

# PRELIMINARY REPORT OF 040521

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

**last update on Fri May 21 10:14:48 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

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	20040519 190115
H	20040520 201014

### 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

### P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.543826	0.008614	0.057184
7	P1	-3.319374	0.014510	0.062856
11	P1	-4.547302	0.035973	0.111759
15	P1	-5.718833	0.058861	0.142012
19	P1	-3.411530	0.004478	-0.022202
22	P1	-4.563224	0.011139	0.009070
24	P1	-4.930729	0.011415	0.120395
28	P1	-4.599088	0.012346	0.115591

### P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P2	-22.460724	0.075873	-0.063958
7	P2	-22.893400	0.112173	-0.187959
11	P2	-15.717717	0.125365	0.047325
15	P2	-7.215349	0.088477	0.063978
19	P2	-9.575803	0.131528	0.304461
22	P2	-17.616129	0.090171	0.221022
24	P2	-20.919199	0.097645	-0.235861
28	P2	-16.614292	0.077999	0.083076

**P3 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.148326	0.002052	0.024571
7	P3	-8.148322	0.002052	0.024493
11	P3	-8.148324	0.002052	0.024574
15	P3	-8.148322	0.002052	0.024511
19	P3	-8.148320	0.002052	0.024429
22	P3	-8.148319	0.002052	0.024425
24	P3	-8.148322	0.002052	0.024523
28	P3	-8.148382	0.002046	0.029524

**4.2.2 - Evolution for GM1**

Evolution of cal pulses for GM1

**P1 Cyclic statistics**

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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**P2 Cyclic statistics**

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

**P3 Cyclic statistics**

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

### 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	0.000436305
	stdev	2.32902e-07
MEAN Q	mean	0.000508719
	stdev	2.39040e-07



### 5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125731
	stdev	0.000942215
STDEV Q	mean	0.125938
	stdev	0.000951298



### 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

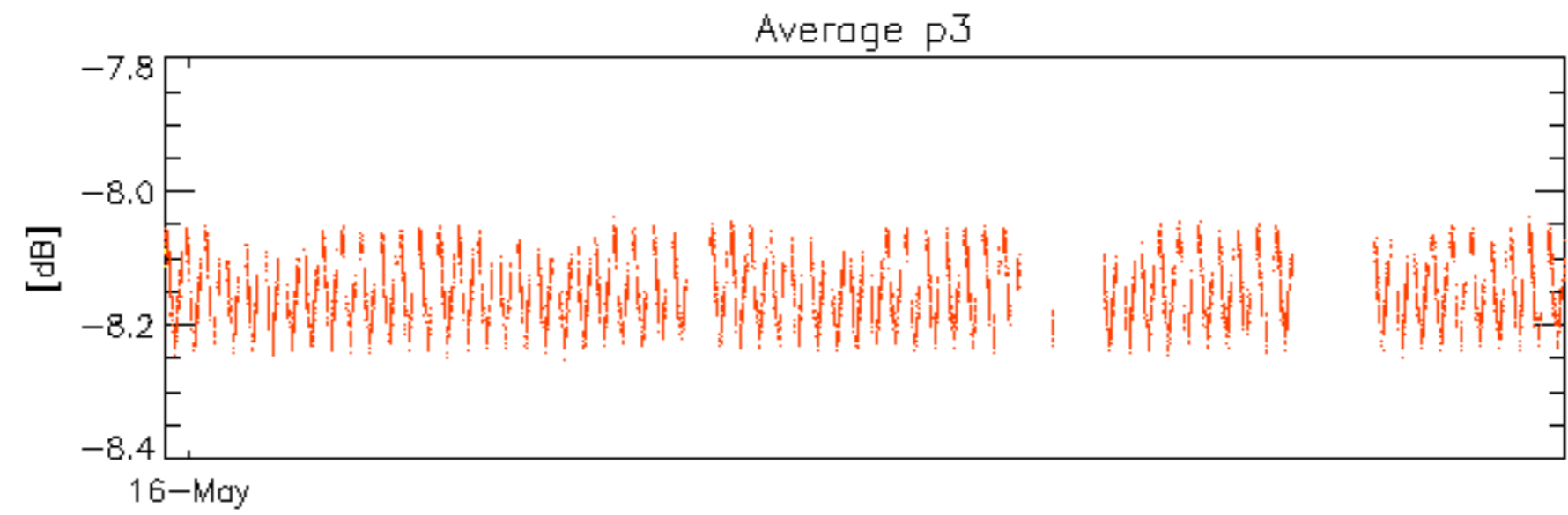
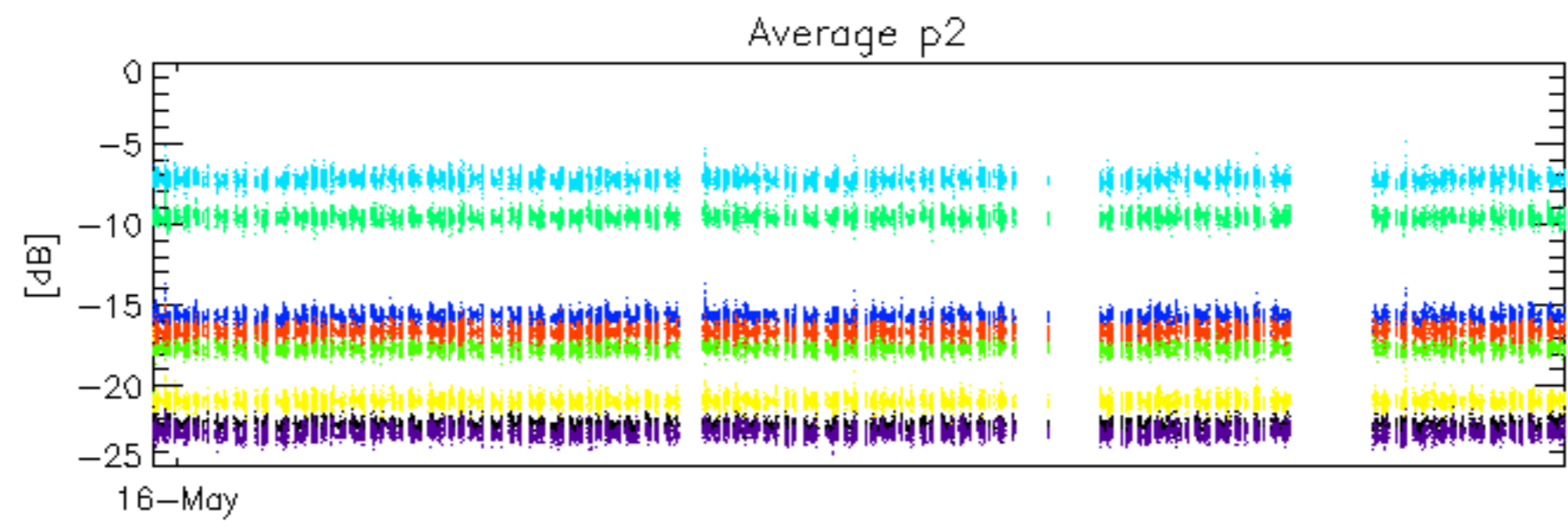
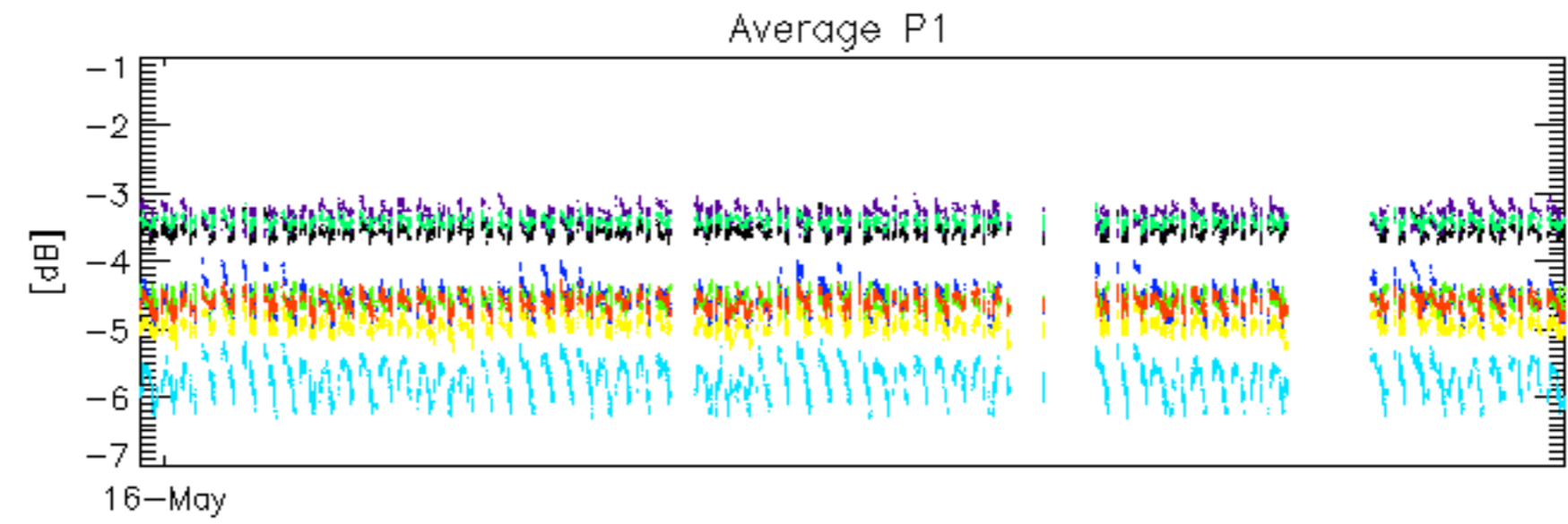
Evolution of unbiased Doppler error (Real - Expected)

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

### 6.5 - Absolute Doppler for GM1

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

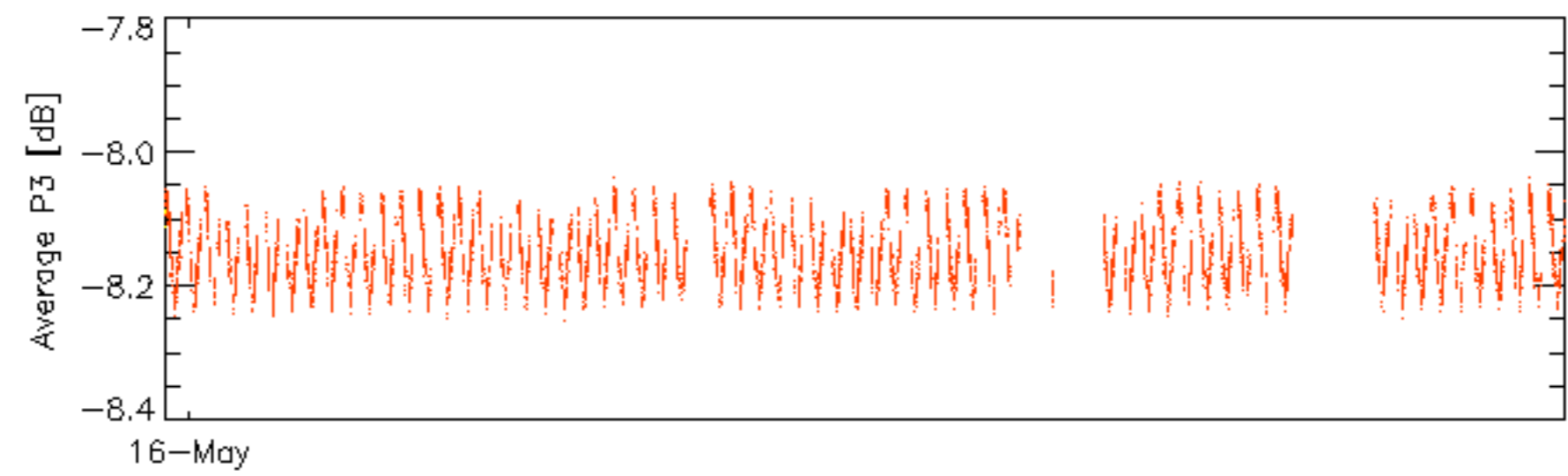
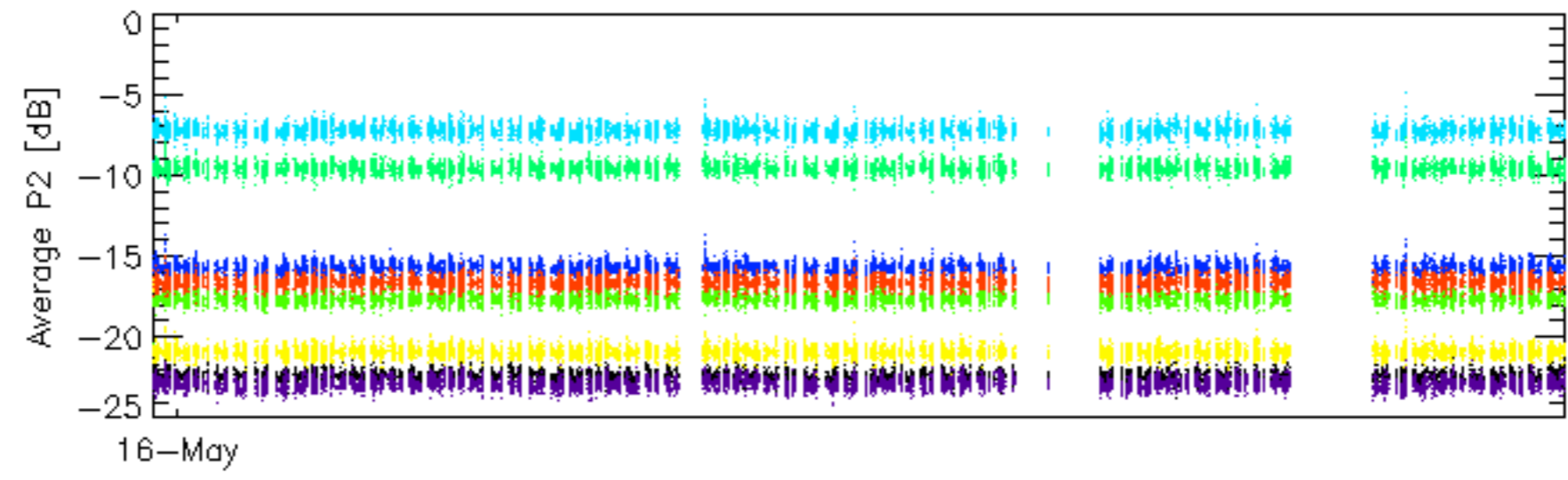
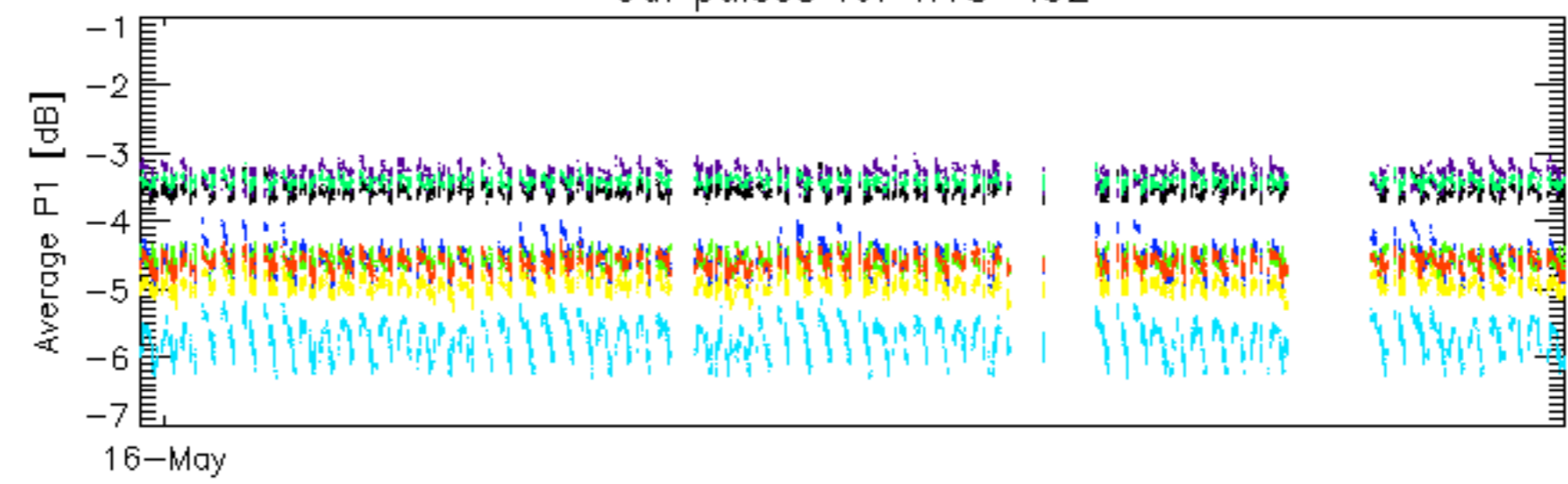
### 6.6 - Doppler evolution versus ANX for GM1



rows: \_ 3 \_ 7 \_ 11 \_ 15 \_ 19 \_ 22 \_ 24 \_ 28

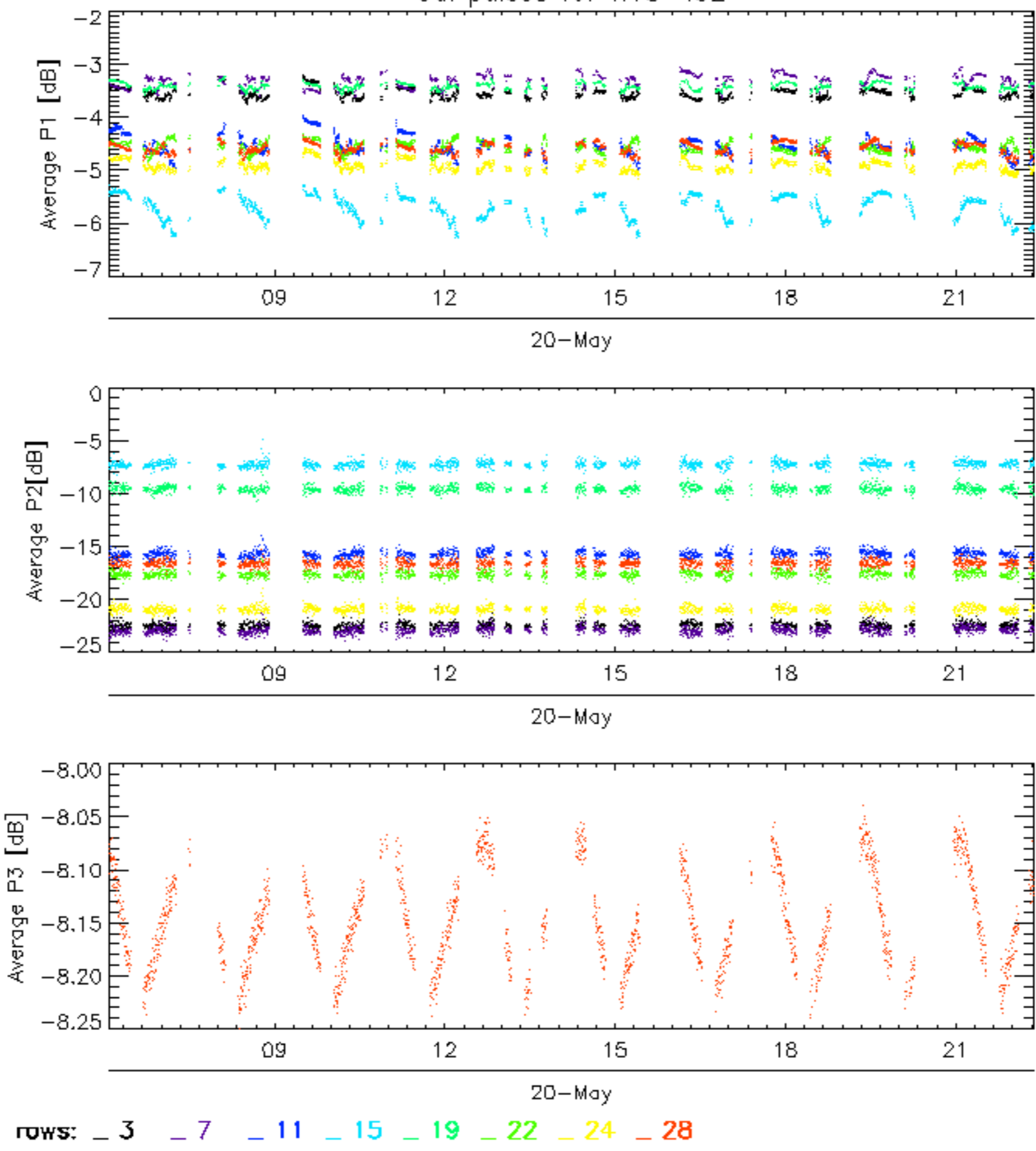


Cal pulses for WVS IS2



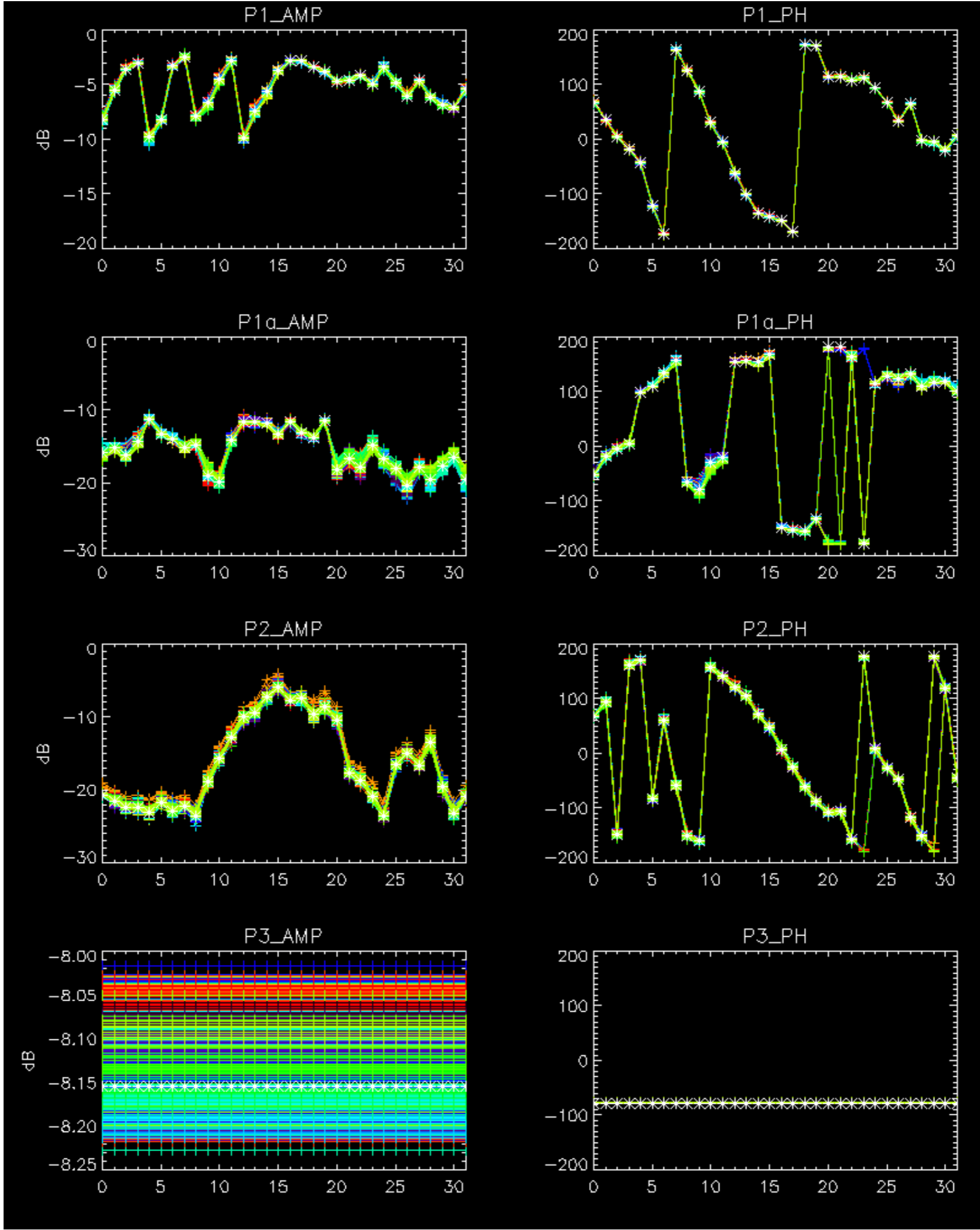
rows: 3 7 11 15 19 22 24 28

Cal pulses for WVS IS2



No anomalies observed on available browse products

No anomalies observed.

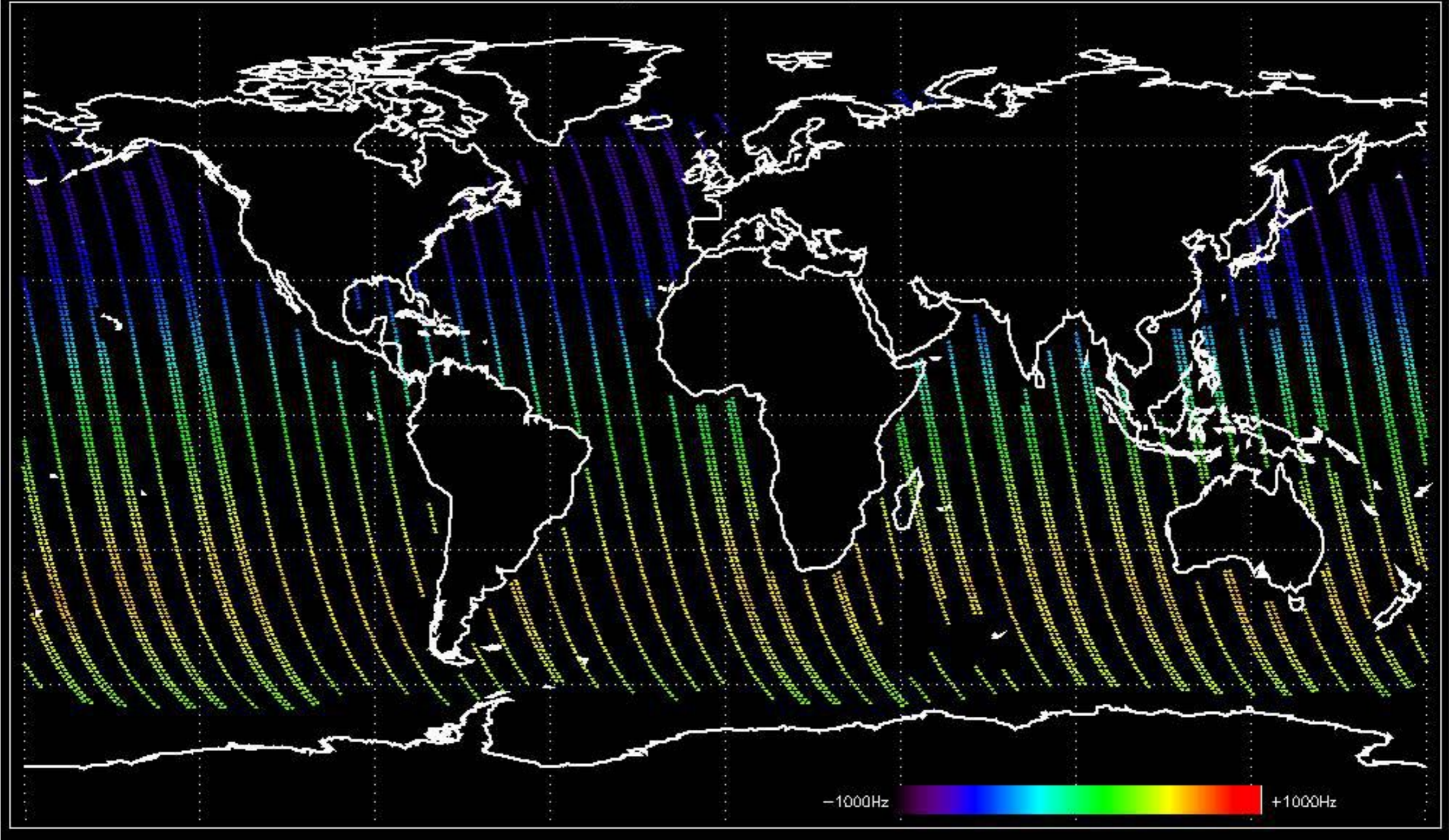


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.



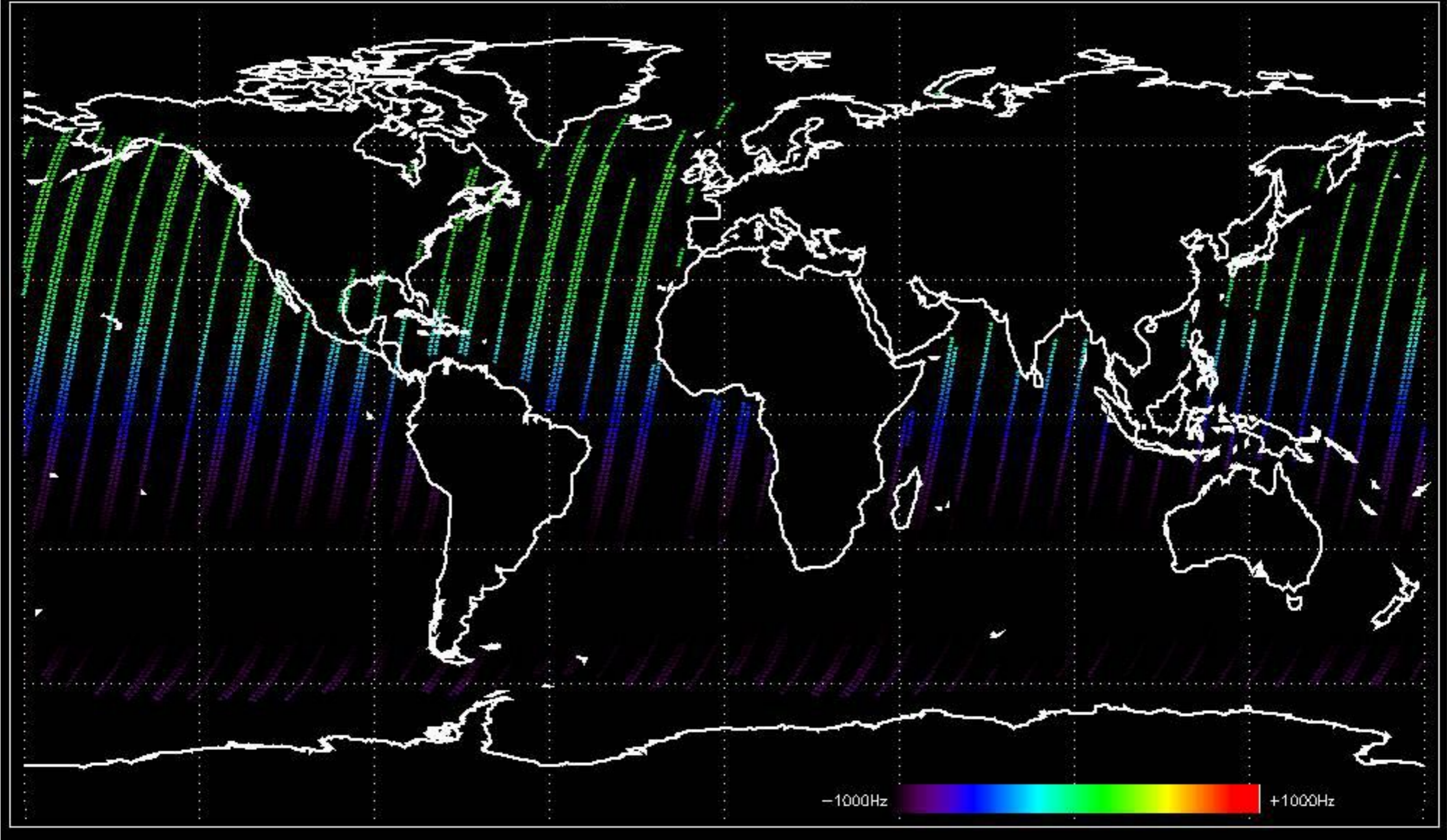


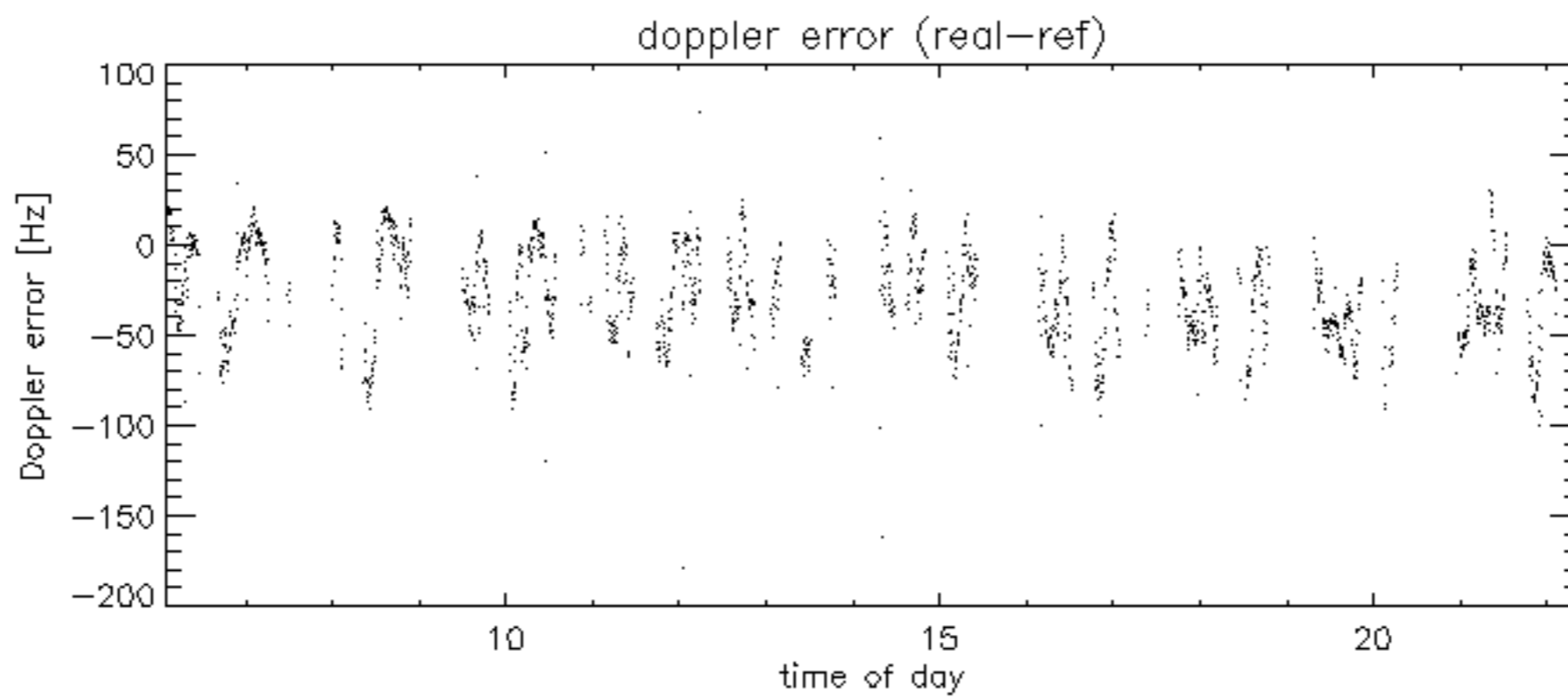
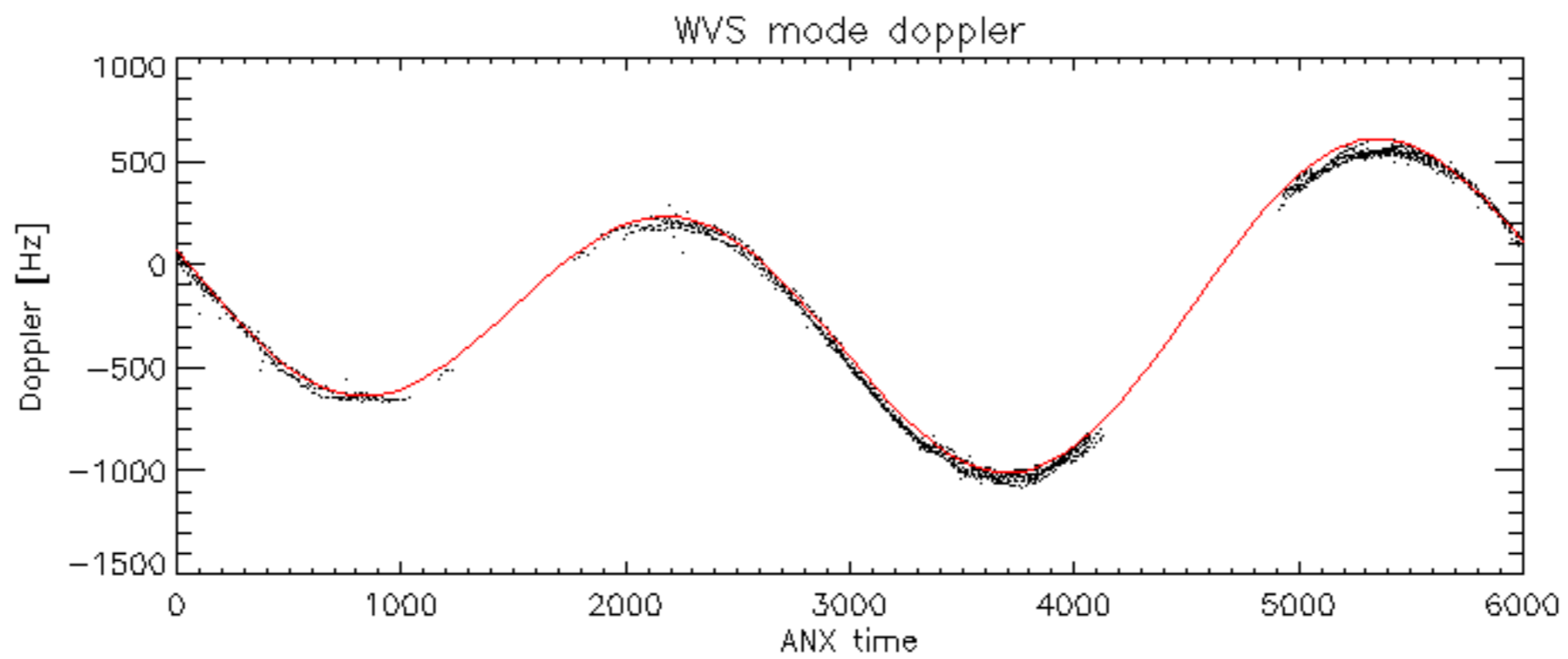
Doppler 'WVS' 'IS2' ascending





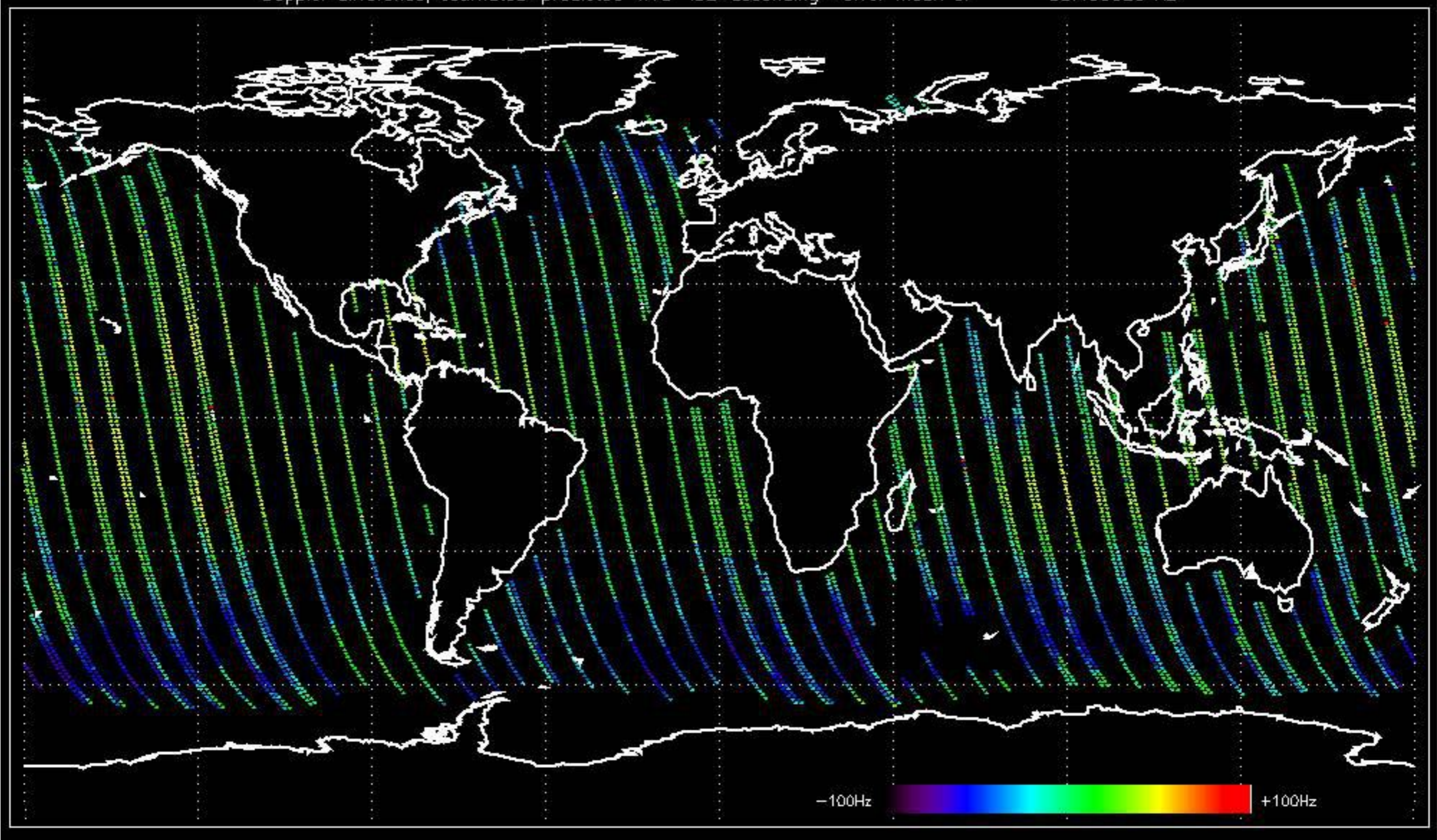
Doppler 'WVS' 'IS2' descending





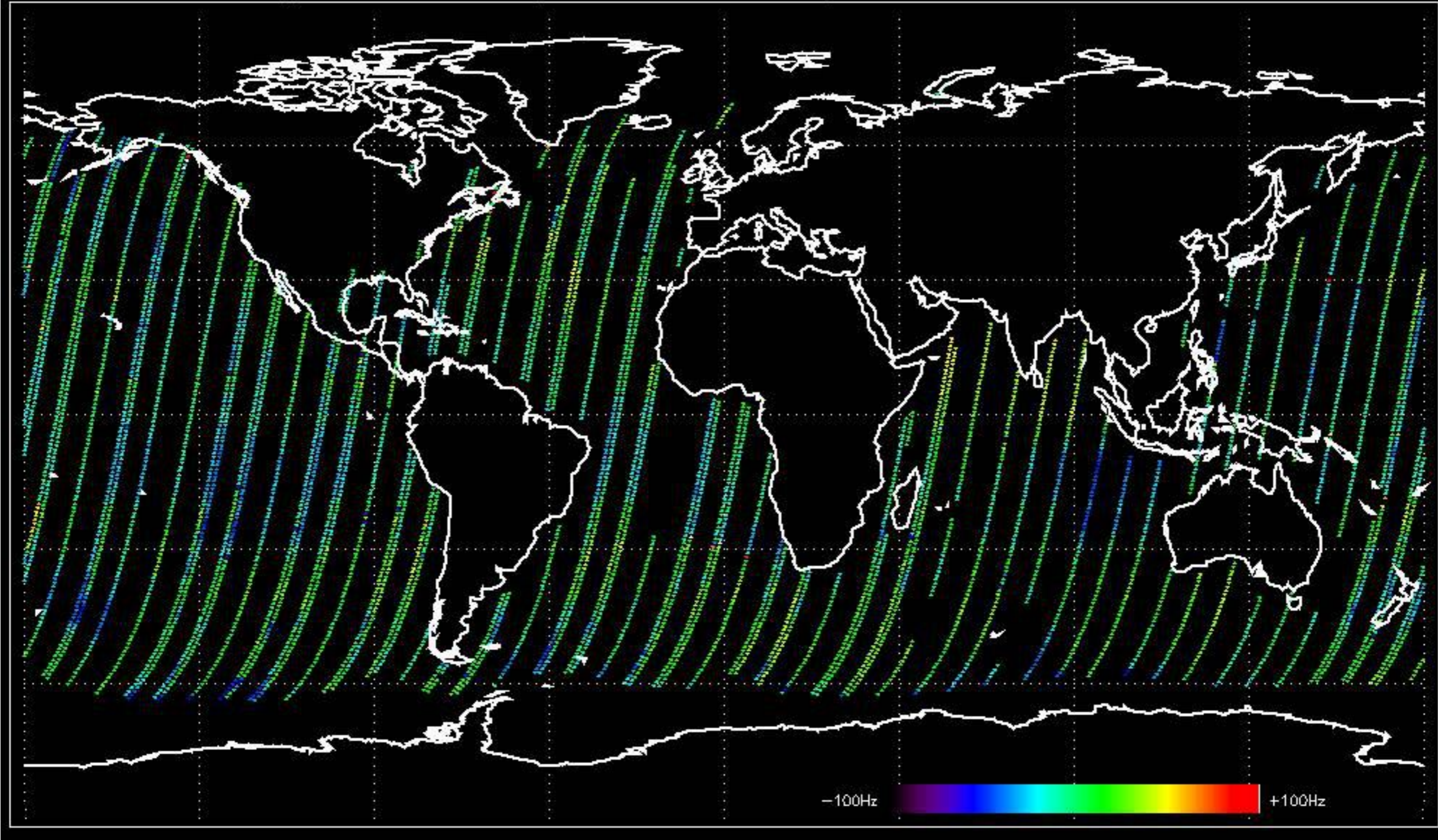


Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -30.430926 Hz





Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -30.496880 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.











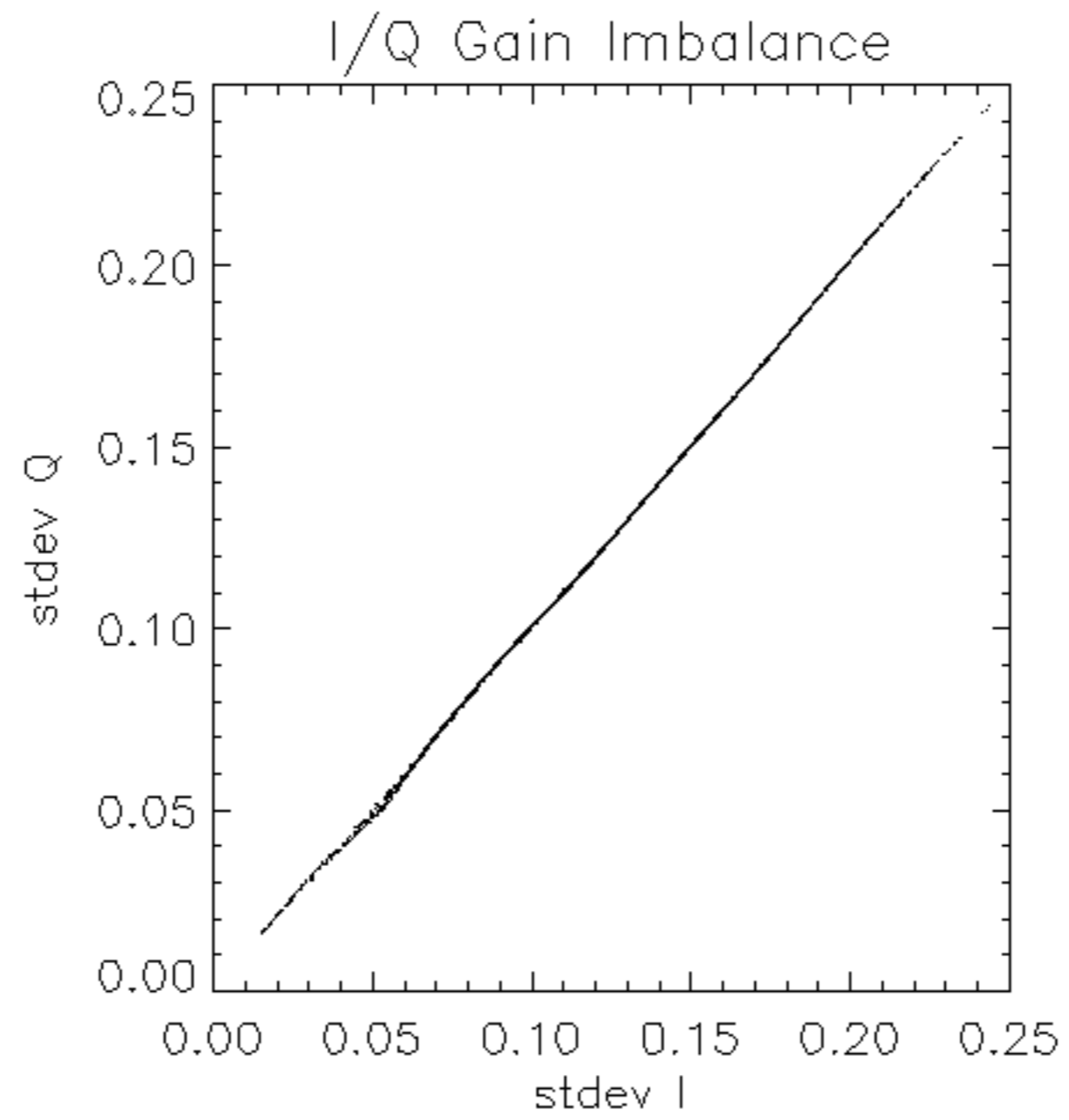


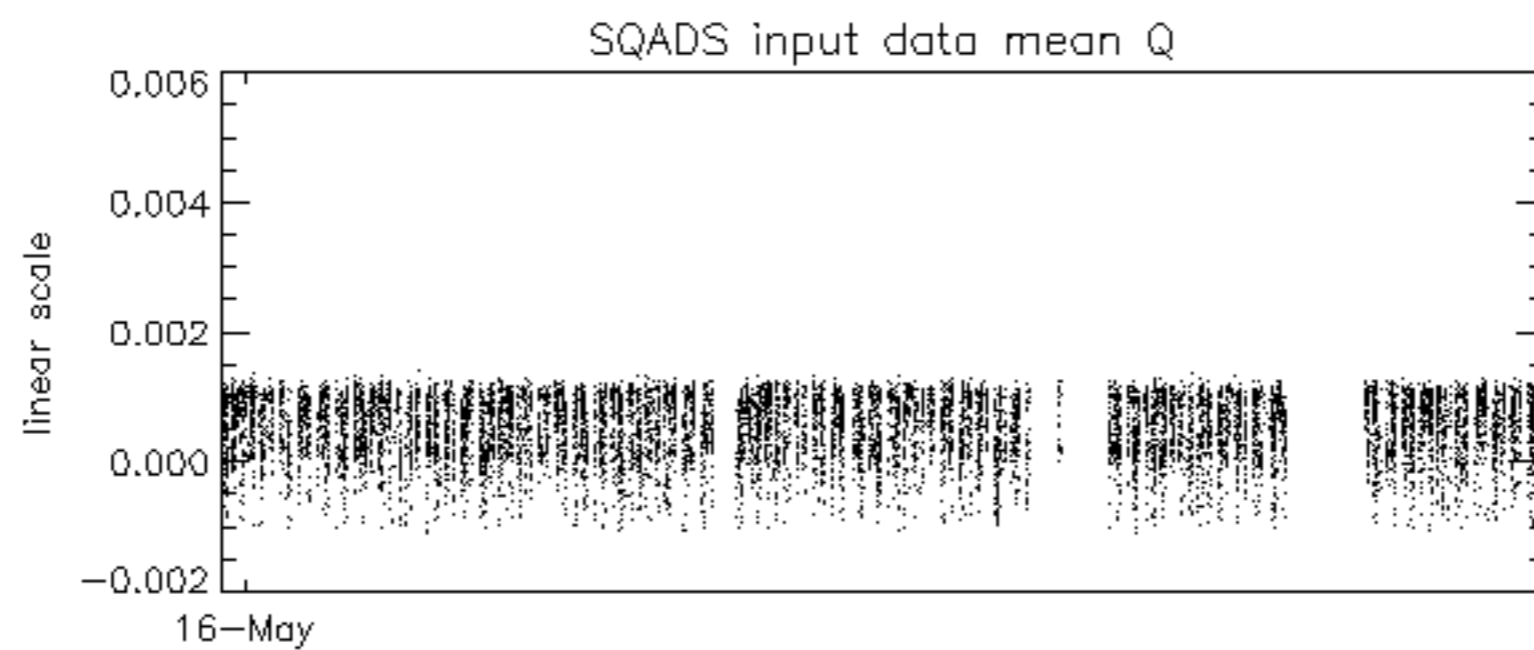
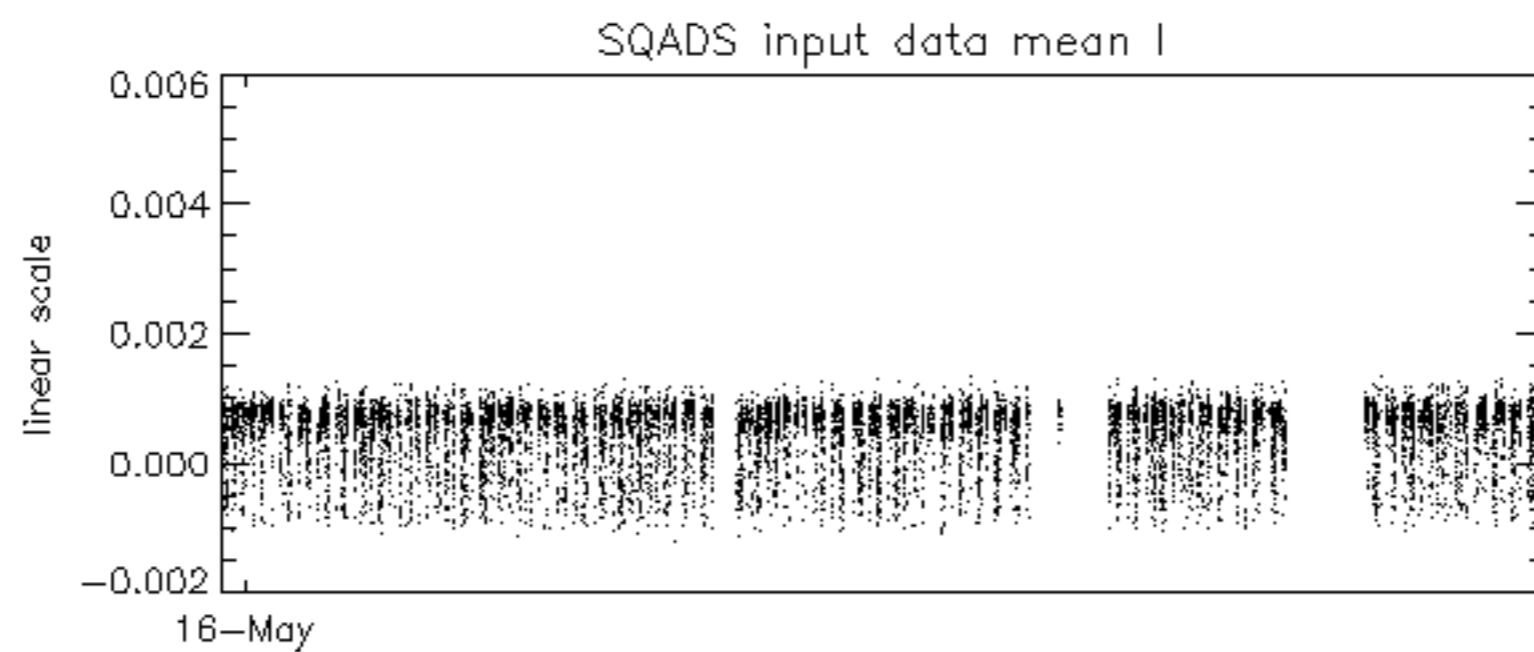
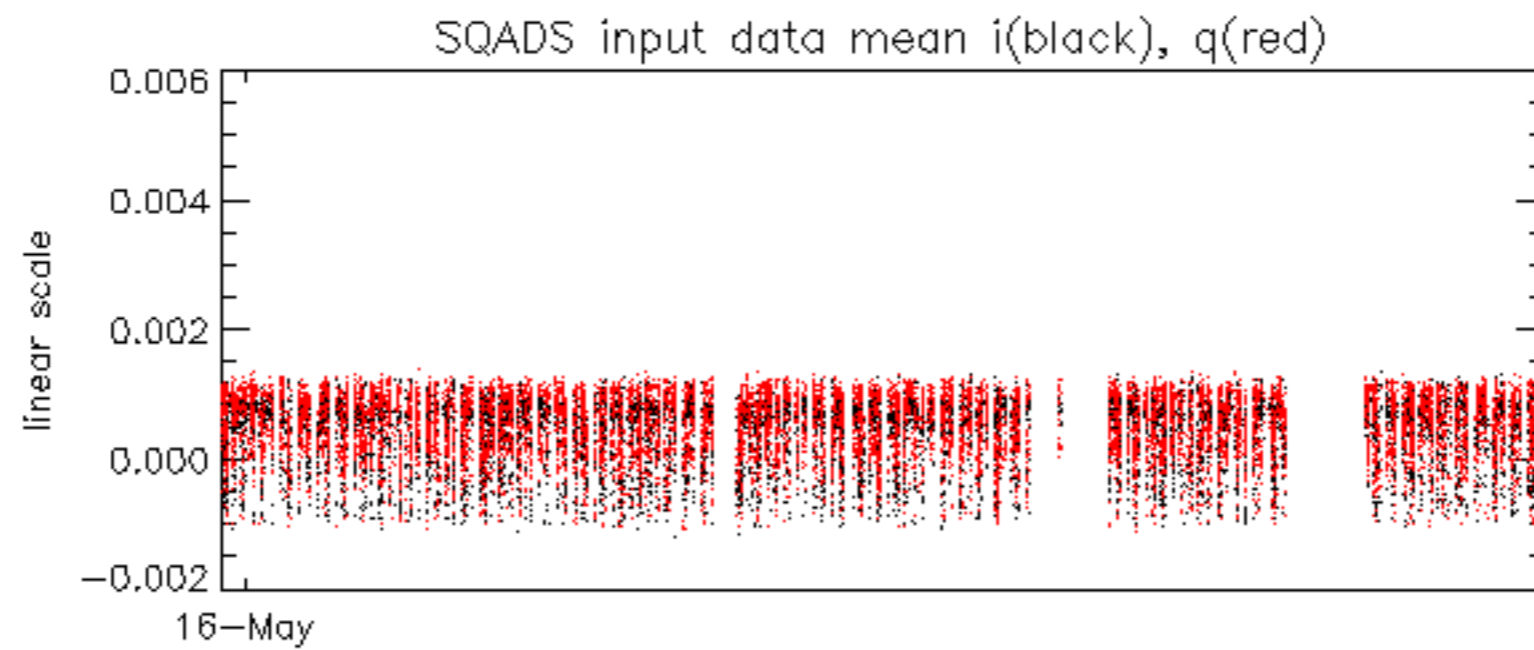




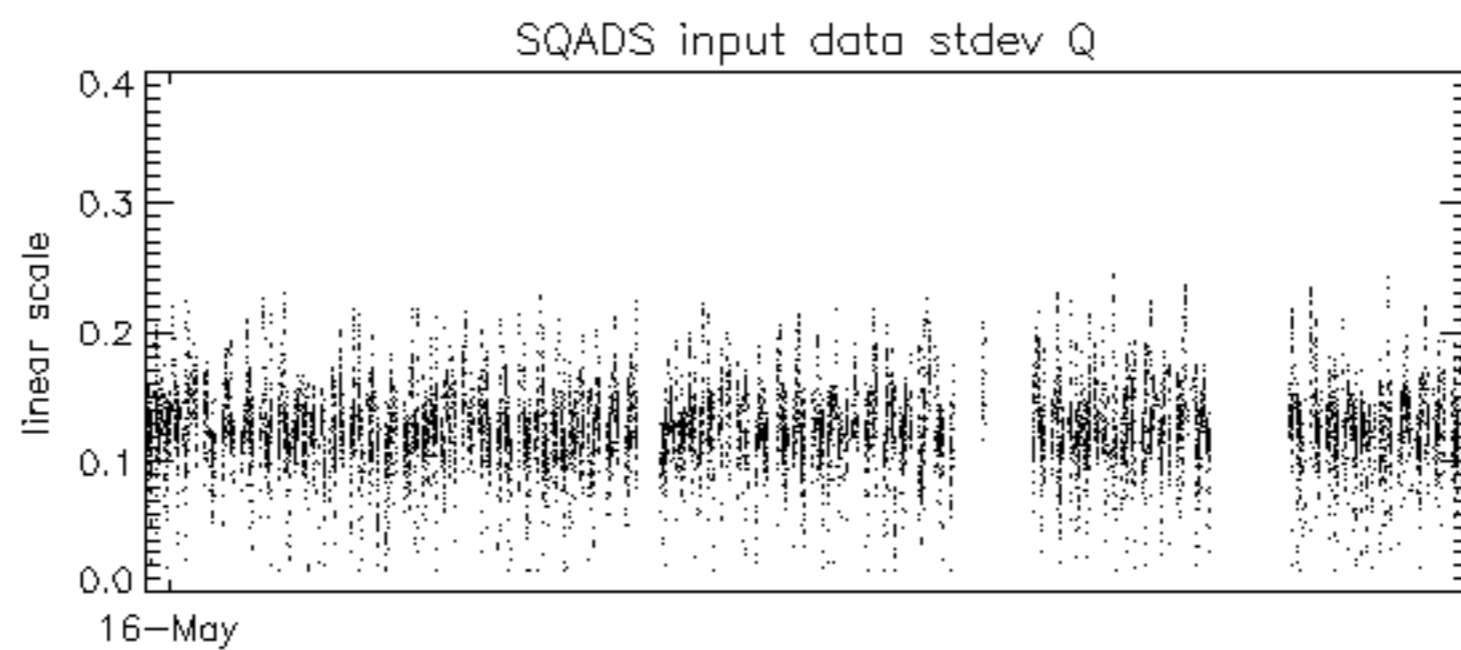
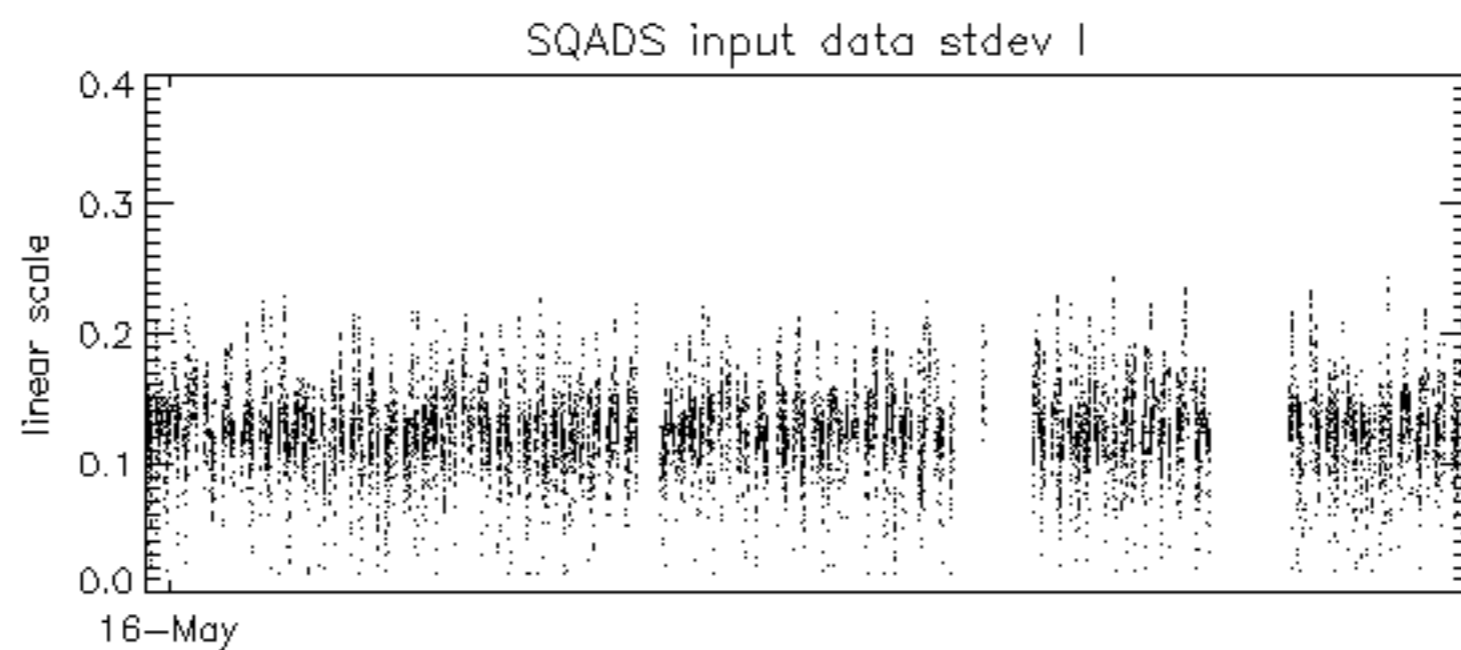
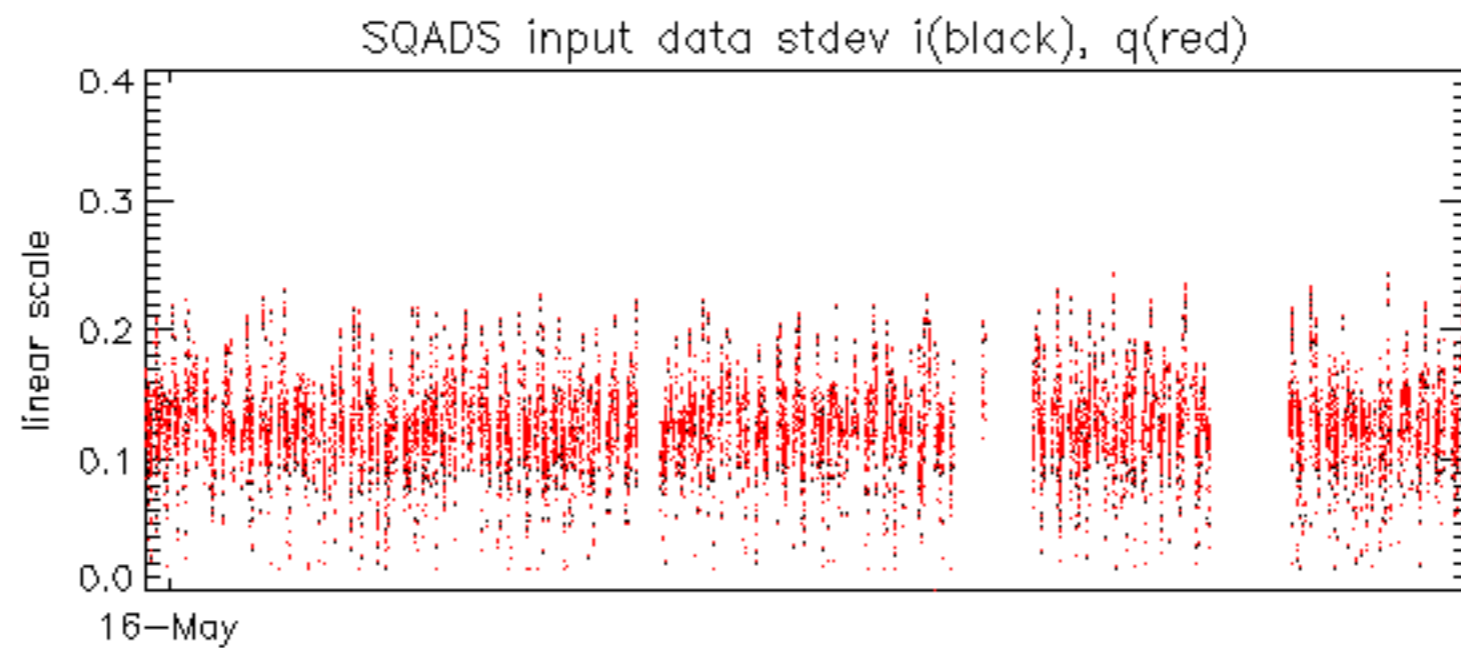






























No unavailabilities during the reported period.