The Challenges of Countering Unmanned Aircraft

The Threat

Department for Transport

- Perpetrators are showing increased interest and demonstrated willingness to use this disruption method in the day to day environment

- Extensive use of drone-borne IEDs in battlefield situations

- Use of drone-borne IED on non-aviation targets (e.g. use of drones by Yemeni rebels on the battlefield)

- Disruption from non-weaponised drones (e.g. Gatwick) shows vulnerabilities

- Likelihood of this kind of attack has increased; mitigations have not kept up

Department for Transport

Gatwick Incursion: December 2018

- Multiple drone sightings from 19-21 December 2018

- Airport closed

- Over 900 flights cancelled

- 164,000 passengers disrupted

Heathrow Pause: September 2019

Department for Transport

- Environmental group threatened to disrupt Heathrow Airport within the Flight Restriction Zone surrounding the airport

- London's Metropolitan Police deployed extra officers around the Flight Restriction Zone

- DTI equipment deployed; effector capabilities on hand if situation escalated

- Time and resources committed to dealing with this event

Department for Transport

Technology

- Developments in technology mean that drones are becoming more advanced and more accessible to perpetrators

- Mitigation against this type of incursion appear to be lagging behind the development of the threat

- Deployment of effective technology will be key in the development of a counter-drone strategy

- Practical considerations if we want to ensure that drones are used safely in society

Department for Transport

Testing

- Extensive field trials/demonstrations of Counter-UAS equipment carried out

- Counter-UAS product standard developed by UK Government against which commercial off the shelf equipment can be evaluated

- Equipment now submitted by manufacturers for testing; results out in Autumn

- Equipment that passes evaluation will be included in a catalogue for use by airports and others

Department
for Transport

Legislation

- The Unmanned Aircraft Bill has been drafted

- Will give the Police more powers

- New drone registration scheme from November 2019

- On-line testing to ensure operator standards

- Legislation alone will not prevent malicious activity. Needs to be responsive to developments

ICAO

Department for Transport

Perception

- Public perception
- Political perception

What's next?

Department for Transport

- Need to consider:

  - A better understanding of current and future threats – Counter-Unmanned Aircraft Strategy

  - Closer partnerships with industry to accelerate the deployment of effective counter-drone capabilities

  - Working to improve international counter-drone co-operation

  - Consider how the use of drones can be practically managed through recognised traffic systems

  - Sharing of best practice

|ICAO

North American
Central American
and Caribbean
[NACC] Office
Mexico City

South American
[SAM] Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
[WACAF] Office
Dakar

European and
North Atlantic
[EUR/NAT] Office
Paris

Middle East
[MID] Office
Cairo

Eastern and
Southern African
[ESAF] Office
Nairobi

Asia and Pacific
[APAC] Sub-office
Beijing

Asia and Pacific
[APAC] Office
Bangkok

THANK YOU