East of Gamston/North of Tollerton Development Framework Supplementary Planning Document (SPD)

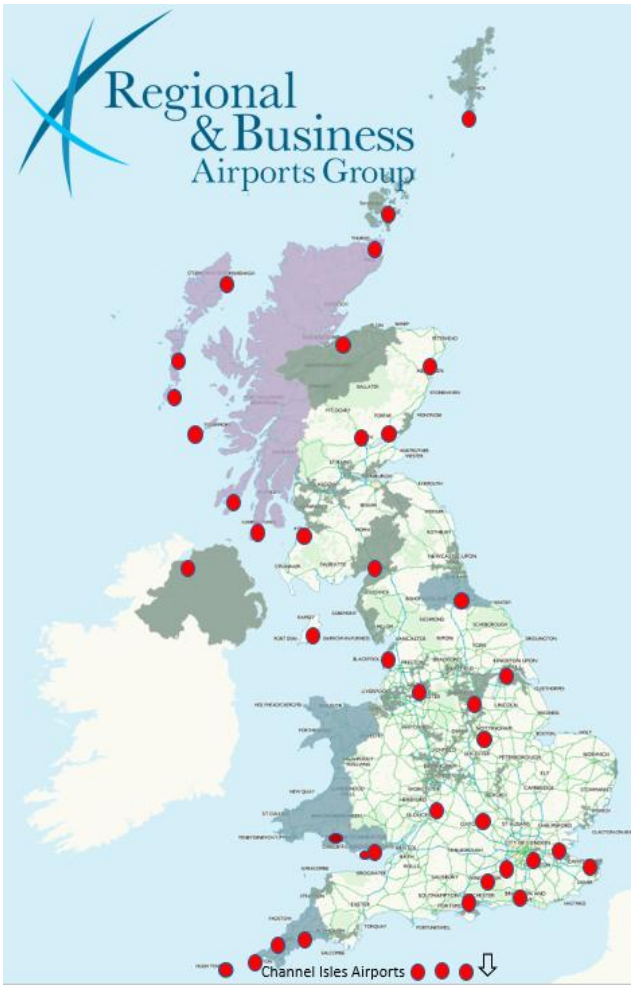
Consultation Submission

Prepared for Rushcliffe Borough Council

November 2025

Background

By way of background the UK Regional and Business Airports (RABA) Group was established in 2013 to provide a distinctive industry voice for the UK's smaller airports (i.e. those handling under 3 million passengers or catering for significant business/special mission aviation operations). This has remained the focus of our mission as we exit our twelfth year, and is recognised and appreciated by our member airports which typically either serve the UK's fast-growing secondary and tertiary cities or its more remote and peripheral rural areas and islands, although a minority also complement larger more congested facilities as part of airport systems that deliver passenger and airfreight connectivity to London and a number of the UK's regional core cities.



RABA Group is focused on its core mission – to provide a distinctive voice for the UK's smaller airports with a view to influencing the development of strategic policy and regulation.

RABA Group airports are of five principal types:

1. **Smaller regional airports** with scheduled passenger throughputs of less than 3 mppa.
2. **Dedicated Business Aviation Airports** with no scheduled traffic and limited private GA flying.
3. **Tier 1/2 GA airports providing Special Mission functionality**, including blue light operations, access to offshore platforms, flight schools and aerospace activities.
4. **Hybrid airports** accommodating some, or all, of the above.
5. **Temporarily closed airports** with plans for re-opening rather than conversion to other uses. (**The Save Nottingham Airfield Group** has made contact with us)

In relation to this current consultation we will reserve our remarks to higher level observations relating to the planned loss of Nottingham City Airport to aviation, and some of the implications that this will have for both the city and the wider UK aviation ecosystem. To ease your consideration of our arguments we have highlighted those most pertinent observations in red.

We have organised our comments around the following themes

1. The UK's National Planning Policy Framework (NPPF) and its focus on safeguarding aviation infrastructure (such as airports, airfields, and aerodromes) from incompatible development
2. Economic Development and airports/airfields
3. Skills and Training Gateways
4. Future Proofing a key local asset for imminent technological and connectivity roll-outs

The latest technology that is transforming aviation and will bring zero carbon, low noise aviation will still need infrastructure. Local Authorities that retain infrastructure will be in a position to benefit from all the things it brings - better service provision, economic efficiency, new skilled jobs, small firm development, supply chains and investment by larger companies that depend on such aviation links. Local Authorities that do not will not be able to more easily enjoy these benefits.

Contents

The UK's National Planning Policy Framework (NPPF)

The UK's National Planning Policy Framework (NPPF), as updated in December 2024, includes built-in protections for aviation. These primarily focus on safeguarding aviation infrastructure (such as airports, airfields, and aerodromes) from incompatible development, ensuring operational safety, supporting economic roles, and mitigating impacts from other land uses like minerals extraction or communications infrastructure. Protections are integrated into several chapters, with cross-references to related guidance (e.g., Circular 01/03 on safeguarding aerodromes).

The key emphasis is on:

- Maintaining a national network of general aviation airfields and their adaptability.
- Preventing adverse impacts on aviation safety and operations.
- Requiring consultations and evidence to avoid interference in safeguarding zones.

The most relevant sections, including paragraph numbers, direct quotes, and brief explanations of the protections they provide are highlighted below. These are drawn from the official NPPF document.

Chapter 9: Promoting Sustainable Transport

This chapter addresses transport infrastructure, including aviation, by prioritising its protection and growth.

- **Paragraph 111(f)**: "Recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the General Aviation Strategy." *Protection*: Local plans must actively support and protect general aviation airfields as vital national assets, allowing for operational changes while safeguarding their economic and functional roles. This prevents unnecessary restrictions on airfield development or use.
- **Paragraph 115**: Requires site assessments to ensure "safe and suitable access to the site can be achieved for all users" and that "any significant impacts from the development on the transport network… or on highway safety, can be cost effectively mitigated to an acceptable degree." *Protection*: Applies to aviation sites by mandating mitigation of development impacts on transport networks, including airfields, to maintain safe aviation access and operations.

- **Footnote 46 (to Paragraph 111(e))**: Lists "Examples of such facilities include ports, airports, interchanges for rail freight, public transport projects and roadside services." *Protection*: Strategic policies must identify and safeguard sites for airports (and by extension, airfields) to support their ongoing operation and expansion.

Chapter 10: Supporting High Quality Communications

This chapter protects aviation from interference by electronic communications infrastructure (e.g., masts or antennas).

- **Paragraph 121(a)**: Applications for electronic communications infrastructure must include "evidence to demonstrate that electronic communications infrastructure is not expected to cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest." *Protection*: Ensures new developments do not disrupt air traffic services or national aviation instrumentation, prioritizing aviation safety.
- **Paragraph 122(a)**: Requires "the outcome of consultations with organisations with an interest in the proposed development, in particular with the relevant body where a mast is to be installed near a school or college, or within a statutory safeguarding zone surrounding an aerodrome, technical site or military explosives storage area." *Protection*: Mandates consultation within statutory safeguarding zones around aerodromes (airports/airfields), preventing developments that could endanger aviation operations (e.g., via radar interference or obstacles).

Chapter 17: Facilitating the Sustainable Use of Minerals

This chapter specifically safeguards aviation from mineral extraction activities.

- **Paragraph 223(h)**: Planning policies for minerals should "ensure that worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place." *Protection*: Requires consideration of aviation safety during site reclamation and aftercare, avoiding hazards like altered terrain that could affect flight paths.
- **Paragraph 224(b)**: When assessing mineral extraction applications, authorities should "ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality." *Protection*: Prohibits mineral developments that harm aviation safety, including cumulative effects, and requires mitigation.

Annex 2: Glossary

Provides foundational definitions that underpin aviation protections across the NPPF.

- **General aviation airfields**: "Licensed or unlicensed aerodromes with hard or grass runways, often with extensive areas of open land related to aviation activity." *Protection*: Defines these as essential infrastructure, emphasising the need to protect associated open land for safe operations.
- **Safeguarding zone**: "An area defined in Circular 01/03: Safeguarding aerodromes, technical sites and military explosives storage areas, to which specific safeguarding provisions apply." *Protection*: Establishes zones around aerodromes where planning decisions must prioritise aviation safety, restricting developments that could pose risks (e.g., tall structures or lighting).

Additional Context

- These protections align with broader policies like the Aviation Policy Framework (2013) and the General Aviation Strategy (2015), referenced in the NPPF.
- For implementation, local planning authorities must consult bodies like the Civil Aviation Authority (CAA) for safeguarding issues.
- Recent updates (e.g., December 2024) strengthen protections for general aviation, responding to concerns about airfield closures due to nearby housing developments.

Economic Development

Rushcliffe BC's Regional Plan should remain cognizant of the considerable potential that airfields offer in terms of charting out a regional economic strategy.

Smaller airports and airfields in the UK play a crucial role as agile platforms for aerospace development, emerging aviation technologies, and broader innovation ecosystems.

Unlike larger hubs burdened by congestion, noise and local traffic restrictions, and high operational costs, these facilities offer flexible airspace, lower environmental impacts, and proximity to regional talent pools.

They are ideal testbeds for prototyping, certification trials, and commercial demonstrations. Smaller airports and airfields catalyse cross-sector innovation by linking aviation with healthcare, logistics, and emergency response, while nurturing skills pipelines. There appears to be a symbiotic relationship between airports, airfields and aerospace.

Smaller airfields serve as dedicated hubs for aerospace research, development, and manufacturing, leveraging their underutilised runways for prototyping and testing. They host original equipment manufacturers (OEMs), suppliers, and R&D centres, creating localised clusters that accelerate innovation in materials, propulsion, and systems integration.

Prototyping and Testing: Facilities like Cranfield Airport provide runways for subscale aircraft trials and wind tunnel integration, supporting zero-emission propulsion research. Gloucestershire Airport, a general aviation (GA) stronghold, accommodates advanced composites testing for lightweight structures, with over 380 aviation jobs tied to engineering firms.

Regional Clusters: Cornwall Airport Newquay's Aerohub enterprise zone platforms aerospace SMEs, including satellite manufacturing and hypersonic testing, drawing £100 million+ in investments since 2020. These sites benefit from Temporary Reserved Areas (up to 12 months) for safe experimentation in non-segregated airspace, as per the Civil Aviation Authority (CAA) frameworks.

Internationally, similar models thrive; for example, Mojave Air and Space Port in California has incubated over 100 aerospace startups since 1999.

Economic Clustering

An economic cluster is a geographic concentration of interconnected companies, suppliers, service providers, and associated institutions (such as universities and trade associations) in a specific sector, like technology, aerospace, or biotechnology.

Pioneered by economist Michael Porter, clusters emerge organically, but can be actively fostered through policy incentives, infrastructure investment, and skills development.

By deliberately nurturing a cluster—through measures like tax breaks, R&D grants, or specialised training programmes — governments and stakeholders can amplify its benefits, leading to sustained regional prosperity.

Key advantages and examples are highlighted, drawing on established economic theory and some real-world examples.

Core Industries	Key Attractions	UK Examples (Including Smaller Airfields)	International Examples
Aerospace and OEM (Original Equipment Manufacturers)	Access to testing facilities, skilled engineers, and global supply chains for aircraft assembly and parts.	Farnborough Airport hosts over 70 tenants in aerospace, including maintenance and R&D firms. Smaller sites like Cornwall Airport Newquay's Aerohub enterprise zone attract aerospace suppliers and testing, supporting regional manufacturing clusters.	Toulouse-Blagnac Airport in France anchors the world's largest aerospace cluster, home to Airbus and 1,000+ suppliers.
Logistics and Freight	Efficient cargo handling and customs clearance for time-sensitive goods.	Manchester Airport's World Freight Terminal supports £8.2 billion in tourism-related GVA and cargo operations. Non-scheduled airfields like Blackpool Airport serve oil and gas logistics with 150 jobs in freight handling.	Incheon International Airport in South Korea has birthed major aviation-logistics clusters, processing over 3 million tonnes of cargo annually.
Advanced Engineering and Maintenance	Proximity for aircraft touch-and-goes, repairs, and prototyping.	Cardiff and St Athan airfields Are part of an Enterprise Zone with both aerospace and non aerospace tenants. British Airways is especially committed to Wales, with three dedicated MRO facilities across a 50 km radius in South Wales: BA Avionics - end-to-end maintenance of electrical, electronic and electro-mechanical components; BA Interiors - advanced maintenance works on cabin interiors and safety equipment; and British Airways Maintenance Cardiff (BAMC) - handles major maintenance (i.e. C & D Checks) for BA's entire long haul fleet. Aston Martin manufactures in the Zone.	Seattle-Tacoma International Airport drives Boeing's ecosystem, with clusters for advanced composites and testing.
Advanced Air Mobility, Drones, and Testing	Airspace for trials, certification, and urban air mobility (UAM) development.	Cranfield Airport near Bedford hosts drone testing and UAM R&D through the UK Flight Test Centre. Benbecula Airport in the Outer Hebrides supports UAV and missile testing adjacent to MOD ranges, fostering defence tech clusters in remote areas. Wick Airport enables UAV trials and spaceport development in low-density airspace.	Singapore's Changi Airport integrates drone logistics hubs, attracting startups in autonomous flight.
Military	Secure airfields for defence aviation and joint civil-military ops.	RAF Brize Norton near Oxford combines military logistics with civilian spillovers in engineering. Pembrey Airport in Wales provides military training and refuelling, alongside GA, supporting 7 full-time equivalent jobs in logistics.	Joint Base Lewis-McChord near Seattle blends military aerospace with commercial clusters.
Retail and Automotive	Passenger traffic for high-end retail; just-in-time parts delivery for automotive assembly.	Gatwick's retail precinct benefits from 46 million passengers; nearby automotive suppliers use air freight for exports. Sywell Aerodrome near Northampton integrates a business park with GA, drawing automotive testing firms via quick access.	Dubai International Airport's retail zones generate billions, while co-locating automotive logistics for luxury imports.

Skills and Training Pathways

Smaller Airports are one significant career pathway for aeroengineers working with GA, Business and regional aircraft.

Career Pathways is a workforce development strategy to support workers' transitions from education into and through the workforce. This strategy is adopted in order to increase education, training and learning opportunities for the current and emerging workforce. One of the aero engineering established pathways is the experience and training that engineers are receiving in smaller GA and Business Aviation enterprises across the nation.

Links between these smaller operations and the larger organisations delivering wide-body or other very high value aero engineering service delivery suggests that mutually beneficial rather than exploitive (top down) relationships should be established between the various actors in the sector.

It is not just an historic relationship, but also related with the need to have an outdoor laboratory close at hand (an airfield and aircraft) and also many other reasons (eg skills pool; aviation environment; connectivity).

In relation to RABA our general impulse is to remind the emergent regional strategy that smaller airports/airfields are a vital part of UK aviation / aerospace ecosystem and are frequently neglected in policy terms. In the 2010s there were approx. 70 people employed at NQT (although not all full time) as there were two fixed wing and one rotary school, plus the two specialist aviation engineering works - and the flying club and the cafe, as well as the ground staff (tower, firecrew etc).

We would encourage the development of a UK industrial strategy that attracts global investment (incidentally, showcasing our collective airport infrastructure in the process) and builds on successful sector strategies.

Apprenticeships

Taking a vocational route i.e. an apprenticeship, suits those who do not wish to pursue an academic career pathway is more hands-on, one can work and earn whilst learning. Subsequently one can opt to obtain advanced-level qualifications, with many trainees going on to doing degrees as they progress through their career. Apprentices often have their tuition fees paid for by their employer.

Taking a vocational route to gaining qualifications offers attractions as apprentices with ambition usually can enter senior roles within the firm as there are few barriers if they the right skills are exhibited. Many company directors started life on the shop floor.

Sponsorships, bursaries and awards are another popular way that students can be given a financial and motivational leg-up in their career. We note ADS[1] estimates indicates 3% of the total Aerospace workforce are apprentices.

We note the encouragement for groups of employers, termed 'trailblazer groups', to develop new apprenticeship standards. Trailblazer groups will also have a role in subsequent reviews of apprenticeship standards, to ensure they continue to be fit-for-purpose.

Regional Airports are prepared to play a role in significant industry initiatives relating to apprenticeship schemes.

UK Aerospace Sector Employment and Apprenticeships (ADS Group)

The ADS Group's 2017 *UK Aerospace Outlook Report* estimated direct employment in the UK aerospace sector at 120,000 people, supporting high-value, skilled jobs and contributing to a turnover of nearly £32 billion. Indirect employment added a further 118,000 roles. While the report emphasised apprenticeships as a key talent pipeline—with 68% of companies employing apprentices or trainees—no specific total figure for apprenticeships was provided in the document or related sources.

More recent data from the ADS Group's *Aerospace Sector UK Outlook 2024* (published June 2024) shows a contraction in direct employment to 104,000, reflecting challenges like post-pandemic supply chain disruptions and economic pressures, though the sector maintains £30.5 billion in turnover and £20 billion in exports. Apprenticeships are now quantified at 6,000, underscoring their role in addressing recruitment shortages amid an ageing workforce and skills gaps. A September 2025 ICAEW profile aligns with this, citing around 100,000 employees and calling for enhanced apprenticeship initiatives, such as pooling systems and flexible qualifications, to attract young talent.

For context, across all ADS sectors (aerospace, defence, security, and space), 2024 saw 443,000 direct jobs—a 33% rise over the decade—and 26,200 apprenticeships, up from around 9,000 in 2016. Aerospace represents about 23% of this total employment.

[1] The UK trade association advancing leadership in aerospace, defence, security and space (aka ADS)

Aero Engineering Pathways

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The Maintenance, Repair, Overhaul & Logistics (MROL) sector is a major contributor to the UK economy in terms of industrial activity and economic output, with the involvement of an estimated 57,000 employees, a turnover of £15 billion, and the participation of over 1,300 companies (2016 BIS Research Paper Number 275).

While a significant element of this is through the support activities of Original Equipment Manufacturers, there is appreciable independent contribution in a wide range of service provision.

Links between these smaller operations and the larger organisations delivering wide-body or other very high value aero engineering service delivery suggests that mutually beneficial, rather than exploitive (top down), relationships are established between the various actors in the sector.

Collaborations with Further Education – Examples

International Aviation Academy – Norwich (IAAN) is a brand new development at Norwich Airport purpose-built to train the next generation of aviation professionals. IAA-N is the first of Aviation Skills Partnership's (ASP's) skills Academies. It was made possible by Norfolk County Council, the New Anglia Local Enterprise Partnership and Norse Group, plus supporting partners Norwich City Council, Norwich Airport, KLM UK Engineering, University of East Anglia, City College Norwich and WT Partnership.

University of the Highlands and Islands are working with HIAL[2] and Highland and Islands Enterprise on various initiatives such as the Remote ATC centre of Excellence; Proposed Boeing Training Institute at RAF Lossiemouth and Perth College's existing courses in aero-engineering working closely with Dundee Airport, where an International Aviation Academy is being established with links with nearby Perth and Glenrothes Airports.

[2] Highlands and Islands Airports Ltd

Exeter College has its new Centre for Industrial Automation in providing aero-engineering courses.

UK Air Traffic Control Training College is based at Gloucestershire Airport and is audited and approved by the Civil Aviation Authority to complete UK & European Common Core Content Compliant ATC Courses.

Future Proofing and Emergent Aviation Technologies

Network Effects in UK Aviation: The Value of Comprehensive Airfield Nodes

In the context of UK aviation, particularly general aviation (GA) and emerging Advanced Air Mobility (AAM), the concept of network effects illustrates how a dense web of airfield nodes amplifies the utility of each individual site to the system as a whole.

Drawing from complex network theory, the value of an aviation network often scales non-linearly with the number of nodes, akin to Metcalfe's Law, where connectivity grows quadratically. More airfields mean exponentially more route options, enhancing resilience, efficiency, and accessibility. For instance, in Europe's intra-regional network, adding nodes boosts overall connectivity by enabling shorter, more direct flights, reducing congestion at major hubs, and fostering economic links.

The UK's GA network, comprising over 140 licensed airfields (see Appendix 1) and numerous unlicensed sites, exemplifies this. A comprehensive setup allows for diversified operations: training, leisure, business, and future AAM with eVTOLs and drones. Each additional node increases the value of others by expanding travel permutations—for example, from 10 nodes yielding 45 potential one-way routes to 11 nodes offering 55, a 22% jump. This interconnectedness supports sub-networks for different sectors, like emergency services or cargo, where redundancy mitigates disruptions from weather or maintenance. Network resilience studies show that central nodes amplify traffic flow, but their loss cascades, diminishing overall capacity and increasing vulnerability to events like extended weather impacts.

Conversely, losing nodes erodes this value by curtailing options and fragmenting the network. Removing one airfield doesn't just eliminate local access; it severs multiple links, potentially isolating regions and inflating costs elsewhere. The UK Government's GA strategic network recommendations warn that closures threaten the ecosystem's viability, as seen in declining airfields from housing pressures.

Nottingham Airfield (Tollerton), is zoned for redevelopment into 1,600 homes and a school. As a central Midlands GA hub, it supported training (e.g. Sherwood Flying Club's operations), maintenance, and regional flights. Its loss reduces connectivity for nearby sites like Gamston or East Midlands, limiting routes for GA pilots and curtailing AAM potential in underserved areas (see following sections). Campaigners highlighted this as a 'disaster' for UK GA, exacerbating pilot shortages and stifling innovation in drone deliveries or eVTOL shuttles. Nationally, it weakens the network's resilience, as per studies showing targeted node removals degrade total network efficiency and potential

In essence, preserving airfield nodes safeguards exponential value, promoting sustainable aviation growth. Developers and councils must weigh short-term gains against long-term network degradation to avoid irreversible losses.

The Future Role of Small General Aviation Airfields in the UK: A Call for Mindfulness Amid AAM and UAV Advances

The rapid evolution of Advanced Air Mobility (AAM) and Unmanned Aerial Vehicles (UAVs) is reshaping UK aviation, urging developers and councils to reconsider the fate of small general aviation (GA) airfields like Nottingham Airfield (Tollerton). With technologies such as electric vertical take-off and landing (eVTOL) aircraft and drones maturing, these sites hold untapped potential beyond traditional uses, as highlighted in recent reports and government plans. *(Please note Table in Appendix 2 that highlights NQT's enviable proximity to Nottingham City Centre)*

Government initiatives, including the UKRI Future Flight programme and the Civil Aviation Authority's (CAA) 2025 roadmap for AAM aircraft certification, emphasise integrating eVTOLs[3] and UAVs into national airspace by 2026–2030. The Future of Flight Action Plan outlines timelines for beyond visual line of sight (BVLOS[4]) drone operations and piloted eVTOL services, projecting £45 billion in economic contributions from UAVs by 2030 through sectors like logistics, healthcare deliveries, and infrastructure inspections. AAM could add £1–2 billion annually by 2040, stimulating productivity via time savings on regional routes.

Small GA airfields are pivotal, offering underutilised infrastructure for repurposing into vertiports or drone hubs with minimal upgrades, such as charging stations and renewable energy integration. Over 2,200 existing sites could support distributed aviation, enabling low-emission electric low-cost carriers (eLCCs) on underserved routes, reducing reliance on major hubs and cutting aviation's carbon footprint by targeting short-haul emissions (up to 90% of European flights under 575 miles). Social benefits include enhanced rural connectivity, alleviating isolation and boosting access to jobs, services, and tourism—e.g., slashing travel times like Liverpool to Leeds from hours to 26 minutes. Environmentally, eVTOLs and drones promise near-zero emissions and quieter operations, aligning with net-zero goals and yielding CO2 savings of up to 99.8% versus traditional methods.

Yet, pressures for redevelopment threaten this vision. At Nottingham Airfield, plans to close by early 2026 for hundreds of homes and a school risk irreversible loss, despite campaigners' concerns over site suitability and AAM potential. Premature closures could inflate costs for new infrastructure, delay AAM rollout, and undermine regional 'levelling up'.

Developers and councils should remain mindful, incorporating flexible designs that preserve aviation capabilities. By heeding reports like the ***EA Maven's AAM Potential*** study, they can future-proof communities, harnessing AAM and UAVs for sustainable growth rather than forfeiting strategic assets.

Small Airports are likely to be early hosts and beneficiaries of AAM. *Electric / Hybrid / Green aircraft are predicted to transform regional air routes in the coming decades*

[3] EVTOL – Electric Vertical Take Off and Landing
[4] BVLOS – Beyond Visual Line of Sight

RABA Group promotes the interests of the UK's smaller airports and their strategic role in special mission and business aviation, supporting offshore energy supply, the aerospace sector, aircraft testing, pilot training, space launches. And is now pioneering their role in supporting emergent technologies such as commercial drones, AAM and regional air mobility.

Emerging Aviation Technologies and Trends

A series of important studies have highlighted many of these issues, especially in relation to emerging aviation technologies and their potential to completely transform the way GA airfields (particularly those near to City Centres – Appendix 2) are viewed and used.

Key Findings from the ADS Group 2021 Report on Rural and Regional Air Mobility (Distributed Aviation)

- Regional and Rural Air Mobility (RAM) tackles poor connectivity in UK rural areas, alleviating social isolation, aiding population retention, and improving access to services, jobs, and opportunities—particularly for ageing populations.
- Over 2,200 existing airfields and underutilised sites can be repurposed for affordable RAM using eVTOL, S-TOL[5], and C-TOL[6] aircraft, paired with renewable energy hubs for charging and grid stability.
- RAM advances UK net-zero ambitions via low-emission travel, leveraging electrification, hybrids, and hydrogen to cut fossil fuel dependence, with less environmental impact than ground infrastructure growth.
- Routes like York to Preston offer time savings (2 hours faster) and cost reductions (47% cheaper than rail), boosting tourism, industry, and GDP; early subsidies through revised PSO routes can enable commercial viability.
- Maturing technologies—battery electrics for short hops, hydrogen fuel cells, and digital aids (AI, blockchain)—promise lower lifecycle costs and seamless airspace integration in less crowded rural skies.

ADS Recommendations

- Forge a roadmap for Advanced Air Mobility (AAM) rollout.
- Undertake thorough research on aviation's full environmental effects, including non-CO_2 impacts.
- Launch an integrated study covering use cases, markets, tech, infrastructure, environment, and community input.
- Build a UK capabilities database to showcase sector expertise in RAM.

[5] S-TOL Short take off and Landing
[6] C-TOL Conventional Take ff and Landing

The USA's NASA 2021 White Paper on Regional Air Mobility identifies a bright future for under-utilised airfields.

America is home to over 5,000 airports available for public use, yet only 30 of these airports serve over 70% of all travellers. A recent paper from NASA and industry experts representing airlines/operators, vehicle manufacturers, electric infrastructure companies, aviation technology companies, and dependable-transportation thought leaders, suggests that the local airport you may not have even known existed will soon be a catalyst for change in how you travel. According to this team, Regional Air Mobility (RAM) will fundamentally change how we travel and receive our goods by bringing the convenience, speed, and safety of air travel to all Americans, regardless of their proximity to a travel hub or urban center.

The paper asserts that investments in RAM are complimentary to and an accelerator for other emerging markets that aspire to transform the airspace. Through targeted investments, RAM will increase the safety, convenience, and affordability of regional travel while building on the extensive and underutilized federal, state, and local investment in our nation's local airports.

The local airport you may not have even known existed will soon be a catalyst for change in how you travel. It will be a gateway from your doorstep to the rest of the world. (Please note Table in Appendix 2 of this submission) It will be a hub for local, reliable energy. It will make sure that your community has rapid access to convenient commerce options and critical supplies. Download the full report on the potential impact of Regional Air Mobility, today and in the future.

Key Findings from the KPMG 2022 Aviation 2030 Report: Passenger Use Cases in the Advanced Air Mobility Revolution

- Global passenger Advanced Air Mobility (AAM) market projected at ~USD120bn annually by 2040, serving over 800m passengers; top 20 metros (e.g., São Paulo, Seoul) to drive 52% of demand amid urban congestion and tech advances.
- Key use cases include on-demand air taxis for point-to-point travel (50-350km), airport shuttles, corporate shuttles, regional inter-city links, sightseeing, VIP services, and rural connectivity; early focus on replacing helicopters, evolving to compete with ground transport.
- Benefits: quieter, safer, emission-reducing electric propulsion; curbside-to-curbside time savings; cost efficiencies via automation; enhanced accessibility for disabled passengers (20% of population).
- Challenges: regulatory delays, public acceptance (noise/safety), infrastructure gaps (vertiports), battery limitations (~250 Wh/kg density), pilot shortages (19,000 needed by 2030), and airspace integration.
- Future outlook: transition from niche high-cost operations (2025-2030) to mass autonomous adoption; intra-city dominance initially, shifting to inter-city; ecosystem growth in fleets (USD50bn), vehicles, and urban traffic management.

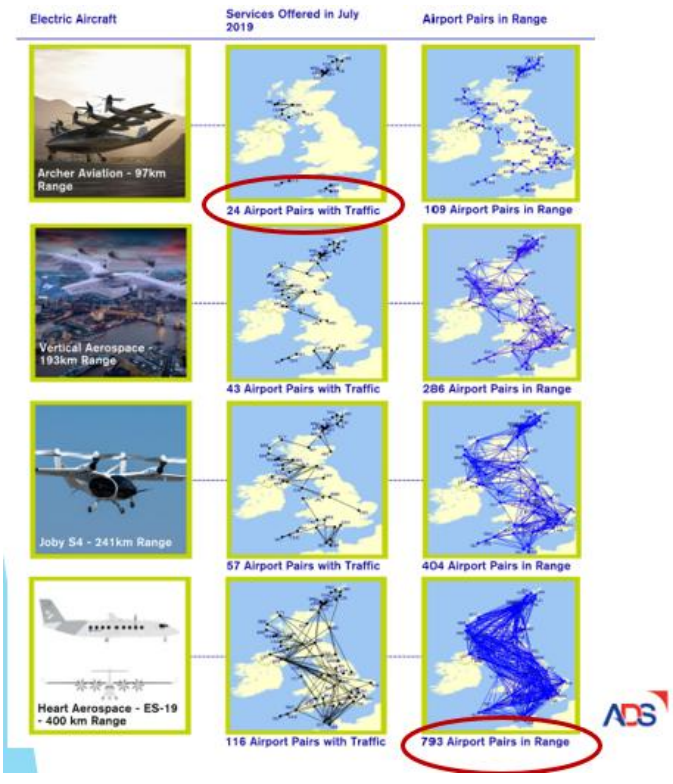
KPMG Recommendations

- AAM firms: engage regulators early; pursue city-by-city or partnership scaling; address pilot needs via training and automation.
- OEMs: prioritise certification, flexible designs, and scalable production.
- Investors: evaluate readiness indices; adopt long-term views.
- Infrastructure providers: repurpose sites for vertiports; integrate with airports/rail.
- Policymakers: launch acceptance campaigns; fund UTM R&D and subsidies for rural links.
- Local authorities: form public-private partnerships; subsidise journeys akin to public transport.

Deloitte's 2021 report on Europe's future aviation landscape explores the potential of zero-carbon and zero-emissions aircraft on intra-European routes by 2040

When looking at different distance segments, the attractiveness of air travel on very short routes mainly depends on the rail network available on different routes. In case two cities are connected by an efficient high-speed rail network, travelling by rail can be faster than air. When less developed rail services are available, rail travel will be slower than air alternatives, and sometimes even road travel. Furthermore, the advent of all-electric VTOL and small aircraft in the coming years will also play a role in shifting parts of the ground commuting travel towards the air. On longer routes, the benefits of hydrogen propulsion aircraft are unequivocal, offering low emissions, prices in the range of other modes of transports, and travel times far below the ones of ground travel.

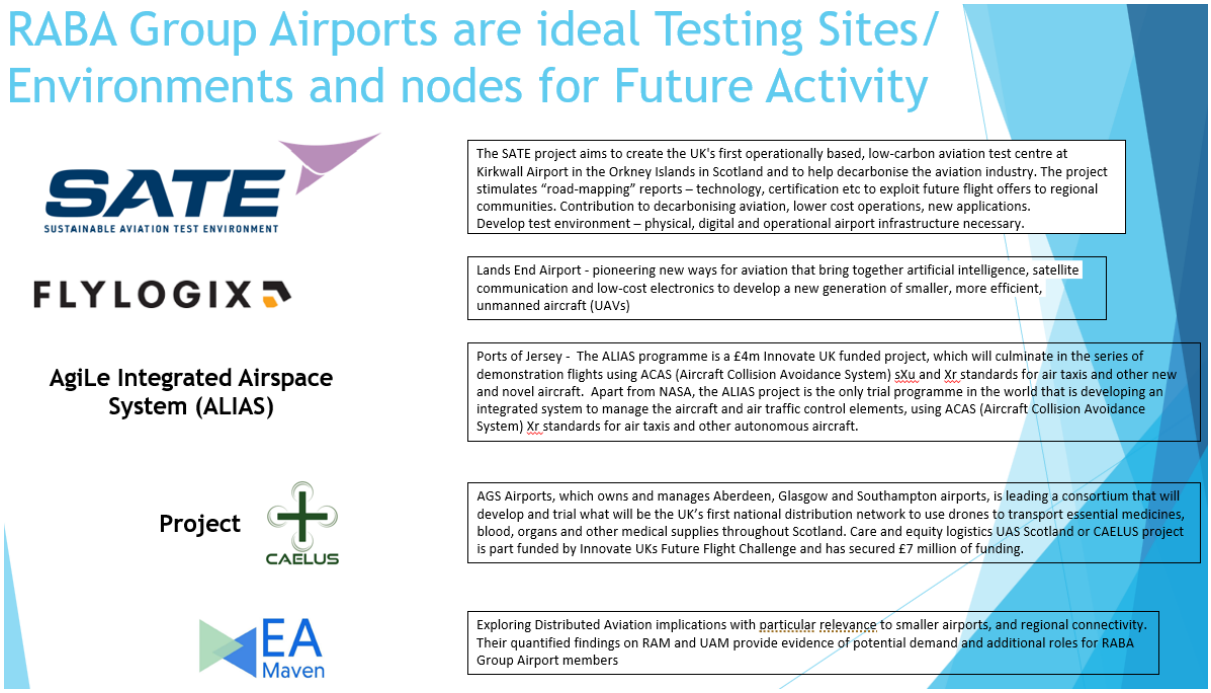
Electric / Hybrid / Green aircraft are predicted to transform regional air routes in the coming decades



RABA Group and Advanced Air Mobility

Alongside RABA Group's existing role providing essential connectivity within UK/near European markets, RABA Group members are involved in:-

- Developing and testing new drone and AAM technologies
- Supporting associated trials and 'Future of Flight' pilot projects
- Providing bases for 'distributed aviation', esp. in remote, rural & urban environments – see EA Maven **Demand Assessment Report**
- Developing new commercial markets for drones, C-VTOL and e-VTOL aircraft
- Greening aircraft propulsion and airfield operations
- RABA Group is featured in Department for Business and Trade (DBT) UK's Advanced Air Mobility / Sustainability Proposition.



RABA Group are interested, in relation to vertiports, as to how they may well attach themselves to smaller and regional airports. These airports will likely to be early hosts because they are less congested than major airports, and yet have the advantage of existing regulatory compliance and licences that can be adapted, rather than being 'greenfield' sites.

It is likely that these airports will be interested in what has been termed regional (and we would suggest adding/distinguishing rural) air mobility and involvement in some urban air mobility. We note *EA Maven's findings suggesting that Regional Air Mobility offers three times as many potential routes compared to Urban Air Mobility. The economic impact of RAM in terms of time savings is eight times greater than that of UAM.*

One point we note is that it is likely that STOL and electric conventional aircraft may well be pioneers in some of these developments, before full e-VTOL services are developed. As the FFIG[7] Action Plan notes, *Existing aircraft classes that are transitioning to new propulsion types such as electric, hydrogen or hybrid (for example, piloted electric conventional take-off and landing (CTOL) aircraft) are not covered,* in the Action Plan. However C-TOL developments will likely pre-date and co-exist alongside e-VTOL developments, and it is likely that transitioning complexities, and hybrid connectivity solutions, should be anticipated and considered. This further strengthens the potential pioneering role of regional and business airports incidentally.

We are also conscious that current airport operators may well need some guidance on what agreements they might prudently enter into with regard to private vertiport developments on their land (or potentially on neighbouring land). Should airports consider taking on the full cost and risk of such developments or should they sub-contract? As many regional airports are essentially owned or subsidised by Local Authorities these challenges may also apply in relation to airport enhancements.

RABA airports could act as regional pathfinders, regulatory solvers and hubs for regional air mobility. In the medium term we look at building a future project envisaging regional vertiport champions for each region, with an aim to trickle down to smaller airfields / vertiports in each area.

[7] FFIG Future of Flight Industry Group

Suggestions

1. If Rushcliffe BC would like to pursue some of the potentials we have been highlighting in this submission could we suggest the Council opens a dialogue with the Special Interest Group of Strategic Aviation (SASIG), who are deliberating on these very issues right across the country, and have been discussing airports and land use planning with DfT and HMCLG.

   They have been helping City of Doncaster with their airport issues and have deep expertise across the Civil Aviation and commercial airport sector.

   They will be able to explain the broader strategic issues relating to the re-development of airports and speak to the longer term considerations, which need to inform decision-making, including new technologies, new types of service/aviation activity that will not be compatible with EMA operations, but will have important roles for the city and sub regions. Tasks such as blue light services and other special missions operations[8], to drone/e-VTOL based freight/surveying/testing in addition to the pilot training (which is critical to the future of a sector that is already struggling to find suitable places to operate from) that already takes place.

   Cities and authorities that have GA aerodromes within their boundaries, or in close proximity, will be able to support these new forms of aviation as they arise. Those that close such facilities will not and will eventually be forced to scramble to provide an alternative.

   SASIG can be contacted via their secretariat.

2. If the Council is persuaded by some of the future possibilities we have been outlining perhaps invitations for business plans supporting continued aviation use could be canvassed, and sought before any final and irrevocable closure decisions are made. Such more visible and quantifiable potential inward investment in the area may change the calculations of benefit that are currently being made.
3. RABA would be prepared to present to, and even help garner other specialist speakers, for an informative Webinar for council planning staff and/or council members on emerging business technologies and business cases in aviation and aerospace, and regarding better diversifying income streams for airports and airfields to help underpin their long term viability. As mentioned above, we

[8] Tasks such as O&G & Offshore Windfarm Support; Blue Light Sector; Air Ambulance & Police; SAR and Border Force; Borders & Aerial Reconnaissance; Pollution Control; Fisheries Protection Power Lines Inspection; Fish Farm feeding; Aircraft testing/type training; VIP and Business Aviation

would encourage SASIG to contribute and we understand that *The Save Nottingham Airfield Group* have been working with E. A. Maven (referenced above) to understand the potential AAM routes that could profitably operate out of NQT (see geography below). Other such as the UK Government's Future of Flight Challenge or members of the Future of Flight Industry Group could be invited to contribute.

Nottingham's Midlands location suggests that it is geographically well placed to provide a new suite of distributed aviation journeys in all directions, and also to be host both rural and urban feeder services for AAM.

Basil O'Fee
Head of Secretariat

Regional & Business Airports Group

W: www.rabagroup.co.uk
5th November 2025

Appendix 1 – Summary of the DfT 2021 General Aviation Airfields Study

The Department for Transport's (DfT) 2021 General Aviation Airfields Study builds on earlier research to provide a typology of approximately 400 UK general aviation (GA) airfields. Commissioned in late 2020 amid COVID-19 impacts, its purpose is to classify airfields by infrastructure, activity, and economic role; develop case studies from 15 representative sites; and evaluate local contributions to connectivity, employment, skills, emergency services, and innovation. The study supports DfT objectives like levelling up, sector competition, and sustainable aviation, using an updated 2018 database, Pooley's Flight Guide, and stakeholder interviews. It highlights GA's £3 billion GVA and 38,000 jobs (2015 figures), with business aviation driving most value, while noting closure risks from development pressures.

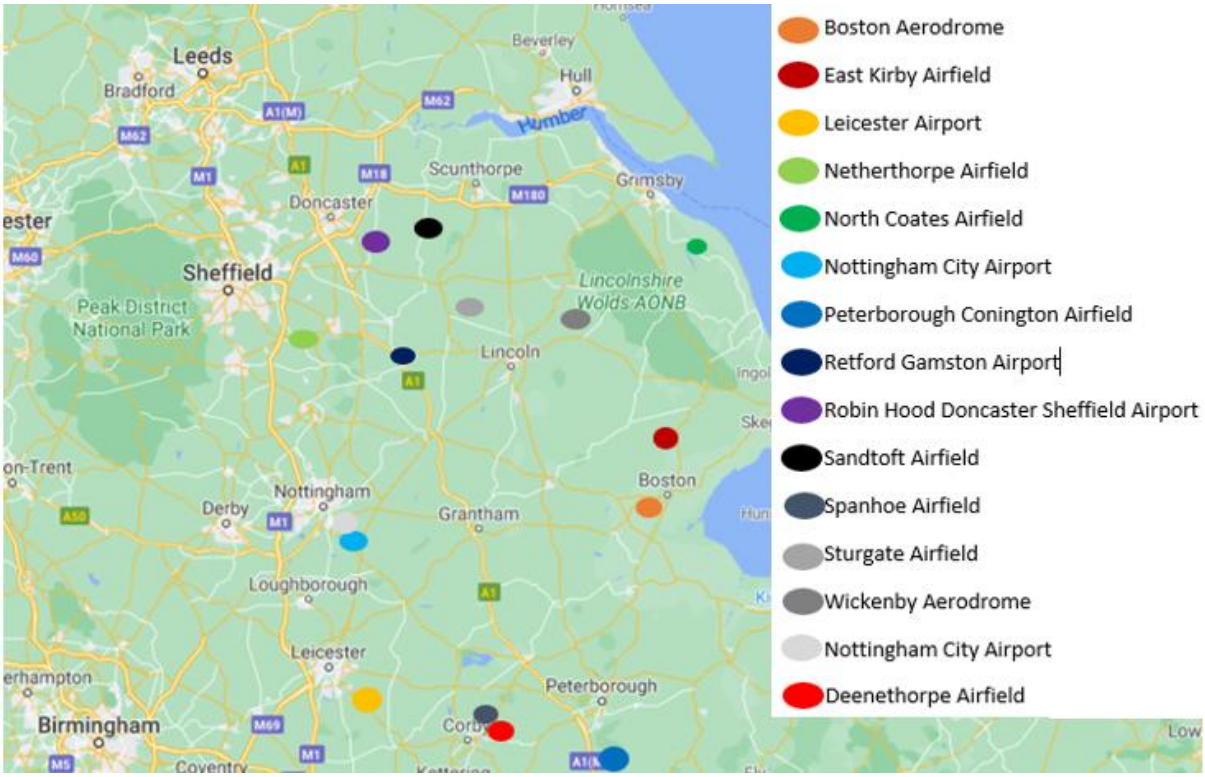
Key Findings

- GA airfields are concentrated in the Midlands and South, potentially underserving northern and remote areas; 96% of the UK population lives within 35 miles (a one-hour drive) of a Category 4 airfield.
- Categories 1–3 generate the bulk of economic impact via business aviation, training, and maintenance, with Category 1 sites alone supporting ~188–500+ jobs and up to 65 businesses each.
- All categories aid connectivity (e.g., social access in rural areas), emergency services (e.g., NPAS basing in 33–100% of cases), and innovation (e.g., electric aircraft trials), though smaller sites rely on volunteers and face data gaps.
- Case studies underscore diverse roles: direct jobs, community engagement, and environmental initiatives, but COVID-19 reduced movements and income across the board.

Airfields are grouped into four categories based on based aircraft (proxy for activity), runway capabilities (e.g., length, surface, navaids), facilities (e.g., fuel, maintenance, training), and movements. Specialist roles (e.g., gliding, parachuting, heritage) are flagged within categories.

Category 1: Business Aviation-Capable (25 airfields): ≥1,200m hard runways, instrument approaches (ILS/GNSS), full ATC; >50 based aircraft; high movements (>30,000/year); extensive facilities. Examples: Biggin Hill (500+ jobs, jet ops), Blackpool. Covers 54% population.
Category 2: Major GA (Backbone of Leisure Network) (57 airfields): ≥50 based aircraft; 600–1,000m runways (mix hard/grass); substantial training/maintenance; >30,000 movements. Examples: Derby (~70 jobs, PPL training), Elstree. Covers 82% population. Under normal trading conditions NQT should easily operate as a Category 2 G.A. airfield.
Category 3: Developed GA (69 airfields): 20–50 based aircraft; 500–800m runways; basic PPL facilities; <10,000 movements. Examples: Fife Glenrothes (parachuting), Fishburn (~11 jobs). Covers 82% population.
C**ategory 4: Basic GA/Airstrips (243 airfields)**: <20 based aircraft; <700m grass runways; minimal facilities; low movements. Examples: Sandbach-Arclid Green (microlight training), Stow Maries (heritage site). Covers 96% population.

This typology aids planning to preserve the GA network's resilience and value.


Boston Aerodrome
East Kirby Airfield
Leicester Airport
Netherthorpe Airfield
North Coates Airfield
Nottingham City Airport
Peterborough Conington Airfield
Retford Gamston Airport
Robin Hood Doncaster Sheffield Airport
Sandtoft Airfield
Spanhoe Airfield
Sturgate Airfield
Wickenby Aerodrome
Nottingham City Airport
Deenethorpe Airfield
Leeds
Bradford
Beverley
Hull
Humber
Scunthorpe
Grimsby
Doncaster
Sheffield
Peak District National Park
Lincolnshire Wolds AONB
Lincoln
Boston
Nottingham
Derby
Grantham
Loughborough
Leicester
Peterborough
Birmingham
Coventry

Appendix 2 – Airport/Airfield Proximity for 20 UK City Centres

Nottingham Airport is fortunate in having such a facility near its city centre. This resource could be greatly valued in future in relation to AAM developments.

City Centre	Nearest Airport/Airfield	Distance (miles)	Drive Time (minutes)
Belfast	George Best Belfast City (BHD)	3	10
Nottingham	Nottingham Airport (NQT)	3.5	10
Norwich	Norwich Airport (NWI)	3.5	10
Southampton	Southampton Airport (SOU)	4	11
Exeter	Exeter Airport (EXT)	5	13
Oxford	Oxford Airport (OXF)	6	15
Newcastle	Newcastle Airport (NCL)	7	13
Edinburgh	Edinburgh Airport (EDI)	8	25
Glasgow	Glasgow Airport (GLA)	8	20
Leeds	Leeds Bradford Airport (LBA)	8	24
Liverpool	Liverpool John Lennon (LPL)	8	16
Bristol	Bristol Airport (BRS)	8.5	18
Manchester	Manchester Airport (MAN)	9	25
Birmingham	Birmingham Airport (BHX)	9	22
London	London City Airport (LCY)	9	29
Teesside	Teesside International (MME)	15	25
Hull	Humberside Airport (HUY)	22	35
Cambridge	London Stansted Airport (STN)	22	38
Sheffield	Doncaster Sheffield (DSA)	28	40
Plymouth	Newquay Cornwall Airport (NQY)	38	60