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December 2012**

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1. INTRODUCTION

1.1 Purpose and Scope

This document contains the Quality report for GOCE L1b data for December 2012.

The latest version of this document is available on the GOCE Data Quality portal at:

<http://earth.esa.int/GOCE/> → “Level 1b QC” → “Monthly”

The GOCE Data Quality portal is the principal source for any quality-related information on GOCE products.

<http://earth.esa.int/GOCE/> → “Level 1b QC”.

1.2 Glossary

The following acronyms and abbreviations have been used in this report.

ABBREVIATION	MEANING
EGG	Electrostatic Gravity Gradiometer
DFACS	Drag Free and Attitude control system
SST-I	Satellite-to-satellite tracking instrument
CTR	Control Voltages
STR	Star Tracker
Trace SD	Trace Spectral Density
ICM	Inverse Calibration Matrix
GAR	Gradiometer Angular Rates
FPM	Fine Pointing Mode
MBW	Measurement Bandwidth

2. DECEMBER 2012 OVERVIEW

03-Dec-12

Beam out event at UTC 21:39:19

07-Dec-12

Anomalous oscillation found in gradients components with impacts on trace at UTC 02:38:35

3. DECEMBER 2012 DATA QUALITY ANALYSIS

3.1 Gradients anomalous oscillation on 7th December

An anomalous oscillation occurred on 7th December at 21:39:19 visible in gradients time series and with impacts on performance as reported below:

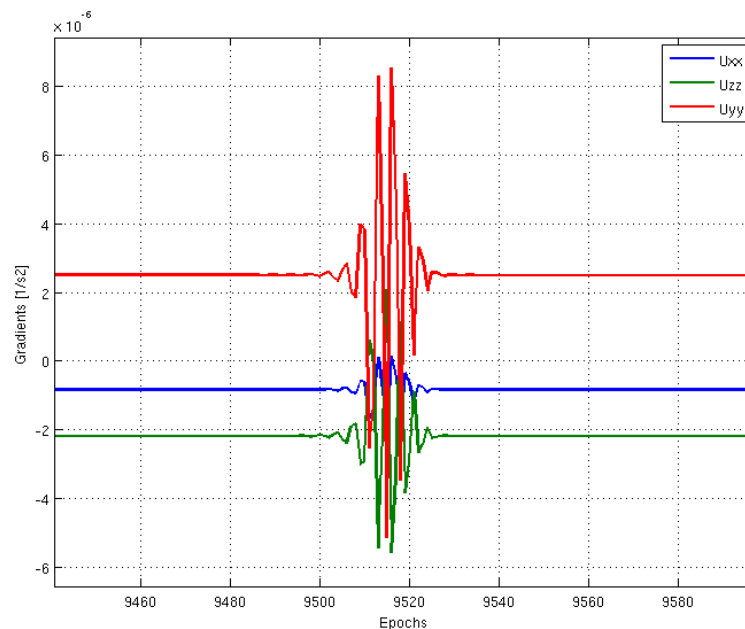


Figure 1 Gradients anomaly

No long term impacts have been recognized. Performance are nominal just after the anomaly.

3.2 Beam Out events

The following Beam Out events occurred during December 2012 reference frame:

EVENT	UTC TIME
03-Dec-12	Beam Out event at UTC 21:39:19

Table 1 Beam out events

The effects of a Beam Out event are clearly visible in the common mode acceleration, component 14_x, as a sharp peak in the acceleration values. The effect is the same as reported in previous monthly reports.

The Beam Out event enters in the gradients time series notably in the Uxx component without any relevant impacts on performance.