

**Drone Industry Action Group  
12 September 2019 – Minutes  
BEIS Conference Centre, London**

**Attendees:**

**Chair: Iain Gray, Cranfield**

Geoff Pugh, Consortiq  
Rikke Carmichael, Network Rail  
Hector Figueiredo, Qinetiq  
Graham Brown, ARPAS  
Simon Ritterband, Moonrock Insurance  
Craig Roberts, PwC  
Nikos Pronios, InnovateUK  
Craig Lippett, Animal Dynamics  
Phil Binks Altitude Angel  
Mark Westwood, Connected Places Catapult  
Tris Dyson, Nesta  
Olivier Usher, Nesta  
Holly Jamieson, Nesta  
Officials from BEIS and DfT

**Apologies:**

James Dunthorne, ARPAS  
Simon Merriman, BSI  
Neil Watson, Thales  
Stuart Young, Thales  
Yoge Patel, Blue Bear  
Brian Hampson, ADS  
Stuart McGlynn, Cyberhawk  
Philip Tarry, Halo Drones  
Gavin Moir, NATS  
Mark Watson, NATS  
Owen McAree, LJMU  
Mike Gadd, Altitude Angel  
Andrew Chadwick, Connected Places Catapult

**1. Welcome and review of previous minutes**

Iain Gray welcomed all and reviewed actions from the previous meeting.

- **IAG working groups:** Mark Westwood had recently submitted update papers from the working groups (Draft technology roadmap and Operational Safety Case) and welcomed comments by email.
- **June 2019 meeting minutes** had been made available at <https://www.arpas.uk/drone-iag/> website, as agreed by the group.
- **Engaging with the CAA:** The IAG wants to support the CAA in a number of areas relating to drones (technology roadmapping, dissemination, future strategy and ambition, insurance) and felt direct engagement at IAG meetings would facilitate this. BEIS / DFT would communicate this invitation to CAA.

**2. Public perception initiative:**

Iain Gray led a detailed discussion of the challenge faced by the group in getting funding for the proposed drone perception initiative, which would tackle a critical constraint on growing the UK drone economy. Craig Roberts outlined the key findings of [PWC's 'Trust in Drones' survey](#) and the working group's proposal. This is to prepare positive use cases within target industry sectors, where current technology solutions were available that could deliver tangible benefits and cost-savings, and to develop a targeted PR campaign and website to support uptake in those sectors. The group agreed with limited funds that industry focus would be the priority, rather than a wider public campaign at this stage. **Action: all to push their organisations to support this important initiative; and agree with Graham Brown.**

In discussion, the following points were raised.

- Using trusted channels for communication will be important. Drone use cases are not currently well articulated or easily found. Drone service providers lack industry-specific credibility, yet businesses that use drone services rate these very highly, so a campaign supporting businesses to look at drone services (or even 'buy your first drone') was felt worthwhile.
- Nesta cautioned that there were examples where over-promoting a single message hardened resistance to new technology, so need to be conscious of this.
- [Past public dialogue led by DfT](#) found that the more the public engaged the more eager they became for information. Who are the trusted bodies to lead that conversation? Are resources available?
- There can be reluctance to celebrate drone use within organisations. Eg Network Rail operates 55 drones but this rarely features in any communication. Qinetiq agreed.
- Confidence in drone use standards and skills / qualifications of drone professionals is also critical.
- The group noted any initiative should, as far as possible, align to FFC, Flying High, dronesafe, Innovation Hub and other CAA initiatives.
- Initial sectors to consider will be determined by the growth potential, state of current technology and level of current drone adoption noted above. Further work would be needed to identify and validate these.

### 3. Future Flight Challenge (FFC):

Iain Gray updated the group that [FFC is on track for the initial expression of interest phase from 30 September](#), with workshops to follow. Iain Gray proposed the IAG's role should be to provide direct market input and feedback from the drone sector into FFC advisory board (on which he sits) and to support new business-led collaborations. He did not anticipate an IAG consortium or proposal would be entered into FFC. While some voiced concern that FFC would most benefit established, bigger aviation companies, others countered that InnovateUK understood the economic and environmental benefits of commercial drones and would support efforts to unlock this (eg UTM). The group was less clear on which 'stream' or 'pillar' would directly provide this support and would feed in via Iain Gray on strategy, regulation and technology support.

**Post meeting update:** Iain Gray discussed the scope of Future Flight Challenge with programme director Gary Cutts who reinforced that drones are very much "in scope" for this challenge.

### 4. Working with CAA

The group discussed how the IAG could better support the CAA to ensure that the UK can support the emerging technology and practical applications essential to delivering on the UK's ambitions. The Innovation Hub was welcomed, but the group was concerned the Hub only had funding through to March 2020. A key challenge is in developing and proving technologies that meet CAA/ EASA's emerging regulatory framework. **Action: Phil Binks to lead a sub-group to consider 'what' and 'how' IAG could support the CAA.**

## 5. Government update:

**DfT** updated that the Unmanned Aircraft (formerly 'Drone') Bill had not been introduced, and that there is no date yet earmarked for that. Government's response to the [Aviation 2050 consultation](#) was expected in November 2019.

**InnovateUK** confirmed the Future Flight team was operating at pace to set up the team ahead of opening the first call on 30 September. There were no other drone funding streams at this time.

**James Bell, CAA** (by email: questions to [innovation@caa.co.uk](mailto:innovation@caa.co.uk); updates at [caa.co.uk/innovation](http://caa.co.uk/innovation))

- **UAS Unit:** Focused on EU Regulation implementation and preparation for UK registration scheme. 4 new team members have been recruited.
- **Innovation Hub:** First sandbox (6 orgs) is progressing well, improving internal processes. An open call during August had a great response, and will help progress regulatory response to key barriers to non-segregated BVLOS, including detect and avoid (and working closely with Pathfinder). CAA expect to publish information on this work in the near future.
- **Regulatory Lab** is developing CAA's position on UTM and UAM, supporting BVLOS and other areas. An internal task force is coordinating activity across the CAA on these.
- **Future Flight:** CAA is formally engaged in FFC governance, to provide regulatory support.

**BEIS** reported that Minister Chris Skidmore had convened a new Robotics Growth Partnership. Iain Gray attended the inaugural meeting of the group, which would be a champion for uptake of smart machines beyond traditional manufacturing sector into new application areas.

## 6. Market update:

**Craig Lippett, Animal Dynamics** has long been a drone enthusiast, formerly working in training/NQEs and developed commercial drone services (esp safety management). Joined AD in Feb 2019 as head of safety and describes a well funded, innovative, ambitious organisation developing new technologies (eg dragonfly flight) for wide range of commercial and humanitarian applications. Seeks a dynamic infrastructure in which to test BVLOS (currently looking overseas).

**Tris Dyson, Nesta:** Flying High design work had finished and a report prepared for three city-based, stage-gate accelerated projects. Aim would be (blue light, medical deliveries, construction) towards live demonstration. **Action: Tris to share the outputs with this group.** Tris Dyson introduced Holly Jamieson in for Kathy Nothstine (maternity leave).

**Graham Brown, ARPAS:** ECITB has introduced a new four stage [Industrial Drone Operations Training Course](#), starting 30 September. It begins with an operator PFCO and builds capability within specific industry sectors. Get the ARPAS UK monthly newsletter.

**BSI update** (from Simon Merriman, by email): The national committee is increasing in membership with people from Thales, NATS, London Southend Airport, etc. involved. In June 2019, the ISO committee met in the UK successfully, liaisons established with ASTM, ICAO, SAE, ASD-STAN, and EUROCAE. Simon remarked that of the 60 participants at the UK meeting, very few were from the UK, and encouraged colleagues to get involved to help influence and shape the future work programme.

The group agreed on the importance of testing and evaluation standards (including vertiports) and agreed to await BSI's report on their current RFQ.