

**OPERATIONAL SAFETY INSTRUCTION**

Version A

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Aircraft Engine Ground Run Requirements

Issued By Airside Operations
Co-ordinator

Ref BRS-OSI-ENV-003

It is the responsibility of all employers to ensure that relevant OSIs are brought to the attention of their staff. However, individuals remain responsible for their own actions and those who are in any doubt should consult their Supervisor or Manager.

1. INTRODUCTION

It is recognised that the ground running of engines is an essential aircraft maintenance task in order to maintain the safe operation of aircraft. However, it is also realised that engine ground running, particularly when at full power, can create excessive noise levels. This procedure explains the requirements for the aircraft engine ground running, in line with mitigating the associated noise impact of usage, but while ensuring that aircraft can continue being maintained affectively.

The use of the term 'Engine Run' within the context of this instruction is a generic term that applies to any combination of the following:

Aircraft Engine Ground Run:

Any engine start-up not followed immediately by the departure of the aircraft concerned (including engine dry running and cross bleed starts).

Auxiliary Power Unit (APU) Run:

Any APU start-up that is not immediately concerned with the pre-flight or post flights sequence for an aircraft.

Ground Power Unit Run:

Any GPU start up that is not immediately concerned with the pre-flight sequence or post flights sequence, this includes GPU maintenance runs of greater than 2 hours.

Note that this OSI supersedes information relating to engine running usage, previously published in AOP C16 Aircraft Noise, v3.0 2018.

2. PROCEDURE FOR CARRYING OUT ENGINE GROUND RUNS

2.1. Authorisation Codes

In order to assess and monitor the frequency and potential impact of engine runs, permission to carry out the engine run from Bristol Airport Ltd is required for any aircraft with one or more of the following:

- Equipped with jet engines (including business jets)
- A commercially equipped turbo propeller engine aircraft
- Any aircraft planning a high-power engine run
- Any engine run required out of hours (overnight)

All engine runs that meet the category above must obtain an authorisation code in advance of the engine run commencing.

2.2. Application Process

Applications for engine runs are to be submitted in advance with a minimum of one hours' notice to airside operations, on 01275 473705 or 07712 792235.

Application for an engine run does not necessarily mean that approval will be given. The following information must be provided when seeking approval to carry out any engine run. If the information is incomplete, approval will not be issued.

- Company name
- Proposed location
- Aircraft type
- Aircraft registration
- Engineer/contact name
- Start time and duration
- Power setting to be used

It is the sole responsibility of the applicant to provide the correct information and obtain the authorisation code prior to the start of the run.

When the required information has been provided, Airside Operations shall review the application and provide an authorisation code to the applicant. Airside Operations will pass the details of the authorisation code and proposed engine run to ATC. Depending on the power setting to be applied, airside operations may stipulate additional control measures to be employed, as part of the conditions for authorising the request.

Start-up clearance must be obtained via radio, from ATC using the allocated authorisation code. Failure to do so may result in will result in future restrictions on engine run requests.

Air Traffic Control will refer any request that has not gained the correct authorisation code to Airside Operations.

ATC must be advised by the engineer via radio once the engine run has ceased.

The issued code is only applicable to the agreed criteria. If an extension or amendment is required, the applying company must contact airside operations for a new code to be issued. Similarly, authorisation codes will not be issued for multiple engine run events, even if the aircraft and location are identical. Each engine run must have a unique code allocated to it.

2.3. APU Runs

Pilots and engineers should restrict the use of APUs to the minimum time necessary. Between 2330 and 0600L, except when immediately prior to departure, APUs may not be run without prior approval from airside operations. An engine running authorisation code will be required to proceed.

APU runs will not be authorised on stands 34 – 37 between 2330 – 0600L.

APUs must not be used at any time on stands 38 and 39; FEGP shall be the primary source of power for aircraft when on stand. APUs may only be operated when required for operationally essential aircraft systems immediately prior to departure.

If extended APU running is required or APU running is requested between 2330 and 0600L, the aircraft may have to be re-positioned, in consultation with airside operations and the Airport Control Centre, to an area which has a lesser impact on the surrounding community.

An APU may be used in conjunction with an engine running authorisation code issued for engine runs, but the APU must be shut down again as soon as the cycle is complete.

2.4. Idle and Low Power Engine Runs

An engine run at idle power setting may be undertaken on a stand, providing:

- The aircraft is positioned so as to cause no damage or inconvenience to persons, property, or infrastructure.
- The stand footprint is clear of pedestrians, vehicles, and ground support equipment (engineer's vehicles in a safe position at the head of the stand are exempt).
- Any persons on board are informed of the engine run details and given the option to vacate the aircraft prior to the engine run commencing.
- All cabin doors are closed and armed.
- An engineer is in attendance at the front of the aircraft, in communication with the flight deck operator via headset.
- Continuous radio contact is maintained with ATC.

- Any affected road systems must be controlled by a dedicated member of staff prior to the start of any engine run, to control and manage traffic flow. This is additional to a headset person, who is unable to effectively control traffic from their position.
- Engineers must contact airside operations for assistance with traffic control if they have insufficient personnel available.

2.4.1. Engine Runs on Contact Stands

Engine runs on contact stands will require a temporary closure of the two-way rear of stand road, which has the potential to significantly impact traffic flow and cause delays to ramp staff. Airside Operations may therefore ask, where possible, for engine runs on these stands to be delayed until a quieter period of the day or to manage the traffic flow on the rear of stand road themselves, establishing safe diversions through an adjacent cul-de-sac or via a head of stand road.

2.5. High and Full Power Engine Runs

For engine runs requiring greater than idle power, the aircraft will be required to reposition on to the manoeuvring area. Airside Operations have the responsibility for coordinating the scheduling of the run on the ground with ATC and RMS (if applicable), subject to the traffic situation and prevailing weather conditions.

High power engine runs are restricted to the following areas:

- Runway 09 threshold
- Taxiways
- Other remote areas at the discretion of the duty Airside Operations Officer, subject to adequate controls

Other considerations will be the prevailing weather (wind direction) and impact on the local community. High power engine runs will not be permitted in low visibility conditions, except if there is no active flying and an airside operations officer is present to oversee the engine run.

2.6. Time and Duration

Ground running of aircraft engines is not to be carried out between the hours of 2230 and 0600L, except in cases where an aircraft is scheduled to depart at, or before 0800L.

Engine ground running may be carried out for periods not exceeding:

- 2 minutes at high/full power
- 5 minutes at 50% power, or less
- 10 minutes at idle power

In exceptional circumstances it may be necessary to undertake engine runs for periods longer

than those described above, to ensure that an aircraft is airworthy to leave Bristol Airport. Engine runs in these circumstances will only be undertaken during the day (from 0600-2230L). If local residents are likely to be disturbed they will be notified prior to the run, if timing and advance notification of the engine run occurring permits.

3. RECORD KEEPING

Records of all engine runs completed will be maintained by the airside operations department. The engine run database is stored on Airside Operations SharePoint in the 'Databases' folder. These statistics are used on an annual basis as part of the ground noise management strategy. The statistics provided shall not contain any personal data but shall detail the key information associated with the engine run, as listed in section 2.2.

4. GENERAL ENQUIRIES

Any enquiries regarding aircraft engine ground running should be addressed to Airside Operations on **01275 473705**.

Any enquiries regarding this instruction should be addressed to opsteam@bristolairport.com.