

PRELIMINARY REPORT OF 060624

last update on Sat Jun 24 16:44:50 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 2006-06-23 00:00:00 to 2006-06-24 16:44:50

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	76	23	0	13
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	76	23	0	13
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	76	23	0	13
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	76	23	0	13

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	15	22	69	18	26
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	15	22	69	18	26
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	15	22	69	18	26
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	15	22	69	18	26

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	20060622 100809
H	20060623 143820

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.945820	0.051027	-0.032819
7	P1	-3.138424	0.015460	-0.016655
11	P1	-4.106512	0.019597	0.012598
15	P1	-6.151530	0.020362	-0.054180
19	P1	-3.355065	0.008606	-0.060781
22	P1	-4.519120	0.011685	-0.035762
26	P1	-3.968234	0.017020	0.024505
30	P1	-5.752616	0.008961	-0.026556
3	P1	-16.543886	0.566296	-0.165885
7	P1	-17.228556	0.149117	-0.105965
11	P1	-16.962543	0.308946	-0.092081
15	P1	-13.200147	0.216635	0.067722
19	P1	-14.345060	0.052347	-0.156173
22	P1	-16.163279	0.371876	0.045093
26	P1	-15.208135	0.228242	0.126389
30	P1	-17.145044	0.412844	-0.091307

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.128414	0.081398	0.132471
7	P2	-22.016510	0.097983	0.105455
11	P2	-15.858472	0.111690	0.107571
15	P2	-7.158377	0.094753	-0.004113
19	P2	-9.171606	0.086335	0.000359
22	P2	-18.166998	0.083422	-0.049225
26	P2	-16.406034	0.088128	-0.057071
30	P2	-19.557917	0.087470	0.002207

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.186122	0.003974	-0.012283
7	P3	-8.186122	0.003974	-0.012283
11	P3	-8.186122	0.003974	-0.012283
15	P3	-8.186122	0.003974	-0.012283
19	P3	-8.186122	0.003974	-0.012283
22	P3	-8.186122	0.003974	-0.012283
26	P3	-8.186122	0.003974	-0.012283
30	P3	-8.186122	0.003974	-0.012283

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	-3.821582	0.093452	-0.048264
7	P1	-2.586611	0.030495	0.054737
11	P1	-2.862569	0.022955	0.037364
15	P1	-3.520956	0.052038	-0.020529
19	P1	-3.411812	0.014469	-0.018568
22	P1	-5.083305	0.019805	0.000678
26	P1	-5.855971	0.015920	-0.026451
30	P1	-5.191932	0.026581	-0.013041
3	P1	-11.641901	0.141768	-0.125078
7	P1	-9.970504	0.048952	-0.063704
11	P1	-10.220697	0.086589	-0.076423
15	P1	-10.678405	0.161346	-0.074052
19	P1	-15.540678	0.077395	-0.025171
22	P1	-20.945232	1.170540	-0.045103
26	P1	-16.461189	0.332165	0.099687
30	P1	-17.894590	0.374254	0.126416

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.811026	0.075290	0.205167
7	P2	-22.482735	0.131892	0.101997
11	P2	-11.139187	0.049639	0.102751
15	P2	-4.920999	0.049669	-0.007674
19	P2	-6.883201	0.054457	0.010636
22	P2	-8.209764	0.043703	0.005287
26	P2	-24.150093	0.069744	-0.067959
30	P2	-22.059975	0.057090	0.047250

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020633	0.004911	-0.007781
7	P3	-8.020707	0.004890	-0.007883
11	P3	-8.020686	0.004898	-0.008109
15	P3	-8.020681	0.004896	-0.007714
19	P3	-8.020614	0.004899	-0.007694
22	P3	-8.020803	0.004887	-0.008079
26	P3	-8.020811	0.004904	-0.007864
30	P3	-8.020753	0.004885	-0.007754

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	0.000559483
	stdev	1.71107e-07
MEAN Q	mean	0.000526519
	stdev	2.19369e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137063
	stdev	0.00115389
STDEV Q	mean	0.137420
	stdev	0.00117157



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006062[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_1PNPDE20060622_003435_000001162048_00431_22529_8242.N1	1	0
ASA_IMM_1PNPDE20060622_144838_000000792048_00440_22538_8275.N1	0	17
ASA_WSM_1PNPDE20060622_040158_000001462048_00434_22532_5069.N1	0	63
ASA_WSM_1PNPDE20060622_112554_000001702048_00438_22536_5109.N1	0	51
ASA_WSM_1PNPDK20060622_140712_000000922048_00440_22538_8138.N1	0	16







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)



Ascending



Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler



Ascending



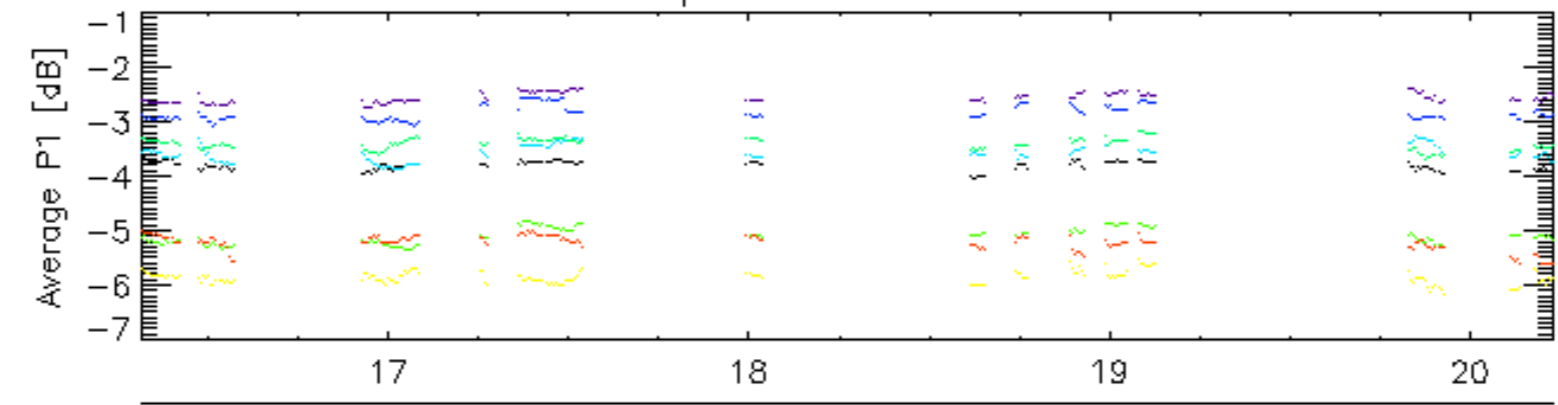
Descending

7.6 - Doppler evolution versus ANX for GM1

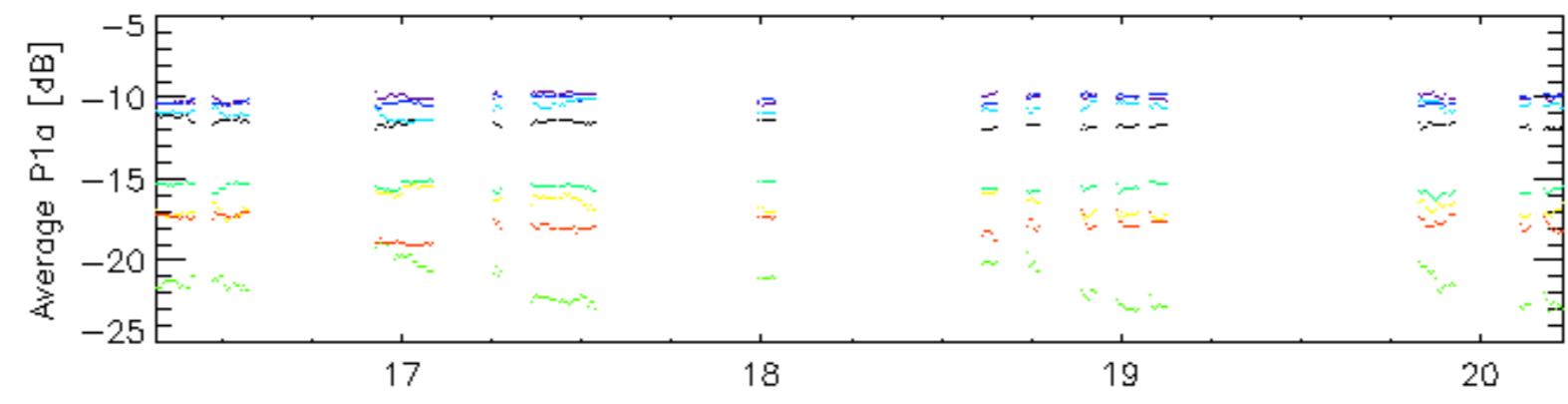
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

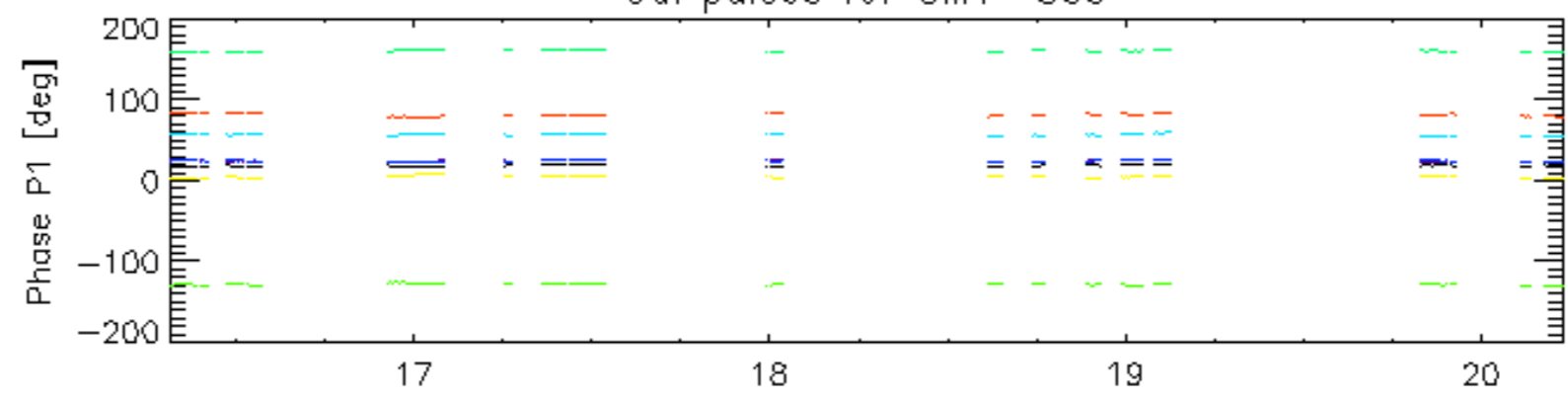


23-Jun

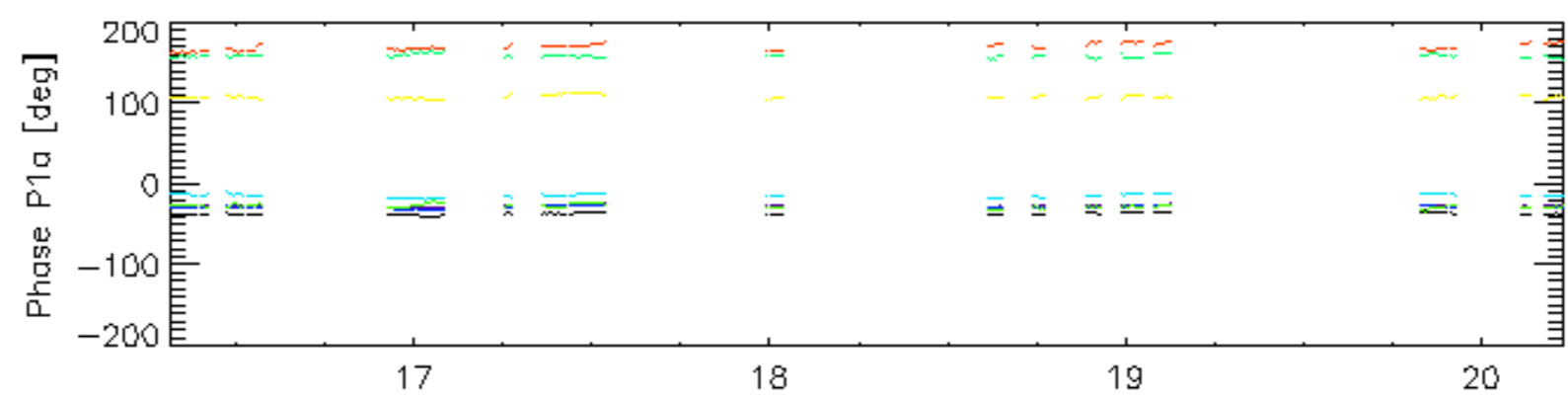


23-Jun

Cal pulses for GM1 SS3

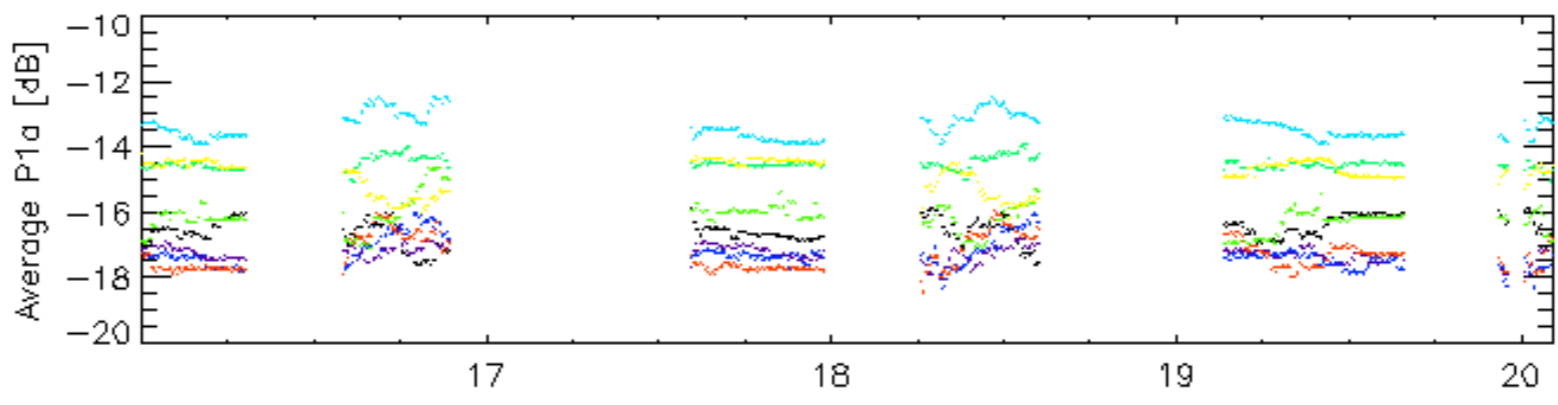
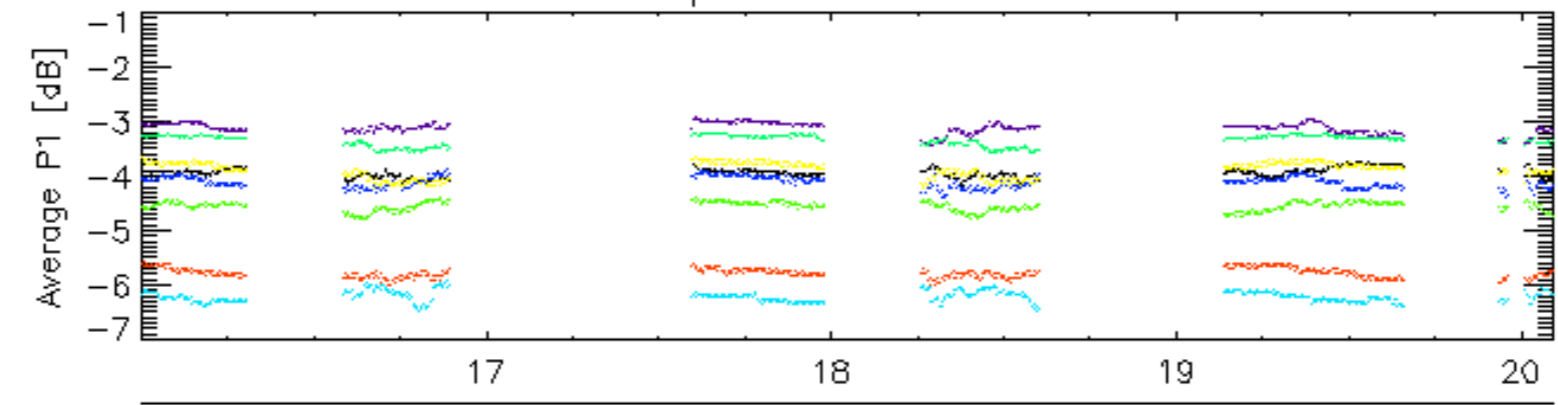


23-Jun

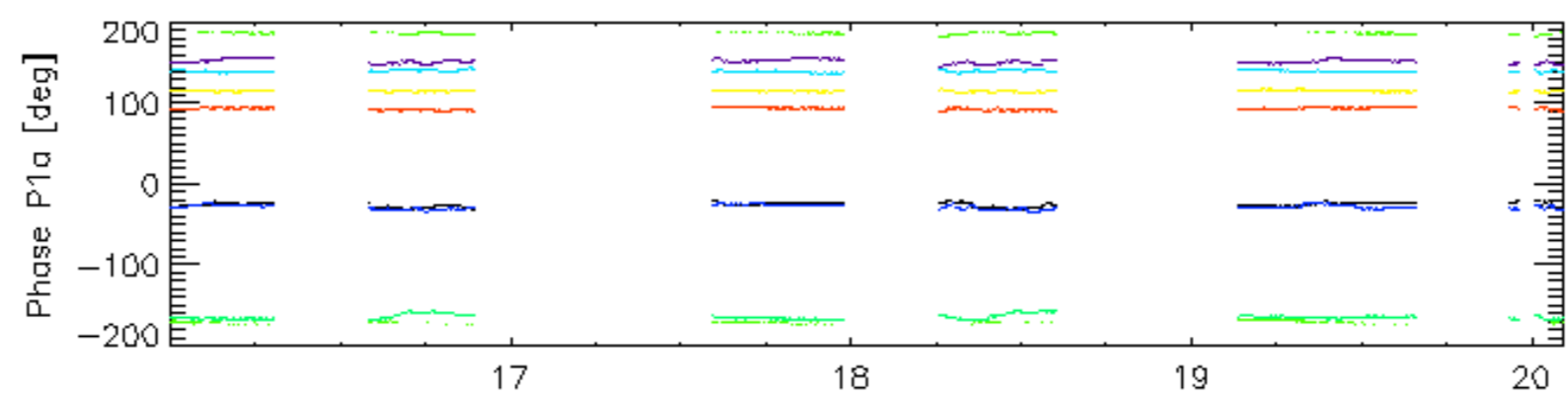
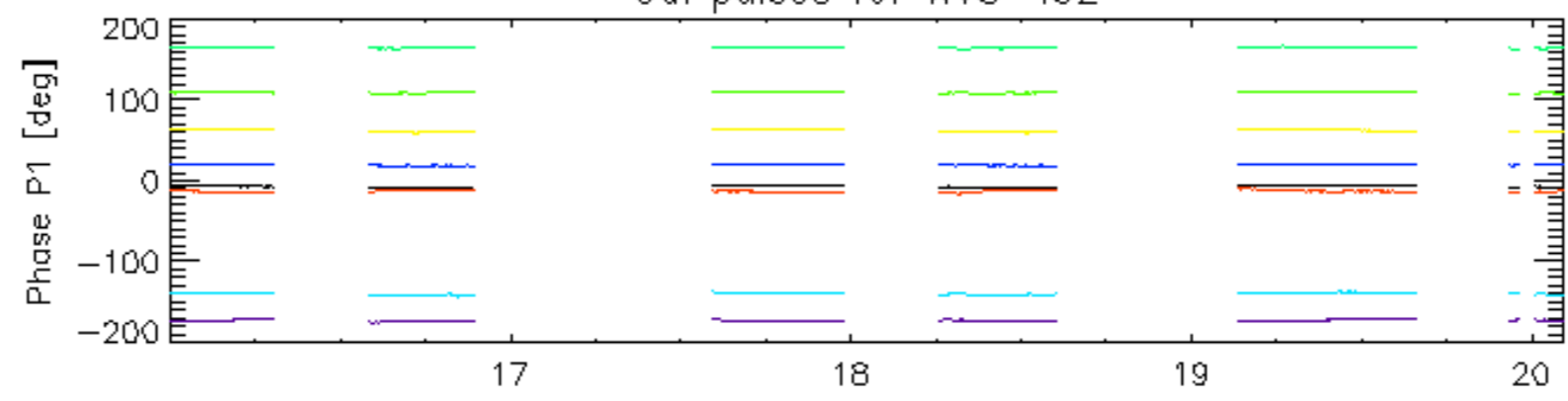


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

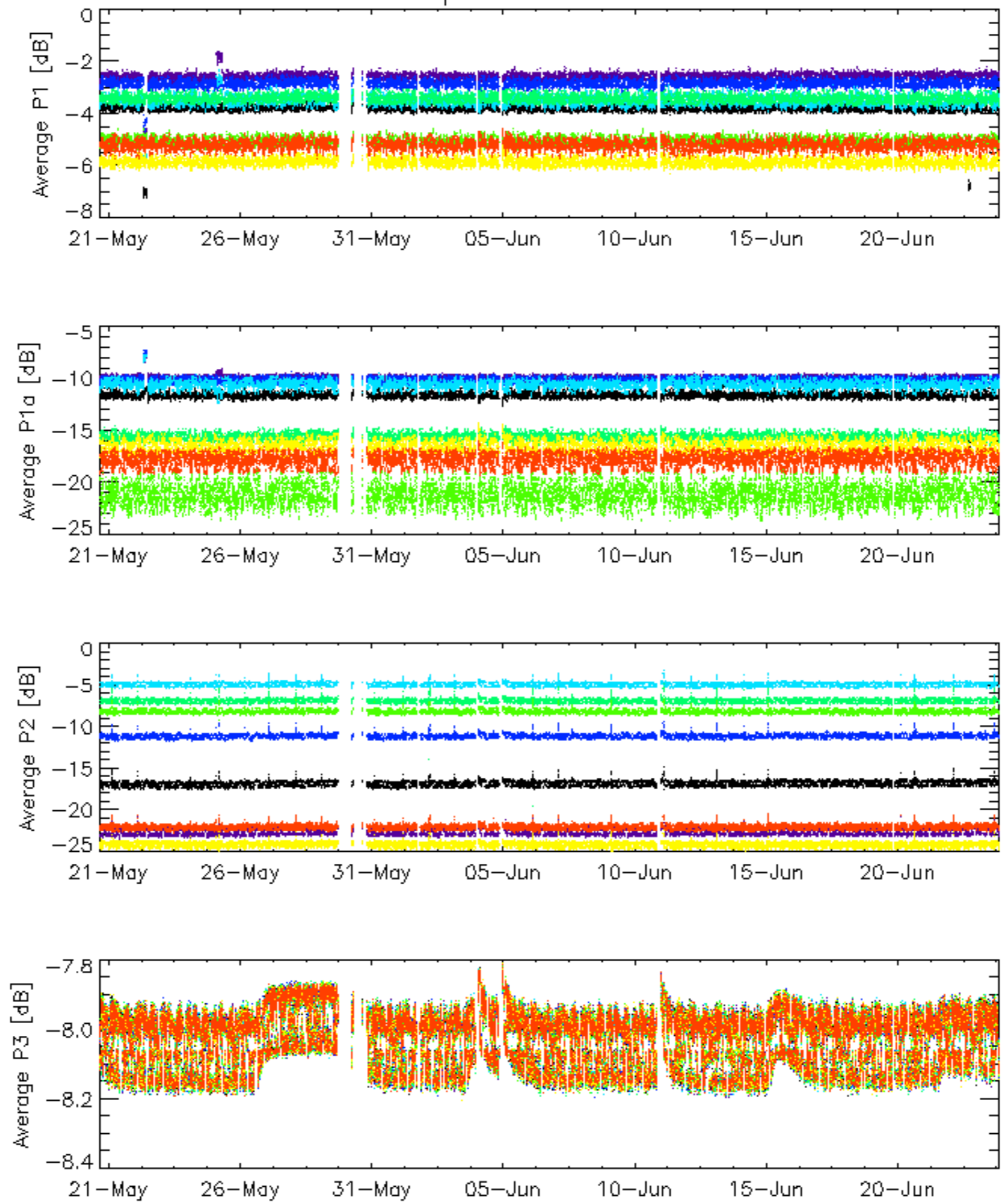


Cal pulses for WVS IS2



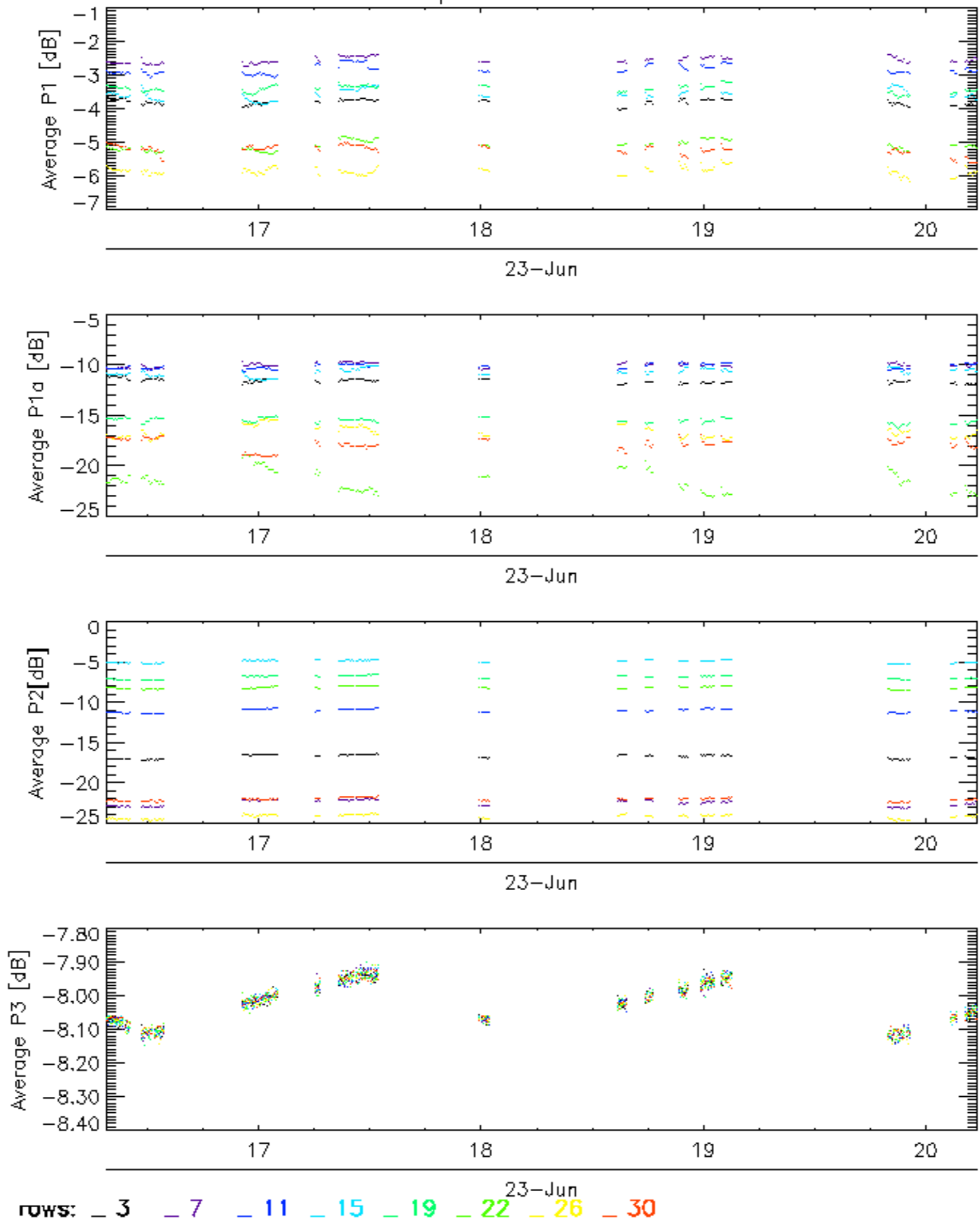
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{23-Jun} _ 26 _ 30

Cal pulses for GM1 SS3

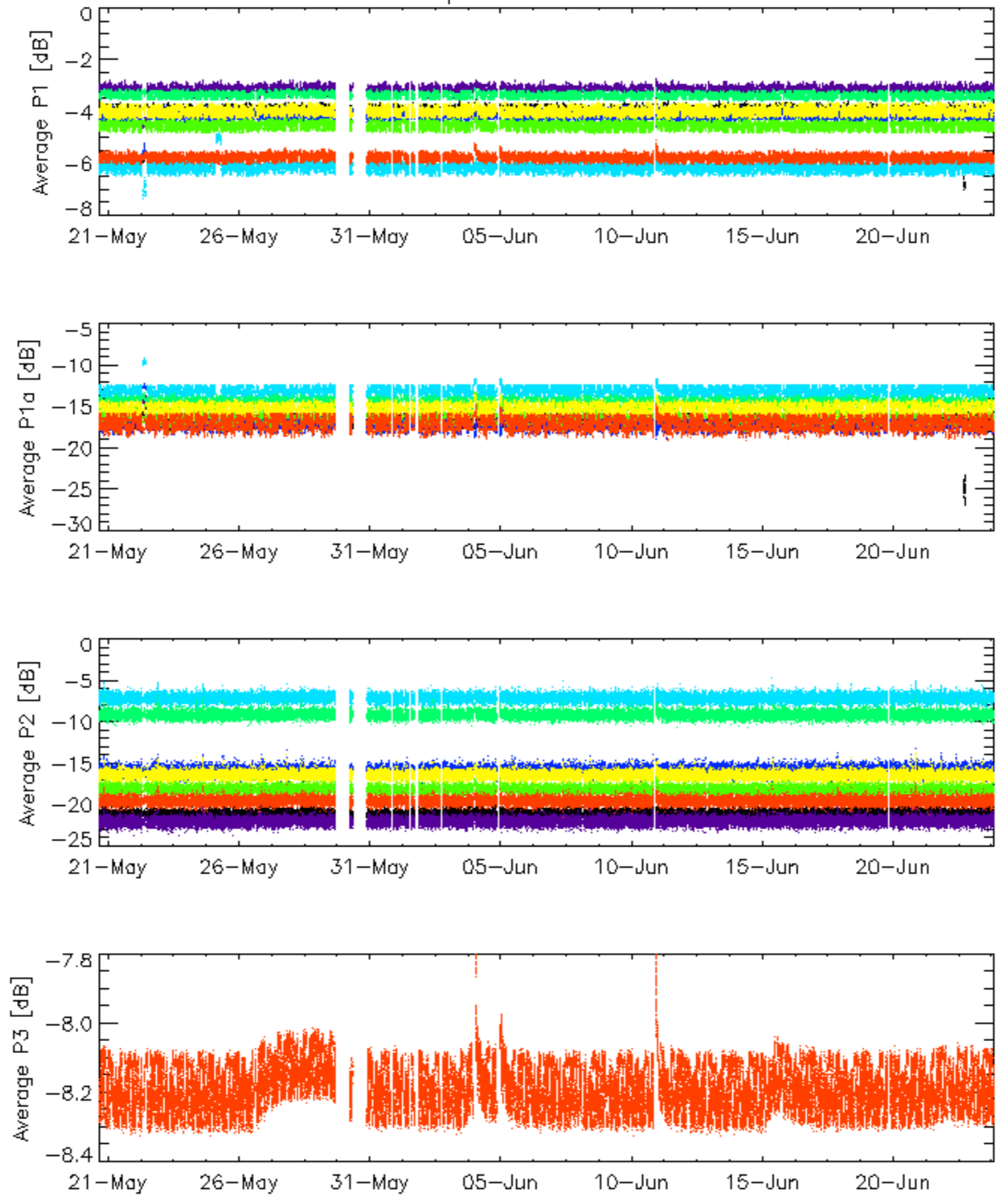


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

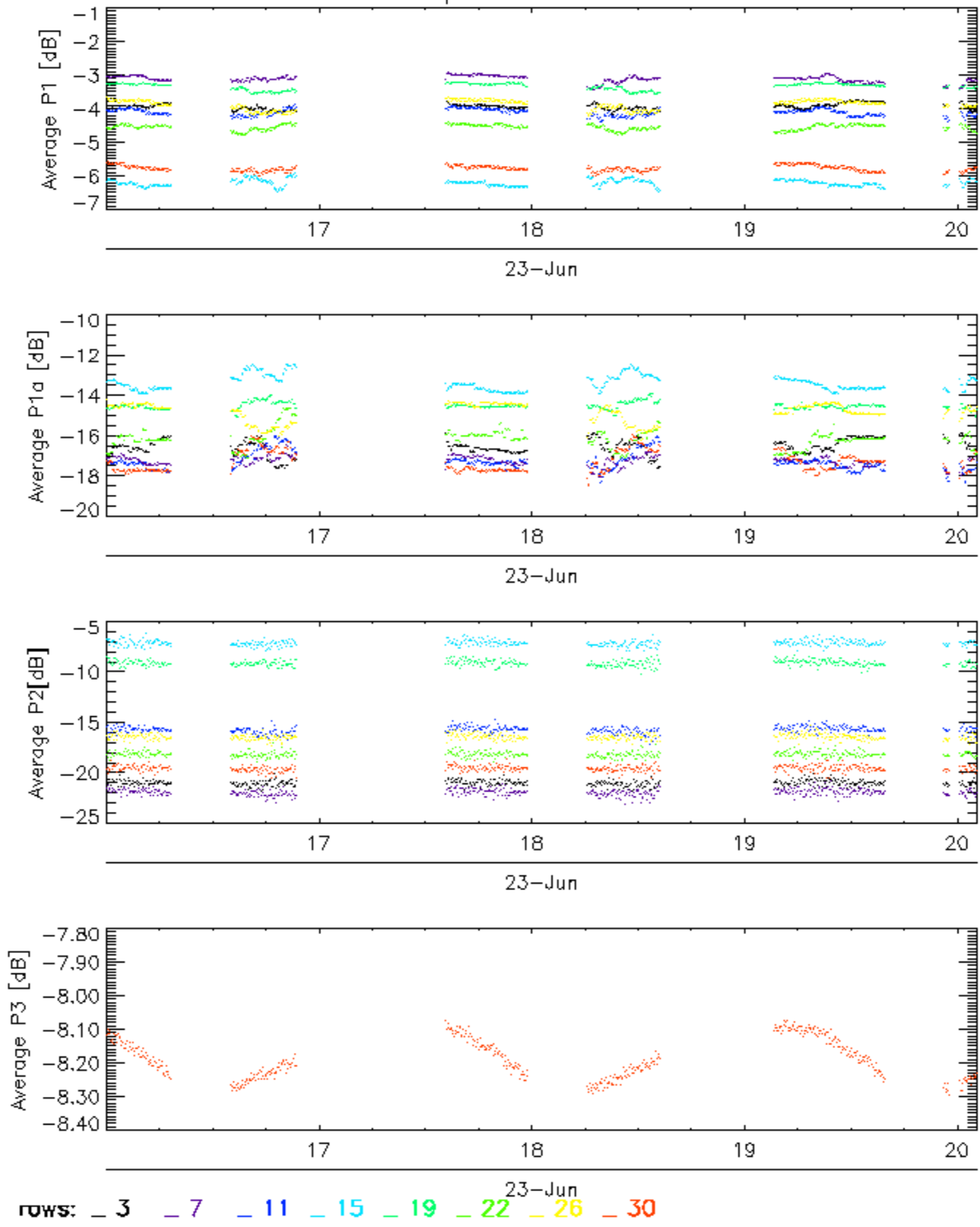


Cal pulses for WVS IS2

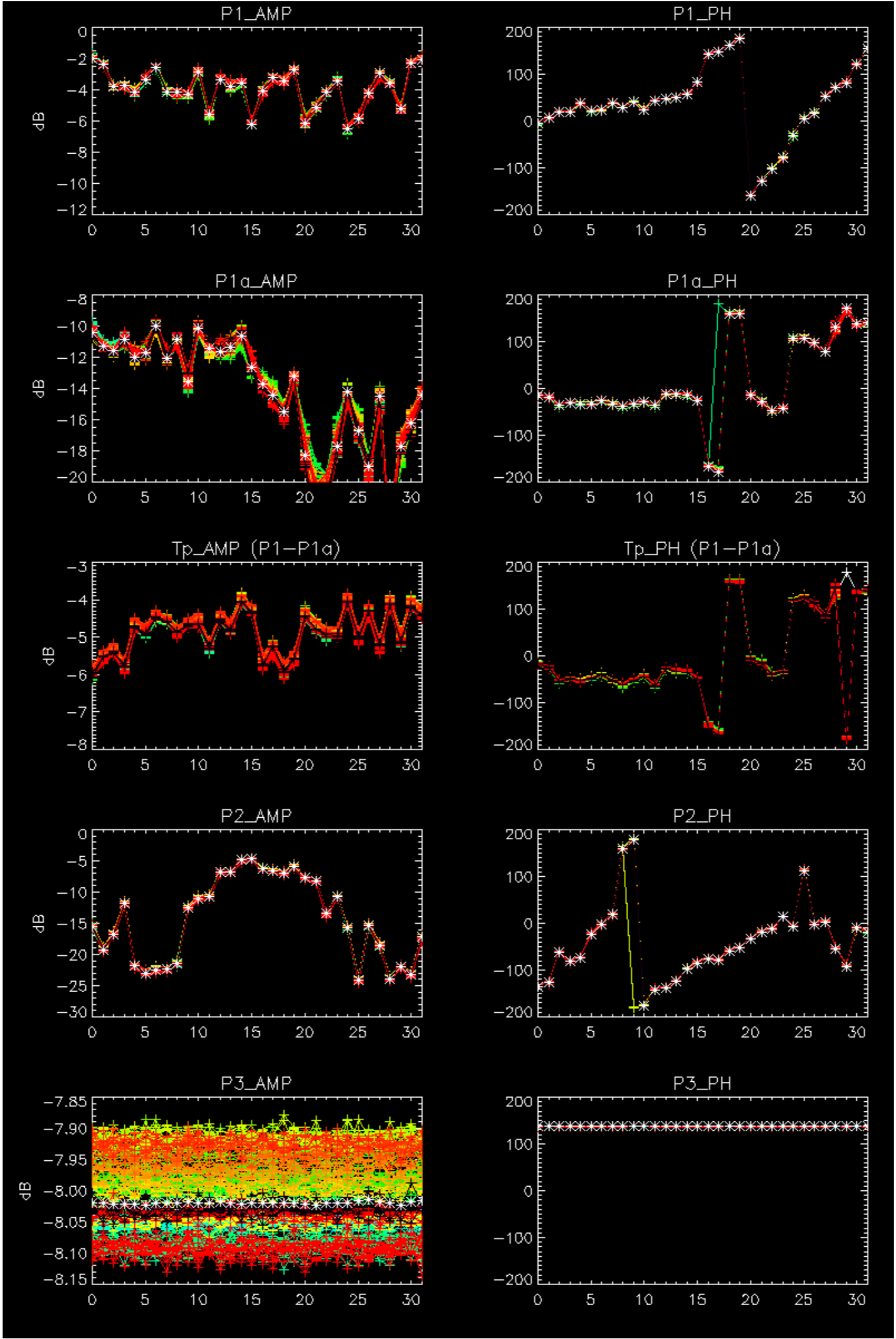


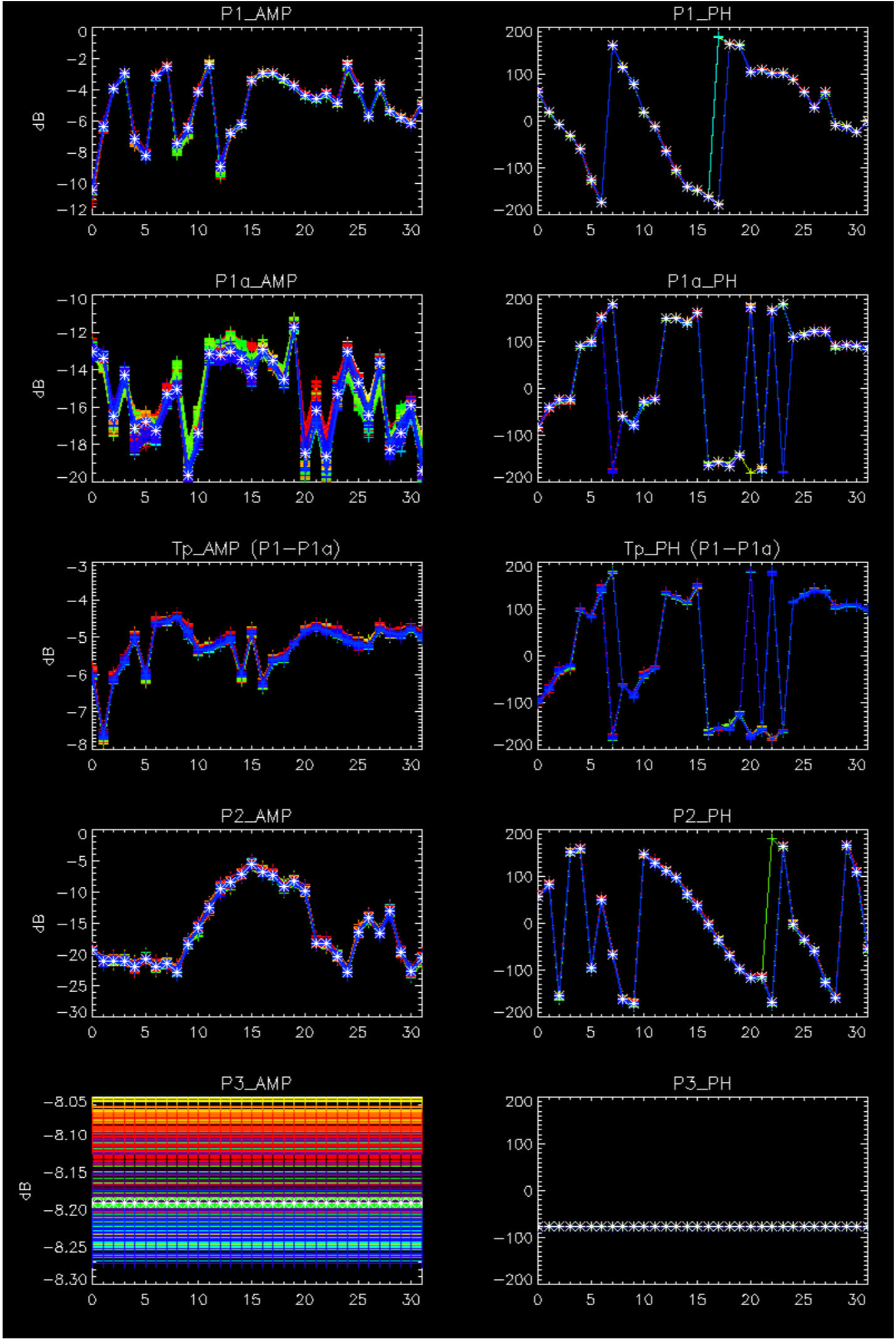
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



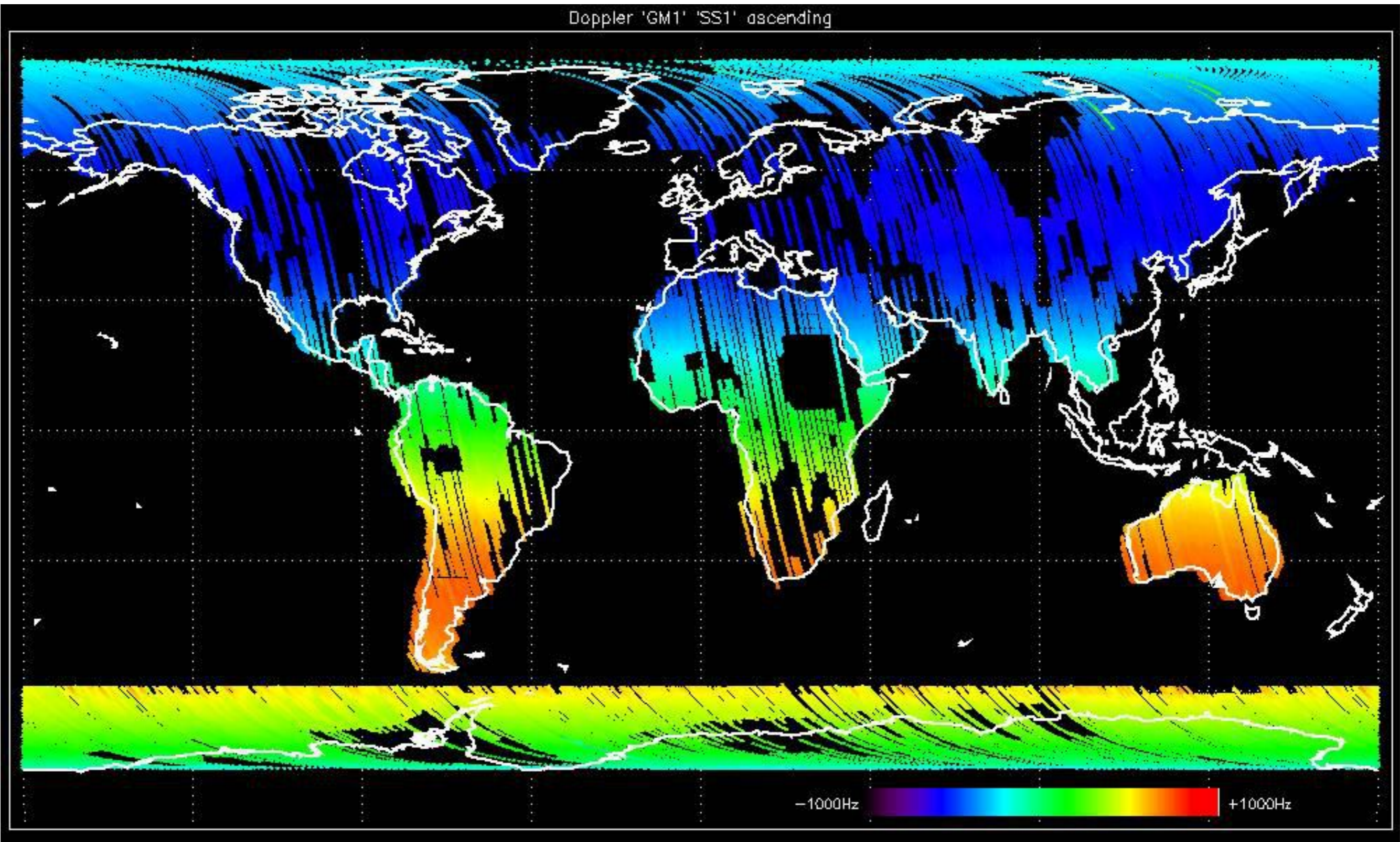
No anomalies observed.



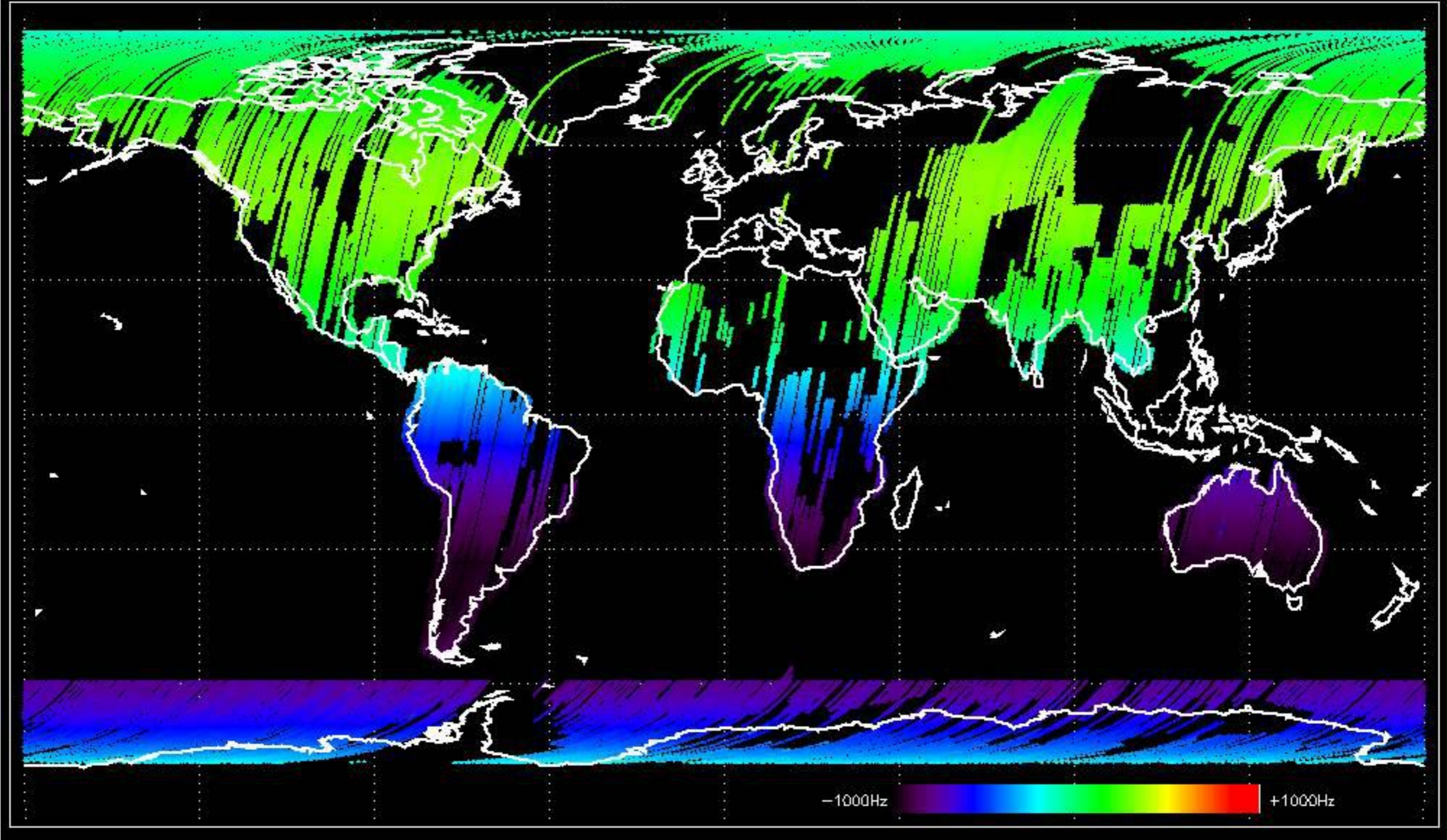


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

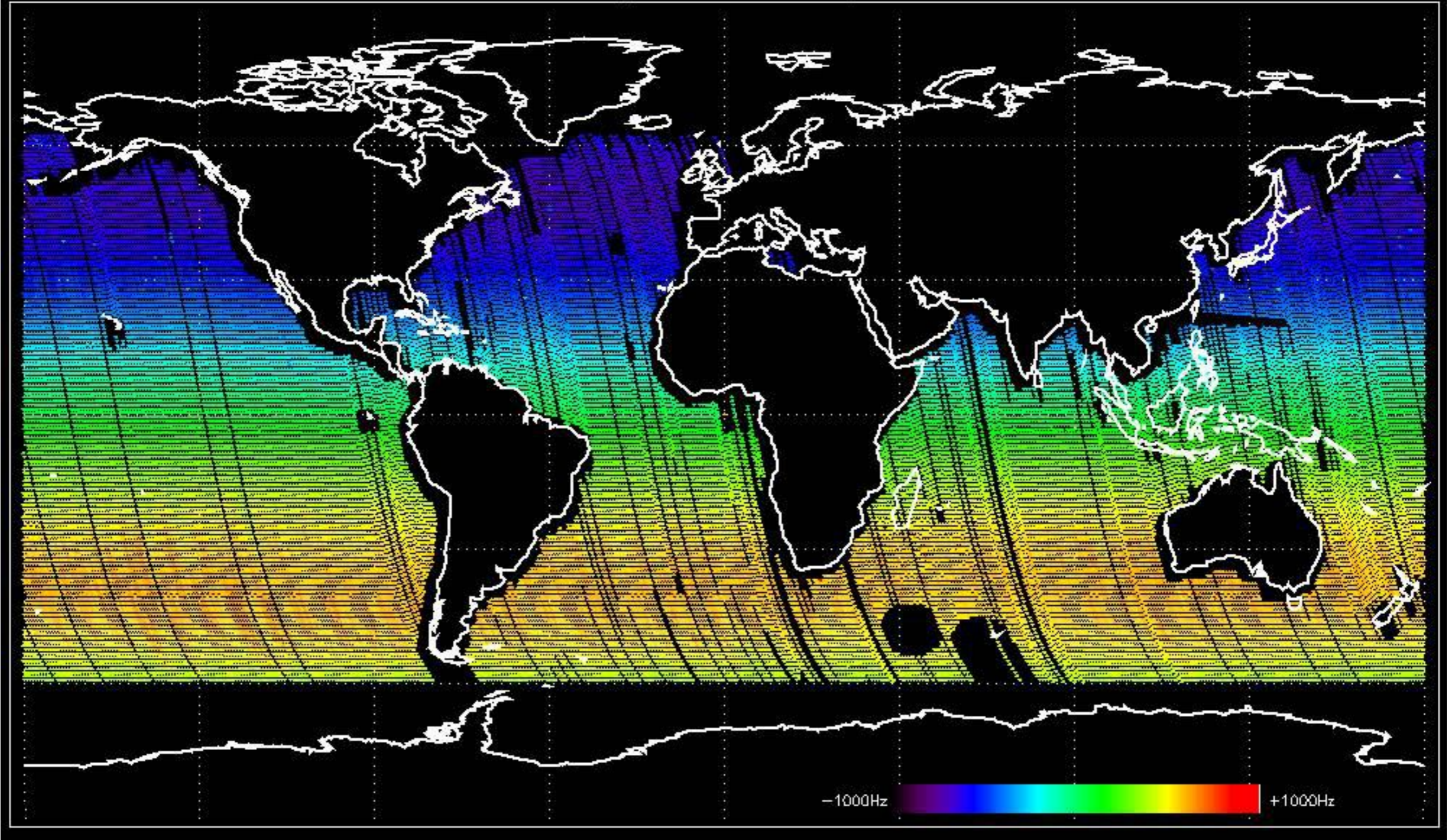
Doppler 'GM1' 'SS1' ascending



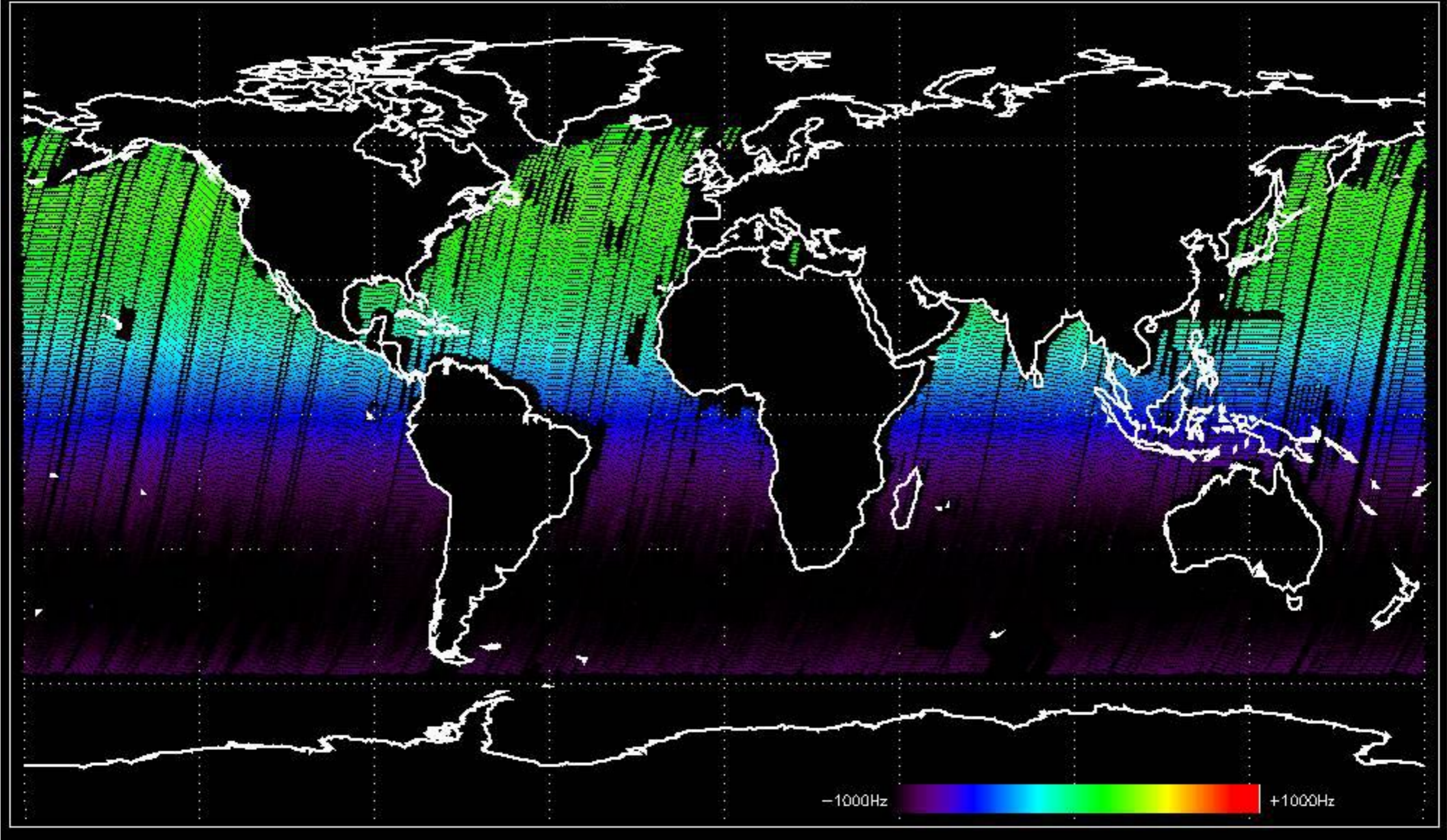
Doppler 'GM1' 'SS1' descending



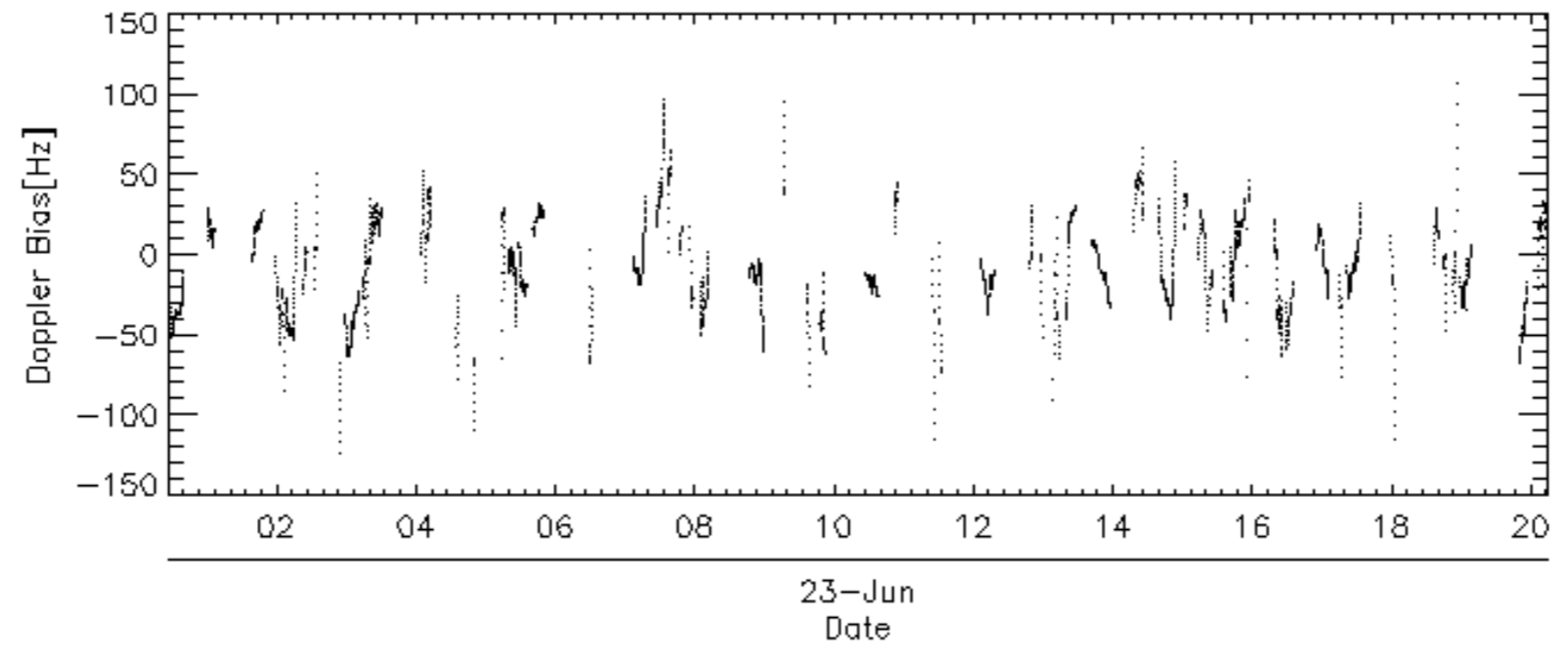
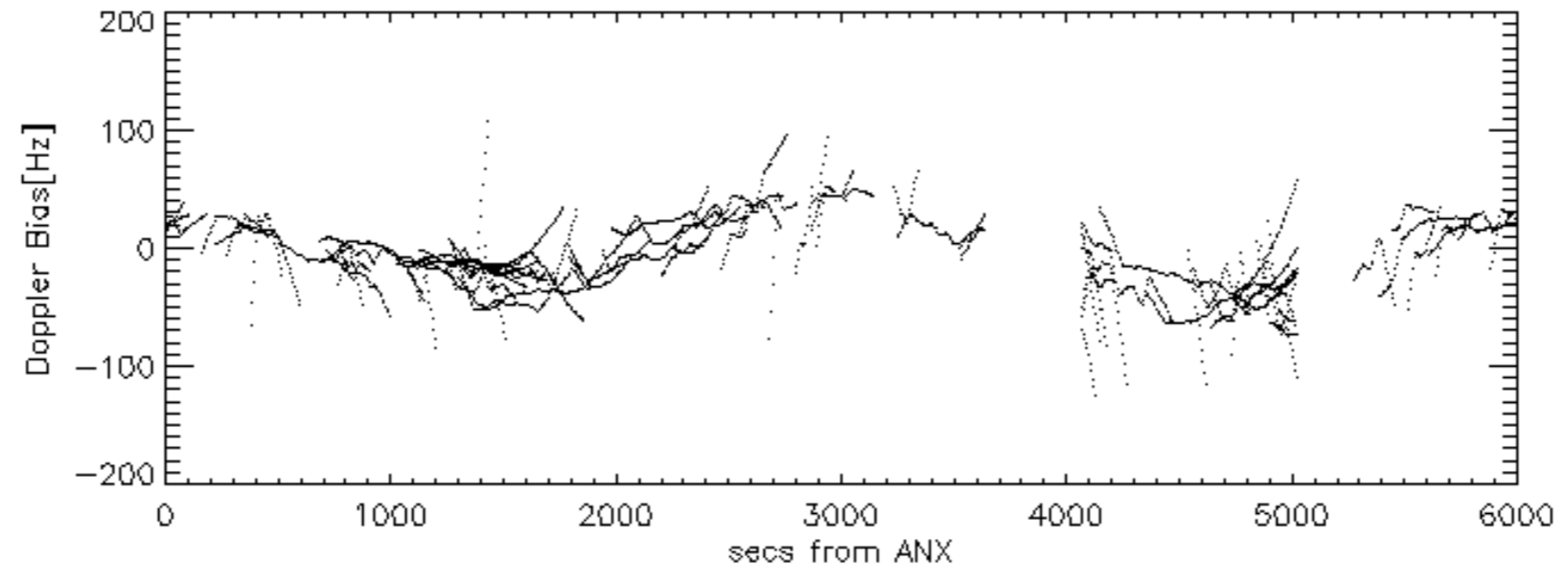
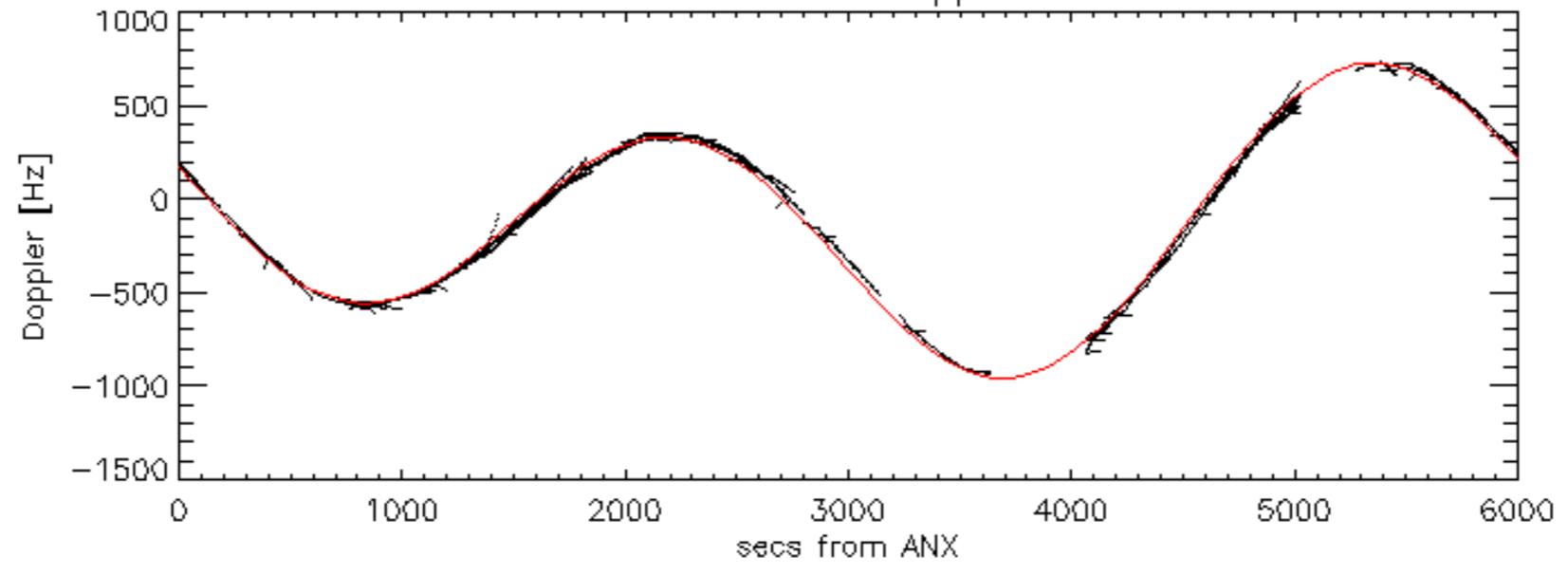
Doppler 'WVS' 'IS2' ascending

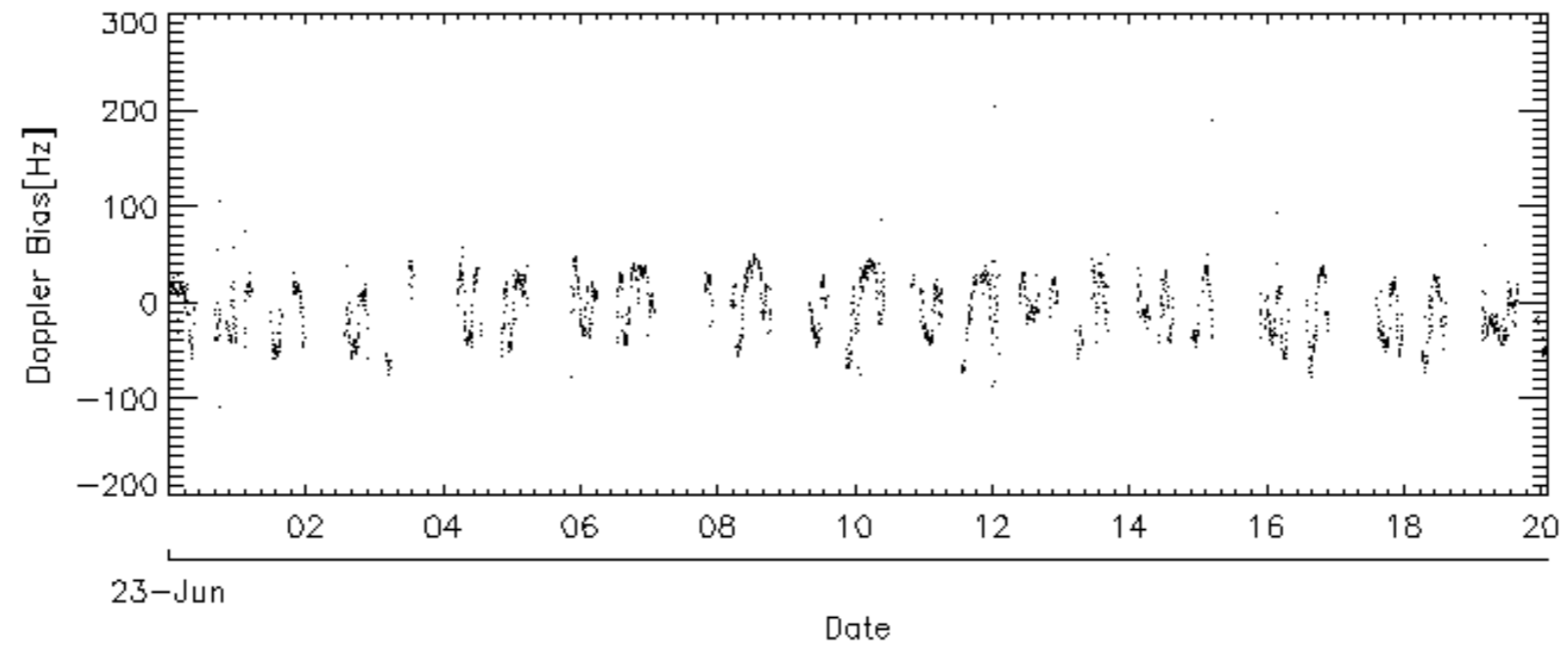
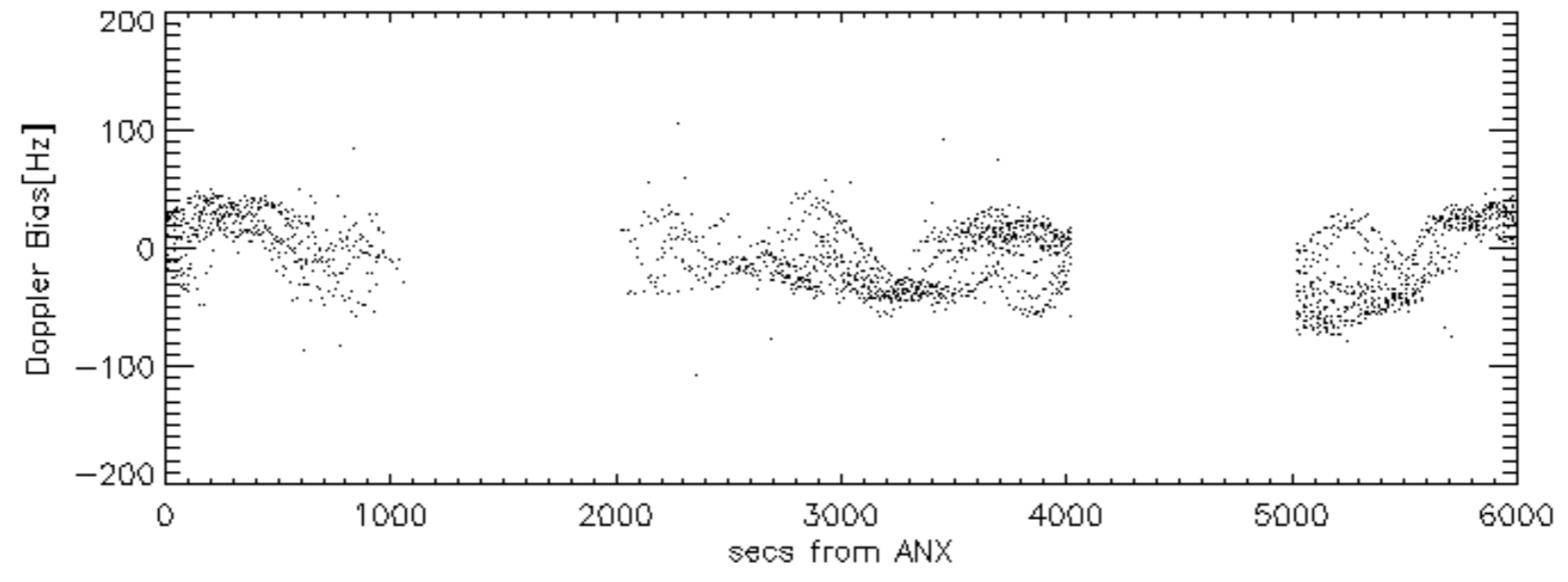
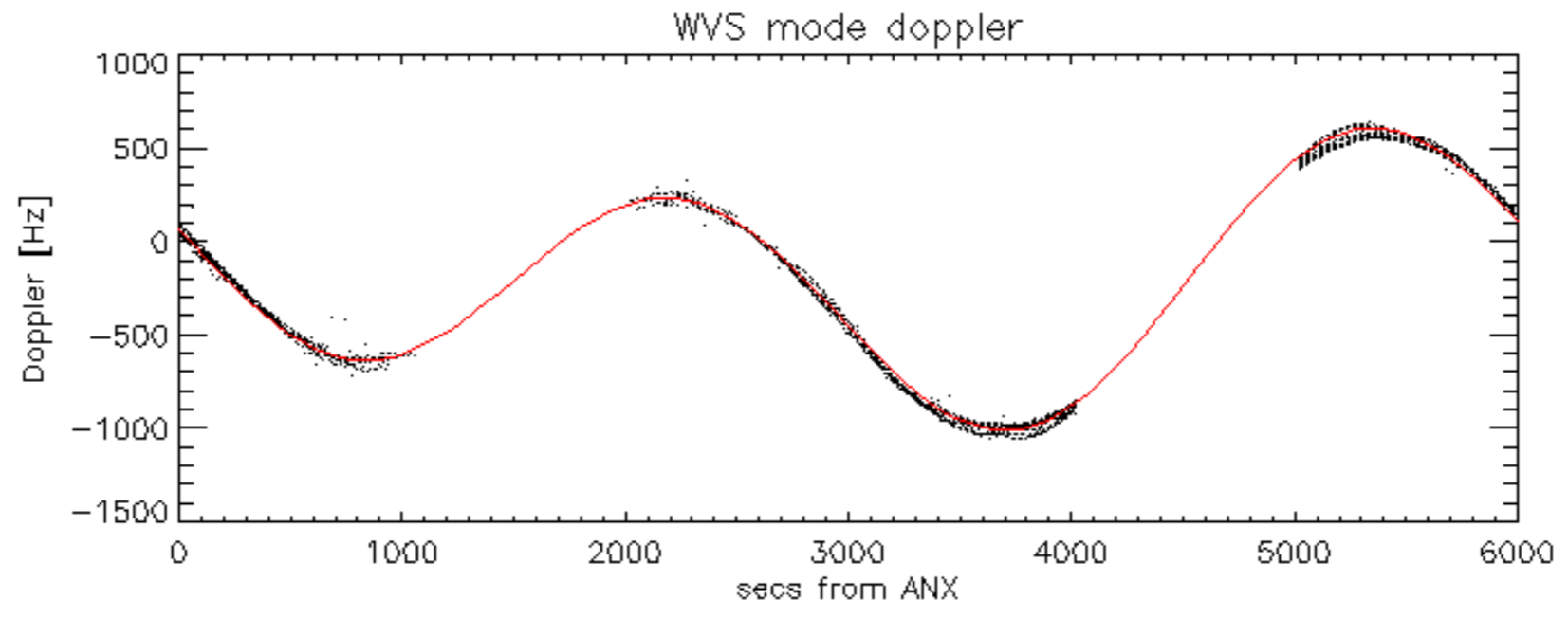


Doppler 'WVS' 'IS2' descending

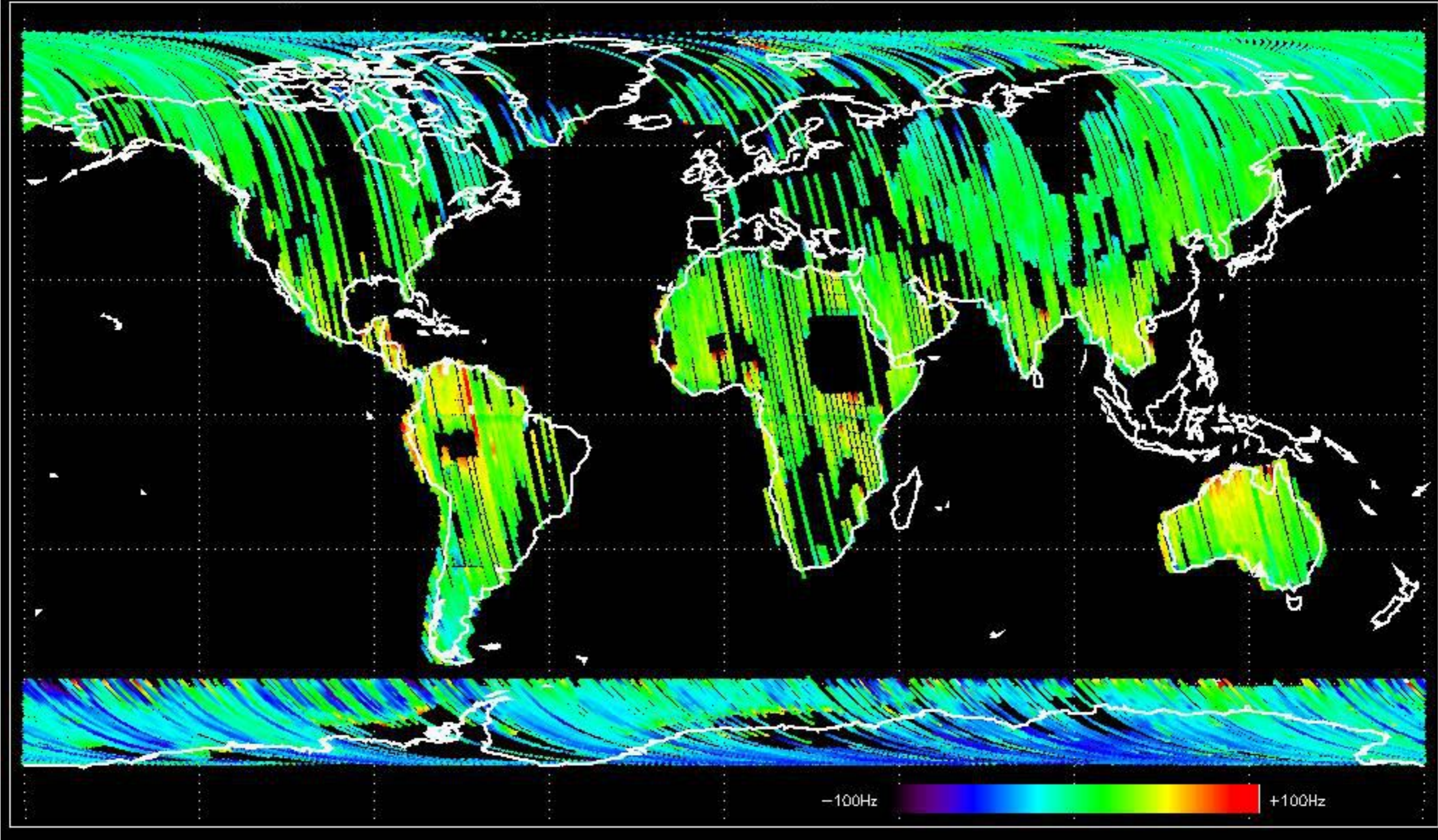


GM1 mode doppler

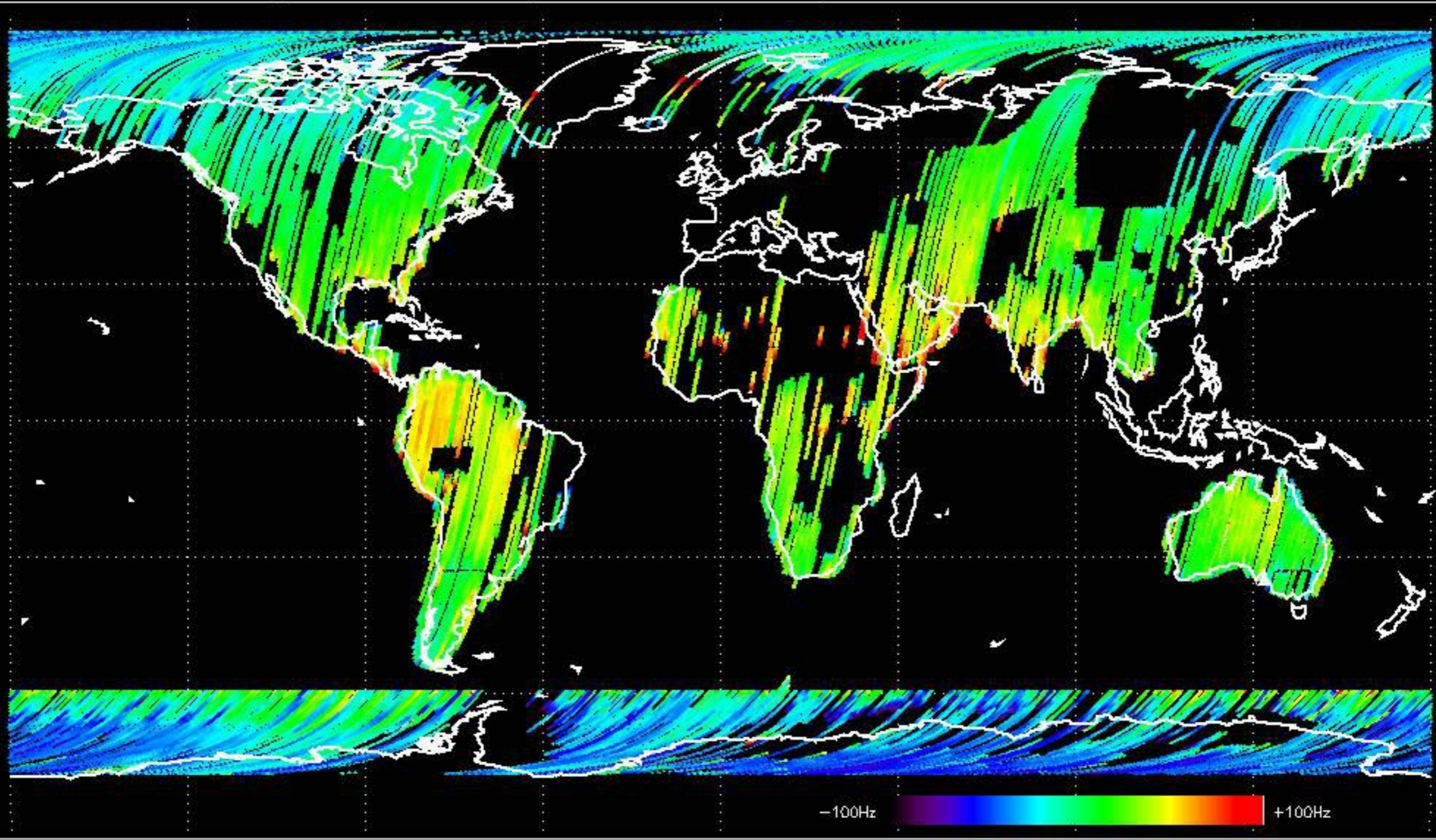




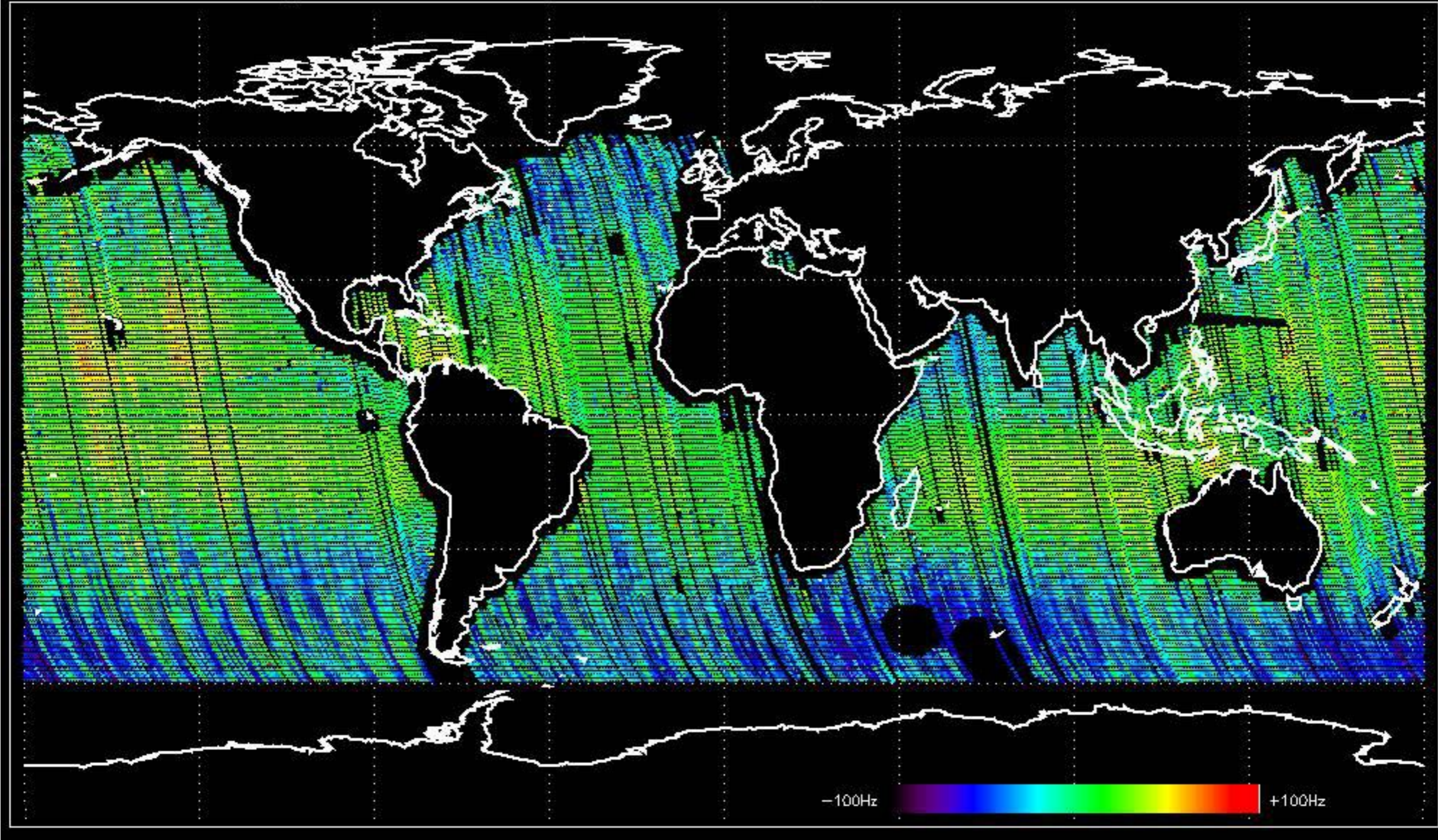
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.008080 Hz



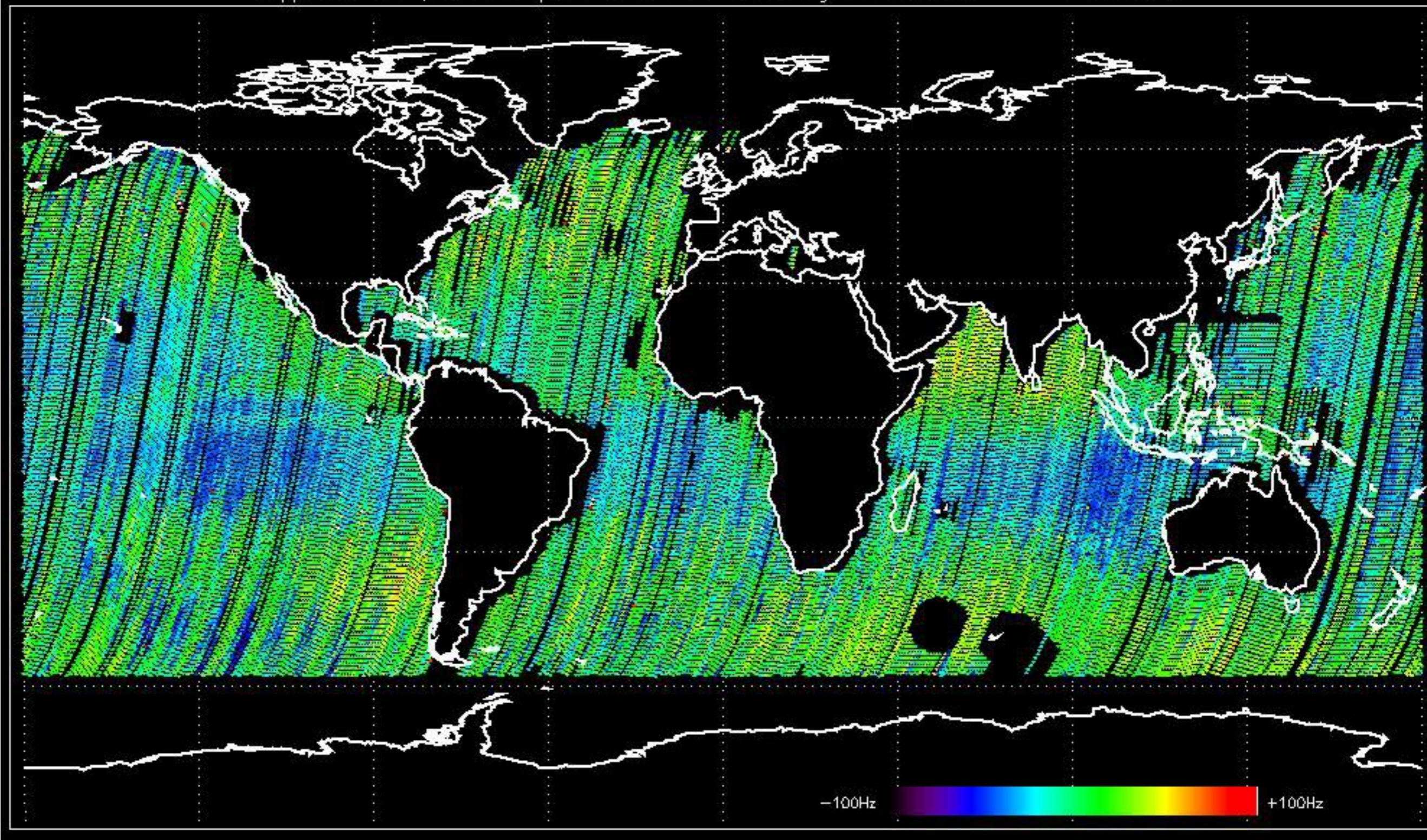
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.3692609 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.2241328 Hz

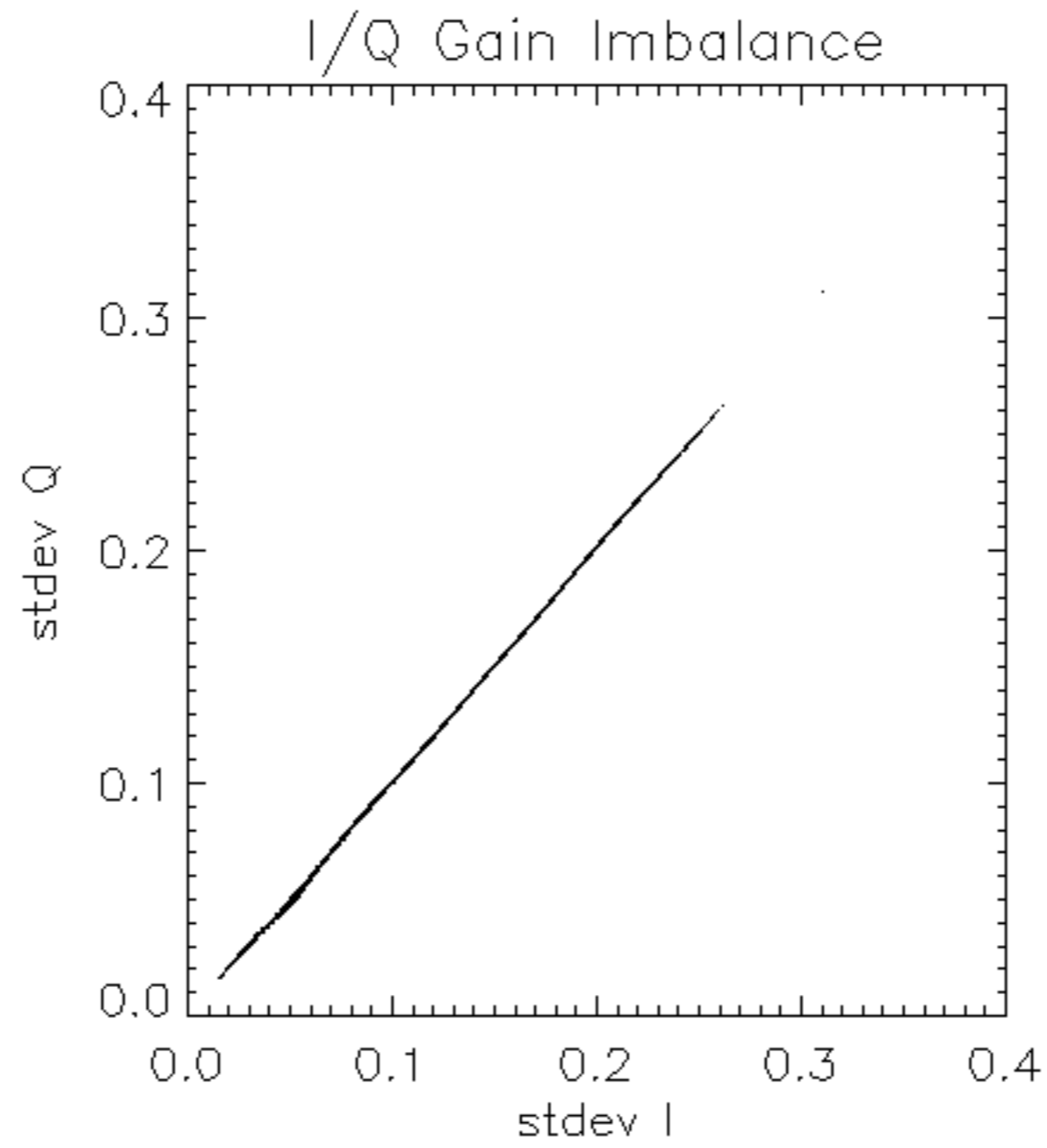


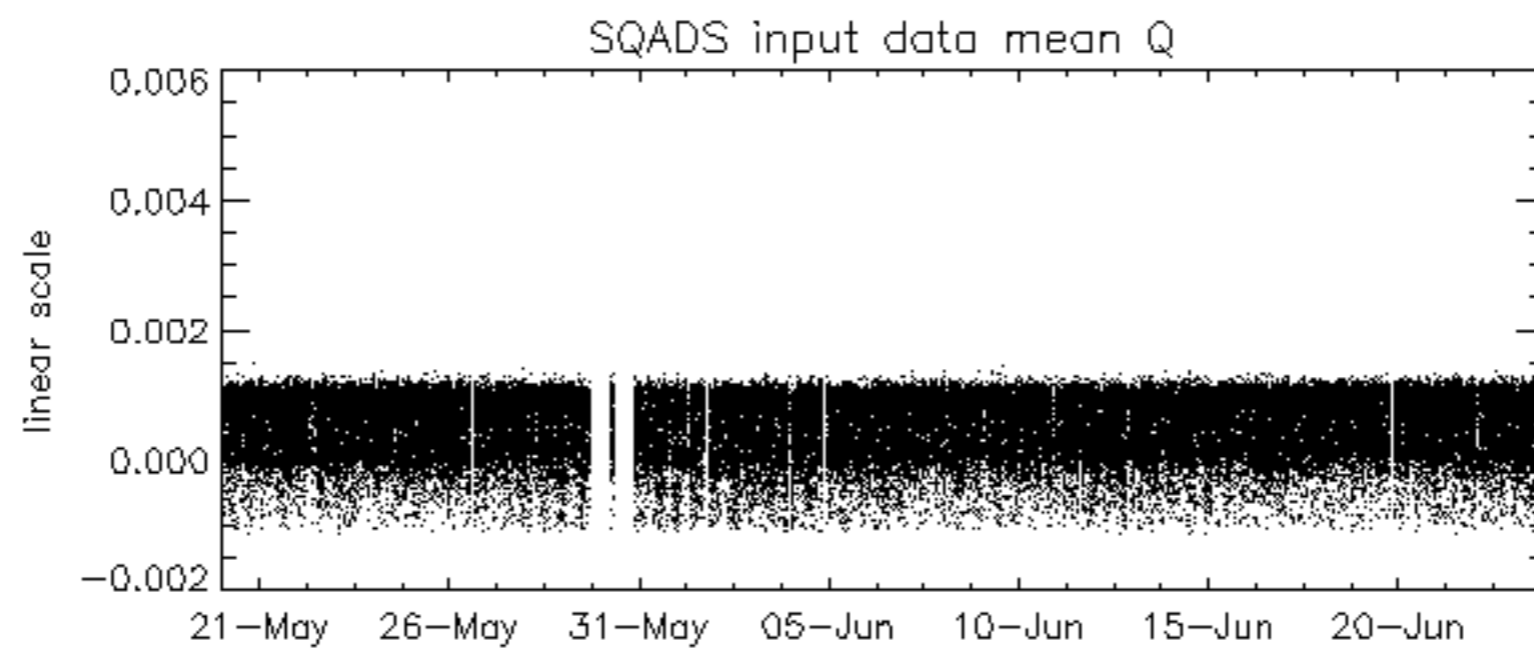
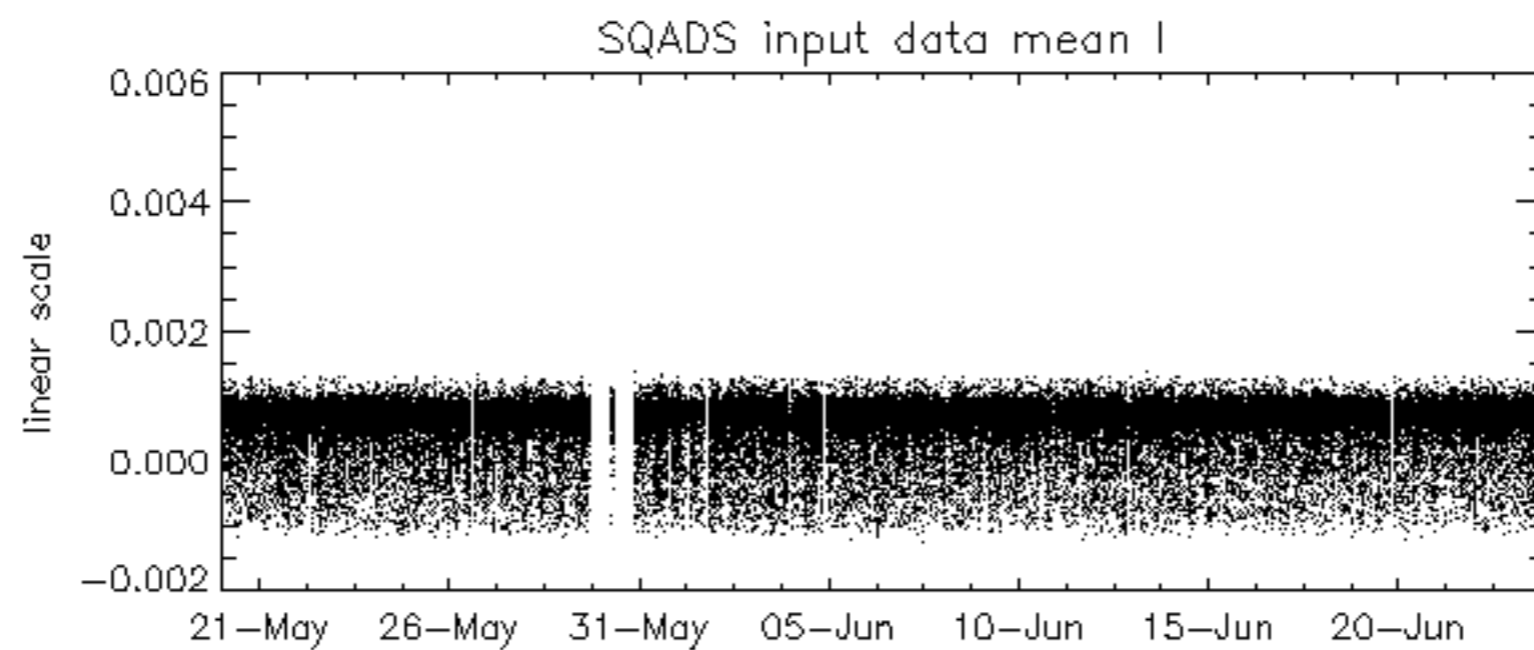
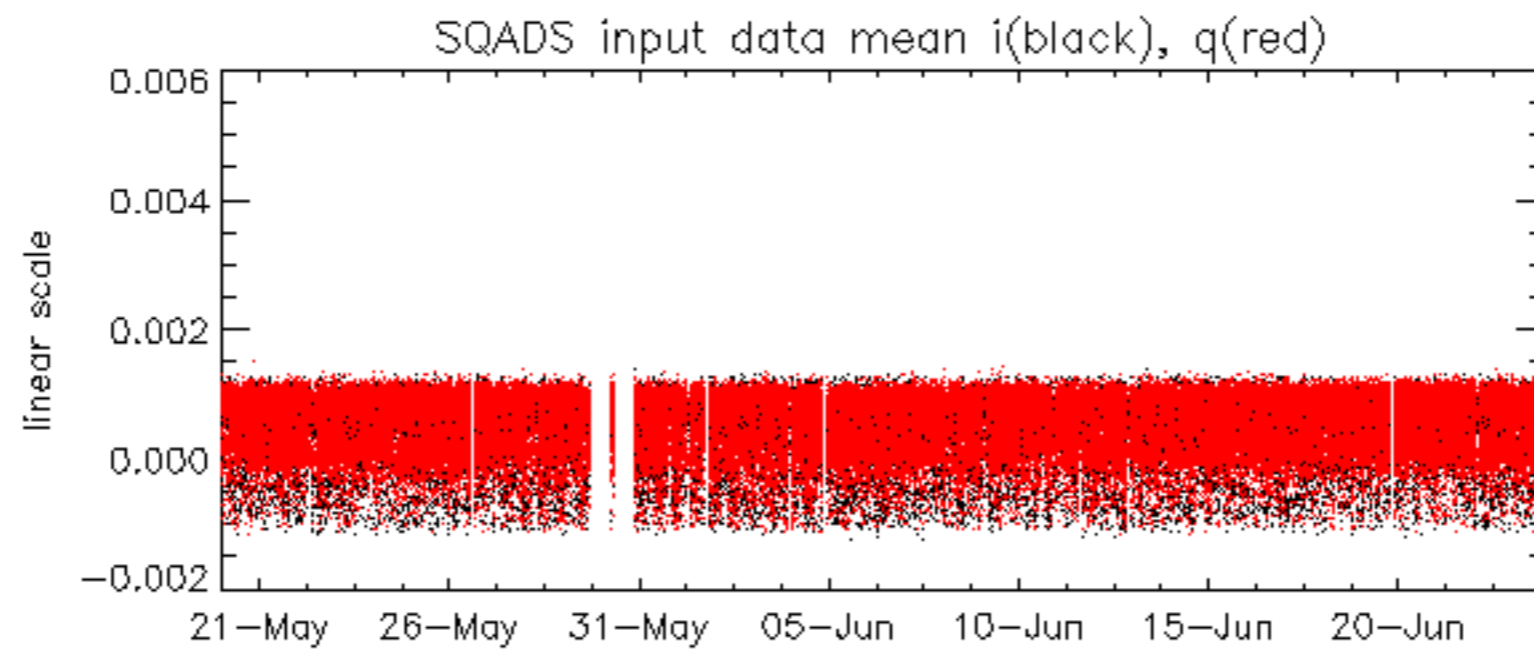
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.813041 Hz

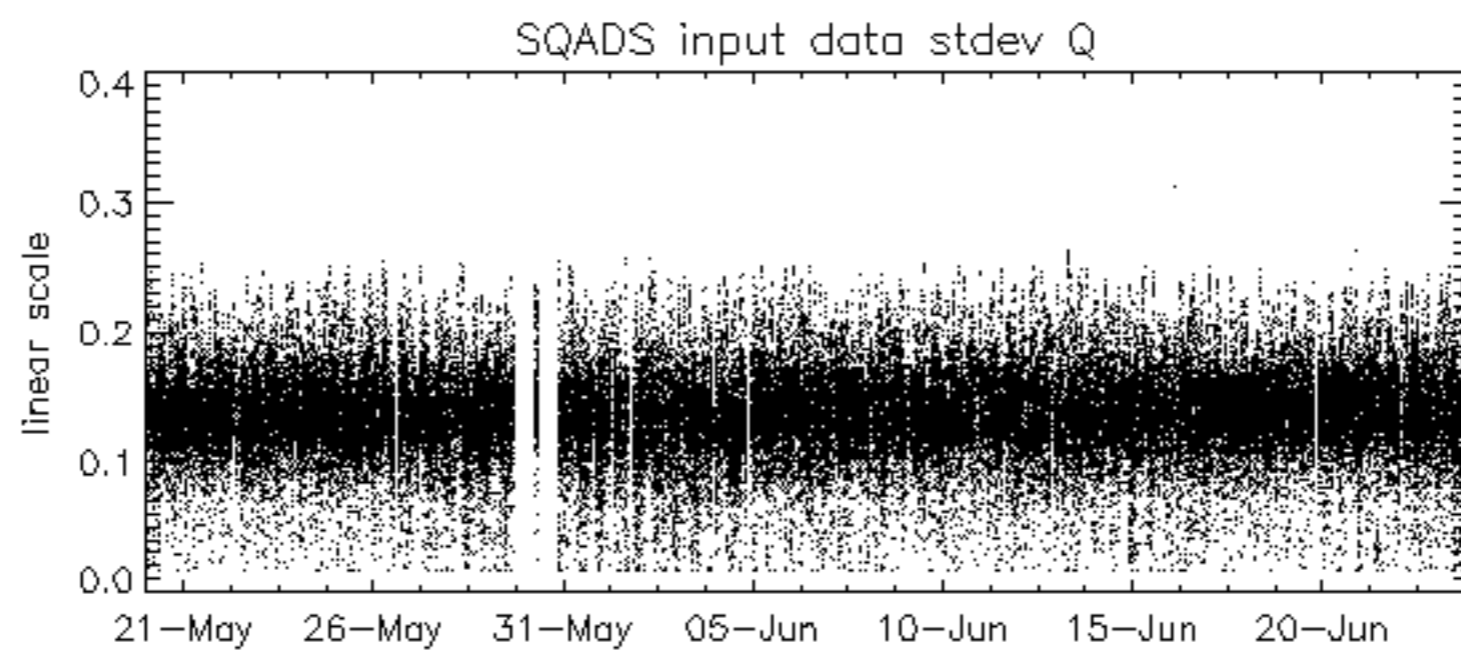
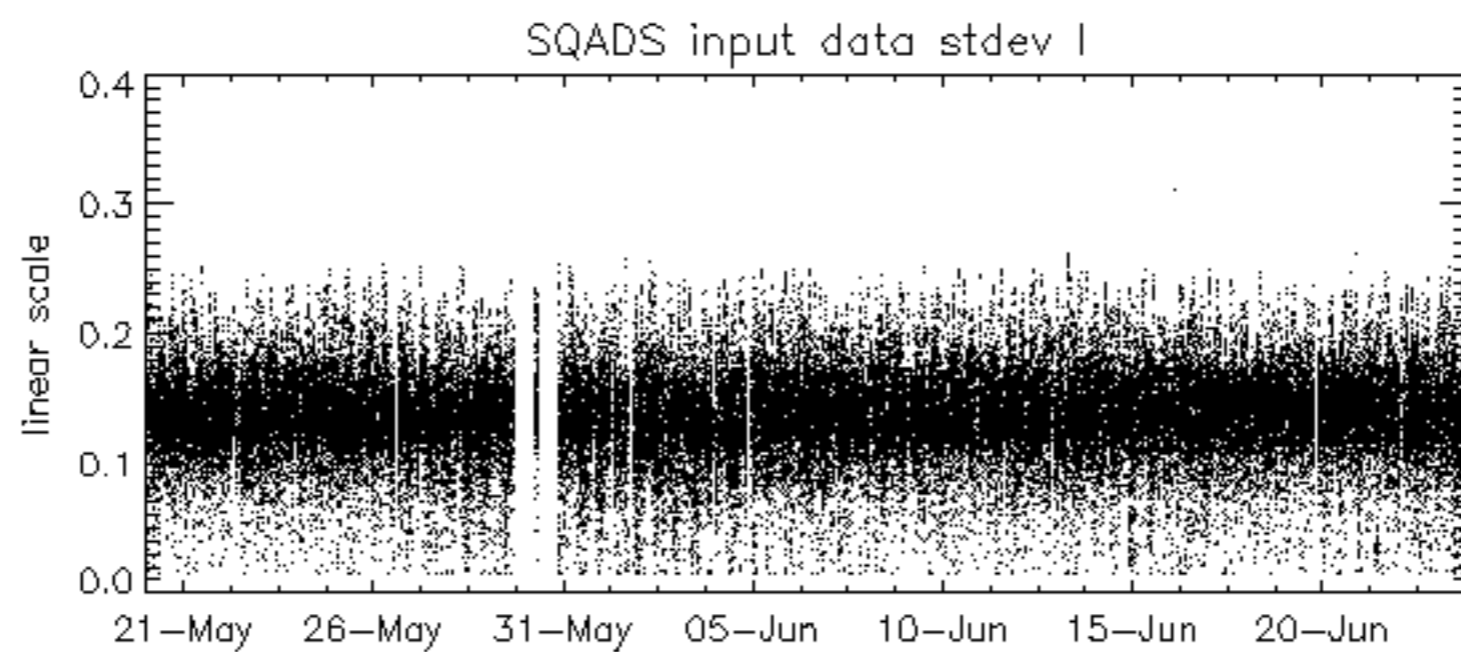
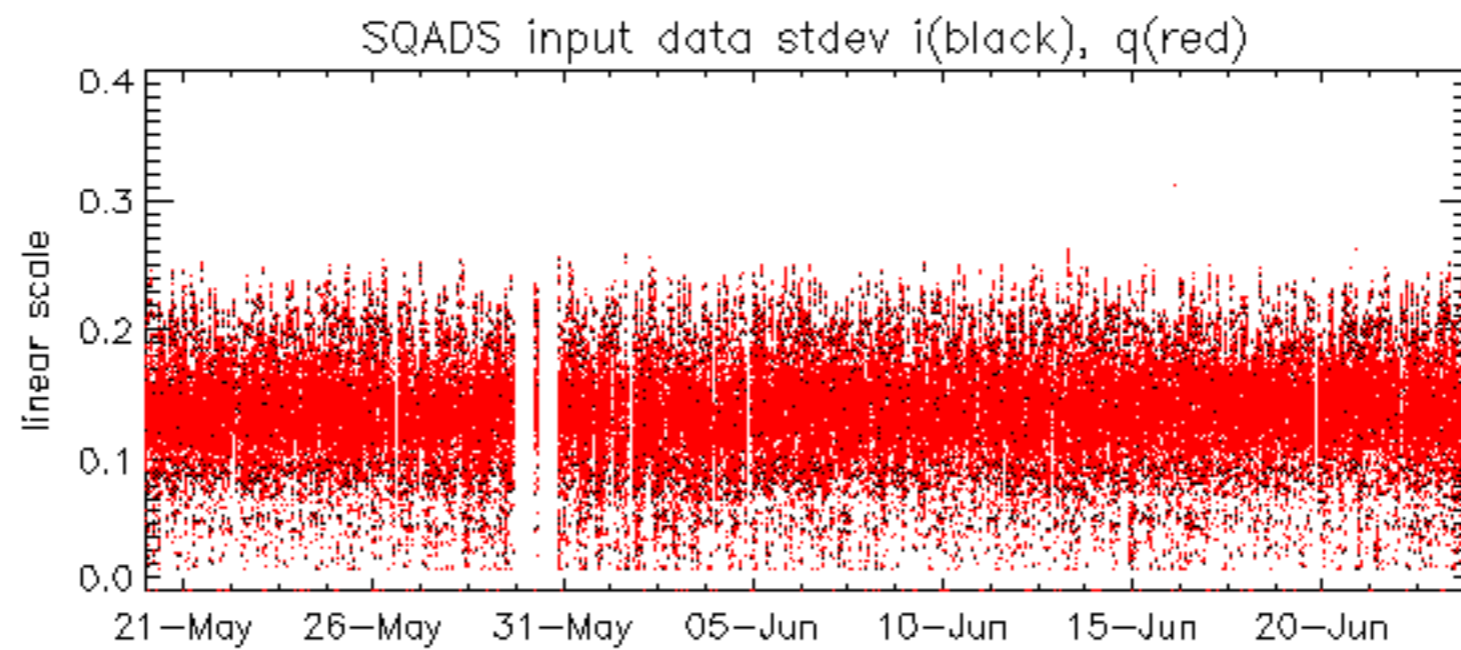


No anomalies observed on available MS products:

No anomalies observed.



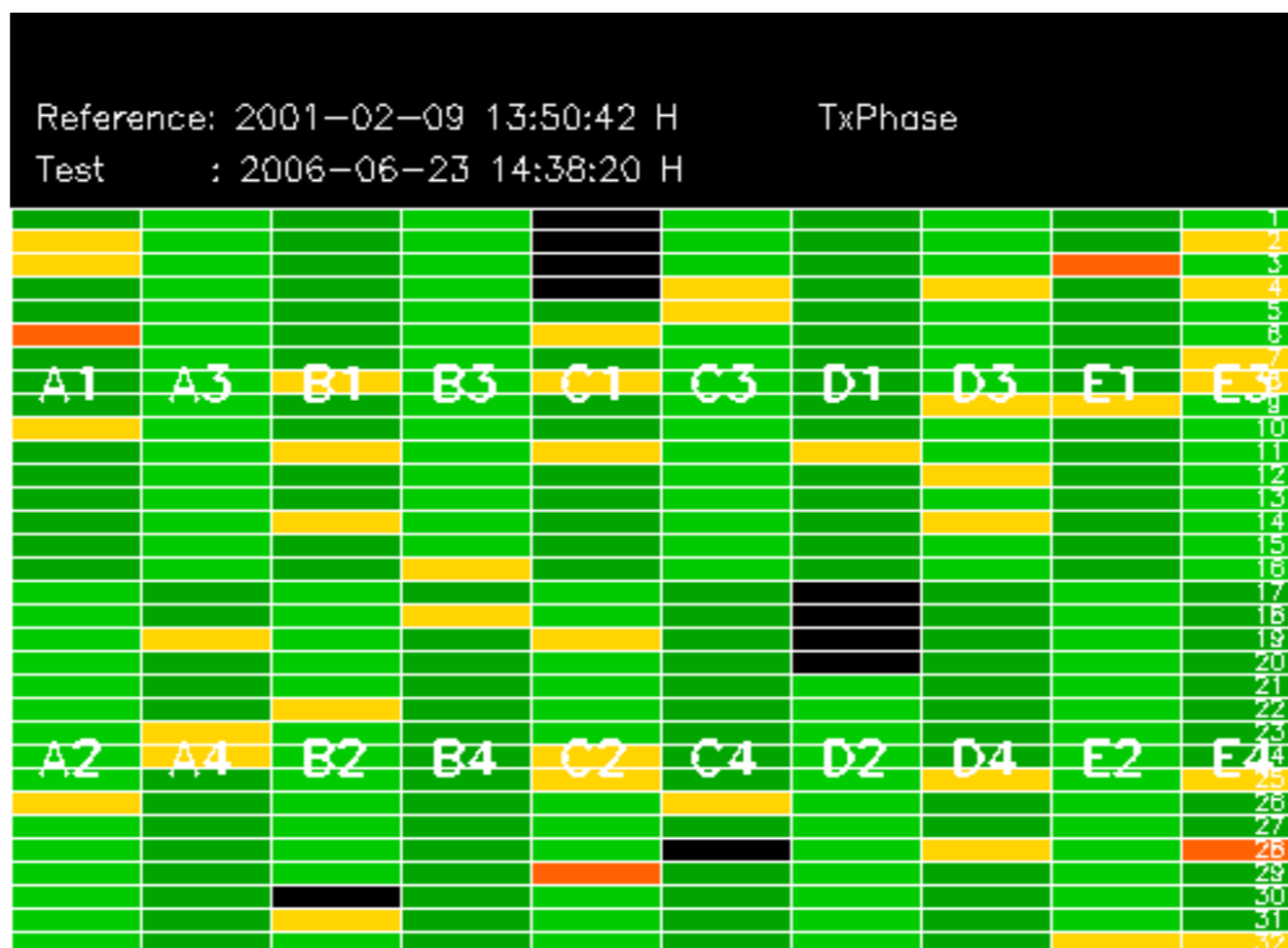




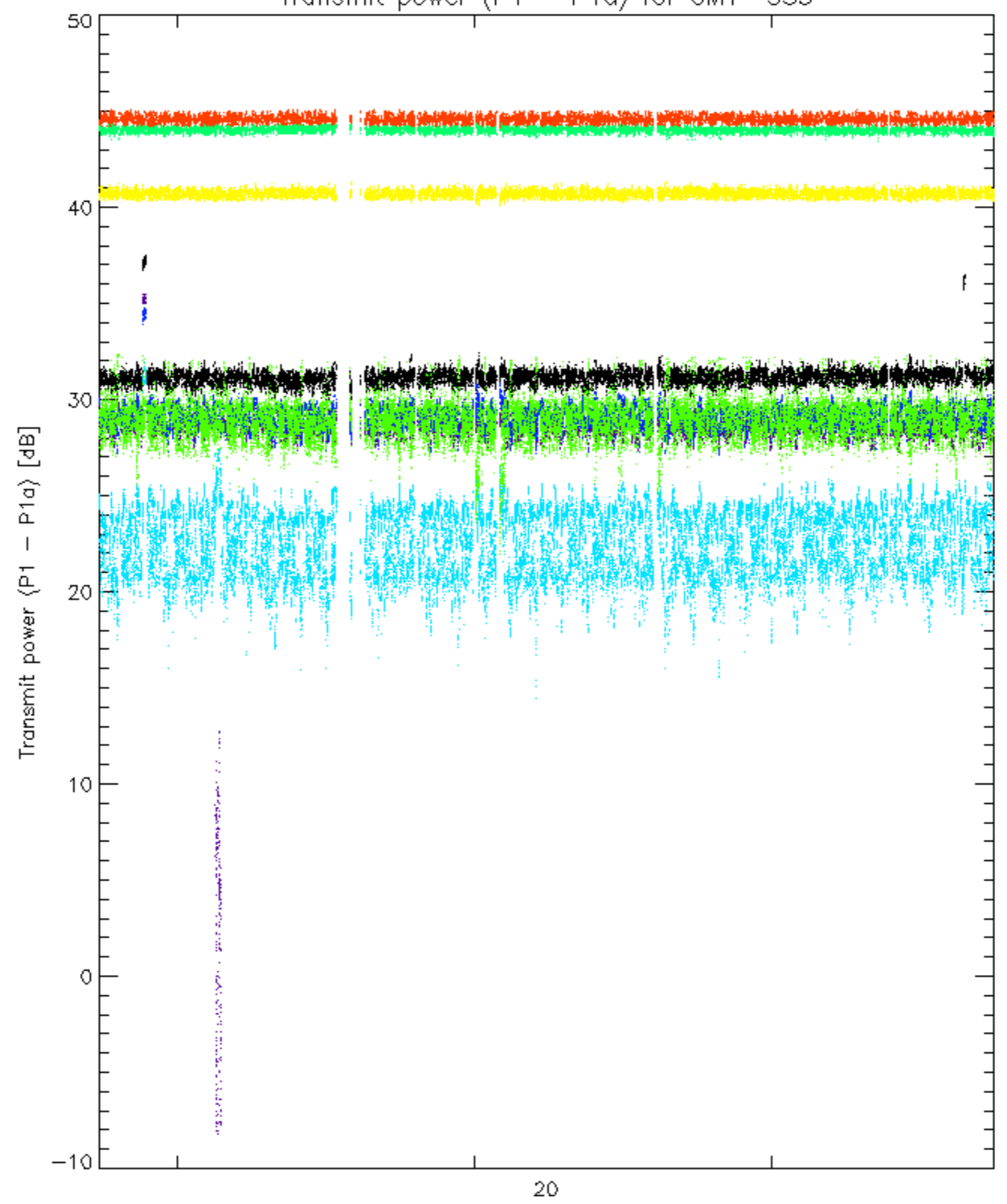
Summary of analysis for the last 3 days 2006062[234]

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

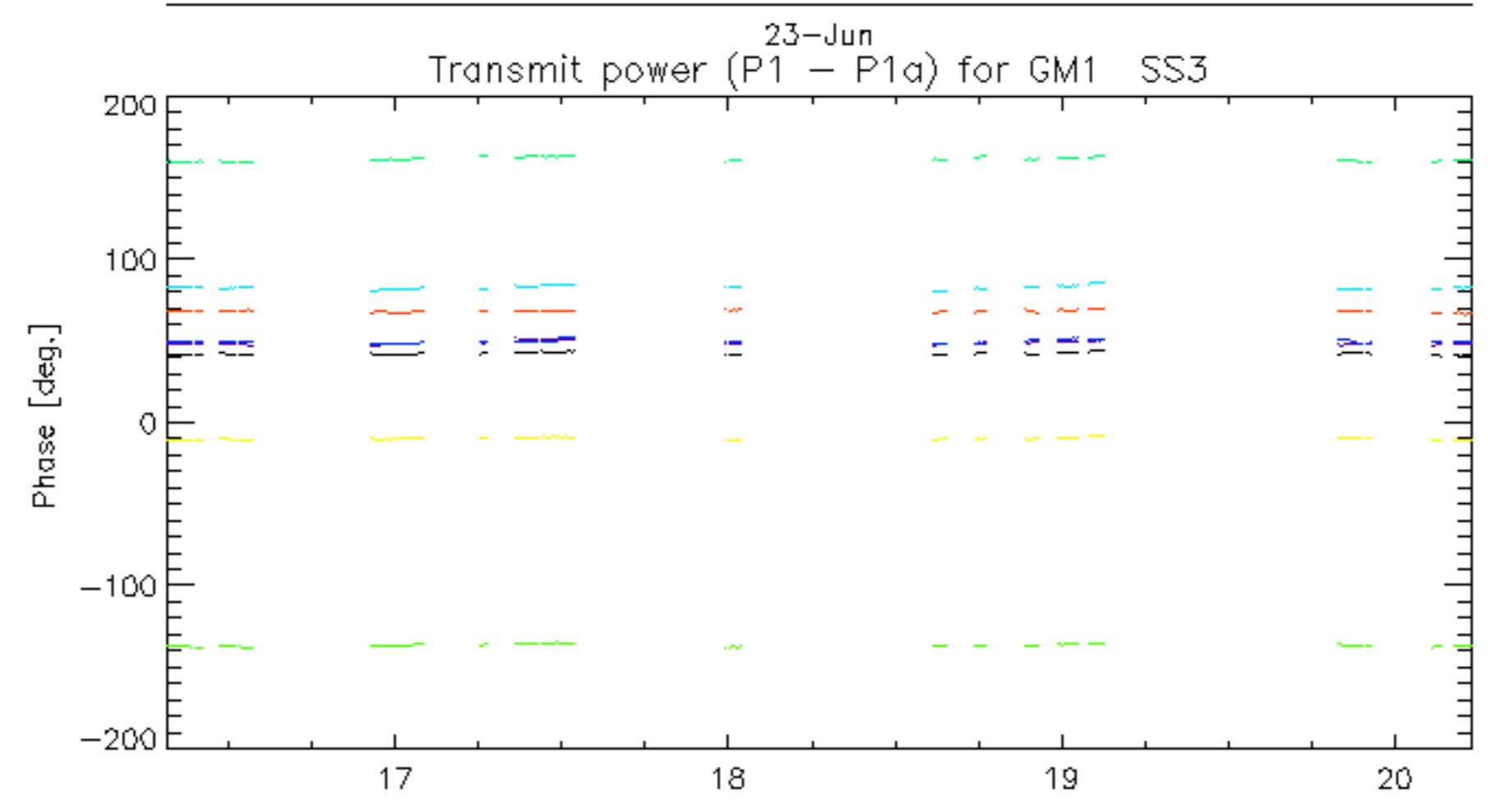
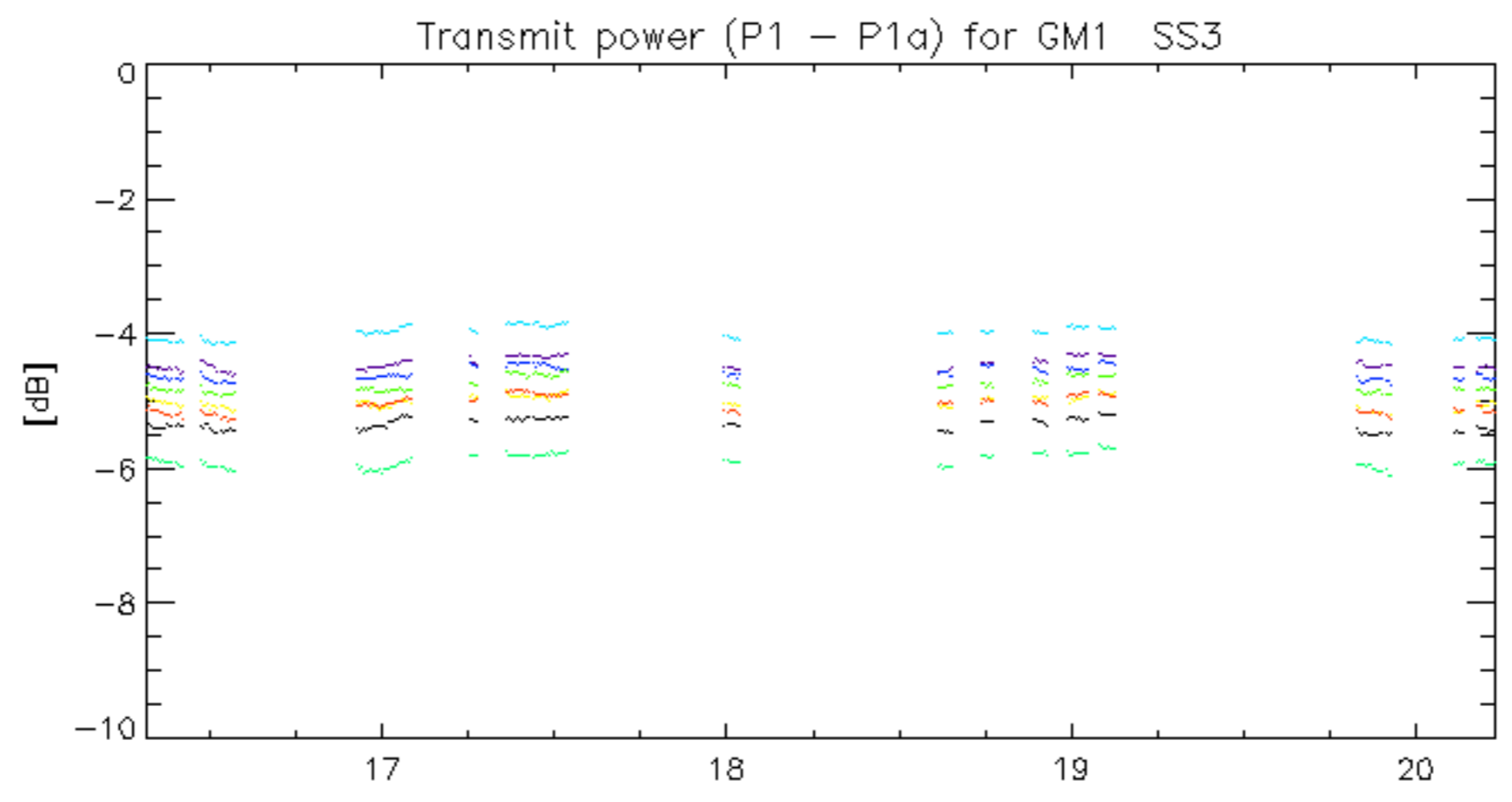
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060622_003435_000001162048_00431_22529_8242.N1	1	0
ASA_IMM_1PNPDE20060622_144838_000000792048_00440_22538_8275.N1	0	17
ASA_WSM_1PNPDE20060622_040158_000001462048_00434_22532_5069.N1	0	63
ASA_WSM_1PNPDE20060622_112554_000001702048_00438_22536_5109.N1	0	51
ASA_WSM_1PNPDK20060622_140712_000000922048_00440_22538_8138.N1	0	16



Transmit power (P1 - P1a) for GM1 SS3

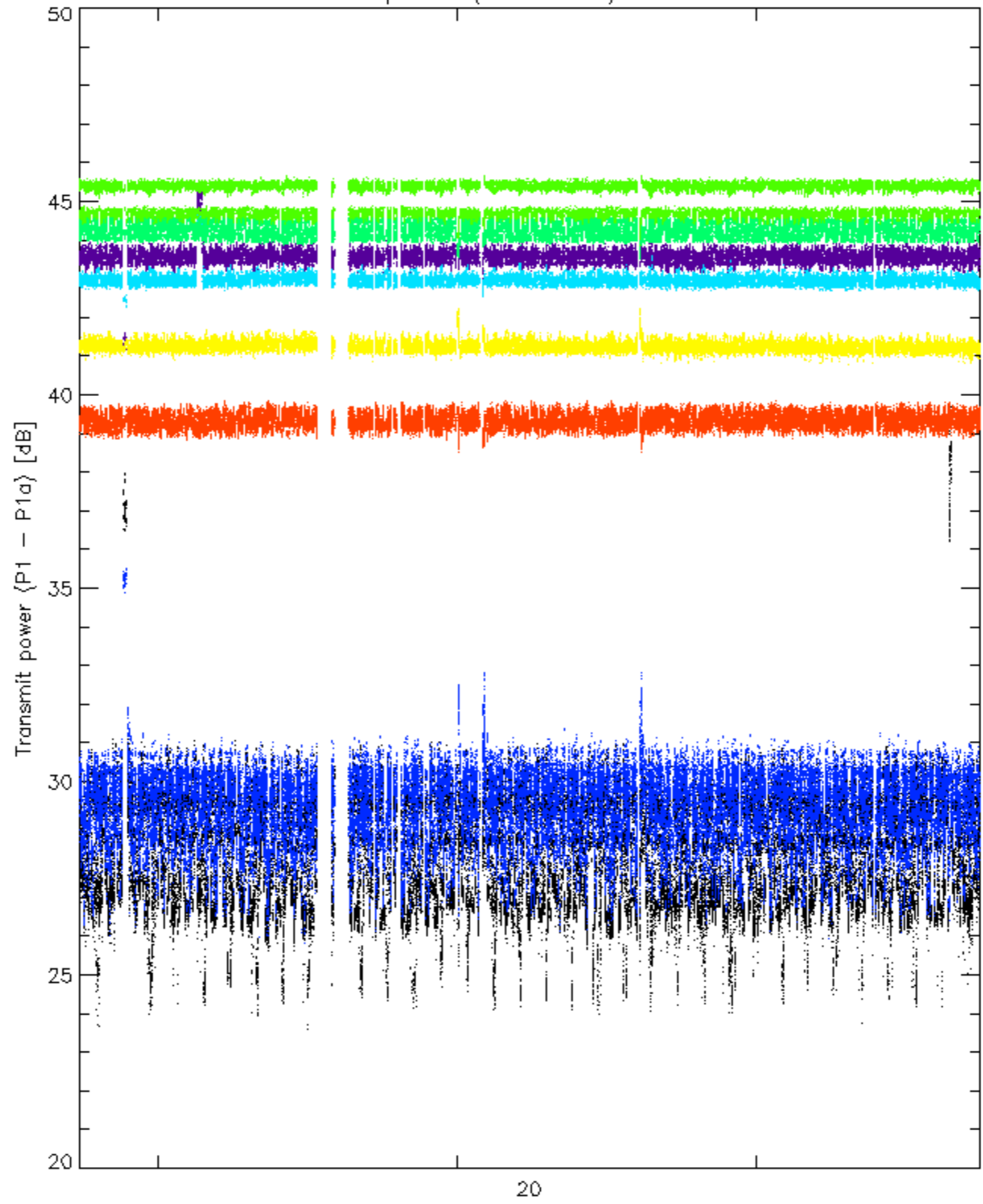


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

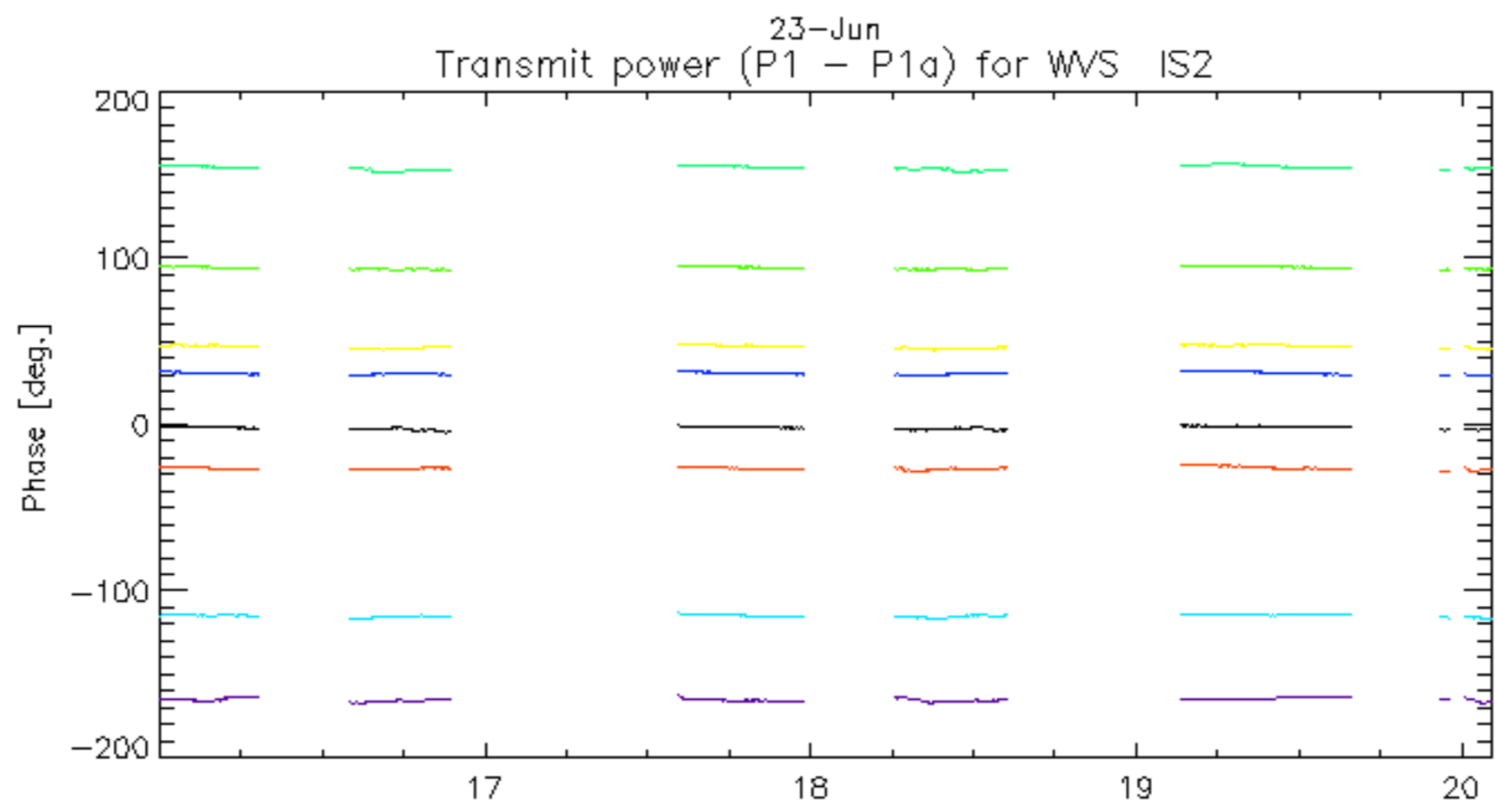
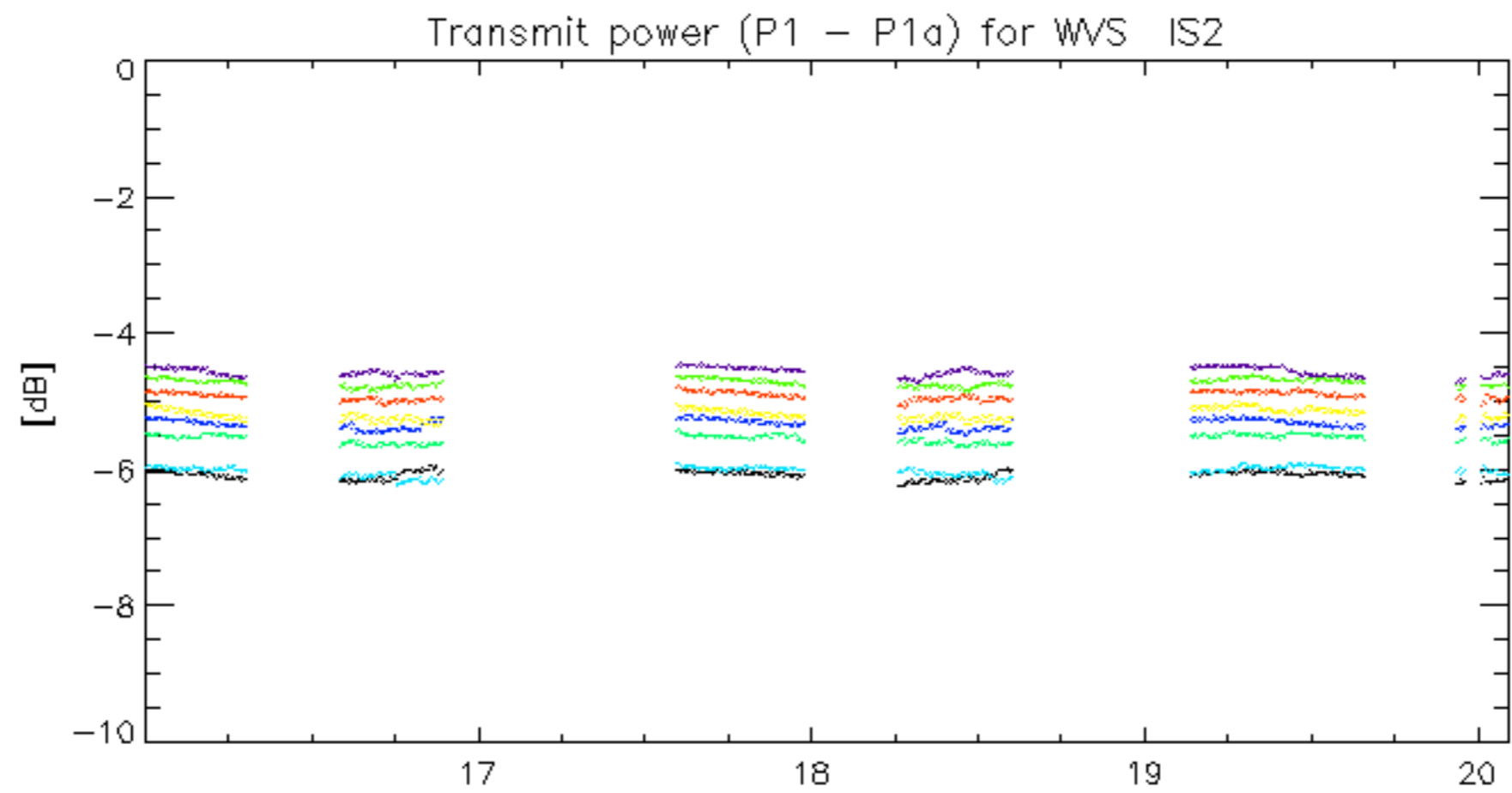


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Transmit power (P1 - P1a) for WVS IS2



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



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

The following instrument unavailability is occurred:

Ref : EN-UNA-2006/0204

Date : 24 June 2006

ASAR Antenna Reset in accordance with procedure CRP_SYS_5041 due to TILE B2 current lower than expected.