

REPORT OF 040223

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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

Anomaly related to tile C3 (rows 9 to 13) clearly visible on WSM products.
See example of ASA_WS__BPZPDK20040221_105352_000000852024_00266_10340_7947.N1



2.3 - Data Analysis

- Anomaly detected on internal calibration pulses on Tx:
- > P1 and P1a (rows 9 to 13) cal. pulses are affected by a drop of 2-4dB.
- > Anomaly started on 20-FEB-2004 18:13:09
- Stable raw data statistics.
- Nominal Doppler behavior.









3 - Module Stepping Mode

- Since 20-FEB-2004 18:13:09 MS products are affected by anomaly detected on tile C3: rows 9 to 13 are affected by a drop of ~32db
- See plot below for row 10 tile C3.











Polarisation	Start Time
V	20040222 193101
H	20040221 182042

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

- Anomaly detected on internal calibration pulses on Tx:
- > P1 and P1a (rows 9 to 13) cal. pulses are affected by a drop of 2-4dB.
- > Anomaly started on 20-FEB-2004 18:13:09 see plot below for the row 9 and 10.



4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.61082	-22.3477	-8.12344
	stdev	0.00621490	0.0838086	0.00263787
24	mean	-5.09809	-21.0333	-8.12344
	stdev	0.0148102	0.0919977	0.00263787

Cal pulses value for 23-FEB-2004



4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
3	mean	-3.65276	-22.4198	-8.13595
	stdev	0.00674721	0.0756223	0.00309958
24	mean	-5.10650	-21.0827	-8.13595
	stdev	0.0148591	0.0722315	0.00309958



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	0.000444709
	stdev	2.68744e-07
MEAN Q	mean	0.000404320
	stdev	3.12125e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.121878
	stdev	0.00130121
STDEV Q	mean	0.122110
	stdev	0.00131545



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

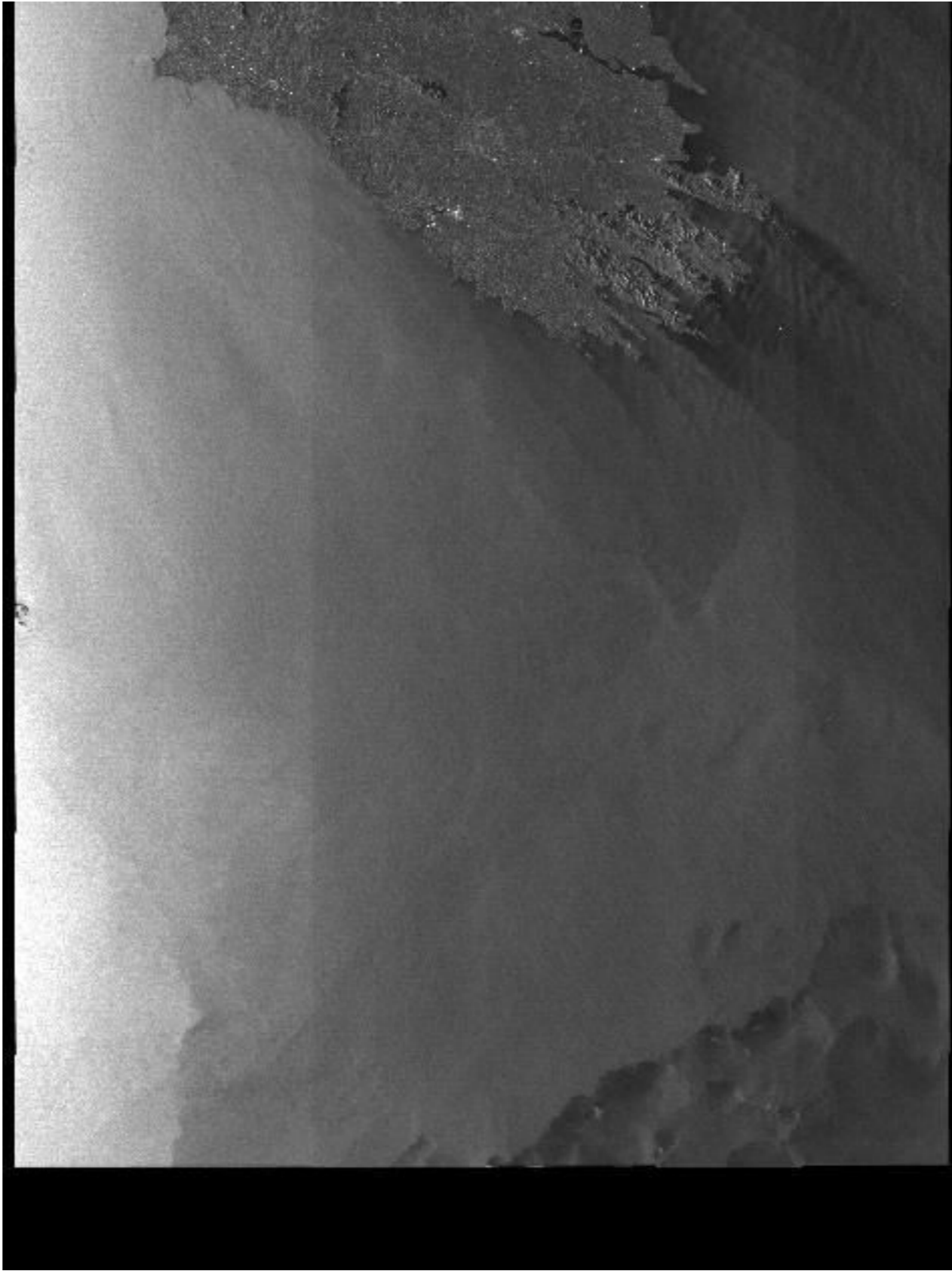
Ascending

Descending

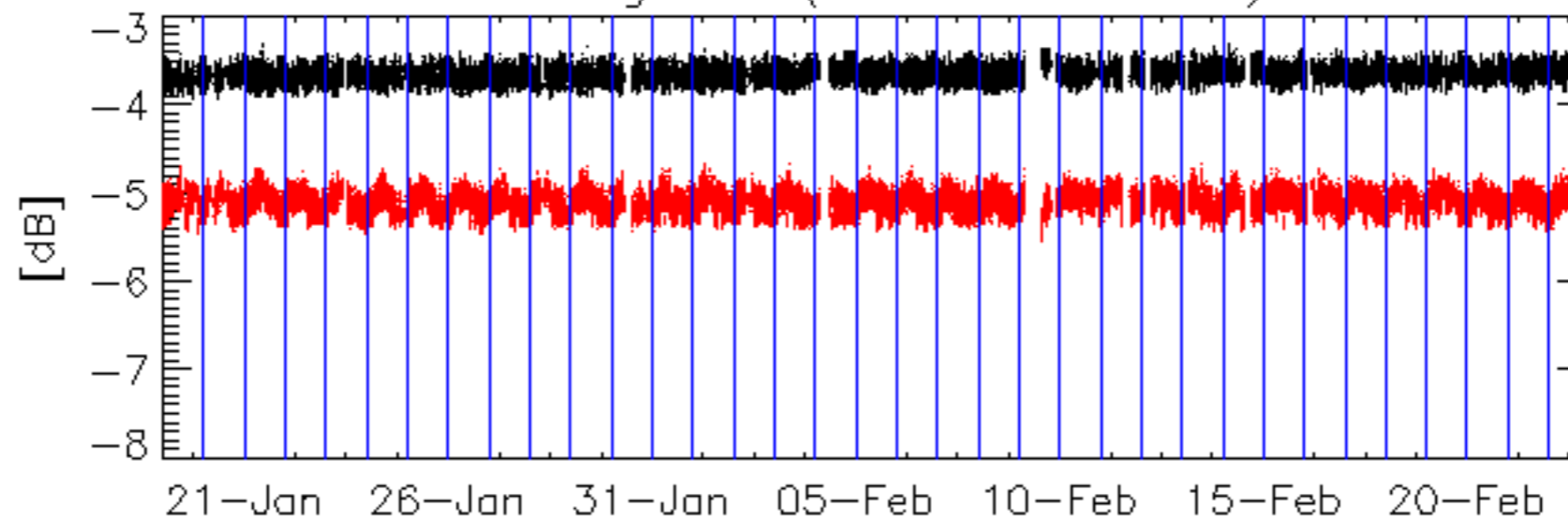
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX

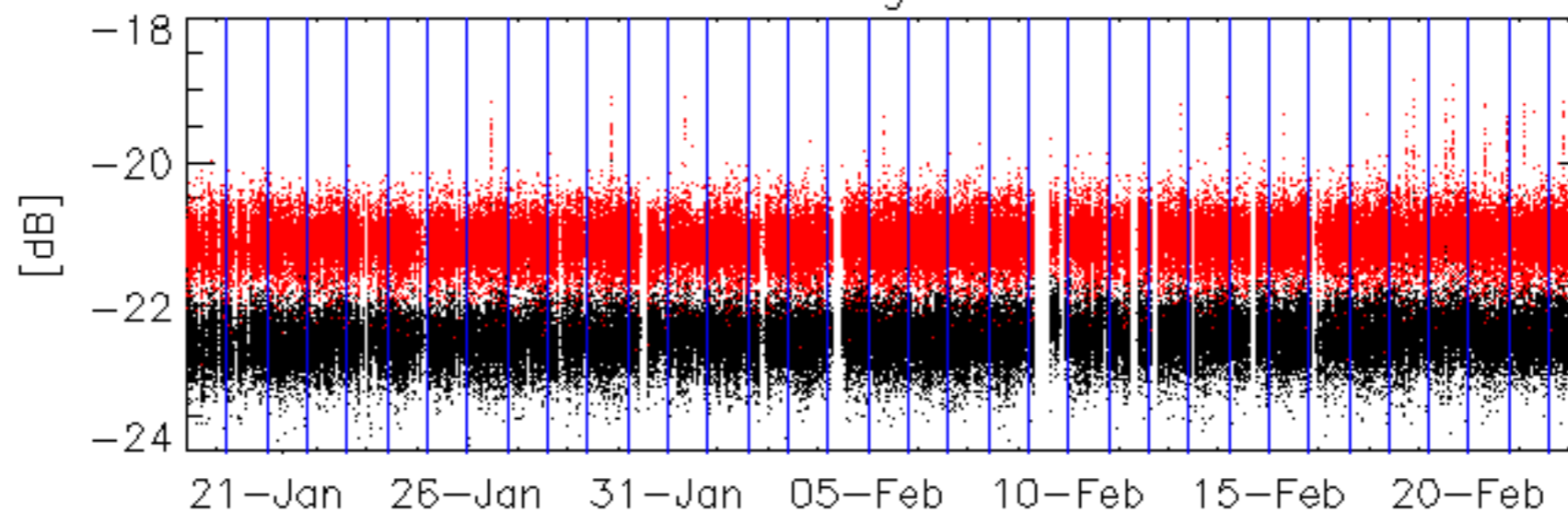




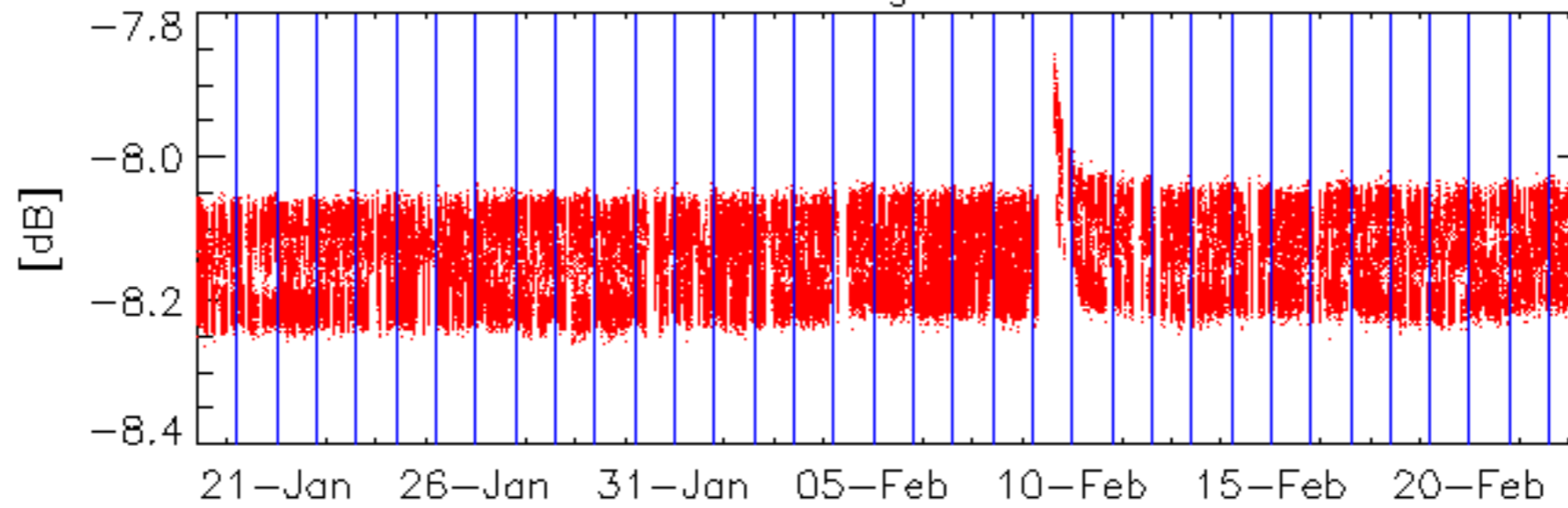
Average P1 (row 3 & row 24)



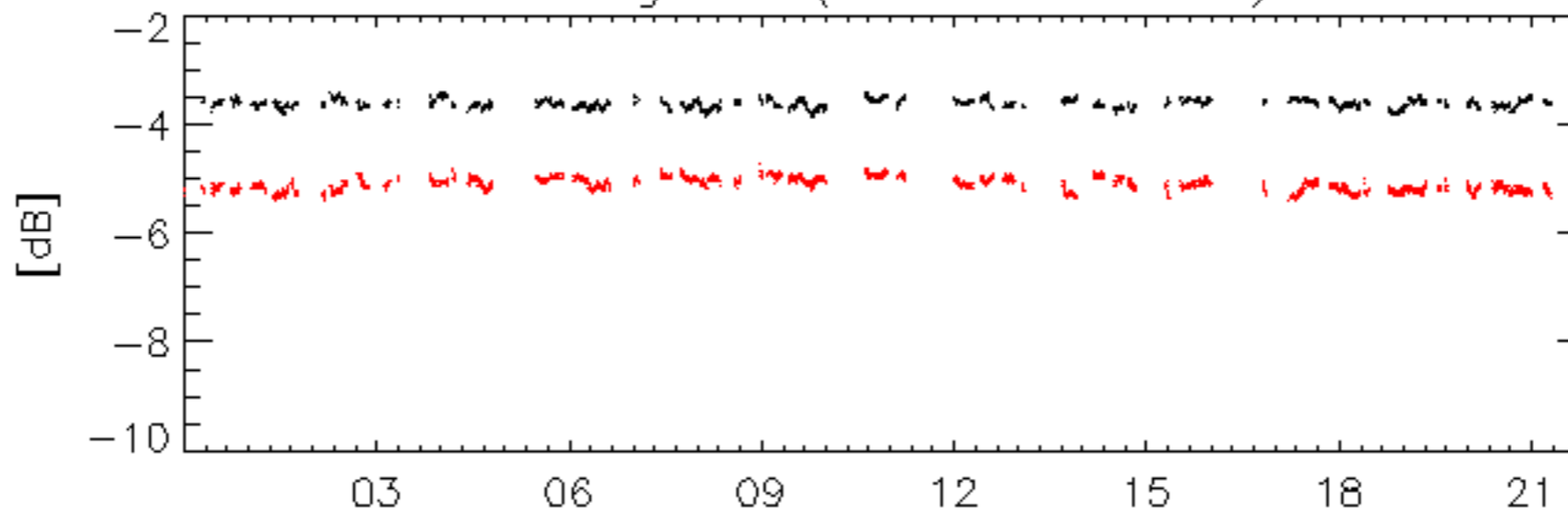
Average P2



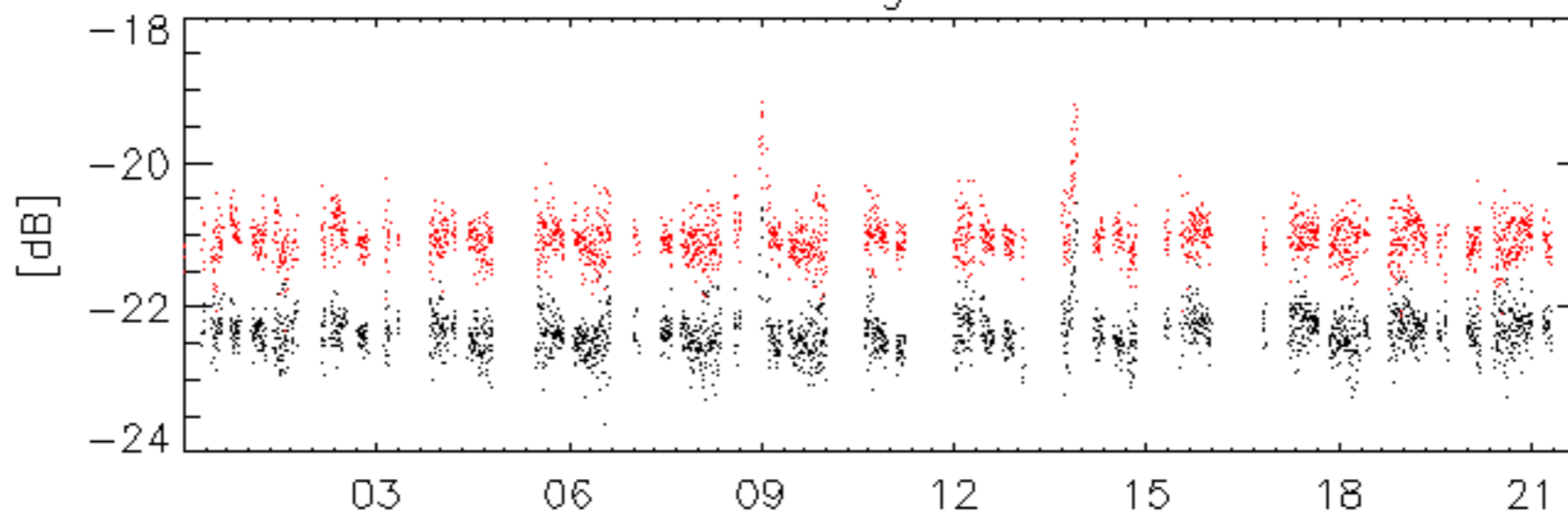
Average P3



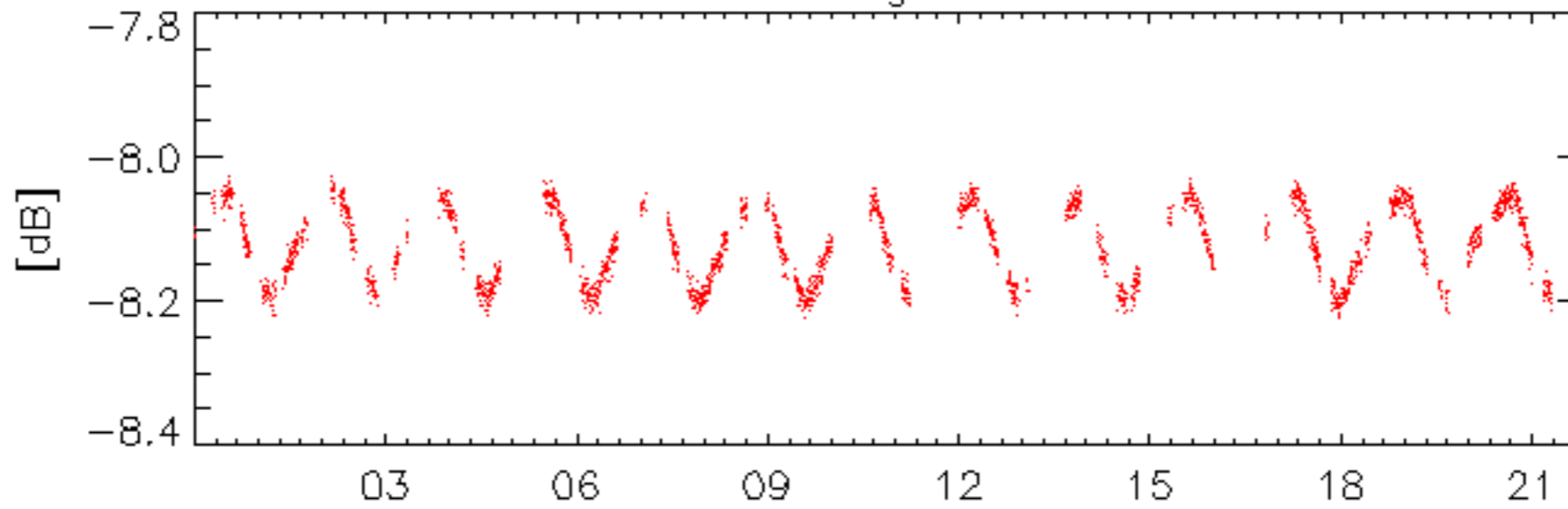
Average P1 (row 3 & row 24)



22-Feb
Average P2

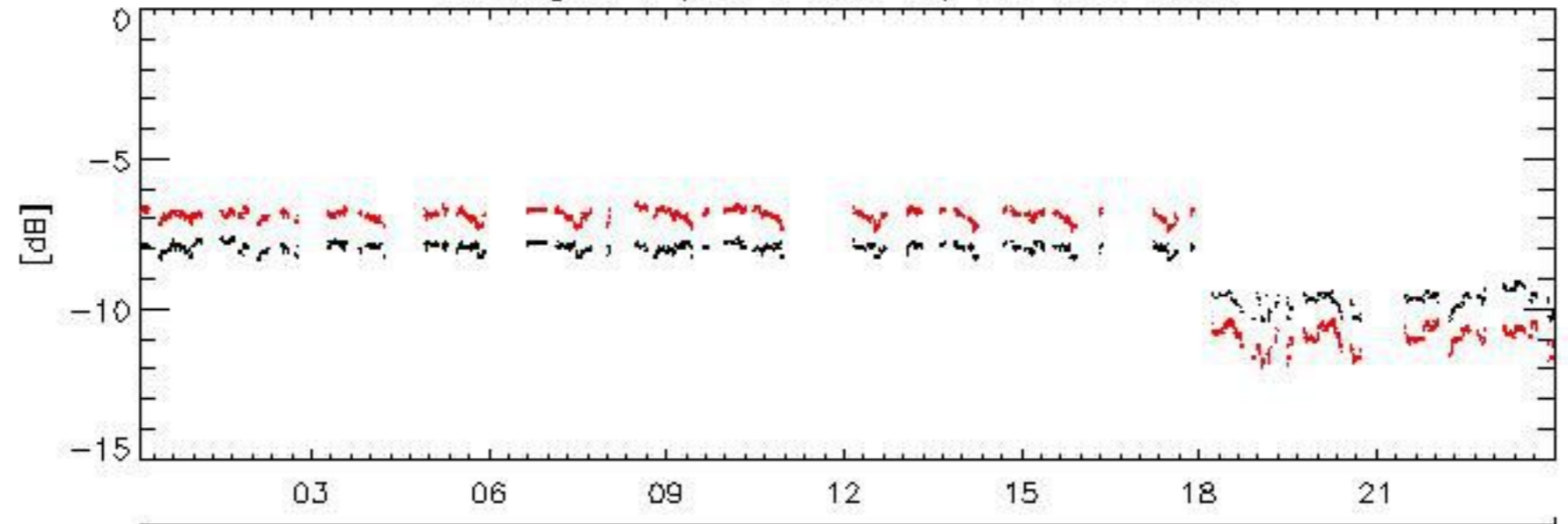


22-Feb
Average P3



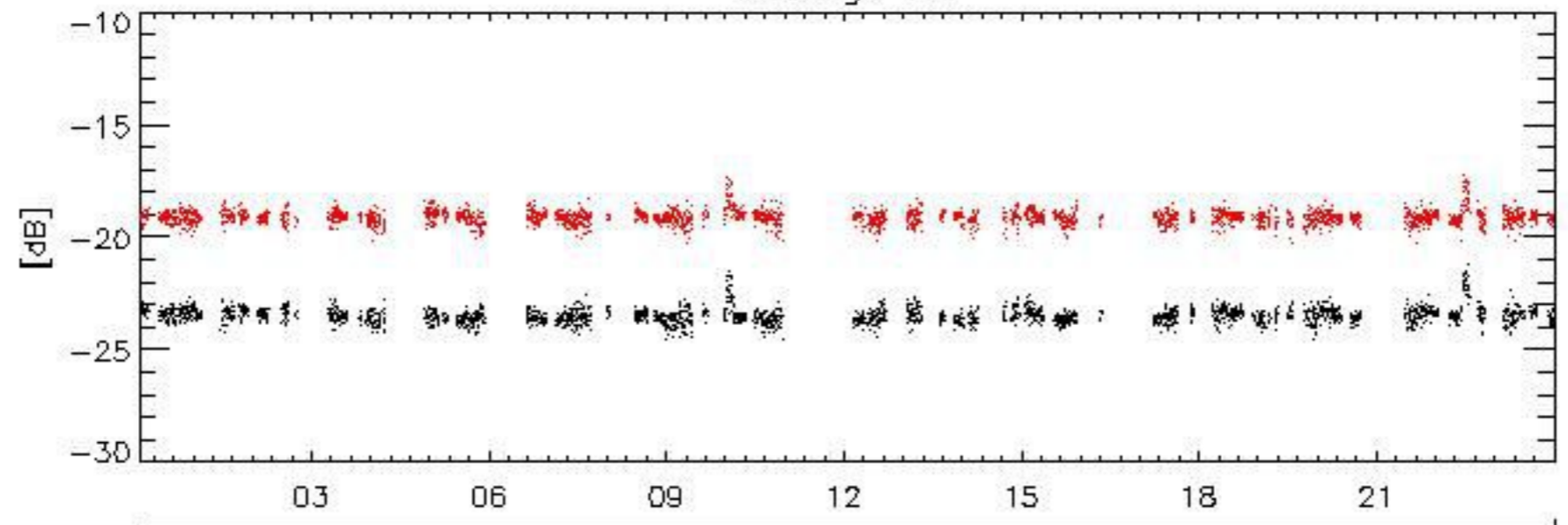
22-Feb

Average P1 (row 9 and 10) 20-FEB-2004



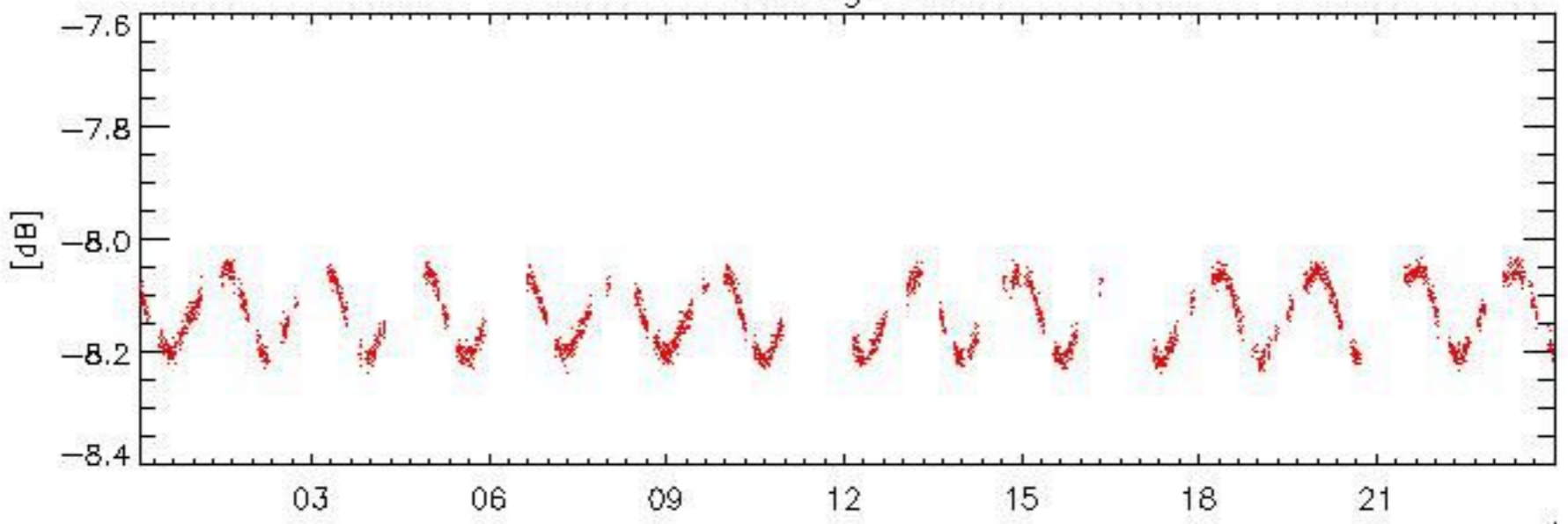
21-Feb

Average P2

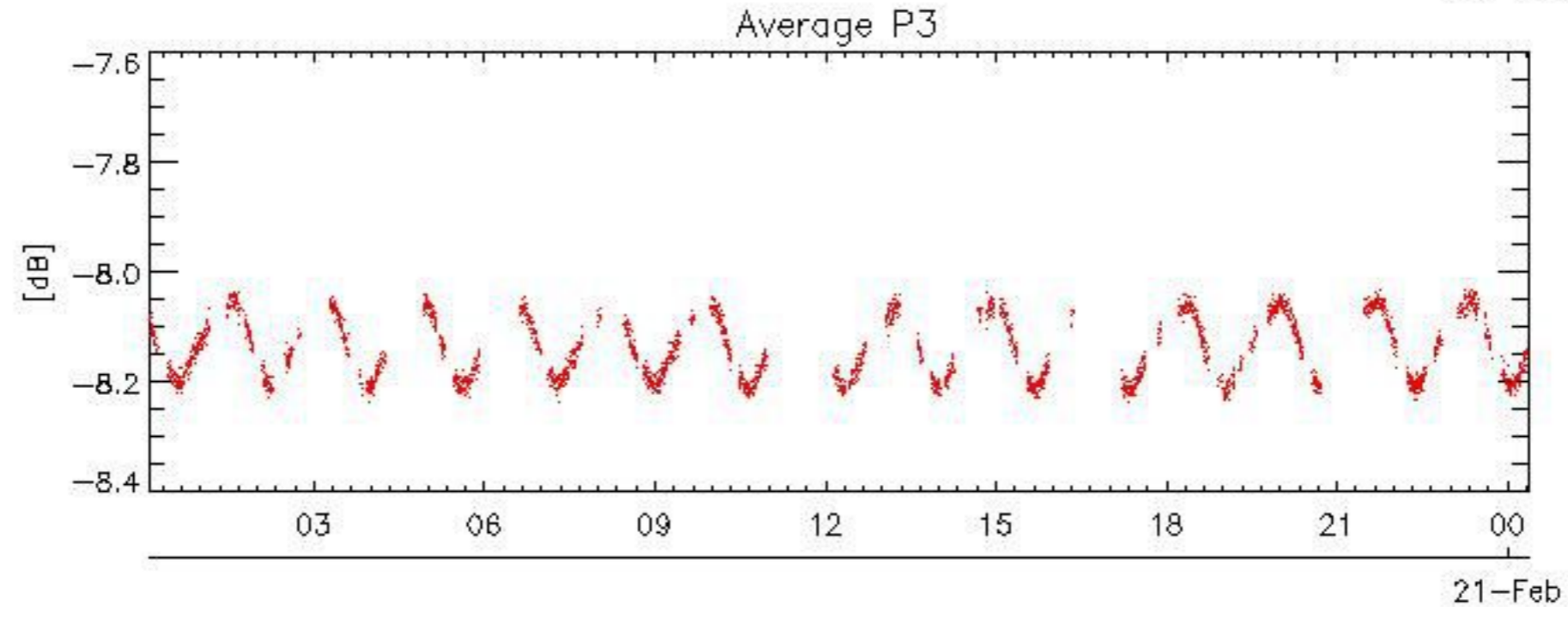
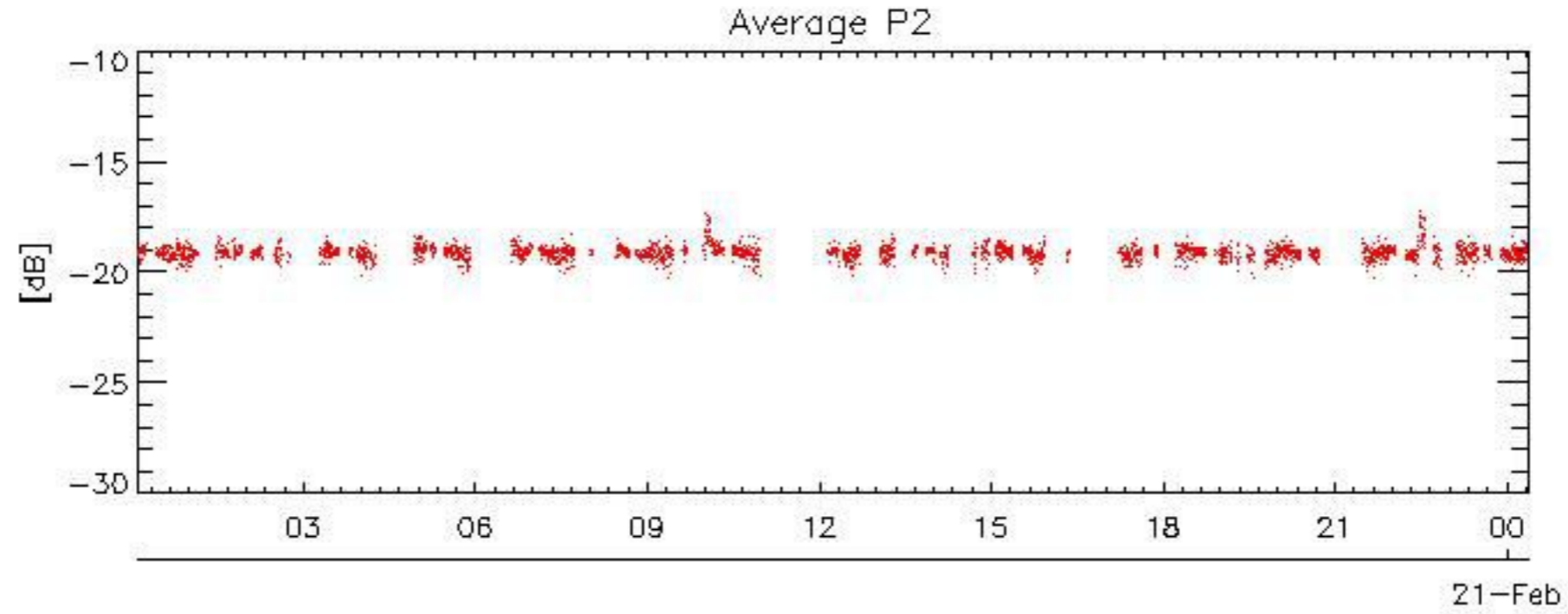
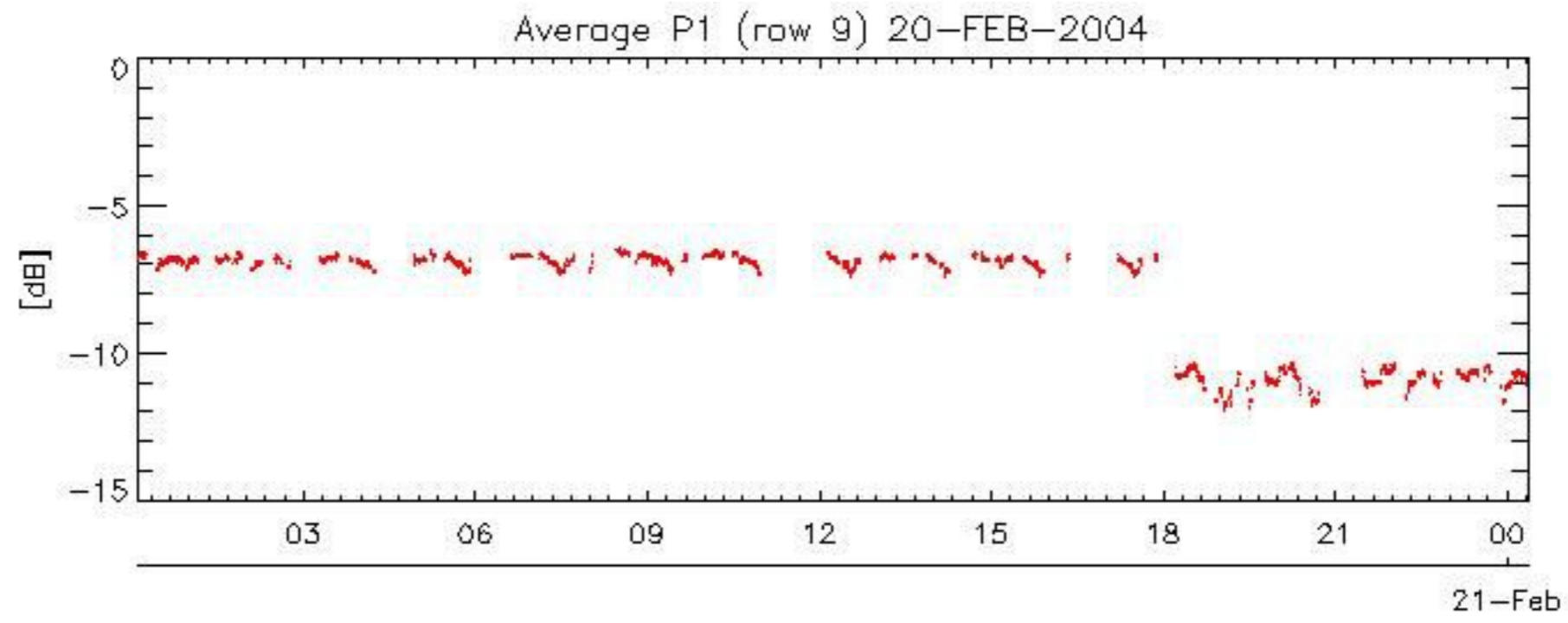


21-Feb

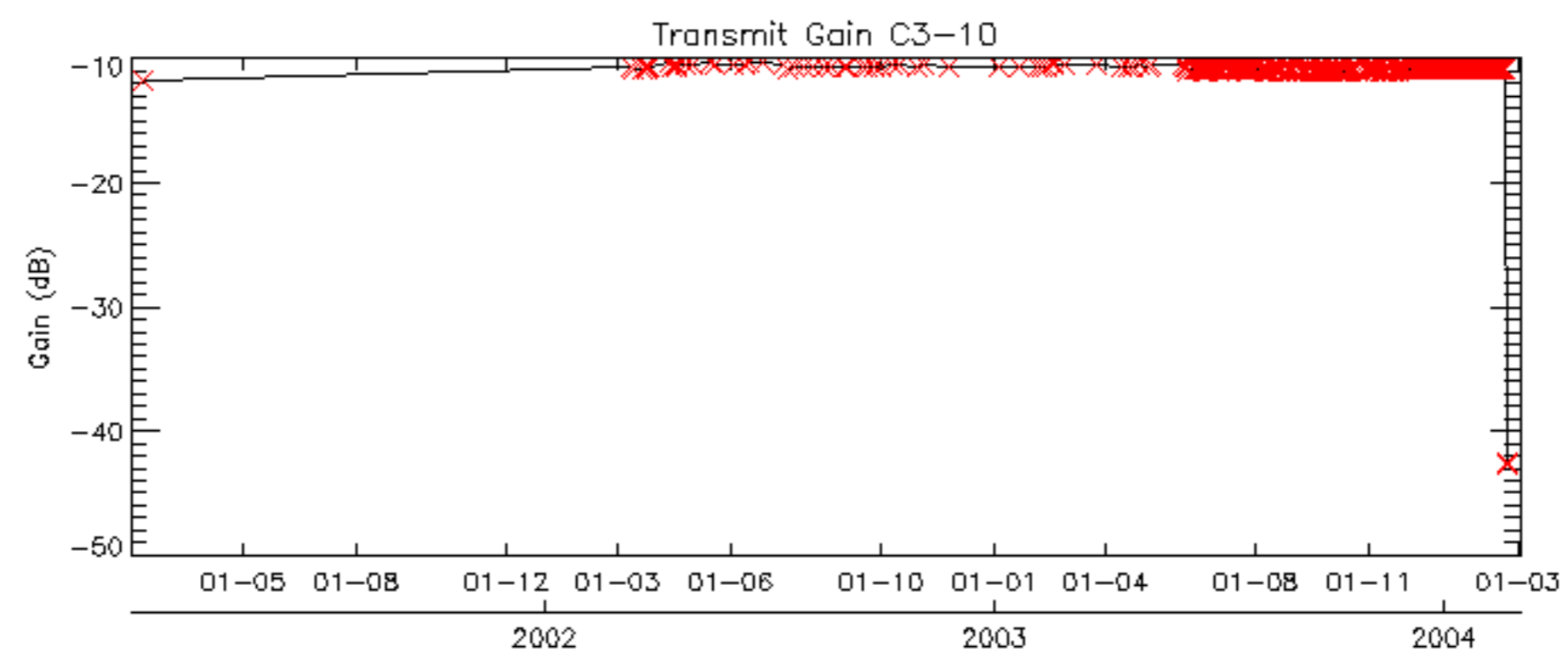
Average P3



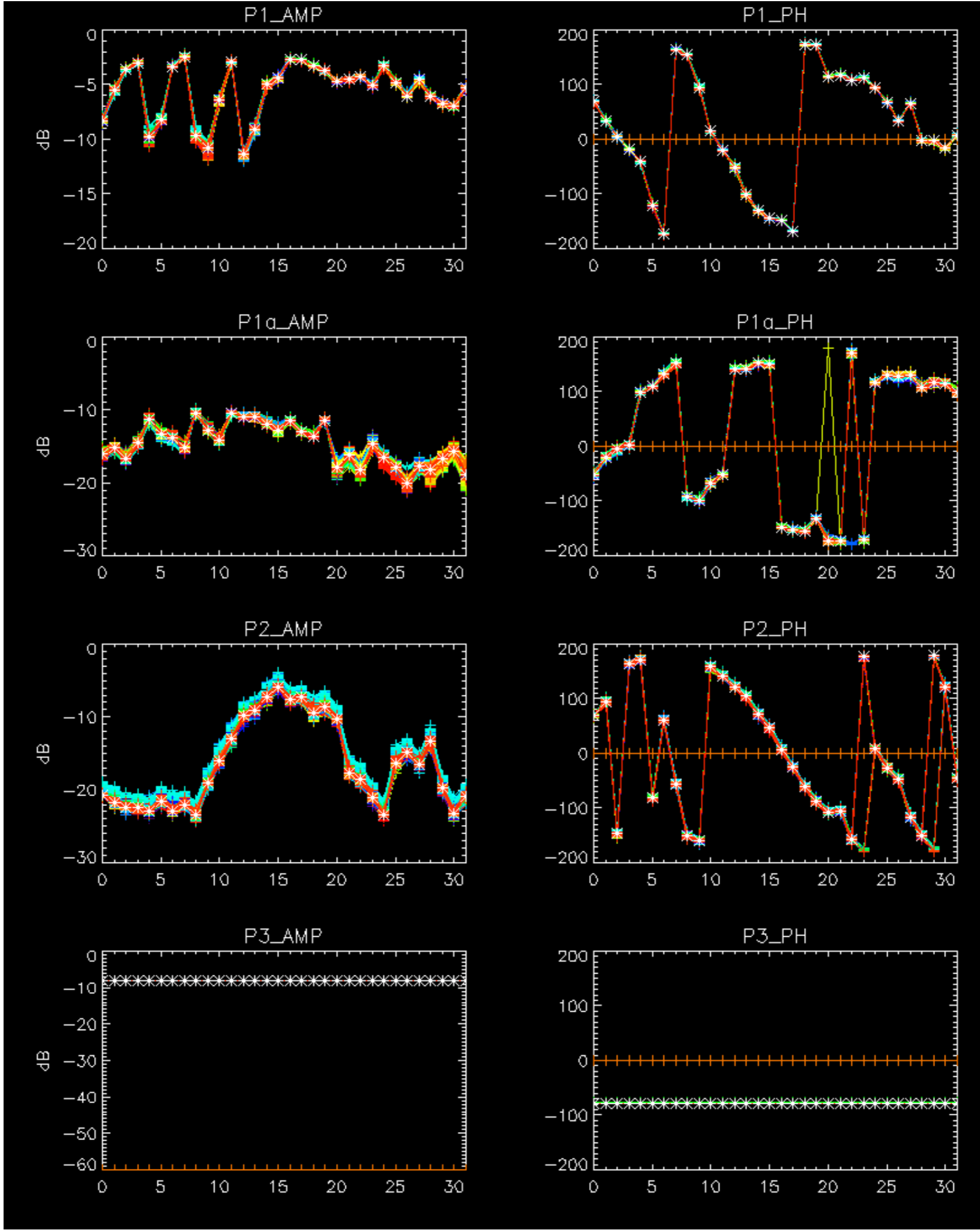
21-Feb



No anomalies observed on available browse products

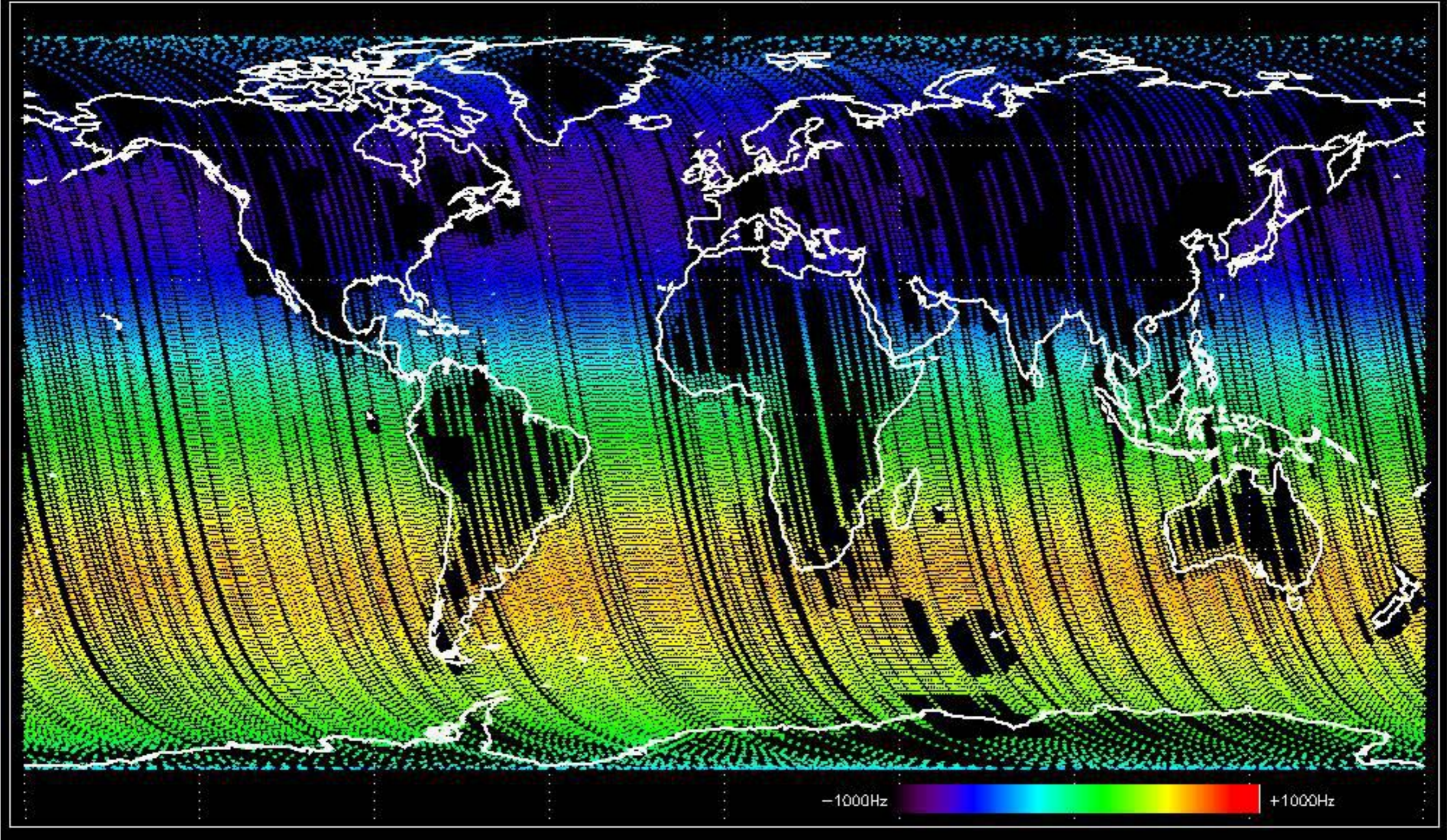


No anomalies observed.

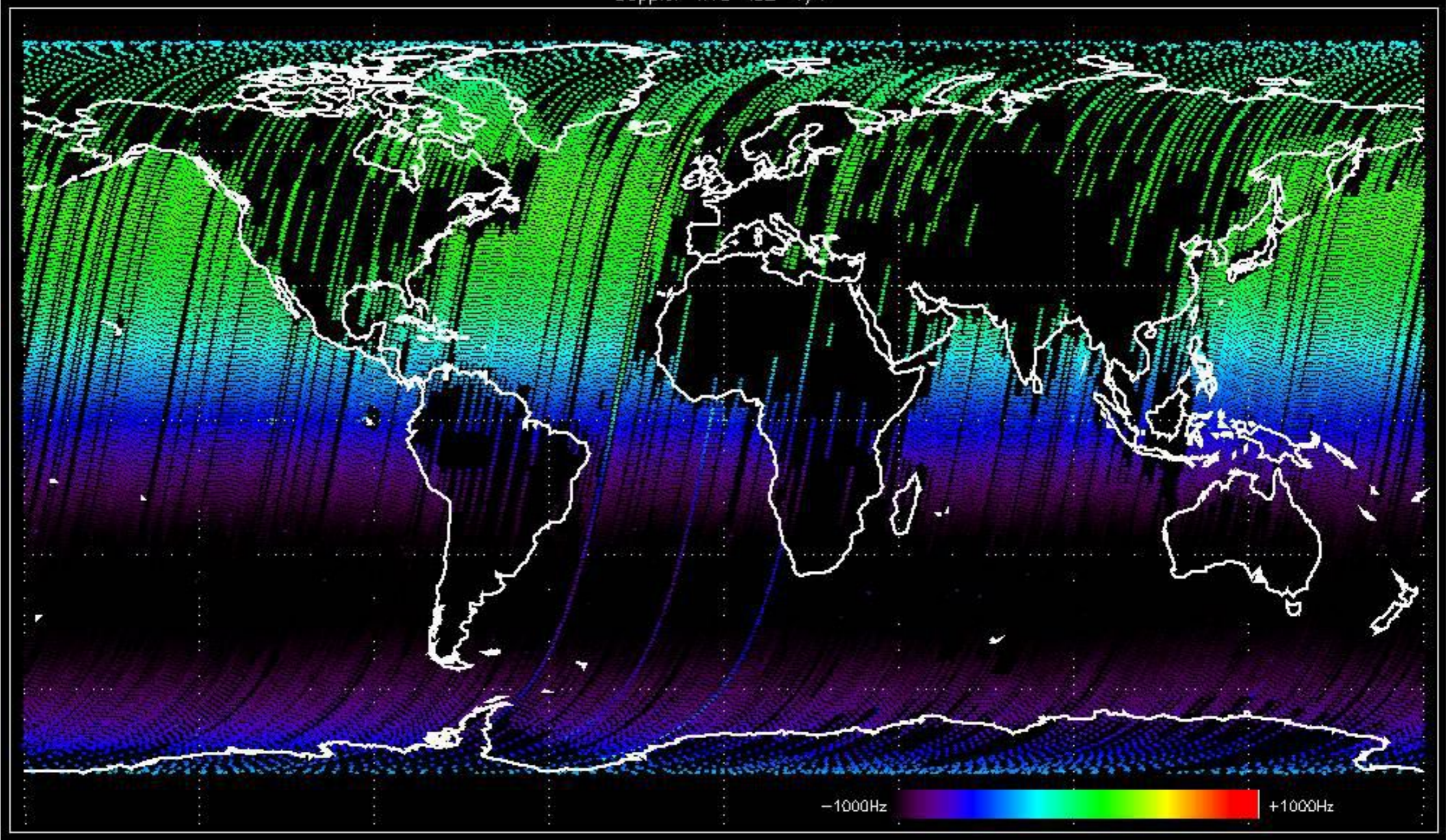


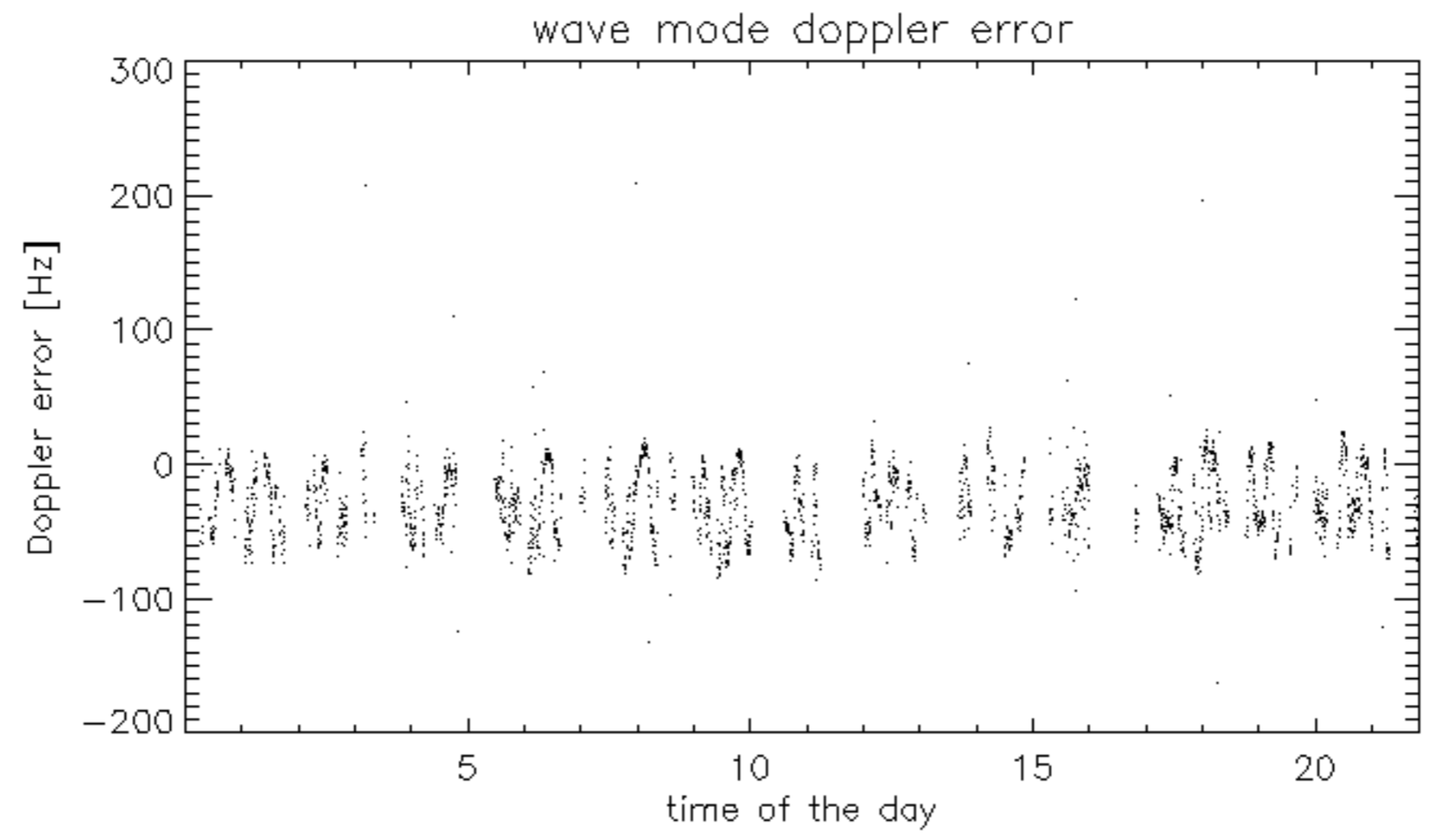
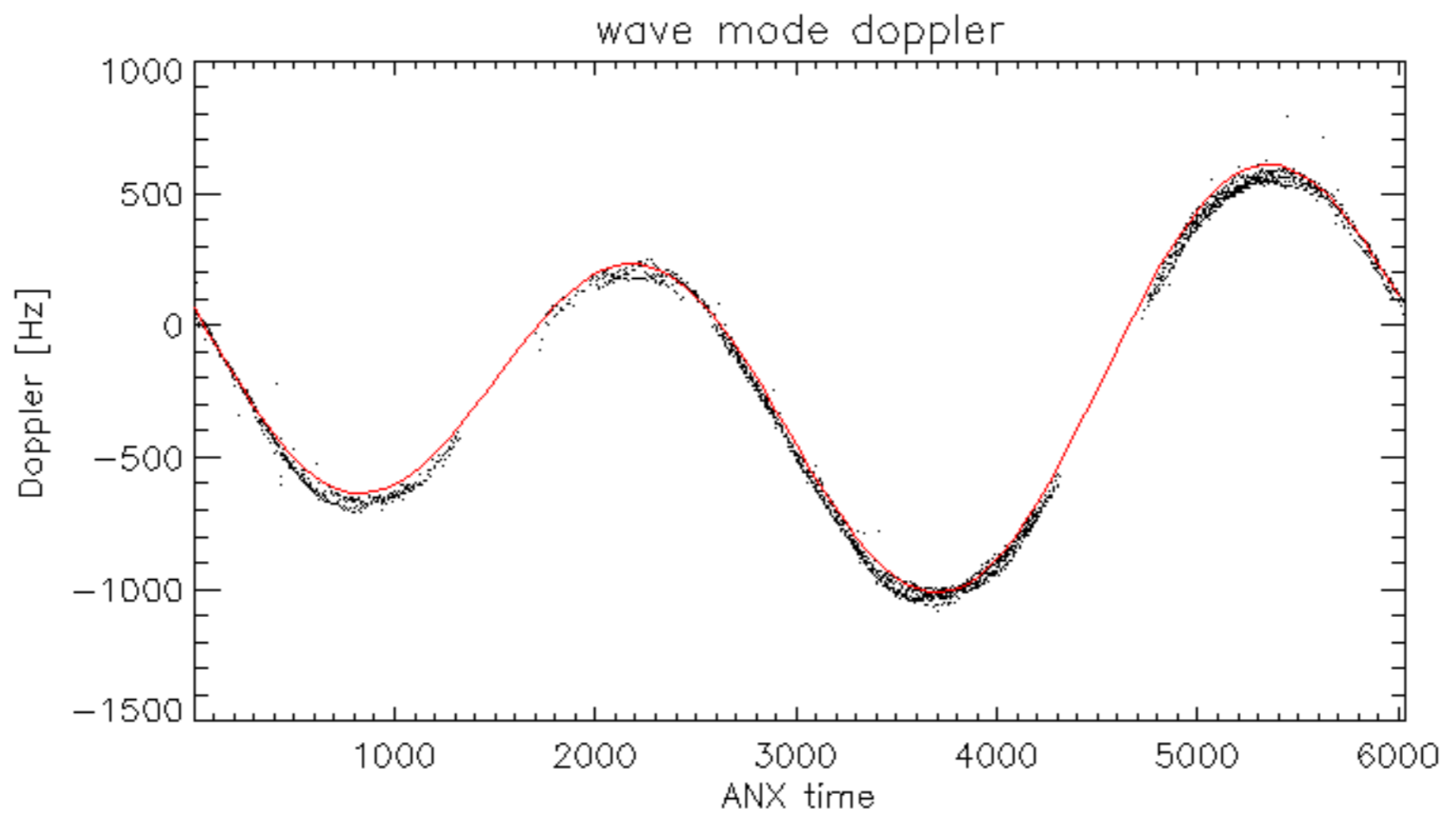
-Anomaly detected on internal calibration pulses on Tx:
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-> Anomaly started on 20-FEB-2004 18:13:09
-Stable raw data statistics.
-Nominal Doppler behavior.

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

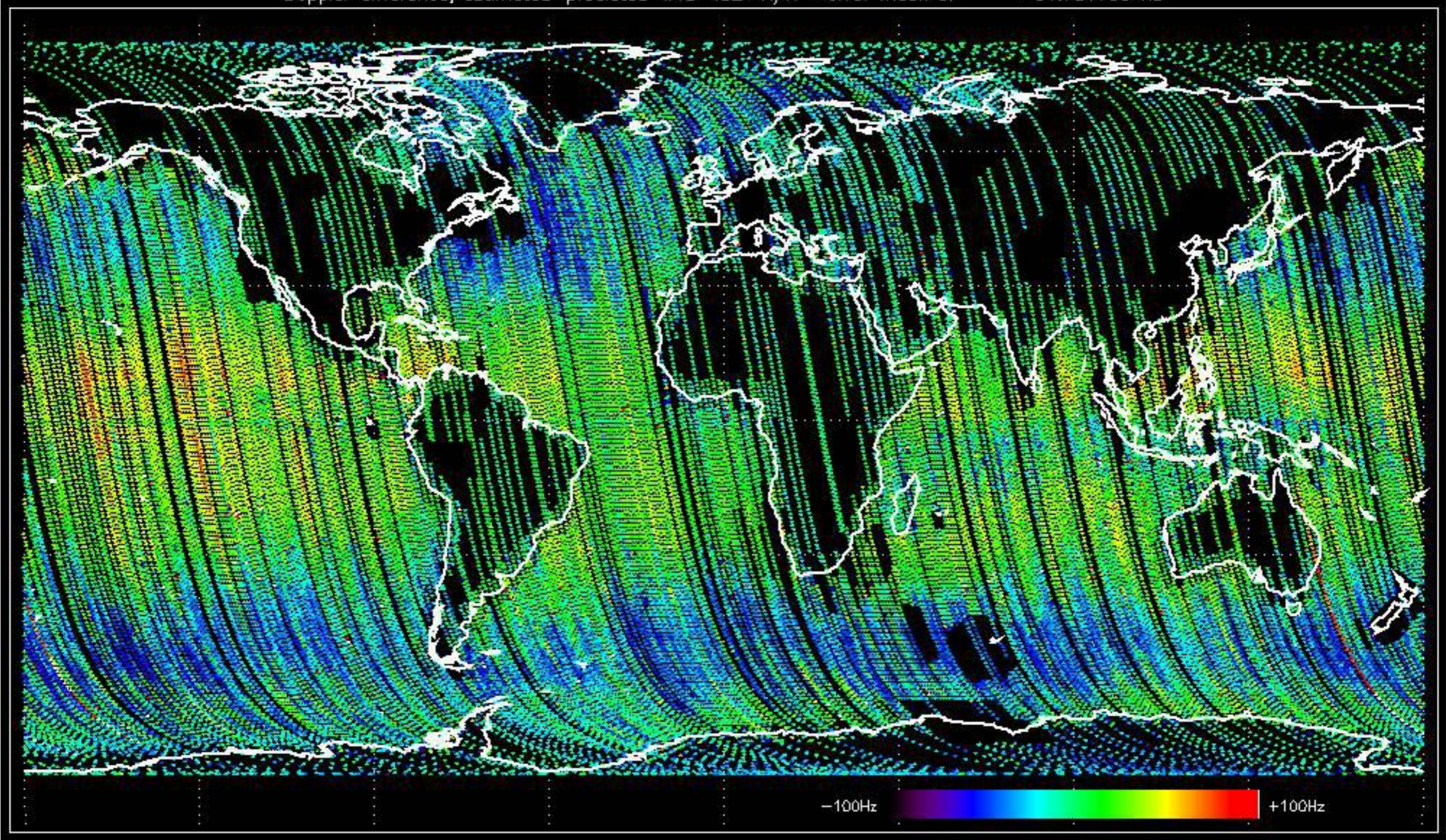


Doppler 'WVS' 'IS2' 'V/V'

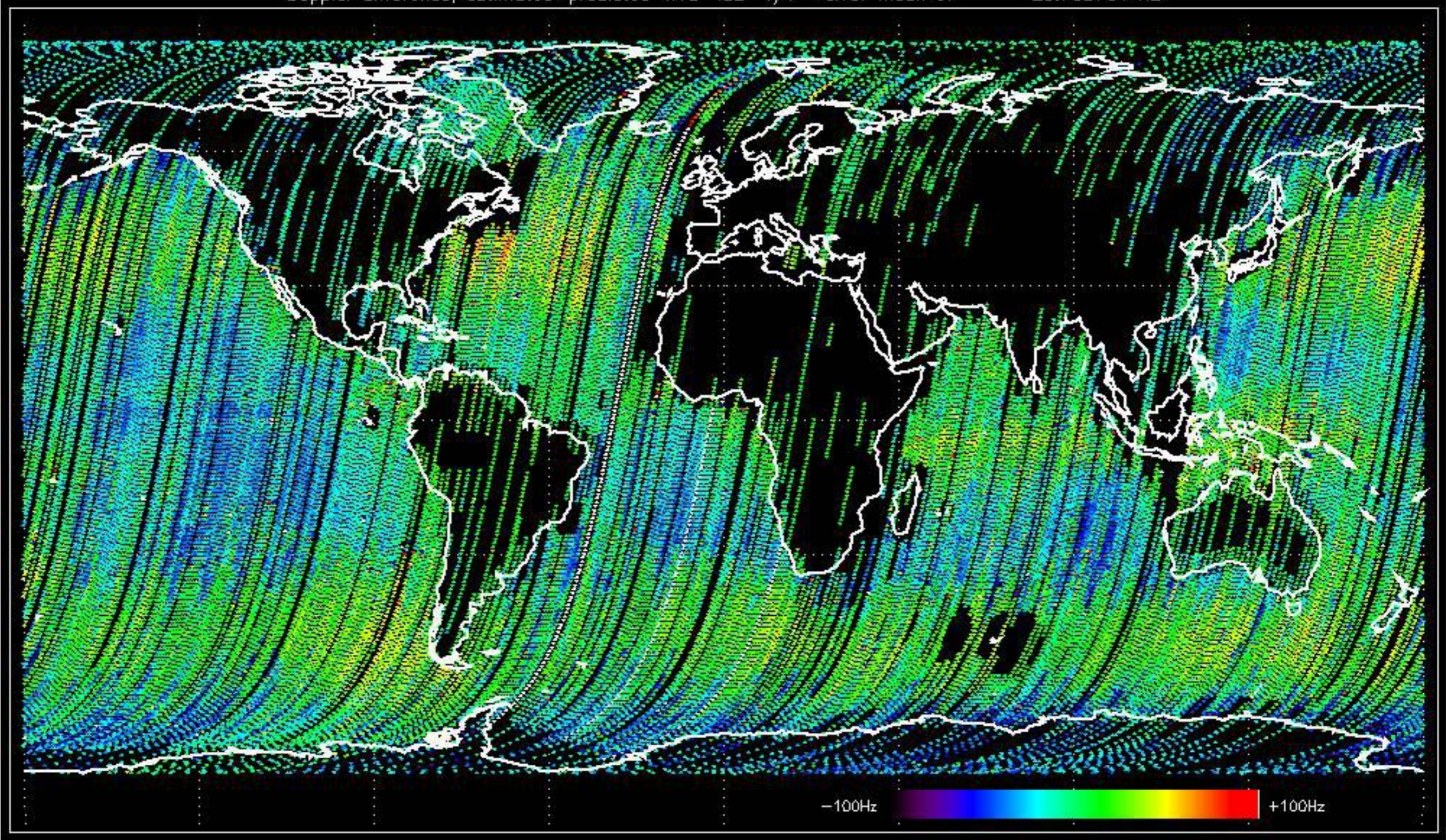




Doppler difference, estimated-predicted 'WVS' 'IS2' 'H/H' -error mean of -31.731759 Hz

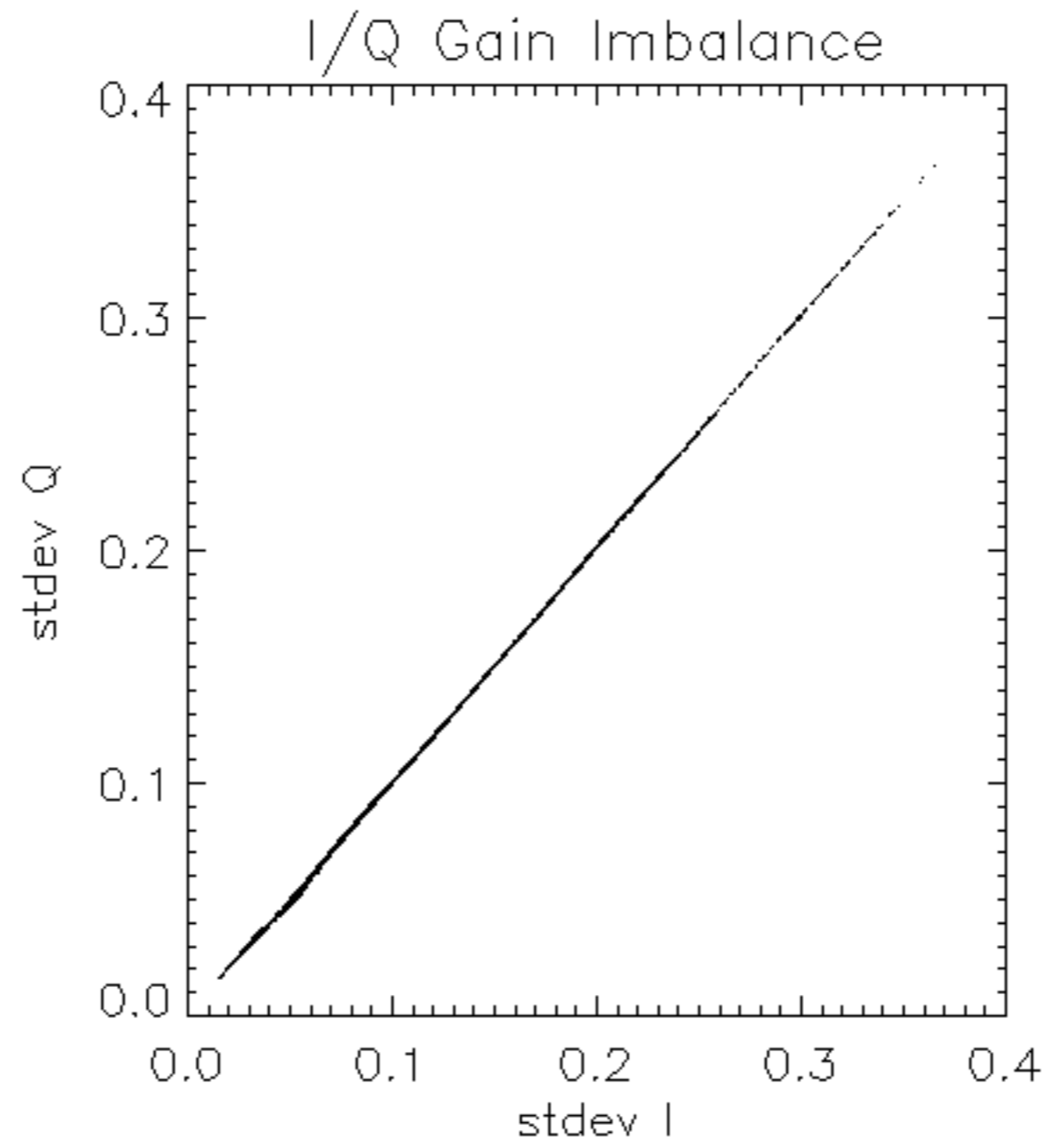


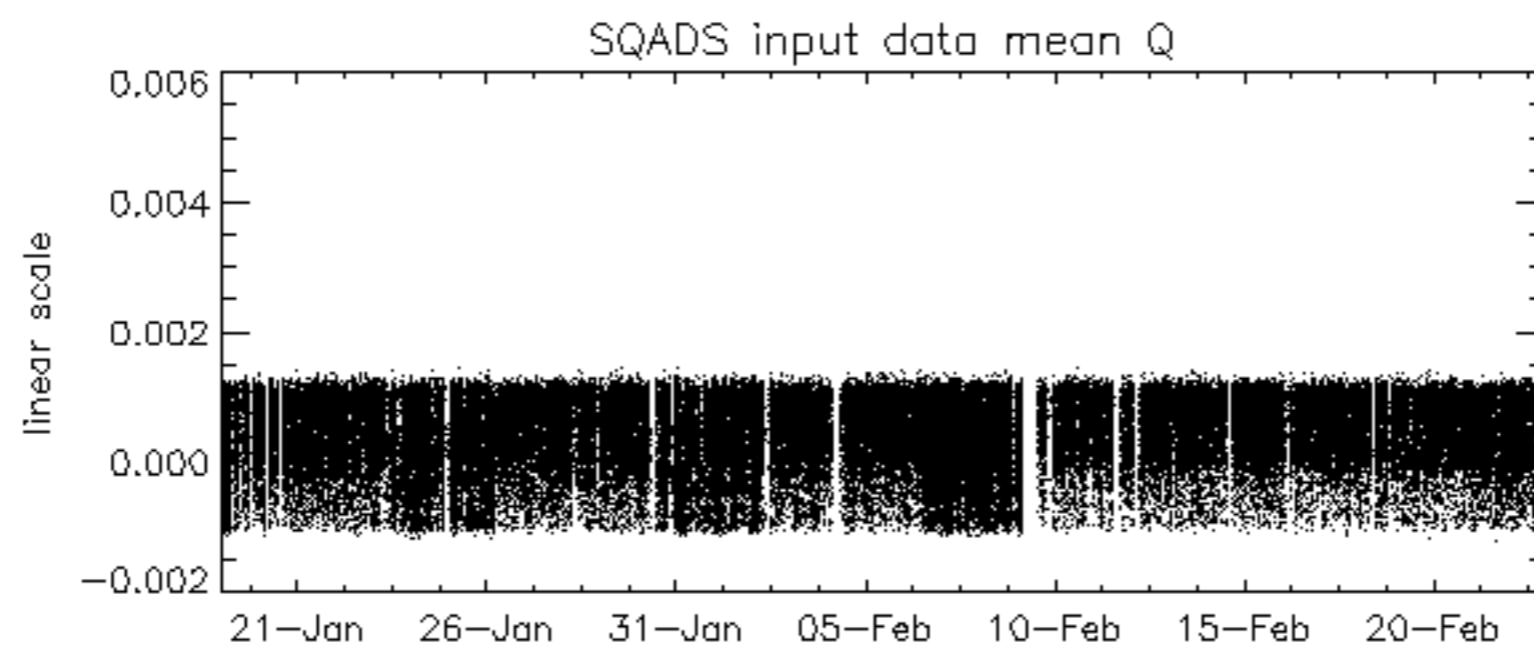
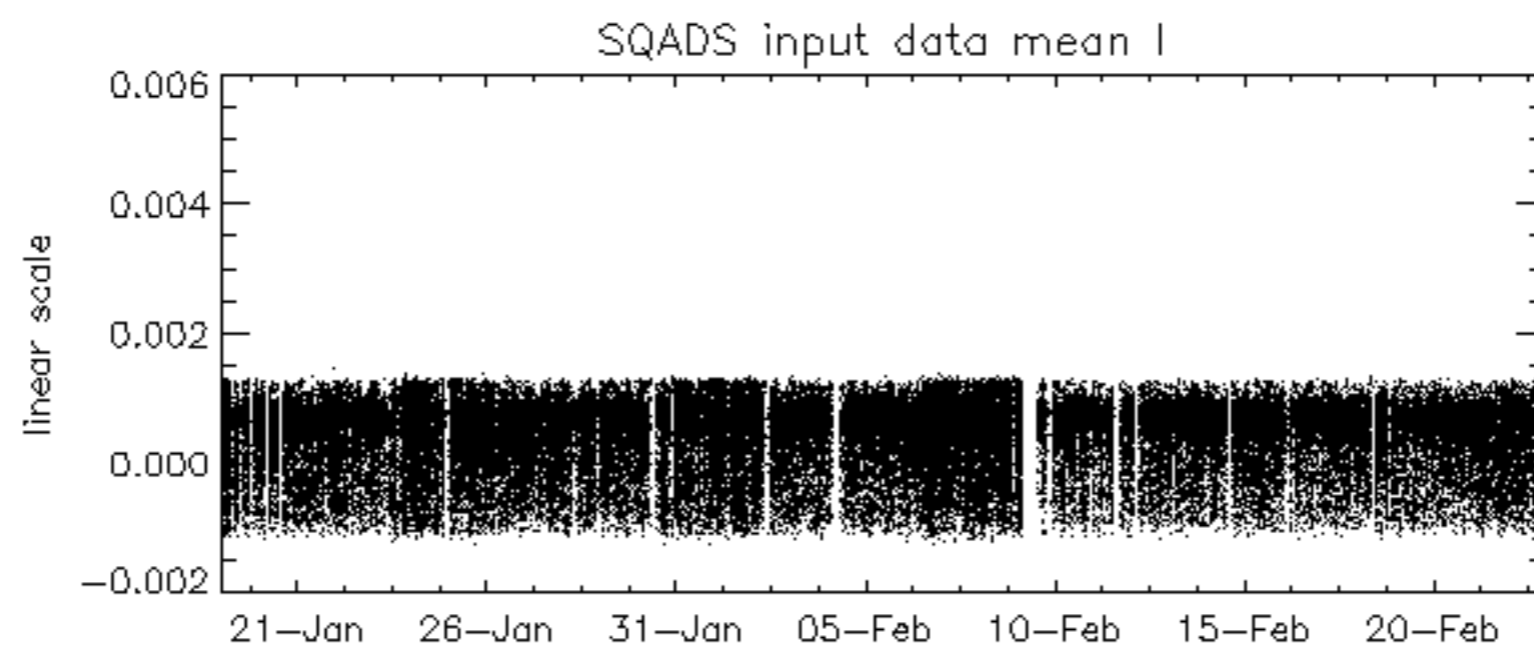
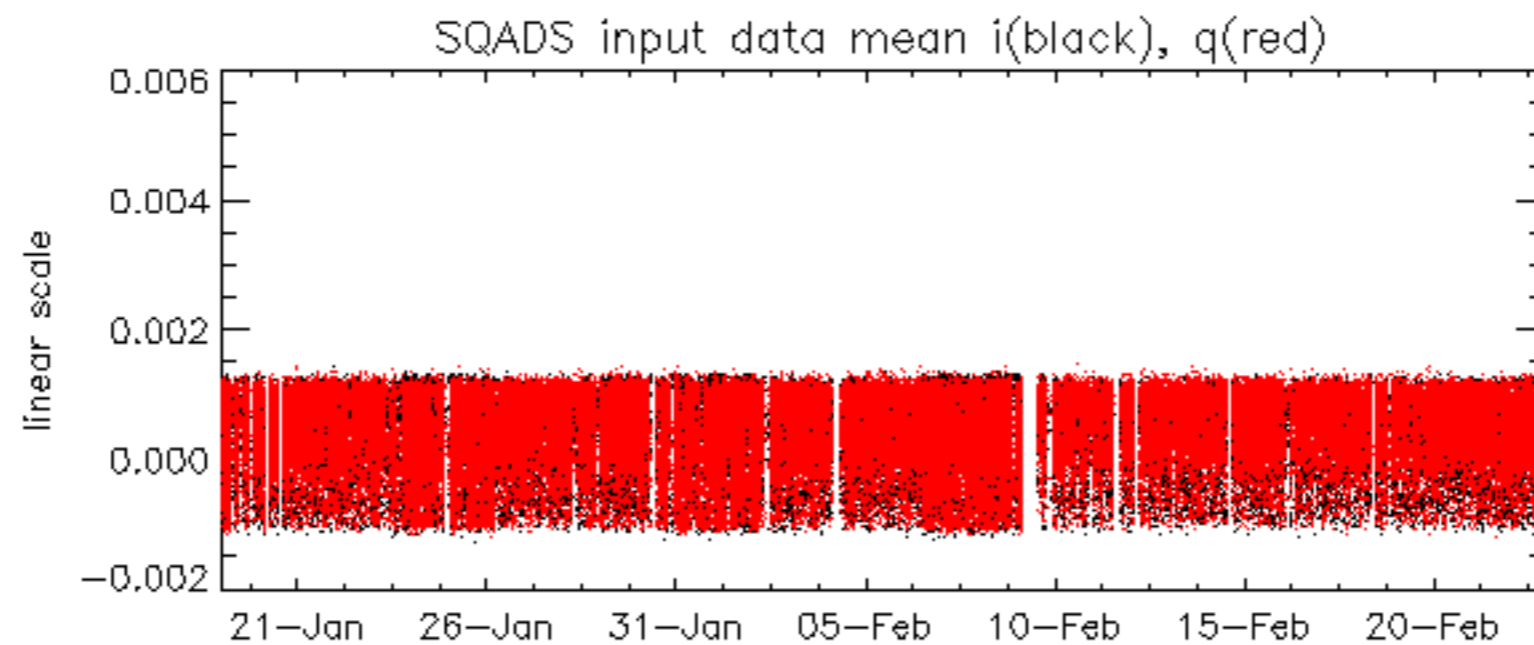
Doppler difference, estimated-predicted 'WVS' 'IS2' 'V/V' -error mean of -29.738764 Hz

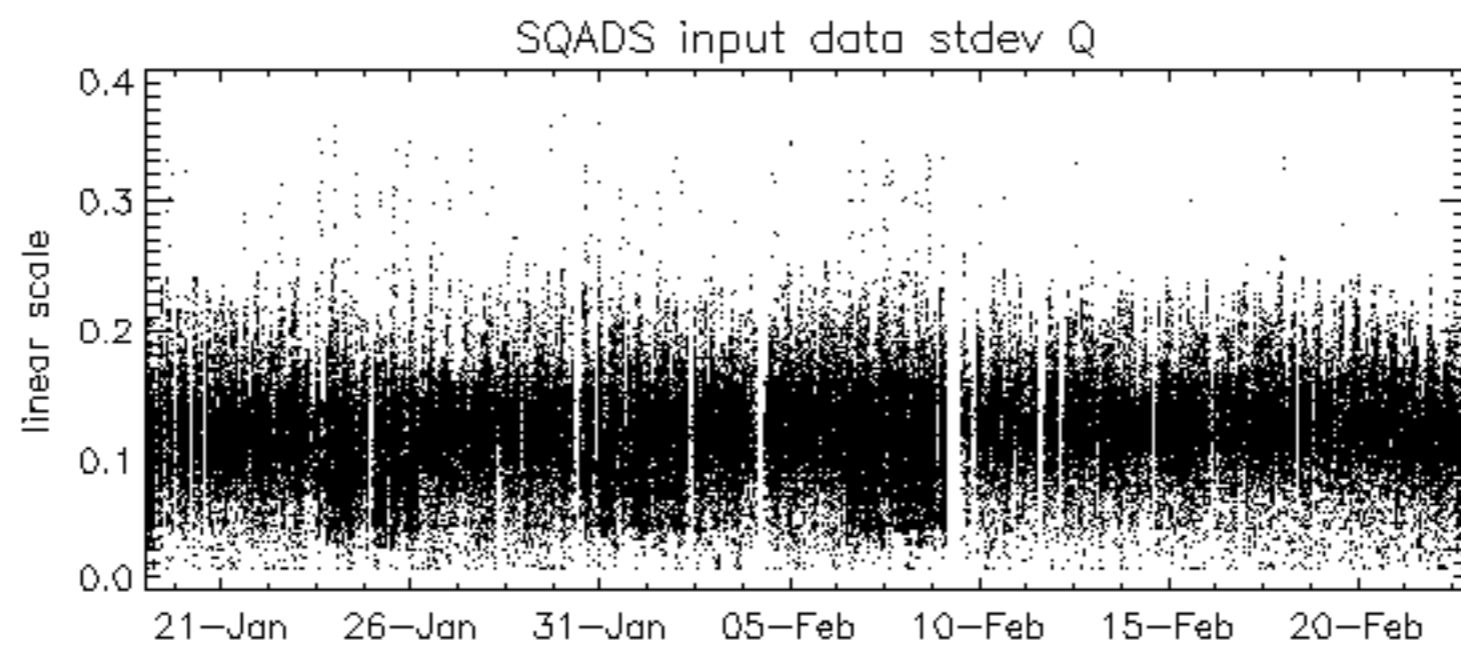
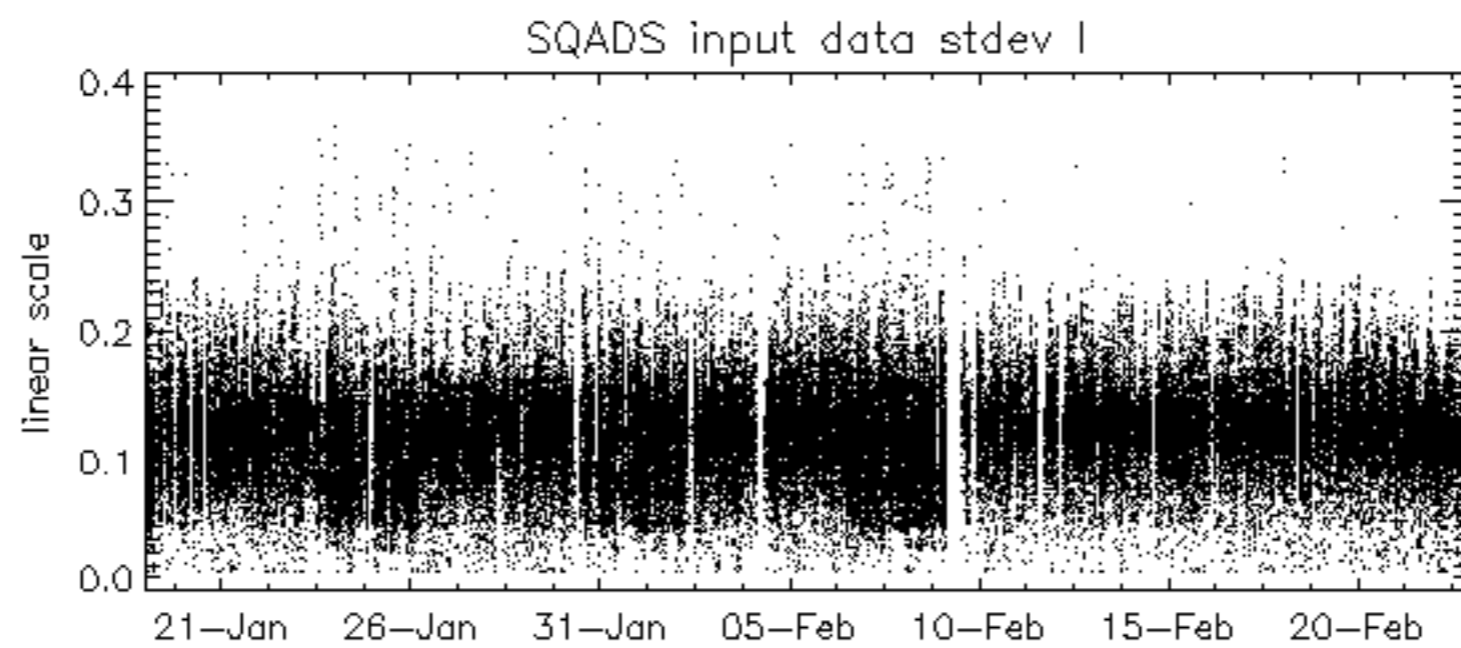
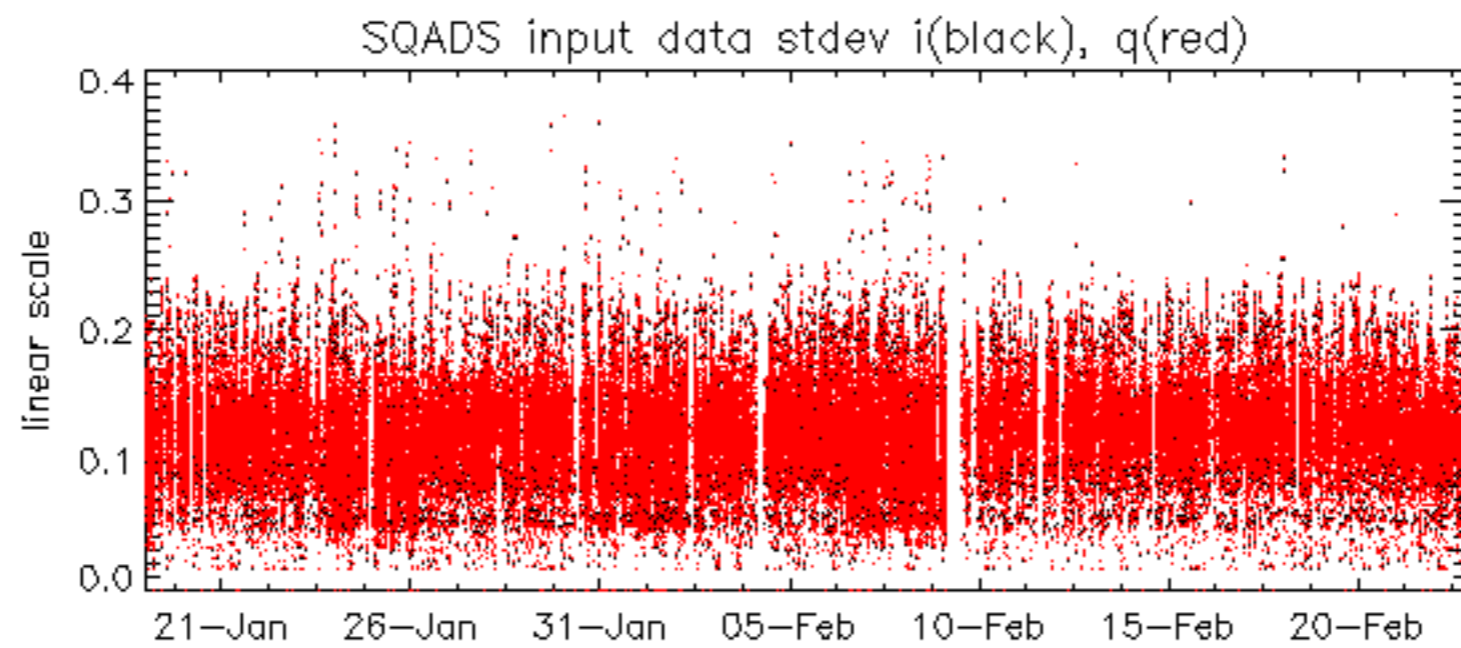


- Since 20-FEB-2004 18:13:09 MS products are affected by anomaly detected on tile C3: rows 9 to 13 are affected by a drop of ~32db

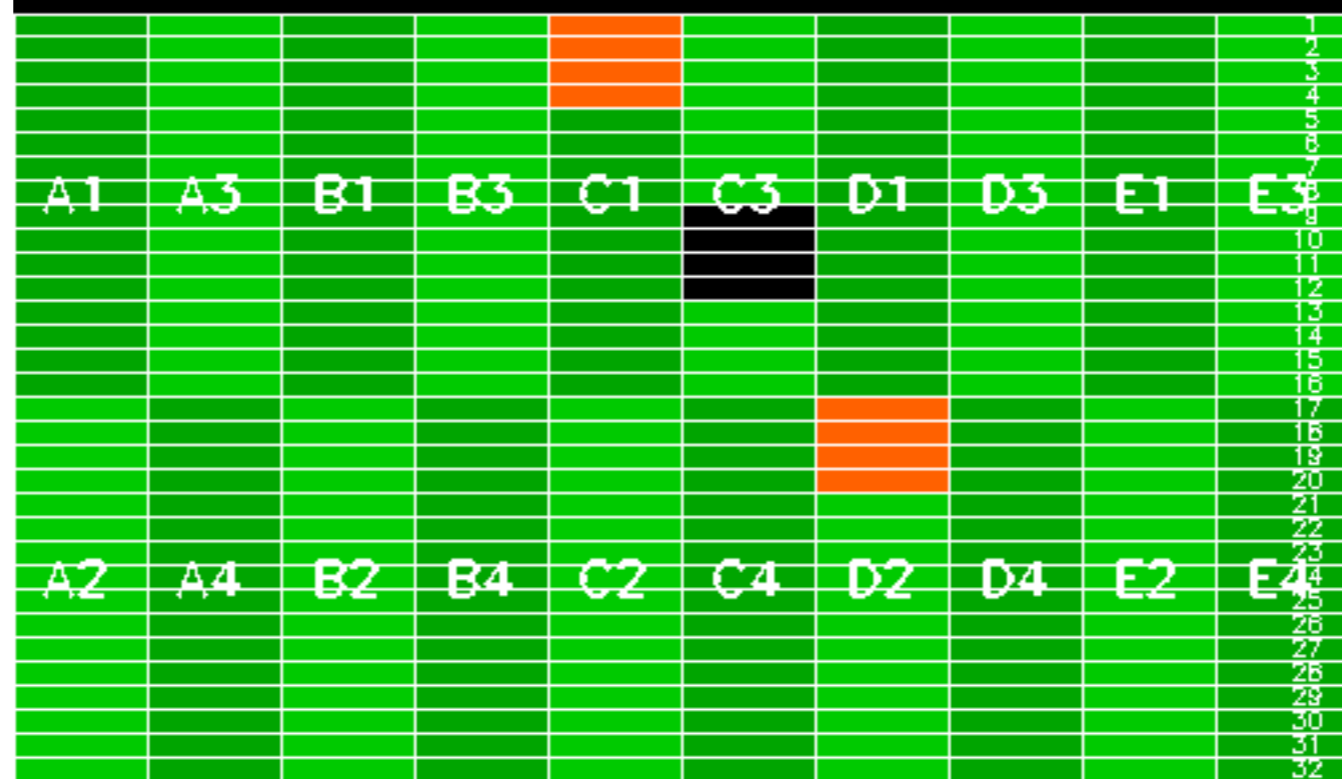
No anomalies observed.







Reference: 2003-06-12 14:08:52 H TxGain
 Test : 2004-02-21 18:20:42 H



No unavailabilities during the reported period.