

# PRELIMINARY REPORT OF 061203

last update on Sun Dec 3 16:41:12 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 2006-12-02 00:00:00 to 2006-12-03 16:41:12

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	37	52	9	4	15
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	52	9	4	15
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	52	9	4	15
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	52	9	4	15

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	32	33	43	15	39
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	32	33	43	15	39
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	32	33	43	15	39
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	32	33	43	15	39

## 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	20061203 023109
H	20061128 050914

### 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
<input type="checkbox"/>

**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	-3.957815	0.008407	-0.008539
7	P1	-3.150331	0.023927	0.019807
11	P1	-4.127456	0.025369	0.026108
15	P1	-6.298648	0.014794	-0.021764
19	P1	-3.614533	0.006248	-0.044226
22	P1	-4.646353	0.012953	-0.010351
26	P1	-3.948787	0.010472	0.008150
30	P1	-5.867427	0.009555	-0.040069
3	P1	-16.516258	0.236303	-0.076244
7	P1	-17.282562	0.178338	0.007708
11	P1	-17.179417	0.458259	-0.109918
15	P1	-13.062679	0.136700	0.029588
19	P1	-14.920758	0.090496	-0.150263
22	P1	-15.846025	0.521656	0.173518
26	P1	-15.053892	0.195904	0.042525
30	P1	-17.480362	0.476257	-0.027547

**P2 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.833496	0.091768	0.079938
7	P2	-21.729925	0.093994	0.005520
11	P2	-15.640508	0.102757	0.089297
15	P2	-7.119410	0.107203	0.026677
19	P2	-9.188549	0.104658	0.026441
22	P2	-18.231892	0.096858	0.006269
26	P2	-16.554527	0.111795	-0.029893
30	P2	-19.470205	0.088295	0.030073

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.239234	0.008683	-0.004269
7	P3	-8.239234	0.008683	-0.004269
11	P3	-8.239234	0.008683	-0.004269
15	P3	-8.239234	0.008683	-0.004269
19	P3	-8.239234	0.008683	-0.004269
22	P3	-8.239234	0.008683	-0.004269
26	P3	-8.239189	0.008693	-0.004382
30	P3	-8.239189	0.008693	-0.004382

#### 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	-3.907455	0.024143	0.003064
7	P1	-2.500302	0.115399	0.060727
11	P1	-2.853546	0.026840	0.039980
15	P1	-3.681365	0.040162	0.016258
19	P1	-3.524128	0.016950	-0.019894
22	P1	-5.035473	0.022165	0.052226
26	P1	-6.000309	0.026980	-0.028554
30	P1	-5.319989	0.037537	-0.035334
3	P1	-11.721804	0.085372	-0.021735
7	P1	-10.050985	0.197110	0.017600
11	P1	-10.321939	0.128026	0.010348
15	P1	-10.735180	0.157339	0.117056
19	P1	-15.694618	0.103963	-0.074342
22	P1	-21.469381	1.456698	-0.327431
26	P1	-16.056059	0.321897	0.000511
30	P1	-17.895174	0.390718	0.067430

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.459473	0.103685	0.016757
7	P2	-22.225197	0.267867	0.016740
11	P2	-10.932798	0.114546	0.068157
15	P2	-4.968672	0.215851	-0.020225
19	P2	-6.952053	0.245563	0.006715
22	P2	-8.252846	0.172390	0.024274
26	P2	-24.323019	0.181536	0.037778
30	P2	-21.948051	0.146943	0.036792

### P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.086183	0.003534	-0.004617
7	P3	-8.086210	0.003525	-0.004491
11	P3	-8.086263	0.003532	-0.004366
15	P3	-8.086144	0.003532	-0.004586
19	P3	-8.086204	0.003535	-0.004471
22	P3	-8.086130	0.003532	-0.004740
26	P3	-8.086116	0.003534	-0.004635
30	P3	-8.086201	0.003538	-0.003942

## 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	0.000547865
	stdev	1.78300e-07
MEAN Q	mean	0.000521123
	stdev	2.20652e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136567
	stdev	0.00113056
STDEV Q	mean	0.136932
	stdev	0.00114826



### 5.3 - Gain imbalance I/Q



## 6 - Telemetry analysis

Summary of analysis for the last 3 days 2006120[123]

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_GM1_1PNPDK20061201_191311_000006402053_00257_24860_9532.N1	0	13
ASA_WSM_1PNPDE20061201_013231_000001402053_00246_24849_3285.N1	0	39
ASA_WSM_1PNPDE20061201_141605_000000852053_00254_24857_4521.N1	0	29
ASA_WSM_1PNPDE20061202_010155_000000672053_00260_24863_5042.N1	0	35
ASA_WSM_1PNPDE20061202_010155_000001402053_00260_24863_5534.N1	0	35
ASA_WSM_1PNPDE20061202_170159_000000792053_00270_24873_5632.N1	0	11
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6506.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6579.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6802.N1	0	34

ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6989.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_7194.N1	0	34
ASA_APM_1PNPDE20061202_153639_000000892053_00269_24872_5526.N1	0	57



## 7 - Doppler Analysis

Preliminary report. The data is not yet controlled

### 7.1 - Unbiased Doppler Error for WVS

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

### 7.2 - Absolute Doppler for WVS

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

### 7.3 - Doppler evolution versus ANX for WVS

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



### 7.4 - Unbiased Doppler Error for GM1

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

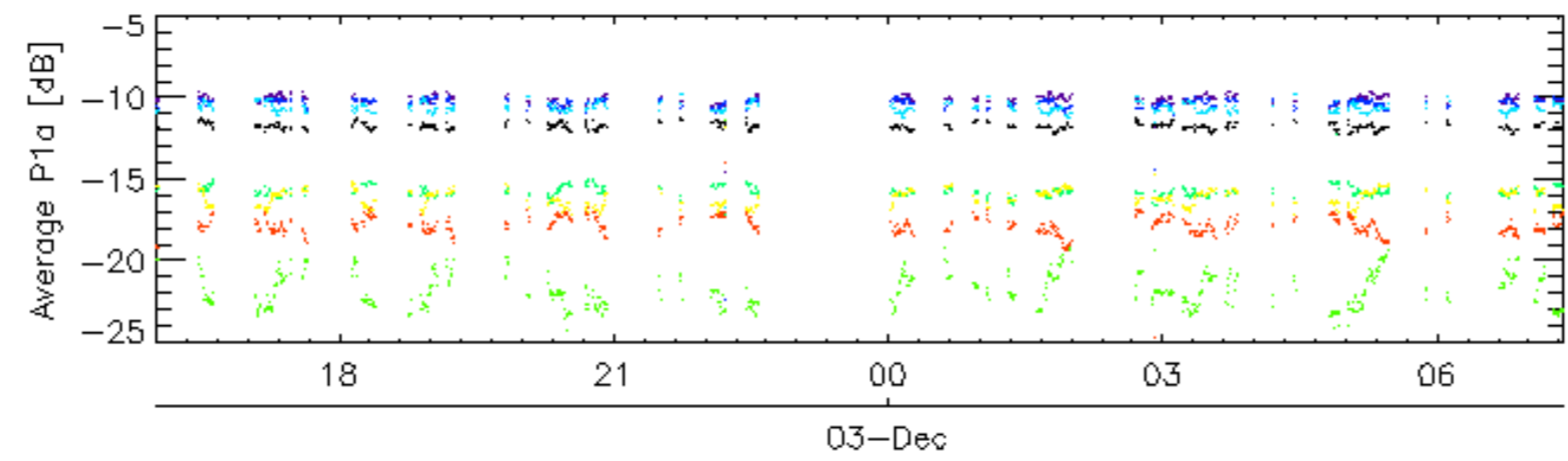
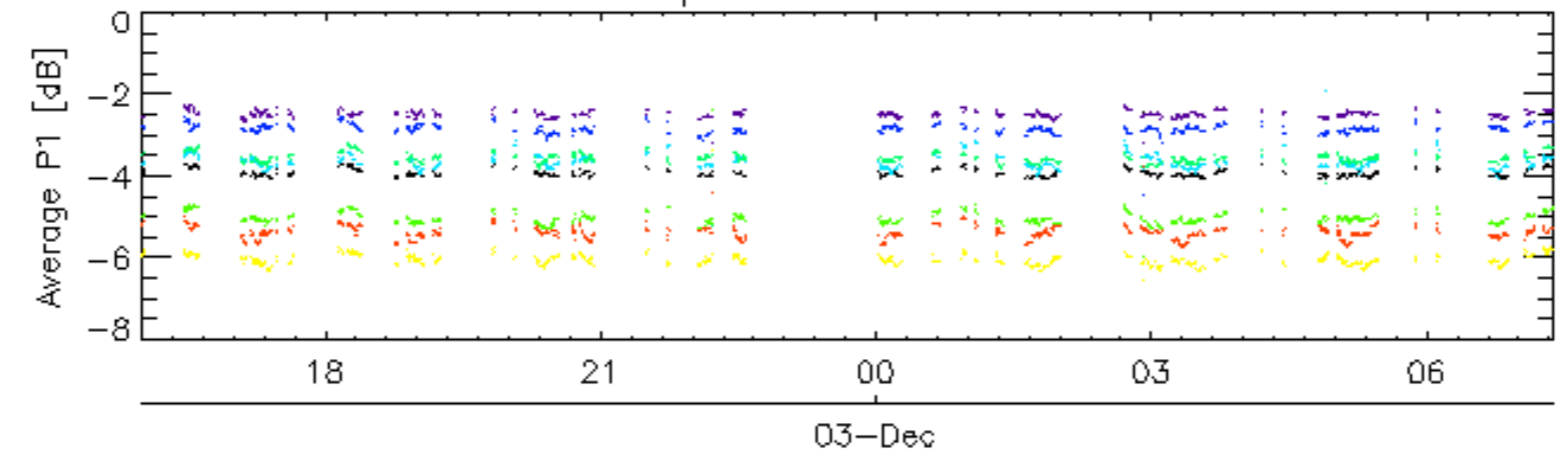
### 7.5 - Absolute Doppler for GM1

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

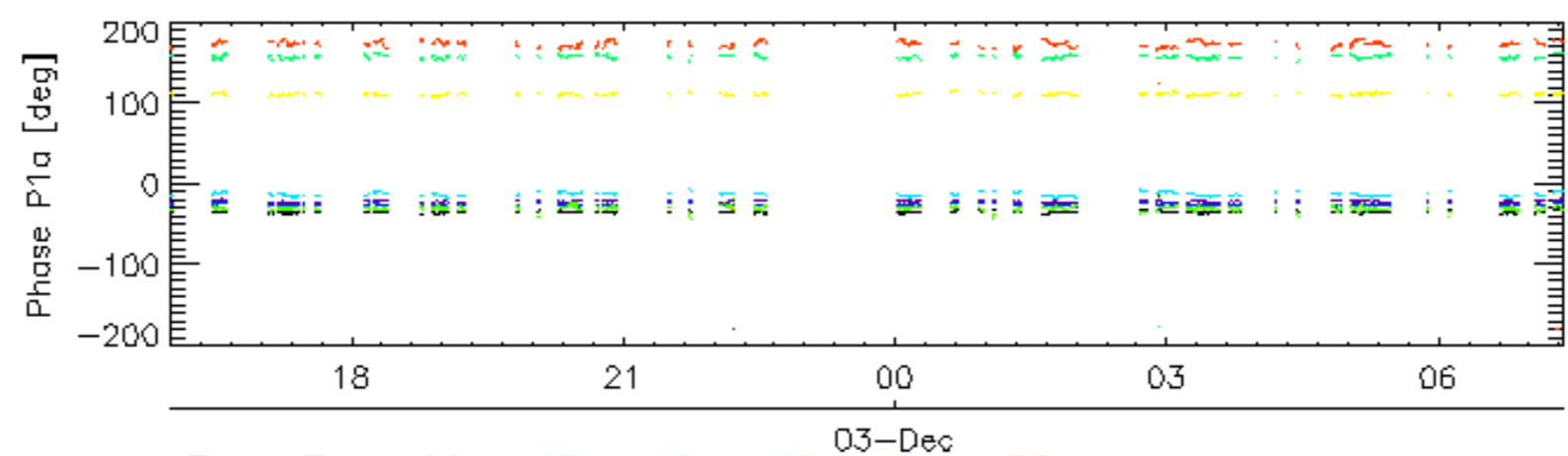
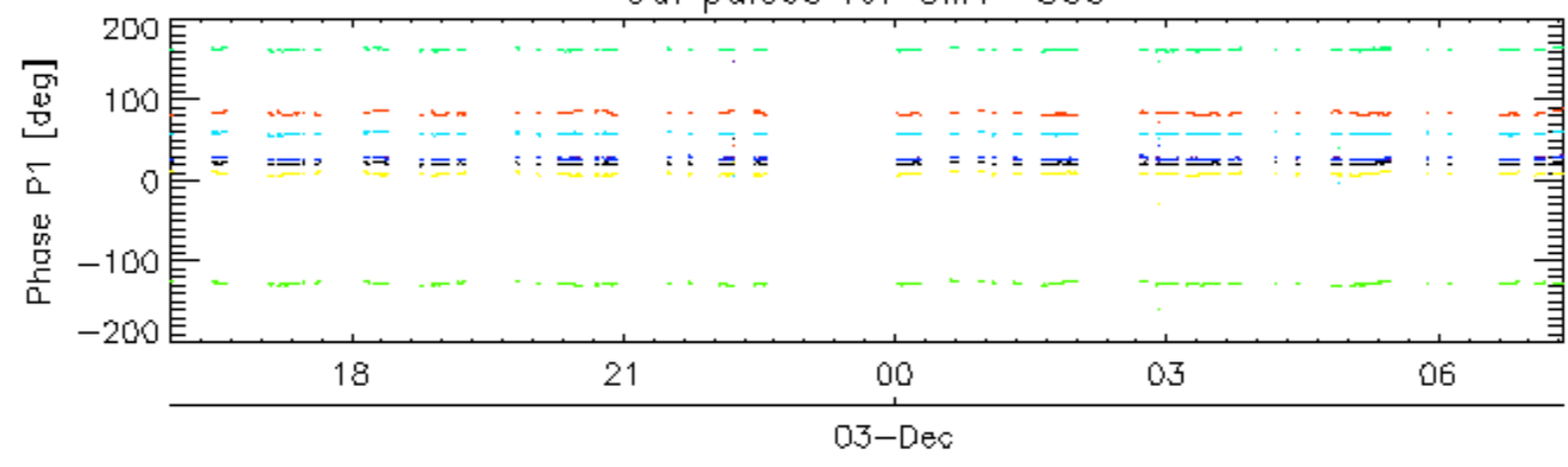
### 7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

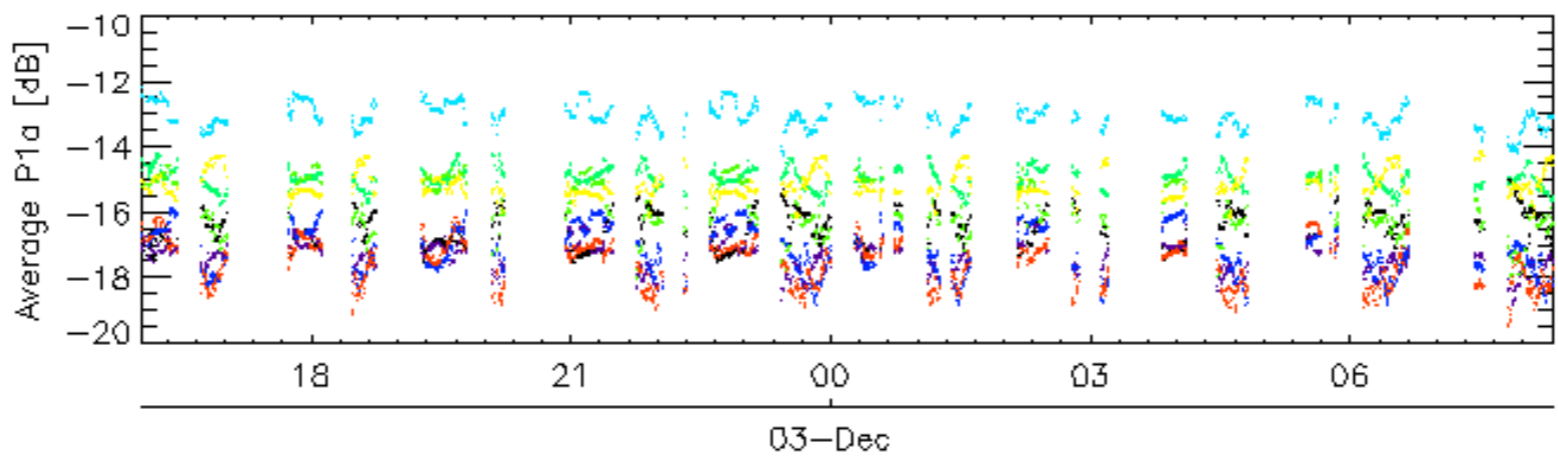
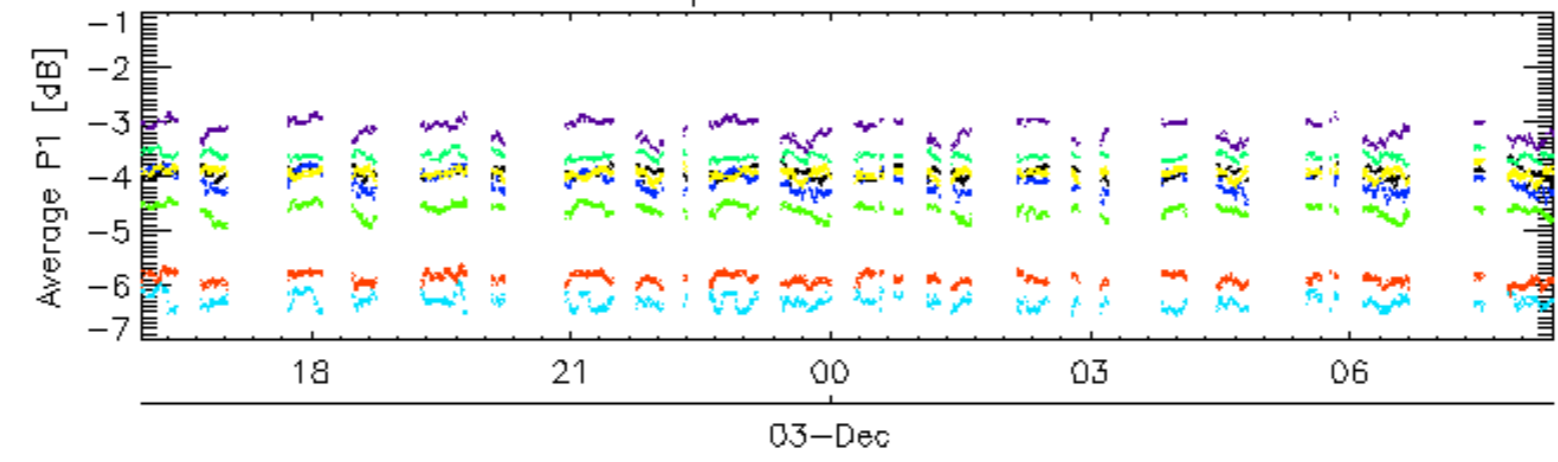


Cal pulses for GM1 SS3

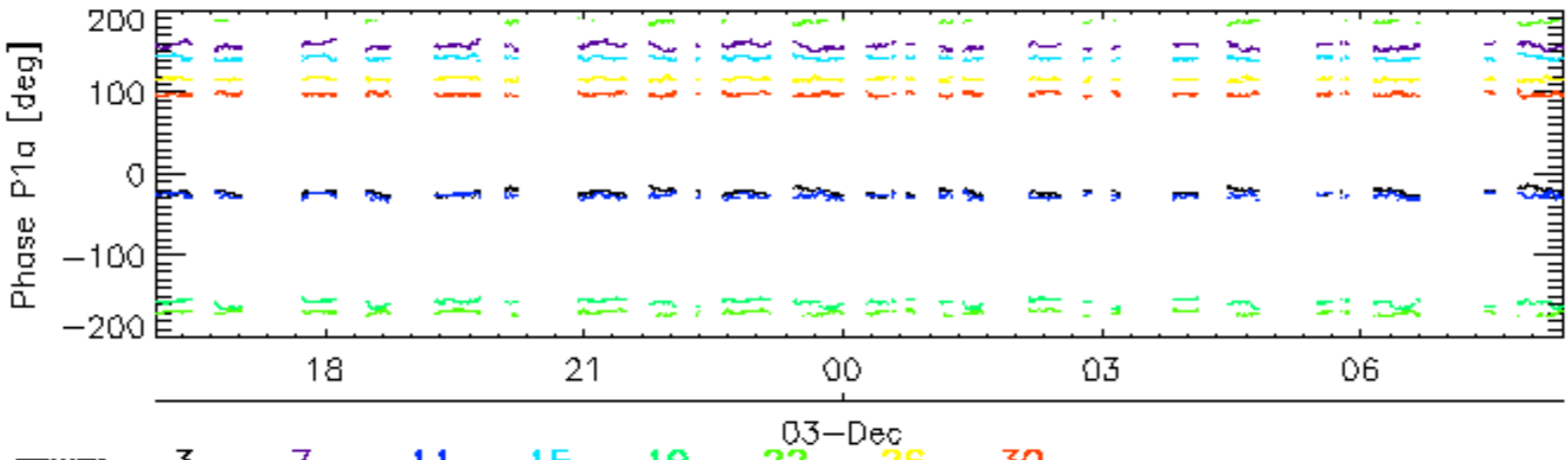
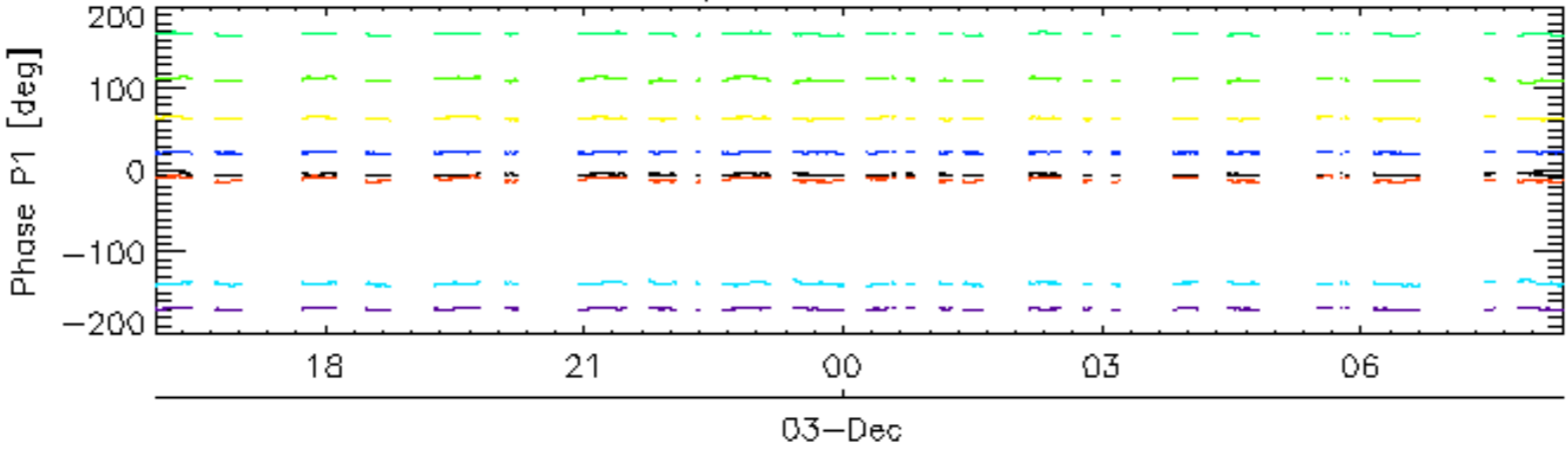


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

Cal pulses for WVS IS2

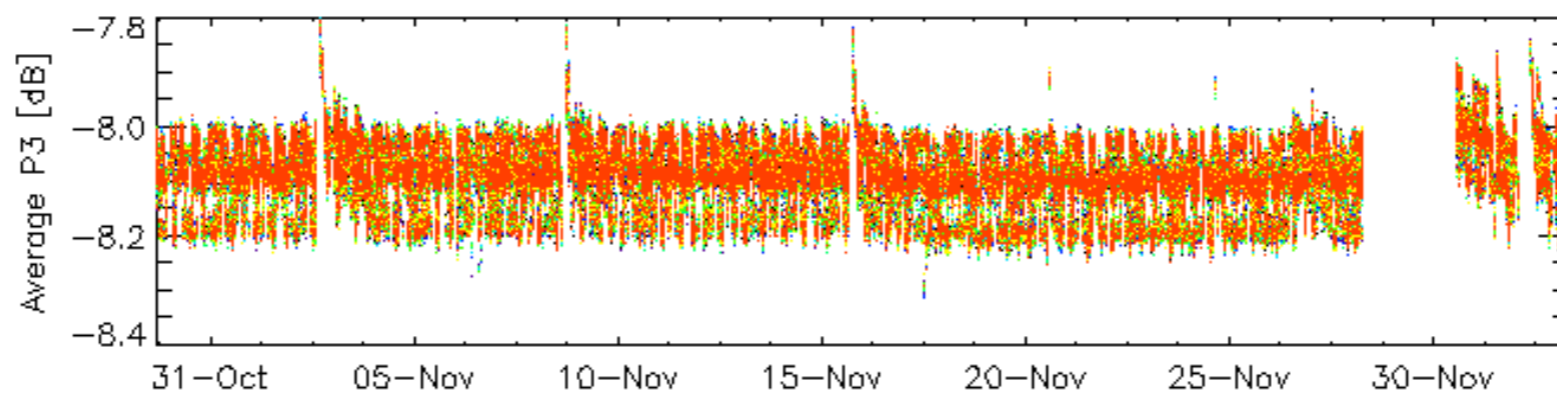
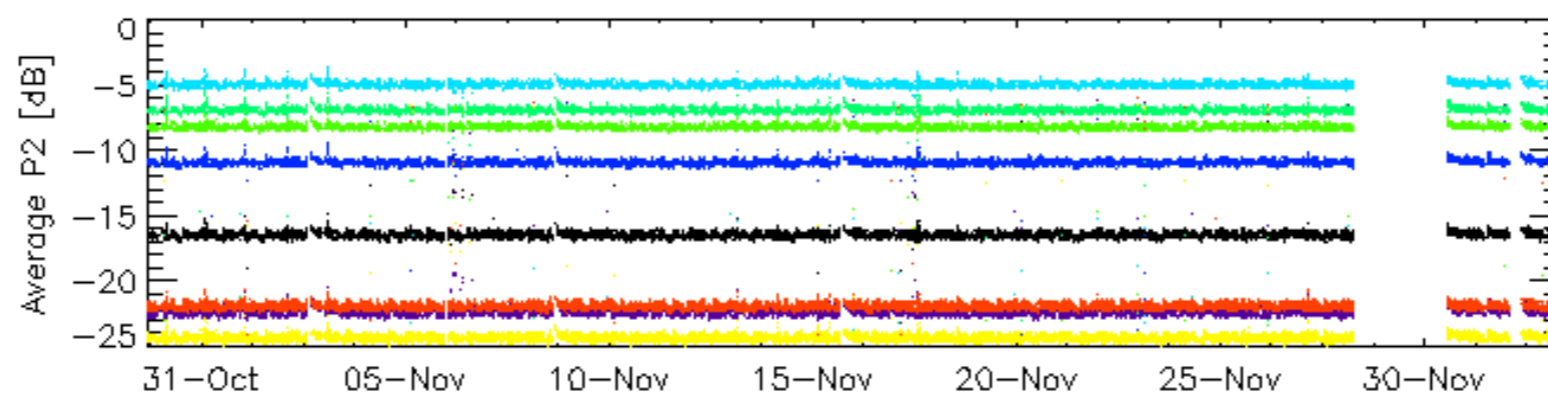
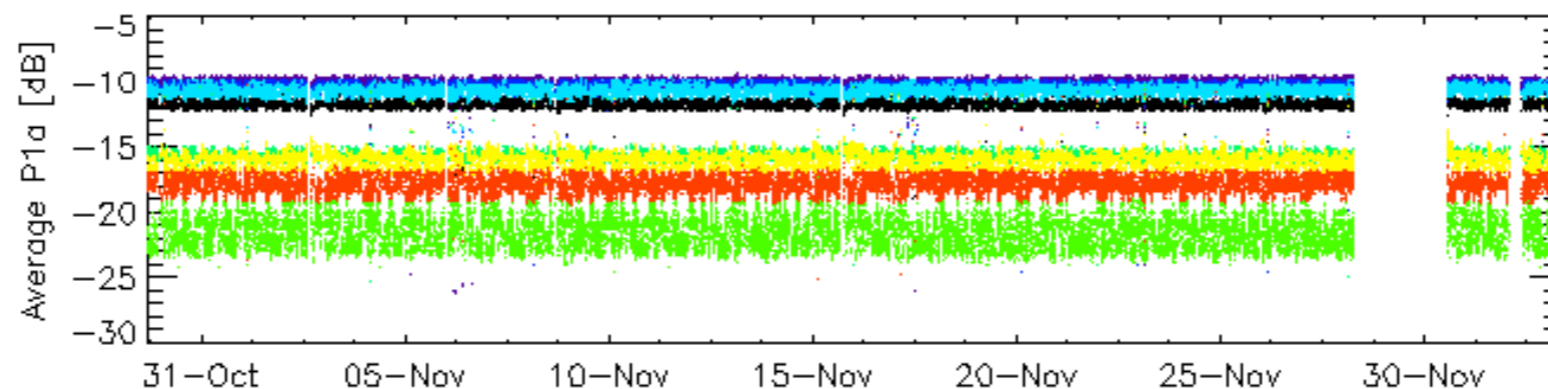
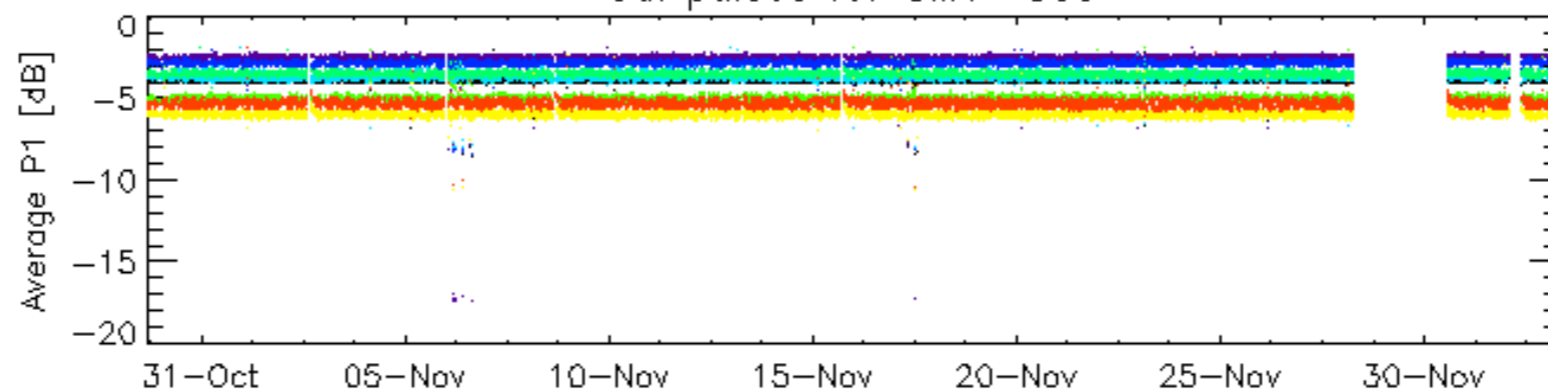


Cal pulses for WVS IS2



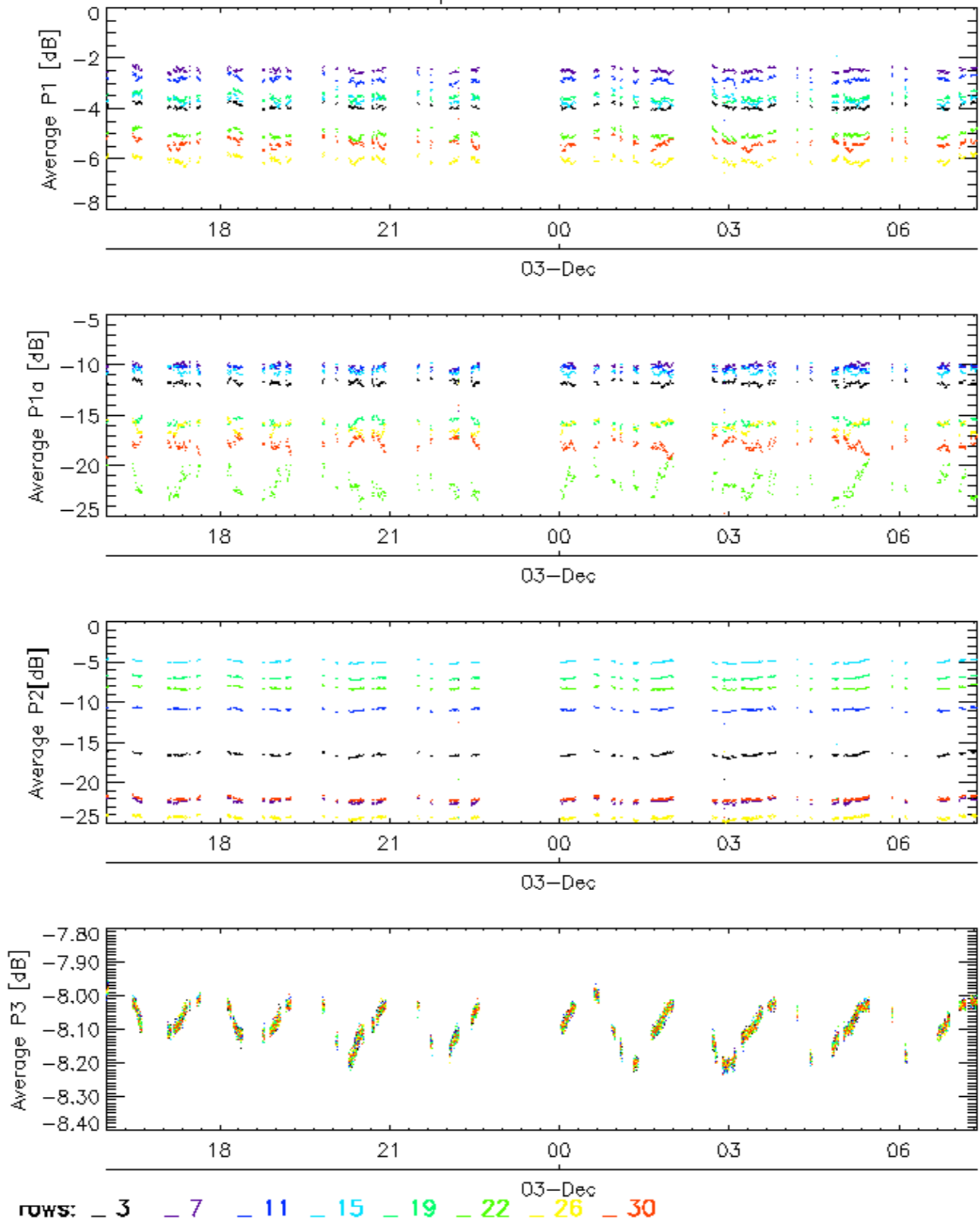
rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

Cal pulses for GM1 SS3

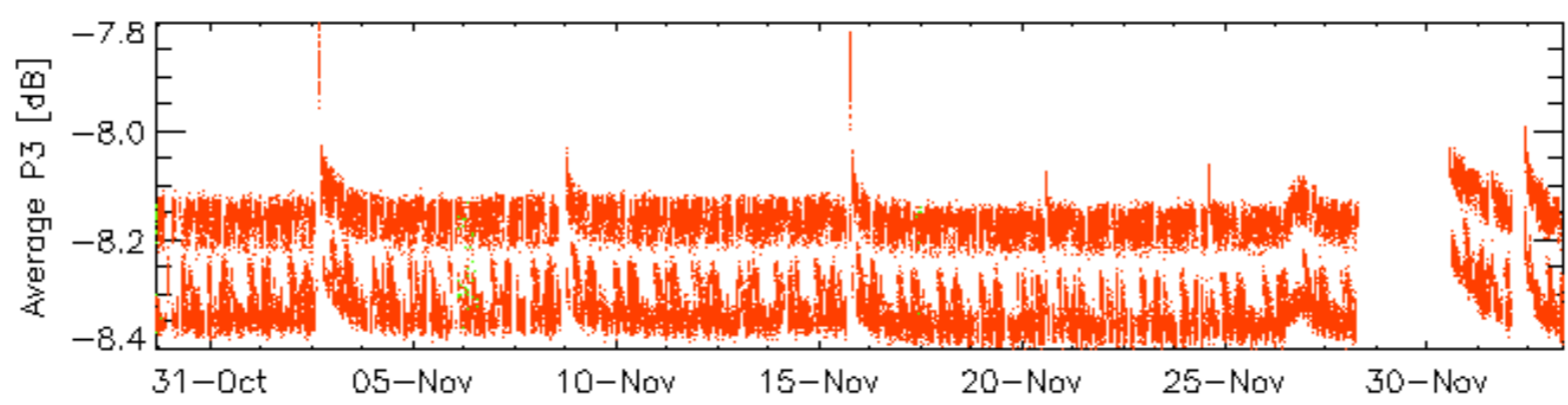
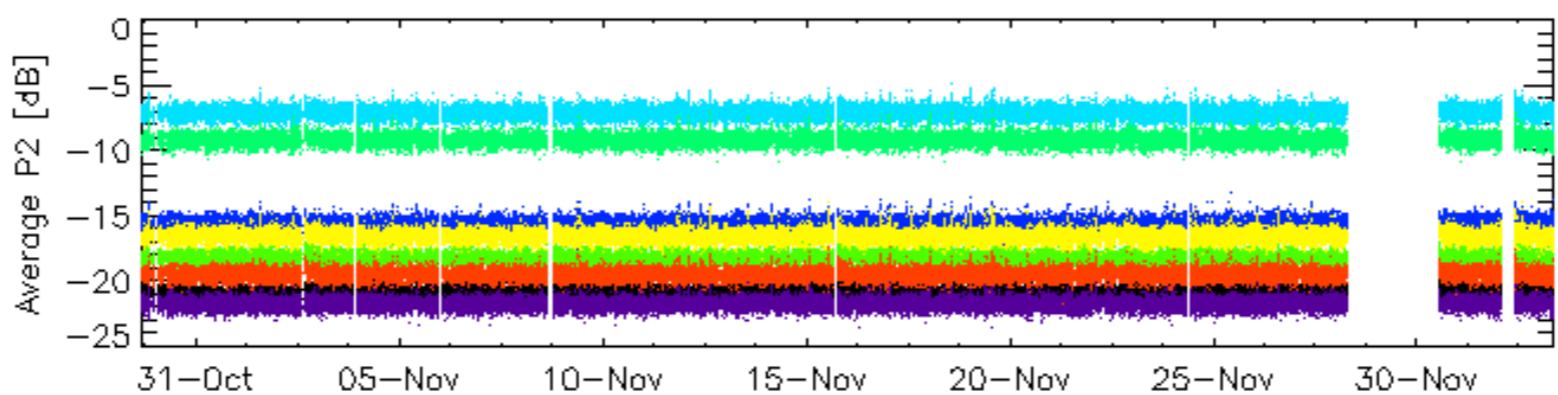
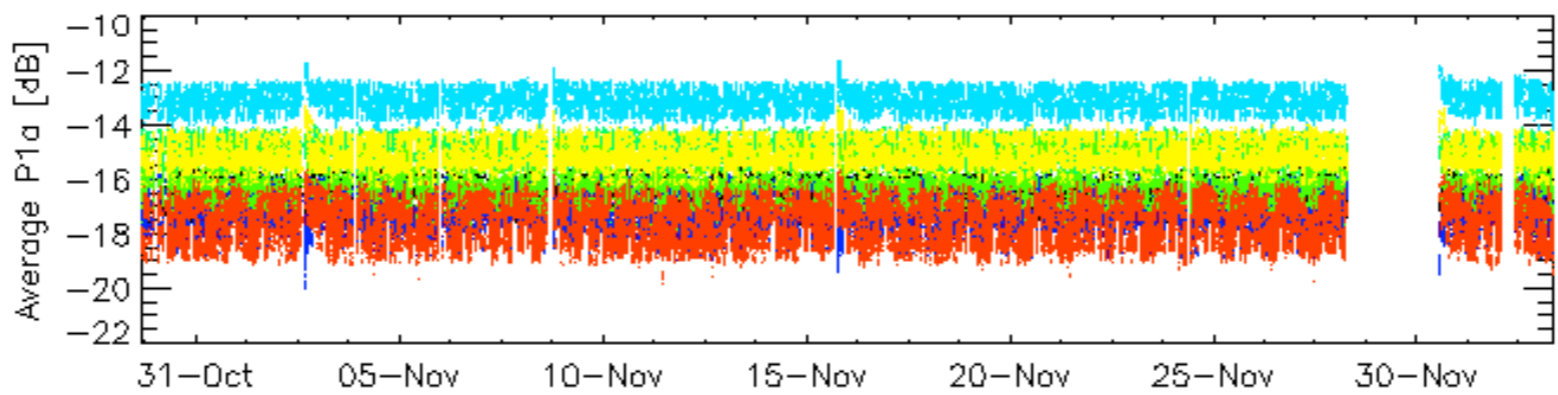
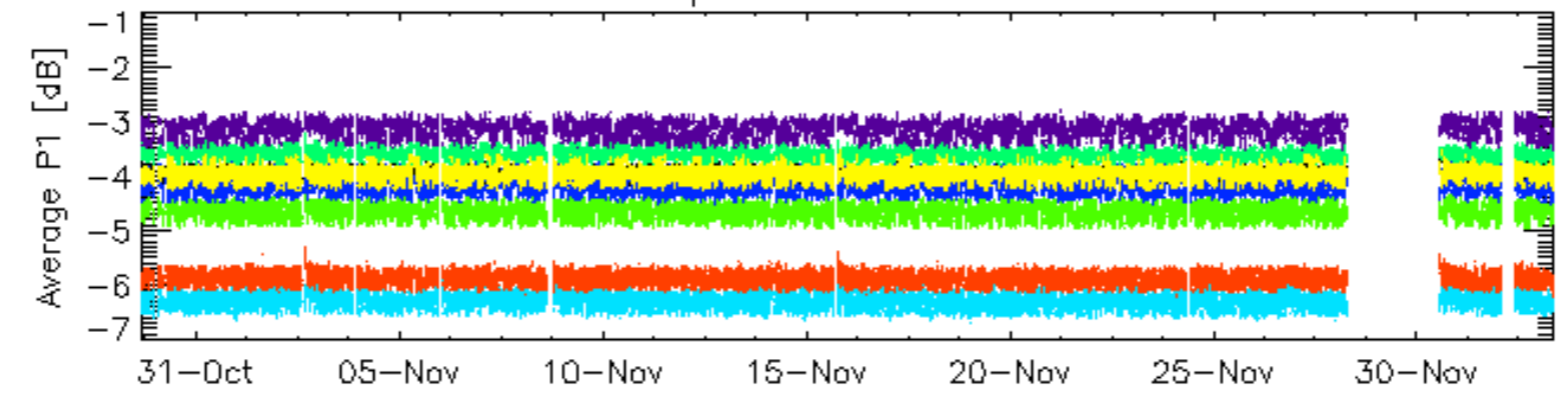


rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

Cal pulses for GM1 SS3

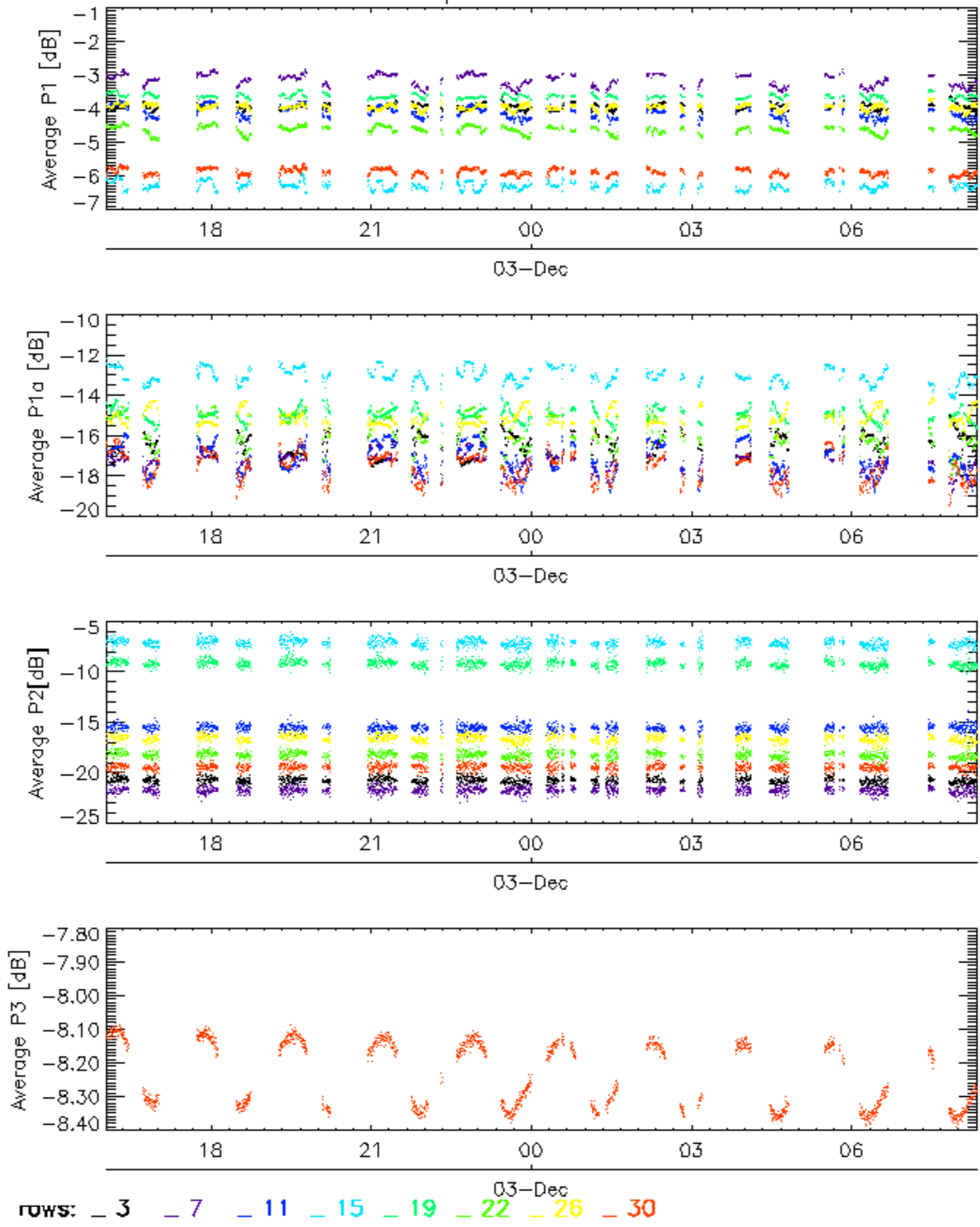


Cal pulses for WVS IS2



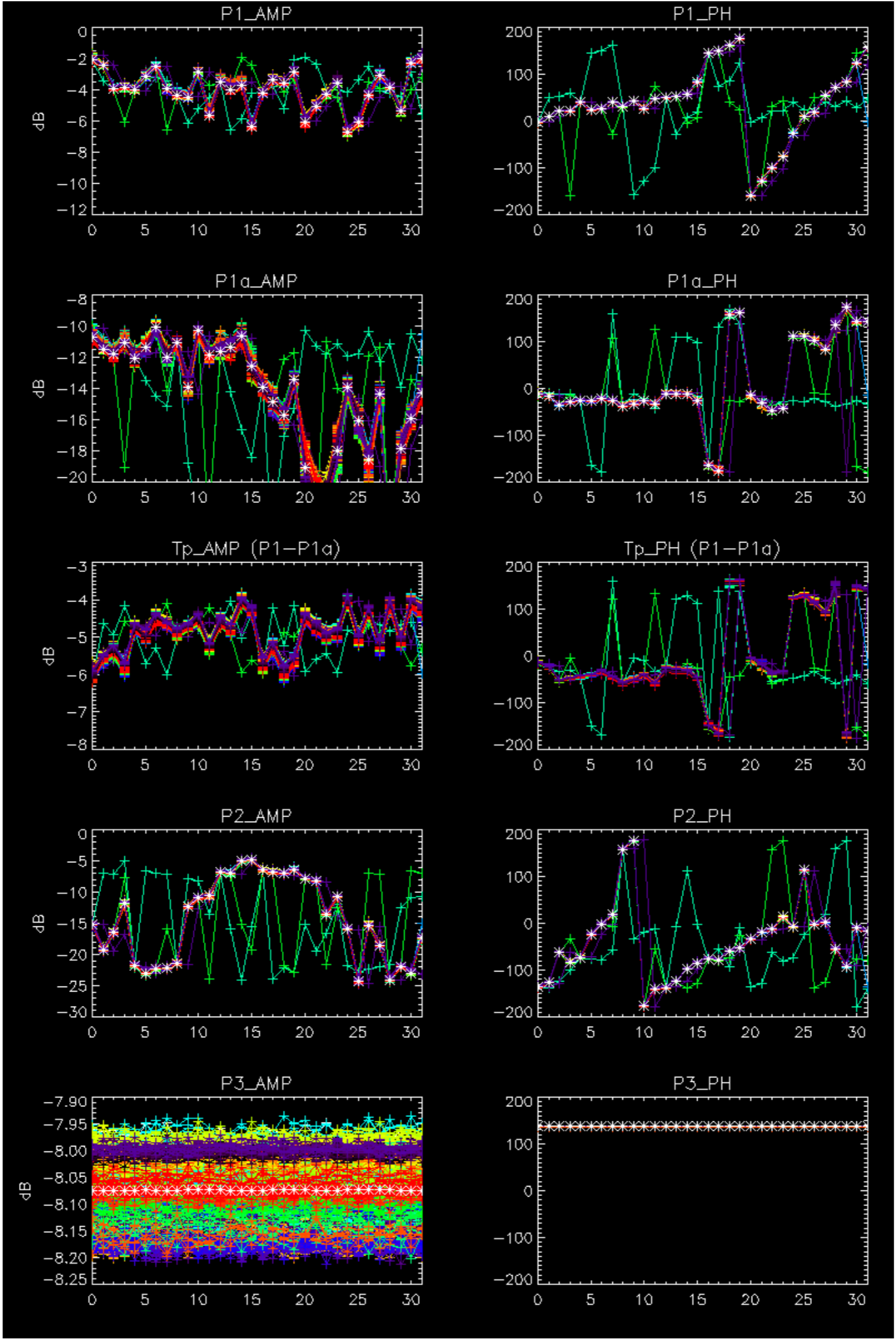
rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30

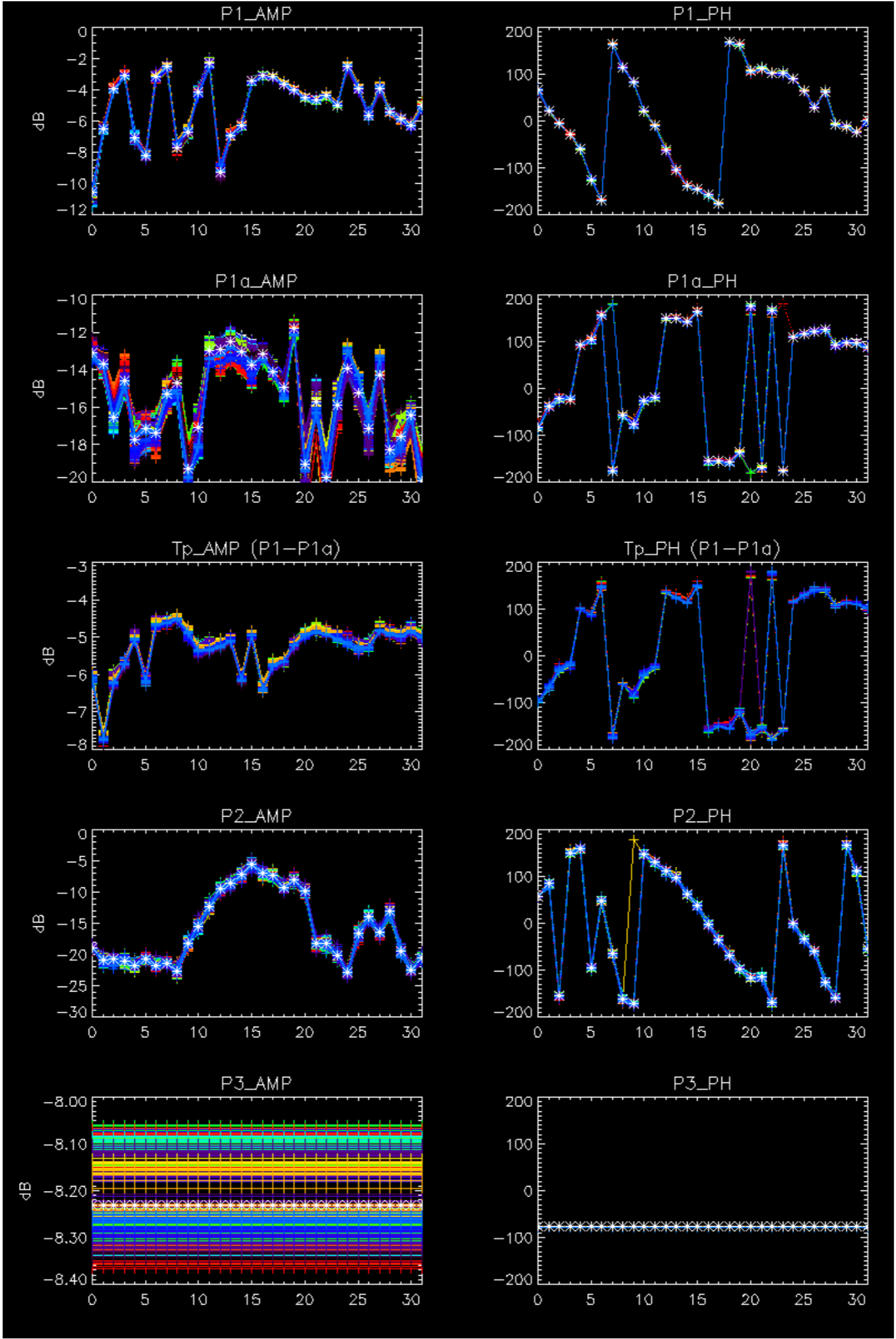
Cal pulses for WVS IS2



No anomalies observed.



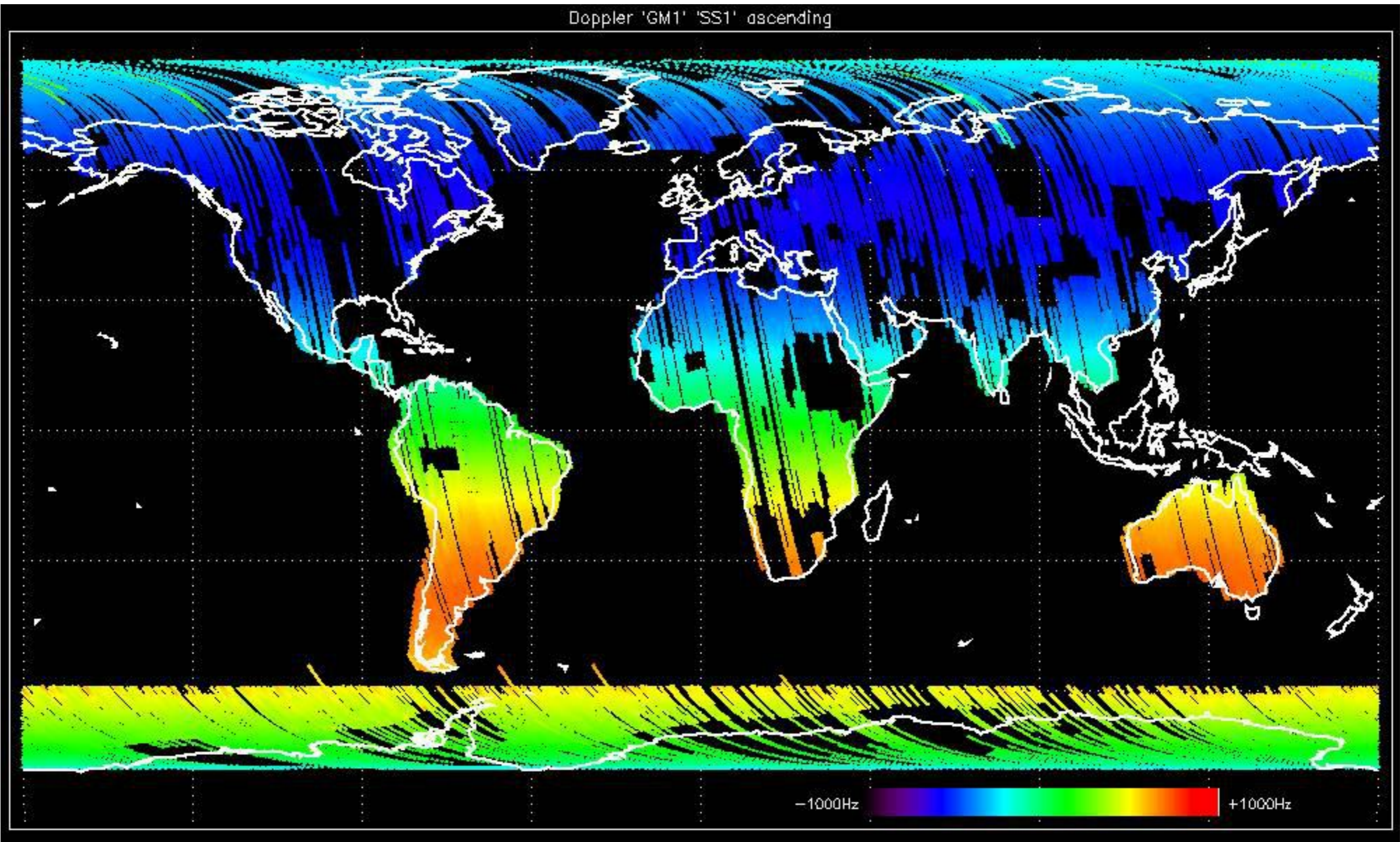




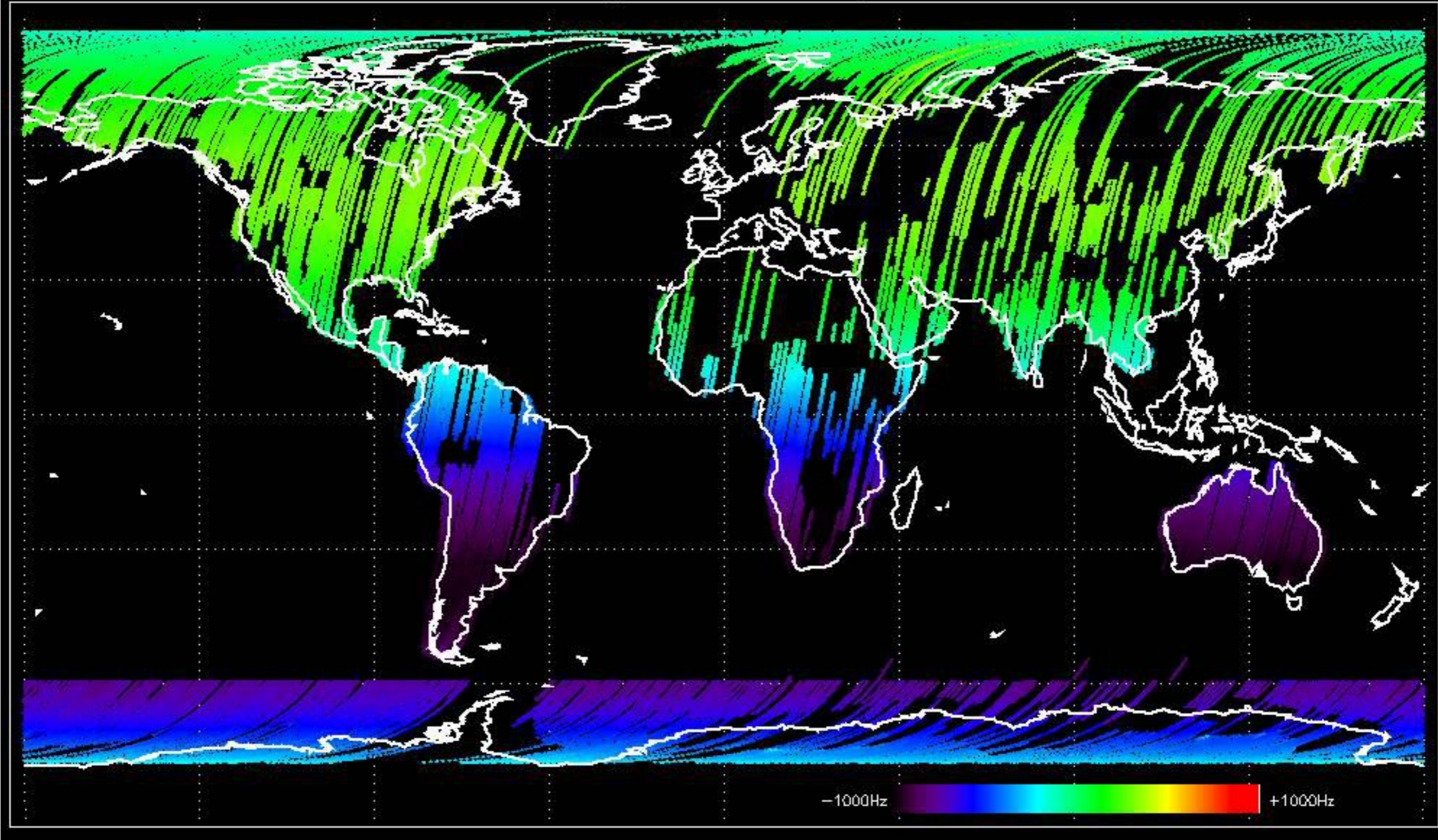
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



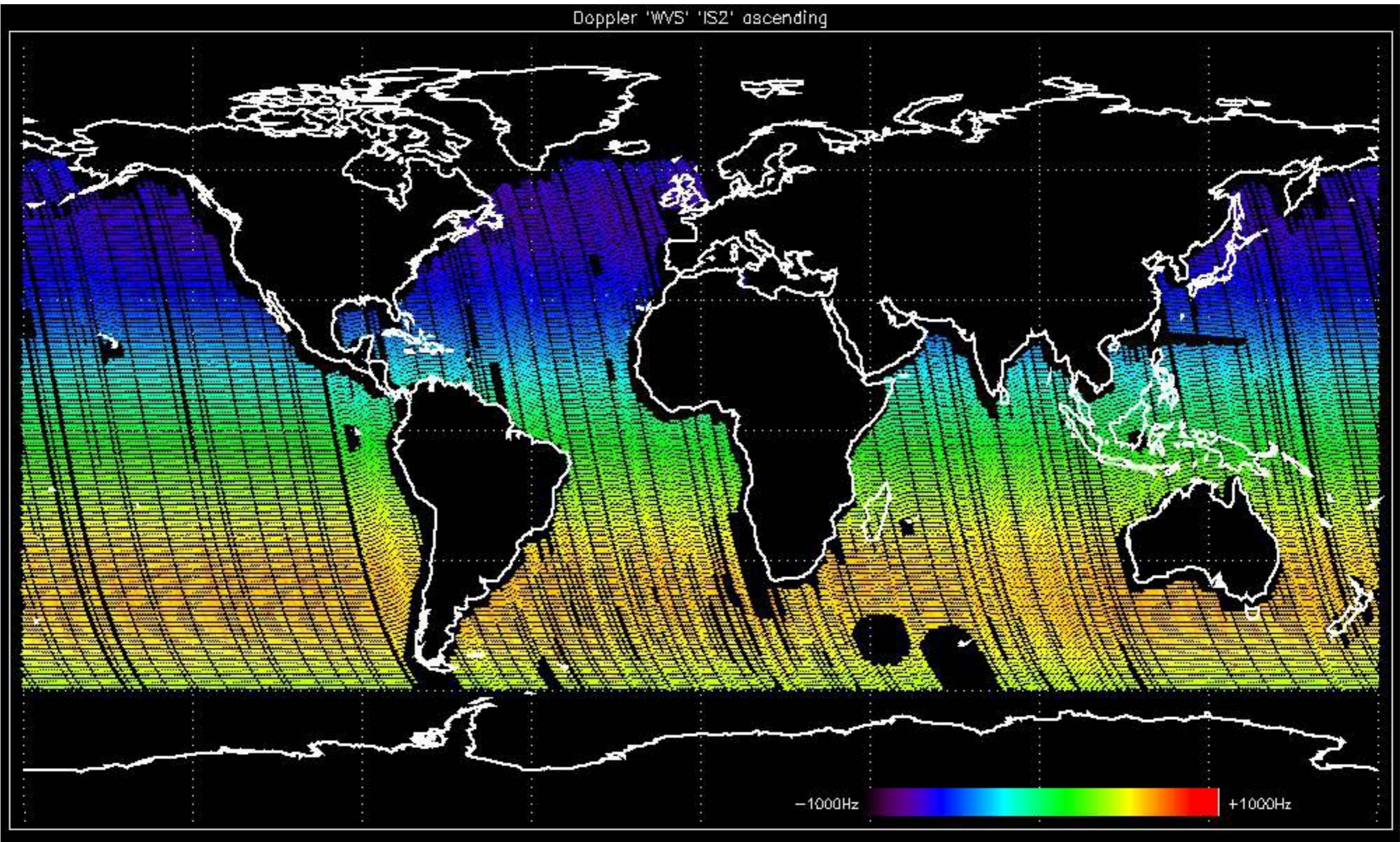
Doppler 'GM1' 'SS1' ascending



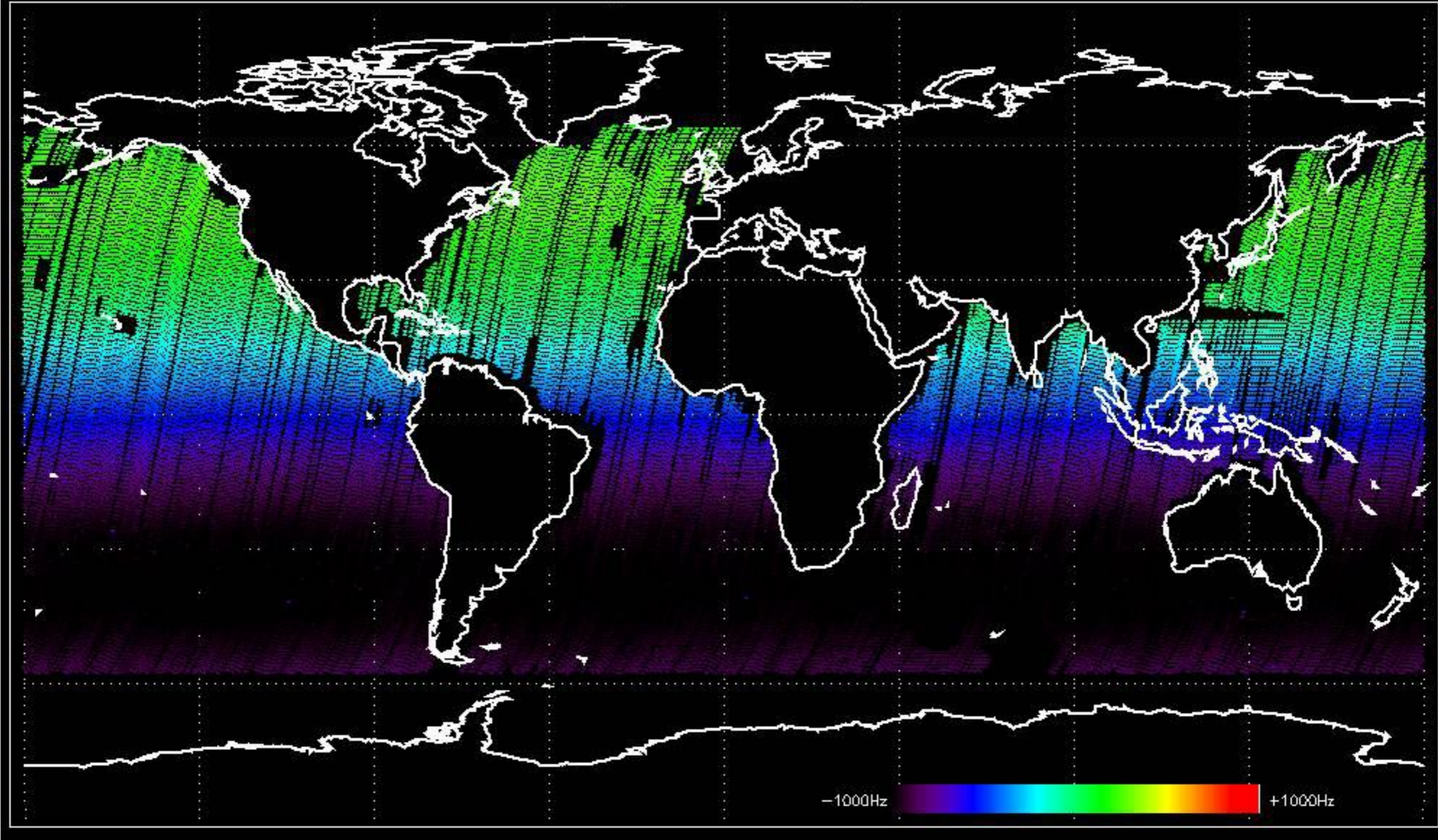
Doppler 'GM1' 'SS1' descending



Doppler 'WVS' 'IS2' ascending

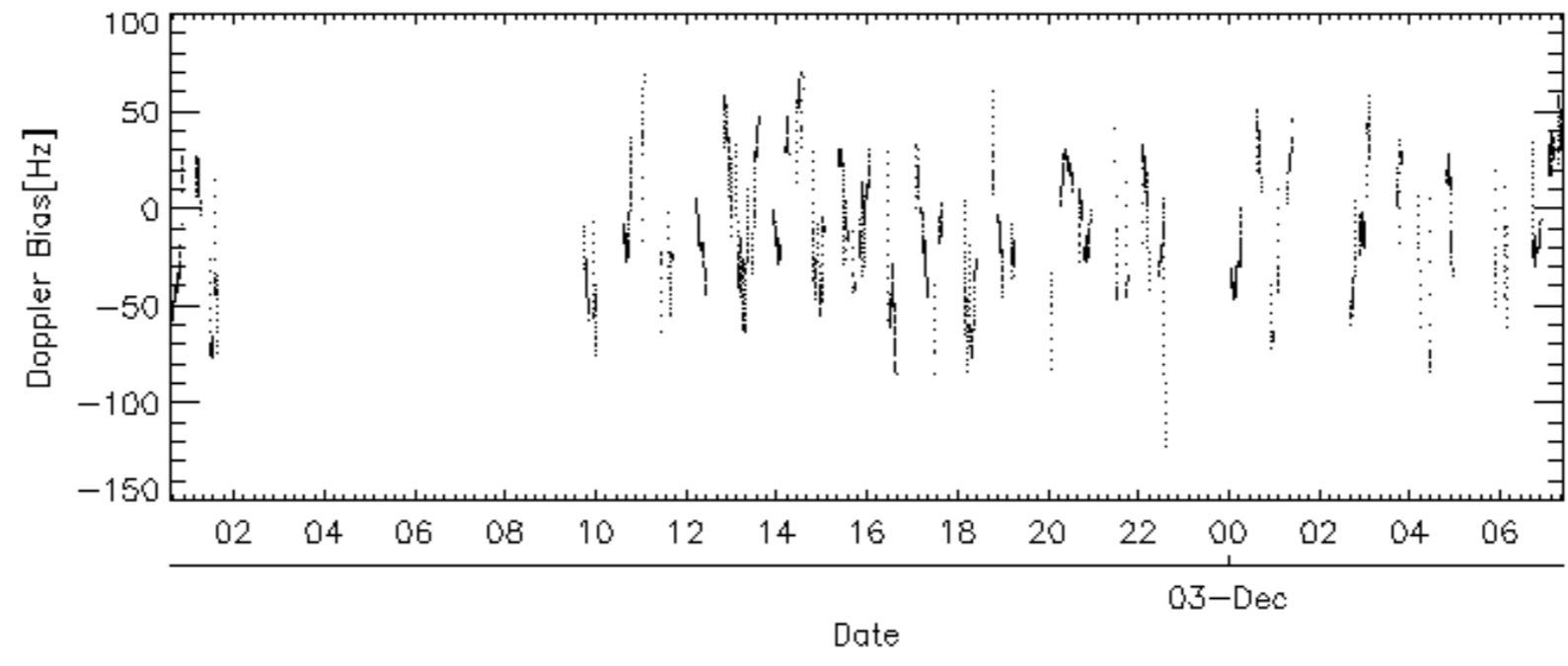
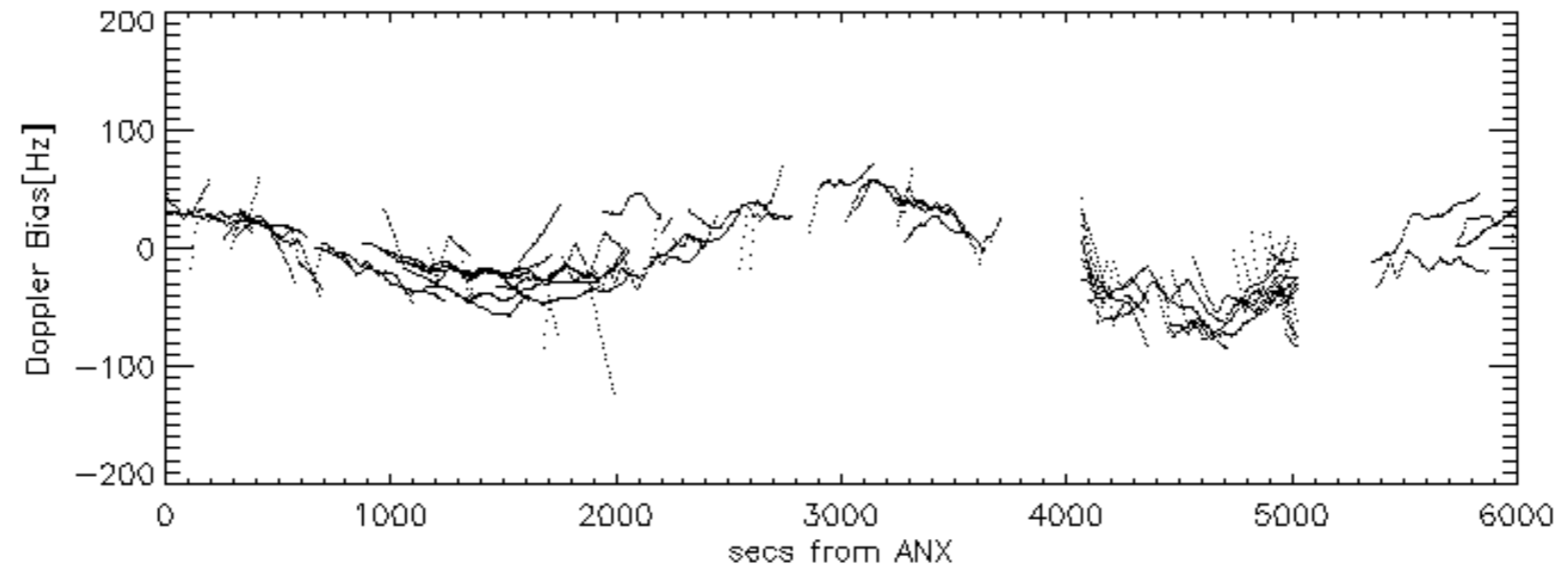
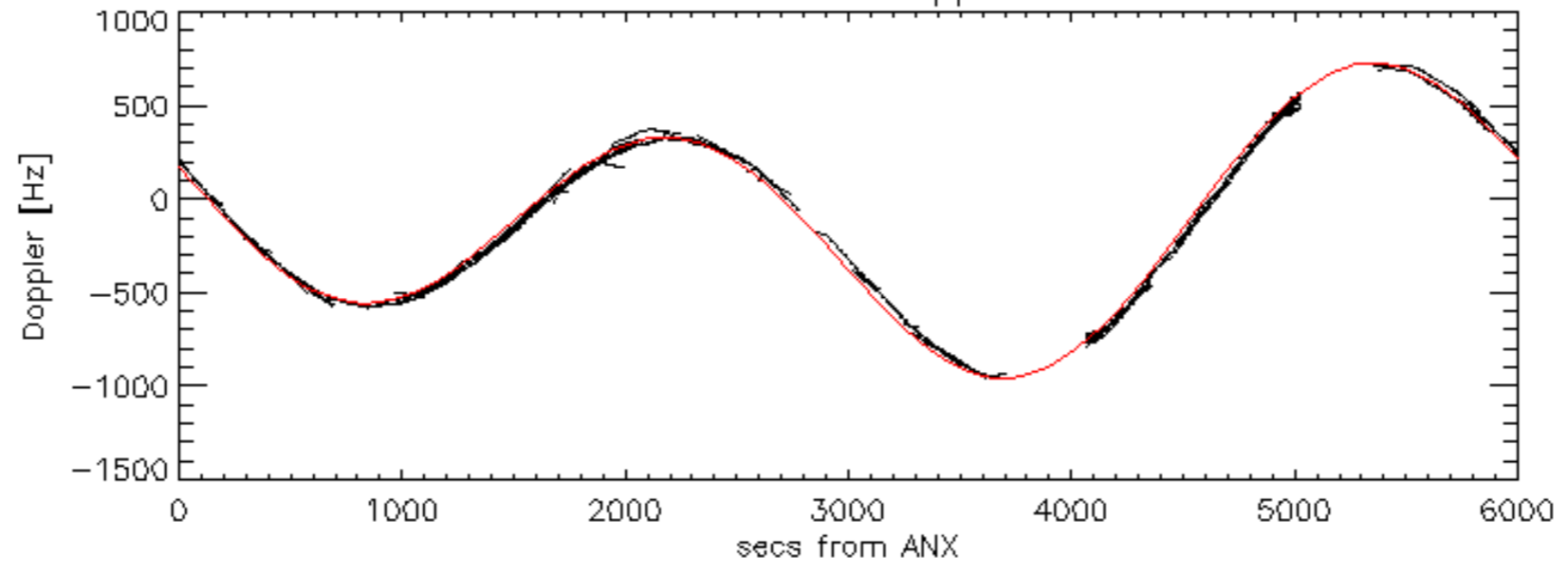


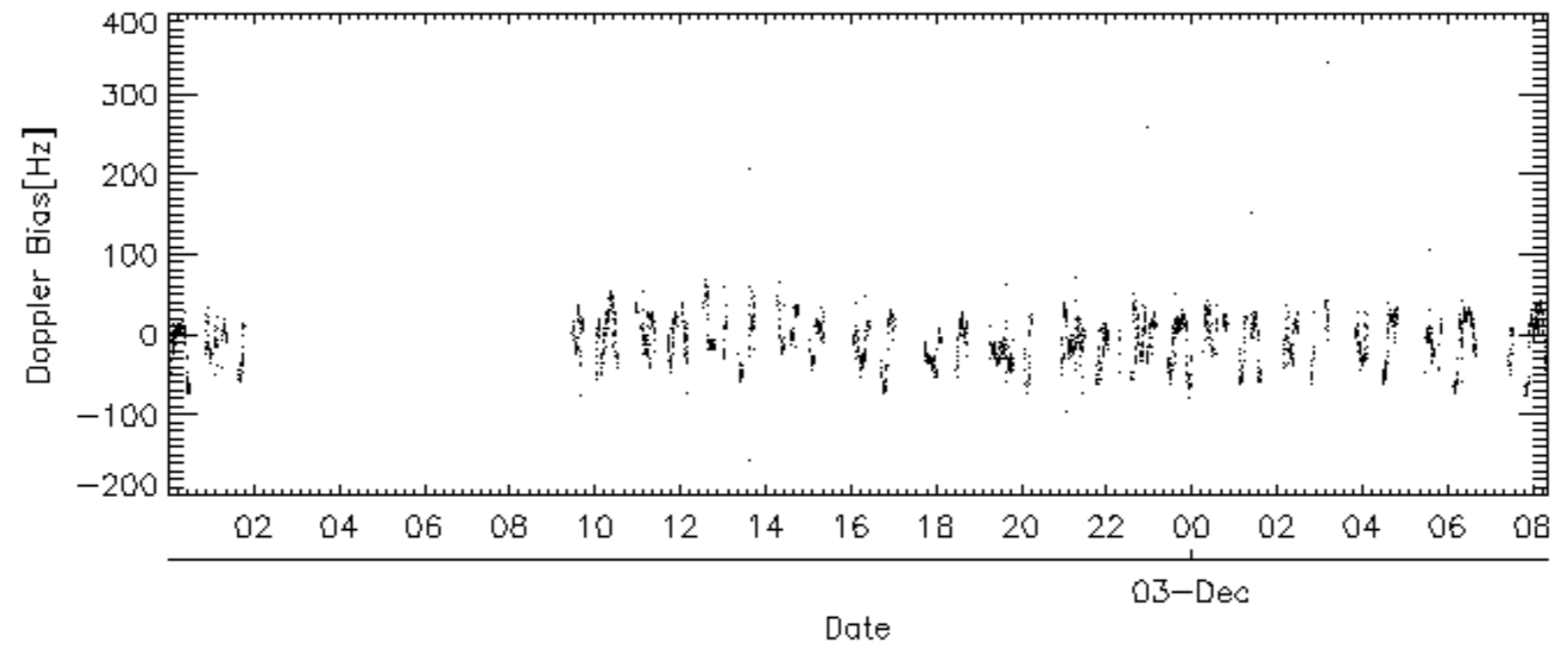
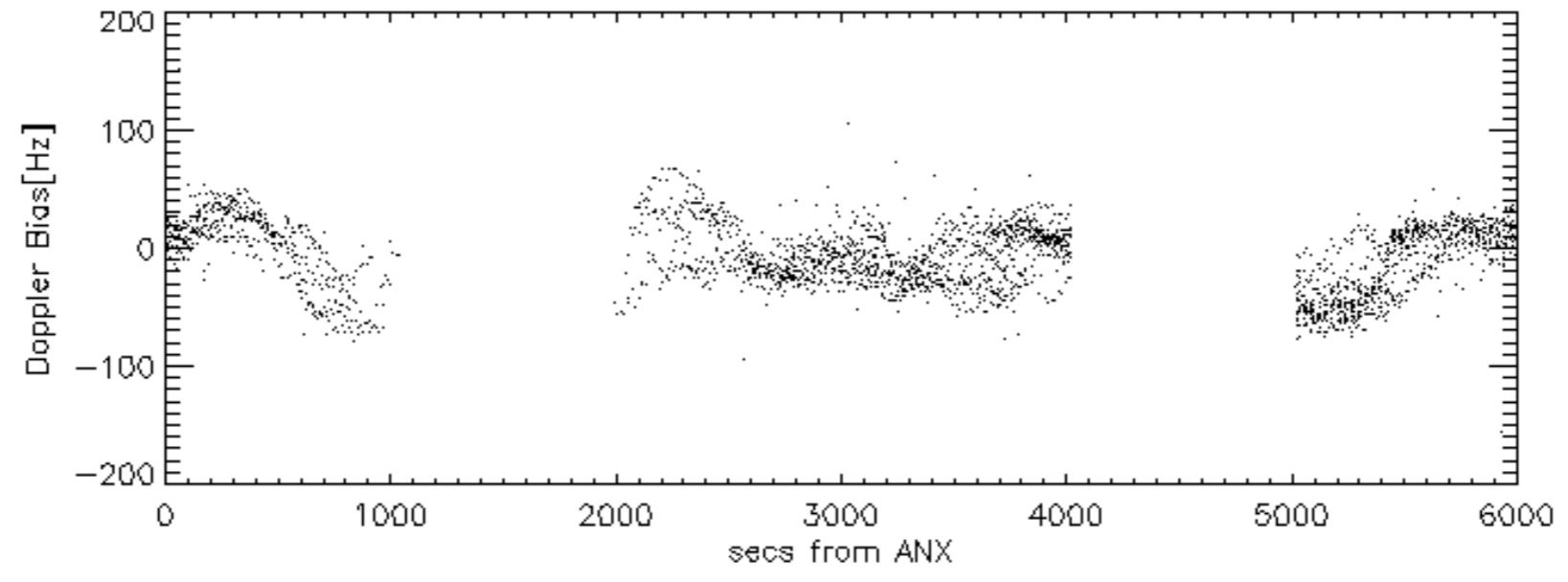
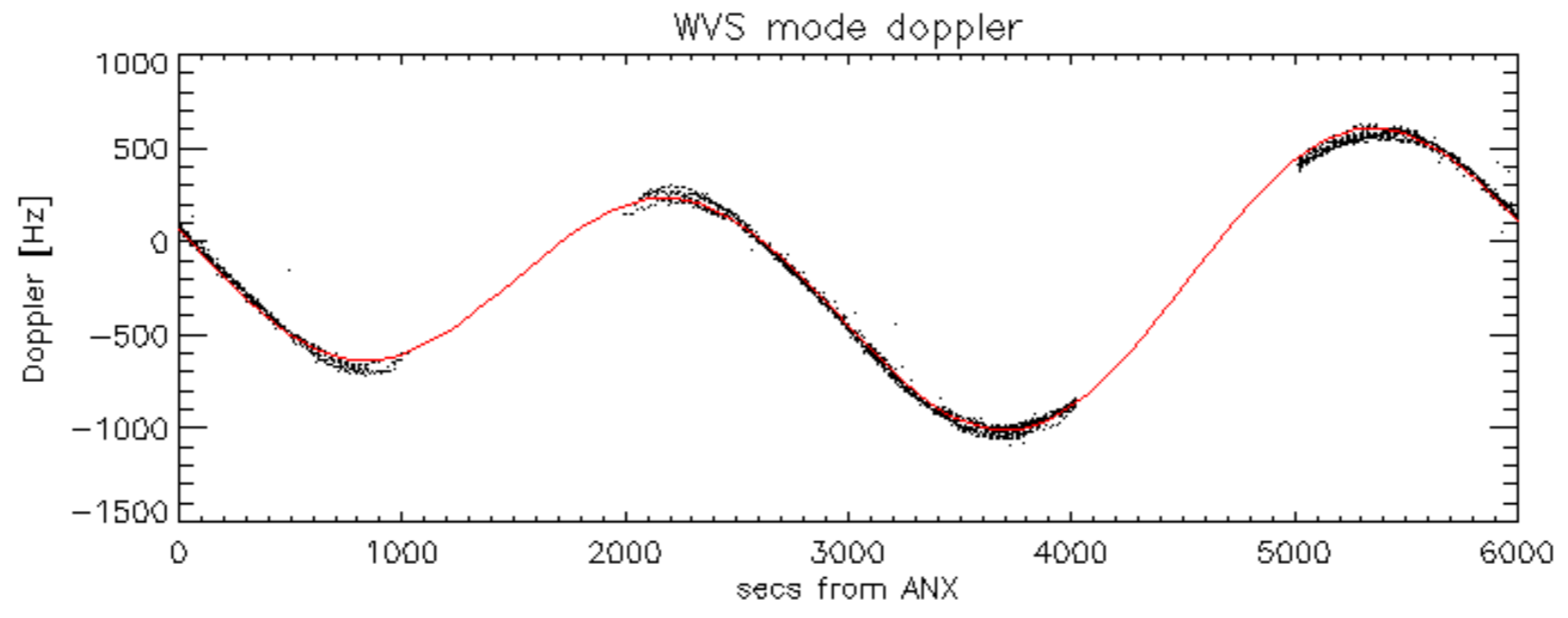
Doppler 'WVS' 'IS2' descending



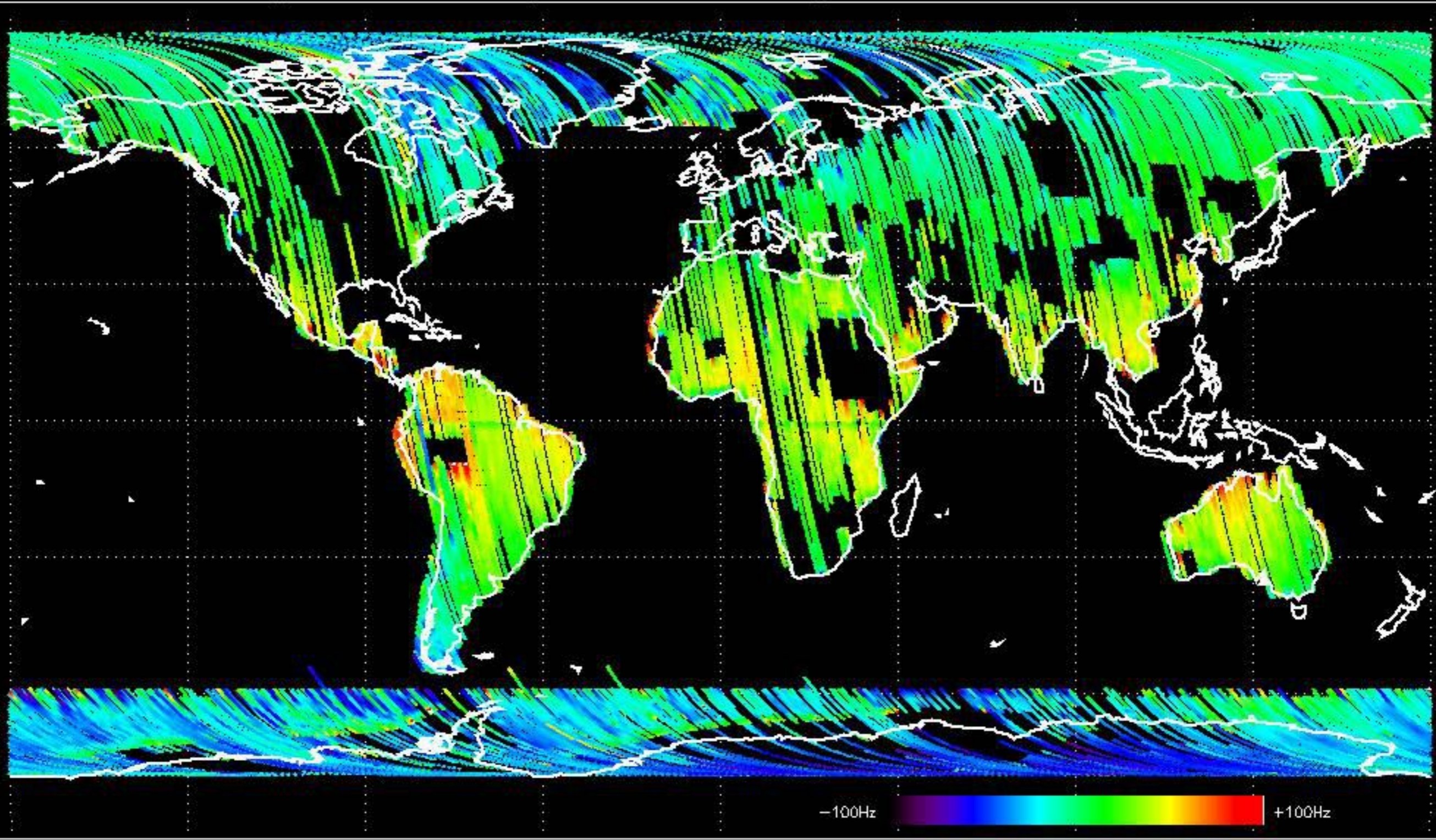


GM1 mode doppler

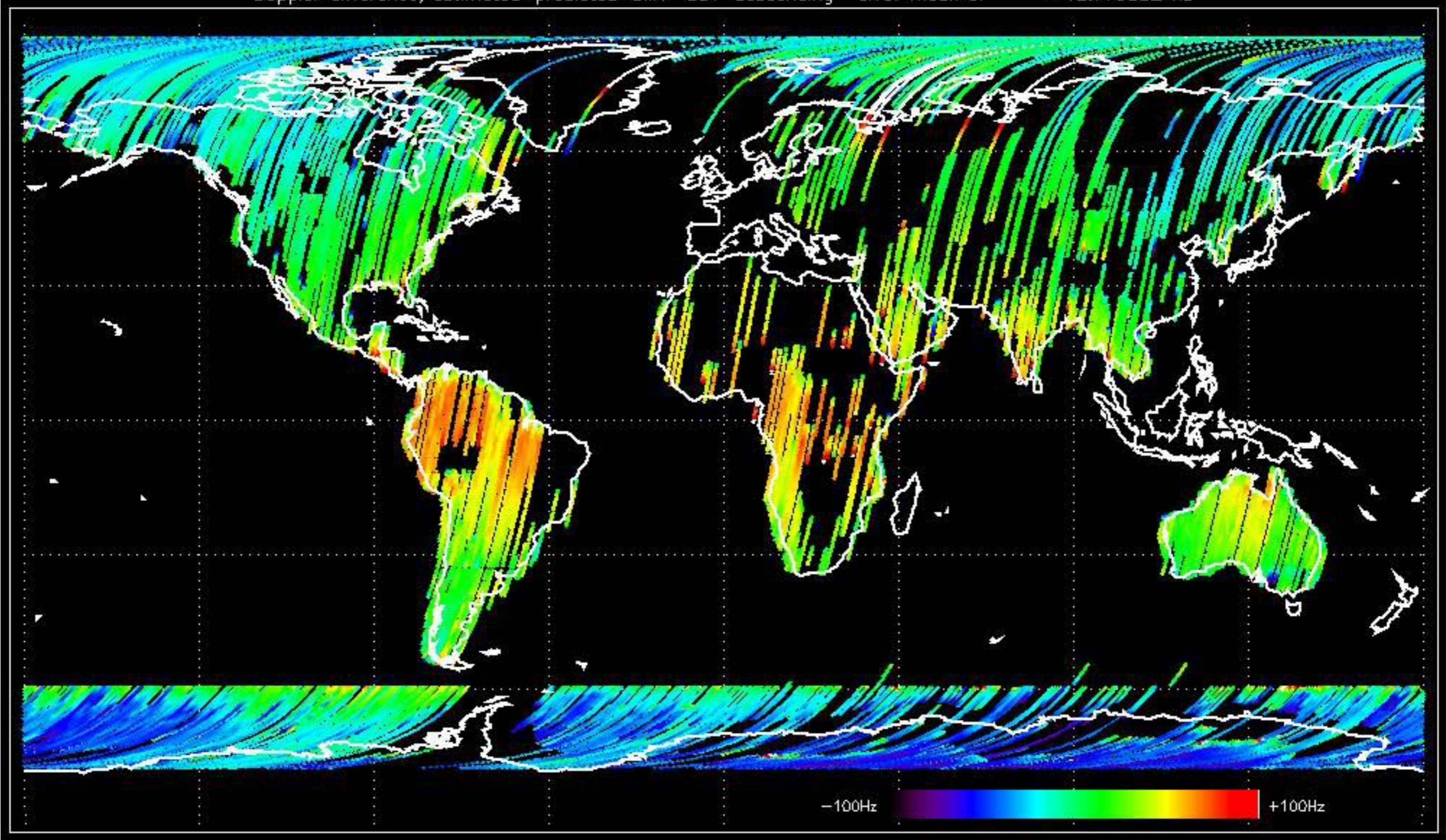




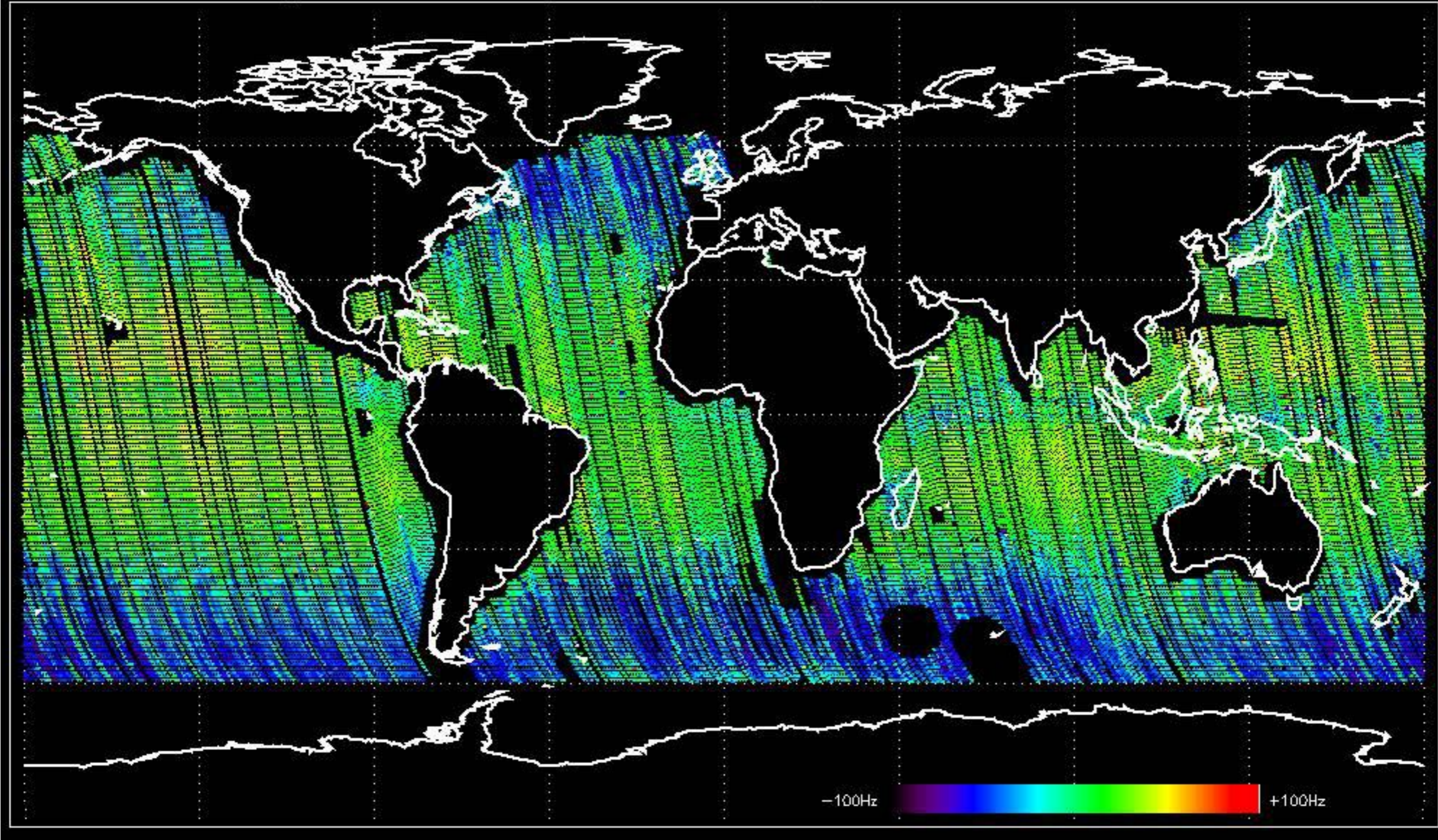
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.343717 Hz



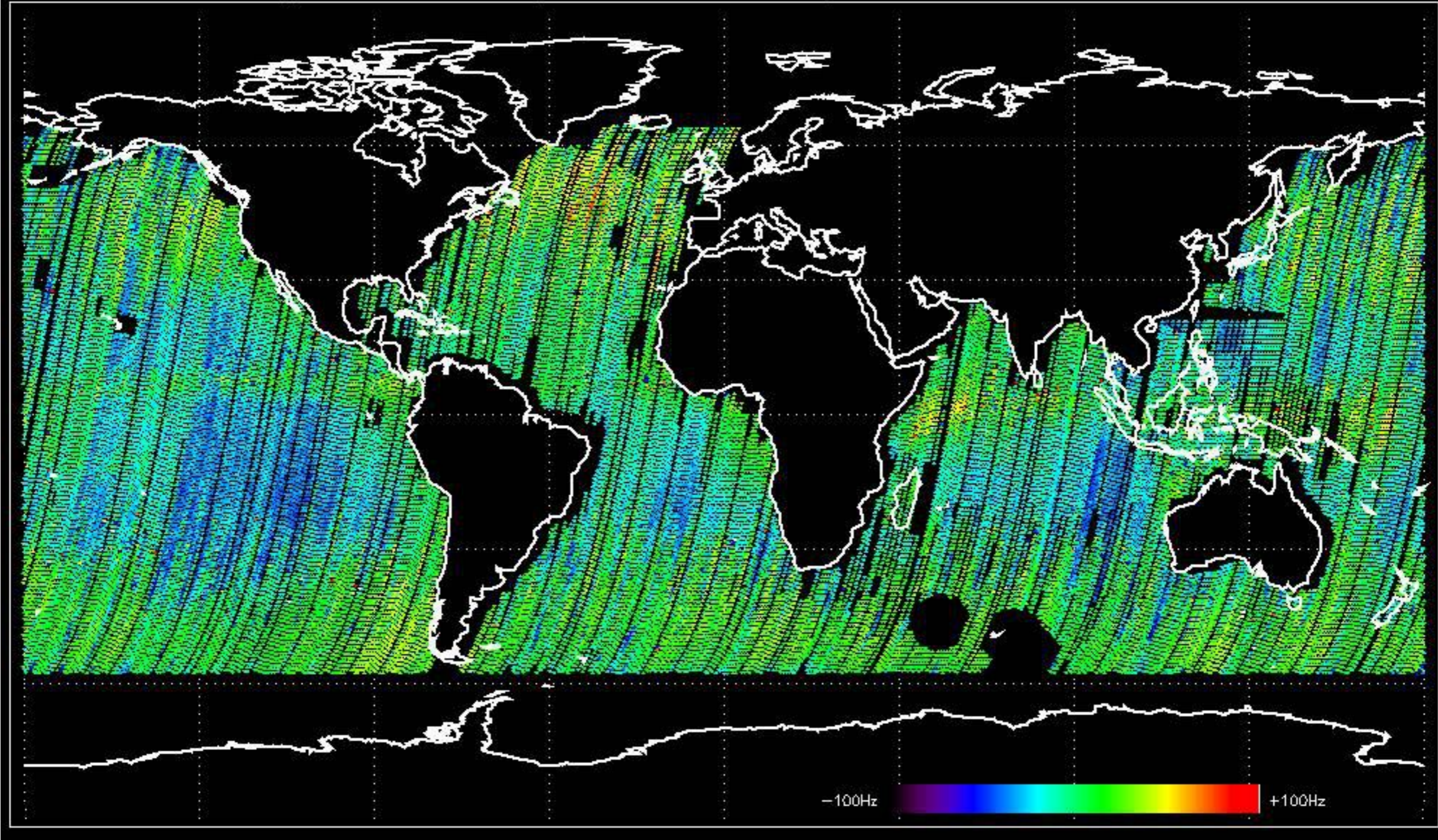
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.779082 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.4505942 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.4651894 Hz



No anomalies observed on available MS products:

No anomalies observed.





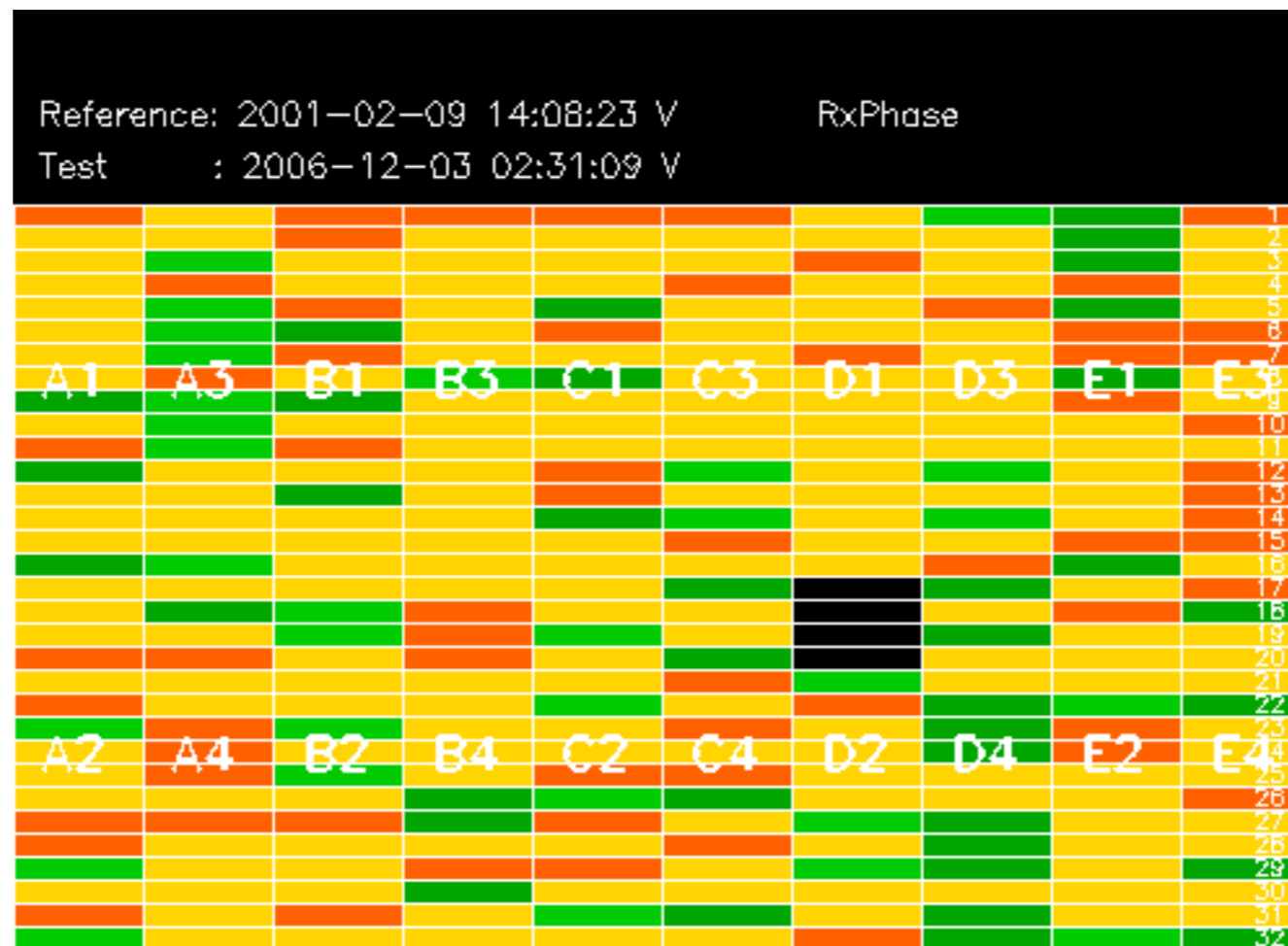


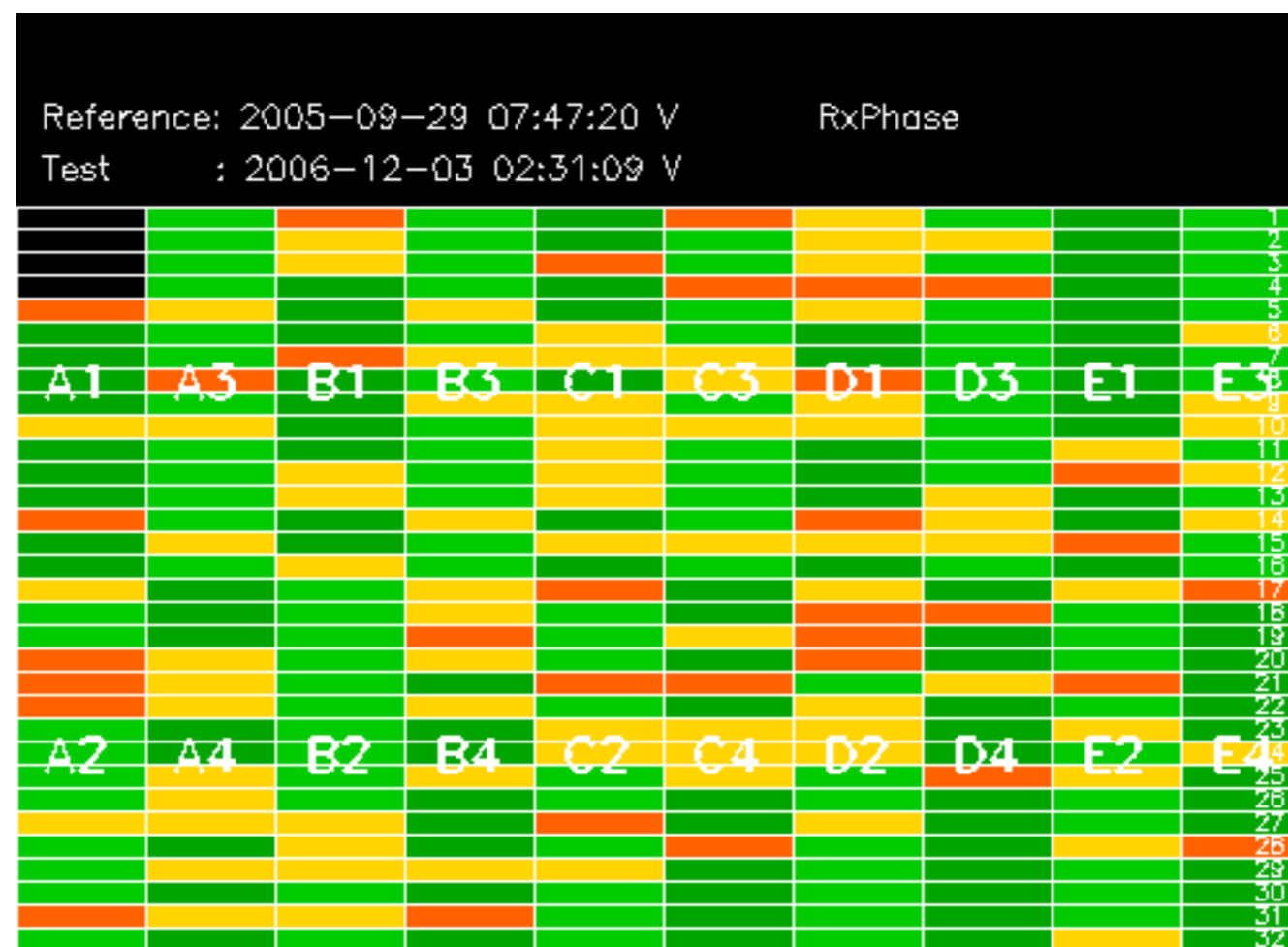




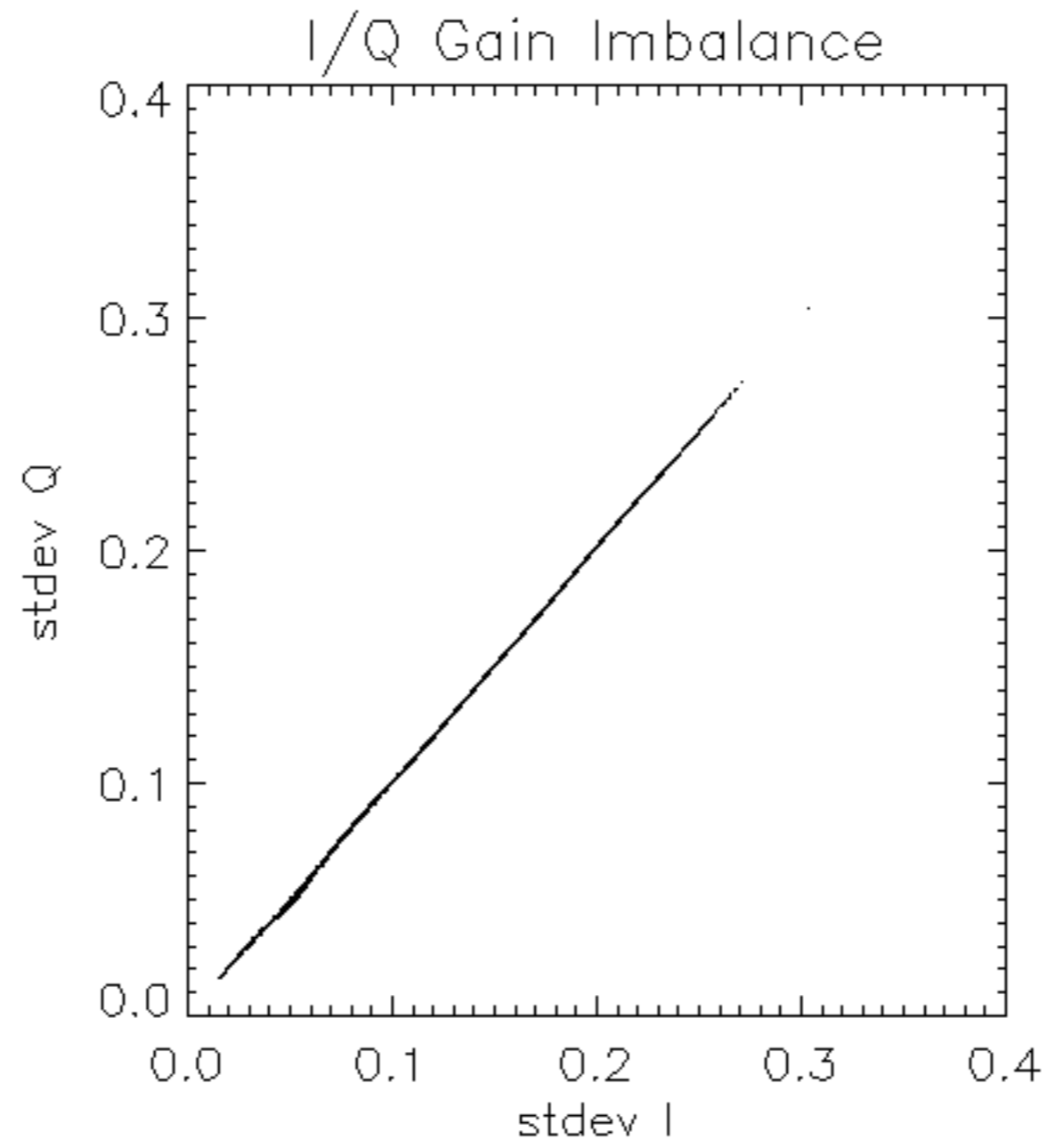


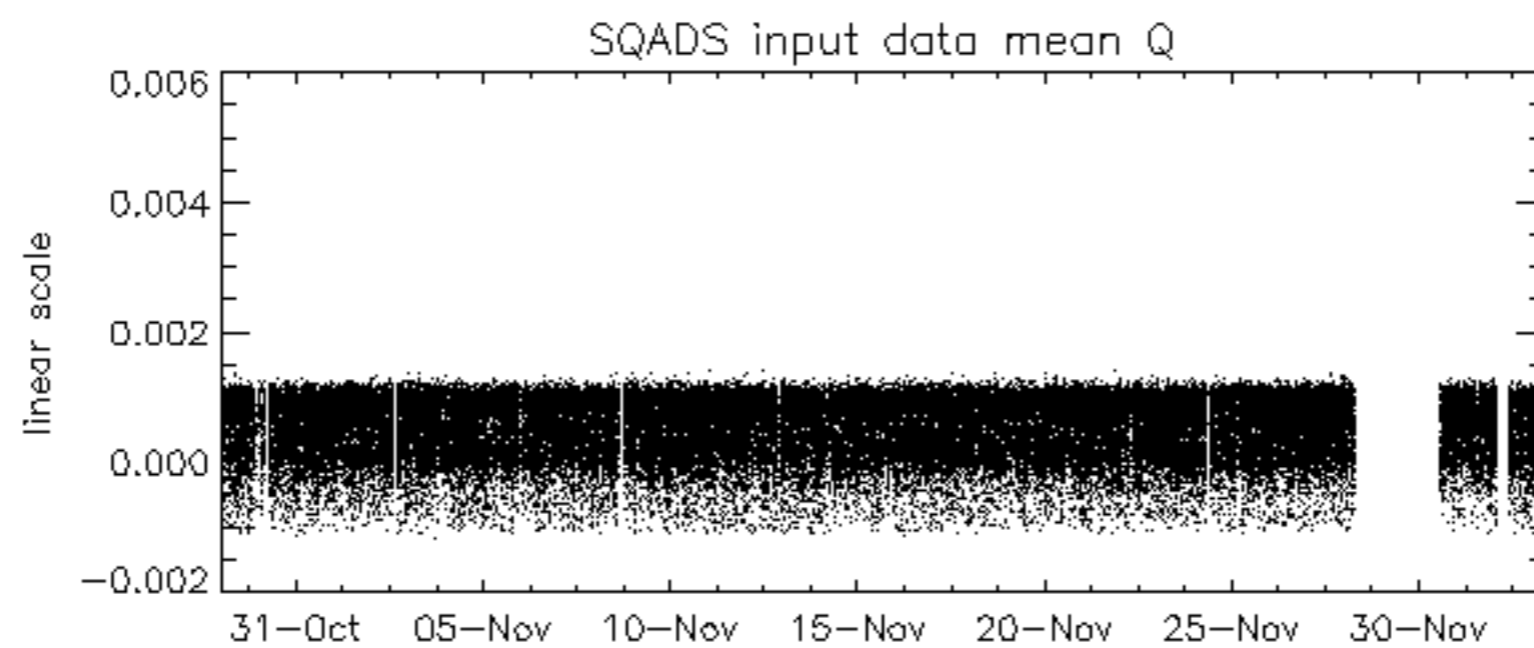
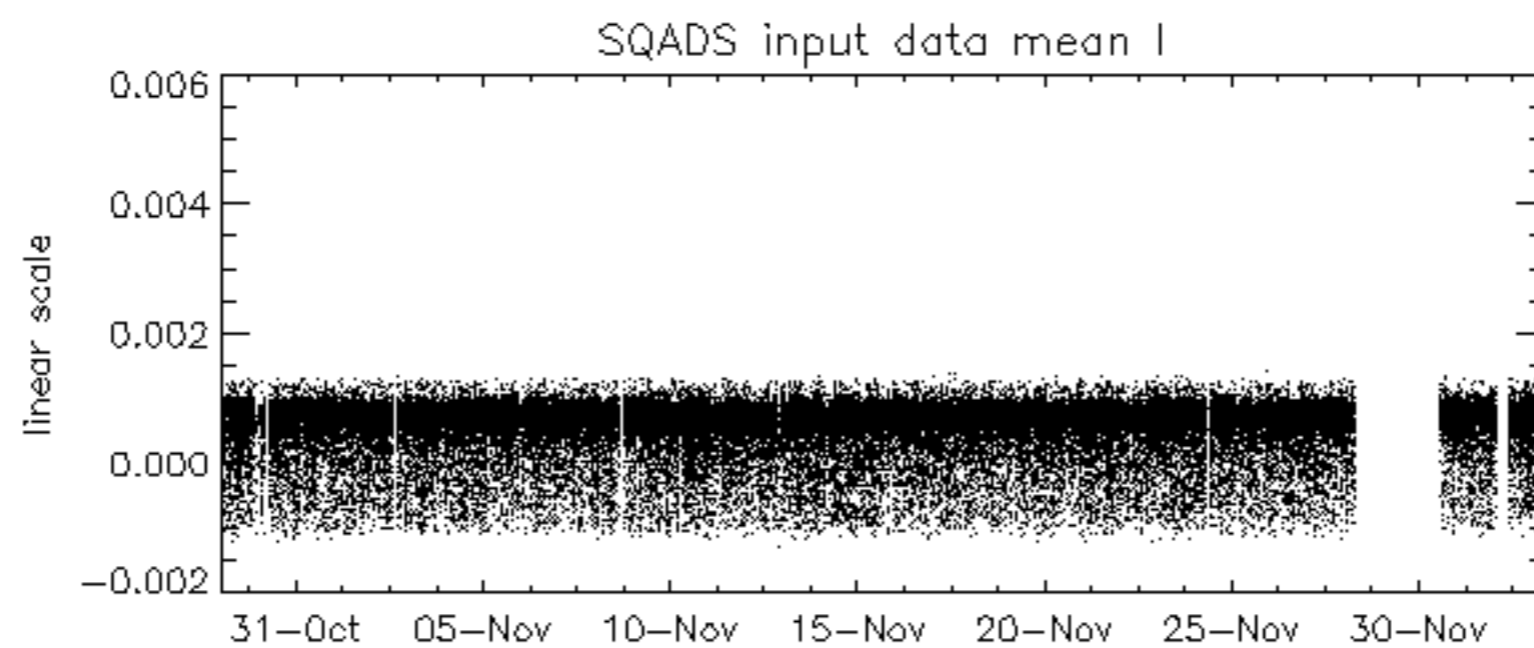
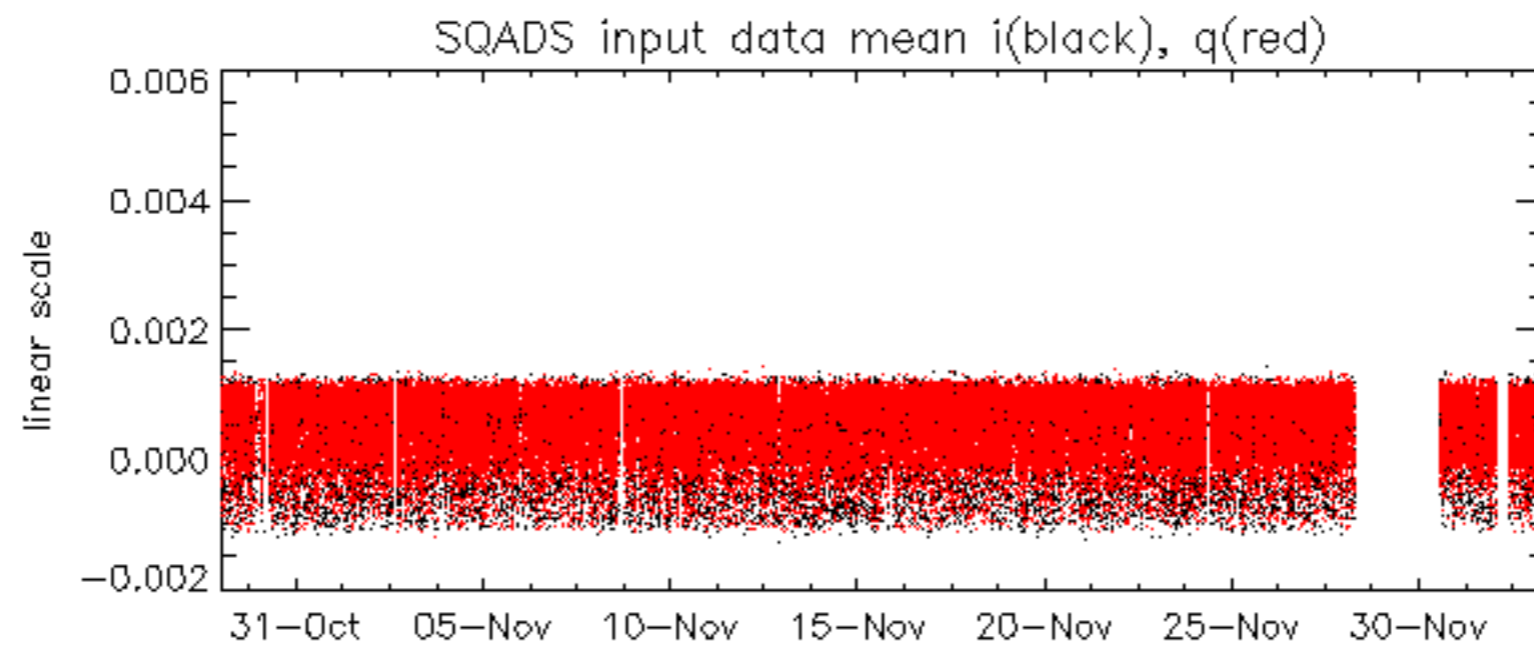


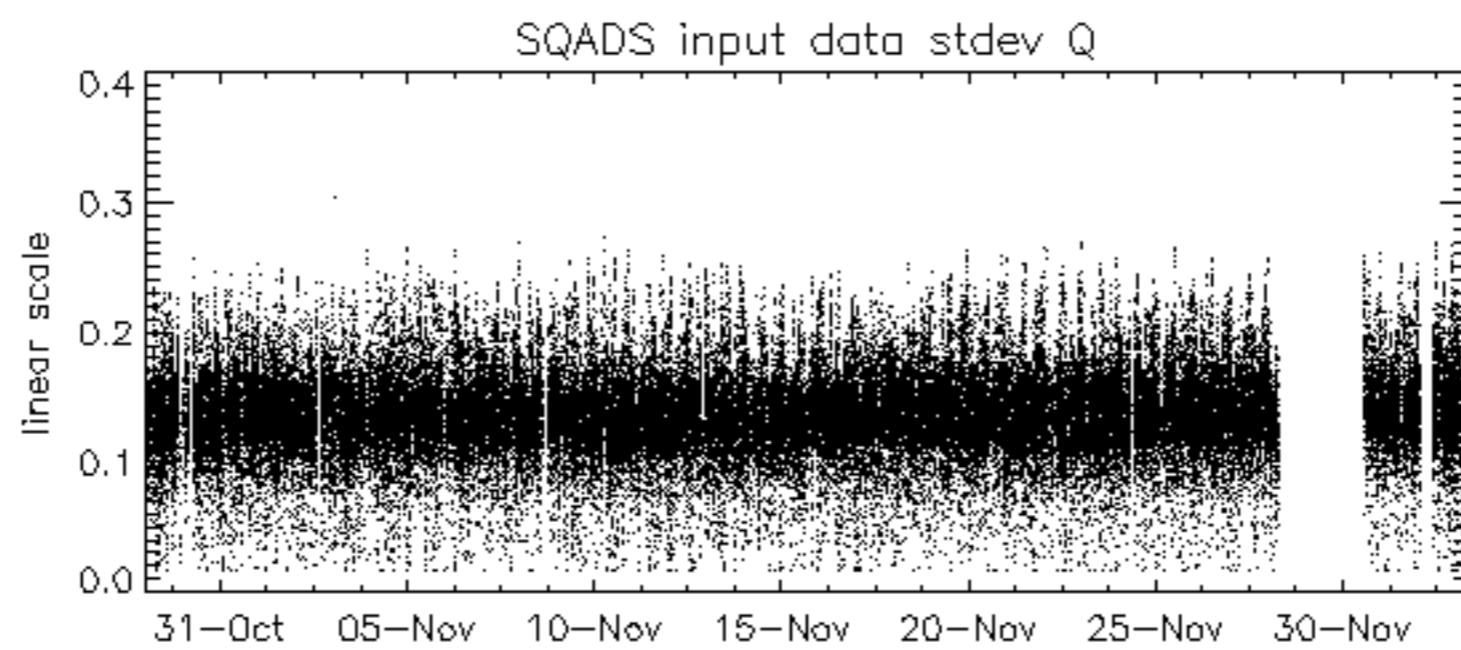
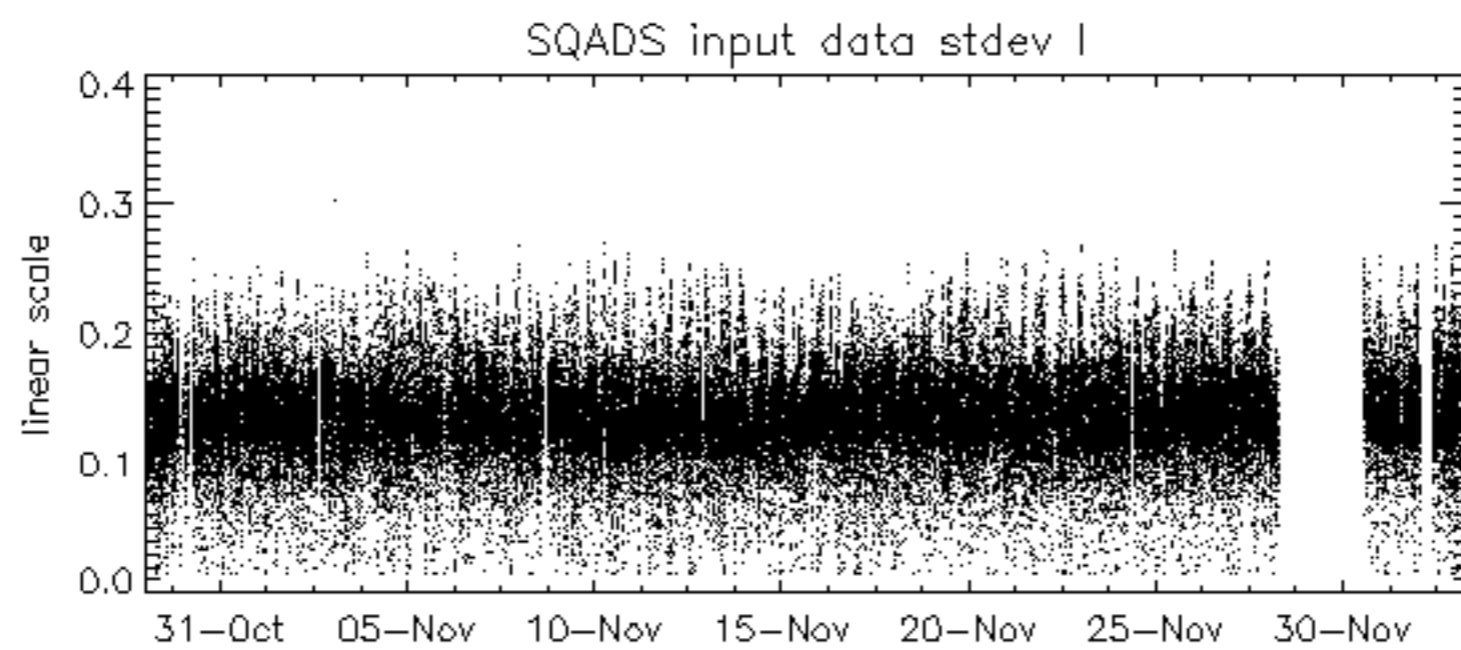
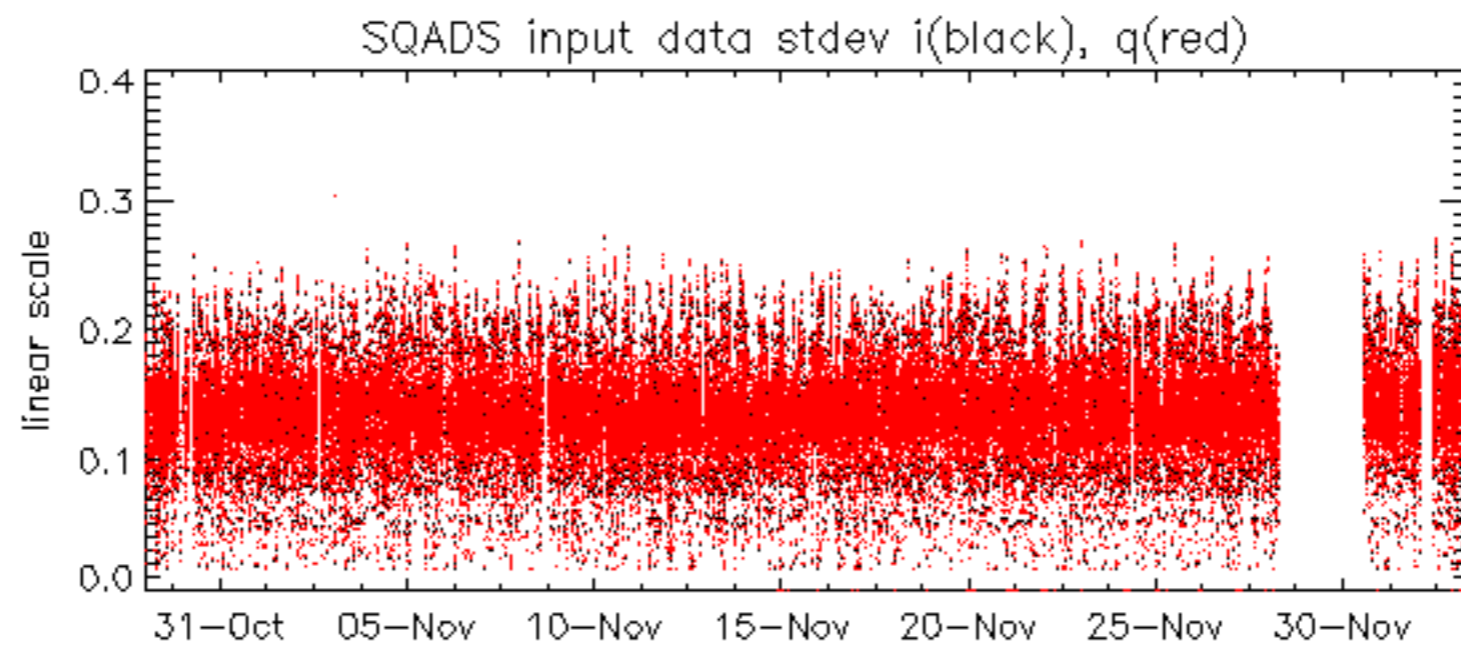


















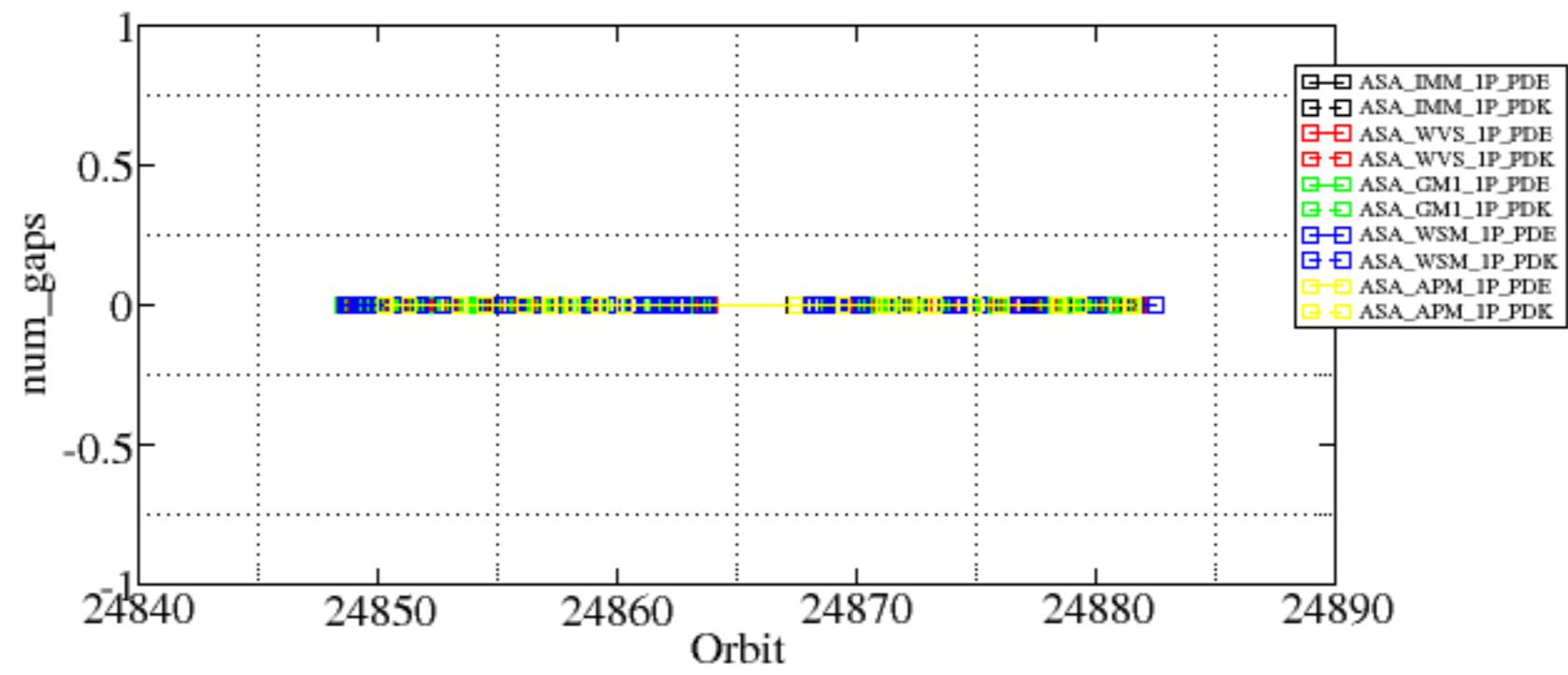


Summary of analysis for the last 3 days 2006120[123]

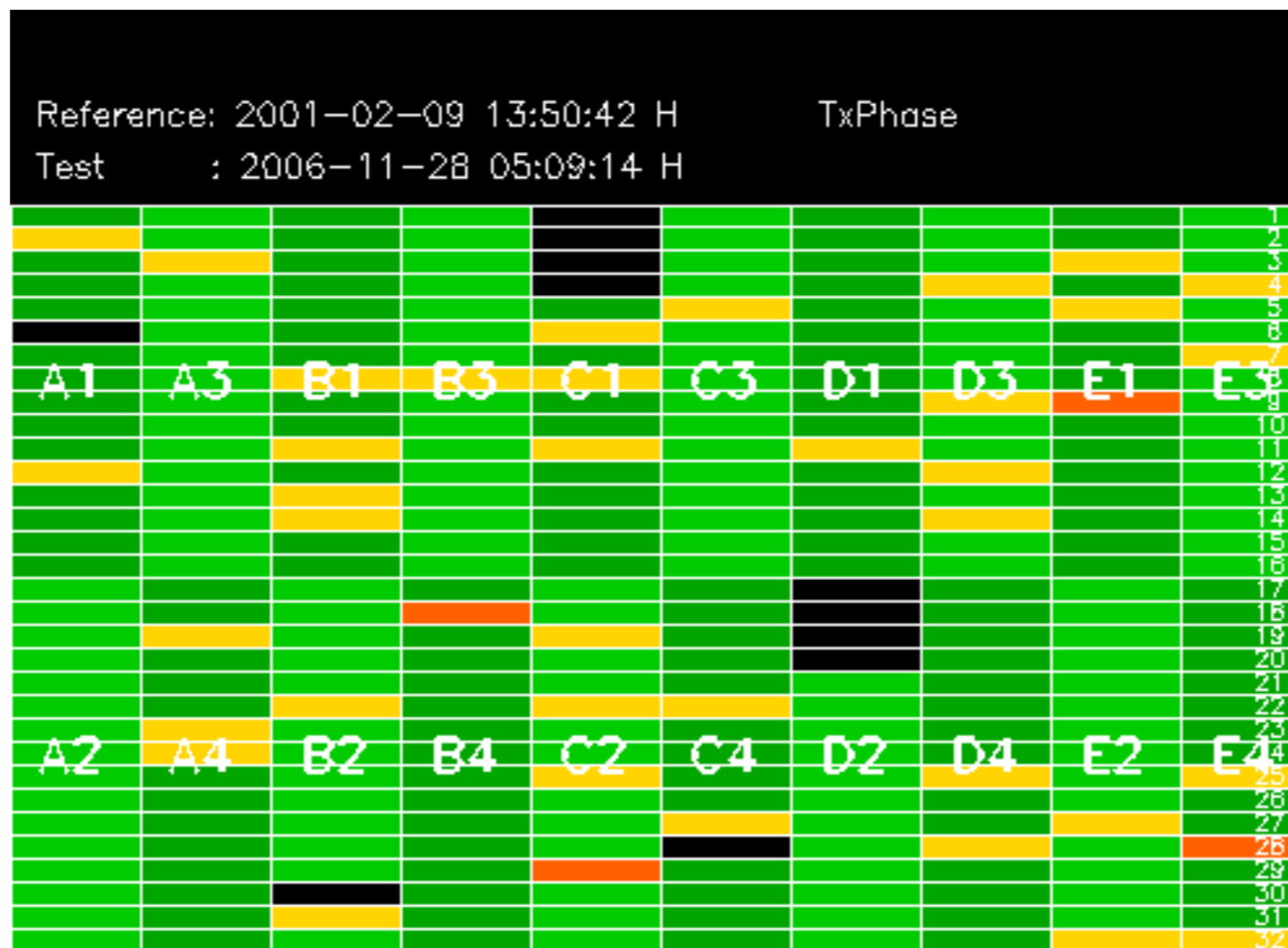
The assumptions is taken that the SQADS num\_gaps and num\_missing\_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20061201_191311_000006402053_00257_24860_9532.N1	0	13
ASA_WSM_1PNPDE20061201_013231_000001402053_00246_24849_3285.N1	0	39
ASA_WSM_1PNPDE20061201_141605_000000852053_00254_24857_4521.N1	0	29
ASA_WSM_1PNPDE20061202_010155_000000672053_00260_24863_5042.N1	0	35
ASA_WSM_1PNPDE20061202_010155_000001402053_00260_24863_5534.N1	0	35
ASA_WSM_1PNPDE20061202_170159_000000792053_00270_24873_5632.N1	0	11
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6506.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6579.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6802.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_6989.N1	0	34
ASA_WSM_1PNPDE20061203_003118_000001832053_00274_24877_7194.N1	0	34
ASA_APM_1PNPDE20061202_153639_000000892053_00269_24872_5526.N1	0	57

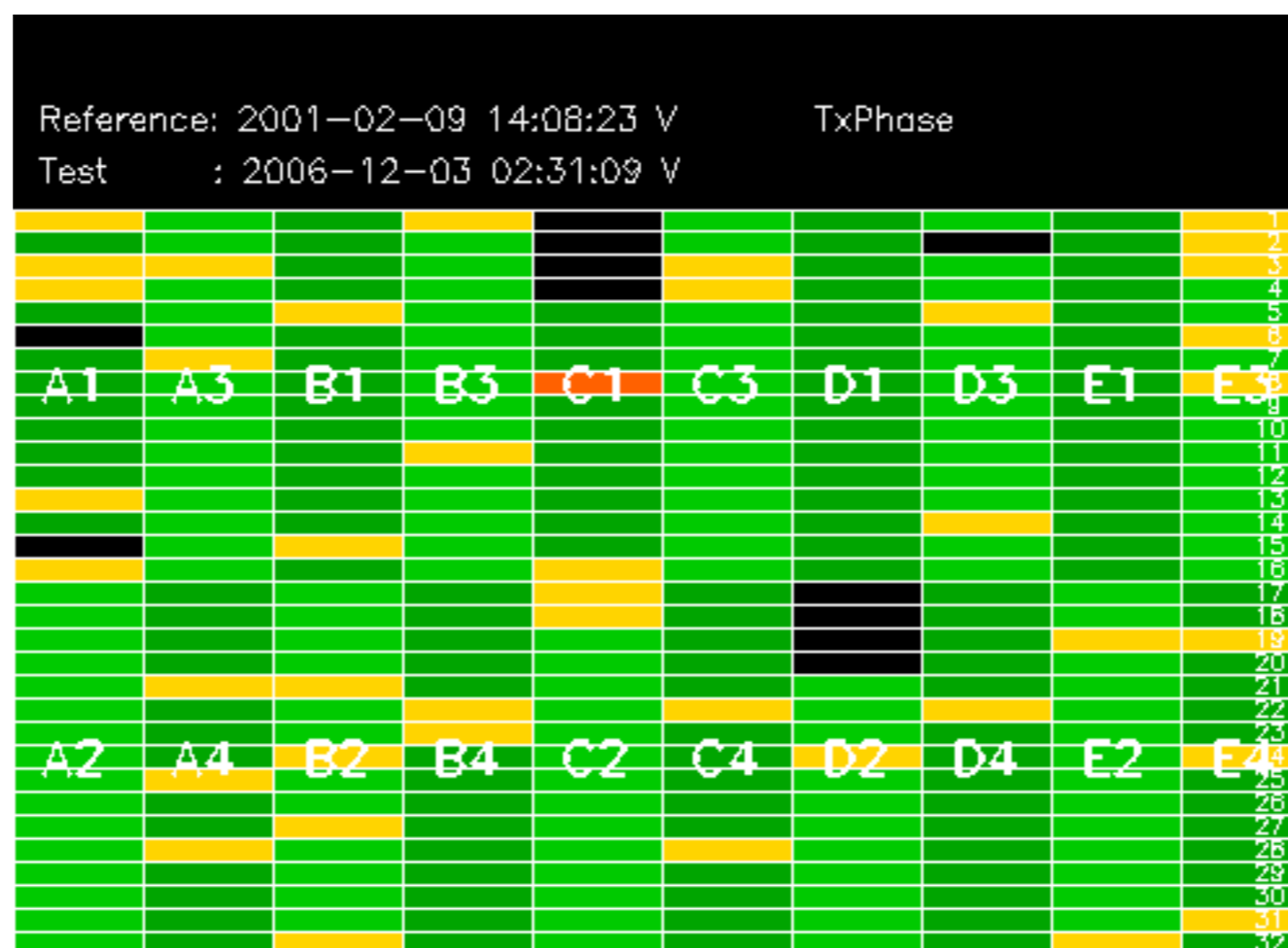




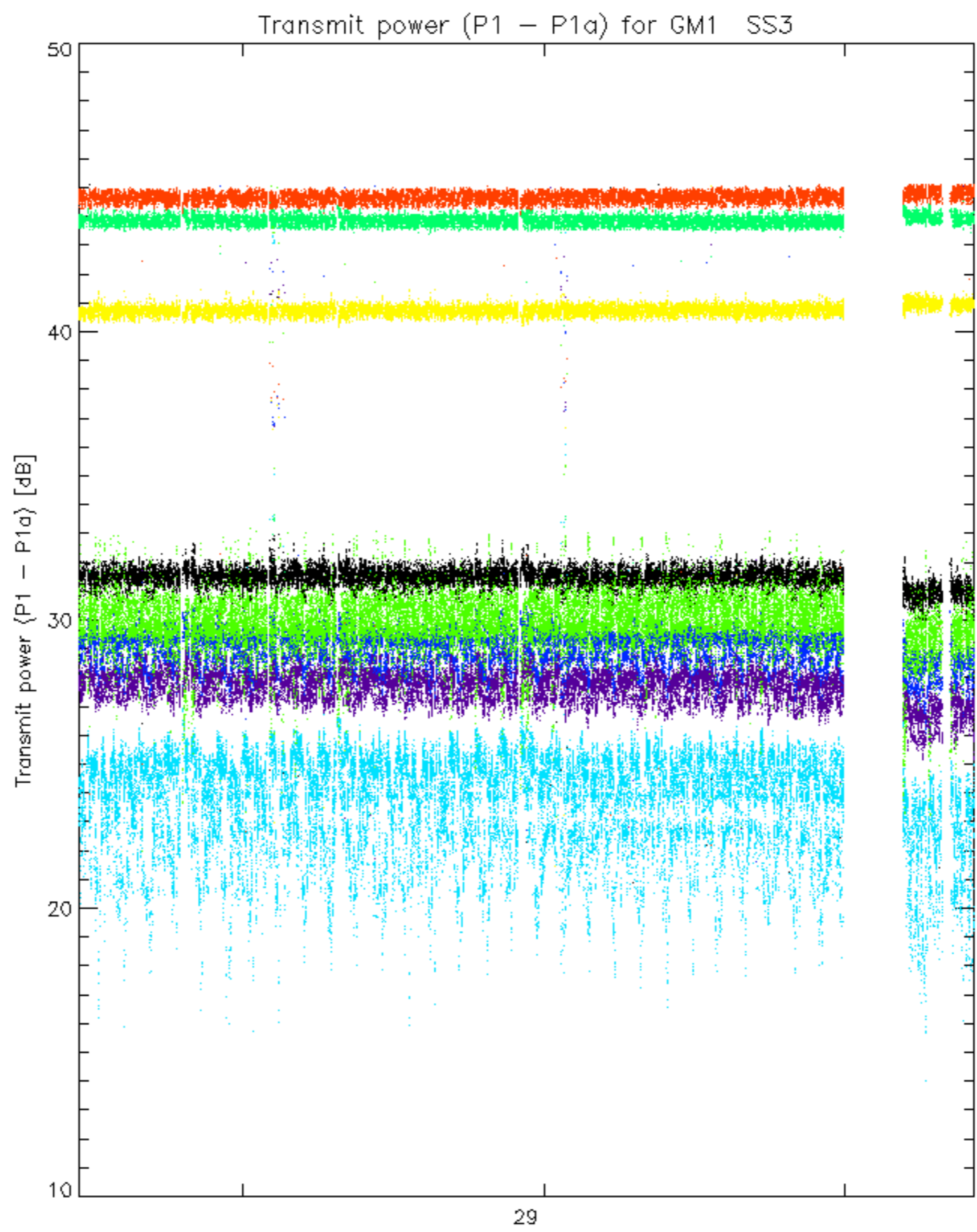




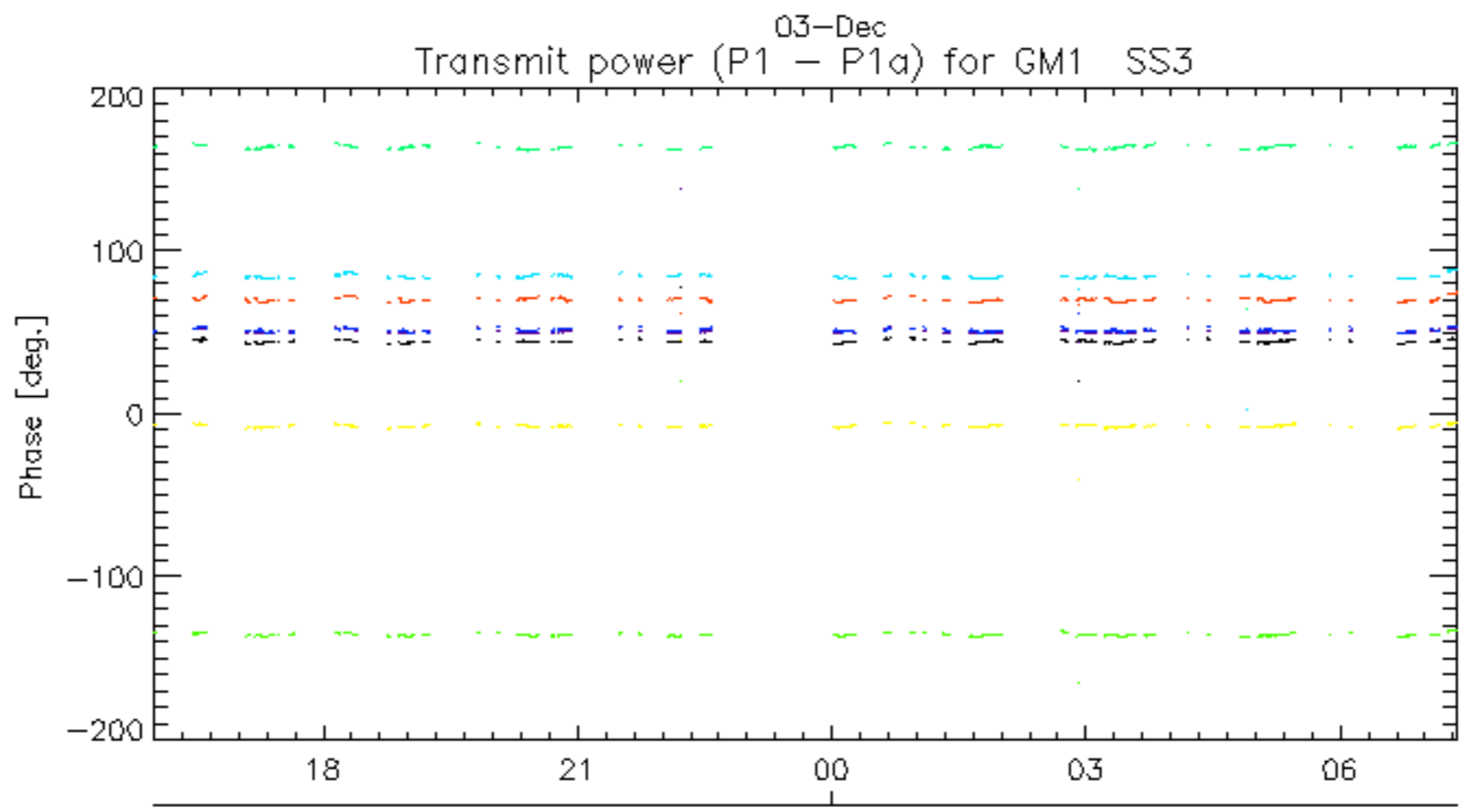
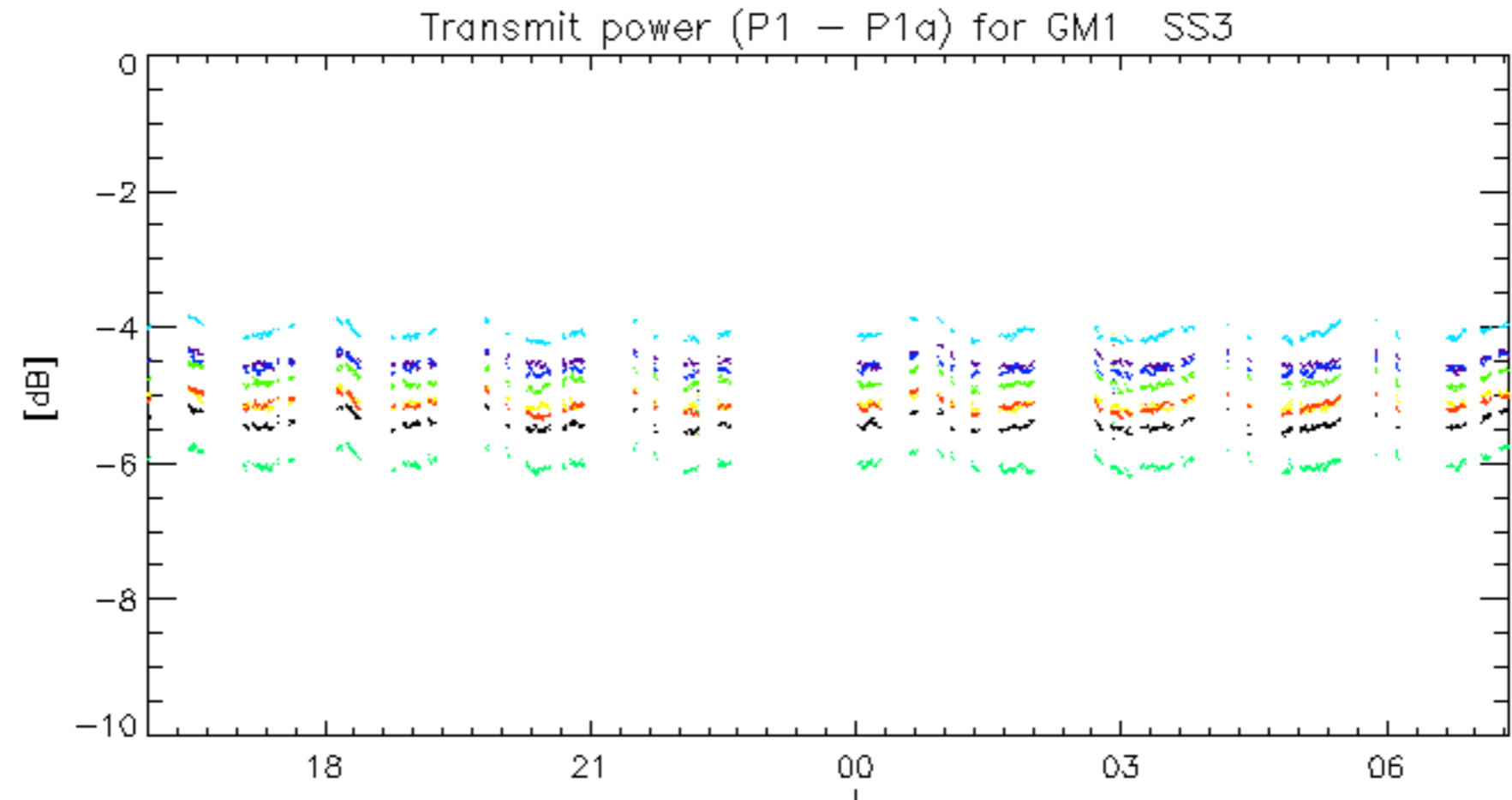






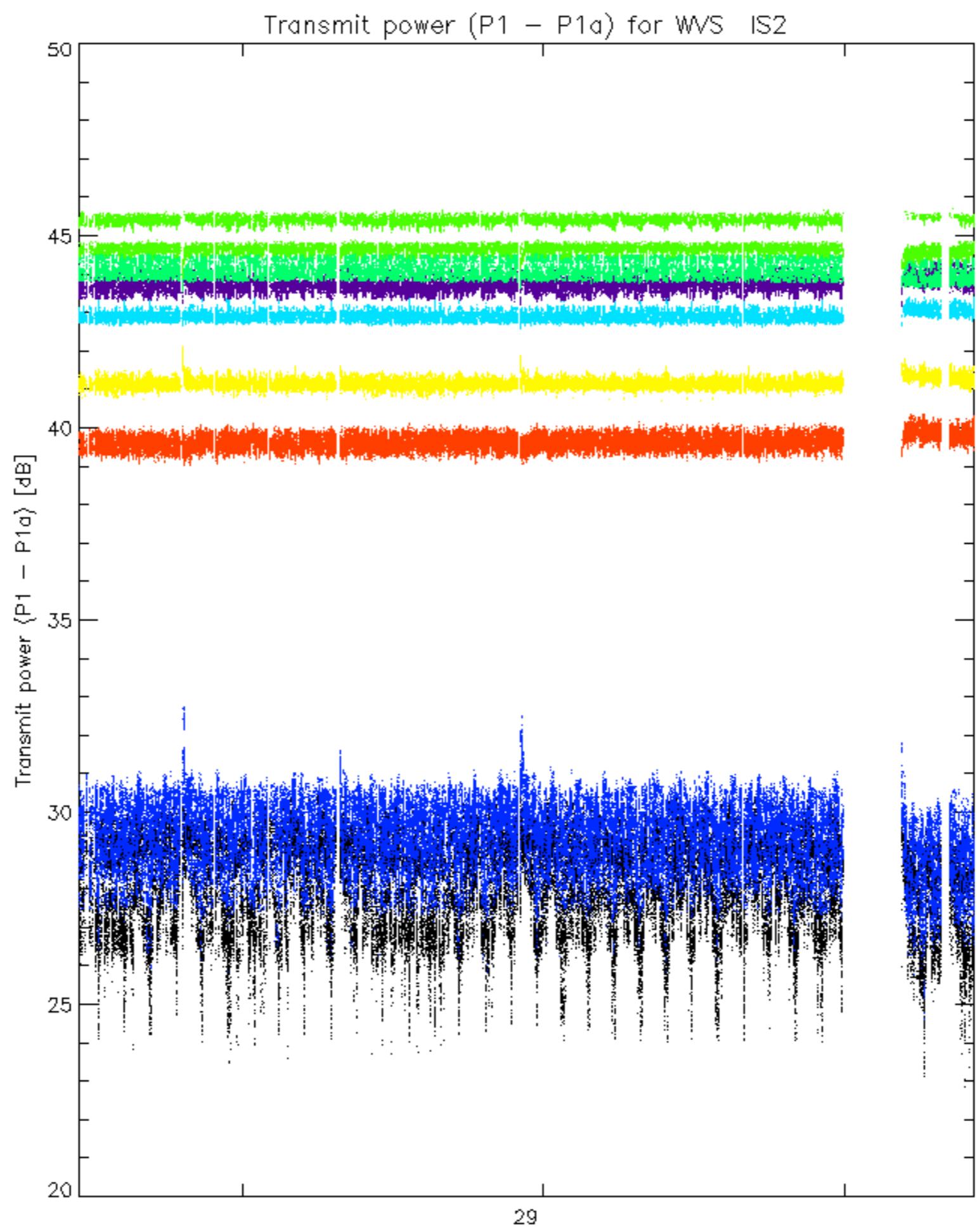


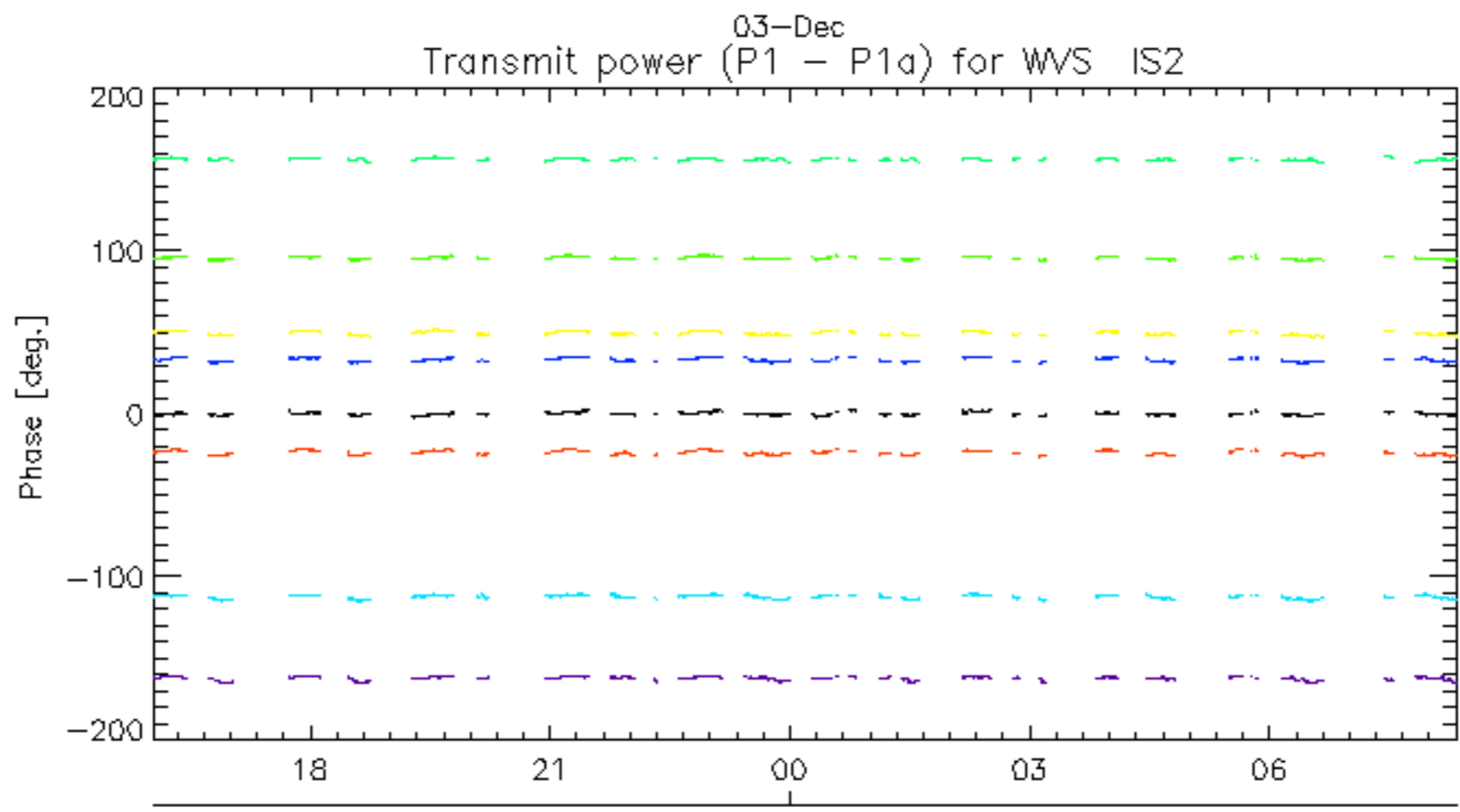
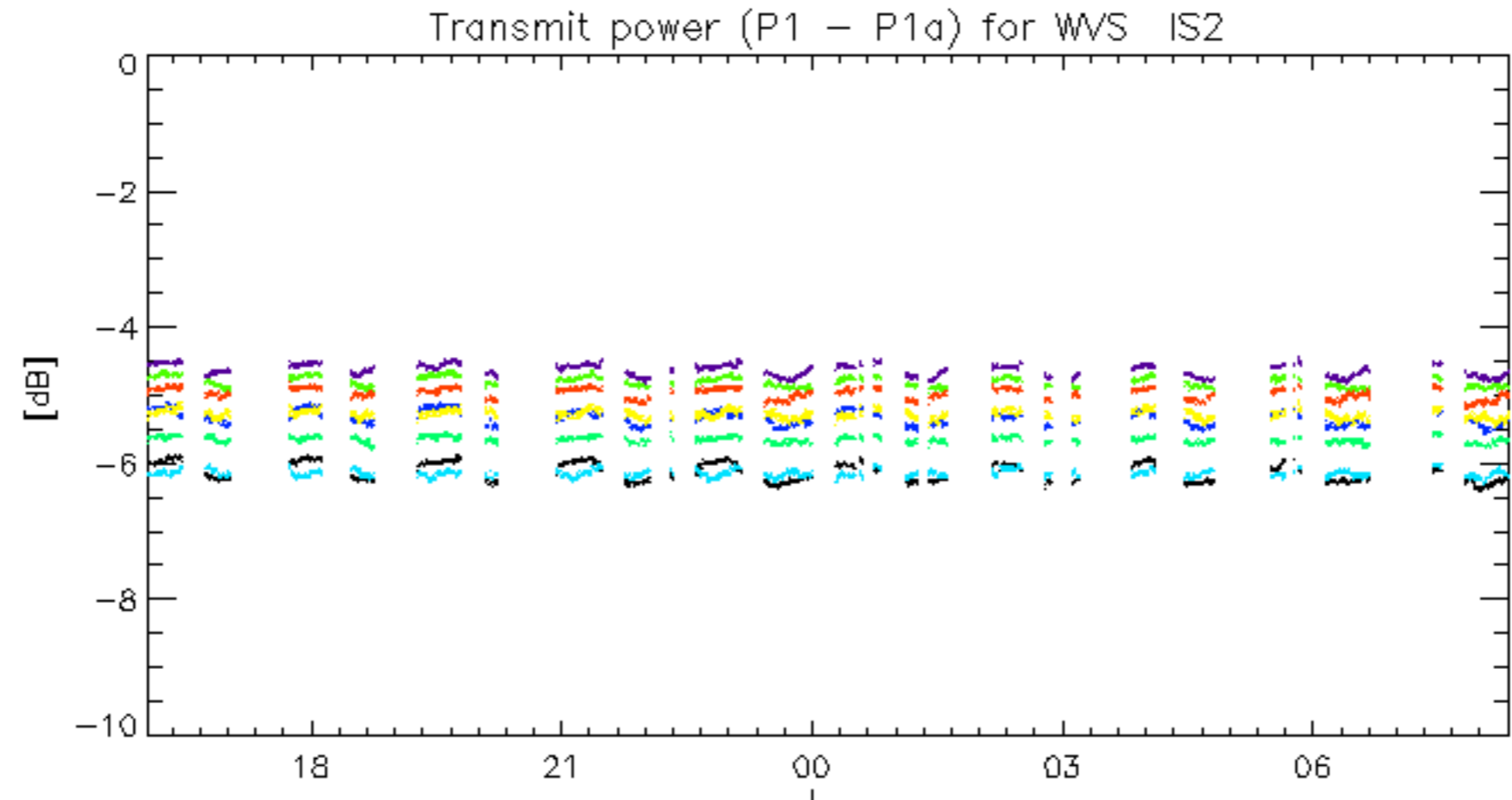
rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 26 \_ 30



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







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

No unavailabilities during the reported period.