

PRELIMINARY REPORT OF 060704

last update on Tue Jul 4 16:49:09 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 2006-07-03 00:00:00 to 2006-07-04 16:49:09

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	44	77	10	3	24
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	44	77	10	3	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	77	10	3	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	77	10	3	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	56	25	21	68
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	56	25	21	68
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	56	25	21	68
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	56	25	21	68

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060704 085035
H	20060703 092211

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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	-3.938966	0.047354	-0.021892
7	P1	-3.133722	0.012348	0.043854
11	P1	-4.101306	0.016318	0.026875
15	P1	-6.163425	0.011411	-0.024337
19	P1	-3.370027	0.008628	-0.037727
22	P1	-4.528799	0.011221	-0.038821
26	P1	-3.959128	0.017824	0.045193
30	P1	-5.757052	0.008727	-0.016258
3	P1	-16.533325	0.633943	-0.033588
7	P1	-17.238527	0.109727	0.082071
11	P1	-16.978802	0.280120	-0.020683
15	P1	-13.170411	0.159368	0.057593
19	P1	-14.381826	0.049717	-0.106846
22	P1	-16.132647	0.386033	0.160384
26	P1	-15.176609	0.230716	0.082146
30	P1	-17.147461	0.404711	0.033763

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.088163	0.084517	0.166231
7	P2	-21.986624	0.100746	0.113764
11	P2	-15.835485	0.114405	0.096319
15	P2	-7.155352	0.097309	0.035555
19	P2	-9.164543	0.089192	0.058169
22	P2	-18.169876	0.084698	0.024767
26	P2	-16.411732	0.090832	0.014683
30	P2	-19.551491	0.090020	0.030593

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.186042	0.003646	0.012621
7	P3	-8.186042	0.003646	0.012621
11	P3	-8.186042	0.003646	0.012621
15	P3	-8.186042	0.003646	0.012621
19	P3	-8.186042	0.003646	0.012621
22	P3	-8.186042	0.003646	0.012621
26	P3	-8.186042	0.003646	0.012621
30	P3	-8.186042	0.003646	0.012621

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	-3.807039	0.064912	0.002612
7	P1	-2.575319	0.008465	0.041725
11	P1	-2.858162	0.013692	0.006984
15	P1	-3.532967	0.027800	-0.053560
19	P1	-3.415605	0.014317	-0.004036
22	P1	-5.087465	0.019859	-0.007974
26	P1	-5.859766	0.016234	-0.008817
30	P1	-5.192511	0.026317	0.008623
3	P1	-11.622864	0.174263	0.057213
7	P1	-9.983461	0.033115	0.025772
11	P1	-10.238914	0.059130	0.000167
15	P1	-10.705314	0.131279	-0.088175
19	P1	-15.540630	0.078343	0.017489
22	P1	-20.947880	1.149019	0.054273

26	P1	-16.428225	0.343826	0.158848
30	P1	-17.868296	0.379806	0.041662

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.757820	0.076167	0.220102
7	P2	-22.461441	0.132983	0.081866
11	P2	-11.114566	0.048574	0.117387
15	P2	-4.924680	0.049050	0.006610
19	P2	-6.884769	0.053183	0.015457
22	P2	-8.209187	0.042978	0.017125
26	P2	-24.170670	0.069372	-0.045248
30	P2	-22.049215	0.055972	0.063274

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.021832	0.004381	0.011795
7	P3	-8.021938	0.004365	0.011583
11	P3	-8.021832	0.004388	0.011690
15	P3	-8.021806	0.004388	0.011647
19	P3	-8.021783	0.004385	0.011884
22	P3	-8.021957	0.004370	0.011782
26	P3	-8.021965	0.004382	0.011799
30	P3	-8.021859	0.004359	0.011775

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	0.000566649
	stdev	1.67550e-07
MEAN Q	mean	0.000528663
	stdev	2.18341e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137671
	stdev	0.00116200
STDEV Q	mean	0.138034
	stdev	0.00118002



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[234]

The assumptions 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_1PNPDE20060702_125758_000000512049_00081_22680_0270.N1	1	0
ASA_IMM_1PNPDE20060703_002903_000000512049_00088_22687_0280.N1	1	0
ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64
ASA_WSM_1PNPDE20060702_171036_000002382049_00084_22683_0923.N1	0	6
ASA_WSM_1PNPDE20060703_182248_000002442049_00099_22698_1105.N1	0	17



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

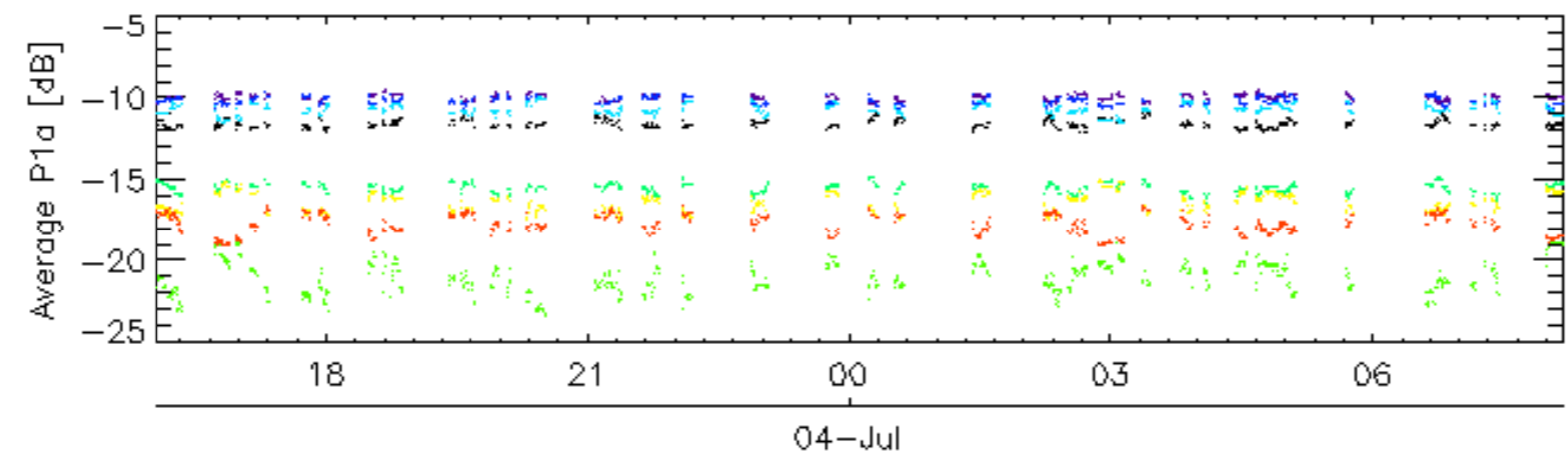
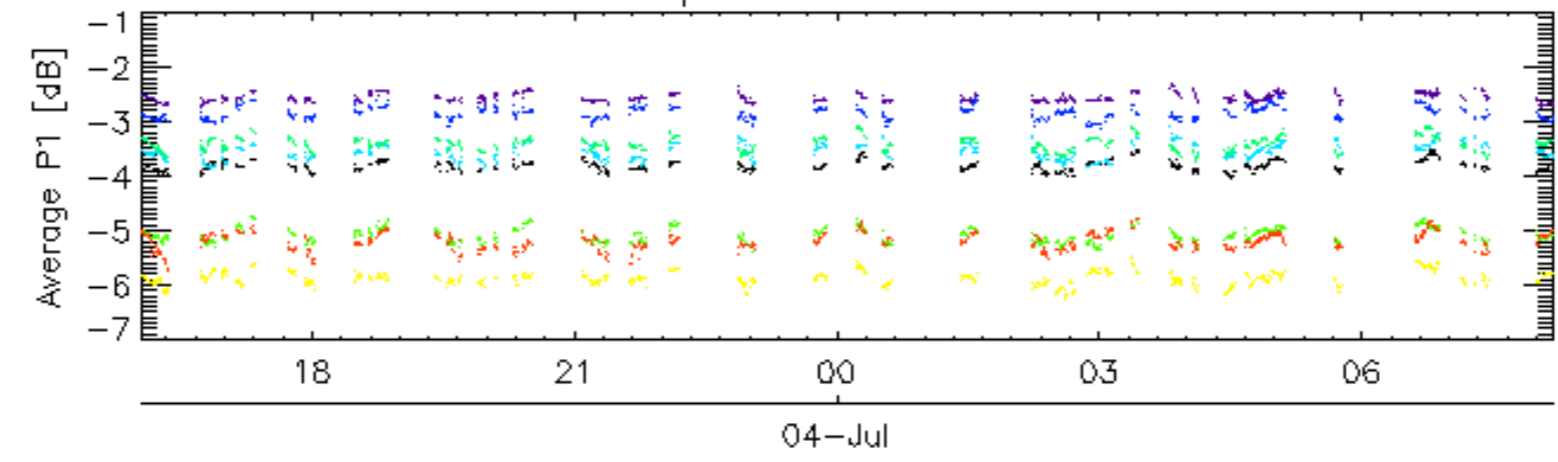
Ascending

Descending

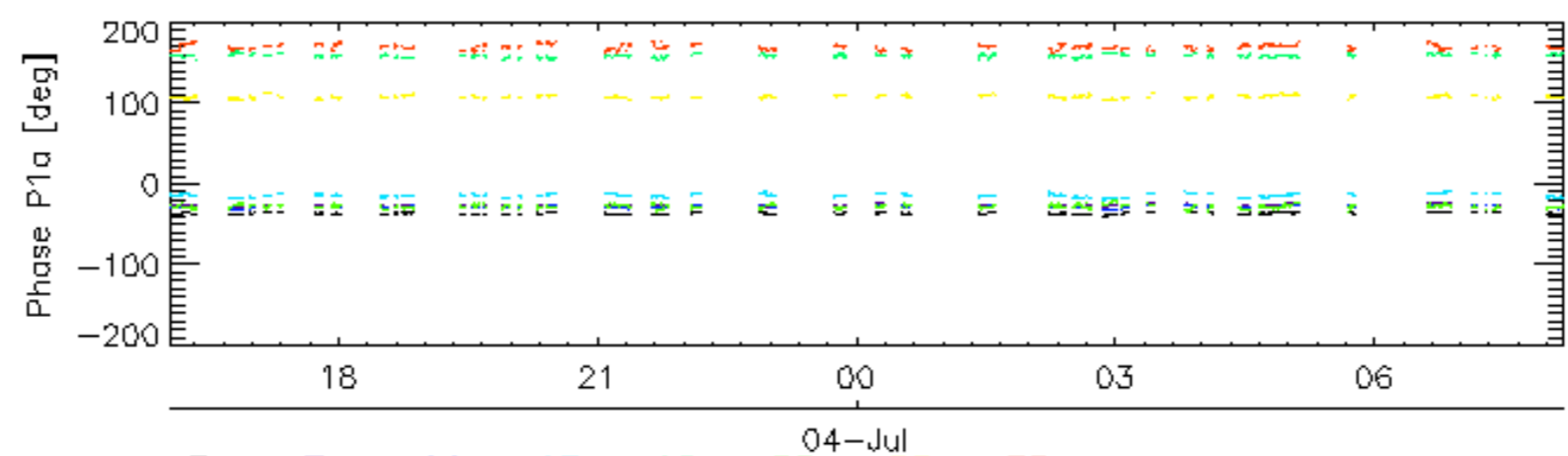
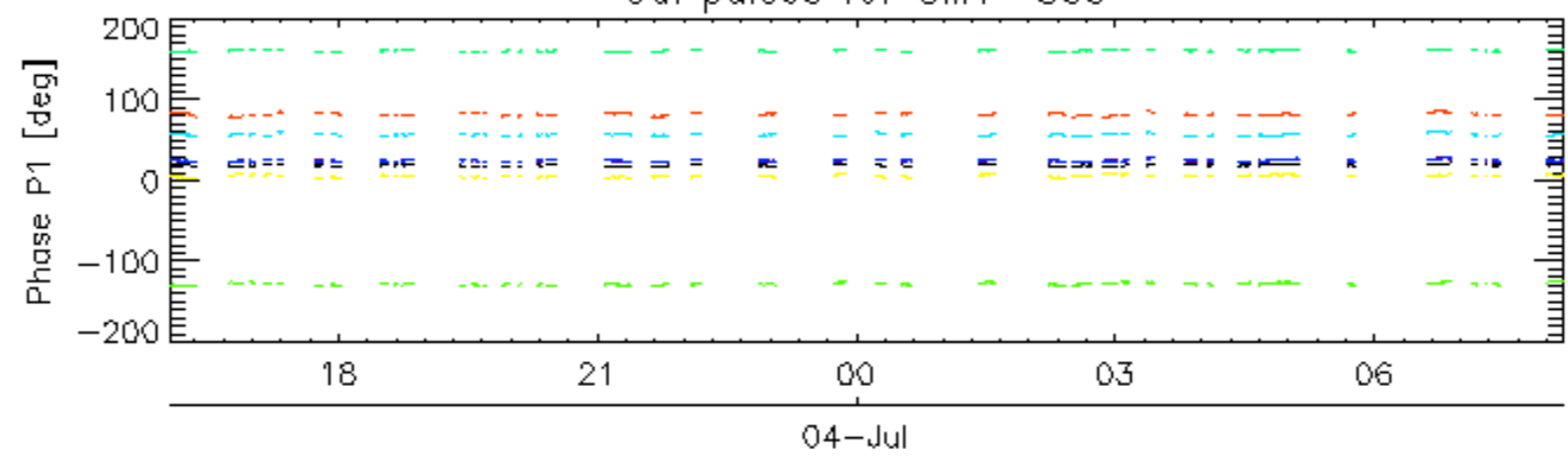
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

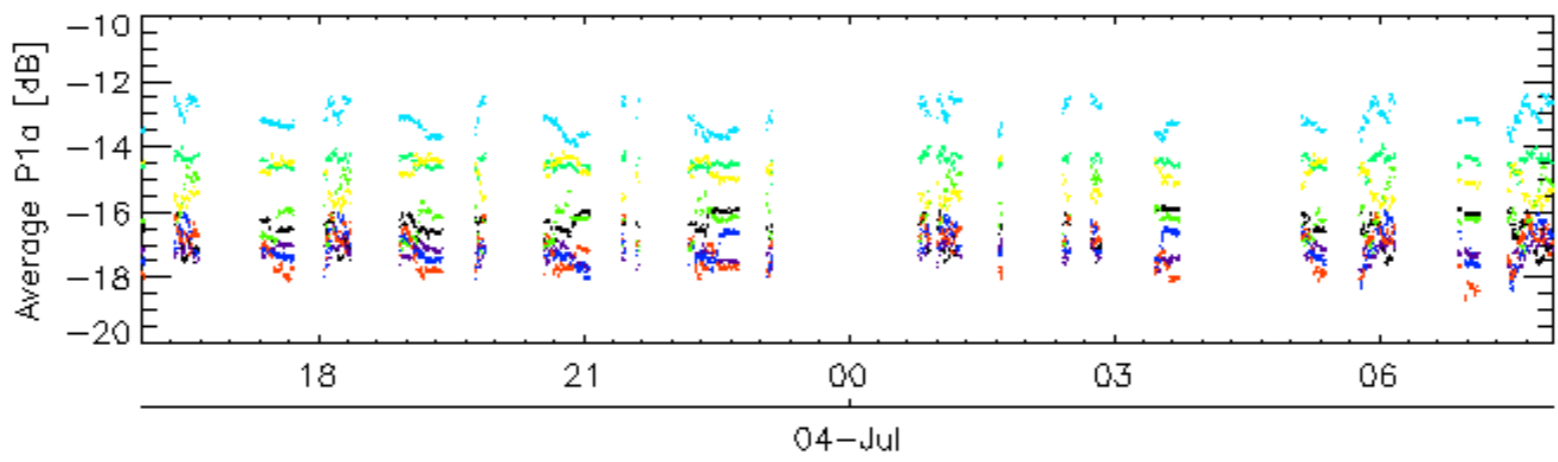
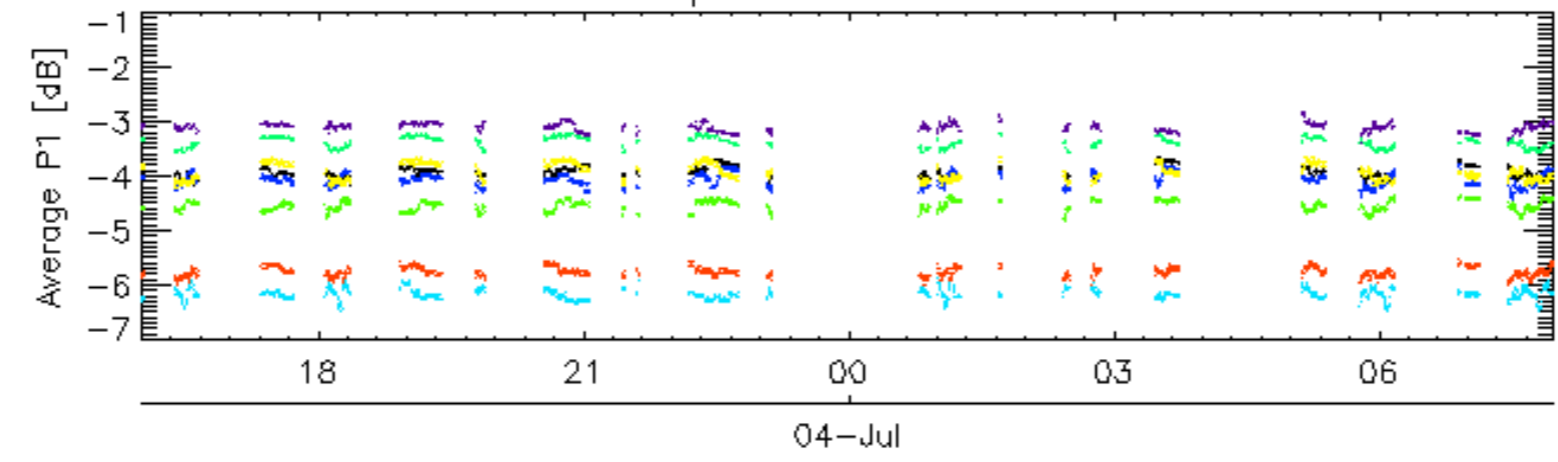


Cal pulses for GM1 SS3

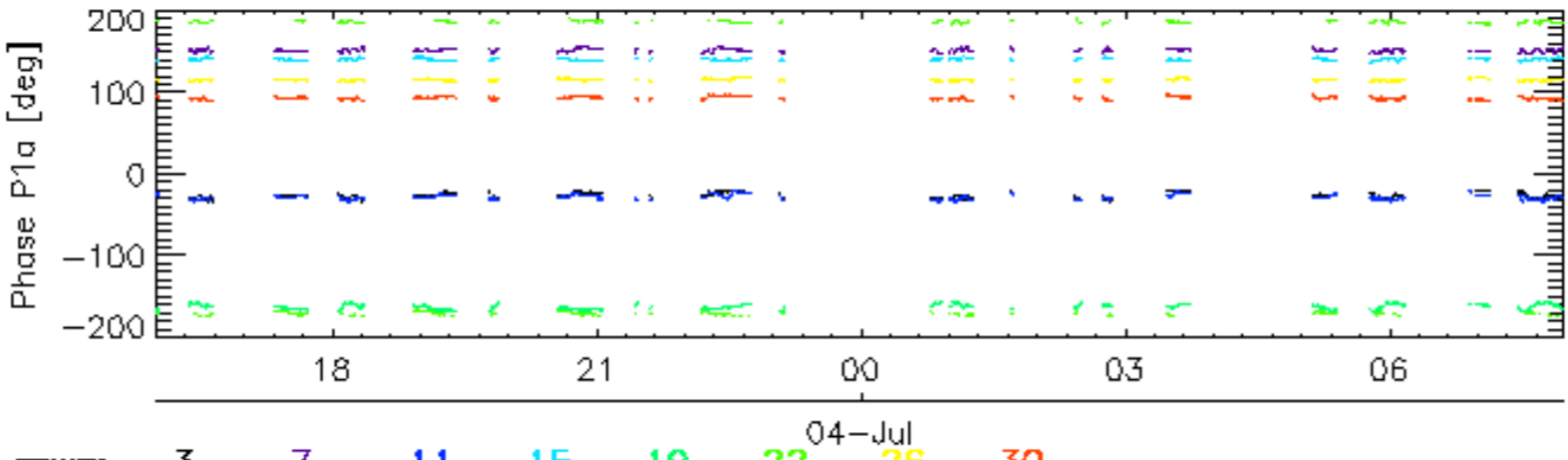
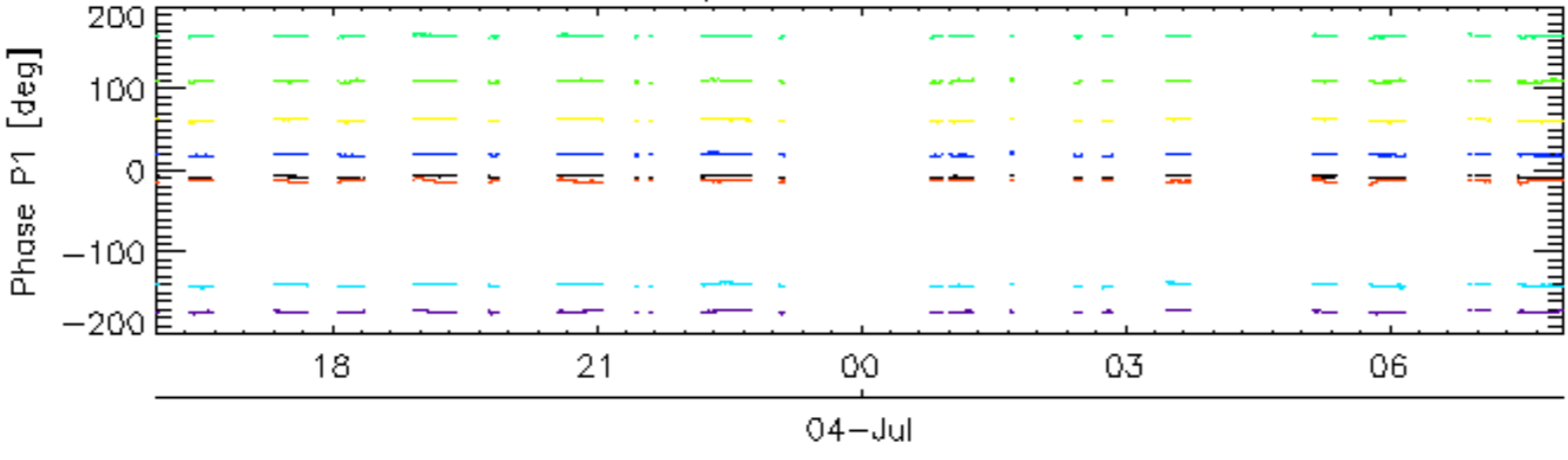


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

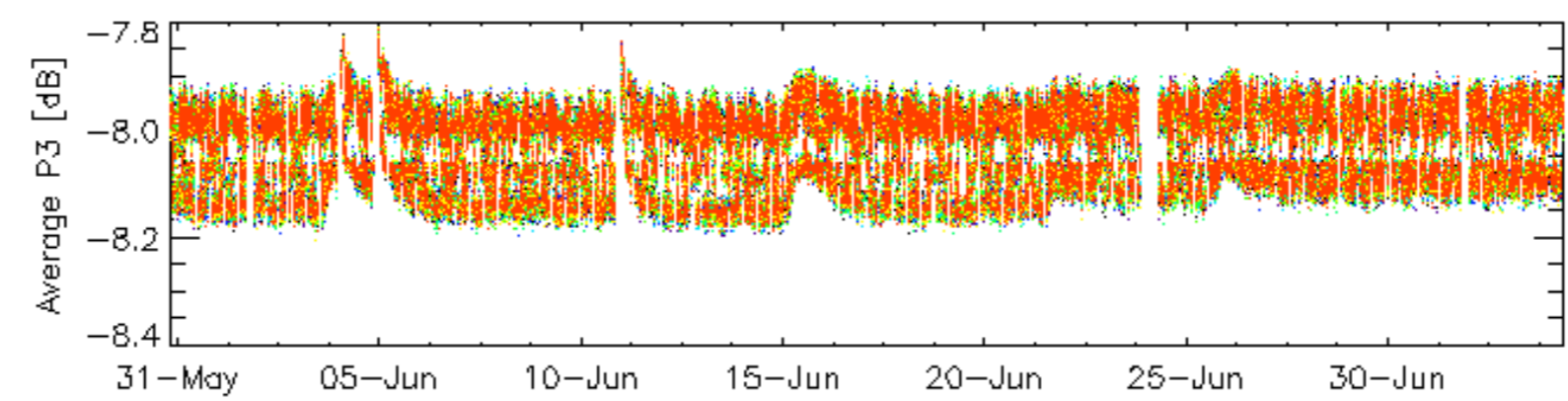
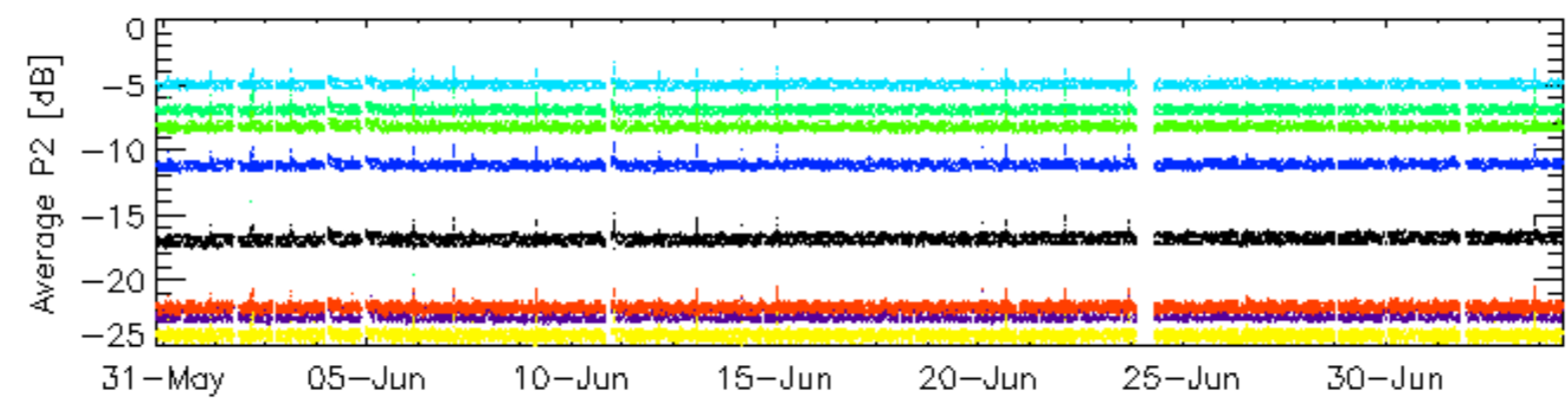
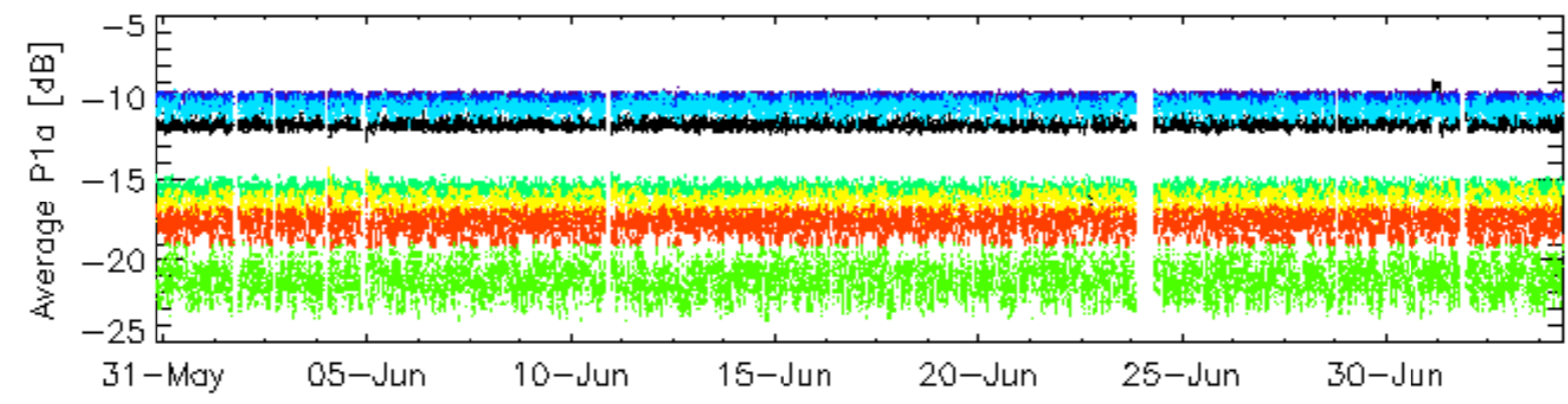
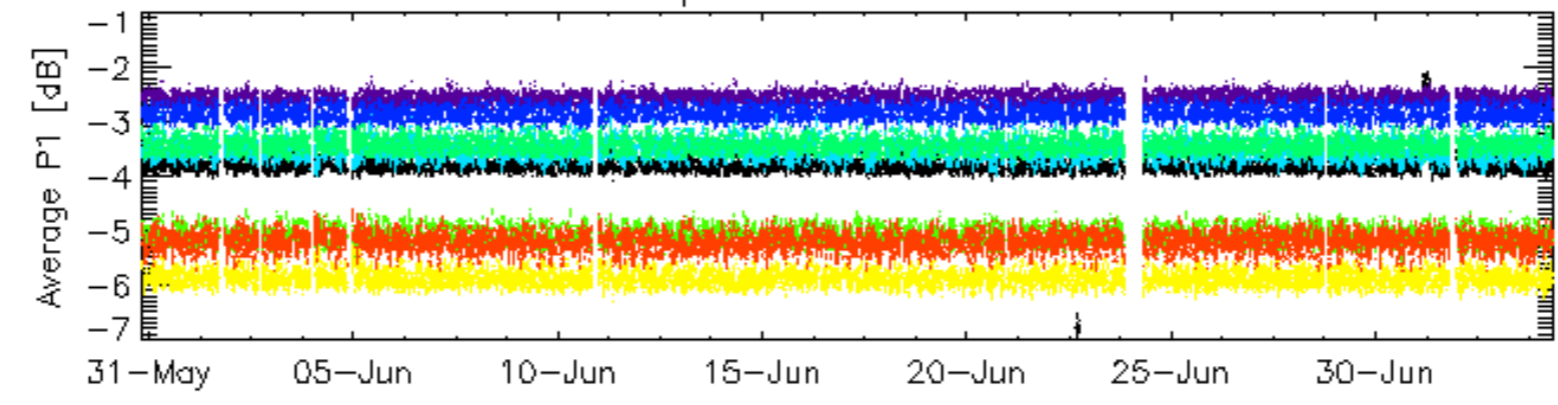


Cal pulses for WVS IS2



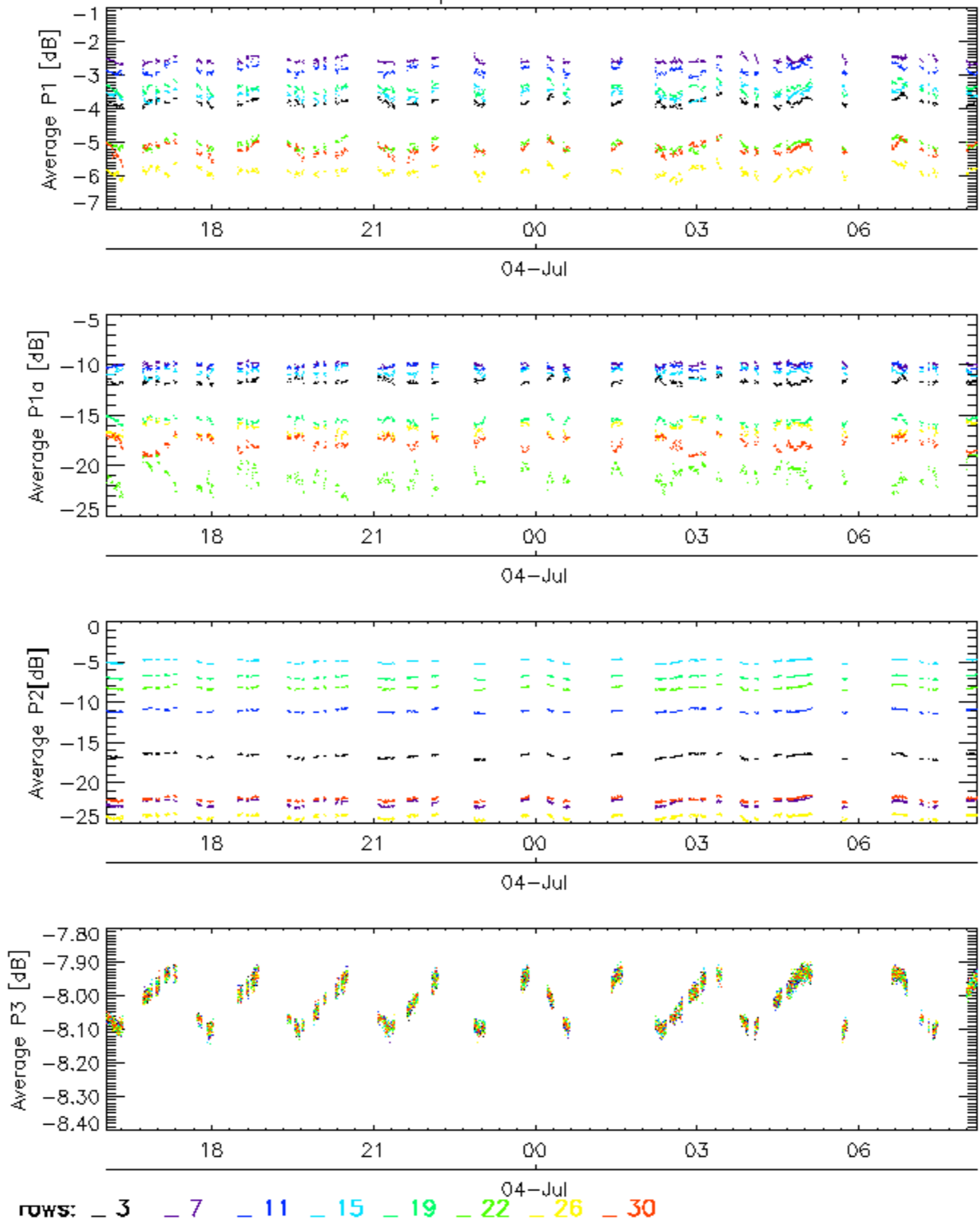
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

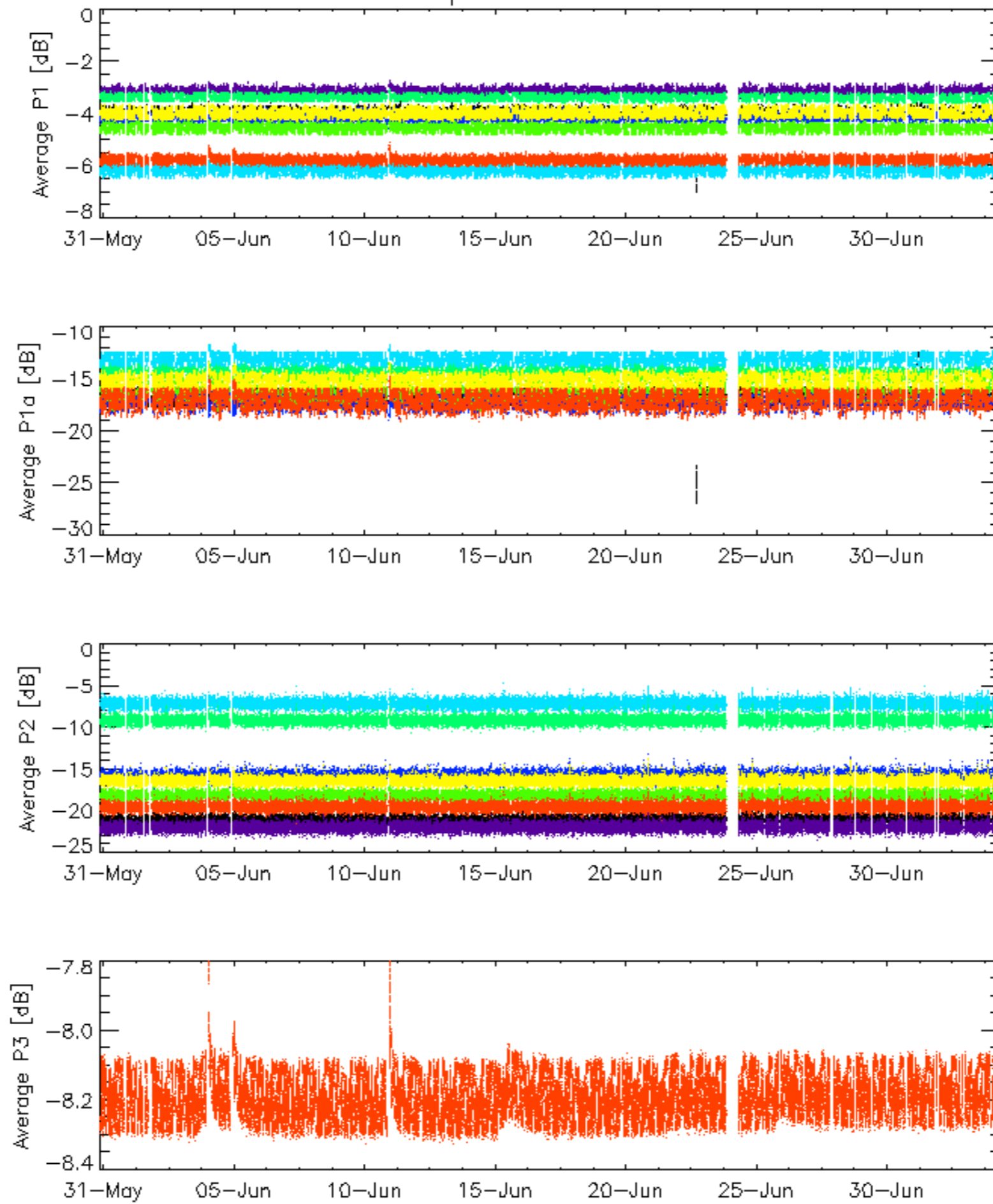


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

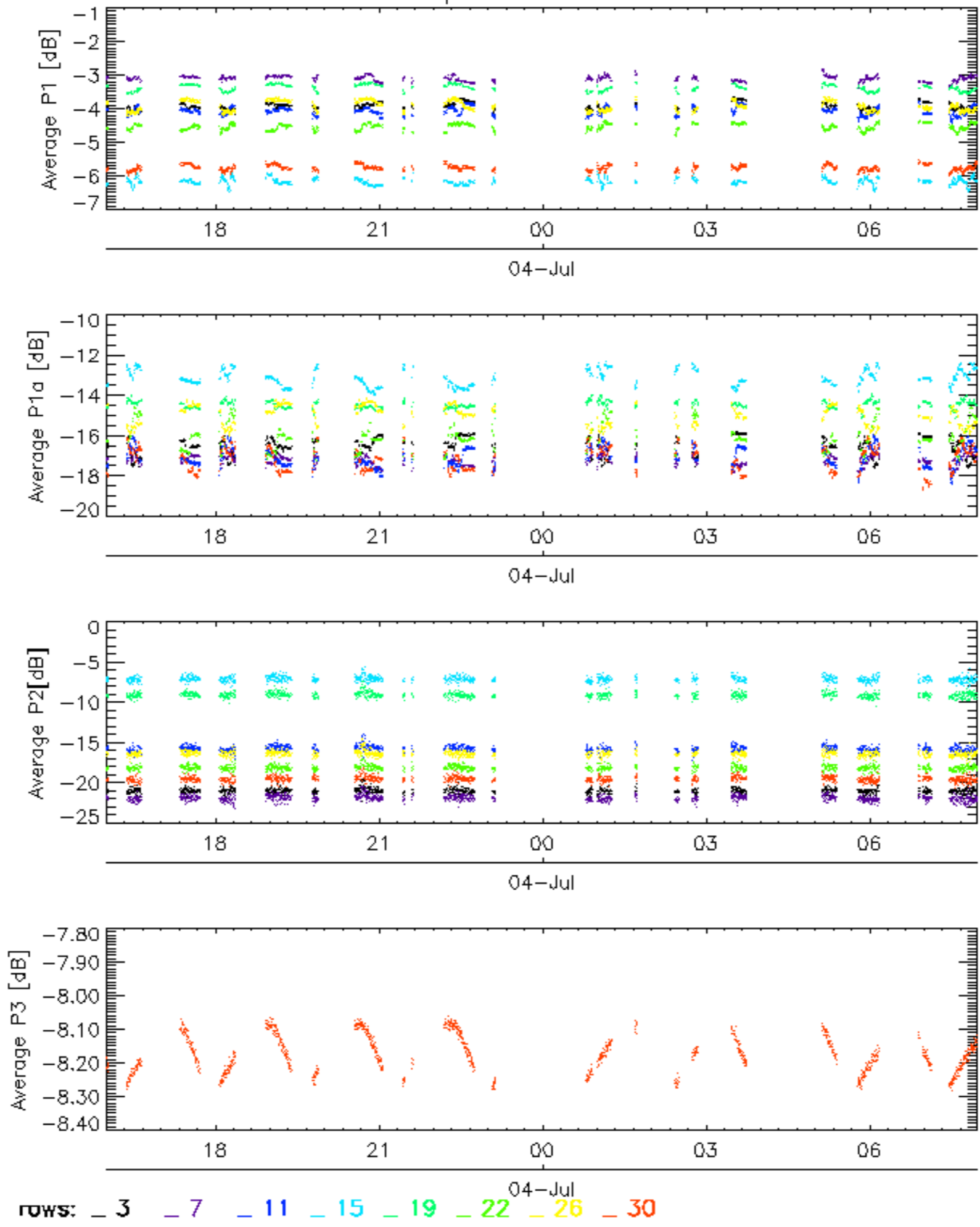


Cal pulses for WVS IS2



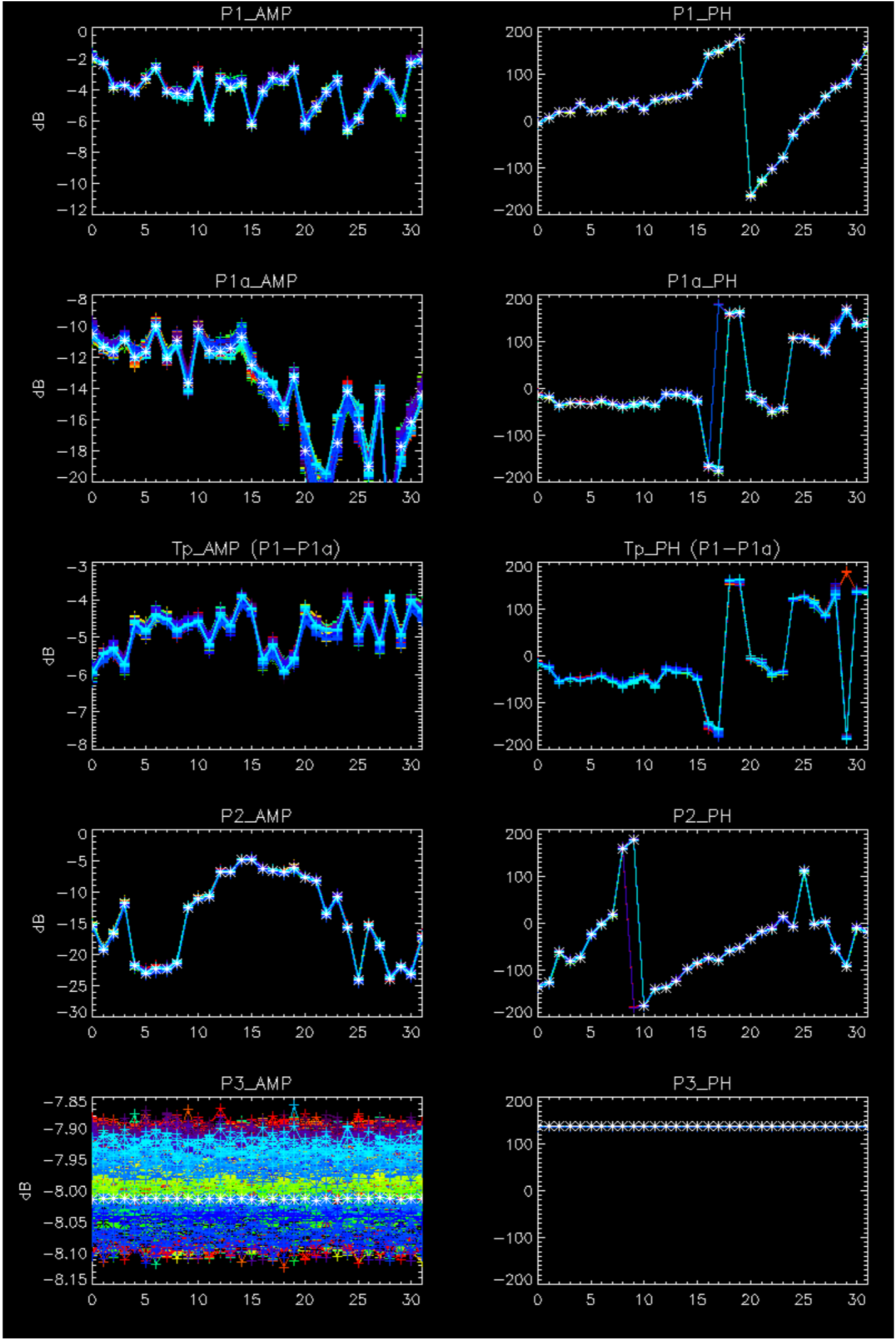
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

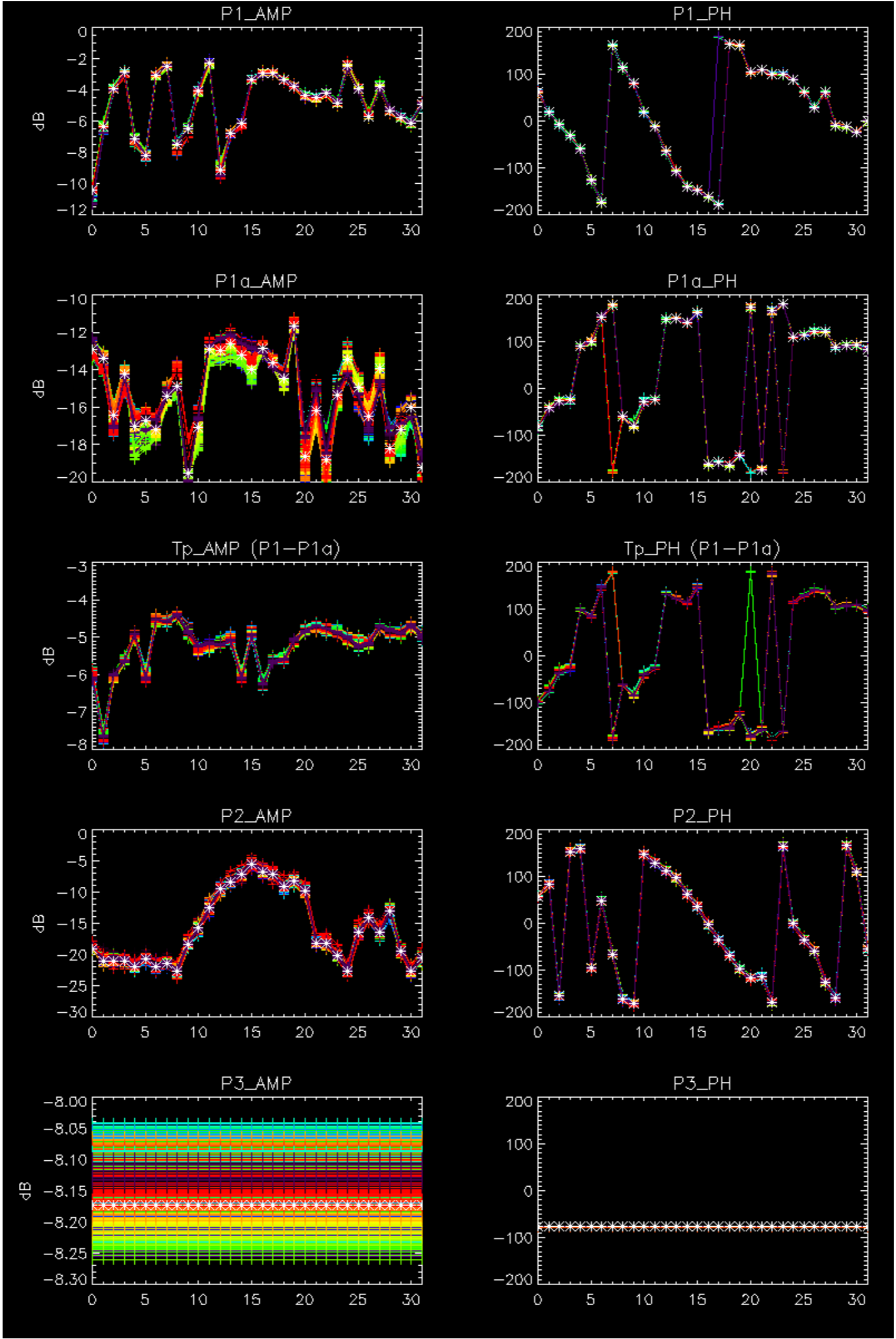
Cal pulses for WVS IS2



No anomalies observed on available browse products

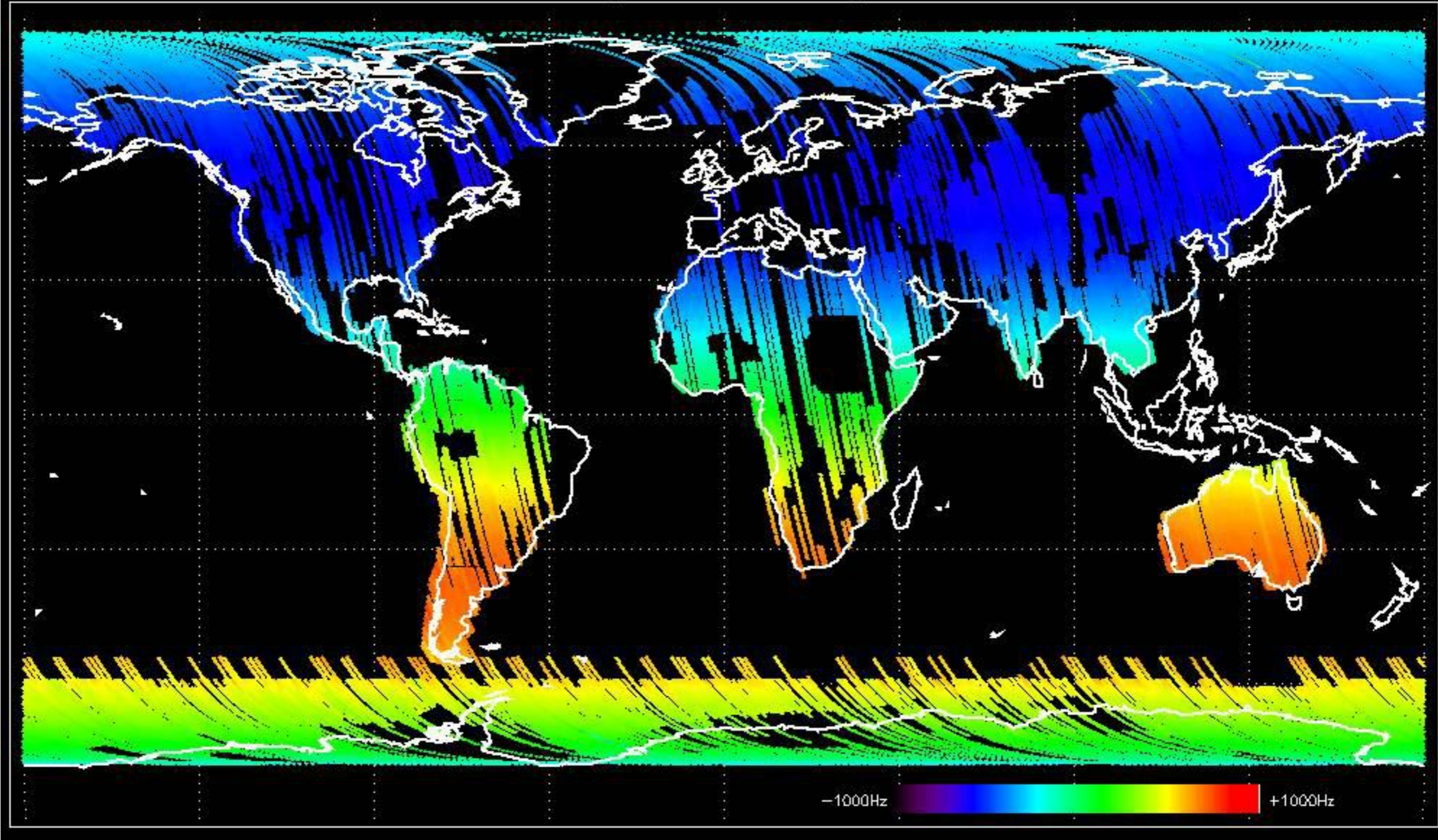
No anomalies observed.



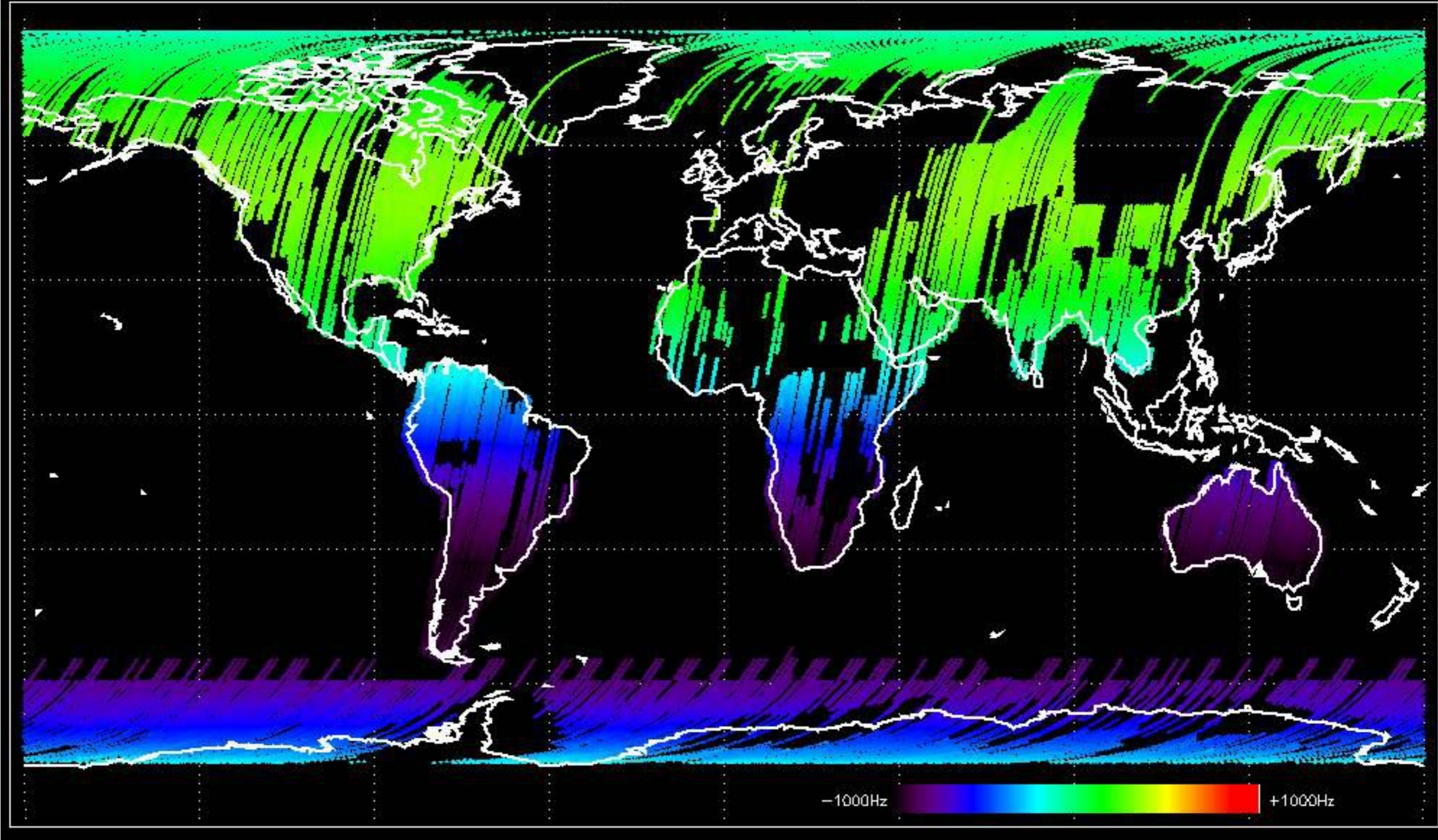


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

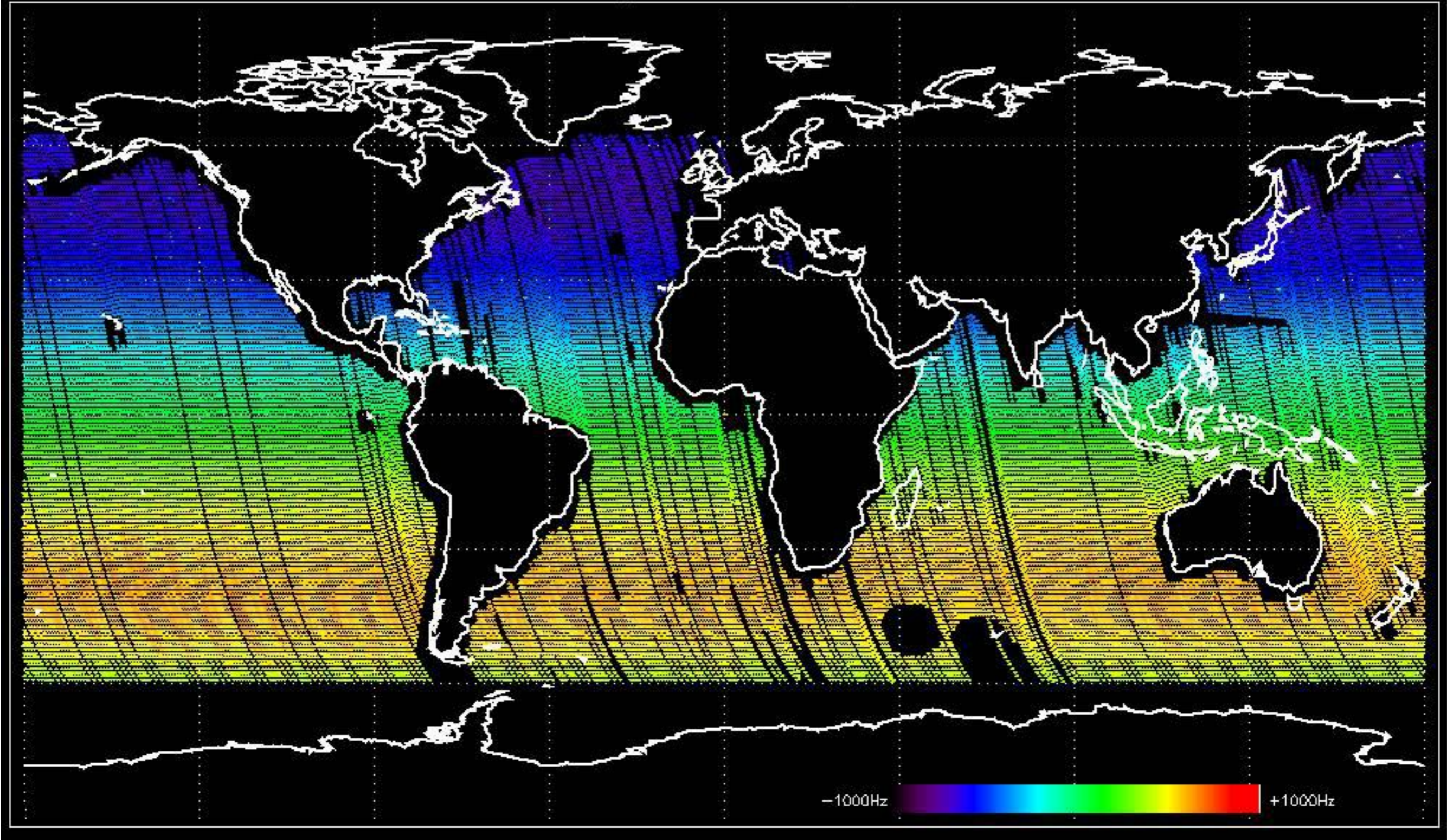
Doppler 'GM1' 'SS1' ascending



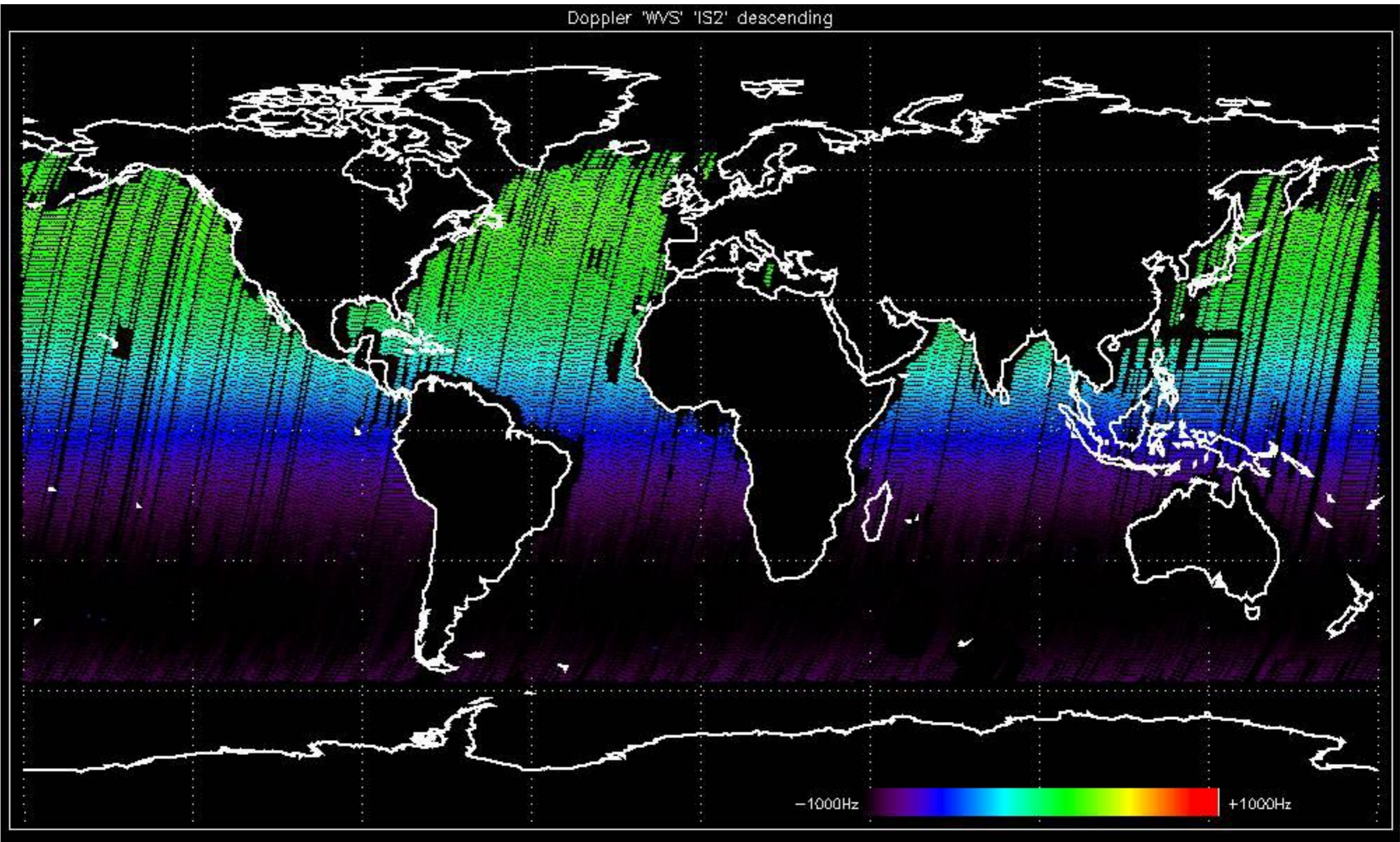
Doppler 'GM1' 'SS1' descending



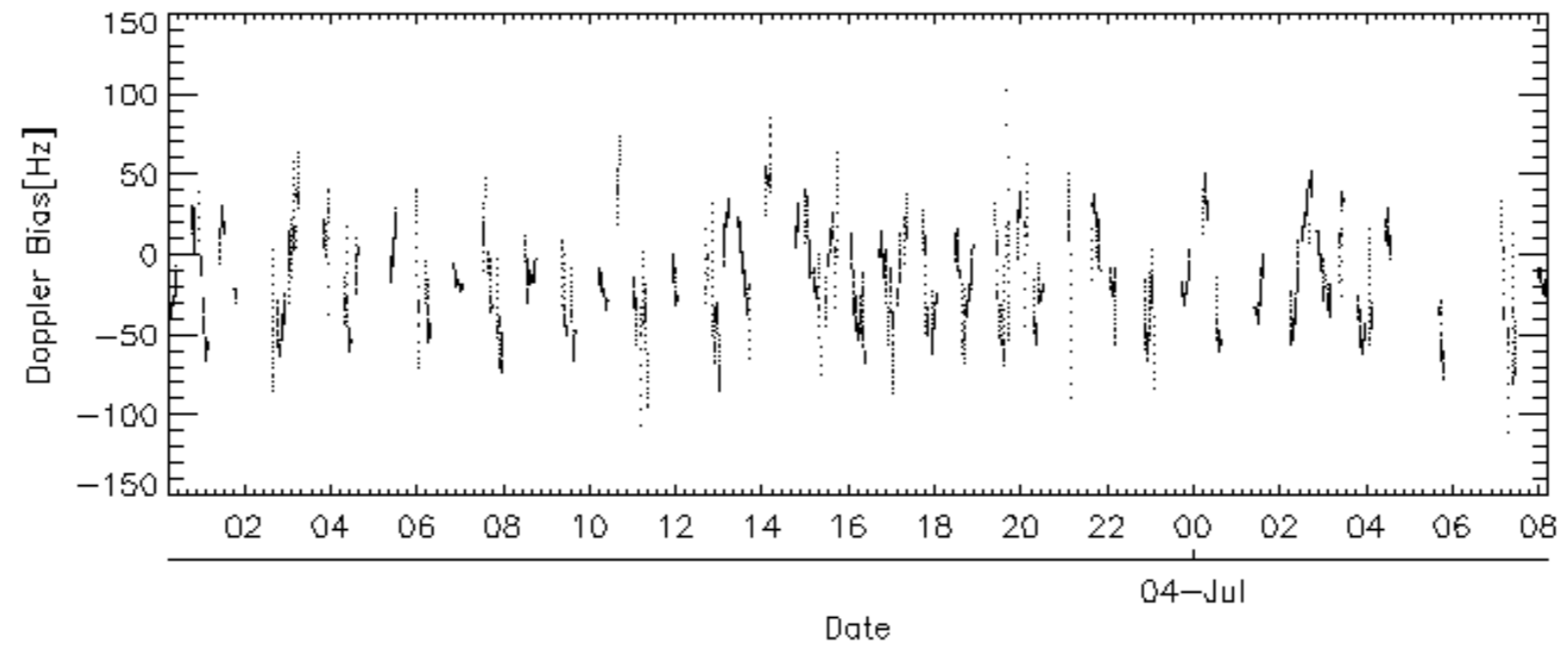
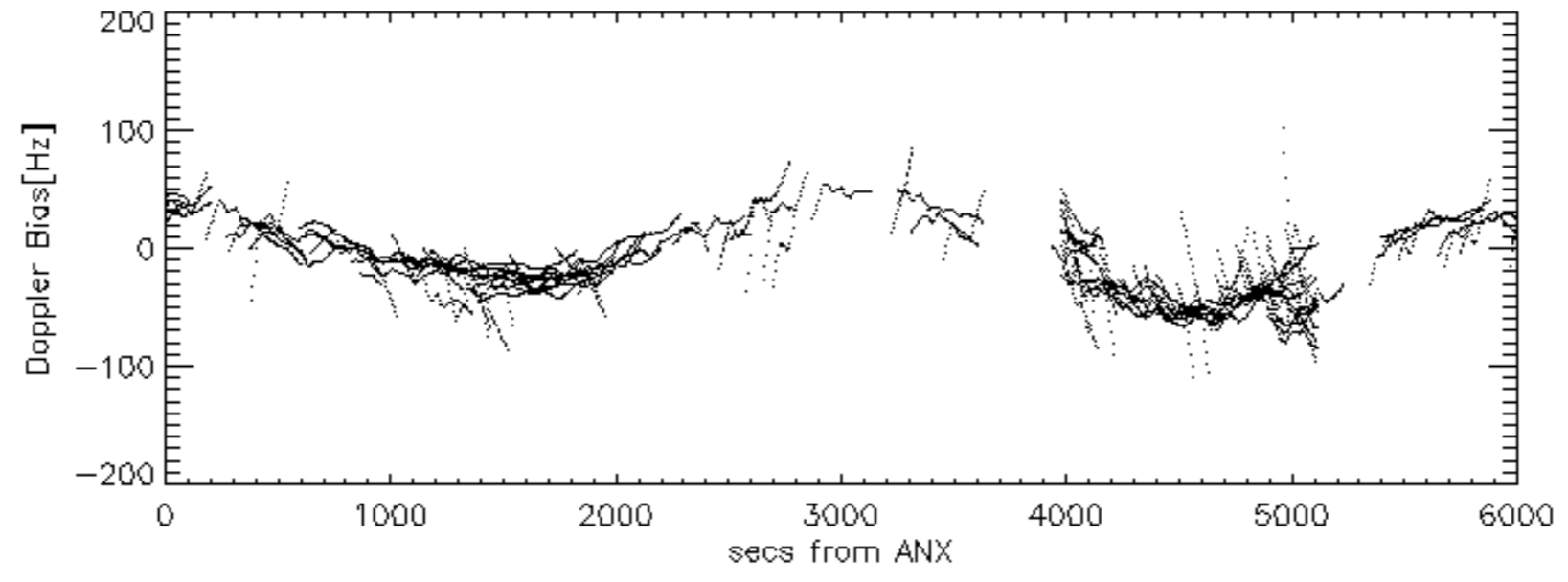
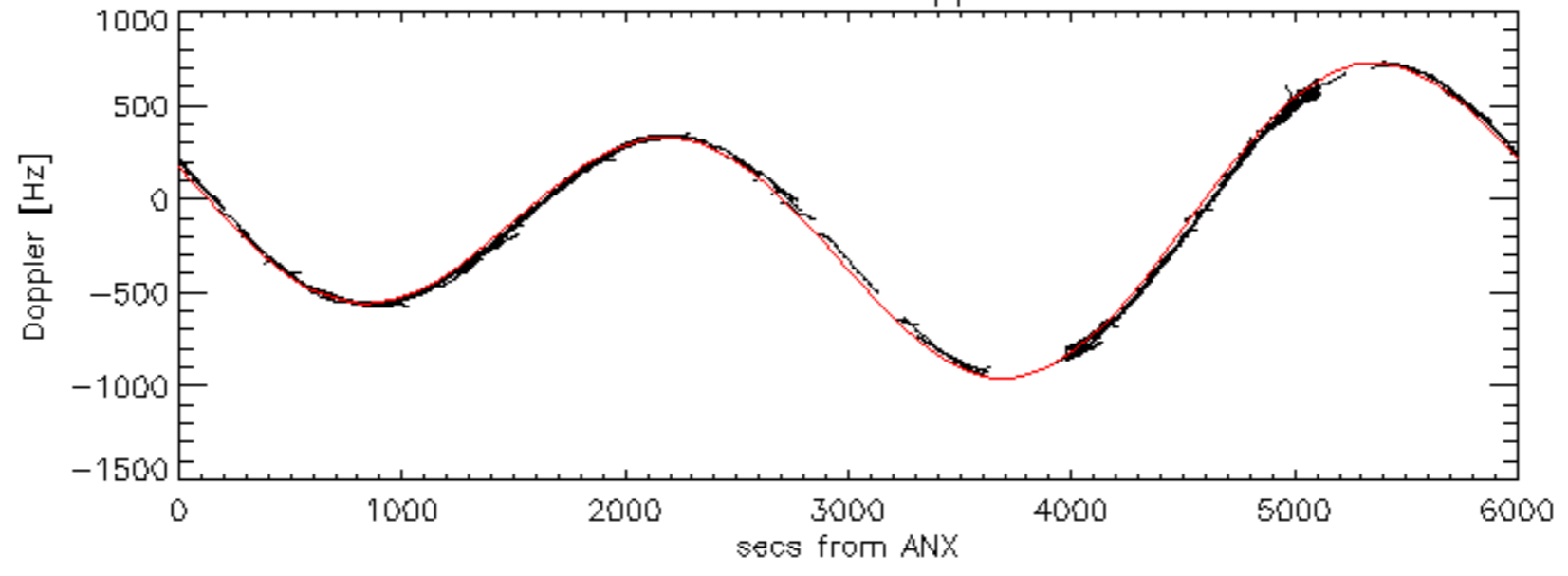
Doppler 'WVS' 'IS2' ascending

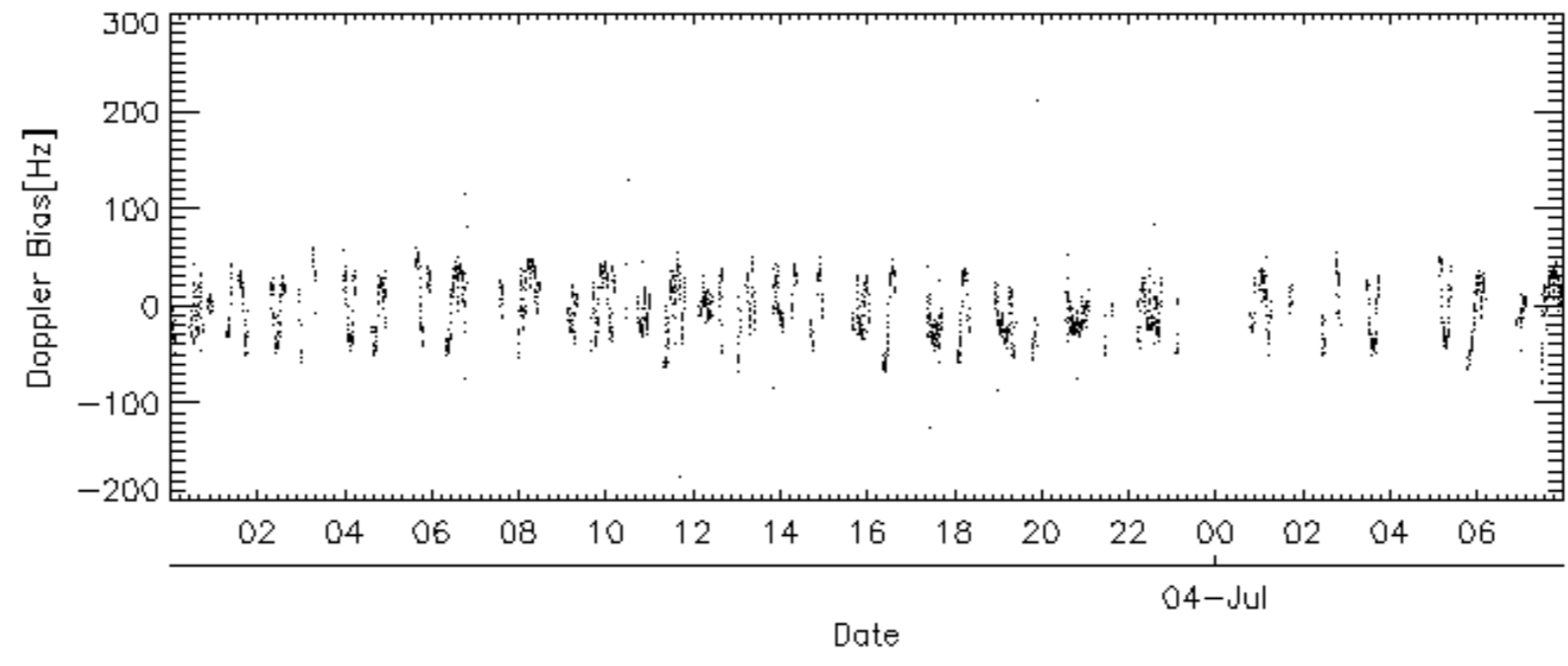
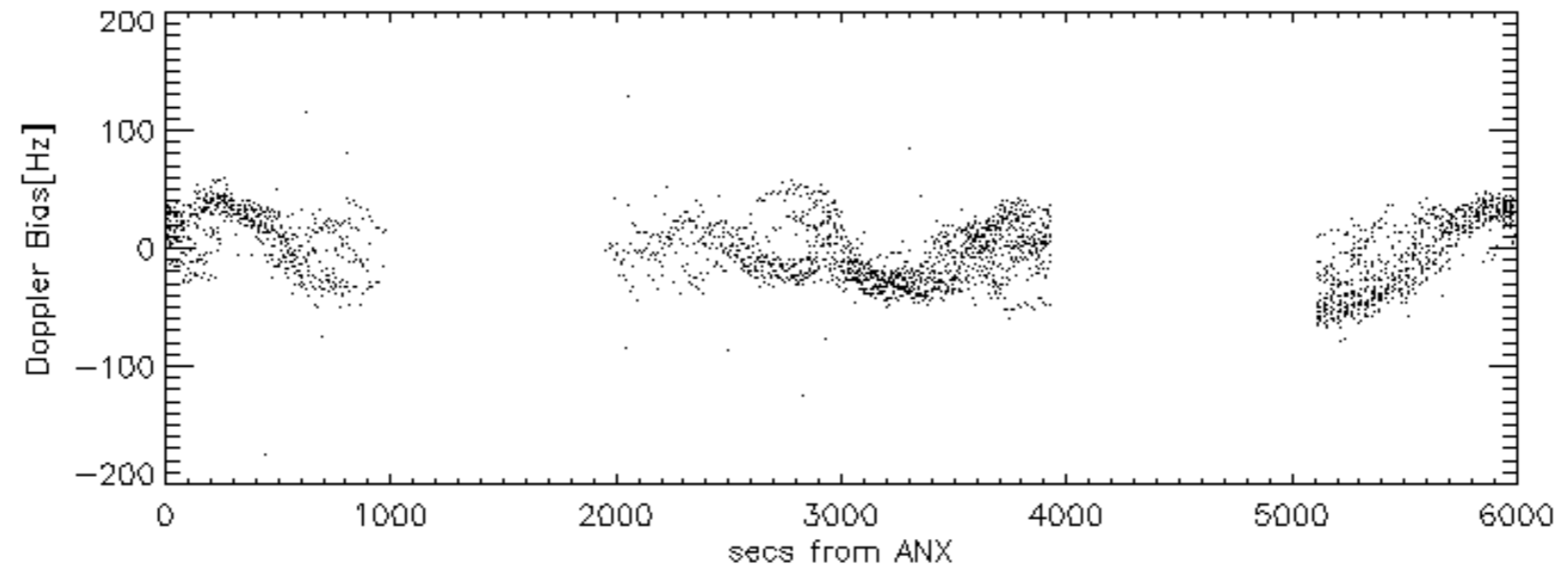
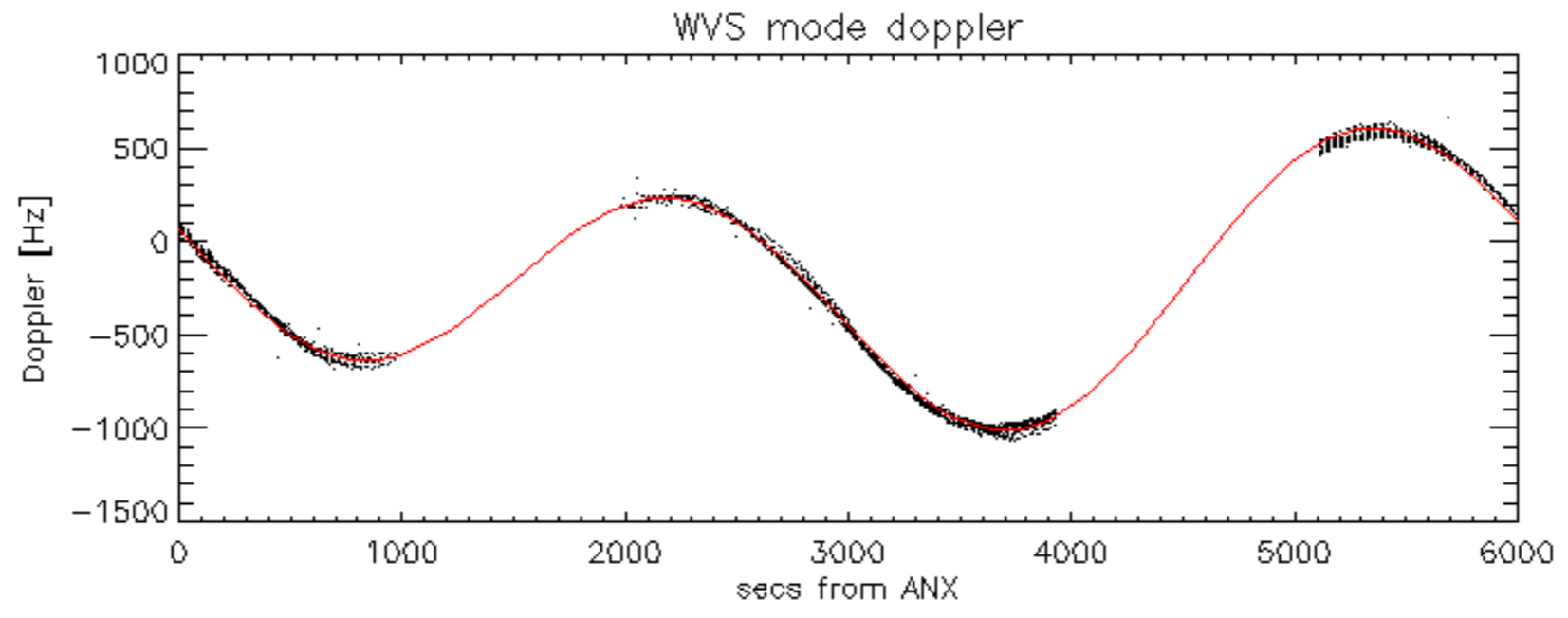


Doppler 'WVS' 'IS2' descending

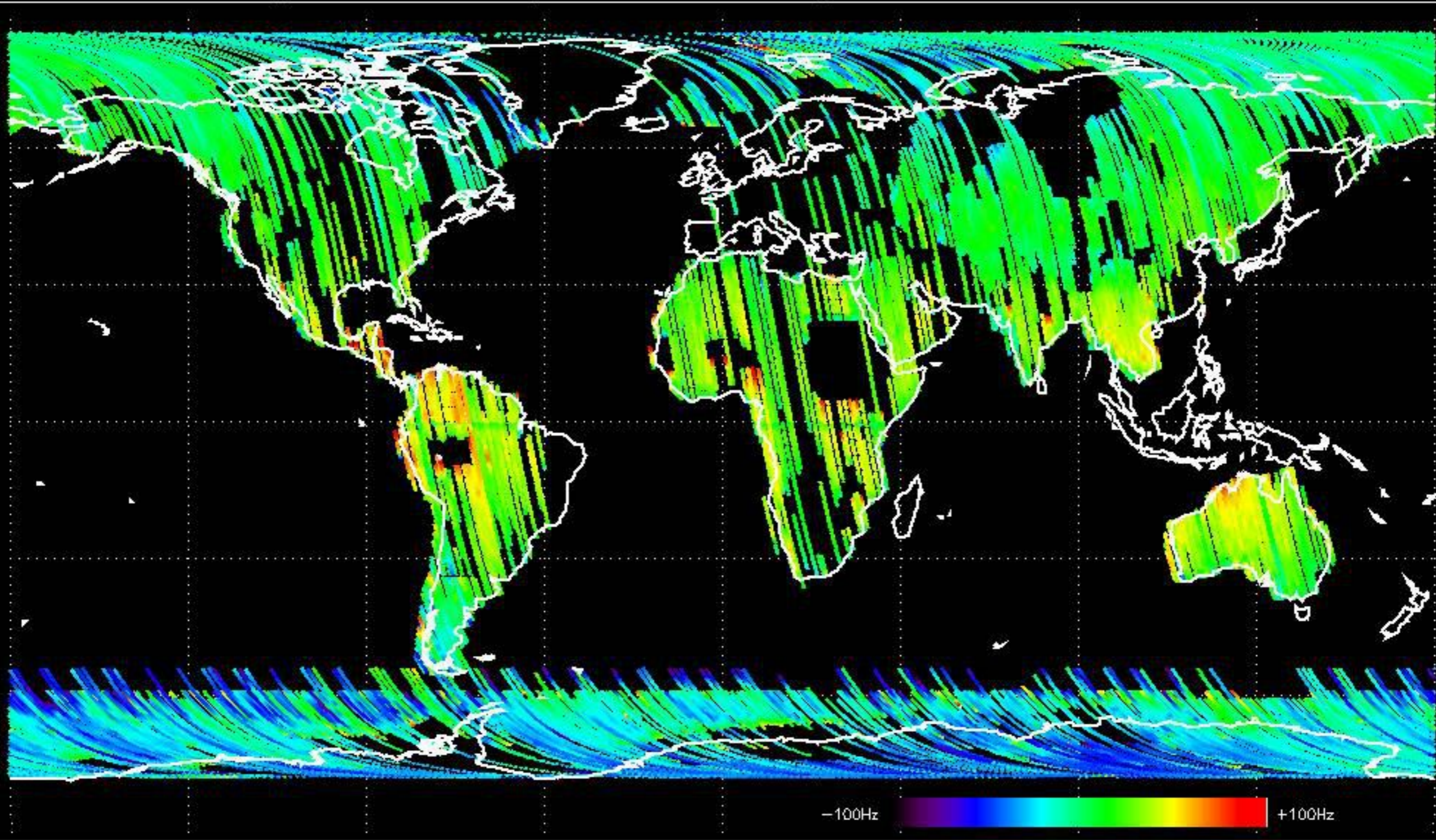


GM1 mode doppler

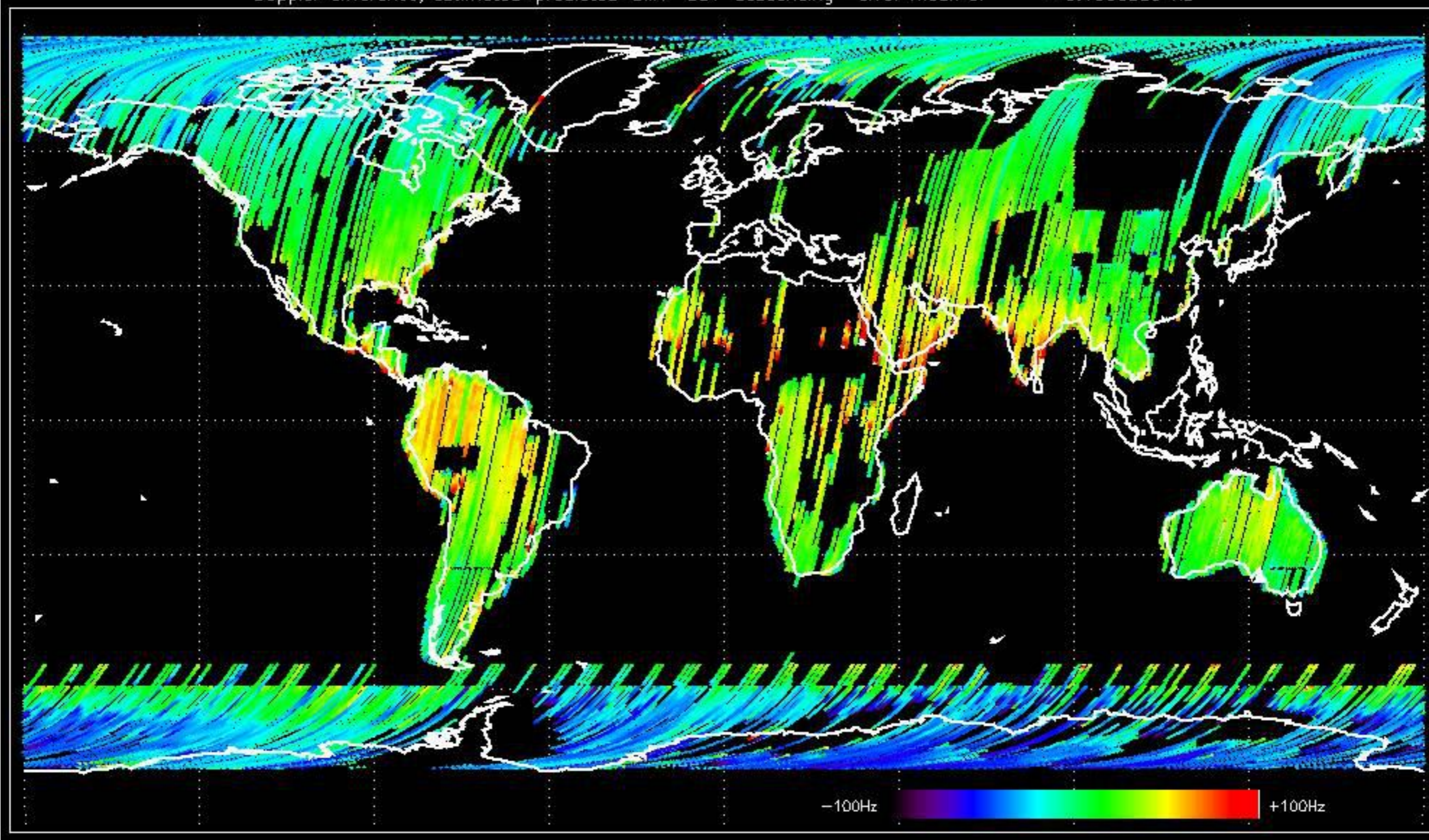




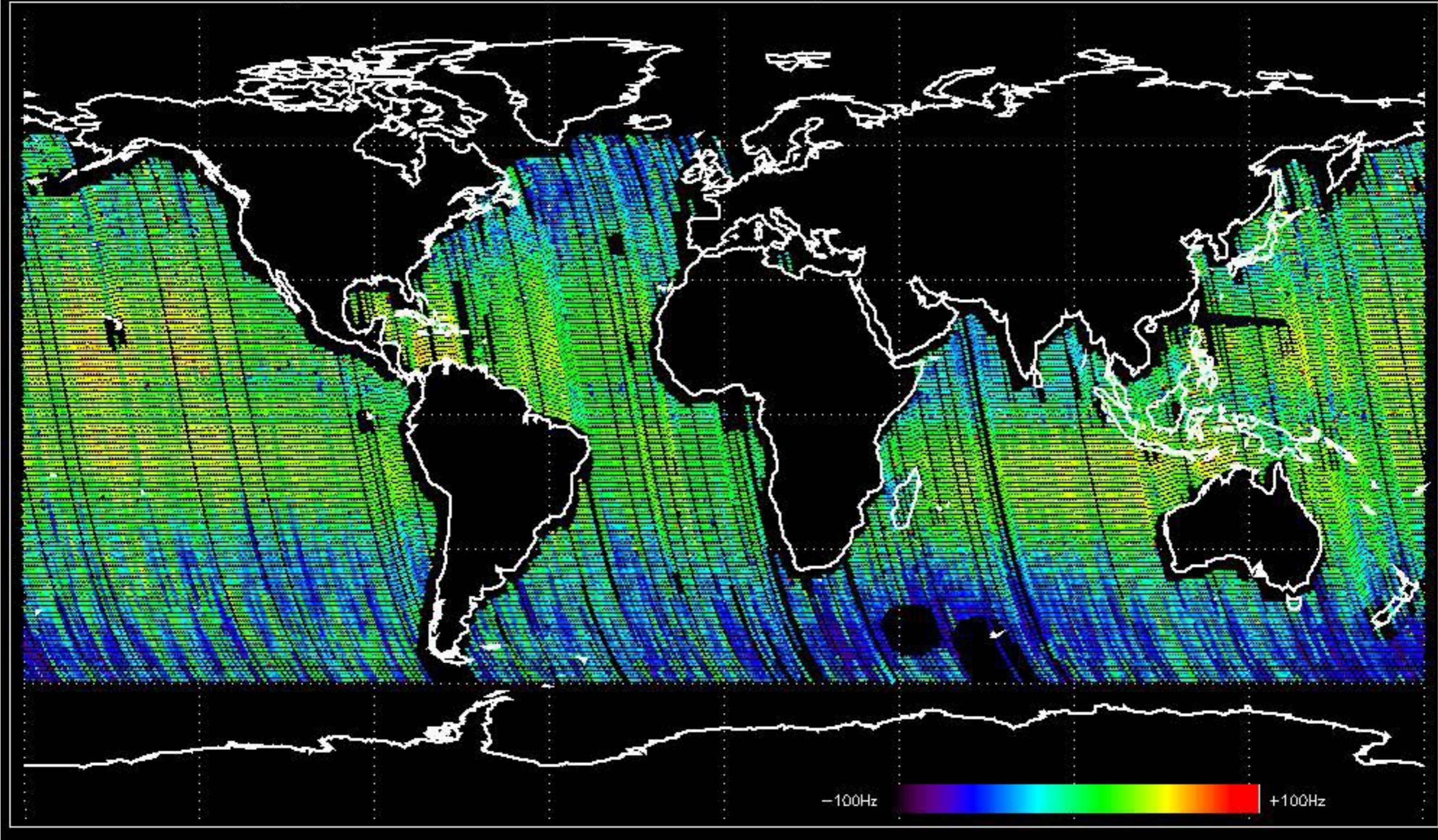
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.030319 Hz



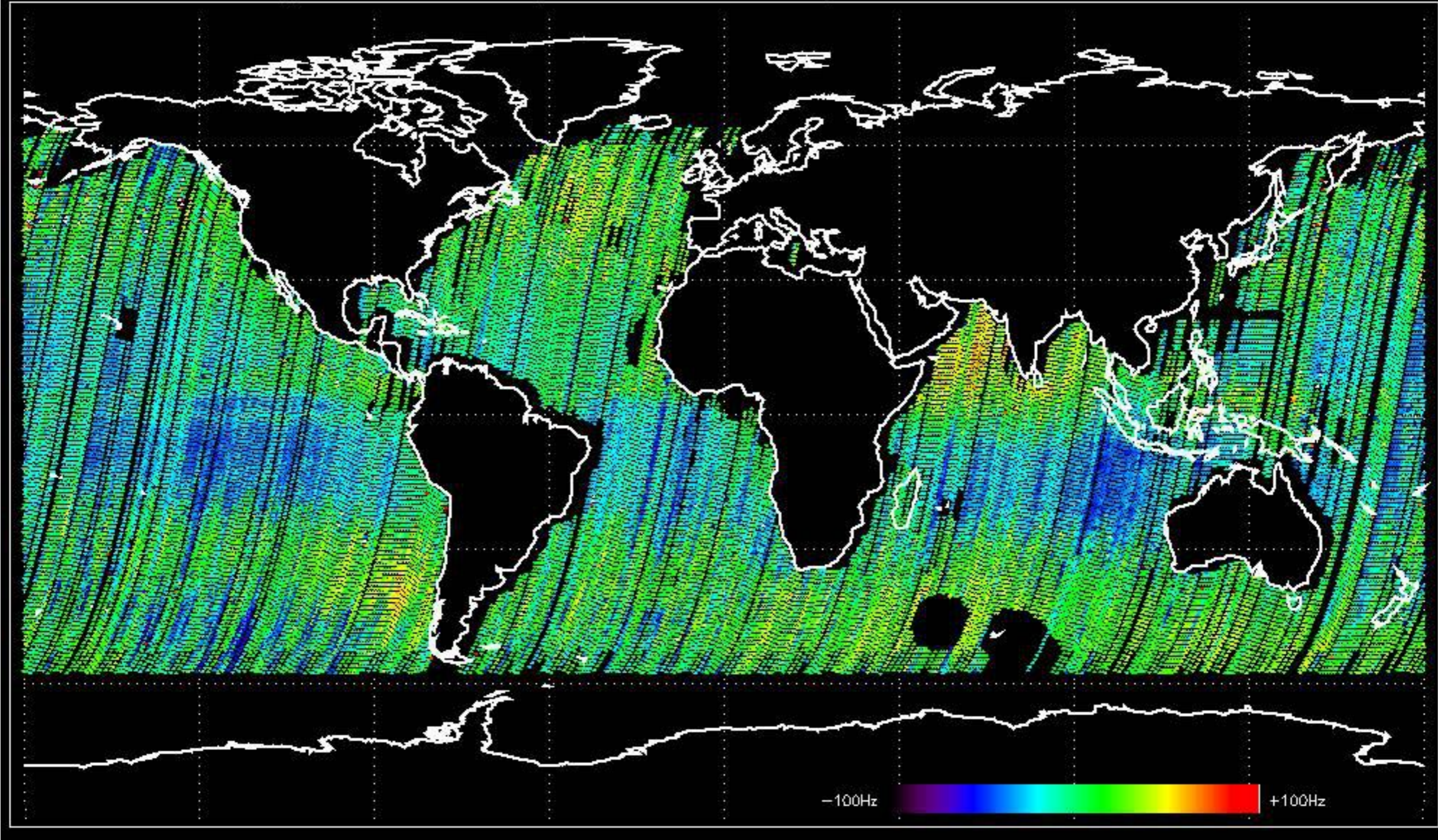
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.1666553 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.4007125 Hz

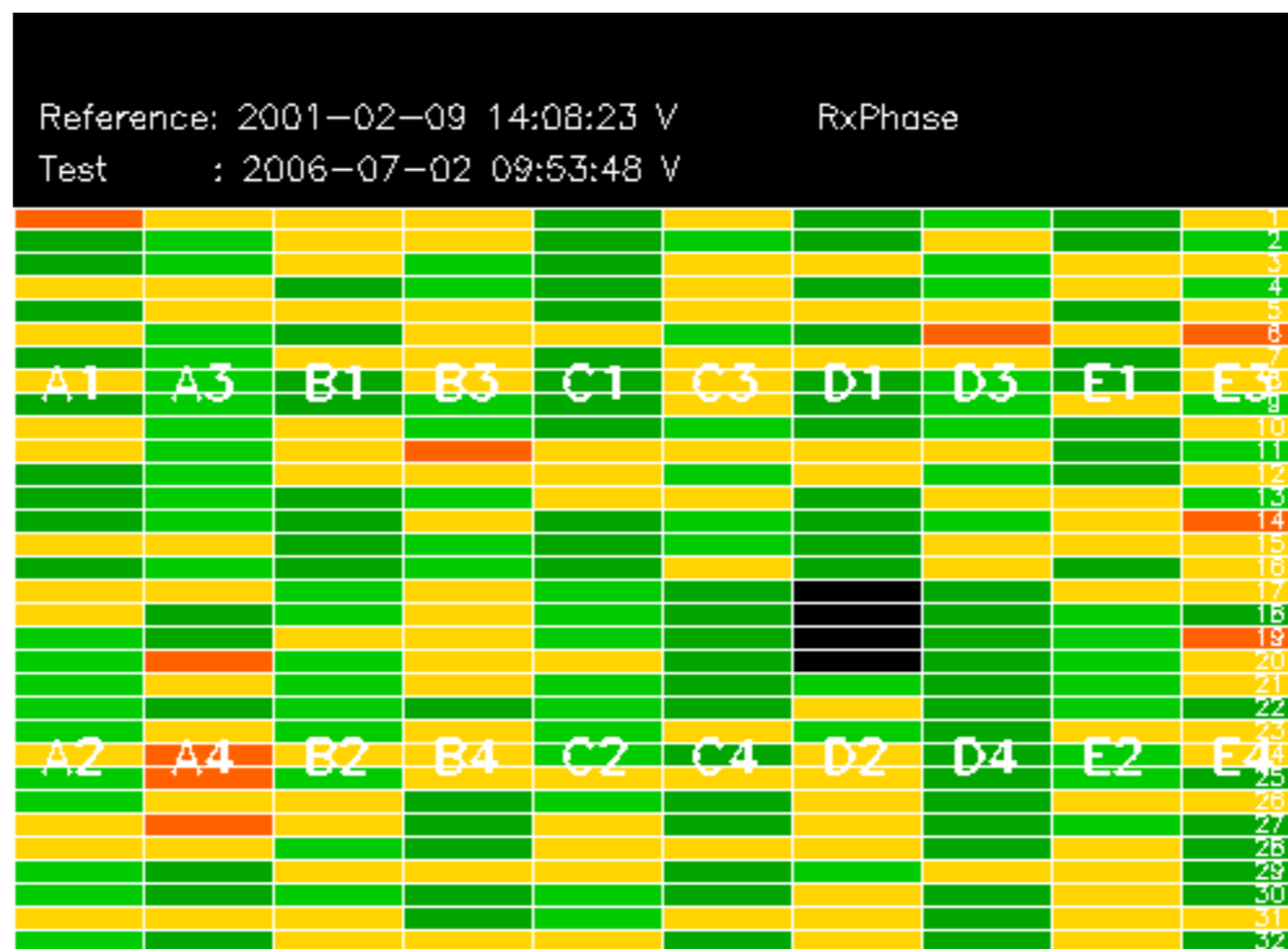


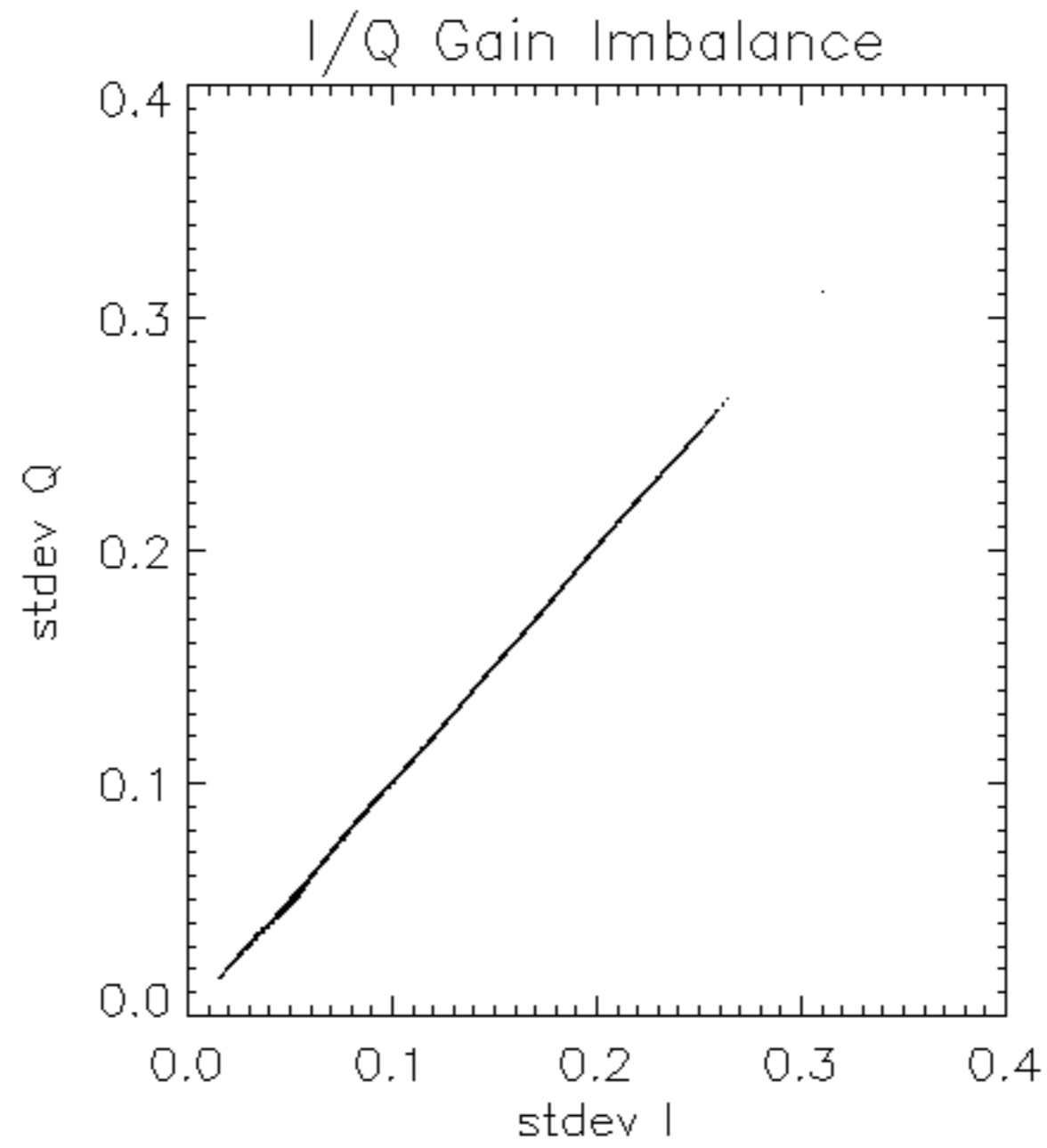
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.778237 Hz

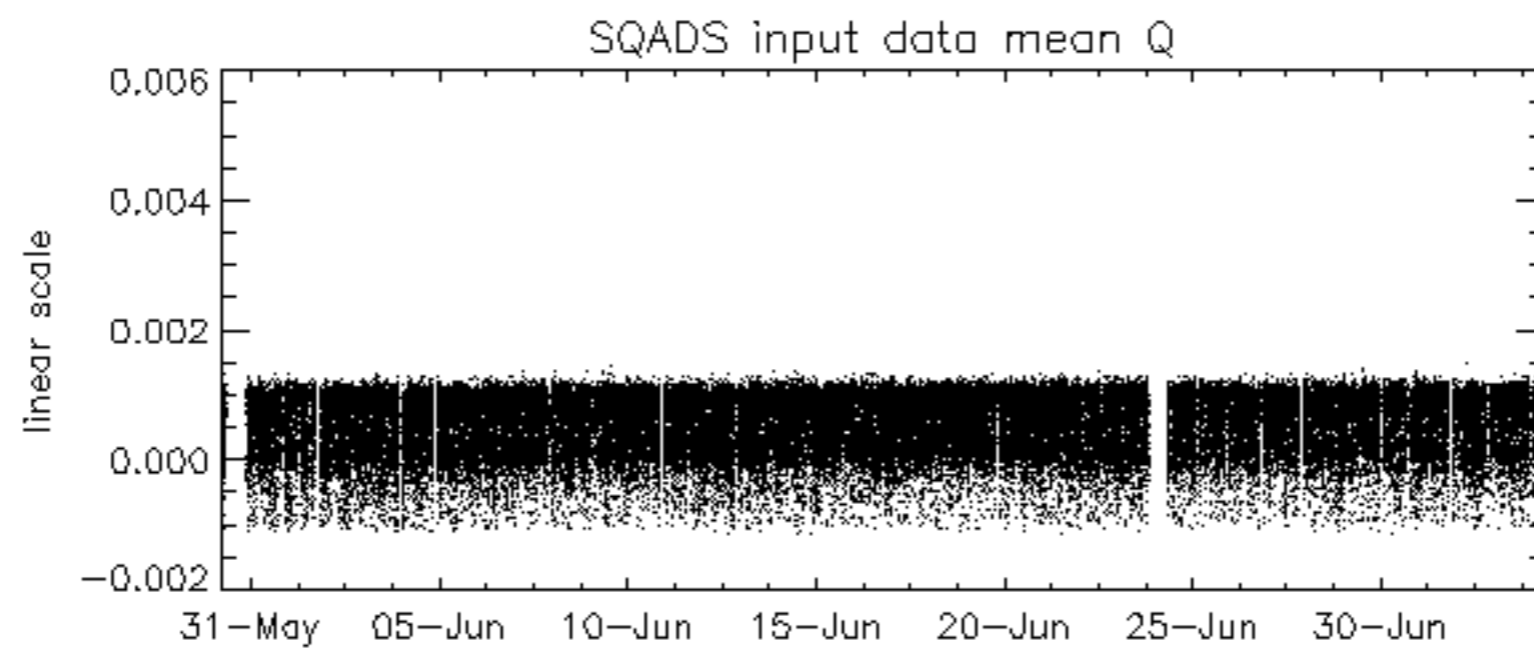
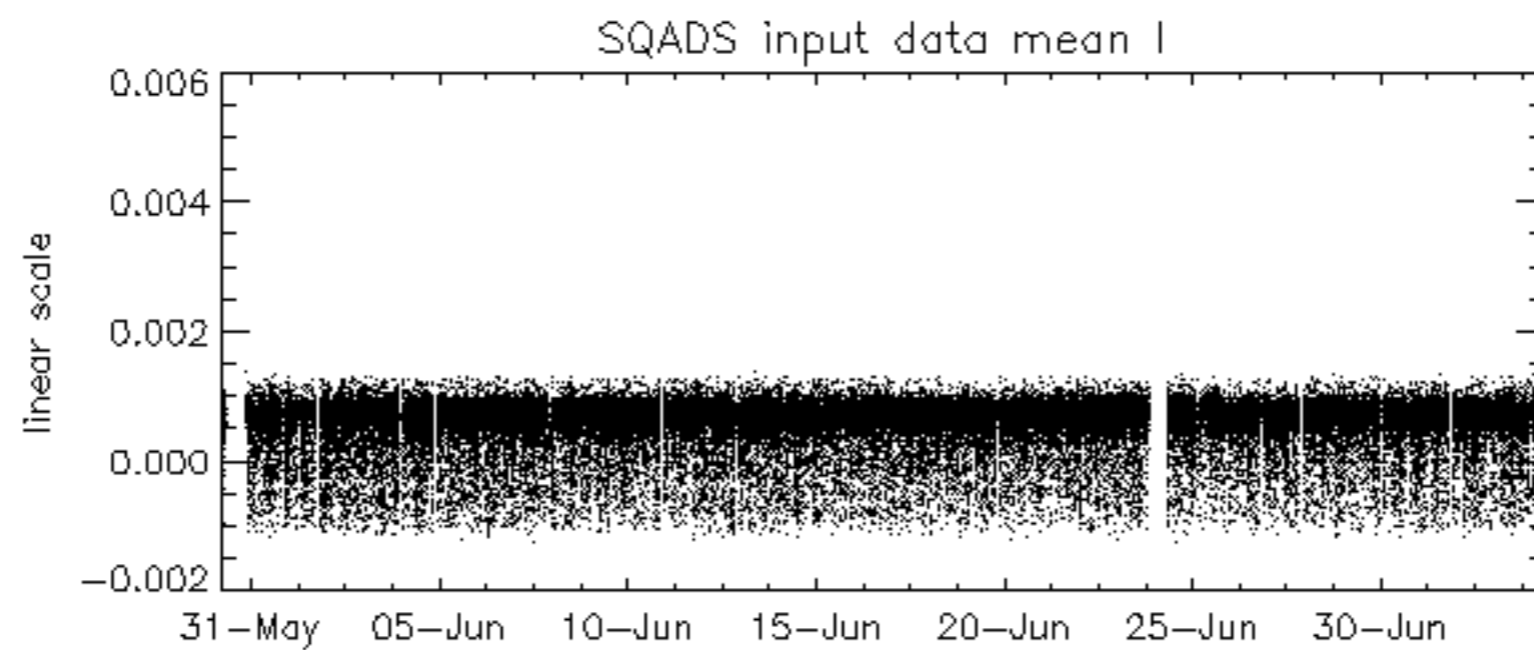
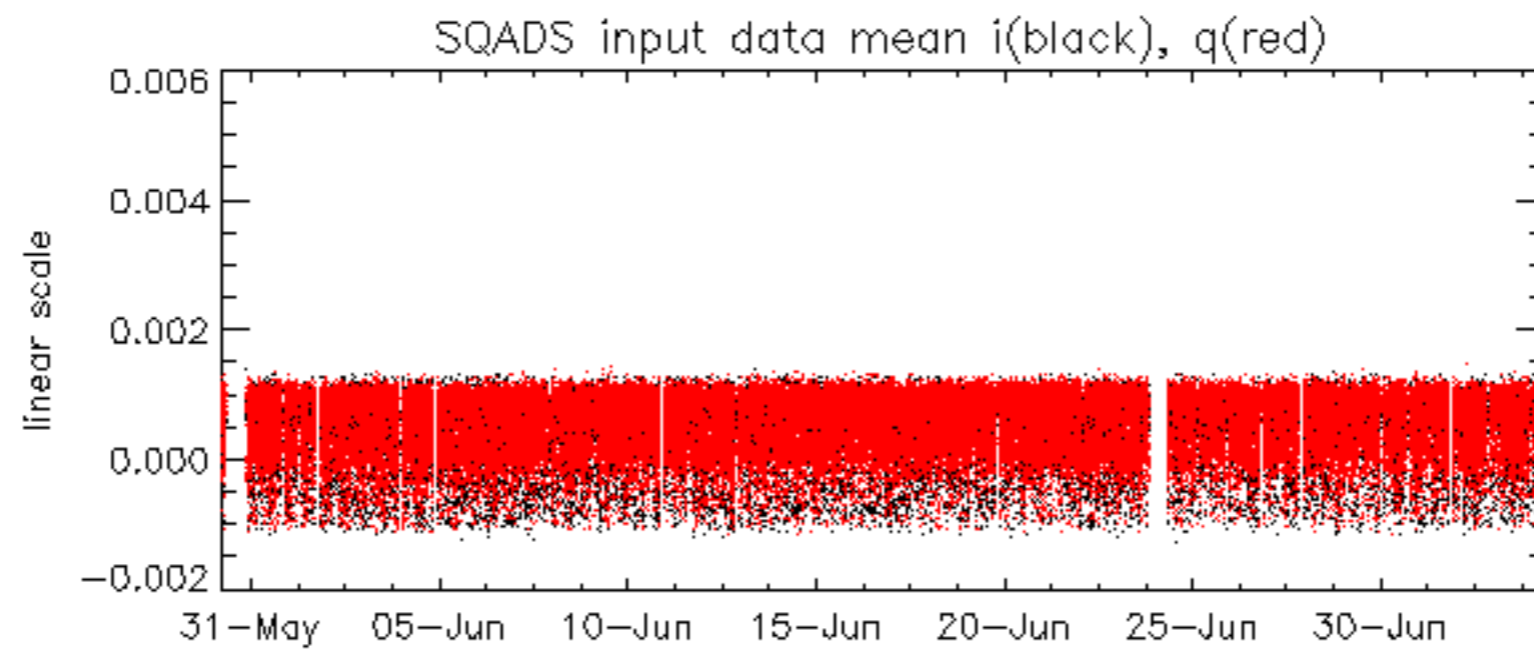


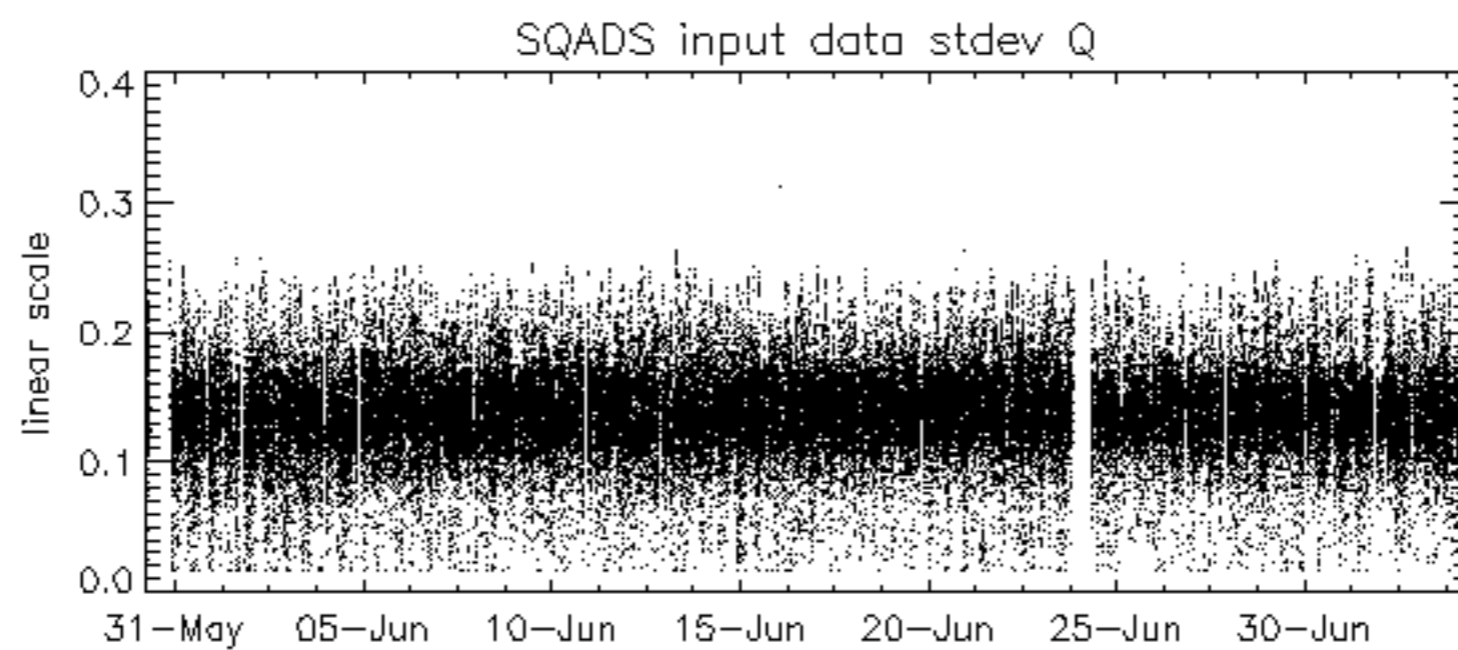
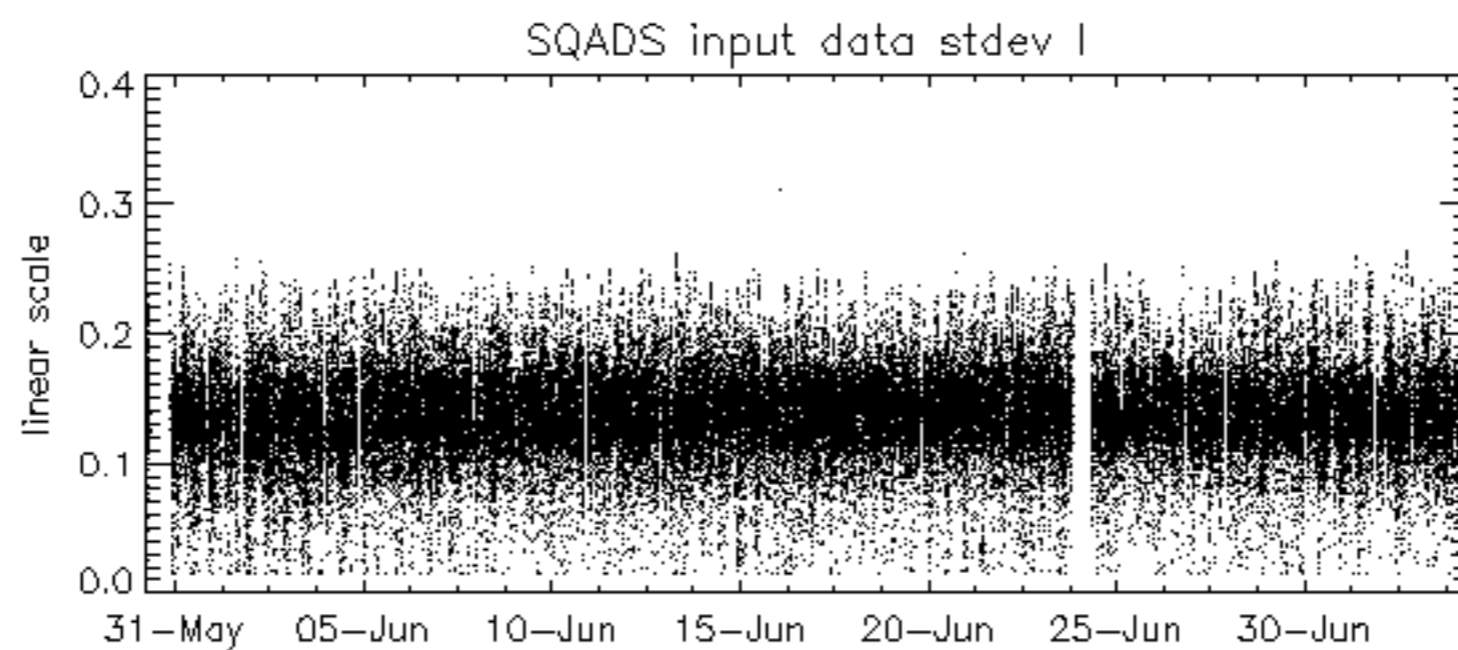
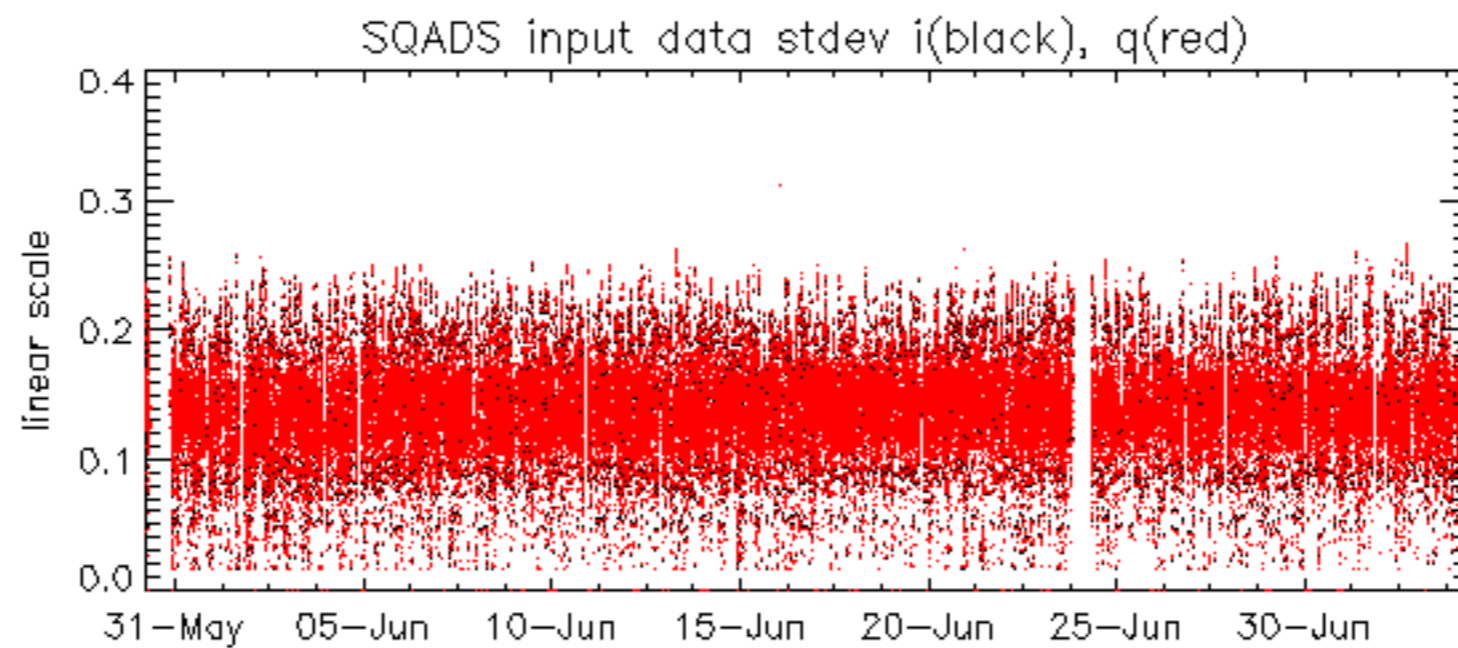
No anomalies observed on available MS products:

No anomalies observed.





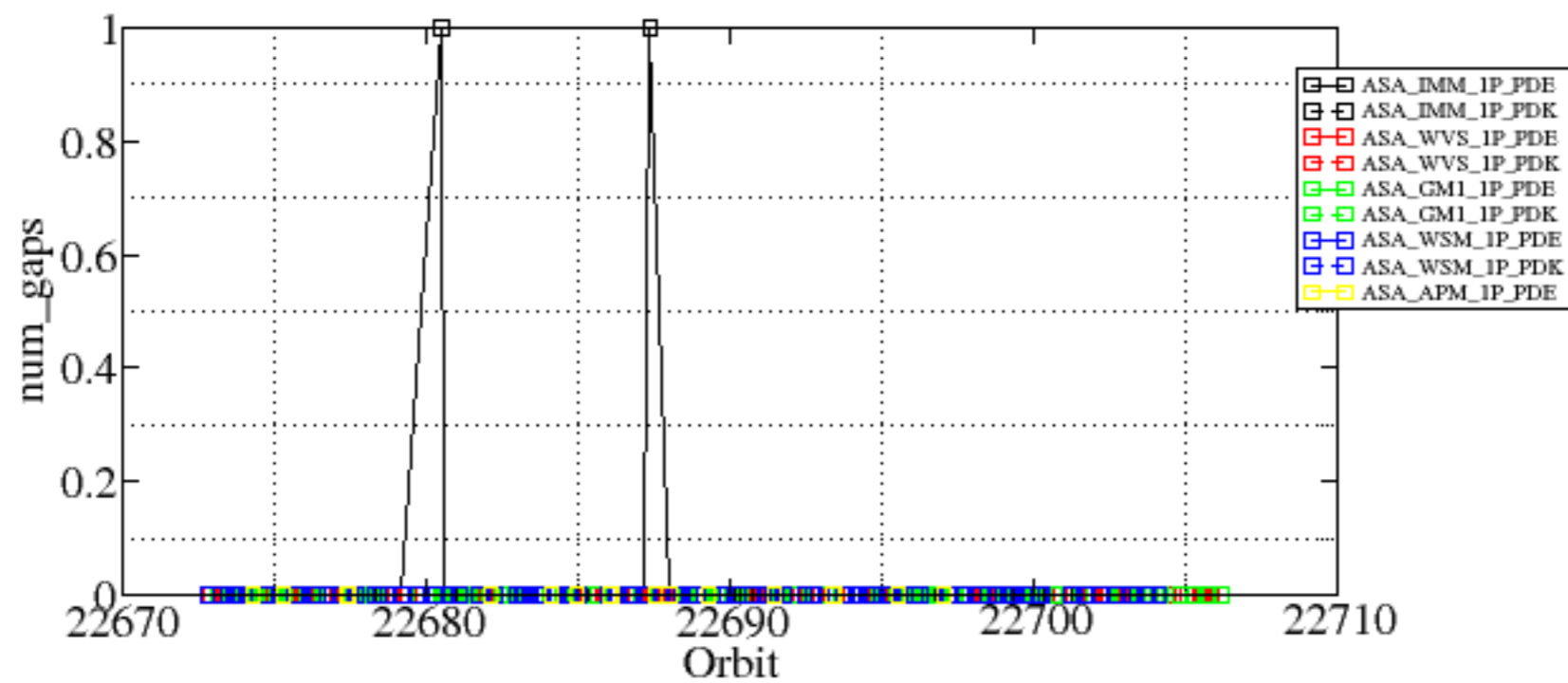


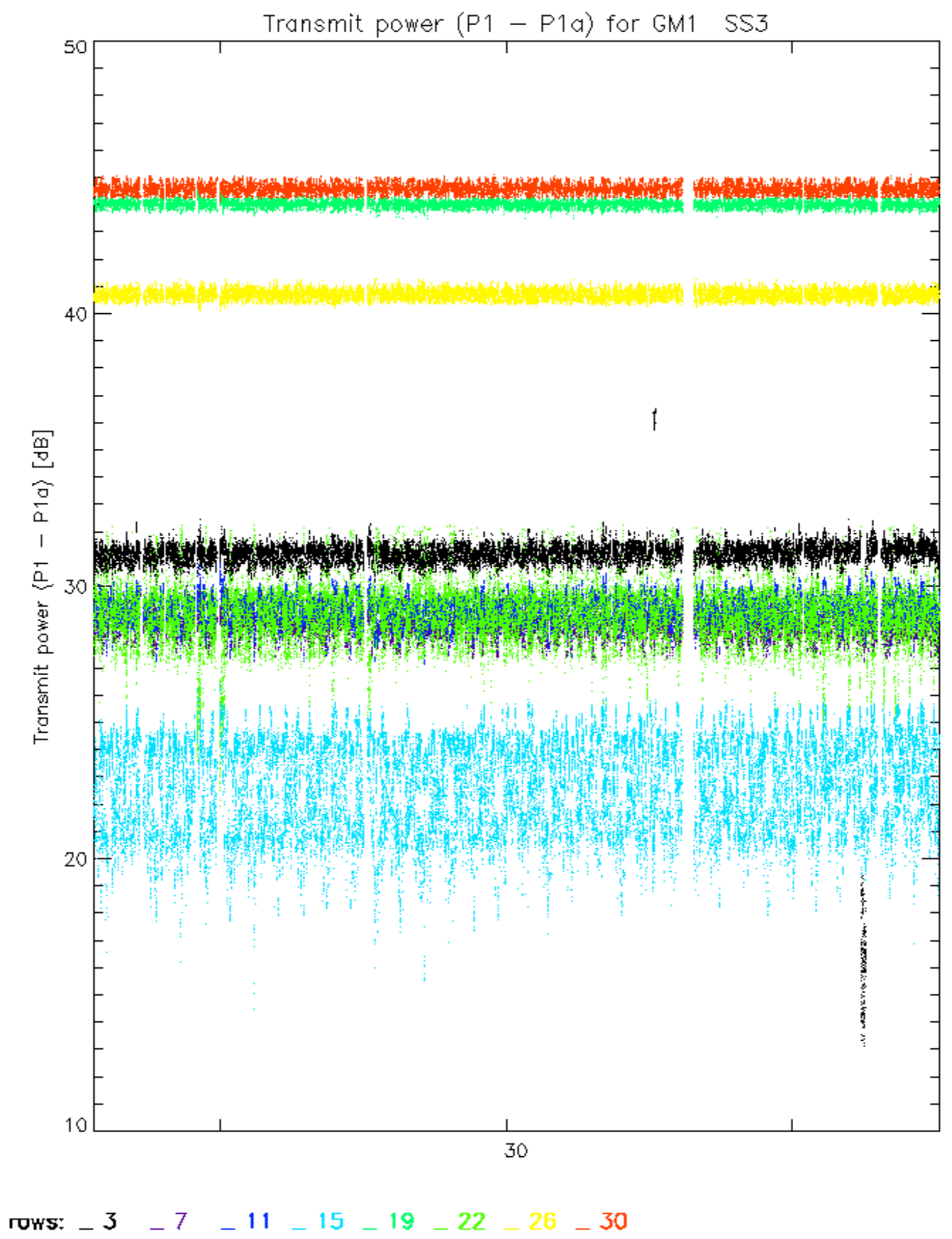


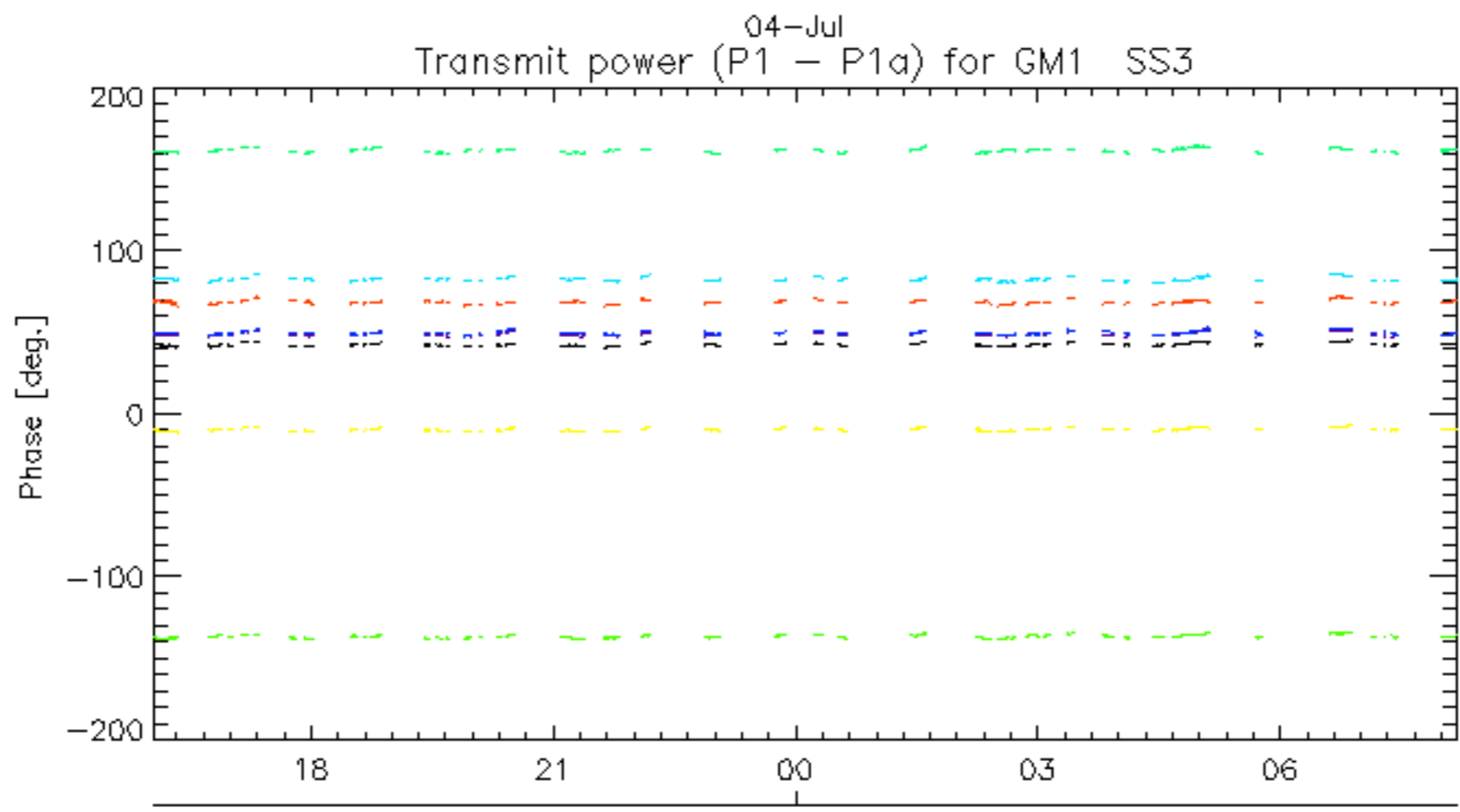
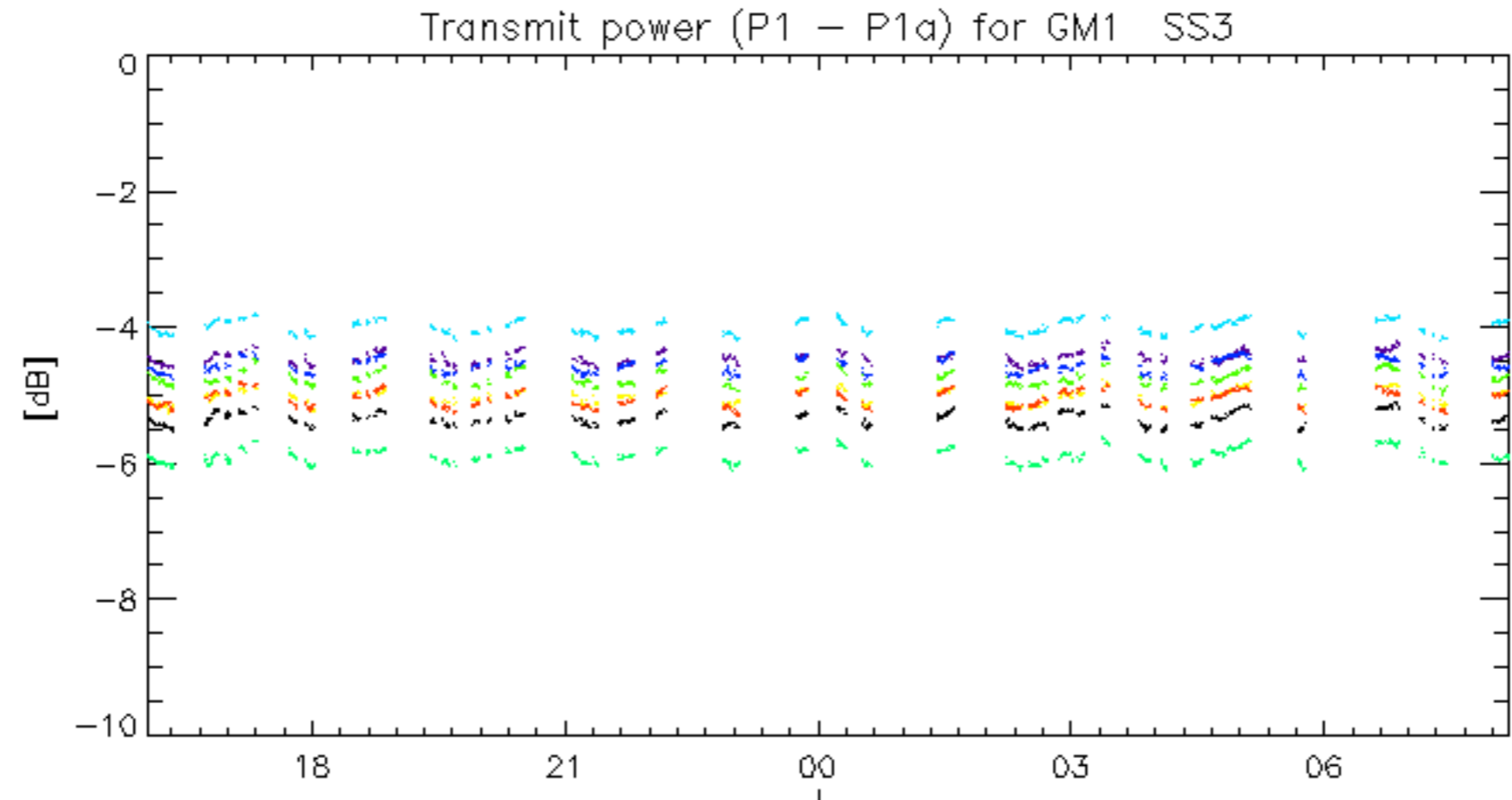
Summary of analysis for the last 3 days 2006070[234]

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

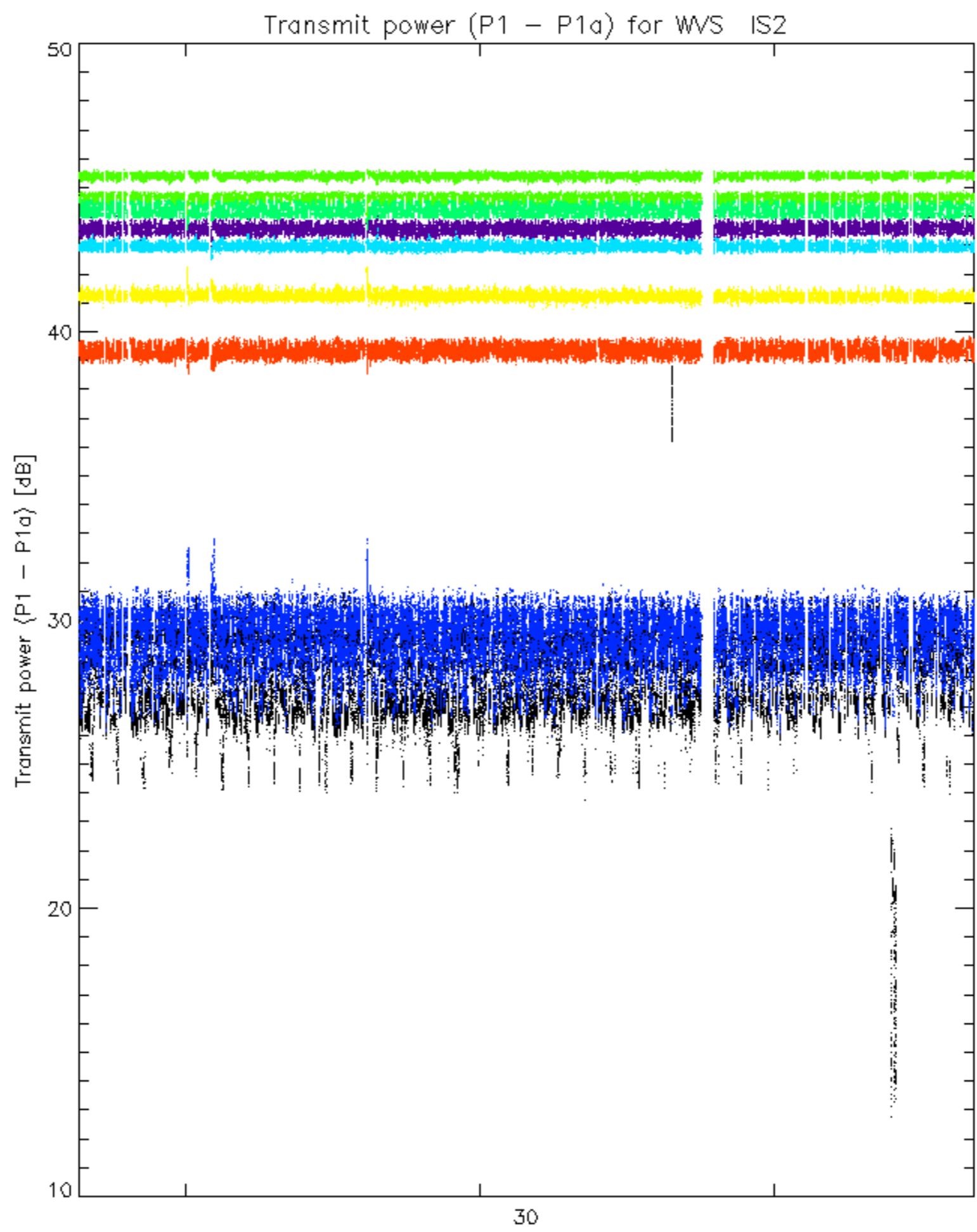
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060702_125758_00000512049_00081_22680_0270.N1	1	0
ASA_IMM_1PNPDE20060703_002903_00000512049_00088_22687_0280.N1	1	0
ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64
ASA_WSM_1PNPDE20060702_171036_000002382049_00084_22683_0923.N1	0	6
ASA_WSM_1PNPDE20060703_182248_000002442049_00099_22698_1105.N1	0	17



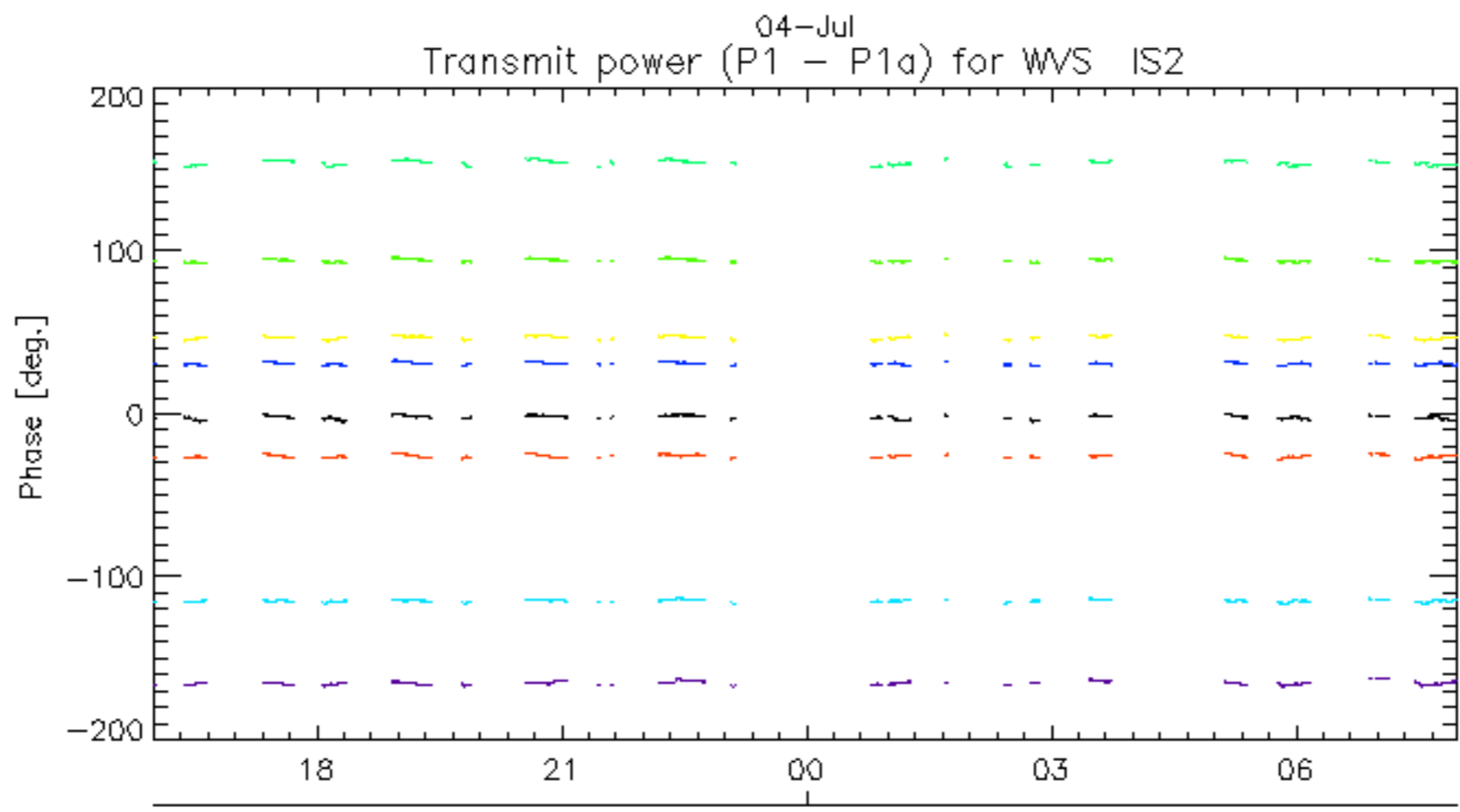
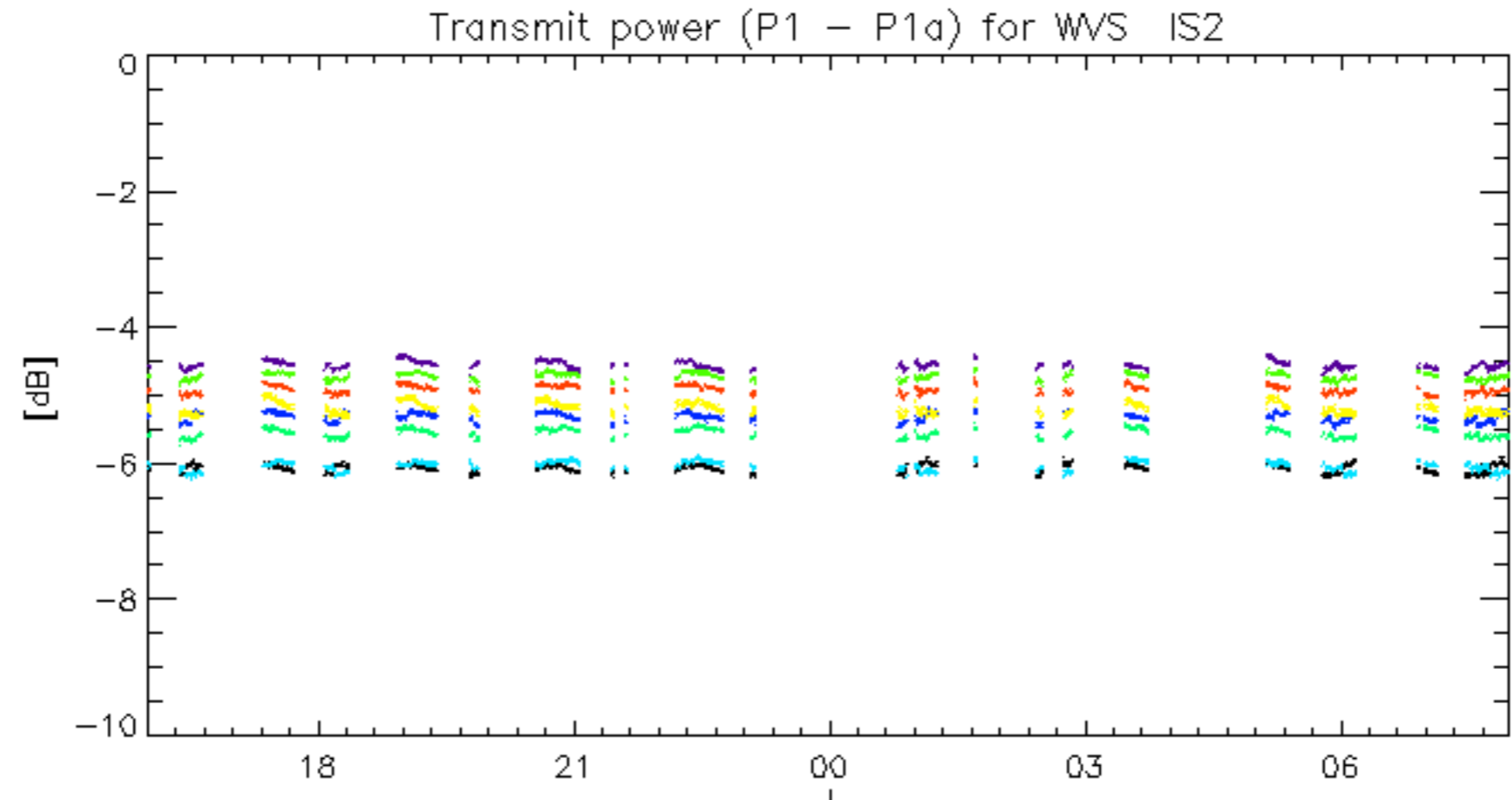




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.