London Oxford Airport Airspace Change Proposal

Consultation Document

Document Details

Reference	Description
Document Title	London Oxford Airport Airspace Change Proposal
	Consultation Document
Document Ref	70893 017
Issue	Issue 1
Date	15th December 2017
Client Name	
Classification	

Issue	Amendment	Date
Issue 1	Initial issue	15th December 2017

Executive Summary

London Oxford Airport (LOA) lies 40 miles to the north-west of the Greater London and halfway to the UK's industrial heartland in the Midlands. It is the only commercial airport between London Heathrow (LHR) and Birmingham (BHX) and is the Thames Valley area's primary regional and business aviation airport. Located in the heart of one of Europe's fastest growing and most prosperous regions, LOA airport has handled the fastest growing volumes of private and business aviation in the UK between 2007 and 2012. Significant investment has taken place in recent years to improve the airport facilities and enhance the safety for those aviators utilising the airport for commercial use, business use, flying training or for just recreational flying. Part of this improvement has included the installation and commissioning of Primary and Secondary Surveillance Radars to provide controllers with significantly improved capability to monitor the air traffic situation within the entire Oxfordshire area.

Given the improved capability to monitor traffic at critical areas of flight, ATCOs have observed that safety has often been compromised, particularly when General Aviation (GA) aircraft are operating to the north of the Aerodrome without speaking to ATC. In these cases, it has been necessary for controllers to turn traffic inbound to LOA to avoid an unknown, conflicting aircraft. Many pilots choose not to call ATC as they are not legally mandated to do so. On many occasions LOA have needed to break aircraft off from their final approach to ensure safe separation from conflicting traffic. This issue could be avoided if transiting aircraft were required to call ATC. Controllers would then ensure that safe separation between aircraft was maintained, or provide traffic information to ensure pilots can visually acquire each other. Managing the appropriate separation is a high-workload activity for Oxford ATCOs and ultimately for the pilots who are broken off from final approach.

Procedures and airspace designs at LOA and at neighbouring RAF Brize Norton (BZN) are widely recognised as having been devised many years ago when the air traffic demands within the local area were quite different. Modernising airspace is a key requirement of the Civil Aviation Authority's Future Airspace Strategy[1], to ensure that airspace is used as efficiently as possible. To do this, modern technologies must be harnessed, and GPS-based arrival, departure and approach procedures implemented where appropriate. In collaboration with BZN, LOA is looking to introduce new GPS-based arrival procedures and restructure the local airspace to protect these procedures within controlled airspace. The re-design will enhance levels of safety on the LOA approach and improves efficiency by reducing the number of broken off approaches and the environmental impact of these extended flights. The new designs will also ensure effective coordination between LOA and BZN

Of course, LOA recognises that aviation and non-aviation stakeholders may have strong views regarding the proposed airspace changes, and in recognition of this fact we wish to consult with our local stakeholders to elicit views on our proposed changes. We encourage all consultees to provide us with supportive comments as well as any concerns. Additionally, even if you have no strong feelings either way, please tell us that is the case.

[1] Further information on the Future Airspace Strategy can be found here: https://www.caa.co.uk/Commercial-industry/Airspace/Future-airspace-strategy/Future-airspace-strategy/

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1 Introduction

LOA has identified a requirement to propose changes to the classification of airspace surrounding the airport to protect new Instrument Approach Procedures and enhance the levels of safety for all aircraft operating within the vicinity of the airport. This document describes the nature of the proposed changes and how those changes may affect other aviation and non-aviation stakeholders.

1.1 About LOA

LOA first started flying in the 1930s, originally as a Municipal Aerodrome for Oxford. However, with the onset of war, the airport trained RAF pilots to support the Second World War. Since then, it has always been engaged in flight training, and is now home to Oxford Aviation Academy. Training flights at one point accounted for 95% of the aircraft movements at the airport; this has changed since the economic downturn in 2008, and now training flights account for approximately 44% of aircraft. The airport has seen an increase in Business and Commercial flights, 10%, with 13% of flights being private/commercial helicopter flights. The remaining 33% is recreational, turboprop or General Aviation flights[2]. Whilst the numbers have changed the complexity of the task has also increased. Diverse participating aircraft types and variable speeds routinely create challenging traffic situations. These challenges are additionally complicated by the volume of aircraft that operate within the vicinity of the aerodrome.

LOA's runway is only practically useable 70% of the time, when poor visibility conditions prevail, because only one end of the runway has precision approach infrastructure. During the other 30% of the year, the wind direction dictates an approach from the south to Runway 01 which has neither the precision approach navigational aids, nor the associated approach lights. Consequently, many private and commercial flights opt to divert elsewhere or arrange to use an alternative airport. This limitation not only routinely results in a loss of business, particularly during the winter months, but it is also very disruptive for the pilot training operations that require precision approach facilities every day throughout the year. LOA typically loses 30 days of business each winter due to the lack of a precision approach system on the northerly runway. Daily scheduled commercial or training activities are marginally viable with such a limitation. At many smaller airports, it is often only financially viable to install a precision approach system at the most frequently-used end of the runway; this has been the case at LOA for the last eleven years. The current conventional procedures rely on the use of a radar beam known as the Instrument Landing System (ILS) and another navigation beacon known as a Non-Directional Beacon (NDB).

[2] Source www.oxfordairport.co.uk/home/the_airport_today.htm

The introduction of RNAV (derived from aRea NAVigation) Global Navigation Satellite Systems (GNSS) technology will ensure more accurate navigation to each runway and lower decision heights. This means that pilots can make best use of both runways in the prevailing weather conditions. It also means a reduction in the number of missed approaches.

The introduction of RNAV (GNSS) technology is also aligned with UK policy and is a cornerstone of the Future Airspace Strategy (FAS). At the 2007 36th International Civil Aviation Organisation (ICAO) General Assembly, States agreed to Resolution 36/23, which urges all States to implement routes and airport procedures in accordance with the ICAO Performance Based Navigation (PBN) criteria. EU Legislation, through the Common Pilot Project, instructs States to implement PBN through RNP1 by 2024.

To ensure these new RNAV (GNSS) Instrument Approach Procedures (IAPs) are adequately protected, LOA believes it is now also necessary to change the classification of the airspace around the airport. The new procedures will then be contained within controlled airspace, and this will enhance the levels of safety for all aircraft operating at LOA.

1.2 What is in this Document

In exercising its air navigation functions, the Civil Aviation Authority (CAA) must give priority to maintaining a high standard of safety in the provision of air traffic services in accordance with its statutory duties set out in Section 70(1) of the Transport Act 2000 [Reference 1]. A formal airspace change process is articulated within Civil Aviation Publication (CAP) 724 Airspace Charter [Reference 2] and CAP 725 Airspace Change Process Guidance Document [Reference 3]. To ensure that anyone that may be affected by any changes proposed to airspace or routes used by aviation can see the proposed changes and make comment on them, the document includes several sections that cover the following:

Section 1 is this section and introduces LOA and the airspace change consultation process.

Section 2 discusses what the consultation is about, looking at the current airspace and issues, and the key drivers for this change.

Section 3 discusses the need for this consultation.

Section 4 describes who is being consulted.

Section 5 details the options that have been considered.

Section 6 describes the proposed best option.

Section 7 shows how the changes may affect consultees

Section 8 describes the next steps following consultation.

Section 9 is a list of relevant references.

2 What is the Consultation About?

LOA and BZN are working collaboratively to individually introduce changes that make use of new technologies to enhance the safety of operations, deliver environmental benefits and modernise existing airspace structures. This section will explain the rationale for the proposed changes.

2.1 Overview

The requirement for a change to the airspace surrounding LOA derives from four distinct themes:

1. A requirement to enhance the safety of aircraft arriving on Instrument Flight Procedures to Runway 19 (from the north);
2. A requirement to protect aircraft operating within the visual circuit;
3. A requirement to enhance the safety margins that exist between aircraft operating at LOA and those at BZN; and
4. A requirement to future-proof the existing Instrument Flight Procedures in accordance with the CAA Future Airspace Strategy [Reference 6].

2.2 Current Airspace

2.2.1 Local Airspace

LOA is situated within Class G (uncontrolled) Airspace, Figure 1 below. An Aerodrome Traffic Zone (ATZ) surrounds the airfield and measures 2 nautical miles (nm) in radius centred on the Airfield Reference Point (ARP), the mid-point of the main instrument runway, Runway 19.

Figure 1 - London Oxford Airport Local Airspace

This extends from the surface to 2,000 ft Above Aerodrome Level (AAL). Figure 2 also shows the relative position of LOA to BZN and depicts the final approach path (in red) that aircraft fly when arriving at LOA from the north for Runway 19. The southernmost edge of the LOA ATZ adjoins the Class D Controlled Airspace surrounding BZN. A formal Letter of Agreement between the two airports ensures that safe separation between aircraft is maintained. LOA is immediately surrounded by the Danger Area D129, the airfields at RAF Benson, Enstone, Abingdon and the parachute dropping sites at Weston-on-the-Green and Hinton-in-the-Hedges. It also lies at the heart the Oxford Area of Intense Aviation Activity (AIAA).

2.2.2 The Oxfordshire AIAA

The UK Integrated Aeronautical Information Publication (UK IAIP) [Reference 4] ENR 1.1 describes an AIAA as:

> "5.2.2 Airspace within which the intensity of civil and/or military flying is exceptionally high or where aircraft, either singly or in combination with others, regularly participate in unusual manoeuvres.
>
> 5.2.2.1 Intense civil and/or military air activity takes place within the areas listed in ENR 5.2. Pilots of non-participating aircraft who are unable to avoid AIAAs are to keep a good lookout and are strongly advised to make use of a radar service if available; these areas are depicted at ENR 6-5-1-2."

The UK IAIP ENR Section 5.2 provides the following remarks specifically for the Oxford AIAA:

> "**Remarks**: There is intense air activity associated with closely woven civil and military climb out and approach procedures for the many airfields in the vicinity. Pilots flying in this area are advised to keep a constant vigilance particularly during weekdays when military activity is at its peak, and especially in the area 8.5 NM/308° (T) and 6 NM/145° (T) from Oxford/Kidlington aerodrome where aircraft may be holding awaiting clearance to join airways."

The UK IAIP also contains the following advisory measures:

> "**Advisory Measures**: Radar services are available within this area from Brize Norton ATC on 124.275 MHz. The attention of pilots is also drawn to the Brize Norton Control Zone. (See ENR 2.1)."
>
> The Oxfordshire AIAA extends from the surface up to 5,000 ft above mean sea level (AMSL). Whilst the designation of an AIAA indicates to all aviators that the area is a volume of Class G airspace that may be more congested than other areas, it offers no additional protection to aircraft operating within it.

2.3 Current Operational Issues

2.3.1 RAF Brize Norton (BZN) Interactions

Currently, due to the relative positions of each runway, the LOA and BZN published procedures cannot ensure that standard separation is maintained between aircraft without extensive controller intervention. Aircraft that execute a Missed Approach Procedure (MAP) on Runway 19 at LOA potentially fly close to the area where aircraft position for a final approach at BZN. Only continuous monitoring and intervention by Air Traffic Controllers (ATCOs) at each unit currently guarantees

adequate separation is maintained. ATCOs currently resolve conflicts between aircraft operating on the instrument approach to Runway 25 at BZN and aircraft going around or departing from Runway 19 at LOA. BZN aircraft have also been involved in safety related incidents as their aircraft have been unable to remain within the current BZN controlled airspace volume. This has an impact on LOA Operations as ATCOs must assume that BZN aircraft may be unable to remain inside the BZN Control Zone (CTR) and avoiding action may have to be taken by aircraft under LOA control.

Because of the issues described above, BZN is also proposing an airspace change and a re-design of their Instrument Flight Procedures (IFPs), described below at para 2.5. Whilst there is no certainty of success of the BZN ACP, it is important that LOA capitalises on this proposed change to ensure that all the proposed designs incorporate better ways of working that reduce the need for controller intervention whilst preserving separation standards.

Due to a combination of the relative positions of LOA and BZN and the UK prevailing winds, the majority of aircraft arrive at LOA for Runway 19 from the north. The majority of aircraft also depart from Runway 19 to the south, which can occasionally conflict with aircraft positioning for an arrival at BZN, Runway 25. ATCOs at both airports resolve any conflictions by coordinating with each other. Figure 2 below shows the existing overlapping patterns and the points at which they cross, indicated by the yellow stars. These are the areas that require specific controller focus; the act of negotiating a coordination agreement is time consuming and reduces controller capacity. These potential conflictions will also be addressed by this airspace change.

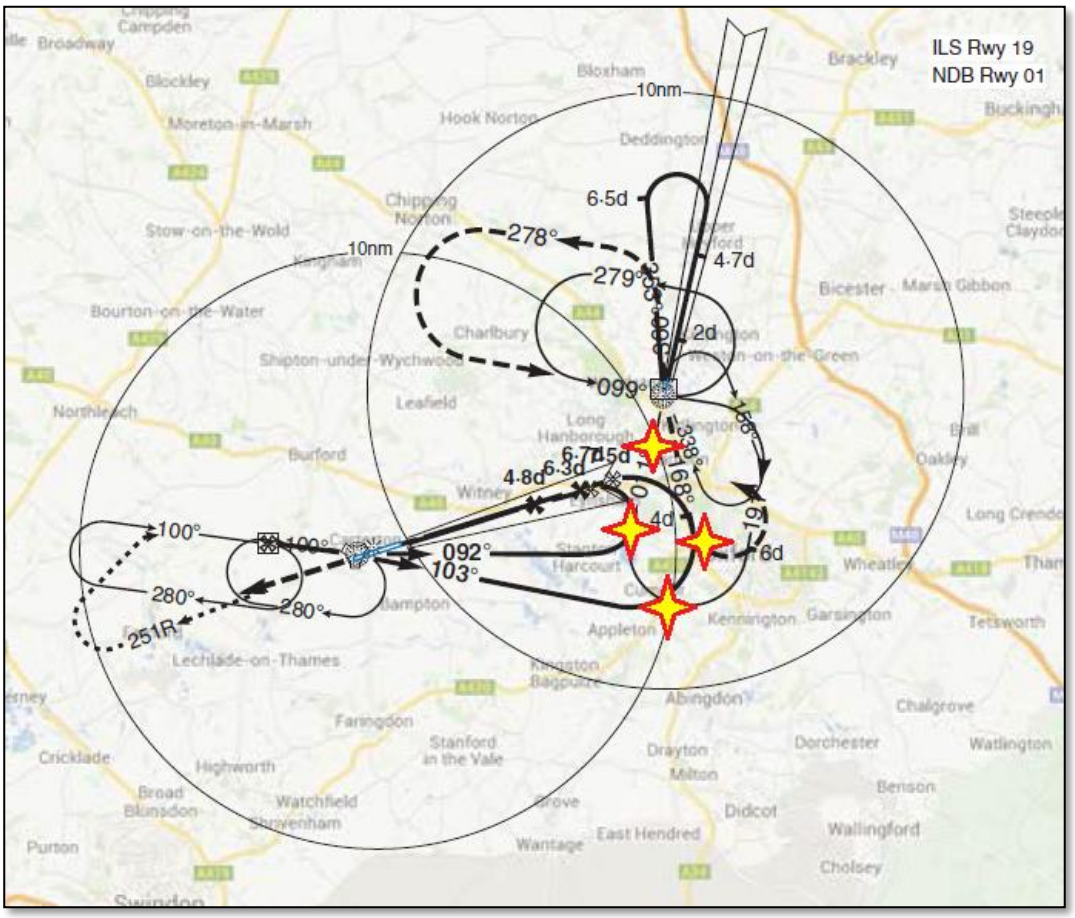

Figure 2 – Current LOA Runway 19 Departures/ Runway 01 arrivals and BZN Runway 25 Arrivals.

2.3.2 Oxford AIAA

LOA lies within the area designated as the Oxford AIAA. There are a significant number of light aircraft operations, gliders, para-dropping activities as well as commercial aircraft mixing with military operations. All this makes for a complex environment.

The proximity to so many other aerodromes and aircraft operators means LOA and BZN ATCOs work in a challenging environment daily. LOA ATCOs are consistent in their application of the requisite safety and separation standards. However, LOA ATCOs frequently need to instruct aircraft to undertake multiple turns to avoid conflicting aircraft that do not choose to make radio contact with LOA and whose intentions are therefore unknown. The unpredictable nature and volume of such flights significantly increases risk and ATCO workload, affects the Airport's environmental footprint and reduces LOA's commercial appeal.

2.3.3 Installation of Primary and Secondary Radar

Prior to 2012, Air Traffic Control at LOA was limited to an Approach Procedural Service[3] (APP) to aircraft flying under Instrument Flight Rules[4] (IFR). Under an APP, ATCOs are only obliged to provide separation between aircraft operating under IFR who are also under the control of LOA. Without a surveillance system (such as radar) the ATCO would not be aware of other aircraft that may be operating outside of the 2 NM ATZ under Visual Flight Rules (VFR) and therefore would not be responsible for providing separation against the unknown aircraft.

In 2012, the installation of Primary[5] and Secondary[6] Surveillance Radar Systems (PSR and SSR) and the associated training of the ATCOs was completed. An Approach Surveillance Service (APS) was then provided to aircraft operating IFR, or in IFR weather conditions, in and out of LOA. Installation of the radar gave ATCOs a greatly improved picture of the volume of aircraft operating close to, but outside of the LOA ATZ. It also highlighted the large amount of aircraft that flew within or close to the final approach for Runway 19. Whilst these aircraft can operate autonomously and legitimately within Class G airspace under VFR conditions, ATCOs providing a De-confliction Service (DS) to other IFR traffic are obliged to ensure that standard separation is achieved. This separation between the LOA aircraft and the unknown aircraft is either 5 NM laterally or 3,000 ft vertically. This can be extremely difficult to achieve when Oxfordshire is a popular and congested area for recreational and military flying.

2.3.4 Air Traffic Services (ATS) in Class G Airspace

Many aircraft arriving at LOA currently receive radar guidance to position on to the Instrument Landing System (ILS) for Runway 19. At this point, pilots are following their instruments to guide them on to the final approach path and to fly the optimum descent profile. It is a busy time in the cockpit. At the same time, ATCOs need to advise the pilot conducting this approach about any unknown aircraft operating in the vicinity, including those who are not speaking to LOA ATC. If the pilot flying the approach is in receipt of a DS, the controller must pass avoiding action instructions to ensure that prescribed separation minima (normally 5 NM laterally or 3,000 ft vertically) is achieved[7].

If the controller believes it is unsafe to allow an aircraft inbound to LOA to continue the approach against unknown conflicting traffic, the controller may instruct the pilot to break off the approach. This is more likely to be the case when the conflicting traffic is not talking to LOA (and has not been positively identified) or if the aircraft is

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[3] CAP 493 definitions Section 1 Chapter 12 Para 5A.1.
[4] Instrument Flight Rules is one of two sets of regulations governing all aspects of civil aviation aircraft operations; the other is visual flight rules (VFR). ... It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan.
[5] A Primary radar (PSR Primary Surveillance Radar) is a conventional radar sensor that illuminates a large portion of space with an electromagnetic wave and receives back the reflected waves from targets within that space
[6] Secondary surveillance radar (SSR) is a radar system used in air traffic control (ATC), that not only detects and measures the position of aircraft i.e. bearing, but also requests additional information from the aircraft itself such as its identity and altitude.
[7] Reduced separation may be used in those situations described in CAP 493, Manual of Air Traffic Services (Section 1, Chapter 3).

not equipped with a SSR transponder (which would allow the controller to determine the altitude of the conflicting aircraft); this is often the case with gliders.

Within the existing airspace arrangements, it is often the case that aircraft transit the ILS centreline just below the cloud base without making radio contact with LOA. LOA ATC is then faced with a scenario where aircraft descending out of cloud on the approach to LOA require a much longer routing to avoid potential conflictions with transiting traffic. In these situations, ATCOs instruct aircraft to make short-notice, unplanned manoeuvres to avoid the unknown aircraft. This complex and high-workload controller intervention may prejudice a pilot's ability to conduct a stabilised approach, as well as delay the aircraft further until the runway approach area is clear of traffic.

To better understand how many aircraft this issue relates to, LOA collated statistics in 2014 and 2015 to ascertain the number of aircraft that operate within the final approach area of Runway 19 without speaking to ATC. The results are provided at Annex A1 and A2. It can be calculated from these samples that there are approximately 3,800 such transits a year across the Oxford approach paths. It is accepted that this figure will be lower if the impact of poor weather is considered.

The workload of controllers and pilots dramatically increases when reacting to other unknown aircraft that make unpredictable turns or changes in altitude. It should also be understood that ATCOs are obliged to react to the presence of unknown traffic to preserve the ATC Licence under which they operate. Any loss of standard separation between aircraft must be reported and investigated. Ultimately, this could later result in the suspension or revocation of a controller's licence.

2.3.5 LOA Based Training

LOA is home to several training organisations that are training the next generation of airline pilots. Therefore, a high proportion of operations include extensive instrument flying training by major commercial flight training academies. This training and associated examination includes practice instrument approaches where students under training or examination candidates fly with a vision-limiting device (typically an instrument hood) to simulate flying at night or during poor weather conditions. In these situations, the instructor or examiner has sole responsibility for lookout. This is vital during all stages of flight, but particularly during the intense final stages of an approach where the aircraft is descending and the instructor or examiner is required to closely monitor the student's vertical and lateral instrument flying accuracy.

The published Instrument Approach Procedures (IAPs) at LOA currently extend outside the ATZ into surrounding Class G airspace where normal 'see and avoid' rules continue to apply. Aircraft flying an IAP are conferred no additional protection in Class G airspace, despite the intensity of IAP training carried out at LOA. LOA is an 'aerodrome having one or more instrument flight procedures' (conventional or GNSS) in Class G airspace. The existence of these approaches is indicated on CAA VFR charts using a 'feathered arrow' symbol. Pilots intending to fly within 10 NM of any part of the IAP symbol are 'strongly advised' to contact LOA ATC. However, this guidance has proved to be insufficient mitigation of the risks to aircraft conducting instrument procedures at this busy commercial training aerodrome. It is assessed by the flying training organisations that additional protection is required to protect aircraft involved in intensive IAP training and examination.

2.4 Key Driver for Change

The principal driver for the changes proposed is to enhance the levels of safety for aircraft operating close to LOA by creating a 'known traffic environment' within which appropriate separation can be maintained. Whilst current operations are tolerably safe, LOA has identified that the safety risk may no longer be As Low As Reasonably Practicable (ALARP[8]).

The Airspace Change Proposal seeks to resolve the following issues:

- Create a 'known traffic environment' to enhance the safety of IFR aircraft arriving at LOA from the north to Runway 19, and minimise the number of instances where avoiding action or break-off instructions have an adverse effect on controller and pilot workload.
- Improved interaction between BZN and LOA flight procedures. The existing procedures are complex and this creates a more intensive workload for ATCOs at both airports.
- A requirement to future-proof the existing Instrument Flight Procedures in accordance with the CAA Future Airspace Strategy.

Since LOA started providing a radar surveillance service, ATCOs can now see the significant number of aircraft that operate close to the airport without making contact radio, as described above at para 2.3.2. This has highlighted those occasions when safety margins are eroded, and has resulted in the filing of AIRPROX[9] reports. One example involved an aircraft flying in the opposite direction to aircraft flying in the LOA visual circuit whilst at the same altitude of 1,500 ft. Whilst this aircraft was outside of the LOA ATZ within Class G airspace, the aircraft flew sufficiently close to the LOA aircraft to cause a safety concern. The details of the AIRPROX were captured from the ATC Radar Display Screen (RDS); this is reproduced in the Figure 3 below. A number of additional AIRPROX events support the case for this airspace change. These are listed at Annex A3.

The solid red circle depicted on the radar display screen is the Ministry of Defence (MoD) Danger Area D129 (Weston on the Green). The conflicting aircraft was careful to avoid the Danger Area (which he is prohibited from entering) and the LOA ATZ. The pilot of the southbound aircraft had very little turning room to complete a manoeuvre against conflicting traffic, if it was required.

[8] ALARP means that the cost involved in reducing the risk further would be grossly disproportionate to the benefit gained.
[9] An AIRPROX is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised. (ICAO Doc 4444: PANS-ATM).

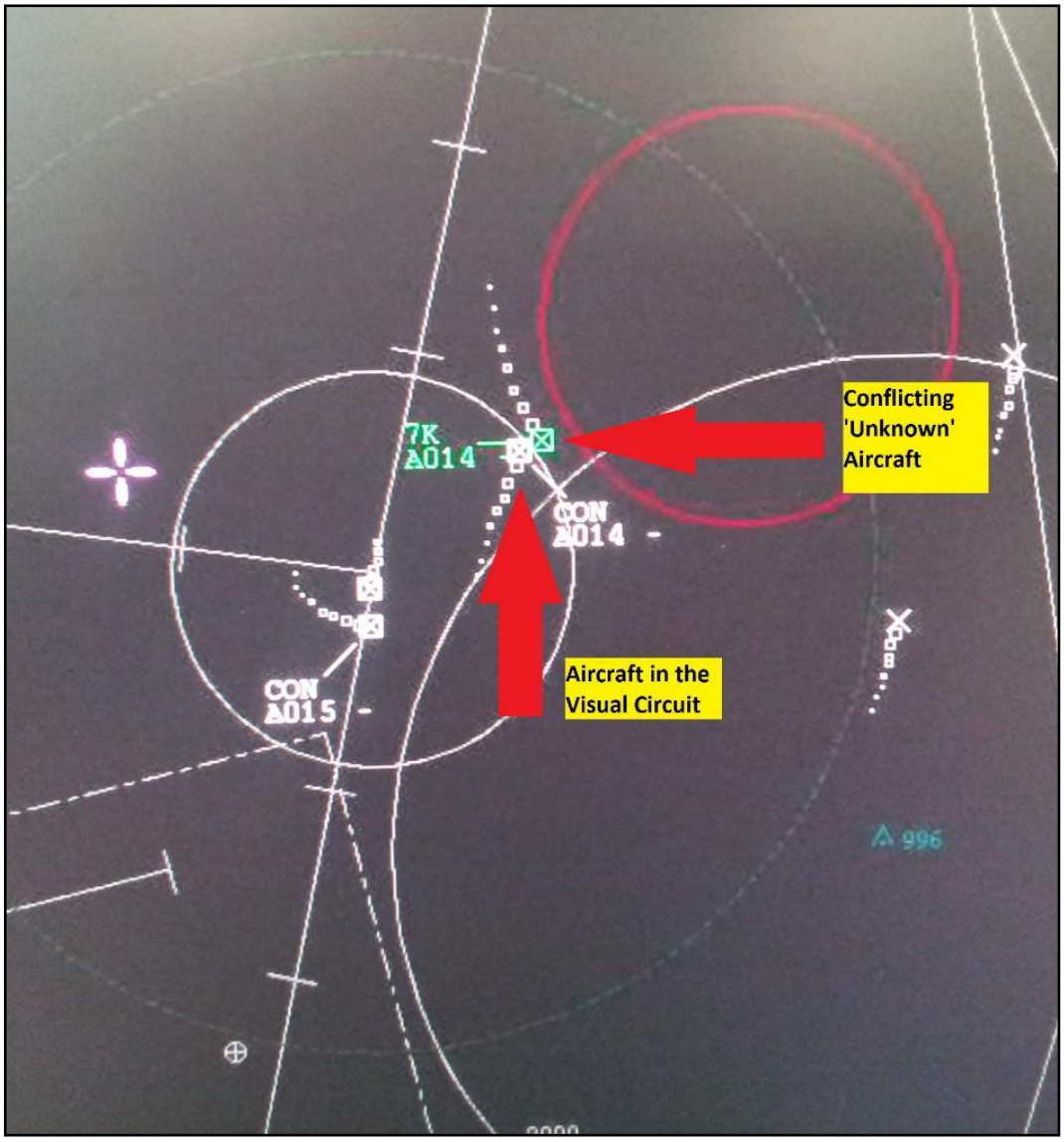


Figure 3 - ATC Radar Display Screen Showing AIRPROX Between Two Aircraft

This situation was analysed by the UK AIRPROX Board (Report Number 2014065) [Reference 5]. The report assessed that the two aircraft came within 0.2 NM of each other at the same altitude. Whilst the report concluded that there was no risk of collision between the two aircraft, this was only as a direct result of ATCOs at LOA taking considerable effort to ensure that the aircraft in the visual circuit visually acquired the conflicting aircraft. ATC controller capacity was consumed trying to contact the conflicting aircraft and passing traffic information to the Tower Controller who then had to relay information about the position of the conflicting aircraft to the aircraft in the LOA circuit.

Passing such frequent traffic information updates overly concentrates the attention of the ATCO concerned, leaving very little capacity to monitor other aircraft also under their control. This exchange can also affect the workload of a pilot as they

attempt to locate the conflicting traffic. These factors are typical of the significant safety events that the airport is attempting to minimise. A number of similar incidents have been collated as evidence to support this ACP. These are included at Annex A3.

2.5 What Changes are Proposed?

LOA's intention to introduce RNAV (GNSS) Instrument Flight Procedures (IFPs) derives from a requirement to comply with the UK CAA requirement to implement PBN by 2024. These more robust and accurate approaches will enhance the current operation and future proof the aerodrome for the decades ahead. The recent introduction of radar is a key development that helps to protect the long-term safety of local air traffic, if operated with suitable airspace structures and IFPs. LOA is planning to submit an ACP detailing the new airspace design and RNAV (GNSS) approach procedures, in line with the UK Future Airspace Strategy [Reference 6], and the introduction of controlled airspace to primarily protect these new arrival procedures for Runway 19. Protection for the Runway 01 procedure would also result if the BZN ACP is successful.

In parallel, BZN is also developing its ACP which aims to extend the BZN Control Zone (CTR), developed many years ago, to adequately protect the larger modern passenger carrying aircraft that now operate from the airfield. A larger CTR and the introduction of Terminal Control Areas (CTAs) will overcome the inadequate level of protection that currently exists for military and civilian aircraft. The addition of the CTAs will also provide the level of protection required when connecting to the airways structure.

The CAA has directed that whilst both airports have separate and distinct projects, the proximity of LOA and BZN, and particularly due to their relative positions, both ACP projects are to be developed in parallel to ensure instrument procedures, airspace and operational procedures are designed in an appropriately efficient manner with a high level of safety oversight. Each project will be considered separately, but the combined impact of proposed changes to airspace and procedures need to be considered together. The new RNAV (GNSS) procedures and protected airspace developed for both LOA and BZN ACPs have been designed to assure operations at the two aerodromes continue in a safe and coordinated manner. Where IFP designs overlap, agreed procedures will be developed between the two airports to ensure appropriate prioritisation and safe sequencing of the inbound and outbound aircraft at both locations.

2.6 What is RNAV (GNSS) Technology

Traditionally, aircraft navigate a route by flying to, or away from a sequence of ground-based navigation beacons. When they reach the destination airport, they pass over the beacon located at the airfield, flying a tear-drop shaped path to turn around and make their final approach to the runway.

RNAV (derived from aRea NAVigation) allows an aircraft to navigate using GNSS instead of the ground-based beacons. GNSS refers to a constellation of satellites providing signals from space that transmit positioning and timing data to GNSS receivers on board equipped aircraft. The receivers use this data to determine the aircraft's precise location. We are all familiar with 'GPS' and many of us use this

system on our mobile phones and 'satnavs' every day. The USA's NAVSTAR GPS is an example of GNSS technology.

RNAV allows aircraft to navigate more direct paths between locations and allows them to fly IAPs into an airport without the need to use navigation beacons which are old and expensive to maintain. See Figure 4 below.

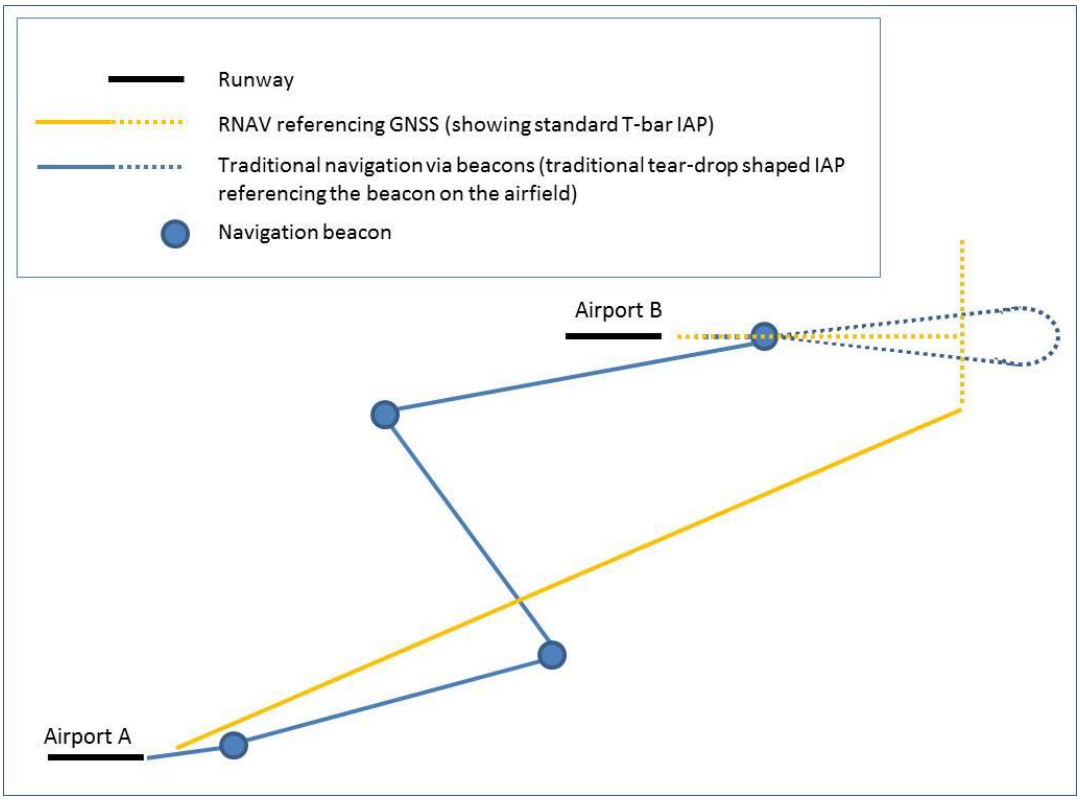


Figure 4 - Ground-based beacon navigation versus RNAV

The RNAV approach procedures are typically T-bar shaped when plotted on a map. This allows aircraft to approach from all directions each side of the runway.

2.7 Why Implement RNAV (GNSS) Flight Procedures

The move to RNAV technology was directed at the 2007 36th International Civil Aviation Organization (ICAO) General Assembly where States agreed to Resolution 36/23 which urged them to implement routes and airport procedures in accordance with the ICAO PBN[10] criteria. EU legislation requires the implementation of RNP1[11] performance through the Common Pilot Project by 2024. ICAO resolution A37-11 also stipulated that by 2016 States complete a PBN implementation plan for en-route and terminal areas. In line with these directions, the CAA Future Airspace Strategy

[10] Performance Based Navigation: specifies that navigation performance requirements are specified in terms of accuracy, integrity, availability, continuity and functionality when supported by the appropriate navigation infrastructure.
[11] Navigation performance of 1NM accuracy 95% of the time, with a defined level of integrity and continuous performance; all parameters monitored on board the aircraft with appropriate alerts.

(FAS) sets out the plan to modernise UK and Irish airspace by 2020 in line with the legislative framework of the Single European Sky[12].

There are inherent safety and cost benefits to the use of RNAV technology:

- Safer and more efficient Air Traffic Control (ATC) services because fewer controller interventions are required to separate and re-route aircraft that have come into conflict with one another.
- More accurate routes are flown making it easier to predict flight patterns and providing improved stabilisation of aircraft on approach. More stabilised approaches are safer and can generate less noise as aircraft perform fewer corrections to their vertical and lateral flight profile.
- Greater operational efficiency; accurate track keeping means less fuel burned, fewer flying hours, lower CO_2 emissions and an improved chance of a successful first approach during bad weather conditions as the aircraft will be in the optimum position to make a safe landing on the runway when possible.

2.8 Where to Find More Information on RNAV (GNSS)

Detailed technical information on the principles of RNAV and other Performance Based Navigation (PBN) concepts is available on the EUROCONTROL website at:

- http://www.eurocontrol.int/articles/performance-based-navigation-pbn-applications

and via the CAA Website at:

- https://www.caa.co.uk/Commercial-industry/Airspace/Future-airspace-strategy/Performance-based-navigation/http://www.caa.co.uk/

and via the European Global Navigation Satellite Systems Agency (GSA) which explains more about GNSS and its application to various business sectors:

- https://www.gsa.europa.eu/european-gnss/what-gnss

Information for private and general aviation aircraft pilots on flying RNAV procedures is available here in CAA Publication CAP773:

- https://publicapps.caa.co.uk/docs/33/CAP773FINAL.pdf

2.9 Where Can I See the Proposed New Routes?

The proposed new procedures are described later in this document at Section 6.2.

2.10 Where Can I see the Proposed New Airspace?

The proposed new airspace is described later in this document at Section 6.4.

[12] More information on the Single European Sky can be found at http://www.eurocontrol.int/dossiers/single-european-sky

2.11 What is this Consultation NOT About?

This consultation is not about changes to operating hours, airport buildings, infrastructure, or access to the Airport. It is also not about increases in air traffic, road traffic or expansion of the airport.

The introduction of RNAV does not influence or change the number of aircraft able to use the airport. Traffic numbers are not expected to increase because of the introduction of the new proposed airspace and approach procedures.

2.12 Summary

This consultation is about the following:

- Introduction of Class D Controlled Airspace to enhance safety for aircraft on the final approach for Runway 19 and when in the visual circuit.
- Improving interaction between BZN and LOA flight procedures.
- Introduce RNAV (GNSS) approach procedures to both runways at LOA; that replicate the existing procedures, and include:
    - Revised missed approach procedures (MAP) for both runways.
    - New hold areas (the racetrack pattern flown by aircraft waiting for a slot to land) to the northwest and southeast of the airport.

3 Why Consult?

Whilst CAP 725 states that it is a requirement for the Sponsor of an Airspace Change Proposal to conduct a stakeholder consultation exercise before submitting the proposal to the CAA for assessment, LOA wishes to ensure that all identified stakeholders have an opportunity to review the proposed changes and comment accordingly.

3.1 Overview

Wherever possible, LOA is committed to reducing by design any detrimental impacts local stakeholders identify because of the proposed changes to the classification of local airspace, or the introduction of the proposed RNAV (GNSS) procedures.

Whilst we have taken every care to balance the needs of all parties during the development of our proposal, we accept that stakeholders may raise unforeseen issues. To help us understand such issues we are actively seeking the views of the local public, their representative bodies and governing organisations, as well as those involved in the aviation industry. LOA intends to work with these organisations to gain a full understanding of the implications of the proposed changes, recognising that there may be a range of competing priorities raised by different consultees.

In accordance with the process articulated within CAP 725 (the CAA Airspace Change Process Guidance Document) a change Sponsor is required to ensure that proposed changes are widely publicised, and that comment is invited from the local population and key aviation related stakeholders and groups. A Feedback Report will be produced by LOA and submitted to the CAA along with the proposal document. Wherever possible we will strive to minimise any adverse impacts by design, before submitting our proposal and feedback report to the CAA.

3.2 Consultation Requirements and Legislation

In developing an Airspace Change Proposal LOA are following a detailed process laid down by the CAA within CAP 725 *CAA Guidance on the Application of the Airspace Change Process* [Reference 3]. Stage 4 of that process requires the Airport to consult widely, allowing a minimum of 12 weeks for written consultation. Feedback from this consultation will inform the final proposal that is subsequently submitted to the CAA for its approval.

In determining whether to approve the proposal, the CAA must also follow legislation and guidance set by the Government, through the Department for Transport (DfT). Its principal functions and duties are set out in primary legislation within the Civil Aviation Act 1982, the Airports Act 1986, the Transport Act 2000 and the Civil Aviation Act 2012[13]. In exercising its air navigation functions, the CAA must give

[13] https://www.caa.co.uk/Our-work/Corporate-reports/Strategic-Plan/Our-statutory-duties/

priority to maintaining a high standard of safety in the provision of air traffic services in accordance with those statutory duties, particularly concerning Section 70(1) of the Transport Act 2000. In addition, the CAA will also consider Government policies on the future development of air transport.

3.3 Consultation Process Concerns

The CAA's Safety and Airspace Regulation Group will oversee this consultation to ensure LOA follows government guidelines and the process detailed within CAP 725. Should you have any complaints regarding our adherence to the consultation process, they should be referred to:

Airspace Regulator (Coordination)
Airspace, ATM and Aerodromes
Safety and Airspace Regulation Group
CAA House
45-59 Kingsway
London
WC2B 6TE

Email: airspace.policy@caa.co.uk

Please note that you should not use these contact details to respond to the consultation itself. These details are **only** for comments concerning **non-adherence to the consultation process**.

Please send your comments on the consultation technical content (the proposed airspace and procedures) direct to LOA as described in Section 4.3 of this document.

[Accessed 7th February 2017].

4 How Can I Participate?

LOA intends to consult with all local aviation and non-aviation stakeholders about the details contained within this proposal, so that they can determine if the proposed changes are likely to affect them. This section contains details of how comments can be submitted to LOA.

4.1 Overview

Our aim in this consultation is to reach as many people that may be affected by our proposals and to make it as simple as possible to provide views and opinions of any potential impacts.

We are making this consultation document available to stakeholders on the LOA website[14], and it will be advertised through local media outlets. Hard copies will be available by post, on request. Details of the proposals will also be available at public drop in sessions at the Airport; more detailed information concerning these sessions can be found on the LOA website.

4.2 Who are the Consultees?

LOA aims to consult with as many potentially affected stakeholders as possible. Prior to formal consultation, some organisations were contacted directly during the preliminary stakeholder engagement; a full list of the individual organisations is provided at Annex A4. The issues raised during these sessions are highlighted in Section 7.

Consultees will fall into two categories: Aviation Stakeholders and Non-Aviation Stakeholders. The Aviation Stakeho

lders will be concerned about the consequences of any proposal to introduce Controlled Airspace to an area that is currently categorised as 'Uncontrolled' Airspace. The Non-Aviation Stakeholders might be more concerned about any second or third order consequences that will result from the design and implementation of new Instrument Approach Procedures (IAPs). This might be because of a concern that new routes will potentially introduce higher levels of noise to certain areas of the population, or will result in an increase in pollutants.

4.3 Consultation Response

All stakeholders will have the opportunity to comment on the proposed designs. Any responses received will be treated confidentially and will be considered as part of the overall proposal that will ultimately be submitted to the CAA for consideration. The Change Sponsor (LOA) will need to demonstrate that all responses received during

[14] http://www.oxfordairport.co.uk

this consultation process have been given due consideration prior to finalising the proposal.

4.4 How Do I Submit My Response?

4.4.1 Options

There are several ways to submit your response:

- Email to a dedicated email address (also available through our website);
- By post;
- In person during one of our public drop in sessions.

4.4.2 Electronic Response (Email)

Osprey Consulting Services Limited (Osprey) are supporting LOA and BZN to deliver their respective airspace change projects. They have created a dedicated email address for responses, as follows:

londonoxfordairportconsultation@ospreycsl.co.uk

Please entitle your email, 'LOA Consultation Response'.

You may also submit your response directly through the website at:

http://www.oxfordairport.co.uk, and follow the appropriate link.

4.4.3 By Post

Please send your responses to:

London Oxford Airport Consultation Response,
Osprey Consulting Services Ltd.,
Suite 10,
The Hub,
Fowler Avenue,
Farnborough Business Park,
Farnborough,
GU14 7JP

4.4.4 Public Meetings

LOA will hold a series of public meetings to present information on the proposals. The submission of written feedback during or following these meetings is most welcome. These meetings will be advertised on the LOA website[15].

4.5 What Do I Need to Include in My Response?

We welcome any positive or negative comments you have regarding the proposals. We would also like to know if you have read the consultation material, but have no comments to make; we need to be sure that we have reached a representative proportion of consultees, so a 'no comment' is very useful for us.

[15] http://www.oxfordairport.co.uk

4.6 What Will Happen to My Response?

We will treat all responses confidentially and details of respondents will be passed only to our consultants, Osprey CSL, and to the CAA which requires a full report on the consultation process and its results, together with copies of responses from all key stakeholders as part of the formal ACP submission.

We will record, collate and analyse all responses to identify the key issues and themes that emerge. Due consideration will be given to every response to determine if the proposals can be modified, within the limiting constraints, to mitigate the issues raised.

4.7 How Will I Know the Result of the Consultation?

We will collate the results of the Consultation within a Feedback Report. We intend to publish the Feedback Report on the LOA website within one month of the closure date of the Consultation Period. An overwhelming level of responses may lead to a slight delay in publication.

4.8 Deadline for Responses

All responses should be submitted by 5pm on 22nd March 2018 when the formal consultation will close.

We will respond to all comments or questions received within one week of the formal consultation closing.

5 What Options Have Been Considered?

London Oxford Airport has considered several alternative proposed solutions to enhance the safety of the LOA aircraft, as well as those operating locally in the adjacent airspace. This section describes the alternative options that were considered and why they were discounted.

5.1 Overview

To provide the enhanced levels of safety that this project is intended to achieve, LOA has defined a requirement to propose a known traffic environment within which LOA could ensure adequate levels of safety. In determining the optimal proposed solution, several options were considered. These options are detailed in the remaining paragraphs of this section. The airspace design is driven around LOA's requirement to ensure that the aerodrome and its airspace are appropriately safeguarded, and that the new RNAV (GNSS) procedures are appropriately protected.

5.2 Option 1 – Do Nothing

5.2.1 Advantages

The airspace around LOA is traditionally a busy portion of airspace. The "do nothing" option would continue to allow unfettered access to all classes of GA users and a suitable radar service could be provided to those aircraft that choose to contact LOA.

5.2.2 Disadvantages

The introduction of Primary and Secondary Surveillance Radar at LOA has highlighted large numbers of aircraft that operate in well-known busy traffic area without speaking to LOA. The safety issues that LOA experience is a direct result of those aircraft that make no attempt to communicate with ATC. These aircraft often operate in the northerly locations where IFR arrivals position for final the approach to Runway 19. Despite engaging locally through forums such as the Oxfordshire AIAA, a significant number of aircraft still choose to operate in this area. Many of these aircraft may be unaware of the diversity of aircraft types that operate from LOA. A study was conducted to record the details of those occasions when aircraft were instructed to break off an approach because of unknown conflicting aircraft not operating on LOA radio frequencies. The results of this study are included at Annex A2.

If no additional action is taken aircraft operating in and out of LOA and BZN will continue to operate in an 'unknown traffic environment' where controller intensive air traffic coordination will continue to be necessary to resolve the many, and increasing number of conflicts.

The current LOA and BZN conventional procedures are tolerably safe at present. However, they are not 'fail safe' by design and require intensive controller interaction to ensure that aircraft flying the procedures are safely coordinated. It is

assessed that in the very near future the risks associated with flying these procedures in uncontrolled airspace will no longer be ALARP.

The "Do Nothing" option was therefore discounted because the disadvantages predominate.

5.3 Option 2 – Do Minimal

LOA has sought to consider changes that would have a minimal impact on other aircraft operating in the area, provided the safety objective could be achieved. LOA has actively progressed the option of implementing a Listening Squawk and also conducted improved local liaison to mitigate any collision risk on final approach.

The following stakeholder engagement meetings took place, but did not generate any tangible comment on how best to mitigate the LOA issues described.

- Stakeholder Engagement Meeting – LOA 16th Sep 2015.
- Enstone Airfield – 17th Sep 2015.
- Hinton-in-the-Hedges Airfield – 17th Sep 2015.

5.3.1 Advantages

The Listening Squawk facility was introduced in January 2016. This allows aircraft to assign a LOA designated squawk code to indicate that the pilot is listening out on the Approach frequency. LOA also has Mode S Secondary Surveillance Radar which means ATCOs can interrogate an aircraft squawk and identify its callsign. If there is traffic to affect an aircraft transmitting this squawk code, then ATCOs can make a broadcast on the frequency to the aircraft callsign to provide traffic information or agree coordination. Since the Listening Squawk was introduced, the number of incidences where ATCOs break aircraft away from their approach has reduced, because LOA ATCOs are able to transmit to those aircraft.

LOA has longstanding relationships with many of the local flying clubs and local airfields and during the early part of this project, LOA embarked on visits to several local airfields to outline the background and rationale to the proposed airspace change. The LOA issues were described, and those local participants were offered an opportunity to put forward ideas on how else to mitigate the stated issues.

5.3.2 Disadvantages

The numbers of aircraft that choose to fly close to LOA without calling on the radio or utilising the 'Listening Squawk' has, however, not reduced. Additionally, it is not possible to mandate use of the 'Listening Squawk' and LOA observations show that many aircraft still opt not to squawk or call on the radio. Controllers now act defensively and prevent aircraft from starting an approach if the intentions of conflicting traffic within the final approach area cannot be confirmed. There are also a wide mix of nationalities that operate in and out of LOA. Some foreign pilots are not familiar with the nuances of the rules associated with ATC Services Outside of controlled airspace (ATSOCAS). Therefore, it is often deemed unsafe to vector aircraft into potential confliction, even if a Traffic Service (TS) is being provided.

This action necessitates periods of flight where aircraft are holding in Class G airspace and presenting a potential hazard to other GA traffic. Long periods of holding also have a small, but negative, environmental impact. The current situation

continues to cause disruption to the safe and efficient flow of air traffic at the airport. and continues to generate negative environmental impacts as aircraft stay airborne for longer than intended and consequently burn more fuel.

Whilst the initiatives described above have generated some improvement in the situation for LOA and its local flyers, many of the aircraft that operate within the area are transiting aircraft unfamiliar with local issues. Option 2 therefore fails to fully address the safety problem by providing a robust and enduring solution. For this reason, this option is not considered to be an acceptable alternative.

5.4 Option 3 – Establish a Radio Mandatory Zone (RMZ)

LOA considered establishing a RMZ as shown in the Figure 5 below. The size of this airspace volume was designed to be the minimum necessary to achieve the level of protection required.

5.4.1 Advantages

The RMZ would extend from the surface to 3,500 ft AMSL and laterally would include the Danger Area D129 when the area was inactive. The airspace design excluded Enstone Aerodrome and Hinton-in-the-Hedges Aerodrome, but the proposal would have provided protection for the NDB hold and the LOA visual circuit. Aircraft operating under VFR rules only need to maintain continuous air-ground voice communication watch, after initially establishing two-way radio contact before entry. In poor weather conditions, this alternative might prove to be effective as aircraft operating under IFR rules would be provided with an air traffic service.

5.4.2 Disadvantages

This solution would only provide the adequate level of protection in certain circumstances; for example, when the weather is poor, as stated above. At other times, entry to the RMZ is only dependent on the initial information call by an aircraft entering the airspace. This would only partially mitigate the issues described above at sections 2.3 and 2.4.

An RMZ would add additional complexity in terms of airspace classification, and differing rules would apply in those separate areas. This was deemed unacceptable because this would introduce an additional layer of complexity to an already busy volume of airspace.

An RMZ must also extend from the surface and hanging elements of an RMZ are not permitted; again, this would increase the volume of reassigned airspace.

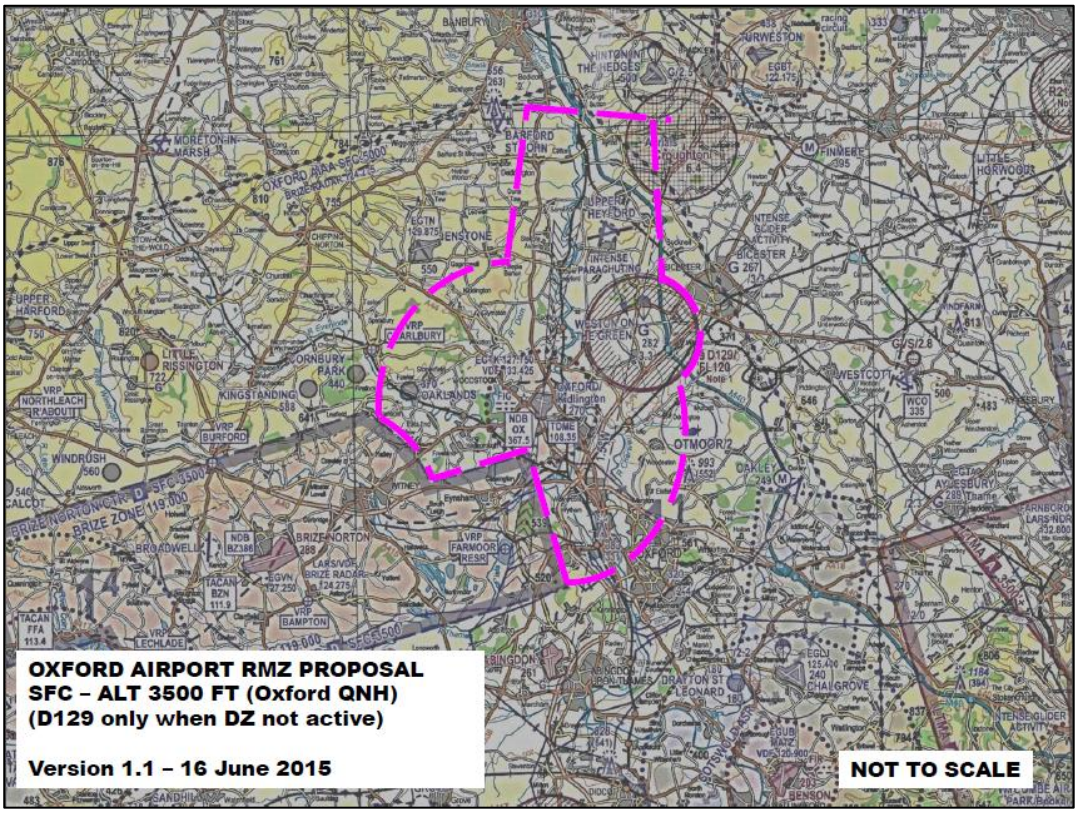


Figure 5 - LOA RMZ Design

To ensure that this option was workable, the area covered by the RMZ would have to be large enough to allow for contact to be made and agreements to be reached before deconfliction minima were compromised. This option was therefore discounted.

5.5 Option 4 – Establish Class E Controlled Airspace

LOA has also considered the introduction of Class E airspace as a potential solution.

5.5.1 Advantages

The Class E option means only aircraft operating IFR require ATC clearance to enter the area and separation between IFR traffic will be provided. As far as possible, traffic information will also be provided concerning VFR flights.

5.5.2 Disadvantages

However, within this Class of airspace ATC separation is not provided when aircraft are operating to VFR rules. Since most of aircraft involved in the safety related incidents on final approach or near the LOA Circuit were operating VFR, Class E airspace would not have helped to prevent their occurrence.

A combination of Class E airspace in addition to a RMZ/TMZ was also considered. It was decided that such a combination would add a great deal of complexity without adding significant value over and above the introduction of the RMZ in Class G airspace as described above. Furthermore, following AIRPROX No2011085, which occurred in the Class E Glasgow CTA between a B757 inbound to Glasgow and a

glider en-route to Portmoak, CAA SARG considered that a safety critical risk had existed and introduced a reclassification of the airspace to Class D. This prevented the re-occurrence of a similar event by ensuring that the airspace became a known traffic environment, where all aircraft within the controlled airspace were required to remain in contact with ATC.

With the prevalence of other airspace classifications and other aviation activities within the vicinity of BZN, Class E airspace, with or without a TMZ, is not considered an adequate design to resolve the safety issues currently experienced by the aerodrome.

5.6 Option 5 – Establish Class D Controlled Airspace

This option is considered the best of the alternative solutions. Class D airspace would enable LOA ATCOs to provide a level of control that would go some way to mitigating the safety issues identified following the introduction of the radar and described in Section 2.5 above.

More detail on this preferred design and its subsequent modification is included in the next Chapter, the proposed best option.

5.7 Summary of Options Considered

The following table summarises the alternative solutions that provide the known traffic environment.

No	Proposed Option	Reason Option Discounted
1	Do Nothing	Does not address the fact that risks of operating within this location may no longer be ALARP.
2	Do Minimal	Labour intensive, does not capture non-local aircraft and fails to address the safety concerns.
3	RMZ	Does not address concerns regarding VFR traffic that chooses to operate along the final approach. Also, too complex and a larger volume of airspace would be reassigned.
4	Class E Airspace	No clearance is required to enter the airspace under VFR rules. Separation only provided between IFR traffic.
5	Class D Airspace	Preferred option discussed in next Chapter.

Table 1 – Summary of Options Considered

6 What is the Proposed Best Option?

LOA considers that to afford adequate protection to aircraft flying the existing ILS procedure and the proposed new RNAV (GNSS) approaches, a small volume of Class D airspace should be proposed, that safeguards the arrival procedures and missed approaches[16]. This section outlines the rationale and incremental development of the final proposal.

6.1 Overview

This Chapter describes the new RNAV (GNSS) approach options to Runway 01 and to Runway 19 at LOA. It also describes the missed approach procedure (MAP) and the airspace volumes required to support all the procedure designs.

The adjacent BZN airspace change [Reference 7] also aims to also introduce new RNAV (GNSS) approaches and associated airspace; this adds an additional level of complexity to the proposed LOA procedures, as recognised by the CAA at the Framework Briefing[17] stage. The CAA directed that each project should be developed separately, but concurrently and that the proposed changes to airspace and procedures should dovetail by design to ensure effective coordination is always possible. To meet this requirement, BZN has designed a long and a short procedure to Runway 25 that will help maintain either lateral or vertical separation from LOA traffic.

6.2 Flight Procedures Proposal

6.2.1 Runway 01 - Approach

Figure 6 below shows the draft Runway 01 procedure and its associated MAP. The Initial Approach Fix (IAF) to the south of BZN is within a new volume of airspace proposed in the BZN airspace change. This configuration allows enough distance for aircraft to descend from 5,000 ft to the Intermediate Fix (IF) altitude of 1,500 ft. The route north east remains within the proposed BZN CTAs 4, 3 and 2 and the left turn at the IF marks the entry into BZN CTR 1 on the final approach track for Runway 01. The relatively low and flat 3-mile intermediate leg to the Final Approach Fix (FAF) was designed to maximise distance from the BZN Runway 25 final approach track.

6.2.2 Runway 01 – MAP

Aircraft conducting a missed approach will initially climb straight ahead on runway heading and fly the anti-clockwise route back to the location of the Oxford NDB (as shown within Figure 6 below) that lies slightly to the west of the main runway. It is

[16] A missed approach procedure is followed by a pilot when an instrument approach cannot be completed to a landing where the aircraft comes to rest. A number of scenarios could lead to a missed approach, such as adverse weather or unanticipated runway sequencing issues.
[17] The first stage of the airspace change process; a meeting between the sponsor of an airspace change and the CAA.

this MAP that determines the volume of controlled airspace required to the north of LOA when operating on the runway.

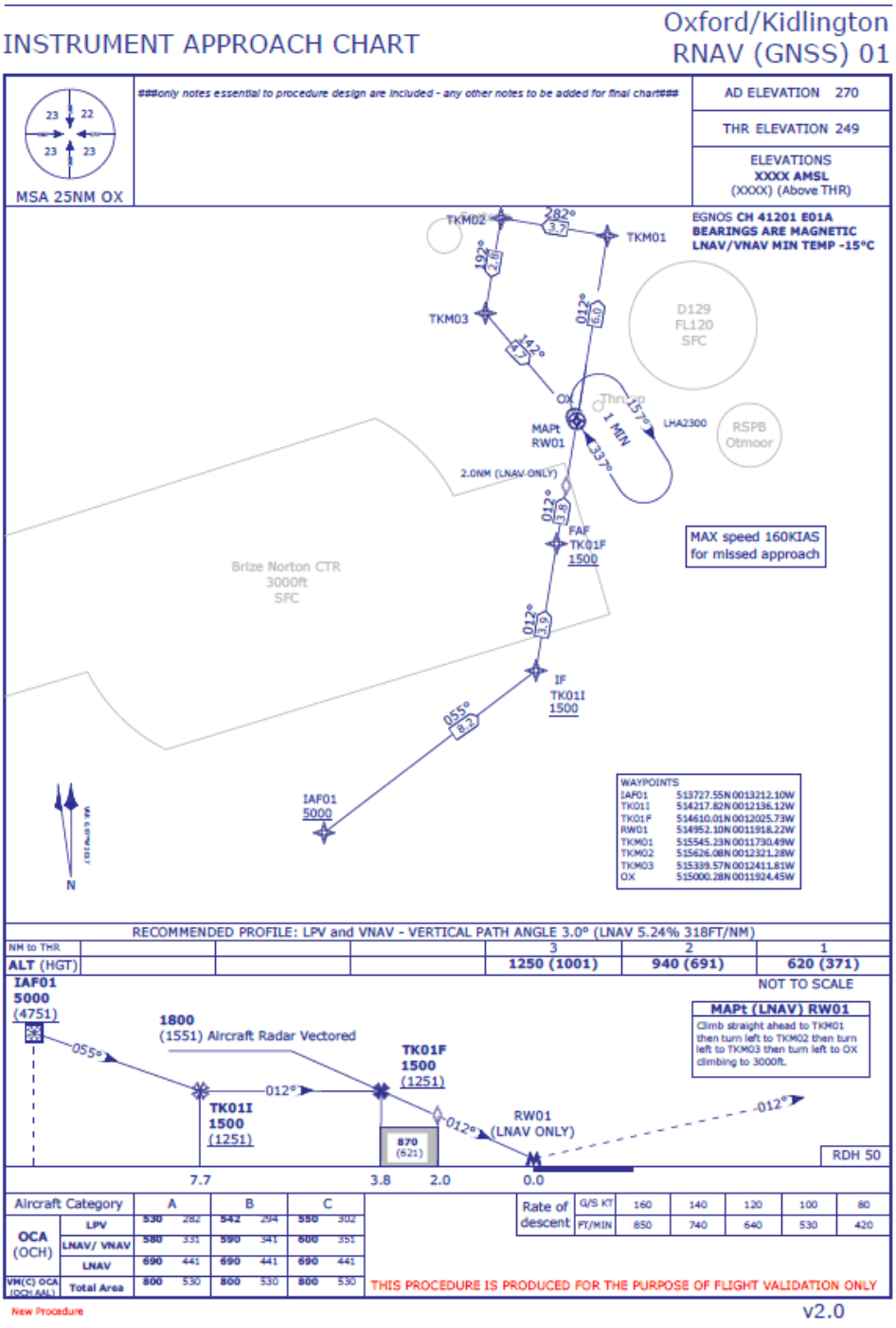


Figure 6 - Runway 01 RNAV (GNSS) Procedure

Figure 7 below show the RNAV (GNSS) procedure on a map also depicting the proximity of the BZN procedures discussed at section 6.3.

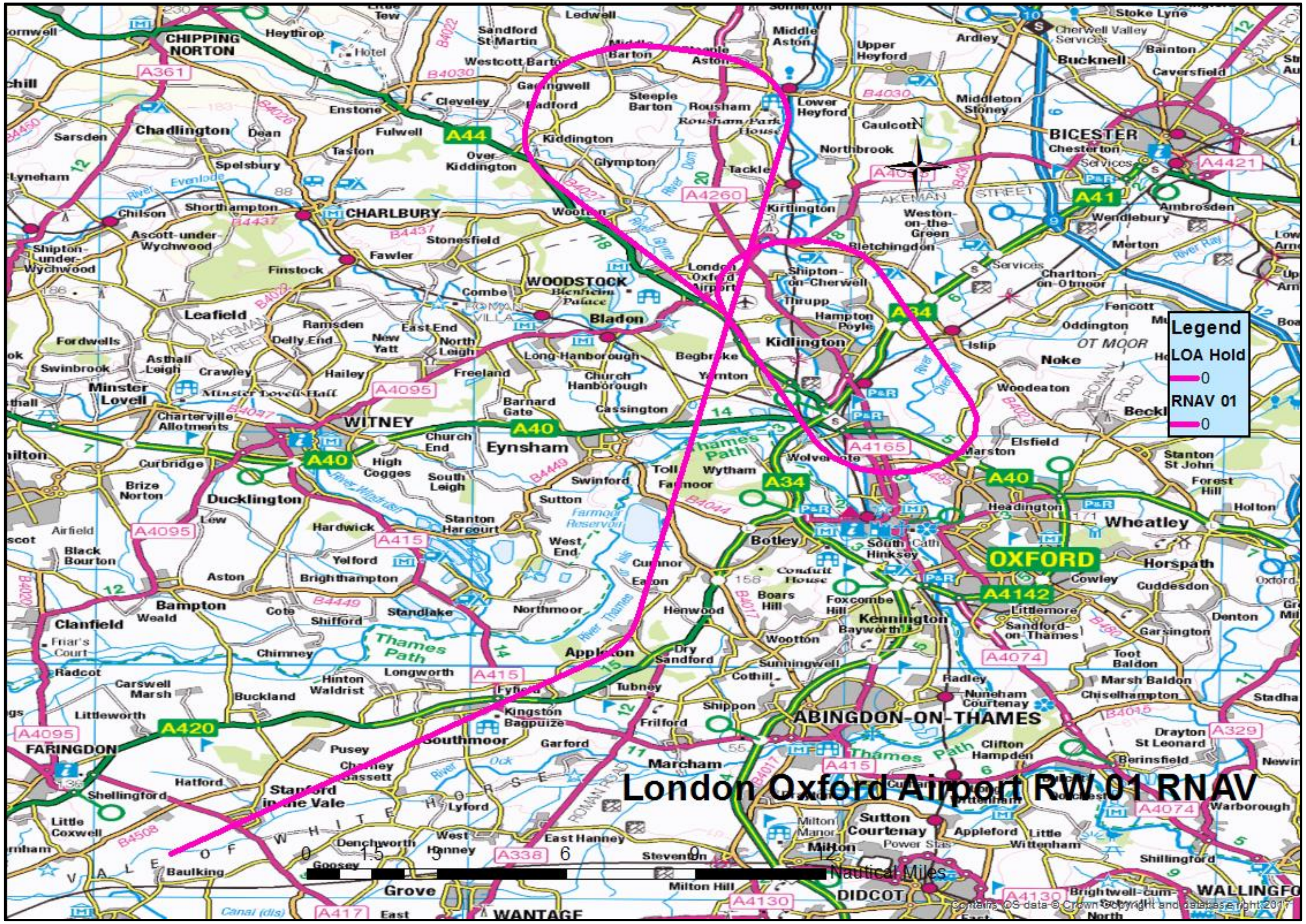


Figure 7 - Runway 01 RNAV (GNSS) Approach Hold and MAP

6.2.3 Runway 19 - Approach

There are 2 IAFs for this approach (Figure 8) that cater for aircraft approaching the procedure from different directions. The northern IAF (03) is not contained within the new controlled airspace volume, but aircraft will enter the LOA CTR 1 shortly after arriving at this point when southbound beginning the approach procedure.

6.2.4 Runway 19 – MAP

Figure 8, Figure 10 and Figure 12 show the three possible designs for the MAP for Runway 19. This consultation specifically seeks the views of consultees regarding these three alternatives.

The first option is that shown in the draft plate at Figure 8. Aircraft would carry out the MAP, climbing straight ahead to 1,000 ft then turn left and intercept the 168^0 radial towards TKM04. Aircraft will then follow the procedure in an anticlockwise direction back towards the Oxford NDB and hold. From here aircraft may elect to conduct another approach to depart LOA for another location. This procedure keeps aircraft within the LOA CTR 2 and the BZN CTR 1 and CTA 1. However, it would be necessary to ensure 1,000 ft vertical separation from any conflicting BZN traffic as lateral separation might not be guaranteed.

The second option shown in Figure 10 takes aircraft to the south east of the aerodrome above the Otmoor Bird Sanctuary, then south of Weston-On-The-Green before returning to the Oxford NDB. This procedure would be outside of the planned LOA controlled airspace and would not be fully protected. It would also be within an area well used by transiting GA aircraft.

The third option shown in Figure 13 takes aircraft to west of LOA, routing in a clockwise direction to return to the Oxford NDB. Whilst this procedure would remain inside the LOA CTR/ CTA 1, aircraft following the MAP could potentially interfere with the BZN arrivals from the north. This option would more closely follow the flow of existing aircraft that depart LOA. Aircraft are instructed to turn to the northwest so that they remain clear of the existing BZN airspace.

The advantages and disadvantages of each missed approach are summarised in the table below:

Option	Advantage	Disadvantage
Ahead	Contained in controlled airspace	Vertical separation required as lateral separation from BZN traffic may be compromised
East	Nil	Outside of controlled airspace and in GA traffic area
West	Contained in controlled airspace	Could interfere with BZN arrivals from the north

Table 2 - Missed Approach Options Runway 19

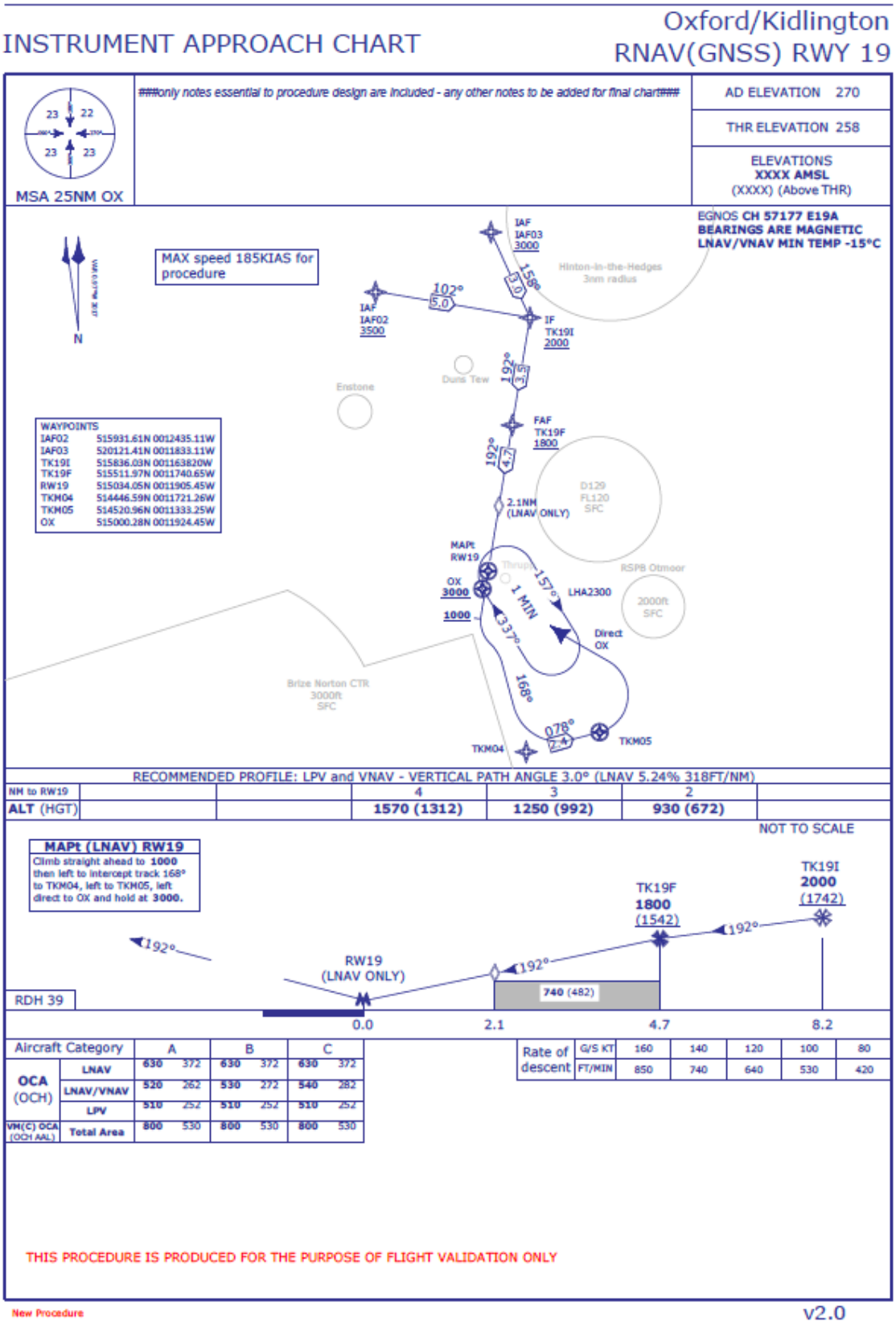


Figure 8 - Runway 19 RNAV (GNSS) MAP Option 1

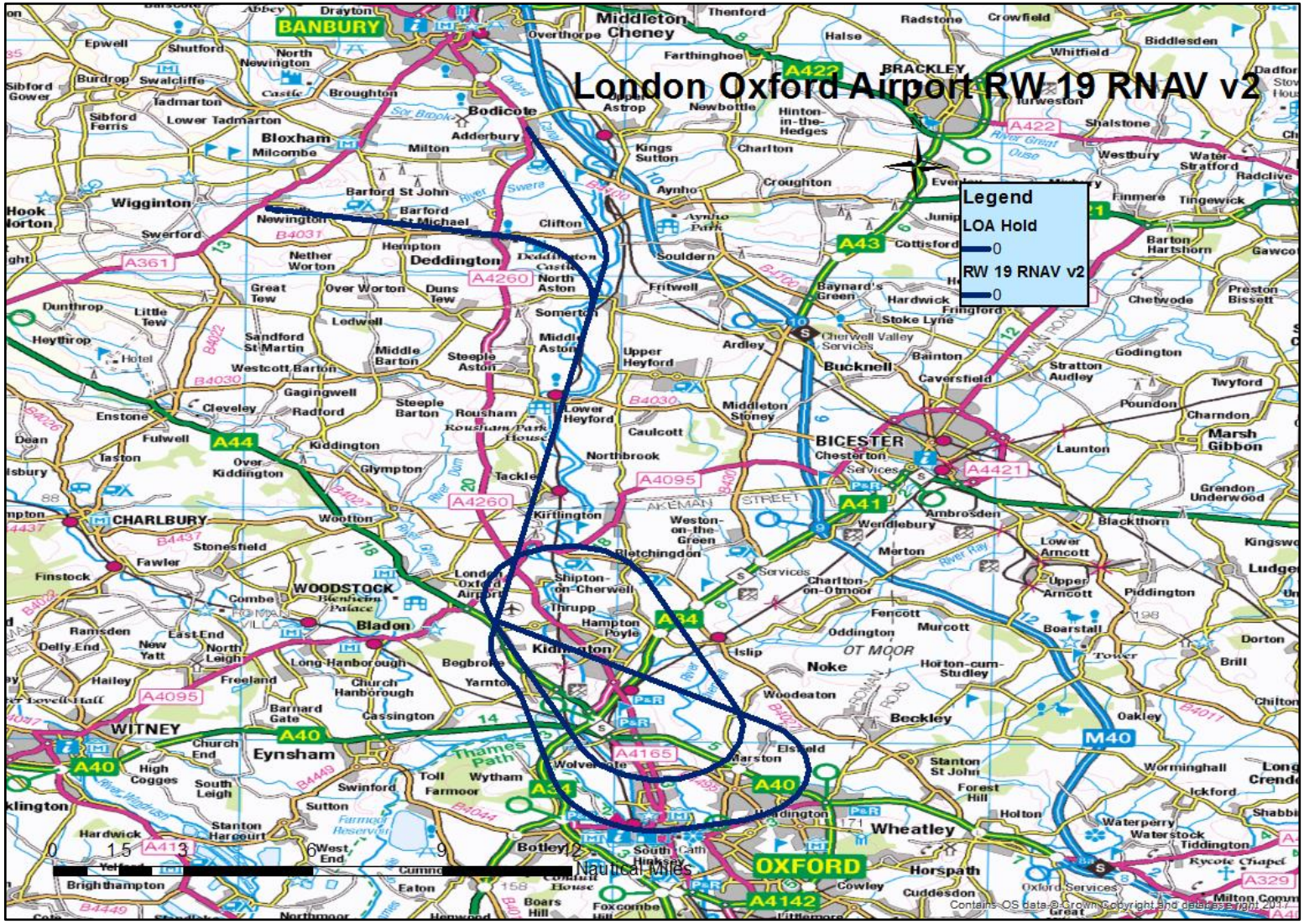


Figure 9 - Runway 19 Approach Hold and MAP

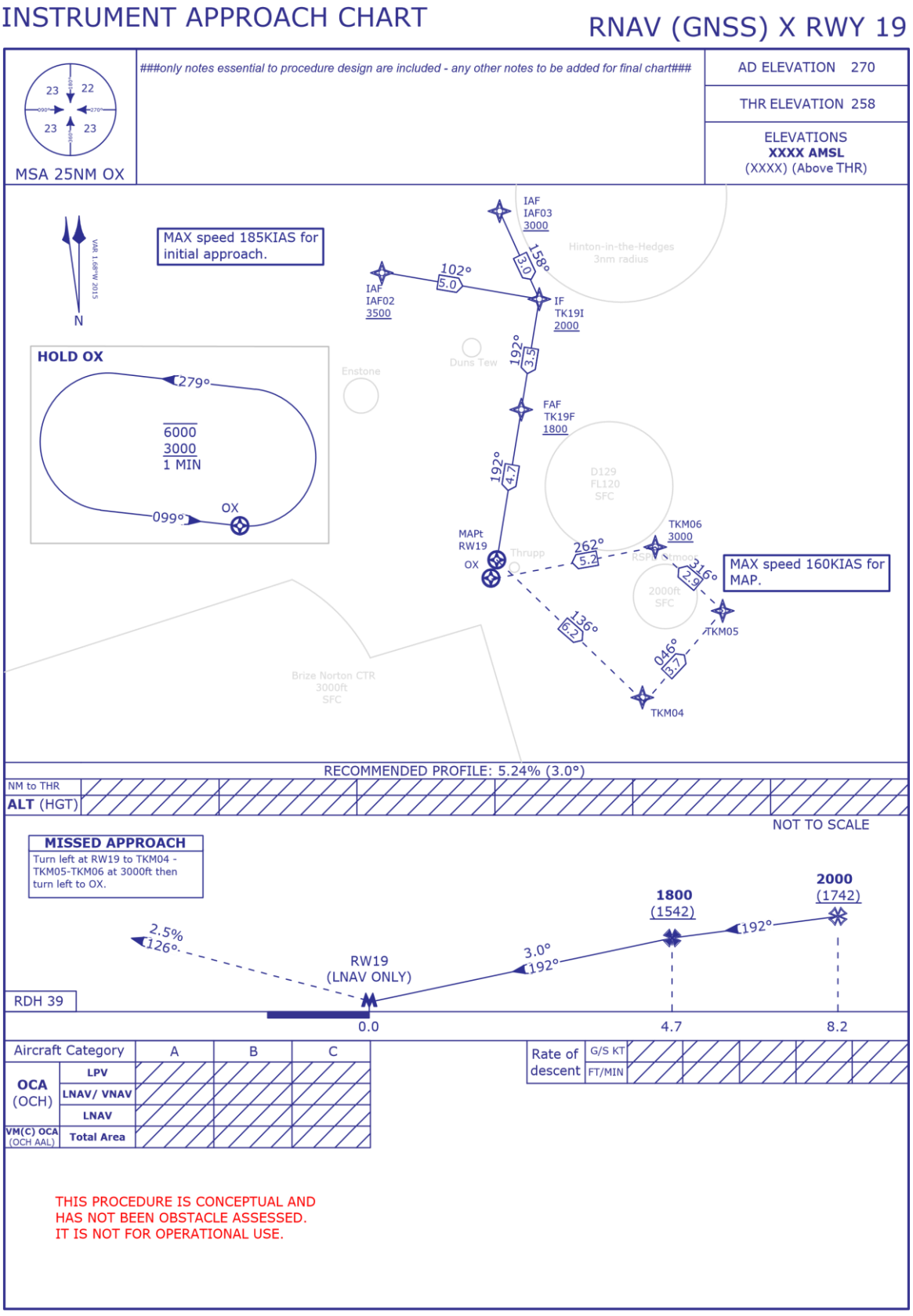


Figure 10 - Runway 19 MAP (East)

Figure 11 - Runway 19 Approach and MAP (East)

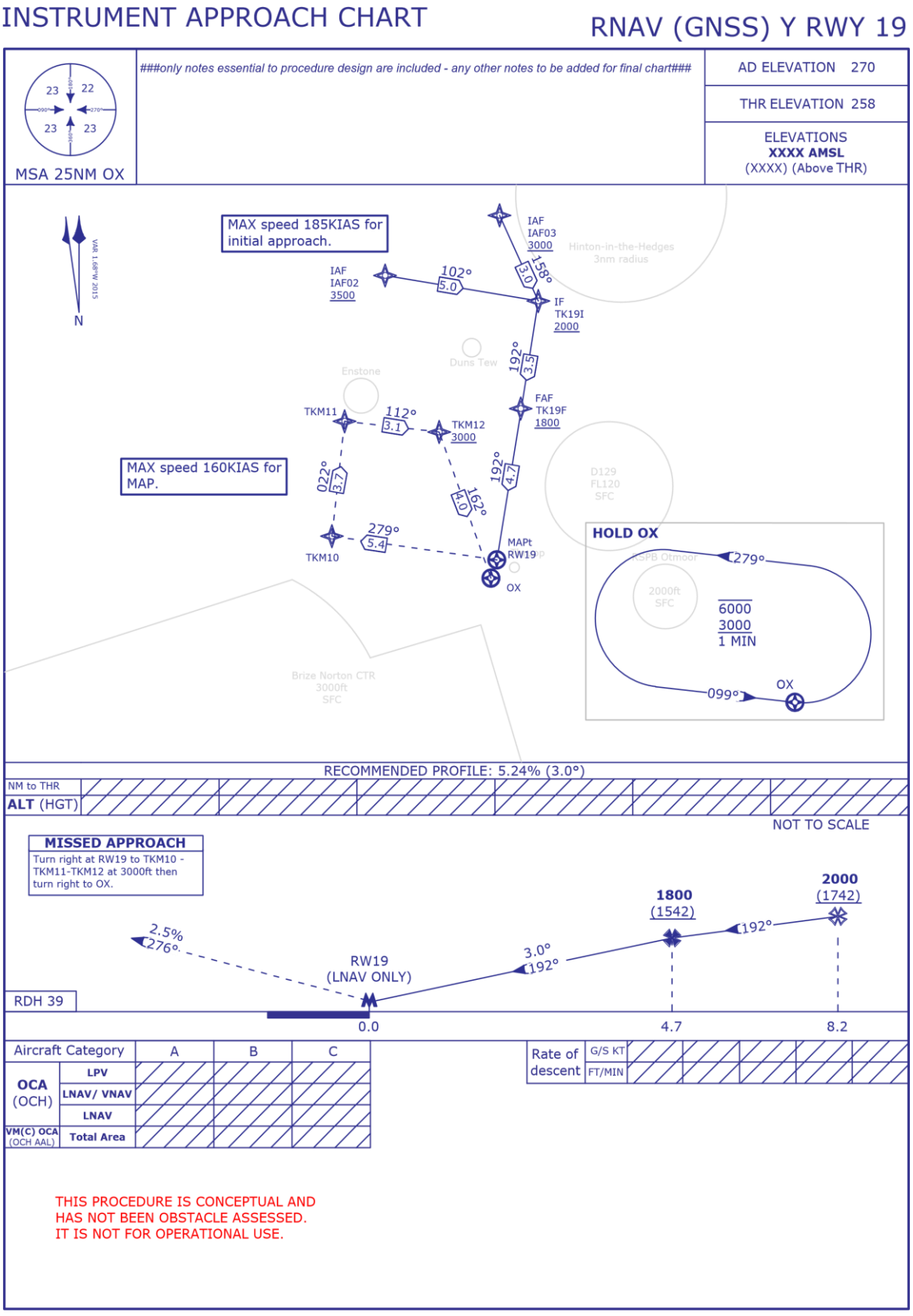


Figure 12 - Runway 19 MAP (West)

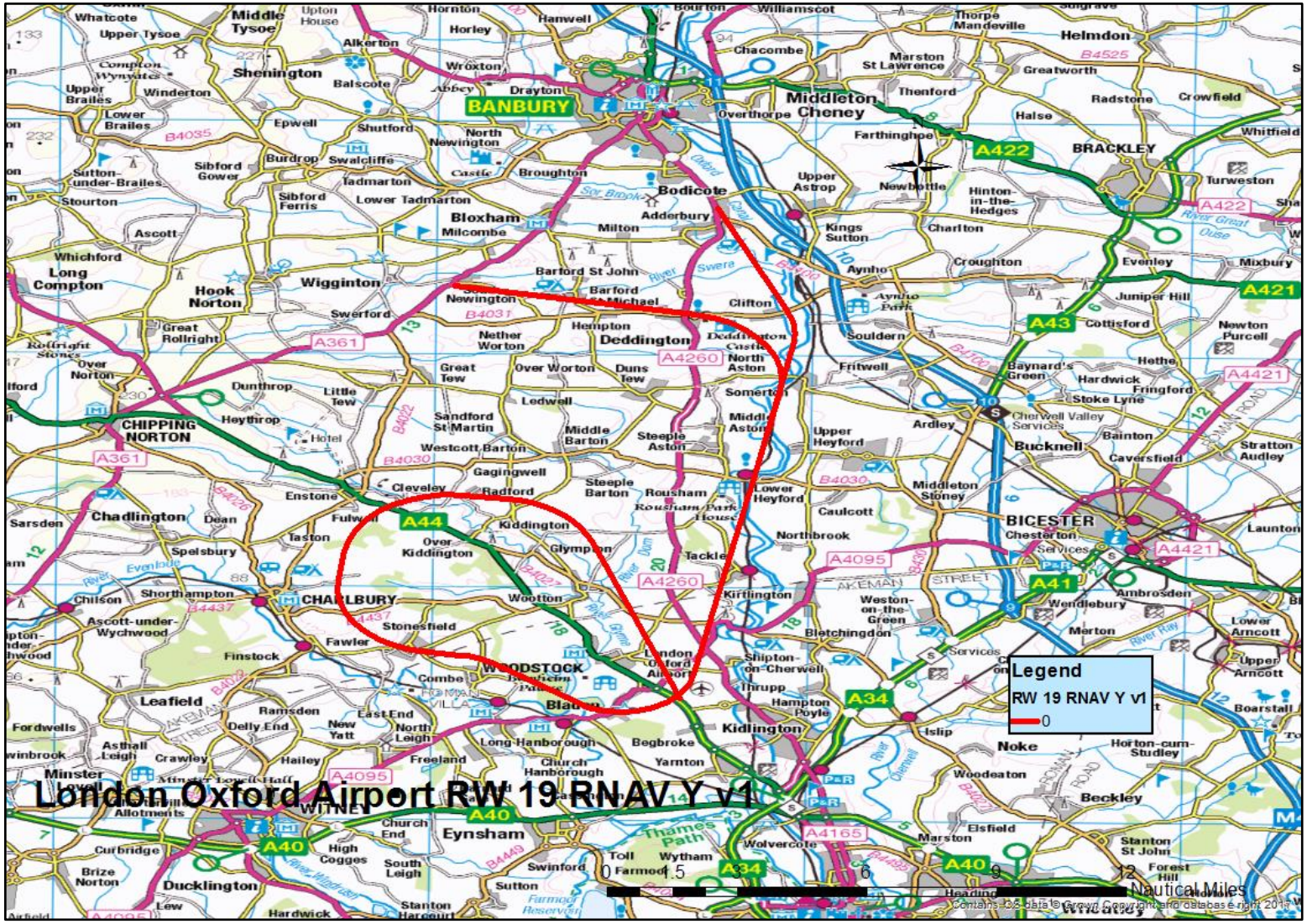


Figure 13 - Runway 19 Approach and MAP West

6.3 Interaction with BZN

6.3.1 Brize Norton Short Procedures

As can be seen in the Figures below, the proposed new RNAV (GNSS) procedures for LOA interact with those planned at BZN. This is entirely the reason why the CAA advised that each airport should progress its project in parallel, to ensure that operations at both aerodromes are closely coordinated and any safety risks are appropriately mitigated.

BZN has developed its own procedures in close liaison with LOA. To ensure LOA and BZN procedures are safely separated, BZN has developed shortened procedures that will be used as a prime option for the majority of occasions when aircraft are arriving to BZN Runway 25. These short procedures and their interaction with the LOA Runway 01 approach are shown below in Figure 14. This figure shows that on those occasions where BZN large aircraft are conducting the conventional NDB approach (required operational training for overseas deployments) robust procedures will need to be drafted that ensure appropriate separation between the BZN traffic and LOA traffic concurrently making an approach to LOA Runway 01.

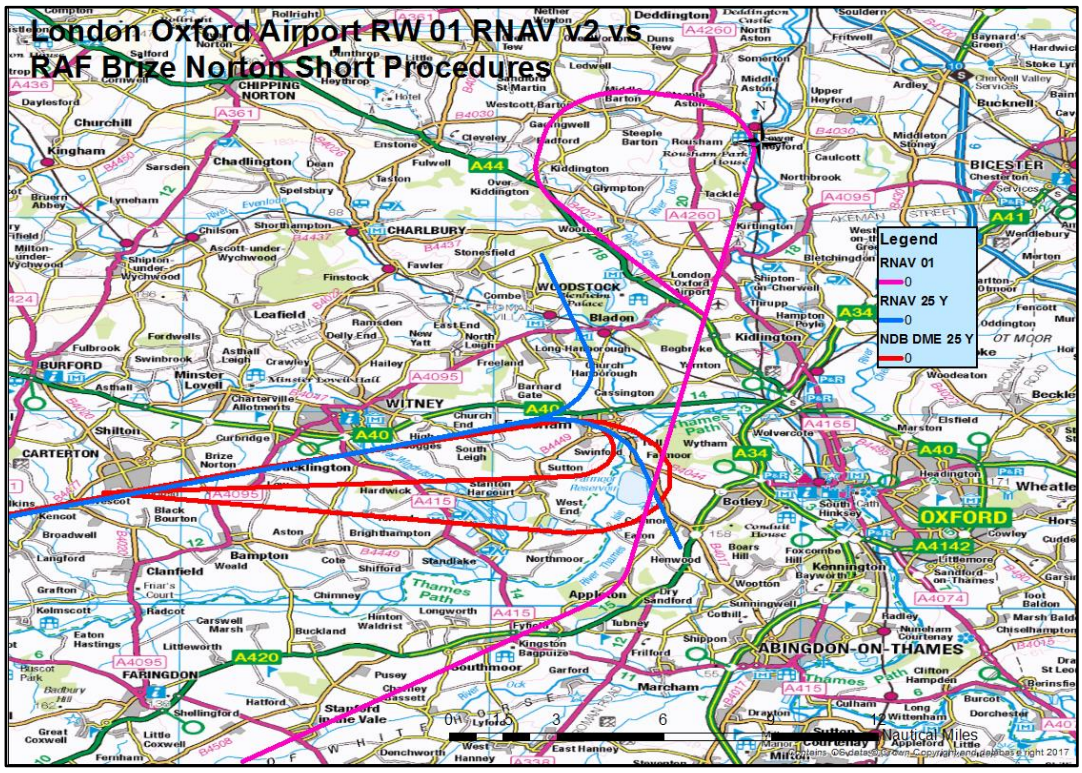


Figure 14 – BZN Short Procedures v LOA Runway 01 Interaction

When LOA is operating on Runway 19, the BZN and LOA procedures have been designed (including the MAP) to ensure as much lateral separation as possible exists

between aircraft whilst also protecting all procedures within the Class D airspace volume. This separation can be seen in Figure 15.

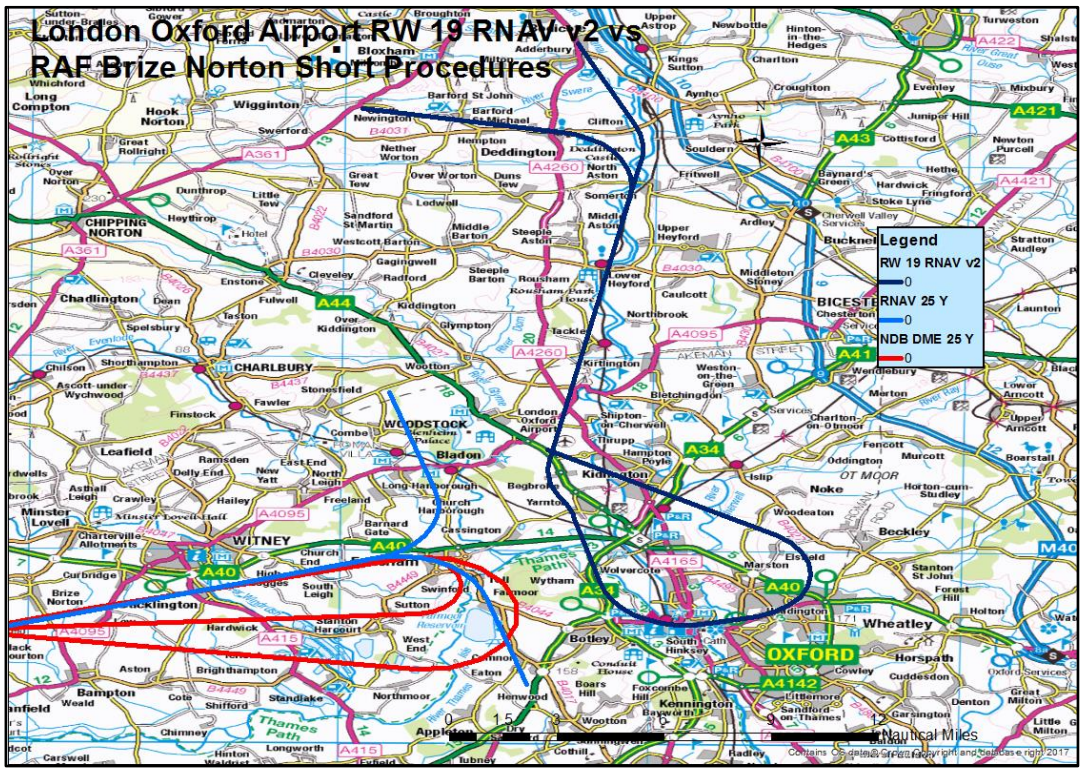


Figure 15 – BZN Shot Procedures v LOA Runway 19 Interaction

6.3.2 RAF Brize Norton Long Procedures

Figure 16 below shows the interaction between the proposed BZN long procedures and the proposed LOA Runway 01 RNAV (GNSS) approach. As can be seen, the LOA Runway 01 procedure and the BZN conventional NDB procedures do overlap. Similarly, the proposed BZN RNAV approaches to BZN Runway 25 also overlap with the proposed LOA Runway 01 final approach. LOA and BZN have agreed the principles necessary to underpin the further development of a robust set of procedures (or CONOPs) that will be implemented through a covering Letter of Agreement. These CONOPS ensure that each airport is clear about who will have primacy if there is a conflict between arriving aircraft, how coordination procedures are to be agreed, and how standard separation minima will be achieved.

It can also be seen in Figure 17 that the BZN long procedures (conventional and RNAV arrivals) also overlap with the LOA Runway 19 MAP. The same arrangements discussed in the paragraph above also apply in this situation.

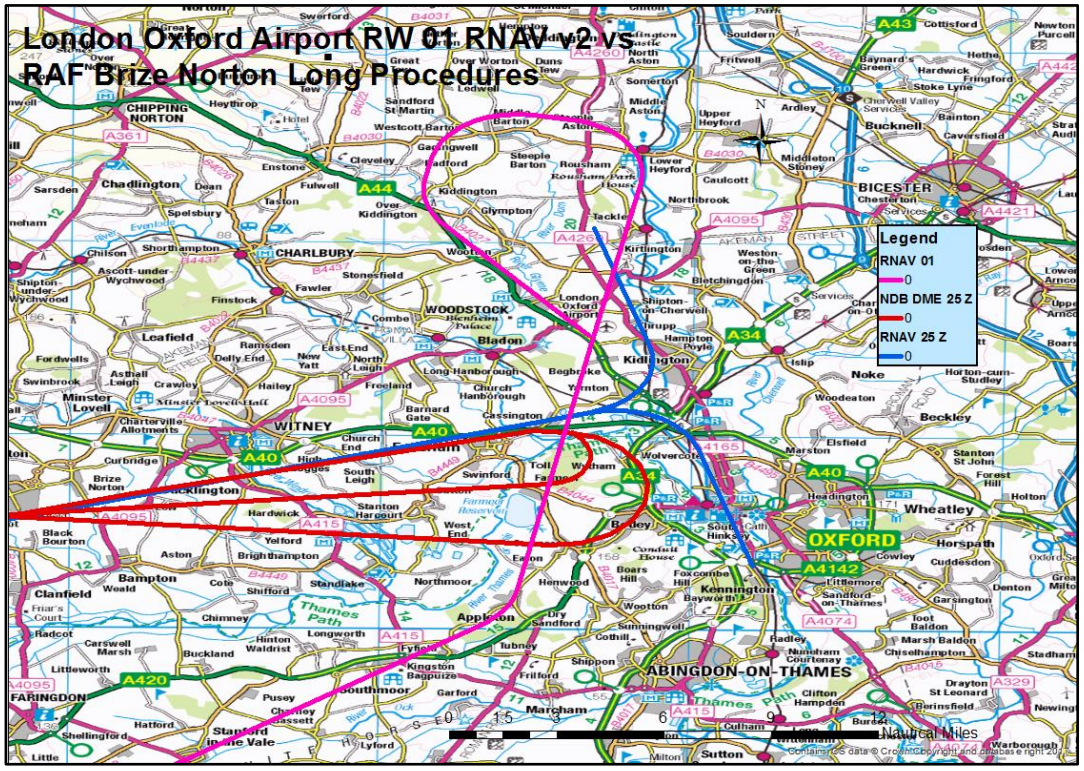


Figure 16 - BZN Long Procedures v LOA Runway 01 Interaction

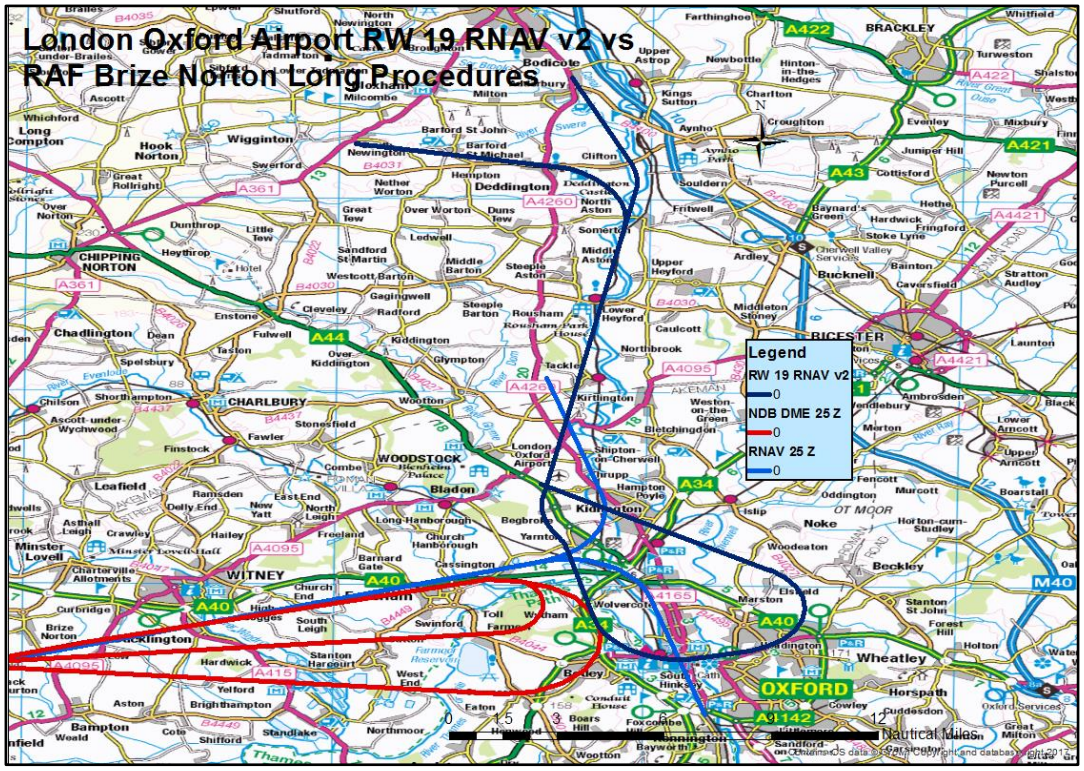


Figure 17 - BZN Short Procedures v LOA Runway 19 Interaction

6.4 The Airspace Solutions

6.4.1 Proposed Airspace Design

The LOA airspace will be classified as Class D to enable the provision of a Deconfliction Service to all aircraft operating within the LOA CTA/ CTR. The basic rules within this airspace volume are:

- Instrument Flight Rules (IFR) traffic is separated from other IFR traffic and receives traffic information in respect of Visual Flight Rules (VFR) traffic;
- VFR traffic receives traffic information in respect of all other flights;
- All traffic requires clearance from ATC to enter controlled airspace thus creating a known environment to support the safe provision of Air Traffic Services (ATS).

It should be noted that other airspace users will not be prevented from entering the airspace. The intention is to improve safety in an area widely acknowledged to be congested. All aircraft can use a radio to gain access and transit the area, remaining compliant with the standard ATC rules. Those aircraft that are not radio equipped can gain access to the area by prior arrangement if required. These structures and procedures will ensure a managed and safe operating environment for all.

Figure 18 below shows the initial design for the Class D airspace. The proposed volume of airspace is driven by the design of the new LOA RNAV (GNSS) procedures. The smallest volumes of airspace have been used that still provide the required levels of protection for aircraft operating in and outside of these constructs.

Three volumes of airspace are shown in the figure below; CTR 1, CTR 2 and CTA 1.

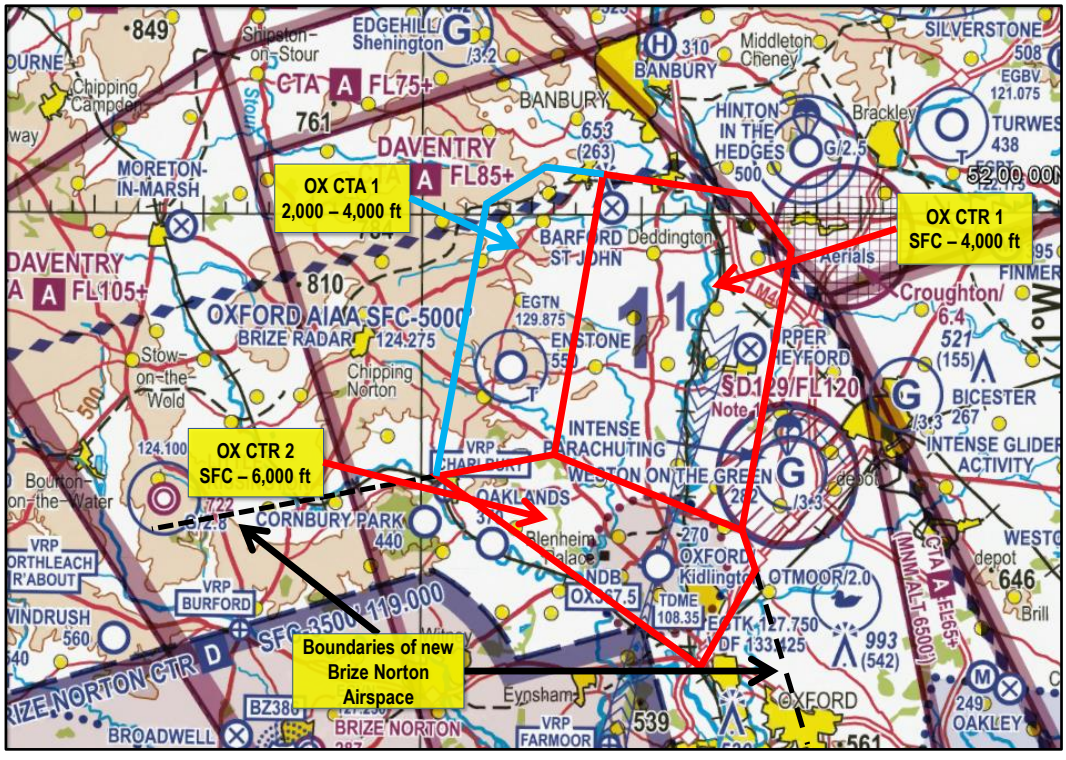


Figure 18 - LOA Class D Airspace Design

The associated vertical limits are also shown. Black dotted lines indicate the new boundaries of the BZN Class D airspace that is the subject of a separate consultation.

Following pre-consultation engagement with those aviation stakeholders likely to be affected by the change, this design was slightly modified to take account of concerns raised and incorporate the views of the MOD and LOA regarding provision of a service to Weston-On-The-Green (Figure 19).

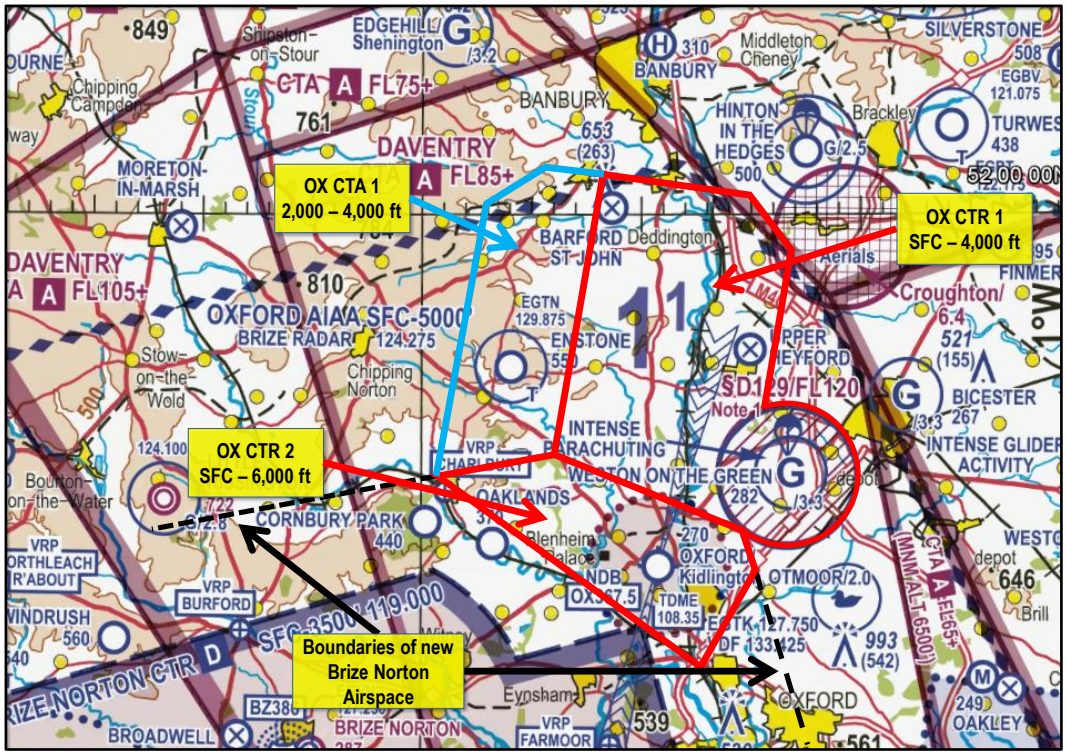


Figure 19 - LOA Modified Airspace Design

A good deal of pre-consultation engagement was conducted by LOA with the BGA, LAA, BHPA and the GAA. The views of these organisations have been recorded and will be part of the formal proposal that is presented to the CAA following the public consultation.

6.4.2 Airspace and Procedures

The proposed airspace was designed to contain the new proposed RNAV (GNSS) procedures, as described in Section 6.2. and Figure 21 (below) depict the planned routes within the LOA airspace shown against a map and an aviation chart, respectively. The Runway 01 approach from the south shown in black, and the Runway 19 missed approach shown in blue (over Oxford) will both be contained within the proposed RAF Brize Norton airspace.

Figure 20 - Proposed RNAV (GNSS) Procedures within LOA Proposed Airspace - Map

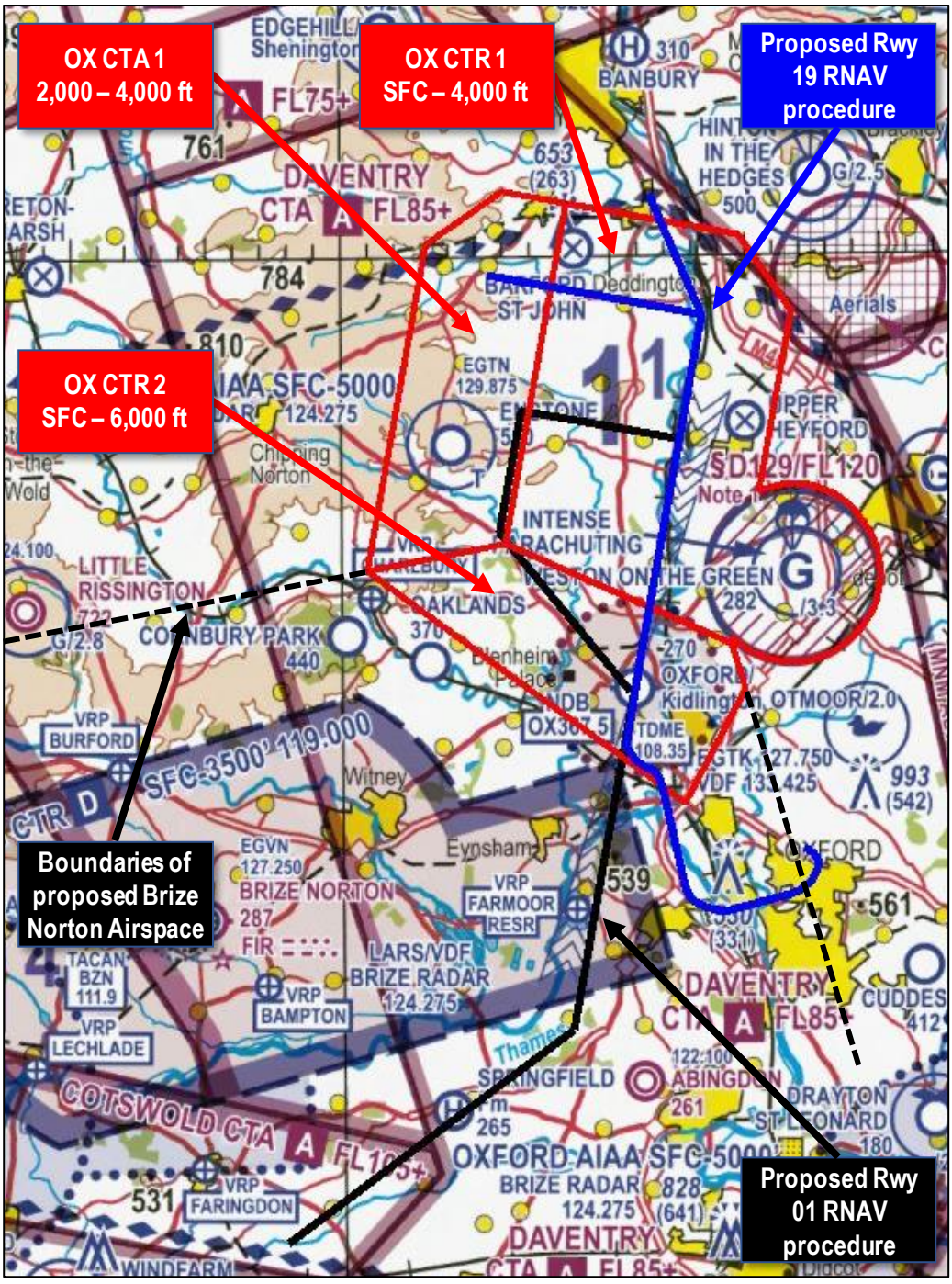


Figure 21 - Proposed RNAV (GNSS) Procedures within LOA Proposed Airspace - Chart

6.4.3 Improved Access for GA Aircraft

LOA recognises that some aviation stakeholders, particularly the gliding community, find operating within controlled airspace and the necessity to fly in accordance with an ATC clearance is restrictive. For a glider, it is almost impossible to maintain a specific height or comply with a geographical restriction. To improve access for the GA community to the north of LOA, an option to revert an area of the LOA Class D

airspace back to Class G was considered possible under specified conditions. This area is depicted in Figure 22 below. The grey bounded area measures approximately 3.5 x 8.5 NM and the proposal would change this area to Class G when LOA is operating on Runway 01. The northern boundary of the remaining proposed Class D airspace is determined by the requirement to protect the Runway 01 MAP.

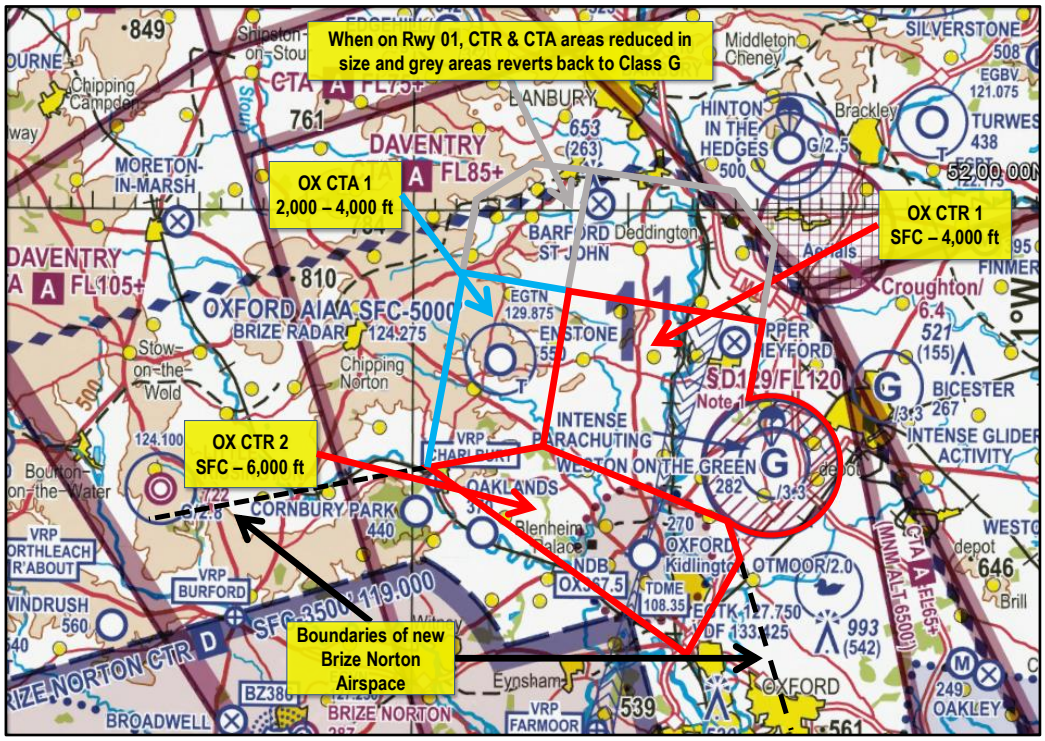


Figure 22 - LOA Final Airspace Design (Runway 01 Active)

6.5 LOA Operators

The training syllabus conducted at LOA will soon require that RNAV(GNSS) approaches are taught to student commercial pilots. There will be a slow introduction to the syllabus over the coming months, but by August 2018 there will be a requirement to include GPS approach training for all commercial training.

6.6 CAA Decision against LOA ACP

If the LOA ACP is not approved by the CAA, BZN aircraft will be safely contained within the new BZN airspace (assuming successful delivery of the BZN ACP). Additional protection will be provided to aircraft on arrival to LOA Runway 01, but arrivals to the LOA main instrument runway will not be contained. The airspace to the northeast of BZN (labelled OX CTR 2 on Figure 22) is part of the BZN proposal since it is required for the containment of the Runway 07 departures and Runway 25 arrivals. The plan for LOA to have delegated control of that airspace during their hours of opening, with control reverting to BZN outside those hours, would remain unchanged.

To clarify, if the BZN ACP is successful, and that of LOA is unsuccessful, the proposed area described as OX CTR 2 within Figure 22 will become a CTA of BZN, and will be designated as Class D airspace, apart from the LOA ATZ which will remain Class G.

The new flight procedures for both LOA and BZN have been developed collaboratively; both sets of procedures will need to be implemented to gain the full safety benefits and air traffic efficiencies that the new procedures will deliver at both locations. Nevertheless, if the BZN procedures and airspace are approved and LOA airspace is not approved, the situation would be no worse than is currently the case.

7 How Will this Change Affect Me?

The introduction of radar at LOA has highlighted the fact that risks to safe operations may no longer be ALARP. To mitigate this level of risk, new procedures and airspace have been designed and are proposed to enhance the protection of aircraft operating at LOA. This consultation seeks your views on the proposed procedures and airspace designs. The aim is to ensure a 'known traffic environment' is implemented and to highlight any concerns you may have on secondary effects following implementation.

7.1 Overview

LOA is committed to enhancing the safe operation of aircraft to and from LOA and is at the same time mindful of the effects any airspace change may have on those who use the airspace. Equally important is the impact of the changes to those local inhabitants who may also be affected by any change in local aircraft traffic patterns. These changes could be operational, environmental or economic in nature.

7.2 What are the Key Benefits of Changing the Airspace Classification?

Whilst the number of commercial aircraft utilising LOA has increased over the last few years, the purpose of this proposal is not to generate a further increase in the number of aircraft movements to and from LOA. The introduction of RNAV (GNSS) procedures will provide users with more options for IFR arrivals, typically used in bad weather situations, and a therefore significantly improve the likelihood of conducting a successful instrument approach to both runways in poor weather.

By creating a known traffic environment to the north, the majority of IFR arrivals to LOA will be able to continue their approach with a significantly reduced likelihood of being broken off because of unknown, conflicting aircraft.

Unlike the BZN proposal, LOA is not seeking to connect the Airport with the airways structure, nor does it intend to increase regulated airspace to the south since most arrivals come from the north. LOA recognises the potential disruption to other aviators caused by the introduction of regulated or restricted airspace. This proposal only seeks to introduce the volume of airspace considered the absolute minimum necessary to achieve the stated aim of enhancing safety for IFR arrivals.

7.2.1 Creation of a Known Traffic Environment

Creating a volume of airspace that aircraft can only enter with the permission and direction of Oxford ATC, creates a known traffic environment. This removes any uncertainty about which aircraft are within the airspace and what their intentions may be; this is currently not the case. Controllers would still approve access to the airspace by those that require it, provided there would be no conflict with aircraft positioning for an instrument arrival. Approval to access the airspace would be subject to specified conditions (within a clearance instruction) and would always be given if the controller deemed aircraft would be unlikely to generate conflicts.

7.2.2 Improved Interactions between BZN and London Oxford Airport

This proposal aims to enhance safety by reducing the need for coordination in as many instances as possible. The current requirement to coordinate traffic in an unknown traffic environment is reactive in nature, inefficient and uses a great deal of ATCO capacity. More effectively separating aircraft through the design of the new procedures and airspace will be safer for aircraft on the approach at either airfield and aircraft transiting the new airspace structures. This solution will increase the efficiency of aircraft operations into and out of both airports, whilst at the same time releasing controller capacity to manage aircraft requesting permission to cross the areas concerned.

7.3 Effects on The GA Community

During preparation for consultation several meetings were held with key aviation stakeholders to understand their views on the proposed changes to procedures and airspace at LOA and BZN. The following meetings were held to invite comment on the impacts of the proposed changes:

- Oxfordshire AIAA 6th July 2017.
- BGA 15th August 2017.
- BMAA 15th August 2017.
- GAA 28th September 2017.

The issues raised were often the same across these groups and are summarised in the table below.

No	Points raised or discussed
1.	The lack of commercial air transport (CAT) operating from Oxford means the airport cannot justify the change in airspace classification.
2.	There appears to be no flight safety basis for the ACP.
3.	There has been no increase in the numbers of aircraft in the local area and so the risk has not changed.
4.	The proportionality of any ACP for Oxford is a prime concern for other legitimate local airspace users.
5.	Oxford circuit traffic routinely operates on large circuits outside of the Oxford ATZ.
6.	Concern that Oxford air traffic will be given priority over other legitimate users of airspace in a Class D construct.
7.	Introduction of Class D airspace will increase the minimum visibility for aircraft flying at <140 kts from 1500m to 5000m, preventing many legal and safe flights.

No	Points raised or discussed
8.	Introduction of Class D airspace will reduce the flexibility of local flying routes and profiles.
9.	Frequency availability and controller capacity will limit the aircraft numbers in the area.
10.	A large volume of airspace will be unavailable to non-radio equipped aircraft.
11.	Lack of certainty regarding timely clearances will encourage aircraft to route around airspace through choke points adding environmental dis-benefits.
12.	Appreciation of the requirement to solve historic confliction issues between LOA and BZN.
13.	Proposals are a threat to gliding operations in the South of England.
14.	The proposed airspace would transfer risk of an incident to the GA community.
15.	The majority of GA traffic will avoid controlled airspace rather than request access – this would funnel traffic into known choke points.

7.4 Effects on Other Local Aerodromes

The following paragraphs describe our understanding of the effects of these changes on other local aerodromes.

7.4.1 Enstone

The airfield operates beneath the new LOA CTA 1, base 2,000 ft. However, it will be possible to allow users to operate at higher altitudes through the development of a Letter of Agreement developed between both parties. One initiative we could develop is that certain Enstone based aircraft with Mode S transponder and Mode C could operate autonomously on a 4517 squawk to CROSS the CTA / CTR (but not manoeuvre) without calling. This is the same listening squawk ethos currently used.

LOA already has self-imposed restrictions within unit orders that describe how, subject to traffic conditions and weather, sequenced aircraft will not descend below 3,000 ft AMSL within 1 nm of the aerodrome. This will also be the case following introduction of the changes.

7.4.2 Abingdon

This is a disused aerodrome subject to sporadic military use and for specific events LOA would be prepared to develop a temporary Letter of Agreement with event organisers.

7.4.3 Bicester

LOA already has self-imposed restrictions within unit orders. These state that subject to traffic conditions and weather, sequenced aircraft will not descend below

3,300 ft (Oxford QNH) within 1 nm of the aerodrome. Attempts to establish a Letter of Agreement regarding notification of gliding activity are ongoing. This initiative will be re-energised as part of the ACP. Following the introduction of the changes we anticipate there will be little effect on LOA traffic within the vicinity of the gliding site. However, it is acknowledged that the airspace within the vicinity of LOA aerodrome will no longer be available to non-radio equipped gliders.

7.4.4 Edgehill

LOA traffic sequenced for arrival and departure is normally well clear of this active gliding site. Following the introduction of the changes we expect there will be no effect on LOA Traffic within the vicinity of the gliding site. However, it is acknowledged that the airspace within the vicinity of Oxford aerodrome will no longer be available to non-radio equipped gliders.

7.4.5 Hinton-In-The-Hedges

The Runway 19 RNAV (GNSS) design has a northerly IAF that was rotated to the west slightly to remain over 3 nm clear of this aerodrome. The proposed airspace has also been chamfered to avoid the Hinton winch launch area. Liaison has been conducted with Hinton Skydive Centre to understand the profile of their parachuting aircraft. LOA already has self-imposed restrictions within unit orders that, subject to traffic conditions and weather, ensure that sequenced aircraft shall not be vectored within 3 nm when the drop-zone is notified as active.

7.4.6 RAF Benson

A response from RAF Benson was received from NATMAC. Benson have several local field sites but access to these is conditional upon talking to Brize. LOA would need to review the use of the current crossing route as this conflicts with the Oxford Circuit.

7.4.7 Weston-On-The-Green

The MOD and LOA have expressed a desire for a Letter of Agreement to manage the airspace within this area (D129). The LOA radar capability offers significant advantages when considering Flexible Use of Airspace (FUA) and protection for the parachuting operations. Any Letter of Agreement would need to be reviewed as the conflict point against drop aircraft and the RW19 approach would be within LOA CTR and not in Class G airspace.

Weston Gliding

Procedures for gliding operations would need to be confirmed and co-ordinated. When D129 is not active and Weston-On-The-Green is active with gliding, LOA would not vector aircraft within the lateral confines of the danger area and the airspace designated to gliders. Transit aircraft would be permitted to cross the area, but only above the height of the winch launch.

LOA has already self-imposed restrictions within unit orders that state, subject to traffic conditions and weather, sequenced aircraft will not descend below 3,500 ft (Oxford QNH) within 2 NM when the gliding site is active.

7.4.8 Oaklands Aerodrome

Oakland's aerodrome operates non-radio, vintage aircraft within the area of the CTR. An embryonic Letter of Agreement has already been established to allow aircraft to

operate within the Oakland's visual circuit and transit the CTR. Non-radio/ non-SSR equipped aircraft will be able to do so under specified conditions.

7.4.9 Turweston

7.4.10 LOA has already self-imposed restrictions within unit orders that state, subject to traffic conditions and weather, sequenced aircraft will not descend below 3,500 ft (Oxford QNH) within 2 nm when the aerodrome**.** This aligns with the protection afforded by the Turweston ATZ before it was withdrawn in August 2015.

7.5 Environmental Impacts

LOA is acutely aware of its place within the local infrastructure and the impact of its activities on the local community. The airport routinely engages with the local authority (Cherwell District Council) on all matters pertaining to future development. LOA also holds four monthly Airport Consultative Committee meetings with representatives from the local community who are interested the airport.

The Civil Aviation Authority (Air Navigation) Directions 2001 (incorporating Variation Direction 2004) (HMG, 2001) requires the CAA to take into account 'the need to reduce, control and mitigate as far as possible the environmental impacts of civil aircraft operations, and in particular the annoyance and disturbance caused to the general public arising from aircraft noise and vibration, and emissions from aircraft engines'.

LOA wishes to ensure that members of the pubic are fully aware of any environmental impacts associated with this change. Consequently, an environmental assessment is included in the following sub-paragraphs. Once the consultation has finished and the responses have been reviewed, this assessment will also form part of the formal ACP submission to the CAA, and will be fully considered during their decision phase.

7.5.1 Impact of Noise

Conventional noise exposure contours, which are produced regularly for major airports, are calculated for an average summer day over the period from 16 June to 15 September inclusive, for traffic in the busiest 16 hours of the day, between 0700 and 2300 local time. These are known as $L_{eq,}$ 16 hours contours. This calculation produces a cautious estimate (i.e. tends to over-estimate) noise exposure. This is mainly because airports are generally busier during the summer and a higher number of movements is likely to produce higher L_{eq} values. Aircraft tend to climb less well in higher temperatures, so because they are closer to the ground, L_{eq} values will tend to be higher than in colder weather.

Change sponsors are required to produce contours when the proposed change includes changes to arrival and departure routes for traffic below 4,000 ft agl[18]. This height of 4,000 ft is used because aircraft operating above this height are unlikely to affect the size or shape of the L_{eq} contours.

[18] Above Ground Level.

Contours must be portrayed from 57 dBA L_{eq}, 16 hours at 3 dB intervals. DfT policy is that 57 dBA L_{eq}, 16 hours represents the onset of significant community annoyance.

The noise contours below were calculated by the FAA[19] Aviation Environment Design Tool (AEDT) (version 2c SP2) and were based on London Oxford Airport traffic data for the 92-day summer period (16th June – 15th September 2016, 0700-2300 local time) for aircraft utilising runway 19/01 (the longest runway available at the Airport). Aircraft details including available aircraft types were input to AEDT, and differentiation was made between arrival and departure profiles. For those specific aircraft models not contained in the AEDT database, a comparative aircraft model was used. Since London Oxford Airport does not have any published Standard Instrument Departures (SIDs) or Standard Arrival Routes (STARs), for the purposes of the modelling we have assumed that inbound aircraft followed the instrument approach profile for the ILS or NDB approach, and that outbound aircraft follow the noise preferential routings as described in the UK AIP EGTK AD 2.21 Noise Abatement Procedures.

The modelling utilised traffic experienced at the Airport over three separate weeks during the summer period of 2016 which allowed us to determine a 100% westerly and easterly average day which allowed an average summer day to be input into AEDT using a modal percentage split of 75/25[20] to reflect which runway is used more frequently. This allowed a production of average mode contours for an average summer day.

London Oxford Airport does not have any night flights (between 2300 and 0700) as the aerodrome is closed therefore no Sound Exposure Level (SEL) footprints were modelled.

The modelling showed that with the existing flight profiles, and no forecast increase in traffic at LOA because of the introduction of RNAV procedures, the L_{eq} noise contours do not extend beyond 2.5 Nautical Miles (NM) (approximately 4.3 Kilometres (km)) beyond the end of each runway threshold.

Since aircraft must establish on a final approach path usually within approximately 4 NM of the touchdown point to maintain a stable approach, the new RNAV arrival procedures are unlikely to alter the noise exposure levels currently experienced within the vicinity of London Oxford Airport. The new RNAV procedures replicate the existing flight profiles within 2.5 NM of the airport, and therefore specific noise modelling of the new RNAV procedures was not required.

The assessment is shown in the Figure 23 below.

[19] Federal Aviation Authority (FAA). The US equivalent of the CAA whose tools are regarded by the CAA as appropriate for this type of analysis.
[20] Only aircraft utilising either Runway 19 or Runway 01 were considered; aircraft operating in and out of Runway 11 or Runway 29 were not considered when assessing the modal split.

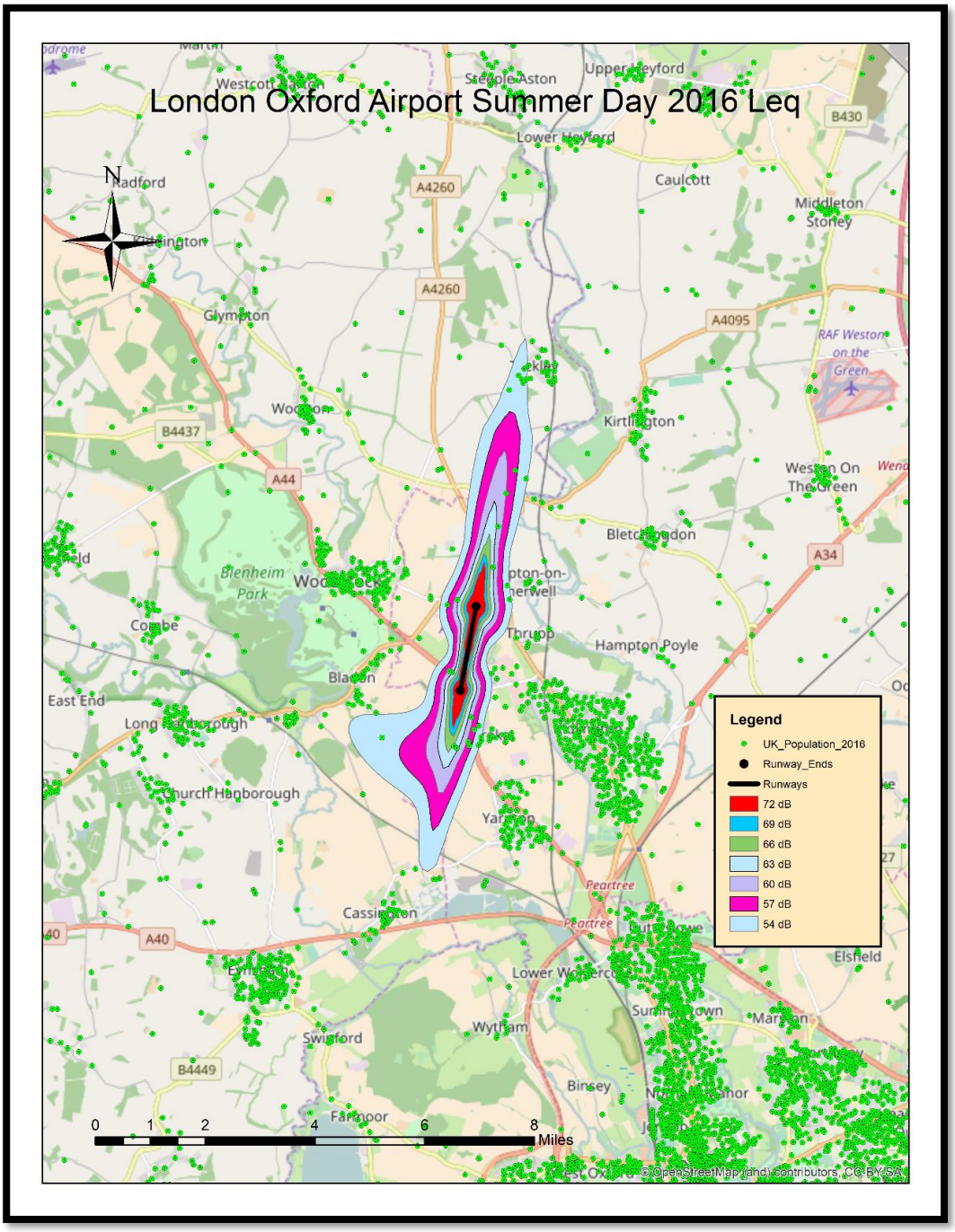


Figure 23 - Noise Contours for London Oxford Airport based on Summer 2016 Traffic.

The estimated areas, populations and households within the contours are summarised in the Table 3 below. The population database used was a 2016 update of the 2011 Census supplied by CACI Ltd.

Leq (dBA)	Population	Households
>54	550	200
>57	400	150
>60	250	100
>63	150	50
>66	<50	<50
>69	<50	<50
>72	<50	<50

Table 3 - London Oxford Airport 2016 Leq Contours with existing aircraft flight profiles.

The introduction of RNAV (GNSS) procedures at LOA will only introduce new arrival procedures; departures will continue as per existing arrangements. There is also no intention to introduce a change in existing traffic levels or change the type of aircraft operating at the Airport. The new routes will replicate, where possible, existing Instrument Flight Procedures. To maintain a stable approach, aircraft must be established on a final approach path usually within approximately 4 NM of the touchdown point. Therefore, the new RNAV (GNSS) arrival procedures are not likely to alter the noise exposure levels currently experienced within the vicinity of LOA.

If the proposal for new controlled airspace is successful, there is a possibility that some GA aircraft may choose to route around the airspace, rather than call either LOA ATC or BZN ATC to negotiate a clearance to transit the airspace. This means that there may be a slight increase in GA traffic around the periphery of the airspace; conversely there might be a reduction in GA activity within the lateral areas of the proposed controlled airspace. LOA will positively encourage GA pilots to call and obtain a crossing clearance of the proposed controlled airspace; the creation of a known traffic environment will ensure all parties are aware of any potentially conflicting traffic, and a resolution to any conflictions will be provided. It is not possible to predict the actual numbers of GA aircraft that will choose to route around any controlled airspace, nor is it possible to quantify the number of GA aircraft that might be affected by any change.

7.5.2 Use of New Procedures

It is impossible to accurately predict the likely use of the new procedures, particularly in the first few years after their introduction. However, the current split of runway usage at LOA is in accordance with the prevailing UK wind direction in that the Airport operates on Runway 19 for approximately 70% of the time. The introduction of an IFP to Runway 01 will allow aircraft that are suitably equipped,

and whose pilots are qualified to fly RNAV approaches to utilise this runway, rather than accept a tailwind to make an IFR approach to Runway 19. A high proportion of the number of aircraft utilising LOA are locally based training academy aircraft. These aircraft movements account for approximately 58%[21] of the total number of aircraft movements. The business aviation aircraft account for only approximately 7% of aircraft movements. It is this category or airport user that will likely utilise the new IFP at the outset; the number of training academy aircraft who will utilise the procedure is likely to increase as training syllabi are updated to include RNAV approaches.

7.5.3 Traffic Forecast for LOA

This ACP is not driven by a desire to increase the number or aircraft movements at LOA. However, it is acknowledged that, if this proposal is successful, the provision of controlled airspace would be attractive to some commercial operators who do not currently choose to utilise LOA. Over the last 5 years there have been slight fluctuations in the numbers of aircraft movements, with the biggest increase seen in the number of test/training flights.

Year	Total No of Aircraft Movements	% Change of Total Number	No of Training Flights	% Change in Training Flights	Business Aviation	% Change in Business Aviation Flights
2012	40,485		16,193		4,321	
2013	37,656	-6.98	16,804	+3.77	3,436	-20.48
2014	42,817	+13.70	21,660	+28.89	3,539	+3.00
2015	44,312	+3.49	23,510	+8.54	3,852	+8.84
2016	40,910	-7.68	18,072	-23.13	4,128	+7.17

Table 4 – Aircraft Movement Data for London Oxford Airport 2012 to 2016

The number of training flights between 2012 and 2016 have increased by approximately 18%. However, the numbers of training flights are predicted to increase more slowly over the next 5 years at a rate of 1 -2 % per annum. This is based on the capacity at the Airport to accept these flights. The Business Aviation aircraft have shown steady increases over the last 4 years with a peak in numbers in 2015; however, this was followed by a reduction of approximately 20% in traffic number sin 2016 compared with the high of 2015. The Airport expects this area to grow steadily, irrespective of the success of proposed change in airspace and procedures, by approximately 3 – 5% per annum over the next 5 years.

[21] Based on 2016 Aircraft numbers reported on the CAA website for London Oxford Airport

7.5.4 Climate Change – Fuel Burn/CO_2 Emissions

The Guidance to the CAA on environmental objectives (DfT, 2014) recognises that aviation is a growing contributor to greenhouse gas emissions that cause climate change. The Government's strategy on aviation is to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. This airspace change will ensure aircraft departing from and arriving into LOA are able to do so using more direct routings and more efficient vertical flight profiles. The reduction in the numbers of approaches that are broken off and conducted again will also contribute to this objective in a positive way.

This positive impact must be balanced against the traffic that would not choose to route through the new controlled airspace, and would therefore fly a longer route to its intended destination. This additional routing would not need to be flown by those aircraft choosing to call LOA to cross the CTR/CTA. At this stage it is not possible to accurately balance these issues, but LOA believes there will be a minimal impact on balance.

7.6 Local Air Quality

The local air quality at LOA in unlikely to worsen because of this proposal. The fact that numbers of aircraft flying locally are not intended to increase because of this change, combined with the more efficient use of the airspace and reduced failed approaches all indicates that if anything, there will be a negative or net improvement in local air quality.

7.6.1 Visual Impact and Tranquillity

For the same reasons as stated in para 7.3.3, there is not likely to be any negative impact.

7.6.2 Areas of Outstanding National Beauty (AONB)

The new approach procedures do not overfly the adjacent Cotswold or North Wessex Downs AONB. However, one of the proposed options for the Missed Approach Procedure (MAP) for Runway 19 will overfly the eastern area of the Cotswold AONB north of Bladon and east of Charlbury. It should be noted however, that a MAP is only used when an aircraft is not able to continue an approach and therefore use of this profile is expected to be extremely infrequent. Further, this MAP was designed to follow the general pattern that aircraft currently utilise when departing to the north from Runway 19. Therefore, introduction of these proposed procedures introduces no additional impact on the AONB when compared to current aircraft routings.

If the ACP is successful, there might be a slight increase in numbers of GA aircraft that will choose to avoid the controlled airspace that might overfly either AONB. It is not possible to quantify the number of aircraft that might potentially fall into this category. LOA is keen to ensure that any aircraft that wish to transit the area should be able to do so, if they call on the relevant frequency and obtain an ATC clearance; LOA will positively encourage pilots who feel less confident about this process to do so.

7.7 Economic Benefits

An economic assessment has not been included as there are currently no specific guidelines on a suitable process. There are no commercial imperatives associated with this change and therefore no direct economic benefits have been identified.

7.8 Future Proofing

There is a global shift across the aviation sector towards the adoption of new RNAV (GNSS) Procedures. Such a change allows suitably equipped aircraft to navigate by utilising GPS similar to the systems used in car Satellite Navigation (SatNav) systems. For example, the Bahrain Flight Information Region (FIR) has a requirement for Required Navigational Performance -1 (RNP-1) and, since November 2012, RNAV (GNSS) 1 has been mandatory for aircraft operating at Amsterdam Schiphol. Many of the graduates of the Oxford Aviation Academy are destined for future careers within the airlines industry and experience of RNAV (GNSS) procedures will undoubtedly feature within syllabus and training objectives in the near future. The Future Airspace Strategy dated 30th June 2011 made the following recommendations:

> *"It is recommended that the CAA considers taking a more proactive approach to facilitating the implementation of precision approach and landing technology, along with ensuring a robust supporting regulatory framework is in place to facilitate implementation."*

LOA wishes to invest in such emerging technologies to remain abreast with facilities offered by other airports. This enhances the options for aircraft wishing to operate out of the airport and ensures that provision exists for the training academies to be able to practice the RNAV (GNSS) procedures once it becomes a requirement for a Commercial or Air Transport Pilots Licence (CPL or ATPL).

The same company of UK CAA Approved Procedure Designers developed the Instrument Flight Procedures for LOA and BZN concurrently. The aim was to improve the interrelation between the two airports and to try to reduce the number of occasions when relatively inefficient verbal/tactical coordination agreements are required that reduce ATCO capacity to provide a service to other airspace users.

8 What Are the Next Steps?

LOA is eager to ensure it has an opportunity to consider the views of both aviation and non-aviation stakeholders before submitting its formal airspace change proposal to the CAA. Where constructive ideas are offered we will consider their practical application and include them in our final submission to the CAA.

8.1 Overview

Following the 14-week public consultation there is still a great deal of work to be completed before submission of the final proposed solution.

8.2 Consultation Summary

A summary of all the consultation responses will be produced at the end of the 14-week period. This will be submitted along with the formal ACP in the spring of 2018.

8.3 Consultation Responses

We will respond to all comments received by consultees and all correspondence between LOA and consultees will be forwarded to the CAA for review along with the ACP.

8.4 ACP Moving Forwards

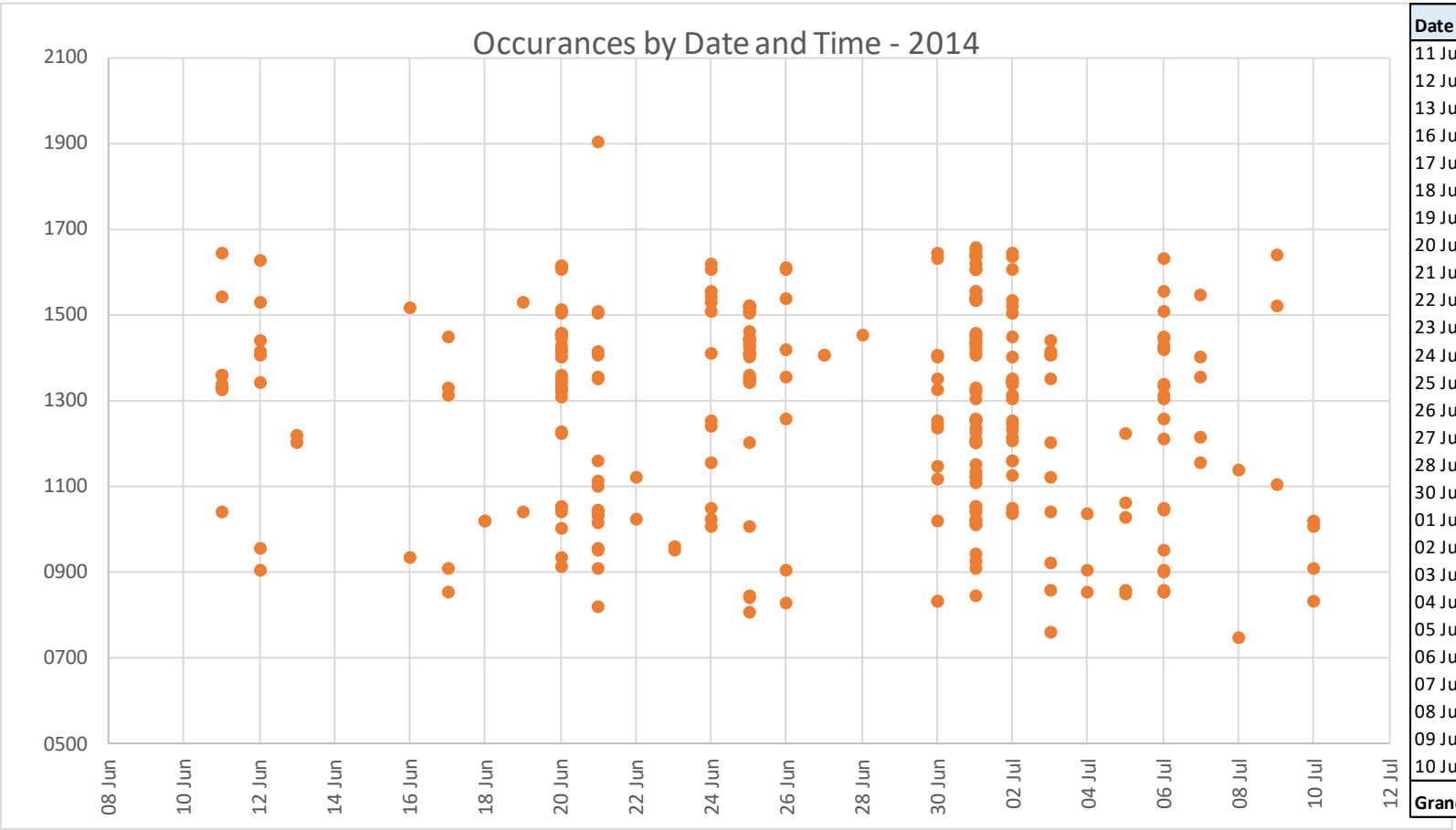
Following consultation, it is anticipated that the proposed changes will be introduced in early 2019 or a date agreed with BZN for the concurrent publication of procedures and airspace at both aerodromes.

9 References

Reference	Name	Origin
1	Transport Act 2000, Chapter 38 Section 70(1)	UK Government
2	CAP 724 Airspace Charter Issue 4 Amdt 2012/1, dated 30 August 2012	CAA
3	CAP 725 Airspace Change Process Issue 4.1 dated 15 March 2016	CAA
4	UK IAIP Amendment 11/2016	NATS AIS
5	Report Number 2014065	UK AIRPROX Board
6	CAA Future Airspace Strategy 2011-2030	CAA
7	BZN Airspace Change Proposal	RAF Brize Norton
8	Supporting Evidence	LOA

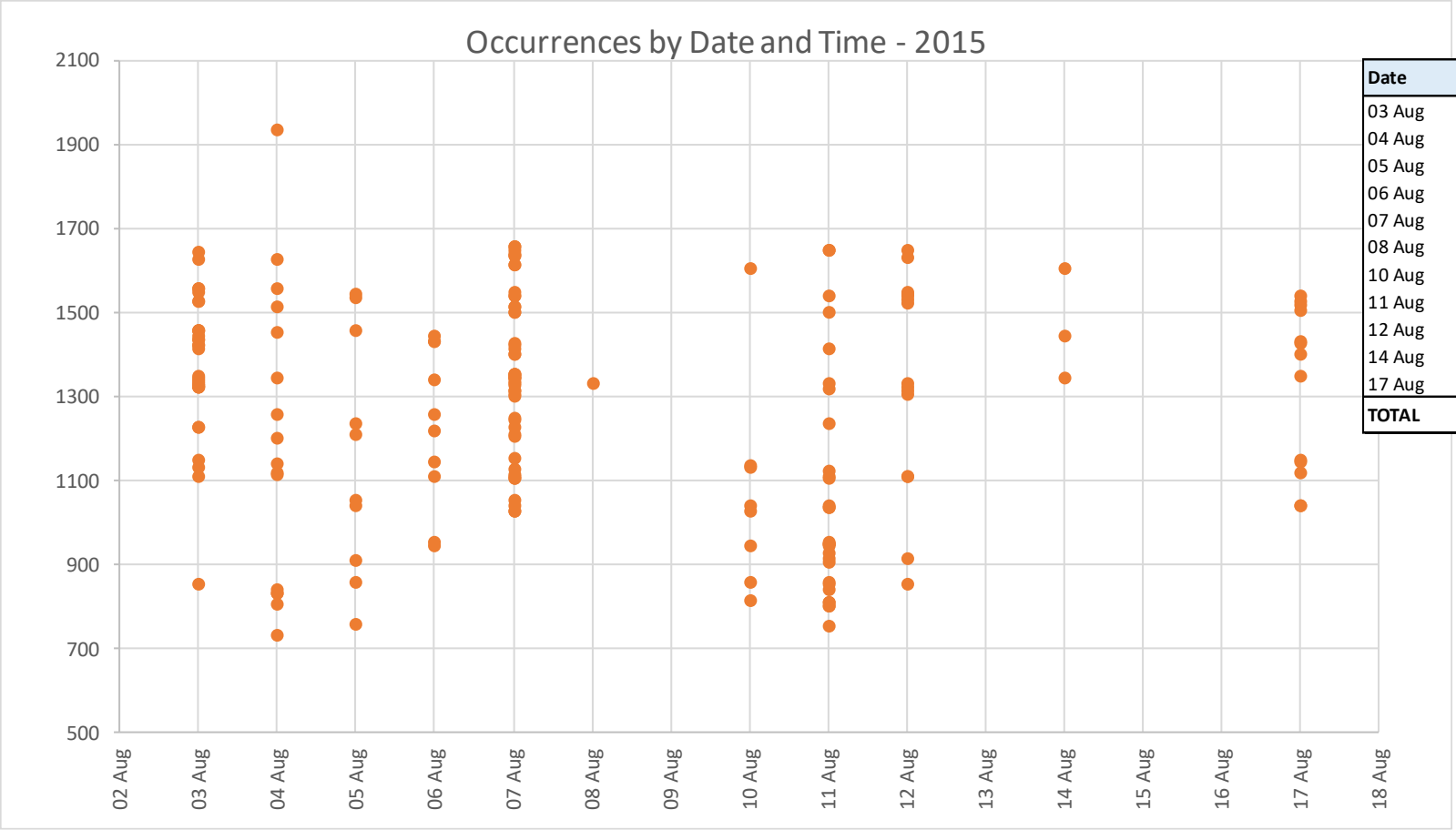
Table 5 - References

A1 Aircraft Operating in Approach Area RW 19 June/ July 2014



Date	Number
11 Jun	8
12 Jun	8
13 Jun	2
16 Jun	2
17 Jun	5
18 Jun	2
19 Jun	2
20 Jun	35
21 Jun	21
22 Jun	2
23 Jun	2
24 Jun	13
25 Jun	36
26 Jun	8
27 Jun	2
28 Jun	1
30 Jun	14
01 Jul	59
02 Jul	26
03 Jul	11
04 Jul	3
05 Jul	5
06 Jul	22
07 Jul	5
08 Jul	2
09 Jul	3
10 Jul	4
Grand Total	**303**

A2 Aircraft Operating in Approach Area RW 19 August 2015



Date	Number
03 Aug	32
04 Aug	16
05 Aug	10
06 Aug	11
07 Aug	56
08 Aug	1
10 Aug	8
11 Aug	30
12 Aug	15
14 Aug	3
17 Aug	13
TOTAL	**195**

A3 Safety Events

The following safety events have been recorded.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
1	31 Aug 2009	E135 Legacy / TB20	5nm final RW 19 ILS	Conflict in on final approach with traffic working Brize.	The TB20 was routing Banbury to Blenheim palace working Brize LARS. The aircraft was 600 ft above but in plan conflict with the Emb 135. A temporary reduction in altitude triggered a TCAS RA for the EMB 135 whom reported the aircraft 150 ft above.
2	19 Feb 2010	C525 / Grob Tutor	Approaching the OX beacon overhead the aerodrome.	Conflict with Grob Tutor flying GH sortie within the vicinity of the Oxford overhead.	Oxford operating procedurally and C525 late release from London inbound to OX from the N/W. C525 had TCAS RA against Tutor aircraft general handling in the vicinity of the holding pattern.
3	12 April 2010	C172 / Merlin Helicopter	South Oxford City	C712 departing VFR from Oxford saw and avoided the Merlin,	The Merlin was being vectored by Benson for an ILS against the stream – Benson operating SSR only. The C172 departed Oxford RW 01 and departed downwind. The C172 transponder was U/S and not working. The C172 sighted the merlin late and took avoiding action, no TI was passed to the Merlin due to the C172 no squawking.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
4	11 Jun 2010	CL60 / EA50 Eclipse jet	South Oxford	Outbound CL60 stopped at 4000ft against the inbound EA50 by Oxf App. Brize LARS climbed the CL60 to FL 50 and into conflict.	Outbound CL60 climbed to 4000ft by Oxford Approach against the EA50. Inbound EA50 was notified to Brize but no mention of the reason for the stop off in level. On first contact the Brize Controller erroneously climbed the CL60 to 5000ft and into conflict with the EA50.
5	10 Jul 2010	FK50 / PA28	NDB / ILS instrument procedure.	PA28 holding off at Upper Heyford to sequence behind a FK 50.	FK50 outbound on the NDB / ILS approach with a PA28 north of the aerodrome. As the FK50 reports beacon outbound the PA28 requests a straight in approach. The PA28 instructed to hold off north of Upper Heyford and has a confliction with the FK50 whilst in the base turn of the procedure.
6	14 Sep 2010	SK76 / Be200	In the vicinity of DTY	Inbound IFR north aerodrome.	Inbound Be200 under a procedural service in conflict with transit aircraft working Birmingham.
7	1 April 2011	C560XLS / Grob Tutor x 2	Joining controlled airspace North of Cpt	Traffic joining controlled airspace released from a procedural service into conflict with unknown traffic.	C560 XLS joining controlled airspace at Cpt was on conflict with 2 Tutor aircraft and TI was passed BY Swanwick and a TCASRA occurred. Procedural Control from Oxford.
8	22 Jun 2011	PA31 / PA34	On Final RW19	Inbound PA34 via NDB with PA31 on left base.	Inbound PA34 did not report 4 DME and flew into conflict with CCT traffic despite being told about it.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
9	08 July 2011	EMB550 / C130	South of Oxford inside Brize CTR	Oxford APP descended the Emb550 into Brize CTR into conflict with Brize Traffic.	The App controller expected the Emb550 to be routing Cpt OX and thus cleared the aircraft to 2500ft. Aircraft actually routed from Kennet and thus it's track took it into Brize CTR
10	22 Aug 2011	PA34 / PA 28	Oxford CCT	Conflict with traffic joining downwind from the north and CCT traffic.	The PA28 was joining downwind from the north and was visual with the PA34.
11	2 Oct 2011	G550 / TB20	Bae turn of the NDB/ILS 19	G550 flying the NDB/ILS approach RW 19 had a TCAS RA with crossing traffic not known to Oxford.	A transiting VFR flight trigger 2 TCAS RAs as the aircraft crossed the flight path of the G550 outbound and then inbound on the NDB/ILS approach for RW 19.
12	3 Oct 2011	Emb505 / PA34	14.5 nm north Oxford	Emb 505 had TCAS RA with unknown VFR traffic	EMB505 wanted to fly the direct HON arrival but was held high by London. Upon clearing controlled airspace, a TCAS RA was received on the PA34 manoeuvring VFR outside controlled airspace.
13	8 Oct 2011	A330 / C42	6nm south Oxford	C42 entered the CTR without clearance.	The C42 had diverted into Oxford earlier due poor weather. Having planned a route to the south the C42 entered he CTR without clearance and into conflict with the A330.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
14	9 Jan 2012	PA34 / SR22	Overhead OX	Conflict between Transit aircraft and PA34 in the hold.	A conflict in Class G between IFR aircraft.
15	25 Feb 2012	HS25 / SR22	NDB01 Procedure	SR22 flew the NDB01 approach and not the 100 as cleared	The SR22 pilot did not fly the cleared procedure and flew into conflict with the HS125.
16	27 May 2012	C560xls / Glider	OX Over-head	Citation 560 entering the hold when they saw the conflicting glider.	Effectively a non-sighting by the C560XLS crew.
17	9 Sep 2012	AS35 / G5	Just north of Oxford on the instrument approach	AS35 working Brize conflicting with the G5 on the instrument approach.	A conflict between Procedural IFR traffic and VFR traffic in the vicinity of the Oxford instrument approach pattern.
18	4 Oct 2013	C550 / Tutor	2.6nm south Oxford	Whilst Operating procedurally the C550 had a conflict with the Tutor which was unknown to Oxford.	A confliction of flight paths resolved by both pilots and ATC.
19 Radar	16 May 2014	PA34 / RV6	Oxford ATZ Gap with WOTG	Radar spotted the RV6 flying down the ILS toward the gap and informed Twr. TI was passed and the PA34 gained visual contact.	The PA34 pilot did not take sufficient avoiding action on first sighting the RV6.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
20 Wide Brize	5 June 2014	A330 / SK76	Eastern Edge of Brize CTR	Wide turn onto the instrument approach at Brize RW 25.	The Voyager's turn took it outside the BZN CTR and, in the absence of Traffic Information, the Voyager pilot was concerned by the proximity of the SK76.
21 Radar	9 June 2014	PA34 / DR10	Base turn of the NDB19 procedure	Conflict with traffic crossing the instrument approach	A conflict in Class G resolved by the PA34 pilot following Traffic Information from ATC.
22 Radar	9 June 2014	PA28 / PC12	North eastern edge of the ATZ.	Aircraft transiting the instrument approach and visual circuit without RTF contact and not squawking altitude.	Whilst the Board felt that the Oxford RAD was correct to apply 'defensive controlling', in this case, with all those involved operating in Class G airspace, it was to be expected that traffic could transit the area remaining outside the ATZ, that they may or may not be squawking or be in RT contact with Oxford, and that pilots may have to take their own separation, (in this case greatly assisted by the provision of Traffic Information). As such, the Board determined that the Oxford Radar controller had perceived a conflict and that normal procedures, safety standards and parameters had pertained.
23 Radar	19 June 2014	EH101 / PA34	NDB099 procedure	Transit Helicopter conflict with the PA 34 inbound on the 099 procedure.	The PA34 pilot flew into conflict with the Merlin. Contributory Factor(s): 1. Lack of Traffic Information to the PA34 from Oxford ATC.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
					2. Poor coordination between Oxford Radar and Oxford Tower. Trainee radar controller
24 Radar	25 June 2014	Puma / Glider	Puma Glider event whilst in the instrument hold.	Whilst the Puma was in the hold it saw a glider in close proximity.	Effectively a non- sighting by the Puma pilot. Recommendation(s): The CAA considers producing a chart of UK airfield IFR holding pattern positions. Action not carried forward.
25 Radar	23 July 2014	AC90 / Jet Provost	North and west of the aerodrome.	Jet Provost late call and wrong frequency for overhead transit from the north / west.	The Oxford Radar controller was concerned by the proximity of the Jet Provost and the AC90. Contributory Factor: The Jet Provost pilot did not establish contact with Oxford as he transited close to their ATZ.
26 Radar	16 Aug 2014	ATR42 / Hinton Para	9nm North Oxford establishing ILS	Hinton dropper left the DZ westerly into conflict with the ATR42	A conflict in Class G. Contributory Factor: The Oxford controller expected the 750XL pilot to remain within the Hinton Designated Area.
27 Radar	14 Aug 2014	RV10 / PA34	1.9nm North Oxford.	RV10 attempting to route through the 'gap' between D129 and WOTG flew into conflict with the visual CCT	The Oxford controller was concerned by the proximity of the RV10.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
28 APP	28 Sep 2014	C560 / PA24	In the OX Hold	Transit aircraft reported at 7000ft but was at 4000ft. Triggered TCAS warning.	A TCAS sighting report. Contributory Factor: The PA24 pilot reported the wrong altitude and therefore the Oxford controller was not cued to provide Traffic Information to the C560 pilot.
29 APP	01 Oct 2014	A330 / C182	Eastern edge of Brize CTR	At night, TI passed by Twr on traffic in the Brize radar pattern that left the CTR into conflict with	The Board quickly agreed that this incident represented normal operations in Class G airspace and therefore was deemed to be a sighting report, the risk was assessed as Category E, normal safety standards had pertained.
30 Radar	21May 2015	A109 / C182	2nm south Oxford	Helicopter kept low for Brize CTR transit and released late in perceived conflict with Oxford Traffic	The Oxford controller perceived a conflict.
31 Radar	10 Jun 2015	C182 / PA28	Base turn NDB 099 procedure	Traffic transiting to enter the Brize CTR in the vicinity of the base turn conflicting with the NDB099 procedure	A late sighting by the C182 pilot and a non-sighting by the PA28 pilot. Contributory Factor: Oxford ATC did not give Traffic Information to the C182 pilot despite him being in receipt of a Traffic Service.
32	22 Sep 2015	DA42 / PA28	Outbound on the NDB099 procedure	During a period of radar off a VFR departure flew	A sighting report.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
App				into conflict with instrument traffic.	Contributory Factor(s): No traffic information from the Air Traffic Controller.
33 App	31 Oct 2015	AS50 / PA34	Runway 19 threshold	Helicopter continued approach and landed over a departing PA34	The AS350 pilot landed without clearance on an occupied runway Contributory Factor: ATC did not sufficiently monitor the AS350 pilot's approach
34 Rad	16 Jan 2016	B206 / Metroliner	On departure RW19	B206 after failing to contact Brize for a CTR crossing turned into conflict with and entered the ATZ without clearance	The Bell 206 pilot flew into the Oxford ATZ without clearance and into conflict with the Metroliner
35 Rad	8 Aug 2016	A400 / C182	East Brize CTR wide base turn for Brize procedure	A400 flew wide on the instrument procedure into conflict with the Oxford MAP and a C182	A conflict in Class G caused by a late turn on to base leg by the A400
36 Twr	5 Dec 2016	DA42 / PA28	Downwind RW 19 CCT	The DA42 flew the go-around from the NDB 099 and despite TI reported a potential conflict with the Downwind departing traffic	Oxford ATC did not integrate the DA42 and PA28. Contributory Factors: 1. The OJTI did not sufficiently mentor the trainee or discuss the likely conflict scenario.

EVENT	DATE	AIRCRAFT AFFECTED	LOCATION	NATURE OF EVENT	COMMENT
					2. The Oxford MATS Part 2 provides inadequate guidance for integration of the NDB/DME099 approach with visual circuit traffic
47 Radar	5 Jan 2017	CH47 / PA34	Final approach RW 19	The CH47 descended rapidly through the RW 19 instrument approach path with traffic on the approach	The PA34 pilot was concerned by the proximity of the Chinook Contributory Factor: The Chinook pilot flew towards the Oxford Approach Path without calling Oxford ATC

Table 6 - Safety Events

The following incidents are those where an approach to Runway 19 was broken off due to an aircraft confliction:

Date	Aircraft Type	Details
21 May 2015	C510 Mustang	Broken off the approach due to unknown aircraft appearing 1 nm west of the LLZ abeam Upper Heyford. Aircraft then squawked 3717 indicating 2200ft mode C. C510 broken off from final approach to be re-positioned behind. Aircraft was inbound to Enstone.
21 May 2015	Global Express	Broken off from base leg due to unknown aircraft tracking inbound to Oxford from Banbury along the final approach track altitude 2000ft. Aircraft was inbound Oxford but called late and the faster Global had to be broken off.
22 May 2015	PA34 x 2 One an Exam C/S	Unknown non transponding aircraft manoeuvring at Upper Heyford. Inbound PA34 reported IMC whilst being vectored (cloud base 1500ft) and was offered to be broken off. Both aircraft were subsequently held off for 5 mins whilst the unknown non transponding aircraft manoeuvred at 6nm final RW 19.
22 May 2015	Citation 525	PA28 C/S ***** was manoeuvring at 6nm final RW 19 not in contact with Oxford. Further non transponding aircraft out of Enstone was manoeuvring in a similar position. The citation was given an extended pattern and delayed until both aircraft cleared the final approach.
28 May 2015	Citation 525	Could not vector the aircraft toward base-leg and final due to a 7K squawk route from Upper Heyford to 5nm final and then turn north toward Banbury various levels between 2500 and 3500ft but not talking to Oxford.
16 June 2015	PA34	PA34 broken off from an NDB approach at base leg due to 2 aircraft crossing the final approach. 1 aircraft east to west and 1 west to east. Both non transponding aircraft both not talking to Oxford.
24 June 2015	PA34 Exam C/S	Aircraft broken off from a radar vectored ILS due to non transponding aircraft routing Upper Heyford west bound.
27 June 2015	CL60	Controller operating procedurally. Contact seen on the ATM in the vicinity of Charlbury heading toward the aerodrome. Aircraft acquired with binoculars and TI passed to the CL60 as it approached the OX from the south. Aircraft was seen to turn to the north-west roughly in line with

Date	Aircraft Type	Details
		the outbound track of the RW 19 procedure. As the CL60 went both aircraft were visible with the binoculars and furthermore detailed TI was passed. CL60 reported TCAS contact and elected to stop descent at 2500ft. CL60 flew directly overhead the contact (on the ATM) but did not gain visual contact. Aircraft type was identified and was routing to Barford St John and then back to Enstone.
4 July 2015	C560	Aircraft broken off from base leg due to a 7K squawk routing Banbury-Deddington-Upper Heyford at 2300.
5 July 2015	Embraer 135	Aircraft broken off approach due 3 x conflicts. Non transponding microlight east west across final approach; further aircraft east-west at 2000ft and a west-east across final approach at 1500ft. All aircraft not working Oxford.
10 July 2015	GLF6	Broken off from a vector ILS approach at 8nm due to crossing traffic 1nm ahead east-west no height information.
11 July 2015	GLF5	Conflicting traffic crossing the approach working Lon FIS. Many calls made to FIS but phone engaged. TI was passed twice and pilot happy to continue. Once closing heading for the ILS was given the conflict was assessed again and the aircraft broken off.
20 July 2015	PA28	Aircraft broken off from ILS RW 19 due to 7k squawk routing west to east through the final approach at 5 nm. Aircraft not on frequency PA28 did not see conflicting aircraft.
20 Aug 2015	BE20 CAT A Hosp	Vectored by trainee toward the final approach track with TI given on unknown traffic. At 1nm OJTI gave avoiding action after confirming that the aircraft was IMC

Date	Aircraft Type	Details
25 Sep 2015	TBM850	Being vectored for an NDB approach. Had to be broken off due to 2 x unknown contacts at 7 and 7.5nm final. On second approach gliders were just to the east of the final approach track.
10 April 2016	C560 & C560	Both jets being vectored for the ILS approach RW 19. Unknown traffic crossing through the final approach and base leg of the procedure at 8 nm at 2200ft. Both aircraft orbit until the conflictor clears the area.
9 July 2016	Falcon 2000	Unknown 7k squawk north west of Oxford airport tracking east. Squawk code changes to Luton/Stanstead listening squawk and crosses final approach RW 19 at 4 mile final 1800 ft climbing 2200ft. Falcon broken off from approach and repositioned.
13 Aug 2016	Sk76	Vectoring for an ILS in a gap in gliders. The Glider in front stopped crossing the approach and started to thermal, turning into conflict with the SK76. SK76 broken off from the approach.
13 Aug 2016	C560	Citation being vectored for an ILS approach was given 2 x 'long way round turns' onto final awaiting a 7k squawk at 200ft to clear. Squawk changed to Brize as the aircraft climbed to 3800ft.
12 Sep 2016	EC55	Helicopter on a procedural NDB/ILS approach. Advised in the base turn of aircraft crossing the final approach at1600ft just below the cloud base and asked if happy to continue; pilot stated yes. With the helicopter established inbound and the crossing traffic 1 O'clock 1 mile crossing right left 300ft lower the helicopter was broken off from the approach.
12 Sep 2016	Global Express	Aircraft broken off from and ILS approach at 8nm due to non transponding traffic crossing the approach at 5nm final. Tower observed traffic believed to be an SR22 at 1000 or 1500ft.
1 Feb 2017	GLF6	Aircraft broken off and held in Class G airspace due to 2 x 7k aircraft operating within the final approach.
18 Feb 2017	Global Express	Broken Off due to 4 x aircraft manoeuvring within the final approach – aircraft vectored for a further 20 track miles in class G airspace.

Date	Aircraft Type	Details
NOTE: As a result of this survey Oxford has adapted and applies 'defensive' controlling methodologies. When conflicts are likely to the north due to gliding or other GA activity, LOA will operate on Runway 01 with up to a 5 kt tailwind, should weather conditions allow. Runway 01 has a higher weather minimum for approaches than does the Runway 19 ILS. When the potential for conflicts on the final approach are seen, aircraft are held off or delayed west of Enstone until the conflicting traffic has cleared the final approach. Due to the unpredictable nature of GA flying, the final approach can often be clear when the controller commits to vectoring to final approach. Enstone aerodrome is also close to the final approach track. A controller can often commit to vectoring before an aircraft departs from Enstone and itself generates a confliction towards the final approach.		

Table 7 - Runway 19 Approaches Broken Off

A4 Consultee List

A4.1 Aviation Stakeholders

A4.1.1 Civil Aviation Authority (CAA)

The CAA is being consulted at various stages of the proposal, in line with requirements of the process we are required to follow.

A4.1.2 National Aviation Organisations

The following will be contacted through National Air Traffic Management Advisory Committee (NATMAC) in accordance with advice from the regulator.

Consultee	Also Known As
Aircraft Owners and Pilots Association	AOPA UK
Airport Operators Association	AOA
All Party Parliamentary Group for GA	APPG
Aviation Environment Federation	AEF
British Airline Pilots' Association	BALPA
British Air Transport Association	BATA
British Association of Balloon Operators	BABO
British Balloon and Airship Club	BBAC
The British Business and General Aviation	BBGA
British Gliding Association	BGA
British Hang Gliding and Paragliding Association	BHPA
British Helicopter Association	BHA

Consultee	Also Known As
British Micro-light Aircraft Association	BMAA
British Model Flying Association	BMFA
British Parachute Association	BPA
Euro UAV Systems Centre Ltd	
Guild of Air Pilots and Air Navigators	GAPAN
General Aviation Safety Council	GASCo
General Aviation Alliance	GAA
General Aviation Awareness Council	GAAC
Guild of Air Traffic Control Officers	GATCO
Helicopter Club of Great Britain	HCGB
Light Aircraft Association	LAA
Ministry of Defence	MOD
NATS En-Route Ltd	NERL
UK Airprox Board	UKAB
UK Flight Safety Committee	UKFSC

Table 8 - National Aviation Organisations

A4.1.3 Airport Operators

We are consulting with all our tenants and users of the airport, including the air ambulance, air cadets, flying schools, airlines and maintenance organisations.

Consultee
CAE Flt Training
Airways Flt Training
Pilot Flight Training
Go Fly Oxford
A2B Helicopters
Airbus Helicopters Oxford
Cirrus Aviation
Gama Aviation
Volare Aviation
Catreus
Capitol Air Services
Oxford Airport General Aviation Group
Netjets Europe
JCB Group Aviation

Table 9 - Airport Operators

A4.1.4 Local Aerodrome and Aviation Organisations

We are consulting with the following local airports and airfields including, but not limited to:

Consultee
Enstone Flying Club
Enstone Oxfordshire Sport Flying
Enstone Pegasus Flight Training Microlights
Hinton Aerodrome – Sky Dive Hinton

Consultee
Hinton Aerodrome – Go-Fly Oxford
Hinton Aerodrome – Aquila Gliding Centre
Weston-on-the-Green Parachuting
Weston-on-the-Green Gliding
Turweston Aerodrome – Flying Club
Turweston Aerodrome – Flight Centre
Oaklands Farm Strip.
Hinton Aerodrome – Banbury Gliding Club
Bicester Aerodrome
Bicester Aerodrome
Shenington Gliding Club
RAF Brize Norton
RAF Benson National Police Air Service
RAF Benson Thames Valley Air Ambulance
Bicester Gliding Centre
Oxford University Gliding Club
Bucks Microlight Club
RAF Benson
RAF Benson 6 AEF

Consultee
RAF Benson Oxford University Air Sqn
637 VGS Little Rissington

Table 10 - Local Aerodrome and Aviation Organisations

A4.2 Non-Aviation Stakeholders: National Bodies

Consultee	Point of Contact
Campaign to Protect Rural England	Helen Marshall, Oxfordshire Director Oxfordshire Branch, Unit 1, London Road, Wheatley, Oxfordshire, OX33 1JH
Friends of the Earth	Friends of the Earth, 26-28 Underwood Street, London, N1 7JQ.
National Trust	yne.customerenquiries@nationaltrust.org.uk Buckinghamshire and Oxfordshire Region 20 Grosvenor Gardens, London, SW1W 0DH
Natural England	Consultations@naturalengland.org.uk Natural England, Consultation Service Hornbeam House, Electra Way, Crewe Business park, Crewe, CW1 6GJ
UK Association of National Park Authorities	126 Bute Street, Cardiff Bay, Cardiff, CF10 5LE.

A4.3 Non-Aviation Stakeholders

A4.3.1 District/ County Councils

We are consulting with the following:

Consultee	Point of contact
Aylesbury Vale	The Gateway, Gatehouse Road, Aylesbury, HP19 8FF

Consultee	Point of contact
Cherwell	Bodicote House, Bodicote, Banbury, Oxfordshire. OX15 4AA
Cotswolds	Trinity Road, Cirencester, Gloucestershire, GL7 1PX
Malmesbury Community Area	No address given
Oxford City Council	St Aldates Chambers, 109 St Aldates, Oxford. OX1 1DS
Royal Wootton Bassett and Cricklade Community Area	No address given
South Northamptonshire	The Forum, Moat Ln, Towcester, NN12 6AD
South Oxfordshire	135 Eastern Avenue, Milton Park, Milton. OX14 4SB
Stratford-on-Avon	Elizabeth House, Church Street, Stratford-upon-Avon, Warwickshire, CV37 6HX
Stroud	Ebley Mill, Ebley Wharf, Stroud, GL5 4UB
Swindon Borough	Civic Offices, Euclid Street, Swindon, SN1 2JH
Vale of White Horse	135 Eastern Avenue, Milton Park, Milton. OX14 4SB
West Oxfordshire	3 Welch Way, Witney, OX28 1PB
Wycombe	Queen Victoria Road, High Wycombe, HP11 1BB
Buckinghamshire	Walton Street, Aylesbury, HP20 1UA
Gloucestershire	Shire Hall, Westgate Street, Gloucester, GL1 2TG
Northamptonshire	One Angel Square, Angel Street, Northampton, NN1 1ED

Consultee	Point of contact
Oxfordshire	County Hall, New Road, Oxford, OX1 1ND
Warwickshire	Shire Hall, Warwick, CV34 4RL
Wiltshire	Bythesea Road, Trowbridge, Wiltshire, BA14 8JN

Table 11 - District/ County Councils

A4.3.2 Parish Councils

We are consulting with the following:

Consultee	Point of contact
Abingdon on Thames	Clerk, Roysse Court (First Floor), Bridge Street, Abingdon-on-Thames, Oxon, OX14 3HU
Adderbury	Clerk, 3 Tanners Close, Middleton Cheney, OX17 2GD
Adwell	Chairman, Adwell House, Adwell, Thame, Oxon, OX9 7DQ
Aldsworth	Clerk, 1 Sherbourne Road, Aldsworth, Gloucestershire, GL54 3QU
Alvescot	Clerk, Wynwood, Filkins, Nr Lechlade, Glos, GL7 3JG
Ambrosden	Clerk, 11 Otmoor View, Merton, Bicester, Oxon, OX25 2NL
Ampney Crucis	Clerk, Grove House, Daglingworth, Cirencester, Gloucestershire, GL7 7AW
Ampney St Mary	Clerk, Well Croft, Ampney St Mary, Cirencester, Gloucestershire, GL7 5SN
Ampney St Peter	Clerk, Moor Close, Ampney St Peter, Cirencester, Gloucestershire, GL7 5SJ
Appleford	Clerk, St Peters House, Main Road, Appleford, Oxon, OX14 4PD
Appleton-with-Eaton	Clerk, Tamarix, Netherton Road, Appleton, Abingdon, OX13 5QW
Ardington and Lockinge	Clerk, 7 The Rickyard, Ardington, Wantage, OX12 8PG

Consultee	Point of contact
Ardley	Clerk, Cherrytree Cottage, 2 Fewcott Green, Fewcott, Bicester, OX27 7PU
Arncott	Clerk, Greystones House, 6 Greystones Court, Kidlington, OX5 1AR
Ascott-under-Wychwood	Clerk, Bay Tree Cottage, 58 New Street, Chipping Norton, Oxon, OX7 5LJ
Ashley	Clerk, Ashley Manor, Tetbury, Gloucestershire, GL8 8SX
Ashton Keynes	Clerk, Ashton Keynes Parish Clerk, 23 Beverstone Rd, South Cerney, Cirencester, GL7 5XU
Asthall	Clerk, 4 Abrahams Cottages, Fordwells, Witney, Oxon, OX29 9PT
Aston Rowant	Clerk, The Cottage, High Street, Kingston Blount, Chinnor, OX39 4SJ
Aston Tirrold and Aston Upthorpe	Clerk, 1 Aston Street, Aston Tirrold, Didcot, OX11 9DJ
Aston, Cote, Shifford and Chimney	Clerk, 1 Manor Close, Aston, Bampton, Oxon, OX18 2DD
Avening	South Tythe Barn, Hay Hedge Lane, Bisley, Gloucestershire, GL6 7AN
Aynho	Clerk, 31 Brackley Road, Croughton, Northants, NN13 5PP
Bagendon	Clerk, Springfield Farmhouse, Perrott's Brook, Cirencester, GL77DT
Baldons (Toot and Marsh)	Clerk, 1, The Croft, Marsh Baldon, Oxon, OX44 9LN

Consultee	Point of contact
Bampton	Clerk, 1 Belgrave Cottages, Church Street, Bampton, Oxon, OX18 2NA
Banbury	Clerk, The Town Hall, Bridge Street, Banbury, Oxon, OX16 5QB
Barford St John and St Michael	Clerk, Street Farm, Bloxham Road, Barford St John, Banbury, Oxon, OX15 0RP
Barnsley (Cotswold)	Clerk, Layston, Barnsley, Gloucestershire, GL75EF
Barrington	Clerk, 56 Sycamore Drive, Carterton, Oxon, OX18 3AT
Baulking	Clerk, 2 Manor Farm Cottages, Baulking, Faringdon, SN7 7QE
Baunton	Clerk, 4 Mill View, Baunton, Cirencester, Gloucestershire, GL7 7BB
Beckley and Stowood	Clerk, Stowood House, Common Road, Beckley, Oxford, OX3 9UR
Begbroke	Clerk, 27 Willow Way, Begbroke, Kidlington, Oxon, OX5 1SD
Benson	Clerk, The Parish Hall, Sunnyside, Benson, Wallingford, OX10 6LZ
Berinsfield	Clerk, Highsett, Alchester Road, Chesterton, Bicester, OX26 1UN
Berrick Salome	Clerk, Mokes Corner, Berrick Salome, Oxon, OX10 6JR
Besselsleigh	Clerk, Merlin, Besselsleigh, Abingdon, Oxon, OX13 5PU

Consultee	Point of contact
Bibury	Clerk, The Pines, Shortwood, Nailsworth, Gloucestershire, GL6 0SA
Bicester Town	Clerk, The Garth, Launton Road, Bicester, Oxon, OX26 6PS
Binfield Heath	Clerk, The Glade, Remenham Piece, Remenham Hill, Henley on Thames, RG9 3ET
Bisley-with-Lypiatt	Clerk, The Peppers, Brockley Acres, Eastcombe, Glos, GL6 7DU
Bix and Assendon	Clerk, 56 Galsworthy Drive, Caversham Park Village, Reading, Berkshire, RG4 6PP
Black Bourton	Clerk, Hungerford, Burford Road, Black Bourton, Oxon, OX18 2PF
Blackbird Leys	Clerk, 181 Wroslyn Road, Freeland, Witney, Oxon, OX29 8AL
Blackthorn	Clerk, North End House, Blackbull Lane, Fencott, Kidlington, OX5 2RD
Bladon	Clerk, King's View, 17 Park Street, Bladon, Oxon, OX20 1RW
Blenheim	Clerk, The Estate Office, Blenheim Palace, Woodstock, Oxon, OX20 1PP
Bletchingdon	Clerk, 4 Oxford Road, Bletchingdon, Kidlington, Oxford, OS5 3BS
Blewbury	Clerk, 10 Eastfields, Blewbury, Oxon, OX11 9NR
Bloxham	Clerk, 3 Tanners Close, Middleton Cheney, OX17 2GD

Consultee	Point of contact
Blunsdon St Andrew	Clerk, Parish Office, Blunsdon Village Hall, High Street, Blunsdon, Swindon, SN26 7AR
Boarstall	No address given
Bodicote	Clerk, 26 The Rydes, Bodicote, Banbury, Oxon, OX15 4EJ
Bourton-on-the-Water	Clerk, The George Moore Community Centre, Moore Road, Bourton-on-the-Water, Gloucestershire, GL54 2AZ
Bourtons	No address given
Brightwell Baldwin	Clerk, 4 The Row, Upperton, Brightwell Baldwin, Watlington, Oxon, OX49 5NZ
Brightwell-cum-Sotwell	Clerk, The Parish Council Office, The Village Hall, West End, Brightwell-cum-Sotwell, OX10 0RY
Brimpsfield	Clerk, 5 Okus Road, Charlton Kings, Cheltenham, Glos, GL53 8DU
Britwell Salome	Clerk, Broadlands Cottage, Britwell Salome, Watlington, Oxon, OX49 5LH
Brize Norton	Clerk, Glebe Farm House, Burford Road, Brize Norton, Oxon, OX18 3NX
Broadwell	Chairman, Beckinsale, Broadwell, Lechlade, GL7 3QS
Broughton	Clerk, 55 Gillett Road, Banbury, Oxon, OX16 0DR
Bruern	Clerk, Bruern Grange, Bruern, Milton-under-Wychwood, Oxon, OX7 6HA

Consultee	Point of contact
Buckland	Clerk, 13 Summerside Road, Buckland, Faringdon, Oxon, SN7 8QY
Bucknell	Clerk, 3 Manor View, Bucknell, Bicester, Oxon, OX27 7NG
Burford	Town Clerk, The Tolsey, 126 High Street, Burford, Oxon, OX18 4QU
Buscot	Clerk, Campdene House, 7 Upper Green, Stanford in the Vale, Faringdon, SN7 8HY
Carterton	Town Clerk, Town Hall, 19 Alvescot Road, Carterton, Oxon, OX18 3JL
Cassington	Clerk, Beech Glade, Combe Road, Stonesfiled, Witney, Oxon, OX29 8QB
Castle Eaton	Clerk, Whitemead House, Castle Eaton, Swindon, SN6 6JX
Caversfield	Clerk, 13 Oak Close, Bicester, Oxon, OX27 3XD
Chacombe	Clerk, 14 Thornhill, Chacombe, Banbury, Oxon, OX17 2JQ
Chadlington	Clerk, Grove Cottage, Chapel Row, Chadlington, Oxon, OX7 3NA
Chalford	Clerk, The Parish Centre, 50 Gerald's Way, Chalford, Stroud, Gl6 8FL
Chalgrove	Clerk, 13 Laurel Close, Chalgrove, Oxon, OX44 7RE
Charlbury	Clerk, 9 Hill Close, Charlbury, Chipping Norton, OX7 3SY

Consultee	Point of contact
Charlton-on-Otmoor	Clerk, Willsden, High Street, Charlton-on-Otmoor, Kidlington, Oxon, OX5 2UQ
Charney Bassett	Clerk, Wick Cottage, Charney Bassett, Oxon, OX12 0EN
Chastleton	Clerk, Durhams Farm, Chastleton, Gloucestershire, GL56 0SZ
Checkendon	Clerk, Highmore, Stoke Row, Nuffield
Chedworth	Clerk, Brookvale, Cheap Street, Chedworth, GL54 4AB
Cherington	Clerk, 11 Rectory Lane, Avening, Tetbury, Gl8 8NN
Chesterton	Clerk, 4 Banks Furlong, Chesterton, Oxon, OX26 1UG
Childrey	Clerk, Ridgeway House, West Street, Childrey, Wantage, Oxon, OX12 9UL
Chilson	Clerk, 1 School Lane, Chilson, Oxon, OX7 3HT
Chilton	Clerk, 6 Latton Close, Chilton, Didcot, Oxon, OX11 0SU
Chinnor	Clerk, Community Pavilion, Station Road, Chinnor, Oxon, OX39 4PU
Chipping Norton	Clerk, The Guildhall, Goddards Lane, Chipping Norton, Oxon, OX7 5NJ
Cholsey	Clerk, The Pavillion, Station Road, Cholsey, Oxon, OX10 9PT
Churchill and Sarsden	Clerk, Albion Court, Albion Street, Chipping Norton, Oxon, OX7 5BJ

Consultee	Point of contact
Cirencester	Administrator, Cirencester Town Council. Bingham House, 1 Dyer Street, Cirencester, Gloucestershire, GL7 2PP
Clanfield	Clerk, 1 Farmers Court, Clanfield, Bampton, Oxon, OX18 2ER
Clapton	Clerk, The Barn, Clapton on the Hill, Cheltenham, Gloucestershire, GL54 2LG
Claydon with Clattercote	Clerk, 74 Beaulieu Close, Banbury, OX16 4FQ
Clifton Hampden	Clerk, 6 Greystones Court, Kidlington, Oxon, OX5 1AR
Coates	Clerk, 2 Quaker Row, Coates
Coberley	Clerk, 5 The Crescent, Lea, Malmesbury, SN16 9NE
Cold Aston	Clerk, 2 The Old Chalet, Station Road, Bourton on the water, Gloucestershire, GL54 2ER
Colesbourne	Clerk, Bittum Field House, Colesbourne, Nr Cheltenham, Glos, GL53 9NS
Coleshill	Chairman, Courtleaze Farmhouse, Coleshill, Swindon, Wilts, SN6 7PT
Coln St Aldwyns	Clerk, Saltway Cottage, 36 Bibury Road, Coln St Aldwyns, Gloucestershire, GL7 5AW
Coln St Dennis	Clerk, 3 Calcot, Cheltenham, GL54 3JZ
Combe	Clerk, Oakdene, Church Walk, Combe, Witney, OX29 8NQ

Consultee	Point of contact
Compton Abdale	Chairman, The Corn Barn, Compton Abdale, Cheltenham, GL54 4DS
Compton Beauchamp	Chairman, Hardwell Farm, Compton Beauchamp, Ashbury, Swindon, SN6 8NN
Cornbury and Wychwood	Chairman, Cornbury Park, Charlbury, Chipping Norton, Oxon, OX7 3EH
Cornwell	Secretary, Cornwell Manor, Cornwell, Chipping Norton, Oxon, OX7 6TT
Cottisford	Chairman, Candleford, Juniper Hill, Cottisford, Brackley, NN13 5RH
Cowley	No address given
Crawley (West Oxfordshire)	Clerk, Rye Cottage, 4 College Row, Crawley, Oxon, OX29 9TP
Cricklade	Clerk, The Council Office, Ockwells, 113 High Street, Cricklade, SN6 6AE
Cropredy	Clerk, Conifers, Main Street, Great Bourton, Banbury, OX17 1QU
Croughton	Clerk, Croughton Village Hall, Wheelers Rise, Croughton, Northamptonshire, NN13 5ND
Crowell	Chairman, 2 Hill Cottages, Crowell, Nr Chinnor, Oxon, OX39 4RR
Crowmarsh	Clerk, 2 Home Farm, Crowmarsh Gifford, Wallingford, Oxon, OX10 8EL
Crudwell	Clerk, 76 Dyer St, Cirencester, Glos, GL7 2PF

Consultee	Point of contact
Cuddesdon and Denton	Clerk, 3 The Lane, Cuddesdon, Oxford, OX44 9HY
Culham	Clerk, 76 Evenlode Drive, Didcot, Oxon, OX11 7XQ
Cumnor	Clerk, 8 Sand View, Faringdon, Oxon, SN7 7UT
Curbridge and Lew	Clerk, Maple Barn, Main Road, Curbridge, Witney, Oxon, OX29 7NT
Cuxham with Easington	Chairman, Wheelwrights Cottage, Cuxham, Watlington, Oxon, OX49 5NF
Daglingworth	Clerk, Four Wains, Waines Road, Daglingworth, Nr Cirencester, Gloucestershire, GL7 7AN
Deddington	Clerk, The Windmill Centre, Hempton Road, Deddington, Banbury, OX15 0QH
Denchworth	Clerk, 4 Hyde Rd, Denchworth, Oxon, OX12 0DR
Didcot	Clerk, Council Offices, Britwell Road, Didcot, Oxon, OX11 7HN
Dorchester	Clerk, The Pigeons, 5-7 High Street, Dorchester-on-Thames, Wallingford, OX10 7HH
Down Ampney	Clerk, 4 St Mary's Field, Mersey Hampton, Cirencester, Gloucestershire, GL7 5HE
Drayton (Abingdon)	Clerk, 12 Loddon Close, Abingdon, Oxon, OX14 3TB

Consultee	Point of contact
Drayton (Banbury)	Clerk, Grange Farm, Malthouse Lane, Shutford, Banbury, OX15 6PB
Drayton St Leonard	Clerk, c/o Town Hall, High Street, Thame, OX9 3DP
Driffield	Clerk, 76 Dyer St, Cirencester, Glos, GL7 2PF
Ducklington	Clerk, 301 Manor Road, Witney, Oxon, OX28 3UQ
Duns Tew	Clerk, The New House, Duns Tew, Bicester, Oxon, OX25 6JR
Duntisbourne Abbots	Clerk, Virginia House, Duntisbourne Abbots, Cirencester, Gloucestershire, GL7 7JW
Duntisbourne Rouse	Clerk, Virginia House, Duntisbourne Abbots, Cirencester, Gloucestershire, GL7 7JW
East Challow	Clerk, 5 Hedge Hill Road, East Challow, Oxon, OX12 9SD
East Hagbourne	Clerk, 26 Eaton Village, Eaton, Oxfordshire, OX13 5PR
East Hanney	Clerk, 12 Brookside, East Hanney, Wantage, OX12 0JL
East Hendred	Clerk, Moorcroft, The Greenway, West Hendred, OX12 8RG
Eastleach	Clerk, The Old Chapel, Langford, Lechlade, GL7 3LF
Eaton Hastings	Chairman, Stud Farm, Eaton Hastings, Faringdon, SN7 8BJ

Consultee	Point of contact
Edgeworth	Chairman, Edgeworth Mill, Duntisbourne Hill, Nr Cirencester, Gloucestershire, GL7 7LF
Elkstone	Clerk, Box House, Elkstone, Cheltenham, GL53 9PQ
Elsfield	Chairman, Rose Cottage, Elsfield, Oxford, OX3 9UH
Enstone	Clerk, Brierly Cottage, 9 Alexandra Square, Chipping Norton, Oxon, OX7 5HL
Epwell	Clerk, PO Box 6481, Southam, CV47 4DA
Evenley	Clerk, 10 Orchard Place, Westbury, Brackley, Northants, NN13 5JT
Ewelme	Clerk, White Cottage, Roke, Wallingford, Oxon, OX10 6JD
Eye and Dunsden	Clerk, The Glade, Remenham Piece, Remenham Hill, Henley on Thames, RG9 3ET
Eynsham	Clerk, 91 Brize Norton Road, Minster Lovell, Oxon, OX29 0SG
Fairford	Clerk, The Community Centre, High Street, Fairford, Gloucestershire, GL7 4AF
Farmington	Clerk, School House, Farmington, Cheltenham, Gloucestershire, GL54 3NQ
Fawler	Clerk, Ridgeway House, West Street, Childrey, Wantage, OX12 9UL

Consultee	Point of contact
Fawley	Clerk, Hill House, Benhams Lane, Fawley, RG9 6JG
Fencott and Murcott	Clerk, Green Acre Farm, Murcott, Kidlington, Oxon, OX5 2RE
Fernham	Clerk, Acorn House, Hobbs Hill, Fernham, Faringdon, Oxon, SN7 7NU
Fifield	Chairman, Pedlars, Orchard Ground, Fifield, Chipping Norton, OX7 6HG
Filkins and Broughton Poggs	Clerk, The Old Chapel, Langford, Lechlade, GL7 3LF
Finmere	Clerk, 7 The Pound, Syresham, Brackley, NN13 5HG
Finstock	Clerk, 20 Walker's Height. Finstock, Chipping Norton, Oxon, OX7 3DP
Forest Hill with Shotover	Clerk, Samuel House, Main Street, Forest Hill, Oxford, OX33 1DZ
Freeland	Clerk, 66 Broadmarsh Lane, Freeland, Witney, Oxon, OX29 8QR
Frilford	Chairman, Town Furlong, Kingston Road, Frilford, Abingdon, Oxon, OX14 5NX
Fringford	Clerk, 13 Oak Close, Bicester, Oxon, OX27 3XD
Fritwell	Clerk, East Stone Lodge, 5 East Street, Fritwell, Bicester, Oxon, OX27 7PX
Fulbrook	Clerk, Pipkin, Beech Grove, Fulbrook, Oxon, OX18 4DE

Consultee	Point of contact
Fyfield and Tubney	Clerk, Walnut Tree Cottage, Fyfield, Abingdon, OX13 5LN
Garford	Clerk, Megstone House, Garford, Abingdon, OX13 5PF
Garsington	Clerk, 134 Southend, Garsington, OX44 9DL
Glympton	Clerk, c/o Glympton Estate Office, Glympton, Oxon, OX20 1AH
Godlington	Co-Chairman, Lone Pine, Godlington, Oxon. OX27 9AF
Goosey	Chairman, Church Farm, Goosey, Faringdon, SN7 8PA
Goring Heath	Clerk, 15 Bee Tithe, Whitchurch Hill, Reading, RG8 7NP
Goring-on-Thames	Clerk, Old Jubilee Fire Station, Red Cross Road, Goring, Reading, RG8 9HG
Gosford and Water Eaton	Clerk, c/o Exeter Hall, Oxford Road, Kidlington, Oxon, OX5 1AB
Grafton and Radcot	Clerk, Grafton Manor, Clanfield, Bampton, Oxon, OX18 2RY
Great Coxwell	Clerk, The Old Post Office, Great Coxwell, Faringdon, SN7 7NB
Great Faringdon	Town Clerk, The Pump House, 5 Market Place, Faringdon, SN7 7HL
Great Haseley	Clerk, Christmas Cottage, Latchford Lane, Great Haseley, Oxford, OX44 7LE

Consultee	Point of contact
Great Milton	Clerk, Midsummer Cottage, Church Road, Great Milton, Oxon, OX44 7PA
Great Rissington	Clerk, Greenfield, Great Rissington, Cheltenham, Gloucestershire, GL54 2LN
Great Tew	Clerk, 3 New Road, Great Tew, Oxon, OX7 4AG
Grove	Clerk, Council Office, School Lane, Grove, Wantage, OX12 7LB
Hailey	Clerk, Wyelands, Upper End, Shipton Under Wychwood, Oxon, OX7 6DP
Hampnett	Clerk, Field Cottage, 84 Hampnett, Cheltenham, GL54 3NN
Hampton Gay and Poyle	Clerk, Church Farm, Church Lane, Hampton Poyle, Oxon, OX5 2QF
Hanborough	Clerk, 2 Magpie Alleys, Shipton under Wychwood, Oxon, OX7 6BS
Hannington	Clerk, Whitemead House, Castle Easton, Swindon SN6 6JX
Hanwell	No address given
Hardwick with Tusmore	Clerk, 11 Hardwick, Bicester, Oxon, OX27 8SS
Hardwick-with-Yelford	Chairman, College Farm, Yelford, Witney, Oxon, OX29 7QX
Harpsden	Clerk, 4 Chilterns End Close, Henley-on-Thames, RG9 1SQ
Harwell	Clerk, Enborn, Shop Lane, Leckhampstead, Berkshire, RG20 8QQ

Consultee	Point of contact
Hatford	Chairman, St Albans, Hatford, Nr Faringdon, Oxon, SN7 8JF
Hatherop	Clerk, 2 Carters Ground, Fairford, GL7 4FA
Hazleton	Chairman, Greenacres, Hazleton, Cheltenham, Glos, GL54 4EB
Henley-on-Thames	Clerk, Janet Wheeler, Town Hall, Market Place, Henley-on-Thames, Oxon, RG9 2AQ
Hethe	Clerk, 12 Chestnut End, Southwold, Bicester, Oxon, OX26 3XP
Heythrop	Clerk, The Old School House, Heythrop, Chipping Norton, Oxon, OX7 5TN
Highmoor	Clerk, Highmore, Stoke Row, Nuffield
Highworth	Council Offices, 3 Gilberts Lane, Highworth, Swindon, SN6 7FB
Hinton Waldrist	Clerk, 26 Eaton, Abingdon, Oxon, OX13 5PR
Holton	Clerk, Home Farm House, Holton, Wheatley, Oxford, OX33 1QA
Holwell	Chairman, Vicarage Cottage, Holwell, Oxon, OX18 4JS
Hook Norton	Clerk, Foxglove Cottage, Kings Road, Bloxham, Oxon, OX15 4QE
Horley	Clerk, Park House, Hornton Lane, Horley, Banbury, OX15 6BJ

Consultee	Point of contact
Hornton	Clerk, 31 Wykham Lane, Broughton, Oxon, OX15 5DT
Horspath	Clerk, 63 Bowyer Road, Abingdon, Oxon, OX14 2EP
Horton-cum-Studley	Clerk, Kimber House, Horton Hill, Horton-cum-Studley, Oxford, OX33 1AY
Ickford	Clerk, 4 Bridge Road, Ickford, Bucks, HP18 9HX
Idbury	Clerk, Foxcote Farm, Foscot, Chipping Norton, Oxon, OX7 5RH
Inglesham	Clerk, College House, Inglesham, SN6 7QU
Ipsden	Clerk, 206 Crowmarsh Hill, Crowmarsh Gifford, Wallingford, OX10 8BG
Islip	Clerk, 43 Wise Avenue, Kidlington, Oxon, OX5 2AT
Kelmscott	Chairman, Homelea, Kelmscott, Lechlade, GL7 3HE
Kemble	Clerk, Kemble Wood House, Kemble, GL7 6AA
Kempsford	Clerk, Winterwood, Whelford, Fairford, Gloucestershire, GL7 4EB
Kencot	Clerk, Ivy Nook, Kencot, Lechlade, Gl7 3QU
Kennington	Clerk, 93 Kennington Road, Kennington, Oxford, OX1 5PE

Consultee	Point of contact
Kiddington with Asterleigh	Clerk, White House Farm, Kiddington, Woodstock, Oxon, OX20 1BS
Kidlington	Clerk, Exeter Hall, Oxford Road, Kidlington, Oxon, OX5 1AB
Kidmore End	Clerk, 30 Venetia Close, Emmer Green, Reading, RG4 8UG
Kingham	Clerk, Long Barn, 6 Manor Court, Chadlington, Oxon, OX7 3LW
Kings Sutton	Parish Clerk, King's Sutton Parish Council, King's Sutton Millennium Memorial Hall, Astrop Road, King's Sutton, Banbury, OX17 3PG
Kingston Bagpuize with Southmoor	Clerk, 55 Blandy Avenue, Southmoor, Abingdon, Oxon, OX13 5DA
Kingston Lisle	Clerk, Ridgeway House, West Street, Childrey, Wantage, Oxon, OX12 9UL
Kirtlington	Clerk, West House, South Green, Kirtlington, Kidlington, OX5 3HJ
Langford	Clerk, Langford Parish Council, Village Hall, Langford, Lechlade, Glos, GL17 3LW
Latton	Latton Parish Clerk, 27 Croft Close, Latton, Swindon, Wiltshire, SN6 6DL
Launton	Clerk, 13 Oak Close, Bicester, Oxon, OX26 3XD
Leafield	Clerk, 117 Moorland Road, Witney, Oxon, OX29 6LT

Consultee	Point of contact
Lechlade	Clerk, The Memorial Hall, Oak Street, Lechlade-On-Thames, Gloucestershire, GL7 3AY
Leigh	Clerk to Leigh Parish Council, 18 Hillside, Leigh, Cricklade, SN6 6RE
Letcombe Bassett	Clerk, Court Farmhouse, Letcombe Bassett, Wantage, OX12 9LR
Letcombe Regis	Clerk, 4 The Old Stables, Warborough Road, Letcombe Regis, Wantage, OX12 9LD
Lewknor	Clerk, East End House, Greenwood Avenue, Chinnor, OX39 4HW
Little Coxwell	Clerk, c/o The Estate Office, Manor Farm, Little Coxwell, Faringdon, SN7 7LW
Little Farringdon	Chairman, Chapel Cottage, Windrush, Oxfordshire, OX18 4TT
Little Milton	Clerk, 27 Chiltern View, Little Milton, Oxford, OX44 7QP
Little Rissington	Clerk, 13 Mitchell Way, Upper Rissington, Gloucestershire, GL54 2QD
Little Tew	Clerk, Badgers End, Little Tew, Oxon, OX7 4JJ
Little Wittenham	Chairman, 9 Hillside, Little Wittenham, Oxford, OX14 4QX
Littlemore	Clerk, Littlemore Community Centre, Giles Road, Littlemore, Oxford, OX4 4NL

Consultee	Point of contact
Littleworth	Clerk, Halladale House, Littleworth, Faringdon, Oxon, SN7 8ED
Long Wittenham	Clerk, 5 Churchill Road, Didcot, Oxon, OX11 7BU
Longcot	Clerk, 8 Sand View, Faringdon, SN7 7UT
Longworth	Clerk, Rosedene, High Street, Longworth, Abingdon, Oxon
Lower Heyford	Clerk, Westfield Farm Cottage, Fenway, Steeple Aston, Bicester, OX25 4SS
Lyford	Clerk, Tudor Cottage, Lyford, Wantage, OX12 0EG
Lyneham	Clerk, 84 Brickley Lane, Devizes, Wiltshire, SN10 3BW
Mapledurham	Clerk, 30 Venetia Close, Emmer Green, Reading, RG4 8UG
Marcham	Clerk, Orchard House, 90 Howard Cornish Road, Marcham, Abingdon, OX13 6PU
Marston Meysey	Clerk, Coln Cottage, The Street, Marston Meysey, SN6 6LQ
Merton	Clerk, North End House, Blackbull Lane, Fencott, Kidlington, OX5 2RD
Meysey Hampton	Clerk, Manor Cottage, School Lane, Meysey Hampton, Cirencester, Gloucestershire, GL7 5JS
Middle Aston	Chairman, Holly Cottage, Middle Aston, Bicester, Oxon, OX25 5PZ

Consultee	Point of contact
Middleton Cheney	Clerk, Parish Meeting Rooms, Main Road, Middleton Cheney, Banbury, OX17 2LR
Middleton Stoney	Clerk, Sainfoin House, Lower Heyford Road, Middleton Stoney, Oxon, OX25 4AL
Milcombe	Clerk, 3 Tanners Close, Middleton Cheney, Nr Banbury, OX17 2GD
Milton	Chairman, Lower Orchard, Milton, Banbury, OX15 4HH
Milton (Abingdon)	Clerk, 50 Willow Lane, Milton, Oxon, OX14 4EG
Milton-under-Wychwood	Clerk, 33 The Sands, Milton under Wychwood, Oxon, OX7 6ER
Minchinhampton	Clerk, The Trap House, West End, Minchinhampton, Stroud, GL6 9JA
Minster Lovell	Clerk, 111 Walker Drive, Faringdon, SN7 7FY
Miserden	Chairman, Spindleholme, Sudgrove, Miserden, Stroud, Gloucestershire
Mixbury	Clerk, 12 Main Street, Mixbury, Brackley, NN13 5RR
Mollington	Clerk, Sunnybank, Mollington, Banbury, Oxon, OX17 1BD
Moulsford	Clerk, Greenhill Cottage, Moulsford, OX10 9JD

Consultee	Point of contact
Nettlebed	Clerk, The Little House, 1 Western Avenue, Henley on Thames, Oxon, RG9 1JP
Newbottle	Clerk, 3 Tanners Close, Middleton Cheney, OX17 2GD
Newington	Clerk, Little Holcombe, Holcombe Lane, Newington, Oxon, OX10 7AJ
Newton Purcell	Chairman, Barley Fields Farmhouse, Newton Purcell, Buckingham, MK18 4AU
Noke	Chairman, Nettles, Noke, Oxford, OX3 9TT
North Aston	Secretary, North Aston, Bicester, Oxon, OX25 6HY
North Cerney	Clerk, 10 North Cerney, Cirencester, Gloucestershire, GL7 7DE
North Hinksey	Clerk, 27 Long Close, Botley, Oxford, OX2 9SG
North Leigh	Clerk, 26 Eaton Village, Eaton, Oxfordshire, OX13 5PR
North Moreton	Clerk, 42 Balmoral Road, Didcot, Oxon, OX11 8TY
North Newington	Clerk, Plemont, School Lane, North Newington, Banbury, Oxon, OX15 6AQ
Northleach with Eastington	Clerk, The Westwoods Centre, Bassett Road, Northleach, Cheltenham, Gloucestershire, GL54 3QJ

Consultee	Point of contact
Northmoor	Clerk, Brookfield, Northmoor, Witney, Oxon, OX29 5AY
Nuffield	Clerk, Highmore, Stoke Row, Nuffield
Nuneham Courtneay	Clerk, Cherrytree Cottage, 2 Fewcott Green, Bicester, Oxon, OX27 7PU
Oakley	Clerk, 15 Ashfield Rise, Oakley, Aylesbury, Bucks, HP18 9QA
Oaksey	Clerk, 23 Beverstone Rd, South Cerney, Cirencester, GL75XU
Oddington	Clerk, Wirepool Cottage, Oddington, Kidlington, Oxon, OX5 2RA
Old Marston	Clerk, 8 Nicholas Avenue, Old Marston, Oxford, OX3 0RN
Over Norton	Clerk, 21 Hitchman Drive, Chipping Norton, Oxon, OX7 5BG
Overthorpe	Clerk, 74 Beaulieu Close, Banbury, OX16 4FQ
Oxford, unparished area	Clerk, Oxford City Council, St Aldate's Chambers, 109 St Aldate's, Oxford, OX1 1DS
Piddington	Clerk, 6 Greystones Court, Kidlington, Oxon, OX5 1AR
Pishill with Stonor	Clerk, Cromwell Lodge, Stonor, Henley-on-Thames, RG9 6HB
Poole Keynes	Clerk, Schiehallion, Poole Keynes, Cirencester, GL7 6EG

Consultee	Point of contact
Poulton	Clerk, Merrifold House, Cricklade Street, Poulton, Gloucestershire, GL7 5HX
Prescote	Clerk, The Flat, Prescote Manor, Cropredy, Banbury, Oxon, OX17 1PF
Preston (Cotswold)	Clerk, 77 Pheasant Way, Cirencester, Gloucestershire, GL7 1BJ
Pusey	Clerk, Autumn Cottage, 6 The Row, Pusey, Nr Faringdon, Sn7 8QF
Pyrton	Clerk, Christmas Cottage, Pyrton, Watlington, Oxon, OX49 5AP
Quenington	Clerk, Quenington, Gloucestershire, GL7 5BU
Radley	Clerk, 73 Eaton Road, Appleton, Abingdon, Oxon, OX13 5JJ
Ramsden	Clerk, 2 Magpie Alleys, Shipton under Wychwood, Oxon, OX7 6BS
Rendcomb	Clerk, Shawswell Grange, Rendcomb, Cirencester, Gloucestershire, GL7 7HD
Risinghurst and Sandhills	Clerk, 7 Bampton Close, Littlemore, Oxford, OX4 6NN
Rodmarton	Clerk, Holly Tree Cottage, 19 Sapperton, Cirencester, Gloucestershire, GL7 6LQ
Rollright	Clerk, Merrymoons, High Street, Great Rollright, Chipping Norton, OX7 5RH
Rotherfield Greys	Clerk, 56 Galsworthy Drive, Caversham Park Village, Reading, Berkshire, RG4 6PP

Consultee	Point of contact
Rotherfield Peppard	Clerk, Orchard Gate, Plough Lane, Shiplake Cross, Oxfordshire, RG9 4DE
Rousham	Chairman, The Dower House, Rousham, Bicester, OX25 3QX
Salford	Clerk, The School House, Salford, Chipping Norton, Oxon, OX7 5FE
Sandford St Martin	Clerk, 20 The Spinneys, Enstone, Oxon, OX7 4LD
Sandford-on-Thames	Clerk, The Old School, Church Road, Sandford-on-Thames, Oxford, OX4 4XZ
Sapperton	Clerk, The Manse, Frampton Mansell, Stroud, Gloucestershire, GL6 8JB
Shabbington	Clerk, 19 Curlew, Watermead, Aylesbury, Bucks, HP19 0WG
Shellingford	Clerk, Orchard Cottage, Church Street, Shellingford, Faringdon, SN7 7QA
Shennington with Alkerton	Clerk, Gaydon Fields Farm, Gaydon, Warwickshire, CV35 0HF
Sherborne	Clerk, Rose Cottage, Sherborne, Cheltenham, Gloucestershire, GL54 3DW
Shilton	Clerk, The Old Chapel, Langford, Lechlade, GL7 3LF
Shiplake	Clerk, Mr Roger Hudson, 66 Makins Road, Henley-on-Thames, RG9 1PR
Shipton-on-Cherwell and Thrupp	Clerk, The Millennium Village Hall, Shipton-on-Cherwell, Kidlington, Oxon, OX5 1JP

Consultee	Point of contact
Shipton-under-Wychwood	Clerk, The New Beaconsfield Hall, Station Road, Shipton-under-Wychwood, Oxon, OX7 6BQ
Shirburn	Clerk, 2 Blenheim Road, Shirburn, Watlington, Oxon, OX49 5DN
Shotteswell	No address given
Shrivenham	Clerk, Memorial Hall, Highworth Road, Shrivenham, Swindon, SN6 8BL
Shutford	Clerk, The Old Tara Barn, Church Lane, Dry Sandford, Abingdon, OX13 6JP
Sibford Ferris	Clerk, 7 Chadlington Road, Spelsbury, Chipping Norton, OX7 3JT
Sibford Gower	Clerk, The Mount, Main Street, Sibford Gower, Banbury, OX15 5RT
Siddington	Clerk, 3 Broadway Lane, South Cerney, Cirencester, Gloucestershire, GL7 5UH
Somerford Keynes	Clerk, Loughrigg, Somerford Keynes, Cirencester, GL7 6EN
Somerton	Clerk, Westfield Farm Cottage, Fenway, Steeple Aston, Bicester, OX25 4SS
Sonning Common	Clerk, Parish Office, Village Hall, Wood Lane, Sonning Common, RG4 9SL
Souldern	Clerk, Westfield Farm Cottage, Fenway, Steeple Aston, Bicester, Oxon OX25 4SS
South Cerney	Clerk, 3 Broadway Lane, South Cerney, Cirencester, Gloucestershire, GL7 5UH

Consultee	Point of contact
South Hinksey	Clerk, c/o 20a Harley Road, Oxford, OX2 0HR
South Leigh	Clerk, Lymbourne, Chapel Road, South Leigh, Witney, OX29 6UP
South Moreton	Chair, Portlet, Hithercroft, South Moreton, Didcot, OX11 9AL
South Newington	Clerk, 55 Gillett Road, Banbury, Oxon, OX16 0DR
South Stoke	Clerk, Thrift Cottage, High Street, Goring, Reading, RG8 9AX
Southrop	Clerk, The Paddocks, Quarry View, Southrop, Lechlade, Gloucestershire, GL7 3QD
Sparsholt	Clerk, Ridgeway House, West Street, Childrey, Wantage, Oxon, OX12 9UL
Spelsbury	Clerk, Long Barn, 6 Manor Court, Chadlington, Oxon, OX7 3LW
St Helen Without	Clerk, 13 Beech Close, Wooton, Abingdon, OX13 6DQ
Stadhampton	Clerk, Mapledown, Thame Road, Stadhampton, Ox44 7TX
Standlake	Clerk, Southfield Cottage, 7 The Butts, Standlake, Witney, OX29 7RS
Stanford in the Vale	Clerk, 9 Glebe Road, Stanford in the Vale, Faringdon, SN7 8NB
Stanton Harcourt	Clerk, 5 Woodlands, Standlake, Oxon, OX29 7RA

Consultee	Point of contact
Stanton St John	No address given
Steeple Aston	Clerk, Westfield Farm Cottage, Fenway, Steeple Aston, Bicester, OX25 4SS
Steeple Barton	Clerk, 18 Farriers Road, Middle Barton, Chipping Norton, Oxon, OX7 7EU
Steventon	Clerk, 8 Stocks Lane, Steventon, Abingdon, Oxon, OX13 6SQ
Stoke Lyne	Clerk, 6 Greystones Court, Kidlington, Oxon, OX5 1AR
Stoke Row	Clerk, Highmore, Stoke Row, Nuffield
Stoke Talmage	Clerk, 2 Stoke Talmage, Tetsworth, Thame, OX9 7EU
Stonesfield	Clerk, Grove Cottage, Chapel Row, Chadlington, Oxon, OX7 3NA
Stratton Audley	Clerk, 6 Greystones Court, Kidlington, Oxon, OX5 1AR
Sunningwell	Clerk, Granary Acre, Weir Lane, Blackthorn, Oxon, Ox25 1UL
Sutton Courtenay	Clerk, 90 Howard Cornish Road, Marcham, Abingdon, Oxon, OX13 6PU
Swalcliffe	Clerk, 55 Gillett Road, Banbury, Oxon, OX16 0DR
Swerford	Chairman, Hawthorn Cottage, Swerford, Oxon, OX7 4BH
Swinbrook and Widford	Clerk, Court Cottage East, Swinbrook, Burford, Oxon, OX18 4EE

Consultee	Point of contact
Swyncombe	Clerk, 1 Russels Water, Henley on Thames, Oxon, RG9 6ES
Syde	Clerk, Syde Manor, Syde, GL53 9PN
Sydenham	Clerk, 12B Bakers Piece, Kingston Blount, Chinnor, Oxon, OX39 4SW
Tackley	Clerk, Tackley Village Hall, Medcroft Road, Tackley, Oxford, OX5 3AH
Tadmarton	Clerk, 55 Gillett Road, Banbury, Oxon, OX16 0DR
Taynton	Clerk, Pound Farm, Kent Green Road, Longhope, Glos, GL19 3AH
Tetsworth	Clerk, Dormer Cottage, 13 Silver Street, Tetsworth, Oxon, OX9 7AR
Thame	Clerk, Thame Information Centre, Town Hall, High Street, Thame, OX9 3DP
Tiddington with Albury	Clerk, Rosewood, Ickford Road, Tiddington, Thame, Oxon, OX9 2LU
Towersey	Clerk, 14 Lime Grove, Chinnor, Oxford, OX39 4PN
Turkdean	Clerk, Leygore Manor, Turkdean, Northleach
Uffington	Clerk, Moorcroft, The Greenway, West Hendred, OX12 8RG
Upper Heyford	Clerk, Hillside Cottage, High Street, Upper Heyford, Oxon, OX25 5LE

Consultee	Point of contact
Upper Rissington	Clerk, Upper Rissington Village Hall, Wellington Road, Upper Rissington, Cheltenham, GL54 2QW
Upton	Clerk, 41 Dibleys, Blewbury, Didcot, OX11 9PY
Wallingford	Acting Town Clerk, Council Offices, 9 St Martin's Street, Wallingford, Oxon, OX10 0AL
Wantage	Clerk, Council Offices, The Beacon, Portway, Wantage, OX12 9BX
Warborough	Clerk, The Greet Memorial Hall, 171 Thame Road, Warborough, Wallingford, Oxon, OX10 7DF
Wardington	Chairman, Sabins, Wardington, Oxon, OX17 1SP
Warkworth	Clerk, Grove House, Warkworth, Banbury, Oxon, OX17 2AG
Watchfield	Clerk, Watchfield Village Hall, Chapel Hall, Watchfield, Oxon, SN6 8TA
Waterperry with Thomley	Clerk, 25 Waterperry, Oxford, OX33 1LB
Waterstock	Chairman, Camilla Cottage, Waterstock, Oxford, OX33 1JT
Watlington	Clerk, Watlington Parish Office, 1 Old School Place, Gorwell, Watlington, OX49 5QH
Wendlebury	Clerk, 13 Oak Close, Bicester, Oxon, OX26 3XD

Consultee	Point of contact
West Challow	Clerk, Ridgeway House, West Street, Childrey, Wantage, Oxon, OX12 9UL
West Hagbourne	Clerk, 42 Balmoral Road, Didcot, Oxon, OX11 8TY
West Hanney	Clerk, 1 Elderberry Close, West Hanney, Wantage, Oxon, OX12 0FJ
West Hendred	Clerk, Moorcroft, The Greenway, West Hendred, OX12 8RG
Westcote	Clerk, Church Westcote, Chipping Norton, Oxfordshire, OX7 6SF
Westcote Barton	Clerk, Hennock House, Enstone Road, Westcote Barton, Chipping Norton, Oxon, OX7 7AB
Weston-on-the-Green	Clerk, Newby Cottage, Weston on the Green, Bicester, Oxon, OX25 3QL
Westwell	Clerk, The Glebe House, Westwell, Burford, Oxon, OX18 4JT
Wheatfield	Correspondent, Upper Farm, Wheatfield, Thame, Oxon, OX9 7DJ
Wheatley	Clerk, The Parish Office, The Merry Bells, 89 High Street, Wheatley, OX33 1XP
Whitchurch-on-Thames	Clerk, 23 Swanston Field, Whitchurch-on-Thames, Oxon, RG8 7HP
Wigginton	Clerk, The Old Forge, Wigginton, Banbury, Oxon, OX15 4LA
Windrush	Clerk, Chapel Cottage, Windrush, Oxfordshire, OX18 4TT

Consultee	Point of contact
Winson	Chairman, Lower Barn House, Winson, Cirencester, Gloucestershire, GL7 5ER
Winstone	Clerk, The Old Bakehouse, Beech Pike, Elkstone, Gloucestershire, GL53 9PL
Withington	Clerk, 6 Dutton Leys, Northleach, Gloucestershire, GL54 3EN
Witney	Clerk, Town Hall, Market Square, Witney, Oxon, OX28 6AG
Woodcote	Clerk, Village Hall, Reading Road, Woodcote, Nr Reading, RG8 0QY
Woodeaton	Clerk, 2 Nourse Close, Woodeaton, Oxford, OX3 9TJ
Woodstock	Clerk, Council Offices, Town Hall, Woodstock, Oxon, OX20 1SL
Woolstone	Clerk, Garden House, Woolstone, Faringdon, SN7 7QL
Wootton (Vale of White Horse)	Clerk, 4 The Willows, Wootton, Boars Hill, Oxford, OX1 5LD
Wootton (West Oxfordshire)	Clerk, 18 Rectory Lane, Woodstock, Oxon, OX20 1UF
Worminghall	Clerk, Charleston House, Oakley Road, Worminghall, Aylesbury, HP18 9UN
Worton	Clerk, Park House, Over Worton, Middle Barton, Chipping Norton, OX7 4ER
Wroxton and Balscote	Clerk, PO Box 6481, Southam, CV47 4DA
Wytham	Clerk, 16 Wytham Village, Wytham, Oxon, OX2 8QA

Consultee	Point of contact
Yanworth	Chairman, The Estate Office, Yanworth, Cheltenham, Gloucestershire, GL54 3LQ
Yarnton	Clerk, Yarnton Village Hall, The Paddocks, Yarnton, Kidlington, OX5 1TE

Table 12 - Parish Councils

A4.3.3 Members of Parliament

We are consulting with the following Members of Parliament:

Consultee	Constituency
Victoria Prentis	Banbury
John Bercow	Buckingham
Geoffrey Clifton-Brown	Cotswolds
John Howell	Henley
Jeremy Wright	Kenilworth and Southam
Justin Tomlinson	North Swindon
James Gray	North Wiltshire
Anneliese Dodds	Oxford East
Layla Moran	Oxford West and Abingdon
Andrea Leadsom	South Northamptonshire
David Drew	Stroud
Ed Vaizey	Wantage
Robert Courts	Witney
Steve Baker	Wycombe

Table 13 - Members of Parliament

A5 Glossary of Terms

A5.1 Organisational Terms

Abbreviation	Term	Comment
AR	Airspace Regulation	The section of the CAA that is responsible for the regulation of changes to UK airspace and airspace agreements.
ATCO	Air Traffic Control Officer	An air traffic controller suitably qualified and experienced to provide air traffic services to aircraft when requested or mandated.
ATZ	Air Traffic Zone	Airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.
CAA	Civil Aviation Authority	A specialist body appointed by the Government to regulate and oversee all aviation activities within the UK. The CAA has the responsibility to develop and monitor airspace to provide for safe and sustainable usage.
CAS	Controlled Airspace	Airspace of defined dimensions within which ATC services are provided. The level of control varies with different classes of airspace. Controlled airspace usually imposes higher weather minimums than are applicable in uncontrolled airspace. It is the opposite of uncontrolled airspace.
CTA	Control Area	A volume of airspace within defined lateral boundaries that extends from a specified limit above the surface to a specified upper limit.
CTR	Control Zone	A volume of airspace within defined lateral boundaries that extends from the surface to a specified upper limit.
DAATM	Defence Airspace and Air Traffic Management	A MoD organisation tasked with the role to monitor and influence international and domestic Air Traffic Management issues, anticipating the risks and opportunities arising from these issues and identifying and coordinating a common Defence response.

Abbreviation	Term	Comment
DA	Danger Area	Airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times (ICAO Annex 11: Air Traffic Services) Most danger areas are operated by military authorities.
EUROCONTROL	European Organisation for the Safety of Air Navigation	An intergovernmental organisation consisting of 39 member states. EUROCONTROL seeks to support its member states in achieving safe, efficient and environmentally-friendly aviation operations throughout Europe, through the harmonisation of air navigation services for both civil and military operators.
FAA	Federal Aviation Administration	The United States equivalent of the CAA; a national authority with powers to regulate all aspects of civil aviation.
FAF	Final Approach Fix	A specified point on a non-precision instrument approach which identifies the commencement of the final segment.
IAF	Initial Approach Fix	The point where the initial approach segment of an instrument approach begins.
IF	Intermediate Fix	A point between the IAF and FAF.
GA	General Aviation	Civil aviation other than large-scale passenger or freight operations.
GNSS	Global Navigation Satellite System	The standard generic term for satellite navigation systems that provide autonomous geo-spatial positioning with global coverage.
GPS	Global Positioning System	A "constellation" of approximately 30 well-spaced satellites that orbit the Earth and make it possible for people with ground receivers to pinpoint their geographic location. The location accuracy is anywhere from 100 to 10 meters for most equipment.
IAP	Instrument Approach Procedure	A series of predetermined manoeuvres by reference to flight instruments, with specified protection from obstacles, from a specified point to a point from which a landing can be completed and thereafter, if a landing is not

Abbreviation	Term	Comment
		completed, to a position at which holding or other obstacle clearance criteria apply.
ICAO	International Civil Aviation Organization	A specialized agency of the United Nations. It codifies the principles and techniques of international air navigation and fosters the planning and development of international air transport to ensure safe and orderly growth
IFR	Instrument Flight Rules	One of two sets of regulations governing all aspects of civil aviation aircraft operations; the other is visual flight rules (VFR). It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan
MAP	Missed Approach Procedure	A procedure followed by a pilot when an instrument approach cannot be completed to a full-stop landing. The missed approach procedure normally includes an initial heading or track to follow, and altitude to climb to, typically followed by holding instructions at a nearby navigation fix.
NDB	A non-directional (radio) beacon	A radio transmitter at a known location, used as an aviation or marine navigational aid.
PSR	Primary Surveillance Radar	A conventional radar sensor that illuminates a large portion of space with an electromagnetic wave and receives back the reflected waves from targets within that space.
RMZ	Radio Mandatory Zone	A volume of airspace of defined dimensions wherein the carriage and operation of radio equipment is mandatory
RNAV	Area Navigation	A method of navigation which permits the operation of an aircraft on any desired flight path; it allows its position to be continuously determined wherever it is rather than only along track
SSR	Secondary Surveillance Radar	A radar system used in air traffic control (ATC), that not only detects and measures the position of aircraft i.e. bearing, but also requests additional information from the aircraft itself such as its identity and altitude.

Abbreviation	Term	Comment
TMZ	Transponder Mandatory Zone	A volume of airspace of defined dimensions wherein the carriage and operation of transponder equipment is mandatory
UK AIP	United Kingdom Aeronautical Information Publication	This is static information, updated every 28 days, which contains information of lasting (permanent) character essential to air navigation.
VFR	Visual Flight Rules	A set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan

Table 14 - Glossary of Terms