

**LONDON CITY AIRPORT
GROUND ENGINE RUNNING STRATEGY
2023 REVIEW**

Report to

London City Airport
The Royal Docks
London E16 2PB

A11327_13_RP053_1.0
23 May 2023

121 Salusbury Road
London NW6 6RG
T 020 7625 4411
F 020 7625 0250
mail@bickerdikeallen.com
www.bickerdikeallen.com

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Registered office: 6th Floor, 2 London Wall Place, London, EC2Y 5AU

Partners (members)
David Charles, Philippa Gavey, Giles Greenhalgh, David Trew



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1.0 INTRODUCTION

The City Airport Development Programme (CADP) planning application (13/01228/FUL) was granted planning permission by the Secretaries of State for Communities and Local Government and Transport in July 2016 following an appeal and public inquiry which was held in March/April 2016.

Condition 48 of the CADP permission requires that:

“No development shall commence until a Ground Engine Running Strategy has been submitted to and approved in writing by the Local Planning Authority. The Ground Engine Running Strategy as approved shall be implemented upon commencement of development. The Local Planning Authority shall be notified in writing within 14 days of implementation of the Ground Engine Running Strategy. A report shall be submitted to the Local Planning Authority annually on 1 June (or the first working day thereafter) as part of the Annual Performance Report on the performance and or compliance during the previous calendar year with the approved targets in the Ground Engine Running Strategy. Every 3 years after first implementation the Ground Engine Running Strategy shall be reviewed and the review shall be submitted to the Local Planning Authority for approval on 1 June (or the first working day thereafter) and implemented as approved.

The strategy shall identify measures to:

- *minimise engine usage while aircraft occupy stands;*
- *minimise the duration of engine usage whilst taxiing; and*
- *ensure the operators of aircraft at the Airport comply with the approved strategy in order to mitigate as far as practicable the emissions from aircraft engines.*

Reason: In the interests of protecting environmental amenity from noise impacts.”

A Ground Engine Running Strategy to comply with the condition was submitted to the London Borough of Newham (LBN) and approved in 2017. The first review was completed in 2020 after 3 years of operation and approved by LBN on 27 January 2021 (planning ref. 20/02722/AOD). This report comprises the second review, after 6 years of operation.

2.0 CURRENT STRATEGY DETAILS

Ground Engine Running relates to the use of aircraft engines from the time of engine start-up prior to departure, during taxiing and during any holding, to the time of departure. Similarly, it relates to the time following an aircraft arrival from the time when it has reduced to taxiing speed on the runway, or when the aircraft turns off the runway, whichever occurs first, to the time when an aircraft switches off its engines on a stand. The aim of the strategy is to ensure aircraft engines are operated with the minimum power necessary and for as short a time as possible to minimise noise emissions to the environment.

The current strategy requires the monitoring of the duration of three parameters:

- Engine Run on Stand (ERS) time, being the time taken for an aircraft to operate its engines, once approval to start has been given, to the time of pushback from the stand.
- Taxi Time on Arrival (TTA), being the time between an aircraft arriving at LCA and the time it arrives on the stand.
- Taxi Time on Departure (TTD), being the difference between the time of pushback on the stand and the time of departure.

Each parameter is required to be reported for each airline and aircraft type combination. There are target times for each parameter, applicable to the quarterly average for each airline and aircraft type combination:

- 7.5 minutes for ERS time,
- 6 minutes for TTA, and
- 11.5 minutes for TTD.

The strategy also sets out the procedure to ensure compliance with the target times for the three parameters, which is repeated below:

“5.1.1 Where it is identified that an aircraft of a given airline is significantly exceeding the above targets for ERS time, TTA or TTD on a regular basis then the following measures will be implemented:

- i) The airline will be notified of the situation requesting an explanation for the excessive time of ground engine running.*
- ii) Where the response from the airline does not explain satisfactorily the reason for the excess, a meeting will be convened between the airline and the airport to discuss what additional measures are required to reduce ground engine running times.*

- iii) *A note of the meeting and the measures proposed will be recorded and made available to the local authority.*
- iv) *Where appropriate, a further meeting will be held following the introduction of the additional measures agreed between the parties to check on their efficacy.*
- v) *Where appropriate, further measures will be agreed between the parties to bring ground engine running times back within the expected and acceptable range.*

5.1.2 Where any investigation or review indicates that excessive ground engine running is occurring and this is not explained by the procedure set out in 5.1.1 above, the airport will convene with an appropriately qualified member of Air Traffic Control to discuss and agree a solution to the matter. A report on the process of seeking and selecting actions to address the cause of the excessive ground engine running will be prepared in a timely manner and reported to the local authority within 6 weeks of completion of the investigation or review.

(N.B. Engine running on a taxiway or on the runway is a function of air traffic control matters about which neither the airlines nor the Airport has any role. The aircraft, once cleared for take-off, would always seek to complete its departure as quickly as possible to reduce the engine running duration. Only if delayed by air traffic control would extended engine running occur)."

The strategy also sets out the reporting and reviewing requirements. These are for details of each of the parameters to be reported quarterly to LBN and included in the Annual Performance Report (APR), and a review to take place every 3 years.

3.0 REVIEW OF STRATEGY

3.1 General Approach

Condition 48 sets out that the strategy should:

- minimise engine usage while aircraft occupy stands;
- minimise the duration of engine usage whilst taxiing; and
- ensure the operators of aircraft at the Airport comply with the approved strategy in order to mitigate as far as practicable the emissions from aircraft engines.

These three points are achieved by the parameters reported and the procedure for engaging airlines when targets are not being achieved. Therefore, the current strategy meets the requirements of the condition.

3.2 Review of Targets

It is appropriate for a review of the strategy to examine the existing targets for ERS time, TTA and TTD and compare them with the current situation. The first review considered data up to the end of 2019. This review has included data from the beginning of 2020 until Q1 of 2023. The parameters are considered in turn in the sections below. It is noted that due to Covid-19, the airport was closed for the majority of Q2 in 2020 and operations were significantly reduced for an extended period subsequently.

3.2.1 Engine Run on Stand (ERS) time

The ERS time is reported quarterly for each airline and aircraft combination, for each quarterly period in which they departed at least once per week. The distribution of results is presented in Figure 1 below.

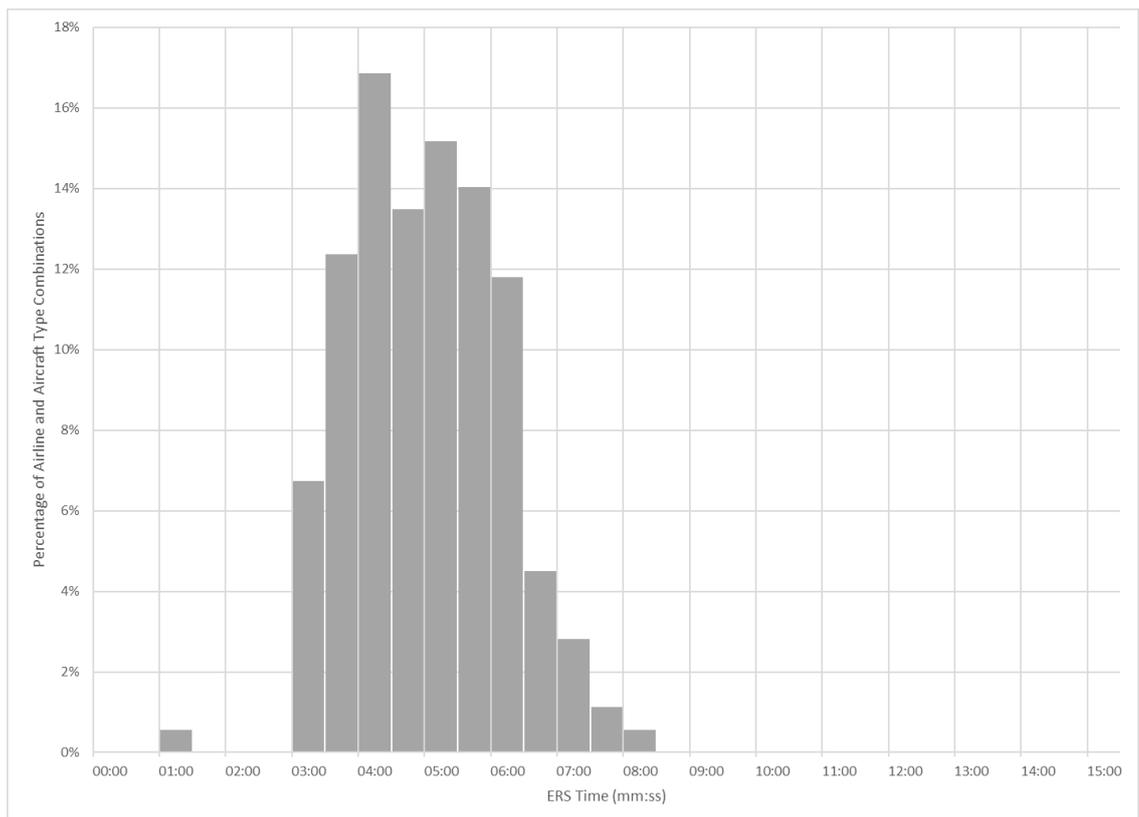


Figure 1: Distribution of ERS Time, 2020 Q1 to 2023 Q1

The target of 7.5 minutes was exceeded on 3 occasions over the assessed period. These were all by one airline and aircraft type combination, the Cessna 510 operated by Globe Air.

Globe Air has previously been engaged by LCA and this led to reductions in the ERS time, although they are still above the target in some quarters. It is understood that the aircraft does not have an APU and so the engine is required to be started earlier than other aircraft which means it is not always possible to keep the ERS below 7.5 minutes.

The overall average ERS time for the Cessna 510 operated by Globe Air in the assessed period was 7 minutes and 20 seconds, down from 7 minutes and 36 seconds in 2018-19.

The highest ERS time in any quarter for other airline and aircraft type combinations was 7 minutes and 1 second. The average was 4 minutes and 19 seconds.

The current target is considered appropriate, and so no changes are proposed.

3.2.2 Taxi Time on Arrival (TTA)

The TTA is reported quarterly for each airline and aircraft combination, for each quarterly period in which they arrived at least once per week. The distribution of results is presented in Figure 2 below.

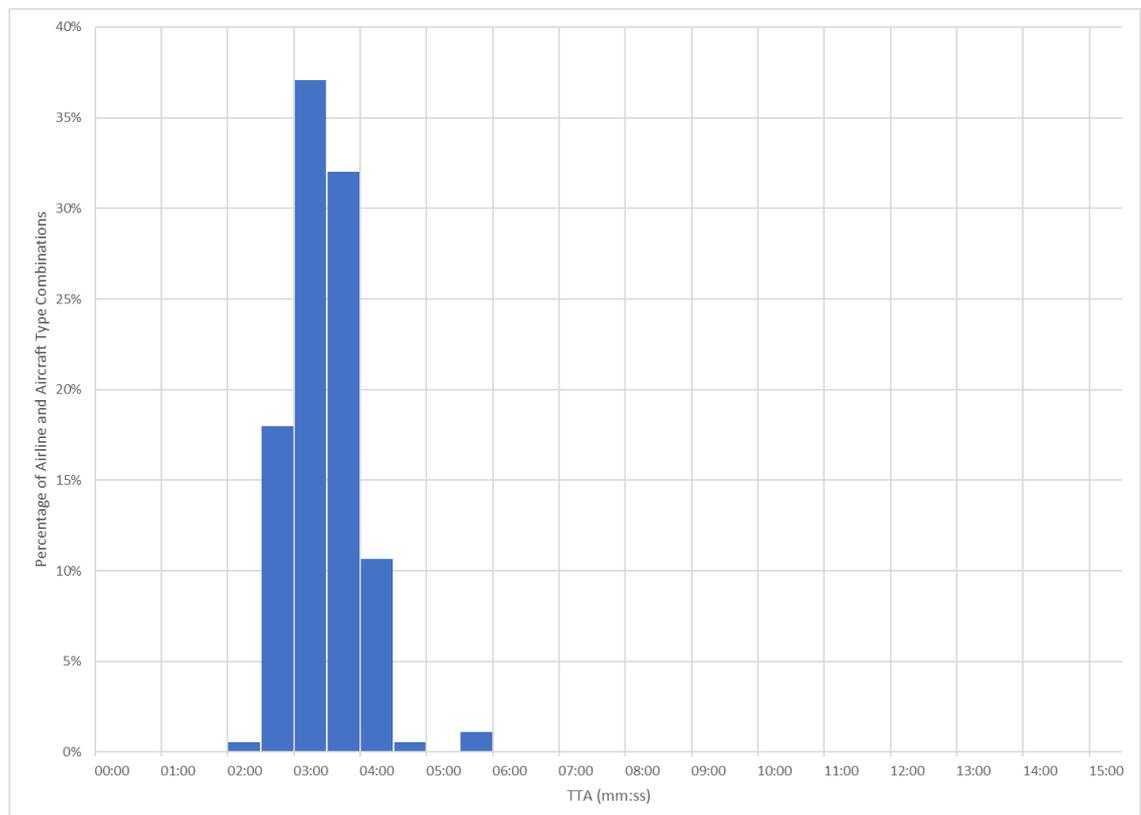


Figure 2: Distribution of TTA, 2020 Q1 to 2023 Q1

The target of 6 minutes was not exceeded during the assessed period. There were two instances of an airline and aircraft type combination with a TTA between 5.5 minutes and 6 minutes.

It is expected that airlines will seek to minimise TTA without further incentives, as it is in their interests to get to the stand without delay. It is therefore expected that there is not significant scope for airlines to reduce TTA.

It is noted that TTA varies by runway. The overall average TTA was 3 minutes and 37 seconds. Broken down by runway this was 4 minutes and 39 seconds for runway 09 arrivals and 3 minutes and 13 seconds for runway 27 arrivals. This is due to the greater distance typically required to taxi to the stand after arriving on runway 09.

The current target is considered appropriate, and so no changes are proposed.

3.2.3 Taxi Time on Departure (TTD)

The TTD is reported quarterly for each airline and aircraft combination, for each quarterly period in which they departed at least once per week. The distribution of results is presented in Figure 3 below.

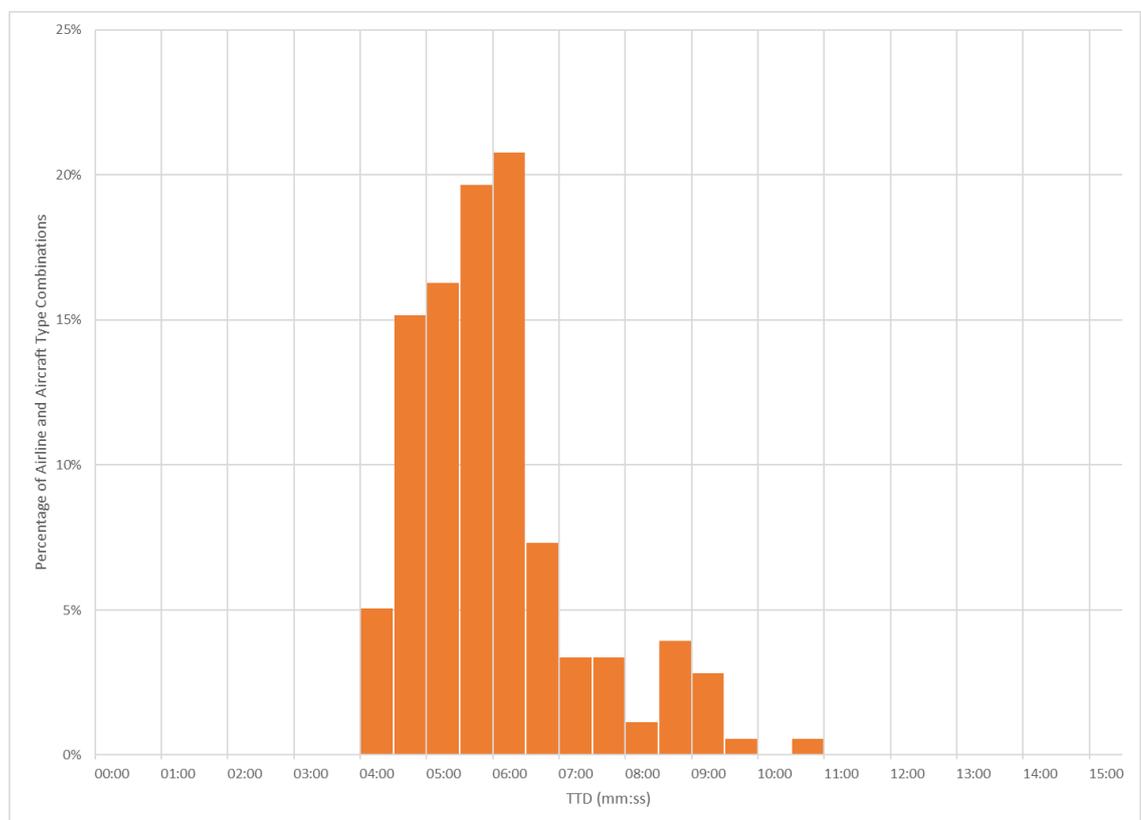


Figure 3: Distribution of TTD, 2020 Q1 to 2023 Q1

The target of 11.5 minutes was not exceeded during the assessed period. There was one instance of an airline and aircraft type combination with a TTA between 10.5 minutes and 11 minutes.

It is expected that airlines will seek to minimise TTD without further incentives, as it is in their interests to get from the stand to the runway and then depart without delay. It is therefore expected that there is not significant scope for airlines to reduce TTD.

It is noted that TTD varies by runway. The overall average TTD was 6 minutes and 28 seconds. Broken down by runway this was 5 minutes and 22 seconds for runway 09 departures and 6 minutes and 55 seconds for runway 27 departures. This is due to the greater distance typically required to taxi from the stand to runway 27. This is particularly true for aircraft using the jet centre and then departing from runway 27, which had an average TTD of 7 minutes and 14 seconds.

While TTD has on average reduced from the previous review, part of the improvement may be attributable to the reduced activity due to Covid-19. The current target is therefore considered appropriate, and so no changes are proposed.

4.0 SUMMARY

Bickerdike Allen Partners LLP have carried out a review of the Ground Engine Running Strategy currently in place at London City Airport. No changes are proposed.

Nick Williams
for Bickerdike Allen Partners LLP

David Charles
Partner