

PRELIMINARY REPORT OF 060701

last update on Sat Jul 1 16:48:38 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 2006-06-30 00:00:00 to 2006-07-01 16:48:38

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	73	17	0	22
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	73	17	0	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	73	17	0	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	73	17	0	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	49	40	17	71
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	37	49	40	17	71
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	49	40	17	71
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	49	40	17	71

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	20060630 055514
H	20060701 084449

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	-3.937918	0.047813	-0.042837
7	P1	-3.133490	0.012623	0.011221
11	P1	-4.100894	0.016382	0.003639
15	P1	-6.159145	0.011413	-0.040788
19	P1	-3.364419	0.008648	-0.055369
22	P1	-4.524172	0.011492	-0.055133
26	P1	-3.960212	0.017404	0.029419
30	P1	-5.754077	0.008870	-0.033681
3	P1	-16.531143	0.631850	-0.063130
7	P1	-17.239124	0.111560	0.030013
11	P1	-16.975176	0.280946	-0.059123
15	P1	-13.173544	0.158149	0.023285
19	P1	-14.369534	0.050860	-0.140104
22	P1	-16.139797	0.380285	0.098303
26	P1	-15.184471	0.229315	0.090620
30	P1	-17.143963	0.406200	-0.005945

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.097061	0.083105	0.141159
7	P2	-21.990519	0.099298	0.090237
11	P2	-15.837364	0.113213	0.082454
15	P2	-7.152360	0.096486	-0.004436
19	P2	-9.163687	0.088198	0.019688
22	P2	-18.167519	0.084287	-0.015824
26	P2	-16.408010	0.090352	-0.029415
30	P2	-19.550203	0.088925	-0.001941

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.183080	0.003846	-0.016843
7	P3	-8.183080	0.003846	-0.016843
11	P3	-8.183080	0.003846	-0.016843
15	P3	-8.183080	0.003846	-0.016843
19	P3	-8.183080	0.003846	-0.016843
22	P3	-8.183080	0.003846	-0.016843
26	P3	-8.183080	0.003846	-0.016843
30	P3	-8.183080	0.003846	-0.016843

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	-3.804050	0.065955	-0.021921
7	P1	-2.574656	0.008665	0.030336
11	P1	-2.855404	0.013500	-0.002424
15	P1	-3.525882	0.027759	-0.060646
19	P1	-3.412646	0.014445	-0.029478
22	P1	-5.083992	0.019578	-0.014597
26	P1	-5.857099	0.016090	-0.028710
30	P1	-5.190132	0.026649	-0.012767
3	P1	-11.623914	0.175990	0.012942
7	P1	-9.978975	0.033083	0.006949
11	P1	-10.235018	0.059505	-0.004625
15	P1	-10.694220	0.130252	-0.082232
19	P1	-15.538930	0.078296	-0.034828
22	P1	-20.939823	1.172926	-0.018751
26	P1	-16.432529	0.337222	0.095977
30	P1	-17.872700	0.375248	0.077681

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.768427	0.074677	0.186962
7	P2	-22.462610	0.131290	0.055472
11	P2	-11.117501	0.048175	0.085081
15	P2	-4.919760	0.048904	-0.029228
19	P2	-6.879863	0.053610	-0.016671
22	P2	-8.206132	0.042876	-0.014602
26	P2	-24.161634	0.069447	-0.082827
30	P2	-22.048492	0.056061	0.030199

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018119	0.004671	-0.016439
7	P3	-8.018300	0.004656	-0.016426
11	P3	-8.018146	0.004677	-0.016496
15	P3	-8.018128	0.004677	-0.016399
19	P3	-8.018127	0.004677	-0.016132
22	P3	-8.018270	0.004661	-0.016172
26	P3	-8.018273	0.004674	-0.016309
30	P3	-8.018155	0.004649	-0.016530

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	0.000566253
	stdev	1.67846e-07
MEAN Q	mean	0.000528726
	stdev	2.18822e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137480
	stdev	0.00116089
STDEV Q	mean	0.137841
	stdev	0.00117865



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006063[901]

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_1PNPDE20060630_054359_000000352049_00048_22647_0170.N1	1	0
ASA_WSM_1PNPDE20060630_181715_000001842049_00056_22655_0575.N1	0	27



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

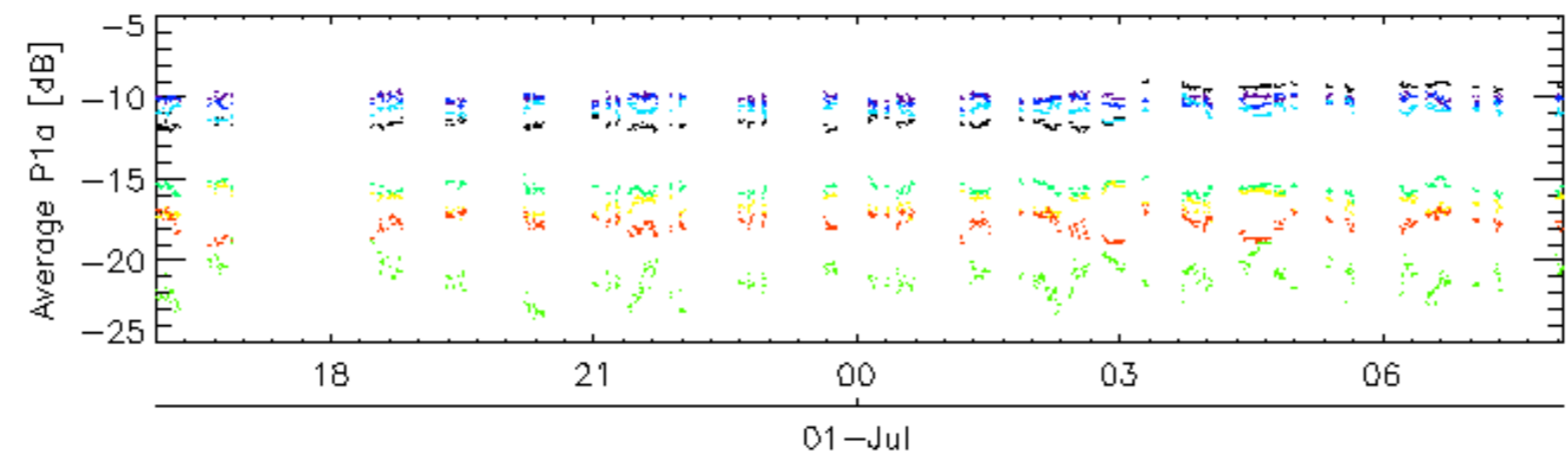
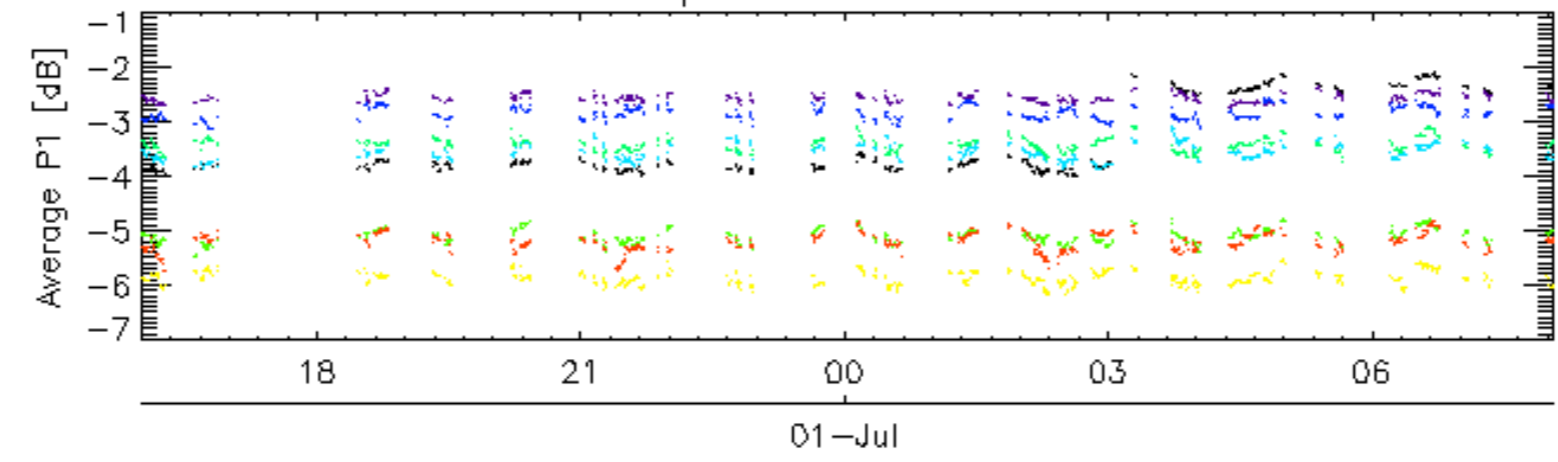
Ascending

Descending

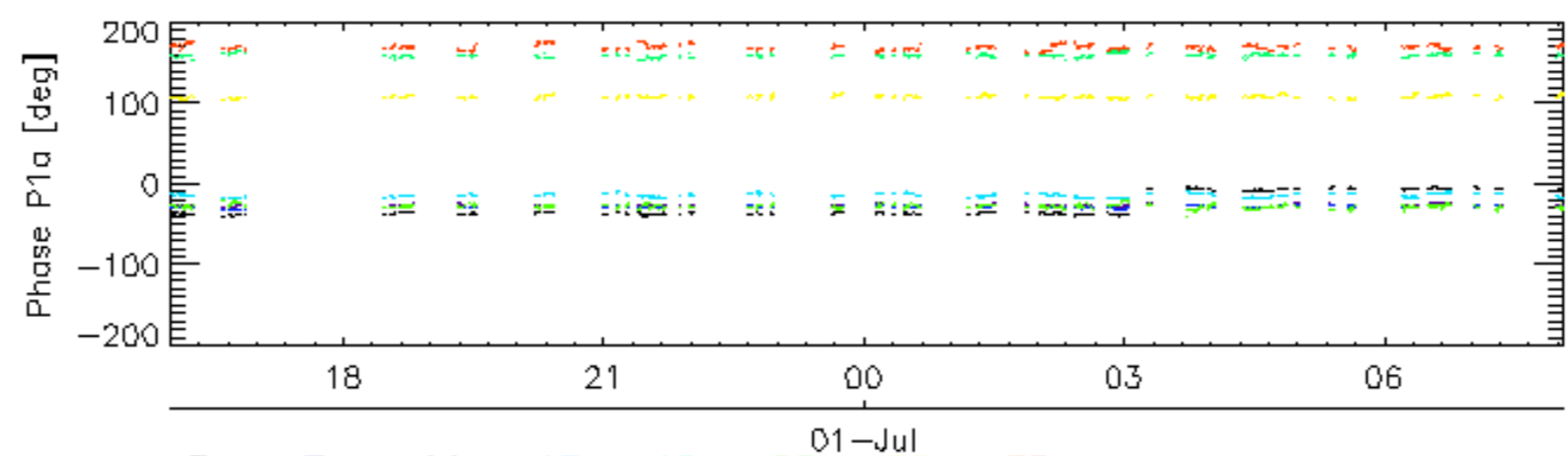
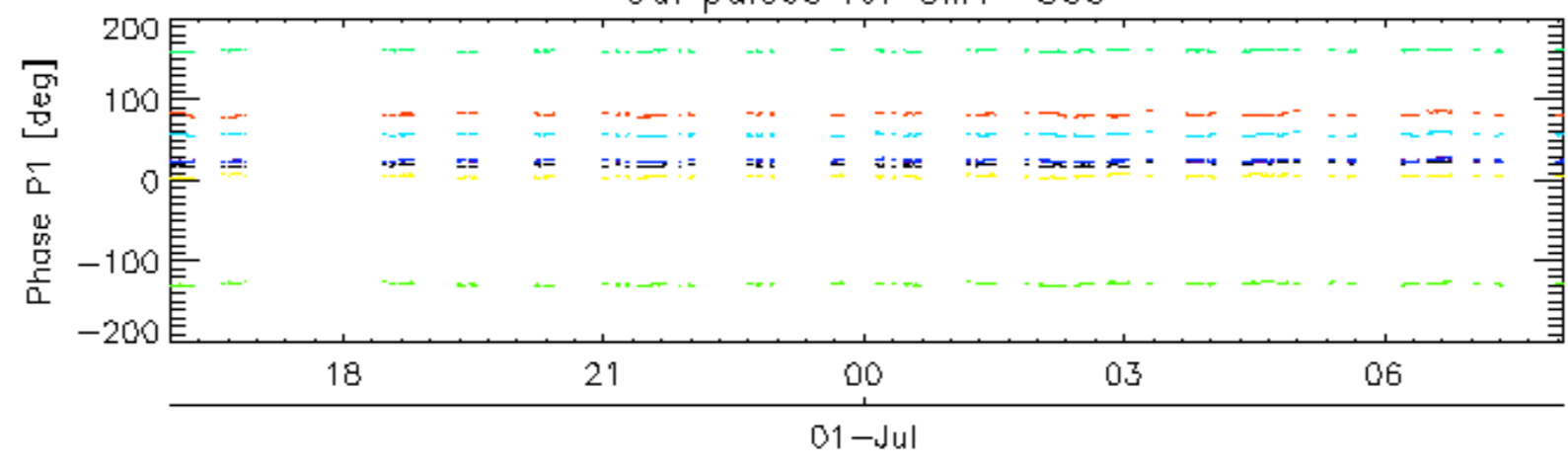
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

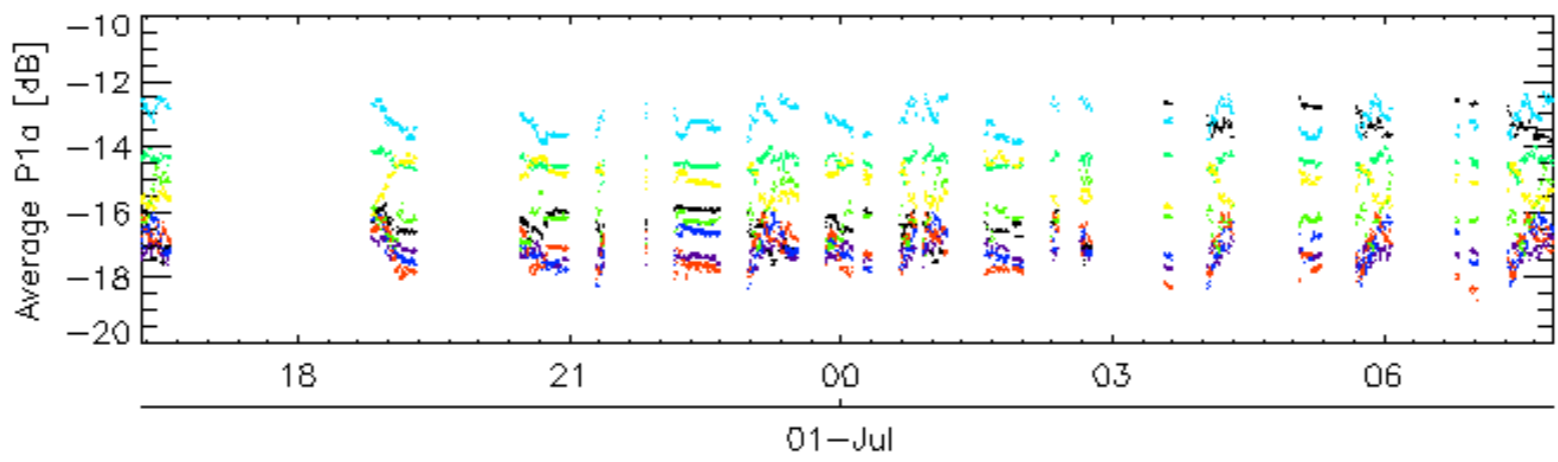
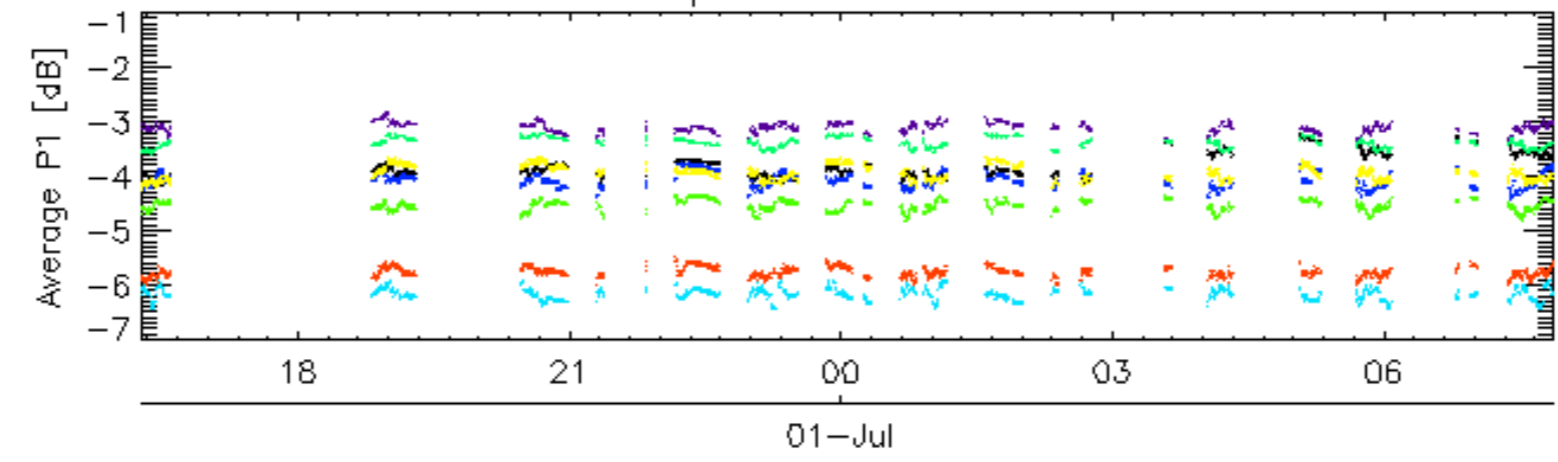


Cal pulses for GM1 SS3

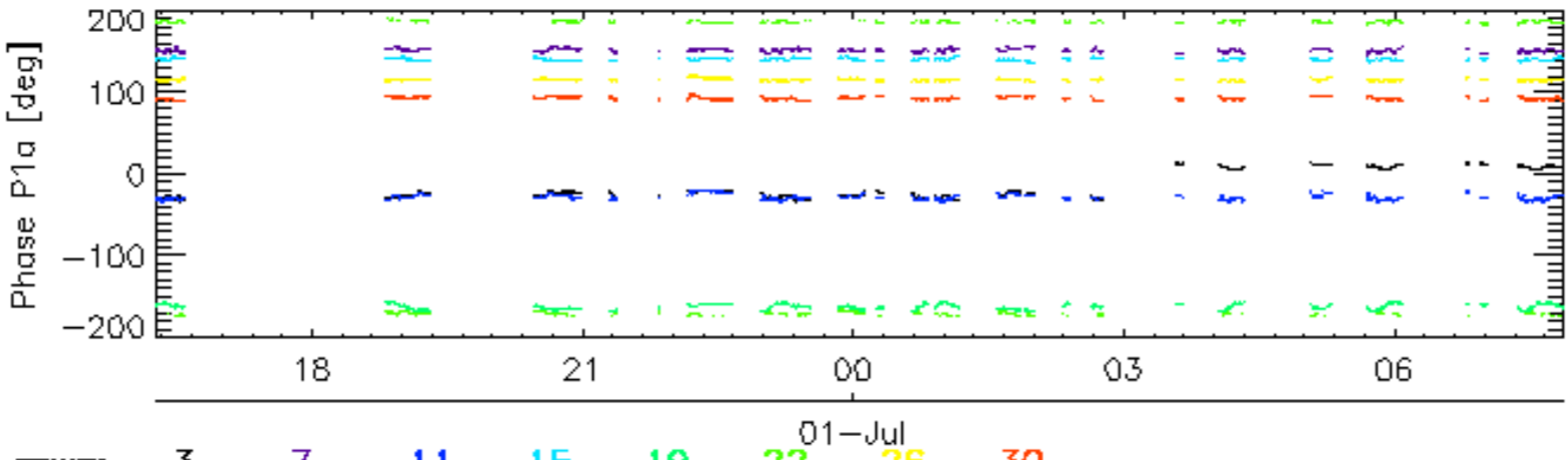
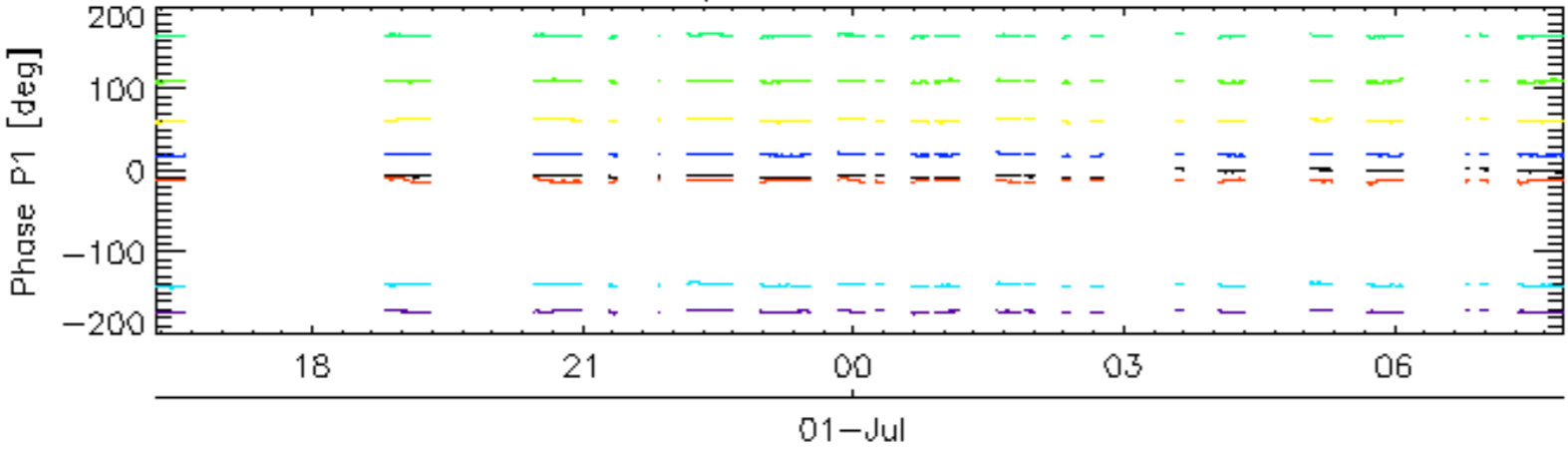


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

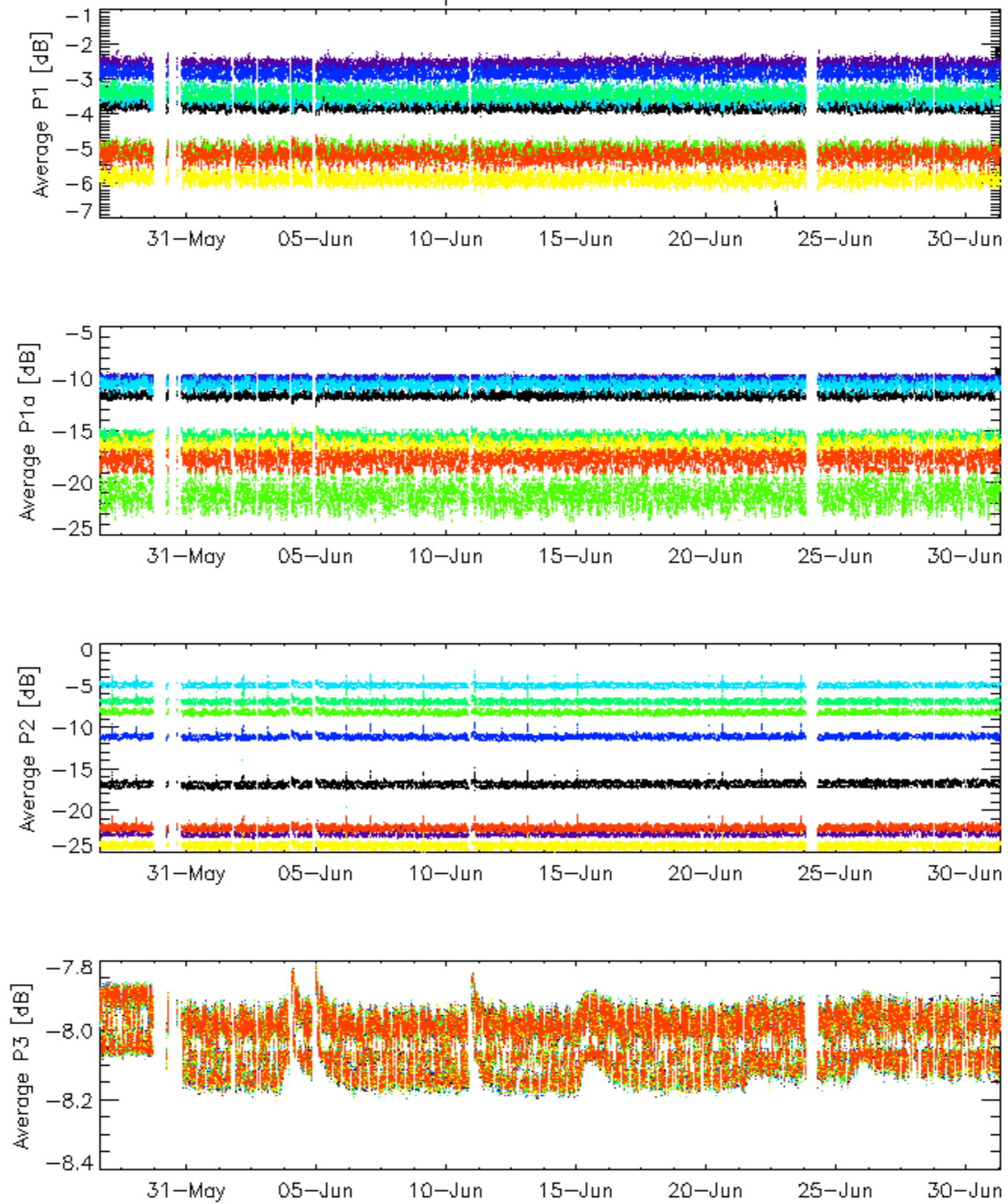


Cal pulses for WVS IS2



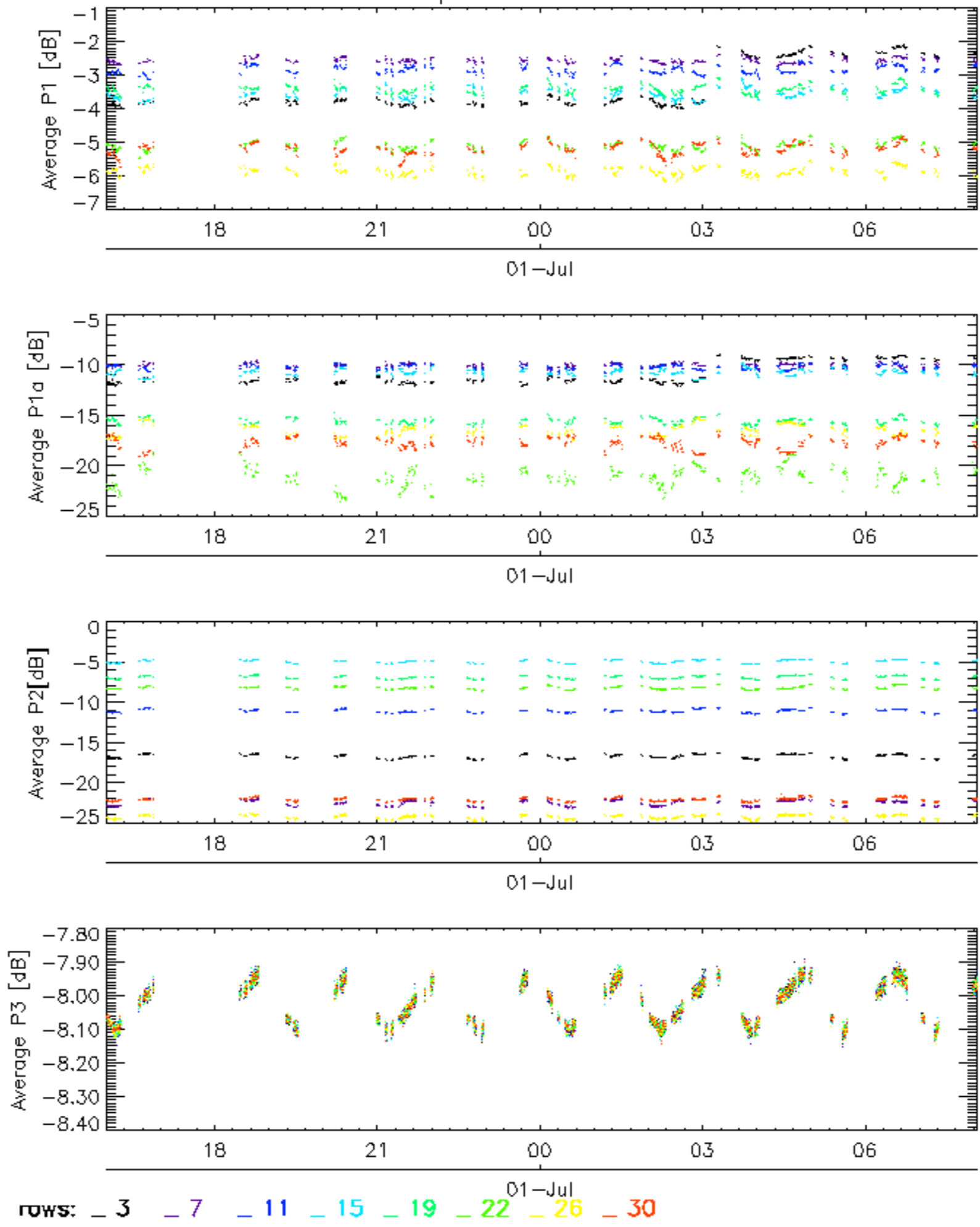
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



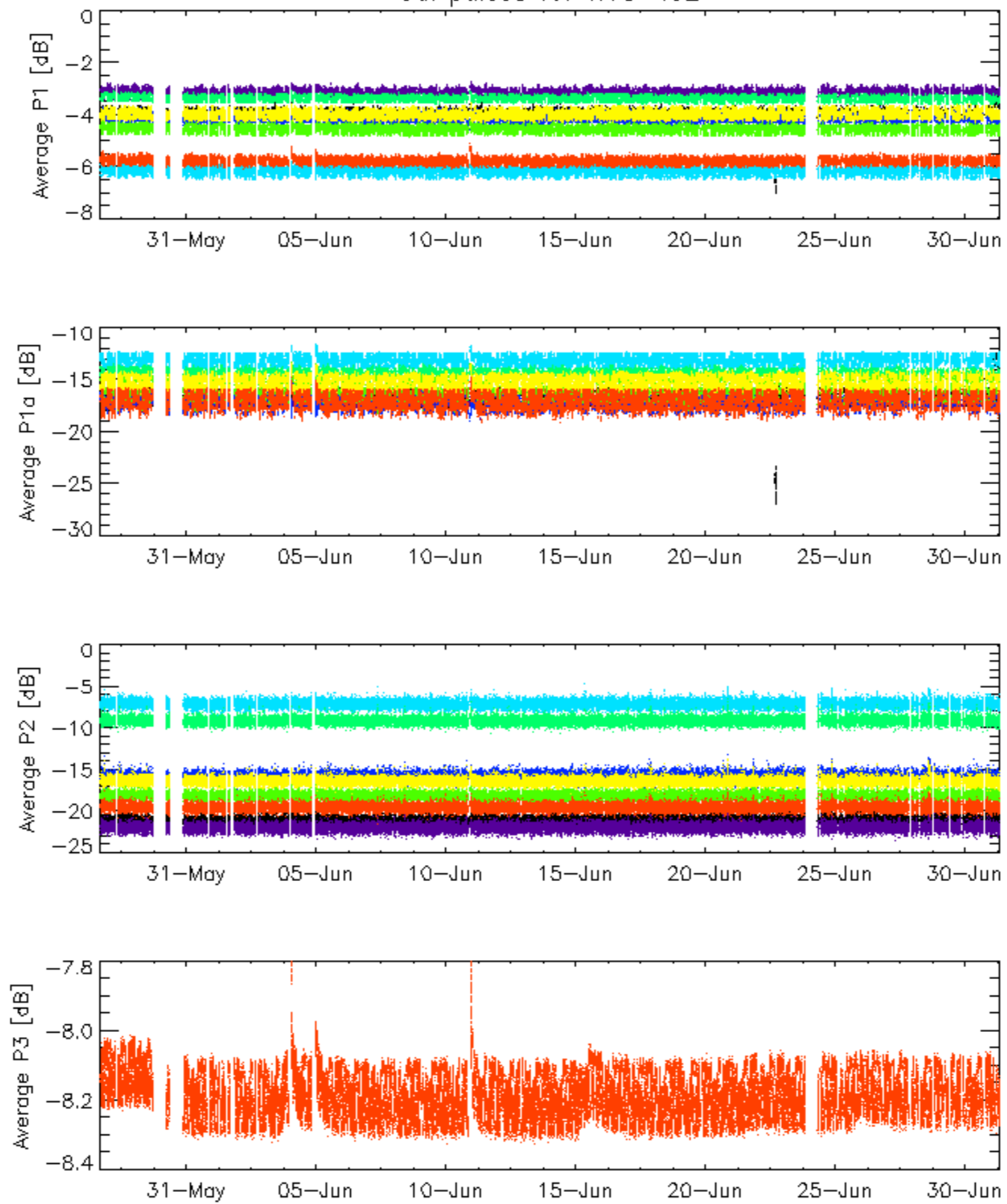
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



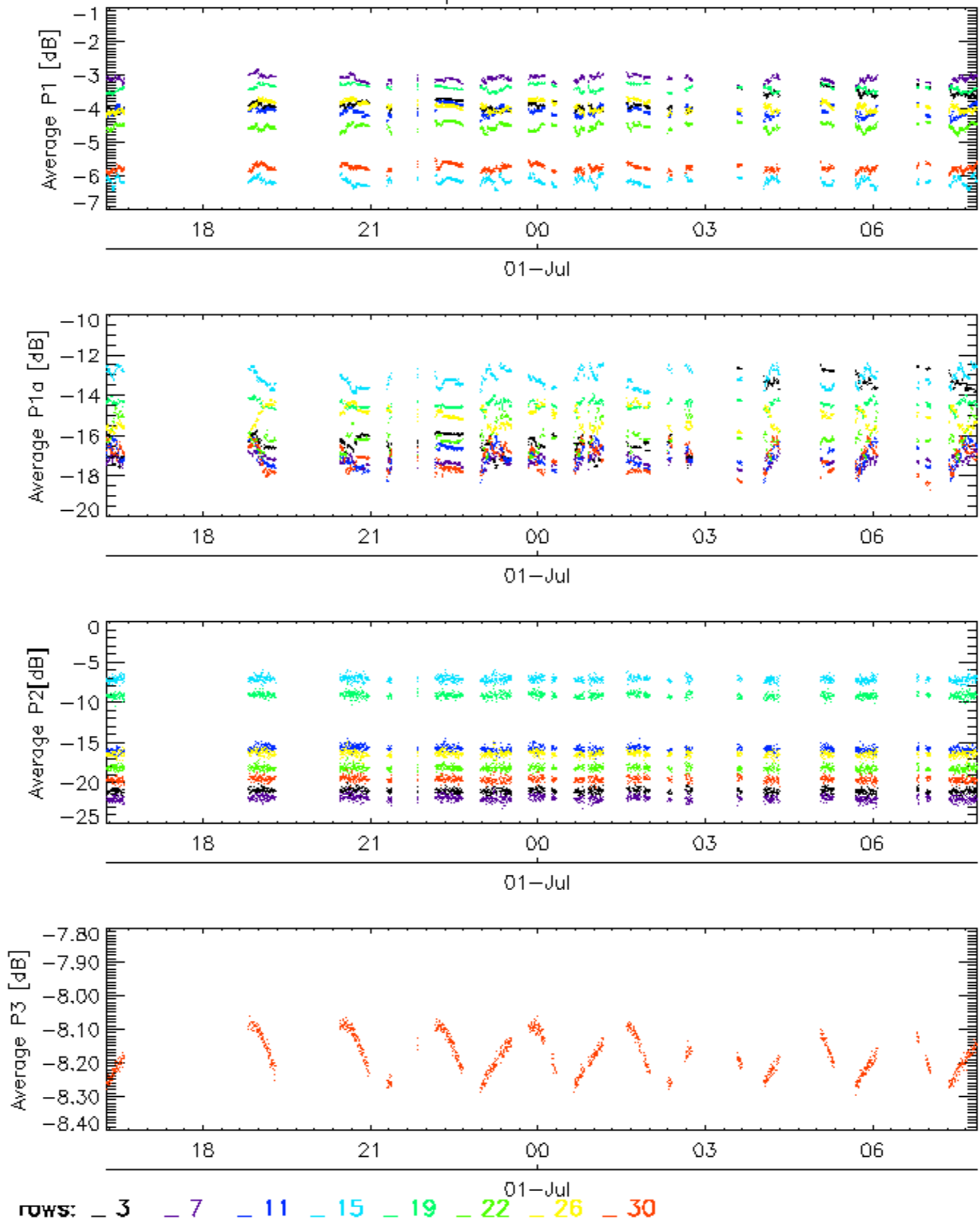
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

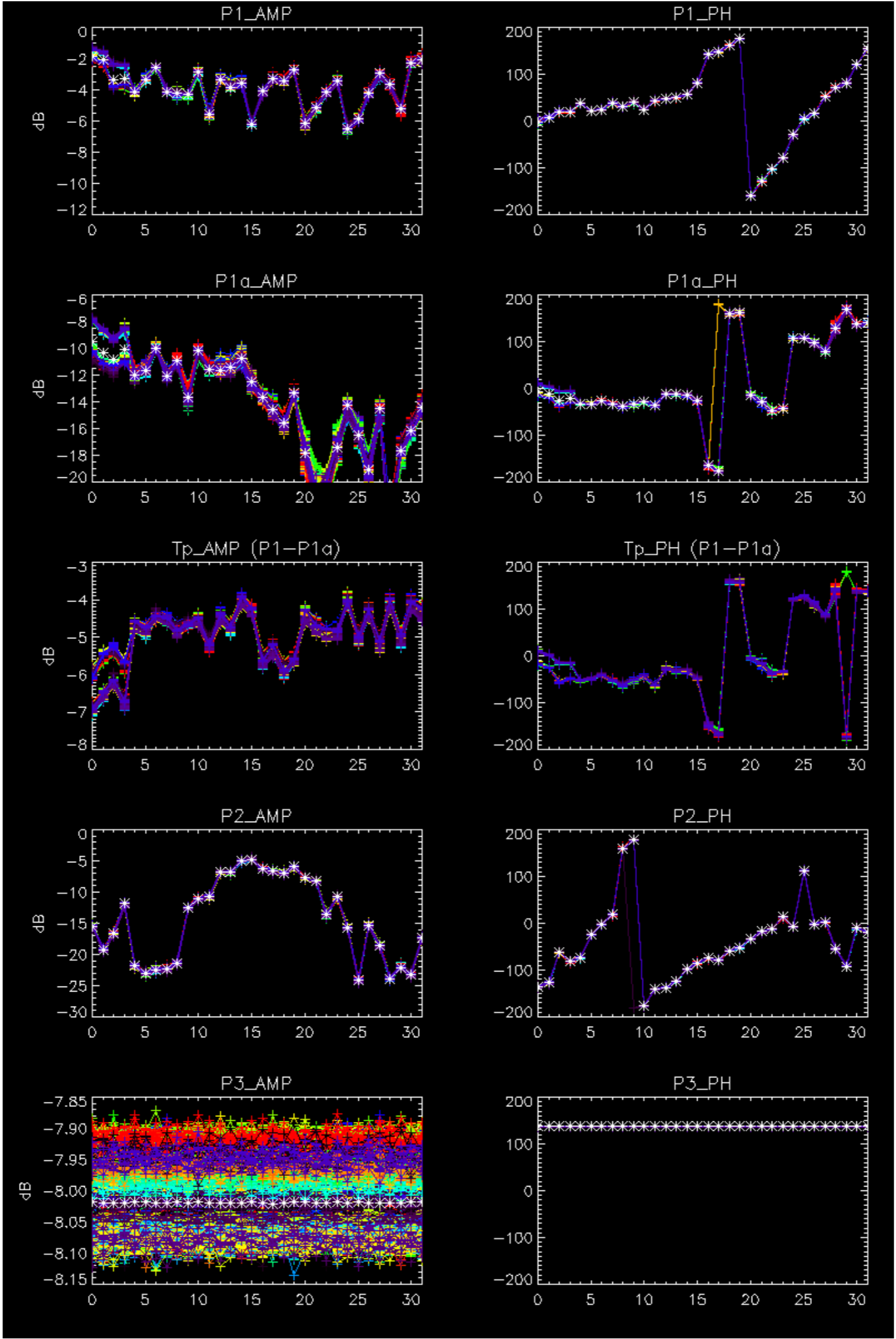


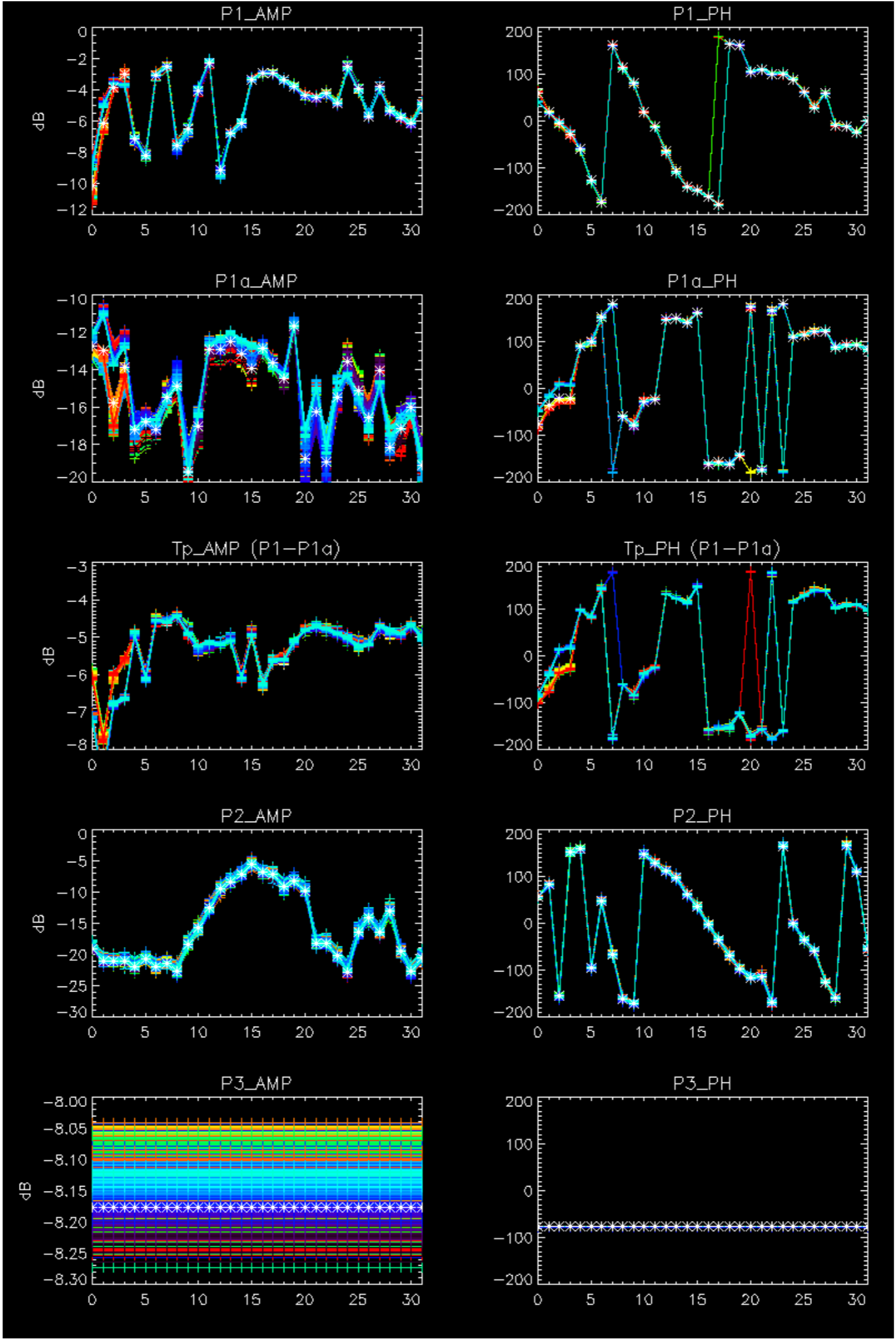
rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

Cal pulses for WVS IS2



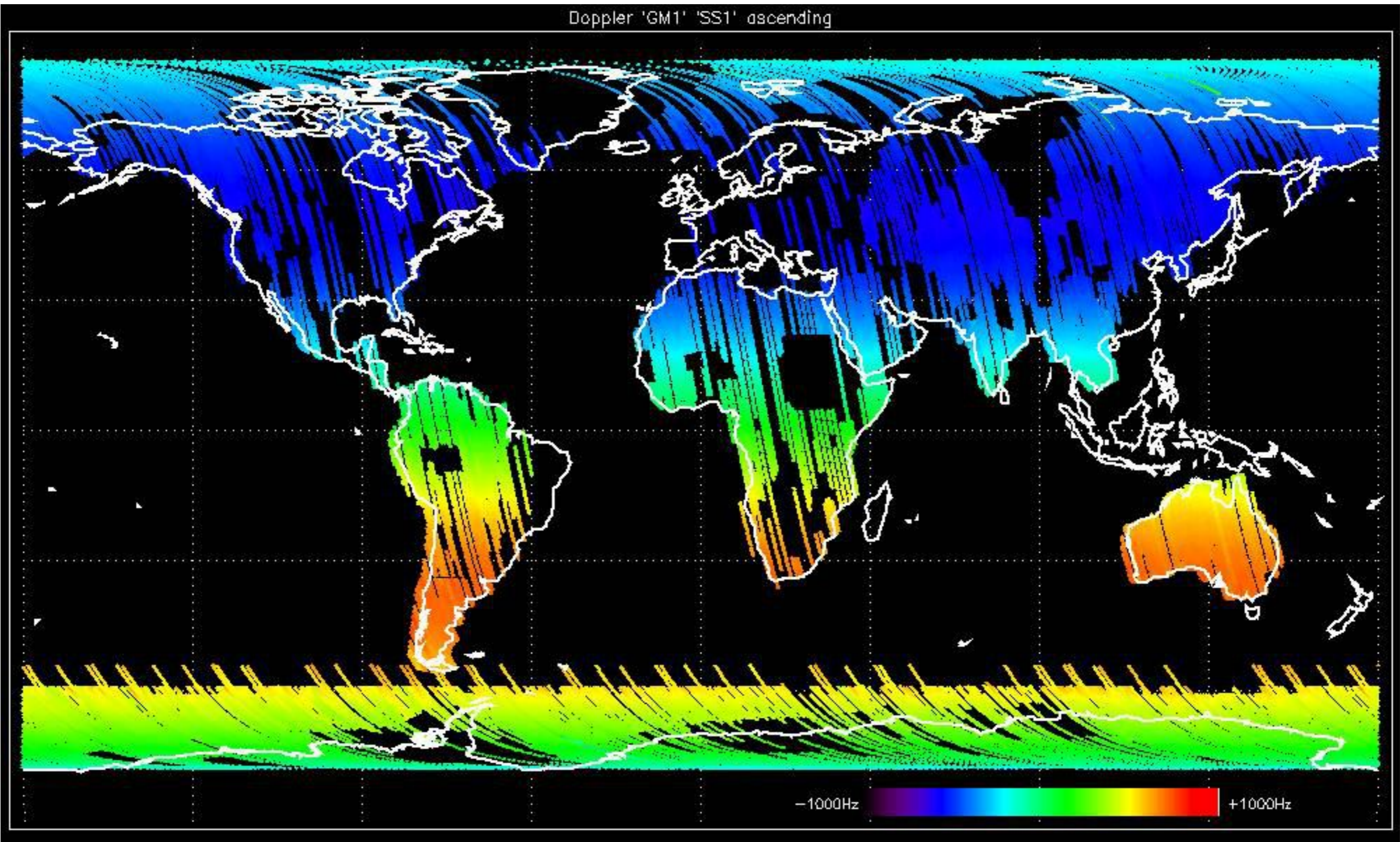
No anomalies observed.



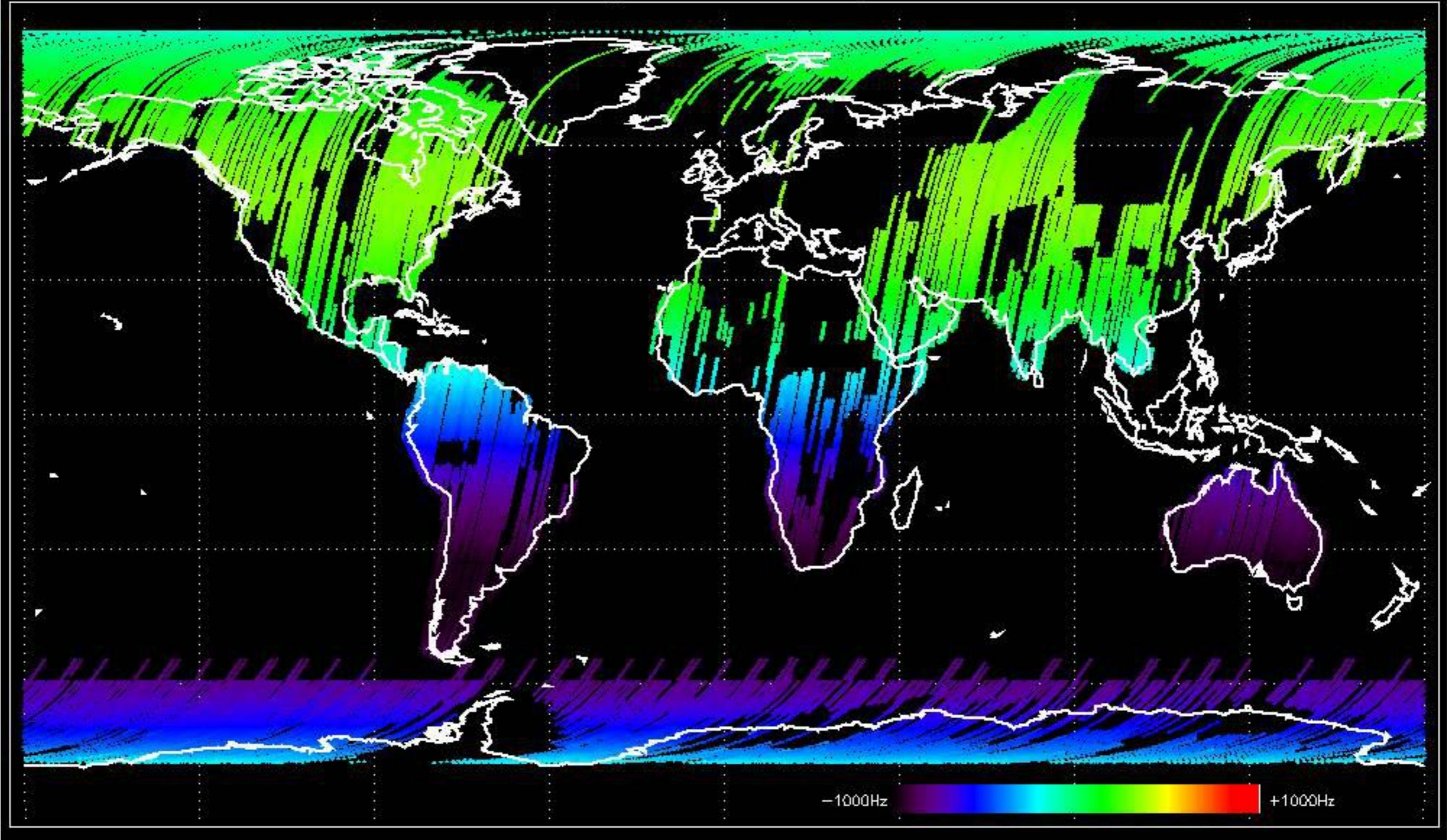


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

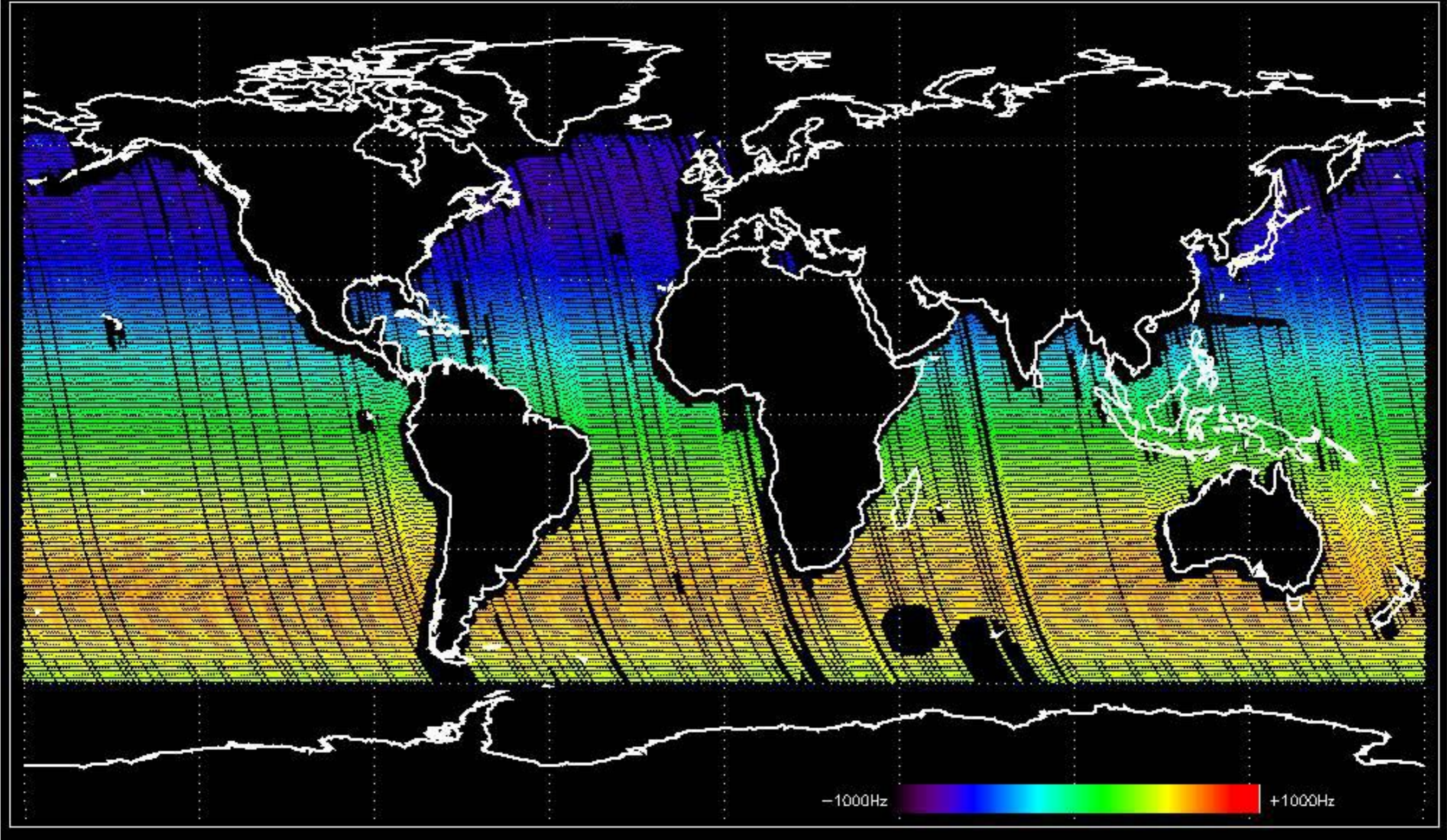
Doppler 'GM1' 'SS1' ascending



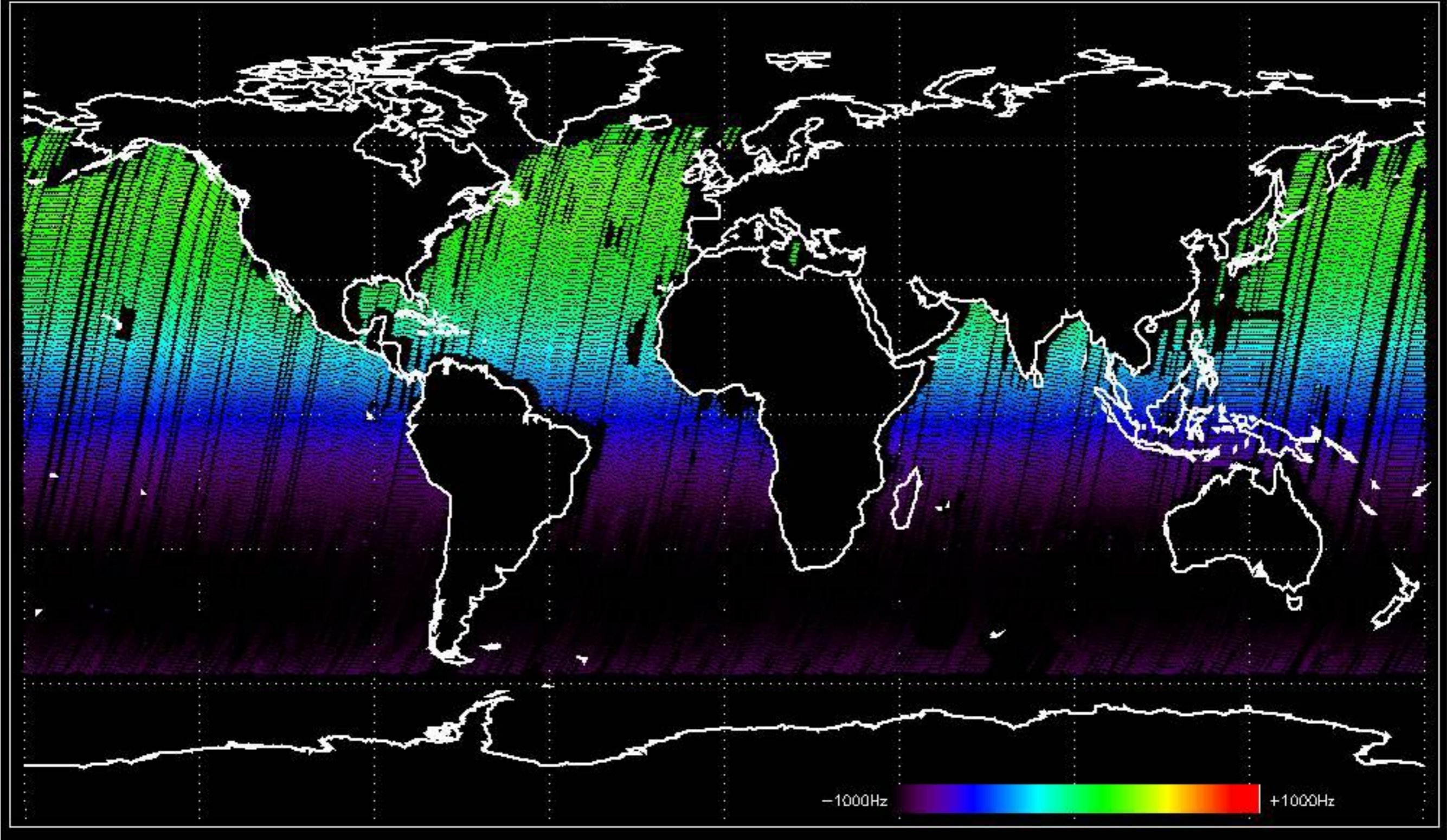
Doppler 'GM1' 'SS1' descending



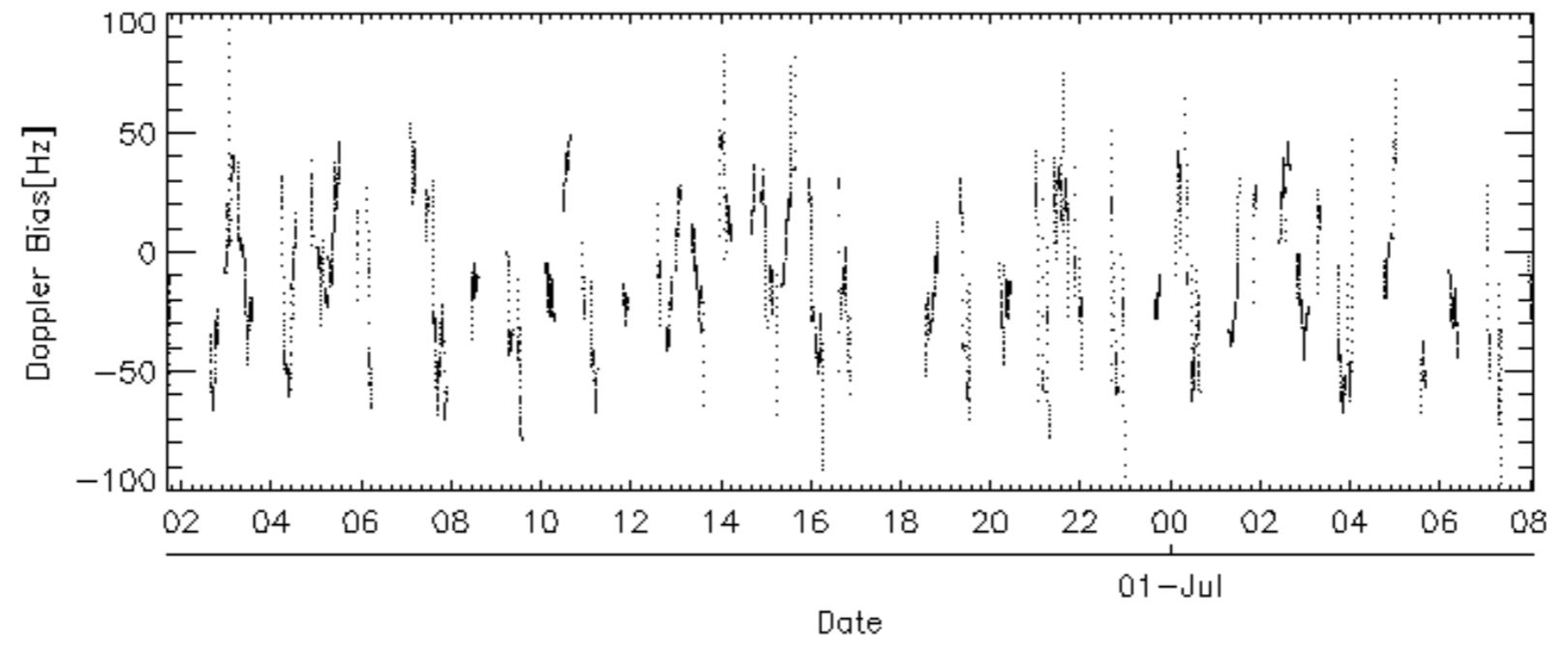
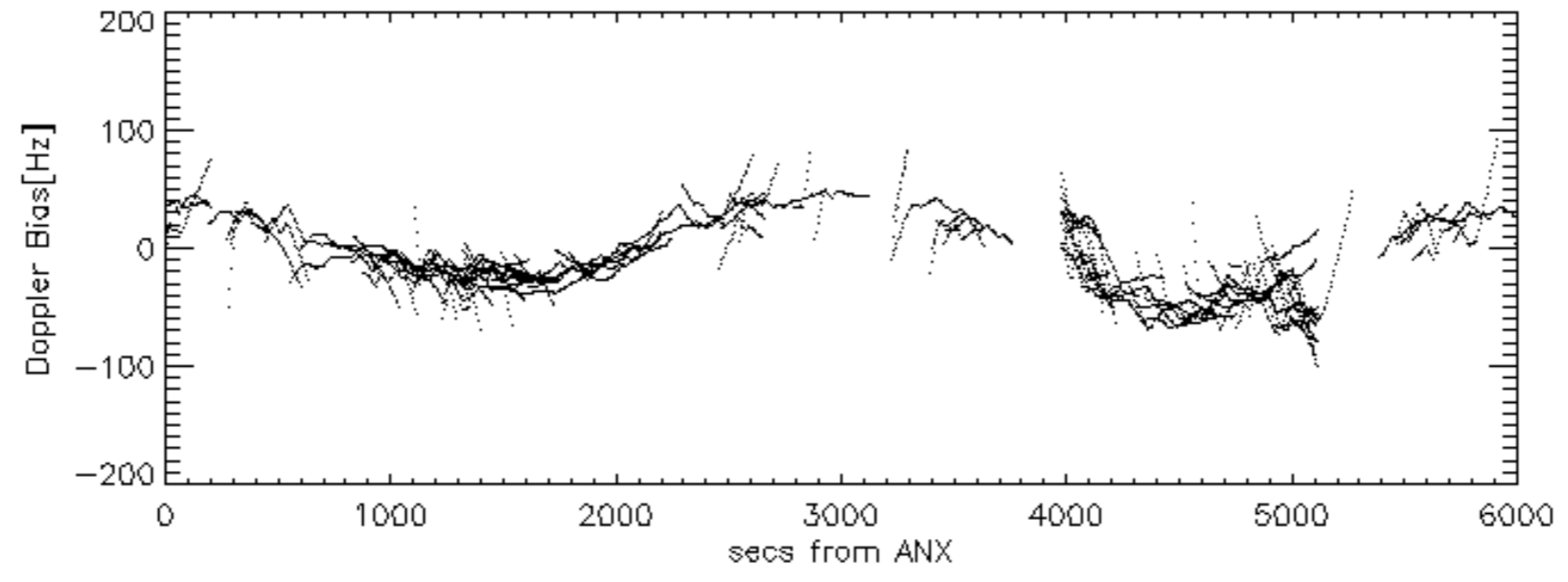
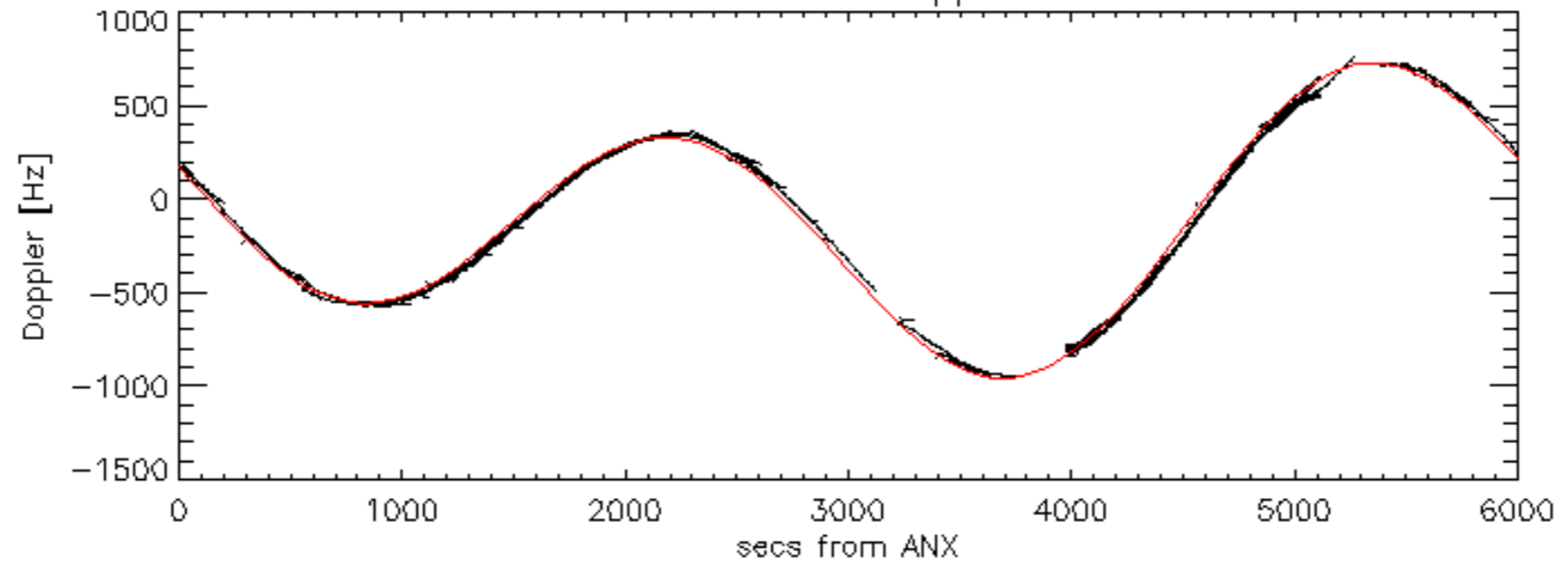
Doppler 'WVS' 'IS2' ascending

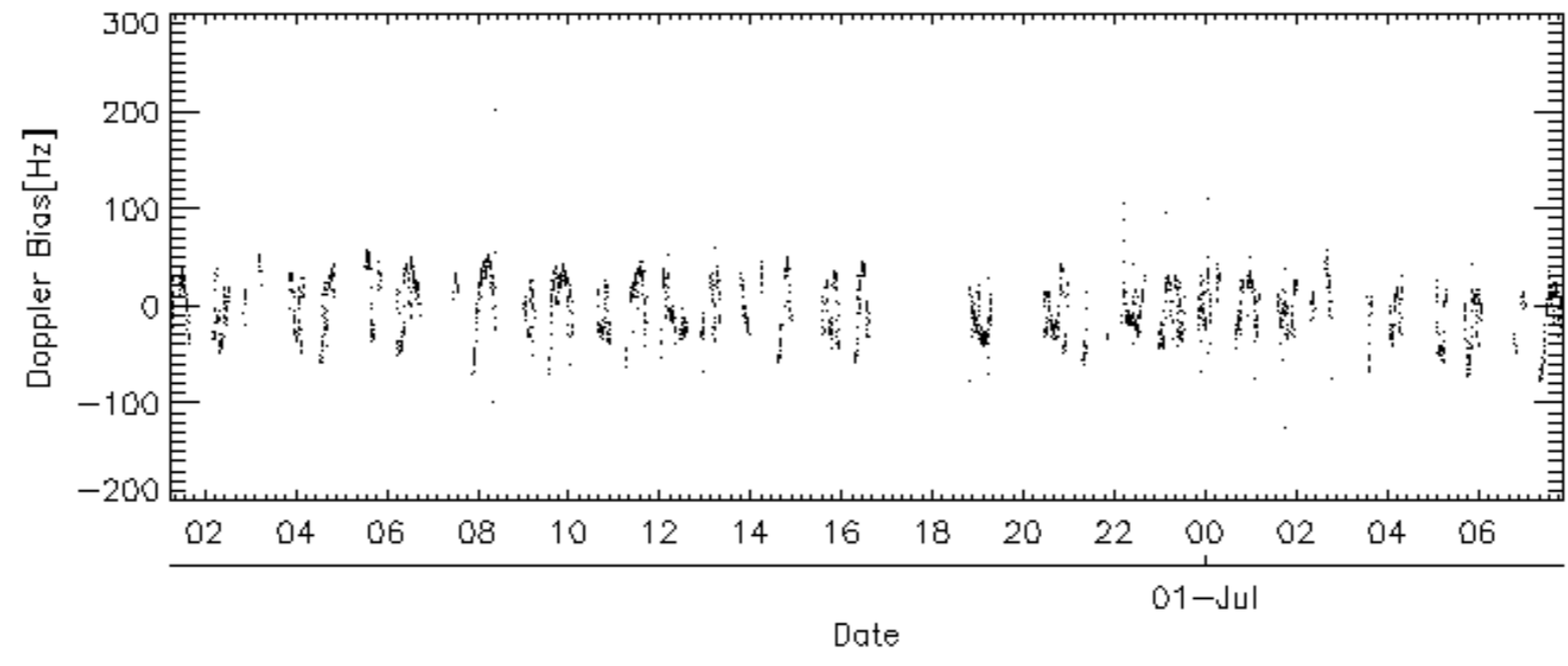
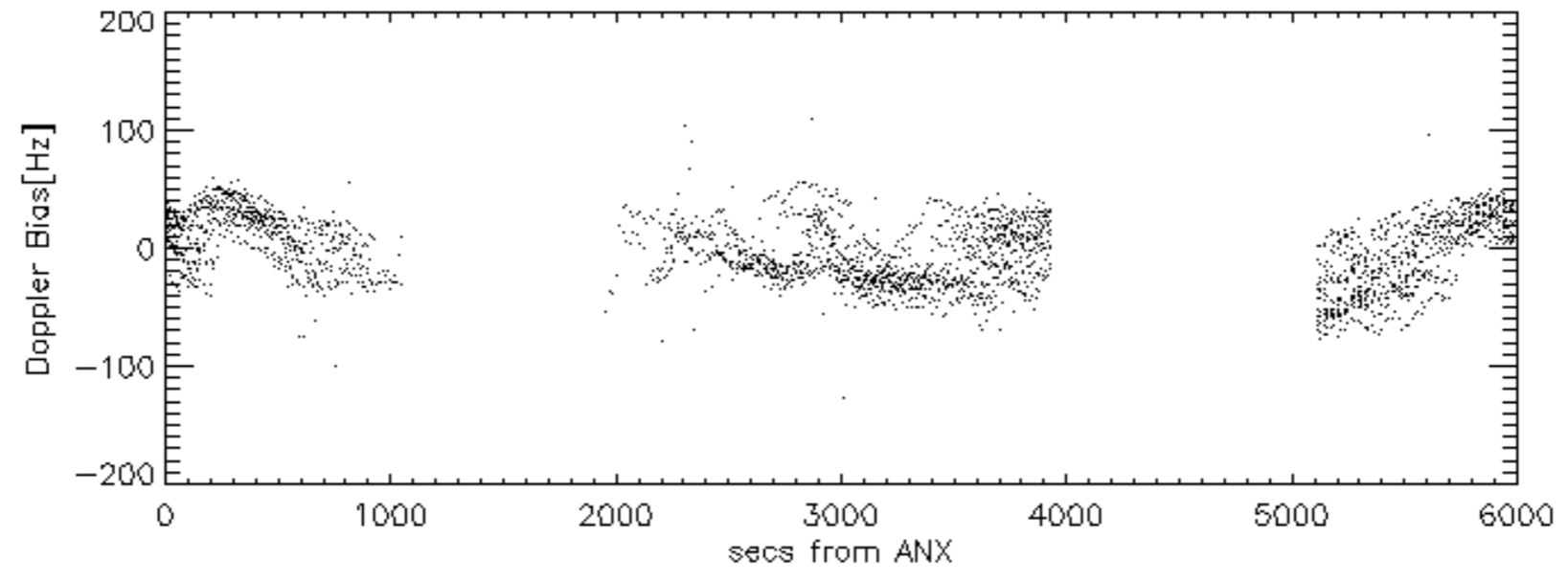
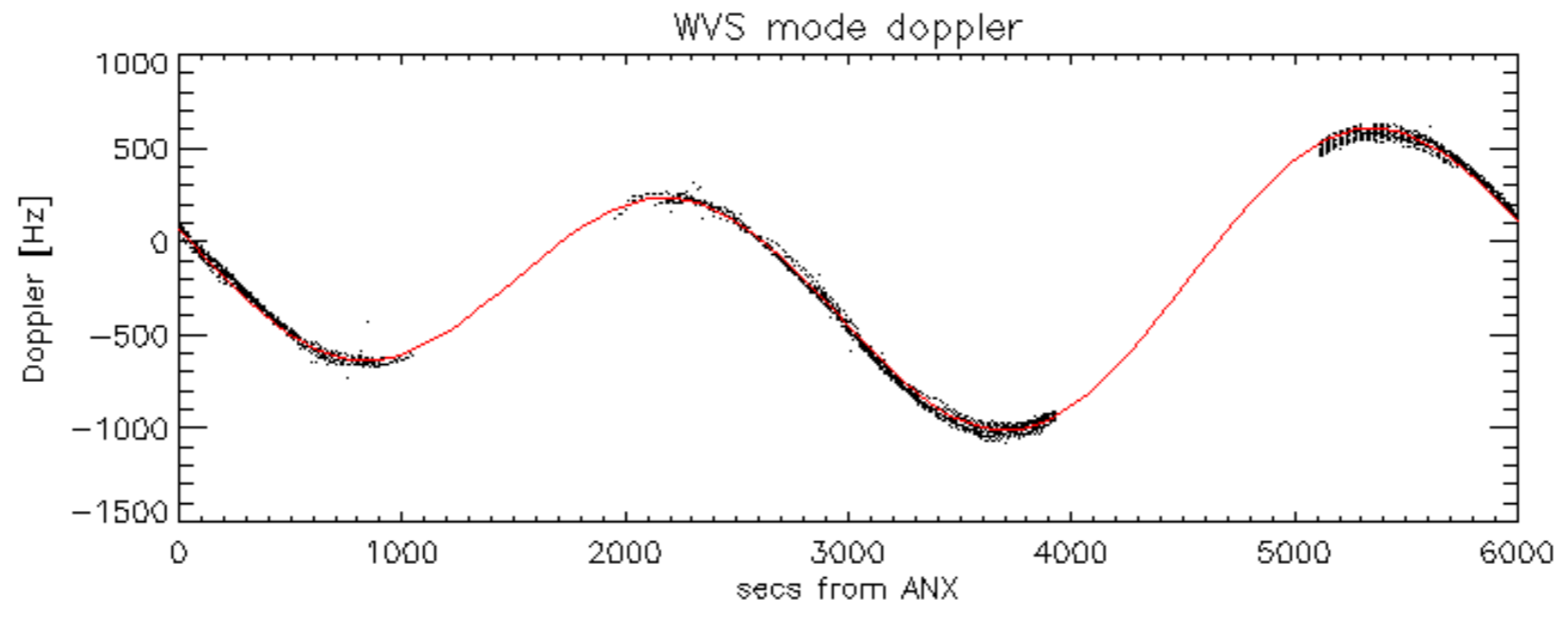


Doppler 'WVS' 'IS2' descending

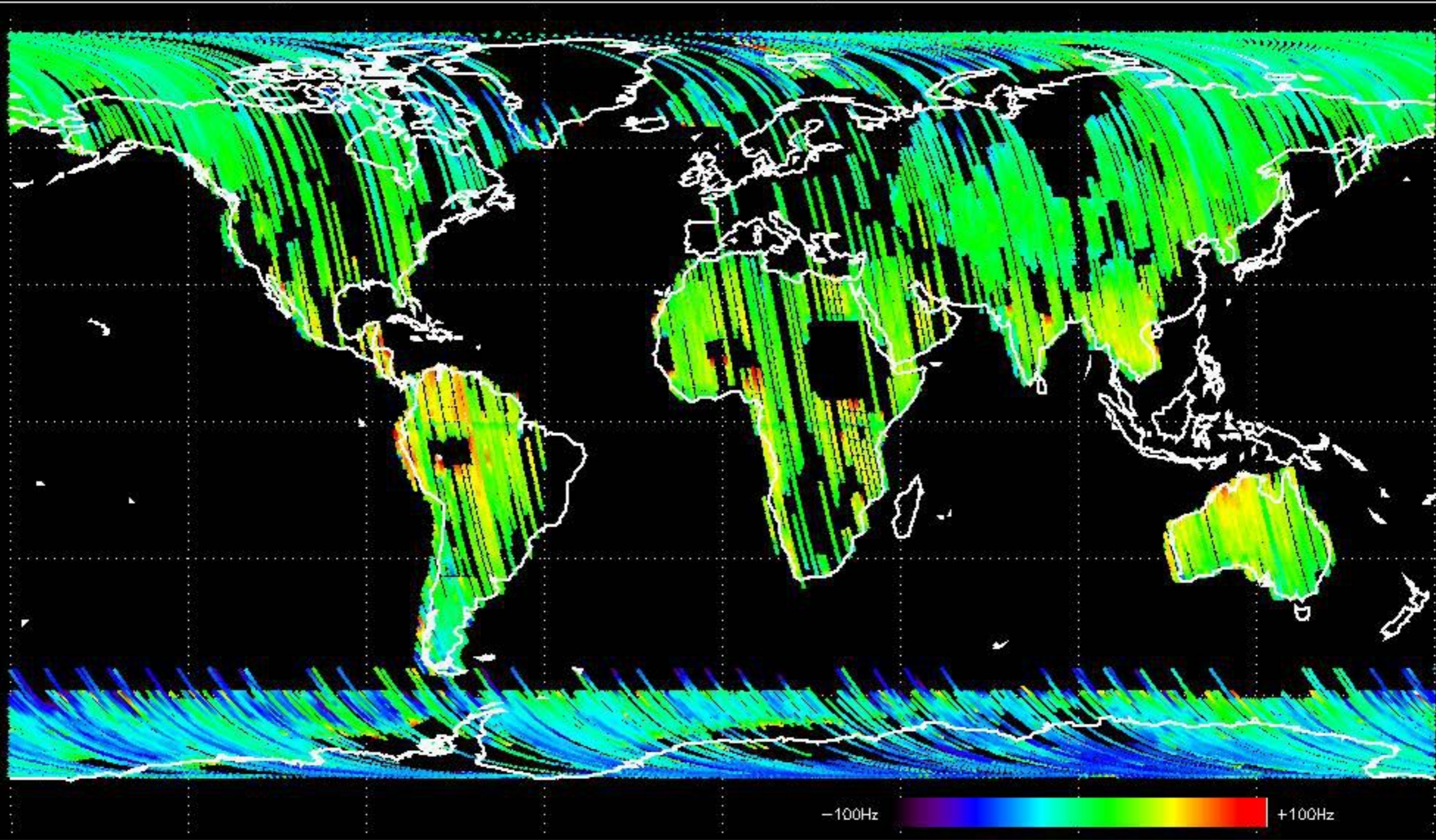


GM1 mode doppler

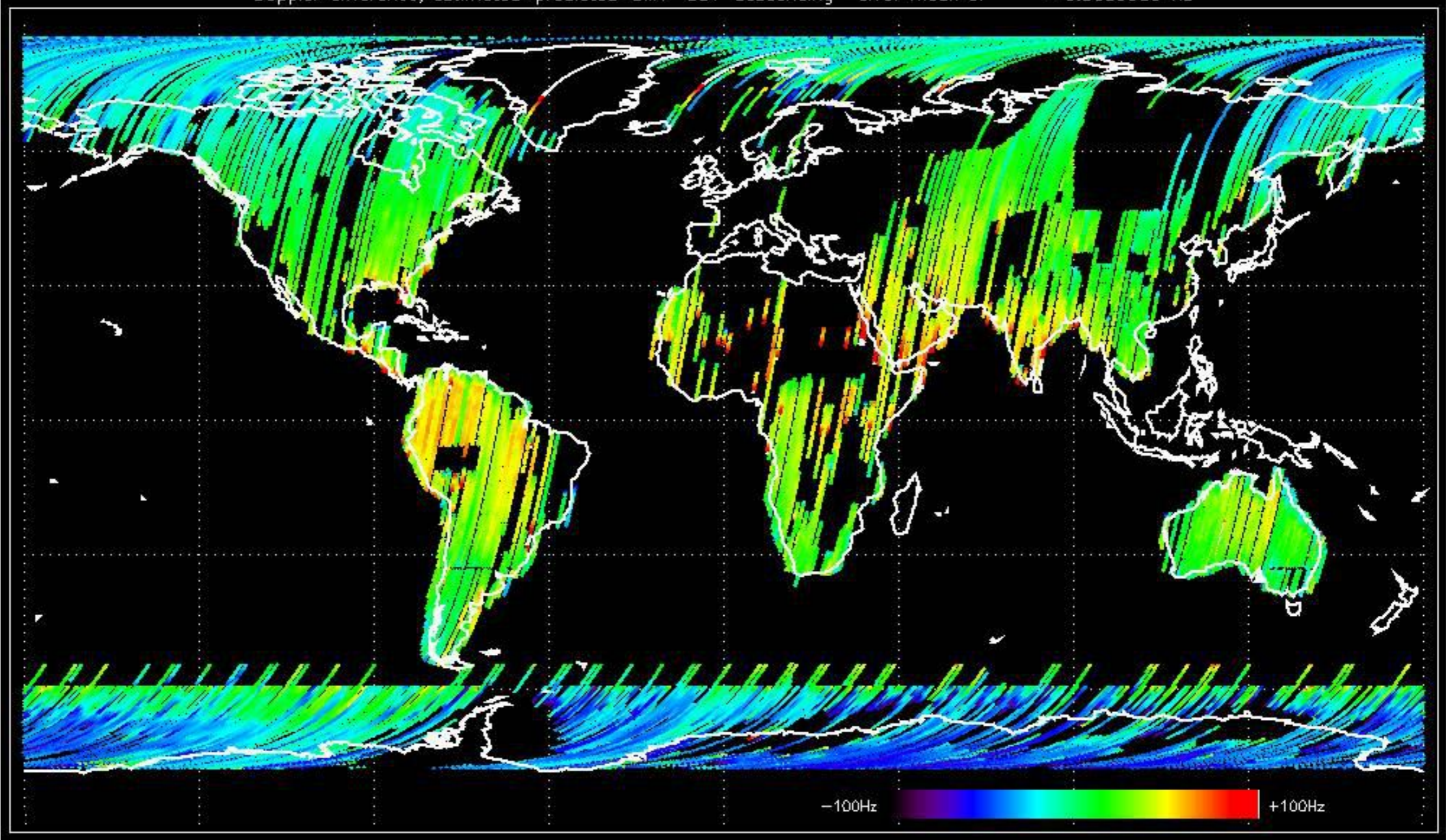




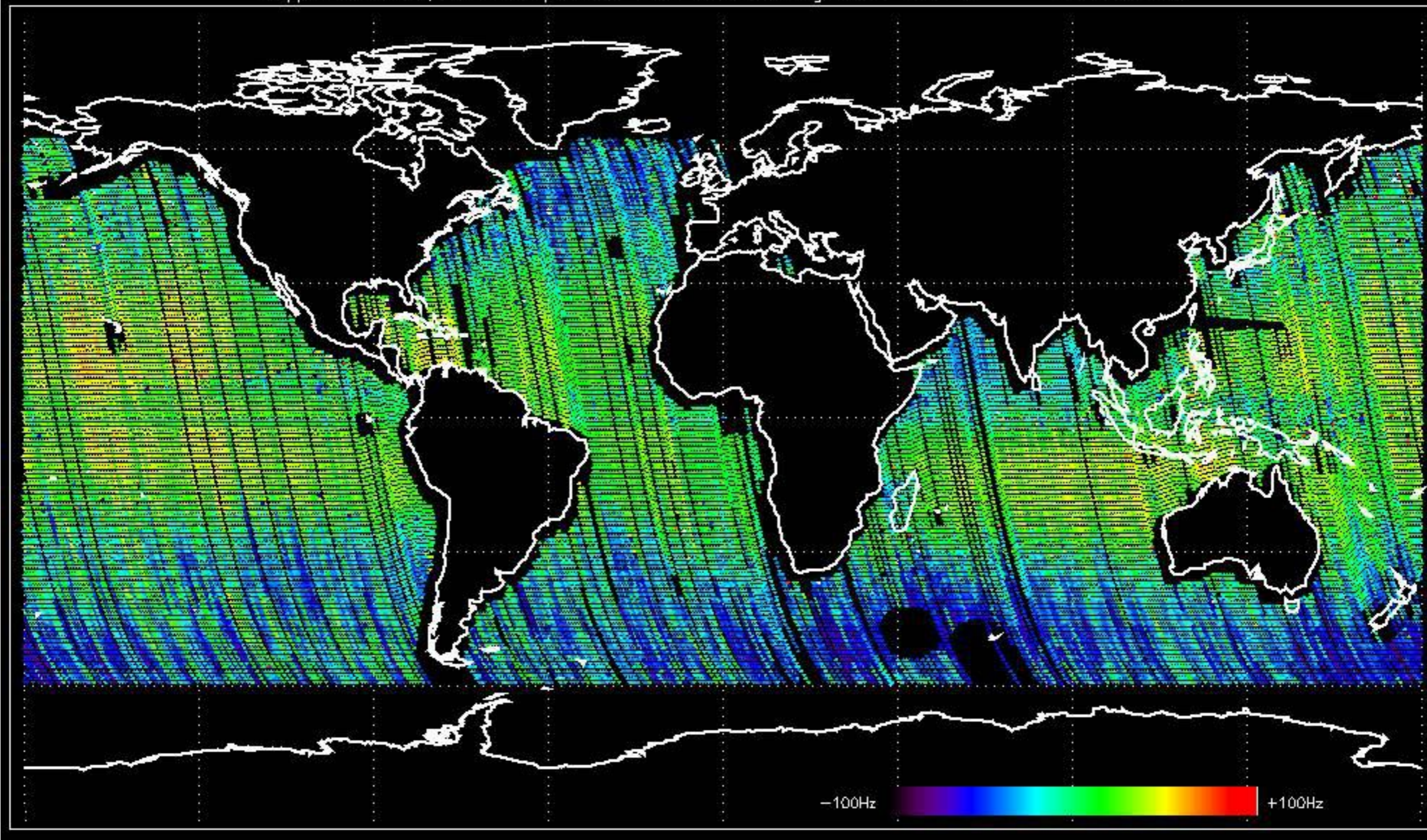
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.036692 Hz



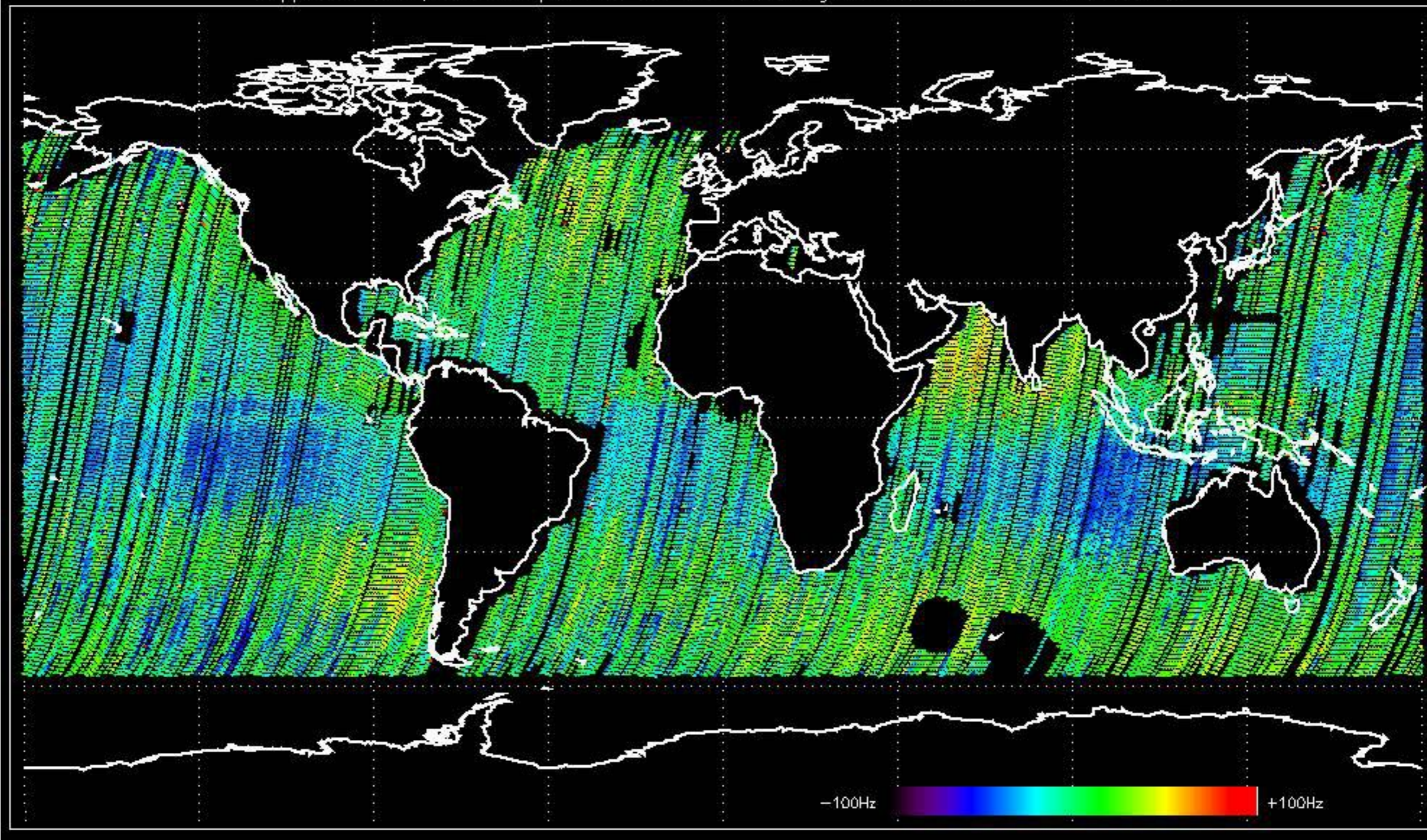
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.3039983 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.1899105 Hz

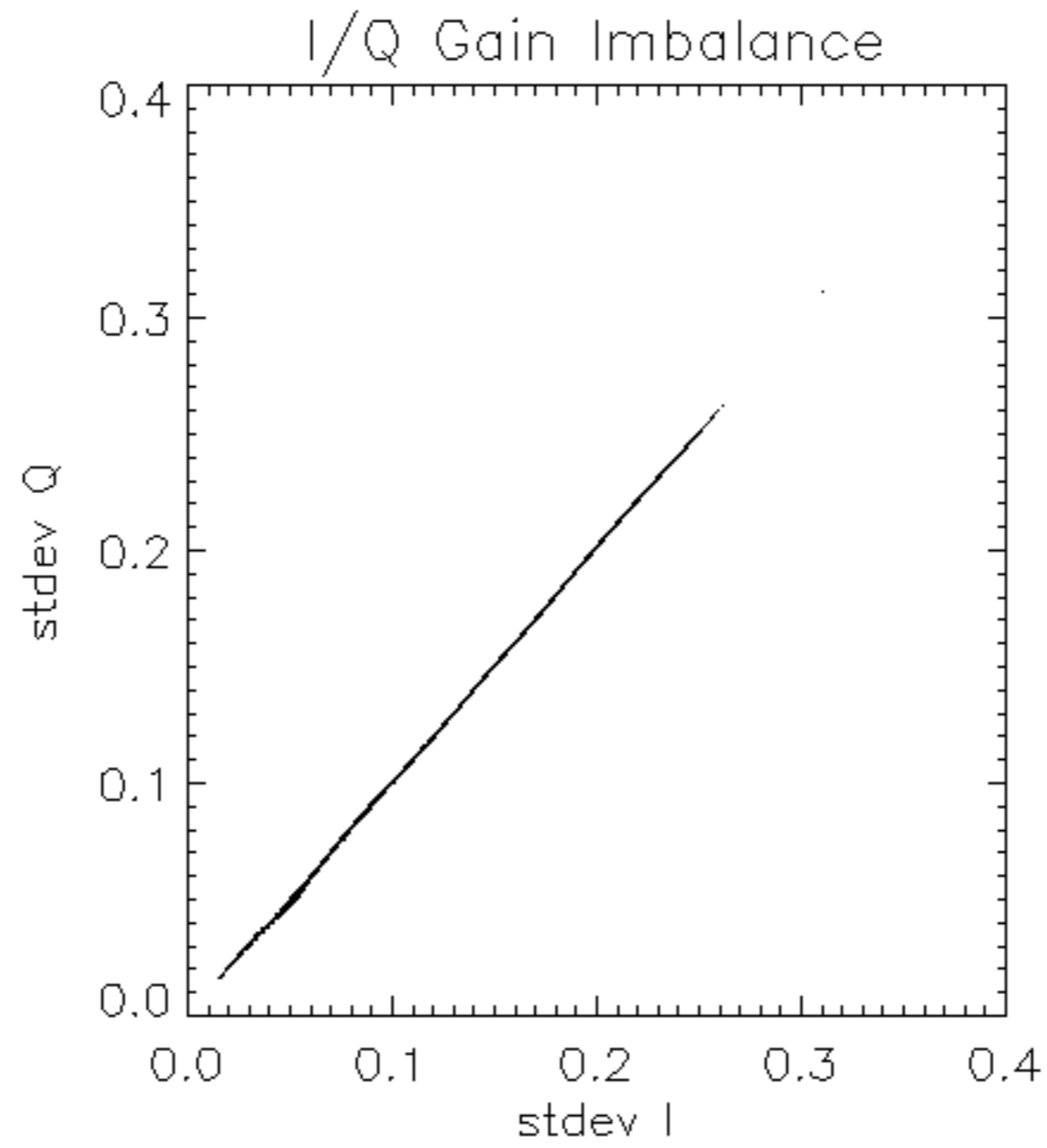


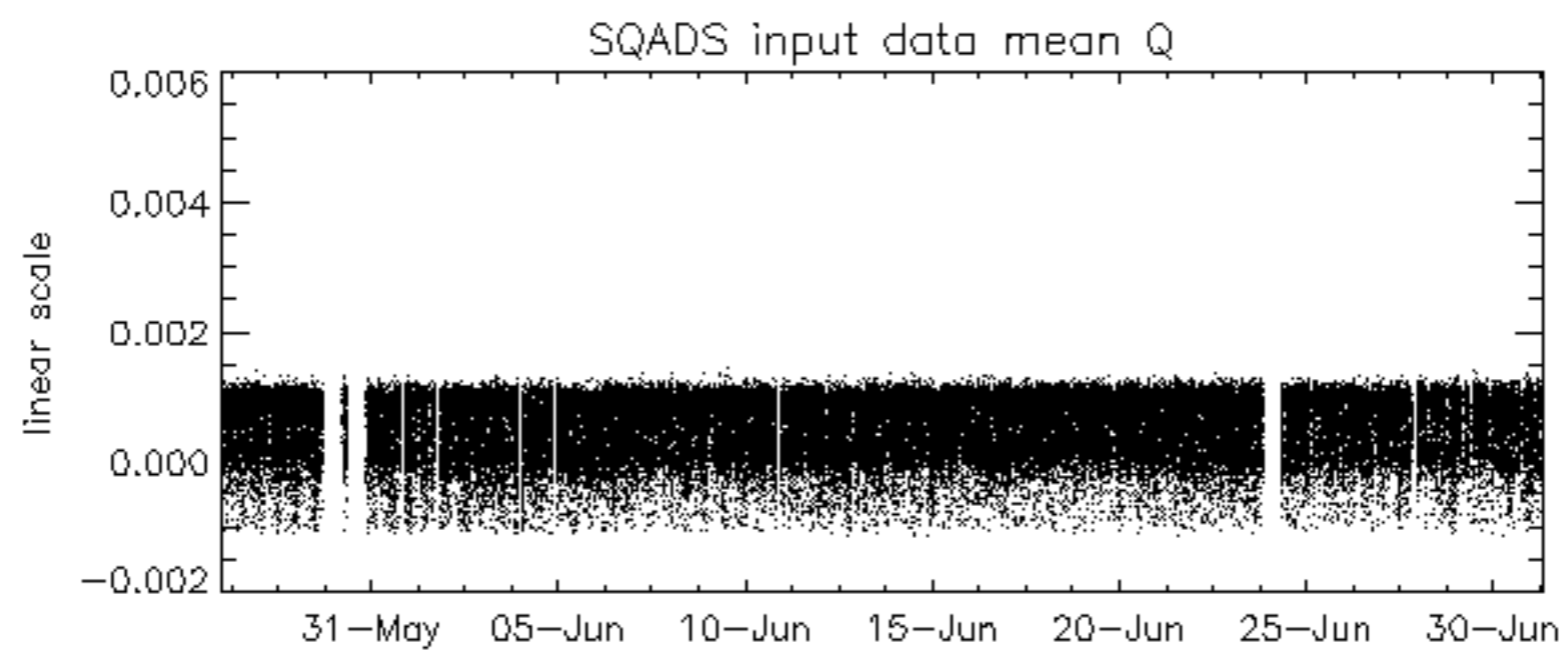
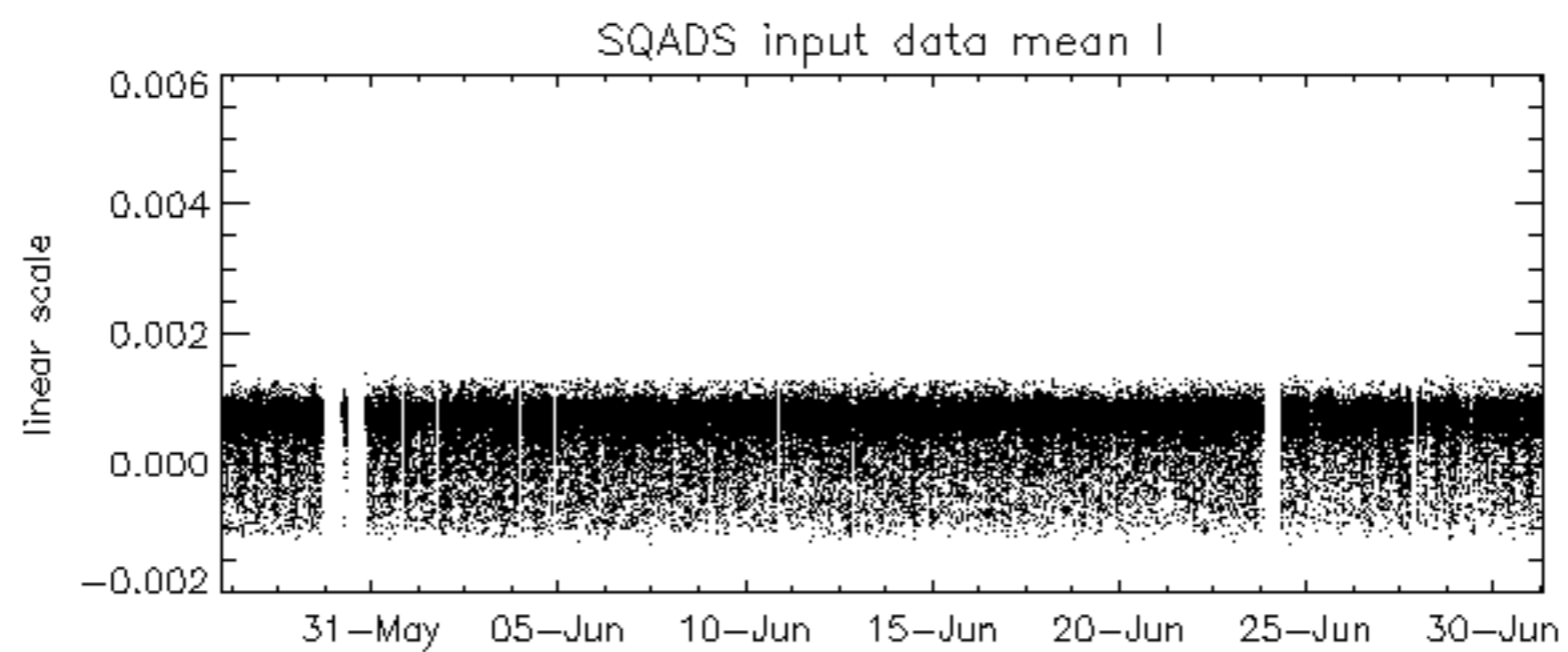
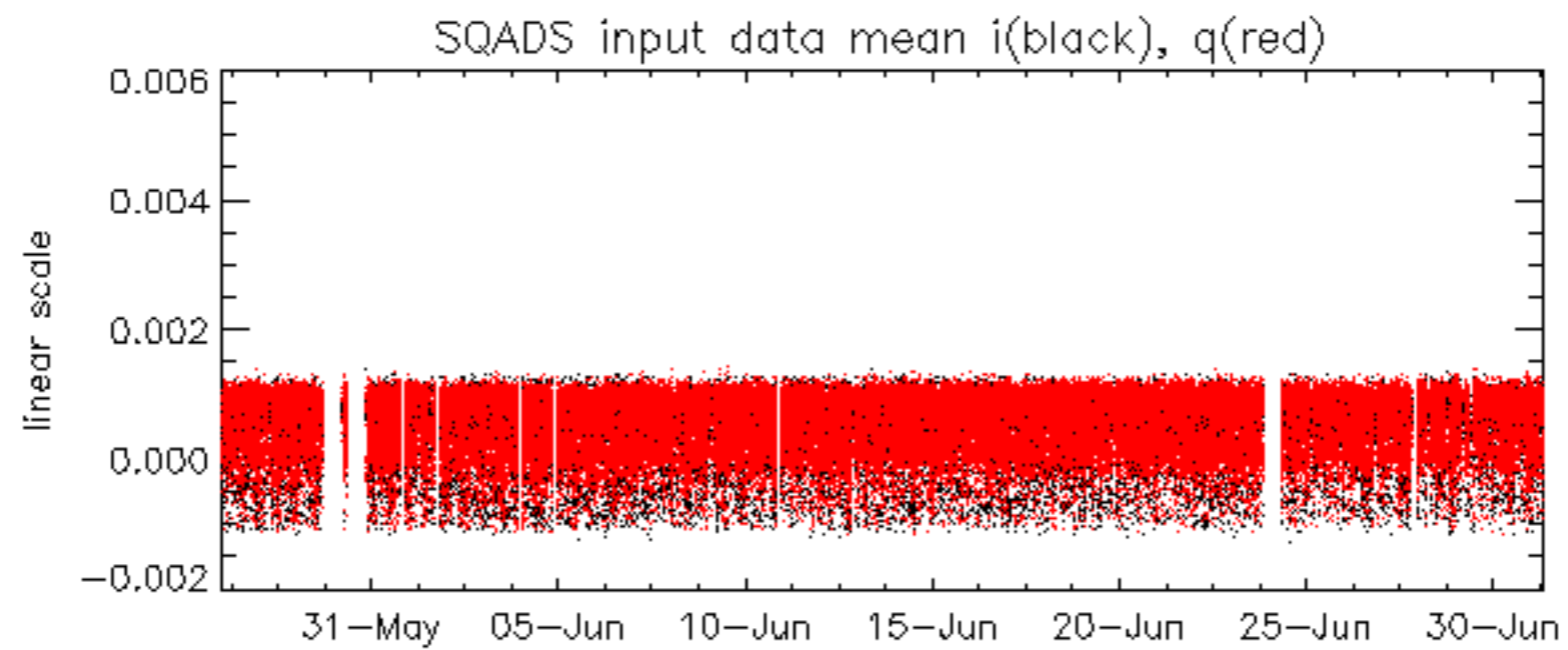
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.999838 Hz

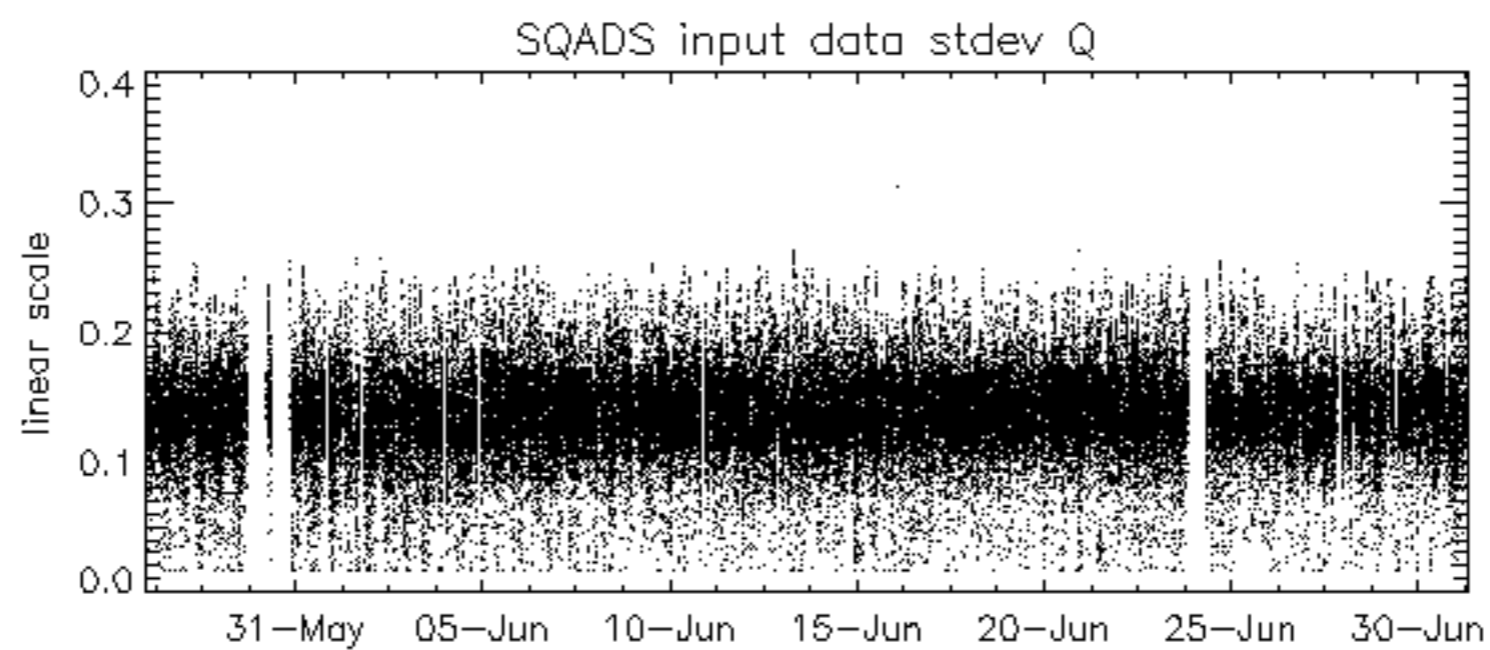
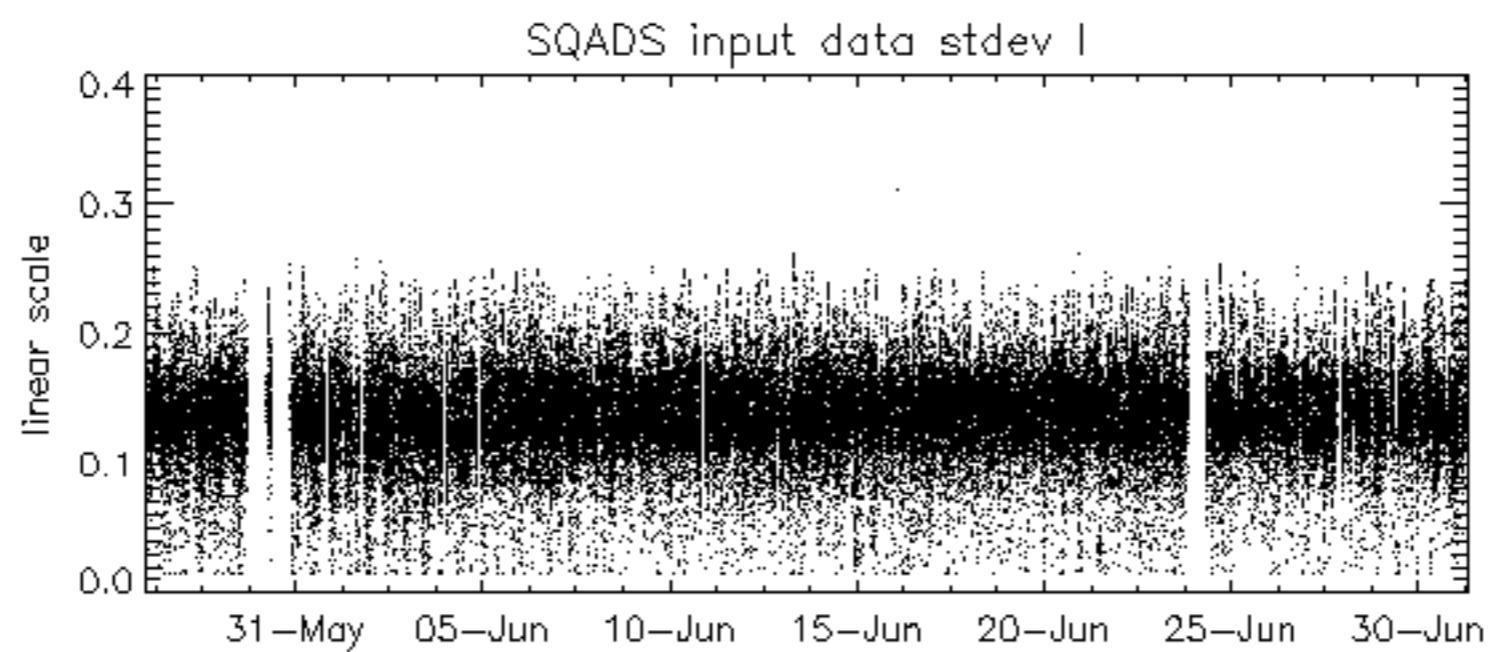
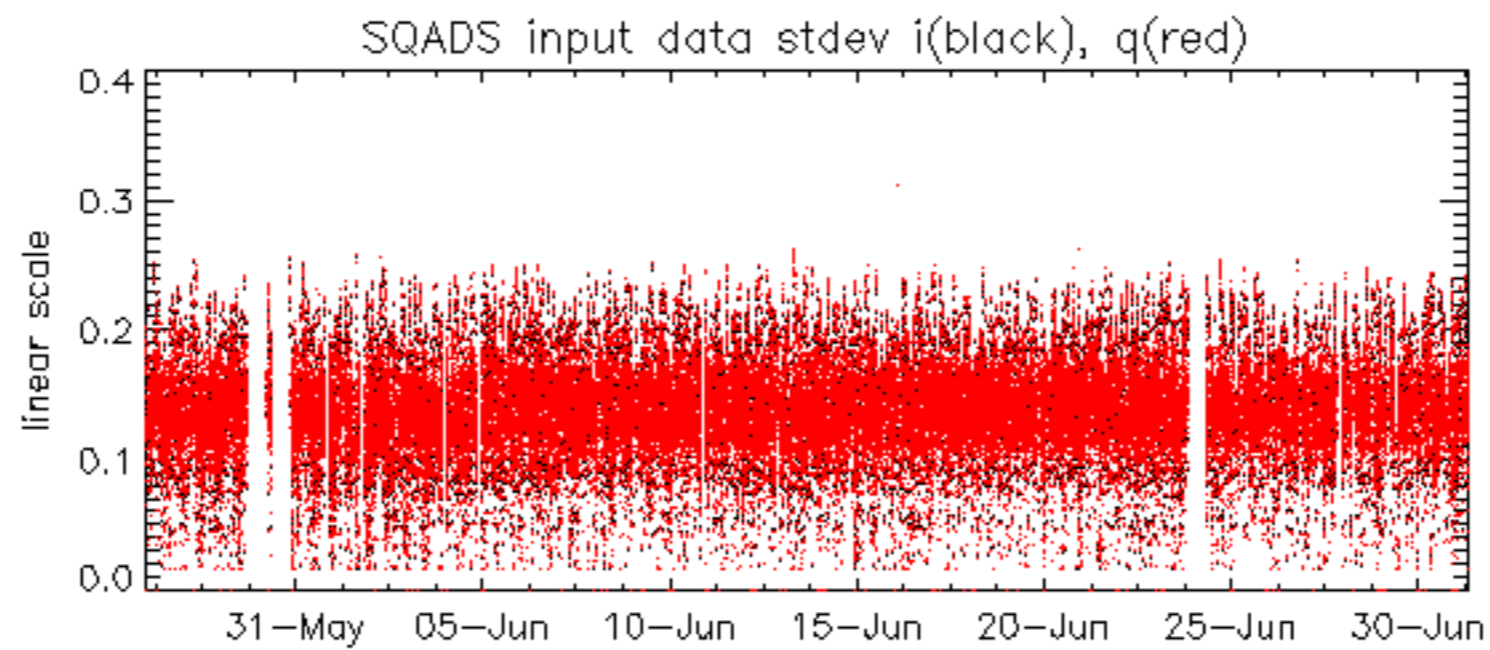


No anomalies observed on available MS products:

No anomalies observed.



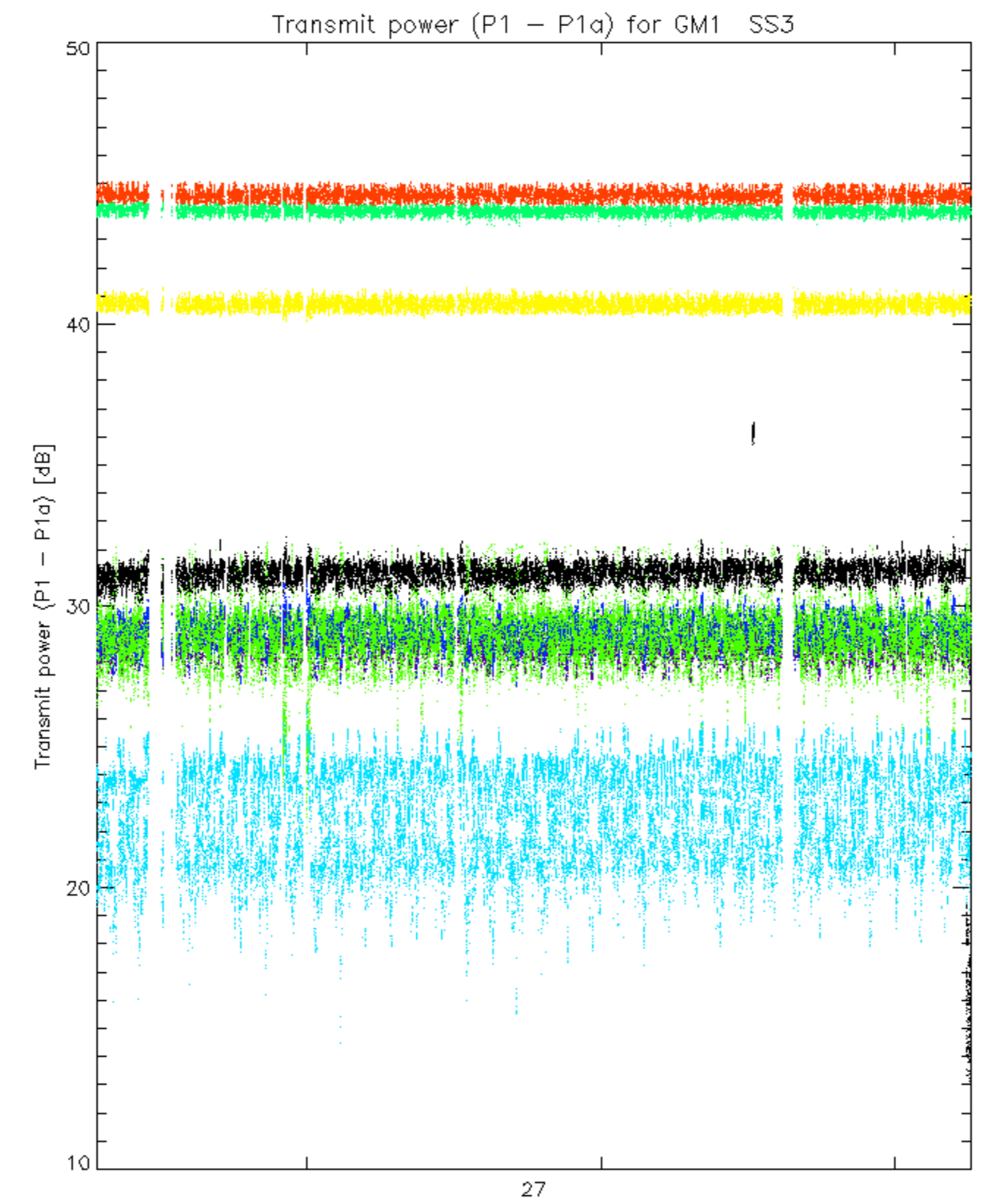




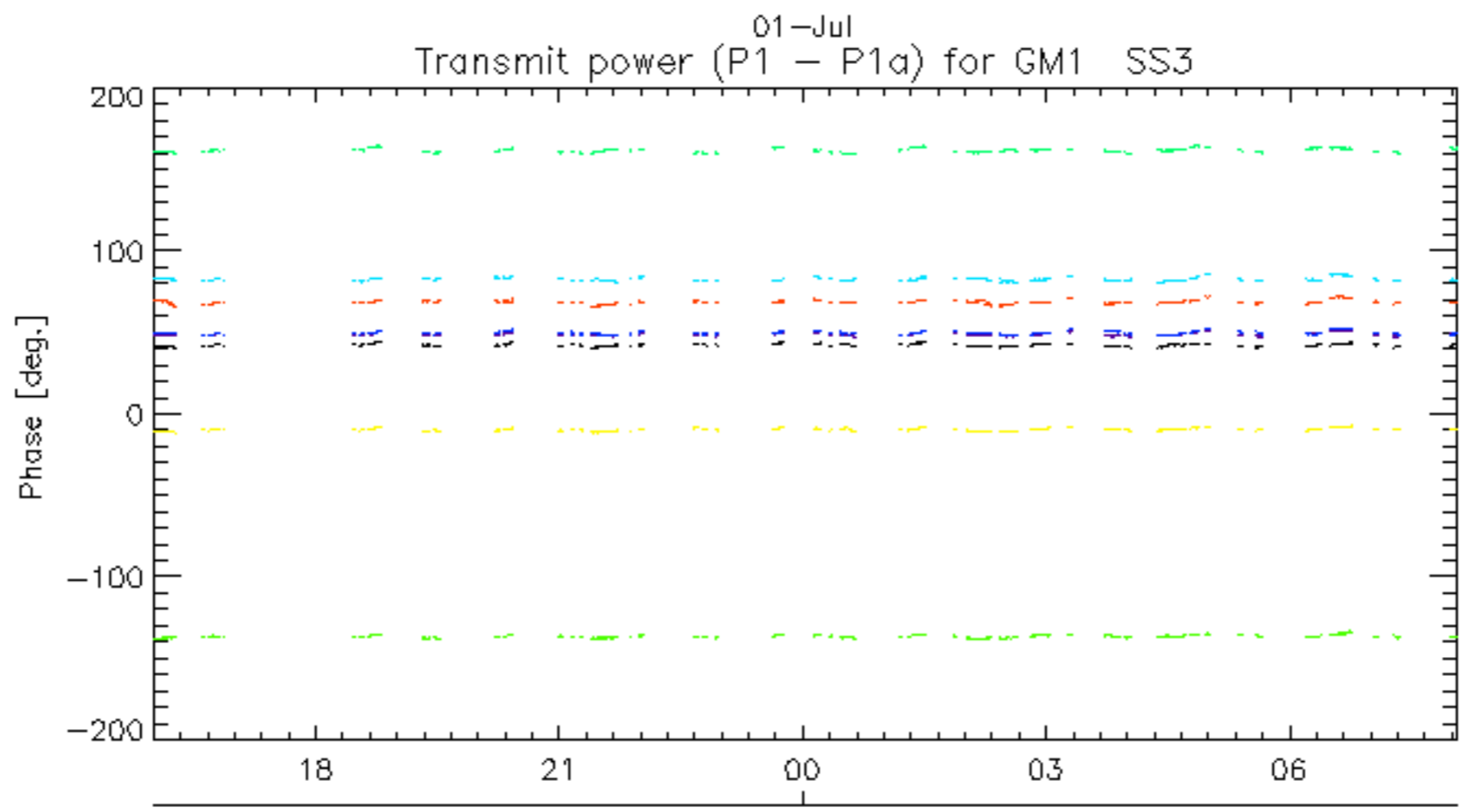
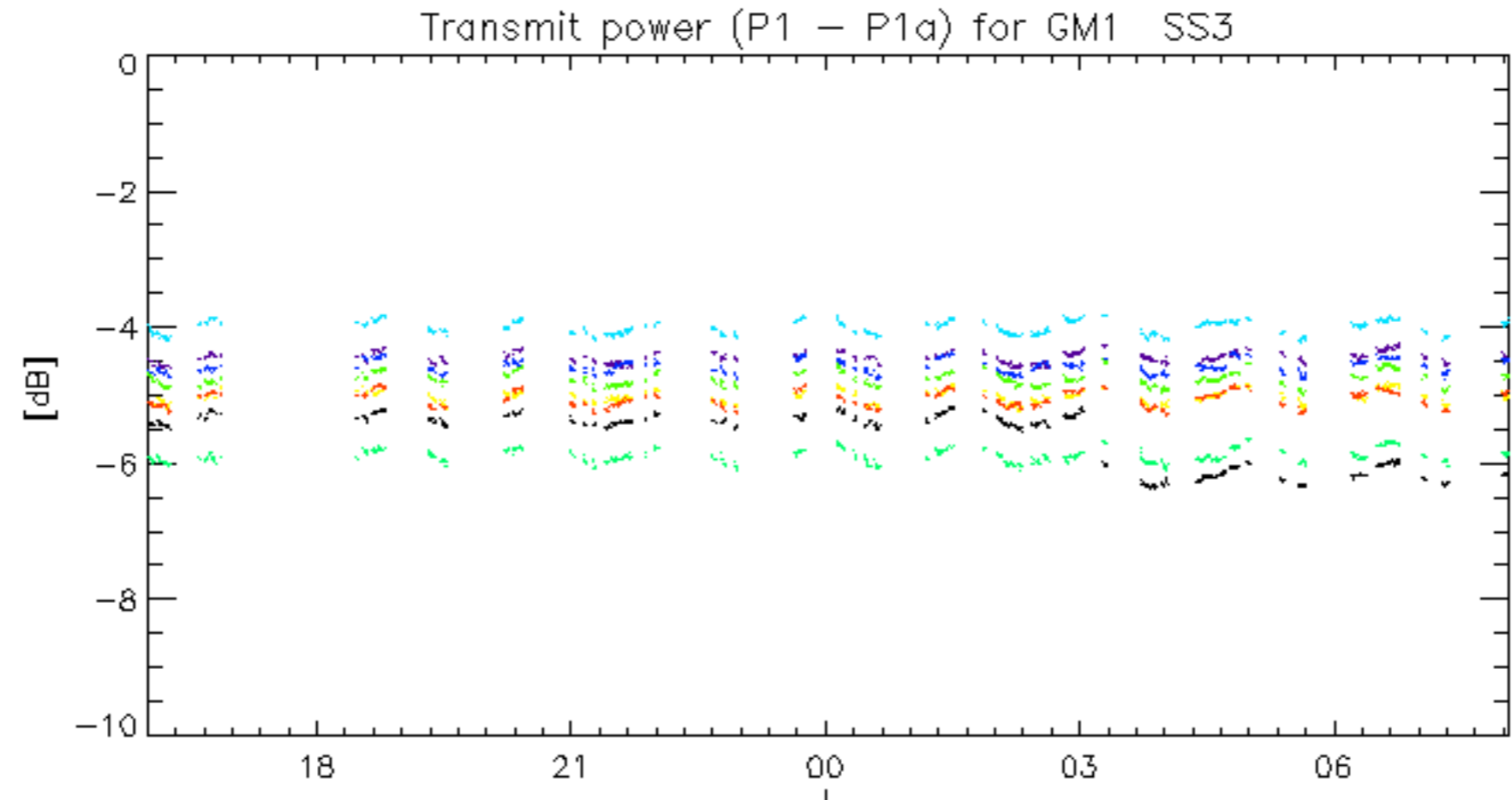
Summary of analysis for the last 3 days 2006063[901]

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

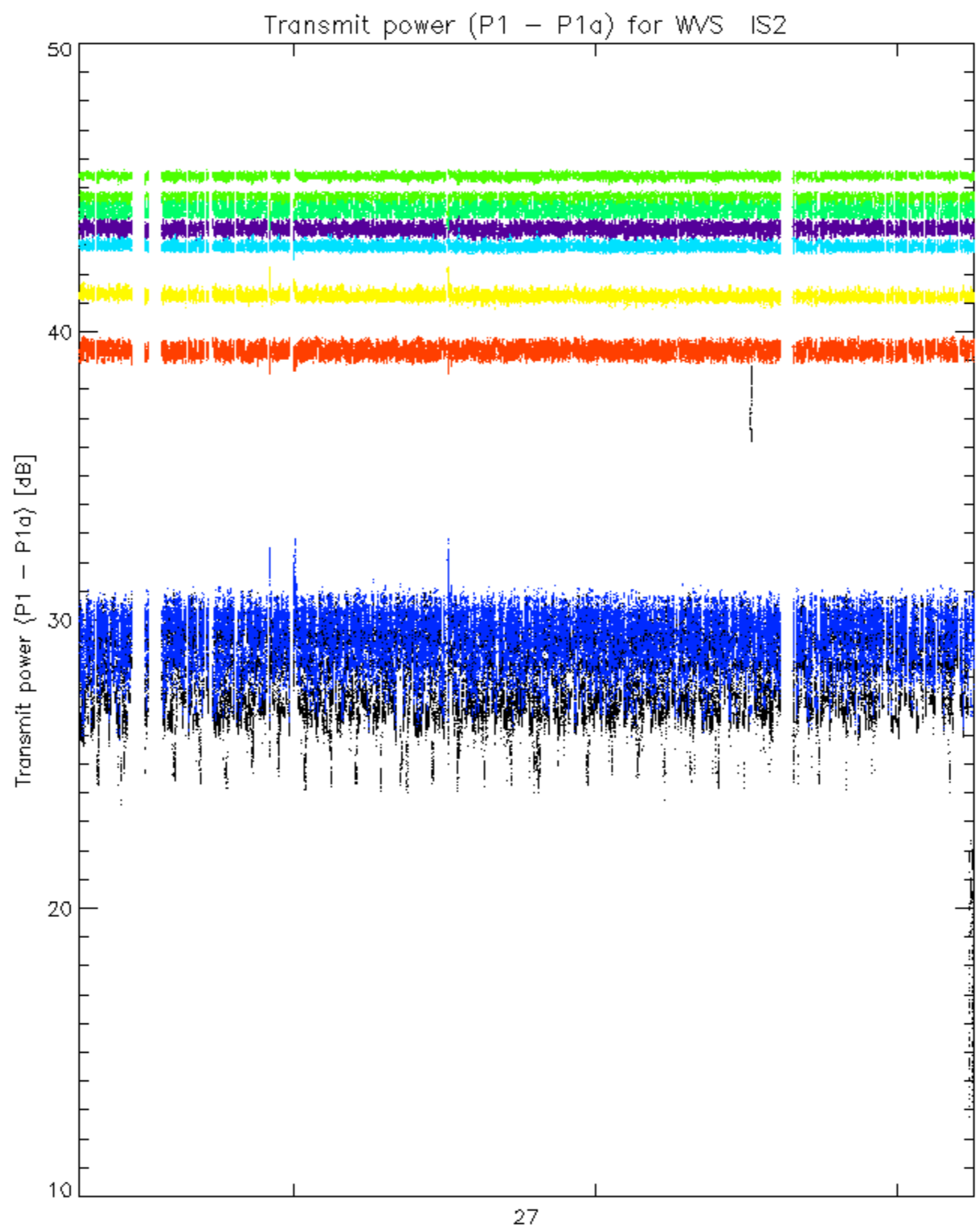
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060630_054359_000000352049_00048_22647_0170.N1	1	0
ASA_WSM_1PNPDE20060630_181715_000001842049_00056_22655_0575.N1	0	27



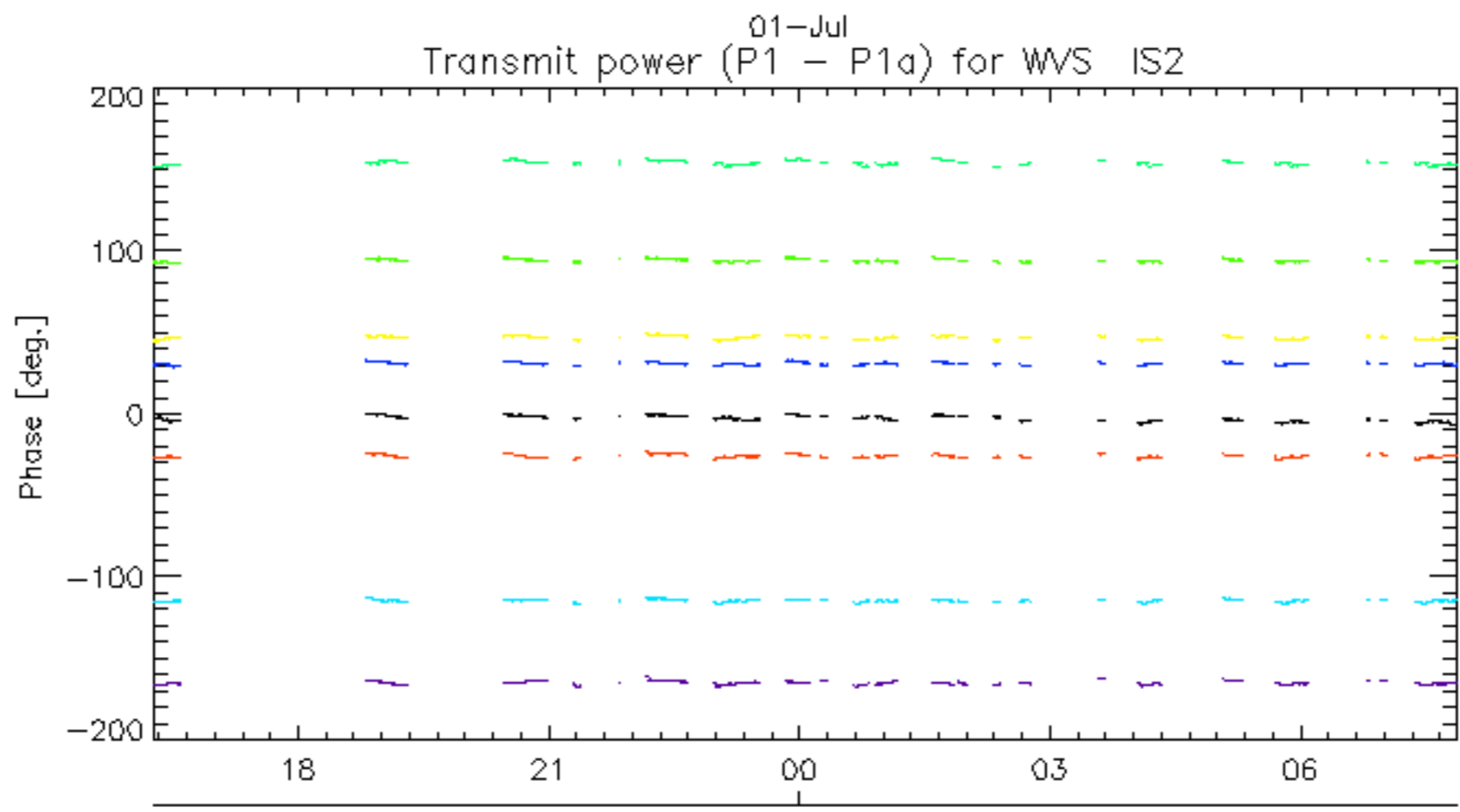
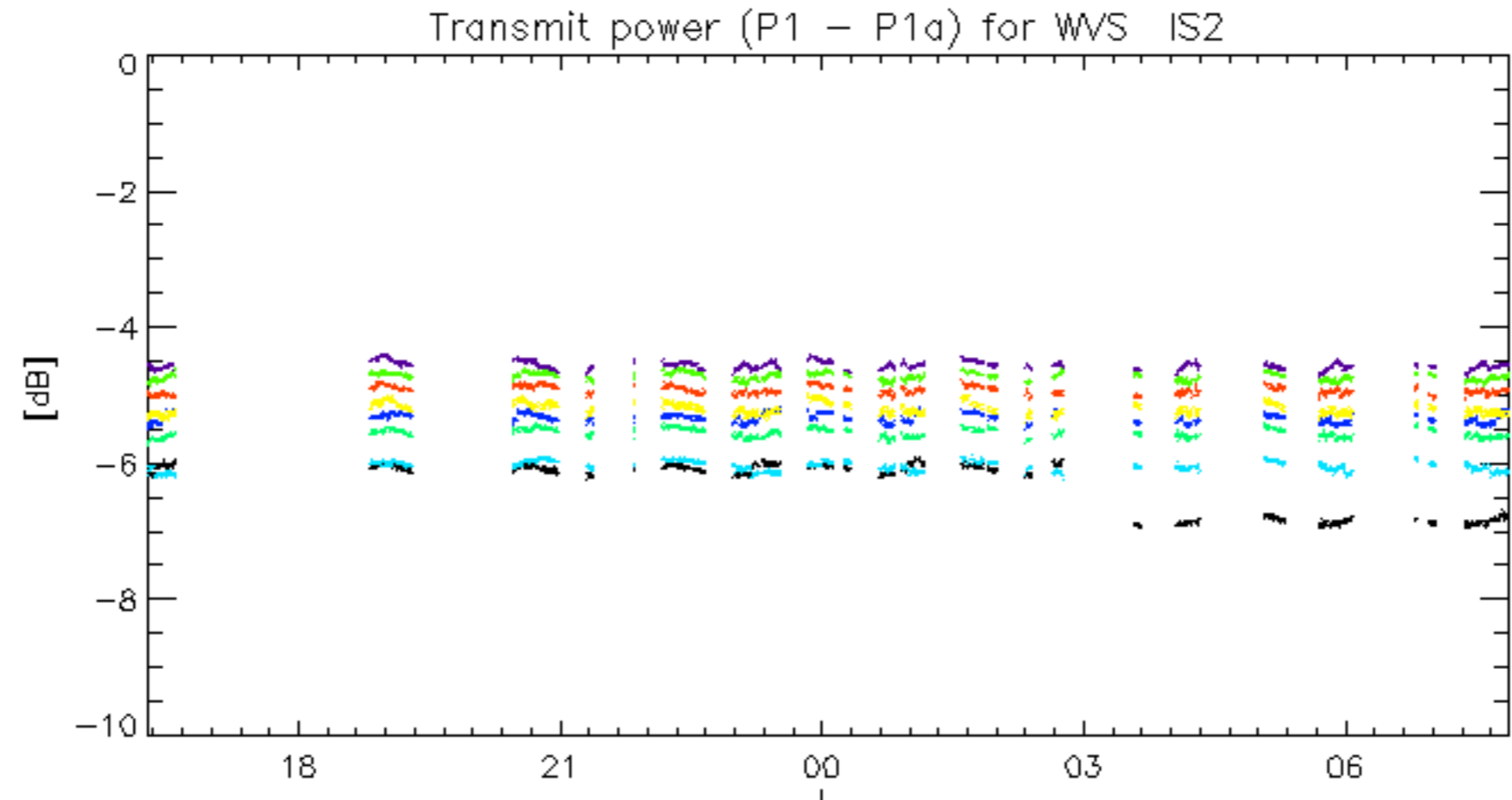
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.