**Flight Crew Briefing
Airport CDM Procedure**

Stuttgart Airport

Version 1.3

Change Log:

Version	Date	Remark	Author
1.0	01.05.2014	Initial version	A-CDM Project Team
1.1	04.03.2016	Revision of contents	ACDM@STR
1.2	01.02.2021	Revision of contents / transfer to new layout	ACDM@STR
1.3	01.10.2022	Phone number ACDC	ACDM@STR

Contents

1.   General

1.1   Purpose of the Document

This document describes the Airport Collaborative Decision Making (CDM) procedure at Stuttgart Airport and is to be understood and used as a basis for the different partners, such as ground handling agents and Airline OCCs.

Together with the publications about Airport CDM in the Aeronautical Information Publication Germany (AIP EDDS AD 2.20) and the Aerodrome Manual, this document is to ensure that Airport CDM at Stuttgart Airport is handled in an optimal way in the interest of all partners

More extensive information about the procedure is available in the Brief Description which can be obtained through the local Airport CDM team.

This version comes into effect on 01 October 2022 and replaces all preceding versions.

1.2   Definition and Partners

Airport CDM is an operational overall process (concept/procedure) supporting an optimized turn-round process at Stuttgart Airport. It covers the period 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 turn-round process on the ground before the next take-off.

Airport CDM at Stuttgart Airport is based on European Airport CDM as defined in EUROCONTROL's *Airport CDM Implementation Manual*, the common specification ("Community Specification") for A-CDM and the "German Harmonisation Initiative Airport CDM".

2. Target Off-Block Time

All ground-handling processes, except for pushback and remote de-icing, are based on TOBT. The TOBT is used as the optimum time for coordination.

<div align="center">

TOBT = Prediction of „Aircraft Ready"

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2.1 Automatically Generated TOBT

Generally, an automatic TOBT will be generated for each outbound flight unless a TOBT has already been entered manually.

The earliest time for the publication of the automatically generated TOBT is 90 minutes before EOBT.

In case no automatic TOBT can be generated for a flight, a manual input by the person responsible for TOBT is required.

2.2 Person Responsible for TOBT

Airlines need to ensure:

- the nomination of one unit 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.

The unit responsible for TOBT (generally the handling agent), the aircraft operator (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, TOBT shall be adjusted as early as possible.

2.3 TOBT Input and Adjustment

Regarding entry and adjustment of TOBT, the following needs to be considered:

- TOBT can be adjusted as often as necessary until TSAT has been issued
- After TSAT has been issued, TOBT can only be corrected three times until it must be deleted
- The value of the TOBT entered must differ from its previous value by at least 3 minutes
- The entered TOBT must be at least 5 minutes later than the time of entry
- The entered TOBT must not be 10 minutes earlier than the EOBT of the ATC flight plan.

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

2.4 TOBT Deletion

The TOBT shall be deleted in the following cases:

- the TOBT is unknown (e.g. technical problems with the aircraft)
- the permitted number of TOBT inputs (three times) after generation of the TSAT has been exceeded

If the TOBT is deleted, the TSAT is automatically deleted as well.

As soon as a new TOBT is known and the process is meant to continue, the person responsible for the TOBT shall enter a new TOBT.

2.5 TOBT Reporting Channels

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

- Input by the person responsible for TOBT into the web-based Common Situational Awareness Tool / CSA-Tool "Web-CaeSAr"

- <u>In exceptional cases:</u> Input by the FSG Airport Coordination and Data Center upon request by the person responsible for TOBT or the airline into the CSA-Tool "CasSAr"

For General Aviation flights:

- Input by the person responsible for TOBT into the web-based Common Situational Awareness Tool / CSA-Tool "Web-CaeSAr"

- <u>In exceptional cases:</u> Input by the FSG Airport Coordination and Data Center upon request by the person responsible for TOBT, the airline or the pilot in command into the CSA-Tool "CasSAr"

- <u>In exceptional cases:</u> Input by the DFS Tower Stuttgart upon request by the pilot in command into the CSA-Tool "CasSAr" or the Tower Flight Data Processing System (TFDPS)

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. It is published 40 minutes prior to the current TOBT.

The pre-departure sequence is based on all flights with a calculated TSAT. As a rule, the TSAT remains in effect if the TOBT is changed, unless the new TOBT is later than the calculated TSAT.

TSAT can be received via the same channels as TOBT:

- CSA-Tool "Web-CaeSAr"

- Display of Advanced Visual Docking Guidance System

- Ramp Agent or Handling Agent

- Transmission via interface to systems of the airline

- In exceptional cases: DFS Tower Stuttgart

The person responsible for the TOBT generally has to report TSAT or changes of the TSAT to the Flight Crew/Pilot.

3.1 Coordination with the Network Manager (NMOC)

During the turn-around process, updates of target times and the predicted take-off time (TTOT) will regularly be transmitted to the Network Manager. In case a CTOT needs to be issued, it will then attempt to adjust the CTOT optimally to the locally calculated take-off time.

3.2 TOBT and TSAT Management in High Delay Situations

In situations where CTOTs or local capacity constraints lead to a TSAT that is more than 90 minutes later than TOBT, ground handling still needs to be completed by TOBT. The only exception is passenger boarding which needs to be completed by 60 minutes prior TSAT.

Alternatively, the aircraft operator may decide to postpone boarding even further. In these cases, TOBT needs to be adjusted accordingly.

3.3 Aircraft De-Icing

The de-icing request shall be reported to the ramp agent or the person responsible for TOBT preferably earlier than 40 minutes before TOBT however latest at 20 minutes before TOBT and has to be entered into the web-based CSA-Tool by the person responsible for TOBT.

Aircraft de-icing at Stuttgart Airport is performed only on the four de-icing pads DP1 – DP4.

Aircraft de-icing times must not be considered when determining TOBT, they are taken into account when calculating TSAT, based on de-icing request and approximate duration. Therefore, de-icing should be requested as early as possible.The de-icing sequence will be determined on the basis of the pre-departure sequence in consideration of the available de-icing capacities.

Once an aircraft to be de-iced has achieved the status "aircraft ready" and is ready to start engines, the flight crew has to report this on the frequency of Clearance Delivery. Latest at TOBT the flight crew has to ensure a continuous air-ground voice communication watch, even in case of a deviation between the TOBT and TSAT. In general, start-up clearance will be granted based on the published TSAT.

4. Start-Up and Pushback

4.1 Start-Up procedure via radio

Start-up (ASAT) and pushback (AOBT) clearances are issued exclusively based on TOBT and TSAT. The following rules apply:

- The aircraft shall be ready for start-up and/or remote de-icing at TOBT.

- Generally, the timeframe for start-up approval and en-route clearance is TSAT ± 5 minutes.

  - The pilot shall request start-up approval and en-route clearance within TSAT ± 5 minutes.

  - Clearance Delivery will issue start-up approval and en-route clearance depending on TSAT and the current traffic situation.

- Pushback/taxi clearance shall be requested no later than five minutes after the start-up approval has been issued.

In case of delays, Clearance Delivery shall be informed. Otherwise TOBT will be deleted and must be re-entered.

4.2 Start-Up procedure via Datalink Departure Clearance (DCL)

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

TSAT is transmitted via CLD (Departure Clearance Uplink Message – issuance of start-up approval and en-route clearance by Clearance Delivery).

<center>„Start Up approved according TSAT"</center>

Pushback/taxi clearance shall be requested within TSAT ± 5 minutes (TSAT window).

If start-up is requested too early before TSAT or the operational situation does not allow it, Clearance Delivery will issue the enroute clearance only. Start-up approval then needs to be requested separately via radio within the TSAT window.

Examples:

DCL including start-up approval and enroute clearance:

```
QU QXSXMXS
. STRDFYA 120507
CLD
FI LH65M/AN D-AEWU
- / STRDFYA.DC1/CLD 0501 210112 EDDS PDC 650
EWG65M CLRD TO EDDH OFF 25 VIA OKIBA4B
SQUAWK 5004 ADT MDI NEXT FREQ 118.605 ATIS H
STARTUP APPROVED ACCORDING TSATBF3E
149
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DCL including enroute clearance only:

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QU QXSXMXS
. STRDFYA 120525
CLD
FI KL042A/AN PH-EXS
- / STRDFYA.DC1/CLD 0525 210112 EDDS PDC 651
KLM42A CLRD TO EHAM OFF 25 VIA OKIBA4B
SQUAWK 4126 ADT MDI NEXT FREQ 121.915 ATIS I
REPORT READY ON 121.915 FOR STARTUP ACCORDING TSAT1F4D
152
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4.3 Sequence Switch

After TSAT has been published, the person responsible for TOBT can effect a TSAT switch among flights they are responsible for. Flights with CTOT cannot be switched.

5. Aeronautical Information Publication (AIP)

The Airport CDM procedure at Stuttgart Airport is published in the German Aeronautical Information Publication, Volume II, AD2 EDDS, AD 2.20 "Local Traffic Regulations".

6. Persons in Charge of the Process / Points of Contact

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