

Beyond Visual Line of Sight (BVLOS) Drone use in Transport Security

Project Falcon

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Synopsis

“Project Falcon” or “Drones in a Box”, refers to the British Transport Police’s (BTP) new remote drone capability using Beyond Visual Line of Sight (BVLOS) technology to increase operational policing capability on the United Kingdom’s rail network. The use of BVLOS drones addresses the limitations of existing Visual Line of Sight (VLOS) drone capability by increasing range and coverage to assist a policing response to live incidents, crime scenes, public events and search & rescue. By having BVLOS assets at major rail locations, it aims to minimise rail disruption, reduce response times and increase public safety. This is the first time that such technology has been utilised by a British Police service. Project Falcon deploys drones as a “State Aircraft” under article 3 of the Chicago Convention and therefore they are not subject to UK Civil Aviation Authority (CAA) Rules.

This has been achieved by framing each rail corridor as an Atypical Air Environment (AAE) and as such the CAA class this as airspace as rarely used by other aircraft. Altitude is capped at 120 metres, and the operating safety case incorporates geofencing, emergency kill switches and parachutes to enable controlled landings if the communication link is lost. As with new technology there are cost implications for nationwide coverage as well as training competence, but also distance and flight path limitations. For the transport of nuclear and other radioactive material, this may be beneficial in the longer term by enabling faster response times in an emergency and providing proactive patrols of critical locations. In future, the aspiration is that this technology will become increasingly widespread. There will be a need to educate the public and stakeholders across the rail transport and civil nuclear sector to increase awareness and highlight the benefits BVLOS drones will bring.

Current Police Drone use by the British Transport Police and other United Kingdom Police entities are limited to drones and pilots situated in patrol vehicles that will respond to incidents and pre-arranged events. These assist responding officers on the ground in searching areas for suspects, crowd dynamics and missing persons. This can be resource intensive and not pro-active.

Country or International Organization

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Instructions

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Track Classification: Track 4 Computer Security and Emerging Technologies