



# NACRE

## 2<sup>ND</sup> CONFERENCE

# “New Aircraft Concepts”



*the*  
UNIVERSITY  
*of*  
GREENWICH

## Technical Programme

### 8–10 July 2008

NACRE is an Integrated Project  
co-funded by the European Commission  
within the Sixth Framework Programme (2002–2006)  
under Thematic Priority 4 Aeronautics and Space





# Aeronautics and Space

## Facts and Figures about NACRE

- Start date of contract: 1st April 2005
- Duration: 48 months
- Budget: 30.3 million Euros
- European Community funding: 16.9 million Euros
- Number of partners: 36

## The Consortium at a glance



**AIRBUS**

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 BELLONTE  
 31707 BLAGNAC CEDEX – FRANCE



## NACRE Advisory Group (NAG) Members

Organisation	First Name	Surname	E-mail
Chairman of the NAG	Laurent	DALA	laurent.dala@uwe.ac.uk
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The NAG is made up of 17 members:

- 7 from Universities
- 10 from Research Establishments

They represent a large panel of specialists covering all the different issues addressed in NACRE.

The Technical Committee of the Conference is formed by the members of this NACRE Advisory Group, chaired by Laurent Dala. To that respect, the NAG supports the scientific organization of the NACRE Conference.



## Logistic Programme

### Tuesday 8<sup>th</sup> July

**18:00 – 21:00**      **Registration & Cocktail Reception**  
*Queen Anne Court, 1<sup>st</sup> floor Circulation Area*

### Wednesday 9<sup>th</sup> July

**08:00 – 08:30**      **Registration**  
*King William Court, 3<sup>rd</sup> floor Assembly Space*

**08:30 – 10:00**      **Welcome & Opening**

**10:00 – 10:30**      ***Coffee break***

**10:30 – 12:30**      **Session 1**

**12:30 – 14:00**      ***Lunch***  
*Queen Anne Court, 1<sup>st</sup> floor Circulation Area*

**14:00 – 16:00**      **Session 2**

**16:00 – 16:30**      ***Coffee Break***

**16:30 – 18:00**      **Session 3**

**19:30 – 22:00**      ***Conference Dinner***  
*Painted Hall*

### Thursday 10<sup>th</sup> July

**08:00 – 08:30**      **Registration**  
*King William Court, 3<sup>rd</sup> floor Assembly Space*

**08:30 – 10:00**      **Session 4**

**10:00 – 10:30**      ***Coffee break***

**10:30 – 12:00**      **Session 5**

**12:00 – 12:30**      **Conference Wrap-up**



## Technical Programme

### Wednesday 9<sup>th</sup> July

**08:00 – 08:30 Registration** – King William Court, 3<sup>rd</sup> floor Assembly Space

**08:30 – 10:00 Welcome & Opening** – King William Court, 3<sup>rd</sup> floor, Room 315

08:30 – 08:45

**Welcome address:** Edwin Galea, Director Fire Safety Engineering Group,  
University of Greenwich – UK

08:45 – 09:15

**Keynote address:** Joachim Szodruch, Chairman of ACARE, DLR – Germany

09:15 – 09:45

**NACRE Highlights:** João Frota, NACRE Project Coordinator, Airbus – France  
Eric Maury, Strategy and Future Programmes, Airbus – France

09:45 – 10:00

**Conference Objectives:** Laurent Dala, Chairman of the NACRE Advisory Group – UK

### 10:00 – 10:30 *Coffee Break*

**10:30 – 12:30 Session 1** – King William Court, 3<sup>rd</sup> floor, Room 315

**Chairman:** TBD

10:30 – 11:00 Market Opportunities for Green Aviation Operations (*TBC*)

Philippe Jarry, Head of Strategic Marketing, Airbus – France

11:00 – 11:30 Airline Drivers for Future Aircraft Designs (*TBC*)

Hal Calamvokis, Strategic Planning Manager, easyJet Airline Co. Ltd – UK

11:30 – 12:00 Novel Aircraft Concepts

João Frota, NACRE Project Coordinator, Airbus – France

12:00 – 12:30 An Innovative Evaluation Platform for New Aircraft Concepts

Peter Schmollgruber, Long Term Design & Systems Integration, ONERA – France

### 12:30 – 14:00 *Lunch* – Queen Anne Court, 1<sup>st</sup> floor Circulation Area



## Technical Programme

**Wednesday 9<sup>th</sup> July**

**14.00 – 16.00 Session 2 – King William Court, 3<sup>rd</sup> floor, Room 315**

<b>Chairman: TBD</b>
14:00 – 14:30 Unconventional Aircraft Configurations ( <i>TBC</i> )
Ilan Kroo, Department of Aeronautics & Astronautics, Stanford University – USA
14:30 – 15:00 Novel Lifting Surfaces
Kevin Nicholls, Wing & Landing Gear Architect, Airbus – UK
15:00 – 15:30 Hybrid Layout Proposal for the High-Passenger Capacity Aircraft
Anatoly Bolsunovsky, TsAGI – Russia
15:30 – 16:00 Flight Test of the BWB X-48B
Bob Liebeck, BWB Program Manager, Boeing Phantom Works – USA

**16:00 – 16:30 Coffee break**

**16.30 – 18.00 Session 3 – King William Court, 3<sup>rd</sup> floor, Room 315**

<b>Chairman: TBD</b>
16:30 – 17:00 Greener by Design ( <i>TBC</i> )
John Green, Chairman of Science & Technology Sub-Group, Greener by Design – UK
17:00 – 17:30 Novel Powerplant Installations
John Whurr, Future Programmes Engineering, Rolls Royce – UK
17:30 – 18:00 NACRE Wind Tunnel Test Campaign Dedicated to New Aircraft Concepts Study
Sebastien Aeberli, Acoustics Department, Snecma – France

**18:00 – 22:00 Conference Dinner – Painted Hall**



## Technical Programme

### Thursday 10<sup>th</sup> July

**08:00 – 08:30 Registration** – King William Court, 3<sup>rd</sup> floor Assembly Space

**08:30 – 10:00 Session 4** – King William Court, 3<sup>rd</sup> floor, Room 315

**Chairman: TBD**

08:30 – 09:00 Novel Fuselage Concepts

Lars Fiedler, Structure Design, Airbus – Germany

09:00 – 09:30 Improvement of Civil Airframes – Modern Trends and Directions

Georgy Zamula, Deputy Director Structures, TsAGI – Russia

09:30 – 10:00 Structural Concepts of Passenger Driven Aircraft (*TBC*)

Joerg Nickel, Institute of Composite Structures and Adaptive Systems, DLR – Germany

**10:00 – 10:30 Coffee Break**

**10:30 – 12:00 Session 5** – King William Court, 3<sup>rd</sup> floor, Room 315

**Chairman: TBD**

10:30 – 11:00 Design of Innovative Cabin Interiors (*TBC*)

Werner Granzeier, Department of Automotive Engineering and Aircraft Construction, University of Hamburg – Germany

11:00 – 11:30 Boeing and Cranfield University BWB Airplane Egress Study

Bruce Wallace, Evacuation Systems Engineering, Boeing – USA

11:30 – 12:00 Fire and Evacuation analysis in BWB aircraft configurations: Computer Simulations and a Large-Scale Experimental Study.

Edwin Galea, Director Fire Safety Engineering Group, University of Greenwich – UK

**12:00 – 12:30 Conference Wrap-up**

with Liam Breslin, Head of DG RTD Aeronautics Unit, European Commission – Belgium

## General Information

**Host:**

**University of Greenwich (UoG)**

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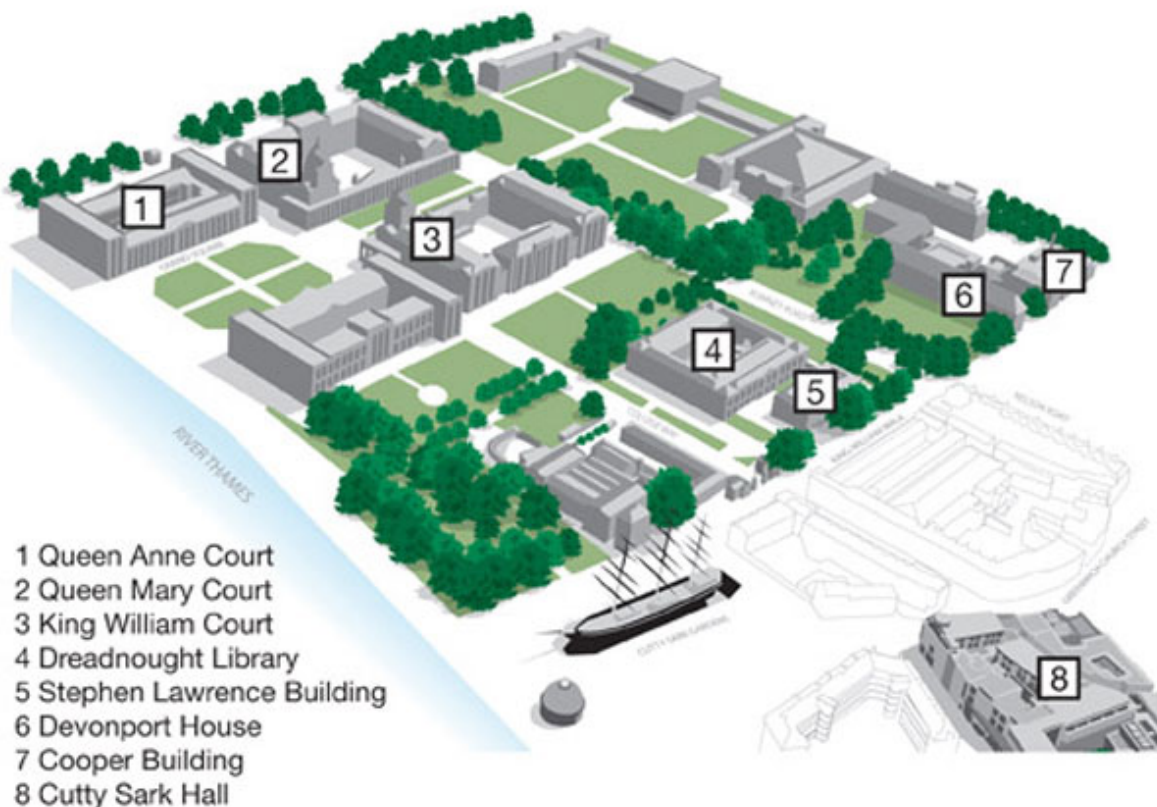
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## Travel Information

### From Airports

#### London City Airport:

This is the **closest airport to the University campus**, via the Docklands Light Railway (DLR). From the airport, take the **DLR towards Bank**, change at Poplar for **Cutty Sark**. Coming out of the station, take left exit. The entrance to the University can be seen right ahead (approx. 20 min.).

Alternatively you can call a minicab (Greenwich Car Hire, Tel. +44 (0)20 8858 6661, charges around £14 for the journey). Black taxis are more expensive.

#### Heathrow Airport:

The airport is on the London Underground, **Piccadilly Line**. A service runs every 5-10 min. into Central London. Take underground to **Charing Cross** or **London Bridge** then a train to **Greenwich** or **Maze Hill** from either of these railway stations (approx. 1h50).

Alternatively, take underground to **Canary Wharf** via Piccadilly and Jubilee lines (changing at **Green Park**) then change to Docklands Light Railway (DLR) to **Cutty Sark**. Takes roughly the same time (1h50), **but Cutty Sark is closest station to UoG**.

#### Gatwick Airport:

Gatwick Airport has its own railway station. Take the “**Thameslink**” train to **London Bridge** (approx. 30 min.) and change at London Bridge for **Greenwich** or **Maze Hill** (another 15-20 min.).

### From Central London

#### **By Tube**

The **nearest Tube station** to the university campus is **North Greenwich**. From that station take a 188 Bus to reach the campus. A better option is to use the DLR (see below).

#### **By Docklands Light Railway (DLR)**

Direct DLR services run from Bank, Canary Wharf & Lewisham to **Cutty Sark Station** which is the nearest to the **Greenwich campus** (*just 2 min. walk*).

#### **By Train**

Charing Cross, Cannon Street, Waterloo East & London Bridge all offer **direct services** (every 10 min. or every few minutes during rush hour) to Greenwich Station on the Dartford/Gravesend via Greenwich and Woolwich line. If you are travelling from Kent, alight at Maze Hill.

#### **By Road**

The A2 and the A20 provide access to Greenwich. The Blackwall Tunnel links Greenwich with the northern side of the Thames. However, due to the high levels of traffic in Greenwich and the very strict parking regulations in the area, visitors are advised to use public transport whenever possible.

### Travel Card

You can travel cheaper after 9:30am, using a “Travel Card”. This card allows you to travel in London on trains, buses, underground and DLR for the entire day. Make sure however that you buy the correct card to cover the zones you are travelling in. Ask when you buy it at the station.

Black taxis are expensive. It is best to book a minicab. There is one minicab firm close to the University: Greenwich Car Hire, Tel. +44 (0)20 8858 6661.

For more useful tips on London travel, go to <http://www.tfl.gov.uk/tfl/>

#### **Other useful links:**

Plan your train journey: <http://www.railtrack.co.uk/>

London map: <http://www.streetmap.co.uk/>



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**Disclaimer: NACRE Consortium accepts no responsibility or liability whatsoever with regard to the information within this document.**



**AIRBUS**

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# Sixth Framework Programme 2002 – 2006

