

PRELIMINARY REPORT OF 060702

last update on Sun Jul 2 16:47:25 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 2006-07-01 00:00:00 to 2006-07-02 16:47:25

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	70	17	0	22
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	70	17	0	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	70	17	0	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	70	17	0	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	45	32	16	73
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	45	32	16	73
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	45	32	16	73
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	45	32	16	73

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	20060702 095348
H	20060701 084449

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	-3.938899	0.047882	-0.035343
7	P1	-3.133834	0.012569	0.025163
11	P1	-4.100989	0.016434	0.015865
15	P1	-6.160908	0.011463	-0.035597
19	P1	-3.366929	0.008650	-0.049959
22	P1	-4.526256	0.011382	-0.048539
26	P1	-3.960187	0.017587	0.034280
30	P1	-5.755619	0.008794	-0.026088
3	P1	-16.534697	0.633094	-0.054234
7	P1	-17.238737	0.110875	0.053030
11	P1	-16.975388	0.280128	-0.037722
15	P1	-13.172005	0.158805	0.036578
19	P1	-14.374542	0.050342	-0.130750
22	P1	-16.135323	0.382587	0.124386
26	P1	-15.182275	0.230113	0.081093
30	P1	-17.144644	0.405363	0.011764

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.094547	0.083535	0.151540
7	P2	-21.989780	0.099729	0.097528
11	P2	-15.837483	0.113457	0.088117
15	P2	-7.154045	0.096726	0.011342
19	P2	-9.164527	0.088393	0.036743
22	P2	-18.168665	0.084494	0.001255
26	P2	-16.409744	0.090284	-0.009877
30	P2	-19.551733	0.089489	0.010280

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184648	0.003759	-0.004411
7	P3	-8.184648	0.003759	-0.004411
11	P3	-8.184648	0.003759	-0.004411
15	P3	-8.184648	0.003759	-0.004411
19	P3	-8.184648	0.003759	-0.004411
22	P3	-8.184648	0.003759	-0.004411
26	P3	-8.184648	0.003759	-0.004411
30	P3	-8.184648	0.003759	-0.004411

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	-3.805394	0.066570	-0.011196
7	P1	-2.575122	0.008637	0.038619
11	P1	-2.856999	0.013576	0.003153
15	P1	-3.528790	0.027804	-0.053529
19	P1	-3.413750	0.014391	-0.018113
22	P1	-5.085631	0.019846	-0.007951
26	P1	-5.857939	0.016209	-0.020345
30	P1	-5.191034	0.026555	-0.005778
3	P1	-11.623362	0.177724	0.027181
7	P1	-9.981687	0.033107	0.016772
11	P1	-10.237671	0.059386	0.003412
15	P1	-10.699368	0.130220	-0.082852
19	P1	-15.539233	0.078497	-0.014907
22	P1	-20.945492	1.161971	-0.020584
26	P1	-16.432409	0.340768	0.110358
30	P1	-17.870329	0.378446	0.072806

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.765141	0.075105	0.197482
7	P2	-22.462976	0.131841	0.061491
11	P2	-11.116631	0.048380	0.099727
15	P2	-4.922037	0.048898	-0.016153
19	P2	-6.882317	0.053555	-0.005147
22	P2	-8.207307	0.042908	0.000332
26	P2	-24.165751	0.069462	-0.071300
30	P2	-22.049278	0.055790	0.042638

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019987	0.004543	-0.004659
7	P3	-8.020154	0.004525	-0.004558
11	P3	-8.020035	0.004544	-0.004523
15	P3	-8.019981	0.004546	-0.004452
19	P3	-8.020004	0.004547	-0.004402
22	P3	-8.020108	0.004534	-0.004304
26	P3	-8.020170	0.004544	-0.004516
30	P3	-8.020032	0.004519	-0.004574

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	0.000566648
	stdev	1.68016e-07
MEAN Q	mean	0.000528535
	stdev	2.19367e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137529
	stdev	0.00116408
STDEV Q	mean	0.137892
	stdev	0.00118195



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[012]

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_1PNPDE20060701_005030_000002372049_00059_22658_0198.N1	1	0
ASA_IMM_1PNPDE20060701_065011_000000362049_00063_22662_0225.N1	1	0
ASA_IMM_1PNPDE20060701_111215_000000512049_00066_22665_0227.N1	1	0
ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64







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)


Acsending

<input type="checkbox"/>
Descending

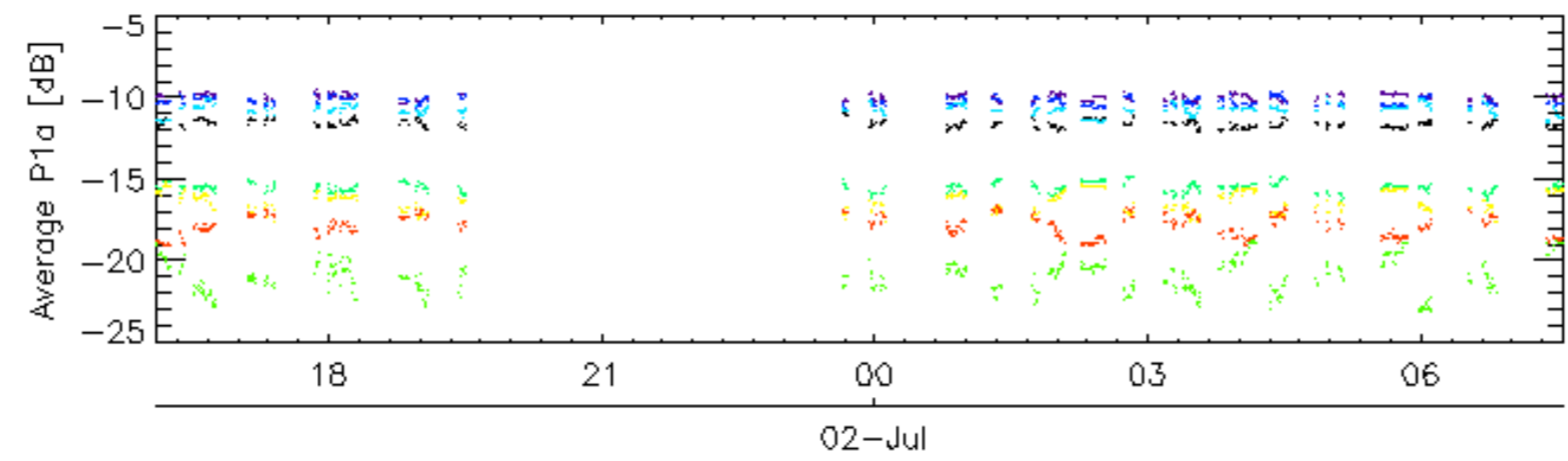
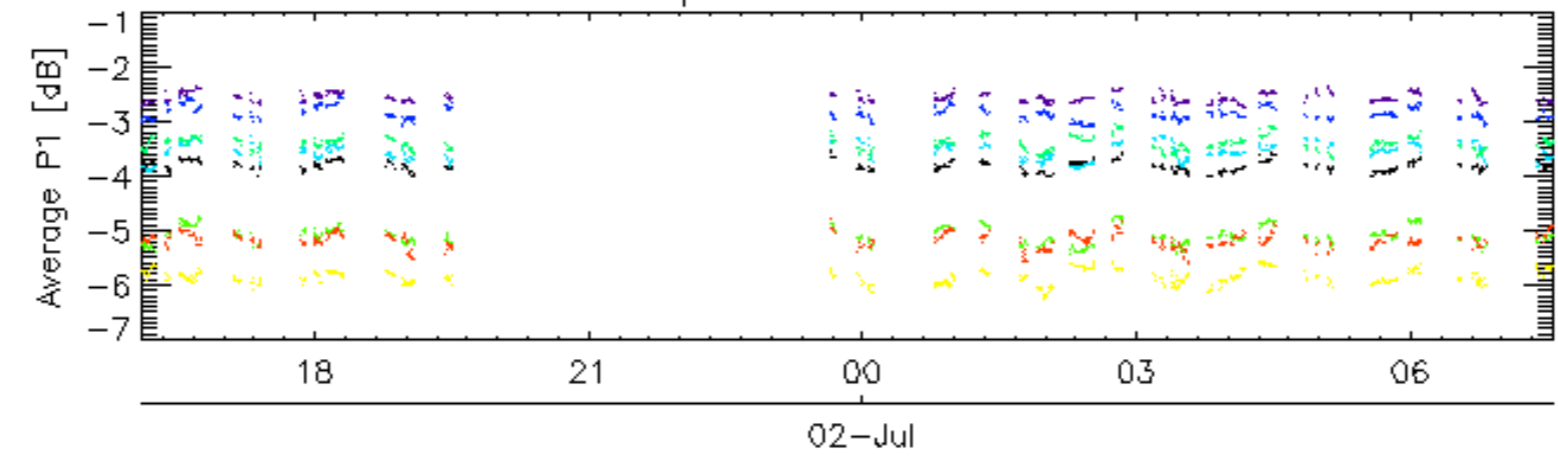
7.5 - Absolute Doppler for GM1

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

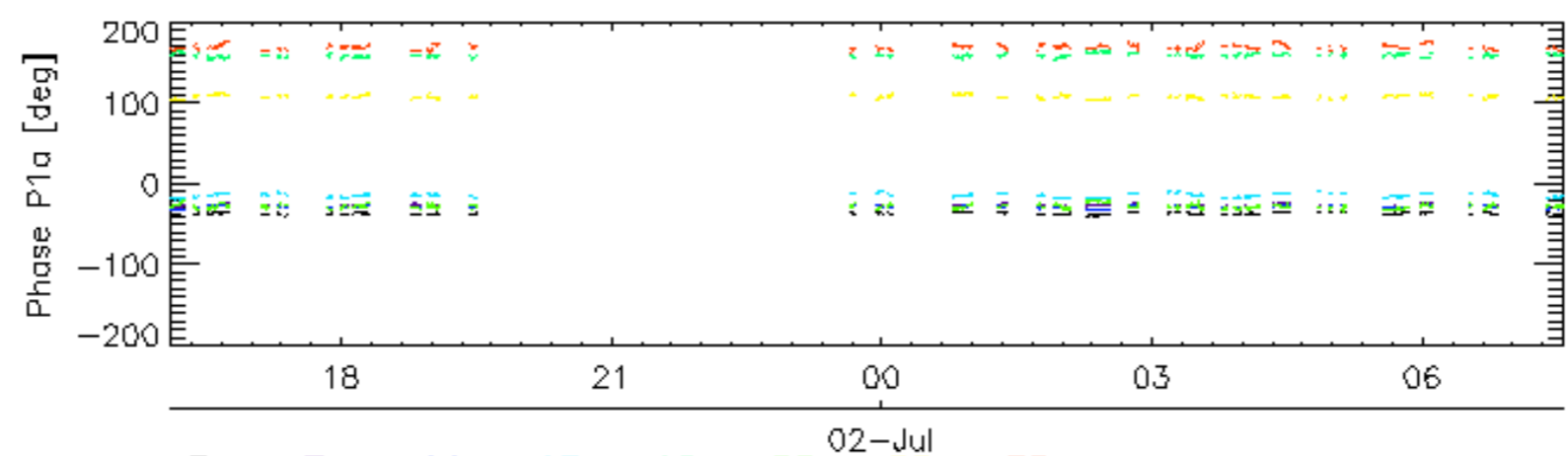
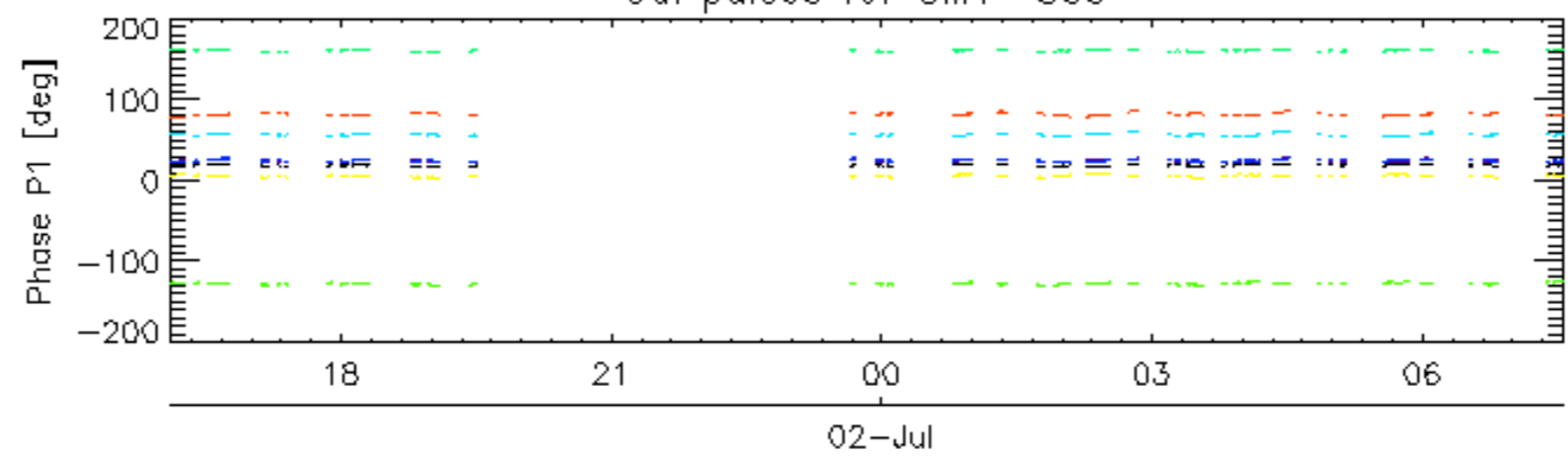
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

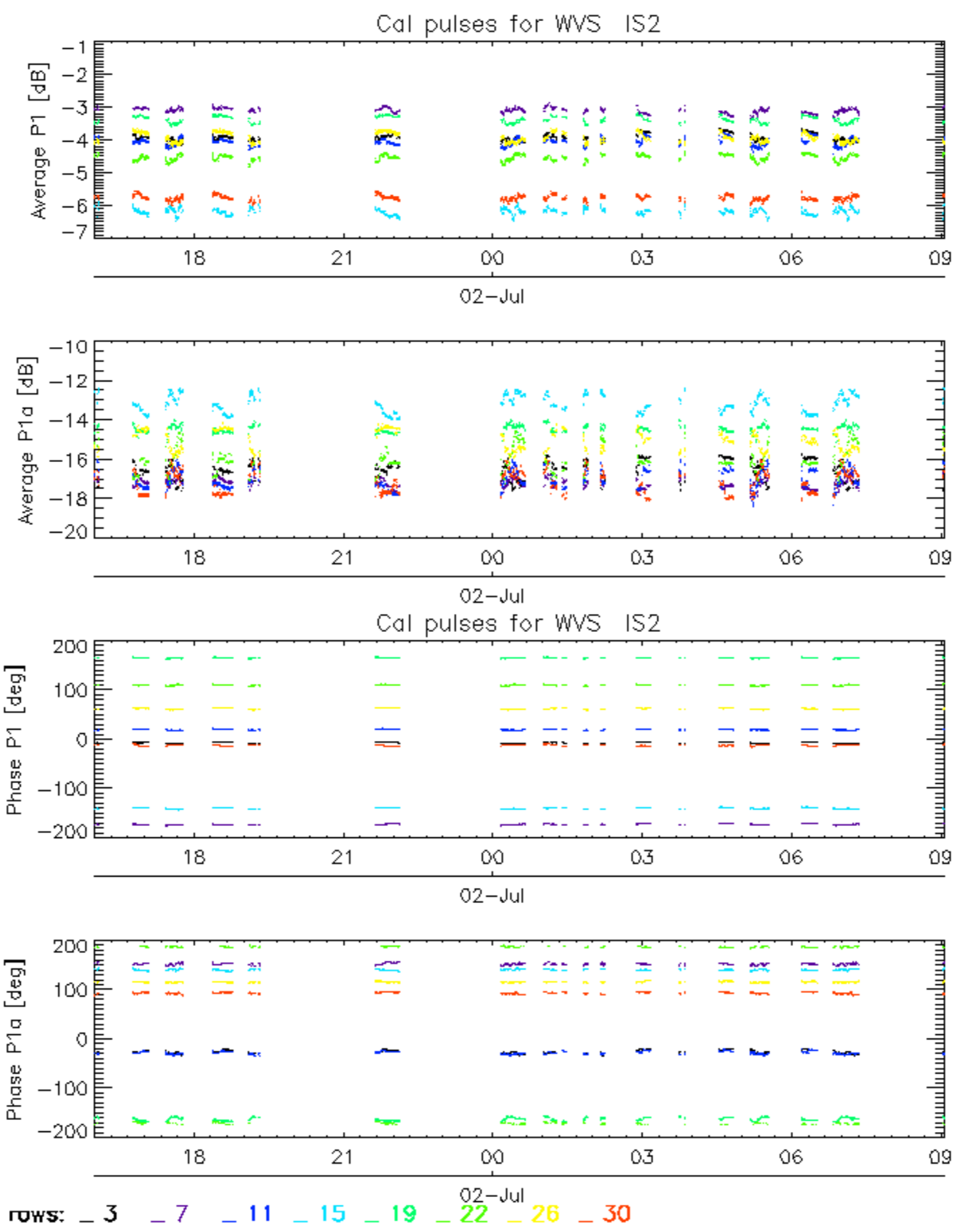
Cal pulses for GM1 SS3



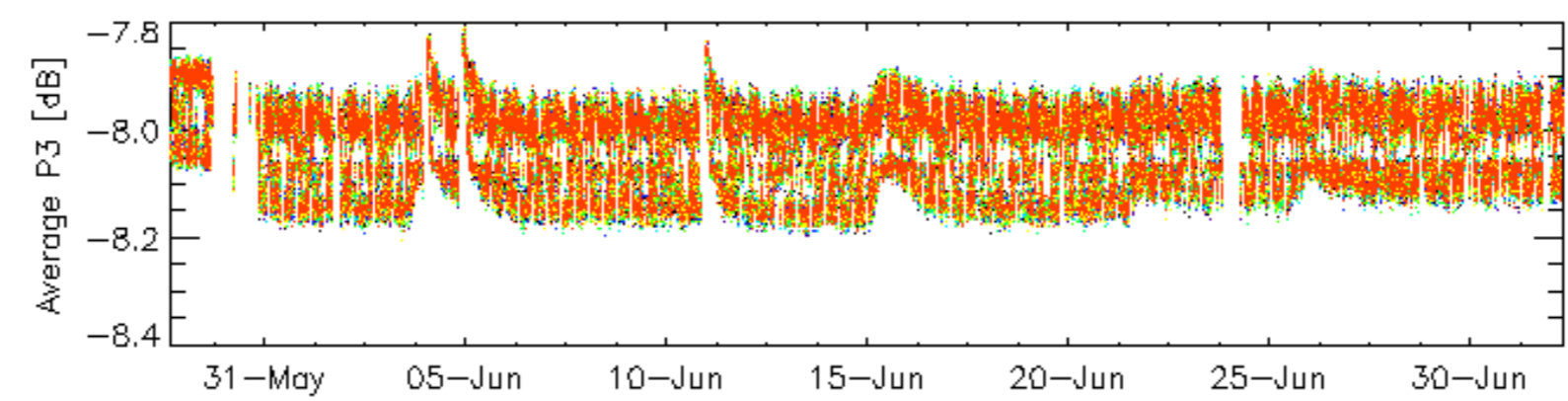
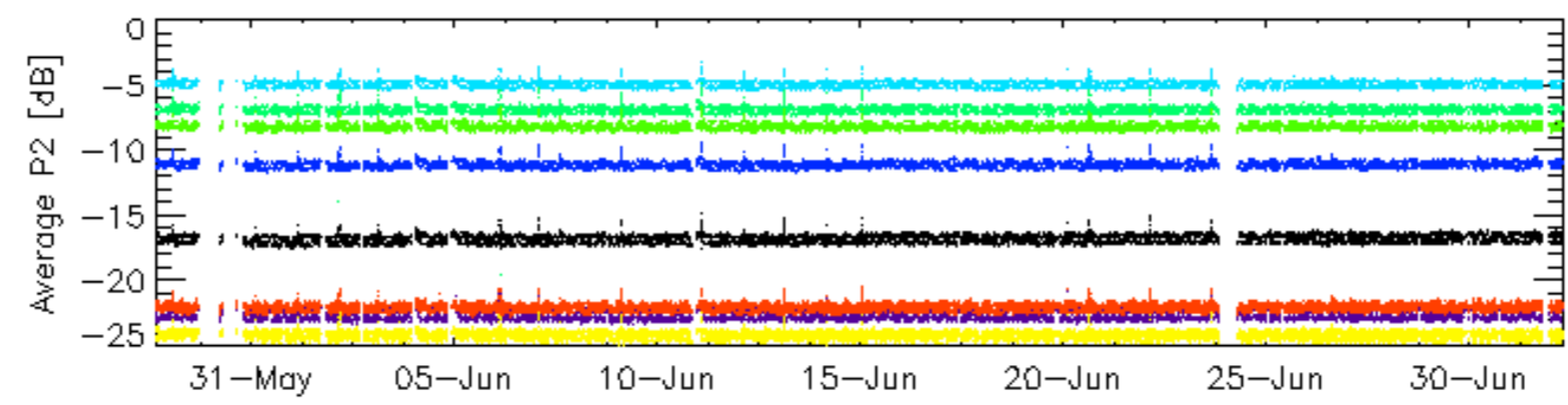
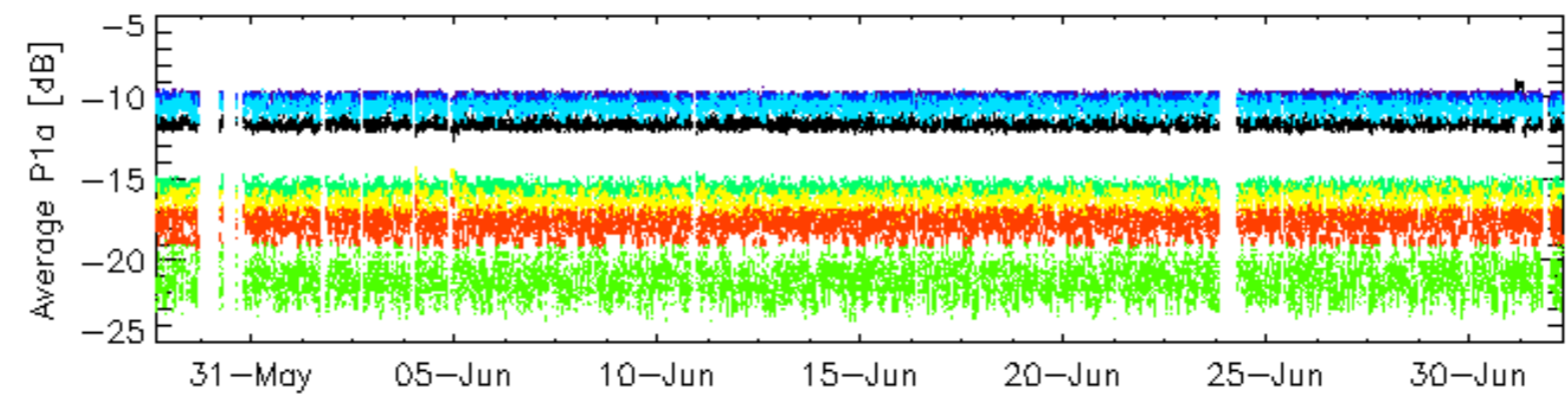
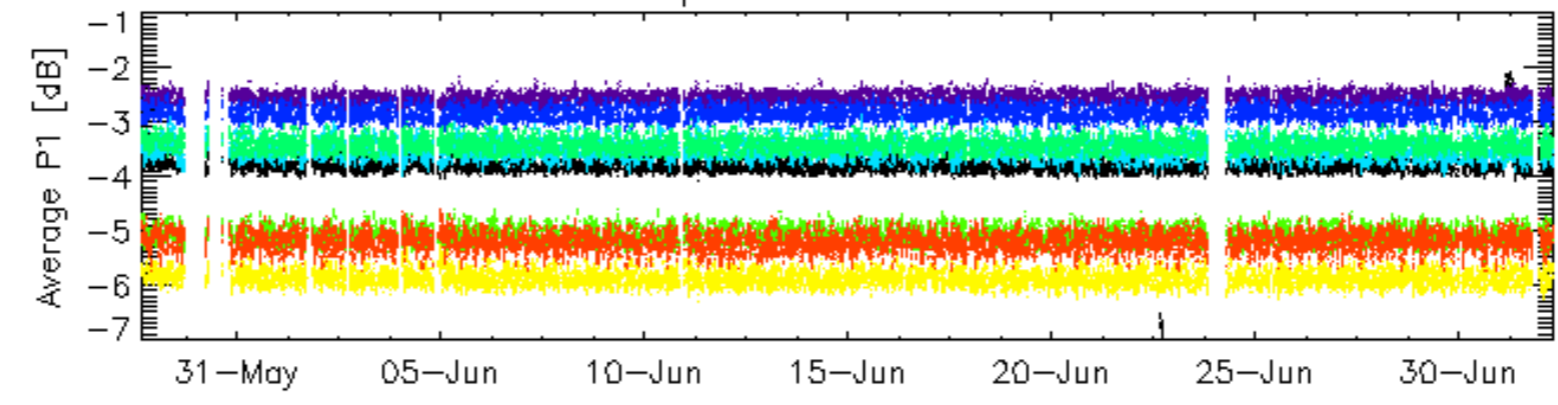
Cal pulses for GM1 SS3



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

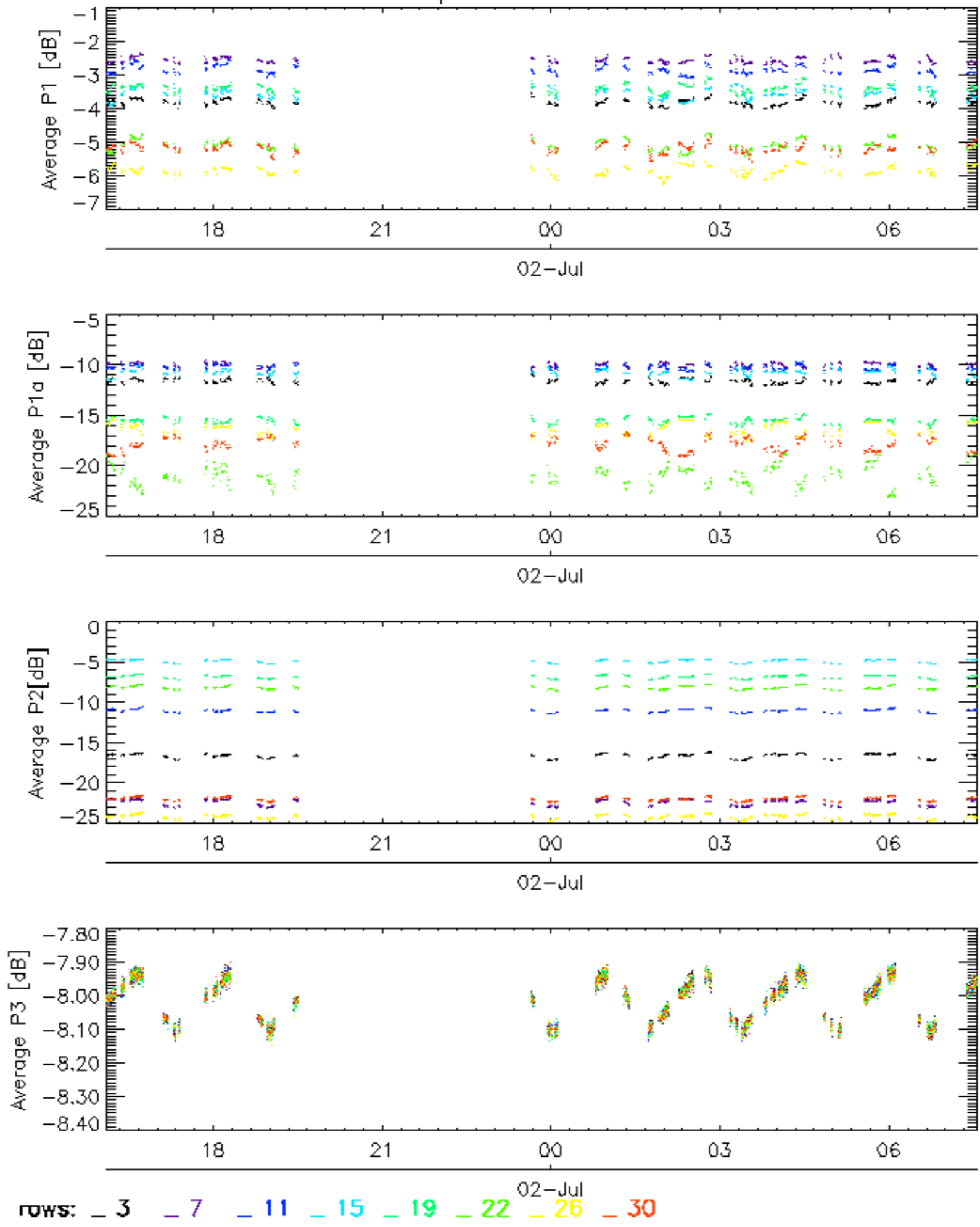


Cal pulses for GM1 SS3

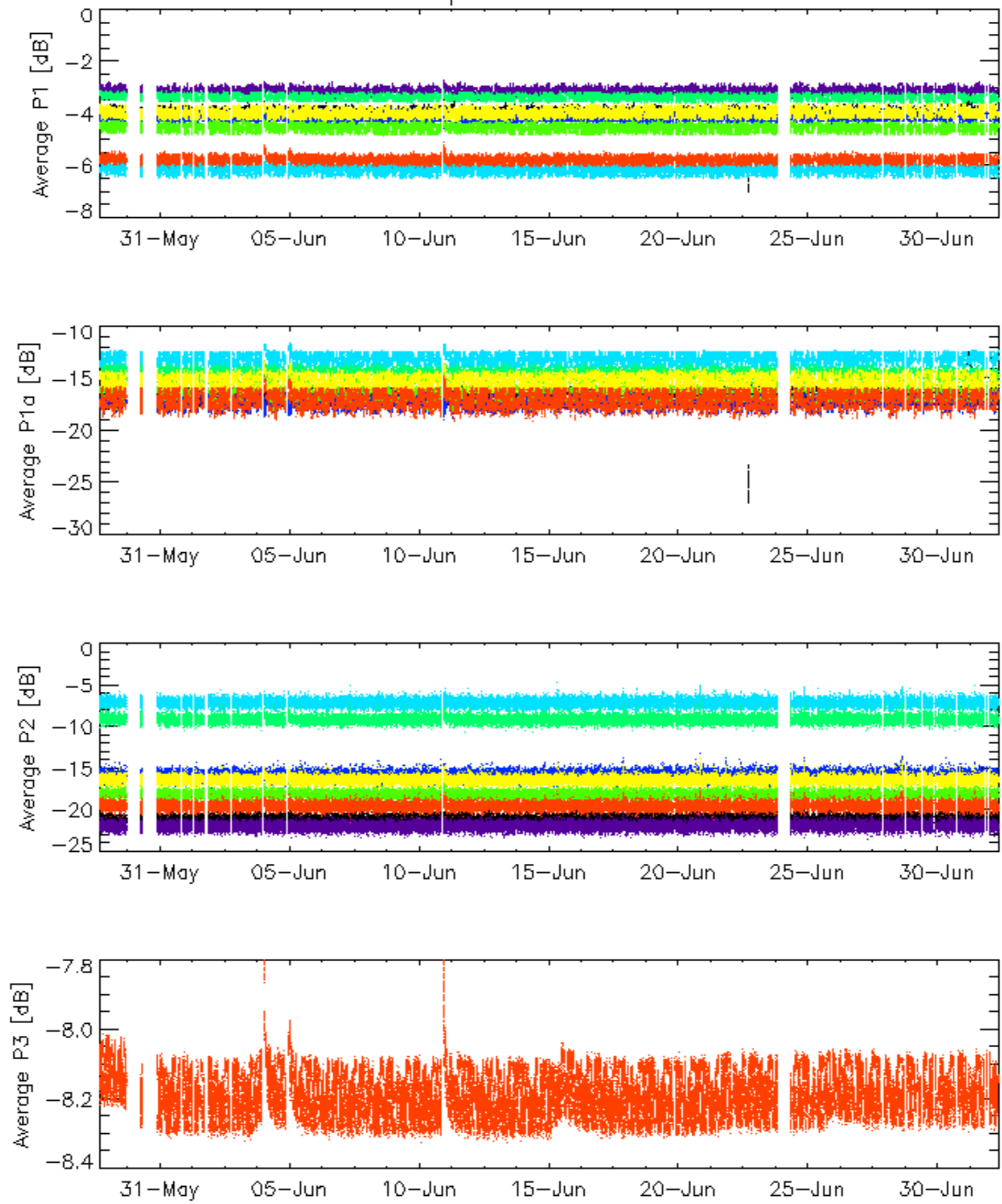


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

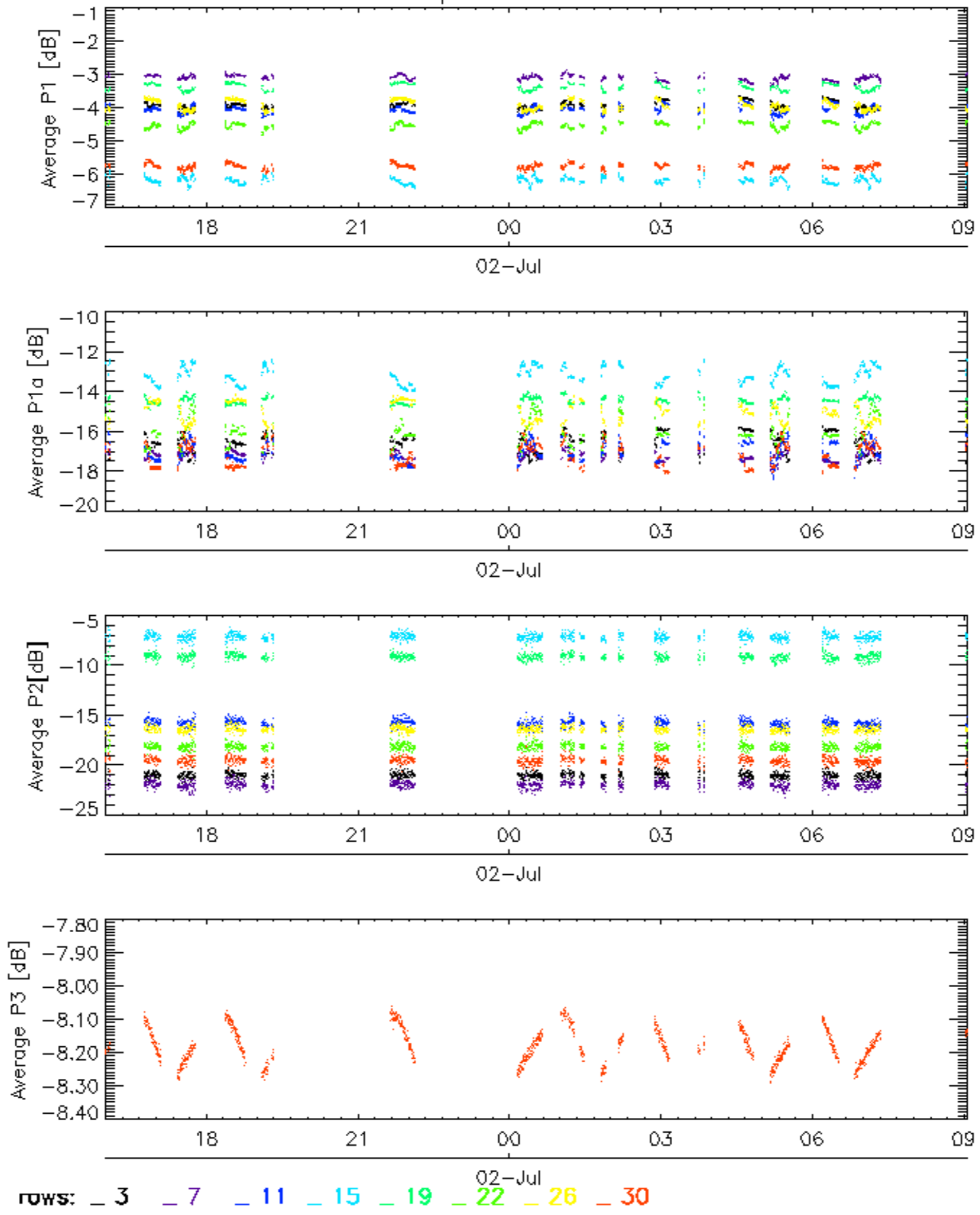


Cal pulses for WVS IS2

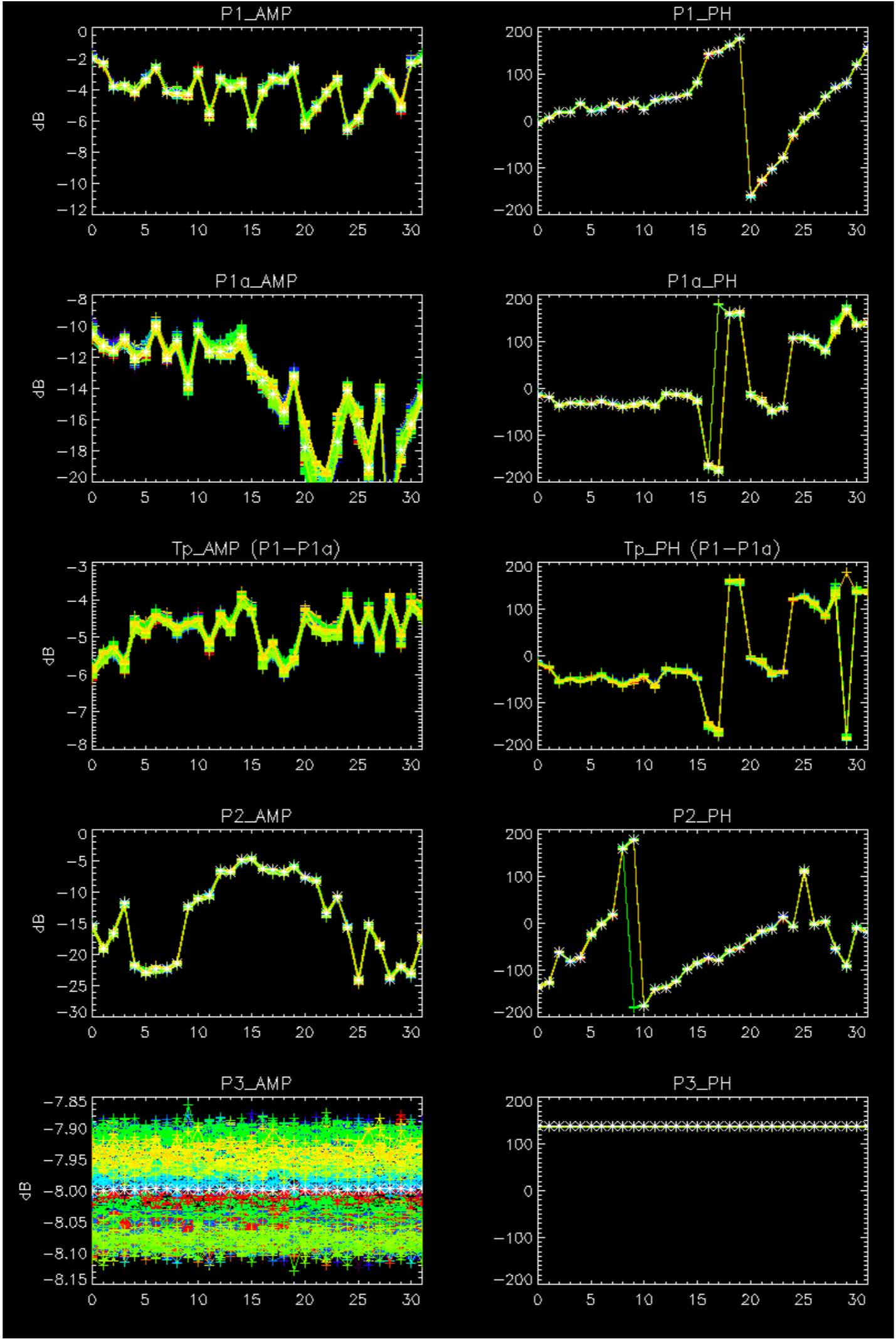


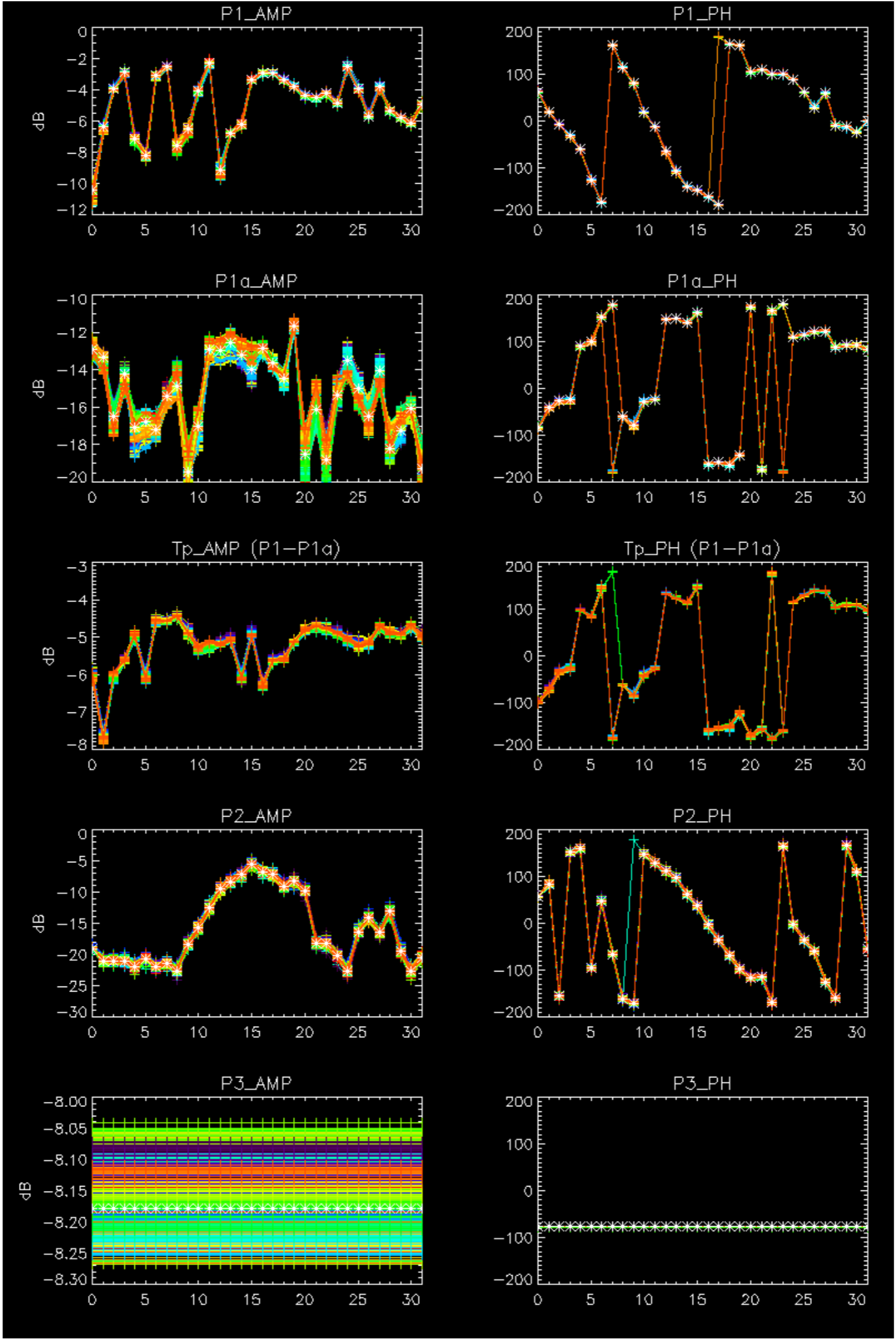
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



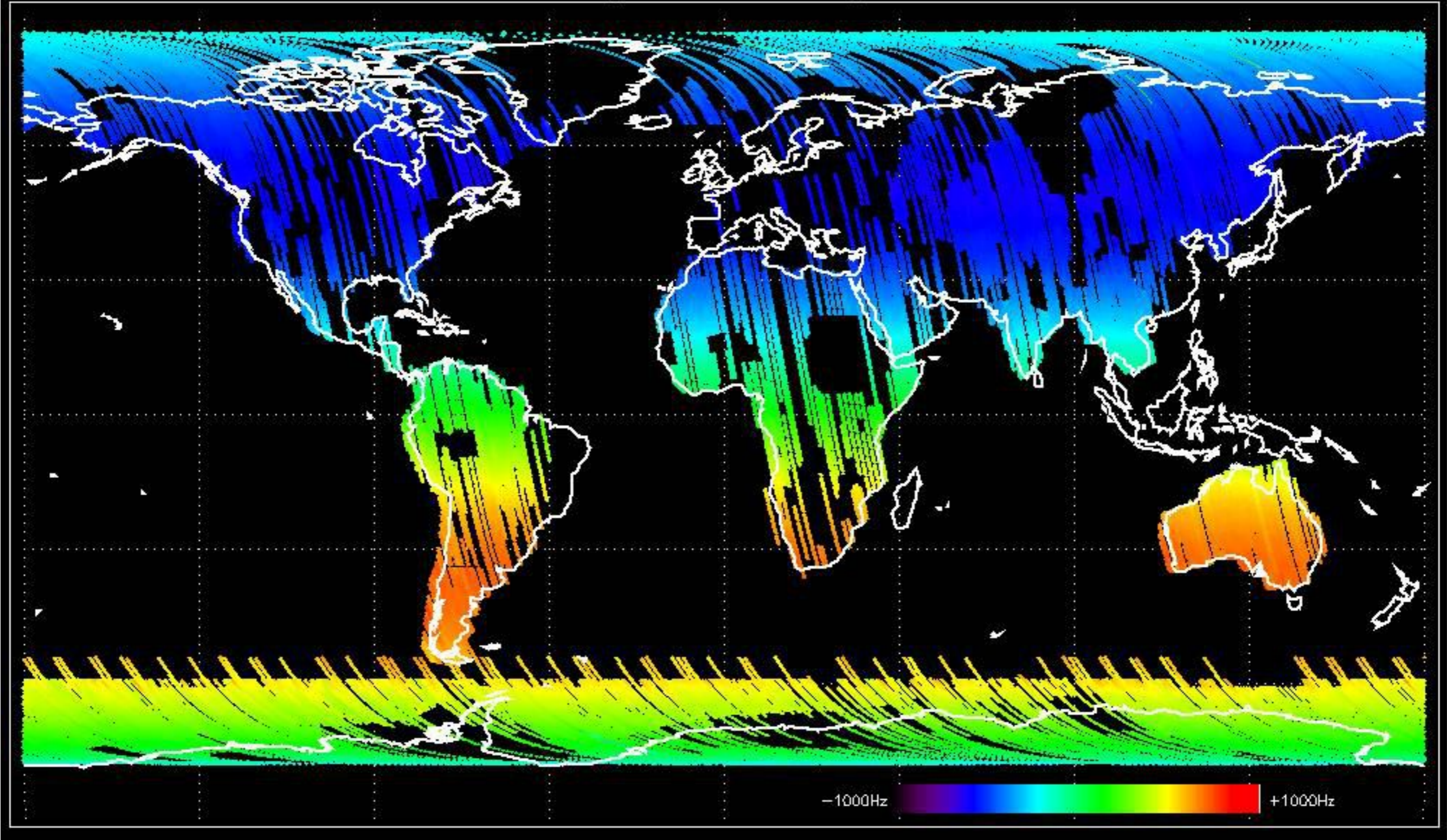
No anomalies observed.



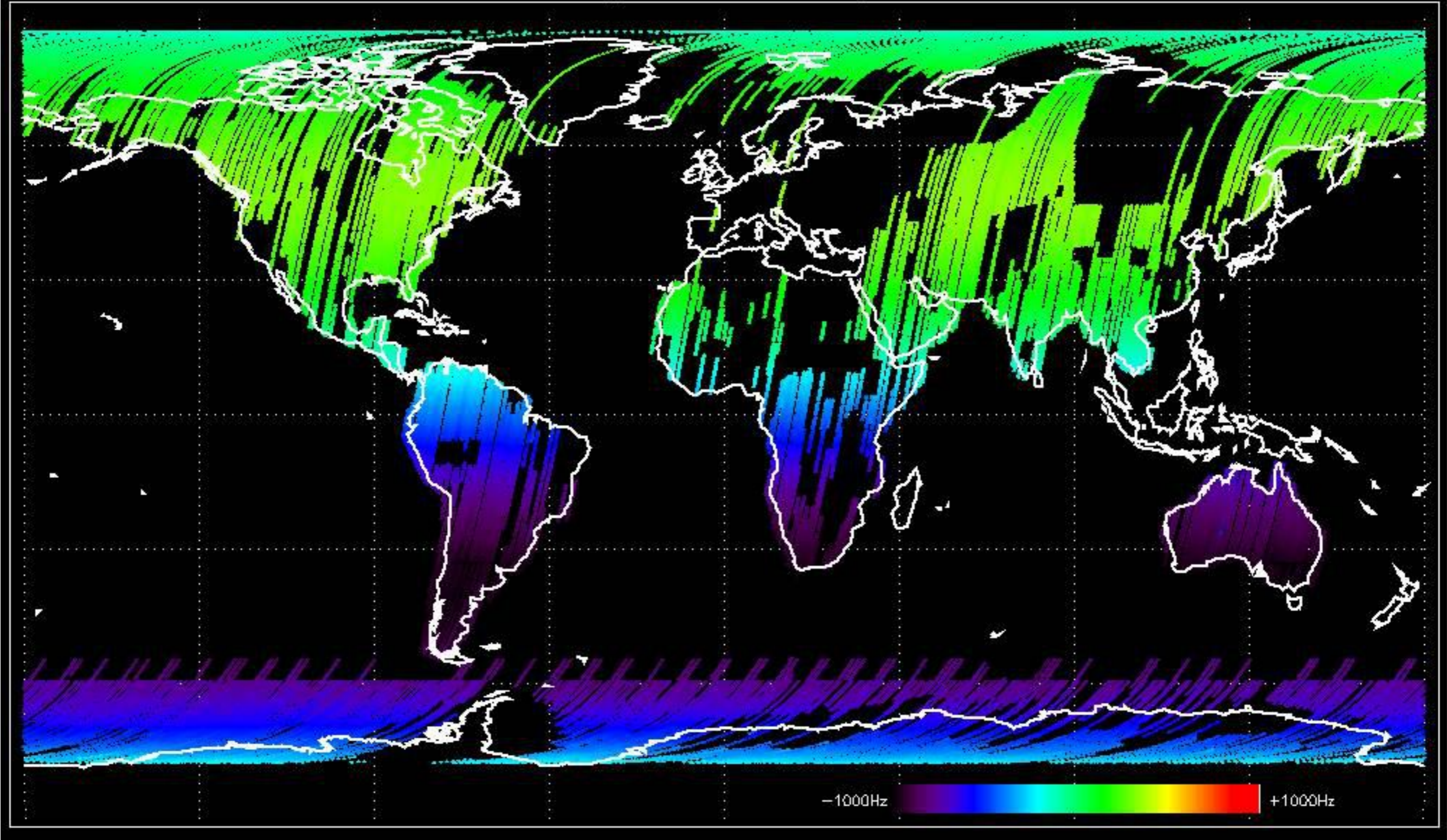


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

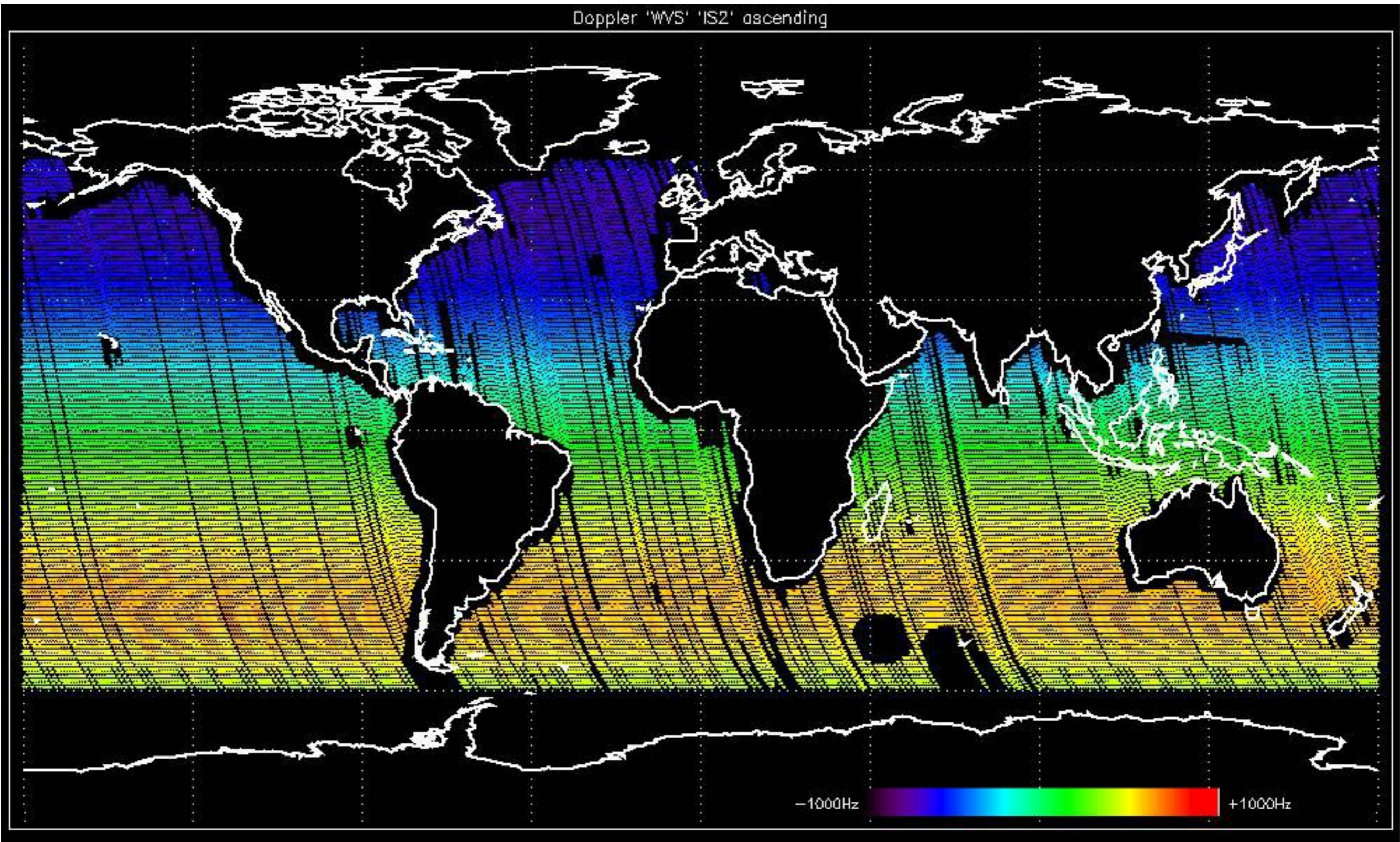
Doppler 'GM1' 'SS1' ascending



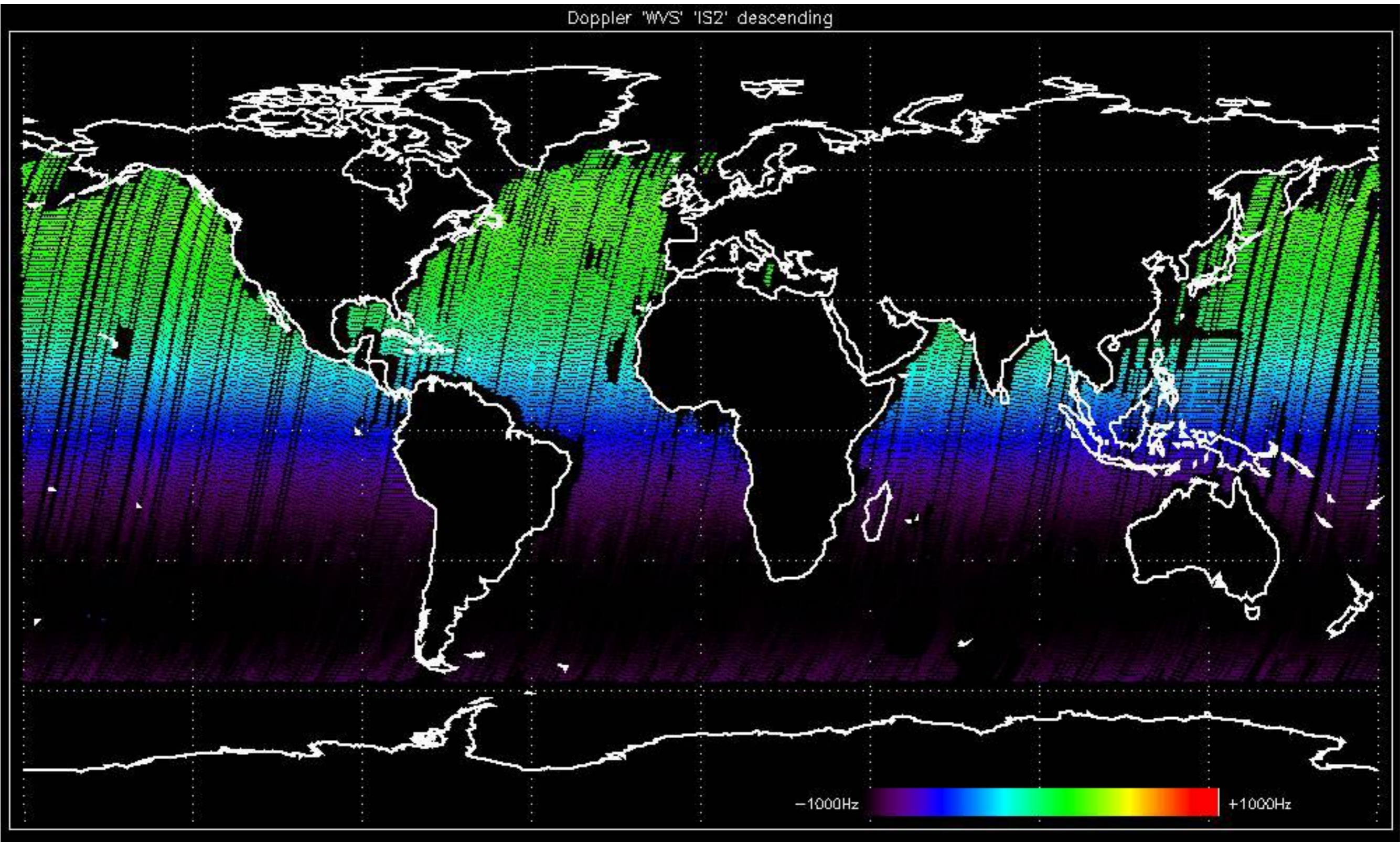
Doppler 'GM1' 'SS1' descending



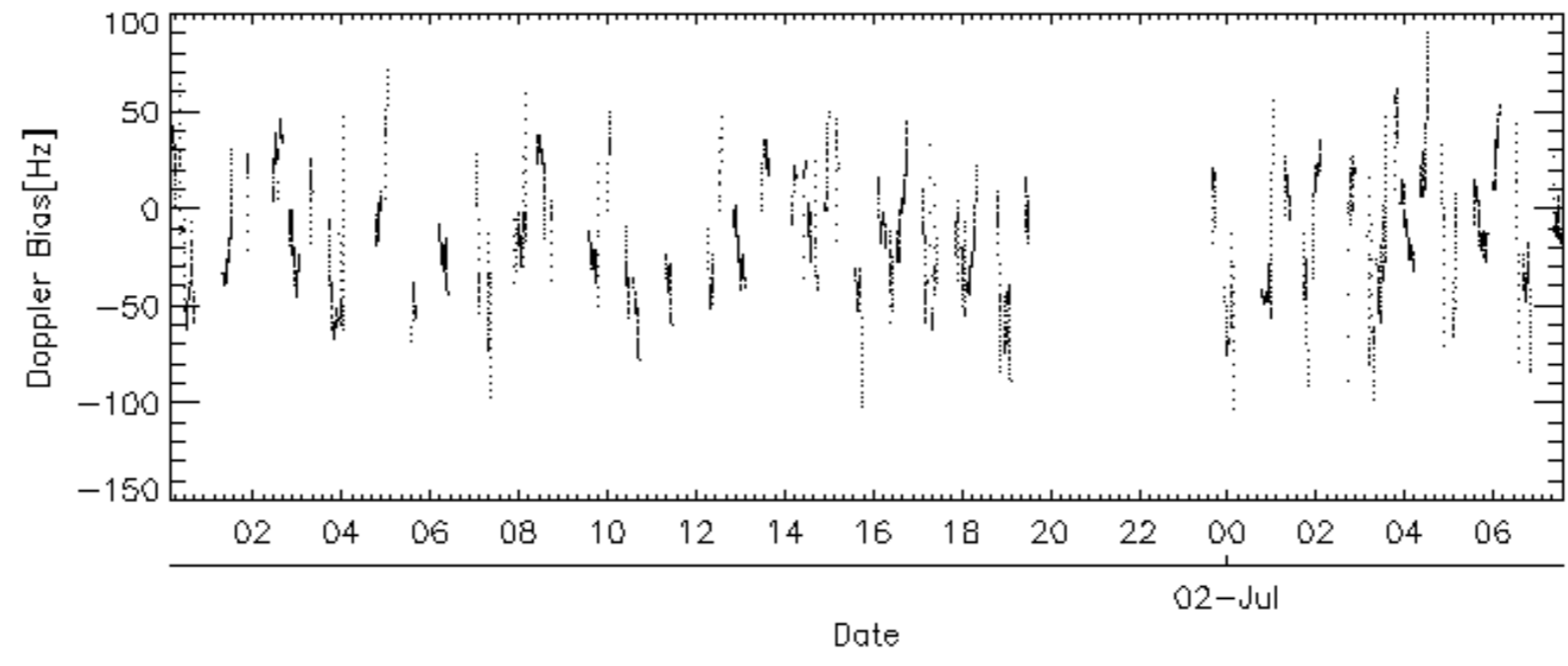
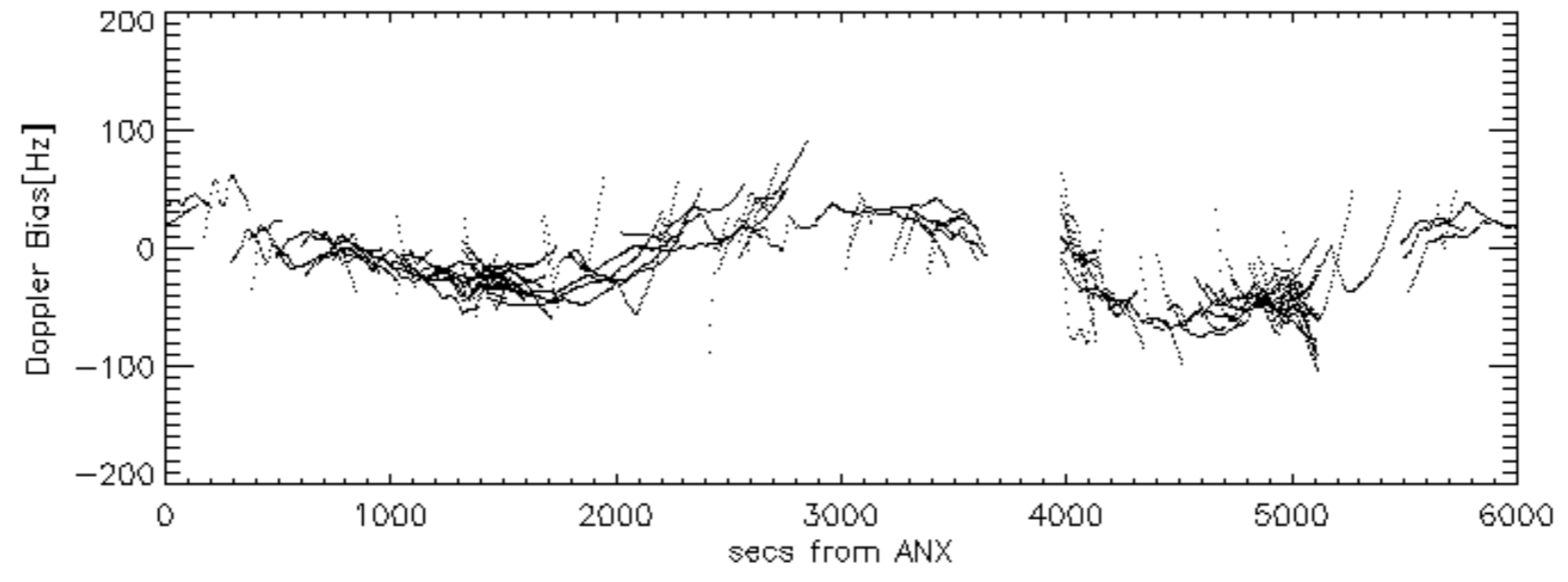
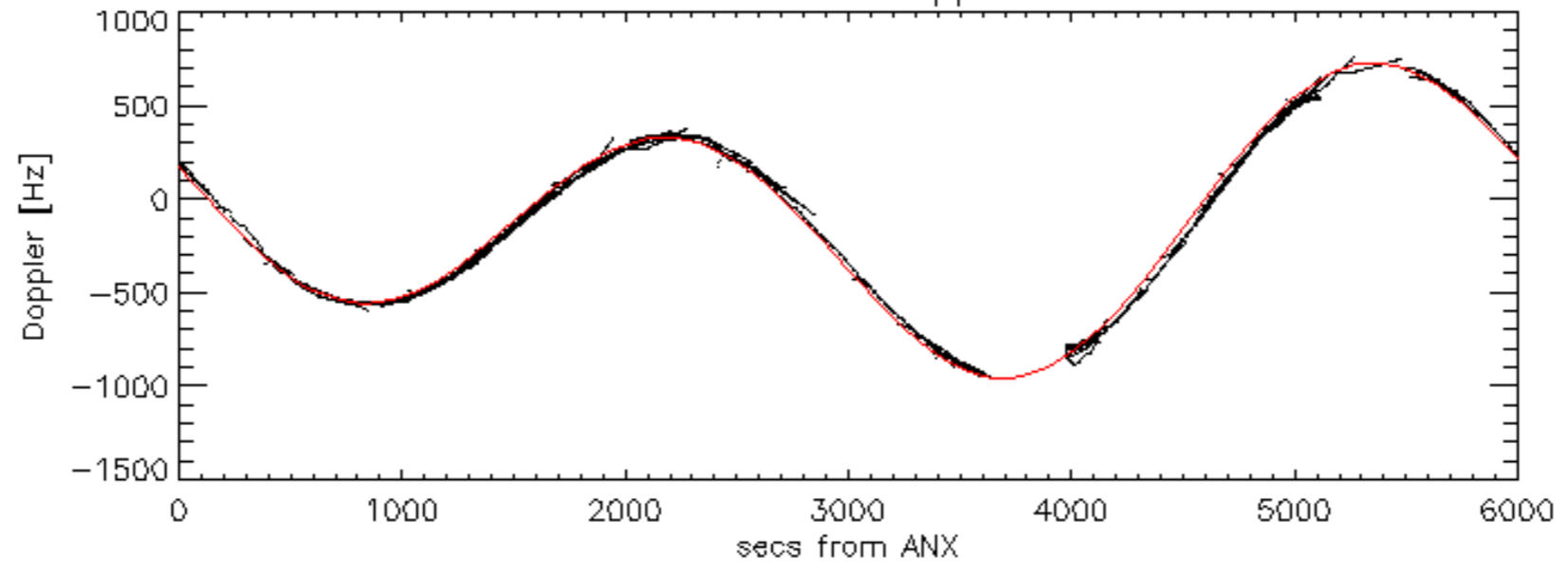
Doppler 'WVS' 'IS2' ascending

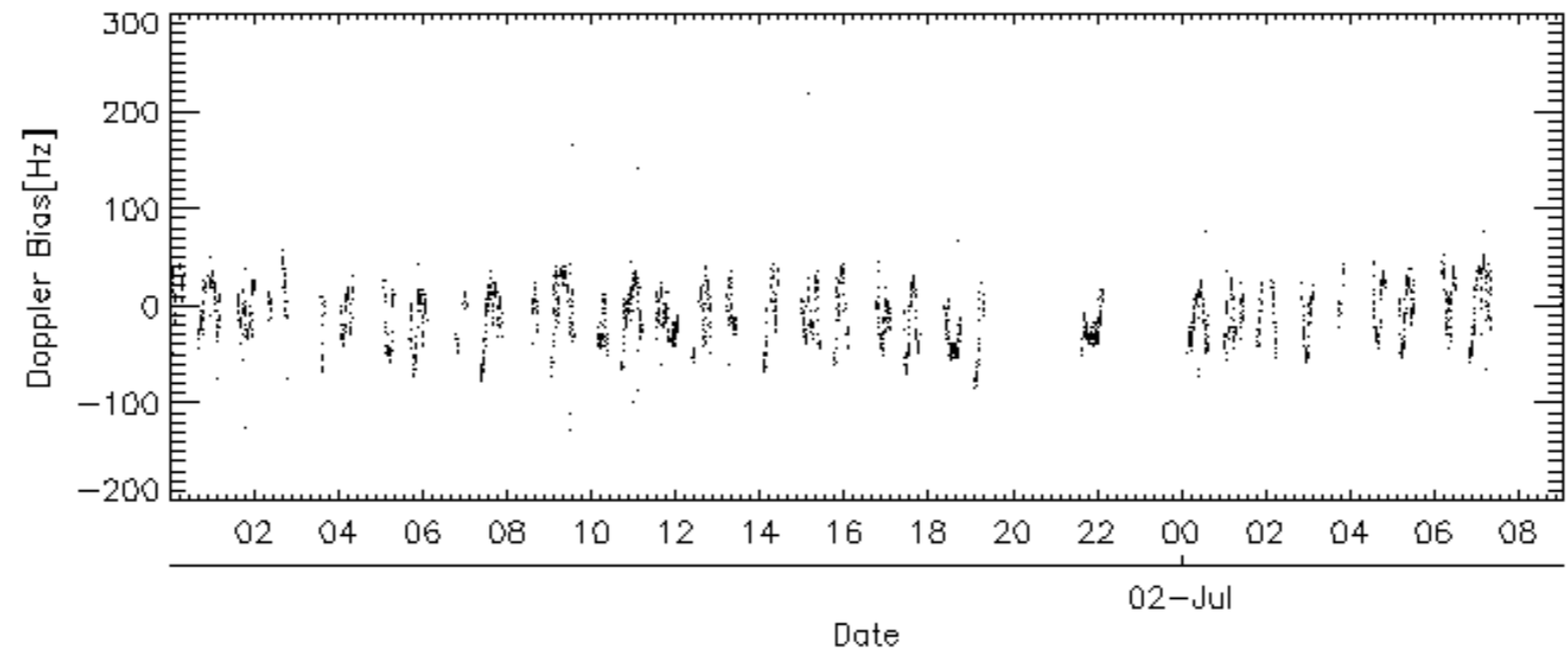
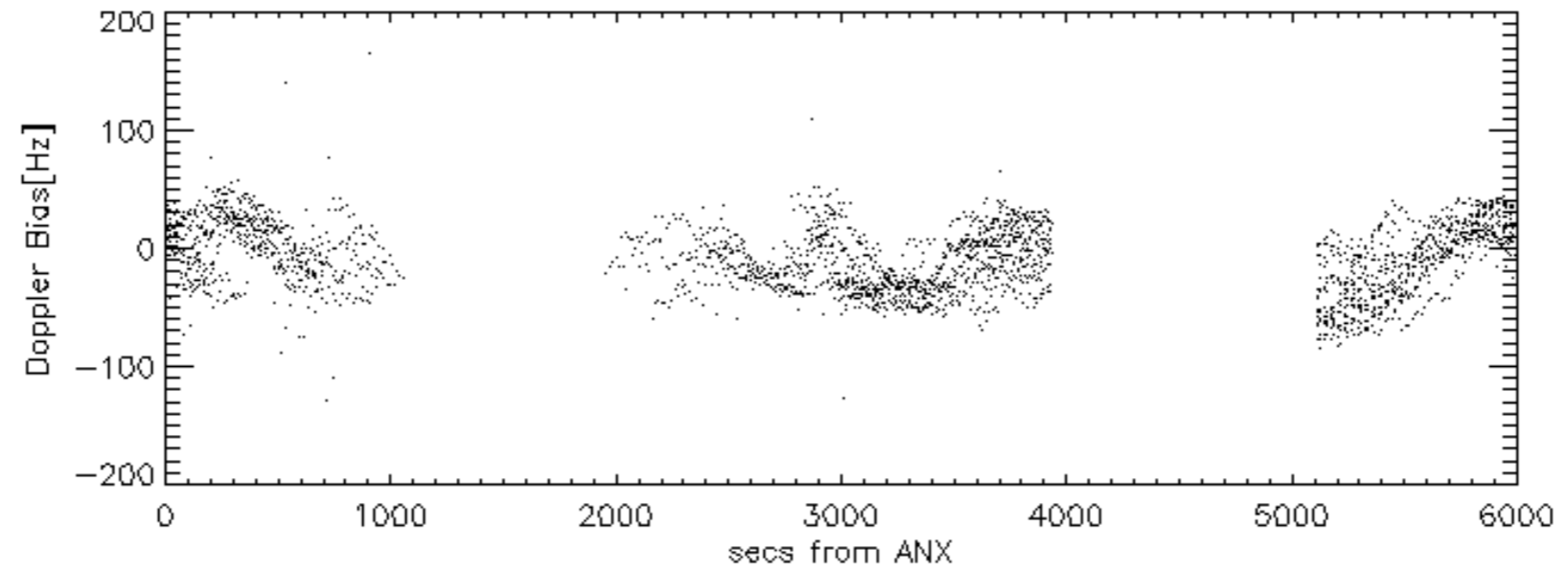
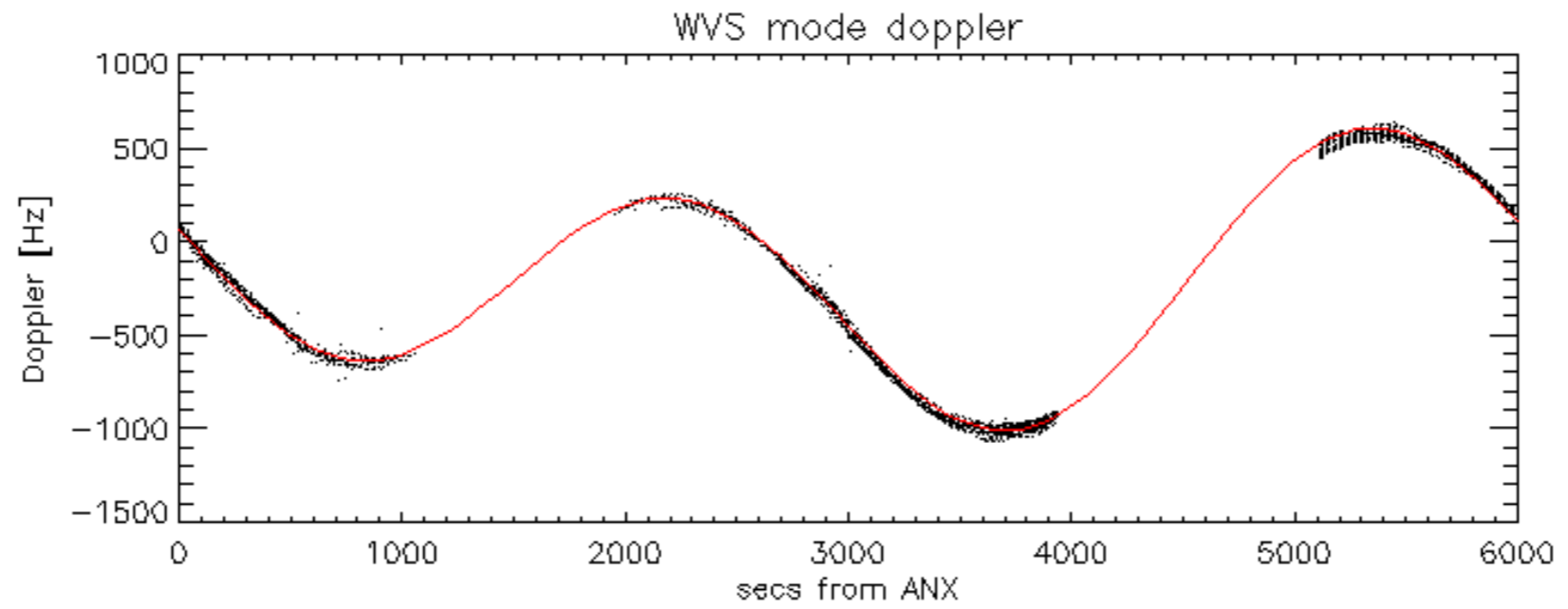


Doppler 'WVS' 'IS2' descending

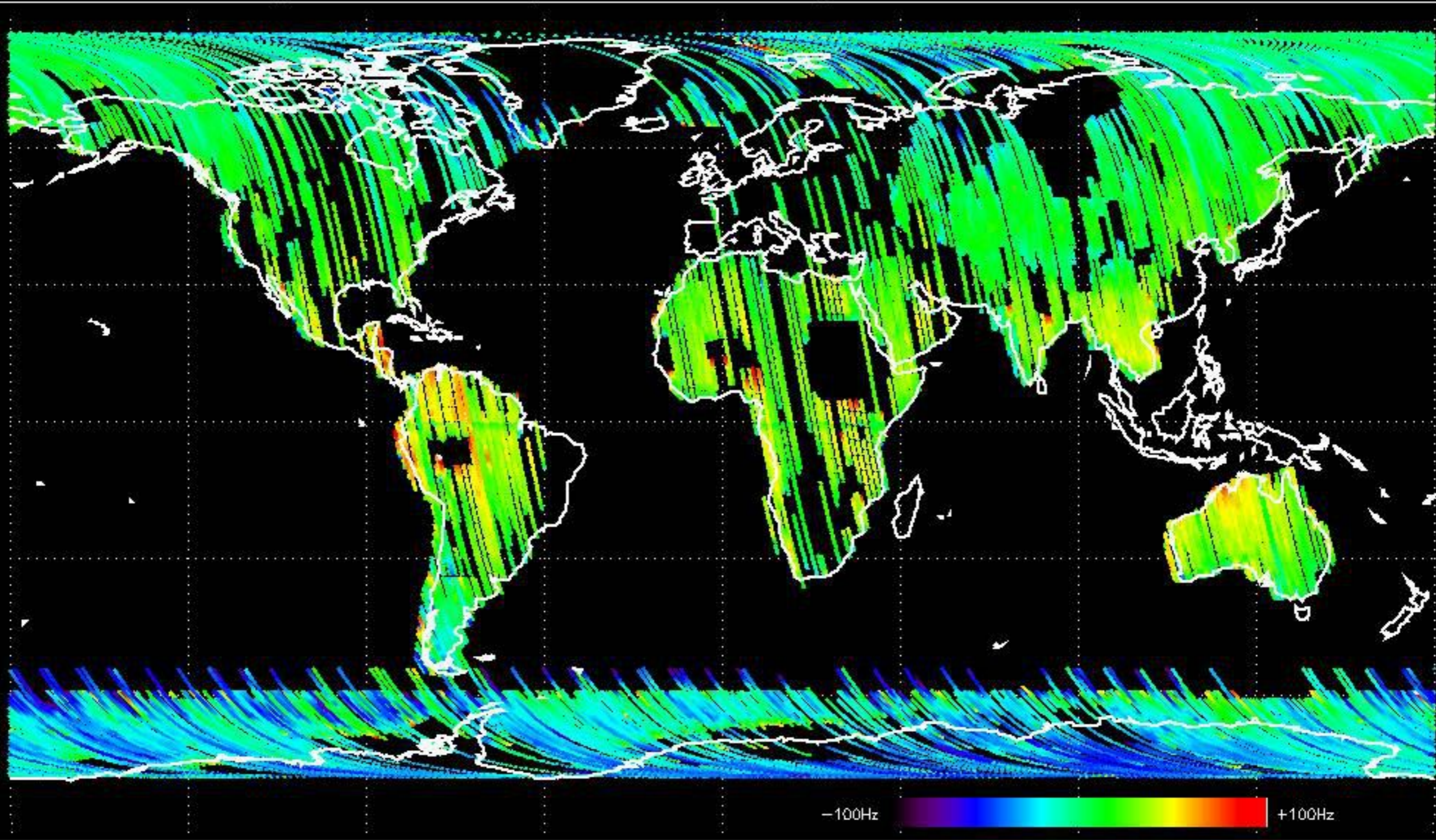


GM1 mode doppler

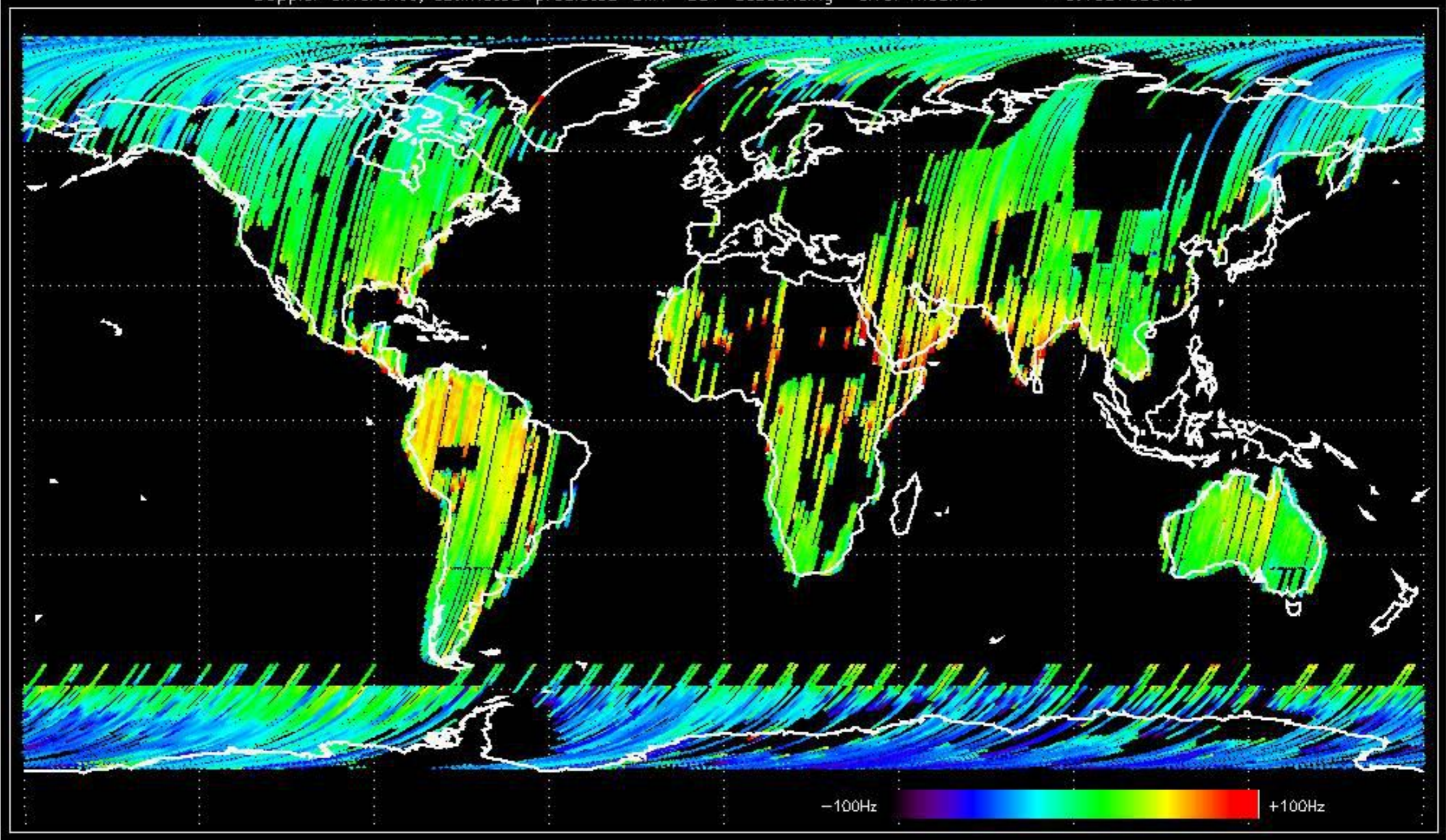




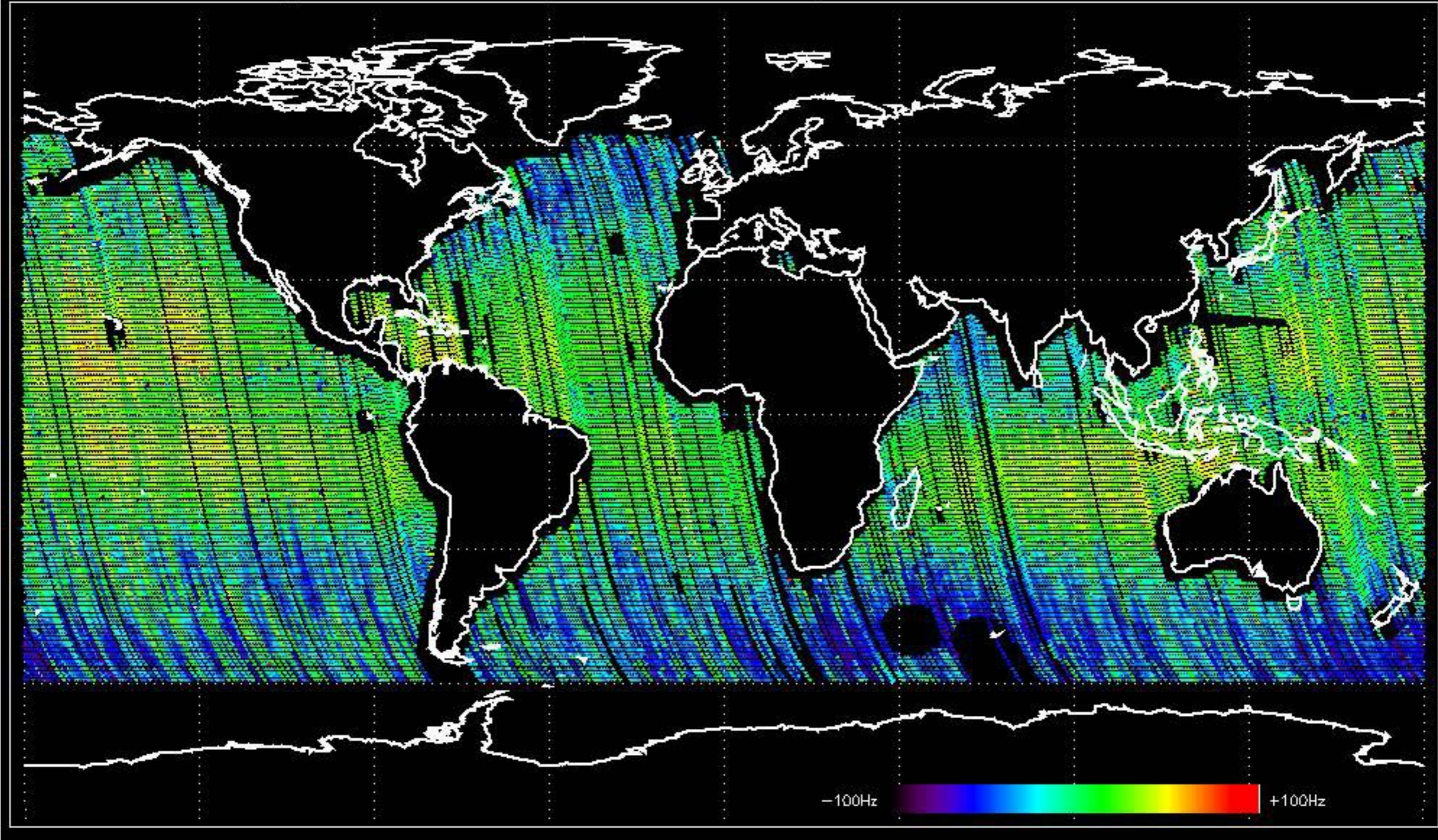
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.031902 Hz



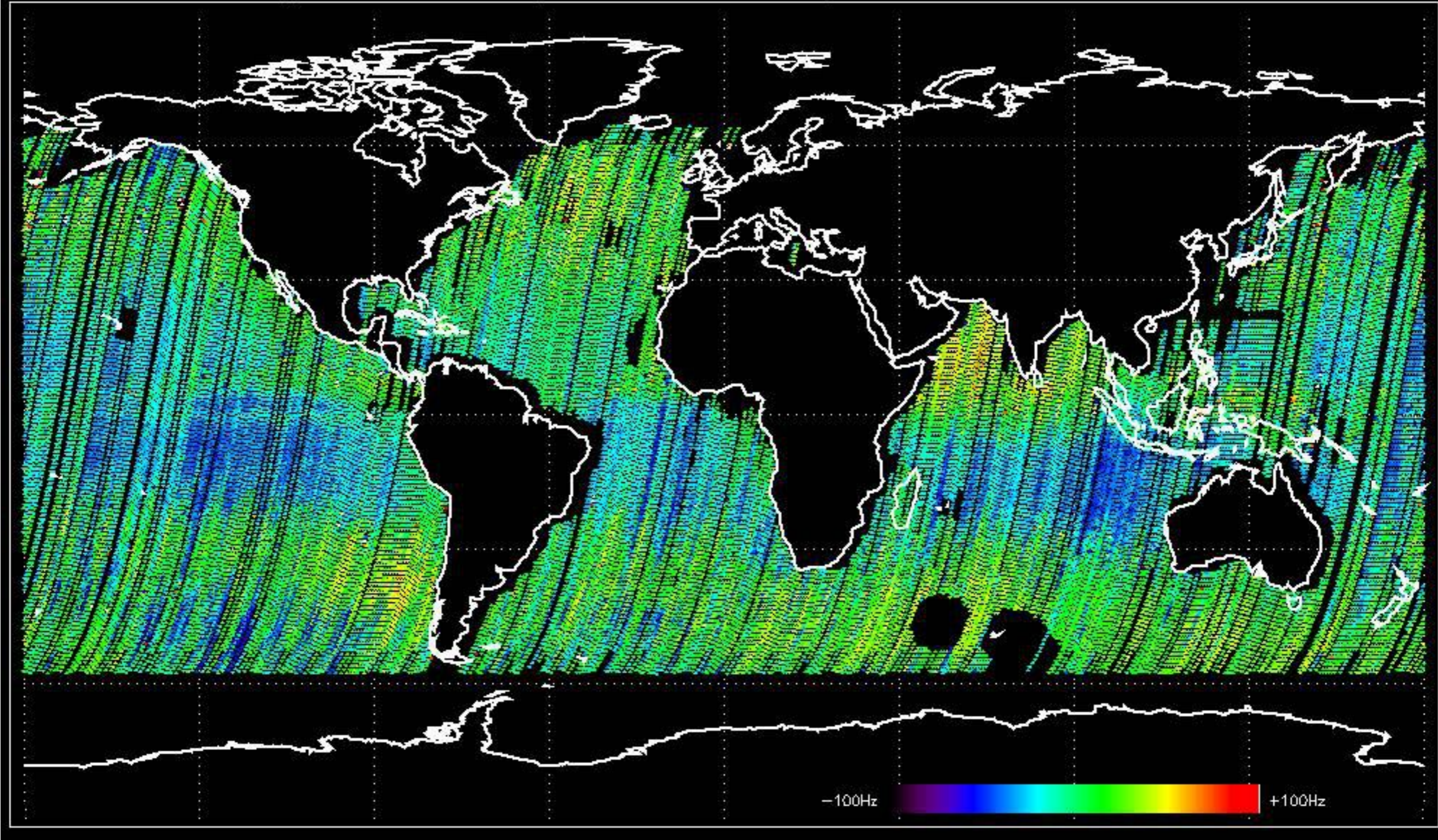
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.1637689 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.9449454 Hz

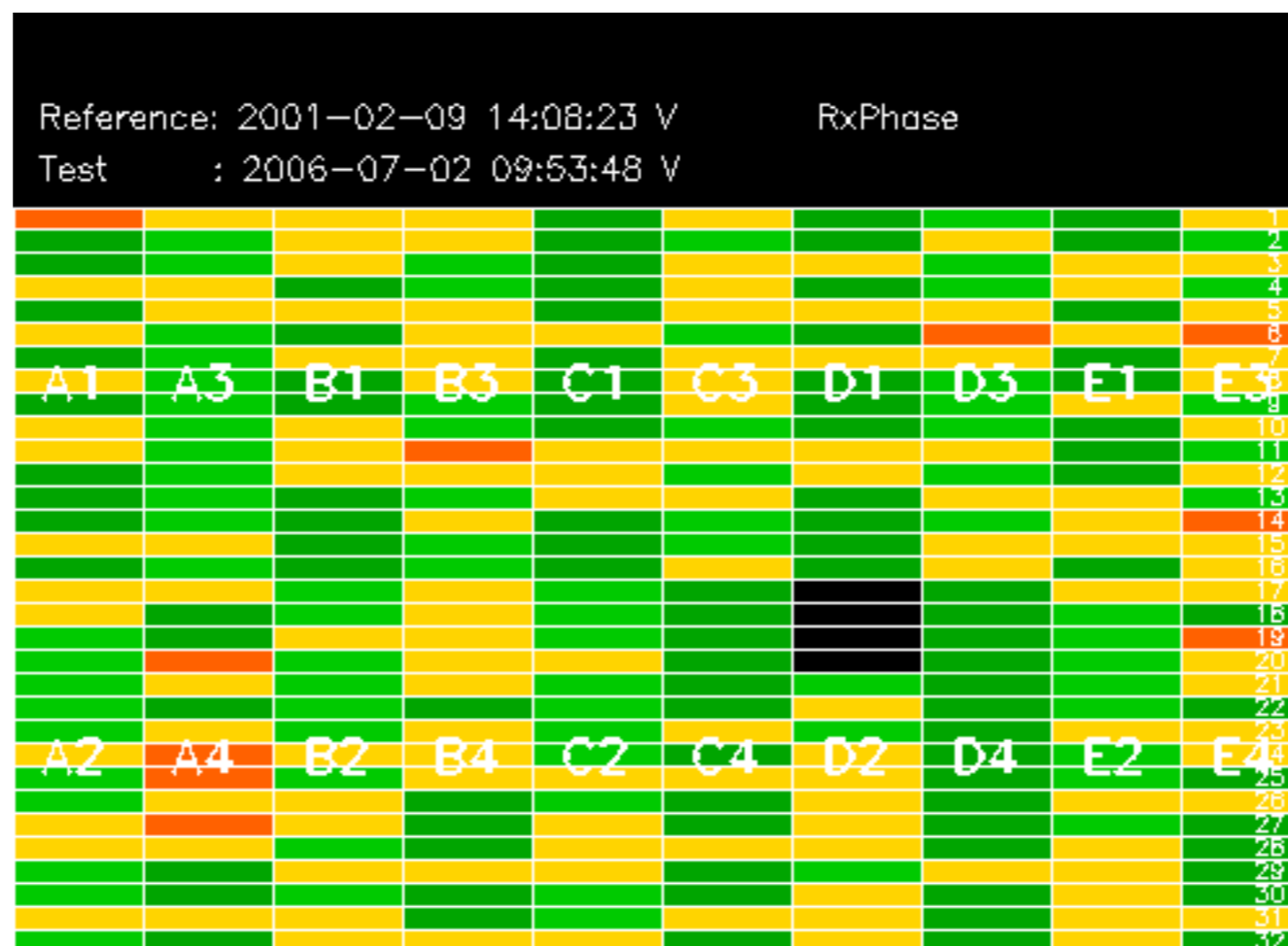


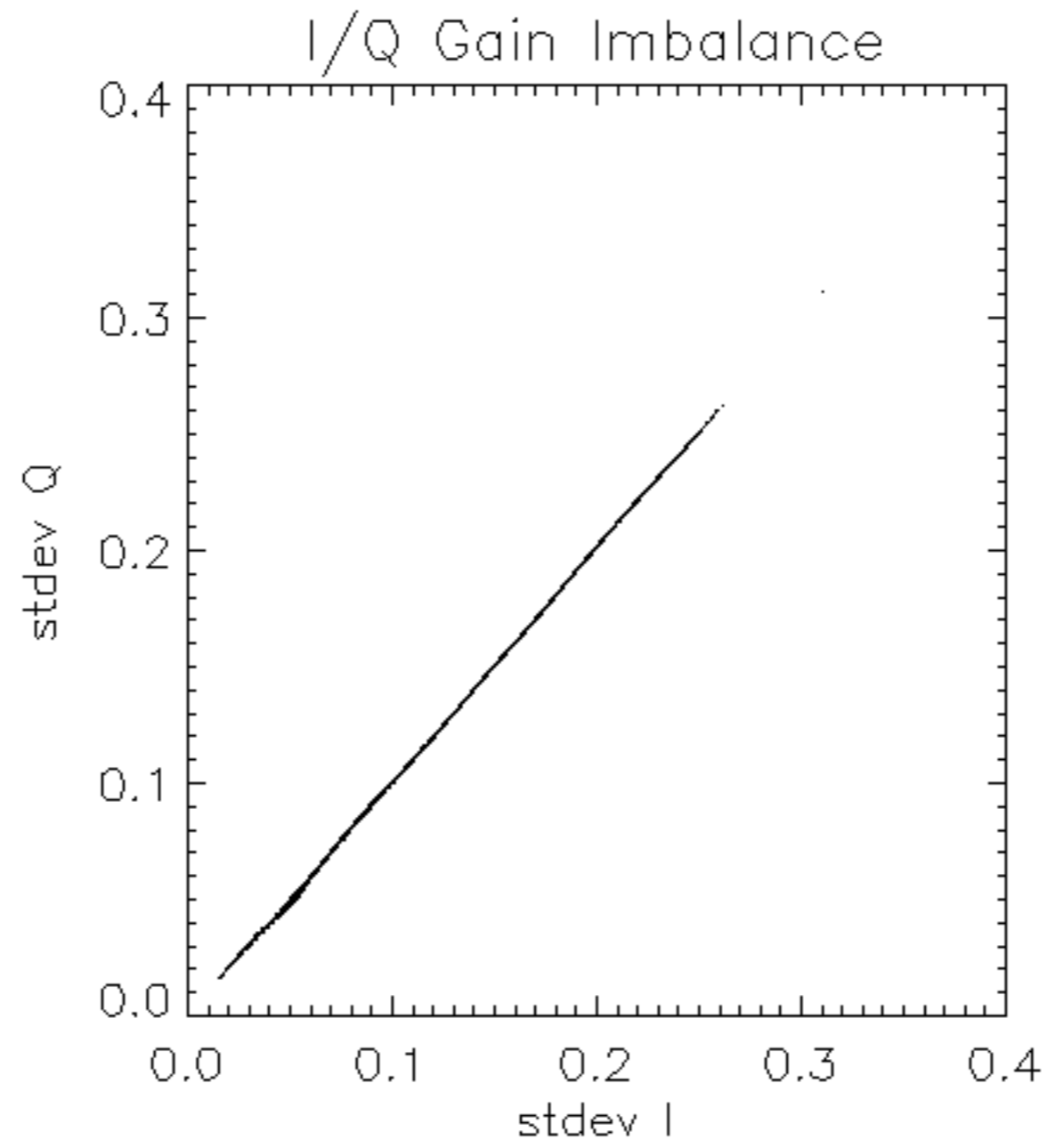
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.912590 Hz

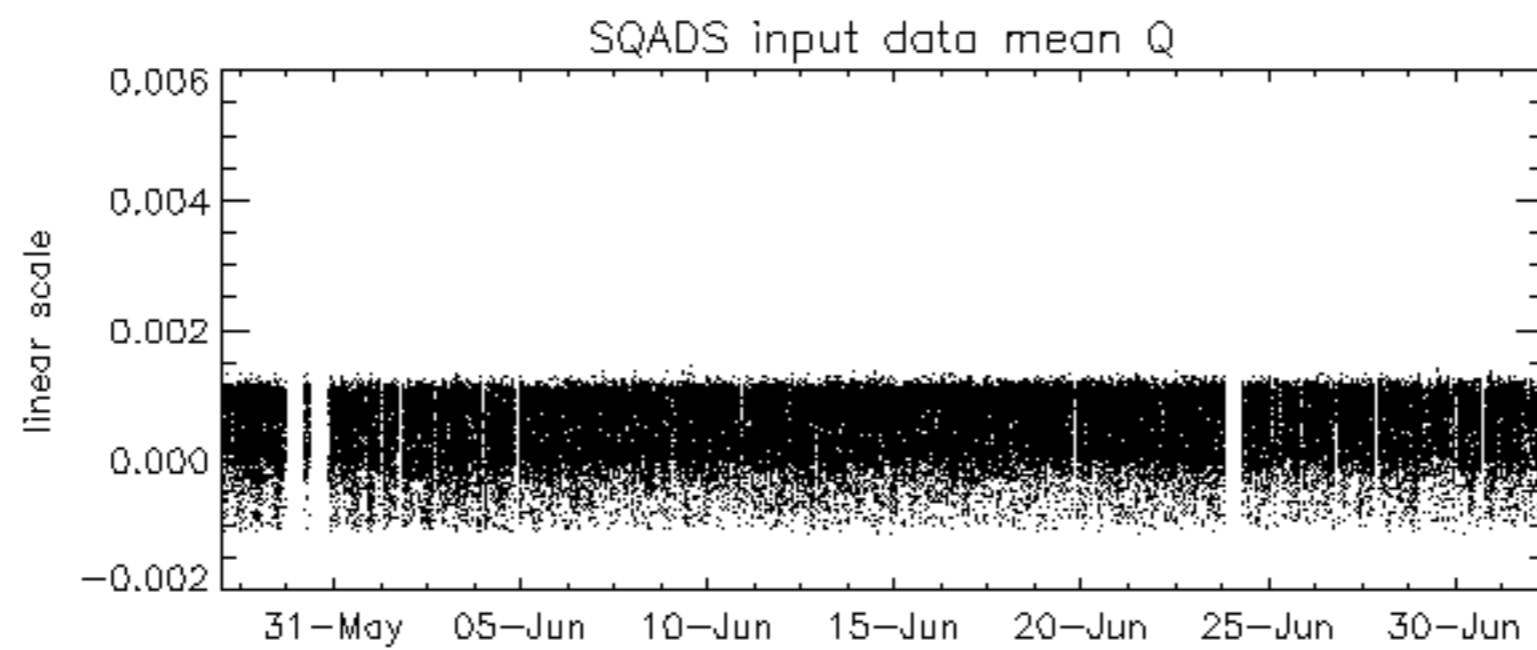
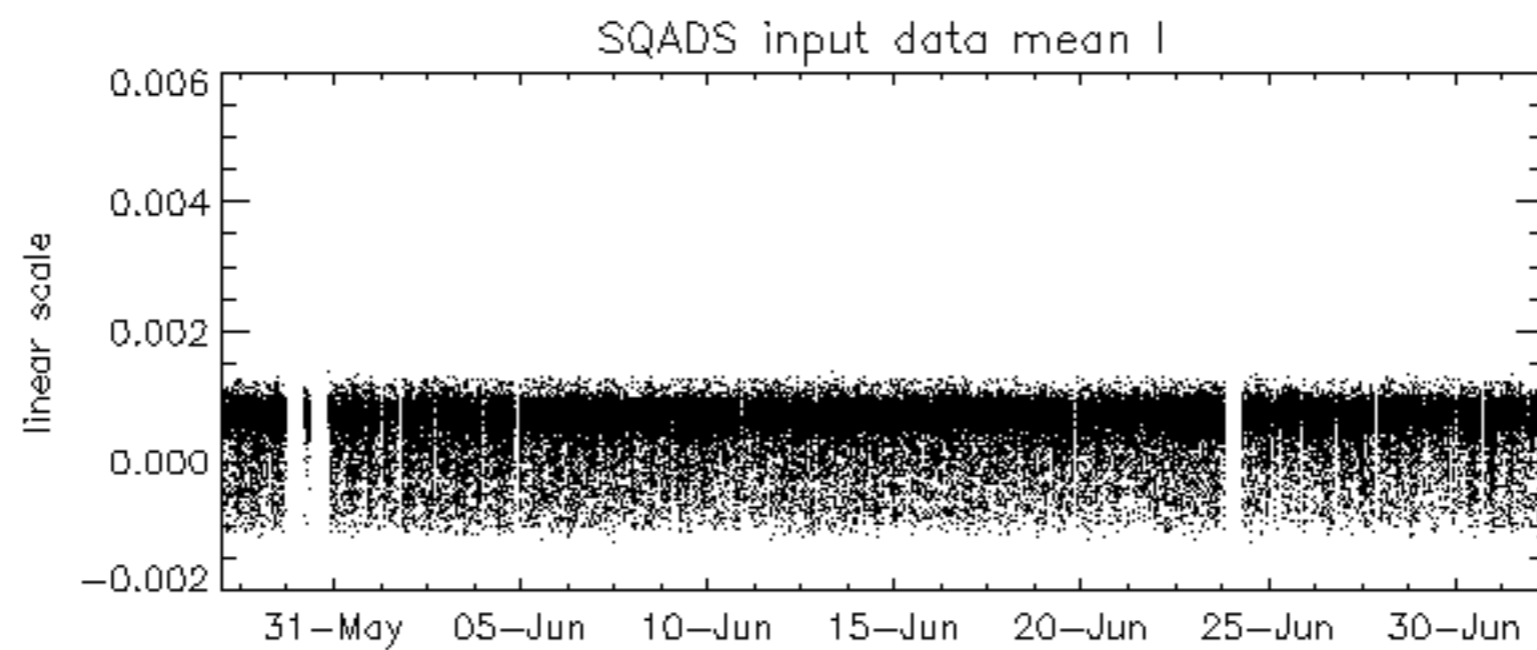
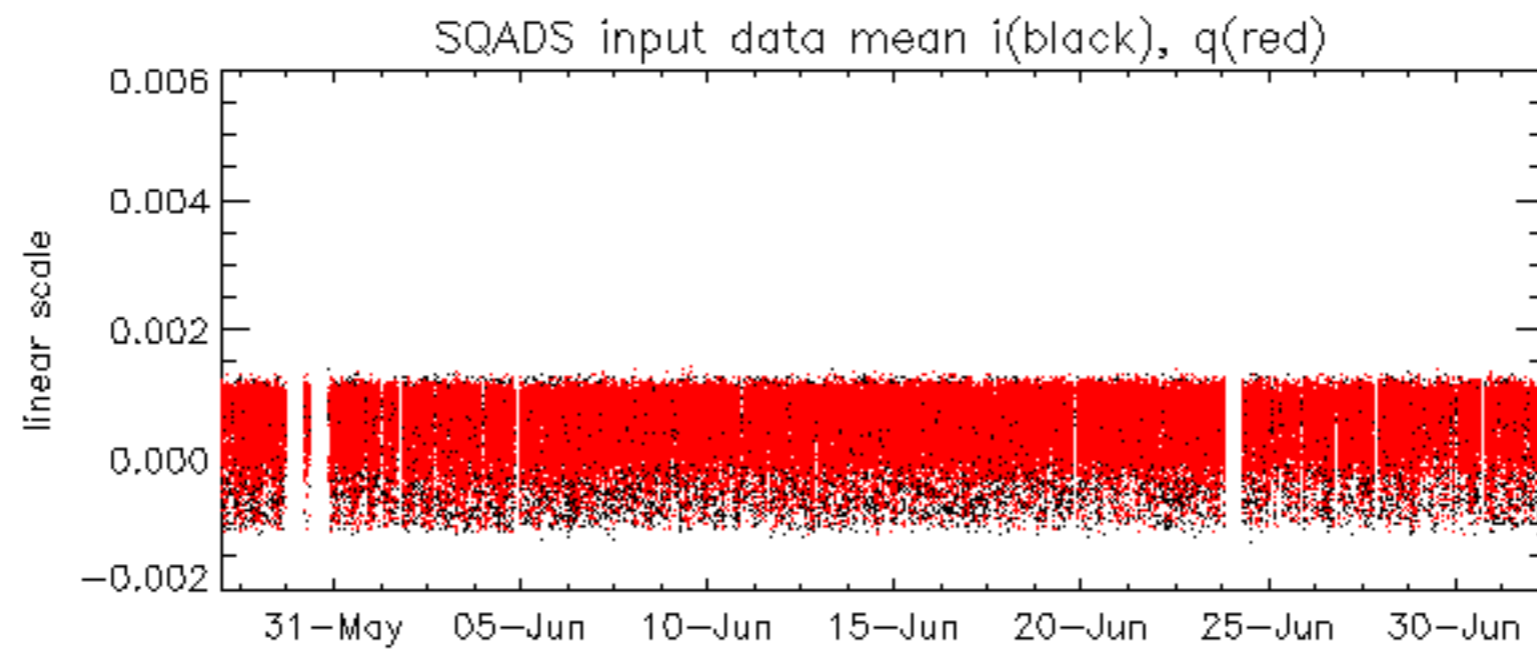


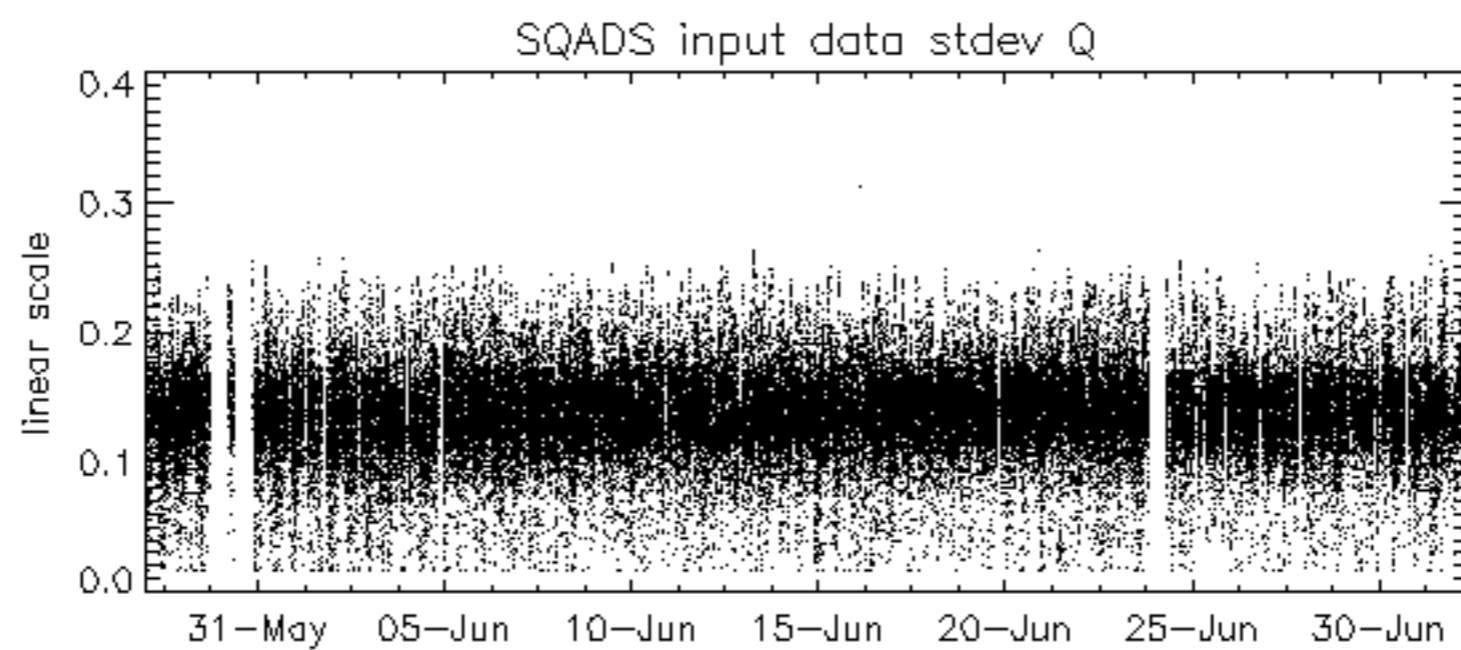
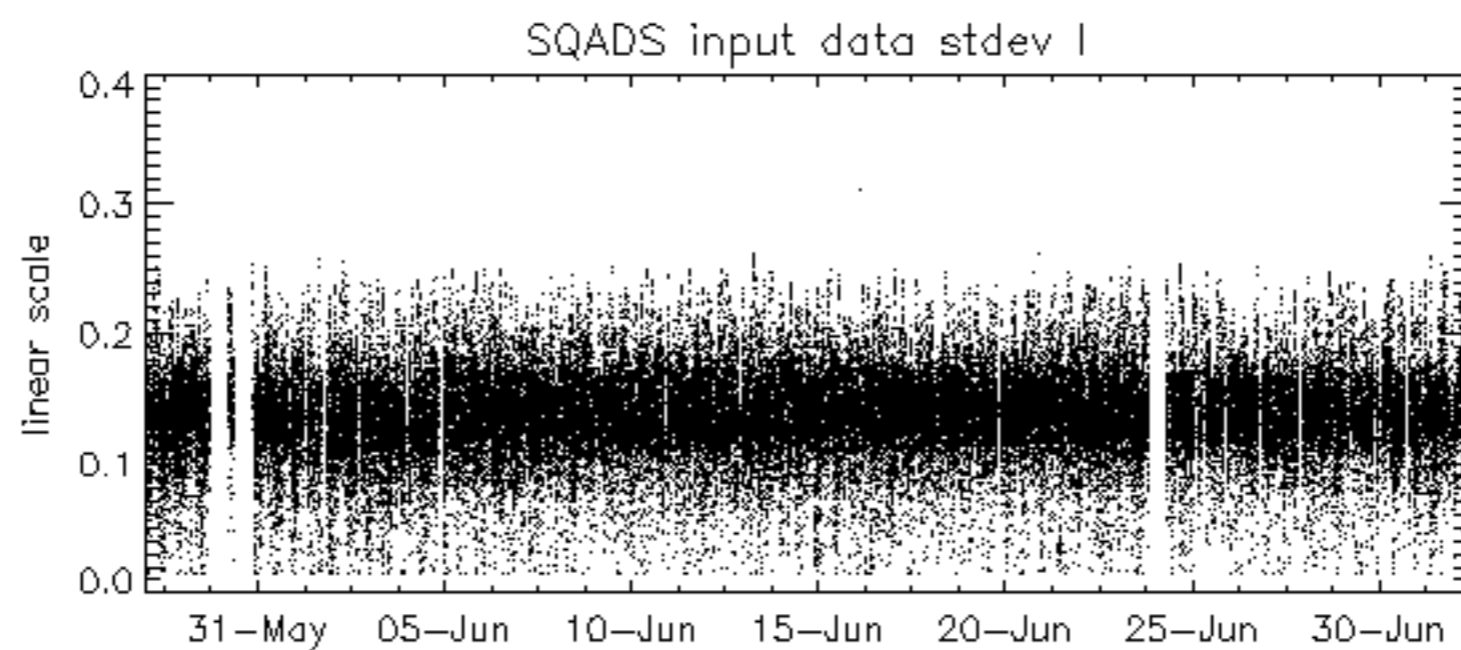
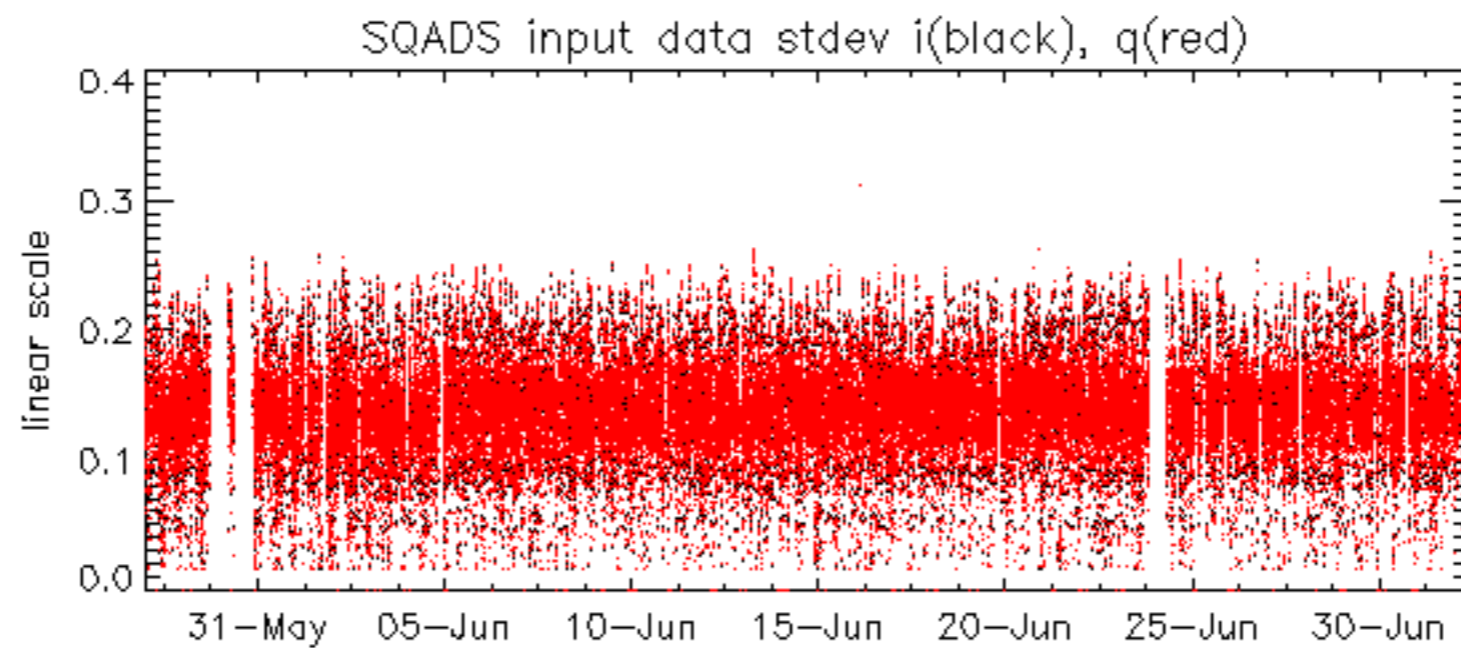
No anomalies observed on available MS products:

No anomalies observed.





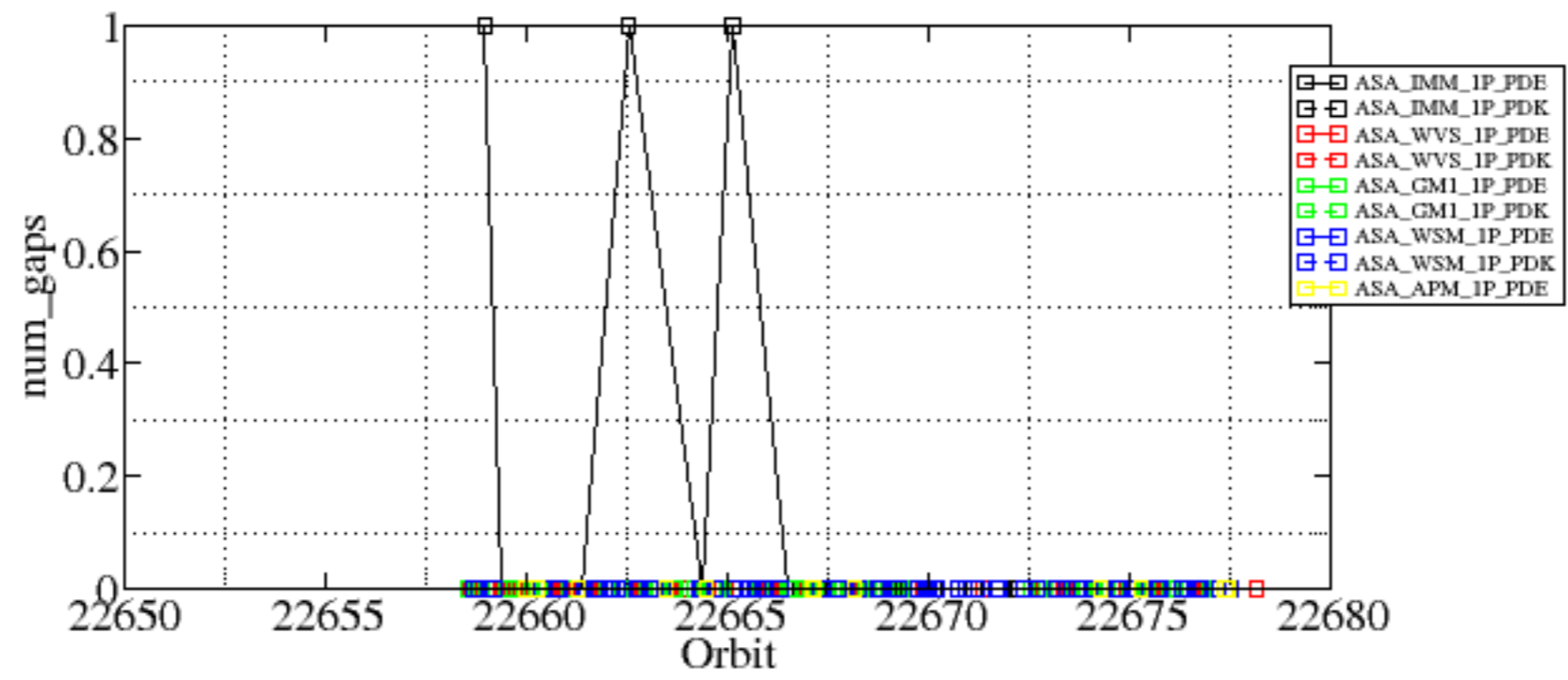


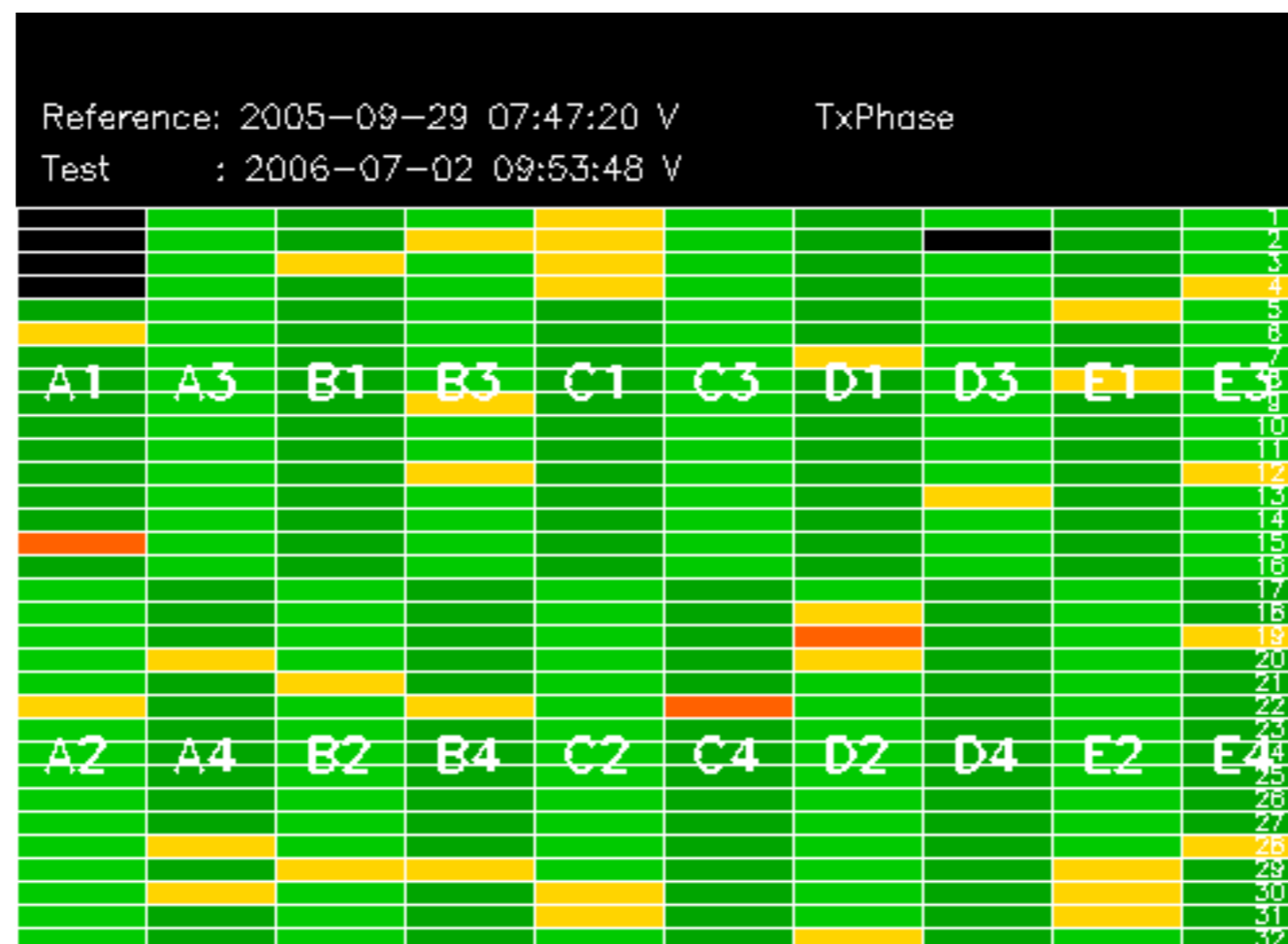


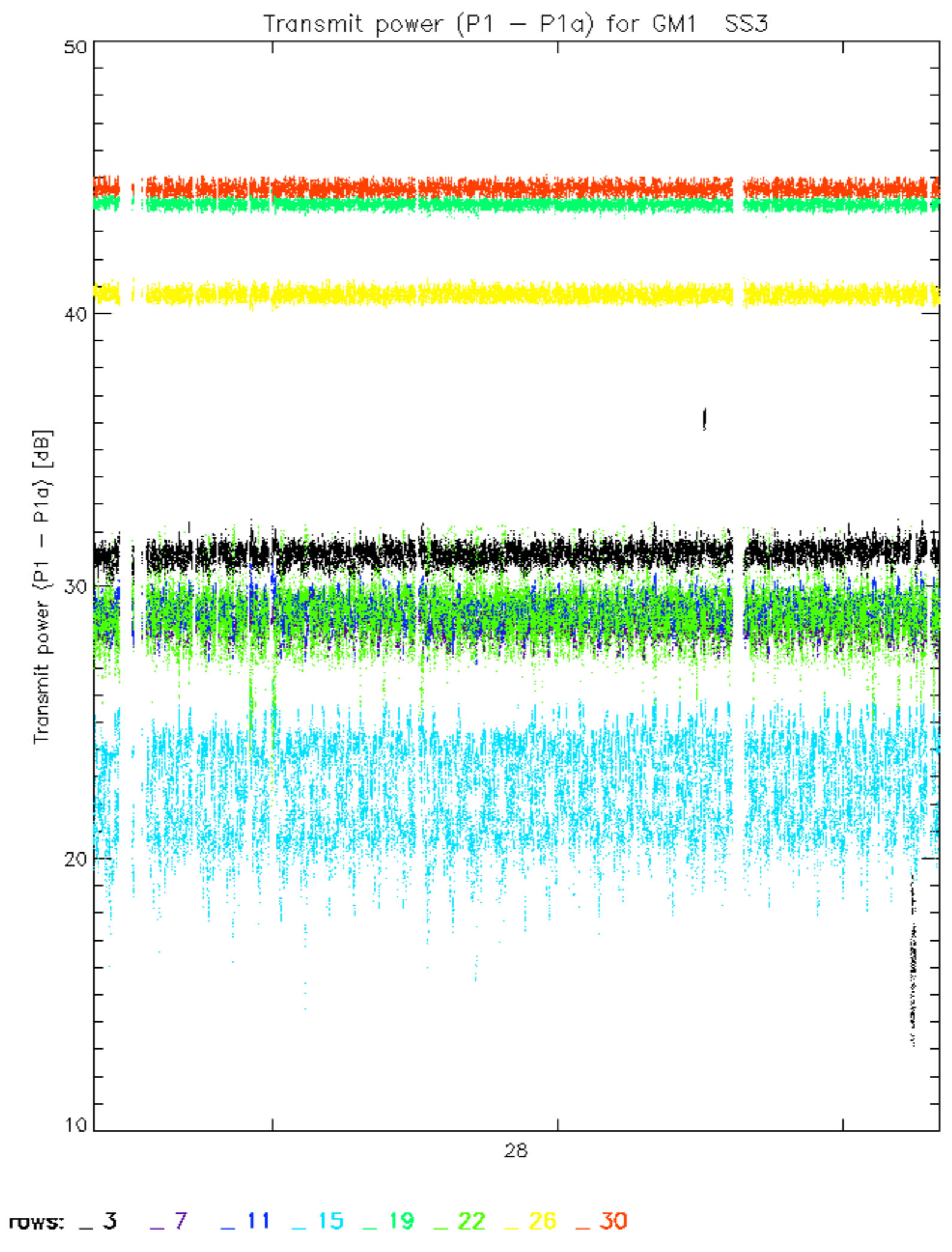
Summary of analysis for the last 3 days 2006070[012]

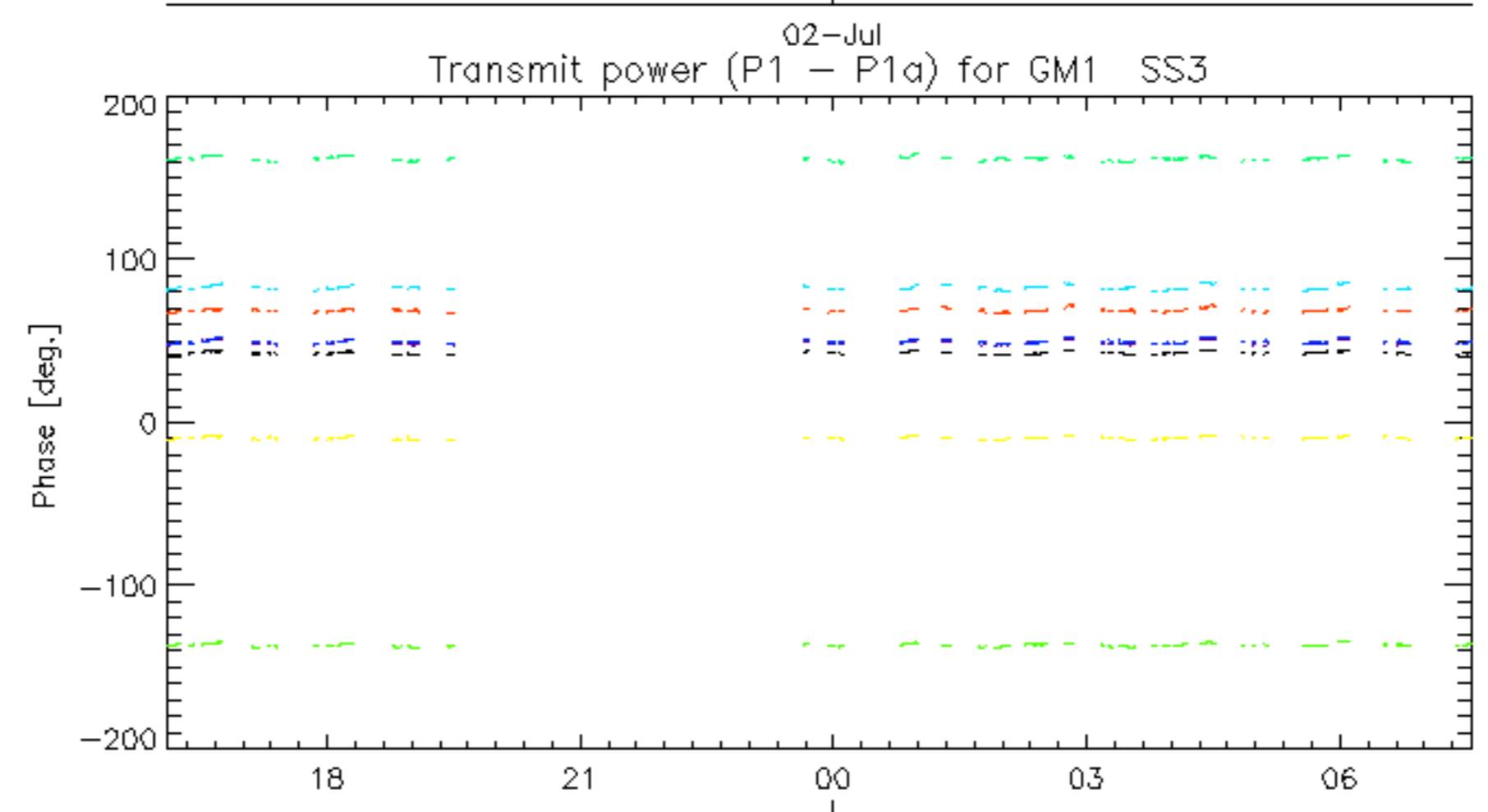
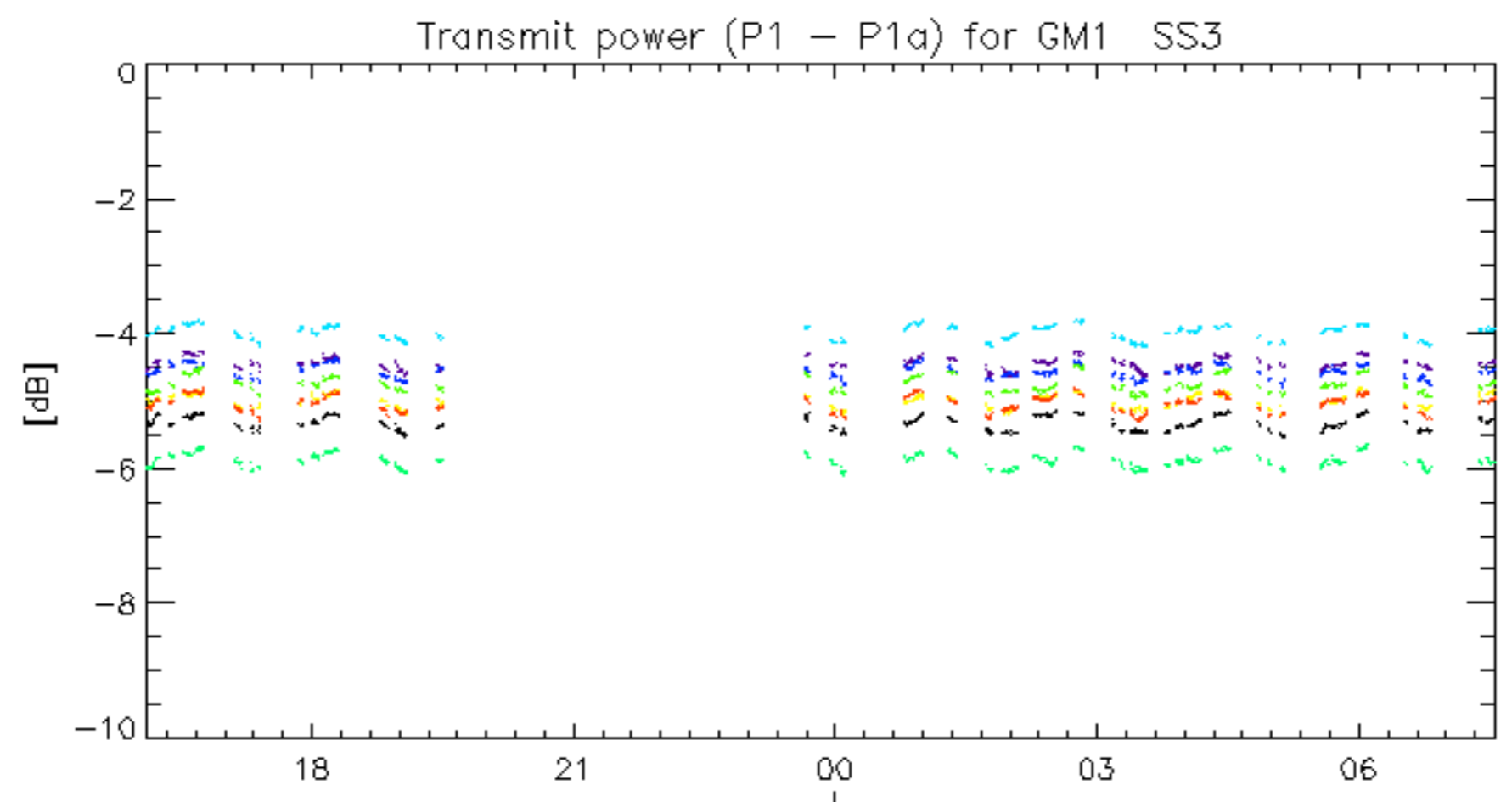
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060701_005030_000002372049_00059_22658_0198.N1	1	0
ASA_IMM_1PNPDE20060701_065011_000000362049_00063_22662_0225.N1	1	0
ASA_IMM_1PNPDE20060701_111215_000000512049_00066_22665_0227.N1	1	0
ASA_WSM_1PNPDE20060702_010810_000001092049_00074_22673_0824.N1	0	64

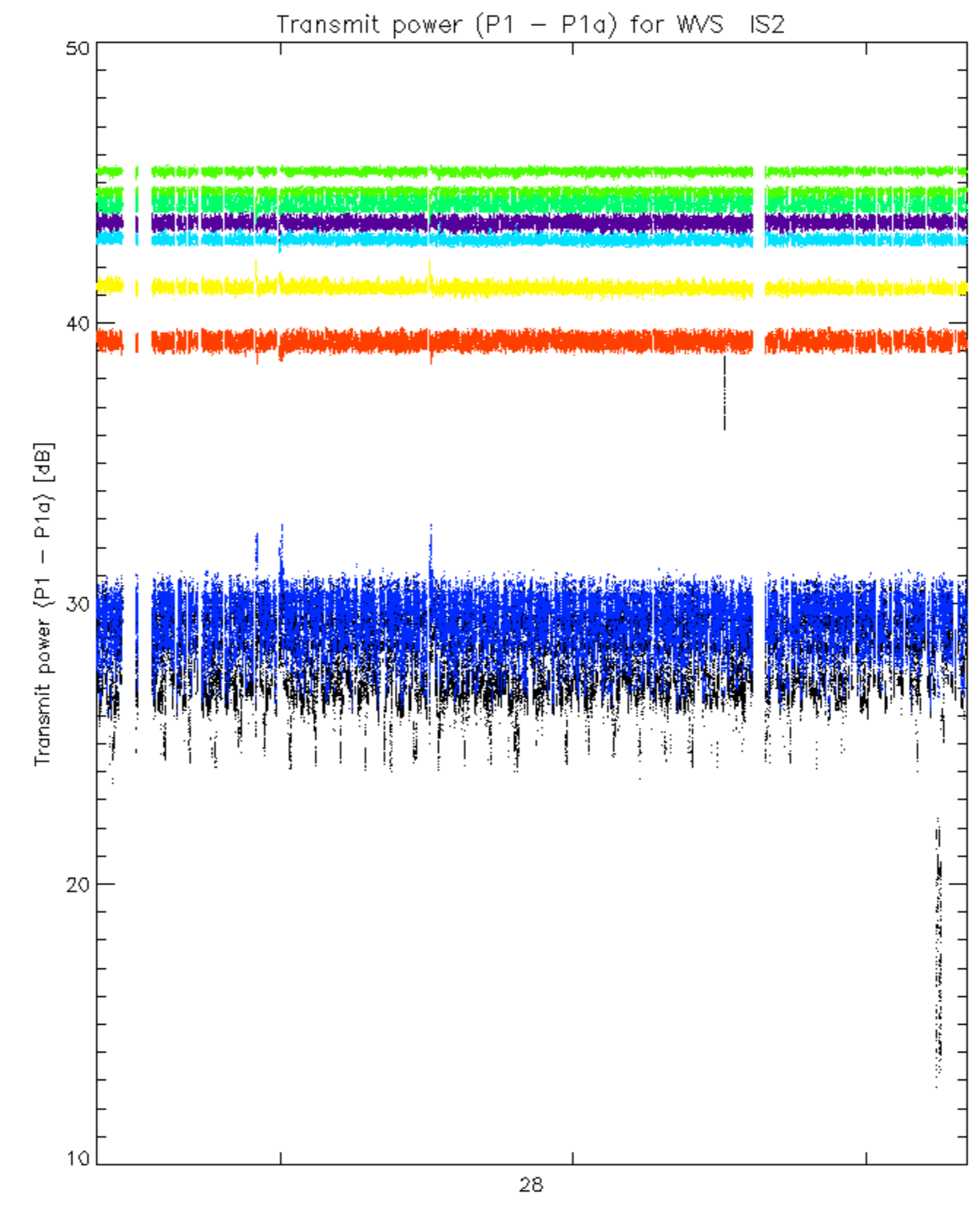




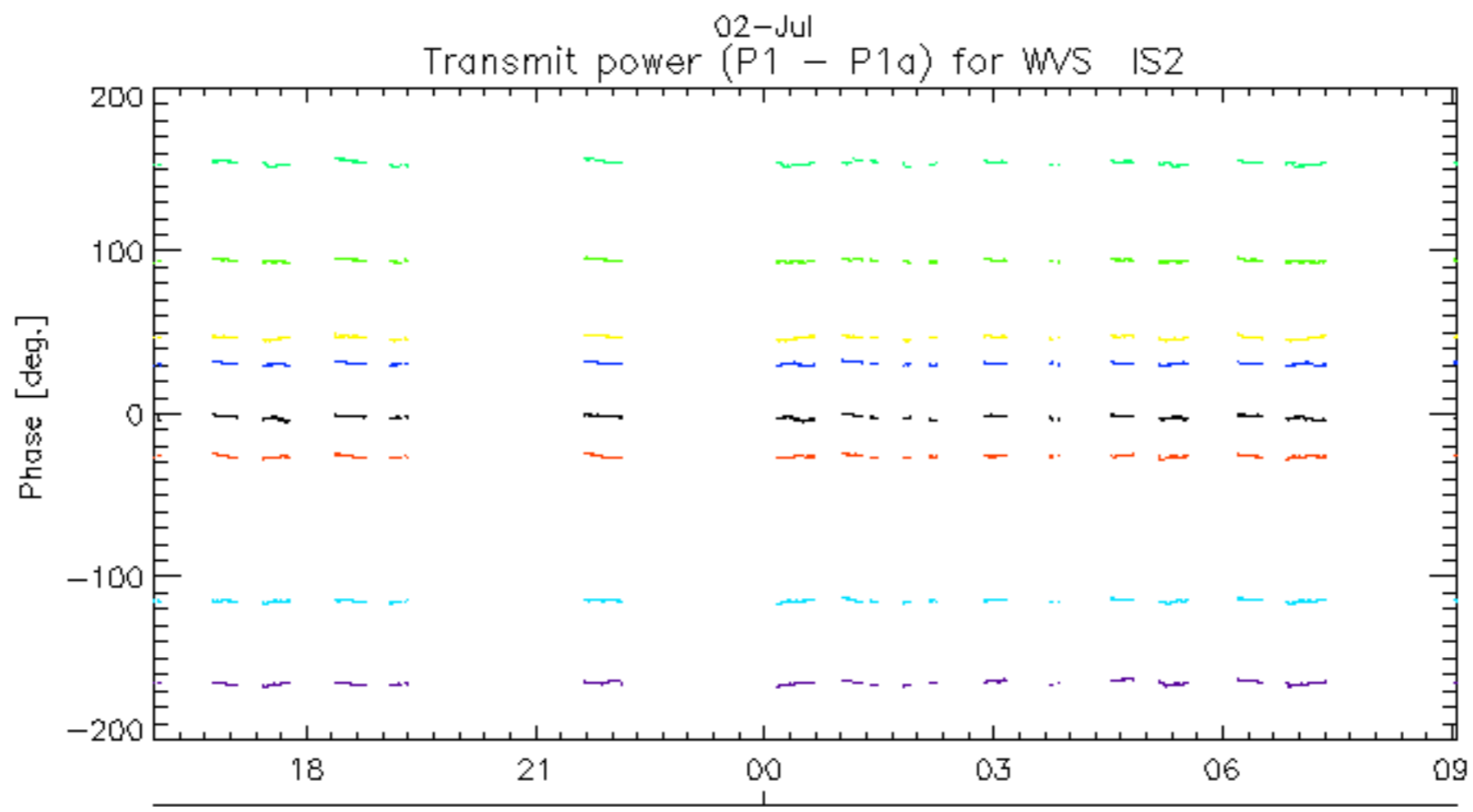
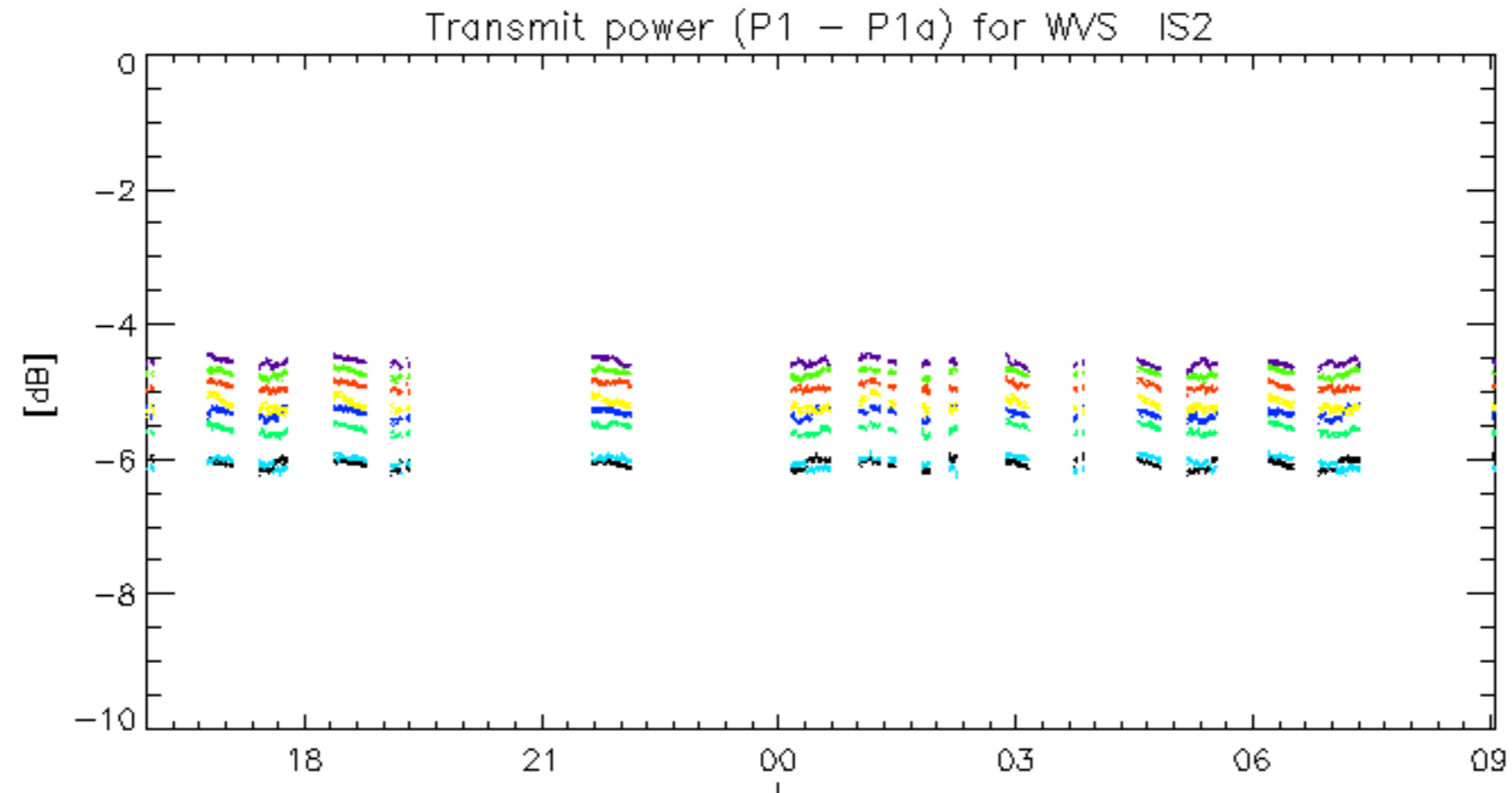




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.