

PRELIMINARY REPORT OF 050718

last update on Mon Jul 18 11:04:02 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 2005-07-17 00:00:00 to 2005-07-18 11:04:02

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	29	47	15	10	9
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	29	47	15	10	9
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	29	47	15	10	9
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	29	47	15	10	9

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	38	51	39	5	54
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	51	39	5	54
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	38	51	39	5	54
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	51	39	5	54

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	20050717 095353
H	20050716 084454

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	-3.323890	0.006838	0.025709
7	P1	-3.138794	0.015323	0.019080
11	P1	-4.670922	0.033610	-0.066165
15	P1	-5.539732	0.047069	-0.068420
19	P1	-3.784032	0.045219	-0.047108
22	P1	-4.609267	0.066362	-0.036399
26	P1	-4.851611	0.070414	0.003910
30	P1	-7.202724	0.158483	-0.101828
3	P1	-15.569448	0.086963	-0.024546
7	P1	-15.546561	0.111664	0.100749
11	P1	-21.561687	0.266430	-0.249484
15	P1	-11.288731	0.045882	0.004387
19	P1	-14.490705	0.255448	-0.081425
22	P1	-15.810241	0.354519	0.207841
26	P1	-17.537958	0.262440	0.295934
30	P1	-17.758654	0.358949	0.126495

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.896000	0.083083	0.141526
7	P2	-22.077044	0.105695	0.197384
11	P2	-13.750521	0.104857	0.271295
15	P2	-7.107048	0.093205	0.094183
19	P2	-9.600140	0.094283	0.040755
22	P2	-16.863285	0.094381	0.037692
26	P2	-16.507254	0.096027	0.028057
30	P2	-18.789881	0.083047	0.005570

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.160005	0.002761	0.016969
7	P3	-8.160005	0.002761	0.016969
11	P3	-8.160005	0.002761	0.016969
15	P3	-8.160005	0.002761	0.016969
19	P3	-8.160005	0.002761	0.016969
22	P3	-8.160005	0.002761	0.016969
26	P3	-8.160005	0.002761	0.016969
30	P3	-8.160005	0.002761	0.016969

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	-2.788290	0.013933	0.028257
7	P1	-2.953536	0.031608	-0.000047
11	P1	-3.989650	0.017396	-0.034477
15	P1	-3.555751	0.023789	-0.056695
19	P1	-3.673851	0.117708	-0.031496
22	P1	-5.669966	0.112532	-0.055233
26	P1	-7.378176	0.197458	-0.103191
30	P1	-6.320262	0.117683	-0.079997
3	P1	-10.823490	0.040054	0.039616
7	P1	-10.439122	0.157365	-0.033889
11	P1	-12.598225	0.110755	-0.067727
15	P1	-11.617686	0.076347	0.005163
19	P1	-15.687857	1.364571	-0.043515
22	P1	-25.896008	3.579659	0.554793
26	P1	-15.463363	0.421727	0.227373
30	P1	-20.163744	1.288787	0.266787

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.645329	0.047937	0.151053
7	P2	-22.072058	0.039509	0.077601
11	P2	-9.749652	0.061889	0.182698
15	P2	-5.132228	0.046028	0.015418
19	P2	-6.912072	0.062815	0.017531
22	P2	-7.091870	0.039506	0.031163
26	P2	-23.970228	0.043603	-0.015962
30	P2	-21.961309	0.040419	0.019159

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.999168	0.004082	-0.000683
7	P3	-7.999253	0.004066	-0.000592
11	P3	-7.999194	0.004069	-0.000161
15	P3	-7.999229	0.004076	-0.000517
19	P3	-7.999258	0.004078	-0.000733
22	P3	-7.999260	0.004064	-0.000685
26	P3	-7.999309	0.004065	-0.000506
30	P3	-7.999248	0.004068	-0.000612

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	0.000462914
	stdev	2.17773e-07
MEAN Q	mean	0.000498911
	stdev	2.32833e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127592
	stdev	0.000983840
STDEV Q	mean	0.127830
	stdev	0.000994326



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005071[678]

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_1PNPDE20050716_111220_000000512039_00066_17655_2098.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"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Ascending
<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

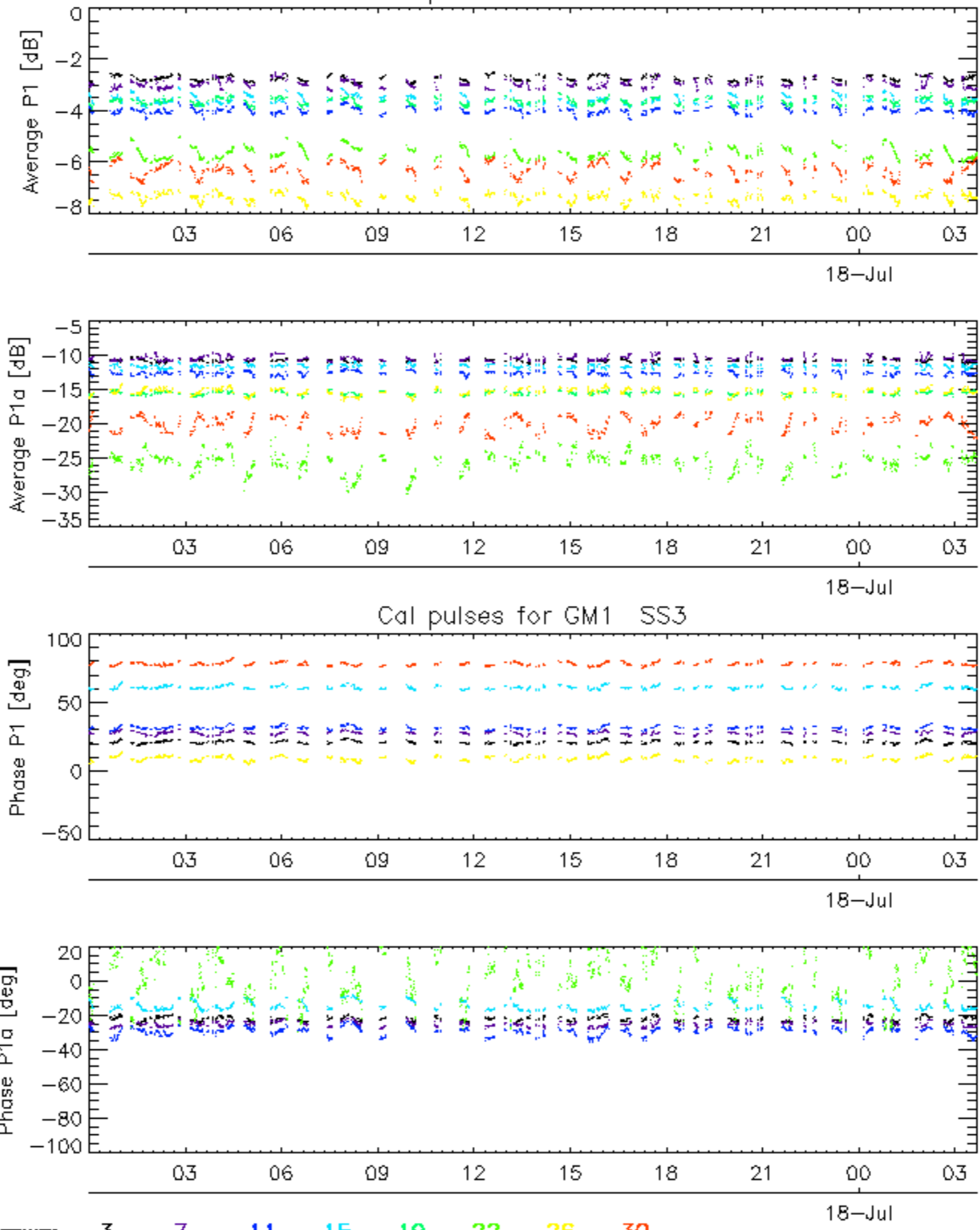
Ascending

Descending

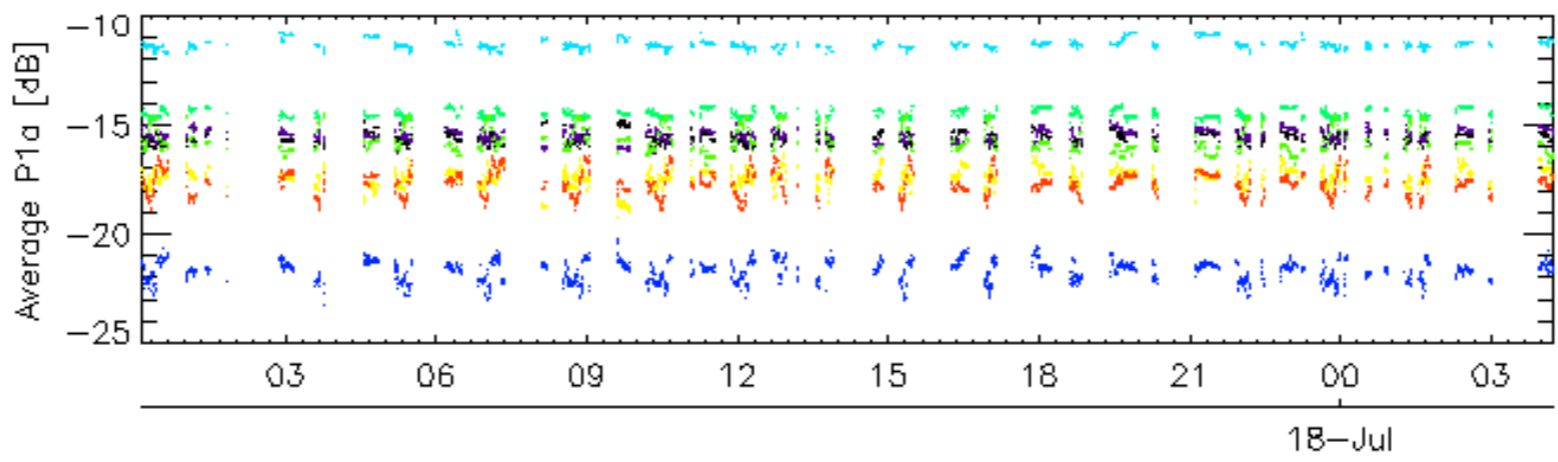
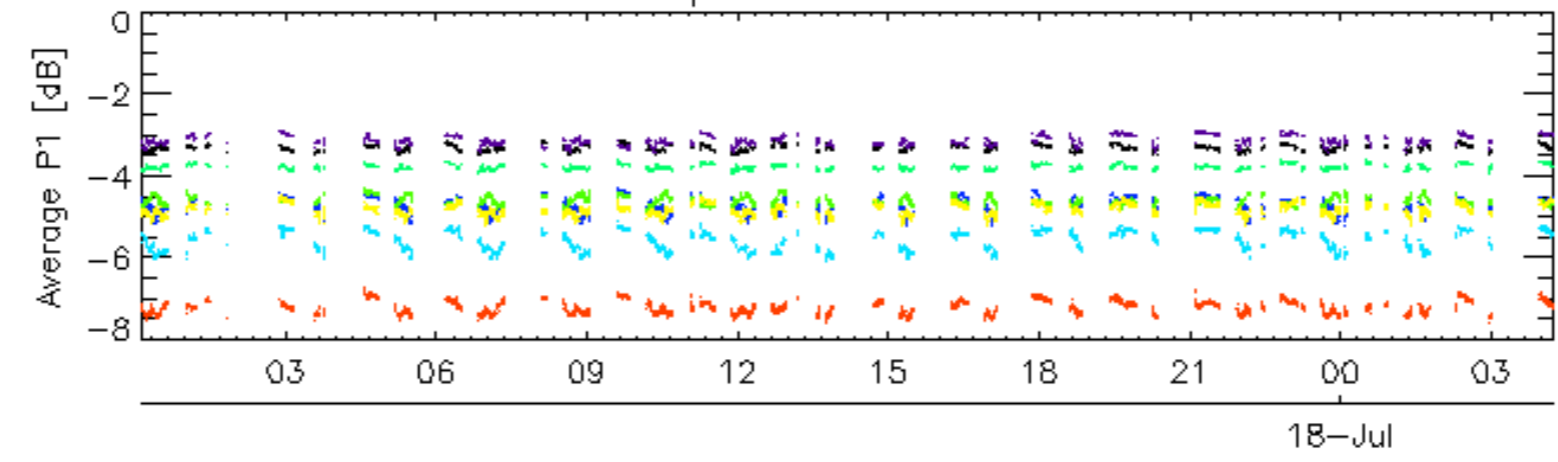
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

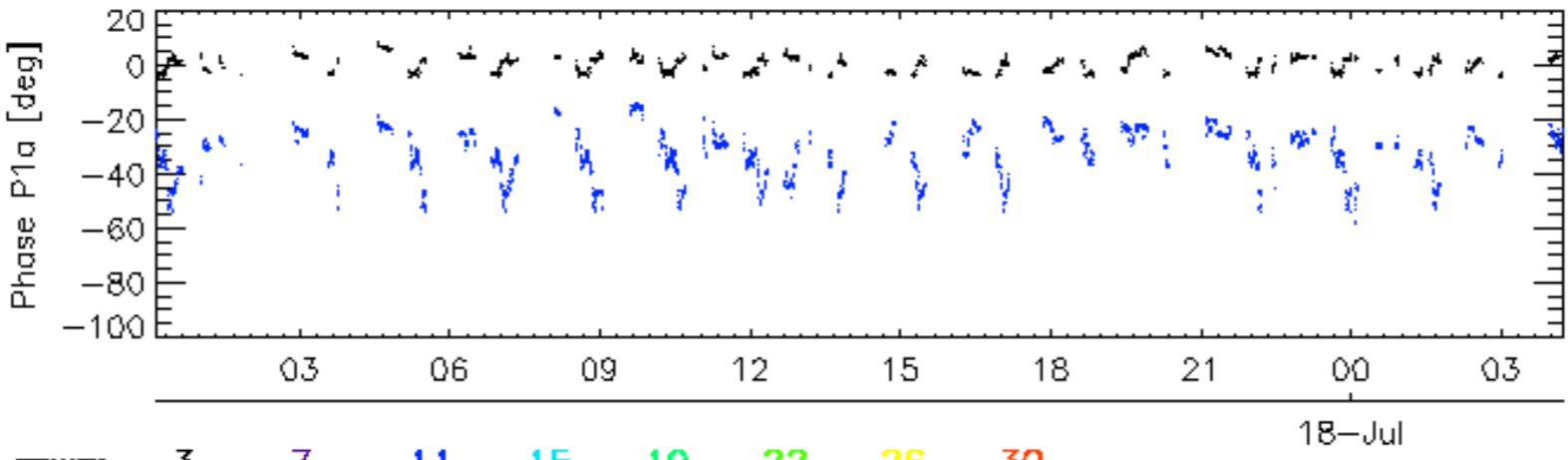
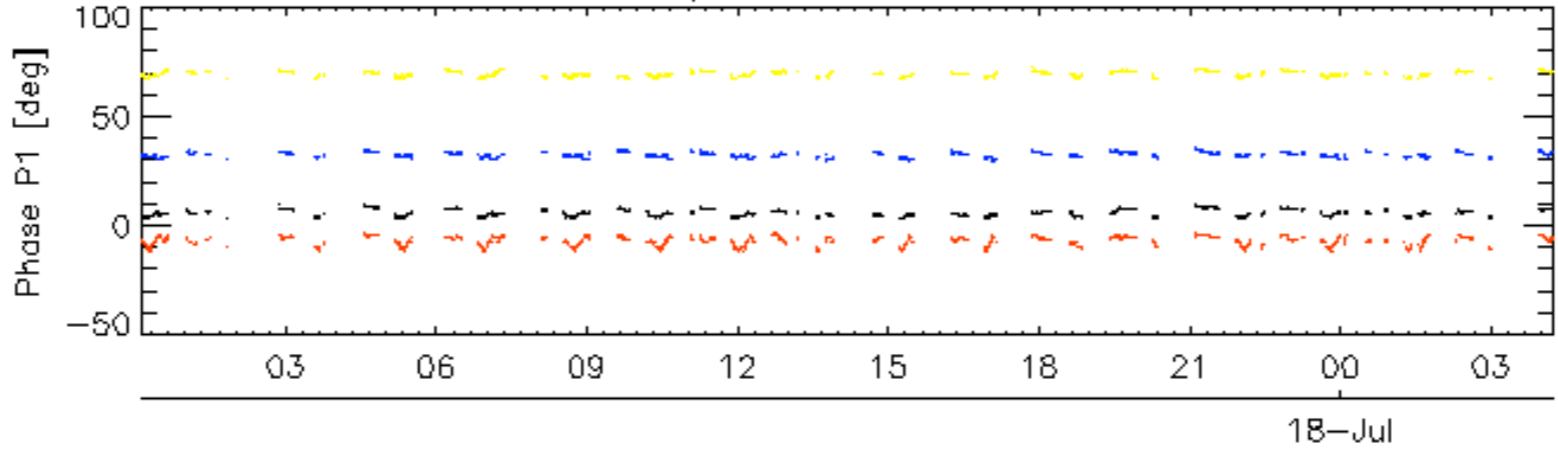
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

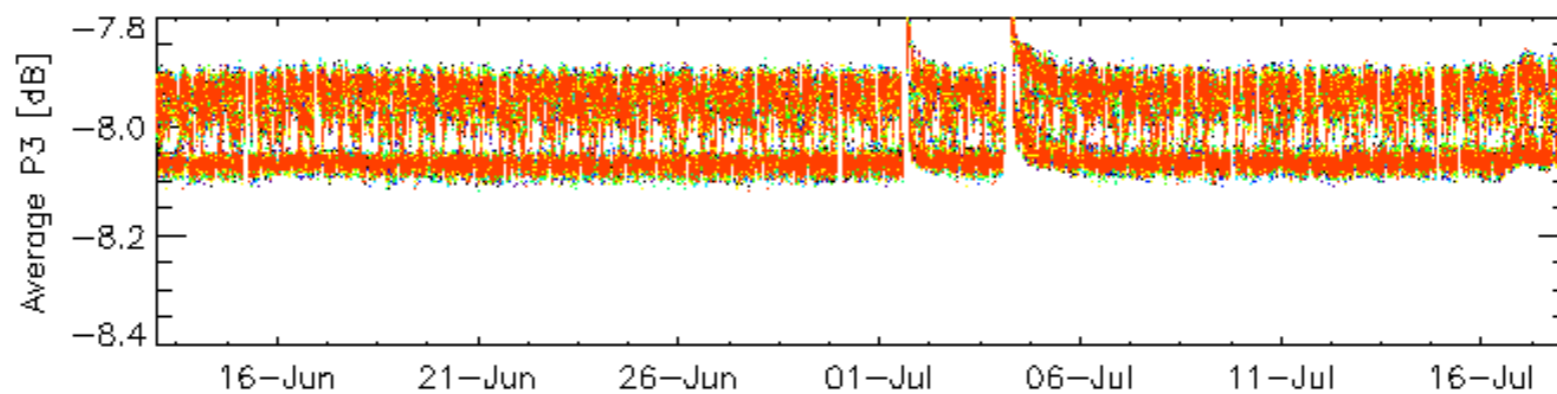
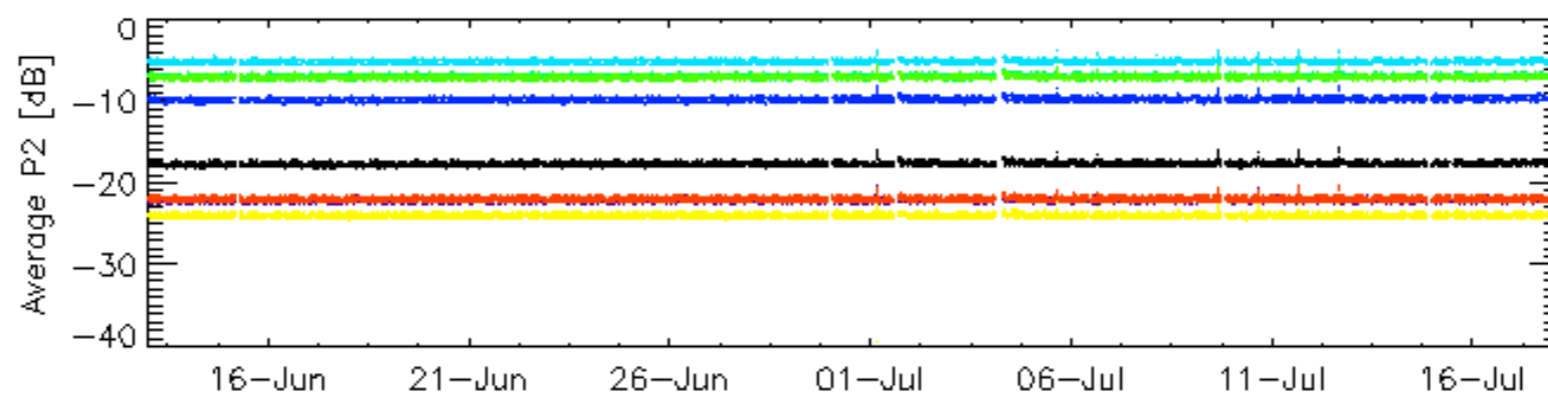
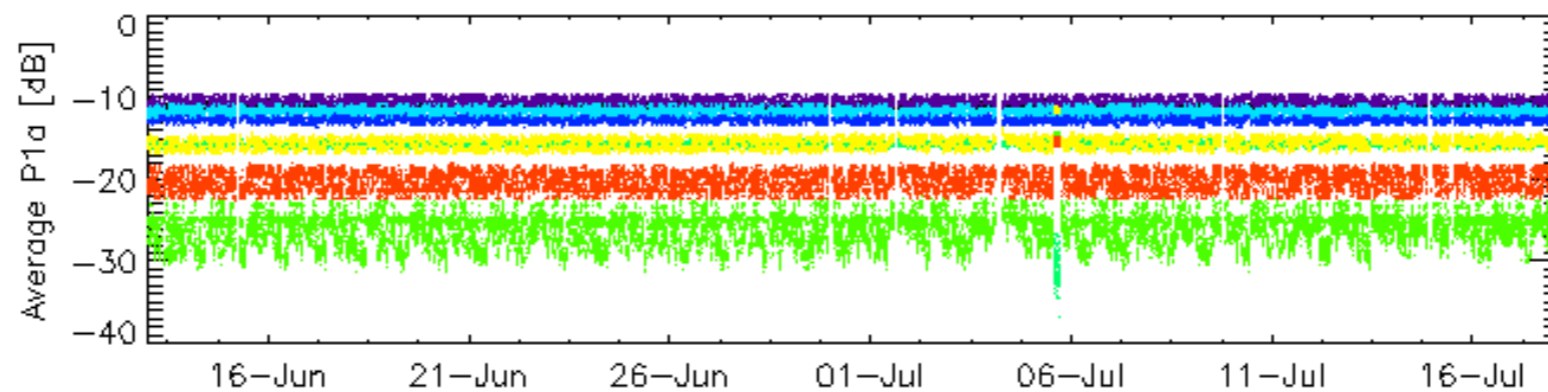
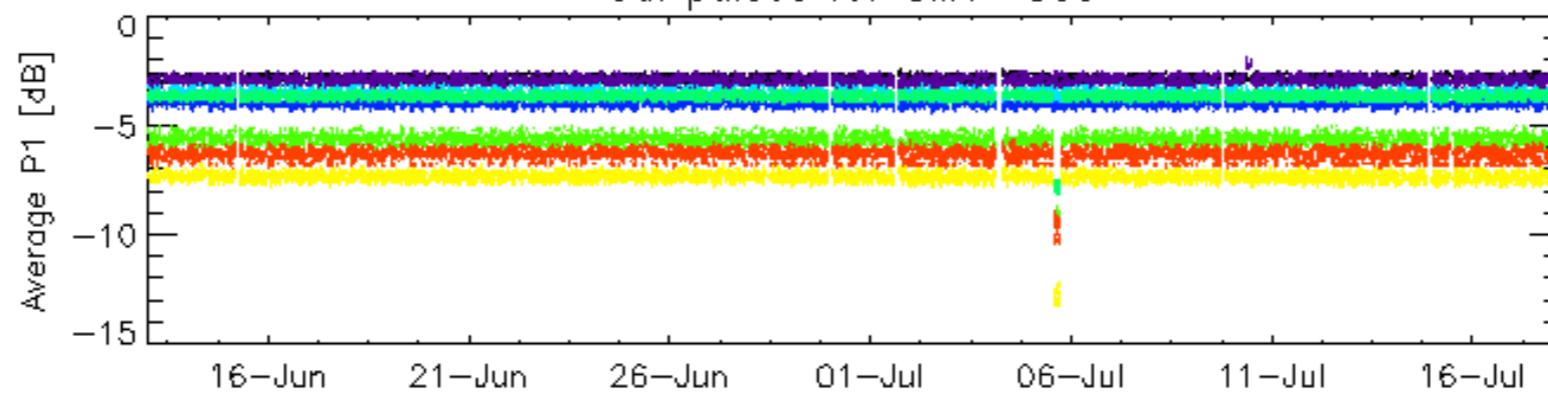


Cal pulses for WVS IS2



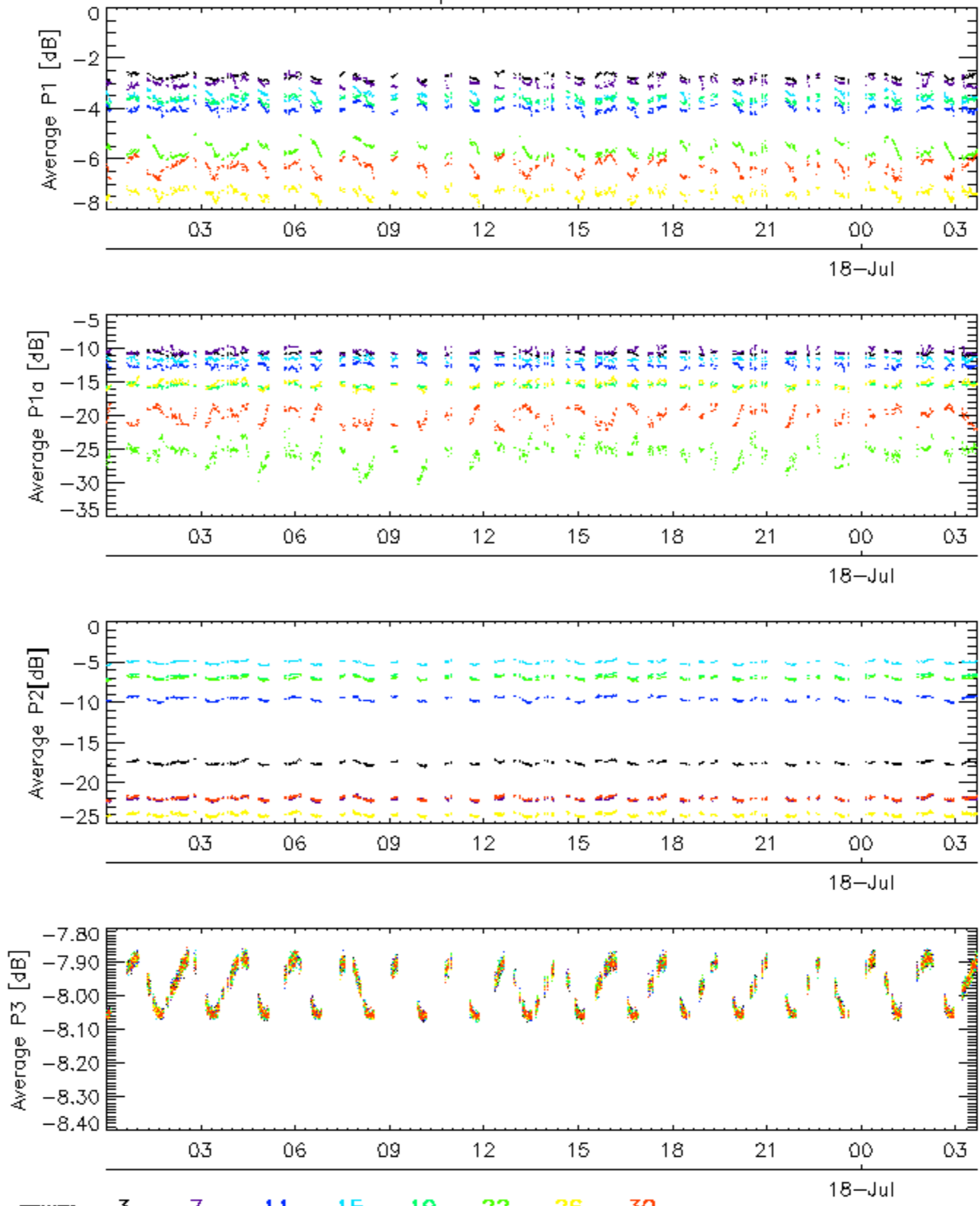
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

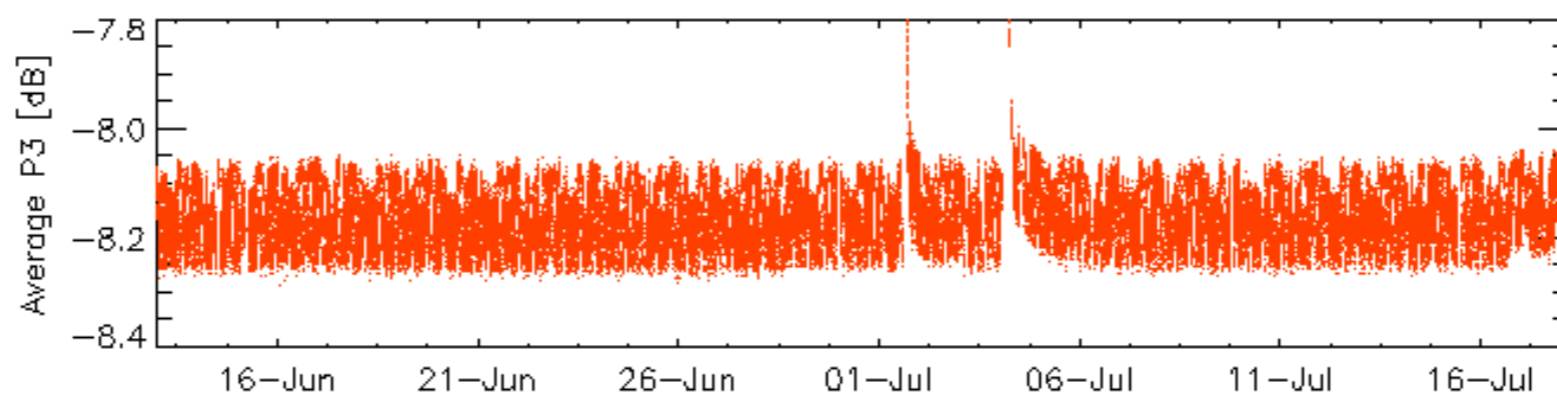
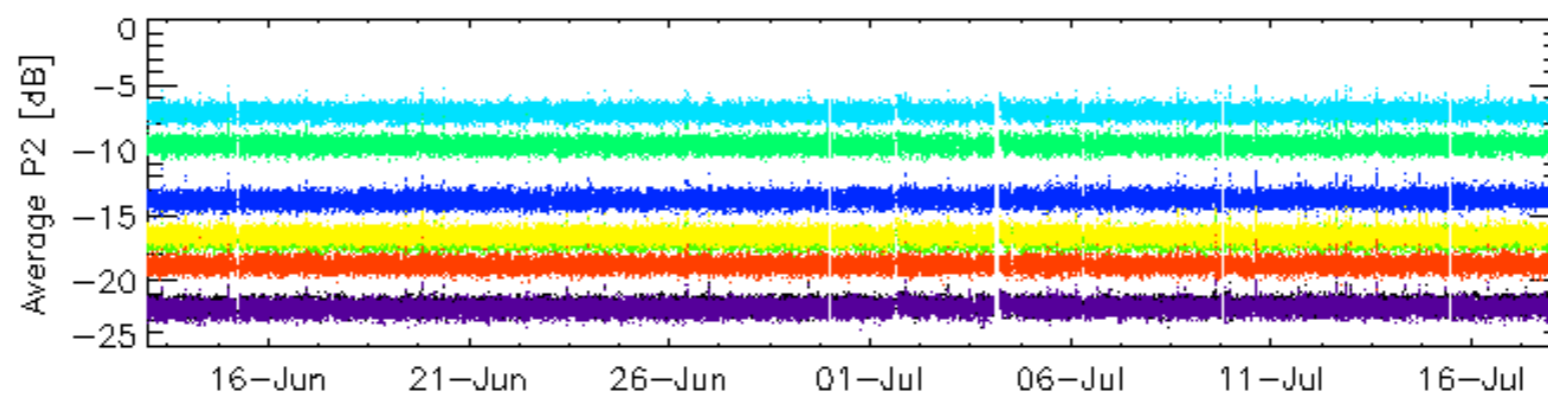
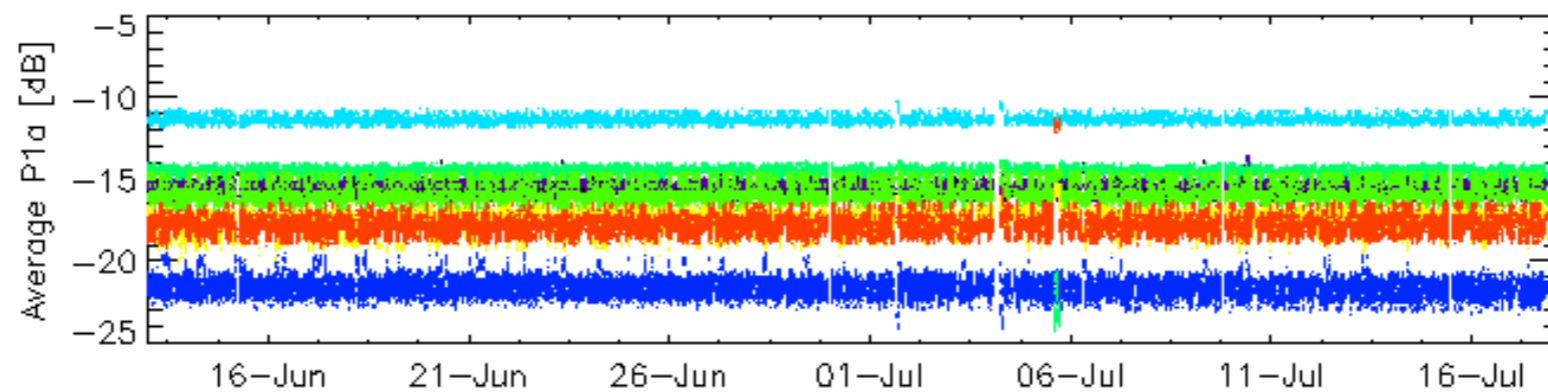
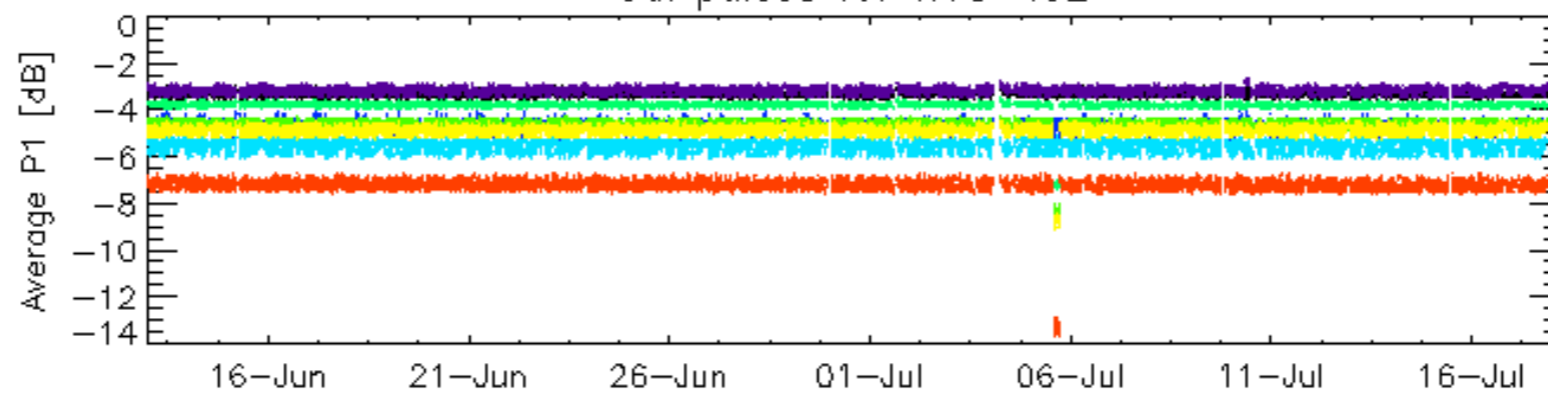


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

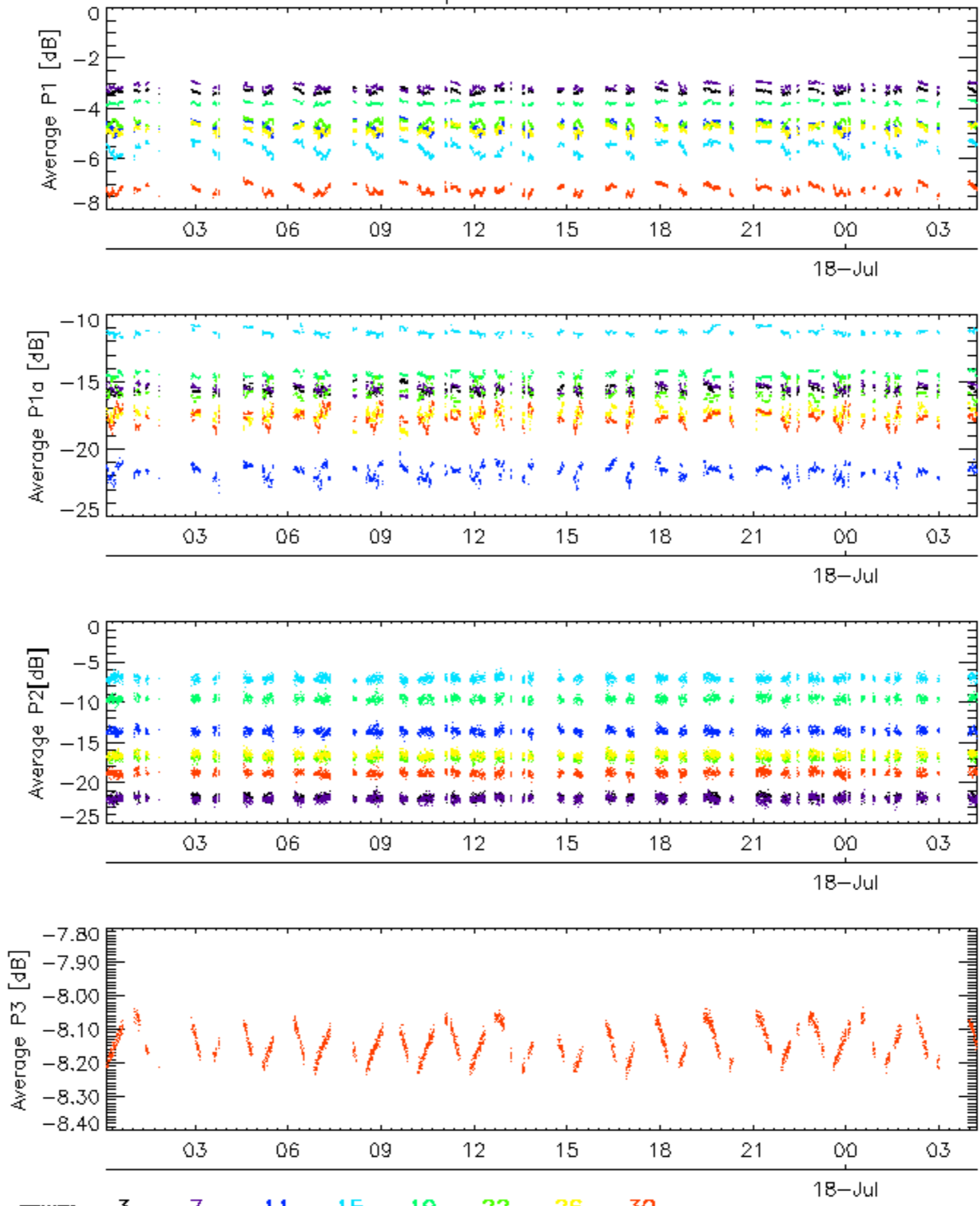


Cal pulses for WVS IS2



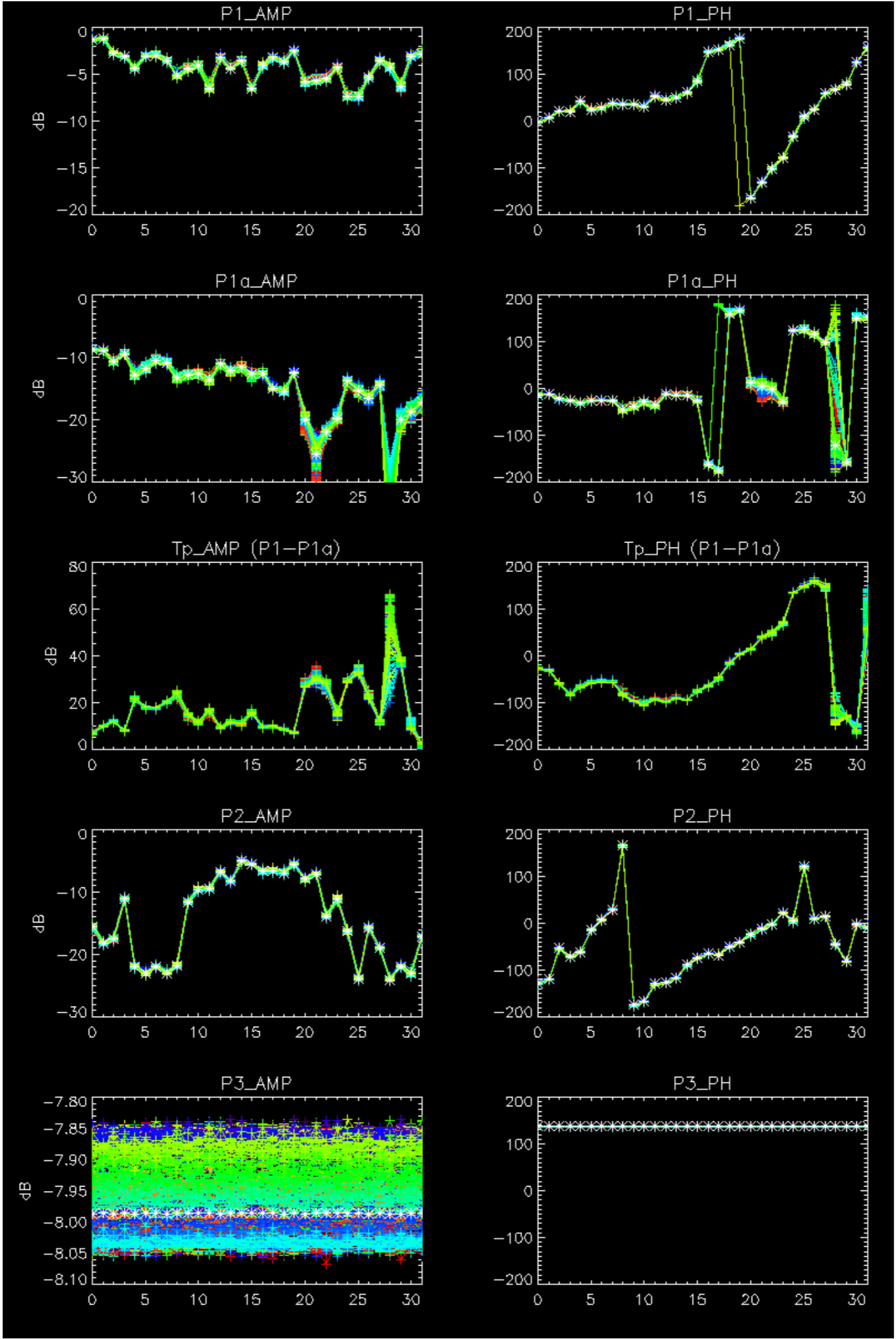
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

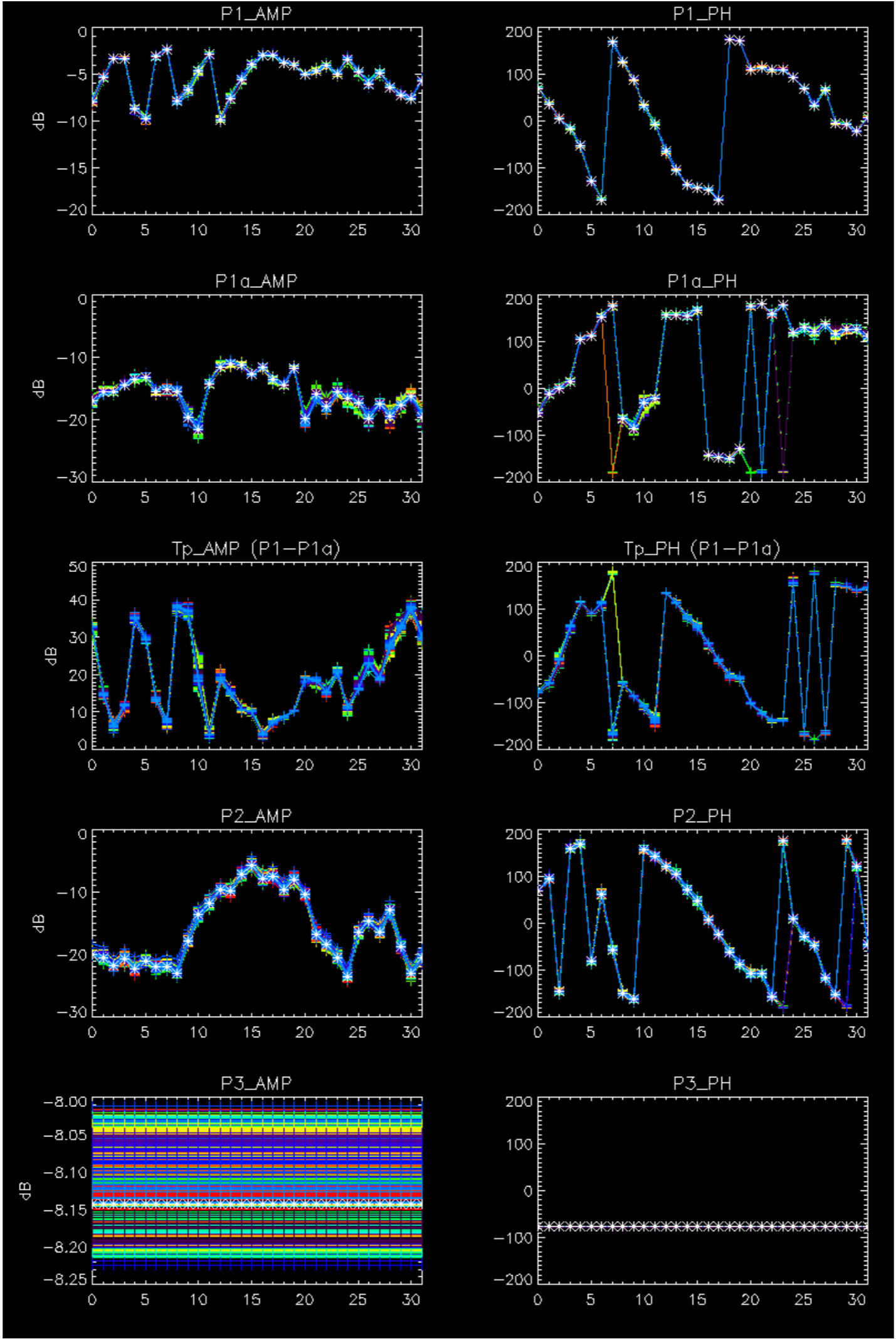
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

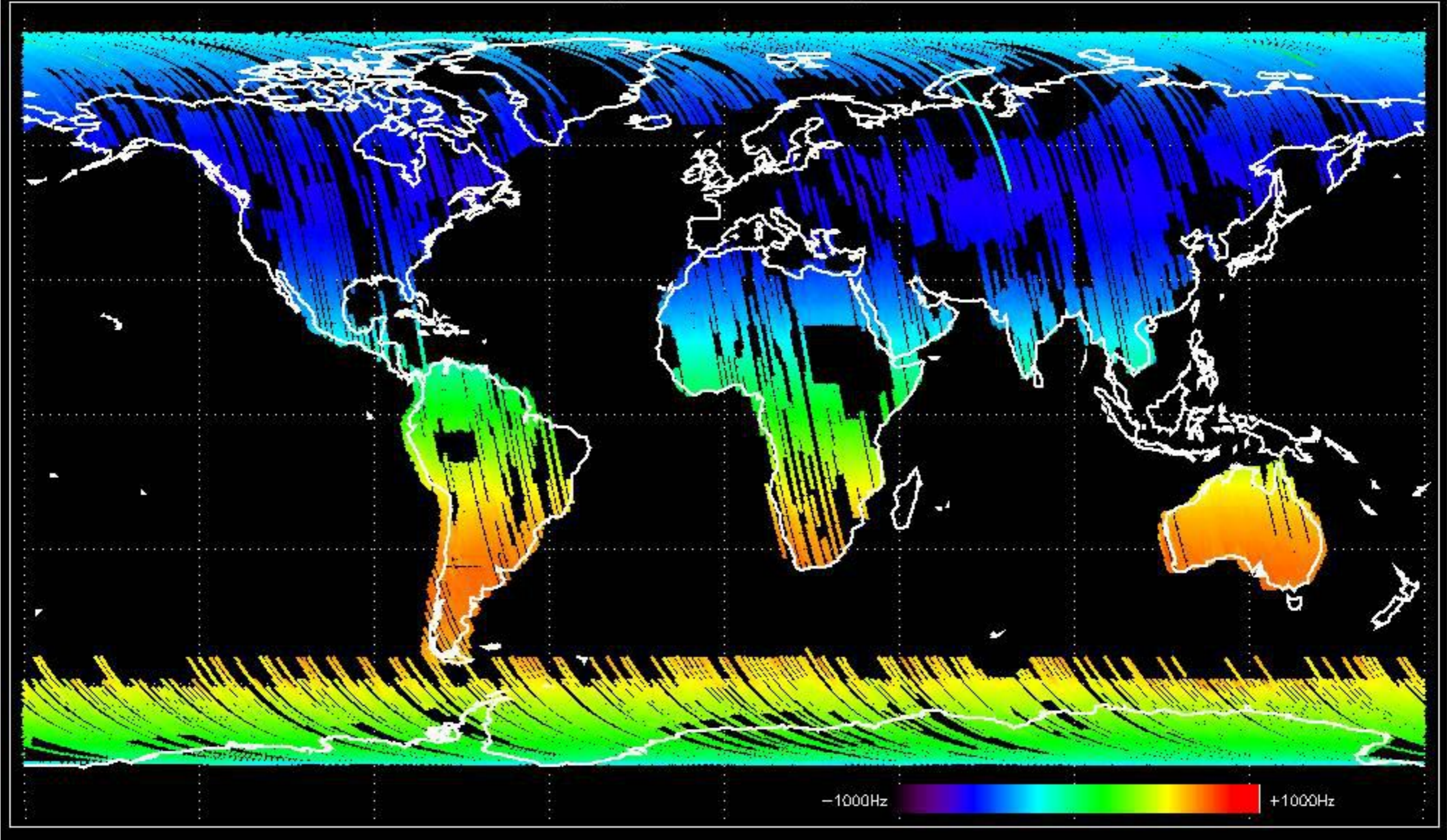
No anomalies observed.



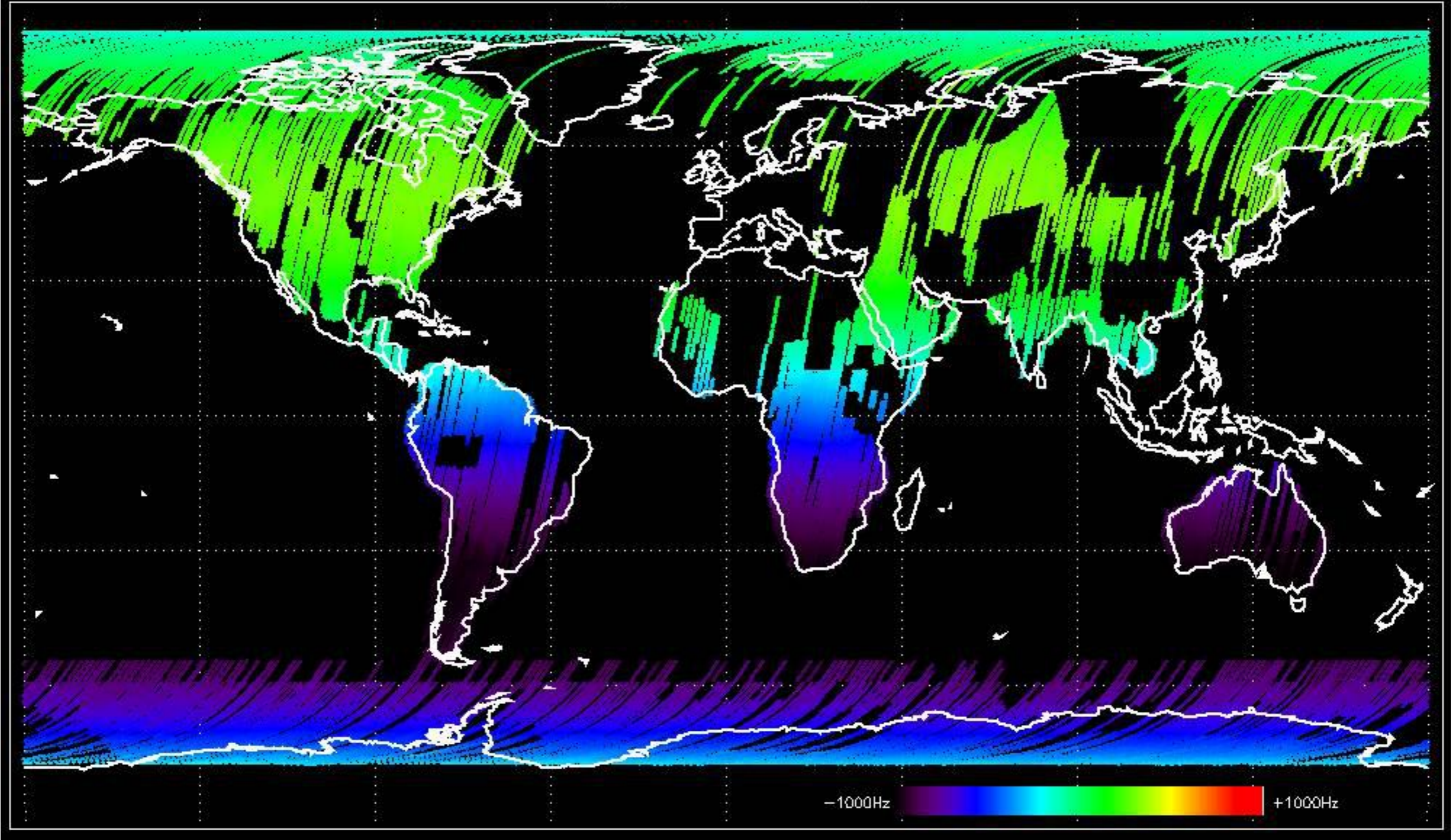


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

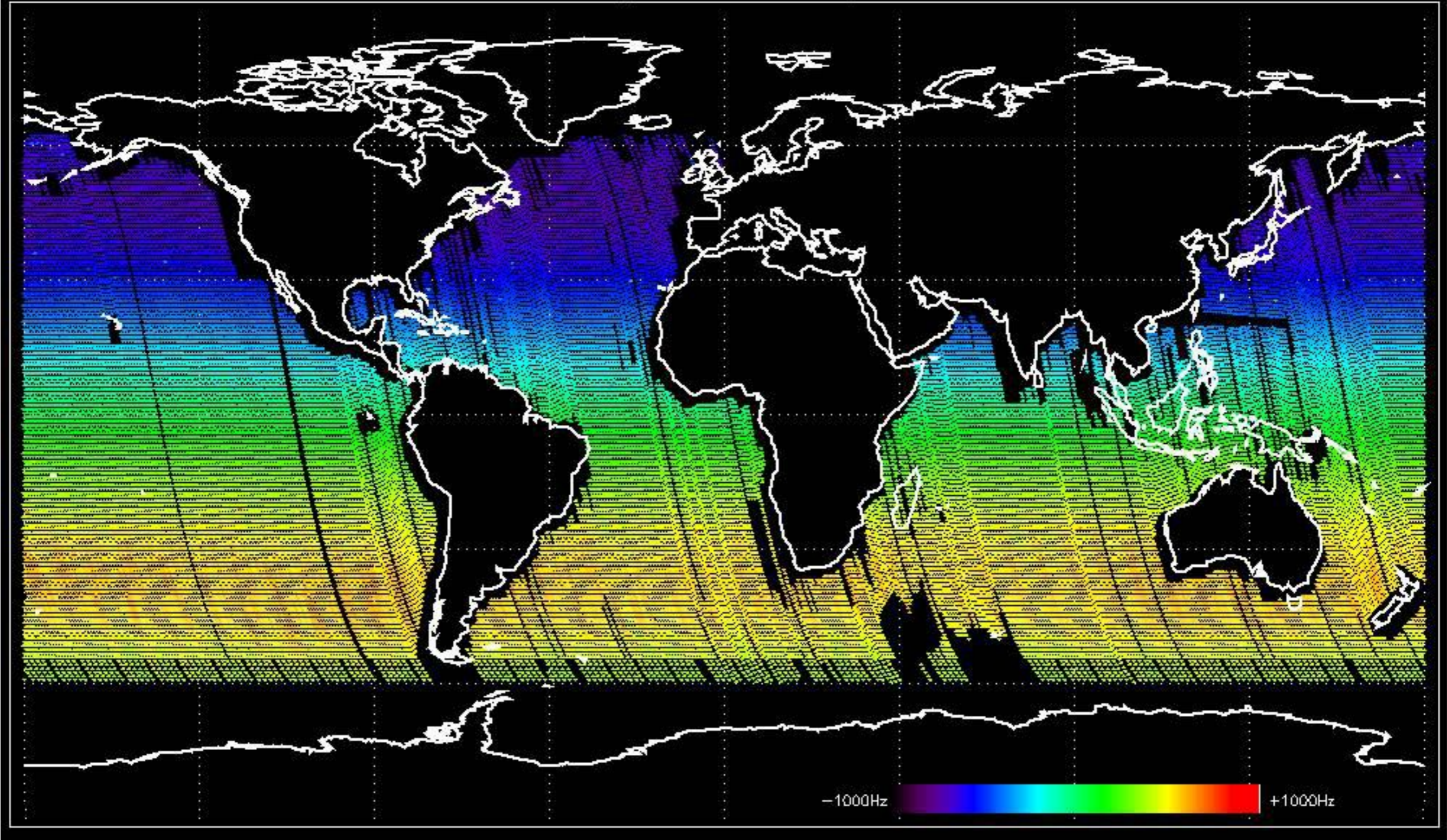
Doppler 'GM1' 'SS1' ascending



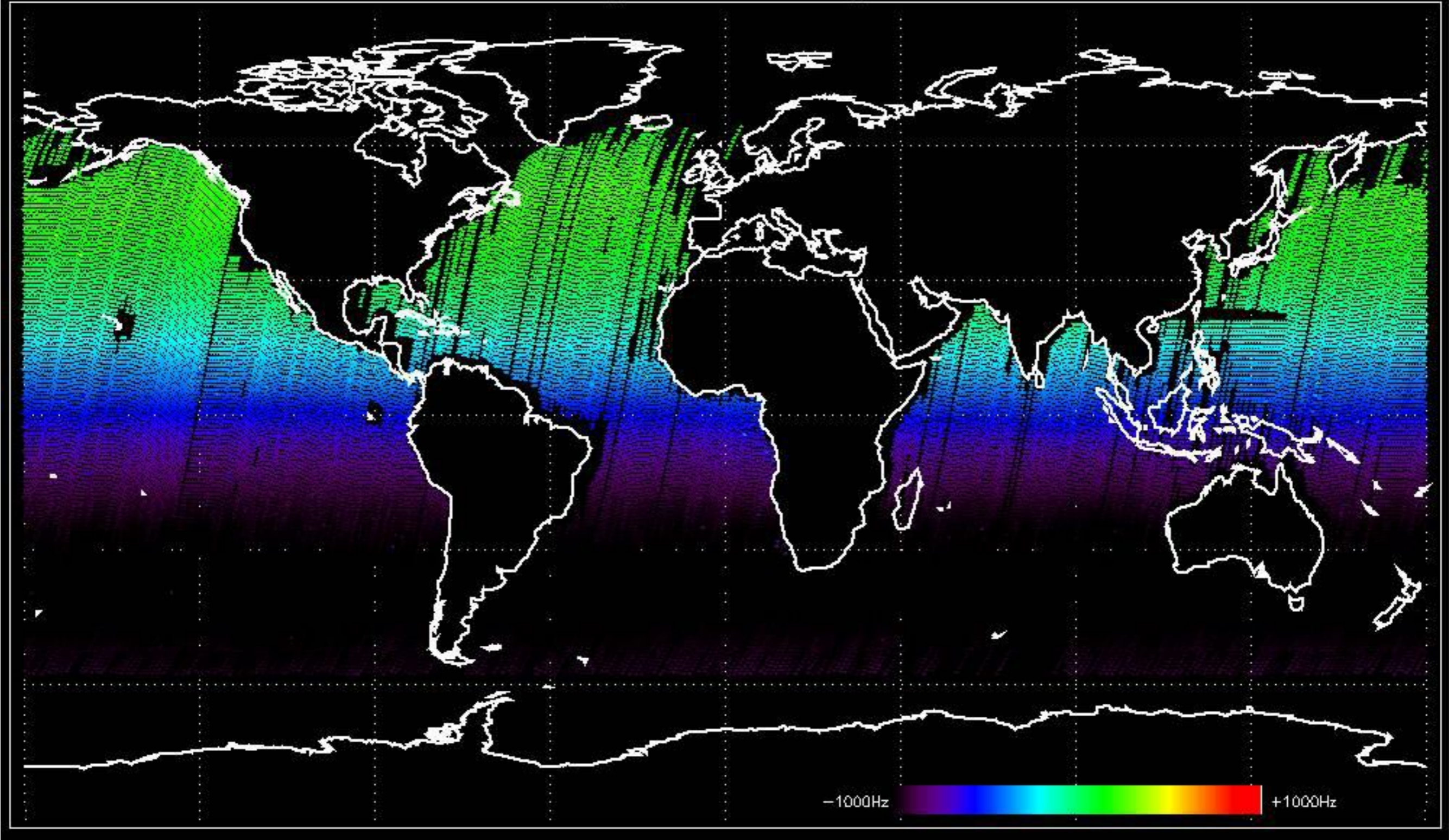
Doppler 'GM1' 'SS1' descending



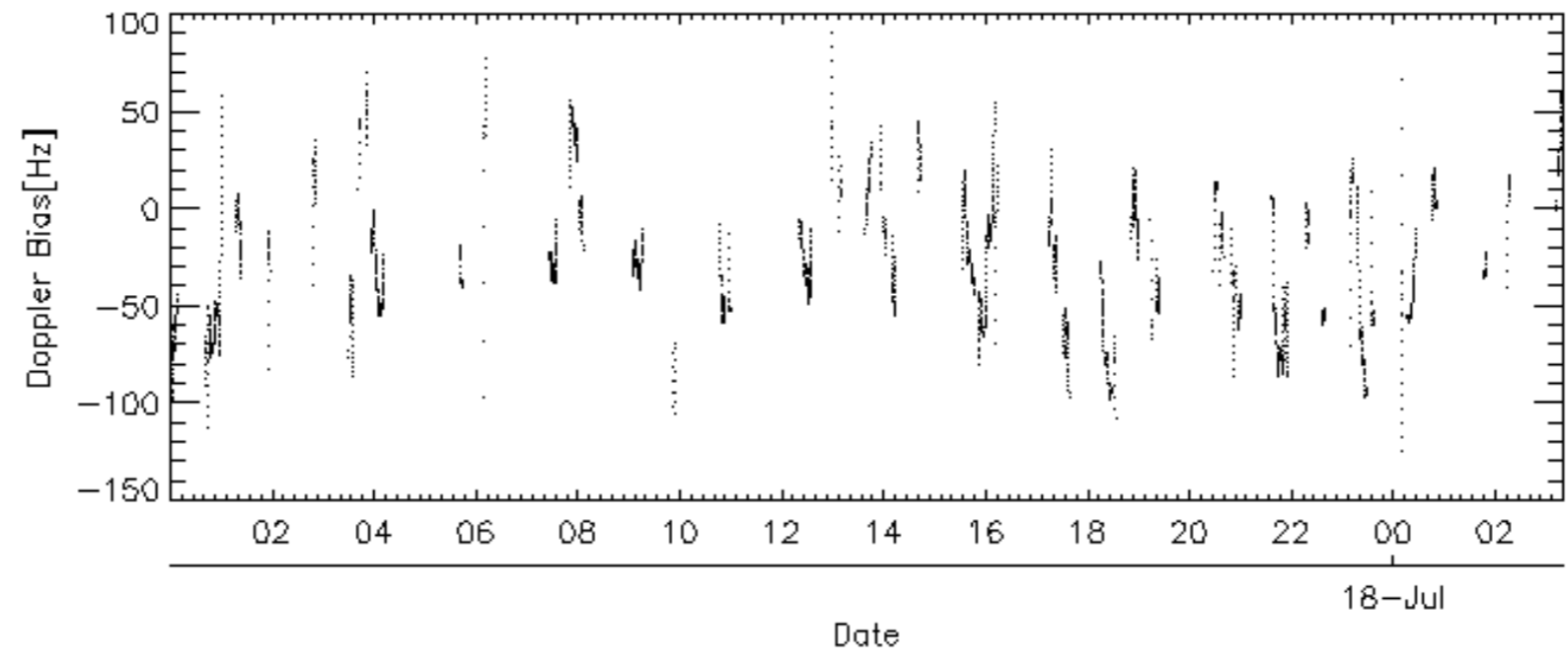
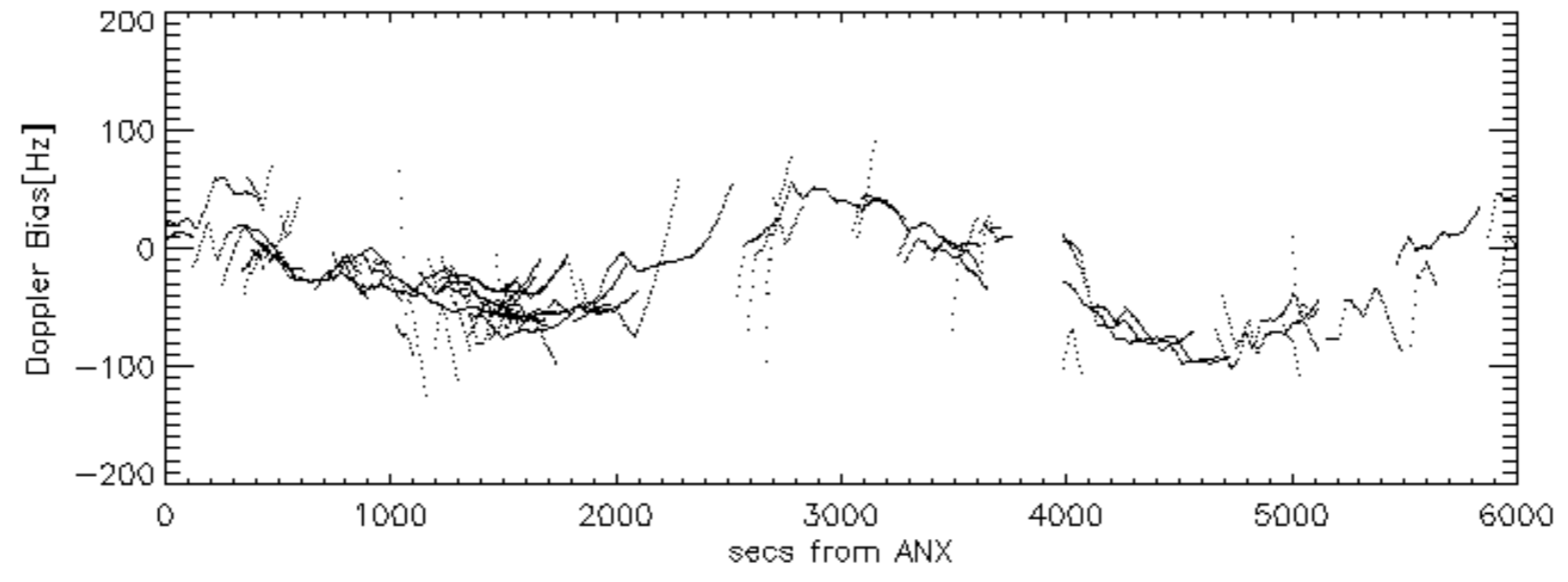
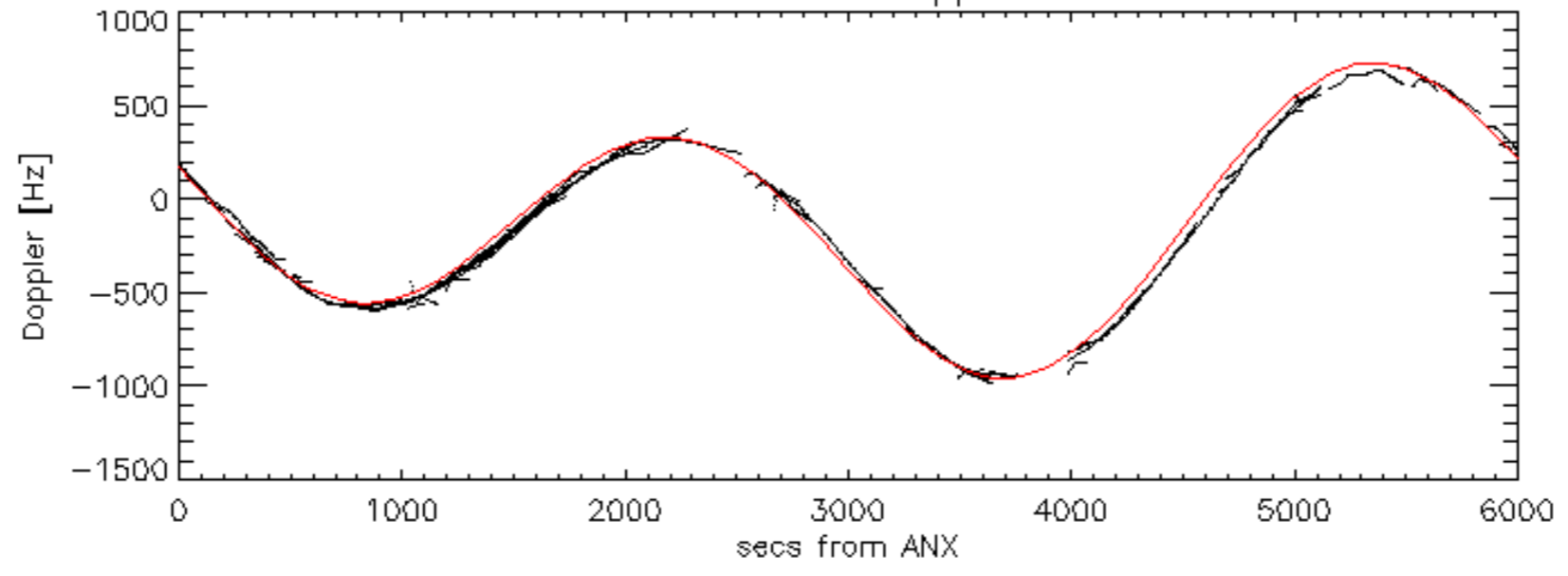
Doppler 'WVS' 'IS2' ascending

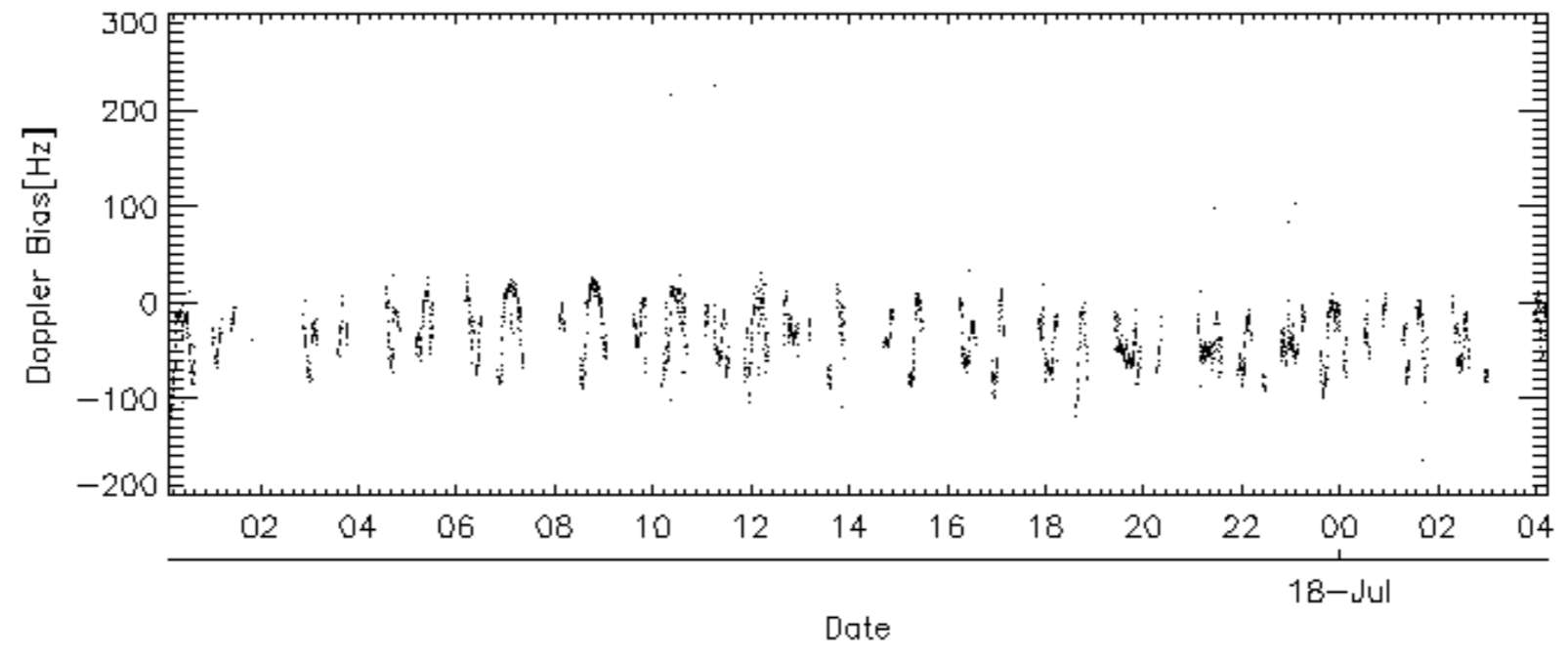
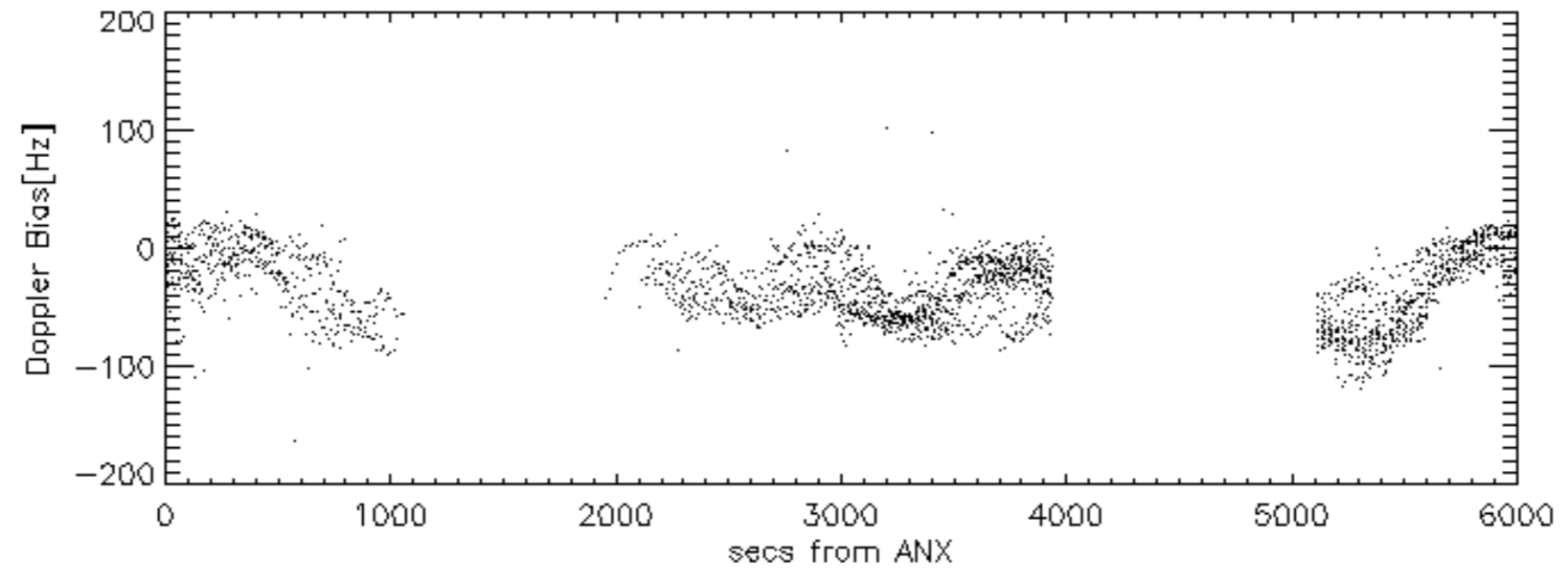
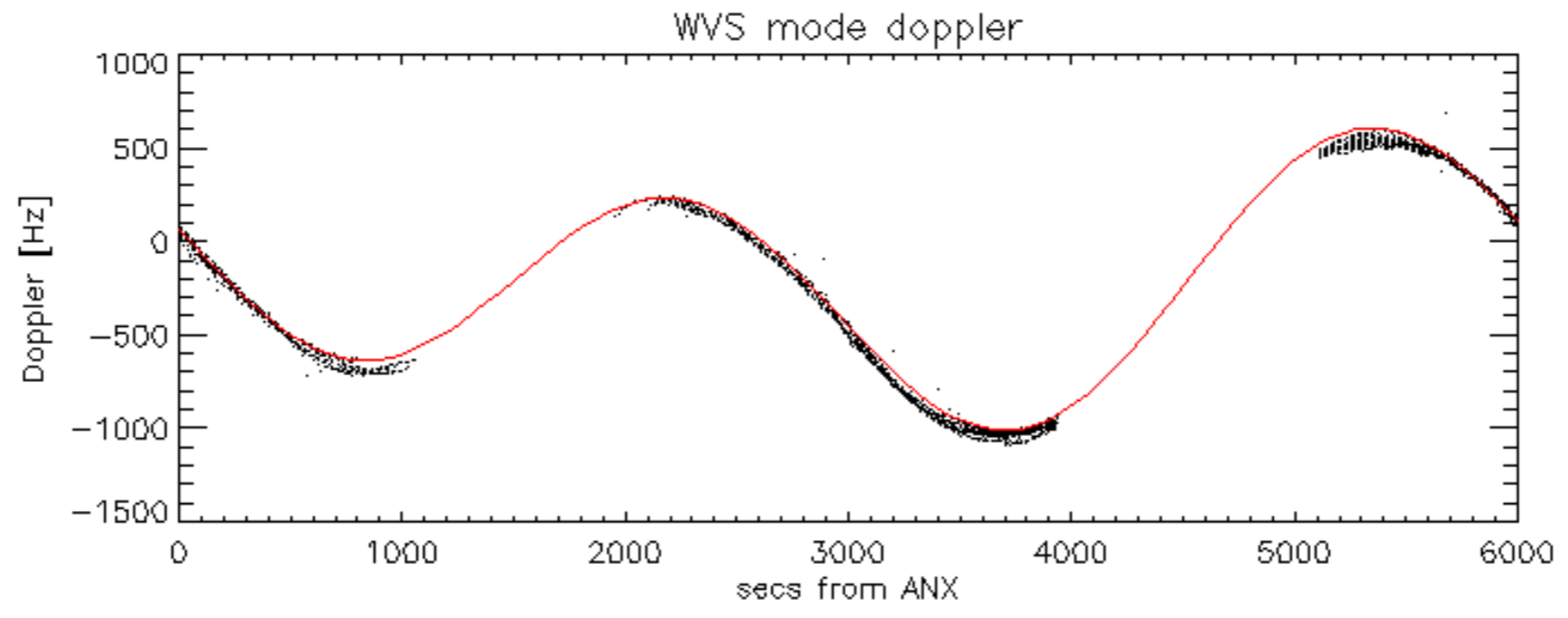


Doppler 'WVS' 'IS2' descending

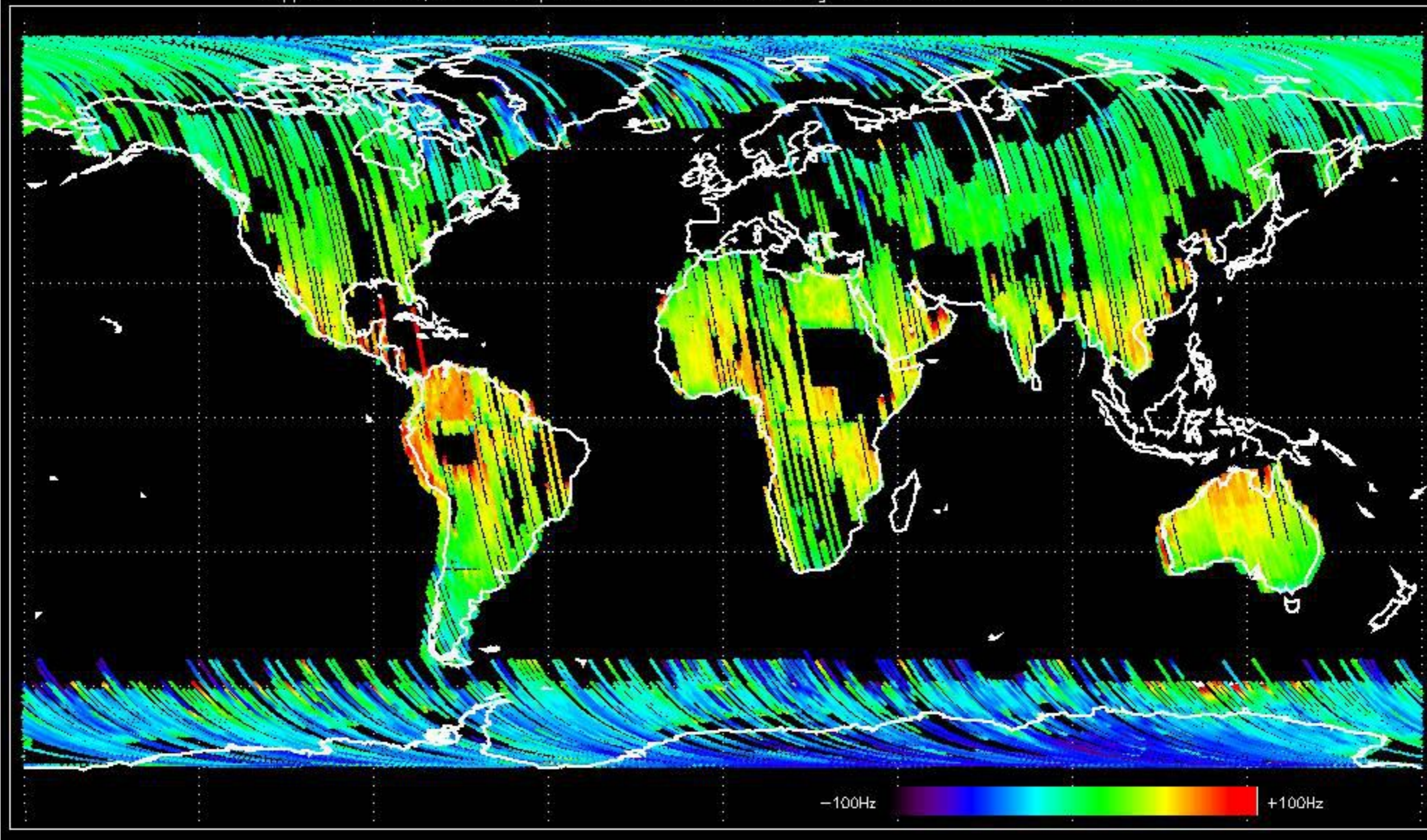


GM1 mode doppler

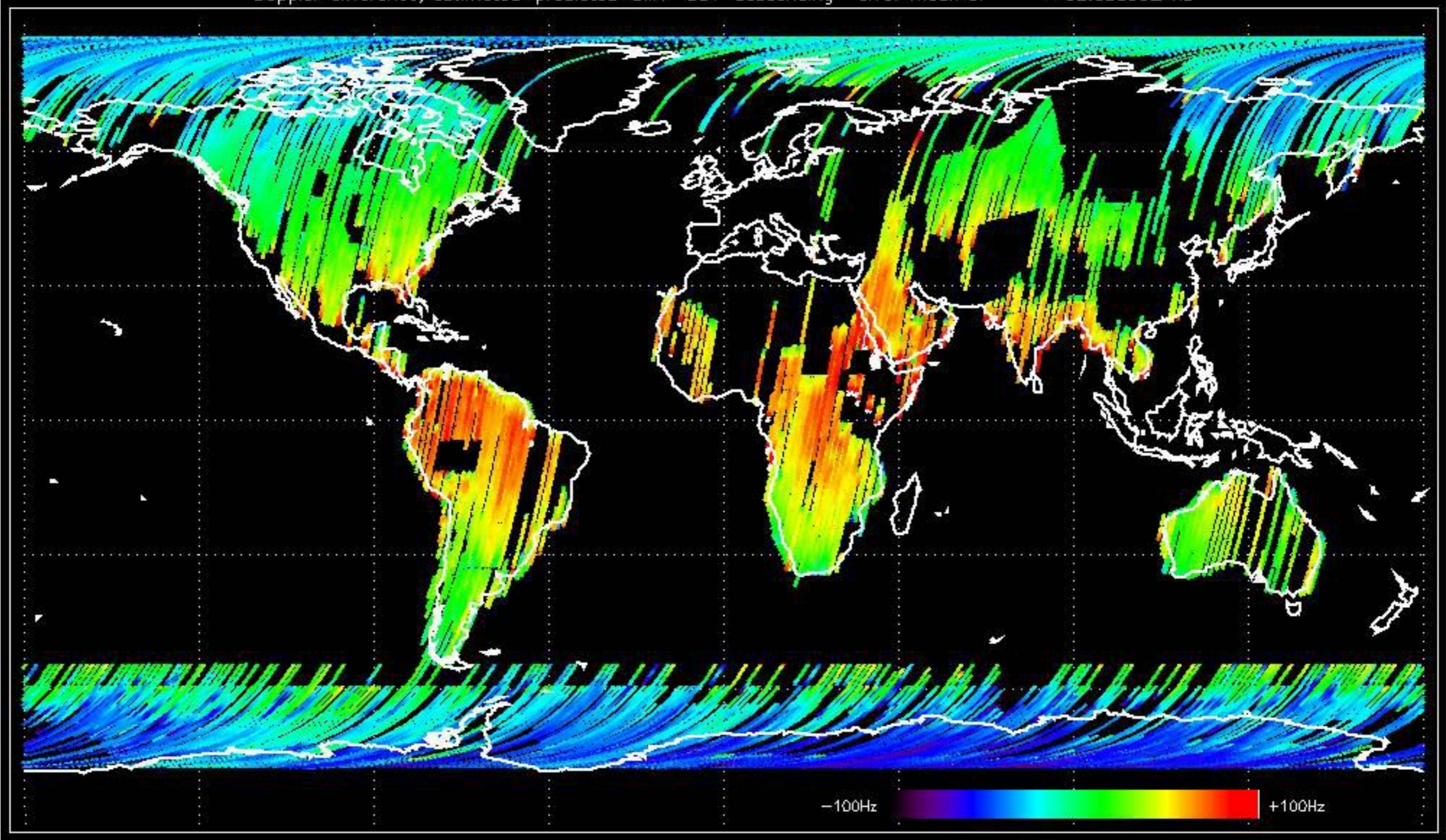




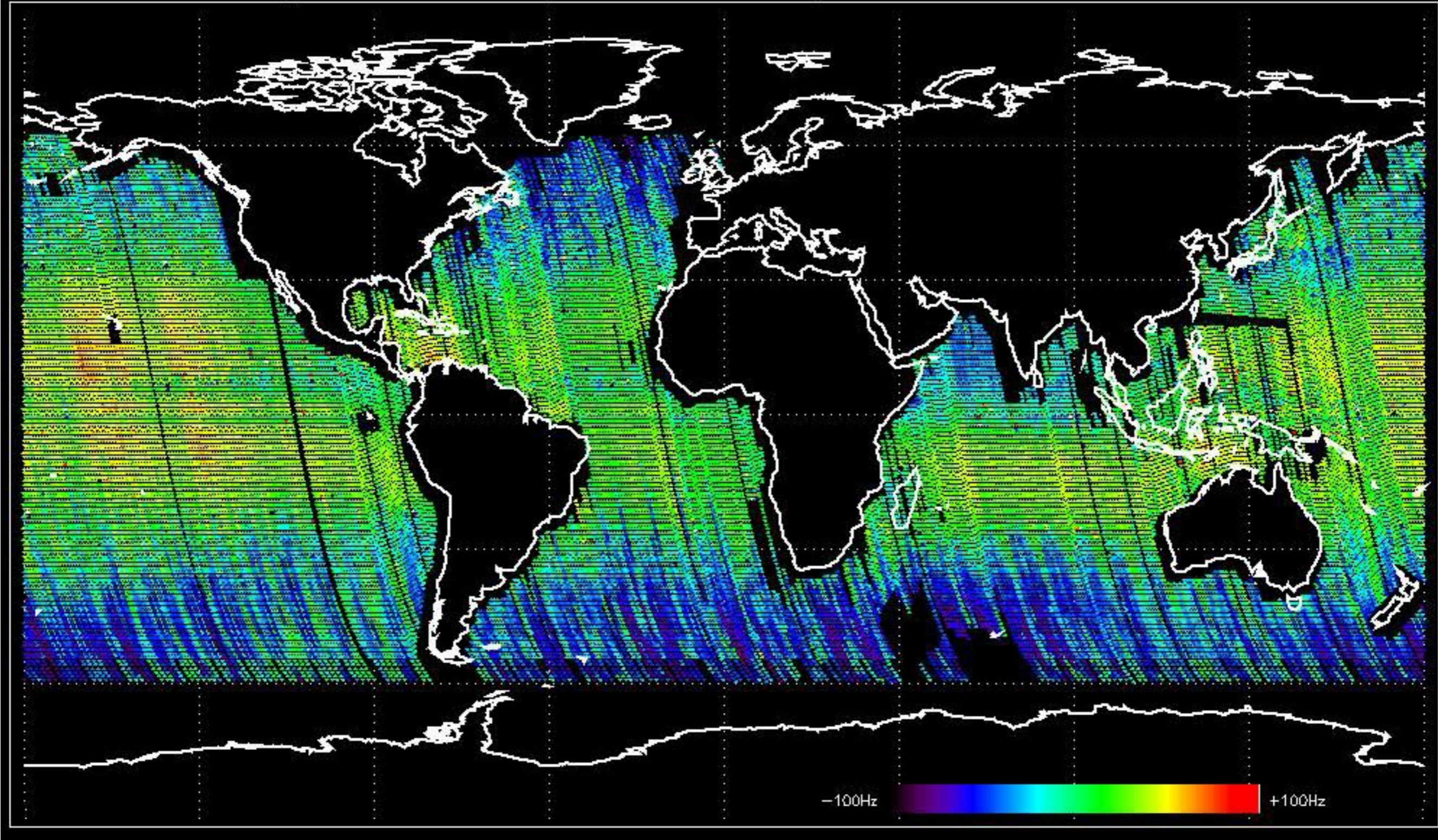
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -38.602058 Hz



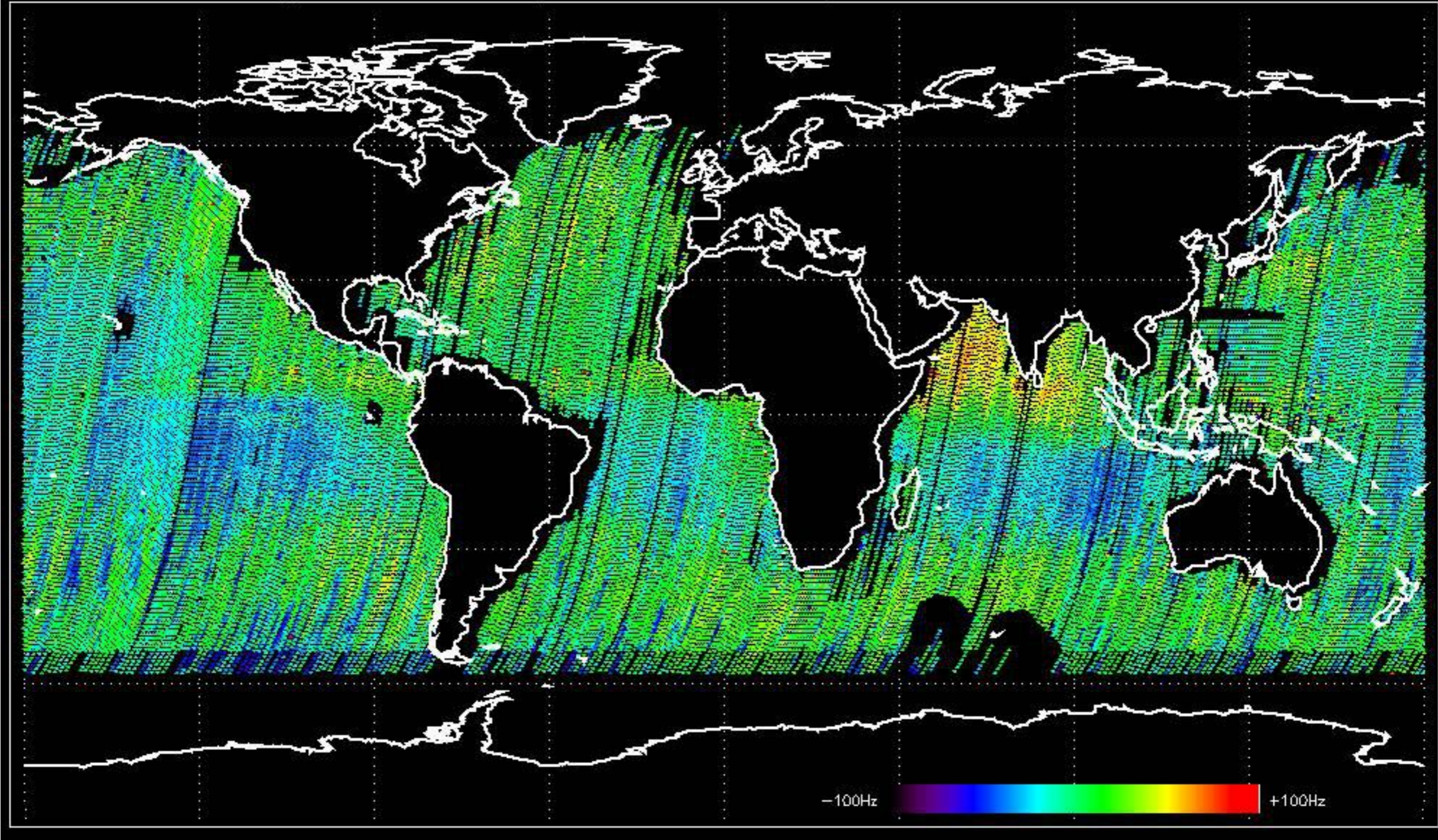
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -32.683992 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -32.568188 Hz

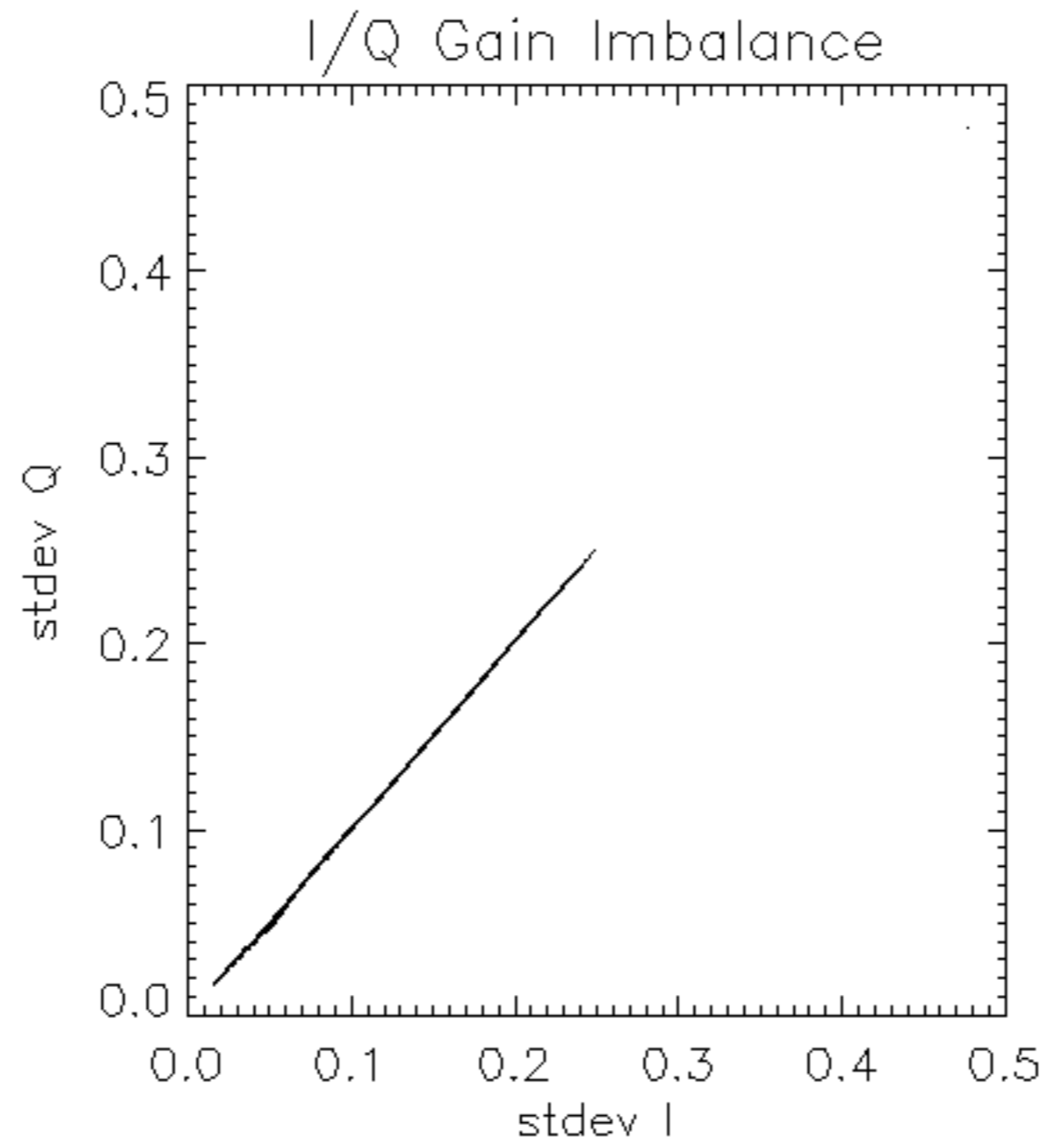


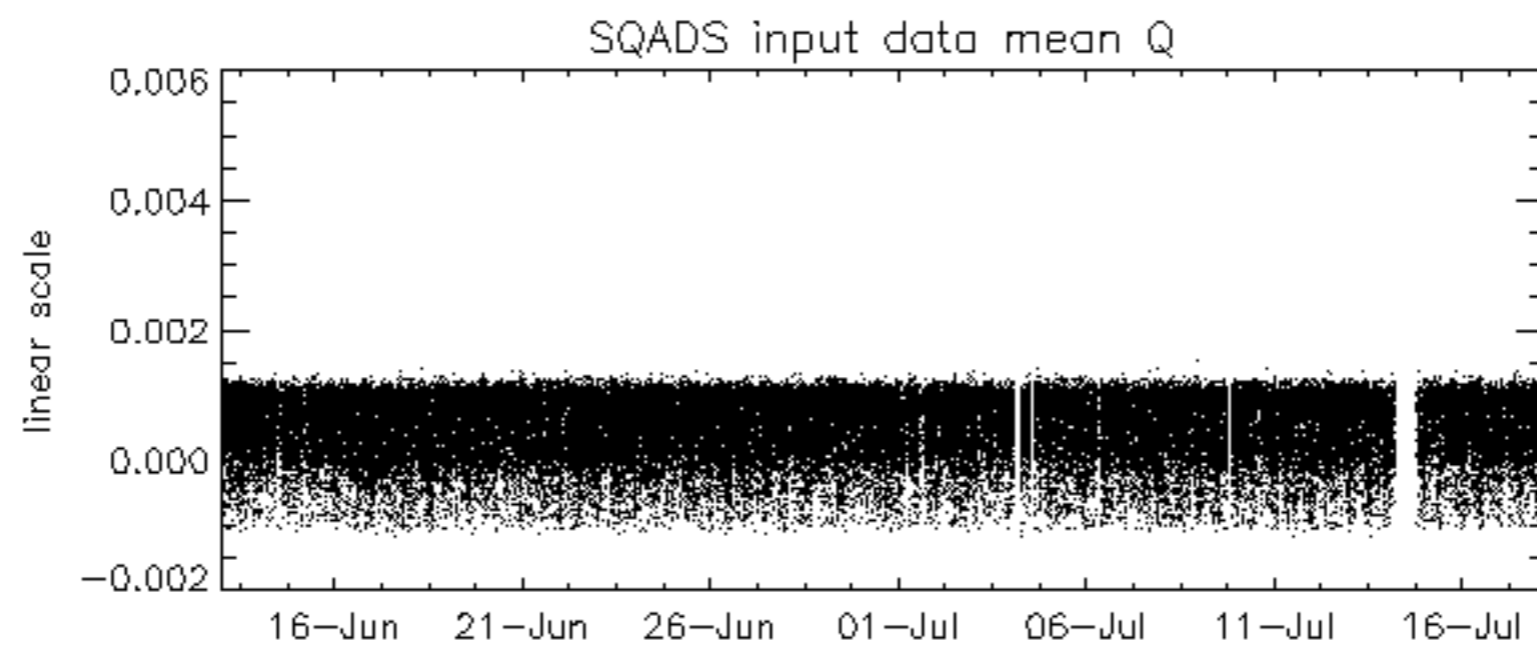
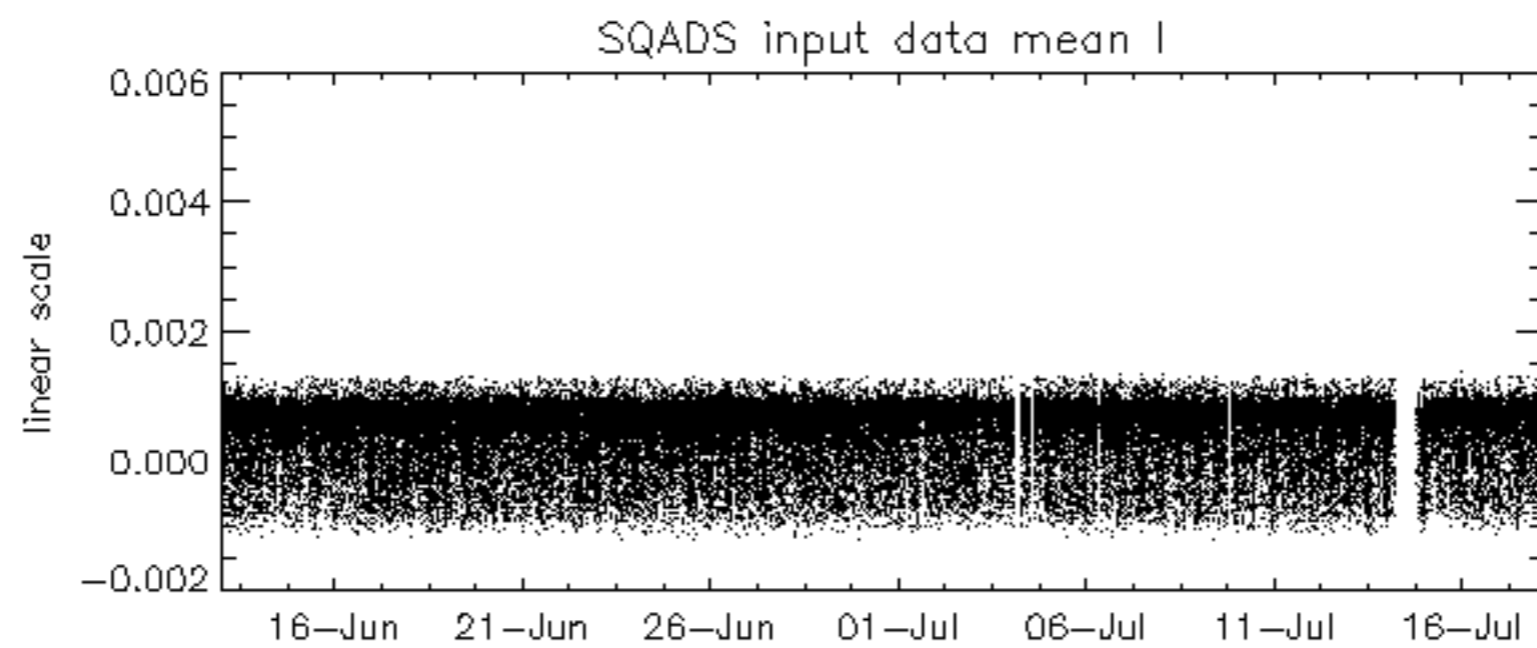
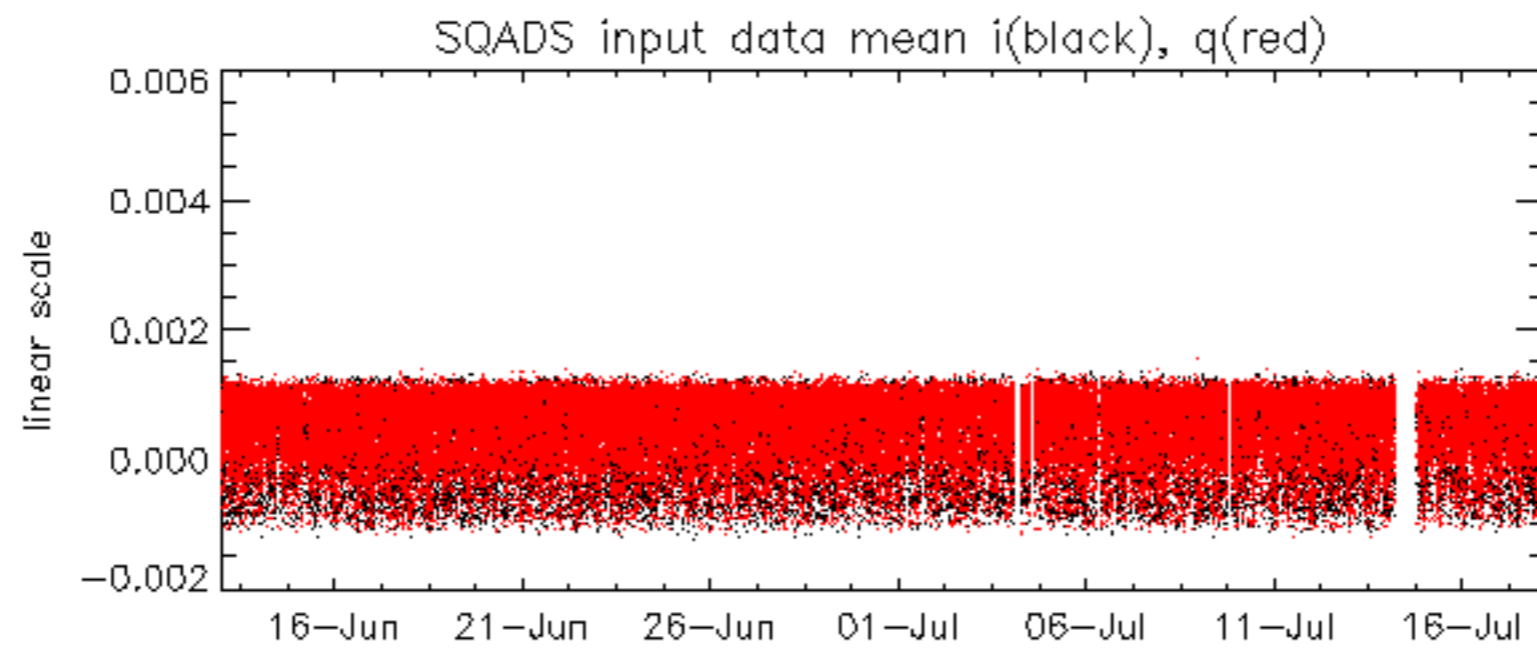
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.262580 Hz

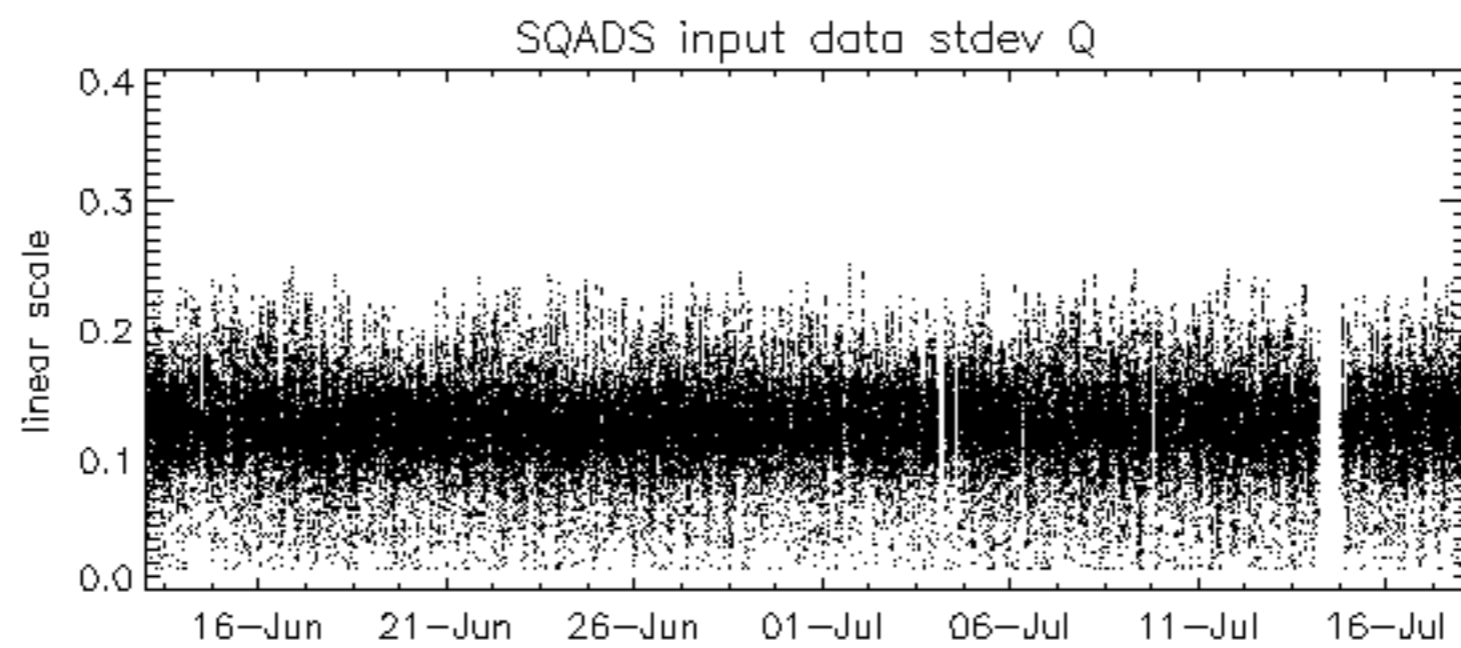
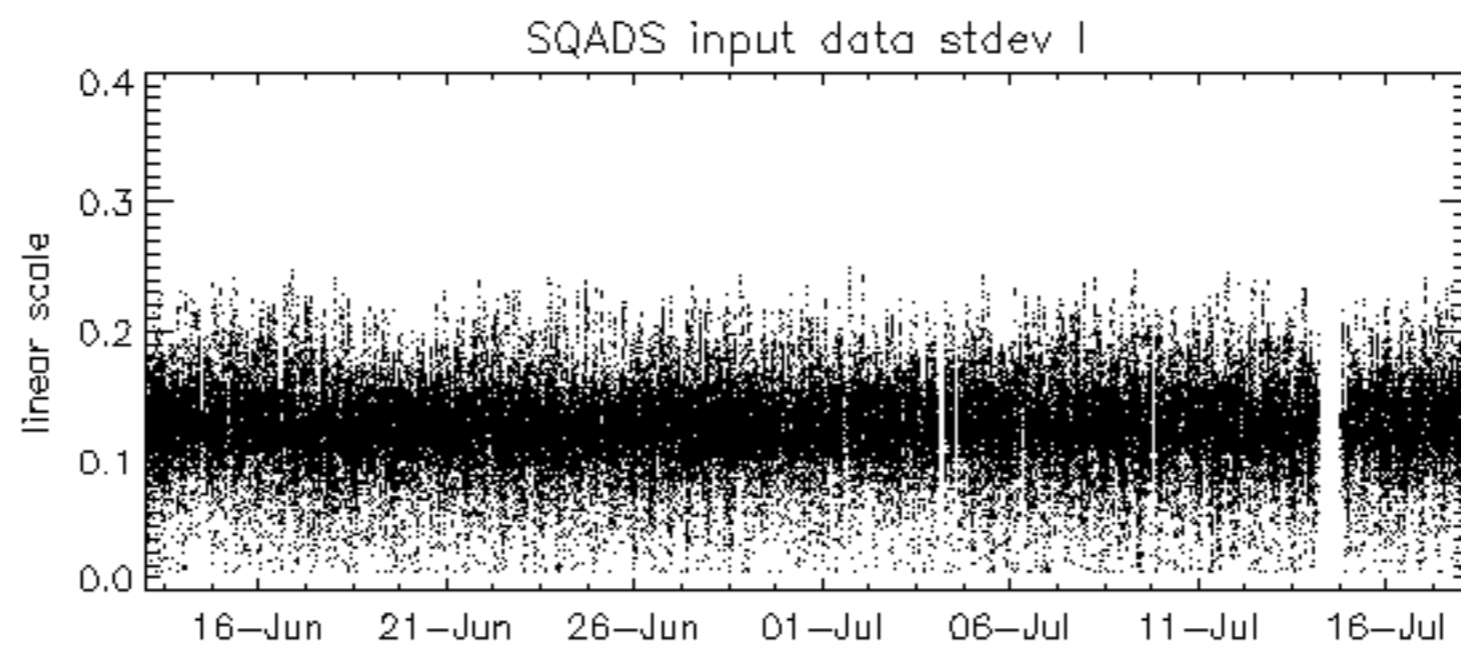
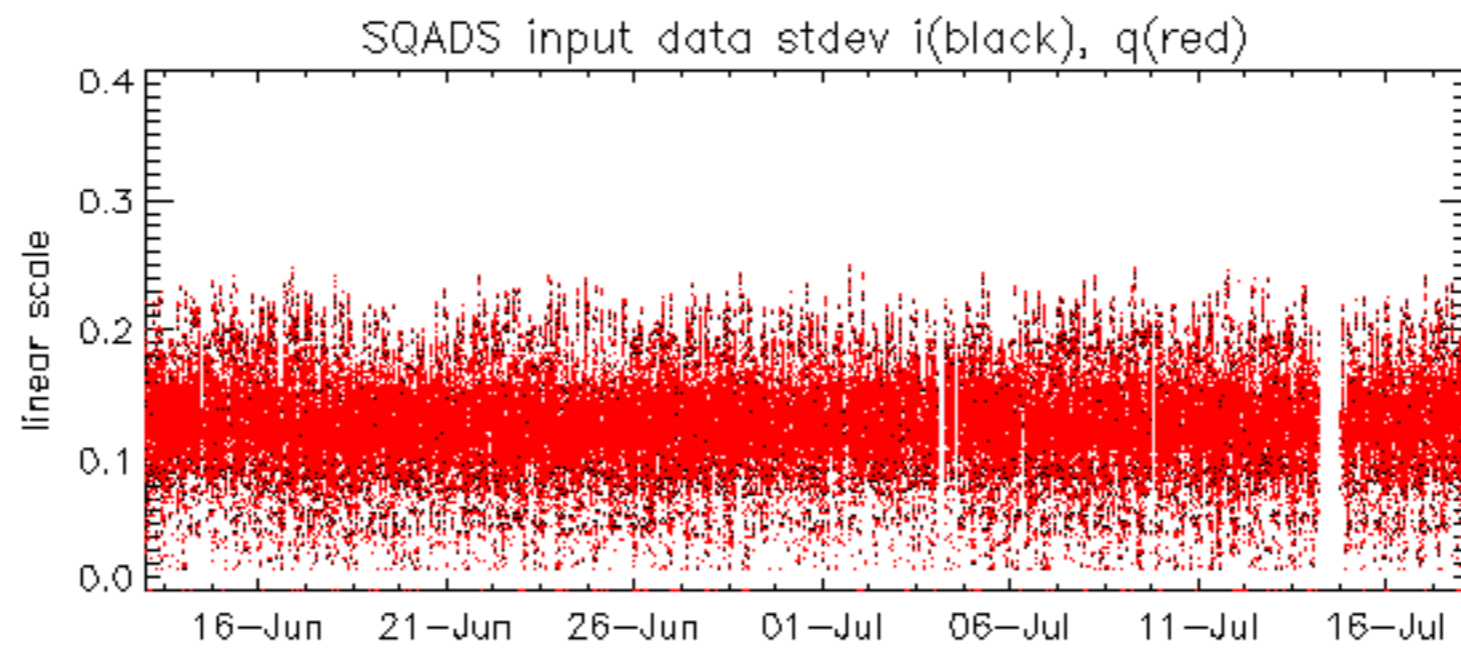


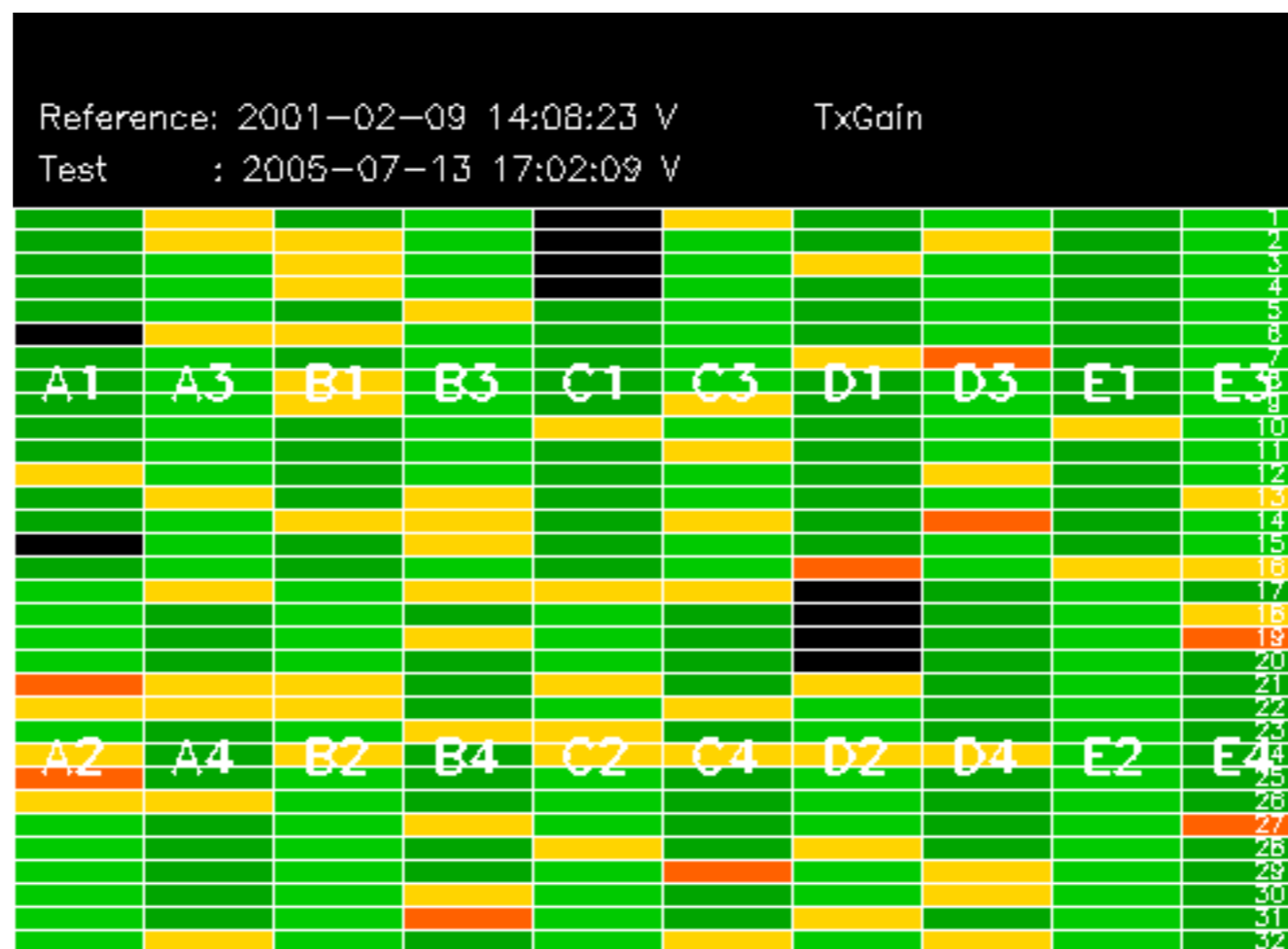
No anomalies observed on available MS products:

No anomalies observed.





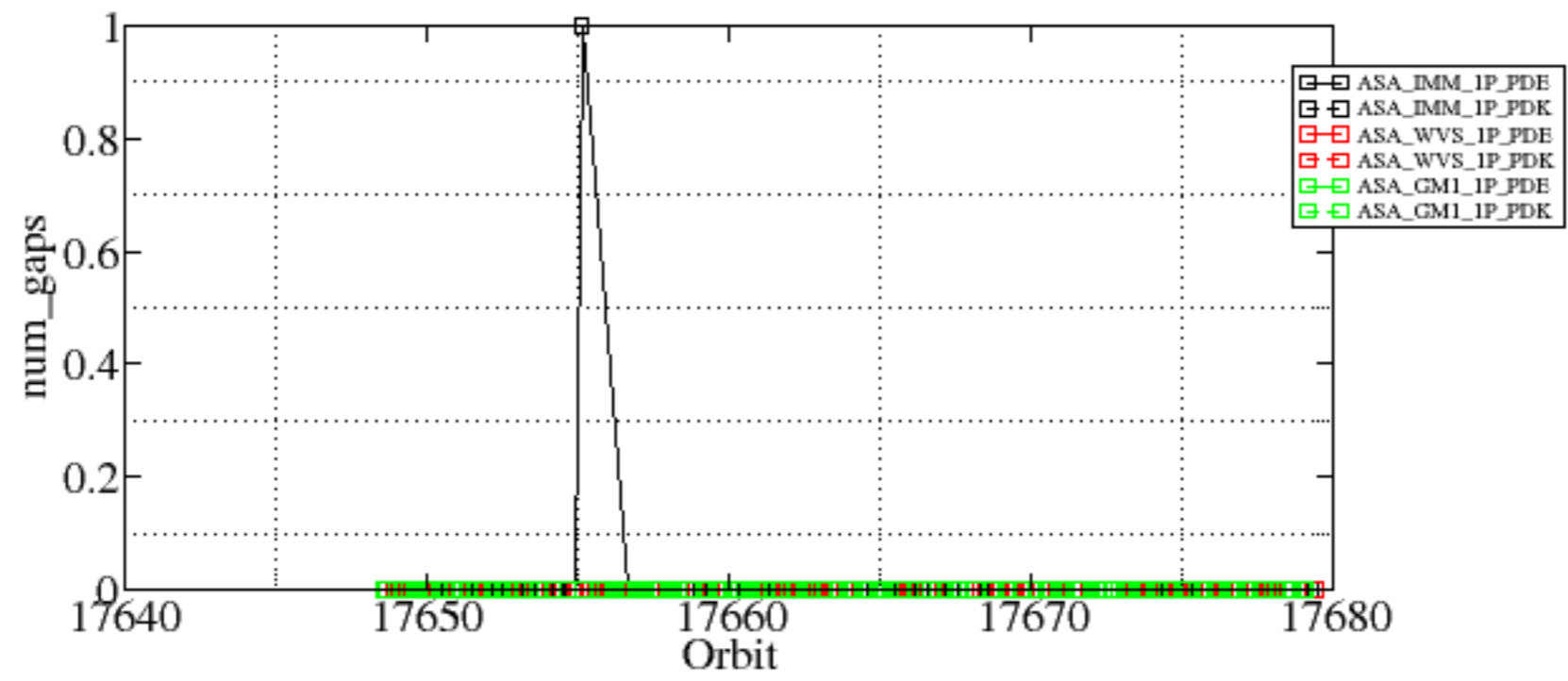


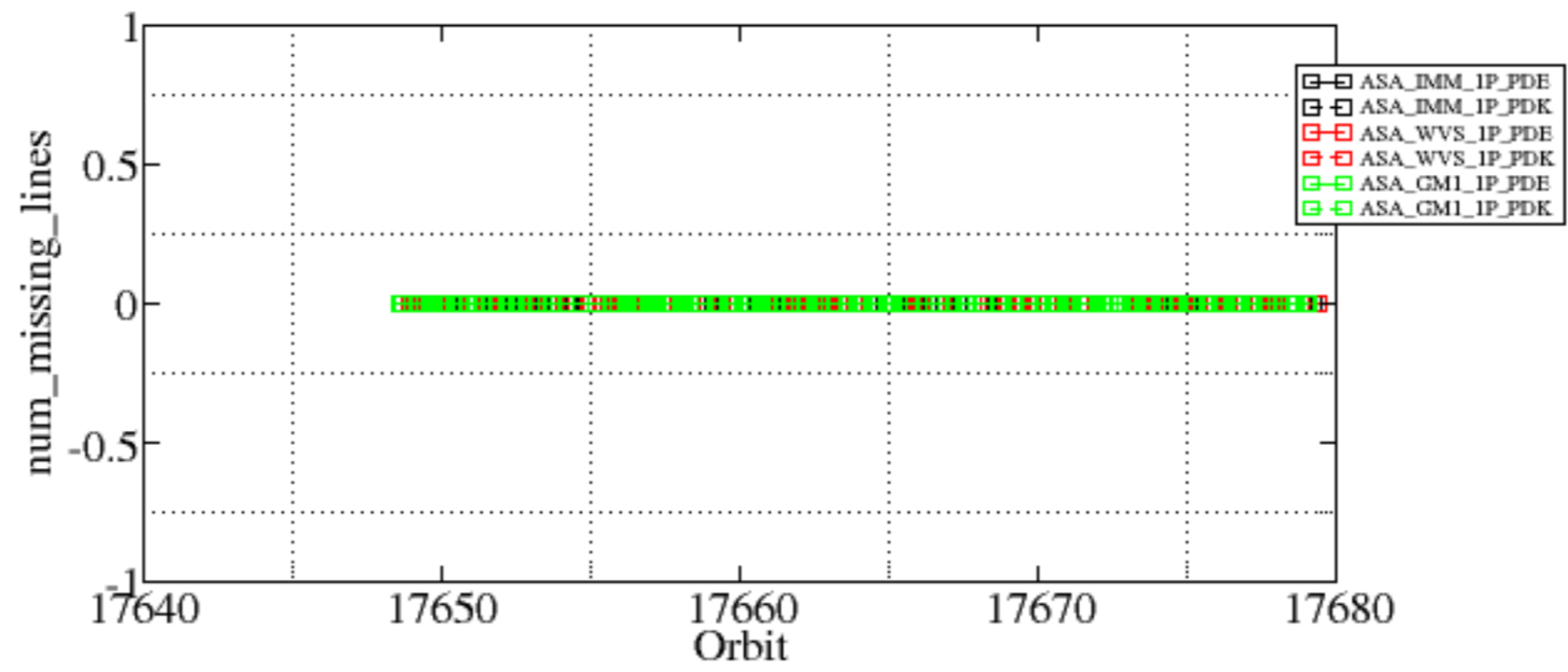


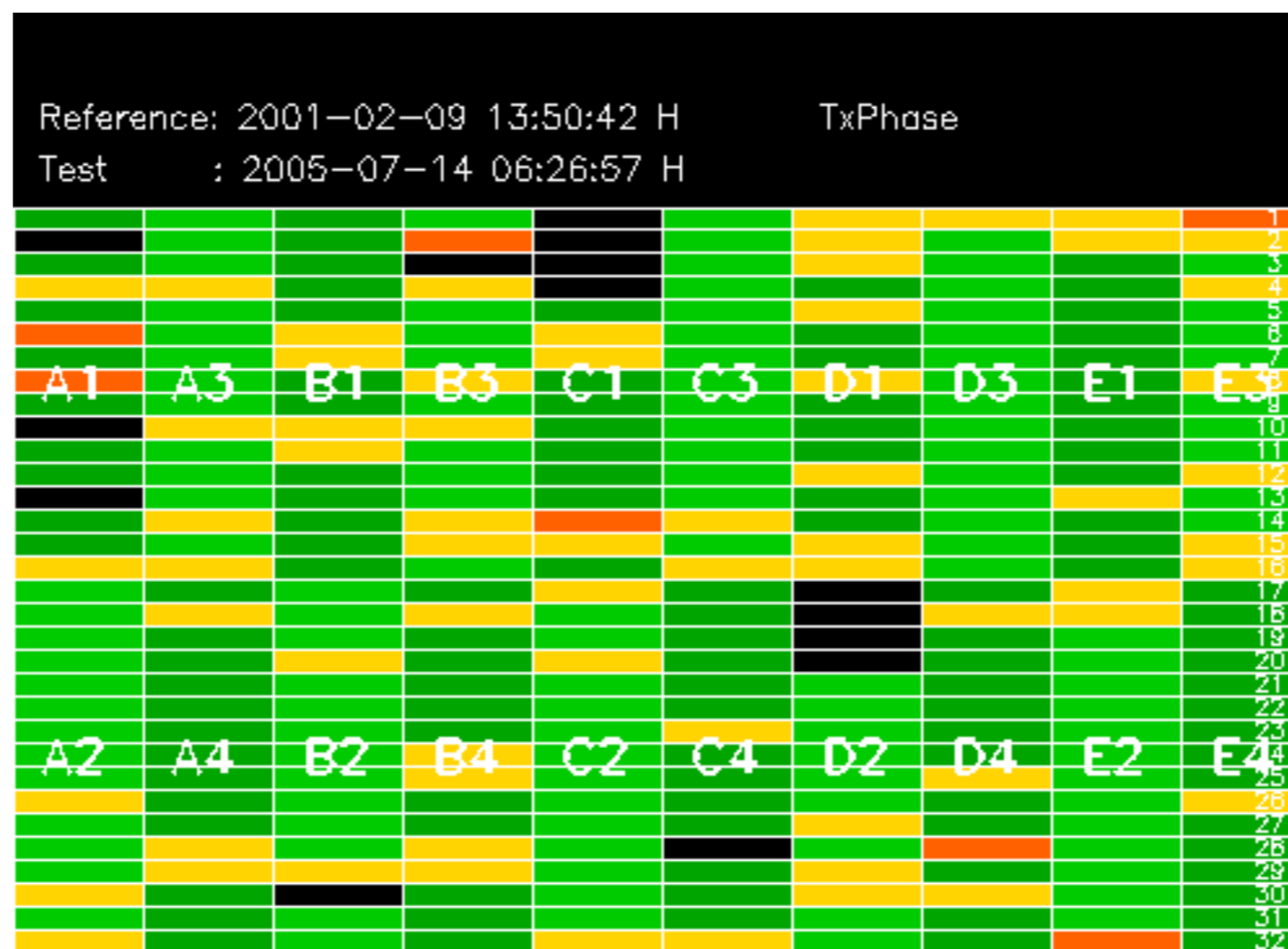
Summary of analysis for the last 3 days 2005071[678]

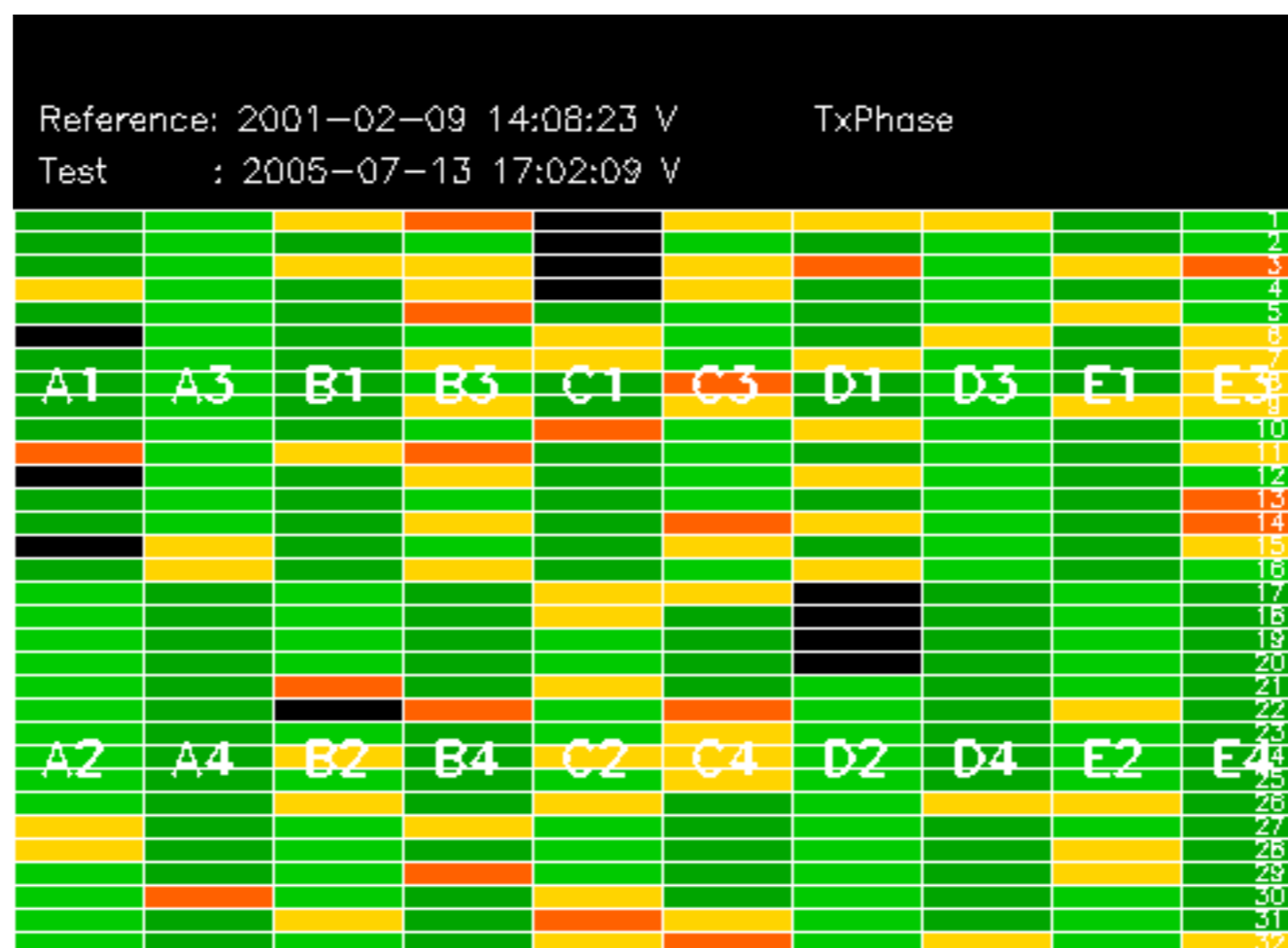
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

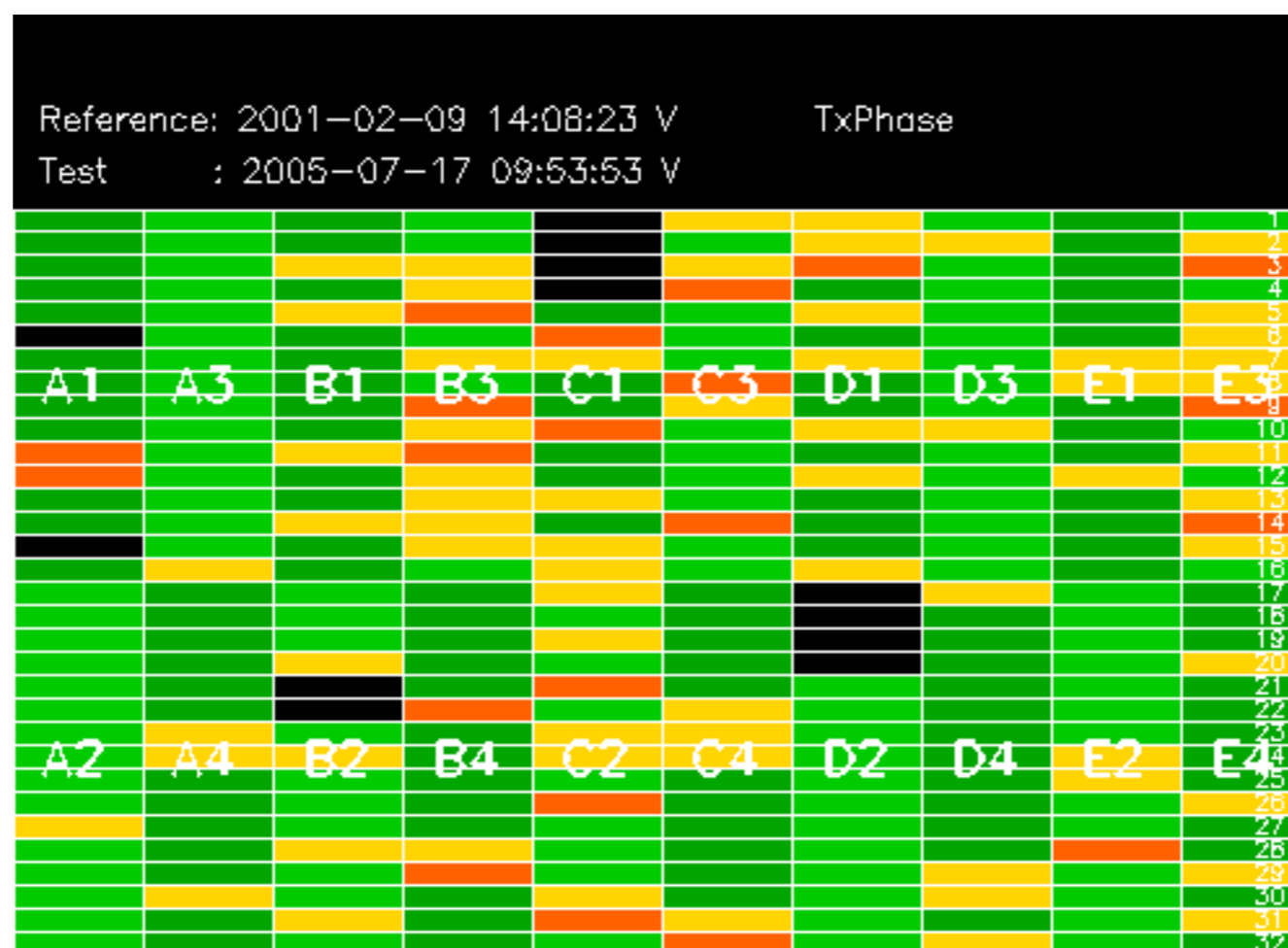
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050716_111220_00000512039_00066_17655_2098.N1	1	0

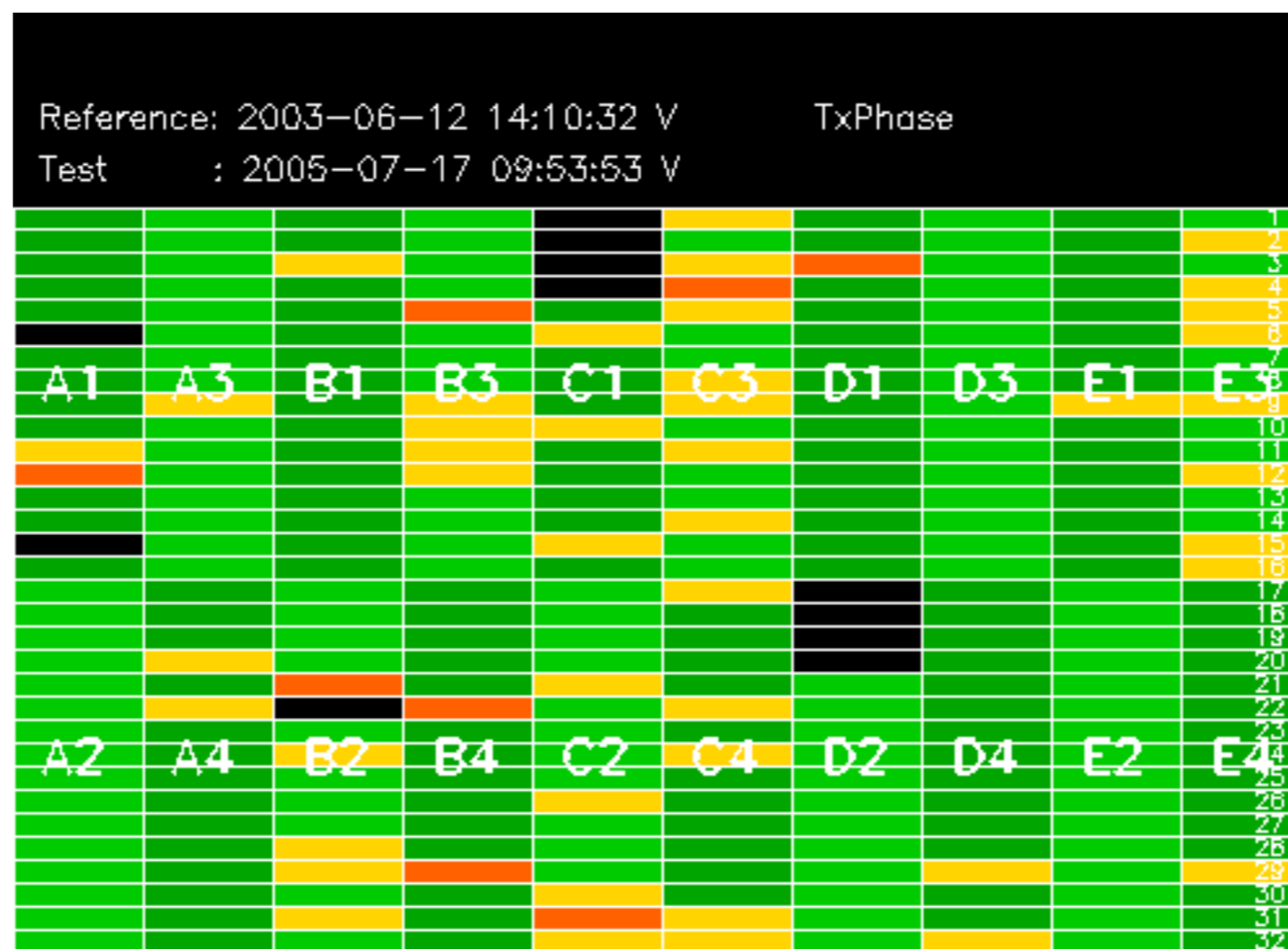


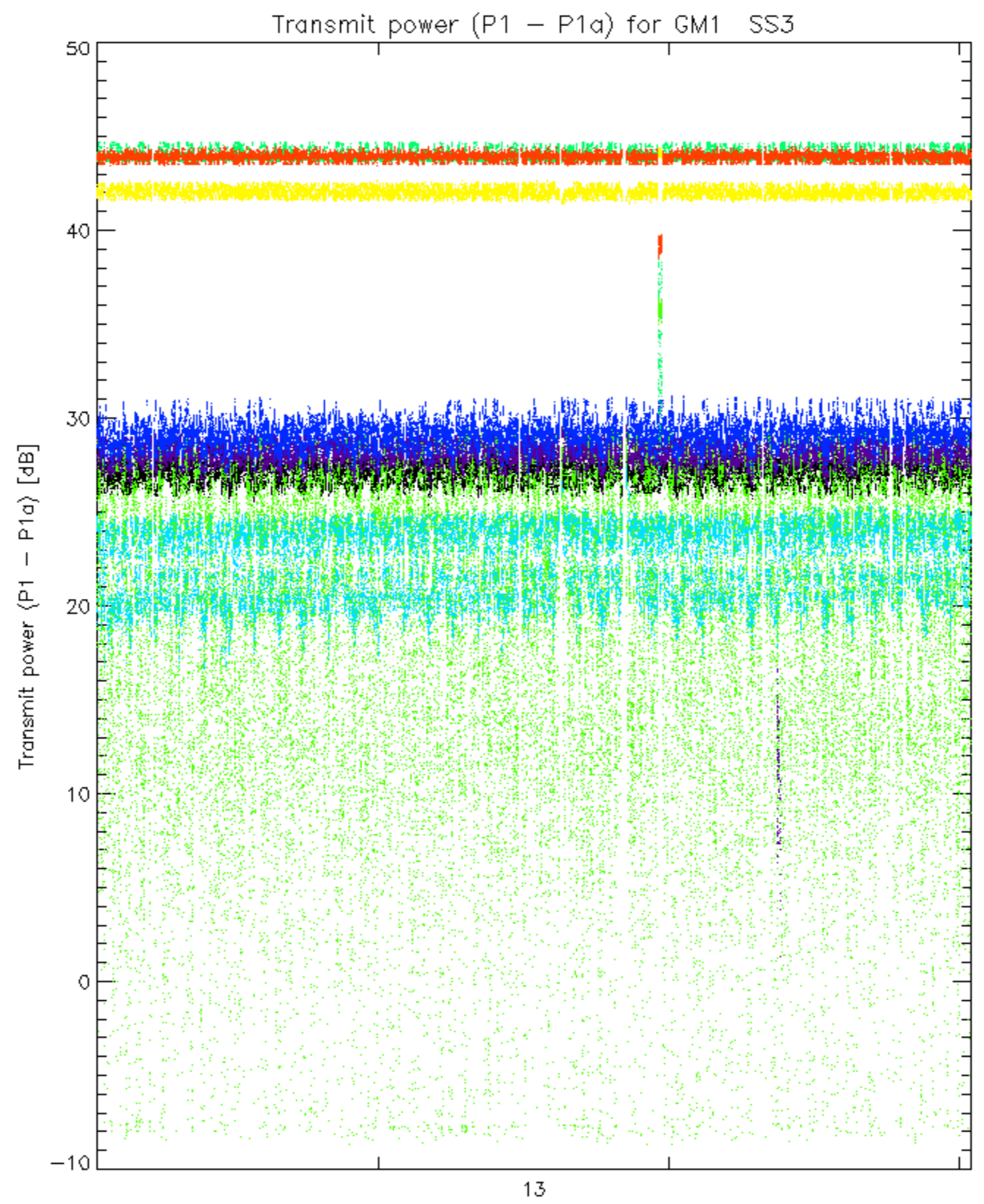




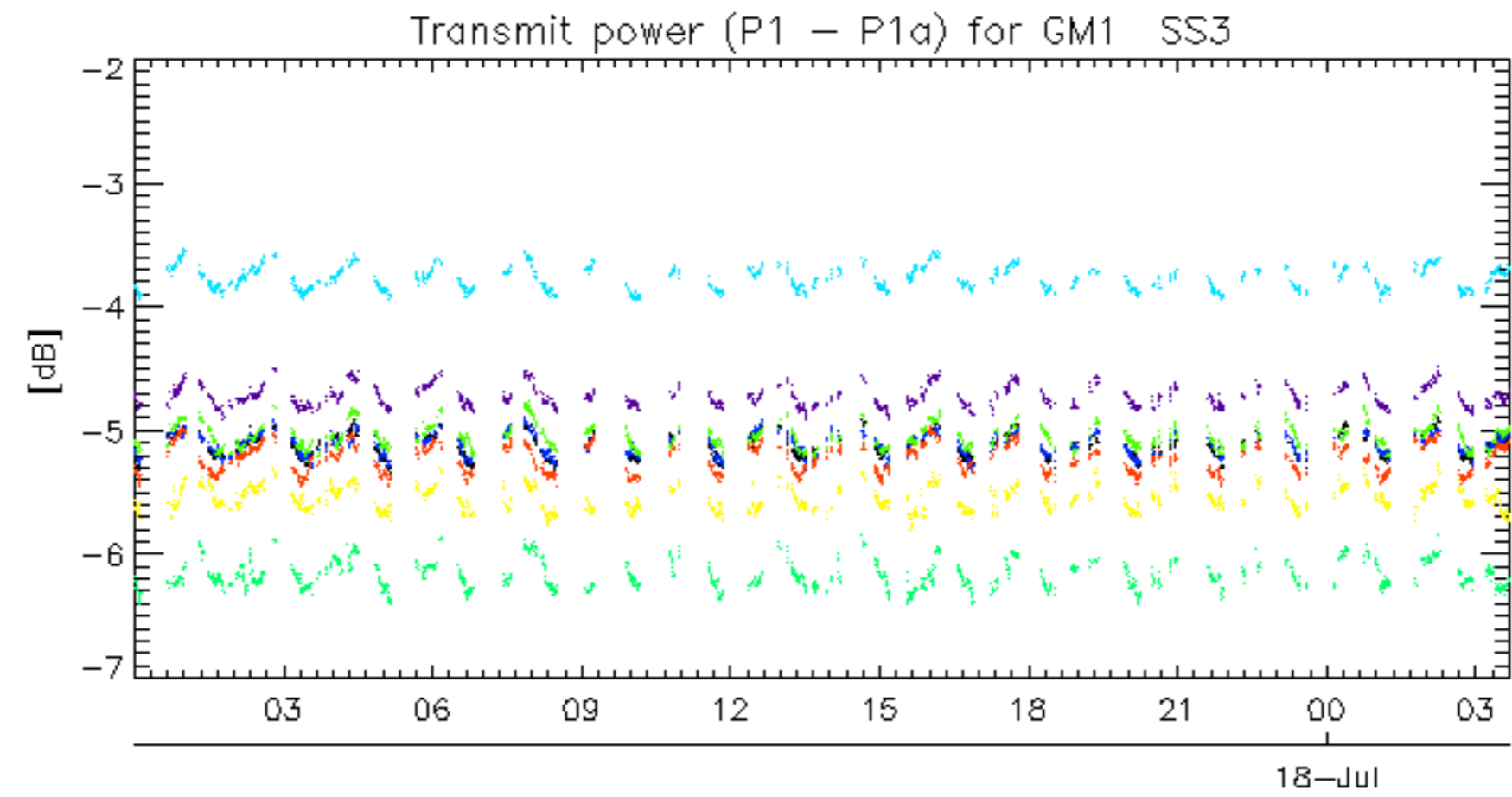




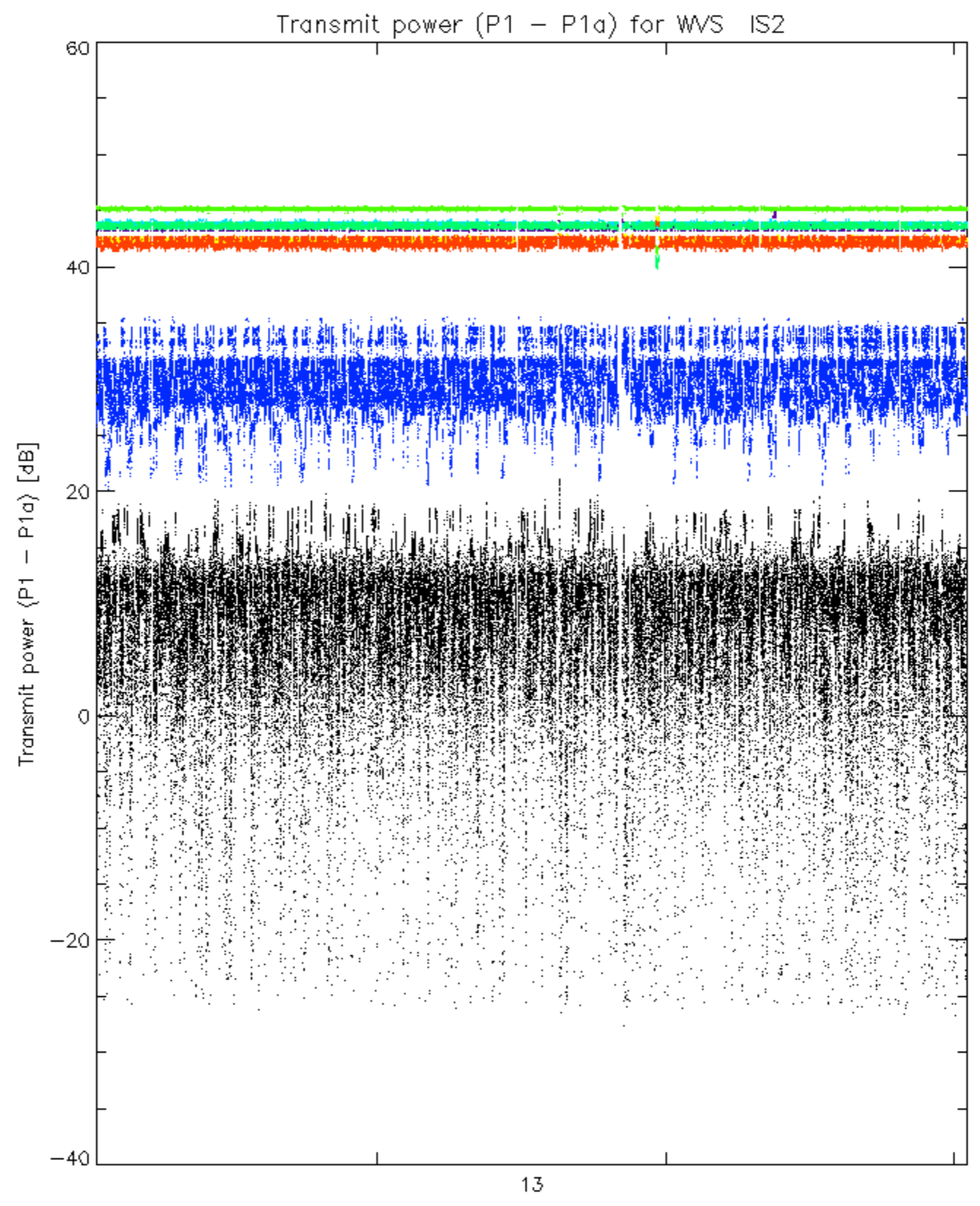




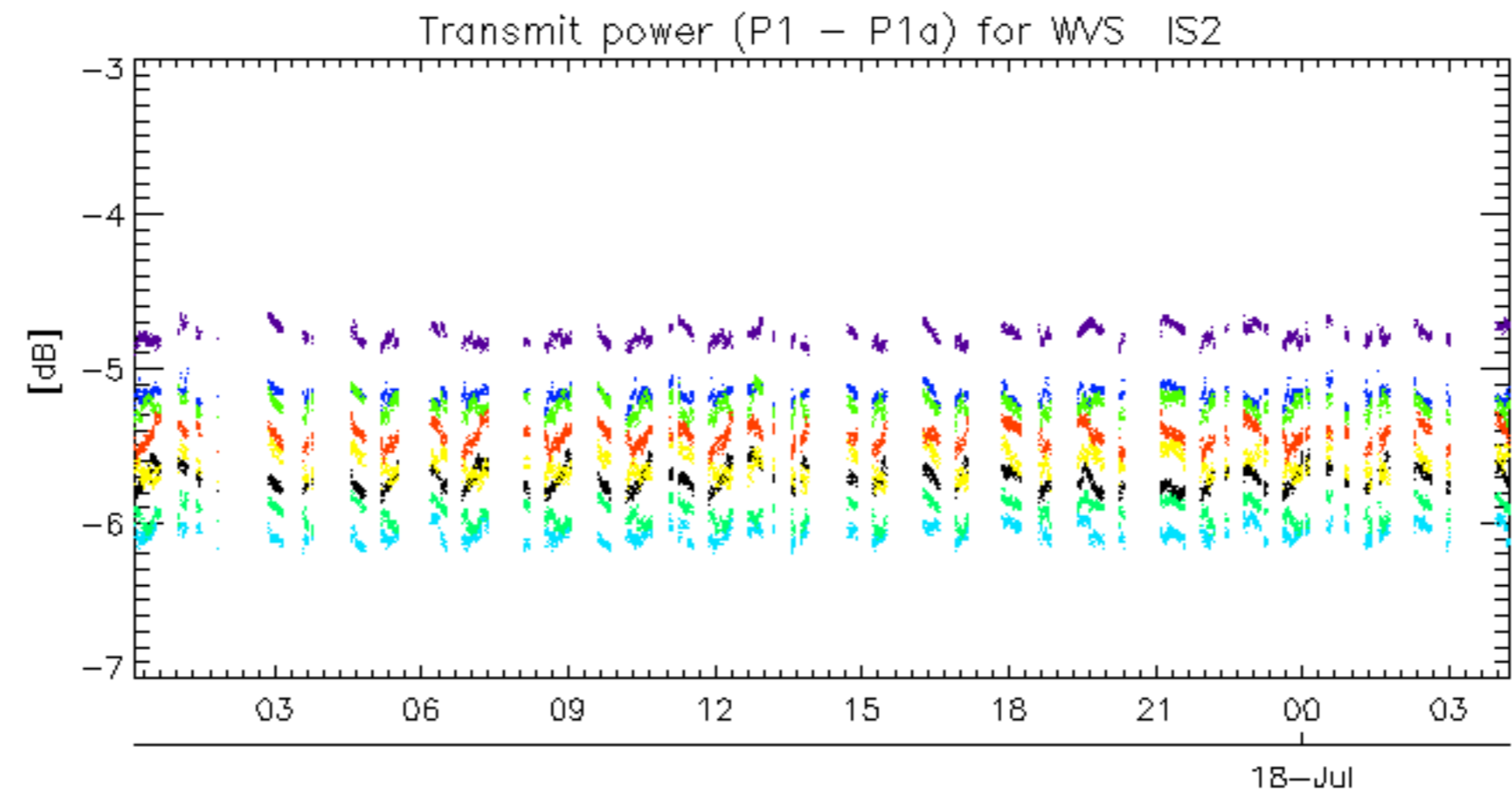
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



rows: 3 7 11 15 19 22 26 30



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

No unavailabilities during the reported period.