

***Is this ACP about expanding the airport and increasing the number of flights?***

The LJLA ACP is about modernising the means of navigation from ground-based navigation aids to satellite based technology to create more efficient routes to reduce delays and protect existing capacity. The ACP is not about facilitating or encouraging future growth and we are not seeking to increase existing current available capacity to handle additional volumes of air traffic. However, this change does offer an opportunity to identify and minimise the overall environmental impacts of aircraft operations, wherever practicable.

***Will there be an increase in exposure to airborne aircraft noise?***

LJLA is seeking to change their Instrument Flight Procedures (IFPs) for aircraft departing from, and arriving at, LJLA. IFPs is a term used to describe the published routes aircraft fly over the ground, both in plan and elevation view. These new procedures allow aircraft to use satellite technology to follow routes more accurately so it is important to understand that aircraft are more likely to be able to follow the prescribed flight paths more accurately and therefore result in less dispersal of traffic flying the routes. This concentration is likely to change the distribution of aircraft noise over the communities close to LJLA, with some communities experiencing an increase in noise, while others experience a decrease. The new routes will also be seeking to include the use of continuous climb and continuous descent operations which will result in the aircraft being higher, specifically during their departure, the further away from the airport.

Figures 3 and 4 in Section 3 of the Consultation Document provide some insight into the distribution of aircraft tracks currently arriving and departing from LJLA. For the purpose of the noise assessments, the current operations at LJLA are known as 'Baseline 2019'. Aircraft flying along the current procedures generate a level of noise on the ground that may have an impact on local communities. The figures on the subsequent pages of the Consultation Documents show the calculated noise contours that represent average noise levels in the area around the airport. However, LJLA recognises that people who live outside of these areas may still experience events of noise from individual movements above these levels depending on where they live and indeed to be concerned about noise. Further information about the noise assessments can be found in the Full Options Appraisal document which can be found on the [CAA airspace change portal](#).

Introduction of the new procedures is likely to change the distribution of aircraft noise over the communities close to LJLA. The calculated noise contours for each of the design combinations that are being consulted on can be found in sections 5 to 10 of the Consultation Document. In addition, the number of homes and people deemed to be exposed to day and night noise has been determined during the environmental assessment for both the Baseline 2019 and for each design combination. All of the options overfly fewer people and homes than the Baseline 2019 due to enabling more accurate navigation. Details of this assessment is included in Section 11 of the Consultation Document and Annex A6 of the Full Options Appraisal.

***Will there be an increase in aircraft emissions and impact on local air quality?***

This change offers an opportunity to identify and minimise the environmental impacts of aircraft operations, wherever possible. It is about modernising the means of navigation that aircraft utilise when operating at LJA and is not about finding alternative methods of travel or alternative fuel sources in order to reduce the carbon footprint and combat climate change.

We are required to calculate the total annual (and corresponding change in) mass of fuel burned, and hence CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions, resulting from this airspace change. The assessment results of the fuel burned and associated CO<sub>2</sub> emissions of the Baseline 2019 and each of the design combinations is included in Table 10 in Section 4 of the Full Options Appraisal document which can be found on the [CAA airspace change portal](#). This table also presents how each design combination compares to the Baseline i.e. whether introducing the change will produce a positive or negative environmental benefit.

The Baseline fuel burn and CO<sub>2</sub> calculations for the current conventional procedures are likely to be affected by a number of variables which the new procedures are designed to address. The new procedures are designed to be more accurate and predictable. The factors affecting the current procedures include:

- Potential extended track miles in level flight (which can burn more fuel) due to height restrictions and clearance delays as a result of their non-alignment with wider UK airspace modernisation.
- Unpredictable routes due to:
  - Variable pilot/onboard system interpretation of ground-based navigation equipment means that aircraft routes between the airways and the final approach are variable and potentially longer.
  - Tactical Air Traffic Controller intervention, including radar vectoring of arrivals onto final approach – vectoring is where ATC gives instructions for aircraft to follow a variable route instead of aircraft automatically following a defined route. Vectoring is currently required as there are no Transition procedures in the Baseline; Transitions are proposed in the new procedures so that aircraft have an accurate defined route they will use to exit the airways and join the final approach.
- The opportunity to optimise aircraft performance through continuous climb/descent is unsupported by the current conventional procedures. The new procedures will support continuous climb/descent which enables efficiencies in fuel burn.

The opening year and forecast year figures for the Baseline, and for all options, assume that the mix of aircraft types flying at LJA - 'the fleet' - remains the same. In practice, evolution of the fleet will naturally take place; aircraft are becoming more efficient, and airlines are generally looking at efficiencies of flying fewer larger aircraft in place of smaller types at many airports.