

NPCC Drones

BVLOS Pathway Programme

NPCC DRONES – VISION & OBJECTIVES

Our vision is to enable local forces and their partners to deliver a safe, efficient and effective drone capability that meets the air support needs of policing to keep the public safe

01

Establish a framework for scrutiny, oversight and regulation for police use of drones across the UK

02

To develop clear governance, resourcing and sustainable funding across the UK

03

Develop an efficient and effective pathway to achieve sustainable Beyond Visual Line of Sight capability

04

Capture demand for drones against user requirements and highlight the value add of drone capability

05

Maximise the use of current drone technology and supporting development of future capabilities

06

Implement strategic internal communication plan across the UK to prevent duplication and ensure alignment

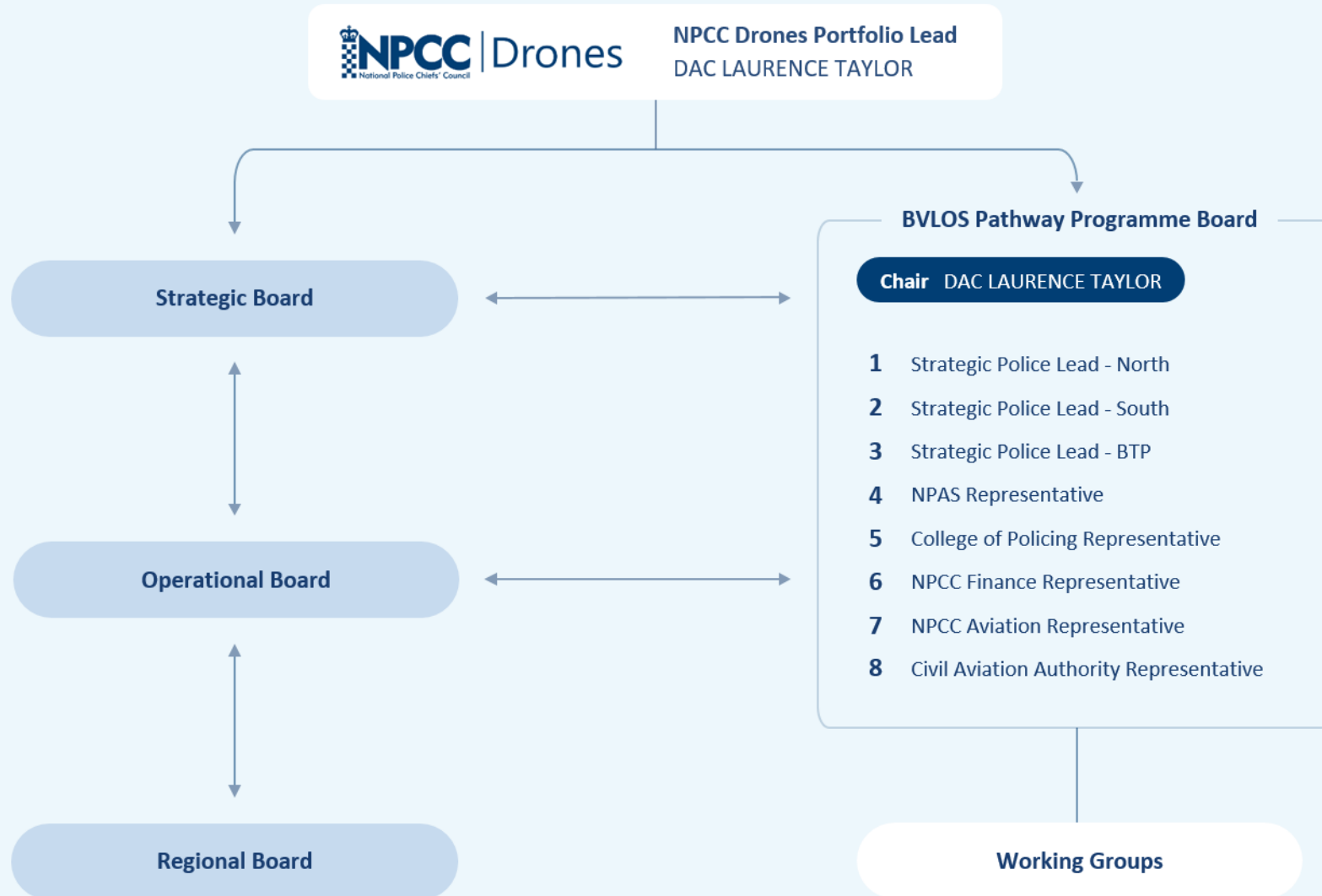
07

External communication strategy for partners and the public to ensure legitimacy and public perception of police drones

08

Establish consistent and reliable communication with key stakeholders to support police drone operations

NPCC DRONES PORTFOLIO STRUCTURE



National Review Headlines

1

Drones provide a very effective capability to support policing

- Every force in the UK are either operating drones or are looking at starting drone operations in the short term
- Variety of drone operations utilised by forces, ranging from small local pre-planned operations to 24/7 spontaneous demand operations

2

Forces are developing their drone capability in silo, resulting in extensive duplication of work

- There is currently extensive duplication of work and increased costs due to silo working
- There is significant research and development undertaken by forces without shared operational learning for wider application
- There is a strong desire for police forces to develop BVLOS capability through an NPCC programme

3

Police drone operations lack standardisation and require alignment in order to develop existing capabilities

- Police drone operations are inconsistent and administratively burdensome
- Police forces want support with operational authorisations, training standards, procurement, engagement, safety and governance.
- There is a requirement to align existing police drone operations to establish a solid foundation before advancing towards BVLOS capability

4

The largest barriers to current and future drone operations are regulation and funding constraints

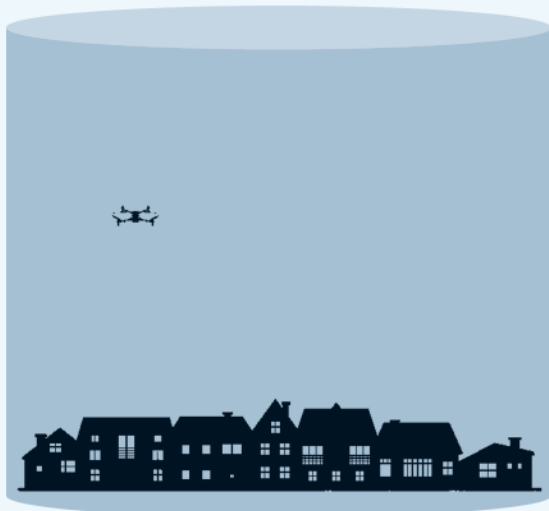
- The biggest barriers to current and future drone operations have been identified as regulatory and funding constraints
- Police forces have struggled to engage with the regulator (Civil Aviation Authority) at the appropriate level to date
- All forces outlined their concern over funding constraints and the requirement for investment in to the police use of drones to advance their capabilities

5

Existing police drone operations require support from NPCC to enhance operations

- There is currently different operating models utilised by police forces, ranging from full time drone teams to dual role officers
- The majority of forces have accountable managers and role holders who are not fully aware of their responsibilities and want NPCC guidance and support to enhance their operations
- Police forces require support from NPCC to develop drone capability, particularly for BVLOS

POLICE DRONE OPERATIONS



LOCAL DEPLOYMENT

Local Area Capability
VLOS & BVLOS

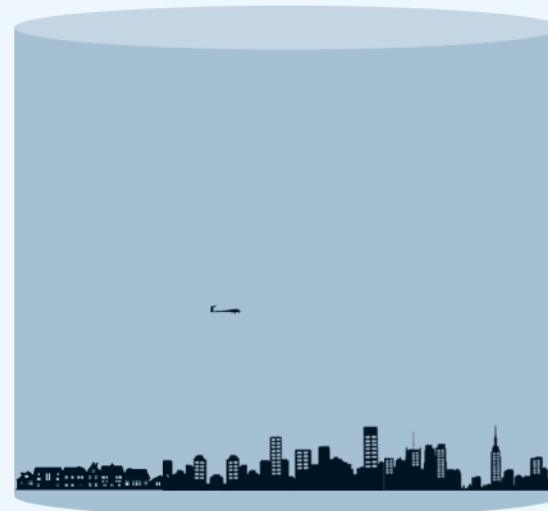
Tactical Drone Deployments



SHORT RANGE DEPLOYMENT

Town/City Capability
BVLOS

Drone as First Responder (DFR) / Drone in a Box



LONG RANGE DEPLOYMENT

Force/Regional Capability
BVLOS

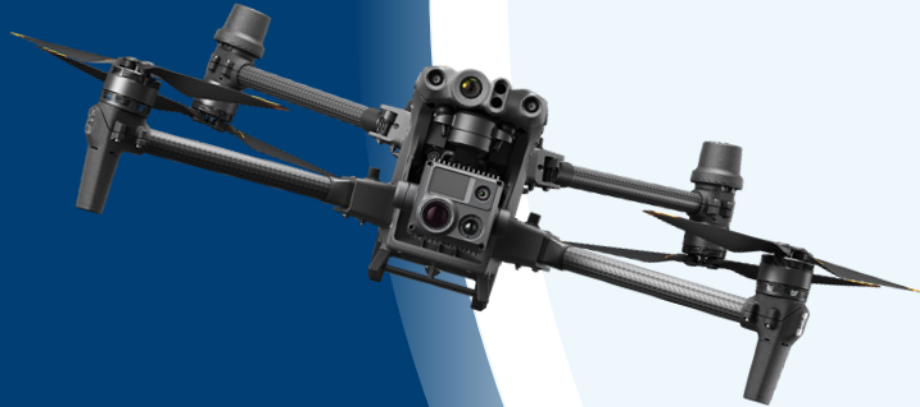
VTOL / Drone in a Box



NATIONAL DEPLOYMENT

National Capability
BVLOS

Replacement of conventional aircraft



National Strategy – Local Delivery



Deliver a consistent approach towards safe, effective and efficient operations across all NPCC contributory forces



Development of a 'Centre of Excellence' for drone use that gains international recognition



Share and leverage local excellence across all forces to enhance police drone operations

BVLOS Pathway Programme Projects



CENTRE OF EXCELLENCE



Alignment and standardisation of police drone operations. Delivered through a training project, development of an APP and template for operational authorisations

DRONE OPERATIONS



Implementing a core function of data & performance to highlight the value add drones provide to policing. Creation of an approved asset catalogue. Developing a 'Continuous Improvement' work stream that supports innovative concepts and sharing of best practice

SAFETY & REGULATION



Establishing a strong working relationship with the regulator & DfT to support the development of BVLOS regulation and legislation. Enhance the safety awareness and culture within police drone operations

PEOPLE & ENGAGEMENT



Support extensive internal and external communication and engagement. Develop strong public acceptance and legitimacy for the police use of drones. Establishing a just and safety culture within operations

EagleX



Pushing the boundaries of technology and innovation to enhance drone operations. Promoting collaboration between police, industry, academia and technology experts to develop world leading capabilities for UK police forces. This will include DFR and trial BVLOS operations.

UNCREWED AIRCRAFT FEASIBILITY STUDY



Conduct a feasibility study on replacement of a conventional police helicopter with an uncrewed aircraft able to operate comparable on-board mission systems

BVLOS PATHWAY PROGRAMME PHASES

UK Police Drone Operations

1

Alignment Phase

- ✓ Alignment and standardisation of drone operations for all UK police forces
- ✓ Establishing training standards, asset catalogue & foundation course
- ✓ Development of an Authorised Professional Practice
- ✓ Establish minimum data recording standards, monitor data & performance
- ✓ Conduct extensive internal & external communication

2

Development Phase

- ✓ Localised Implementation of BVLOS Training, Trials & Standards
- ✓ Supporting local force activity & innovation
- ✓ Enhanced project support for continuous improvement projects (DFR)
- ✓ Authorised Professional Practice updated for BVLOS operations
- ✓ Enhanced training and awareness of safety & just culture

Drone as First Responder (DFR)

3

Expansion Phase

- ✓ Expansion of continuous improvement projects, innovative concepts, trials & equipment
- ✓ Refine and enhance BVLOS training, operations & standards
- ✓ Managed expansion of capability across UK police forces
- ✓ Enhanced safety and risk mitigation during expansion
- ✓ Strong focus on effective human factors and safety culture

4

Sustainable Phase

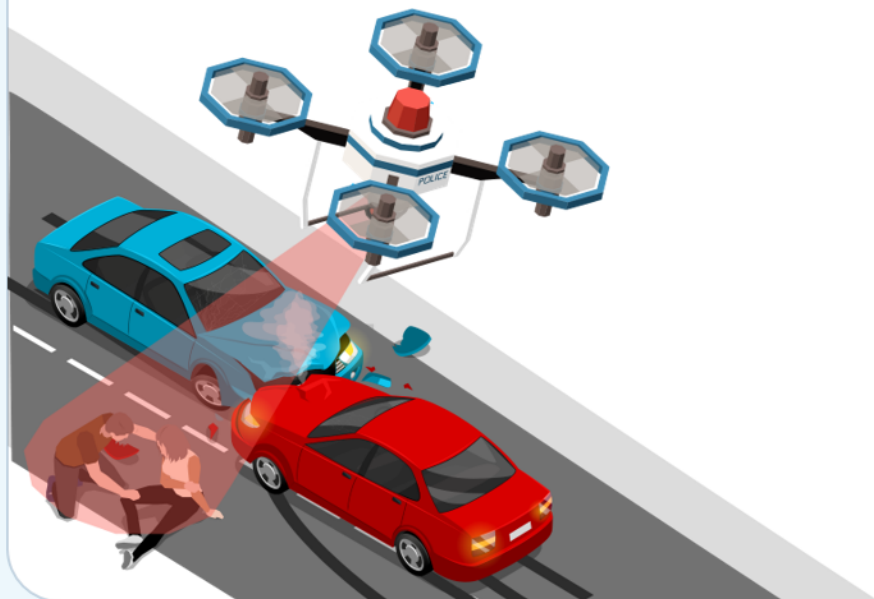
- ✓ Routine BVLOS operations with a focus on continuous improvement
- ✓ Leading edge for operational delivery and innovative concepts
- ✓ Best practice and operational learning seamlessly shared amongst UK forces
- ✓ Strong public acceptance of drone capability within UK policing

DRONE AS FIRST RESPONDER (DFR)

The Drone as a First Responder (DFR) concept is different to traditional tactical drone deployments. Instead of deploying a drone after an officer is already on scene, the DFR programme stations drones at strategic locations and responds proactively to emergencies as soon as they happen.

The intent of DFR is to get a drone on scene before responding officers arrive. Highly trained remote operators can evaluate the situation and relay information to officers on route to the incident. The drone can also provide high definition live-streaming of the incident to the control room and responding officers. This helps personnel to determine the best tools, tactics and resource to safely deal with the incident – often long before officers arrive on scene.

DFR gives first responders real-time tactical information and an aerial overview, proving to be a powerful de-escalation tool.



Faster
Response
Time

Strategically placed drone launch sites will ensure drones are able to quickly respond to support policing incidents in the local community, providing first responders with real-time information and situational awareness



Real-Time
Situational
Awareness

Drones equipped with high resolution daylight and thermal cameras can provide real-time aerial footage of an incident, object or a person's movements, giving first responders a better understanding of the situation and allowing them to respond more efficiently and effectively



Improved
Outcomes

The rapid response time and enhanced drone capability will support the apprehension of suspects, locate missing people, and provide incident overview and awareness to first responders



Increased
Efficiency

Drones are a cost-effective tool as they can be deployed quickly and easily without requiring a significant amount of personnel or equipment. Drones can cover large areas effectively, reducing response times and increasing the efficiency of emergency response



Increased
Responder
Safety

Drones can provide aerial overview of an incident without exposing first responders to direct danger, reducing the risk of injury and enhancing safety. They can also reach remote or hazardous locations that may be difficult for first responders to access



De-Escalation
Tool

Real-time situational awareness allows officers to view potential hazards and develop a working strategy and tactics before rushing into a potentially dangerous situation. DFR will enable officers to make and implement appropriate decisions for the incident

Confidence Outcomes



Worldwide Leadership

UK police use of drones is at the leading edge of delivery. They are seen as 'go to' organisations for using drones to reduce crime and keep the public safe



Safety & Assurance

Police drones are flown by highly trained pilots, who are always focused on safe use, particular the safety of people on the ground and other airspace users



Legitimacy & Consent

Police drones are always operated for policing purposes and in accordance with the regulations. They are audited regularly.



Operational Advantage

Police drones are an indispensable, proportionate and cost-effective tool for keeping the public safe and reducing crime