IMechE Aerospace North West

Meeting Minutes

A meeting of the IMechE Aerospace North West committee was held on Monday 19\(^{th}\) Jan 2015 at David Lloyd Club, Chorley. The meeting commenced at 18:30 till 20:30.

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Euan Mason</td>
</tr>
<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>David Ball</td>
</tr>
<tr>
<td></td>
<td>David Barrett</td>
</tr>
<tr>
<td></td>
<td>Martin Baxter</td>
</tr>
<tr>
<td></td>
<td>Paul Gardner</td>
</tr>
<tr>
<td></td>
<td>Kevin Hudson</td>
</tr>
<tr>
<td></td>
<td>Martin Hyman</td>
</tr>
<tr>
<td></td>
<td>Euan Mason</td>
</tr>
<tr>
<td></td>
<td>Andrew Medd</td>
</tr>
<tr>
<td></td>
<td>Iain Minton</td>
</tr>
<tr>
<td></td>
<td>Thurai Rahulan</td>
</tr>
<tr>
<td></td>
<td>Graham Roe</td>
</tr>
<tr>
<td></td>
<td>Clive Winby</td>
</tr>
</tbody>
</table>

1 ATTENDEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<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>David Barrett</td>
<td>IMechE Business Development Manager</td>
</tr>
<tr>
<td>Martin Baxter</td>
<td>BAE Systems</td>
</tr>
<tr>
<td>Rebecca Donald-Lopez</td>
<td>BAE Systems / Hon Secretary IMechE ANW</td>
</tr>
<tr>
<td>Paul Gardner</td>
<td>Aircelle</td>
</tr>
<tr>
<td>Martin Hyman</td>
<td>Business Consultant</td>
</tr>
<tr>
<td>Asim Javed</td>
<td>Assystem</td>
</tr>
<tr>
<td>Andrew Medd</td>
<td>Education Advisory Group</td>
</tr>
<tr>
<td>David Porter</td>
<td>NATEP</td>
</tr>
</tbody>
</table>

Apologies were received from

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<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>Kevin Hudson</td>
<td>Aircelle</td>
</tr>
<tr>
<td>Iain Minton</td>
<td>Aircelle</td>
</tr>
<tr>
<td>Thurai Rahulan</td>
<td>University of Salford / Royal Aeronautical Society</td>
</tr>
<tr>
<td>Graham Roe</td>
<td>Royal Aeronautical Society</td>
</tr>
<tr>
<td>Greg Stevens</td>
<td>BAE Systems</td>
</tr>
<tr>
<td>Clive Winby</td>
<td>SILCOMS Ltd.</td>
</tr>
</tbody>
</table>

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
The committee welcomed Asim Javid to his first committee meeting. Asim is a stress engineer and works for Assystem. The committee also welcomed David Porter from NATEP, who attended to ask for our help in raising the awareness of NATEP through IMechE within the North West (see AOB). Rebecca Donald-Lopez reported that Steve Bryce has joined Merseyside and North Wales committee, as he lives nearer there. She also reported that Jennifer Burton won’t be attending meetings for now, due to work commitments but would like to attend in the future.

2 TREASURERS REPORT

Since the last meeting £97.57 has been spent, this was the cost of holding the December committee meeting. The year-end balance is £2586.38. Finance details can be seen in appendix 2. The ANW finances were discussed, in particular the large running balance. It was suggested that we need to spend more money on meaningful things. Manuel Donald-Lopez was given an action to provide the timeline for the financial year.

Action: Manuel Donald-Lopez

Various suggestions were made regarding what to spend the money on:

- A cutaway aircraft model or engine
- Funding academic books for four students
- Additions to the regional asset register
- Focus on STEM
- 3D printer - It was decided to discuss this at the next joint meeting with Lancashire area

The committee took an action to look into the purchase of a cutaway aircraft model or engine.

Action: Committee

It was also suggested that we give the money back if it is not needed.

3 AEROSPACE DIVISION & HQ UPDATES

Andrew Medd informed the committee of the following:

HQ have doubled their education budget from £150,000 to £300,000. IMechE have joined with IET in Education Outreach. It’s open to everybody between the ages of 15 and 18 years old, to apply for funding and must be endorsed by an IET / IMechE member. The total fund is £200,000. Applications should include a case for funding that does not include transport. HQ have launched a teacher placement/partnership scheme. They want to hear from companies who are willing to take a teacher for two weeks. They are also keen to get SME’s involved. Andrew Medd took an action to send Rebecca Donald-Lopez the information.

Action: Andrew medd

There has been a low to medium respond to STEM tribes.
There was a presentation from Primary Engineer who are doing well. Some divisions and groups are not towing the line in terms of the Education Outreach Committee. A school in the south of England have become world champions in the ‘2014 F1 in Schools World Championships’ with their jet powered car Colossus F1. The engineering manifesto has been produced and sent out to members of parliament. The manifesto is based on five projects, including:

- Embed engineering in to primary education
- Provide better careers advice
- Work which industry and academia to recognise and protect the title of engineer

Euan Mason reported that he had attended a dial-in Aerospace Technical Committee meeting, and that the aerospace technical strategy is due to be completed by 12th May. The aerospace division strategy and strategic objectives are all in serious need of updating. Euan Mason took an action to send to the committee for comments. This is an attempt for ANW to influence the aerospace division strategy.

**Action: Euan Mason**

The committee took an action to think about how we can reach out to the whole of the North West and become less centric.

**Action: committee**

It was suggested that we have more meetings in companies or have points of contact within companies. David Barrett reported that the engineering council UK figures have come through for 2014 and IMechE are ahead again in terms of grades of registration. Euan Mason suggested that unless we generate and feed in ideas to the Aerospace Division, they won’t have a programme of events. It was reported that there is a UAV competition taking place at Elvington in York. This is an early request for anyone who wants to get involved in terms of sponsorship, finding the mission, scrutineering etc.

**Action: Committee to contact Euan Mason if interested.**

The transport steering group are looking at freight and require contacts. Andrew Medd reported that David Williams (NW Regional Chair) took an action to get people together to talk about ‘Education Outreach’ and is there a better way to do it? Andrew Medd thinks someone from this committee should be involved.

**Action: Anyone interested contact Andrew Medd**

## 4 EVENTS & ACTIVITIES PROGRAMME - 2014 / 2015

### 4.1 Composites Lecture 2: Manufacturing

<table>
<thead>
<tr>
<th>Date:</th>
<th>TBD 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue:</td>
<td>Kaman Composites UK Darwen</td>
</tr>
<tr>
<td>Time:</td>
<td>TBD</td>
</tr>
<tr>
<td>Title:</td>
<td>Composites Technical Visit to Kaman Composites UK</td>
</tr>
<tr>
<td>Organiser:</td>
<td>Martin Hyman</td>
</tr>
</tbody>
</table>

[http://nearyou.imeche.org/nearyou/UK/North-Western/Aerospace-North-West](http://nearyou.imeche.org/nearyou/UK/North-Western/Aerospace-North-West)
The Martin Hyman report that Tim Dawson telephoned back in mid February, with the view to go in with a tour in early March or April. Paul Gardner suggested a visit to velocity composites, a carbon cloth kitting company in Burnley.

4.2 Visit to Fire & Rescue Facility
Date: Friday 20th 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. It was suggested that we make a donation to the benevolent fund, as well as giving an IMechE whisky glass as a thank you. As there are not many whisky glasses remaining, we need to order some more.

Action: Manuel Donald-Lopez

The event would need to be on the website for the first week in February in order to be captured by the newsletter.
Rebecca Donald-Lopez took an action to send some poster templates to Martin Baxter.

Action: Rebecca Donald-Lopez & Martin Baxter

4.3 Rolls Royce Operational Service
Date: Wednesday 22nd April 2015
Venue: TBD
Time: TBD
Title: TBD
Organiser: Clive Winby

Matt Burns, Head of Operational Service Desk, has offered a date of 22nd April 2015 for his talk.

4.4 Composites Event 3: Sustainability
Date: Tuesday 27th May 2015
Venue: Canberra Club, Samlesbury
Time: 18:00 for 18:30
Speaker: Alex Edge, Business Development Manager ELG Carbon Fibre
Title: Composites Sustainability
Organiser: Clive Winby

Rebecca reported that the date of composites lecture 3, had been changed to the 27th of May, as the Canberra club was unavailable on the original proposed date. Euan Mason reminded the committee that the 27th of May falls during the half term holiday.
4.5 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 he hadn’t heard back from Keith Conradi at Farnborough air accident investigation.

5 OTHER EVENT IDEAS TO FILL 2015 CALENDAR – SEPT TO DEC 2015

Euan Mason reported that Richard Cook is organizing a lecture on the safety and certification of UAV’s.

- 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. Euan Mason took an action to contact Tim Brant. Martin Hyman offered to talk to Steve Warren and as a backup.

Action: Euan Mason & Martin Hyman

6 ANY OTHER BUSINESS

6.1 NATEP (National aerospace technology exploitation programme)

David Porter from NATEP attended to ask for our help in raising the awareness of NATEP through IMechE within the North West. David explained that NATEP is a £40m technology development programme derived from a bid by the Aerospace Growth Partnership to the government’s advanced manufacturing supply chain initiative. The programme supplies funding to support innovation in aerospace. NATEP is a national organisation and have been working locally with Northwest Aerospace Alliance. They are trying to find another 20 to 30 projects through to submission. Currently our region is lagging behind. NATEP are targeting 120 live projects and therefore need 240 applications. The projects need to be around 12 months in duration and need to have a partnership with a company and have an end user. In the North West 30 more projects are needed by May, in order for 15 to go through. David asked if IMechE can help get the word out. It was suggested we could use the regional monthly email from the aerospace division, or that we could put an event on our website titled ‘Technology exploitation grant’ and state that we are seeking interest from SME’s and gauge the interest.

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
Timing wise the information needs to be on the website around six weeks from now (early February). David Porter took an action to send Euan Mason & Rebecca Donald-Lopez the information to circulate to the committee for agreement.

Action: David Porter

6.2 University Technical Collage Burnley

Paul Gardner asked if anybody had any links with University Technical College in Burnley. As nobody had, it was suggested that we hold a committee meeting there. The age range of the college pupils is between 14 and 19 years old and it focuses on engineering and construction. Paul Gardner suggested that we get involved with them and that the wind tunnel and cutaway aircraft would be good for this age range. It was decided that this will be discussed further at the next meeting. Paul Gardner took an action to make contact, arrange a committee meeting there and invite them to the meeting.

7 AEROSPACE EVENTS ORGANISED BY OTHERS

See Appendix 3.

8 DATE OF NEXT MEETING

Next meeting: Monday 2nd March 2015 – at David Lloyd Club, Whittle le Woods, Chorley at 18:00 for 18:30.

9 DATE PROPOSED IMECE ANW COMMITTEE MEETINGS 2014

- Monday 19 January 2015
- Monday 2 March 2015
- Monday 13 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 21 April 2015
- Monday 23 June 2015
- Monday 09 November 2015
Aero Division Technical Committee Meeting
  - Monday 23 March 2015

11 REGIONAL MEETINGS
  - Monday 16 March 2015 NWR AGM
  - Monday 13 April 2015

Minutes taken by:
Rebecca Donald-Lopez
Hon Treasurer IMechE Aerospace North West
15th January 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>Joint with RAeS Preston Branch</td>
</tr>
<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>Joint 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>
</tr>
</tbody>
</table>
# Appendix 2

## ANW Finances

Projected Expenditure for period January 2014 to December 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Expense Description</th>
<th>Credit (£)</th>
<th>Debit Predicted (£)</th>
<th>Balance Predicted (£)</th>
<th>Debit Actual (£)</th>
<th>Balance Actual (£)</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Dec-13</td>
<td>End Balance from 2013</td>
<td></td>
<td></td>
<td>1363.19</td>
<td>1363.19</td>
<td>1363.19</td>
<td>1363.19</td>
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<tr>
<td>Jan-12</td>
<td>Harrier’s Secret of Success</td>
<td>N/A</td>
<td>0.00</td>
<td>1363.19</td>
<td>0.00</td>
<td>1363.19</td>
<td>1363.19</td>
<td>Joint with RAeS Manchester Branch so Zero Cost</td>
</tr>
<tr>
<td>Feb-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>0.00</td>
<td>1363.19</td>
<td>0.00</td>
<td>1363.19</td>
<td>1363.19</td>
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</tr>
<tr>
<td>Feb-14</td>
<td>Microlight Factory Tour</td>
<td>Venue Hire and Catering</td>
<td>0.00</td>
<td>1363.19</td>
<td>0.00</td>
<td>1363.19</td>
<td>1363.19</td>
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</tr>
<tr>
<td>Mar-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>80.00</td>
<td>1283.19</td>
<td>52.20</td>
<td>1310.99</td>
<td>1310.99</td>
<td>Budget was £80 low attendance resulted in cheaper price</td>
</tr>
<tr>
<td>Mar-14</td>
<td>Typhoon Early Development Flying</td>
<td>N/A</td>
<td>0.00</td>
<td>1283.19</td>
<td>0.00</td>
<td>1310.99</td>
<td>1310.99</td>
<td>Joint with RAeS Preston Branch so Zero Cost</td>
</tr>
<tr>
<td>Mar-14</td>
<td>Grant from HQ</td>
<td></td>
<td>1825</td>
<td>3108.19</td>
<td>0.00</td>
<td>3135.99</td>
<td>3135.99</td>
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<tr>
<td>Apr-14</td>
<td>Current NDT Techniques with Demonstrations</td>
<td>Venue Hire and Catering</td>
<td>100.00</td>
<td>3008.19</td>
<td>0.00</td>
<td>3135.99</td>
<td>3135.99</td>
<td>Joint with IMechE GMA</td>
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<tr>
<td>Apr-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>120.00</td>
<td>2888.19</td>
<td>87.00</td>
<td>3048.99</td>
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<tr>
<td>Apr-14</td>
<td>Carbon Composite Manufacture</td>
<td>Venue Hire and Catering</td>
<td>150.00</td>
<td>2738.19</td>
<td>0.00</td>
<td>3048.99</td>
<td>3048.99</td>
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<tr>
<td>May-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>80.00</td>
<td>2658.19</td>
<td>96.75</td>
<td>2952.24</td>
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<tr>
<td>May-14</td>
<td>Surface Treatments</td>
<td>Venue Hire and Catering</td>
<td>200.00</td>
<td>2458.19</td>
<td>0.00</td>
<td>2952.24</td>
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<tr>
<td>Jun-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>80.00</td>
<td>2378.19</td>
<td>107.59</td>
<td>2844.74</td>
<td>2844.74</td>
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<tr>
<td>Sep-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>0.00</td>
<td>2378.19</td>
<td>61.20</td>
<td>2736.54</td>
<td>2736.54</td>
<td>Originally assumed to be a Joint meeting with Lancs Area</td>
</tr>
<tr>
<td>Sep-14</td>
<td>Composite Lecture 3</td>
<td>Venue Hire and Catering</td>
<td>250.00</td>
<td>2128.19</td>
<td>0.00</td>
<td>2736.54</td>
<td>2736.54</td>
<td>Event Postponed until 2015</td>
</tr>
<tr>
<td>Oct-14</td>
<td>Additive Layer Manufacturing</td>
<td>N/A</td>
<td>0.00</td>
<td>2128.19</td>
<td>0.00</td>
<td>2736.54</td>
<td>2736.54</td>
<td>Joint with RAeS Preston Branch so Zero Cost</td>
</tr>
<tr>
<td>Oct-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>80.00</td>
<td>2048.19</td>
<td>67.00</td>
<td>2546.54</td>
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<tr>
<td>Dec-14</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>150.00</td>
<td>1898.19</td>
<td>97.57</td>
<td>2596.97</td>
<td>2596.97</td>
<td>Joint with IMechE Lancs Area and NWYMP which reduced cost</td>
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<tr>
<td>Dec-14</td>
<td>N/A</td>
<td></td>
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<td>0.00</td>
<td>12.59</td>
<td>2586.38</td>
<td>2586.38</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- **Total Meeting Costs:** 590.00, 589.22
- **Total Events Costs:** 700.00, 0.00
- **Total Equipment Costs:** 0.00, 12.59
- **Total Expenditure for Year:** 1290.00, 601.61
- **Year End Balance:** 1898.19, 2586.38

Year End balance is £688.19 more than predicted due to zero spending on any events in 2014
# Nat West Account Ledger

<table>
<thead>
<tr>
<th>Description</th>
<th>Credit</th>
<th>Debit</th>
<th>Running Balance</th>
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<tbody>
<tr>
<td>Opening Balance</td>
<td></td>
<td></td>
<td>£1,363.19</td>
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<tr>
<td>March Committee Meeting</td>
<td>£ 18.40</td>
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<td>£1,310.99</td>
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<tr>
<td>Grant from HQ</td>
<td>£ 1,825.00</td>
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<td>£3,135.99</td>
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<tr>
<td>April Committee Meeting</td>
<td>£ 87.00</td>
<td></td>
<td>£3,048.99</td>
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<tr>
<td>May Committee Meeting</td>
<td>£ 96.75</td>
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<td>£2,952.24</td>
</tr>
<tr>
<td>June Committee Meeting</td>
<td>£ 107.50</td>
<td></td>
<td>£2,844.74</td>
</tr>
<tr>
<td>September Committee Meeting</td>
<td>£ 61.20</td>
<td></td>
<td>£2,783.54</td>
</tr>
<tr>
<td>October Committee Meeting</td>
<td>£ 87.00</td>
<td></td>
<td>£2,696.54</td>
</tr>
<tr>
<td>Book (Windows 7)</td>
<td>£ 12.59</td>
<td></td>
<td>£2,683.95</td>
</tr>
<tr>
<td>December Committee Meeting</td>
<td>£ 97.57</td>
<td></td>
<td>£2,586.38</td>
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</tbody>
</table>

**TOTAL**                                                                                     £2,586.38

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Manuel Donald-Lopez  
Hon Treasurer  
IMechE 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 BEECHAM 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

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
RAeS Manchester Branch Events

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

**BRANCH EVENT**  
**THE VULCAN REVOLUTION**  
Monday 19th January 2015, The Vulcan Revolution, Lecture by, Dr. Thurai Rahulan, BPM at the Concorde Restaurant The Runway Visitor Park, W14 9XR. As a result of the Soviet threat leading to the cold war, the Air Ministry issued Specification B.5/36 which called for a 10,000lb tour engine jet able to cruise at 50,000ft at 500kt with an operational radius of 550 miles combined with a take-off distance of 1500 ft in cross winds of 20kt in tropical conditions. Why did the AVRO designers opt for such 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

Improving the world through engineering
Date: **Wednesday, January 14, 2015**  
Event Type: **0 day Technical Lecture**  
Location: **Bedfordshire**

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.