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Title : **GOCE L1b Data Quality Control Report December 2011**

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DOCUMENT CHANGE RECORD

Issue	Date	Reason for Change	Changed Pages/Paragraphs
1.0	23/10/2012	First issue	

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1. INTRODUCTION

1.1 Purpose and Scope

This document contains the Quality report for GOCE L1b data for December 2011.

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

2. DECEMBER 2011 OVERVIEW

04-Dec-11	Beam Out event at UTC 10:36:36
11-Dec-11	Beam Out event at UTC 05:14:26
15-Dec-11	Beam Out event at UTC 14:05:56
28-Dec-11	Anomaly in Uzz gradient at UTC 04:25:16 with impacts on trace

3. DECEMBER 2011 DATA QUALITY ANALYSIS

3.1 Uzz anomaly on 28th December

An anomalous oscillation occurred on 28th December at UTC 04:25:16 with impacts on trace as reported below:

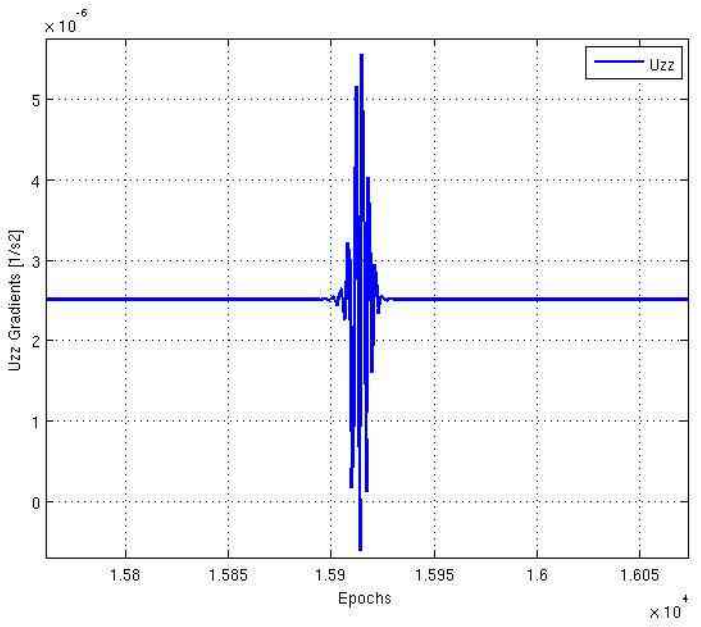

Figure 1 Uzz anomaly

3.2 Beam Out events

The following Beam Out events occurred during December 2011 rerence frame:

EVENT	UTC TIME
04-Dec-11	Beam Out event at UTC 10:36:36
11-Dec-11	Beam Out event at UTC 05:14:26
15-Dec-11	Beam Out event at UTC 14:05:56

Table 1 Beam out events

Below, the effects of the Beam Out in the common mode acceleration, component 14_x, for the 04th December event, is displayed (the effect is the same for all the events).

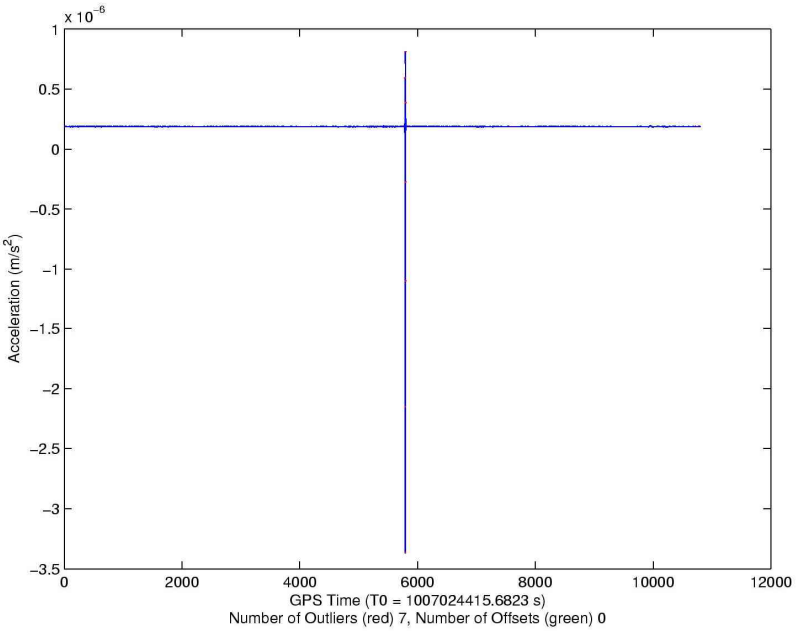

Figure 2 Beam Out event on 04th of December

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