Drone Industry Action Group
Notes of meeting, 15 March 2018, BEIS Conference Centre

Attendees:

Iain Gray, Cranfield University (Chair)
Simon Ritterband, Moonrock Insurance
Phil Binks, NATS
Mark Watson, NATS
Stuart McGlynn, Cyberhawk
Malcolm Connelly, CyberHawk
Simon Ritterband, Moonrock Insurance
Wendy Welsh, Network Rail
Geoff Pugh, Consortiq
Owen McAree, Liverpool JMU
Sue Wolfe, ARPAS-UK
Joel Grundy, Thales
Nick Rogers, Sky Futures
Brian Hampson, ADS
Simon Merriman, BSI
Nikos Pronios, Innovate UK
Mark Westwood, Transport Systems Catapult

Officials from BEIS, DfT and CAA

1. Minutes of 26 September 2017 meeting

The minutes were accepted as a true record. The Chair noted that some of the actions had not been completed, such as IAG communication through a website – these are addressed in the notes below.

2. Update

a. Government: BEIS

BEIS officials updated that a proposal for a Robotics and Autonomous Systems (incl drones) sector deal had been put forward within BEIS for consideration by the Secretary of State for inclusion in the Wave 2 sector deals. This was originally developed in 2017, prior to the Industrial Strategy White Paper, and outlined how government and the sector could work effectively together for growth. The sector deal places an emphasis on non-industrial robots and applications as the key area of focus. This was in order to make the distinction between a RAS Sector Deal and the Advanced Manufacturing sector deal (known as 'Made Smarter', which is already 'approved' and currently in development), which makes the case for government support around robotics adoption and skills training. As drones is a recent addition to the RAS Sector Deal, and regardless of the Secretary of State's decision, Government would welcome the IAG's efforts to articulate the industry offer and asks of Government. It was suggested an IAG lead for this should be appointed, with whom the BEIS team would be able to communicate. It was noted that if the bid was unsuccessful, it could be altered and resubmitted in coming months.

The Industrial Strategy Challenge Fund (ISCF) and Sector Deals are separate processes. ISCF provides funds for R&D/ innovation projects, delivered by InnovateUK. Once selected, a Sector Deal would certainly bring together the available funding for relevant R&D projects. Equally, it was possible for discrete projects to apply for ISCF funding independently of a Sector Deal. An example provided was the ISCF's Robotics and AI in Extreme Environments programme (£93m, Wave 3 recently closed).

b. Government: DFT

DFT officials updated that since the last meeting the consultation response was published, which also laid out plans for an amendment to the Air Navigation Order covering:

- An airport restriction for UAS, which was being codified with CAA to ensure pragmatics
- A registration process for all drone operators
- Legislating a maximum height limit of 400ft

This would sit alongside a draft Drone Bill which would propose:

- Clarifying police powers.
- Mandating the use of digital safety apps or equivalent services

Both are expected to be announced in the Spring of 2018. DfT would ensure that positive messaging around the economic/ social potential of the sector would accompany these announcements.

c. Government: InnovateUK

Nikos Pronios updated that Innovate UK is planning an event to expound the activities and opportunities emerging from the (c 20) drone-related projects they have funded. The aim is to raise awareness of the technology challenges and achievements across a range of use cases, to clarify with CAA's support where and how regulatory challenges had been overcome, and to encourage new companies to apply. Details of the InnovateUK funded projects are attached. Event date is TBC but expected in early summer 2018.

d. NESTA Flying High

Nishita Dewan updated the group on progress of Nesta's Flying High project. They were pleased to get a large volume of applications; they estimate that one third of UK cities applied. An independent judging panel shortlisted 5 finalist cities (Bradford, London, Preston, Southampton and the West Midlands). Nesta is working with the cities to fine-tune use cases (eg emergency medical supply delivery, incident response) on how drones help solve their problems. Nesta expected that once concluded, cities would look for funding/ partners (including through Innovate UK).

In conversation, the following points were made:

- Nesta or InnovateUK or others should consider a funded 'challenge' (c £20m) along these lines, also aggregating potential demand from buyers of new services.
- Transport Systems Catapult is preparing a roadmap/ chart of drone activity and achievements, to help raise awareness of the activity in different regions and sectors. This would articulate how drones form part of a future integrated transport system.
- Network Rail is actively researching how to integrate drones into their airspace.
- Identifying and addressing gaps in standards could help support the next phase of growth.

3. Update from the sub-group on Standards

Sue Wolfe indicated that the BSI Committee had made substantial progress since the last IAG meeting and invited Simon Merriman to provide an update, as background to the work of the Drone IAG Standards group.

SM explained that BSI is the conduit for open and consensus-led standardisation, and that the work on UAS had now been recognised as a full committee of BSI, ACE-20. Areas included Qualification and approval of UAS operatives, registration and identification and BVLOS, and had close association with other areas of work of BSI, notably Emergency Vehicles, Autonomous Road Vehicles and Robotics. ACE-20 would value input from the Drone IAG on other related areas where standards development was required. SM provided 2 documents to be circulated with the minutes, i) the Scope of the ACE-20 work programme, and ii) a context / summary of progress slide pack.

SW then provided an update on the work of the IAG Standards group, in particular progress on the Standards Position Paper which the group had been tasked to prepare at the last meeting. This was an overview of the current UK position on standards, including BSI standards, to feed into the UAS Roadmap being developed by the IAG. She explained that the document was at a late draft stage, and

would be circulated to IAG members shortly, after input from all subgroup members had been assimilated **(action SW)**. Conclusions and recommendations of the report at this stage included:

- Future potential signposting to other BSI standards development
- Awareness that economic impact will be derived from data and information, not only operations
- Image recognition and analysis is also critical, to support work flow change: should the subgroup consider standards implications in these areas too?

Discussion ensued, with the conclusions that:

- In this fast-moving industry, an appropriate balance needed to be struck between standardisation and keeping abreast of new technology and developments
- The Standards group should continue to map UAS standards work across the UK, although it was recognised that as the industry develops and is rolled out across wide ranging sectors, this could present challenges.
- Awareness of other national standards should be referred to BSI, particularly any requirements emerging from government funded projects such as Flying High.
- The Standards group should maintain awareness of the work of EuroCAE and other international standards work.

4. UTM Demonstrator

Phil Binks outlined a proposal to build a digital drone traffic control demonstrator, in a live environment (eg covering real assets such as road, rail and airports). This would be a global first, as while Geneva Airport had run a successful trial of UTM/ ATM interaction, this was a simulation. Key was to reduce the human labour element but integrate with existing systems. Multiple airfields were interested but no specific site had been selected, although given airport's complexity (eg security components + ATM) non-airport locations were also being considered. Network Rail agreed that it had challenges that would benefit from a drone UTM solution. Cyberhawk felt the existing CAA safety case worked well for established firms doing repeat work, but that a new technical structure is needed.

The IAG was supportive, and perhaps could help by promoting demonstration/ dissemination. It was suggested this should be the key piece/objective for the IAG to action. It was noted that the Regulator Pioneer Fund could be a potential source of funds and resource for this, with CAA involvement. Application for this had not yet opened.

5. Comms

Iain Gray proposed that the IAG take an active role in pro-drone communications, including outlining a vision to help accelerate growth and technological development. The group agreed that, while not holding the exclusive right to these, the trade body ARPAS-UK would post details of IAG participants, minutes, terms of reference, etc. The ambition was to provide basic transparency of and accessibility to the IAG, extend the reach of the industry knowledge and updates, encourage more participation inward, including into working groups, and help disseminate progress and good news stories. Members' own (including social media) channels would also be used to promote the IAG's vision for the sector and its achievements and proposed activities.

The Transport Systems Catapult offered to coordinate with the wider sector, including outputs from the pathfinder programmes, and to connect with the academic and InnovateUK programmes, including through accessible events.

6. AOB

The Chair thanked Phil Binks, who was to be replaced by Mark Watson.

The question was posed as to whether the IAG could take a look at barriers and opportunities presented by different international approaches?

7. Next Meeting

The next meeting is scheduled for Tuesday 12th June.