IMechE Aerospace North West

Meeting Minutes

A meeting of the IMechE Aerospace North West committee was held on Monday 23rd October 2017 at David Lloyd Club, Chorley. The meeting commenced at 18:30 till 20:30.

Chairman
Paul Gardner

Vice Chairman
Arreyhon Alemi

Immediate Past Chairman
Euan Mason

Hon Secretary
Rebecca Donald-Lopez

Hon Treasurer
Manuel Donald-Lopez

Committee members
Martin Baxter
Ivan Dean
Emma-Jane Guy
Martin Hyman
Andrew Medd
Iain Minton
Thurai Rahulan
Clive Winby

1 ANW Attendees

Arreyhon Alemi
Vice Chairman IMechE ANW

Martin Baxter
BAE SYSTEMS

Rebecca Donald-Lopez
BAE SYSTEMS / Hon Secretary IMechE ANW

Paul Gardner
Safran Nacelles / Chairman IMechE ANW

Martin Hyman
Business Consultant

Andrew Medd
Education Advisory Group

Thurai Rahulan
University of Salford / Royal Aeronautical Society

Clive Winby
SILCOMS Ltd.

2 APOLOGIES WERE RECEIVED FROM

Ivan Dean
Past Chairman IMechE ANW

Manuel Donald-Lopez
BAE SYSTEMS / Hon Treasurer IMechE ANW

3 MINUTES FROM THE LAST MEETING

Minutes from the last meeting were agreed to be the true and accurate record.
4 REVIEW OF ACTIONS FROM LAST MEETING

4.1 **Clive Winby** to go back to Ian Davies with dates and get a preferred date for the talk. Dates proposed at the meeting were any Wednesday between 11\textsuperscript{th} Oct and 22\textsuperscript{nd} of Nov, 17\textsuperscript{th} of Jan, 7\textsuperscript{th} or 21\textsuperscript{st} of Feb. Clive reported that Ian is still happy to present the lecture, and that he has passed on the dates and is waiting to hear back.

*Action carried over.*

4.2 **Rebecca Donald-Lopez** to book the room at Bolton Uni once the date is decided for Easy Jet lecture. Due to Action 4.1 Action 4.2 is also carried over

*Action carried over.*

4.3 **Paul Gardner** to fix a date for a site visit in early to mid 2018 to Safran to see the automated fibre placement machine. No date fixed at present time.

*Action carried over.*

4.4 **Ivan Dean** to check which Friday afternoon in Oct is preferable to Mike Wallace for Rolls Royce Visit. Ivan reported that he has tried a number of times to contact Mike Wallace, without any replies. It was therefore decided we leave this event off the programme for the time being and if he does contact Ivan we could quickly arrange a visit for 8 people max.

*Action closed.*

4.5 **Rebecca Donald-Lopez** to confirm with David Lloyd Club that large conference room is booked on 21 March 2018. Jill form David Lloyd has confirmed that the room is booked.

*Action complete.*

4.6 **Paul Gardner** to arrange a date for the Trent Engine talk with Frank Kirkland and firm up arrangements. Paul reported via email that Frank has proposed 29th November for the lecture. He hasn’t managed to arrange a location yet but we suggested UCLAN Burnley so if this date works for us, he will push for UCLAN Burnley. If this date is unsuitable, we are looking at late Jan or Feb 18. initially it was thought that it was too close to the FAAM lecture, but then as they were both to be in separate towns the date was deemed ok. Paul Gardner to find a venue for the Trent Engine event.

*Action carried over.*

4.7 **New Action:** Rebecca to look for the original advertising material used for the original Trent Engine event.
4.8 **Thurai Rahulan and Rebecca Donald-Lopez** to determine title of October UAS lecture and produce advertising material.
*Action complete.*

4.9 **Rebecca Donald-Lopez** to produce advertising material for FAAM lecture and add to website.
All completed except the poster.
*Action carried over*

4.10 **Martin Baxter** to contact Lancashire Fire and Rescue and determine if a lecture about drone usage is possible.
*Martin Baxter reported that he had spoken to Lancashire Fire and Rescue and they are willing to let us have 30 or so seats at an event they are holding at UCLAN. The event is on Emergency service drone use, and will be in January.*
*Action complete.*

4.11 **Paul Gardner** to contact Burnley College and David Bailey from NWAA regarding links with NWAA and possibly spend some money to advertise or sponsor something at an NWAA event.
*Paul reported via email that he’d managed to find out who the right contact is at ‘Themis at Burnley College’ (Simon Jordan) but he hasn’t yet arranged a discussion with him. Regarding David Bailey from NWAA, he’ll be seeing David tomorrow morning so will feedback from that after their meeting.*
*Action carried over.*

4.12 **Martin Hyman** to contact Sue Warburton from Bolton University and see if she would be interested in joining the committee.
*Martin reported that Sue works as a consultant for Martin Shaw, therefore we may need to speak to him not Sue.*
*Martin Hyman to contact Martin Shaw from Bolton University and see if he would be interested in joining the committee.*
*Action carried over.*

4.13 **Rebecca Donald-Lopez** to contact Billy Beggs, UCLan’s Engineering Innovation Manager for a possible link with the committee.
See section 6.
*Action carried over.*
5  TREASURERS REPORT

The current financial status is healthy, with a balance of £4,412.63. See appendix 3 for account information.

6  IMPROVING LINKS WITH ACADEMIA

Martin Hyman is going to contact Martin Shaw from Bolton University and see if he would be interested in joining the committee.

Rebecca asked for clarification of what we wanted from Billy Beggs. It was decided that we would like to gain closer links with UCLAN and to ask if he would present a lecture for us and point us in the right direction for a UCLAN representative to join our committee. It was reported that Billy may be able to present a lecture on the use of graphene in the space & Aerospace industry.

Dr Darren Ansell UCLAN School of Engineering Space & Aerospace Lead was also suggested as a contact.

Clive Winby reported that UCLAN are building an Engineering Innovation Centre that will include flight simulators.

**Action: Clive Winby** took an action to contact Peter Thomas and find out what facilities the Engineering Innovation Centre will have.

7  EVENTS & ACTIVITIES PROGRAMME - 2017

The preferred day for events to be held is a Tuesday.

7.1 UAS Challenge Lecture – Joint with RAeS MB – Event Review

- **Title:** UAS – Technologies Past, Present and Future
- **Date:** Wednesday 4 October 2017
- **Venue:** Salford University
- **Time:**
  - 5:00 – 5:15pm Introduction to IMechE - Thurai Rahulan
  - 5:15 – 6:00pm Competition Rules & Regulations – Rashid Ali
  - 6:00 – 6:15pm Break for Refreshments
  - 6:15 – 7:15pm Emerging Technologies – Rashid Ali
- **Organiser:** Thurai Rahulan

Thurai Rahulan reported that the event was splendid, coverage of the whole subject area was certainly comprehensive and that comments at the end were most complimentary. 34 people attended the event and that it was RAeS weighted, with at least 4+ students attending. Most people attended both sessions of the lecture. Rashid’s travel costs were footed by the RAeS Branch. ANW will cover the catering expenses.

**Action: Manuel Donald-Lopez** to pay the catering invoice.
7.2 FAAM – Joint with RAeS Manchester Branch
Title: Flying for Science
Speaker: Guy Gratton
Date: 22nd November 2017
Venue: Room C0.14 in Newton Building MMU
Time: 18:00 for 18:30
Organiser: Thurai Rahulan / Martin Hyman

See 4.10.
Martin Hyman informed the committee that the room number for this event is C0.14 and that food for 30 has been ordered. It was agreed that IMechE would be happy to pay Guy Gratton’s travel and accommodation expenses. Thurai reported that all arrangements are in place for this event and that he has the IMechE stands.
**Action: Rebecca Donald-Lopez** took an action to provide Thurai Rahulan with a thank you gift for the speaker.

8 EVENTS & ACTIVITIES PROGRAMME - 2018

8.1 Emergency Service Drone Use
Date: Wednesday 10th January 2018
Venue: UCLAN
Time: 13:30 for 14:00
Organiser: Martin Baxter
See 4.11.

8.2 Trent Engine
Date: TBD late Jan or Feb 2018
Speaker: Frank Kirkland
Venue: UCLAN
Time:
Organiser: Paul Gardner
See 4.7.

8.3 Easy Jet
Title: Ash to Ash, Dust to Dust
Speaker: Ian Davies, Head of Engineering, Easy Jet
Date: 17th of Jan, 7th or 21st of Feb 2018
Venue: Bolton University
Time: 18:00 for 18:30
Organiser: Clive Winby
See 4.1 and 4.2.

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
8.4 Unmanned Aerial Vehicles (UAV) - British Antarctic Survey

Title: Unmanned Aerial Vehicles (UAV) - British Antarctic Survey
Speaker: TBD
Date: Wednesday 21\textsuperscript{st} March 2018
Venue: David Lloyd Club Chorley
Time: 18:00 for 18:30
Organiser: Martin Hyman

Room is booked and access is acceptable to get UAV into the David Lloyd club.

8.5 SAFRAN Nacelles Visit

Date: TBC early to mid 2018
Venue: SAFRAN Nacelles Burnley
Time: 
Organiser: Paul Gardner
See 4.3

9 ANY OTHER BUSINESS

9.1 Last Spitfire

Action: Aareyhon Alemi to discuss with Paul Gardner.

9.2 MBDA

Action: Rebecca Doanld-Lopez to talk to Andrew Medd about approaching MBDA for a visit.

10 DATE OF NEXT MEETING

Next meeting: Monday 4\textsuperscript{th} December 2017– at David Lloyd Club, Whittle le Woods, Chorley at 18:00 for 18:15.

Action: Rebecca Donald-Lopez to obtain the Christmas menu for the next meeting and suggest 2018 meeting dates.

Minutes taken by:
Rebecca Donald-Lopez
Hon Secretary IMechE Aerospace North West
23\textsuperscript{rd} October 2017

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
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Appendix 1

IMechE ANW 2017 Programme

* TUESDAY is the preferred day for events to be held

<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>Wednesday 15 February 2017</td>
<td>18:00 for 18:30</td>
<td>Canberra Club, BAE Systems Samlesbury</td>
<td>Hybrid Air Vehicles</td>
<td>Tom Grundy Operations Director at HAV</td>
<td>Lancashire Area</td>
</tr>
<tr>
<td>Friday 24 February 2017</td>
<td>10:00 – 12:30</td>
<td>Kaman Tooling Burnley BB10 2FT</td>
<td>Visit to Kaman Tooling Burnley</td>
<td>NA</td>
<td>Martin Hyman</td>
</tr>
<tr>
<td>Friday 31 March 2017</td>
<td></td>
<td>Hilton Hotel Manchester</td>
<td>North West Region Annual Dinner</td>
<td>NA</td>
<td>Region</td>
</tr>
<tr>
<td>Tuesday 23 May 2017</td>
<td>18:00 for 18:30</td>
<td>MMU Room JDE0.32 John Dalton Building</td>
<td>Reaction Engines</td>
<td>Mark Wood COO &amp; Engineering Director, Reaction Engines Ltd.</td>
<td>Martin Hyman</td>
</tr>
<tr>
<td>Wednesday 4 October 2017</td>
<td>17:00</td>
<td>Salford University</td>
<td>UAS Challenge Talk</td>
<td>Rashid Ali UAS Challenge Committee Academic &amp; Finance lead</td>
<td>Thurai Rahulan Joint with RAeS Manchester</td>
</tr>
<tr>
<td>Wednesday 22 November 2017</td>
<td>18:00 for 18:30</td>
<td>MMU</td>
<td>FAAM</td>
<td>Guy Gratton FAAM</td>
<td>Thurai Rahulan Joint with RAeS Manchester</td>
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</table>

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Appendix 2

IMechE ANW 2018 Programme

* TUESDAY is the preferred day for events to be held

<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>Wednesday 10 January 2018</td>
<td>13:30 for 14:00</td>
<td>UCLAN</td>
<td>Emergency Service Drone Use</td>
<td>Martin Baxter Joint with Fire Service</td>
<td></td>
</tr>
<tr>
<td><strong>Jan / Feb 2018</strong></td>
<td></td>
<td></td>
<td>Trent Engine</td>
<td></td>
<td>Paul Gardner</td>
</tr>
<tr>
<td>7 Jan/21 Feb 2018</td>
<td>18:00 for 18:30</td>
<td>Bolton University</td>
<td>Ash to Ash, Dust to Dust</td>
<td>Ian Davies Easy Jet</td>
<td>Clive Winby</td>
</tr>
<tr>
<td>Wednesday 21 March 2018</td>
<td>18:00 for 18:30</td>
<td>David Lloyd Club Chorley</td>
<td>Unmanned Aerial Vehicles (UAV) - British Antarctic Survey</td>
<td>TBD</td>
<td>Martin Hyman</td>
</tr>
<tr>
<td><strong>TBD 2018</strong></td>
<td></td>
<td>SAFRAN Nacelles Burnley</td>
<td>Visit to SAFRAN Nacelles</td>
<td></td>
<td>Paul Gardner</td>
</tr>
</tbody>
</table>
### Appendix 3

#### ANW Finances

Projected Expenditure for period January 2017 to December 2017

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Expense Description</th>
<th>Credit (£)</th>
<th>Debit Predicated (£)</th>
<th>Debit Actual (£)</th>
<th>Balance Predicated (£)</th>
<th>Balance Actual (£)</th>
<th>Notes</th>
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<td>Dec-16</td>
<td>End Balance from 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>silence</td>
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<tr>
<td>Jan-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>2972.88</td>
<td>84.60</td>
<td>2999.29</td>
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<td>Less attendees than usual</td>
</tr>
<tr>
<td>Feb-17</td>
<td>Grant Payment</td>
<td>Start from HQ</td>
<td>2260.00</td>
<td>0.00</td>
<td>5235.28</td>
<td>0.00</td>
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</tr>
<tr>
<td>Mar-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>5120.35</td>
<td>88.65</td>
<td>5164.63</td>
<td></td>
<td>Less attendees than usual</td>
</tr>
<tr>
<td>Mar-17</td>
<td>Rolls Royce Barnoldswick</td>
<td>N/A</td>
<td>0.00</td>
<td>5120.35</td>
<td>88.65</td>
<td>5164.63</td>
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<td>Mar-18</td>
<td>North West Region Annual Dinner</td>
<td>Ticket Purchased</td>
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<td>5099.88</td>
<td>100.00</td>
<td>5099.88</td>
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<tr>
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<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>4925.85</td>
<td>65.80</td>
<td>4990.63</td>
<td></td>
<td>Less attendees than usual</td>
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<tr>
<td>Apr-17</td>
<td>Fleetwood Offshore Survival Centre</td>
<td>N/A</td>
<td>0.00</td>
<td>4925.85</td>
<td>65.80</td>
<td>4990.63</td>
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<tr>
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<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>4821.88</td>
<td>75.20</td>
<td>4896.63</td>
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<td>May-17</td>
<td>Reaction Engine Lecture</td>
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<td>4821.88</td>
<td>58.00</td>
<td>4866.68</td>
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<td>Cheaper than estimate</td>
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<td>3917.98</td>
<td>75.20</td>
<td>4493.18</td>
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<tr>
<td>Jun-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
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<td>75.20</td>
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<tr>
<td>Oct-17</td>
<td>IAS Challenge Lecture</td>
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<td>4412.63</td>
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<td>Nov-17</td>
<td>IRAM Lecture</td>
<td>Venue Hire and Catering</td>
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<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
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<td>2980.88</td>
<td>4412.63</td>
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<p>| Total Meeting Costs | 948.00 | 84.60 |
| Total Events Costs  | 1700.00| 100.00|
| Total Equipment Costs| 0.00   | 65.80 |
| Total Expenditure for Year | 5546.00 | 250.40 |
| Year End Balance    | 2500.86| 4412.63|</p>
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<th>Description</th>
<th>Credit</th>
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<td>£2,993.28</td>
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<tr>
<td>Grant Payment</td>
<td>£2,260.00</td>
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<td>North West Annual Dinner</td>
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<td>£5,064.63</td>
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<td>April Committee Meeting</td>
<td>£65.80</td>
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<td>£4,998.83</td>
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<tr>
<td>May Committee Meeting</td>
<td>£75.20</td>
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<td>Reaction Engine Lecture Catering Cost</td>
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<td>£4,491.43</td>
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<td>September Committee Meeting</td>
<td>£78.80</td>
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**TOTAL**                                          |        |       | £4,412.63       |

Manuel Donald-Lopez
Hon Treasurer
IMechE Aerospace North West
Appendix 4

Wish List of Future Events

- Airbus Beluga XL
- Clean Sky 2 - compound helicopter
- Rolls Royce Engine Lecture
- Aero Gearbox International
- Wind Turbine Blades - Siemens have recently opened a factory in Hull.
- Manchester Airport Black Museum Visit – Clive Winby WIP
- Concorde & Son of Concorde – Next generation supersonic aircraft & Concorde Visit
- Subsidized visit to Concorde only– Aviation viewing park
- Nimrod replacement talk & visit – Aviation viewing park
- Helicopters – accidents in the North Sea (RAeS to cover in February)
- Model Aircraft
- UAV’s
- Maintenance
- Aircraft ducting
- Aircraft de-icing
- Aerodynamics
- Hawk hook on AC carriers
- Hawk systems into a new airframe
- F35 Aircraft Carrier operations
- Hot Air Balloon lecture possibly combined with Balloon Festival
- Hand Glider Material
- Woodford Flight Simulator – Oxford Aviation
- Rolls Royce Engine Lecture (2021 development and 2025 Ultrafan)
- Aerial Survey/Google Maps
- New MBDA factory tour
- Rolls Royce Engine Lecture (2021 development and 2025 Ultrafan)
- Space Tourism
- The Crash Detectives (book by Christine Negroni)
- Use of Drones in Fire and Police
- Avionics Lecture