



**ROYAL  
AERONAUTICAL  
SOCIETY**  
Loughborough Branch

**Minutes of the Annual General Meetings held on Tuesday 11<sup>th</sup> May 2021\***

\*Because of the Covid 19 restrictions, the meeting was held via **Microsoft Teams**. Participants were required to log into the meeting using their own computers.

**Attendees (14\*\*):**

Jim McGuirk, Tom Parkinson, Stephen Hogarth, Colin Moss, John Ollerhead, Gerald Elloy, Derek Cranage, John Rogers, Francis Maccabee, John Newton, Roger Allton, Harry Entwistle, Graham Kitto, R Parkin.

\*\*A minimum of 10 required to be quorate.

**1. Apologies for Absence**

Apologies for absence were received from Goff Tearle.

**2. Minutes of AGM scheduled for 5<sup>th</sup> May 2020**

Not applicable –See Annual Report below.

**3. Annual Report dated 21<sup>st</sup> April 2020**

3.1 Refer to Ref. 1.

3.2 The report was prepared in the midst of the unprecedented circumstances arising from the 2020 worldwide Covid 19 pandemic which has resulted in the postponement or cancellation of most activities in the UK involving any form of group meeting. Such cancellations included the RAeS Loughborough Branch's AGM scheduled for 5<sup>th</sup> May 2020.

3.3 The main points from the report were:

3.3.1 Only 7 of the 10 planned 2019/20 season lectures took place, the last 3 being cancelled because of Covid 19 pandemic restrictions.

3.3.2 The average lecture attendance was 136 but, unlike previous seasons, this excluded the evening of lectures by Loughborough University's Aeronautical and Automotive Engineering (AAE) Department's final year MEng students where the attendance is usually approx. 300.

3.4 The report stated that, unless any objections were brought to the attention of the Loughborough Branch at the time the report was posted on to the Branch's website, it would be deemed to have been accepted by all RAeS Loughborough Branch Members. No such objections were lodged.

**4. Approval of Annual Report ((3) above)**

Not applicable – see 3.4 above.

**5. Matters Arising from Annual Report ((3) above)**

There were none.

## **6. Secretary's Report**

- 6.1 The planning of the 2020/21 lecture programme started in early Jan. 2020.
- 6.2 By mid. March 2020 all the speakers had been booked. The resultant programme is shown in Table 1. It was to be an especially interesting programme with no less than three lectures devoted to environmentally friendly technologies thus reflecting the need to combat climate change.
- 6.3 Mid March 2020 was precisely the time when the Covid 19 lockdown took effect. Our initial assessment was that we would be back to normal by the end of the year so we offered our speakers for the first half of the 2020/21 season the options of cancelling their lecture, moving their lecture into the 2021/22 programme or giving their lecture on line via Microsoft Teams.
- 6.4 During August 2020, it became apparent that the Covid 19 pandemic was set to last through our entire 2020/21 season, hence it would be necessary to organise an entire season of lectures to be given via Microsoft Teams. The reorganisation was completed by early October. Table 2 shows the Teams based programme. Table 2 also shows that we lost only two lectures out of the 2020/21 season as a result of moving to Teams.
- 6.5 The first Teams based lecture was given by one of our Branch members, Roger Allton on the subject of the X-15 hypersonic aircraft. We would like to thank Roger for being our guinea-pig by readily agreeing for his lecture to be transferred from "live" to being "via Teams". We would also like to thank Roger for giving a second lecture to the Branch on 9<sup>th</sup> February 2021 on the subject of the R-100 airship. Roger's two lectures are highlighted in RED in Table 2.
- 6.6 Two of the lectures, highlighted in GREEN, were only possible because of Teams. They were the lectures given by Col. Richard Graham. Both these lectures were given by Richard whilst he was still in the United States. They illustrated the fact that in, some cases, remote conferencing technology based meetings can offer distinct advantages over "live" meetings.
- 6.7 The lectures on 19<sup>th</sup> January 2021 and 4<sup>th</sup> May 2021 were straight transfer from the original "live" lecture programme whilst the lecture on 16<sup>th</sup> March was a new booking specifically to be given via Teams.
- 6.8 The usual Loughborough University students' series of lectures is still scheduled for 15<sup>th</sup> June 2021 but is likely to be both "live" and via Teams.
- 6.9 The numbers of persons signing into our Teams based lectures varied between about 50 and 110 with an average of about 90. This compared with an average of 136 as reported in the 2019/20 Annual Report for the 2019/20 season (Ref. 1).
- 6.10 We thanked the Chairman, Jim McGuirk, for acting as Master of Ceremonies for each of our Teams based lectures.
- 6.11 Table 3 shows the "live" lecture programme we have prepared for the 2021/22 season. We delayed starting to prepare this programme until March 2021 in the hope that this would allow us to have a clearer idea of the post Covid 19 scenario when attempting to put together the programme. Six of the lectures are straight transfers from the 2020/21 programme. Two further lectures have been booked and only one remains to be confirmed. We are still on schedule to have our programme fully confirmed by the end of July when we normally start to publicise the new programme. Again the programme is heavily influenced by green issues.

## **7. Treasurer's Report**

### **Income**

- 7.1 Refer to Table 4. Our income for the year 2019 was good and included subscriptions from 62 Branch Members.
- 7.2 Donations were also relatively high at £478.85.
- 7.3 The grant/subvention income from RAeS HQ is shown as nil because of the differences between our financial year (typically May to May to coincide with our lecture season) and RAeS HQ's financial year (1<sup>st</sup> January to 31<sup>st</sup> December).
- 7.4 The committee decided that, because of our healthy financial position, we would not seek any

grant/subvention from RAeS HQ during their 2021 financial year.

- 7.5 On the expenditure side (Table 4) our lecturers' expenses were reduced because the Covid 19 pandemic and resultant lock-down meant that we only held 7 lectures during the 2019/20 season. During the 2020/21 season, these expenses were reduced to £100.
- 7.6 No invoice has, as yet, been received from Loughborough University for the lecture room hire for the 7 lectures we were able to hold during the 2019/20 season. This bill is expected to be £700.
- 7.7 During the 2020/21 season we incurred costs of £221 for the award of prizes and trophies for the N E Rowe young persons' lecture completion.
- 7.8 The 2020/21 year ended with a surplus of £1706 on the year.

### **Expenditure**

- 7.9 Refer to Table 5.
- 7.10 Because of the surplus, our end of year balance now stands at £10,787.
- 7.11 Given that we will not receiving any RAeS HQ grant/subvention for the coming year, it is anticipated that our 2021/22 season end of year balance will be £6,000-£7,000 allowing for our anticipated income and expenditure during the season and the £700 lecture room hire bill outstanding from the 2019/20 season.2.

### **Accepting Treasurer's Report**

- 7.12 Approval of the Treasurer's Report was Proposed by John Ollerhead and Seconded by Colin Moss. It was Accepted Nem Con.

## **8. N E Rowe Young Person's Lecture Competition**

- 8.1 In recent years the RAeS Loughborough Branch has not participated in the RAeS's N E Rowe Young Persons' Lecture Competition. This changed for the 2020/21 season. Entry was restricted to Loughborough University Aeronautical Engineering students taking Propulsion Design for the Environment module.
- 8.2 The intention was to hold a Loughborough University preliminary session followed by a joint Loughborough University/Rolls-Royce, Derby final session. In the event, the Covid 19 pandemic restrictions meant that only Loughborough University sessions via Microsoft Teams were possible.
- 8.3 The RAeS Loughborough Branch 2019/20 N E Rowe Lecture Competition Winner was Michael Winebrenner for his lecture entitled "Superconducting Generators". He received a £100 prize and a trophy from the Branch.
- 8.4 The 2020/21 is open to all Loughborough University 4th Year Aeronautical Engineering MEng students. The preliminary competition session was held in early May 2021 and was Microsoft Teams based. A joint Loughborough University/Rolls-Royce, Derby final session is to be held in early June 2021. It will be either Teams based or "live" depending on the circumstances at the time.

## **9. Branch Core Missions**

- 9.1 Branch Officers have discussed how best to achieve Branch core missions and concluded that they should be as follows:
  - 9.1.1 To deliver a high quality lecture programme
  - 9.1.2 To foster local student/community interest in aerospace & the RAeS
  - 9.1.3 To engage with local industry (primarily Rolls-Royce) and Loughborough University (AAE Dept.)
  - 9.1.4 Some initiatives are underway to improve contact and inclusivity:
  - 9.1.5 Continue to grow N E Rowe collaboration with Rolls-Royce, Derby and within the AAE Dept..
  - 9.1.6 Organise an annual visit to Rolls-Royce, Derby.
  - 9.1.7 Strengthen Branch/AAE Dept ties – new Committee Members
  - 9.1.8 Involve Aero. Eng. academic staff (MEng A/C Design)

9.1.9 Recruit an Aero Eng. student as an RAeS Young Persons' Network Representative.

## 10. Election of Officers

10.1 The following committee members had indicated that they were willing to stand for re-election for the 2021/22 Season:

Chairman:	Prof. Jim McGuirk*
Secretary:	Colin Moss*
Assistant Secretary	Dr. John Ollerhead*
Treasurer:	Stephen Hogarth*,
Meetings Secretary:	Dr. Vipran Kannan*
Programme Secretary	Goff Tearle*
Visits Secretary	John Newton*
Committee Members:	Gerry Elloy*, Mike Hirst, Tony Irwin*, Daniel Nutt, Dr. Adrian Spencer*

N.B. Ed Cubitt (former Loughborough University Velocity Society. Chair), Mac Maccabee, John Robertson\* and Paul Snelling\* were not standing for re-election.

10.2 In addition the following persons were standing for election:

Committee Members: Roger Allton, Derek Cranage, Harry Entwistle\* (RAeS Young Persons' Network Representative), Dr. James Knowles, George Walker (Loughborough University Velocity Society Chair)

\*RAeS members.

10.3 Chairman's Remarks

Jim McGuirk, Branch Chairman, thanked all those who had been on the committee during the 2020/21 season for their work. In addition, he thanked Mac Maccabee, in particular, for his service to the Branch and the RAeS as a whole since the early 1970's when the Loughborough Branch was formed following the closure of the Leicester Branch. Since the 1970s Mac has served on the RAeS Branches' Committee as well as being a Loughborough Branch Member. As a Branch Member his responsibilities included being Branch Chairman, Branch Secretary and Branch Treasurer as well as being a Committee Member.

10.4 Vote

A vote was held and all those standing for election to the 2021/22 committee were elected nem con.

## 11. Any Other Business

There was none.

**Colin Moss MRAeS, Branch Secretary**

### References

1. RAES1062 Loughborough Branch Annual Report 2019-2020 Iss. 4 21\_04\_2020.

RAES1081 Iss.2 14/05/2021

Dates	Lecture	Lecturer	Status following Covid 19 lockdown mid-March 2020
Tuesday 13 <sup>th</sup> Oct 2020	Practical zero-emission aviation through hydrogen-electric propulsion	Julian Renz, ZeroAvia Project Manager HyFlyer Project and Business Development Lead	Lecture postponed until 2021/22 season (Tuesday 12 <sup>th</sup> October 2021).
Tuesday 3 <sup>rd</sup> Nov 2020	Tempest – New Technologies, New Partnerships	Michael Christie, Director, Future Combat Air Systems, BAE Systems	Lecture postponed until 2021/22 season (Tuesday 2 <sup>nd</sup> November 2021).
Tuesday 17 <sup>th</sup> Nov 2020	The North American X-15, the first manned American spacecraft	Roger Allton, Branch Member	“Live “ lecture cancelled.
Tuesday 8 <sup>th</sup> Dec 2020	Previewing the James Webb Space Telescope	John Thatcher CEng MRAeS, Ex Project Manager for the JWST Mid-Infrared Instrument delivered by Airbus Defence & Space, Stevenage	Rebooked for 2021/22 season (Tuesday 16 <sup>th</sup> November 2021).
Tuesday 19 <sup>th</sup> Jan 2021	The Business of Borrowing Bird Technology; Understanding and Mimicking Avian Flight Machines	Dr Peter Thomas, Department of Engineering, School of Engineering and Computer Science, University of Hertfordshire	“Live “ lecture cancelled.

Table 1 Sheet 1 of 2 - 2020\_21 Season Original “Live” Programme

Dates	Lecture	Lecturer	Status following Covid 19 lockdown mid-March 2020
Tuesday 9 <sup>th</sup> Feb 2021	Air Accident Investigation Branch	Peter Coombs, Senior Inspector of Accident Investigation, Air Accidents Branch	Lecture cancelled.
Tuesday 23 <sup>rd</sup> Feb 2021 Elfyn Richards Prestige Lecture	Decarbonising Aerospace	Dr Mark Taylor, Rolls-Royce	Rebooked for 2021/22 Season (Tuesday 16 <sup>th</sup> November 2021).
Tuesday 16 <sup>th</sup> March 2021	Miles M52 N.B. The Miles M52 is a 1940s British design that could well have been the first supersonic aircraft.	Mike Hirst, RAeS Loughborough Branch Committee Member	Rebooked for 2021/22 season (Tuesday 18 <sup>th</sup> January 2022).
Tuesday 4 <sup>th</sup> May 2021	Air Race E – Propulsion Futures (Lecture to be preceded by AGM at 7.00 p.m.)	Richard Glassock, Research Fellow, Hybrid and Electric Propulsion Systems for Aircraft, Nottingham University	“Live” lecture cancelled.
Tuesday 15 <sup>th</sup> June 2021	Loughborough University MEng Final Year Aircraft Design Projects – series short lectures	Final Year MEng Students from the Loughborough University Department of Aeronautical and Automotive Engineering	Subject to Loughborough University agreement.

Table 1 Sheet 2 of 2 - 2020\_21 Season Original “Live” Programme

Dates	Lecture	Lecturer
Tuesday 17 <sup>th</sup> Nov 2020	The North American X-15, The First Hypersonic Aircraft into Space	Roger Allton, Branch Member
Tuesday 8 <sup>th</sup> Dec 2020	A View from 80,000 Feet: the SR-71 Blackbird	Col. Richard Graham, USAF (Retd.)
Tuesday 19 <sup>th</sup> Jan 2021	The Business of Borrowing Bird Biology: Understanding and Mimicking Avian Flight Mechanics	Dr Peter Thomas, Department of Engineering, School of Engineering and Computer Science, University of Hertfordshire
Tuesday 9 <sup>th</sup> Feb 2021	HM Airship R-100: a Barnes Wallis Innovative Design	Roger Allton, Airship Heritage Trustee & Branch Member
Tuesday 23 <sup>rd</sup> Feb 2021	Flying the F-4 Phantom in Vietnam	Col. Richard Graham, USAF (Retd.)
Tuesday 16 <sup>th</sup> March 2021	Reaction Engines: Making Beyond Possible	Robin Davies, Reaction Engines Ltd
Tuesday 4 <sup>th</sup> May 2021	Air Race E – Propulsion Futures	Richard Glassock, Research Fellow, Hybrid and Electric Propulsion Systems for Aircraft, Nottingham University
Tuesday 15 <sup>th</sup> June 2021	Loughborough University MEng Final Year Aircraft Design Projects – series short lectures	Final Year MEng Students from the Loughborough University Department of Aeronautical and Automotive Engineering

Table 2 - 2020-21 Season Revised (TEAMS-based) Programme

Dates	Lecture	Lecturer	Status
Tuesday 12 <sup>th</sup> Oct 2021	Practical zero-emission aviation through hydrogen-electric propulsion*	Julian Renz, ZeroAvia Project Manager HyFlyer Project and Business Development Lead	Transferred from 2020/21 season.
Tuesday 2nd Nov 2021	Tempest – New Technologies, New Partnerships	Michael Christie, Director, Future Combat Air Systems, BAE Systems	Transferred from 2020/21 season.
Tuesday 16 <sup>th</sup> Nov 2021 Elfyn Richards Prestige Lecture	Decarbonising Aerospace*	Dr Mark Taylor, Rolls-Royce	Transferred from 2020/21 season.
Tuesday 7 <sup>th</sup> Dec 2021	Previewing the James Webb Space Telescope	John Thatcher CEng MRAeS, Ex Project Manager for the JWST Mid-Infrared Instrument delivered by Airbus Defence & Space, Stevenage	Transferred from 2020/21 season.
Tuesday 18 <sup>th</sup> Jan 2022	Miles M52 N.B. The Miles M52 is a 1940s British design that could well have been the first supersonic aircraft.	Mike Hirst, RAeS Loughborough Branch	Transferred from 2020/21 season.
Tuesday 8 <sup>th</sup> Feb 2022	The RAF's P-8A Poseidon Force	Gp Capt Jim Beldon RAF ISTAR Deputy Force Commander RAF Waddington	Booked.
Tuesday 22 <sup>nd</sup> Feb 2022	Atmospheric Research Flying in the UK	Dr. Guy Gratton, University of South Wales	Booked.
Tuesday 15 <sup>th</sup> March 2022	Aircraft Accidents Investigation Branch	Peter Coombs, AAIB	Transferred from 2020/21 season.
Tuesday 3 <sup>rd</sup> May 2022	Engine Power – where will it come from in the Future? *		To be confirmed.
Tuesday 7 <sup>th</sup> June 2022 (date to be confirmed)	Loughborough University MEng Final Year Aircraft Design Projects – series short lectures	Final Year MEng Students from the Loughborough University Department of Aeronautical and Automotive Engineering	Date to be confirmed.

\*Climate change related technologies

Table 3 - 2021-22 Season “LIVE” Programme



<b>INCOME and EXPENDITURE ACCOUNT</b>	<b>2019/2020</b>		<b>2020/2021</b>	
<b>INCOME</b>	<b>£</b>		<b>£</b>	
1. Grant/subvention from RAeS HQ	Nil.	(1)	2200.00	(2)
2. Subscriptions from Branch Members (62)	930.00		35.00	(3)
3. Donations (collections at lectures)	478.85		Nil	
4. Interest on Capital Account	3.03		1.36	
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<b>TOTAL</b>	<b>1411.88</b>		<b>2236.36</b>	
 <b>EXPENDITURE</b>				
1. Lecture expenses. (travel, accommodation, hospitality)	1185.92		100.00	
2. LU 020 building hire.	Nil.	(4)	Nil.	(5)
3. Secretarial, publicity, programmes	165.08		21.96	
4. Website expenditure	155.84		187.04	
5. Awards, certificates	Nil.		220.94	
	<hr/>		<hr/>	
<b>TOTAL</b>	<b>1506.84</b>		<b>529.94</b>	
<b>Surplus/ (Deficit).</b>	<b>(94.96)</b>		<b>1706.42</b>	

**Notes:**

1. Second tranche of grant paid March 2019
2. Late payment of grant for 2020/2021. Branch decision to forgo request for season 2021/2022 as Branch account healthy and to assist RAeS finances.
3. Subscription paid in error and will carried over to season 2021/2022
4. Still awaiting reduced (£700) invoice from LU for curtailed use of U020 due Pandemic
5. Nil use of U020 due Pandemic

Table 4 – Income and Expenditure Account

**B. STATEMENT of BANK BALANCES 1<sup>st</sup> MAY 2021**

<b>Brought forward balances</b>	<b>£</b>
Current Account 1 <sup>st</sup> May 2020.	3074.58
Capital Account 1 <sup>st</sup> May 2020.	6006.19
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<b>TOTAL</b>	<b>9080.77</b>
<b>Surplus for season 2020/2021</b>	1706.42
Represented by balances.	
Current Account 1 <sup>st</sup> May 2021	4779.64
Capital Account 1 <sup>st</sup> May 2021	6007.55.
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<b>TOTAL</b>	<b>10787.19</b>

Table 5 – Statement of Bank Balances