

REPORT OF 040214

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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 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.

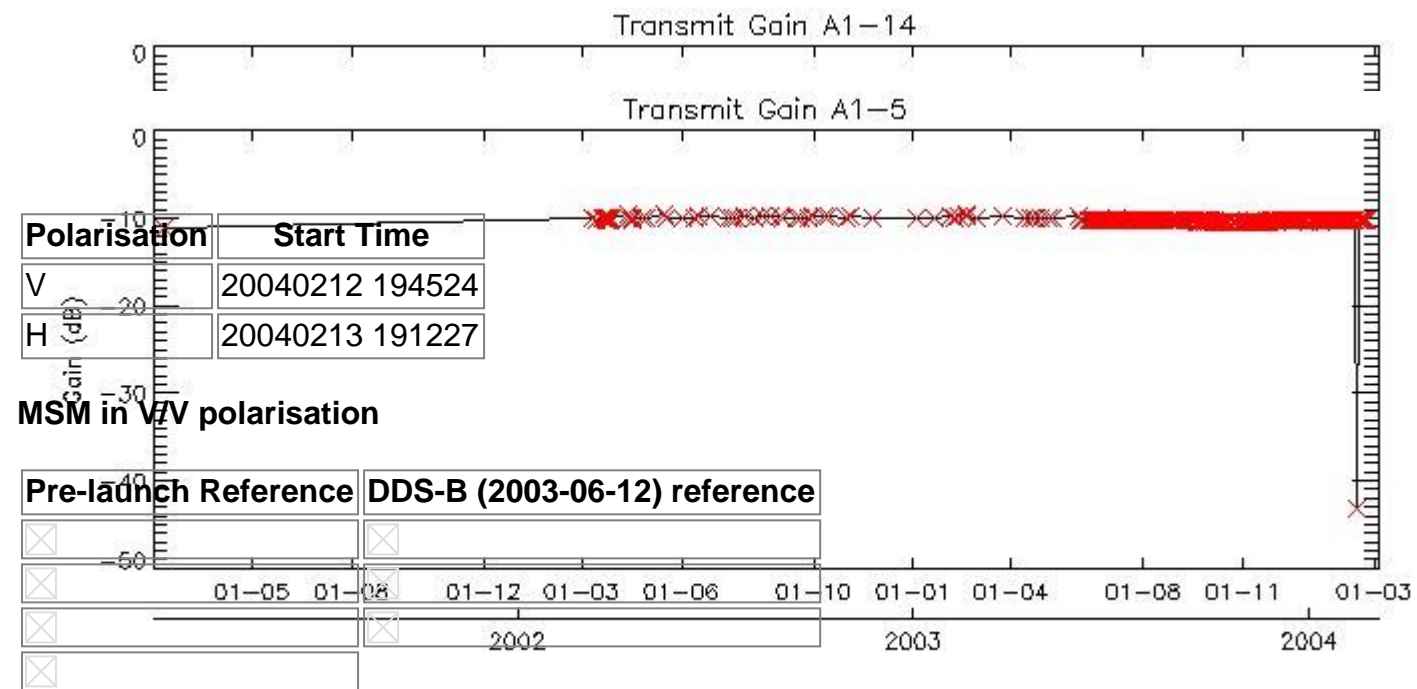
3 - Module Stepping Mode

Anomalies observed on available MS product:

-ASA_MS__0PNPDK20040213_191227_000000152024_00156_10230_0215.N1

Tile A1 shows abnormal behaviour for 2 non contiguous PSU.

Rows 5 to 9 and 13 to 17 are affected by a power drop of about 30dB as shown below.



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

Anomaly on internal P1 and P1a cal pulses detected on 13-FEB-2004 13:56:18.

The plot shows also a single product for which P1, P1a and P2 pulses are corrupted.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.62288	-22.3863	-8.13255
	stdev	0.00710542	0.0791580	0.00308408
24	mean	-5.09792	-21.0737	-8.13255
	stdev	0.0156372	0.0765367	0.00308408



4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.66714	-22.4486	-8.14137
	stdev	0.00707635	0.0723952	0.00314038
24	mean	-5.10460	-21.1004	-8.14137
	stdev	0.0150594	0.0674663	0.00314038



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	0.000435049
	stdev	2.82117e-07
MEAN Q	mean	0.000367427

stdev	3.28360e-07
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5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.119726
	stdev	0.00137053
STDEV Q	mean	0.119959
	stdev	0.00138568



5.3 - Gain imbalance I/Q



6 - Wave Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error

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

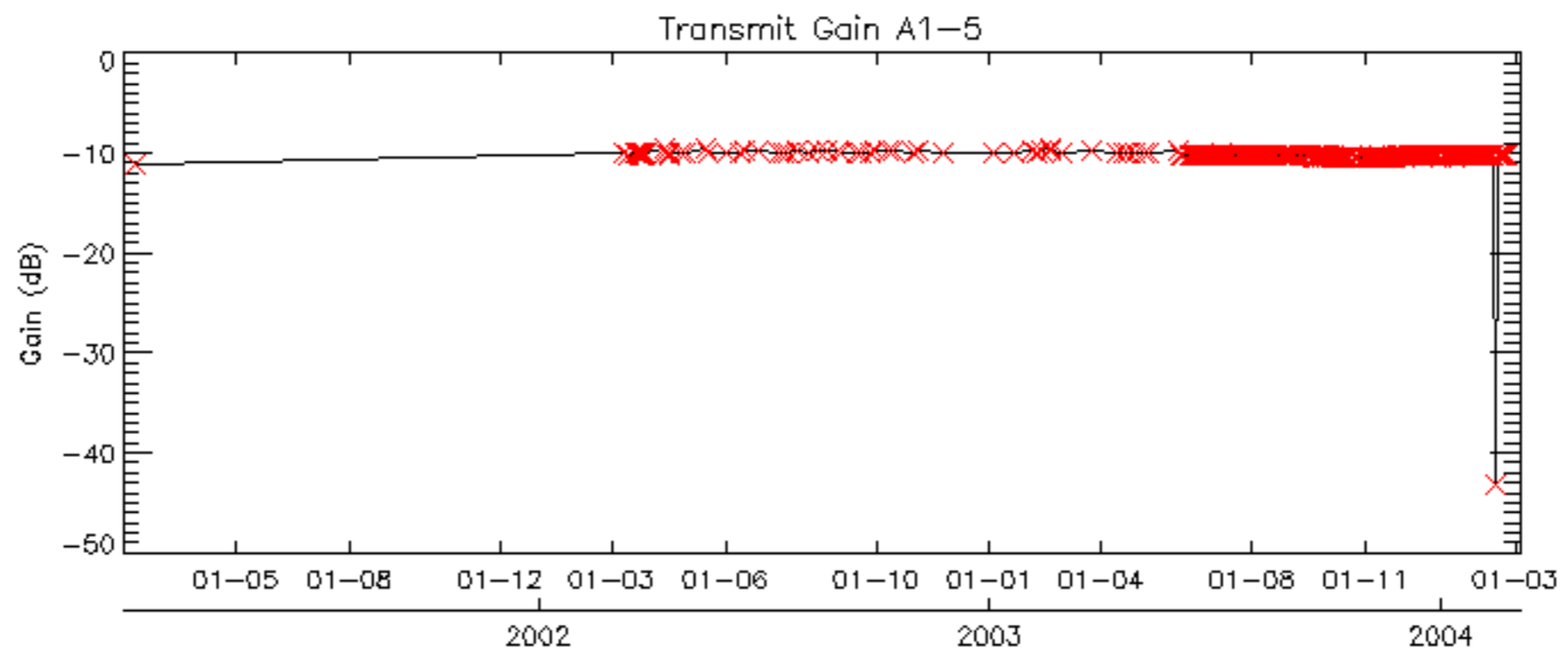
6.2 - Absolute Doppler

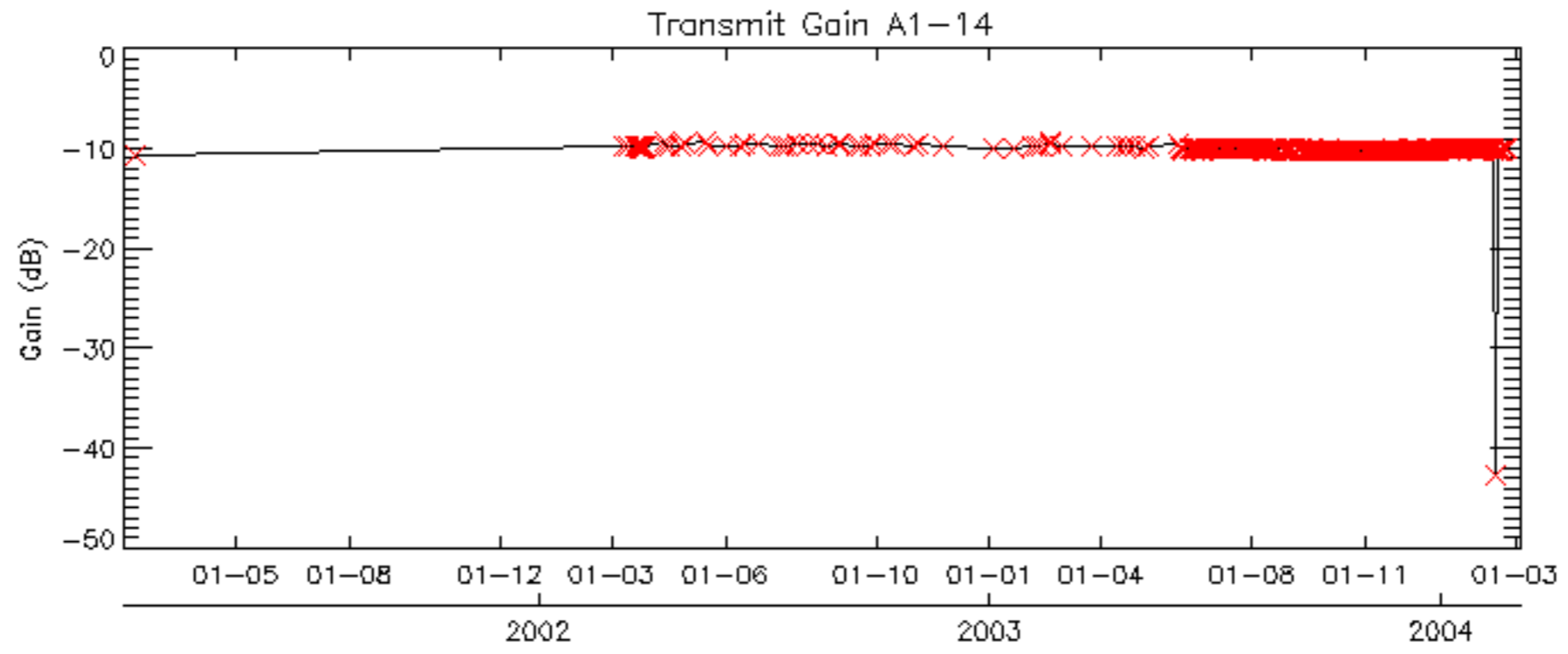
Evolution of Absolute Doppler
Ascending
Descending

6.3 - Doppler evolution versus ANX

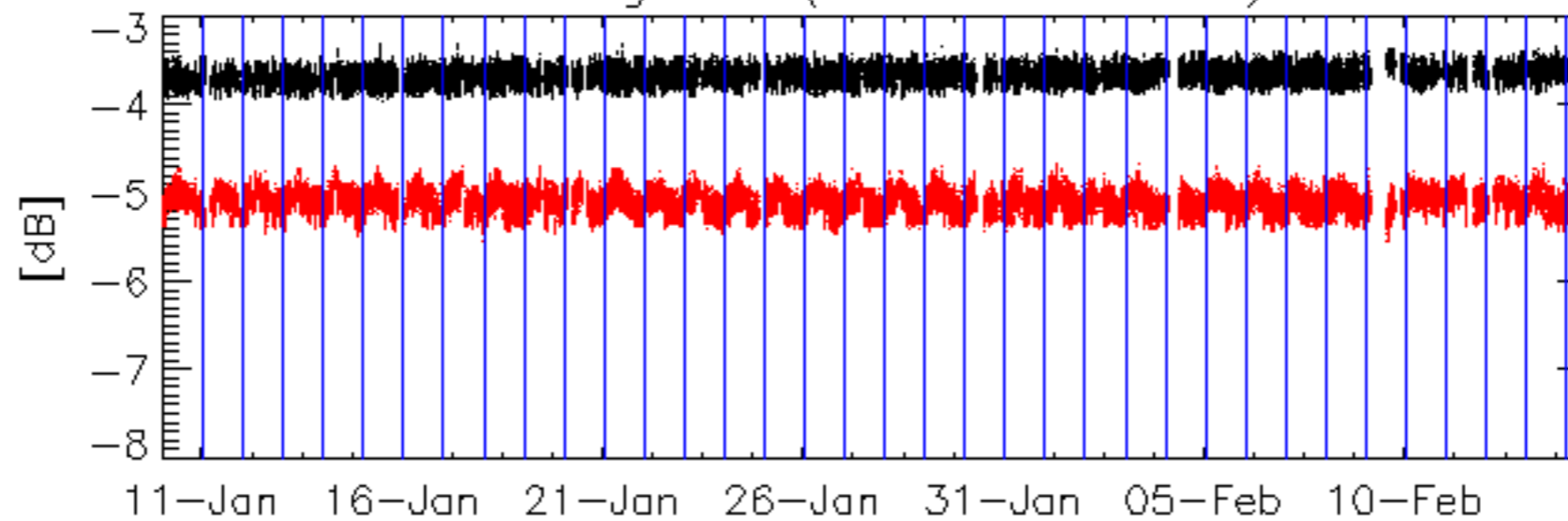
Evolution Doppler error versus ANX



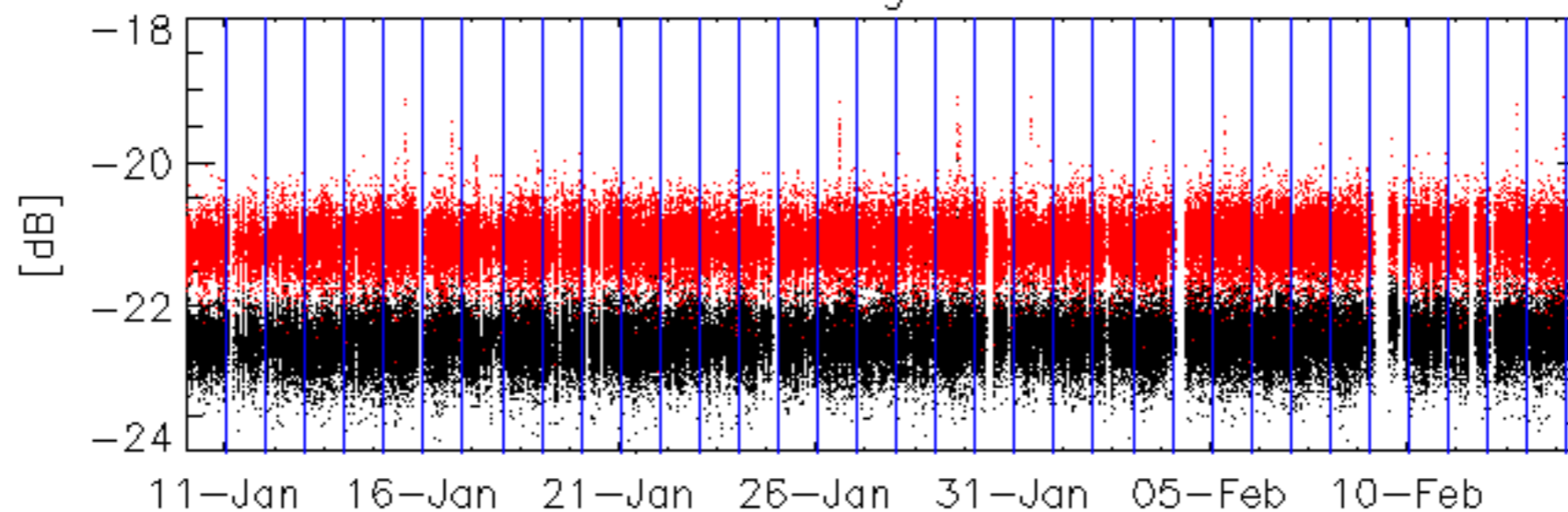




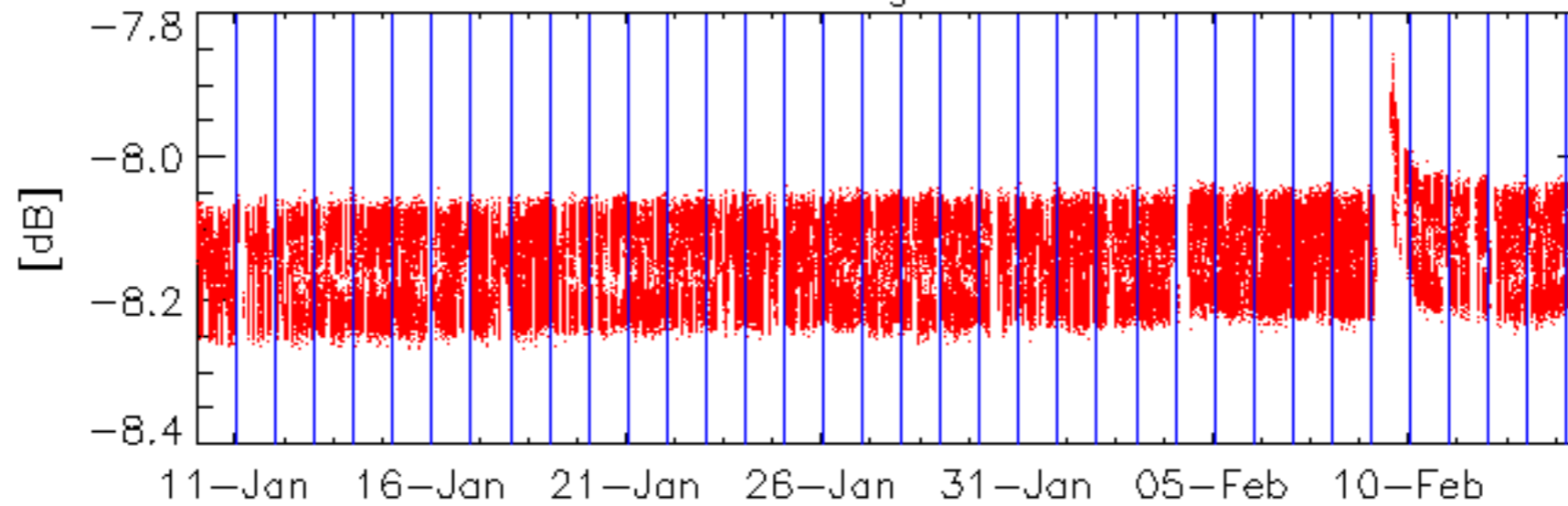
Average P1 (row 3 & row 24)

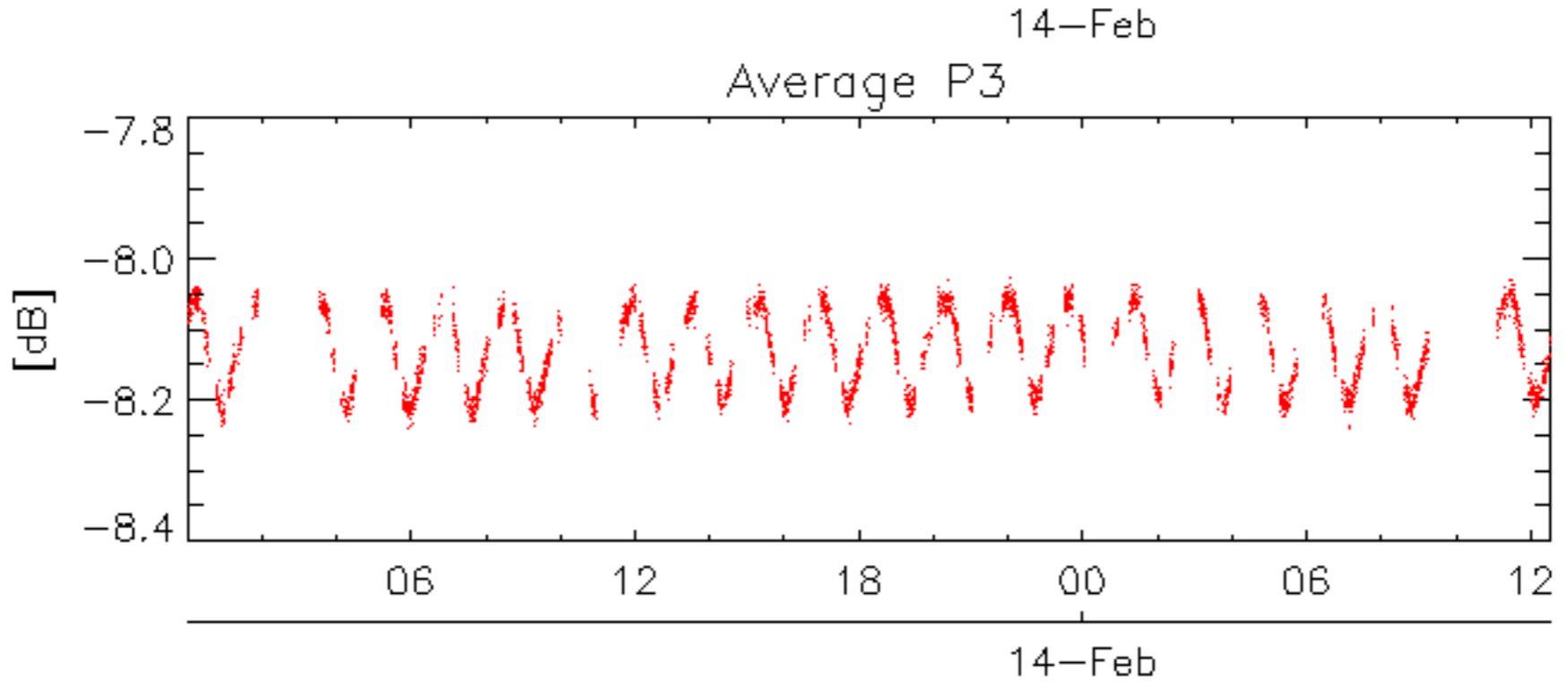
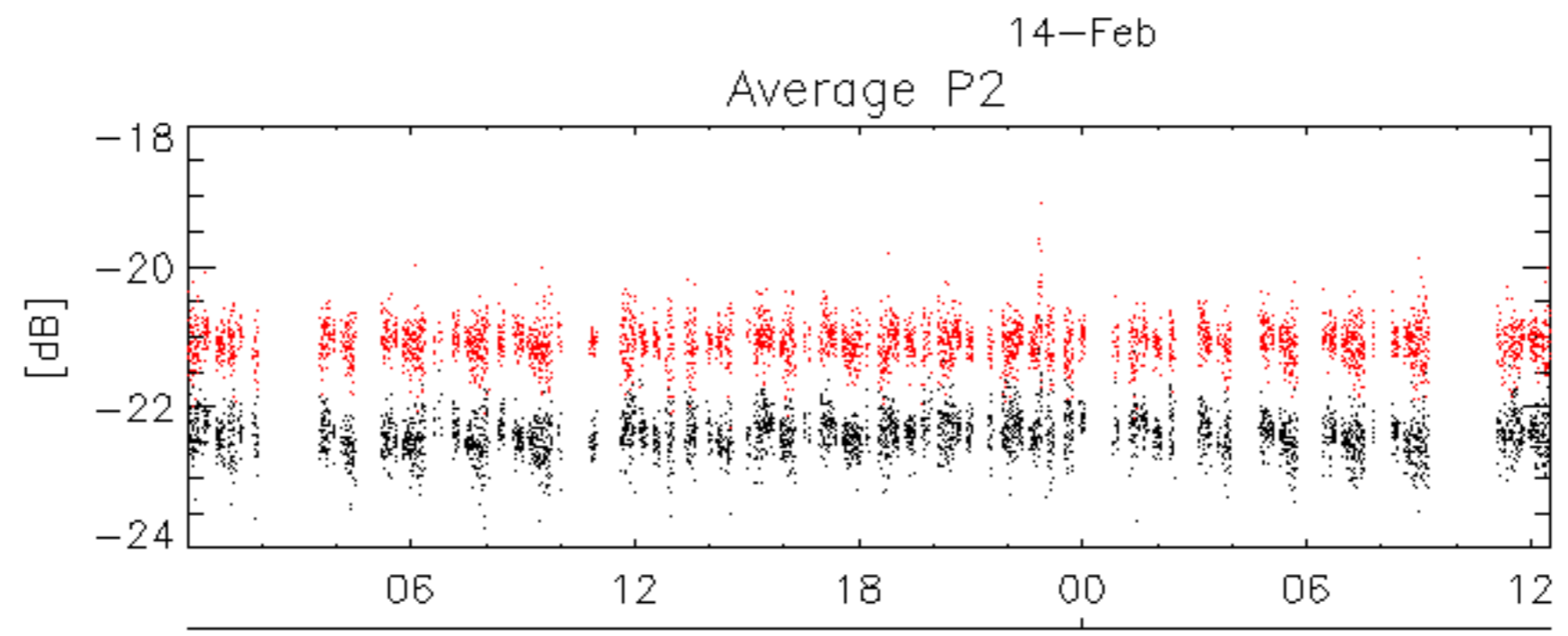
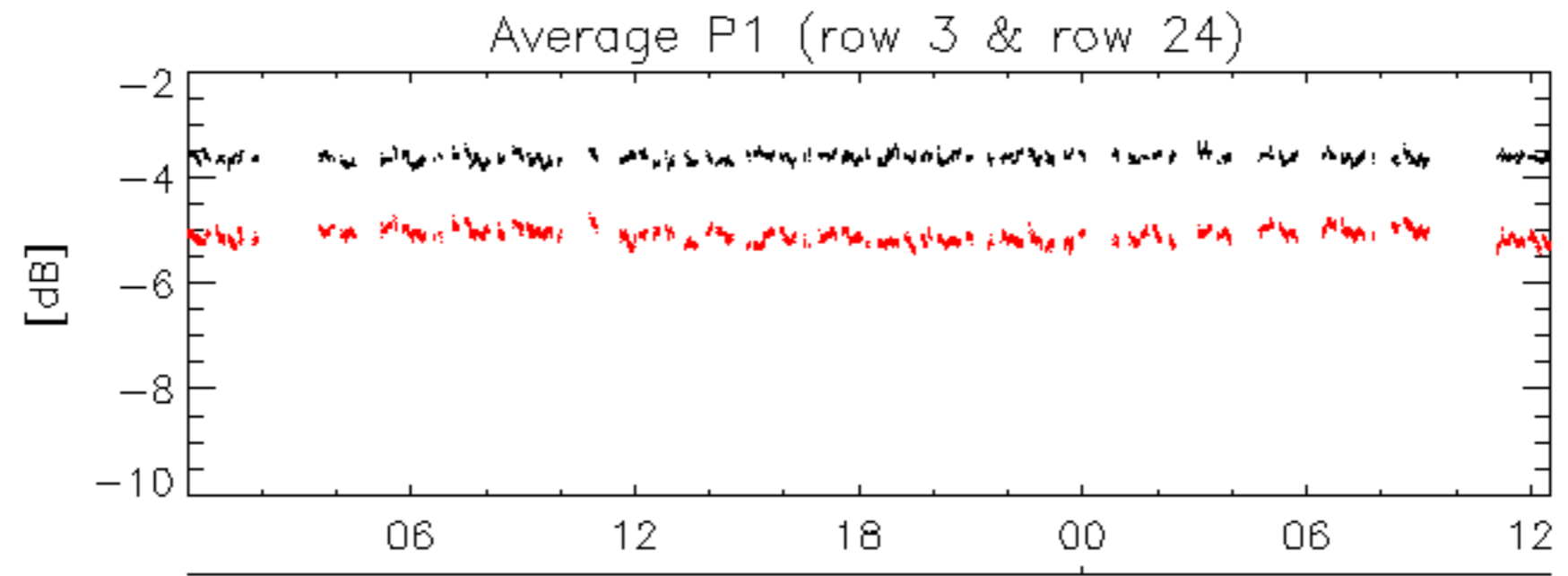


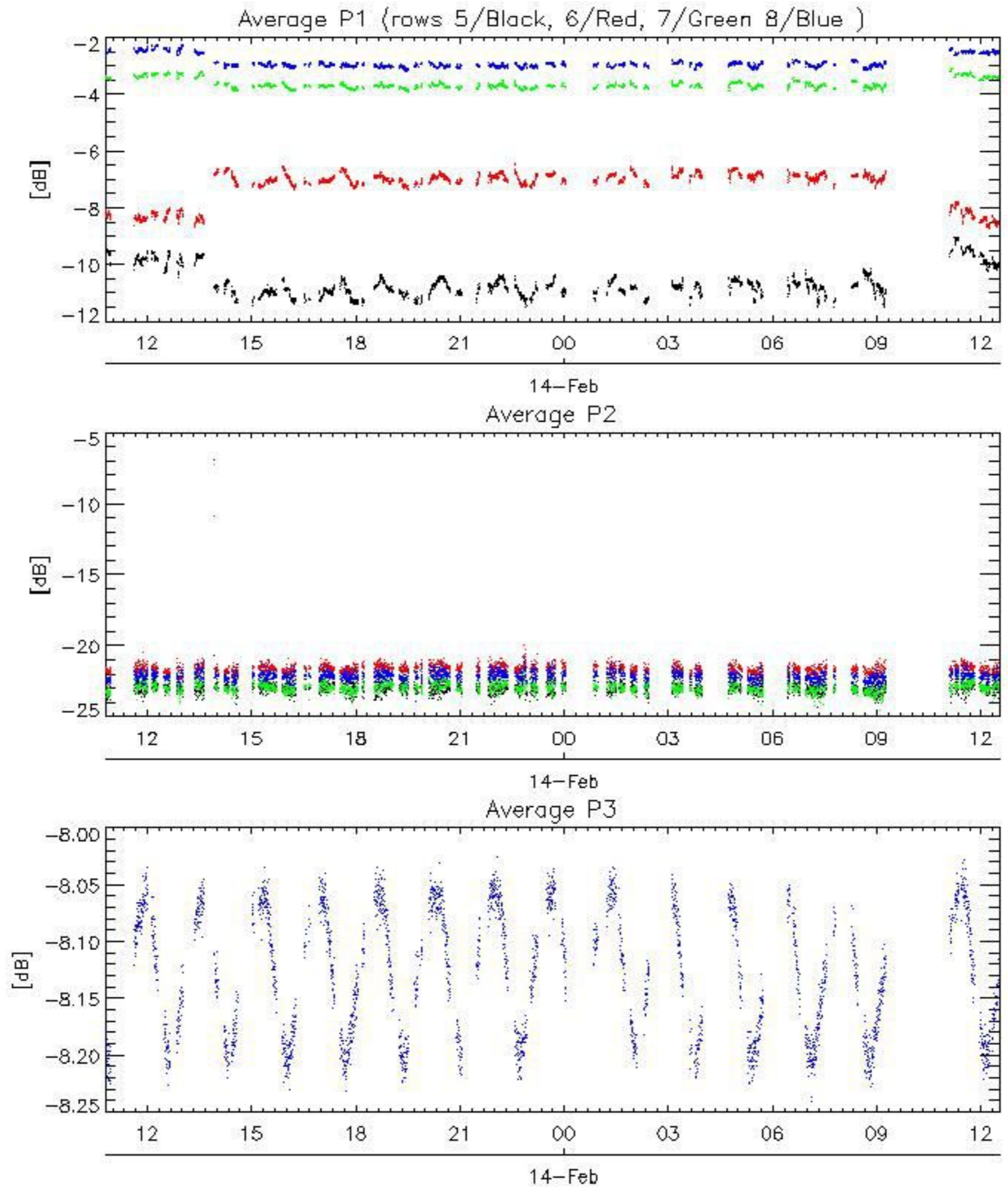
Average P2

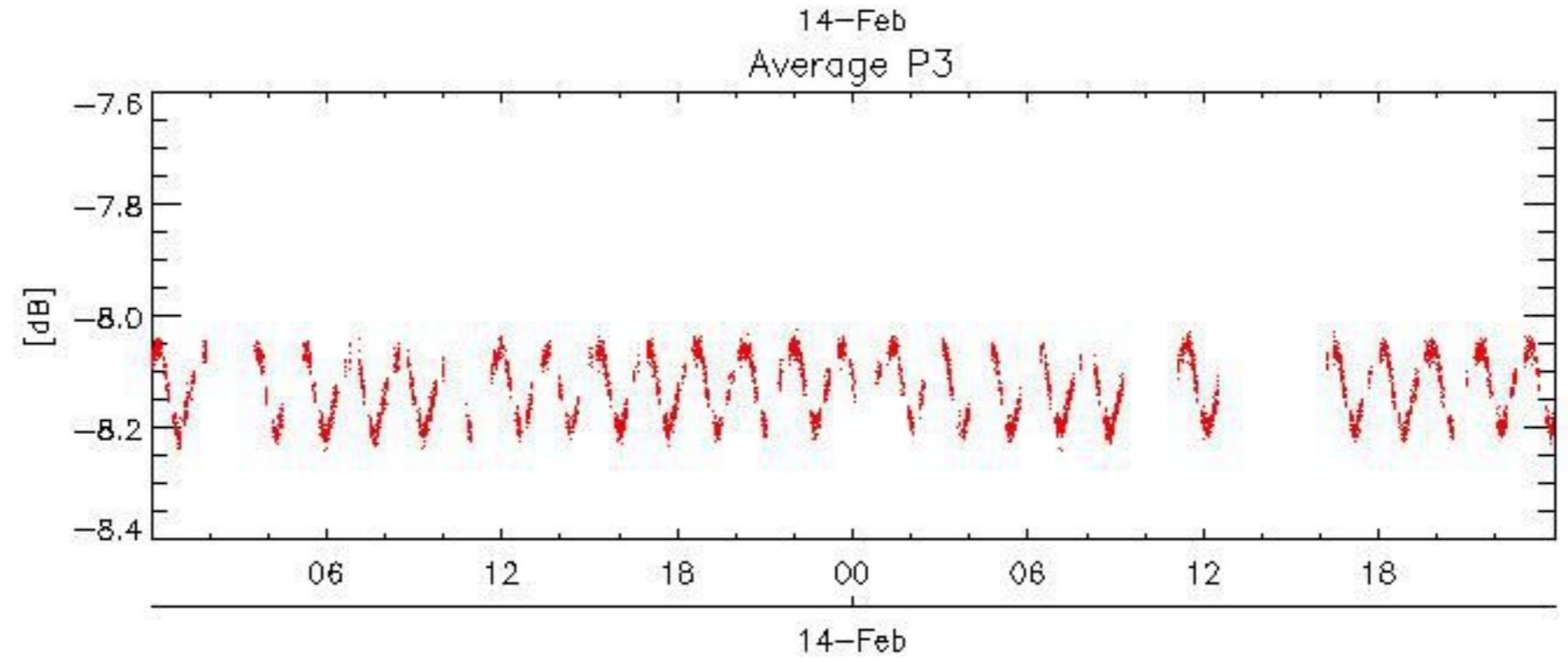
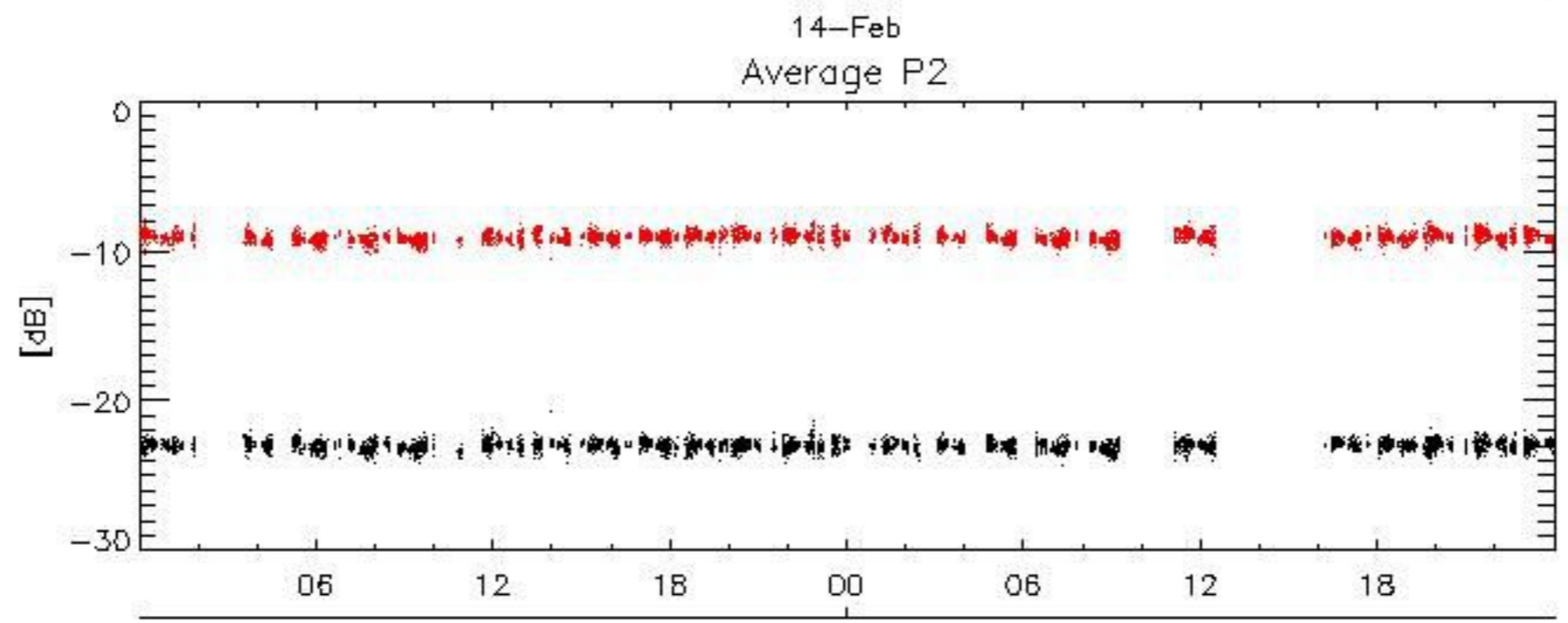
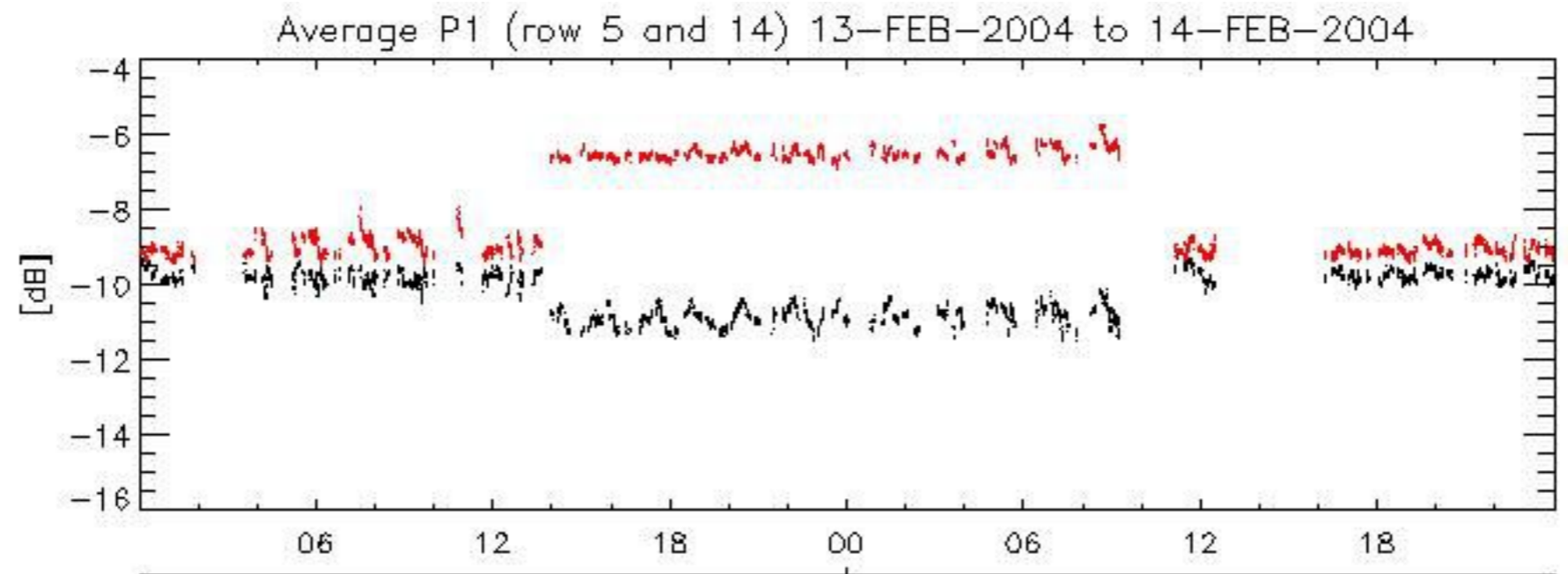


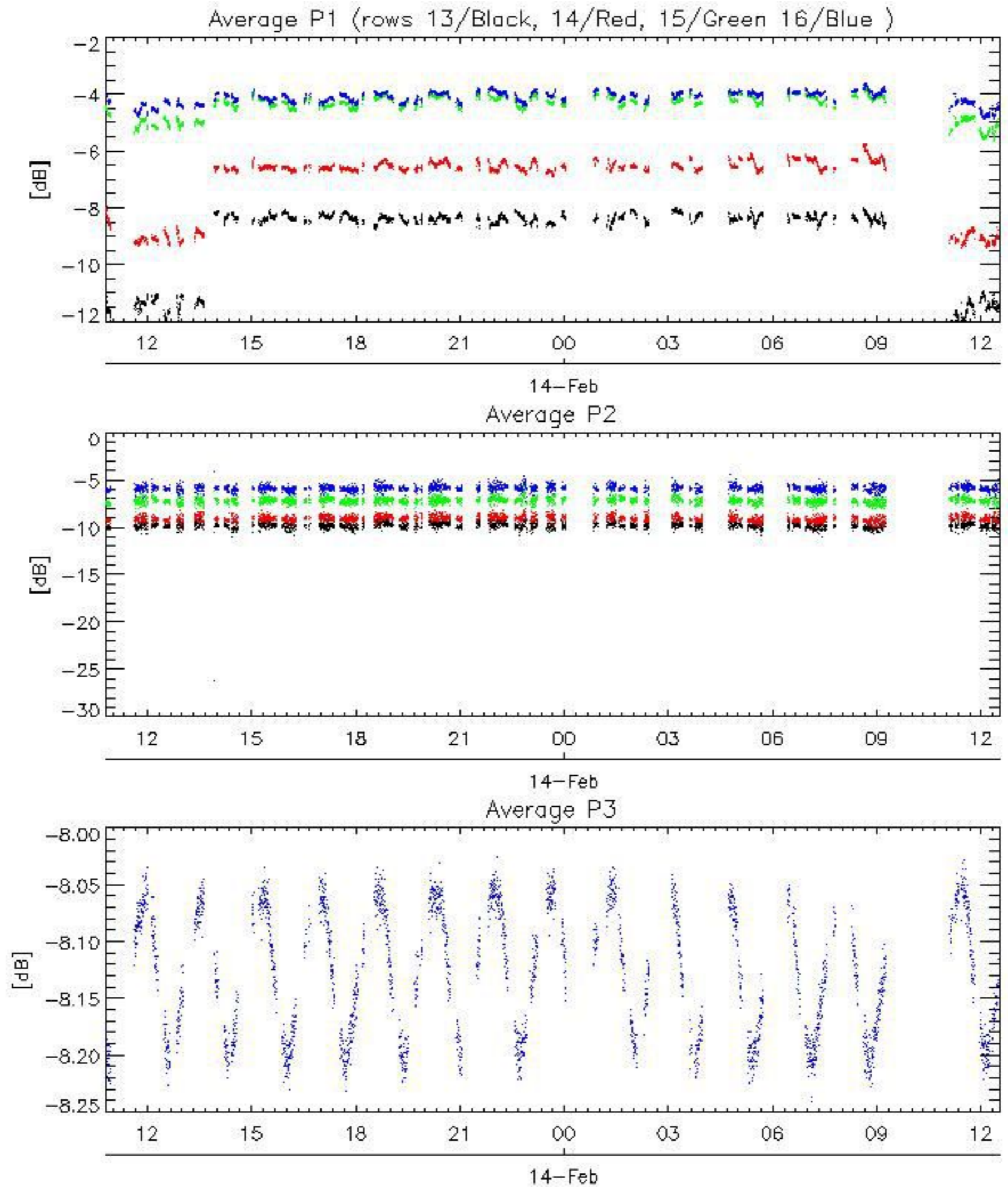
Average P3









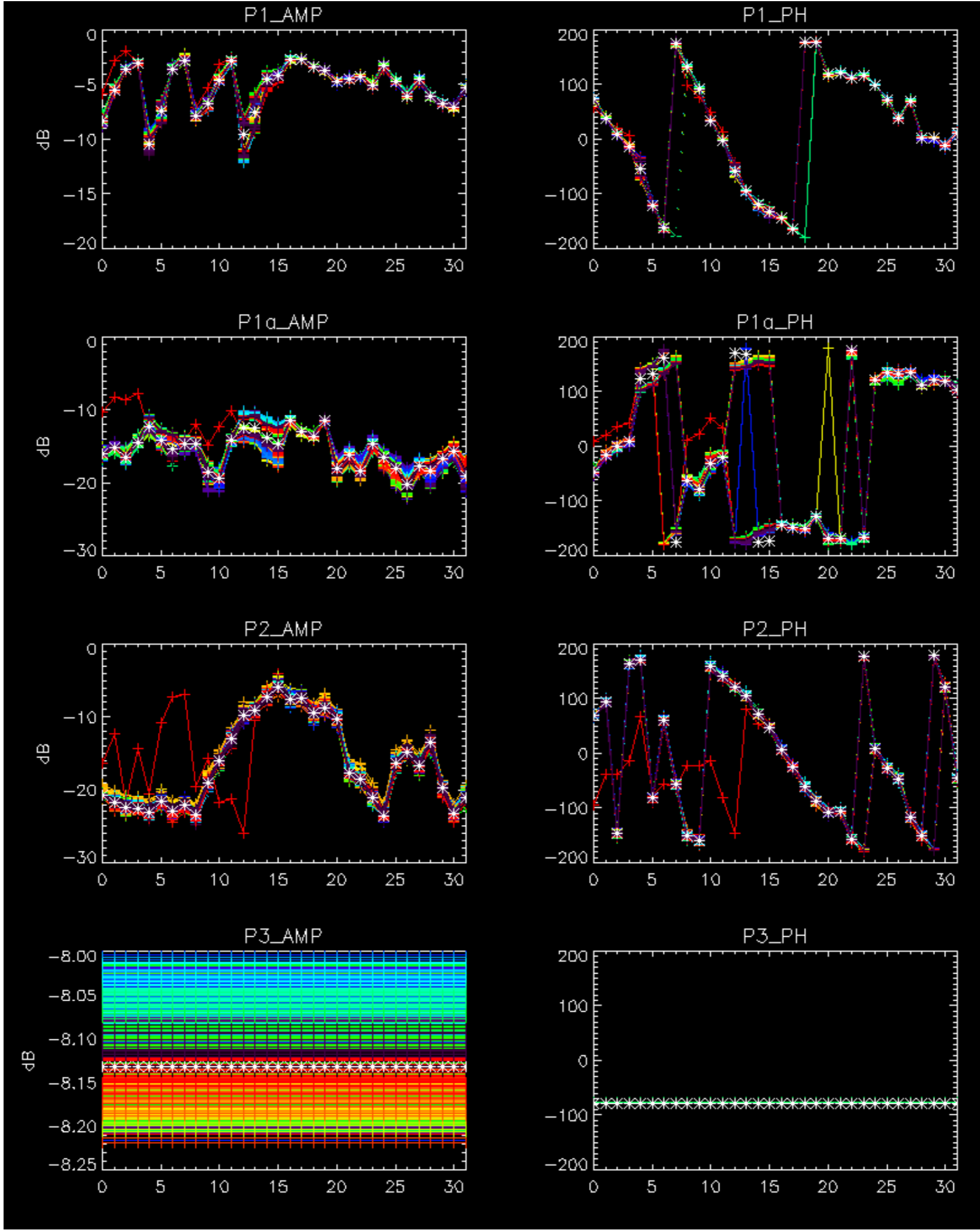


No anomalies observed on available browse products

Anomaly on internal P1 and P1a cal pulses detected on 13-FEB-2004 13:56:18.

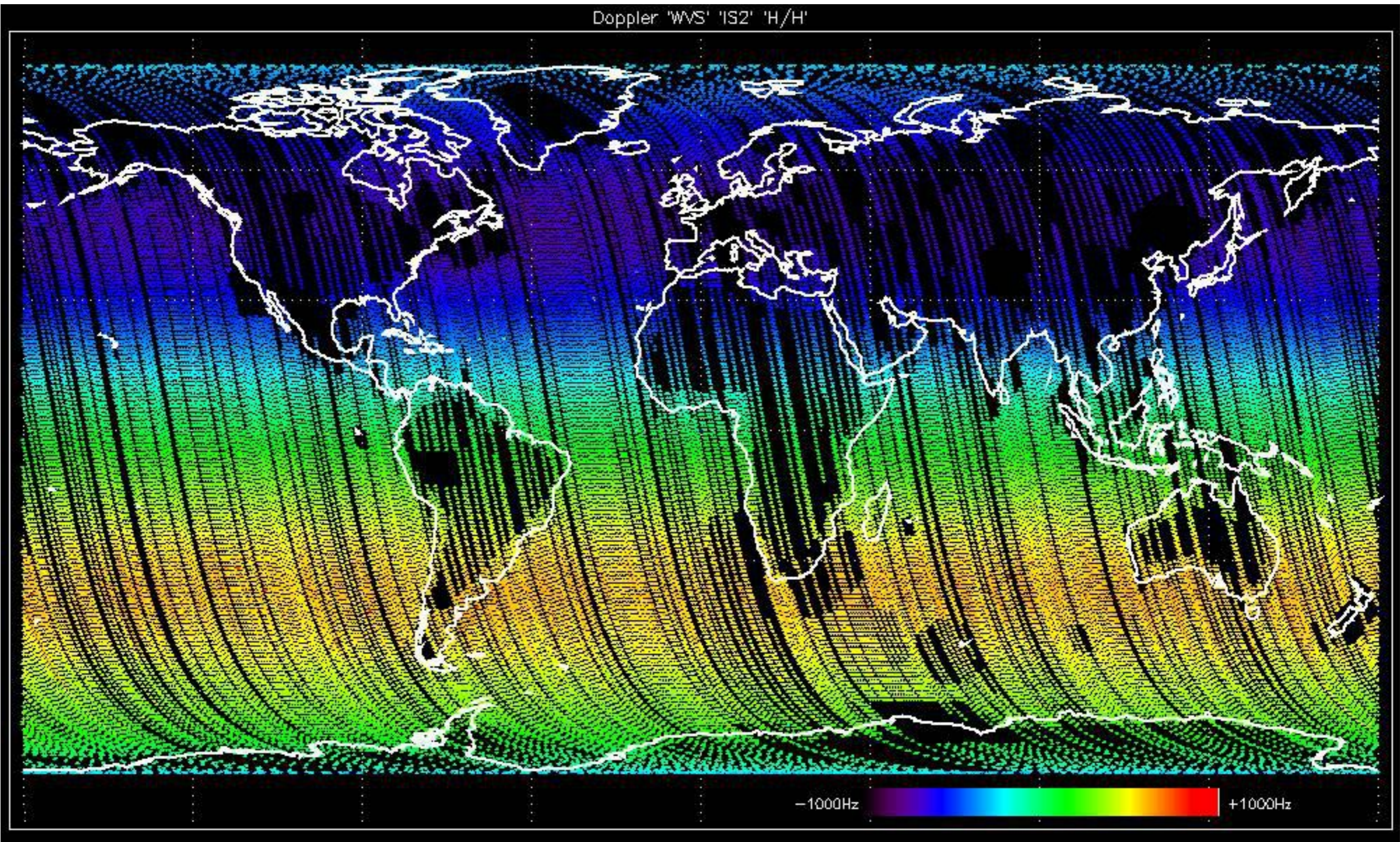
- Rows 5 to 8 present a power drop of about 1dB in P1
- Rows 13 to 17 present a power gain of about 2.5dB in P1

The plot shows also a single product for which P1, P1a and P2 pulses are corrupted.

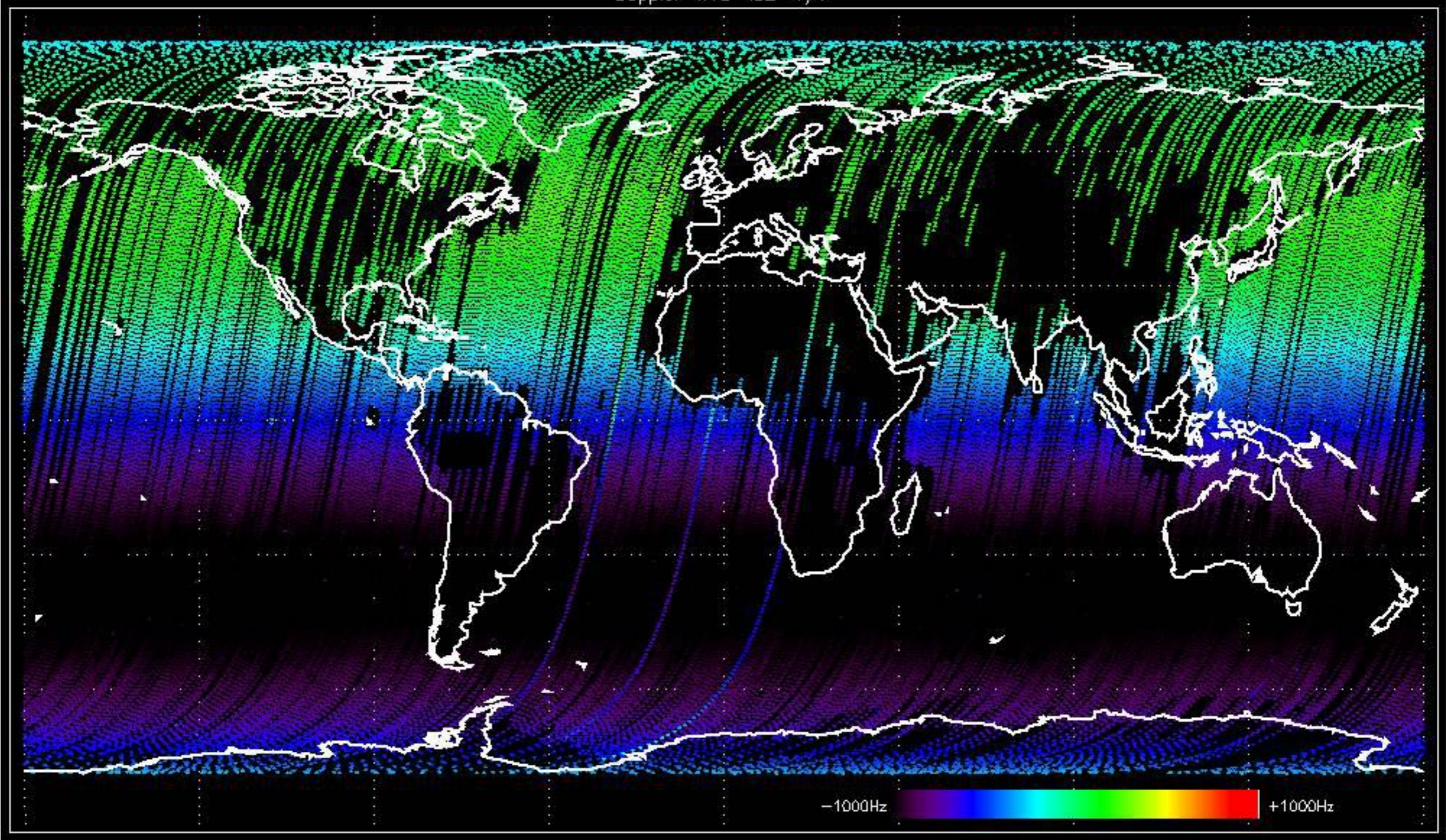


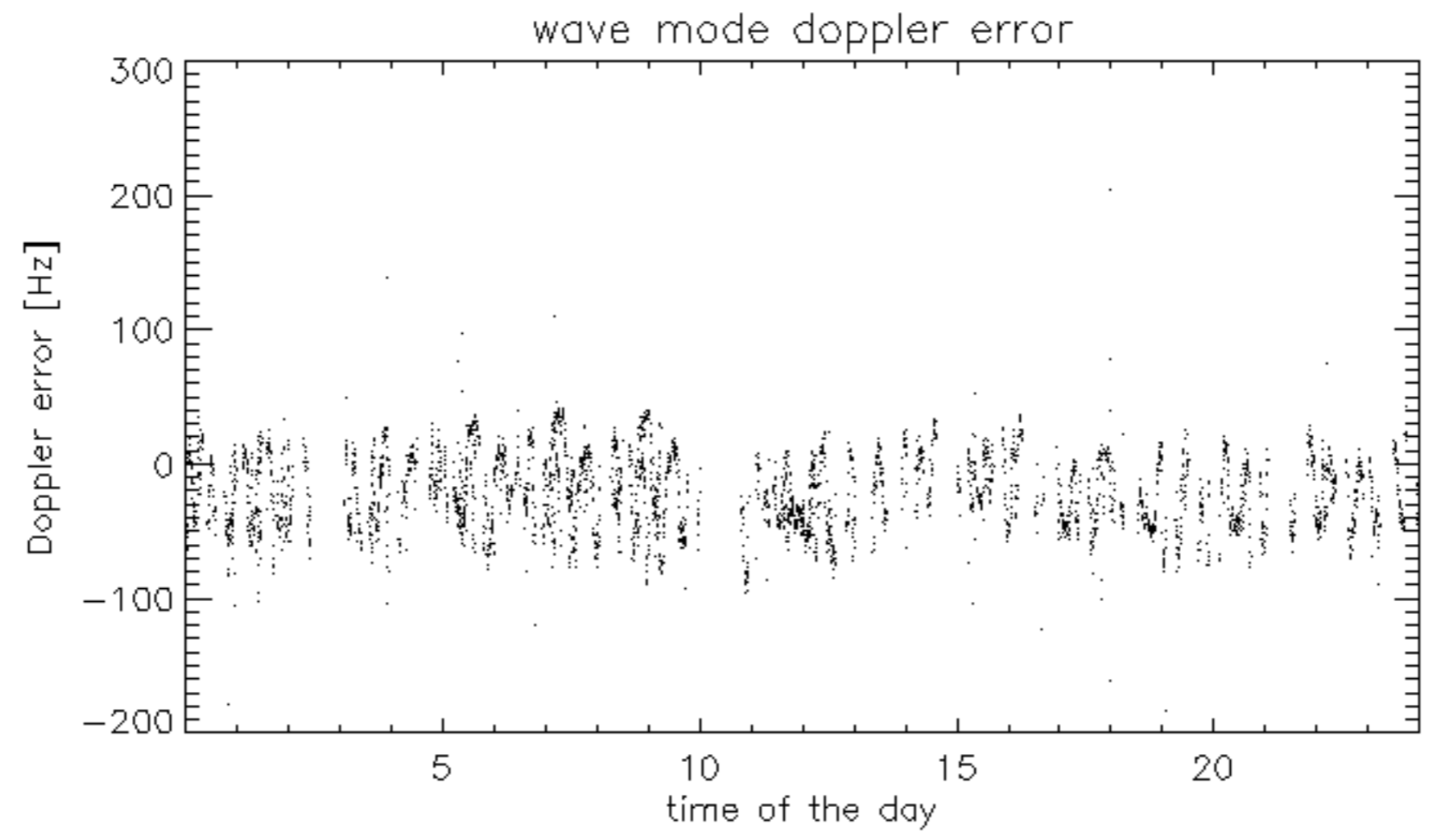
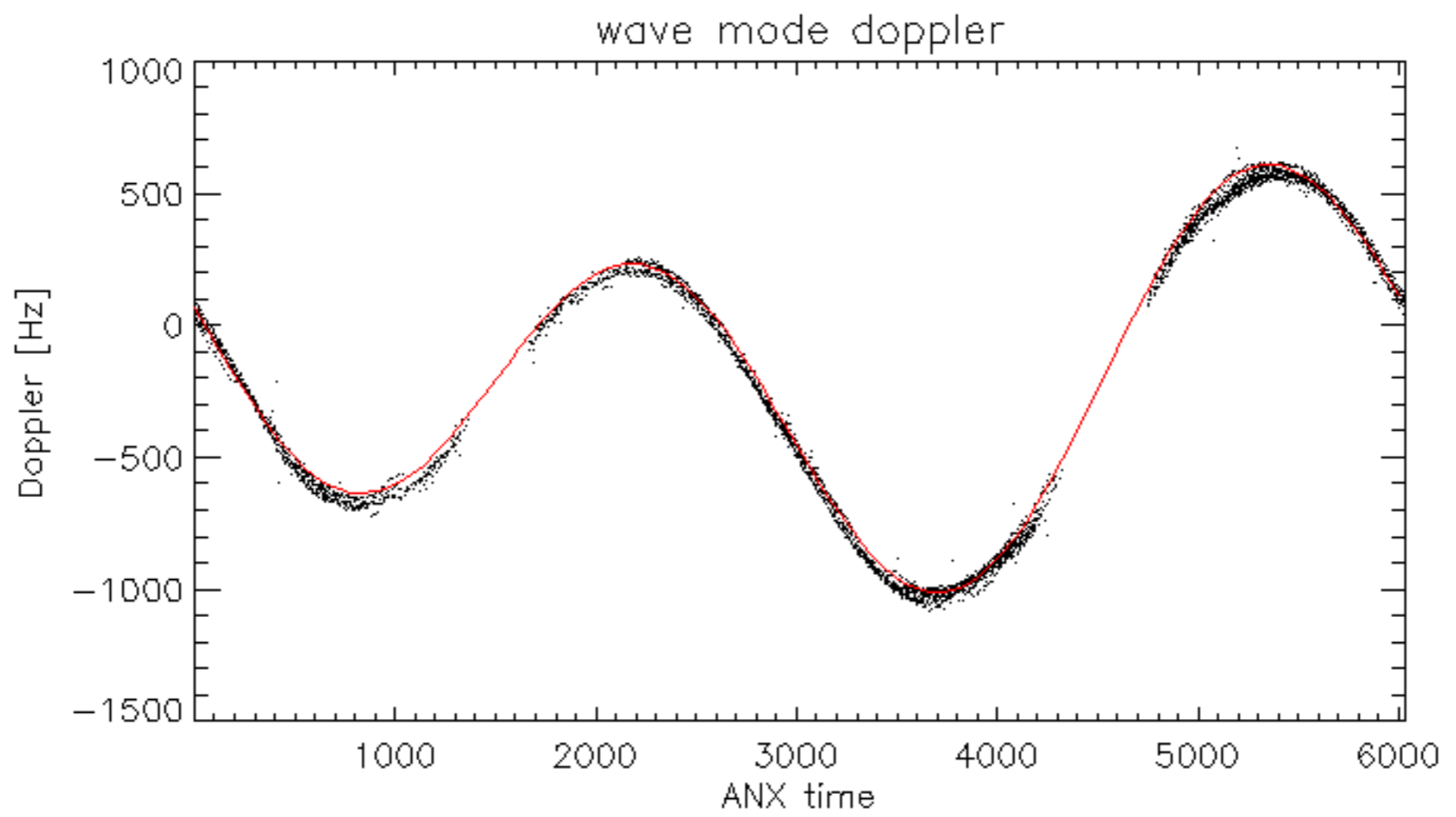
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

Doppler 'WVS' 'IS2' 'H/H'

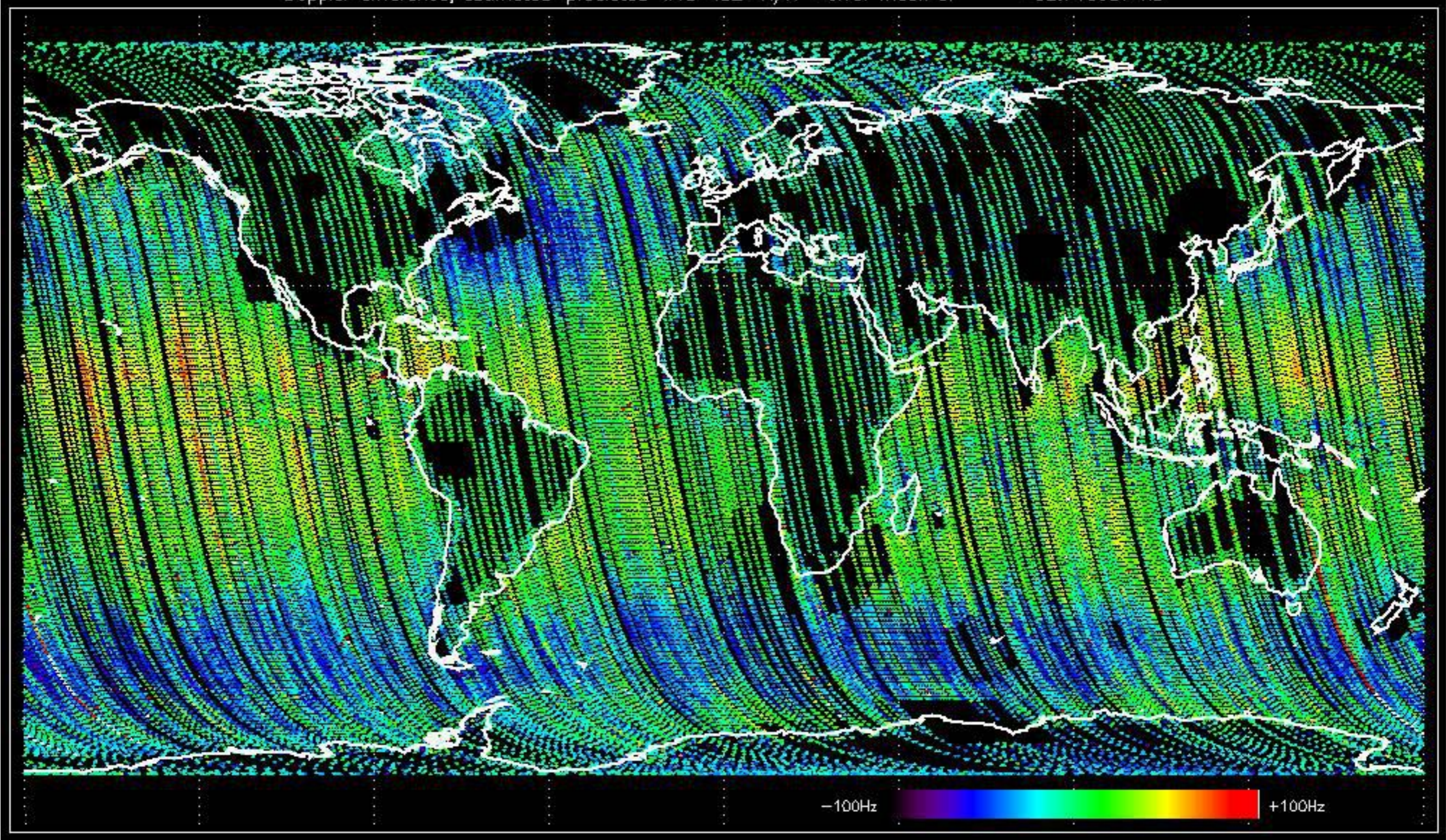


Doppler 'WVS' 'IS2' 'V/V'

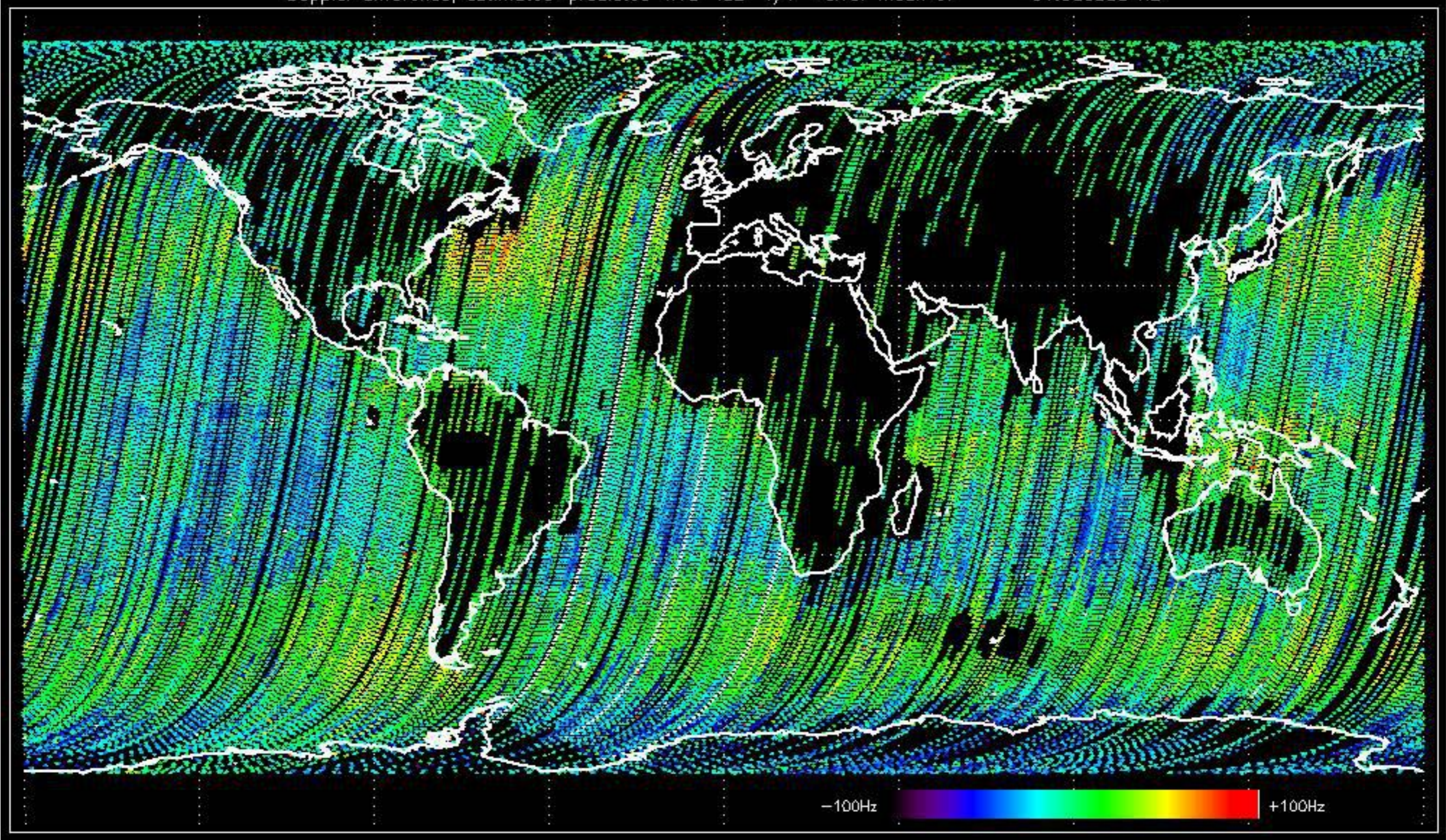




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -32.716687 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -31.080555 Hz



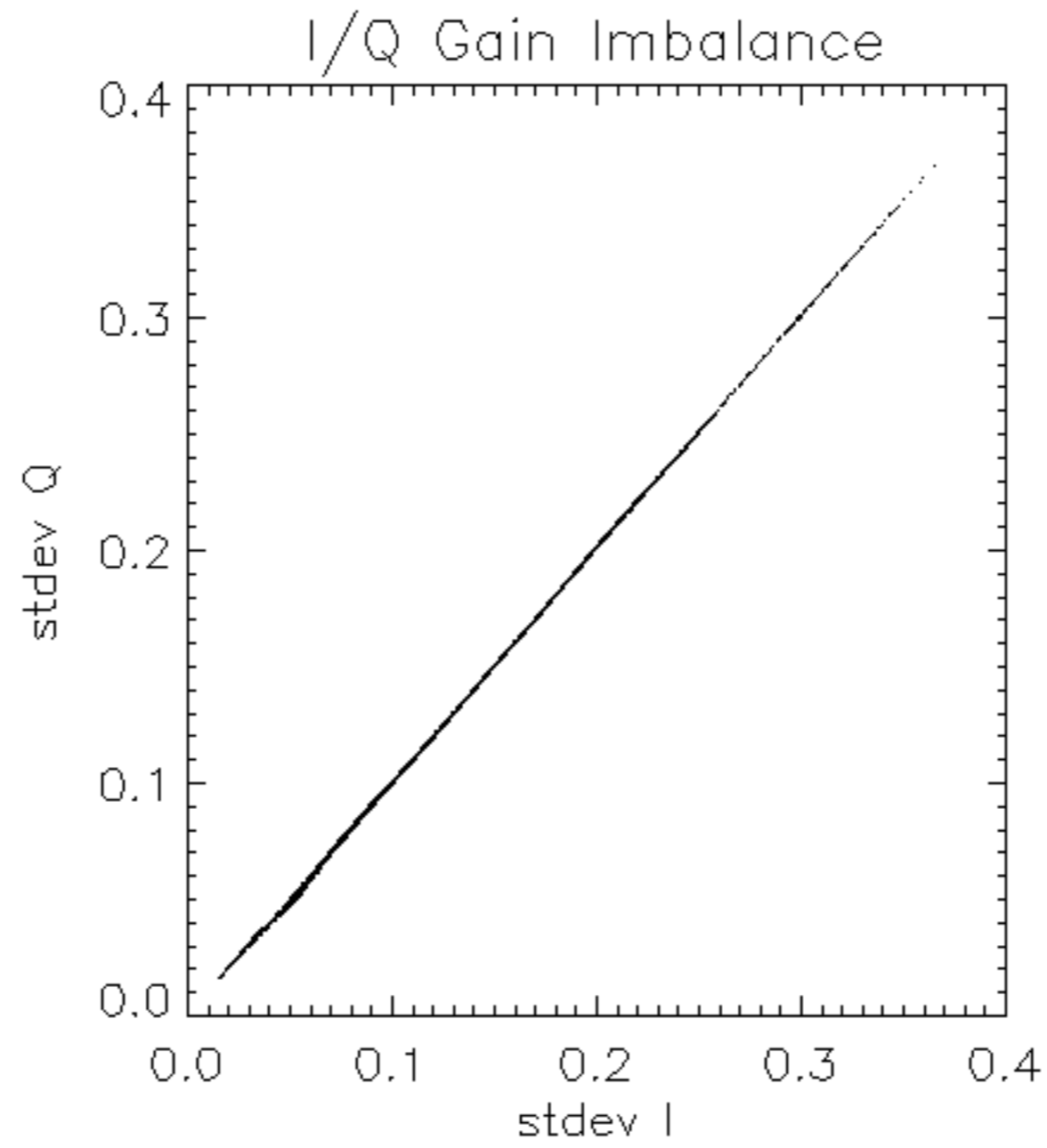
Anomalies observed on available MS product:

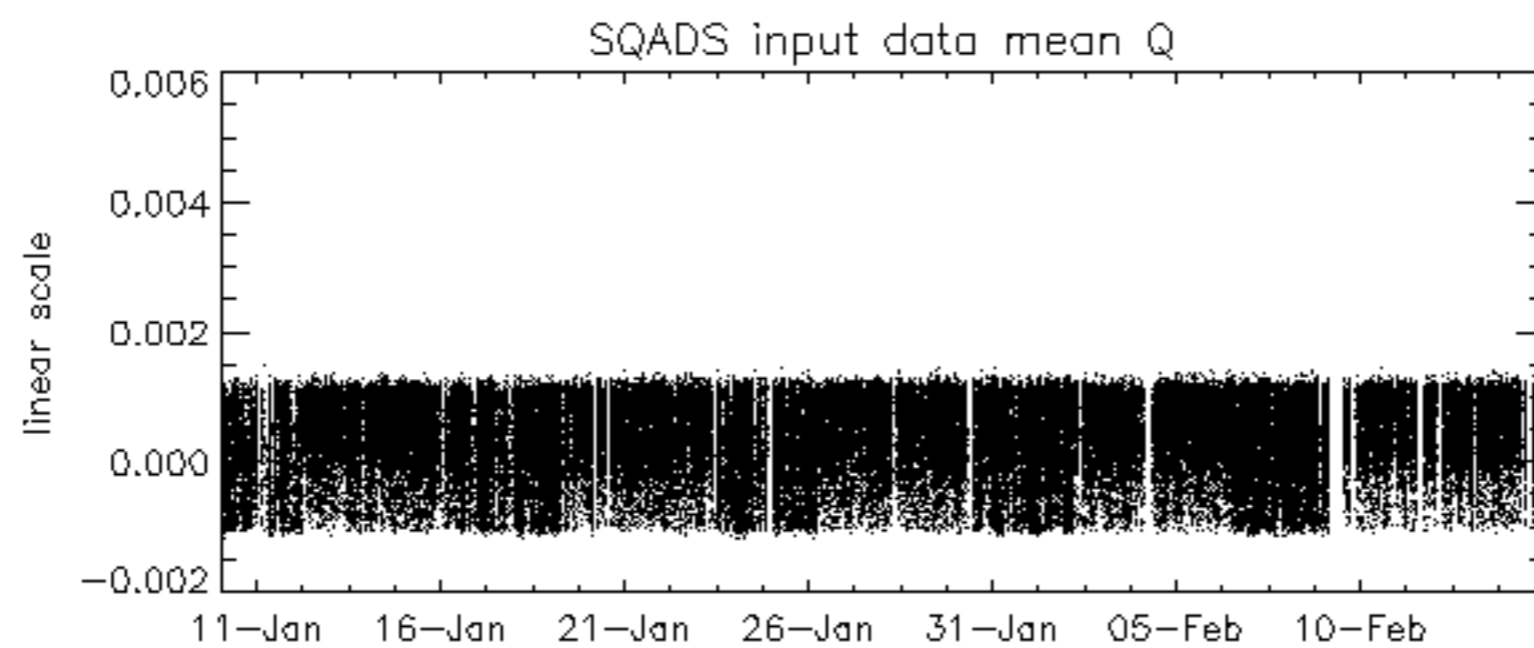
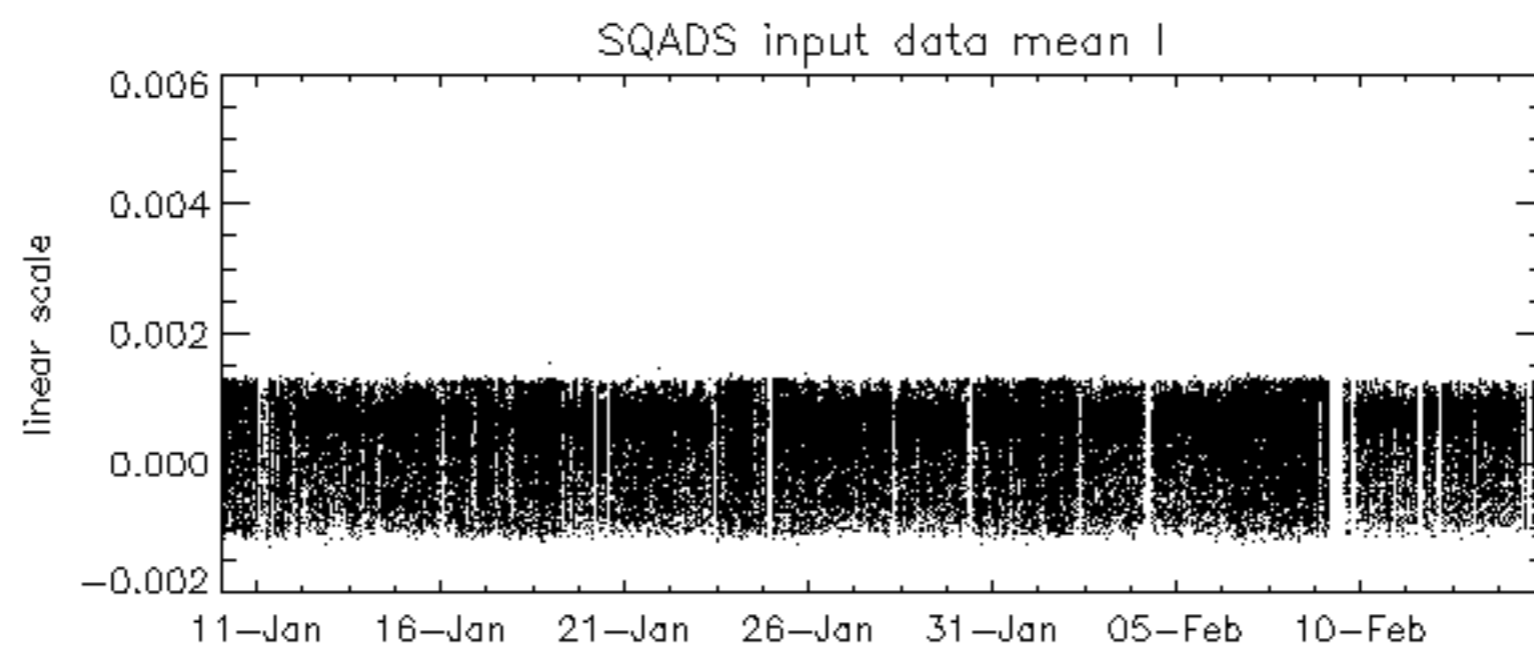
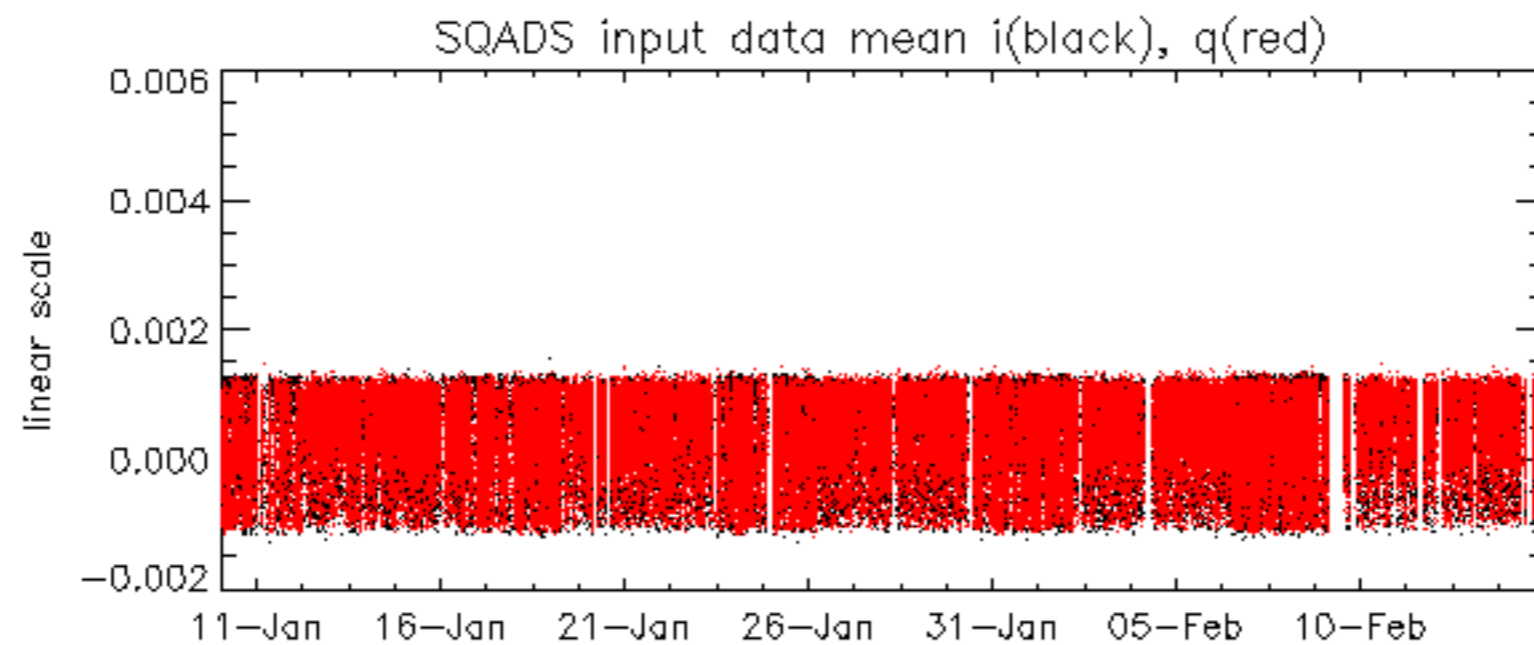
-ASA_MS__0PNPDK20040213_191227_000000152024_00156_10230_0215.N1

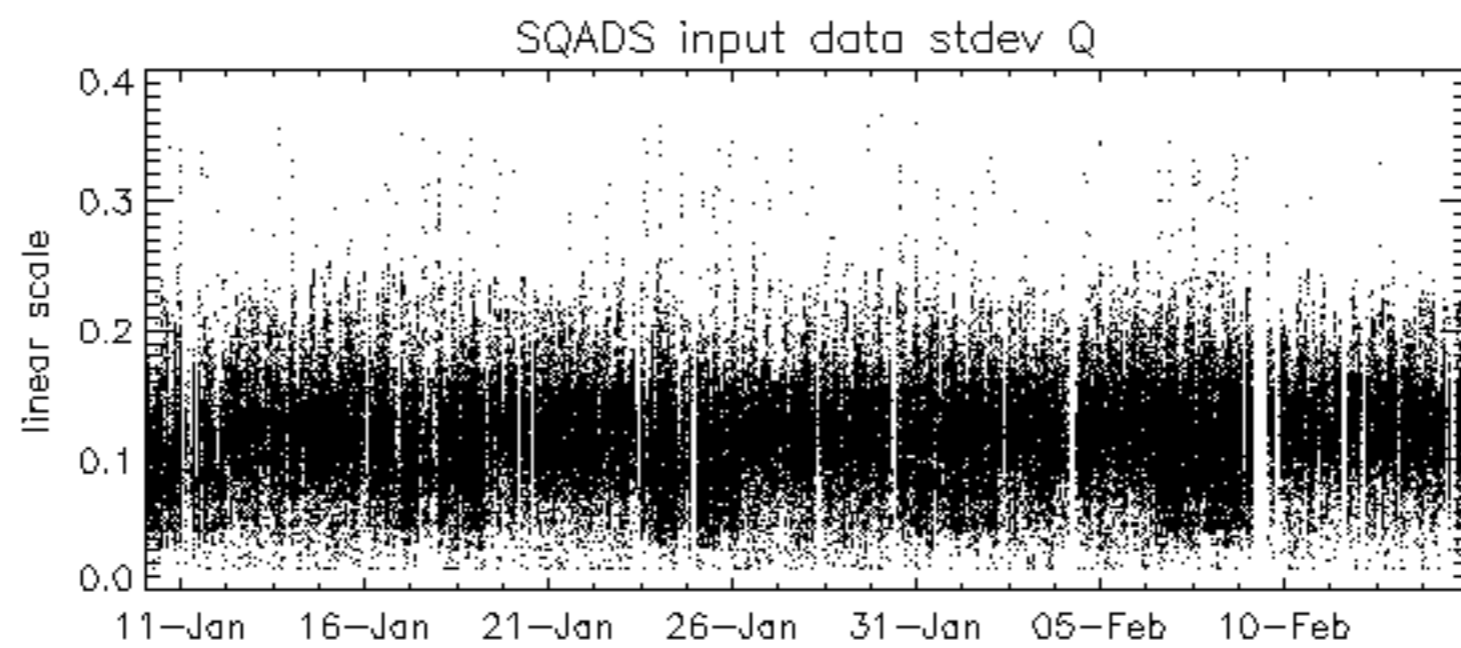
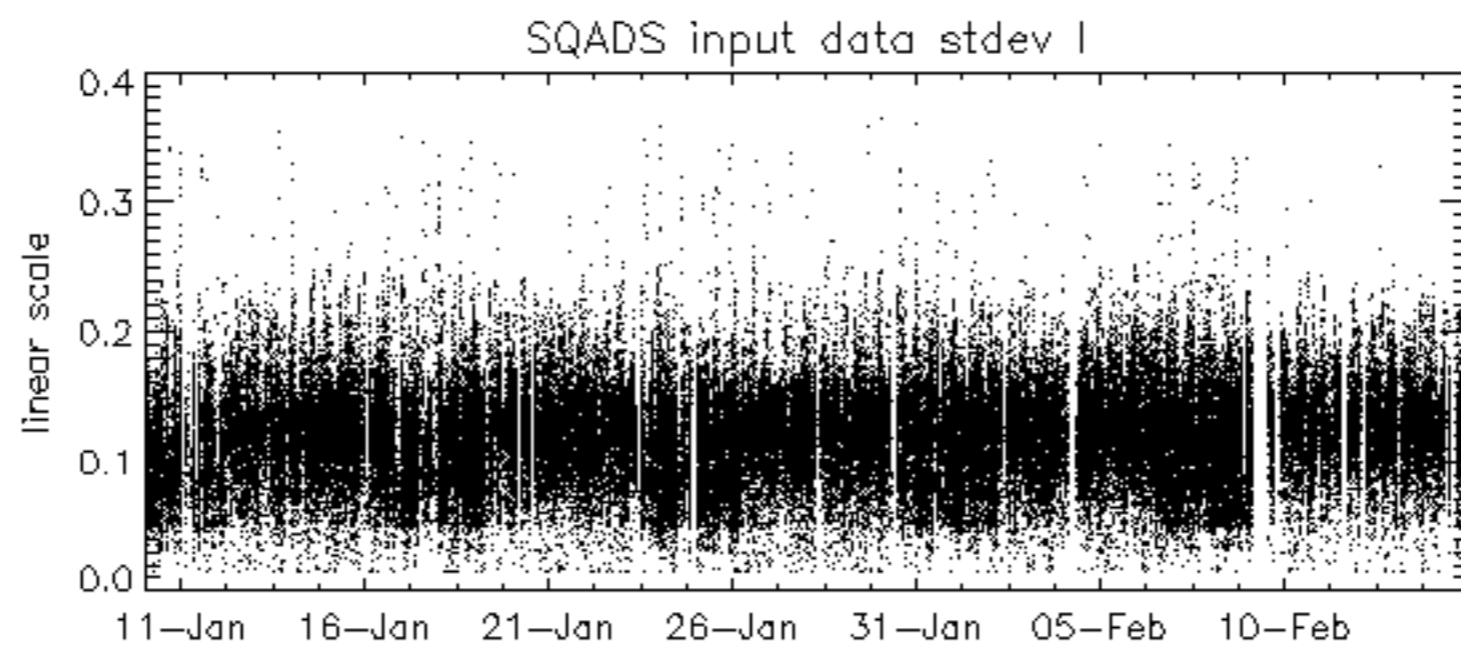
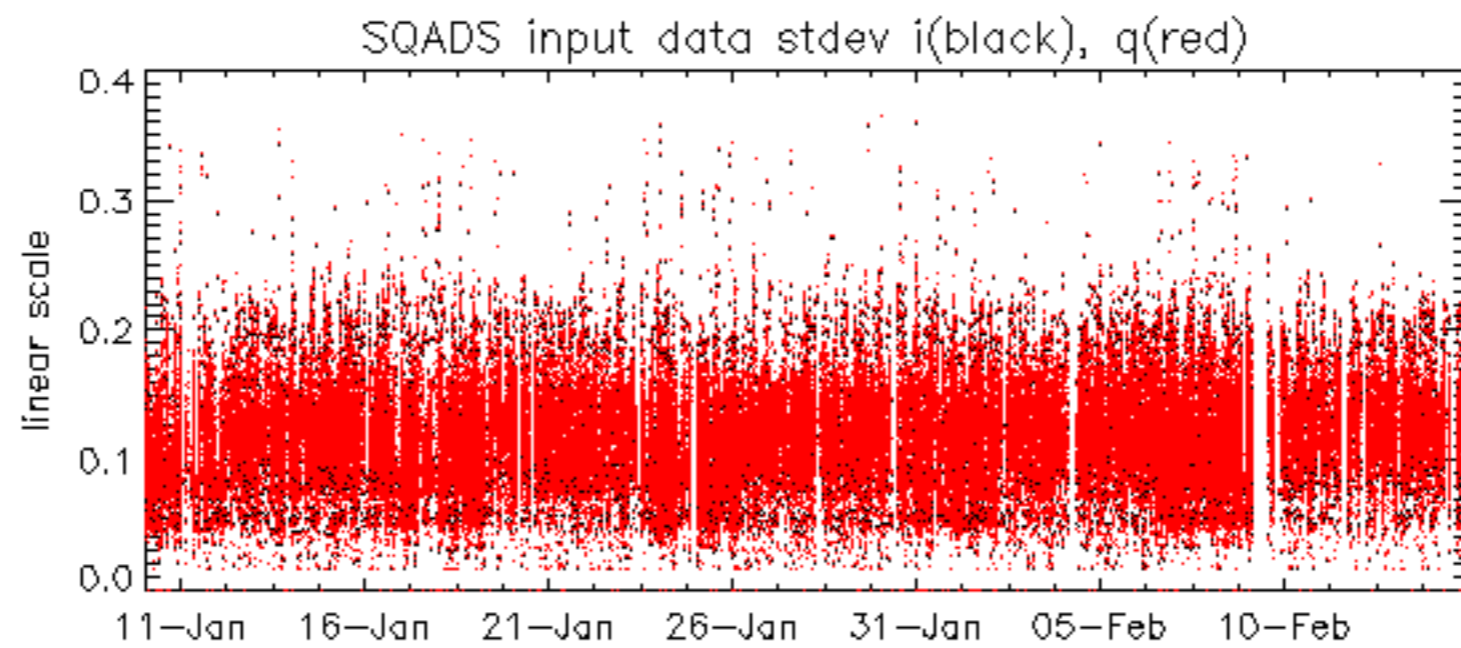
Tile A1 shows abnormal behaviour for 2 non contiguous PSU.

Rows 5 to 9 and 13 to 17 are affected by a power drop of about 30dB as shown below.

No anomalies observed.







No unavailabilities during the reported period.