

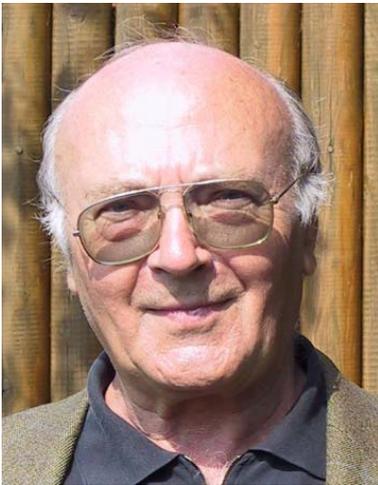
# Past officers of the International Association of Geodesy (1991 – 2007)<sup>1</sup>

Compiled by **Carl Christian Tscherning**

Honorary Secretary General

## 1. Presidents

**Wolfgang Torge**  
President 1991 – 1995



**Wolfgang** Reinhold Julius **TORGE** was born on June 4, 1931, in Laubusch, Germany. He studied surveying engineering and geodesy at the Technical University of Hannover, Germany, where he received a Dipl.-Ing. Degree in 1955, and promoted to a Dr.-Ing. in 1966, with a thesis on long-range gravity measurements. In his professional and scientific career, he held positions in exploration geophysics, state survey agencies, and at the Hannover Geodetic Institute, and he served as a technical expert in a Central American surveying and cadastral project. In 1968, he was appointed full professor for geo-

desy at the University of Hannover, where he directed the “Institut für Erdmessung” until his retirement in 1996. His teaching and research activities covered geometric and physical geodesy with special emphasis on gravimetry and gravity field modeling, and he gave lecture courses at numerous universities and research institutes in Europe, Africa, Latin America, and China. Research projects on the establishment of fundamental gravity networks and the detection and interpretation of gravity variations with time, employing relative and absolute techniques, led to a collaboration with many institutes and agencies in several parts of the world, including Iceland, South America, and China, while local and regional geoid computations concentrated on Europe. During the last few years, Torge concentrated on the history of geodesy, including that of the IAG, one outcome being a monograph on the history of geodesy in Germany published in 2007.

He engaged himself early in IAG, and served as Secretary (1976 – 1983) and President (1983 – 1987) of the “Gravimetry” respectively “Gravity Field Determination” Section. After the IAG-Vice-Presidency (1987-1991) he was elected as IAG President, and appointed Honorary President in 1995. In his position as the Chairman of the National Committee of Geodesy and Geophysics (1979 – 1983), Torge was responsible for the organisation of the IUGG General Assembly in Hamburg 1983. As the IAG representative to the Instituto Panamericano de Geografía y Historia (1991 – 2003), he succeeded in activating a number of IAG related projects and scientific conferences in Latin America, including the IAG Scientific Assembly in Rio de Janeiro (1997).

Torge has published about 180 scientific papers mainly on gravimetry, determination of the geoid and of deflections of the vertical, and gravity variations with time, and he is the author of a textbook on “Geodesy”. This started in German language in 1975, with a second edition in 2003, and includes three editions (1980-2001) in English, as well as translations into Spanish, Chinese, and Greek. His monograph on “Gravimetry” (1989) was translated

<sup>1</sup> This text continues the article “History of the International Association of Geodesy” by Michel Louis in the Geodesists Handbook 1992, covering the period 1983-1991. Bulletin Géodésique (66), 1992, 79-81.

into Chinese and Russian. Torge is member of the German Geodetic Commission at the Bavarian Academy of Sciences, and honorary resp. corresponding member of the Hungarian Academy of Sciences and the Academia Nacional de Ingenieria, Argentina. He has been the scientific editor of the “Zeitschrift für Vermessungswesen” (1971 – 2002), and he received (1991) the “Helmert medal” being the highest award of the “Deutscher Verein für Vermessungswesen (DVW)”.

### **Klaus-Peter Schwarz** **President 1995 – 1999**



Klaus-Peter Schwarz is professor emeritus and former Head of the Department of Geomatics Engineering at the University of Calgary, Canada.

He was born on February 1, 1938 in Königsberg, Germany. After working for three years in mining surveying, he enrolled in the geodetic program at the University of Bonn, Germany, from which he graduated with a Dipl.-Ing. degree in 1965. He continued his studies and received degrees from universities in Canada (M.Sc. New Brunswick, 1967), Germany (Dr.-Ing. summa cum laude, Berlin, 1971), and Austria (habilitation, Graz, 1975). After returning to Canada in 1977, he worked at the University of New Brunswick before joining the newly established program at the University of Calgary in 1979. The program soon received international recognition and he stayed with it for the next twenty-three years. He had the privilege to serve as Head of the Department during the period 1990 – 1995.

His research and teaching was focused on the use of inertial and satellite techniques in geodesy, with special emphasis on the combination of GPS and strap-down inertial systems (SINS). Major progress was made in two areas, airborne digital mapping and airborne gravimetry. The first required the optimization of GPS/SINS integration with respect to position and orientation accuracy. The second required the optimization of the GPS-SINS difference with respect to the accuracy of the gravity disturbance vector. As a by-product the simultaneous determination of position and gravity is feasible because all measurements are obtained from the same sensors. To further explore this area of research, a series of symposia on kinematic geodesy were held between 1981 and 2001 in Banff, Canada. The contributions of K.P. Schwarz to geodesy have been recognized by honorary degrees from the Wuhan Technical University, China and the University of Hannover, Germany; he also was elected to full membership in the Russian Academy of Navigation and Motion Control and is a corresponding member of the German Geodetic Commission.

K.P. Schwarz has been active in the IAG for about 30 years, starting in 1973, when he was asked to participate in organizing the First IAG International Summer School in Ramsau, Austria - at that time a novel way of teaching advanced research subjects. About ten years later, he was asked to be the program director of the Beijing International Summer School on Local Gravity Field Approximation – the first IAG-sponsored event in China. After serving as president of a number of Special Study Groups and as a member of the first Cassini Committee, he was elected as President of Section IV in 1987. Four years later he became First Vice-President of the IAG and in 1995 IAG President. During his tenure the need for change in the IAG structure was identified as a high priority. The scope of geodetic science had enormously expanded, technological change was rapid, and the need for more flexibility in the organizational structure was urgent. First steps towards resolving these issues were initiated before 2000, but the bulk of the work was done during the next period.

**Fernando Sansò**  
**President 1999 – 2003**



Born in 1945 he got a degree (cum laude) in theoretical physics in 1967.

After a 2 years fellowship at the Institute of Mathematics of Politecnico di Milano, he became assistant professor of Surveying at the Institute of Surveying, Photogrammetry and Geophysics where he taught statistical methods for surveying and geodetic applications up to present years.

After full professorship in 1981, he became director of the Institute till 1992.

His interest in physical and mathematical geodesy was strongly stirred after a 6 months stage at the Graz University, with Prof. H. Moritz in 1978. During this stage the first researches on geodetic boundary value problems were started, leading to many new results and a systematization of this tool for the gravity field analysis.

Bomford Prize awarded in 1979. He entered into the IAG Executive Committee in 1983, as secretary of Section IV on theory and methodology of which he was elected President in 1991. He became Vice-President of IAG in 1995 and then President for the period 1999-2003.

Meanwhile he has organized international schools of theoretical geodesy as well as a series of formerly so-called Hotine, then Hotine-Marussi Symposia.

Furthermore he founded already in 1992 the IAG International Geoid Service on account of which also another series of Geoid-schools was initiated, which still continues with one course every couple of years.

He has been editor of various international journals, awarded the Doctor Scientiarum honoris causa degree in Geodetic Science by the University of Copenhagen, the full membership of the Accademia Nazionale dei Lincei and the fellowship of the Royal Astronomical Society.

He is presently chair of the PhD doctorate in Geodesy and geomatics of Politecnico di Milano. He has been author or co-author of about 300 scientific publications.

**Gerhard Beutler**  
**President 2003 – 2007**



Gerhard Beutler was born in 1946 and is married to Ruth M. Schweizer since 1979. Daughter Marianne was born in 1981. Gerhard Beutler received his elementary and secondary school education in Kirchberg (Canton Bern, Switzerland), and high school education in the city of Berne (Gymnasium Humboldtianum). The high school studies were completed by acquiring the “Eidgenössischer Maturitätsausweis” (type C, Mathematics / Natural Sciences)” in 1964. In the years 1964 – 1971 he studied physics, mathematics, and astronomy at the Phil.-nat. Faculty of the University of Berne. In 1971 he received the diploma in astronomy. Between 1971 and 1983 he was research assistant at the Astronomical Institute of the University of Berne (AIUB). In this period he completed his Ph.D. thesis entitled *Integrale Auswertung von Satellitenbeobachtungen* (1976) as well as his second doctorate (Habilitation) entitled *Lösung von Parameterbestimmungsproblemen in Himmelsmechanik und Satellitengeodäsie mit modernen Hilfsmitteln* (1983).

In the years 1983 – 1984 Gerhard Beutler was a research assistant at the University of New Brunswick (UNB) in Fredericton, Canada, where he gained first experience in the scientific exploitation of the Global Positioning System (GPS). From 1984 to 1991 he was research associate and lecturer (with courses in astronomy, celestial mechanics, numerical analysis) at the AIUB. The foundations of the Bernese GPS Software were laid in this time period.

In 1991 Gerhard Beutler was elected Associate Professor and Director of the AIUB as successor of Prof. Paul Wild. In 1996 he was promoted to the position of a full professor. The two-volume work “Celestial Mechanics, Theory and Applications”, published in the Springer Astronomy & Astrophysics Library, was compiled in the years from 2000 to 2005 together with Prof. Leos Mervart (Technical University of Prague) and Dr. Andreas Verdun (AIUB).

Between 1991 and 1993 Gerhard Beutler chaired the IGS (International GPS Service) Oversight Committee. Between 1994 and 1997 he served as the first Chairman of the IGS (now called International GNSS Service). He is still member of the IGS Governing Board.

Gerhard Beutler is fellow of the IAG (International Association of Geodesy) since 1995, fellow of the AGU (American Geophysical Union) since 1996. In addition to the chairmanship/membership of the IGS Governing Board, Gerhard Beutler held a series of offices in the IAG, in particular President of CSTG (committee on the coordination of space techniques) between 1995 and 1999, IAG Vice President between 1999 and 2003, IAG President between 2003 and 2007. In this time span the IAG accomplished a profound review of its structure.

In 2006 Gerhard Beutler received the Vening-Meinesz Medal of the EGU (European Geophysical Union) and the honourable degree of “Dr.-Ing. Ehren halber” of the Technical University of Munich (TUM).

Since 2007 he is member of the US Presidential Committee on Positioning, Navigation, and Timing (PNT). He also became Hans Fischer fellow of TUM’s Institute for Advanced Study (IAS), where he conducts, together with Prof. Reinhard Rummel, the three-year project “satellite geodesy”.

## 2. Secretaries General

### Claude Boucher Secretary General 1991 – 1995



Né le 8 juillet 1949 à Troyes (France), C Boucher est ancien élève de l'Ecole Polytechnique (X 69) et Ingénieur Général des Ponts et Chaussées (canal géographique).

Diplômé d’Etudes Approfondies de l’Université Pierre et Marie Curie Paris VI (Astronomie Fondamentale et Mécanique Céleste) (1973 – 1974), il a été ingénieur à l’Institut Géographique National (IGN) de 1974 – 1999, exerçant les fonctions successives suivantes: chercheur au Service de Géodésie et Nivellement (SGN) puis chef de ce service, directeur Technique de l’IGN et termina sa carrière à l’IGN comme chargé de mission auprès du Directeur Général.

En 1999, il est nommé chargé de mission au Département Espace et Aéronautique du Ministère de la Recherche et des Nouvelles Technologies, et devient en 2004 membre permanent du Conseil Général des Ponts et Chaussées (3<sup>e</sup> section)..

Il a été Directeur Exécutif du Groupe de Recherche de Géodésie Spatiale (1985-1991) ainsi que Secrétaire de la Section de Géodésie du Comité National Français de Géodésie et de Géophysique (CNFGG) puis Président de cette Section (1997 – 2003)

Membre correspondant du Bureau des Longitudes, il est également Fellow de la Royal Institution of Chartered Surveyors (FRICS)

Dans le cadre international, il a exercé les fonctions de secrétaire adjoint de l'Association Internationale de Géodésie (IAG) de 1975 à 1991, en soutien à Jean-Jacques Levallois, puis Michel Louis, de Secrétaire de la Fédération des Services de données Astronomiques et Géophysiques (FAGS) (1980 – 1986) et enfin de Secrétaire Général de l'IAG (1991 – 1995) avec Pascal Willis comme secrétaire adjoint.

Il a par exercé de multiples activités, notamment président de la Commission X de l'IAG Réseaux Géodésiques Globaux et Régionaux (1995 – 2003 ) et responsable de la réalisation de l'ITRF (International Terrestrial Reference Frame) dans le cadre du Service International de Rotation et des Références Terrestres (IERS), depuis sa création en 1988, et ceci jusqu'en 2004.

### **Carl Christian Tscherning Secretary General 1995 – 2007**



Born May 21, 1942. Mag. Scient. in geodesy, May 1970, University of Copenhagen. During military service 1960 – 1962 trained as Field Artillery survey group leader. Worked 1964 – 1988 at the Geodetic Institute of Denmark initially as a student assistant. Lecturer (part time) in physical geodesy at the University of Copenhagen 1977-1988. From 1988 professor of geodesy.

He has stayed several periods at the Ohio State University and at the German Geodetic Research Institute (Munich) and been a visiting senior scientist, U.S. National Geodetic Survey in 1981.

Carl Christian Tscherning was secretary of the International Association of Geodesy (IAG) Section III (Gravity Field) 1983 – 1987; Associate Editor Reviews of Geophysics 1984 – 1987; Editor-in-Chief Bulletin Géodésique 1986 – 1995 and Manuscripta Geodaetica 1992 – 1995. Moreover Secretary International Geoid Commission, 1987; Member Directing Board International Gravity Bureau 1986 – 1994; IUGG representative to CODATA, 1987 – 1995; Secretary General IAG 1995 – 2007; Associate Editor Studia Geophysica et Geodaetica from 2005. Has hold many offices in professional organizations such as President of the Geo-Section of the Danish Union of Masters and Ph.D.'s in Science and Humanities (Dansk Magister-forening) 1985 – 1987 and president the Science Faculty section 1989 – 1995; Vice President Danish Geophysical Society 1984 – 1989 and President 1990 – 1991, Secretary, 1985 of Danish National Committee for the International Union of Geodesy and Geophysics, President 1992 – 1999.

His research has primarily been in physical geodesy and in the geodetic use of space methods (satellite radar altimetry, GPS), resulting in more than 240 publications in national and international scientific journals, symposium proceedings and report series. Received Ole Rømer award (Danish), 1971, and W. A. Heiskanen Senior Award (Ohio State University), 1976. Fellow American Geophysical Union, 1991, Foreign Associate Royal Astronomical Society (UK), 1999, IAG Levallois Medal, 2007.