

PRELIMINARY REPORT OF 060723

last update on Sun Jul 23 16:29:26 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 2006-07-22 00:00:00 to 2006-07-23 16:29:26

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	72	23	3	15
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	42	72	23	3	15
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	72	23	3	15
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	72	23	3	15

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	46	54	16	33
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	46	54	16	33
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	46	54	16	33
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	46	54	16	33

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	20060721 063530
H	20060722 060353

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	-3.932787	0.012174	-0.026230
7	P1	-3.102205	0.010316	0.000293
11	P1	-4.085927	0.013730	0.003068
15	P1	-6.172652	0.011493	-0.003829
19	P1	-3.398734	0.009326	-0.052519
22	P1	-4.547347	0.010225	-0.028614
26	P1	-3.930709	0.019794	0.027857
30	P1	-5.762617	0.008102	-0.003896
3	P1	-16.512499	0.324455	-0.061991
7	P1	-17.194157	0.103033	-0.048212
11	P1	-16.982737	0.277026	-0.017933
15	P1	-13.110261	0.150283	0.048674
19	P1	-14.449909	0.048664	-0.126884
22	P1	-16.019251	0.421077	0.011656
26	P1	-15.128062	0.236020	0.080859
30	P1	-17.099020	0.344669	-0.045424

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.982704	0.088149	0.139822
7	P2	-21.919582	0.105715	0.077723
11	P2	-15.795977	0.122101	0.065207
15	P2	-7.130535	0.101022	0.027302
19	P2	-9.134424	0.092001	0.008745
22	P2	-18.149920	0.086731	0.001604
26	P2	-16.399227	0.094346	-0.020152
30	P2	-19.524380	0.093539	0.036867

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175092	0.002971	0.002441
7	P3	-8.175092	0.002971	0.002441
11	P3	-8.175092	0.002971	0.002441
15	P3	-8.175092	0.002971	0.002441
19	P3	-8.175092	0.002971	0.002441
22	P3	-8.175092	0.002971	0.002441
26	P3	-8.175092	0.002971	0.002441
30	P3	-8.175092	0.002971	0.002441

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	-3.805366	0.026488	-0.099593
7	P1	-2.561057	0.007976	0.017062
11	P1	-2.858660	0.014451	0.016012
15	P1	-3.568548	0.029202	-0.045681
19	P1	-3.418067	0.013296	-0.013593
22	P1	-5.089907	0.019997	0.025019
26	P1	-5.859436	0.015715	-0.015741
30	P1	-5.193183	0.026594	-0.010604
3	P1	-11.591426	0.088494	-0.135794
7	P1	-9.970508	0.034095	0.030611
11	P1	-10.248007	0.057171	0.005390
15	P1	-10.755655	0.145223	-0.013485
19	P1	-15.531339	0.074191	-0.021489
22	P1	-20.914846	1.228442	-0.006733
26	P1	-16.306583	0.381654	0.211864
30	P1	-17.904940	0.410559	-0.137770

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.626047	0.070780	0.216505
7	P2	-22.403490	0.127188	0.133803
11	P2	-11.051364	0.042007	0.091853
15	P2	-4.913019	0.045974	0.037108
19	P2	-6.874806	0.041180	0.032090
22	P2	-8.196936	0.037040	0.022501
26	P2	-24.183714	0.062186	0.030029
30	P2	-22.015282	0.049724	0.054119

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014030	0.003747	0.013863
7	P3	-8.014025	0.003748	0.013932
11	P3	-8.013909	0.003762	0.013467
15	P3	-8.013999	0.003755	0.013902
19	P3	-8.014022	0.003753	0.013739
22	P3	-8.014029	0.003743	0.013636
26	P3	-8.014029	0.003747	0.013320
30	P3	-8.014013	0.003743	0.013789

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	0.000565823
	stdev	1.66253e-07
MEAN Q	mean	0.000542978
	stdev	2.11798e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137970
	stdev	0.00107701
STDEV Q	mean	0.138328
	stdev	0.00109484



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[123]

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_1PNPDE20060721_010621_000000822049_00346_22945_1459.N1	1	0
ASA_IMM_1PNPDE20060722_182653_000000352049_00371_22970_1645.N1	0	16
ASA_GM1_1PNPDK20060721_072534_000007552049_00350_22949_1372.N1	0	163
ASA_WSM_1PNPDK20060722_103053_000000862049_00366_22965_1789.N1	0	5







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

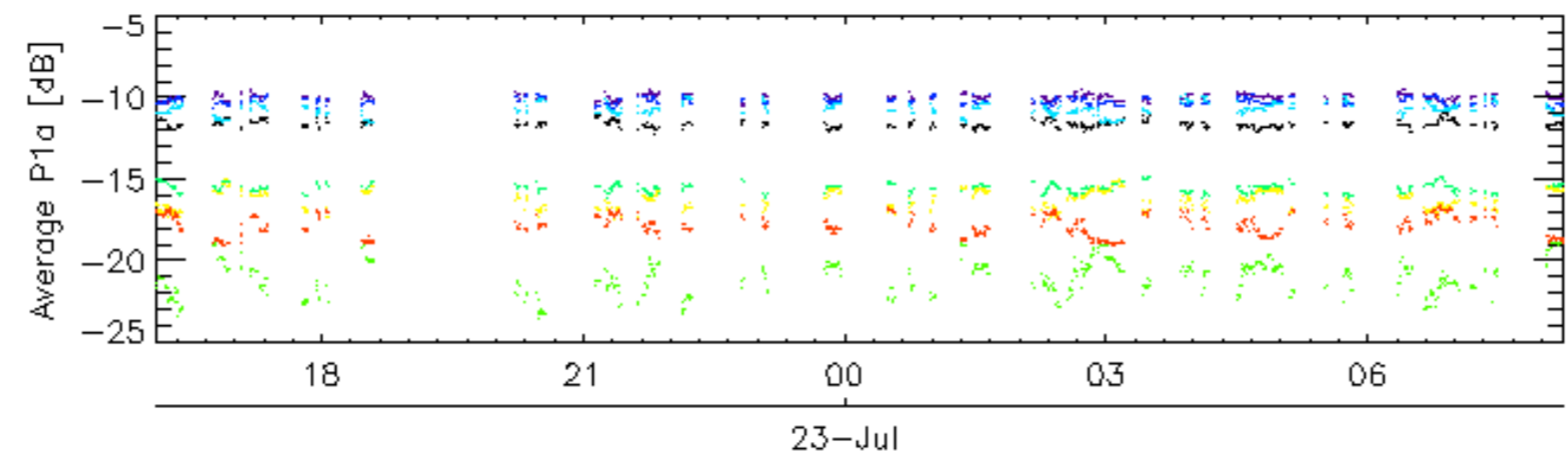
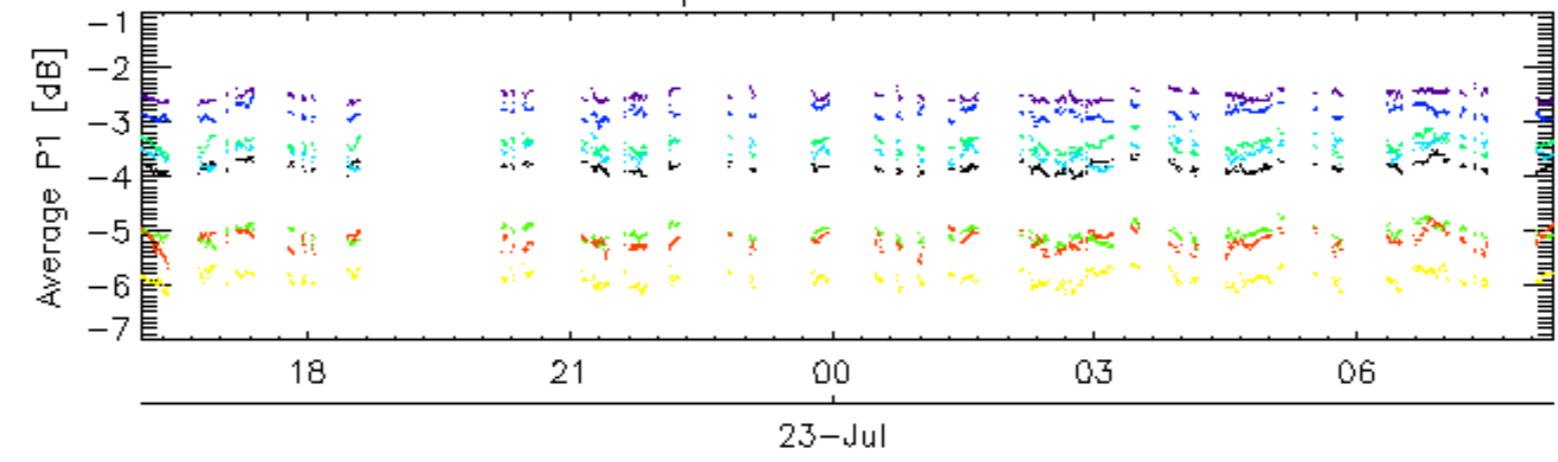
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

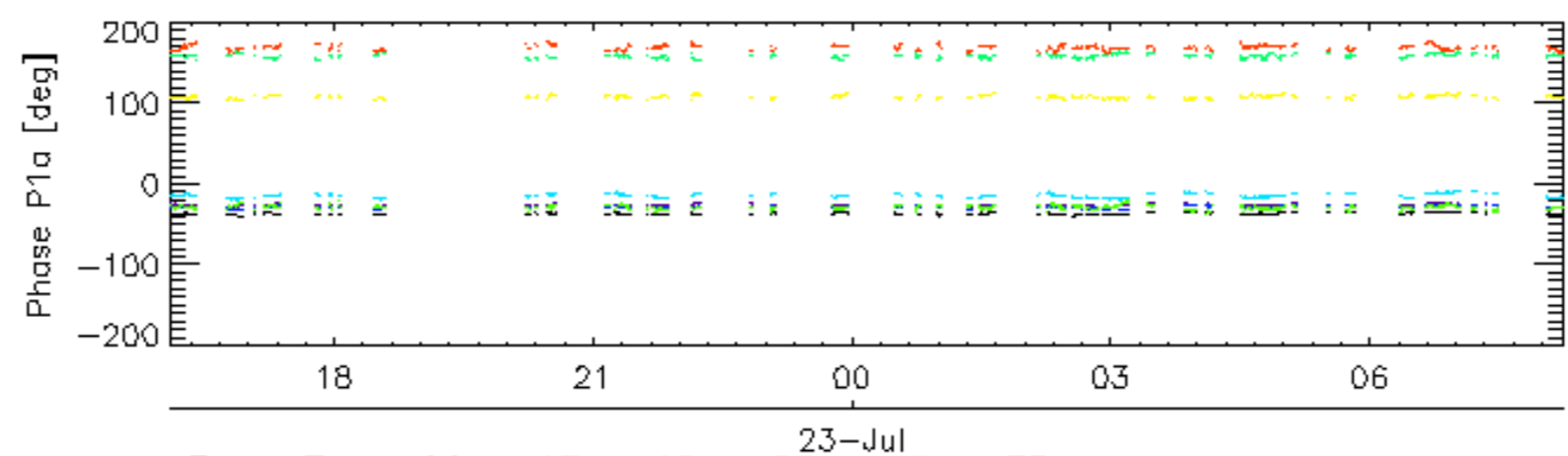
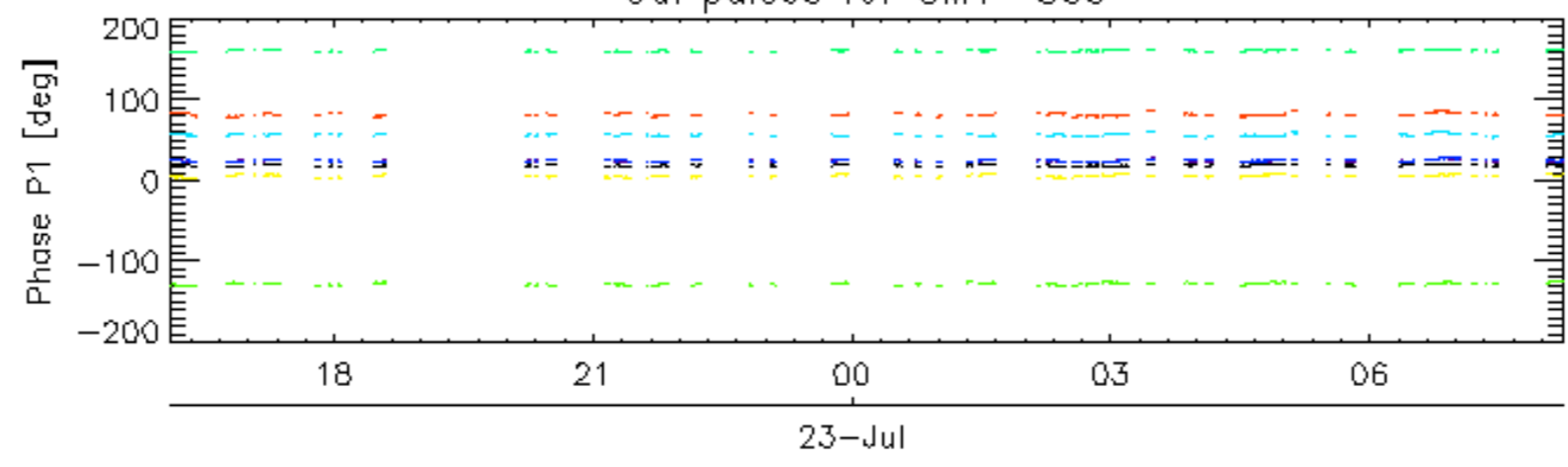
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

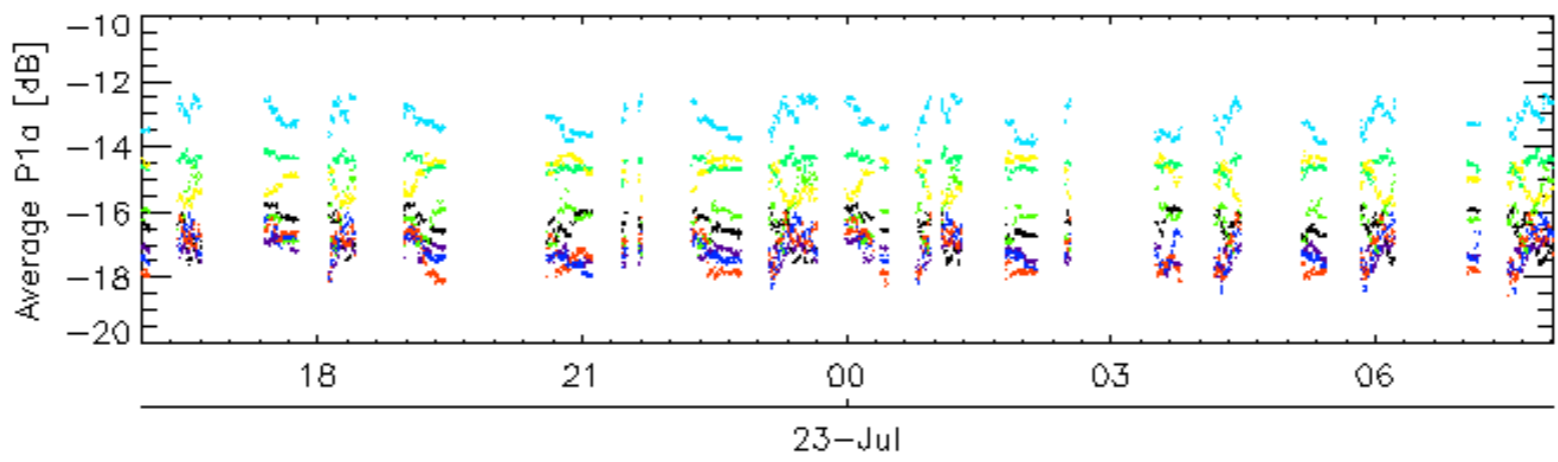
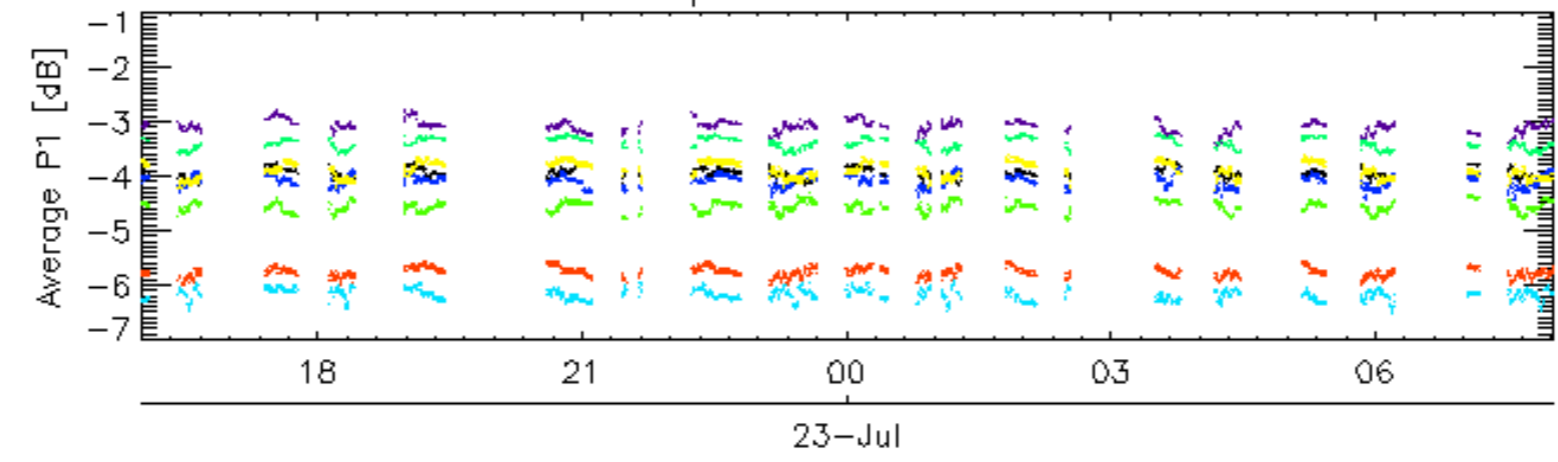


Cal pulses for GM1 SS3

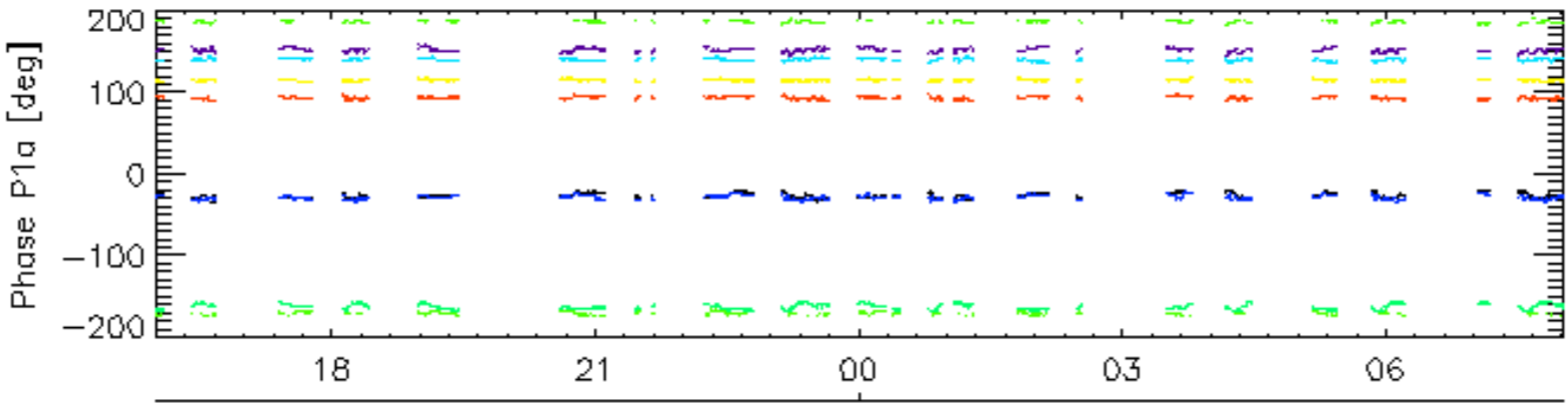
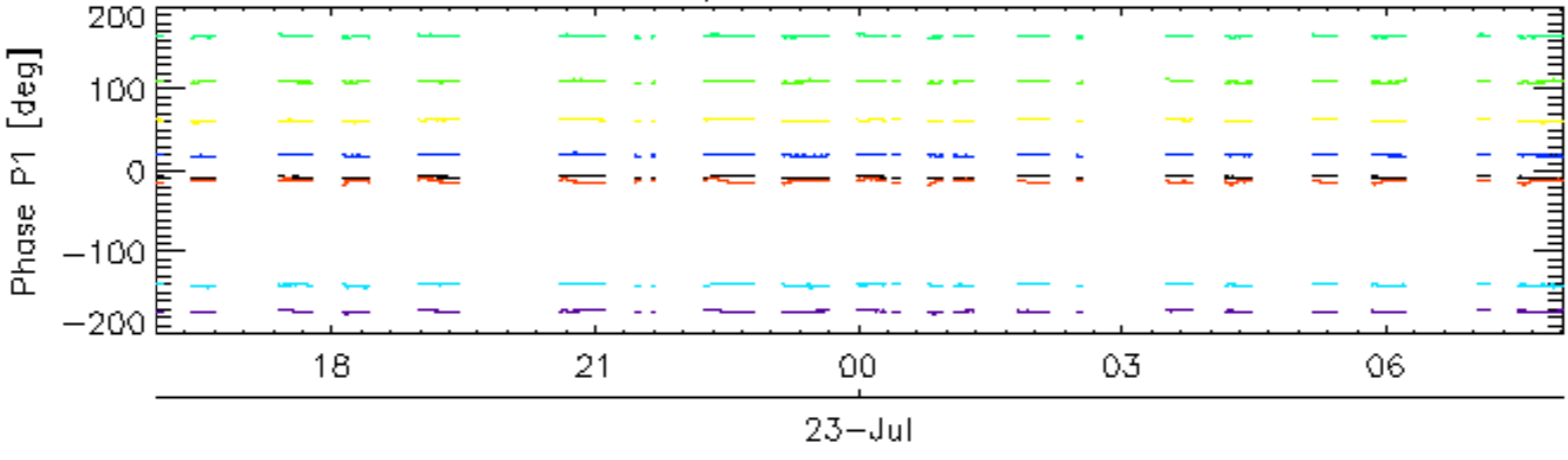


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

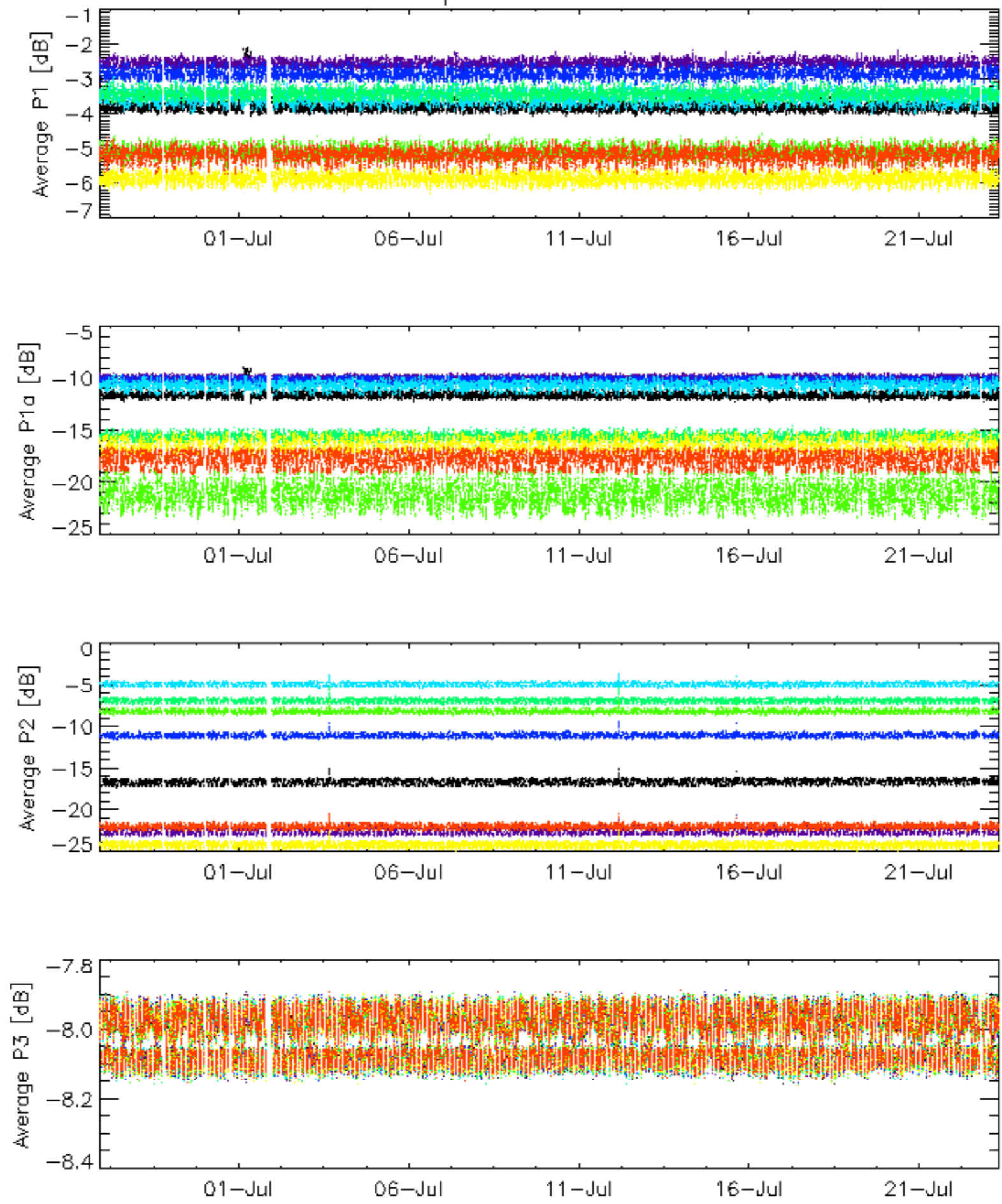


Cal pulses for WVS IS2



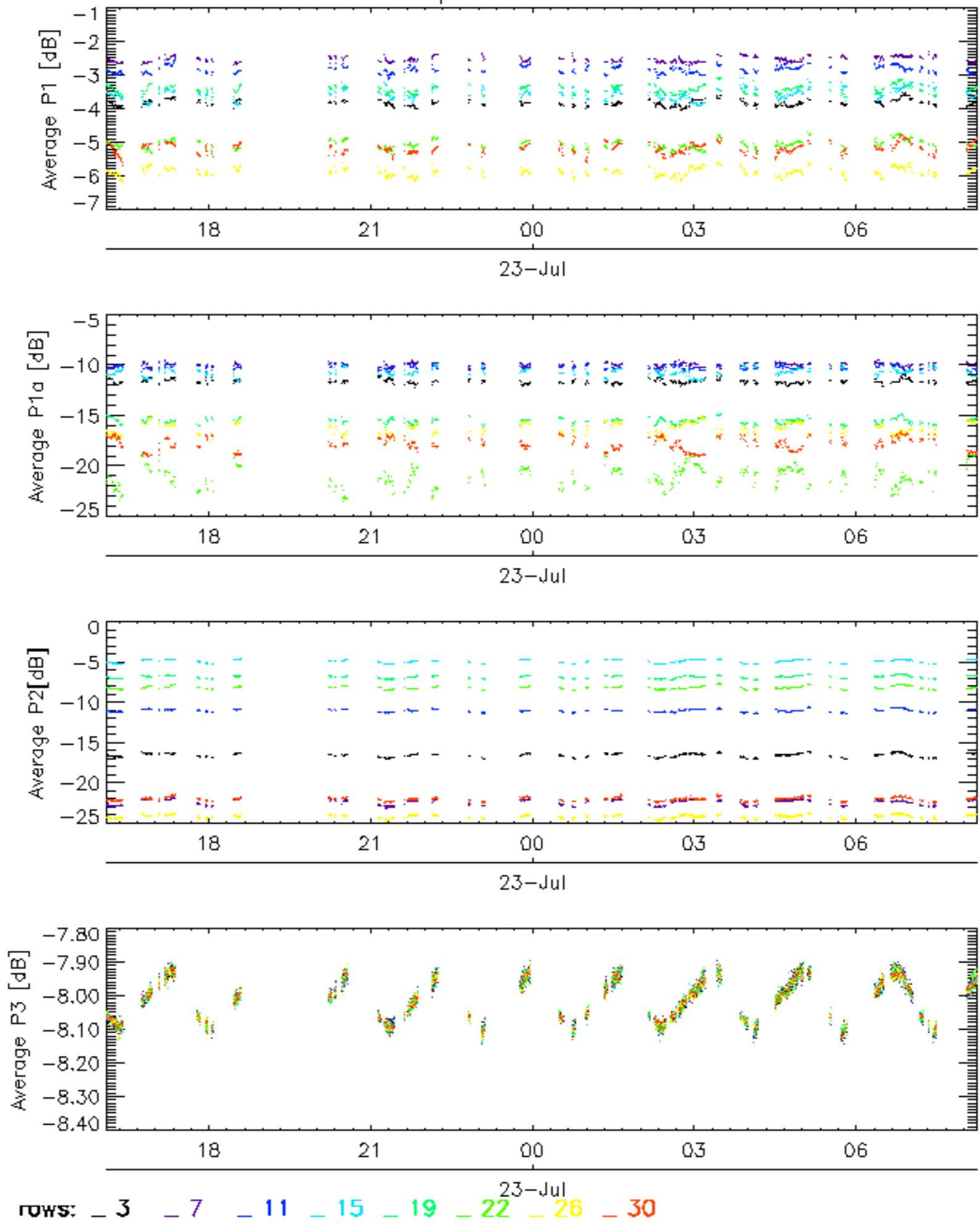
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 23-Jul

Cal pulses for GM1 SS3

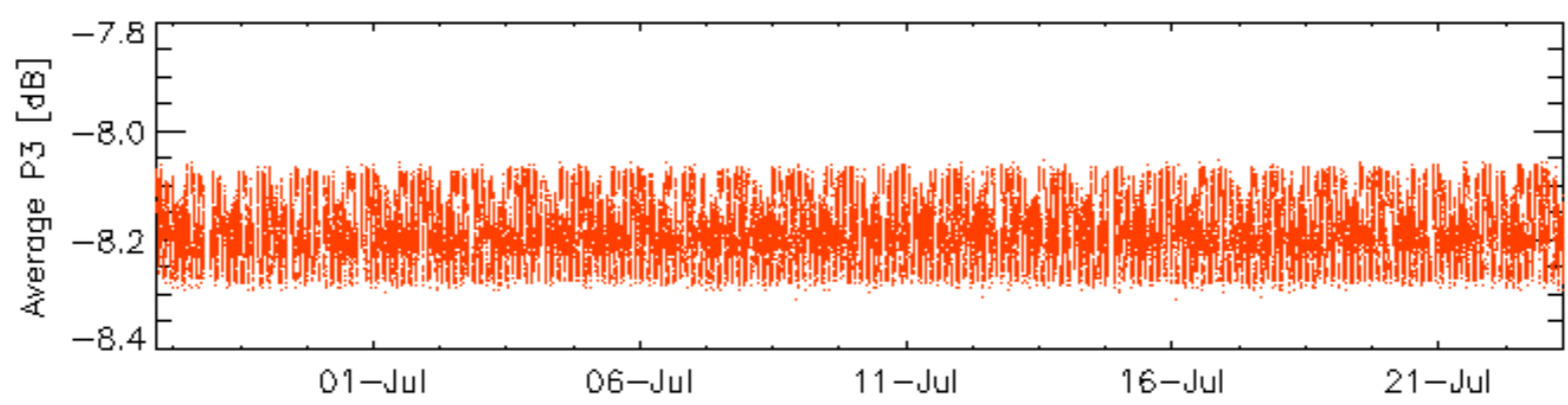
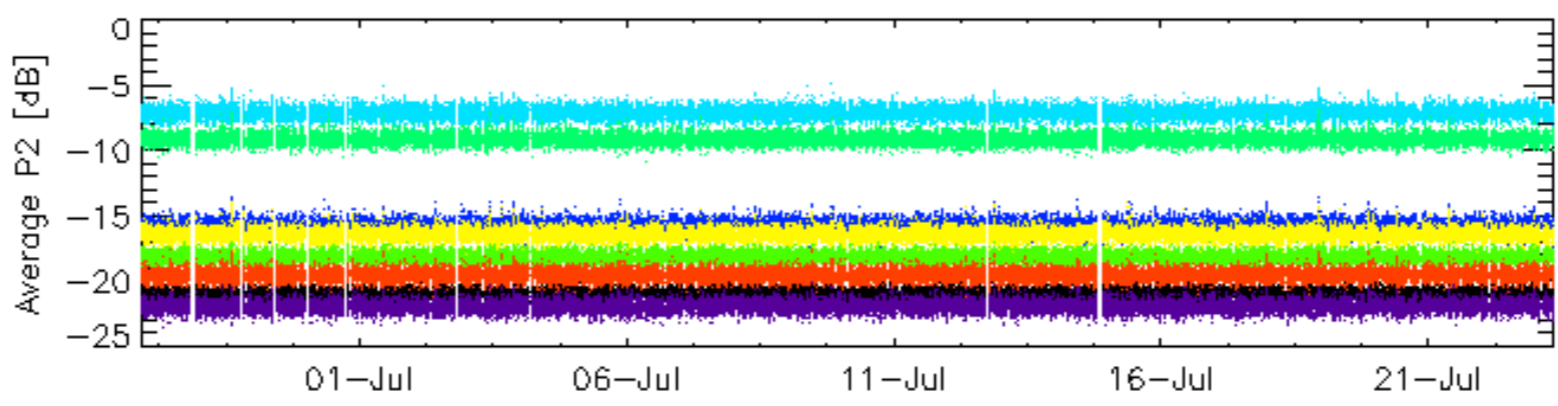
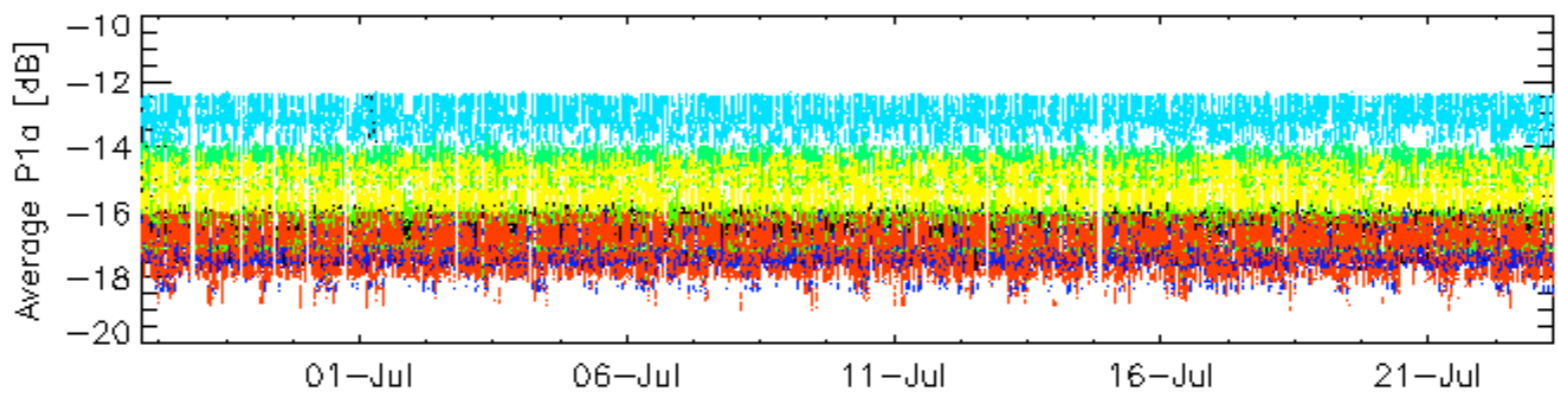
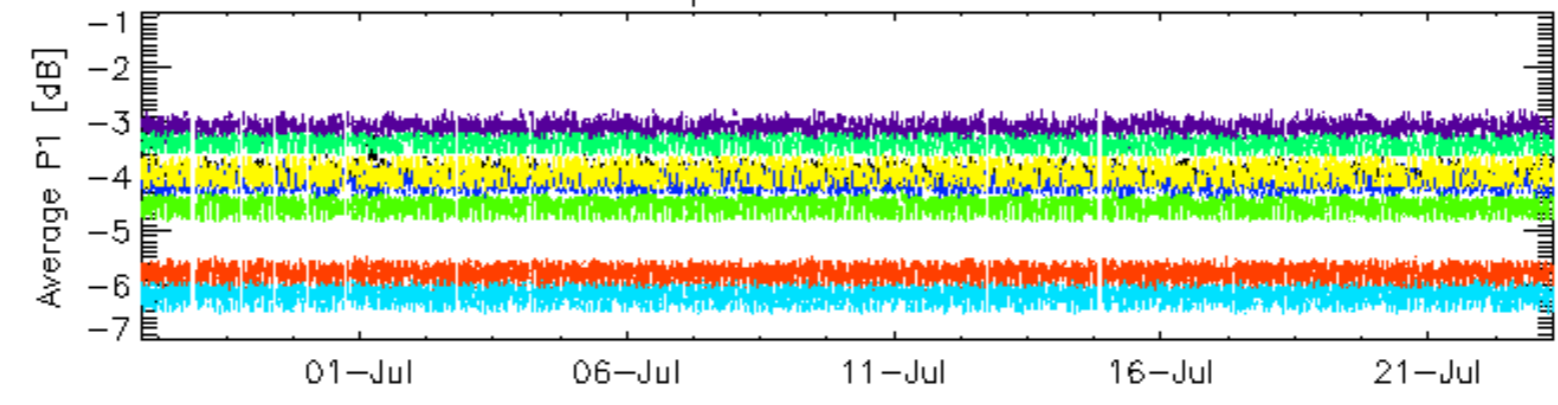


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

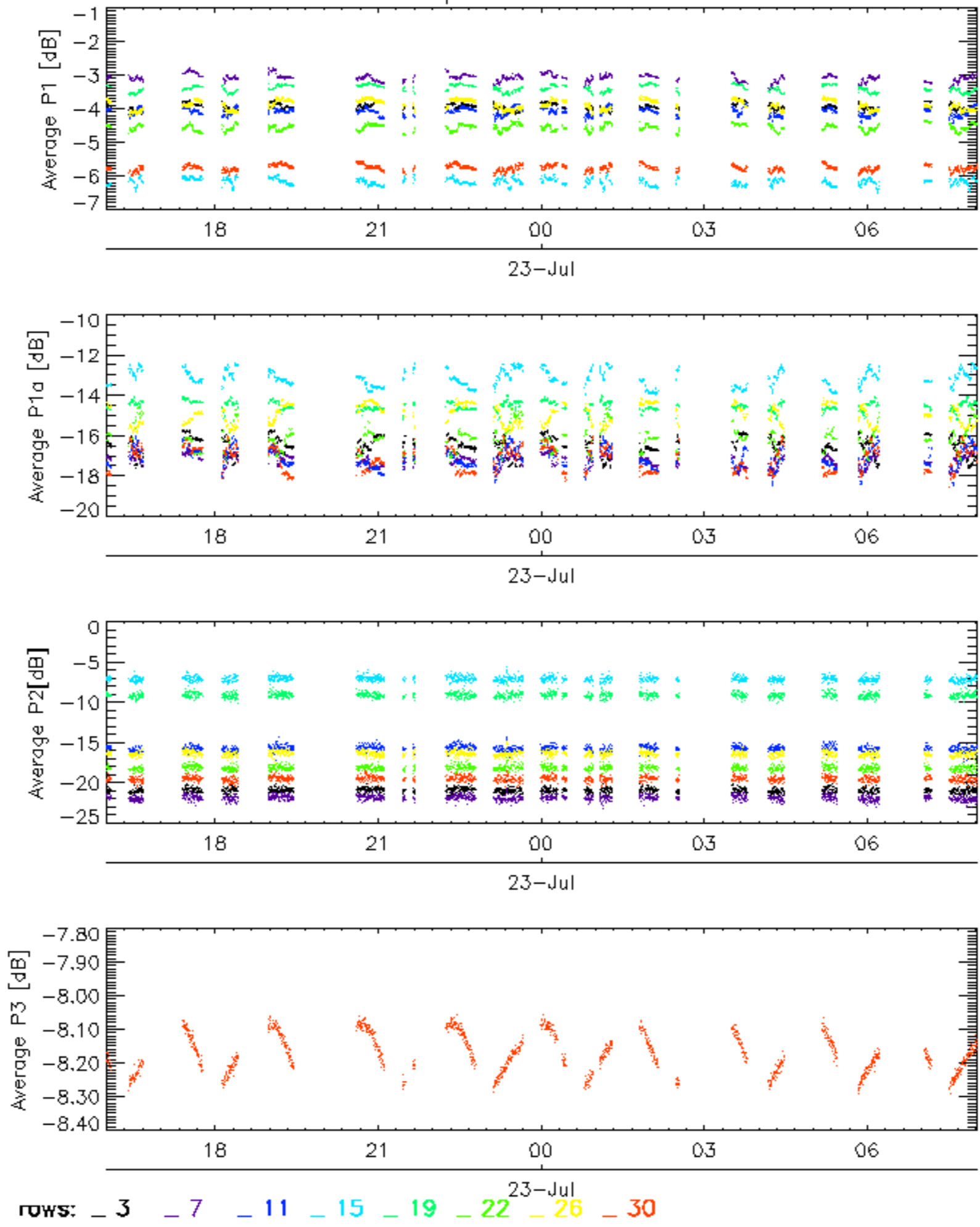


Cal pulses for WVS IS2

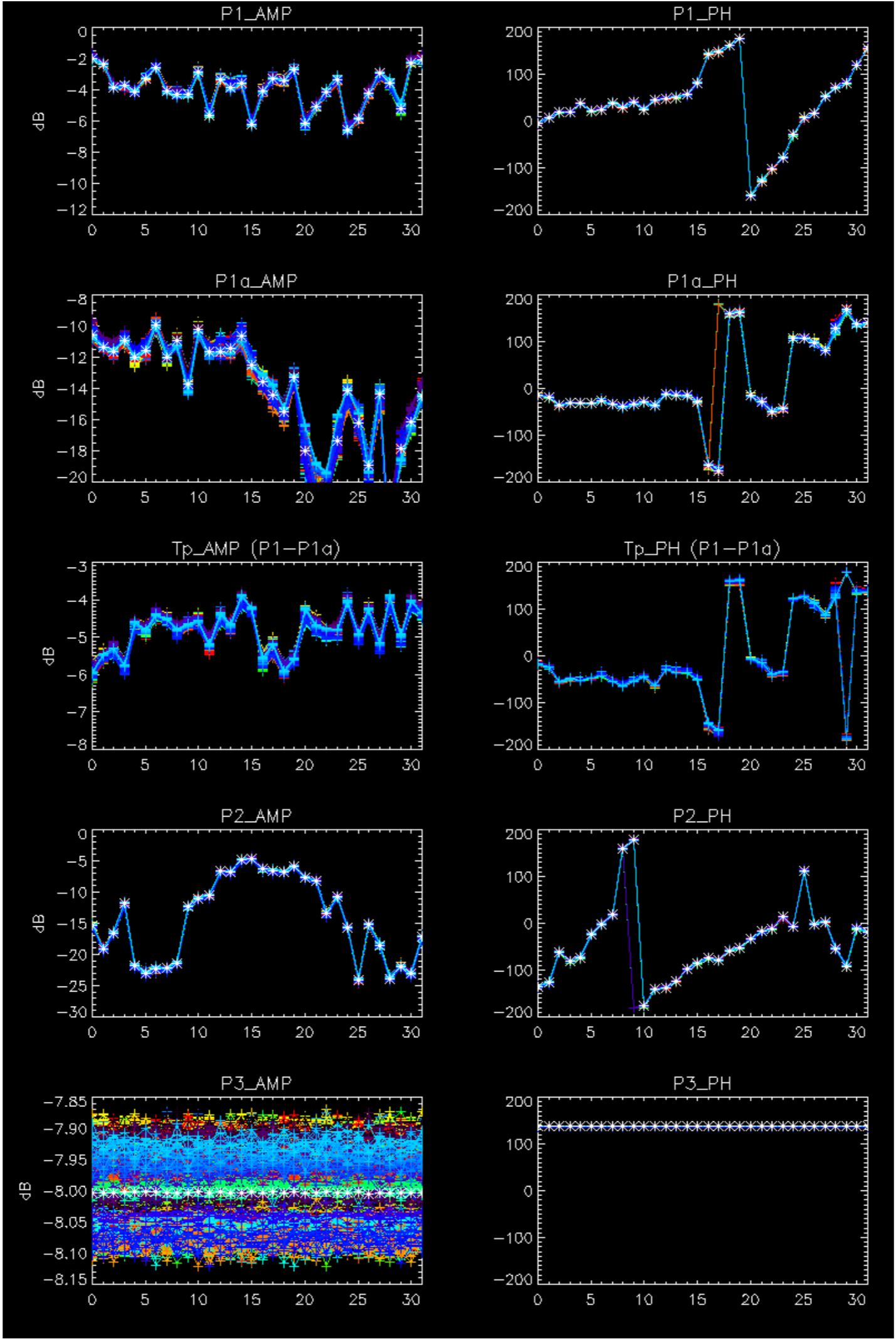


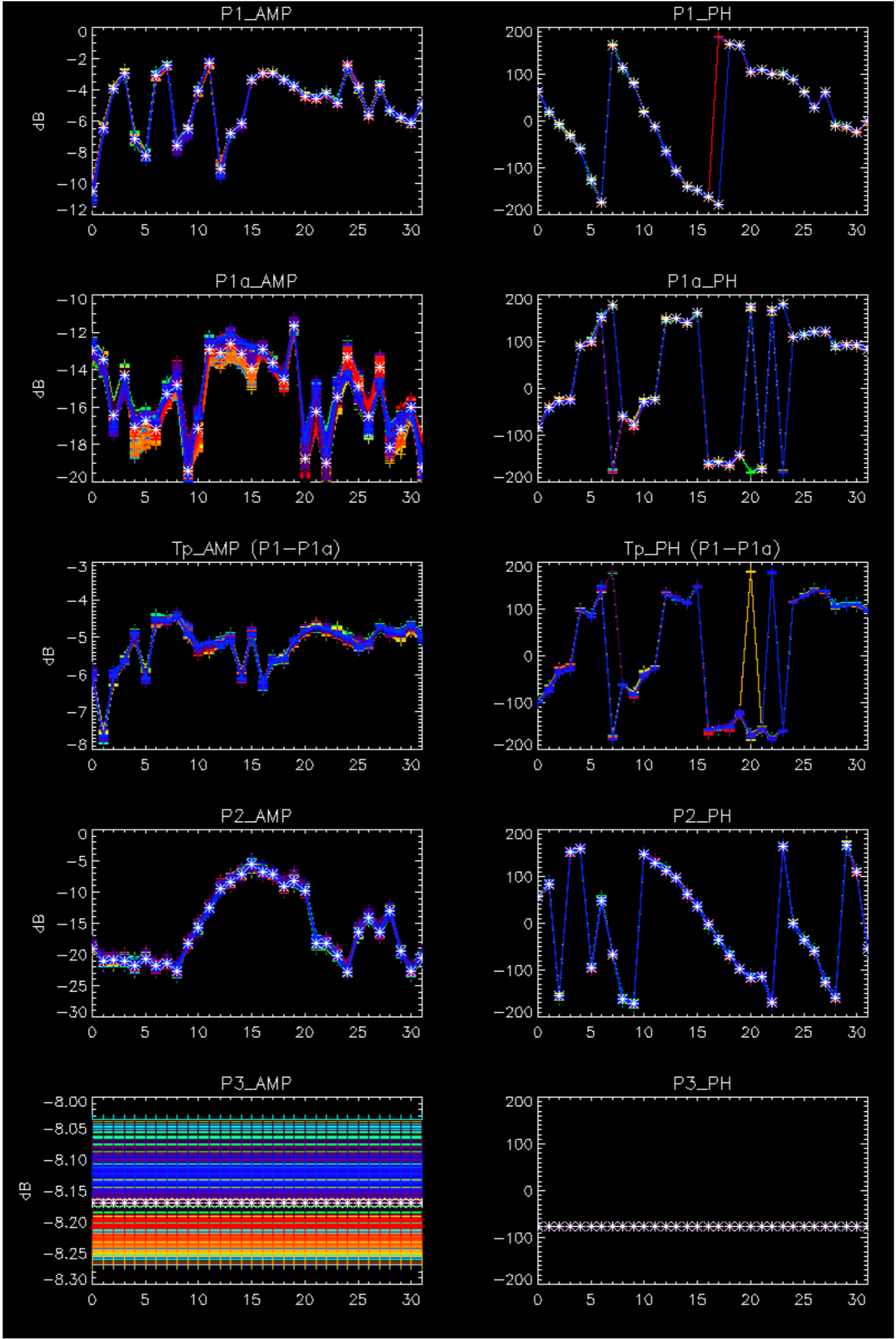
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



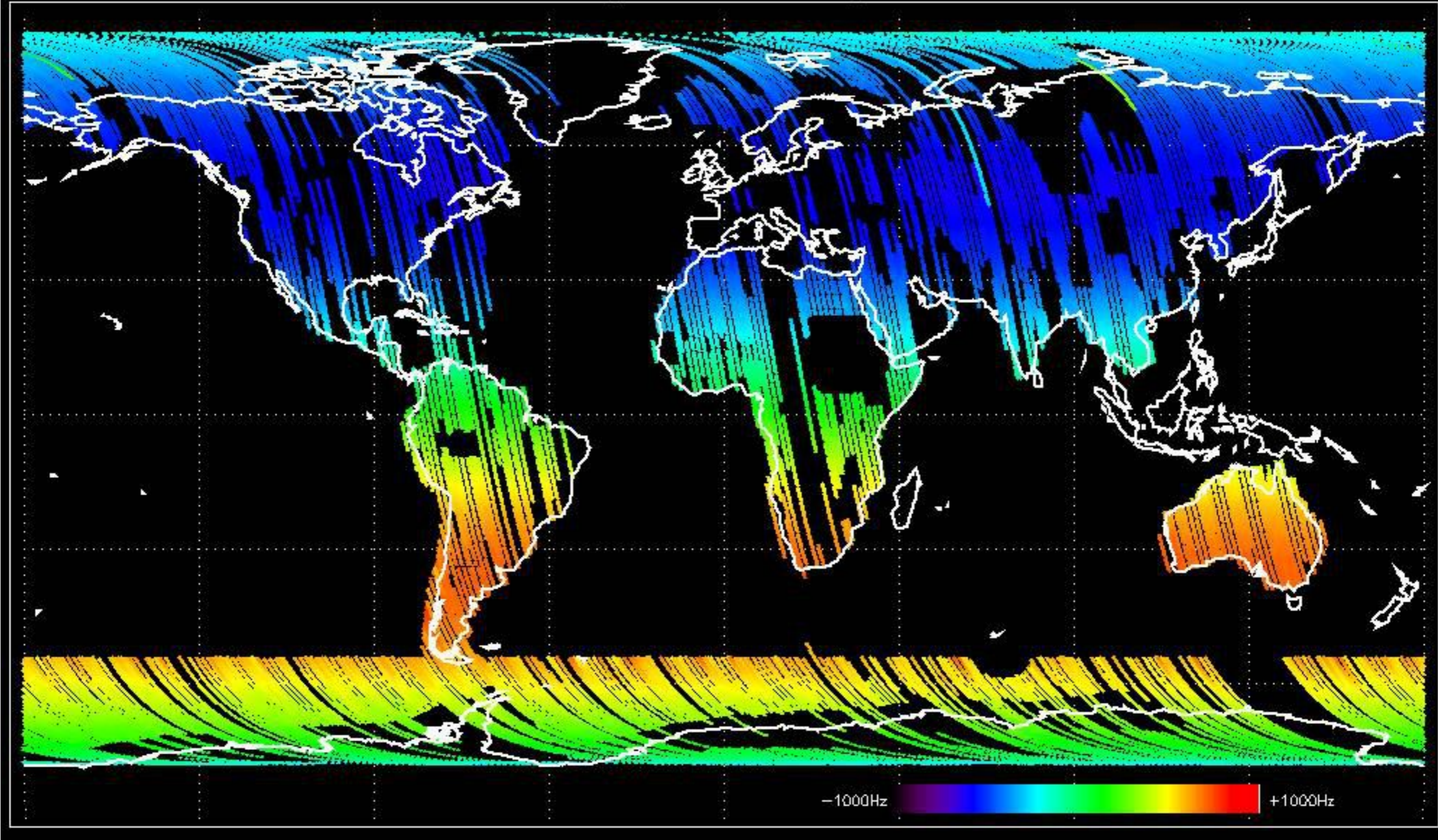
No anomalies observed.



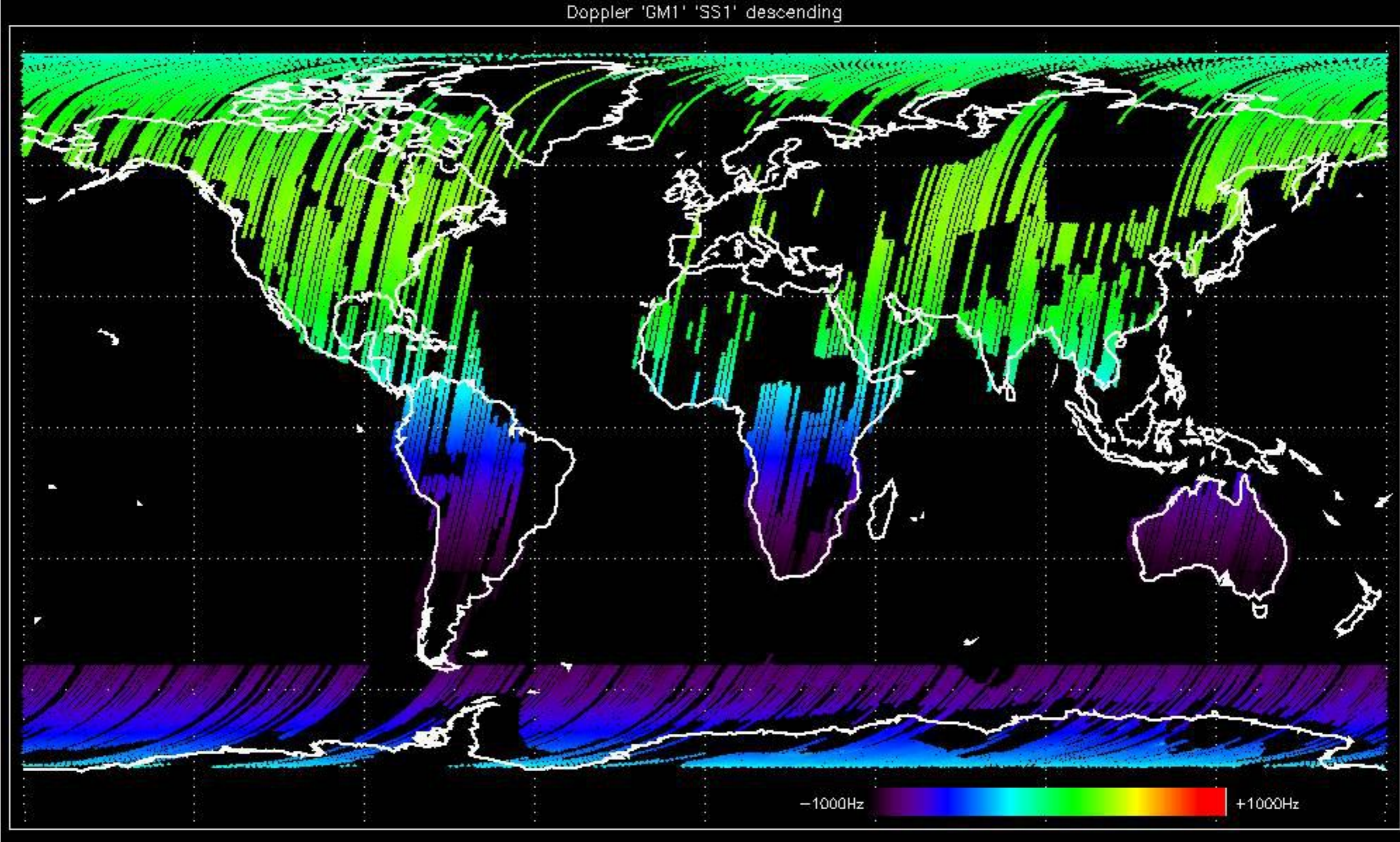


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

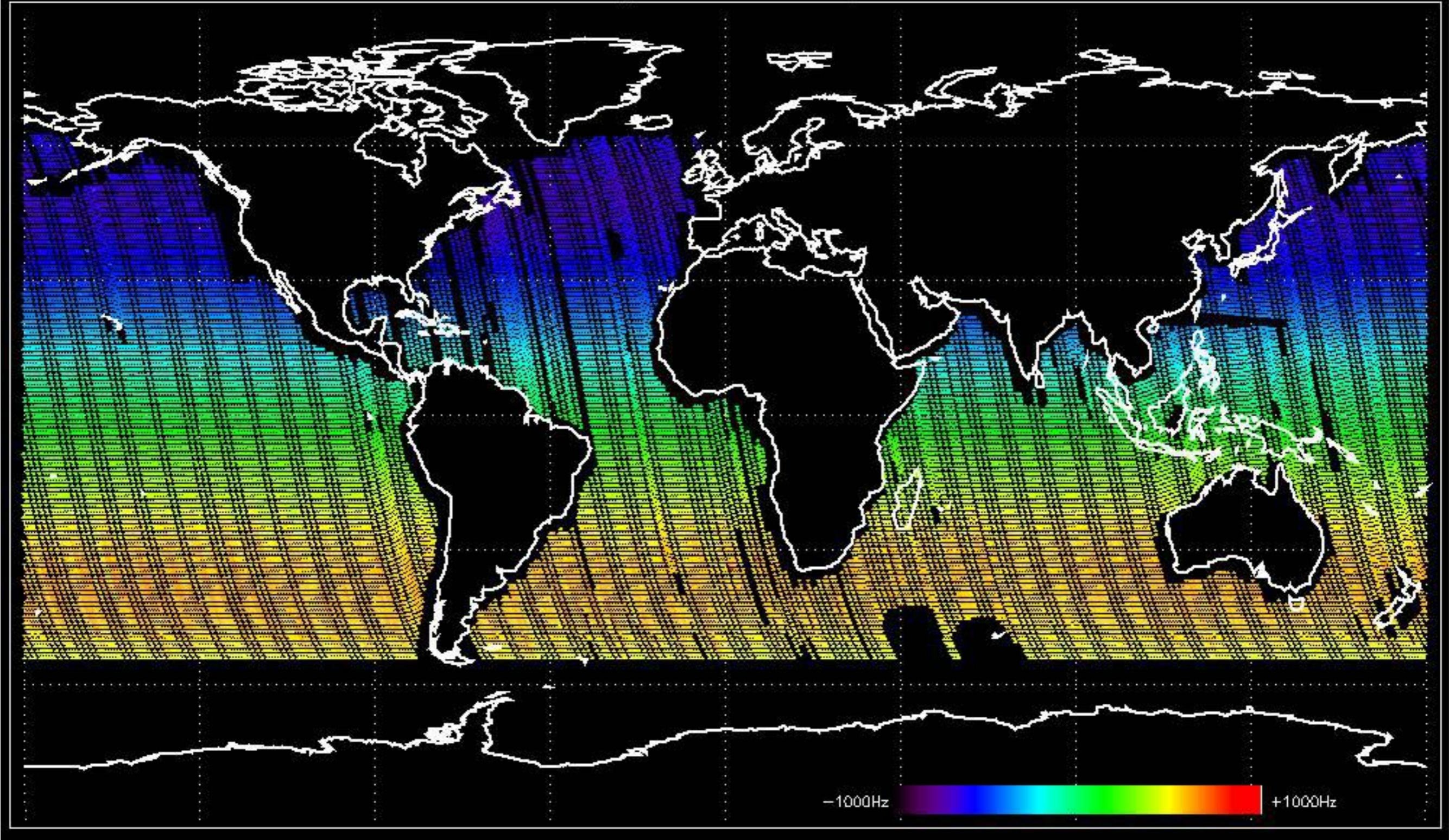
Doppler 'GM1' 'SS1' ascending



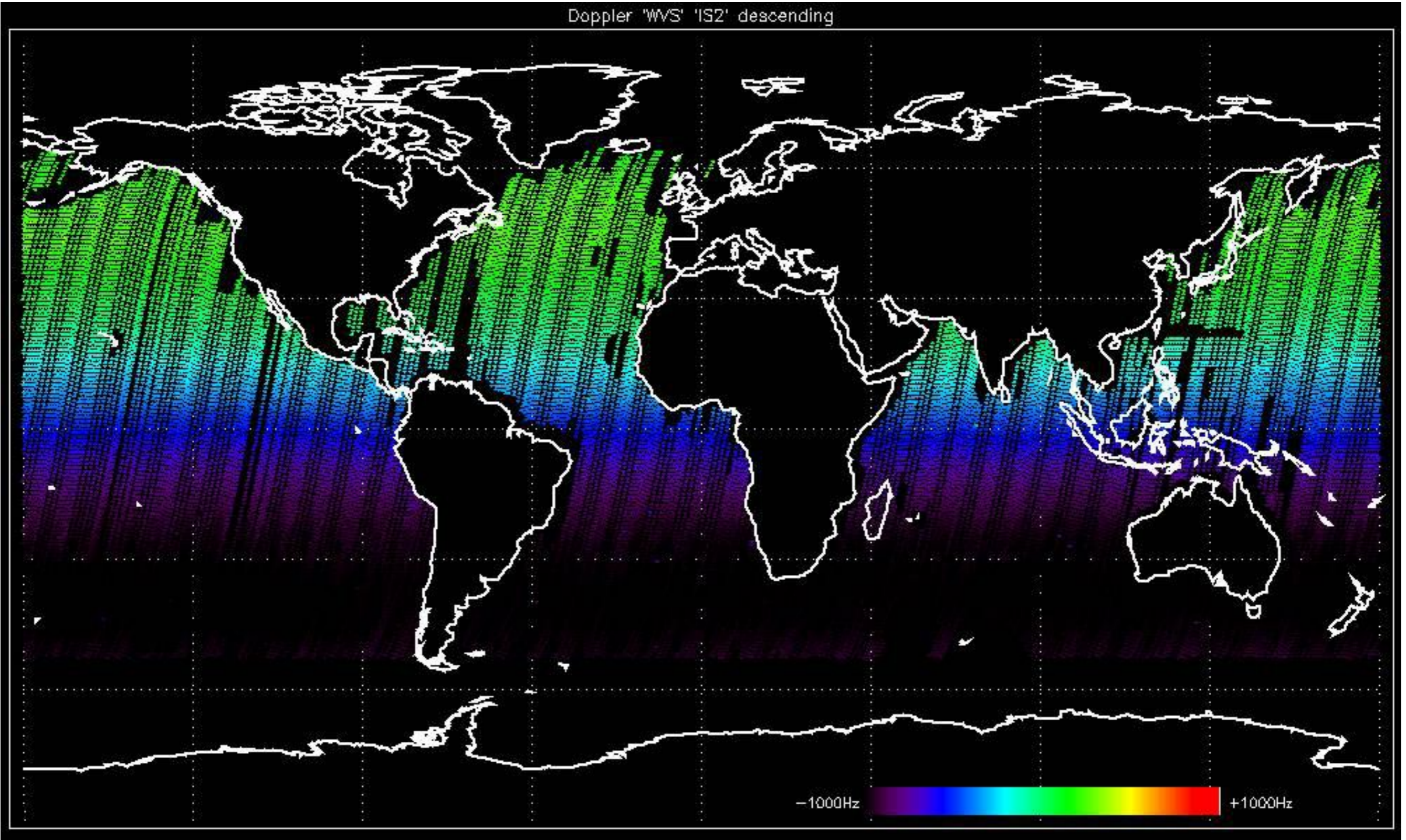
Doppler 'GM1' 'SS1' descending



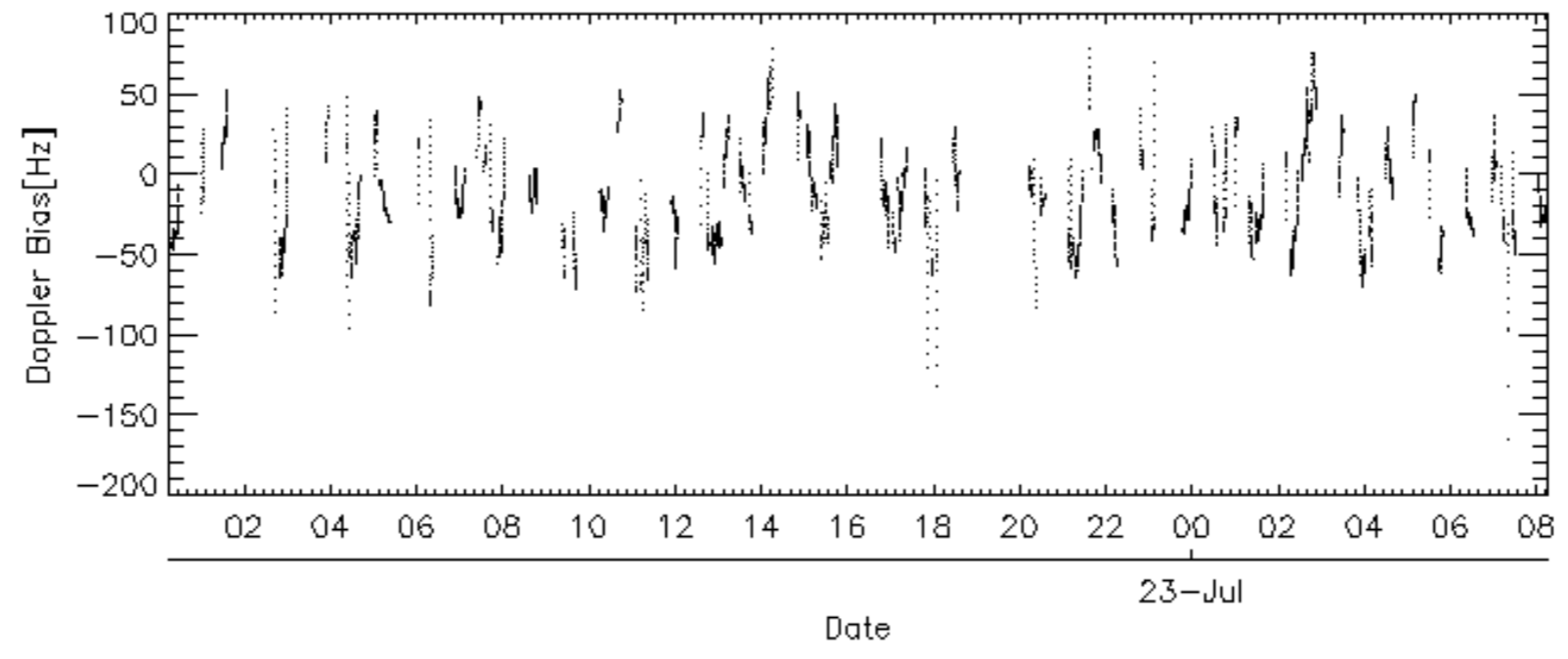
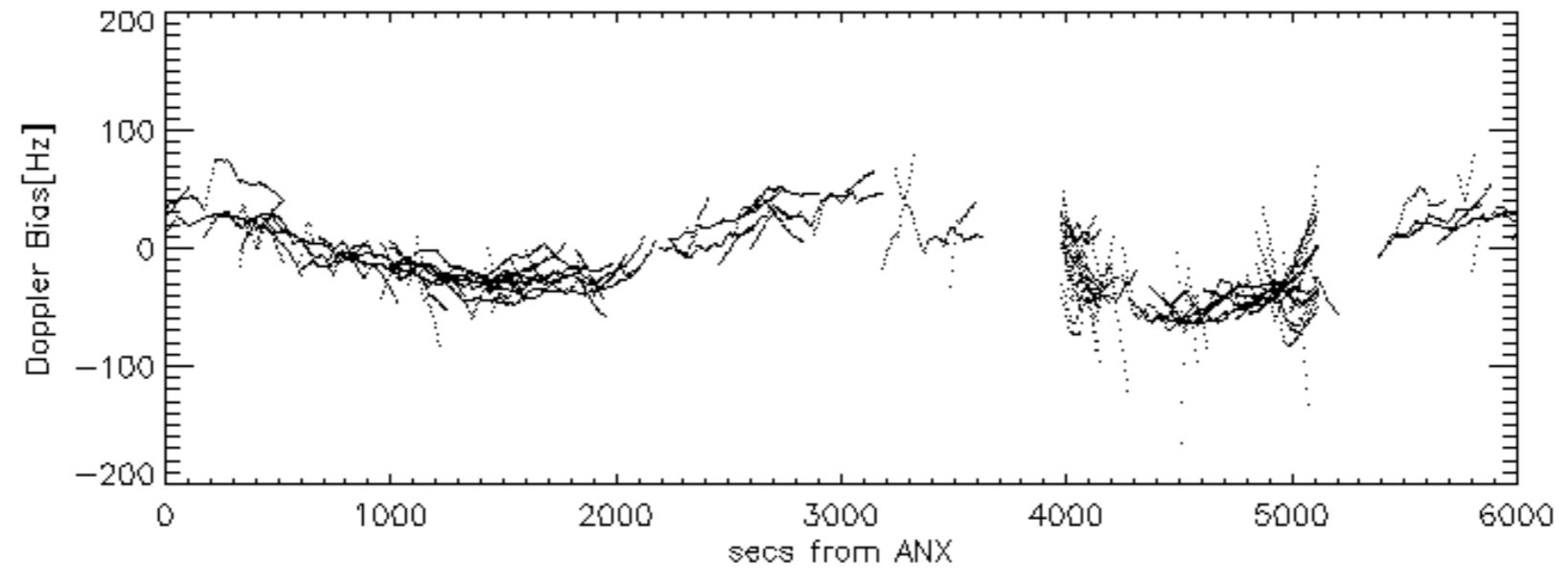
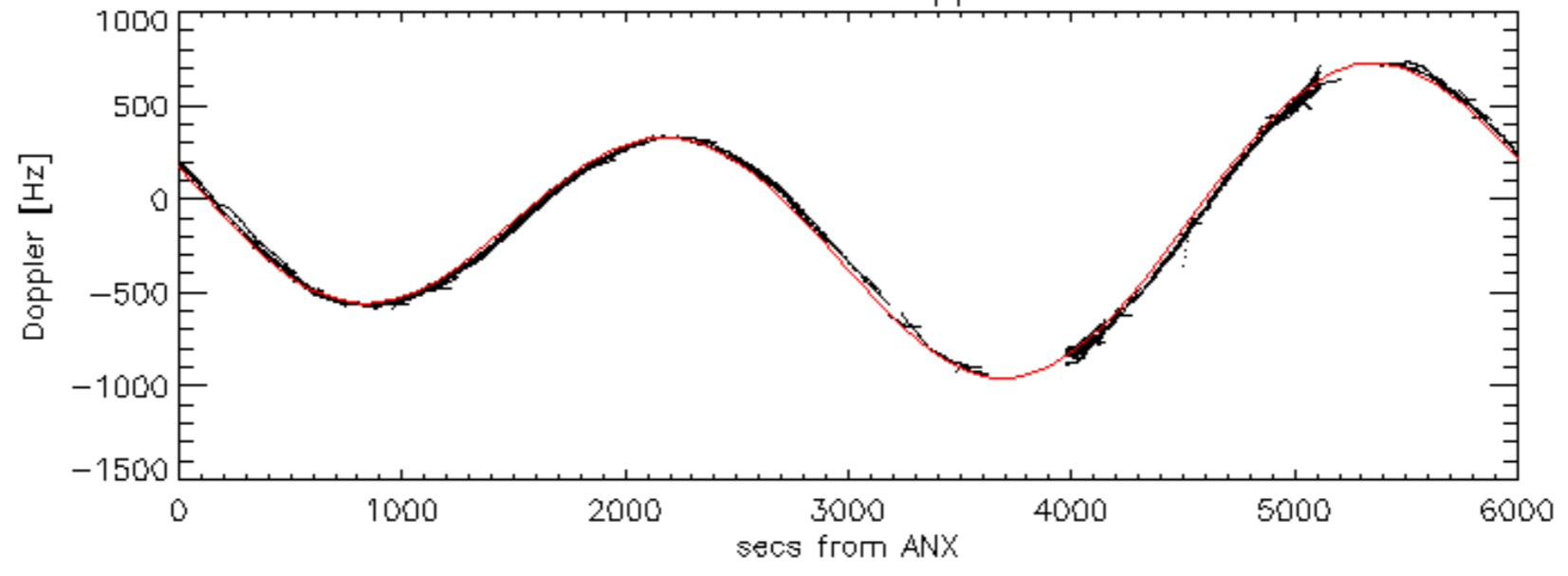
Doppler 'WVS' 'IS2' ascending

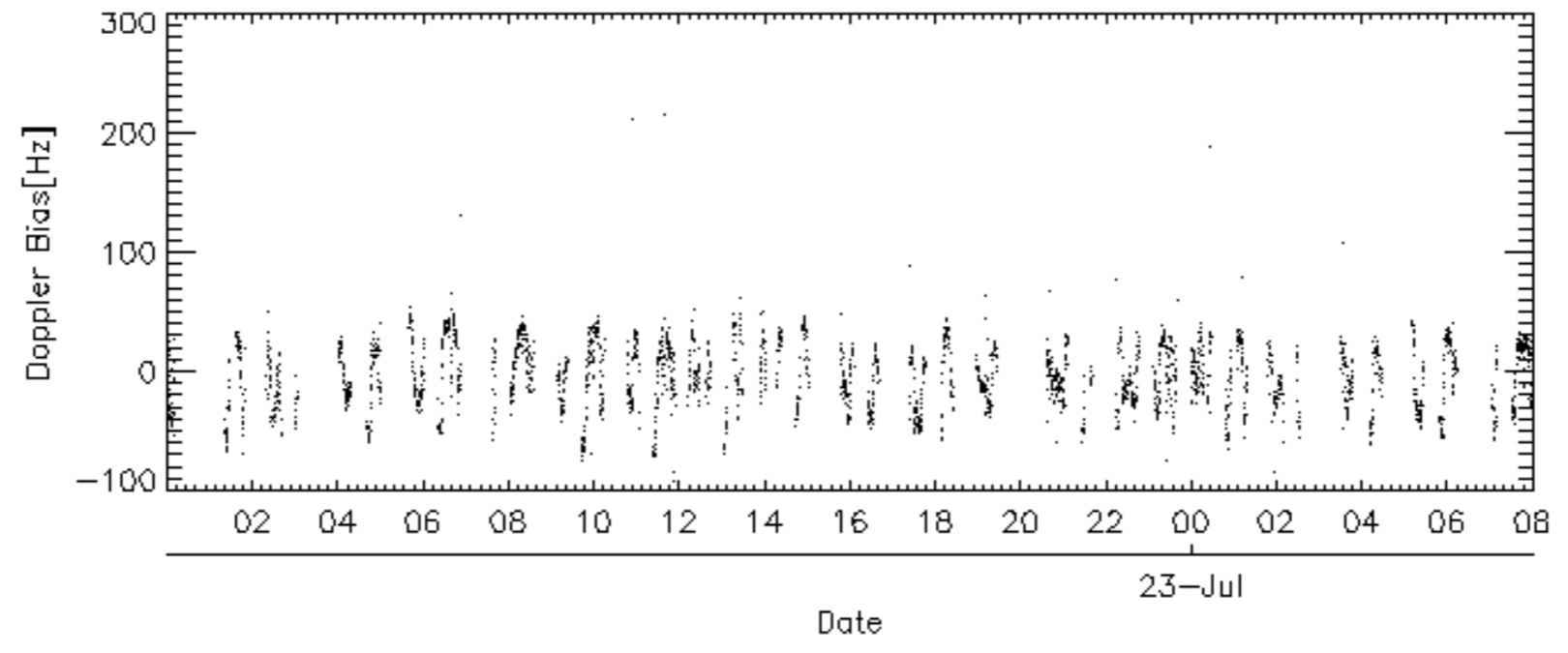
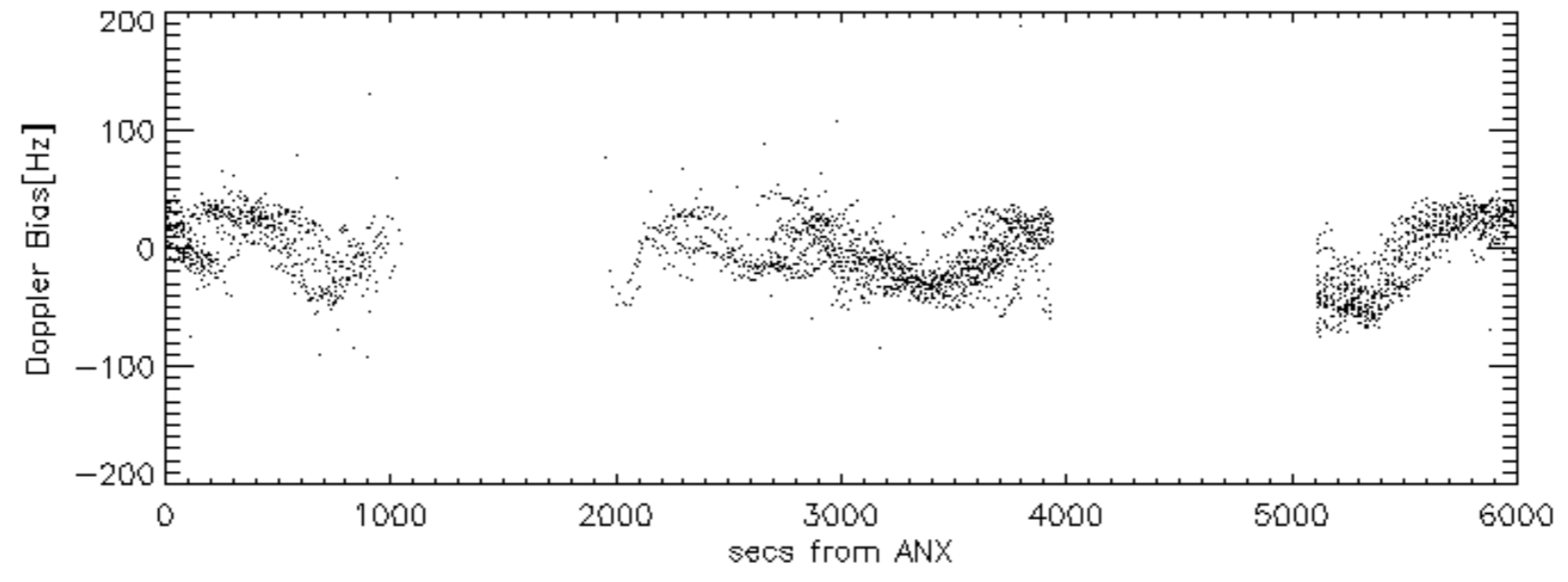
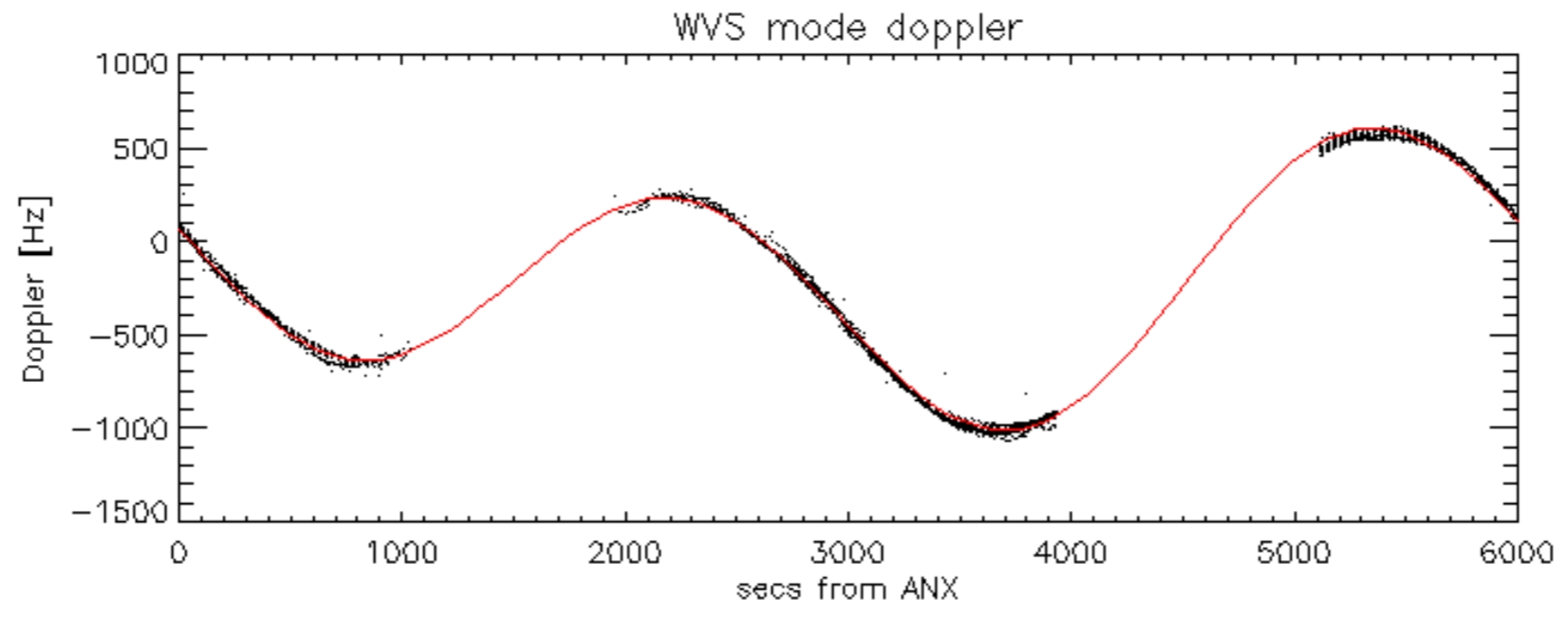


Doppler 'WVS' 'IS2' descending

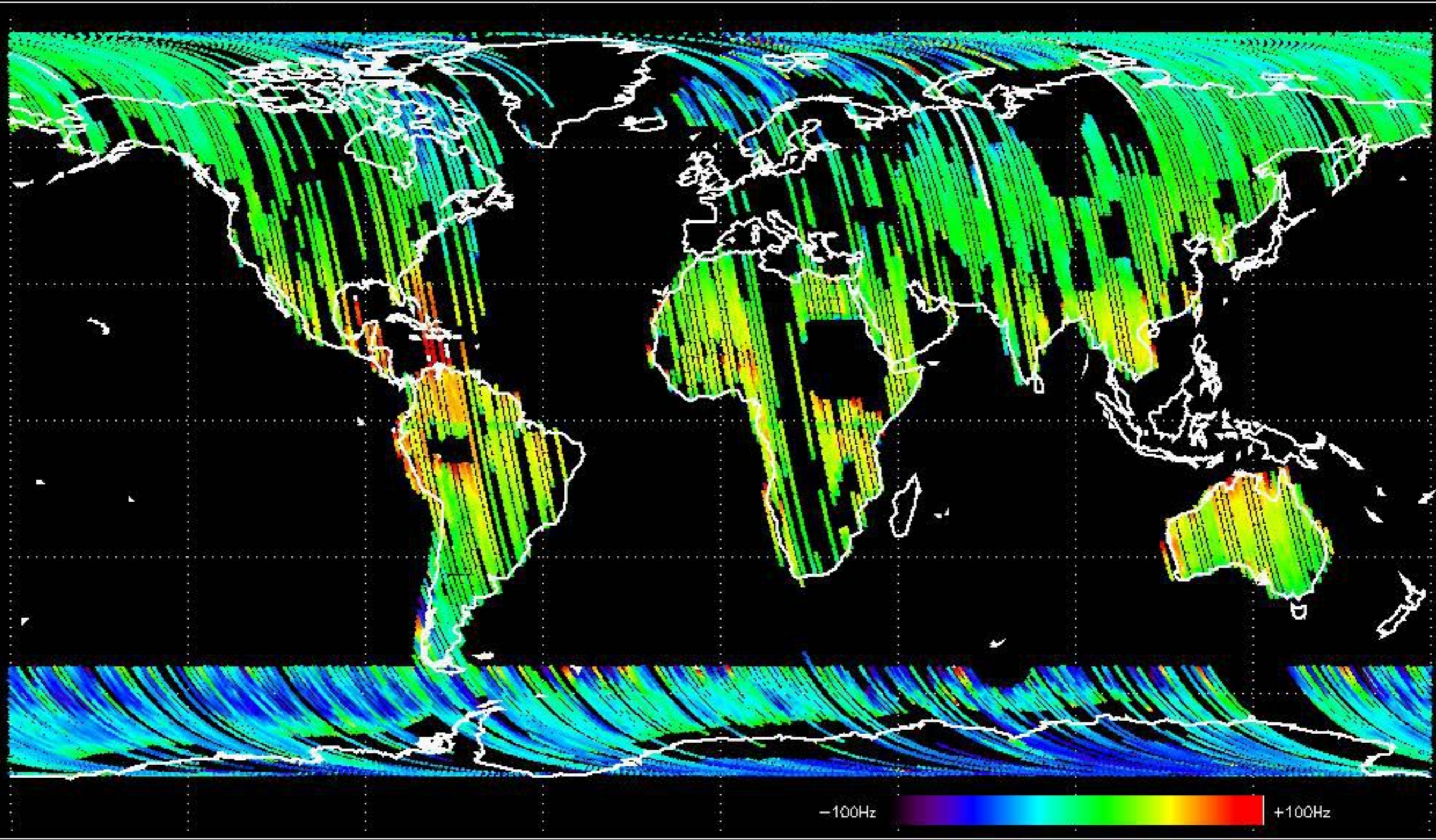


GM1 mode doppler

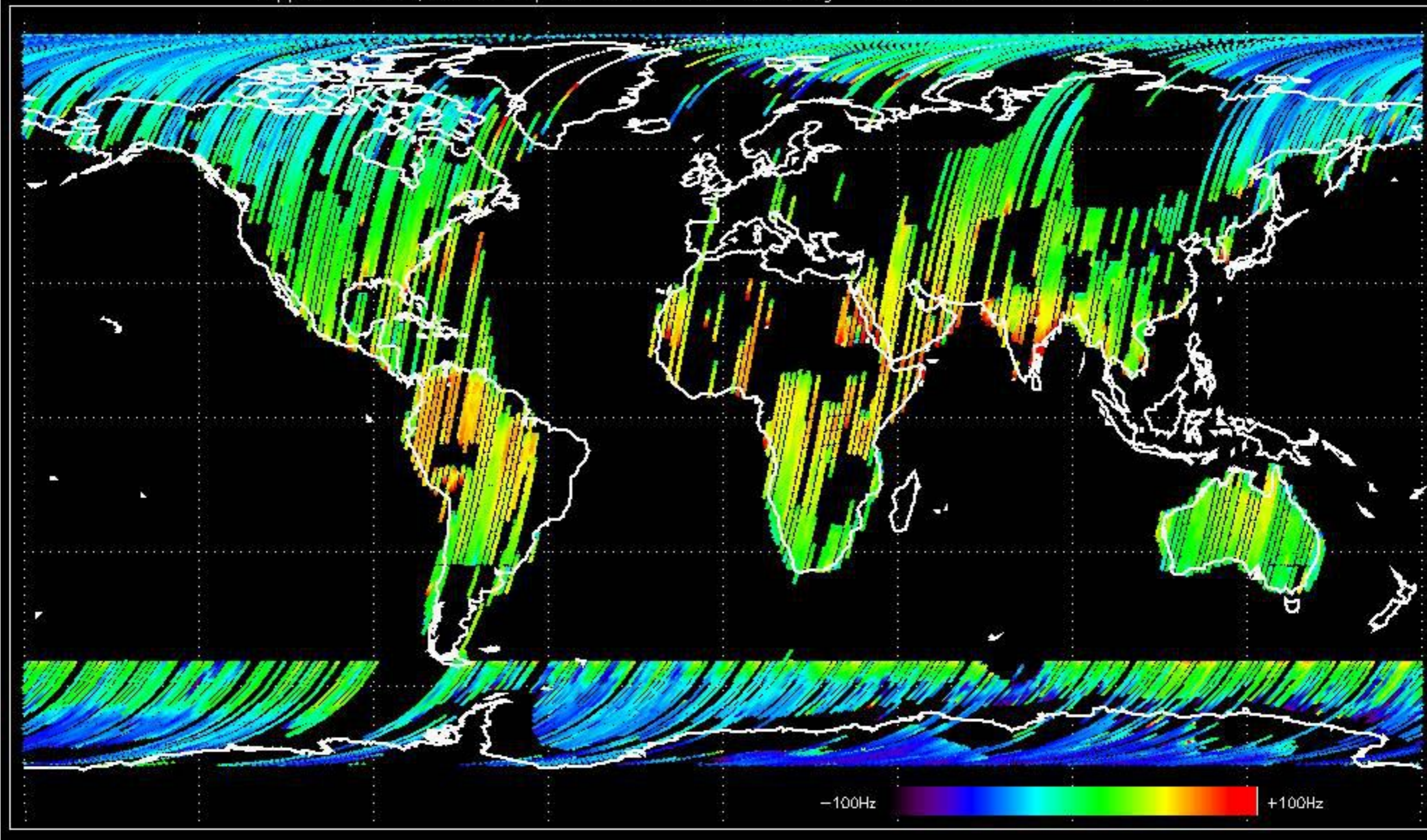




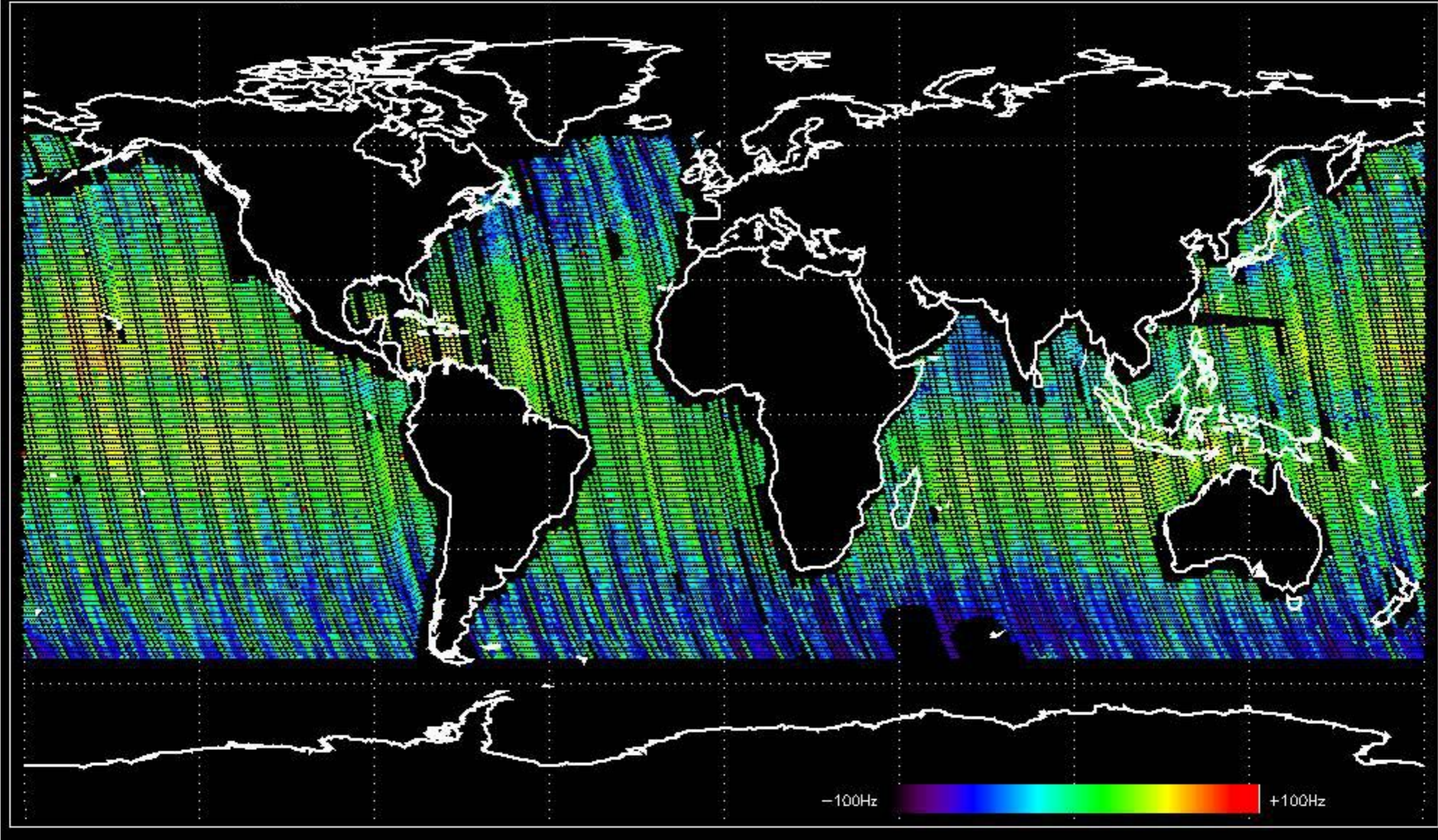
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.945329 Hz



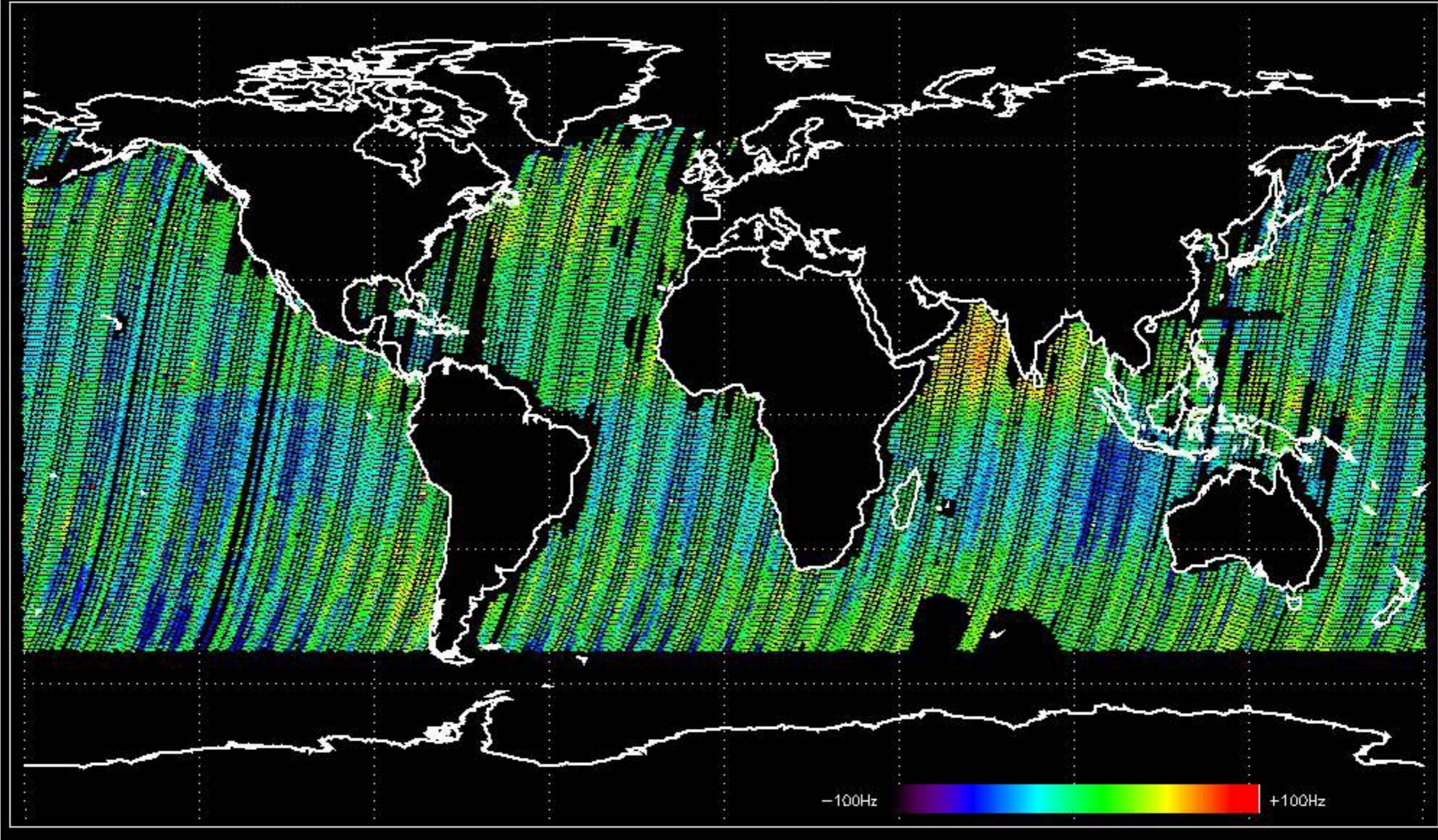
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.3251055 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.5147442 Hz

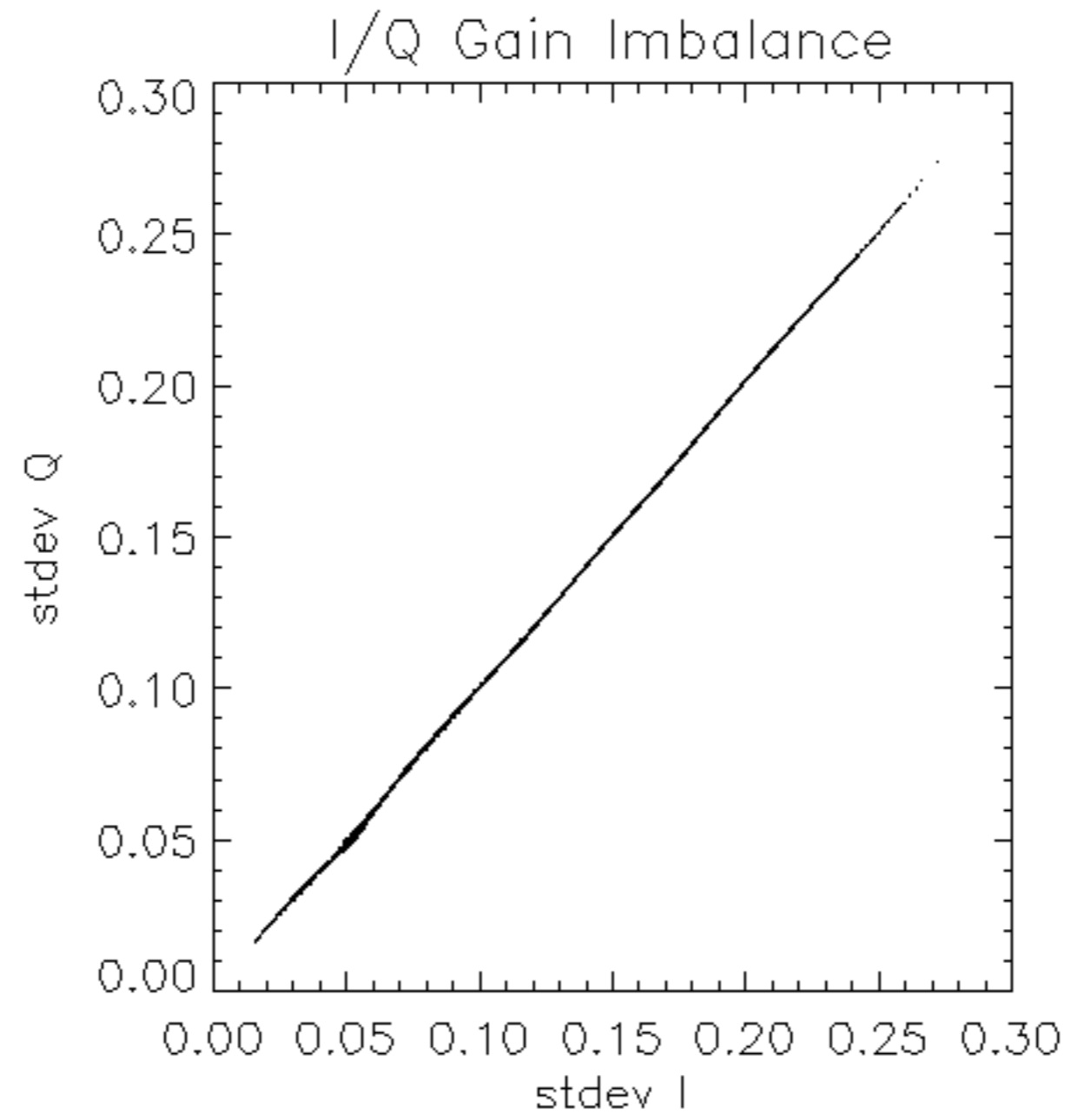


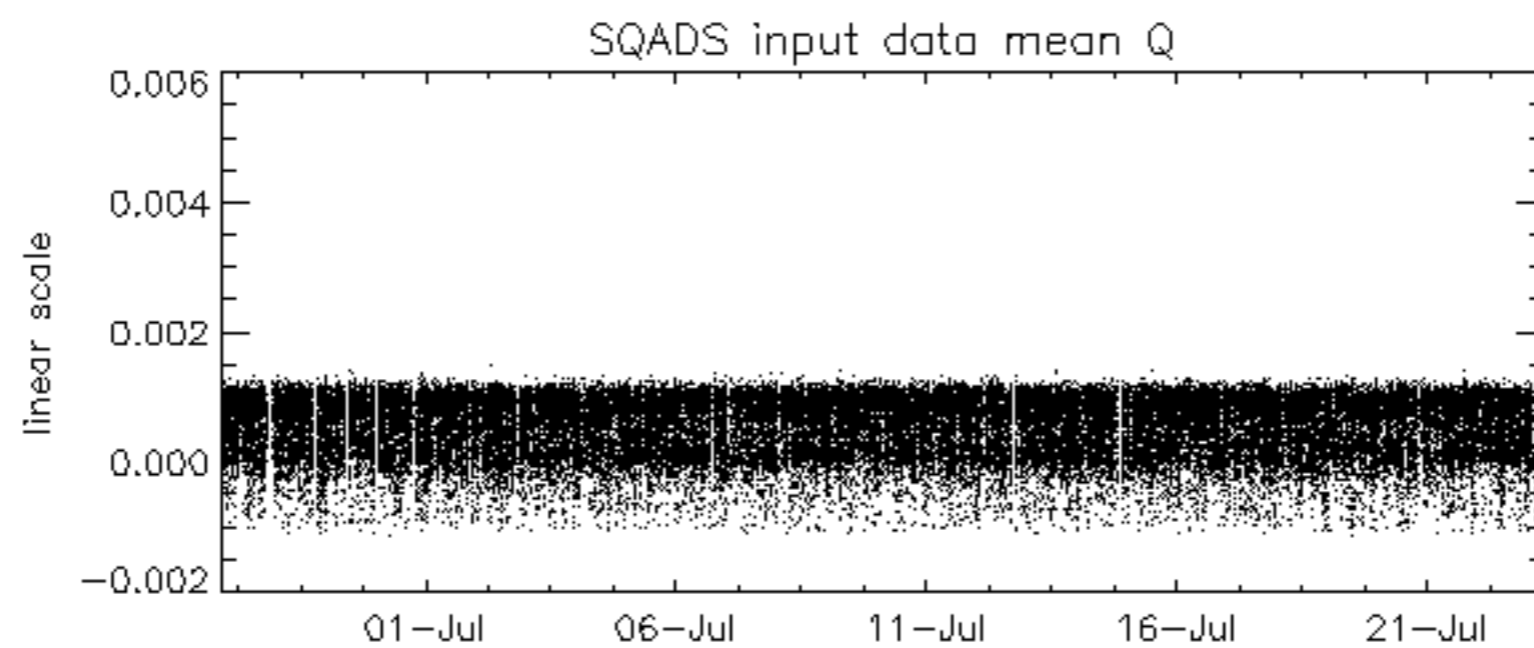
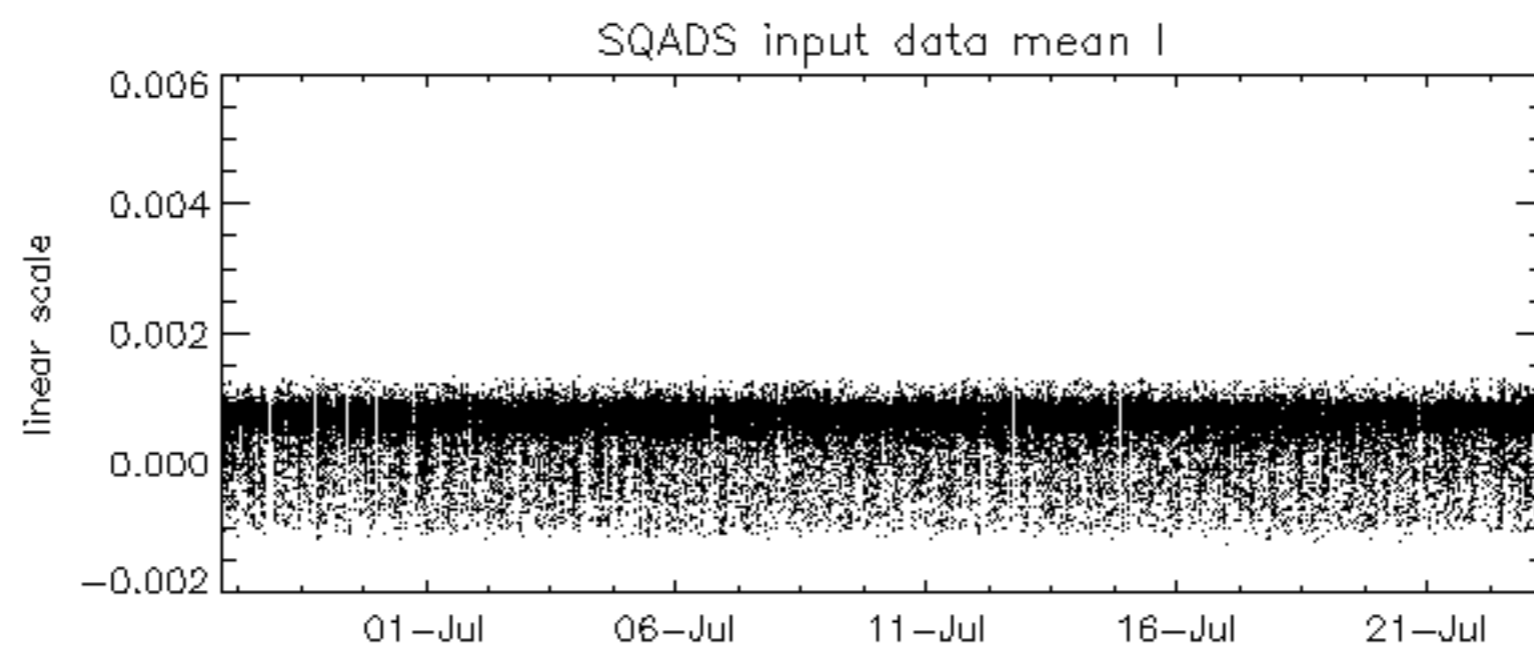
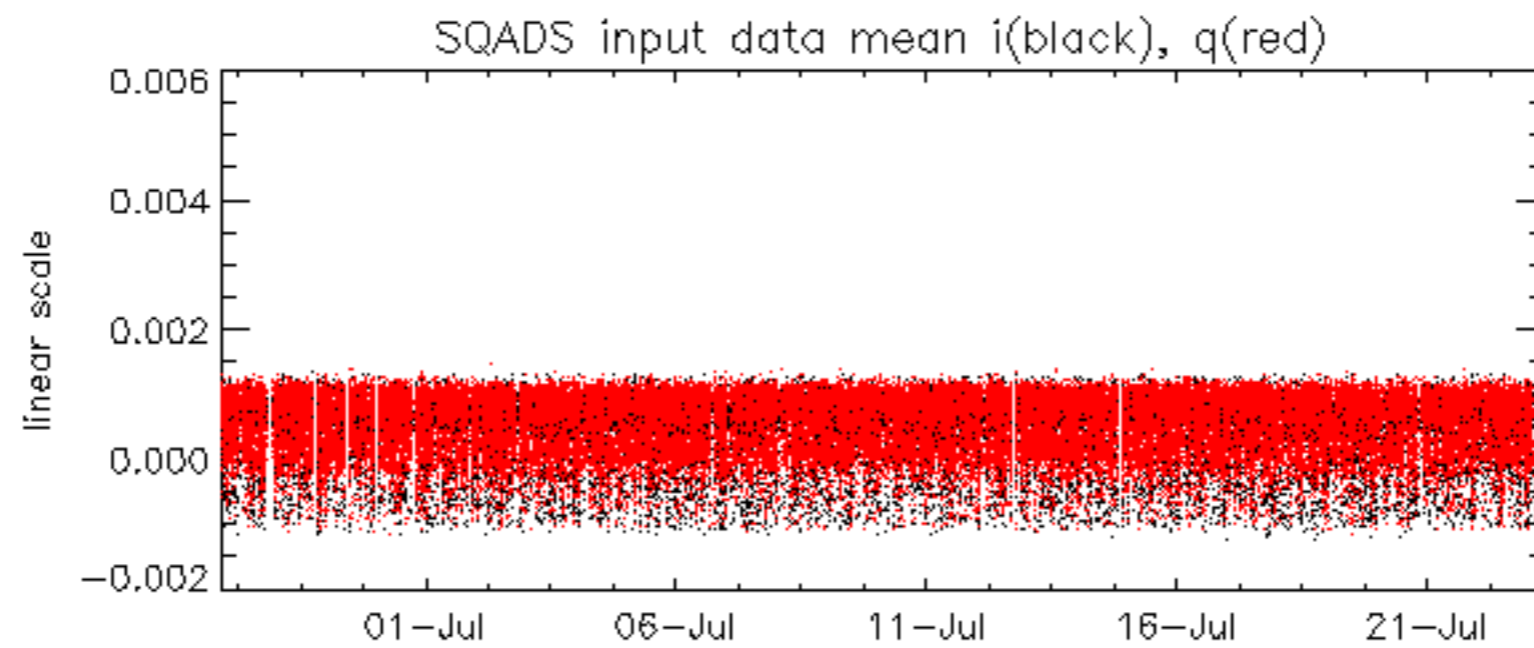
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9795205 Hz

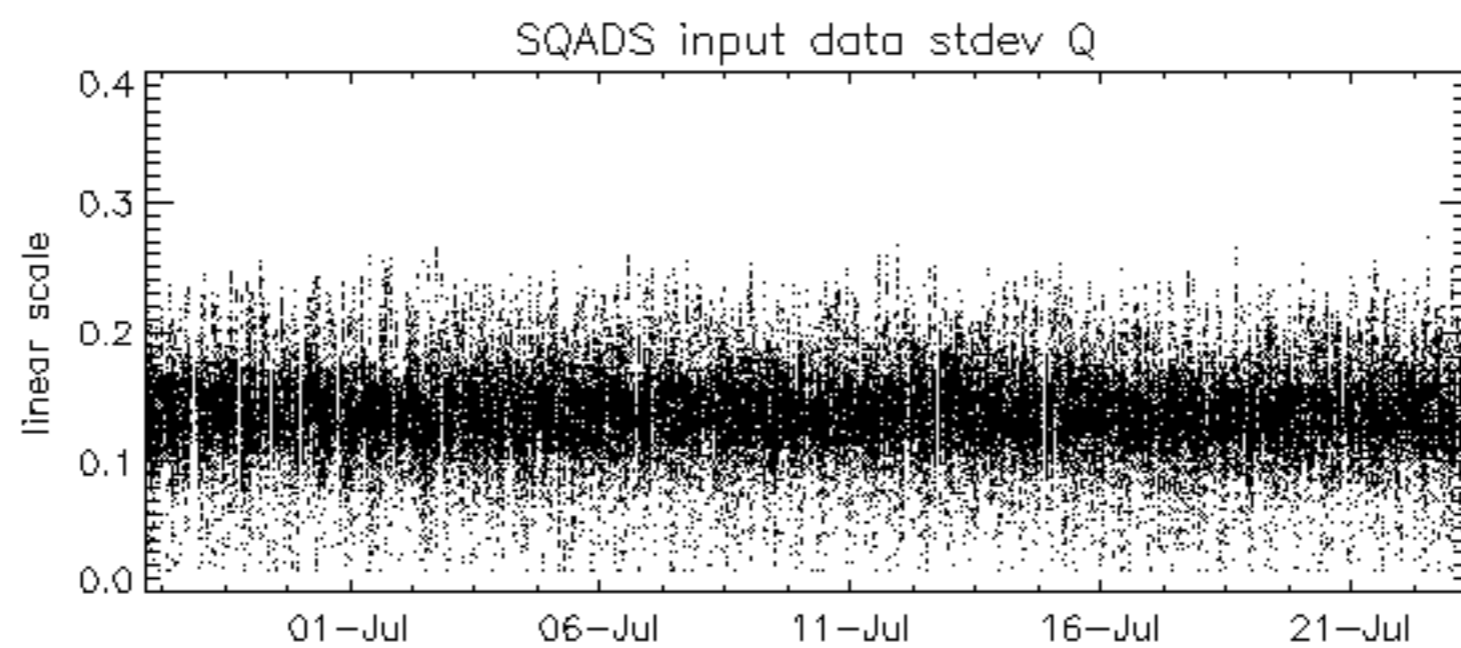
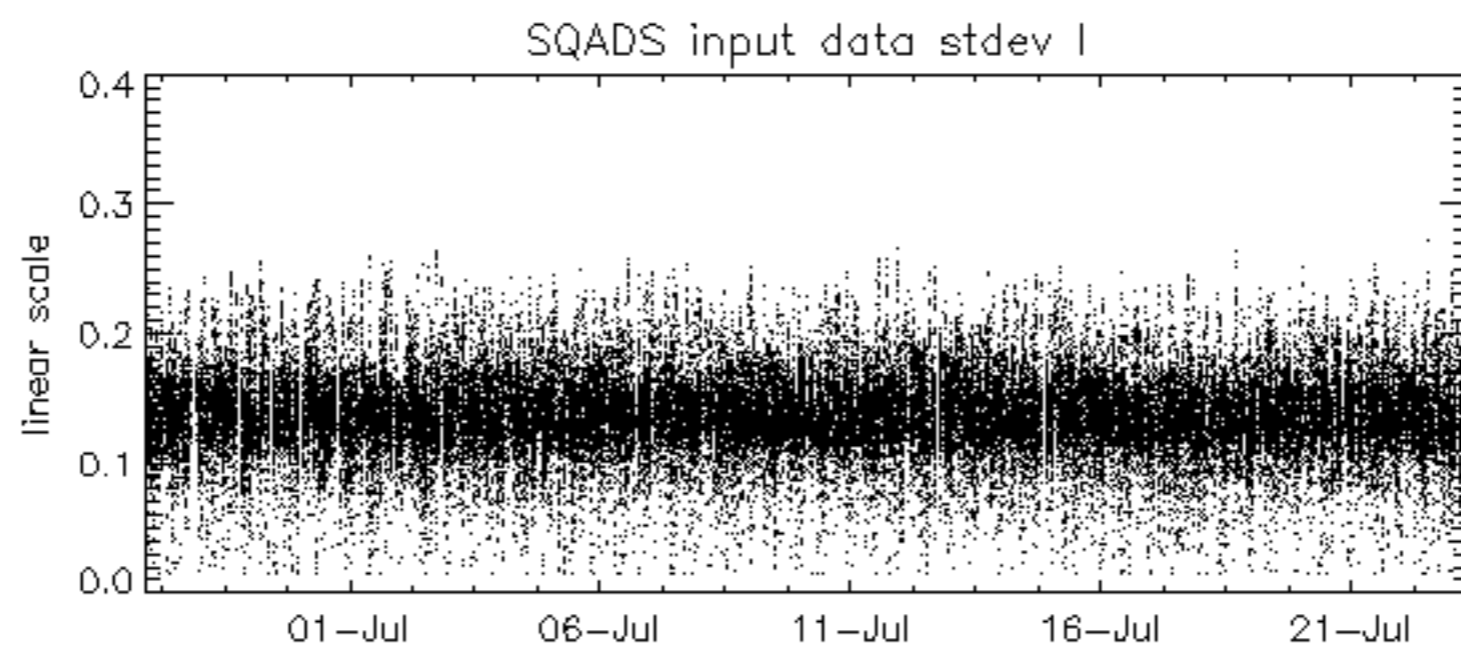
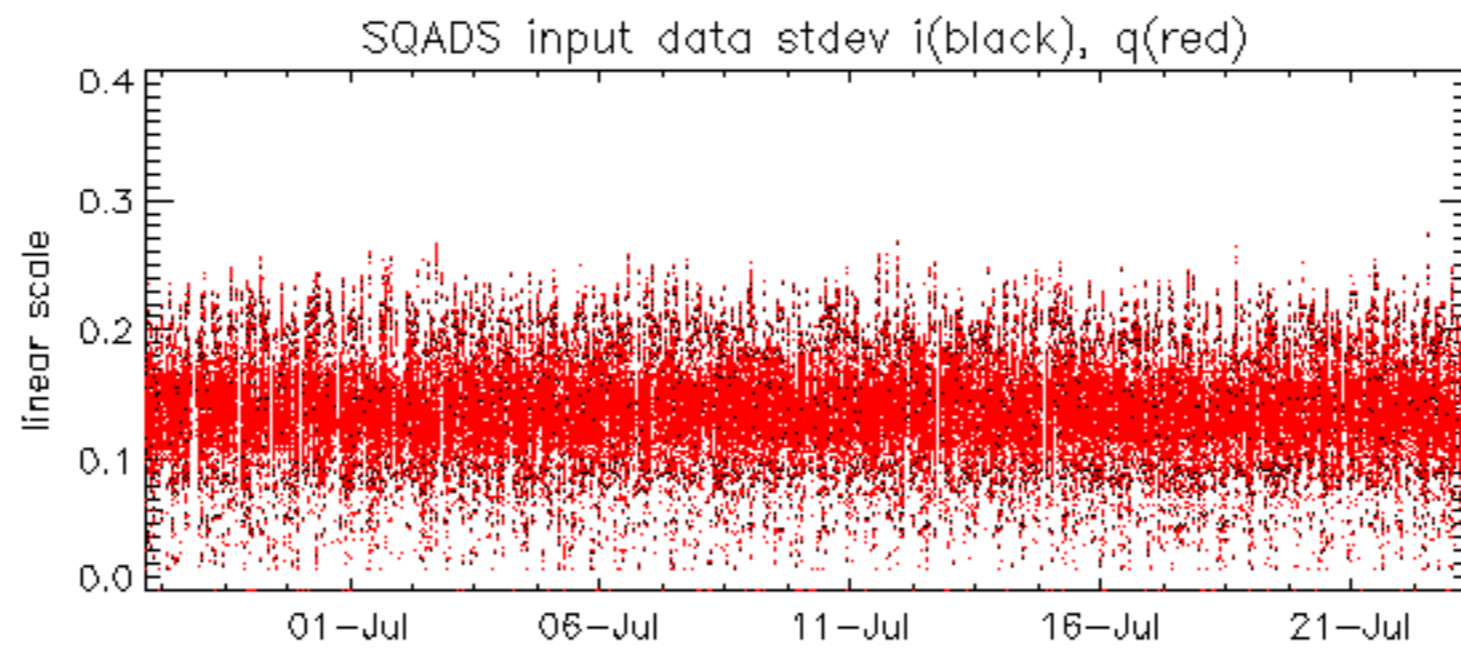


No anomalies observed on available MS products:

No anomalies observed.



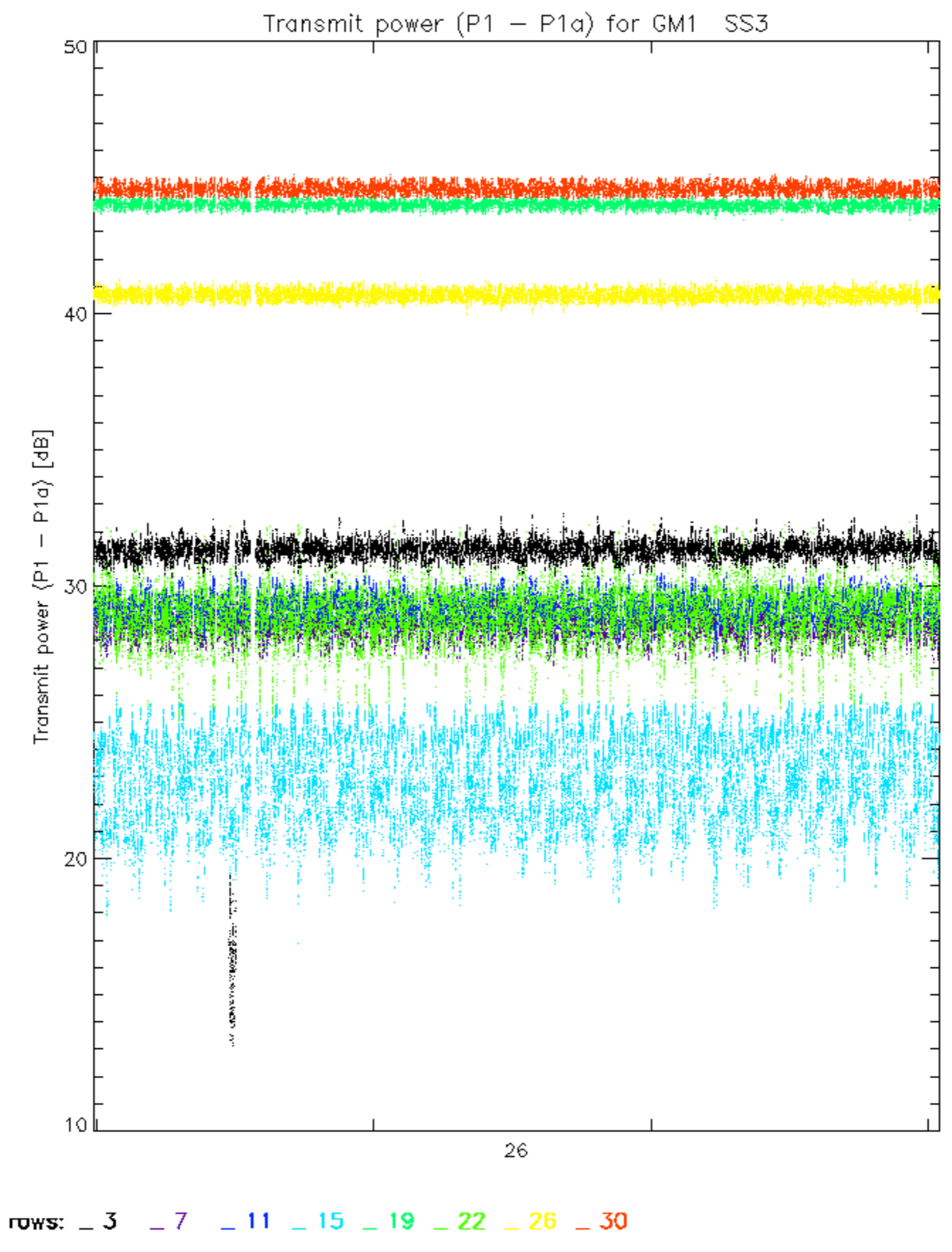


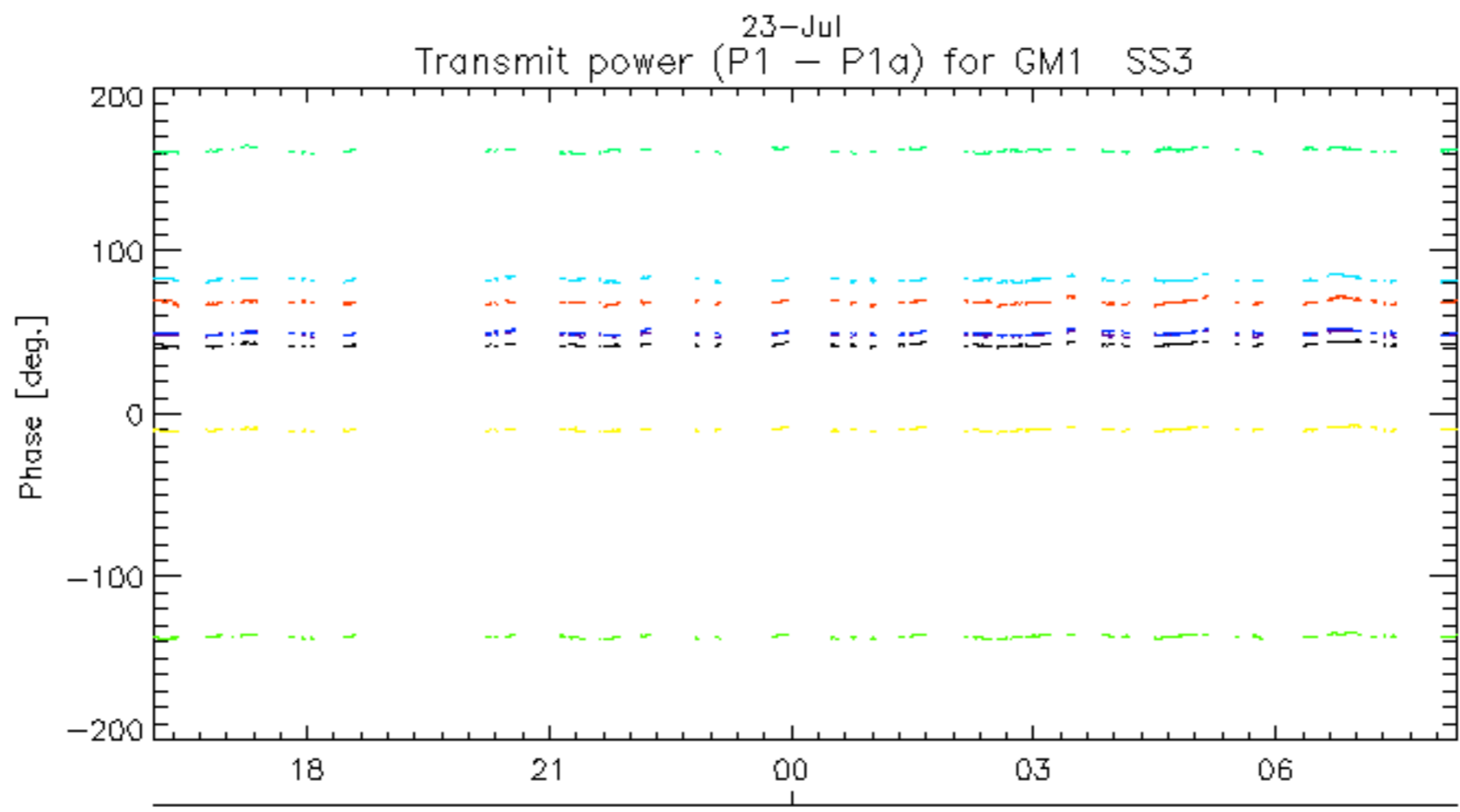
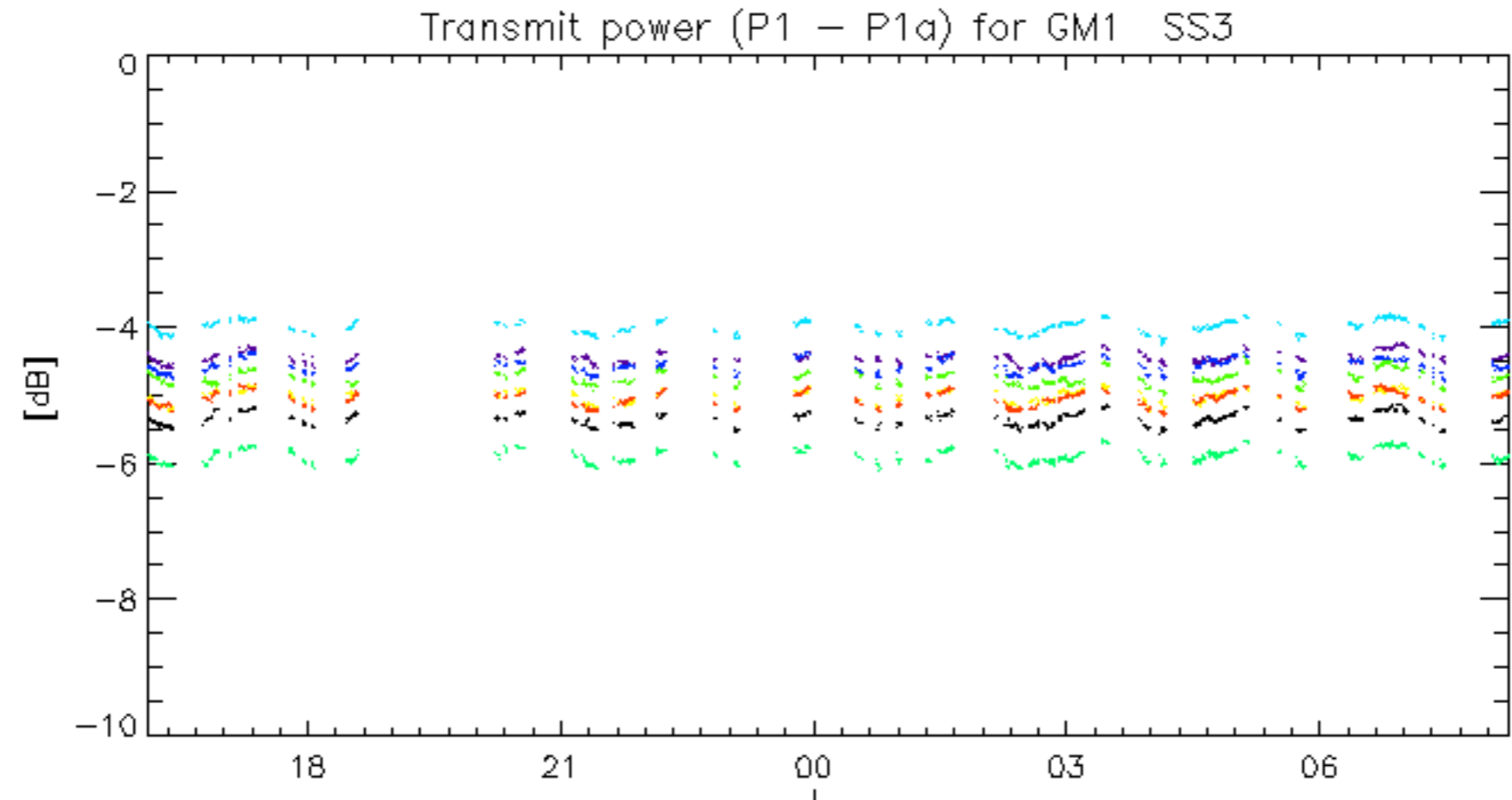


Summary of analysis for the last 3 days 2006072[123]

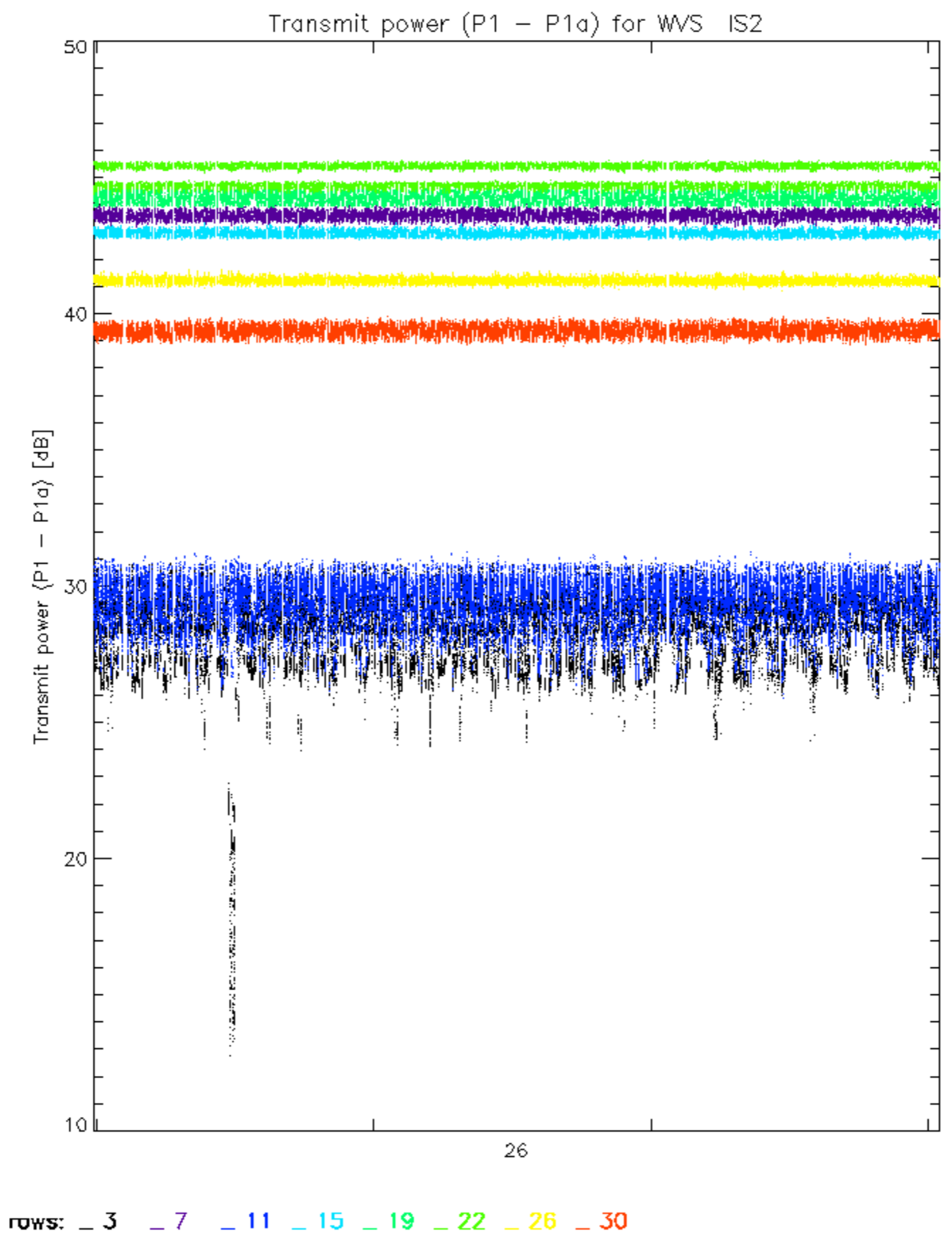
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

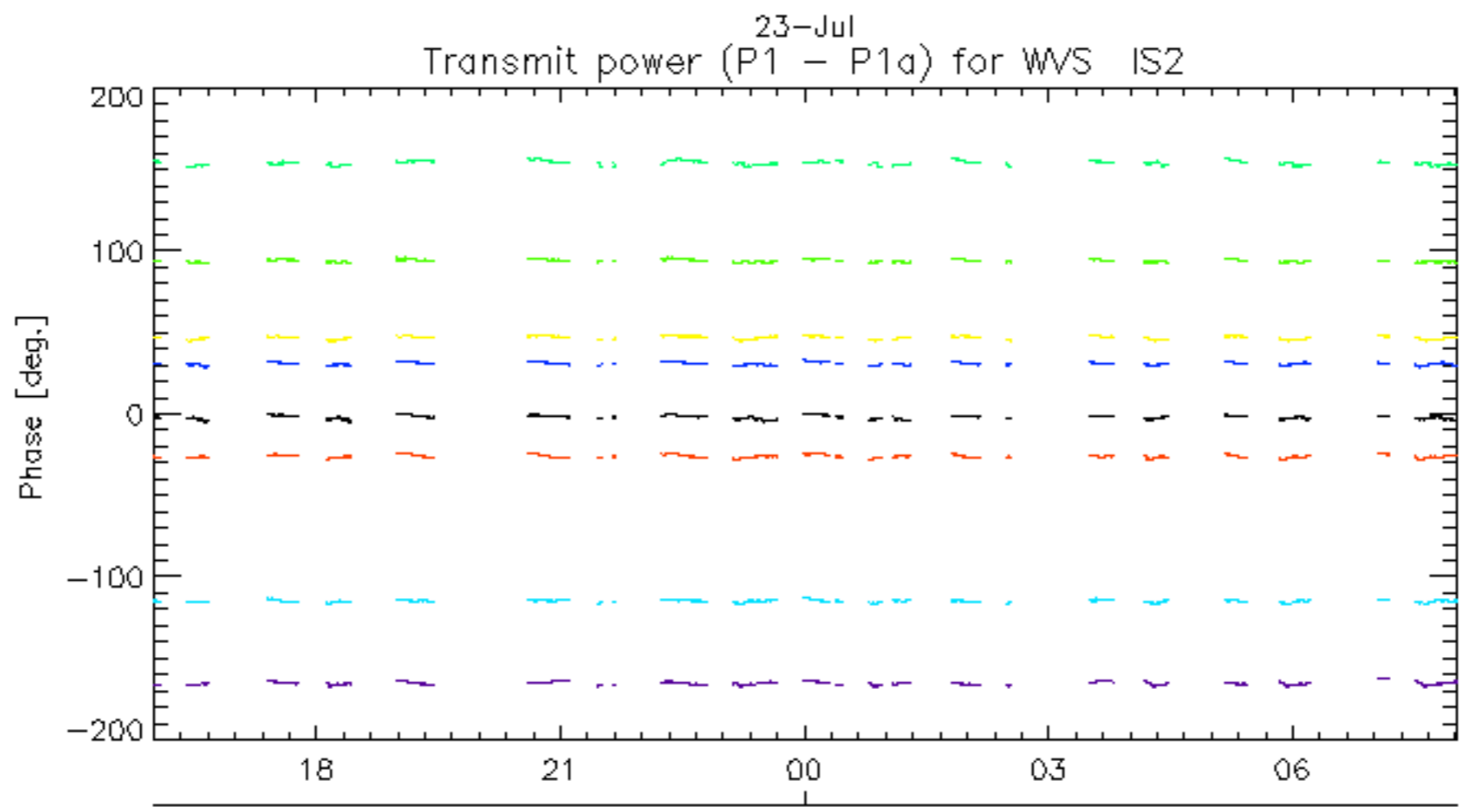
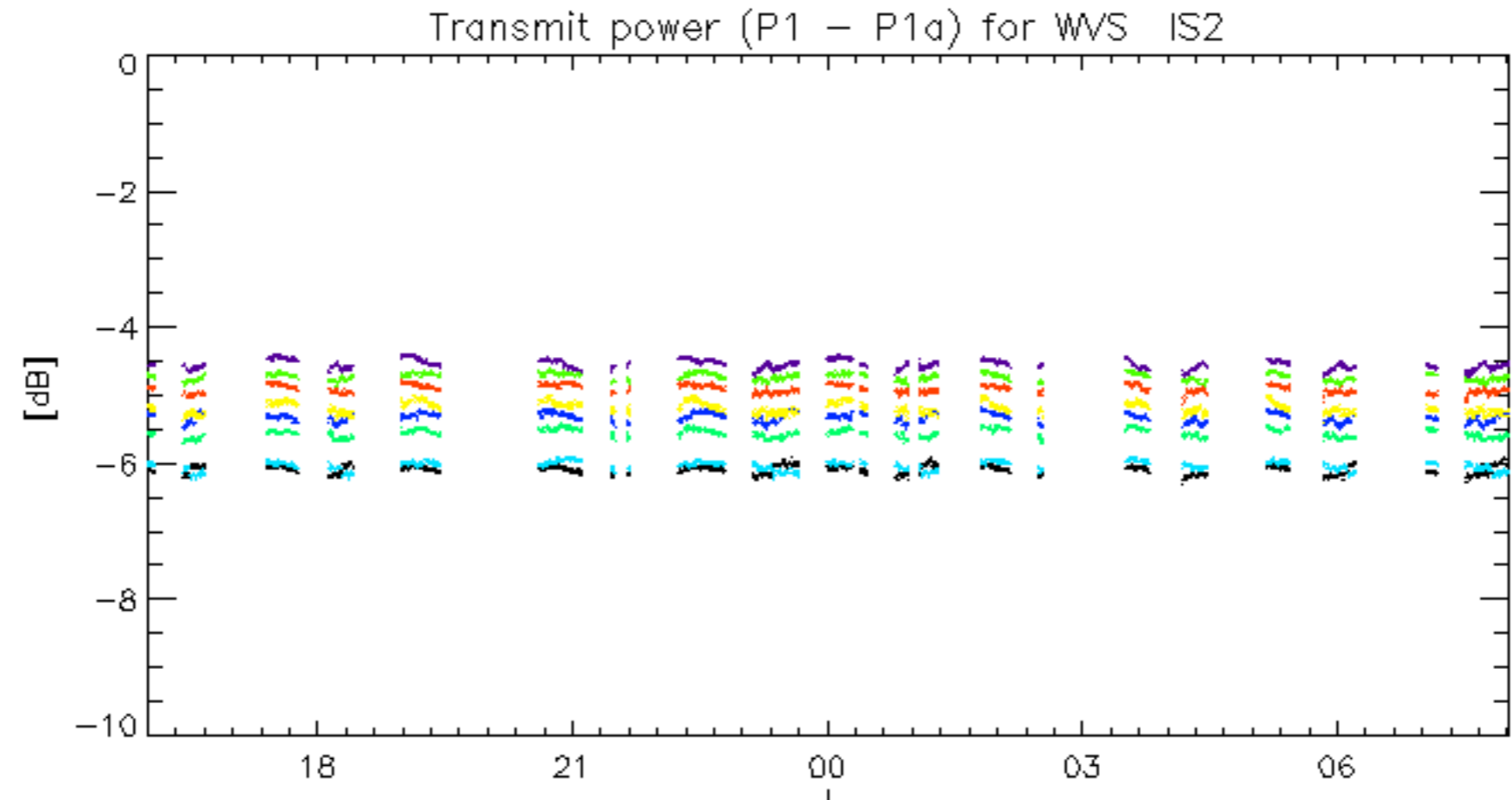
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060721_010621_000000822049_00346_22945_1459.N1	1	0
ASA_IMM_1PNPDE20060722_182653_000000352049_00371_22970_1645.N1	0	16
ASA_GM1_1PNPDK20060721_072534_0000007552049_00350_22949_1372.N1	0	163
ASA_WSM_1PNPDK20060722_103053_000000862049_00366_22965_1789.N1	0	5





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





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

No unavailabilities during the reported period.