ADDENDUM

to

THE MEMORANDUM OF UNDERSTANDING FOR A MULTI-LATERAL COLLABORATION

between

THE INSTITUTIONS AND FUNDING AGENCIES OF THE CTF3 COLLABORATION

concerning

THE CONTRIBUTION OF

ETH Zurich

Geodesy and Geodynamics Laboratory (GGL)
Institute of Geodesy and Photogrammetry
Schafmattstrasse 34
8093 Zürich, Switzerland

TO THE CTF3 COLLABORATION

February 2010

CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework applicable to the construction of a 3rd generation Compact Linear Collider Test Facility (CTF3) and the performance of Experiments to demonstrate the feasibility of key issues of the CLIC scheme;

That Article 1.2 of the MoU envisages Addenda defining each contribution pledged to the CTF3 Collaboration,

The GGL of ETH Zurich, in its capacity as Member of the CTF3 Collaboration, HEREWITH AGREES to make the following contributions:

Already provided until/inclusive 31 December 2009

- Participation in the feasibility studies of a high-precision gravity field determination for the pre-alignment concept of CLIC. This contribution amounts to 5 man-months in the form of a doctoral student.
- The loan of the instruments, as required, and listed below, during the period of the doctoral study.
 - o A high precision zenith camera for measurements of deflections of the vertical;
 - o High precision gravimeters (Scintrex CG-5 and Lacoste-Romberg) for the measurement of gravitational acceleration.
- Continued development, modification and testing of the high precision zenith camera.
- Participation in the collaboration to make absolute gravity field measurements on the CERN site.

This contribution, including manpower, is valued 250 kCHF.

The GGL of ETH Zurich shall assume responsibility for the provision of the following in-kind contributions to CTF3:

• Continued participation in the feasibility studies of a high-precision gravity field determination for the pre-alignment concept of CLIC. This contribution amounts to 7 man-months in the form of a doctoral student.

- The loan of additional instruments, as required, and listed below, during the period of the doctoral study.
 - o Geodetic GNSS receivers with accessories.
 - o Precise total stations and levels with accessories.
 - o Computers and others electronic material.
 - o Cars for the transportation of different instruments.
 - o Interferometer and prisms for a new instrument to determine differential deflections of the vertical directly into the tunnel.
- Additional participation in field work, data analysis and research linked to the doctoral research project where possible.

This contribution, including manpower, is valued 200 kCHF.

This Addendum shall form an integral part of the MoU.

Done in Zurich on March, 16.2010

For GGL, ETH Zurich

Prof. Dr. Markus Rothacher, Chair of Geodesy and Geodynamics Laboratory ETH Zurich

Dr. Beat Bürki, Head of Astronomical Geodesy at Geodesy and Geodynamics Laboratory ETH Zurich