

# PRELIMINARY REPORT OF 040824

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

**last update on Tue Aug 24 13:10:39 GMT 2004**

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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 - Browse Visual Inspection

## 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	20040822 053215
H	20040823 050038

### 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

#### 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	-3.470890	0.050094	0.075160
7	P1	-3.307593	0.055272	0.095102
11	P1	-4.648238	0.109879	-0.015555
15	P1	-5.752256	0.119819	-0.030062
19	P1	-3.459395	0.005807	-0.002678
22	P1	-4.549852	0.011354	0.061198
24	P1	-4.962098	0.020440	0.006621
30	P1	-6.927578	0.023743	-0.079007

3	P1	-15.920353	1.537399	1.092430
7	P1	-14.024742	0.170381	-0.156297
11	P1	-20.118956	0.420399	-0.300533
15	P1	-11.791633	0.163696	-0.023134
19	P1	-13.879290	0.036350	-0.035572
22	P1	-16.236702	0.349530	0.282585
24	P1	-14.561437	0.297593	0.198877
30	P1	-17.758228	0.444532	-0.271573

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.304852	0.081174	0.037360
7	P2	-22.639753	0.137841	0.125058
11	P2	-15.362231	0.174278	0.138517
15	P2	-7.073355	0.096582	0.092461
19	P2	-9.560394	0.201177	0.101084
22	P2	-17.365942	0.117560	0.130051
24	P2	-20.747107	0.087524	0.003615
30	P2	-19.284540	0.080436	0.123113

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.140602	0.002550	0.011556
7	P3	-8.140614	0.002551	0.011629
11	P3	-8.140609	0.002550	0.011575
15	P3	-8.140598	0.002550	0.011522
19	P3	-8.140589	0.002550	0.011473
22	P3	-8.140587	0.002550	0.011433
24	P3	-8.140614	0.002550	0.011551
30	P3	-8.140511	0.002546	0.011049

**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	-2.698287	0.266743	0.404999
7	P1	-2.956404	0.218068	0.296817
11	P1	-3.875833	0.166686	-0.032588
15	P1	-3.531652	0.135698	-0.016999
19	P1	-3.480521	0.014353	0.002399
22	P1	-5.675676	0.041961	-0.094173
24	P1	-3.883388	0.015721	-0.108278
30	P1	-6.177462	0.065756	0.036289
3	P1	-10.345528	1.043362	0.755969
7	P1	-10.068510	0.162288	0.169669
11	P1	-12.104582	0.117433	-0.200430
15	P1	-11.635987	0.108423	-0.138637
19	P1	-15.625796	0.050574	0.018828
22	P1	-23.363667	1.198125	-0.069253
24	P1	-17.824169	0.228318	-0.343499
30	P1	-20.375534	1.206314	-0.236914

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.979078	0.059399	0.027886
7	P2	-22.773947	0.052154	0.111229
11	P2	-11.018454	0.072991	0.153873
15	P2	-4.952717	0.039474	0.023405
19	P2	-6.765853	0.058058	0.057678
22	P2	-7.454369	0.048439	0.053689
24	P2	-11.040115	0.053738	0.005485
30	P2	-22.225384	0.044479	0.118760

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-7.987848	0.003777	-0.002491
7	P3	-7.987817	0.003786	-0.002195
11	P3	-7.987954	0.003777	-0.002676
15	P3	-7.987832	0.003781	-0.002615
19	P3	-7.987900	0.003785	-0.002398
22	P3	-7.987801	0.003778	-0.002249
24	P3	-7.987845	0.003790	-0.002538
30	P3	-7.987842	0.003780	-0.002546

### 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	0.000491062
	stdev	2.14807e-07
MEAN Q	mean	0.000540426
	stdev	2.42002e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129157
	stdev	0.00100346

STDEV Q	mean	0.129396
	stdev	0.00101510



### 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)

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

### 6.2 - Absolute Doppler for WVS

#### Evolution of Absolute Doppler

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

### 6.3 - Doppler evolution versus ANX for WVS

#### Evolution Doppler error versus ANX

<input type="checkbox"/>	
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### 6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)	
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	Ascending
<input type="checkbox"/>	
	Descending

### 6.5 - Absolute Doppler for GM1

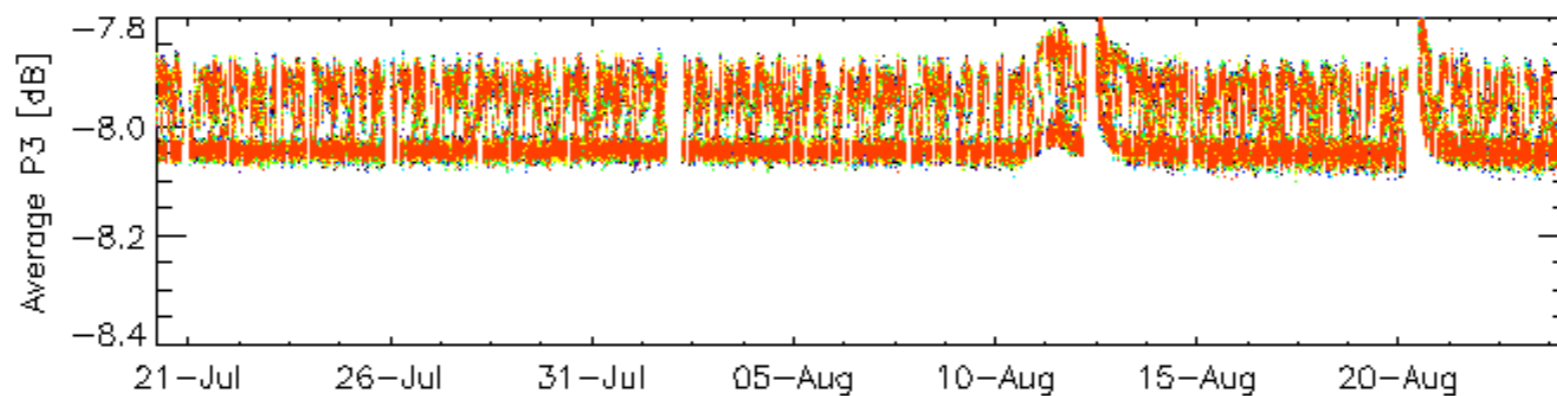
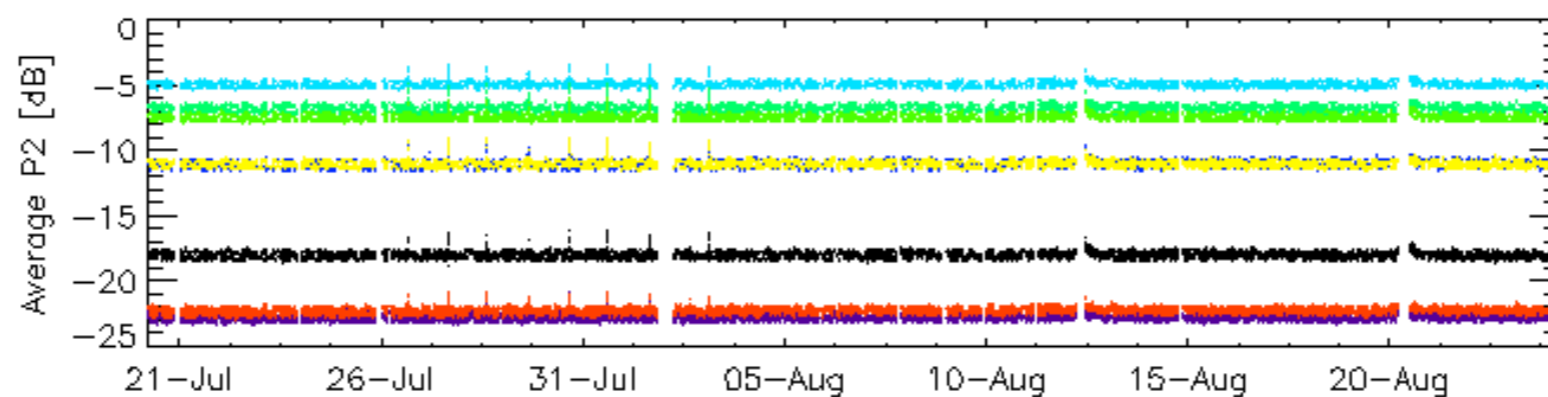
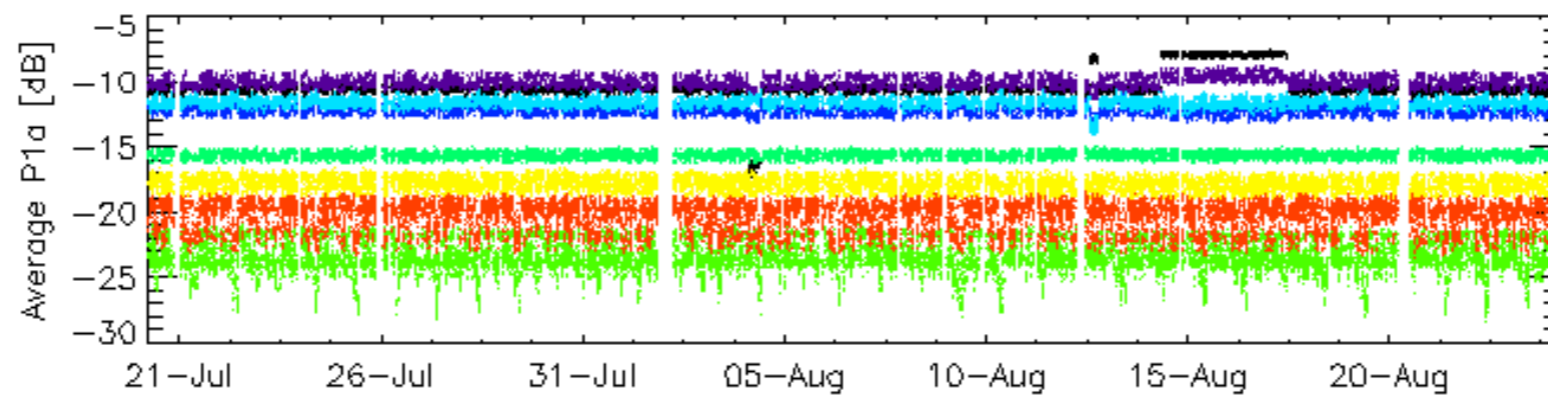
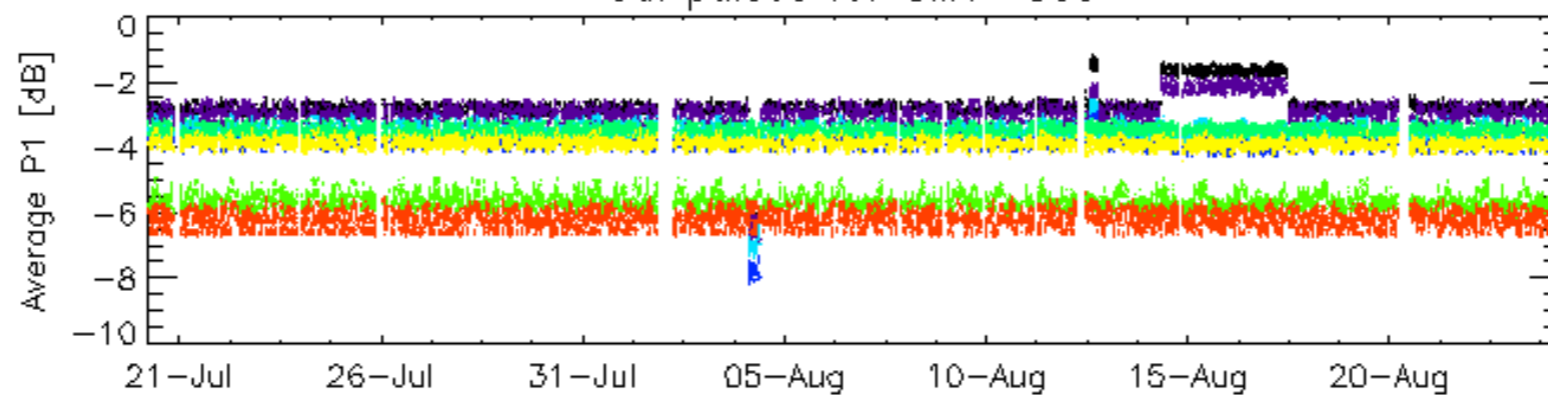
Evolution of Absolute Doppler	
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	Ascending
<input type="checkbox"/>	
	Descending

### 6.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX	
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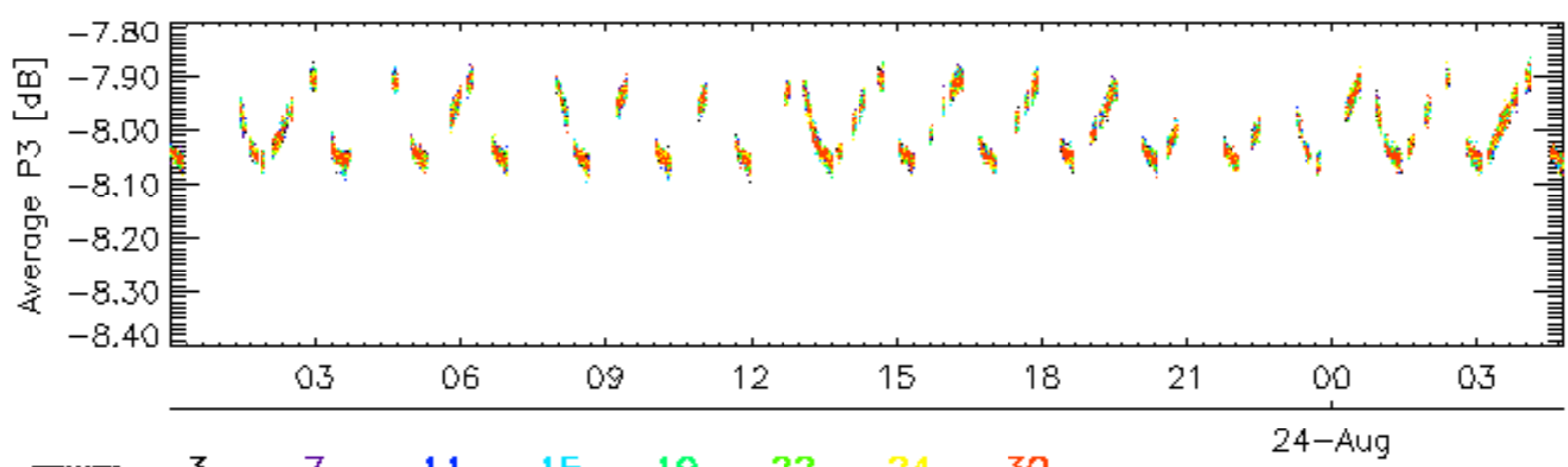
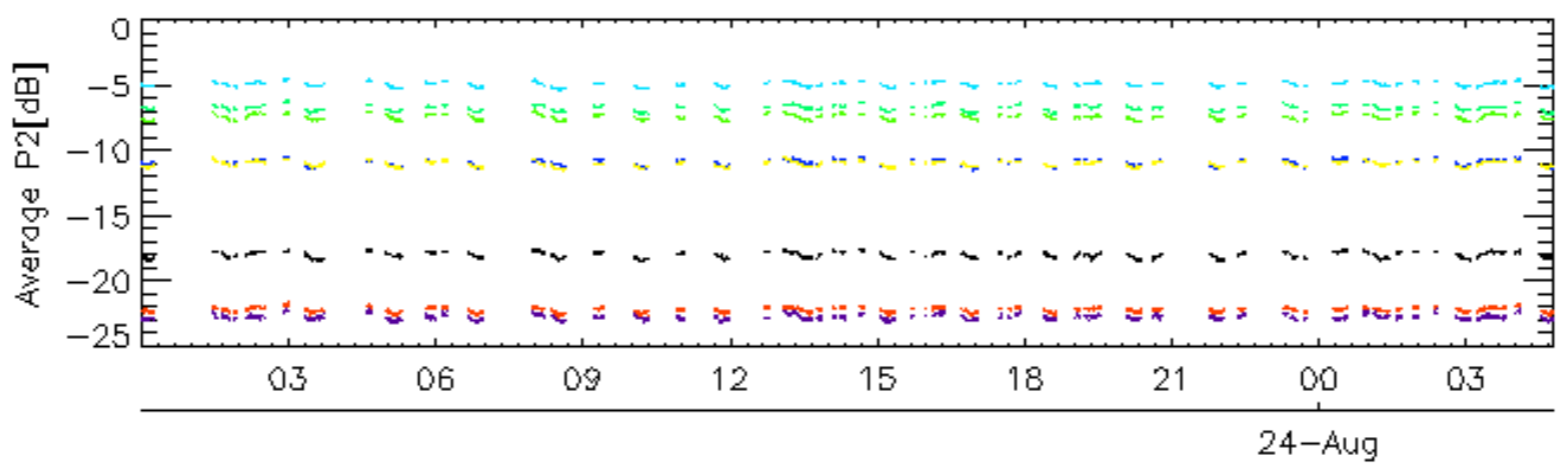
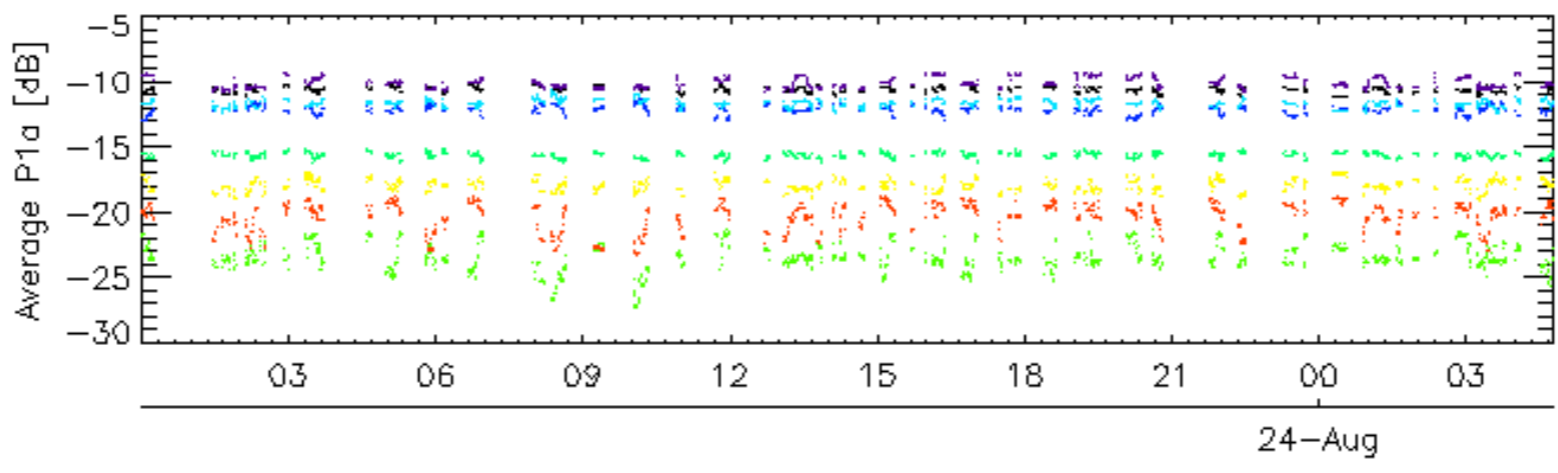
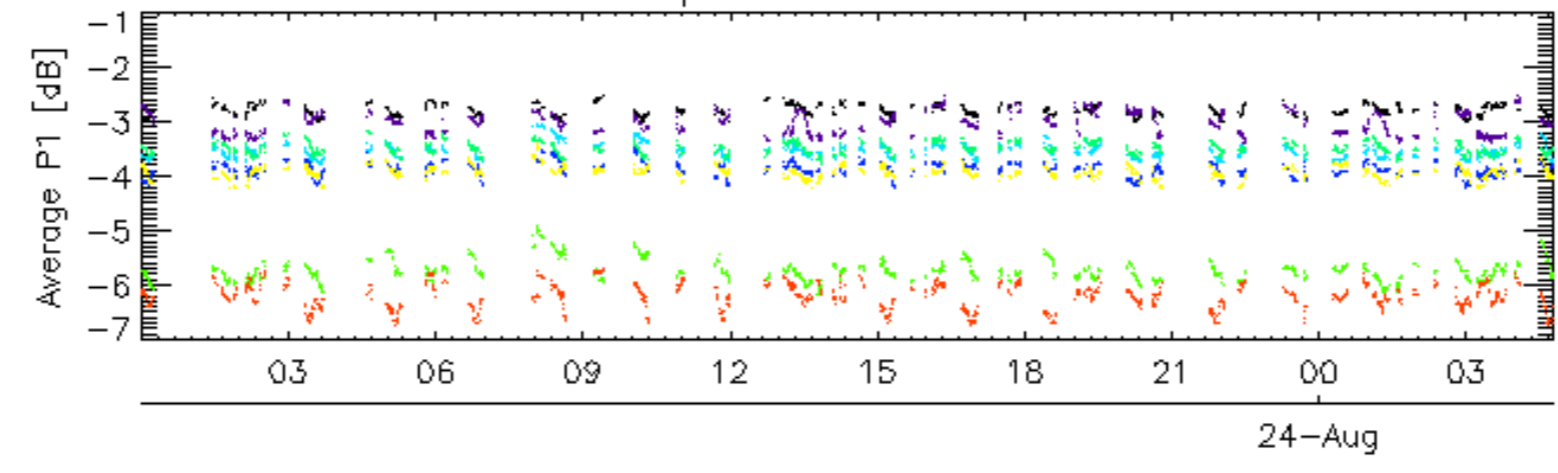


Cal pulses for GM1 SS3



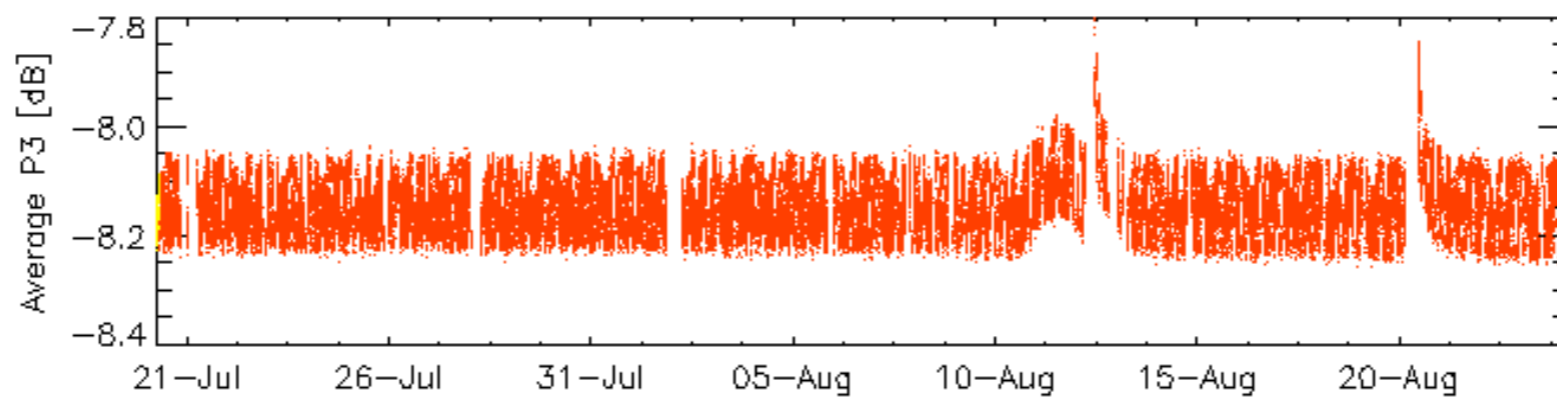
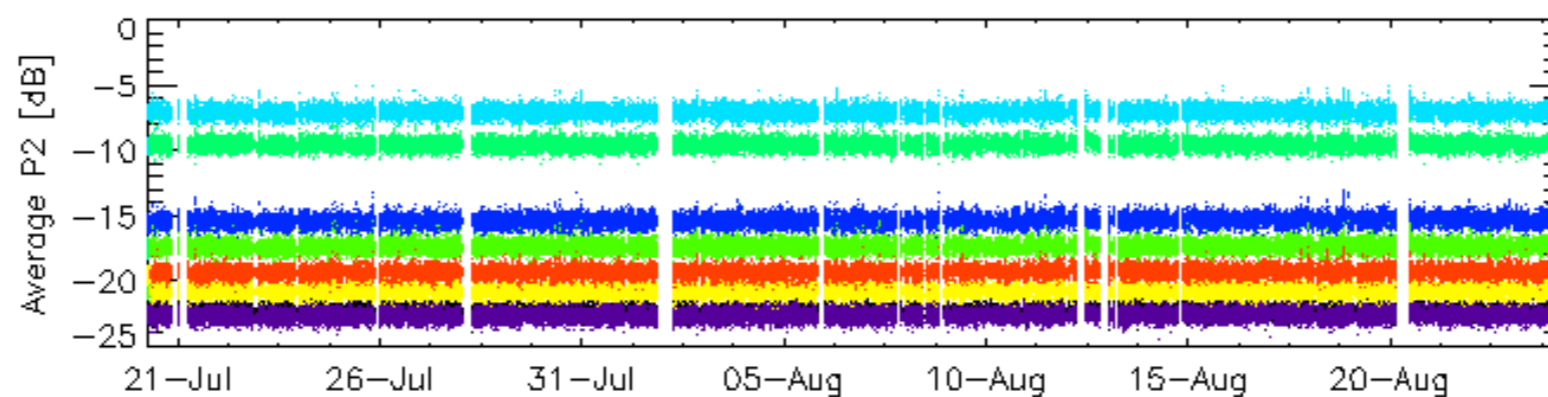
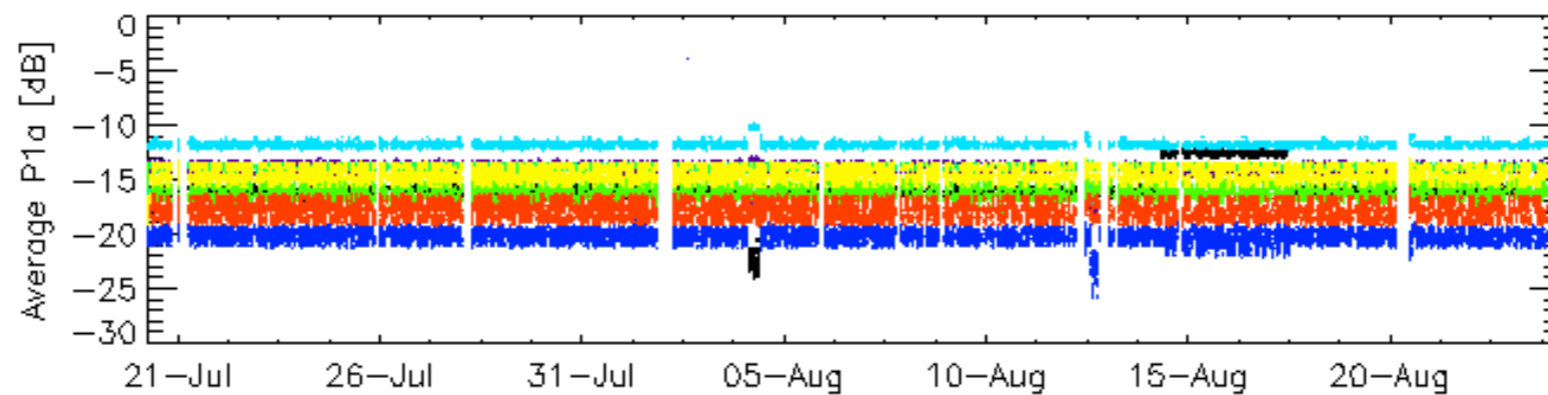
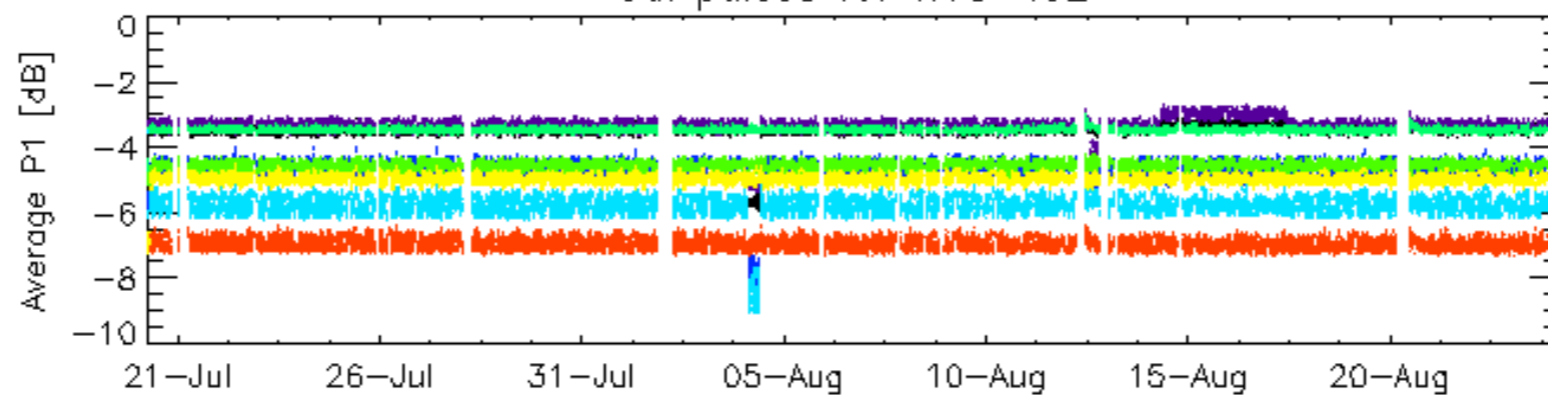
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### Cal pulses for GM1 SS3



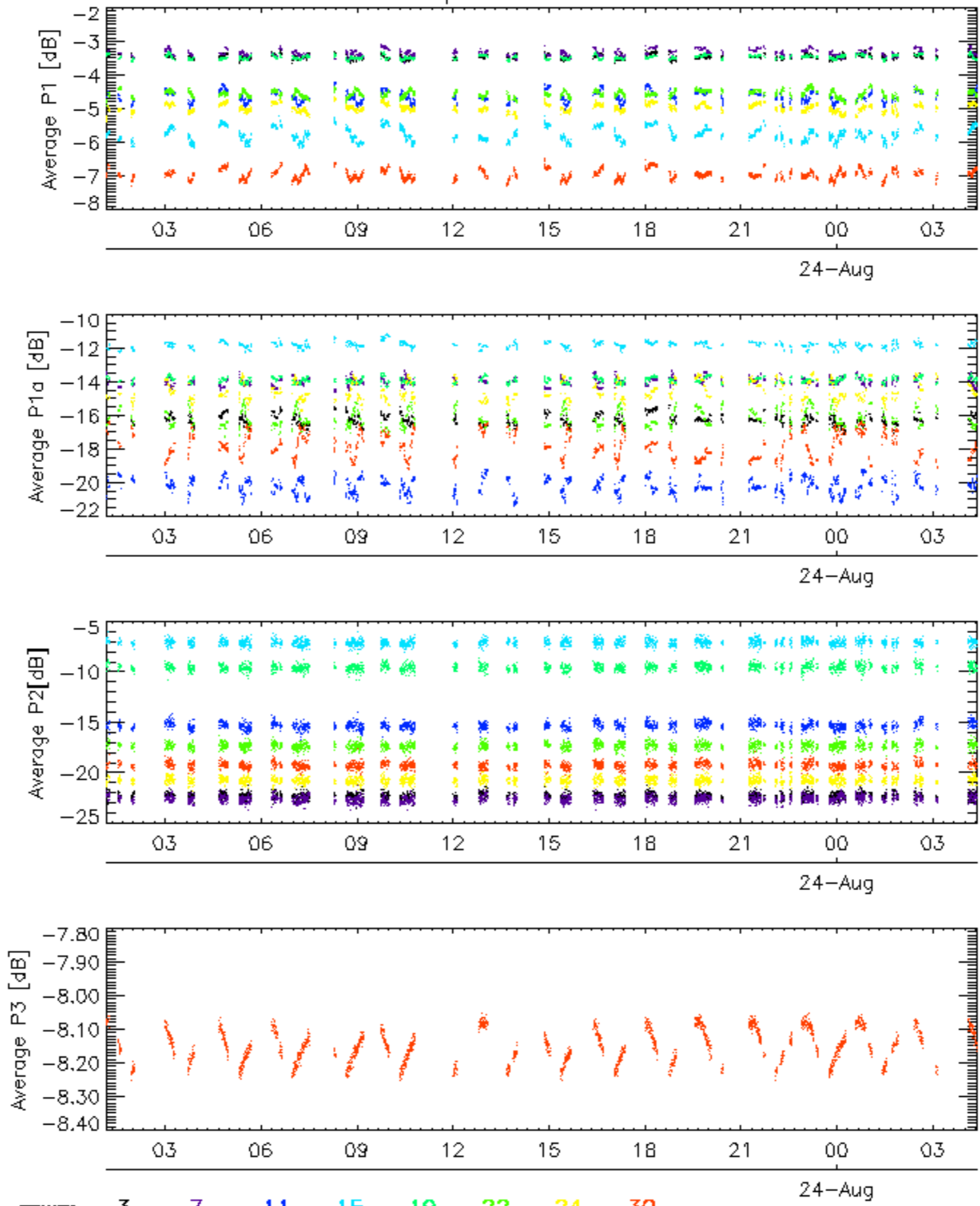
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Cal pulses for WVS IS2



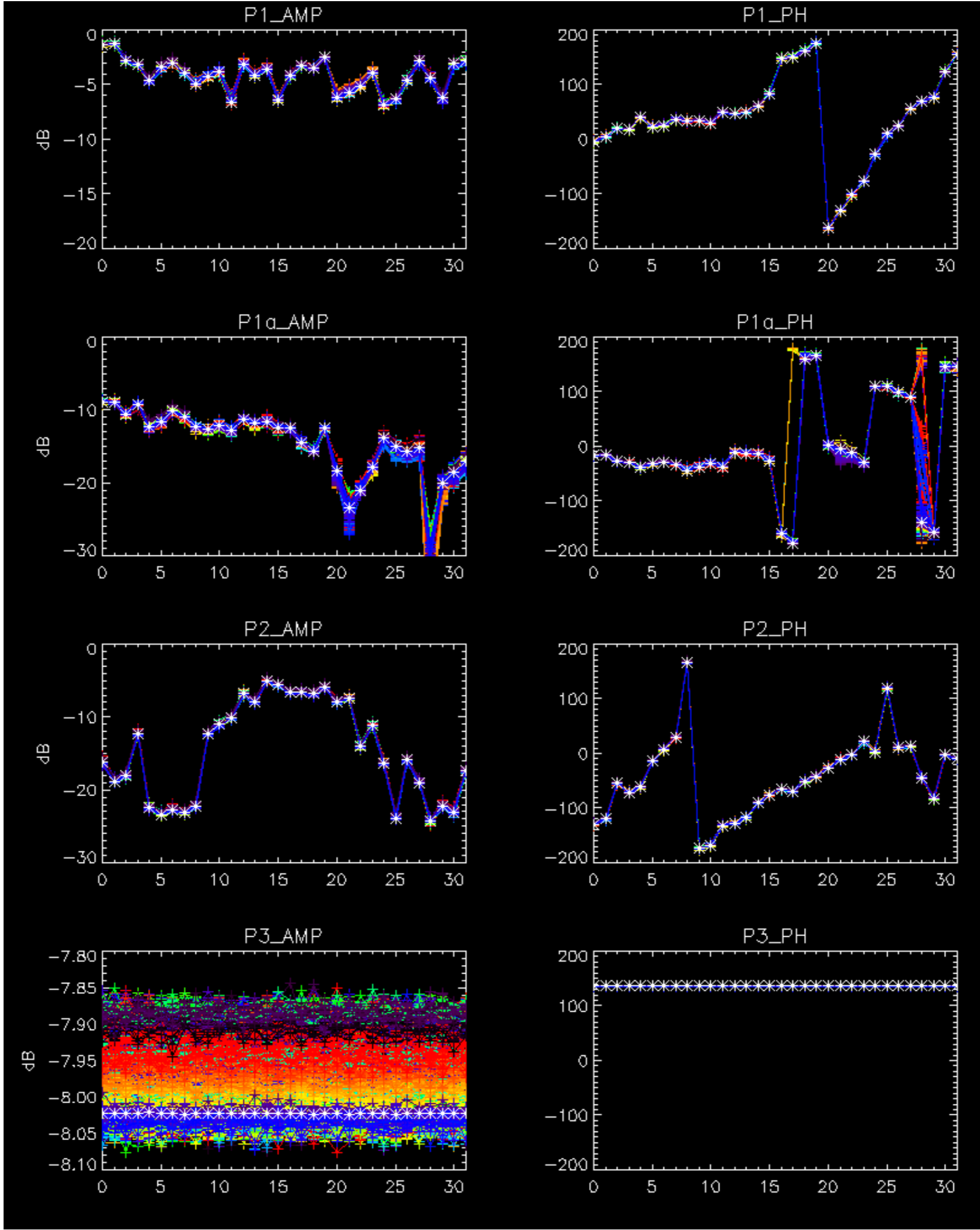
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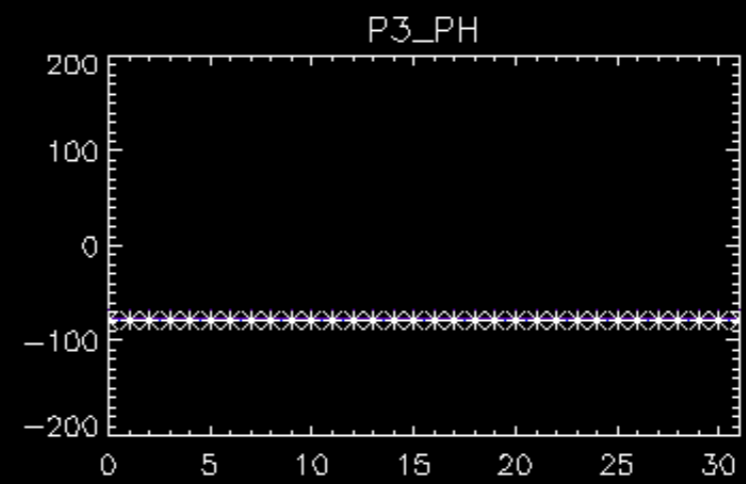
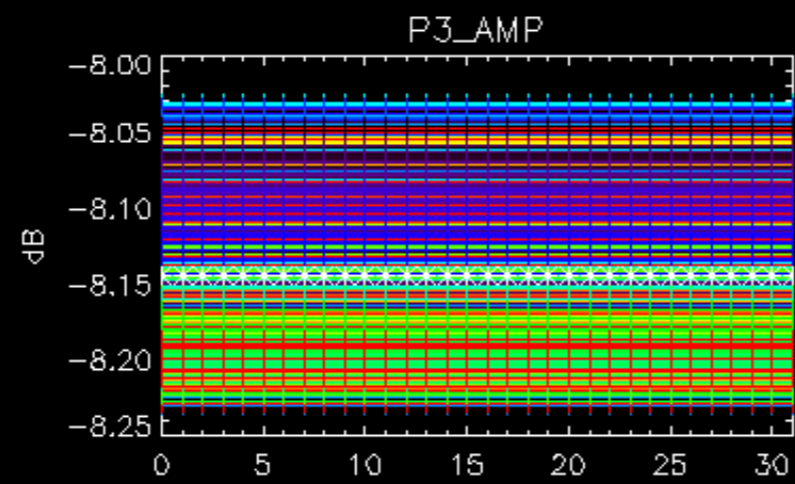
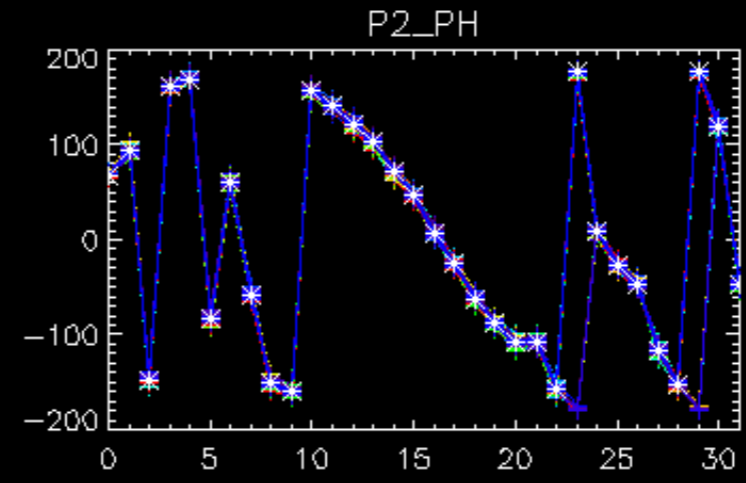
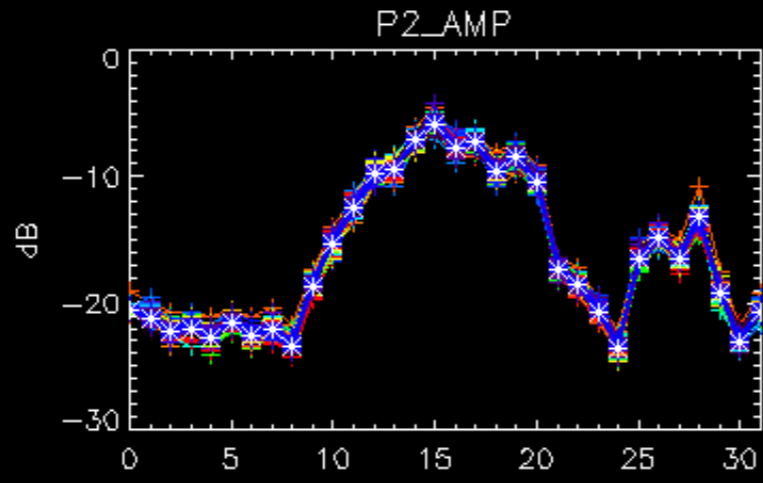
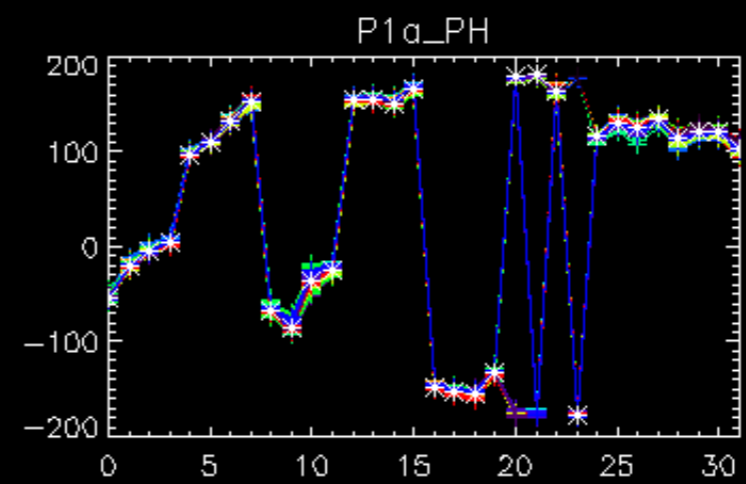
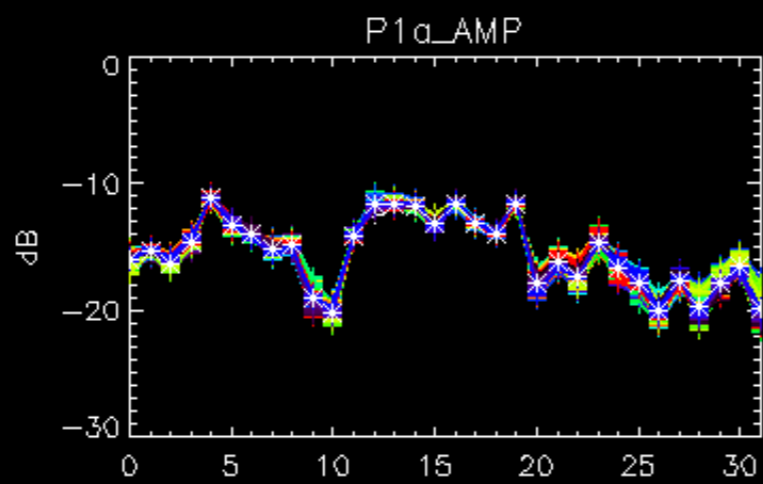
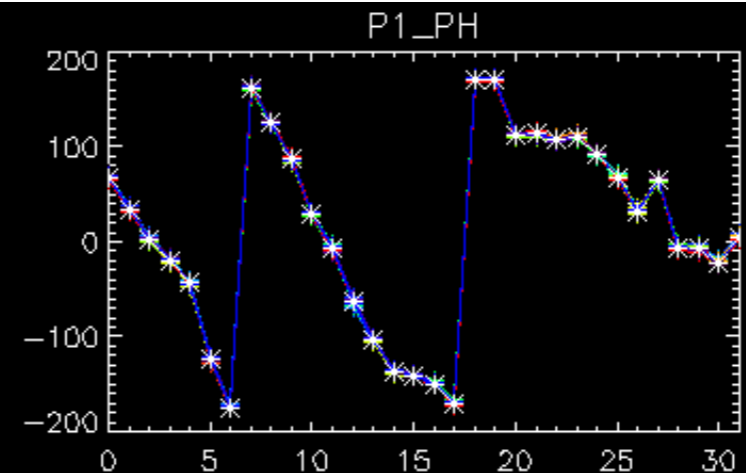
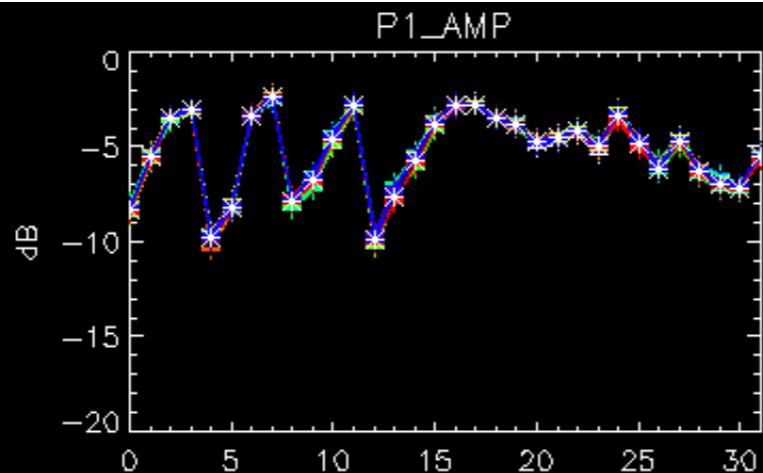
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 24 30

No anomalies observed.



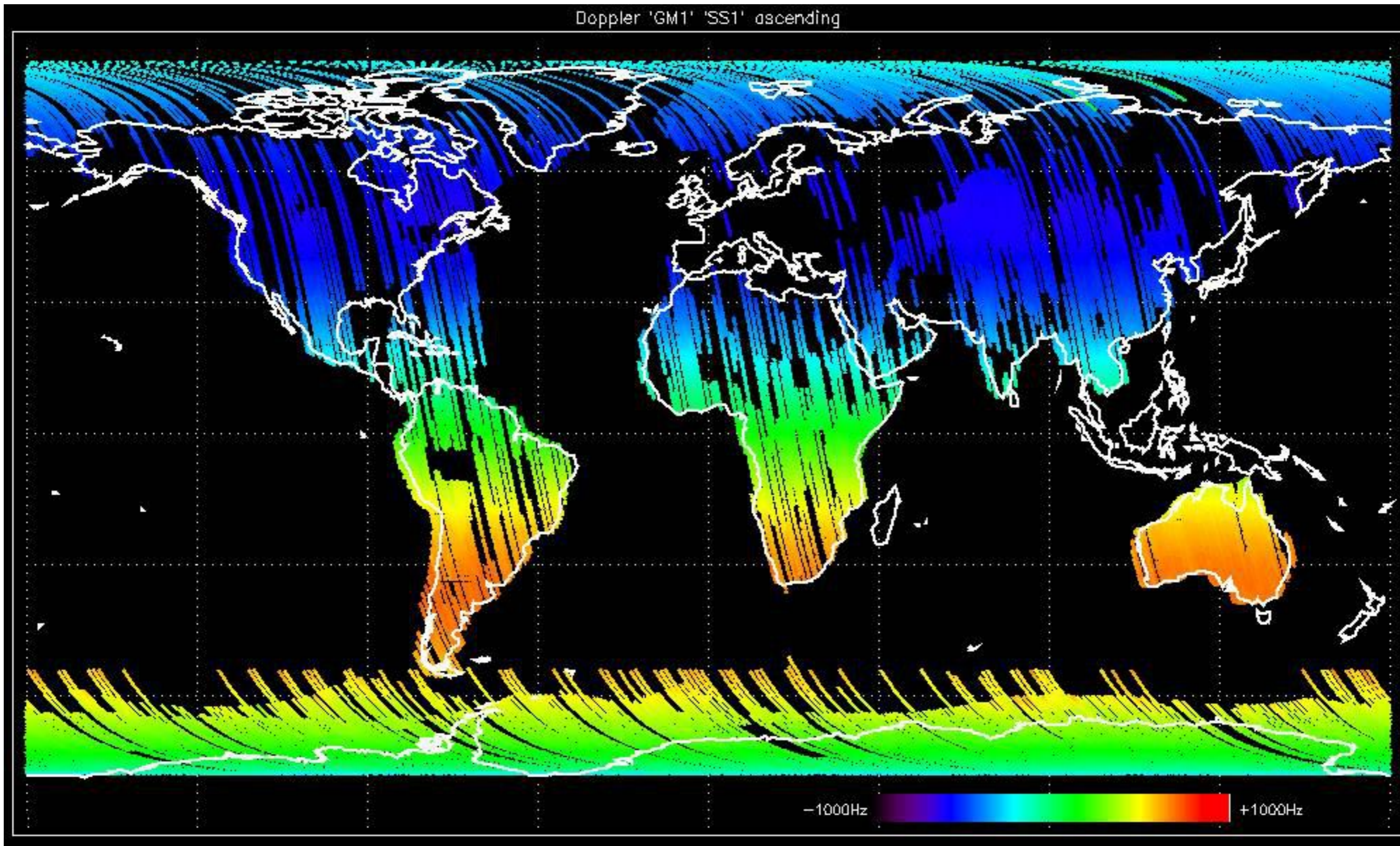


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

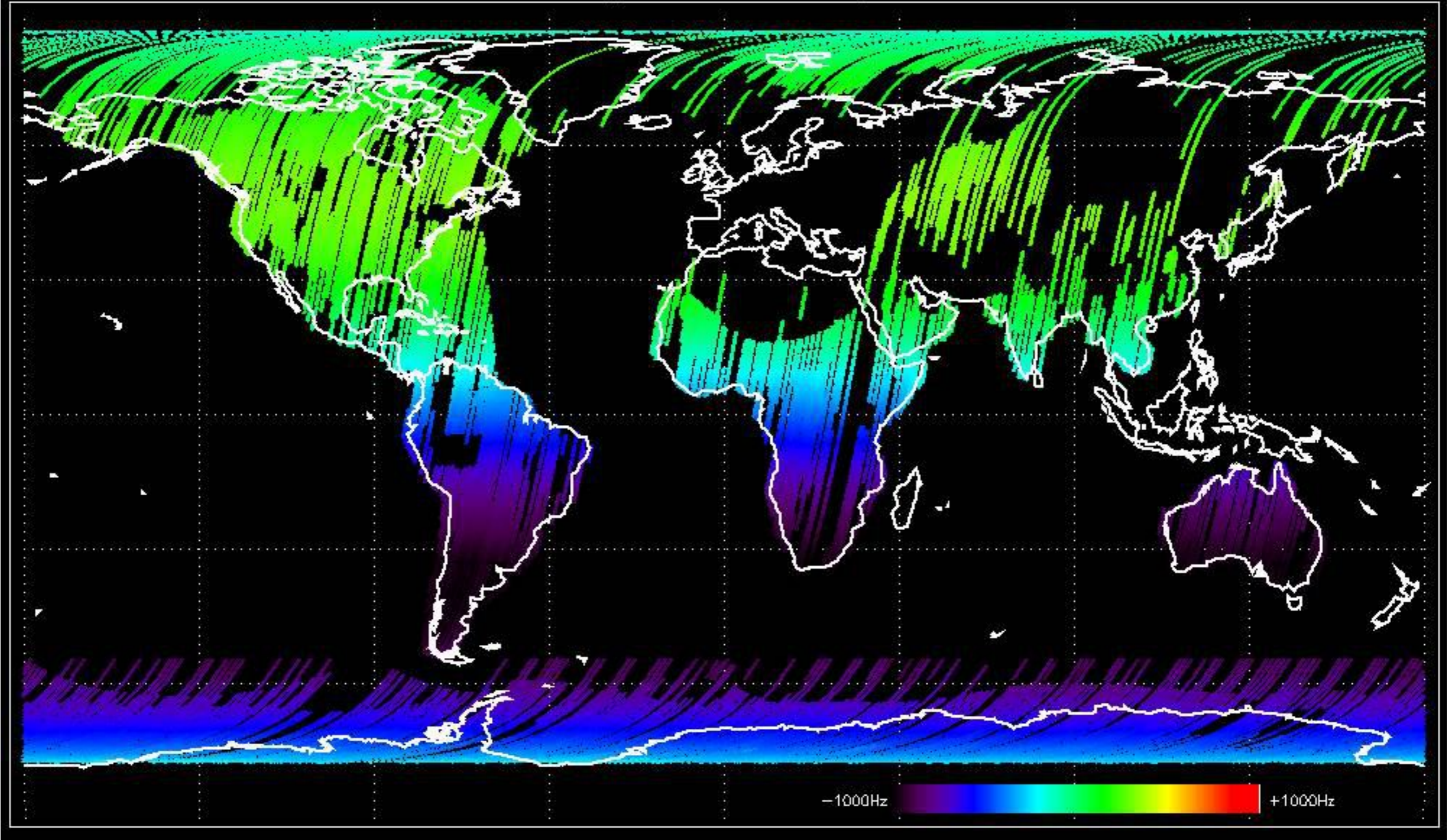




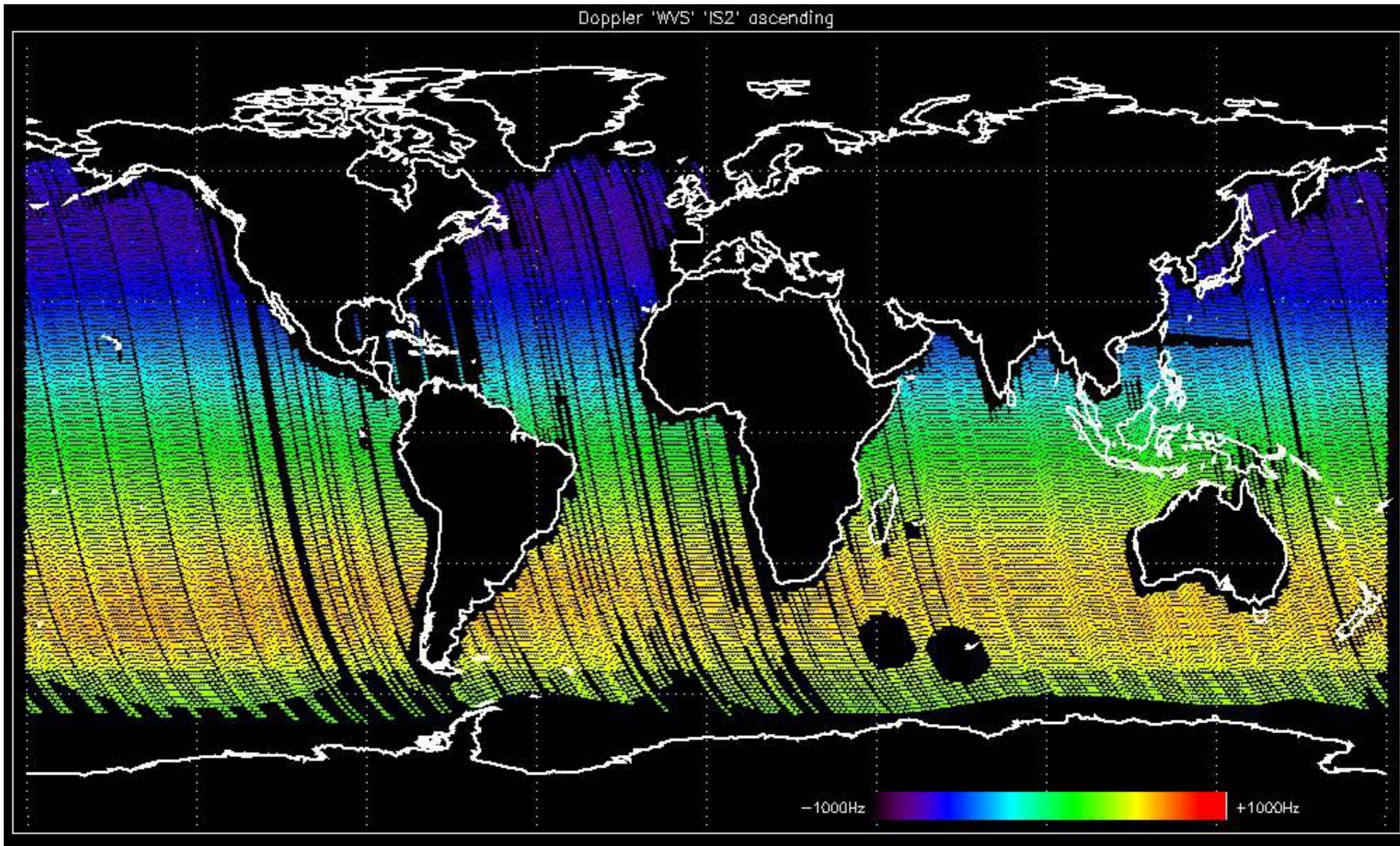
Doppler 'GM1' 'SS1' ascending



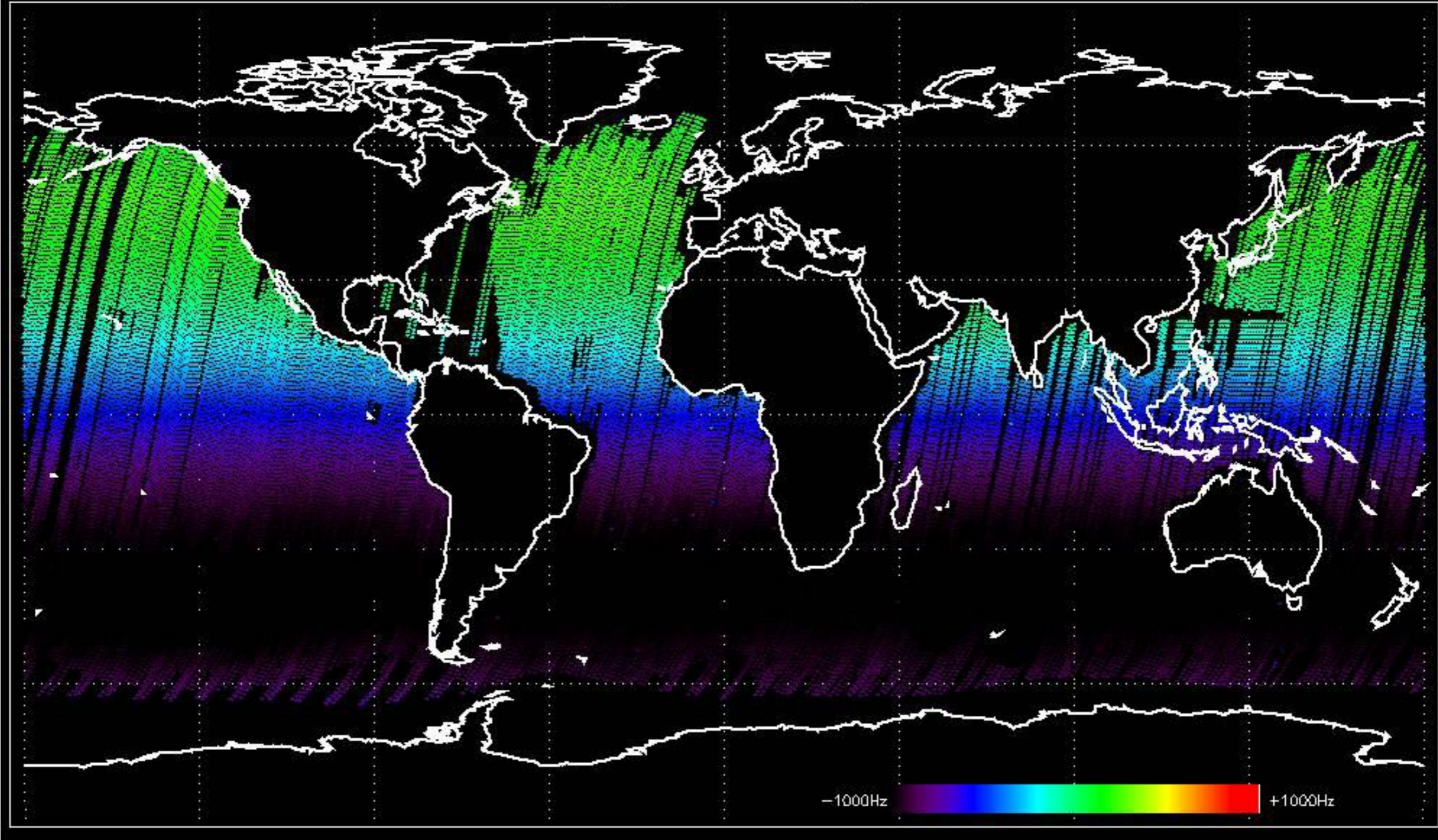
Doppler 'GM1' 'SS1' descending



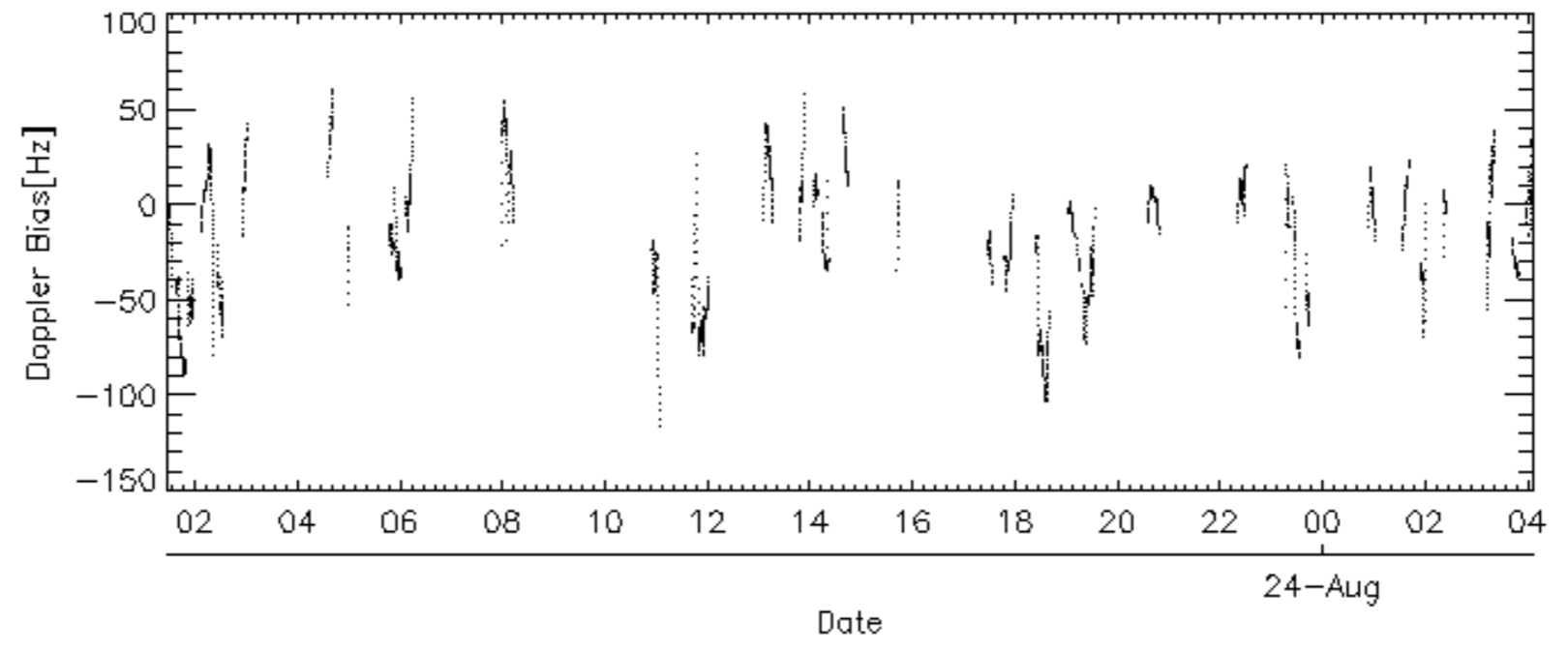
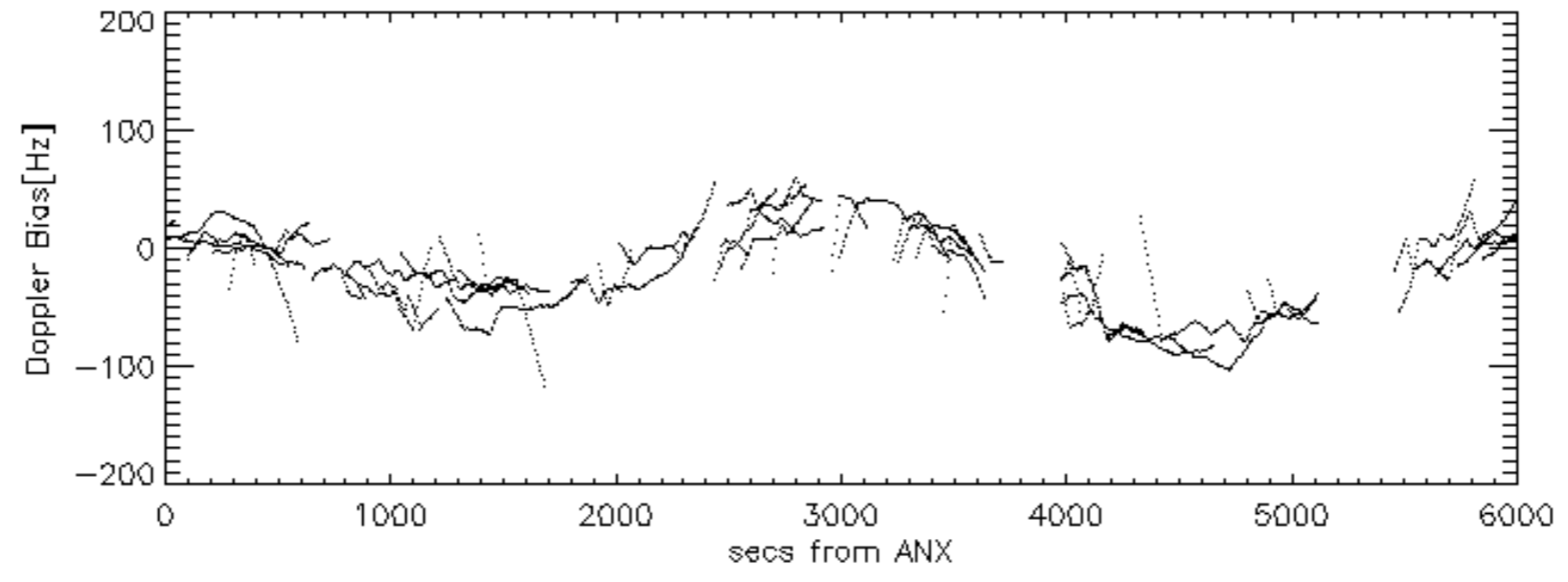
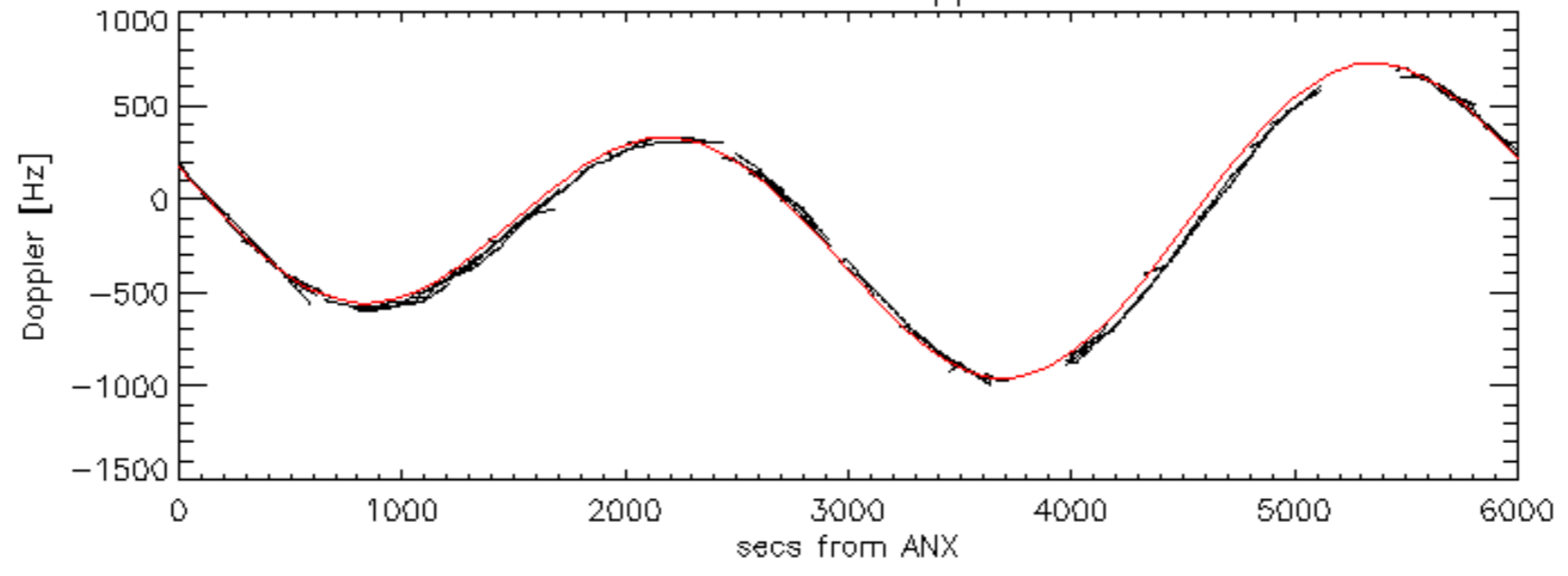
Doppler 'WVS' 'IS2' ascending

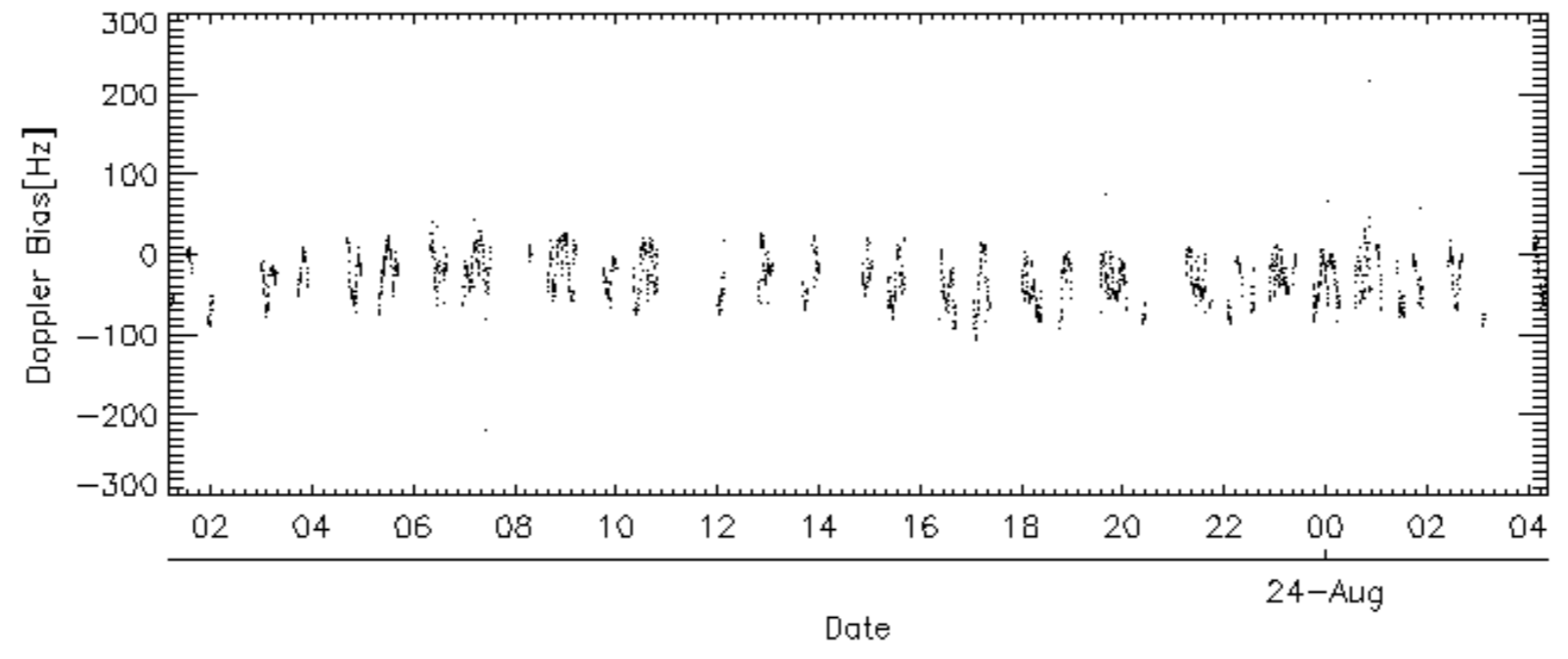
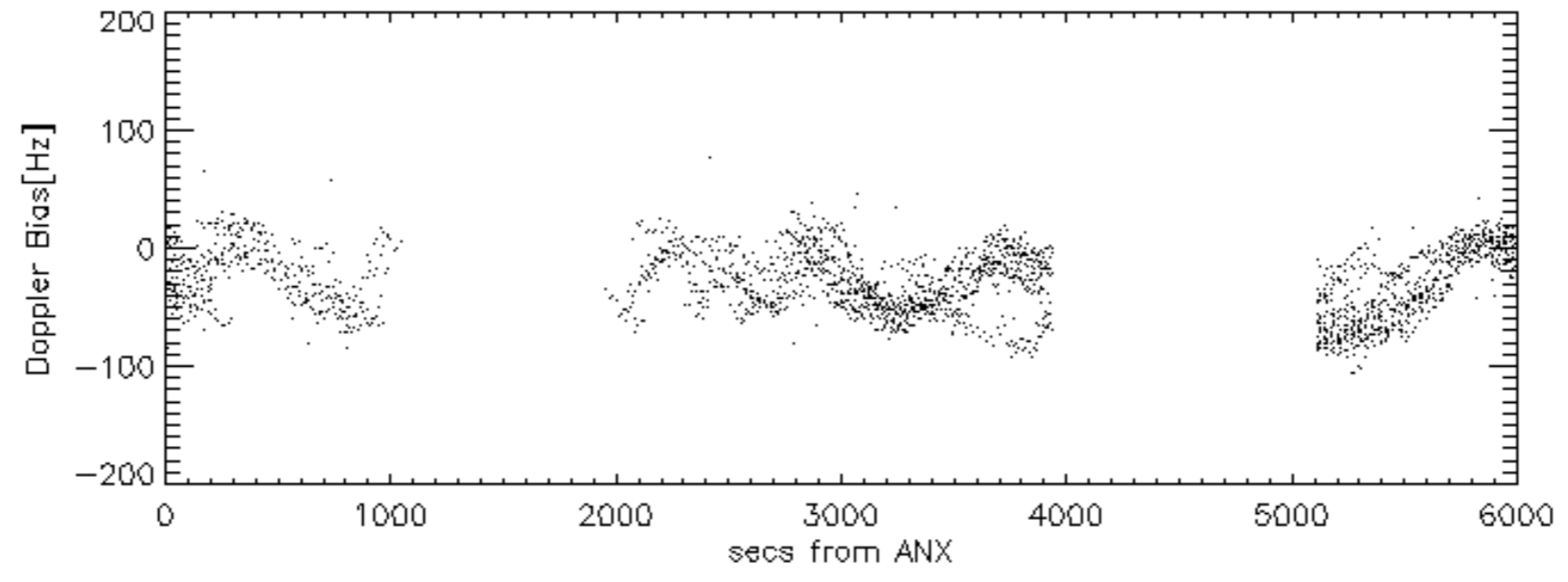
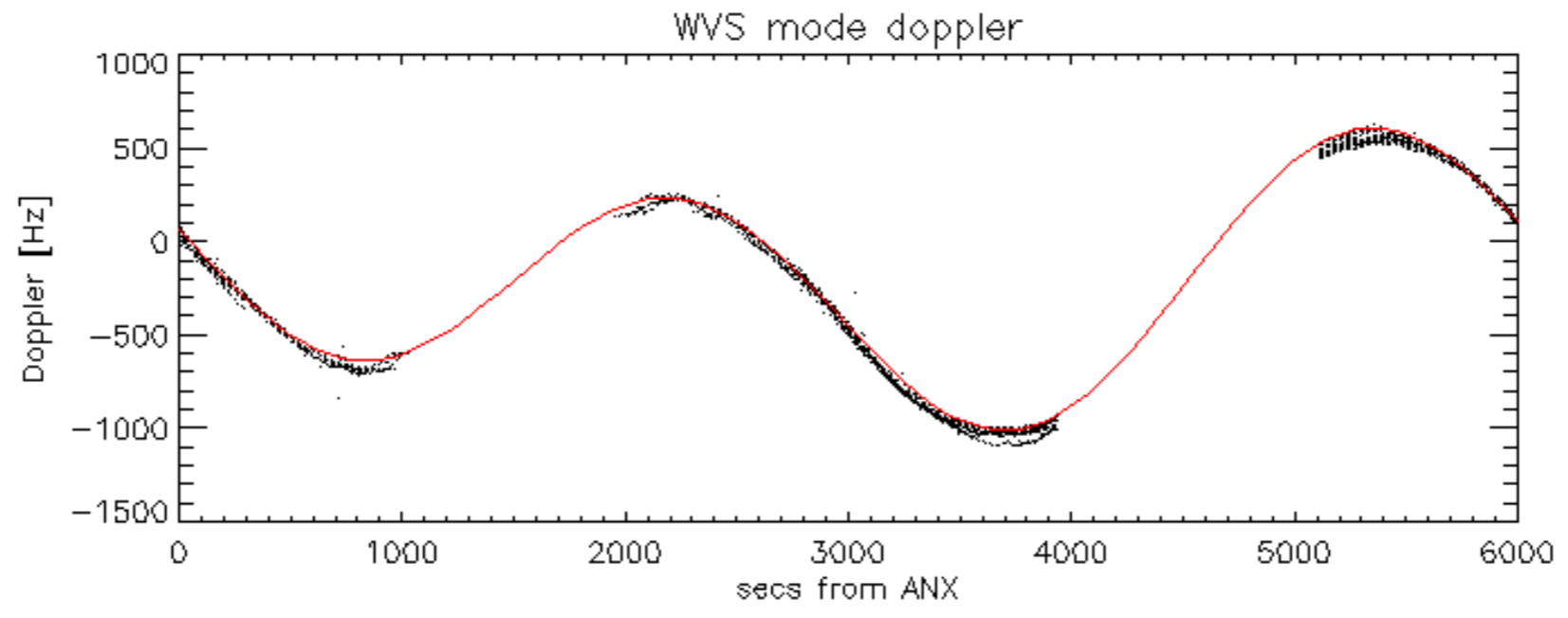


Doppler 'WVS' 'IS2' descending

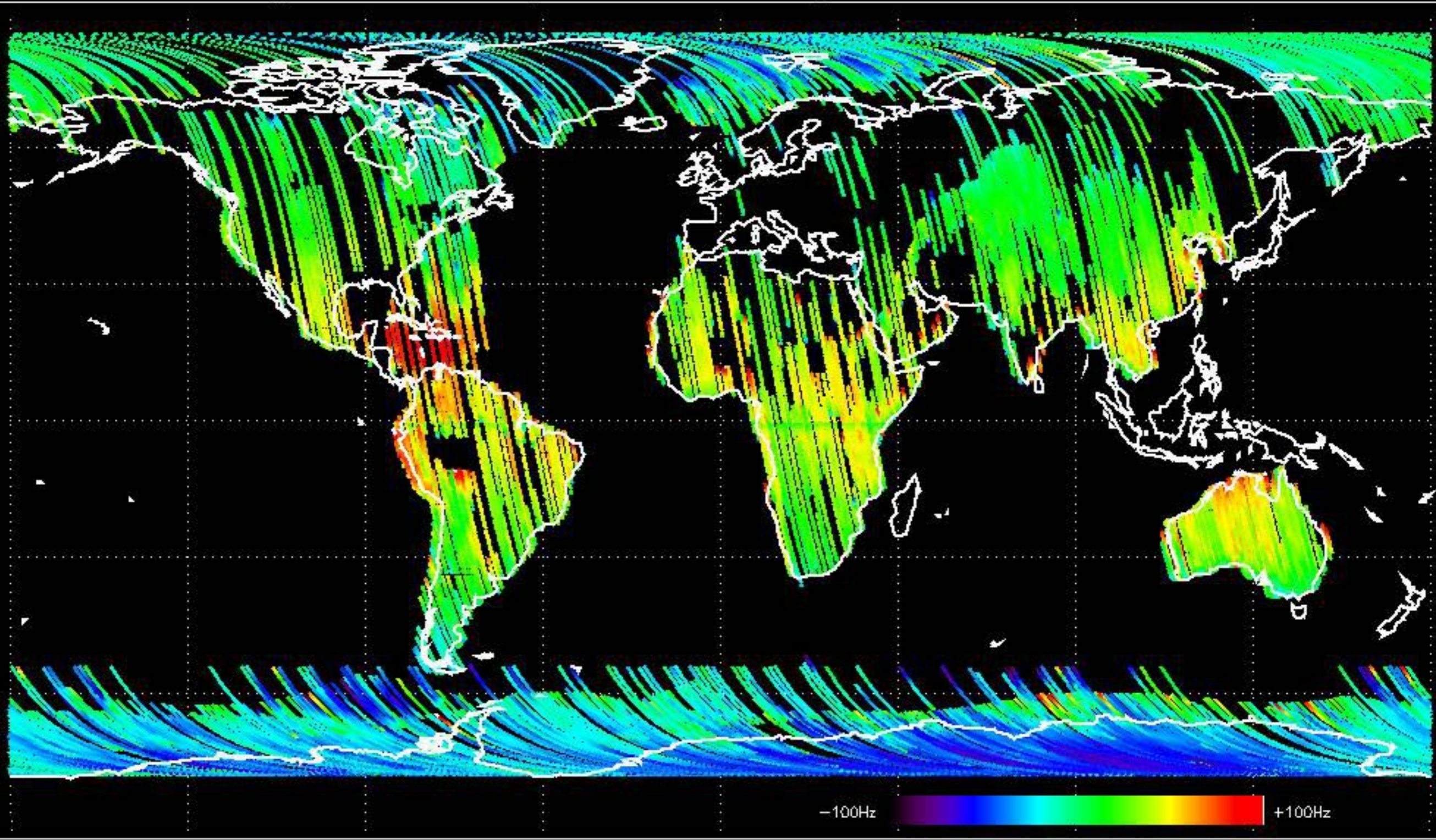


GM1 mode doppler



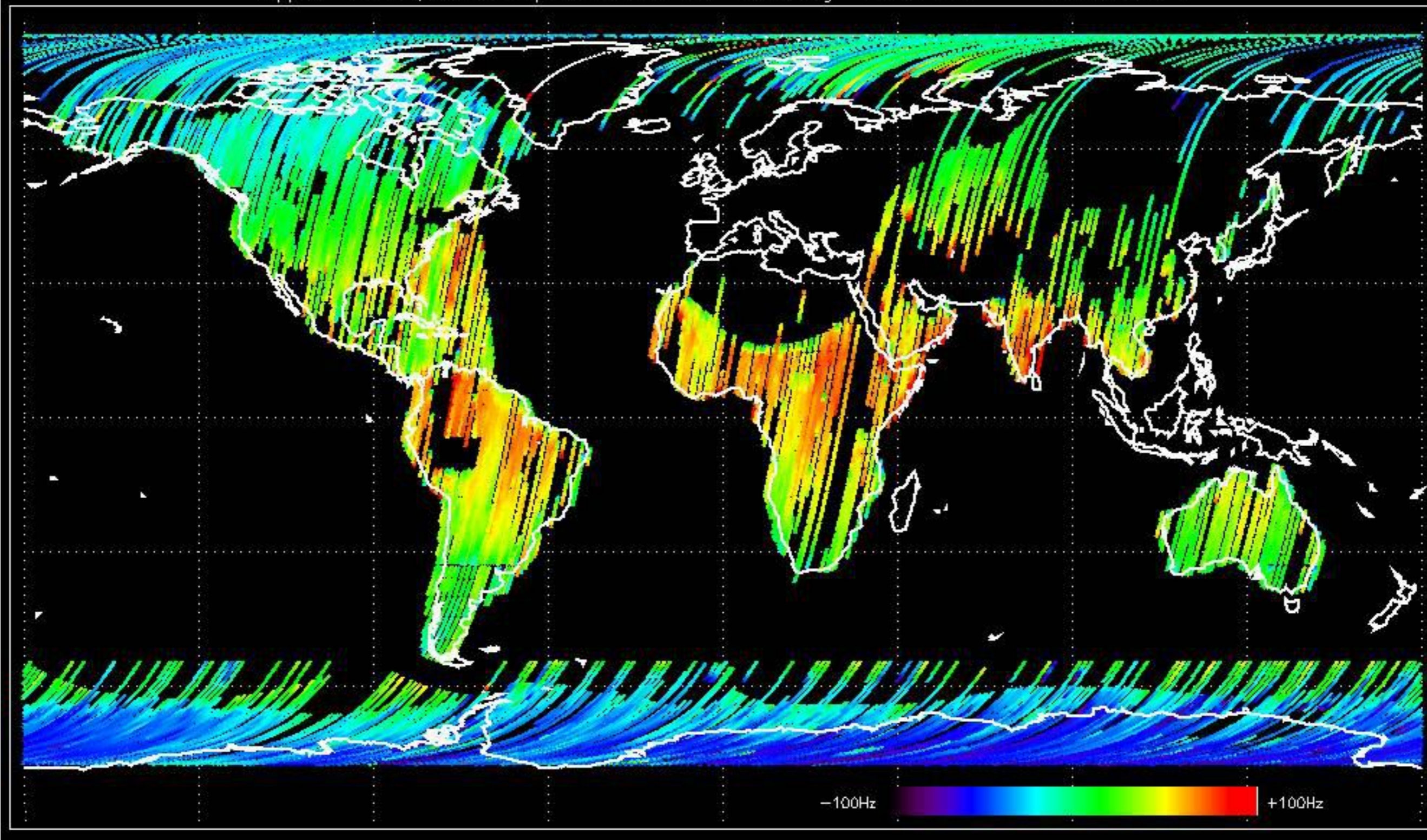


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -36.793256 Hz

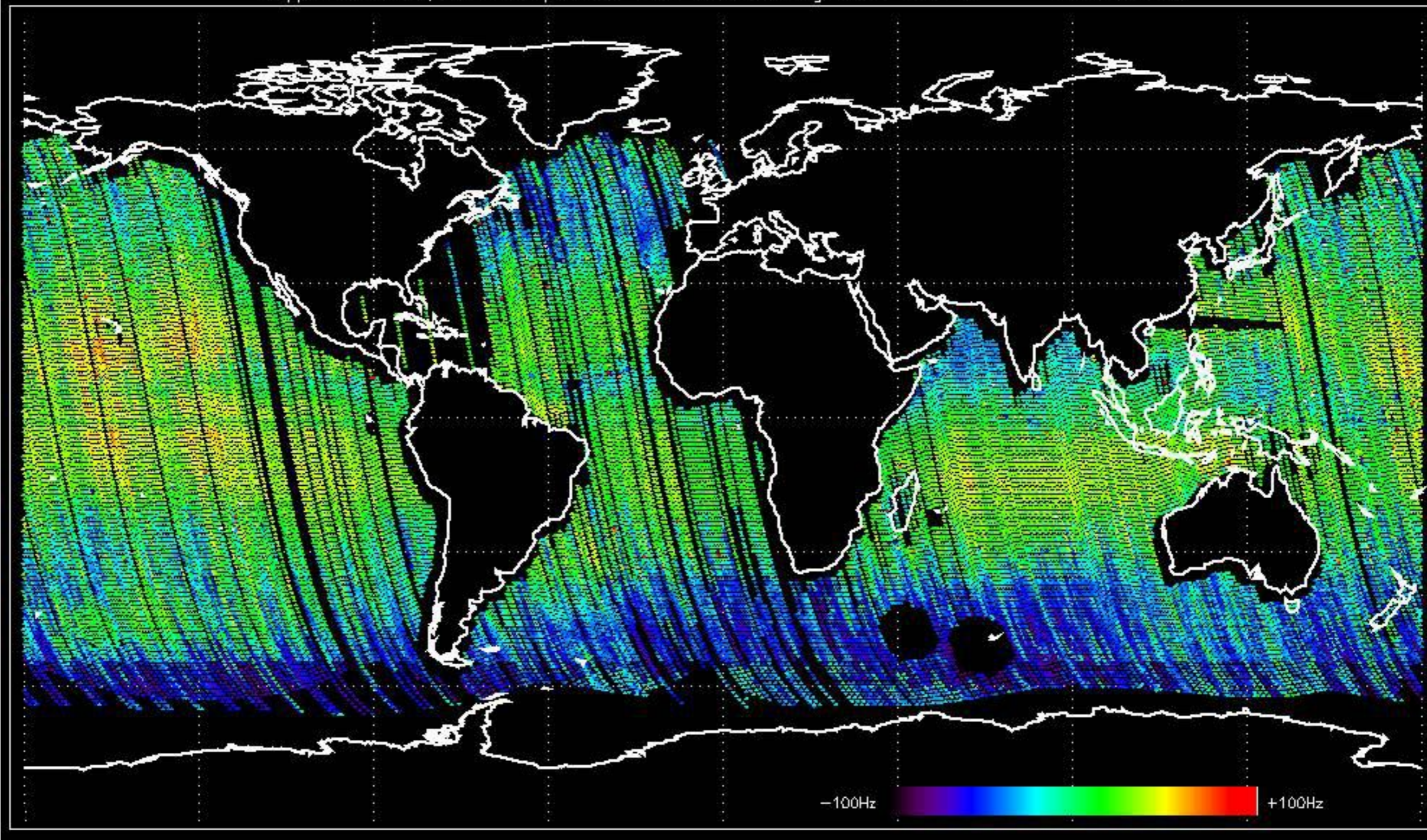




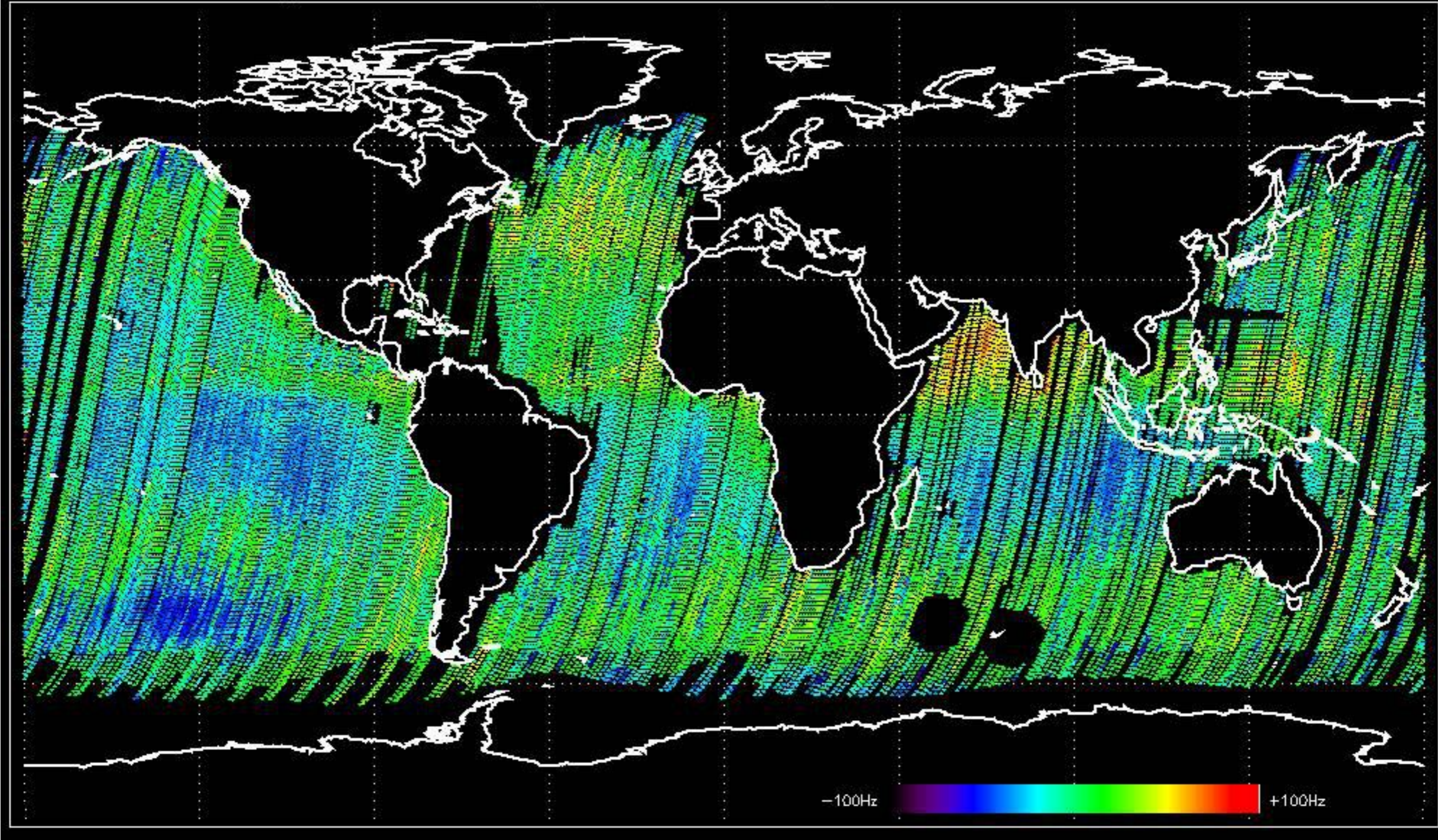
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -25.517338 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -28.818977 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -28.897911 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.









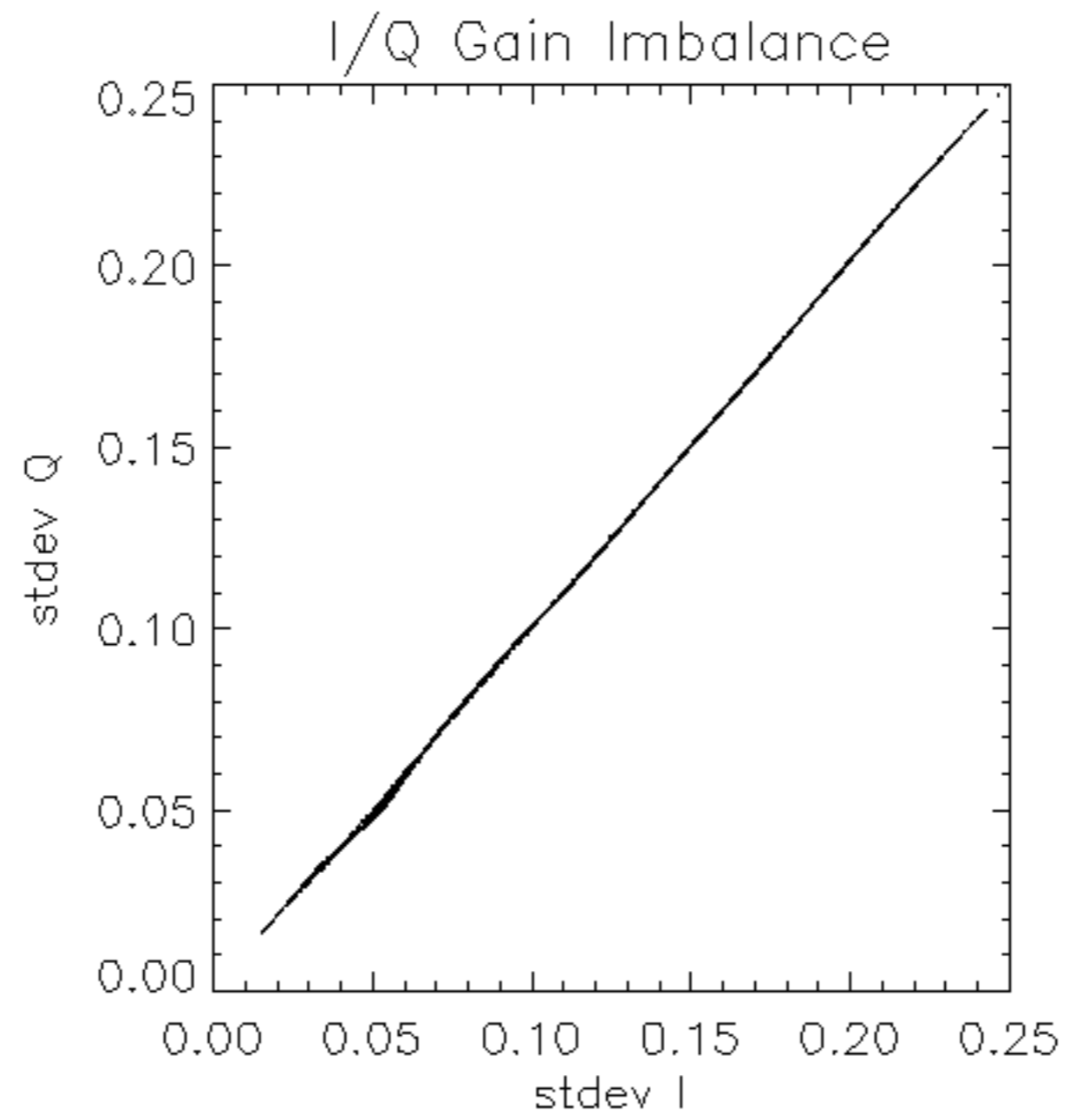


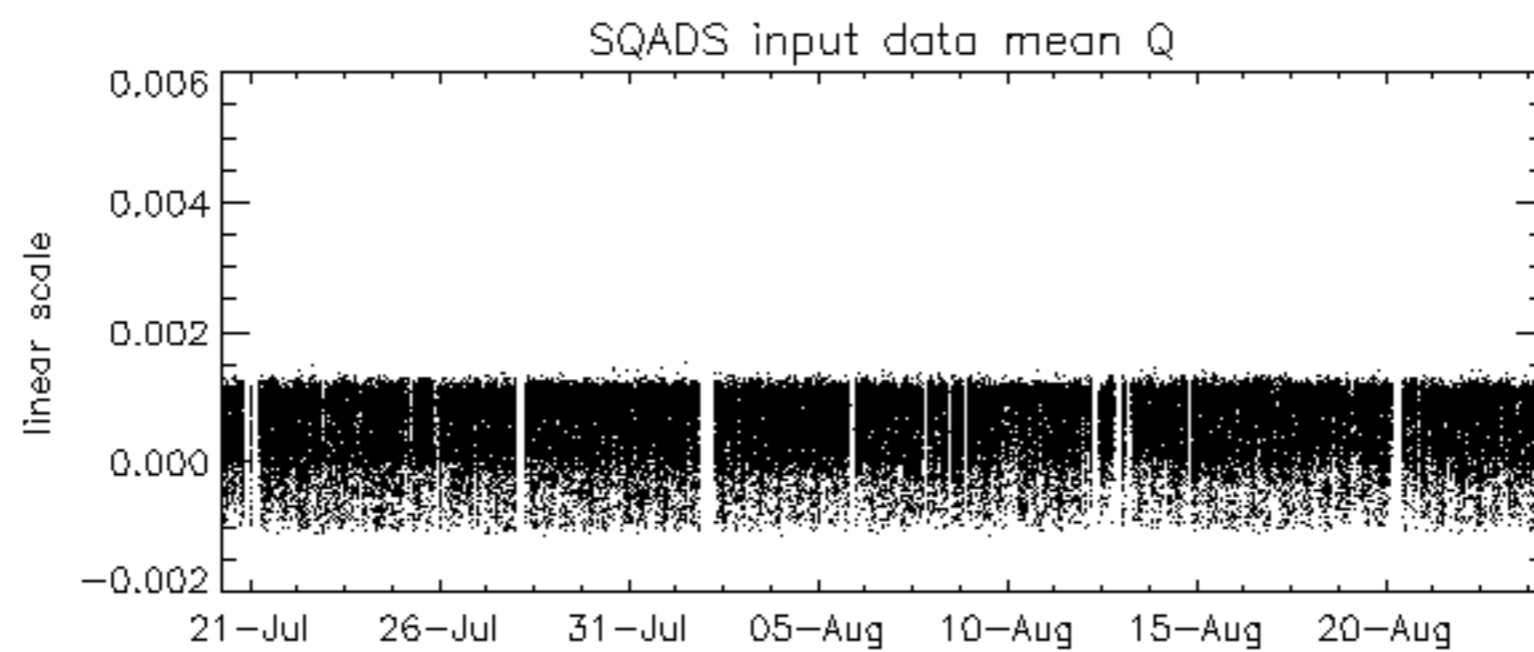
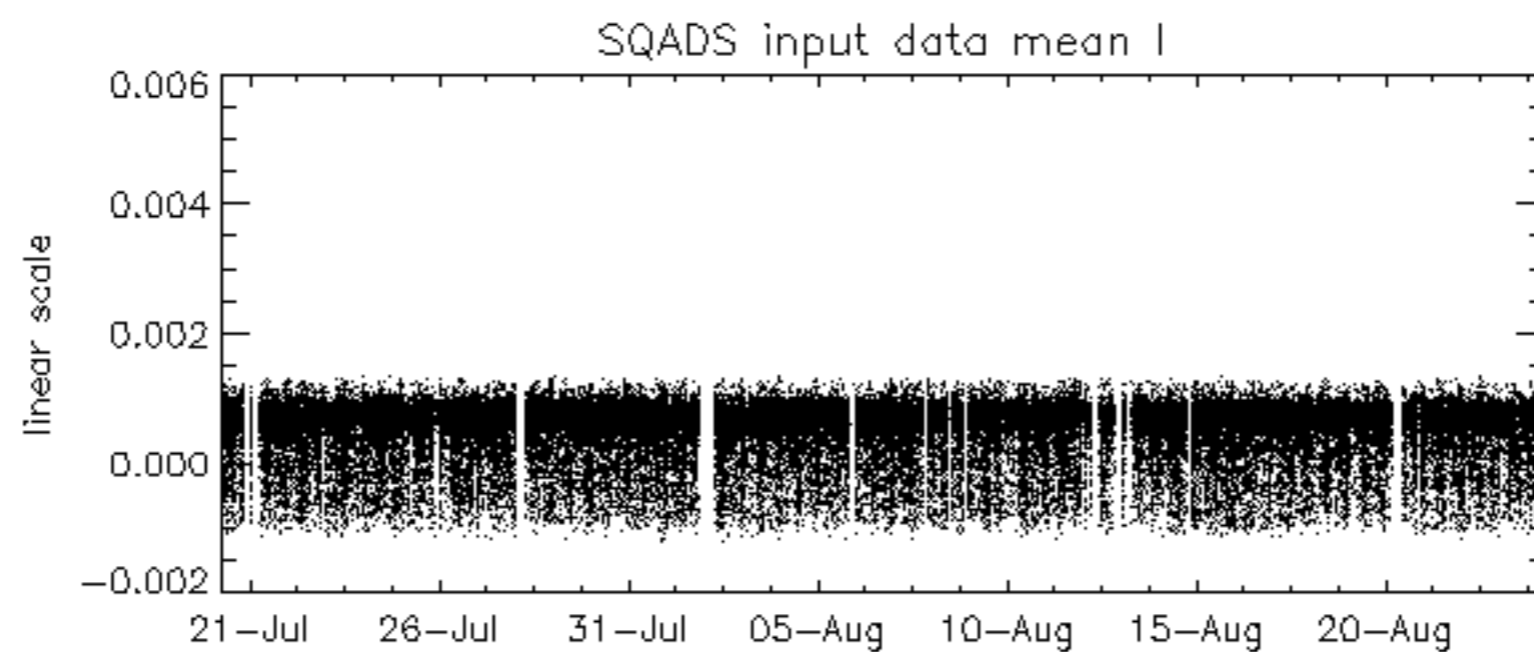
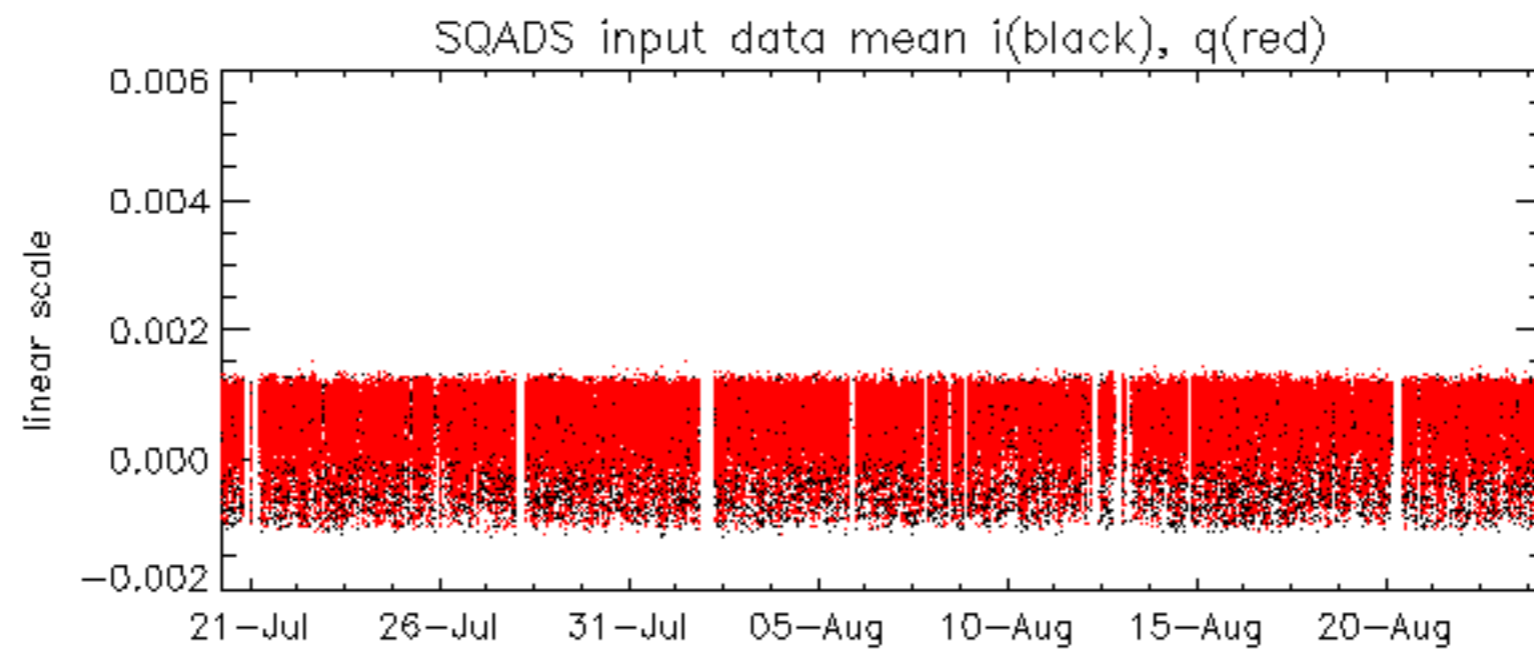


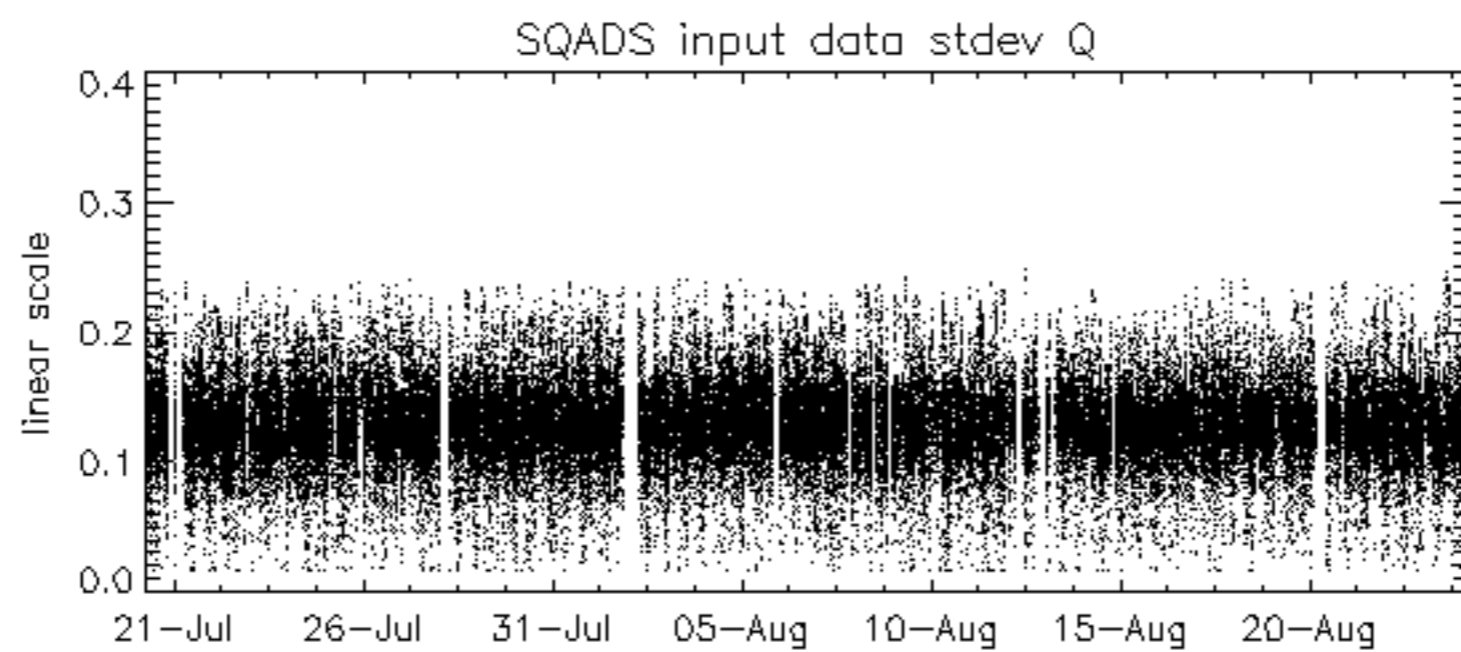
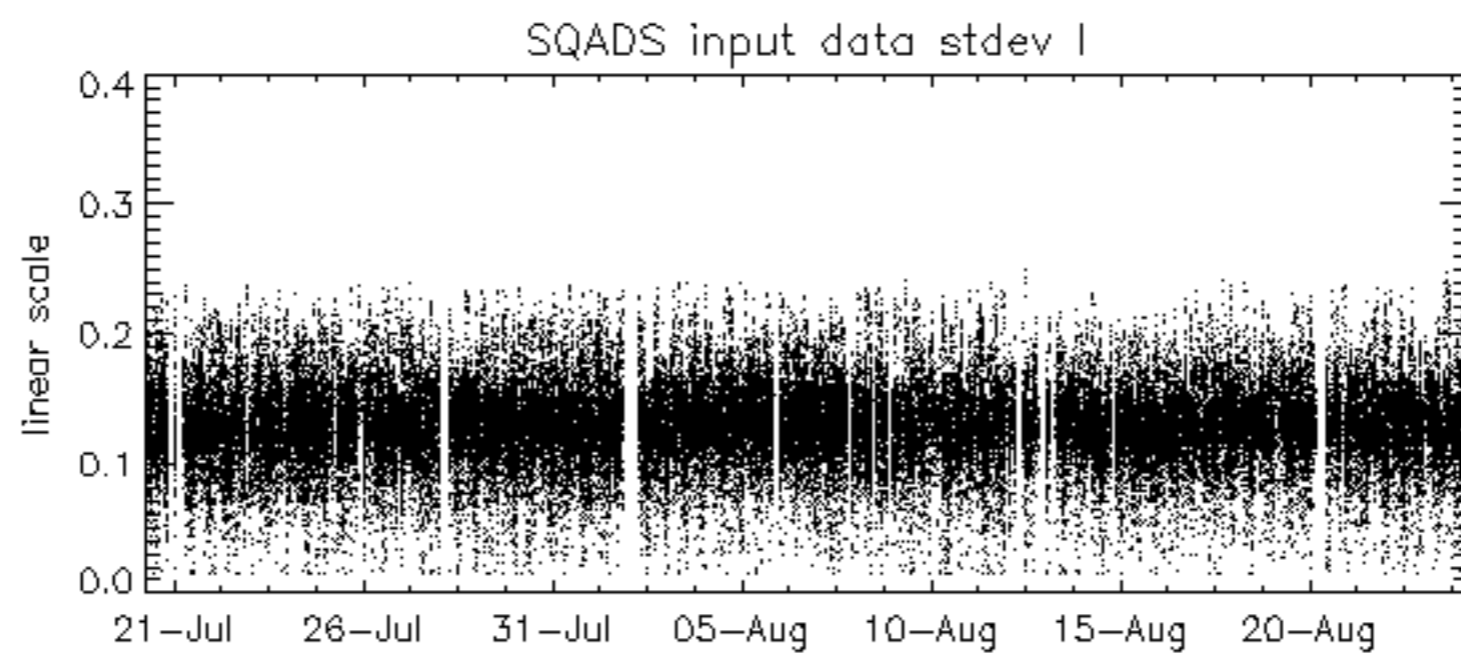
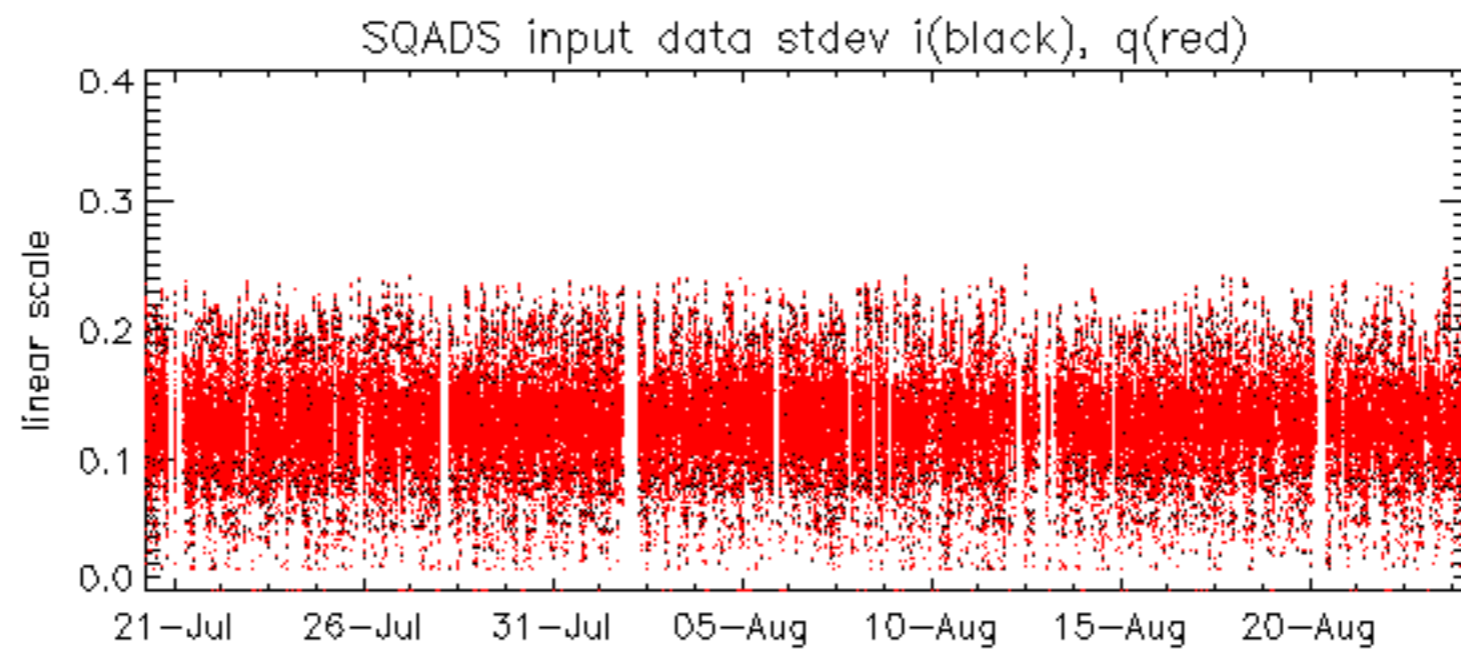






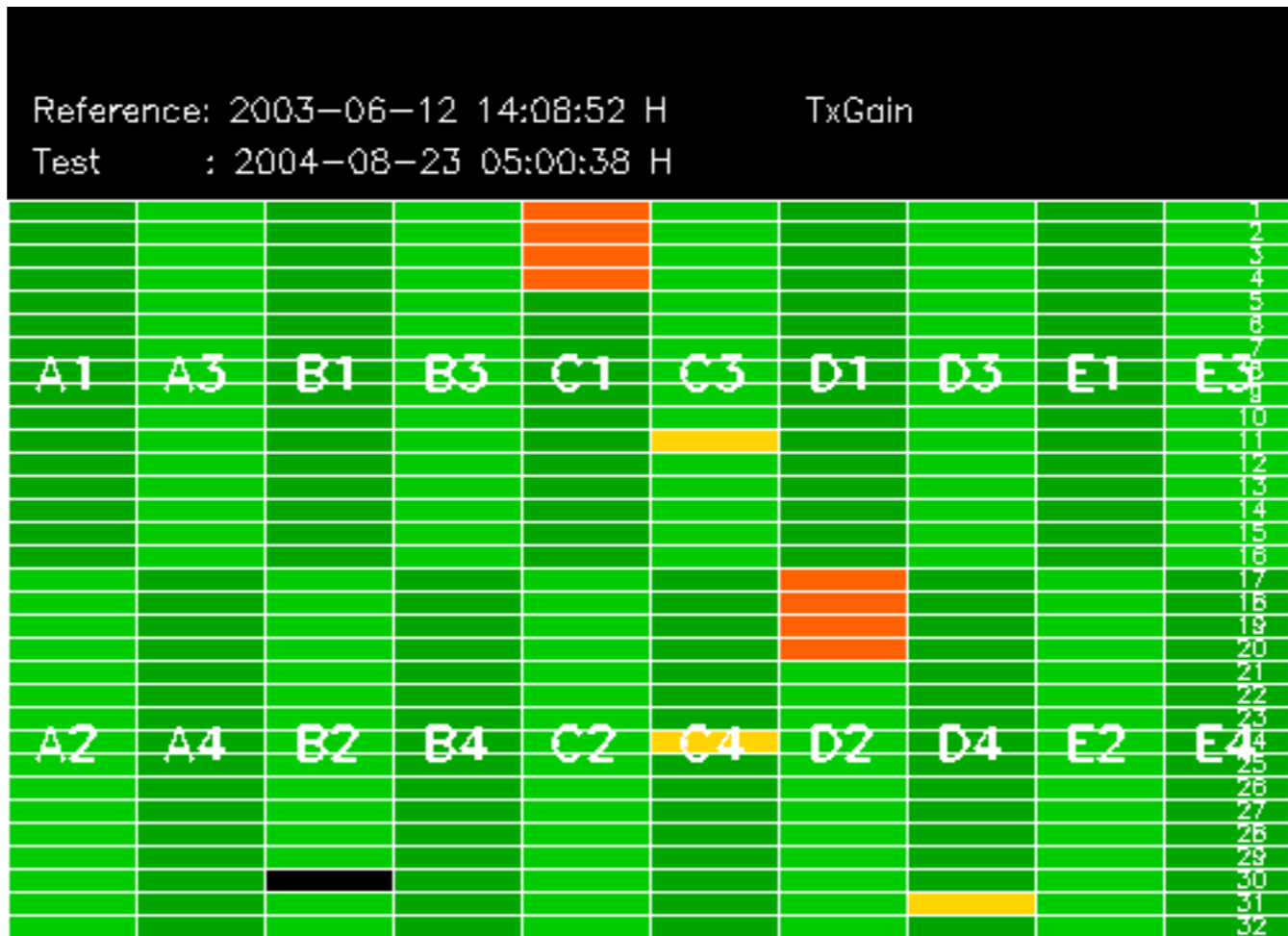
















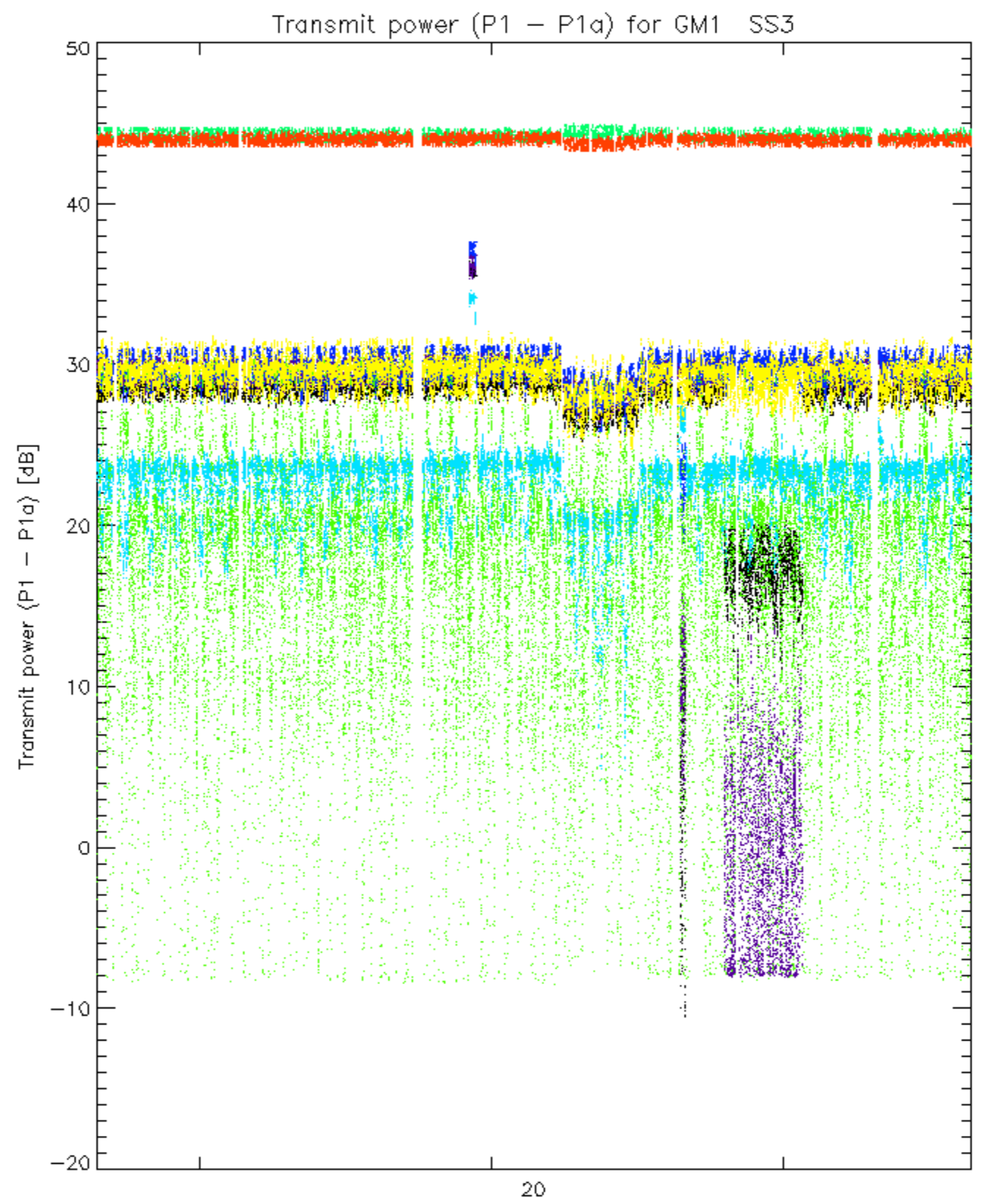




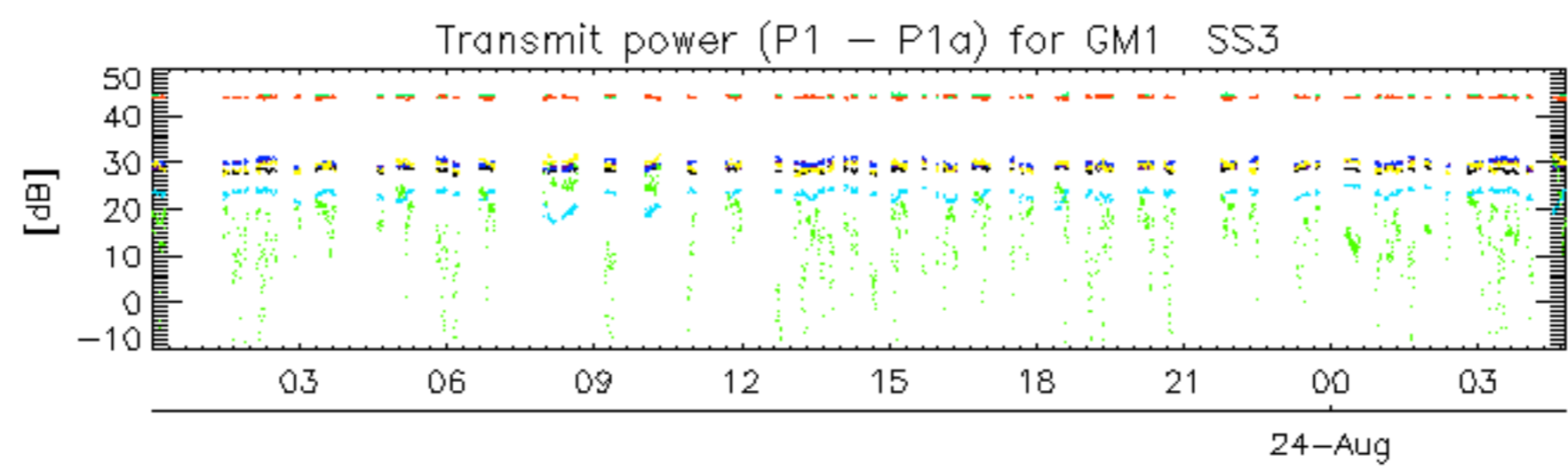




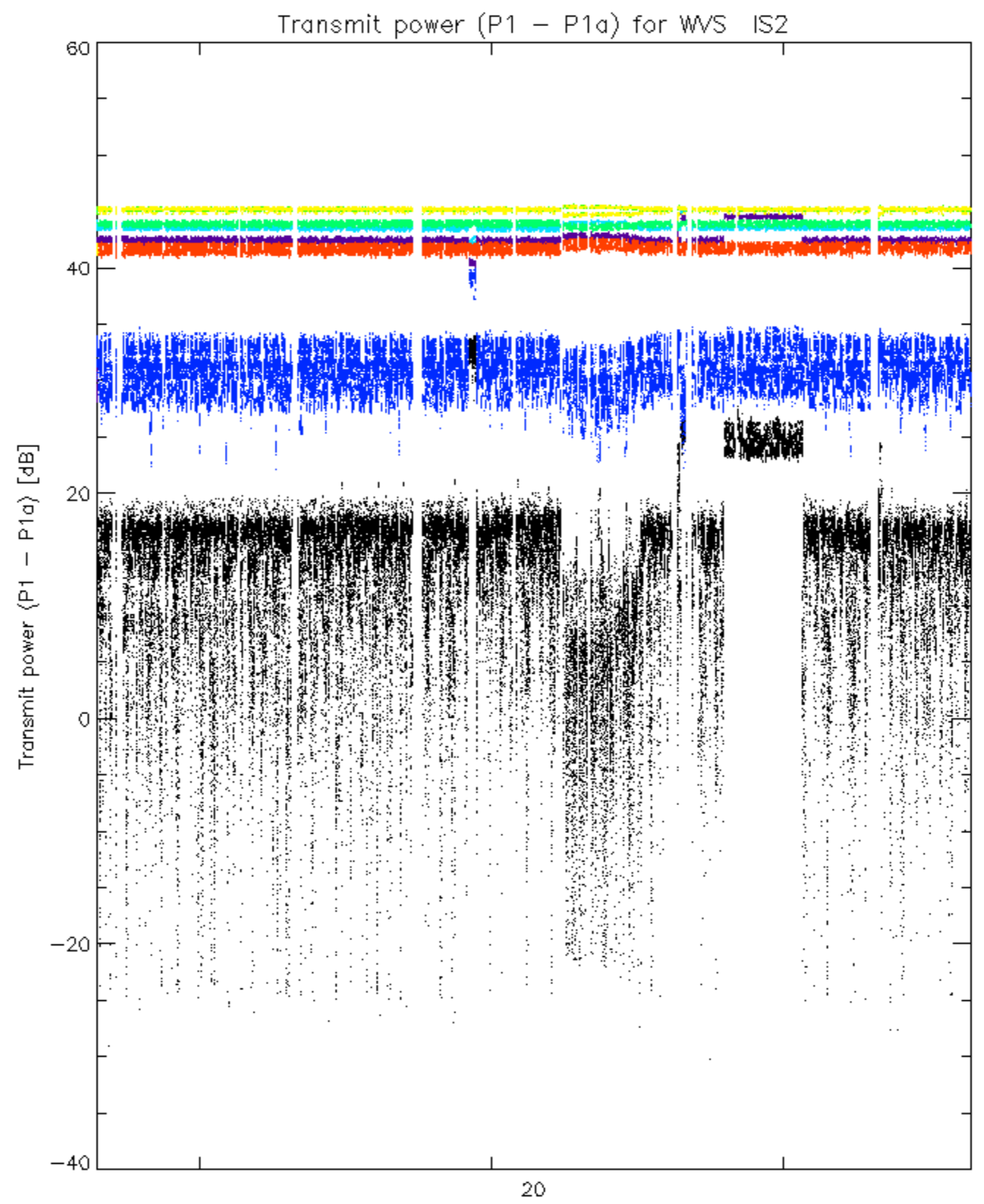


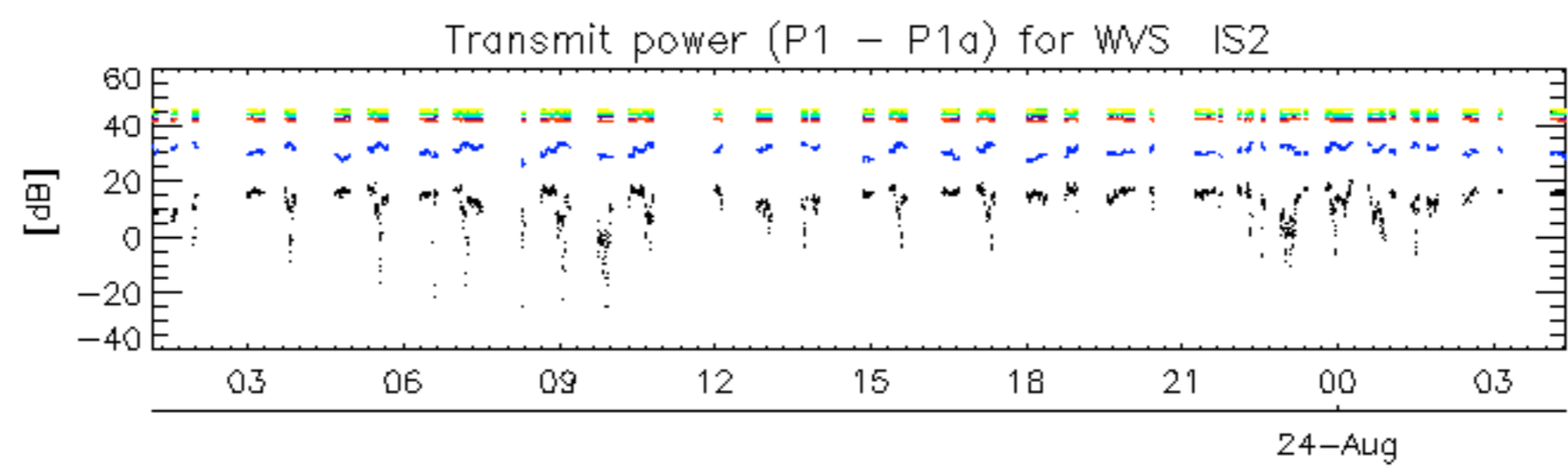


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 30



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





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

No unavailabilities during the reported period.