

The background of the slide is a photograph of an air traffic control tower at Bournemouth International Aerodrome. The tower is a tall, cylindrical structure with a glass facade and a multi-level observation deck at the top. In the upper right corner, a large commercial airplane is visible in flight against a blue sky with light clouds. The text is overlaid on a teal semi-transparent box on the right side of the image.

NEW IAP IMPLEMENTATION AT BOURNEMOUTH INTERNATIONAL AERODROME

ASSESSMENT MEETING WITH CAA
28TH FEBRUARY

HELIOS
an  egis company

AGENDA

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

INTRODUCTION

STATEMENT OF NEED

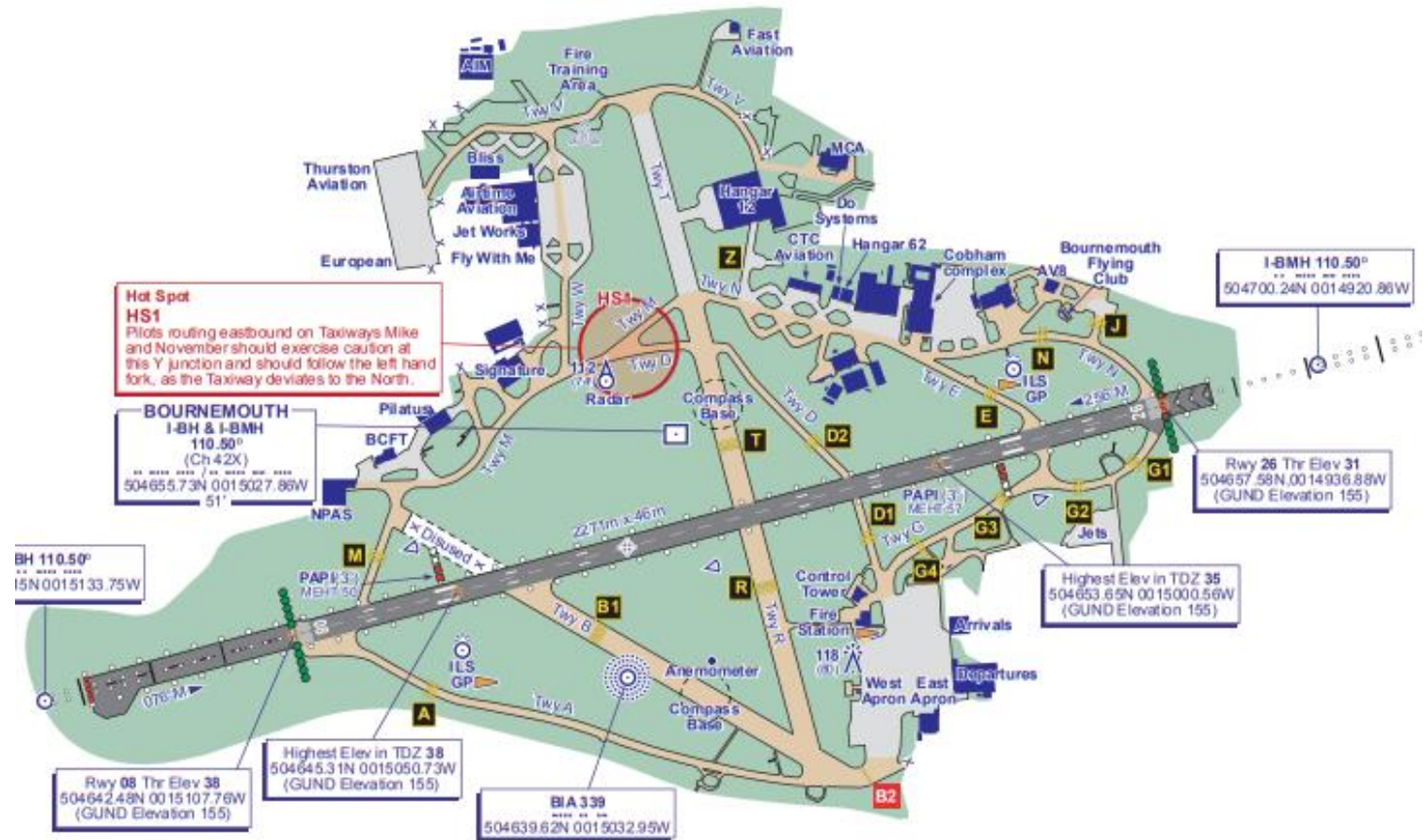
CURRENT STATEMENT OF NEED

Bournemouth Airport has RWY 08 and RWY 26, both providing precision approach capabilities via ILS. The preferential runway is RWY 26 handling 75% of all arrivals with the remainder utilising RWY 08. The ILS on RWY 26 is CAT III.

The ILS (CAT I) serving RWY 08 is obsolete and needs to be replaced. The ILS was installed second hand in 1984/85 and the equipment and maintenance support is at end of life. Unrecoverable failure of the ILS on RWY 08 will have serious operational consequences denying easterly Precision Approaches and increasing dependence on RWY 26. In addition, the publication of EU Implementing Rule (IR) 2018/1048 stipulates the implementation of PBN approach procedures to both RWY 08 and RWY 26 by 2024. By 2030 the IR emphasises the preference for PBN over conventional ILS CAT I.

BACKGROUND

- The aerodrome has ILS on both Runway ends:
 - RWY 08 and
 - RWY 26
- The wind-preferential RWY is RWY 26, but RWY 08 was in use for a significant part of late spring and early summer 2018, thus increasing the risk to operations.



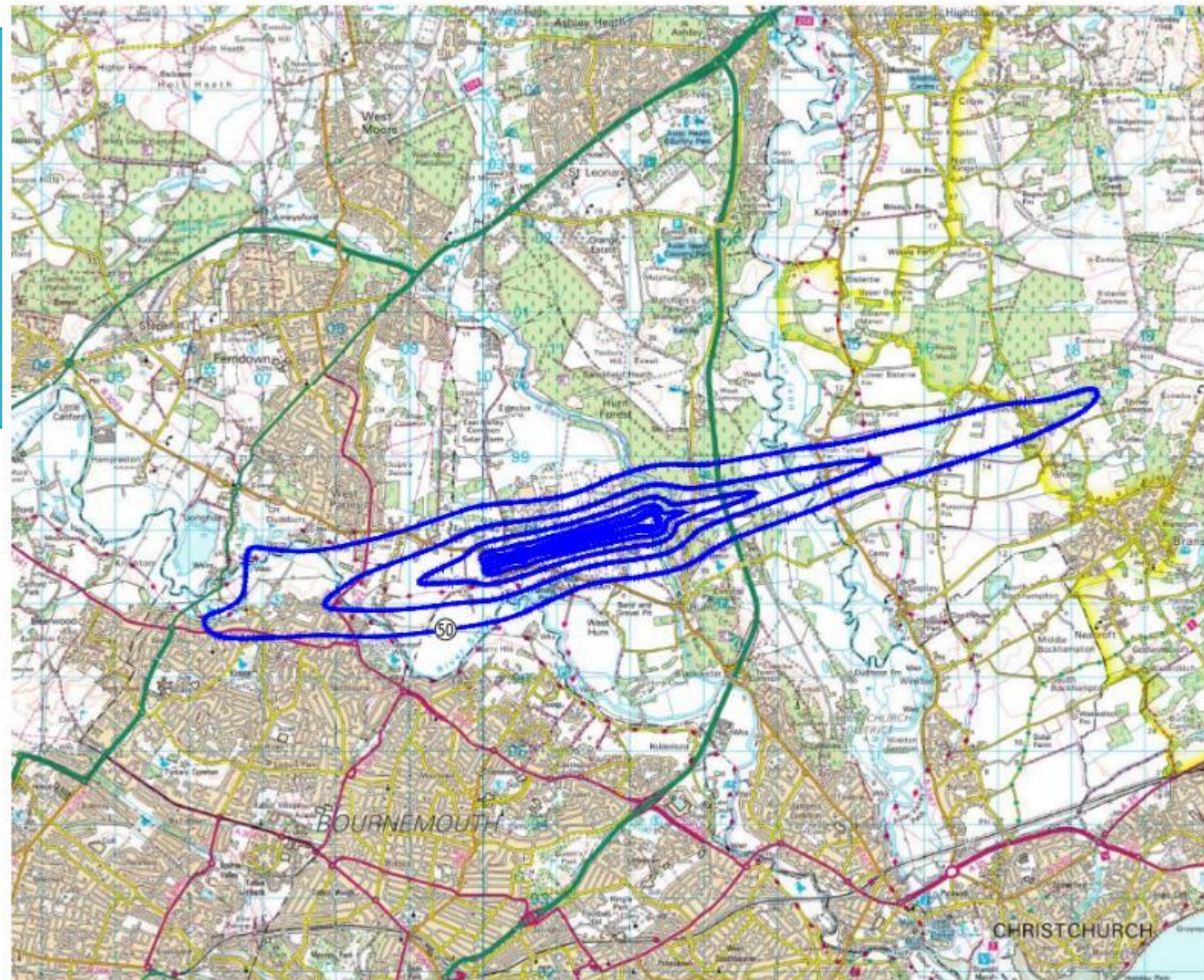
OPPORTUNITIES AND ISSUES ARISING FROM PROPOSED CHANGE

OPPORTUNITIES AND ISSUES

- Currently ILS on both RWY ends:
 - 08 (Cat I) – 25% of landings
 - 26 (Cat III) – 75% of landings
- The ILS for RWY 08 is obsolete:
 - Installed second hand in 1984/5
 - Maintenance support at end of life
 - Irrecoverable failure will have serious operational consequences
 - Would like to avoid the cost of replacement
 - Localizer is located in a Site of Special Scientific Interest (SSSI)
- There is a legal requirement (EU PBN Implementing Rule 2018/1048) to implement RNP approaches by 2024:
 - Could provide 3D capability to both RWYs
 - Will improve resilience to Runway 26 operations

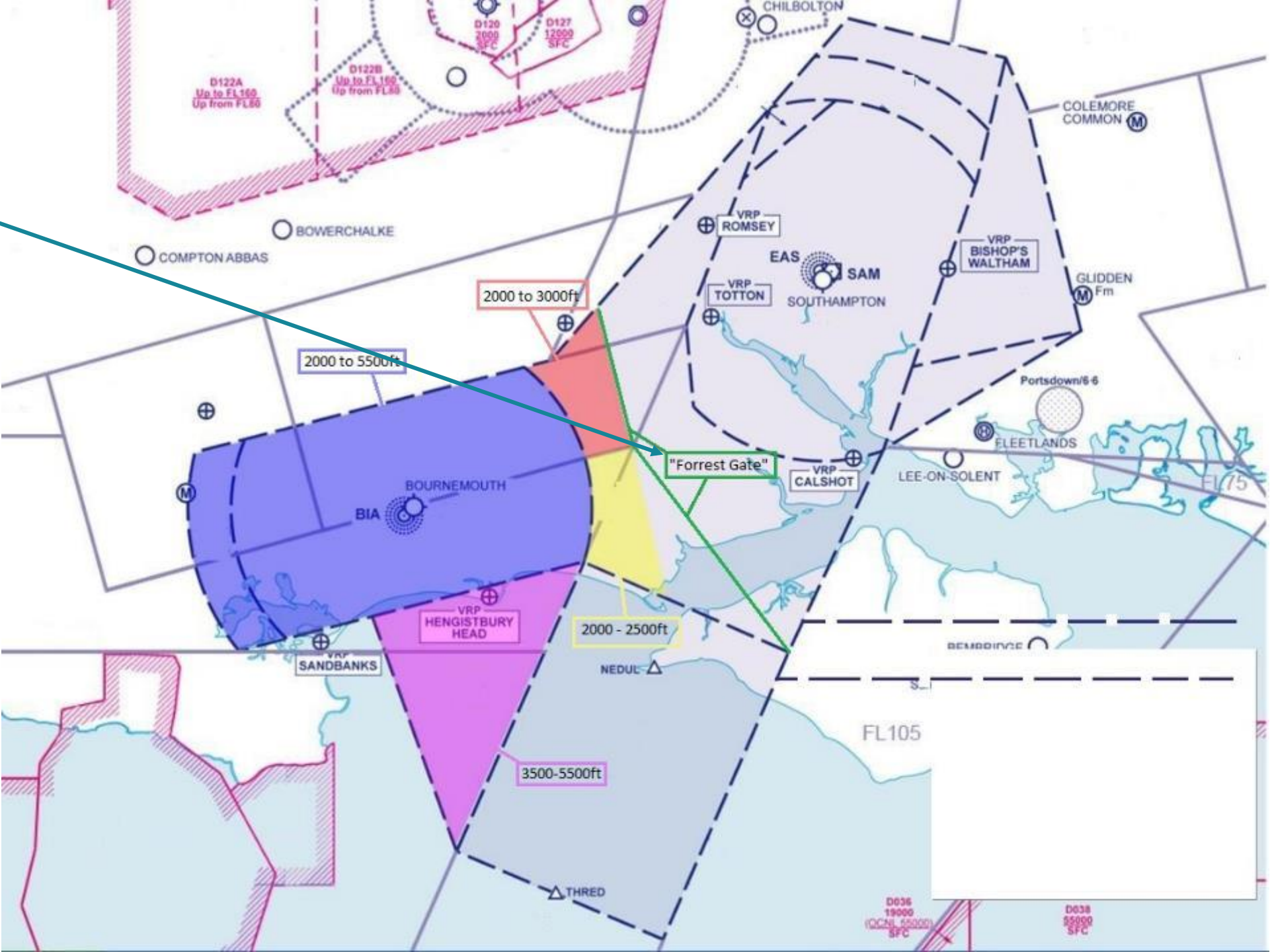
EXISTING BOURNEMOUTH NOISE CONTOUR MAP

50 to 75 dB L Aeq,16hin 5 dB step



Note: Contours currently being reassessed for 51dB LAeq in 3dB steps. This will be inside the 50dB line above.

Forest Gate is the interface between Solent Radar and Bournemouth Radar detailed in the LoA between the units.



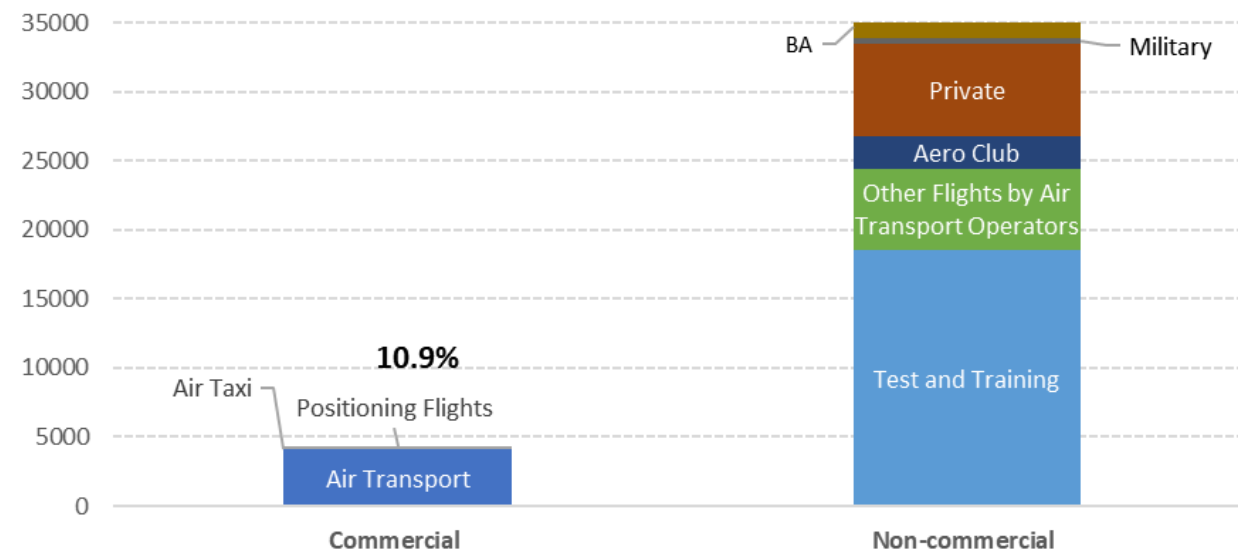
OPTIONS TO EXPLOIT OPPORTUNITIES OR ADDRESS ISSUES IDENTIFIED

OPERATION OF THE AERODROME 2018

Type of operation		No of movements 2018
Commercial	Air Transport	4,081
	Air Taxi	2
	Positioning flights	254
	Local movements	0
Non-commercial	Test and training	18,562
	Other flights by Air Transport Operators	5,878
	Aero Club	2,362
	Private	6,648
	Military	397
	Business Aviation	1,704

2017
Commercial 12.8%
Non-commercial 87.2%

Aircraft movements by type of operation 2018



[Source: CAA website - UK airport data

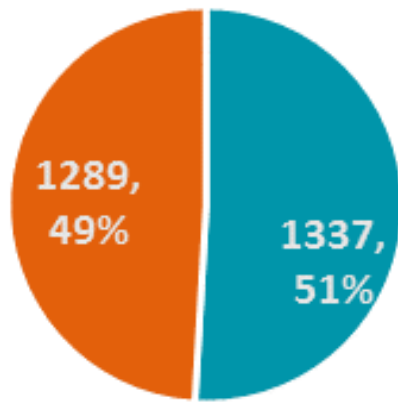
https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Airport_stats/Airport_data_2018_annual/Table_03_1_Aircraft_Movements.pdf]

RADAR DATA ANALYSIS

- Objective:
 - To show **how aircraft arrive to BIA** to join the current Instrument approaches.
- Data Analysis Process:
 - **WebTrak arrivals data for 2017** used
 - derived from BIA Radar Data
 - most recent data available for analysis for meeting
 - Analysis undertaken with Custom Python Code, Excel and QGIS.
 - Analysis showed total arrivals were **11,077**:
 - RWY 26 8,390 arrivals
 - RWY 08 2,687 arrivals

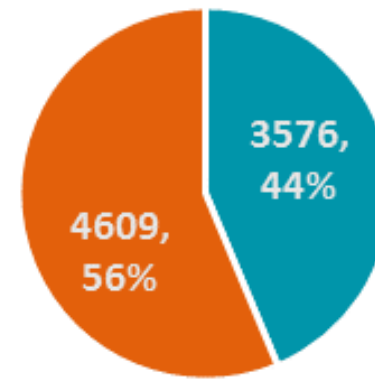
ARRIVALS ANALYSIS FOR 2017: VFR VS IFR

RWY 08 VFR vs IFR



■ VFR ■ IFR

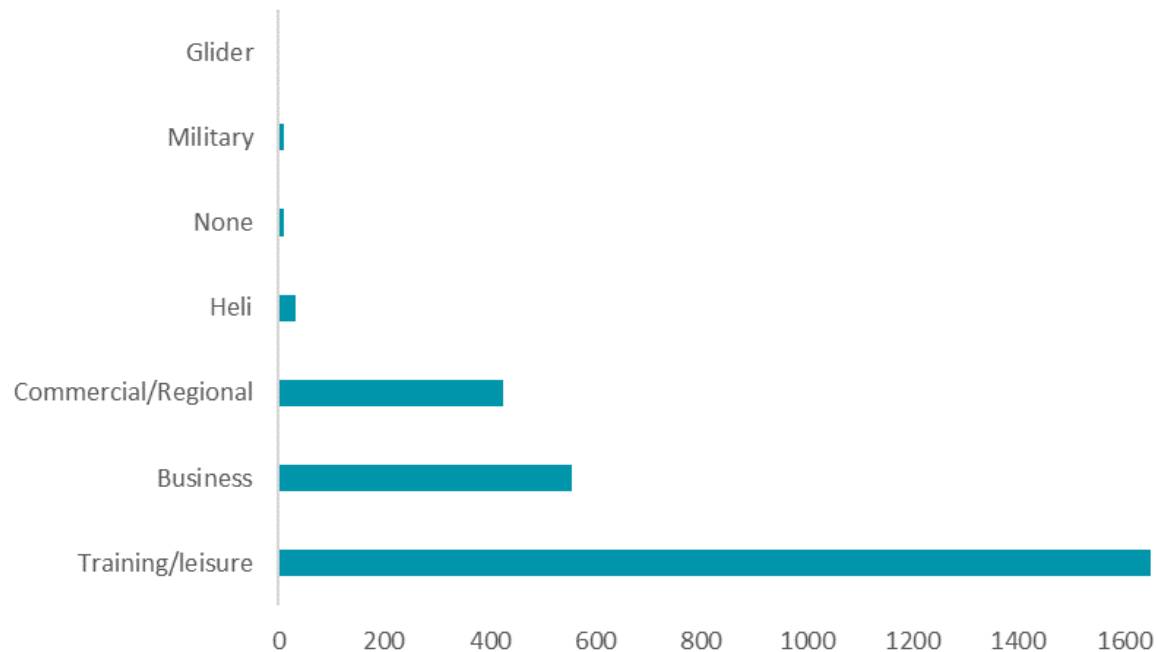
RWY 26 VFR vs IFR



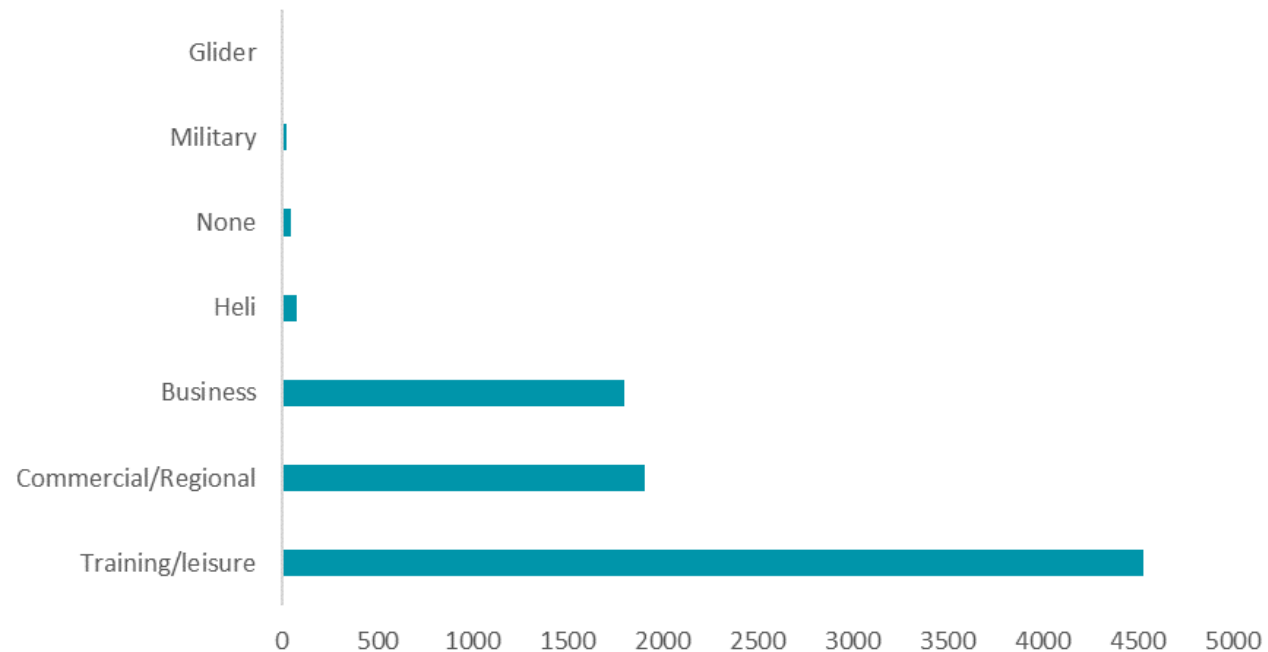
■ VFR ■ IFR

ARRIVALS ANALYSIS FOR 2017: AIRCRAFT CLASSIFICATION

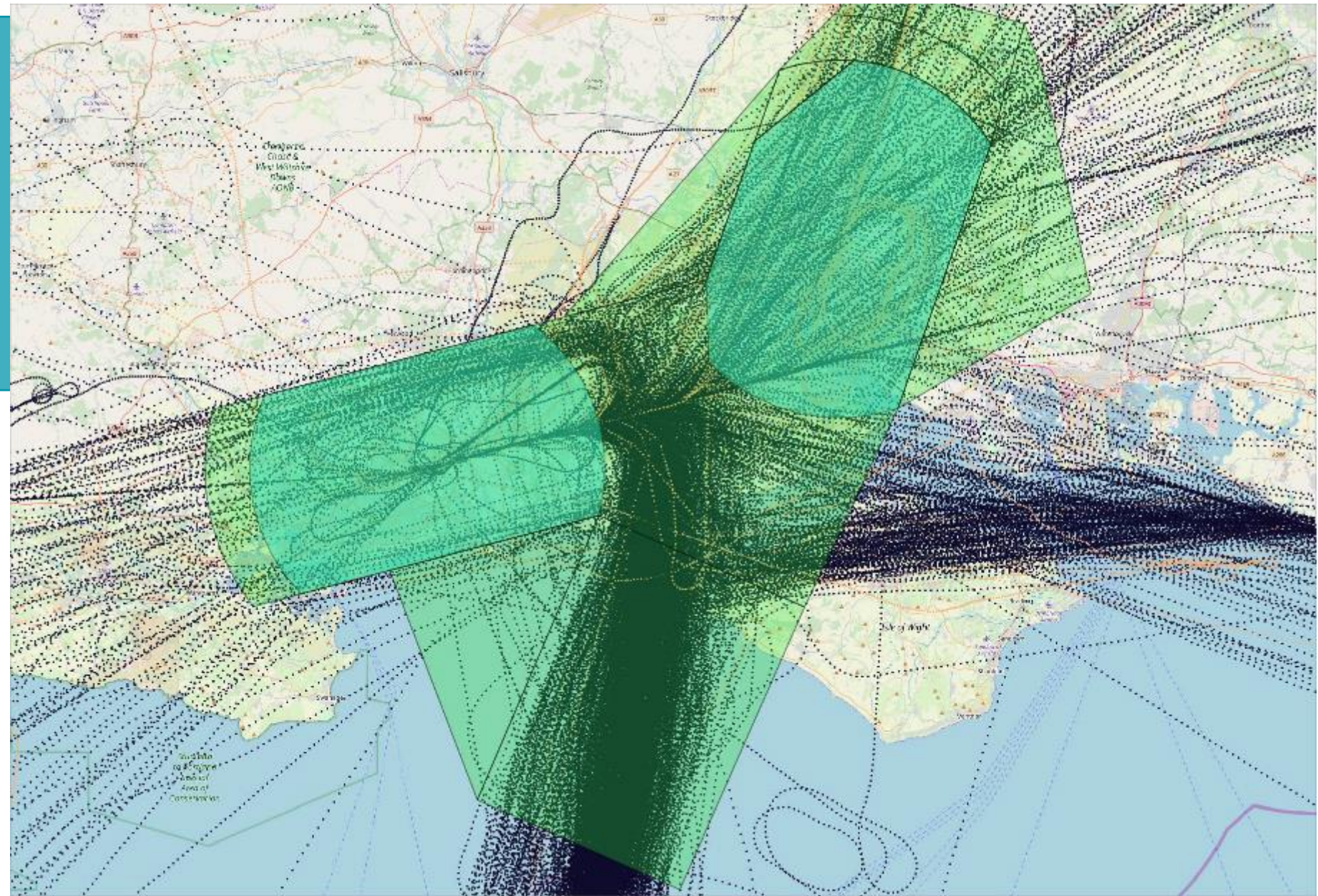
RWY 08 number of arrivals by AC Category



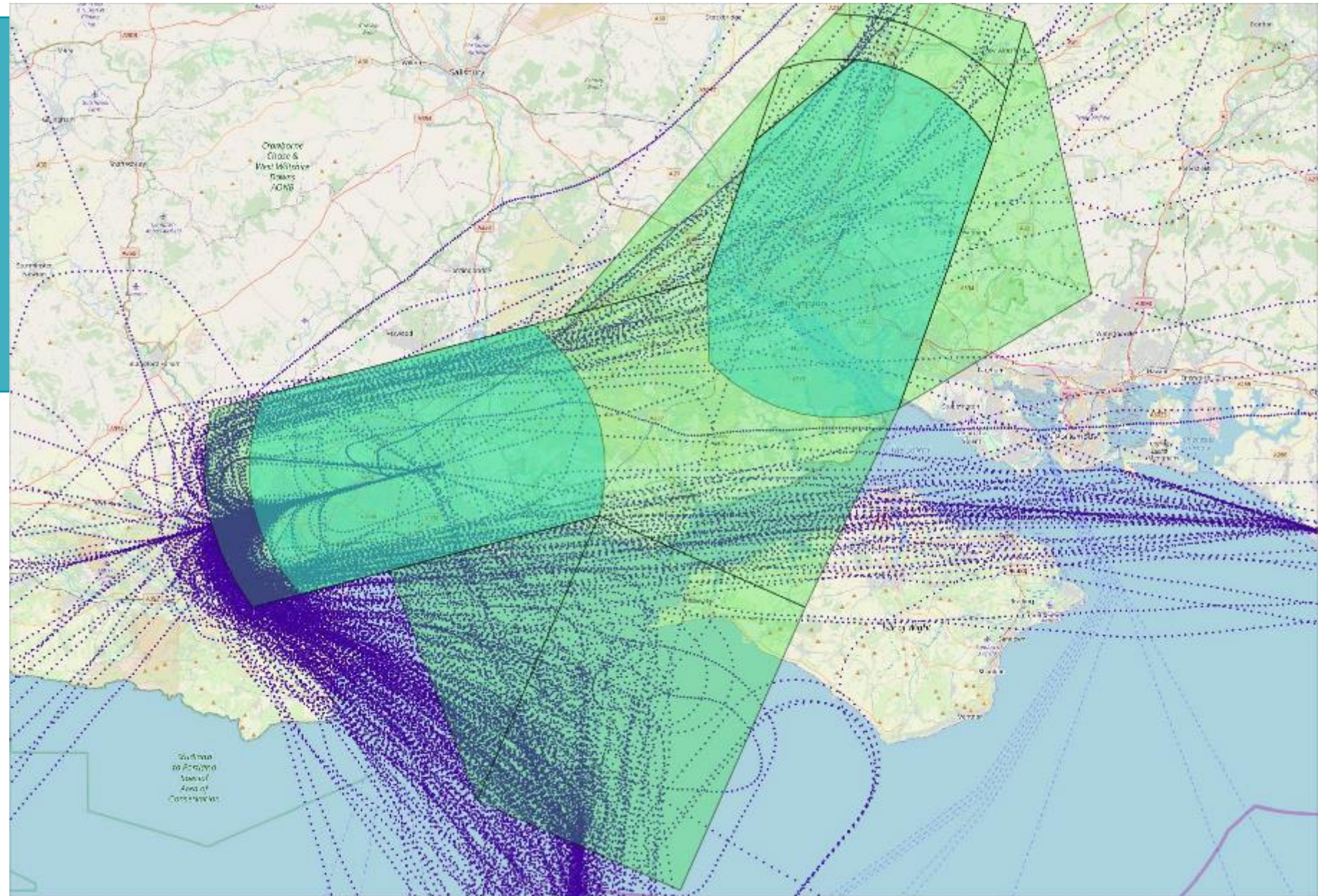
RWY 26 number of arrivals by AC Category



RWY 26 — TRAFFIC PATTERNS COMMERCIAL TRAFFIC

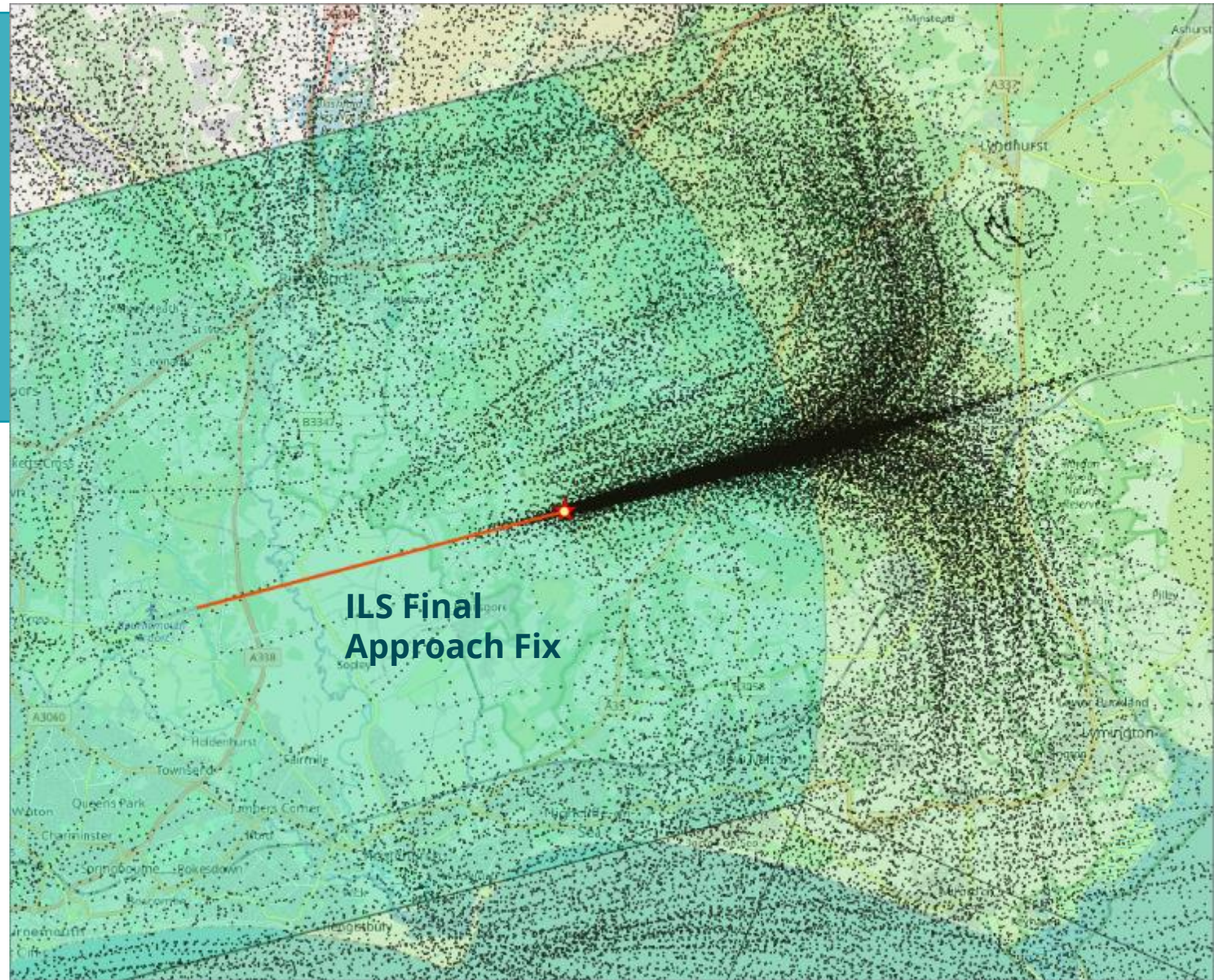


RWY 08 — TRAFFIC PATTERNS COMMERCIAL TRAFFIC



RWY 26 — TRAFFIC PATTERNS ZOOM

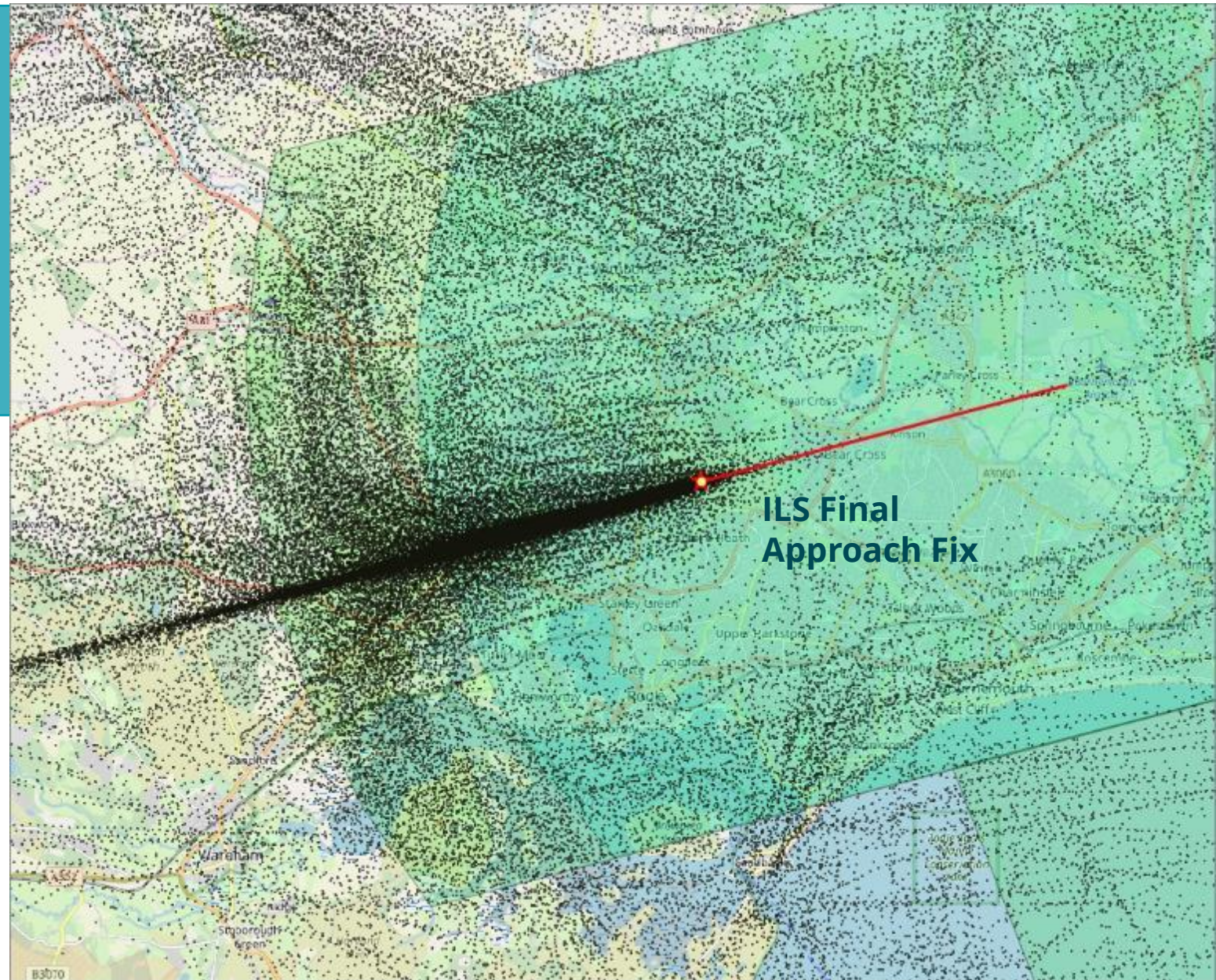
(1,500-2,500 FT)
(ALL AIRCRAFT TYPES)



RWY 08- TRAFFIC PATTERNS ZOOM

(1,500-2,500 FT)

(ALL AIRCRAFT TYPES)



PROVISIONAL INDICATION OF THE LEVEL AND PROCESS REQUIREMENTS

PROVISIONAL PROCESS TIMESCALES

TIMESCALES

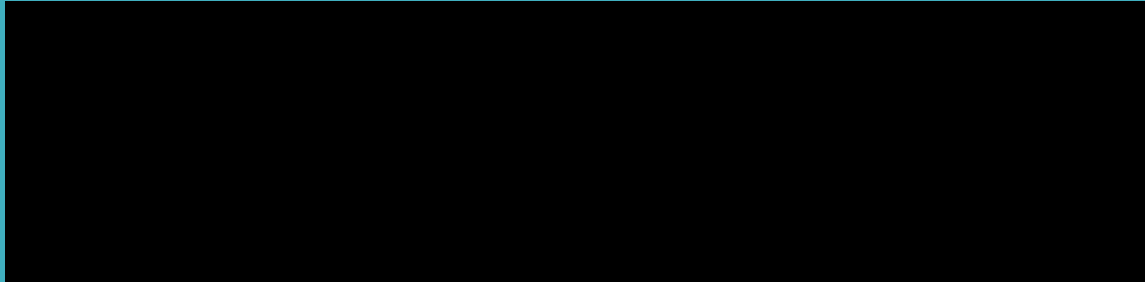
Timescales are predicated on achieving the completion of the project by December 2019 to meet the FAS Funding requirements.

NEXT STEPS

NEXT STEPS

1. Production of meeting minutes in cooperation with CAA for portal upload
(within 2 weeks)
2. Stakeholder engagement for finalisation of procedure designer criteria
3. CAA confirmation about the level of the change
4. Review of the timescales

AOB



29 Hercules Way
Aerospace Boulevard
AeroPark
Farnborough | Hampshire
GU14 6UU | UK
Tel: +44 1252 451 651
www.askhelios.com

HELIOS
an  egis company