ROYAL AERONAUTICAL SOCIETY
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APPENDIX A– Oral Presentation Adjudication Proforma

Branch	Bristol	
Age Group	~~Under 25~~	Under 30
Title of Paper	Unmanned Aerial Vehicles & AI – What next?	
Nominee's Name & Date of Birth	Colin Field (DoB 07.07.1989)	
Date of Presentation	20 / 10 / 2016	
Adjudicator		
Duration of Lecture	Allocated: 15	Taken: ~21 minutes

ASSESSMENT ***(each section to be scored as suggested below, total 60 marks)***

Timing- 5 (keeping to the allotted time)

3 Overall felt the presentation itself was hard to run as such I think? I think as difficult to know what to run?

Presentation of Case- 10 *(adequacy of introduction, development of theme or topic, relevancy of conclusion)* – [illegible] – AI...?

7 Google car = [illegible] + [illegible] ? Very good case made, touched on all of the area / would expect; top level?

Standard of Oral Presentation- 10 *(spoken delivery, audibility, speed, flow)*

7 Generally fine, small criticism would be that stood in front of the screen?

Standard of Visual Presentation- 10 *(relevance, ease of reading and assimilation)*

10 Excellent, well-put delivery & delivered as a [illegible] artwork. Stunning & great!

Discussion- 10 *(ability to answer questions, ability to clarify and elaborate to get the message over)*

6 Q [illegible] ? Perhaps [illegible] on [illegible] concepts such as [illegible] ? Next level details [illegible] was good

General- 15 *(originality, choice of subject, relevance, technical content, grasp of subject)*

10 Excellent, however experience here is clear & well used in the [illegible] + question. Very strong.

Any other comments

Very well, enjoyable presentation but maybe left too many questions to follow up on. [illegible] + next steps should maybe have had stronger input / [illegible] [illegible]. Easily [illegible] large [illegible] + develop the technical [illegible].

Total score	63 / 60

15

ROYAL AERONAUTICAL SOCIETY

Bristol Branch
Young Members Lecture Competition

Applicant Name:	Colin Field
Date of Birth:	7th July 1989
Title of Presentation:	Unmanned Aerial Vehicles and Artificial Intelligence - what next?
University attended/currently attending:	University of Bath
University Course and Year of Completion:	MEng Aerospace Engineering – 2012
Employer (if applicable):	Rolls-Royce plc
Endorsing person (name and position): *An endorsing person is required to protect against plagiarism and protect against sensitive information being released. Please contact us if you are not sure who you could put for this and we will guide you.*	Andy Haasz Head of Component Design Rolls-Royce Fellow in Design Systems Rolls-Royce plc

Abstract (please write a summary on the topic of your interest below – max 350 words:

When we can say "drones", we imply small, dumb, cheap, disposable – the opposite of traditional Aerospace, which is why the word is disliked by many. Yet it's easy to ignore the other implications – of multiple vehicles acting in co-ordination and having a sum greater than its parts. The UK Aerospace industry is at risk of being left behind in the "drone revolution" and I hope to persuade that we need to change our thinking, and our partnerships, in order to keep up.

So what is a drone? Whether it's a robotic bird, a quadcopter, a blimp or a solar-powered aircraft - it is a node in a network; part of a system of systems which could eventually decide for itself how to fulfil its objectives. Whether the goal is civilian (delivering packages to houses) or military (urgently mapping an area), using a network of specialised "agents" deciding amongst themselves how to achieve this gives a cost, flexibility and robustness incomparable with traditional Aerospace.

Learning to use networks, rather than aircraft, to perform a task requires continued progress in cutting-edge Technologies – "General" Artificial Intelligence, sensor fusion, big data, low power computing and environmental energy extraction. Fortunately, Aerospace is in a great position to benefit from other industries' exponential growth; less fortunately, we're at risk of being left behind by some of the youngest and most agile companies in existence.

The Aerospace industry in the UK already offers solutions to positioning sensors and data at any location, any altitude and for any duration. We can partner our expertise in aerial communications, formation flying and command & control with the wider Technology industry to help build these networks in the sky. We already have a flying start in network thinking - QinetiQ designed the platform which Facebook develops to distribute the internet across the globe, meanwhile Amazon and the CAA are trialling replacing aerial data delivery with matter delivery.

So, let's stop focussing on the vehicle and start thinking about the network. And let's not be afraid to use the "drone" word! "Connectivity, not platforms, is key" – Airbus 2016

Applicant	**Endorsing Person**
Print Name: **Colin Field**	Print Name: **Andy Haasz**
Sign:	Sign: .....
Date: **11th August 2016**	Date: **2nd September 2016**

Please return completed form to info@raesbristol.org.uk