3rd June 2025

Amazon Prime Air

Darlington and Surrounding Areas TRA for BVLOS Drone Delivery Services

ACP-2024-056 Briefing Pack

prime air

Reserving Space for Your Feedback

We are excited to be bringing our drone delivery service to the UK

Following our acceptance into the Civil Aviation Authority's (CAA) Beyond Visual Line of Sight Sandbox (BVLOS) initiative, we have initiated an Airspace Change Proposal (ACP) that will implement a Temporary Reserved Area (TRA) under **ACP-2024-056,** ahead of our planned launch in Darlington and surrounding areas later this year.

During our preparatory work with the CAA and Teesside International Airport (TIA), we identified you as a potentially impacted stakeholder for this airspace proposal.

This slide pack will provide a detailed overview of the proposed airspace change and how it supports our initial operations.

We'll explain how the TRA will work and how you can provide feedback on its design directly to us and any suggestions you may have that will help us mitigate or minimise any potential impact the proposed TRA may have.

Reserving Space for Your Feedback

We are running stakeholder engagement for 6 weeks between **3rd June 2025 and 14th July 2025**

There are two main ways of providing feedback on the TRA and its implementation:

- **Online Feedback Form**
  by completing the SmartSheets feedback form accessed by this link, or,
- **Email**
  respond directly to the email address at primeair-acp-uk@amazon.co.uk

All feedback shared on the TRA design, and any potential impact is gratefully received and we will carefully consider all inputs in the final TRA design.

What we'll cover

1. Who we are – An introduction to Prime Air
2. UK Regulatory Sandbox – Integrating Drones
3. The Temporary Reserved Area
4. MK30 Drone Overview
5. Darlington Operations
6. FAQs
7. Feedback
8. Additional Prime Air background information

Who we are – Introduction to Prime Air

Prime Air is the designer, builder and operator of Amazon's next generation delivery capability.

Established in 2013 and headquartered in Seattle, USA, we have developed a new way for Amazon customers to receive packages in under 2 hours, **using drones**.

For Prime Air, safety is non-negotiable – we have embedded foundational aerospace safety principles into the the very fabric of our teams, tools, and technology.

We hold approvals from the Federal Aviation Administration (FAA) to run live commercial and test & development operations across several US states, and we are **expanding our operations internationally**.

UK Regulatory Sandbox – Integrating Drones

To gain the same approvals here in the UK, we need to demonstrate both the safety of our operation and BVLOS capability to the Civil Aviation Authority (CAA).

To do this, we are taking part in the CAA's latest regulatory Sandbox (described in CAP 2616). This initiative provides two key benefits:

- *Allows organisations like ours to safely demonstrate our unique operation and key technology*
- *Creates a controlled environment in which the CAA can observe, assess, and gather real-world data that will help inform future drone regulatory policies*

One of those key policies is the 'BVLOS Airspace Policy Concept' described in CAP 2533.

This places particular emphasis on the demonstration of Detect-and-Avoid (DAA) capabilities and other airspace structures (such as Temporary Reserved Areas), allowing the CAA to evaluate regulatory readiness ahead of formal adoption.

The Temporary Reserved Area

Key Details:

TRA Max height: 700ft above mean sea level (AMSL)

Hours of Operation: Monday – Friday, 09:00 – 17:00 Local (daytime only)

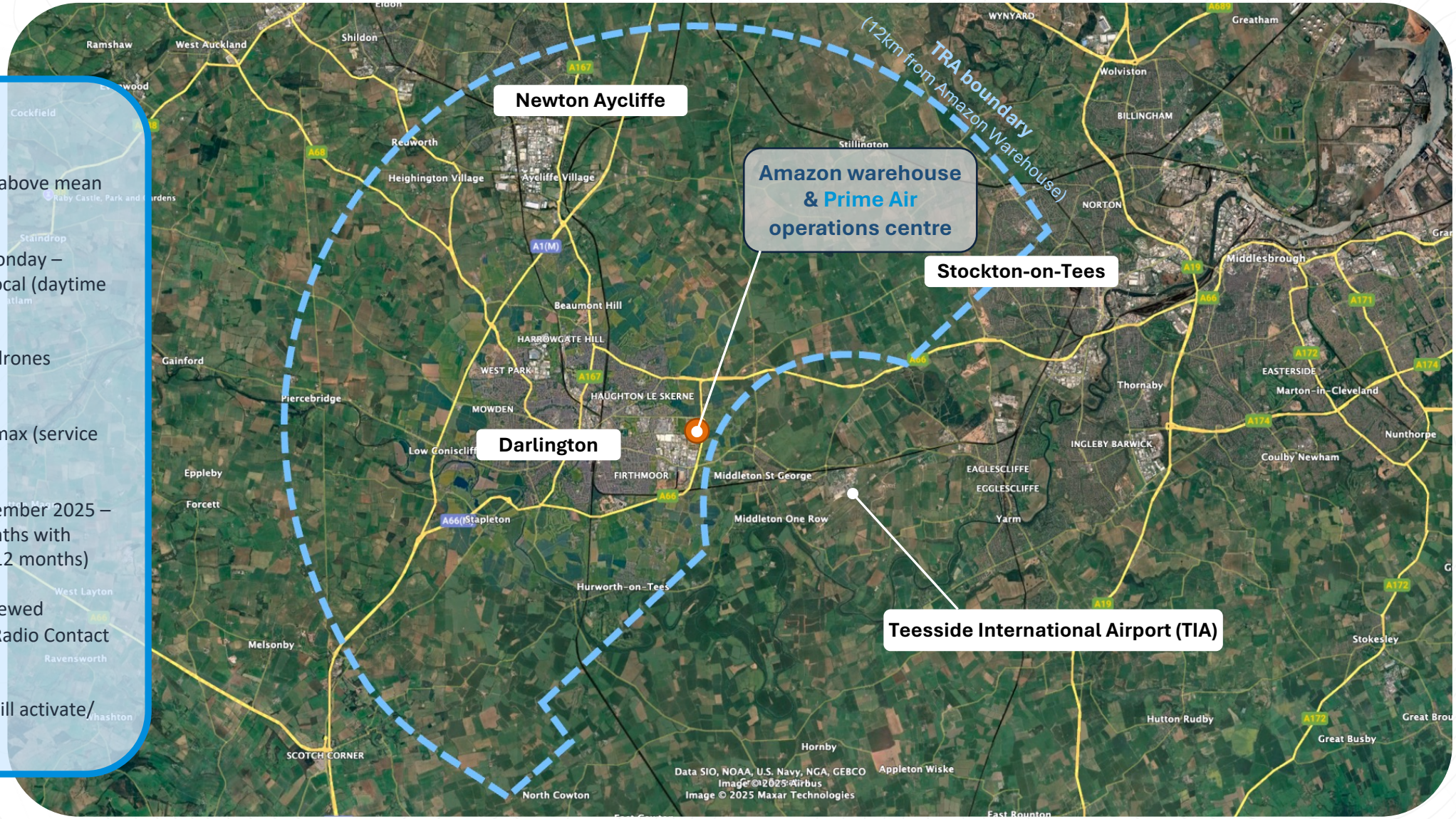
No. of drones: up to 4 drones operating in the area

Cadence: 21 flights/hr max (service demand dependent)

Activation Period: December 2025 – June 2026 (Initial 6 months with scope for extension to 12 months)

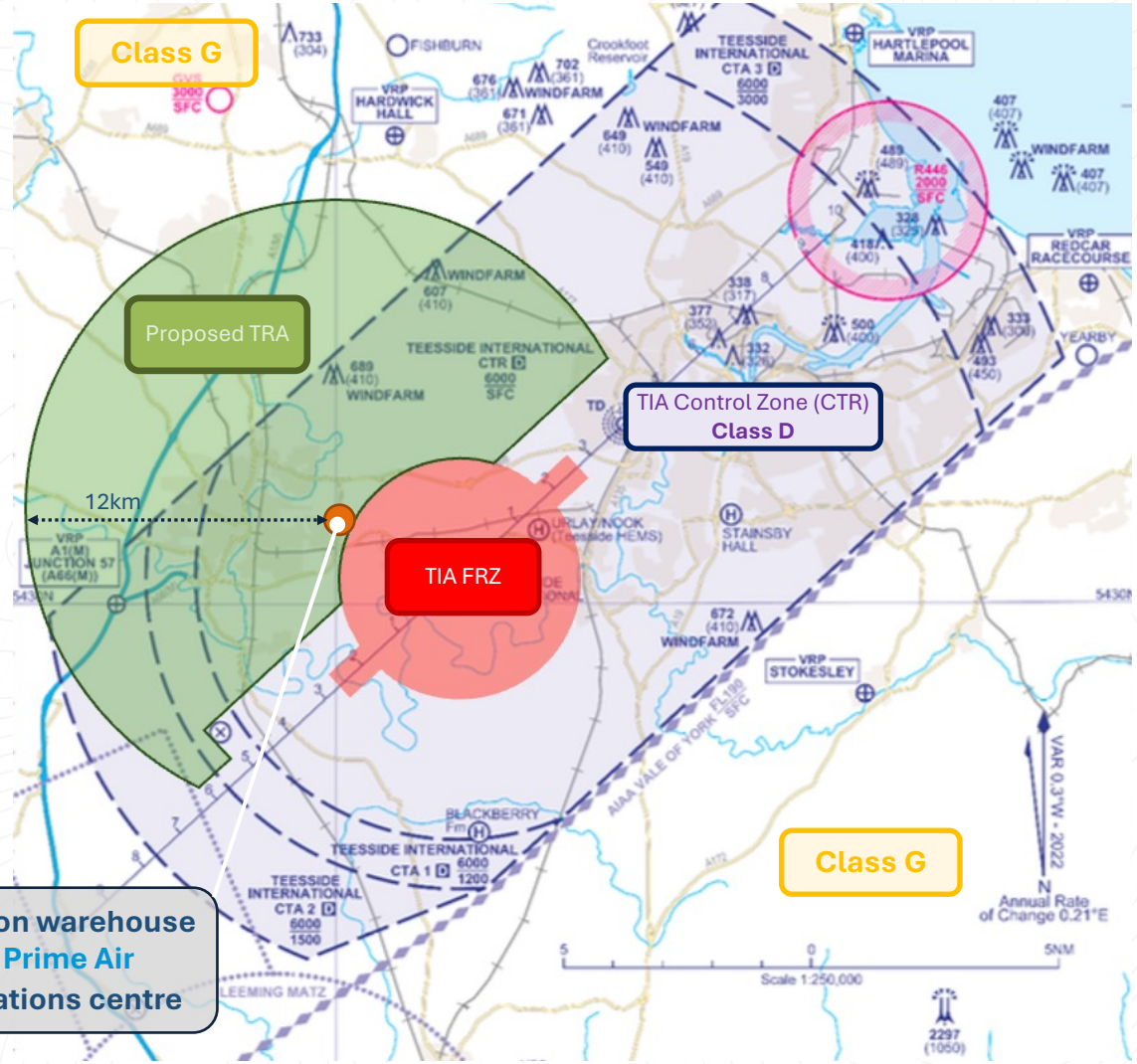
Entry Requirement: (crewed aircraft) ADS-B **OUT** & Radio Contact with TIA

Notification: NOTAM will activate/ de-activate TRA

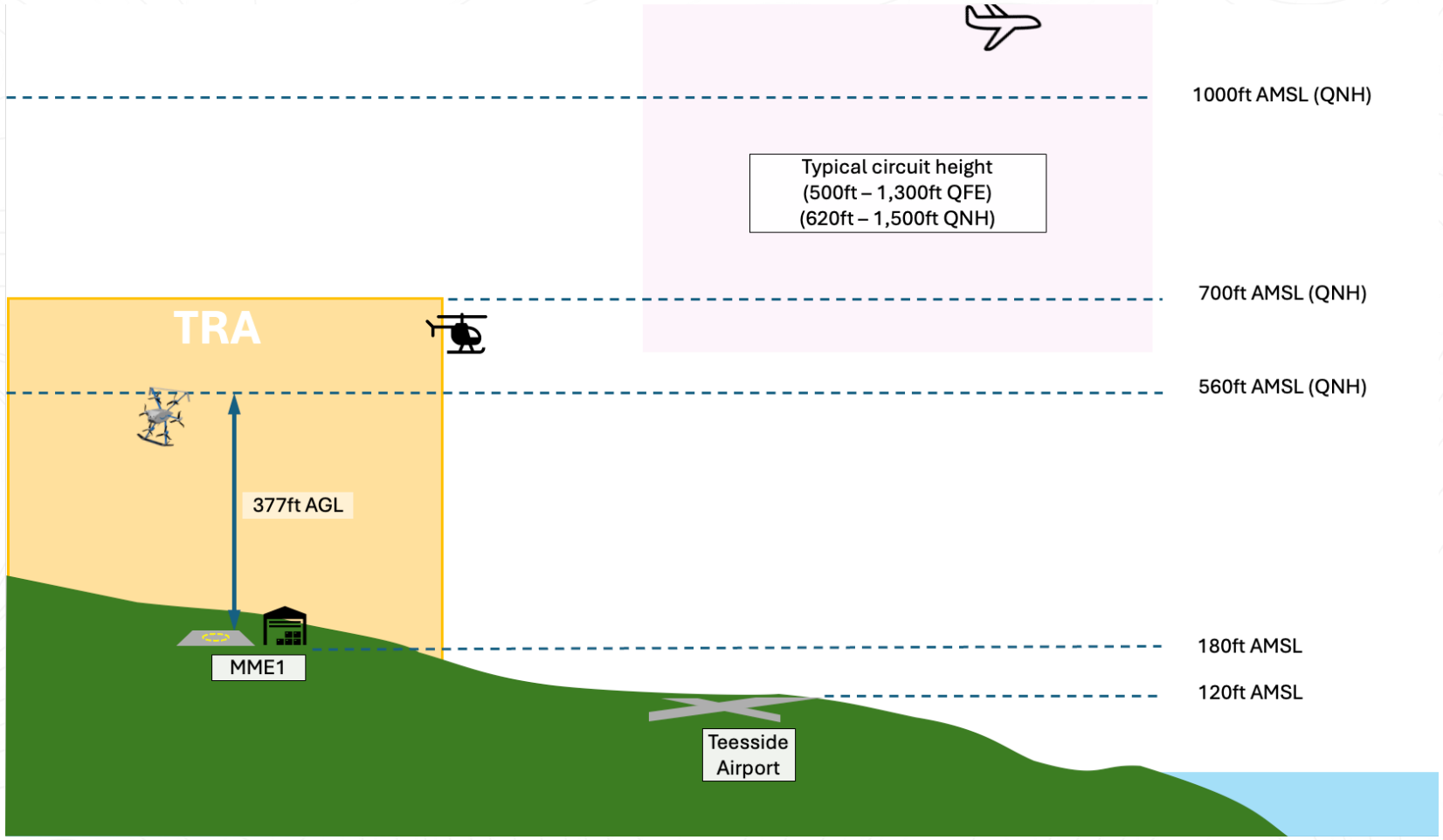


The Temporary Reserved Area

- The maximum range of the TRA (12km) is based on the operating radius of the Prime Air drone from the Amazon warehouse.
- No Prime Air flights will take place within the TIA Flight Restriction Zone (FRZ).
- The TRA spans both Class-D (TIA Control Zone) and surrounding Class-G airspace.
- Access to the TRA will be managed by TIA Air Traffic Control (ATC).
- Entry into the Class-G portion of the TRA must be coordinated with Prime Air (via NOTAM contact details) and TIA.
- Entry into the Teesside Class D portion of the TRA are subject to an Air Traffic Control (ATC) clearance from TIA ATC.



The Temporary Reserved Area



- This image intends to show the relationship between ‘above ground’ heights (AGL) and ‘above mean seal-level’ heights (AMSL).
- It is anticipated that most air traffic in the area will remain above the TRA.
- Weather minima:
  - Light rain
  - 1,200ft Cloud Base
  - Daytime/Visual Meteorological Conditions (VMC)
- The authoritative weather information will be taken from the TIA Meteorological Aerodrome Report (METAR).

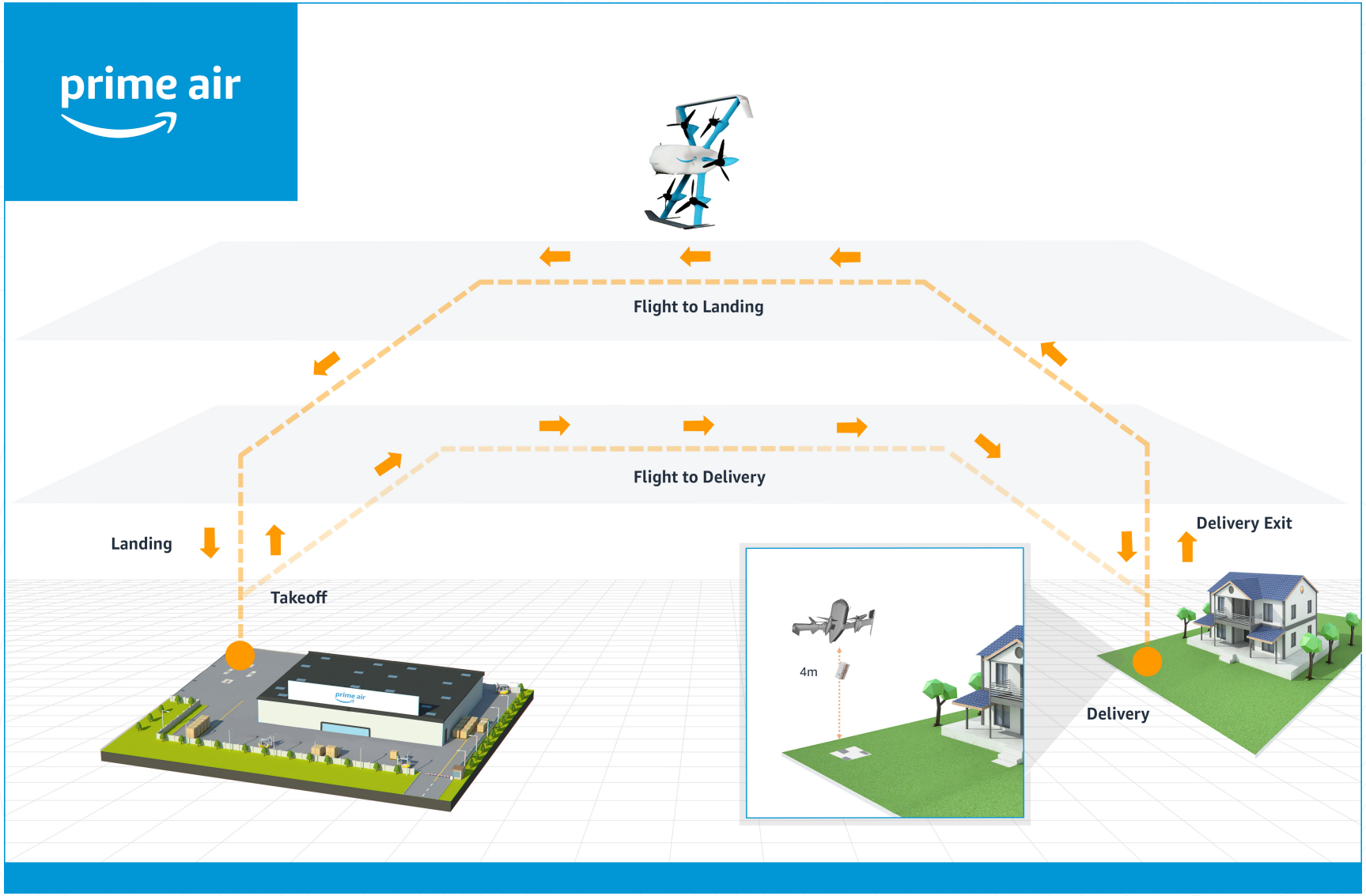
MK30 Drone Overview

- All-electric aircraft system capable of vertical take-off and landing (VTOL) in the ‘reclined’ attitude.
- Transitions to ‘fixed-wing’ forward flight attitude for cruise phases.
- Delivers a single package of up to 2.3kg (in VTOL mode), using a marker-less (optical) delivery system.
- All flight paths remain below 122m (400ft) AGL.
- BVLOS capable using a suite of operational and technical solution including the on-board optical-based ‘Detect-and-Avoid’ (DAA) system.
- Will avoid ground-based and airborne obstacles.
- Includes high-intensity navigation/strobe lighting to aid visual conspicuity.
- ADS-B OUT equipped.

Upper wingspan: **1.5m**
Lower wingspan: **1.3m**
Height: **1.7m** (fwd flight attitude)
Fuselage Length: **1.22m**
Max T/O mass: **37kg**
Operational Range: **12km**
Cruise speed: **~30m/s** (58kts)
Max payload: **2.3kg**

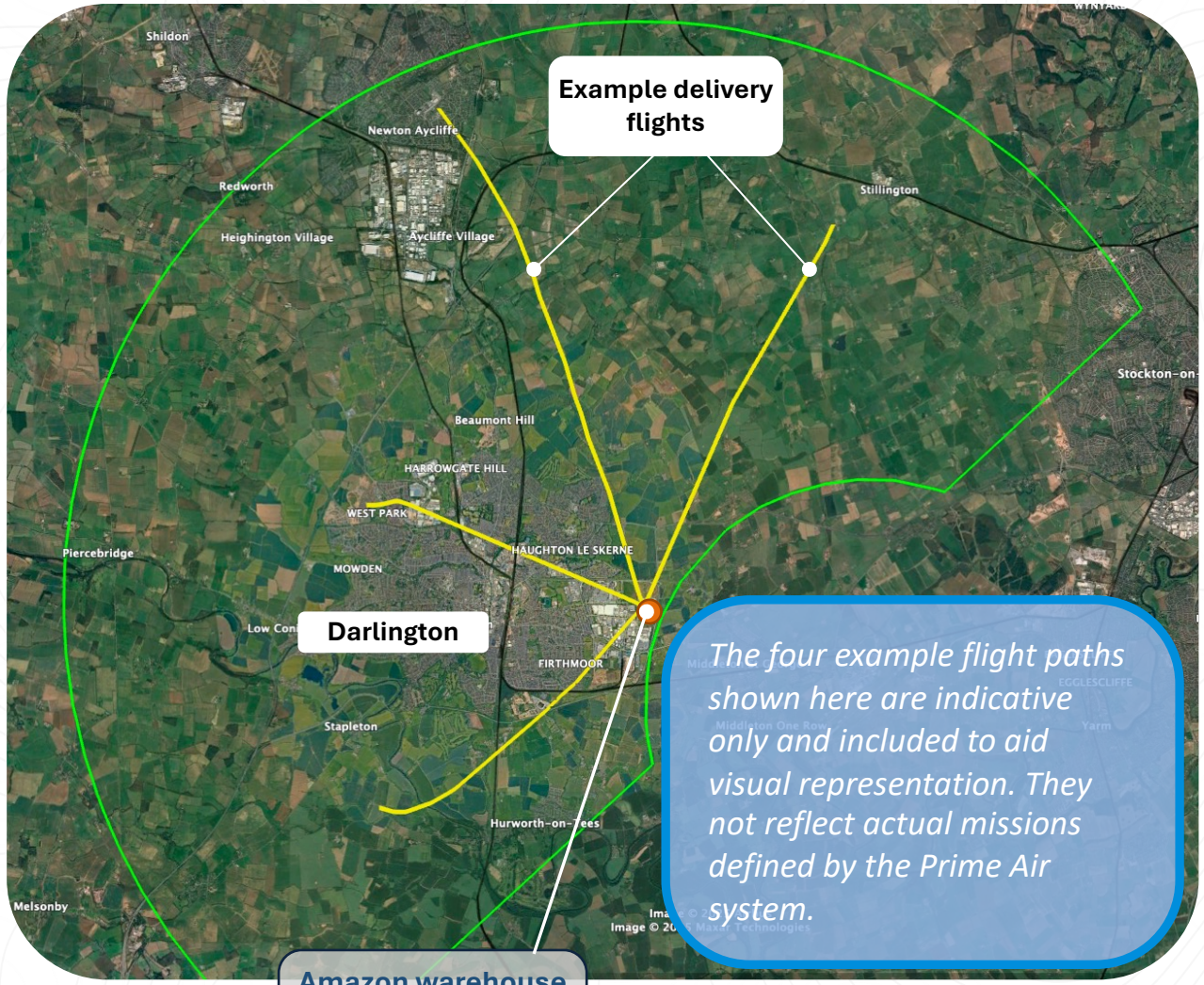
MK30 Drone Overview – Basic Mission Profile

- Less than 50% of each complete delivery mission will reach the maximum height (return cruise phase only)
- Multiple layers of automation and health monitoring
- The Prime Air ‘Flight Monitor’ (drone pilot) may intervene at any phase of flight if required



Darlington Operations Overview

- Package loading, launch and recovery, and all supporting ground operations will take place from the Amazon warehouse ‘MME1’.
- Delivery missions radiate out from MME1 and can be to any qualifying Amazon customer within the TRA.
- The drones remain below 400ft above ground level (AGL) at all times.
- Mission profiles aim to take the most expedient path while avoiding Prime Air identified ‘No-Fly Zones’ and areas of high population concentrations (outdoor assemblies of people).
- There will likely be a concentration of delivery flights in and around the Darlington with lower frequency flights to the surrounding villages.
- **Prime Air operations will cease for all ‘blue light’ / emergency service operations that require access to the TRA (e.g. HEMS / Police Helicopter)**



FAQs

What are the procedures for accessing the TRA?

If you intend to access the Class-G portion of the TRA and remain outside the TIA CTR, ADS-B equipped aircraft may continue to access the area as you do today. We request that you contact Prime Air operations via a dedicated telephone number (details will be included as part of the NOTAM) to inform Prime Air of your intentions. The Prime Air operations team will make sure that our drones remain well clear.

Non-ADS-B equipped aircraft will be required to contact Prime Air operations at least 12hrs before the planned flight. While we aim to make sure that your flight can go ahead as planned, we may need to decline access in some situations.

Access to the Class-D portion of the TRA are subject to an ATC clearance and must be coordinated with TIA in the same way as it is today. TIA will confirm whether the TRA is active/inactive.

It should be noted that TIA Air Traffic Control cannot provide a UKFIS Traffic or Deconfliction service against the Prime Air drones

Will I be able to see the Prime Air drones from my aircraft?

Our drone dimensions are 1.7m x 1.5m and can be visually acquired in some scenarios. Our drones also carry high-intensity navigation lights with a strobe function which can help with visual conspicuity particularly in reduced lighting conditions.

Additionally, our drones will be Electronically Conspicuous (EC) via on-board ADS-B OUT and will be detectable on typical EC applications.

Will I need to install an ADS-B transmitter on my personal/recreational drone?

No. Under UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005(b) and subject to compliance with CAA requirements for UAS operation in the intended category of operation, RPAS/UAS operators planning to conduct VLOS operations within the proposed TRA may continue to do so without complying with the transponder requirements of the TMZ.

We do request that you make contact with Prime Air via the published contact details, in advance of planned VLOS flight to ensure that relevant operational details can be shared, if required.

FAQs

Will I be able to contact Prime Air operations via radio?

While Prime Air will monitor the TIA tower and radar frequencies for situational awareness, at this stage we are not anticipating adopting 2-way radio communications as part of our procedures (other than potential emergency situations).

What other approvals will Prime Air require before operations can start?

Successful approval of the proposed airspace change by the CAA does not constitute an approval to operate. We are also seeking an Operational Authorisation (OA) in the Specific Category following the CAA's recently adopted SORA methodology.

Will I be able to provide feedback during the trial?

Yes. We intend to continuously monitor the effectiveness of our operating procedures and we welcome any feedback received during the operations. This feedback will always be considered against our current approved operating ruleset and will review with the CAA and TIA Air Traffic Control at our regular review meetings.

Ready to Provide Feedback?

We greatly appreciate your time in considering this proposal and look forward to receiving any feedback you have.

If you decide this proposal does not impact your operation, we would still very much welcome confirmation of this, and if you simply do not have any comments to make, please also get in touch with a simple 'no comment'.

Our targeted stakeholder engagement period will run until 14th July 2025 (6 weeks). We may not be able to address any feedback received after this date but will endeavor to do so where the ACP process allows.

We may also contact you to arrange additional follow-up meetings if we require more information from you, based on your feedback, or we believe specific operating procedures are required.

We will review all feedback received throughout this consultation and will consider any required changes for the final airspace design prior to submission to the CAA.

Records of your feedback (if any) will be shared with the UK CAA and published via the ACP Portal in a **redacted** form.

As a reminder you can provide your comments and feedback using either of the two methods below

- **Email**
  - respond directly to the email address at primeair-acp-uk@amazon.co.uk or,
- **Online Feedback Form**
  - by completing the SmartSheets feedback form accessed by this link

Additional Prime Air Background Information

No.	Article	Link
1	How Prime Air proved the Mk30 Safety	https://www.aboutamazon.com/news/transportation/amazon-delivery-drones-safety-testing
2	Prime Air customer Experience	https://www.aboutamazon.com/news/transportation/amazon-drone-deliver-package
3	Arizona Launch	https://www.aboutamazon.com/news/transportation/amazon-drone-delivery-arizona
4	UK Location announcement	https://www.aboutamazon.com/news/transportation/amazon-first-drone-delivery-uk-prime-air-location

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