

PRELIMINARY REPORT OF 040524

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

last update on Mon May 24 10:35:13 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

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	20040523 201600
H	20040522 190701

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	-3.540801	0.009556	0.057229
7	P1	-3.321762	0.015154	-0.014274
11	P1	-4.538248	0.037145	0.176400
15	P1	-5.705650	0.058638	0.230850
19	P1	-3.411460	0.004516	0.006888
22	P1	-4.562404	0.011344	0.026849
24	P1	-4.922024	0.011667	0.171048
28	P1	-4.593827	0.012167	0.120970

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.454824	0.078104	0.071065
7	P2	-22.903748	0.114246	-0.270056

11	P2	-15.717163	0.127347	-0.045515
15	P2	-7.218044	0.091597	-0.012755
19	P2	-9.575815	0.131848	0.138944
22	P2	-17.613375	0.092989	0.134368
24	P2	-20.917612	0.100081	-0.113394
28	P2	-16.610363	0.079880	0.086405

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.148561	0.002013	-0.001701
7	P3	-8.148558	0.002013	-0.001730
11	P3	-8.148557	0.002014	-0.001765
15	P3	-8.148558	0.002014	-0.001775
19	P3	-8.148558	0.002014	-0.001760
22	P3	-8.148557	0.002014	-0.001748
24	P3	-8.148556	0.002013	-0.001726
28	P3	-8.148652	0.002007	0.000075

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

P1 Cyclic statistics

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

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	0.000443935
	stdev	2.31049e-07
MEAN Q	mean	0.000515802
	stdev	2.39122e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125815
	stdev	0.000948804
STDEV Q	mean	0.126022
	stdev	0.000957749



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

6.2 - Absolute Doppler for WVS

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

6.3 - Doppler evolution versus ANX for WVS

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

6.4 - Unbiased Doppler Error for GM1

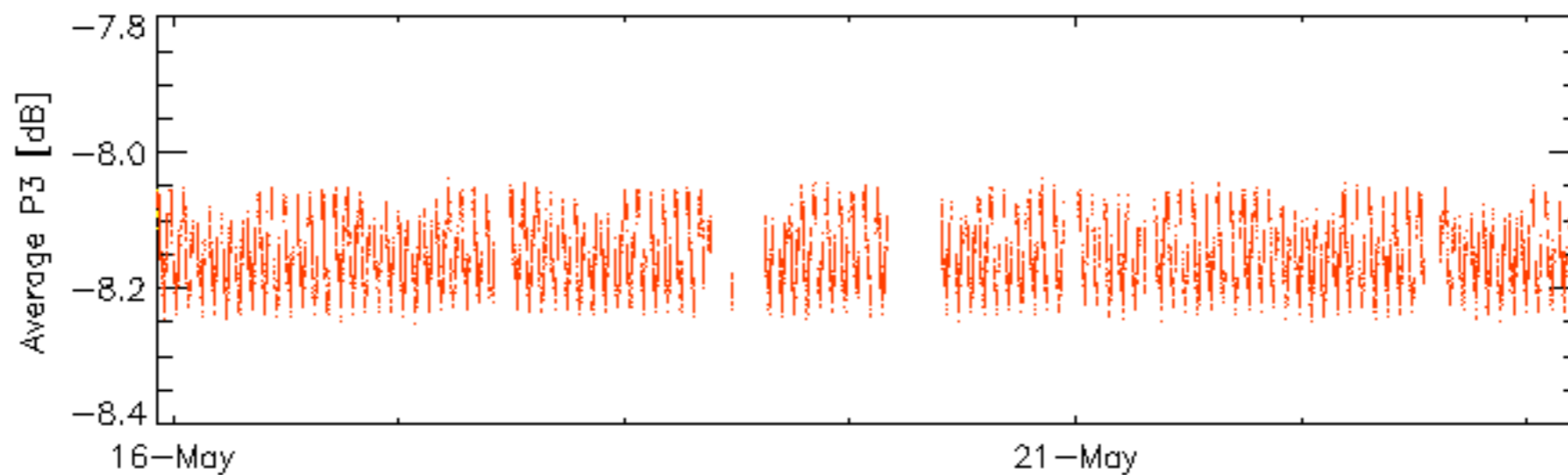
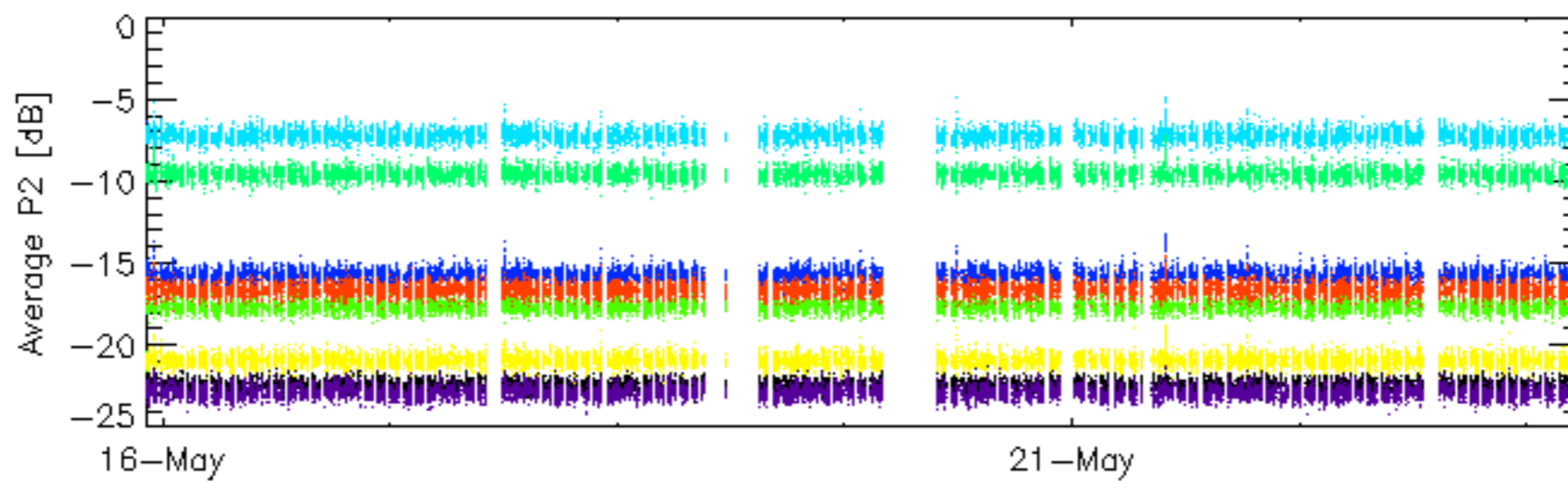
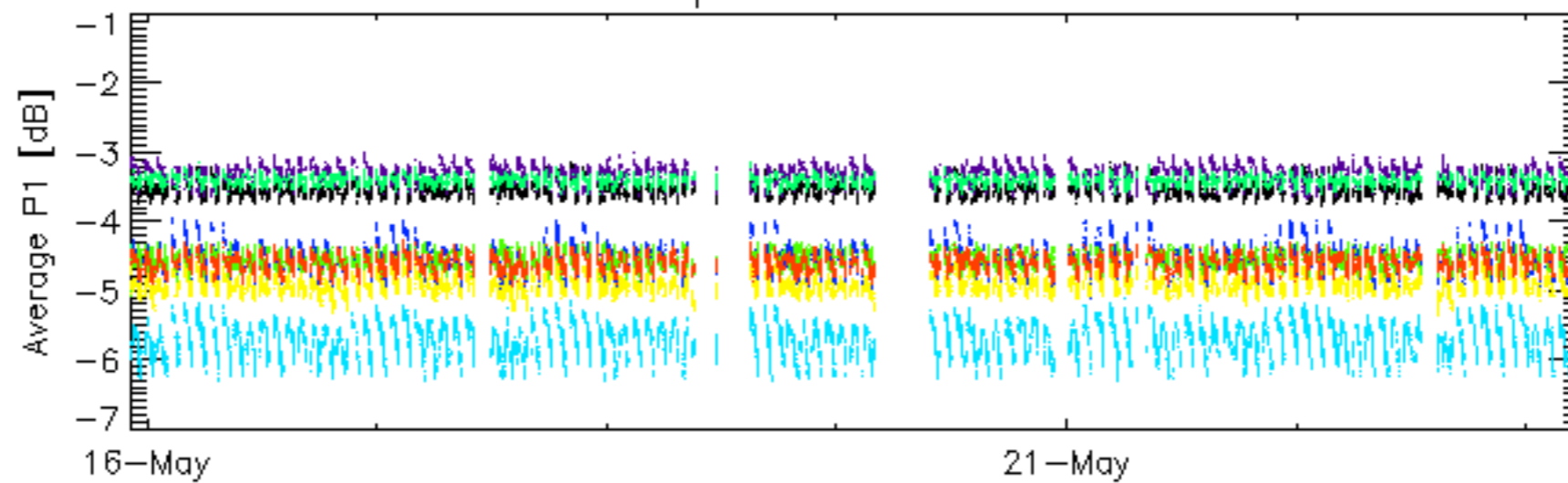
Evolution of unbiased Doppler error (Real - Expected)	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

6.5 - Absolute Doppler for GM1

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

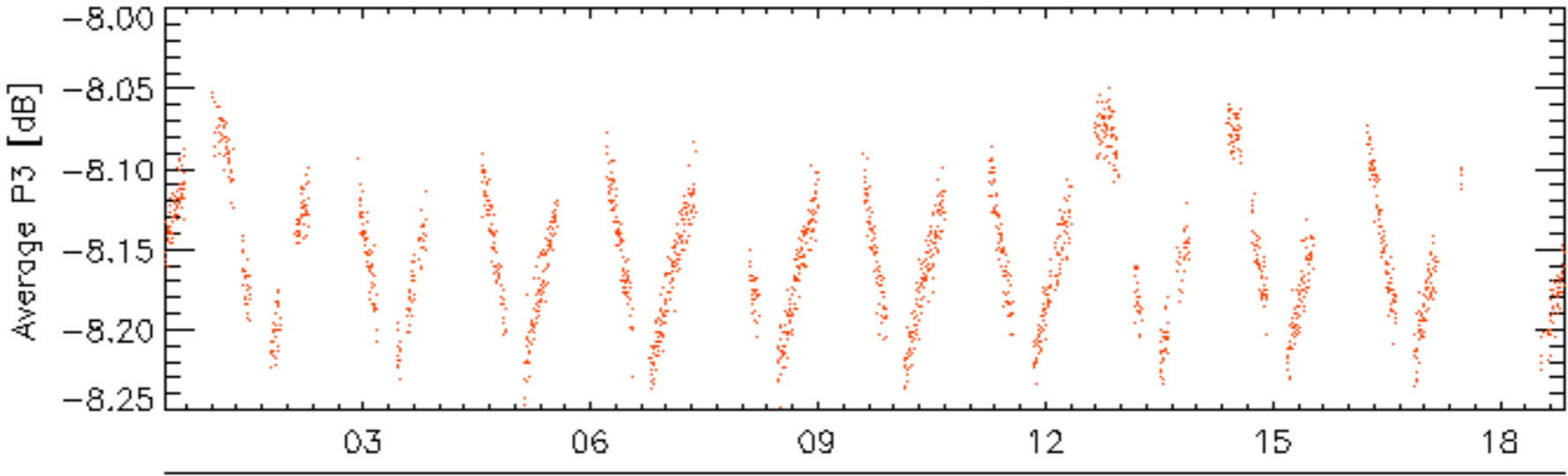
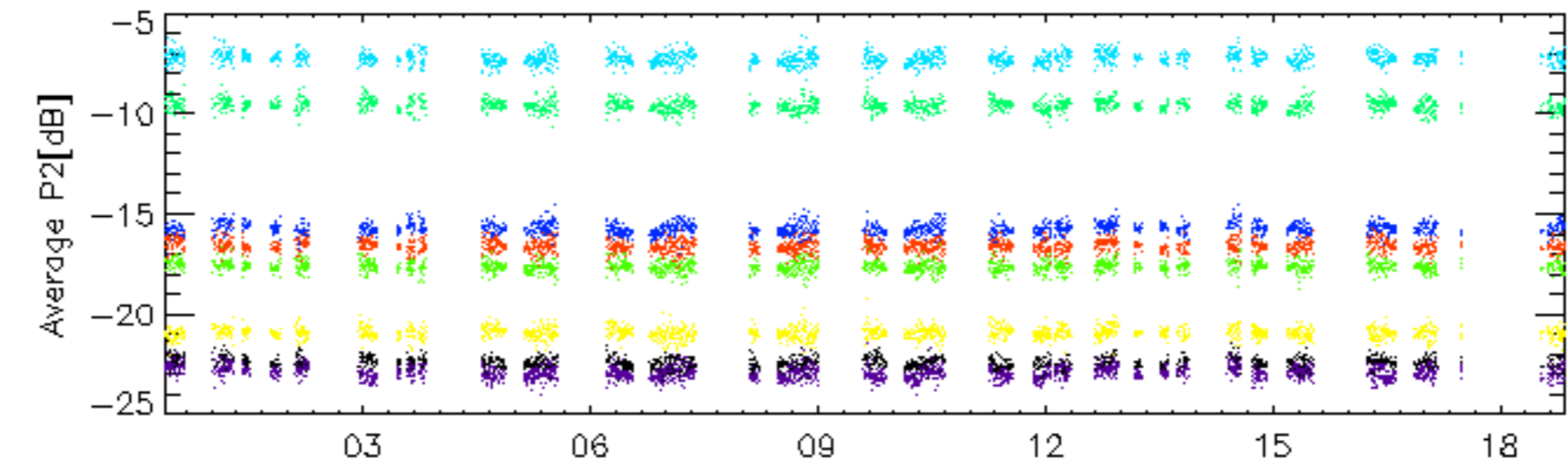
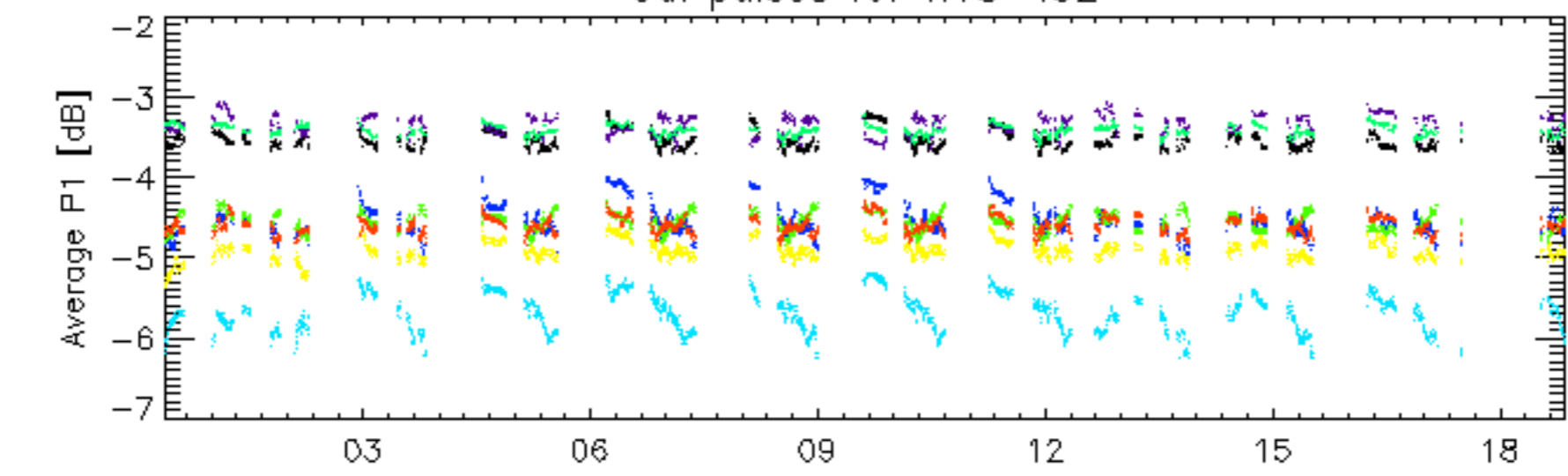
6.6 - Doppler evolution versus ANX for GM1

Cal pulses for WVS IS2



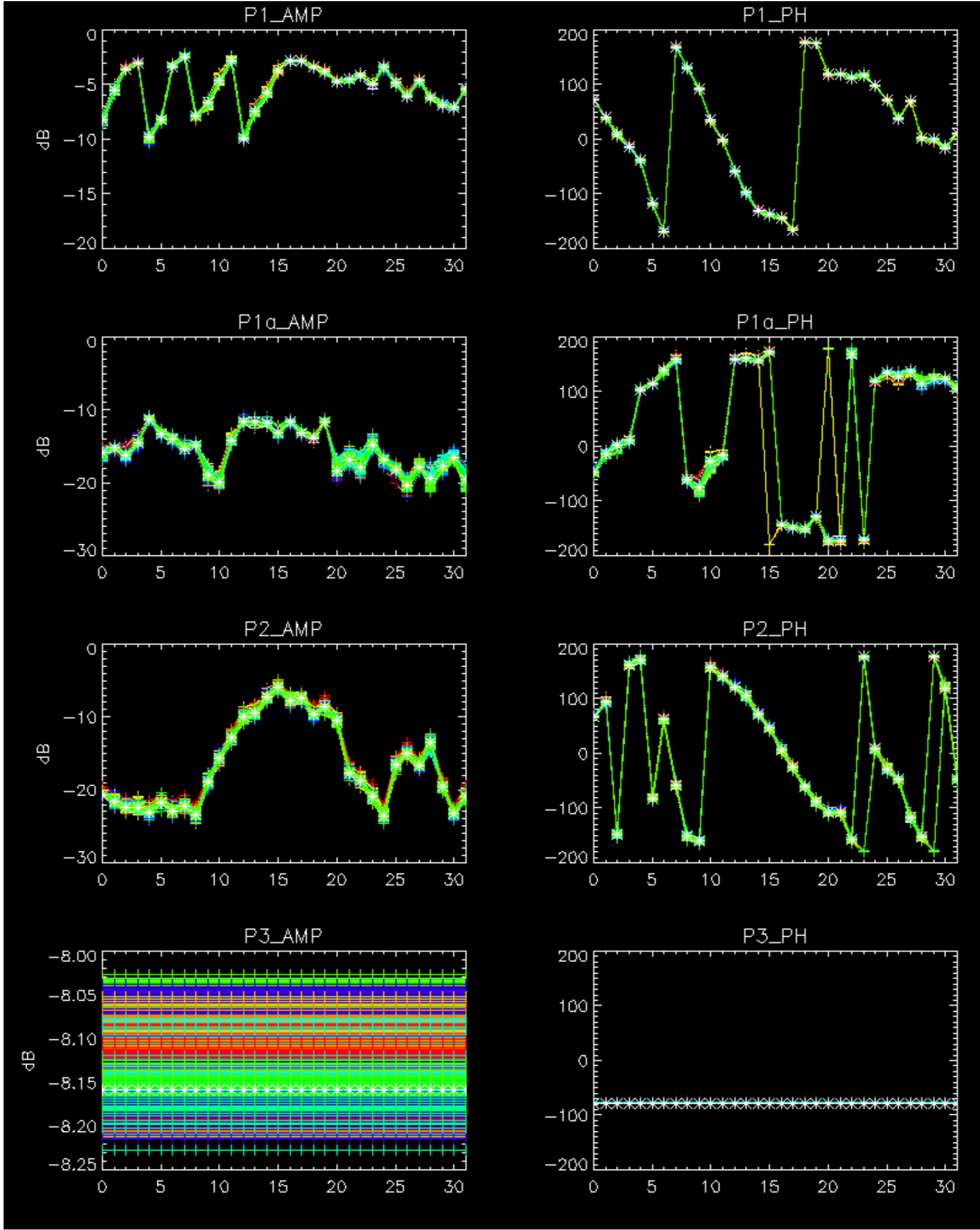
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 28

Cal pulses for WVS IS2



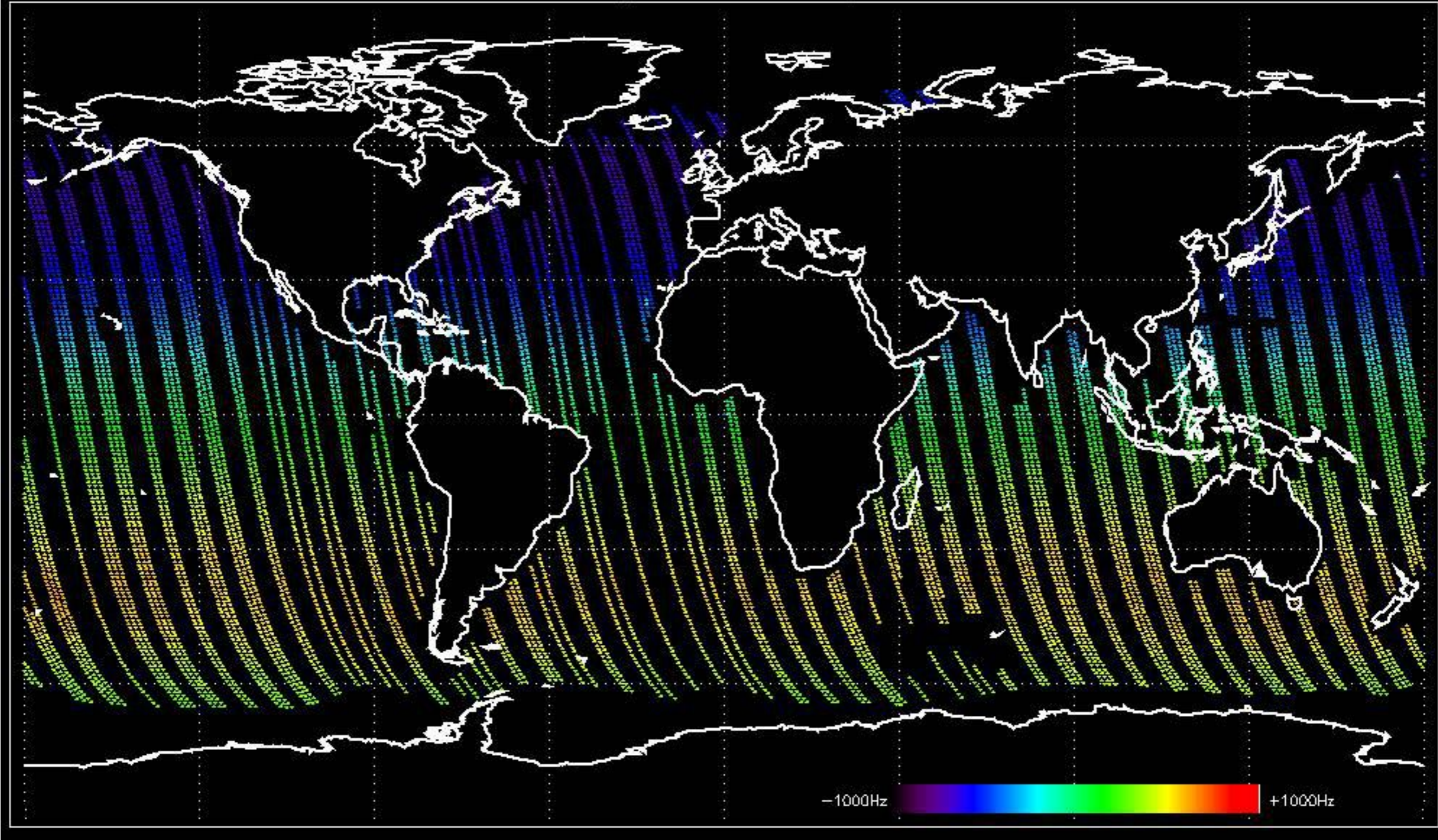
rows: **3** **7** **11** **15** **19** **22** **24** **28**

No anomalies observed.

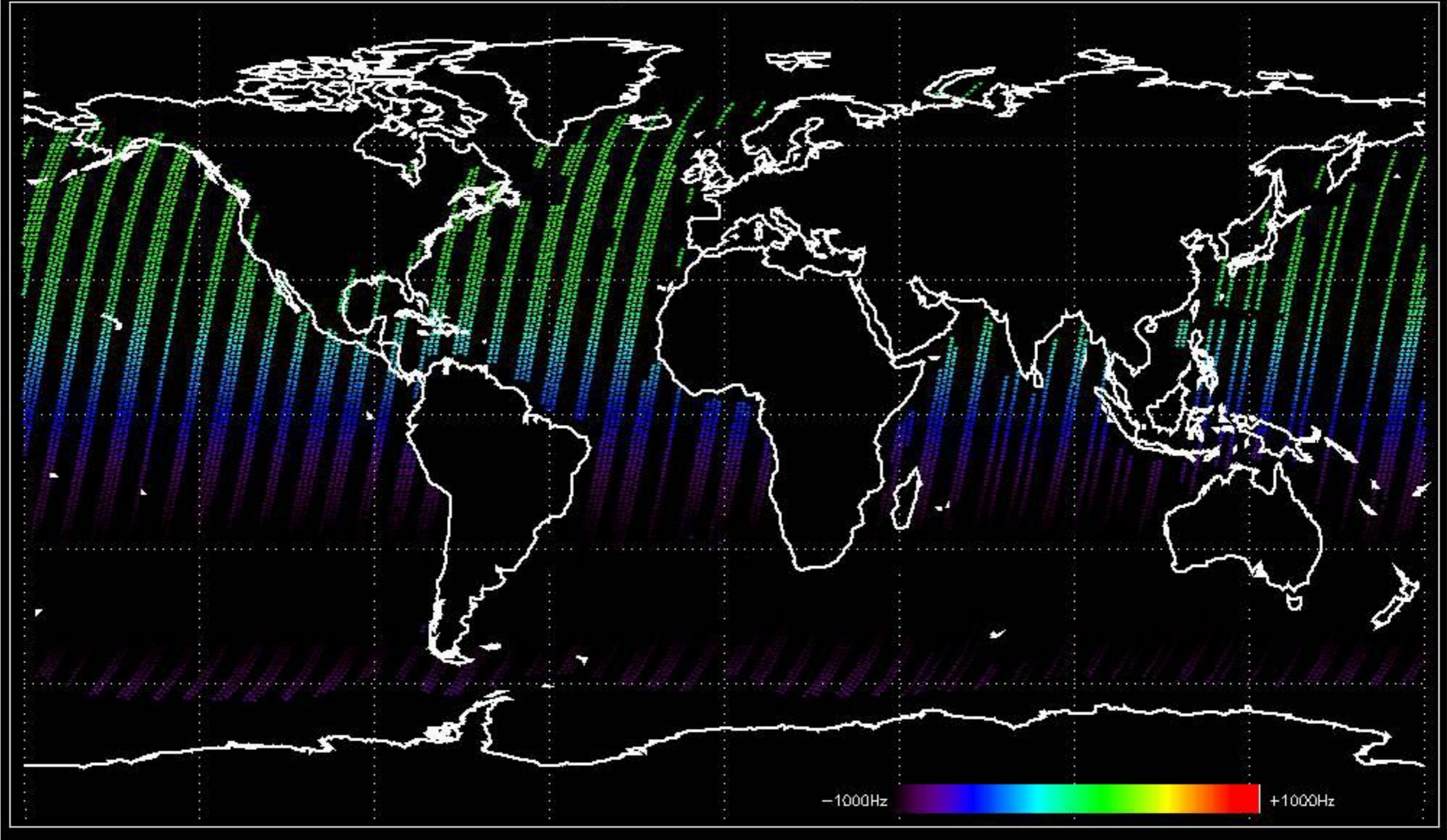


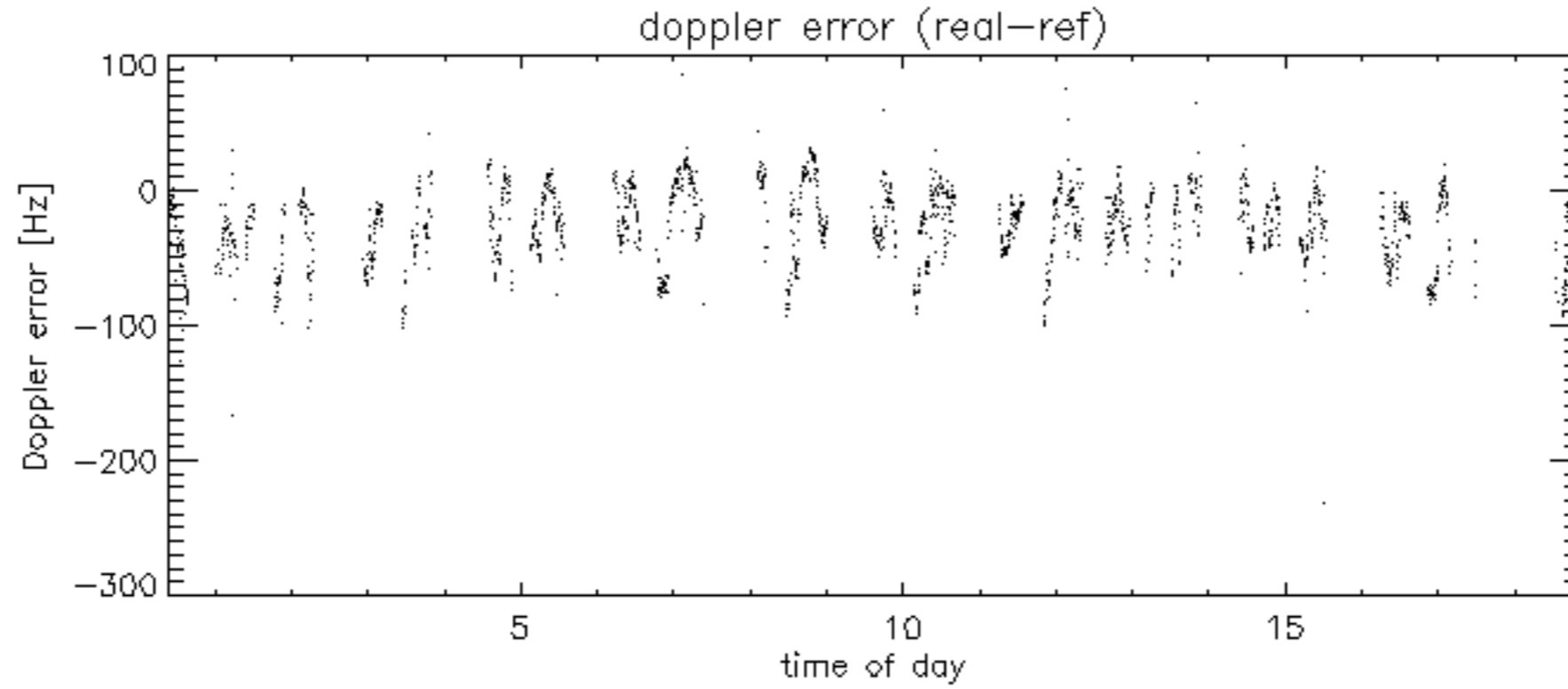
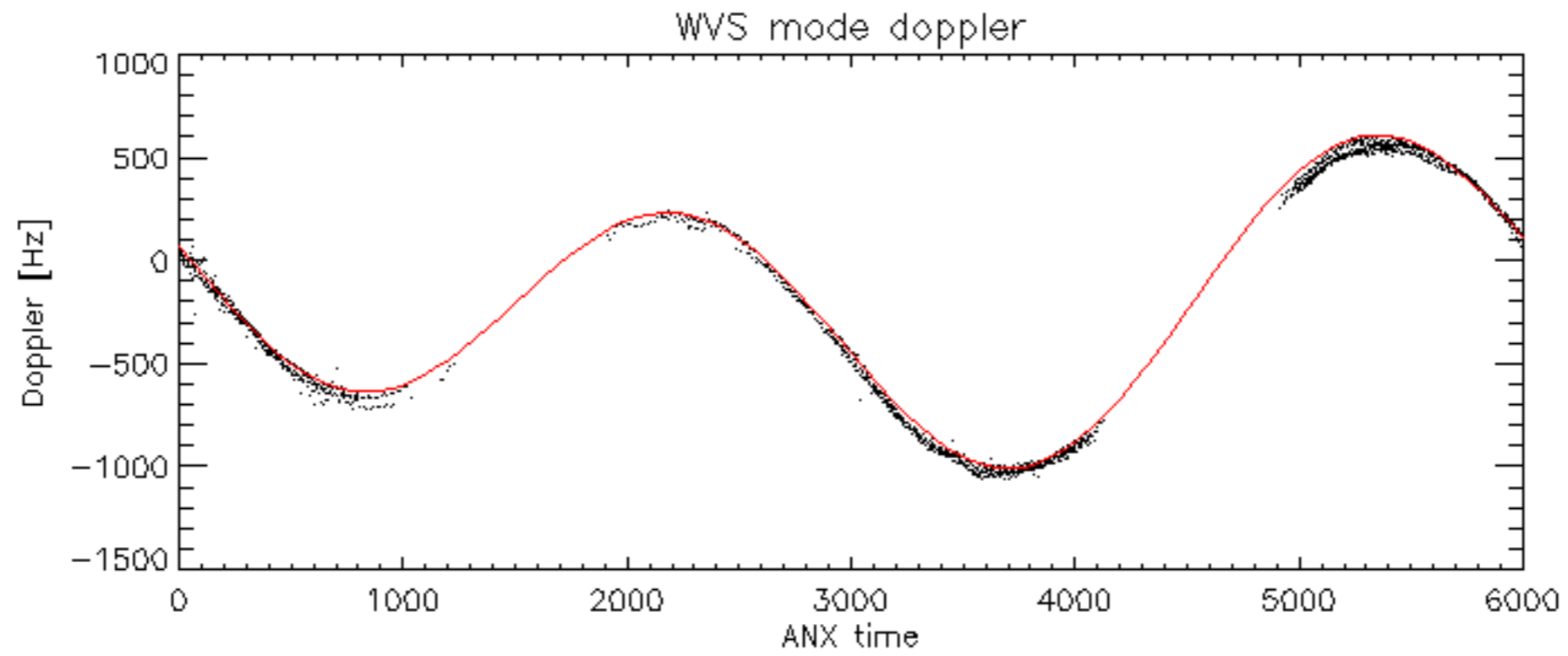
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

Doppler 'WVS' 'IS2' ascending

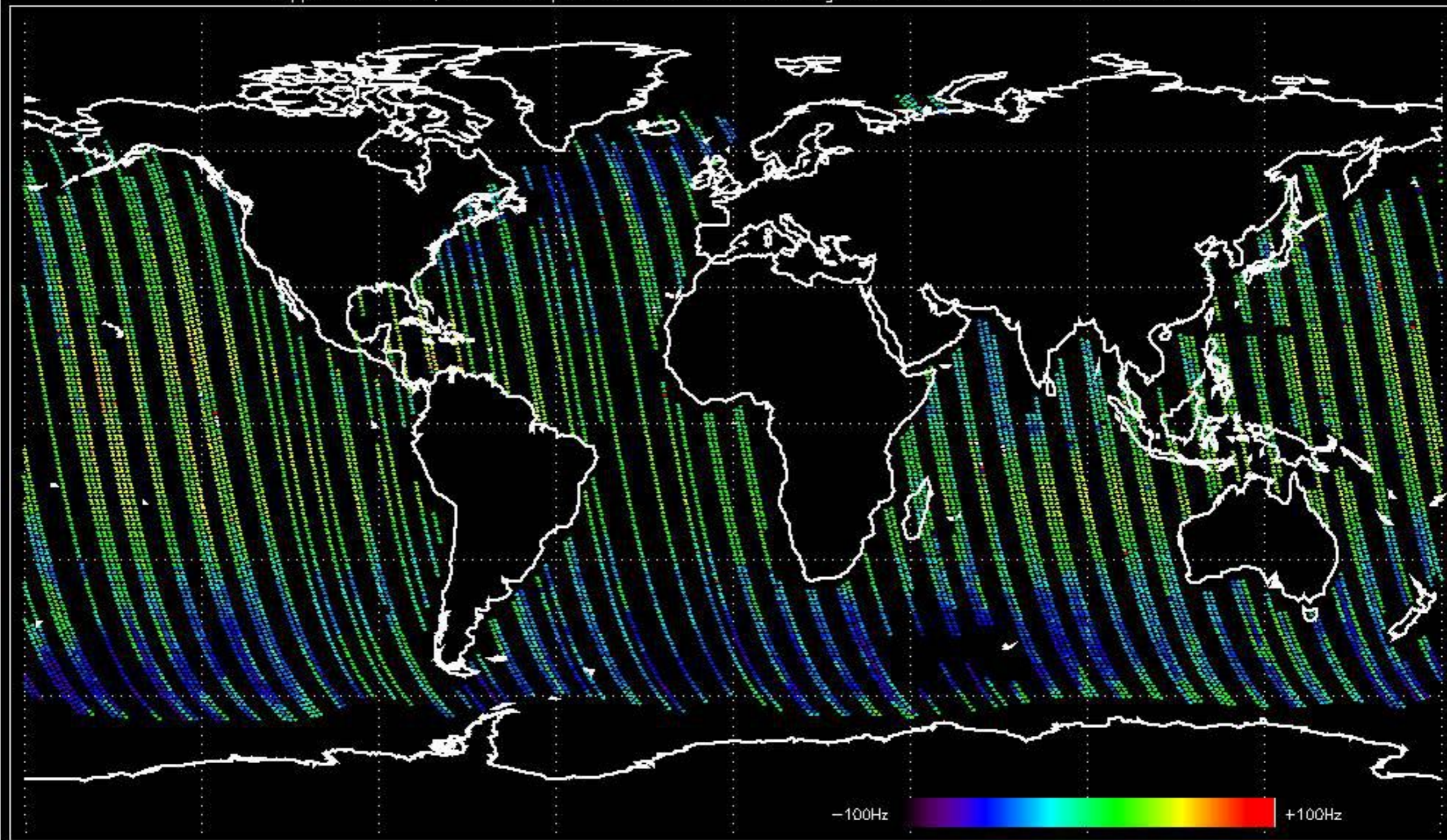


Doppler 'WVS' 'IS2' descending

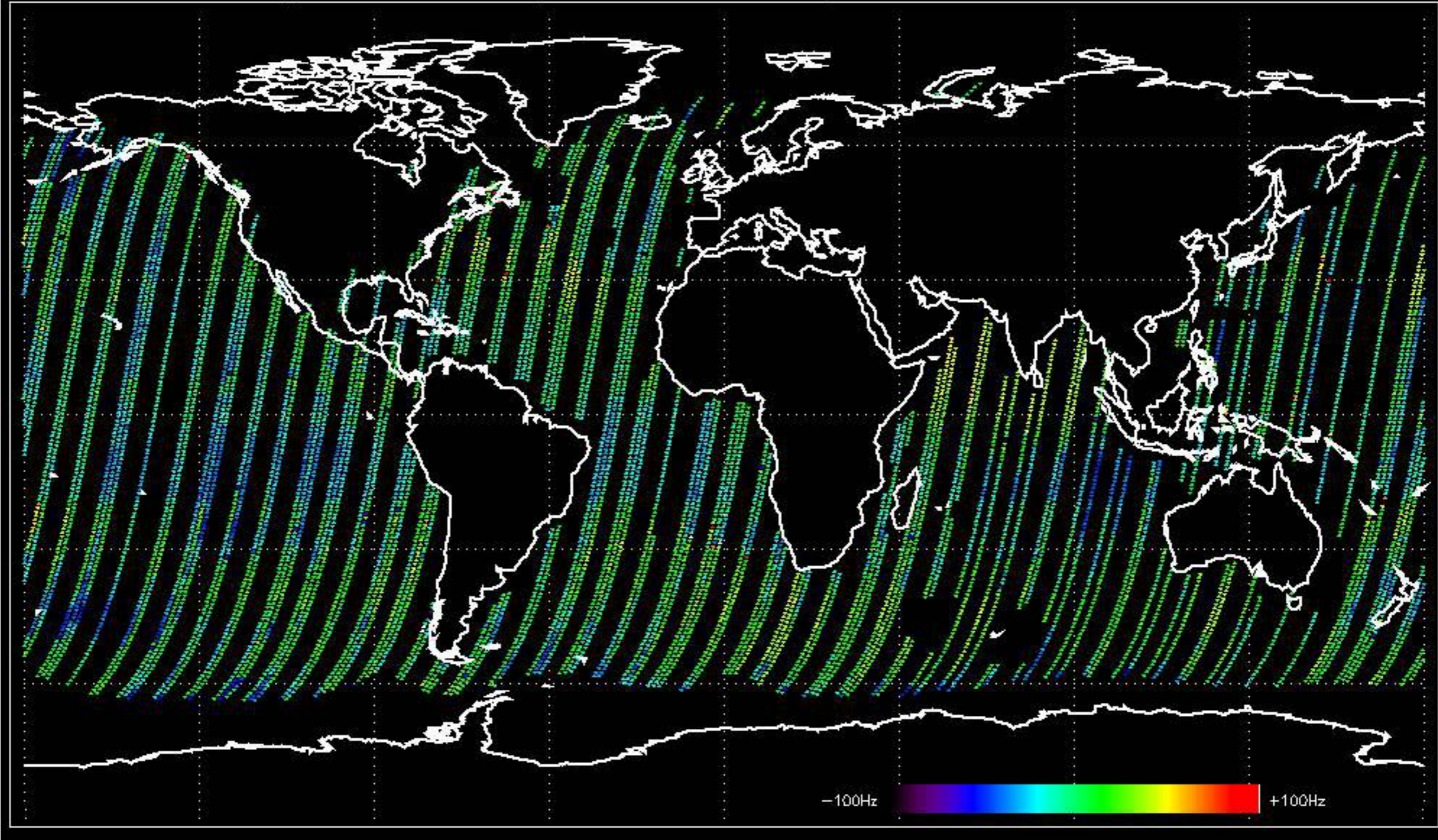




Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -30.376021 Hz

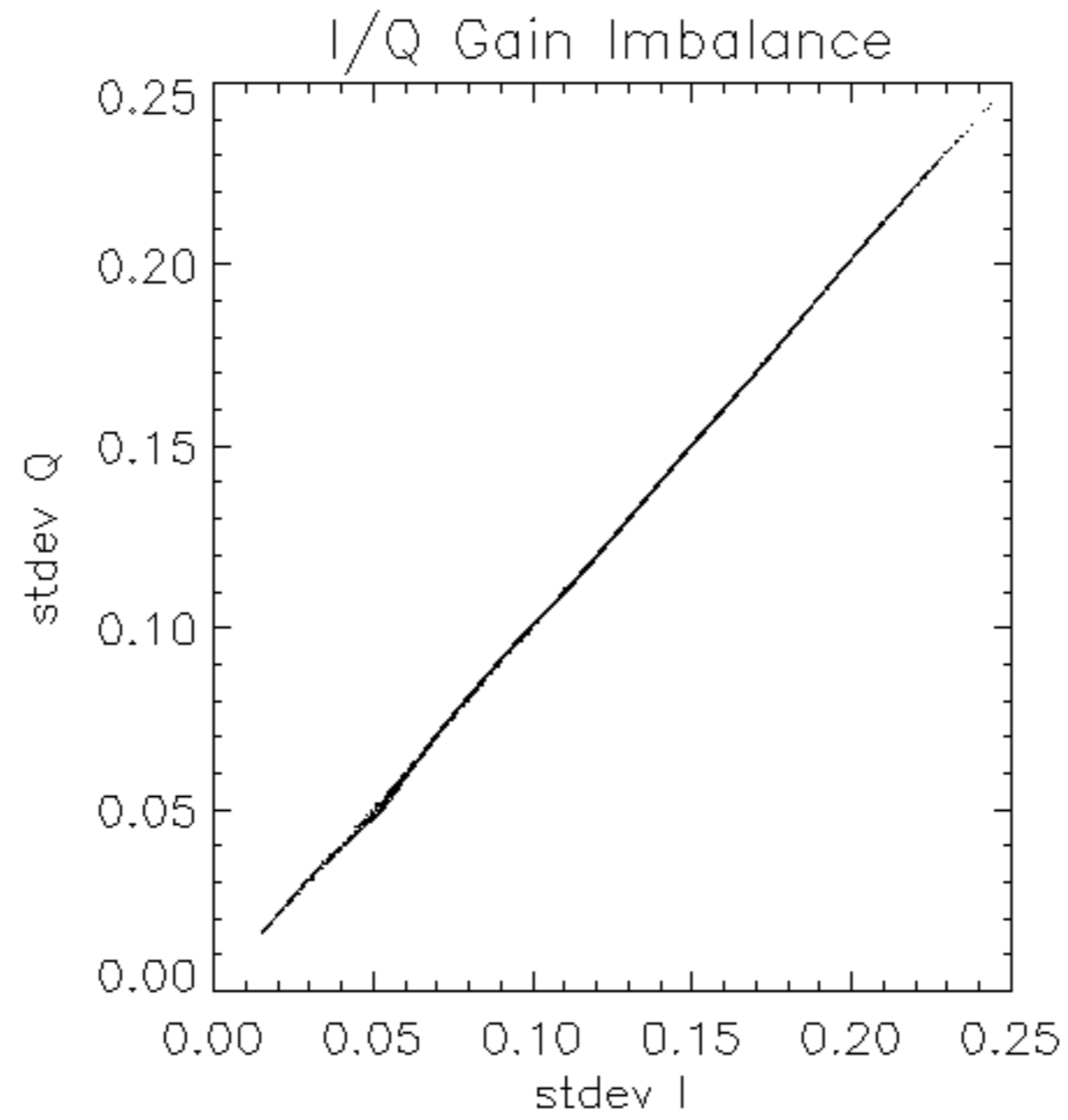


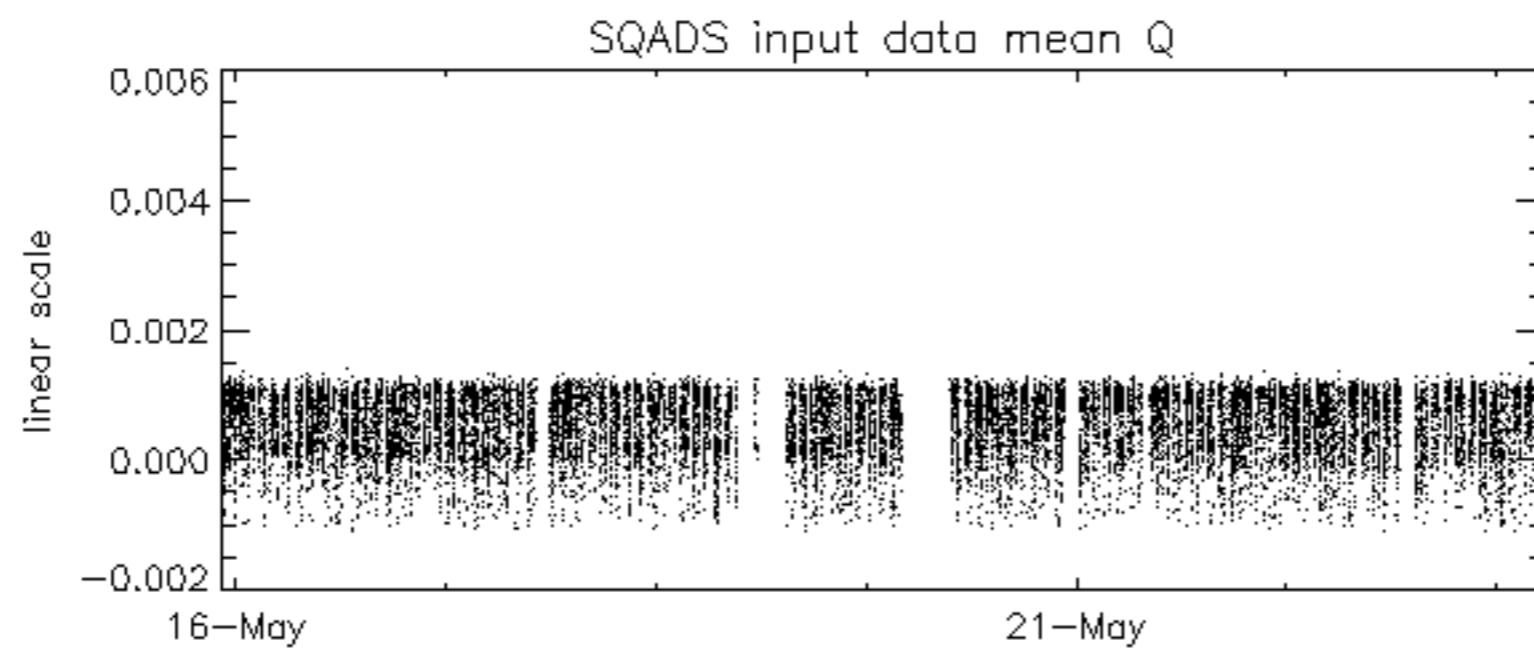
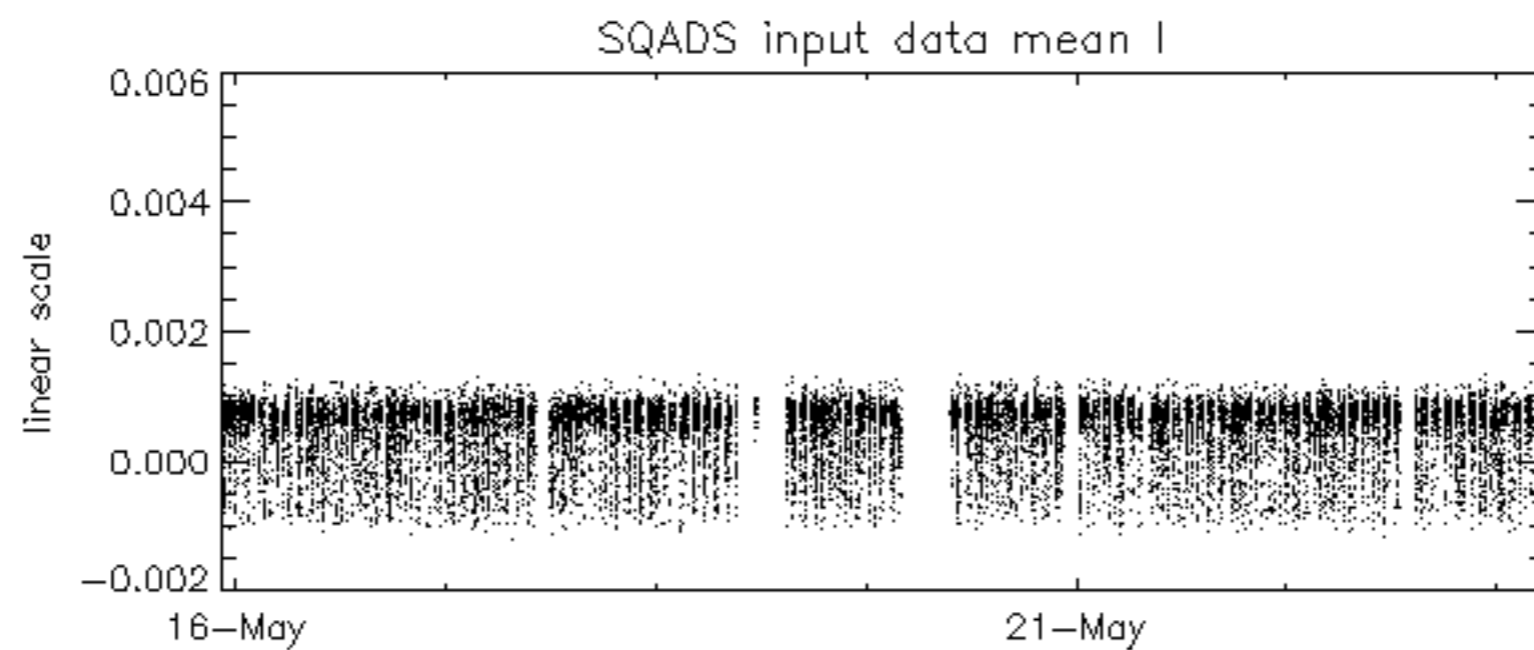
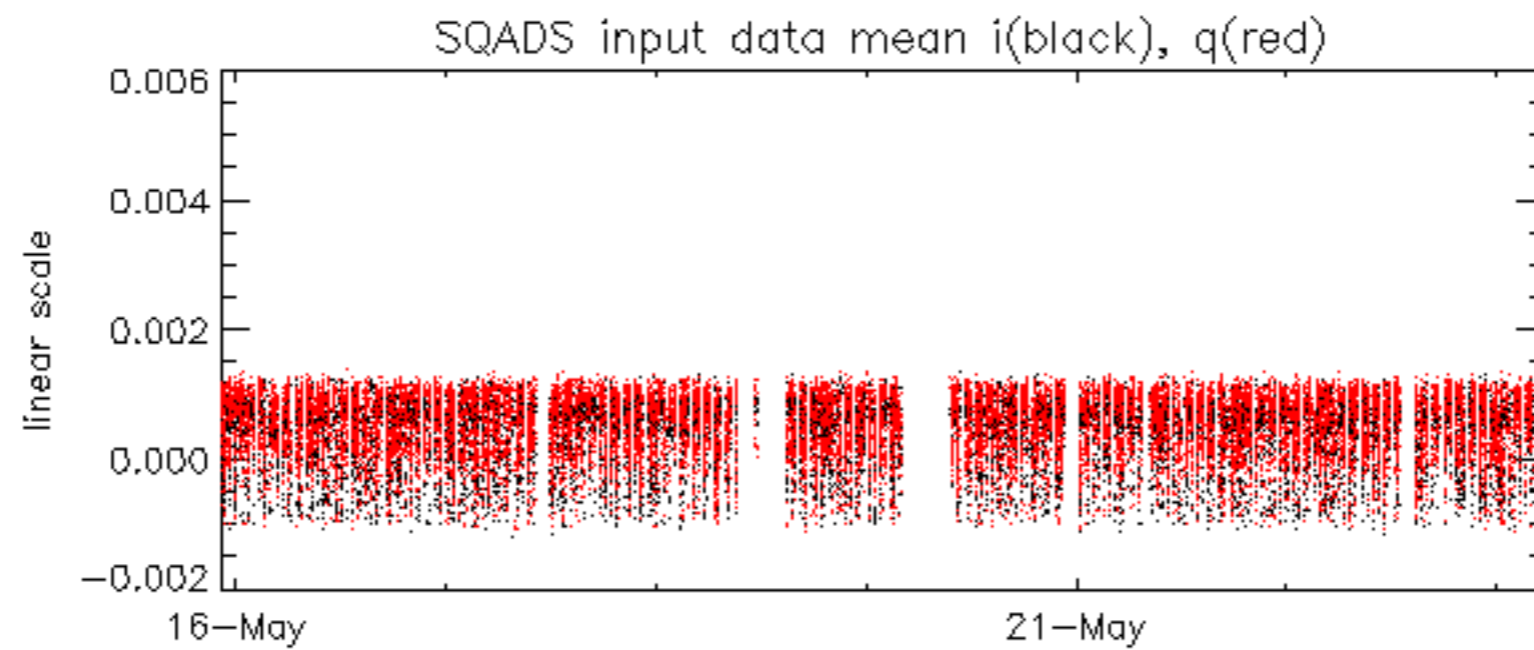
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -29.409199 Hz

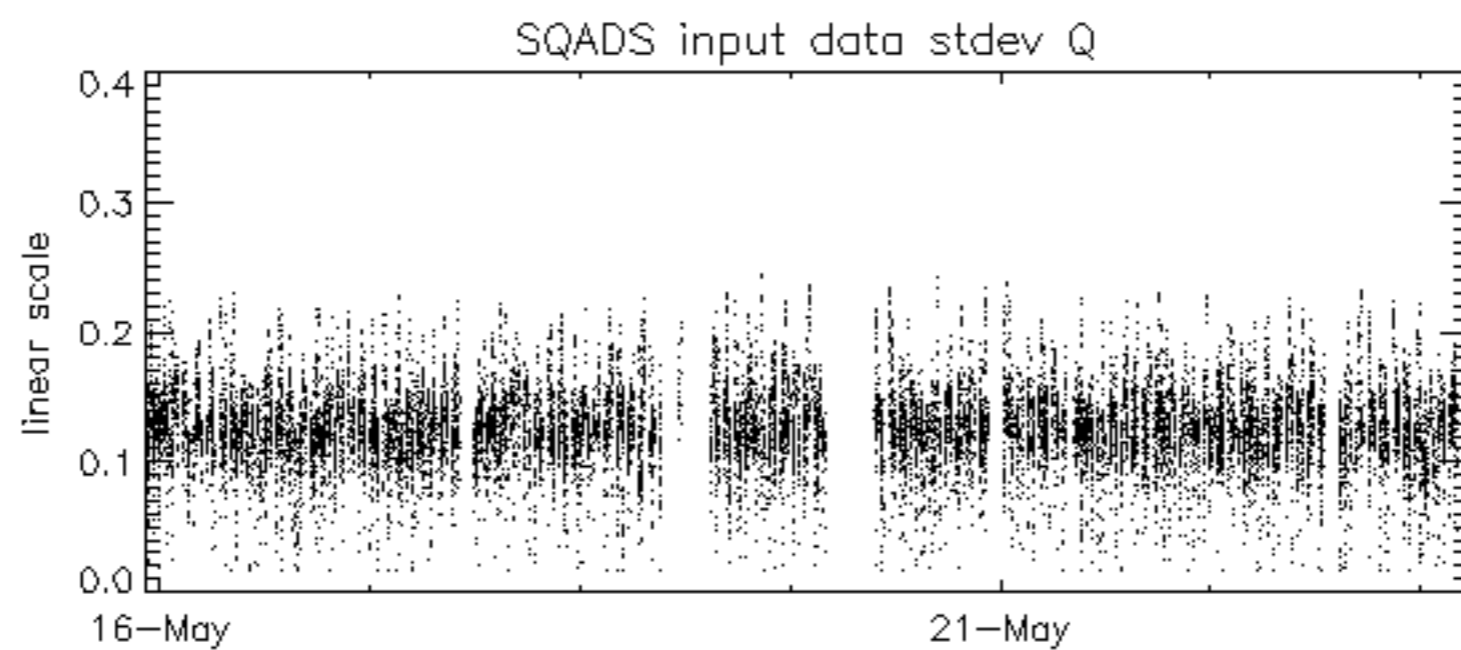
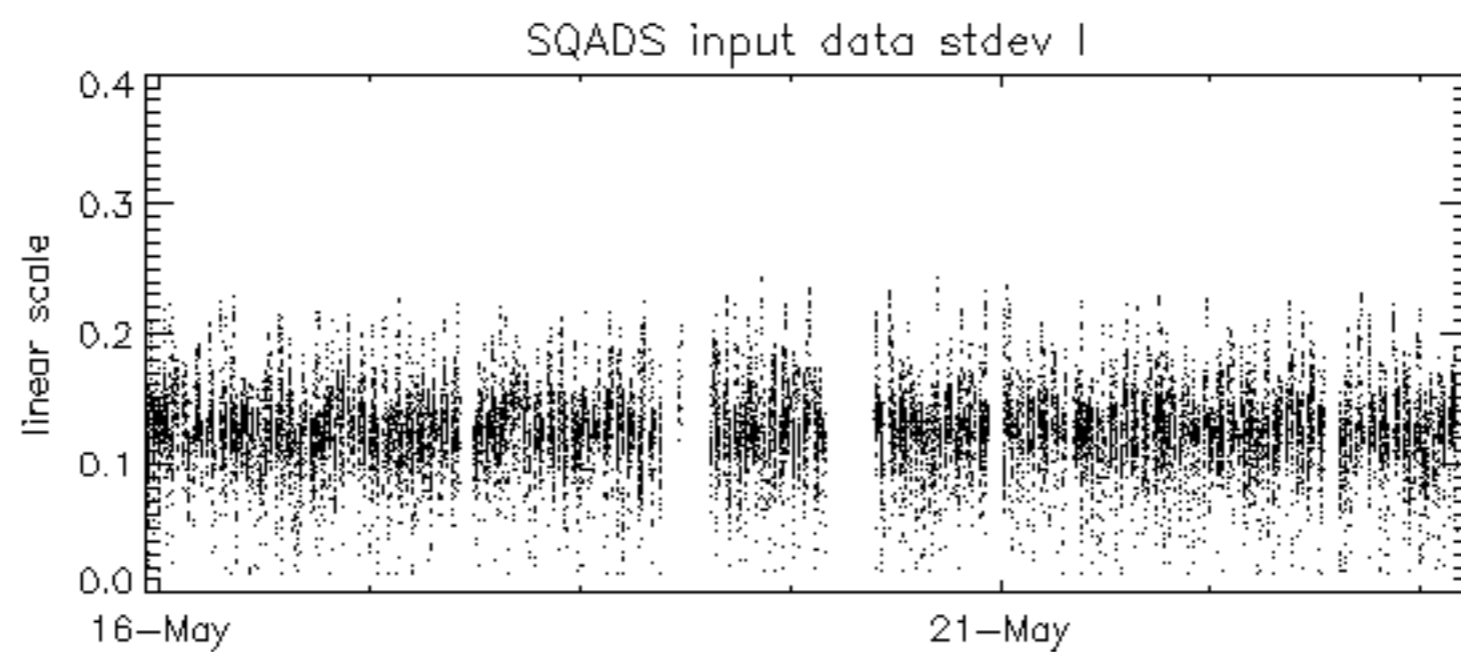
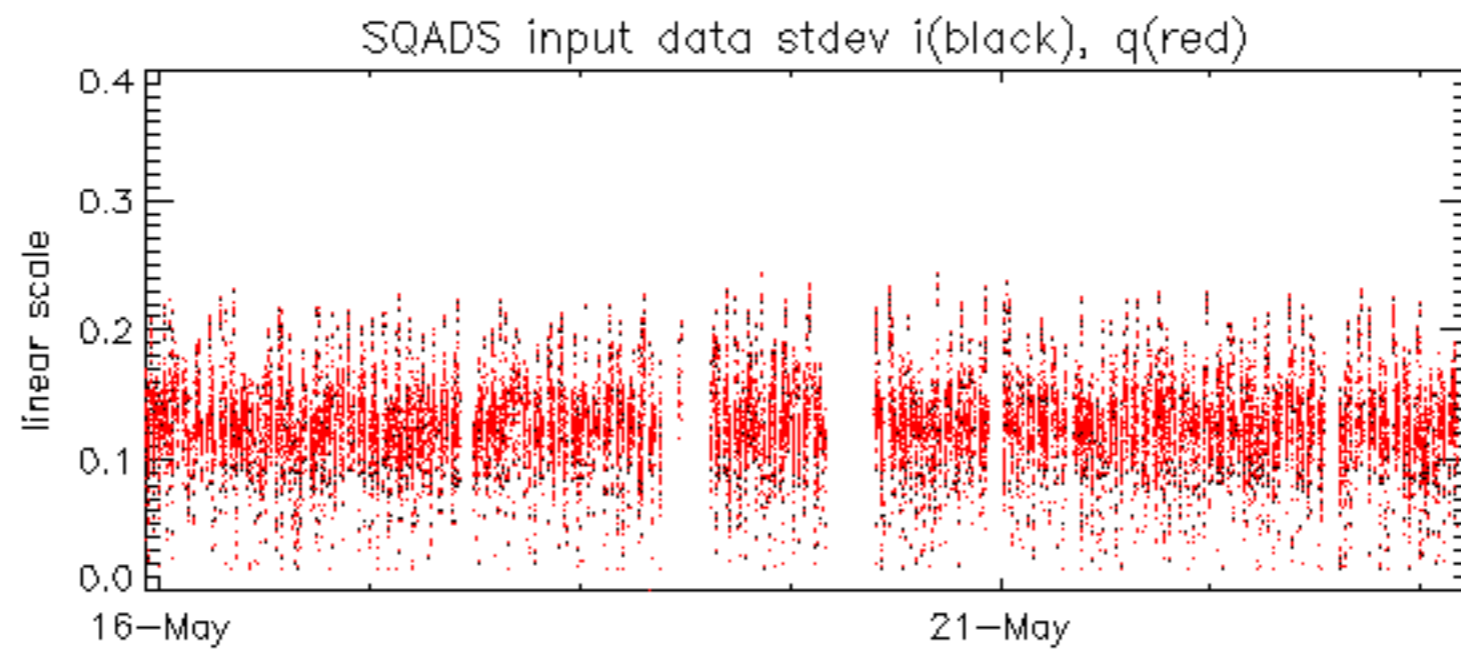


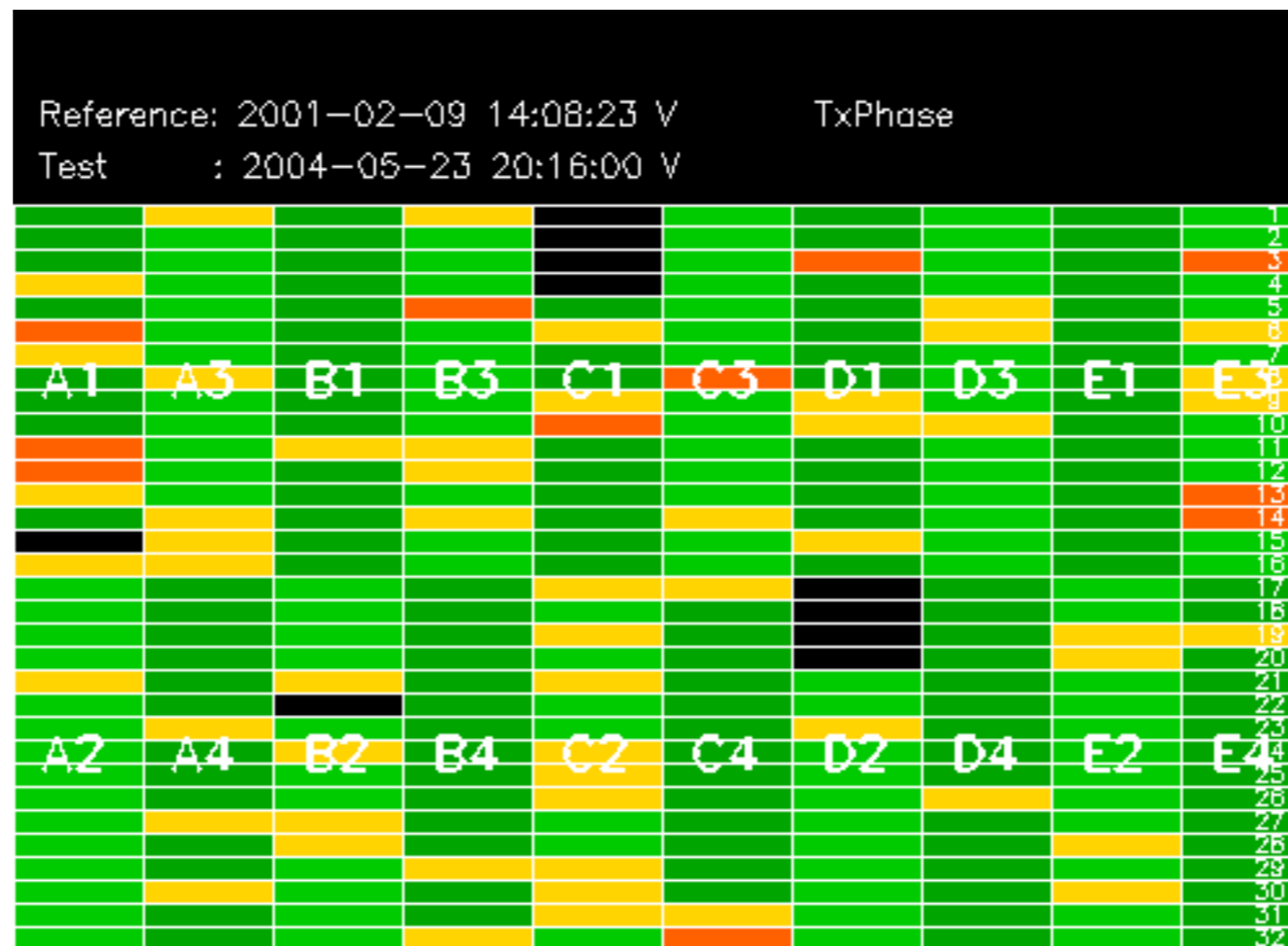
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

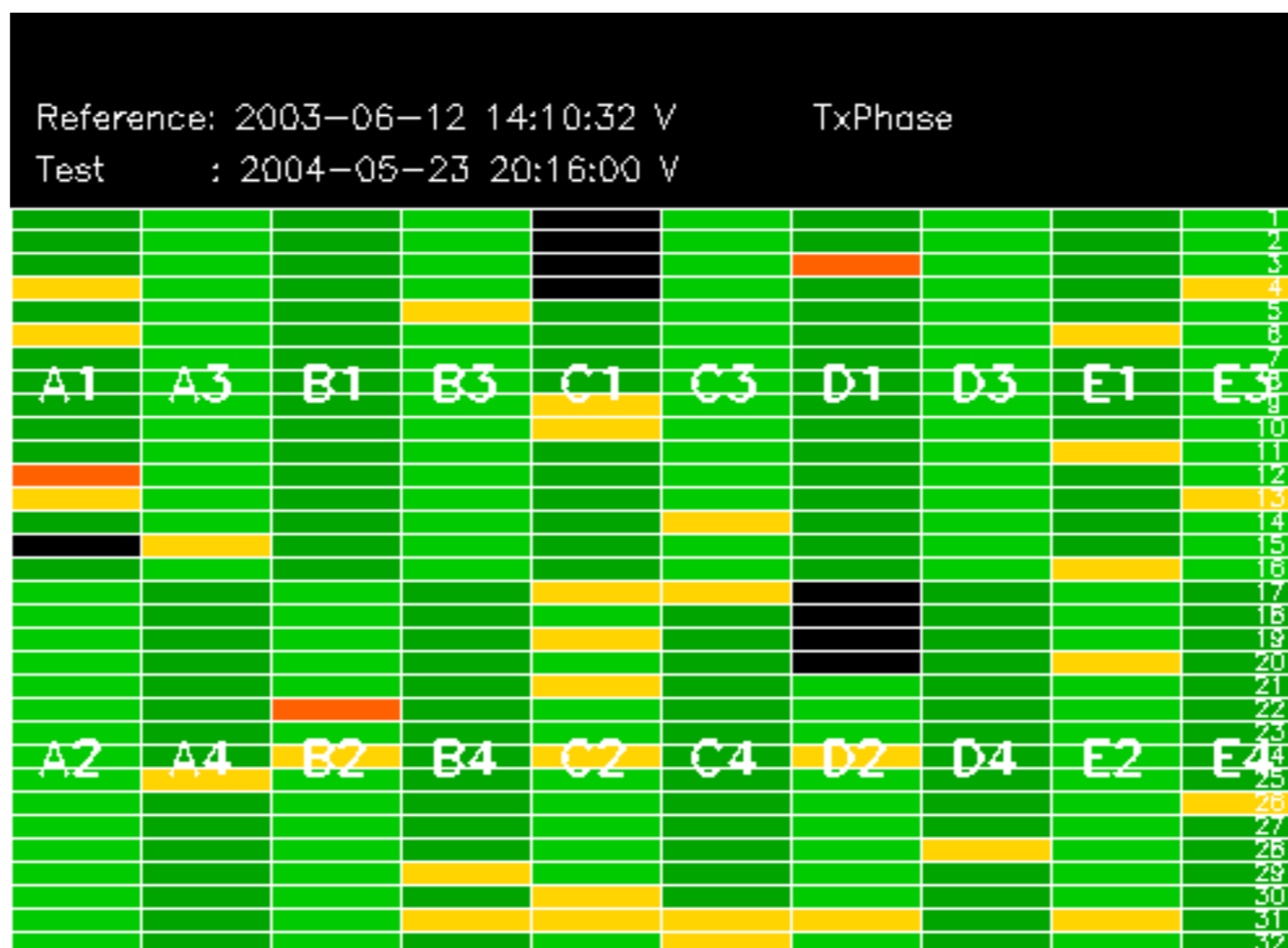
No anomalies observed.











No unavailabilities during the reported period.