



ALTITUDE — ANGEL —



Project Arrow® : Airspace Change Discussion

Unified Traffic Management

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Introducing Altitude Angel



Hello, we're Altitude Angel



Vision

One integrated sky.

Mission

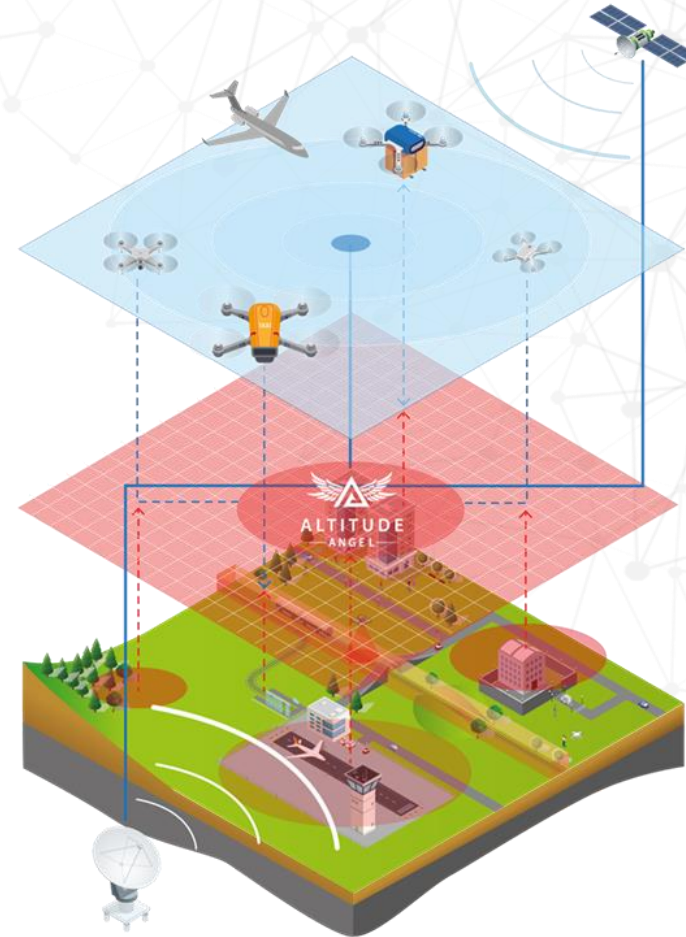
To unlock and unify the airspace, enabling more people and organisations to safely access the potential in flight automation for UAS and UAM.

Company

Industry leading deployments and tech HQ in the UK, subsidiary in Amsterdam, NL. Well established brand reputation of trust, integrity and innovation.

About Altitude Angel

- Our mission is to unlock and unify the airspace, enabling more people and organisations to access the potential in UAS and UAM.
- We believe in integration over segregation: one sky.
- We're passionate about **airspace safety**, and we serve millions of drone pilots with accurate, rich and reliable safety information without charge in over 40 countries via our apps and website, dronesafety.com, using our innovative data management technologies.
- We are connecting airspace users and managers together to enable an integrated airspace to support complex UAS + UAM operations.
- We consistently tackle the 'hard problems' and are active internationally on regulatory panels to assist with the integration of UAS into airspaces worldwide.





Statement Of Need

Supporting Future Flight and the CAA Innovation Sandbox

Test and verify Altitude Angel's DAA solution

Enabling safe integration of automated systems, reducing segregation for airspace stakeholders

Technology to be tested under VLOS, EVLOS and BVLOS

Evidence gathering to support CAA Policy Team approval

Supporting UK & European Aviation innovation projects

Supporting UK & European Aviation Innovation Projects

InnovateUK - Future Flight / SESAR UAM

Arrow® Drone Zones

Enabling drones and general aviation to harmoniously co-exist in a real-world environment...



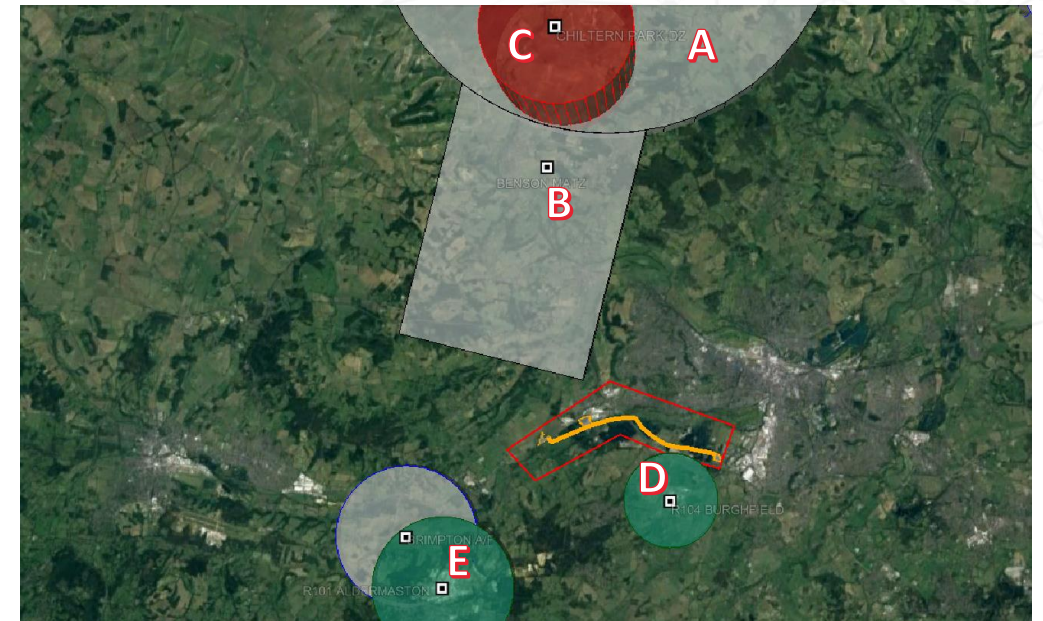
- Operated and managed through Altitude Angel's world-leading airspace management software, GuardianUTM O/S
- Able to support fully automated drone flights beyond visual line-of-sight (BVLOS)
- Accessible by any drone company, following a series of basic technical integrations, without the need for specialist hardware on-board the drone
- Opens the sky to a wide range of drone services, from last-mile delivery to routine aerial surveying
- Enables safe deployment of unmanned aircraft with minimal human interaction
- Technology available to any organisation, airport, town or city to wishing to quickly and cost-effectively implement their own 'Arrow® Drone Zone'

Area Of Operations

Local Airspace Structure

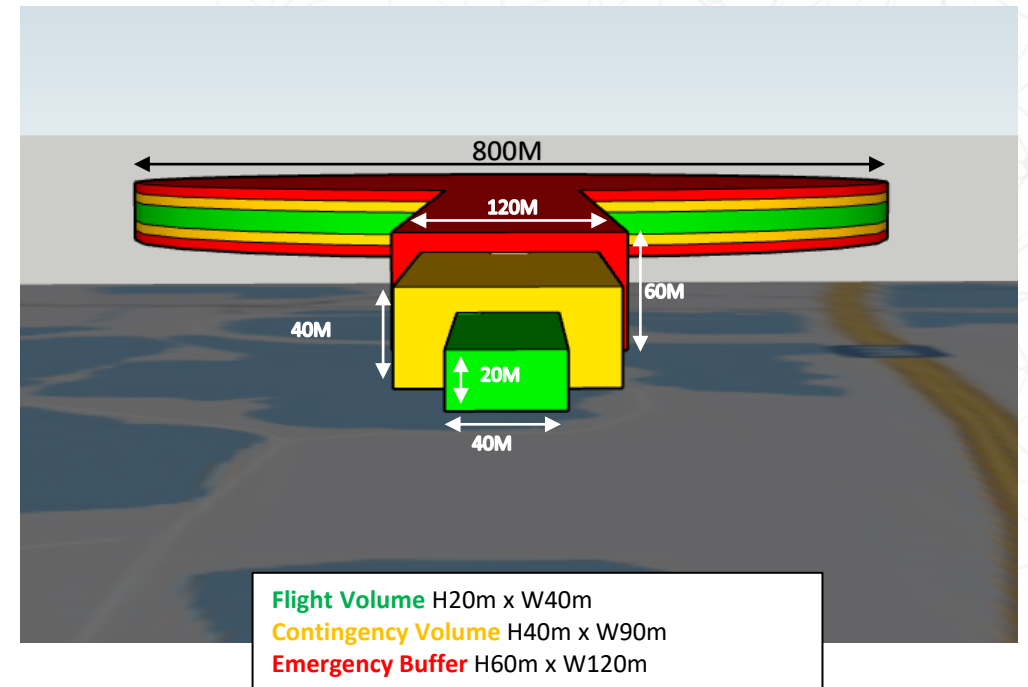
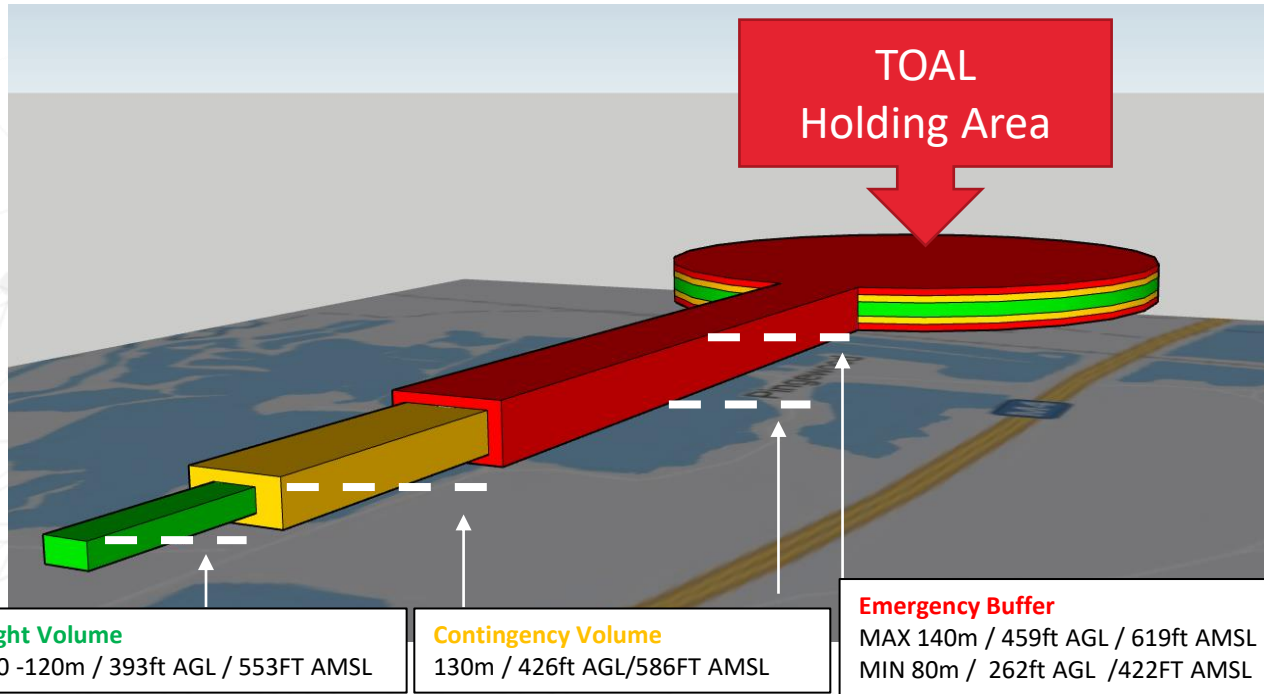
Upper Airspace Over Head - @ 4500ft - FL195 : LONDON TMA
Upper Airspace to the East - @ 3500ft - FL195 : LONDON TMA

- A) North 12Km - @ Surface-3203ft : MATZ Benson
- B) North 3km - @ 1203ft-3203ft : MATZ Benson
- C) North 12km - Drop Zone @ Surface -15000ft : CHILTERN PARK DZ
- D) South - @ Surface-2400ft : R104 BURGHFIELD
- E) West - @ Surface - 2400ft : R101 ALDERMASTON



Arrow® Boundaries

Cross Sections of Operational Volume, Contingency Volume and Emergency Buffer

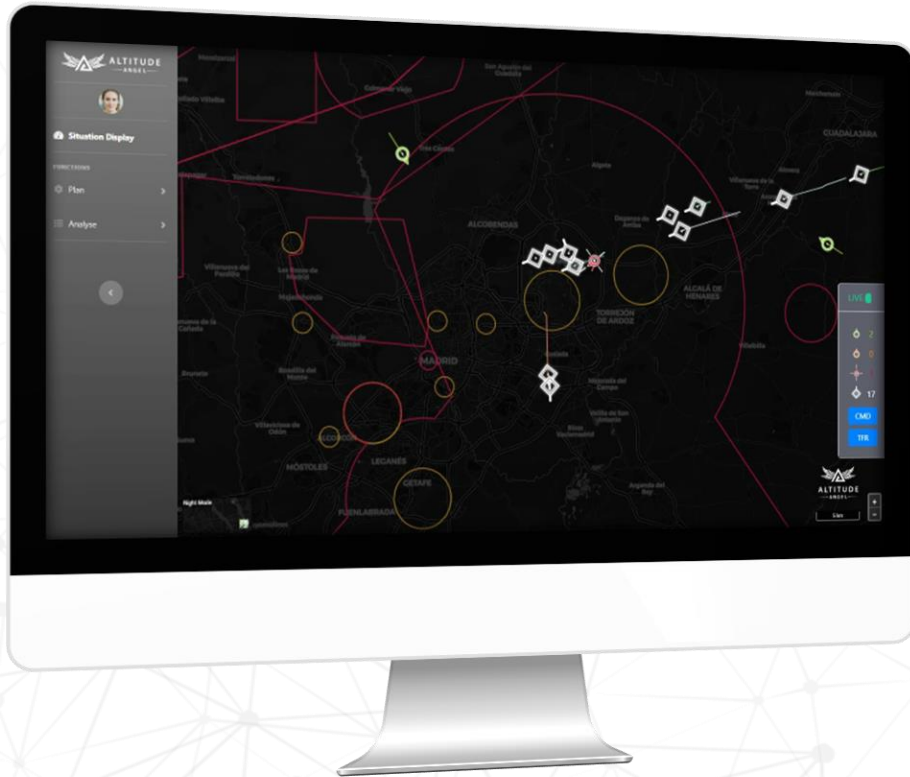


Overview of Arrow® Corridor



GuardianUTM Operations Manager

Robust, permissioned, capable airspace management tools for all stakeholders with integrated Crossing Service



Review request for **flight approval** from drone operators and **easily authorise low-risk operations** directly within Operations Manager.



Define key '**Control Zones**' in sensitive and high-risk areas of managed airspace to prioritise supervision of manned and unmanned air traffic.



Capable of delivering a Crossing Service for General Aviation.



Integrate **seamlessly with existing ATM infrastructure** to provide a **single-point of truth** for manned and unmanned air traffic. Extensible.



Investigate incidents quickly and accurately through comprehensive **flight-review functionality**; including **flight audit trail** and **user ID**.

Logged in as:

David Walters

Profile

Logout

Current organization:

Home

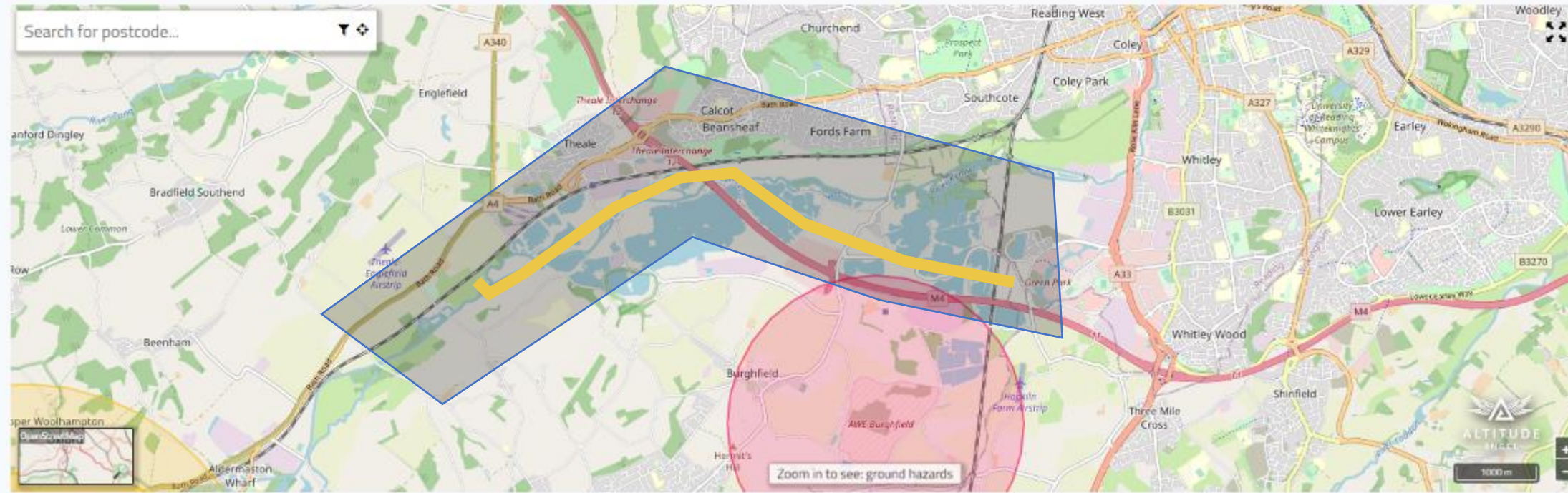
MY RECORDS


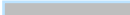
Pilots

Organization



Airspace



-  Proposed minimum route (120M wide corridor)
-  Buffered zone

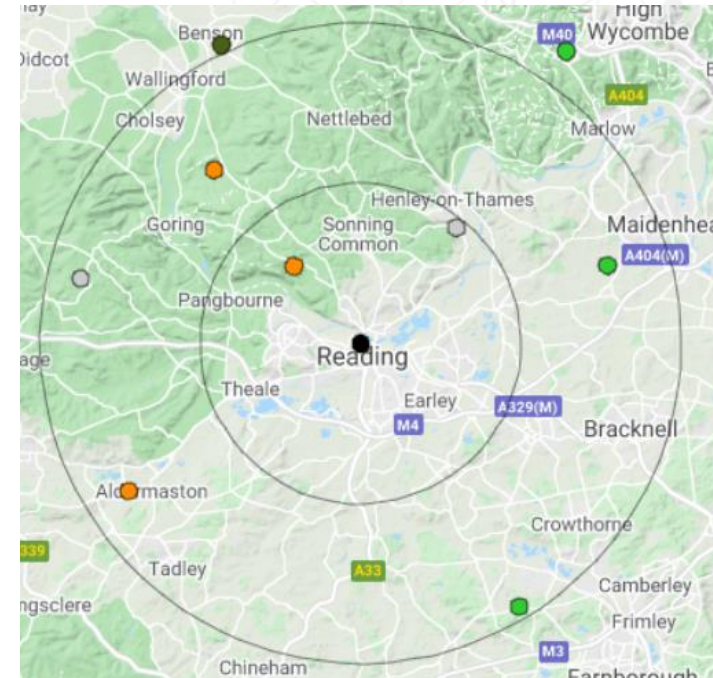
Stakeholder Engagement



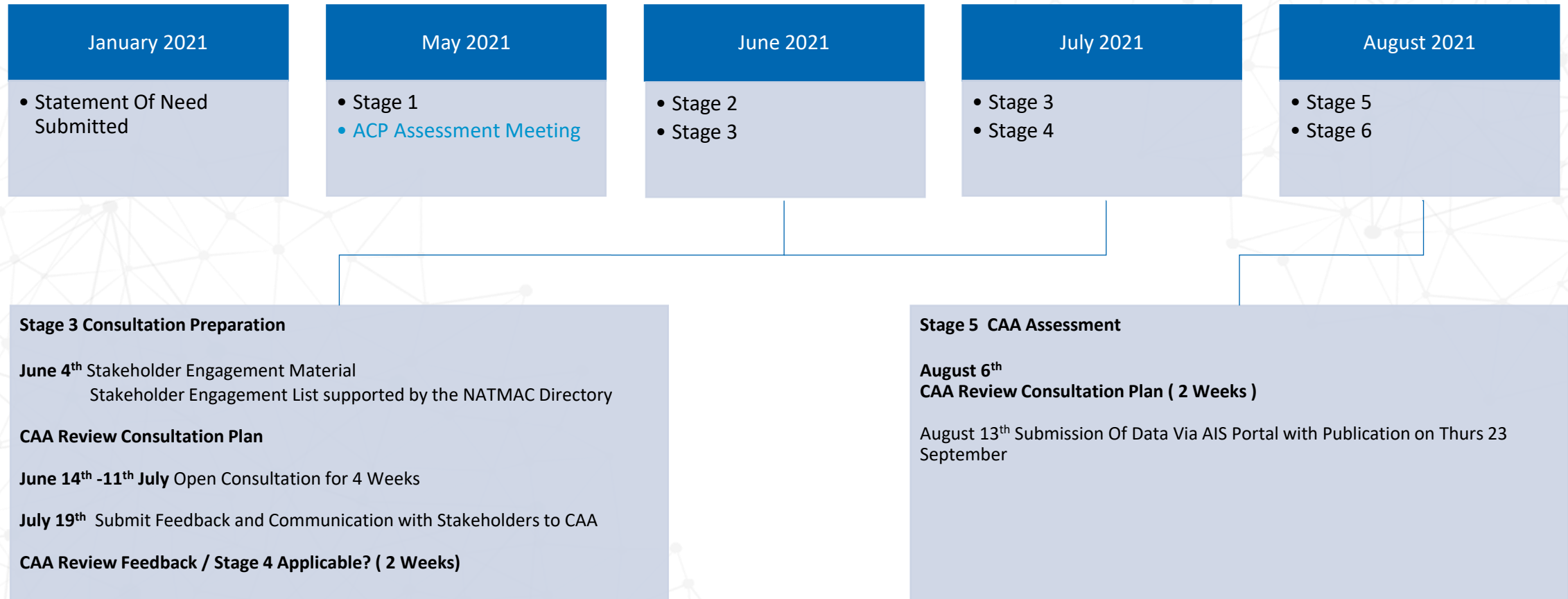
Stakeholder Engagement

We would like access to the National Air Traffic Management Advisory Committee (NATMAC) distribution list to identify local stakeholders

- General Aviation Alliance
- Airspace4All
- ARPAS UK
- Brimpton Airfield (Unlicensed)
- White Waltham Airfield (Licensed)
- Whittles Aerodrome (Unlicensed)
- Chiltern Airpark (Unlicensed)
- Blackbushe (Licensed)
- Hampstead Norris (Unknown)
- Harpsden (Unknown)



Application Timeline



AOB





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Working together to unify the sky.

www.altitudeangel.com

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