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**Title** : **GOCE L1b Data Quality Control Report  
January 2010**

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**Distribution** : **GOCE Users Community**



## DOCUMENT CHANGE RECORD

Issue	Date	Reason for Change	Changed Pages/Paragraphs
1.0	07/07/2010	First issue	
2.0	07/05/2012	Reprocessing EGG V5.0	All document



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## 1. INTRODUCTION

### 1.1 Purpose and Scope

This document contains the Quality report for GOCE L1b data for January 2010.

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. DATA QUALITY OVERVIEW

### 2.1 Instrument data quality summary tables

Jan 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Table 1 January 2010 EGG QC Status

Jan 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Table 2 January 2010 SST QC Status

	GAP (details within Monthly Report)
	NOT USABLE
	Special Event
	Nominal
	Calibration
	EGG in Acquisition Mode
	Not yet released

### 2.2 EGG data - Available Baselines

Baseline	EGG Processor	SST processor
Baseline D	EGG v5 (> 5.06) installed 31/03/2012	V02.18 Patch B Installed 20/01/2011
Baseline A	EGG v4 (<4.8) Installed 18/05/2010	V02.18 Patch B Installed 20/01/2011

Baseline may be verified by reading out the <Creator\_Version> tag in the file header, e.g:

<Creator\_Version>05.06</Creator\_Version>

(for the latest baseline)

- EGG v5 reprocessed baseline is available through the GOCE Virtual On-line Archive  
 → <http://eo-virtual-archive1.esa.int/Index.html>
- EGG v4 is the older baseline. Products are still accessible through the GOCE Virtual On-line Archive

### 3. EGG DATA QUALITY: SPACECRAFT AND ENVIRONMENT RELATED EVENTS

#### 3.1 Summary

For the reference period, the following events are highlighted:

- Instrument Calibration operations were performed on January 11th. EGG data are not produced during Calibration Operations. Jan 11 and 12 data are affected by these operations.
- SST data: missing epoch on 11/01 present in the corresponding L0 dataset as well, so not related to processing.

#### 3.2 Instrument Calibration on 11/01/2010

Special Spacecraft Operations for Instrument Calibration were performed on 11th January 2010, from

- 20100111T070000
- to
- 20100112T070000

EGG\_NOM\_1b data are unavailable during this period, i.e. between products:

- GO\_CONS\_EGG\_NOM\_1b\_20100111T060831\_20100111T073815
- and
- GO\_CONS\_EGG\_NOM\_1b\_20100112T073353\_20100112T090337

Due to the new processor logic, the following products before and after the calibration, have incomplete GGT and IAQ datasets:

GO\_CONS\_EGG\_NOM\_1b\_20100111T043848\_20100111T060831  
 GO\_CONS\_EGG\_NOM\_1b\_20100111T060831\_20100111T073815  
 Calibration  
 GO\_CONS\_EGG\_NOM\_1b\_20100112T073353\_20100112T090337  
 GO\_CONS\_EGG\_NOM\_1b\_20100112T090337\_20100112T103321

### 3.3 SST missing epochs analysis

#### 3.3.1 Missing Epoch on 11/01/2010

DAY	MISSING EPOCH	MISSING EPOCH UTC	Notes
11/01/2010	1	08:51:25	Gap is during Calibration Operations.

Missing epoch belongs to product

GO\_CONS\_SST\_NOM\_1b\_20100111T073815\_20100111T090758\_0002, generated during satellite calibration. The missing epoch is present also in the L0 datasets between products:

GO\_OPER\_SST\_NOM\_0\_20100111T043051\_20100111T085126\_0002  
 GO\_OPER\_SST\_NOM\_0\_20100111T085128\_20100111T092936\_0002

The data gap present also in the Level-0 dataset, during Instrument Calibration. This is therefore not related to processing.