

**London Oxford Airport - Instrument Approach  
Procedures - RWY01 and RWY19 (ACP-2023-033)**



**Assessment Meeting  
2 November 2023 at Aviation House, Gatwick**



## Standard Agenda

- |  |                |
|--|----------------|
| 1. Introduction  | CAA            |
| 2. Statement of Need (discussion & review)                       | All            |
| 3. Issues or opportunities arising from proposed change          | Change Sponsor |
| 4. Options to exploit opportunities or address issues identified | Change Sponsor |
| 5. Provisional indication of the level and process requirements  | CAA            |
| 6. Provisional process timescales                                | All            |
| 7. Next steps  | All            |
| 8. AOB   | All            |

# 1. Introduction

- Introductions around the room and on Teams
  - Civil Aviation Authority
  - London Oxford Airport

## 2. Statement of Need (discussion & review)

Extracted from DAP1916V2-887 (JM8YDM4) Statement of Need v3:

*In response to customer demand and having regard to the changes set out in the recently published Airspace Modernisation Strategy (AMS), London Oxford Airport seeks to define new GNSS based instrument flight procedures along with suitable regulated airspace in order to protect them and to facilitate safer flight conditions for all airspace users.*

*London Oxford Airport currently serves commercial pilot training, helicopter maintenance and Business Aviation jet traffic; Business Aviation jet traffic has been steadily increasing, supported by our operational expansion in new hangars and Business Aviation jet terminal improvements. These Business Aviation jets range in size from relatively small Cessna Citation Mustang to Falcon 7X, GLEX, G7000, and 737 BBJ size aircraft and customers are requesting modern Instrument Flight Procedures.*

*ICAO requires airports to implement PBN procedures and the UK State has signed up to this intent. Hence, there is a requirement to develop such procedures and any required associated airspace in accordance with UK CAA containment policy for Instrument Flight Procedures.*

*In support of the AMS, London Oxford Airport plans to add instrument approach redundancy by developing RNP Instrument Approaches to both runways as part of rationalisation of NDB with the potential for RNAV Substitution as set out within CAP 1781, see Additional Information below; RNP would require 5LNCs. This will potentially require the determination of new airspace volumes appropriate to reasonably protect the large passenger carrying business jet aircraft.*

*There have been approaches from aircraft operators regarding the commencement of small-scale Commercial Air Transport (CAT) operations at the airport but controlled airspace may be needed to facilitate this type of operation. We need to understand what the requirements for CAT are before we can decide whether such operations are viable or not.*

### 3. Issues or opportunities arising from proposed change

#### Previous ACP:

- CAP 725 ACP started 23 Jun 2015, Submitted 23 July 2020 and not approved by the CAA in CAP 2087 in February 2021.

#### Changes since the CAP725 ACP:

- New Management Team.
- Increase in Movements (CAA Statistics):

2019	2020	2021	2022
47,026	45,364	65,265	72,987

- % increase in IFR Business Aviation jet traffic and in GA movements.
- Increase in conflicts in the surrounding Class G.
- Significant infrastructure development, including business jet hangarage (Hangar 15) allowing more business jets to base at Oxford.
- Intent to increase Radar hours from 08:00-18:00 local.
- Requests from AOC passenger operator for regional services.
- Developing Oxford County Council Transport Hub.

### 3. Issues or opportunities arising from proposed change

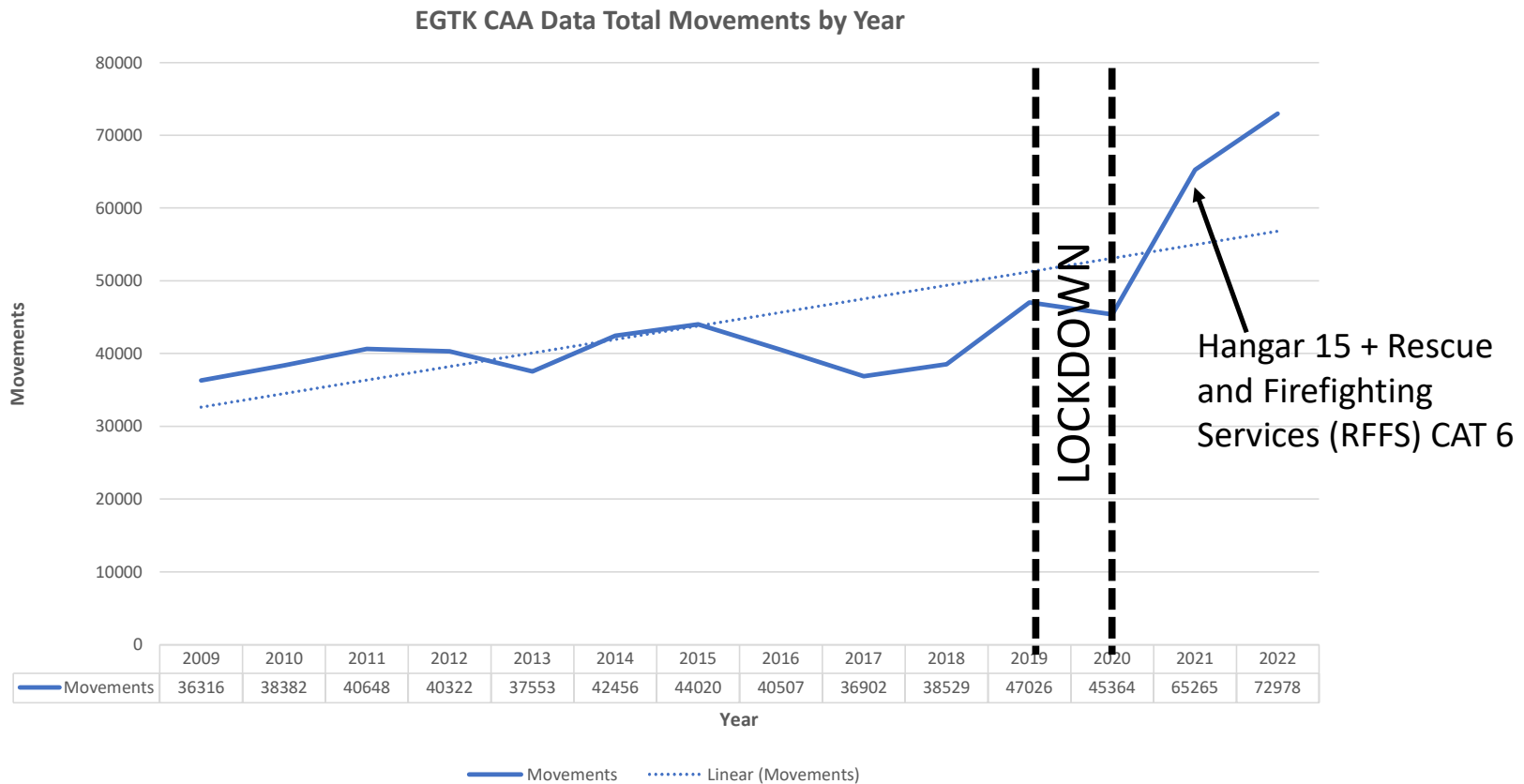
#### **Issues**

- Potential policy changes during the ACP process
- Challenge of GA, particularly recreational and gliding
- Lack of Instrument Approach resilience in the event of a failure of the RWY19 ILS and/or NDB
- Lack of a 3D approach to RWY01
- Number of newer aircraft no longer fitted with an ADF, unable to fly an NDB
- Impact of CAP1711, CAP1711A, and CAP1711X - Airspace Modernisation Strategy (AMS)
- ACP Co-ordination with other sponsors, e.g. RAF Brize Norton

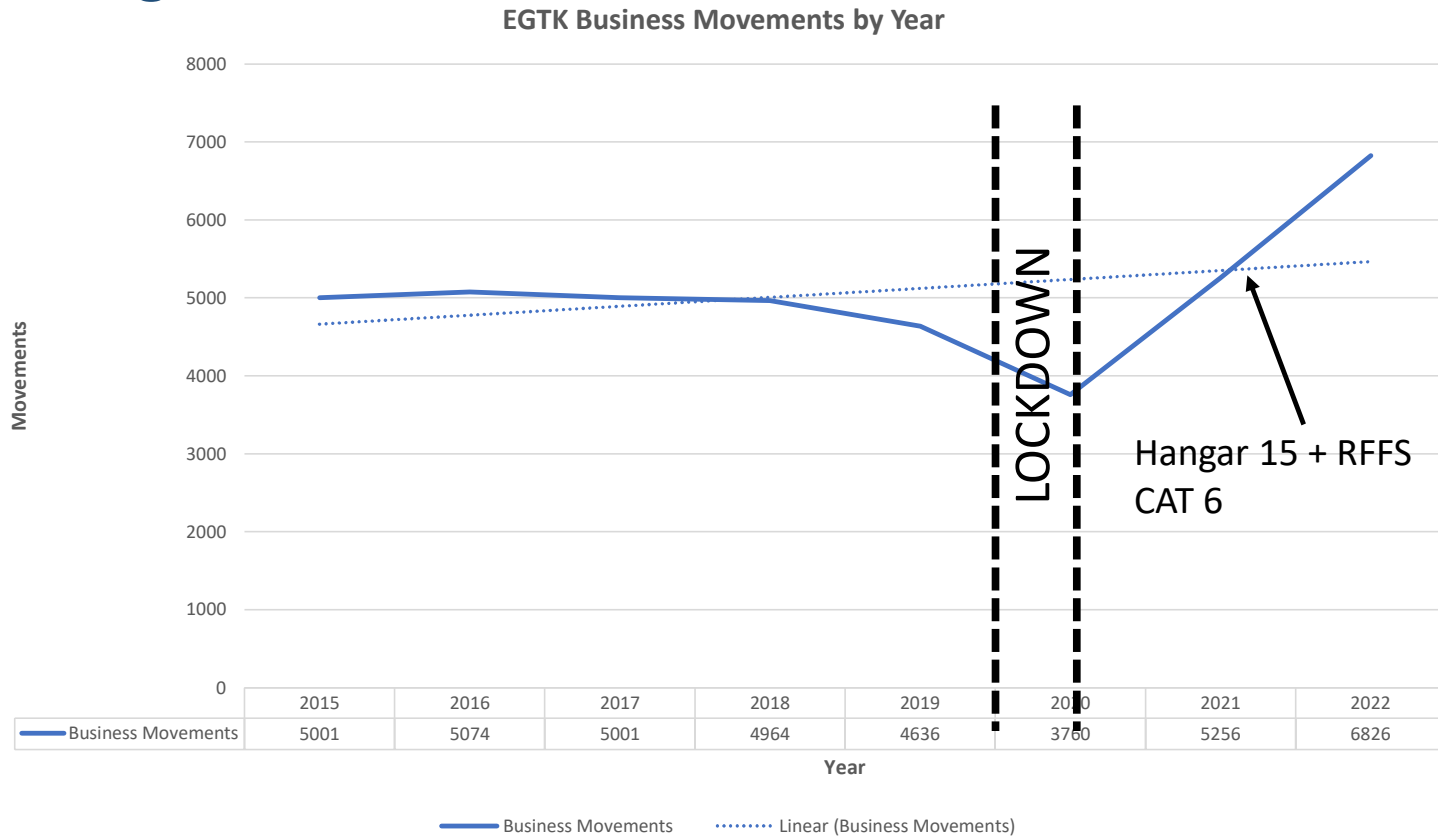
#### **Opportunities**

- Assist to deliver Airspace Modernisation, that requires PBN approaches, as part of the AMS
- Ability to enhance safety for all airspace users by providing accurate defined routes, possibly within Regulated airspace
- Reduce noise impact by London Oxford Airport (LOA) traffic on some of the local population
- Opportunity to improve flight efficiency & environmental performance
- Bring benefits to the ATC operation and to other airspace users in the region
- Increase resilience through greater number of IAPs

### 3. Issues or opportunities arising from proposed change



### 3. Issues or opportunities arising from proposed change





### 3. Issues or opportunities arising from proposed change

Summary of **2022** activity:

Oxford is now RFFS CAT 6

We achieved **73,957** movements in 2022, which is an increase of 7,947 (10.75%) on 2021

We achieved **6,051** jet movements in 2022, which is an increase of 1,722 (28.5%) on 2021

We sold **6,207,672** litres of jet fuel, which beat the budget by 13%, and was a 31% increase on 2021

We also exceeded the **6 million litre** threshold which is a first at LOA

There were **754** RFFS CAT 5 and RFFS CAT 6 movements, an increase of 220 on 2021

\* Our movement breakdown:

<b>Jets</b>	8%	6,051
<b>Training</b>	73%	54,171
<b>Rotary</b>	7%	4,974
<b>Other</b>	12%	8,761
<b>Total</b>	<b>100%</b>	<b>73,957</b>

Our busiest day was 12th May with **407** movements

We sold the most jet fuel on 3rd July with **63,819** litres

We saw **76 new** visiting RFFS CAT5 and CAT6 jets not seen before at OXF and **16** returned more than once

*(These are Accounting Figures, not the same as the figures required for CAA statistics)*

### 3. Issues or opportunities arising from proposed change

#### Commercial:

- No suitable IAP for Rwy 01 for modern business jets, without outdated navigation aids (ADF/NDB).
  - Increasing number of new aircraft not equipped with an ADF and cannot fly an NDB approach.
- Deliver capability for future commercial air transport operations.
  - No increase in aircraft types/size, regional business jet sized commercial aircraft operations only, such as internal UK flights.
  - Align with Oxford Council intent to create a transport hub on the west of the Airport.
- Align with airspace and operational precedence set by other airports with busy IFR operations (large passenger carrying business jets up to Airbus 319/320 and Boeing 737 size), within similar areas of intense activity, e.g. Farnborough.

#### Compliance:

- Aerodrome Requirement to meet PBN regulations – IR 2018/1048
  - *Instrument runway ends currently served by only non-precision approach procedures will, in accordance with Part-AUR.PBN.2005 (1), require '3D approaches' at all Instrument Runway Ends (IREs) through deployment of LNAV, LNAV/VNAV and LPV lines of minima, and Radius to Fix (RF) where required.*

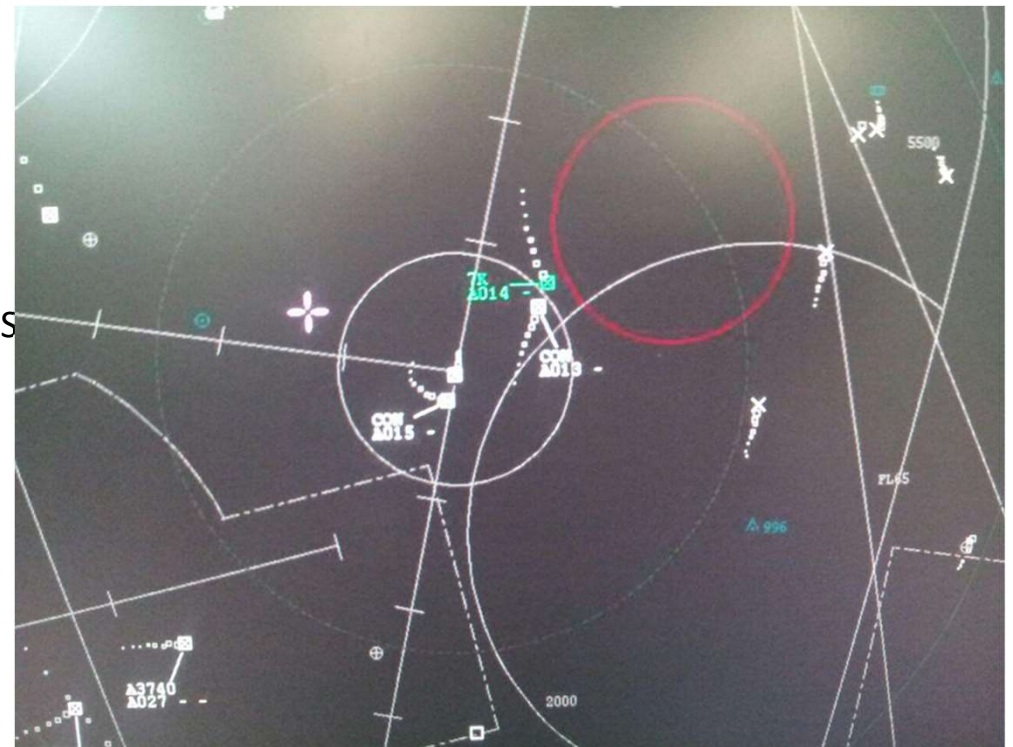
### 3. Issues or opportunities arising from proposed change

#### Enhanced Flight Safety:

- Reduce controller workload caused by Controller intervention (in Class G) to prevent Airprox and TCAS alerts between participating traffic and non-participating traffic:
  - The number of unknown aircraft operating close to IFR and VFR patterns saps capacity of air traffic controllers and pilots to ensure collisions are avoided.
  - Inefficient vectoring of IFR traffic round large swathes of uncontrolled airspace around both participating and non-participating traffic to find a safe route, frequently via a hold from airways release onto the Instrument Approach Procedure (IAP).
  - Requirement to protect the IFR aircraft flying the procedure, with a high frequency of controller interjection to break off the approach due to unknown traffic flying through the published approach (feathered arrows on the VFR chart).
  - Reduce radar controller fatigue and stress management incidents related to airprox and TCAS alerts and safety reporting.
  - Our increase in IFR traffic has seen a corresponding increase in TCAS alerts/MORs
    - Visual separation by VFR may still cause TCAS to alert and require a TCAS RA.

### 3. Issues or opportunities arising from proposed change

- Current ATZ size does not accommodate all aircraft within the visual circuit
- GA often try to fly 'the gap' between LOA ATZ and D129
  - This brings them very close to visual circuit – AIRPROX
- BZN are conducting their own ACP to alter their CAS and develop new procedures
  - LOA is a key stakeholder in this work
- This ACP presents an excellent opportunity to coordinate the changes by working collaboratively



## 4. Options to exploit opportunities or address issues identified

- Reduce operational safety risks and provide increased safety for all users in the vicinity and people on the ground
- Reduced Environmental Impact (Noise and fuel burn/CO2)
- More Efficient Service
  - Increase the predictability and efficiency of traffic environment
  - Expeditious IFR and timely VFR transit and landing/departure
  - Less track mileage, reduce diversion track miles flown
  - Reduce complexity and number of ATC interventions, less need for vectoring to avoid known and unknown aircraft
  - Overall reduction in ground and air delays (improvement for air traffic and passengers)
- Build relationships with local, regional and national stakeholders through early and open dialogue (facilitated by CAP1616 guidance)
- Opportunity to align with Brize Norton proposals and/or deconflict procedures
- Encourage the general aviation community to use the air traffic services
- Design GA VFR routes to avoid local populated areas

## 4. Options to exploit opportunities or address issues identified

- Do Nothing
  - Need to provide a suitable Instrument Approach to RW01
  - Need to meet the requirement to establish PBN Approaches
  - Need to reduce the number of controller interventions
  - Need to reduce the number of aircraft being broken off final approach and receiving TCAS RAs
  - Current procedures are not 'fail safe'. Specifically, RW19 MAP at LOA vs aircraft vectoring for final approach for RW25 at BZN
  - Does not address the reduction in safety, due to the planned AMS, that will come from:
    - Replacement of UK FIS with ICAO FIS
    - Replacement of ATZ (that Oxford can 'control') with an RMZ (that equipped and communicating aircraft can enter without a clearance)
- Consider IAPs
  - Consider developing conventional ILS (Rwy01) and/or PBN Approaches to RW01 and RW19
  - This does not address the reduction in safety, because of the planned AMS, that will come from:
    - Replacement of UK FIS with ICAO FIS
    - Replacement of ATZ (that Oxford can 'control') with an RMZ (that equipped and communicating aircraft can enter without a clearance)

## 4. Options to exploit opportunities or address issues identified

- Consider RMZ/TMZ
  - This does not constitute a known traffic environment
  - Aircraft would still require vectoring from unknown aircraft
  - Does not address the reduction in safety, as a consequence of the planned AMS, that will come from:
    - Replacement of UK FIS with ICAO FIS
    - Replacement of ATZ (that Oxford can 'control') with an RMZ (that equipped and communicating aircraft can enter without a clearance)
- Consider CAS
  - Full Class D CTR/CTA would provide a known traffic environment
    - Class E could be an option for the CTA but is not a known traffic environment as VFR do not have to make contact or transpond - ATC only separates IFR. Probable linkage to a TMZ to obtain transponder information
  - Would reduce environmental impact by reducing the amount of vectoring required (noise and CO2)
  - Would reduce safety events
  - Addresses the reduction in safety, because of the planned AMS, that will come from:
    - Replacement of UK FIS with ICAO FIS
    - Replacement of ATZ (that Oxford can 'control') with an RMZ (that equipped and communicating aircraft can enter without a clearance)

## 5. Provisional Indication of Level and Process

- CAA Lead



## 6. Provisional Process Timelines

- Stage 1 Define Gateway - 22 March 2024
- Stage 2 Develop & Assess Gateway – 26 July 2024
- Stage 3 Consult Gateway – 29 November 2024
- Formal ACP Submission – 27 June 2025
- Stage 5 (CAA Decide Gateway) i.e. when the Sponsor requires a decision – 30 January 2026
- [Target AIRAC](#) (with AIS sponsor submission cut off) - 2026/06 Effective 11 June 2026

# 6. Provisional Process Timelines

ACP Tracker - London Oxford Airport																			
Stage	Statement of Need (DAP1916)	CAA Assessment Meeting	1. DEFINE		DEFINE Gateway	2. DEVELOP and ASSESS		DEVELOP and ASSESS Gateway	3. CONSULT		CONSULT Gateway	3. CONSULT		4. UPDATE and SUBMIT		5. DECIDE		DECIDE Gateway	6. IMPLEMENT
			1a	1b		2a	2b		3a	3b		3c	3d	4a	4b	5a	5b		Implement
Steps			Assess requirement	Design principles		Options development	Options development		Consultation preparation	Consultation approval		Commence consultation (12 Weeks)	Collate & review responses	Update design	Submit proposal to CAA	CAA assessment	CAA decision		Implement
CAP1616 Typical Timeline (110 Weeks)			13 Weeks			13 Weeks			35 Weeks				6 Weeks		27 Weeks			16 Weeks	
ACP-2023-033 - IFPs and suitable regulated airspace at London Oxford Airport CAA AR Manager: Justyna Weiszok	9 May 2023 19 Jun 2023 (v2) 20 Sep 2023 (v3)	2 Nov 2023	2 Nov 2023 to 4 Mar 2024 7 Weeks + 9 Weeks		22 Mar 2024 (Submit Fri 8 Mar 24)	29 Mar 2024 to 28 Jun 2024 can extend to 15 weeks to 12 Jul 2023		26 Jul 2024 (Submit Fri 12 Jul 2024)	9 Aug 2024 to 8 Nov 2024 13 Weeks		29 Nov 2024 (Submit Fri 15 Nov 2024)	3 Jan 2025 to 28 Mar 2025	11 Apr 2025 to 15 May 2025	16 May 2025 to 27 Jun 2025		Submit by 27 Jun 2025 (Runs to 16 Jan 2026 - allow 2 weeks for Xmas)		30 Jan 2026 (Submit Fri 16 Jan 2025)	Target AIRAC 2026/06 (Effective 11 Jun 2026)

## 7. Next Steps

### Step 1A Define:

- Minutes of Assessment Meeting to be agreed by 16 November 2023 (submitted to CAA by 9 November 2023)
- Upload redacted Minutes of the Assessment Meeting to ACP Portal.

### Step 1B Design Principles (DPs):

- Develop/continue relationships with all appropriate and mandated stakeholders
- Develop through open and transparent engagement *our* DPs.
- Engagement through a combination of questionnaires, local council engagement meetings, group workshops, consultative committees.
- Account for all agreements, suggestions and objections into a consolidated list of DPs

**Aiming for the DEFINE Gateway 22 March 2024**

## 8. AOB

- Impact of AMS