

Quick reference Aircraft De-icing at ZRH

Overview aircraft De-icing conditions

De-icing on Request	<ul style="list-style-type: none"> • less than 50% of traffic is expected for de-icing • this value is generally valid all year, especially from 1. October until 30. April • Flight Crews have to request De-icing according AIP • ATC Slot adherence is a must
General De-icing	<ul style="list-style-type: none"> • more than 50% of traffic is expected for de-icing • published in AIMS headerline / broadcasted on Departure ATIS • Flight Crews have to request De-icing according AIP • ATC slot adherence is a must
General De-icing with extended Slot Tolerance Window	<ul style="list-style-type: none"> • ATC slot adherence is no longer assured due to long de-icing time, RWY cleaning, or other reasons • ATC slot tolerance window can be increased up to max -30min CTOT +30min (Decision on behalf of Snow Committee, in coordination with FMP/NMOC) • Published on AIMS headerline, broadcasted on DEP ATIS • Flight Crews have to request De-icing according AIP • ATC slot adherence (within extended STW) is a must

TOBT management / TSAT generation for flights with on-stand De-icing

An accurate TOBT (ETD) is key for a functional A-CDM process. All the further departure planning, especially the TSAT will rely on the quality and accuracy of the TOBT.

Special case on-stand De-icing: The TOBT has to be set or updated until the handling process is finished and **does not include any De-icing time!** The De-icing tool together with the departure and arrival traffic management system (darts) calculates the TSAT respecting any De-icing related factors. The following events are used to update the TSAT according the actual situation:

- Allocation of the De-icing truck (De-icing task) to a flight by the responsible De-icing coordinator
- The actual start time of the De-icing process (normally when truck begins to spray)
- The actual end time of the De-icing process (normally when truck has finished spraying / is in safe position)

DPI data exchange with NMOC

The De-icing status as well as De-icing process time is contained in the Departure Planning Information Messages (DPI) sent to NMOC.

During status De-icing on request, as soon as the De-icing request is made by the flight crew, the process status and process time are contained in the DPI messages.

During general De-icing as well as general De-icing with extended STW, all flights are considered to be De-iced in the DPI messages, although a De-icing request is not yet made. If the De-icing request is not done until latest 15min prior SOBT/ TOBT, the De-icing remark in the message is cancelled and the flight is indicated as a non-deicing flight in the DPI message.

Important factors

For Flight Crews

- ➔ **Request De-icing as early as possible:** Early De-icing requests contribute to a steady De-icing planning and therefore help to allocate De-icing resources in an optimized way. Note that De-icing has to be requested latest 15min prior SOBT / TOBT according AIP. A late request may cause additional start-up delay for the flight.
- ➔ **Requesting non-standard departure RWY:** State early, when a non-standard RWY for departure is required. This has a major impact on the departure (and de-icing) planning process and therefore, an early indication helps to ease the planning.

For Handling Agents / Airlines

- ➔ **Accurate TOBT Management:** Set TOBTs as early and accurate as possible, especially during De-icing. Note that an accumulation of TOBTs at the same time should be avoided whenever possible.
- ➔ **Truck refueling:** Enter/update De-icing truck refueling time as early and as accurate as possible so that the De-icing tool and the departure management system can take it into account for the planning process.
- ➔ **For on-stand De-icing:** Update De-icing relevant process times early and accurate. This includes De-icing start time, De-icing end time or an early allocation of the De-icing truck to a flight foreseen for on-stand De-icing. **Please note that the De-icing end time (DAE) should be set immediately after the De-icing process is finished.** Otherwise a warning will be displayed at Apron Control when issuing startup clearance and no DAE is set. This leads to avoidable discussions on the frequency. Furthermore the De-icing resource (Truck) is still blocked for the planning process leading to later TSATs than necessary for other flights with De-icing.

For Apron Control

- ➔ **Early allocation of non-standard De-icing pad:** If the intention exists to guide a flight to a non-standard De-icing pad (e.g. pad F for a departure planned for RWY28) then this manual allocation in the De-icing tool should be done as early as possible.

For Clearance Delivery

- ➔ **Aircraft with on-stand De-icing:** Transfer flights with on-stand De-icing to Apron Control only when the De-icing process is terminated.

For all Stakeholders

- ➔ **Planning of 6th outbound wave evening (widebody aircraft only):** It is agreed amongst the partners, that for the last outbound wave in the evening, the De-icing request should be made 30min prior SOBT/TOBT. This allows Apron Control to manually allocate the flights on the De-icing pads or even lanes at a very early stage. This increases the situational awareness for the pad coordinators/allocation of resources and contributes to an optimized De-icing process for night ban critical flights.