

PRELIMINARY REPORT OF 040806

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Fri Aug 6 13:02:51 GMT 2004

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 - Browse Visual Inspection

No anomalies observed on available browse products

2.3 - Data Analysis

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

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied. No anomalies observed on available MS products:

Polarisation	Start Time
V	20040805 074723
H	20040804 081900

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
☒	☒
☒	☒
☒	☒
☒	☒

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)
-----	-------	-----------	------------	-----------------

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.496042	0.052323	-0.074039
7	P1	-3.336331	0.044385	-0.076804
11	P1	-4.638404	0.116615	-0.130685
15	P1	-5.753124	0.129074	-0.122916
19	P1	-3.451086	0.004364	-0.016678
22	P1	-4.562504	0.010571	-0.002337

24	P1	-4.954810	0.017898	0.009574
30	P1	-6.899388	0.025798	-0.041507
3	P1	-16.260723	0.491233	-0.217404
7	P1	-13.961088	0.077662	-0.003126
11	P1	-20.031839	0.323905	-0.031553
15	P1	-11.771534	0.068652	0.091117
19	P1	-13.852989	0.033055	-0.038315
22	P1	-16.308455	0.335267	-0.028690
24	P1	-14.599483	0.278255	0.017537
30	P1	-17.672571	0.421616	-0.072305

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.324350	0.078175	0.046451
7	P2	-22.700531	0.120338	0.069562
11	P2	-15.439819	0.145859	0.092022
15	P2	-7.101289	0.087605	0.060053
19	P2	-9.561749	0.159849	0.054635
22	P2	-17.405731	0.104076	0.118461
24	P2	-20.757669	0.083363	0.005428
30	P2	-19.343870	0.077827	0.116692

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.143454	0.001913	-0.004198
7	P3	-8.143457	0.001913	-0.004196
11	P3	-8.143457	0.001913	-0.004185
15	P3	-8.143469	0.001912	-0.004113
19	P3	-8.143479	0.001912	-0.004039
22	P3	-8.143483	0.001912	-0.004007
24	P3	-8.143486	0.001912	-0.004010
30	P3	-8.143601	0.001907	-0.004190

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
-----	-------	-----------	------------	-----------------

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.948165	0.198717	0.266326
7	P1	-2.991203	0.232754	-0.379557
11	P1	-3.872429	0.170115	-0.157391
15	P1	-3.820817	0.628384	0.928331
19	P1	-3.432107	0.035736	-0.183310
22	P1	-5.683384	0.050286	0.121657
24	P1	-3.921599	0.054958	0.251449
30	P1	-6.167360	0.078400	-0.071476
3	P1	-10.771395	0.586166	0.332014
7	P1	-10.014149	0.271034	-0.418059
11	P1	-11.982809	0.209462	-0.305507
15	P1	-11.718093	0.236610	0.467446
19	P1	-15.385942	0.471908	-0.907783
22	P1	-22.517843	4.512121	-2.961760
24	P1	-17.545656	0.303377	-0.633715
30	P1	-20.764956	2.976758	1.699055

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.020403	0.080760	0.120991
7	P2	-22.812353	0.242583	0.062242
11	P2	-10.992896	0.169216	-0.245822
15	P2	-4.948754	0.042529	-0.032734
19	P2	-6.825250	0.057551	0.165037
22	P2	-7.513577	0.102240	0.147704
24	P2	-11.027328	0.146450	-0.066869
30	P2	-22.256615	0.120623	0.018253

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.983713	0.003611	-0.016424
7	P3	-7.983773	0.003613	-0.016489
11	P3	-7.983741	0.003614	-0.016672
15	P3	-7.983655	0.003616	-0.016562
19	P3	-7.983671	0.003620	-0.016803
22	P3	-7.983768	0.003602	-0.016810
24	P3	-7.983675	0.003633	-0.016824
30	P3	-7.983758	0.003606	-0.016542

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	0.000490057
	stdev	2.15193e-07
MEAN Q	mean	0.000531980
	stdev	2.48581e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.128728
	stdev	0.00103269
STDEV Q	mean	0.128975
	stdev	0.00104378





5.3 - Gain imbalance I/Q





6 - Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)	
	
	Ascending
	
	Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX**6.4 - Unbiased Doppler Error for GM1****Evolution of unbiased Doppler error (Real - Expected)**

Acsending

Descending

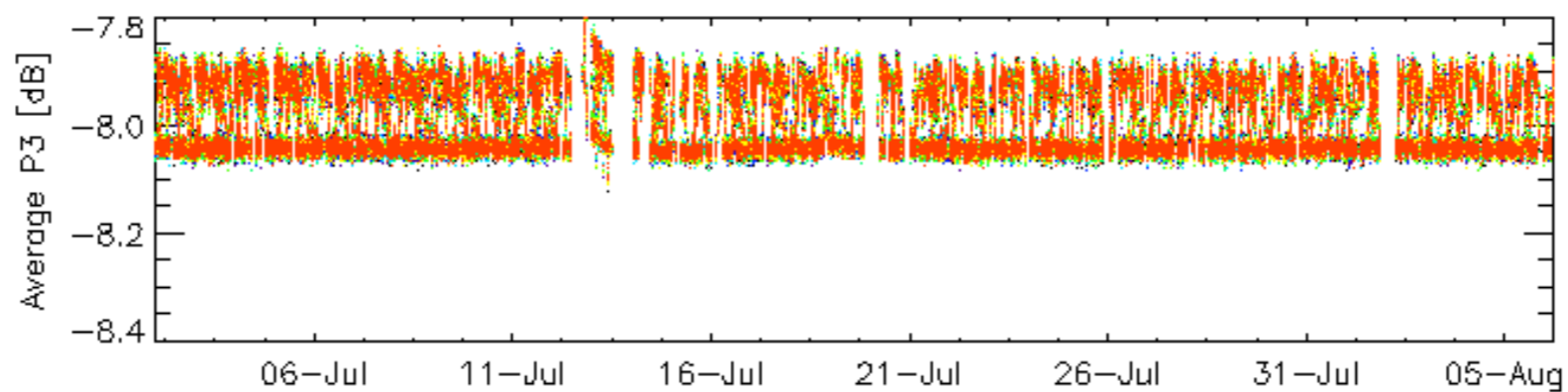
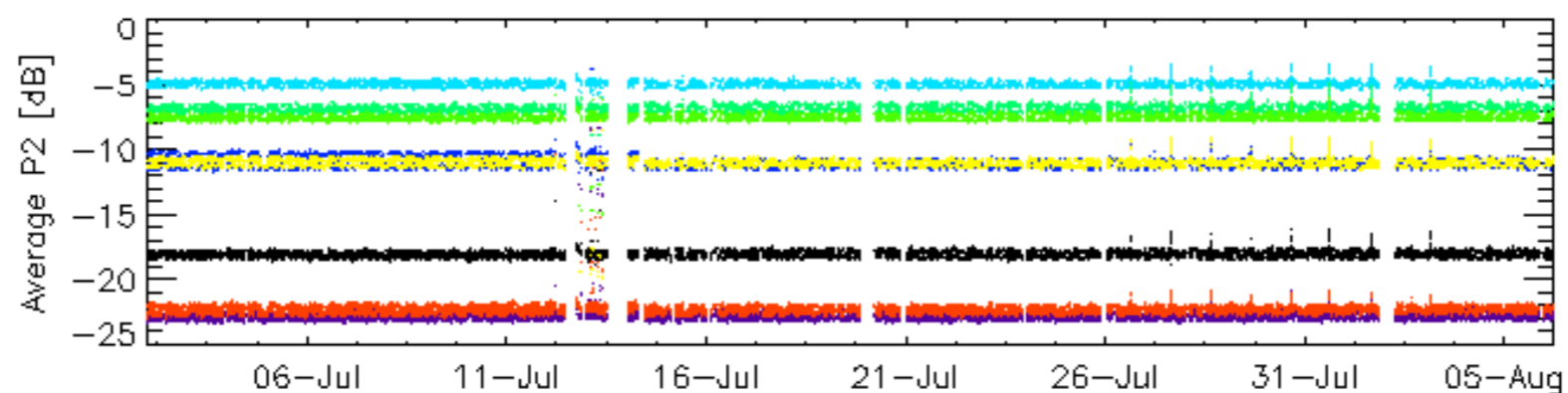
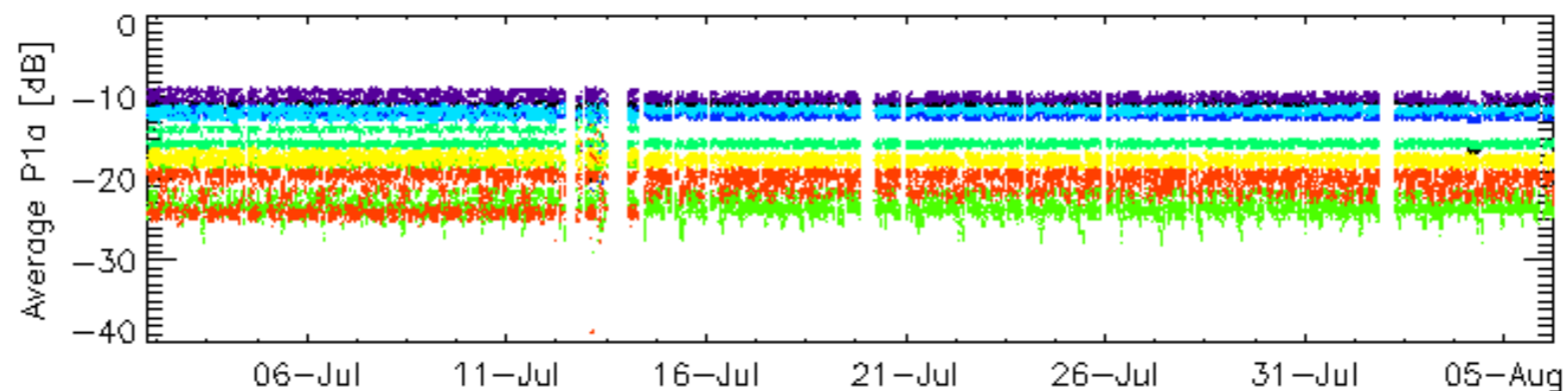
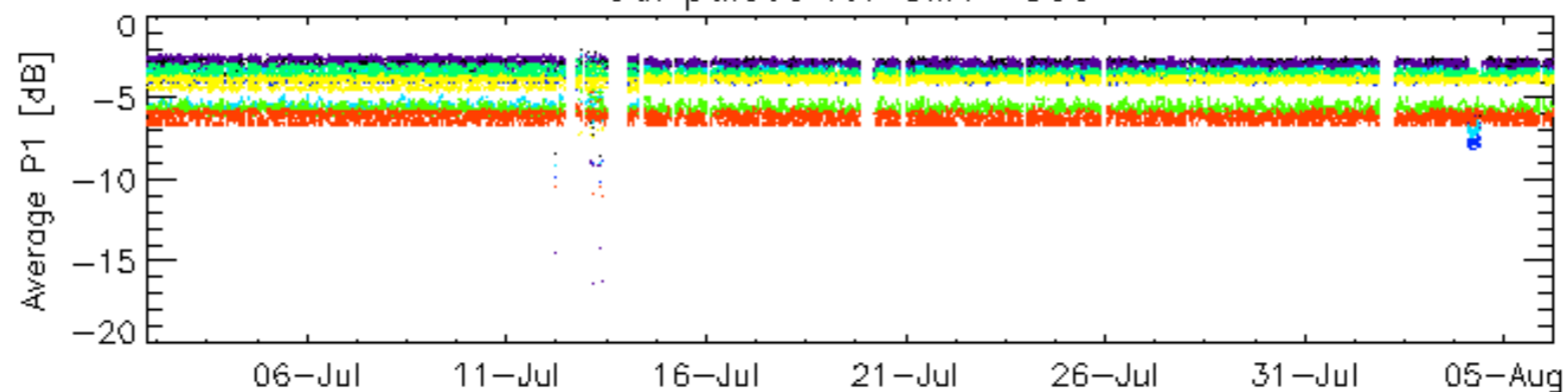
6.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

Acsending

Descending

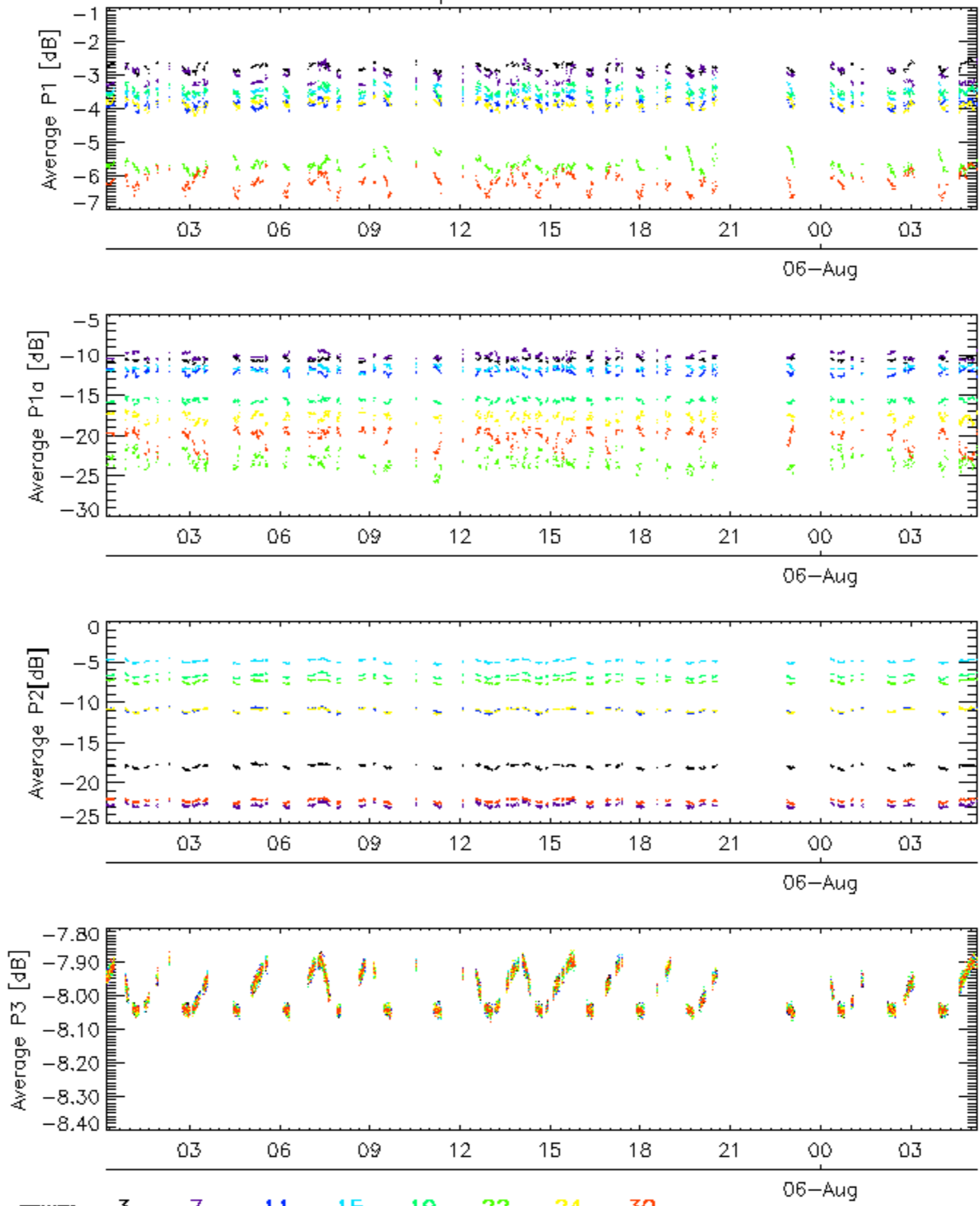
6.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

Cal pulses for GM1 SS3

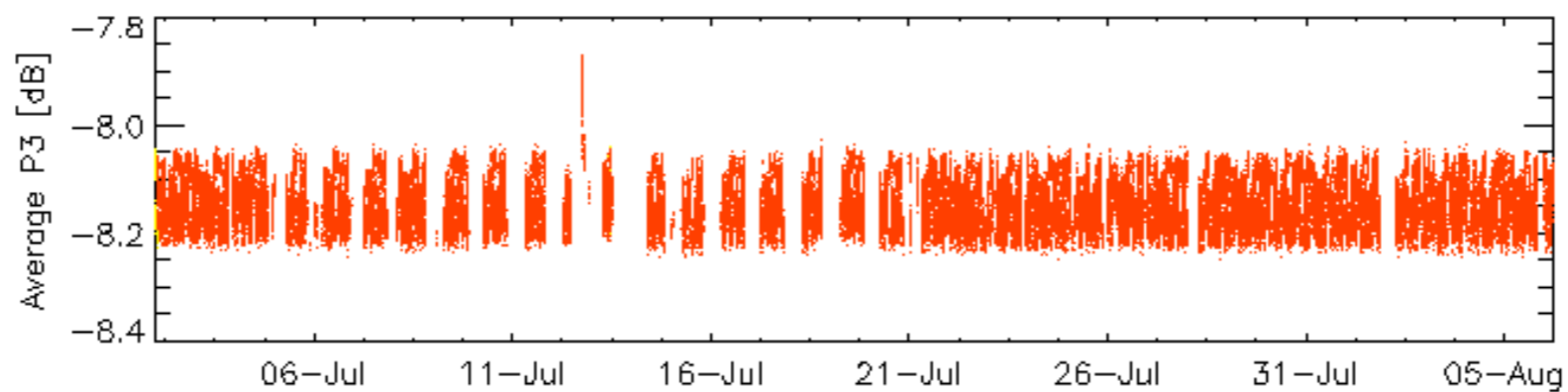
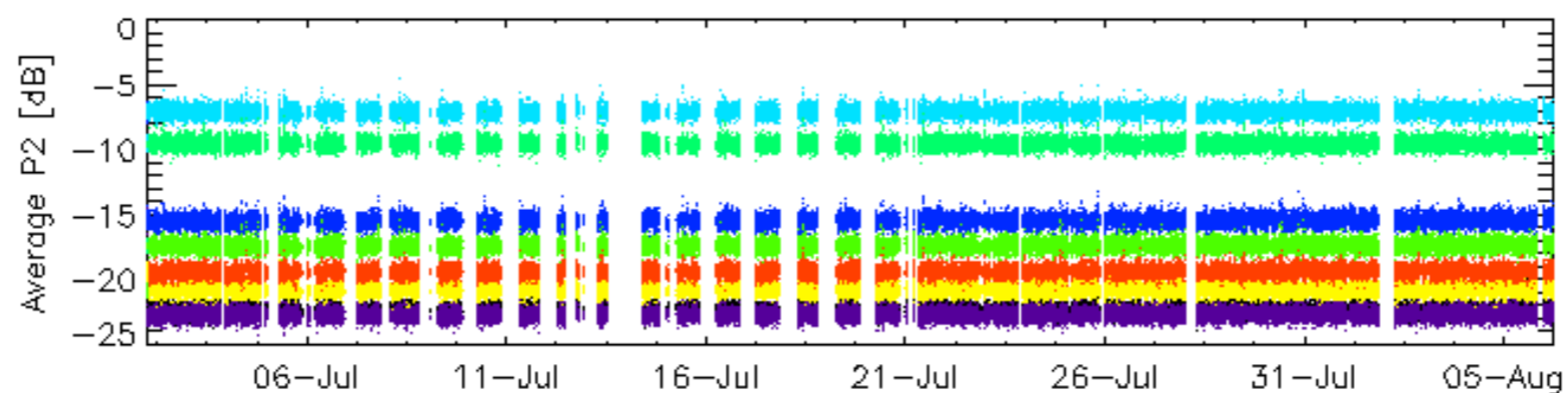
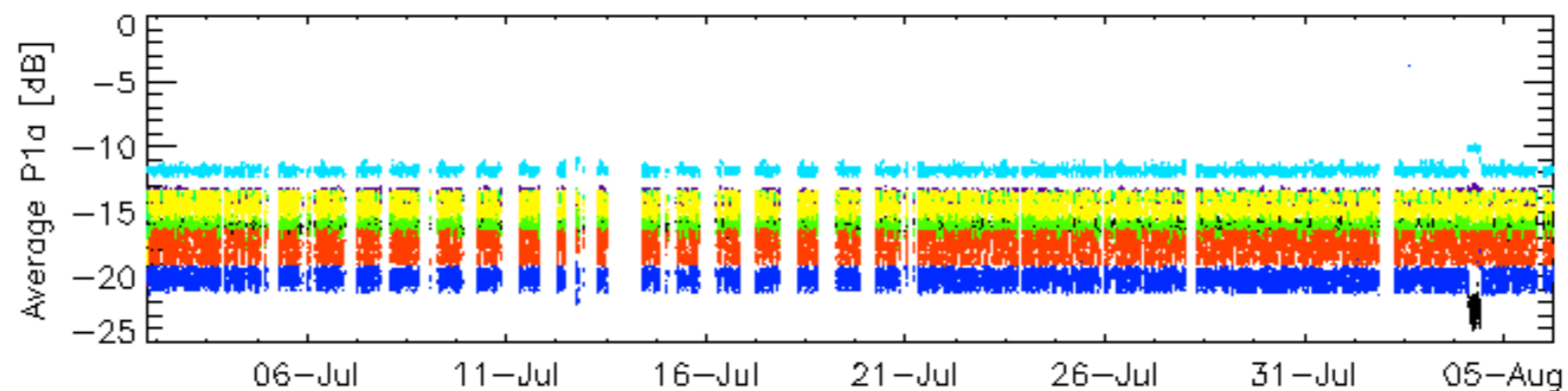
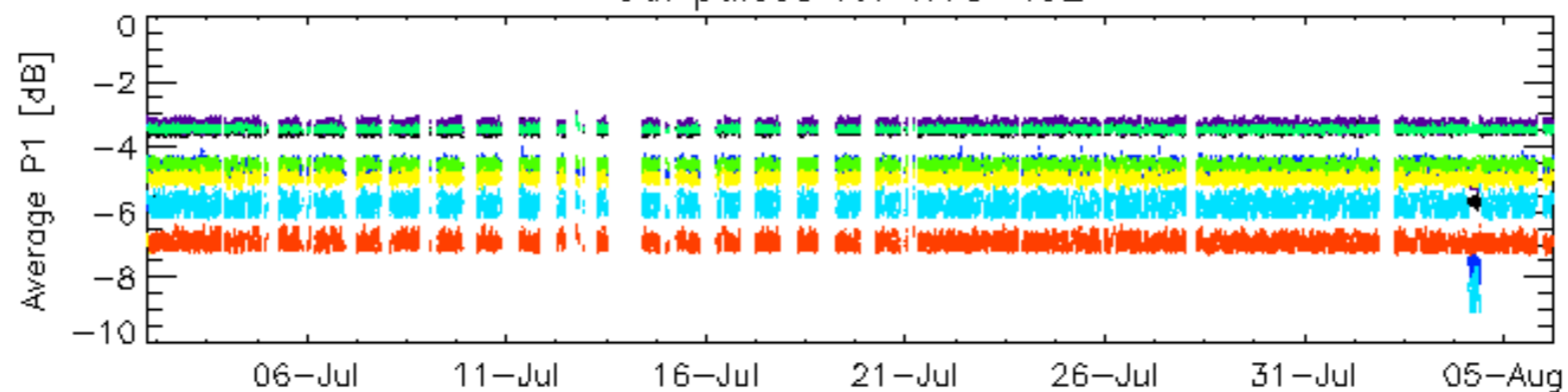


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

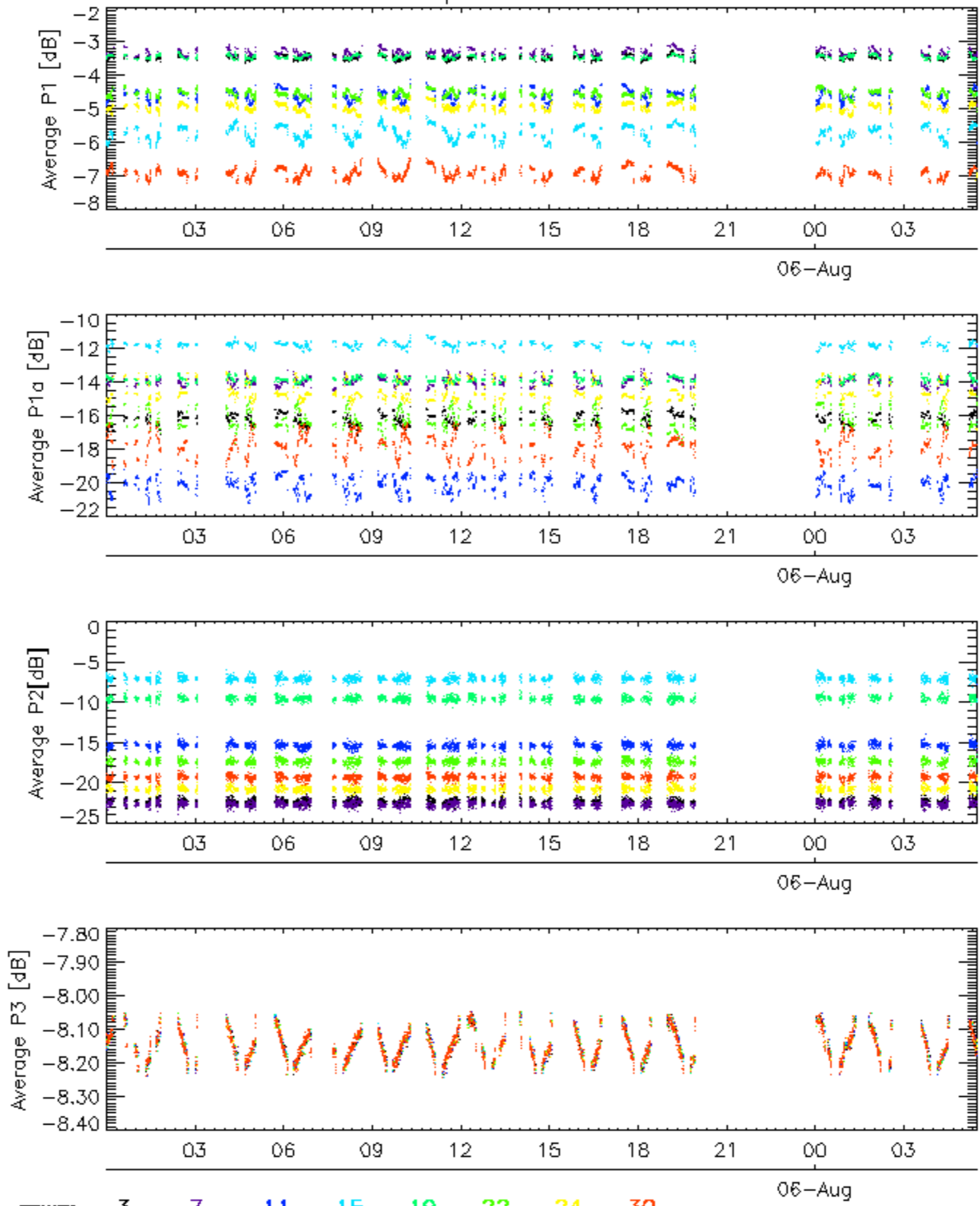


Cal pulses for WVS IS2



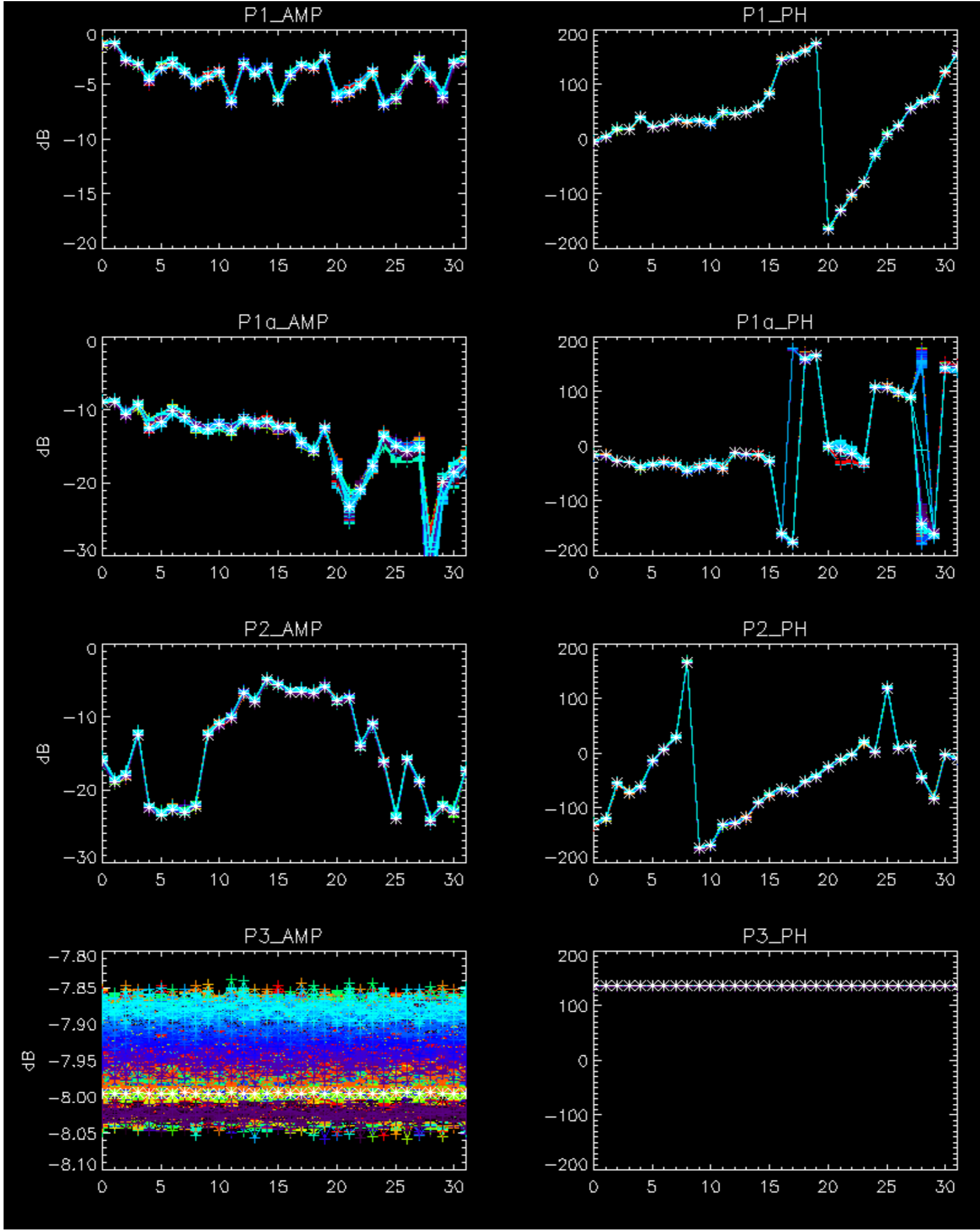
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

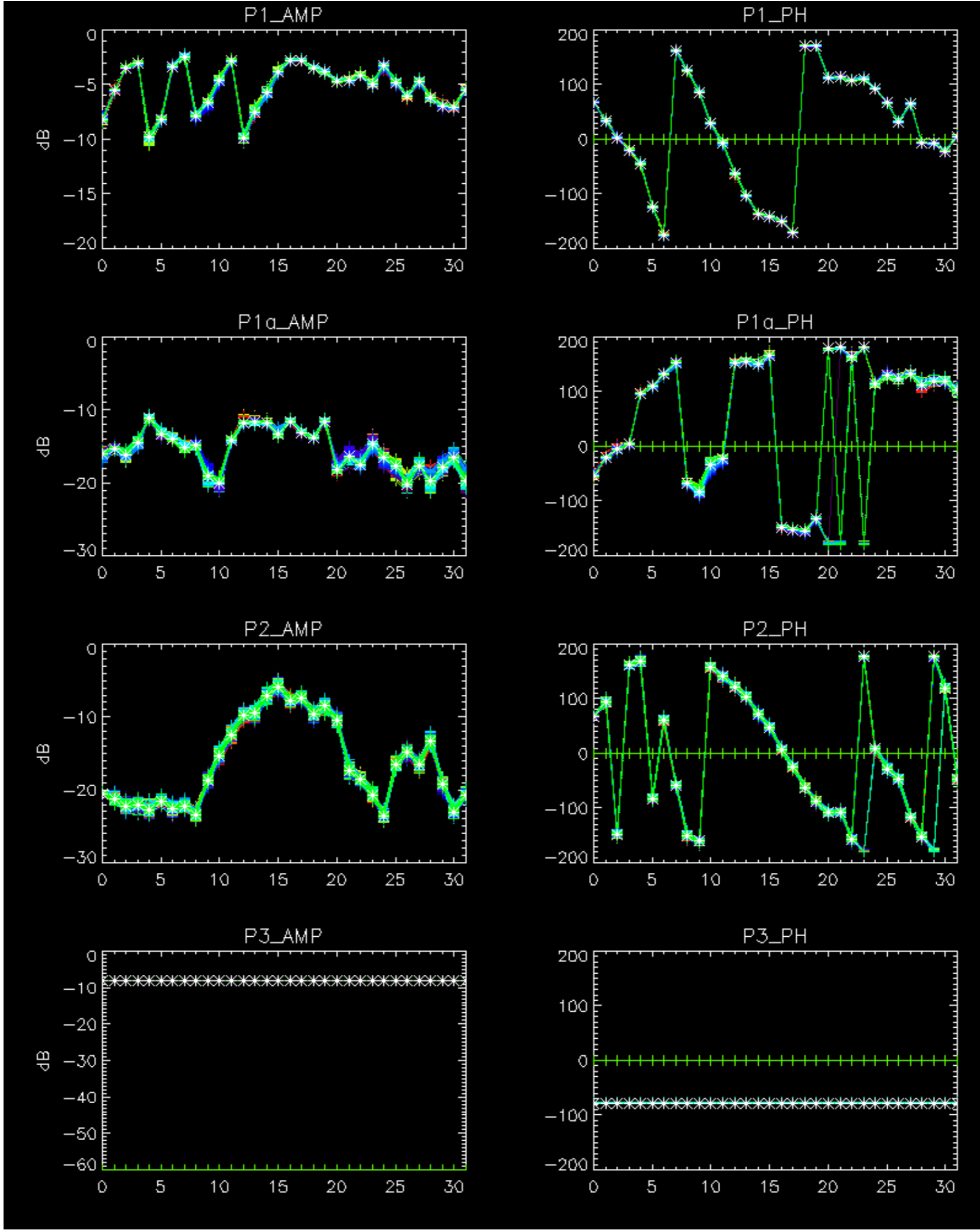
Cal pulses for WVS IS2



No anomalies observed on available browse products

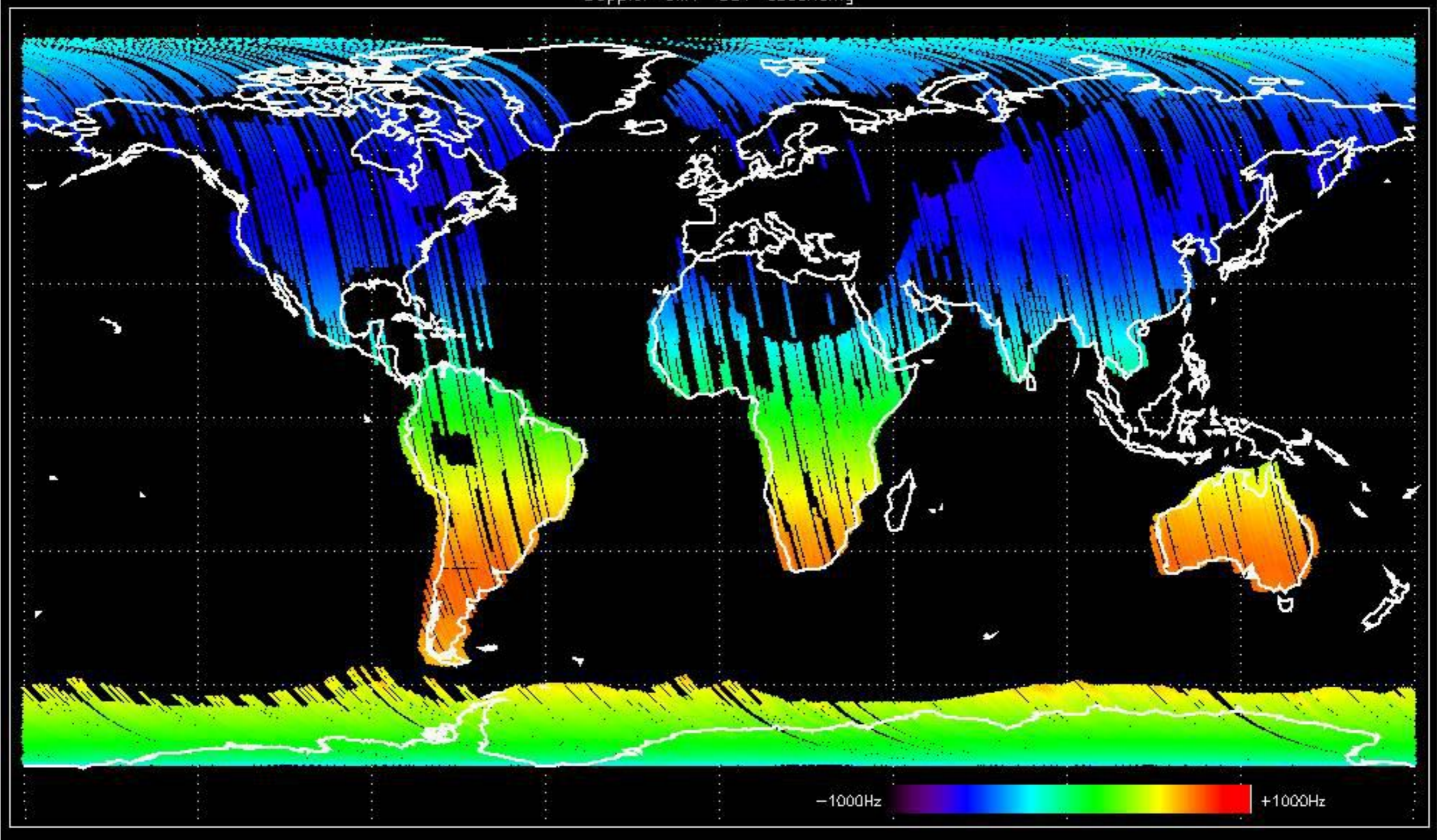
No anomalies observed.



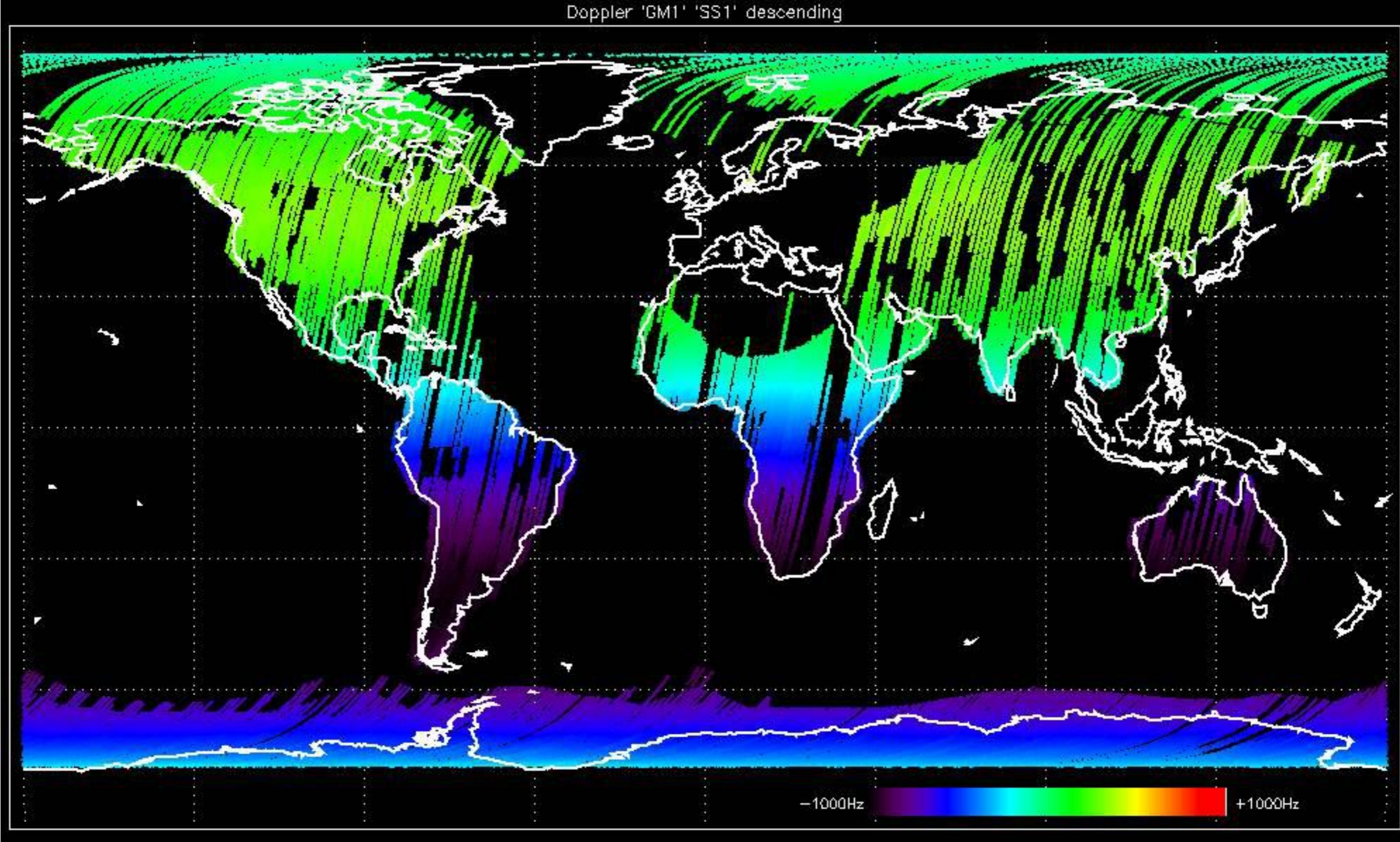


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

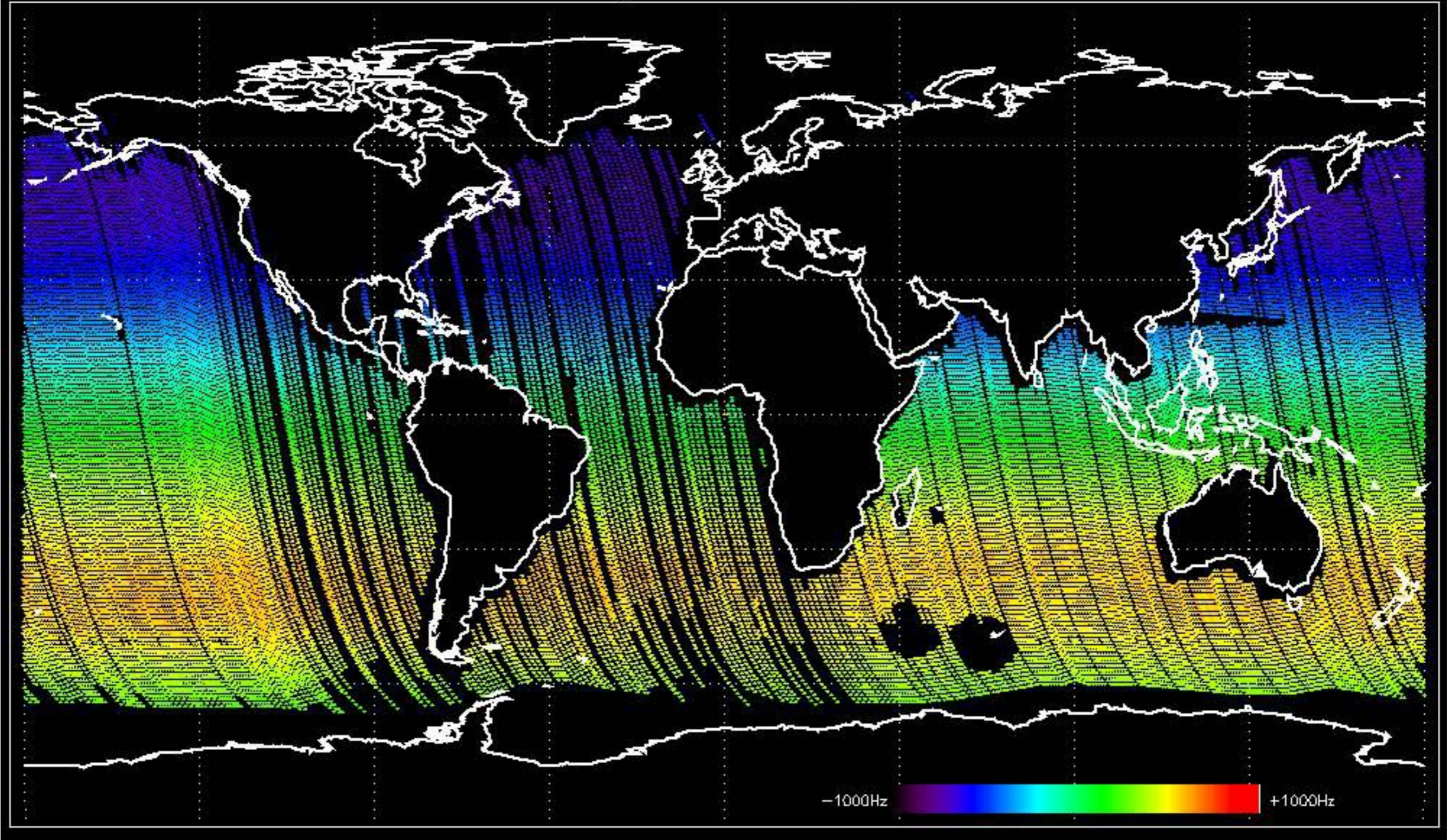
Doppler 'GM1' 'SS1' ascending



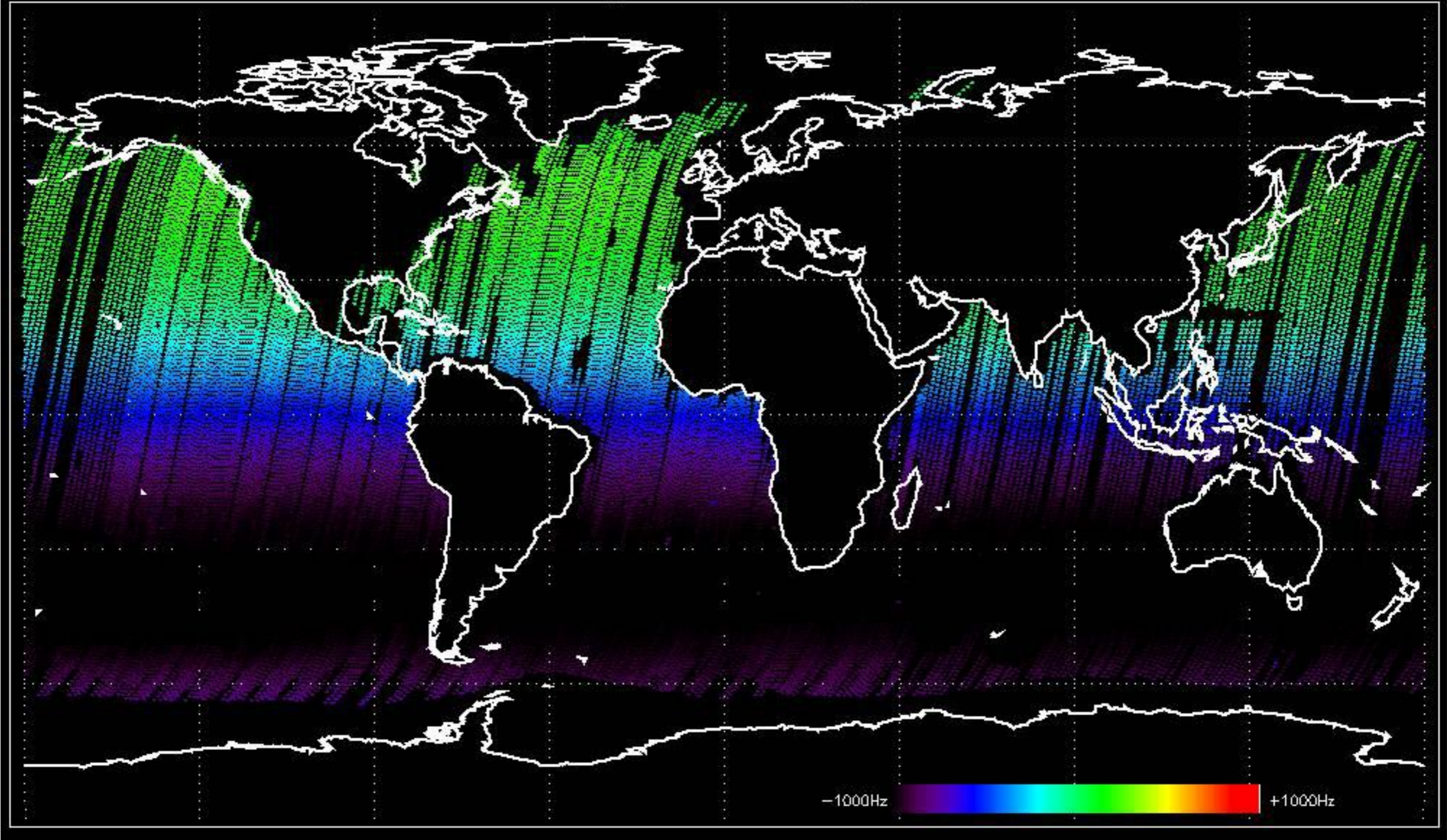
Doppler 'GM1' 'SS1' descending



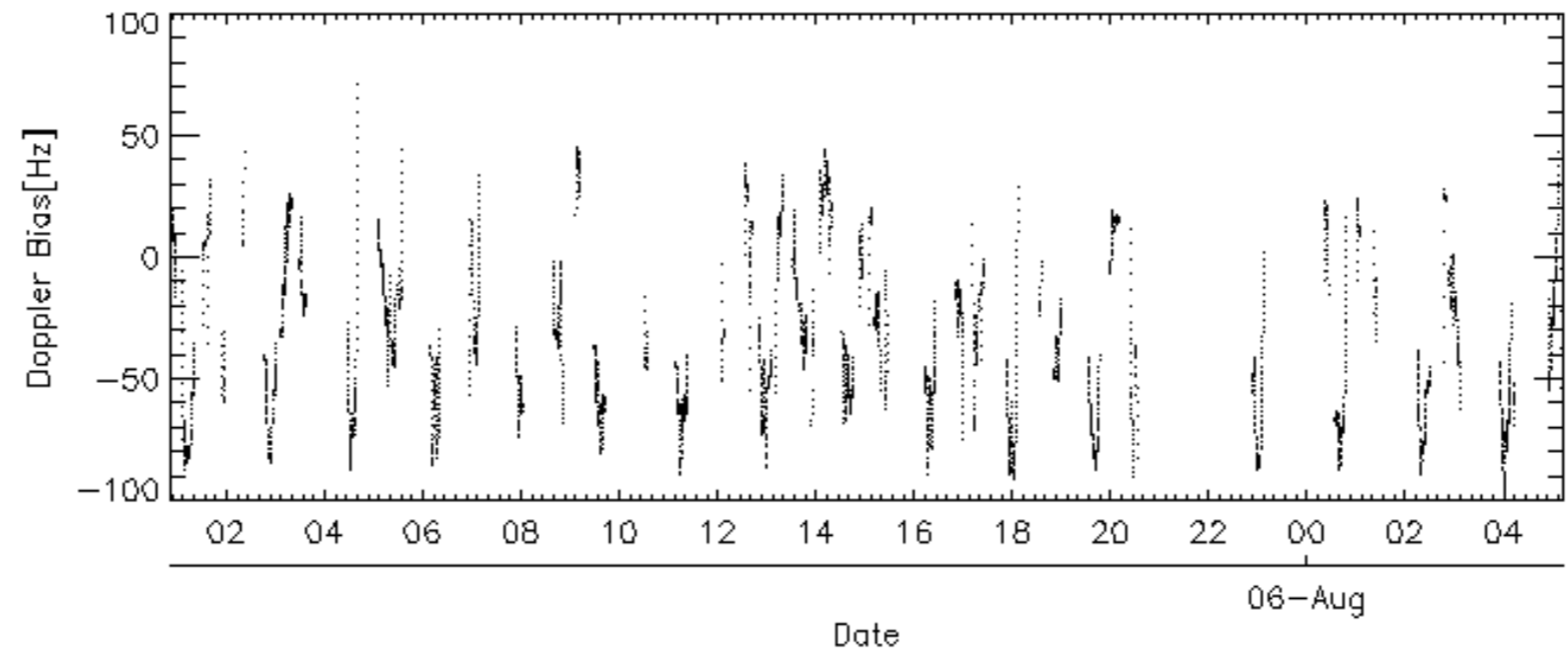
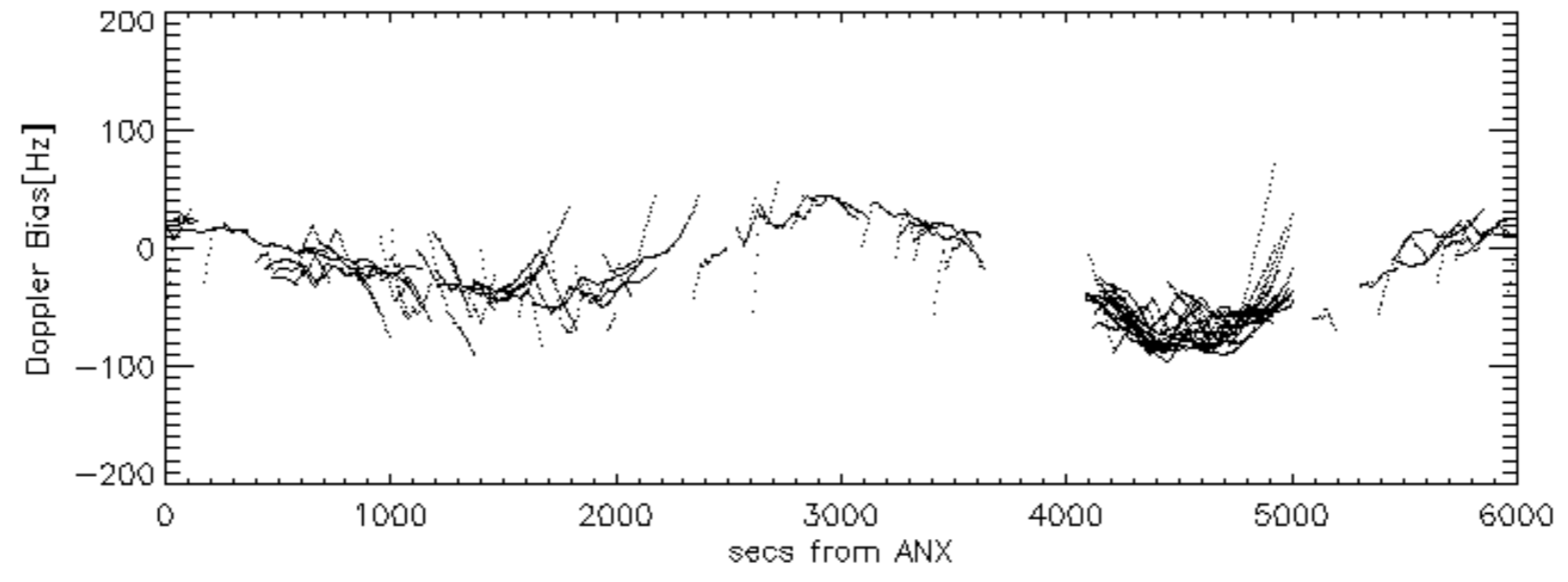
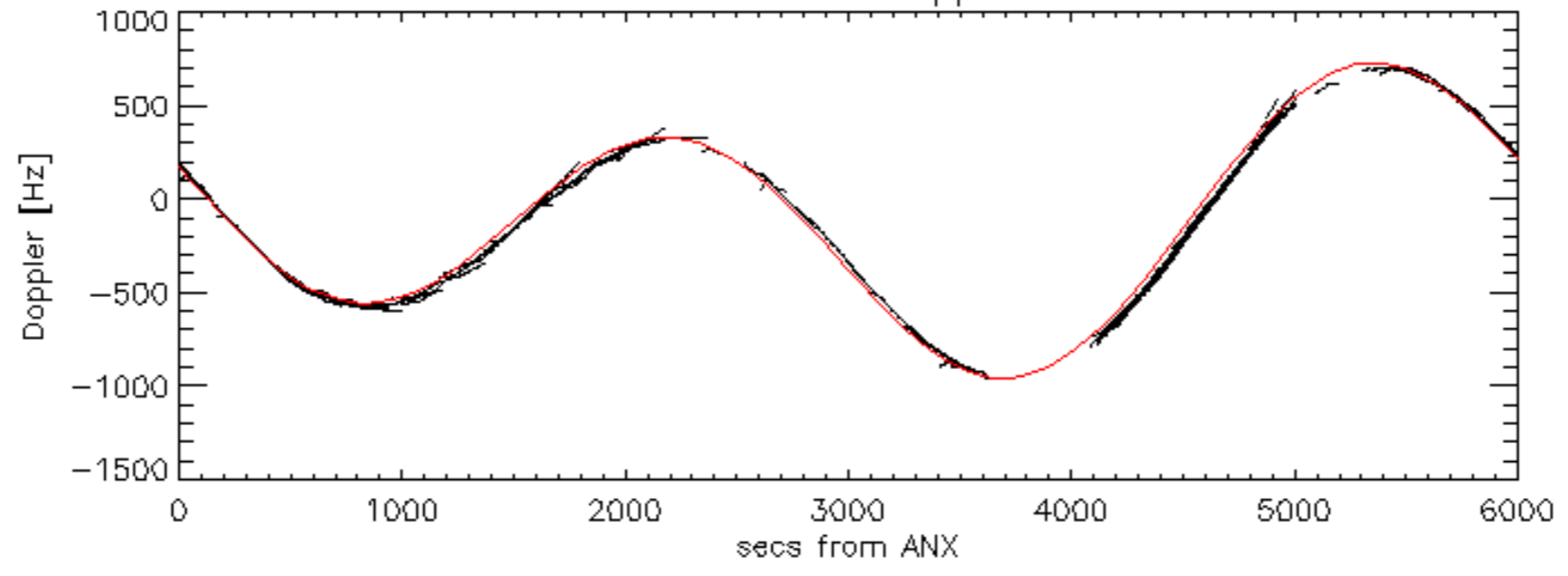
Doppler 'WVS' 'IS2' ascending

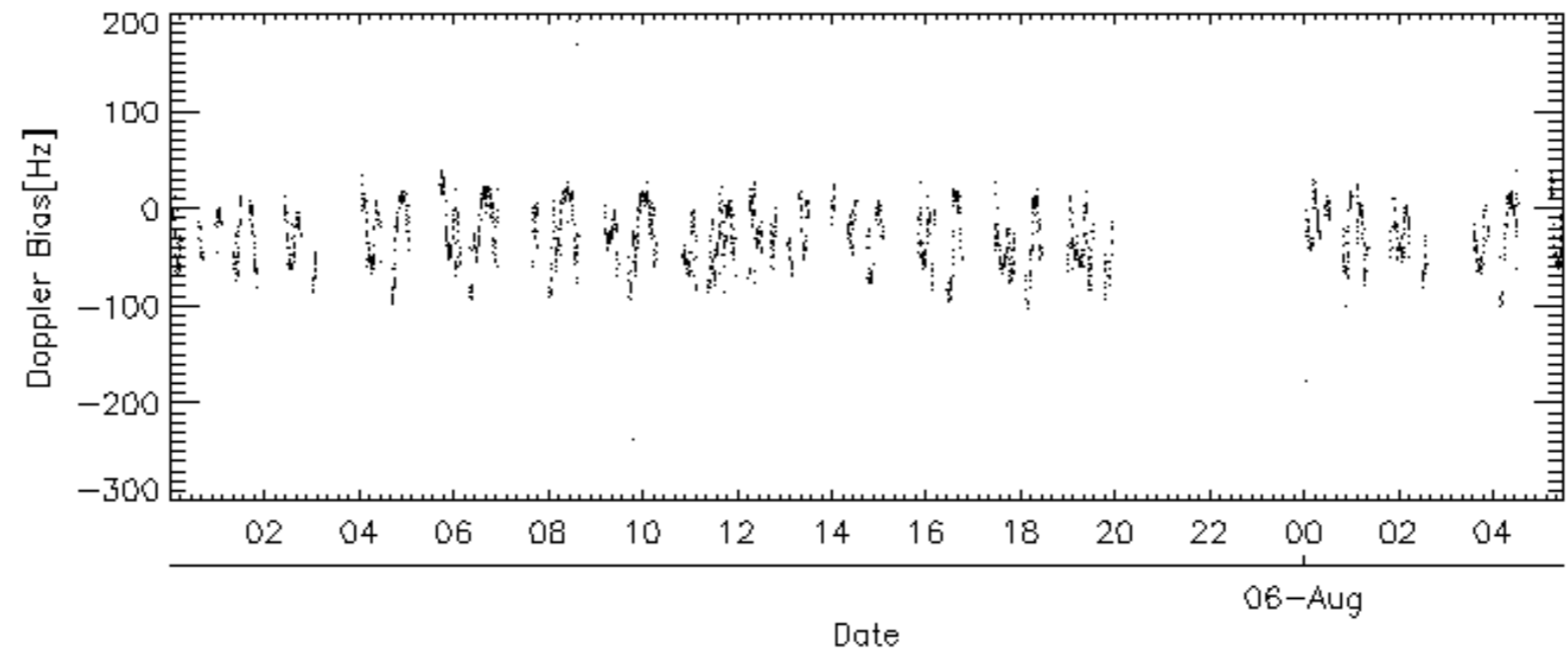
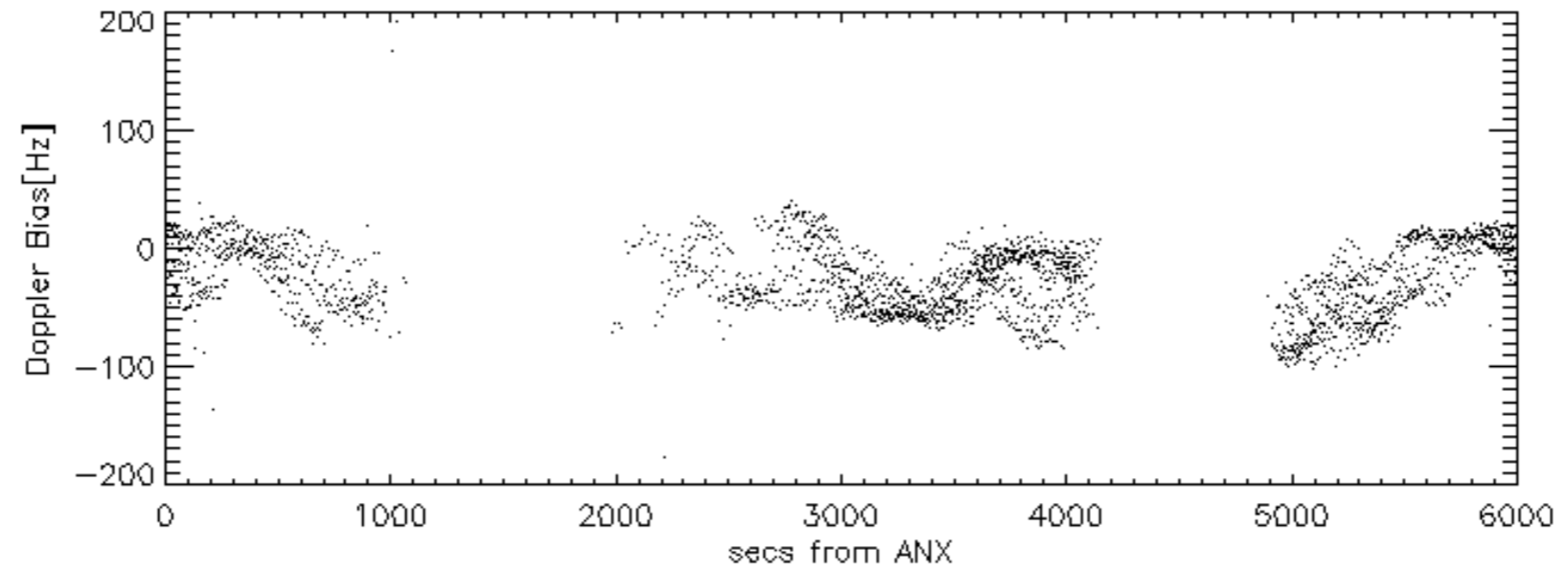
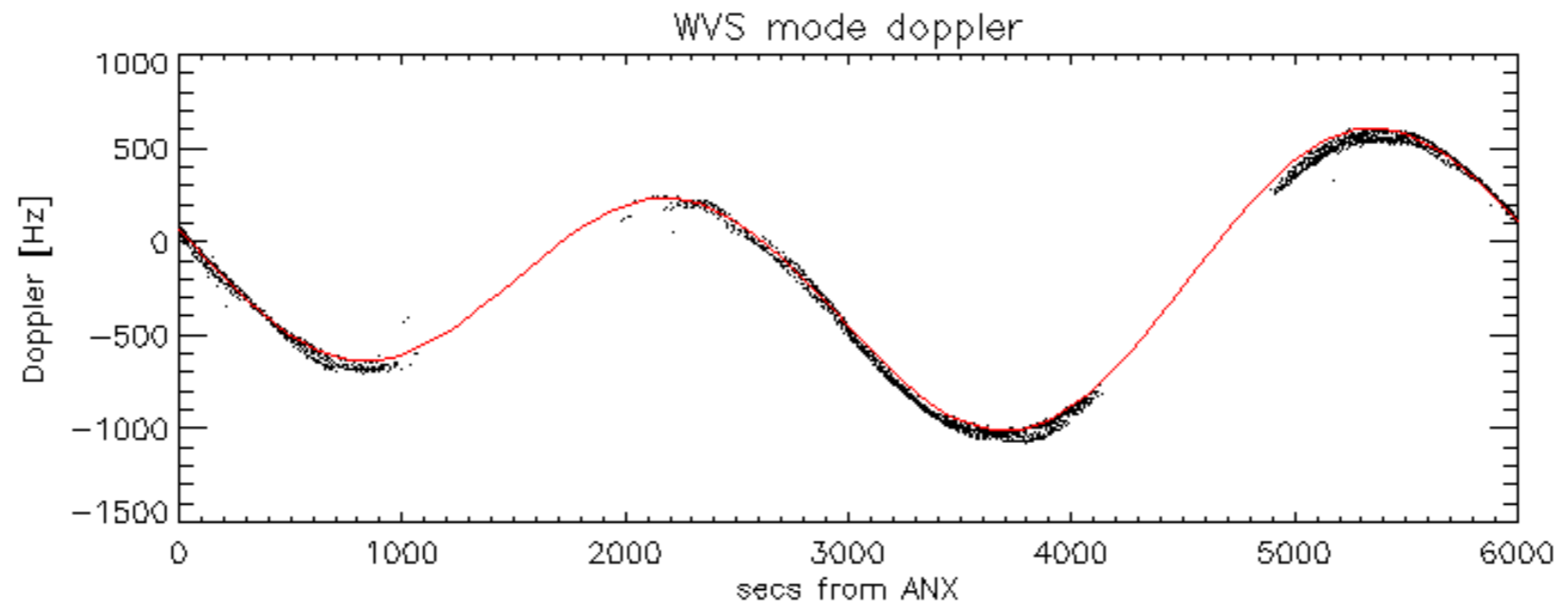


Doppler 'WVS' 'IS2' descending

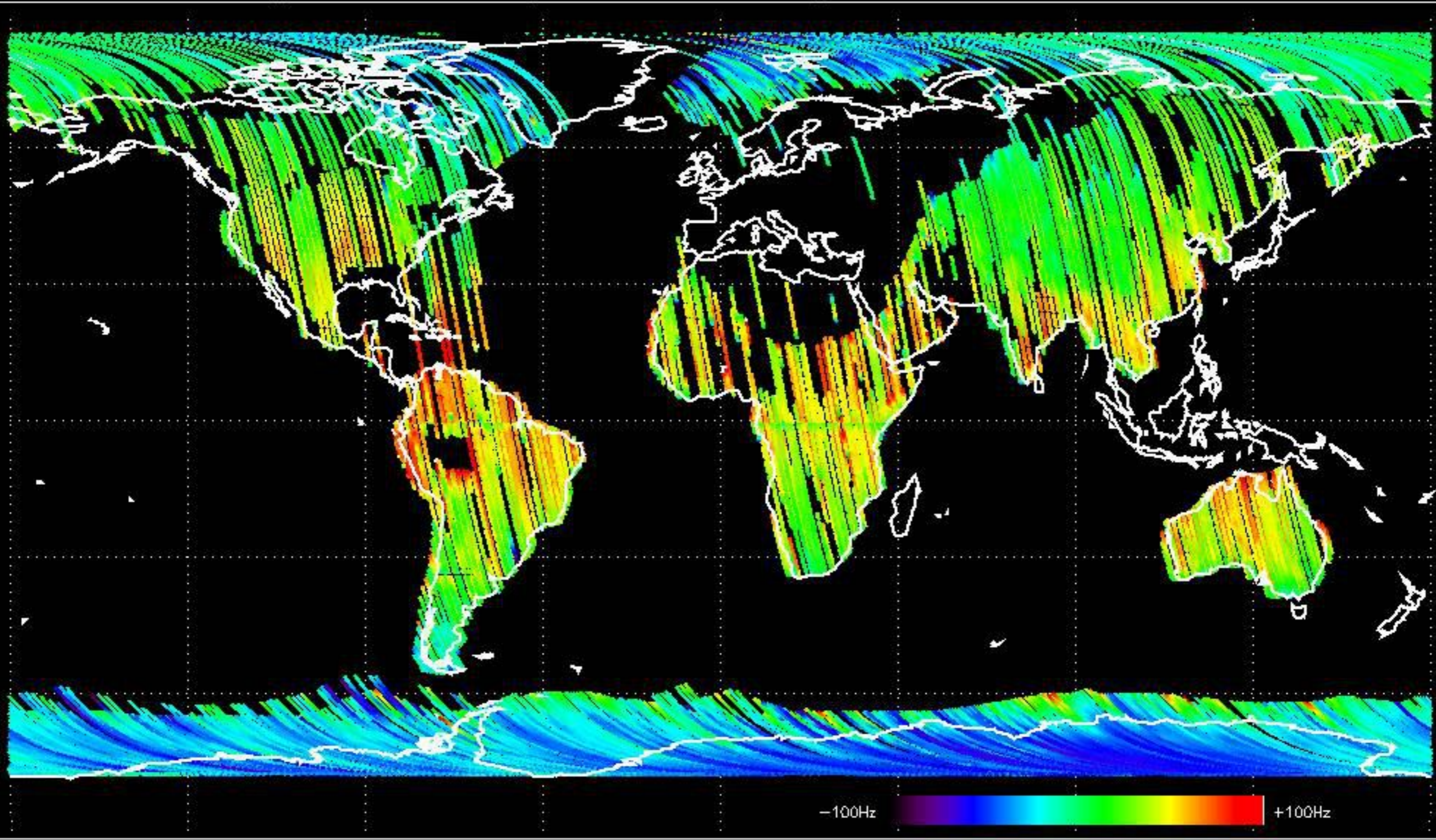


GM1 mode doppler

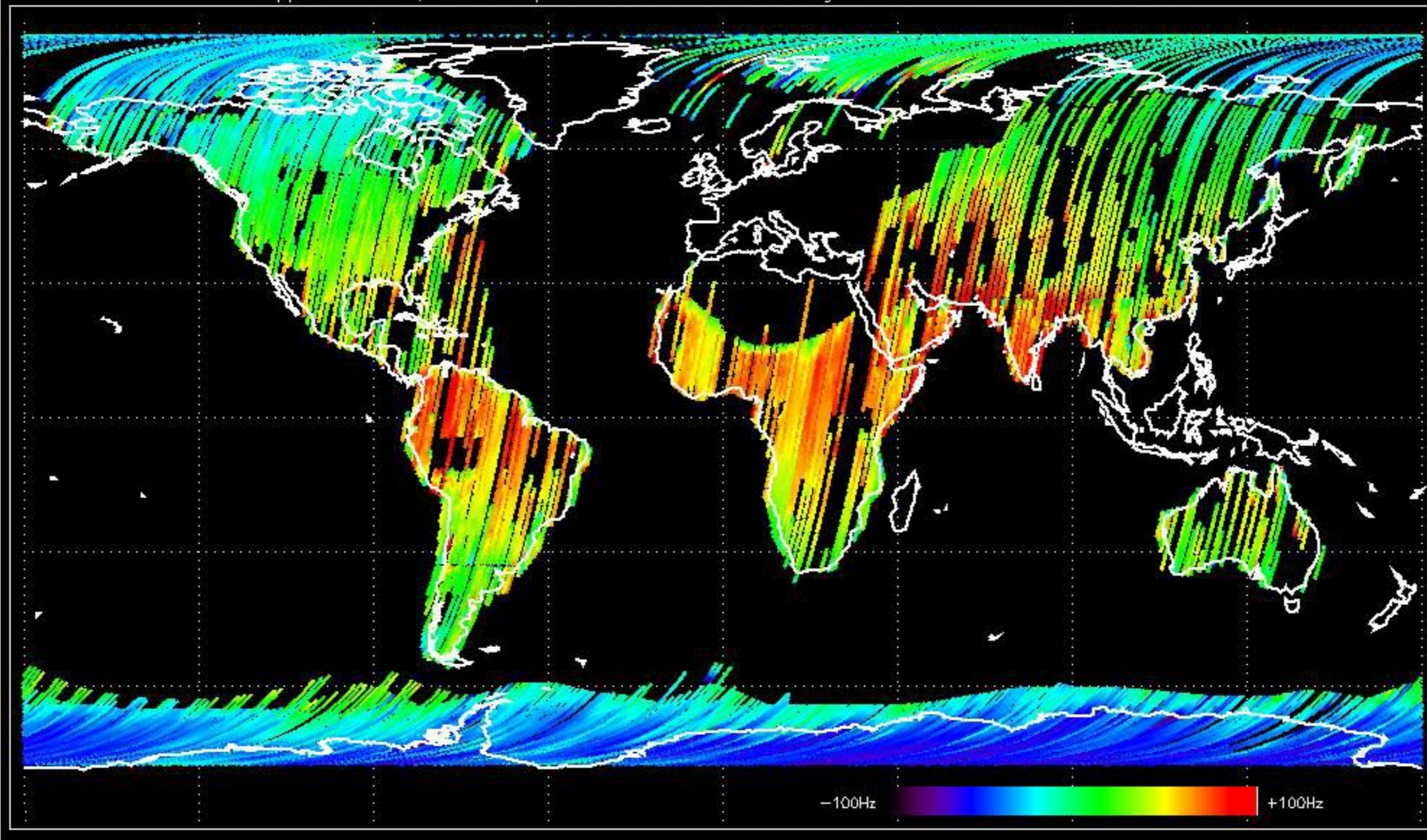




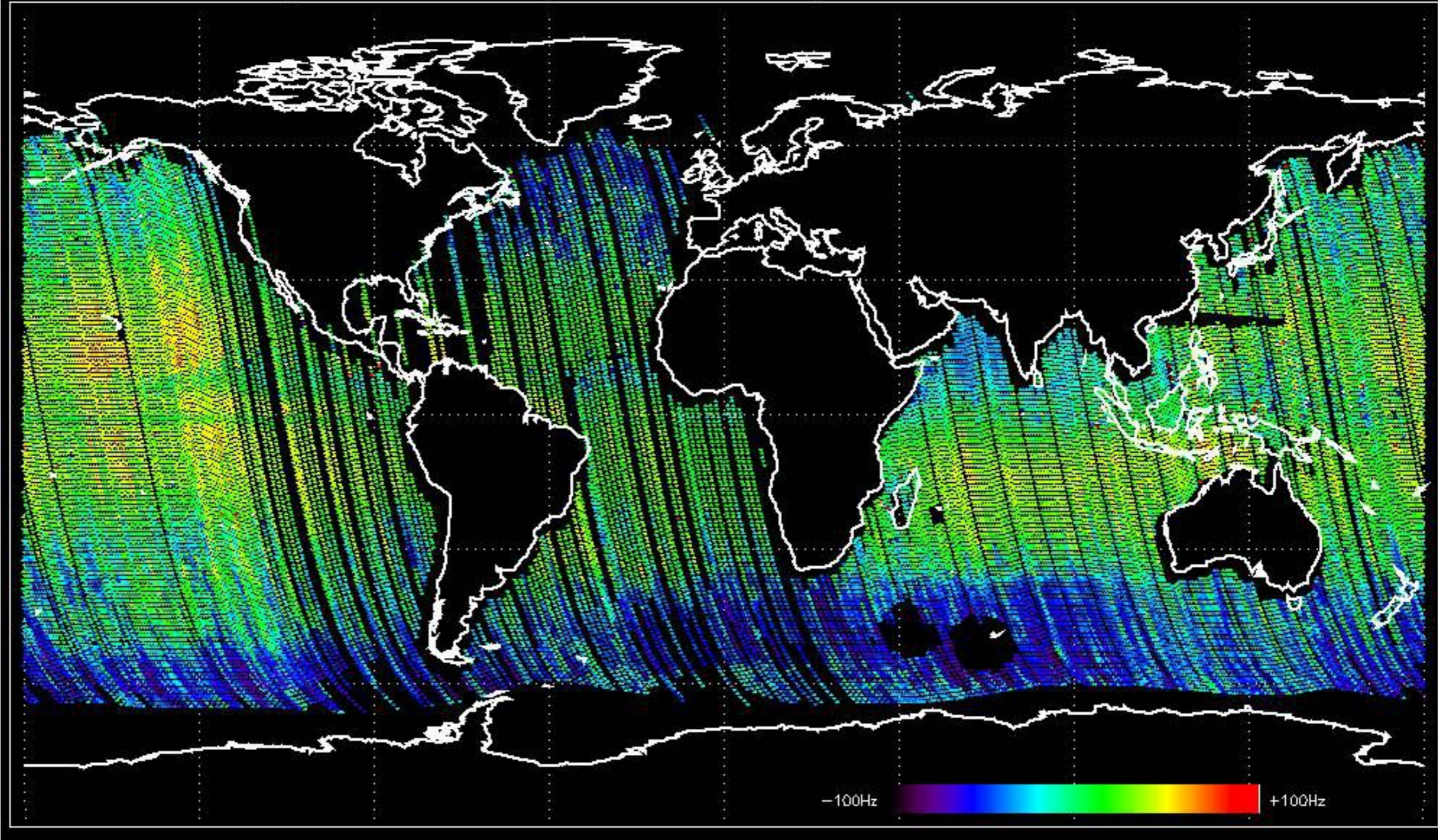
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -36.343270 Hz



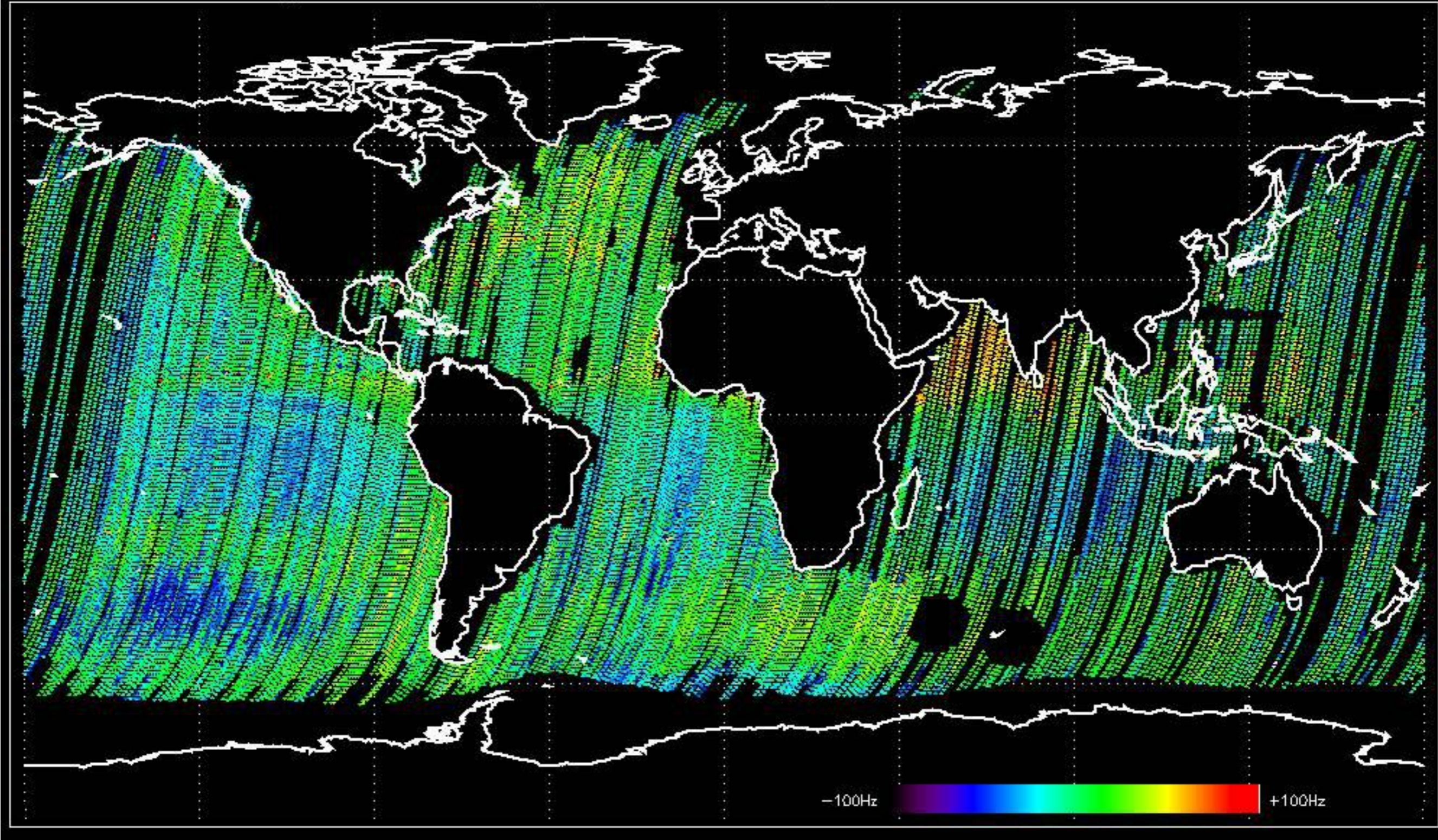
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -25.839632 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.460458 Hz

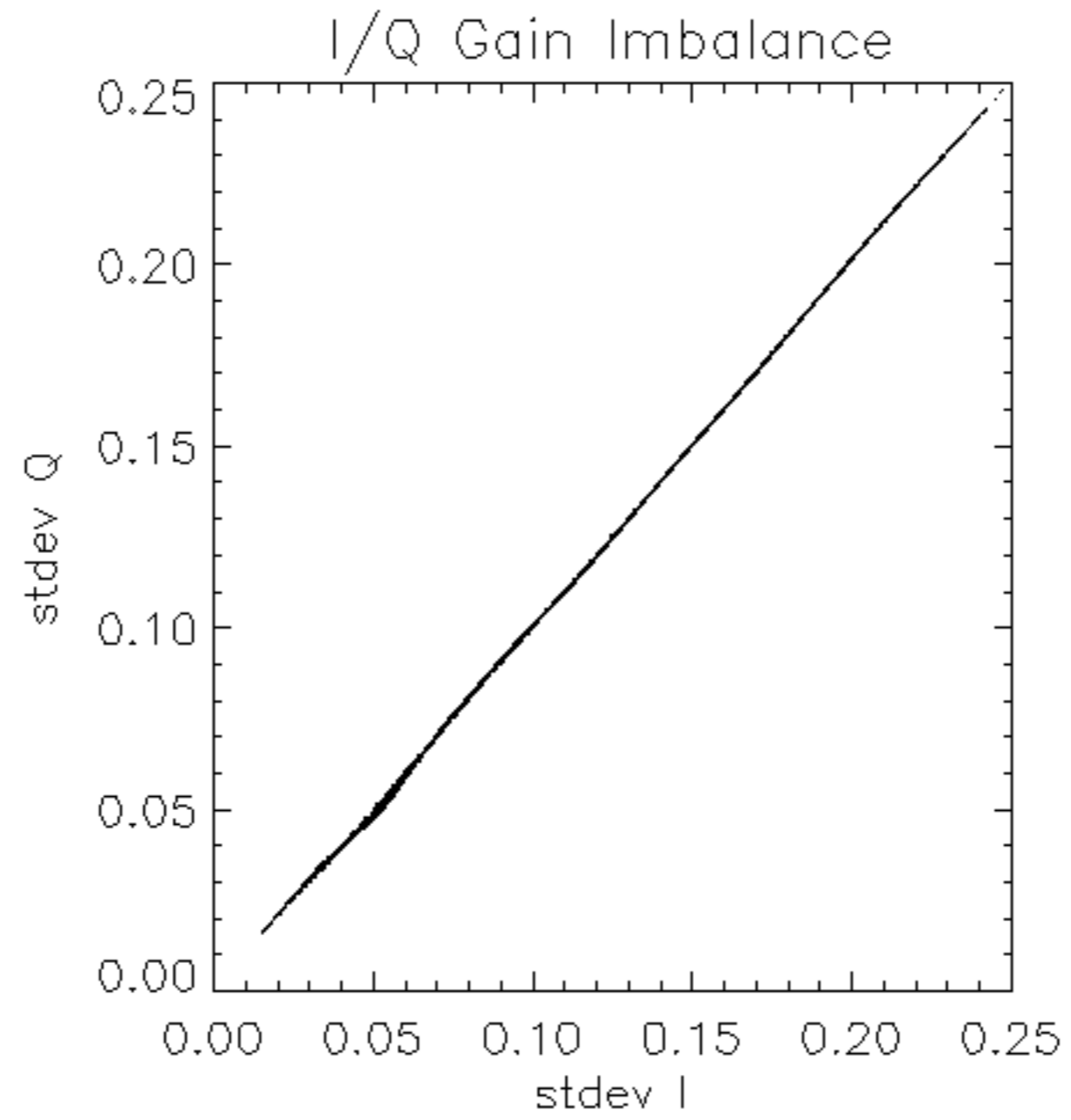


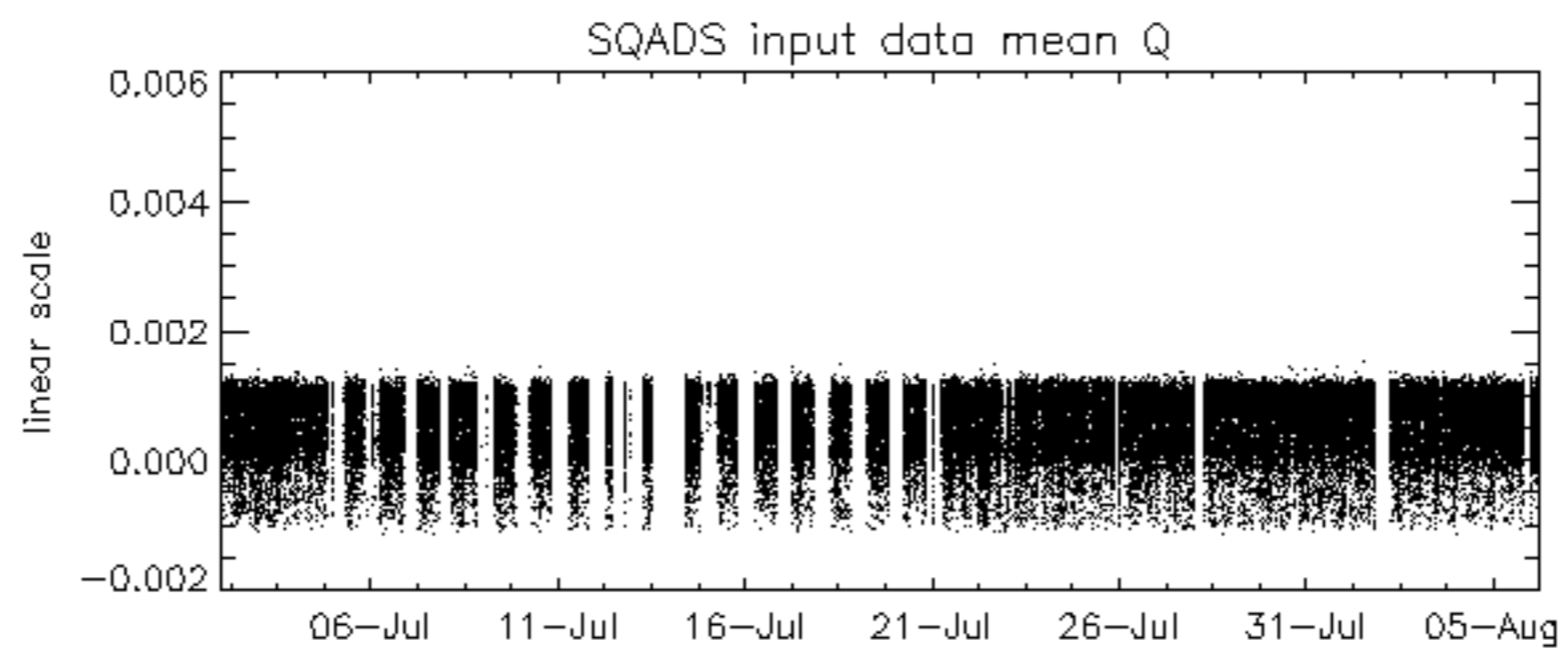
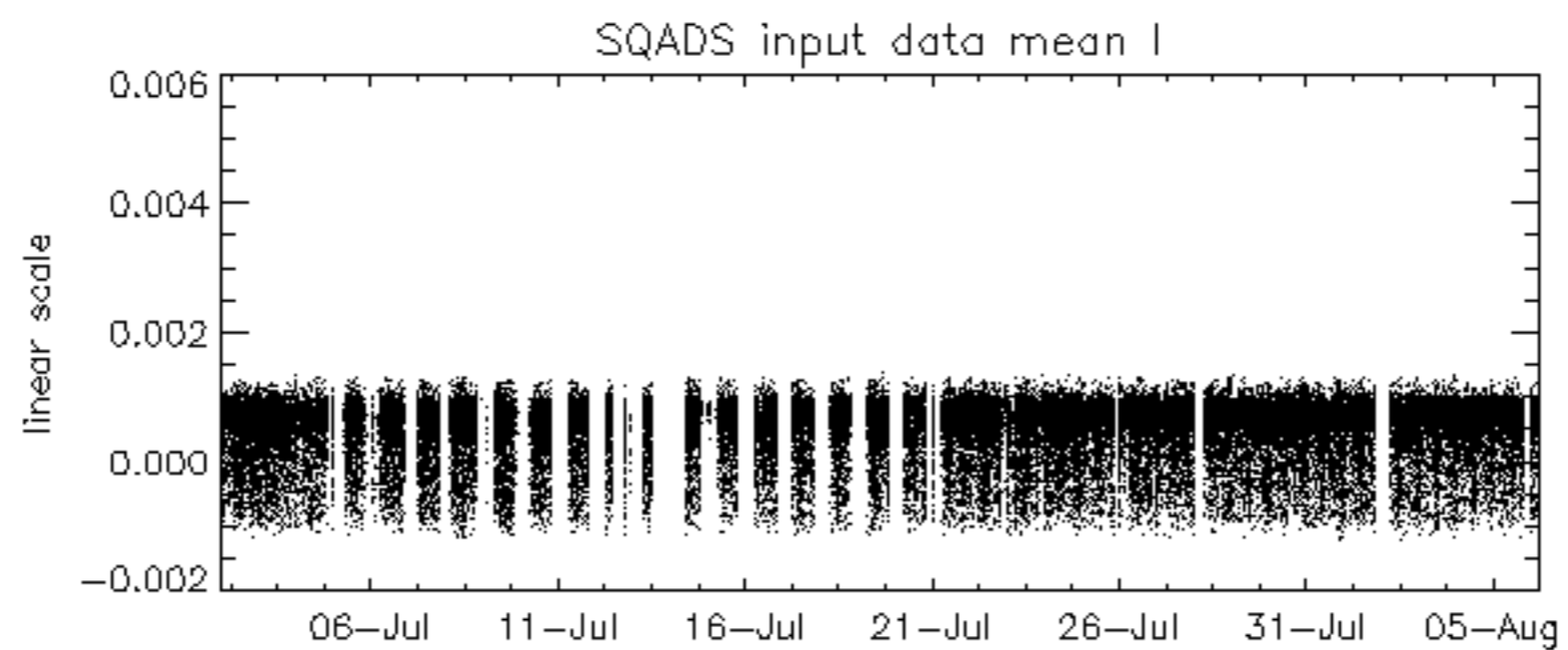
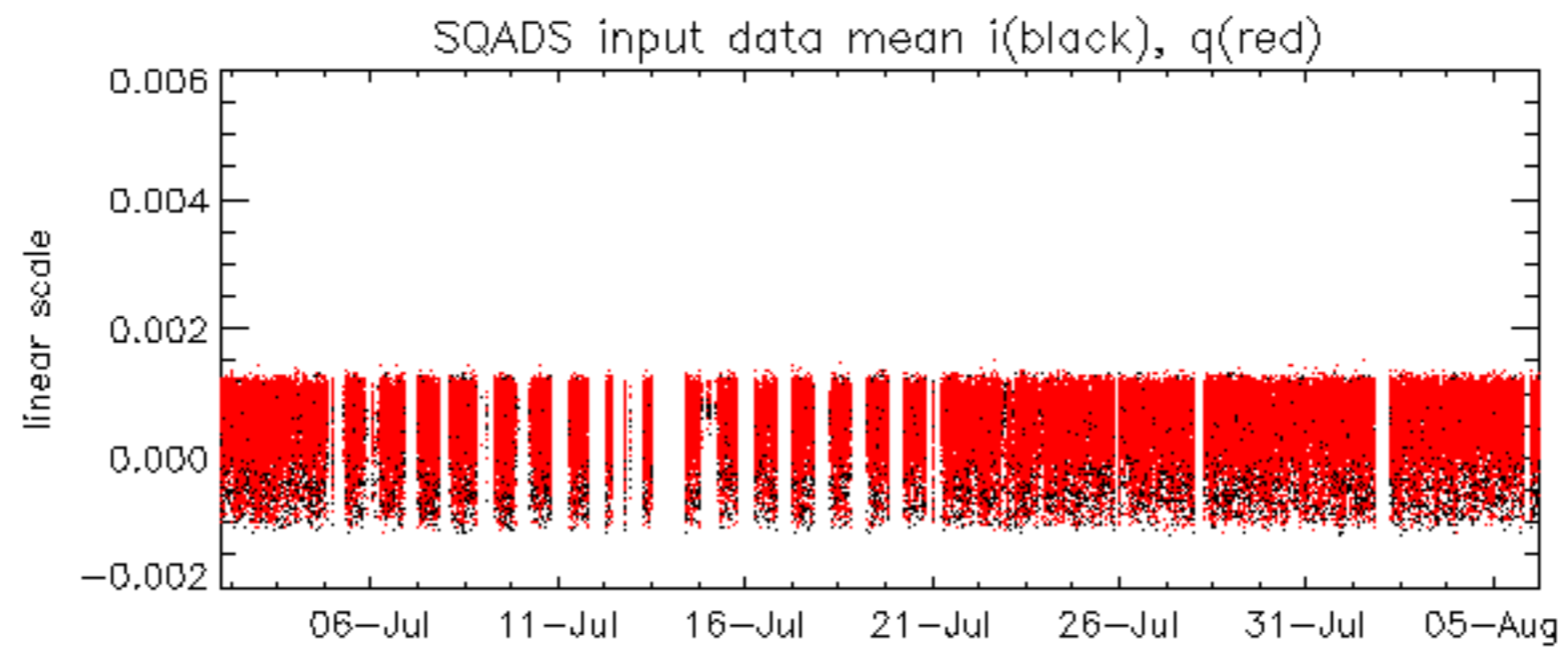
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.863206 Hz

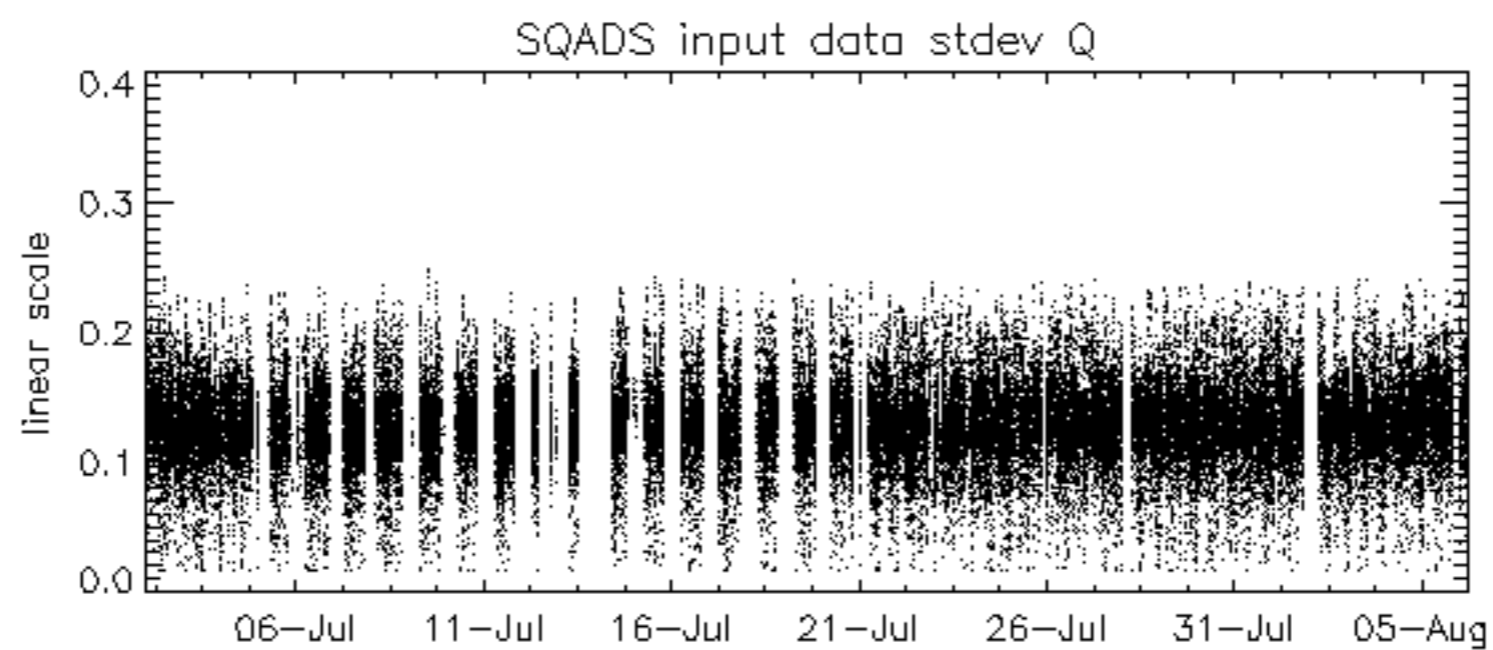
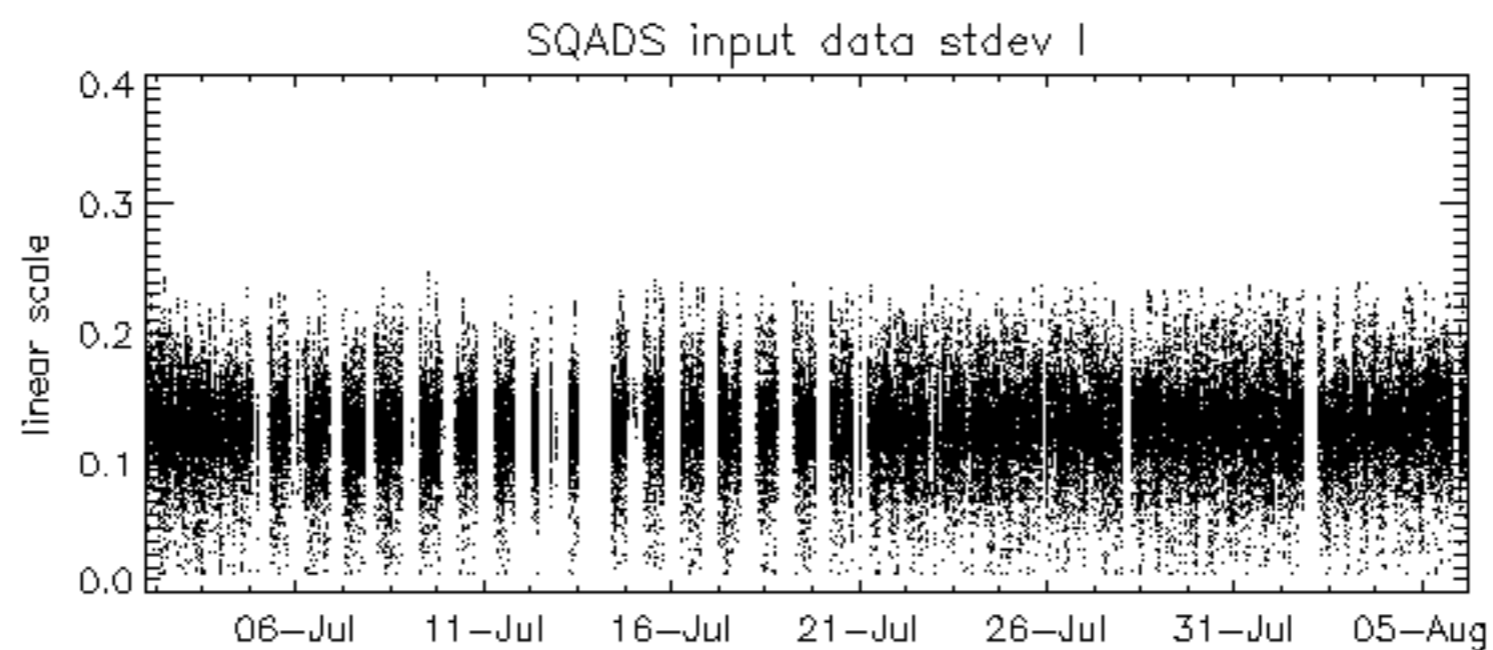
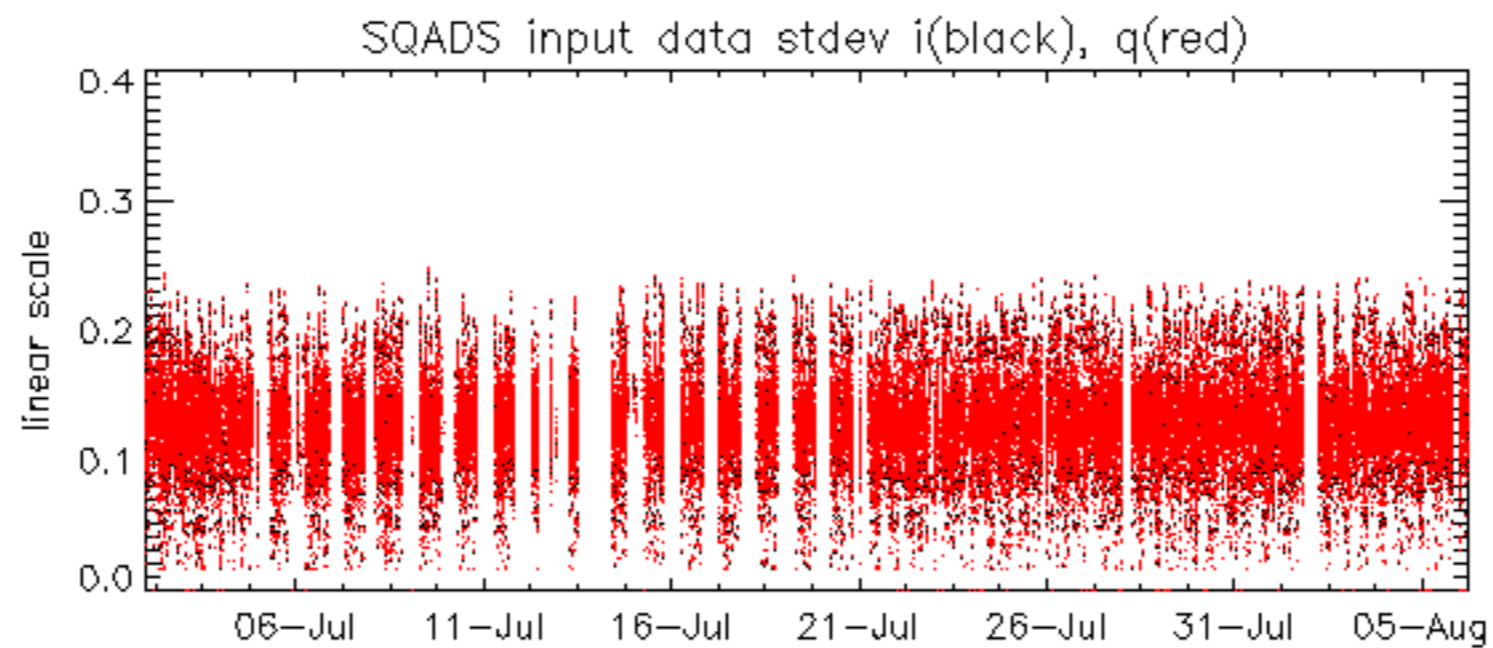


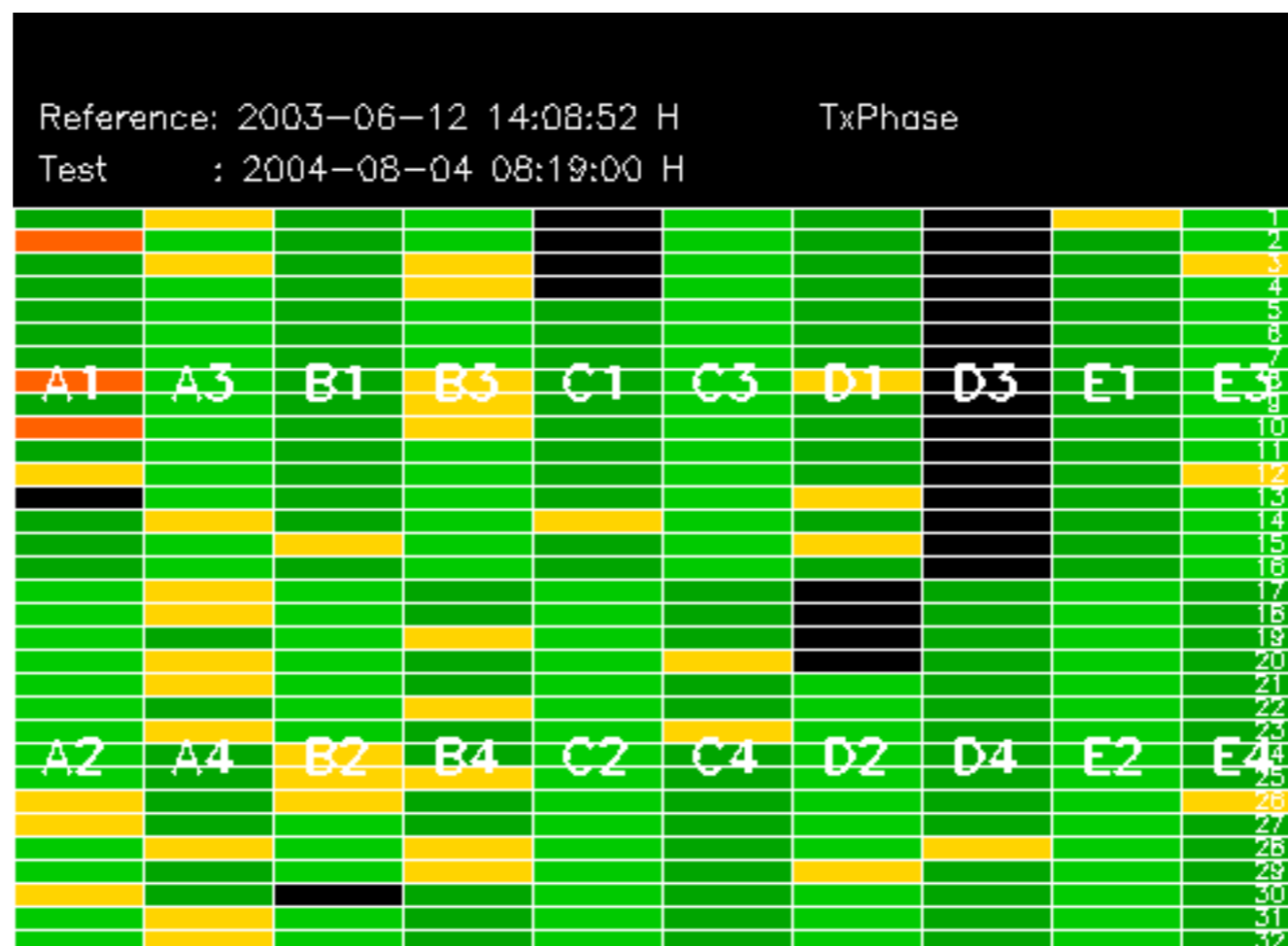
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

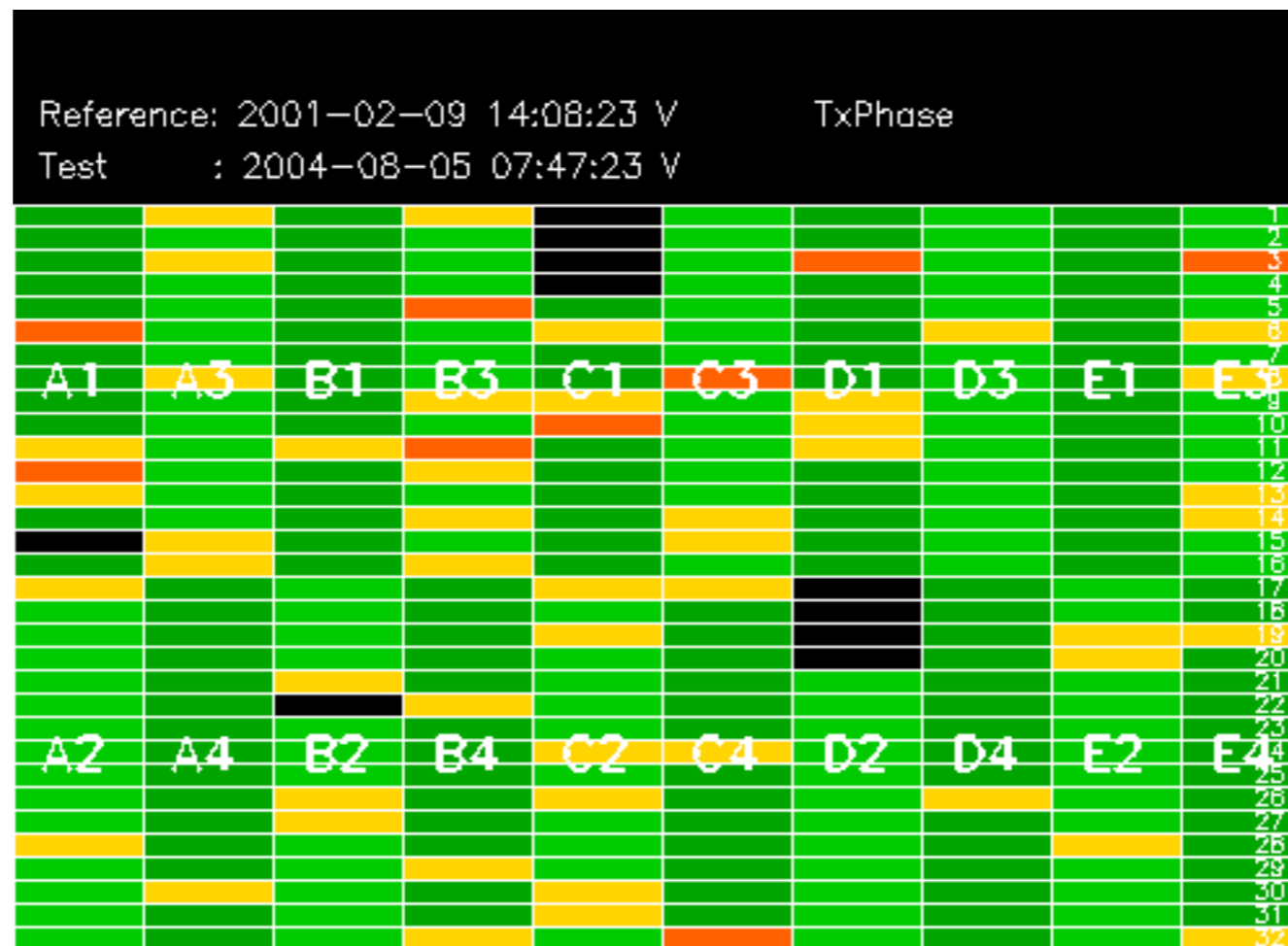
No anomalies observed.

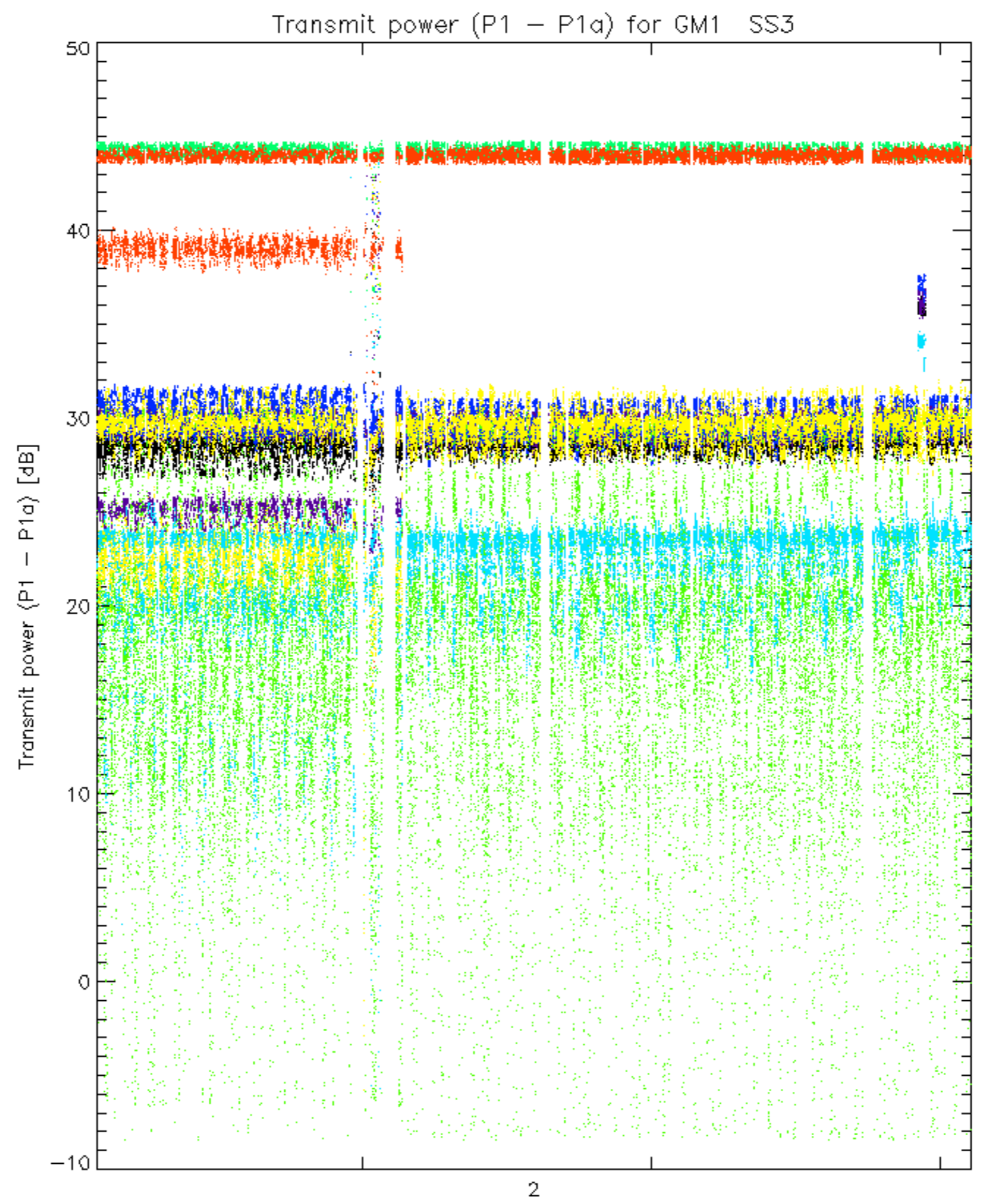


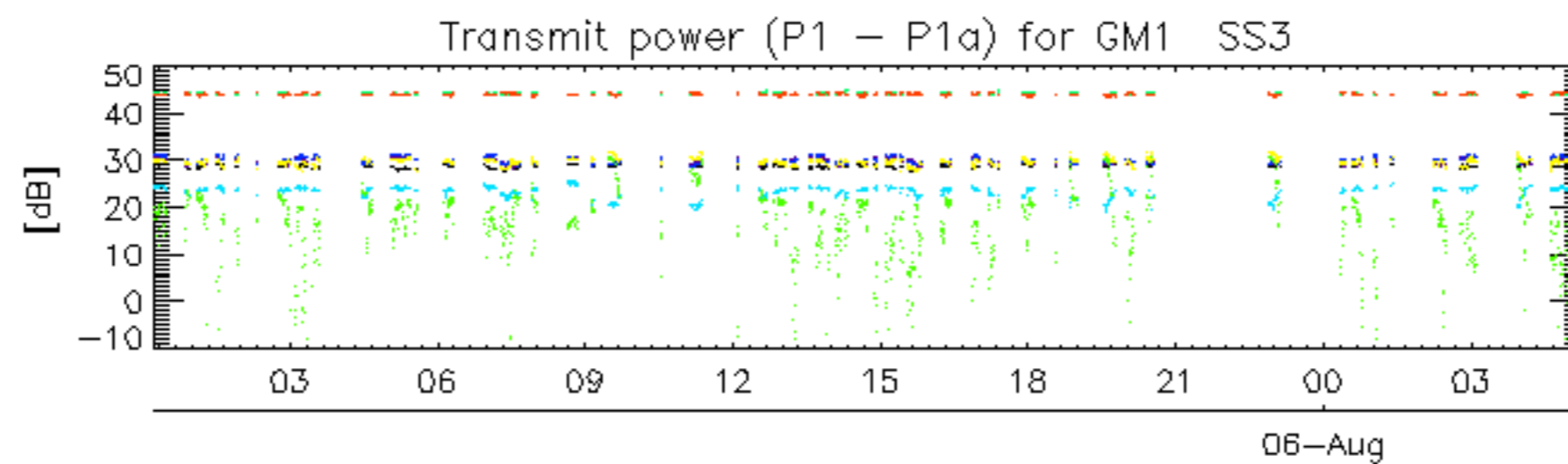




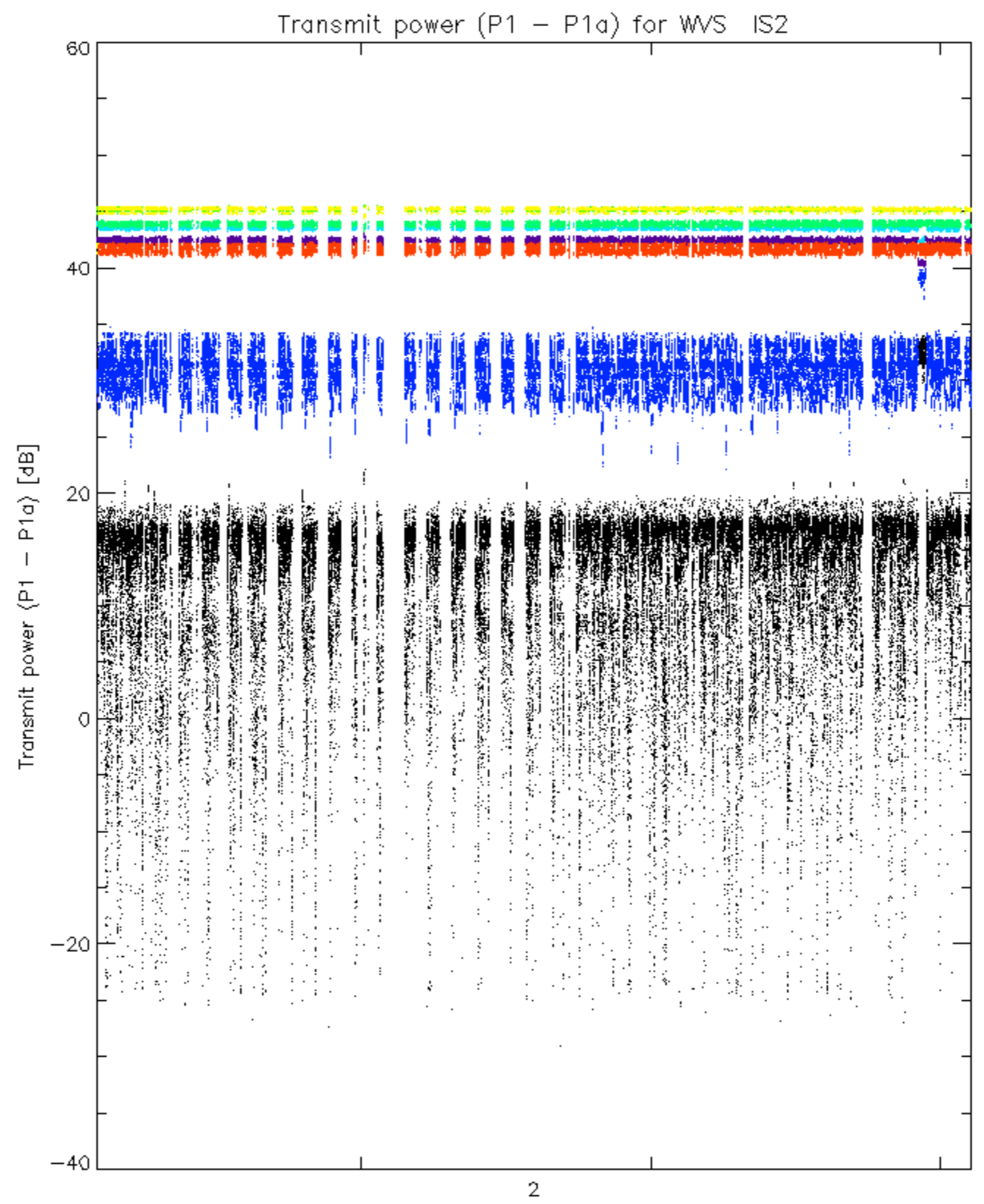


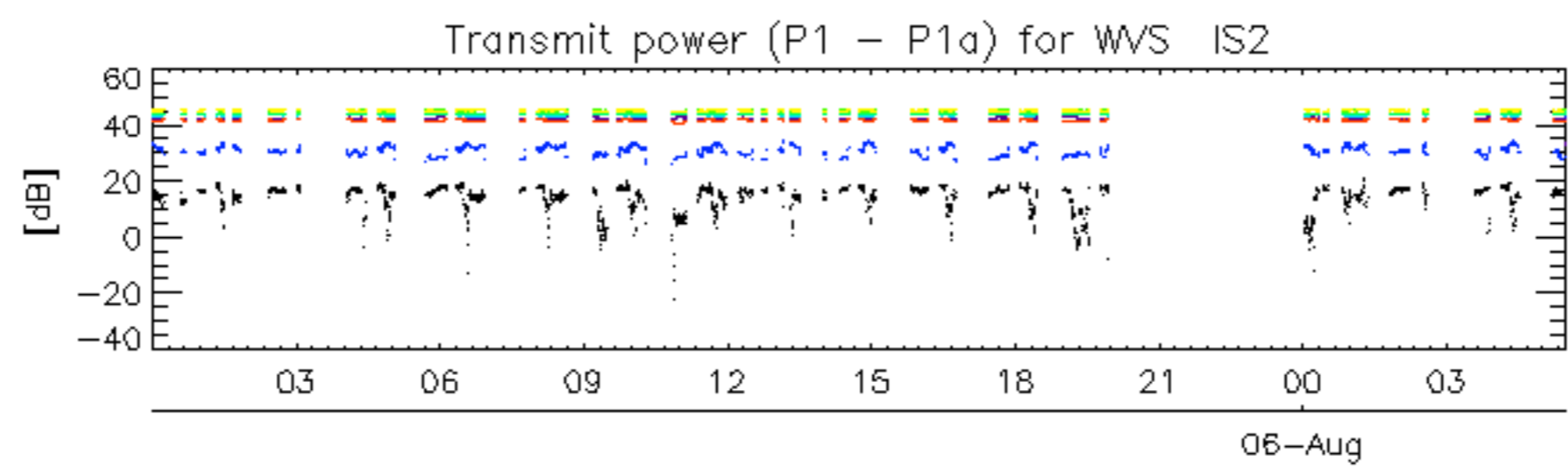






rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30





rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

No unavailabilities during the reported period.