Programme

Day 1, Monday 6 November 2006		
Opening Session		
9:00-9:15	Welcome	Stephen Briggs (ESA)
9:15-9:30	Objectives and Logistics	Jerome Benveniste (ESA)
The GOCE Mission I: Satellite Payload and Performance		**Chair: Reiner Rummel**
9:30-9:50	GOCE Mission Objectives and Requirements	Mark Drinkwater (ESA)
9:50-10:10	Mission Development Status	Danilo Muzi (ESA)
10:10-10:40	Spacecraft Attributes	Alex Popescu (ESA)
10:40-11:00	Mission Performance	Rune Floberghagen (ESA)
11:00-11:20	Discussion	
	Session 1 Summary	
11:20-11:50	Coffee Break	
National, EC and ESA Project Activities		**Chair: Mark Drinkwater**
11:50-12:10	Predictions of the GOCE in-flight performances with the End-to-End System Simulator	Giuseppe Catastini (AAS-I) presented by Stefano Cesare
12:10-12:30	GOCE research in Germany: From sensor analysis to Earth system science	Reiner Rummel (Technical University Munich)
12:30-12:50	Combination of spaceborne, airborne and surface gravity in support of Arctic Ocean sea-ice and MDT mapping	Rene Forsberg (Danish National Space Center)
12:50-13:10	The OCTAS project, the geoid, the mean sea surface and and the mean dynamic topography	Dag Solheim (Norwegian Mapping Authority)
13:10-13:30	Integration of Altimetry and GOCE geoid for Ocean Modeling: Results from the GOCINA project	Per Knudsen (Danish National Space Center)
00	Session 2 Summary	
13:30-14:30	Lunch	
14:30-15:30	**Poster Session**	**Chair: Roland Pail**
Poster Session: The GOCE Mission I: Satellite Payload and Performance		
The Accelerometers of the GOCE Mission Design, Integration and Tests		TEAM GOCE GA&E (ONERA)
The Accelerometers of the GOCE Mission Objective milli Eötvös		TEAM GOCE GA&E (ONERA)
Alcatel Alenia Space-France's (AAS-F) Contribution to GOCE		Max Bard & and AAS-F Gradiometer Team (Alcatel Alenia Space)
Poster Session: Scientific Exploitation of Data Products: Oceanography		

Use of oceanographic in-situ measurements and altimetry to assess the accuracy of present (GRACE) and future (GOCE) geoid models. Impact for the estimation of the ocean Mean Dynamic Topography	Marie-Hélène Rio (CLS)
Calibration/Validation of GOCE Measured Mediterranean Sea level Using Satellite Altimetry and GRACE	Juan Jose Martinez-Benjamin (Technical University of Catalonia)
Estimation of the ocean Mean Dynamic Topography in the Mediterranean and Black Seas by combination of altimetry and GRACE/GOCE geoids	Luciana Fenoglio-Marc (Darmstadt University of Technology)
New Geoid and Mean Sea surface for ocean circulation	Ole Andersen (Danish National Space Center)
VANIMEDAT Project: Decadal and Interdecadal Sea-Level Variability in the Mediterranean Sea and Northeastern Atlantic Ocean	Ananda Pascual (IMEDEA (CSIC-UIB))
Combining high resolution GOCINA topography with ARGO float data	Dmitrii Sidorenko (AWI)
Estimation of the ocean Mean Dynamic Topography by optimal combination of a geoid model and along-track altimetric mean profiles	Philippe Schaeffer (CLS)
Gravity improvement of continental slope and shelf ocean modelling	Eric Jeansou (NOVELTIS)
GOCE Validation via Ocean State Estimation	Vanya Romanova (Universitaet Hamburg)
Poster Session: The GOCE Mission II: Ground Segment, Level I Products, Calibration	
Degradation in accuracy of gravity variations from CHAMP, GRACE, and GOCE	Jaroslav Klokocnik (Astronomical Institute Czech Acad. Sci.)
Evaluation of a GOCE combination model	Sean Bruinsma (CNES)
Contribution of modern satellite tracking data to GOCE-based gravity solutions	Oleg Abrikosov (GeoForschungzZentrum Potsdam)
Gravity gradients from mean sea level – data for validation and downward continuation of GOCE gravity fields	Wolfgang Bosch (DGFI)
Downward continuation of satellite gradiometry data	Juraj Janak (Slovak University of Technology)
Some Practical Issues of Upward / Downward Continuation of Gravity Gradients	Gyula Tóth (Budapest University of Technology and Economics)
Multi-resolution representation of the gravity field from a combination of GOCE and GRACE data	Michael Schmidt (DGFI)
Earth Explorer Missions Payload Data Segments: GOCE	Daniela Bencivenni (ACS)
GOCE Level 1 products format presentation	GOCE PDGS Support Team (SERCO-DATAMAT Consortium c/o ESA)
A regularized solution of boundary problems in combining terrestrial and satellite gravity field data	Petr Holota (Research Institute of Geodesy)
Scientific Exploitation of Data Products: Oceanography	**Chair: Chris Hughes**

15:30-15:50	Global Eddy-Mean-Flow Interaction From High-Resolution Altimetry and Geoid	Lee-Lueng Fu (Jet Propulsion Laboratory)
15:50-16:10	How well do we know the mean ocean dynamic topography?	Femke Vossepoel (IMAU)
16:10-16:30	Quantifications of Ocean Mass Variation and Steric Sea Level Using GRACE and Satellite Altimetry	Chung-Yen Kuo (National Cheng Kung University) presented by C.K.Shum
00	Session 3 Summary	
16:30-16:50	Coffee Break	
Scientific Exploitation of Data Products: Geodesy, Orbits and Inertial Navigation		**Chair: Bert Vermeersen**
16:50-17:10	Satellite to Satellite Tracking Instrument (SSTI): Design and Performance	Alberto Zin (Alcatel Alenia Space Italy)
17:10-17:30	On a strategy for the use of GOCE gradiometer data for the development of a geopotential model by LSC	Arabelos Dimitrios (University of Thessaloniki)
17:30-17:50	Broad-band gravity field mapping by GOCE and airborne gravity	Rene Forsberg (Danish National Space Center)
17:50-18:10	Regional solutions from GOCE orbit information and gradiometry measurements considering topographic-isostatic models	Annette Eicker (University of Bonn)
00	Session 4 Summary	
18:10-20:00	Welcome Cocktail	
Day 2, Tuesday 7 November 2006		
The GOCE Mission II: Ground Segment, Level I Products, Calibration		**Chair: Georges Balmino**
9:00-9:10	GOCE Payload Data Ground Segment Overview	Eric Monjoux (ESA)
9:10-9:25	From Telemetry to Level 1b: Architecture and Processing Strategy	Diana De Candia (Advanced Computer Systems ACS SpA.)
9:25-9:40	PDGS Overview: GOCE Level 1 products format presentation	Alessandra Tassa (SERCO-DATAMAT Consortium c/o ESA)
9:40-10:10	Organisation of GOCE Cal/Val and Product Quality Assurance Activities	Rune Floberghagen (ESA/ESTEC, EOP-PG)
10:10-10:30	The Basic Principles of the GOCE Gradiometer In-Flight Calibration	Daniel Lamarre (ESA)
10:30-10:50	Discussion	
	Session 5 Summary	
10:50-11:20	Coffee Break	
11:20-12:10	**Poster Session**	**Chair: Juergen Mueller**
Poster Session: Calibration and Validation		

A regional GOCE validation and combination experiment based on absolute gravity, deflections of the vertical and GPS/levelling data	Nina Lux (Bundesamt für Kartographie und Geodäsie (BKG))
Improved kHz-SLR Tracking Techniques and Orbit Quality Analysis for LEO-Missions	Walter Hausleitner (Austrian Academy of Sciences)
GOCE GPS data processing at ESOC	Henno Boomkamp (ESA)
Poster Session: Scientific Exploitation of Data Products: Solid Earth	
Exploitation of GOCE Data for a Local Estimate of Gravity Field and Geoid in the Regione Piemonte Area (Northern Italy)	Riccardo Conte (Protezione Civile Regione Piemonte)
Comparison of the modelling of topographic and isostatic masses in the space and the frequency domain for use in satellite gravity gradiometry	Franziska Wild (University of Karlsruhe)
Mascon solutions with GRACE and GOCE for Time-Variable Gravity Recovery	Frank Lemoine (NASA GSFC)
Geophysical and Petrological Applications of New-Generation Satellite-Derived Gravity data With a Focus on Hazardous and Frontier Regions	Ron Hackney (Universitaet Kiel)
Poster Session: Tools and Algorithms	
Consolidating User Requirements for the GOCE User Toolbox	Per Knudsen (Danish National Space Center)
GOCE User Toolbox Specification (GUTS) - System Specification and Architectural Design	Keith Haines (Reading University)
The GOCE User Toolbox: Toward a first prototype	Marie-Hélène Rio (CLS)
GOCE User Toolbox Specification: Scientific trade off study and algorithm specification	Frank Siegismund (Nansen Environmental and Remote Sensing Center)
Poster Session: GOCE Level 2 Data Processing	
Status of the GOCE High-level Processing Facility (HPF)	Radboud Koop (SRON Netherlands Institute for Space Research)
On the use of gridded data to estimate potential coefficients	Federica Migliaccio (Politecnico di Milano)
Investigation of Velocities derived from Satellite Positions	Helmut Goiginger (Graz University of Technology)
GOCE Quick-Look Gravity Field Analysis (QL-GFA) in the Framework of HPF	Roland Pail (Graz University of Technology)
Spherical Cap Regularization of GOCE normal equation systems	Bernhard Metzler (Graz University of Technology)
Validation of GOCE Gravity Field Models	Thomas Gruber (Technical University Munich)
Data product validation by HPF's Central Processing Facility	Sander de Witte (SRON Netherlands Institute for Space Research)
GOCE Rapid Science Orbit Determination	Jose Van Den IJssel (Delft University of Technology)

Generation and Validation of Orbit Products for the GOCE Mission		Drazen Svehla (Technical University Munich)
Poster Session: The GOCE Mission: Operational Support Facilities		
GOCE Reference Planning Facility (RPF)		Jose Antonio Gonzalez Abeytua (DEIMOS Space)
GOCE Performance Monitoring Facility (PMF)		Jose Antonio Gonzalez Abeytua (DEIMOS Space)
Calibration and Validation		**Chair: Pieter Visser**
12:10-12:30	GOCE Calibration and Monitoring Facility (CMF)	Jose Antonio Gonzalez Abeytua (DEIMOS Space)
12:30-12:50	Quick Validation of GOCE Gradients	Focke Jarecki (University of Hanover)
12:50-13:10	GOCE gravity gradients for use in Earth sciences	Johannes Bouman (SRON Netherlands Institute for Space Research)
13:10-13:30	In-flight validation and monitoring of gradiometric GOCE data	Michael Kern (ESA)
	Session 6 Summary	
13:30-14:30	Lunch	
GOCE, Grace, Gravity Field Models		**Chair: Tonie van Dam**
14:30-14:50	Status of GRACE mission	Byron Tapley (The University of Texas at Austin)
14:50-15:10	Global Mean Gravity Field Models from Combination of Satellite Mission and Altimetry/Gravimetry Surface Data	Christoph Förste (GeoForschungsZentrum Potsdam)
15:10-15:30	Synergy of the GOCE and GRACE satellite missions	Pavel Ditmar (Delft University of Technology)
15:30-15:50	The Slepian approach revisited: dealing with the polar gap in satellite based geopotential recovery	Nico Sneeuw (Universität Stuttgart)
	Session 7 Summary	
15:50-16:10	Coffee Break	
Scientific Exploitation of Data Products: Solid Earth		**Chair: Roberto Sabadini**
16:10-16:30	Coseismic Deformation Studies Using GRACE and GOCE	C.K. Shum (Ohio State University)
16:30-16:50	Constraints on Shallow Low-Viscosity Earth Layers from Future GOCE Data	Hugo Schotman (Delft University of Technology)
16:50-17:10	How to combine GOCE and ground data?	Isabelle Panet (IGN/IPGP) presented by Michel Diament (IPGP)
17:10-17:30	Ice mass loss in the polar regions of the Earth and mantle viscosity from GRACE data	Valentina Roberta Barletta (University of Milan)
00	Session 8 Summary	

19:00-22:00	Social Event	
Day 3, Wednesday 8 November 2006		
The GOCE Mission III: Mission Operations, Level 2 Products and User Services		**Chair: Christian Tscherning**
9:00-9:20	GOCE Flight Operations	Pier Paolo Emanuelli (ESA)
9:20-9:40	The Status of the GOCE High-level Processing Facility (HPF)	Radboud Koop (SRON Netherlands Institute for Space Research)
9:40-10:00	HPF Overview and How to Use GOCE Level 2 Products	Thomas Gruber (Technical University Munich)
10:00-10:20	GOCE Data Announcement of Opportunity	Jérôme Benveniste (ESA)
10:20-10:40	Discussion	
	Session 9 Summary	
10:40-11:10	Coffee Break	
Towards GOCE Level 2 Products		**Chair: Reiner Rummel**
11:10-11:30	Rapid and Precise Orbit Determination for the GOCE Satellite	Pieter Visser (Delft University of Technology)
11:30-11:50	The latest test of the space-wise approach for GOCE data analysis	Federica Migliaccio (Politecnico di Milano)
11:50-12:10	GOCE Gravity Field Analysis in the Framework of HPF: Operational Software System and Simulation Results	Roland Pail (Graz University of Technology)
12:10-12:30	Correlations, Variances, Covariances --- From GOCE Signals to GOCE Products	Wolf-Dieter Schuh (University Bonn)
12:30-12:50	Covariance propagation for GOCE? Some thoughts and questions	Gernot Plank (ESA)
12:50-13:30	Discussion	
	Session 10 Summary	
13:30-14:30	Lunch	
Tools and Algorithms		**Chair: Marie-Hélène Rio**
14:30-14:50	The GOCE User Toolbox	Jérôme Benveniste (ESA)
14:50-15:10	Elementary Algorithms for Determining the Ocean Dynamic Topography From Altimetric and Gravity Data	Rory Bingham (Proudman Oceanographic Laboratory)
15:10-15:30	Optimal filtering of mean dynamic topography models	Per Knudsen (Danish National Space Center)
00	Session 11 Summary	
15:30-15:50	Coffee Break	
15:50-16:50	General Discussion	

16:50-17:30	Closing Remarks	ESA