



ACP-2024-037

Provision of RNP Approaches to runways 16/34 at Wolverhampton Halfpenny Green Airport

**Stakeholder Engagement
September 2026**

Glossary

ACP	Airspace Change Proposal	MAPt	Missed Approach Point
AIP	Aeronautical Information Publication	MATZ	Military Air Traffic Zone
AMS	Airspace Modernisation Strategy	MDP	Mandatory Design Principle
AMSL	Above Mean Sea Level	NAP	Noise Abatement Procedure
AONB	Area of Outstanding Natural Beauty	NM	Nautical miles
APCH	Approach	NPAS	National Police Air Service
ATC	Air Traffic Control	PAPI	Precision Approach Path Indicator
BHX	Birmingham Airport	PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations (ICAO Document)
CAA	Civil Aviation Authority	PBN	Performance-Based Navigation
CAP	Civil Aviation Publication (CAA)	PPR	Prior Permission Required
CAS	Controlled Airspace	QNH	Altimeter sub-scale setting to indicate an altitude that is AMSL
CTA	Control Area	Ramsar	Ramsar site (Wetlands of International Importance)
CTR	Control Zone	RNAV	Area Navigation
DDP	Discretionary Design Principle	RNP	Required Navigation Performance
DP	Design Principle	RNP APCH	Required Navigation Performance Approach
DPE	Design Principle Evaluation	RWY	Runway
EGBO	ICAO Indicator for Wolverhampton Halfpenny Green	SAC	Special Areas of Conservation
FAF	Final Approach Fix	SoN	Statement of Need
GA	General Aviation	SPA	Special Protection Area
GPS	Global Positioning System	SSSI	Site of Special Scientific Interest
HRA	Habitats Regulations Assessment	THR	Runway Threshold
IAF	Initial Approach Fix	VFR	Visual Flight Rules
IF	Intermediate Fix	VMC	Visual Meteorological Conditions
IFP	Instrument Flight Procedure	VNAV	Vertical Navigation
IAP	Instrument Approach Procedure	VRP	Visual Reference Point
IMC	Instrument Meteorological Conditions		
ICAO	International Civil Aviation Organisation		
IFR	Instrument Flight Rules		
LNAV	Lateral Navigation (minima)		

Section 1: Introduction

Wolverhampton Halfpenny Green Airport is proposing the Implementation of Instrument Flight Procedures for runway 16/34, and the airport is inviting stakeholders to provide feedback on this proposed change.

This section explains the background to the change, why it is needed and the process the airport is following. It also describes the Design Principles upon which all the options have been judged.

Background and Process

Background

Wolverhampton Halfpenny Green Airport (ICAO code: EGBO) is located in South Staffordshire, approximately 8 miles southwest of Wolverhampton city and 19 miles west of Birmingham International Airport.

The airport is licensed for public transport of passengers and flying instruction, although its primary focus is General Aviation (GA). It is home to six fixed-wing and one rotary-wing flight schools, and the National Police Air Service (NPAS) also operates regularly from the site.

The airport has recently completed significant upgrades to Runway 16/34, including the installation of new runway edge lighting and Precision Approach Path Indicator (PAPI) systems. While these improvements enhance visual guidance for pilots, they do not constitute an approved instrument approach and therefore do not allow full operations in poor visibility.

As a result, arrivals can be restricted in adverse weather, potentially leading to delays, diversions, or temporary closures. To address this, the airport is proposing the **Implementation of Instrument Flight Procedures for Runway 16/34** to improve safety and operational resilience.

It should be noted that Runways 10/28 and 04/22 are not suitable for such arrival procedures, as they lack the required lighting systems and supporting approach infrastructure.

Airspace Change Proposal (ACP) process

The Sponsor of this ACP is Wolverhampton Airport. A Statement of Need (SoN) for this change was submitted in January 2025. It was allocated reference ACP-2024-037 and initially progressed under CAP 1961 although this was subsequently changed by the Civil Aviation Authority (CAA) to be conducted as a pre-scaled Level 3 ACP under CAP 1616h.

The objective of the change is to introduce Instrument Approach Procedures (IAPs) via an RNP approach to both Runway 16 and Runway 34. These IAPs will guide aircraft from the terminal area to the landing runway and ensure aircraft can safely descend and align with the runway for landing, even in low-visibility conditions.

Design options for the arrivals were reviewed by the CAA at Stage 2 of this process in June 2026, and the ACP is now at Stage 3 which requires us to identify and engage with relevant stakeholders on the preferred options. This document forms part of that process.

Following this engagement, we are required to demonstrate that stakeholder views have been considered and accounted for as part of the final airspace change proposal at Stage 4.

All documents relating to this change can be viewed in the CAA Airspace Portal [here](#)

Engagement Timescales

The engagement commences on **7th September 2026** and will close on **16th October 2026**.

The CAP 1616 Process

The CAP 1616 process

ACPs are developed using a process laid down by the CAA in CAP 1616 and comprise 7 stages.

At Wolverhampton airport Stage 1 (Define) and Stage 2 (Develop & Assess) are both complete and we are now conducting Stage 3 (Engage) which this document forms part of.

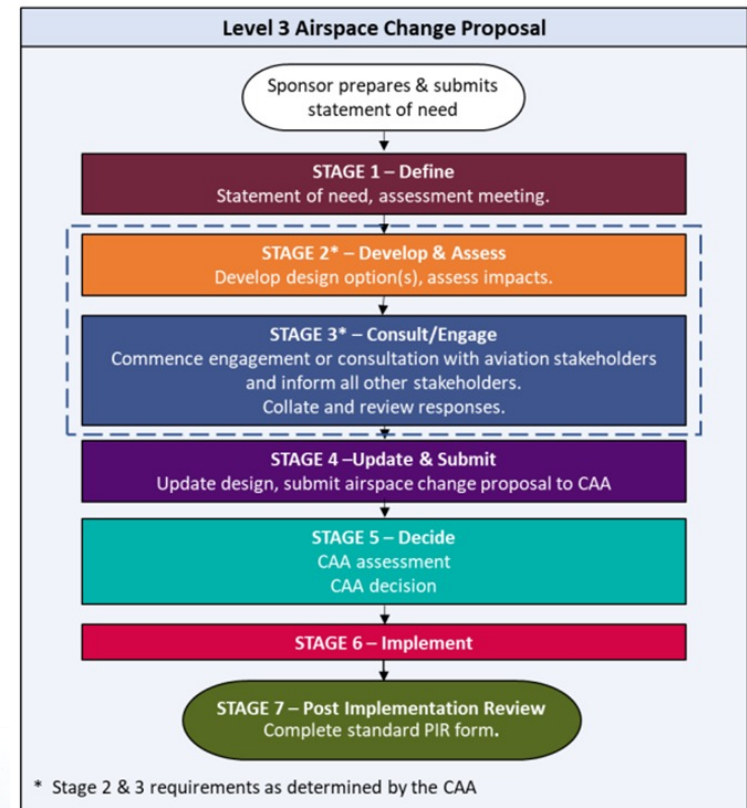
Why a Level 3 ACP?

A Level 3 ACP is a category introduced to simplify the process for changes that:

- Have low impact on aviation and non-aviation stakeholders;
- Do not require full environmental assessments or extensive consultation;
- Are proportionate in scale and complexity.

This level was added to make the process more accessible and efficient for smaller or less disruptive proposals such as minor route adjustments or local airspace redesigns that don't significantly affect local stakeholders.

Level 3 ACPs are conducted in line with CAP 1616h and are subject to an abbreviated process which does not require the same level of stakeholder engagement or CAA approval gateways as a complex Level 1 change.



Statement of Need (SoN)

Current operations and the need for change

At present, Wolverhampton Airport can only operate under Visual Meteorological Conditions (VMC), which allows pilots to use visual references such as roads and terrain to navigate.

In poor weather such as low visibility from clouds, fog, or rain, Instrument Flight Rules (IFR) are used which require pilots to navigate using instruments and depend on airports having suitable procedures.

The airport lacks these procedures, which forces aircraft to remain grounded during adverse weather or, if already in the air, to divert to other airports such as Birmingham where instrument arrival procedures are available.

Proposed change

The airport is proposing the implementation of **Performance-Based Navigation (PBN)** arrival procedures to Runways 16 and 34. PBN procedures are satellite based so no ground infrastructure is required, and these will operate alongside the existing visual procedures. No departure procedures are being created.

They will be of a type known as “Required Navigation Performance Approach (RNP APCH)” using LNAV/VNAV RNP specifications. These incorporate lateral (left/right) and vertical (up/down) guidance.

This initiative forms part of the airport’s strategic commitment to modernising its navigational infrastructure in alignment with the UK CAA’s Airspace Modernisation Strategy (CAP 1711).

The benefits to the airport are:

- **Safety:** These approaches will allow aircraft to land safely in poor weather where previously only visual flight was possible. This enhances safety for both general aviation and emergency services.
- **Operational resilience:** There will be greater operational flexibility, especially for emergency services, which can operate in a wider range of weather conditions.
- **Commercial resilience:** The procedures will enable more consistent and reliable operations, support the long-term viability of the airport and help retain jobs.

Design Principles (DPs)

CAP 1616 requires every sponsor to identify DPs and assess the design options against them. These serve as a foundation for developing, evaluating, and down selecting Options. They also make sure the Options are aligned with stakeholder needs, regulatory requirements, and UK airspace policy.

Under CAP 1616h, airspace sponsors have a number of Mandatory Design Principles (MDPs) they must assess options against. However, they also have the choice to add a number of Discretionary Design Principles (DDPs) to reflect local priorities or circumstances.

For this ACP the DPs are shown to the right, and as part of our process, we assessed each design option against each principle in turn. Each option was then marked as having:

- **Met;**
- **Partially Met;** or
- **Not Met** the DPs.

Based on this, we were able to identify options that were viable to take forward and a preferred option.

This process resulted in a number of options being rejected. We have shown these rejected options for completeness but are not seeking comment on these.

Mandatory Design Principles

MDP1: Safety

The ACP must maintain a high standard of safety and should seek to enhance current levels of safety.

MDP2: Policy

The ACP should not be inconsistent with relevant legislation, the CAA's Airspace Modernisation Strategy (AMS) or Secretary of State and CAA's policy and guidance.

MDP3: Overflight: The ACP should avoid overflight of densely populated areas where possible.

Discretionary Design Principles

DDP4: Technical (Accessibility for all airspace users): The ACP should satisfy the requirements of operators and owners of all classes of aircraft, including general aviation and other civilian airspace users.

DDP5 Environment (Noise): The ACP should take account of existing noise abatement procedures to avoid increasing noise exposure.

DDP6 Economic (Performance): The ACP should contribute to economic growth, development and/or improved productivity amongst businesses, individuals, government or third sector organisations.

Section 2: Design Process

This section explains how the proposed instrument approach procedures were developed. It outlines the regulatory framework and airspace constraints that influenced the creation of the options, the PBN concept, and the Design Principles that determined the viable options presented for engagement.

Design Introduction

Scope of Design

This ACP covers the introduction of LNAV/VNAV RNP approaches to runways 16 and 34. These are RNP based and have no reliance on ground-based infrastructure.

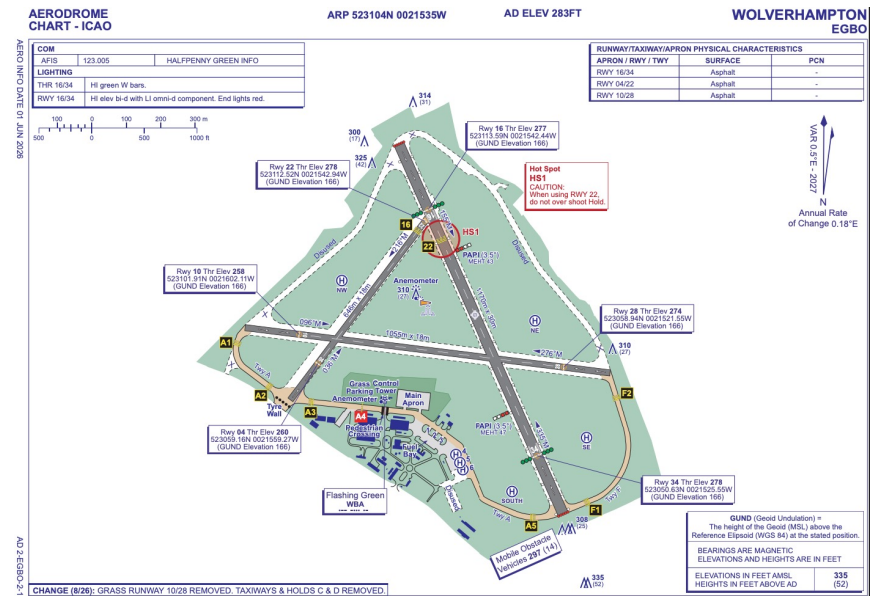
The procedures sit mainly within Class G airspace. No additional Controlled Airspace (CAS) is being proposed.

Benefits

The introduction of these approaches will result in a more precise and safer descent profile which will improve:

- **Predictability:** IFR aircraft will fly more precise and predictable descent profiles, reducing reliance on manual altitude management.
- **Safety:** Aircraft will have guaranteed terrain clearance in poor weather and will fly a consistent and repeatable approach path.
- **Environmental performance:** The procedures will result in smoother and more controlled descents which have both noise and fuel efficiency benefits.
- **Operational resilience:** These procedures will allow safe approaches in poor weather when a standard visual approach cannot be flown. This will provide greater operational flexibility and potentially reduce diversions to Birmingham Airport.

Illustration of aerodrome/runway layout



Source: UK AIP (EGBO_2-1_(6_Aug_26))

Regulations Supporting the Design Options

The foundation rules for designing procedures are contained in an International Civil Aviation Organisation (ICAO) document known as PANS-OPS 8168.

This provides the foundation rules which supported the development of the design options as well as our analysis of the design constraints and considerations.

These included:

- The orientation of the runway at EGBO.
- Design criteria such as obstacle clearance, turn radii, descent gradients, and the required length of each approach segment.
- The type of procedure being developed and the type of aircraft likely to use the procedure.
- Surrounding airspace, especially that of Birmingham Airport and RAF Cosford.
- Other restricted areas of airspace.
- The Design Principles.

Performance-Based Navigation (PBN)

What is PBN?

Until recently, aircraft used ground-based navigation aids to navigate. However, as aircraft systems have become more advanced, these are becoming obsolete and PBN now uses satellite-based systems to increase accuracy.

PBN forms one of the foundations of the UK Airspace Modernisation Strategy (AMS) because:

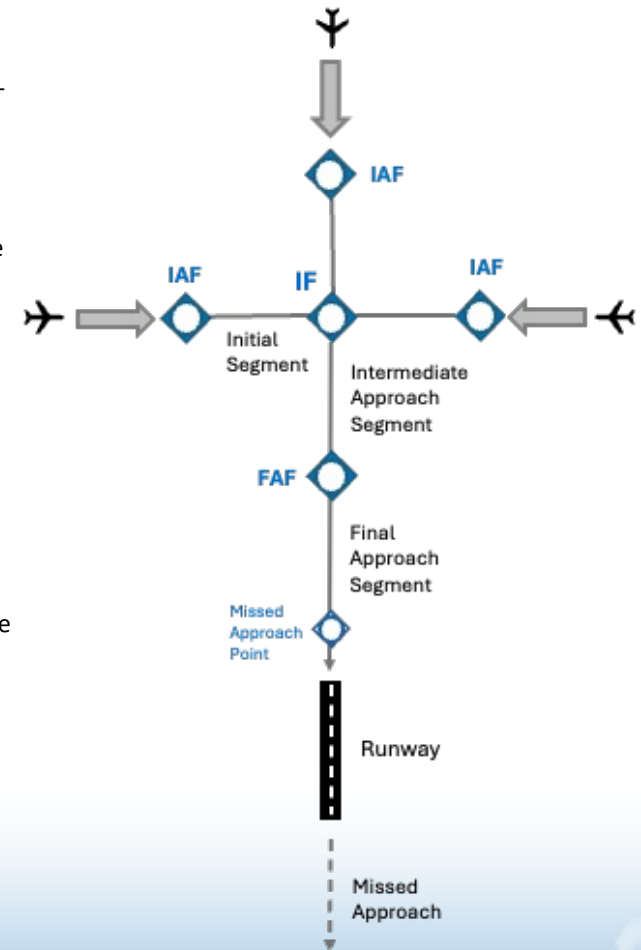
- Aircraft use onboard GPS to follow flight paths with a high degree of accuracy.
- The higher accuracy means aircraft stay more precisely on their intended paths, reducing the risk of collisions or loss of separation from other traffic.
- It aligns with international aviation standards.

How is a PBN arrival constructed?

An example PBN arrival is to the right and it typically has 4 segments:

- **Initial:** It starts at the Initial Approach Fix (IAF) and leads into the Initial Segment.
- **Intermediate:** This prepares the aircraft for a stable final approach and starts at the Intermediate Fix (IF).
- **Final Approach:** The Final Approach Fix (FAF) marks the start of the final phase that guides the aircraft towards the runway.
- **Missed Approach:** If for any reason the aircraft can't land, this creates a safe path for the aircraft either to re-commence the approach, hold, or divert.

The proposed procedures for EGBO are based on this structure, although some changes have been introduced for safety reasons or to take account of surrounding airspace.

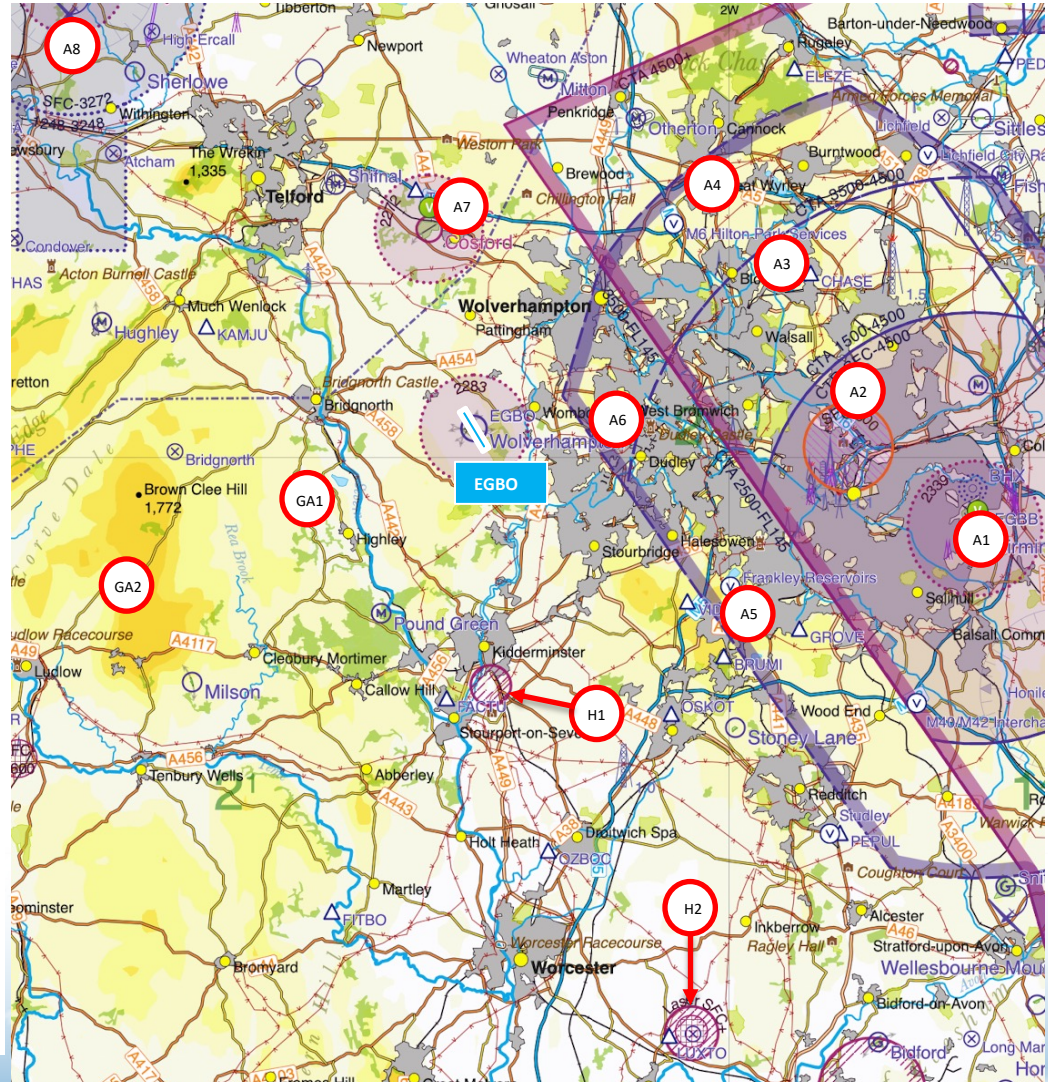


Design Constraints and Considerations

This map shows the location of EGBO within the local airspace. It highlights both the influence of airports such as Birmingham Airport, and other constraints and considerations that have been taken account of in the design process.

	Airspace		Other local hazards, constraints & considerations
A1	Birmingham Airport	H1	Kidderminster Gas Venting Station (GVS) Surface-2200ft
A2	Birmingham Control Zone (CTR) Surface-4500ft	H2	Pershore HIRTA and laser site Surface to unlimited height
A3	Birmingham Control Area (CTA2) 1500ft-4500ft	GA1	Chelmarsh Reservoir (GA traffic hotspot)
A4	Birmingham Control Area (CTA3) 3500ft-4500ft	GA2	Clee Hills (GA traffic hotspot)
A5	Birmingham Control Area (CTA5) 2500ft-FL145		
A6	Birmingham Control Area (CTA6) 3500ft-FL145		
A7	RAF Cosford ATZ Surface-2000ft		
A8	RAF Shawbury MATZ Surface-2000ft		

In addition, local Noise Abatement Procedures (NAPs) have been incorporated into the design process. Particular consideration has been given to Claverley, Bobbington, Whittimere Farm and Highgate Farm in order to balance operational requirements with local environmental considerations.



Source: SkyDemon chart, © 2026 Divelements Limited.. This map is provided for guidance only. For current and accurate aeronautical information, refer to the UK AIP.

Use of the Procedures

Users

Main users of the RNP approaches are expected to include GA, charter and corporate aircraft operating during periods of reduced visibility, together with some activity by local training organisations.

Access

Access to RNP approaches will be controlled through a Prior Permission Required (PPR) booking system. Aircraft requesting an instrument approach will need to do so in advance, and a “Timeslot” will be allocated. To minimise disruption, only one aircraft will be authorised to use the procedure at any given time.

Each timeslot is expected to be 60 minutes during which time the visual circuit will be temporarily suspended. This is for safety reasons and will allow time for an initial approach, a potential missed approach, and a second approach. Once landed, the timeslot is cancelled and normal operations will resume. In the case of a Missed Approach, if a second approach is unsuccessful, the aircraft will be required to divert.

Weather

The RNP approaches will normally only be made available when specified weather conditions are met. These are yet to be developed but are expected to be based on cloud base and/or visibility criteria. Exceptions may apply for approved training flights or emergency situations.

Where a PPR booking has been made but actual or forecast weather conditions subsequently improve, the use of the RNP procedure may be withdrawn. This reflects the increased likelihood of VFR traffic both locally and in the vicinity and ensures the continued safe integration of all airspace users.

Habitats Regulation Assessment (HRA)

An HRA is used to determine whether a project could have a significant effect on internationally protected wildlife sites and habitats.

In accordance with CAP 1616i, an initial HRA screening exercise was completed to determine whether the proposed airspace change could affect any important sites within 18 km of runways 16 and 34 at the airport.

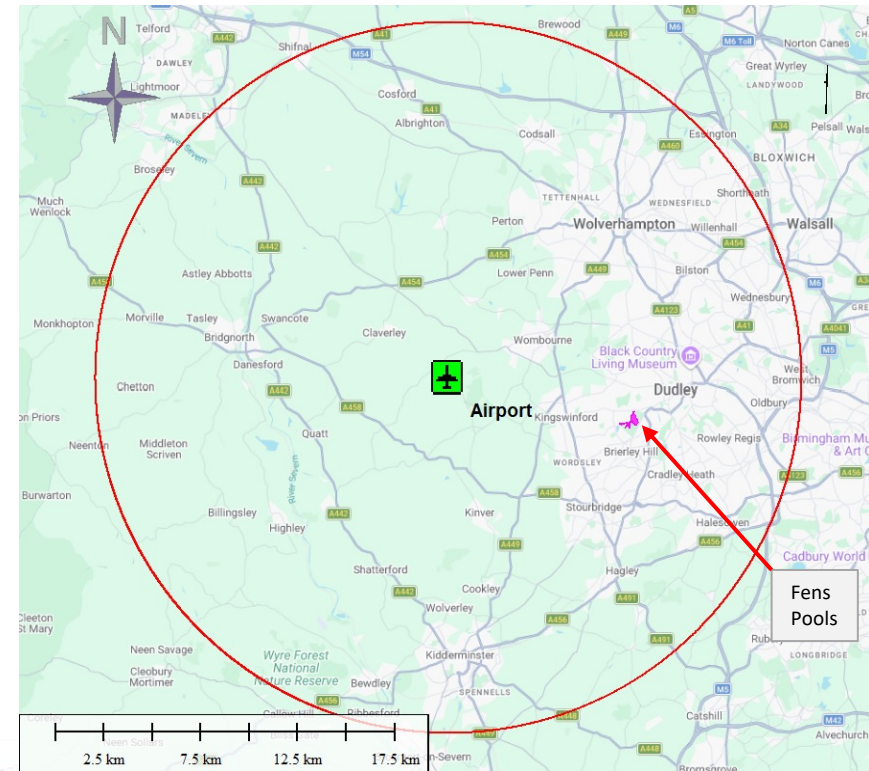
These sites include:

- Special Areas of Conservation (SACs);
- Special Protection Areas (SPAs);
- Ramsar sites;
- Other habitats protected under the Habitats Regulations.

The only site identified within the study area was **Fens Pools Special Area of Conservation (SAC)** shown in pink on the map.

The proposed arrival procedures are located well to the west of Fens Pools, with the closest point being approximately 4 NM away. The site is also already potentially overflown by aircraft operating under VFR.

As a result, the proposed changes are not expected to have a significant effect on Fens Pools or any other protected habitat sites. The CAA advised they will conclude on whether the HRA can be screened out after the CAP 1616 Stage 4 submission.



Map source: Google Street Maps
Data source: Natural England, Special Areas of Conservation (England), accessed via MAGIC. © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2026. DEFRA <https://magic.defra.gov.uk/>

Options Development and Evaluation

The following pages describe the viable options for the proposed LNAV/VNAV RNP approaches to runways 16 and 34.

These have been developed to meet the objectives set out in the Statement of Need (SoN), while taking account of:

- The agreed Design Principles (DPs);
- Local airspace constraints;
- Operational requirements;
- Environmental considerations; and
- Applicable instrument flight procedure design criteria, including CAP 2304 and ICAO PANS-OPS (Doc 8168).

Each option has been assessed through the Design Principle Evaluation (DPE) process in accordance with CAP 1616. This provides a structured and transparent way of considering how well each option aligns with the agreed Design Principles and the criteria used are shown in the table on the next slide.

Design Principle Evaluation (DPE)

The DPE is qualitative and is based on the available design information, established procedure design criteria, and professional judgement. In line with the proportionate nature of this Airspace Change Proposal, the DPE is not a full options appraisal, but an initial comparison of the options against the agreed Design Principles.

Each option was assessed as **Met**, **Partially Met**, or **Not Met** against each Design Principle. A summary of the results is provided for the options described, highlighting the key strengths and any areas where potential issues were identified.

Design Principle	Not Met	Partially Met	Met
1. Safety: The ACP must maintain a high standard of safety and should seek to enhance current levels of safety.	Significant safety risks identified that are not expected to be resolvable	Safety risks are identified to be resolved, but an acceptable solution is expected	No significant safety risks identified at this stage
2. Policy: The ACP should not be inconsistent with relevant legislation. Options are assessed by considering whether the option is consistent with relevant legislation, policy and guidance, including AMS objectives relating to safety, integration, simplification and environmental sustainability / tranquillity where relevant. The analysis includes the impacts of the proposed design on other airspace users, and operations at adjacent aerodromes.	The Proposed design is inconsistent with legislation, the AMS or policy and guidance	The Proposed design is inconsistent with some aspects of legislation, the AMS or policy and guidance but mitigation may be possible, or this is unavoidable	The Proposed design is not inconsistent with legislation, the AMS or policy and guidance
3. Overflight: The ACP should avoid overflight of densely populated areas where possible. Note: DP3 assesses community overflight using settlement/population density as a proxy. It does not include quantitative noise assessment. (Alignment to noise abatement procedures and impact on noise-sensitive locations are qualitatively assessed separately under DP5.)	The Proposed design overflies densely populated areas	The Proposed design overflies densely populated areas where it is unavoidable	The Proposed design does not overfly densely populated areas, or where it is unavoidable. If it does, then additional mitigation can be proposed
4. Technical (Accessibility for all airspace users): The airspace change proposal should satisfy the requirements of operators and owners of all classes of aircraft, including general aviation and other civilian airspace users.	Does not meet the technical requirements of airport operators and other airspace users.	Meets the technical requirements of some airport operators and other airspace users.	Meets the technical requirements of almost all airport operators and other airspace users.
5. Environment (Noise): Assessed by considering whether the option takes account of the published EGBO NAP, including avoidance of direct overflight of identified noise-sensitive locations where practicable, particularly Highgate Farm for RWY16 and Claverley/Bobbington for RWY34.	Does not take account of existing noise abatement procedures and increases noise exposure for affected communities.	Partially aligns with existing noise abatement procedures but may increase noise exposure for some affected communities.	Takes account of existing noise abatement procedures and does not increase noise exposure for affected communities.
6. Economic (Performance) - The airspace change proposal should contribute to economic growth, development and/or improved productivity amongst businesses, individuals, government or third sector organisations.	Does not contribute to improved economic productivity.	Partially contributes to improved economic productivity.	Contributes to improved economic productivity.

Purpose of this Engagement

This is a Level 3 change being conducted under CAP 1616h. This recognises that the introduction of PBN approaches of this type is likely to impact a relatively low number of stakeholders and a formal public consultation is not required.

However, EGBO is still required to engage with aviation industry stakeholders and can engage with non-aviation stakeholders if desired, depending on the circumstances of the ACP.

Given the location of EGBO and ongoing interest from local communities, a number of non-aviation industry stakeholders have also been identified and are invited to comment.

This engagement material has been created to provide useful and relevant information for both sets of aviation and non-aviation stakeholders.

For our **Aviation Stakeholders:**

In relation to the **viable** design options:

1. Do you agree with our selection of the preferred options
2. Do you have any concerns or comments of support regarding the proposed Instrument Approach Procedures, Missed Approaches or the location of the Holds?
3. Are there any other operational considerations that we haven't considered?

For our **Non-aviation Stakeholders:**

In relation to the **viable** design options:

1. Do you agree with our selection of the preferred options
2. Do you have any comments from a local perspective that we have not considered in the creation of the Instrument Approach Procedures, the Missed Approach or the Holds?

Section 3: Runway 34 Viable Approach Options

This section describes the options found to be ‘viable’ for runway 34 following the DPE process. It describes the options with the aid of a map and how the option was rated in the evaluation process.

The rejected options are shown in section 5. These have been included for reference, but we are not seeking feedback on these.

Runway 34 Options Development

The options for Runway 34 are based on a Y-bar design and were shaped by a range of operational, airspace and environmental considerations, including:

- **Proximity of Birmingham controlled airspace**

Birmingham Airport's controlled airspace, particularly the area known as CTA5, significantly influences arrival options from the east. While procedures could potentially route through this airspace, doing so would require ongoing coordination and agreement with Birmingham Airport. To reduce complexity, the design process prioritised options that remain outside this airspace.

- **Interaction with General Aviation (GA) traffic**

Consideration was given to minimising interaction with General Aviation traffic transiting the area. This was achieved, by reducing the overall dimensions of the procedure and limiting the volume of airspace affected.

- **Local VFR activity and Visual Reference Points (VRPs)**

The design process considered areas of concentrated VFR activity and possible interaction between these routes and the proposed holding pattern. In particular, Chelmarsh VRP and Clee Hills were key areas influencing the development of the design options.

- **Environmental considerations**

The location of National Parks, Areas of Outstanding Natural Beauty (AONBs) and other environmentally sensitive areas were taken account of. Consideration was given to potential effects on tranquillity and the wider environmental objectives associated with these areas.

- **Other aerodromes**

The location and operation of nearby aerodromes were considered throughout. A key objective was to develop procedures that minimise any requirement for changes to existing traffic patterns or operational arrangements at neighbouring airfields.

Runway 34 Design Dimensions

Initial approach

The Initial Approach Fix (IAF) is positioned at an altitude of 3,000 ft AMSL. Depending on the design option, the initial approach segment is either 5 NM or 3.5 NM in length. These variations reflect the differing operational and airspace considerations assessed during the design process.

Final approach

The Final Approach Fix (FAF) is located at an altitude of either 2,200 ft AMSL or 1,600 ft AMSL, depending on the option. From the FAF, all options follow a 3.5° final approach descent path to the runway, providing a consistent approach profile.

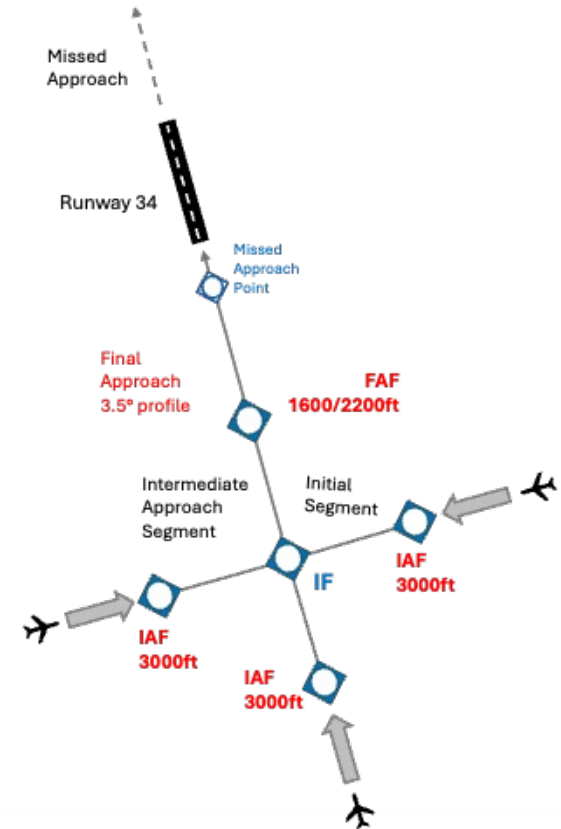
Missed approach

The final approach segment terminates at the Missed Approach Point (MAPt), which is located close to the runway threshold.

All missed approach procedures route aircraft to a designated holding facility. For some options, the hold is co-located with the Initial Approach Fix (IAF), while for others the hold is separate from the IAF. These alternative arrangements reflect the different design solutions evaluated as part of the development process.

The design process created five options for runway 34 all of which were subject to the Design Principles Evaluation (DPE) process. This resulted in **Option 3** and **Option 5** being assessed as viable. Of these, Option 5 is the preferred option.

These two options are shown on the following pages, and we are seeking feedback on these options, and the DPE process.



Runway 34 main dimensions

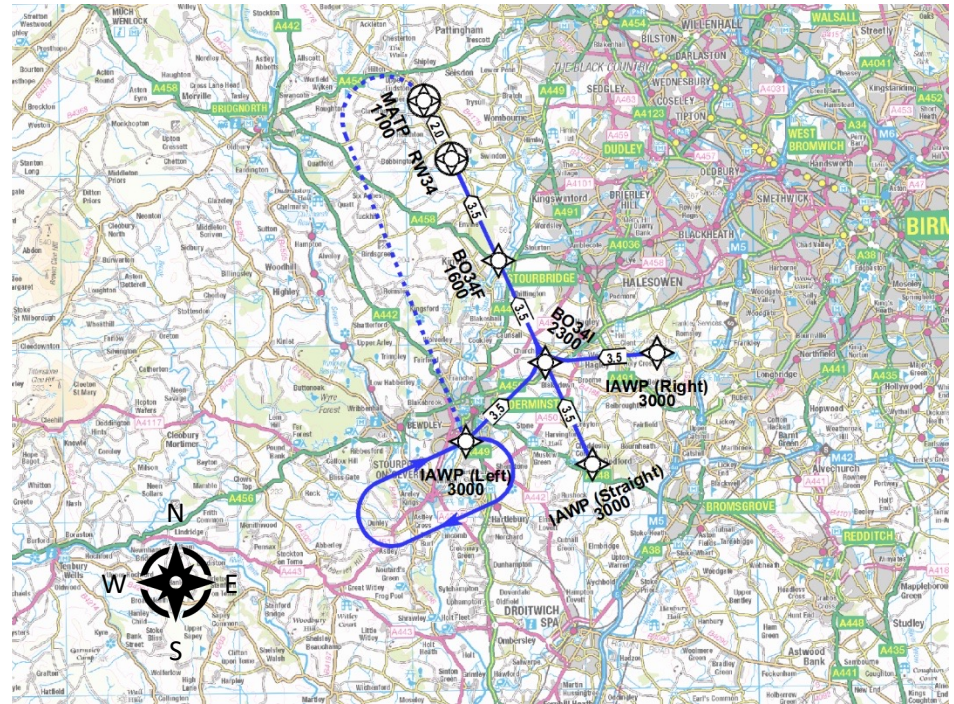
Runway 34 – Option 3/34

Option 3 uses a Y-bar design, with aircraft joining the approach at one of three points. It was developed so that eastern arrivals remain outside Birmingham controlled airspace.

Aircraft join at one of the Initial Approach Fixes (IAFs) before converging onto a common approach track via the IF and FAF. The final approach is flown at 3.5°. The missed approach continues straight ahead before returning to a hold based on the western IAF.

Within the DPE, this design was evaluated to have Met or Partially Met all the Design Principles:

- The design avoids interaction with Birmingham CAS, and the missed approach turns well before reaching the RAF Cosford airspace.
- The procedure avoids overflight of National Parks and Areas of Outstanding Natural Beauty (AONBs) and the compact nature reduces overall track mileage.
- Both the approach and missed approach routes are positioned away from established VFR hotspots such as Chelmarsh Lake and the Clee Hills.
- However, the missed approach and holding pattern are located relatively close to Kidderminster. As a result, there is potential for aircraft activity to be concentrated in this area. As a result, the Overflight DP was assessed as **Partially Met**.



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic
03/34						

Whilst this is a viable option it was not selected as the preferred.

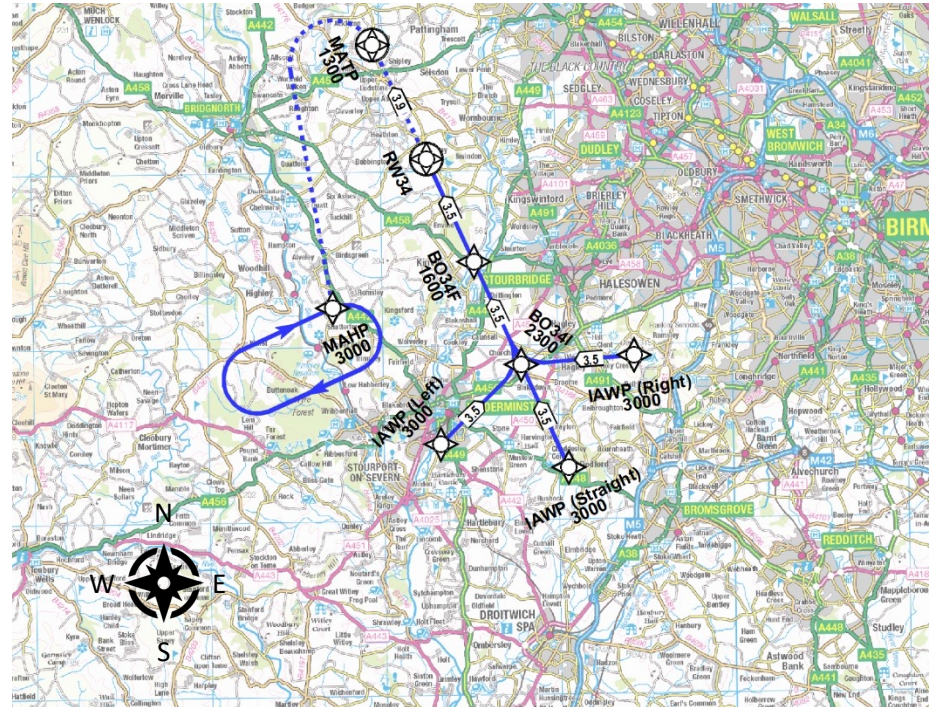
Runway 34 – Option 5/34

Option 5 also uses a Y-bar design and again was developed so that eastern arrivals remain outside Birmingham controlled airspace. It differs from Option 3 in that the hold is located separately and to the north-west of the IAF.

Aircraft join at one of the IAFs before converging onto a common approach track via the IF and FAF. The final approach is flown at 3.5°. The missed approach continues straight ahead before returning to a hold based on the western IAF.

Within the DPE, this design was evaluated to have Met or Partially Met all the Design Principles:

- The design avoids interaction with Birmingham CAS. Despite a longer straight-ahead segment, the missed approach still turns 1.4 NM before reaching RAF Cosford airspace.
- The procedure avoids overflight of National Parks and Areas of Outstanding Natural Beauty (AONBs) and the compact nature minimises track mileage.
- Both the approach and the missed approach are situated away from established VFR hotspots such as Chelmarsh Lake and Clee Hills.
- The hold location enables a greater degree of lateral dispersion when aircraft re-position to the western IAF. This is expected to reduce the concentration of overflight over Kidderminster town centre compared with the current design.

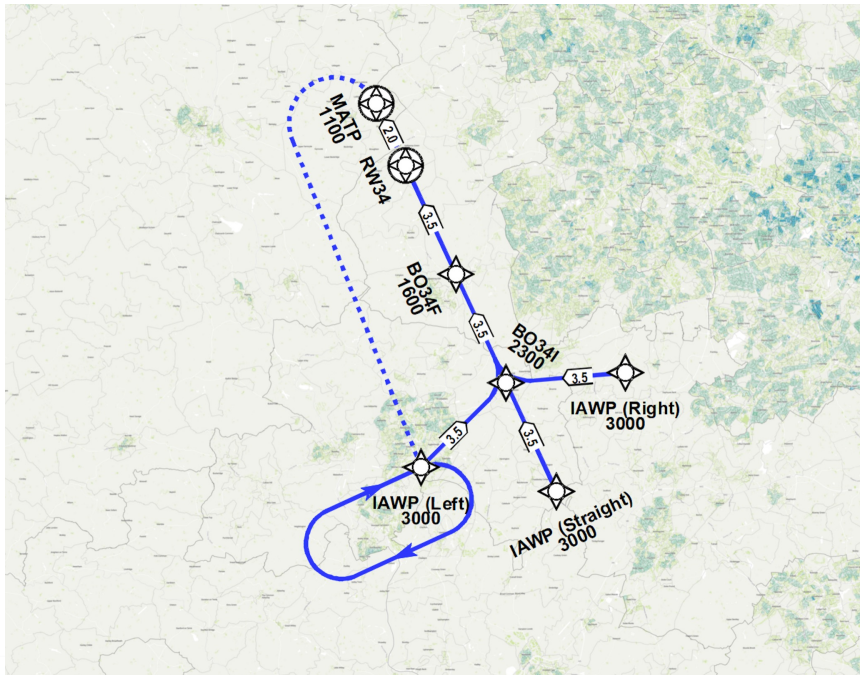


Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic
05/34						

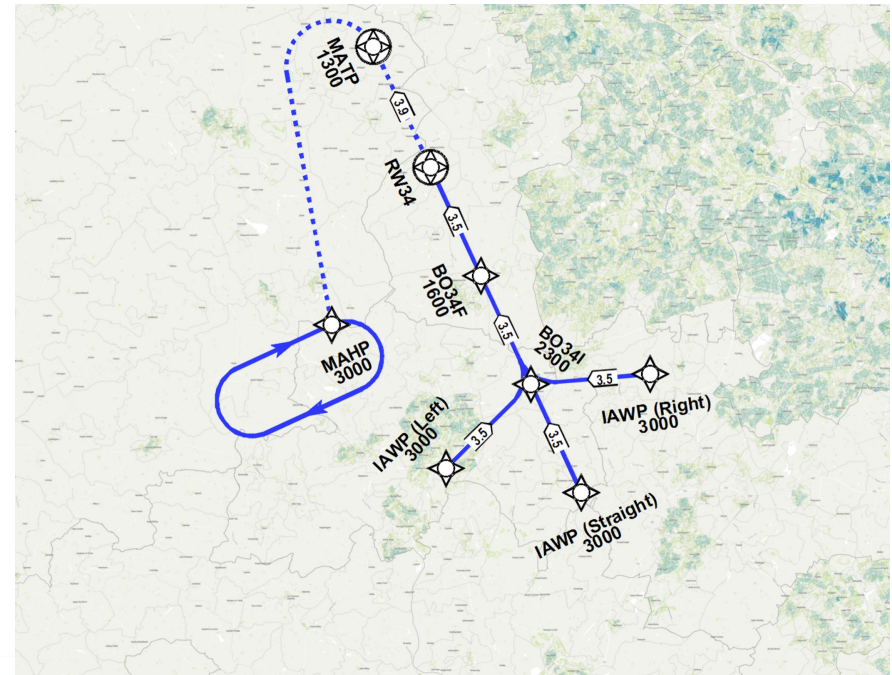
This is a **viable and preferred** option for runway 34.

Overflight – Runway 34

Population Density maps with the runway 34 viable options overlaid



Option 3/34



Option 5/34 (Preferred)

Source: Office for National Statistics, Census 2021 Population Density, licensed under the Open Government Licence v3.0. Basemap © OpenStreetMap contributors. Contains OS data © Crown copyright and database right 2026.

Section 4: Runway 16 Viable Approach Options

This section describes the options found to be ‘viable’ for runway 16 following the DPE process. It describes the options with the aid of a map and how the option was rated in the evaluation process.

The rejected options are shown in section 5. These have been included for reference, but we are not seeking feedback on these.

Runway 16 Options Development

The options for Runway 16 are based on a T-bar design and were shaped by a range of operational, airspace and environmental considerations, including:

- **Proximity of RAF Cosford Aerodrome Traffic Zone (ATZ)**

RAF Cosford is protected by an ATZ extending from the surface to approximately 2,272 ft AMSL (2,000 ft AAL). Although circuit traffic is typically contained below 1,500 ft AMSL, the ATZ has been a significant constraint in the design process as the closest point of the ATZ is only approximately 6 NM from the threshold of Runway 16. Whilst the ATZ lies within Class G airspace and there is therefore no requirement for formal airspace separation, it has been treated as a key design constraint throughout the options development process for runway 16

- **Interaction with General Aviation (GA) Traffic**

Consideration was given to minimising interaction with General Aviation traffic transiting the area. This was achieved, by reducing the overall dimensions of the procedure and limiting the volume of airspace affected.

- **Local VFR Activity and Visual Reference Points (VRPs)**

The design process considered areas of concentrated VFR activity and interaction between these routes and the proposed holding pattern. In particular, Chelmarsh VRP and Clee Hills were key areas influencing the development of the design options and the location of the hold.

- **Environmental Considerations**

The location of National Parks, Areas of Outstanding Natural Beauty (AONBs) and other environmentally sensitive areas were taken account of. Consideration was given to potential effects on tranquillity and the wider environmental objectives associated with these areas. The design also sought to minimise direct overflight of densely populated areas. Particular attention was given to avoiding concentration of traffic over Telford, and for the missed approach in maintaining alignment with existing Noise Abatement Procedures (NAPs).

- **Other Aerodromes**

The location and operation of nearby aerodromes were considered throughout. A key objective was to develop procedures that minimise any requirement for changes to existing traffic patterns or operational arrangements at these airfields, especially RAF Cosford.

Runway 16 Design Dimensions

Initial approach

The Initial Approach Fix (IAF) is positioned at an altitude of 3,000 ft AMSL. Depending on the design option, the initial approach segment is either 5 NM or 3.5 NM in length. These variations reflect the differing operational and airspace considerations assessed during the design process.

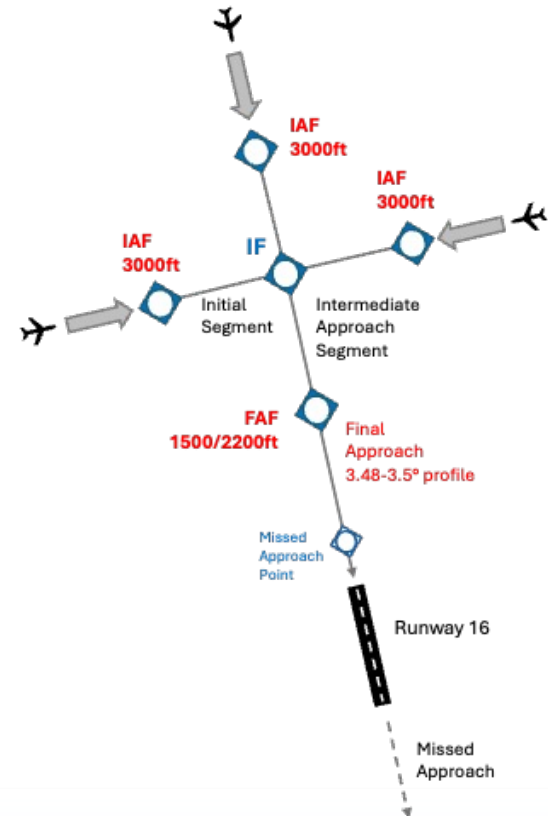
Final approach

The Final Approach Fix (FAF) is located at an altitude of either 2,200 ft AMSL or 1,500 ft AMSL, depending on the option. From the FAF, all options follow a descent profile between 3.48° and 3.5° to the runway, providing a consistent approach profile.

Missed approach

The final approach segment terminates at the Missed Approach Point (MAPt), which is located close to the runway threshold.

All missed approach procedures route aircraft to a designated holding facility. For some options, the hold is co-located with the Initial Approach Fix (IAF), while for others the hold is separate from the IAF. These alternative arrangements reflect the different design solutions evaluated as part of the development process.



Runway 16 main dimensions

The design process created seven options for runway 16 all of which were subject to the Design Principles Evaluation (DPE) process. This resulted in **Option 6** and **Option 7** being assessed as viable. Of these, Option 7 is the preferred option.

These two options are shown on the following pages, and we are seeking feedback on these options, and the DPE process.

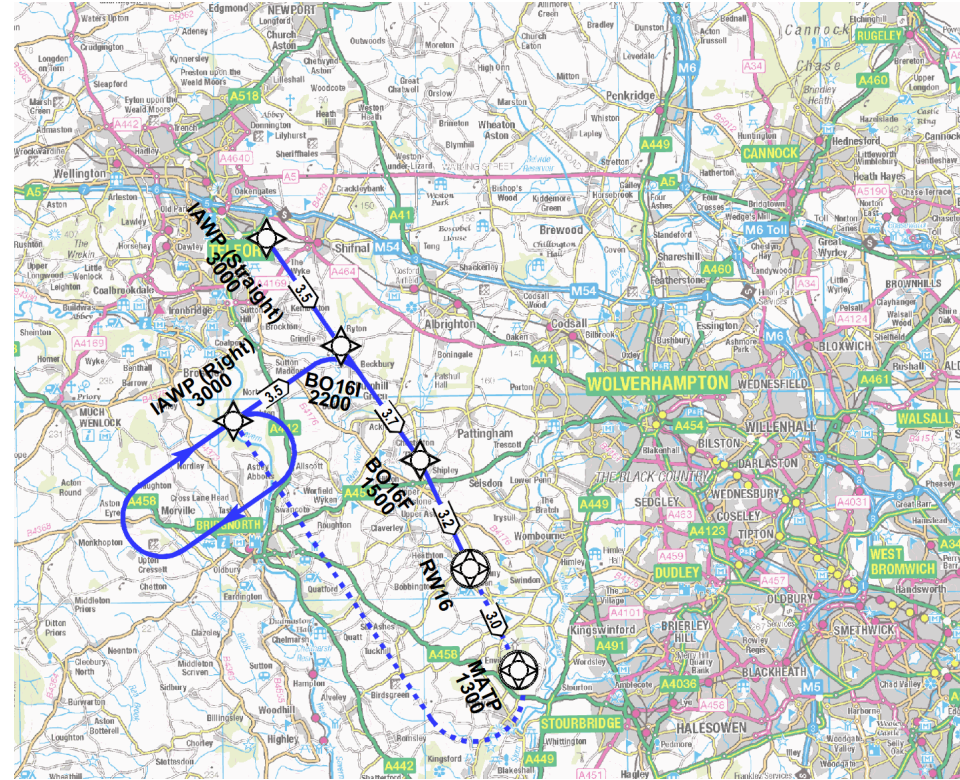
Runway 16 – Option 6/16

Option 6 uses a modified T-bar design, with the eastern initial approach leg removed resulting in two IAFs instead of three. An offset intermediate approach segment has also been incorporated, and combined, these ensure aircraft remain outside RAF Cosford airspace.

Aircraft join at one of the two IAFs before converging onto a common approach track via the IF. At the FAF aircraft make a 10° right turn onto final approach flown at 3.48°. The missed approach continues straight ahead before returning to the hold at the western IAF.

Within the DPE, this design was evaluated to have Met or Partially Met all the Design Principles:

- The two-leg design avoids interaction with the RAF Cosford ATZ, reducing the potential to affect existing traffic patterns or environmental impacts in that area, and reducing the likelihood of interactions between aircraft operating to and from the two aerodromes.
- It avoids overflight of National Parks and Areas of Outstanding Natural Beauty (AONBs).
- Both the approach and missed approach routes are positioned away from established VFR hotspots including Chelmarsh Lake.
- Although the option takes account of the existing Noise Abatement Procedures (NAP), the missed approach may overfly Highgate Farm. As a result, the Noise DP was assessed as **Partially Met**.



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic
06/16						

This is a viable option but was not selected as the preferred.

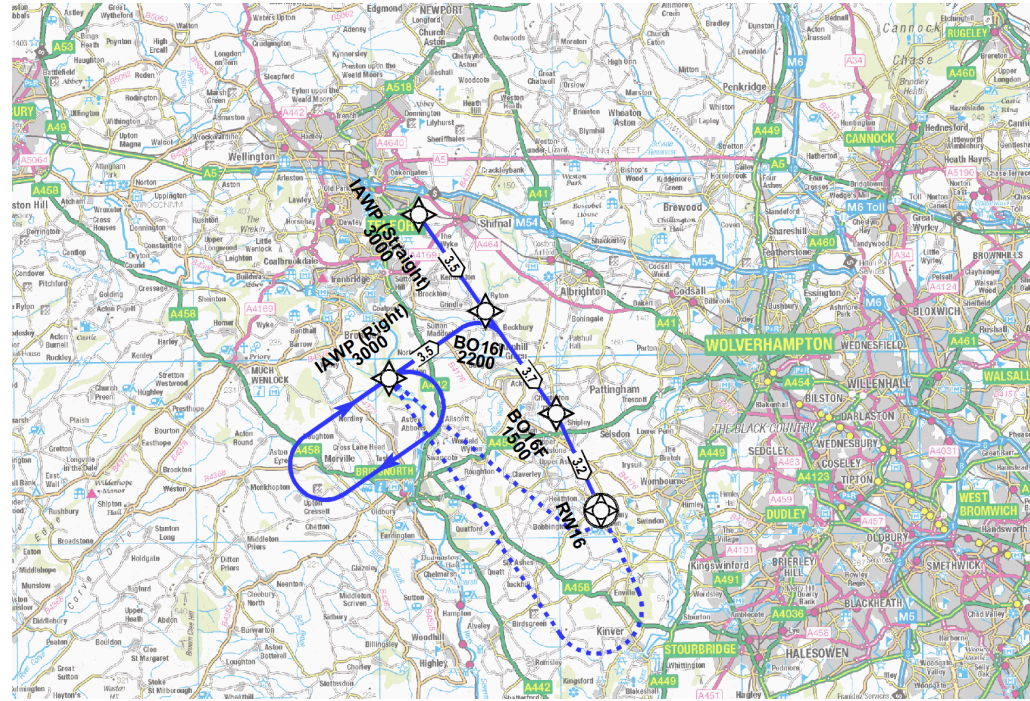
Runway 16 – Option 7/16

Option 7 also uses a modified T-bar design, with two IAFs instead of three, and also has an offset intermediate approach segment to ensure aircraft remain outside RAF Cosford airspace. It differs from Option 6 in that the missed approach uses a ‘Course to Altitude’ leg before initiating a right turn back to an Initial Approach Fix. This has the potential to reduce the number of aircraft passing over Highgate Farm.

Aircraft join at one of the two IAFs before converging onto a common approach track via the IF. At the FAF aircraft make a 10° right turn onto final approach flown at 3.48°. On the missed approach, continues straight ahead before returning to the hold at the western IAF.

Within the DPE, this design was evaluated to have Met or Partially Met all the Design Principles:

- The two-leg design avoids interaction with the RAF Cosford ATZ, reducing the potential to affect existing traffic patterns or environmental impacts in that area, and reducing the likelihood of interactions between aircraft operating to and from the two aerodromes.
- It avoids overflight of National Parks and Areas of Outstanding Natural Beauty (AONBs).
- Both the approach and missed approach routes are positioned away from established VFR hotspots including Chelmarsh Lake.
- The option takes better account of the existing Noise Abatement Procedures (NAP) by creating a turn at altitude.

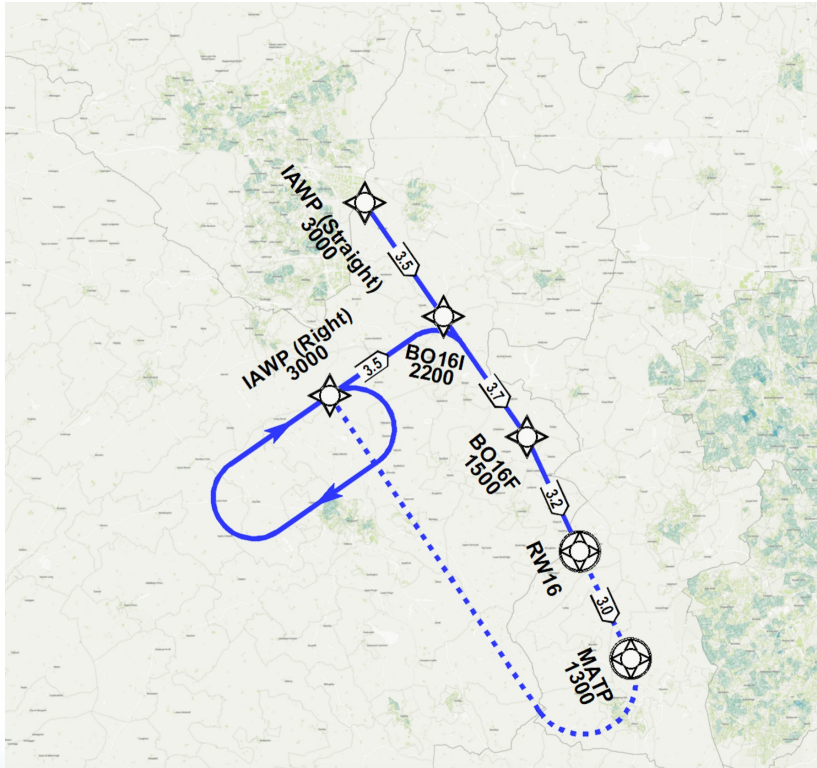


Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic
07/16						

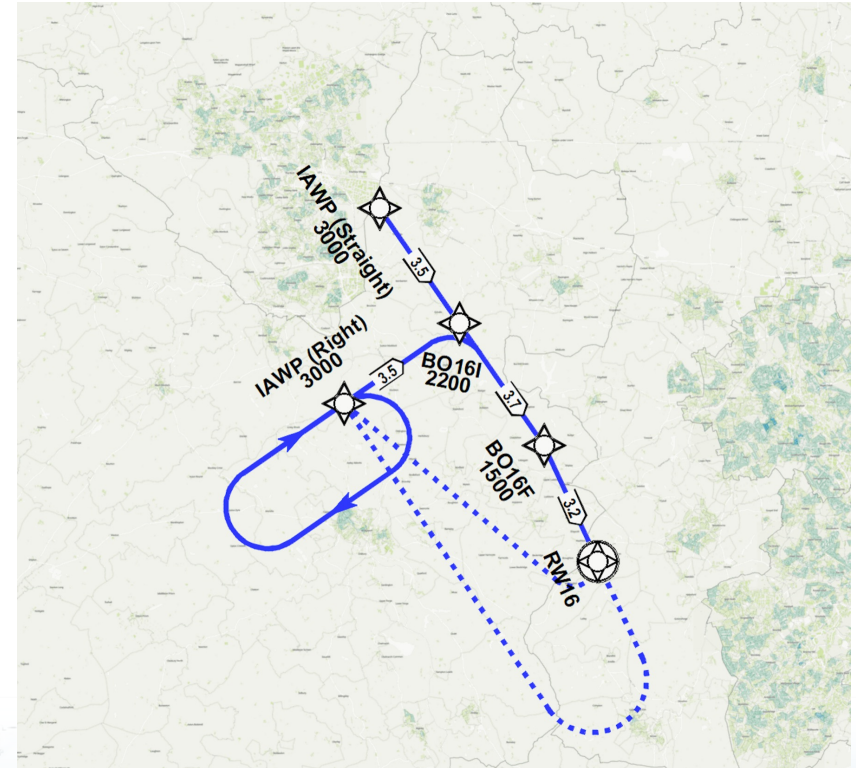
This is the **viable and preferred** option for runway 16.

Overflight – Runway 16

Population Density maps with the runway 16 viable options overlaid



Option 6/16



Option 7/16 (Preferred)

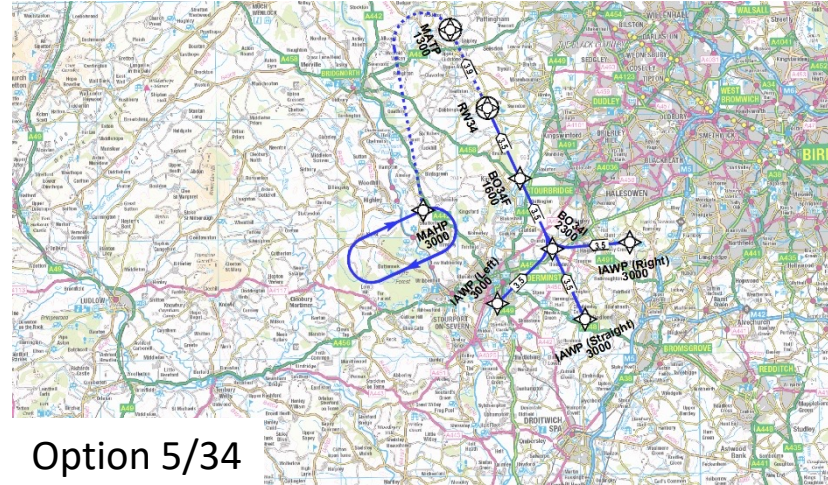
Source: Office for National Statistics, Census 2021 Population Density, licensed under the Open Government Licence v3.0. Basemap © OpenStreetMap contributors. Contains OS data © Crown copyright and database right 2026.

Summary of the Preferred Options

Runway 34

Option 5/34 is the preferred option as this best meets the DP, and by having a remote hold, has the potential reduce the impact of noise on Kidderminster.

On leaving the hold aircraft have a range of routing options to reposition to the western IAF. As a result, traffic is expected to be more dispersed, reducing the concentration of overflight over Kidderminster centre and potentially mitigating community overflight impacts.

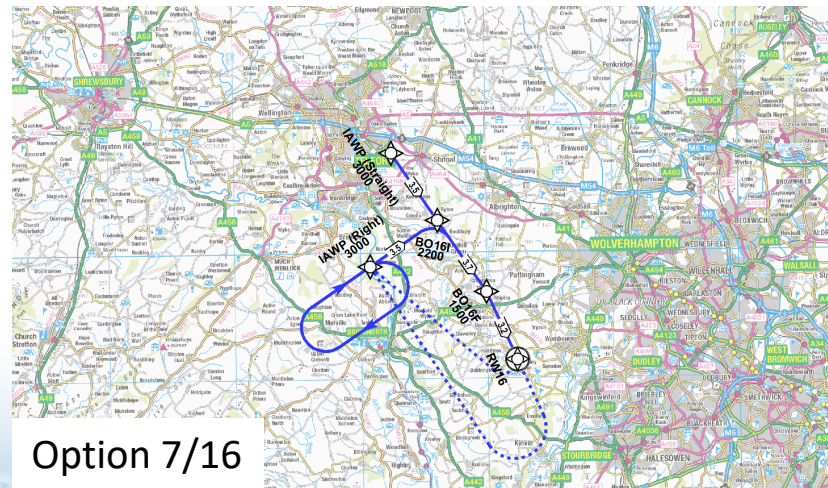


Option 5/34

Runway 16

Option 7/16 is the preferred option as this best meets the DP, by using the the Course to Altitude leg on the missed approach.

This allows aircraft to commence the right turn back to the hold upon reaching 1000 ft AMSL / 717 ft AAL. Because each aircraft will perform differently, this has the potential to reduce the number of aircraft passing directly over Highgate Farm and is likely to result in a dispersed swathe of aircraft flying the missed approach.



Option 7/16

Section 5: Rejected (Unviable) Options

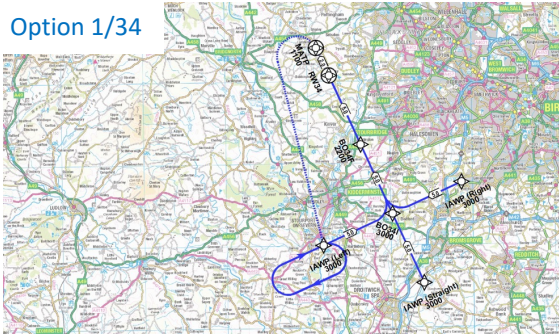
This section presents the design options that were assessed during the DPE but not taken forward.

These options were rejected because they failed to meet one or more of the agreed DPs and are included for transparency only.

Feedback is not being sought on these rejected options.

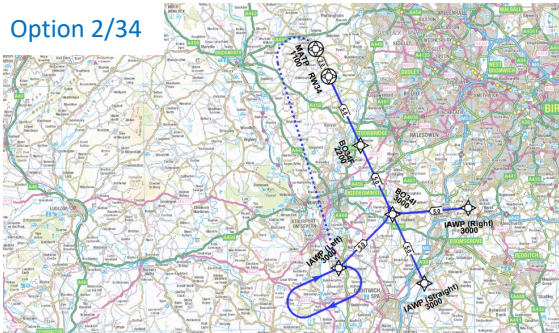
Rejected (Unviable) Options – Runway 34

Option 1/34



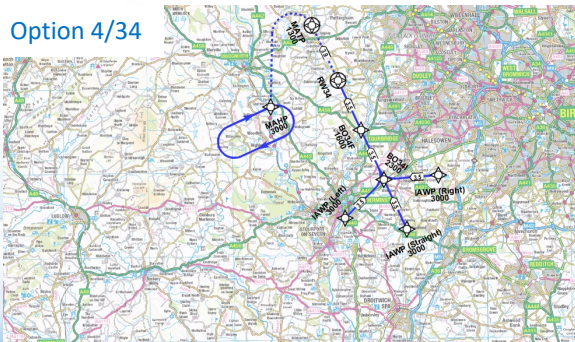
Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
1/34							Eastern IAF not separated from Birmingham CTA. This represents a safety risk and would also introduce a need for complex co-ordination. Large size of the procedure may reduce access for or interact with other GA traffic.

Option 2/34



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
2/34							The IAF is close to the Birmingham CTA boundary and infringement of the CTA is possible. Potential for complex coordination remains. Large size of the procedure may reduce access for or interact with other GA traffic.

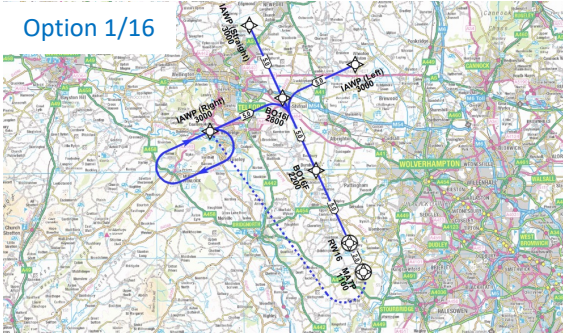
Option 4/34



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
4/34							The Hold is located adjacent to Chelmarsh reservoir VFR reporting point, introducing the risk of interaction between aircraft flying the procedure and GA aircraft. Location increases complexity and may impact accessibility for GA traffic when procedure is in use.

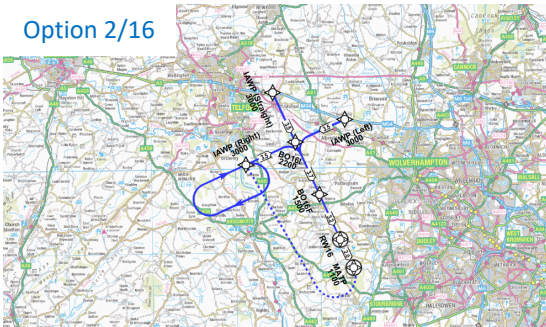
Rejected (Unviable) Options – Runway 16

Option 1/16



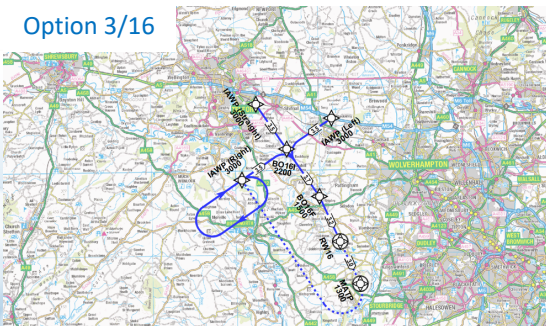
Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
1/16							Intermediate approach overflies Cosford ATZ . This may result in interaction and may also affect existing traffic patterns and result in increased coordination and complexity. Hold and initial approaches are overhead Telford Large size of the procedure may reduce access for or interact with other GA traffic.

Option 2/16



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
2/16							Eastern IAF is immediately above Cosford ATZ . This may result in interaction and may also affect existing traffic patterns and result in increased coordination and complexity. Large size of the procedure may reduce access for or interact with other GA traffic.

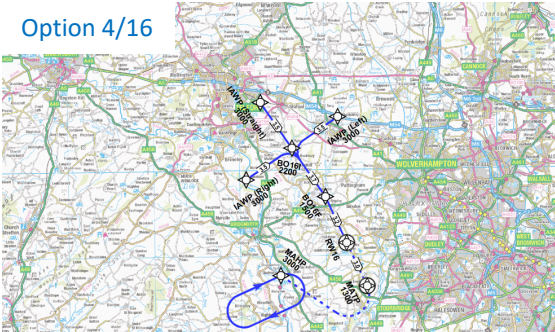
Option 3/16



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
3/16							Eastern IAF is immediately above Cosford ATZ . This may result in interaction and may also affect existing traffic patterns and result in increased coordination and complexity.

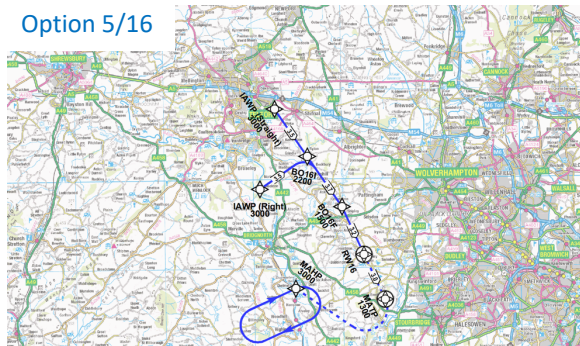
Rejected (Unviable) Options – Runway 16

Option 4/16



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
4/16							Eastern IAF is immediately above Cosford ATZ and the Hold is located adjacent to Chelmarsh reservoir VFR reporting point, introducing the risk of interaction between aircraft flying the procedure and GA aircraft. Location increases complexity and may impact accessibility for GA traffic when procedure is in use.

Option 5/16



Option	DP1 Safety	DP2 Policy	DP3 Overflight	DP4 Technical	DP5 Noise	DP6 Economic	Comments
5/16							The Hold is located adjacent to Chelmarsh reservoir VFR reporting point, introducing the risk of interaction between aircraft flying the procedure and GA aircraft. Location increases complexity and may impact accessibility for GA traffic when procedure is in use.

Impact on Airspace Users

Local GA operators

The main impact will occur when an RNP approach is being conducted and GA operations are temporarily suspended to enable safe approaches. However, the RNP approach will normally only be available under specified low cloud and/or visibility conditions and will require PPR booking. Airfield movement levels are expected to be low during these conditions, and the detailed procedures will be agreed between the airport and local flying clubs to minimise impact.

Transiting traffic

The procedures operate in Class G airspace, where most traffic is VFR and therefore not likely to be present in the weather conditions that the RNP approaches will be used. Route design also considered key VFR hotspots, including Clee Hills and Chelmarsh Reservoir. Any impact on GA activity is expected to be infrequent and minimal.

Birmingham CTR

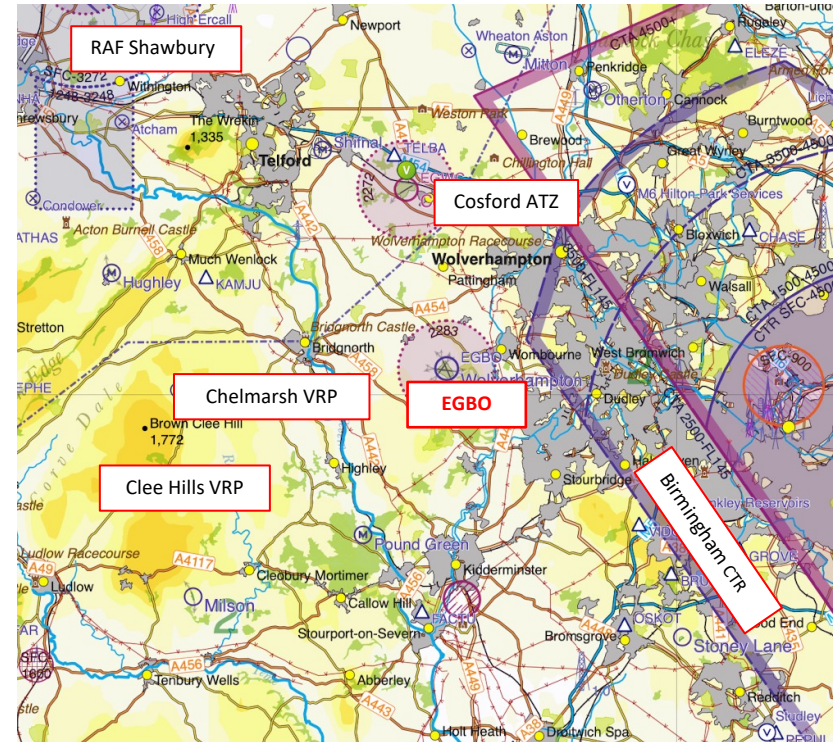
The procedures have been designed to remain well clear of the Birmingham CTR. Prior to implementation, the existing Letter of Agreement (LoA) will be updated to incorporate the RNP procedures to ensure safe operations are maintained.

RAF Cosford ATZ:

RAF Cosford was treated as a key design consideration throughout the development of the Runway 16 options. The preferred RNP design avoids the Cosford ATZ through a two-leg T-bar configuration, with no IAFs or routes overflying the ATZ, and a 10° offset intermediate approach leg that keeps the remaining route segments to the west. As a result and given the limited operational use and weather-dependent nature of the procedures, any effect on Cosford operations is expected to be very limited.

RAF Shawbury MATZ:

None of the procedures are within 4 NM of the MATZ, and operations are therefore unlikely to be affected.



Source: SkyDemon chart, © 2026 Divelements Limited.. This map is provided for guidance only. For current and accurate aeronautical information, refer to the UK AIP.

Your Input

We would like to know if you agree with our selection of the preferred options. The following will be provided for you:

- A questionnaire.
- Information sessions:
 - One for technical stakeholders;
 - One for non-technical stakeholders;
 - Additional sessions if required.
- Supplementary material if required or requested.
- The ACP and all engagement material will be uploaded to the [ACP Portal](#).

Any Questions?

Email: acp_wolverhampton@cyrrus.co.uk

Survey Link: [Provision of RNP Approaches to runways 16/34 at Wolverhampton Halfpenny Green Airport – Fill out form](#)

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- Civil Aviation Authority (CAA) (2023), CAP 1616: Airspace Change – Guidance on the Regulatory Process for Changing the Notified Airspace Design and Planned and Permanent Redistribution of Air Traffic.
- Civil Aviation Authority (CAA), CAP 1616h: Guidance on Airspace Change Process for Level 3 and Pre-scaled Airspace Change Proposals.
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