



# Exeter Airport Airspace Change Proposal

Design Principles – Supplementary Questionnaire

## Document Details

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# 1 Exeter Airport Airspace Change Proposal

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## 1.1 Introduction

Exeter Airport is very grateful to those stakeholders who have already engaged with the process and for all of the views that have been provided by the various representative bodies and individuals. We now need your further help. During the recent engagement activities i.e. the stakeholder questionnaires sent out in April, and the Focus Groups held in June, at least two stakeholder organisations raised questions about why Exeter Airport was not considering changes to arrival and departure routes at the airport.

Exeter and Devon Airport Ltd (EDAL) is committed to following Civil Aviation Authority<sup>1</sup> (CAA) guidance described in CAA Publication (CAP) 1616. CAP1616 requires the Sponsor (in this case EDAL) to consider **all possible options** for the airspace change, including those identified or proposed by stakeholders and including any radical options identified during the project.

Therefore, following advice from the CAA, EDAL has broadened the scope of this Airspace Change Proposal (ACP) to enable the Airport to consider, without prejudice or commitment, the introduction of Performance Based Navigation (PBN) arrival and departure routes, linking the current PBN approach procedures with the en-route airways entry and exit points. These routes will improve predictability of aircraft tracks which may increase safety for all airspace users.

This change to the ACP scope does not commit EDAL to implementing PBN approaches as part of the ACP, only that we are required to consider and assess it as part of the CAP1616 options development process.

## 1.2 Initial List of Design Principles

The various responses received to the initial questionnaires and focus group meetings has helped Exeter Airport to derive an initial list of Design Principles, as shown in Table 1 below, that will be used as the qualitative framework against which the possible airspace design options will be developed.

Proposed Design Principle
Any new airspace should not restrict flying operations in or around the airspace
Airspace should be designed to minimise the impact of noise
Any new airspace should not create funnelling or choke points for other airspace users
Airspace should connect to the airways structure to protect Commercial Air Transport

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<sup>1</sup> The CAA is the independent civil aviation regulator.

Any new airspace should use the minimum volume necessary
Any new airspace should facilitate continuous climb and descent profiles
Any new airspace should allow equitable access to all airspace users
Consider the Flexible Use of Airspace
New airspace should protect critical stages of flight
Create a known traffic environment
Designs should consider areas of local tranquillity
Accommodate traffic with limited/no Radio Capability
Accommodate traffic without Transponder Capability
Any new CAS should be proportionate to the requirement
Any new airspace should use the minimum categorisation necessary
Any new airspace should be as uncomplicated as possible

Table 1 – Initial List of Design Principles.

### 1.3 Stakeholder Response Requirements

Given the change in scope of this project, Exeter Airport would like to re-engage with its local stakeholders to see if their views have changed. Whilst some of the Design Principles listed in Table 1 will be pertinent to airspace designs that include flight procedures, stakeholders may wish to provide different answers or views to their original questionnaire returns. Exeter Airport would like stakeholders to assist in the development of the Design Principles in the following way:

- Provide any updated responses to the original Design Principles questionnaire that was distributed in late-April, based on the inclusion of PBN arrival and departure routes (We have not included a copy of the original Design Principles Questionnaire; if you would like a copy to be sent, please get in touch via the e-mail address below).
- Provide answers to the additional questions in Table 2 below.
- Please complete Table 3 to suggest any new Design Principles that you think would be relevant to the change in scope of this Airspace Change Proposal and should be considered by Exeter Airport. Please also state any areas of concern that you feel have not been considered during this process.

### 1.4 Points for Your Consideration

The following points for consideration provide some further explanation that may help you when considering your responses with respect to the inclusion of Instrument Flight Procedures at Exeter Airport.

#### **1.4.1 Performance Based Navigation Procedures**

PBN procedures make use of satellite technology to better guide aircraft over the intended track across the ground. When using routes defined by accurate Global Navigation Satellite System (GNSS) waypoints, it is important to understand that aircraft will follow the new published routes more accurately and consistently than they currently follow conventional routes. This improved track-keeping accuracy means aircraft will be less dispersed either side of each route. Therefore, fewer locations will be directly overflown, but there will be an increase in the concentration of over-flights in those areas directly beneath the new published routes. It may therefore be possible to formulate designs that minimise the numbers of new people overflown by designing procedures over less populated areas, or by designing procedures that distribute noise over different areas, i.e. over more people, but at less frequent intervals.

#### **1.4.2 Urban and Rural Areas**

You may wish to consider the advantages and disadvantages of designing routes that are planned to overfly either urban or rural areas. Flights over more sparsely populated areas may seem to be the best alternative. However, you may also wish to consider the levels of background noise when balancing the urban and rural alternatives. Aircraft flying over urban areas will pass over a larger number of people and residences. However, in urban areas the levels of background noise are likely to be much higher than in rural areas. Consequently, aircraft noise may be masked because of higher noise levels associated with traffic and many other background activities common in urban locations.

#### **1.4.3 Open Areas**

In many urban locations you may feel it is important to protect quiet or open areas (e.g. parks) by designing flight procedures that avoid these areas. However, in large urban areas it may not be possible to avoid overflight of quiet areas and, at the same time, also avoid overflight of more densely populated areas. This may be because of the proximity of runways to urban areas or to the orientation of the runway itself.

#### **1.4.4 Noise and Emissions**

An aircraft flying a straight line directly from one location to another is the most efficient routing option because it represents the shortest distance and time between locations. When flying a longer route between the same locations (perhaps to minimise noise impacts in a sensitive area) the distance and time of the flight will increase, as will the fuel burn and associated emissions into the atmosphere. When answering the questions, please consider this balance between noise and emissions in general terms.

### **1.5 How to Respond**

Please save the file that includes your responses and attach to an email to the following address:

[acpexeterenquiries@exeter-airport.co.uk](mailto:acpexeterenquiries@exeter-airport.co.uk)

In addition to the word file, we will accept scanned, hand-written responses or email responses as long as they are legible and clearly identify the question to which your response relates.

It is important that individual email responses clearly show your name and contact details; this will allow us to cross-refer to the emails we send out.

We will also accept legible postal responses to the following address within the timescales specified below:

Airspace Change Proposal  
Exeter & Devon Airport Ltd  
Clyst Honiton  
Exeter  
EX5 2BD

**Please respond by mid-day Friday 6<sup>th</sup> September 2019.**

## 2 Stakeholder Response

### 2.1 Your Responses

Please provide your responses in line with the information provided in paragraph 1.3. Please use as much space as you require, the size of the response box will expand as you type your response.

Representative Organisation:
<i>for example: Airport Consultative Committee; Exeter City Council; Flybe etc.</i>
Question
Q1 - Please tell us if the dispersal of noise impacts across a greater number of households is preferable than the concentration of noise impacts on a smaller number of households.
Your Response:
Q2 - Please tell us if there are there any aircraft operational constraints that Exeter Airport should consider when planning its new inbound and outbound procedures? (restrictive speeds, distances, climb rates, rates of descent, etc.) Please provide details and reasons.
Your Response:
Q3 – Do existing noise abatement procedures meet current and future local government and community requirements?
Your Response:
Q4 - Are there any other local issues or constraints you feel should be considered by Exeter Airport that will guide the development of options for the geographical location of arrival and departure procedures at Exeter Airport?
Your Response:

Table 2 – Stakeholder Supplementary Questions



Are there other Design Principles that you feel should be considered?
Your Response:
If there are any other areas of concern that you feel have not been considered, please provide additional comments below.
Your Response:

Table 3 – Additional Comments