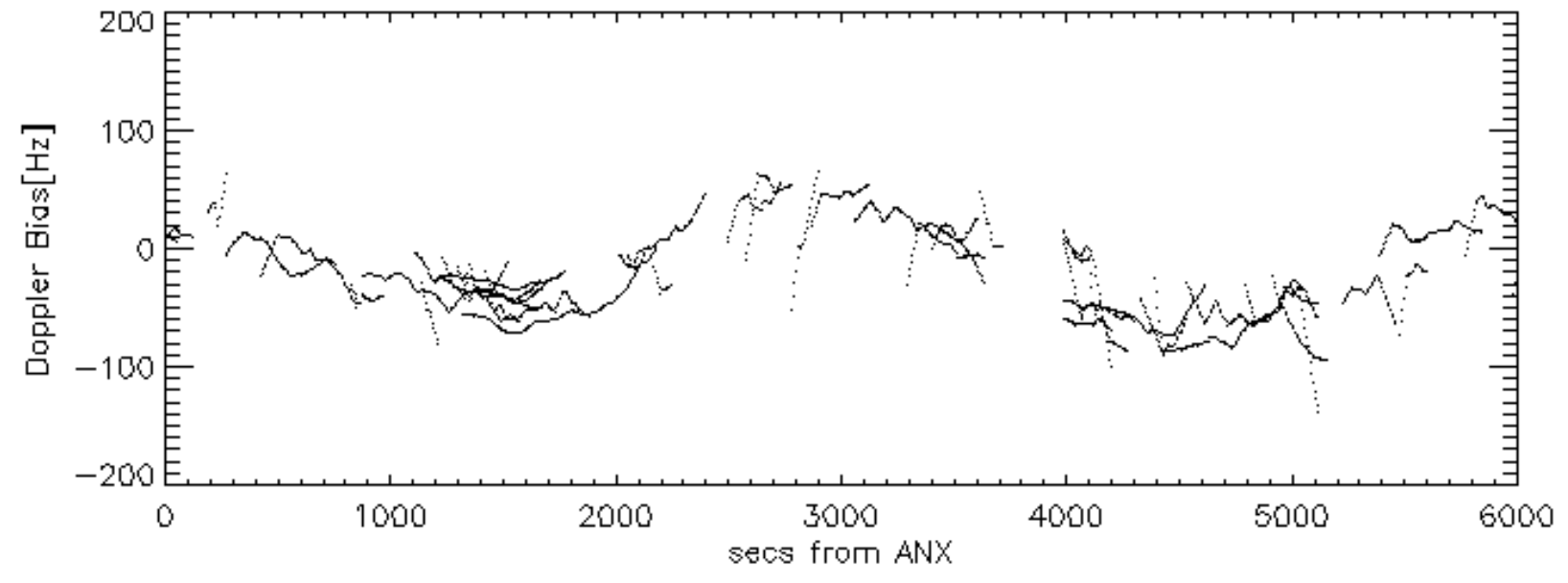
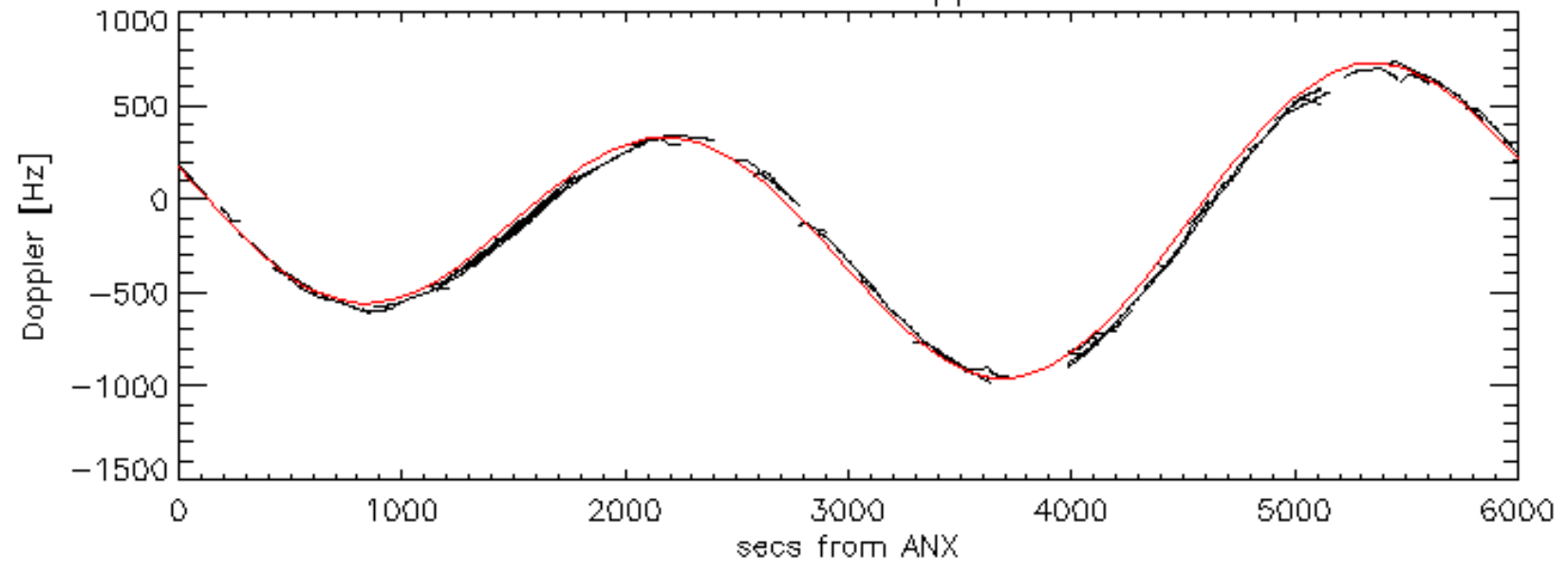
Doppler 'WVS' 'IS2' ascending

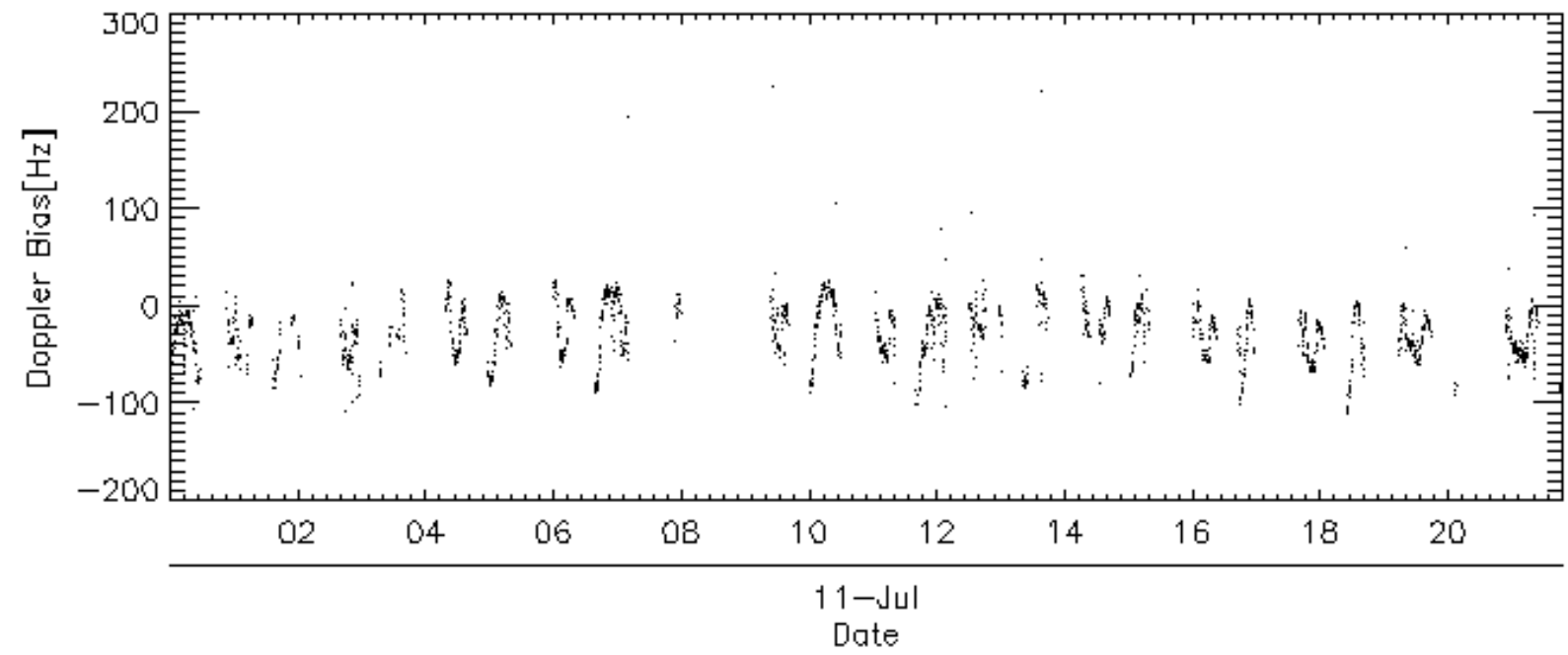
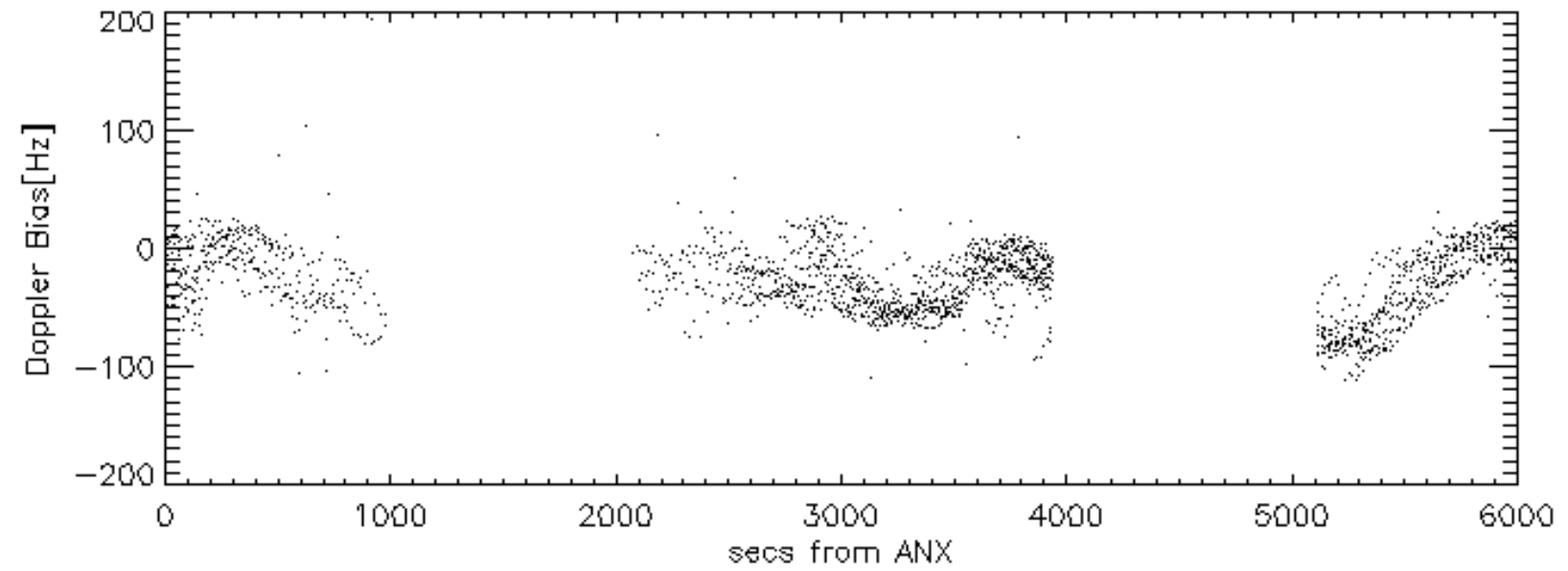
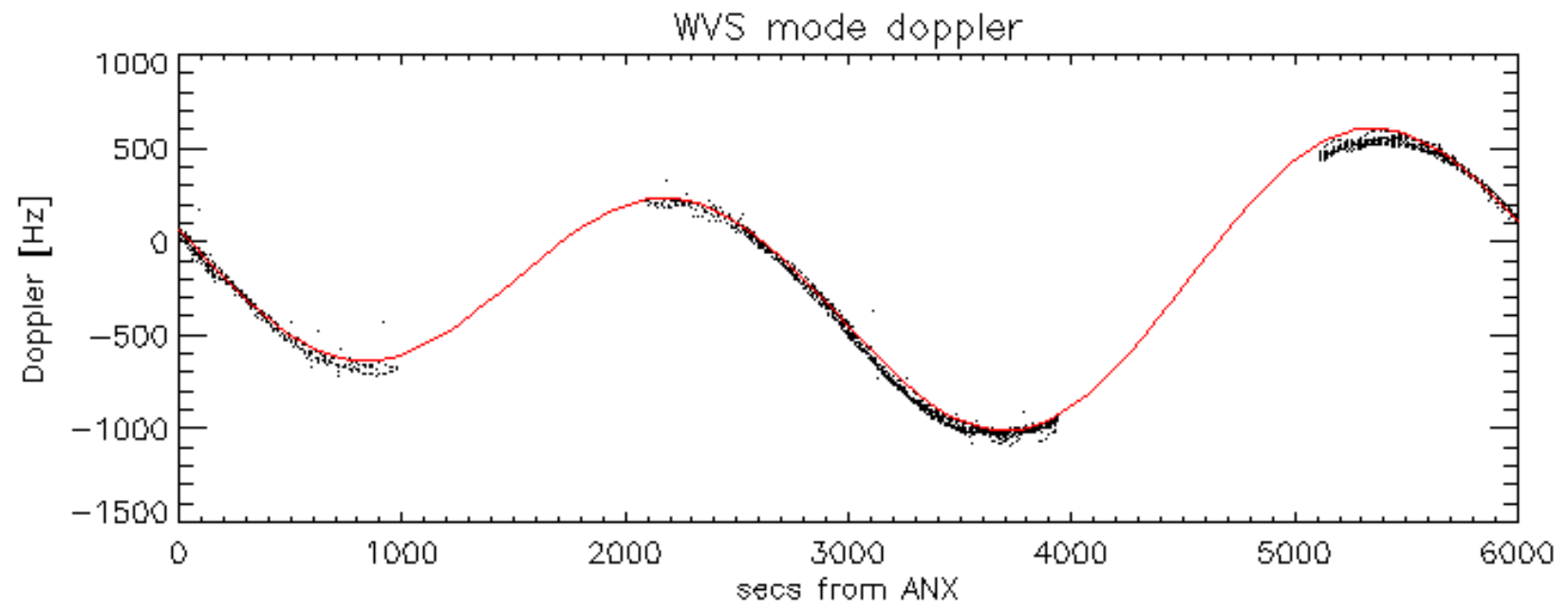


Doppler 'WVS' 'IS2' descending

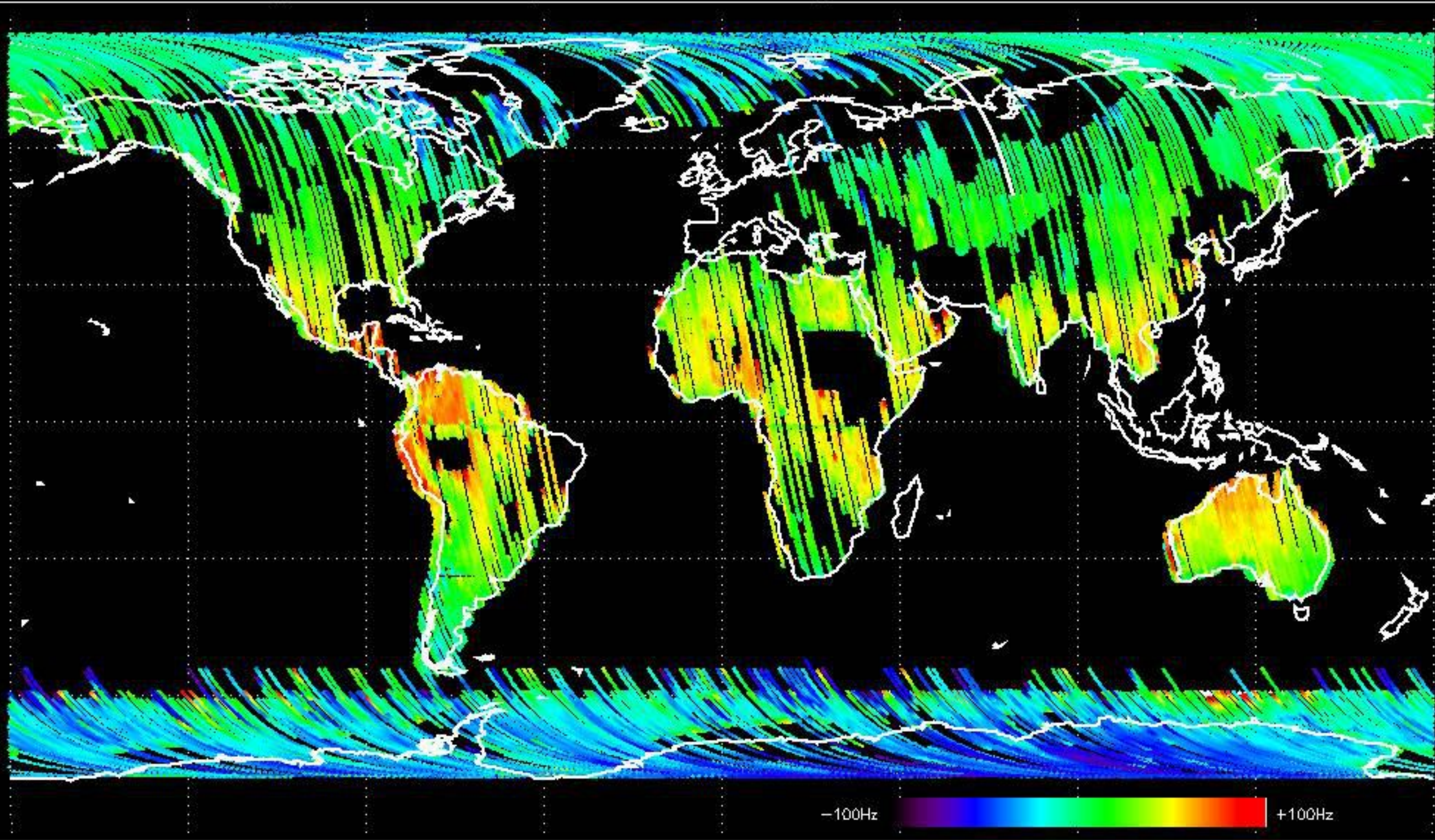


GM1 mode doppler

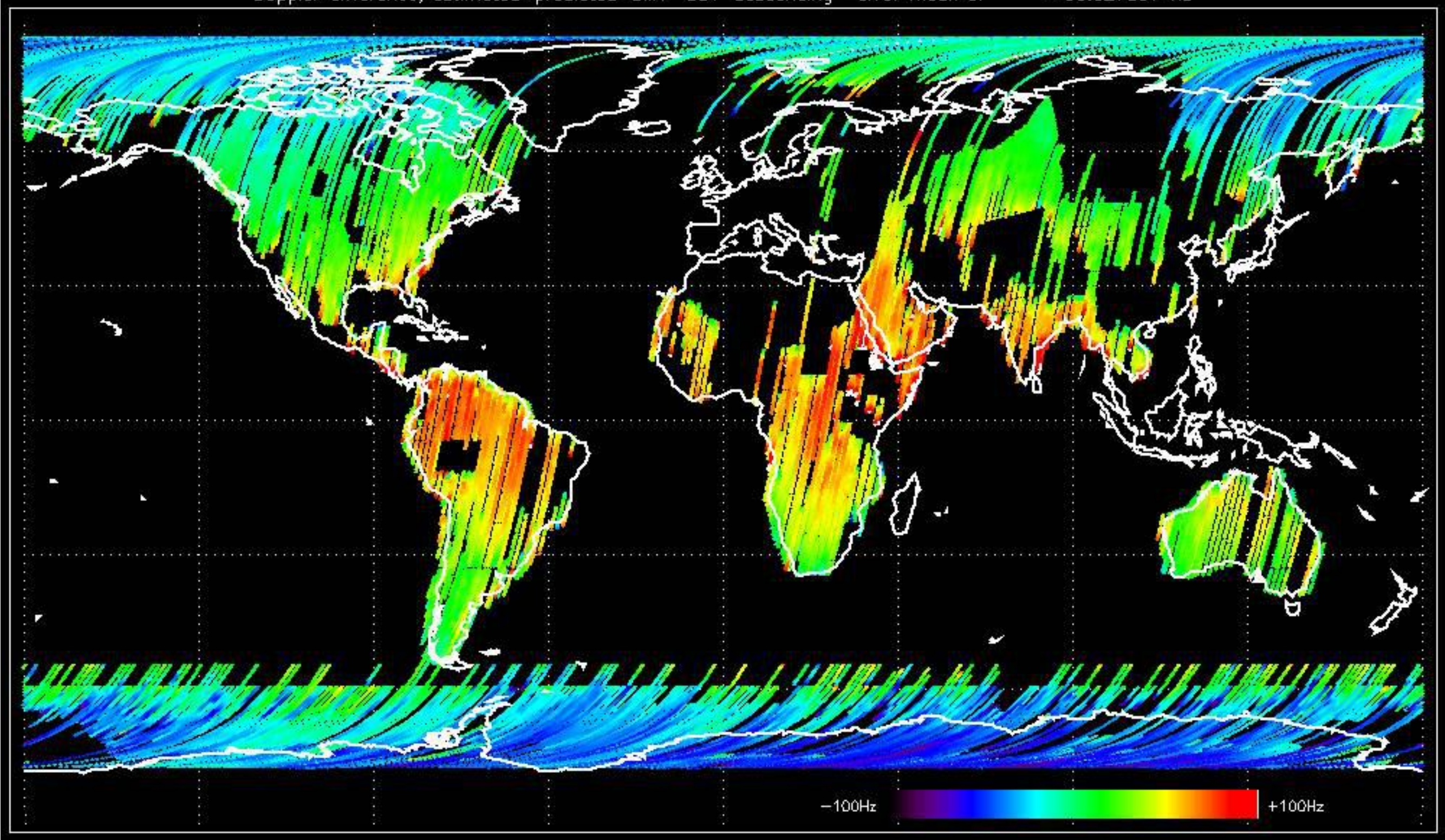




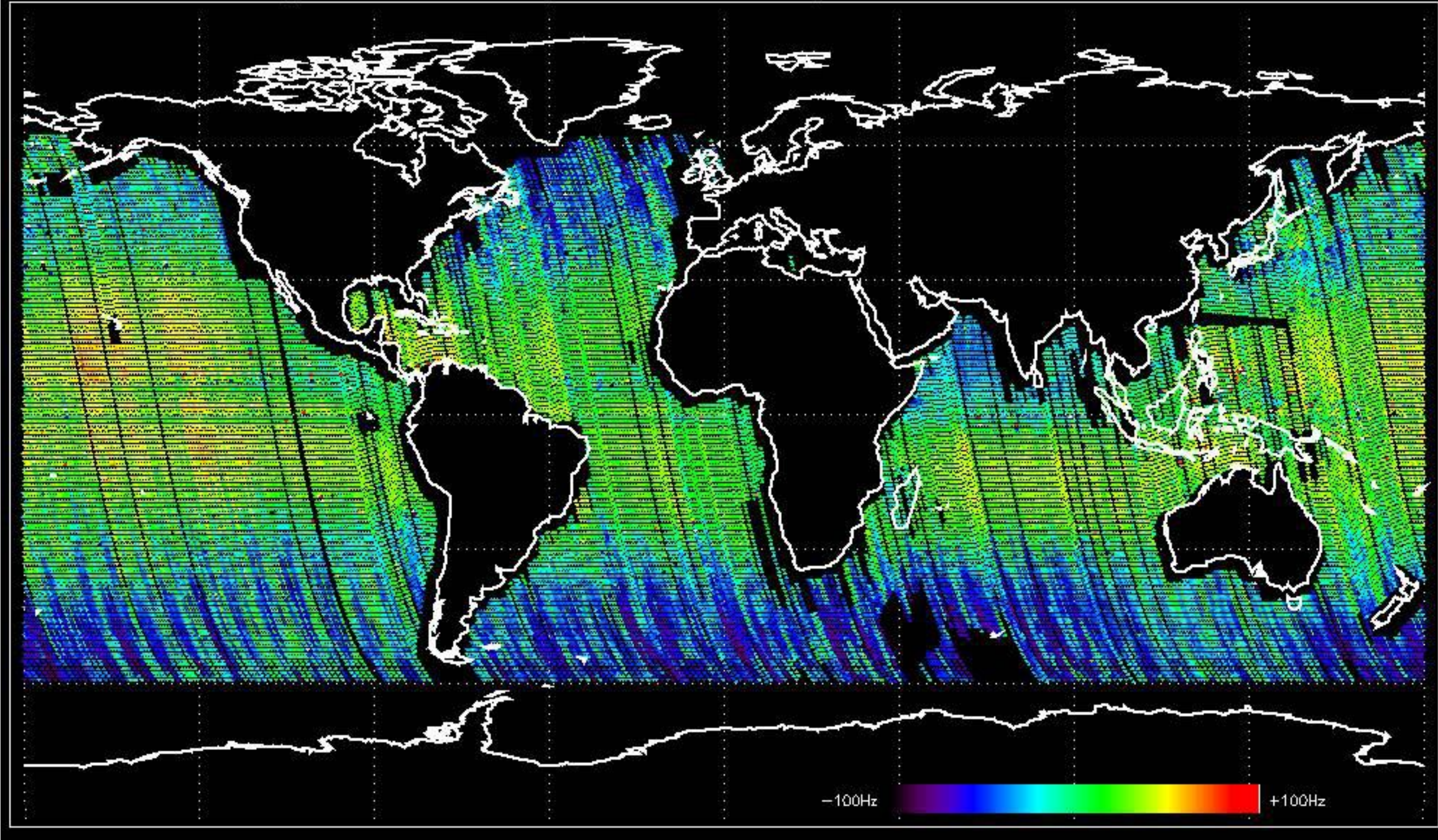
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.705990 Hz



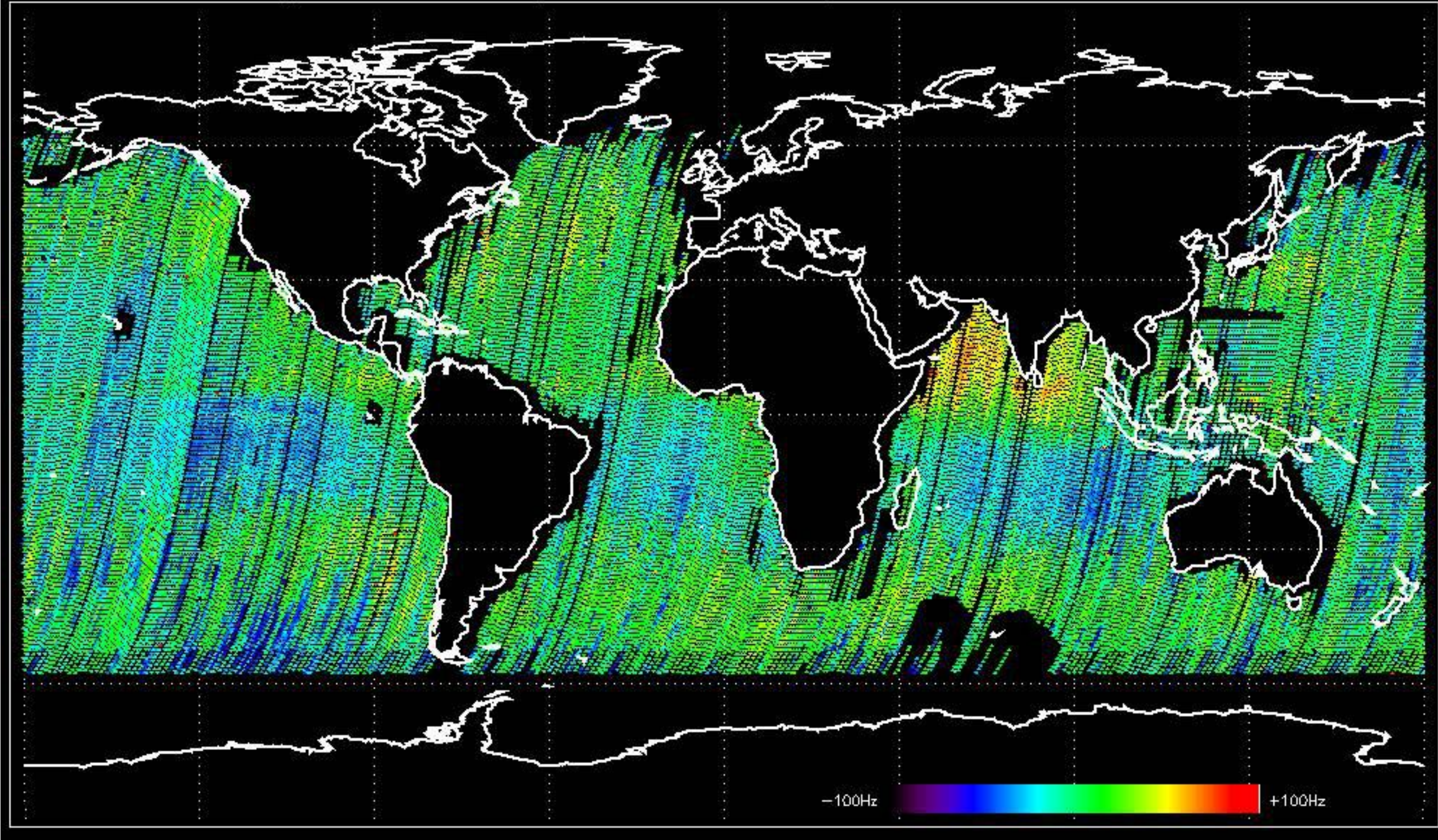
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.627397 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.187733 Hz

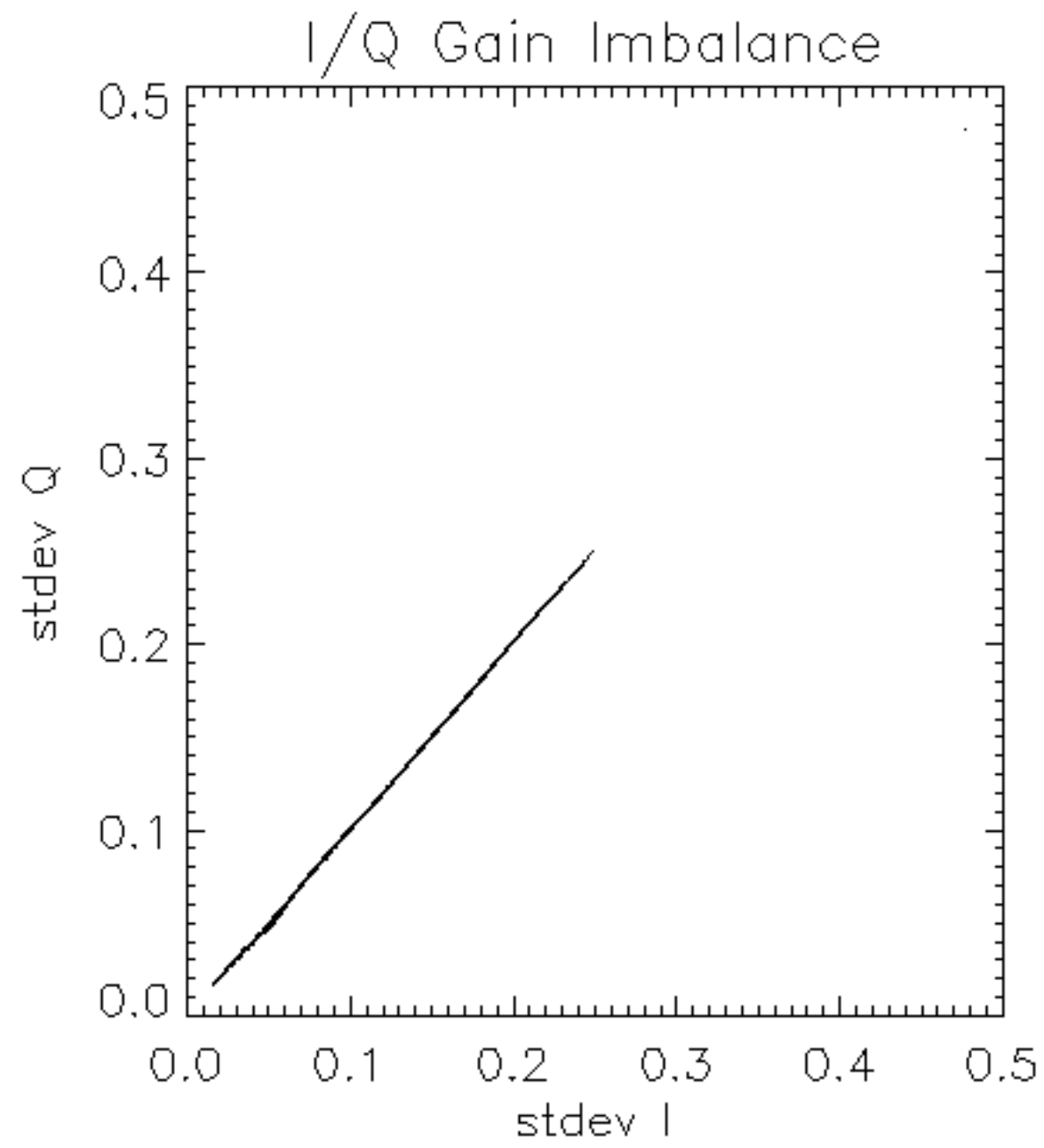


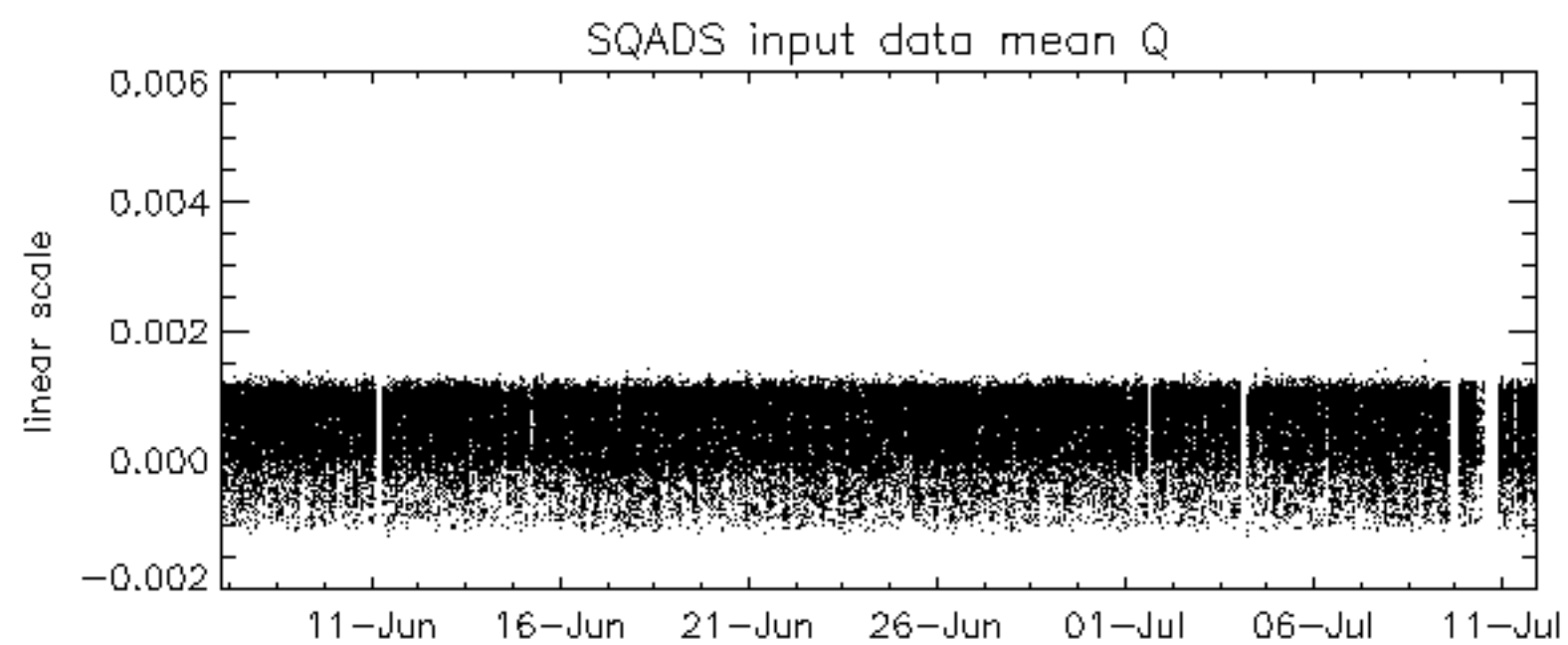
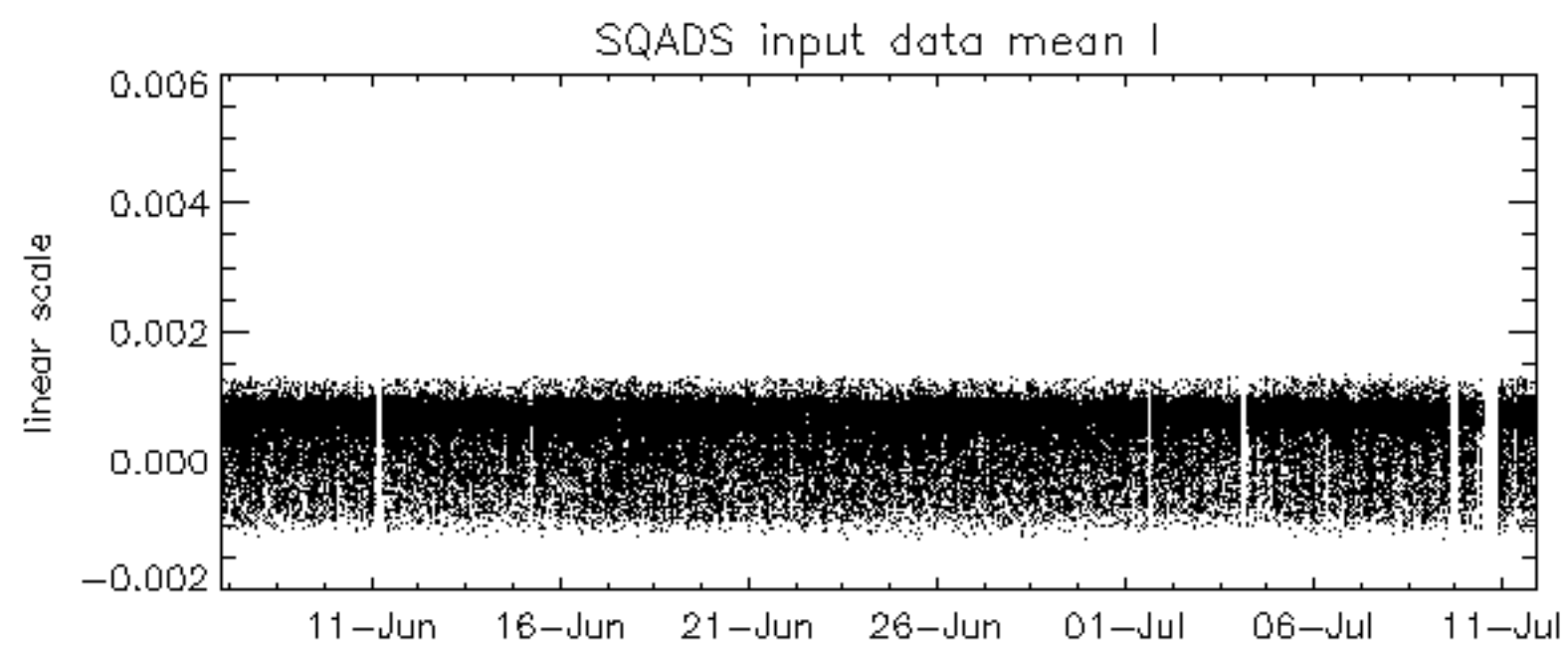
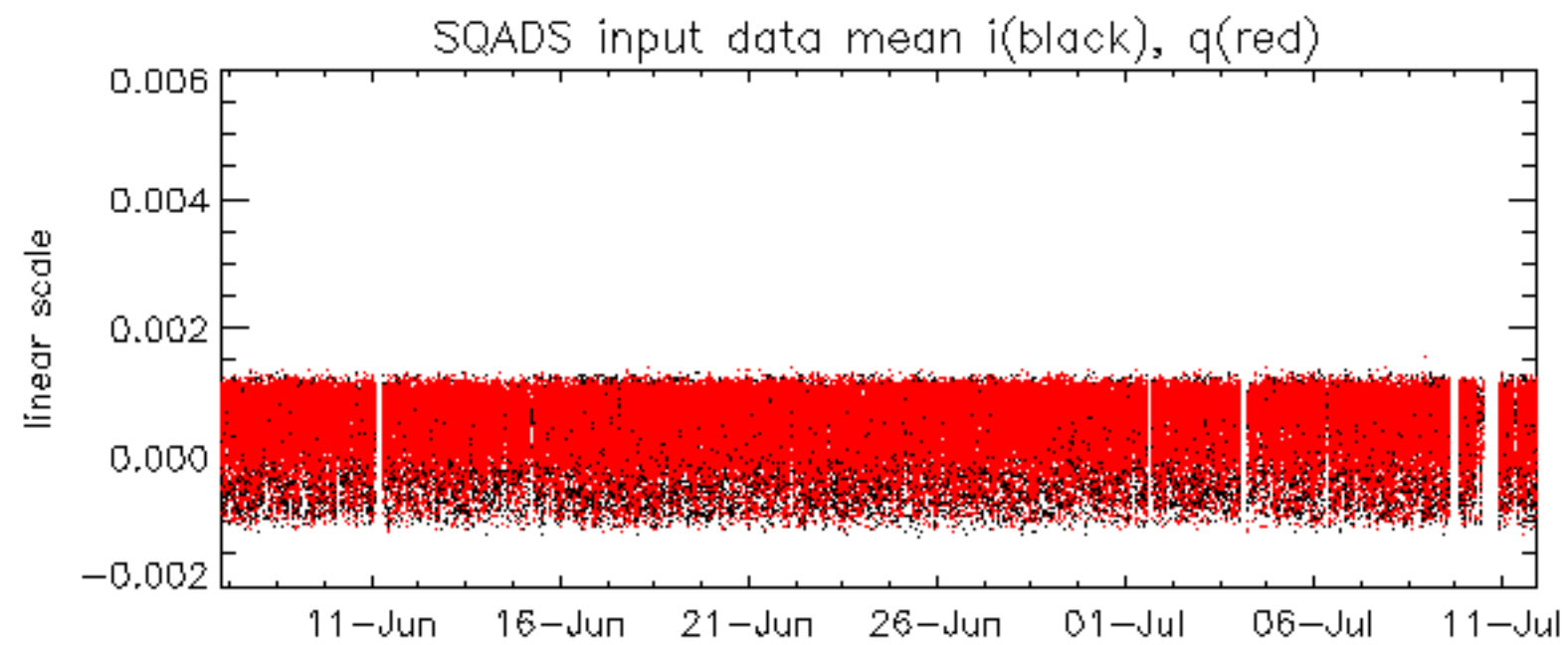
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.255461 Hz

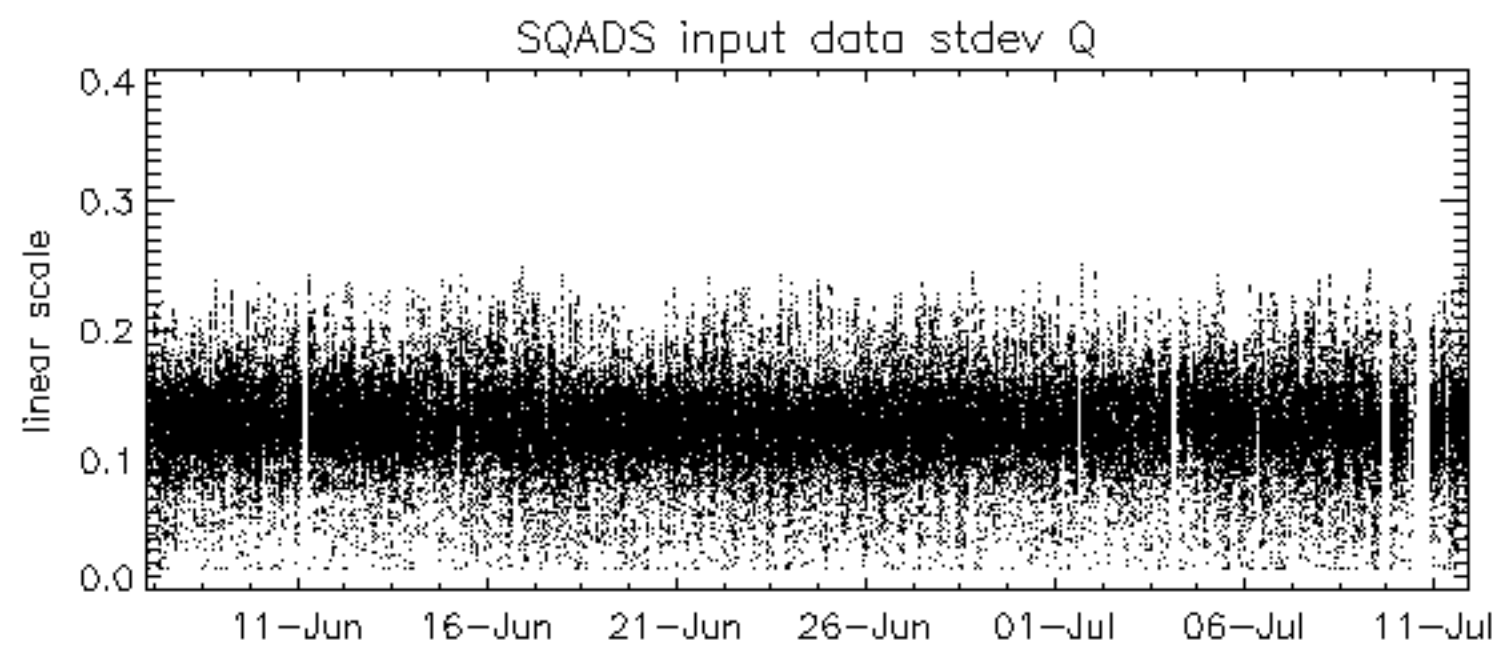
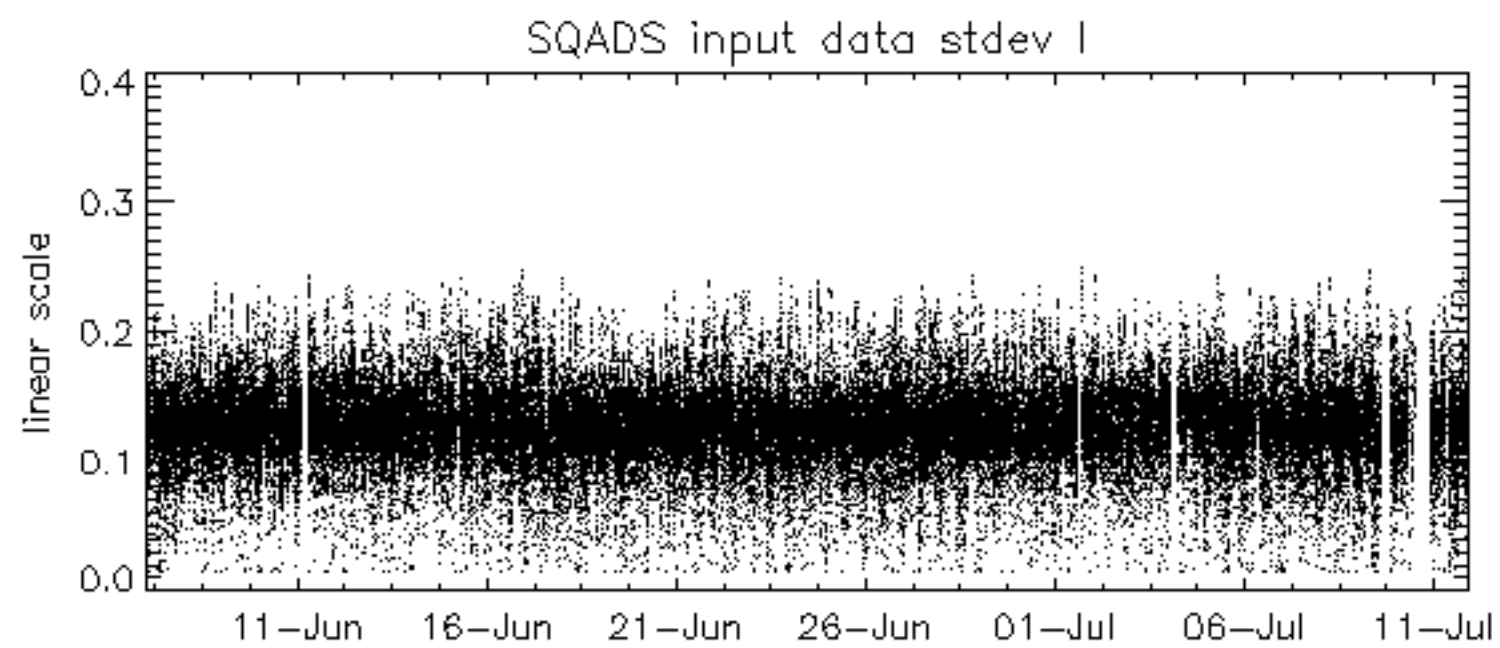
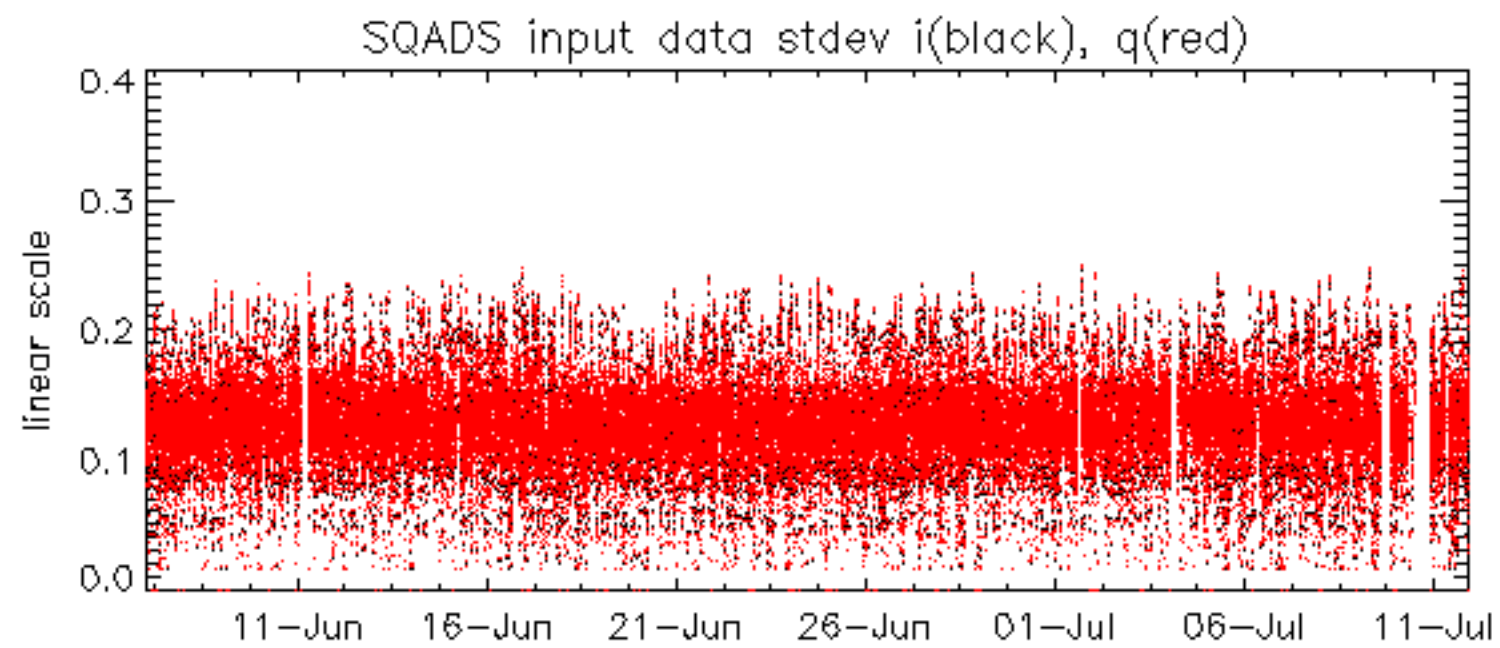


No anomalies observed on available MS products:

No anomalies observed.



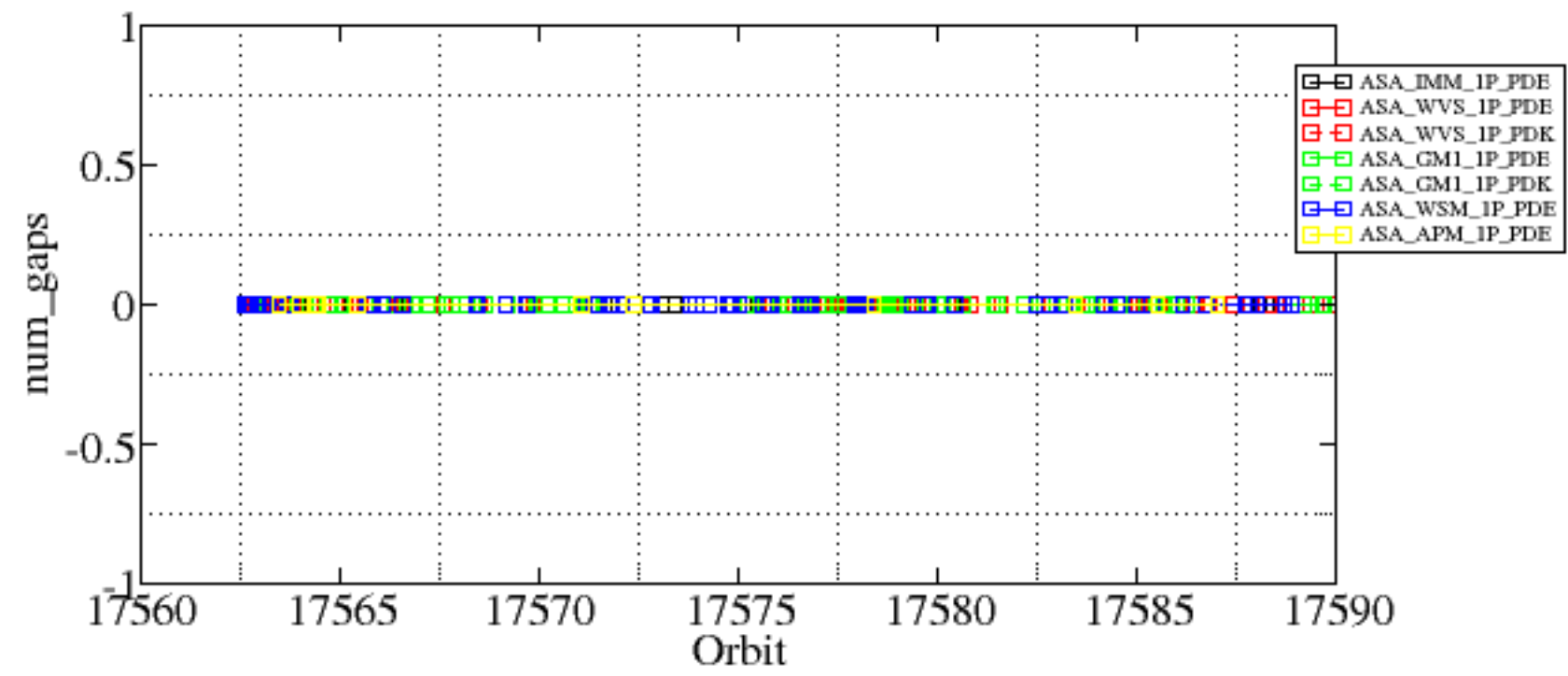


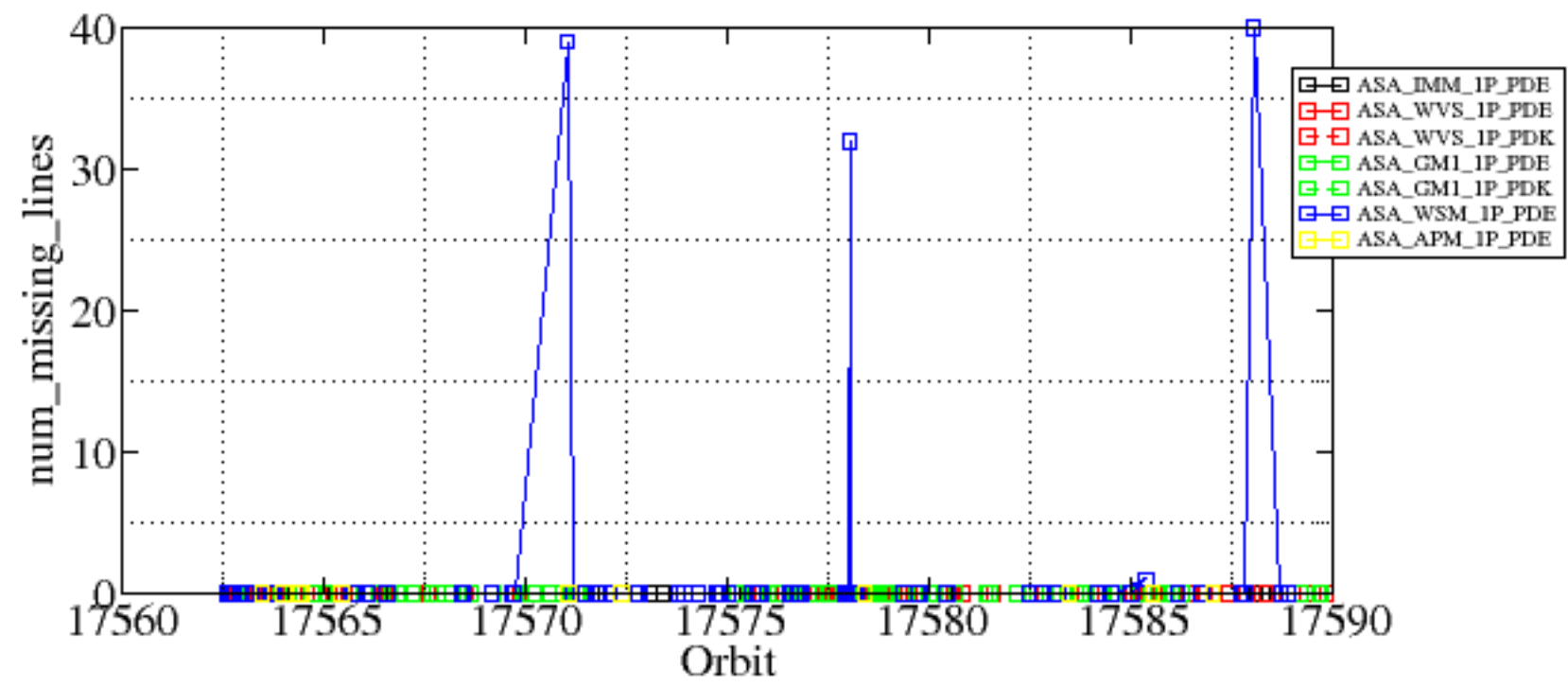


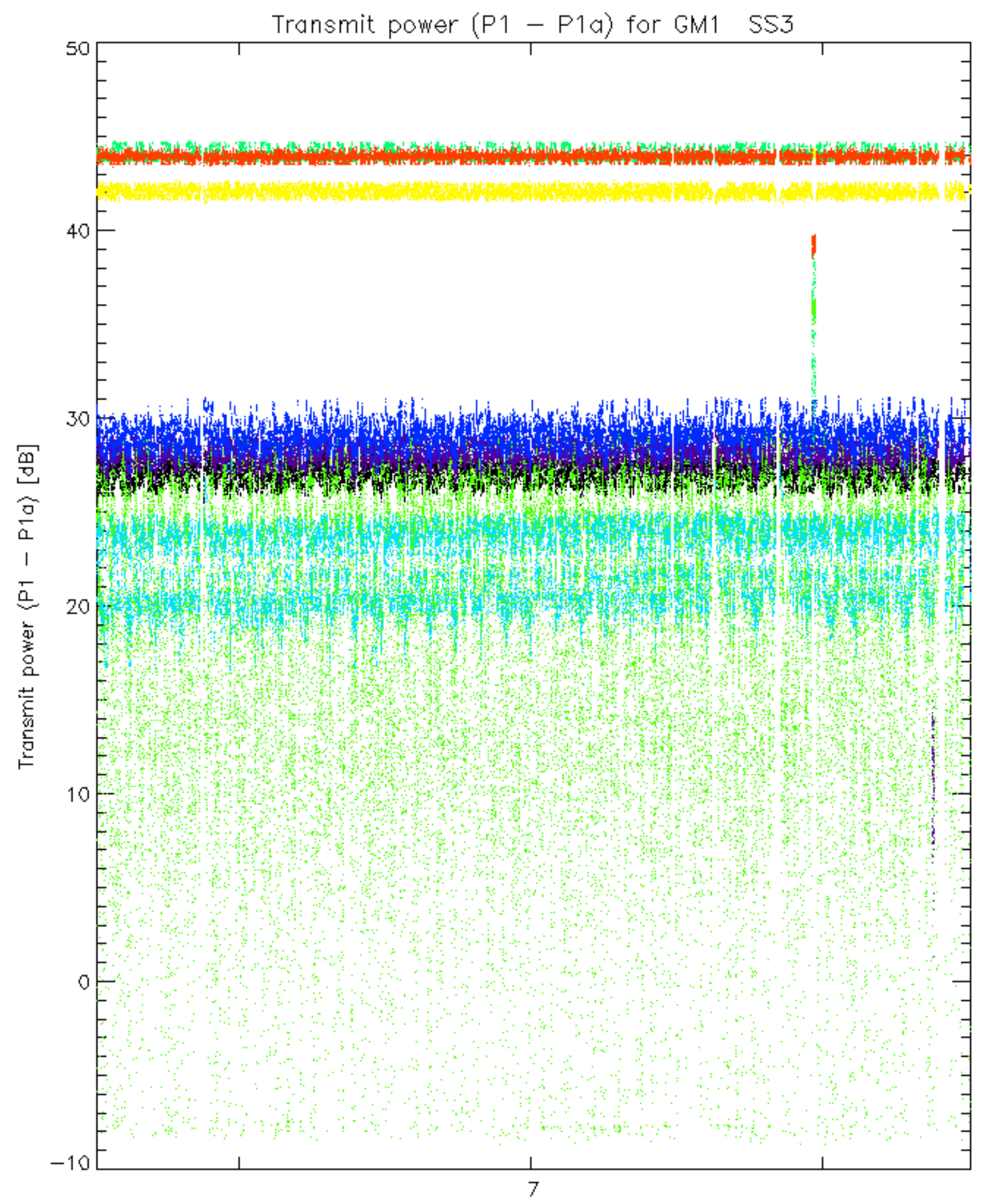
Summary of analysis for the last 3 days 2005071[012]

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

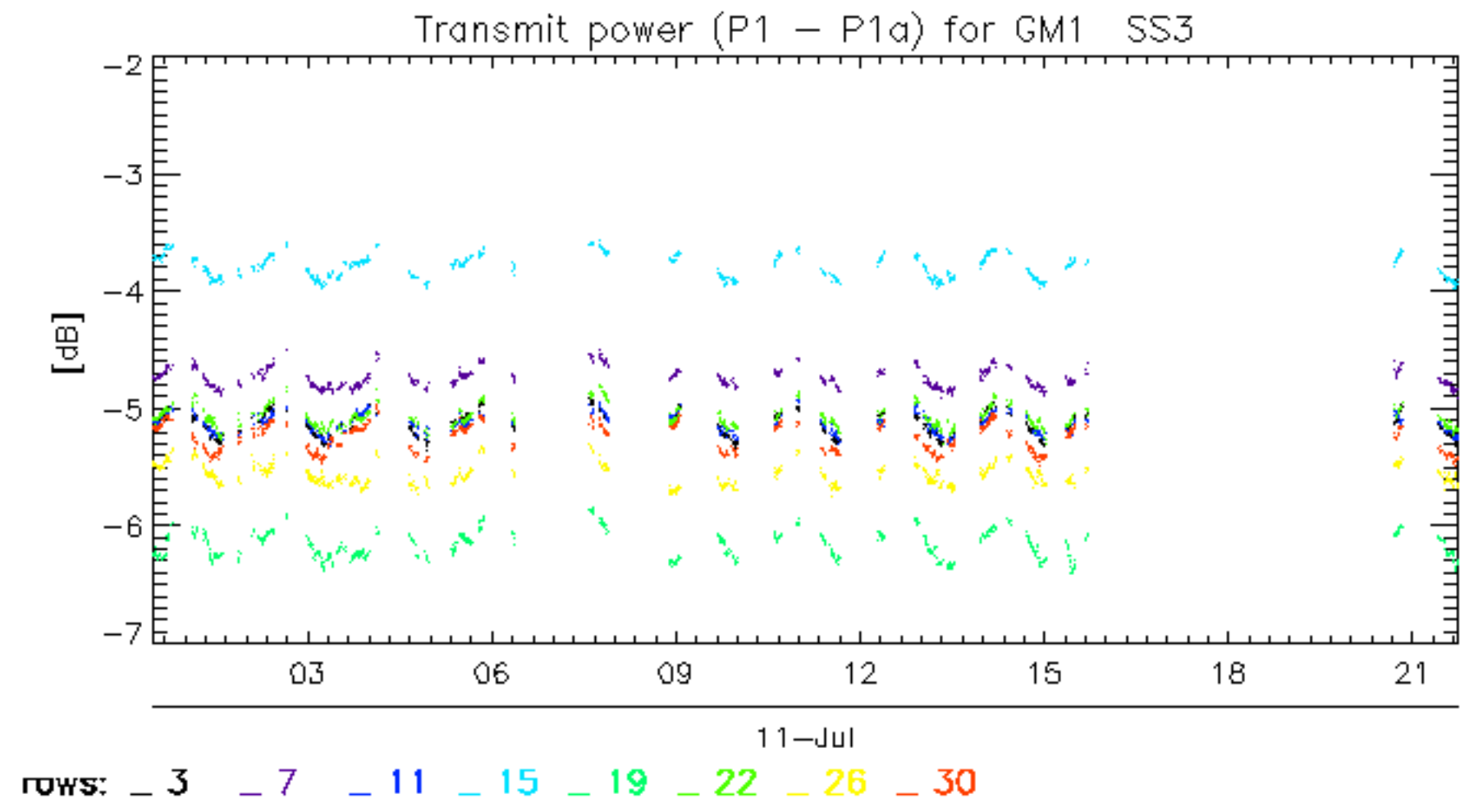
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050710_141215_00000672038_00483_17571_3333.N1	0	39
ASA_WSM_1PNPDE20050711_015643_00000672038_00490_17578_3437.N1	0	32
ASA_WSM_1PNPDE20050711_141432_00000672038_00497_17585_3591.N1	0	1
ASA_WSM_1PNPDE20050711_184226_000002312038_00500_17588_3621.N1	0	40

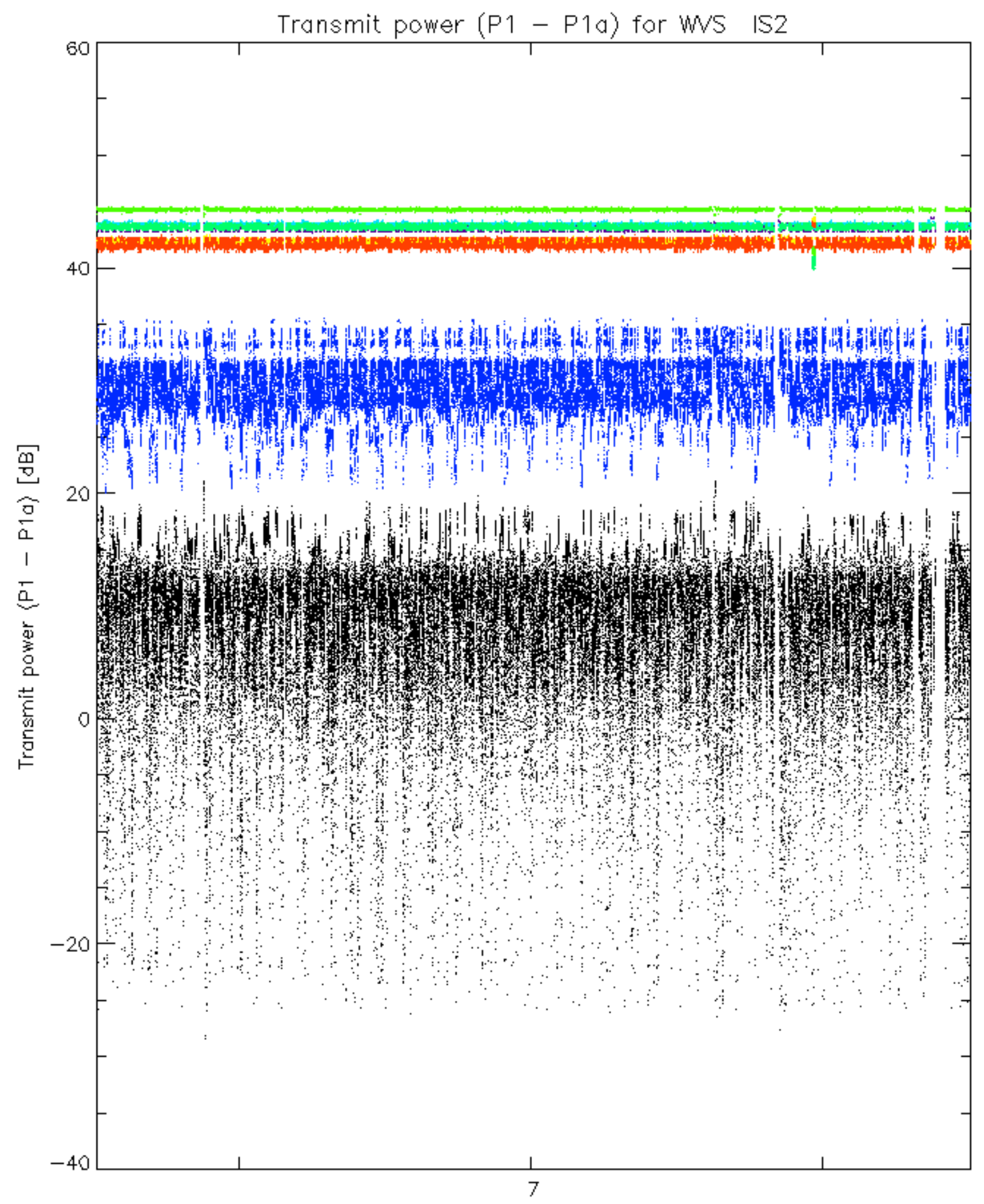


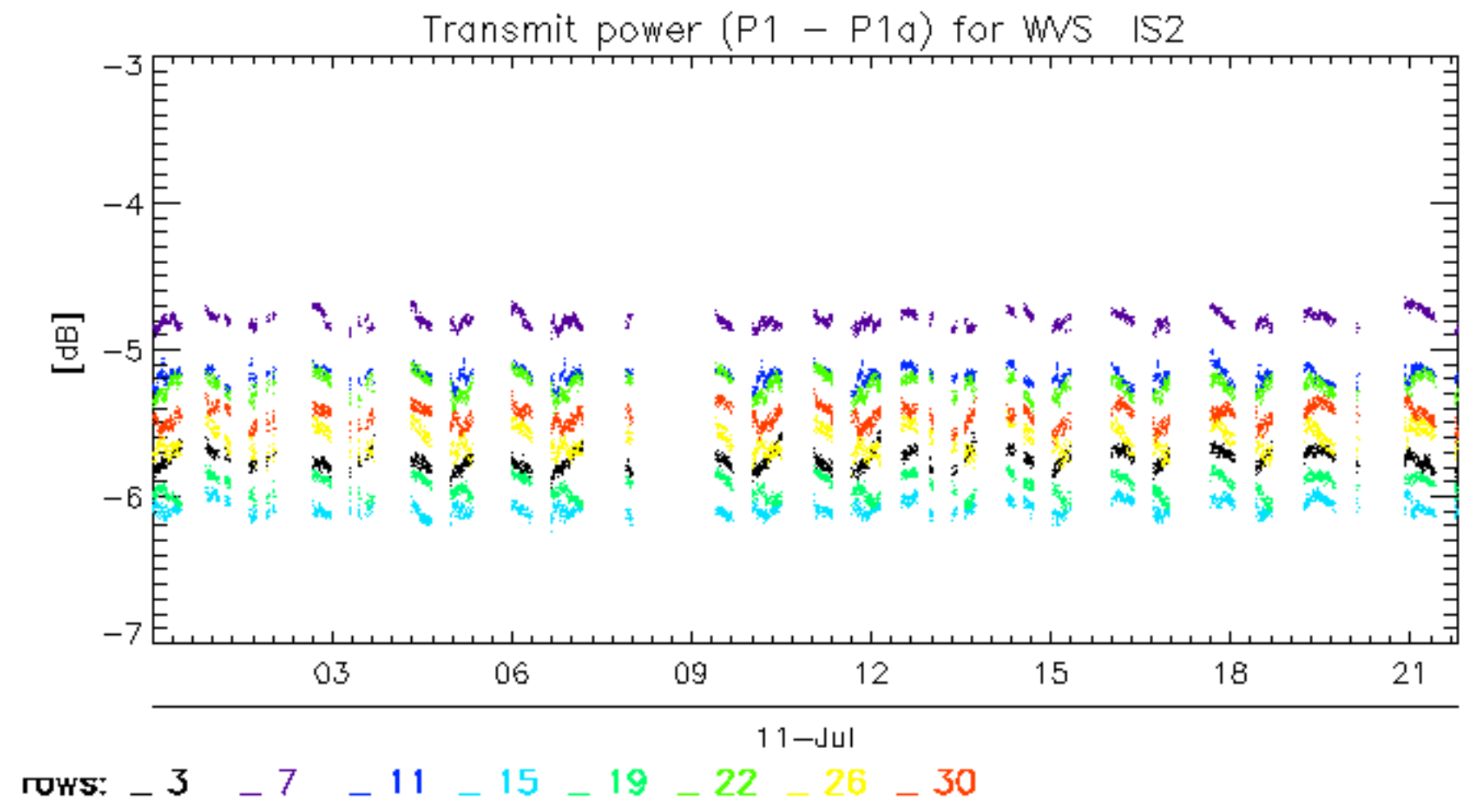




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30







No unavailabilities during the reported period.