

# PRELIMINARY REPORT OF 060318

last update on Sat Mar 18 16:32:16 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 2006-03-17 00:00:00 to 2006-03-18 16:32:16

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	55	9	0	24
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	55	9	0	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	55	9	0	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	55	9	0	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	41	33	12	52
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	41	33	12	52
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	41	33	12	52
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	41	33	12	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	20060317 055503
H	20060318 084438

### 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
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☒

**4.1.2 - Evolution for GM1**

Evolution of cal pulses for GM1
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☒

**4.2 - Cyclic statistics**

**4.2.1 - Evolution for WVS**

Evolution of cal pulses for WVS
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**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	-4.002677	0.009355	-0.001460
7	P1	-3.007253	0.008684	-0.030808
11	P1	-4.062926	0.020315	0.026536
15	P1	-6.084866	0.021284	-0.048413
19	P1	-3.291188	0.006605	-0.034759
22	P1	-4.459041	0.014741	-0.016432
26	P1	-4.193017	0.103975	0.132202
30	P1	-5.801582	0.145082	0.013568
3	P1	-16.983078	0.247572	0.027842
7	P1	-16.719341	0.102238	-0.128021
11	P1	-16.497595	0.326795	0.064805
15	P1	-13.057945	0.095537	-0.006639
19	P1	-13.937891	0.053731	-0.102733
22	P1	-15.578574	0.462995	-0.030718
26	P1	-15.767228	0.301310	-0.057339
30	P1	-16.503986	0.305295	-0.151250

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.399822	0.086822	0.089360
7	P2	-22.372688	0.095437	0.112361
11	P2	-16.226416	0.100536	0.041805
15	P2	-7.164884	0.098600	0.003135
19	P2	-9.133256	0.091162	0.002312
22	P2	-17.941061	0.089097	-0.055639
26	P2	-16.212296	0.094526	-0.030119
30	P2	-19.647825	0.084311	-0.033551

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194154	0.005888	-0.002280
7	P3	-8.194154	0.005888	-0.002280
11	P3	-8.194154	0.005888	-0.002280
15	P3	-8.194154	0.005888	-0.002280
19	P3	-8.194154	0.005888	-0.002280
22	P3	-8.194154	0.005888	-0.002280
26	P3	-8.194154	0.005888	-0.002280
30	P3	-8.194155	0.005888	-0.002280

#### 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	-3.836545	2.955635	0.263028
7	P1	-2.826021	3.102571	0.331290
11	P1	-3.016116	3.124094	0.296868
15	P1	-3.661438	3.097015	0.319893
19	P1	-3.463235	3.000614	0.254712
22	P1	-5.259025	2.758192	0.243270
26	P1	-5.940274	2.932777	0.478395
30	P1	-5.280239	2.791307	0.317534
3	P1	-11.639191	1.943513	0.222350
7	P1	-10.036063	2.152853	0.219513
11	P1	-10.334706	2.146051	0.165514
15	P1	-10.881023	2.156275	0.177230
19	P1	-15.464851	1.588938	0.147046
22	P1	-20.311026	2.230613	0.101995
26	P1	-16.310812	2.084440	0.098495
30	P1	-18.350666	1.504300	0.163261

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.097155	2.044747	0.116883
7	P2	-22.544132	2.392755	-0.053539
11	P2	-11.272975	2.219763	0.166976
15	P2	-4.909146	2.883871	0.253294
19	P2	-6.919200	2.595558	0.241370
22	P2	-8.208196	2.434569	0.192169
26	P2	-23.899693	2.449526	-0.242616
30	P2	-22.037680	2.312064	-0.138875

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.023095	0.002495	0.008474
7	P3	-8.023142	0.002490	0.008541
11	P3	-8.023055	0.002500	0.008671
15	P3	-8.023221	0.002497	0.008377
19	P3	-8.023091	0.002498	0.008131
22	P3	-8.023157	0.002494	0.008316
26	P3	-8.023185	0.002494	0.008534
30	P3	-8.023035	0.002501	0.008664

## 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	0.000555938
	stdev	1.75948e-07
MEAN Q	mean	0.000514840
	stdev	2.21355e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138093
	stdev	0.00119212
STDEV Q	mean	0.138455
	stdev	0.00121010



### 5.3 - Gain imbalance I/Q



## 6 - Telemetry analysis

Summary of analysis for the last 3 days 2006031[678]

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_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDE20060318_005019_000002372046_00059_21155_1081.N1	1	0



## 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)

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

### 7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

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

### 7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

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

Evolution of unbiased Doppler error (Real - Expected)

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



### 7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

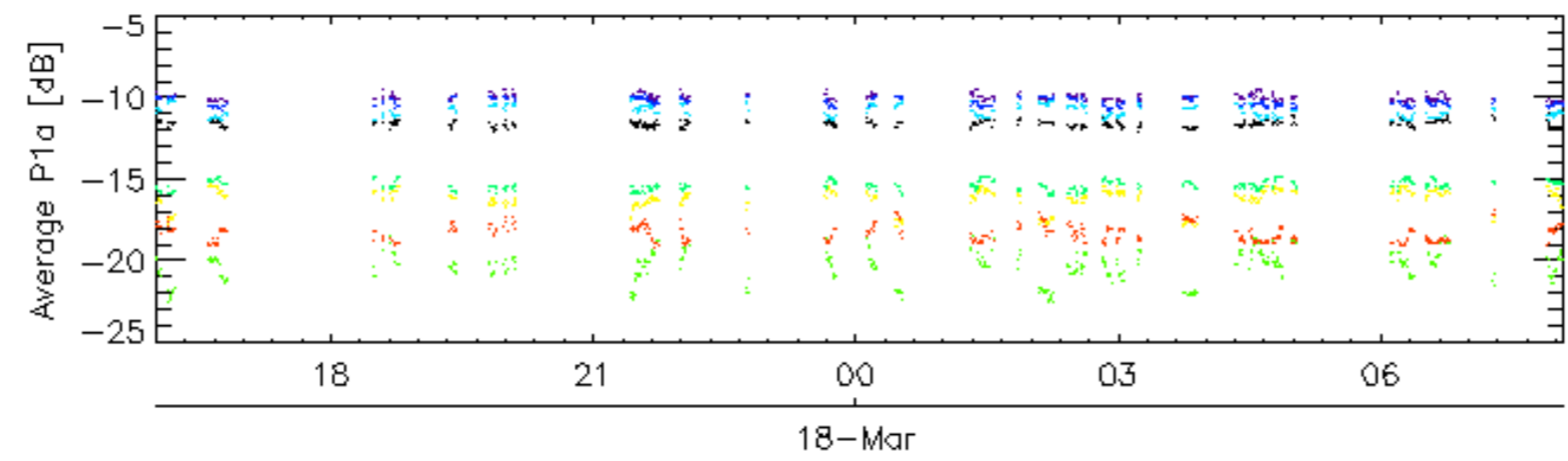
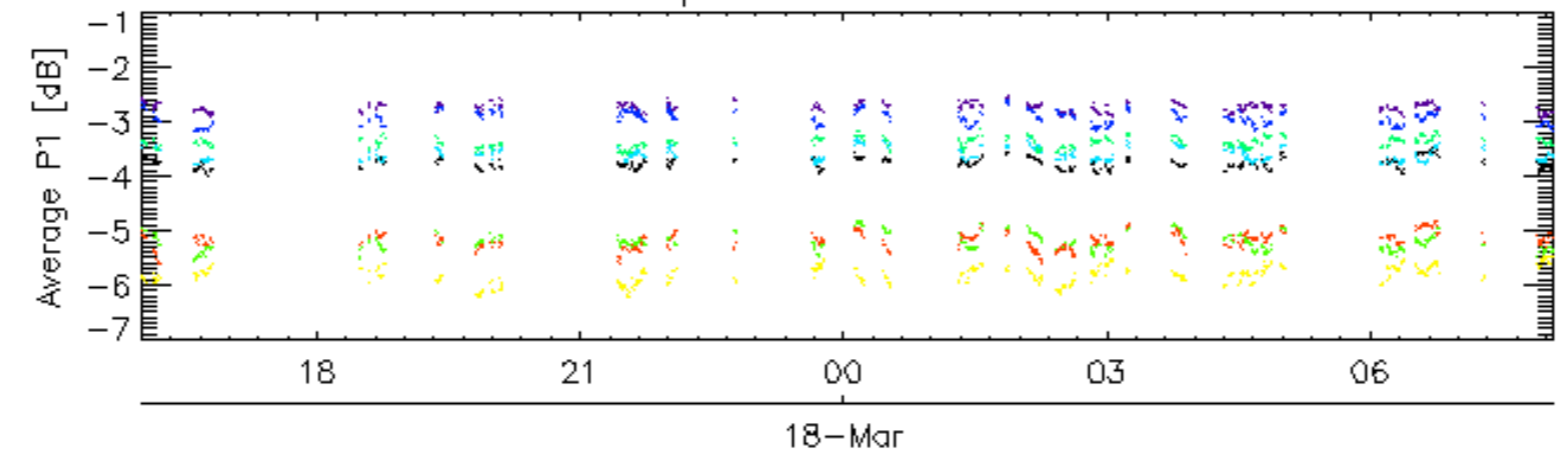
Ascending

Descending

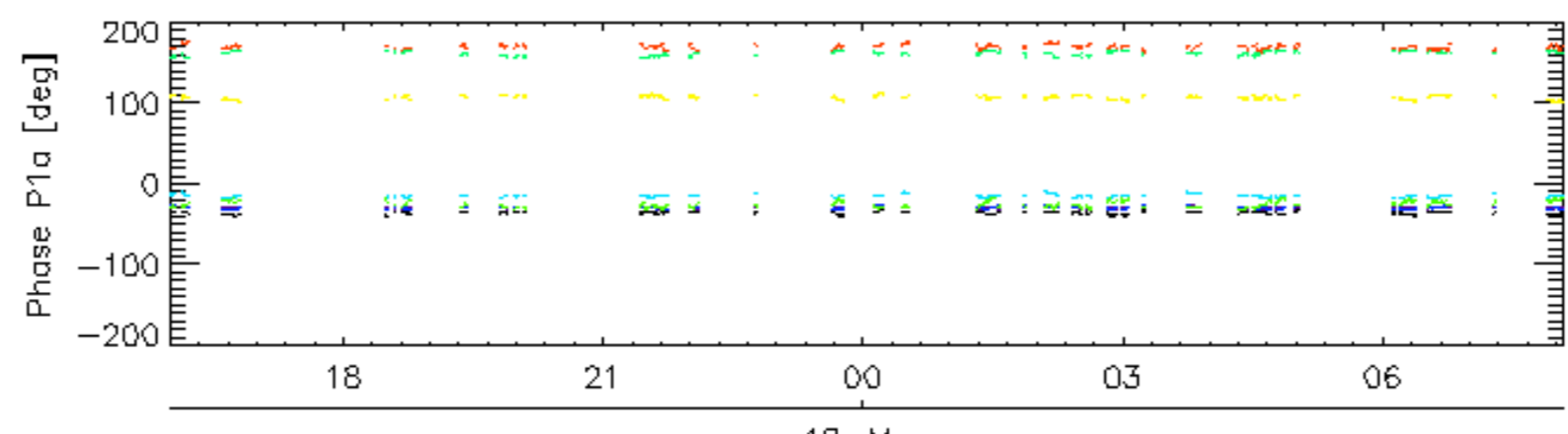
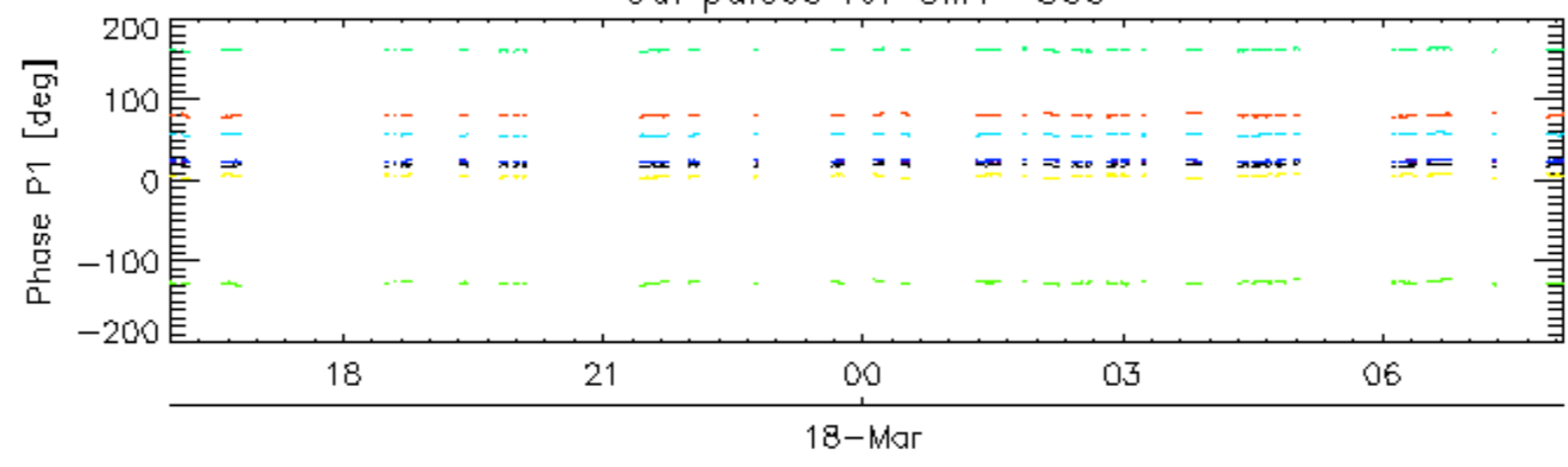
### 7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

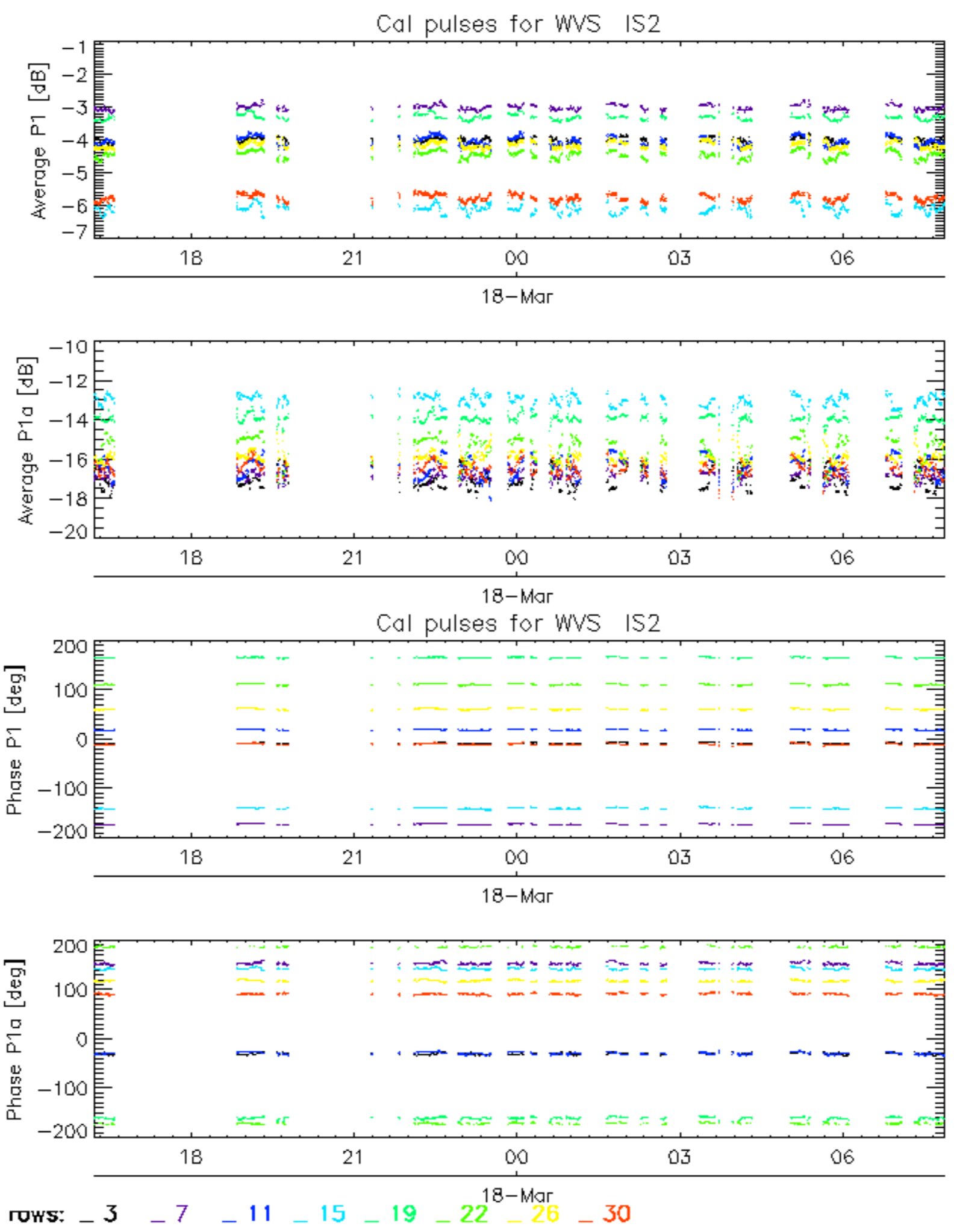
Cal pulses for GM1 SS3



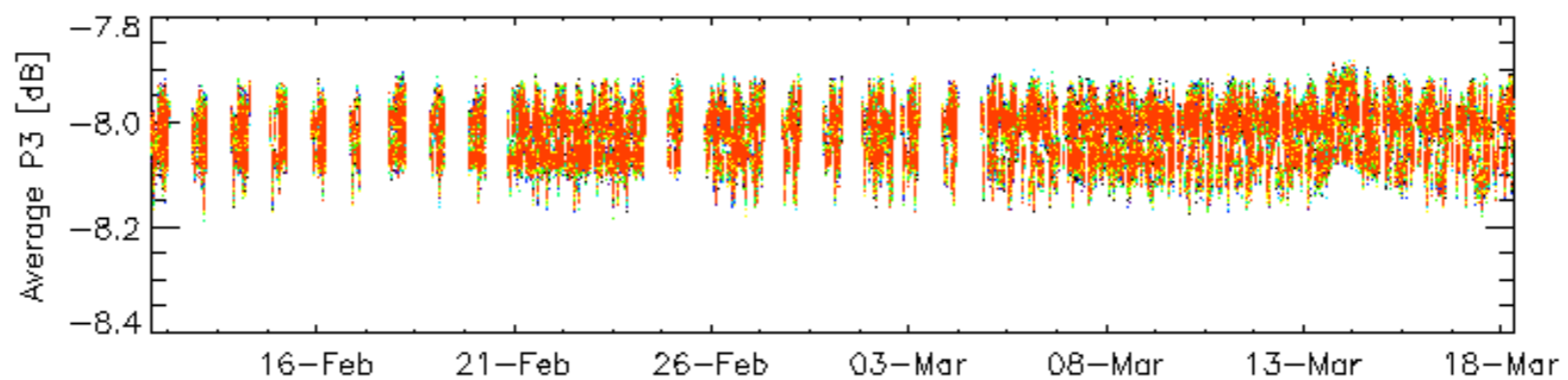
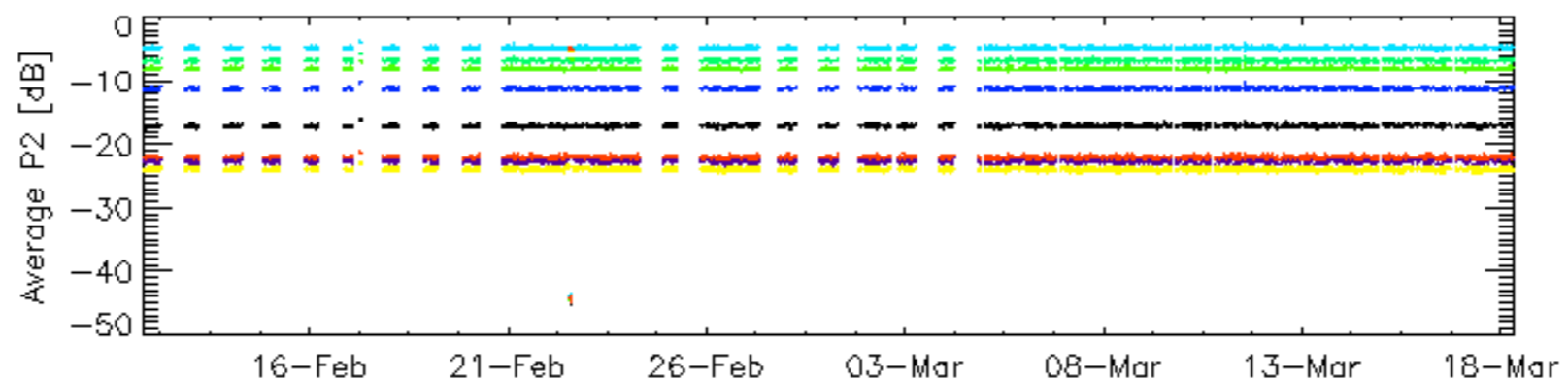
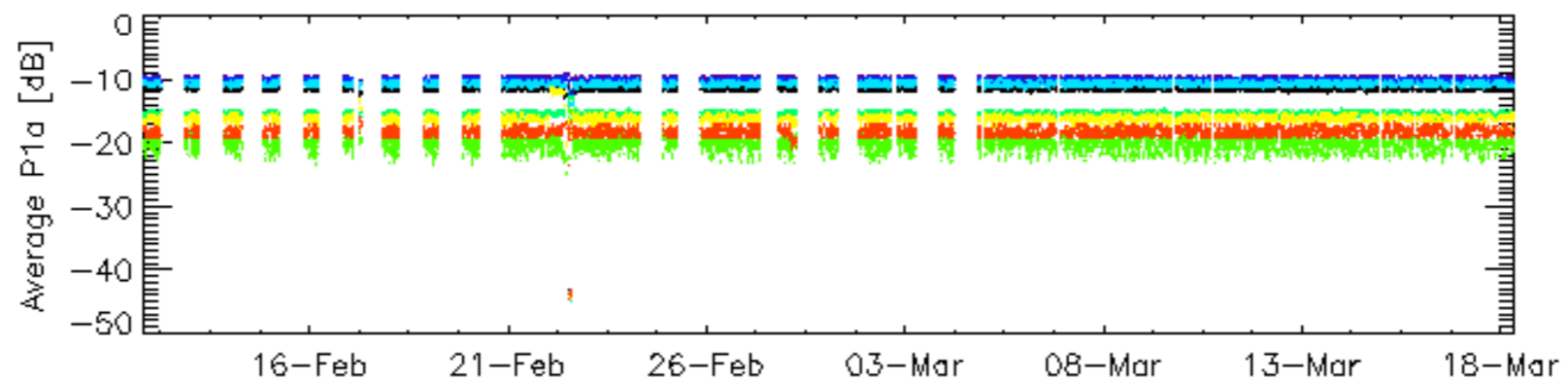
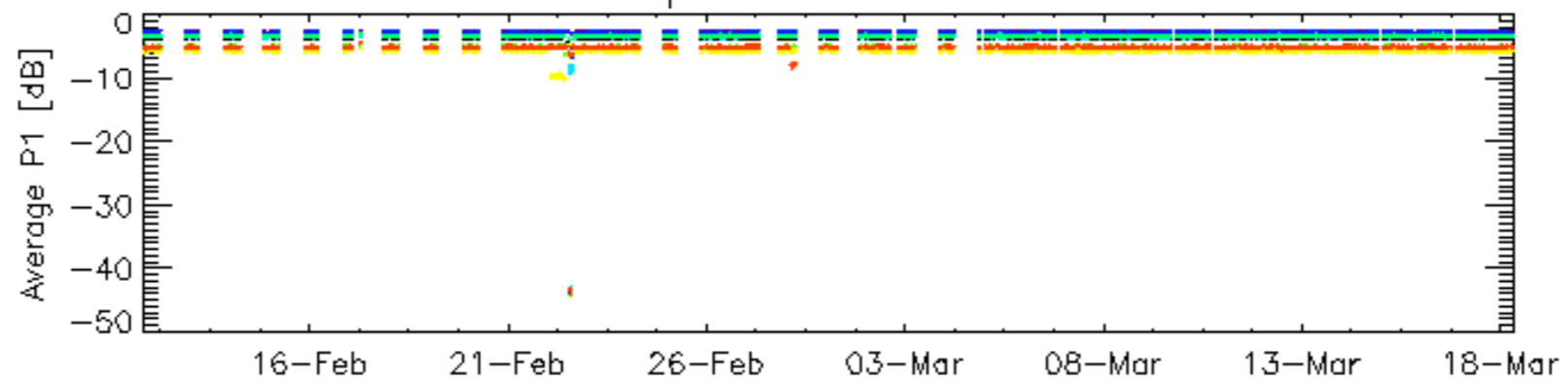
Cal pulses for GM1 SS3



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

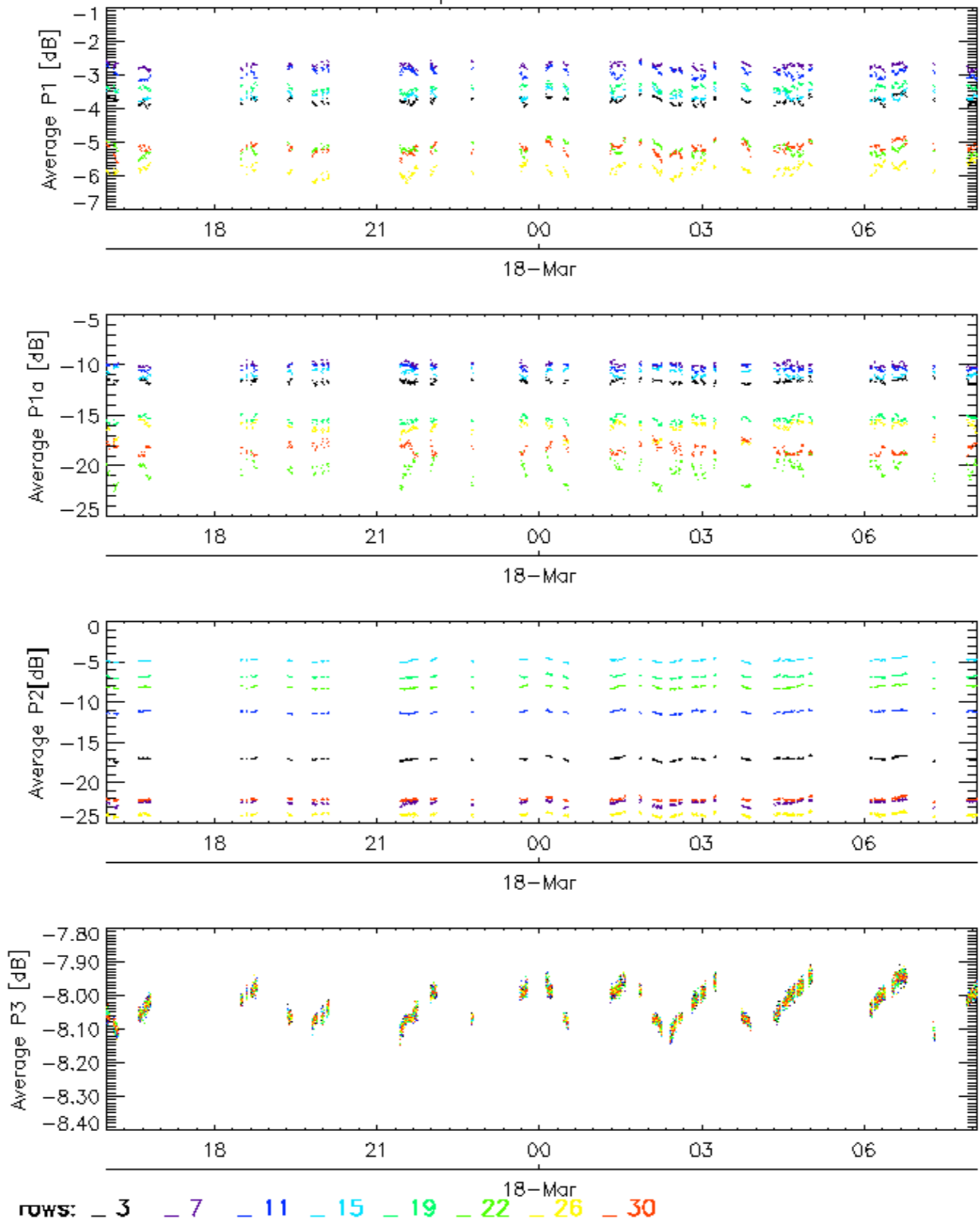


Cal pulses for GM1 SS3

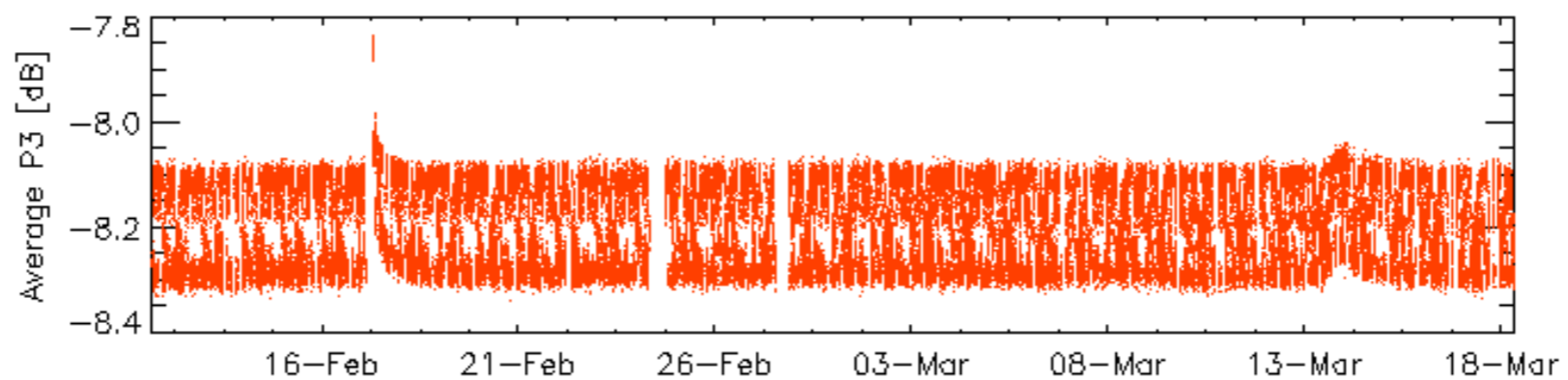
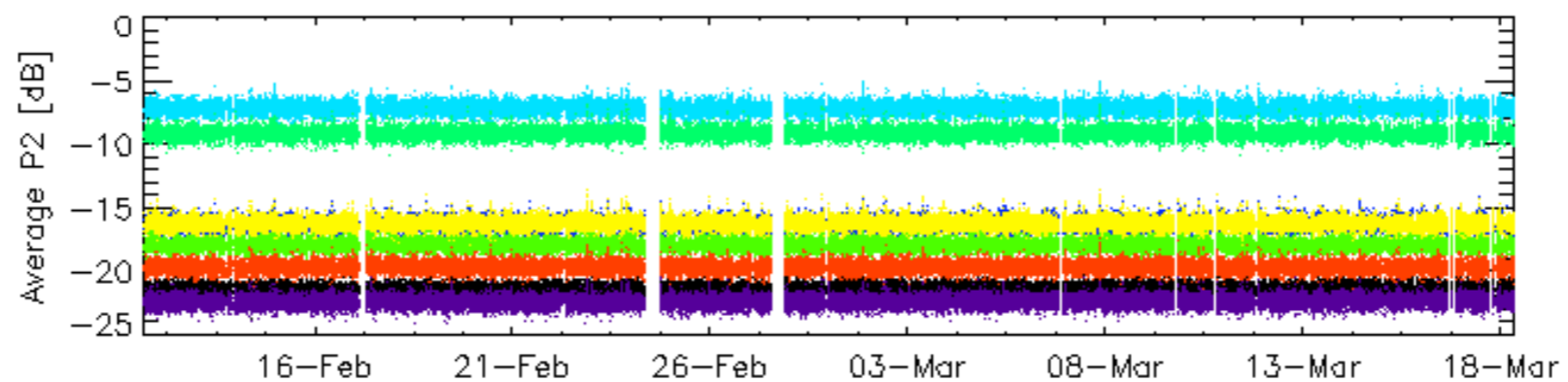
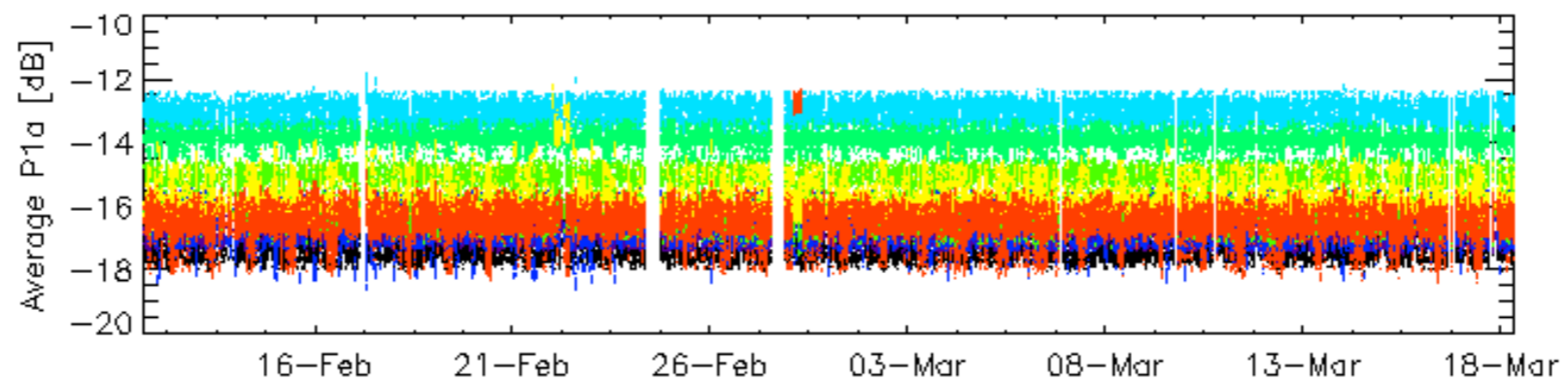
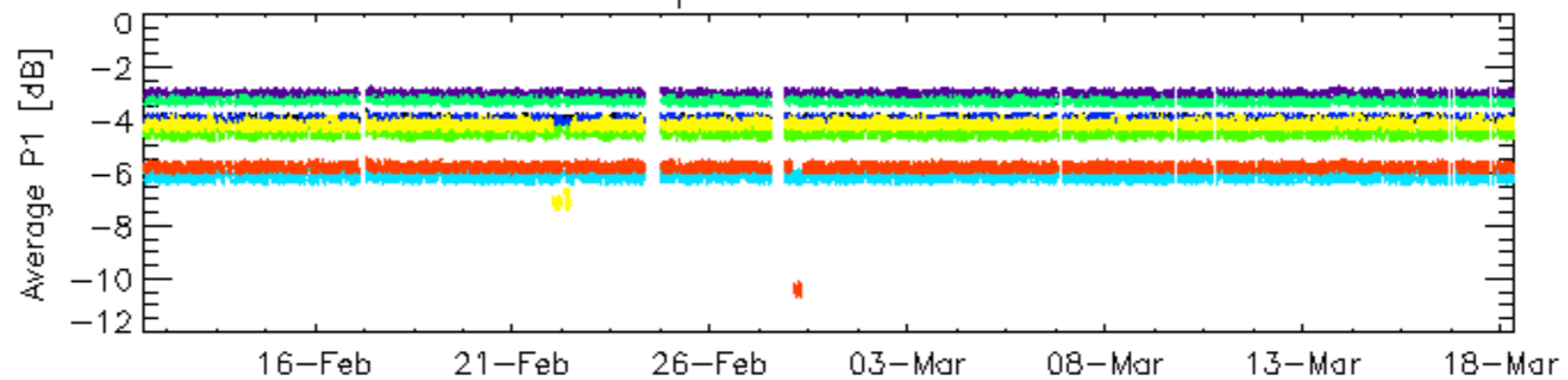


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

### Cal pulses for GM1 SS3

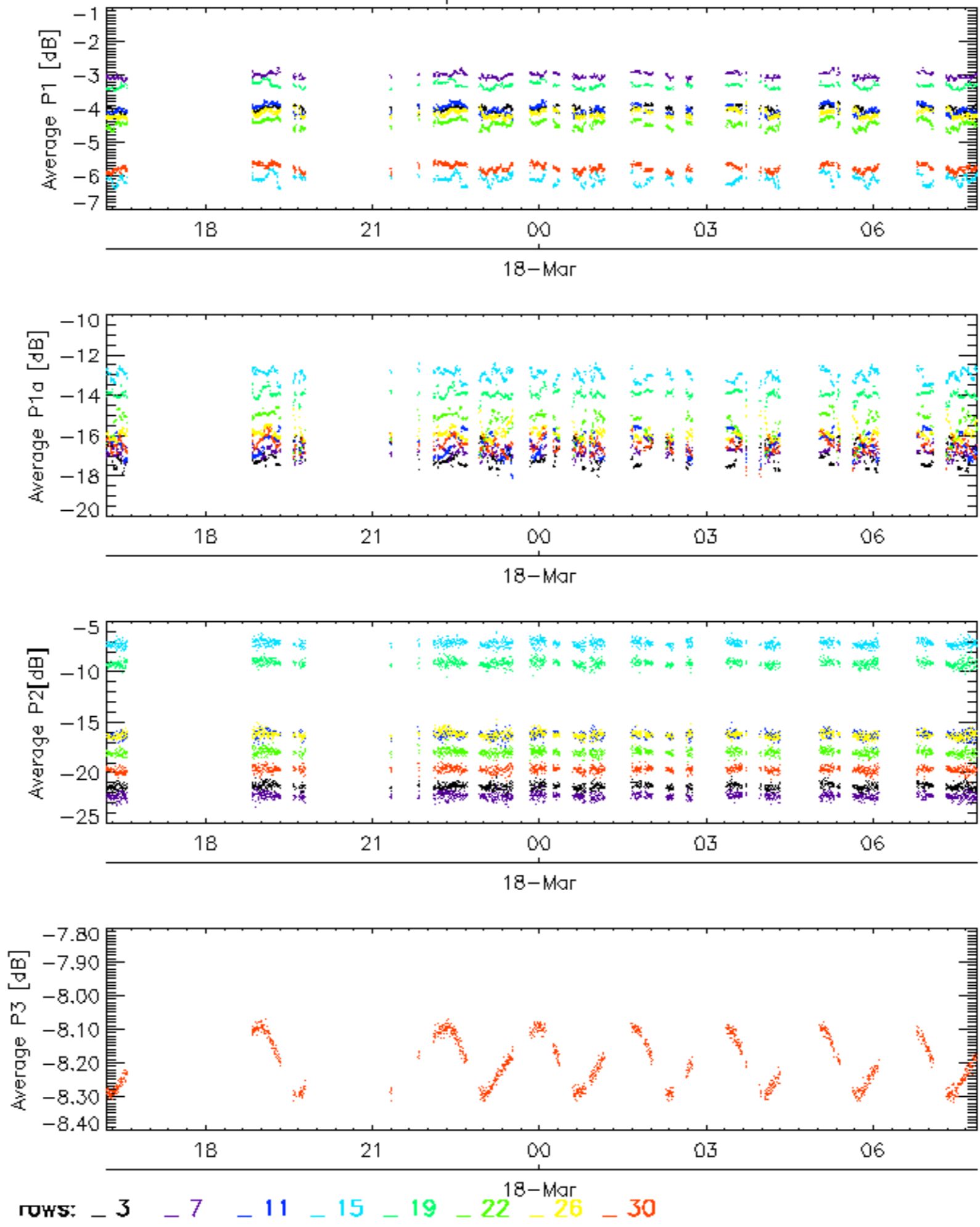


Cal pulses for WVS IS2



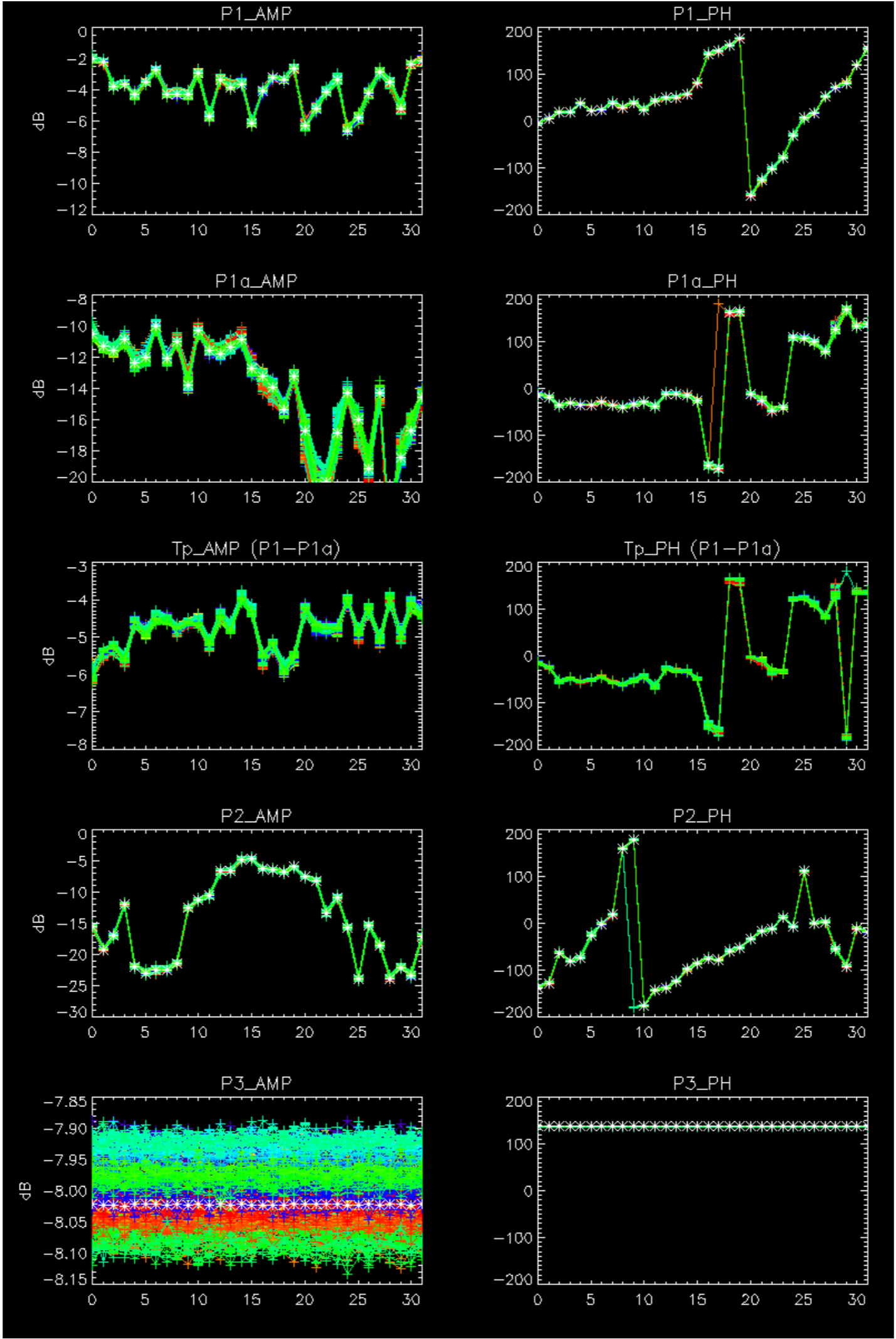
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

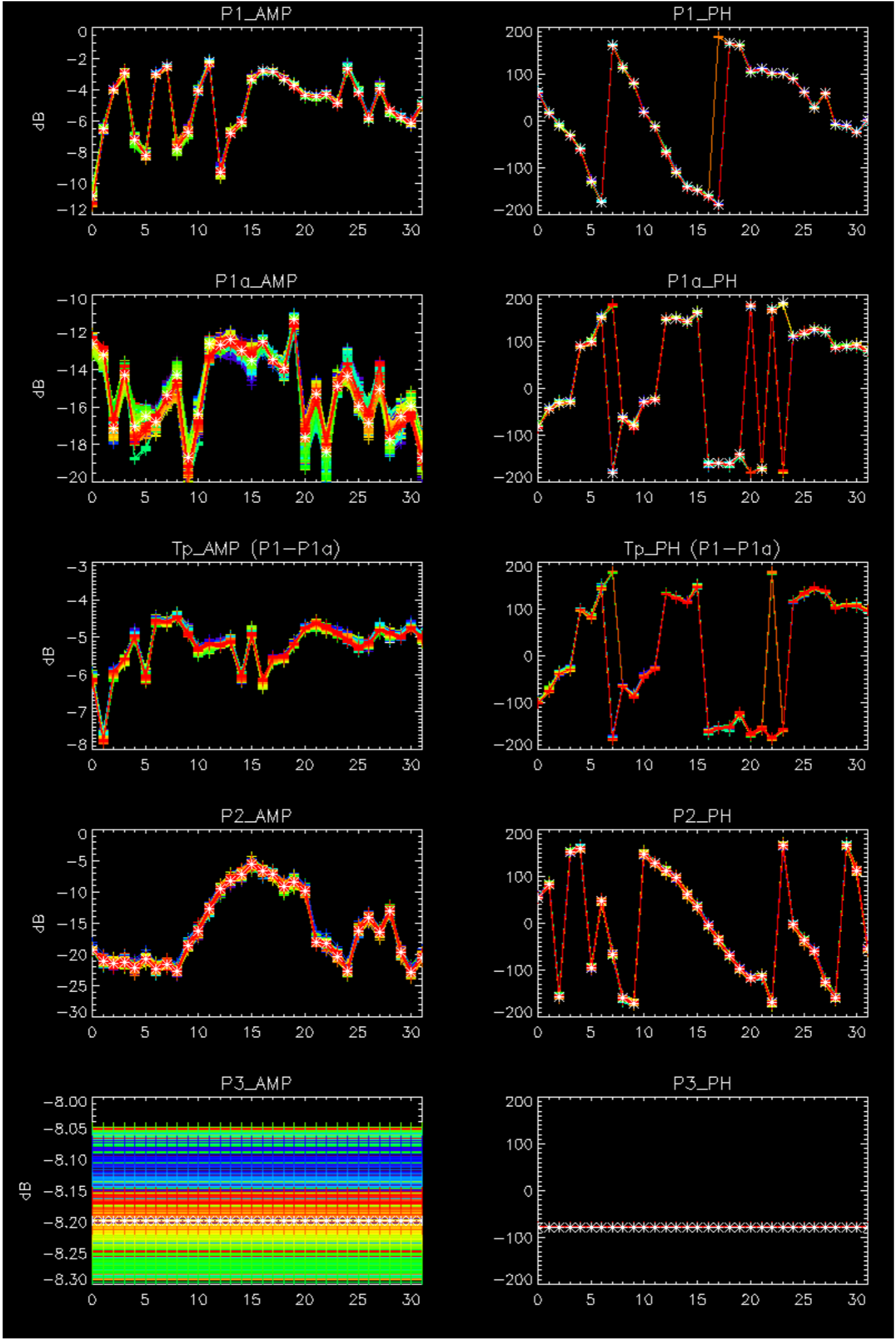
Cal pulses for WVS IS2



No anomalies observed.



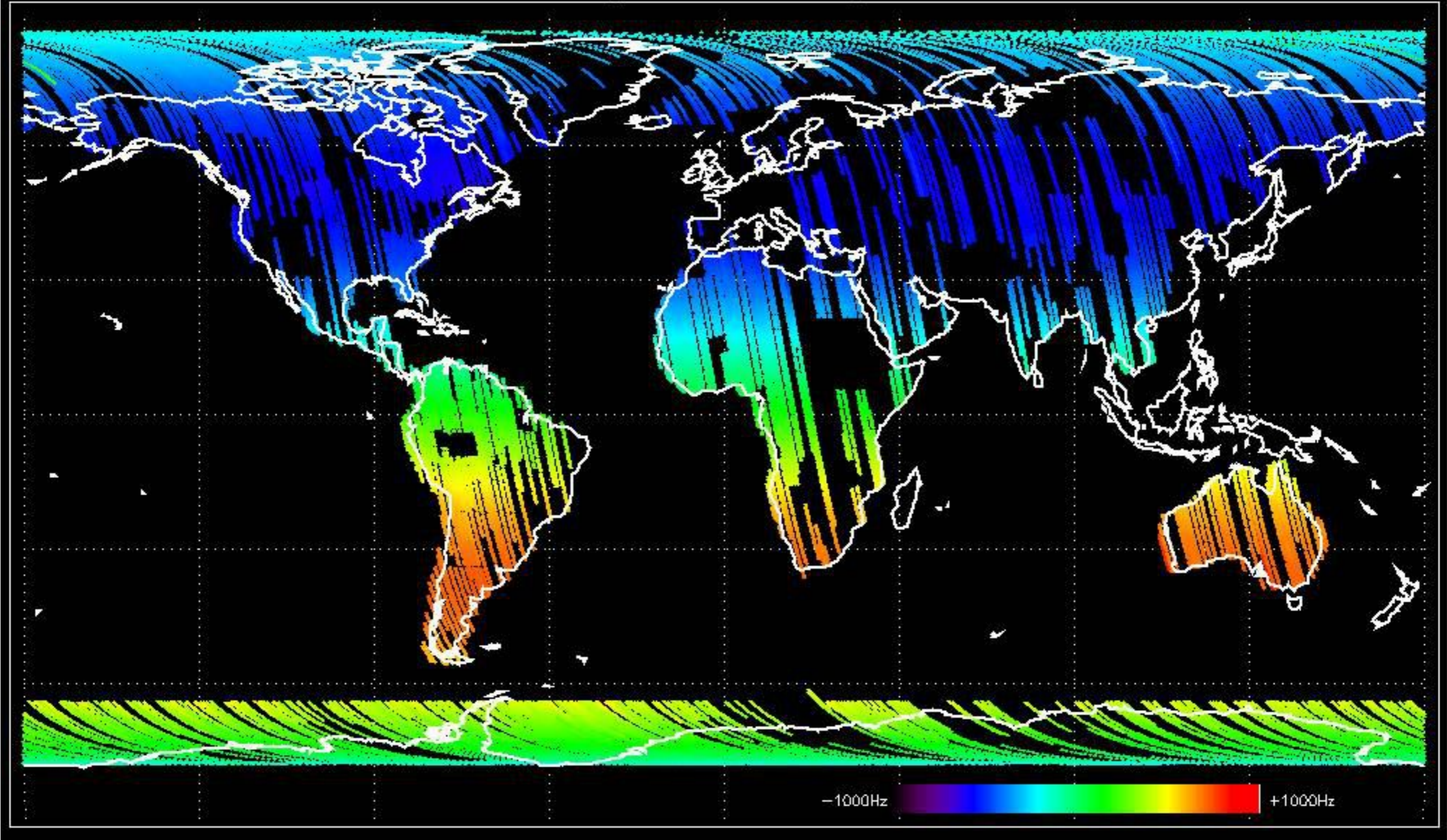




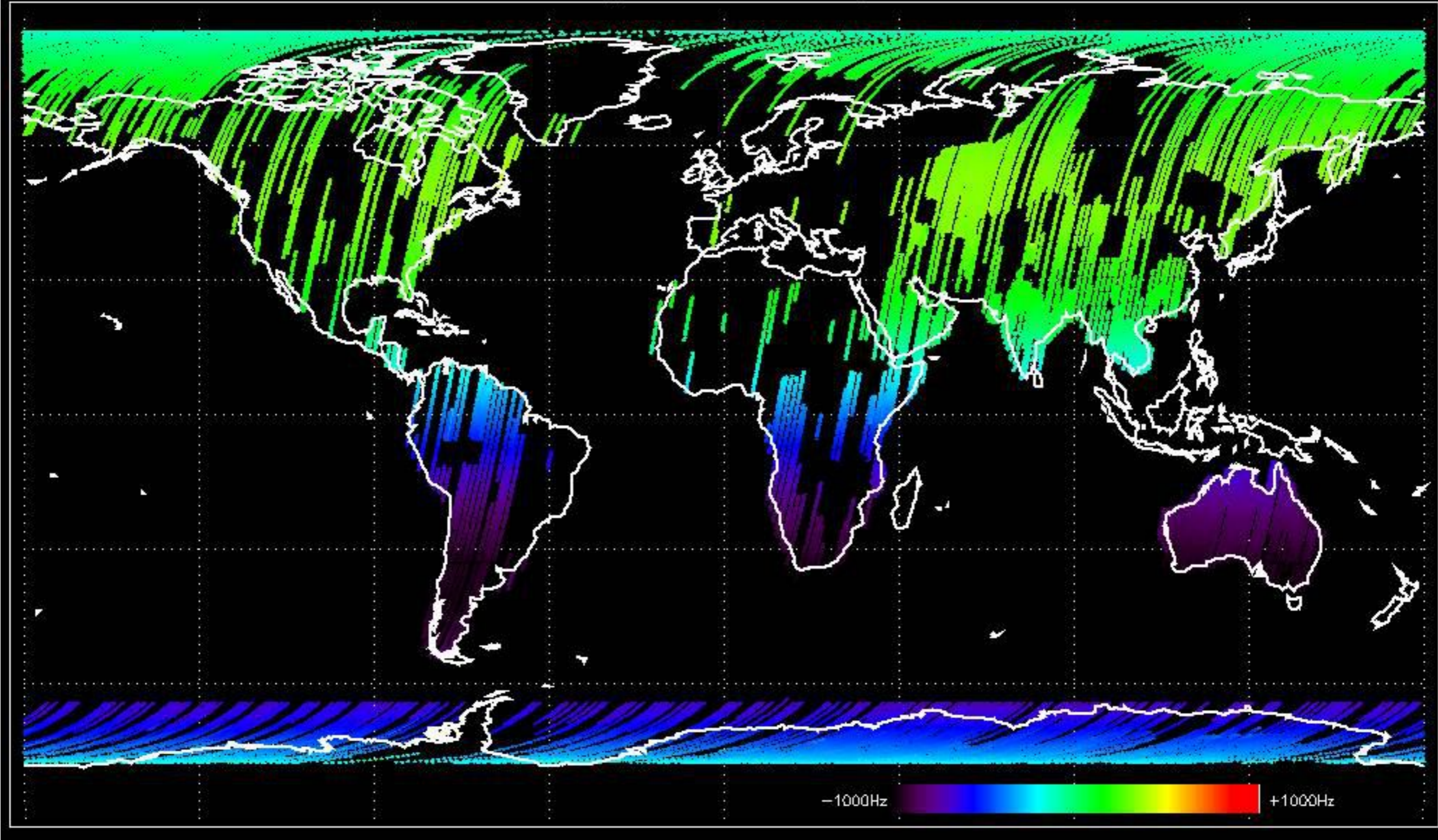
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



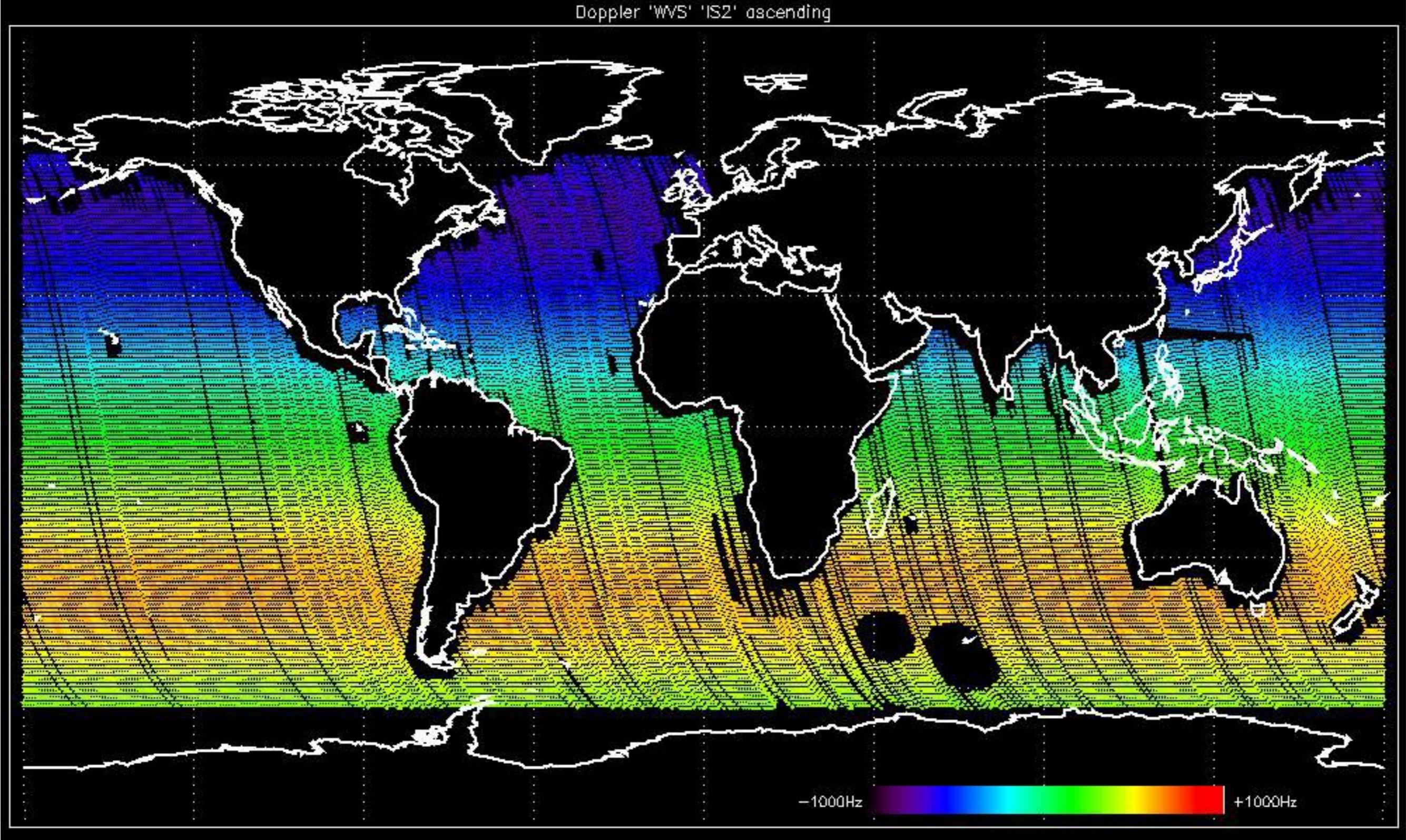
Doppler 'GM1' 'SS1' ascending



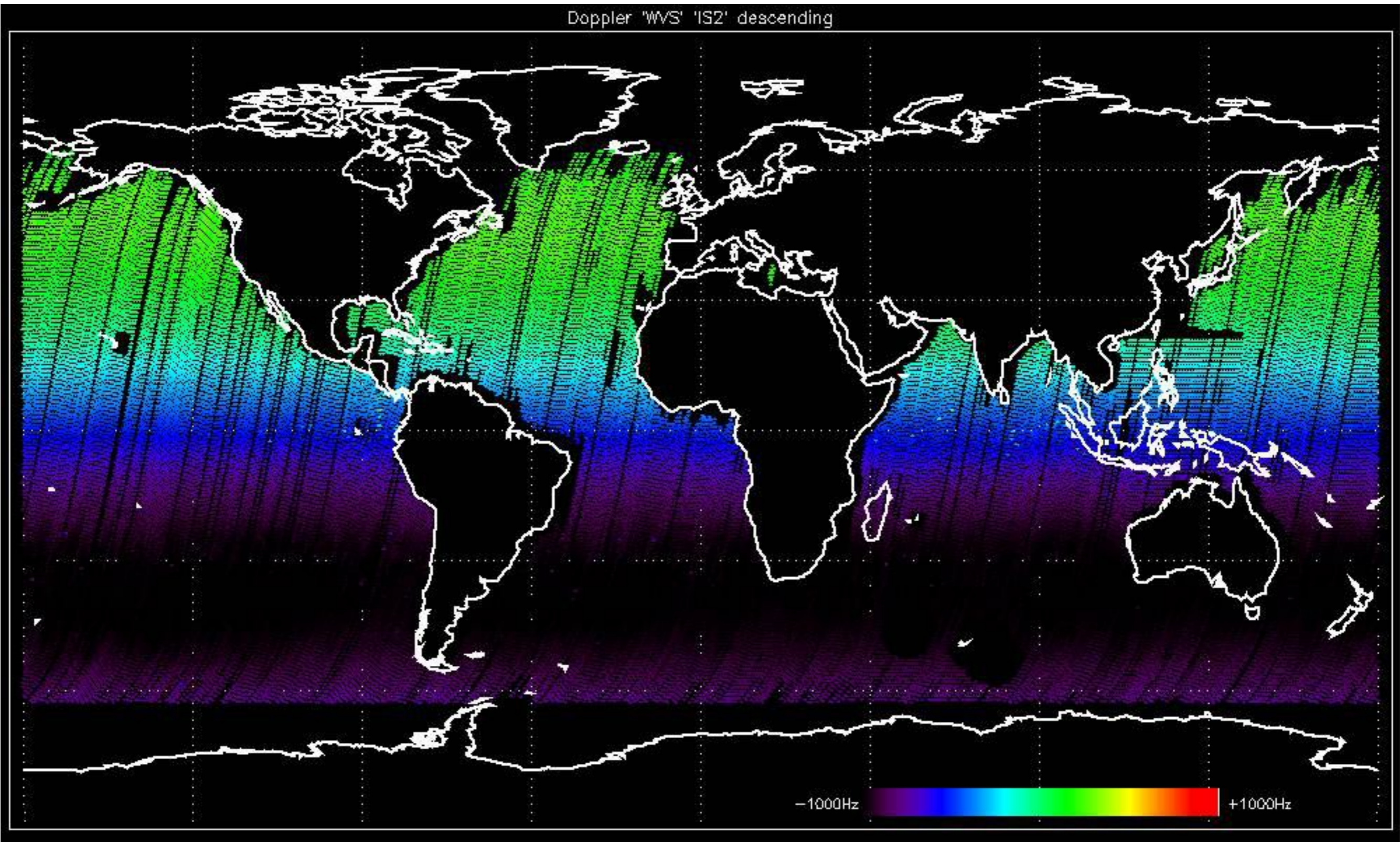
Doppler 'GM1' 'SS1' descending



Doppler 'WVS' 'IS2' ascending

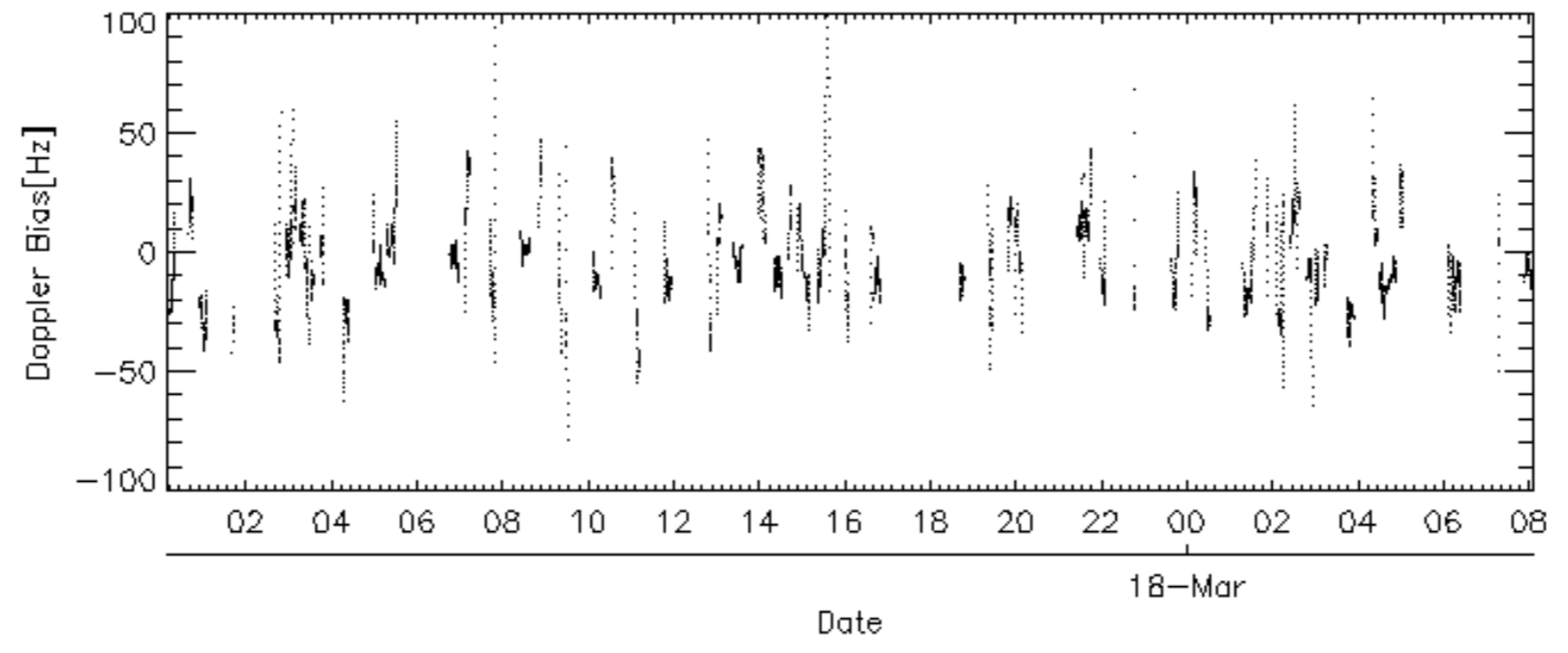
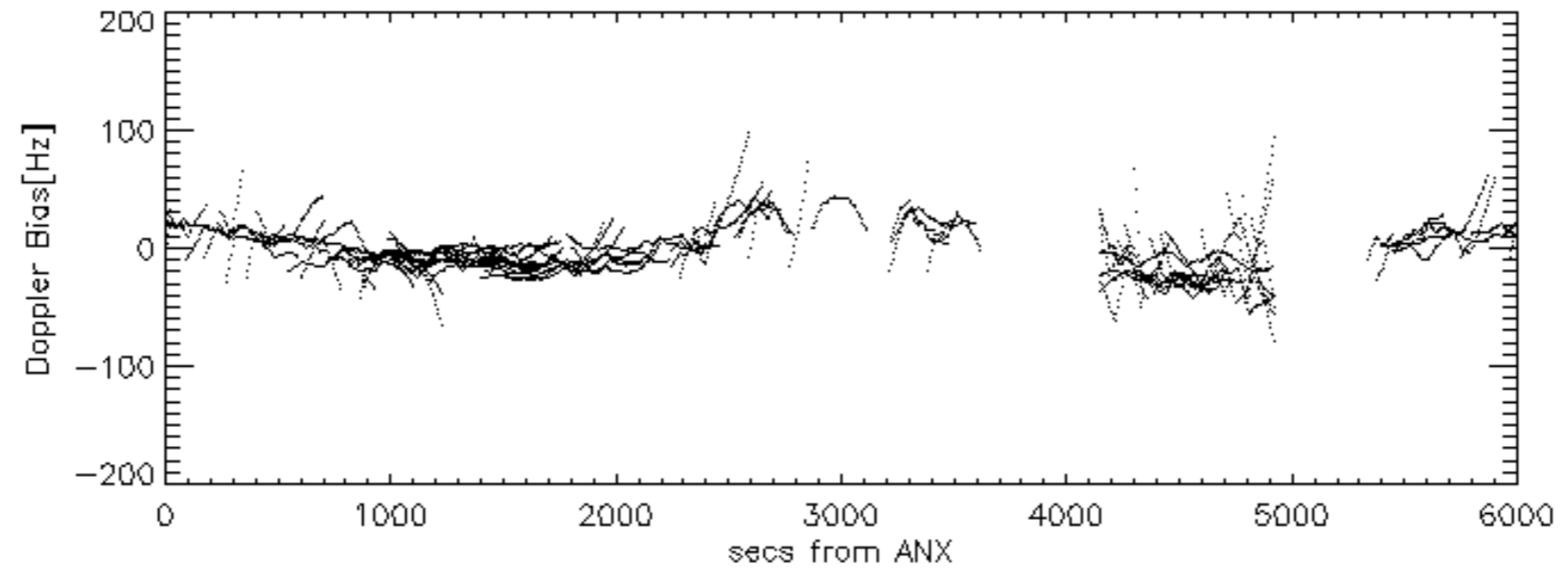
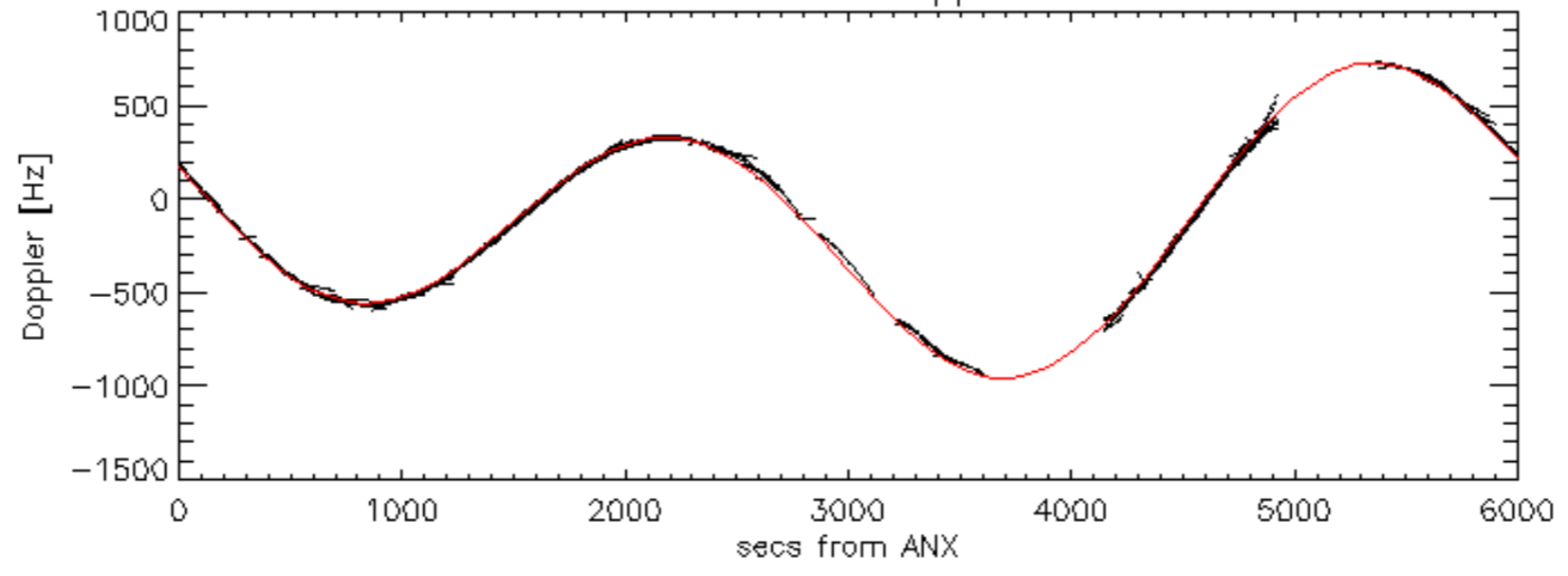


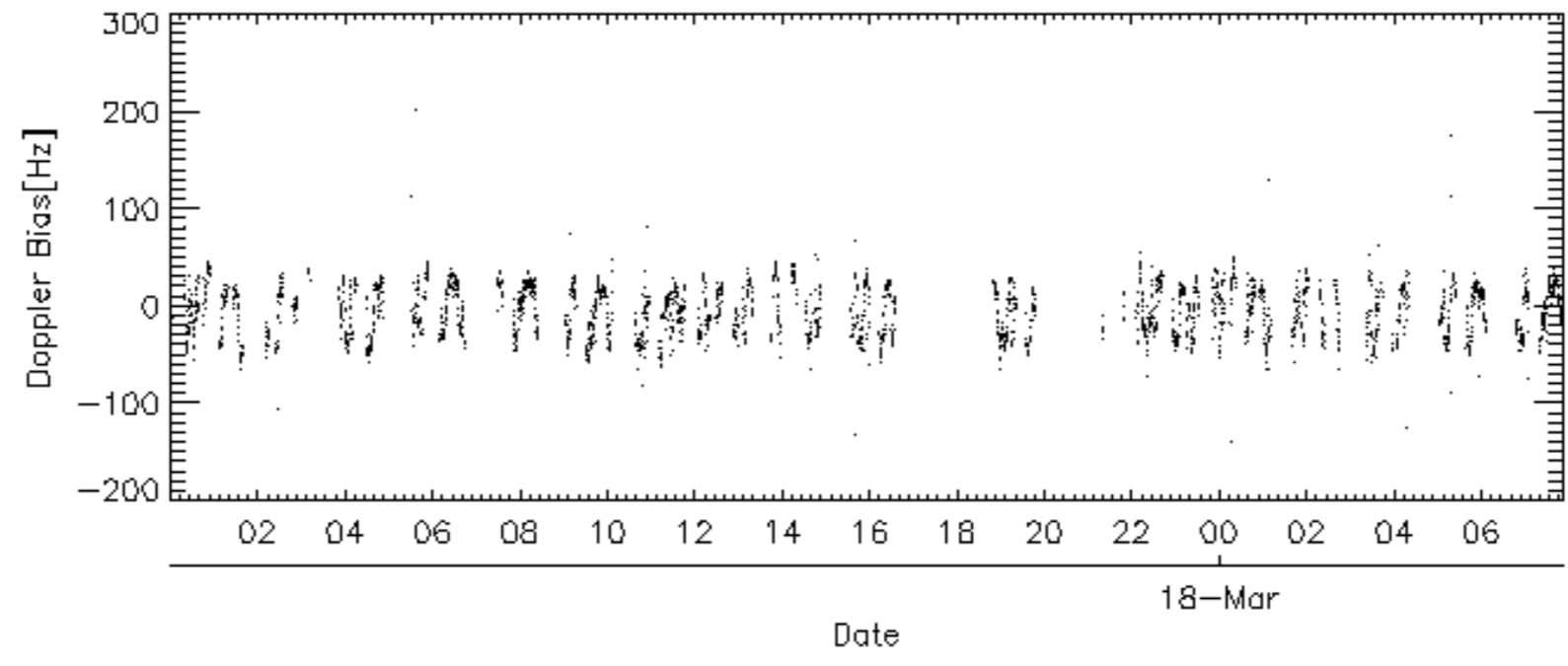
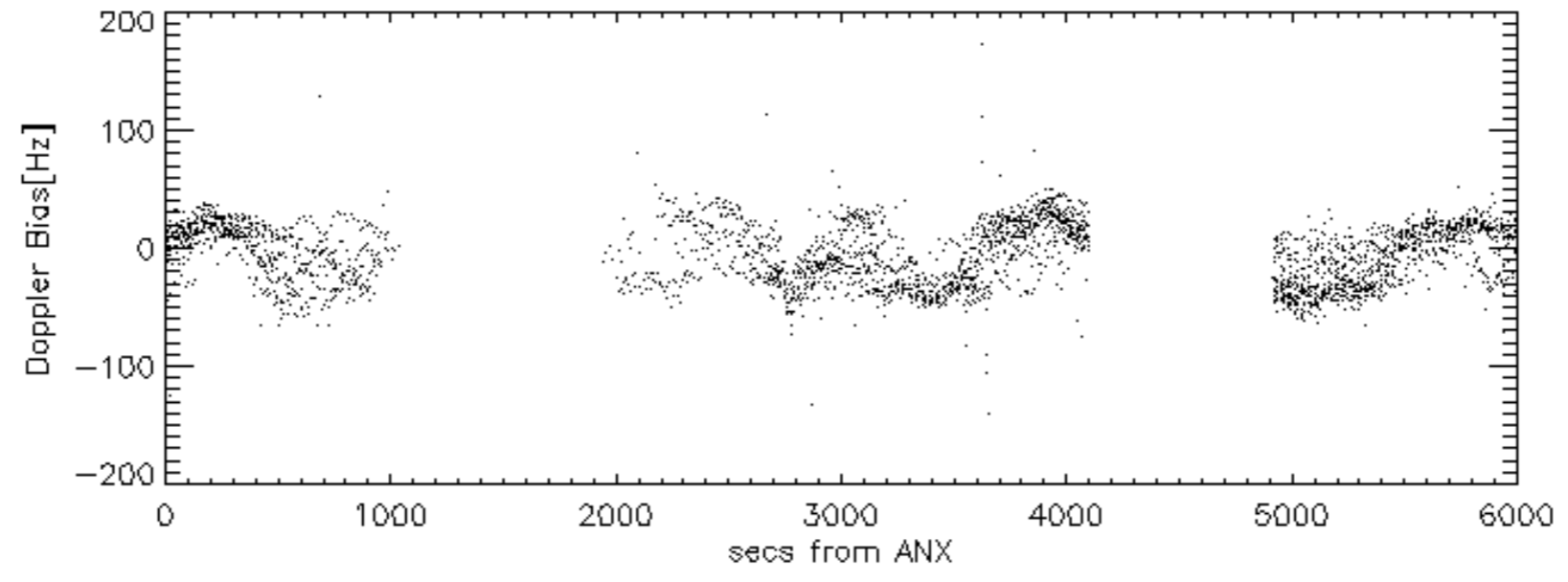
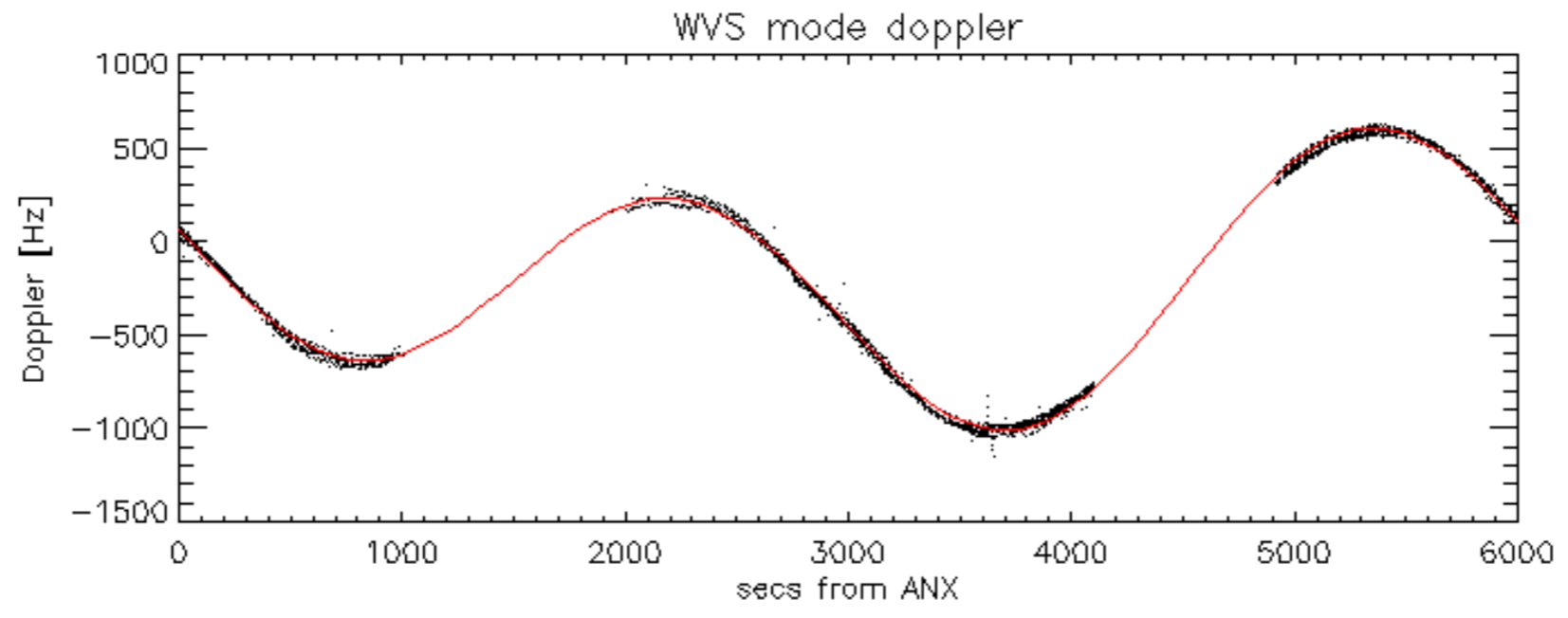
Doppler 'WVS' 'IS2' descending



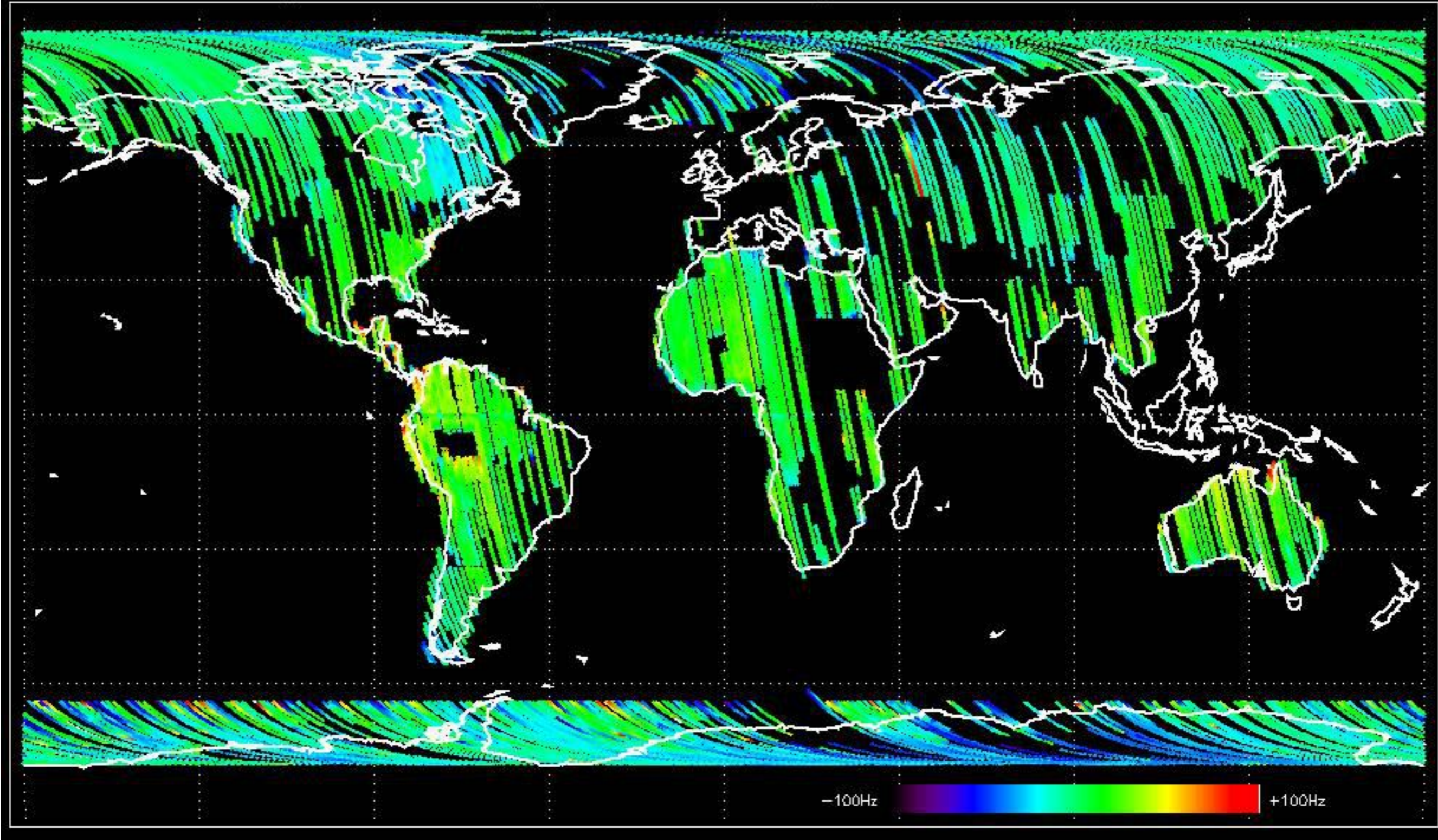


GM1 mode doppler

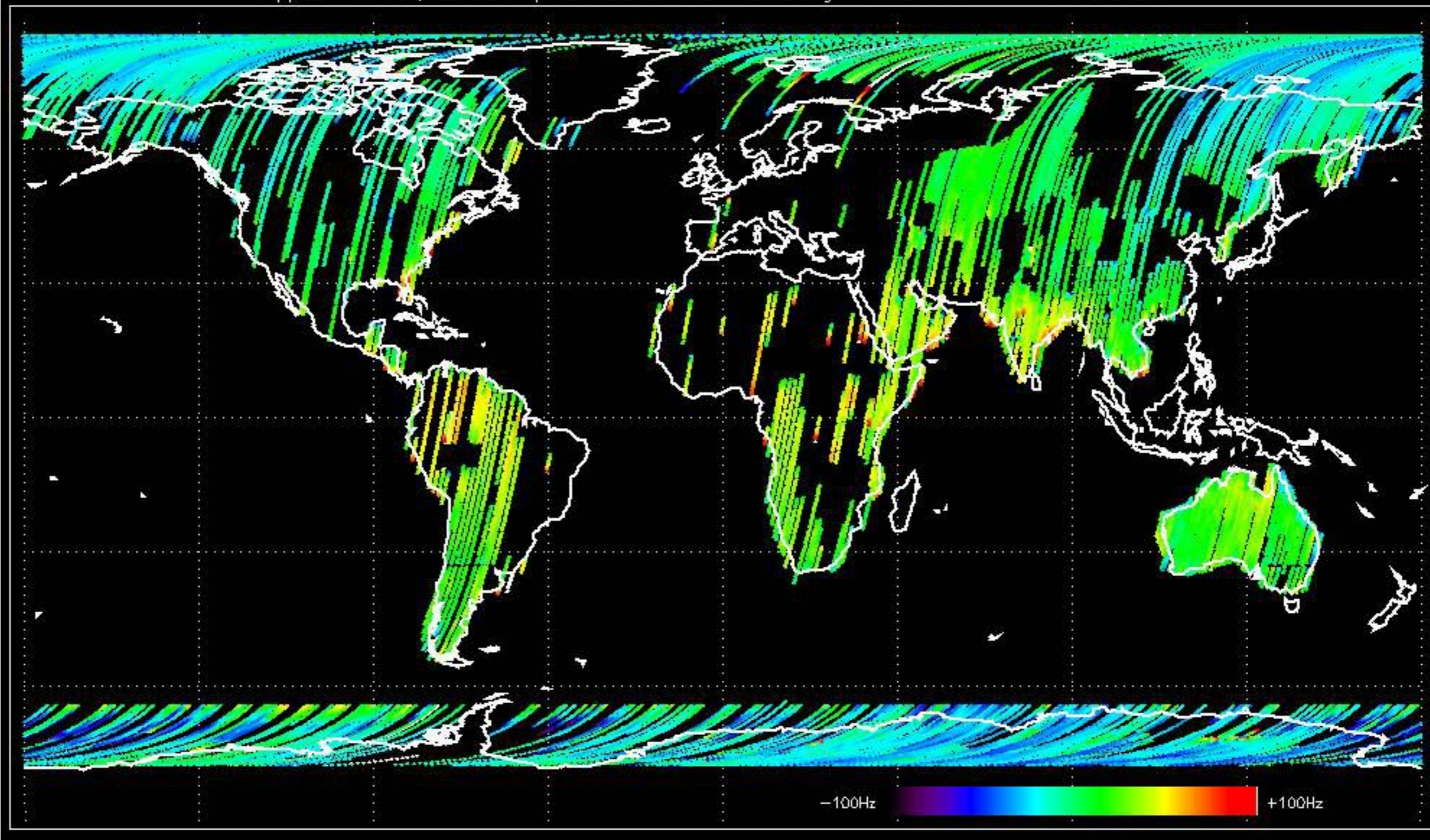




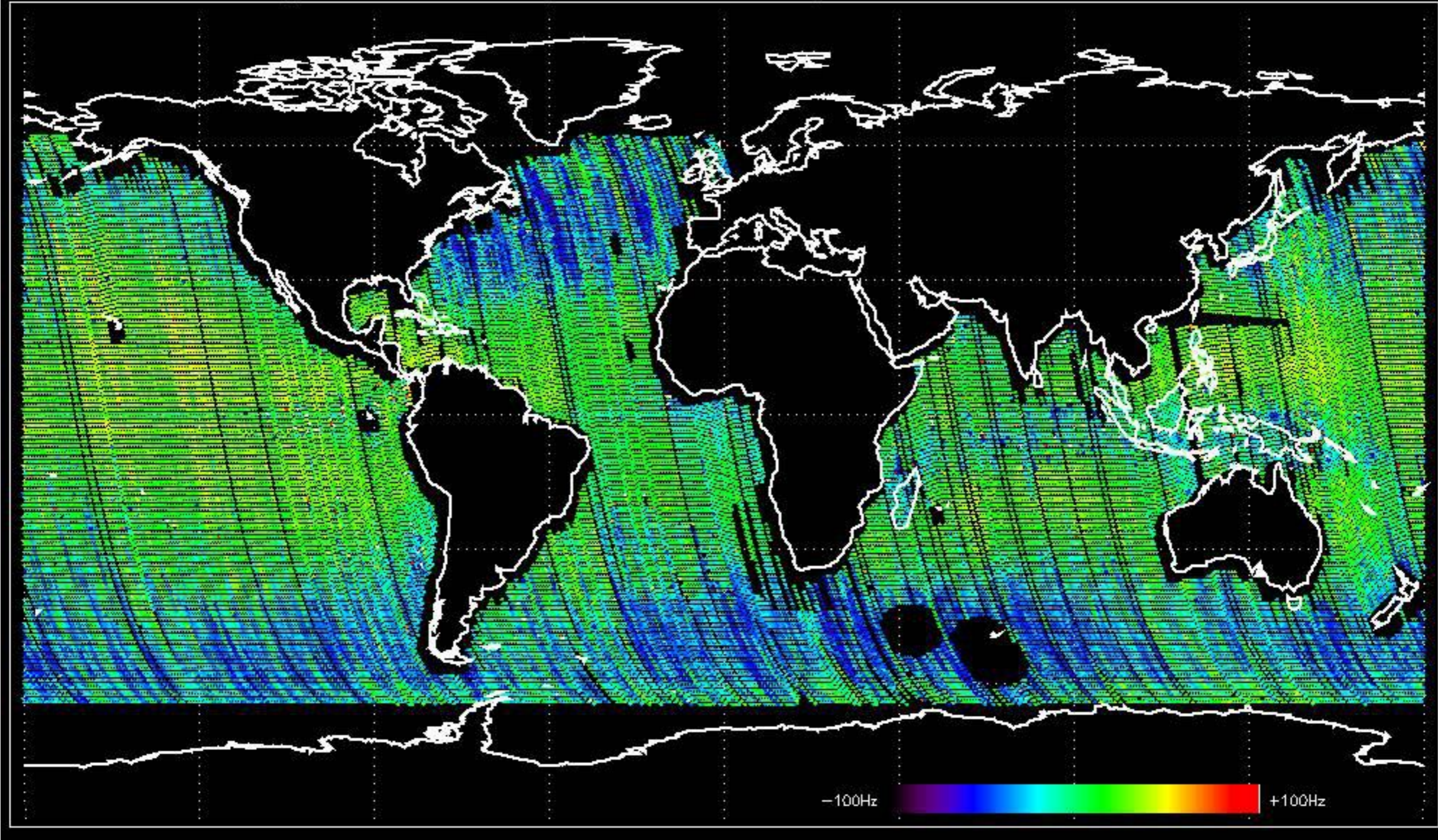
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.9931880 Hz



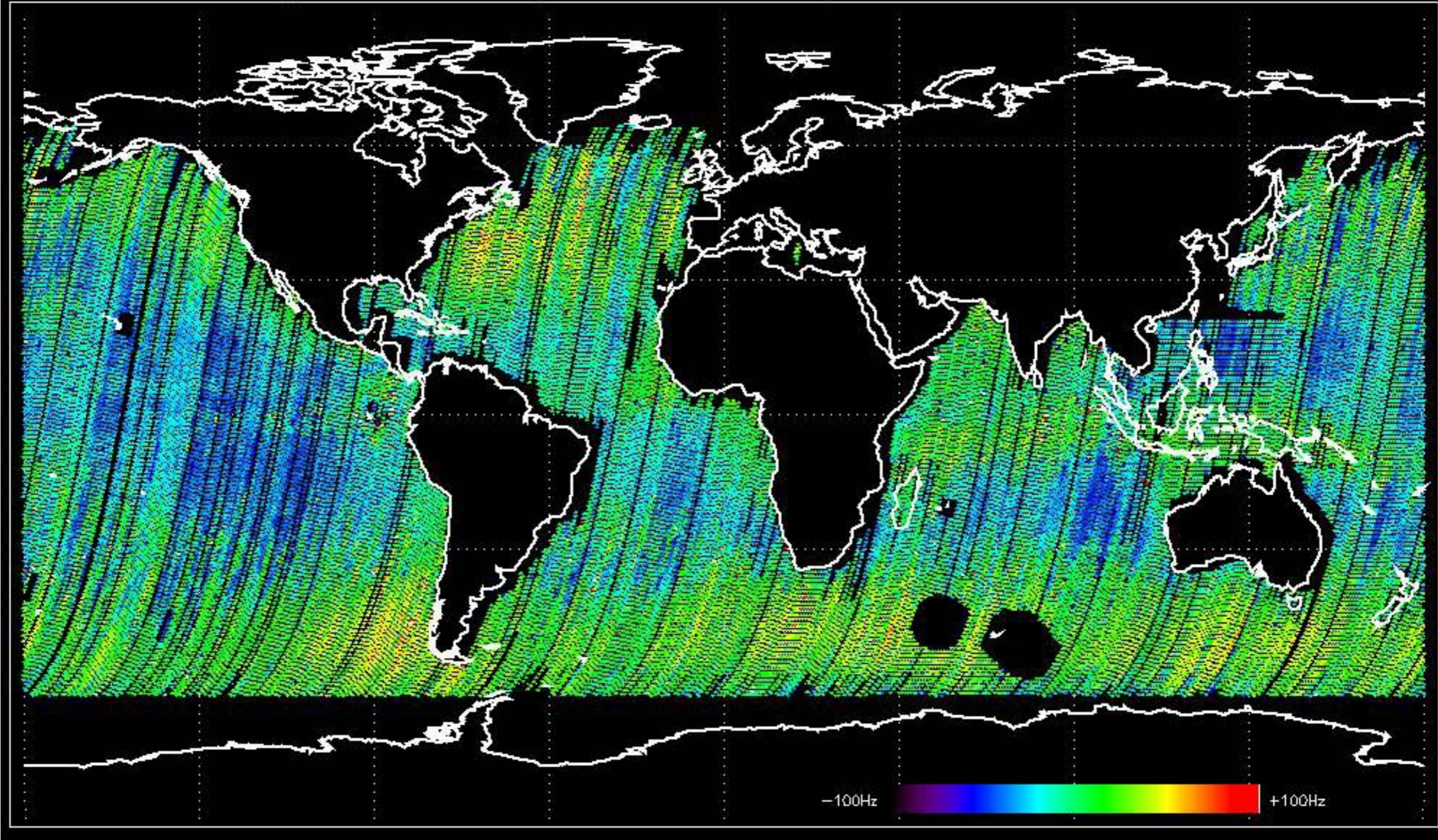
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.4101849 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5755629 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.6445274 Hz

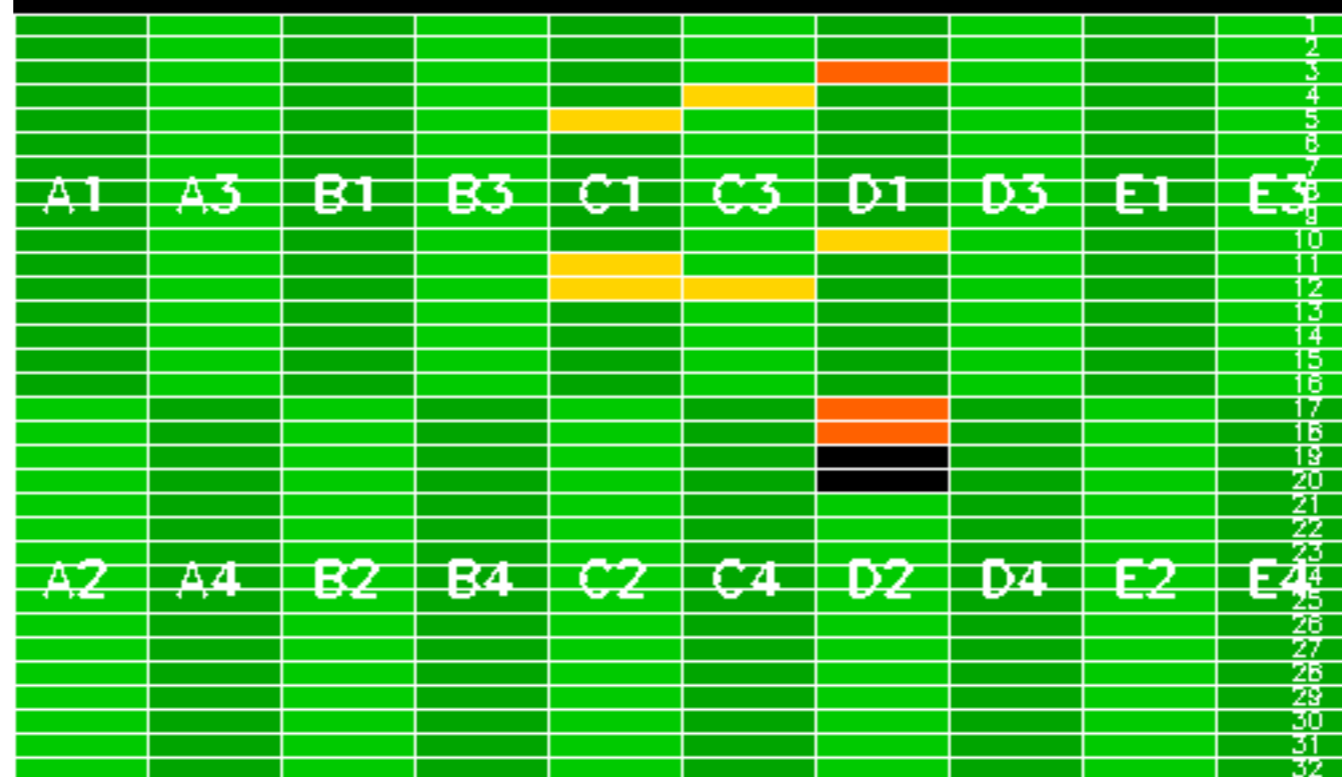


No anomalies observed on available MS products:

No anomalies observed.



Reference: 2001-02-09 13:50:42 H      RxGain  
 Test : 2006-03-16 06:26:40 H

















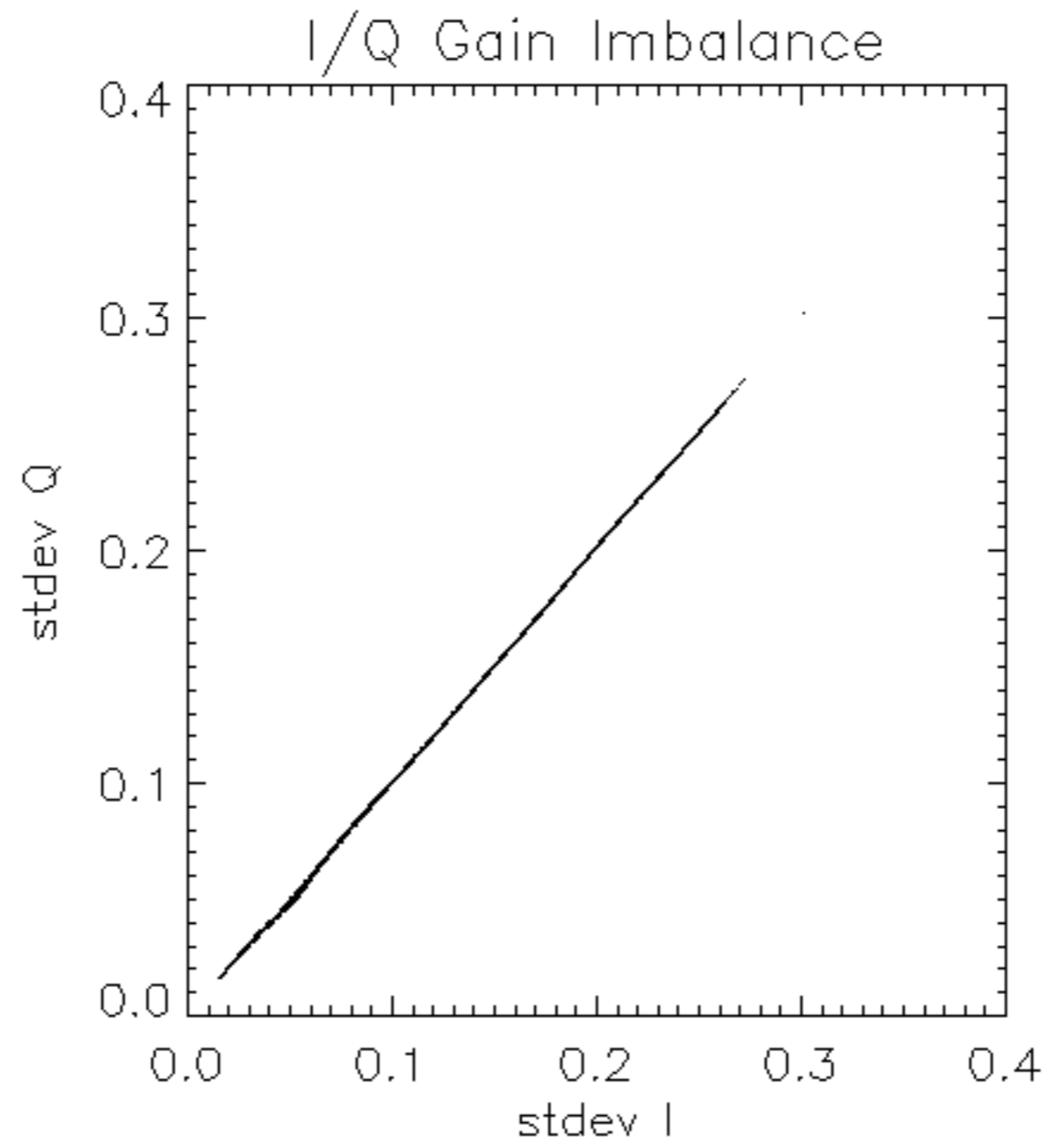


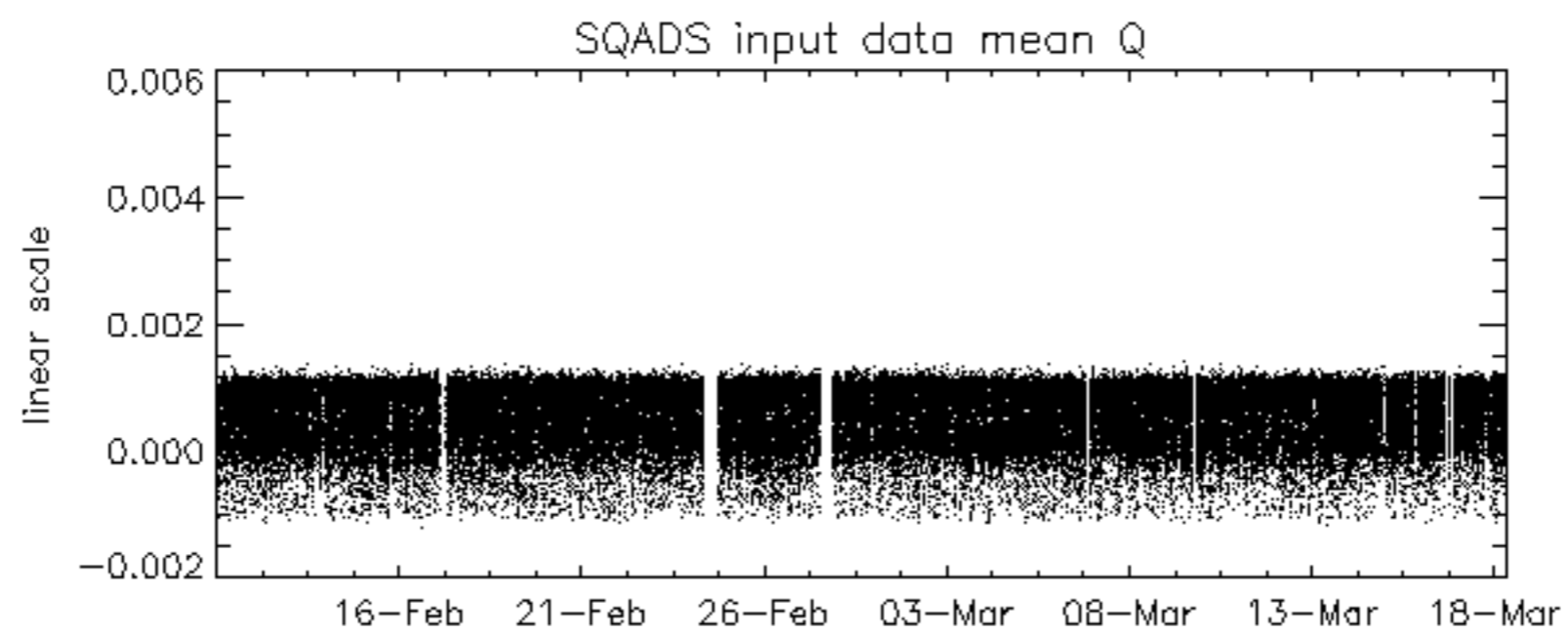
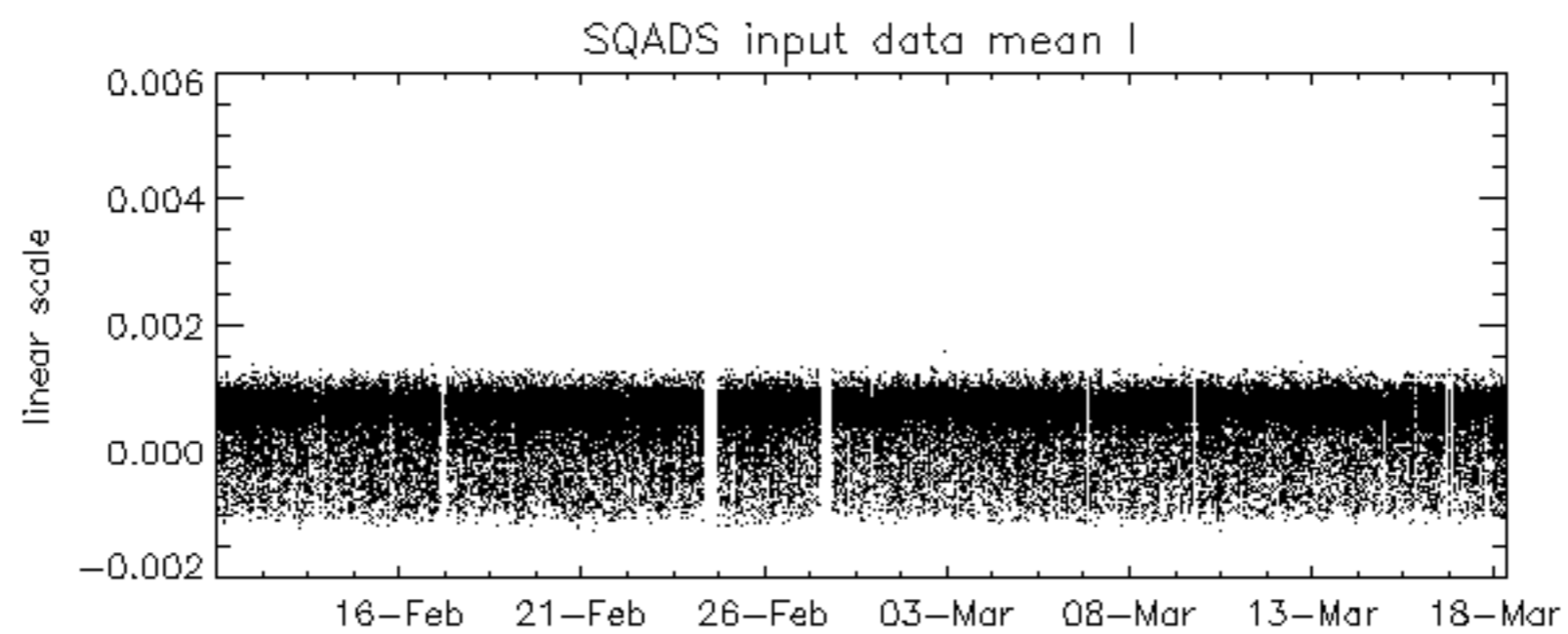
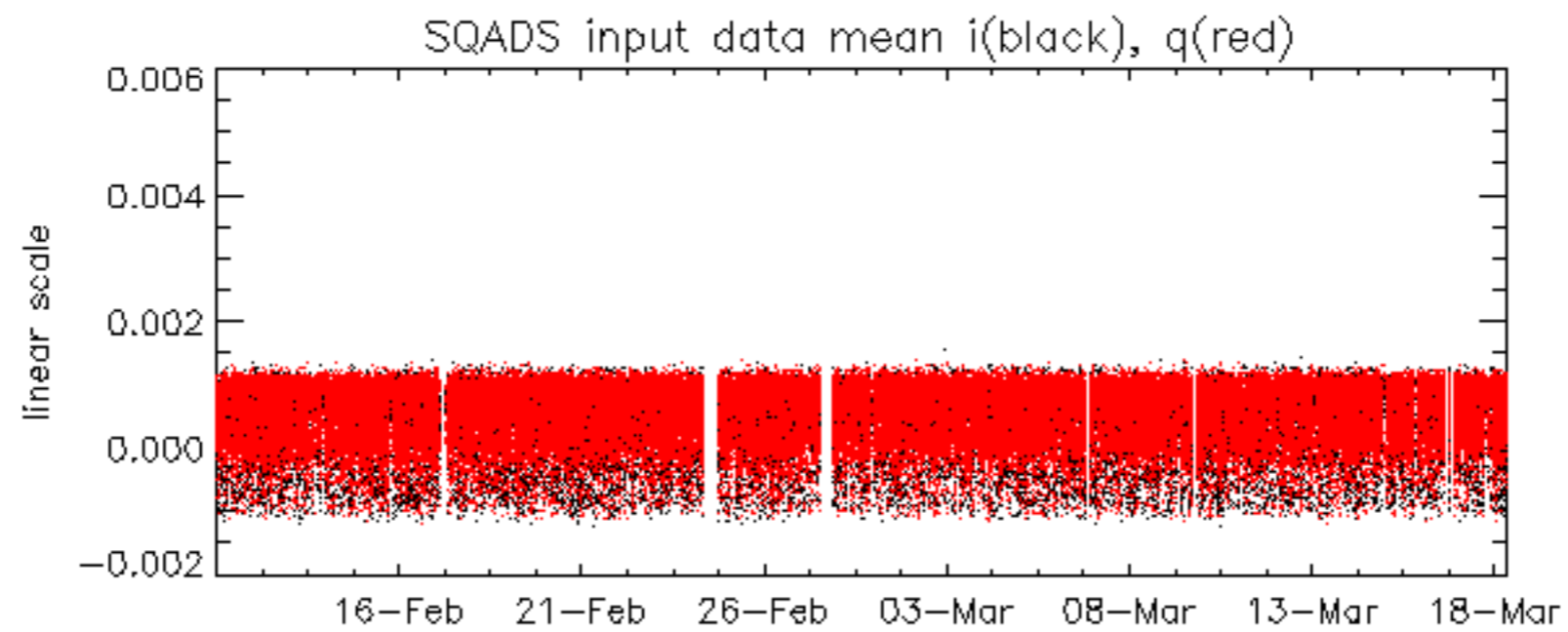


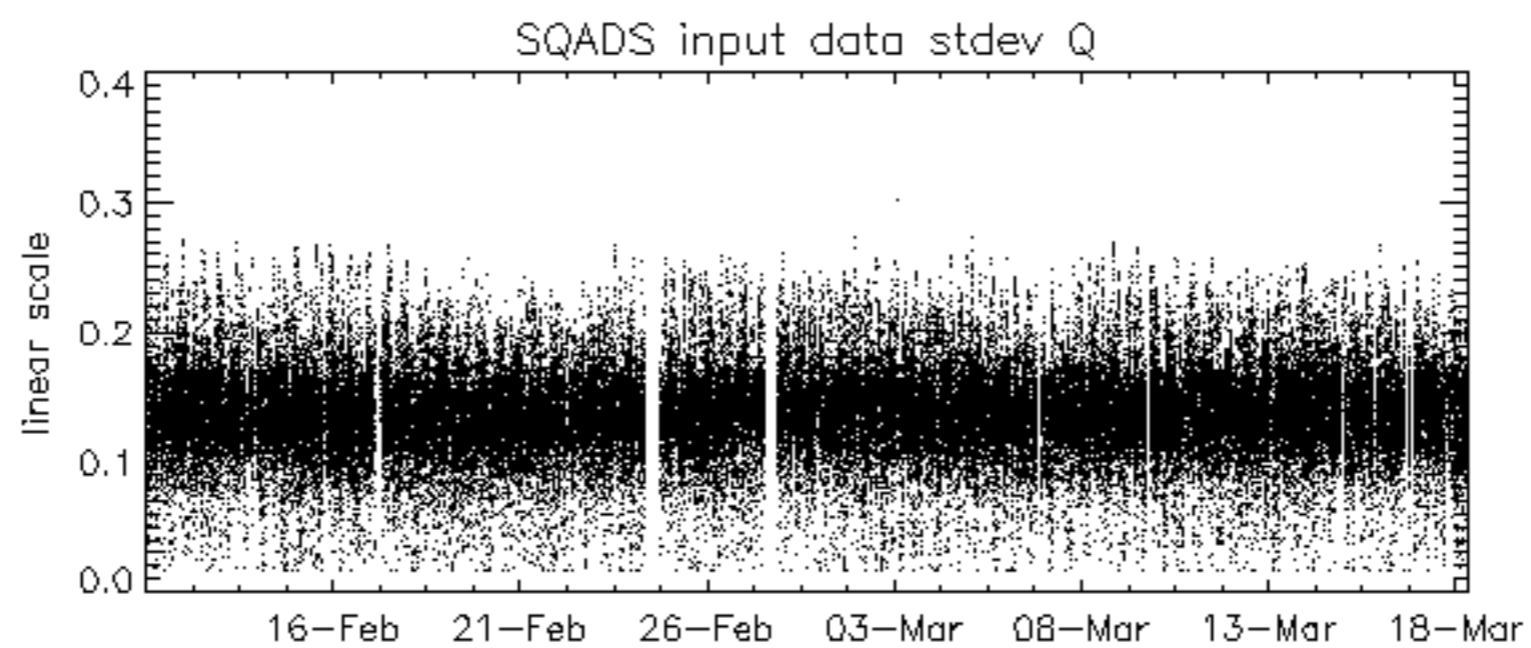
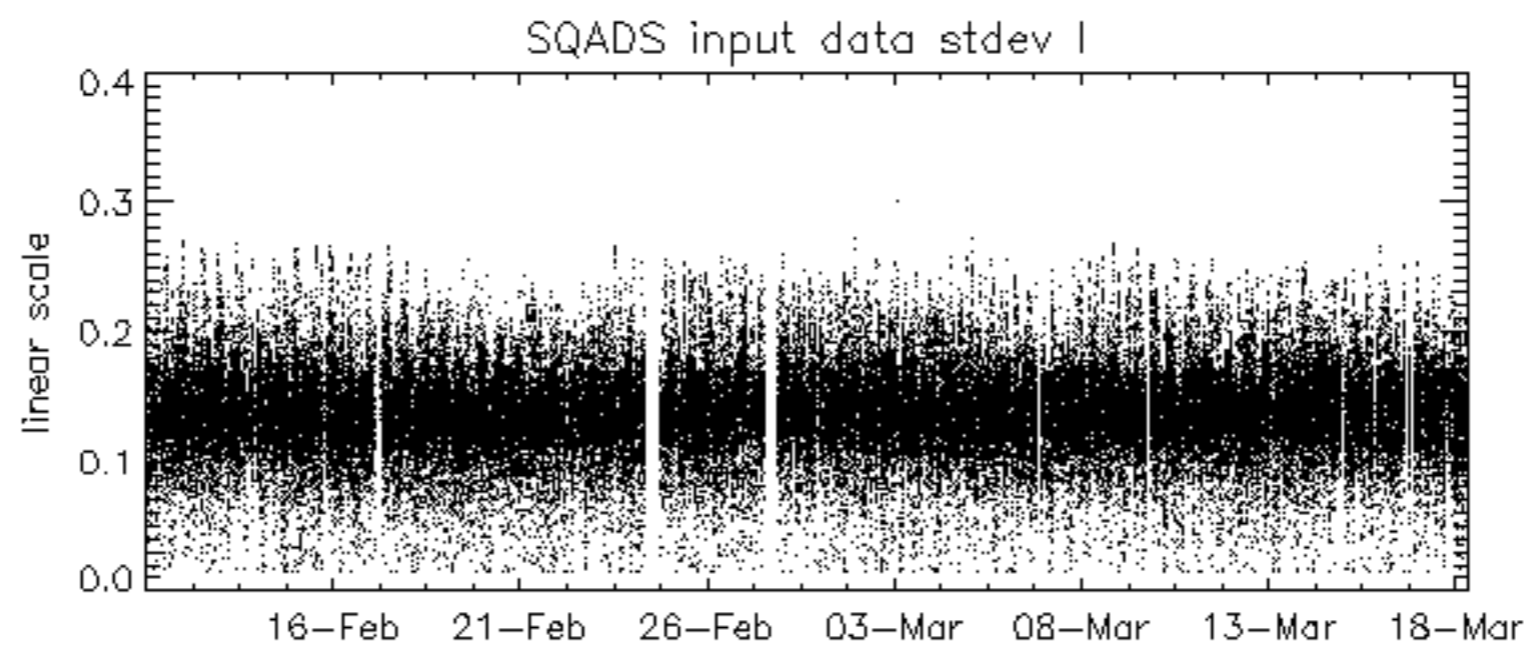
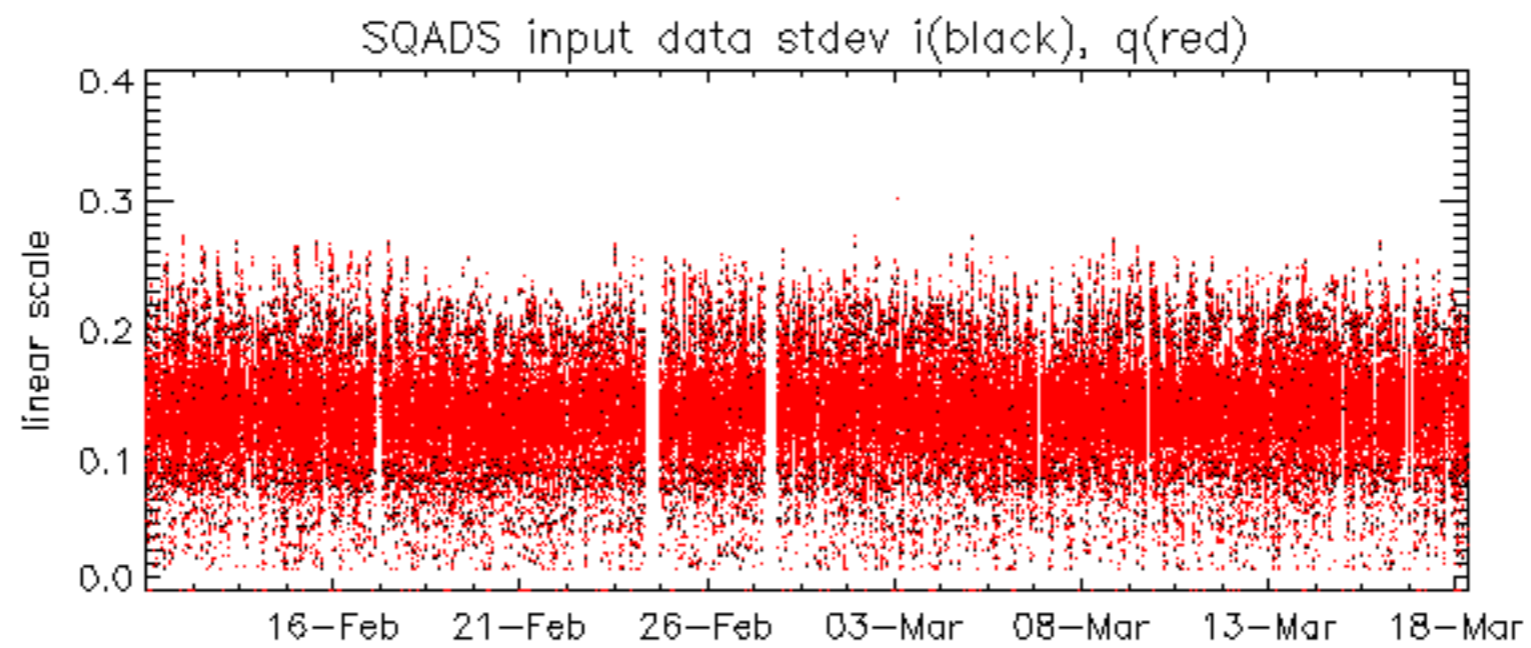
























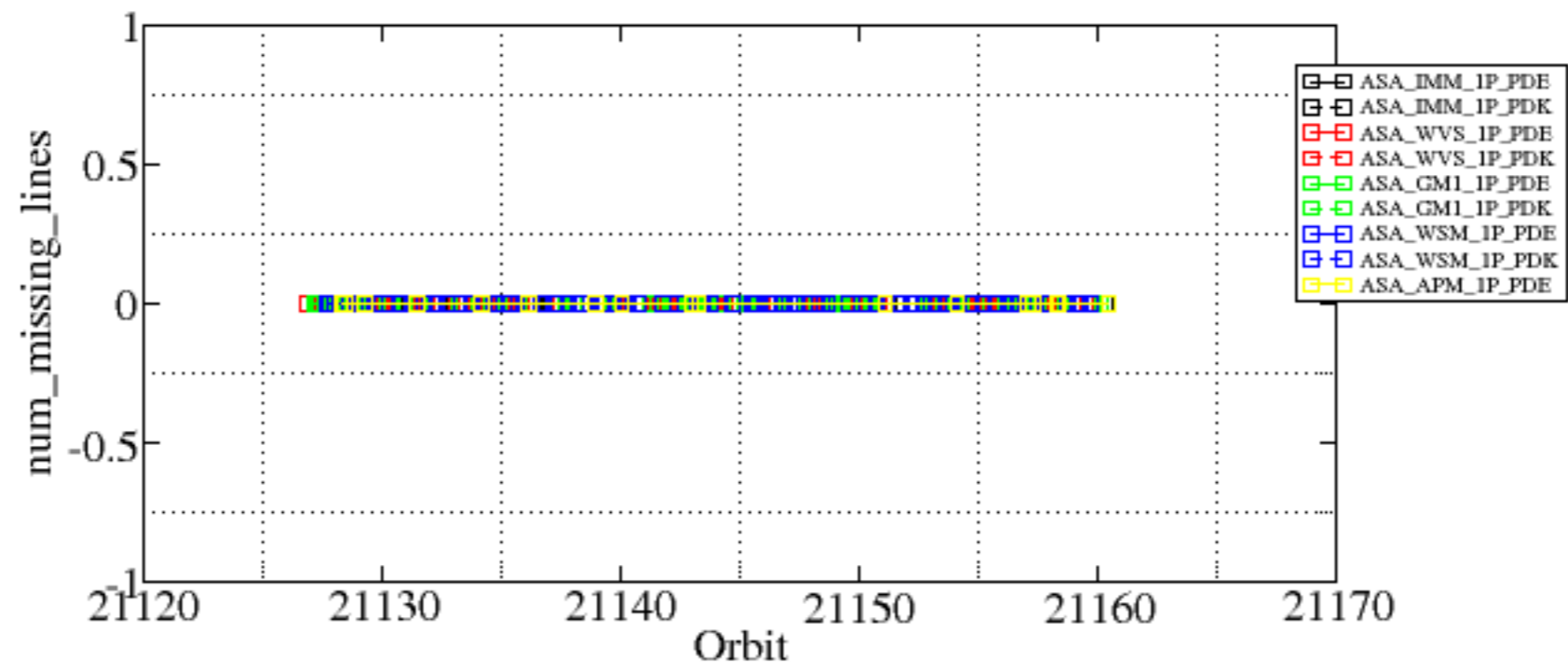


Summary of analysis for the last 3 days 2006031[678]

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_1PNPDE20060317_054348_000000352046_00048_21144_1038.N1	1	0
ASA_IMM_1PNPDE20060318_005019_000002372046_00059_21155_1081.N1	1	0









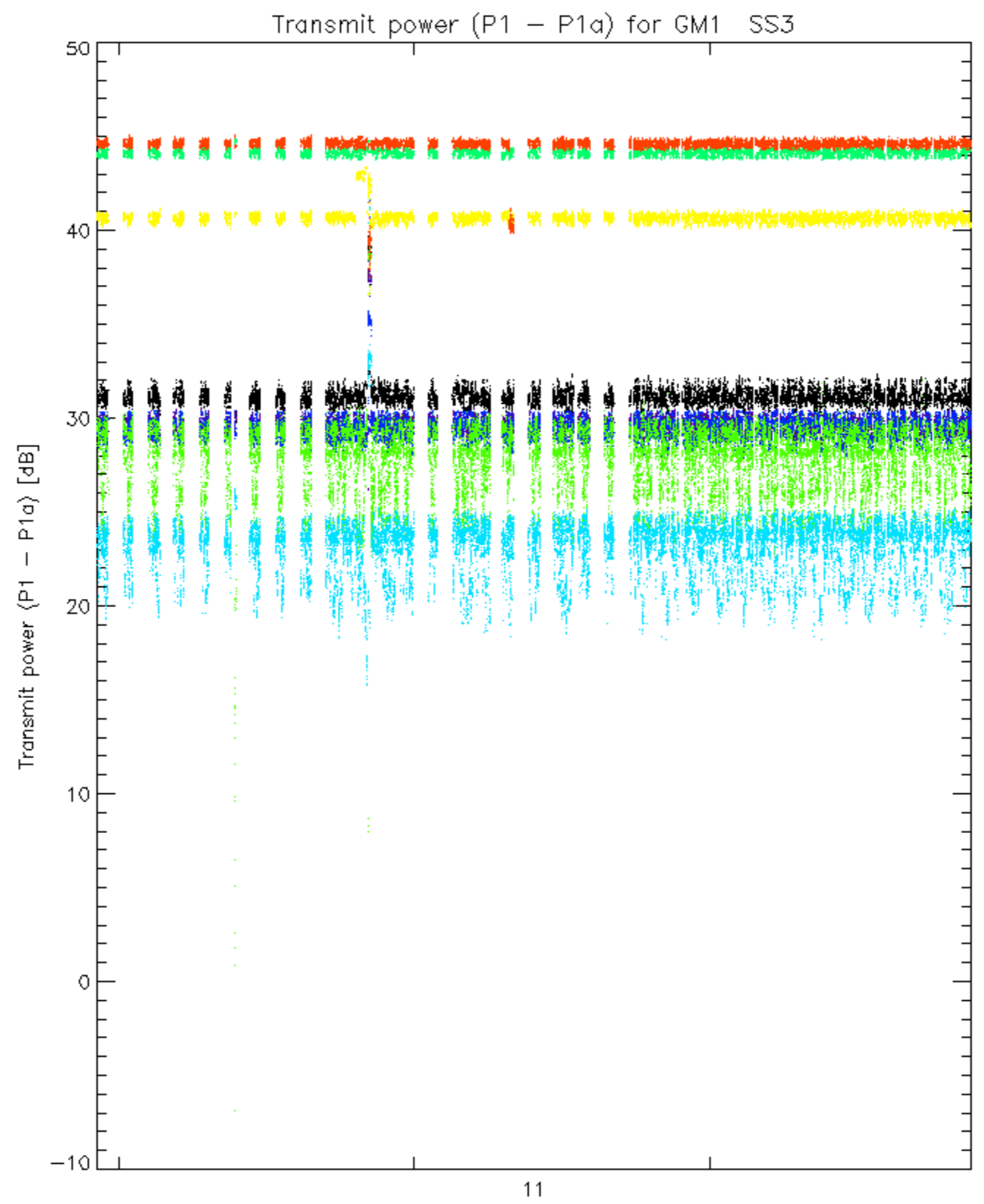




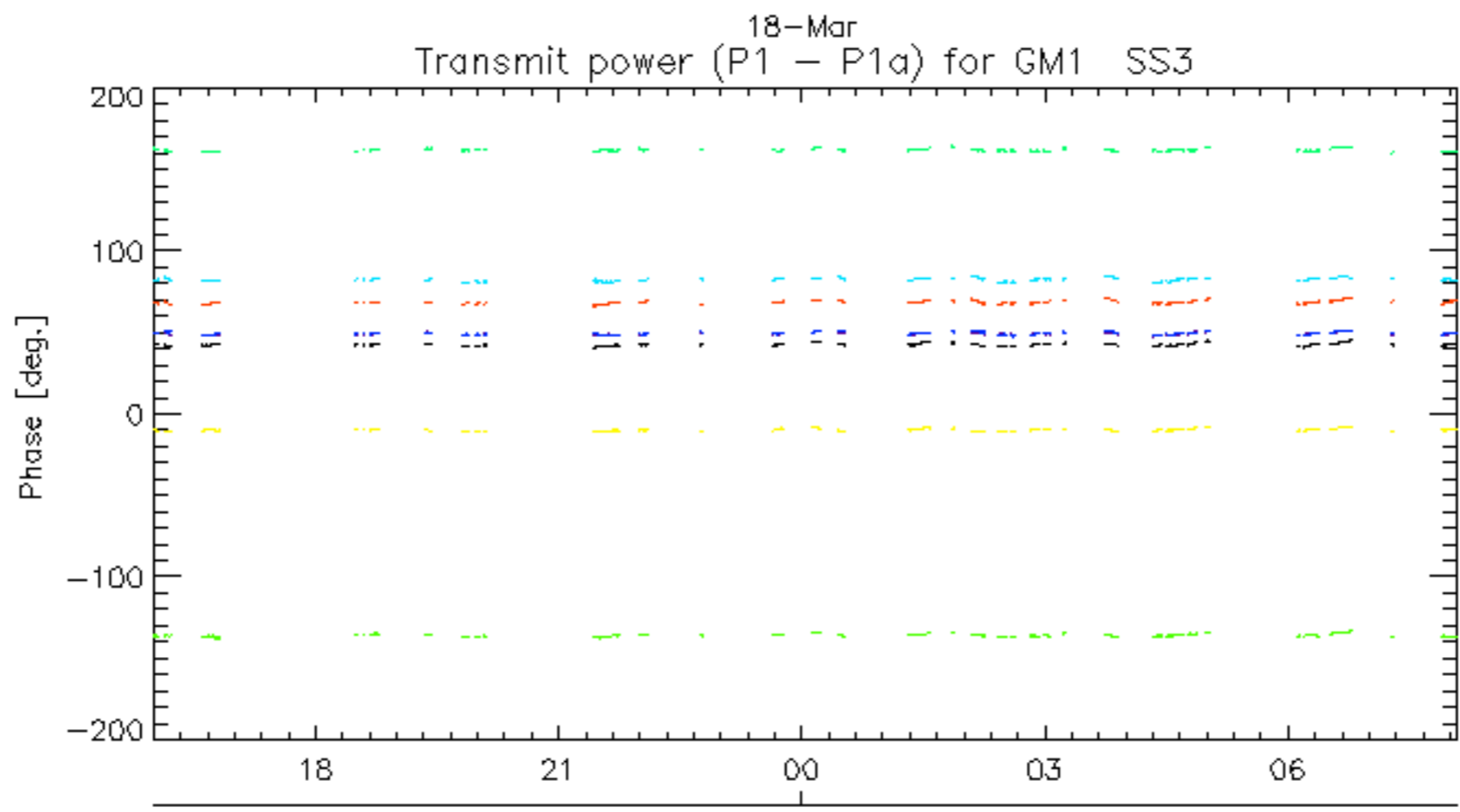
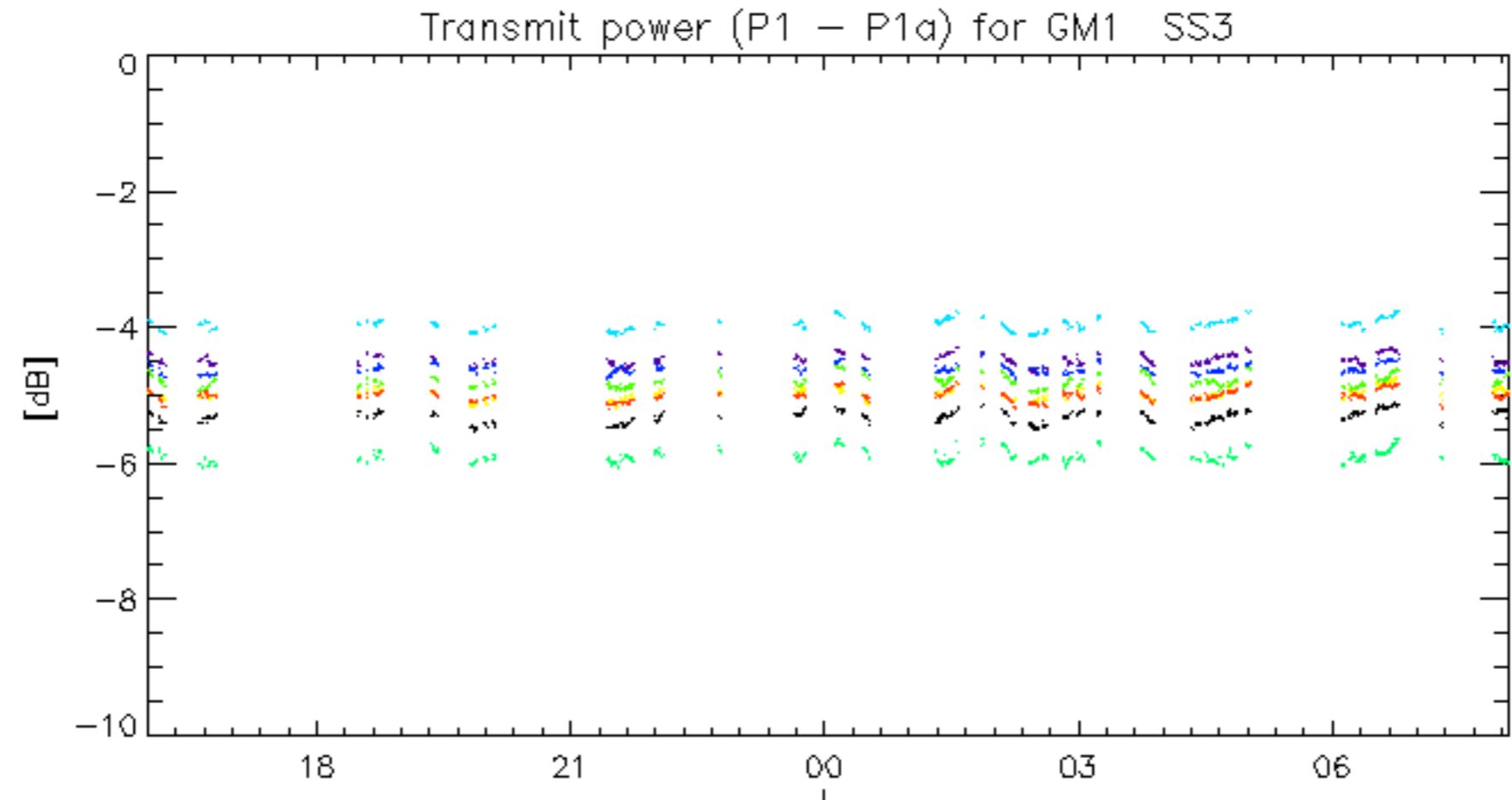






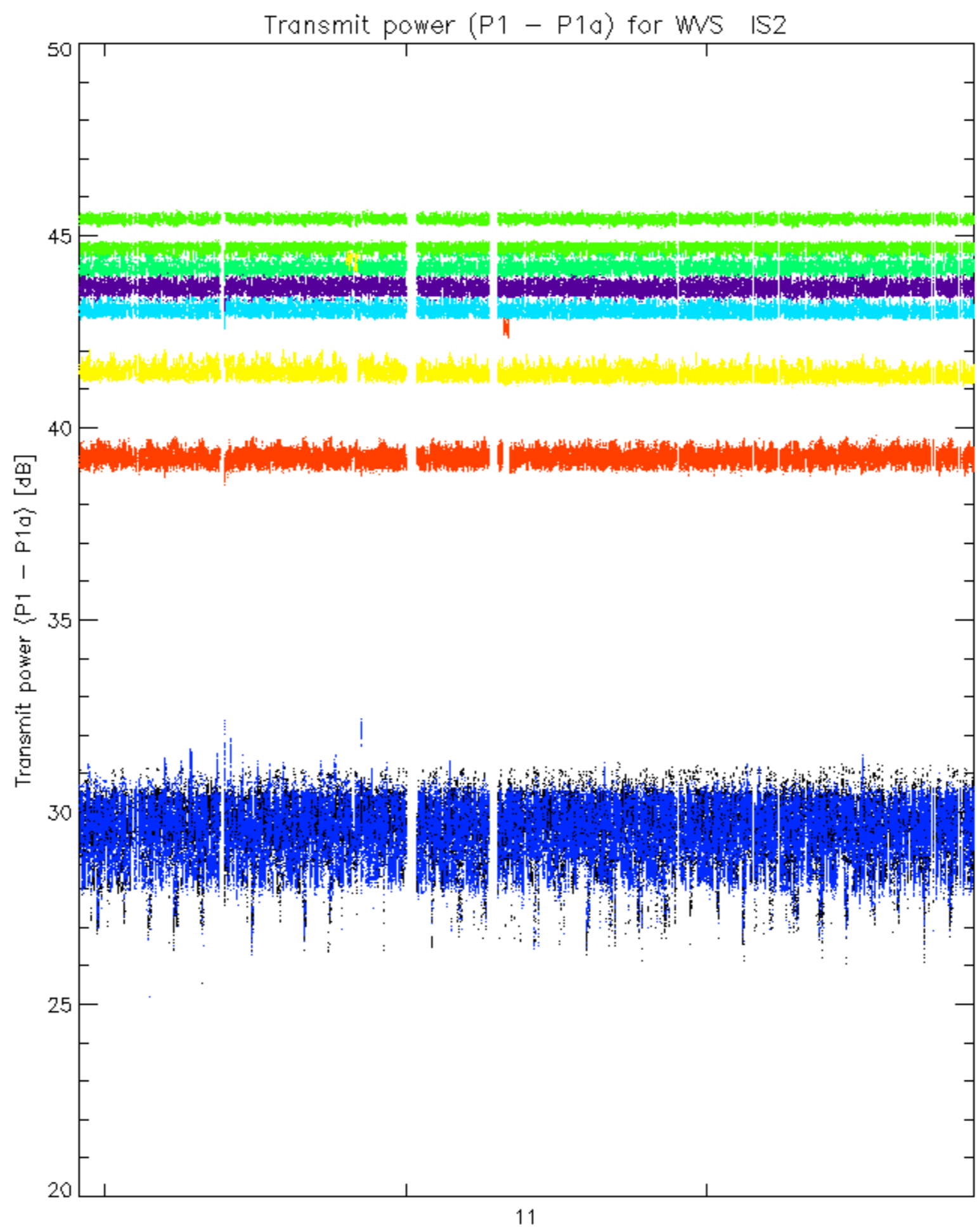


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

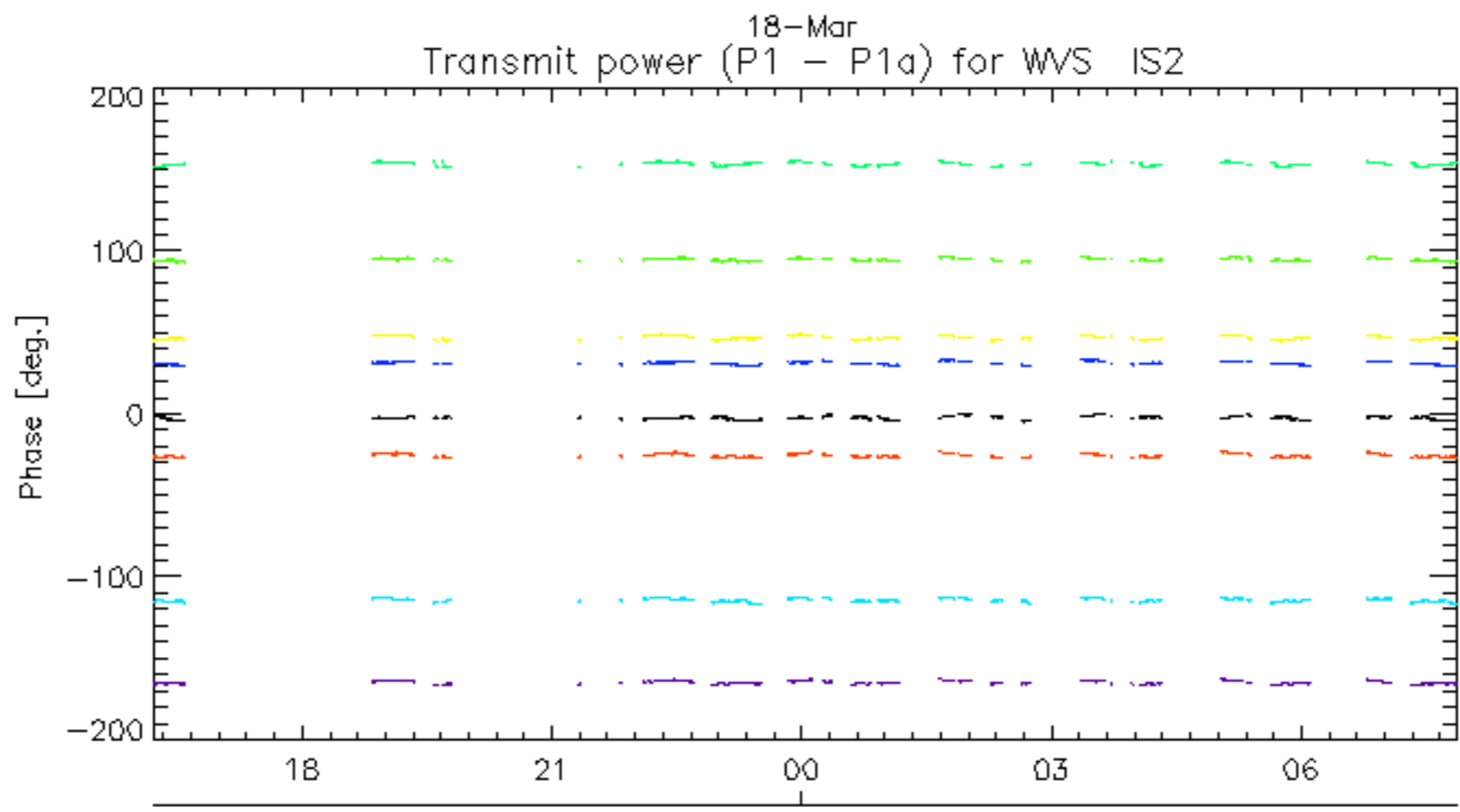
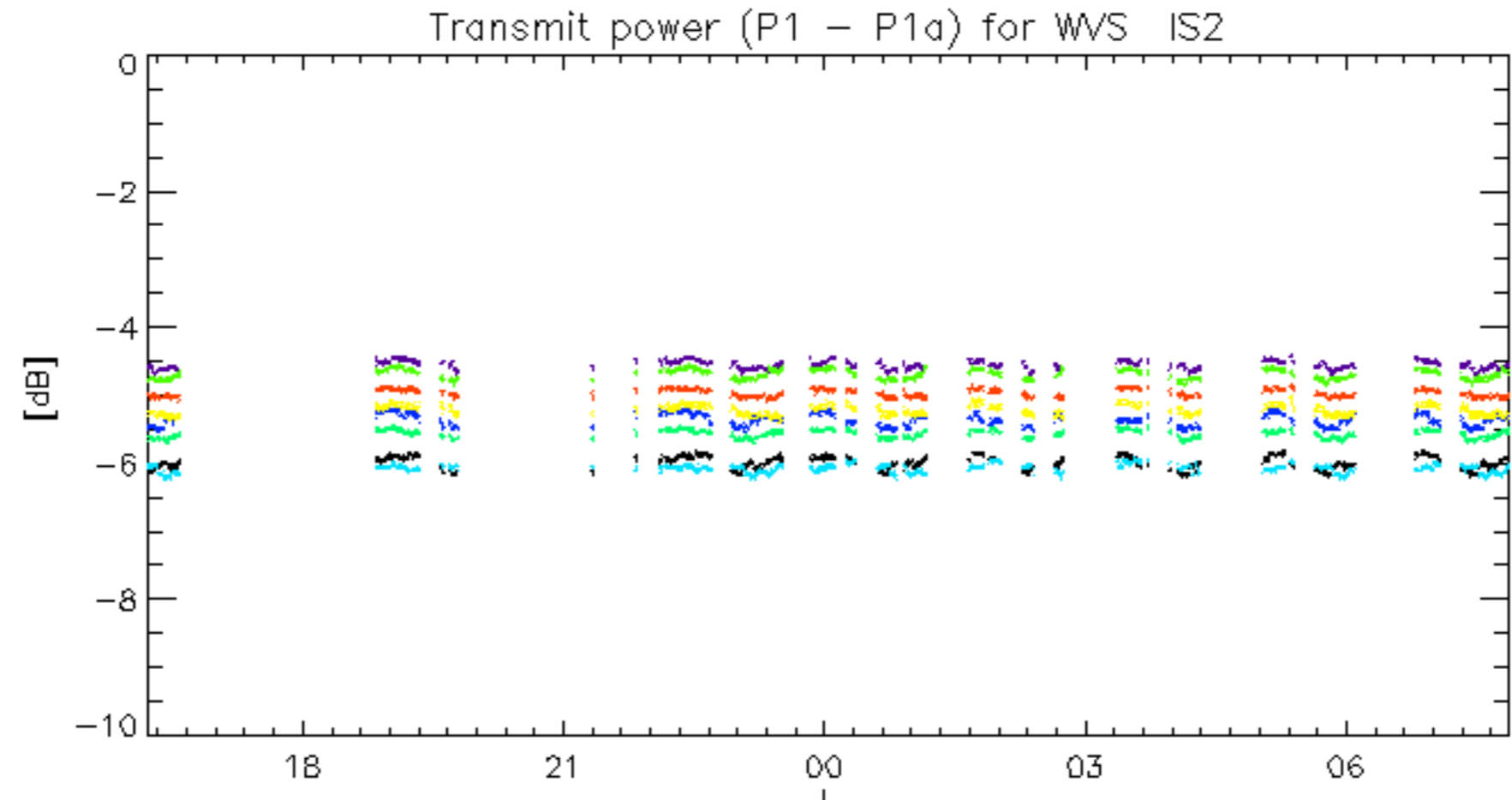


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30





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



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

No unavailabilities during the reported period.