IMechE Aerospace North West

Meeting Minutes

A meeting of the IMechE Aerospace North West committee was held on Monday 2nd Mar 2015 at David Lloyd Club, Chorley. The meeting commenced at 18:30 till 20:30.

<table>
<thead>
<tr>
<th>Chairman</th>
<th>Euan Mason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice Chairman</td>
<td>Vacancy</td>
</tr>
<tr>
<td>Immediate Past Chairman</td>
<td>Ivan Dean</td>
</tr>
<tr>
<td>Hon Secretary</td>
<td>Rebecca Donald-Lopez</td>
</tr>
<tr>
<td>Hon Treasurer</td>
<td>Manuel Donald-Lopez</td>
</tr>
<tr>
<td>Committee members</td>
<td></td>
</tr>
<tr>
<td>Euan Mason</td>
<td>BAE Systems / Lancashire Area Chairman</td>
</tr>
<tr>
<td>David Ball</td>
<td>IMechE Power Industries Division NW Centre Chair</td>
</tr>
<tr>
<td>Martin Baxter</td>
<td>BAE Systems</td>
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<tr>
<td>Ivan Dean</td>
<td>Immediate Past Chairman ANW</td>
</tr>
<tr>
<td>Manuel Donald-Lopez</td>
<td>BAE Systems / Hon Treasurer IMechE ANW</td>
</tr>
<tr>
<td>Martin Hyman</td>
<td>Business Consultant</td>
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<tr>
<td>Asim Javed</td>
<td>Assystem</td>
</tr>
<tr>
<td>Andrew Medd</td>
<td>Education Advisory Group</td>
</tr>
<tr>
<td>Clive Winby</td>
<td>SILCOMS Ltd.</td>
</tr>
</tbody>
</table>

1 ATTENDEES
Euan Mason
David Ball
Martin Baxter
Ivan Dean
Manuel Donald-Lopez
Martin Hyman
Asim Javed
Andrew Medd
Clive Winby

This was a joint meeting with Lancashire Area. The following Lancashire Area Committee Members were in attendance:

Paul Shechter (PS) – Lancashire Committee Hon Treasurer
Angie Bines (AB) – Committee Member
Phil Doyle (PD) - Lancashire Committee Vice Chairman
Dave Terry (DT) - Committee Member
Chris Holmes – Committee Member

Apologies were received from

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
Aerospace North West

Kevin Hudson  Aircelle
Iain Minton  Aircelle
Thurai Rahulan  University of Salford / Royal Aeronautical Society
Graham Roe  Royal Aeronautical Society
Greg Stevens  BAE Systems
Paul Gardner  Aircelle
Rebecca Donald-Lopez  BAE Systems / Hon Secretary IMechE ANW
David Barrett  IMechE Business Development Manager

2 MINUTES FROM THE LAST MEETING
The minutes from the last meeting were agreed to be the true and accurate record.

3 TREASURERS REPORT
Since the last meeting £112.20 has been spent. This was a cost of the last committee meeting.

Manuel Donald-Lopez reported that he had completed a budget forecast based on events currently in the calendar. If the projected spending occurs then the year end balance will be £377.38. However it was pointed out that last year panel spent zero on any event, if the same happens this year, the year and balance will be £1877.

A discussion occurred and it was decided that some gifts speakers should be purchased. Paul Shechter said that he was purchasing some gifts for Lancashire area. Paul offered to double up on his purchase. The aerospace panel agreed and will provide funds. Some questions were asked about the timing for budget requests. Manuel Donald-Lopez reported that the budget for 2016 points need to be submitted in June additional funds were required however due to the fact that the aerospace panel is not spending its current bank balance no additional funds have been requested for 2015. It is anticipated that HQ will provide some grant money for 2015 this usually happens in April.

4 AEROSPACE DIVISION & HQ UPDATES
Euan Mason reported that there was going to be a refresh regarding the aerospace strategy. The terms of reference used by our panel is linked to the strategy. Tim Brandt is working on refreshing the strategy.

Andrew Medd gave some feedback from the joint institution group. He reported that there are seven EYF events. There will be one in Burnley in February next year, two in Manchester, one in Preston, one in Cumbria and one in Warrington

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
5.1 Composites Lecture 2: Manufacturing

- **Date:** TBD 2015
- **Venue:** Kaman Composites UK Darwen
- **Time:** TBD
- **Title:** Composites Technical Visit to Kaman Composites UK
- **Organiser:** Martin Hyman

Martin Hymen reported that the site was undergoing development so a visit would have to wait until the work had been completed.

5.2 Visit to Fire & Rescue Facility

- **Date:** Friday 20\(^{th}\) March 2015
- **Venue:** Washington Hall
- **Time:** 14:45 (for 15:00 start)
- **Title:** Visit to Washington Hall Fire & Rescue Facility
- **Organiser:** Martin Baxter

Martin Baxter updated the committee on the visit to Washington Hall USAR (Urban Search and Rescue Facility). The visit will consist of a talk and tour and will last around 2 hours. The time of the visit will be 14:45 for 15:00. Martin informed the committee that teas and coffees were going to be provided. 2 gifts for speakers are required for the event.

**ACTION:** Manuel Donald-Lopez to bring gifts to the event

5.3 Rolls Royce Operational Service

- **Date:** Wednesday 22\(^{nd}\) April 2015
- **Venue:** TBD
- **Time:** TBD
- **Title:** TBD
- **Organiser:** Clive Winby

Matt Burns, Head of Operational Service Desk, has offered a date of 22\(^{nd}\) April 2015 for his talk. Clive Winby reported that this event is on track in terms of speaker arrangements however a venue is needed. Martin Hyman suggested the aviation viewing park at Manchester Airport. As a backup he suggested the Marriott Hotel near Manchester Airport.

**Action Clive Whitby to enquire about venue availability**

5.4 Composites Event 3: Sustainability

- **Date:** Tuesday 27\(^{th}\) May 2015
- **Venue:** Canberra Club, Samlesbury
- **Time:** 18:00 for 18:30
- **Speaker:** Alex Edge, Business Development Manager ELG Carbon Fibre

[http://nearyou.imeche.org/nearyou/UK/North-Western/Aerospace-North-West](http://nearyou.imeche.org/nearyou/UK/North-Western/Aerospace-North-West)
Clive Winby reported that speaker from ELG Carbon Fibre had agreed to the 27th May date and the Canberra Club at BAE Systems Samlesbury has been booked for a venue. David Ball asked if it could be run as a joint event with the Greater Manchester Area. All agreed that there was no issue with this.

5.5 Air Accident Investigation

Date: Tuesday 2nd June 2015
Venue: Lecture Theatre Warton
Time: TBD
Speaker: Keith Conradi Chief Inspector of the AAIB in Farnborough
Title: Air Accident Investigation
Organiser: Martin Baxter

Martin Baxter reported that Keith Conradi the chief inspector at the AAIB had initially agreed to do a talk on the 2nd of June and the Lecture Theatre at BAE SYSTEMS Warton had been booked as a venue with a hope that BAE SYSTEMS would be able to tie in the event with a meeting and therefore pay for transport for Mr Conradi. The AAIB office has since been in touch with Martin stating that Mr Conradi may have to go to Germany on the 2nd of June so the date of this talk may need to be re-arranged.

Action: Martin Baxter to contact AAIB and agree date of talk

6 EVENTS & ACTIVITIES PROGRAMME - 2014 / 2015

As this was a joint meeting it was proposed that it would be more appropriate to determine what events to run in the latter half of 2015 and first half of 2016 at the next meeting. A list of proposed events is given below. It should be noted that York Aviation Museum involves filling a coach so if it is decided to proceed with that event advertising needs to start soon.

- Visit to York aviation museum with transport costs included
- Undercarriage by APPH in Runcorn
- Fly by wire
- Autonomous vehicles
- Bloodhound
- Airbus at Broughton
- The process of getting a new manufacturing process certified, BAE Systems have had 3D printed parts certified that are now flying.
- Airworthiness – Nimrod, the Haddon-Cave inquiry.

6 ANY OTHER BUSINESS

6.2 University Technical Collage Burnley
Paul Gardner reported ex committee that he was going to meet with Kevin Smith (Operations Director, Visions Learning Trust UTC Burnley) on the 6th of March. Paul hoped to agree in principle either hosting an ANW meeting at UTC or someone to come to one of our meetings to discuss how we can support each other.

Andrew Medd raised awareness of a new Engineering Education Grant scheme: The Institution of Engineering and Technology (IET) and the Institution of Mechanical Engineers (IMechE) have merged their educational grant schemes. This combined scheme is designed to streamline the application process, promote partnership working and strengthen how successful interventions are measured.

There are two levels of funding available. Awards of up to £5000 (inclusive of any applicable VAT) are available for standard applications to the fund, and up-to-four awards of £15,000 are available each year.

7 AEROSPACE EVENTS ORGANISED BY OTHERS

See Appendix 3.

8 DATE OF NEXT MEETING

Next meeting: Monday 20th April 2015 – at David Lloyd Club, Whittle le Woods, Chorley at 18:00 for 18:30.

NOTE this has been changed from the 13th of April, due to a clash with the regional meeting.

9 DATE PROPOSED IMECE ANW COMMITTEE MEETINGS 2014

- Monday 19 January 2015
- Monday 2 March 2015
- Monday 20 April 2015
- Monday 18 May 2015
- Monday 29 June 2015
- Monday 7 September 2015
- Monday 19 October 2015
- Monday 7 December 2015

10 AEROSPACE DIVISION MEETINGS

Aerospace Board Meetings

- Monday 26 January 2015
- Monday 20 April 2015
- Monday 23 June 2015
Aero Division Technical Committee Meeting

• Monday 09 November 2015

REGIONAL MEETINGS

• Monday 23 March 2015

• Monday 16 March 2015 NWR AGM

• Monday 13 April 2015

Minutes taken by:
Manuel Donald-Lopez
Hon Treasurer IMechE Aerospace North West
02th March 2015
### Appendix 1

**IMechE ANW 2014/2015 Programme**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>VENUE</th>
<th>TITLE</th>
<th>LECTURER</th>
<th>ORGANISER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 29th September 2014</td>
<td>18:00</td>
<td>P&amp;M Aviation Rochdale</td>
<td>Micro light factory tour Repeat event</td>
<td>Roger Patrick</td>
<td>Thurai Rahulan assisted by Martin Hyman</td>
</tr>
<tr>
<td>Wednesday 8th October 2014</td>
<td>19:30</td>
<td>Canberra Club Samlesbury</td>
<td>Additive Layer Manufacturing</td>
<td>Mike Murray Head of Airframe Integration, Air Platform, MAI, BAE Systems</td>
<td><strong>Joint</strong> with RAeS Preston Branch</td>
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<tr>
<td>Wednesday 19th November 2014</td>
<td>18:30 for 19:00</td>
<td>Canberra Club Samlesbury</td>
<td>Advanced Aerospace Manufacturing</td>
<td>Jon Carberry, BAE Systems</td>
<td><strong>Joint</strong> with Lancs Area R Cook R Donald-Lopez</td>
</tr>
<tr>
<td>Friday 20th March 2015</td>
<td>13:30 for 14:00</td>
<td>Fire Training Centre Chorley</td>
<td>Fire Training Centre Visit</td>
<td>NA</td>
<td>Martin Baxter</td>
</tr>
<tr>
<td>TBD 2015</td>
<td>TBD</td>
<td>Kaman, Darwen</td>
<td>Composites Event 2: Carbon Composites Manufacture</td>
<td>Visit to Kaman Composites UK</td>
<td>Martin Hyman</td>
</tr>
<tr>
<td>Wednesday 22nd April 2015</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>Matt Burns, Rolls Royce Head of Operational Service Desk</td>
<td>Clive Winby</td>
</tr>
<tr>
<td>Wednesday 27th May 2015</td>
<td>18:00 for 18:30</td>
<td>Canberra Club Samlesbury</td>
<td>Composites Event 3: Carbon Composites Sustainability</td>
<td>Alex Edge, Business Development Manager ELG Carbon Fibre</td>
<td>Clive Winby</td>
</tr>
<tr>
<td>Tuesday 2nd June 2015</td>
<td>18:00 for 18:30</td>
<td>Lecture Theatre BAE Systems Warton</td>
<td>Air Accident Investigation</td>
<td>Keith Conradi Chief Inspector of the AAIB</td>
<td>Martin Baxter</td>
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### Appendix 2

ANW Finances

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Expense Description</th>
<th>Credit Predicted (£)</th>
<th>Debit Predicted (£)</th>
<th>Balance Predicted (£)</th>
<th>Debit Actual (£)</th>
<th>Balance Actual (£)</th>
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<tr>
<td>Jan-15</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>87.00</td>
<td>2499.36</td>
<td>2474.16</td>
<td></td>
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<tr>
<td>Mar-15</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>87.00</td>
<td>2412.36</td>
<td>2474.16</td>
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<td>Mar-15</td>
<td>Fire Training Centre Visit</td>
<td>Venue Hire and Catering</td>
<td>100.00</td>
<td>2312.36</td>
<td>2474.16</td>
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<tr>
<td>Mar-15</td>
<td>Composites Event 2: Carbon Composites</td>
<td>Manufacture</td>
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<td>Composites Event 3: Carbon Composites</td>
<td>Sustainability</td>
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<td>Jun-15</td>
<td>Air Accident Investigation</td>
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<td>Committee Meeting</td>
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<td>September Event</td>
<td>Venue Hire and Catering</td>
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<td>Venue Hire and Catering</td>
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<tr>
<td>Dec-15</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>100.00</td>
<td>377.36</td>
<td>2474.16</td>
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</tbody>
</table>

|               | Total Meeting Costs                  | 709.00                 | 112.20               |                     |                       |                 |                     |       |
|               | Total Events Costs                   | 1500.00                | 0.00                 |                     |                       |                 |                     |       |
|               | Total Equipment Costs                | 0.00                   | 0.00                 |                     |                       |                 |                     |       |
|               | Total Expenditure for Year           | 2209.00                | 112.20               |                     |                       |                 |                     |       |
|               | Year End Balance                     | 377.36                 | 2474.16              |                     |                       |                 |                     |       |
### Nat West Account Ledger

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<th>Description</th>
<th>Credit</th>
<th>Debit</th>
<th>Running Balance</th>
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<td>£112.20</td>
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<td>TOTAL</td>
<td></td>
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http://nearyou.imeche.org.uk/uk/nwes/hwaero/

Improving the world through engineering

Manuel Donald-Lopez  
Hon Treasurer  
IMechE Aerospace North West

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
Appendix 3

Aerospace Events organised by others 2015

The following events will be tabulated into the ANW calendar format in the next minutes.

**IMechE NW Region**

**Concorde Technical Tour** - Greater Manchester Young Members
Subsidised visit reduced price from £21.50 per person, to only £15 for current IMechE members.
*When:* Saturday 18 April 2015 11:00 - 13:00
*Location:* Manchester Airport

**RAeS Preston Branch Events coming up soon**

**The Michael Beetham Conservation Centre, Cosford**

*When:* Wednesday, 11 February 2015
*Speaker(s):* Darren Priddy, Manager, RAF Museum Cosford
*Location:* Personnel & Conference Centre, BAE Systems, Warton

**RAF Future Training Capability (Synthetic Reality in the Air Environment)**

NOTE: this will be a ticketed event (£5), including a buffet

*When:* Wednesday, 11 March 2015 19:30 - 21:00
*Speaker(s):* Air Cdr Jon Ager
*Location:* Canberra Club, BAE Systems, Samlesbury

**F35 - Towards a One Day Manufacture**

*When:* Wednesday, 08 April 2015 19:30 - 21:00
*Speaker(s):* Jonathan Evans, Head of F35 Operations – 430, BAE Systems
*Location:* Personnel & Conference Centre, BAE Systems, Warton [view map]

**RAeS Manchester Branch Events coming up soon**

**Police Helicopter Operations**

*When:* Wednesday, 18 February 2015 19:00 - 21:00
*Speaker(s):* Dave Kibblewhite of Greater Manchester Police
*Location:* To Be Advised

**A400 Introduction Into Service - The Roy Chadwick Memorial Lecture**

*When:* Wednesday, 18 March 2015 19:00 - 21:00
*Speaker(s):* Officer Commanding 24 Sqn RAF Brize Norton

http://nearyou.imeche.org/nearyou/UK/North-Western/Aerospace-North-West
Location: Deanwater Hotel, Wilmslow Road, Woodford, SK7 1RJ.

RAeS Preston Branch Events

**BRANCH EVENT**
**AIRFIX MODELS**
Preston Branch

**BRANCH EVENT**
**THE MICHAEL BEEHAM CONSERVATION CENTRE, COSFORD**
Preston Branch

**BRANCH EVENT**
**RAF FUTURE TRAINING CAPABILITY (SYNTHETIC REALITY IN THE AIR ENVIRONMENT)**
Sir Freddy Page Lecture Preston Branch

**BRANCH EVENT**
**F35 - TOWARDS A ONE DAY MANUFACTURE**
Preston Branch

**BRANCH EVENT**
**FLYING THE SHUTTLEWORTH COLLECTION**
Preston Branch

**BRANCH EVENT**
**V22 OSPREY**
Preston Branch

**BRANCH EVENT**
**TYPE 45 DESTROYER**
Preston Branch

**BRANCH EVENT**
**TARANIS FLIGHT TESTING**
Preston Branch

**BRANCH EVENT**
**WESTLAND 100TH ANNIVERSARY**
Preston Branch

**BRANCH EVENT**
**US MILITARY SPACE PROGRAMMES**
Preston Branch
RAeS Manchester Branch Events

**BRANCH EVENT**
**THE VULCAN REVOLUTION**
Manchester Branch

Monday 19th January, 2016. 'The Vulcan Revolution', Lecture by Dr. Thurai, Rahman, BPhil at the Concorde Restaurant The Runway Visitor Park, BA15 8QJ. As a result of the Soviet threat leading to the cold war, the Air Ministry issued specification 0.35/36, which called for a 10,000 lb thrust engine jet capable of cruise at 50,000 ft at 500 kt with an operational radius of 500 miles combined with a take off distance of 1500 ft in cross winds of 20 kt in tropical conditions. Why did the AVRO designers opt for such a r

**BRANCH EVENT**
**POLICE HELICOPTER OPERATIONS**
Manchester Branch

**BRANCH EVENT**
**A400 INTRODUCTION INTO SERVICE**
Manchester Branch

**BRANCH EVENT**
**THE RAeS MANCHESTER BRANCH ANNUAL GENERAL MEETING AND MINI LECTURE COMPETITION (Prize £100)**
Wednesday 8th April: Date, Time and Place to be confirmed. If you feel like you have something interesting to talk about and the ability to tackle the testing audience, then why not enter for participation. You will be required to talk about an aerospace related topic for 20 minutes and receive a further 10 minutes of questions and discussion from the audience. If you are an individual under 27 years of a
IMechE Aerospace Division Events

MARCH 2015

Midlands Engineering Dinner 2015

Date: **Friday, March 13, 2015** | **Active Event**
Event Type: **1 day Annual Dinner**
Location: **Birmingham**

Join the Institution of Engineering and Technology (The IET) and the Institution of Mechanical Engineers to celebrate the engineering profession and network with industry leaders.

JUNE 2015

Surface Engineering in Automotive and Aerospace Industries

Date: **Wednesday, June 10, 2015** | **Active Event**
Event Type: **1 day Seminar**
Location: **Leeds**

Hear how surface engineering is a valuable tool in achieving both better environmental sustainability and reduced whole life-cycle costs in the automotive and aerospace industries.

REGIONAL EVENTS

JANUARY 2015

The Introduction of Jet Aircraft to the RAF

Date: **Wednesday, January 14, 2015**
Event Type: **0 day Technical Lecture**
Location: **Weybridge**

Advanced Layer Manufacturing - Industrial 3D Printing - Bedford ICE & RAeS
Bedford

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
David Wimpenny will speak on Advanced Layer Manufacturing (Bedford Civil Engineering Society & RAeS Bedford event)

**Small Satellites - RAeS Cambridge**

Date: **Thursday, January 15, 2015**  
Event Type: **0 day Talk**  
Location: **Cambridge**

Professor Craig Underwood, Surrey Space Centre, University of Surrey, will talk about small satellites. (Organised by the Royal Aeronautical Society Cambridge)

**Film Night: In The Shadow Of The Moon - The Story of the Apollo Moon Missions**

Date: **Wednesday, January 21, 2015**  
Event Type: **0 day Technical Lecture**  
Location: **Nottingham**

The story of the Apollo moon landings by the men that have walked on its surface. In the Shadow of the Moon brings together for the first time surviving crew members from every single Apollo mission which flew to the Moon, and allows them to tell their story in their own words, with a huge array of archive footage from initial testing to success.

**Flying WW1 Aircraft - Roger Bailey, Shuttleworth Collection**

Date: **Wednesday, January 28, 2015**  
Event Type: **0 day Talk**  
Location: **Cambridge**

Roger Bailey will talk about flying WW1 aircraft, from his experience as a pilot with the Shuttleworth Collection.

**FEBRUARY 2015**

**The Airbus A350 Flight Test Programme - RAeS Cambridge**

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
Peter Chandler, Chief Test Pilot A350, will talk about the Airbus A350 Flight Test Programme. (Sir Arthur Marshall Lecture organised by RAeS Cambridge)

**Hong Kong - Technical Visit to Hong Kong Aircraft Engineering Co Ltd (HAECO)**

Date: **Wednesday, February 11, 2015**  
Event Type: **0 day Technical Visit**  
Fee: free

**MARCH 2015**

**Lightning II, the UK's Joint Combat Aircraft**

Date: **Tuesday, March 10, 2015**  
Event Type: **0 day Talk**  
Location: **Southend on Sea**

David Short will deliver an overview of the engineering effort required to design and operate the most advanced fighter jet in the world. A joint event with RAeS.

**The Last British Airliner – BAe 146, Joint Event with the RAeS**

Date: **Tuesday, March 17, 2015**  
Event Type: **0 day Talk**

The IMechE - RAeS 2015 joint lecture will be concerning The Last British Airliner, the BAe 146. Refreshments available from 19:00.

**Airbus A350 XWB from the Drawing Board to the Sky**

Date: **Thursday, March 19, 2015**  
Event Type: **0 day Talk**  
Location: **Belfast**

Talk on the Airbus A350 XWB  
http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
APRIL 2015

Concorde Technical Tour

Date: **Saturday, April 18, 2015**
Event Type: **0 day Technical Visit**

A technical tour of Concorde at the Manchester Airport Visitor’s Centre.

MAY 2015

Visit to Bristol Air Traffic Control Centre at Bristol Airport

Date: **Saturday, May 02, 2015**
Event Type: **0 day Technical Visit**

Visit to Bristol Air Traffic Control Centre at Bristol Airport

Concorde – an incredible aircraft

Date: **Thursday, May 21, 2015**
Event Type: **0 day Technical Lecture**
Location: **Rotherham**

Learn more about some of the more interesting technical features of the aircraft and a typical commercial flight from London to New York from the pilot’s perspective.