

Drone Industry Action Group

18 November 2022 – Minutes

(by videoconference)

Participants – see end of document

1. Chair's welcome

Iain Gray welcomed all to the meeting and outlined the agenda.

2. Government / sector updates

BEIS: provided reminded the group that *Advancing Airborne Autonomy* had been published in July 2022 and provided an update on Health & Safety Executive (see end of these minutes)

MOD (see attached slides): Brad Hayward, Commercial Lead for Army activity within the Future Capability Group (FCG), updated that MOD's Human-Machine Teaming (HMT) supplier framework had recently been re-opened and now included over 150 companies, including numerous drone service provider. This umbrella function affords both experimentation activity and procurement for significant volumes of equipment for a range of Military and other Governmental Departments. Recent competitions included sub 250g, sub 4kg and sub 25kgs Uncrewed Air Systems, and supports live operational deployment of such systems into Ukraine.

FCG expect 2023 will be the 'year of the drone'. Additional activity includes

- Heavy Lift Challenge which recently announced winners for 50-150kg category through the Defence Sourcing Portal (DSP), and was looking to increase to 300kg lift in future.
- Through HMT the team is looking to future drone services to improve handling and collision avoidance and to integrate within systems of systems (rather than be individual tools operated 1-2-1 by soldiers) to improve efficiency and effectiveness.

Future Flight: Simon Masters updated that Phase 3 was announced at Farnborough in July 2022 with 17 projects worth c£70m. Technical work was underway at speed with novel flight approaches expected from Spring 2023. In related work, their social science team led by Fern Elsdon-Baker continued, with 2 new research fellows and new projects. The team was supporting NHS trusts consider medical delivery drones; Home Office and emergency services (police, fire&rescue) and maritime services including inspection and shore-2-ship delivery. They were supporting CPC on their Accelerator activity and BSI on FF standards towards AAM (to 2024).

PWC: Craig Roberts was working with BEIS to refresh their 2019 Trust in Drones survey. Indicative findings have been drawn into 6 themes and **Action: Craig welcomed volunteers from the drone sector to consider and respond to those.**

Connected Places Catapult: Andrew Chadwick updated on the Future of Air Mobility Accelerator, which enters its second year. Participants had undertaken a six month programme led by InnovateUK with partners Supernal, BAESystems, Cranfield and Coventry universities + CAA regulatory support and BSI. Their four current challenges are Future airports; sustainability; traffic management; and end-to-ed mobility. An initial cohort of nine SMEs had completed, which had enabled them to achieve significant fundraising and growth. The second cohort of nine SMEs have been chosen and there would be a demo day to showcase their work in April 2023.

3. Discussion: Home Office – Counter-Drone

Home Office officials welcomed the group's engagement as they sought to refresh government's approach to counter-drone capability. Officials currently gathering input and seeking feedback from industry and academia. They work closely with the Joint Security and Resilience Centre (JSARC).

Further details would follow. Proposals are still being drafted, with key themes including:

- protective security: making drones more difficult to misuse
- education and engagement: promoting responsible use and minimising low level criminality, eg Operation Foreverwing
- science, technology and testing
- supporting operational responders (police, CNI sites and prisons).

4. Discussion: RPAS Ecosystem study (see slides)

DfT and CAA (led by How Ross) updated on the RPAS ecosystem study, which aimed to provide leadership to enable a sustainable UAS industry. This was building of the healthy sector activity: the UK registration database has over 300,000 flyers and 200,000 UK commercial and hobby operators.

DfT's Flightpath to the Future document outlined ambitions for the broader aviation sector. This ecosystem study aimed to ensure government interacted effectively with the sector, with a consistent set of plans and milestones to help industry know what's coming. Stage 1 is identifying roles and responsibilities, with programmes of work with DfT, CAA, Future Flight and others. They welcomed comments on gaps and key steps looking forward. And would return to the DIAG to disseminate their conclusions.

Kev Woolsey, CAA co-head of GA and RPAS unit, added that their mandate is to protect all people from undue safety risk, that a change programme is underway with SORA as one component.

5. AOB

ARPAS: Graham Brown said current ARPAS activities include new STEM skill support and training programmes and developing a purchasing framework for government.

Drone Delivery Group: Fred Harbottle had drafted white paper on cross-modal autonomy and welcomed interested parties getting in touch.

HSE CRD – ADDITIONAL INFO: The Health & Safety Executive's Chemicals Regulation Division is responsible for the safe spraying of pesticides. Aerial application of pesticides (including by drone) is currently conducted on a limited scale. The law requires an aerial spraying permit issued by HSE to the operator and this year HSE approved drone spraying of glyphosate weed killer for a block of locations on railway infrastructure.

HSE's drone stakeholder group includes sector, research and regulatory experts. HSE welcomes other companies looking at variable rate or precision spraying using drones, and companies undertaking drone field mapping for targeted spraying. HSE has engaged with drone manufacturers and is interested in their data to help assess approaches and impacts. Early engagement with HSE CRD is welcomed.. One use case is bracken spraying, currently helicopter-based, a "Bracken Control Group" <https://www.brackencontrol.co.uk/> is exploring drone capabilities.

In other work, the OECD Working Party on Pesticides has an HSE-led drone sub-group. A literature review concluded globally found limited data considered to meet modern regulator standards and the sub-group is now looking to generate the necessary information and develop the tools and processes by which regulators might routinely assess drone spraying risks. The current UK approach may be superseded by whatever arrangements emerge from this OECD exercise.

Participants

Chair: Iain Gray, Cranfield University

Ian Williams-Wynn Blue Bear

Craig Lippett Animal Dynamics

Stuart McGlynn Cyberhawk

Nick Tudor D-RisQ

Mike Gadd Blue Bear

Mark Westwood Cranfield

Philip Tarry Halo Drones

Andy Phillips ADS Group

Graham Brown ARPAS

Neil Watson Thales

Liam Flood Ajuno

Chris da Silva BT

Dave Pankhurst BT

Daniel Wilson BT

Nick Rogers KinectAir

Ben Evans PWC

Craig Roberts PWC

Simon Ritterband Moonrock

Stuart Gosney HS2

John McKenna sees.ai

Anthony Venetz Across Safety

Mark Watson NATS

Louisa Smith Apian

Aleks Kowalski skypointe

Joe Roberts Distributed Avionics

Owen McAree Aerofirm

Simon Whalley Skyports

Nathan Butler Drone Major

David Judge SA Catapult

Paul Febvre SA Catapult

Arunprakash Jayaprakash SA Catapult

Andrew Chadwick CP Catapult

Gary Cutts Innovate UK UKRI

Nikos Pronios Innovate UK

Simon Masters Innovate UK

Kerissa Khan Innovate UK

Iain McKie Ofcom

Jennifer Cooke MCA

David Gardner NPAS

Kevin Woolsey CAA

Huw Ross CAA

Ewa Gowers CAA

Colin Chesterton CAA

Callum Holland CAA

Officials from BEIS, DfT, DHSC, Home Office and MOD