

PRELIMINARY REPORT OF 060829

last update on Tue Aug 29 16:37:25 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 2006-08-28 00:00:00 to 2006-08-29 16:37:25

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	63	13	6	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	63	13	6	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	63	13	6	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	63	13	6	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	30	38	31	18	69
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	30	38	31	18	69
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	30	38	31	18	69
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	30	38	31	18	69

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060827 053212
H	20060828 050035

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

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	-3.942816	0.009955	0.001423
7	P1	-3.080384	0.051534	0.107655
11	P1	-4.086186	0.063896	0.061256
15	P1	-6.201429	0.094377	0.020986
19	P1	-3.462905	0.009881	-0.087548
22	P1	-4.561696	0.024642	0.013092
26	P1	-3.926923	0.019348	-0.031677
30	P1	-5.760069	0.026263	0.024276
3	P1	-16.541082	0.261724	-0.032057
7	P1	-16.858948	0.647964	0.865877
11	P1	-16.850725	0.301553	0.210330
15	P1	-12.981820	0.153808	0.131440
19	P1	-14.519123	0.055791	-0.077420
22	P1	-15.862454	0.543537	0.328227
26	P1	-15.159692	0.210569	-0.143847
30	P1	-17.022356	0.332006	0.193640

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.874775	0.083653	0.099113
7	P2	-21.862570	0.099035	-0.001672
11	P2	-15.754227	0.113207	0.039257
15	P2	-7.105071	0.097010	0.029135
19	P2	-9.117714	0.090620	0.015684
22	P2	-18.138374	0.084818	0.034757
26	P2	-16.399366	0.091261	0.002474
30	P2	-19.481821	0.090183	0.037024

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173220	0.003616	-0.005988
7	P3	-8.173220	0.003616	-0.005988
11	P3	-8.173220	0.003616	-0.005988
15	P3	-8.173220	0.003616	-0.005988
19	P3	-8.173220	0.003616	-0.005988
22	P3	-8.173220	0.003616	-0.005988
26	P3	-8.173274	0.003615	-0.006025
30	P3	-8.173274	0.003615	-0.006025

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	-3.832484	0.021363	-0.016741
7	P1	-2.496139	0.285480	0.311365
11	P1	-2.895418	0.142188	0.028160
15	P1	-3.648624	0.147589	-0.036397
19	P1	-3.432163	0.025173	0.000210
22	P1	-5.079502	0.034066	0.023940
26	P1	-5.870839	0.024281	-0.021503
30	P1	-5.189667	0.044648	0.047144
3	P1	-11.626875	0.066207	-0.009322
7	P1	-9.915790	0.188513	0.183397
11	P1	-10.293842	0.083219	-0.063090
15	P1	-10.809938	0.175388	-0.153022
19	P1	-15.554216	0.527821	0.121842
22	P1	-20.875891	1.748686	0.310313

26	P1	-16.114132	0.408116	0.285347
30	P1	-17.965895	0.724494	0.091049

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.474453	0.083439	0.128794
7	P2	-22.263809	0.199933	0.157884
11	P2	-10.952880	0.055746	0.146832
15	P2	-4.882632	0.042883	0.038219
19	P2	-6.857659	0.040391	0.018257
22	P2	-8.182508	0.062225	0.032497
26	P2	-24.169565	0.128258	0.016747
30	P2	-21.971849	0.078734	0.042379

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014455	0.003658	-0.012418
7	P3	-8.014367	0.003660	-0.012407
11	P3	-8.014494	0.003657	-0.012229
15	P3	-8.014477	0.003665	-0.012221
19	P3	-8.014524	0.003674	-0.012556
22	P3	-8.014647	0.003648	-0.012175
26	P3	-8.014457	0.003648	-0.012479
30	P3	-8.014395	0.003659	-0.012178

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	0.000552599
	stdev	1.77667e-07
MEAN Q	mean	0.000532163
	stdev	2.15819e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136318
	stdev	0.00107939
STDEV Q	mean	0.136664
	stdev	0.00109571



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006082[789]

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_1PNPDE20060827_201454_000000372050_00386_23486_4727.N1	0	6
ASA_GM1_1PNPDK20060828_091301_000006642050_00394_23494_3759.N1	0	13
ASA_WSM_1PNPDE20060828_171916_000001462050_00399_23499_9799.N1	0	63





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)

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

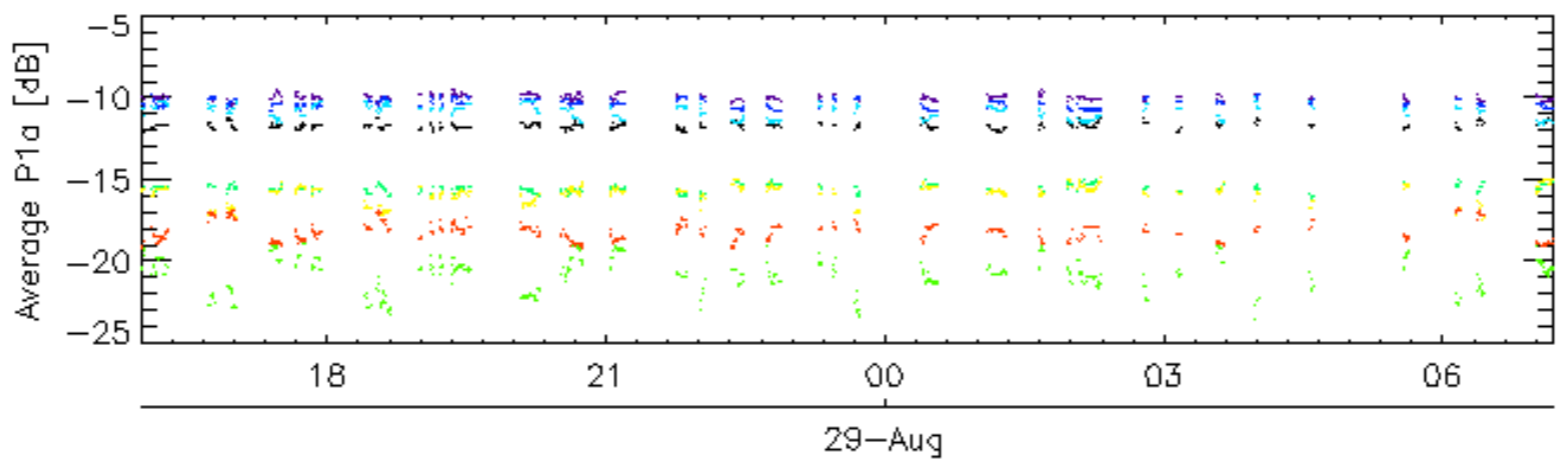
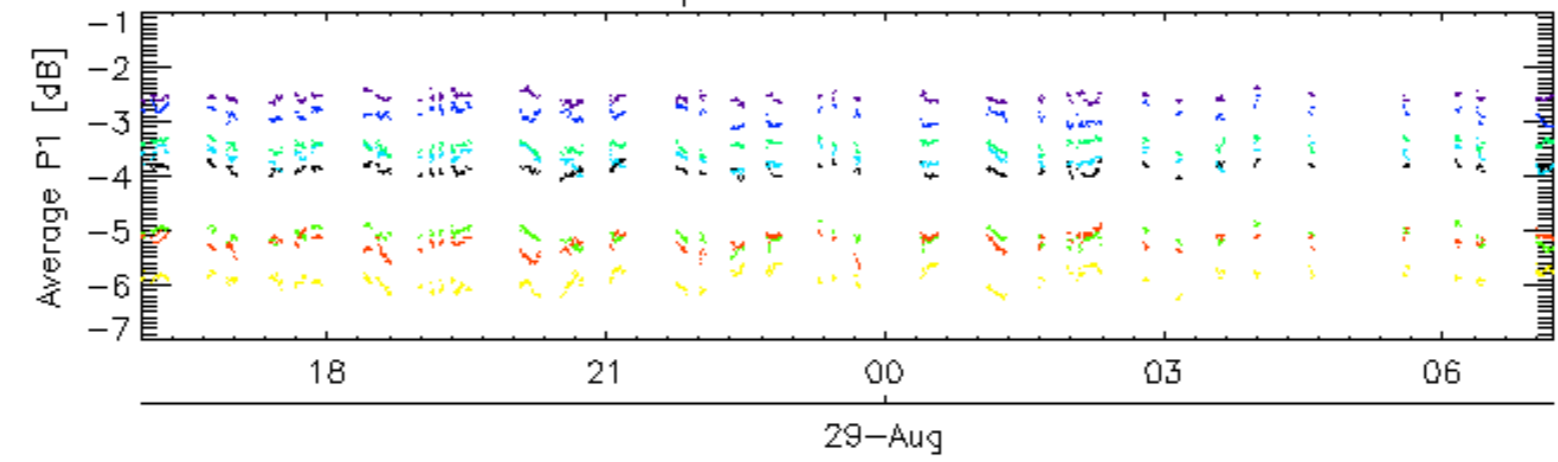
7.5 - Absolute Doppler for GM1

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

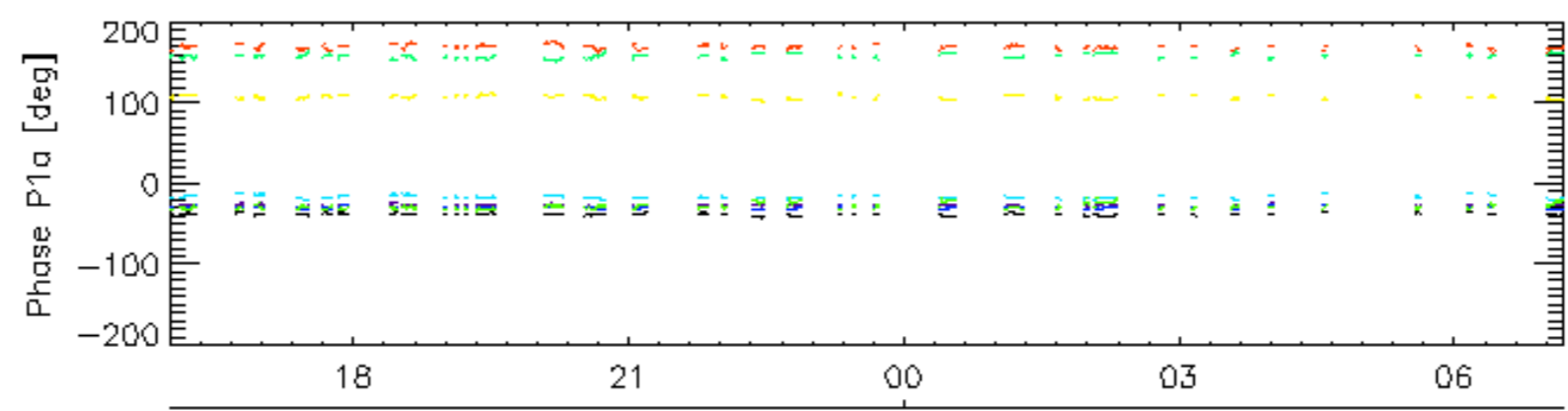
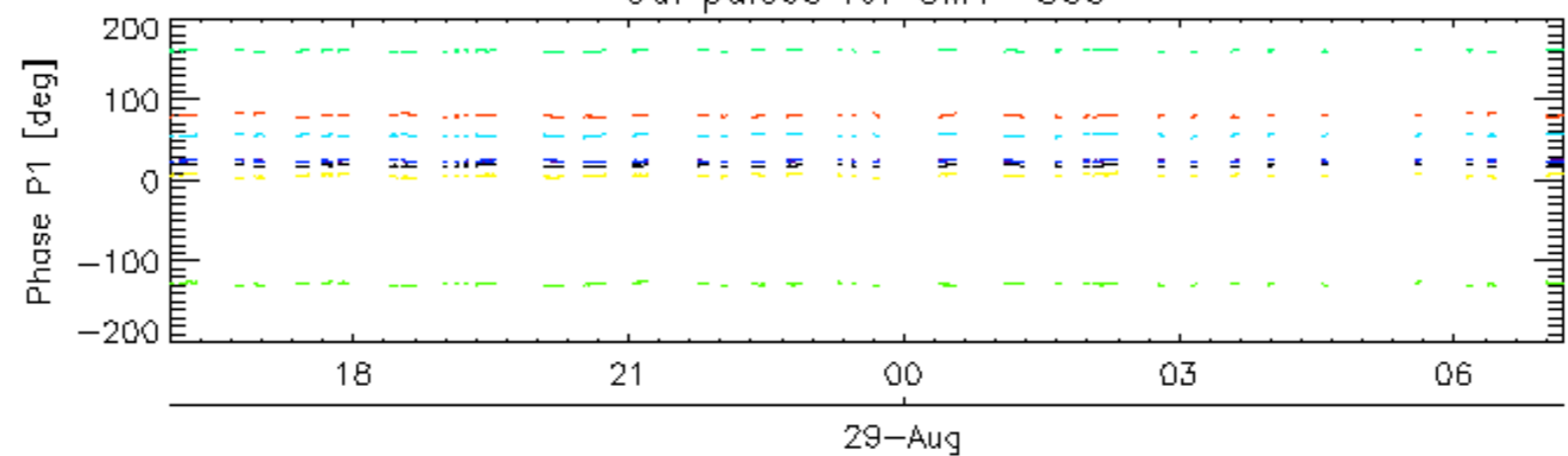
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

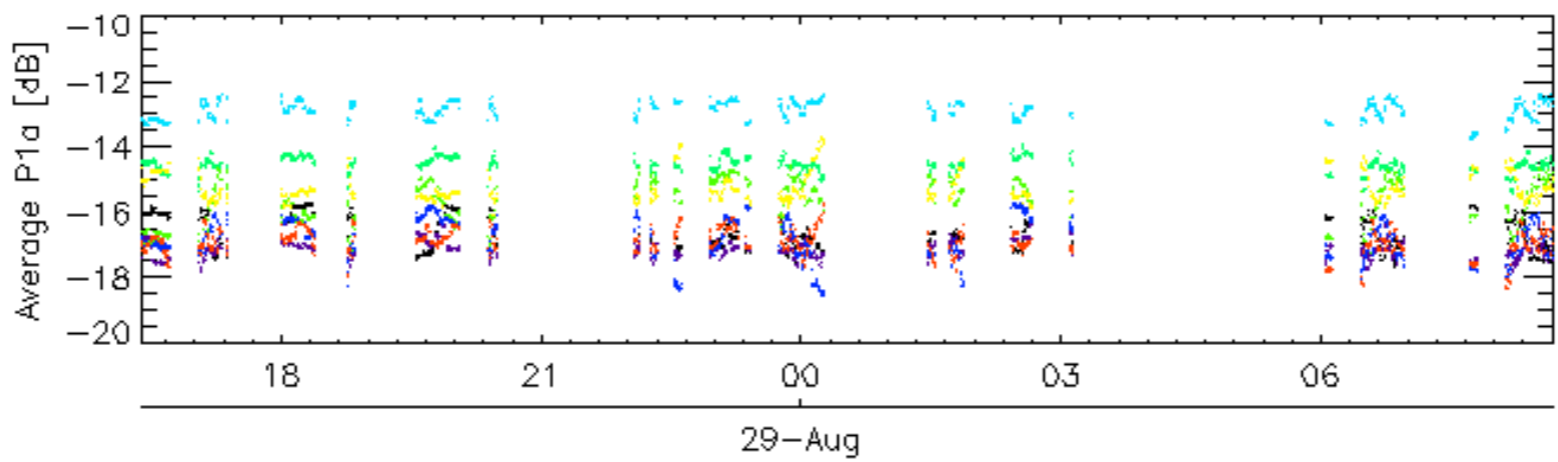
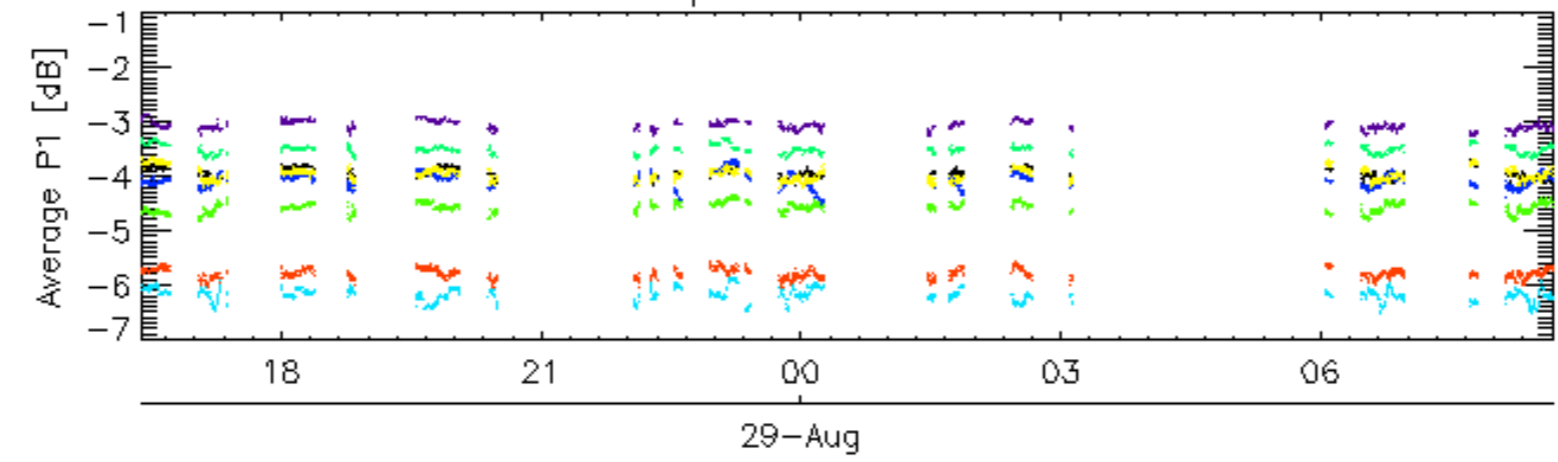


Cal pulses for GM1 SS3

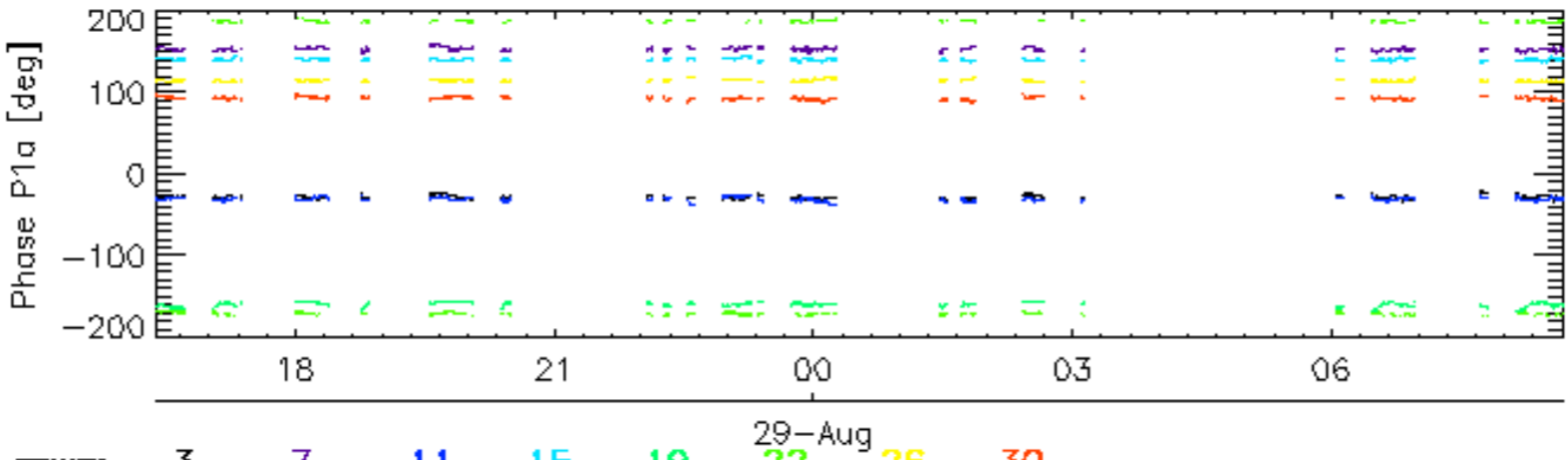
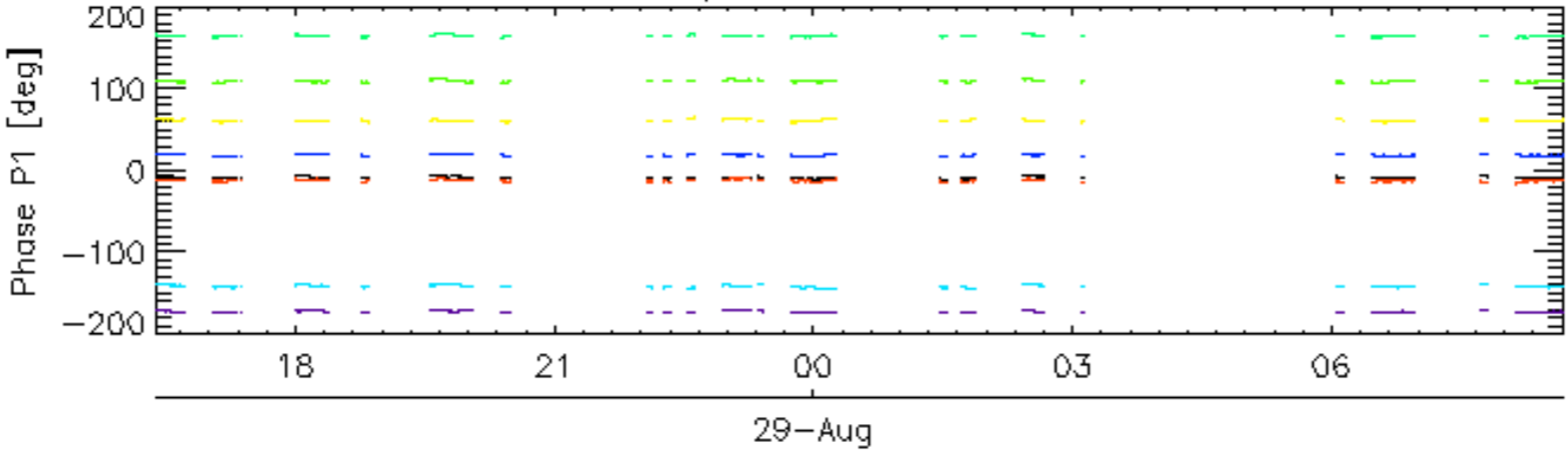


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 29-Aug

Cal pulses for WVS IS2

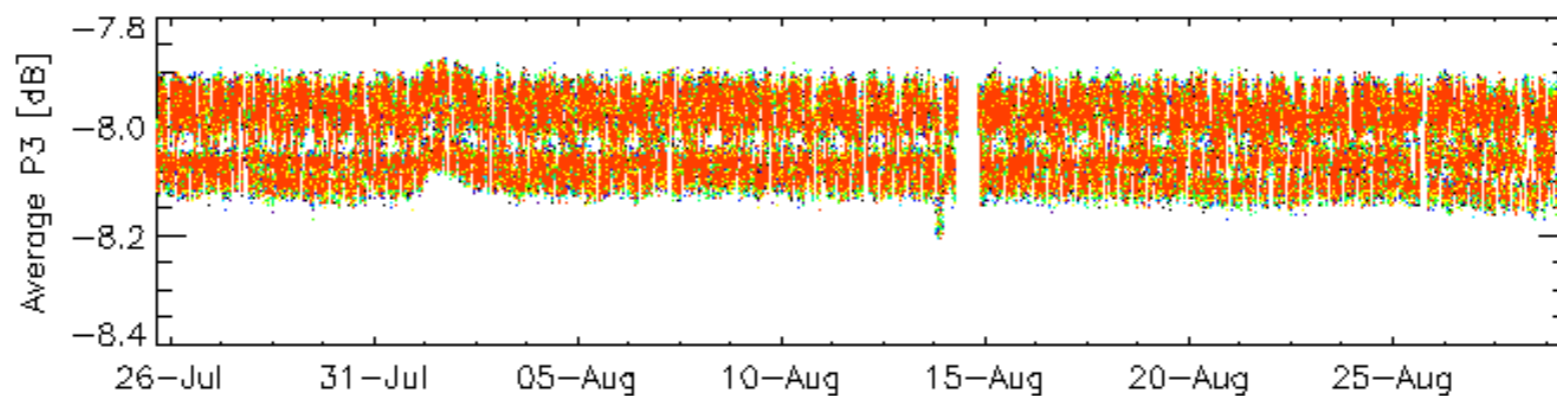
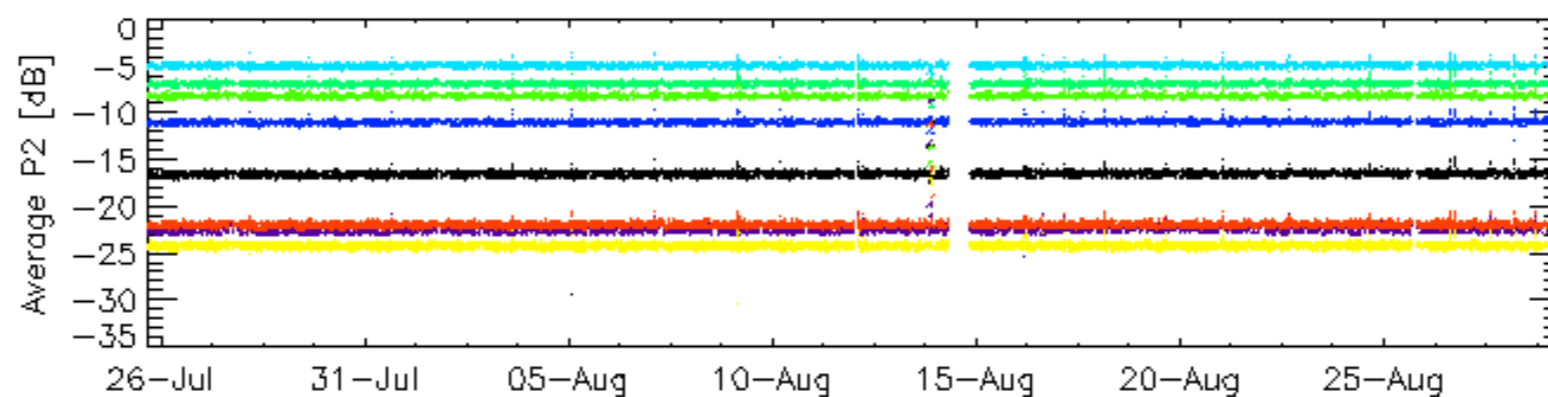
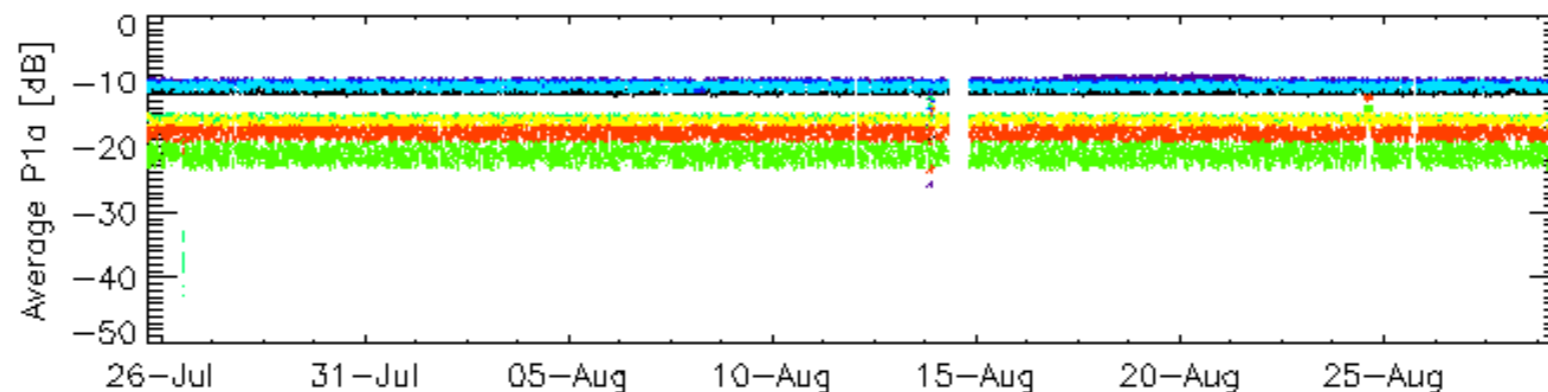
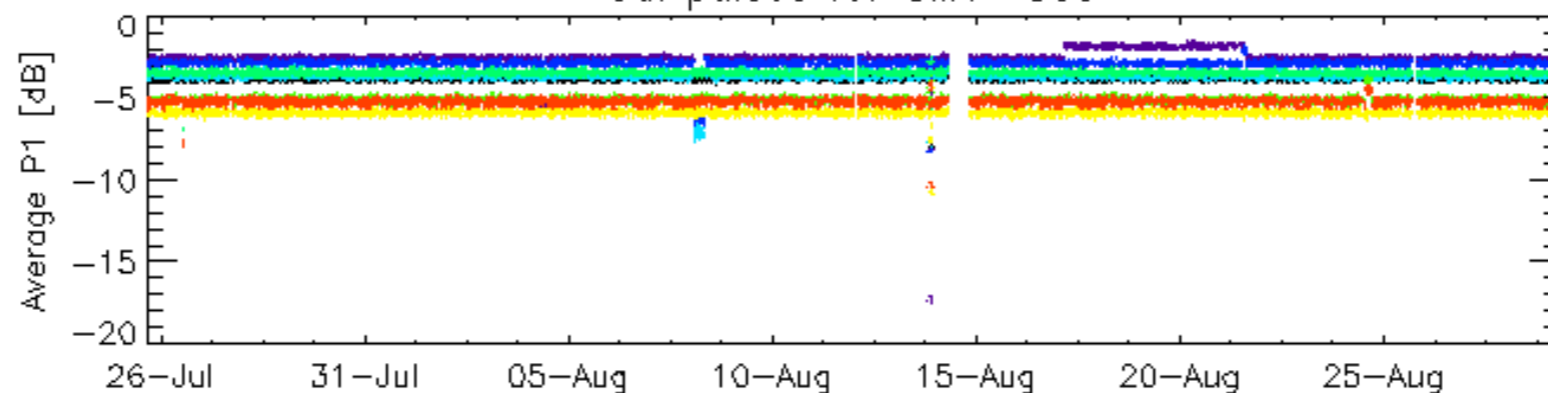


Cal pulses for WVS IS2



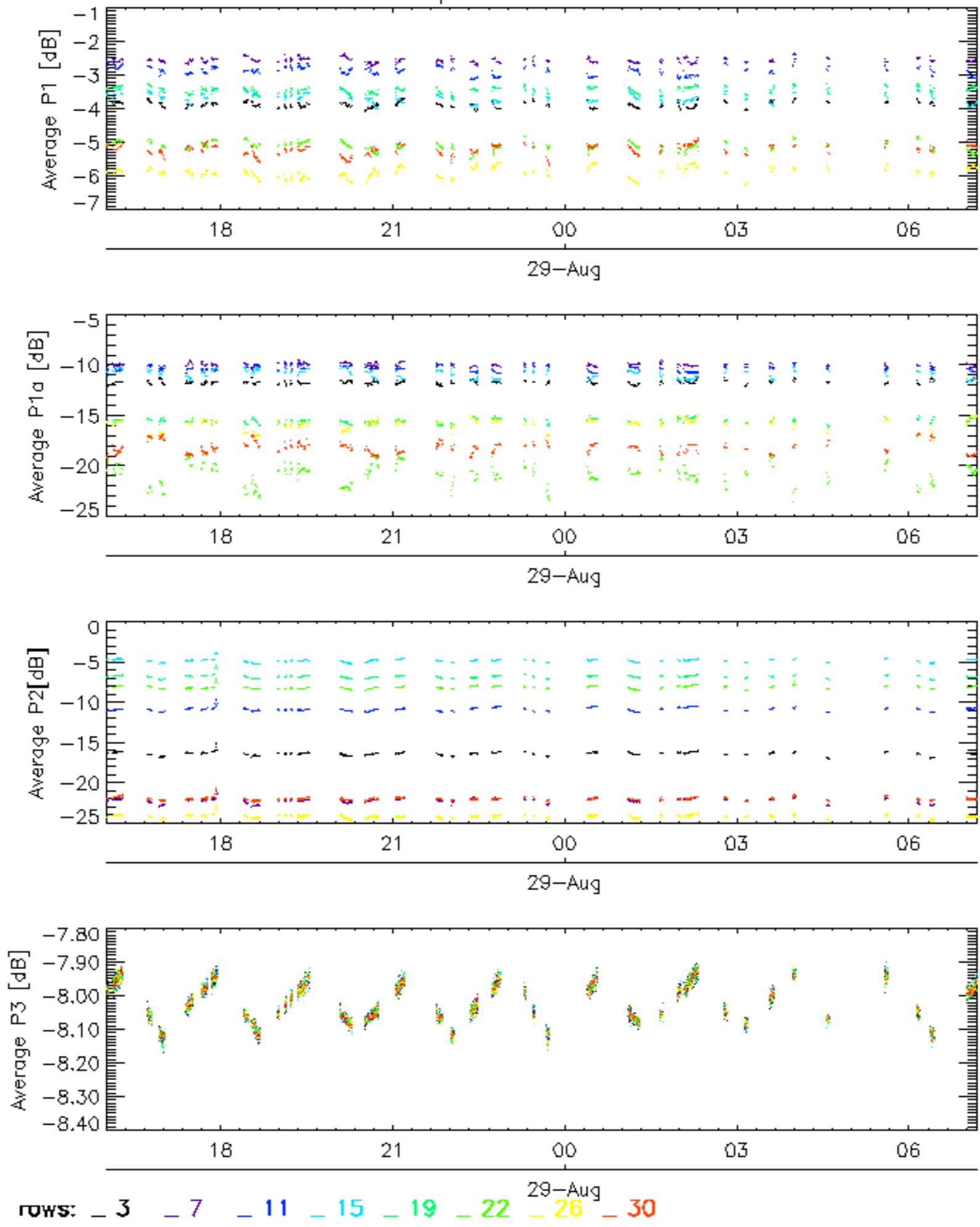
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

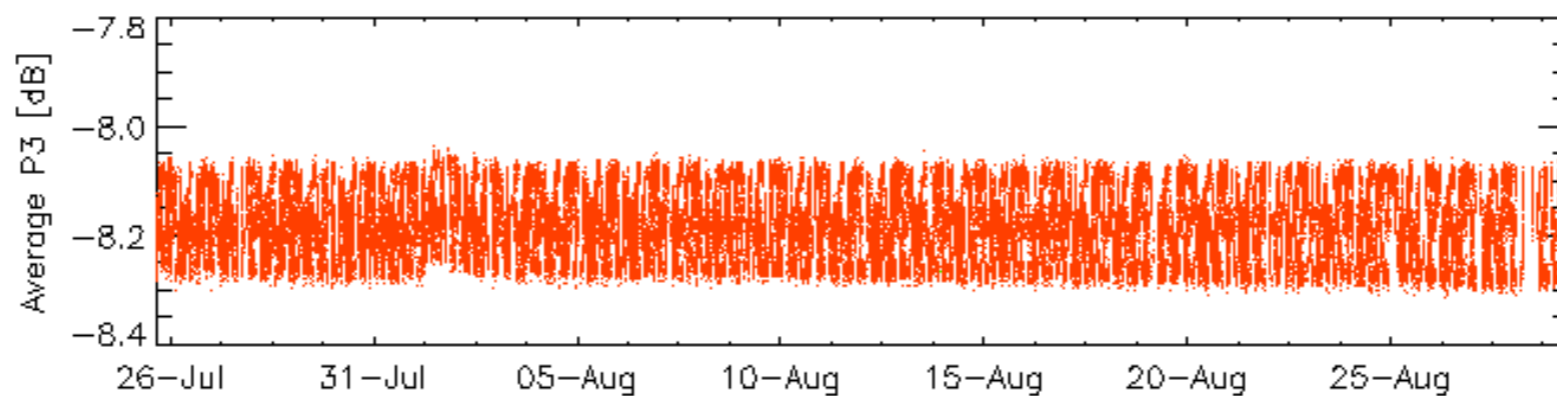
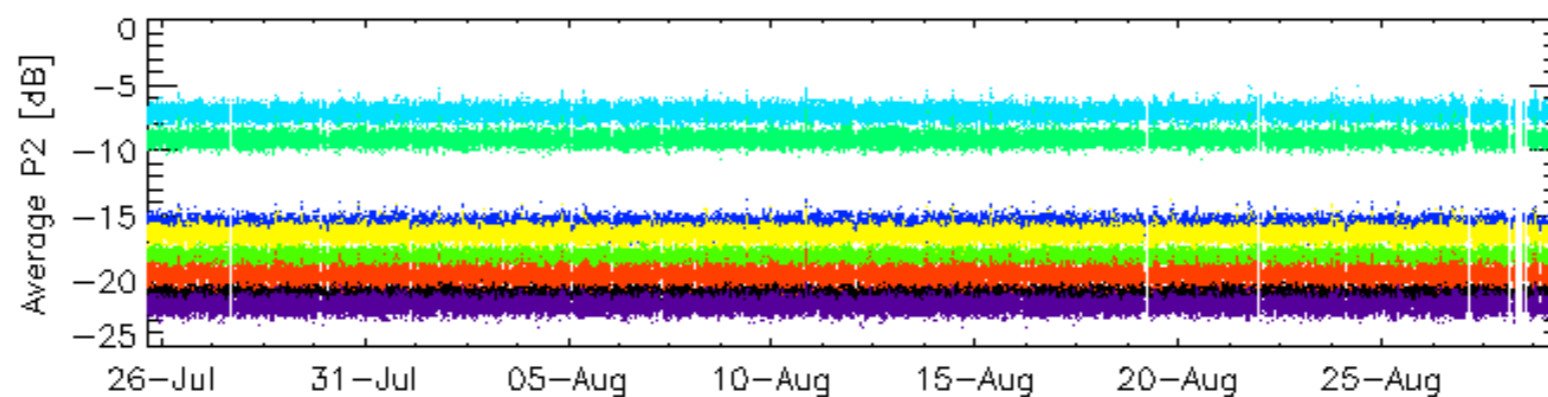
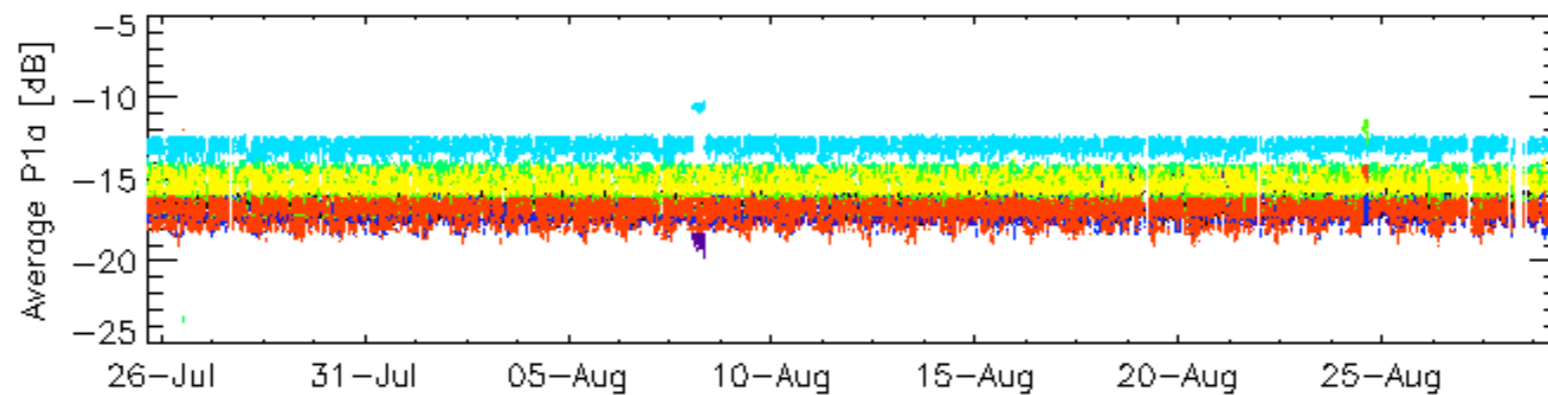
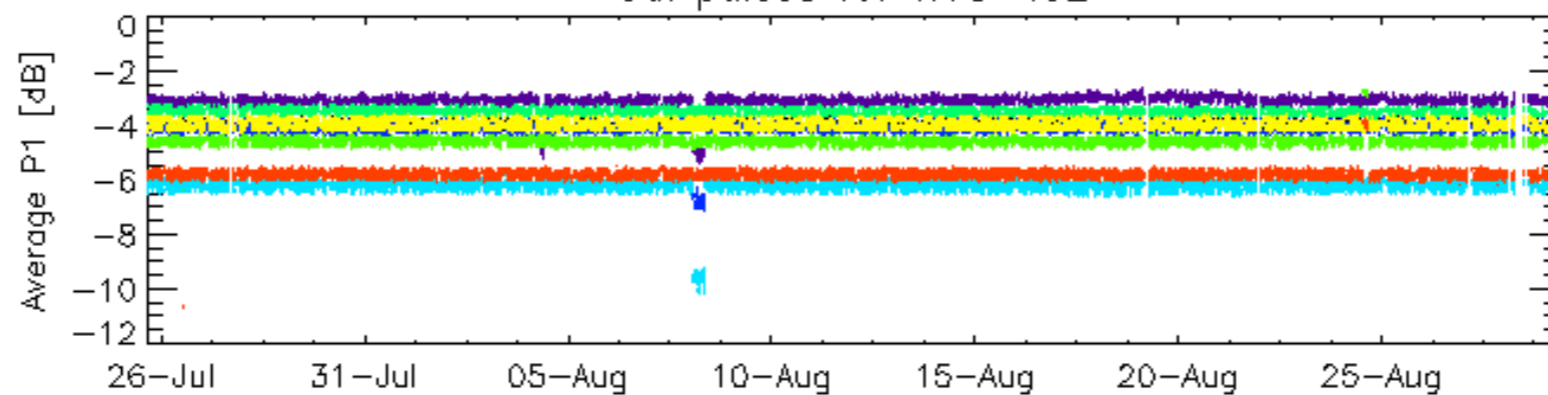


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

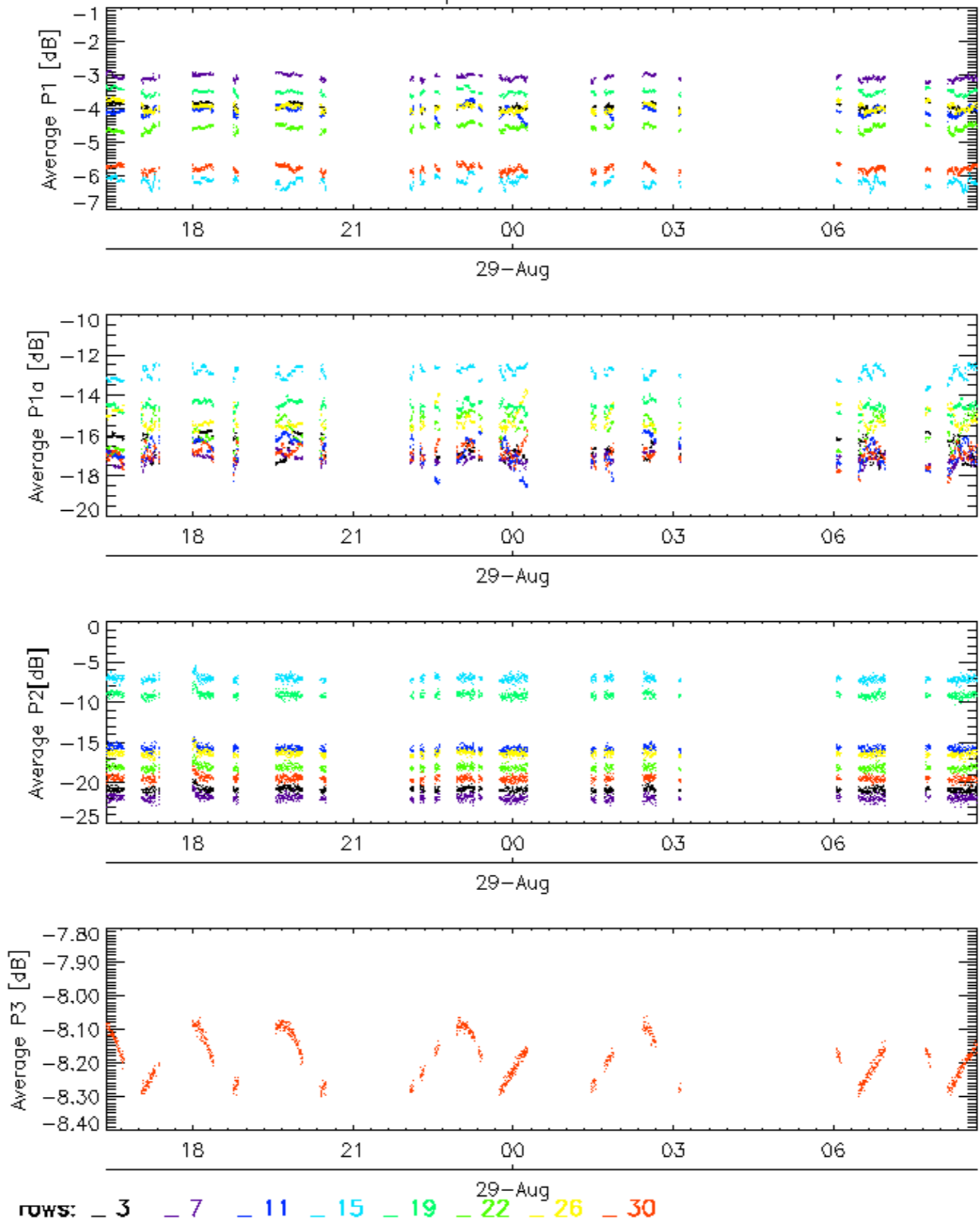


Cal pulses for WVS IS2



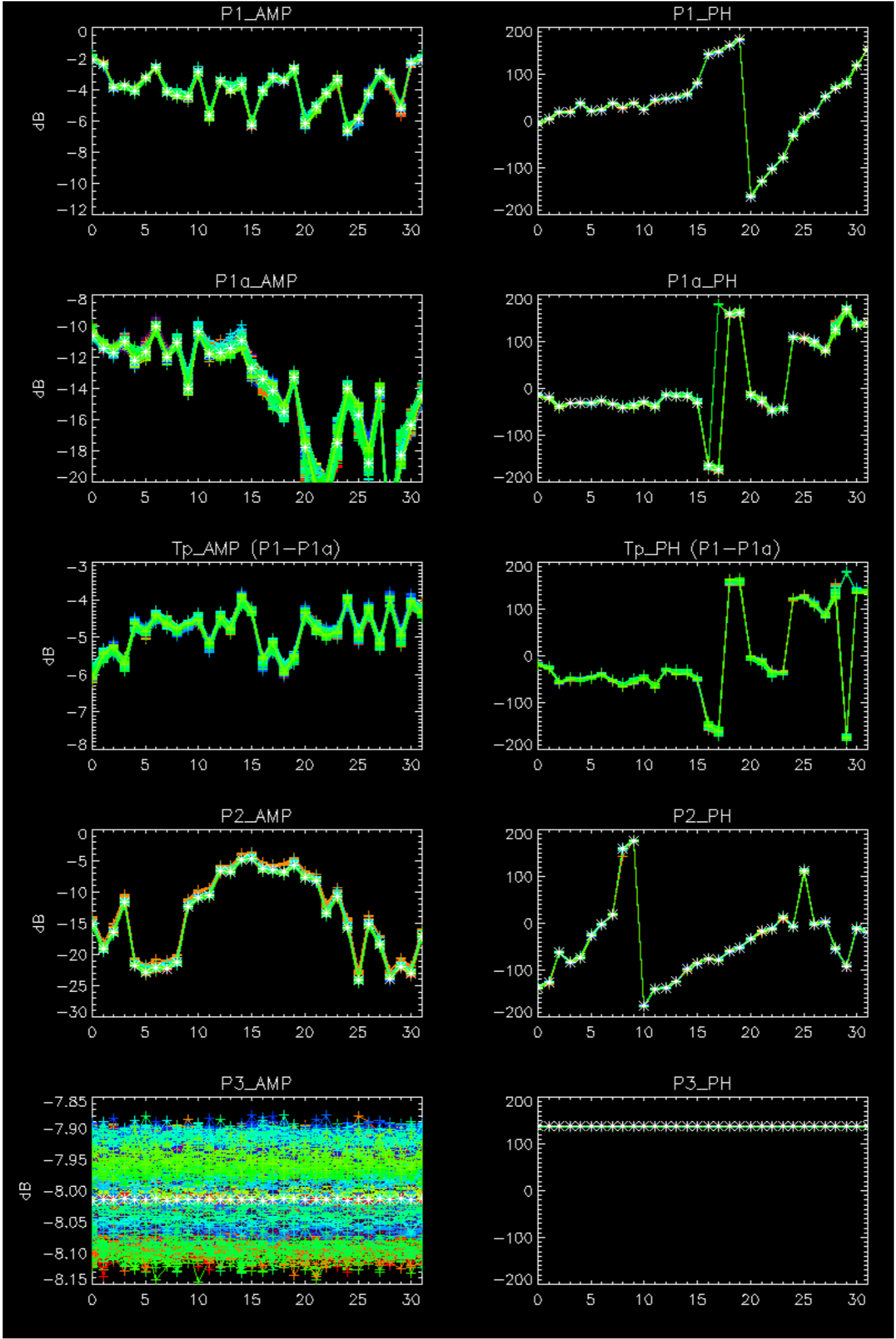
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

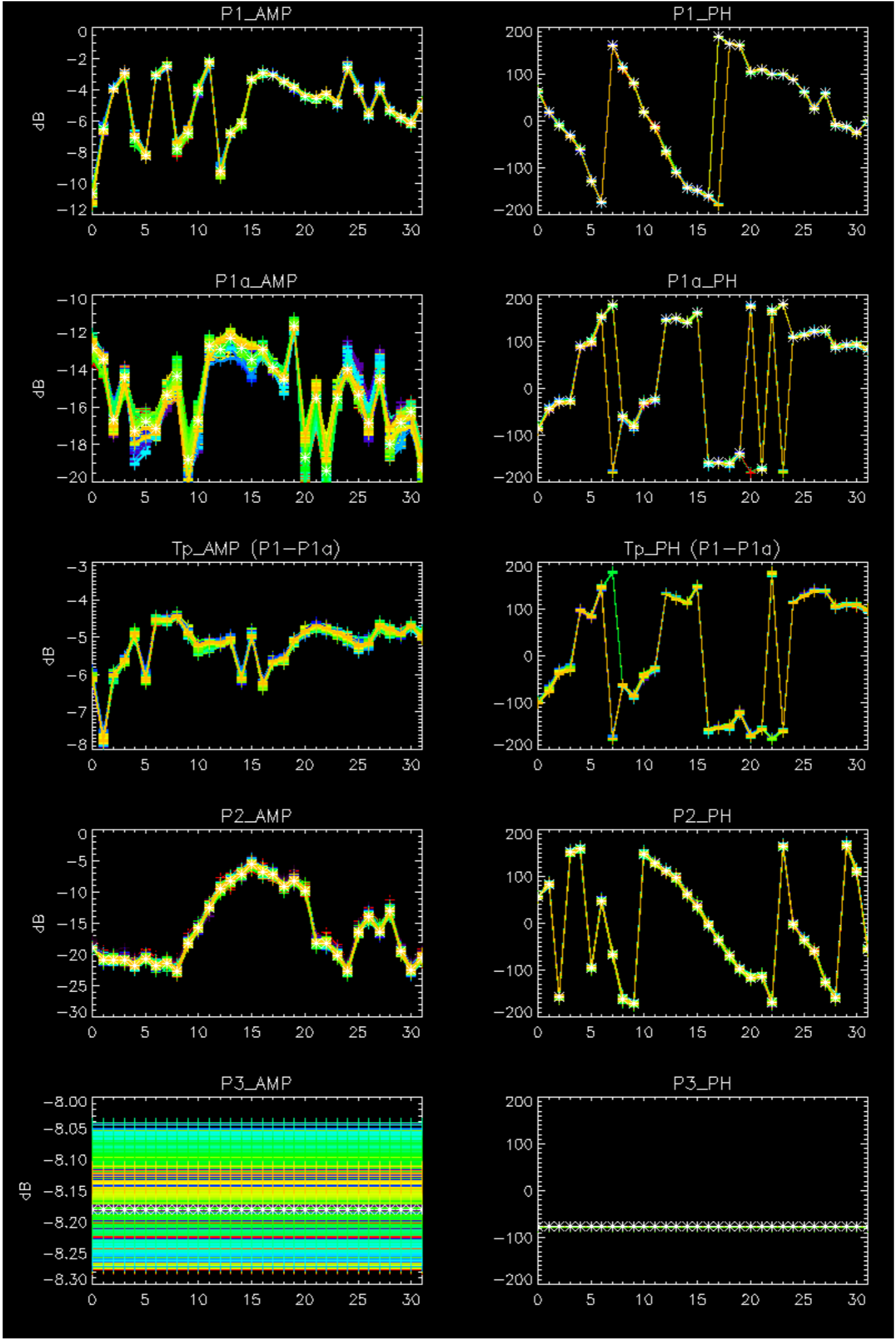
Cal pulses for WVS IS2



No anomalies observed on available browse products

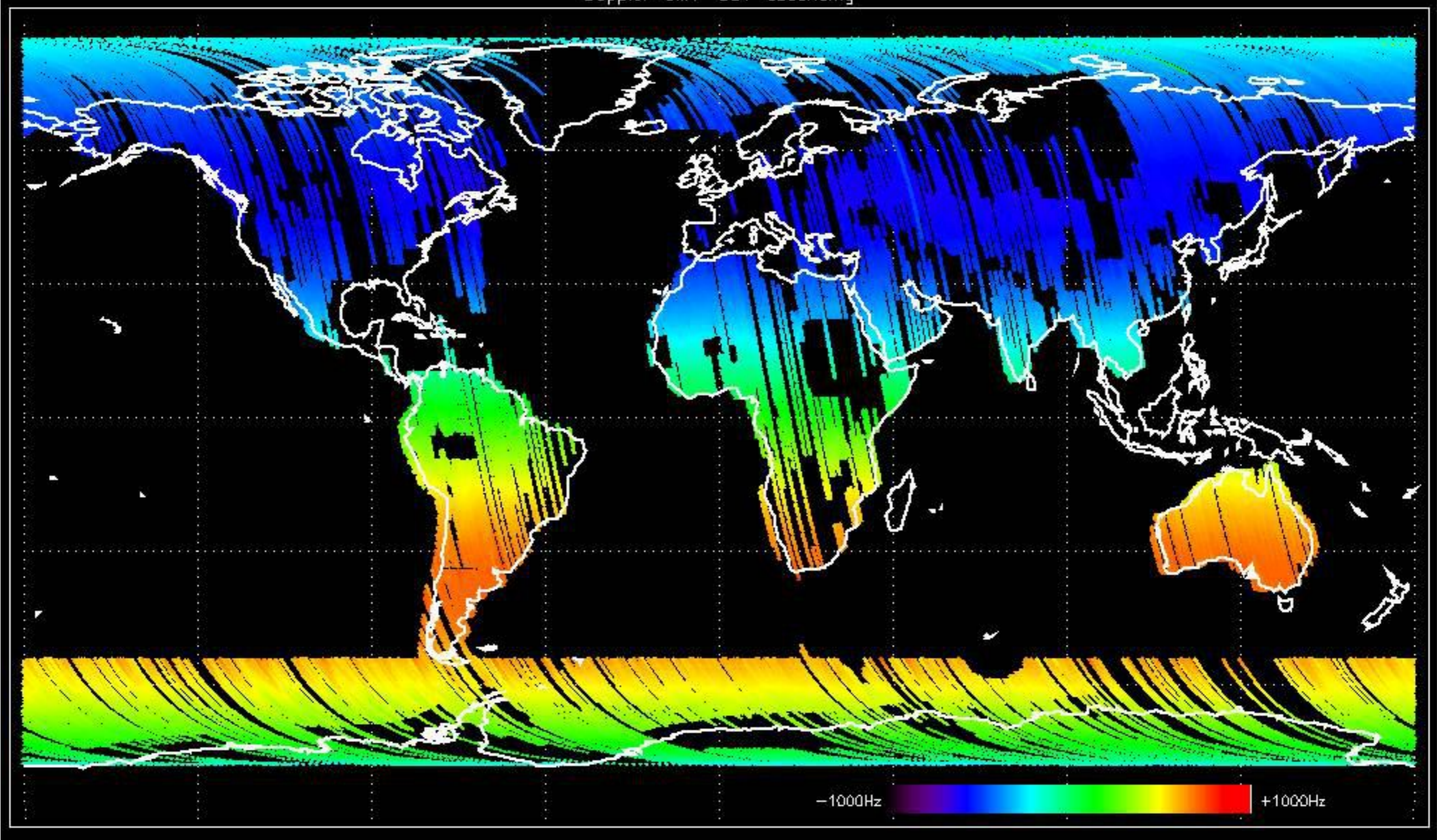
No anomalies observed.



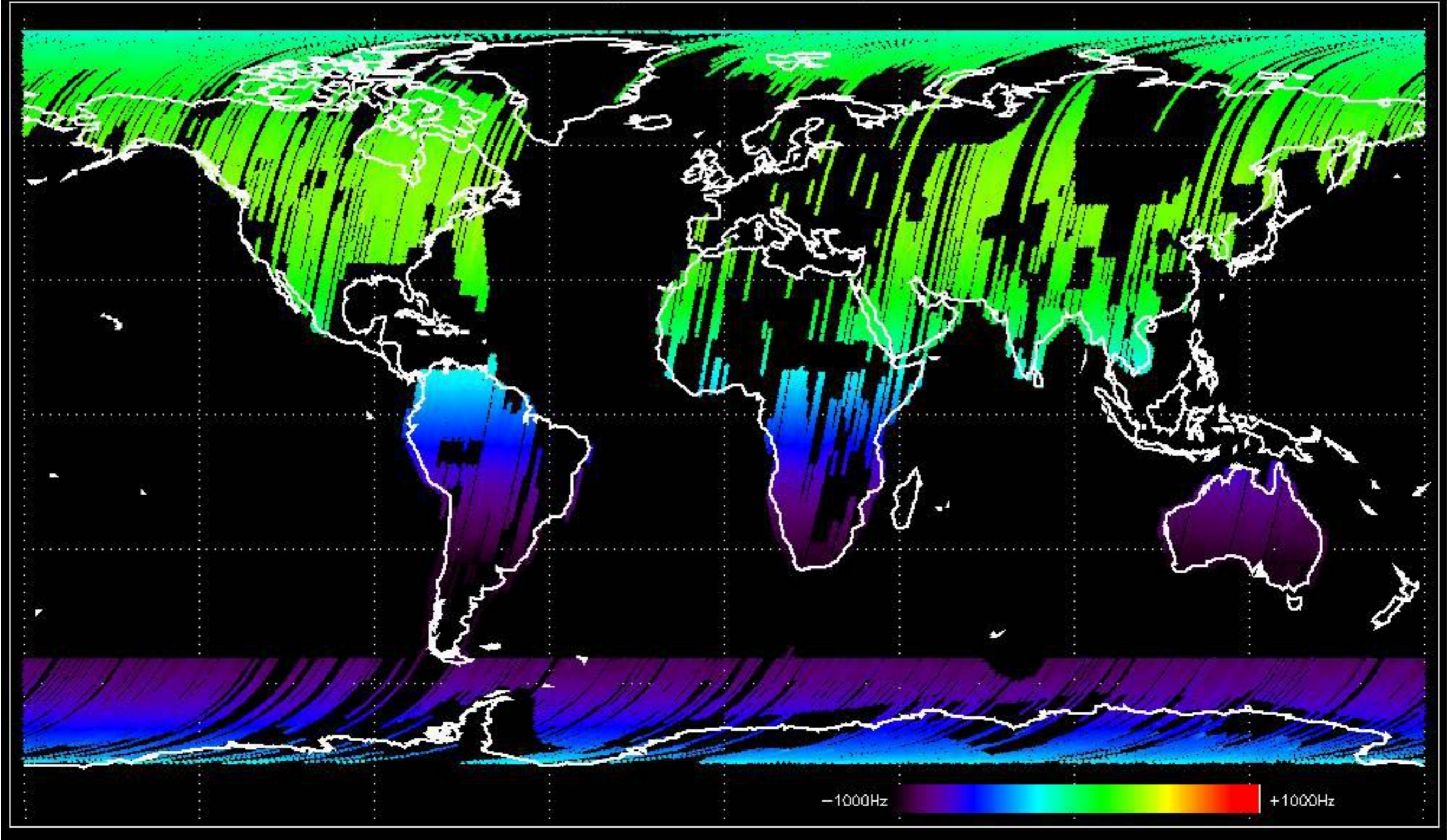


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

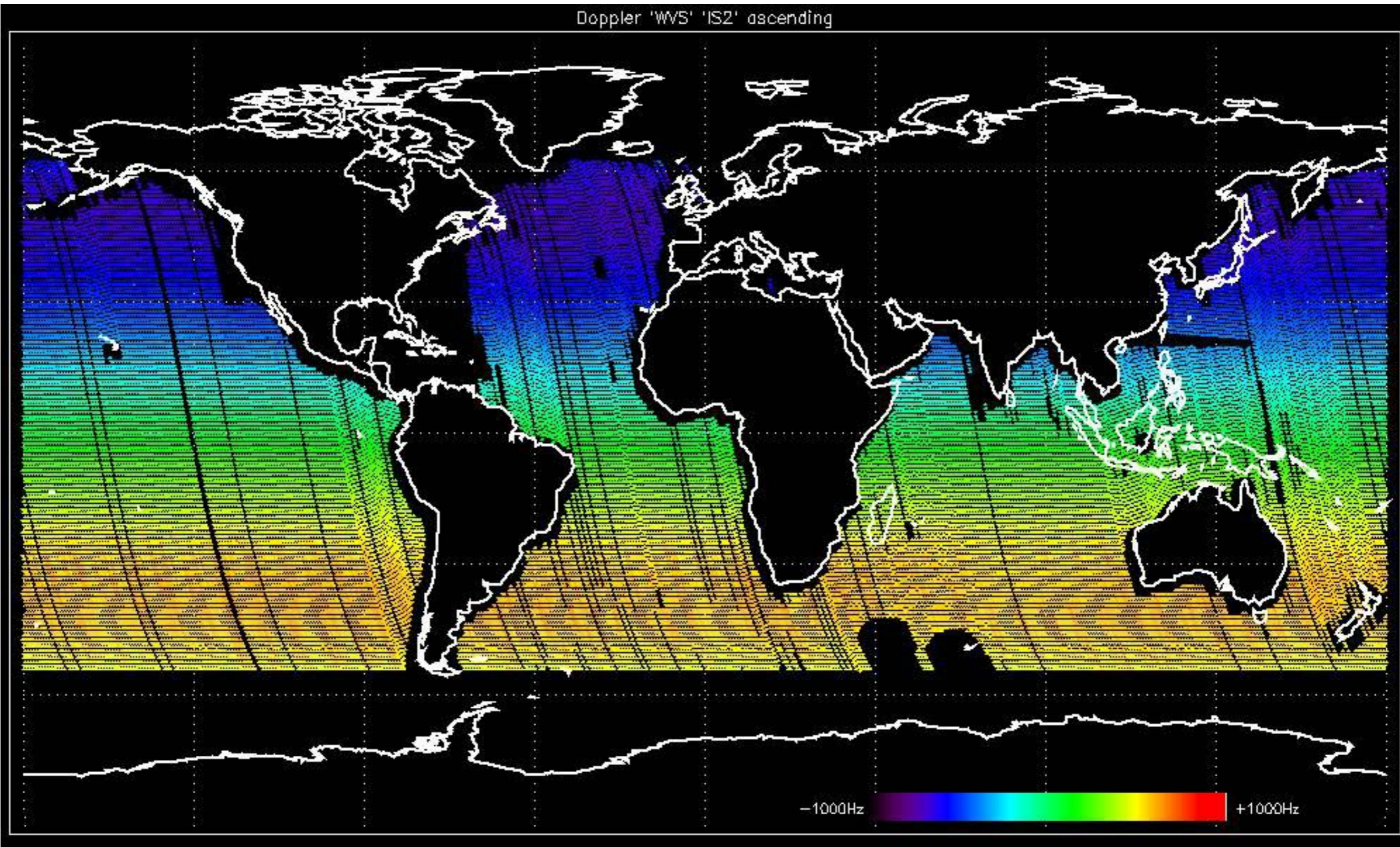
Doppler 'GM1' 'SS1' ascending



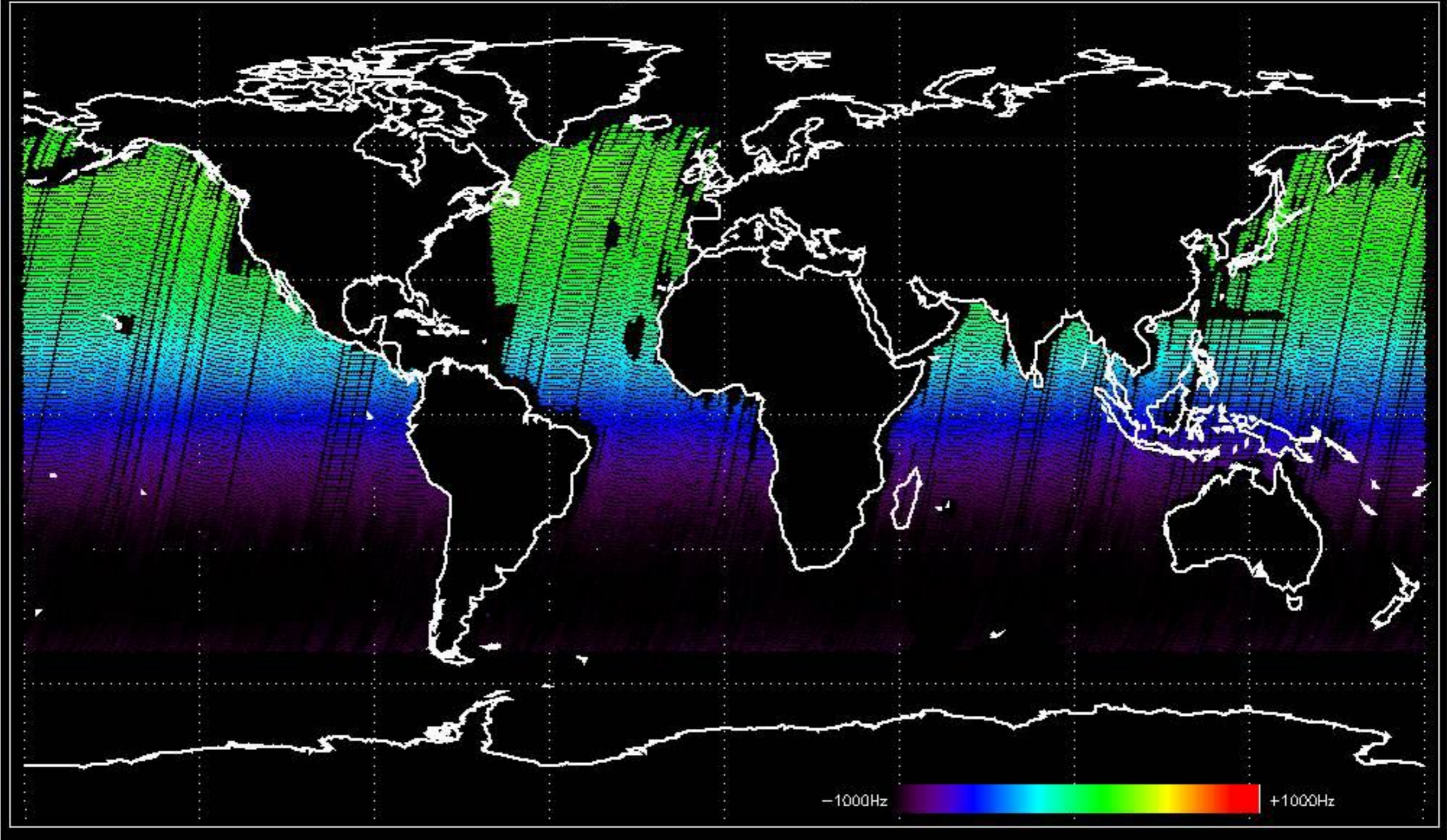
Doppler 'GM1' 'SS1' descending



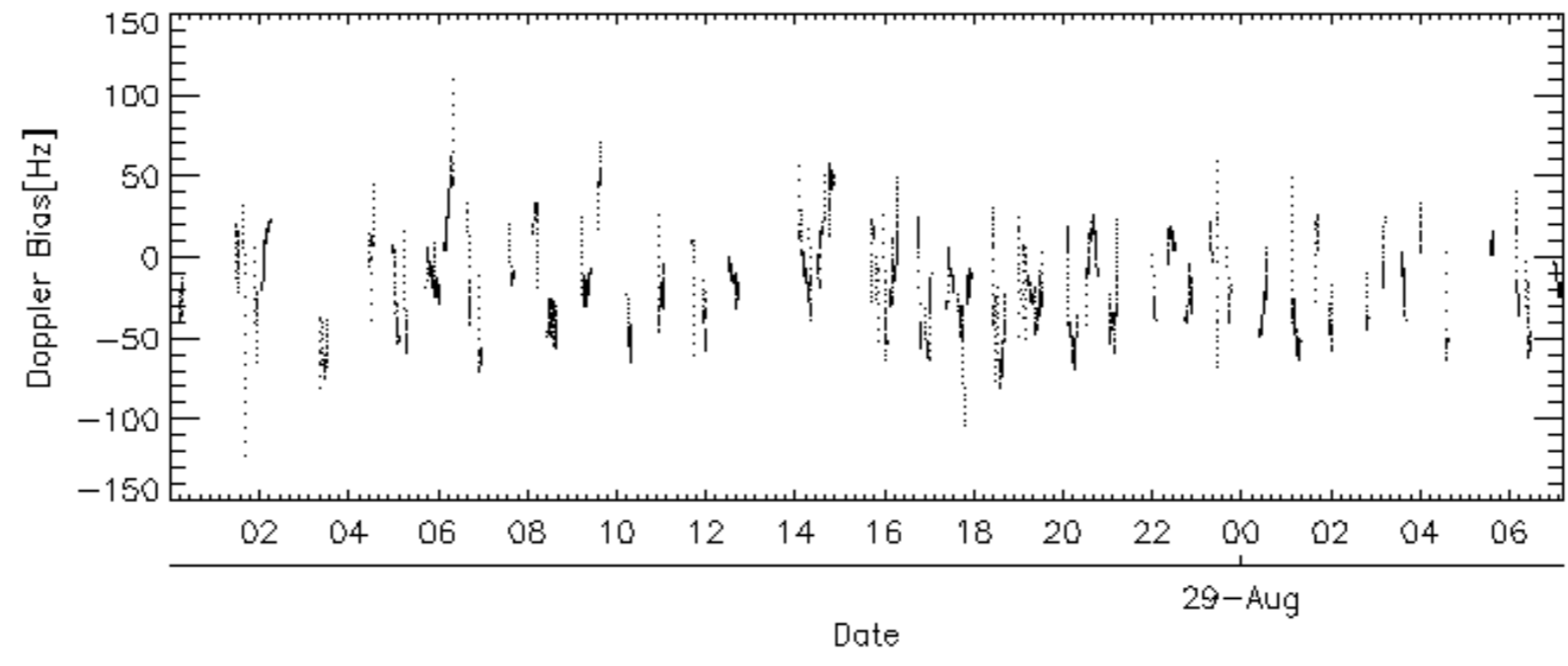
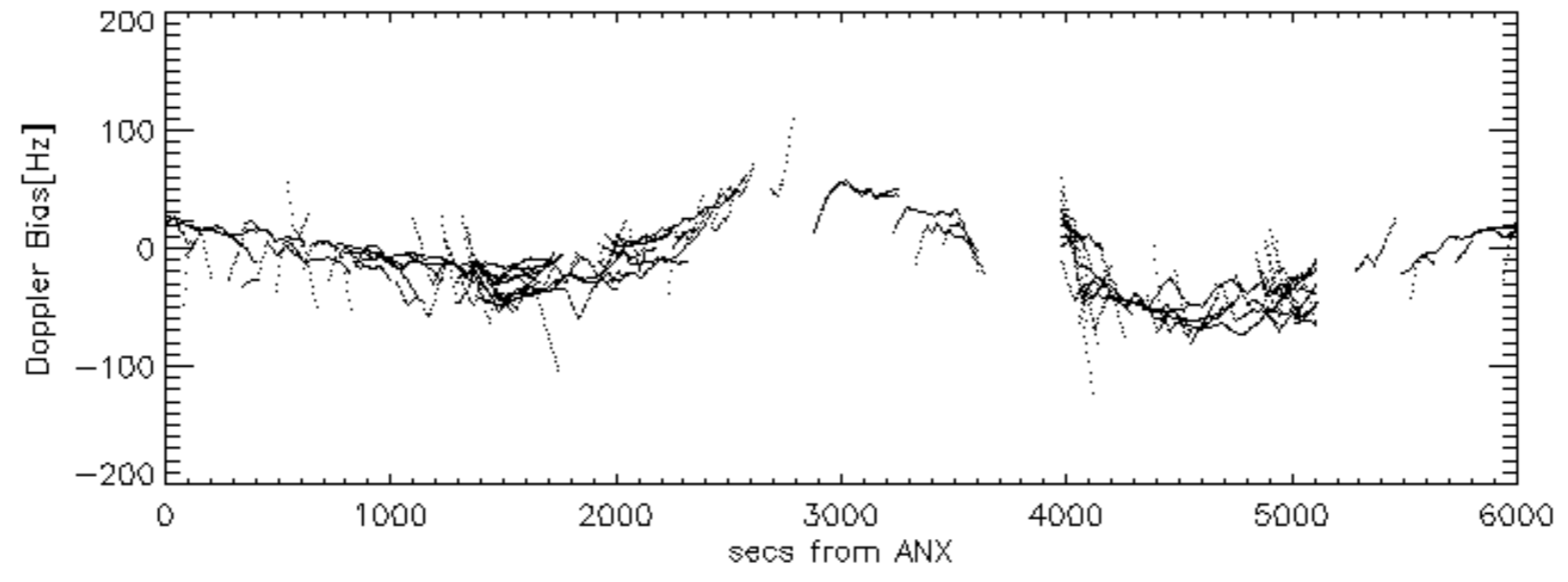
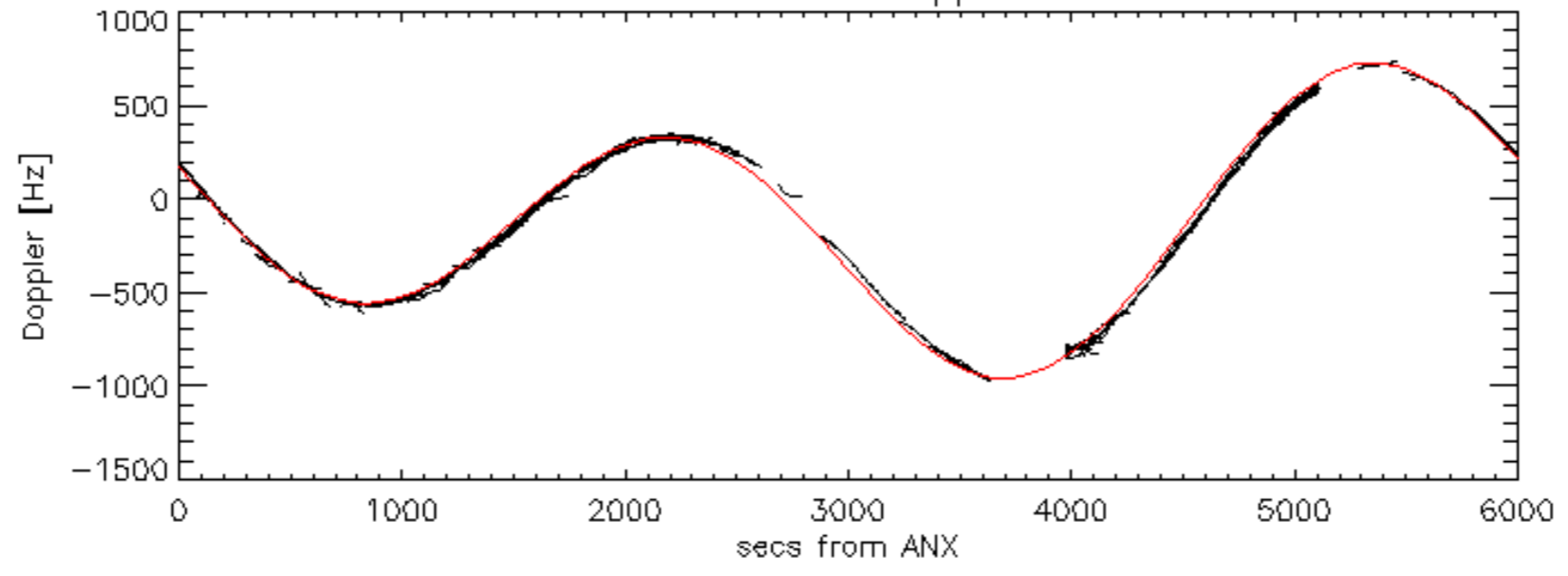
Doppler 'WVS' 'IS2' ascending

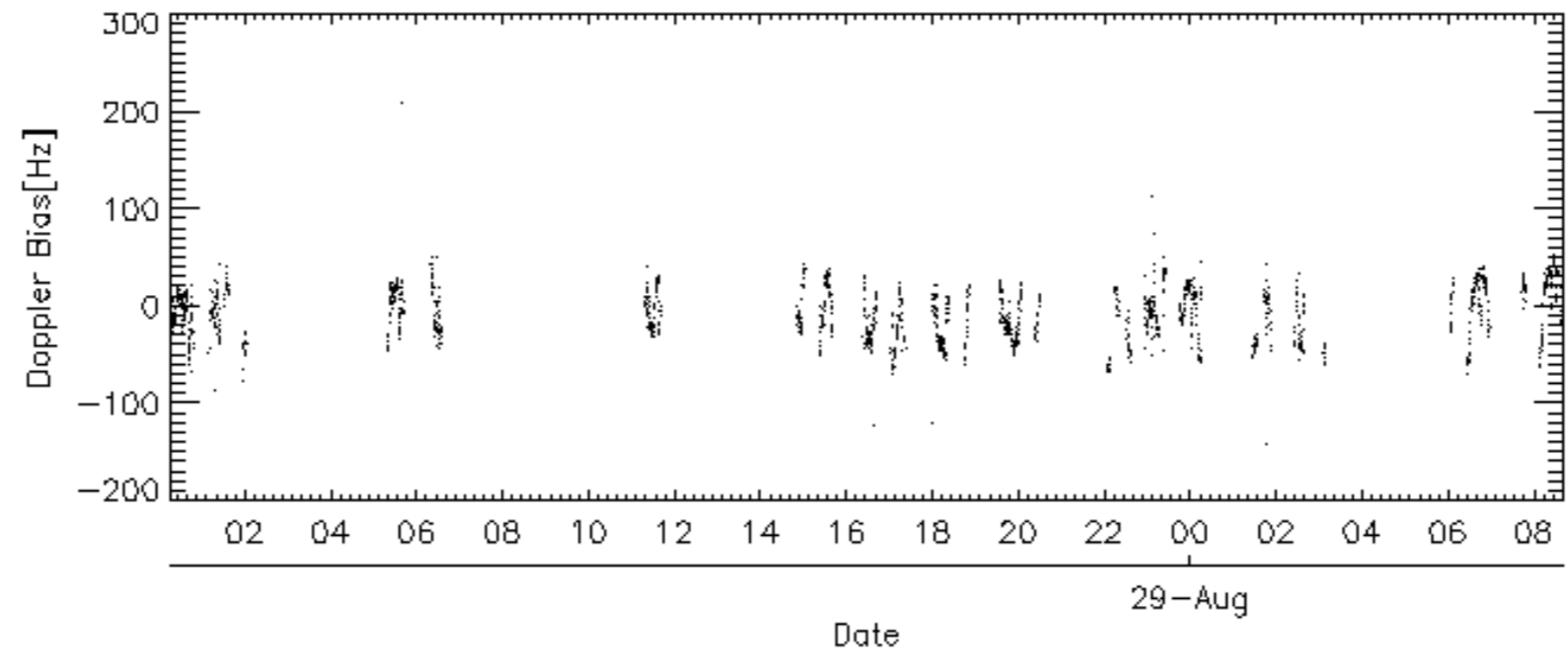
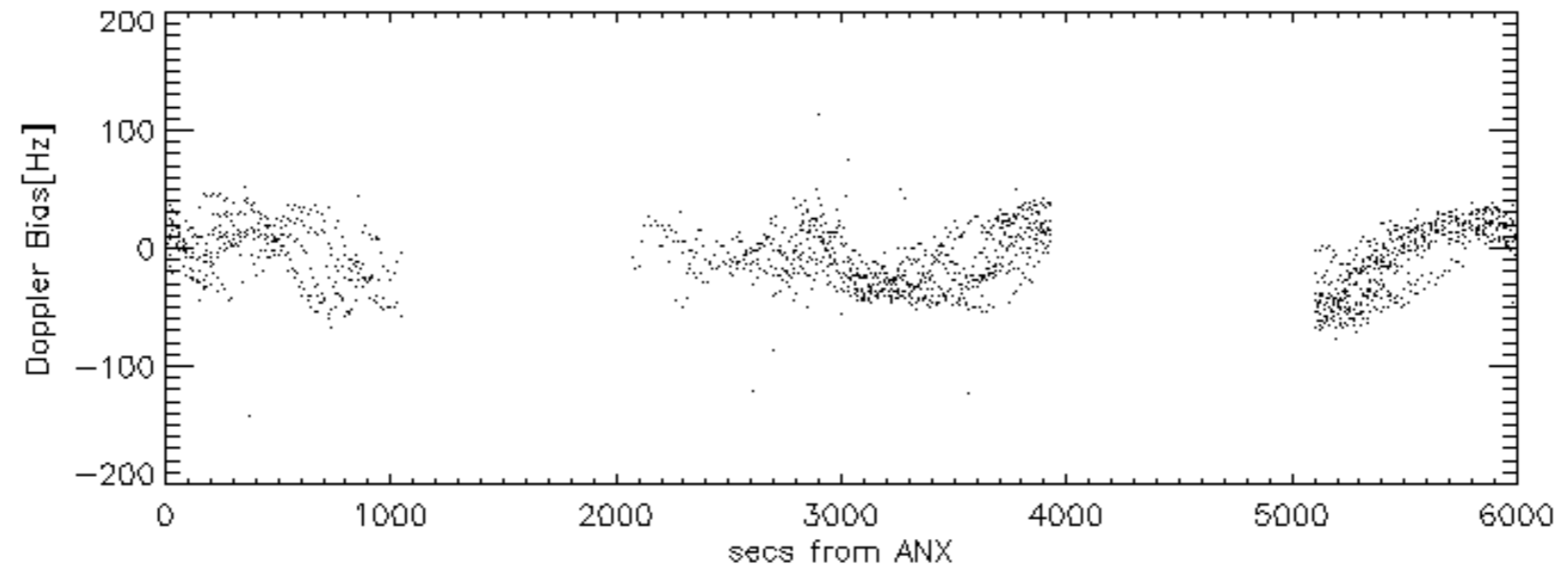
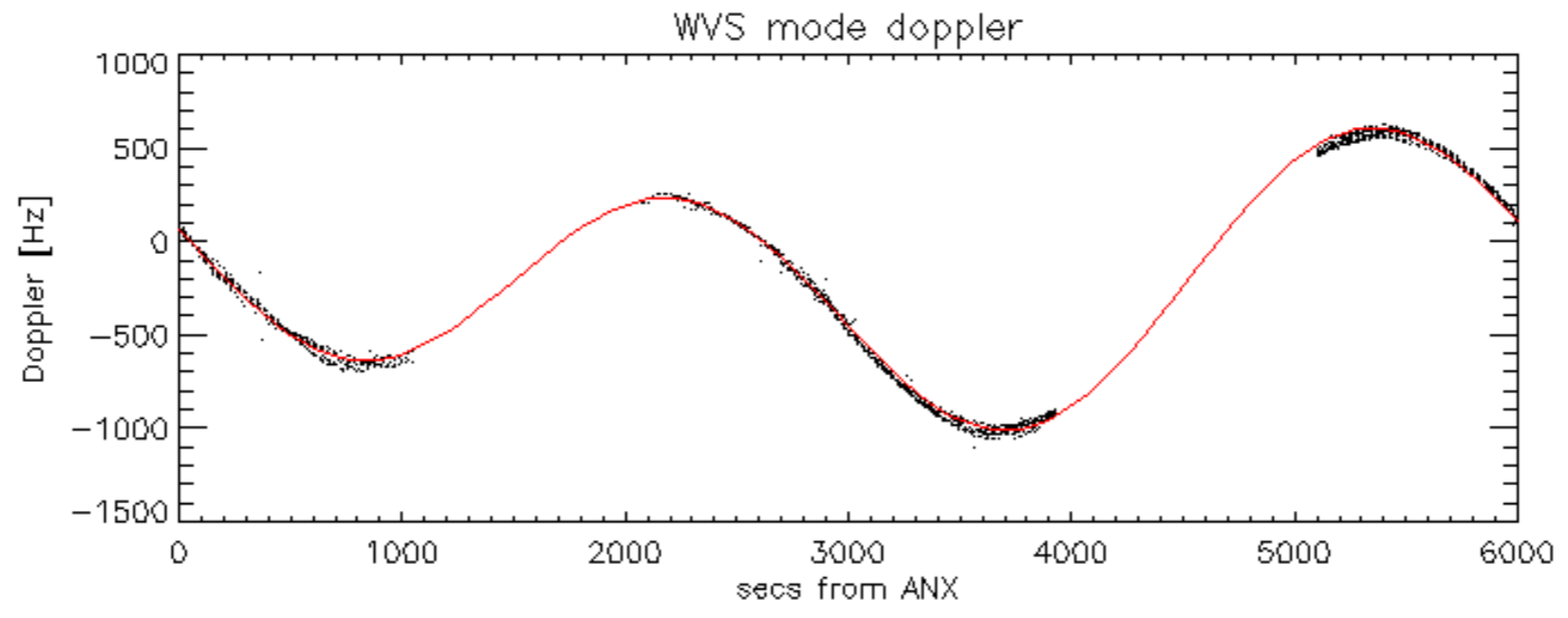


Doppler 'WVS' 'IS2' descending

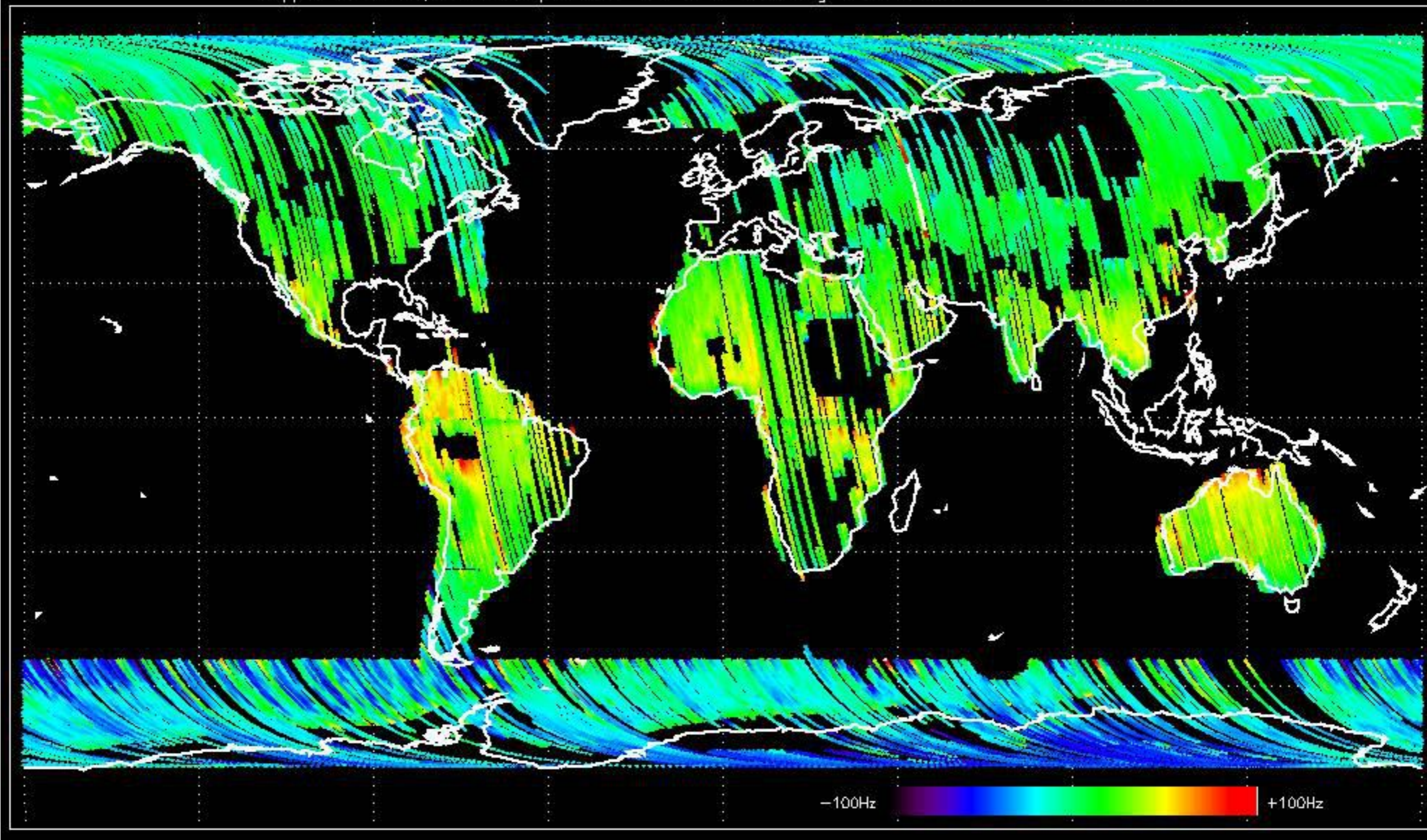


GM1 mode doppler

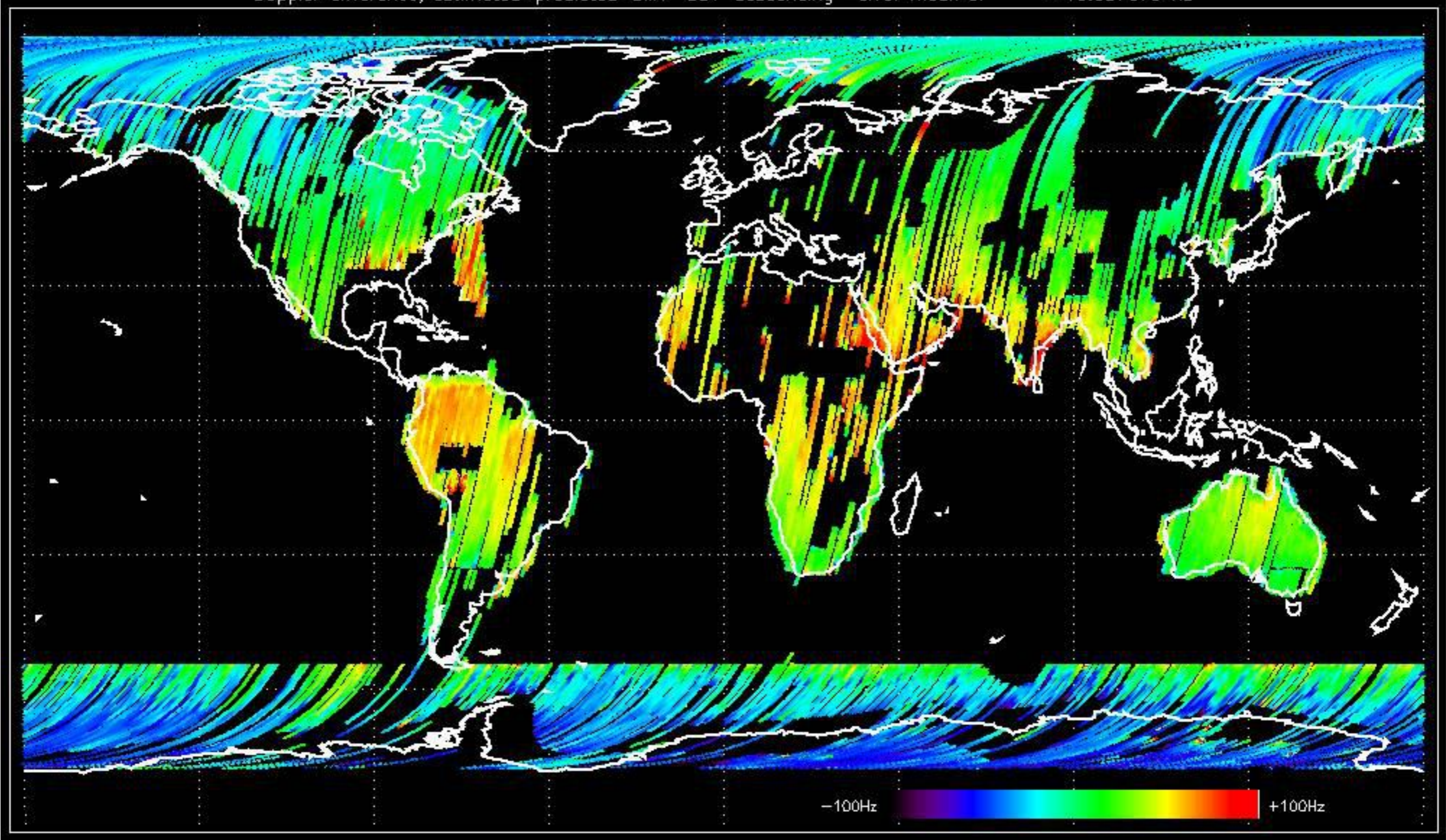




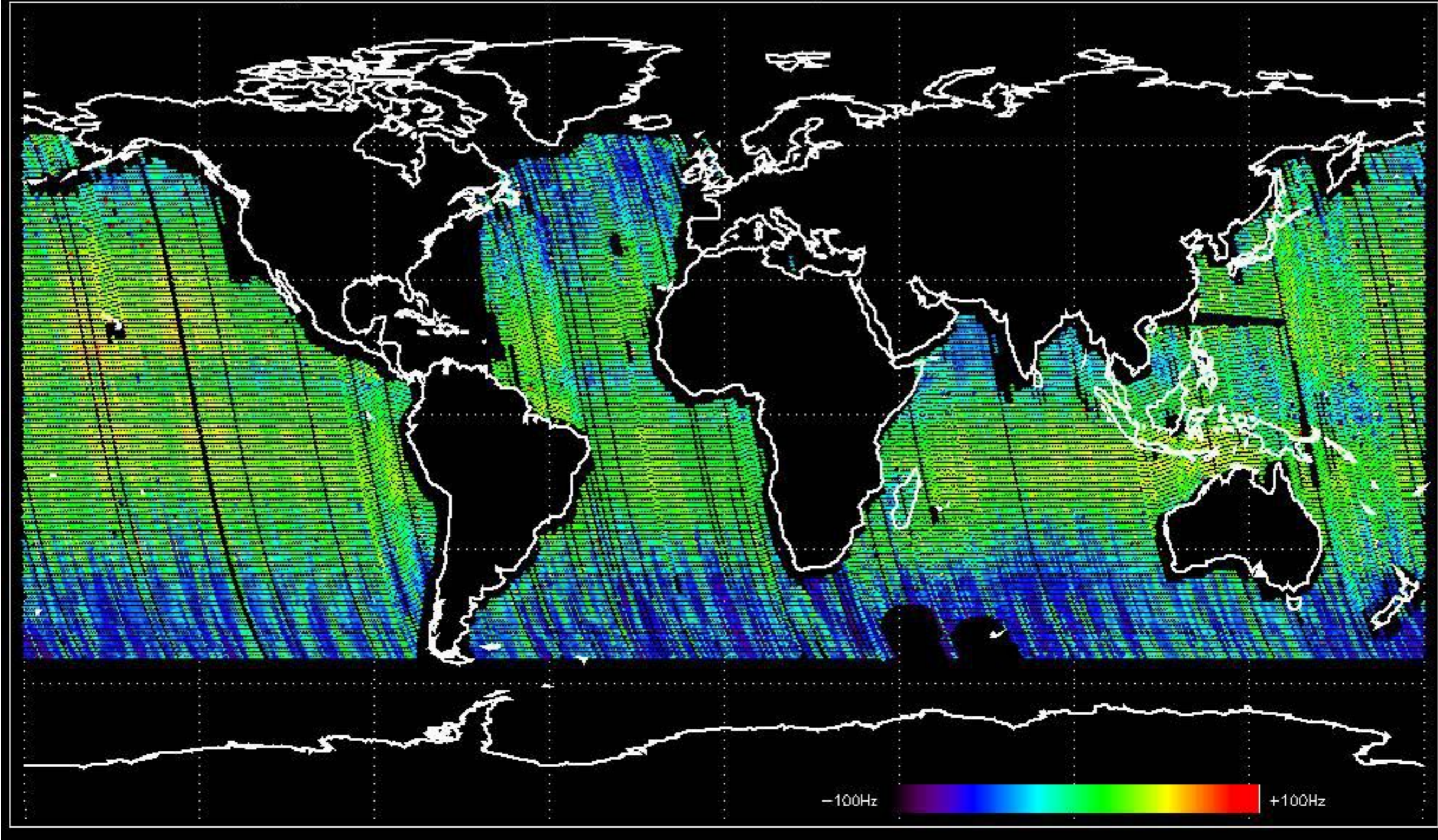
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.680361 Hz



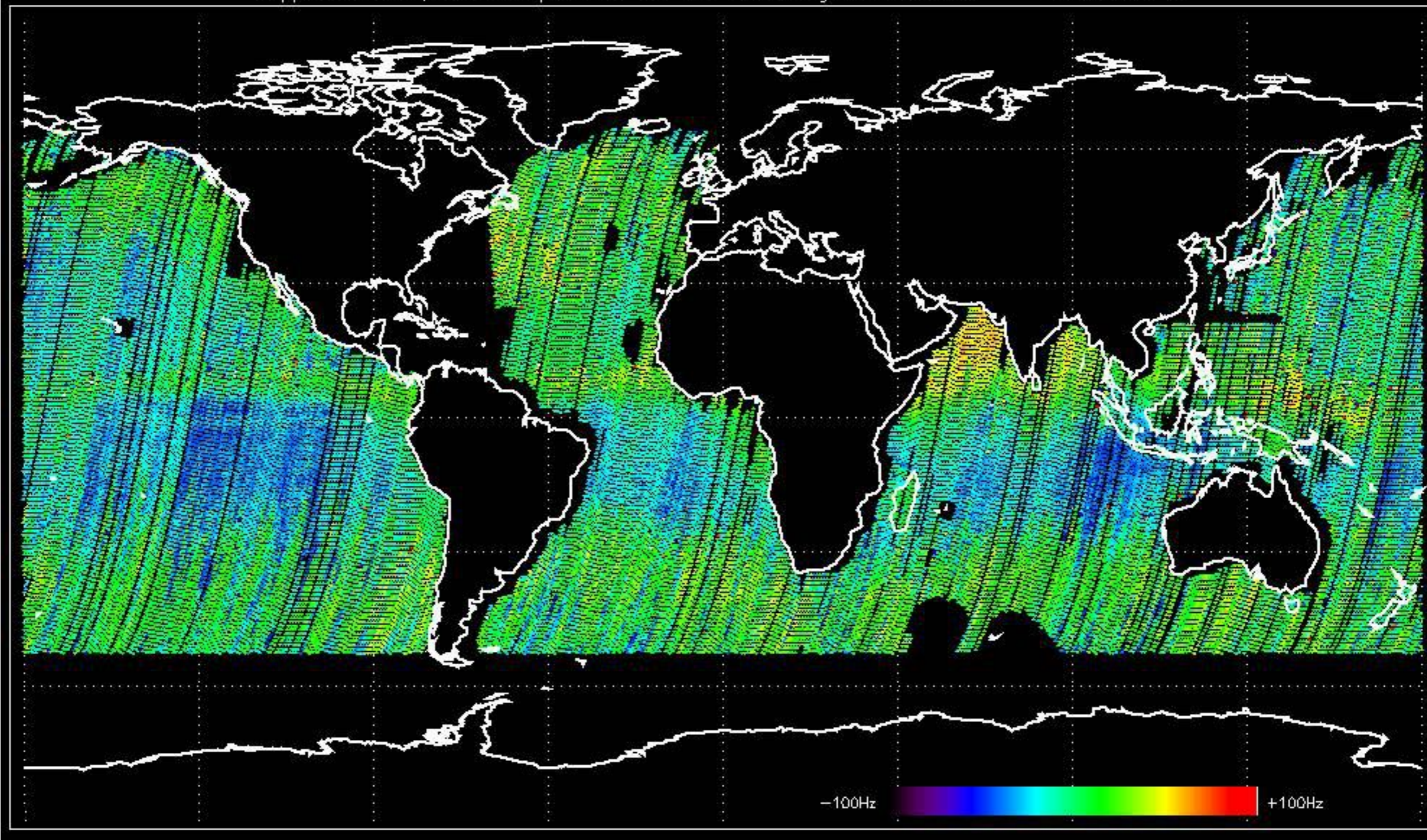
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.037670 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -3.8779334 Hz

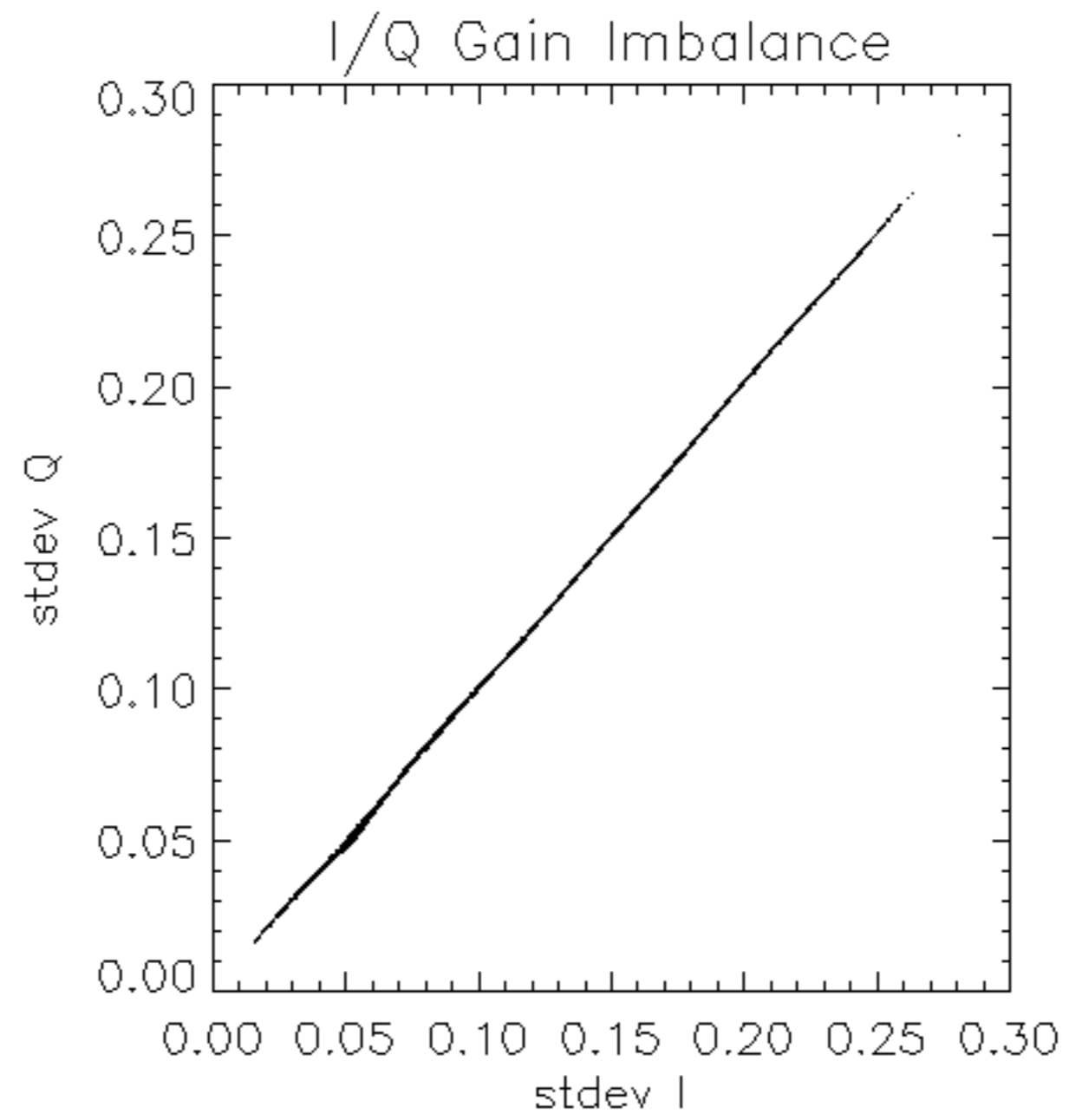


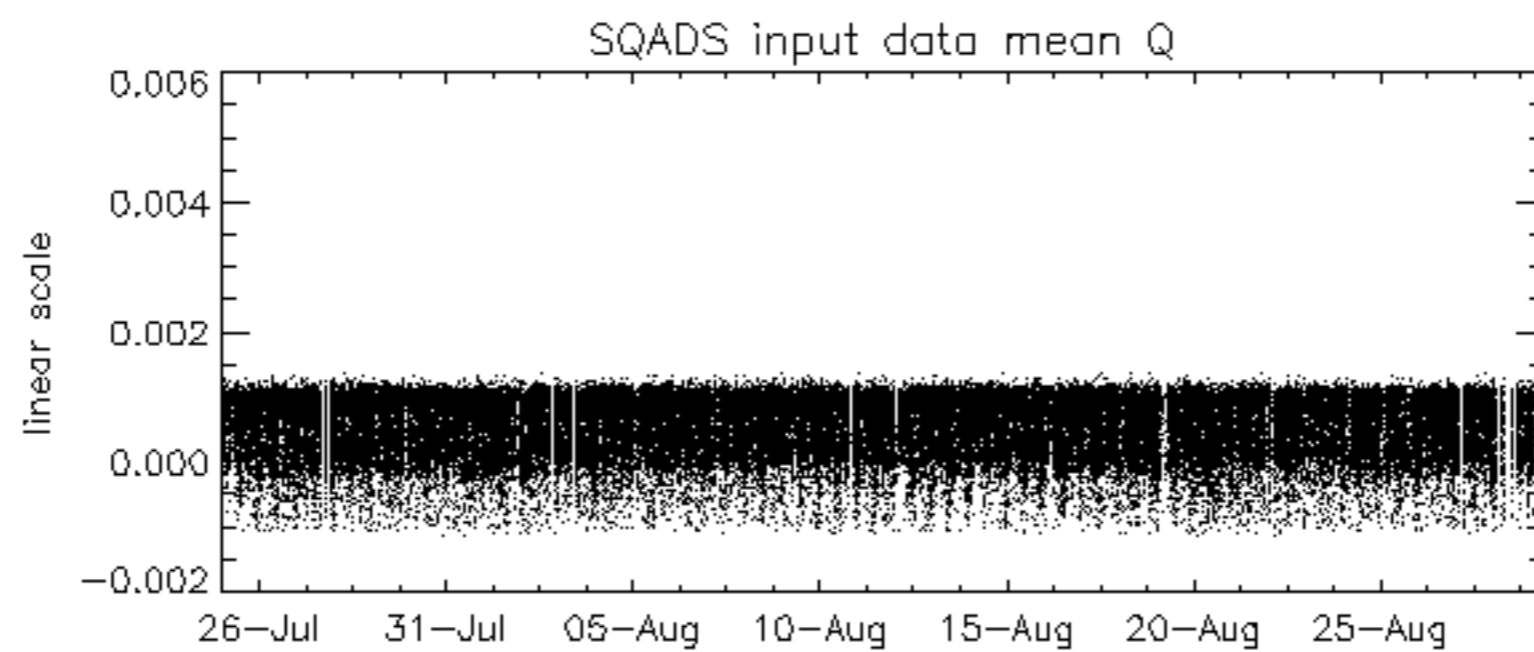
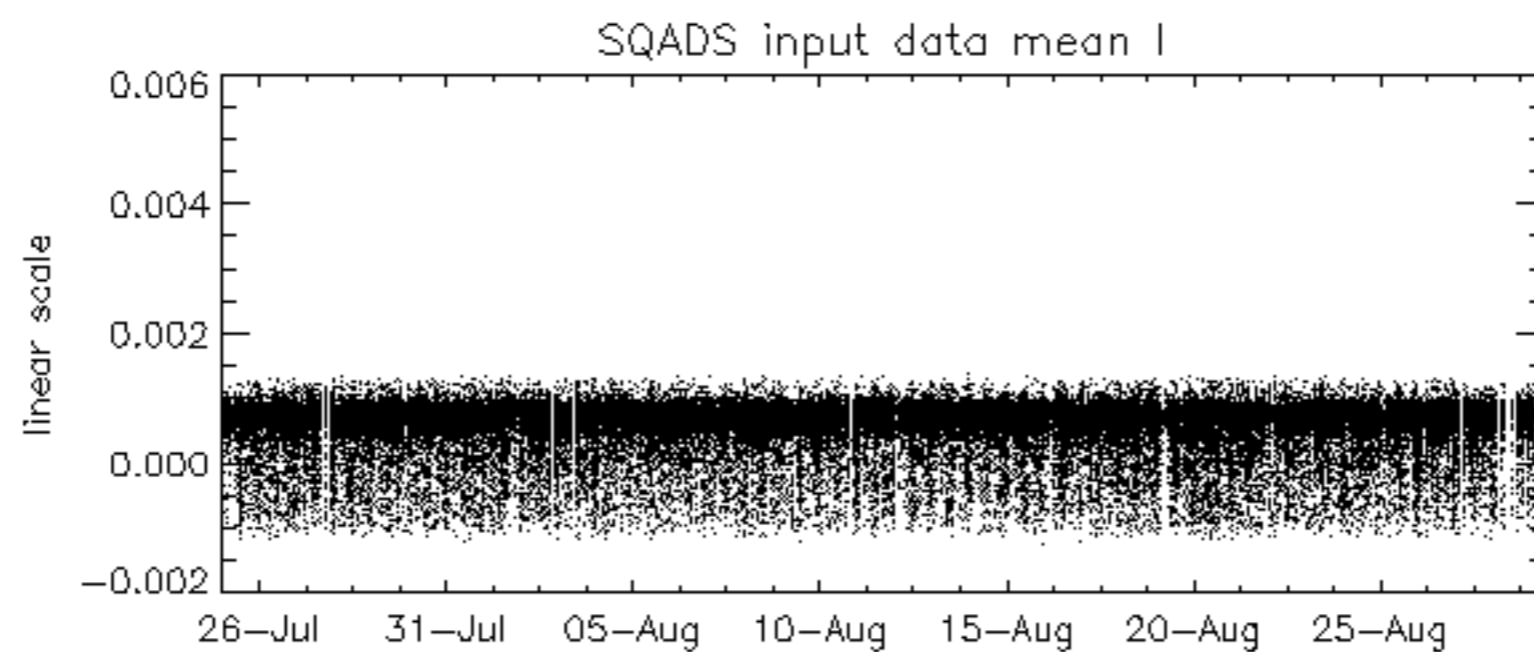
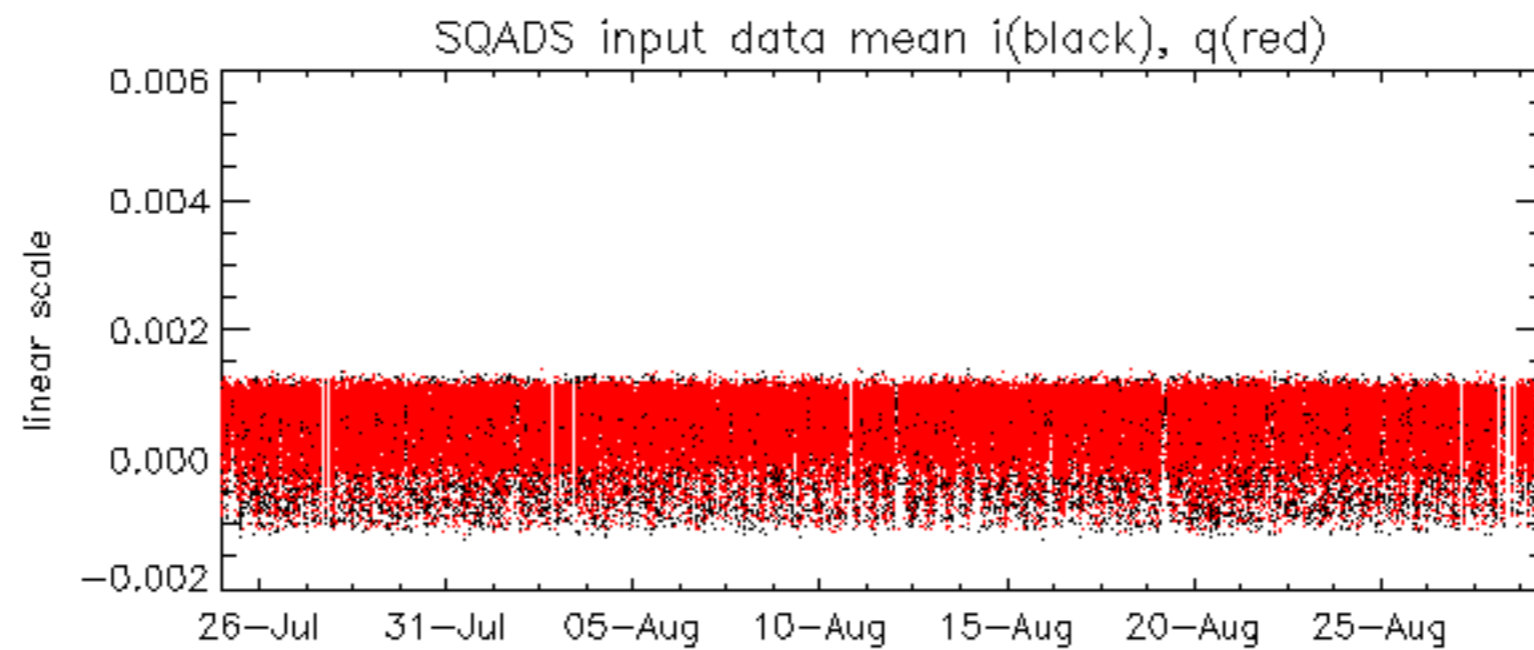
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4120467 Hz

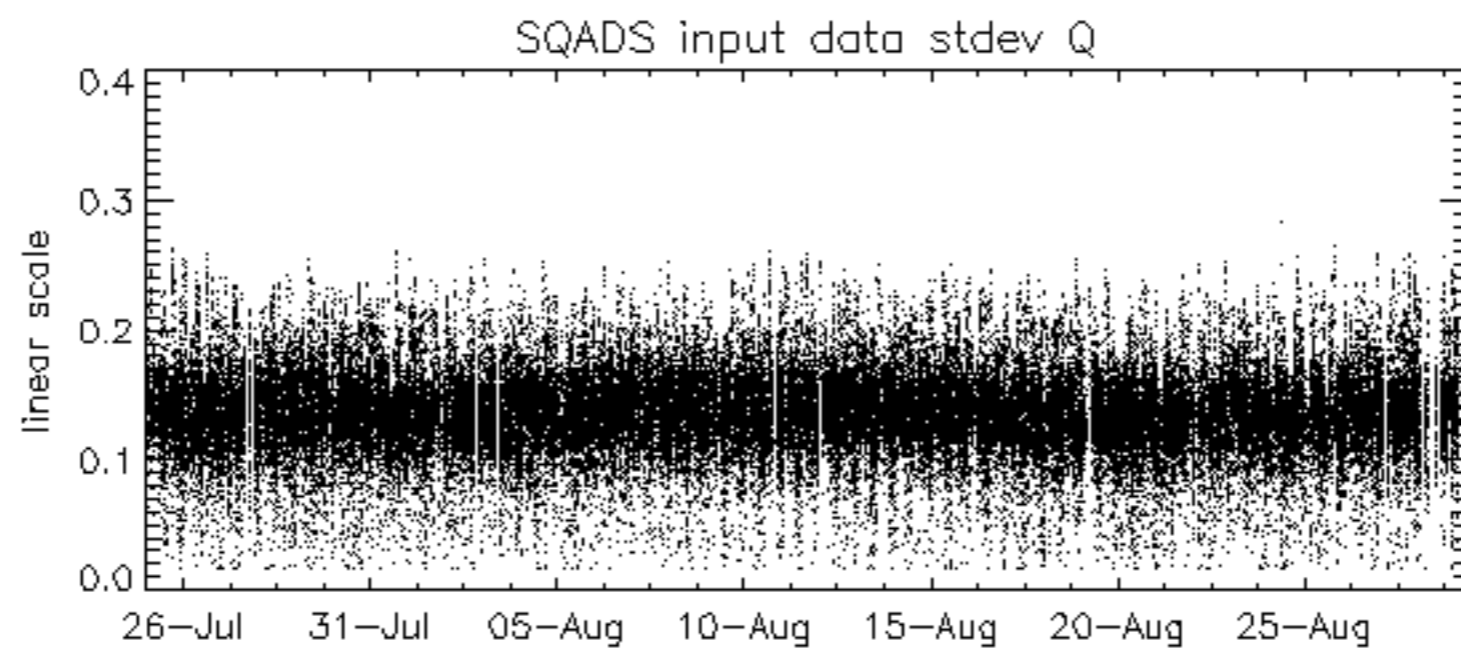
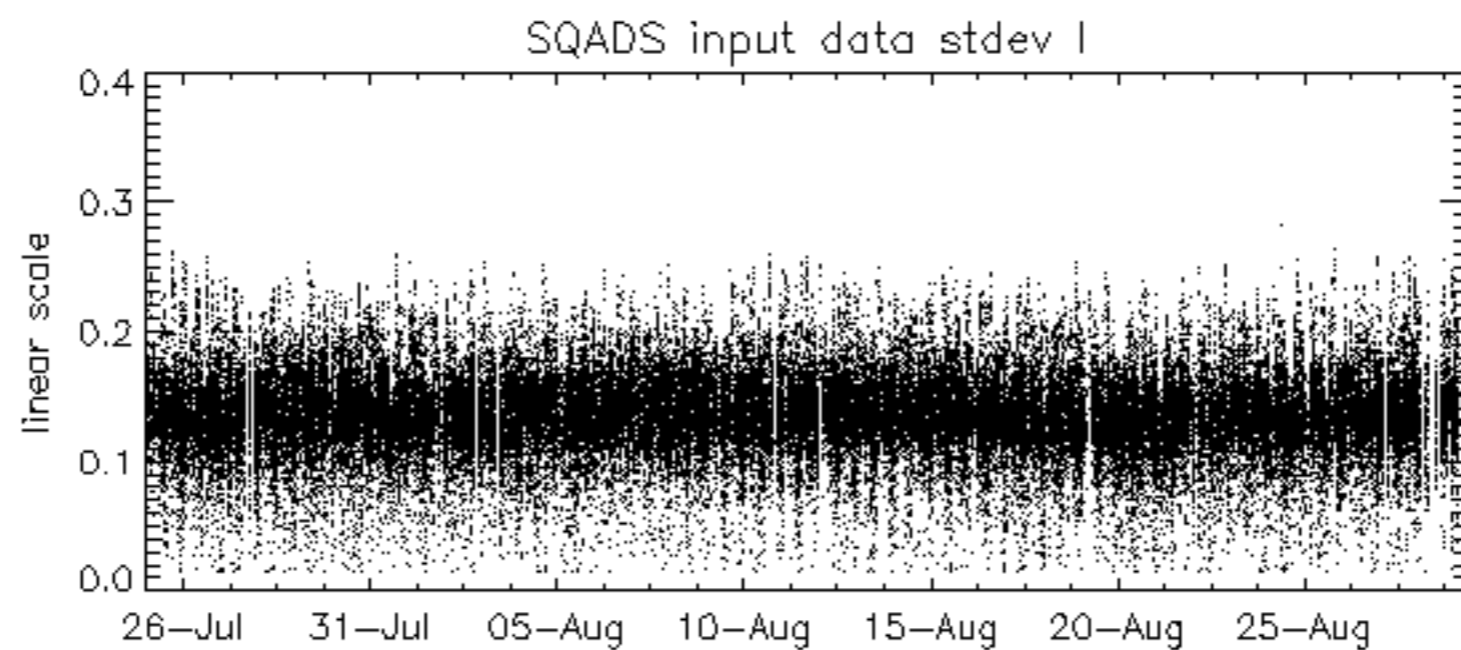
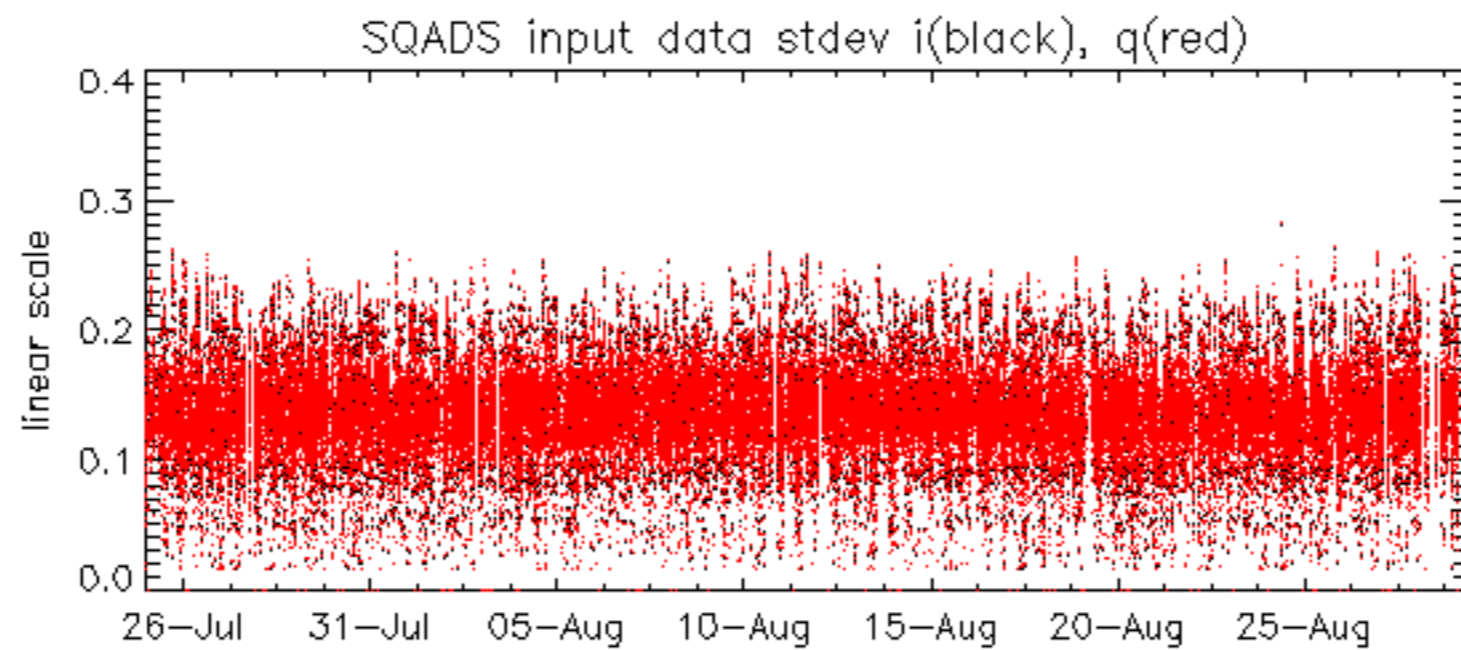


No anomalies observed on available MS products:

No anomalies observed.



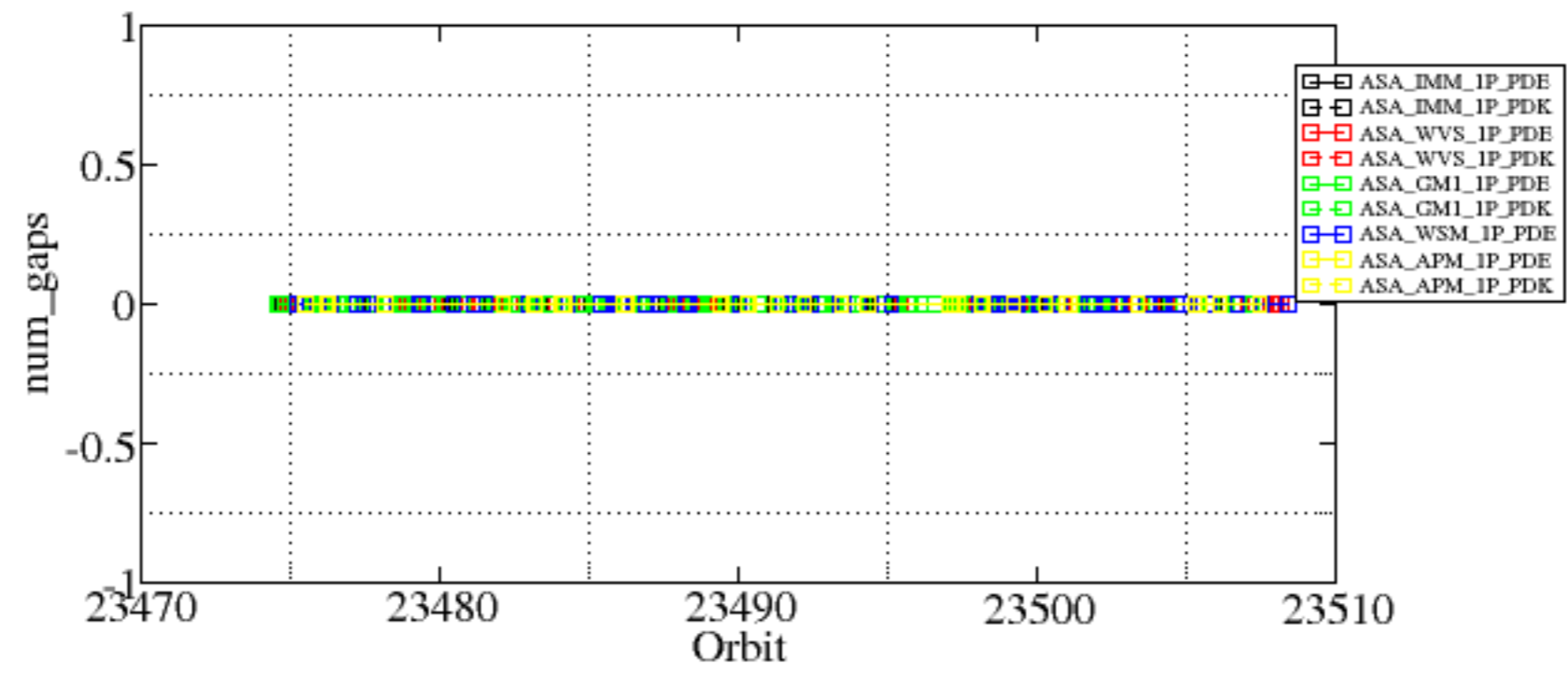


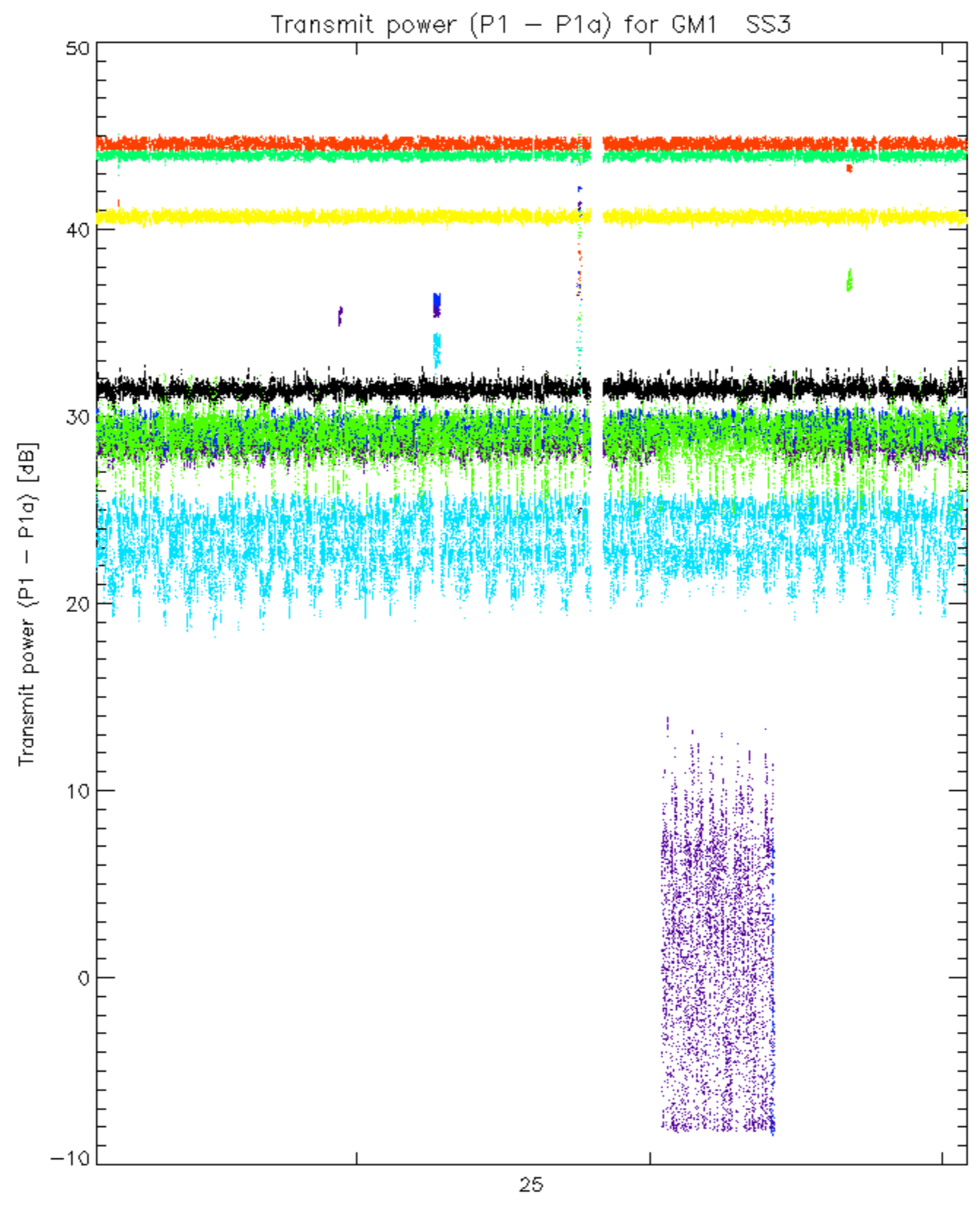


Summary of analysis for the last 3 days 2006082[789]

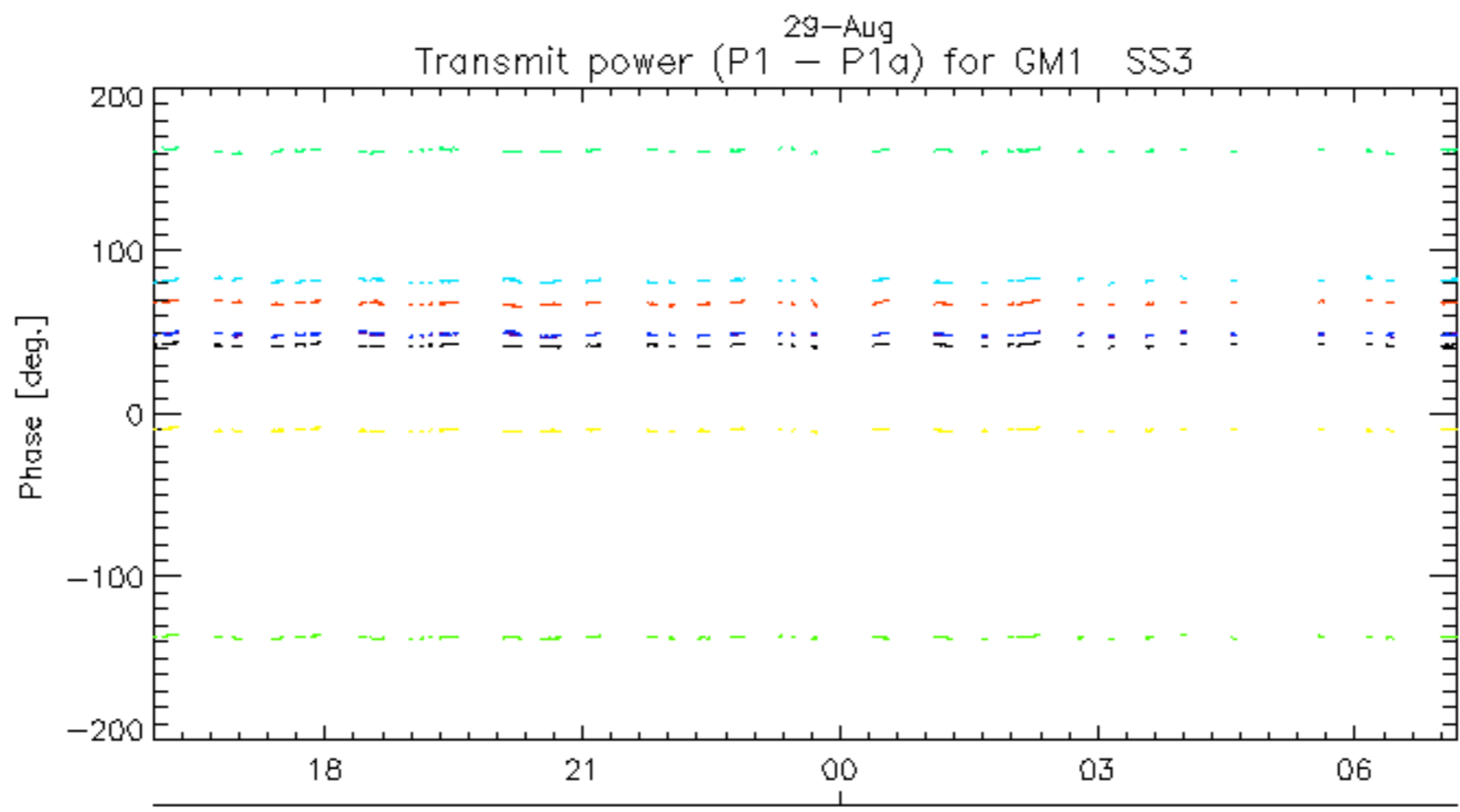
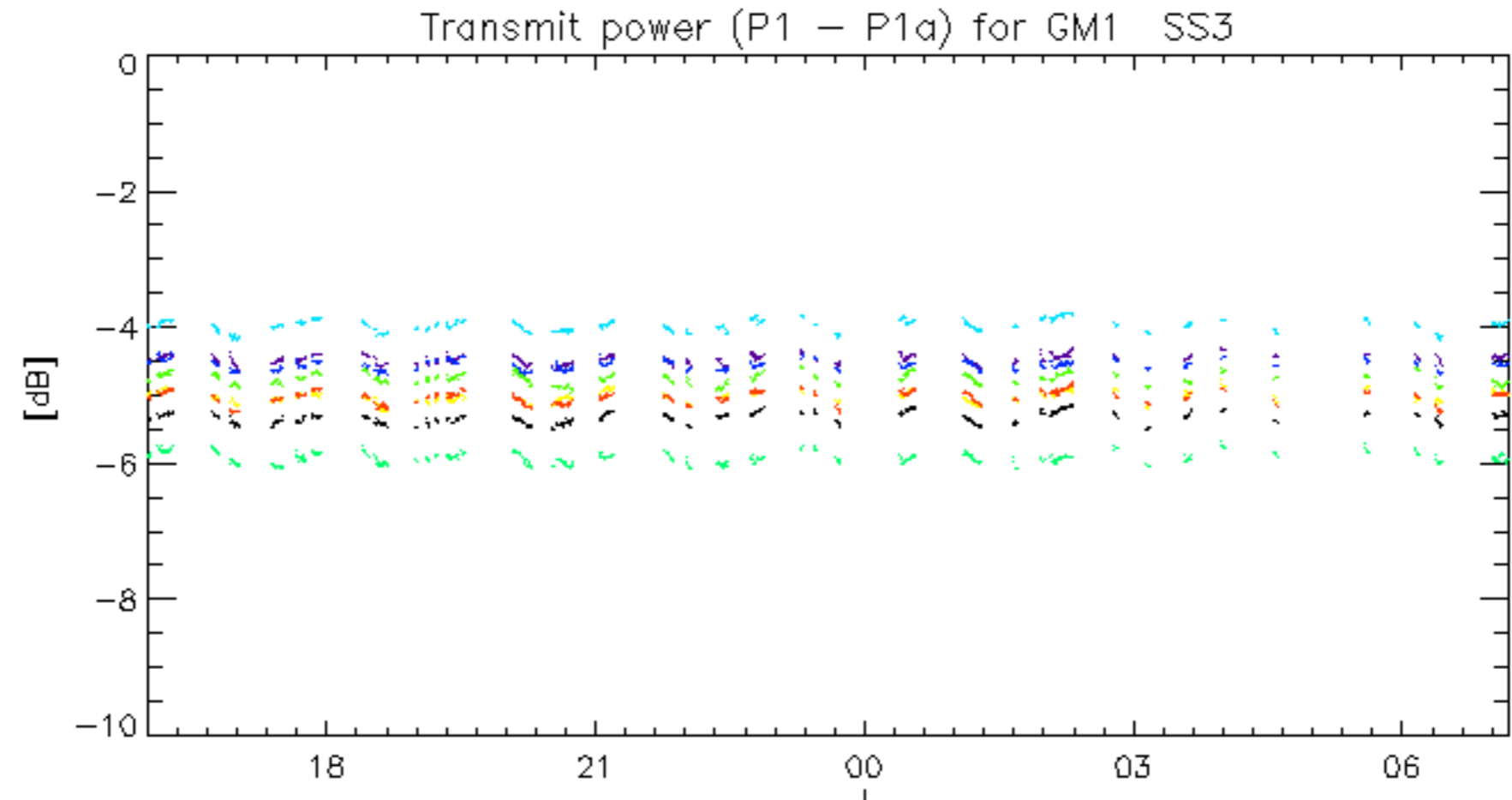
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060827_201454_000000372050_00386_23486_4727.N1	0	6
ASA_GM1_1PNPDK20060828_091301_000006642050_00394_23494_3759.N1	0	13
ASA_WSM_1PNPDE20060828_171916_000001462050_00399_23499_9799.N1	0	63

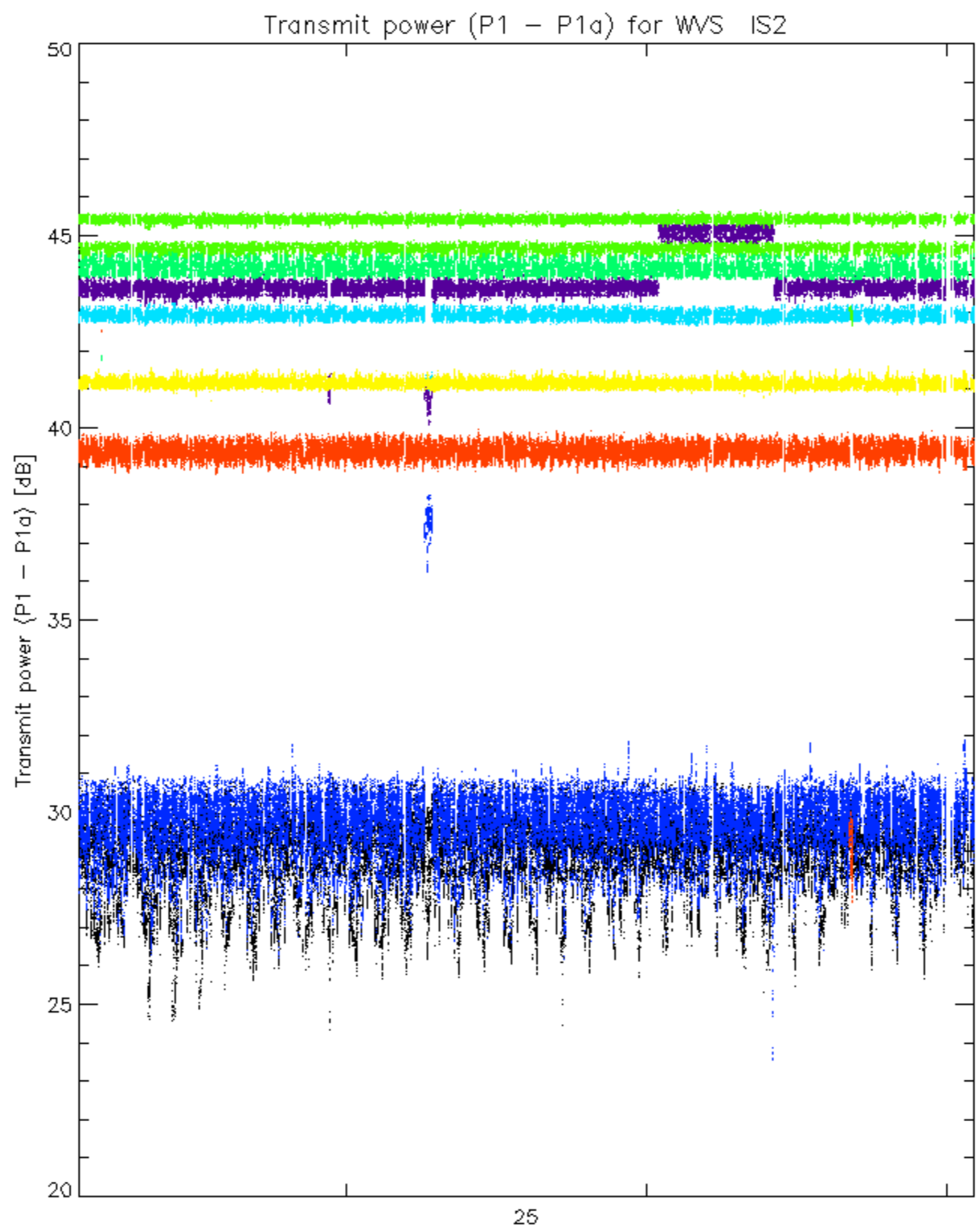




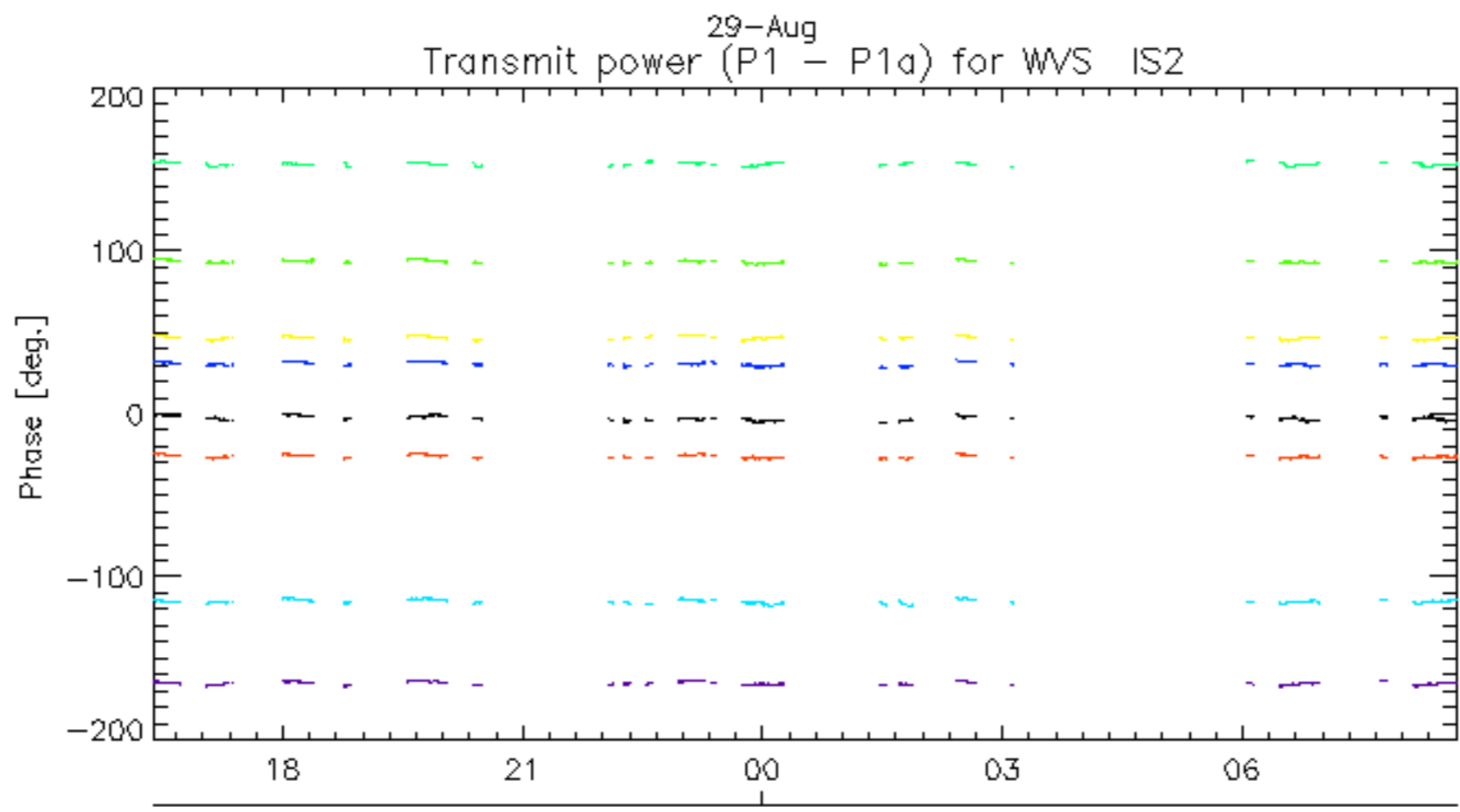
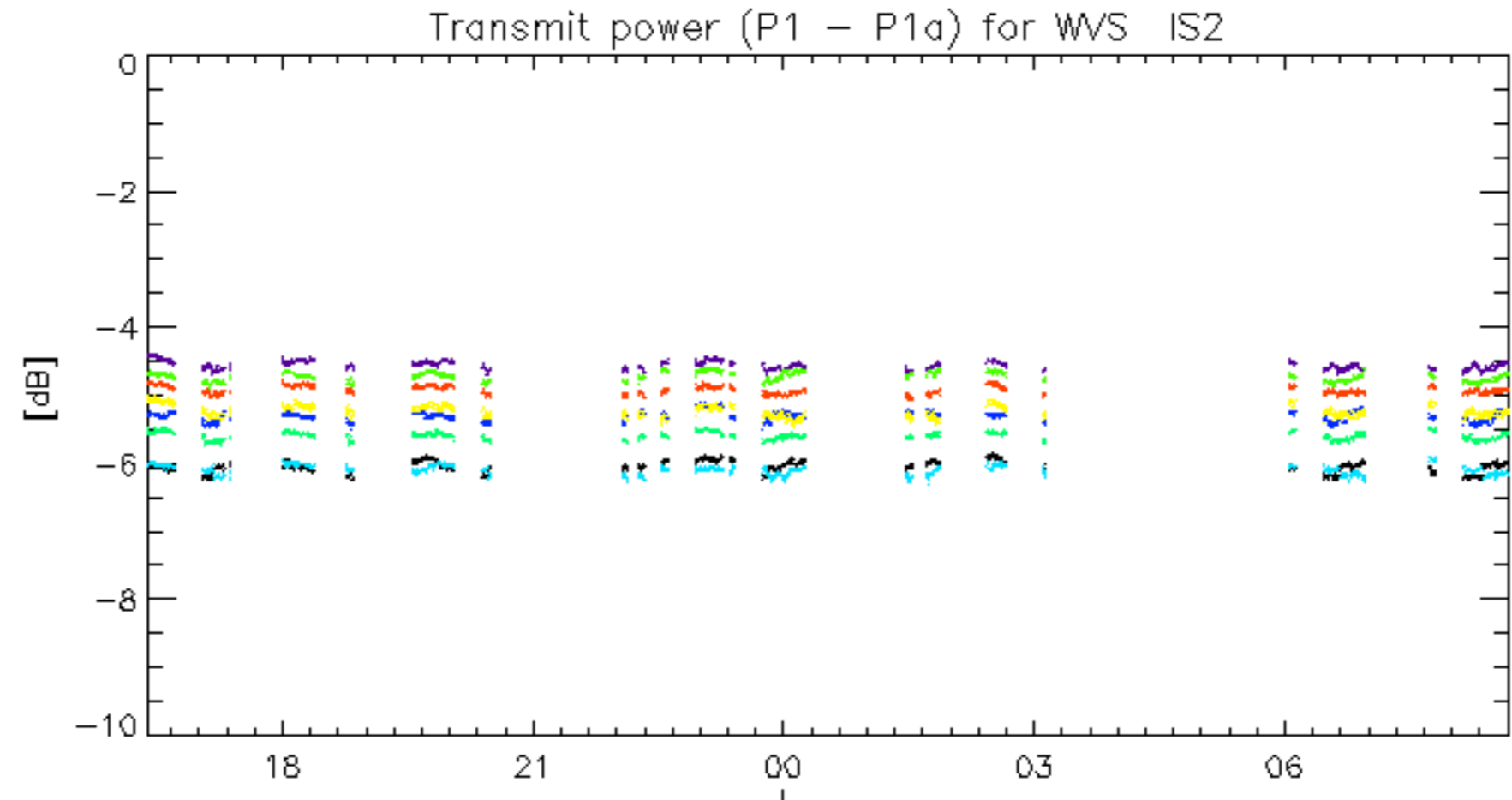
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.