



# canso

## Africa Conference 2018

3-5 September, Mombasa, Kenya



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# CANSO Africa Safety Workshop

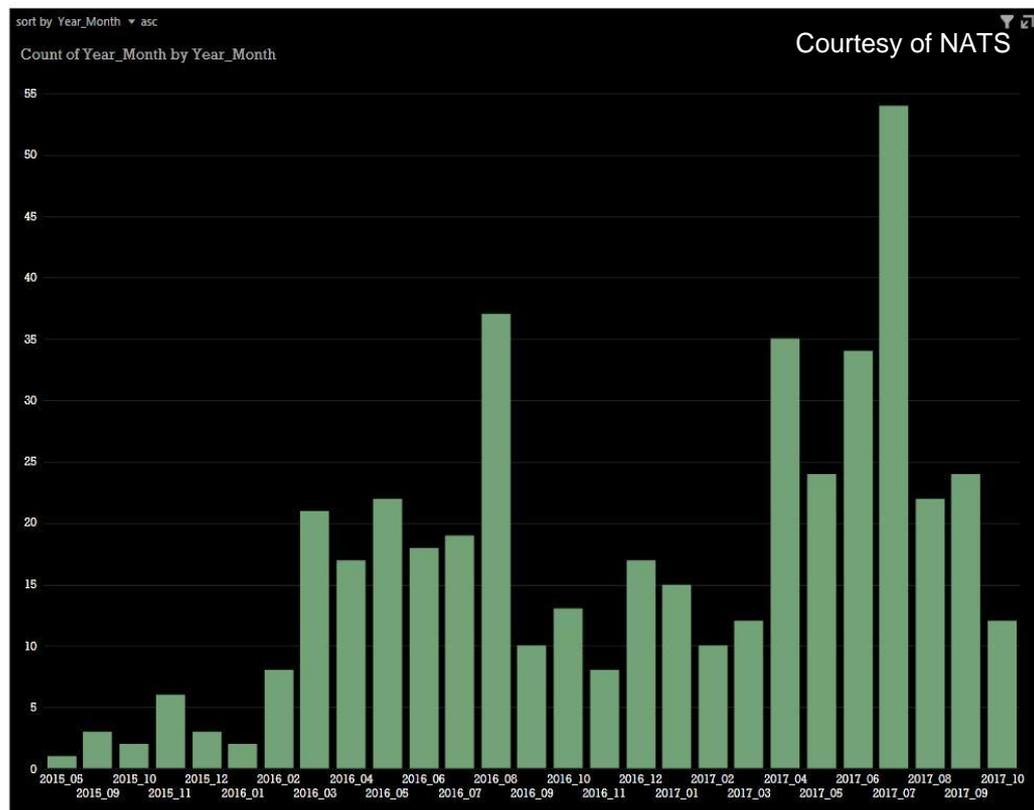
Philip Binks

Head of ATM at Altitude Angel

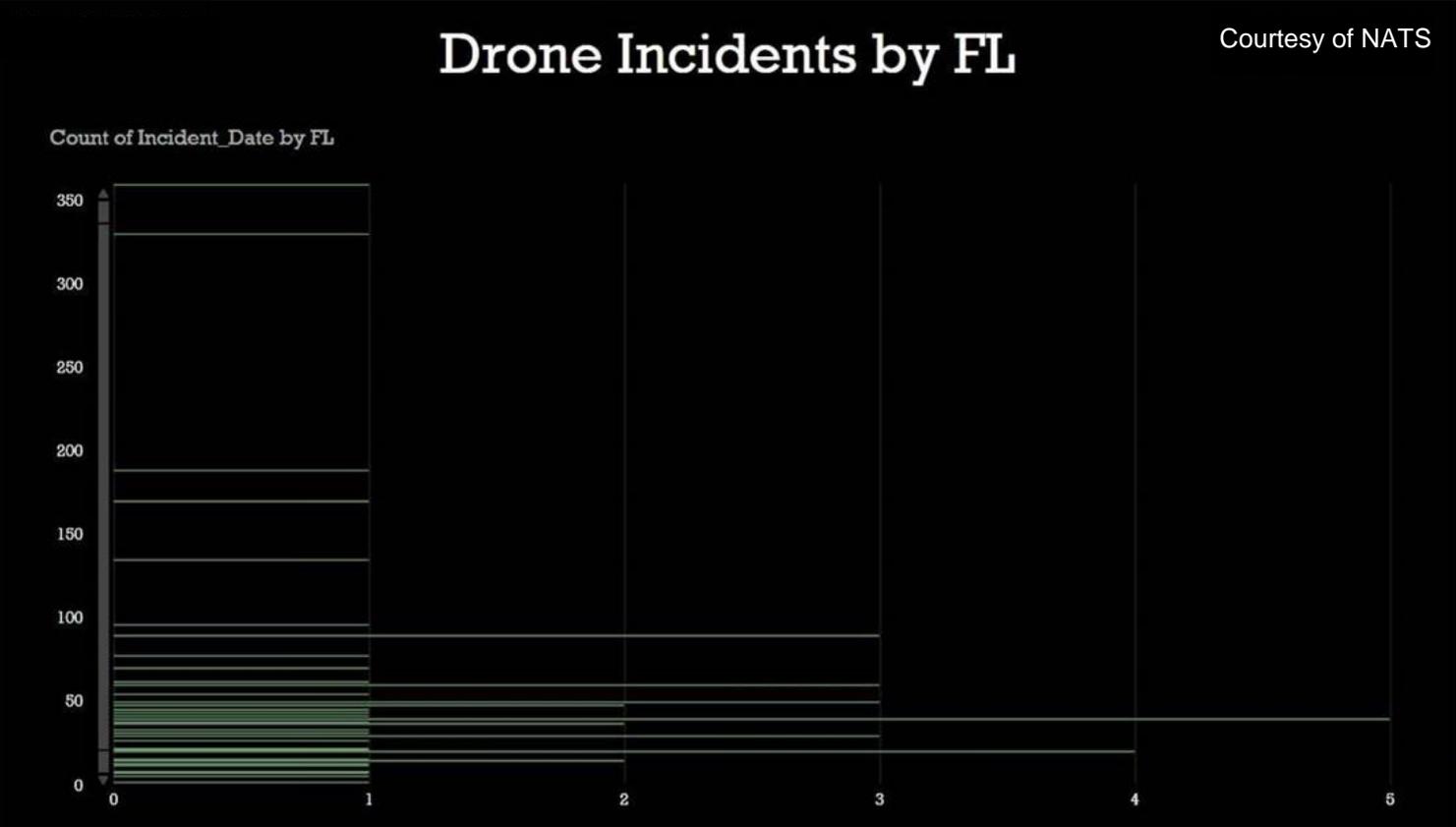
# Content slide

- Introduction
- Issues facing the UK
  - Reality for UK Airspace
  - Drone incidents
- UK's approach
  - education
  - drone code
  - safety app – Drone Assist (supported by Guardian)
- How Altitude Angel supports NATS
- UK Based Projects

# The reality for UK airspace today



# Drone incidents by flight level



# NATS Gatwick drone incident

<https://www.youtube.com/watch?v=V0rFFZ332k>

The background features a large, stylized graphic of wings on the left and a geometric, upward-pointing arrow-like shape on the right, both rendered in a lighter shade of blue against the solid blue background.

# UK's approach

# Drone Code

- Simple set of rules
- Allows the user to see in 6 pictures what they can and can't do
- [www.dronesafe.com](http://www.dronesafe.com)

**THE DRONE CODE**

For further information please visit [dronesafe.uk](http://dronesafe.uk)

**BE DRONE SAFE**

**Always keep your drone in sight**

This means you can **see** and **avoid** other things while flying

**Stay below 400ft (120m) to comply with the dronecode**

This reduces the likelihood of a **conflict** with manned aircraft

**BE DRONE AWARE**

**Every time you fly your drone you must follow the manufacturer's instructions**

Keep your drone, and the people around you, **safe**

**Keep the right distance from people and property**

People and properties – **150ft (50m)**  
Crowds and built up areas – **500ft (150m)** and **don't overfly**

**BE DRONE LEGAL**

**You are responsible for each flight**

Legal responsibility lies with **you**  
Failure to fly responsibly could result in **criminal prosecution**

**Stay well away from aircraft, airports and airfields**

If your drone endangers the safety of an aircraft, it is a **criminal offence** and you could go to prison for five years

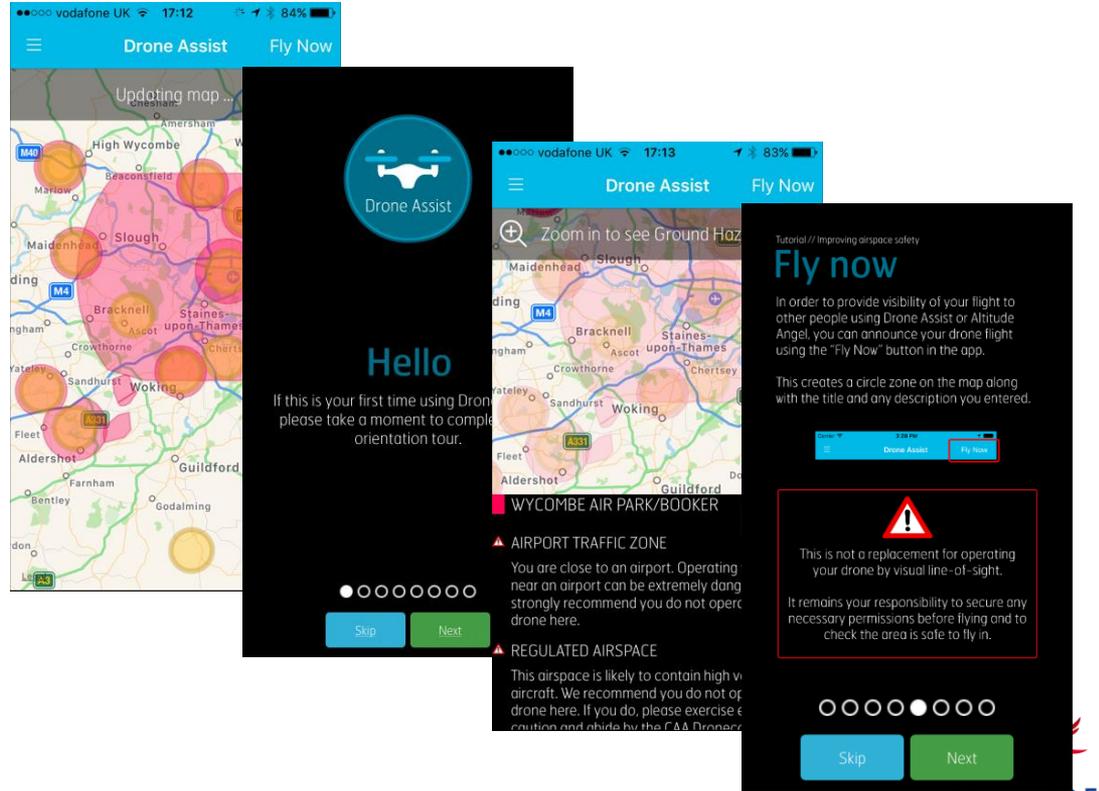
# Drone Safe

- Set up by NATS, maintained by CAA
- Single point of truth
- Easy to understand



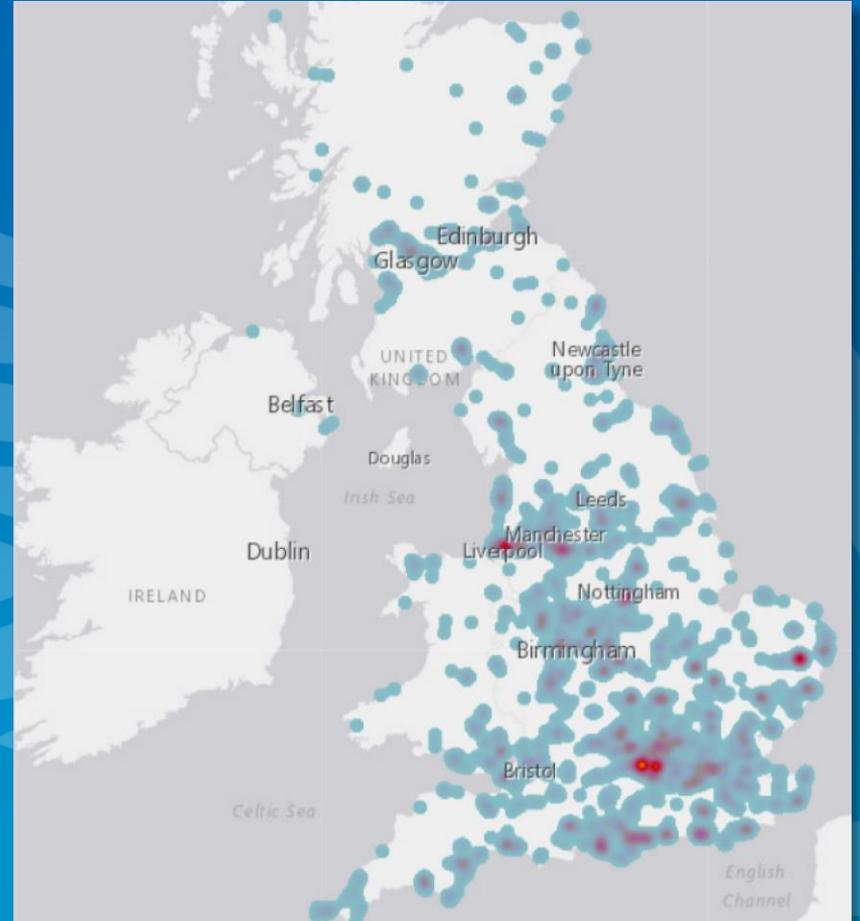
# The NATS Drone Assist App (Powered by Guardian)

- Provides users with advice on where it is safe to fly and free at point of use
- The app provides users to access online tutorial and drone code
- Based upon UK AIP chart data and includes hazards such as pylons as well as privacy concerns, eg schools
- Enables us to track growth and trends in drone usage as well as airports
- Helps us to better understand what hazards and features are of interest



# Drone Assist

- The NATS Drone Assist App was launched in Dec 2016
- Over 85,000 registered users
- Over 60,000 recorded flights, with time and location
- Over 18 million instances of airspace data provided
- Enables us to better understand growth and patterns of usage in sensitive airspace and airports

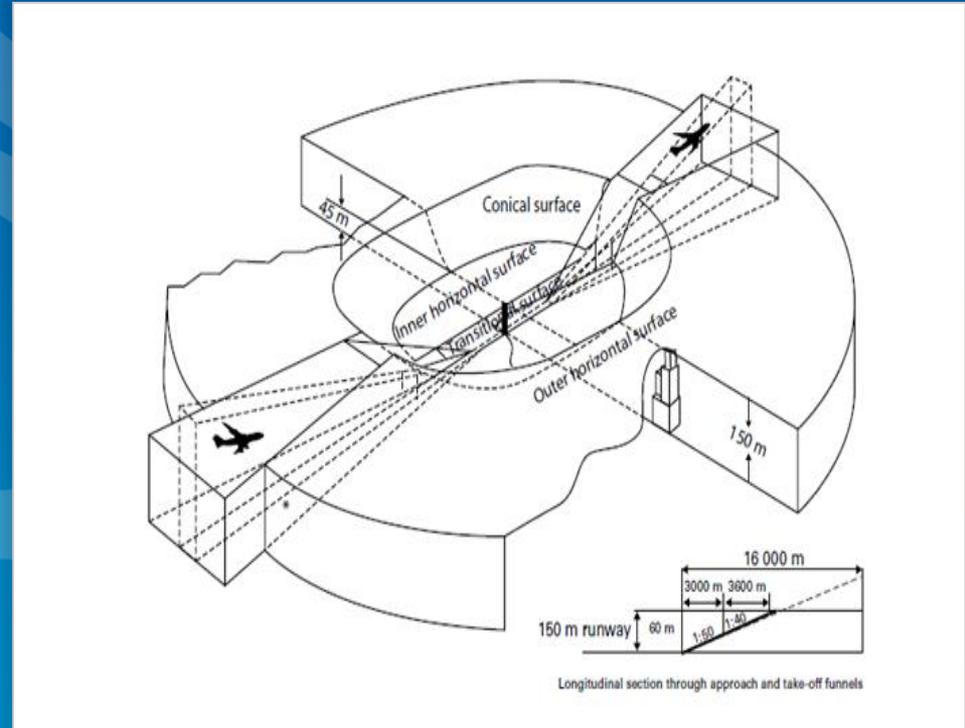


The background features a large, light blue graphic of wings on the left and a stylized, nested 'A' shape on the right. The text 'Project Chatham (UK)' is centered in white.

# Project Chatham (UK)

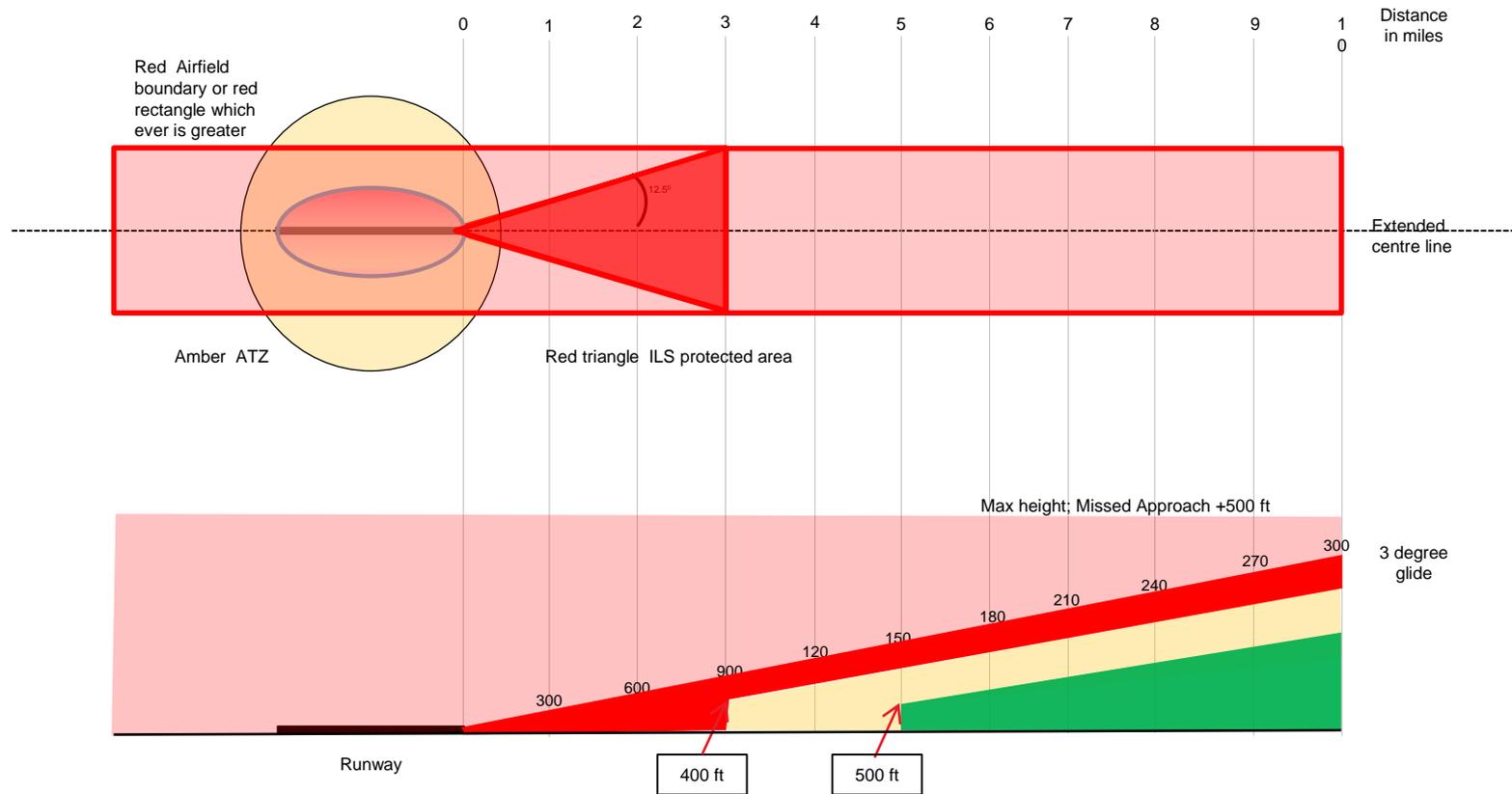
# Project Chatham

- We looked at using airport safe guarding parameters
- Very confusing to a non aviator



# Airport Workshop

Courtesy of NATS



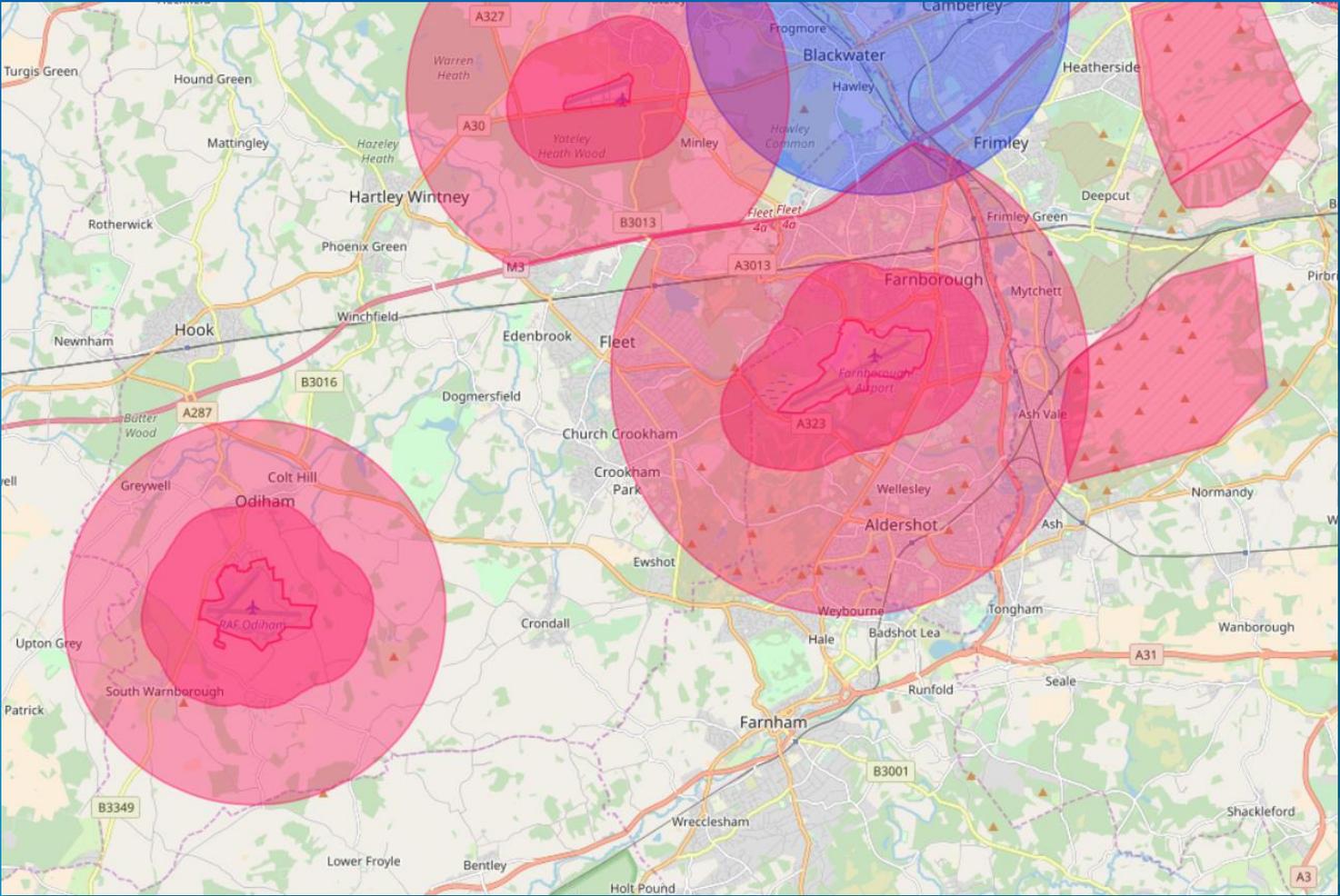
Mirror image for the opposite runway



The background is a solid blue color. On the left side, there are stylized, layered blue wings or feather-like shapes. On the right side, there are large, nested, light blue geometric shapes that resemble a stylized letter 'A' or a series of triangles pointing upwards.

# UK Governments update to legislation

# Flight Restricted Zones



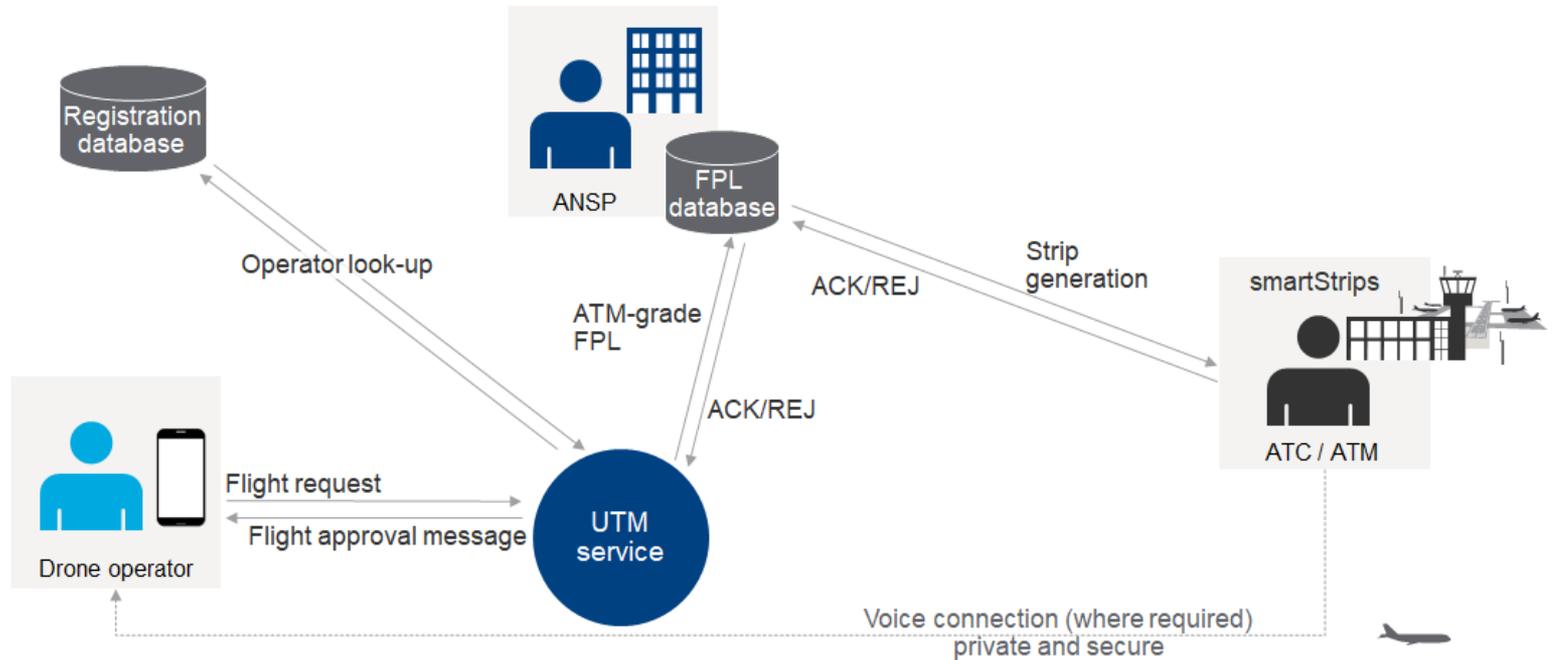


Airspace User Portal  
– Powered by  
GuardianUTM

The background features a large, light blue graphic of wings on the left and a stylized geometric logo on the right. The wings are composed of several curved, overlapping segments. The logo consists of a large, light blue triangle with a smaller, darker blue triangle nested inside it, creating a layered effect.

[https://www.youtube.com/watch?v=PS\\_5h3NfqGg](https://www.youtube.com/watch?v=PS_5h3NfqGg)

# UTM world to seamlessly integrate with ATM world



# Non Standard Flight Request

**NATS** Airspace User Portal

## Class D Transit

**Step 1: Transit details** | Step 2: Transit areas | Step 3: Summary

Please fill in the details below:

**Transit details**

**Callsign \***

**Aircraft type \***

**Transit type \***  VFR  IFR

**Place of departure \***

**Destination \***

**Pilot details**

**First name \***

**Last name \***

**Email address \***

[Next](#)

# Working with ANSPs and Aviation Authorities



- Foundation services
- Provide support technology
- Improve safety

# Where its going?

<https://vimeo.com/187780285>



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Thank you

[phil@altitudeangel.com](mailto:phil@altitudeangel.com)

[www.altitudeangel.com](http://www.altitudeangel.com)



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