Ground Operations

Operational Safety Instruction

Airport Operations Plan (AOP)

07th February 2020

ASGrOps_OSI_090

V1.0

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 single, common and collaboratively agreed rolling plan that forms the single source of airport operations information to all airport stakeholders. Its purpose is to provide common situational awareness and to form the basis upon which stakeholder decisions relating to process optimisation can be made. Through its rolling nature, AOP ensure that 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.

1.2 All airport stakeholders aim at achieving a common business approach through a common airport performance framework – all stakeholders share common performance targets; common situational awareness about traffic evolution during the planning and execution phases (including the arrival, turnaround and departure segments of a flight); and collaborative decision making based on an equal acceptance of all stakeholders.

1.3 AOP builds upon the existing pan-European Airport Collaborative Decision Making (A-CDM) concept. Maintaining an accurate Target Off-Block Time (TOBT) for each flight is of primary importance. TOBT is the time that an aircraft is expected to be ready to leave the stand. This milestone assists with runway scheduling, pre-departure sequencing, EUROCONTROL network planning, predictability and stability; and managing overall airport performance. A-CDM is fully implemented in 27 airports in Europe, but Heathrow is currently the only airport with AOP.

1.4 The objective of this Instruction is to update the airport community on the use of AOP at Heathrow.

1.5 ASGrOps_OSI_040 v1.0 is hereby cancelled

2. Definitions

Abbreviation	Description
A-CDM	Airport Collaborative Decision Making
AOP	Airport Operations Plan
TOBT	Target Off-Block Time
TSAT	Target Start Approval Time

3. Target Off-Block Time (TOBT)

3.1 This is the time at which an aircraft is expected to be ready to leave the stand. The aim of TOBT is to provide a timely, accurate and reliable estimate of an aircraft's off-block time to the flight planning community. Accurate TOBTs enhance operations on the ground as they provide all airport stakeholders with a clear picture of the intentions of visiting aircraft. However TOBT is most important for pre-departure sequencing and planning for Air Traffic Flow Management (ATFM) across Europe.

3.2 The four principles required for good TOBT quality in AOP are detailed below:

3.2.1 Flight crew must call ready for start at TOBT (+/- 5 minutes tolerance) regardless of any TSAT that may be issued. Failure to do so will lead to TOBT expiry which increases controller workload and may incur additional delay. Note that this procedure is different to other European airports where the A-CDM concept is used.

3.2.2 If the flight cannot achieve its TOBT, the airline or ground handler must update it to reflect the new expected time as soon as possible. Stable and predictable TOBTs are optimal for system stability and departure runway efficiency. Each TOBT update generates a new TSAT. Late updates may generate further delay.

3.2.3 DO NOT bring forward a TOBT that is within 10 minutes of the current time, or a time that is already in the past. Flight crew may still call at TOBT- 5 mins if ready early, but TOBT 'gaming' is unlikely to generate an earlier TSAT – it instead risks a later TSAT. Amending TOBT to a later time does not cause this issue.

3.2.4 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 the aircraft is placed by tower controllers in the flight strip 'ready' bay once crew have called for start.

3.3 TOBTs should be updated through the usual communicaton channels, e.g. standard IATA (ED) estimated departure message.

3.4 TOBTs only need to be updated if the time that an aircraft will be ready to leave the stand changes. If no TOBT update is sent, the flight will be considered to adhere to its flight planned departure time, the Estimated Off-Block Time (EOBT).

3.5 For any exceptional flights not using TOBT for departure delay updates, there remains a requirement for a DLA message to be sent. This will update the EOBT and results in an automatic update of the TOBT. The preference remains for local five-minute TOBT updates, as late unpredictable delays can then be updated without any need to send DLA messages (for flights that remain within their +/- 15 minute flight plan window). It is now very rare for DLA messages to be used and Heathrow expects all operators to update TOBTs.

4. Target Start Approval Time (TSAT)

4.1 TSAT is the time that an aircraft can reasonably expect to receive start approval from ATC, taking into account the TOBT and the overall traffic situation. TSATs are generated a minimum of twenty minutes prior to departure.

4.2 TSAT is displayed in AOP. TSATs and TOBTs are also displayed electronically on stand entry guidance systems (SEGS) units where applicable for the relevant stands. Flight crews will be advised of TSAT and any changes to it by ATC. The airport, airline and its ground handler may also choose to directly advise flight crew of TOBT/TSAT via other proprietary systems such as mobile apps (including the 'Airport Community' app).

4.3 The TSAT generator aims to reduce queuing times at the runway holding point, while maintaining efficient runway throughput. TSAT takes into account TOBT, any applicable Calculated Take Off Time (CTOT), the aircraft's wake vortex category, Standard Instrument Departure (SID) routing, variable taxi times, cul-de-sac demand and any capacity constraints such as low visibility procedures. 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.

5. Process for Flight Crew

5.1 Flight crews should ensure that the aircraft is ready to depart at TOBT, respecting a tolerance window of minus 5 to plus 5 minutes.

5.2 If the flight is not expected to be ready within this window, the airline or its ground handler MUST update the TOBT.

5.3 Flight crews are requested to maintain a situational awareness of TOBT and TSAT.

6. Stand Request – Heathrow Delivery

6.1 Flight crews must report ready to Heathrow Delivery at TOBT (window of –5 to +5 minutes). It is vital that the pilot calls Delivery at TOBT +/- 5 minutes EVEN IF the TSAT is outside this window.

6.2 Heathrow Delivery will then either approve start or advise the TSAT – in the case of any delay, Delivery will call the flight crew back at TSAT. Delivery will inform pilots of changes to the TSAT in excess of 5 minutes (more likely in adverse conditions).

6.3 If Delivery has not received a start request by TOBT +5 minutes, the aircraft will lose its TSAT (red flag in AOP). If the flight crew calls without an updated TOBT, Heathrow Delivery will advise pilots to ‘contact company’. Once a new TOBT is entered, the flight will be re-sequenced with a new TSAT. An aircraft will not be allowed to depart until a valid TOBT is entered and revised TSAT issued.

6.4 If pilots have called ready but are then delayed by ATC, there is no requirement for TOBT to be updated.

7. Pushback Request – Heathrow Ground

7.1 Start and pushback clearance must be requested from Ground no later than 5 minutes after being transferred from Delivery.

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

8. Access and Support

8.1 The AOP system application contains core operational functions to allow each airport stakeholder to manage Heathrow's operation including key performance metrics, departure, arrival and turn-round information. It also features an aircraft Situational Awareness Map based on ADS-B and multilateration positioning. Access is provided to all operational stakeholder partners at Heathrow. To create a new AOP account, external users should contact the HAL IT Service Desk on +44 (0) 20 8745 5355. Internal HAL employees should apply for approval for acess to AOP using the NGR portal.

8.2 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

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

9. References

Nil.

10. Enquires

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