

PRELIMINARY REPORT OF 050726

last update on Tue Jul 26 10:58:18 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 2005-07-25 00:00:00 to 2005-07-26 10:58:18

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	24	47	15	5	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	24	47	15	5	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	24	47	15	5	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	24	47	15	5	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	41	58	30	13	66
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	41	58	30	13	66
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	41	58	30	13	66
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	41	58	30	13	66

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	20050725 054056
H	20050724 061233

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	-3.318968	0.006535	0.022943
7	P1	-3.137161	0.015020	0.005613
11	P1	-4.684306	0.032431	-0.050759
15	P1	-5.552923	0.047262	-0.041903
19	P1	-3.790140	0.045878	-0.008299
22	P1	-4.635495	0.141251	-0.124107
26	P1	-4.867521	0.164194	-0.083542
30	P1	-7.237253	0.250810	-0.153590
3	P1	-15.570335	0.079659	0.017084
7	P1	-15.530505	0.106522	0.061544
11	P1	-21.620846	0.255991	-0.236747
15	P1	-11.292379	0.042454	-0.000398
19	P1	-14.494438	0.261218	0.006827
22	P1	-15.774104	0.358904	0.140572
26	P1	-17.461016	0.244583	0.268237
30	P1	-17.730480	0.493506	0.148459

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.870676	0.082842	0.090362
7	P2	-22.040924	0.104747	0.144318
11	P2	-13.693140	0.106004	0.250011
15	P2	-7.092981	0.093133	0.059093
19	P2	-9.596106	0.094559	0.028340
22	P2	-16.855408	0.095085	0.022995
26	P2	-16.506069	0.097265	0.012420
30	P2	-18.791044	0.084463	0.003325

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.157644	0.002740	0.011274
7	P3	-8.157644	0.002740	0.011274
11	P3	-8.157644	0.002740	0.011274
15	P3	-8.157644	0.002740	0.011274
19	P3	-8.157644	0.002740	0.011274
22	P3	-8.157644	0.002740	0.011274
26	P3	-8.157644	0.002740	0.011274
30	P3	-8.157644	0.002740	0.011274

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	-2.783305	0.013694	0.013282
7	P1	-2.952975	0.031412	0.019551
11	P1	-3.994588	0.016725	-0.022259
15	P1	-3.568227	0.023325	-0.049651
19	P1	-3.666763	0.115481	0.054533
22	P1	-5.693677	0.163428	-0.083015
26	P1	-7.410514	0.327894	-0.151047
30	P1	-6.335181	0.147784	-0.092059
3	P1	-10.829129	0.040126	-0.012022
7	P1	-10.448092	0.155103	-0.004169
11	P1	-12.609694	0.108875	-0.073862
15	P1	-11.618985	0.073637	0.022750
19	P1	-15.655720	1.335558	0.228891
22	P1	-25.750174	3.879659	0.592761
26	P1	-15.394372	0.446409	0.244172
30	P1	-20.109985	1.322105	0.318306

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.615273	0.046687	0.106738
7	P2	-22.052530	0.040705	0.067281
11	P2	-9.704663	0.062374	0.179697
15	P2	-5.123577	0.046508	0.026982
19	P2	-6.903059	0.063949	0.021820
22	P2	-7.081162	0.039615	0.038811
26	P2	-23.967838	0.043955	-0.011986
30	P2	-21.954451	0.043116	0.022738

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.997900	0.004145	0.002805
7	P3	-7.997830	0.004140	0.002994
11	P3	-7.997807	0.004138	0.003111
15	P3	-7.997970	0.004142	0.002820
19	P3	-7.997936	0.004147	0.002872
22	P3	-7.998006	0.004126	0.002760
26	P3	-7.997981	0.004129	0.002924
30	P3	-7.997891	0.004136	0.003109

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	0.000472697
	stdev	2.13192e-07
MEAN Q	mean	0.000501057
	stdev	2.31562e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128418
	stdev	0.00100396
STDEV Q	mean	0.128665
	stdev	0.00101516



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005072[456]

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_1PNPDE20050724_004103_00000622039_00174_17763_0522.N1	1	0
ASA_IMM_1PNPDK20050725_213240_00002152039_00201_17790_0250.N1	0	17
ASA_WSM_1PNPDE20050724_023124_00000672039_00175_17764_0904.N1	0	8
ASA_WSM_1PNPDE20050724_023126_00001282039_00175_17764_0970.N1	0	8
ASA_WSM_1PNPDE20050725_015913_00001282039_00189_17778_1212.N1	0	40
ASA_WSM_1PNPDE20050725_202302_00000852039_00200_17789_1203.N1	0	34
ASA_WSM_1PNPDK20050724_083127_00000672039_00179_17768_0321.N1	0	39





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

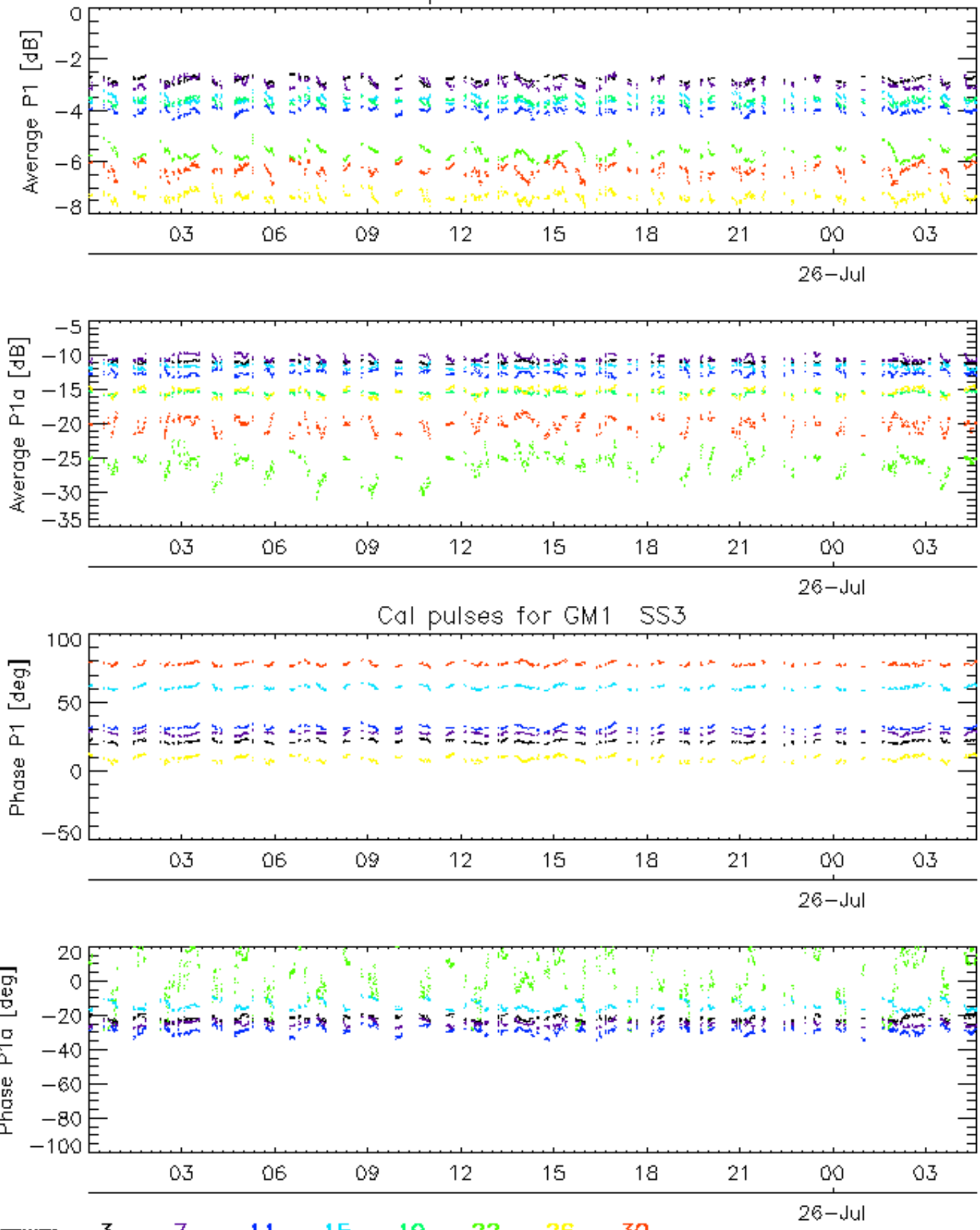
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

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

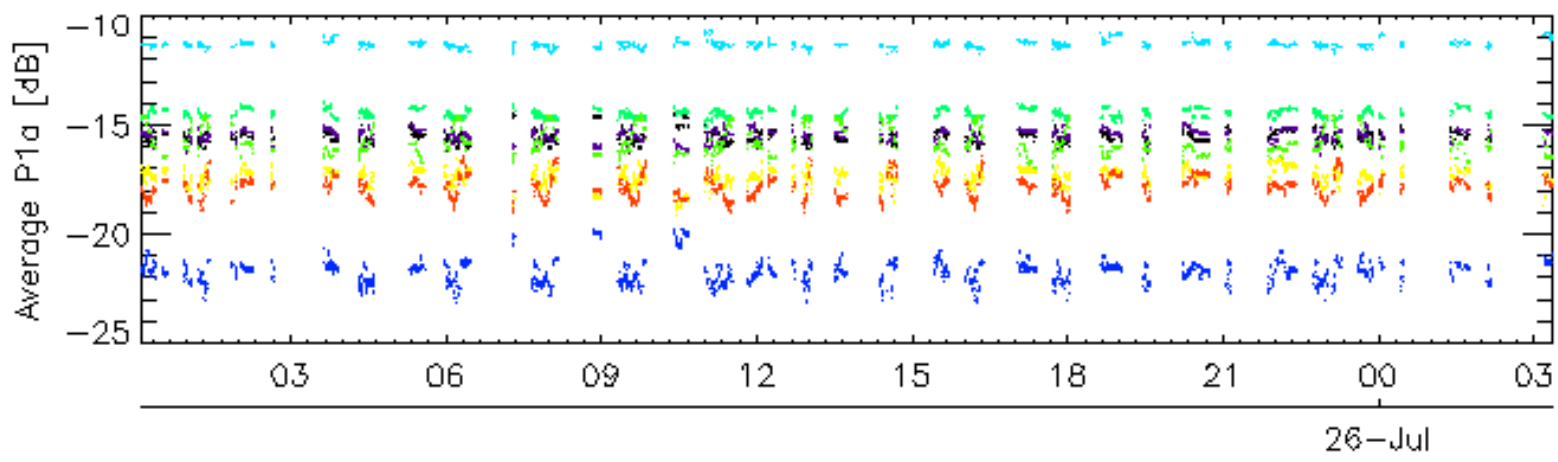
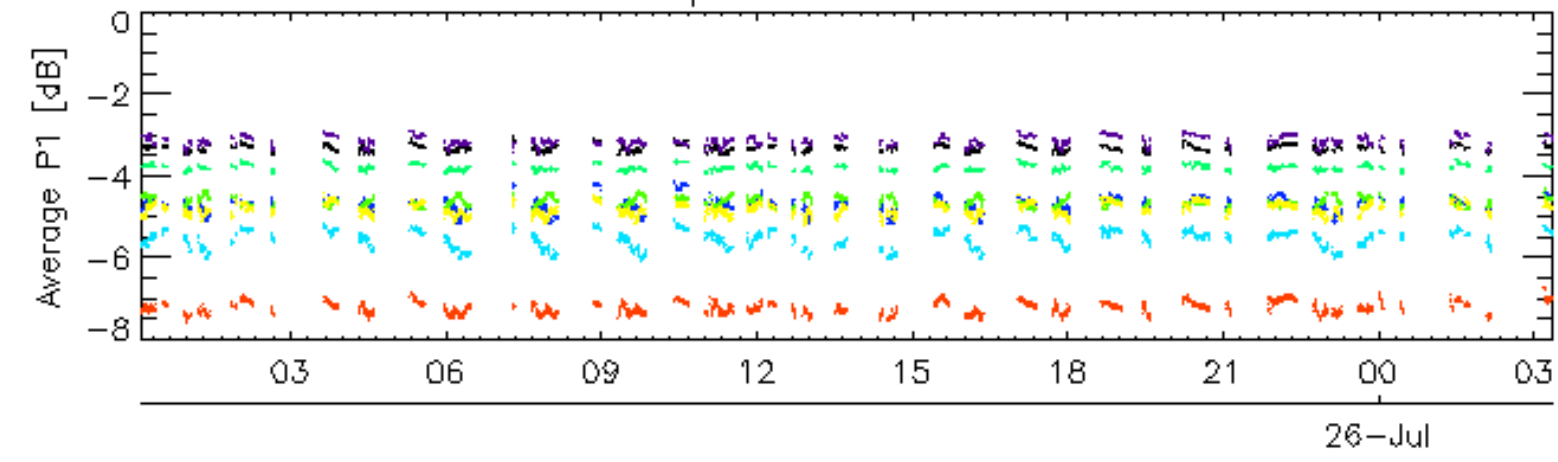
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Cal pulses for GM1 SS3

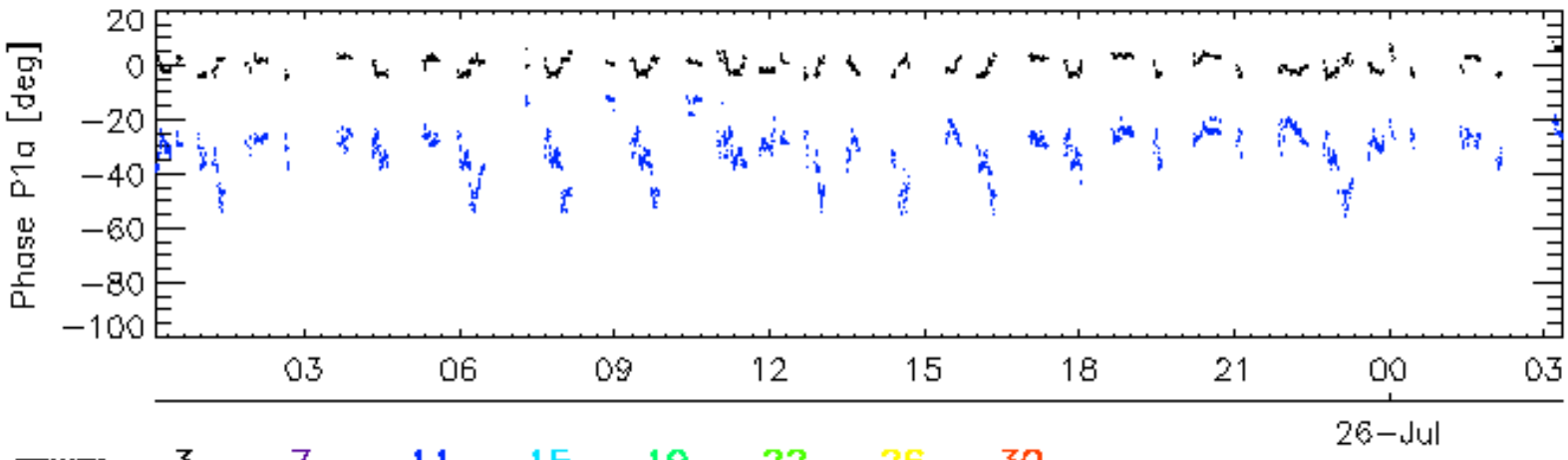
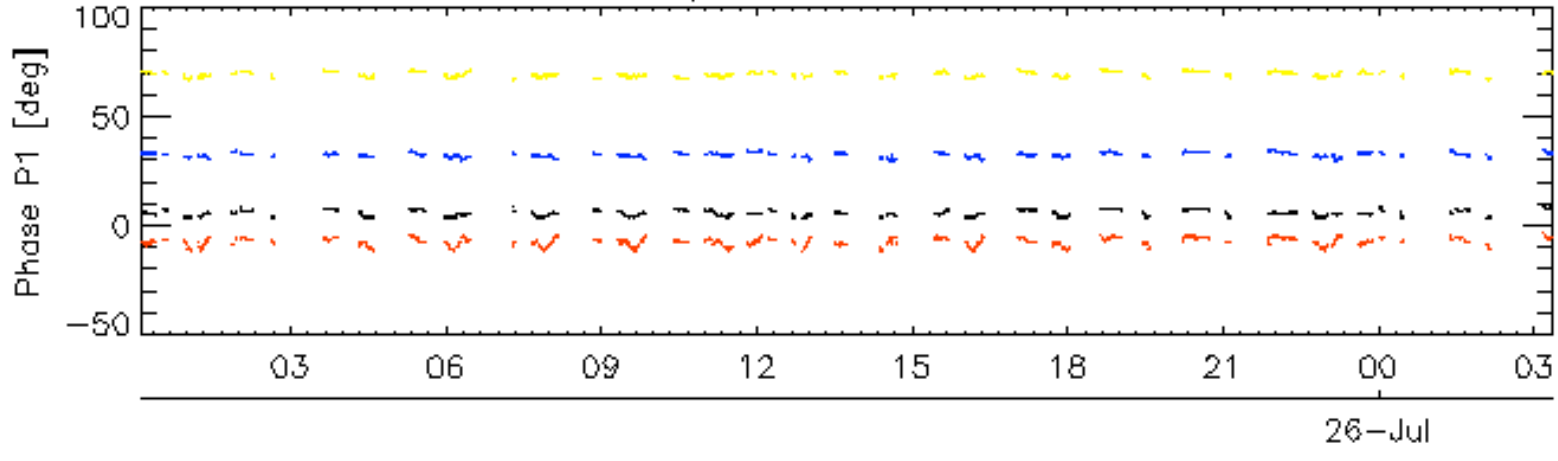


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

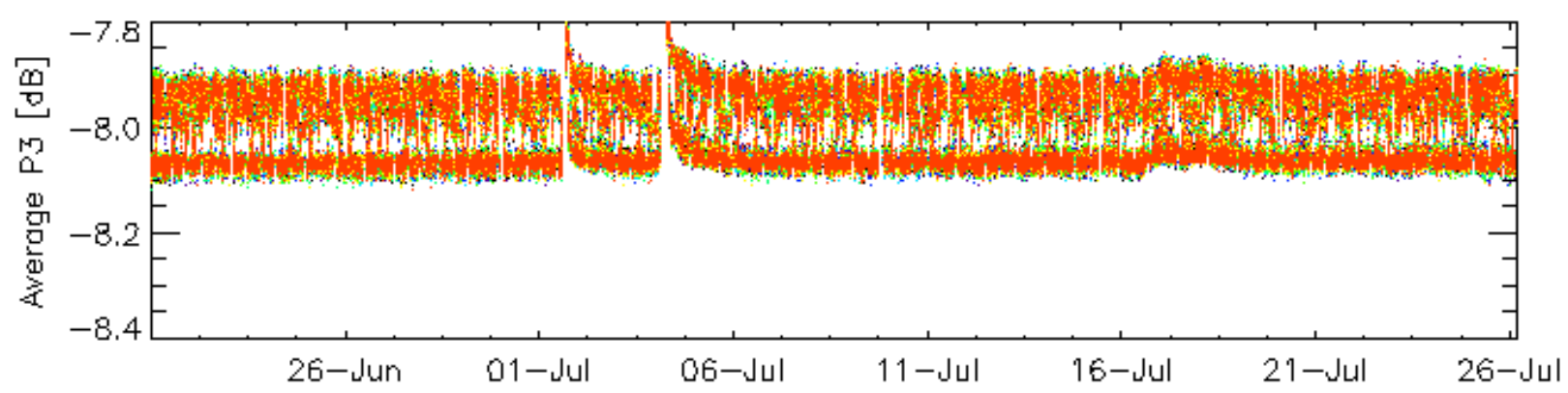
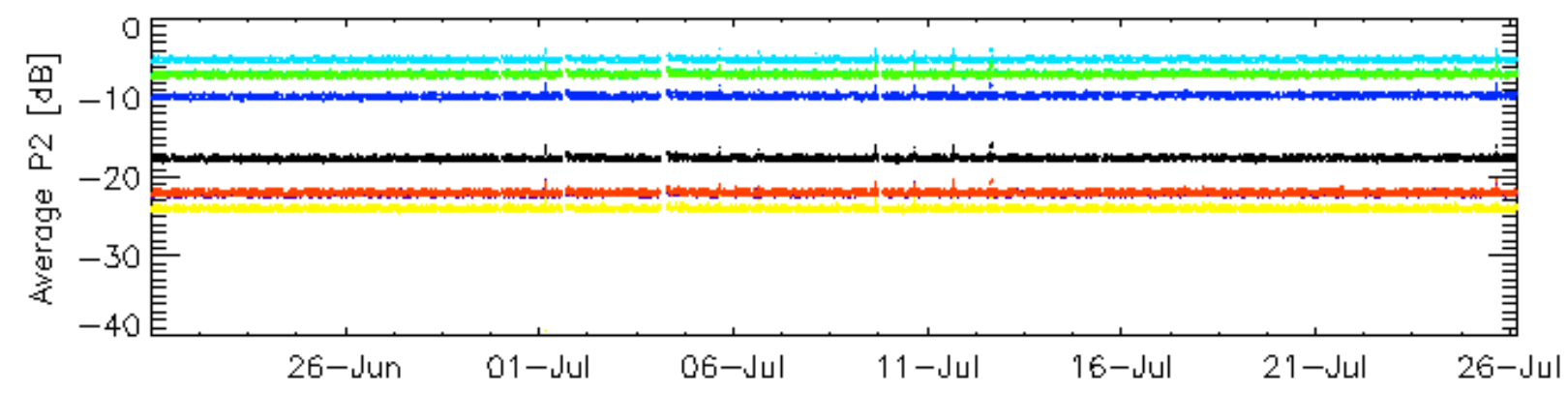
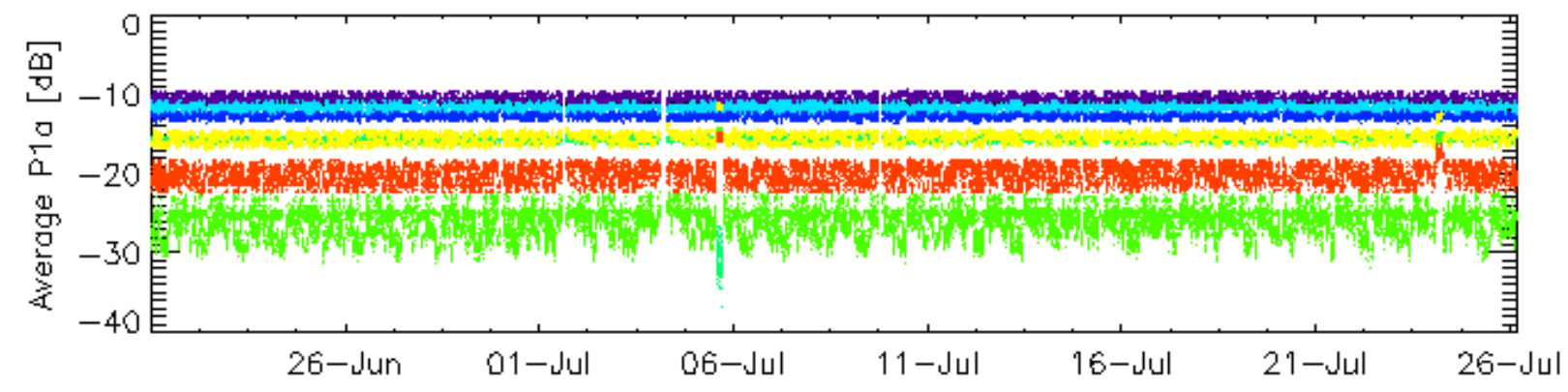
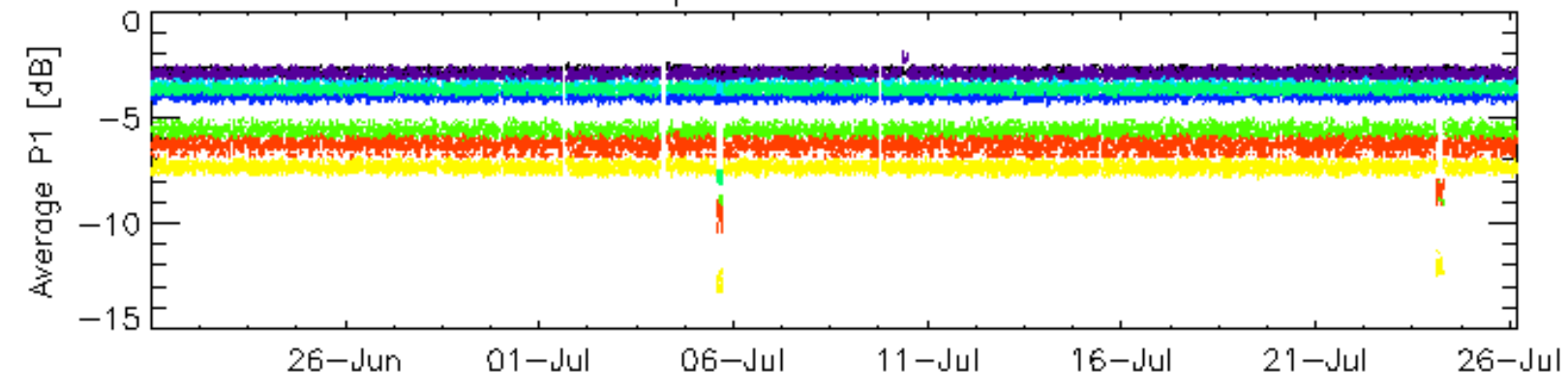


Cal pulses for WVS IS2



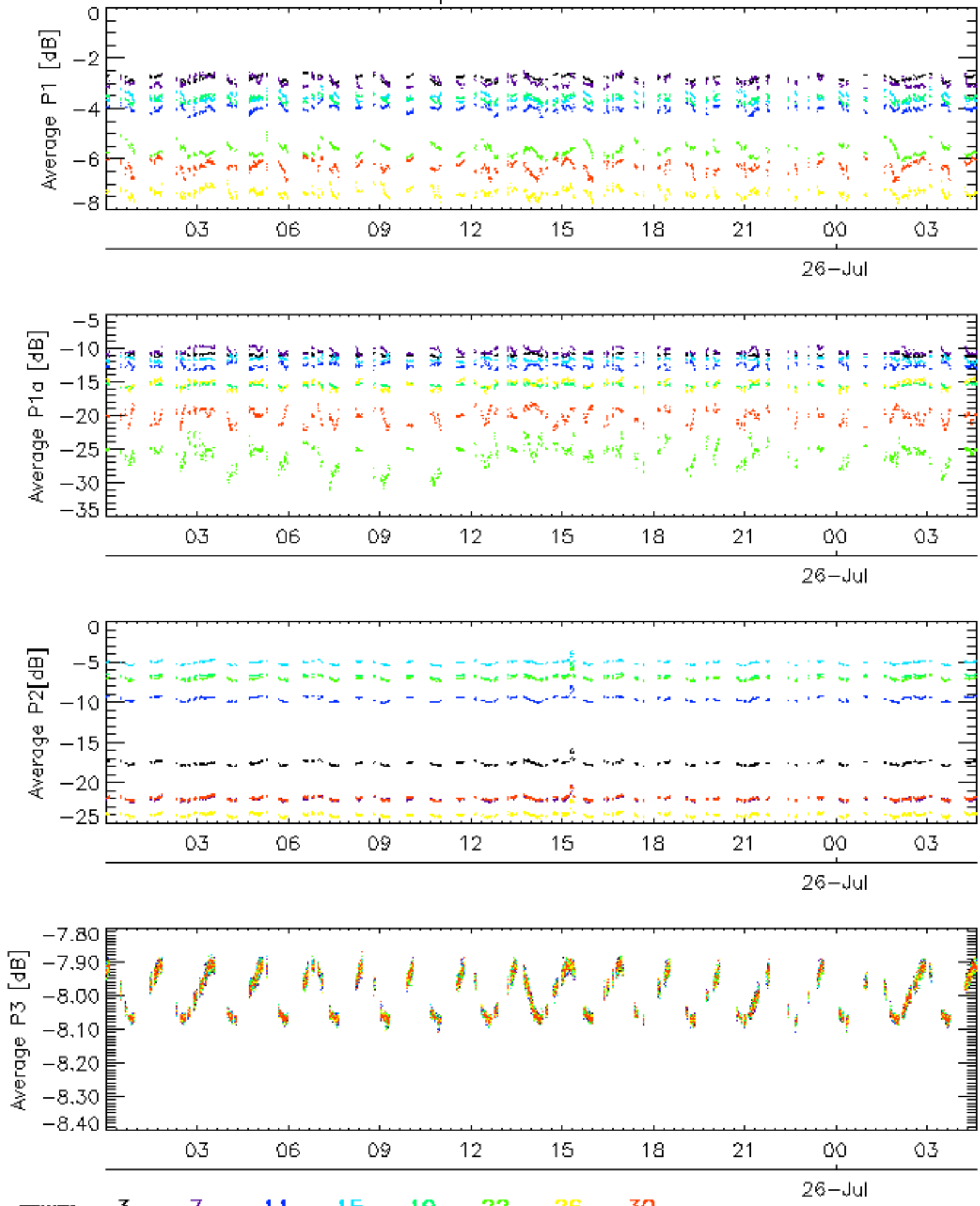
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

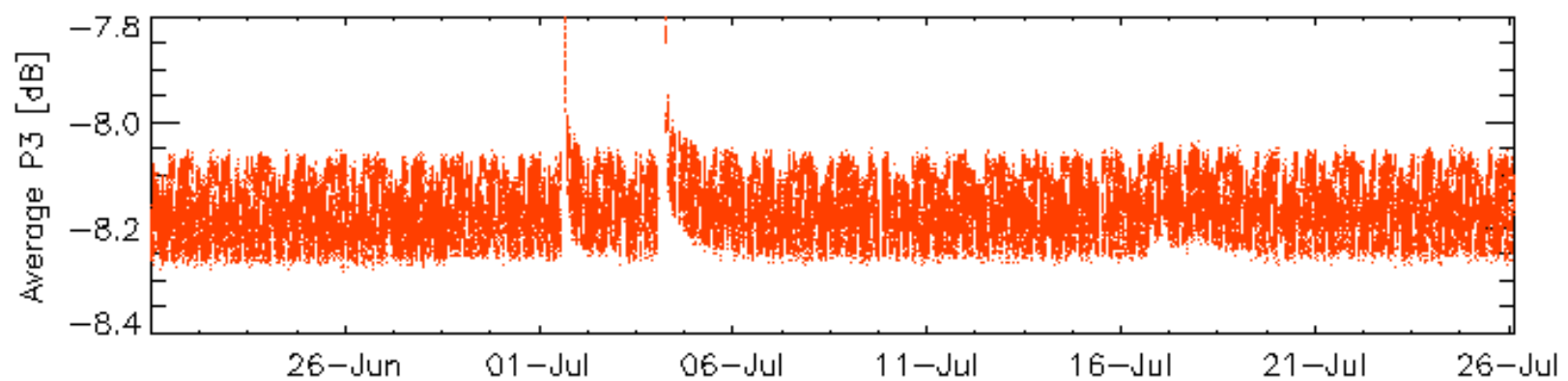
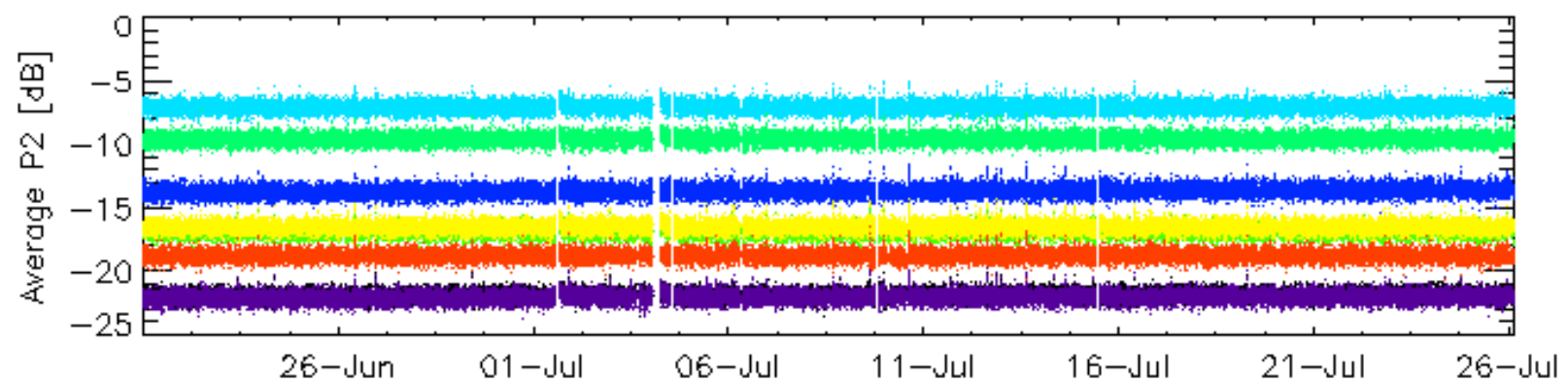
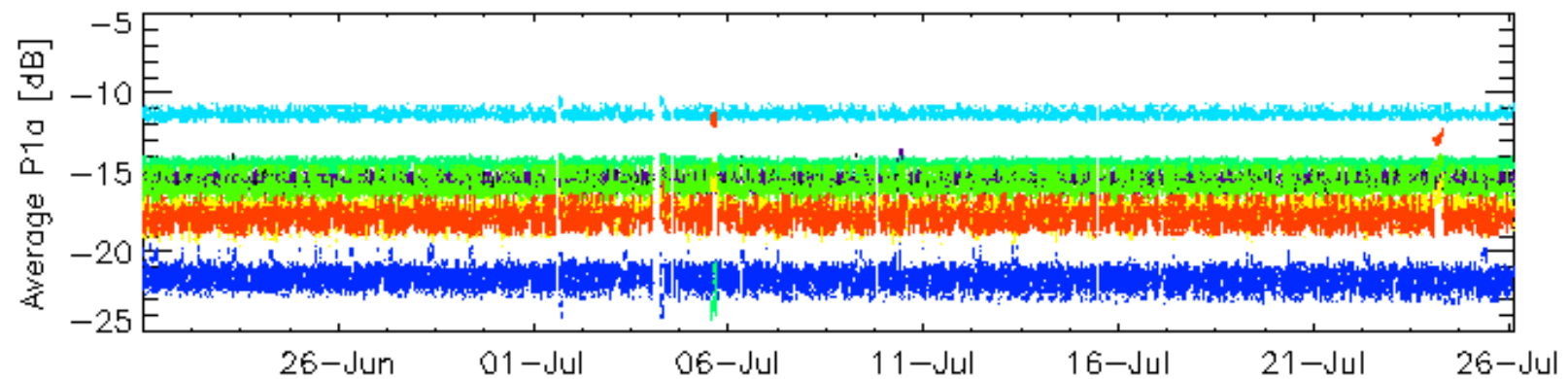
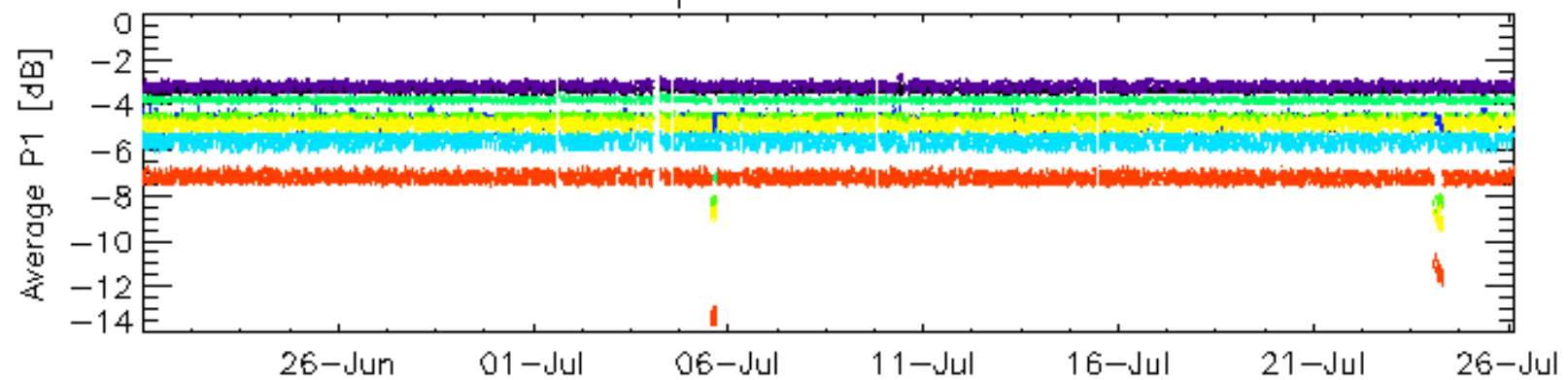


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

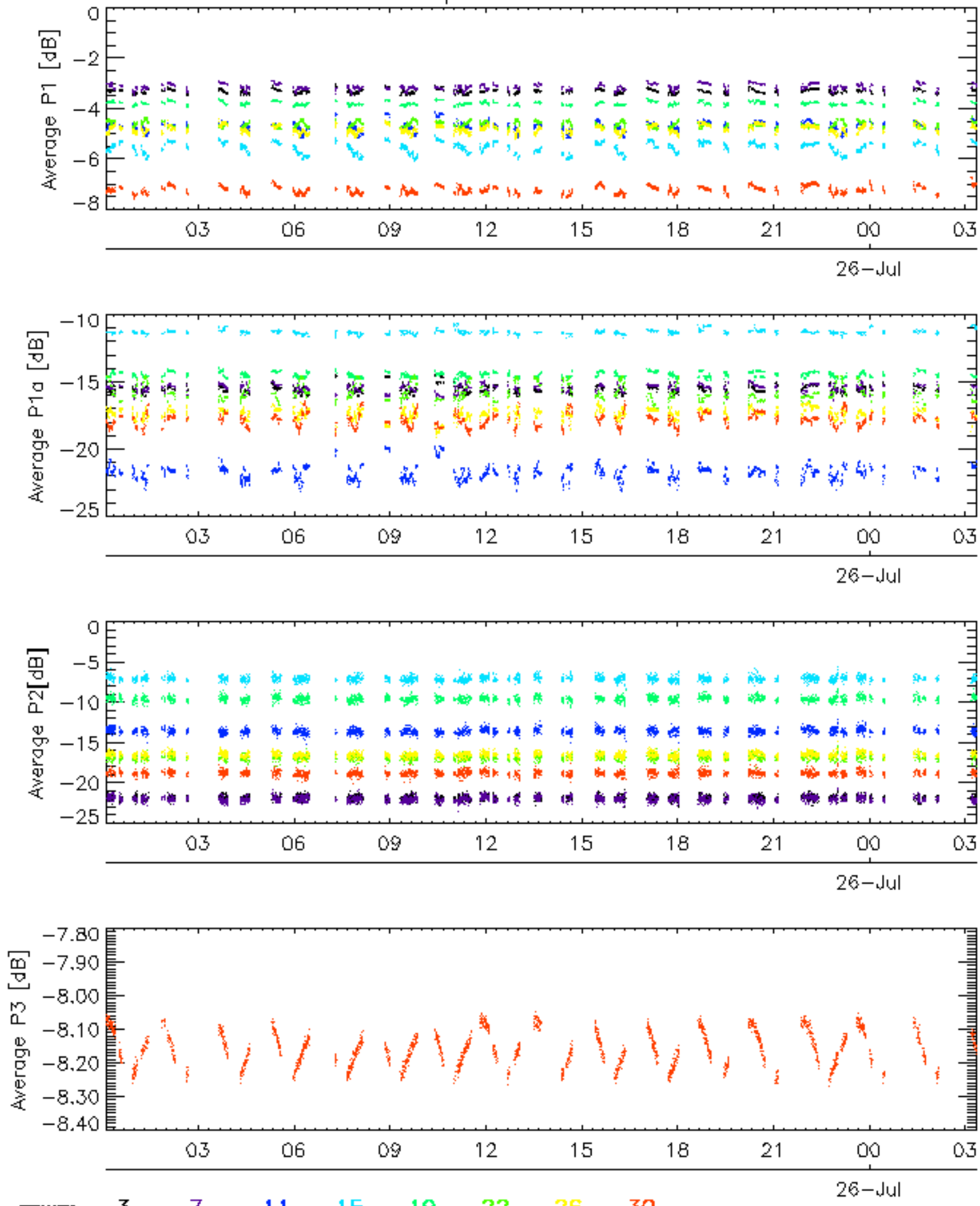


Cal pulses for WVS IS2

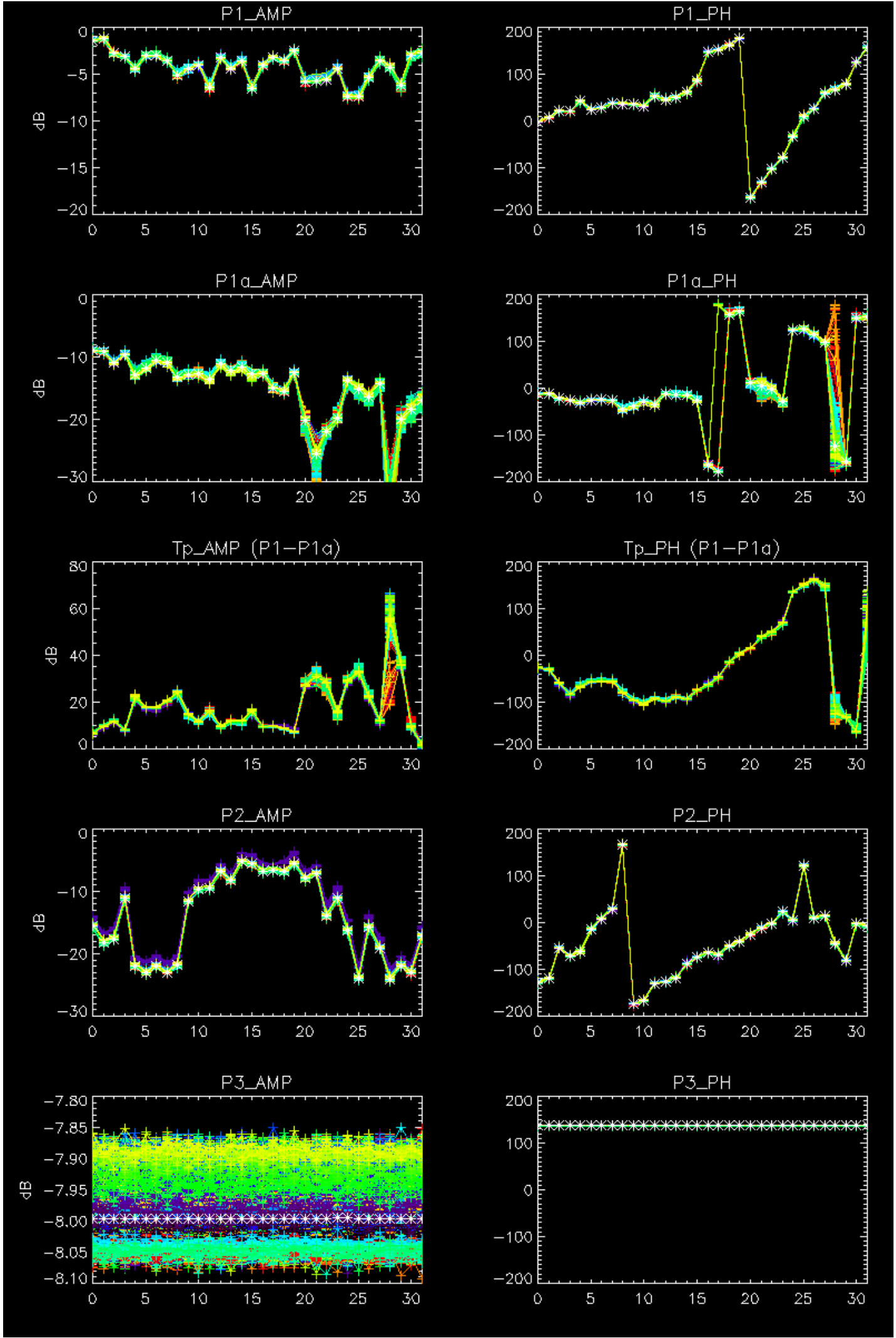


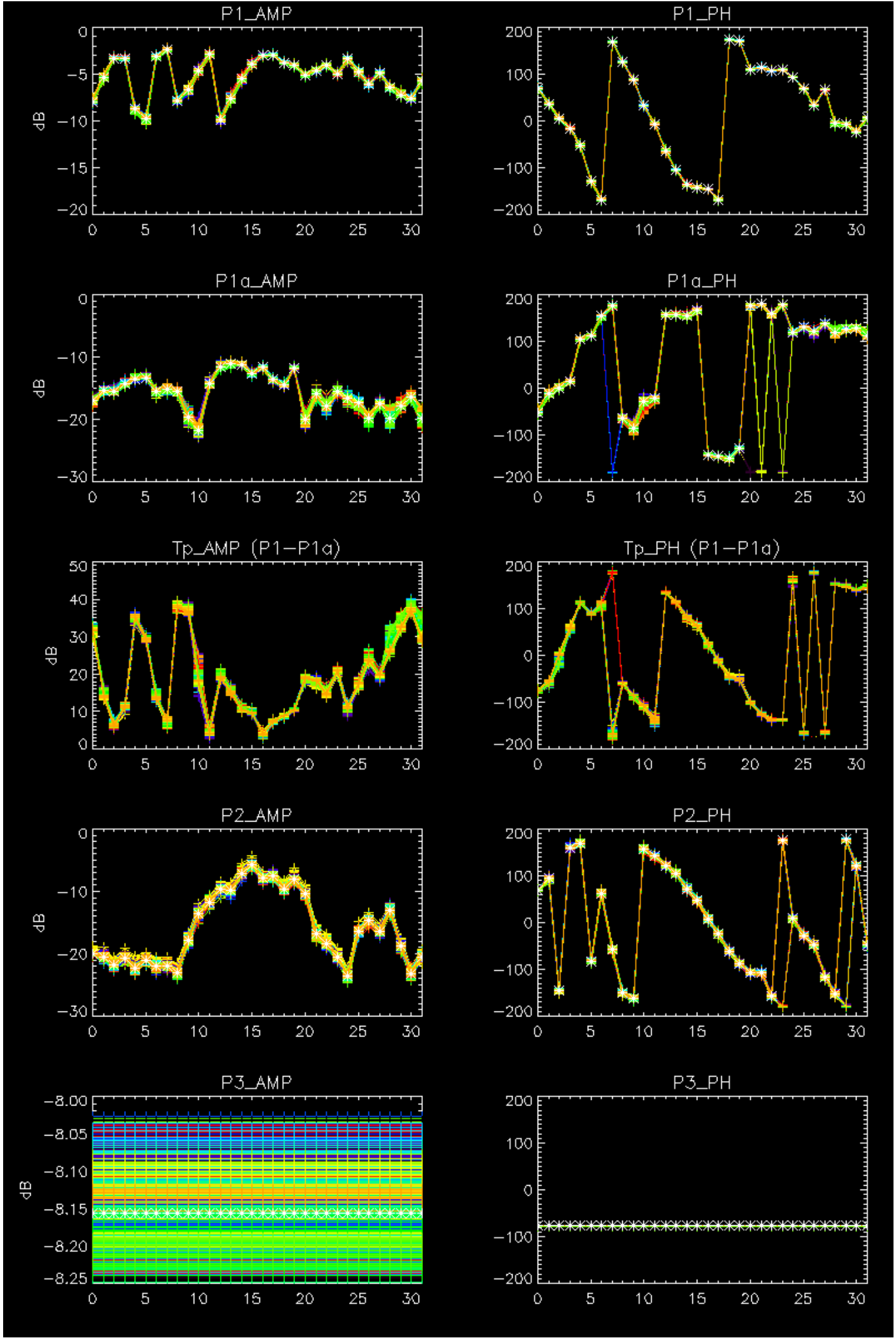
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



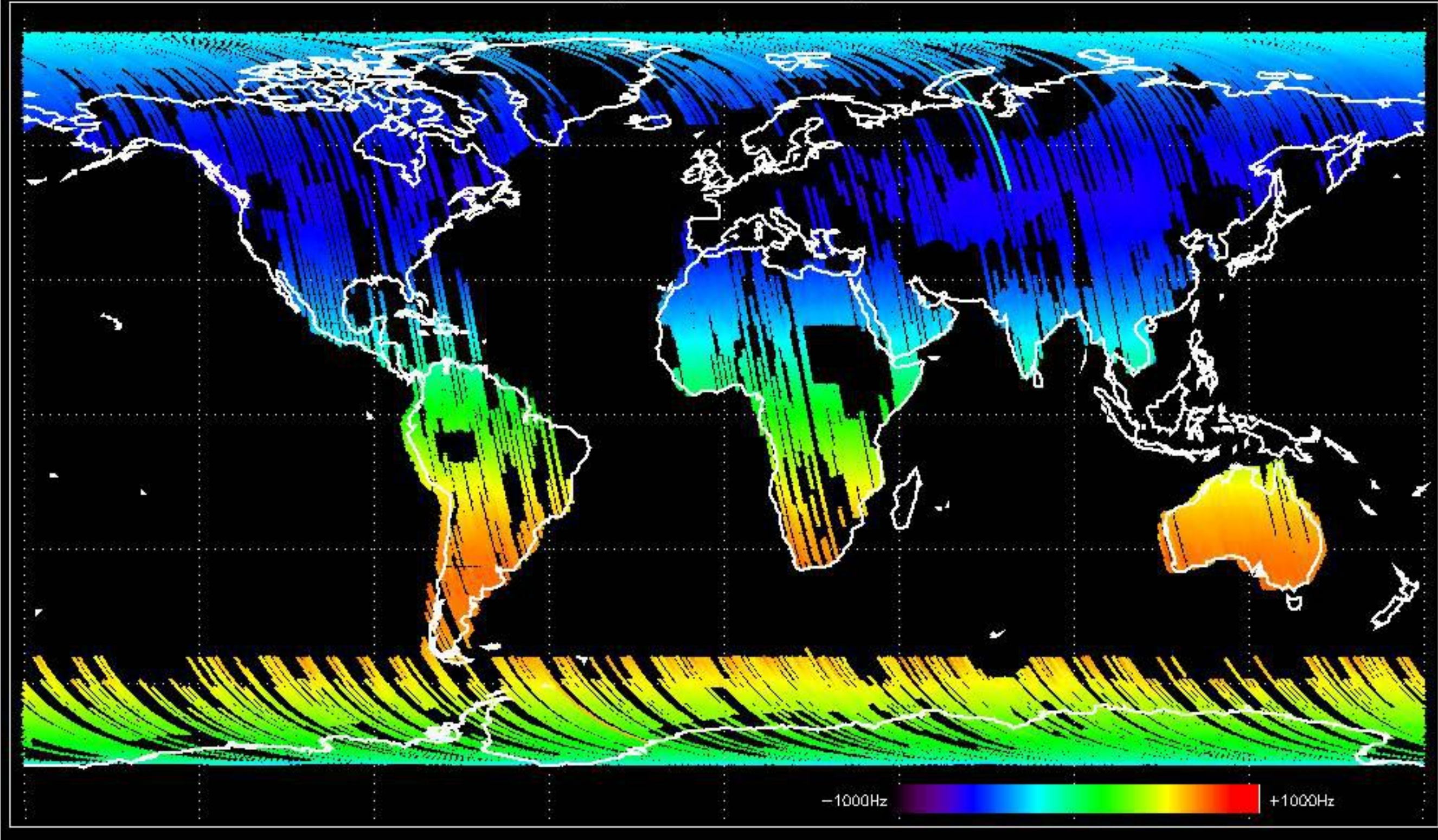
No anomalies observed.



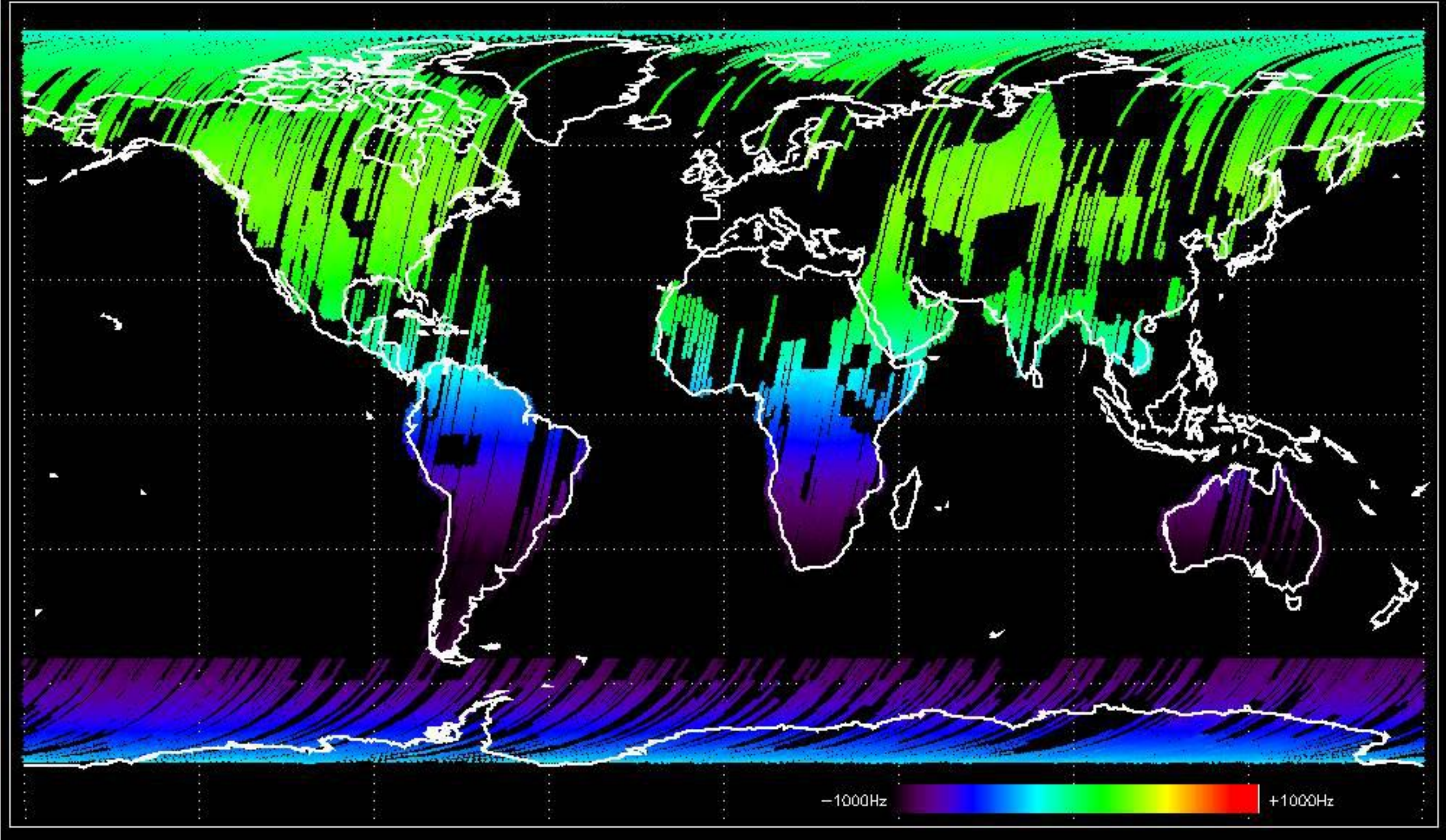


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

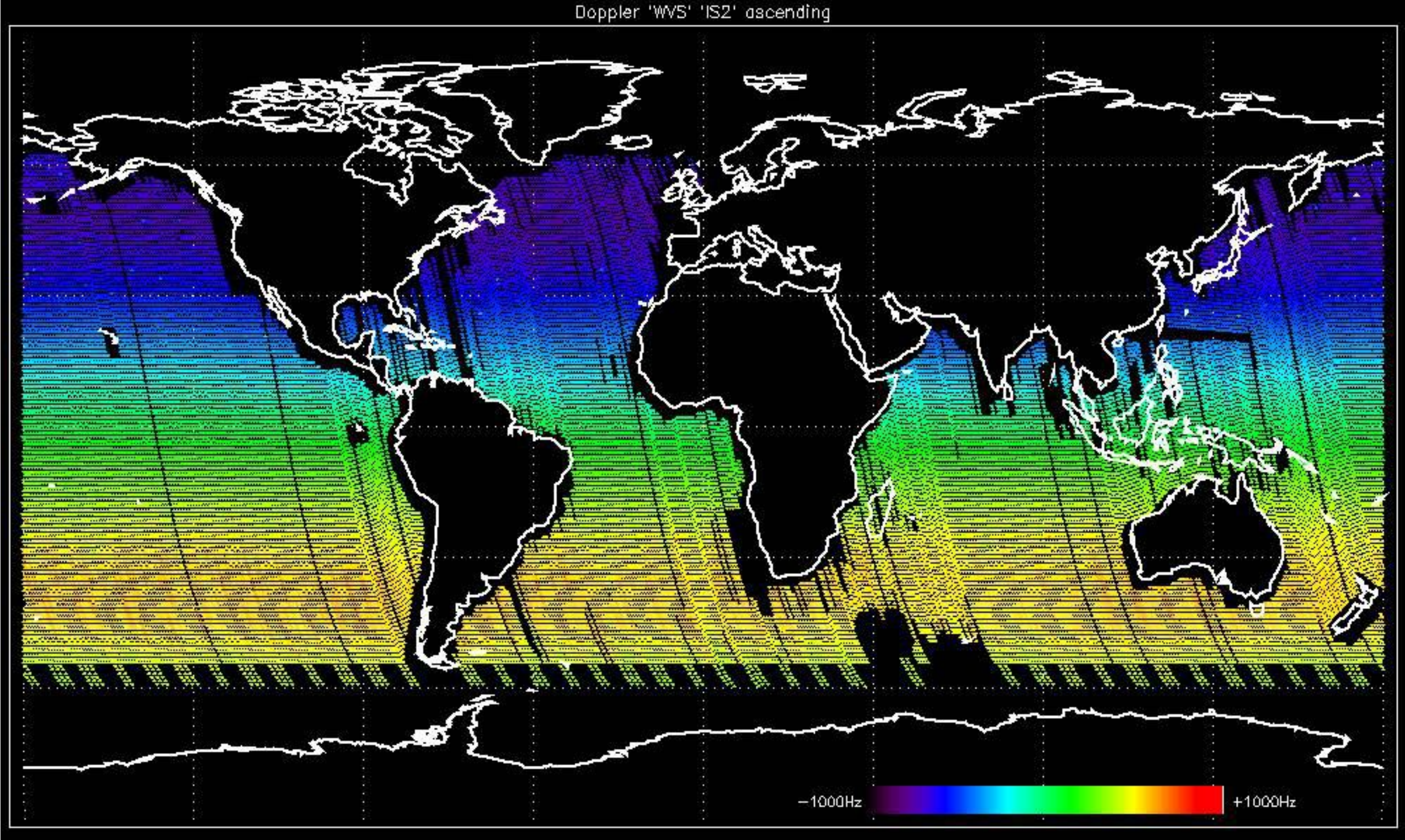
Doppler 'GM1' 'SS1' ascending



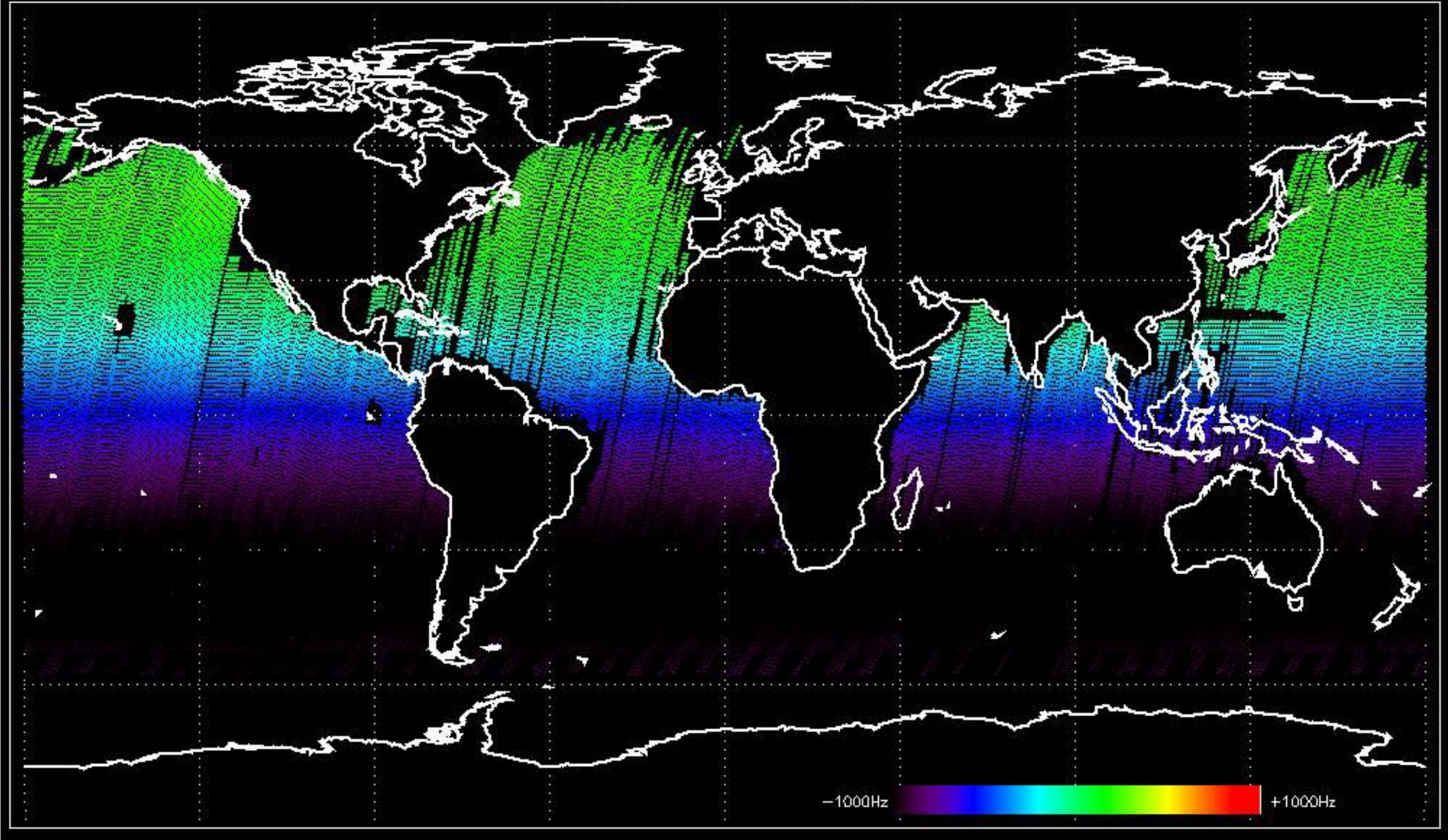
Doppler 'GM1' 'SS1' descending



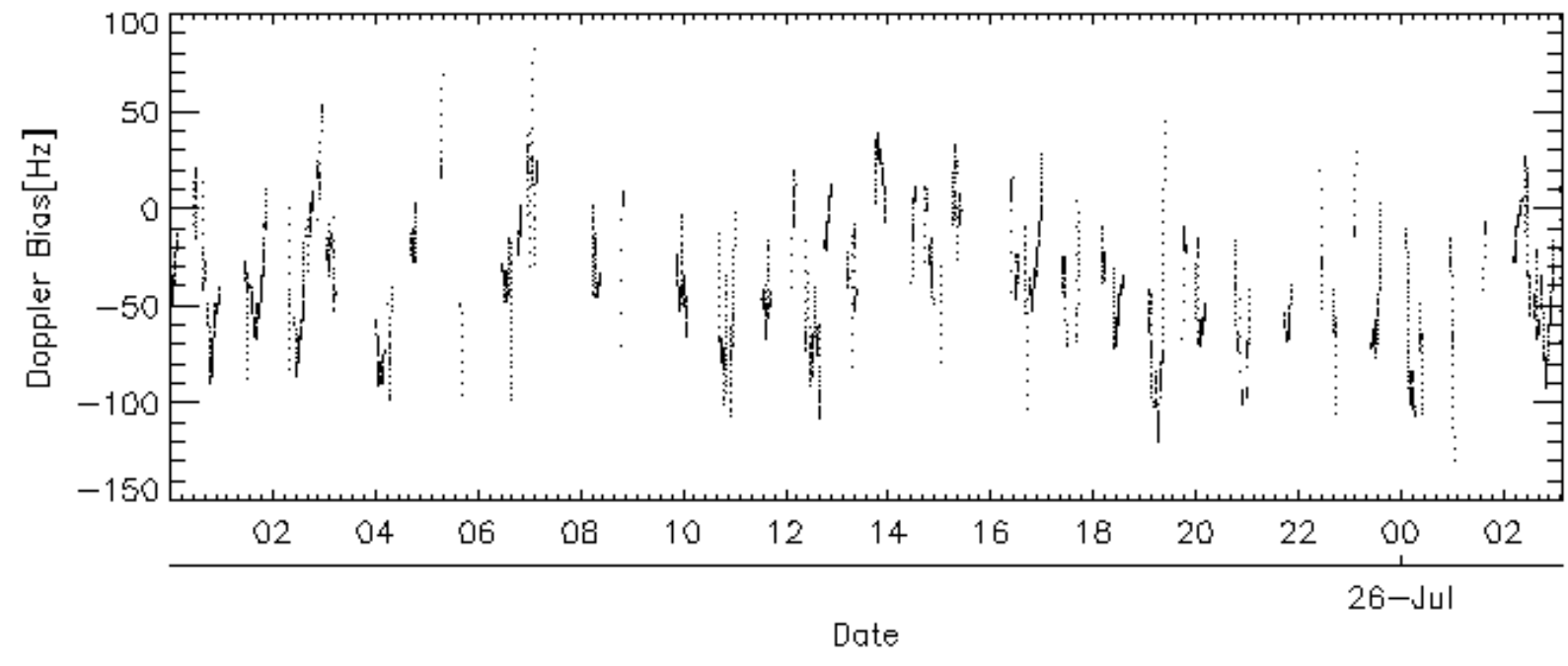
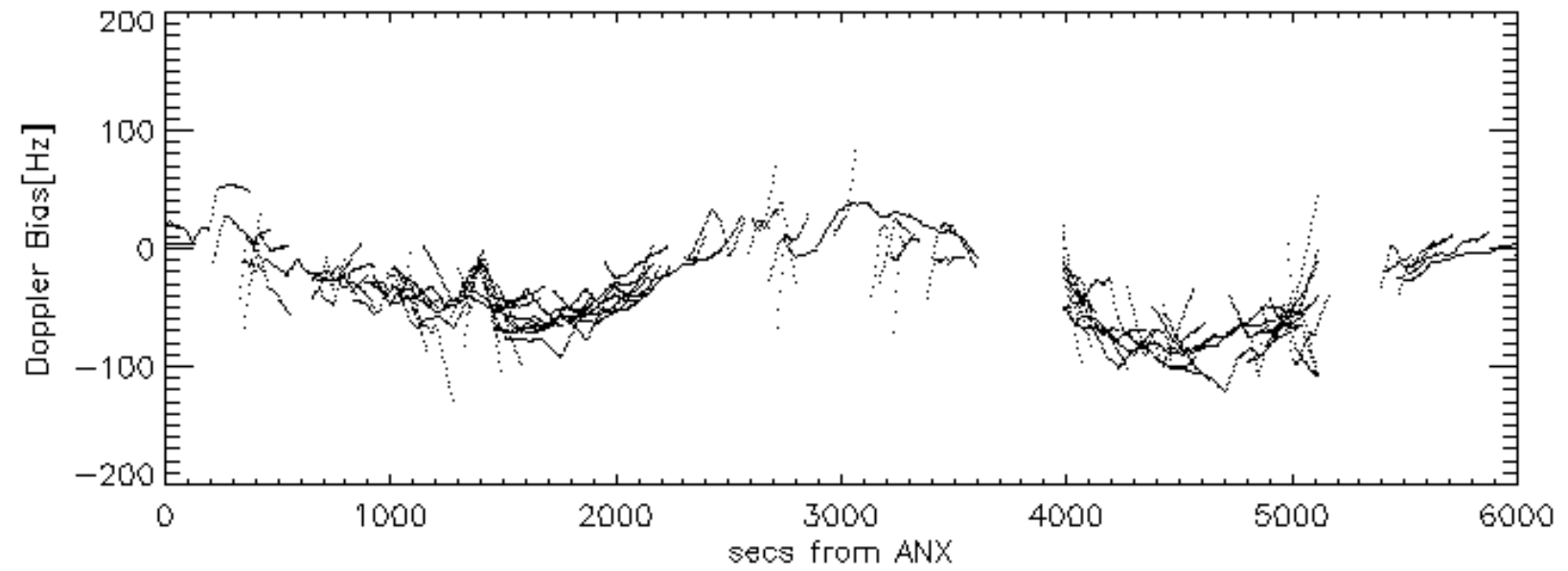
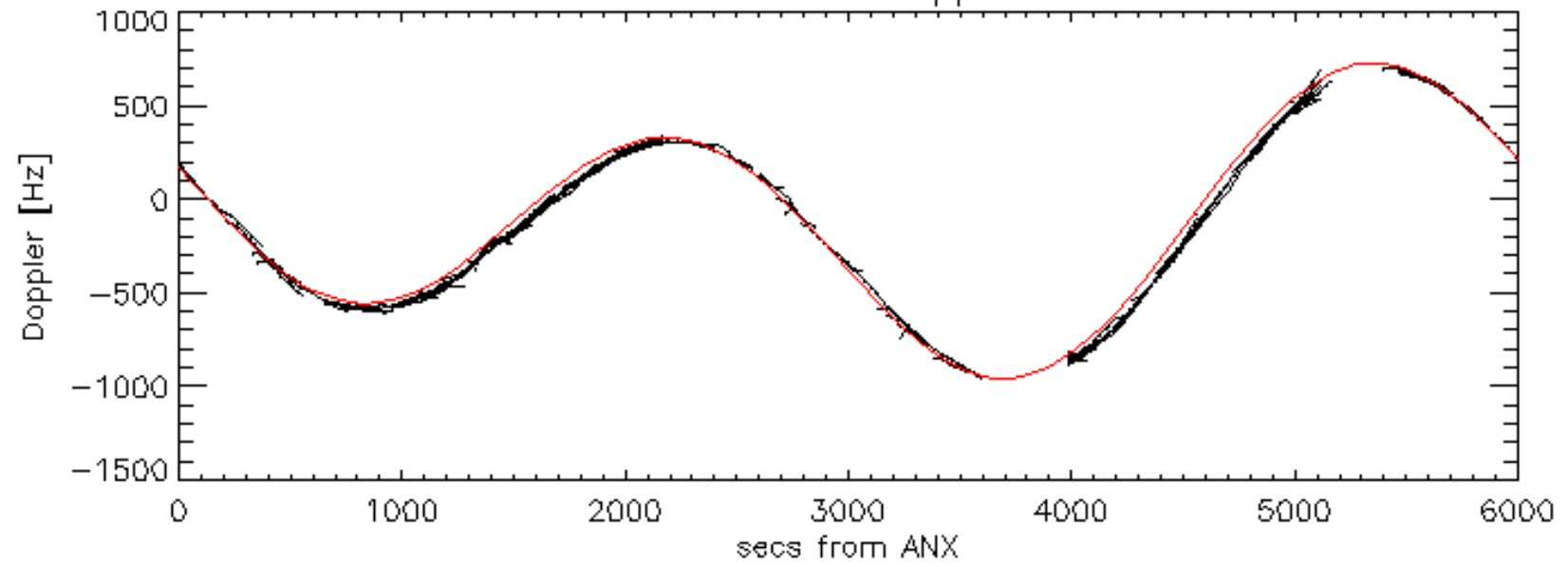
Doppler 'WVS' 'IS2' ascending

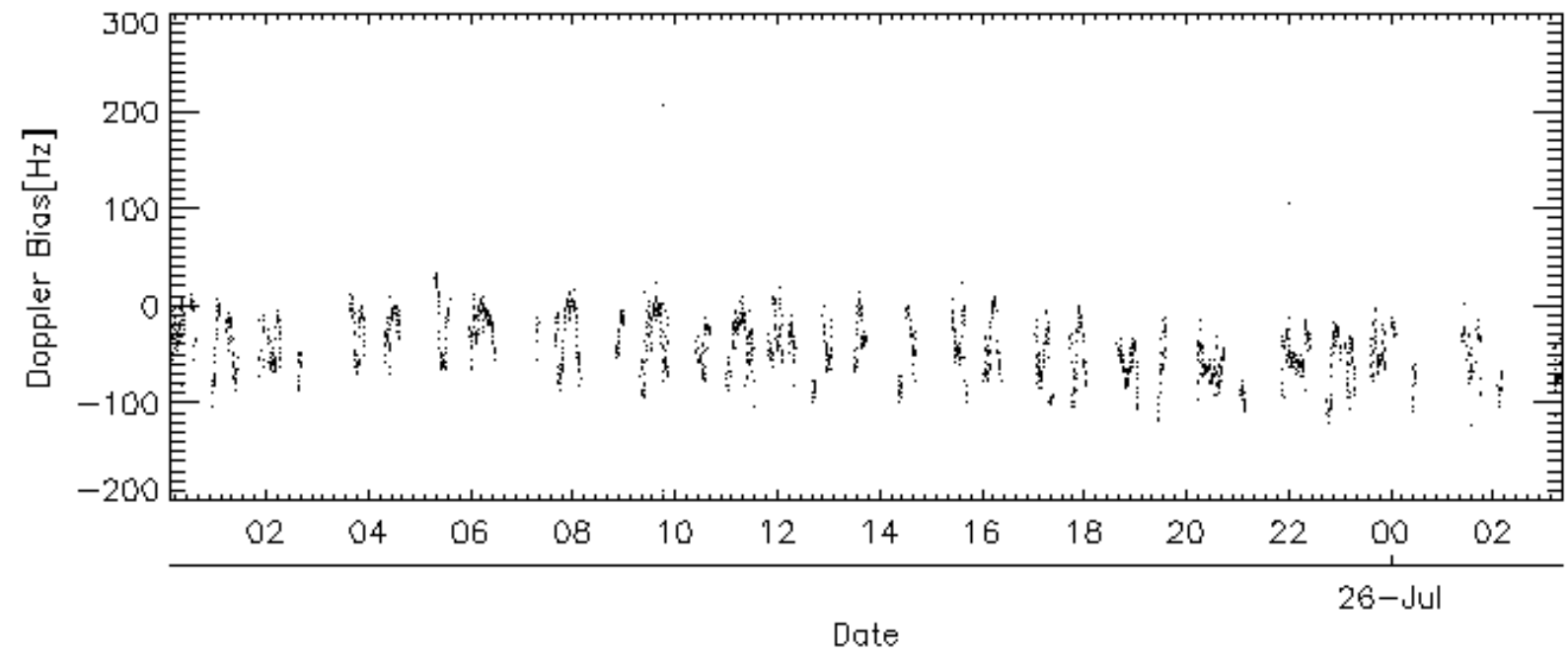
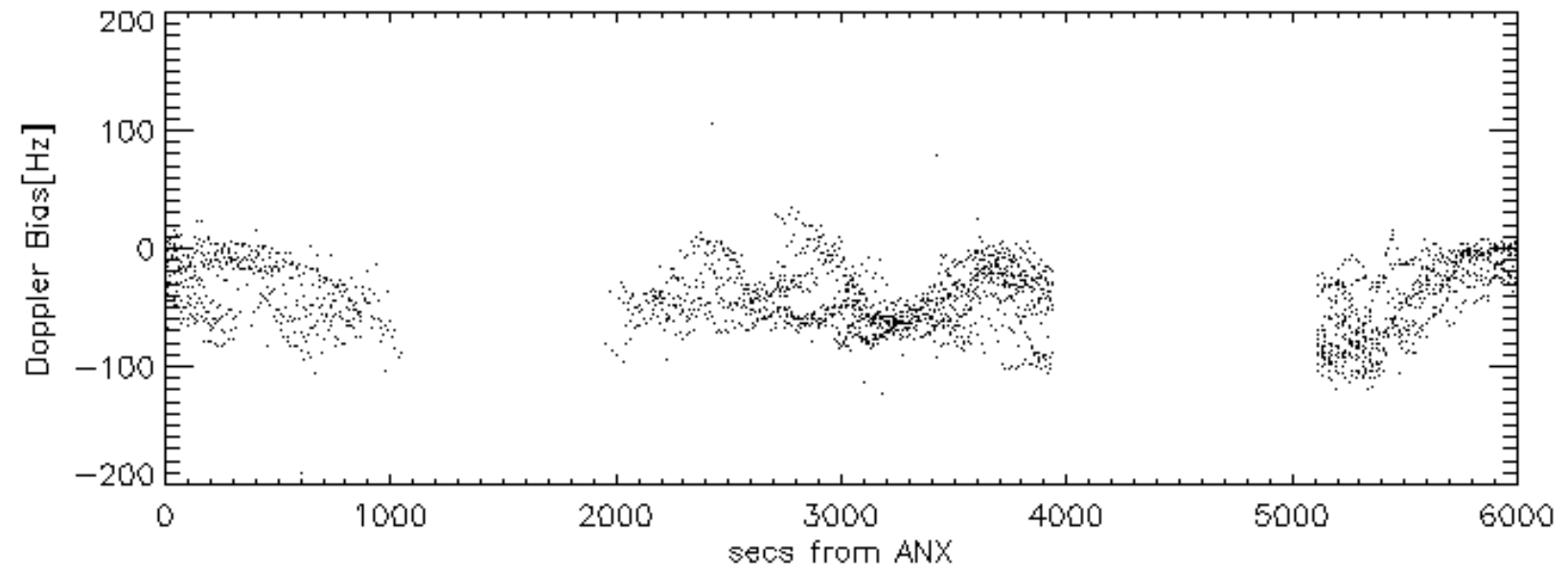
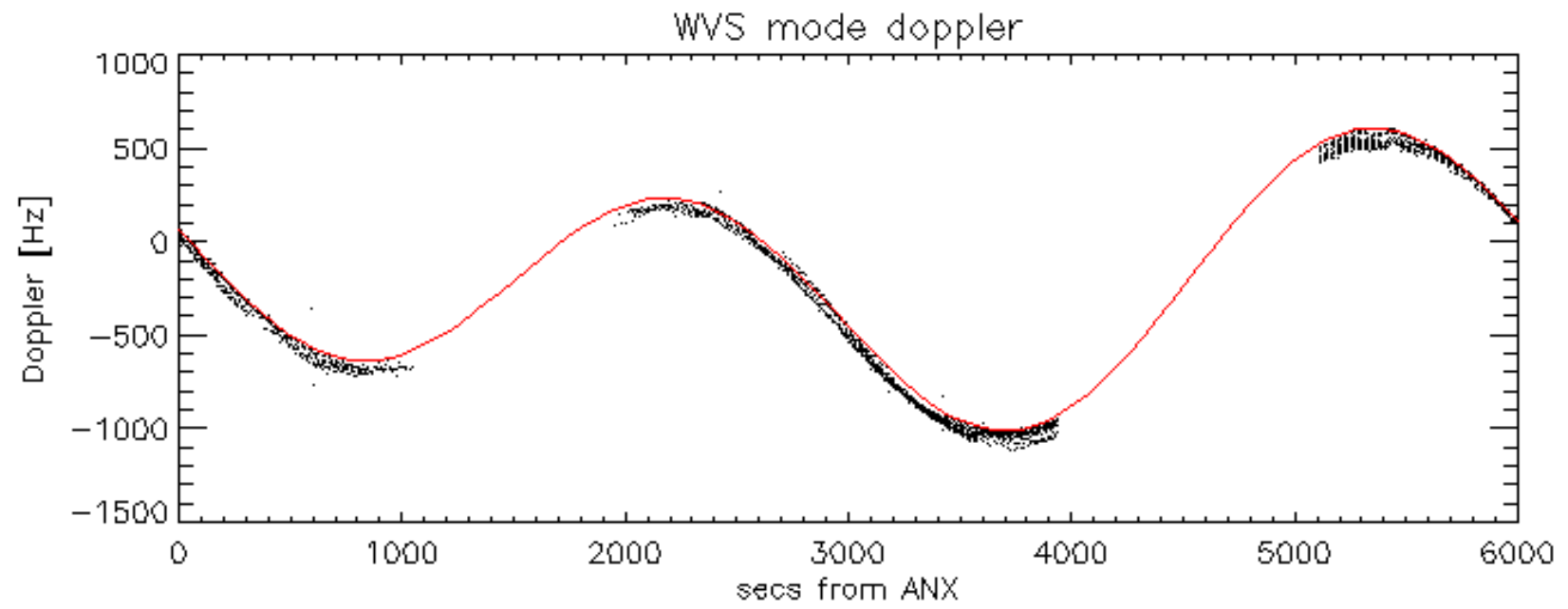


Doppler 'WVS' 'IS2' descending

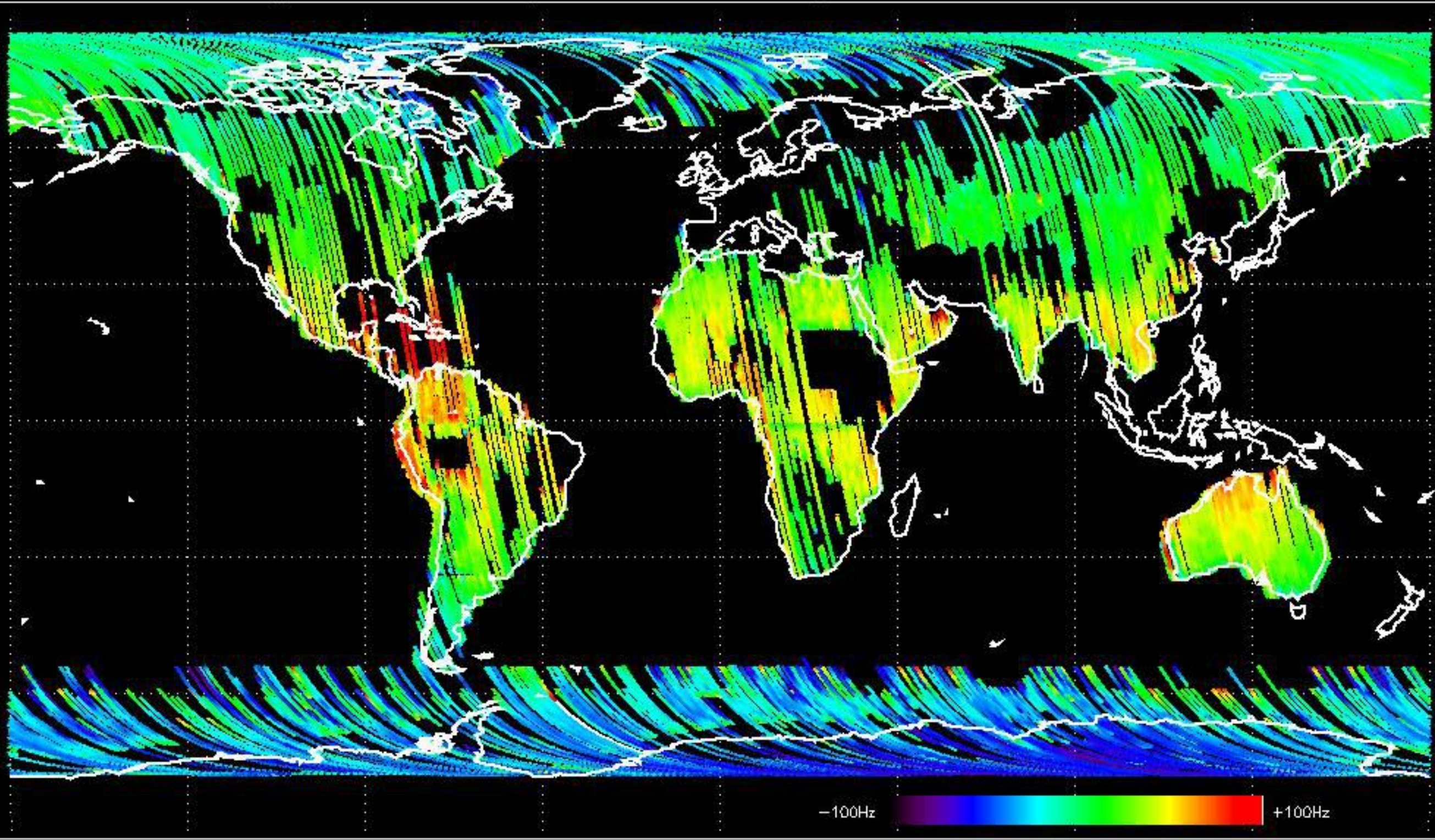


GM1 mode doppler

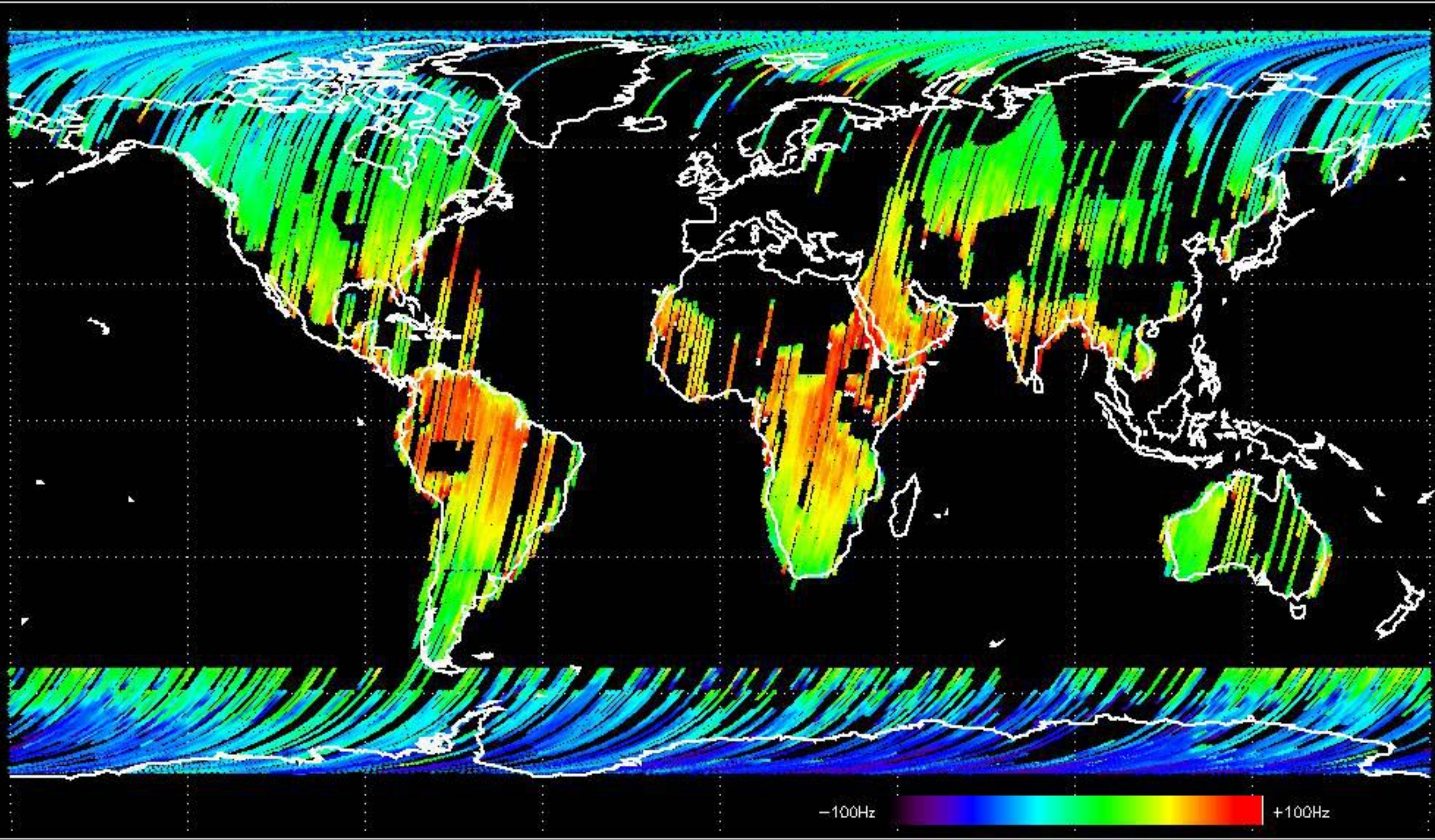




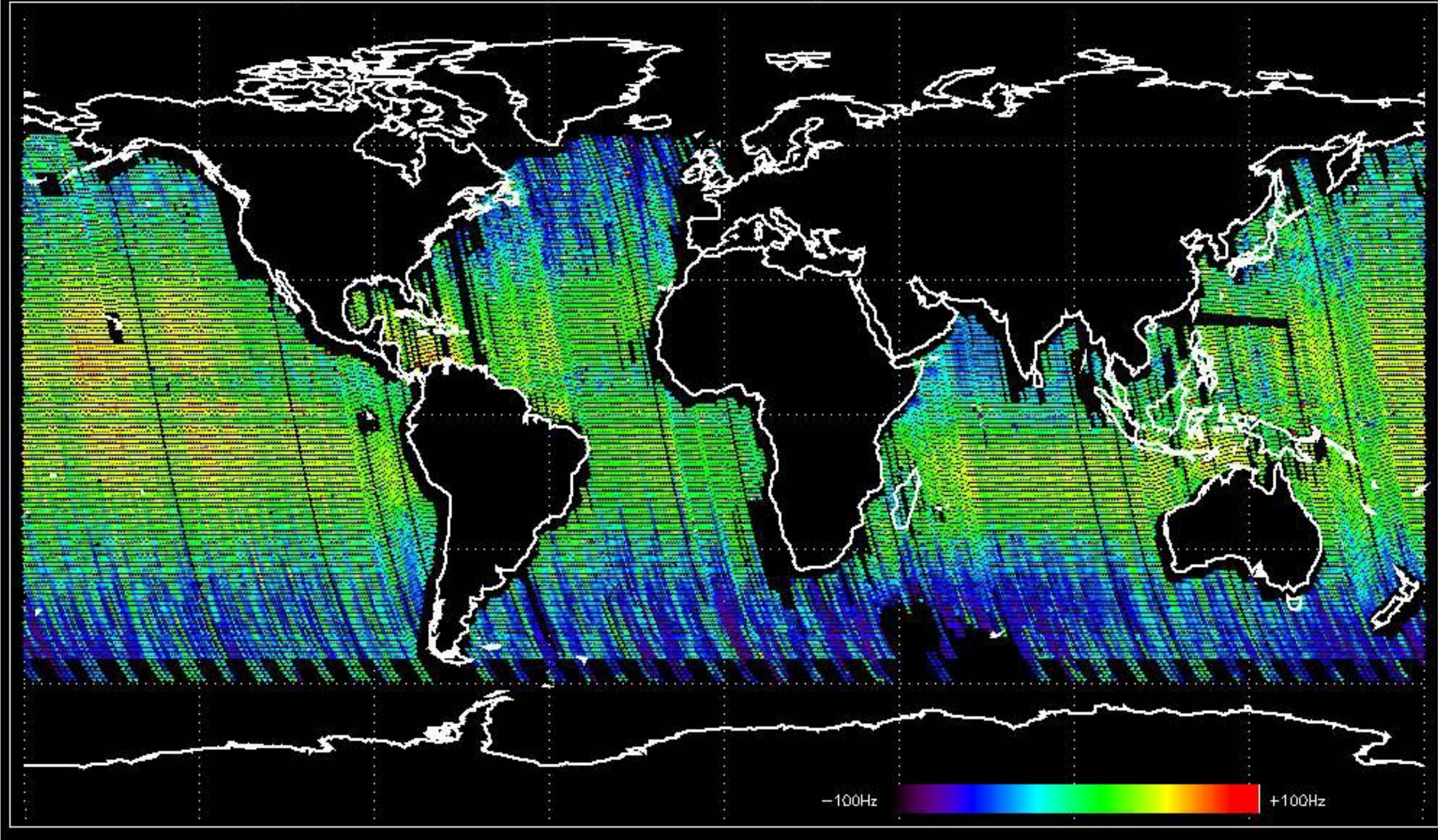
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -37.230609 Hz



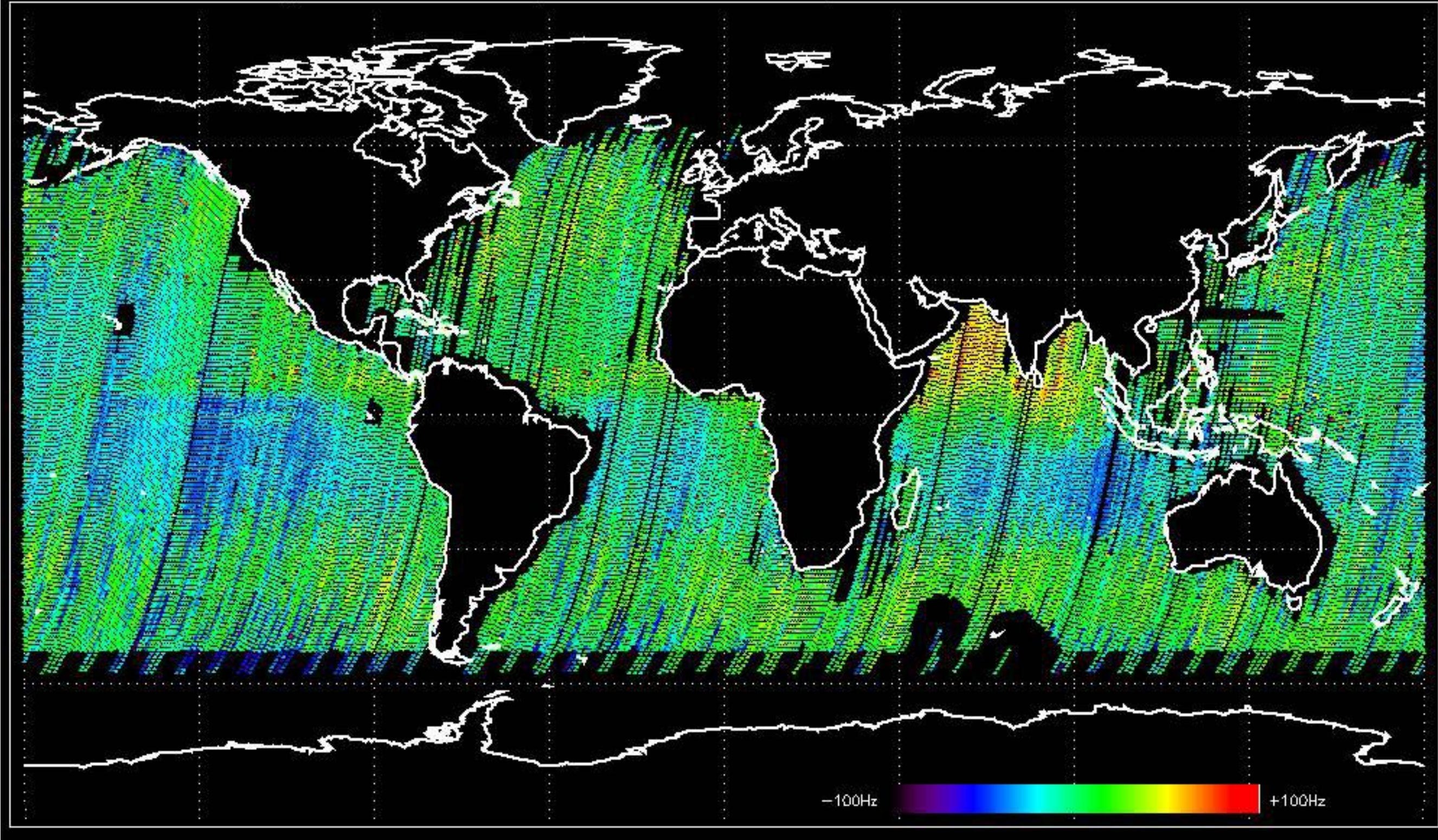
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -30.800512 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.942733 Hz

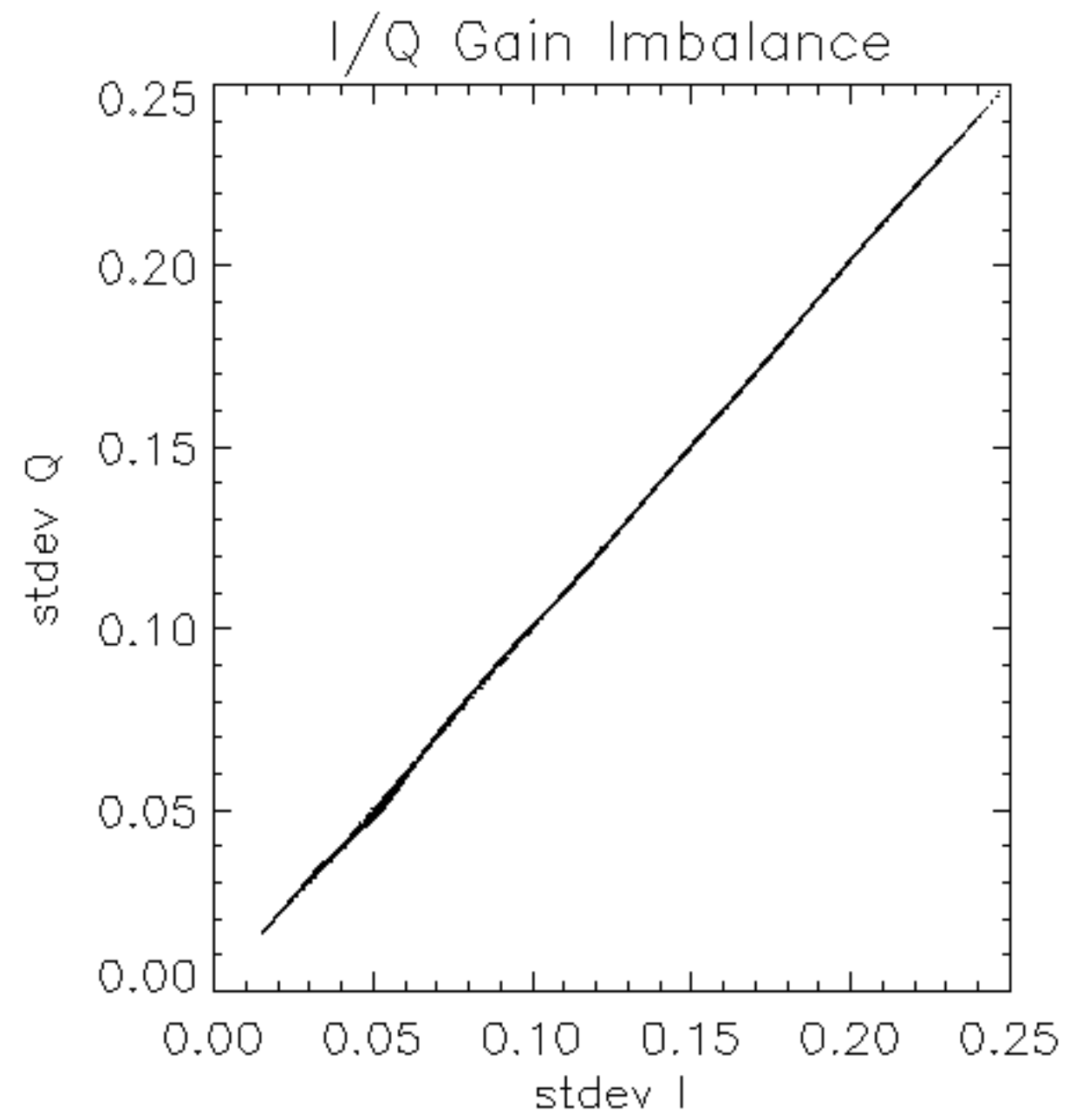


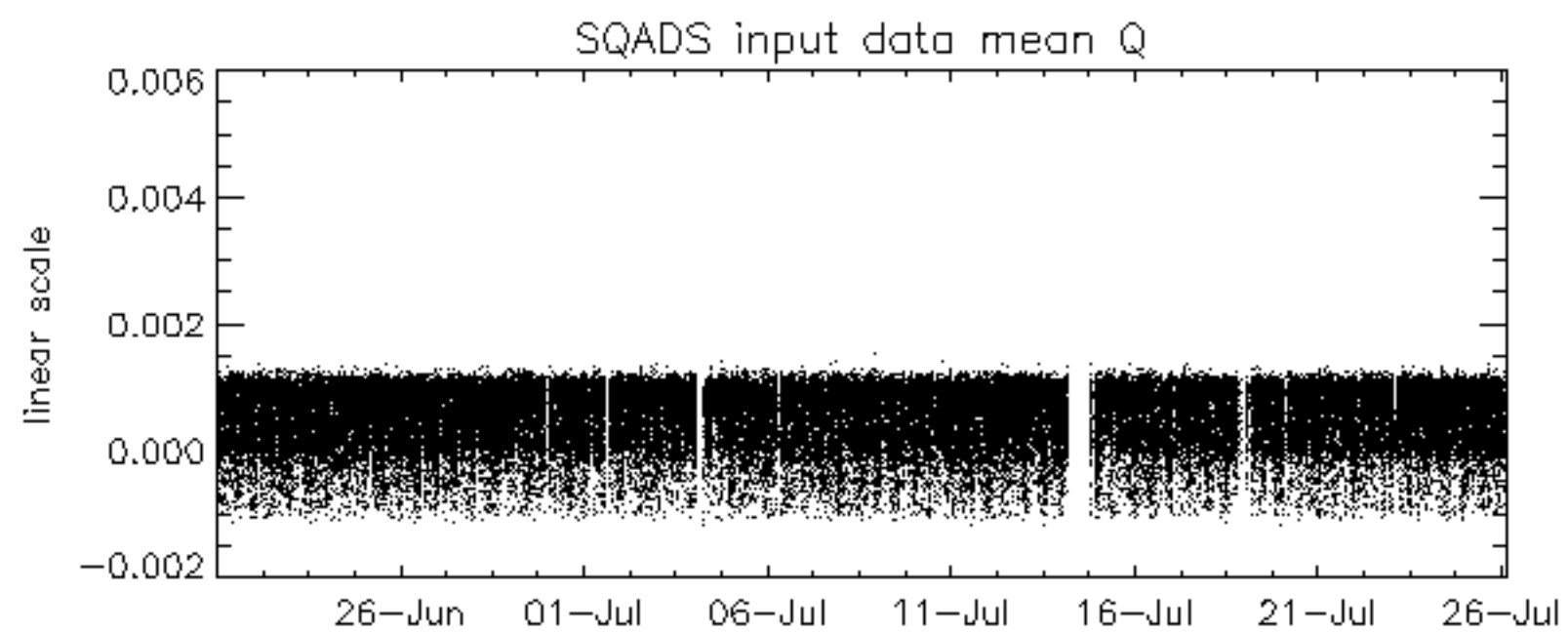
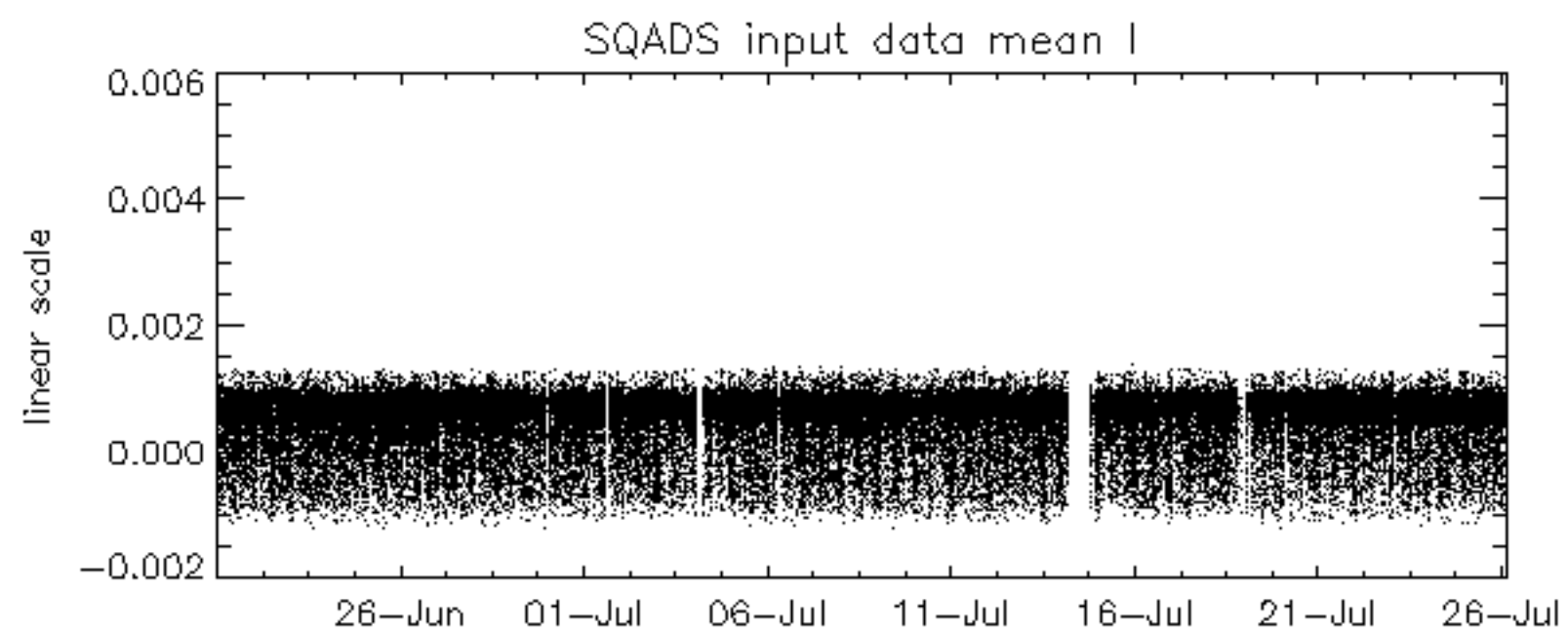
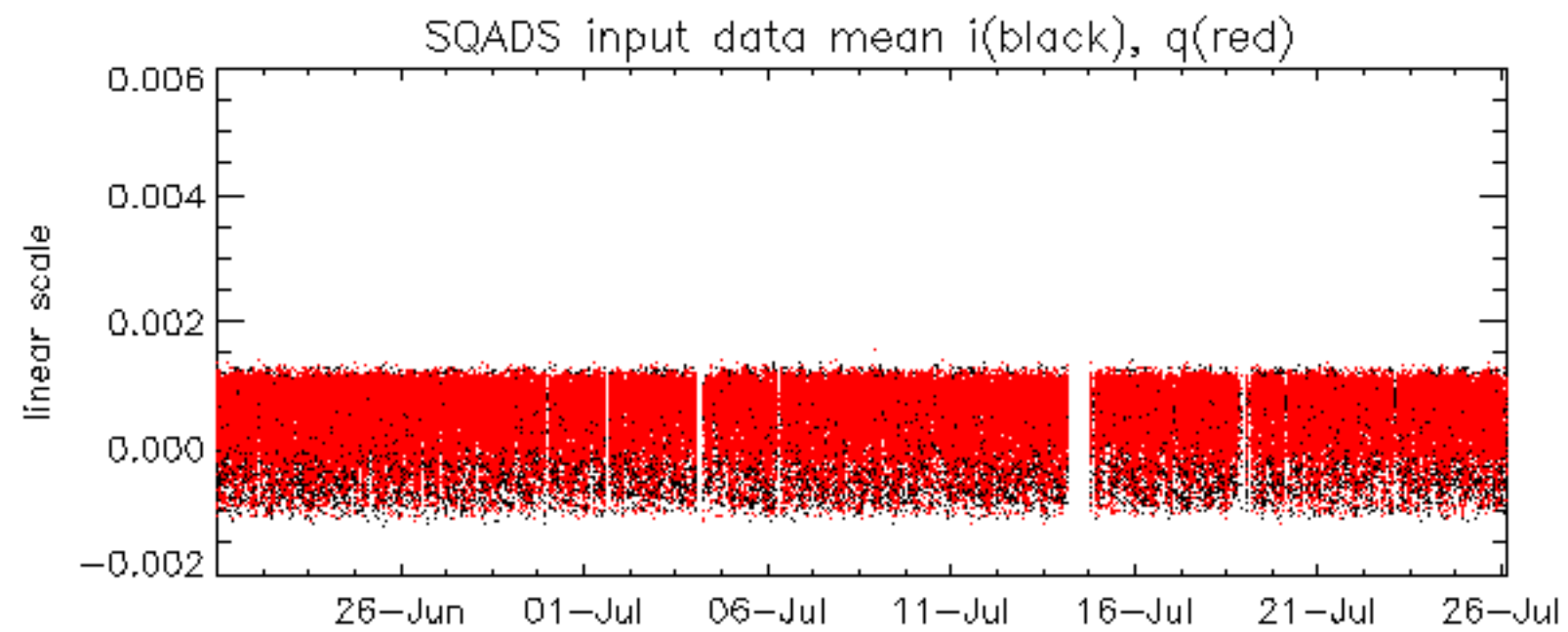
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -35.525319 Hz

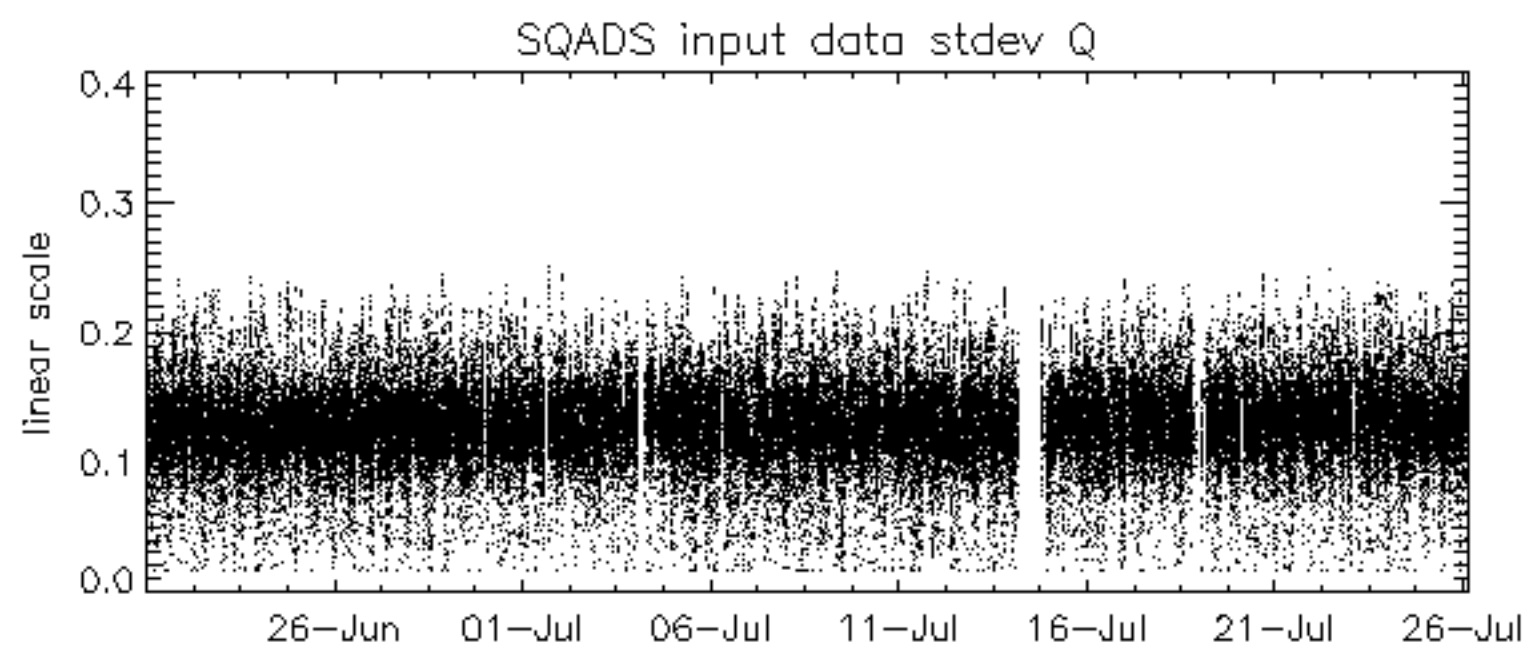
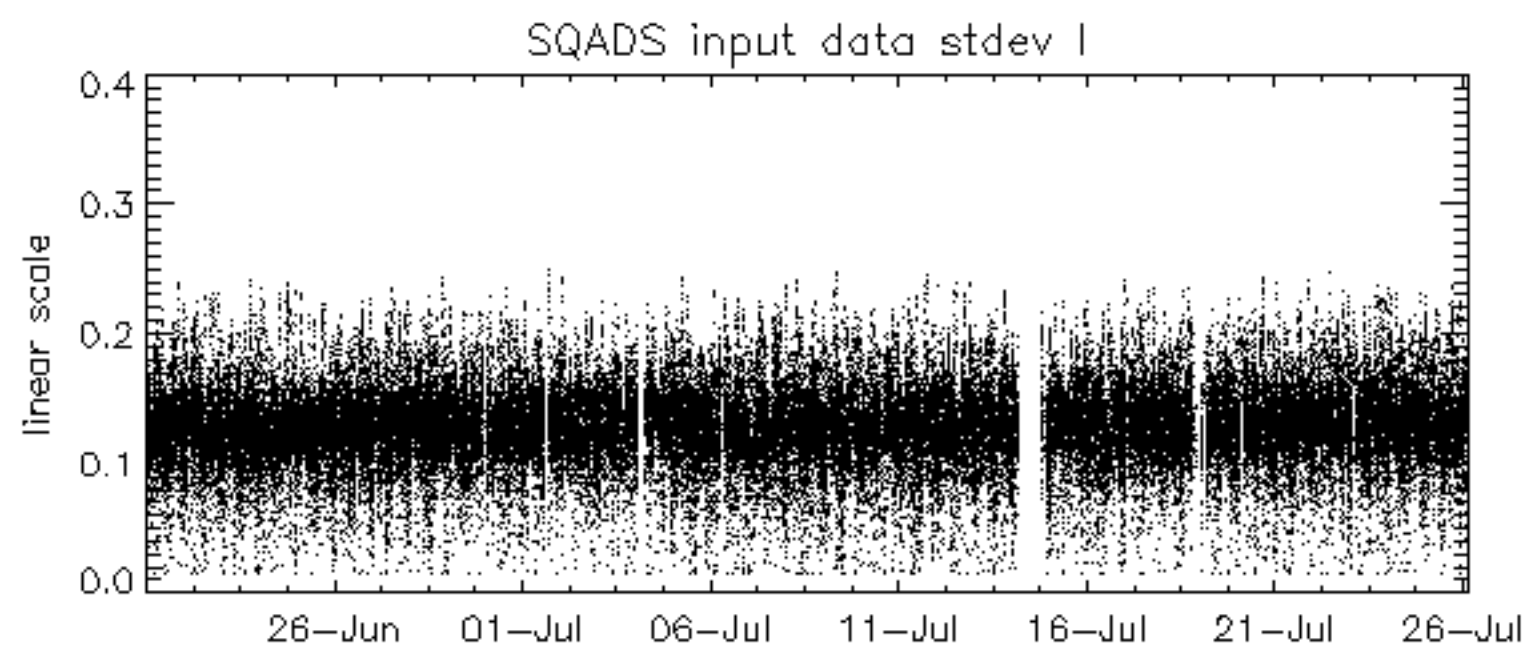
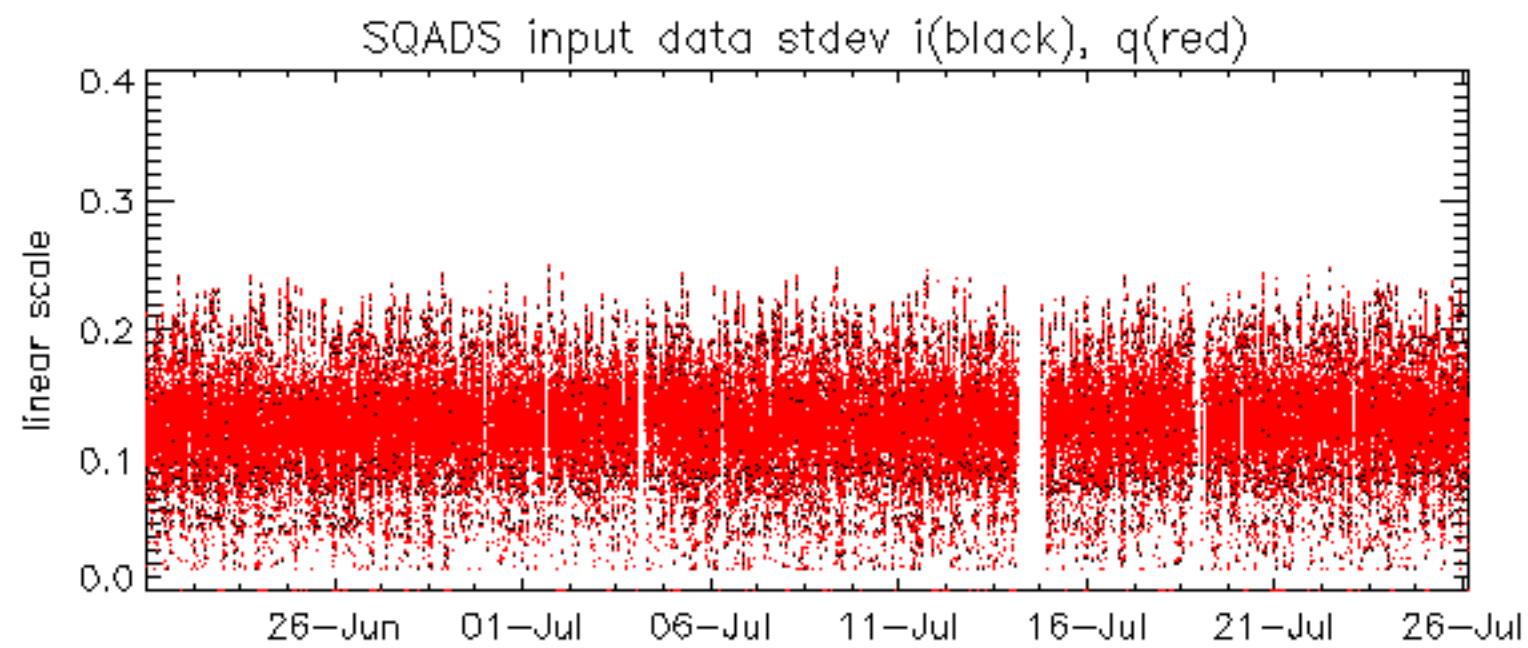


No anomalies observed on available MS products:

No anomalies observed.



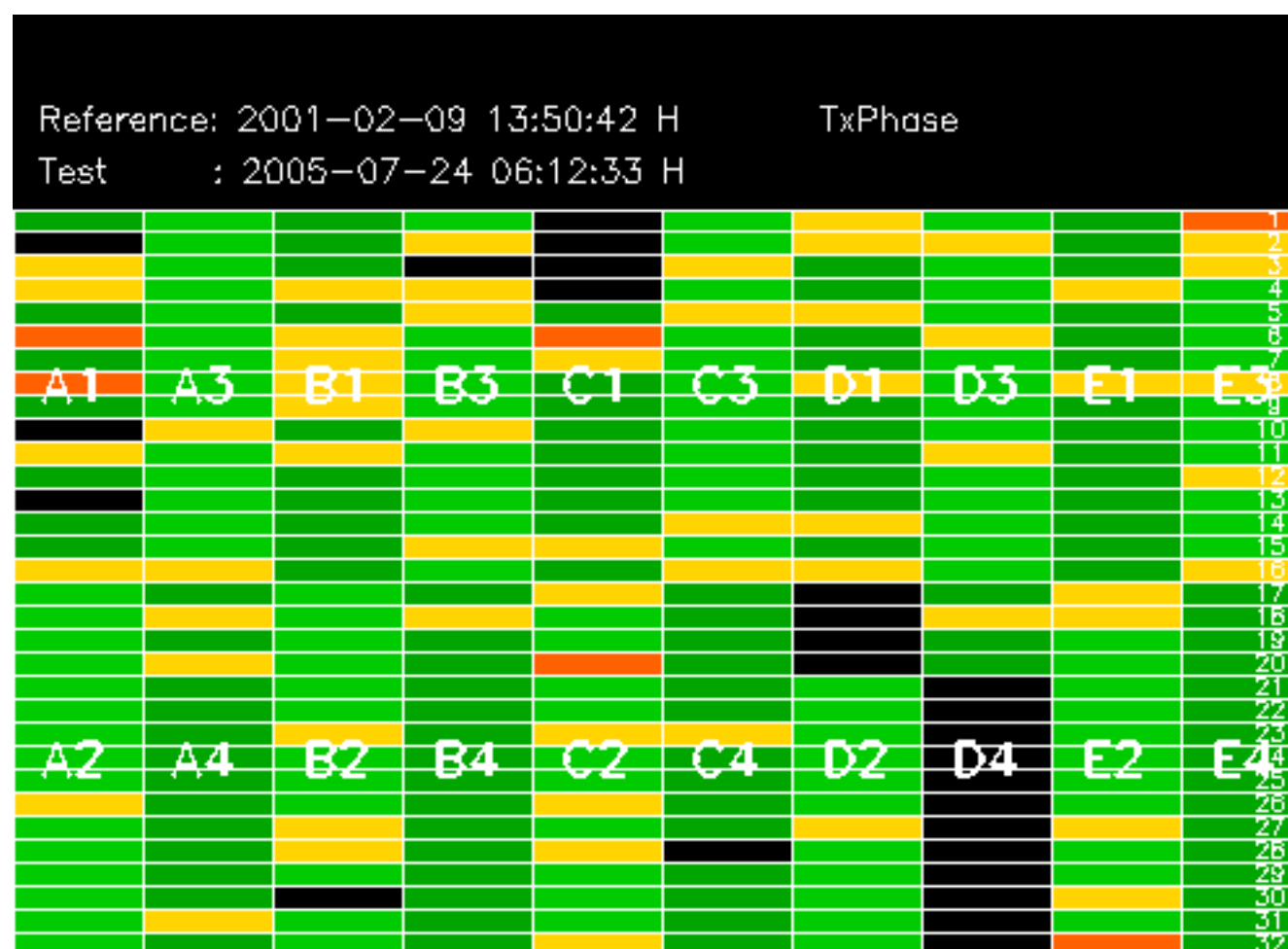


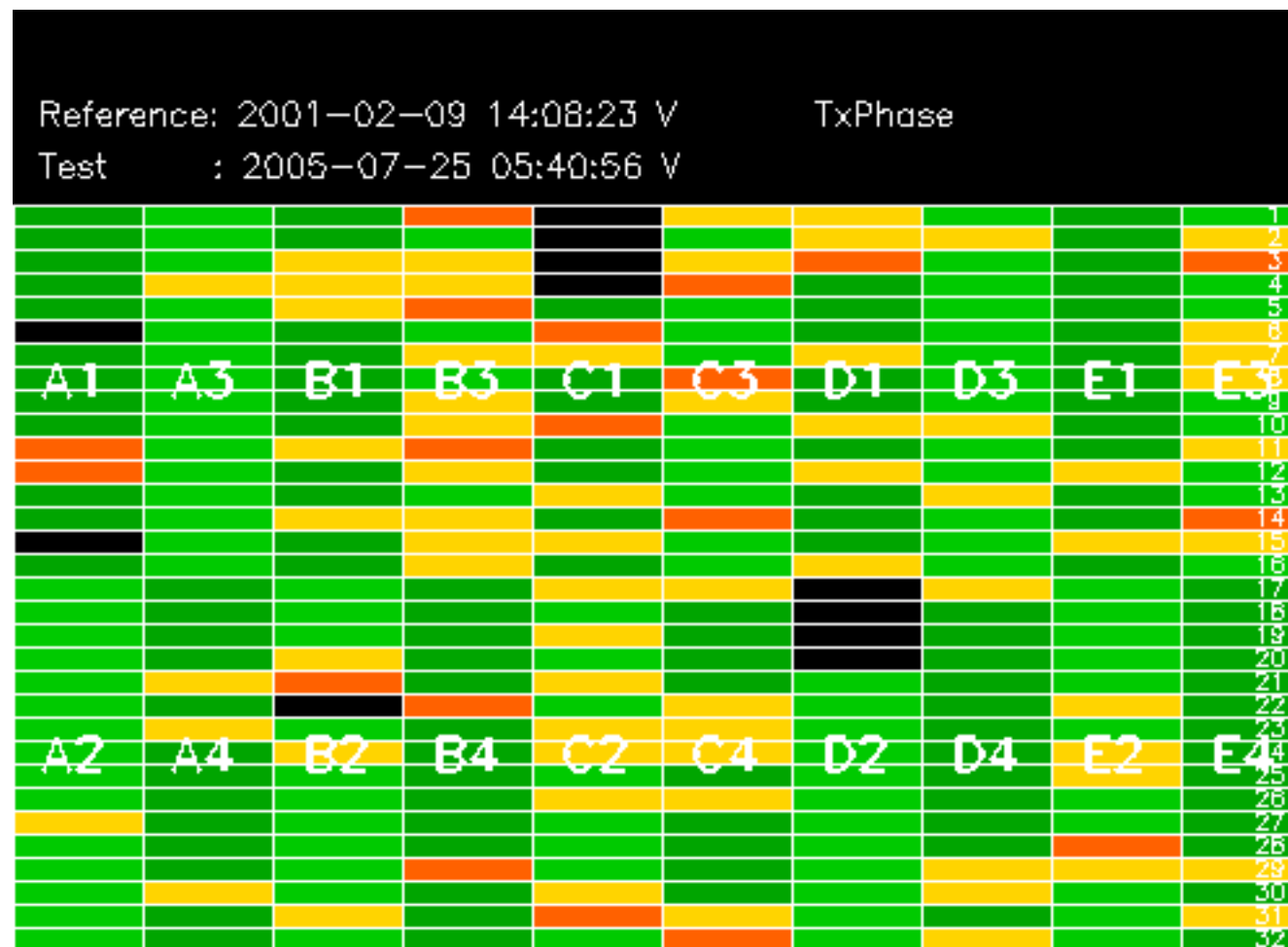


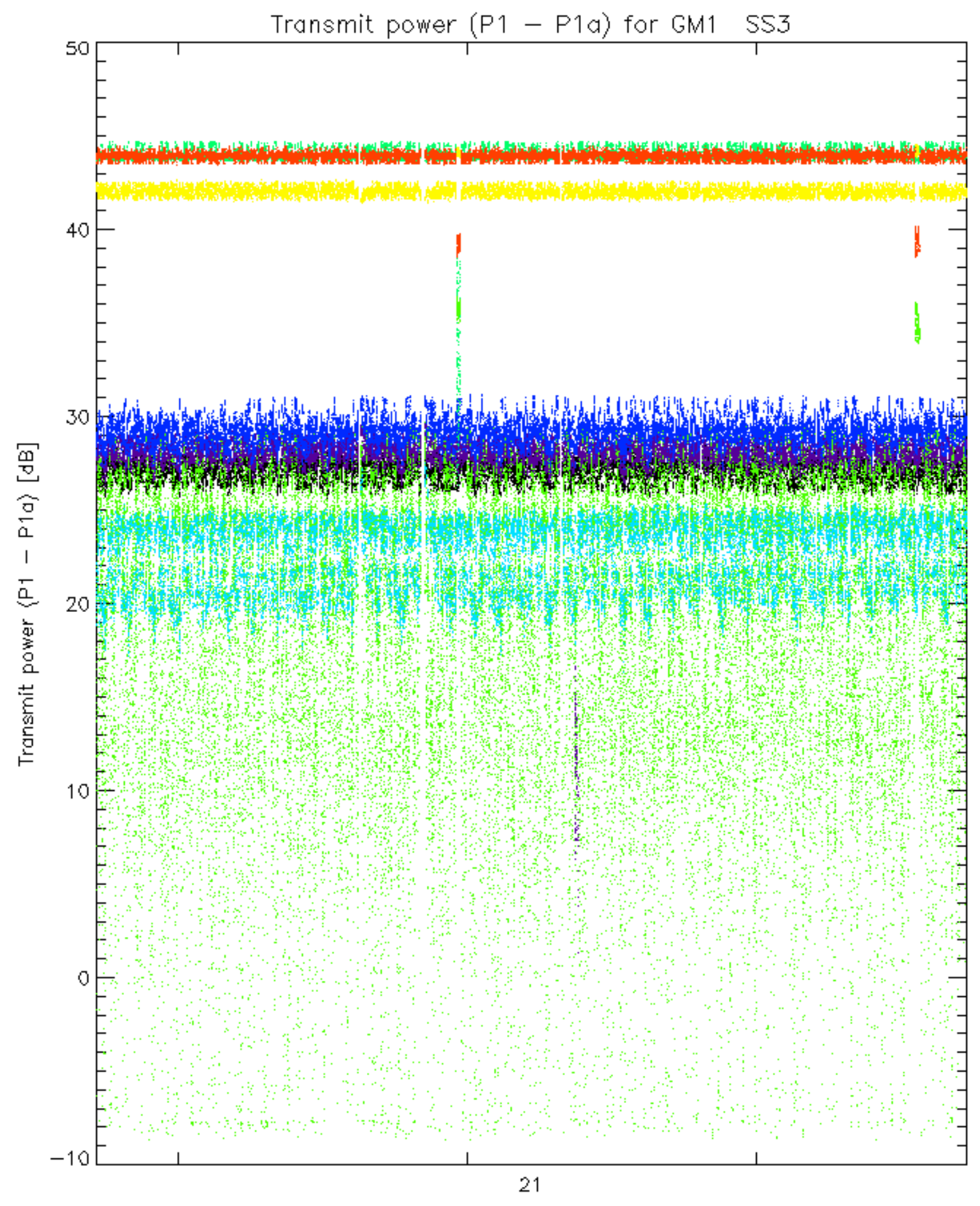
Summary of analysis for the last 3 days 2005072[456]

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

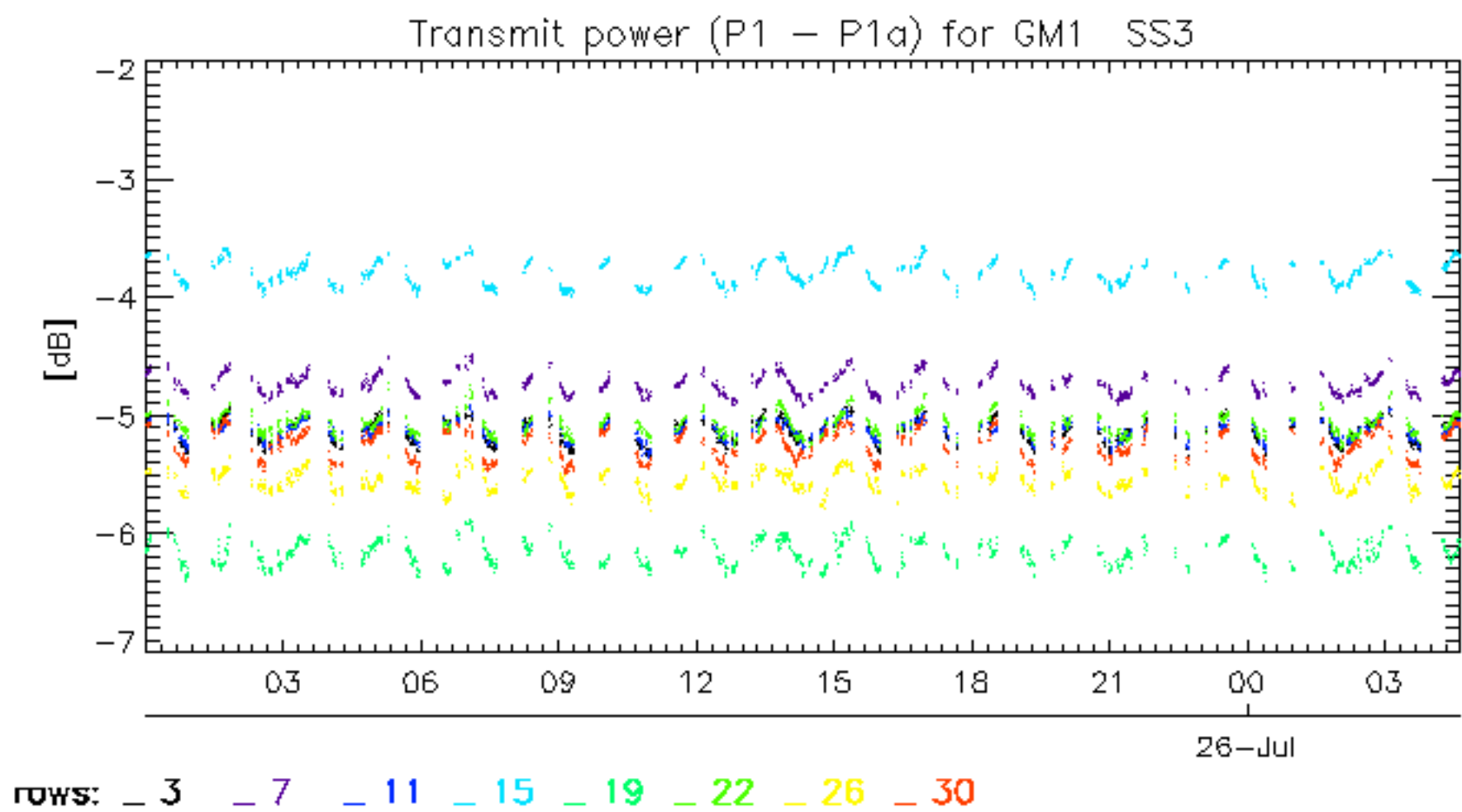
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050724_004103_00000622039_00174_17763_0522.N1	1	0
ASA_IMM_1PNPDK20050725_213240_000002152039_00201_17790_0250.N1	0	17
ASA_WSM_1PNPDE20050724_023124_00000672039_00175_17764_0904.N1	0	8
ASA_WSM_1PNPDE20050724_023126_000001282039_00175_17764_0970.N1	0	8
ASA_WSM_1PNPDE20050725_015913_000001282039_00189_17778_1212.N1	0	40
ASA_WSM_1PNPDE20050725_202302_00000852039_00200_17789_1203.N1	0	34
ASA_WSM_1PNPDK20050724_083127_00000672039_00179_17768_0321.N1	0	39

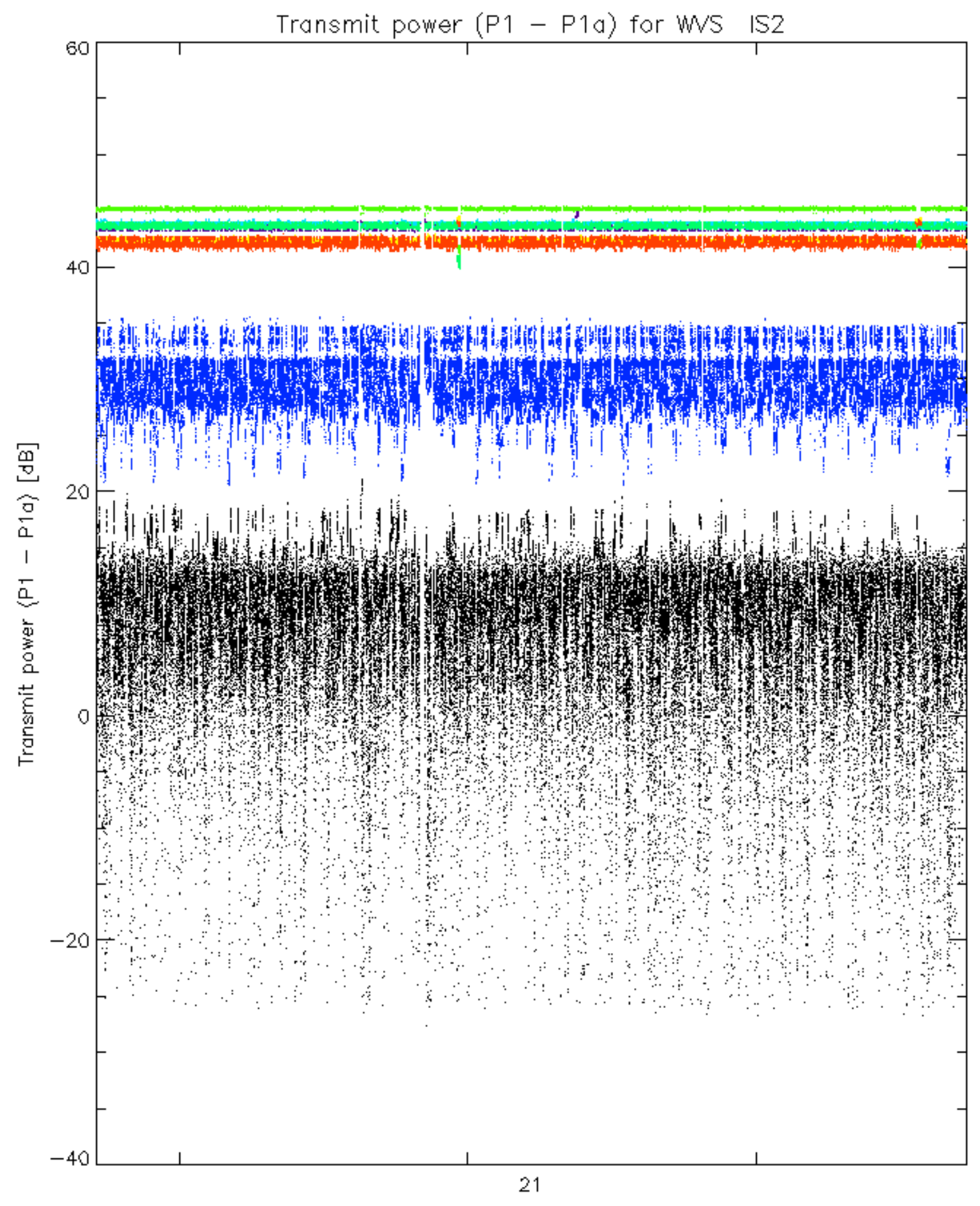


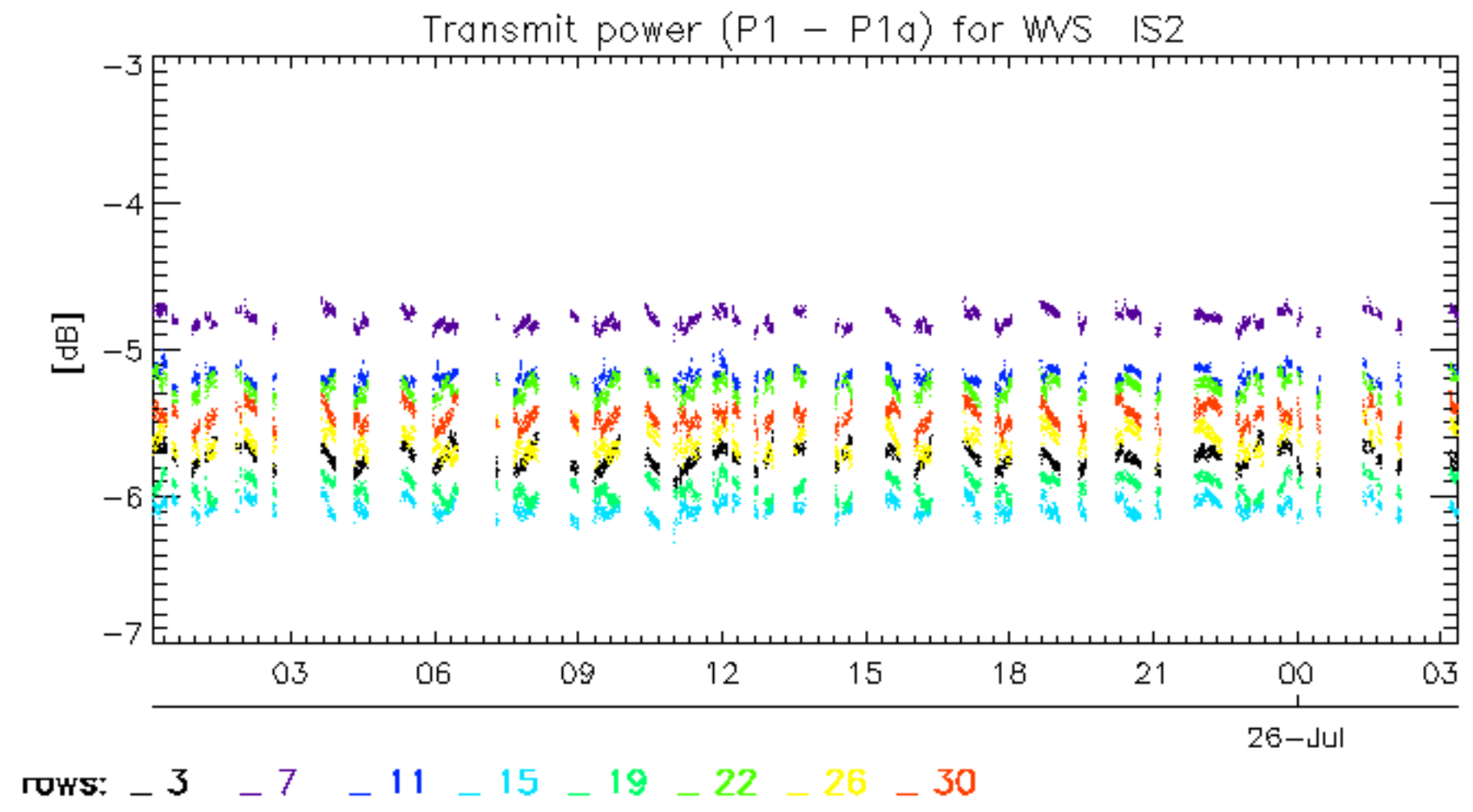




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30







No unavailabilities during the reported period.