REPORT OF 031027

1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P) products, which are the available few hours after the acquisition, on the high rate browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilies 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 to identify any malfunctionning modules and to identify modules foe which calibration offsets are to be applied.
No anomalies observed on available MS products:

Polarisation	Start Time

MSM in V/V polarisation

MSM in H/H polarisation

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79609	-22.5447	-8.16068
	stdev	0.00474766	0.0573663	0.00271561
24	mean	-5.14382	-21.2279	-8.16068
	stdev	0.00992582	0.0517607	0.00271561

4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.79539	-22.5417	-8.14155
	stdev	0.00546433	0.0621710	0.00255071

24	mean	-5.36570	-21.2697	-8.14155
	stdev	0.862686	0.0589246	0.00255071

4.3 - cal pulses monitoring (all rows)

5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000365785
	stdev	3.59672e-07
MEAN Q	mean	0.000281285
	stdev	3.33847e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.114148
	stdev	0.00143015
STDEV Q	mean	0.114389
	stdev	0.00144759

5.3 - Gain imbalance I/Q

6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days

6.1 - Unbiased Doppler Error

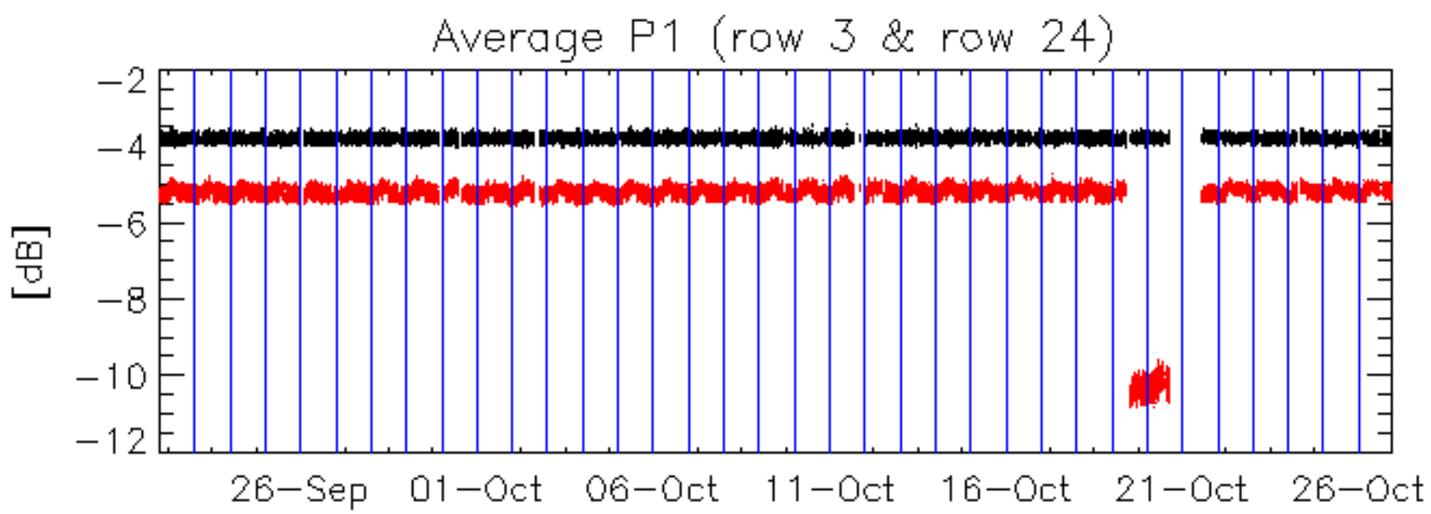
Evolution of unbiased Doppler error (Real - Expected)
Acsending
Descending

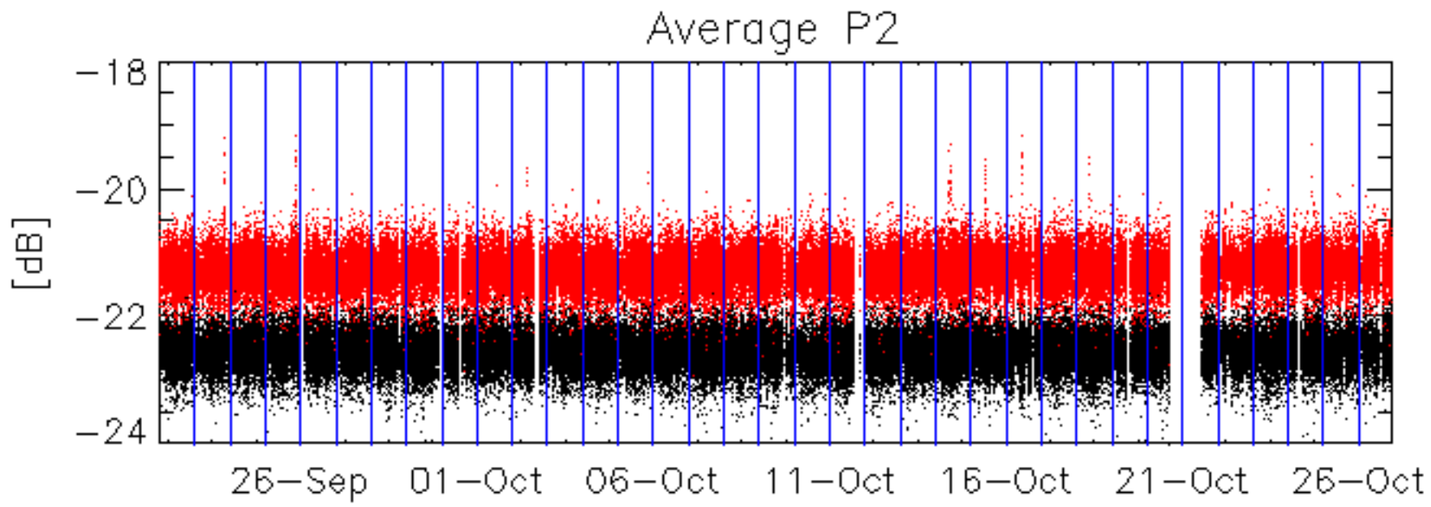
6.2 - Absolute Doppler

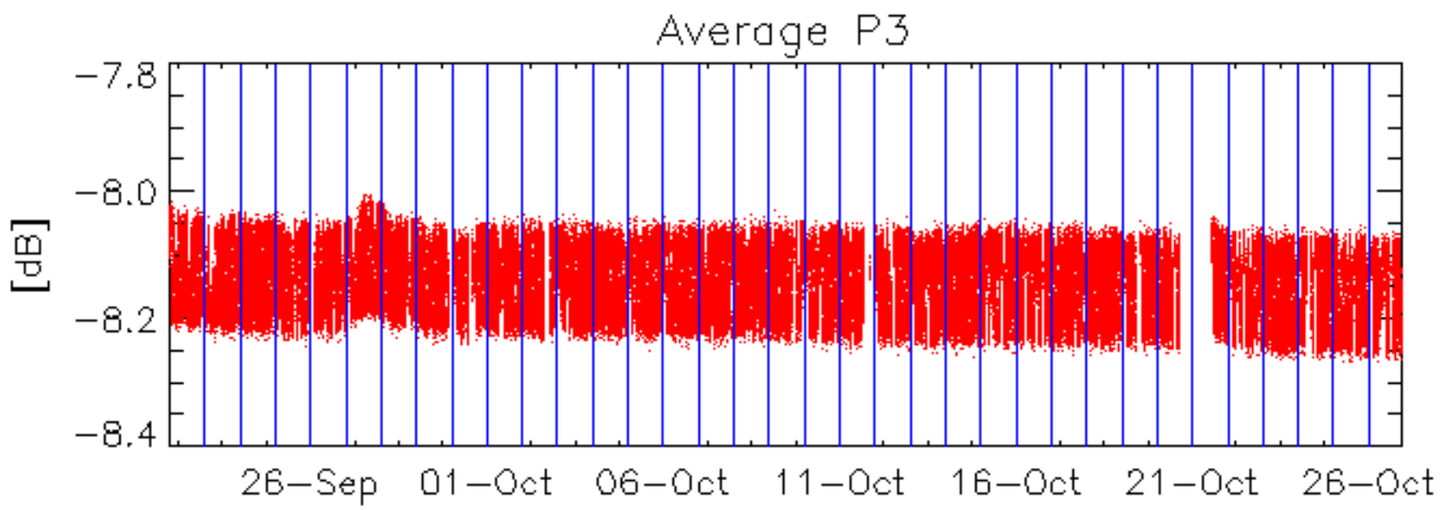
Evolution of Absolute Doppler
Acsending
Descending

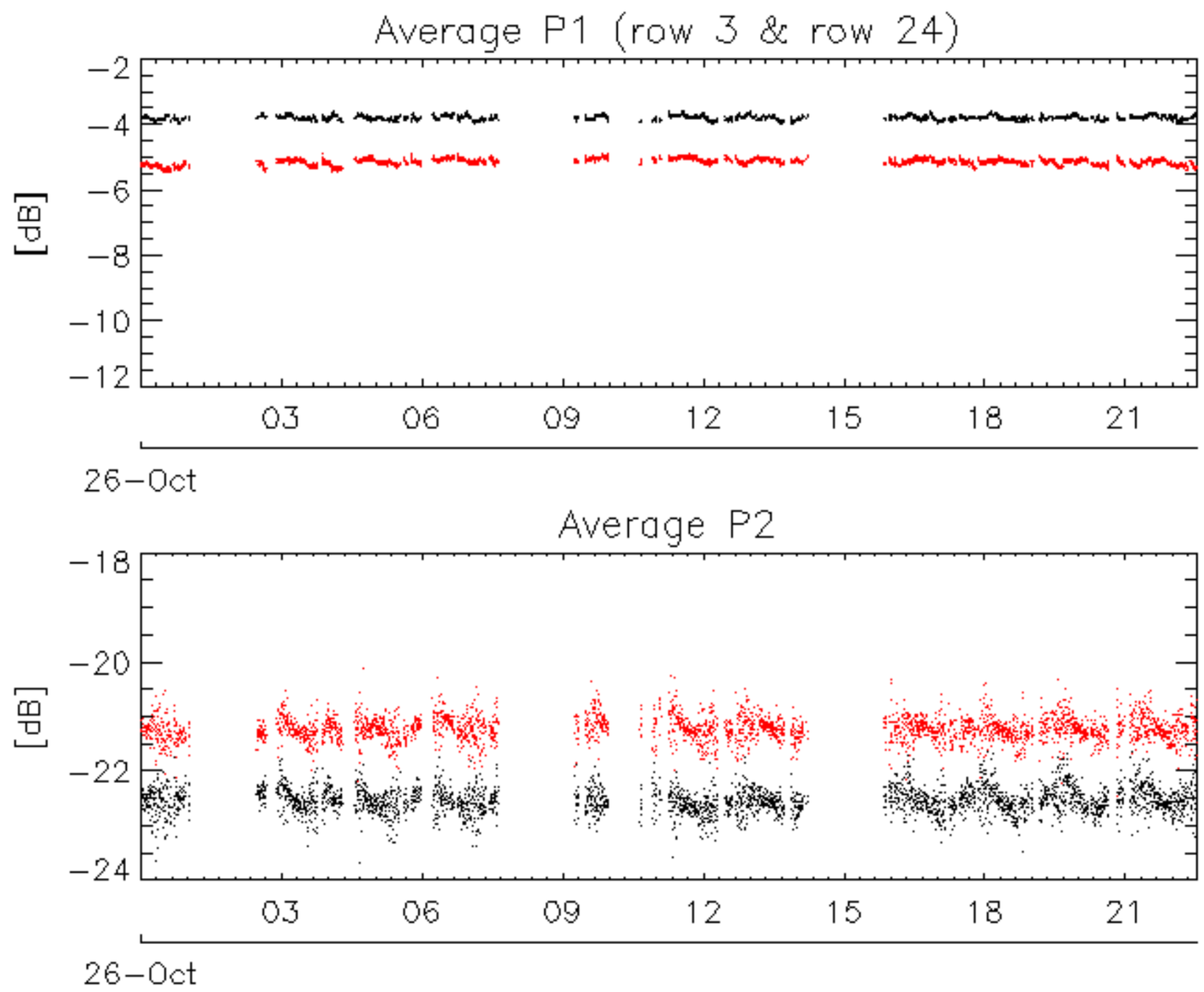
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX



Average P1 (row 3 & row 24)
[dB]
−2
−4
−6
−8
−10
−12
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct
21−Oct
26−Oct


Average P2
[dB]
−18
−20
−22
−24
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct
21−Oct
26−Oct


Average P3
[dB]
−7.8
−8.0
−8.2
−8.4
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct
21−Oct
26−Oct

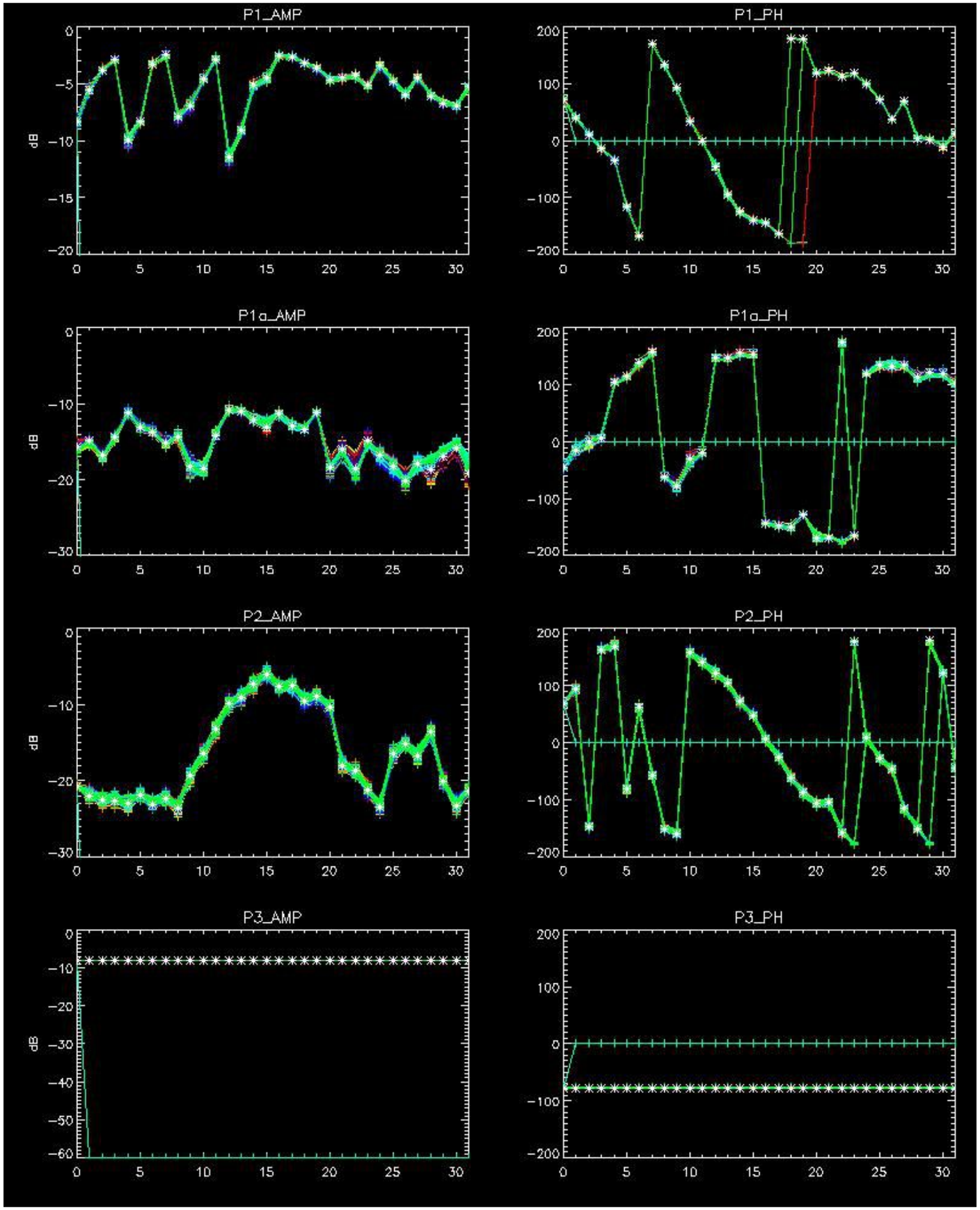

Average P1 (row 3 & row 24)
[dB]
−2
−4
−6
−8
−10
−12
03
06
09
12
15
18
21
26−Oct

Average P2
[dB]
−18
−20
−22
−24
03
06
09
12
15
18
21
26−Oct

Average P3
[dB]
−7.8
−8.0
−8.2
−8.4
03
06
09
12
15
18
21
26−Oct

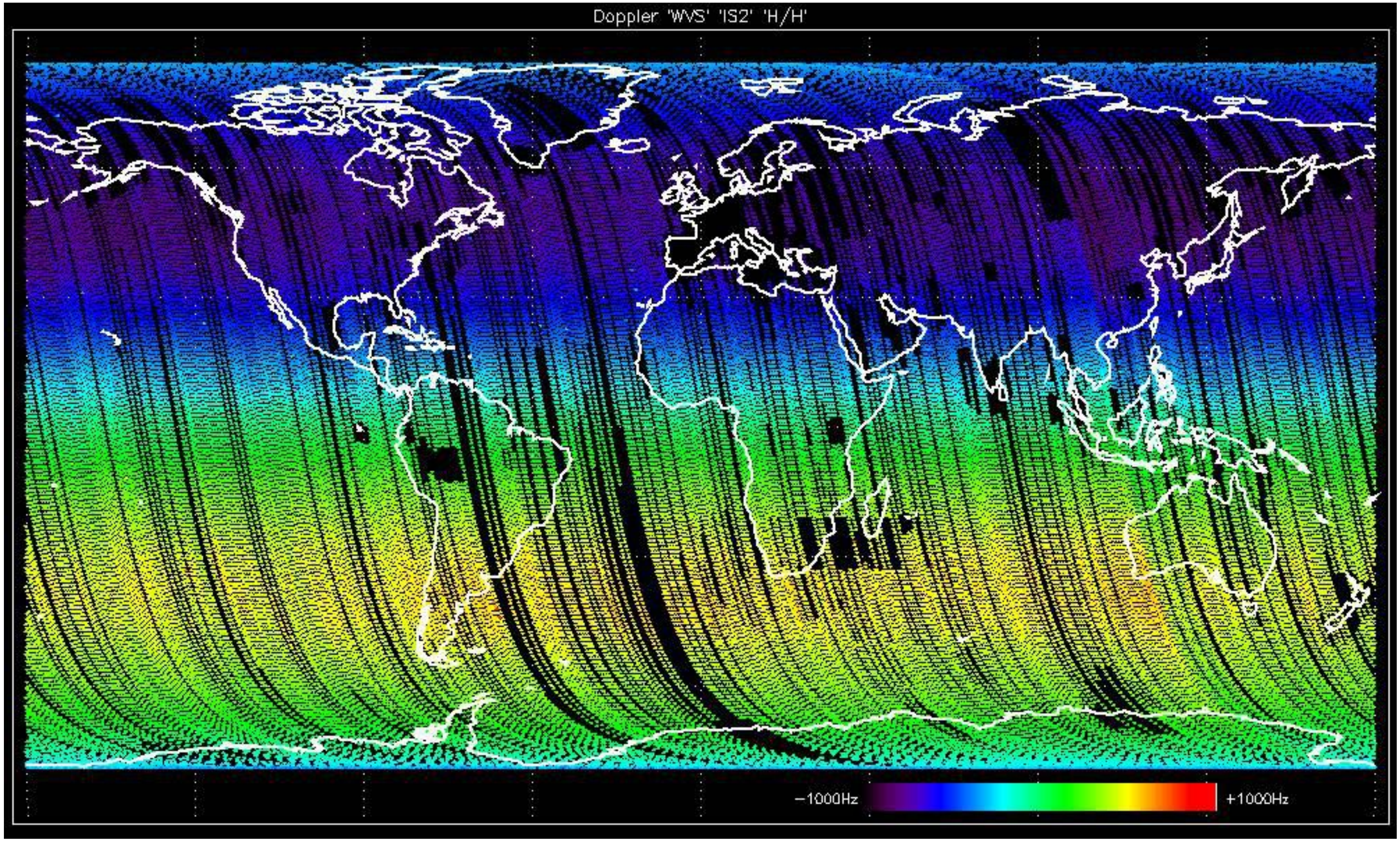
No anomalies observed on available browse products

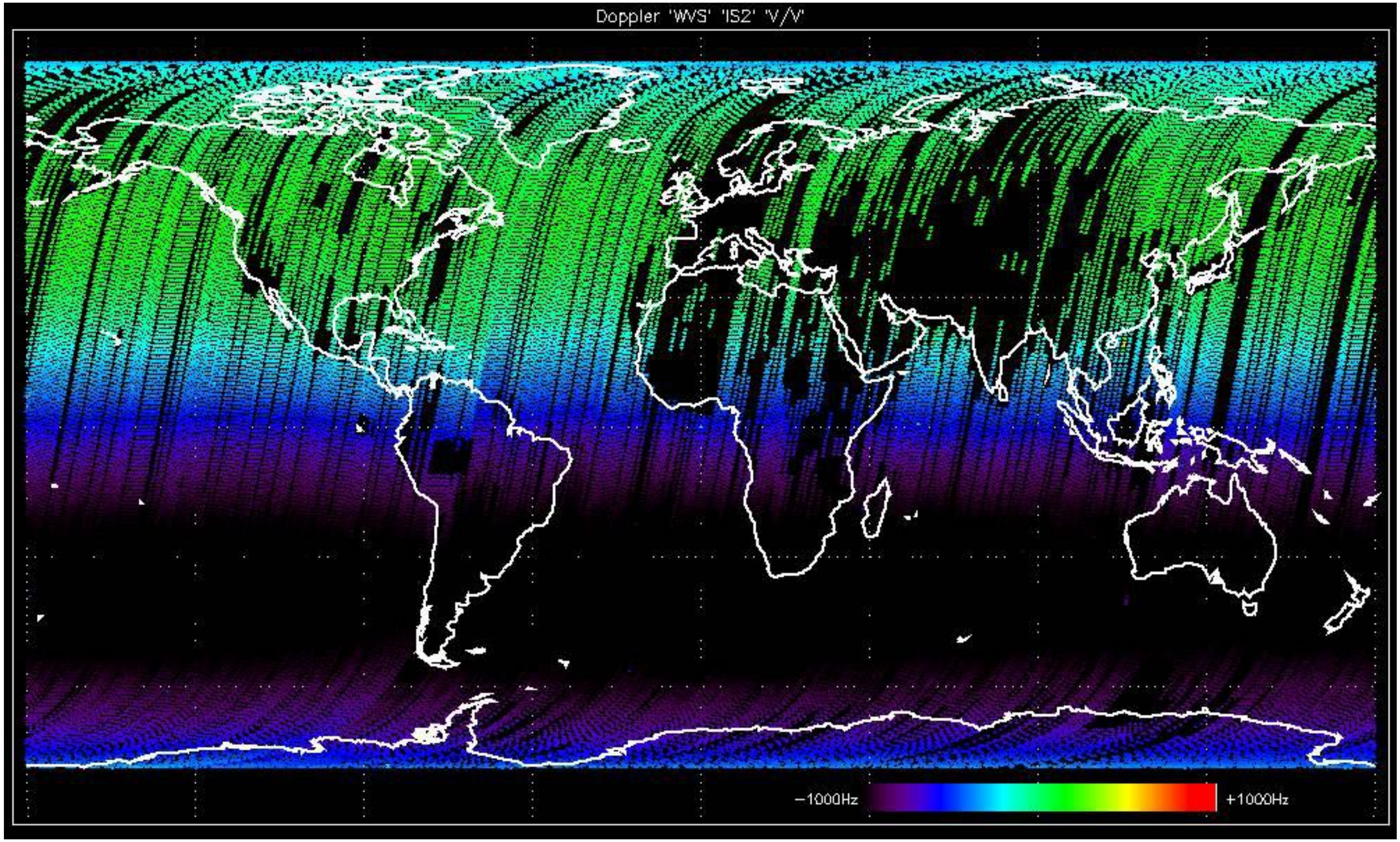
No anomalies observed.

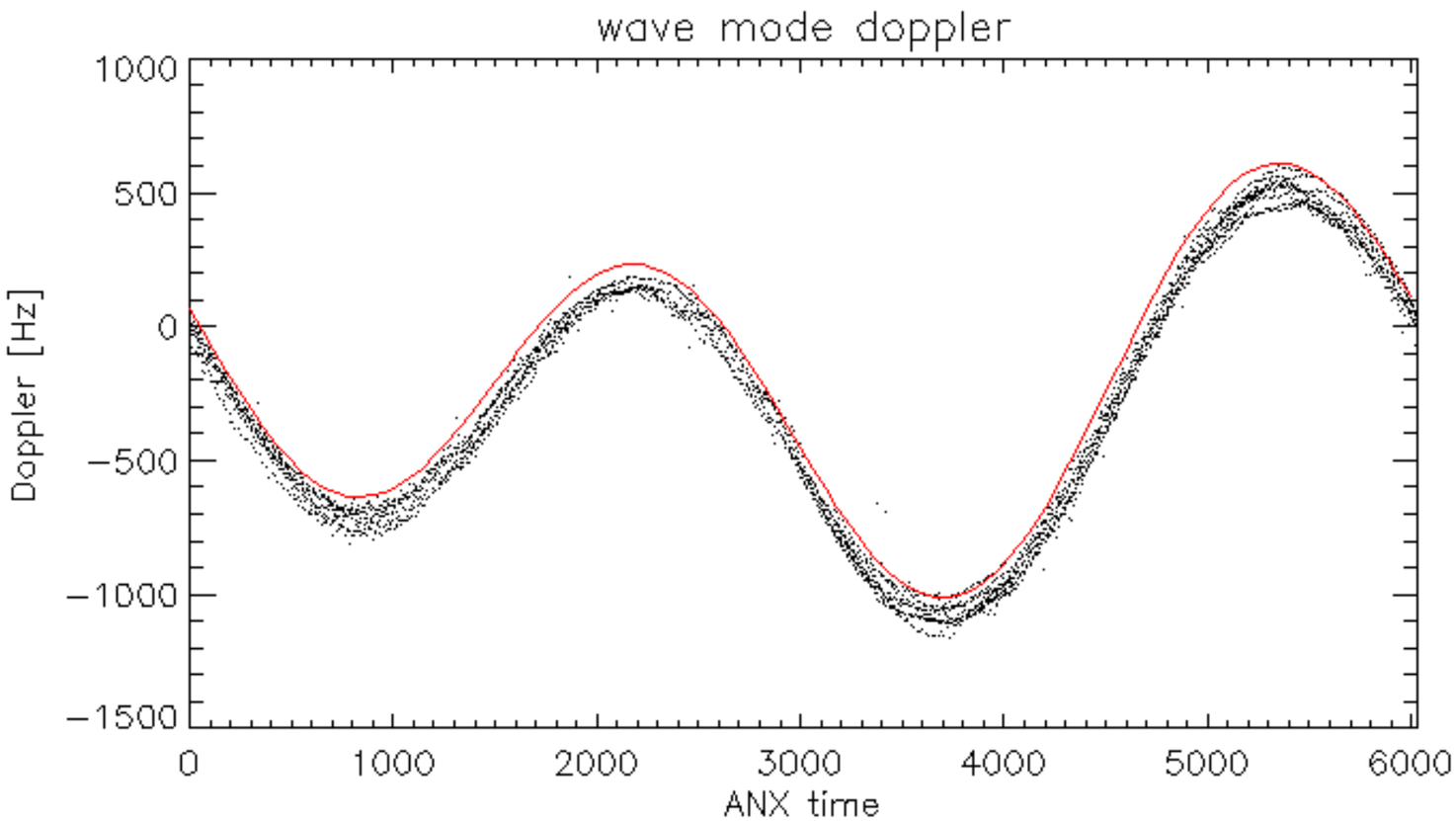

P1_AMP
P1_PH
P1a_AMP
P1a_PH
P2_AMP
P2_PH
P3_AMP
P3_PH
dB

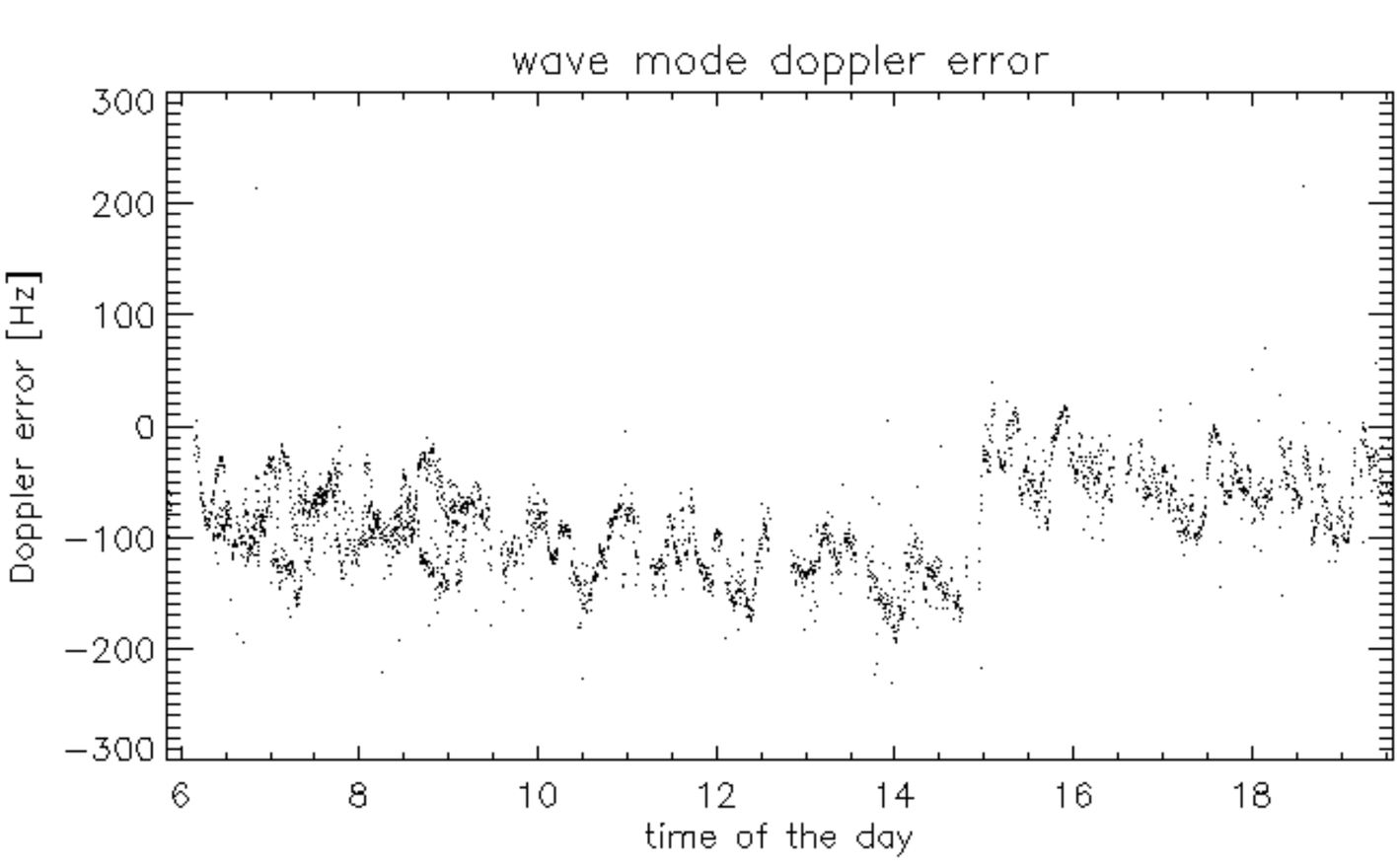
-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

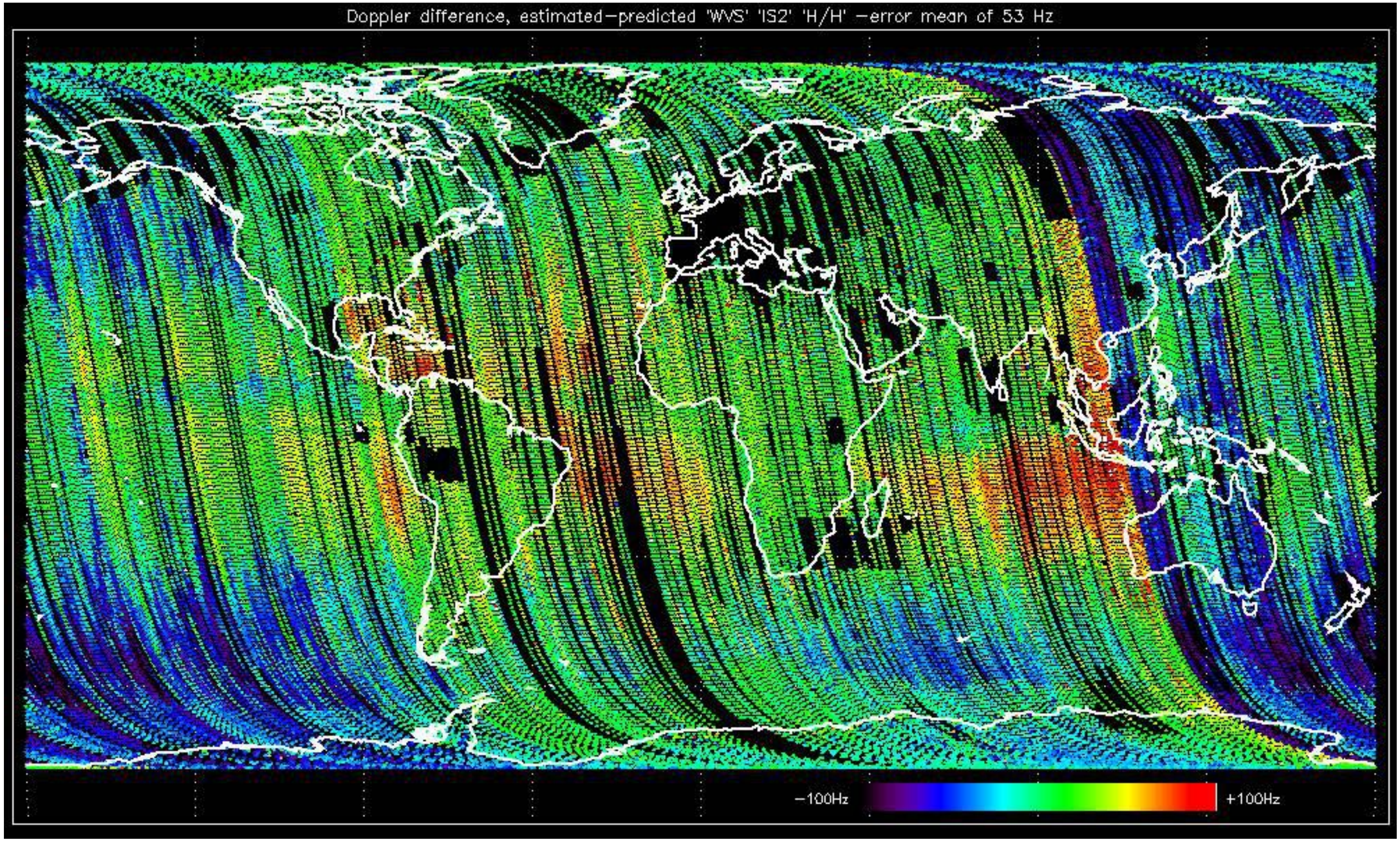
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 35 days

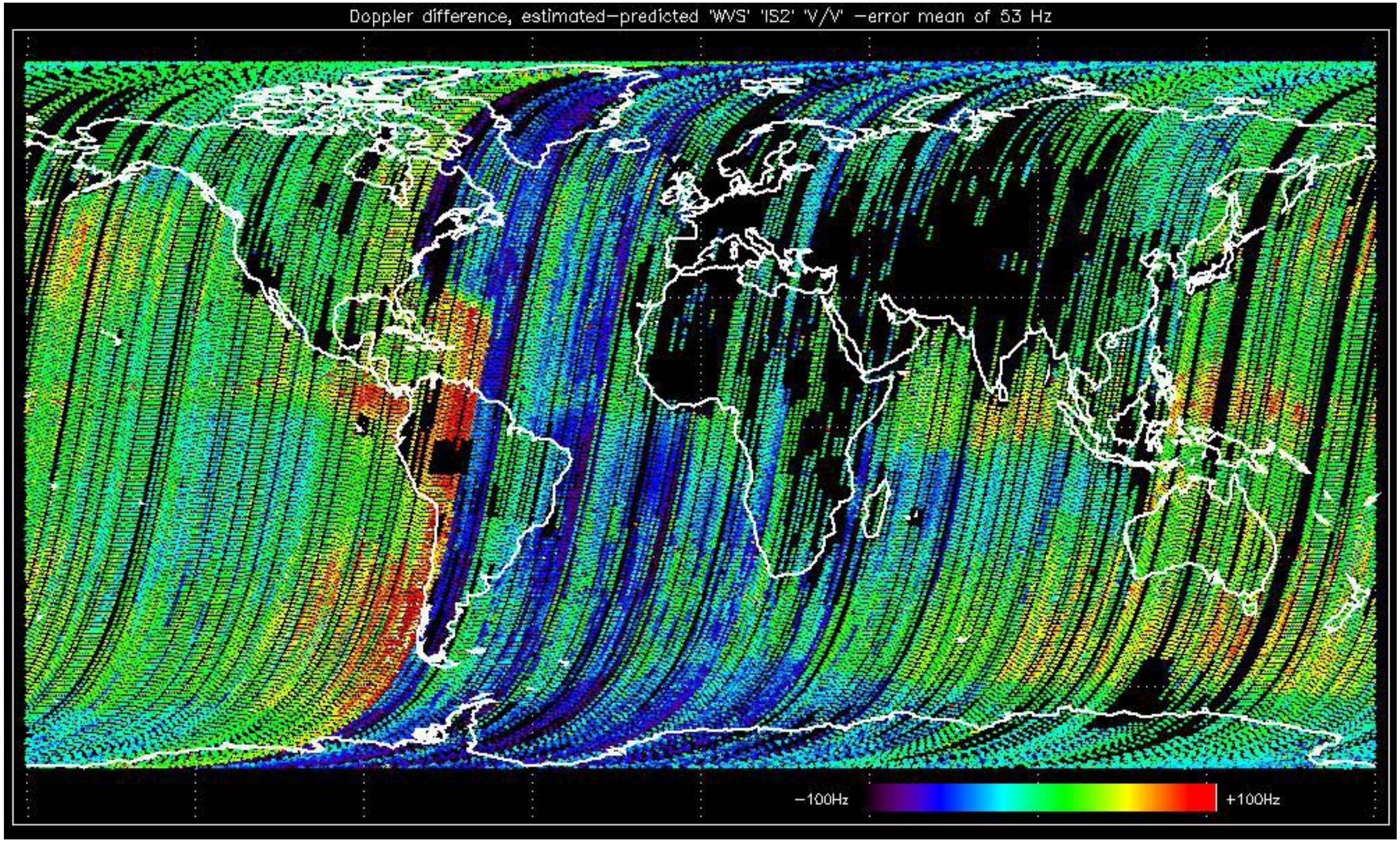

Doppler 'WVS' 'IS2' 'H/H'
−1000Hz
+1000Hz


Doppler 'WVS' 'IS2' 'V/V'
−1000Hz
+1000Hz


wave mode doppler
Doppler [Hz]
1000
500
0
−500
−1000
−1500
0
1000
2000
3000
4000
5000
6000
ANX time

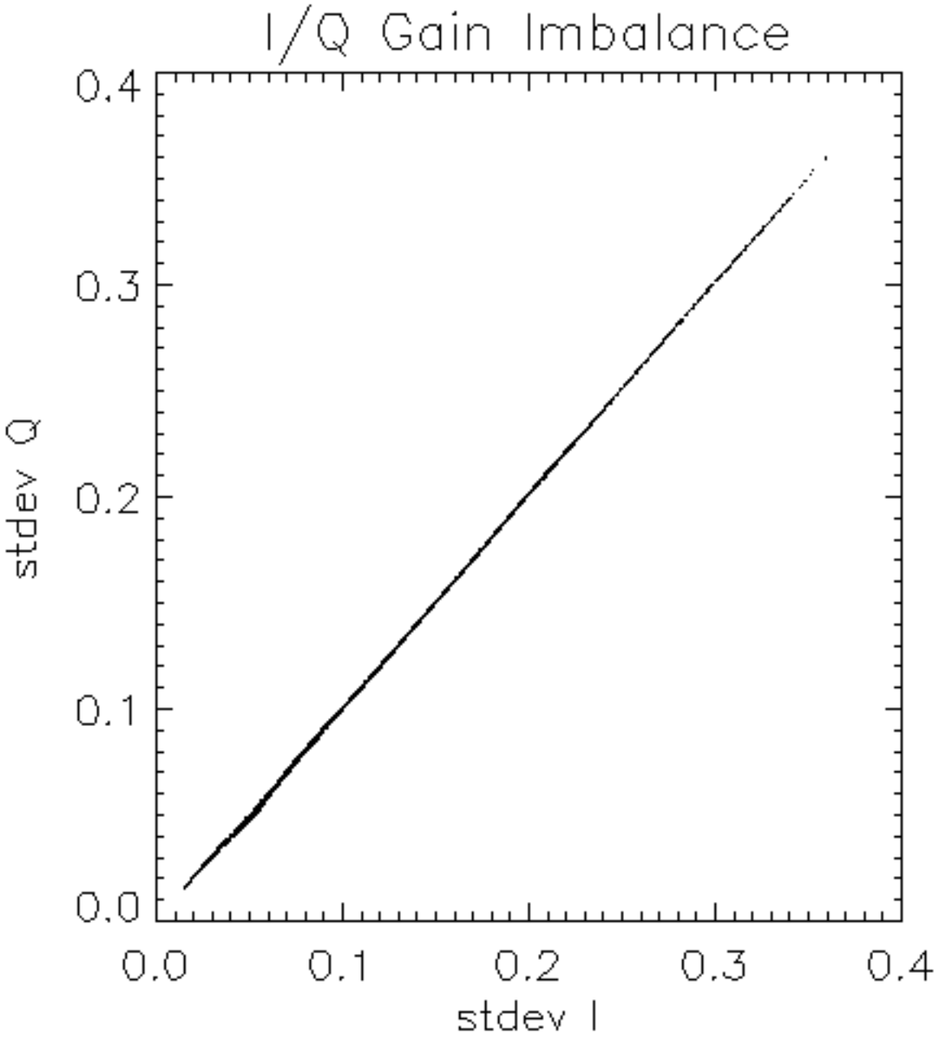

wave mode doppler error
Doppler error [Hz]
300
200
100
0
−100
−200
−300
6
8
10
12
14
16
18
time of the day

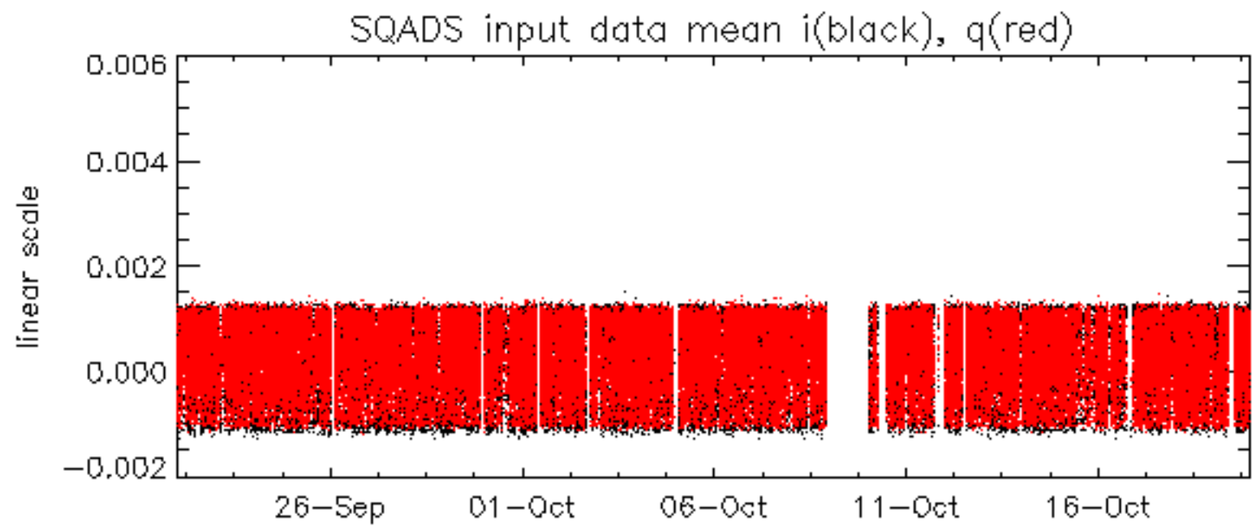

Doppler difference, estimated−predicted 'WVS' 'IS2' 'H/H' −error mean of 53 Hz
−100Hz
+100Hz

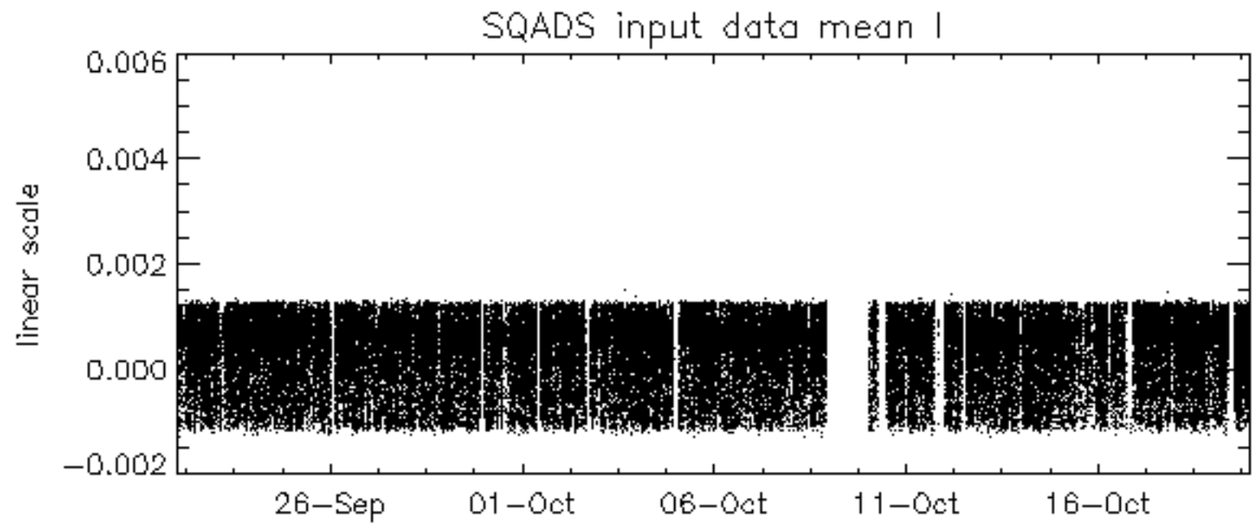

Doppler difference, estimated−predicted 'WVS' 'IS2' 'V/V' −error mean of 53 Hz
−100Hz
+100Hz

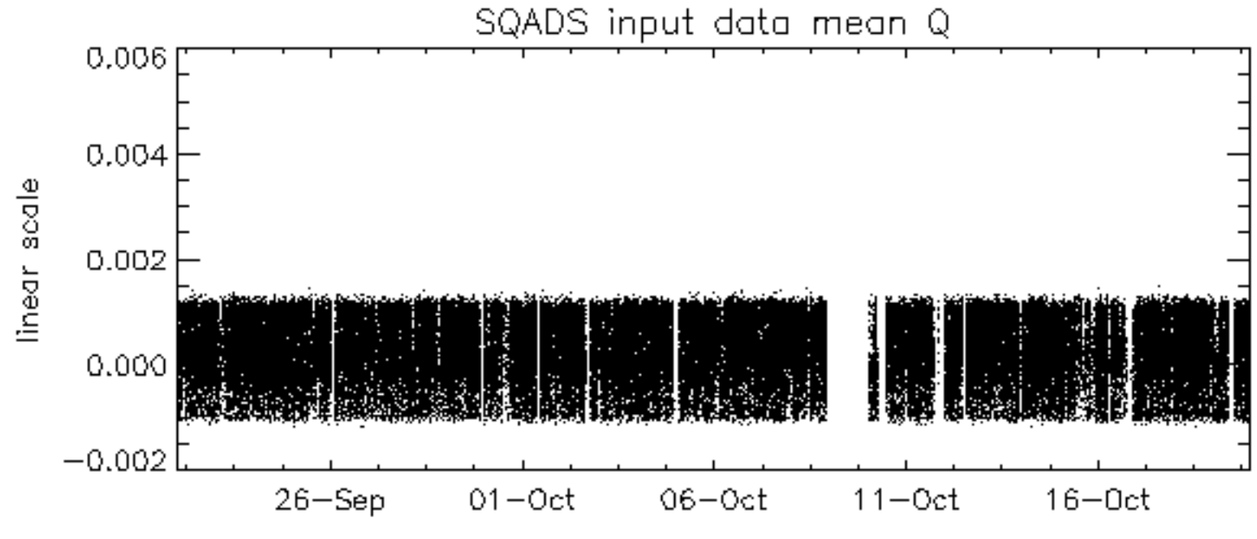
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctionning modules and
to identify modules foe which calibration offsets are to be applied.
No anomalies observed on available MS products:

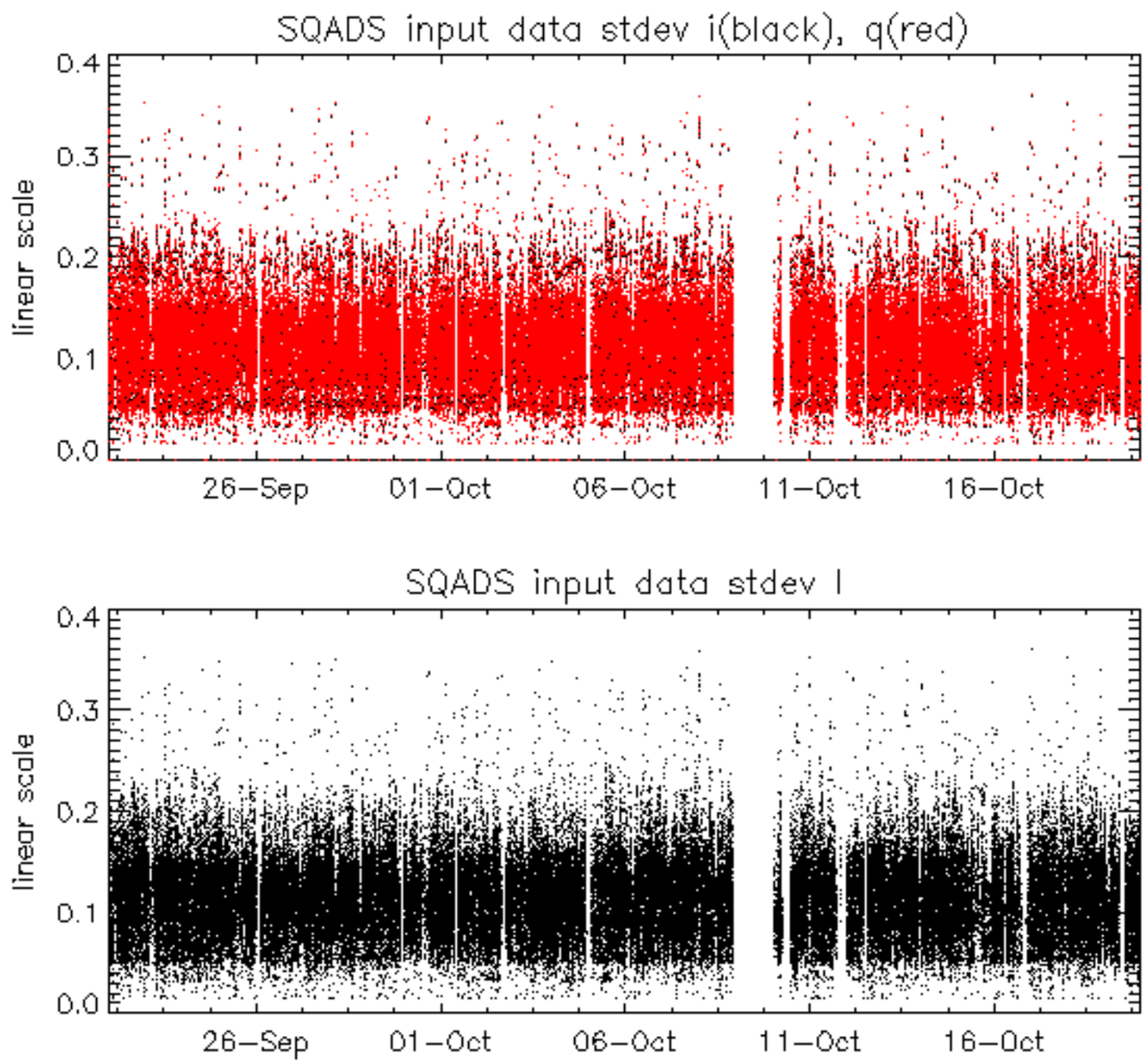
No anomalies observed.

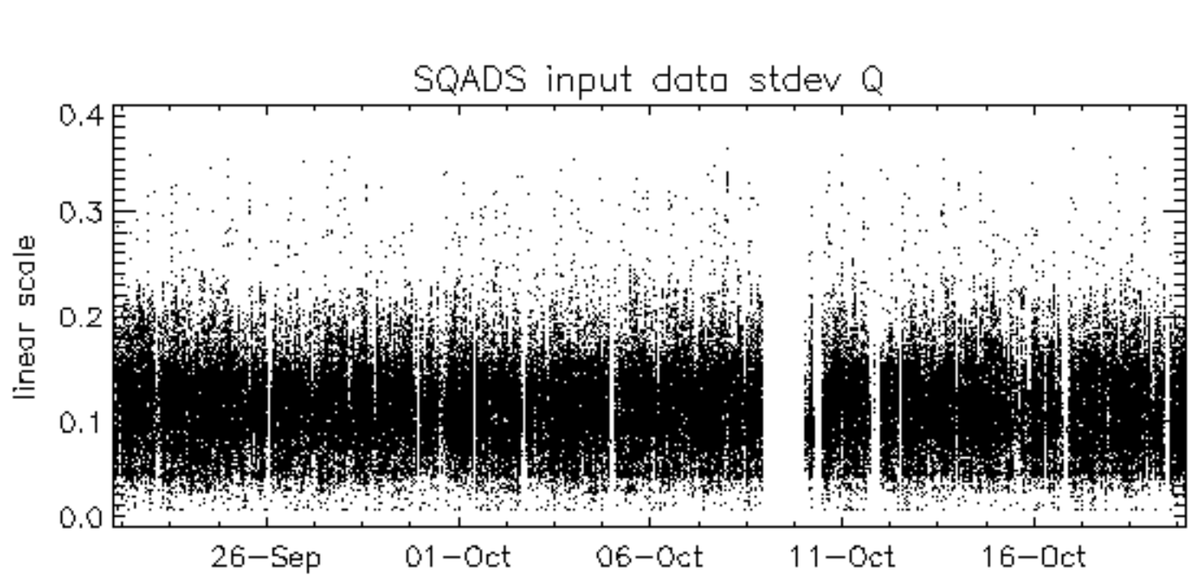

I/Q Gain Imbalance
stdev Q
stdev I
0.0
0.1
0.2
0.3
0.4


SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct


SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct


SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct


SQADS input data stdev i(black), q(red)
linear scale
0.4
0.3
0.2
0.1
0.0
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct


SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct

SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
26−Sep
01−Oct
06−Oct
11−Oct
16−Oct

No unavailabilies during the reported period.