Aerodrome Safety

Ground Operations

2nd September 2024

ASGrOps_OSI_090

Version 2.0

Operational Safety Instruction
Airport Operations Plan (AOP)

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

1.1 The Airport Operations Plan (AOP) is a platform used at Heathrow Airport as part of Airport Collaborative Decision Making (A-CDM). Its purpose is to allow all airport stakeholders, such as the aerodrome operator, ground handlers, airlines, Air Traffic Control (ATC), and third-party service providers, to share common situational awareness of the operation (including the arrival, turnaround and departure segments of a flight).

1.2 By openly sharing information, all airport stakeholders can work together more efficiently, and transparently. The AOP plays a crucial role in this, as it helps to maximise the use of both the runways and preferred stands. It also forms the basis for stakeholder decisions relating to process optimisation. The AOP ensures that collaborative decisions and mitigation actions taken by each stakeholder will be based on accurate information, with the result of those actions being reflected directly back into the AOP.

1.3 The objective of this Operational Safety Instruction (OSI) is to update the airport community on the use of AOP at Heathrow Airport.

1.4 Red bars have been added at the side of the document to draw the reader's attention to where changes have been made.

1.5 All current OSIs can be found via the link here or via the Quick-response (QR) code below.

1.6 ASGrOps_OSI_090 Airport Operations Plan (AOP) (Version 1.0) is hereby cancelled.

2. Definitions

Abbreviation	Description
A-CDM	Airport Collaborative Decision Making
AIP	Aeronautical Information Publication
ATFM	Air Traffic Flow Management
AOP	Airport Operations Plan
CTOT	Calculated Take-Off Time
EOBT	Estimated Off-Block Time
HADIP	Heathrow Aircraft De-icing Plan
SEGS	Stand Entry Guidance Systems
SID	Standard Instrument Departure
TOBT	Target Off-Block Time
TSAT	Target Start Approval Time

3. Target Off-Block Time (TOBT)

3.1 A-CDM specifically depends on timely, accurate and reliable updates to the TOBT, which is the time an aircraft operator or ground handler expects to be ready to push back from stand, i.e. all doors closed, passenger boarding bridge removed, pushback vehicle in position and ready to depart.

3.2 Good quality TOBTs enable optimisation of airport infrastructure, runway throughput and resources. AOP dynamically advises the Network Manager (EUROCONTROL) of the aircraft's target take-off time and trajectory through airspace blocks to aid traffic demand management.

3.3 Predictable and stable ground operations are key to reducing delays and optimising the use of airspace, and all Airport Users have an important role to play in this.

3.4 The principles required for ensuring a good TOBT in AOP are outlined below.

3.4.1 Aircraft operators or their designated ground handlers are responsible for updating their TOBT with reference to ground handling progress and ensuring that flight crew are aware of the same. TOBTs must represent a feasible and achievable time at which the aircraft is ready to push back, and must be kept updated throughout the aircraft turnaround process

3.4.2 If no TOBT is set, the EOBT value will be automatically set as TOBT. Where TOBT updates result in a time later than EOBT + 15 minutes, the EOBT must also be updated to keep TOBT and EOBT in alignment. All parties should be aware that the EOBT is generated by filing a flight plan and must be updated in the same manner.

3.4.3 Flight crew must take note and adhere to the TOBT provided. They are expected to ensure that the flight is ready to leave the stand within TOBT +/- 5 minutes.

3.4.4 Flight crew must call ATC and state they are ready for start-up/pushback at TOBT +/- 5 minutes, regardless of any TSAT that may be issued.

3.4.5 If it is likely that the flight will not be ready to leave the stand at TOBT, the aircraft operator or ground handler must update the TOBT as early as possible. TSAT will improve with reference to the updated TOBT. A late TOBT update may lead to further delay of the aircraft departure time.

3.4.6 If at TOBT +5 minutes, ATC has not received a start-up request, the aircraft will lose its TSAT and may lose its position in the sequence. A new and updated TOBT must then be entered and a new TSAT will be issued.

3.4.7 **DO NOT** bring forward a TOBT that is within 10 minutes of the current time. The flight crew may still call ready at TOBT- 5 mins if ready early, but TOBT 'gaming' is unlikely to generate an earlier TSAT – it instead risks a later TSAT.

3.4.8 Flight crew should call ready at TOBT even if the flight has a TSAT delay. Any favourable changes to departure regulations as network delay improves are usually applied to TSATs, as tower controllers place the aircraft in the flight strip 'ready' bay once crew have called for start.

3.5 TOBTs should be updated through the usual communication channels, e.g. standard IATA estimated departure message.

4. Target Start Approval Time (TSAT)

4.1 TSAT is the time provided by ATC that an aircraft is expected to receive start-up/pushback approval from ATC. It aims to reduce queuing times at the runway holding point while maintaining efficient runway throughput by considering the following:

- **4.1.1** TOBT
- **4.1.2** CTOT
- **4.1.3** The aircraft's wake vortex category
- **4.1.4** SID routing
- **4.1.5** Variable taxi times
- **4.1.6** Cul-de-sac demand
- **4.1.7** Any capacity constraints, such as low visibility procedures.

4.2 TSATs are generated **30 minutes prior to TOBT**. The tower controller supervising the departure runway will continue to maximise the departure rate and the sequencing by manually adjusting the traffic mix of departing aircraft near the holding point.

4.3 TSAT and TOBT are displayed electronically on stand SEGS units if fitted. The flight crew will be informed of an ATC delay to TSAT in excess of more than 5 minutes. Aircraft operators and ground handlers may also choose to directly advise the flight crew of the revised TOBT/TSAT.

5. Pushback Request

5.1 Aircraft start-up and pushback clearance must be requested from Heathrow Ground **no later than 5 minutes** after being transferred from Heathrow Delivery.

5.2 If the flight crew are unable to meet this requirement, the aircraft will not be permitted to push. A valid, updated TOBT must be provided by the airline or its ground handler, and Heathrow Delivery will then issue a revised TSAT.

6. Aircraft De-icing

6.1 During periods of de-icing, Heathrow Airport will activate the AOP 'Winter Module,' which includes aircraft de-icing rig allocation capability – this is usually when the temperature at the aerodrome reaches or falls below 4˚C.

6.2 In accordance with Heathrow's de-icing plan, operators will enter the requirement for de-icing into AOP, which will ensure that de-icing resources are allocated appropriately. If the aircraft is to be de-iced remotely, operating companies should pass this information to pilots prior to pushback.

6.3 For details regarding actions that should be taken by flight crew, please refer to the UK AIP (EGLL AD 2.20 LOCAL AERODROME REGULATIONS).

6.4 HAL publishes a Heathrow Aircraft De-icing Plan (HADIP), which intends to provide the airport community with an overview of the airport's approach to aircraft de-icing operations. All airline operators must ensure that they have read and understood this document. A copy of the plan can be downloaded from www.heathrow.com/airside.

7. Access and Support

7.1 AOP access is available to all Team Heathrow operational stakeholders. To create a new AOP account, external users must follow the instructions on www.heathrow.com/aop . Internal HAL colleagues should apply for access to AOP using the Tech Help portal.

7.2 Any operational (non-IT) queries and issues relating to AOP including requests for de-icing configuration, changing access privileges etc. should be requested by contacting AOP@heathrow.com.

7.3 Further detailed information on AOP and local procedures including user guides and training can be found at heathrow.com/AOP.

8. References

8.1 UK AIP (EGLL AD 2.20 LOCAL AERODROME REGULATIONS).

8.2 Heathrow Aircraft De-icing Plan (HADIP).

9. Enquires

Any questions concerning this OSI should be addressed to: AOP@heathrow.com.

Aerodrome Safety

Document Data

Document Name Airport Operations Plan	**Document Reference Number** ASGrOps_OSI_090	**Issue Date** 7th February 2020
Revision Date 2nd September 2024	**Version No.** 2.0	**Effective Date** 2nd September 2024
Author Name Vincent Chan	**Approval Name** Alpesh Patel	**Technical Approval Name** Diogene De Souza
Aerodrome Manual Reference N/A	**Airside Standard Reference** N/A	**Airside Plan Reference** N/A

Document History

Revision	Description of Change	Date
V1.0	Initial Version	7th February 2020
V2.0	Updates on Target Off-Block Time (TOBT) and Target Start Approval Time (TSAT) principles, deletion of sections on Process for Flight Crew and Stand Request – Heathrow Delivery. Adding a new section of aircraft de-icing.	2nd September 2024