

PRELIMINARY REPORT OF 060903

last update on Sun Sep 3 16:40:01 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 2006-09-02 00:00:00 to 2006-09-03 16:40:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	71	14	8	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	71	14	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	71	14	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	71	14	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	49	55	14	52
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	29	49	55	14	52
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	29	49	55	14	52
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	29	49	55	14	52

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	20060902 204904
H	20060901 143818

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.942105	0.009852	0.004762
7	P1	-3.075527	0.051890	0.103783
11	P1	-4.081850	0.065041	0.086915
15	P1	-6.200960	0.095586	0.063571
19	P1	-3.476720	0.021195	-0.104874
22	P1	-4.563287	0.024777	0.005116
26	P1	-3.930049	0.018928	-0.031990
30	P1	-5.768346	0.058753	-0.040085
3	P1	-16.552834	0.264466	-0.062578
7	P1	-16.845102	0.644599	0.329126
11	P1	-16.828772	0.307646	0.122438
15	P1	-12.956774	0.149165	0.075114
19	P1	-14.542499	0.172315	-0.189127
22	P1	-15.819886	0.554284	0.313947
26	P1	-15.176459	0.203690	-0.123913
30	P1	-16.996876	0.347238	0.164628

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.859798	0.084784	0.102531
7	P2	-21.858179	0.099400	-0.004266
11	P2	-15.748948	0.113106	0.038389
15	P2	-7.098968	0.098484	0.028423
19	P2	-9.113865	0.092143	0.007656
22	P2	-18.132034	0.086210	0.038426
26	P2	-16.397112	0.093327	-0.007622
30	P2	-19.476242	0.091113	0.031627

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173071	0.003851	-0.008095
7	P3	-8.173071	0.003851	-0.008095
11	P3	-8.173071	0.003851	-0.008095
15	P3	-8.173071	0.003851	-0.008095
19	P3	-8.173071	0.003851	-0.008095
22	P3	-8.173071	0.003851	-0.008095
26	P3	-8.173122	0.003850	-0.008042
30	P3	-8.173122	0.003850	-0.008042

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	-3.834000	0.021410	-0.021380
7	P1	-2.496419	0.282860	0.227870
11	P1	-2.899340	0.141569	0.087001
15	P1	-3.658912	0.145701	0.046623
19	P1	-3.442845	0.054484	-0.095330
22	P1	-5.083639	0.034212	0.001398
26	P1	-5.871198	0.024765	-0.023694
30	P1	-5.194583	0.064618	-0.038409
3	P1	-11.629455	0.067075	-0.017308
7	P1	-9.917894	0.188183	0.085511
11	P1	-10.306982	0.084062	-0.065843
15	P1	-10.828709	0.176152	-0.092985
19	P1	-15.619664	2.315275	-0.547566
22	P1	-20.860317	1.741633	0.286281
26	P1	-16.066868	0.410726	0.313545
30	P1	-17.994713	0.727975	-0.045503

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.454897	0.082016	0.109263
7	P2	-22.243214	0.196232	0.122867
11	P2	-10.934372	0.056089	0.110997
15	P2	-4.874668	0.042209	0.033960
19	P2	-6.853405	0.040926	0.022161
22	P2	-8.176131	0.062163	0.040251
26	P2	-24.166931	0.127578	0.013645
30	P2	-21.965303	0.078097	0.024793

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.015098	0.003714	-0.013103
7	P3	-8.015014	0.003723	-0.013170
11	P3	-8.015063	0.003722	-0.012602
15	P3	-8.015069	0.003723	-0.012658
19	P3	-8.015144	0.003739	-0.013151
22	P3	-8.015206	0.003708	-0.012965
26	P3	-8.015064	0.003716	-0.013142
30	P3	-8.015040	0.003719	-0.012816

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	0.000554057
	stdev	1.76036e-07
MEAN Q	mean	0.000532952
	stdev	2.15042e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136540
	stdev	0.00107580
STDEV Q	mean	0.136886
	stdev	0.00109225



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006090[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_1PNPDE20060903_005612_000000342050_00475_23575_5292.N1	1	0
ASA_GM1_1PNPDK20060901_084711_000006702050_00451_23551_3941.N1	0	21
ASA_WSM_1PNPDE20060901_183643_000002072050_00457_23557_0466.N1	0	67
ASA_WSM_1PNPDE20060902_020157_000000862050_00461_23561_0501.N1	0	34
ASA_WSM_1PNPDE20060902_180620_000001292050_00471_23571_0584.N1	0	67
ASA_WSM_1PNPDE20060902_230551_000001092050_00474_23574_0618.N1	0	2
ASA_WSM_1PNPDE20060903_062830_000000852050_00478_23578_0648.N1	0	2





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)

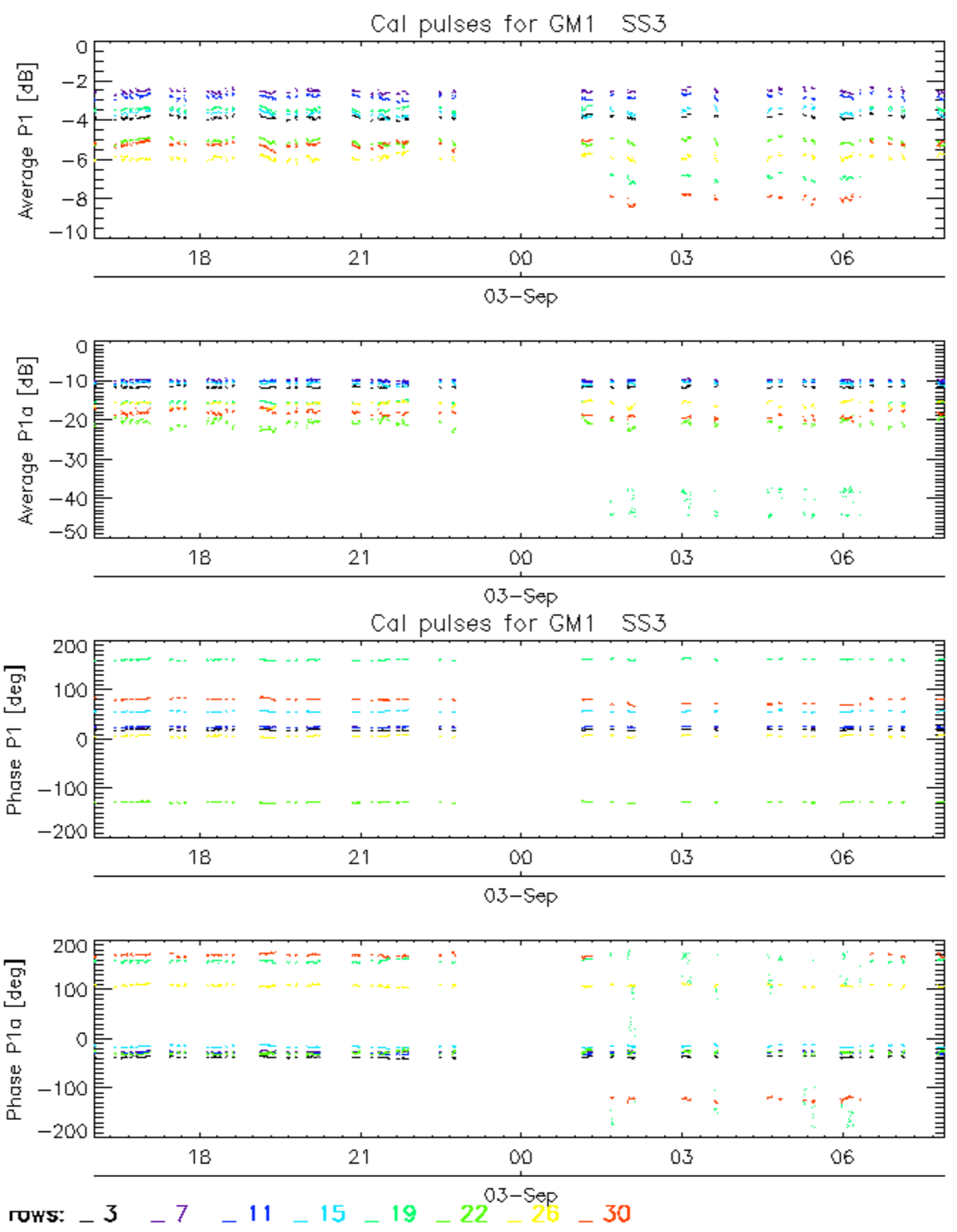
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Acsending
<input type="checkbox"/>
Descending

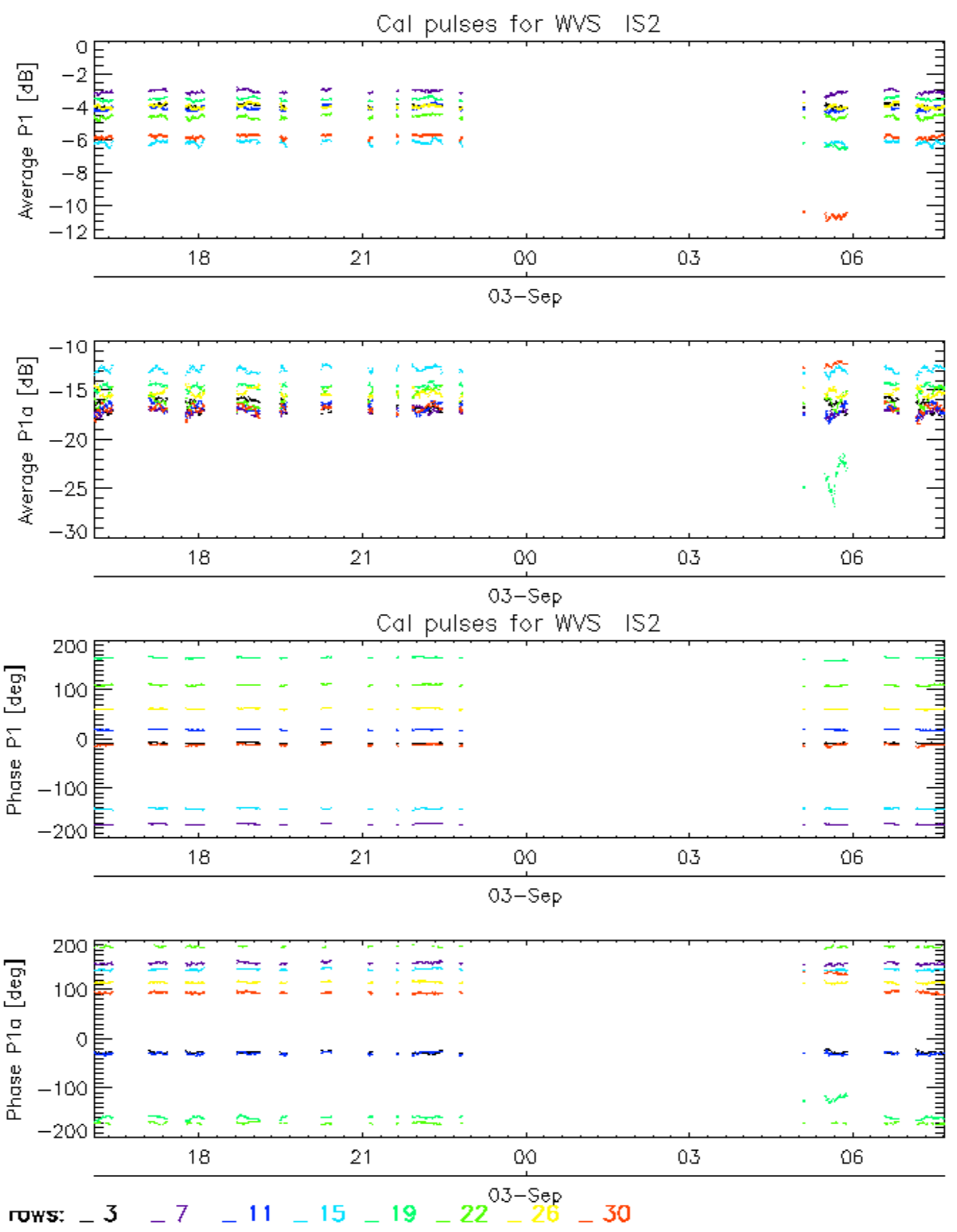
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

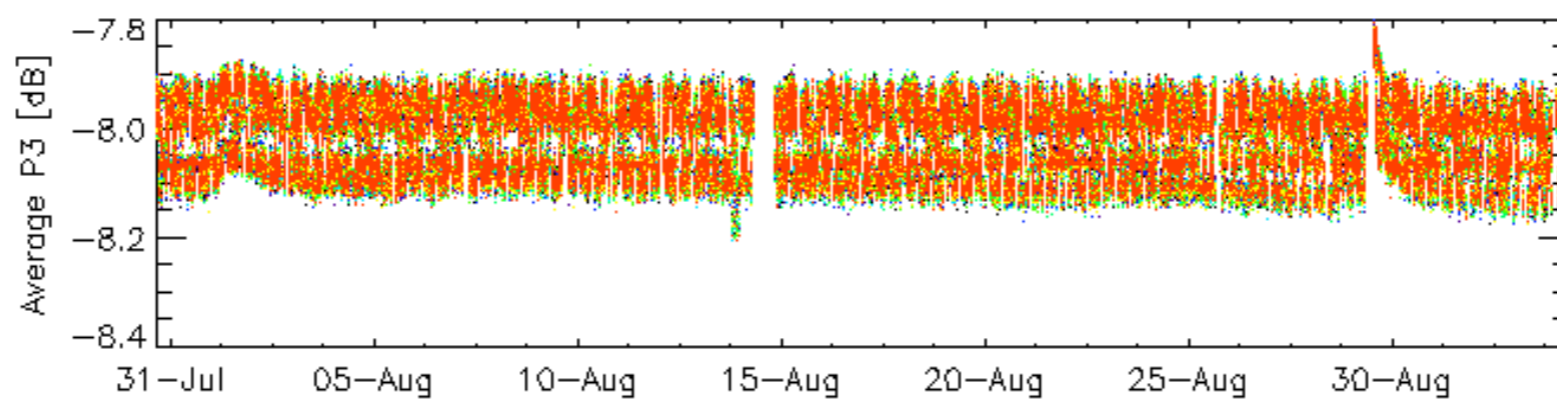
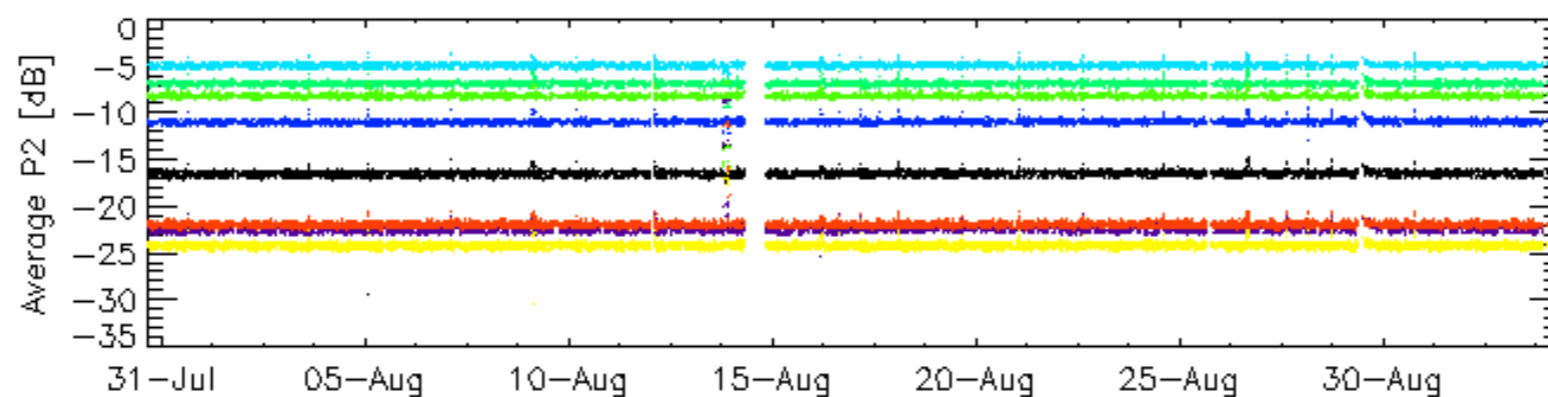
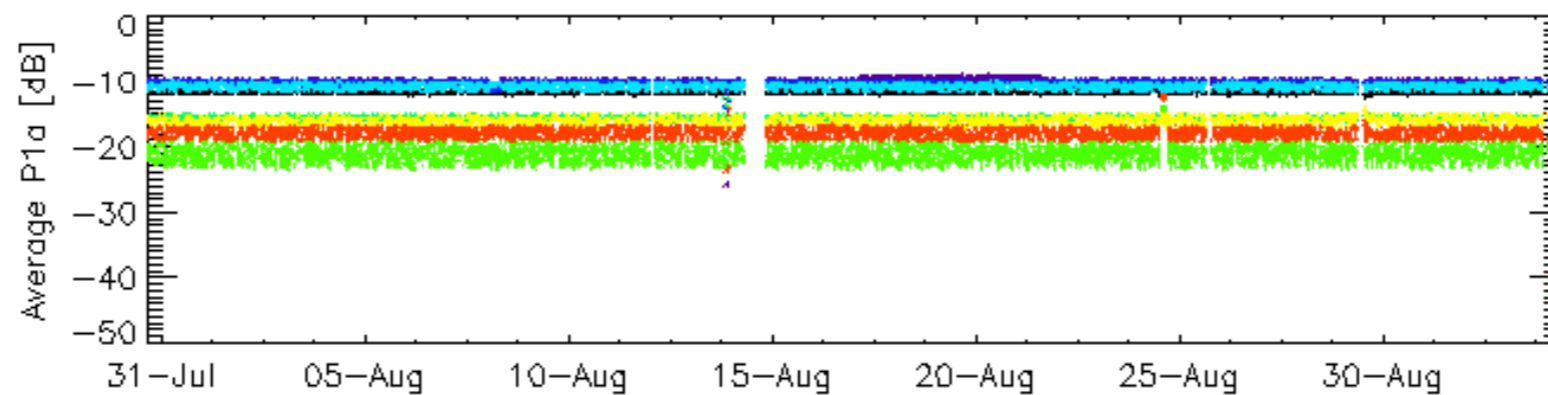
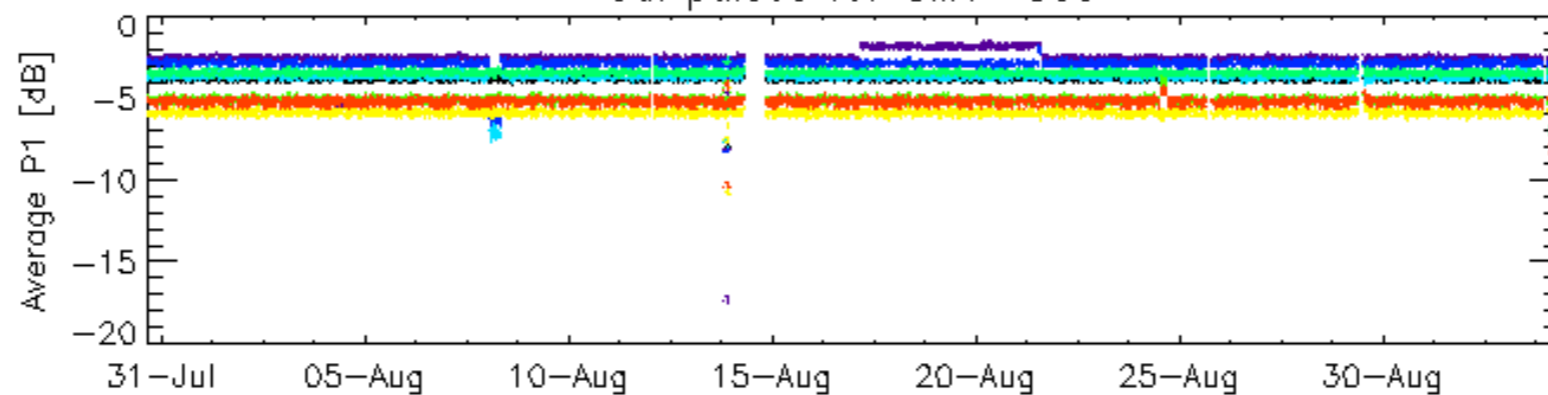
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>



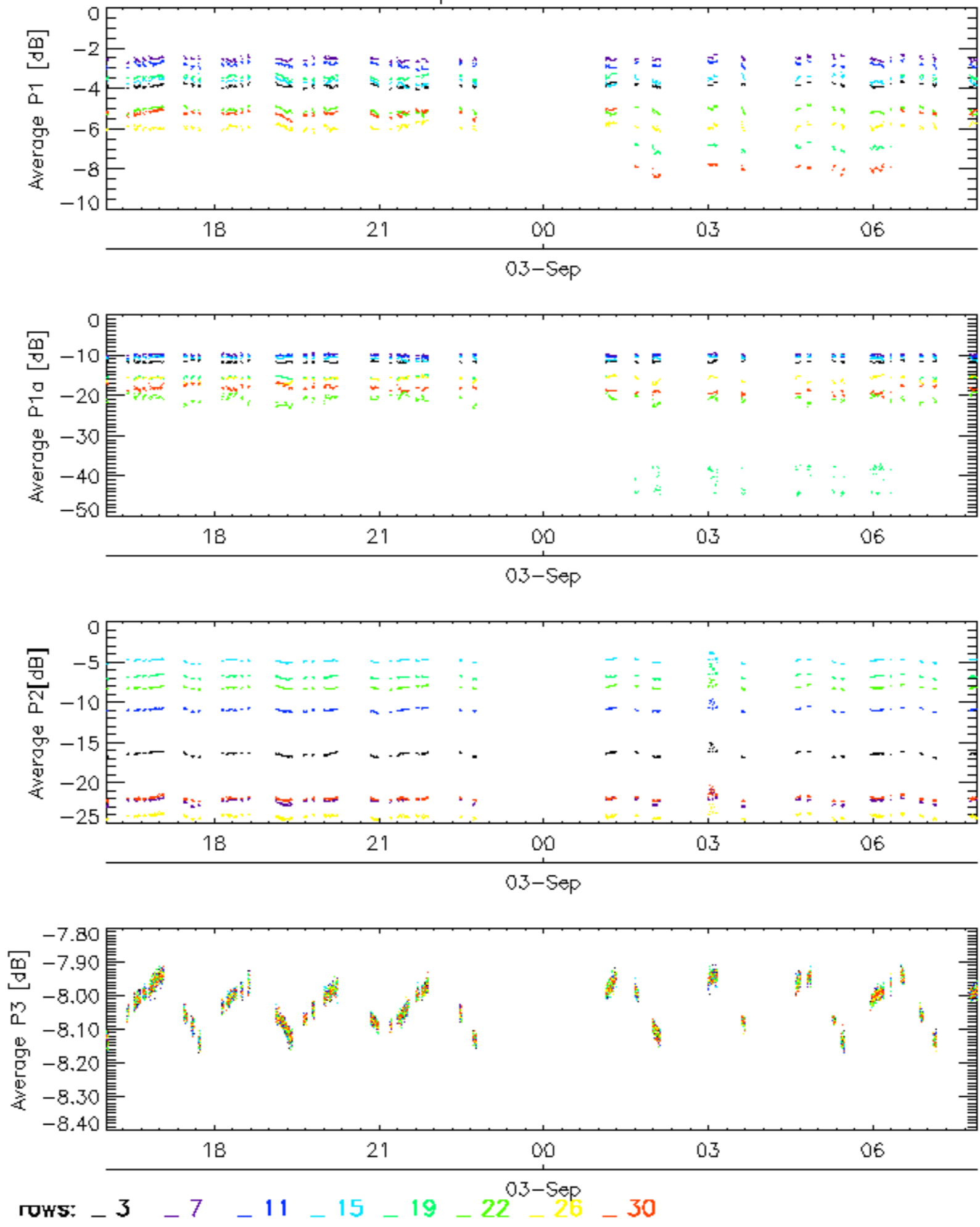


Cal pulses for GM1 SS3

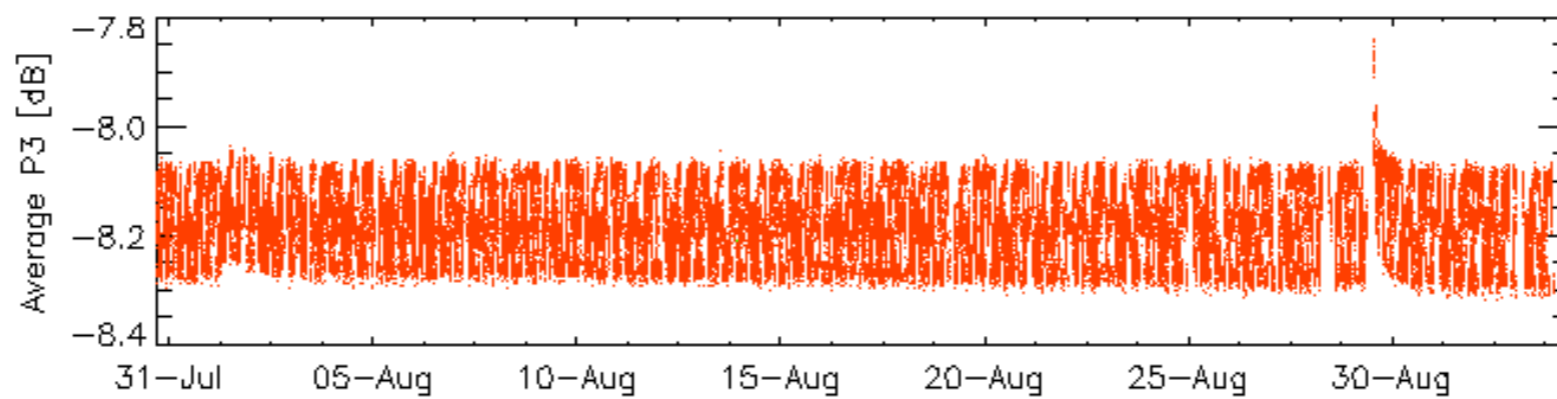
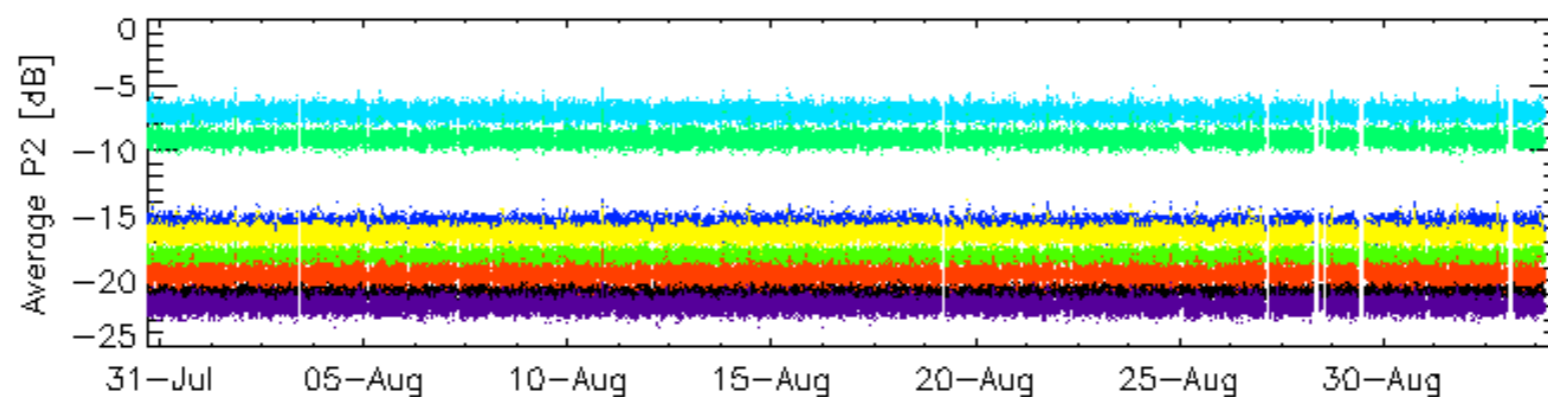
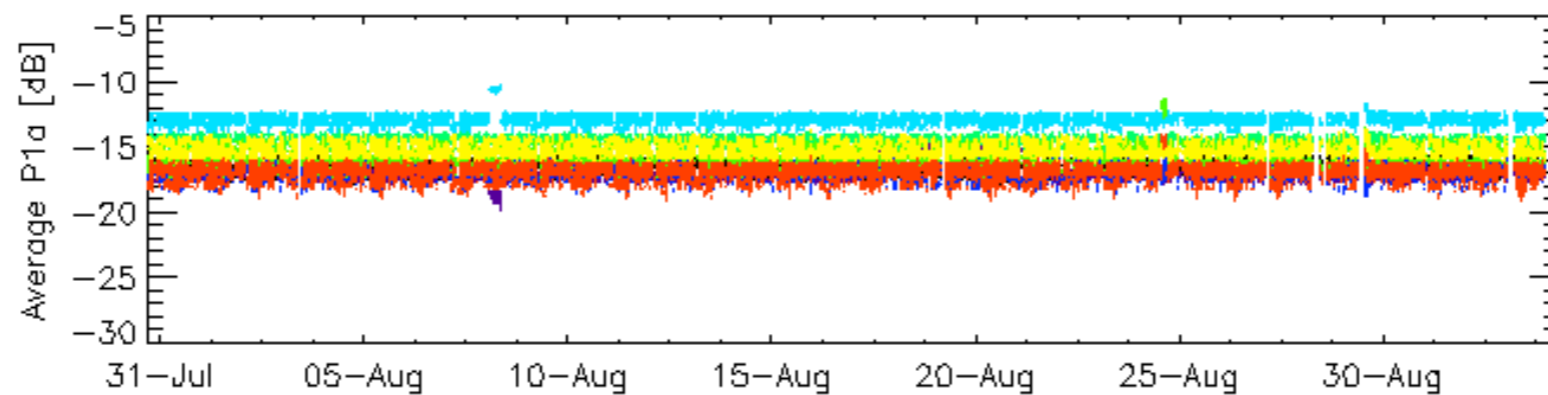
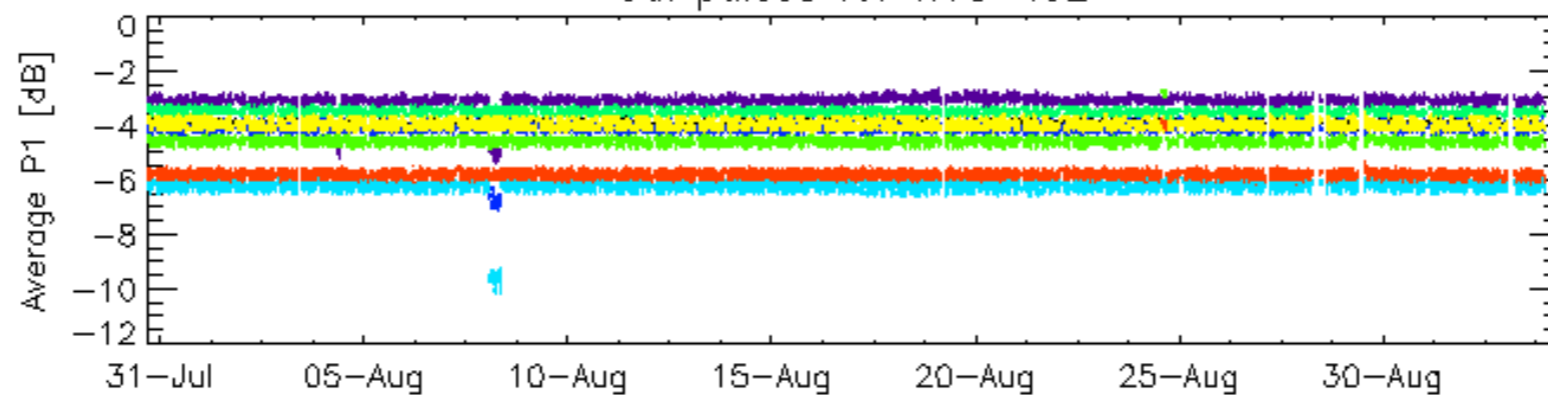


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

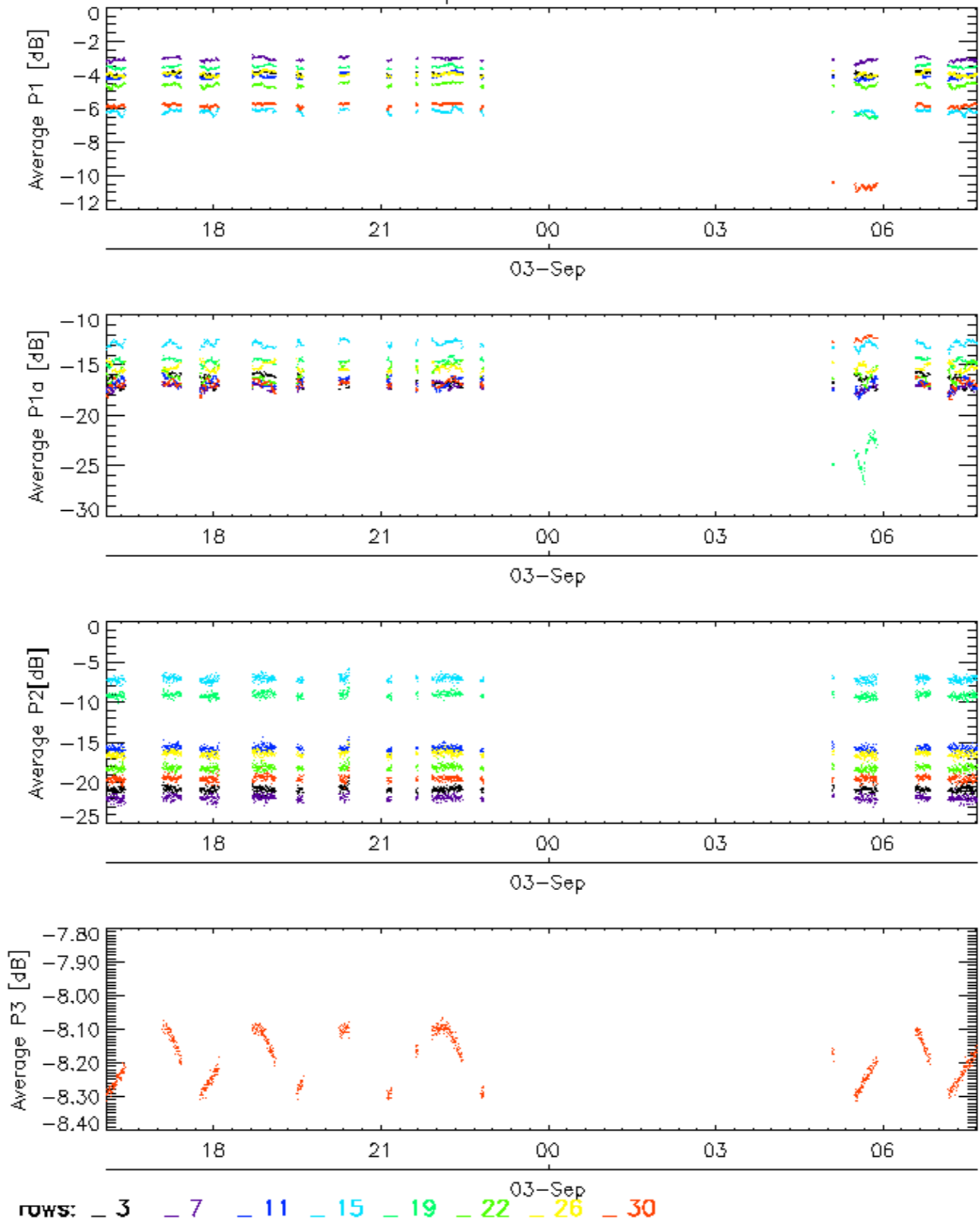


Cal pulses for WVS IS2

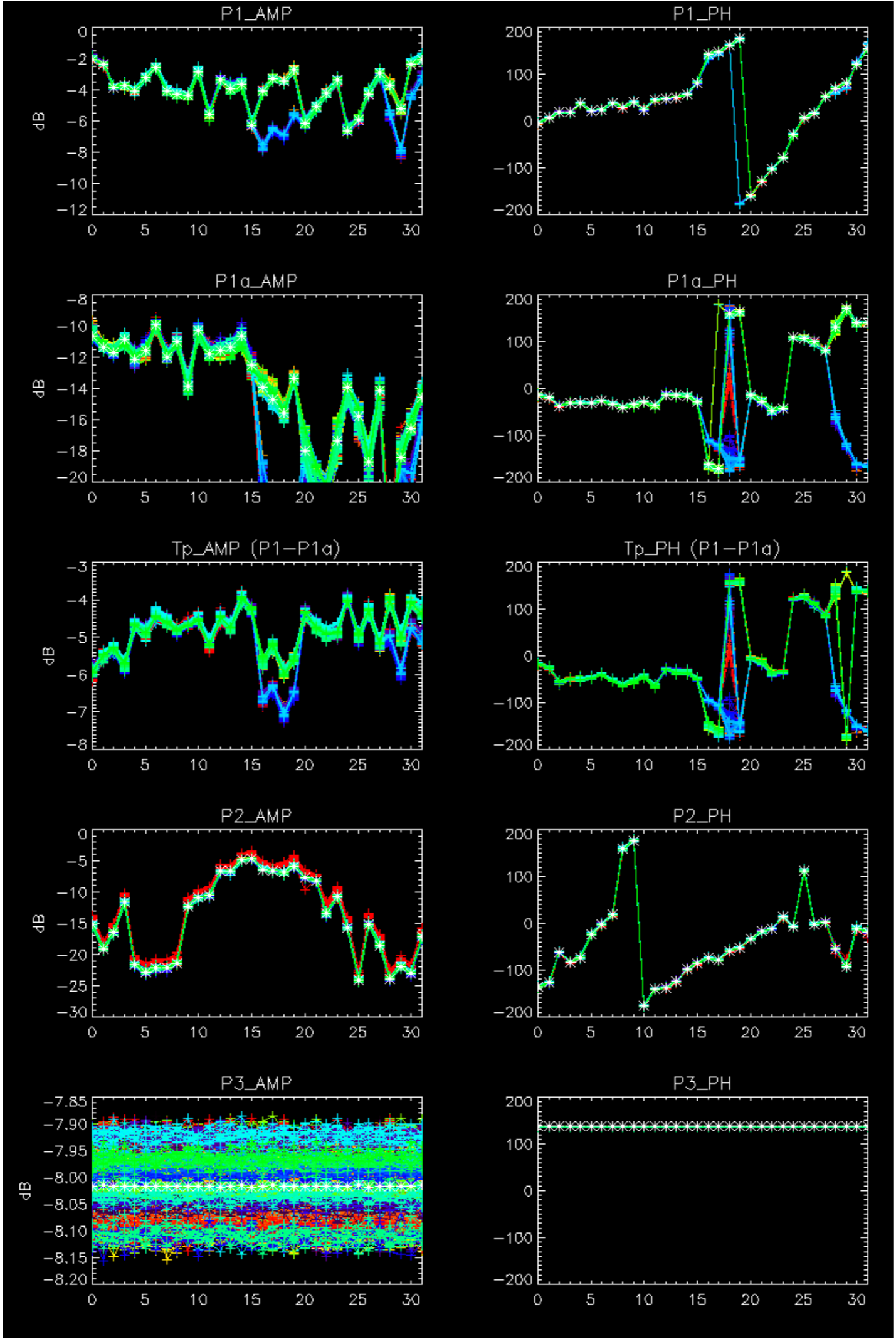


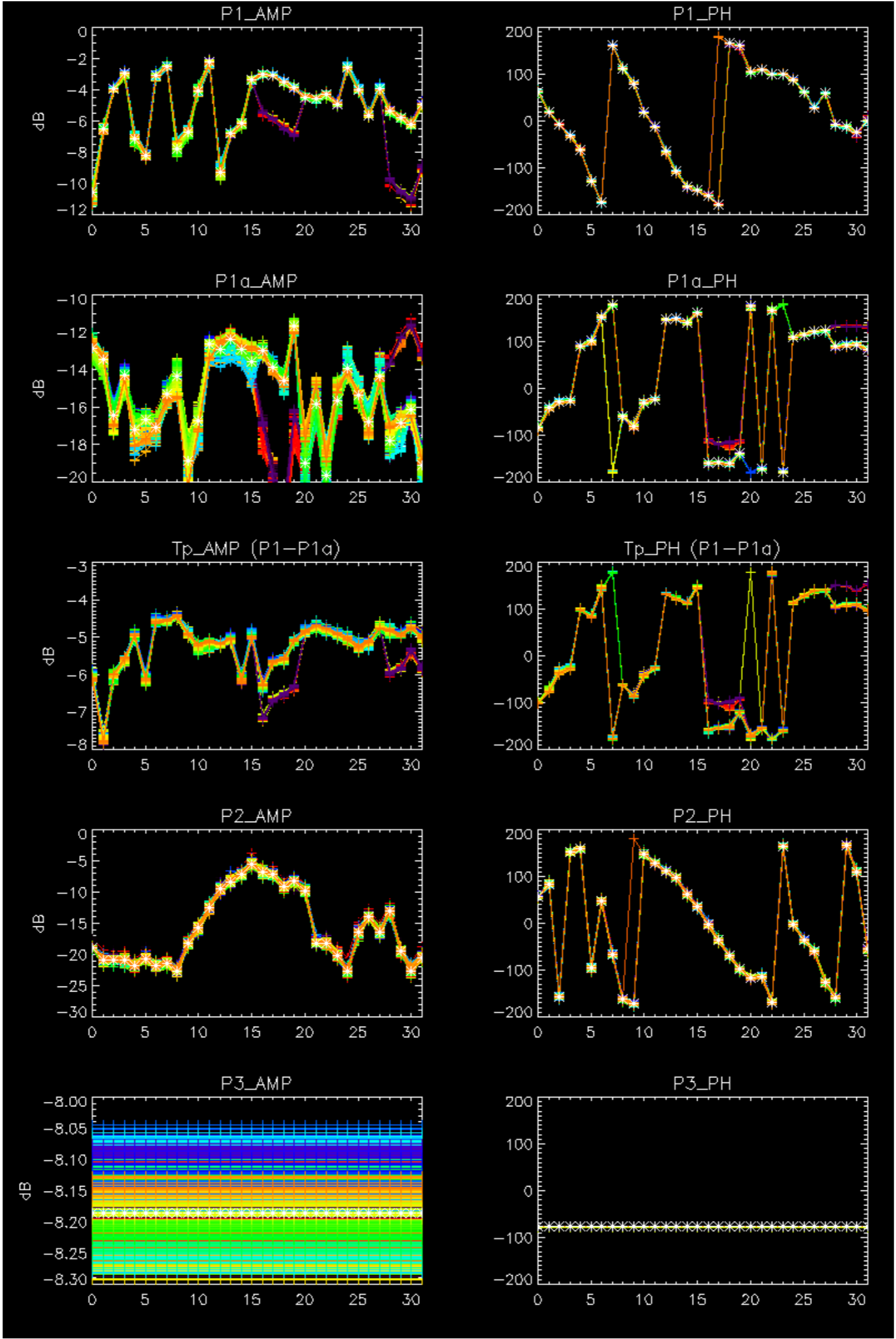
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



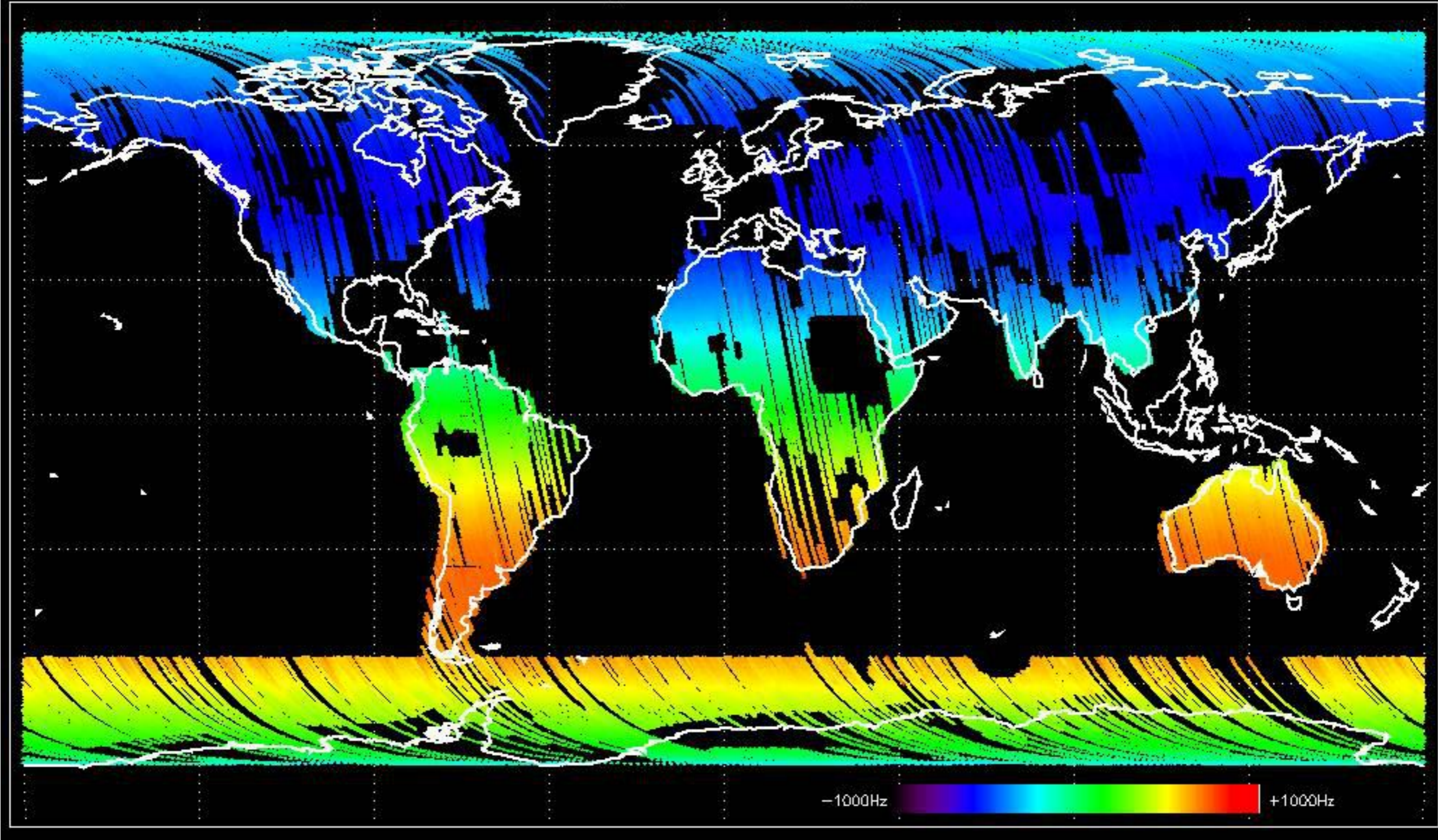
No anomalies observed.



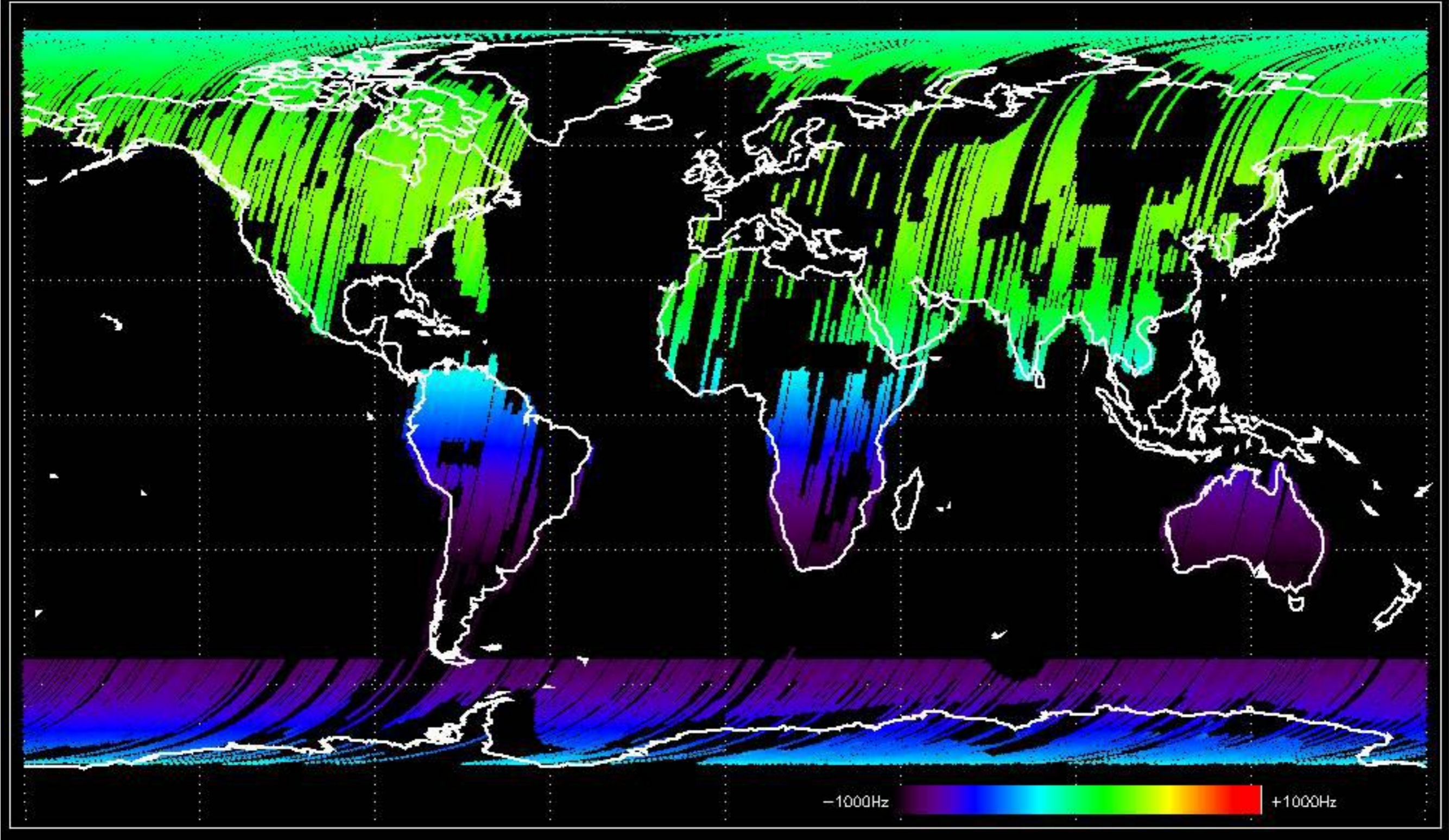


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

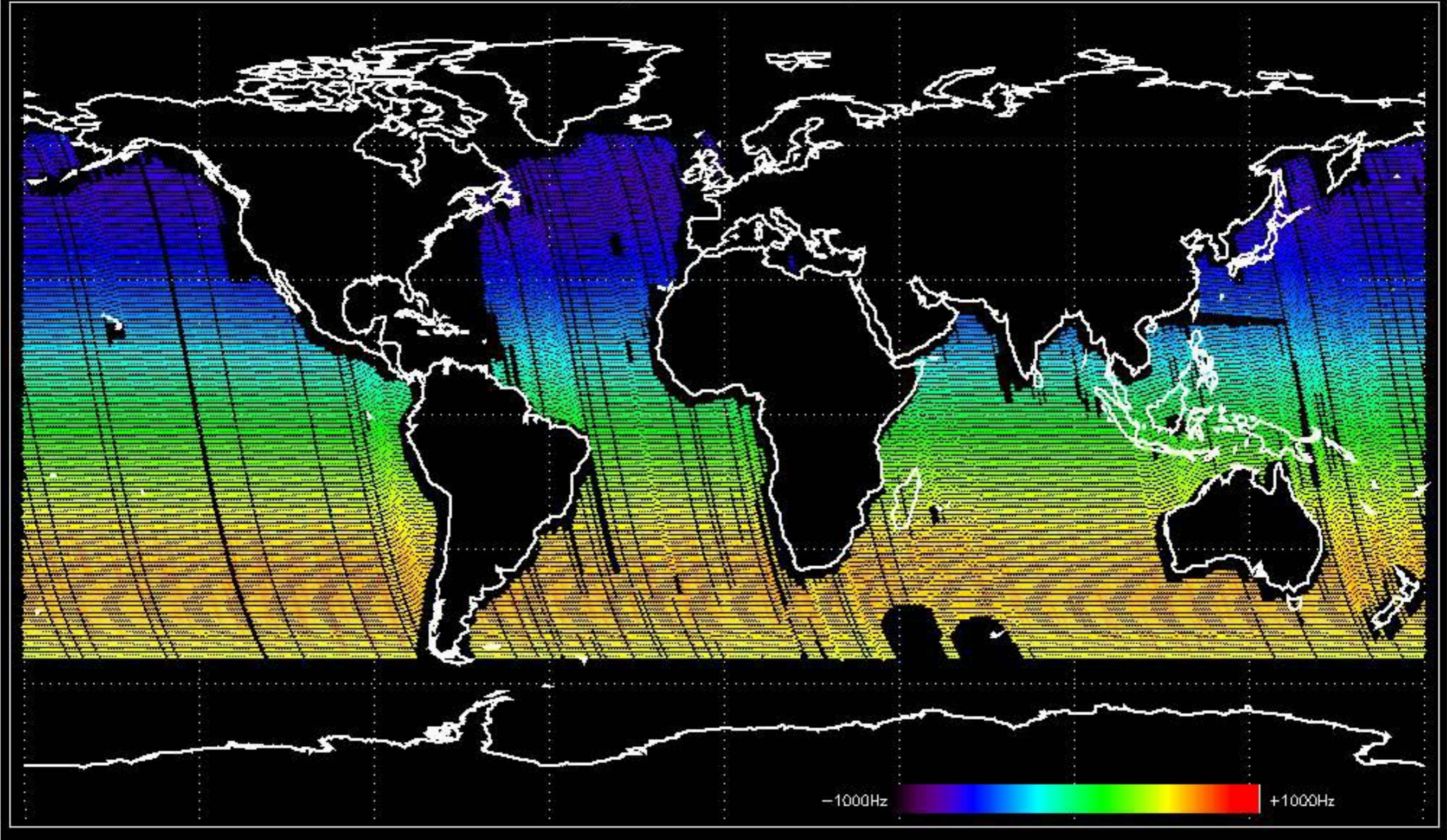
Doppler 'GM1' 'SS1' ascending



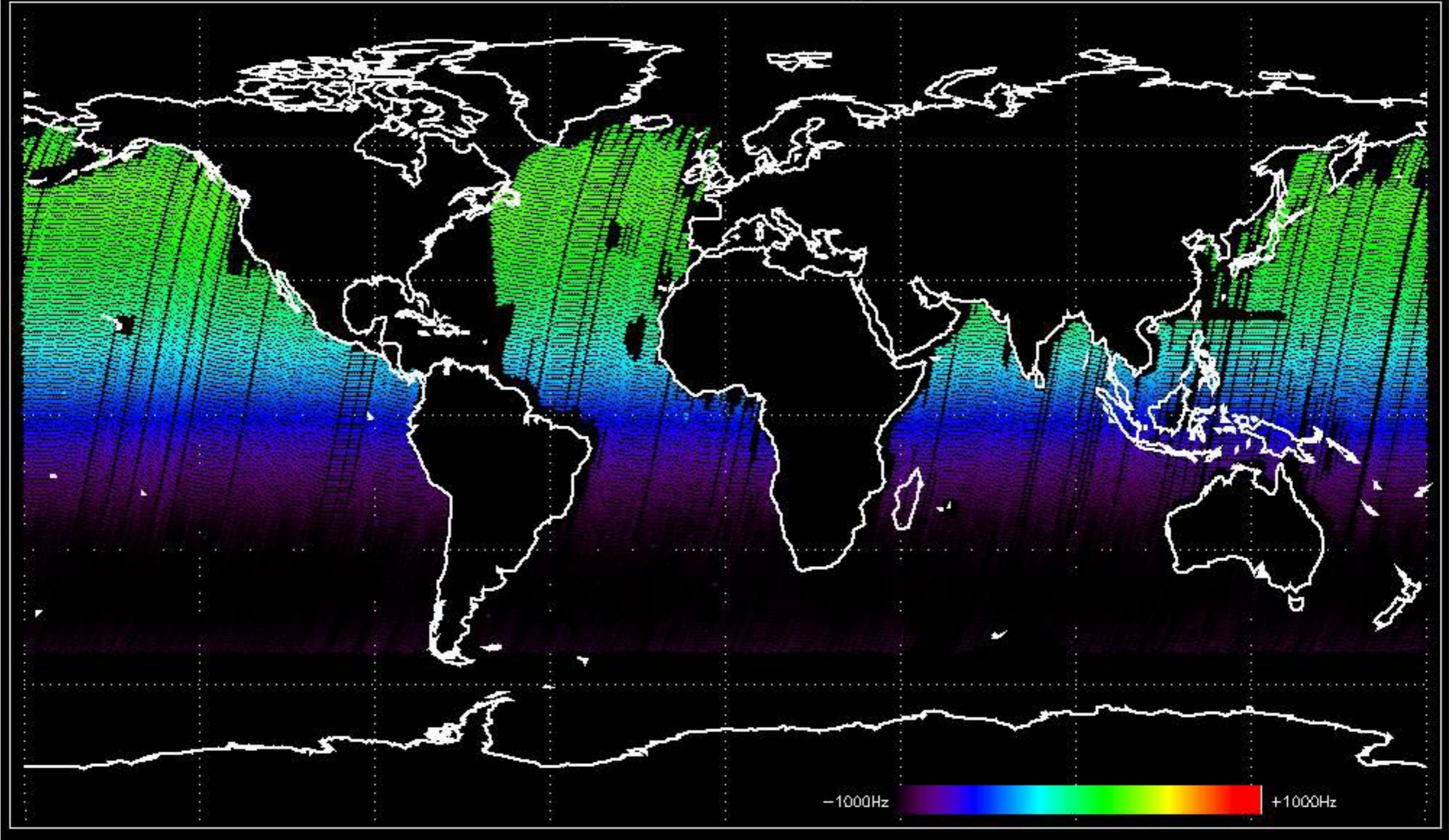
Doppler 'GM1' 'SS1' descending

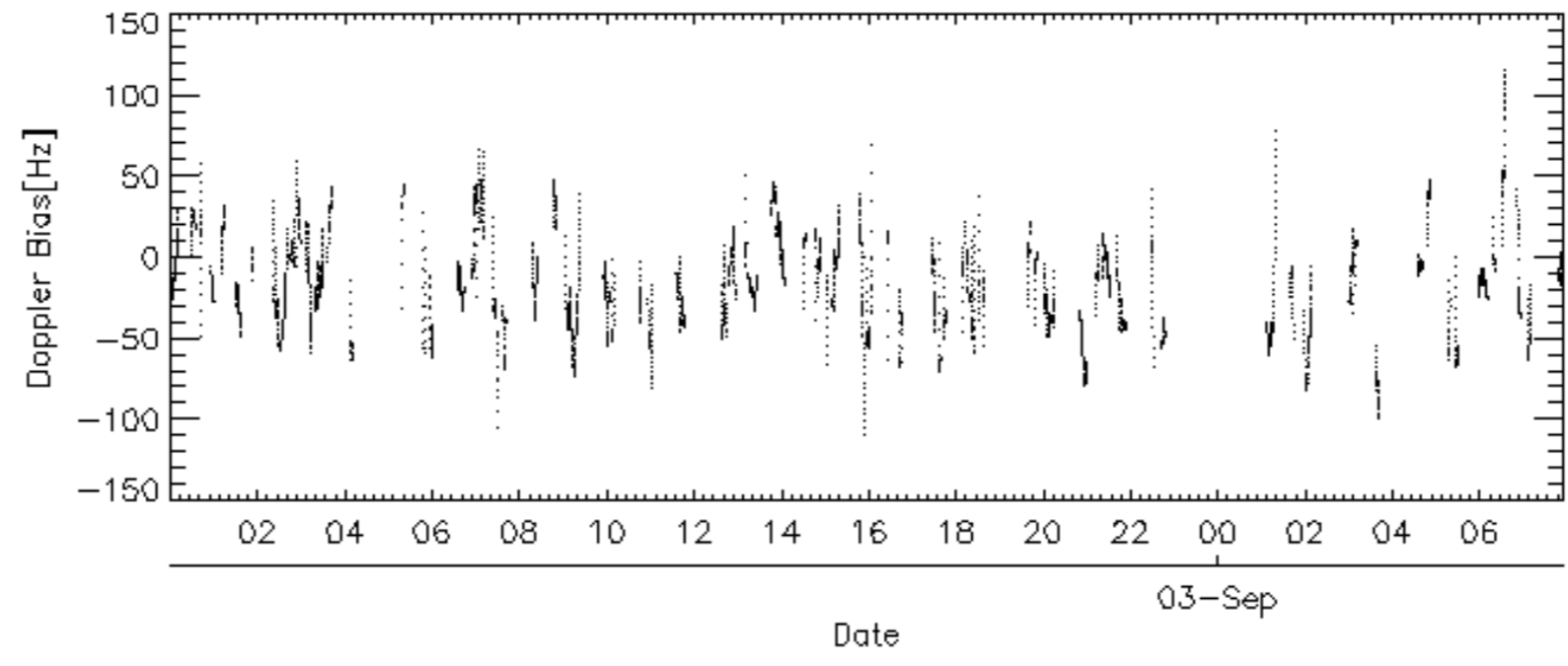
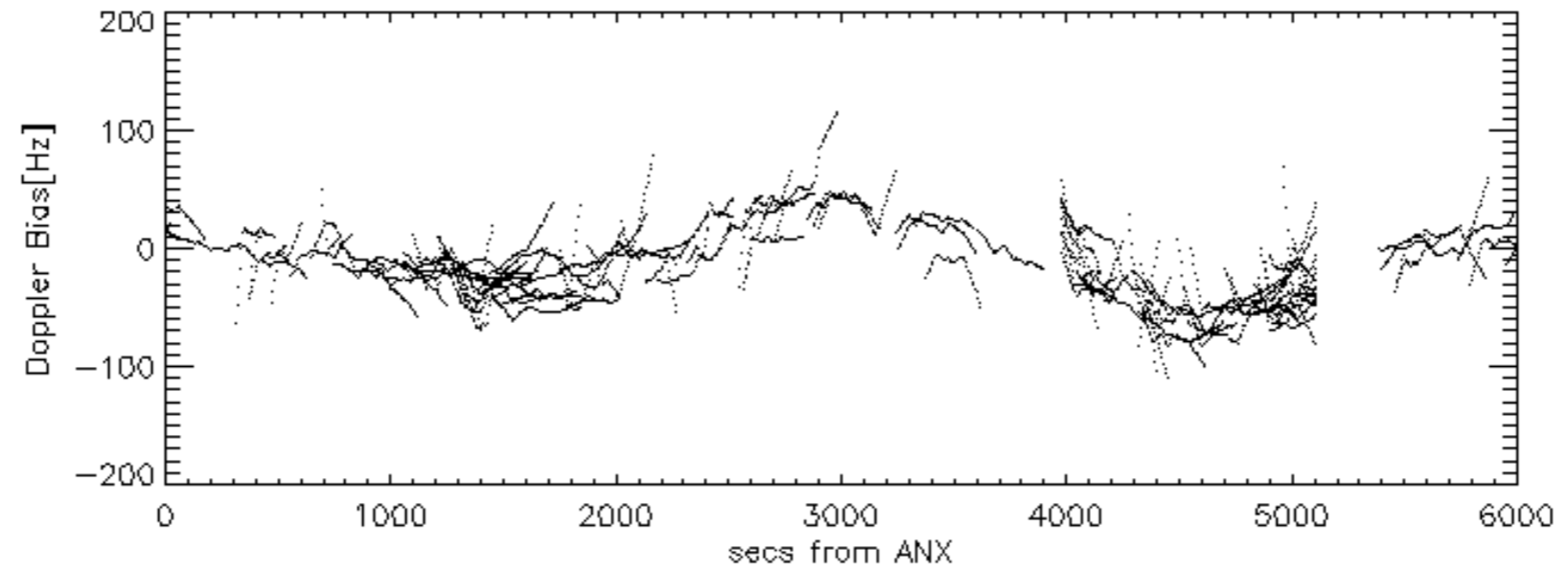
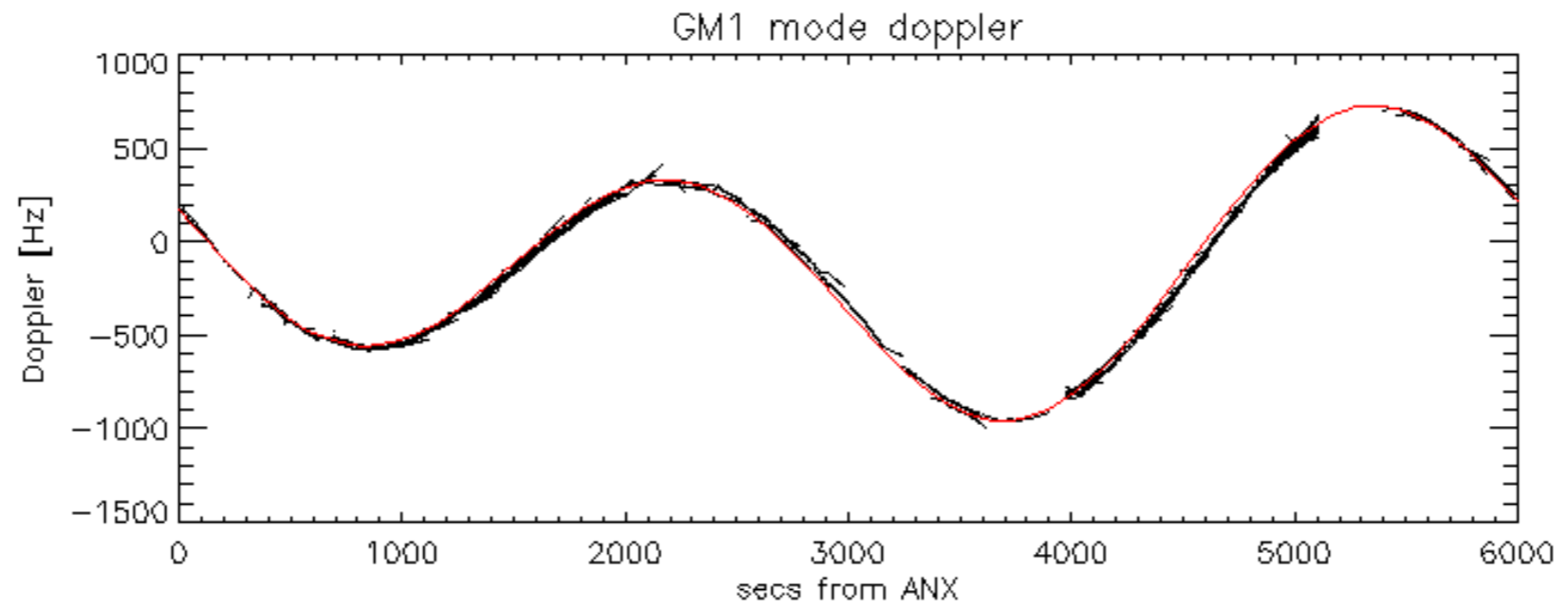


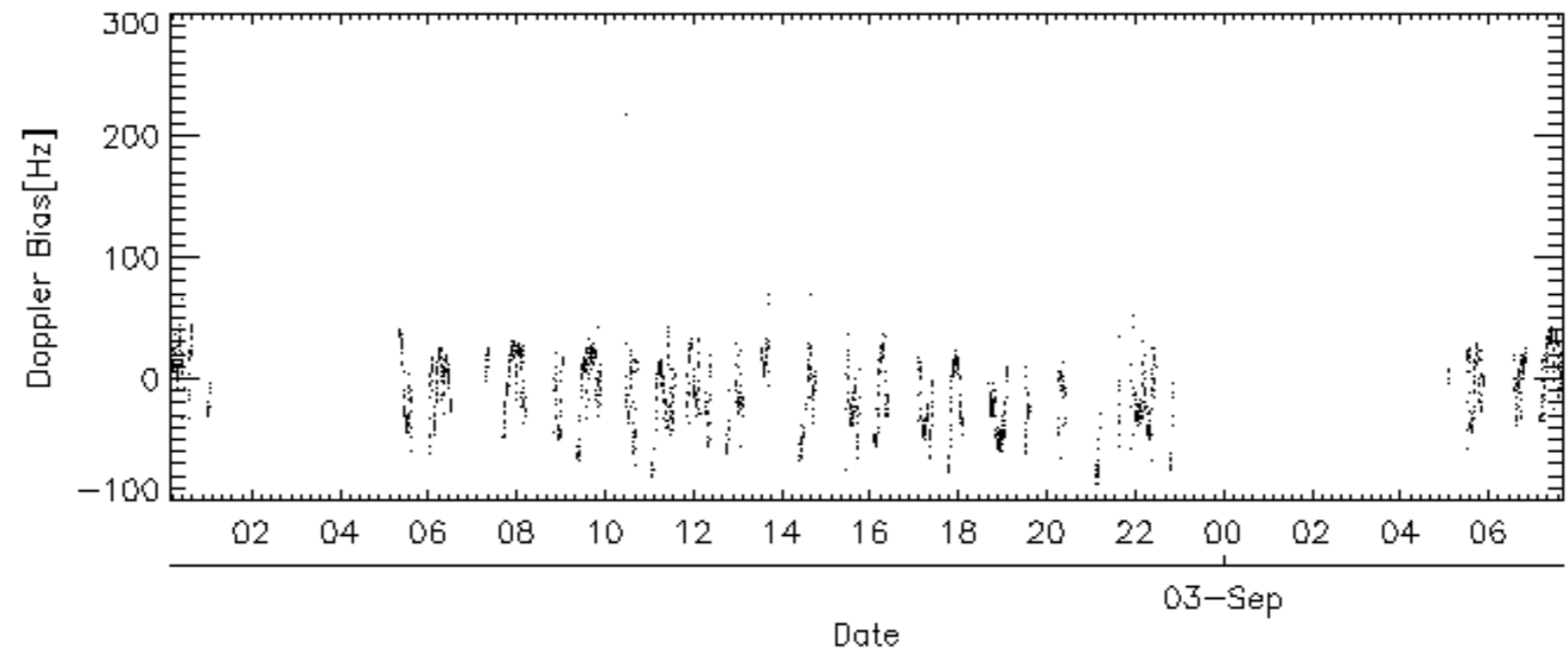
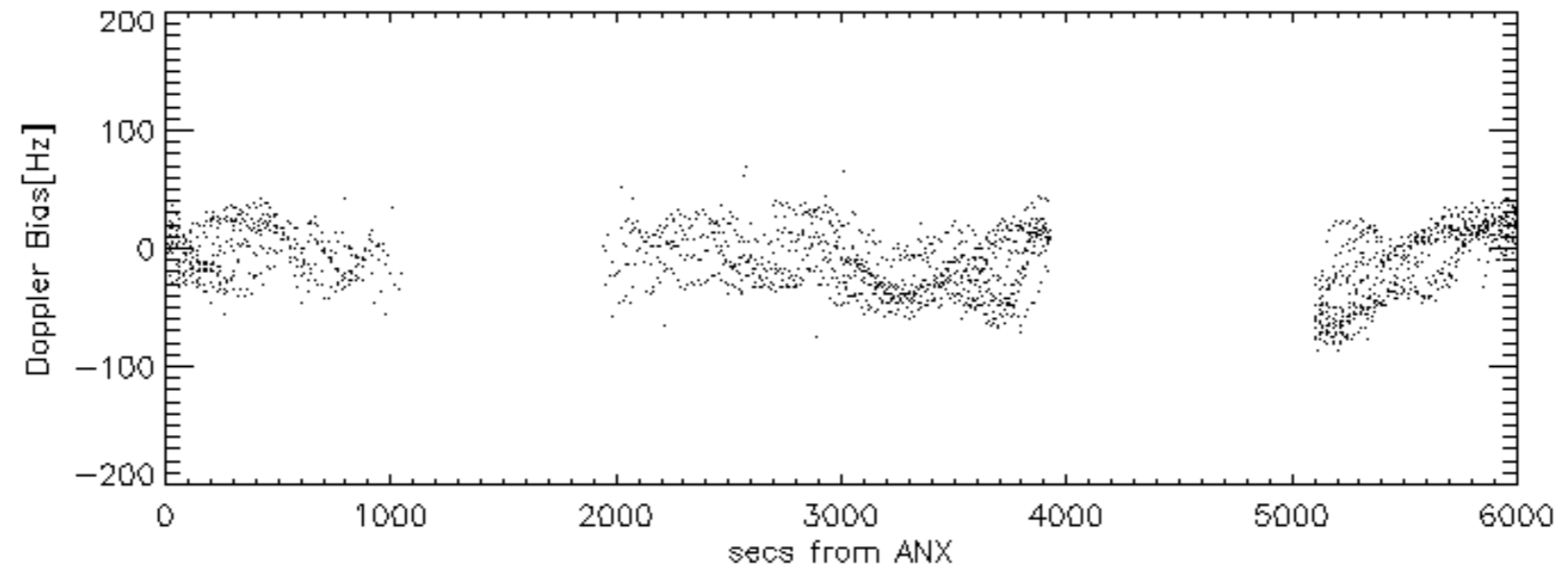
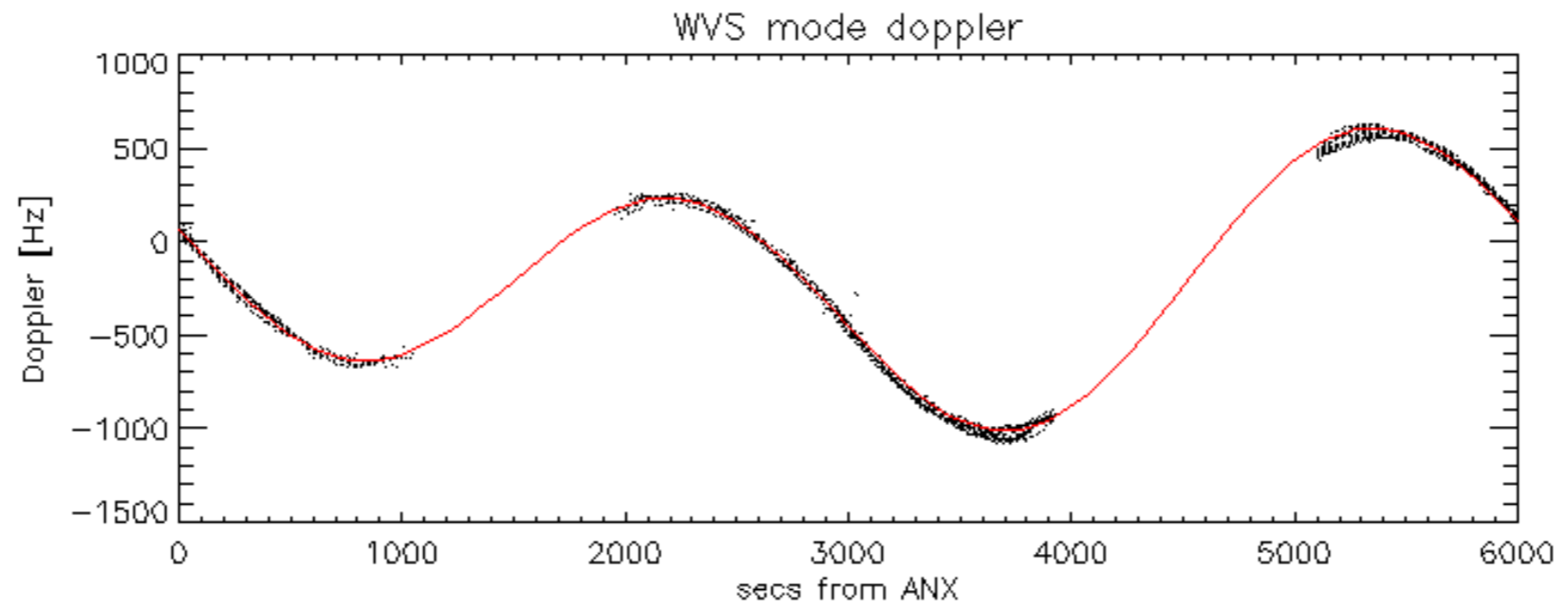
Doppler 'WVS' 'IS2' ascending



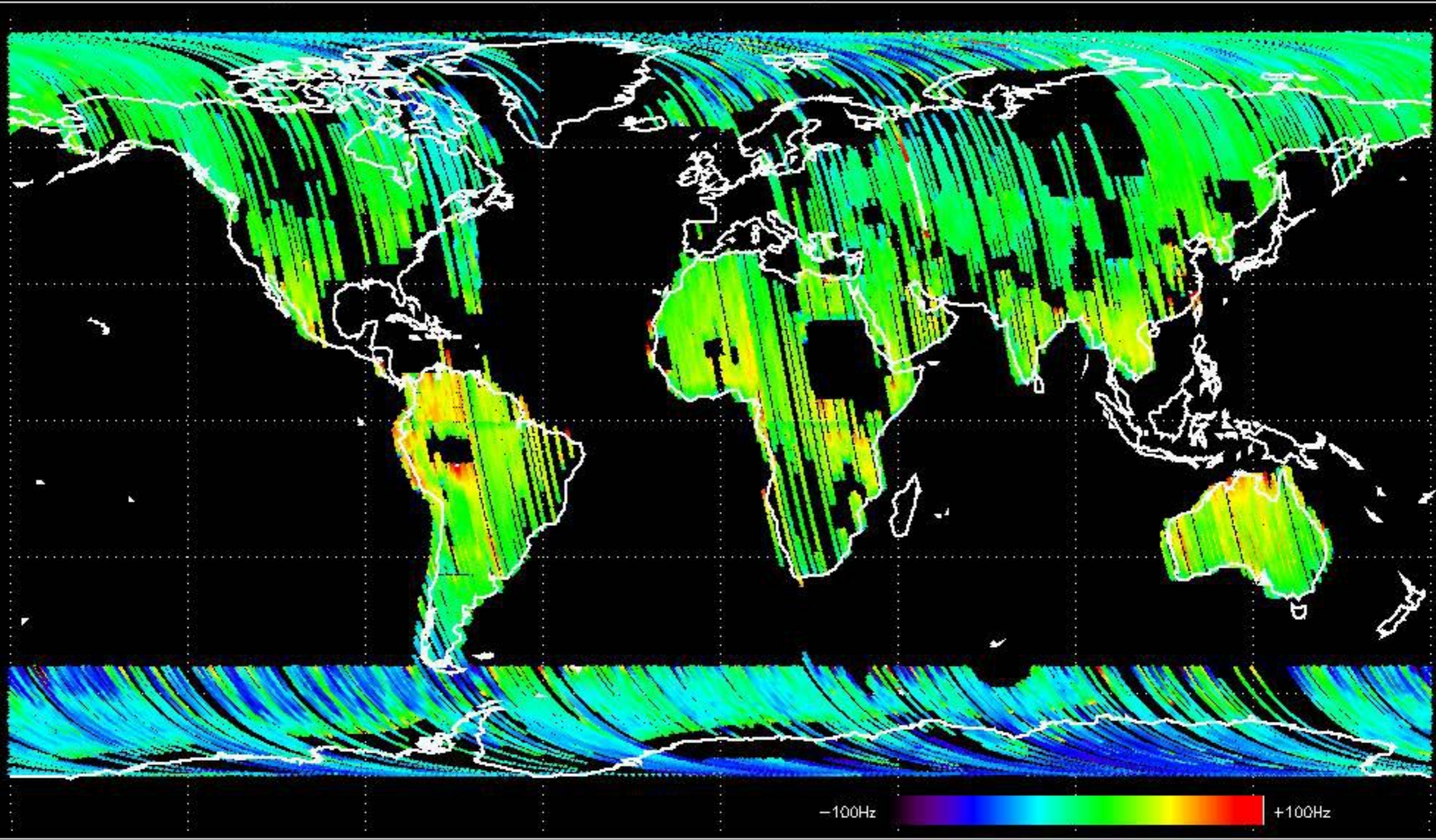
Doppler 'WVS' 'IS2' descending



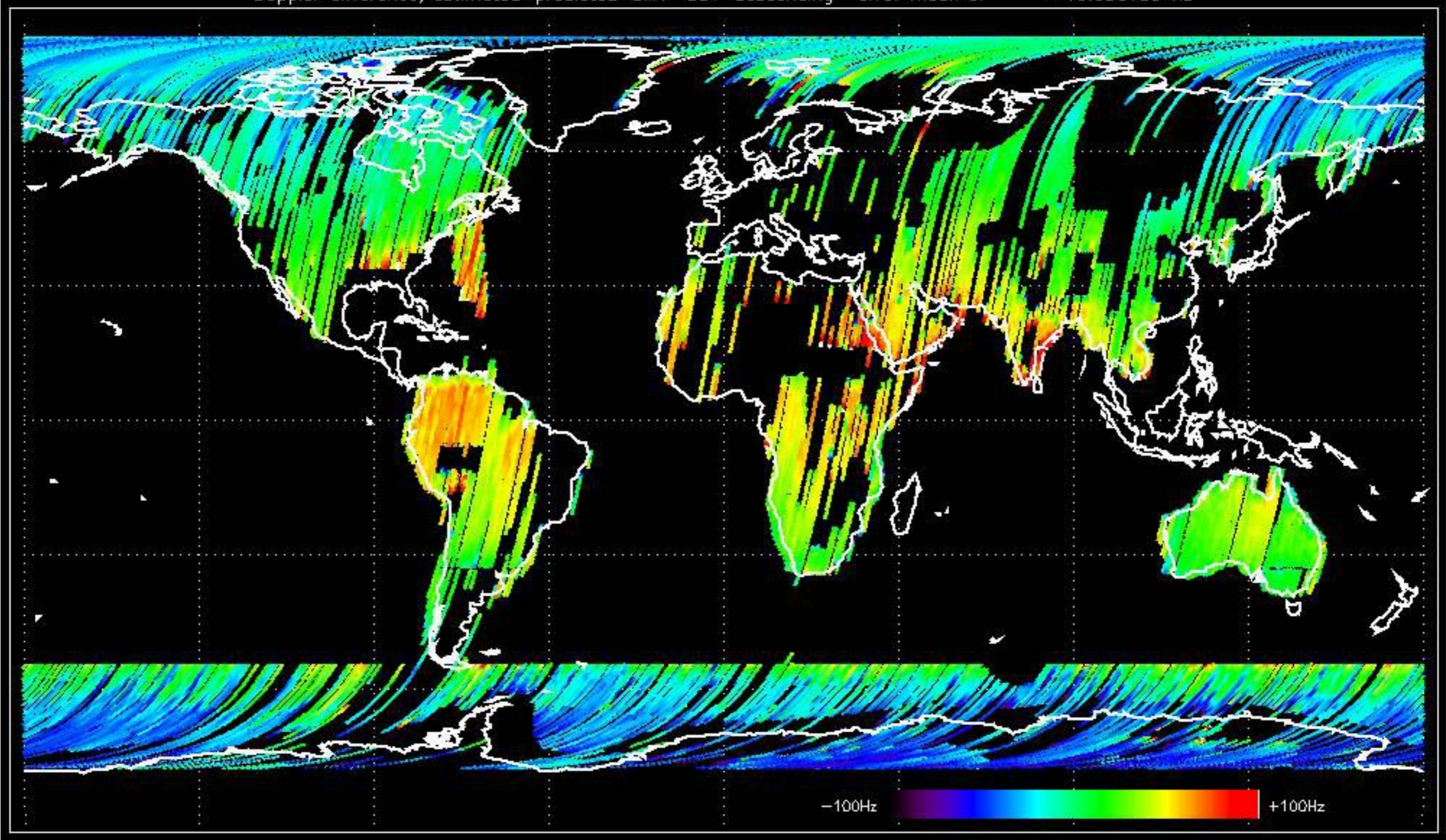




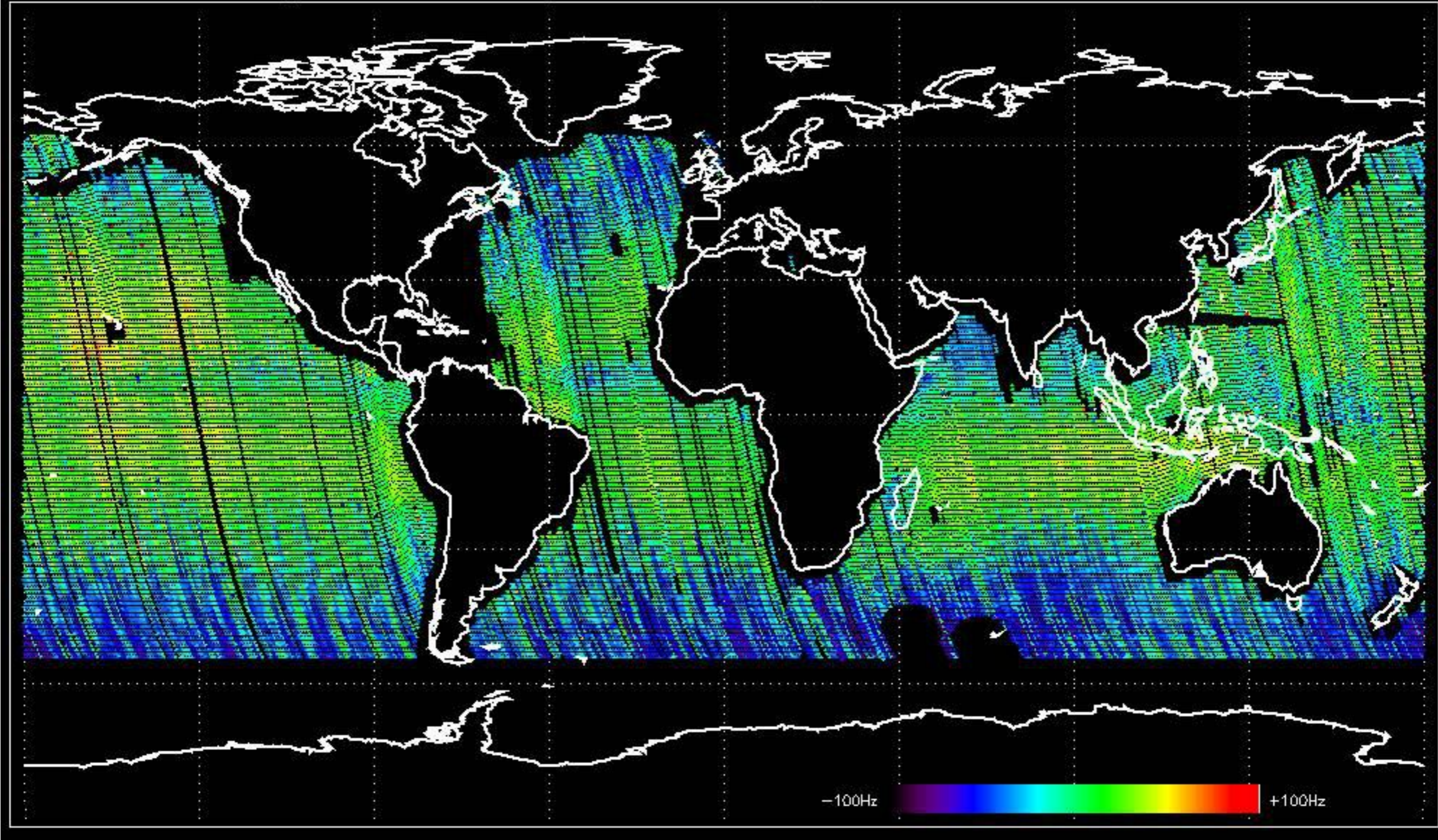
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.846343 Hz



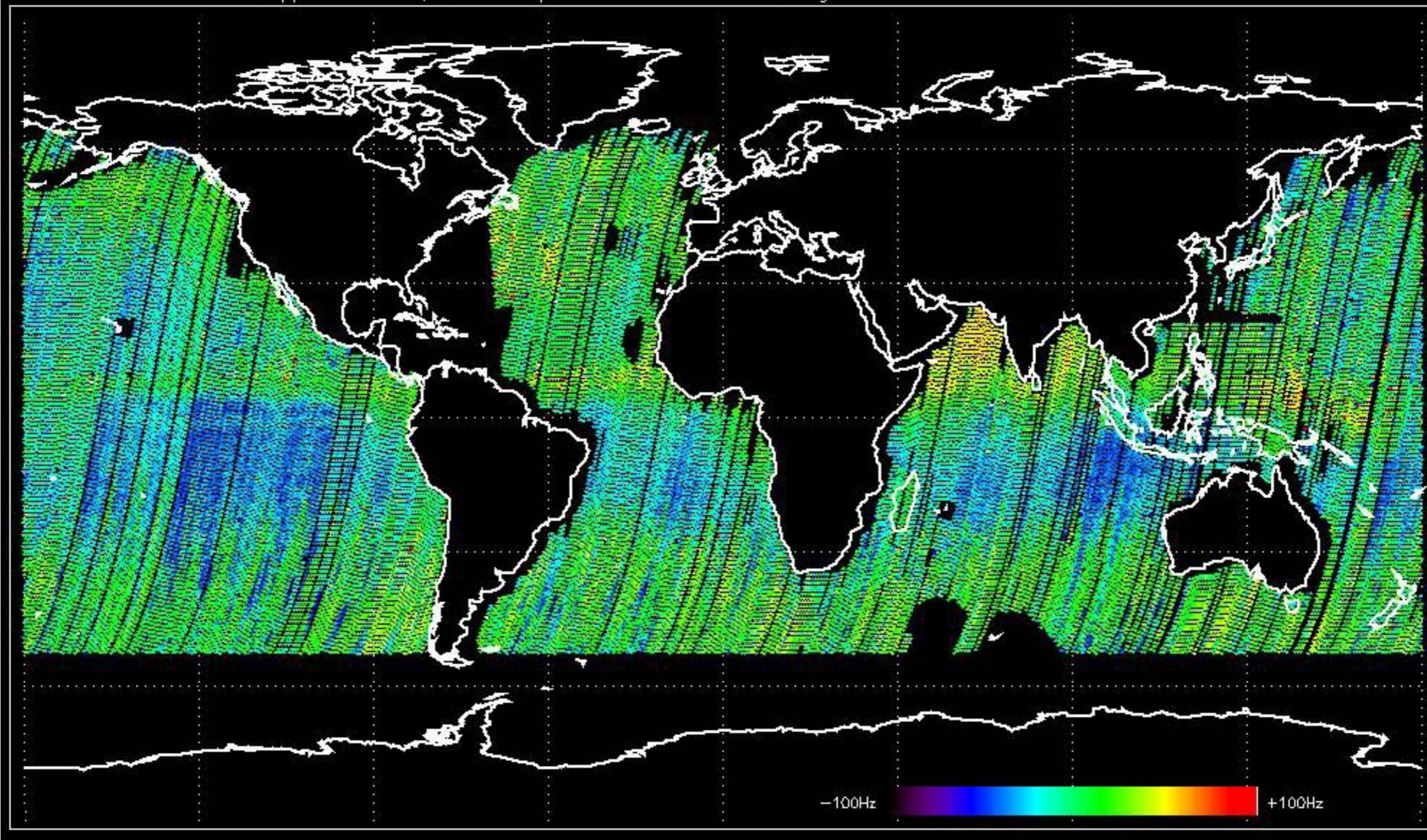
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.036133 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -4.5268491 Hz

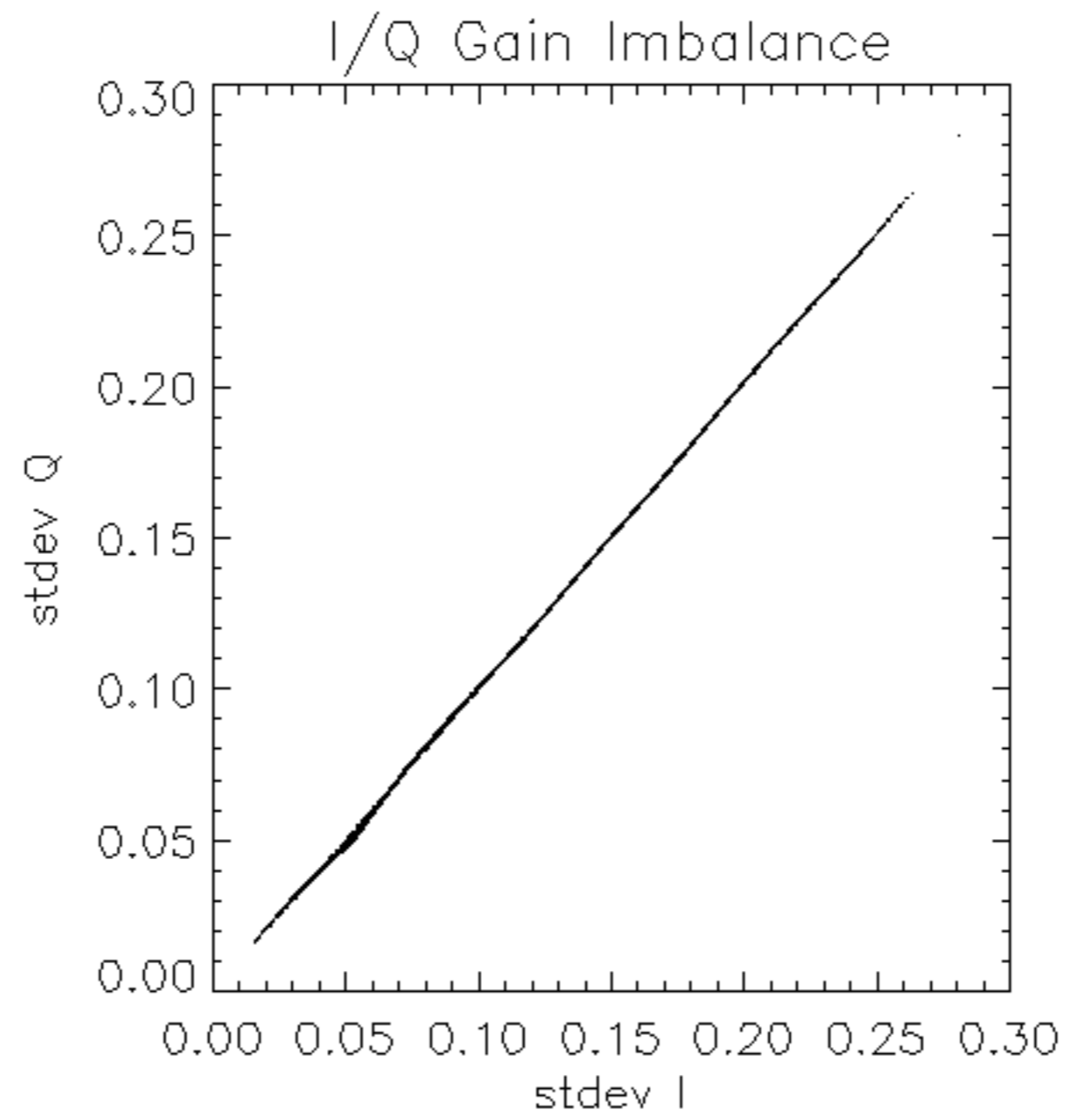


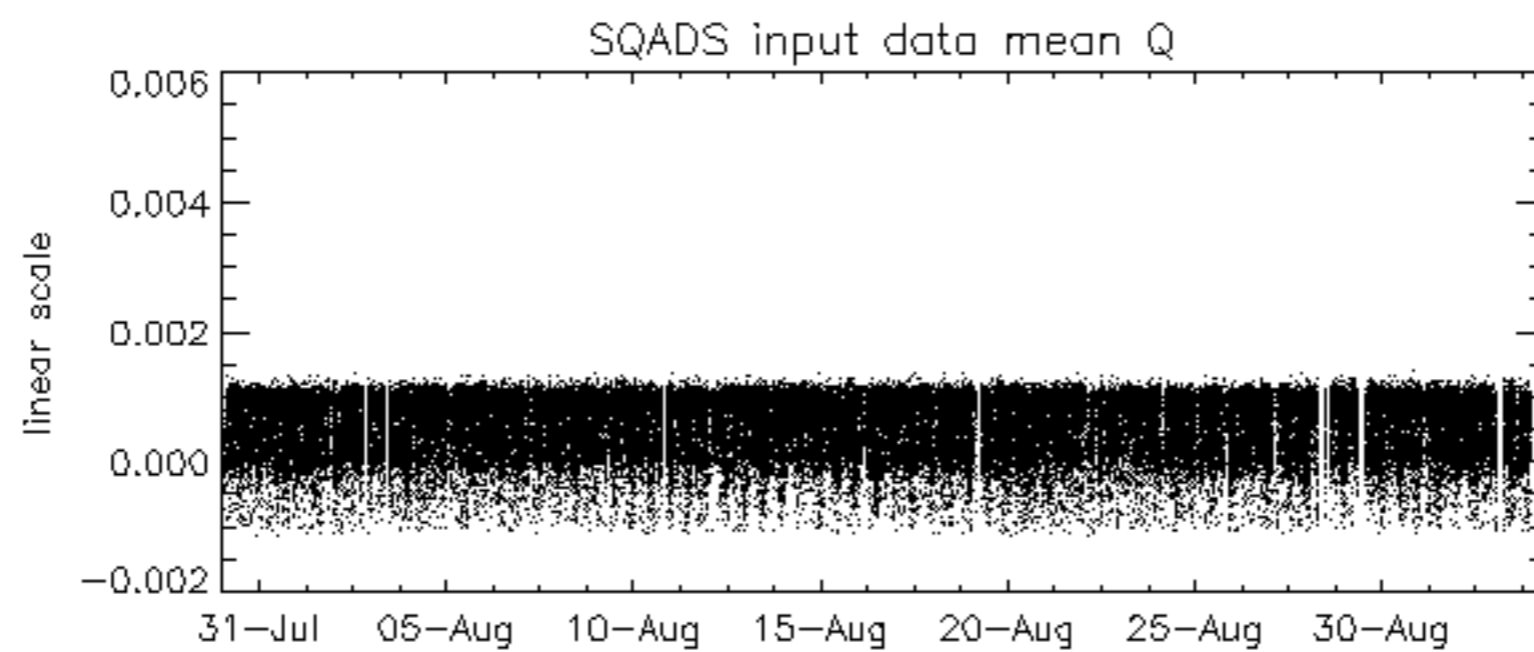
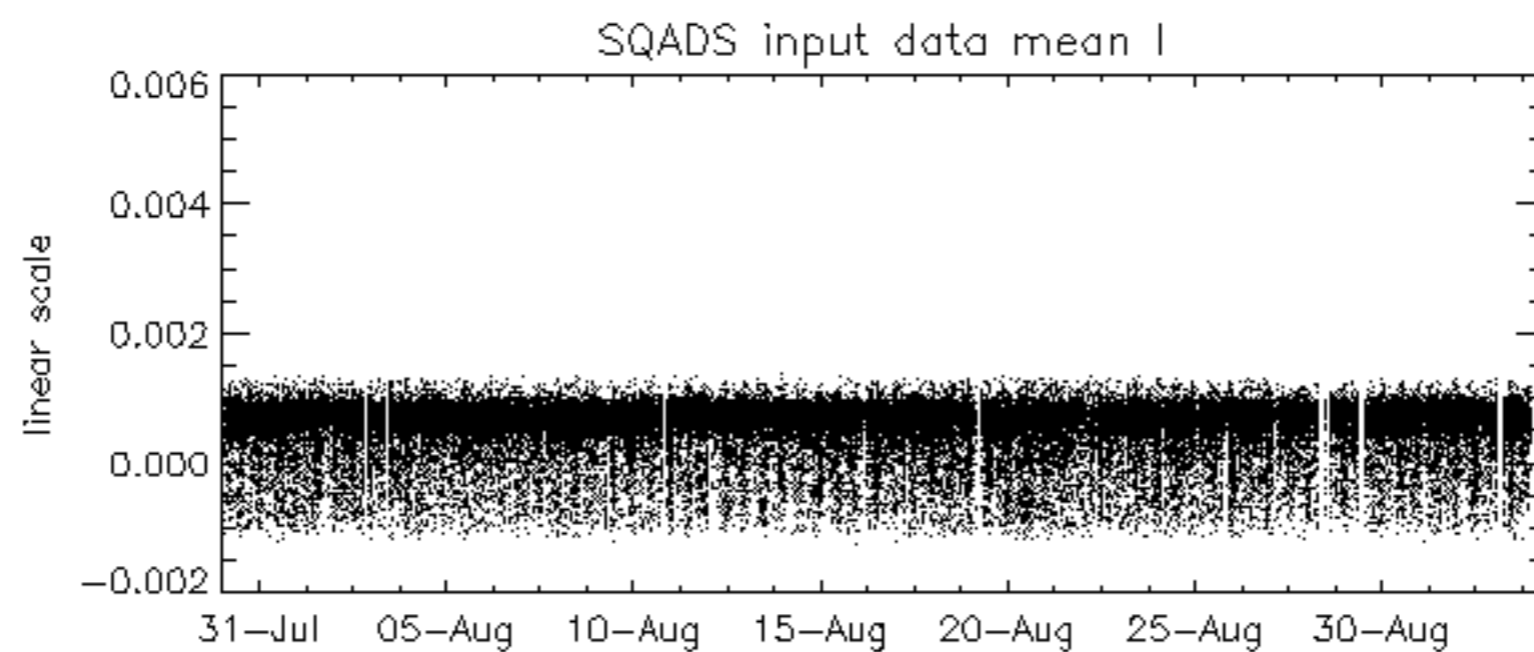
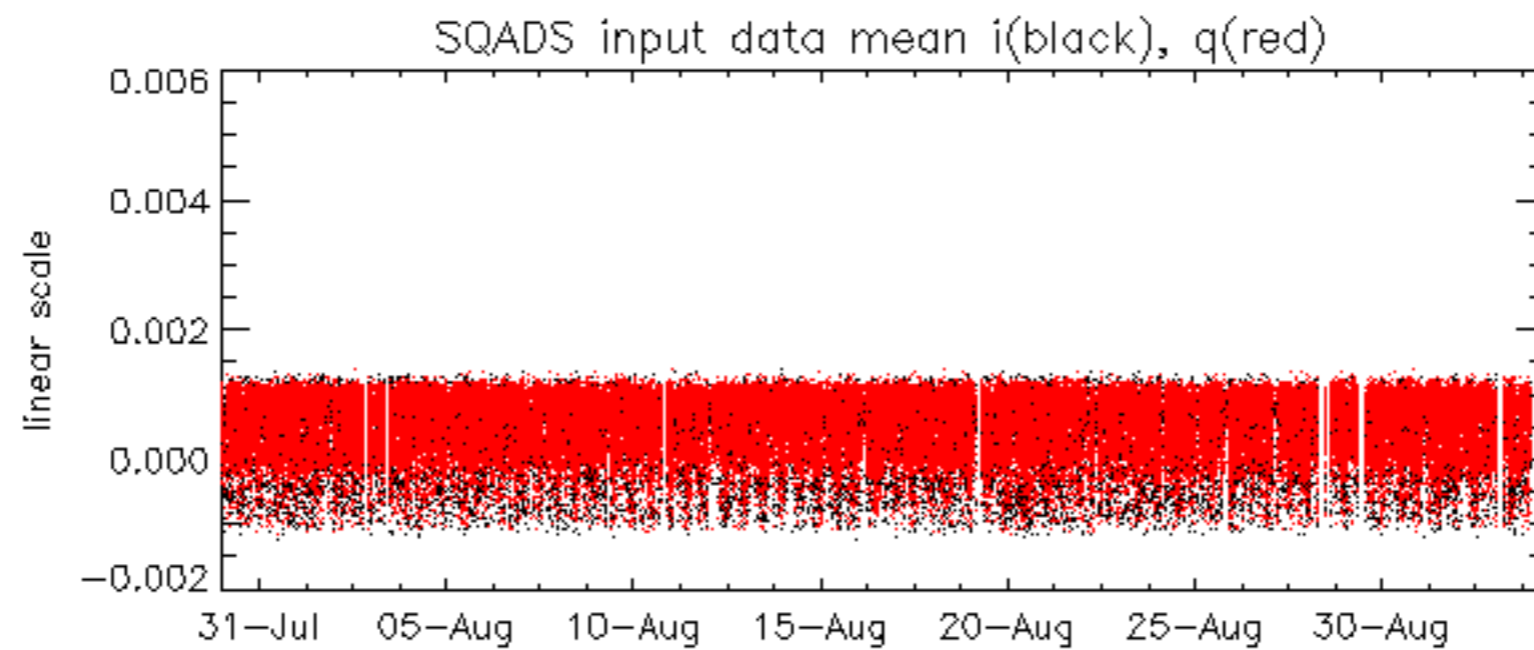
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4895231 Hz

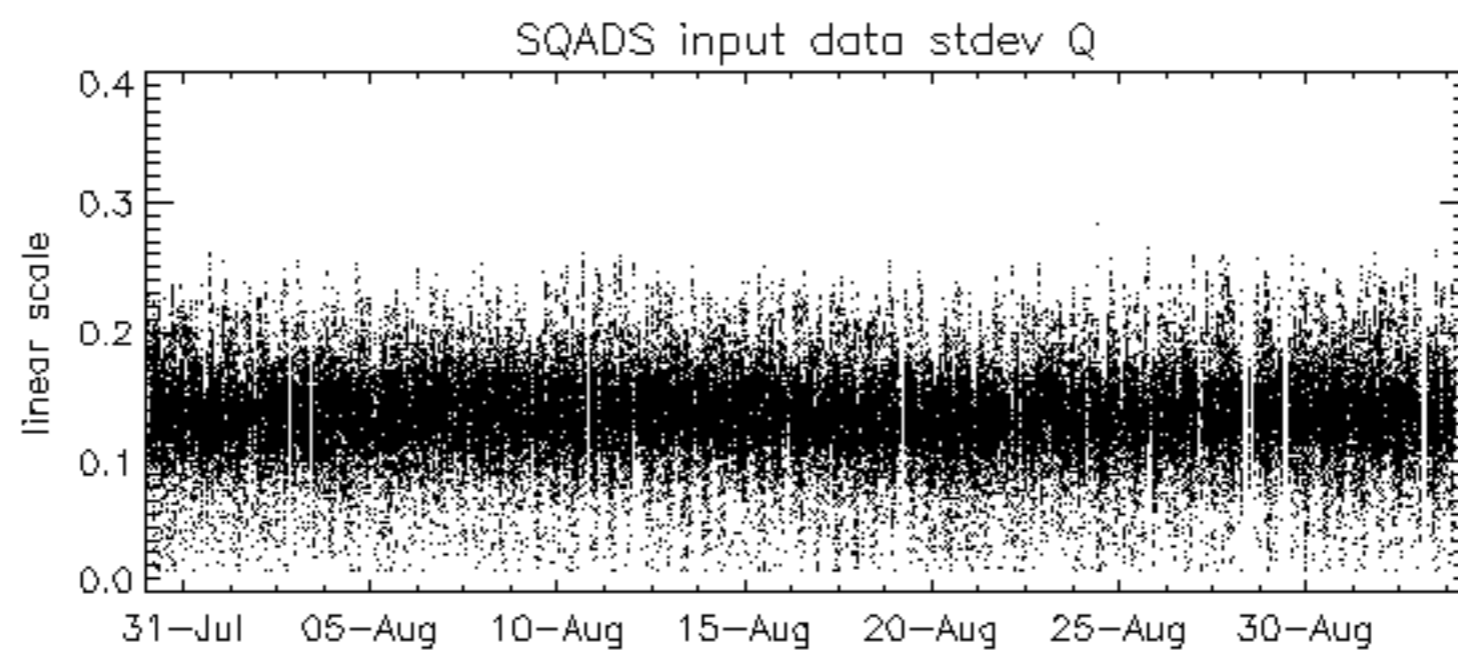
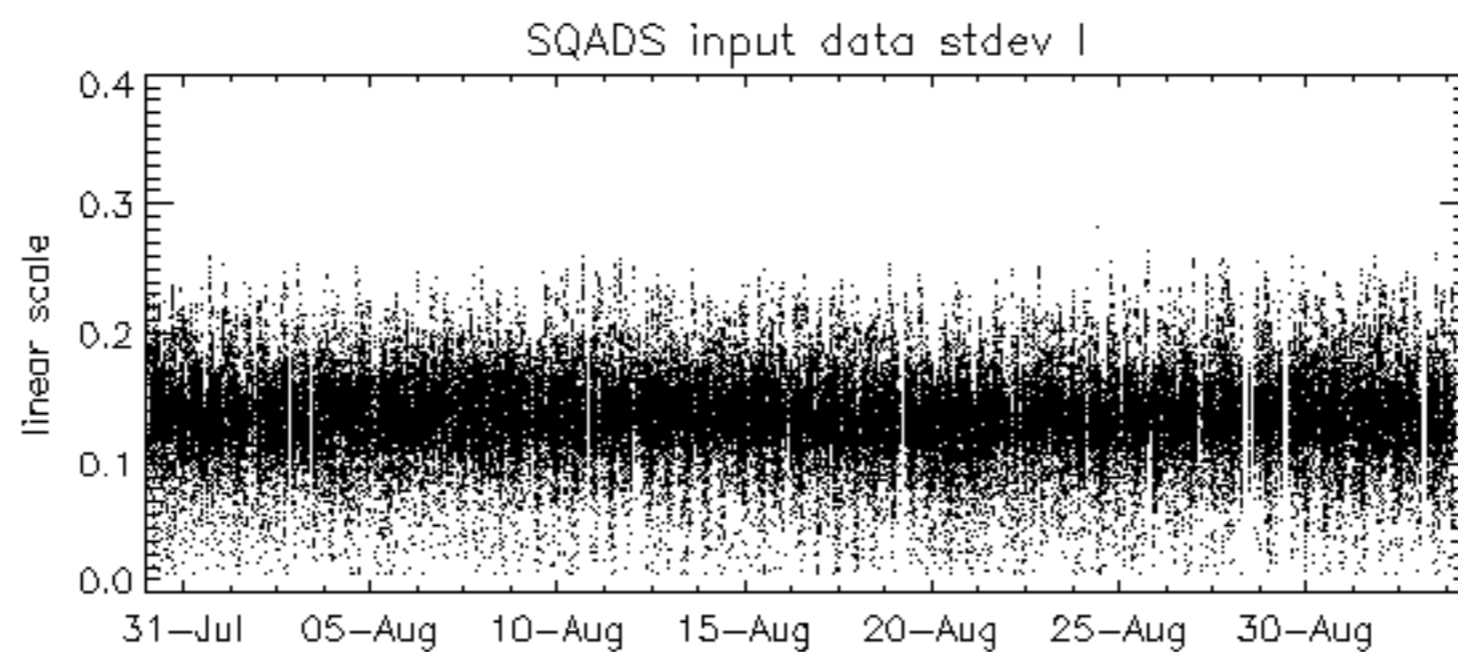
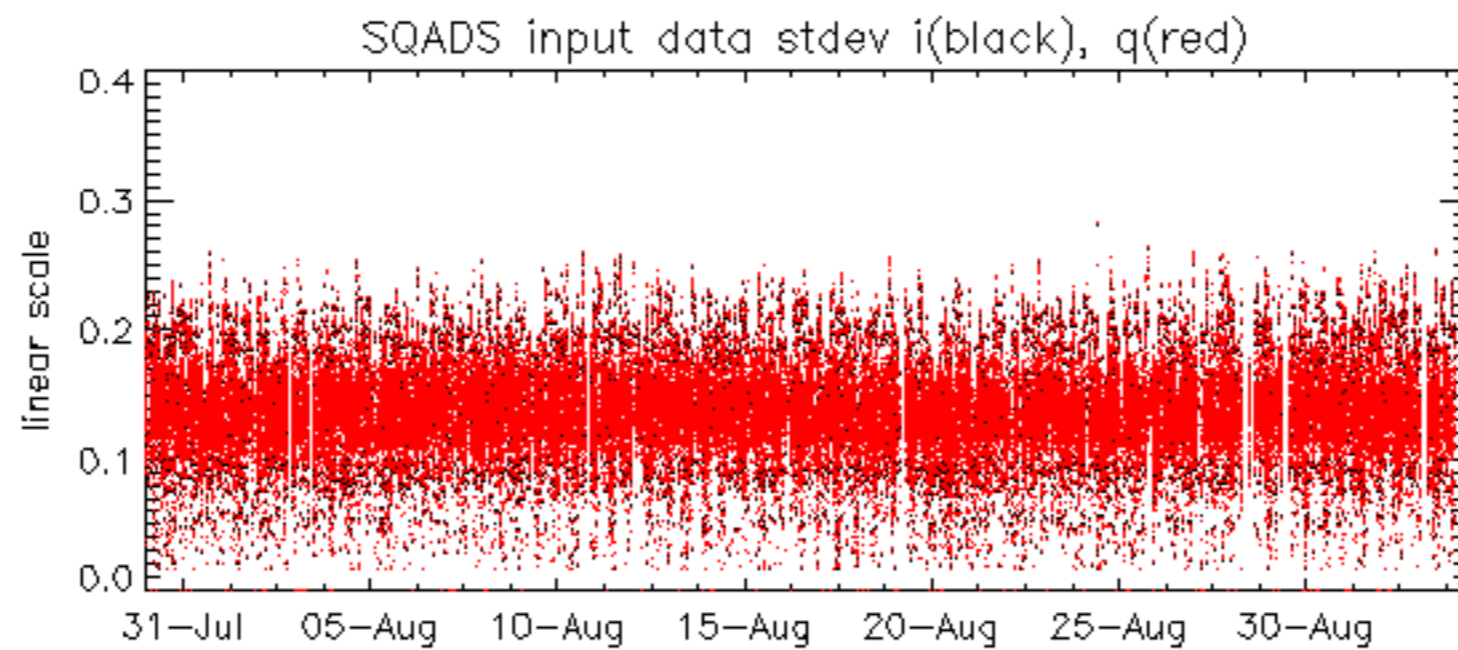


No anomalies observed on available MS products:

No anomalies observed.



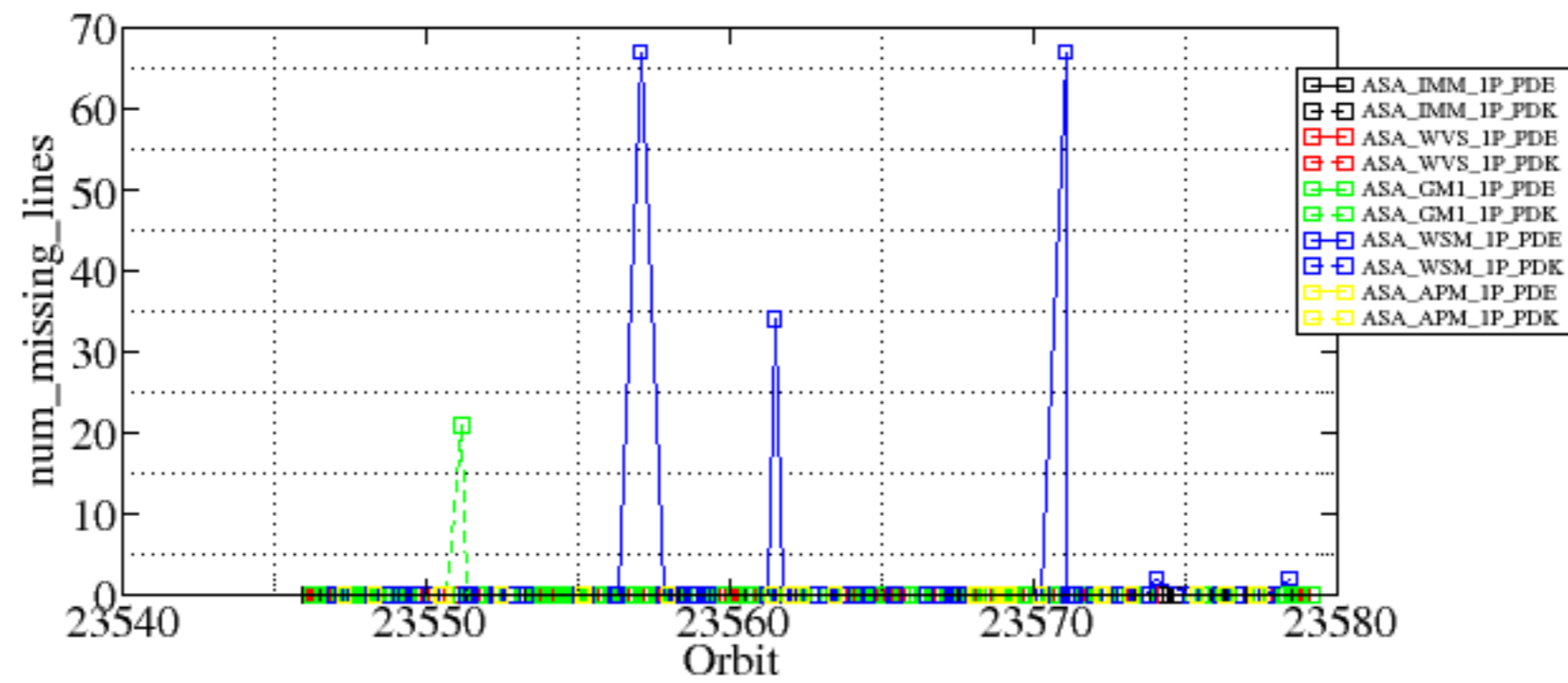


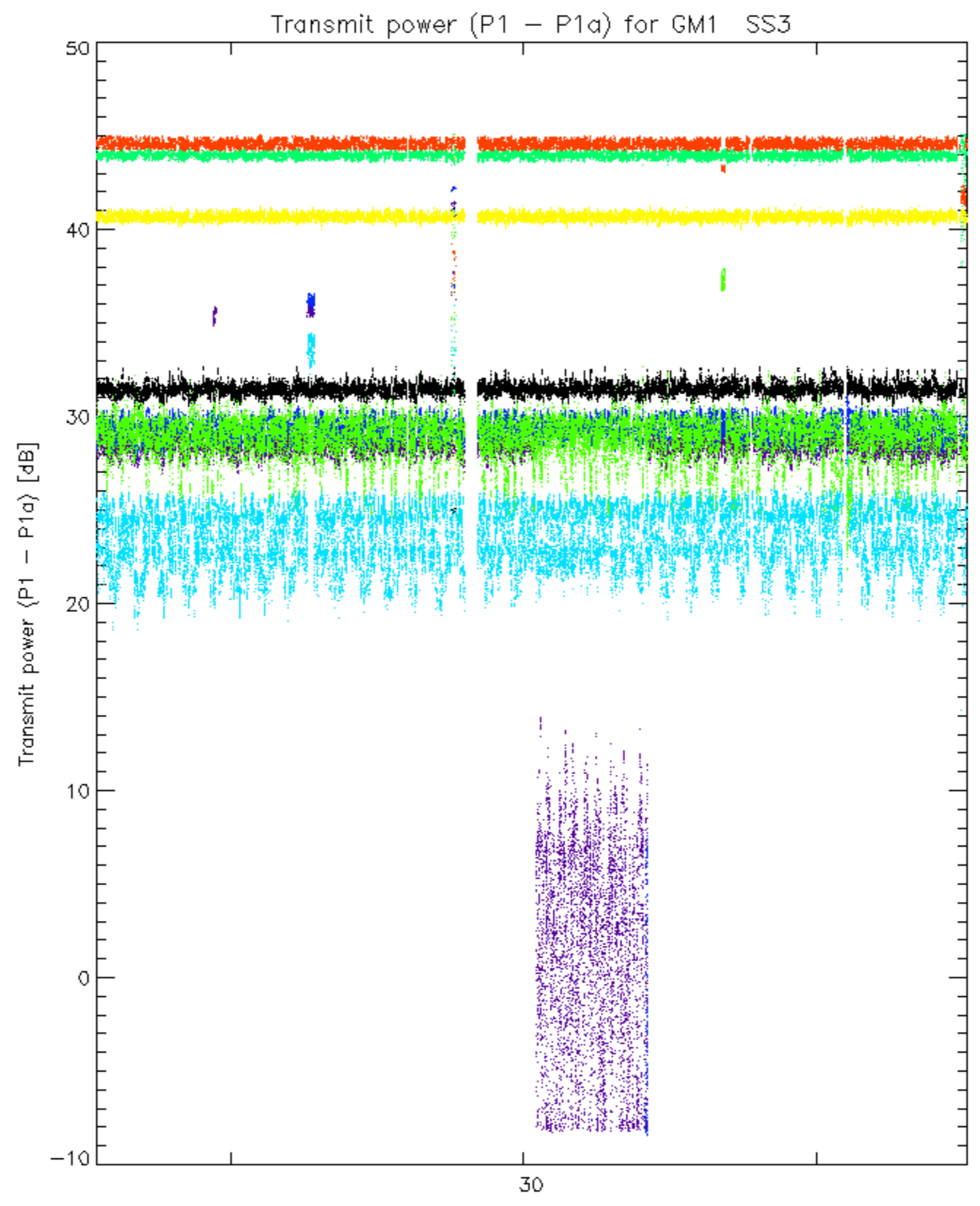


Summary of analysis for the last 3 days 2006090[123]

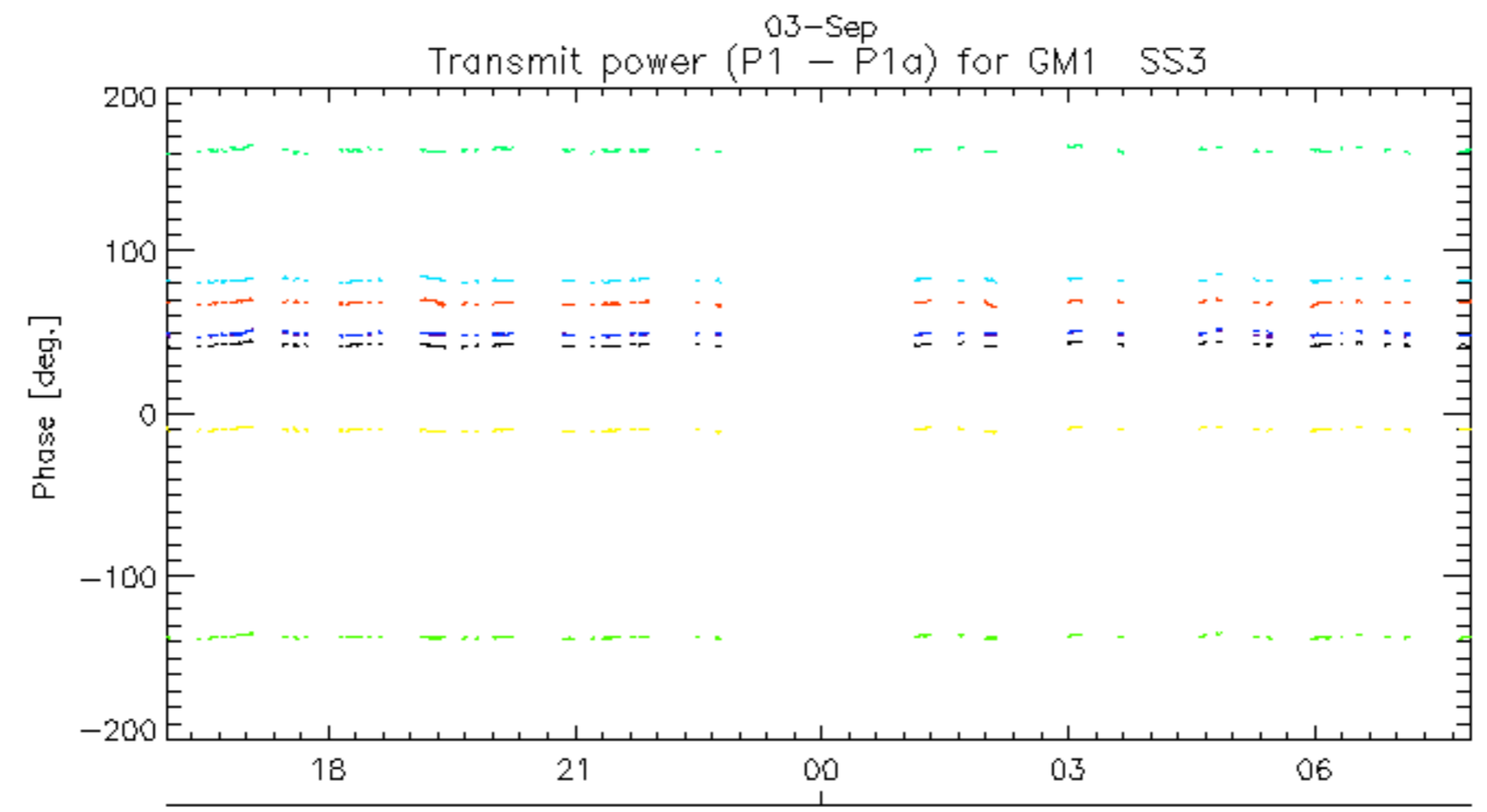
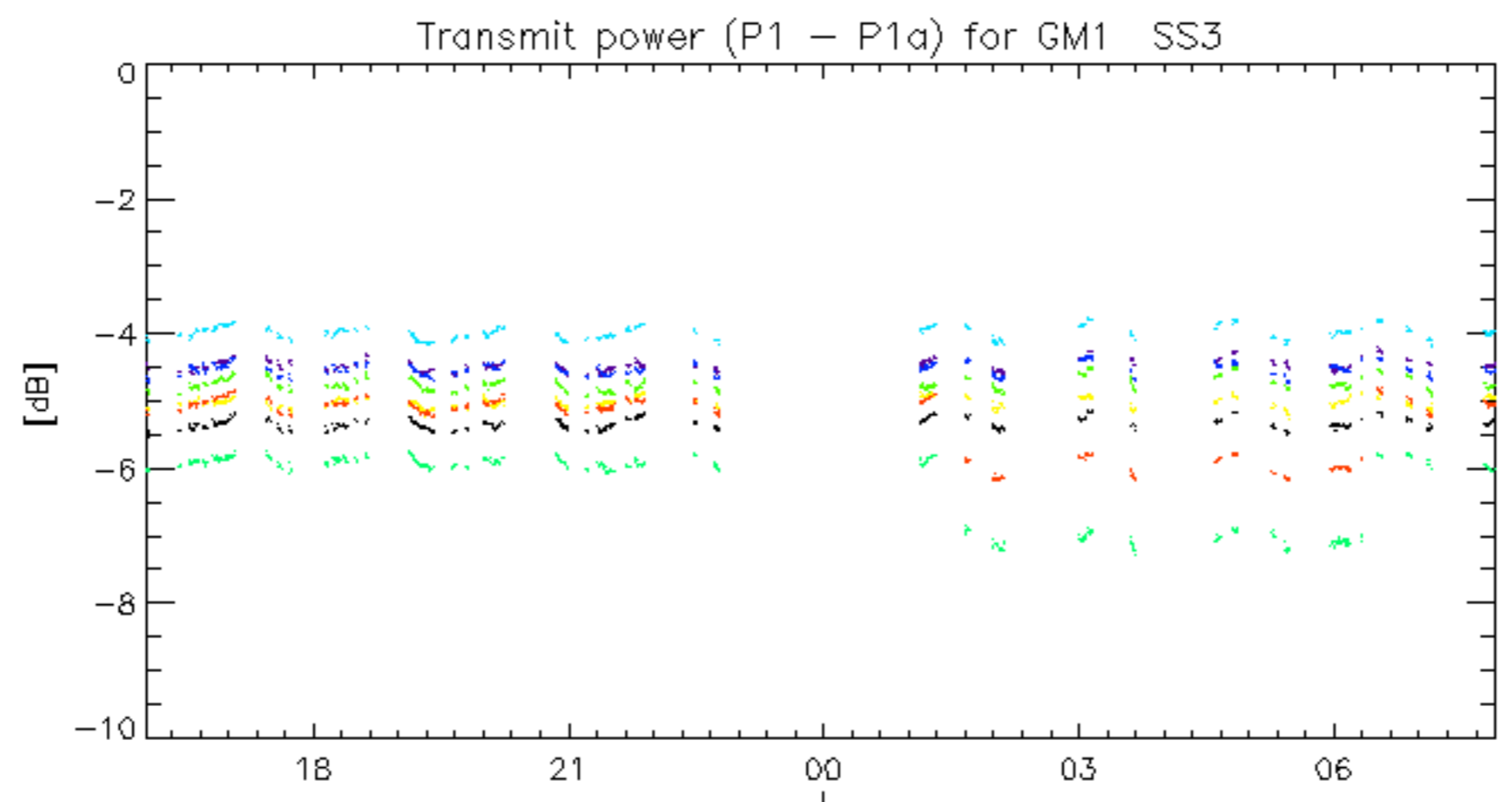
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060903_005612_000000342050_00475_23575_5292.N1	1	0
ASA_GM1_1PNPDK20060901_084711_000006702050_00451_23551_3941.N1	0	21
ASA_WSM_1PNPDE20060901_183643_000002072050_00457_23557_0466.N1	0	67
ASA_WSM_1PNPDE20060902_020157_000000862050_00461_23561_0501.N1	0	34
ASA_WSM_1PNPDE20060902_180620_000001292050_00471_23571_0584.N1	0	67
ASA_WSM_1PNPDE20060902_230551_000001092050_00474_23574_0618.N1	0	2
ASA_WSM_1PNPDE20060903_062830_000000852050_00478_23578_0648.N1	0	2

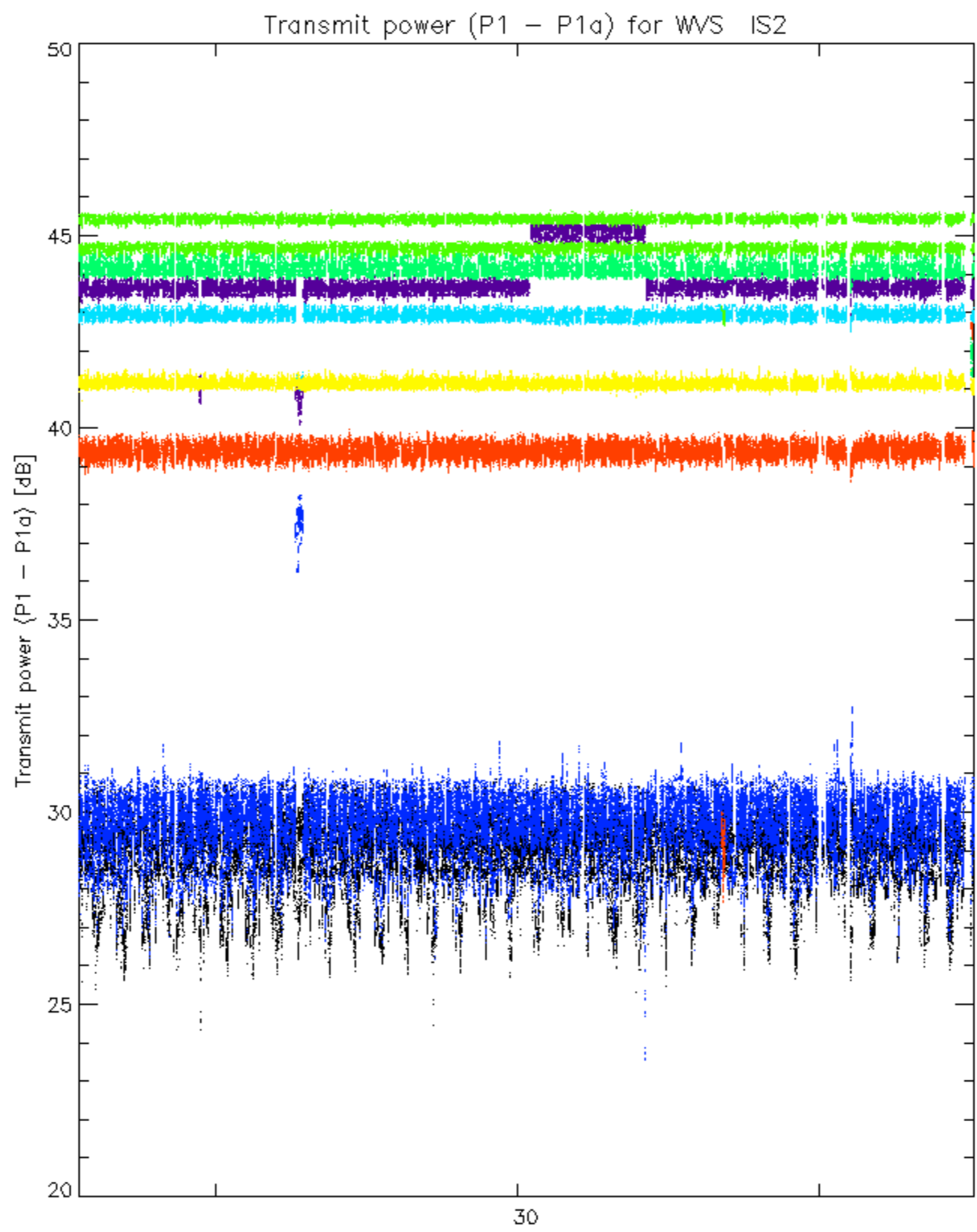


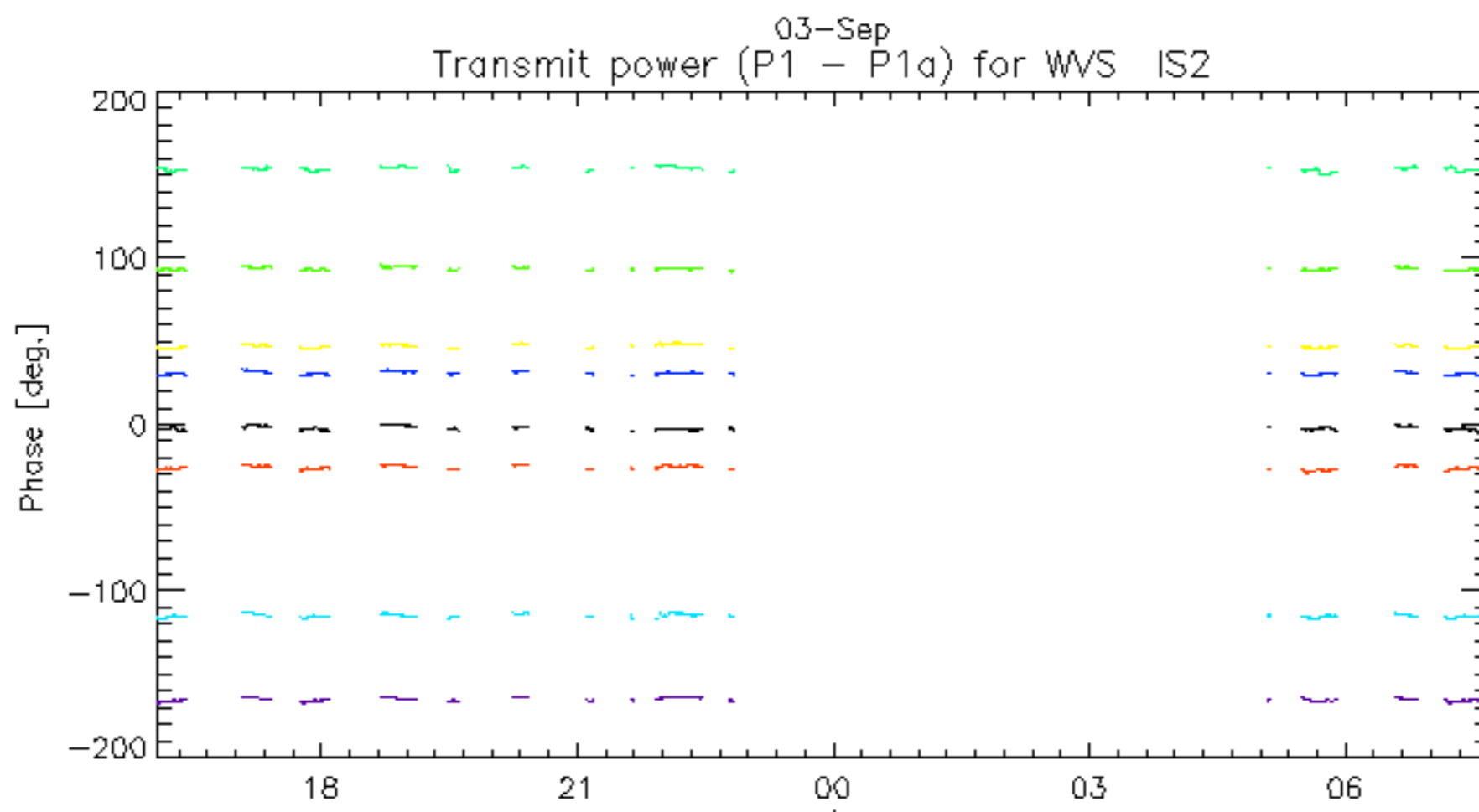
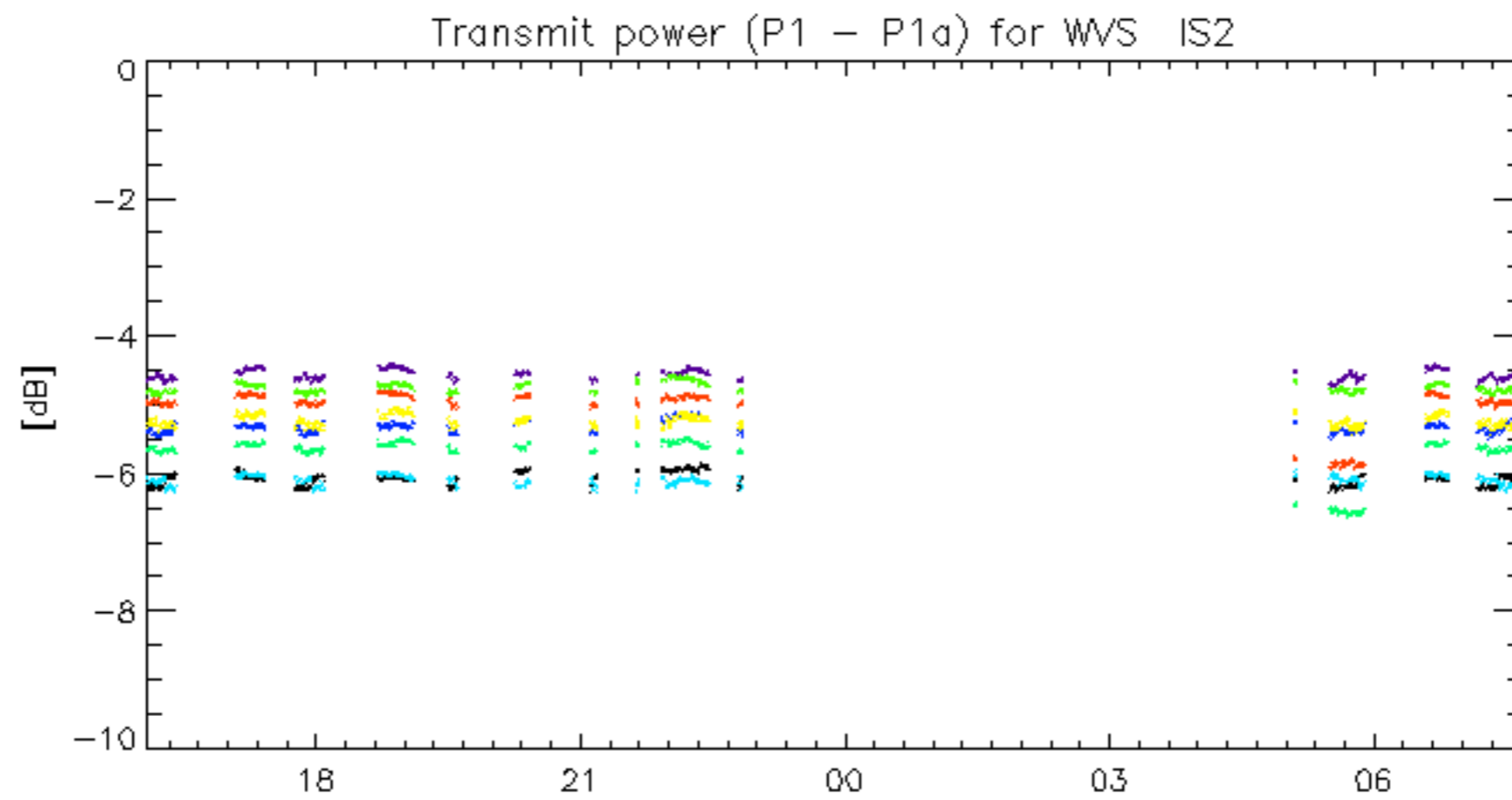


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





03-Sep
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.