Conference Overview

Monday, September 10th

13:30 hrs  Press Conference  Room Paris

15:00 hrs  Opening Ceremony (included in registration fee)  ECC Hall A
(presentation: Dr.-Ing. Detlef Müller-Wiesner, EADS, FR)

1st CEAS European Air and Space Conference
Deutscher Luft- und Raumfahrtkongress 2007

"Century Perspectives"

Welcoming:
- Prof. Dr. Joachim Szodruch, President of the DGLR
- Sir Colin Terry, President of CEAS
- Harald Wolf, major of Berlin and Senator for economics, technology and women’s issues

Speeches:
- Peter Hintze, Parliamentary Secretary of State at the Federal Ministry of Economics and Technology
- Dr. Jean Botti, CTO EADS

Awards:

Ludwig-Prandtl-Ring to
Prof. Dr.-Ing. Peter Hamel, Braunschweig

Laudation:
Prof. Dr.-Ing. Gottfried Sachs, TU München

DGLR-Awards to Young Professionals presented by
Prof. Dr.-Ing. Joachim Szodruch, President of DGLR and by representatives of the Sponsors

Moderation:
Prof. Dr.-Ing. Stephan Staudacher, University Stuttgart

Speech
Thomas Reiter, Member of directorate of DGLR

20:00 hrs  Reception
in the town hall of Berlin, invited by the governing Mayor of Berlin, Klaus Wowereit

19:15 hrs departure of buses in front of the Estrel Hotel
Tuesday, September 11th (Morning)
08:30 PLENARY SESSION: Space Agencies Forum (Programmes) ECC Hall C

09:40 SESSIONS 1)
- Detecting and Characterising Aircraft Wake Vortices 3) ECC Hall C
- Advanced Metallic Aerostructures 3) ECC Hall D
- Flight Guidance and Control: UAV Formation Flight & Refueling Estrelsaal B
- Aerodynamics Aero-Engine Components ECC Room 2
- Space Systems-Programmatic Aspects ECC Room 3
- Young Professional Conference I ECC Room 1
- Korean Session Room Paris
- Structures: Turbo Machines Estrelsaal A
- History ECC Room 4
- Mechanical Architecture, Design and Engineering 1 4) Estrelsaal C1
- Random Vibration and Acoustics 1 4) Estrelsaal C3
- Short Course 1 ECC Room 5

11:20 SESSIONS 1)
- Controlling and Attenuating Wakes and Wake Encounters 3) ECC Hall C
- Structures: Aeroelastics ECC Hall D
- HMI - Displays Estrelsaal B
- Space Propulsion I ECC Room 2
- Launcher Technologies I ECC Room 3
- Young Professional Conference II ECC Room 1
- Advanced Aero-Engine Concepts Room Paris
- Structures - CF Manufacturing Estrelsaal A
- Aerospace communications ECC Room 4
- Inflatable / Deployable Structures 1 4) Estrelsaal C1
- Random Vibration and Acoustics 2 4) Estrelsaal C3
- Short Course 2 ECC Room 5

Tuesday, September 11th (Afternoon)
14:00 PLENARY SESSION: Airbus A380 Forum ECC Hall C

15:10 SESSIONS 1)
- Air Transport and Environment ECC Hall C
- Air Data and Navigation Sensor Systems ECC Hall D
- Numerical Simulation 3) Estrelsaal B
- Aerodynamics 1 ECC Room 2
- Planetary Exploration ECC Room 3
- Young Professional Conference III ECC Room 1
- Environment and noise Room Paris
- Structures - CF Application Estrelsaal A
- Aerospace Information Technologies and Electronics ECC Room 4
- Inflatable / Deployable Structures 2 4) Estrelsaal C1
- Shock 1 4) Estrelsaal C3
- Short Course 3 ECC Room 5

16:50 SESSIONS 1)
- SESAR 3) ECC Hall C
- Flow Simulation and Validation 3) ECC Hall D
- Flight Control - Functions and Control Laws Estrelsaal B
- Optimisation of Aerodynamic Aircraft Configurations ECC Room 2
- New Space Missions ECC Room 3
- Young Professional Conference IV ECC Room 1
- Aero-Engine Components: Turbines / Combustors Room Paris
- Structures - Miscellaneous  
- Space Control and Simulation  
- Mechanical Architecture, Design and Engineering  
- Shock  
- Short Course  
17:30  
- Korean Presentations

**Parliamentary Evening**
"European Aerospace - Joint Action for Sustainable Success"
presentations by:  
Dr. Jean Botti, CTO EADS  
Prof. Dr.-Ing. Johann-Dietrich Wörner, Chairman of the board of directors of the DLR

**Wednesday, September 12th (Morning)**

08:30  PLENARY SESSION: Towards Climate optimized Aviation  

09:40 SESSIONS  
- Wake Vortex Advisory Systems  
- Unmanned Aircraft Systems  
- Flight Control for Missiles  
- Transport Aircraft Aerodynamics  
- Space Systems: Spacecraft Technologies  
- Aero-Engine Components: Compressors I  
- Air and Space Medicine and Law  
- Supersonic/Hypersonic: Thermal Protection  
- Workshop: ICAO for Space 1  
- Columbia Accident  
- Composite Structures 1  
- Short Course 5

11:20 SESSIONS  
- Wake Vortex R&D  
- Air Transport System  
- Rotorcraft  
- Advanced Wing Technologies and Flight Testing  
- Space Systems: Launcher Technologies II  
- Aero-Engine Components: Compressors II  
- UAS: Innovative Concepts  
- Structures - Optimisation  
- Workshop: ICAO for Space 2  
- Inflatable / Deployable Structures 3  
- Composite Structures 2  
- Short Course 6

**Wednesday, September 12th (Afternoon)**

14:00  PLENARY SESSION: Objectives of the Bologna Process and Effects on Aerospace Engineer Education

15:10 Poster Short Lectures
- Session 1  
- Session 2  
- Session 3  
- Session 4  
- Session 5  
- Session 6
- Session 7
- Session 8 4)
- Session 9 4)
- Session 10 4)
- Towards Climate-optimized Aviation – The Challenge
- Short Course 7

15:50 SESSIONS 1)
- FLYSAFE
- High Lift Aerodynamics 1 3)
- Aviation Safety
- Education 1
- Space Transportation 1
- Space Propulsion II
- Development Perspectives for Civil Aviation (Bauhaus Luftfahrt)
- Launcher
- Mechanical Architecture, Design and Engineering 3 4)
- Composite Structures 3 4)

16:50 SESSIONS 1)
- Operations (Air and Ground)
- High Lift Aerodynamics 2 3)
- Rotorcraft Flight and Structural Dynamics
- Education 2
- Space Transportation 2
- Aero-Engine Components: Compressors III
- UAS
- Aircraft Concepts - Future Projects
- Towards Climate-optimized Aviation – The Response
- Mechanical Architecture, Design and Engineering 4 4)
- Stochastic Analysis 4)
- Short Course 8

Conference Dinner
Presentation of the CEAS Award 2007 to Prof. David Southwood, ESA
Dinner Speech by Prof. Dr.-Ing. Johann-Dietrich Wörner, Chairman of the board of directors of the DLR

Thursday, September 13th (Morning)
08:30 PLENARY SESSION: Technology Forum (Space)
09:40 SESSIONS 1)
- Air Traffic Management 1
- Flight Mechanics: Handling Qualities
- Advanced Technologies to Optimize Aircraft Availability & Operability - 1 3)
- Aircraft Composite Structures 3)
- Space Systems: Technology Aspects
- Aero-Engine Control and Measurement Techniques
- UAS - Sensors and Signal Processing
- Aerodynamics 2
- Space Technology Perspectives
- Mechanical Architecture, Design and Engineering 5 4)
- Materials and Active Structures 1 4)
- Short Course 9
11:20 SESSIONS 1)
- Air Traffic Management 2
- Advanced Wind Tunnel Testing 3)
- Advanced Technologies to Optimize Aircraft Availability & Operability - 2 3)
- Aircraft Composite Structures / Structures - Analysis 1
- Reentry and Landing
- Hypersonic Propulsion Systems
- Flight Control - Actuation and Sensors
- Cabin Architecture
- Micro - Nano Technologies and Space Applications
- Structural Dynamics & Microvibrations 1 4)
- Mechanical Testing 1 4)
- Short Course 10

Thursday, September 13th (Afternoon)
14:00 PLENARY SESSION: Towards the green Aviation

15:10 SESSIONS 1)
- Air Transport Research and Technology
- Technologies for Highspeed Transport 1 3)
- Fault Detection in A/C Systems
- Structures: Buckling
- Galileo’s First Steps and Promisses
- Aero Engine Components Exhaust System / Propeller
- UAS - Unmanned Helicopters
- Cabin Environmental Control System Simulation and Test
- New Technology for Earth Observation
- Structural Dynamics & Microvibrations 2 4)
- Mechanical Testing 2 4)
- Short Course 11

16:50 SESSIONS 1)
- Industrial and Research Cooperations
- Technologies for Highspeed Transport 2 3)
- Measurement Methods for Aerodynamics
- Structures: Analysis 2
- Supersonic/Hypersonic Flow: Reentry
- UAS - Autonomous Flight
- Cabin - Acoustics
- TBD
- Materials and Active Structures 2 4)
- Composite Structures 4 4)
- Short Course 12

1) Detailed technical programme see page 18 ff
2) Detailed technical programme see page 42 ff
3) STS (Special Technologies Session)
The Special Technologies Sessions provide latest research results in specific aeronautics technology areas on technologies that are relevant and becoming mature for industrial application. Many of the presented technology achievements are from EU-financed projects and the European Commission endorses this opportunity for the dissemination of results.
4) SSMMT, belongs to the integrated “Spacecraft Structures, Materials and Mechanical Testing Conference”

20:00 Public Lecture by ESA Astronaut and Member of DGLR Board:
Thomas Reiter
Estrel Hotel, ECC Hall C/D
(16) Diehl Aerospace GmbH
(17) EC-Projekt - "FlySafe"
(18) MCS. Software GmbH
(19) Sörman Information and Media AB
(20) Airbus / EADS
(21) Mircoflown Technologies
(22) German Research Projekt SANTANA
(23) HE Space Operations GmbH
(24) Oerlikon Leybold Vacuum GmbH
**Monday 10 September**

**Congress Reception by the Senate**

20:00

*(Registration is necessary to receive ticket, included in Delegate, Student and Accompanying Person’s fee)*

Delegates, Students and Accompanying Persons are invited to attend the Congress Reception in the Town Hall. A bus shuttle from the Estrel to the Town hall is organised (Bus transfer at 19:15, back transfer between 21:30 and 22:00 or individually). Complimentary light snacks and drinks will be served.

**Tuesday 11 September**

**Parliamentary Evening**

19:00

*(Registration is necessary to receive ticket, included in Delegate, Student and Accompanying Person’s fee)*

Delegates, Students and Accompanying Persons are invited to attend the Parliamentary Evening in the Estrel Convention Hall C (19:00 – 20:00) and after 20:00 in the Estrel Convention Hall A.

**Wednesday 12 September**

**Conference Dinner**

19:30 - 24:00 hrs  
55 € per person

*(included in Accompanying Person’s fee)*

The Congress Banquet will be held in the pleasing Hall A of the Estrel Convention Centre. The Dinner will serve a buffet-type dinner including beverage (except for hard liquors) until 24:00. Guests must present purchased tickets for entry.

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**TUESDAY, 11 SEPTEMBER**

10:00 – 13:00 hrs

**Big Berlin Tour**

20 € per person

Highlights of the capital with the Government area

In the morning a bus will be waiting for you in front of the Estrel hotel. Sitting in a comfortable seat, you will start to discover the capital. This bus tour with English and German speaking guides will give you an overview of the well known sights of Berlin: Kaiser-Wilhelm-Memorial Church, Europe Centre, Bauhaus Museum, New National Gallery, Philharmonic Hall, Potsdamer Platz/Sony Centre, Jewish Museum, Checkpoint Charlie – Wall Museum, Gendarmenmarkt, Alexanderplatz, St.-Nicolai Quarter, City Hall of Berlin, TV-Tower, Berliner Dom, Zeughaus, State Opera, Boulevard Unter den Linden, Brandenburger Tor, Holocaust memorial, Berlin central station, Reichstag, Government Area Chancellery, Tiergarten, Bellevue Palace, Siegessäule, Charlottenburg Palace, Olympic Stadium, Grunewald Forest, Radio Tower, ICC, Kurfürstendamm and more.

After this bus tour you will have the opportunity to have lunch in a nice little restaurant at the Gendarmenmarkt (not included in the tour fee).

14:30 – 17:30 hrs

**Historical Berlin Walk including a trip to the Pergamon Museum**

20 € per person

Our afternoon’s programme offers a walking tour through the history of Berlin. Meeting Point is the Gendarmenmarkt, starting from there, you will discover the capital where it is most beautiful: between Gendarmenmarkt, St.-Nikolai Quarter and Schloßplatz, Boulevard Unter den Linden and Friedrichstraße. An English and German speaking guide will report about the foundation of Berlin in
the 13th century and its development to one of Europe’s most exciting capitals. Here, in Berlin Mitte, many great kings of the past have left their marks on the metropolis.

The tour will end on the Museumsinsel (museum island). There you will have the opportunity to visit the world-famous Pergamon Museum (included in the tour fee).

**WEDNESDAY, 12 SEPTEMBER**
**10:00 – 16:00 hrs**

**Guided tour to Potsdam / Sanssouci - including Palace of Sanssouci**

40 € per person

The former Royal City of Potsdam, an UNESCO world heritage site with its unique collection of palaces and parks, is located just an hour away from the centre of Berlin. The rococo Palace of Sanssouci became the favourite refuge of Prussia’s greatest King, Friedrich II. Here, the Philosopher of Sanssouci entertained some of the most educated men of his time, among them the French poet Voltaire who was a frequent guest over many years.

Our excursion - starting from Estrel Hotel - takes you on an extensive tour of Sanssouci Palace with a stroll through the magnificent gardens, and a city tour of Potsdam during which you discover the heart of the baroque city with its Dutch Quarter and Russian Colony Alexandrovka. A lunch break in Potsdam is included. The bus tour ends again at the Estrel Hotel.

**THURSDAY, 13 SEPTEMBER**
**9:30 – 13:00 hrs**

**Berlin from the water site - River Cruise on Landwehrkanal and Spree**

20 € per person

We invite you to a special event – a beautiful boat trip through the water ways of the capital. Experience the variety of architectural styles on our city cruise and discover that Berlin has more bridges than Venice. You will see Oberbaum Brücke, Oberschleuse, Science Museum, Charlottenburg Palace, Spreebogen, Bellevue Palace, Government Quarter, Reichstag (Seat of the German Government), Charité, Museum Island, Berliner Dom, St.-Nikolai Quarter, Palast der Republik and more. On board, you will have the opportunity for having lunch (not included in the tour fee).

The boat trip will finally take you to the well-known Friedrichstraße. Here, you can go on your own individual shopping tour or join us in the afternoon’s programme: a guided tour to the famous Kaufhaus des Westens (KaDeWe) at the Boulevard Kurfürstendamm.

**14:00 – 16:00 hrs**

**The famous KaDeWe (Kaufhaus des Westens) – a guided tour through the Palace of Shopping**

5 € per person

The Kaufhaus des Westens (Department store of the West, commonly abbreviated KaDeWe) is a department store in Berlin and the second largest in all of continental Europe. Its sheer size, large selection and fame for excellent quality as well as its central location in the heart of Berlin at the famous Boulevard Kurfürstendamm makes it a must for every tourist visiting Berlin.

On this tour, we would meet at 14:00 h at the Information Point on the groundfloor in the entrance hall of the KaDeWe, directly behind the main entrance. The 5,00 € fee has to be paid on-site and will be given back to you in the form of a coupon (“Wunschkarte”).
The following Technical Tours at a cost of 10 Euro per person are possible to attend for Full Delegates and Students *(subject to availability)* – due to the limited capacity, reservations will be taken on a first-come, first served basis. A refund of the cost sharing is not possible. Only registered persons may participate in these tours.

These technical tours have been arranged by the DGLR. The tours include coach transfers. Please indicate your preference in the registration form.

**A:**

10:00 – 16:00 hrs

Participants will visit Kummersdorf with its historical missiles museum - after that you will have the opportunity to see the construction site of the International Airport Berlin Schönefeld.

**B:**

10:00 – 15:00 hrs

Participants will visit Berlin-Gatow and the Air Force Museum the way back leads through the Airport Berlin Tegel.

**C:**

10:00 – 13:00 hrs

Participants will visit the construction site of the International Airport Berlin Schönefeld.

**D:**

10:00 – 14:00 hrs

Participants will visit Berlin-Adlershof (DLR) with its planet research and satellites departments; after that they will see the historical examination ground (GBSL).

**E:**

10:00 – 13:00 hrs

Participants will visit the Technical University of Berlin and have the opportunity to see the flight simulator A330.

**F:**

10:00 – 16:00 hrs

Participants will visit Stölln, the place of death of Otto Lilienthal during his flight experiments and they will be guests of the inauguration ceremony of a Lilienthal memorial.

**G:**

10:00 – 16:00 hrs

Participants will visit the museum of transportation and technics with its exhibition of aeronautics and astronautics.
LOCATI0N AND DATES

The 1st CEAS Congress will be held at the Estrel Convention Center (ECC) Berlin, Germany from Monday, 10 September to Thursday, 13 September 2007 and is hosted by the German Society for Aeronautics and Astronautics (DGLR).

CONFERENCE LANGUAGE

Conference language is English – presentations are therefore preferred in English but also permitted in German.

REGISTRATION FEE INCLUDES

**Full Delegates** – Attendance at the Congress sessions, coffee/tea during the breaks, Opening Ceremony on Monday Afternoon, Welcome Reception on Monday Evening by the Senate of Berlin, Parliamentary Evening on Tuesday, Final Programme, Proceedings on CD-ROM, Congress bag and name badge.

**Students** – Same as Full Delegates.

**Accompanying Persons** – Attendance at Opening Ceremony on Monday Afternoon, Welcome Reception on Monday Evening, Parliamentary Evening on Tuesday Evening, Conference Dinner on Wednesday evening and the possibility to book organized Social Programme.

REGISTRATION DESK

The registration desk, situated in the rotunda, the passway from the ECC to the Estrel Hotel, will be open during the following hours:

- Monday, 10 September: 12:00 - 18:00 hrs
- Tuesday, 11 September - Wednesday, 12 September: 07:30 - 18:00 hrs
- Thursday, 13 September: 08:00 - 17:00 hrs

TOUR RESERVATIONS

ConTour GmbH has arranged the accompanying person’s programme listed on the following pages. Participants who wish to book these tours should contact the registration desk to check whether it is still possible to participate. Credit card payments for accompanying person’s tour charges will be deducted in full by machtWissen.de AG.

CONGRESS PROCEEDINGS

The CEAS 2007 Congress proceedings are available on CD-ROM, which are included in the registration fee where indicated. Additional CD-ROM can be ordered with the registration form at a cost of 90 EUR.

For viewing the CD-ROM computers will be available in room 8 (Straßburg) on the ground floor at the ECC venue. If you require hard copies of single papers, they are available for purchase on-site (papers in the CD-ROM only). Orders are made at the registration desk at a cost of 2 EUR per paper (black & white copy only). Ordered hard copies will be available at the registration desk by the following morning.

INTERNET ACCESS

The DGLR has arranged an internet cafe with six PC-stations. The internet cafe is located on the ground floor of the ECC venue in room 8 (Straßburg). Internet access is free of charge for registered persons.

INSURANCE

Participants are advised to take out their own travel insurance and to extend any private policies for personal possessions they may be bringing with them. The Congress does not cover participants against travel, cancellations of bookings or loss/theft of belongings.
USEFUL HINTS

Estrel Convention Center

Berlin, the capital of Germany, is dynamic, cosmopolitan and creative, allowing for every kind of lifestyle. East meets West in the metropolis in the heart of a changing Europe. Germany's largest city is a city of opportunities waiting to be sized in all areas, like entertainment, recreation, economy, science and academic life, as well as in politics. The Estrel Berlin is said to be Europe's largest convention, entertainment and hotel complex. With 1,125 rooms and suites, five restaurants, two bars, a beer garden, the Estrel has plenty to offer to every guest. Beside the Estrel Hotel accommodation will be available in various prize categories.

Currency
The currency used in Germany is European EURO (EUR, €). Notes are available in units of EUR 5, 10, 20, 50, 100, 200, and coins in units of Cent 1, 2, 5, 10, 20, 50 and EUR 1 and 2. Traveller's checks and currencies from most countries can be exchanged for European EUR at major banks and hotels. Only European EUR is accepted at regular stores and restaurants.

Credit Cards
International credit cards such as Master Card, Visa, American Express and Diners Club are widely accepted at hotels, department stores, large shops and restaurants.

Tax and Tipping
In Germany there is the custom of paying 10 percent of the amount of the bill as tipping in restaurants. A 19% sales tax applies to almost all consumer goods sold in Germany.

Climate
Berlin is located in between the changeover of oceanic and continental dominated climate. In the month of September the average daytime temperature in Berlin a comfortable 65°F (18° C). The average number of rainy days is 14 and days of sun 5,2. Participants are therefore recommended to bring normal summer clothing with adequate clothing for cooler and rainy days and evenings.

Electricity 220-230 volts AC, 50-60 Hz