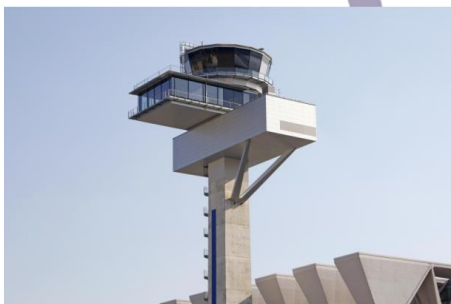| German Harmonisation	ACDM GERMANY	ACDM Flight Crew Briefing

Airport
Collaborative Decision Making
(A-CDM)

Airport CDM @ FRA

Flight Crew Briefing
FRANKFURT AIRPORT
Version 5.2

Table of contents:

German Harmonisation		ACDM Flight Crew Briefing

1. General

1.1. Purpose of the document

This document describes the Airport Collaborative Decision Making (CDM) procedure 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 Germany – AIP AD 2 EDDF, 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 the point in time that an aircraft operator or ground handler estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start up/push back immediately upon reception of clearance from the tower. TOBT is a reference time used for all ground handling processes except for aircraft push-back and de-icing. This time is the best available time for coordination.

Remark: The definition "push back vehicle available" refers to either the status "vehicle allocated" or "vehicle on stand".

TOBT = forecast of "Aircraft ready"

2.1 Automatically generated TOBT

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

At time EOBT-90 min, a TOBT is automatically generated for the outbound flight. The prerequisite for publishing the automatically generated TOBT is that the linked inbound flight has started (the status "Take-Off From Out Station" is available). At the times ELDT-10 min (TMO) and "Actual On-Block" (AIBT) of the linked inbound flight, the automatically generated TOBT of the outbound flight is checked again and updated automatically if necessary.

The Minimum Time To Turn (MTTT) is applied when the TOBT is generated.

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 turnaround 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 TOBT responsibility to be announced to the Airport Operator (application form is available on www.cdm.frankfurt-airport.com)

- 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 non-updated and therefore incorrect TOBT leads to waste of airport- and airspace capacity as well as 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

- If the TOBT and TSAT differ from each other, the TOBT can safely be delayed up to the time value of the TSAT without the TSAT deteriorating as a result of this shift. This also applies to regulated flights (with CTOT).

  Note: This rule does not apply if the flight is planned to be de-iced on position and if the TOBT is re-entered after a TOBT deletion.

As the TOBT is also the basis for further airport processes, adjustments to the TOBT (including advances) of 5 minutes or more must be entered by the person responsible for TOBT.

2.4 TOBT deletion

The TOBT has to be deleted in the following cases:

- Point in time of the end of ground handling is unknown (e.g. technical problems with the aircraft)
- 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.

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 Display of TOBT and other information on parking positions with electronic display (A-VDGS)

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 until the value of the TOBT has been reached.

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 TOBT value has reached TOBT -7 min.

Display of the planned departure runway and the expected Standard Instrument Departure Route (SID) from 40 min. prior to TOBT. This facilitates an earlier cockpit preparation in terms of input of the runway and SID into the Flight Management Systems prior to Start-Up approval (SUG).
This information does not replace the required air traffic control clearance by the air traffic controller. The legally binding air traffic control clearance prevails the information provided by the display.

Once the person responsible for the TOBT has deleted a 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.

Basically the TSAT and changes of the TSAT will 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. As a rule the TSAT remains in effect if the TOBT is changed, unless the new TOBT is later than the calculated 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 de-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

- Airport-CDM App

- Systems used by Apron Control (FDPS)

- Systems used by ATC Tower (TFDPS)

For general aviation flights:

- CSA Tool

Airport-CDM App:

The Airport-CDM App is aimed exclusively at the partners involved in the A-CDM process like airlines, ground handling services and handling agents. Above all, cockpit crews and ground handlers should be provided with the essential A-CDM information about their flight through the visualization of the data.

Users of this target group can download the app free of charge from the Apple App Store (iOS) and the Google Play Store (Android) using the search term "Airport CDM" and install it on mobile devices.

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 de-icing on position at TOBT

- The general timeframe for start-up approval and enroute clearance is between TSAT - 5 minutes and TSAT + 5 minutes

- Pilots can request start-up approval and enroute clearance within TSAT - 5 minutes and TSAT + 5 minutes

- Clearance Delivery (Tower) 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 no longer 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 outside 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, after expiry of the particular timeframe 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 between TSAT - 5 minutes and TSAT + 5 minutes.

The taxi clearance on outside positions has to be requested between TSAT - 5 minutes and TSAT + 10 minutes.

4.2 RTS (Return to Stand) procedure

If an aircraft e.g. for technical reasons has to return to a parking stand after Actual Off-Block (AOBT), the RTS procedure will be initiated by Apron Control. Thereby the publication of the A-CDM alert CDM34 "Return To Stand Notification" is triggered.

Once the aircraft has reached its returning position the status "Standby" (SBY) is set with its actual on-block (AIBT). All target times will be deleted and a cancel DPI (C-DPI) will be forwarded to the NMOC, which triggers a Flight Suspension Message (FLS).

At the same time an A-CDM alert (CDM10 – TOBT Rejected or Deleted) will be forwarded to the responsible AO/GH, explaining that the process has been cancelled.

The pilot will be informed and requested to get in contact with his aircraft operator.

As soon as a new TOBT for the affected flight is known, it shall be set in the system by the person responsible for the TOBT. This directly leads to the transmission of a new T-DPI, which triggers a De-Suspension Message (DES) at the NMOC which ensures the flights participation on the local A-CDM process.

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 Airside Coordination and Data Center (ACDC) 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 de-icing is being performed

- The aircraft has to be able to leave the parking position at TOBT

- The tow truck has to be available at TOBT

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 Airside Coordination and Data Center (ACDC).

The Airside Coordination and Data Center (ACDC) accepts the application for Remote Holding and checks in accordance with Apron Control.

Denial:

If the preconditions are not met, the Airside Coordination and Data Center (ACDC) refuses the application and informs the AO/GH.

For operational reasons (e.g. remote de-icing) an application can be refused by Apron Control even if all preconditions have been met.

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   Aircraft de-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/Antiicing).

- 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 De-Icing Time (EDIT) = estimated de-icing duration
- Time of de-icing request

5.1   De-icing on position

De-icing/anti-icing is conducted on a terminal or ramp position. 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 de-icing at TOBT. The end of de-icing (EEZT-Estimated End of De-icing Time) equates to the TSAT.

For operational reasons changes of the de-icing location can occur on short notice.

When de-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 DE-ICING"

5.2   Remote de-icing

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

„REQUEST START-UP FOR REMOTE DE-ICING"

Apron Control will guide the aircraft to the designated de-icing pad or de-icing area. De-icing will be performed by the responsible de-icing company at this location.

For operational reasons changes of the de-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   Fraport Guidelines for our customers 2

The Airport CDM procedure at Frankfurt Airport is published in the Fraport AG Guidelines:

C 2.5 Regulations on Traffic Data

C 2.3 Terminal Regulations

7   Person in charge of the process / contact person

A-CDM Local Manager

Stefan Hilger
s.hilger@Fraport.de

General:
info@cdm.frankfurt-airport.com

Homepage:
www.cdm.frankfurt-airport.com