

TUESDAY, 21ST FEBRUARY 2006

**DAY 1. Afternoon. OPENING**

17.00 – 19.30 hrs OPENING PLENARY IN THE “RESIDENZ MÜNCHEN”

The Opening Plenary is accompanied by the Saxophone quintett of the German Air Force Band (Luftwaffenmusiccorps 1)

WELCOME AND MODERATION:

**Prof. Dr. Guenter W. Hein**, Institute of Geodesy and Navigation, University FAF Munich, Germany

**ROUND 1. THE POLITICAL AND ECONOMICAL DIMENSION OF SATELLITE NAVIGATION**

Representatives from governments are discussing the role of satellite navigation in our society and the benefits for our citizens.

PANEL MEMBERS:

- **Erwin Huber**, Bavarian Minister of Economic Affairs, Infrastructure, Transport and Technology, Munich, Germany
- **Michael Glos**, Federal Minister of Economics and Technology, Berlin, Germany
- **Walter Hirche**, Minister of Economic Affairs, Labour and Transport of Niedersachsen, Hannover, Germany
- **Jörg Hennerkes**, State Secretary, Federal Ministry of Transport, Building and Urban Affairs, Berlin, Germany
- **Dr. M.Y.S. Prasad**, Deputy Director, Space Applications Centre, ISRO, India
- **Anatolij Evgenjevitch Shilov**, Head of Navigation Department, Federal Space Agency, Moscow, Russia

**ROUND 2. THE GROWING IMPACT OF SATELLITE NAVIGATION SERVICES**

Representatives of the European Commission, the Galileo Joint Undertaking, the European Space Agency, the Galileo concession consortium as well as U. S. GPS representatives are opening the Munich Satellite Navigation Summit 2006 with their view on the growing impact of satellite navigation services.

PANEL MEMBERS:

- **Heinz Hilbrecht**, Director for Land Transport & Galileo, Directorate Energy and Transport, European Commission, Brussels, Belgium
- **Jean-Jacques Dordain**, Director General, European Space Agency, Paris, France
- **Michael E. Shaw**, Director, National Space-based PNT Coordination Office, Washington, D.C., USA
- **Etelka Barsi-Pataki**, Member of the Committee on Transport and Tourism, European Parliament, Brussels, Belgium
- **Martin Ripple**, Representative of the European Navigation Concessionaire, Paris, France

20.00 hrs BAVARIAN GOVERNMENT RECEPTION IN THE “RESIDENZ MÜNCHEN”

hosted by the Bavarian Vice-Minister of Economic Affairs, Infrastructure, Transport and Technology, Hans Spitzner

WEDNESDAY, 22ND FEBRUARY 2006

**DAY 2. Morning. GETTING UPDATED**

8.30 – 11.00 hrs SESSION 1. NEWS FROM SATELLITE NAVIGATION SPACE

Presentations are informing about GIOVE-A, the first Galileo satellite in space, the Galileo concession process, the actual status of GPS, GLONASS, QZSS and other important news in the satellite navigation world.

CHAIRMAN:

- **Prof. Dr. Tony Pratt**, Defence Science Technology Laboratory, UK

PRESENTATIONS:

- **John Paffett**, Director of Projects, Surrey Satellite Technology Ltd, Guildford, UK

*GIOVE-A The First Galileo Satellite in Space*

- **Sylvain Loddò**, Galileo System, Ground Segment and Operations Manager, Navigation Department, European Space Agency, Noordwijk, NL

*Status of the Galileo Project*

- **David A. Turner**, National Space-based PNT Coordination Office, Washington, D. C., USA

*Status of GPS Modernization*

- **Sergey G. Revniviykh**, Deputy Head of Mission Control Center, Moscow, Russia

*Status Report of GLONASS*

- **Hiroaki Maeda**, Engineering Manager for Satellite Navigation and Positioning Systems Division, NEC Toshiba Space Systems, Ltd.,  
and  
**Mikio Sawabe**, Deputy Project Manager, Satellite Applications Center, Japan Aerospace Exploration Agency, Tokyo, Japan

*Status of the Japanese QZSS Project*

- **Carlo des Dorides**, Head of GJU Concession Division, Galileo Joint Undertaking, Brussels, Belgium

*Status of the Galileo Concession Process*

11.00 – 11.30 hrs MORNING COFFEE

11.30 – 12.30 hrs SESSION 2. MUNICH FLASHLIGHTS – NEWS FROM BAVARIA

Brief presentations from the Munich scene reporting on activities of the Bavarian satellite navigation network of excellence

CHAIRMAN:

- **Prof. Dr. Merith Niehuss**, President, University FAF Munich, Germany

PRESENTATIONS:

- **Guenther Stamerjohanns**, CEO Galileo Industries, Ottobrunn, Germany

*Galileo Industries - a European High-Tech Company*

- **Dr. Reinhold Lutz**, CEO, EADS Astrium GmbH, Ottobrunn, Germany  
*Performance Centre for GNSS - EADS Astrium's Commitment to Provide a Key Element*
- **Dr. Stefan Sassen**, Teleop GmbH, Wessling, Germany  
*TeleOp – The New Company in the Galileo Concession Consortium*
- **Dr. Stefan Bedrich**, Kayser-Threde GmbH, Munich, Germany  
*The Galileo Precise Timing Facility (PTF)*
- **Prof. Dr. Achim Bachem**, Member of the Executive Board, German Aerospace Center (DLR), Cologne, Germany  
*Oberpfaffenhofen: Site of the Galileo Control Centre and Research in Satellite Navigation*
- **Dr. Guenter Heinrichs**, IfEN GmbH, Poing, Germany  
*GATE – The German Galileo Test Environment*
- **Prof. Dr. Bernd Eissfeller**, Institute of Geodesy and Navigation, University FAF Munich, Germany  
*GNSS-Indoor Research*

12.30 – 13.30 hrs LUNCH BREAK

## **DAY 2. Afternoon. GNSS SERVICES**

13.30 – 14.30 hrs SESSION 3. GALILEO ON THE WAY TO A DUAL SYSTEM ?

- GNSS Services for the Public Sector –

Galileo was launched as a civil system under civil control. The Public Regulated Service (PRS) is for authorized users of the public sector, among them there may also be the military. Isn't a satellite navigation system by its nature and security requirements a dual system?

CHAIRMAN:

- **Dr. Mario Caporale**, Head of Satellite Navigation, Telecommunication and Navigation Unit, Italian Space Agency, Rome, Italy

PANEL MEMBERS:

- **Dr. Xavier Bertran**, Deputy Director, Galileo Programme, EADS Space Services, Paris, France
- **Jean-Francois Bou**, Galileo Program Director, Thales, Paris, France
- **James Doherty**, U. S. Institute for Defense Analyses, Alexandria, VA, USA
- **Anthony Anderson**, Consultant, Defence Science Technology Laboratory, UK
- **Dr. Francesco Martinino**, Director, Alcatel Alenia Space, Rome, Italy

14.30 – 15.30 hrs SESSION 4. NEW PLAYERS IN THE GALILEO CONCERT

Non-European countries are already participating in Galileo and interests are growing on the institutional and industrial level. The panel informs about the status of the cooperation agreements and discusses the motivation of the players involved.

CHAIRMAN:

- **Hans Peter Marchlewski**, General Counsellor, Galileo Joint Undertaking, Brussels, Belgium

PANEL MEMBERS:

- **Prof. Bo Meng**, Chairman, China Galileo Industries, Ltd., Beijing, China
- **Prof. Dr. Lee**, Chairman, Galileo Task Force, Daejeon, South Korea
- **Dr. Zhan Xingqun**, CTO, Shanghai Galileo Industries, Ltd., Shanghai, China
- **Prof. Dr. Chris Rizos**, Australian GNSS Coordination Committee, University of New South Wales, Sydney, Australia
- **Yair Amitay**, Managing Director, MATIMOP - Israeli Industry Center for R&D, Israel

15.30 – 16.00 hrs CHAMPAGNE BREAK sponsored by Arianespace

16.00 – 17.00 hrs SESSION 5. PERSPECTIVES OF GALILEO/GNSS FOR AVIATION

The aviation community has been among the first recognizing the value of satellite navigation. GPS augmentation systems like EGNOS, WAAS, MSAS and GRAS were being built up mainly to serve its need. Meanwhile it seems that the early enthusiasm of aviation for satellite navigation has gone. Does Galileo and GPS-III offer new additional benefits?

CHAIRMAN:

- **Prof. Dr. David Last**, President of the Royal Institute of Navigation, UK

PANEL MEMBERS:

- **Benoit Roturier**, DSNA-DTI, France, Member of EUROCAE, Paris, France
- **Umberto Guida**, GNSS Manager, The European Satellite Services Provider (ESSP), Brussels, Belgium
- **Paul Nisner**, European GNSS Programme Manager, National Air Traffic Services, Gatwick, UK
- **Keith McPherson**, Manager, GNSS Program Office, Airservices Australia, Canberra, Australia
- **Prof. Dr. Per Enge**, Stanford University, Palo Alto, USA
- **Richard Farnworth**, Project Leader GNSS Policy Office, Eurocontrol, Brétigny, France

17.00 – 18.30 hrs SESSION 6. GNSS MASS MARKET APPLICATIONS ARE JUST TAKING OFF

Starting with the evolution of sales in the past years, the panel will inform about the latest trends and predictions for the GNSS mass market. The future role of Galileo will be evaluated in the light of the technological progress. Methods and approaches to boost the development of applications are discussed.

CHAIRMAN:

- **Glen Gibbons**, Editor and Managing Partner, Inside GNSS, Eugene, USA

PANEL MEMBERS:

- **Dr. Jonathan Styles**, Consultancy Director, ESYS, Guildford, UK
- **Dr. Phillip Mattos**, Chief Engineer, GPS & Navigation, ST Microelectronics, Bristol, UK
- **Michael Swiek**, Executive Director U.S. GPS Industry Council, Washington, DC, USA
- **Dr. Günter Hauptmann**, Member Executive Board, Siemens VDO Automotive AG, Babenhausen, Germany
- **Tan Rasap**, Head of Business Development, SiRF Europe, UK
- **Dr. Javad Ashajee**, CEO, Javad Navigation Systems, Inc., USA

- **Dr. Sergej Viktorovitch Filatchenkov**, Russian Institute for Radionavigation and Time, St. Petersburg, Russia
- **Dr. Andreas Böhm**, T-Systems Enterprise Services GmbH, Darmstadt, Germany

## **DAY 2. Evening. SUMMIT SPACE NIGHT 2006**

20.00 hrs EVENING RECEPTION

Sponsored by EADS Space and Galileo Industries in Munich 's Hotel of the Year 2005: Hotel Königshof, Karlsplatz 25

THURSDAY, 23RD FEBRUARY 2006

**DAY 3. Morning. LIVING IN UNCERTAINTY ON PLANET EARTH**

9.00 – 10.30 hrs SESSION 7. SATELLITE NAVIGATION & (PERSONAL) SAFETY

There is a growing need for personal safety of citizens as well as huge needs for the prevention of natural disasters and other catastrophes worldwide. Reliable methods and approaches for search and rescue are more important than ever before. This panel is evaluating whether and how satellite navigation can contribute.

CHAIRMAN:

- **Dr. Paolo Mulassano**, Istituto Superiore Mario Boella, Torino, Italy

PANEL MEMBERS:

- **Arnaud Masson**, Head of Location Solutions, Department Navigation Business Unit, Alcatel Space, Toulouse, France
- **Stuart Martin**, Business Director for Space and Satellite Communications, LogicaCMG Space and Defence Division, London, UK
- **Jim King**, Director, Major Satellite Communications Programs, Communications Research Centre, Ottawa, Canada
- **Gianluca Graglia**, Alcatel Alenia Space, Rome, Italy

10.30 – 11.00 hrs MORNING COFFEE

11.00 – 12.00 hrs SESSION 8. SATELLITE NAVIGATION & SECURITY

The new U.S. space-based positioning, navigation and timing policy of Dec. 15, 2004 mentions explicitly the use of GPS for national, homeland, and economic security. This panel is discussing these services of GNSS and in particular what Galileo can provide.

CHAIRMAN:

- **Col. Willem Folkers**, Dutch Ministry of Defense, The Hague, The Netherlands

PANEL MEMBERS:

- **Kirk Lewis**, U. S. Institute for Defense Analyses, Alexandria, VA, USA
- **Sergio Jesi**, Product Support, Elettronica SpA, Rome, Italy
- **Oscar Pozzobon**, President, Qascom, Italy
- **Raimund Richter**, Thales Defense, Pforzheim, Germany
- **Pascal Campagne**, Managing Director, FDC, Vincennes, France

12.00 – 13.00 hrs SESSION 9. STANDARDIZATION AND CERTIFICATION

Worldwide developments of satellite navigation products and services require early standardization. This session informs about the actual status in the different application sectors and discusses future needs and perspectives. Furthermore panelists will have a look on the impact of the introduction of Galileo with regard to the certification. The new share of responsibilities among the stakeholders (service providers, regulators, users, concessionaire, supervisory authorities) will be discussed.

CHAIRMAN:

- **Prof. Dr. Wolfgang Lechner**, Telematica e.K., Linden, Germany

PANEL MEMBERS:

- **Paulo Alexandre Gomes**, Project Manager, Mobility, Telematics & Business Solutions, Skysoft Portugal, Lisbon, Portugal
- **Carla Filotico**, Booz Allen Hamilton, Ltd., UK
- **George Barbu**, Department Infrastructure, International Union of Railways, Paris, France
- **Jochen Ritterbusch**, Head of Navigation Systems Section, Federal Maritime and Hydrographic Agency, Hamburg, Germany
- **Dr. Johannes Springer**, Satellic Traffic Management GmbH, Berlin, Germany

13.00 – 14.00 hrs LUNCH BREAK

### **DAY 3. Afternoon. VISIONS IN AND FOR SATELLITE NAVIGATION**

14.00 – 16.45 hrs SESSION 10. WHAT IS COMING AFTER GALILEO I AND GPSIIF ?

- Ideas for the Evolution of Satellite Navigation Systems –

Although only the first Galileo satellite is in orbit, planning of the next generation of satellite navigation systems (GPS-III, Galileo II) has already been started. This session will feature ideas and visions for satellite navigation of forthcoming decades.

CHAIRMAN:

- **Prof. Dr. Achim Bachem**, Member of the Executive Board, German Aerospace Center (DLR), Cologne, Germany

Lecture by the Physics Nobel Price Winner, **Prof. Dr. Theodor W. Hänsch**, Director of the Max Planck Institute of Quantum Optics, Garching

ULTRA-PRECISE CLOCKS FOR SATELLITE NAVIGATION

Presentations and Discussions

PANEL MEMBERS:

- **Diane Cornish**, Director Navigation Programs, Lockheed Martin, USA
- **Dr. Sergio Greco**, Director Satellite Navigation, Alcatel Alenia Space, Rome, Italy
- **James Miller**, Senior GPS Technologist, NASA Headquarters, Space Operations Mission Directorate, Washington D.C., USA
- **Michael Rizzo**, Program Director Navigation Systems, Boeing, Huntington Beach, USA
- **Dr. Boris Valentinovitch Shebshavich**, First Deputy of General Director of Russian Institute of Radionavigation and Time, St. Petersburg, Russia
- **Dr. Giuseppe Veredice**, CEO, Telespazio S.p.A., Rome, Italy

16.45 hrs ESA's View on the Future of Satellite Navigation

Closing presentation by **Giuseppe Viriglio**, Director of EU and Industrial Programmes, European Space Agency (ESA), Paris, France

17.15 hrs OPENING OF GALILEO MASTERS COMPETITION 2006

The Galileo Master Competition 2006 will be officially opened.

CLOSING OF MUNICH SATELLITE NAVIGATION SUMMIT 2006