Airport
Collaborative Decision Making
(A-CDM)
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1. General

1.1. Purpose of the document

This document describes the Airport Collaborative Decision Making (CDM) process at Frankfurt Airport and is to be understood and used as information material for flight crews. Together with the publications about Airport CDM (Aeronautical Information Publication – AIP – Germany, Fraport Guidelines), this document is to ensure that Airport CDM at FRA is handled in an optimal way in the interest of all partners. A detailed description of the process is also available as a "brief description".

1.2. General, definition and partners

Airport CDM is an operational overall process supporting an optimized turnaround process at Frankfurt Airport. It covers the period of time between the estimated off-block time (EOBT) -3hrs and take-off and is a coherent process from flight planning (ATC flight plan) to landing and the subsequent turnaround process on the ground before the next take-off.

Airport CDM at Frankfurt Airport is based on the European Airport CDM, the common specification (“Community Specification”) for A-CDM and the “German initiative on the harmonisation of Airport CDM” (A-CDM Germany).
2. Target Off Block Time (TOBT)

The TOBT is a point in time to be monitored and confirmed by the airline/handling agent at which the ground handling process is concluded, all aircraft doors are closed, all passenger boarding bridges have been removed from the aircraft and thus start-up approval and push-back/taxi clearance can be received.

All ground handling processes, except push-back and remote deicing/anti-icing, are based on the TOBT. The TOBT is used as the optimum time for coordination.

**TOBT = forecast of "Aircraft ready"

2.1 Automatically generated TOBT

Generally an automatic TOBT will be generated for each outbound flight, unless a manual TOBT has been set earlier.

During the final approach phase (ELDT - 10min.) a TOBT for the linked outbound flight is generated automatically.

The Minimum Turnaround Time (MTTT) is applied when the TOBT is generated. The MTTT is a time which is stored in the airport database and depends on the airline, aircraft type and destination airport.

If the TOBT is not automatically generated, it has to be entered by the person responsible for the TOBT.

There is no differentiation between flights with a direct turn-round and flights which do not park on their outgoing position.

2.2 Person responsible for the TOBT

Airlines have to ensure:

- The nomination of one person responsible for the TOBT
- The communication with the relevant airline OCC (ATC flight plan/person responsible for the EOBT) and
- The coordination of internal working procedures
- Changes of the MTTT to be announced to the Airport Operator via E-Mail: flightschedule@fraport.de

The person responsible for the TOBT (generally the handling agent), the airline (for flights without handling agent) or the pilot-in-command (for general aviation flights without handling agent) is responsible for the correctness of and the adherence to the TOBT.

A wrong TOBT leads to disadvantages for further sequencing and/or CTOT allocation of regulated flights. Therefore the TOBT has to be adjusted as early as possible.
2.3 **TOBT input and adjustment**

The following facts have to be taken into account for the input and/or adjustment of the TOBT:

- The earliest possible input of a TOBT (before automatic generation) is EOBT-90 min.
- A manually set TOBT will never be overwritten by an automatically generated TOBT.
- The TOBT can be adjusted as often as necessary until the TSAT has been issued.
- After the TSAT has been issued, the TOBT can only be corrected three times before it has to be deleted.

As the TOBT is also the basis for further airport processes, adjustments of the TOBT (also if the process is completed more than five minutes in advance) are to be entered by the person responsible for the TOBT.

2.4 **TOBT deletion**

The TOBT has to be deleted in the following cases:

- The TOBT is unknown (e.g. technical problems with the aircraft).
- The TOBT needs to be updated and the permitted number of TOBT inputs (3x) after the generation of the TSAT has been exceeded.

If the TOBT is deleted, the TSAT is automatically deleted as well. This directly leads to the transmission of a Cancel DPI (C-DPI) which triggers a Flight Suspension Message (FLS) at the Network Management Operations Centre (NMOC).

If a new TOBT is known and the process shall continue, the person responsible for the TOBT has to enter a new TOBT.

The input of a new TOBT directly leads to the transmission of a new T-DPI which triggers a De-Suspension Message (DES) at the NMOC. Now the CTOT calculation is based on TOBT again.

2.5 **TOBT reporting channels**

The TOBT is reported and/or adjusted in one of the following ways:

- CSA-Tool
- Internal system of the airline/handling agent (via interface)
- By telephone via the Fraport Airside Coordination and Data Center (ACDC):
  +49 69 690 71740

  **For general aviation flights:**
  - Fraport Executive Aviation Services for input into the CSA-Tool:
    Telephone: +49 69 690 71718 / 71719
2.6 Presentation of TOBT on parking positions with electronic display

Display of TOBT and all TOBT updates (UTC) as soon as a TOBT is available for the planned departure.

Display of a TOBT countdown, which will be shown from 20 minutes prior to TOBT. Before the value of the TOBT has been reached the counter shows a negative value (e.g. “-10”).

As soon as the value of the TOBT has been reached the counter shows “0”. Once the TOBT value is exceeded, the counter continues with positive values (e.g. “5”).

Display of TSAT and all TSAT updates (UTC), when the point in time has reached TOBT -7 min.

Once a TOBT has been deleted by the person responsible for the TOBT, the TOBT value and the countdown will no longer be displayed on the AVDGS screen. The following text will be shown: “FLIGHT SUSPENDED - NEW TOBT REQUIRED”.

TOBT value and countdown will be displayed again, as soon as a new TOBT has been prompted.
3 Target Start-up Approval Time (TSAT)

The TSAT is the point in time calculated by the Airport CDM sequence planning system at which the start-up approval can be expected. The pre-departure sequence is based on the flights with a calculated TSAT.

The TSAT and changes of the TSAT will generally be announced to the flight crew/pilot by the person responsible for the TOBT.

3.1 Publication

The TSAT will be published 40 minutes prior to the valid TOBT. After the TSAT has been calculated, the TOBT can only be corrected three times to ensure a stable sequence and CTOT allocation. Changes to the TOBT do not affect the TSAT in general as long as the new TOBT does not come after the currently valid TSAT.

The calculation of the TSAT is based on the following factors:

- TOBT
- CTOT (for regulated flights)
- Operational capacity at the airport
- Variable taxitime
- Parking position
- Runway in use (sequence calculated separately for parallel runway system and Runway 18)
- Aircraft deicing/anti-icing

3.2 TSAT reporting channels

The TSAT is acknowledged via the same reporting channels as the TOBT:

- CSA-Tool
- AVDGS
- Interface for the airline operator/handling agent
- Short Message Service (SMS)
- Systems used by Apron Control (FDPS)
- Systems used by ATC Tower (TFDPS)
For general aviation flights:

- CSA Tool

Information on the SMS Service:

To register a TSAT request, the user shall send a text message (SMS) with the keyword TSAT and the IATA flight number (commercial callsign) to the following telephone number:

+49 173 72 85 018

The registration for a flight can be made at the earliest one hour before departure. After successful registration, the user receives the current TSAT and TOBT. All TSAT updates > 5 minutes and all TOBT updates are transmitted automatically. The last update is made at TSAT -5 minutes. If the registration is not successful, the user will receive a text message (SMS) with the information how to further proceed.

Note: Remember the TSAT is available TOBT-40 minutes at the earliest.
4 Start-up and Push-Back

Start-up (ASAT) and push-back (AOBT) clearances are issued taking into account the TOBT and TSAT. The following rules apply:

- The aircraft has to be ready for start-up and/or deicing/anti-icing on position at TOBT
- The general timeframe for start-up approval and enroute clearance is TSAT ± 5 minutes
- Pilots can request start-up approval and enroute clearance within TSAT ± 5 minutes
- Clearance Delivery issues the start-up approval and enroute clearance depending on the TSAT and the current traffic situation
- If an update of the TOBT becomes necessary when a flight already has received its start-up clearance, an input of a new TOBT is not possible unless the start-up clearance has been cancelled
- The push-back/taxi clearance has to be requested not later than 5 minutes after the start-up approval has been issued
- On roll-out positions the taxi clearance has to be requested not later than 10 minutes after the start-up approval has been issued

In case of delays Clearance Delivery and Apron Control have to be informed. Otherwise the TOBT will be deleted and has to be re-entered.

4.1 Datalink Clearance – DCL

The published procedures and the time parameters published in the AIP AD 2 EDDF continue to apply to datalink departure clearances (DCL).

The TSAT is transmitted via CLD (departure clearance uplink message – issue of the start-up approval and en-route clearance by Clearance Delivery).

„Start-Up approved according TSAT“

The push-back has to be requested at TSAT -/+5 minutes.

The taxi clearance on roll-out positions has to be requested from TSAT -5 until TSAT +10 minutes.

4.2 Changes within the sequence

After the TSAT has been issued, flights within the area of responsibility of a person responsible for the TOBT can be swapped. The flights have to be in the same sequence. Flights with CTOT cannot be swapped. The changes within the sequence have to be coordinated with the DFS control tower.
Possible flights to be swapped can be displayed in the “CSA-Tool” by using the “Swap Candidate” functionality.

### 4.3 Remote Holding

If an aircraft cannot leave the parking position due to a late TSAT and an arriving aircraft needs this position and the following conditions are met, the Remote Holding procedure will be applied in accordance with the Airport Traffic Operation Center and Apron Control.

#### Preconditions:
- The difference between TOBT and TSAT is at least 15 minutes
- No start-up or enroute clearance has been issued via datalink (DCL)
- An adequate remote position is available
- No remote deicing/anti-icing is being performed
- The aircraft has to be able to leave the parking position at TOBT
- The tow truck has to be available

#### Application for Remote Holding:

The application for Remote Holding can be performed by the Aircraft Operator (AO) or his representative e.g. Groundhandling Agent (GH), via the Airport Traffic Operation Center or Apron Control.

The Airport Traffic Operation Center accepts the application for Remote Holding and checks in accordance with Apron Control.

#### Execution:

When the aircraft is ready the crew will request their start-up / push-back clearance for Remote Holding directly with Apron Control.

#### Note:

This request does not replace the start-up / enroute request on Tower frequency which has to be obtained on the remote position.

After reaching the remote holding position the start-up / enroute clearance has to be obtained according to valid procedures on Tower frequency.
5 Deicing/anti-icing

The setting of the aircraft deicing sequence will be determined according to the pre-departure sequence of the A-CDM process.

The following factors will be considered when determining the deicing / anti-icing sequence and the calculation of the ECZT (Estimated Commencement of Deicing/Anti-icing):

- Local influences (e.g. runway closures, operational capacity)
- Network influences – NMOC CTOTs
- Target Off-Block Time (TOBT) = AO Commitment
- Target Start Up Approval Time (TSAT) = A-CDM Commitment
- Estimated Deicing Time (EDIT) = estimated deicing/anti-icing duration
- Time of deicing/anti-icing request

5.1 Deicing/anti-icing on position

Deicing/anti-icing is conducted on a terminal or ramp stand. All hatches must be closed, stairs and/or passenger bridges removed and the position clear of all handling equipment and aircraft engines switched off.

The aircraft has to be ready for deicing/anti-icing at TOBT. The end of deicing/anti-icing (EEZT-Estimated End of Deicing/Anti-icing Time) equates to the TSAT.

For operational reasons changes of the deicing/anti-icing location can occur on short notice.

When deicing/anti-icing is finished the pilot has to request start-up and enroute clearance on Tower frequency in accordance with his TSAT:

„REQUEST START-UP AFTER DEICING“

5.2 Remote deicing/anti-icing

If a flight is planned for remote deicing/anti-icing the pilot will request start-up and enroute clearance on Tower frequency in accordance with his TSAT:

„REQUEST START-UP FOR REMOTE DEICING“

Apron Control will guide the aircraft to the designated deicing pad or deicing area. Deicing/anti-icing will be performed by the responsible deicing/anti-icing company at this location.

For operational reasons changes of the deicing/anti-icing location can occur on short notice.
6 Publications

6.1 Aeronautical Information Publication
The Airport CDM procedure at Frankfurt Airport is published in the German Aeronautical Information Publication, AIP AD 2 EDDF

6.2 Guidelines Fraport AG
The Airport CDM procedure at Frankfurt Airport is published in the Fraport AG Guidelines:
C 2.5 Regulations on Handling Fight Operations Data
C 2.3 Terminal Regulations
C 2.7 General Aviation

7 Person in charge of the process / contact person

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