IMechE Aerospace North West
Meeting Minutes

A meeting of the IMechE Aerospace North West committee was held on Monday 4th September 2017 at David Lloyd Club, Chorley. The meeting commenced at 18:30 till 20:30.

<table>
<thead>
<tr>
<th>Chairman</th>
<th>Paul Gardner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice Chairman</td>
<td>Arreyhon Alemi</td>
</tr>
<tr>
<td>Immediate Past Chairman</td>
<td>Euan Mason</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>Martin Baxter</td>
</tr>
<tr>
<td></td>
<td>Ivan Dean</td>
</tr>
<tr>
<td></td>
<td>Emma-Jane Guy</td>
</tr>
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<td></td>
<td>Martin Hyman</td>
</tr>
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<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>Clive Winby</td>
</tr>
</tbody>
</table>

1 ANW ATTENDEES

Manuel Donald-Lopez BAE SYSTEMS / Hon Treasurer IMechE ANW
Paul Gardner Safran Nacelles / Chairman IMechE ANW
Martin Hyman Business Consultant
Andrew Medd Education Advisory Group

2 APOLOGIES WERE RECEIVED FROM

Ivan Dean Past Chairman IMechE ANW
Rebeccal Donald-Lopez BAE SYSTEMS / Hon Secretary IMechE ANW
Clive Winby SILCOMS Ltd.
Arreyhon Alemi Vice Chairman IMechE ANW
Martin Baxter BAE SYSTEMS
Thurai Rahulan University of Salford / Royal Aeronautical Society
Emma Guy IMechE Business Development Manager

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 Manuel Donald-Lopez to make enquiries regarding the £1500 as it may be an error.

HQ Finance Team confirm that the £1500 was part of the 2016 budget so does not need to be returned.

Action complete.

4.2 Thurai Rahulan to report back any replies, from Mike Elston regarding a Preston Branch representative for our committee.

Thuria Rahulan reported in an email to Rebecca that Mike Elston responded to his first email saying he’ll look into it but not the second one he sent a few weeks later in June. Thurai discussed this with their Secretary Alan Matthews as well shortly afterwards.

Nothing has happened since and hence we have to assume for the time being that there will be no representation from the Preston Branch.

Action on hold.

4.3 Clive Winby to check availability of Ian Davies on Tuesday’s in June 2017.

Email from Clive Winby “With regards to the Ian Davies talk. He has now left Easy Jet but is still happy to come and give a talk, on the ash cloud or any other aircraft maintenance subject, eg the use of drones. We just need to offer him two or three dates to see which best suit him”

Dates proposed at the meeting were any Wednesday between 11th Oct and 22nd of Nov, 17th of Jan, 7th or 21st of Feb.

New Action – Clive to go back to Ian with dates and get a preferred date for the talk.

4.4 Rebecca Donald-Lopez to book the room at Bolton Uni once the date is decided.

Due to Action 4.3 Action 4.4 is also carried over

Action carried over.

4.5 Paul Gardner to fix a date for a site visit in September to Safran to see the automated fibre placement machine.

No Visit in 2017 so need to move to early-2018 to mid-2018.

Action carried over.
4.6 **Thurai Rahulan** to book room & food at Salford Uni for UAS Challenge, in the new term.  
*Room is booked.*  
**Action complete**

4.7 **Ivan Dean** to check which Friday afternoon in Oct is preferable to Mike Wallace for Rolls Royce Visit.  
Ivan was not present at the meeting.  
**Action carried over.**

4.8 **NEW Action Becky Donald-Lopez** to confirm with David Lloyd Club that large conference room is booked on 21 March 2018  
Rebecca Donald-Lopez was not present at the meeting.  
**Action carried over.**

4.9 **Paul Gardner** to arrange a date for the talk with Frank Kirkland and firm up arrangements.  
Had discussion about where to hold lecture, UCLAN Burnley was suggested as venue, will liaise with NWAA and see if they will advertise event. Need to confirm date, book venue and produce advertising material.  
**Action – Paul Gardner.**

4.10 **Thurai Rahulan and Rebecca Donald-Lopez** to determine title of Octobers UAS lecture and produce advertising material  
Title is UAS – Technologies Past, Present and Future, Poster and Advertising yet to be completed  
**Action carried over**

4.11 **Thurai Rahulan and Rebecca Donald-Lopez** to determine title of Novembers FAAM lecture and produce advertising material.  
Title is Flying for Science, Poster and Advertising yet to be completed.  
**Action carried over**

4.12 **Martin Baxter** to contact Lancashire Fire and Rescue and determine if a lecture about drone usage is possible.  
Martin Baxter was not present at the meeting.  
**Action carried over.**
5  TREASURERS REPORT

Manuel Donald-Lopez reported the current financial status is healthy, with a balance of £4,491.43.
Since the last meeting we have paid £75.20 for the June Committee Meeting
See appendix 3 for account information.

As it is now confirmed that we have a large surplus to budget requirements
the usual debate occurred about how we could use the money to do
something. This time the focus was on growing the committee. The number
of attendees at meetings is dwindling and new members are required to
allow the workload to be evenly spread.

It was decided that we should investigate links with NWAA and possibly
spend some money to advertise or sponsor something at an NWAA event.
We should also try to diversify and attempt to get links with more local
universities.

The following new actions were proposed

**Action: Paul Gardner** to contact Burnley College and David Bailey from
NWAA
**Action: Martin Hyman** to contact Sue Warburton from Bolton University
and see if she would be interested in joining the committee
**Action: Rebecca Donald-Lopez** to contact Billy Beggs UCLAN Engineering
Innovation Manager for a possible link with the committee.

6  FEEDBACK FROM REGION/ DIVISION/HQ MEETINGS

No HQ meetings held since June.

7  EVENTS & ACTIVITIES PROGRAMME - 2017

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

7.2 UAS Challenge Lecture – Joint with RAeS Manchester Branch

- **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

See 4.10

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
7.3 FAAM – Joint with RAeS Manchester Branch

Title: Flying for Science
Speaker: Guy Gratton
Date: 22\textsuperscript{nd} November 2017
Venue: Manchester MMU
Time: 18:00 for 18:30
Organiser: Thurai Rahulan

See 4.11

7.4 Easy Jet

Title: Ash to Ash, Dust to Dust
Speaker: Ian Davies, Head of Engineering, Easy Jet
Date: TBC
Venue: Bolton University
Time: 18:00 for 18:30
Organiser: Clive Winby

See 4.3 and 4.4.

7.5 Rolls Royce Barnoldswick Visit

Date: Friday afternoon TBC October 2017
Venue: Rolls Royce Barnoldswick
Time: TBD
Organiser: Ivan Dean

See action 4.7

8 EVENTS & ACTIVITIES PROGRAMME - 2018

8.1 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.
8.2 SAFRAN Nacelles Visit

Date: TBC September 2017
Venue: SAFRAN Nacelles Burnley
Organiser: Paul Gardner

See 4.5

9 ANY OTHER BUSINESS

Paul Gardner mentioned that a group associated with the Spitfire monument at Fairhaven Lake in Lytham St Anne’s were building a simulator at Blackpool Airport.

10 DATE OF NEXT MEETING

Next meeting: Monday 23\textsuperscript{th} October 2017 – at David Lloyd Club, Whittle le Woods, Chorley at 18:00 for 18:30.

11 DATE OF PROPOSED IMECE COMMITTEE MEETINGS 2017

- Monday 23 January 2017
- Monday 6 March 2017
- Monday 24 April 2017
- Monday 22 May 2017
- Monday 26 June 2017
- Monday 4 September 2017
- Monday 23 October 2017
- Monday 4 December 2017

Minutes taken by:
Manuel Donald-Lopez
Hon Treasurer IMechE Aerospace North West
4th Sept 2017
## 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</td>
<td>18:00 for</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>2017</td>
<td>18:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday 24 February</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>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday 31 March</td>
<td></td>
<td>Hilton Hotel Manchester</td>
<td>North West Region Annual Dinner</td>
<td>NA</td>
<td>Region</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday 23 May</td>
<td>18:00 for</td>
<td>MMU Room JDEO.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>2017</td>
<td>18:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday 4 October</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>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday 22 November</td>
<td>18:00 for</td>
<td>MMU</td>
<td>FAAM</td>
<td>Guy Gratton FAAM</td>
<td>Thurai Rahulan Joint with RAeS Manchester</td>
</tr>
<tr>
<td>2017</td>
<td>18:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>18:00 for</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>TBD</td>
<td>18:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>Friday afternoon</td>
<td>Rolls Royce Barnoldswick</td>
<td>Visit to Rolls Royce Barnoldswick</td>
<td>Contact: Mike Wallace</td>
<td>Ivan Dean</td>
</tr>
<tr>
<td>TBD</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
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 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>TBD 2018</td>
<td></td>
<td>SAFRAN Nacelles Burnley</td>
<td>Visit to SAFRAN Nacelles</td>
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<td>Paul Gardner</td>
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</tbody>
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## 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 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-16</td>
<td>End Balance from 2016</td>
<td></td>
<td></td>
<td></td>
<td>3077.88</td>
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</tr>
<tr>
<td>Jan-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>2973.89</td>
<td>34.59</td>
<td>2993.38</td>
<td>Less attendees than usual</td>
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</tr>
<tr>
<td>Feb-17</td>
<td>Grant Payment</td>
<td>Grant from HQ</td>
<td>0.00</td>
<td>6232.99</td>
<td>5232.99</td>
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<tr>
<td>Feb-17</td>
<td>Hotmail Tooling Burnley</td>
<td>N/A</td>
<td>0.00</td>
<td>5233.88</td>
<td>0.00</td>
<td>5233.88</td>
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<tr>
<td>Mar-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>5129.88</td>
<td>89.65</td>
<td>5114.63</td>
<td>Less attendees than usual</td>
<td></td>
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<tr>
<td>Mar-17</td>
<td>Rolls Royce Barnoldswick</td>
<td>N/A</td>
<td>0.00</td>
<td>5129.88</td>
<td>5164.63</td>
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<tr>
<td>Mar-17</td>
<td>North West Region Annual Dinner</td>
<td>Ticket Purchase</td>
<td>100.00</td>
<td>5232.99</td>
<td>100.00</td>
<td>5086.63</td>
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<tr>
<td>Apr-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>4925.88</td>
<td>25.82</td>
<td>4999.60</td>
<td>Less attendees than usual</td>
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<td>Apr-17</td>
<td>Roadwood Officers Survival Centre</td>
<td>N/A</td>
<td>0.00</td>
<td>4925.88</td>
<td>0.00</td>
<td>4999.63</td>
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<td>May-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>4821.89</td>
<td>75.20</td>
<td>4926.33</td>
<td>Less attendees than usual</td>
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<tr>
<td>May-17</td>
<td>Reaction Engine Lecture</td>
<td>Venue Hire and Catering</td>
<td>400.00</td>
<td>4421.89</td>
<td>35.00</td>
<td>4566.69</td>
<td>Cheaper than estimate</td>
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<td>Jun-17</td>
<td>Ask a Astr. Dust to Dust Lecture</td>
<td>Venue Hire and Catering</td>
<td>400.00</td>
<td>4021.88</td>
<td>0.00</td>
<td>4066.63</td>
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<td>Jun-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>3917.88</td>
<td>75.20</td>
<td>4472.48</td>
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<tr>
<td>Sep-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
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<td>2912.89</td>
<td>4491.43</td>
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<tr>
<td>Oct-17</td>
<td>IUS Challenge Lecture</td>
<td>Venue Hire and Catering</td>
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<td>3415.88</td>
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<td>Oct-17</td>
<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>104.00</td>
<td>3309.88</td>
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<td>Nov-17</td>
<td>RAAM Lecture</td>
<td>Venue Hire and Catering</td>
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<td>Committee Meeting</td>
<td>Venue Hire and Catering</td>
<td>220.00</td>
<td>2589.88</td>
<td>4491.43</td>
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|                      | Total Meeting Costs                | £948.00                  | £84.60         |                     |                      |                   |                   |                             |
|                      | Total Events Costs                 |                            | £1700.00      | £100.00            |                      |                   |                   |                             |
|                      | Total Equipment Costs              |                            | £0.00         | £85.60             |                      |                   |                   |                             |
|                      | Total Expenditure For Year         |                            | £2158.00      | £250.40            |                      |                   |                   |                             |
|                      | Year End Balance                   |                            | £2589.88      | £4491.43           |                      |                   |                   |                             |

http://nearyou.imeche.org/near-you/UK/North-Western/Aerospace-North-West
## Nat West Account Ledger

<table>
<thead>
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<th>Description</th>
<th>Credit</th>
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<td>January Committee Meeting</td>
<td>£84.60</td>
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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>£5,153.28</td>
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<td>March Committee Meeting</td>
<td>£88.65</td>
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<td>£5,064.63</td>
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<tr>
<td>April Committee Meeting</td>
<td>£65.80</td>
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<td>£4,998.83</td>
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<td>May Committee Meeting</td>
<td>£75.20</td>
<td></td>
<td>£4,923.63</td>
</tr>
<tr>
<td>Reaction Engined Lecture Catering Cost</td>
<td>£357.00</td>
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<td>£4,566.63</td>
</tr>
<tr>
<td>June Committee Meeting</td>
<td>£75.20</td>
<td></td>
<td>£4,491.43</td>
</tr>
</tbody>
</table>

**TOTAL**                                  |          |         | **£4,491.43**   |

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