

2010-2011

ANNUAL REPORT

ROYAL AERONAUTICAL SOCIETY HAMBURG BRANCH e.V.

In its sixth year of existence, the activities of the Branch continued to attract more aviation enthusiasts to the activities of the Hamburg Branch and to ensure future growth.

Lectures

At Hamburg, there is a close cooperation between the DGLR, VDI and the RAeS to organise lectures and to mutually publicise events. The lectures listed below were organised and facilitated by the RAeS Hamburg Branch.

Most lectures were held in the lecture theatre of the "Hochschule für angewandte Wissenschaften" (University of Applied Sciences) which is at no cost to us. On the few occasions where this was not possible we used the facilities of the Gästehaus der Universität (University Guest House) which costs around 200 euros per event

The first lecture of the annual year 2010-2011 organised by the Branch took place on 28th October 2010. It was presented by Jean-Françoise Coste and entitled "Conception and Construction of the Millau Viaduct". Jean-François Coste is Chairman of the Civil Engineering Committee / Conseil national des ingénieurs et scientifiques de France. He has been involved with the creation of the Millau viaduct from the time in 1987 when the project was first conceived all the way through to its construction during 2001 to 2004.

Unfortunately this lecture only attracted a small audience of about 30. This may have been due to the bad weather but also the subject which had little meaning for our normal audience. Despite this the lecture was extremely interesting and generated a lot of questions afterwards. The relationships of bridge design (flutter, wind forces etc) with aircraft design were clearly demonstrated.

The second lecture was held on the 11th November 2010 and was presented by Ian Middleton from Eurocontrol in Brussels on "The Role of EUROCONTROL and the Challenges Ahead". Ian Middleton has over 30 years experience in Air Traffic Management. He is currently Deputy Director Centre of Expertise in the Co-operative Network Design Directorate of EUROCONTROL. In this role he is responsible for over 500 ATM experts whose aim is to provide the EUROCONTROL Stakeholders and the European Commission with the technical expertise to ensure the successful implementation of the Single European Sky.

Ian gave us a very good insight into the operation and responsibilities of Eurocontrol and an audience of about 50 enjoyed a very professional lecture.

The third lecture on 27th January 2011 was by Daniel Reckzeh from Airbus in Bremen, who spoke to us about "Aerodynamic Design of High-Lift Wings at Airbus - from A350XWB into the Future". Daniel Reckzeh has been with Airbus in the Design Organisation since 1996. He has held various leading functions in the Aerodynamics Office and worked on various Technology programmes as well as on the design of the A380, A400M and A350XWB. In his current role in Airbus R&T "Chief Engineering" he is responsible for research and technology activities in the area of "Overall Aircraft Design & Integration" and leads the R&T "Plateau" at the Bremen site.

He gave us an overview of current and future developments and technologies in the area of aerodynamic design at Airbus concentrating on the high-lift system. He described calculation

methods and tools used including wind-tunnel testing, discussed current developments with the A350XWB and ended with an outlook and examples for future technological solutions.

We had a very good audience of about 110 who were given a first-hand insight into the design of current and future high-lift systems and specifically the A350. Much discussion ensued after the lecture.

The fourth lecture on 3rd March 2011 was given in German by Prof. Hans-Ulrich Meier to mark the publication of the book "German Development of the Swept Wing 1935-1945" of which he is editor. The lecture was entitled "Die Pfeilflügelentwicklung in Deutschland bis 1945" which is also the title of the original German version of the book.

This lecture gave a fascinating historical overview of swept-wing research and development at this time finishing with post-war applications of this work.

An audience of around 80 attended this lecture.

The fifth lecture on 31st March by Dr Raj Nangia from Bristol and entitled "Improvements for More Efficient & Greener Civil Aviation - Air to Air Refueling & Close Formations".

Dr Raj Nangia graduated from University of London with BSc and PhD in Aeronautical Engineering and has worked with Hawker Siddeley, British Aerospace and at University of Bristol (Academic Staff & Research)

He has been a Consulting Engineer for the past 20+ years working in several areas of Aerodynamics, Propulsion, Configurations, Projects, Ship Air-Wakes and has been involved with BAESYSTEMS, Airbus, Rolls Royce, USAF, DTI, QinetiQ and DSTL. Recently, he has been a visiting Lecturer at the University of West of England in Bristol.

He showed that the most efficient range of passenger aircraft was around 3000nm and significant savings could be achieved by limiting range and introducing AAR for longer ranges. Such savings were far larger than anything to be achieved in new advanced design.

An audience of about 80 were very interested and a good discussion developed with much enthusiasm.

The sixth lecture was held on 5th May and given by Prof. Keith Hayward Head of Research at the RAeS in London. His lecture was entitled "European Aerospace at a Crossroads". Prof. Hayward gave an overview of the status of European Aerospace looking at past history, present situation and a prediction for the future. He said that opportunities had been lost in consolidating the defence industry with the result that the outlook for this area in Europe was very poor compared to the American opposition. On the contrary the outlook for civil industry was indeed good although the political make-up of Airbus needed rationalising to ensure a good future.

An audience of around 80 enjoyed this lively lecture.

The seventh lecture will be given by Tony Buttler on 26th May. He will talk about "American Secret Fighter Projects"

The eighth and final lecture of the season will be given after the OGA on 21st June in the Gästehaus der Universität. We are very please to welcome this year Fernando Alonso SVP Flight & Integration Tests and Head of Flight Operations at Airbus who will talk to us about flight testing the A400M.

Other Events

Visit to Spain, 7th to 11th April 2011

Following the annual tradition started in 2006, the Munich and Hamburg Branches joined together for a visit to another aerospace centre in Europe. This year Spain was chosen as

the destination with visits organised to Airbus Military in Sevilla and Airbus in Madrid-Getafe. There were 45 participants travelling from Hamburg, Bremen, Munich and Bristol. The visit started in Sevilla with participants arriving on the Thursday evening. Next day Airbus Military at Sao Pablo airport was visited where after a welcome and introduction the group was shown around the A400M final assembly and the final assembly lines of the small transport aircraft. The afternoon was spent on a guided tour of Sevilla. The next day there was an outing to Jerez looking around the town culminating in a visit to Gonzalez-Byass sherry production. In the evening the group came together in a restaurant in Sevilla for an evening dinner.



The group in Sevilla

On Sunday whilst the Munich participants flew to Madrid and the Hamburg participants took the fast train to Madrid, others took the opportunity to visit Cadiz before travelling to Madrid. The evening was then spent enjoying the night life of Madrid. The next day, Monday, the group travelled by coach to Getafe where after being welcomed and given an introduction to the facility a guided tour was enjoyed. The group was shown the A330 MRTT, A380 tailplane assembly, Eurofighter and much else. The guide was able to answer all searching questions and his enthusiasm was much appreciated. After a buffet lunch the coach took those who were returning home to Munich or Hamburg to the airport. The two participants from the Bristol branch stayed on however for a couple of day to enjoy the pleasures of Madrid and its museums. In the end this proved again to be a very popular and successful visit and we were very happy to welcome our two participants from Bristol



The group at Getafe in front of the A330 MRTT.

Annual Christmas Dinner

As every year, the Branch also held a Christmas Dinner on the evening of Tuesday 30th November 2010 at the Anglo-German Club. The Branch was very pleased to welcome Phil Boyle the future President-Elect of the RAeS who spoke to us about some of the current difficulties experienced by the Society. For participants not directly involved in Society affairs some of this was not of direct interest. Over 30 members and friends attended this most enjoyable evening in the very British ambience of the Anglo-German Club, with good discussions and more networking across the North German aerospace community. We were also happy to welcome Prof. Dieter Scholz from the University and DGLR and Eric Heslop from the DGLR as our guests.



Phil Boyle being presented with our Hon. President Hans Altfeld's new book by our Chairman Richard Smyth

Branches Committee Conference

Richard Sanderson represented the Hamburg Branch at this year's Conference in Bedford.

Membership

During the sixth year of its existence, membership is currently 57, of which 23 are members of the Main Society at the same time. Three companies continued their support to the Branch as Corporate Members.

The members of the Executive Committee were:

Chairman: Richard Smyth
Secretary: Joachim Wenzel
Treasurer: André Herbst

The Financial Auditors were:

1st Auditor: Nils Bartling
2nd Auditor: George Lazarjan

The members of the Non-Executive Committee were

Membership Secretary: George Lazarjan
Programme Secretary: Richard Sanderson
Promotion and publicity: Marion Gretenkord
Susanne Altstaedt

There were 6 Meetings of the Committee between 14.06.2010 until 17.06.2011.

Conclusion

The Branch had an excellent sixth year of its existence with nine events (lectures & visits) and lots of interesting discussions related to aerospace. This was made possible thanks to the dedication and most appreciated contribution by its ordinary and Committee members, its company sponsors as well as through the support provided by the Society's headquarter.

Together with our colleagues from the DGLR and VDI whose lectures and events are primarily in German we are offering a top-class programme for the aviation community in Hamburg.

It is particularly rewarding and encouraging to see that our lectures are attended by many young aviation enthusiasts and students of the University.

The Chairman wishes to thank everyone who has contributed to this success but in particular expresses his sincere appreciation for the enormous contributions made by the Branch's Programme Secretary, Richard Sanderson. Without his continued support, the Branch would not have been so successful.

Special thanks should also go to Heiko Froehlich, who has continued to develop a very professional web site for the Branch.

Finally the Branch wishes to thank the "Hochschule für angewandte Wissenschaften" (Hamburg University of Applied Sciences) and Prof. Dieter Scholz for continuing to allow us to use their excellent lecture facilities. This most appreciated support is at no charge to us, which enables us to use the money saved to finance other activities.

Hamburg, 21st May 2011



Richard Smyth
Chairman

APPENDIX

HAMBURG BRANCH, EVENT & LECTURE PROGRAMME

A) 2009/10 SEASON

B) PREVIEW 2010/11 SEASON

Addresses: Anglo-German Club, Harvestehuder Weg 44, 20149 Hamburg
 Gästehaus der Universität, Rothenbaumchaussee 34, 20148 Hamburg
 Hochschule für angewandte Wissenschaften (HAW), Berliner Tor 5 (Neubau), Hörsaal

28.10.2010**	Conception and Construction of the Millau Viaduct	Jean-François COSTE Conseil national des ingénieurs et scientifiques de France	Attendance: about 30 in HAW. Interesting lecture but delivery rather stilted.
11.11.2010**	The role of EUROCONTROL and the challenges ahead	Ian Middleton Eurocontrol	Attendance: 50 in HAW. A specialist lecture on an important subject
30.11.2010	Annual Christmas Dinner and Lecture	Phil Boyle Future President-Elect	Attendance: 35 in AGC. Always popular and much appreciated
27.01.2011**	Aerodynamic Design of High-Lift Wings at Airbus – from A350XWB into the future	Daniel Reckzeh, Airbus	Attendance: 110 in HAW. Very good lecture with much interest
03.03.2011**	Die Pfeilflügelentwicklung in Deutschland bis 1945 (German Development of the Swept-Wing 1935-1945) (Lecture in German)	Prof. Dr.-Ing. Hans-Ulrich Meier	Attendance: 80 in HAW. Good lecture on a subject with relevance today
31.03.2011**	Improvements for More Efficient & Greener Civil Aviation - Air to Air Refuelling & Close Formations	Dr Raj Nangia FRAeS Consultant, Nangia Aero Research Associates, Bristol	Attendance: 80 in HAW. Very interesting proposals which generated much discussion
07-11.04.2010	Visit to Sevilla and Madid		Attendance: 45. An excellent visit. Very good hosts
05.05.2010**	European Aerospace at a Crossroads	Prof. Keith Hayward FRAeS Head of Research, RAeS	Attendance: 80. Excellent overview of the industry and its prospects
03.06.2009**	American Secret Fighter Projects	Tony Buttler, Aviation Historian	
17.06.2009	Ordinary General Assembly and Lecture "Flight Testing the A400M"	Fernando Alonso SVP Flight & Integration Tests, Head of Flight Operations, Airbus	

** Cooperation with DGLR

PREVIEW 2010/11 SEASON

Still in the planning but following lectures and events are provisionally envisaged

- **27.10.2010. Schnieder Trophy Air races. Mike Marsden**, formerly Airbus Filton
- **29.11.2011. Christmas Dinner at Anglo-German Club**
- **01.03.2012. The Development of the Variable Pitch Propellor. Pat Hassell**, RR Heritage Trust
- **29.03.2012. Volcanic Ash. David Learmount**, Flightglobal
- **Date TBD. Luftfahrtforschung in Deutschland nach 1945. Horst Prem**
- **Date TBD. Polar Operations. Alfred Wegener Institute for Polar und Maritime Research**
- **April 2012: Visit to Bristol**

and others in early planning.