Darlington TRA for Drone Delivery Service

Gateway Documentation:
Stage 4 Final Airspace Change Proposal
ACP-2024-056

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Change History

Issue	Month Year	Change in this issue (most recent first)
Issue 1	August 2025	First issue

Roles

Action	Role	Date
Reviewed Approved	UK Head of Airworthiness and Certification	August 2025
Reviewed Approved	Director of infrastructure, Expansion, and Regulatory	August 2025

Referenced Documents

Ref Number	Name	Link
1.	CAP1616: Airspace Change Proposal	Link
2.	CAP1616g: Guidance on Airspace Change Process for Temporary and Trial Airspace Change Proposals	Link
3.	Prime Air, United States	Link
4.	Prime Air, Italy	Link
5.	Categories of Flying for Drones	Link
6.	DAP1916V2 – Statement of Need	Link
7.	CAP1711: Airspace Modernisation Strategy 2-23 – 2040 Part 1: Strategic Objectives and Enablers	Link
8.	CAP2533: Airspace Policy Concept - Airspace Requirements for the Integration of Beyond Visual Line of Sight (BVLOS) Unmanned Aircraft	Link
9.	SERA.3201: General	Link
10.	SERA.3205: Proximity	Link
11.	UK Future of Flight Action Plan	Link
12.	Skies Without Limit: The Potential to take the UK's Economy to New Heights	Link
13.	Assessment Meeting Minutes	Link
14.	CAP722K: Unmanned Aircraft System Operations SAIL Mark Policy Concept	Link
15.	ICAO Pans Ops 8168	Link
16.	SARG Policy 133: Policy for the Establishment and Operation of Special User Airspace	Link
17.	CAP2989: Temporary or Trial ACP for BVLOS – Additional Guidance	Link
18.	Stakeholder Engagement Material	Link
19.	UK Airport Data 2024: Table 03 1 Aircraft Movements (PDF document)	Link
20.	Flight Aware	Link
21.	CAP493: Manual of Air Traffic Services (MATS) Part 1	Link
22.	CAP1616i: Environmental Assessment Requirements and Guidance for Airspace Change Proposals	Link
23.	Ecology report	Link
24.	SERA.6005(b)	Link
25.	ACP Portal	Link
26.	CAP2616: Regulatory Sandbox for the development of capabilities to integrate Unmanned Aerial Systems (UAS) in unsegregated airspace	Link

1. Introduction

1.1. Background

1.1.1. This document forms part of the submission pack required by the CAP1616 Airspace Change Process (Ref 1), specifically CAP1616g (Ref 2) which applies to temporary airspace changes . This document aims to provide adequate evidence to satisfy Stage 4, Airspace Change Proposal (ACP).

1.1.2. The change sponsor for this change is Amazon UK Services Ltd (Prime Air[1]).

1.2. Introduction to Prime Air

1.2.1. Prime Air is Amazon's commercial drone package delivery operations division, an ultra-fast service that safely delivers items up to five pounds, in less than an hour. Prime Air a leader in integrating advanced aerospace engineering with logistics innovation. Serving as both a manufacturer and operator of drones, Prime Air delivers commercial packages through drones designed, built, and operated under systems that prioritise safety, efficiency, and scalability.

1.2.2. For Prime Air, safety is non-negotiable. The programme applies aerospace safety principles, including safety management systems, across teams, tools, and technology.

1.2.3. Prime Air hold the FAA approvals needed to conduct commercial drone package delivery operations in the USA, including airworthiness authorization and a Part 135 air carrier certificate. The FAA has also authorized Prime Air to fly Beyond Visual Line of Sight (BVLOS) and to carry hazardous materials in its operations.

1.2.4. As part of Prime Air's international expansion programme, they intend to launch two additional sites in both the UK (this ACP) and Italy, working with ENAC and EASA to secure both technical and operational authorisations under the SORA framework.

1.2.5. Prime Air is planning to launch an initial drone delivery services within the UK, leveraging its Beyond Visual Line of Site (BVLOS) and Detect And Avoid (DAA)[2] capabilities as they do in the United States (Ref 3) and Italy (Ref 4).

1.2.6. Initial UK operations are proposed to take place from Amazon's Fulfilment Centre (MME1), on the outskirts of Darlington.

1.2.7. This location was selected due to the established Amazon customer base, Amazon logistics integration requirements and favourable airspace structures, supported by a local Air Navigation Service Provider (ANSP), Teesside International Airport (TIA). This maximises the potential learnings in support of the UK CAA's developing drone integration policies, by blending different airspace structures, traffic mixes, as well as providing the necessary infrastructure for Prime Air commercial operations.

[1] Throughout this ACP "Prime Air" will be used to refer to Amazon's operating division engaged in commercial drone package delivery operations. "Amazon" will be used to refer to the wider group including their current land-based delivery service, sites, and supporting operations.

[2] Drone operations using DAA is a long-term ambition of Prime Air but is not covered by this ACP.

2. Description of the Proposal and Impacts

2.1. Drivers for Change

2.1.1. Current UK airspace policy does not allow drones to integrate with other airspace users and requires all BVLOS operations to occur in segregated airspace[3]. Therefore, an ACP is required to allow the drone to be segregated from other airspace users, to achieve Prime Air's aims, as set out in section 2.4.

2.2. Statement of Need

2.2.1. The following text is taken from the DAP1916 Statement of Need (Ref 6) submitted in December 2024.

2.2.2. **Question:** What is the objective of the proposed change?

- **Answer:** Amazon Prime Air, the airspace sponsor, has been selected by the UK CAA under CAP2616 (Ref 4) to participate in the Regulatory Sandbox for the development of capabilities, processes, and procedures to integrate Unmanned Aerial Systems (UAS) into unsegregated airspace. Prime Air is looking to demonstrate its concept of operation (ConOps), including beyond visual line of sight (BVLOS) capabilities and to assess airspace integration concepts that will safely enable the transition of UAS from segregated to unsegregated airspace.
- As part of the Regulatory Sandbox, Prime Air is seeking to establish a Temporary Reserved Area (TRA) with a Transponder Mandatory Zone (TMZ) to support these demonstration activities. The TRA+TMZ has been defined using the principles of flexible use, shared airspace established by the UK's Airspace Modernisation Strategy (CAP1711) (Ref 7) and the Airspace Policy Concept for the Integration of BVLOS Unmanned Aircraft (CAP2533) (Ref 8) . The TRA+TMZ will cover an area that includes Darlington and surrounding villages spanning both Class G and Class D airspace (Teesside CTR).
- In summary, Amazon Prime Air's proposed TRA+TMZ will support the CAA's ambition to migrate BVLOS operations from segregated airspace to non-segregated airspace in a controllable and safe manner, whilst aligned with the UK's Airspace Modernisation Strategy. The TRA+TMZ will be used as an opportunity to test available Detect and Avoid (DAA) solutions to support the proposed airspace change.

2.2.3. **Question:** Please provide a summary of the issue or opportunity this proposal is seeking to address including any safety, operational, technical, environmental or economic factors.

- **Answer:** The proposed TRA+TMZ seeks to address the emerging opportunity of safely integrating drones into the UK's airspace system and supports the goal of exploring the policies, operational, and technical requirements to allow routine BVLOS UAS operations across both controlled and uncontrolled classes of airspace in the future. The establishment of a TRA+TMZ within the Teesside CTR and adjacent uncontrolled airspace is a strategic response to the growing demand for rapid, cost-effective, and environmentally friendly delivery services that Prime Air drone technology can offer. There have been no recent airspace changes in the area.

[3] Drones up to 25kg can operate within the "Open Categories" (Ref 5) but not within 150m of residential or industrial areas, above 400ft, BVLOS, or in restricted airspace. Therefore, this is not a viable option for Prime Air.

- These activities, as part of the regulatory sandbox, will help inform the UK CAA's policy decision making and contribute to the development of a comprehensive regulatory framework, including for BVLOS operations, which is crucial for adoption and safe integration of drones into the UK airspace. This airspace change will be underpinned by the following principles, which are in alignment with the UK's Airspace Modernisation Strategy:
    - **Safety:** The TRA will provide a controlled environment to rigorously demonstrate the safety protocols required for BVLOS operations, demonstrating equivalent levels of safety to crewed aviation, ensuring that drones can coexist with crewed aircraft in the national airspace. The TRA+TMZ supports the 'accommodation' phase of Prime Air operations, before progressing to 'integrated' operations (as described in CAP2533 (Ref 8)).
    - **Operational:** By demonstrating operational processes, safety protocols and new technologies within the TRA, the proposal aims to streamline the integration of drone flights into daily airspace operations by focussing on low-level, low-usage airspace, thereby improving airspace utilisation and setting precedents for future drone operations.
    - **Technical:** Prime Air has developed a suite of drone and drone management technologies required for airspace integration that includes (but not limited to) an on-board DAA system that can independently ensure safe separation from crewed aircraft by detecting and avoiding airborne and ground-based obstacles supplemented by ground-based lower airspace traffic monitoring. The TRA+TMZ also allows for DAA validation activities as a means to meet the intentions of SERA.3201 (Ref 9) and SERA.3205 (Ref 10), and to support the CAA's development of its DAA and BVLOS policies.
    - **Environmental:** The Prime Air drone delivery system offers a significant reduction in carbon emissions compared to traditional road-based delivery methods. This proposal supports the UK's environmental goals by facilitating the adoption of green technology in logistics, as outlined in the 'Future of Flight Action Plan' (Ref 11 19) .
    - **Economic:** Economically, drone delivery promises to enhance last-mile logistics and delivery sectors by reducing transit times and associated costs when compared to road-based equivalent services. It can also stimulate economic growth in related and supporting industries by creating skilled jobs in innovation and technology sectors. This has been highlighted in PwC's 2022 (Ref 12 20) study into the potential positive impacts of routine drone use on the UK economy, jobs, productivity, and quality of life.

2.2.4. **Question:** Please provide a description of the current airspace design relevant to this proposal.

- **Answer:** The proposed operating area spans both uncontrolled airspace and the Teesside International Airport (TIA) Class-D Control Zone (CTR).
- The TIA CTR extends 10km to the South-West and 20km to the North-East, from the surface to 6,000ft Above Mean Sea Level.
- A flight restricted zone (FRZ) is also in place surrounding TIA however, no Prime Air operations are planned within this area.
- This area is predominantly used by a mixture of passenger /air-cargo flights operating out of Teesside International Airport (TIA), as well as TIA based operators engaged with trials/research operations to the North-East.

- The TIA CTR benefits from primary[4] and secondary radar surveillance and associated Air Traffic Service offered by TIA with entry into the CTR is based on a clearance from TIA air traffic control.
- No alterations to the current airspace structure (outside of the TRA+ TMZ) are proposed.
- The TIA CTR may, on occasion (e.g. ATC duty time requirements), revert to Class-G airspace during Prime Air operational hours.

2.2.5. **Question:** Please provide a description of the current prevailing air traffic situation and an indication of estimated forecast growth.

- **Answer:** Teesside Airport has approximately 20,000 movements per year, peaking during summer months, with a flat forecast for 2025 and 2026. The majority of movements are made up of General Aviation, on-site Aero Club and scheduled passenger / air-cargo flights. Occasional transit is required by military, air ambulance and police flights. The proposed TRA location, geometry and height have been designed to enclose the Prime Air operation and minimise disruption to established operations in the region. Stakeholder engagement, as part of this ACP will gather any additional requirements for further consideration of the TRA design.

2.3. Alignment with the Airspace Modernisation Strategy

2.3.1. This ACP is in support of the Airspace Modernisation Strategy (AMS) (CAP1711) (Ref 7) and forms part of the plan for delivering the AMS. One of the AMS ends is "integration of diverse users" which includes integration of "remotely piloted aircraft systems" (RPAS)[5]. Whilst this ACP is for temporary airspace structure (TRA), the learnings from these operations are intended to inform policy and future integration of RPAS vehicles.

2.4. Aims of the Proposal

2.4.1. Prime Air aims to operate its commercial drone package delivery operations in the UK by successfully working through the UK CAA UAS Sandbox Initiative. During this ACP, Prime Air will inform CAA policy concepts enabling full scale implementation of such operations in the future.

2.4.2. Prime Air specifically aims to achieve full integration into airspace systems utilizing our BVLOS capability including our strategic deconfliction and DAA capabilities.

2.4.3. The trial objectives are shown in Table 1, and how this objective will be measured during the TRA operational period.

Table 1 - Trial objective

Trial Objective	**How Objective will be Measured**	**Success Criteria**
Establish an initial operation of the Prime Air drone delivery service.	Successful completion of Prime Air test flights.	As per detailed trial plan.
Demonstrate efficacy of the TRA rulesets and procedures in controlled and uncontrolled airspace.	Subject matter expert (SME) input via regular review with TIA to confirm effectiveness of procedures.	Any learnings and documented and implemented if appropriate.

[4] Although not mentioned in the Statement of Need (Ref 6), there is an area of primary radar blanking north of TIA's runway.
[5] RPAS is used in this paragraph as per the wording of the AMS. A drone is a component of a RPAS. Prime Air's preference is to use the term drone throughout this document as this term is widely understood.

	This could be supplemented by stakeholder feedback if received.	
Gather operational performance to inform policy concepts for: • BVLOS • electronic conspicuity • ground based infrastructure • multiple concurrent drone operations[6]	A combination of quantitative (including capturing and recording DAA detections) and qualitative data (SME input) will be gathered. This could be supplemented by stakeholder feedback if received.	As the aim is to inform policy, success will be measured on the volume of information (positive and negative) which is gathered, rather than a specific mission being completed.
Allowing progress to future trial phases and trial extension.	Predefined data collection in agreement with CAA.	Satisfactory meeting trial objectives, to enable technical development and trial extension[7].

2.4.4. There are several assumptions on the project, these are summarised in Table 2.

Table 2 - Assumptions within this ACP

Assumption	**Rationale**
Prime Air will designate No Fly Zones and No Landing Zones around certain sites such as known VLOS operations, parks, schools, and high-volume air traffic areas.	There are several reasons to designate No Fly Zones / No Landing Zones, these include reducing collision risk, minimising noise impacts, and reducing the impacts on other airspace users.
The TRA ceiling will be 700ft above mean sea level (AMSL).	In terms of airspace operations, 700ft AMSL is considered a very low level and, therefore, should significantly reduce the impact on other airspace users. 700ft (AMSL) provides sufficient margin for drone operations and a safety buffer.
The drone used will be the MK30.	This is the same drone approved by the FAA and currently conducting commercial drone package delivery operations in the USA, with deployment also planned in Italy. The drone has a proven safety record, and performance characteristics are already validated and well understood by Prime Air. The MK30 will also be subject to parallel airworthiness assessments for the UK via the CAA (SAIL Mark Certificate under the CAA's RAEf policy (Ref 14)).

[6] Within the Assessment Meeting Minutes (Ref 13), Prime Air note that there would not be concurrent drone operations. A clarification was provided to the CAA following the assessment meeting that this in fact referred to Multiple Simultaneous Operations (MSO), or 1:many. The intention of this proposal remains to establish an initial commercial operations which will include up to 4 drones operating concurrently on a 1:1 basis, meaning one Remote Pilot (Flight Monitor) responsible for one drone. This also aligns more with the CAA expectations for integration of more than one aircraft. During concurrent drone operations, there will be multiple pilots each responsible for one drone.

[7] This document is not proposing a TRA extension, any future requests for an extension will be subject to relevant CAA approval.

2.4.5. The constraints are summarised in Table 3 that Prime Air have set on this ACP, including a brief rationale for these.

Table 3 - Constraints on this ACP

Constraint	**Rationale**
Operating no more than 12km from the departure location (Fulfilment Centre MME1).	Operating radius constrained by the drone's battery capacity. A 12km radius allows the drone to make a return journey and have battery reserves in case of unplanned operational changes.
The TRA will remain outside of the TIA's FRZ.	TIA's traffic operate at low-level within the FRZ. If Prime Air operated within the FRZ, there would be a significant increase in air traffic controller (ATCO) workload and collision risk.
The TRA will remain clear of the TIA's extended centreline.	TIA's traffic operate at low-level within proximity to the extended centreline. If Prime Air operated close to the extended centreline, there would be a significant increase in ATCO workload and collision risk with aircraft establishing onto final approach. Therefore, in line with ICAO PANS OPS (Ref 15) and SARG Policy 133 (Ref 16) the Prime Air operation will not encroach on the extended centreline. Furthermore, operating in the vicinity of TIA's centreline would have a commercial impact on their operation.
There is limited choice of Amazon site.	This location was selected due to the established Amazon customer base, Amazon logistics integration requirements and favourable airspace structures, supported by a local ANSP at TIA.

2.4.6. This proposed operation will run from December 2025 to June 2026[8].

2.5. Description of the Current-Day Scenario

2.5.1. Prime Air does not currently operate in this airspace region. The airspace is used by MOD, commercial, and GA aircraft.

2.5.2. TIA had just under 19,000 aircraft movements in 2024 (Ref 19). This includes commercial passenger aircrafts, cargo flights, local flying schools and other movements.

2.5.3. GA users do not have to report their flights, making it challenging to get a precise traffic picture. Some GA users opt to transmit Automatic Dependent Surveillance – Broadcast (ADS-B) which can be collected and counted via an ADS-B receiver.

2.5.4. Historic Flight Aware (Ref 20) ADS-B data, has been assessed for January, April, July and October 2023. This data showed six aircraft tracks below 400ft within proximity of MME1.

2.5.5. This data has been supplemented with data from Prime Air's own ADS-B receiver for April 2025. This data has been filtered and is presented in Table 4.

2.5.6. The April data has been filtered to include returns within Monday to Friday 0900 – 1700 only, as this matches the proposed operating hours of the TRA. Any returns with a height below zero have been considered erroneous and removed. Any returns with a height above 365.76 meters (1,200ft AGL) have also been removed. Prime Air's TRA ceiling will be 700ft AMSL (given ground height this

[8] In line with CAP1616g (Ref 2) it remains possible for Prime Air to request an extension to 12-months. Any extension will be consistent with CAA guidance and subject to their approval.

would be between 600 and 500ft AGL[9]), however, they have opted to include returns up to 1,200ft due to the impact the TRA could have on traffic as pilots may opt to fly higher to avoid the TRA.

2.5.7. Figure 1 further filters the data, to very close proximity to MME1 and 600ft AGL. It shows a significant number of returns are within the TIA FRZ, therefore, would not be impacted by this ACP (as per the constraints in Table 3). As well as the traffic inside the FRZ, there are only a few other returns within 12km of MME1, who will be directly impacted by this proposal. This aligns with the historic Flight Aware (Ref 20) data. Where a track seems to appear / disappear this is likely to do with aircraft climbing above 600ft AGL and out of the data set or descending below 600ft AGL and into the data set.

Table 4 - Prime Air's ADS-B data, surface to 1,200ft AGL for April 2025

Commercial Movements	**MOD[10] Movements**	**HEMS Movements**	**GA Movements**	**Other[11] Movements**
1,223	222	27	275	7

[9] This number is here for comparison purposes and should not be used for navigation. The TRA ceiling is 700ft AMSL.
[10] There were several air cadet training flights using MOD drones; these have been included in MOD movements.
[11] "Other movements" are those which could not be easily identified into the previous four categories based on their callsign returns on the ADS-B data.

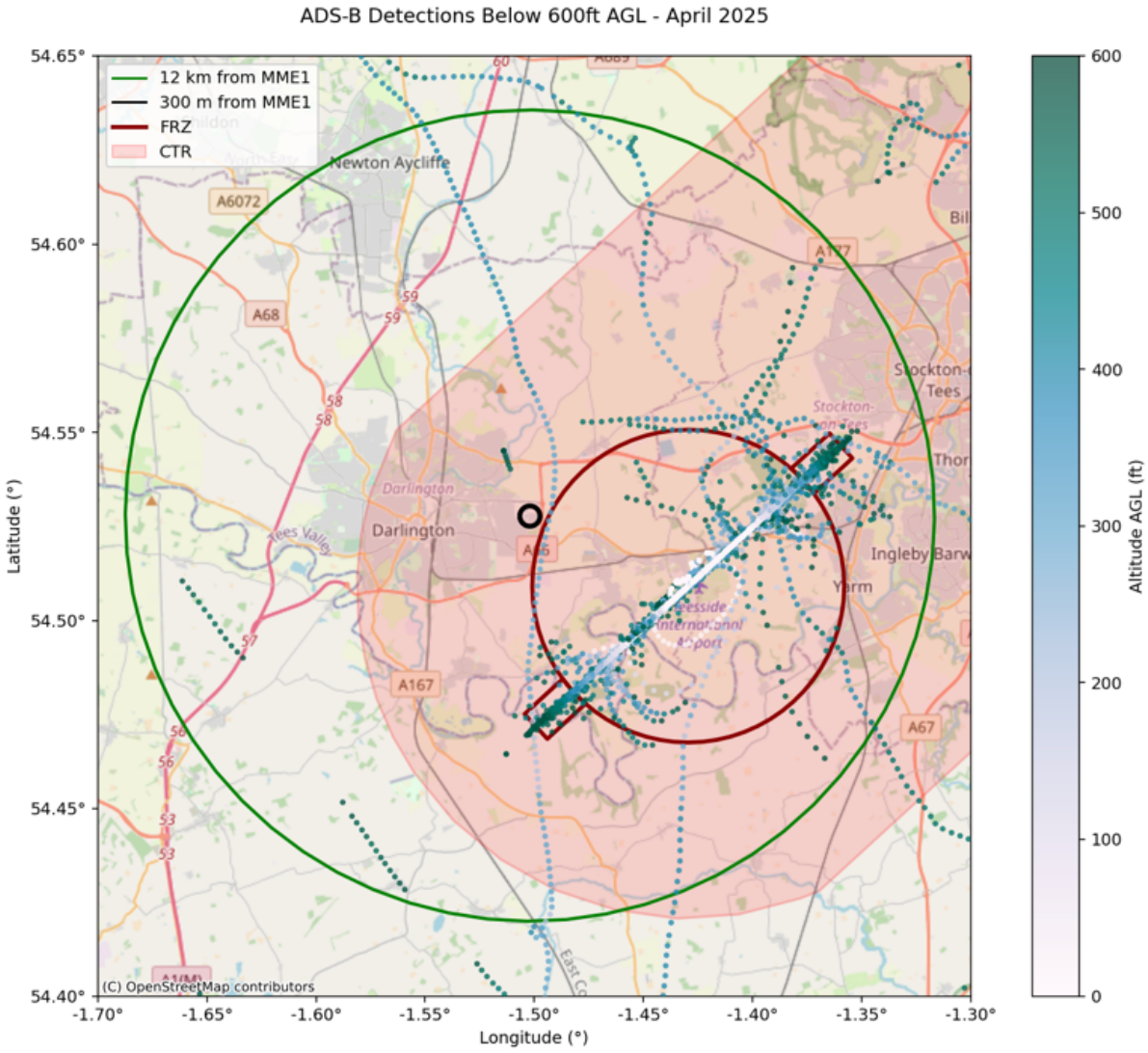

Figure 1 - Prime Air's ADS-B data in pictural format. Coloured dots represent ADS-B returns. Background map source: OpenStreetMap

2.5.8. With the operations proposed to take place between December 2025 and June 2026, having full data April 2025 gives an accurate assessment of the potentially impacted traffic. Given the small amount of ADS-B returns from the 2023 data, it was considered disproportionate to acquire December 2024 to June 2025 data.

2.5.9. However, it is acknowledged that GA aircraft do not have to broadcast their position via ADS-B. Therefore, Prime Air have sought qualitative inputs from TIA ATC to supplement this traffic picture, this assessment is noted Table 5.

Table 5 - Qualitative inputs from TIA ATC

Activity	Perceived number of flights per period	Operating height
Pipeline / powerline inspections	Few times per week	Below 500ft
Emergency service helicopters	Few times per week	Normally transit above TRA height Would need access for landing, to transit on low-cloud days, or operational reasons
VFR radio failure procedure from north, entering controlled airspace from Hardwick Hall visual reporting point	Few times per year	Not above 1,000ft (500 – 1,000ft)
Emergency traffic needing access	Approximately 5 times per year	To surface
Special VFR arrivals and departures to the north-west	Very rare	Potential infringement to confirm whilst conforming to 500ft rule
Hot air balloons	Frequency unknown, only observed a few times	North-west of area Likely above TRA

2.5.10. Furthermore, DAATM were able to provide a traffic count for MOD operations in the area. In the 12-month period 07th August 2024 to 7th August 2025 a total of 251 MOD flights operated in / within close proximity to the proposed TRA airspace.

2.5.11. Overall, Prime Air believe that the above traffic data gives an authentic picture of the potentially impacted movements in the airspace.

2.6. Description of the Current Airspace and Operation

2.6.1. The airspace in proximity to MME1 includes a mixture of Class D and Class G structures. Figure 2 shows the current airspace in close proximity to MME1. Whilst the proposed TRA does not impinge on a significant amount of this airspace, it is included below for context.

2.6.2. Figure 3 and Table 6 provide detailed information on the structures within 12km of MME1 and below 1,500ft AMSL. The airspace structures have been labelled A to H for identification purposes.

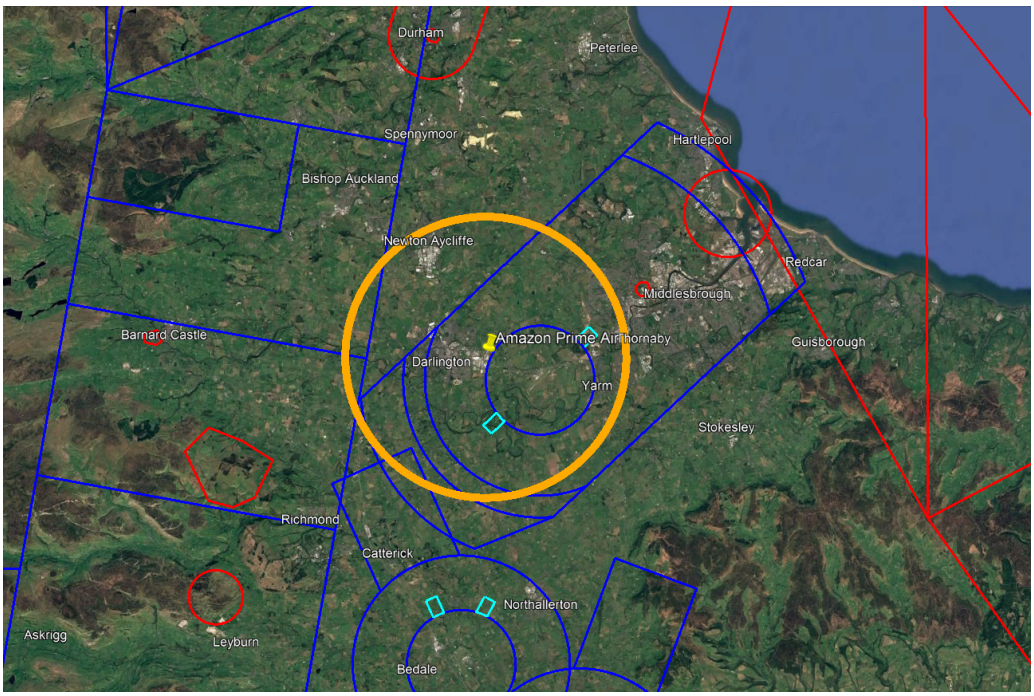

Figure 2 - Current airspace. Orange circle: 12km radius from MME1. Dark blue polygons: aerodrome traffic zones, control areas, control zones, military aerodrome traffic zones. Pale blue polygons: restricted zones. Red polygons: flight restricted zones, danger areas, restricted airspace. Background map: Google Earth Pro.

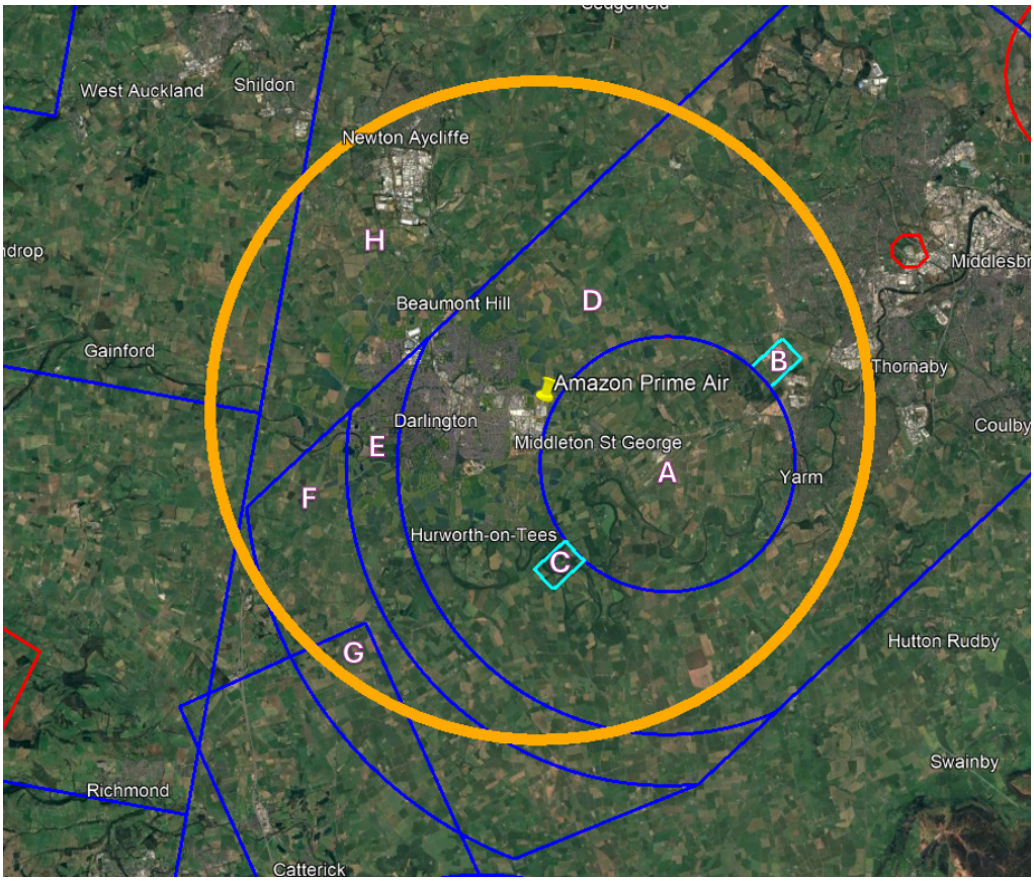

Figure 3 - Current airspace within 12km (orange circle) of MME1. Dark blue polygons: aerodrome traffic zones, control areas, control zones, military aerodrome traffic zones. Pale blue polygons: restricted zones. Red polygons: flight restricted zones, danger areas, restricted airspace. Background map: Google Earth Pro.

Table 6 - Detailed information on airspace design within 12km of MME1

Label	Airspace Name	Airspace Classification	Minimum and Maximum Height
A	Teesside International ATZ	Class D	SFC to 2,000ft AMSL
B	Teesside International RWY23 FRZ	Class D	SFC to 2,000ft AMSL
C	Teesside International RWY05 FRZ	Class D	SFC to 2,000ft AMSL
D	Teesside International CTR	Class D	SFC to 6,000ft AMSL
E	Teesside International CTA 1	Class D	1,200ft to 6,000ft AMSL
F	Teesside International CTA 2	Class D	1,500ft to 6,000ft AMSL
G	Leeming MATZ Stub	Class G	1,000ft to 3,000ft AGL
H	N/A	Class G	SFC to < FL100

2.6.3. TIA manage the Class D airspace using both primary and secondary radar.

2.7. Description of the Temporary Airspace Design Option and Operation

2.7.1. As a result of the aforementioned changes, the final airspace design is shown below in Figure 4 and described in Table 7.

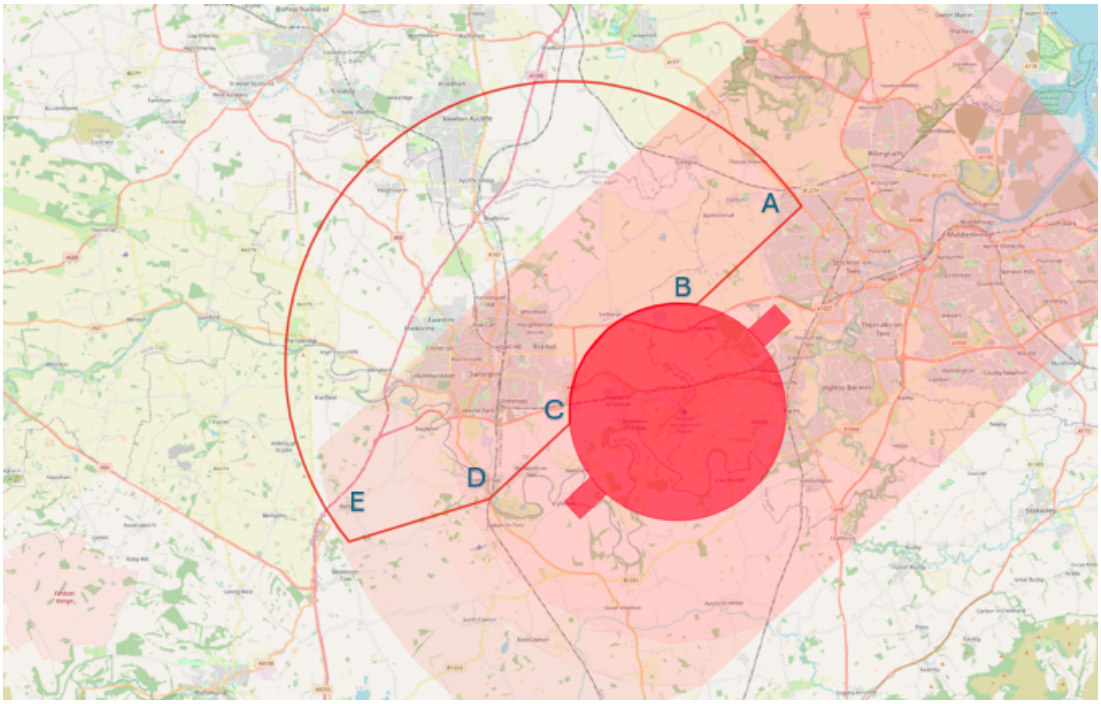

Figure 4 - Final airspace design (red polygon outline), TIA FRZ (deep red filled polygon), TIA CTR (pale red filled polygon). Background map source: OpenStreetMap

Table 7 - Final airspace dimensions

Point	Latitude	Longitude
A	54°35'14.26"N	1°20'47.24"W
B	54°33'0.08"N	1°24'58.33"W
Semi-circle round TIA's FRZ		
C	54°30'17.69"N	1°30'1.90"W
D	54°28'35.05"N	1°33'12.98"W
E	54°27'37.40"N	1°38'45.81"W
12km semi-circle from E to A		

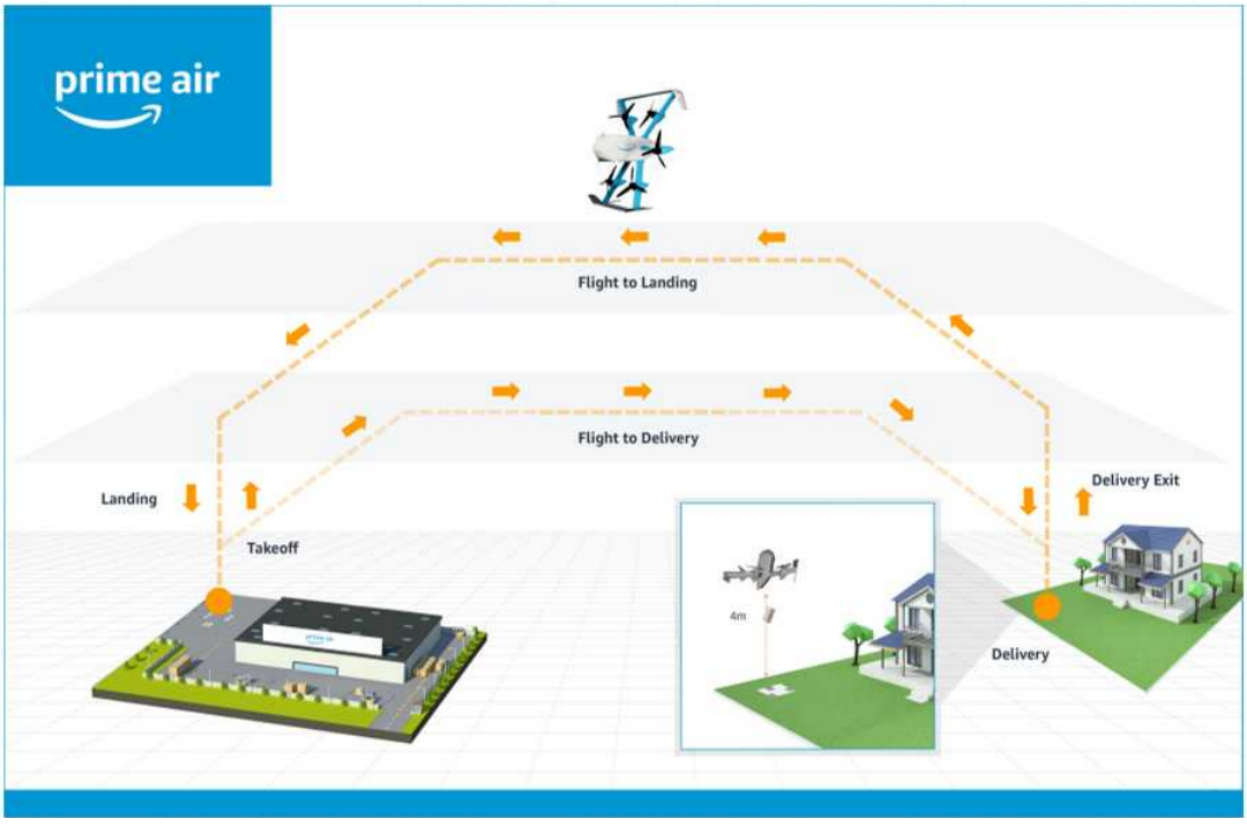

Figure 5 - Overview image of drone operations

2.7.2. Figure 5 shows the basic flight profile. Each delivery flight will follow the same profile, outbound (flight to delivery) and inbound (flight to landing) route are vertically separated.

2.7.3. A trial plan has been provided to the CAA but is commercially sensitive and will not be made public. Table 8 summaries the pertinent points for stakeholders including the operating procedures and access requirements.

Table 8 - Summary trial plan / operating procedures

Procedure Item	Detail(s)	Notes (if applicable)
Operating period	December 2025 to June 2026 Monday to Friday 0900 to 1700 (local)	Specific operating dates and times are not yet known; however, it should be assumed that the operations will take place every Monday to Friday between mid-December and mid-June. More specific details will be provided within the NOTAMs, at least 24-hours in advance. There remains potential scope for extension to the TRA to 12-months (subject to relevant CAA approval).
Activation method	NOTAMs will used to activate the TRA, with at least 24-hours' notice	NOTAMs will include operating days and times, and any required contact information for TIA ATC. The TRA will be deactivated when TIA is closed due to staffing; such closures will be indicated via NOTAM from TIA.
TRA heights	Surface to 700ft AMSL	This will be based on TIA's QNH.
TRA sectors	The full TRA will be activated as one sector	N/A
Weather minima	VMC as defined in CAP 493 MATS Part 1 (Ref 21).	Prime Air will reference TIA's METAR hourly.
Entry requirements – nonpriority traffic	Crewed aircraft wishing to enter the TRA would require the following: • ADS-B out, • radio contract with TIA ATC, • have prior approval from TIA ATC with as much notice as practicable for the Class G portion, • all Class D rules still apply.	The entry requirements of the TRA include a transponder and radio, making the airspace a TRA and TMZ. The TMZ overlay the exact boundaries of the TRA. Contact details will be published within the NOTAMs. ADS-B will be on 1090 MHz. Nonpriority traffic will only be granted access to the TRA when the Prime Air drone is confirmed to be on the ground and TIA ATC have capacity for tactical access for other users. Any aircraft needing to enter due to an emergency, should make TIA aware of their emergency on first contact.

Procedure Item	Detail(s)	Notes (if applicable)
Entry requirements – priority traffic	Aircraft in radio contact with TIA ATC and undertaking emergency response, critical infrastructure, or national security missions will be prioritised[12]	An LOA will be in place with Great North Air Ambulance Service (GNAAS)[13] and flights will be coordinated via TIA ATC. Otherwise, emergency response, critical infrastructure, or national security flights will be granted priority based on existing procedures between TIA ATC and Prime Air but will not require a specific LOA. To prioritise an emergency response, critical infrastructure, or national security flights Prime Air will receive notice from TIA ATC via agreed procedures and not launch any new operations while the higher priority operation is taking place. For GNAAS in-flight request, an airborne drone will be landed to allow the other aircraft access as quickly as possible. For other priority flights, agreed procedures between Prime Air and TIA ATC will be followed regarding landing the airborne drone.
Number of drones	Four drones will operate in the area One to four drones could be airborne at one time	During single drone operations, only one drone will be airborne at a time. However, to increase the number of flights, there will be up to four drones operating in the area, therefore allowing one to be loaded and ready to take-off as the airborne drone lands. During multiple concurrent operations, there will be multiple pilots each responsible for one drone.
Frequency of operation	Up to twenty-one flights per hour	Individual flights will vary in direction and distance, but and will cover the full TRA area.
Payload per drone	Up to 2.3kg	All parcels will be carried in line with UK rules.

2.7.4. For further information to stakeholders, Table 9 explains what activities Prime Air aim to undertaken during the phases of the trial plan.

Table 9 - Phases of the trial plan

Trial Phase	Activity	Link to Objective (where relevant)
1A	Sterile TRA System functionality checks Prime Air – TIA procedures validations 1 drone initially, up to 2 drones in concurrent operations	Establish an initial operation of the Prime Air system. Demonstrate efficacy of the TRA rulesets and procedures in controlled and uncontrolled airspace.

[12] HEMS, infrastructure organisations and MOD undertaking non-emergency activities will be treated as any other GA aircraft and will need to meet the entry requirements.
[13] GNAAS is based within 2nm of the TRA. No other emergency service is located this close, therefore, GNAAS have a specific LOA due to their unique position.

1B	Sterline TRA Launch initial commercial operations (live customer deliveries) Up to 4 drones in concurrent operations	Establish an initial operation of the Prime Air drone delivery service. Demonstrate efficacy of the TRA rulesets and procedures in controlled and uncontrolled airspace. Gather operational performance to inform policy concepts for: BVLOS; electronic conspicuity; ground-based infrastructure; and multiple concurrent drone operations.

2.8. Analysis of Alternative Options

2.8.1. Prior to reaching the airspace design described in section 2.7 alternative options were also considered. For transparency, these are summarised in Table 10 including why they were considered not viable.

Table 10 - Analysis of alternative options

Description of Alternative Option	**Rationale for Discounting Option**
Alternative Amazon site	This location was selected due to the established Amazon customer base, Amazon logistics integration requirements and favourable airspace structures, supported by a local ANSP at TIA.
Lower TRA operating ceiling[14]	Lowering the operating ceiling (maximum height of the TRA) would involve one of the following: • reducing the safety buffer between the drone and the ceiling; • reducing the operating height between the two drone routes (outbound and inbound to MME1); • reducing the operating height of the inbound and outbound routes, and the TRA ceiling. Reducing the buffer between the drone and the TRA ceiling would reduce safety margins built into the airspace design and cause unnecessary safety risks. Reducing the operating height of the inbound route would reduce the separation between drones operating outbound and inbound to MME1. Therefore, the two operating routes would not be safely separated, especially when considering the contingency route between the inbound and outbound routes. Reducing the operating height of both the outbound and inbound routes (therefore maintain separation for aircraft and allow the TRA ceiling to lower) would potentially increase the ground risk and would impact the SORA application and cause unnecessary safety risks. To counter the ground risk, Prime Air would need to avoid areas of higher ground, which would significantly reduce the potential operating area. Thus, significantly reducing the potential learnings and benefits from the operation.
Operating the 12km radius, 360° from the departure location (Fulfilment Centre MME1)	This would significantly increase complexity by operating within Teesside's FRZ, creating unnecessary safety risks in both the SORA and HazID.
Using a simulated environment	Simulated environments are not able to demonstrate the unpredictable nature of real-world operations. Therefore, limiting crucial data collection for CAA policy development to enable routine BVLOS operations in the UK.

[14] Alternative heights of the TRA were considered prior to engagement, at which point 700ft AMSL was deemed most acceptable from the perspective of both safety and meeting the trial objectives. Appreciating that a number of stakeholders (see Table 15, in chapter 6 Appendix: Engagement Responses) who commented on the TRA ceiling, this was reviewed. On review, it was deemed that 700ft AMSL enables safe containment of the operation.

2.9. Summary of Engagement

2.9.1. Prime Air have focussed on two distinct engagement activities:

1. Engagement on the airspace design.
2. Engagement on the local planning consent and Prime Air's service.

2.9.2. Whilst the planning consent and service provision is important, it is out of scope of this ACP as it does not form part of the CAP1616 (Ref 1) process. Therefore, the content of this section refers to the stakeholder mapping regarding the airspace design.

2.9.3. As per CAP1616g (Ref 2) (paragraph 5.6) sponsors of temporary ACPs are required to engage with aviation stakeholders to investigate if the proposed ACP will be safe and operationally viable. Paragraph 5.7 discusses engagement with affected communities, stating the CAA will establish and publish any requirement to engage communities before a decision is made; the CAA had not made this a requirement on this ACP. Therefore, as per paragraphs 4.17 and 5.7 community stakeholders will be informed of the airspace design if it is approved.

2.9.4. Table 12 (in Appendix: Stakeholder List) lists the stakeholders identified by Prime Air prior to engagement. In forming their stakeholder list, Prime Air considered three aviation themes:

- Relevant NATMAC members[15]
- Known active airfield / airport / airstrip within 30km of MME1[16]
- Other known aviation organisations anticipated to be impacted by the proposal

As well as aviation stakeholders, some non-aviation stakeholders were also included such as emergency services and potentially impacted conservation agencies due to the operation potentially impacting their operations / sites.

2.9.5. Whilst every effort was made to identify all stakeholders prior to engagement, it is not uncommon for stakeholders to be identified during the engagement period. This can be either by the individual making themselves known to Prime Air or by another stakeholder noting them within their response. Such stakeholders are noted in Table 13 (in Appendix: Stakeholder List). Prime Air believe this is a sign of effective engagement as it shows that the materials have been disseminated widely, either via online sources such as the Airspace Change Portal or via groups / memberships.

2.9.6. Stakeholder mapping has been used to identify the stakeholders who engagement is vital to the design or conduct of the operation, versus stakeholders whose feedback is strongly welcomed but not considered vital. Three categories were identified; Table 11 explains what each category means and how they were managed differently during the stakeholder engagement period.

[15] NATMAC members were considered relevant if their organisation represented airspace users likely impacted by this proposal.
[16] Whilst pilots from airfields / airstrips across the country could be impacted by the TRA, during long distance flights, it was considered that those within 30km would be most impacted and therefore, would benefit the most from the engagement. Having said that, anyone was able to respond if they desired.

Table 11 - Stakeholder mapping description

Stakeholder Mapping Category	Rationale	Engagement Methodology
Key	Stakeholders likely impacted by the TRA to such an extent that procedures and / or Letters of Agreement (LOA) / Temporary Operating Instructions (TOI) may need to be agreed and signed.	Actively involved throughout the ACP process to understand and mitigate the impact on their operation. Standard engagement email provided if appropriate. For both ATCS Ltd and TIA engagement was mature and feedback was covered via collaborative workshops, therefore the engagement email was not sent to these stakeholders.
Impacted	Stakeholders whose operation is likely to be impacted by this ACP. However, not to the same degree as "key stakeholders".	Standard engagement email provided. Stakeholder feedback was given higher priority than those in "Interested" category.
Interested	Stakeholders whose operation should not be directly impacted by this ACP, however, would likely be interested in following the ACP progress.	Standard engagement email provided.

2.9.7. The engagement ran for 6-weeks from the 3rd June to 14th July 2025.

2.9.8. This duration is considered sufficient to allow stakeholders to effectively engage with Prime Air as the materials were concise but sufficiently explained the scope of the operation. The materials were also provided electronically (avoiding delays for mail services). Furthermore, the period did not cover any English public holidays, or school holiday periods, which may reduce stakeholders' availability to respond. Additionally, coverage of the anticipated operation from local and national press meant some stakeholders had already some knowledge of the developing plans. Finally, the chosen duration is greater than the 4-week minimum set out in CAP2989 (Ref 17) and on par with the "starting point" set out in CAP1616g (Ref 2). Therefore, Prime Air believe the engagement period was sufficient to facilitate effective engagement.

2.9.9. On the 3rd June 2025 all stakeholders, identified in Table 12, received an engagement email, which included a copy of the engagement materials (Ref 18); a link to provide feedback via an online platform called Smartsheet; and an opportunity to reply via email with questions or feedback.

2.9.10. On 24th June 2025 all stakeholders who had not replied received a reminder email.

2.9.11. Prime Air had identified two email addresses for Helicopter Club of Great Britian prior to engagement starting on 3rd June 2025, however, both were undelivered. After thorough searching an additional email address was identified and they were contacted on 25/06/2025. Whilst this meant they had a shorter engagement period; it shows that every effort was made to contact identified stakeholders. As the stakeholder has been mapped as "interested", rather than "key" or "impacted" Prime Air believe this is satisfactory.

2.9.12. On 10th July 2025 a final reminder was sent to all stakeholders who had not yet replied.

2.9.13. A number of ad-hoc engagement activities took place between August 2023 and submission of this document. These are captured in Table 14 in Appendix: Ad Hoc Engagement Activities. Feedback from these meetings have been captured within Table 15 - Summary of stakeholder feedback or the agreed LOAs / TOIs.

2.9.14. Prime Air will inform communities if the ACP is approved and will complete more informal stakeholder outreach as they consider appropriate.

2.9.15. Responses were received from 37 stakeholders. This included 16 targeted stakeholders (37% response rate); 18 stakeholders who made themselves known to Prime Air during the period; and 1 stakeholder newly identified by Prime Air during the period, and whom they then reached out to.

2.9.16. The engagement distribution was considered a success given the breadth of responses (national representative organisations, local airspace users, Ministry of Defence (MOD), and private individuals); and number of stakeholders who made themselves known to Prime Air suggesting dissemination via representative groups was successful.

2.9.17. The full details of the stakeholder who responded can be found in Table 12 and Table 13. Their feedback can be found in Table 15.

2.9.18. Prime Air engaged stakeholders on the design presented in the engagement materials (Ref 18); full details of the stakeholder feedback can be found in Table 15, within Appendix: Engagement Responses.

2.9.19. As a result of the feedback three changes were made to the design:

- A new No Fly Zone was created approximately 2.5 nm x 1 nm from the Croft airstrip's runway threshold.
- A new No Fly Zone was created around the operating area of Teesside Model Flying Club.
- TRA boundary moved from 1nm from the runway extended centreline to 1.5nm.

2.9.20. These mitigated a potential impact on the stakeholder and would allow them to continue to operate whilst the TRA is active.

2.9.21. Considering feedback, there were six operating procedures agreed:

- ADS-B will be on 1090 MHz.
- Prior notice from other airspace users was reduced from 12-hours to "as much notice as possible".
- Access to both Class D and Class G will occur directly with TIA via radio rather than calling Prime Air to access Class G.
- The TRA will be deactivated when TIA is closed due to staffing; such closures will be indicated via NOTAM from TIA.
- Established prioritisation for specific operators.
- The weather minima for cloud base were changed from 1,200ft to Visual Meteorological Conditions (VMC) standard of 1,500ft for Prime Air operations.

2.9.22. Reflecting on the level of engagement participation and changes to the airspace design / operating procedures, Prime Air concluded that the engagement had been a success, and any changes reduced the impact on airspace users. Therefore, no further formal engagement was considered necessary.

2.9.23. If the ACP is approved, various channels will be used to inform local community stakeholders of the airspace design, including community mailing lists, printed flyers, social channels, and local media.

2.9.24. Presuming ACP approval and when the service is launched, Prime Air will continue to monitor community feedback related to the drone delivery operations through ongoing review of emails received through the dedicated email and coordination with Amazon's customer support team.

2.9.25. Prime Air has established, and maintains, strategic relationships with key local government entities. To date, these channels have primarily focused on the project planning and implementation process. Prime Air will maintain open lines of communication with these local government entities throughout the project lifecycle, including informing them of the airspace design if approved.

2.10. Assessment of Anticipated Impacts on Other Airspace Users

2.10.1. This chapter highlights any changes to the impacts and / or costs associated directly with the proposed operation. It has not been noted whereby the ACP will result in "no change" from the current day.

2.10.2. These operations will change and increase the workload for TIA ATC. They will need to coordinate with any user wishing to enter the TRA and relay this back to Prime Air. As per section 2.5, this is likely to be a relatively small number and should not cause ATCO workload overload. Furthermore, to help manage the airspace, two LOAs have been drafted. These are between:

- TIA ATC and Prime Air
- TIA ATC, Great North Air Ambulance Service, and Prime Air

The LOAs outline the agreed procedures for specific situations, therefore, reducing uncertainty for all parties. A TOI has also been drafted for TIA ATC.

2.10.3. These operations will not operate within TIA's FRZ and there will be no impact on current procedures (see Safety, below). As a result, commercial airlines operating in / out of TIA will not be impacted.

Priority Traffic

2.10.4. Great North Air Ambulance Service (GNAAS) is the most frequent HEMS user of the airspace and, therefore, have a specific LOA. Therefore, the impact on these is known and agreed.

2.10.5. Other emergency operators[17] (on a critical mission), MOD flights (undertaking national security missions), and organisations undertaking critical infrastructure inspection flights will all be prioritised over the Prime Air operation and access granted when safe to do so. Other than coordination with TIA ATC, there should be no noticeable impact on these activities.

Nonpriority Traffic

2.10.6. Emergency operators, HEMS, MOD, or infrastructure inspection flights who do not meet the criteria in 2.10.5 will be treated as per "other airspace users" and will need to follow the rules of the TRA. These operations will be impacted by the TRA and will need to comply with the entry requirements or navigate around the airspace.

2.10.7. Flying schools and other GA operators based at TIA will be impacted. There will be no change to procedures in / out of TIA, however, during their flight(s) they will need to comply with the entry requirements or navigate around the airspace.

2.10.8. There should be no impact on Teesside Model Flying Club, as a No Fly Zone has been created around their operating area.

2.10.9. Croft airstrip has a No Fly Zone allowing continual access to / from the airstrip. Whilst airborne, aircraft from Croft airstrip will be treated as per "other airspace users" and will need to comply with the entry requirements or navigate around the airspace.

2.10.10. All "other airspace users" will need to follow the TRA rules as set out in section 2.7, or navigate around the airspace. These users will be impacted by the proposed operation, as the airspace's rules and procedures are being markedly changed. Having said that, as per section 2.5 Description of the Current-Day Scenario, relatively few aircraft operate in the area.

2.11. Timeline for Implementation

2.11.1. Prior to implementation, the following activities remain outstanding and require completion:

[17] "Other emergency operators" refers to all emergences other than GNAAS (who are covered by 2.10.4).

- CAA decision (expected 10th October 2025)
- AIC submission (31st October 2025) and publication (11th December 2025)
- LOAs / TOIs to be finalised and signed by all involved parties
- Prime Air will inform communities if the ACP is approved and may complete informal stakeholder outreach

2.11.2. Based on the activities outstanding, Prime Air believe December 2025 to be a realistic timeline for implementation.

2.12. Supporting Infrastructure and Resilience

2.12.1. TIA ATC do not have surveillance coverage (surface to 700ft AMSL) for the full TRA. To have full coverage, there would need to be significant changes to their infrastructure. This was deemed disproportionate and instead, TIA ATC will not be providing a deconfliction service within the Class G airspace. Therefore, there is no change to infrastructure for TIA ATC.

2.12.2. Other airspace users, who are currently not ADS-B Out or radio equipped, may opt to become so, therefore for these users there would be an infrastructure cost.

2.13. Regulations, Policies and Harmonisation

2.13.1. Through the Sandbox onboard and ongoing CAA support, this ACP complies with all relevant regulation and policy and does not require any dispensation from these.

2.14. Safety

2.14.1. To ensure the operation is safe and operable, three safety activities have been undertaken:

- An application for an Operational Authorisation under the UK's SORA framework has been submitted to the CAA. The MK30 drone will also be subject to a detailed technical assessment under the UK CAA's SAIL Mark Policy (Ref 14).
- TIA ATC have completed a HazID activity to understand any potential impacts on their operation / aircraft operating from the airport. Working alongside Prime Air, these have been mitigated to safe levels.

  These documents are commercially sensitive and will not be made public. However, example safety mitigations include the TRA; ANSP oversight; use of NOTAMs; visual conspicuity is aided by the drone being fitted with a strobe; and use of a TMZ to compliment the TRA.
- A consultant has also been engaged to do an official review of all procedures approach and departures related to TIA and outline what impacts the TRA may have.

  This indicated there would be no impact to TIA's IFPs and very minimal impact overall.

2.15. Noise

2.15.1. As noted in Table 10, it would not be possible to meet the ACP aims and objectives via a simulated environment. Therefore, this change is necessary to help meet the AMS (Ref 7) "integration of diverse users" objective.

2.15.2. The proposed operation will run from December 2025 to June 2026[18]. It is subject to produce 65 and 60 dB L_{ASmax} noise footprints, from daytime and nighttime flights; as per the CAP1616i (Ref 22) requirements for airspace changes between 90 – 365 days. However, as the operation will be take place between 0900 – 1700, the nighttime noise metrics do not apply.

2.15.3. As part of a separate impact assessment and local planning requirements, Prime Air had commissioned a noise study for the operations in Darlington. This study focussed on using: Lowest Observable Adverse Effect Level (LOAEL); Significant Observable Adverse Effect Level (SOAEL); L_{Aeq}; and L_{max} metrics. It is understood that the L_{ASmax} threshold is required to identify the affected communities that must be informed of the airspace change, if the proposal is approved. However, in support of the roll-out of the Prime Air drone delivery service, Prime Air has sought to engage the entire Darlington community as part of a community outreach program.

2.15.4. Initial outreach has already taken place in the form of a community event held at the Dolphin Centre venue in Darlington on the 7th February 2025. This outreach was conducted to raise awareness of the proposed operations and to discuss the potential topics of interest to the community, including noise impact. Communities were invited to meet members of the Prime Air team and to learn more about the Prime Air drone delivery service.

2.15.5. Outreach was made through:

- Leaflet drop to more than 15,000 residential addresses within the proposed operating area
- Local press adverts inviting the community to the event
- Social media posts to raise awareness of the event

2.15.6. Follow-up community events will be held in September-October where more details will be shared of the Prime Air operation, as well as discussion on the potential noise impacts. A similar outreach program will ensure that the full Darlington (and surrounding areas) community will be conducted to ensure as wide an awareness of the operation as possible.

2.15.7. The noise study is summarised below, and the full report can be found on the ACP portal (Ref 25).

2.15.8. Noise emissions data from the MK30 drone, collected from US operations, is included for the following scenarios with and without payload during hover, overflight, take-off, and landing. Figure 6 7 presents the maximum sound pressure level recorded at the 13 microphones during each recording interval with the height of the drones above ground level.

[18] In line with CAP1616g (Ref 2) it remains possible for Prime Air to request an extension to 12-months. Any extension will be consistent with CAA guidance and subject to their approval.

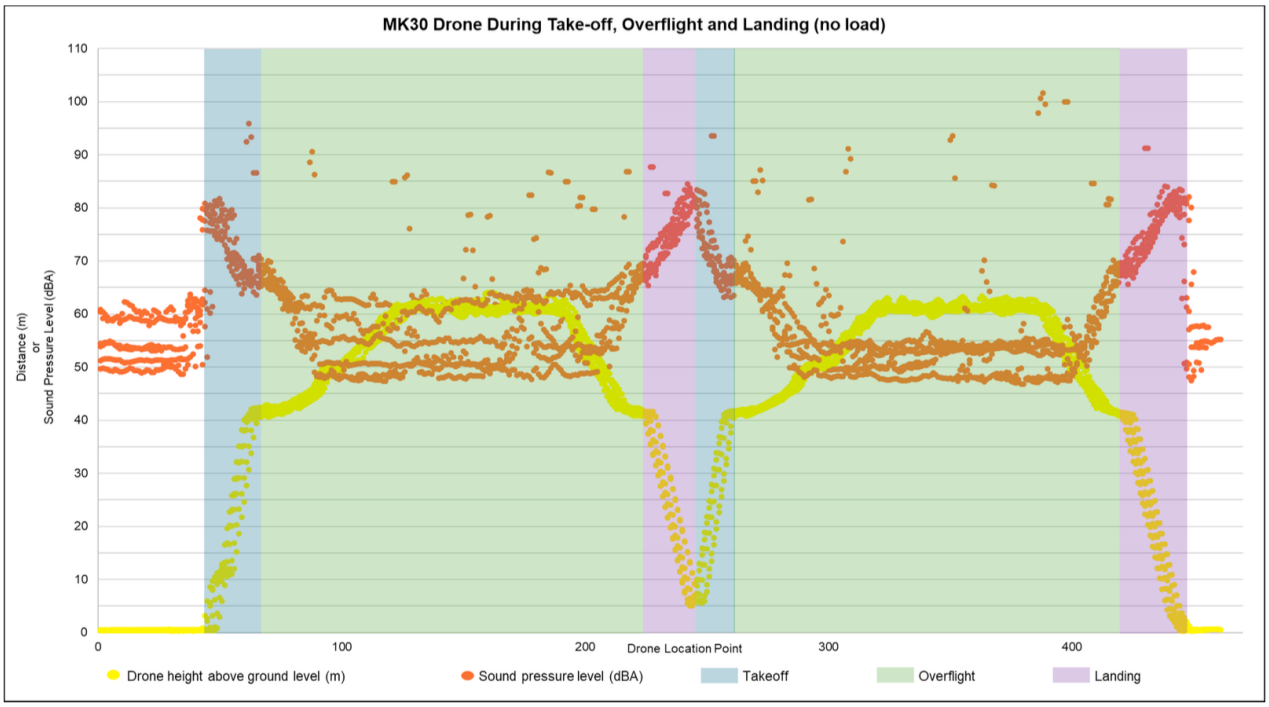

Figure 6 7 - Drone height vs sound pressure (dBA)

2.15.9. The figure shows that the drone is loudest during the take-off and landing phases of flight. Whilst cruising at just over 60m (~200ft AGL) (equivalent to an outbound route) the microphones picked up between ~47 and 65 dBA from the drone. Return routes, will be higher (400ft AGL) and therefore, drone noise will be proportionally less.

2.15.10. The mission paths commence and complete at MME1, and radiate outwards into the wider operating area. This has been called the 'hub-and-spoke' pattern. Figure 4 shows the wider area and shows the baseline mission profile for each delivery flight. Due to this traffic pattern, there is a concentration of flight profiles at MME1.

2.15.11. A theoretical noise footprint from MME1, based on 12 illustrative operation routes, each being overflown 8 times within 1-hour. Figure 8 9). However, the 54dB is lower than the 60dB criteria for daytime noise set out in CAP1616g [Ref 2]. Further from MME1 (during cruise) within a very short lateral distance the drone is below 34dB and no longer audible compared to background noise.

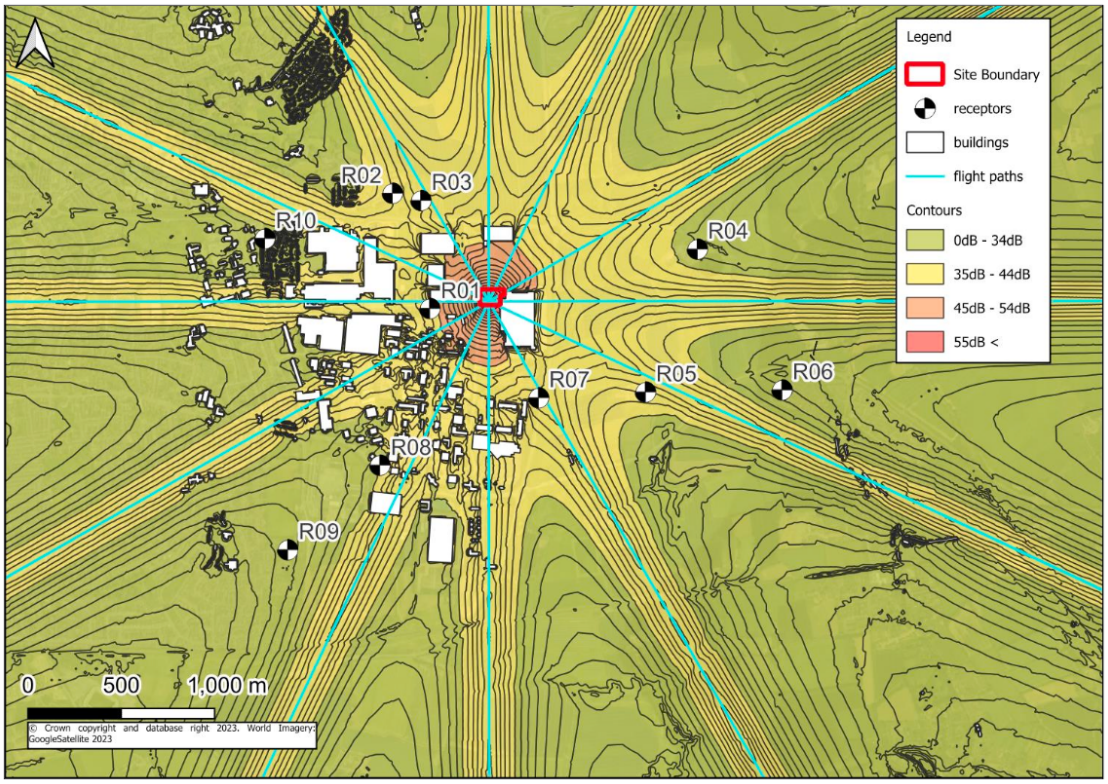

Figure 8 9 - LAeq, 1-hour footprints for 12 theoretical flight paths

2.15.12. CAP1616i [Ref 22] requires a 10dB tonal correction for multi-rotor drones. The loudest noise is emitted during the take-off and landing phase of flight, for customers this would be during the delivery of their goods. Drone deliveries are expected to last ~30 seconds. Therefore, this peak noise will be very short-term, therefore, completing an additional assessment including the 10dB tonal correction was considered disproportionate.

2.15.13. As stated previously, there will be no change to TIA procedures, and therefore, no change to traffic patterns for commercial airlines.

2.15.14. There may be changes to traffic patterns for other airspace users avoiding the TRA. Due to the unpredictable nature of GA operations, it is not possible to provide operational diagrams supporting these changing traffic patterns. Having said that, Figure 4 shows the TRA area and therefore shows the area where traffic may be displaced from.

2.16. Habitats Regulations Assessment

2.16.1. CAP1616i [Ref 22] provides an early screening form to allow sponsors to assess the potential impact of their proposal on European Sites[19]. This section describes Prime Air's early screening form, and additional assessment.

2.16.2. **Question 1:** Are there any changes to air traffic patterns or number of movements expected below 3,000 feet due to the airspace change proposal?

- **Answer:** Yes. Prime Air aircraft will be additional to current traffic and will operate up to 400ft. Furthermore, some non-involved aircraft may choose to avoid the TRA, resulting in a change to their traffic patterns.

Outcome Question 1: By answering "yes" to Q1, Prime Air must progress to Q2.

[19] European Sites are Special Areas of Conservation (SAC) and possible SACs; Special Protection Areas (SPA) and potential SPAs; Ramsar sites (wetlands of international importance) and proposed Ramsar sites; and compensatory habitats.

2.16.3. **Question 2a:** Are there any European sites within a radius of 18km of each runway end?

- **Answer:** Yes. Teesmouth and Cleveland Coast Ramsar Site is within 18km of the take-off / landing site[20], see Figure **10**.

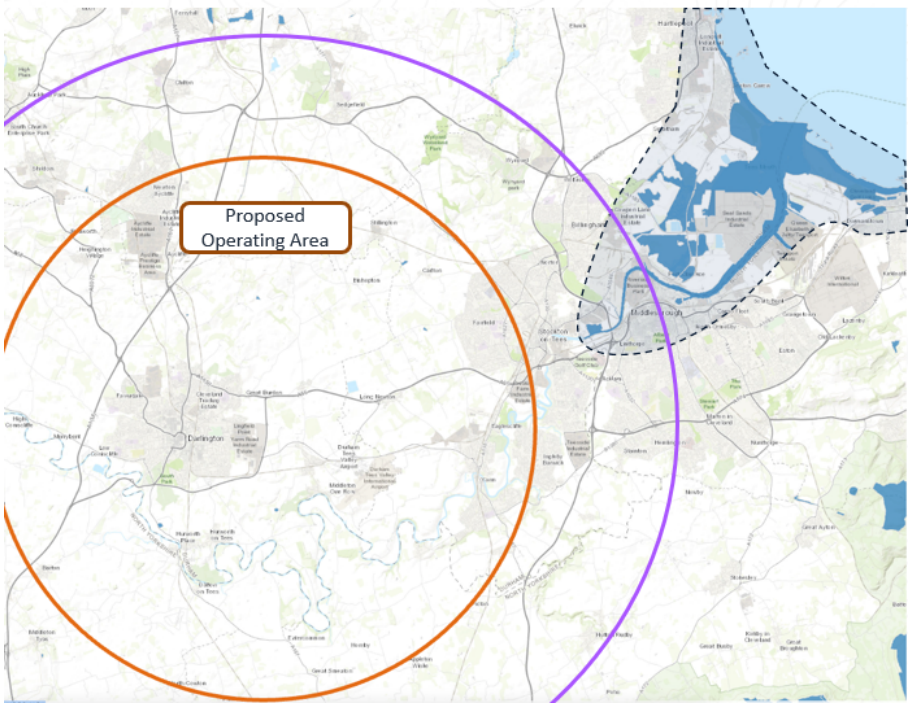

Figure 10 - Location of European site (dashed polygon), within 18km (purple circle) of Prime Air's landing / take-off site. The proposed operating area (12km) is shown in orange. Background map source: OpenStreetMap.

Question 2b: Are any European sites identified in Q2a overflown (i.e. plane passing directly overhead or within 2,655 feet of the boundary of a European site at 3,000 feet or below) by proposed flight routes?

- **Answer: No.** The European Site will not be directly overflown as the proposed operating area is 12km from the take-off / landing site and there are no European sites within the 12km radius. Furthermore, there will be no aircraft operating within 2,655ft (horizontally), as per Figure 11.

20 Drones do not require a runway, therefore, 18km of the take-off / landing site has been assessed is replacement of "each runway end".

Figure 11 - Horizontal distance from proposed operating area (orange ring) and European site (pale blue box). 18km radius shown by purple ring. Background map: Google Earth.

Outcome Question 2: By answering "yes" to either Q2a or Q2b, Prime Air must progress to Q3.

2.16.4. **Question 3a:** Will the airspace change proposal reduce the number of movements overflying one or more European sites, while not increasing them over another?

- **Answer:** No. There will be no change to overflight of European Sites as a result of operations within this ACP. It is unknown where other aircraft may operate, if they are avoiding the proposed TRA, and if more aircraft may operate over the European Site.

Question 3b: Will the airspace change proposal increase the altitude of aircraft overflying one or more European sites, whilst not decreasing altitude over another?

- **Answer:** No. There will be no change to overflight of European Sites as a result of aircraft within this proposed airspace change. It is unknown where other aircraft may operate, if they are avoiding the proposed TRA, and if more aircraft may operate over the European Site.

Outcome Question 3: By answering "no" to either Q3a or Q3b, additional screening is required.

2.16.5. In response to the output from the early screening form, Prime Air has assessed the likely impacts on the Teesmouth and Cleveland Coast Ramsar. No European sites will be directly overflown or flown past within 2,655ft (horizontally), making the impact from the drone operation to be low. Furthermore, as per Figure 8 9, the drone's noise drops to under 35dB within a few hundred meters (~1,000ft). As the site is almost 9,000ft from the operating area, any drone will, therefore, be undetectable from the European site. Overall, Prime Air has assessed the drone operation from this airspace proposal as having no impact on the site.

2.16.6. It should be noted that some GA aircraft may operate over the European site as to avoid the TRA. As per section 2.5 Description of the Current-Day Scenario, the number of GA aircraft who could be directly impacted by the TRA is very few and of those aircraft some may fly over the European site. Therefore, Prime Air has deemed this impact to be negligible, and any further assessment of this impact would be disproportionate.

2.16.7. Natural England were engaged during the stakeholder engagement period and no response was provided.

2.16.8. In addition to the above HRA assessment, Prime Air have completed an ecology assessment [Ref 23], for the development of a drone take-off / landing site at MME1. It determines that drone overflights should have no adverse noise or visual effects on local wildlife or nature sites (the closest being 505m from MME1). However, drone operations could have a minor adverse effect upon birds utilising habitat within 400m of the site, although the impact is considered "non-significant". Furthermore, there will be no significant effects upon other ecological features.

2.16.9. The National Farmers Union (NFU) were engaged and raised concerns regarding drone disturbance to livestock (see Table 15). However, it would be reasonable to assume the impact on livestock to be similar to the wildlife assessed in the ecology report, and therefore "non-significant".

2.16.10. Based on the HRA and ecological assessment, Prime Air believe there is negligible ecological impacts resulting from this operation.

2.17. List of Supplementary Documents

2.17.1. The following documents have been provided directly to the CAA and are not being published for commercial or GDPR reasons:

- Draft LOAs / TOIs
- Engagement evidence pack
- HazID
- SORA

3. Summary

3.1. Summary

3.1.1. This document aims to provide the evidence to satisfy the Stage 4 Submit Gateway, for a temporary airspace change as per CAP1616g (Ref 2).

3.1.2. Prime Air undertook a six-week engagement activity relating to this ACP. Responses were received from 37 stakeholders. As a result, three changes were made to the proposed design, and six operating procedures were agreed in line with stakeholder feedback.

3.1.3. The final design can be found in Figure 4 and described in Table 7. The operating procedures can be found in Table 8.

3.1.4. Presuming approval, the operation will take place from December 2025 to June 2026.

4. Appendix: Stakeholder List

4.1. Targeted Stakeholders

4.1.1. Table 12 lists the 49 stakeholders identified by Prime Air prior to engagement; why they have been included; how they have been mapped; and if they provided a response to the stakeholder engagement.

Table 12 - Stakeholders

Stakeholder	Rationale for Inclusion	Stakeholder Mapping	Response Received
Aeroschool	Local airspace user	Key	No
Airfield Operators Group (AOG)	NATMAC member	Interested	No
AJE Drone Services	Local airspace user	Impacted	No
Aircraft Owners and Pilots Association (AOPA)	NATMAC member	Interested	Yes
Air Traffic Control Services (ATCS) Ltd	Neighbouring air navigation service provider	Key	Yes
ARPAS-UK	NATMAC member	Interested	Yes
Bristow Search and Rescue	Local airspace user	Impacted	Yes
British Balloon and Airship Club (BBAC)	NATMAC member	Interested	Yes
British Business and General Aviation Association (BBGA)	NATMAC member	Interested	No
British Gliding Association (BGA)	NATMAC member	Interested	No
British Hang Gliding and Paragliding Association (BHPA)	NATMAC member	Interested	No
British Helicopter Association (BHA)	NATMAC member	Interested	Yes
British Microlight Aircraft Association (BMAA)	NATMAC member	Interested	No
British Skydiving	NATMAC member	Interested	No
Cleveland fire service	Local emergency services	Interested	No
Croft Airstrip	Local airspace user	Impacted	No
Darlington Model Flying Club	Local airspace user	Impacted	Yes
Draken Europe[21]	Local airspace user	Key	Yes
Drone Cam solutions	Local airspace user	Impacted	No
Drone Major	NATMAC member	Interested	No

[21] Draken Europe provided two responses to the Smartsheet and an email exchange; these have been grouped into one response.

Stakeholder	Rationale for Inclusion	Stakeholder Mapping	Response Received
Durham fire service	Local emergency services	Interested	No
Durham Microlights Ltd	Local airspace user	Impacted	No
Element Photography	Local airspace user	Impacted	No
Elstob Private Airstrip	Local airspace user	Impacted	No
Fishburn Airfield[22]	Local airspace user	Impacted	Yes
General Aviation (GA) Alliance	NATMAC member	Interested	Yes
Gimbalair	Local airspace user	Impacted	Yes
Great North Air Ambulance Service (GNAAS)	Local airspace user	Key	Yes
Helicopter Club of Great Britain	NATMAC member	Interested	No
Helidragon	Local airspace user	Impacted	No
International Air Ambulance Service (IAS) Medical	Local airspace user	Key	No
Joint Rescue Coordination Centre (JRCC)	Local emergency services	Interested	No
Light Aircraft Association (LAA)	NATMAC member	Interested	No
Ministry of Defence (MOD)[23]	NATMAC member Local airspace user	Key	Yes
National Grid	Local airspace user	Impacted	Yes
NATS	NATMAC member	Interested	Yes
Natural England	Responsible for European sites within proximity to MME1	Interested	No
Newcastle Airport	Local air navigation service provider	Interested	No
National Police Air Service (NPAS)	Local airspace user	Impacted	Yes
Peterlee Airfield	Local airspace user	Impacted	No
PPL/IR (Europe)	NATMAC member	Interested	No
Spite Hall Farm	Local airspace user	Impacted	No
Teesside International (TIA)	Neighbouring airport	Key	Yes
Teesside Model Flying Club[24]	Local airspace user	Impacted	Yes
Thales Aviation	Local airspace user	Interested	No

[22] Fishburn airfield provided a response to the Smartsheet and an email exchange; these have been grouped into one response.
[23] As per the NATMAC list, DAATM were the initial contact for the MOD and included on the stakeholder engagement emails. F-35B Lightning - Royal Air Force/Royal Navy provided a response to the Smartsheet and DAATM provided a response via an email exchange; these have been grouped into one response as "MOD".
[24] Six stakeholders responded to question "Are you representing an organisation / aviation operator?" to say they were representing Teesside Model Flying Club; these have been grouped into one response. Other respondents referenced model flying or membership of Teesside Model Flying Club but did not state they were representing the organisation; therefore, these responses have been treated as individual responses.

Stakeholder	Rationale for Inclusion	Stakeholder Mapping	Response Received
The Sky Cam	Local airspace user	Impacted	No
UK Airprox Board (UKAB)	NATMAC member	Interested	No
UK Flight Safety Committee (UKFSC)	NATMAC member	Interested	No
Yearby Airstrip	Local airspace user	Impacted	No

4.2. Additional Stakeholders

4.2.1. Stakeholders identified during the engagement period are noted in Table 13.

4.2.2. To protect the identity of respondents, those replying as part of an organisation have been listed by their organisations' name. Those responding on behalf of themselves, have been abbreviated to their initials.

Table 13 - Stakeholders added during engagement

Stakeholder's Name / Organisation	**Identified By** **Rationale for inclusion if suggested by another stakeholder**
A G	Themselves
A R	Themselves
A S	Themselves
C W	Themselves
D A	Themselves
D O	Themselves
Eastern Airways	Themselves
H M	Themselves
J C-H	Themselves
J H	Themselves
M C	Themselves
M P	Themselves
N B	Themselves
National Farmers Union (NFU)	Fishburn airfield Natural England were included due to potential impacts on the European Site. On consideration, engaging with National Farmers Union, would allow a similar representation for the farms being overflown.
N O	Themselves
P T[25]	Themselves
R W	Themselves
Virgin Balloon Flights	Themselves
Wright Flight	Themselves

[25] P T provided a response to the Smartsheet and an email exchange; these have been grouped into one response.

5. Appendix: Ad Hoc Engagement Activities

5.1. Introduction

5.1.1. For transparency, all ad hoc engagement activities starting prior to ACP launch and until submission of this document, are listed below.

Table 14 - Ad hoc engagement activities

Date	Attendees	Topic for Discussion	Format
August 2023 – ongoing	ATCS Ltd[26]; TIA; Prime Air	Strategic coordination to align airspace design, affected stakeholders, procedures, hazard identification, roles and responsibilities. TRA dimension moved from 1nm to 1.5nm from the extended centreline to minimise impact on TIA's commercial operation.	Online and in person meetings.
23/01/2025	Aeroschool; Draken Europe; GNAAS; NPAS; Prime Air	Initial information about the sandbox, planned operation and starting the ACP process.	Email
30/01/2025	NPAS; Prime Air	Initial overview of intended operations and process being followed.	Online meeting
05/02/2025	Darlington community (200+ attendees); Prime Air	Parallel community engagement activities in relation to the local planning approvals.	In person drop-in session at Darlington Dolphin Centre.
06/02/2025	ATCS Ltd; TIA; NATS[27]; Prime Air	Discussion around safety / HazID assessment, operational procedures, separation minima.	In person meeting at TIA.
06/02/2025	GNAAS; NATS; Prime Air	Initial discussion on the ACP process and procedures when TRA will be active.	In person meeting at GNAAS.

[26] ATCS Ltd provide the air traffic control function for TIA.
[27] NATS Services Ltd have been hired as a consultant to support the Prime Air ACP process and should be considered as part of the Prime Air team.

Date	Attendees	Topic for Discussion	Format
11/04/2025	Yearby Airstrip; Prime Air	High level overview of the Prime Air operation. Agreed to review material but overall, very positive. Disappointed to be outside of Prime Air's operating area.	Phone call
14/04/2025	Gimbalair; Prime Air	High level overview of the Prime Air operation and anticipated impact on VLOS drone operators. Overall, very positive.	Phone call
08/05/2025 09/05/2025	TIA; ATCS Ltd; NATS; Prime Air	Session to align TRA management and entry procedures.	In person meeting at TIA.
23/05/2025	BHPA; Prime Air	High level overview of the Prime Air operation. General alignment on BHPA position regarding use of electron conspicuity.	Phone call
03/06/2025	Croft Airstrip; Prime Air	High level overview of the Prime Air operation.	Phone call
03/06/2025	Teesside Model Flying Club; Prime Air	High level overview of the Prime Air operation.	Phone call
04/06/2025	Durham Microlights Ltd; Prime Air	High level overview of the Prime Air operation. Positive response. Disappointed to be outside of Prime Air's operating area.	Phone call
04/06/2025	Spite Hall Farm; Prime Air	High level overview of the Prime Air operation. Additional images provided via email.	Phone call
26/06/2025	GA Alliance; NATS; Prime Air	High level overview of the Prime Air operation. Questions regarding electronic conspicuity, access procedures, and specific dimensions around the TRA.	Online meeting
04/07/2025	ARPAS-UK; NATS; Prime Air	High level overview of the Prime Air operation. General questions regarding electronic conspicuity, access procedures, and specific dimensions of TRA. Action to develop informative material between PA/ARPAS regarding TRA to distribute in Flyer magazine or similar.	Online meeting

Date	Attendees	Topic for Discussion	Format
07/07/2025	DAATM; NATS; Prime Air	High level overview of the Prime Air operation. Generally, DAATM was not very concerned. Outstanding question regarding what type of ADSB-Out the PA drone will be equipped with.	Online meeting
07/07/2025	Bristow Search and Rescue; Prime Air	High level overview of the Prime Air operation. Suggested Prime Air reach out to Joint Rescue Coordination Centre (JRCC). Prime Air emailed JRCC following this conversation.	Online meeting
08/07/2025	Croft Airstrip; Prime Air	Details shared of airstrip activity. Currently 'disused' but annual airshow and fly-ins during race day. Croft removed from operating area via No Fly Zone.	In person meeting at Croft Airstrip.
08/07/2025	Fishburn Airfield; Prime Air	High level overview of the Prime Air operation. General questions about access procedures, business case, etc. Action on PA to return to Fishburn with TIA once procedures are agreed in an LOA to provide specifics.	In person meeting at Fishburn Airfield.
08/07/2025	Teesside Model Flying Club; Prime Air	High level overview of the Prime Air operation. Club were concerned about the Prime Air impacts to their operations. Once Prime Air indicated there will be a No Fly Zone around the club's operating area, the members were more amenable.	In person meeting at Teesside Model Flying Club.
09/07/2025	Aeroschool; Prime Air	Introduction from Prime Air and request to speak to someone. Aeroschool were busy and unable to meet / discuss.	In person meeting at Aeroschool.
09/07/2025	Draken Europe; TIA; Prime Air	High level overview of the Prime Air operation. Draken Europe expressed concern regarding the impacts to instrument flight procedures (IFPs). An action was taken to have a consultant perform an official assessment, although expecting minimal impacts. See Safety for outcomes of this assessment.	In person meeting at Draken Europe.

Date	Attendees	Topic for Discussion	Format
10/07/2025	Light Aircraft Association; NATS; Prime Air	High level overview of the Prime Air operation. General questions about electronic conspicuity requirements, access procedures, radio requirement procedures, and whether FLARM is used (it is not).	Online meeting
25/07/2025 31/07/2025	ATCS Ltd; NATS; Prime Air	Complete HazID activity	In person meeting at TIA.
29/07/2025	National Farmers Union; Prime Air	High level overview of the Prime Air operation and identification of the Prime Air drone.	Online meeting

6. Appendix: Engagement Responses

6.1.1. Stakeholder feedback has been summarised in Table 15Table 15, based on high-level themes. Items have been listed alphabetically, and their order does not reflect any weighting or prioritisation.

Table 15 - Summary of stakeholder feedback

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Access - Airspace Design / Operation Procedures				
Concern about the approach minima to the runways	Draken Europe	Yes	Prime Air and TIA ATC have reviewed the approach procedures. A consultant has also been engaged to do an official review of all procedures and outline what impacts the TRA may have. This identified no impact on IFPs and very minimal impact overall.	No
Concerns about how HEMs activities will be coordinated and short notice access for HEMS / other airspace users	AOPA; Bristow Search and Rescue Humberside; C W; GNAAS; J C-H; MOD; National Grid	Yes	An LOA will be in place with the GNAAS, flights will be coordinated via TIA ATC. Otherwise, emergency response, critical infrastructure, or national security flights will be granted priority based on existing procedures between TIA ATC and Prime Air but will not require a specific LOA. Other airspace users, wishing to enter the TRA at short notice should contact TIA ATC and any emergency / critical situation should be made known to them.	No

Theme **“You said”**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **“We did”**	**Design / procedure change**
If the trial impacts model flying, then the stakeholder will inconvenience Amazon within the boundaries of UK law	H M	Yes	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2). It is unfortunate that “inconveniencing Amazon" is being considered. To prevent impact on model flying, a No Fly Zone has been placed around Teesside Model Flying Club's operating area. There are no additional restrictions within the TRA for model aircraft operating VLOS.	Yes
No provision for "no fly zones" for airfields / airstrips in the area	M C	Yes	As noted in the engagement (Ref 18), Prime Air had always planned to include No Fly Zones as appropriate Post-engagement two were added for Croft airstrip and Teesside Model Flying Club. TIA have confirmed no other airstrip would require a No Fly Zone.	Yes
Prime Air operating a drone inside TIA's control zone breaks an agreement Teesside Model Flying Club made with TIA to not operate in that area.	Teesside Model Flying Club	No	Teesside Model Flying Club's agreements with TIA is outside the scope of this ACP.	N/A
Procedures must not impact crew / pilot workload	GNAAS	Yes	LOA will be in place with GNAAS. Other emergency service operations will be coordinated as normal via TIA, who have a LOA with Prime Air regarding such procedures.	No

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Propose TRA no further south than N54 30.300 and no further east than E001 24	Draken Europe	Yes	TRA will be further north than N54 30.300. TRA will be further east than E001.24. This allows Prime Air to operate a full 12km from MME1. Removing the easterly airspace would significantly reduce the potential operation area for Prime Air and reduce the potential benefits of this operation. Airspace users who meet the entry requirements and follow the entry procedures can continue to operate within the area. Upon further engagement with Draken Europe (see Table 15) they confirmed the intent behind this comment was to mitigate any impact to TIA's IFPs. A consultant has also been engaged to do an official review of all procedures and outline what impacts the TRA may have. This identified no impact on IFPs and very minimal impact overall.	No
Request an LOA	GNAAS	No	LOA will be in place with GNAAS. Other emergency service operations will be coordinated as normal via TIA, who have a LOA with Prime Air regarding such procedures.	N/A
Should not be able to impact model flying VLOS	A G	Yes	A No Fly Zone has been placed around Teesside Model Flying Club's operating area. There are no additional restrictions within the TRA for model aircraft operating VLOS.	Yes
Suggested lower TRA ceiling (400 or 300ft AMSL) / comments on proposed height being excessive	D A; Fishburn Airfield; N B; N O; M C	Yes	Two operating heights (an outbound and inbound route) plus a safety buffer is required. Reducing the safety buffer would impact the SORA and cause unnecessary safety risk.	No

Theme **“You said”**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **“We did”**	**Design / procedure change**
TRA is too big	M C	Yes	Ideally, Prime Air would operate a full 12km radius from MME1. However, understanding that this would impact TIA's operation, a portion was excluded. Two No Fly Zones have been introduced to accommodate Croft airstrip and Teesside Model Flying Club. Therefore, Prime Air's operating area is already smaller than its maximum potential (a full 12km circle from MME1). Reducing the operating area any further would reduce the potential benefits of this operation.	Yes
TRA isn't a problem, but not well thought through	M C	No	Prime Air are pleased the stakeholder supports a TRA in general. The dimensions / operations of which have been thought out and, where appropriate, updated post-engagement.	N/A
Query regarding the TRA activation when TIA closes their airspace	Fishburn Airfield N O	Yes	The TRA will be deactivated when TIA is closed due to staffing; such closures will be indicated via NOTAM from TIA.	Yes
TRA will become a "no-go" area for aircraft	M C	Yes	Prime Air understands the TRA may have a short-term impact on some airspace users. However, those who meet the entry requirements and follow the entry procedures can continue to operate within the area.	No
Will operate in the area when weather is poor, or they are needing to land. Will need to deconflict operations from drone.	NPAS	Yes	LOA will be in place with GNAAS. Other emergency service operations will be coordinated as normal via TIA, who have a LOA with Prime Air regarding such procedures. Emergency services, on critical missions, will always be prioritised over the Prime Air drone.	No

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Wish specific routes / heights to be published to allow other airspace users to plan their routes accordingly	Gimbalair	Yes	Specific flight paths and specific times cannot be given for an on-demand drone delivery service. The flight paths radiate outwards from the launch location and route to avoid No Fly Zones. Drones will operate outbound at 200ft AGL, and inbound at 400ft AGL. 300ft AGL will be used for contingency if required.	No
Would prevent circuits to the north of the airfield	Draken Europe	Yes	MME1 is located NE of TIA's runway. Therefore, removing the airspace due north of TIA would significantly reduce the potential operation area for Prime Air and reduce the potential benefits of this operation. Airspace users who meet the entry requirements and follow the entry procedures can continue to operate within the area. A consultant has also been engaged to do an official review of all procedures and outline what impacts the TRA may have. This identified no impact on IFPs and very minimal impact overall.	No
Access - Equipage / Approval Process				
ADS-B will allow NPAS to detect the drone	NPAS	No	Thank you for this information.	N/A
Already have to contact TIA if operating a model above 7kg	Teesside Model Flying Club	No	Thank you for this information.	N/A
Concerns regarding phoning for access whilst flying	C W	No	Other airspace users have been asked to contact TIA ATC (by radio) with as much notice as possible, this could be prior to departure if concerned about doing so whilst flying.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Contacting ATC adds burden to the system	Fishburn Airfield	Yes	Prior approval via TIA ATC is a safety mitigation feature. Radio contact is a requirement of entering the TRA / TMZ allowing TIA ATC to remain in contact with all airspace users. Removing these requirements would impact the SORA and cause unnecessary safety risk. Prime Air understand this adds workload to pilots and ATC; however, TIA ATC are aware of the implications on them and have agreed the entry requirements with Prime Air.	No
Do not carry ADS-B / ADS-B Out	A R; BBAC; P T; Virgin Balloon Flights	Yes	ADS-B Out is a requirement of entering the TRA / TMZ. Removing this would impact the SORA and cause unnecessary safety risk. It is the pilot's responsibility to either meet the entry requirements / procedures or avoid the airspace.	No
For non-ADS-B balloons / airships Amazon should provide ADS-B devices for operators to use during the trial	BBAC; Virgin Balloon Flights	No	Prime Air understand that some airspace users will either have to invest in ADS-B Out technology (to meet the entry requirements) or avoid the airspace. However, regarding loaning this equipment to balloons / airships this would be unfair on other users. Therefore, Prime Air would have to provide this equipment to all airspace users which a) is not a policy requirement and b) would cause unreasonable financial implications to the project.	N/A
Need contact method for short notice access	National Grid	Yes	Contact details will be published within the NOTAMs.	No

Theme “You said”	Stakeholder(s)	Potential to impact the design / procedures	Rationale “We did”	Design / procedure change
Need more information about access for other drones	ARPAS-UK	No	Under SERA.6005(b) (Ref 24) and subject to compliance with CAA requirements for drone operation in the intended category of operation, drone operators planning to conduct VLOS operations within the proposed TRA may continue to do so without complying with the transponder requirements of the TMZ. All other drones will be considered as “other airspace users” and will need to meet the entry requirements / procedures or avoid the airspace.	N/A
Negative sentiment towards having to get prior approval to enter TRA	AOPA; C W; M C; Teesside Model Flying Club;	Yes	Prior approval via TIA ATC is a safety mitigation feature. Removing this would impact the SORA and cause unnecessary safety risk. Prime Air understand this adds workload to pilots, but can be completed prior to departure, therefore, not increasing workload during flight.	No
NPAS crew have access to radio and telephone in the helicopters	NPAS	No	Thank you for this information.	N/A
Other electronic conspicuity (eg. FLARM / SkyEcho / ADS-B) should be sufficient	C W; Fishburn Airfield; M C; N O	Yes	ADS-B Out is a requirement of entering the TRA / TMZ. Removing this would impact the SORA and cause unnecessary safety risk. Additionally, prior approval via TIA ATC is a safety mitigation feature. Radio contact is a requirement of entering the TRA / TMZ allowing TIA ATC to remain in contact with all airspace users.	No

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Pilots were exasperated when PA stated that as far as they were concerned the TRA could have a soft boundary, since that is not how the CAA 'polices' airspace	Fishburn Airfield	Yes	Fishburn Airfield included the phrase "soft boundaries" within their additions to the meeting minutes. Prime Air are unclear where this phrase came from. The use of "soft boundaries" is inaccurate. This has since been corrected with Fishburn Airfield and both parties are aligned that the boundaries are set and the TRA entry requirements mandatory.	No
Potential denied access contradicts principle of open access in Class G airspace	AOPA	Yes	The mixture of both Class G and Class D airspace increases provides an opportunity to assess the potential implications for drone regulatory rulesets, helping to maximise benefits / learning. At the time of writing, drones cannot operate BVLOS within unrestricted airspace. Therefore, a TRA is required for these operations. Airspace users who do not meet the entry requirements will be denied access for safety reasons. Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2).	No

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Procedures for equipped aircraft to enter TRA needs to be clarified	Fishburn Airfield; MOD	No	Pilots should contact TIA ATC, by radio, with as much notice as possible. There is a possibility that requests to enter the TRA may be denied. If approval is granted, prior to entering the TRA users must meet the entry requirements (ADS-B Out, radio contact with TIA ATC). Contact information will be published in the NOTAM at least 24-hours before the TRA activation. Prime Air will be providing stakeholder information sessions with selected aviation stakeholders to make sure they are aware of the access procedures.	N/A
Radio / communications are poor in the vicinity or not used on the airfield	AOPA; M P; Teesside Model Flying Club	Yes	Prime Air understand that communications may be poor at the airfield(s) depending on range and coverage. Radio contact with TIA ATC is an important component of the risk mitigation approach allowing TIA ATC to remain in contact with all airspace users during use of the TRA. Removing this would impact the risk assessment, reducing the safety of the TRA	No
Radio should not be a requirement	N B; N O	Yes	Radio contact with TIA ATC is an important component of the risk mitigation approach allowing TIA ATC to remain in contact with all airspace users during use of the TRA. Removing this would impact the risk assessment, reducing the safety of the TRA.	No
Suggest 2-hours' notice to enter, rather than 12-hours	Fishburn Airfield	Yes	Noted. The requirements for notice periods have been altered to more practical means, requesting pilots make contact TIA ATC, by radio, with as much notice as possible.	Yes

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Support Prime Air operations stopping to allow HEMS activities	AOPA	No	Noted. Thank you.	N/A
Traffic flying the Leeming - Teesside gap already have to contact Leeming Zone, contacting Teesside as well, increases workload	MOD	Yes	Prime Air understands the TRA may have a short-term impact on some airspace users and apologise for this slight increase in workload.	No
What is the problem with gliders entering the TRA?	M C	No	There is no issue with gliders (or any other airspace user) entering the TRA, assuming they meet the entry requirements and following the stated procedures.	N/A
Why is 12-hours' notice required?	M C	Yes	The requirements for notice periods have been altered to more practical means, requesting pilots make contact TIA ATC, by radio, with as much notice as possible.	Yes
Will ADSB-out be on 1090 MHz or Ofcom's new 978 approval?	MOD	Yes	ADS-B will be on 1090 MHz. This has been agreed with the DAATM to minimise the impact on their operation.	Yes
Would suggest a designated radio frequency for immediate contact	AOPA	Yes	Radio contact with TIA ATC is an important component of the risk mitigation approach allowing TIA ATC to remain in contact with all airspace users during use of the TRA. Immediate contact with TIA ATC will remain possible via the published TIA ATC frequency.	No
Business Purpose				
Cannot take over, just because you're Amazon	Teesside Model Flying Club	No	The commercial decision for Prime Air to operate in / around Darlington is out of scope of this ACP. Prime Air is following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2) and believe in the principle of shared equitable access airspace.	N/A
Do not use drones to deliver parcels	A S	No	Out of scope of this ACP.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
No confidence in cost benefit analysis	A S	No	The commercial decision for Prime Air to operate in / around Darlington is out of scope of this ACP.	N/A
Prime Air drone delivery services nationwide will have to be considered very carefully with respect to integration	MOD	No	Out of scope of this ACP.	N/A
Question regarding the business case for the Prime Air operation in Darlington	Fishburn Airfield	No	The commercial decision for Prime Air to operate in / around Darlington is out of scope of this ACP.	N/A
Suggested alternative Amazon site	J C-H	No	As per subsection 1.2, this location maximises the potential benefits and learnings in support of CAP2616 (Ref 4).	N/A
Design of Airspace				
300ft buffer (within the TRA) is too much	Fishburn Airfield	Yes	The TRA did not include a planned 300ft buffer. The engagement proposed a TRA ceiling of 700ft AMSL to encompass Prime Air flight profiles while limiting the volume of airspace used. As per Figure 5, there are two indicative operating routes as part of the drone flight profile, these are vertically separated. The higher (inbound) route is at heights up to 400ft AGL (which will be over 600ft AMSL in some locations of the TRA). Therefore, 700ft AMSL allows a margin between the drone and the TRA ceiling.	No
Collating track history of visual circuits to determine whether they conflict with the proposed design or not. Will provide when available.	Draken Europe	Yes	Thank you for this information, Prime Air look forward to receiving the output. At the time of writing, no further information has been provided.	

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Concerns around proximity to TIA	J C-H	Yes	The TRA design has taken proximity to TIA and establish traffic patterns into consideration. The TRA boundaries are positioned to avoid areas which would impact arrivals / departures into TIA accordance with SARG Policy 133 (Ref 16)/ ICAO PANS Ops (Ref 15).	
Concerns around use of Class D airspace	J C-H	Yes	TIA ATC can provide support to the ACP by managing access requests and providing traffic information through the Class D airspace. The TRA design has taken the TIA operation into careful consideration and has been placed to avoid areas which would impact arrivals / departures into TIA in accordance with SARG Policy 133 (Ref 16)/ ICAO PANS Ops (Ref 15).	
Design could cause funnelling (vertical and lateral) and through Leeming - Teesside gap	MOD	Yes	Prime Air have reviewed the 700ft TRA ceiling and believe that sufficient margin exist for operators to overfly the TRA limiting the need to funnel through the Leeming – Teesside gap. In addition, entry into the TRA may still possible subject to meeting the entry requirements, also limiting the risk of funnelling.	No
Don't alter the airspace and fly within the existing airspace	J H	Yes	New airspace users (including drones) will be integrated into UK airspace as part of the Airspace Modernisation Strategy (AMS, Ref 7). These operations (and TRA) are being implemented as part of the AMS and support the integration of such users.	No

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Examples of airspaces being established AGL (not AMSL) in France	Fishburn Airfield	Yes	Defining the TRA based on AGL would result in an obscure TRA ceiling (considering ground height). In the UK, special use airspace (SUA) is defined in AMSL, so Prime Air are following standard procedures.	No
Hot air balloons operate up to 3,000ft	Virgin Balloon Flights	Yes	Thank you for this information. The TRA is up to 700ft, therefore higher balloon flights should not be impacted by the proposed TRA. Those at lower levels (under 700ft) will need to either meet the TRA entry requirements and procedures or avoid the airspace.	No
Interfering with Class G airspace is unacceptable	A S	Yes	These operations (and TRA) are being implemented as part of the Airspace Modernisation Strategy (AMS, Ref 7) and support the integration of new airspace users. The mixture of both Class G and Class D airspace provides an opportunity to maximise the benefits / learnings in support of the AMS objectives. Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2).	No
Mostly operate above the TRA	J C-H	No	Thank you for this information.	N/A
Operate in the area on good weather days	Teesside Model Flying Club	Yes	A Prime Air No Fly Zone will be placed around Teesside Model Flying Club operating area ensuring no Prime Air drones will impact the TMFC operation.	Yes
Operate Monday to Friday 0830 - 1630 plus flexibly to resolve faults	National Grid	Yes	Thank you for this information. Critical infrastructure flights will be prioritised over the Prime Air operation (see Table 8).	

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Operate up to 300ft AGL	National Grid	Yes	Thank you for this information. Critical infrastructure flights will be prioritised over the Prime Air operation (see Table 8).	
Operate when weather permits between 0 - 400ft	Teesside Model Flying Club	Yes	A Prime Air No Fly Zone will be placed around Teesside Model Flying Club operating area ensuring no Prime Air drones will impact the TMFC operation.	Yes
Proximity of Sutton Bank gliding site means they will have to land within the TRA	Fishburn Airfield	Yes	TIA have confirmed no other airstrip would require a No Fly Zone.	No
Routinely operate at high-speed and low-level	MOD	Yes	Prime Air are aware that the MOD / fast jets operate in the vicinity of the TRA. Pilots wishing to enter the TRA should contact TIA ATC, by radio, with as much notice as possible. There is a possibility that requests to enter the TRA may be denied. If approval is granted, prior to entering the TRA pilots must meet the entry requirements (ADS-B Out, radio contact with TIA ATC).	No
Segregates airspace above 500ft, where other users are entitled to fly	R W	Yes	The TRA design is not believed to segregate airspace above 500ft. The TRA ceiling of 700ft AMSL was selected to encompass Prime Air flight profiles while limiting the volume of airspace used and impact to other airspace users.	No

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Single TRA volume means airspace could be restricted whilst not being used by Prime Air activity on that day	DAATM	Yes	Given the nature of on-demand drone delivery services, the volume of airspace proposed allows the Prime Air concept of operations to be exercised. As delivery locations will only be known with limited notice, it would be impractical to segment and activate smaller portions of airspace in this manner. This would increase workload and risk safety. In the event of extended operational pauses, Prime Air will deactivate the TRA via NOTAM.	No
Suggest site / airstrip / airfield has a No Fly Zone and avoided by Prime Air. Suggestions include 1nm, 2nm and 3nm clear zone	D O; Fishburn Airfield; N B; Teesside Model Flying Club	Yes	A No Fly Zone will be created 2.5nm from the runway end and 1nm off the centreline of Croft airstrip's runway[28]. A No Fly Zone will also be placed around Teesside Model Flying Club operating area. TIA have confirmed no other airstrip would require a No Fly Zone.	Yes
TRA cannot exist in Class D airspace	Newcastle International Airport Ltd	Yes	As per SARG Policy 133 (Ref 16), a "TRA can be used within and outside of CAS...".	No

[28] These dimensions were proposed by Prime Air as they know these work for the US operations.

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Traffic may stay higher (to provide sufficient clearance from TRA) which may push them from VFR to IFR and increase ATC workload	MOD	Yes	The TRA ceiling of 700ft AMSL was selected to encompass Prime Air flight profiles while limiting the volume of airspace used and impact to other airspace users. Prime Air understands the proposed TRA may have a short-term impact on some airspace users. However, those who meet the entry requirements and follow the entry procedures can continue to operate within the area. In addition, entry into the TRA may still possible subject to meeting the entry requirements. It should be noted that there is a possibility that requests to enter the TRA may be denied.	No
UK military low flying is not restricted to specific routes or ranges	MOD	Yes	Prime Air are aware that the MOD / fast jets operate in the vicinity of the TRA. Pilots wishing to enter the TRA should contact TIA ATC, by radio, with as much notice as possible. There is a possibility that requests to enter the TRA may be denied. If approval is granted, prior to entering the TRA pilots must meet the entry requirements (ADS-B Out, radio contact with TIA ATC).	No

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Will impact existing aviation in the area / stakeholders' operation	AOPA; BBAC; D A; D O; H M; J H; M C; National Grid; P T; Teesside Model Flying Club	Yes	The TRA has been designed to encompass Prime Air flight profiles while limiting the volume of airspace used and potential impact to other airspace users. Rulesets have been developed to ensure priority traffic may continue their operations without undue impact. Prime Air understands these operations may have a short-term impact for some airspace users. Entry into the TRA may still possible subject to meeting the entry requirements, although it should be noted that there is a possibility that requests to enter the TRA may be denied.	Yes
Engagement				
Request ongoing stakeholder engagement for trial period	AOPA	No	As per CAP1616g (Ref 2), Prime Air will continue to engage with stakeholders throughout the operations.	N/A
Requested a meeting / additional engagement or information	BBAC; D O; Eastern Airways GNAAS; J H; NFU; P T; Teesside Model Flying Club;	No	Additional meetings / engagement was held with stakeholders as necessary.	N/A
Thank Prime Air for their engagement	AOPA; GA Alliance; Great North Air Ambulance Service; MOD	No	Prime Air is extremely grateful for the highly constructive and informative engagement.	N/A
Miscellaneous				

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Consider avoid flying over livestock fields or landing nearby	NFU	Yes	Prime Air will continue to monitor any potential adverse impact to the local community throughout these operations. As shown in the noise impact assessment the highest noise profile is during take off and landing phases of flight conducted at the Amazon warehouse, in Darlington. Areas where livestock may be present would not ordinarily be used as delivery locations and would typically be transited during cruise portions of the flight profile. This is also where the noise footprint is negligible. Prime Air's ecological assessment (Ref 23) concludes the drone operation is likely to have a non-significant impact on wildlife; however, Prime Air remains open to engagement with the NFU during these operations.	
Cannot compare UK and US operations due to different geography	Fishburn Airfield	No	Whilst Prime Air understand there are differences in the operating environment between the US and UK operations the MK30 drone is design to integrate into national airspace structures, regardless of region.	N/A
Do not want to stop trials	D A	No	Your feedback is gratefully received.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Drone presence could disturb / distress livestock / wildlife	Fishburn Airfield; NFU; Wright Flight	Yes	Prime Air will continue to monitor any potential adverse impact to the local community throughout these operations. As shown in the noise impact assessment the highest noise profile is during takeoff and landing phases of flight conducted at the Amazon warehouse, in Darlington. Areas where livestock may be present would not ordinarily be used as delivery locations and would typically be transited during cruise portions of the flight profile. This is also where the noise footprint is negligible. Prime Air's ecological assessment (Ref 23) concludes the drone operation is likely to have a non-significant impact on wildlife.	No
Gliders aren't mentioned	M C	No	Gliders (and other forms of GA) may not have been specifically mentioned. However, they are included as other airspace users and have been engaged via NATMAC.	N/A
Historic usage data was based on ADS-B data and therefore does not include hot air balloon activities as they do not have ADS-B	BBAC; Virgin Balloon Flights	No	Prime Air understands the limits of ADS-B data. Therefore, quantitative data has also been gathered to create a more holistic understanding of the current airspace useage.	N/A
Hot air balloons / airships are slow moving and made from material (not metal)	BBAC	No	Noted. Thank you for this information.	N/A

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Hot air balloons are not traditionally steerable / require freedom of movement to exploit different winds and altitudes	BBAC; Virgin Balloon Flights	Yes	Prime Air are aware that hot air balloons may operate in the area although such instances are low. The TRA has been designed to encompass Prime Air flight profiles while limiting the volume of airspace used and potential impact to other airspace users. Rulesets have been developed to ensure priority traffic may continue their operations without undue impact. Prime Air understands these operations may have a short-term impact for some airspace users. Entry into the TRA may still possible subject to meeting the entry requirements, although it should be noted that there is a possibility that requests to enter the TRA may be denied.	No
Impact on operations is minimal / not significant with correct mitigations in place	Bristow Search and Rescue Humberside; BHA; Eastern Airways; Gimbalair; GNAAS; National Grid; MOD; NPAS	No	Noted. Your feedback is gratefully received.	N/A
Not opposed to new airspace users / drones	D A;	No	Your feedback is gratefully received.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Object / do not support[29]	M P; R W; Wright Flight	No	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2). Upon submission of this ACP, the CAA are responsible for deciding as to whether to allow (or not) this airspace change to be implemented as proposed.	N/A
Prime Air must find an alternative	H M	No	As per Table 10 alternative options were considered.	N/A
Response has been shared with senior CAA management	R W	No	Noted.	N/A
Seeking legal representation	Teesside Model Flying Club	No	Noted.	N/A
Should not be allowed	Teesside Model Flying Club	No	Prime Air are following the full regulatory process temporary airspace changes (CAP1616g, Ref 2). Upon submission of this ACP, the CAA are responsible for deciding as to whether to allow (or not) this airspace change to be implemented as proposed.	N/A
Understand potential benefits / positive sentiment towards drone services / trial	AOPA; ARPAS-UK; J C-H	No	Noted. Your feedback is gratefully received.	N/A
Wish to know the trial start / end dates	Eastern Airways	No	The plan proposes a six-month from December 2025 to June 2026.	N/A
Work closely with TIA	Teesside Model Flying Club	No	Under the CAP2616 (Ref 4) process, TIA are operating as the supporting ANSP for these operations. As such, TIA has been a close critical stakeholder for the development of the TRA design and will remain so throughout Prime Air operations.	N/A
Regulation				

[29] Stakeholders listed here specified within their written response that they object. In comparison to those who selected oppose from the drop-down answer to "In general, do you support, oppose or neither support/oppose the proposed TRA".

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Drones have caused extra cost and regulation for members	Teesside Model Flying Club	No	Noted. We are sorry to hear this is the case. Prime Air believes aviation should be available to everyone and many members of the Prime Air team are keen modellers / enthusiasts.	N/A
It appears that the CAA is pretty much rubber-stamping all the proposal proposed by "the industry", especially if the industry is Unmanned Flight	A R	No	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2) and are required to meet the very high safety bar for regulatory approvals.	N/A
Prime Air and CAA are knowingly endangering other aircraft and are committing an offence punishable by a prison sentence	R W	No	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2). Upon submission of this ACP, the CAA are responsible for deciding as to whether to allow (or not) this temporary airspace to be implemented as proposed.	N/A
Principles of BVLOS are already proven	Newcastle International Airport Ltd	No	At the time of writing, drones cannot operate BVLOS within unrestricted airspace and Prime Air welcome the opportunity to demonstrate its BVLOS capability as part of the CAP2616 (Ref 4) Sandbox. The integration of new airspace users (including drones) is part of the Airspace Modernisation Strategy (AMS, Ref 15) and these operations will support the integration of such users.	N/A
Regulatory change is required	Newcastle International Airport Ltd	No	Out of scope of this ACP.	N/A
Review criteria should be clear and open	AOPA	No	The aims and objectives can be found in section 2.4, the post-trial report will assess if the objective(s) have been achieved.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Should provide full details of what Prime Air are trying to achieve	GA Alliance	No	The aims and objectives can be found in section 2.4 of this document. Table 9 explains how the phases of the operation link to the trial objectives.	N/A
Support integration of drones in UK airspace / do not support segregation of drones	R W	No	At the time of writing, drones cannot operate BVLOS within unrestricted airspace and Prime Air welcome the opportunity to demonstrate its BVLOS capability as part of the CAP2616 (Ref 4) Sandbox. The integration of new airspace users (including drones) is part of the Airspace Modernisation Strategy (AMS, Ref 15) and these operations will support the integration of such users.	N/A
Trial breaches Air Navigation Order 2016, part 10, chapter 1, paragraph 240 by "recklessly or negligent acting in a manner that likely to endanger an aircraft, or any person in an aircraft."	R W	No	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2). Upon submission of this ACP, the CAA are responsible for deciding as to whether to allow (or not) this airspace change to be implemented as proposed.	N/A
Trial breaches paragraph 1 A of Section 2 of the Aviation Security Act 1982 as one or more valuable aircraft will be rendered incapable of flight or its safety in flight endangered as a result	R W	No	Prime Air are following the full regulatory process for temporary airspace changes (CAP1616g, Ref 2). Upon submission of this ACP, the CAA are responsible for deciding as to whether to allow (or not) this airspace change to be implemented as proposed.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
TRA should not establish precedent for restrictions on Class G based on user type of equipment	AOPA	No	Prime Air is following the full regulatory process for temporary airspace triachanges (CAP1616g, Ref 2) and believe in the principle of shared equitable access to airspace. These operations (and TRA) are being implemented as part of the Airspace Modernisation Strategy (AMS, Ref 7) and support the integration of new airspace users. Any subsequent trials or permanent airspace changes would also have to follow the appropriate CAP1616 process.	N/A
TRA's are not "integration"	Fishburn Airfield	No	Correct. TRAs are a special use airspace mechanism defined by the CAA, intended for the use of 'accommodating' BVLOS operations as part of the development towards integrated operations. These operations are being conducted as part of the Airspace Modernisation Strategy (AMS, Ref 15).	N/A
Trial must be time-limited	AOPA; M C	No	As per CAP1616g (Ref 2), Prime has published a start and end date for these operations (December 2025 and June 2026). Extensions may be requested, following the process set out in CAP1616g. Any subsequent operations or permanent airspace changes would also have to follow the appropriate CAP1616 process.	N/A
Trial outcomes should be published	AOPA	No	As per CAP1616g (Ref 2), Prime Air must publish a post-trial report.	N/A
Safety				

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Additional testing of detect and avoid systems	P T	No	The criteria for assessment of DAA technologies is under review with the CAA.	N/A
Concern about patient / customer safety due to operational impacts of drone activities	MOD; Virgin Balloon Flights	No	Emergency services, on critical missions, will always be given priority over the Prime Air operations and a Letter of Agreement (LOA) will be in place with GNAAS. Other emergency services will be coordinated as normal via TIA, who have a LOA with Prime Air regarding such procedures. Other airspace users can enter the TRA if they meet the entry requirements and follow the entry procedures. Prime Air operations will only be approved by the CAA upon satisfactorily demonstrating compliance to the UK SORA Operational Safety Objectives.	N/A
Concerns around the operational safety of the trial	A S; BHA; D O; Draken Europe; Eastern Airways; Fishburn Airfield; MOD; M P; P T; R W; Teesside Model Flying Club; Virgin Balloon Flights; Wright Flight	No	Prime Air operations will only be approved by the CAA upon satisfactorily demonstrating compliance to the UK SORA Operational Safety Objectives. As part of the Operational Authorisation process. A summary can be found in section 2.14.	N/A

Theme **"You said"**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **"We did"**	**Design / procedure change**
Concerns around TRA presences and impact on pilot for infringement	Fishburn Airfield	Yes	As per the UK requirements, stakeholder outreach and NOTAMs will be published to ensure wide awareness of the TRA and its position, operating hours, and entry requirements. It is the responsibility of the pilot(s) to make sure these have been read, understood, and adhered too.	No
Concerns especially for descending left base for RWY05 from the north.	J C-H	Yes	An safeguarding consultant has been engaged to perform an independent review of all procedures and validate and/or identify impacts the TRA may have. This independent review found no impact on IFPs and very minimal impact overall.	
Concerns for student pilots who do not have discipline to maintain height or direction	J C-H	No	As per the UK requirements, stakeholder outreach and NOTAMs will be published to make sure all airspace users are aware of the TRA and its position, operating hours, and entry requirements.	N/A
Concerns regarding the detect and avoid capabilities of the drone	AOPA; J C-H; MOD	No	Prime Air has developed a robust BVLOS capability including an on-board Detect And Avoid system that is approved for use in our commercial operations in the United States, by the FAA. This capability is not yet approved for use in the UK and will be subject to detailed assessment by the CAA. It may only be approved for use once the assessment is complete and in later phases of these operations.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Drone must be able to detect and avoid other aircraft	BBAC; BHA	No	Prime Air has developed a robust BVLOS capability including an on-board Detect And Avoid system that is approved for use in our commercial operations in the United States, by the FAA. This capability is not yet approved for use in the UK and will be subject to detailed assessment by the CAA. It may only be approved for use once the assessment is complete and in later phases of these operations.	N/A
Explain what considerations have been taken to maintaining flight safety with hot air balloon activity and what actions will be carried out.	Virgin Balloon Flights	No	Consideration has been given to the full range of potentially impacted airspace users and their operations, and a ruleset has been developed to ensure safety throughout the Prime Air operations. Any aircraft wishing to enter the TRA will need to comply with the entry requirements.	N/A
How will Prime Air remain separated from non-equipped aircraft?	AOPA	No	Procedural separation will be the primary means of remaining clear of non-ADS-B equipped aircraft.	N/A
Hot air balloons cannot de-conflict from drones	BBAC; Virgin Balloon Flights	No	It is understood that balloon flights have limited options for performing deconfliction manoeuvres. For the purposes of this ACP separation from balloon operations will be using the TRA procedural ruleset, where entry may only be granted to aircraft meeting the entry criteria. It should be noted that there is a possibility some requests to enter the TRA may be denied.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Large drones routinely operating at the same altitude will constitute a significant risk to flight safety.	MOD	No	Procedural separation will be the primary means of remaining clear of other airspace users. Prime Air operations will only be approved by the CAA upon satisfactorily demonstrating compliance to the UK SORA Operational Safety Objectives.	N/A
Lots of drone failures in the US	Fishburn Airfield	No	Prime Air acknowledge this is a broad statement and not Prime Air specific. Prime Air operations will only be approved by the CAA upon satisfactorily demonstrating compliance to the UK SORA Operational Safety Objectives. The MK30 drone will also be subject to a detailed technical assessment under the UK CAA's SAIL Mark Policy	N/A
NOTAMs increase burden on pilots	AOPA	Yes	Noted. NOTAMs are the required method of communicating TRAs to pilots. All pilots are required to check for any NOTAMs in their area, therefore, checking for NOTAMs should not increase pilot workload.	No
Not enough detail about detect and avoid operations	BBAC; Fishburn Airfield	No	Prime Air has developed a robust BVLOS capability including an on-board Detect And Avoid system that is approved for use in our commercial operations in the United States, by the FAA. This capability is not yet approved for use in the UK and will be subject to detailed assessment by the CAA. It may only be approved for use once the assessment is complete and in later phases of these operations.	N/A

Theme "You said"	Stakeholder(s)	Potential to impact the design / procedures	Rationale "We did"	Design / procedure change
Possibility of conflicting with drone is unclear	BBAC	No	The TRA rulesets have been developed to ensure that the Prime Air drone does not conflict with other airspace users.	N/A
Publish results of de-confliction trials undertaken with balloons	BBAC	No	While a report for the TRA operations will be produced and shared with the CAA, due to potentially commercially sensitive details the report may not be publicly available.	N/A
Should provide full details of what safety mitigations are in place	GA Alliance; Eastern Airways	No	The procedures for the TRA will be published in full as part of the AIC. Prime Air will be providing stakeholder information sessions with selected aviation stakeholders to make sure they are aware of the access procedures	N/A
Would like footage of the drone lit up to understand how it will look from a distance	J C-H	No	Images have been shared with the stakeholder.	N/A
Stakeholders				
Many private airstrips in the area	M C; Wright Flight	Yes	Prime Air held a detailed stakeholder engagement period including as many of the potentially impacted and/or interested stakeholders as possible. A No Fly Zone will be created 2.5nm from the runway end and 1nm off the centreline of Croft airstrip's runway. Another No Fly Zone will be put around Teesside Model Flying Club operating area. TIA have confirmed no other airstrip would require a No Fly Zone.	Yes
No consideration to helipad at Rockliffe Hall	M P	Yes	TIA have confirmed no other airstrip would require a No Fly Zone.	

Theme **“You said”**	**Stakeholder(s)**	**Potential to impact the design / procedures**	**Rationale** **“We did”**	**Design / procedure change**
Suggest stakeholder: British Model Flying Association Croft airstrip TIA's Airport General Manager National Farmers Union	Draken; Fishburn Airfield; GA Alliance; Teesside Model Flying Club	No	As per Table 12, the British Model Flying Association, Croft airstrip and TIA were already included as stakeholders. Prime Air considered the benefit of adding NFU and agreed to do so as per Table 13.	N/A

7. Appendix: Glossary

Table 16 - Glossary of terms

Name	Definition	Description
ACP	Airspace Change Proposal	A formal process by which changes to the design or structure of airspace are proposed and evaluated currently under CAP1616.
ADS-B	Automatic Dependant Surveillance – Broadcast	A surveillance technology and form of electronic conspicuity in which an aircraft determines its position via satellite navigation or other sensors and periodically broadcasts it, enabling it to be tracked.
AGL	Above ground level	The vertical distance between an aircraft or object, and the surface of the ground or terrain directly below it.
AIC	Aeronautical Information Circular	Notices containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP.
AIP	Aeronautical Information Publication	The method in which significant changes to airspace (design or procedures) are notified to all airspace users.
AMS	Airspace Modernisation Strategy	Sets out how the UK aims to modernise airspace, by 2040, through a series of delivery elements.
AMSL	Above mean sea level	The altitude or height above the average height of the oceans and seas.
ATCO	Air Traffic Controller	A person responsible for ensuring the safe and efficient movement of aircraft through a specific area of airspace.
ATCS Ltd	Air Traffic Control Service Ltd	The organisation who provides the air traffic control function at TIA.
BVLOS	Beyond Visual Line of Sight	A capability that allows drones to be flown outside the pilot's direct visual range, typically relying on technology such as cameras, GPS, or sensors to navigate and observe the environment.
CAA	Civil Aviation Authority	UK Government regulatory body responsible for overseeing and ensuring the safety, security, and efficiency of civil aviation activities within the UK.
CAS	Controlled Airspace	A volume of airspace where some level of air traffic service is required.
Class D Class G	- -	Airspace is classified A – G based on numerous factors such as traffic density and altitude. Class D is a form of controlled airspace. Class G in uncontrolled airspace.
CTR	Control Zone	A volume of CAS around an airport.

DAA	Detect and Avoid	A system which enables operators to sense and avoid other aircraft and obstacles autonomously via sensors, such as radar, acoustic, and visuals.
FAA	Federal Aviation Authority	United States of America equivalent to the UK's Civil Aviation Authority (CAA)
FRZ	Flight Restriction Zone	An area around an airport where you cannot fly a drone or model aircraft without permission.
Ft	Feet	A measure of distance. One foot is equal to 0.3048 meters. Feet are also used for altitude measurements below 18,000 feet.
GA	General Aviation	Civil aviation operations other than commercial scheduled and non-scheduled air services. The most common type of GA activity is recreational flying by private light aircraft and gliders.
HazID	Hazard identification	A safety activity designed to foresee potential hazards, identify if practical mitigations that can be implemented, and therefore reduce the risk to a safe level.
HEMS	Helicopter Emergency Medical Service	A collective term for operators providing helicopter emergency medical services.
IFP	Instrument Flight Procedure	Published procedures for aircraft following instrument flight rules.
Kg	Kilogram	A measure of weight.
Km	Kilometre	A measure of distance. One kilometre is equal to 1,000 meters.
LOA	Letter of Agreement	A document stating the agreed procedures between two or more organisations, in specific situations.
LOAEL	Lowest Observable Adverse Effect Level	The point when noise can be heard and results in small changes to behaviours, such as sometimes shutting the window.
METAR	Meteorological Aerodrome Report	A standardised format for reporting weather at an airport.
MK30	- -	The model of drone which Prime Air plan to use for these operations.
MME1	- -	Amazon's Fulfilment Centre on the outskirts of Darlington.
MHz	Megahertz	A unit used in relation to measures of electromagnetic radiation and vibrations.
MOD	Ministry of Defence	- -
NFZ	No Fly Zone	A specific geographic area which has been geofenced to stop any drone operations over this area.
nm	Nautical Mile(s)	A measure of distance. A unit of measurement used in navigation and aviation, equal to one minute of latitude. It is approximately 1.15 statute miles or 1852 metres.
NOTAM	Notice to Aviation	A notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure, or hazard. It will cover notifications of temporary information, or permanent information not yet included in the Aeronautical Information Publication.

RPAS	Remotely Piloted Aircraft System	RPAS refers to the totality of everything that makes a drone work. This includes its GPS module, ground control module, transmission systems, camera, software, and the pilot on the ground controlling the drone. A drone is a component of a RPAS.
RWY05 RWY23	Runway 05 Runway 23	TIA has one runway but can be used in two directions (ie. departing heading north-east or south-west). Therefore, the one runway has two names, depending on which heading is being used. ATCO will determine which runway direction is in use, based on local weather conditions.
SME	Subject Matter Expert	Someone who is an expert in the specific field.
SOAEL	Significant Observable Adverse Effect Level	The point when noise can be heard and results in material changes to behaviours, such as shutting the window most of the time.
SORA	Specific Operations Risk Assessment	UAV operators must obtain authorisation from the CAA before carrying out operations in the Specific category. Examples of operations that require a SORA include dropping items from a UAV, flying BVLOS or flying close to crowds.
TIA	Teesside International Airport	- -
TMZ	Transponder Mandatory Zone	A volume of airspace where users must carry and operate a pressure – altitude reporting transponder.
TOI	Temporary Operating Instructions	A mandatory air traffic control instruction which constitutes a temporary change to local air traffic control operational procedures or information.
TRA	Temporary Reserved Area	An airspace temporarily reserved and allocated for the exclusive use of specific user during a determined period.
UAS	Uncrewed Air Systems	The totality of everything that makes a UAV work. This includes its GPS module, ground control module, transmission systems, camera, software, and the pilot on the ground controlling the UAV. A UAV is a component of a UAS.
VFR	Visual Flight Rules	A set of rules which allow pilots to operate whilst weather conditions allow them to maintain sight of the ground.

[End of Document]