

**OPERATIONAL SAFETY INSTRUCTION**

Version A Issued 01/09/2020

Use of Auxiliary Power Units and Fixed Electrical
Ground PowerIssued By Airside Operations
Co-ordinator Ref BRS-OSI-ENV-
005

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

The main sources of noise from the apron at Bristol Airport are from aircraft engines, Auxiliary Power Units (APU) and ground support equipment, such as Ground Power Units (GPU). Bristol Airport adopts a range of procedures to minimise the noise impact of these types of sources when possible. This procedure explains the requirements for the use of APU, in line with mitigating the associated noise impact of usage and explains where Fixed Electrical Ground Power (FEGP) units are available for use.

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

2. APU USE AND RESTRICTIONS

Between 2330 and 0600L, except when immediately prior to departure, APUs shall not be run without prior approval from Airside Operations. An Engine Run Authorisation Code will be required before the APU is switched on. Details of obtaining this code can be found within BRS-OSI-ENV-003 Engine Ground Run Requirements. Airside Operations may request that the aircraft is re-positioned to a location which has a lesser impact on the local community, depending on duration that the APU is expected to run for.

2.1. Aircraft Arrival and Departure

On arrival on to stand aircraft APU should be switched off as soon as it is practicable to do, in line with airline operating requirements.

For departure, APUs should not be restarted until 10 minutes prior to departure, except when the outside air temperature (as promulgated by ATC) is below +10°C or above +20°C.

If this cannot be achieved, alternative arrangements to move the aircraft prior to boarding must be agreed with BRS Control Centre, (via the handling agent) well in advance to ensure that planning conditions are met and to avoid any delay to on-time performance.

Whilst on stand, the aircraft should be configured to draw the lowest load by turning off unnecessary electrical loading, consistent with the safety and welfare of passengers and personnel working on and around the aircraft. When possible, cabin blinds should be shut to help reduce heat build-up in the cabin during periods of hot weather.

2.2. APU Stand Restrictions

APU runs require prior approval from Airside Operations between 2330 – 0600L. Refer to BRS-OSI-ENV-003 Engine Ground Run Requirements for further details on this.

APUs shall not be run on stands 34 - 37 between the hours of 2300 and 0600L. Airlines or airline engineers requiring the use of APU for aircraft on these stands during these hours should pre-notify RMS so that an alternative stand can be allocated, before the aircraft arrives at Bristol. Failure to pre-notify will result in the aircraft being relocated to another stand.

Stands 38 and 39 have additional restrictions. FEGP shall be the primary source of power when the aircraft is on stand. APUs must only be used when required for the operationally essential aircraft systems, immediately prior to departure. If this cannot be achieved, alternative arrangements to move the aircraft shall be agreed between the ground handling agent, Airside Operations and RMS, before boarding commences, to ensure that the planning conditions are maintained and that there is no delay to on-time performance.

3. FEGP

3.1 FEGP Usage Requirements

FEGP provides a primary power source for most of the aircraft electrical functions whilst it is on stand, and therefore limits the use of APU. FEGP is installed on stands 19, 20 and stands 34-39 inclusive. FEGP shall always be prioritised over GPU and APU for these stands (note the additional requirements apply for stands 38 and 39, in section 2.2).

An electrical supply is provided which plugs into the underside of the aircraft, allowing it to draw power. All of the equipped stands provide a 90kVA converter unit. Stand 36 in addition is equipped to provide a 28v DC supply, for the use by propeller aircraft. This has many environmental benefits for both Bristol Airport and the airline, by reducing fuel burn and reducing noise impact.

Only personnel who are trained/approved by their employer to use FEGP may operate the units. Relevant airside employers are expected to have a module in their training plan for FEGP which conforms to Bristol Airport and the FEGP manufacturer's requirements.

With the exception to stands 38 and 39, in the event of FEGP unserviceability, Airside Operations may authorise the use of a GPU on the FEGP equipped stands. FEGP unserviceability must be reported to the Airport Control Centre as soon as a fault is noticed.

Ground handling agents are expected to stow the FEGP crocodile arm tightly adjacent to the FEGP unit after it has been used, to ensure that it is not a trip hazard, in line with stand housekeeping. Airside Operations will visually inspect the FEGP to ensure that it is being stowed correctly on a regular basis.

The FEGP must always have the brakes applied, both when in use on an aircraft and when in the stored position, to prevent undesired movement. The brake is applied using the foot pedal.

4. GENERAL ENQUIRIES

Any enquiries regarding APU and FEGP use should be addressed to Airside Operations on **01275 473705**.