

PRELIMINARY REPORT OF 050530

last update on Mon May 30 10:50:02 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 2005-05-29 00:00:00 to 2005-05-30 10:50:02

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	27	44	14	4	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	27	44	14	4	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	27	44	14	4	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	27	44	14	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	44	61	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	44	61	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	44	61	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	44	61	0	0	0

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	20050529 053218
H	20050528 060355

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
<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	-3.346338	0.006984	0.029214
7	P1	-3.120698	0.015106	-0.027736
11	P1	-4.643812	0.029399	0.037368
15	P1	-5.515571	0.044163	0.063048
19	P1	-3.730556	0.004028	-0.009082
22	P1	-4.591565	0.015021	0.018471
26	P1	-4.869700	0.017545	0.025808
30	P1	-7.141990	0.027441	0.011573
3	P1	-15.662309	0.091610	0.151819
7	P1	-15.526924	0.107345	-0.088514
11	P1	-21.322910	0.246727	-0.087545
15	P1	-11.363453	0.043338	0.136067
19	P1	-14.371894	0.034120	-0.057750
22	P1	-15.960572	0.338256	0.023148
26	P1	-17.683662	0.228755	-0.094758
30	P1	-17.862209	0.228358	0.051627

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.047846	0.077160	0.046617
7	P2	-22.221523	0.100935	0.076890
11	P2	-14.054709	0.100020	0.169792
15	P2	-7.119693	0.084909	-0.018383
19	P2	-9.636167	0.088465	0.037215
22	P2	-16.891539	0.087354	0.015807
26	P2	-16.499386	0.089673	-0.009261
30	P2	-18.812948	0.077515	0.029755

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.167951	0.002958	0.016146
7	P3	-8.167951	0.002958	0.016146
11	P3	-8.167951	0.002958	0.016146
15	P3	-8.167951	0.002958	0.016146
19	P3	-8.167951	0.002958	0.016146
22	P3	-8.167951	0.002958	0.016146
26	P3	-8.167951	0.002958	0.016146
30	P3	-8.167951	0.002958	0.016146

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	-2.783634	0.012747	-0.009111
7	P1	-2.963724	0.031703	0.056131
11	P1	-3.958649	0.018398	-0.002554
15	P1	-3.528857	0.023998	-0.012593
19	P1	-3.628542	0.015345	0.010771
22	P1	-5.650401	0.048249	0.007030
26	P1	-7.309447	0.023454	0.023236
30	P1	-6.275198	0.051021	-0.005688
3	P1	-10.821383	0.043397	-0.045974
7	P1	-10.394576	0.165800	0.058569
11	P1	-12.546772	0.109534	-0.014182
15	P1	-11.627323	0.078139	0.016753
19	P1	-15.615743	0.063006	0.040405
22	P1	-25.713659	2.879250	-0.398630
26	P1	-15.642606	0.371032	0.137110
30	P1	-20.242414	1.137716	0.088310

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.775364	0.039611	0.051224
7	P2	-22.206539	0.046567	0.143935
11	P2	-9.980323	0.056582	0.148060
15	P2	-5.099608	0.041277	-0.007451
19	P2	-6.904086	0.055526	0.020452
22	P2	-7.104540	0.035720	0.030306
26	P2	-23.936596	0.036673	-0.029801
30	P2	-21.943863	0.040127	0.022568

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.000058	0.003666	0.019746
7	P3	-7.999961	0.003671	0.019834
11	P3	-8.000010	0.003673	0.019558
15	P3	-7.999975	0.003656	0.019603
19	P3	-7.999917	0.003690	0.019999
22	P3	-8.000105	0.003662	0.019492
26	P3	-7.999944	0.003668	0.019635
30	P3	-8.000048	0.003693	0.019718

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	0.000439837
	stdev	2.31119e-07
MEAN Q	mean	0.000469551
	stdev	2.40868e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125960
	stdev	0.00104704
STDEV Q	mean	0.126205
	stdev	0.00105739



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005052[890]

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_1PNPDE20050520_004259_00000622037_00245_16832_2011.N1	1	0
ASA_IMM_1PNPDE20050520_155124_00001072037_00254_16841_2063.N1	1	0
ASA_IMM_1PNPDK20050520_061446_000004082037_00249_16836_4748.N1	0	19
ASA_IMM_1PNPDK20050520_074429_00000832037_00250_16837_4758.N1	0	17
ASA_IMM_1PNPDK20050520_075913_000003382037_00250_16837_4755.N1	0	14
ASA_IMM_1PNPDK20050520_092334_000000392037_00251_16838_4760.N1	0	12
ASA_IMM_1PNPDK20050520_094552_000000892037_00251_16838_4763.N1	0	15
ASA_IMM_1PNPDK20050520_123932_000001082037_00253_16840_4766.N1	0	13
ASA_IMM_1PNPDK20050520_124234_000001042037_00253_16840_4769.N1	0	29

ASA_IMM_1PNPDK20050529_125923_000001752037_00382_16969_5353.N1	1	0
ASA_GM1_1PNPDK20050520_152850_000003502037_00254_16841_1201.N1	0	15
ASA_GM1_1PNPDK20050529_094407_000007062037_00380_16967_2165.N1	0	15
ASA_WSM_1PNPDE20050520_013211_000003062037_00246_16833_3281.N1	0	71
ASA_WSM_1PNPDE20050520_141507_000000852037_00254_16841_3073.N1	0	30
ASA_WSM_1PNPDK20050520_074638_000000672037_00250_16837_3395.N1	0	15
ASA_WSM_1PNPDK20050520_074847_000000242037_00250_16837_3396.N1	0	7
ASA_WSM_1PNPDK20050520_093856_000004222037_00251_16838_3404.N1	0	15
ASA_WSM_1PNPDK20050520_111920_000000672037_00252_16839_3411.N1	0	17
ASA_WSM_1PNPDK20050520_112029_000000552037_00252_16839_3596.N1	0	5
ASA_WSM_1PNPDK20050520_112129_000002252037_00252_16839_3412.N1	0	24
ASA_WSM_1PNPDK20050520_120732_000001472037_00252_16839_3422.N1	0	21
ASA_WSM_1PNPDK20050520_122648_000001712037_00252_16839_3421.N1	0	14
ASA_WSM_1PNPDK20050520_130156_000001042037_00253_16840_3423.N1	0	10
ASA_WSM_1PNPDK20050520_143056_000002442037_00254_16841_3435.N1	0	18
ASA_WSM_1PNPDK20050520_143640_000000672037_00254_16841_3423.N1	0	12
ASA_WSM_1PNPDK20050520_143747_000000612037_00254_16841_3424.N1	0	9
ASA_WSM_1PNPDK20050520_143849_000000552037_00254_16841_3425.N1	0	7
ASA_WSM_1PNPDK20050520_143944_000000612037_00254_16841_3426.N1	0	12
ASA_WSM_1PNPDK20050520_144045_000000612037_00254_16841_3427.N1	0	18
ASA_WSM_1PNPDK20050520_160911_000002262037_00255_16842_3441.N1	0	7
ASA_APM_1PNPDK20050520_081555_000000112037_00250_16837_2095.N1	0	3





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

Ascending

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

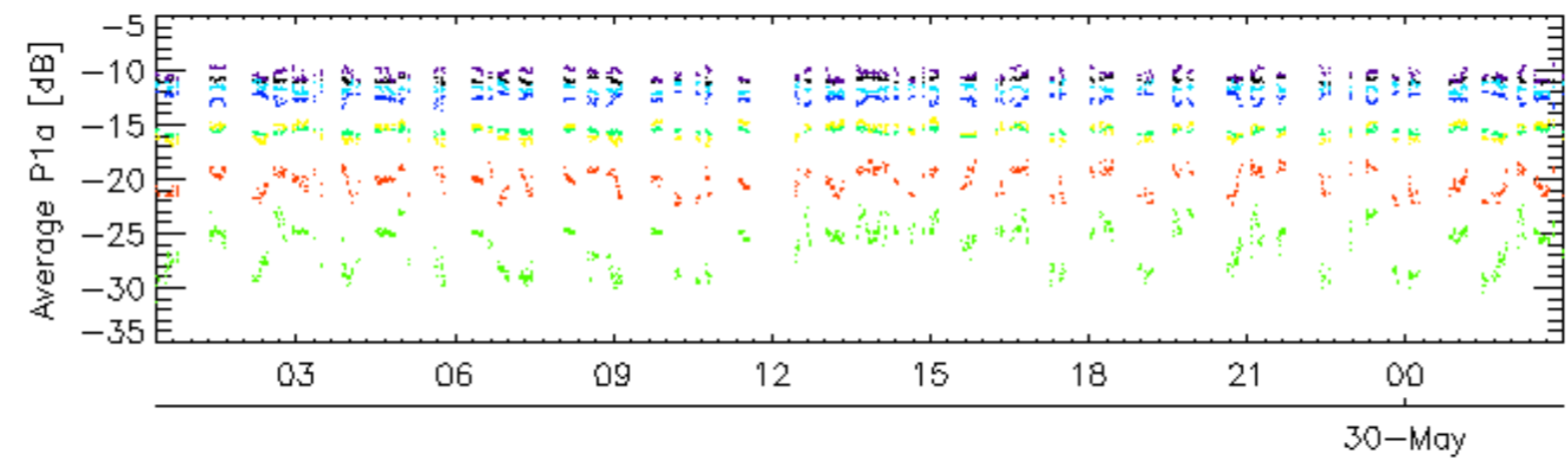
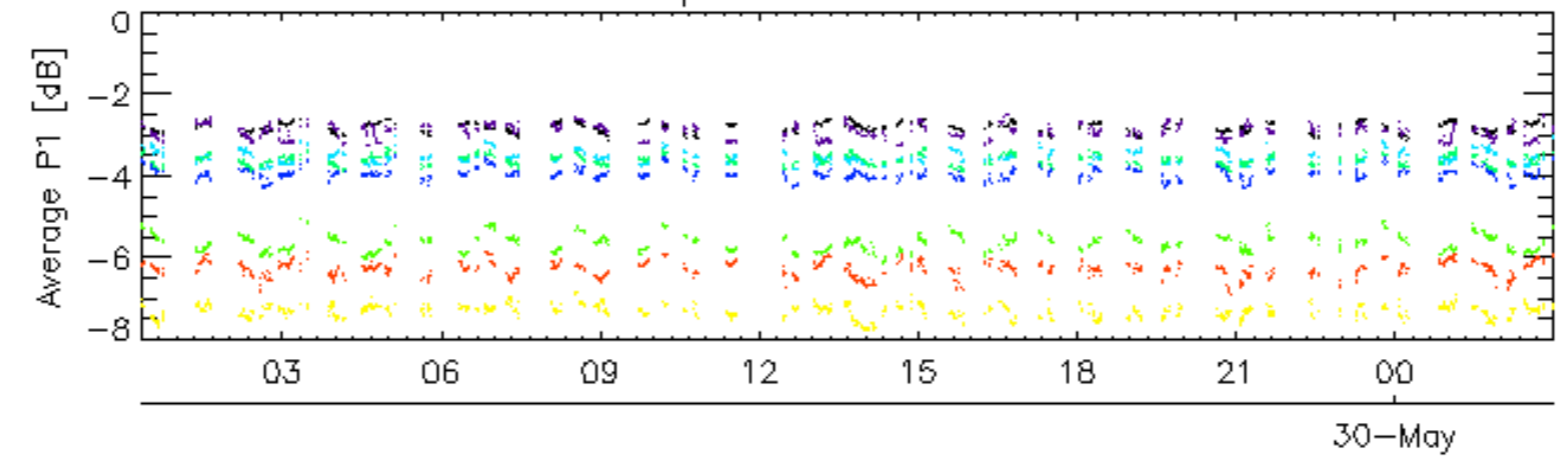
Descending

7.6 - Doppler evolution versus ANX for GM1

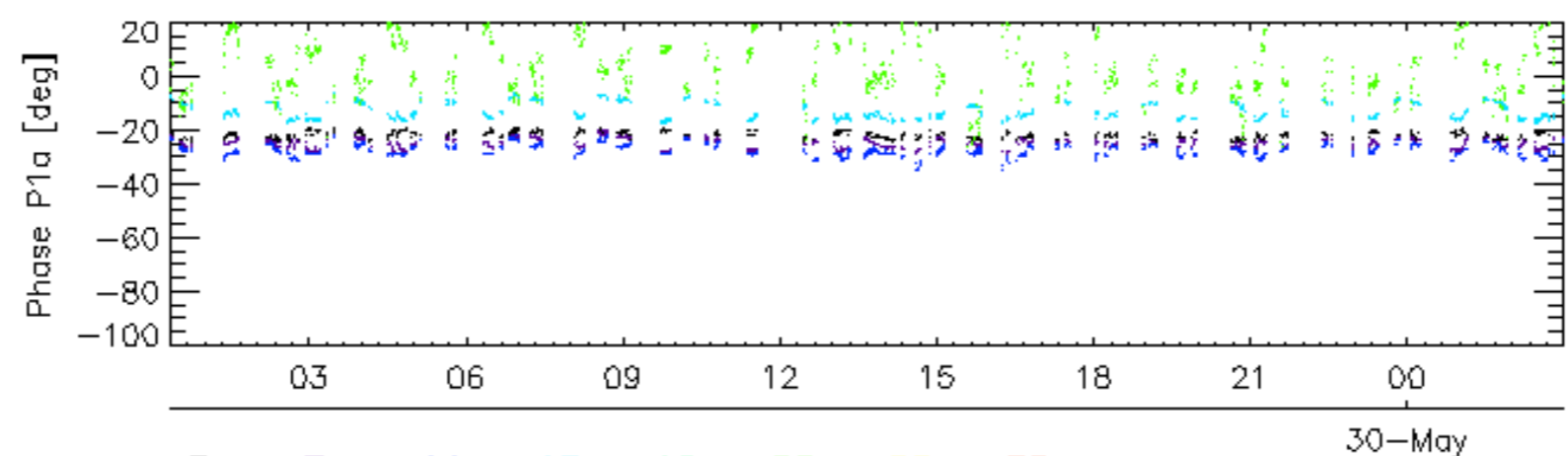
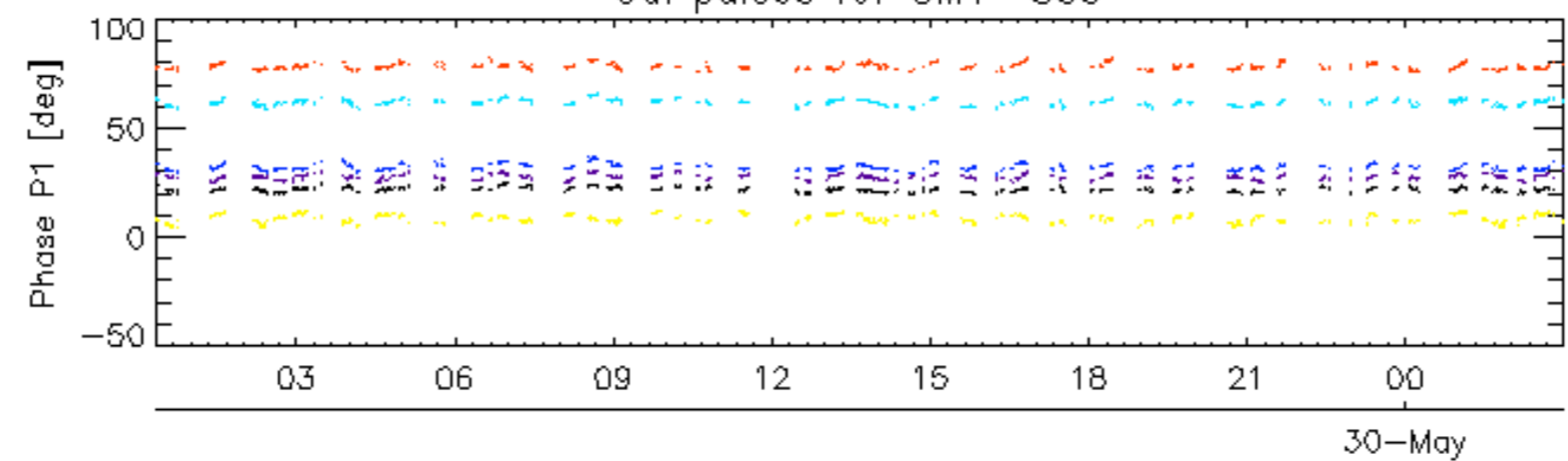
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

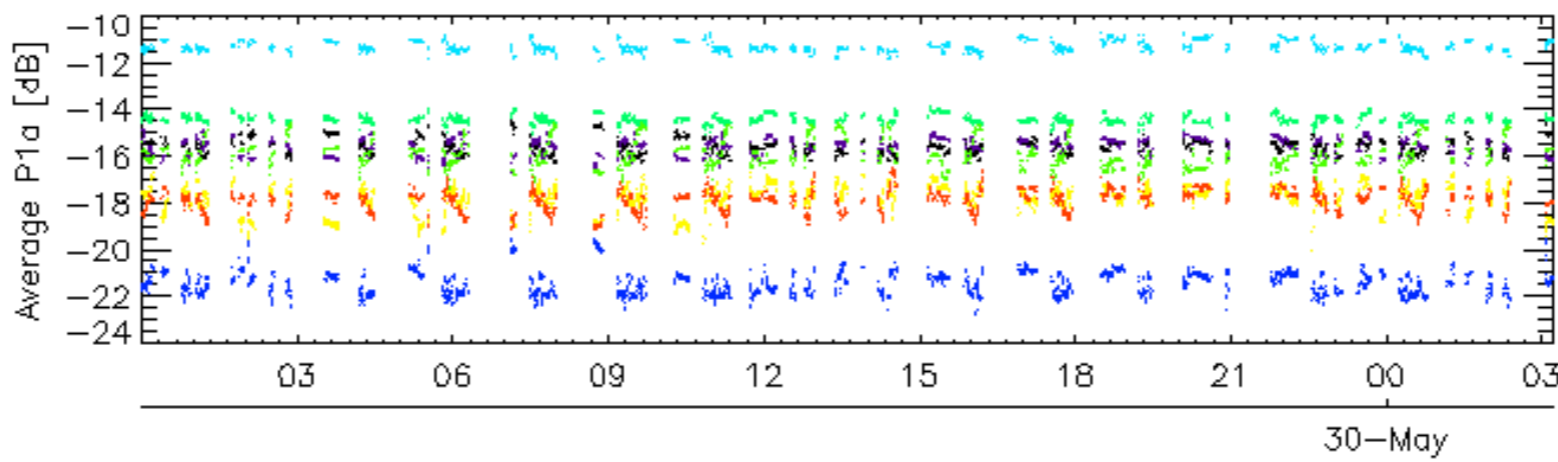
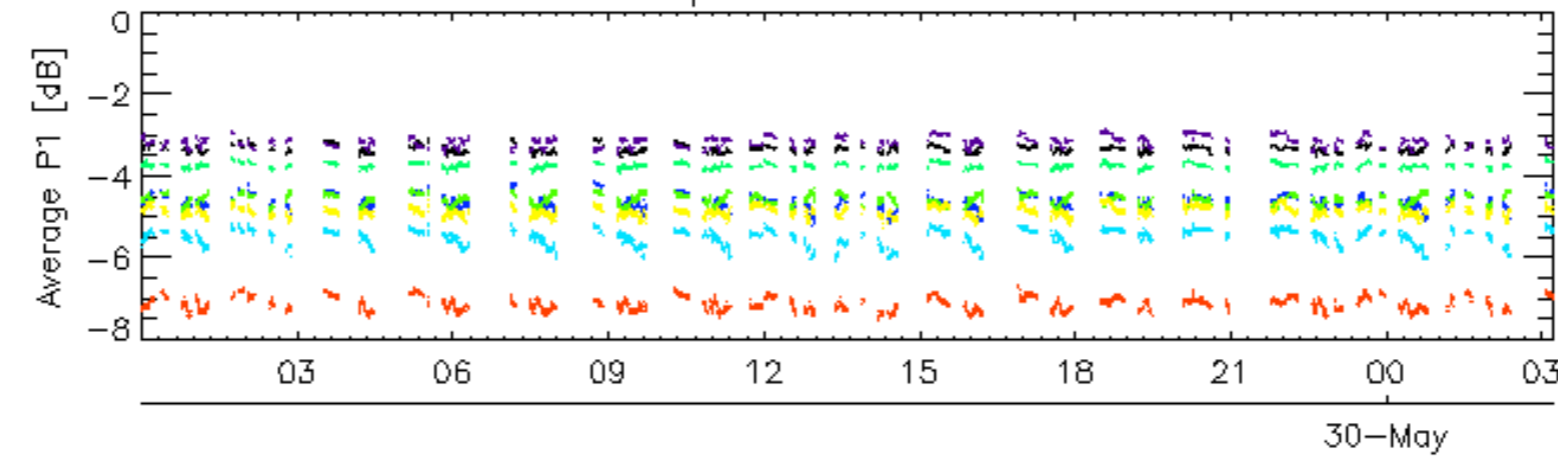


Cal pulses for GM1 SS3

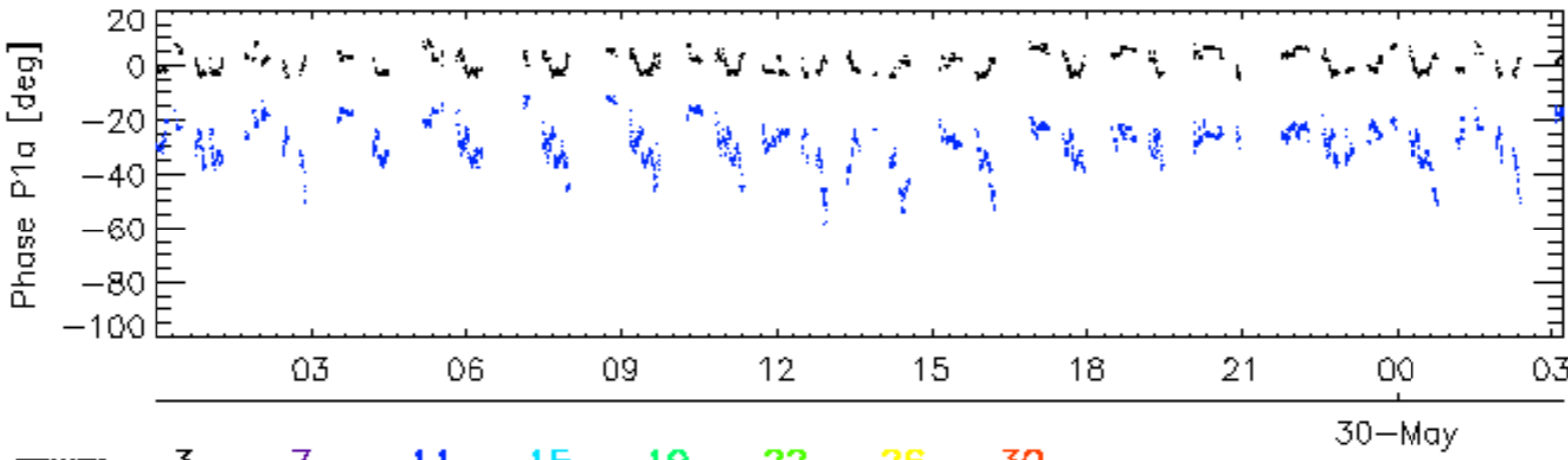
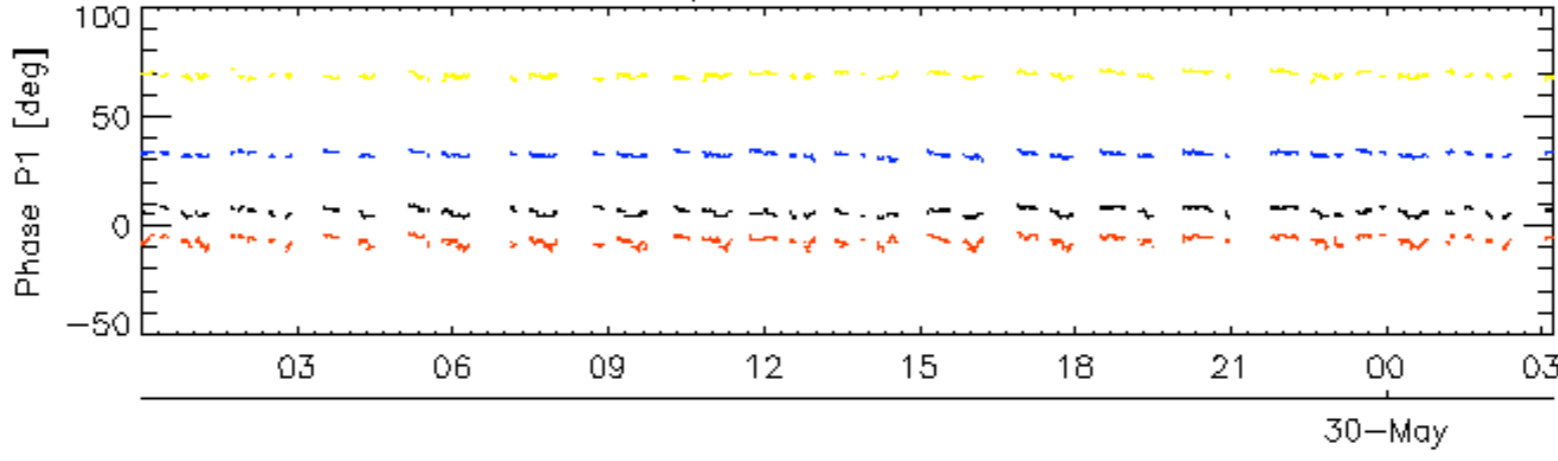


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

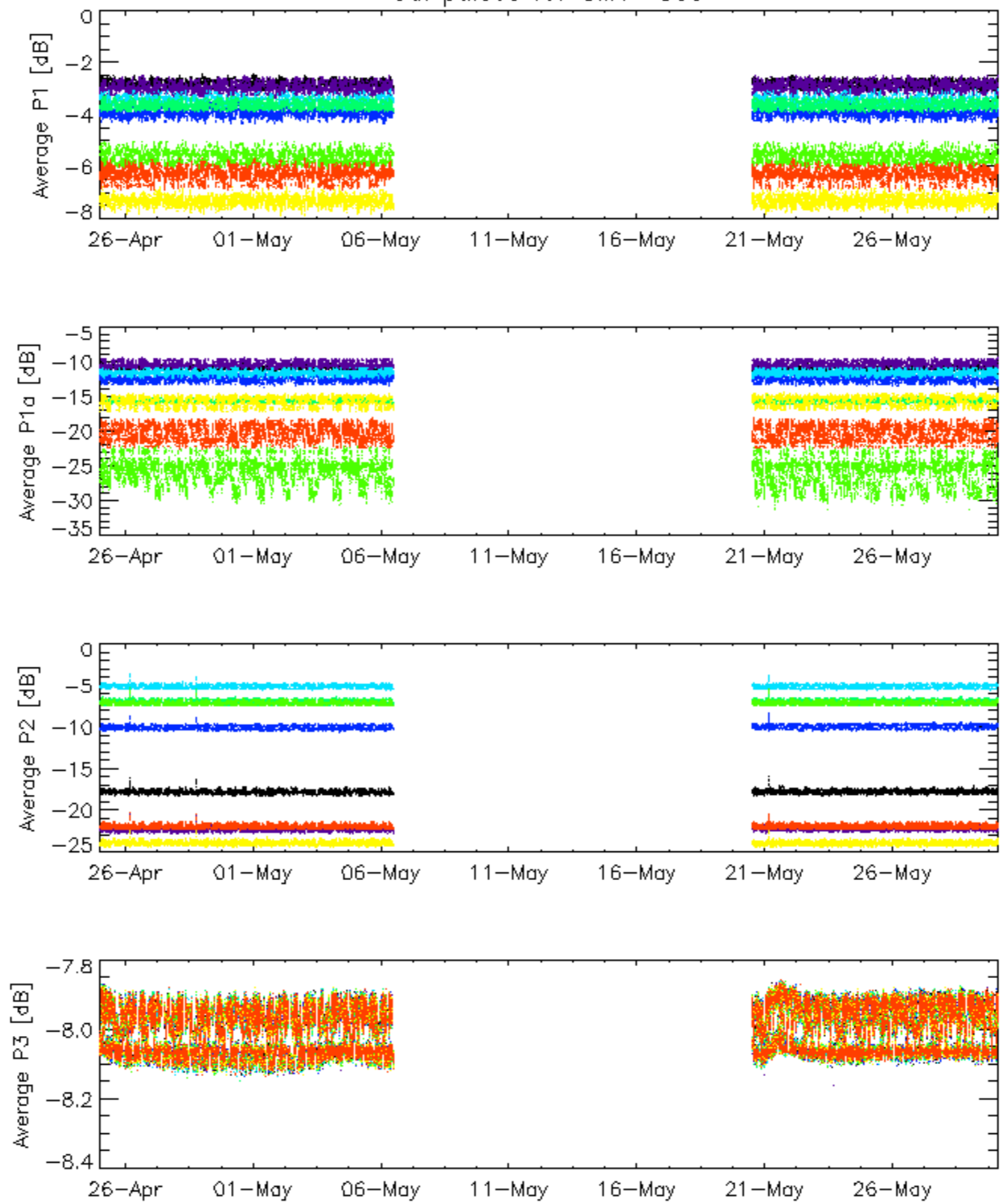


Cal pulses for WVS IS2



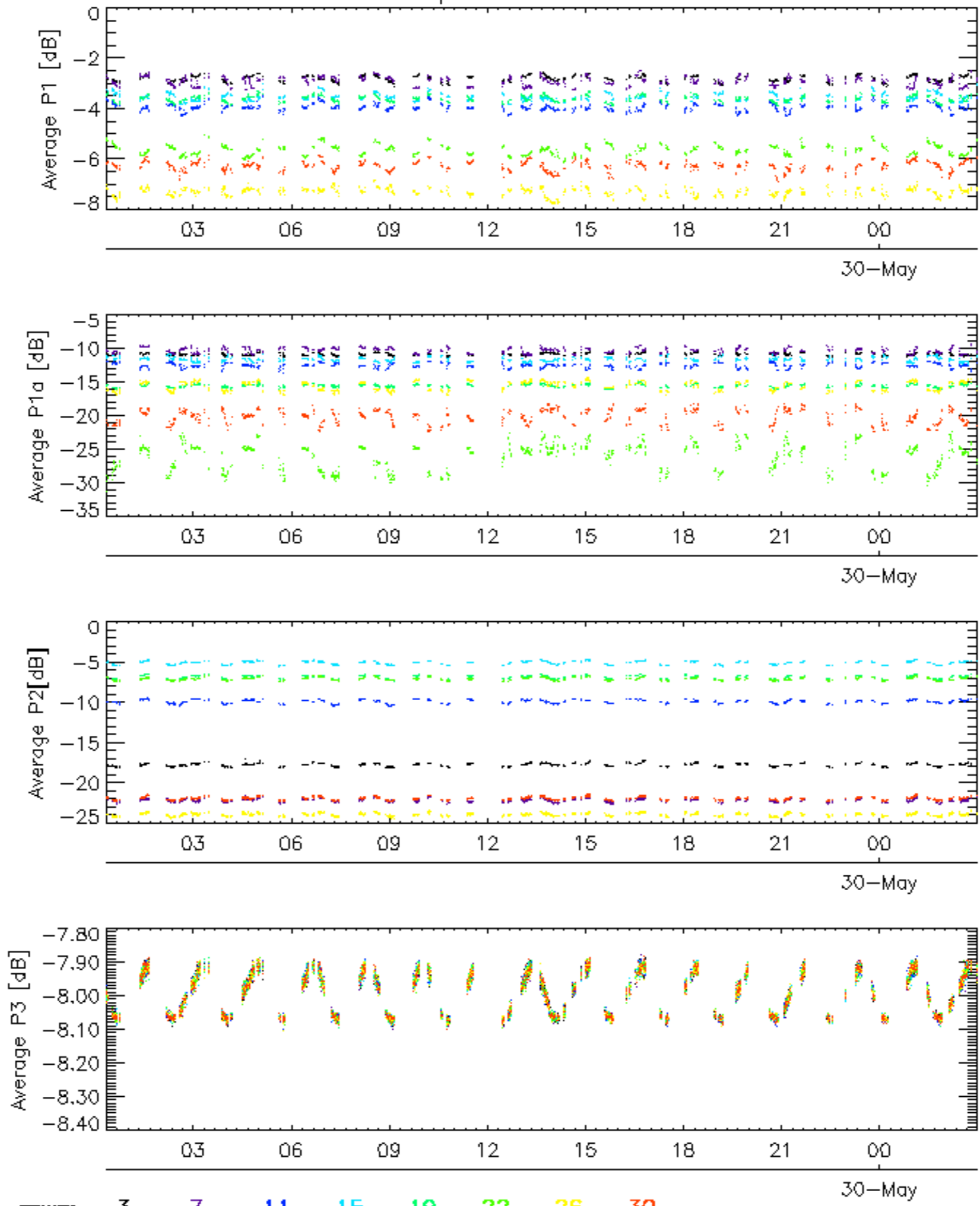
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

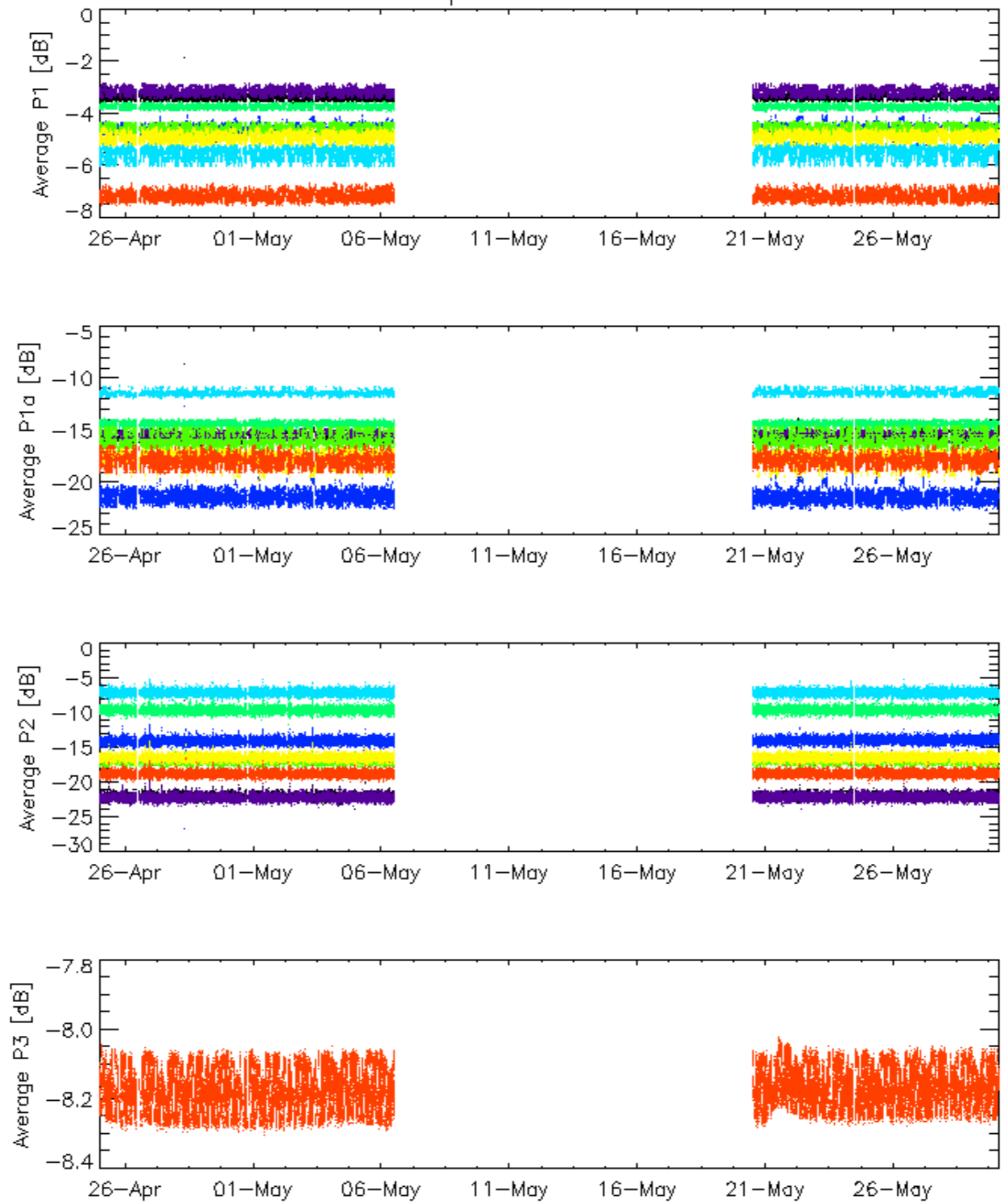


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

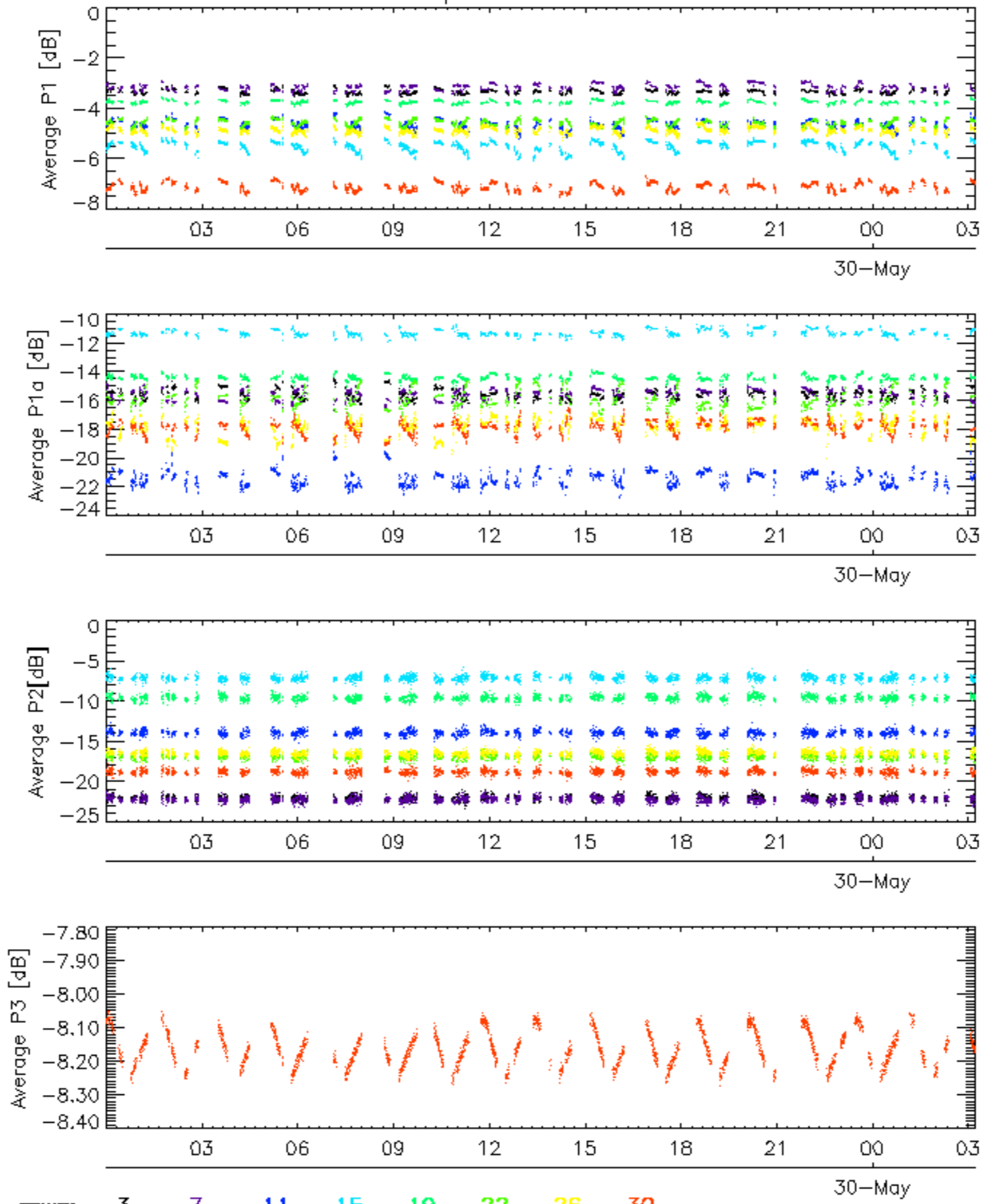


Cal pulses for WVS IS2



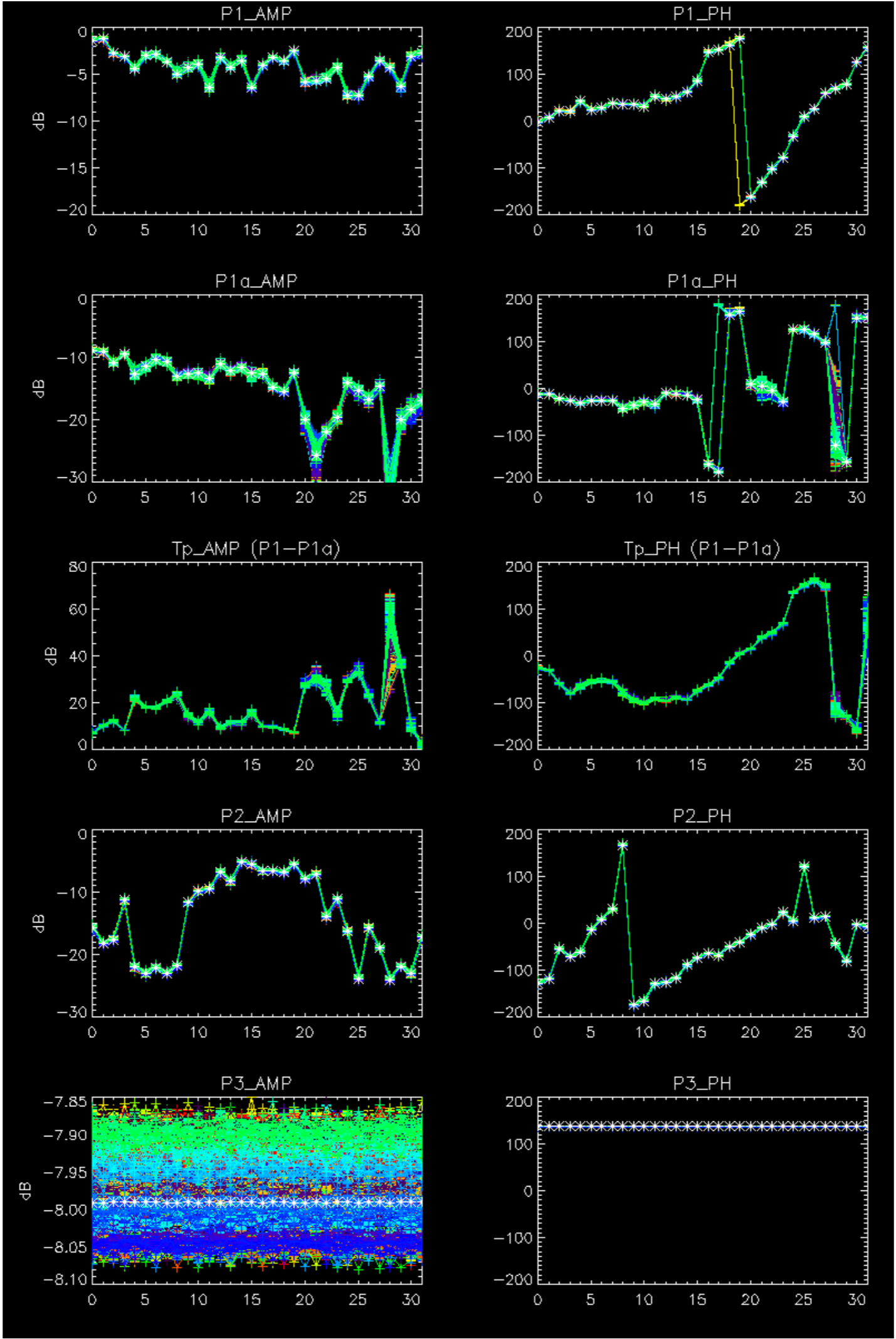
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

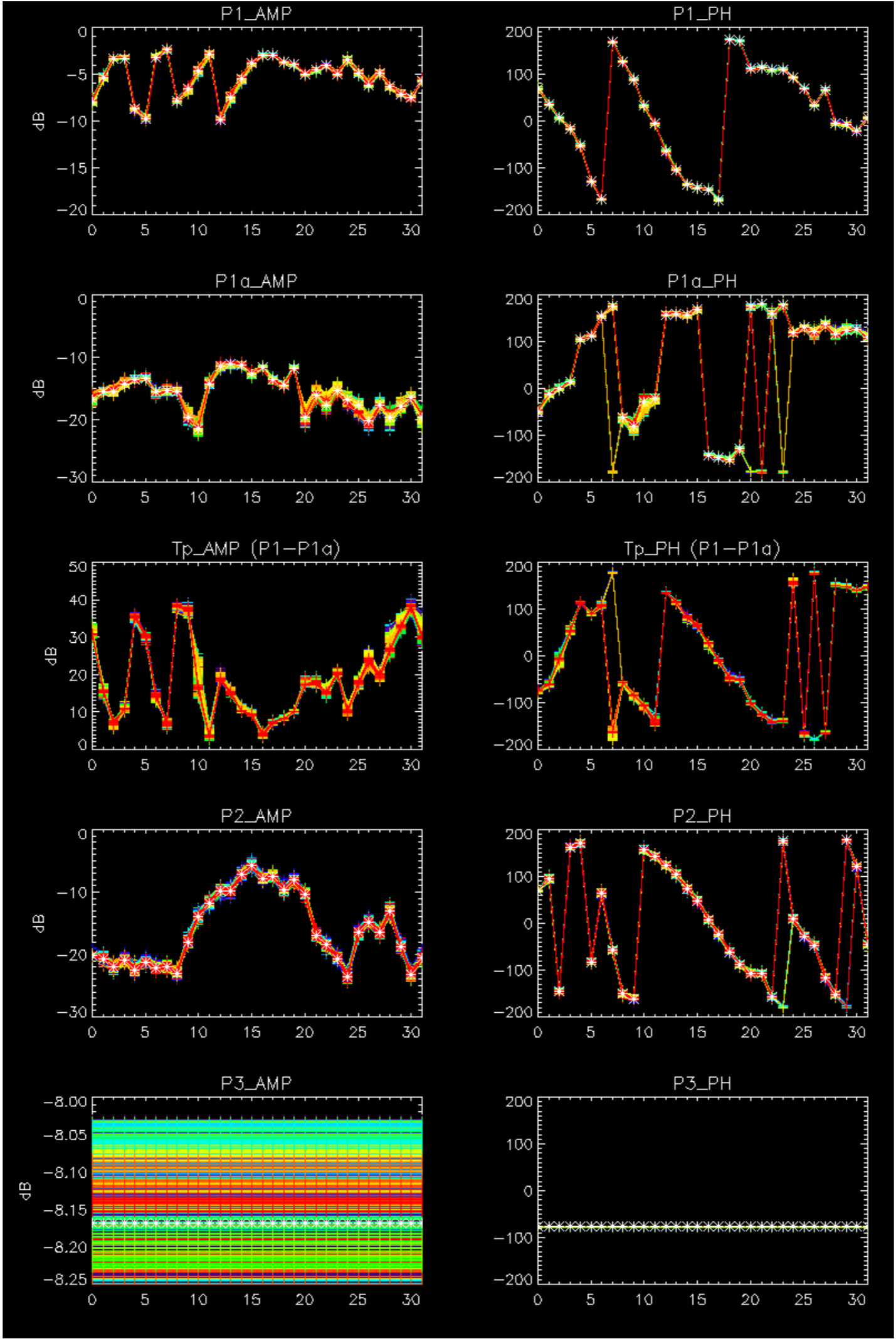
Cal pulses for WVS IS2



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

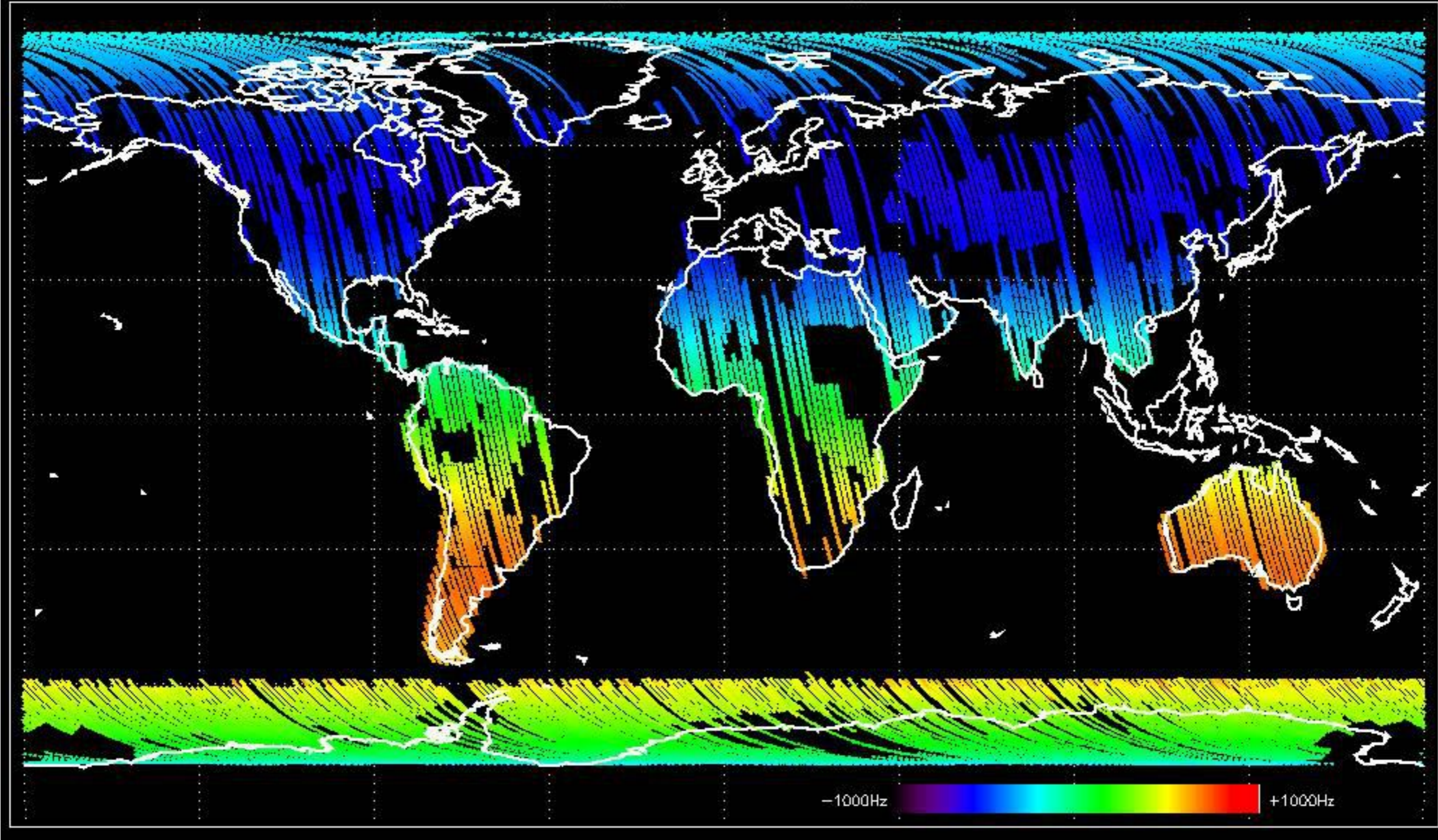
No anomalies observed.



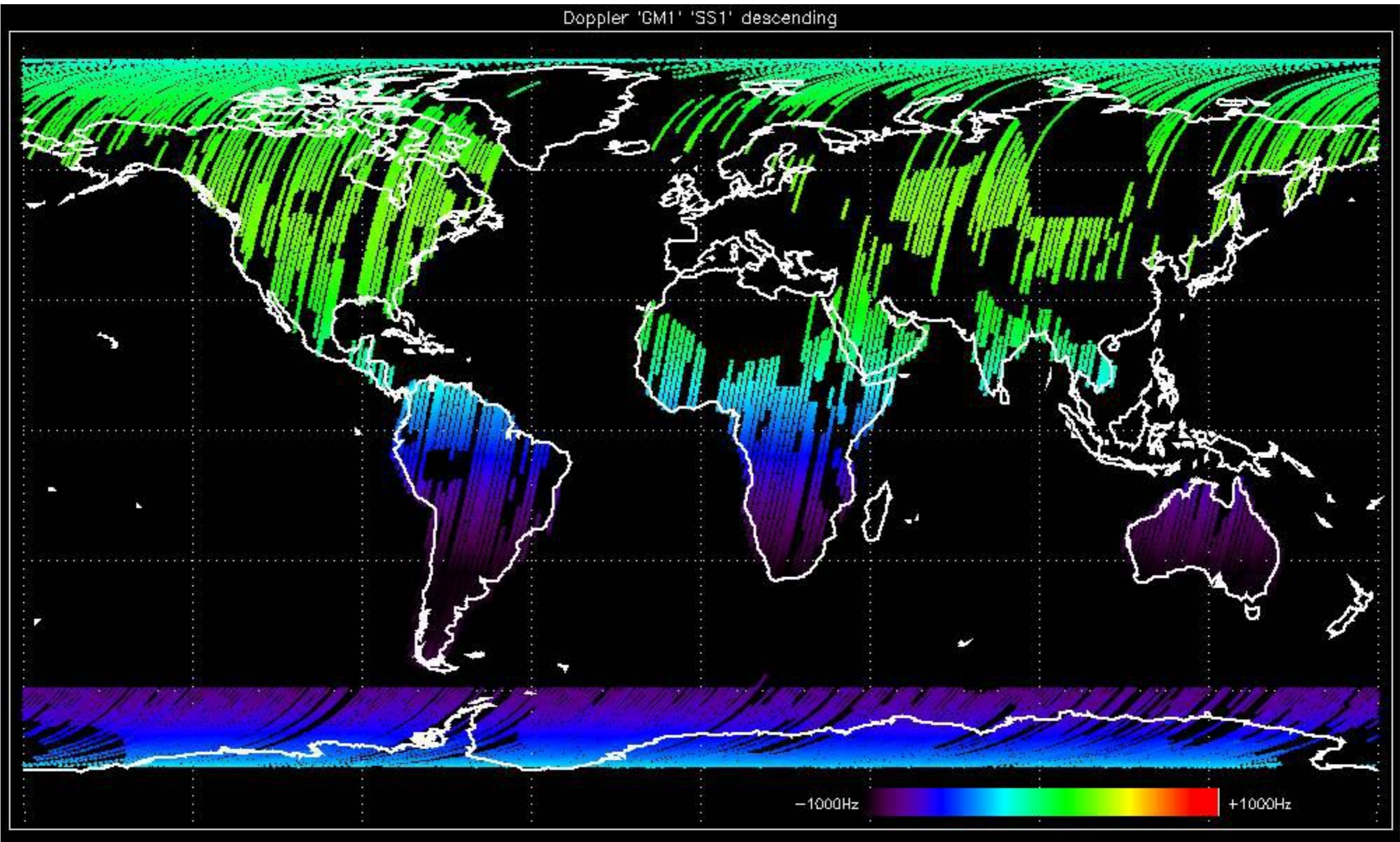


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

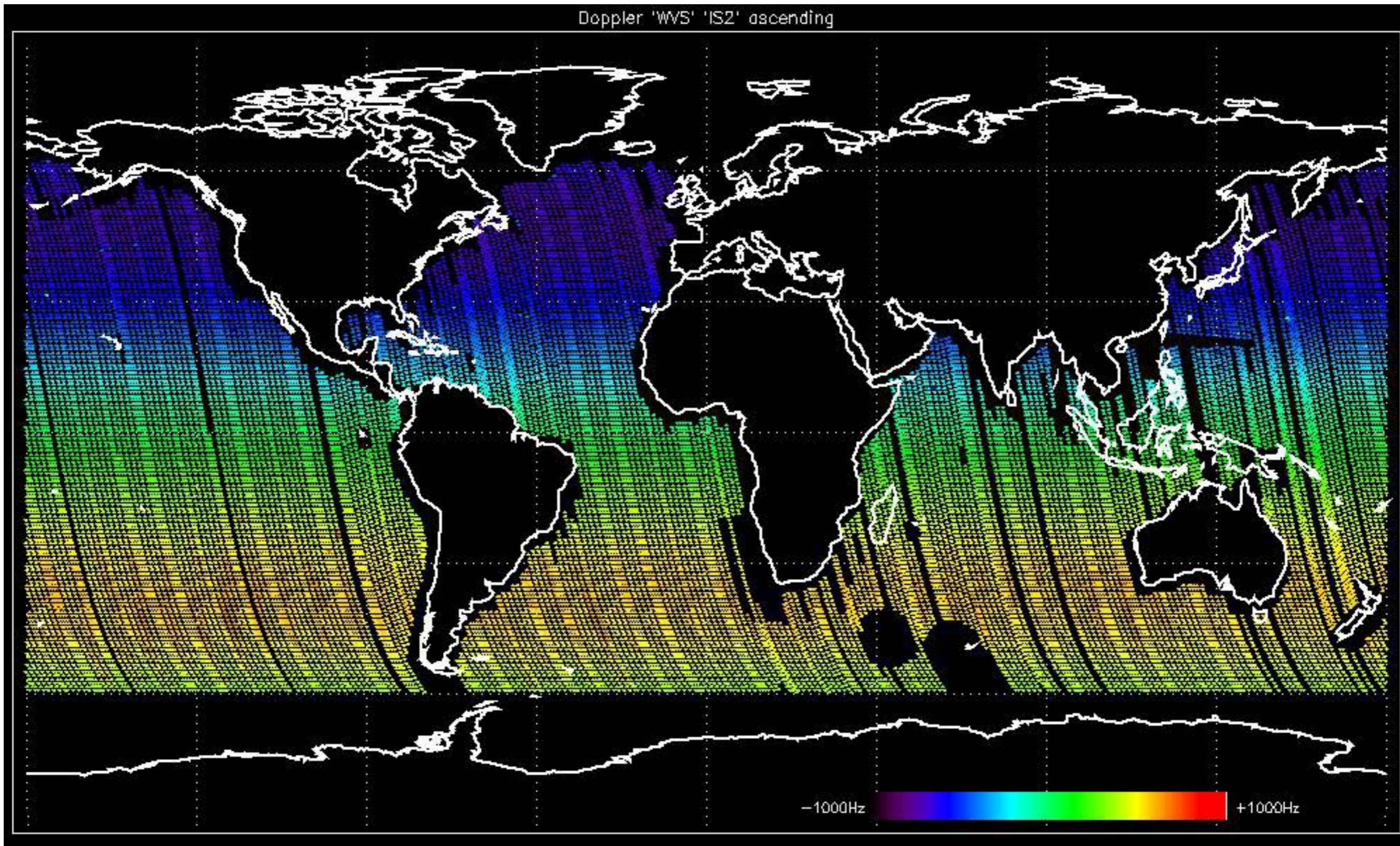
Doppler 'GM1' 'SS1' ascending



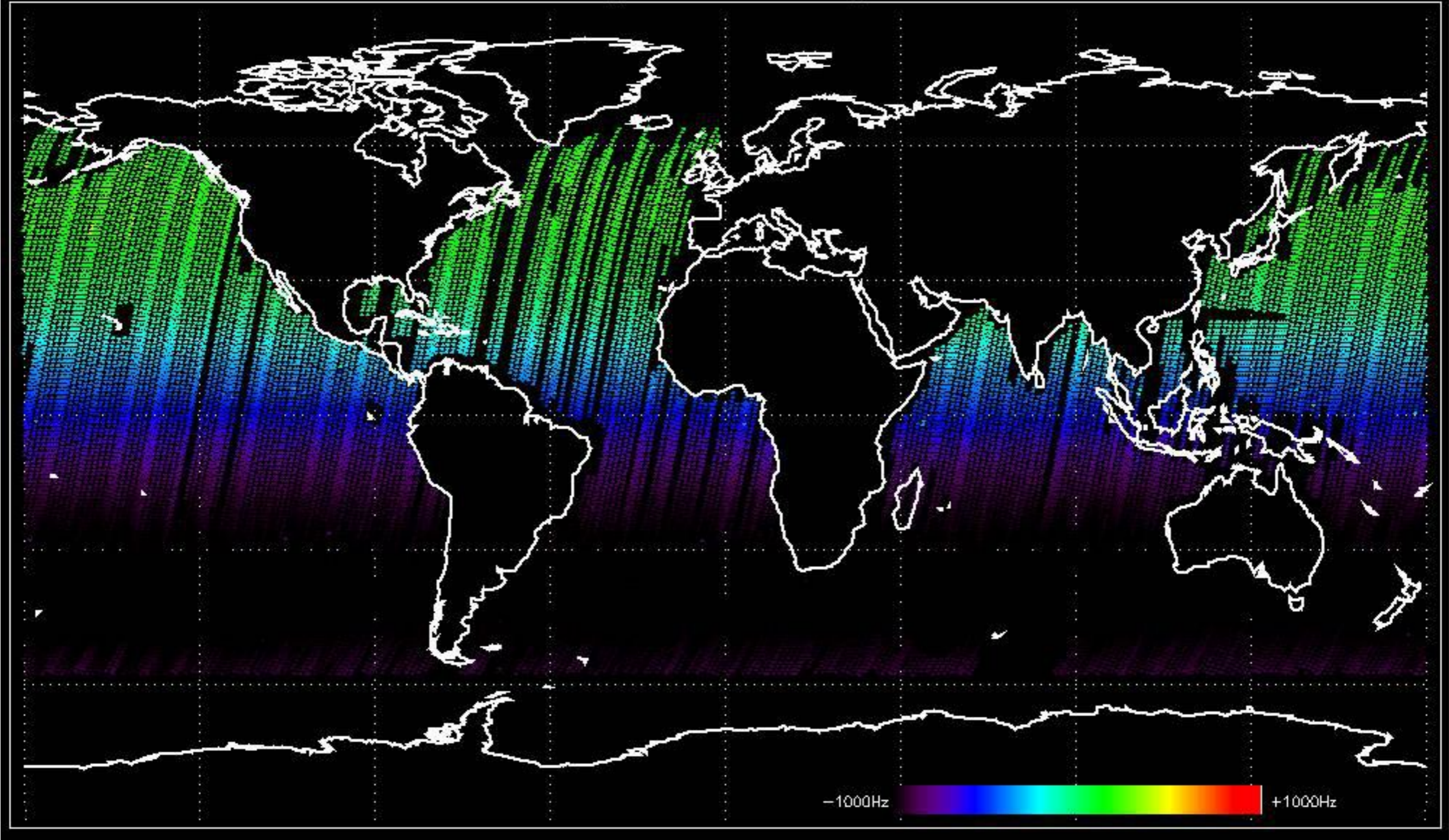
Doppler 'GM1' 'SS1' descending



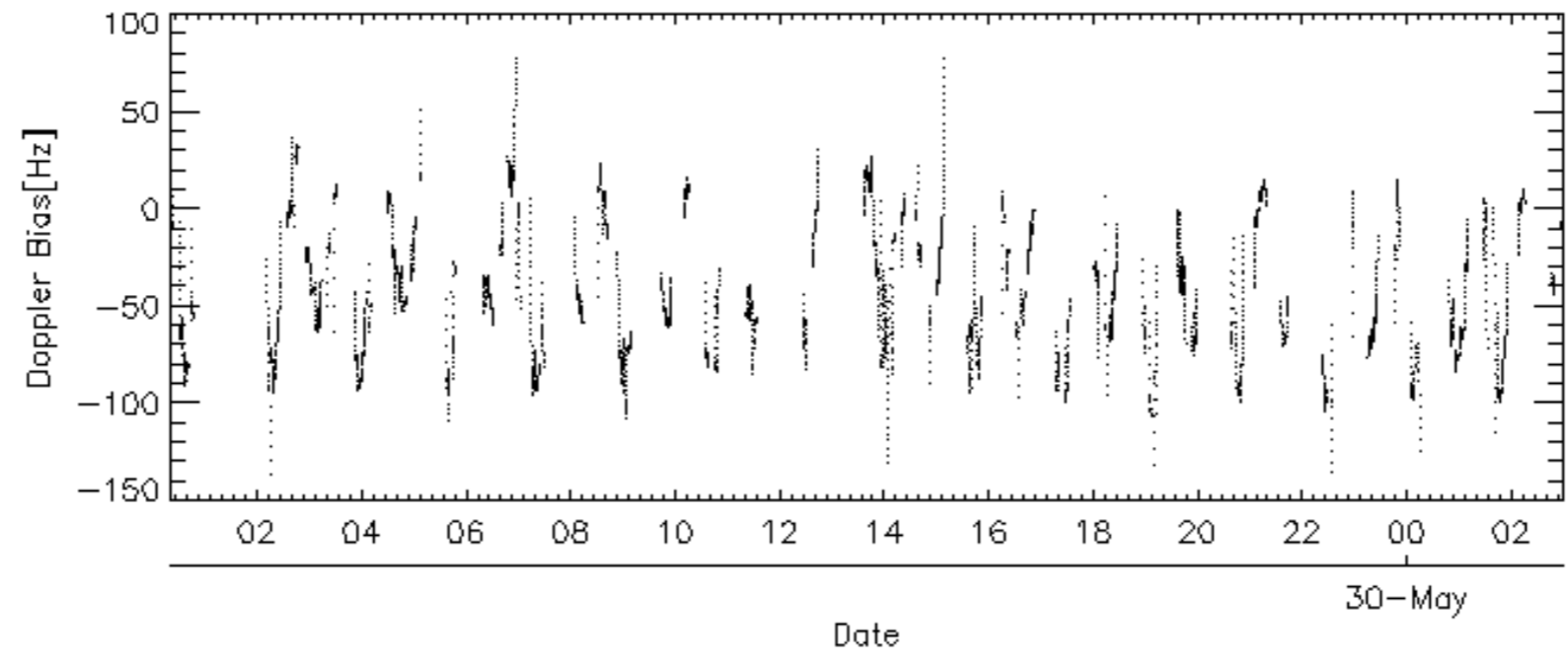
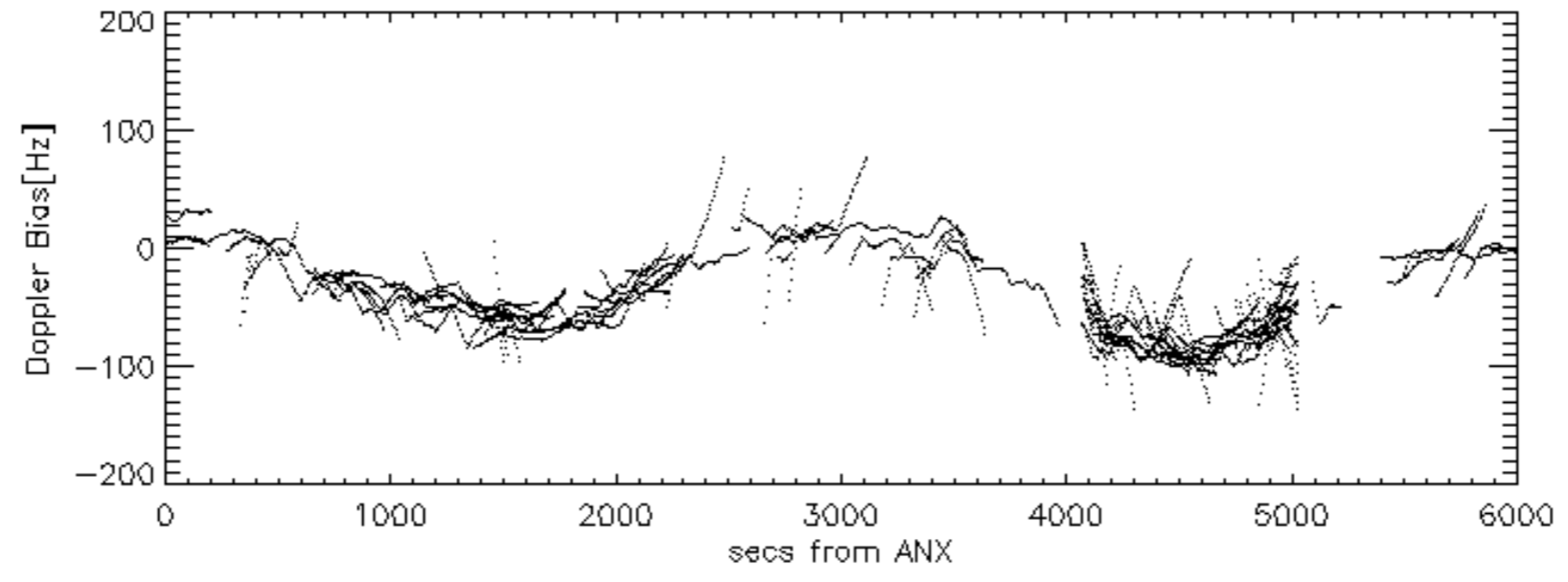
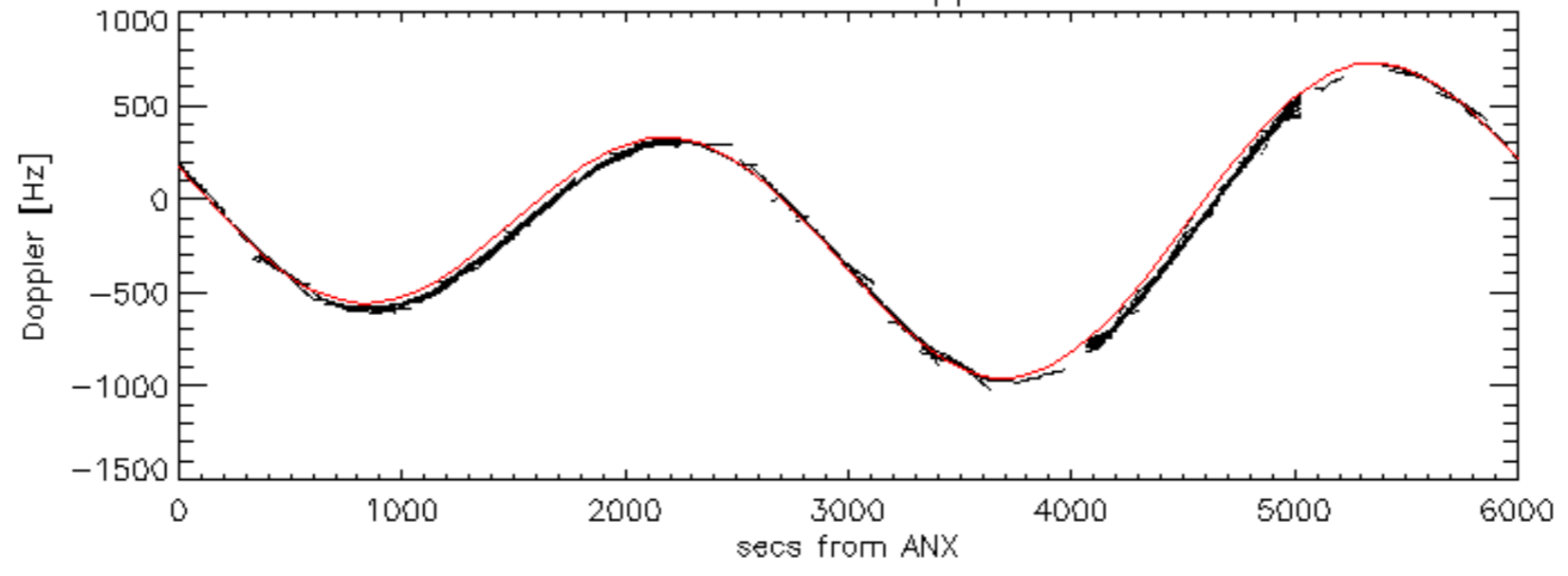
Doppler 'WVS' 'IS2' ascending

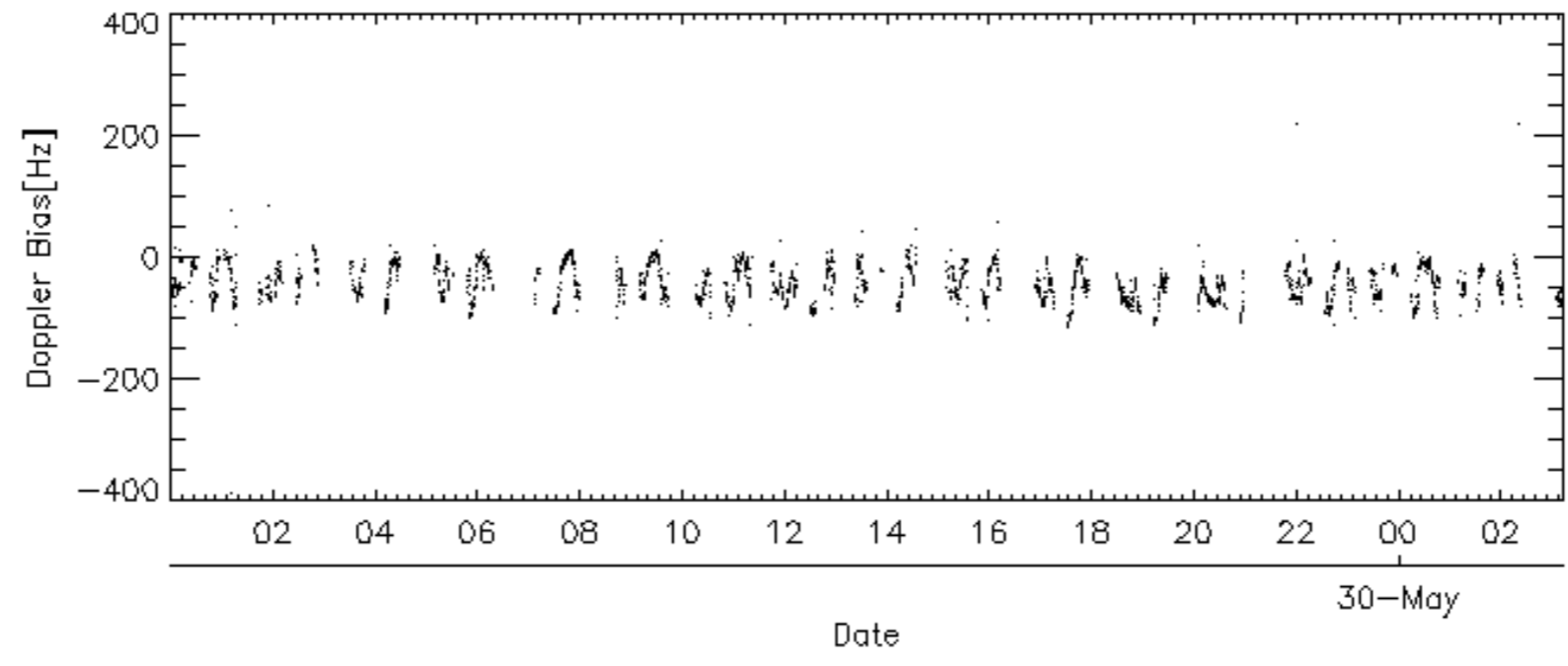
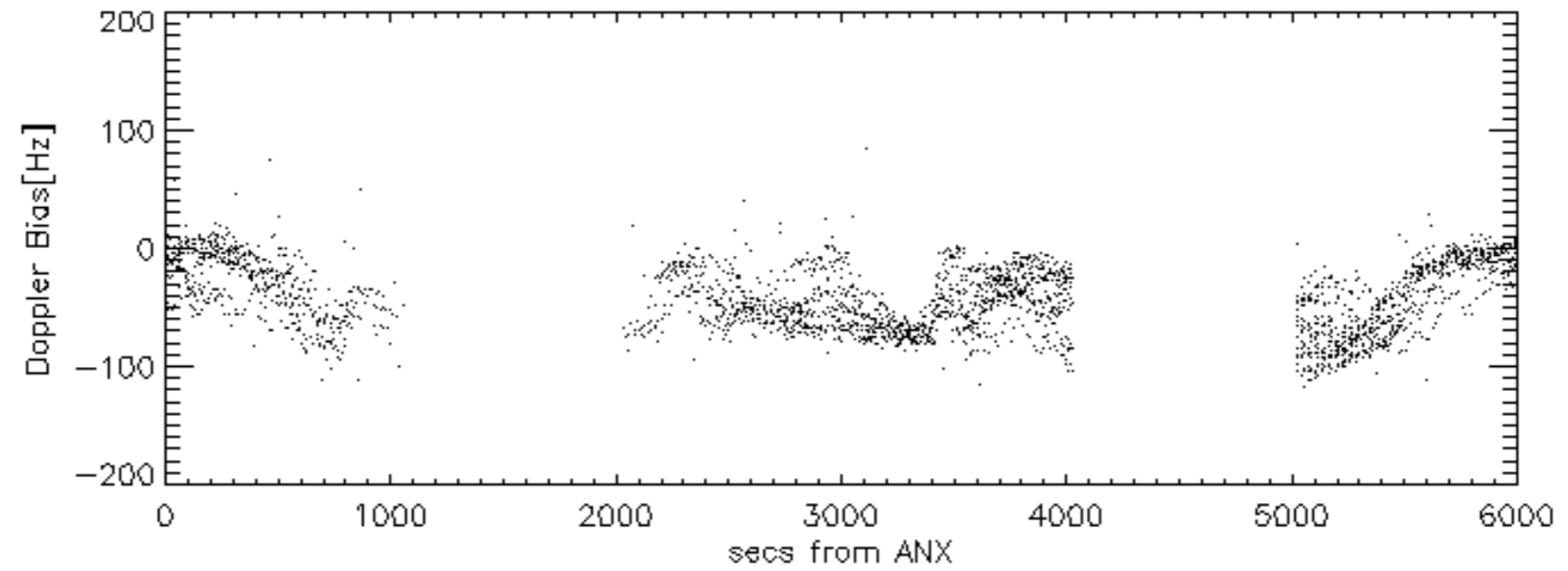
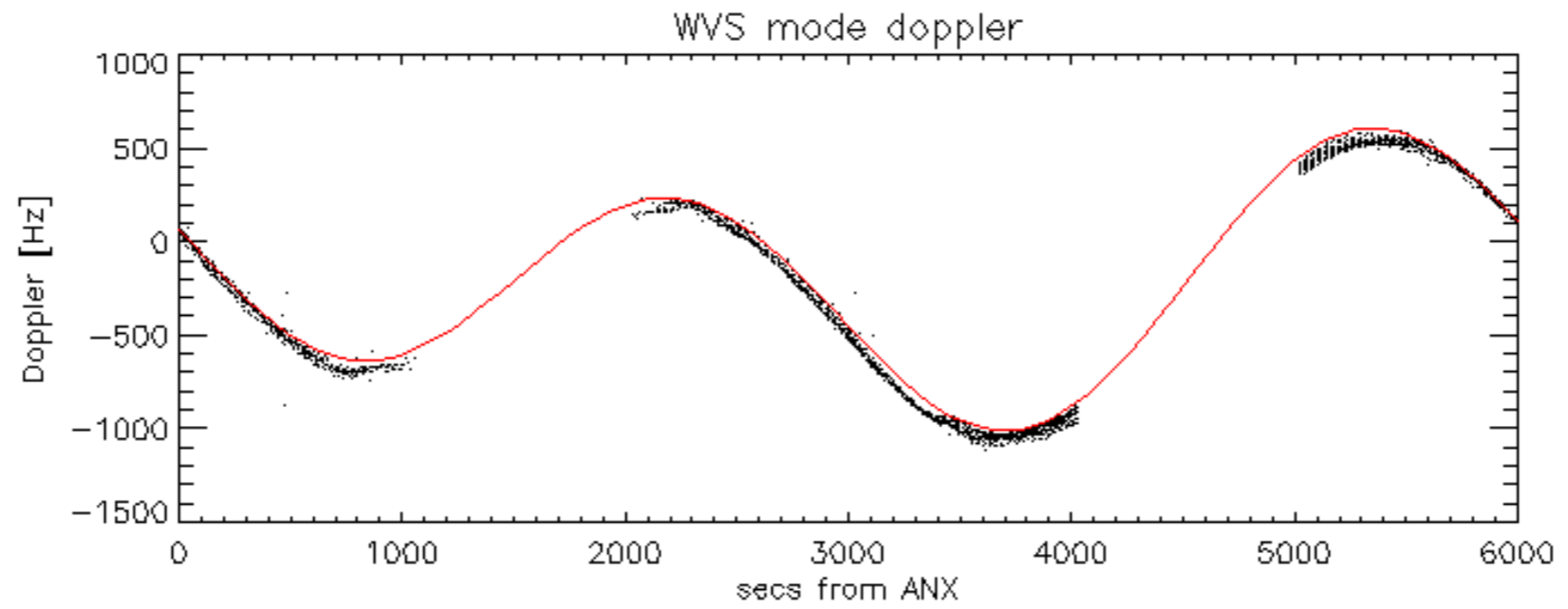


Doppler 'WVS' 'IS2' descending

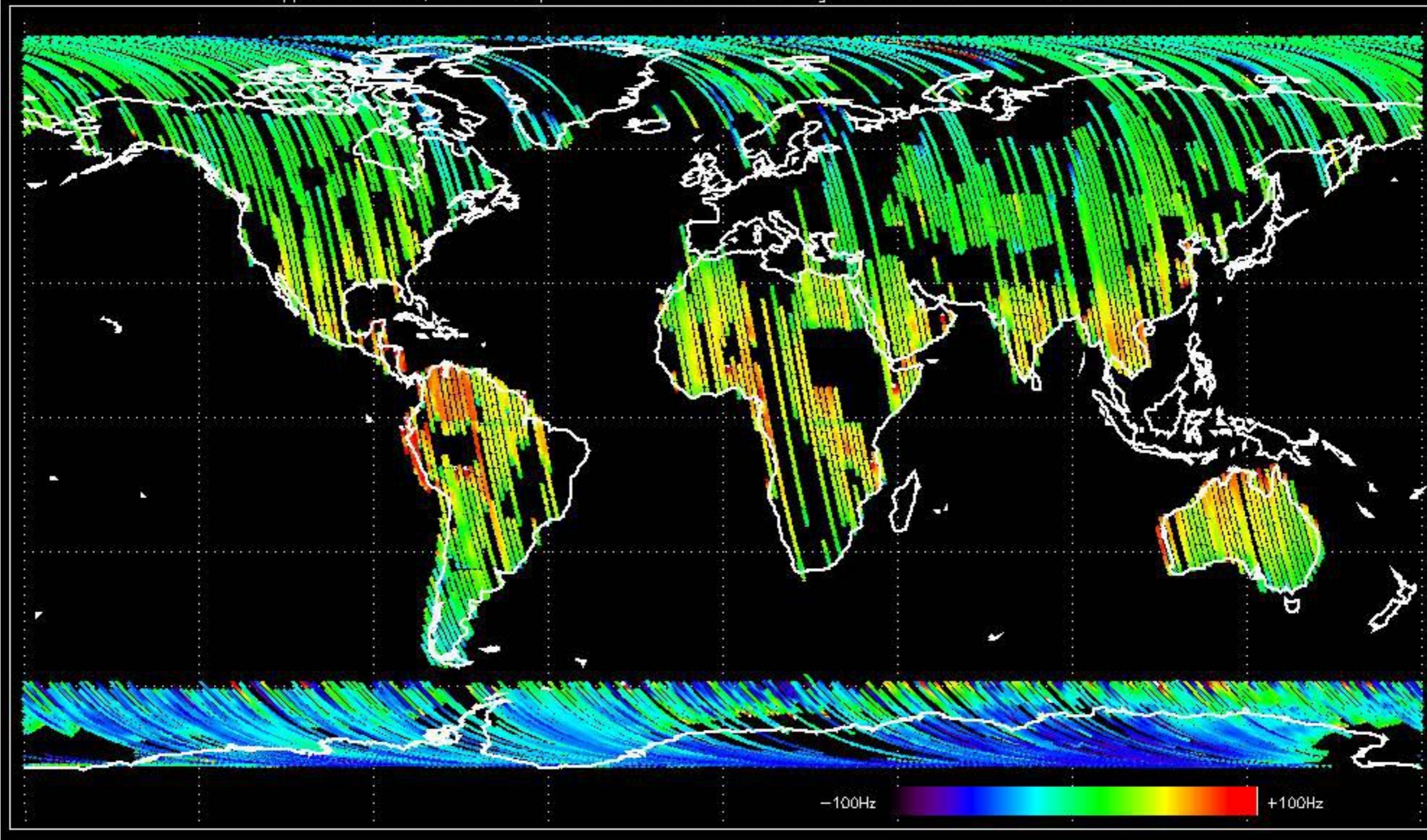


GM1 mode doppler

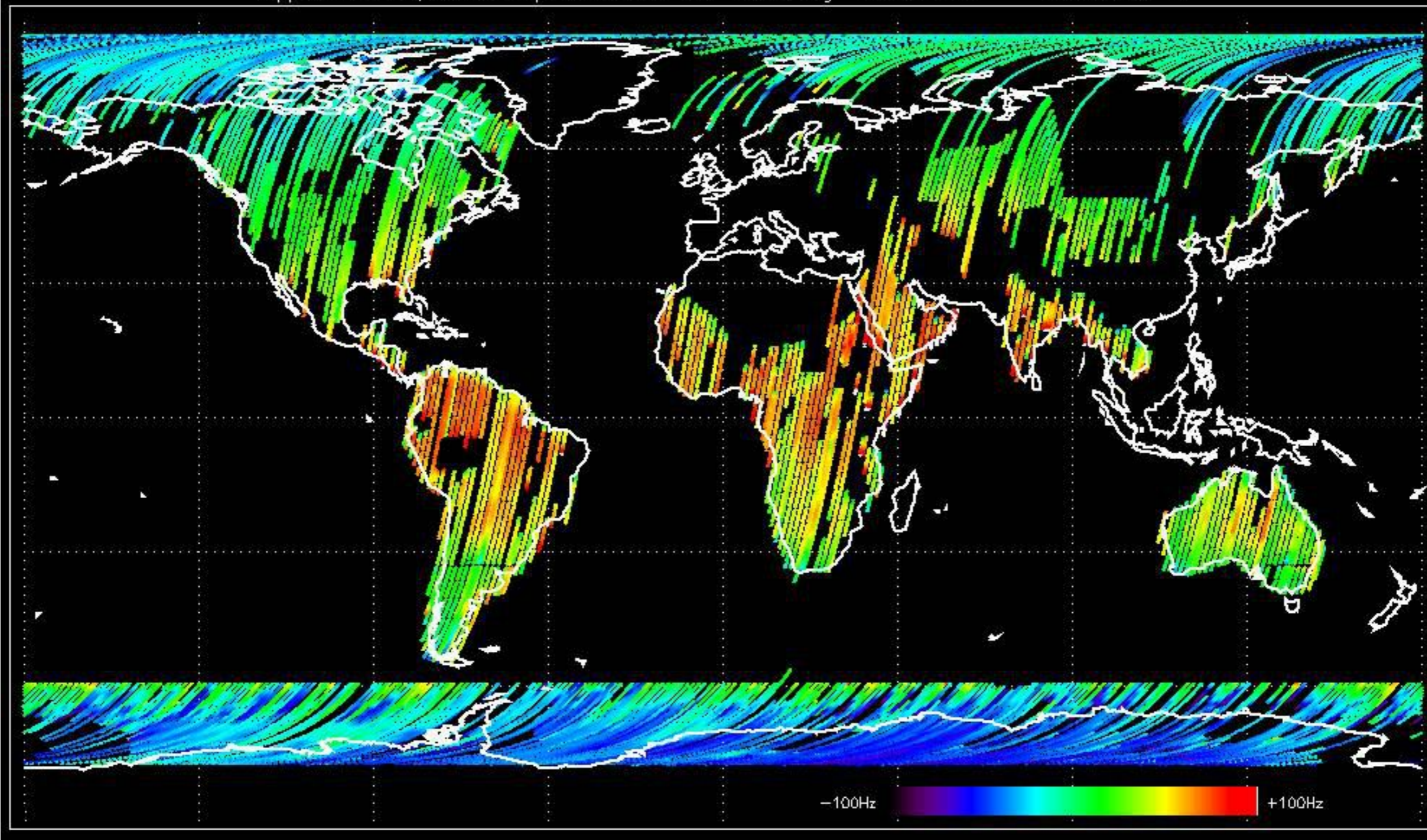




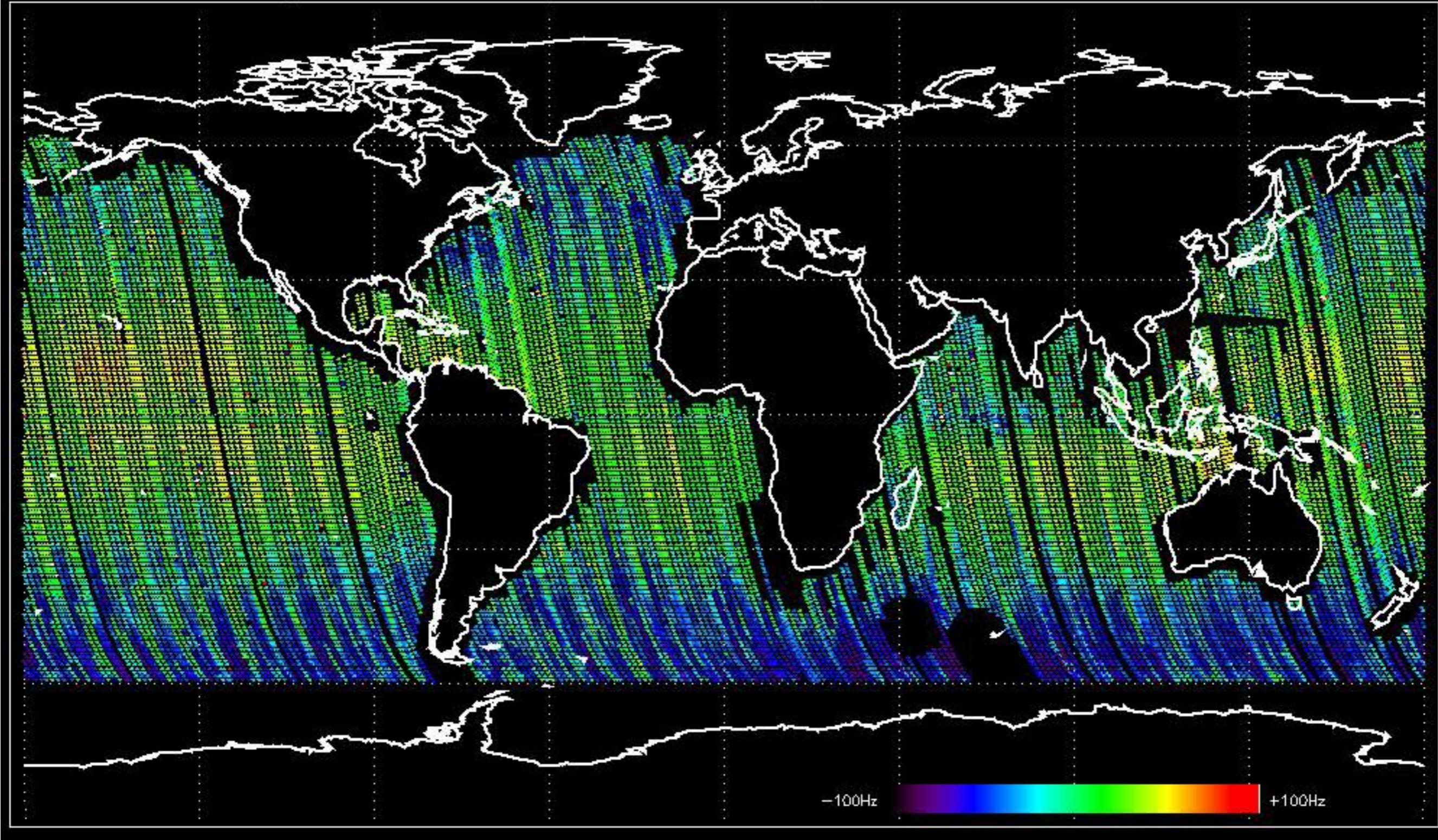
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.656338 Hz



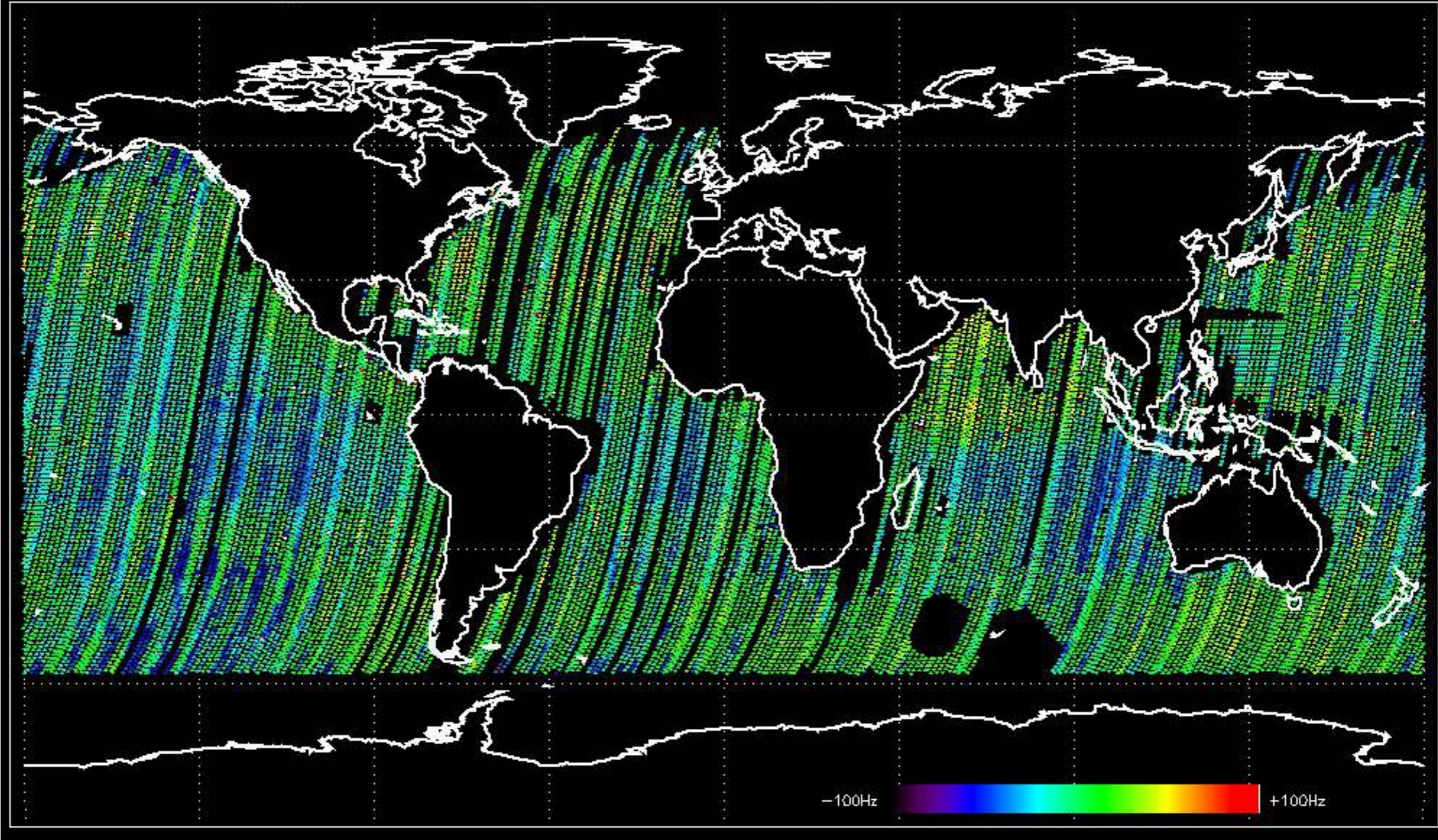
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -34.518881 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -31.873567 Hz

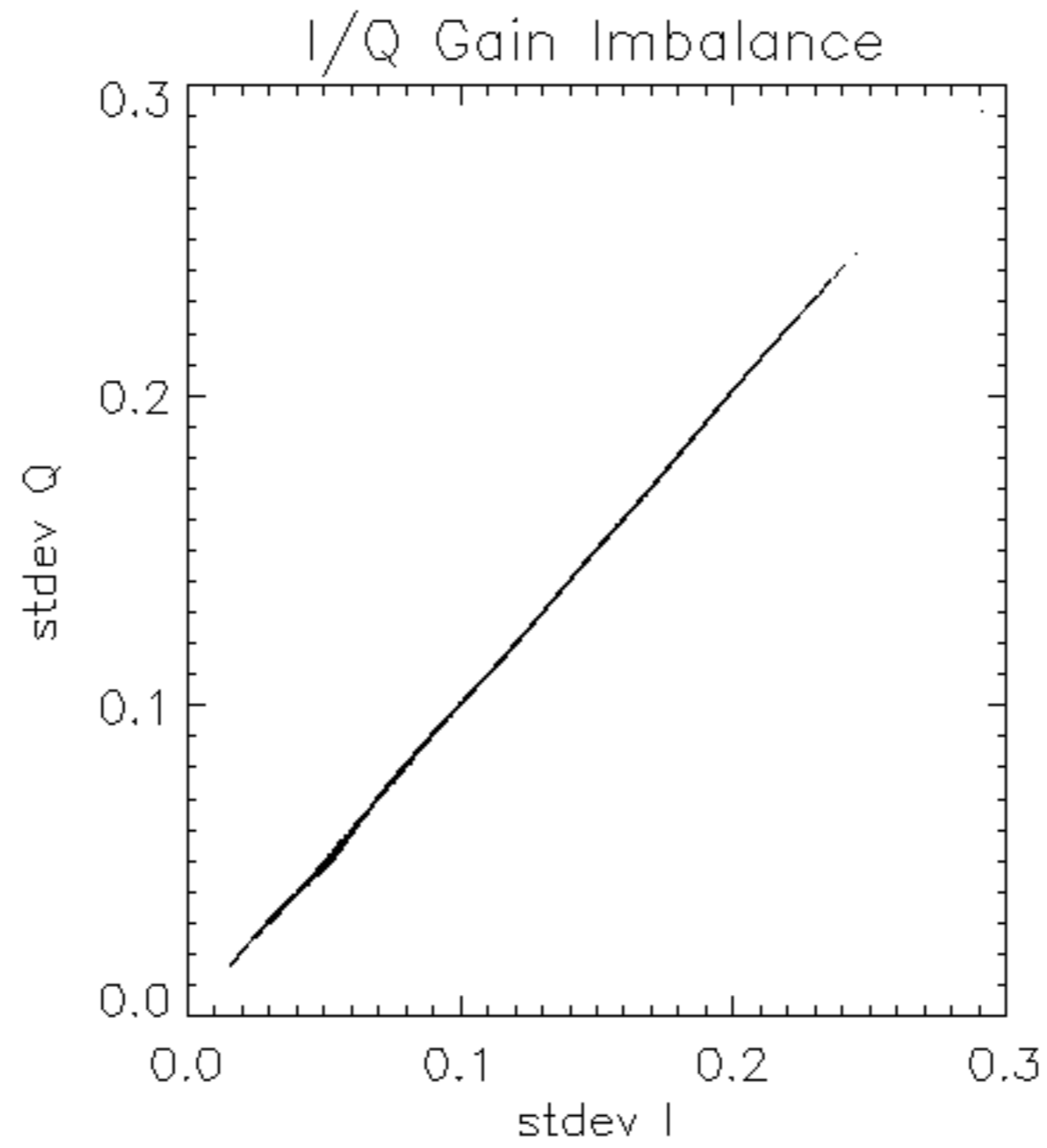


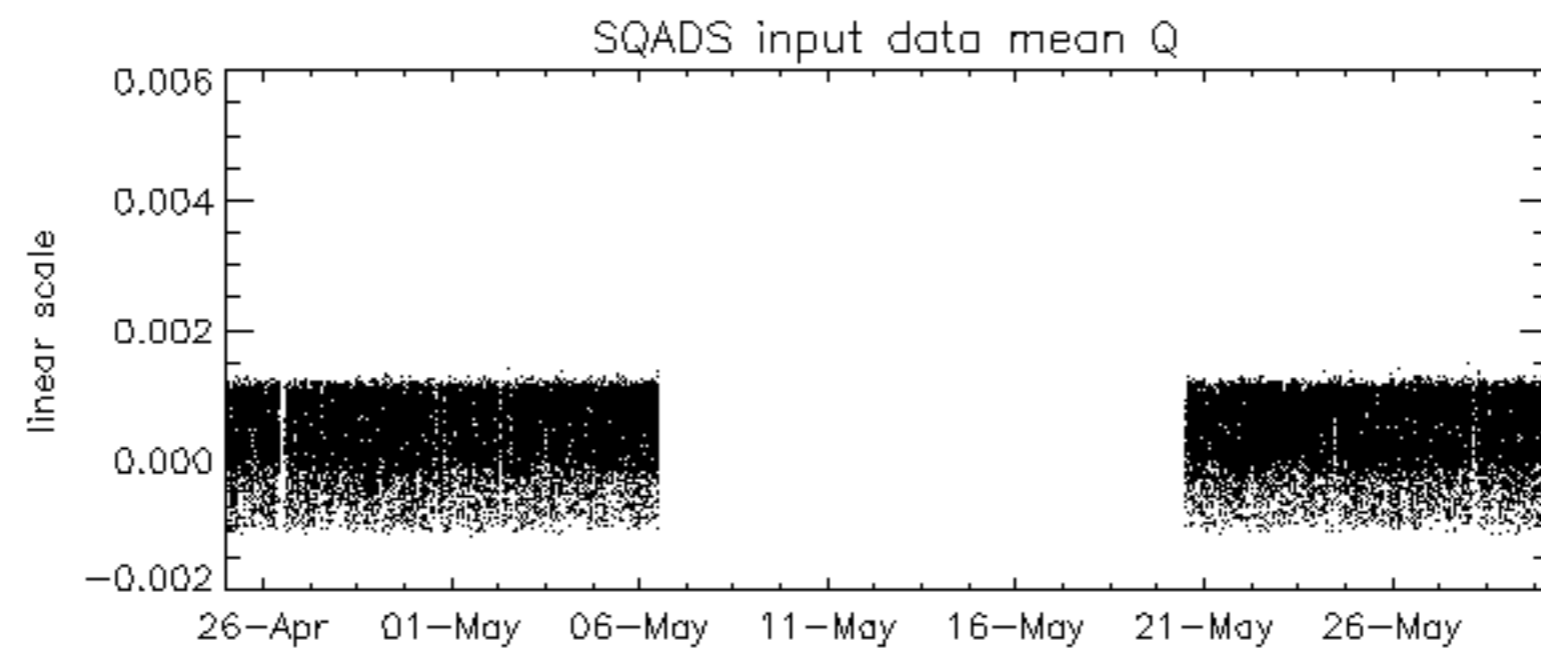
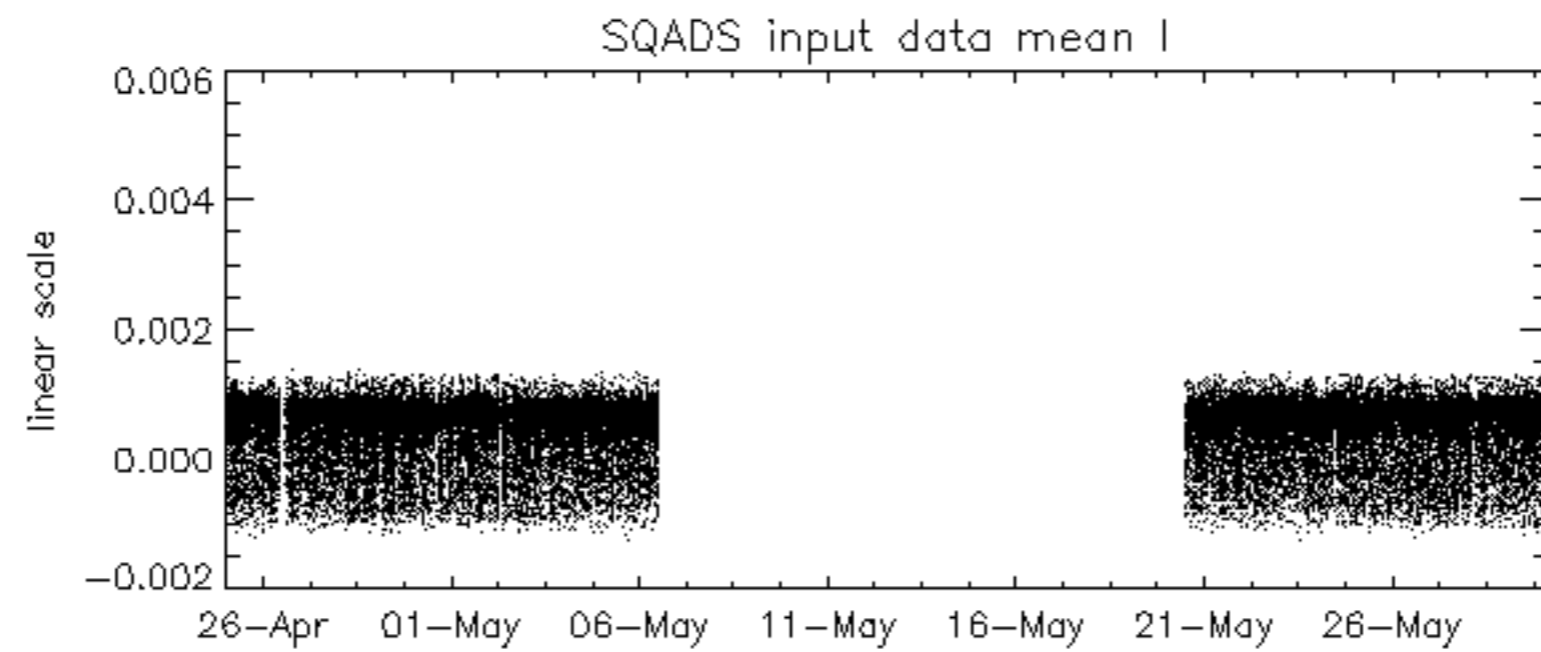
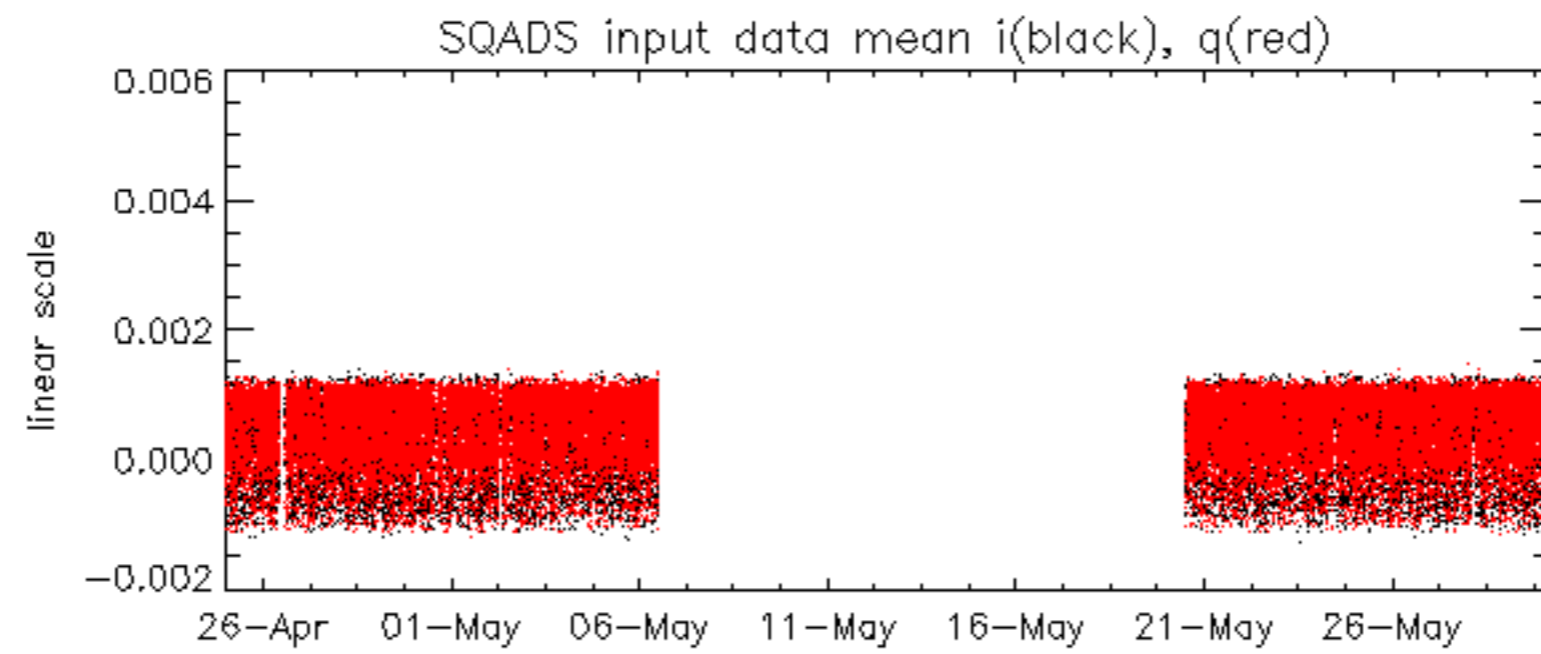
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -37.614318 Hz

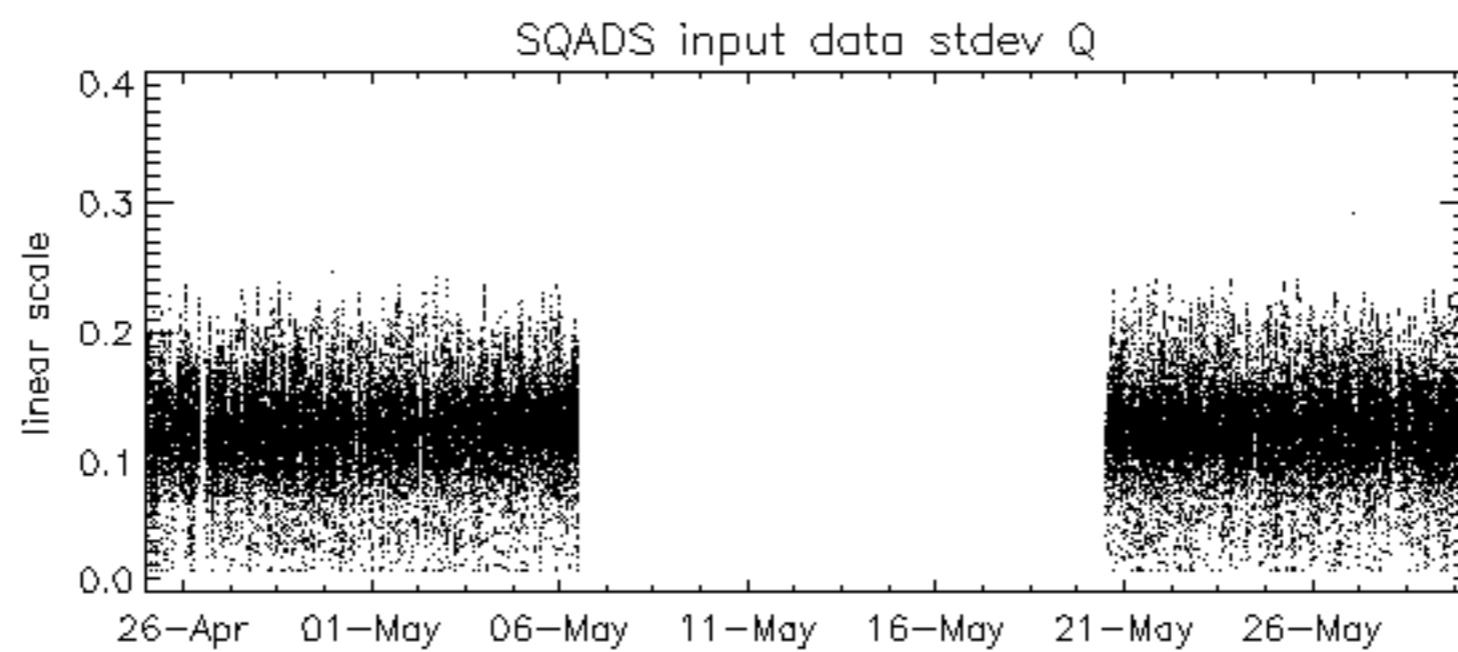
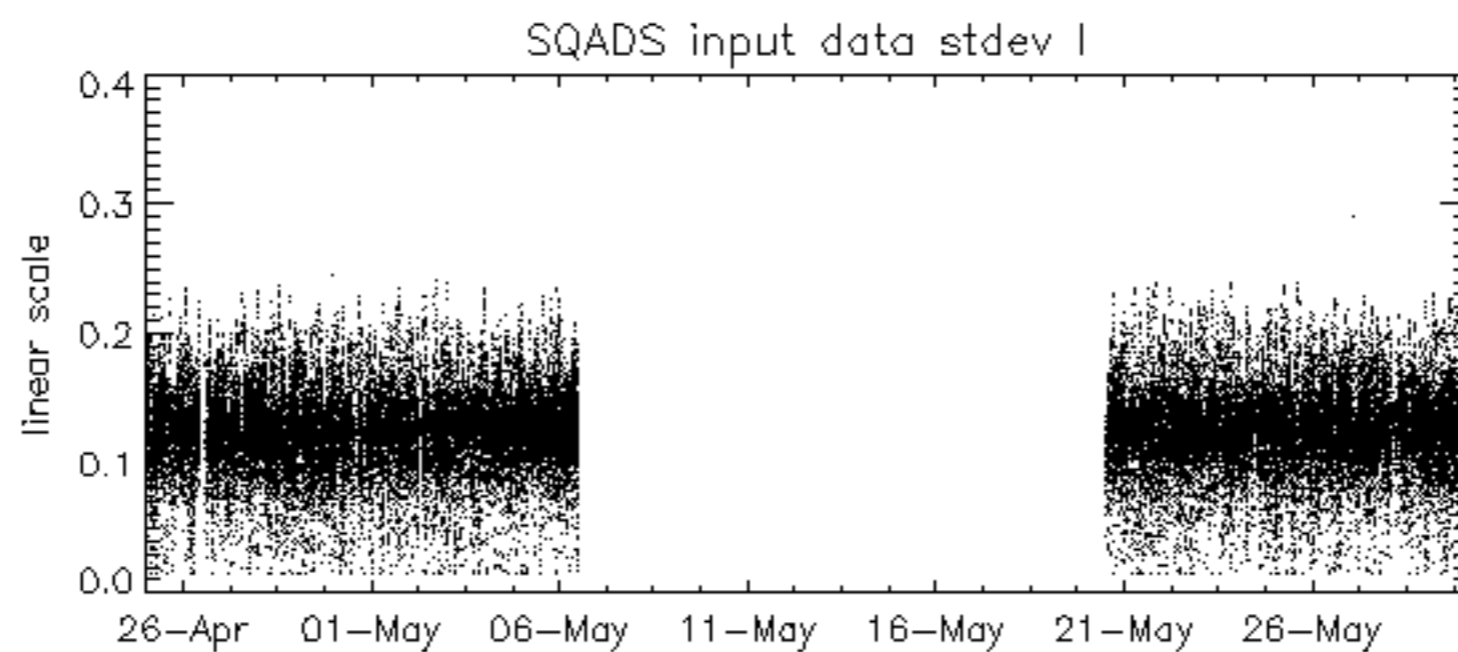
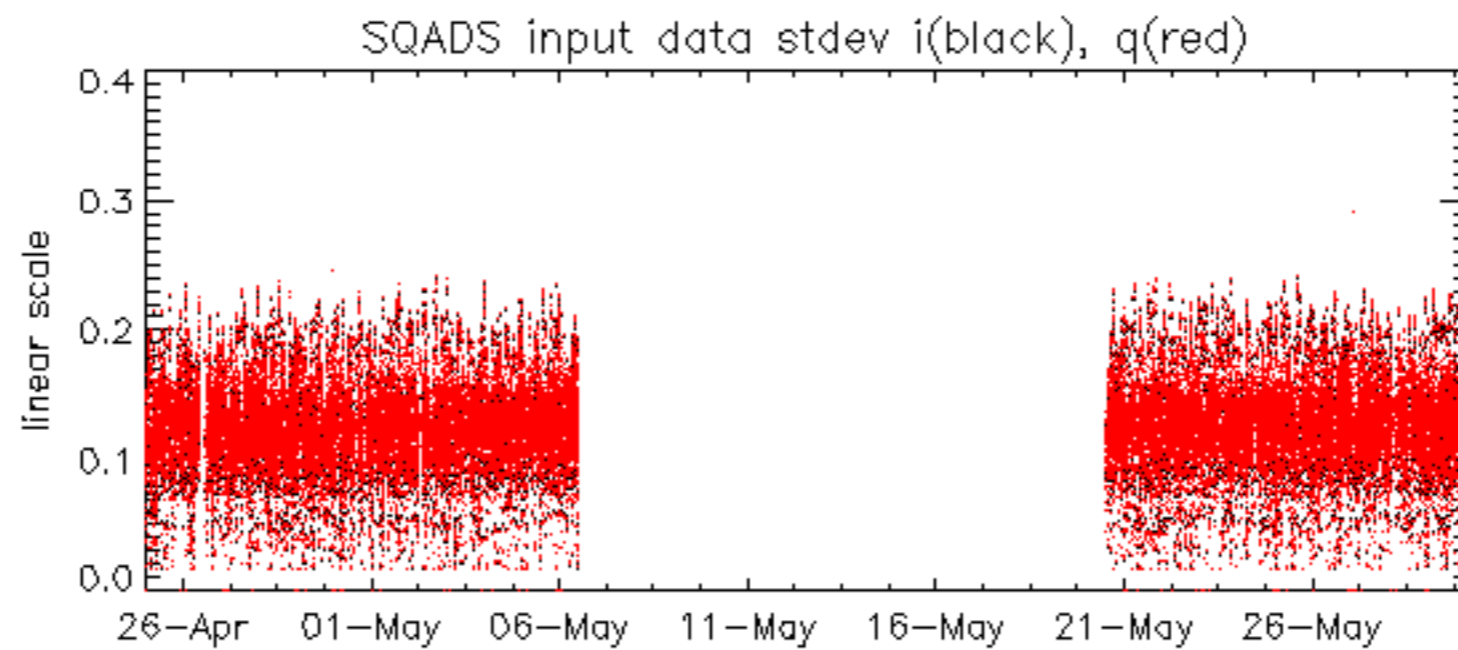


No anomalies observed on available MS products:

No anomalies observed.



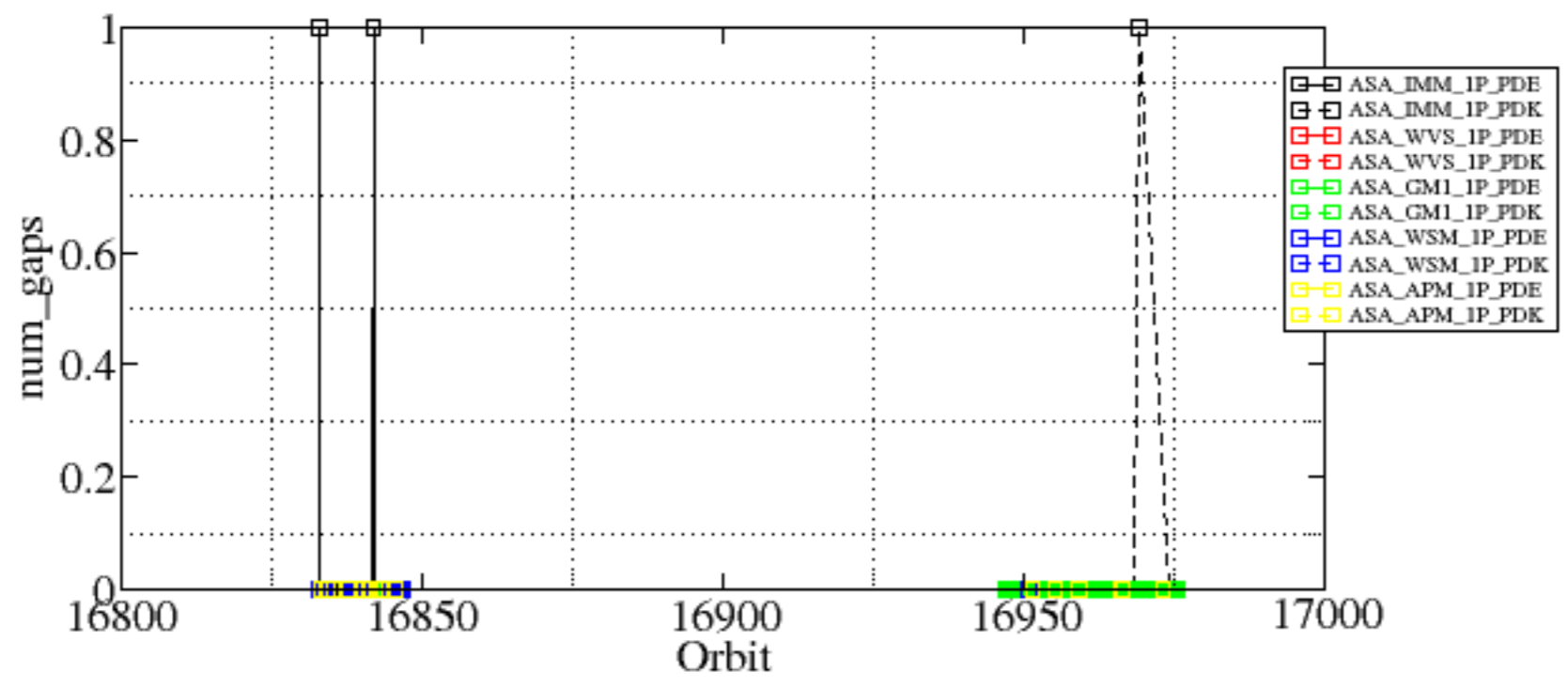


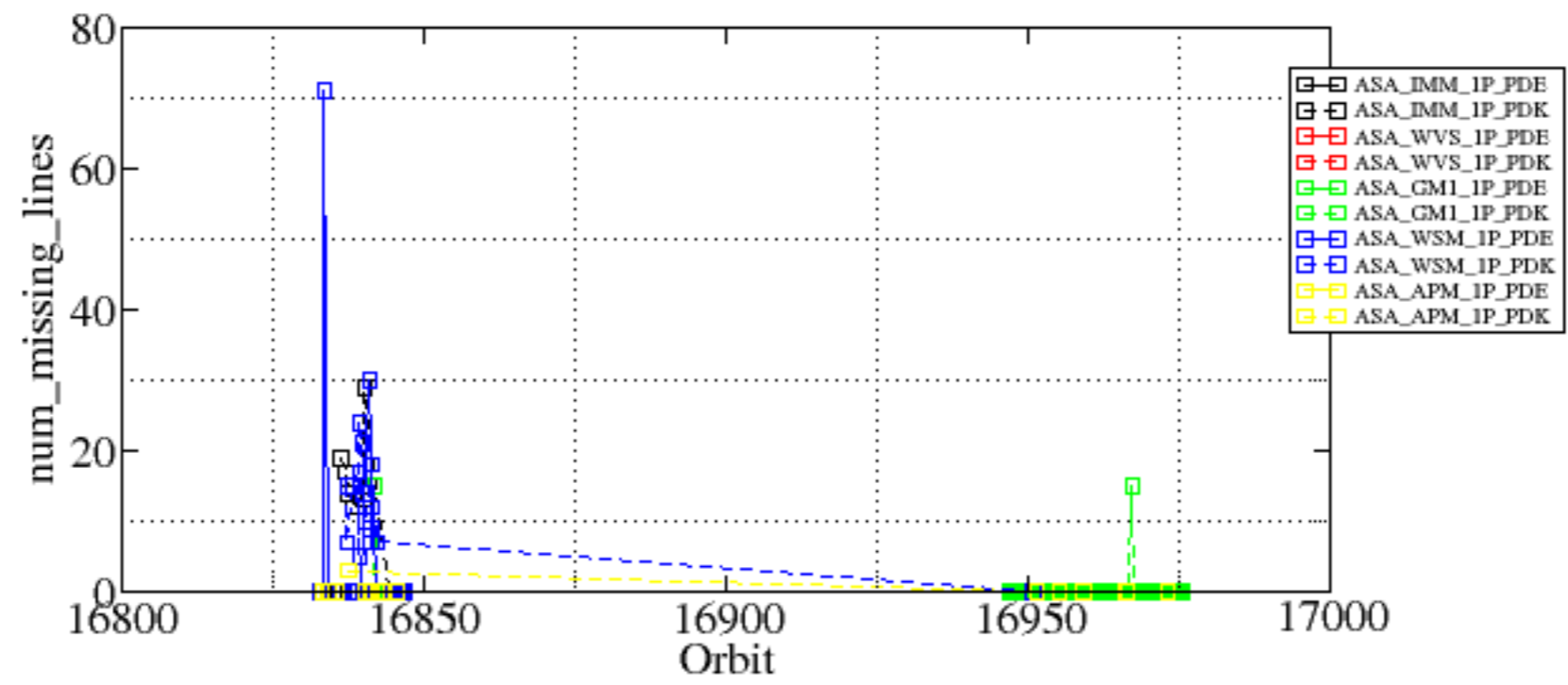


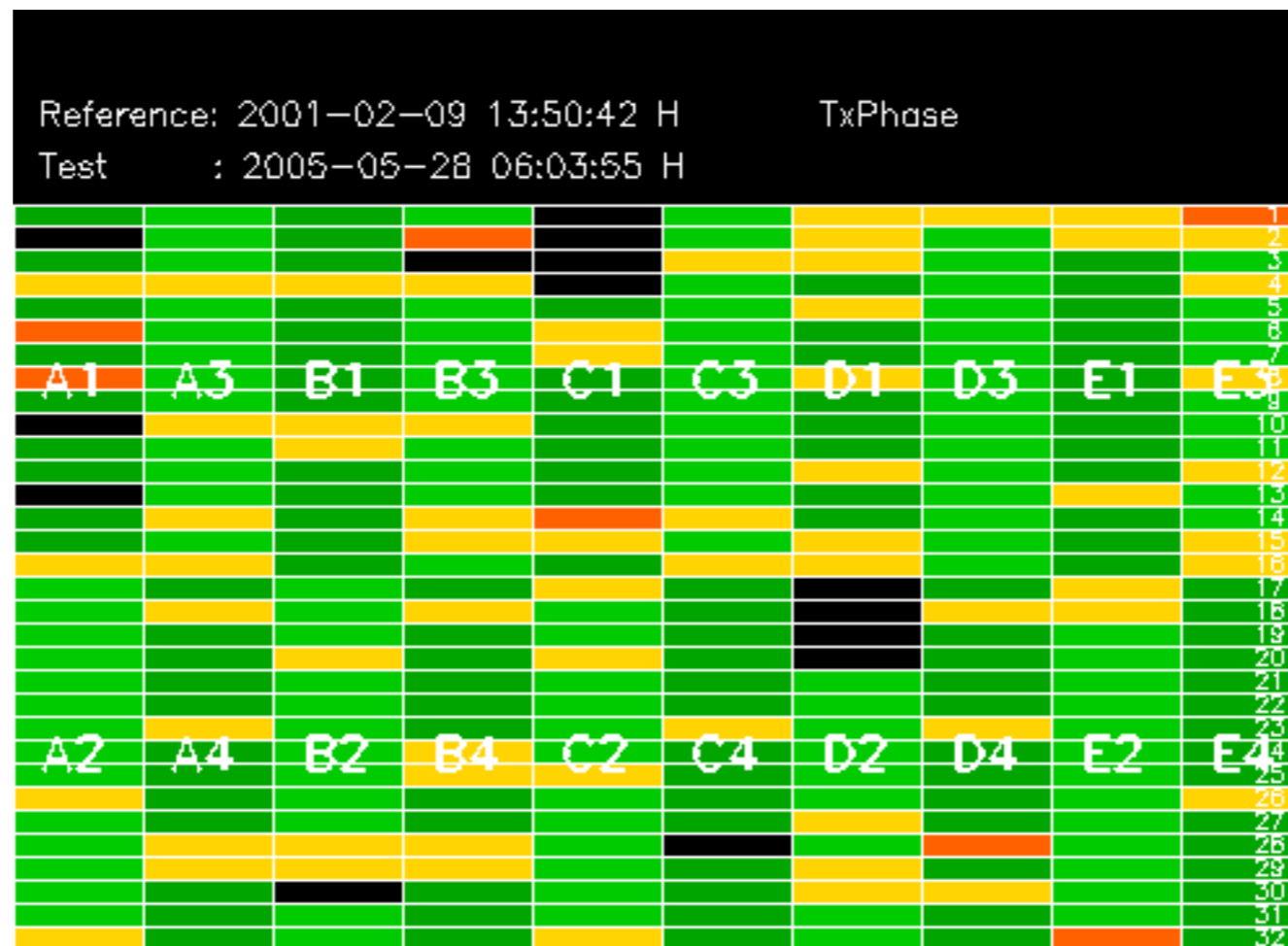
Summary of analysis for the last 3 days 2005052[890]

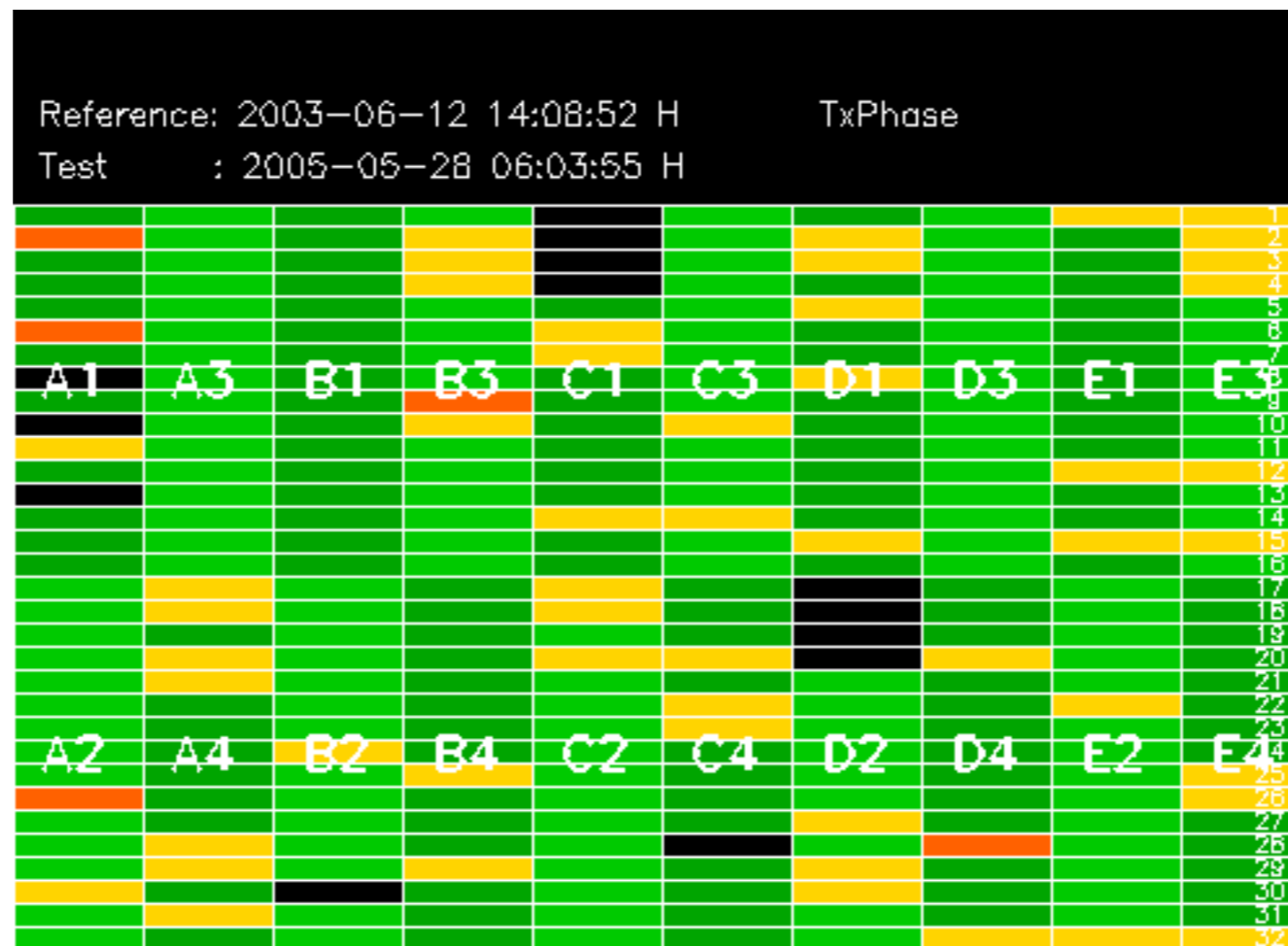
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

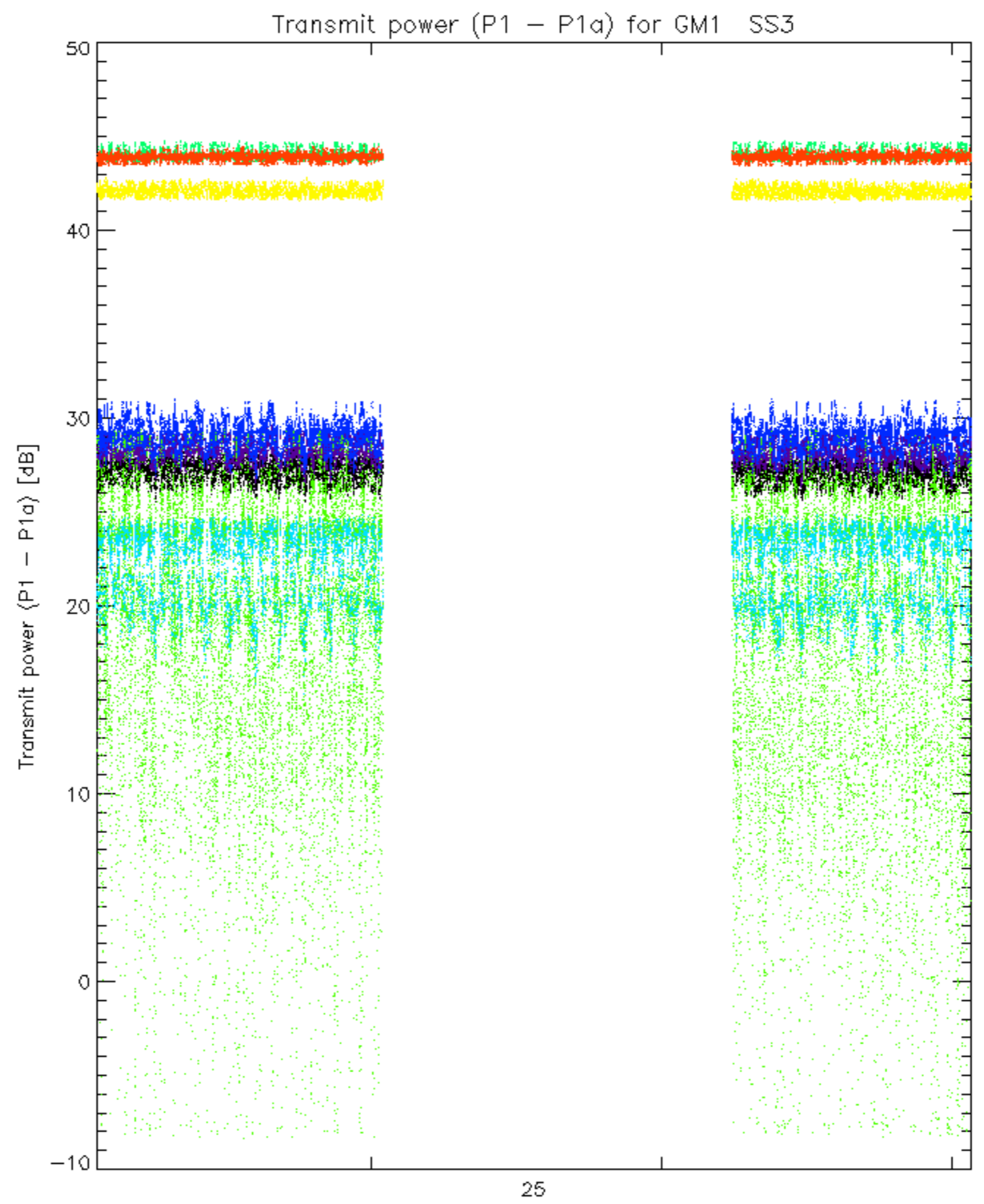
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050520_004259_00000622037_00245_16832_2011.N1	1	0
ASA_IMM_1PNPDE20050520_155124_000001072037_00254_16841_2063.N1	1	0
ASA_IMM_1PNPDK20050520_061446_000004082037_00249_16836_4748.N1	0	19
ASA_IMM_1PNPDK20050520_074429_00000832037_00250_16837_4758.N1	0	17
ASA_IMM_1PNPDK20050520_075913_000003382037_00250_16837_4755.N1	0	14
ASA_IMM_1PNPDK20050520_092334_00000392037_00251_16838_4760.N1	0	12
ASA_IMM_1PNPDK20050520_094552_00000892037_00251_16838_4763.N1	0	15
ASA_IMM_1PNPDK20050520_123932_000001082037_00253_16840_4766.N1	0	13
ASA_IMM_1PNPDK20050520_124234_000001042037_00253_16840_4769.N1	0	29
ASA_IMM_1PNPDK20050529_125923_000001752037_00382_16969_5353.N1	1	0
ASA_GM1_1PNPDK20050520_152850_000003502037_00254_16841_1201.N1	0	15
ASA_GM1_1PNPDK20050529_094407_000007062037_00380_16967_2165.N1	0	15
ASA_WSM_1PNPDE20050520_013211_000003062037_00246_16833_3281.N1	0	71
ASA_WSM_1PNPDE20050520_141507_00000852037_00254_16841_3073.N1	0	30
ASA_WSM_1PNPDK20050520_074638_00000672037_00250_16837_3395.N1	0	15
ASA_WSM_1PNPDK20050520_074847_00000242037_00250_16837_3396.N1	0	7
ASA_WSM_1PNPDK20050520_093856_000004222037_00251_16838_3404.N1	0	15
ASA_WSM_1PNPDK20050520_111920_00000672037_00252_16839_3411.N1	0	17
ASA_WSM_1PNPDK20050520_112029_00000552037_00252_16839_3596.N1	0	5
ASA_WSM_1PNPDK20050520_112129_000002252037_00252_16839_3412.N1	0	24
ASA_WSM_1PNPDK20050520_120732_000001472037_00252_16839_3422.N1	0	21
ASA_WSM_1PNPDK20050520_122648_000001712037_00252_16839_3421.N1	0	14
ASA_WSM_1PNPDK20050520_130156_000001042037_00253_16840_3423.N1	0	10
ASA_WSM_1PNPDK20050520_143056_000002442037_00254_16841_3435.N1	0	18
ASA_WSM_1PNPDK20050520_143640_00000672037_00254_16841_3423.N1	0	12
ASA_WSM_1PNPDK20050520_143747_00000612037_00254_16841_3424.N1	0	9
ASA_WSM_1PNPDK20050520_143849_00000552037_00254_16841_3425.N1	0	7
ASA_WSM_1PNPDK20050520_143944_00000612037_00254_16841_3426.N1	0	12
ASA_WSM_1PNPDK20050520_144045_00000612037_00254_16841_3427.N1	0	18
ASA_WSM_1PNPDK20050520_160911_000002262037_00255_16842_3441.N1	0	7
ASA_APM_1PNPDK20050520_081555_00000112037_00250_16837_2095.N1	0	3



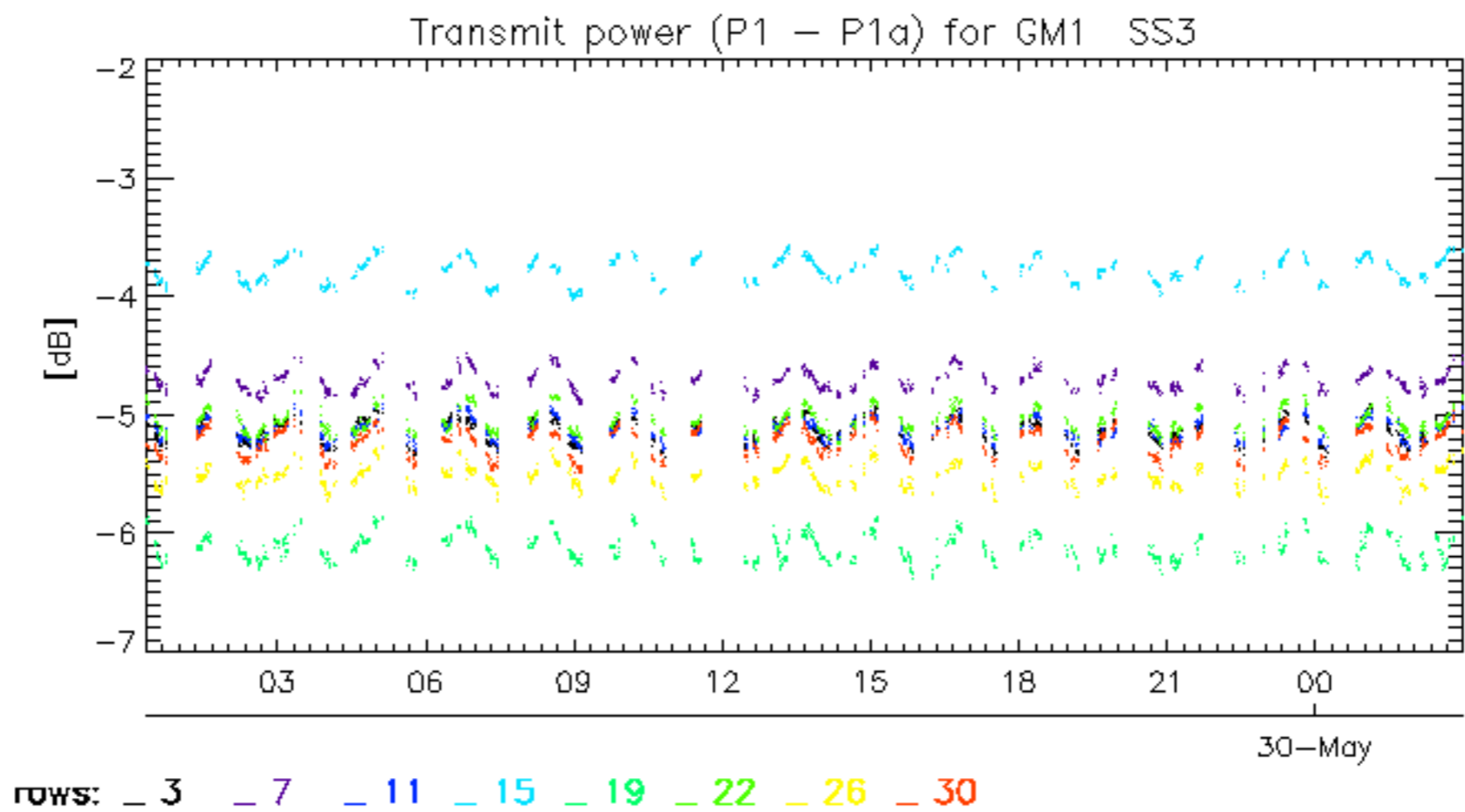


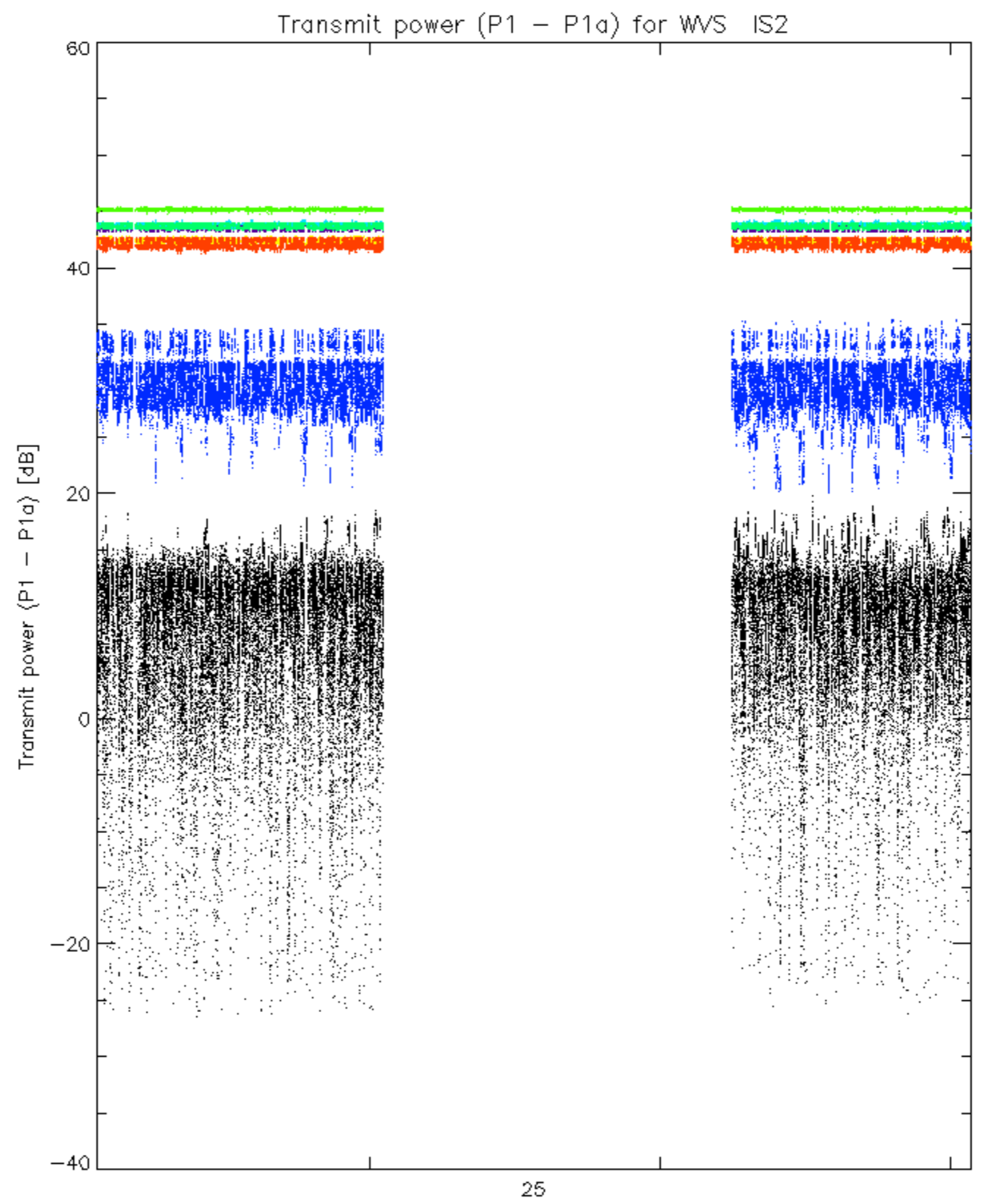




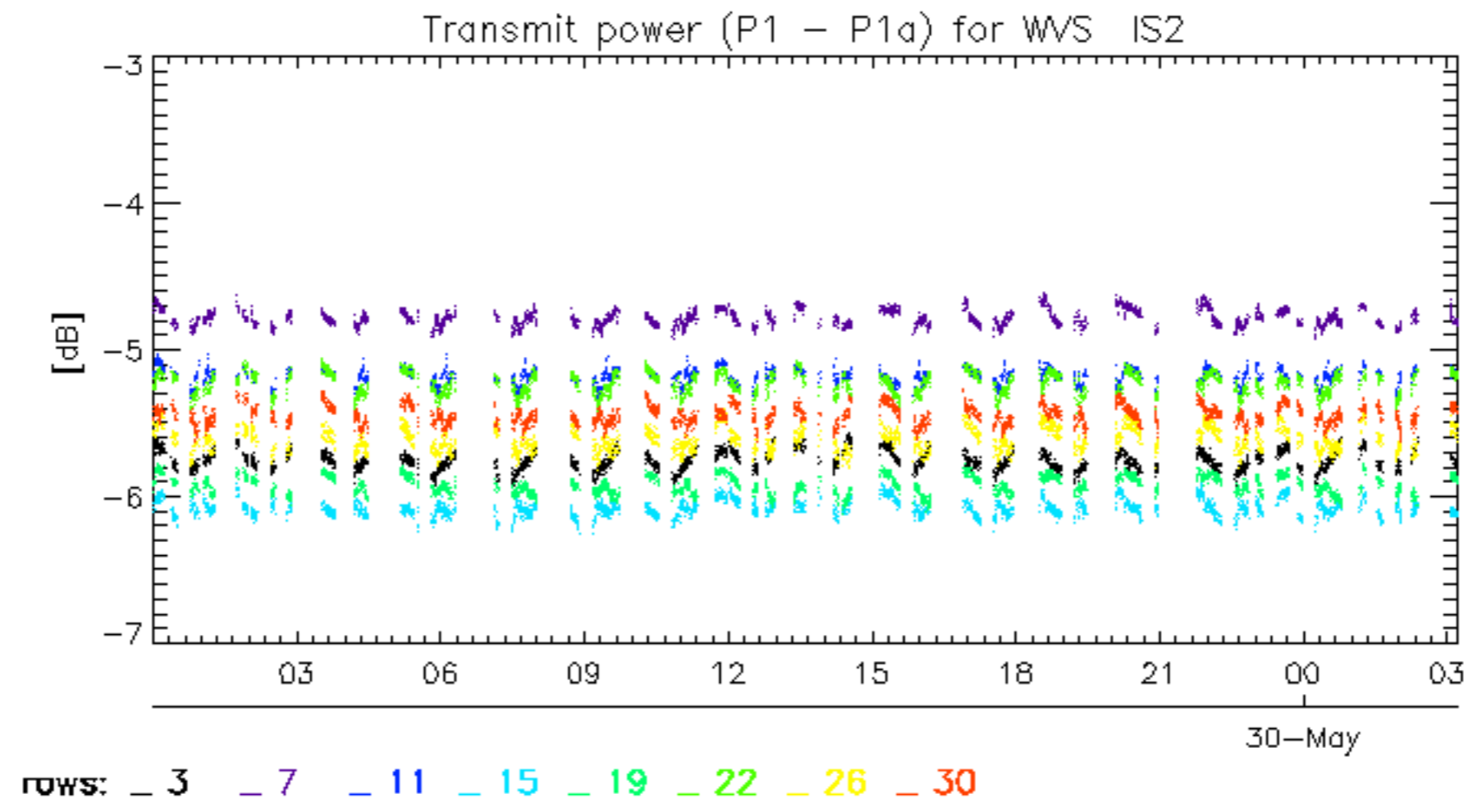


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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No unavailabilities during the reported period.