

Airport Collaborative Decision Making (A-CDM)



**BRIEF DESCRIPTION
PROCESS DESCRIPTION
Berlin Brandenburg Airport**

Version 1.0

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Airport CDM at Berlin-Brandenburg Airport

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1. General

1.1. Purpose of the Document

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

Together with the publications about Airport CDM (Aeronautical Information Publication – AIP – Germany and the Aerodrome Manual Berlin Brandenburg regulations), this document is to ensure that Airport CDM at BERLIN BRANDENBURG AIRPORT is handled in an optimal way in the interest of all partners.

This version comes into effect on 31 October 2020. This Document replaces all preceding versions.

1.2. General, Definition and Partners

Airport CDM is an operational overall process (concept/procedure) supporting an optimized turn-round process at Berlin Brandenburg 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 BERLIN BRANDENBURG AIRPORT is based on the European Airport CDM, the common specification (“Community Specification”) for A-CDM and the “German Harmonisation Initiative Airport CDM”.

1.3. Objectives of Airport CDM

Airport CDM aims at optimally utilising the available capacities and operational resources at BERLIN BRANDENBURG AIRPORT by increasing the efficiency of the individual steps of the turn-round process.

Airports can be integrated into the European ATM network through the exchange of reliable estimated arrival and departure times between Airport CDM and the Network Manager Operations Centre (NMOC).

Airport CDM optimises operational cooperation between the following partners:

- Airport operator
- Airlines
- Handling agents
- Ground handling agents
- Air navigation service provider
- European air traffic flow management (NMOC)

1.4. Coordination with NMOC

Due to a fully automated data exchange with the Network Manager Operations Centre (NMOC), landing and take-off times can be forecasted in a timely and reliable manner and/or precisely calculated take-off times (CTOT) can be given, based on local target take-off times.

The following messages are used:

- Flight update message, FUM
- Early departure planning information message, E-DPI
- Target departure planning information message, T-DPI target
- Target departure planning information message, T-DPI sequenced
- ATC departure planning information message, A-DPI
- Cancel departure planning information message, C-DPI

The basic procedures for cooperation between the airlines and/or DFS and NMOC remain the same.

Furthermore, all estimated departure times are automatically transmitted to NMOC during the turn-round process. In the case of delays caused by the airlines, the common CTOT allocation mechanisms apply. These allocation mechanisms are confirmed and/or refined via DPI messages. NMOC determines and allocates the CTOT based on these estimated departure times (DPI).

1.5. Main Characteristics of the Procedure

The main characteristics of Airport CDM are:

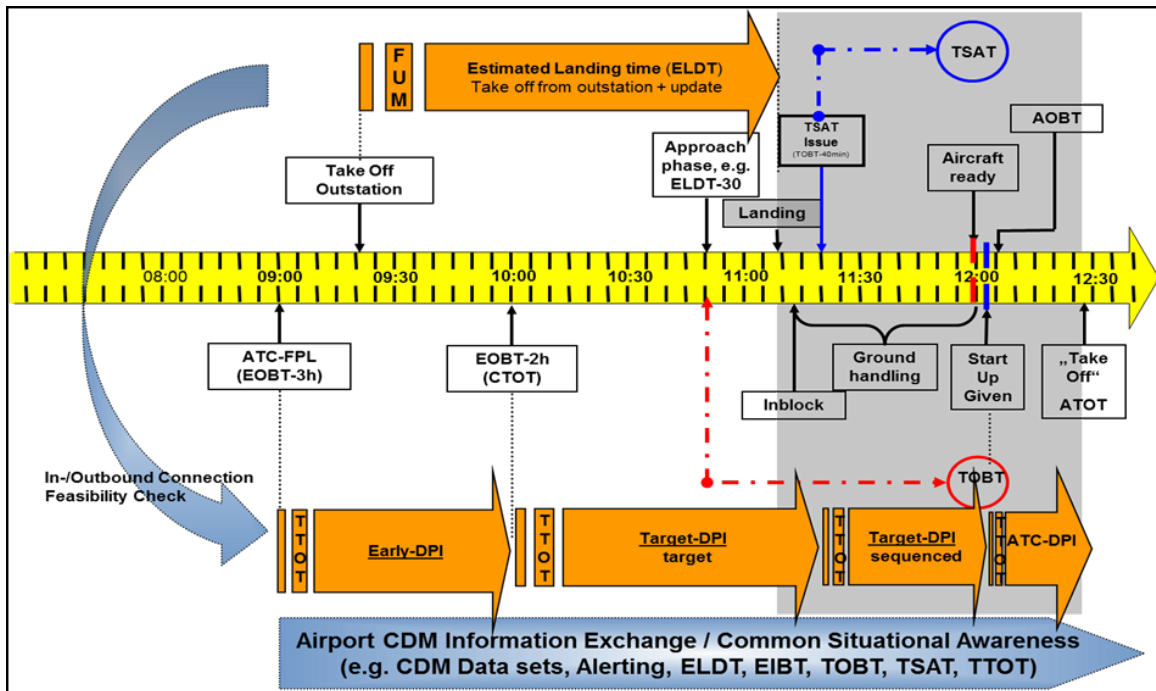
- **Transparency of the process**
Common situational awareness is guaranteed for all partners
- **Airport CDM is a common operational process**
ATC flight plan / landing / turn-round process / take-off
- **Combination of the day of operations and schedule planning**
Comparison and adjustment of the ATC flight plan, airport slot and airport flight data
- **Feasibility of the turn-round process**
Combination, check and adjustment of linked arrivals and departures
- **Usage of Target Off-Block Time as the target time for „Aircraft Ready“**
The TOBT is the essential contribution of the airline to the airport CDM process.
TOBT= Airline commitment
- **Usage of the “Variable Taxi Times”**
Calculation of all Target Times taking into account the parking position, runway in use and actual landing direction as well as the de-icing duration of remote de-icing:
EXOT = Estimated Taxi Out Time
- **Introduction of the „Target Start-Up Approval Time“**
The TSAT resulting from the TOBT, EXOT, CTOT (if regulated) and the actual operational capacity, provides the basis for the pre-departure sequence and the moment at which the start-up approval can be expected.
TSAT = Airport CDM commitment
- **Procedure Adherence**
Start-up approvals/push-back clearances are issued taking into account the TOBT and TSAT.
- **„Linking the airport into the Network“**
High-quality forecasts for inbound and outbound traffic by means of an automated data exchange with European ATFM (NMOC)

Airport CDM at Berlin-Brandenburg Airport

2. Procedure

2.1. Procedure Overview

This chart depicts the scope of the Airport CDM procedure at BERLIN BRANDENBURG AIRPORT from the time of ATC flight plan activation (EOBT -3h) till take-off. The orange arrows depict the data transfer with the NMOC, the green arrow shows the exchange of information via interfaces, dialogue systems, e-mail etc. with the relevant aircraft operator and/or handling agent with regard to potential adjustments which may become necessary.



The main aspects of the procedure are sub-divided and described as follows:

- **Correlation of Flight Information** – section 2.2
- **Target Off-Block Time** – section 2.3
- **Target Start-Up Approval Time** – section 2.4
- **Aircraft De-Icing** – section 2.5
- **Start-Up and Pushback** – section 2.6

Airport CDM at Berlin-Brandenburg Airport

2.2. Correlation of Flight Information

The Airport CDM procedure begins with the transmission of the ATC flight plan to the Airport CDM Portal (airport operator database).

The ATC flight plan will be correlated with the flight data submitted to the airport as well as with the airport slot (SOBT) included therein. In particular, the focus is on:

- linking inbound and outbound flights
- comparing the airport slot (SOBT) for the outbound flight with the EOBT of the ATC flight plan

This comparison is usually made at the EOBT -3hrs. If the ATC flight plan is filed at a later stage, the commencement of the Airport CDM procedure is postponed to this time.

2.2.1. Airport Slot Discrepancy

If the SOBT deviates from the estimated off-block time (EOBT), the contact person of the airline is advised by the A-CDM alerting to adjust the times accordingly.

2.2.2. Airport Slot Missing

If no airport slot is available at the time of the expected conduct of the flight, the flight cannot be sequenced and thus not handled or conducted.

2.2.3. Points of Contact

The airport control centre oversees the activities concerning the correlation of flight information.

2.2.4. Early DPI – Data Exchange with NMOC

An early departure planning information message (E-DPI) is generated and transmitted to NMOC for flight plans validated in accordance with the sections mentioned above (airport slot available).

Flights with an E-DPI are marked in NMOC system as flights from a CDM airport and are then considered accordingly in further processing (e.g. optimised CTOT allocation in accordance with the local target times).

Example of an Early DPI

**-TITLE DPI
-DPISTATUS EARLY
-ARCID DLH3354
-ADEP EDDB
-ADES LTBA
-EOBT 1825
-EOBD 170105
-TAXITIME 0019
-TTOT 1844
-SOBT 1825
-SID GERGA1A
-ARCTYP A320
-REG DAIPU
-IFPLID AA12345678**

2.2.5. Target-DPI - Data Exchange with NMOC

As a rule, a T-DPI with the status "Target" is generated two hours before the EOBT for all flights for which an E-DPI has been generated. The T-DPI is transmitted to NMOC in the same way as the E-DPI.

The T-DPI is used to transmit a Target Take-Off Time (TTOT) to NMOC. The T-DPI opens a so-called "slot adjustment window" within which the CTOT is adjusted to the relevant reported TTOT in the best possible manner.

If the TTOT is changed by five minutes or more, if taxi times are adjusted by three minutes or more or if the SID, aircraft type or registration is changed, a new T-DPI is generated and transmitted to NMOC.

Example of a Target DPI:

**-TITLE DPI
-DPISTATUS TARGET
-ARCID DLH3354
-ADEP EDDB
-ADES LTBA
-EOBT 1825
-EOBD 170105
-TOBT 1825
-TAXITIME 0019
-TTOT 1844
-SID GERGA1A
-ARCTYP A320
-REG DAIPU
-IFPLID AA12345678**

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2.2.6. Flight Update Message (FUM) – Data Exchange with NMOC

Flight update messages (FUM) are received for flights to Berlin Brandenburg Airport (inbound). The following operational events trigger the transmission of an FUM:

- estimated landing time (ELDT) minus 3 hours
- modification of the ELDT by 5 minutes or more
- Changes to the ETFMS status, e.g. suspension of a flight.

The FUM provides an ELDT in advance which allows the system to compare the inbound with the outbound flight plan, i.e. the EIBT with the EOBT.

If the calculated EIBT is later than the EOBT of the linked outbound flight plan, the contact person of the airline is notified accordingly. It is expected that the relevant times (delay message - DLA -) or the outbound flight plan (change of aircraft – CHG – or flight plan cancellation – CNL – and new flight plan) will be adjusted in a timely manner.

Furthermore, the ELDT of the FUM has strong effects on:

- optimum gate and position planning as well as further resources planning
- automatic TOBT generation
- further use of resources (e.g. ground handling).

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2.2.7. Potential Airport CDM Alerts

Potential Airport CDM alerts concerning the combination of different flight information described in section 3.4 include:

CDM01	No Airport Slot Available or Slot Already Correlated
CDM02	SOBT vs. EOBT Discrepancy
CDM03	Aircraft Type Discrepancy
CDM04	Aircraft Registration Discrepancy
CDM05	First Destination Discrepancy
CDM06	<i>not used</i>
CDM07	EIBT + MTTT Discrepancy with EOBT
CDM07a	EIBT + MTTT Discrepancy with TOBT
CDM08	EOBT Compliance Alert
CDM09	Boarding Not Started
CDM10	TOBT Rejected or Deleted
CDM11	Flight Not Compliant with TOBT/TSAT
CDM12	<i>not used</i>
CDM13	No ATC Flight Plan Available

Details on the Airport CDM alerts are given in section 3.4.

2.3. 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 expected to be concluded, all aircraft doors closed, all passenger boarding bridges removed from the aircraft and thus start-up approval and push-back/taxi clearance can be received.

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

TOBT = Forecast of "Aircraft ready"

2.3.1. 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.

The Minimum Turn-round 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.

Important dependencies for the automatic initial TOBT generation:

- TOBT = EOBT if: $EIBT + MTTT \leq EOBT$
- TOBT = EIBT + MTTT if: $EIBT + MTTT > EOBT$

For flights which are not subject to a direct turn-round and which do not park on their outgoing position, the TOBT will be generated automatically 90 minutes before EOBT.

2.3.2. Person responsible for the TOBT

Airlines need 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.

The person responsible for the 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, the TOBT has to be adjusted as early as possible.

2.3.3. TOBT Input and Adjustment

The following facts need to be considered for the input and/or adjustment of the TOBT:

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- the earliest possible input of a TOBT (before automatic generation) is EOBT-100 min.
- a manually set TOBT will never be overwritten by an automatically generated TOBT
- 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
- the entered TOBT must be at least 5 minutes later than the current time
- The value of the TOBT entered must differ from its previous value by at least 5 minutes

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.

2.3.4. Deviations Between TOBT and EOBT

If the TOBT deviates from the EOBT of the ATC flight plan by more than 15 minutes, the aircraft operator has to initiate an additional delay message (DLA, CHG). This new EOBT should be based on the last TOBT.

2.3.5. TOBT Deletion

The TOBT has to 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 the 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 has to enter a new TOBT.

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2.3.6. BCancel-DPI – Data Exchange with NMOC

As soon as the TOBT for a flight is deleted, a C-DPI message is transmitted to the NMOC. This will trigger a Flight Suspension Message (FLS) by NMOC. If the flight intends to operate, either a new EOBT needs to be provided via a DLA or CHG message, or a new DPI (triggered by a new TOBT input) is sent for the flight.

-TITLE DPI
-DPISTATUS CNL
-ARCID DLH3354
-ADEP Eddb
-ADES LTBA
-EOBT 1825
-EOBD 170105
-REASON TOBTUNKNOWNOREXPRIED
-IFPLID AA12345678
-ORGN EDDBYDYA

2.3.7. TOBT in case of a Change of Aircraft

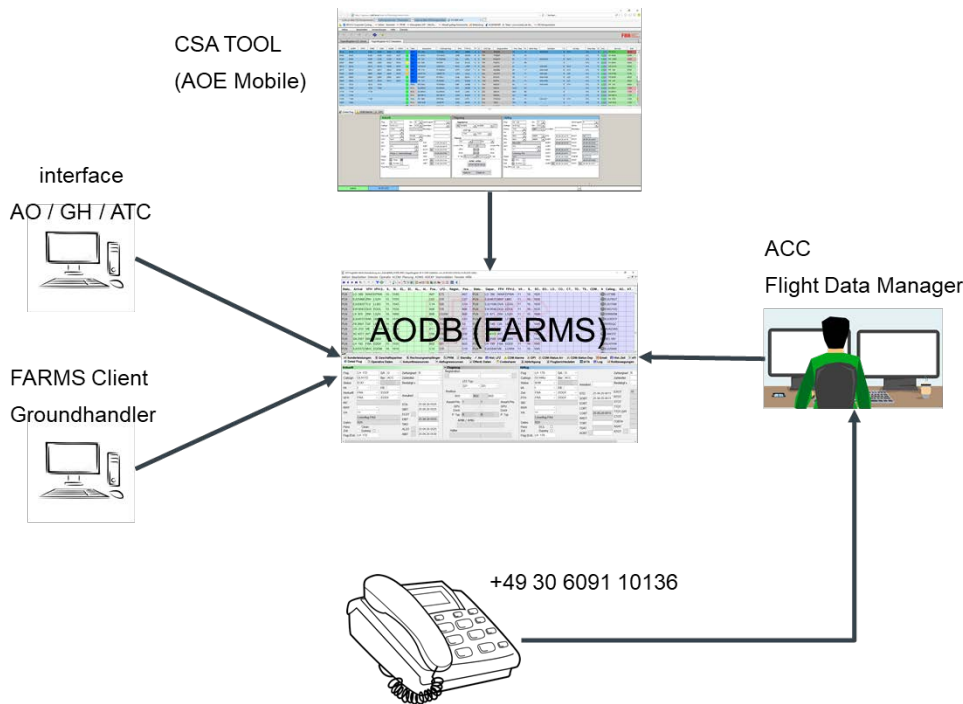
If the aircraft is changed, a change message (CHG - type/registration) has to be sent and the TOBT remains in effect and is allocated to the new aircraft.

2.3.8. TOBT Reporting Channels

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

- Airport Operational Extranet (AOE Mobile)
- AODB (FARMS)
- internal system of AO/GH (via interface)
- Airport Control Centre telephone +49 30 6091 10136

Chart of the TOBT reporting channels



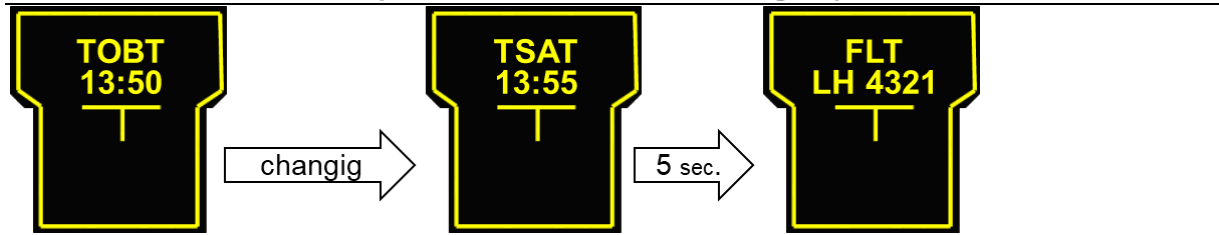
For General Aviation Flights:

- GAT-Provider (BAS) +49 30 6091 78000

2.3.9. TOBT on Parking Stands with Electronic Display

At parking stands equipped with electronic displays, the TOBT will be shown in UTC. At TOBT the display will change to TSAT.

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2.3.10. Potential Airport CDM Alerts

Potential Airport CDM alerts concerning the TOBT:

- | | |
|-------|-------------------------------------|
| CDM08 | EOBT Compliance Alert |
| CDM09 | Boarding Not Started |
| CDM10 | TOBT Rejected or Deleted |
| CDM11 | Flight Not Compliant with TOBT/TSAT |

Details on the Airport CDM alerts are given in section 3.4.

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2.4. 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 all flights with a calculated TSAT.

2.4.1. Publication of the TSAT

The TSAT is published 40 minutes prior to the current TOBT.

After TSAT has been published, the TOBT can only be corrected another 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
- Minimum Departure Interval (MDI)
- Variable Taxitime
- Parking position
- Runway in use
- Landing direction
- Aircraft de-icing (only remote-de-icing)

2.4.2. TSAT Reporting Channels

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

- Airport Operational Extranet (AOE Mobile)
- internal system of AO/GH (via interface)
- Visual Docking Guidance Display
- A-CDM App
- Apron control
- Tower

For general aviation flights:

- Airport Operational Extranet (AOE Mobile)
- GAT Provider +49 30 6091 78000

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

2.4.3. Target-DPI „Sequenced“ – Data Exchange with NMOC

When the TSAT is generated, a T-DPI message with the status "sequenced" is transmitted to NMOC for unregulated flights (flights without a CTOT).

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Flights for which a T-DPI message with the status "sequenced" has been transmitted have a special status within the NMOC system.

The status "Target" (section 2.2.5) remains in effect for regulated flights. However, a T-DPI "Sequenced" can be manually generated by the control tower later; otherwise the T-DPI "Sequenced" for regulated flights is issued at Actual Start-Up Approval Time (ASAT).

The transmission of a Ready Message (REA) is no longer required for regulated flights where a T-DPI "Sequenced" has been sent (an additional T-DPI can be generated manually if necessary).

The CTOT is adjusted to the local TTOT as much as possible.

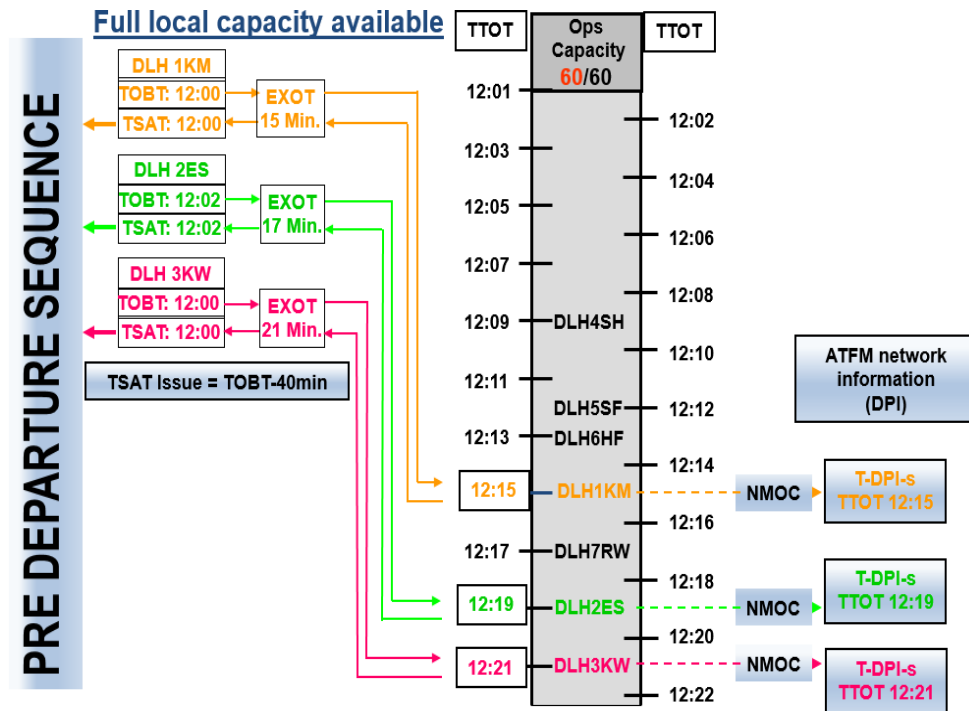
If the TTOT is changed by five minutes or more, if taxi times are adjusted by three minutes or more, or if the SID, aircraft type or registration is changed, a new T-DPI is generated and transmitted to the NMOC.

Example of Target DPI "Sequenced":

- TITLE DPI
- DPISTATUS SEQ
- ARCID DLH3354
- ADEP EDDB
- ADES LTBA
- EOBT 1825
- EOBD 170105
- TOBT 1825
- TSAT 1825
- TAXITIME 0019
- TTOT 1844
- SID GERGA1A
- ARCTYP A320
- REG DAIPU
- IFPLID AA12345678

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2.4.4. Example of TSAT and DPI Generation



2.4.5. Changes within the sequence

In individual cases and if requested through TWR, flights with different TSATs within the same sequence and TOBT responsibility can be switched. TWR will switch the predicted take-off times of the flights. Regulated flights cannot be switched.

2.4.6. TOBT and TSAT Handling in Extreme Situations

If situations where TSAT is far from TOBT, the aircraft operator may decide to postpone boarding. In these cases, TOBT needs to be adjusted accordingly. Ideally, the new TOBT value is 10 minutes before the current TSAT.

2.4.7. Potential Airport CDM Alerts

Potential Airport CDM alerts concerning the TSAT include:

CDM08	EOBT Compliance Alert
CDM10	TOBT Rejected or Deleted
CDM11	Flight Not Compliant with TOBT/TSAT

Details on the Airport CDM alerts are given in section 3.4.

2.5. Aircraft De-Icing

The de-icing request must be sent to the de-icing coordinator at the earliest possible time via the ground handler.

Two different methods are used to perform aircraft de-icing, decentral and central. Decentral or on-stand de-icing takes place exclusively on the parking positions, central or remote de-icing is carried out on dedicated de-icing areas.

Aircraft de-icing times must not be considered when determining TOBT, they are taken into account when calculating TSAT, based on de-icing request, location and approximate duration. Therefore de-icing should be requested as early as possible.

2.5.1. On-Stand De-Icing

In the case of on-stand de-icing, the aircraft must be ready for de-icing at TOBT. It must have been de-iced by TSAT.

2.5.2. Remote De-Icing

Remote de-icing is carried out on defined areas on aprons and near the runway thresholds.

In case of de-icing the DPI message to the NMOC will contain the additional status "DEICING"

Example of a Target DPI „sequenced“ with de-icing status:

-TITLE DPI
-DPISTATUS SEQ
-ARCID DLH3354
-ADEP EDDB
-ADES LTBA
-EOBT 1825
-EOBD 170105
-TOBT 1825
-TSAT 1825
-TAXITIME 0029
-TTOT 1854
-SID GERGA1A
-ARCTYP A320
-REG DAIPU
-DEPSTATUS DEICING
-IFPLID AA12345678

2.6. Start-Up and Pushback

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

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- The aircraft has to 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 \pm 5 minutes
 - The pilot should request start-up approval and en-route clearance within TSAT \pm 5 minutes.
 - Clearance Delivery issues start-up approval and en-route clearance depending on TSAT and the current traffic situation.
- The push-back/taxi clearance has to be requested not later than five minutes after the start-up approval has been issued.

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

2.6.1. Datalink Clearance – DCL

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

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

„Start Up approved according TSAT <hh:mm>“

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

Examples:

DCL including Start-Up Approval and en-route clearance:

```
QU QXSXMXS
. EDDBYDYA 270754
CLD
FI DY3303/AN SE-RRI
- / EDDBYDYA.DC1/CLD 0754 200927 EDDB PDC 196
NAX3303 CLRD TO EKCH OFF 25R VIA GERGA1X
SQUAWK 7264 ADT MDI NEXT FREQ 129.605 ATIS L
STARTUP APPROVED ACCORDING TSATC6C2
553
```

DCL with en-route clearance only:

```
QU QXSXMXS
. EDDBYDYA 270852
CLD
FI DY03QJ/AN SE-RPH
- / EDDBYDYA.DC1/CLD 0852 200927 EDDB PDC 197
NAX3QJ CLRD TO ENGM OFF 25R VIA GERGA1X
SQUAWK 7263 ADT MDI NEXT FREQ 121.605 ATIS N
REQ STARTUP ACC TSAT ON 121.6050122
556
```

2.6.2. Remote Holding

Remote Holding may be requested via the TOBT reporting routines.

Conditions for Remote Holding are:

- TOBT and TSAT differ by more than 15 minutes (operational parameter)
and
- The respective parking position is required for an arriving aircraft
and
- Aircraft handling (except de-icing) is complete (TOBT has been reached).

2.6.3. ATC-DPI (A-DPI) – Data Exchange with NMOC

At Actual Off-Block Time, an A-DPI will be sent to NMOC. The “Slot Adjustment Window” is closed and CTOT can no longer be changed automatically by NMOC unless exceptional conditions apply.

Example ATC DPI:

-TITLE DPI
-DPISTATUS ATC
-ARCID DLH3354
-ADEP EDDB
-ADES LTBA
-EOBT 1825
-EOBD 090105
-TAXITIME 0019
-TTOT 1844
-SID GERGA1A
-ARCTYP A320
-REG DAIPU

3. Common Situational Awareness / Information Sharing

Airport CDM at Berlin-Brandenburg Airport

Transparency for all partners involved is the basis for conducting the Airport CDM process. This Common Situational Awareness is ensured through IT interfaces, dialogue systems, alert messages, data exchange with NMOC, telephone coordination, etc.

3.1. CSA Tool

The Airport Operational Extranet (AOE Mobile) serves as the Common Situational Awareness Tool (CSA Tool) at BER Airport. There, all relevant information is displayed and maintained in a user-specific manner. Entries (e.g. TOBT) are made via AOE Mobile and detailed information on the flights displayed can be obtained. AOE Mobile access can be requested from FBB by handling agents and airlines.

CDM alert messages can also be displayed and viewed using the CSA Tool.

The screenshot displays the FBB CSA Tool interface. The top header shows the FBB logo and user information: 'User: cdm-dlh Timezone: LOCAL Status: OK'. Below the header is a search bar and a table of flight data. The table has columns for A, Departure, Callsign Dep, Registration, LFZ-ICAO, FFH, FFH (ICAO), Pos. Dep, STD, SOBT, EOBT, TOBT, and #TOBT. The first row is highlighted in blue.

A	Departure	Callsign Dep	Registration	LFZ-ICAO	FFH	FFH (ICAO)	Pos. Dep	STD	SOBT	EOBT	TOBT	#TOBT
○	LH 1931	DLHBY	DACKG	CRJ9	MUC	EDDM	A02	09:55	09:55			
○	EW 8026	EWG8026	OELYU	A319	DUS	EDDL	HOLD	10:05	10:05			
○	EW 8002	EWG8002	OELVW	A319	STR	EDDS	HOLD	10:10	10:10			
○	LH 1933	DLH7AE		A321	MUC	EDDM	21	10:20	10:20			
○	EW 8050	EWG8050	OELVX	A319	CGN	EDDK	HOLD	10:20	10:20			
○	LH 183	DLH9KY	DAIUV	A320	FRA	EDDF	22	10:45	10:45			
○	LX 977	SWR99A	HBJCL	BCS3	ZRH	LSZH	A12	10:50	10:50			
○	OS 226	AUA226	OELWQ	E195	VIE	LOWW	A02	11:00	11:00			
○	EW 8590	EWG99D		A319	PMR	LEPA	HOLD	11:20	11:20			
○	EW 015	EWG27L		A320	CGN	EDDK	C02	11:40	11:40			
○	LH 185	DLH3NC		A321	FRA	EDDF	73	11:45	11:45			
○	EW 2011	EWG95T		A320	STR	EDDS	A12	12:00	12:00			
○	SU 2313	AFL2313		A320	SVO	UUUU	55	12:05	12:05			
○	LH 4041	DLH4041		A320	MUC	EDDM	24	12:30				
○	EW 9047	EWG25F		A320	DUS	EDDL	C02	12:35	12:35			
○	LH 187	DLH7AC		A321	FRA	EDDF	HOLD	12:45	12:45			
○	LH 4031	DLH4031		A320	FRA	EDDF	72	12:45				
○	LX 965	SWR965		BCS1	ZRH	LSZH	70	12:45	12:45			

On the right side, there is a 'Flight Details' panel with 'CDM Alarms' tabs. It contains input fields for various flight parameters: Departure (LH 1931), Callsign Dep (DLHBY), Registration (DACKG), LFZ-ICAO (CRJ9), FFH (MUC), FFH (ICAO) (EDDM), Pos. Dep (A02), STD (09:55), SOBT (09:55), EOBT, TOBT, #TOBT, TSAT, DPI, AOBT, CTOT, and ATOT. There are also buttons for 'Hilfe' and 'Theme'.

Airport CDM at Berlin-Brandenburg Airport

3.2. Display system of the NMOC - NMOC CHMI

Information on the Airport CDM data exchange with the NMOC can be obtained in the different display options via the available NMOC reporting channels (CHMI).

Access to NMOC CHMI can be requested from Eurocontrol online:

www.eurocontrol.int/network-operations

3.2.1. NMOC CHMI Flight List

The flight list contains information on:

- TTOT
- transmitted DPI type
- IFPS inconsistencies
- EOBT inconsistencies
- „Ready” Status

The screenshot displays the 'AD EDOL Flight List at 07:42:31 / ATFCM' interface. It includes a search and filter section at the top with options for 'Traffic Load', 'Entry', 'Occupancy', 'AOS', and 'FPF'. Below this is a table with columns: 'TTOT/TA', 'STA', 'ARCD', 'ATYP', 'AOP', 'ASX', 'D', 'IRK', 'T', 'ARF', 'TOBT', 'LV', 'D', 'E/C/TOT', 'X', 'Y', 'S', 'CL', 'AT', 'TOBT', 'TSAT', 'TT', 'A/TTOT', 'Delay', 'E/C/ATA', 'N', 'Op', 'W', 'NSB', 'RESUL+', 'O', 'TI', 'EFL', 'TO', 'CCMS'. The table contains multiple rows of flight data, including flight numbers like 12121A, 12123A, 12124A, etc., and their corresponding status and timing information.

Airport CDM at Berlin-Brandenburg Airport

3.2.2. NMOC CHMI Flight Data

When selecting an individual flight's "Flight Data" (directly or from the flight list), details on the Airport CDM data exchange are displayed.

AC AFR15MR Flight Data at 07-12:26 / ATFCM

IOBD: Thu 07 Sep 2017 | IOBT: 12:40

ARCID: AFR15MR | ADEP: EDDL | ADES: LFPG

Details | Point Profile | Airspace Profile | Restriction Profile

AO AFR	Aircraft Type E170	Registration Mark	CCAMS Code
OPR AO HOP	Initial RFL 240	RVR 200	CEQPT DE2E3FGIORSWY

Last MSG From

Time	Status
Last EOBT 07-12:40	Flight Type TACT ACTIVATED
ETOT 12:54	Exempt Flight N
CTOT	RFI Y
ATOT 12:54	Ready To Depart N
Last Validity +16:40	Late Filer N
	Late Updater N
	TIS 5
	TRS 10

Airport (CDM)

Status (Pre)Sequenced	Sequenced Target TOT 12:54	Aircraft Type E170
SID MODRU1T		Registration Mark FHBXN (!)
No Slot Before 12:54	TOBT 12:40	TSAT 12:40
C-DPI Reason None		

Route

N0435F240 MODRU1H MODRU 2717 GOBNO UZ717 MAS UM617 SISGA UZ319 MOPIL MOPIL8W

Regulation

Reroute TRY and Apply NOT allowed

Regulation	FCM	Ref Location
FLS Resp By		
Rerouting Ref		
REGUL+		
Regcause		
Delay		
TTO Fix		
RRP Resp By		
Slot Tol Viol		
Last MSG Received		
Last MSG From		
ATT		

Flight Data query finished with success

Airport CDM at Berlin-Brandenburg Airport

3.2.3. NMOC CHMI Operational Log

All exchanged (transmitted and received) messages can be retraced in the "Operational Log" option of selected flights.

AC AFR15MR Operational Log at 07-12:29 / ATFCM

IOBD: Thu 07 Sep 2017 IOBT: 12:40 From: Wed 06 Sep 2017 at 00:00
 ARCID: AFR15MR ADEP: EDDL Until: Fri 08 Sep 2017 at 00:00

11 log lines

T	Stamp	Oplog Type
A	06-16:40:04	IM FPL
A	07-08:06:51	HI REROUTE
A	07-09:52:18	IM DPI
A	07-09:52:18	HI SID_INFO_CHANGE
A	07-10:15:17	IM DPI
A	07-10:15:17	HI DISCREPANCY
A	07-10:40:04	IM DPI
A	07-11:52:55	IM DPI
A	07-12:00:23	IM DPI
A	07-12:23:43	IM DPI
A	07-12:26:12	IM DPI

TACT_ID: 519411 Correspondent: EDDLYDYX @AFTN
 IFPS_ID: AA67712151 OPLOG_ID: Wrap Text

Received from: EDDLYDYX @AFTN. Est. Xmit at: 17/09/07 12:23:00. Message
 description:-TITLE DPI
 -DPISTATUS SEQ
 -ARCID AFR15MR
 -ADEP EDDL
 -ADES LFPG
 -EOBT 1240
 -EOBD 170907
 -TOBT 1240
 -TSAT 1246
 -TAXITIME 0014
 -TTOT 1300
 -SID MODRU1T
 -ARCTYP E170
 -REG FHBXN

Flight Operational Log query finished with success

Airport CDM at Berlin-Brandenburg Airport

3.3. Airport CDM Alerting

Due to European harmonisation/standardisation, Airport CDM alerts bear the same code all over Europe. A further harmonisation of the A-CDM alerts via the “Initiative on the German harmonisation of Airport CDM” takes place to reach a common alerting procedure all over Germany.

3.3.1. Contact Address and Information

In order to receive Airport CDM alert messages, all airlines/handling agents have to provide a valid contact address (e-mail) for the Airport operator:

It is also possible to provide several contact addresses for one airline (e.g. referring to a specific alert), if necessary.

In order to ensure optimal process handling and sequencing, it is highly recommended to provide this address (or several addresses) as well as information on necessary changes.

3.3.2. General Aviation Flights

This does not apply to general aviation flights without handling agents because the messages from the Airport CDM procedure are transmitted to the counter of the general aviation terminal (GAT).

3.3.3. Airport CDM Alert Messages

CDM01 “No Airport Slot available or Slot already correlated”

DLH1AB/LH123

CDM01

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

AIRPORT SLOT SOBT 1200 UTC NOT AVAILABLE OR SLOT ALREADY CORRELATED.

IMMEDIATE UPDATE OF ATC FLIGHT PLAN EOBT 1100 OR REQUEST NEW AIRPORT SLOT.

NOTE: THE AIRPORT CDM PROCESS WILL BE SUSPENDED UNTIL RECEPTION OF YOUR RECTIFICATION.

CDM02 “SOBT vs. EOBT discrepancy”

DLH1AB/LH123

CDM02

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

ATC FLIGHT PLAN EOBT 1200 IS NOT CONSISTENT WITH AIRPORT SLOT SOBT 1100 UTC.

PLEASE VERIFY.

CDM03 “Aircraft Type Discrepancy”

DLH1AB/LH123

Airport CDM at Berlin-Brandenburg Airport

CDM03

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

AIRCRAFT TYPE INCONSISTENCY BETWEEN ATC FLIGHT PLAN A320 AND AIRPORT DATABASE A32N.

IMMEDIATE UPDATE OF ATC FLIGHT PLAN OR AIRPORT DATABASE NEEDED.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START UP / PUSHBACK CLEARANCE WILL NOT BE GRANTED UNTIL DISCREPANCY IS RESOLVED.

CDM04 “Aircraft Registration Discrepancy”

DLH1AB/LH123

CDM04

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

AIRCRAFT REGISTRATION INCONSISTENCY BETWEEN ATC FLIGHT PLAN DABCD AND AIRPORT DATABASE DZYXW.

IMMEDIATE UPDATE OF ATC FLIGHT PLAN OR AIRPORT DATABASE NEEDED.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START UP / PUSHBACK CLEARANCE WILL NOT BE GRANTED UNTIL DISCREPANCY IS RESOLVED.

CDM05 “First Destination Discrepancy”

DLH1AB/LH123

CDM05

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

DESTINATION INCONSISTENCY BETWEEN ATC FLIGHT PLAN <ADES> AND AIRPORT DATABASE <DEST>.

IMMEDIATE UPDATE OF ATC FLIGHT PLAN OR AIRPORT DATABASE NEEDED.

NOTE: PLEASE CLARIFY WITH AIRPORT TRAFFIC OPERATION CENTER

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CDM07 “EIBT + MTTT discrepancy with EOBT”

DLH1AB/LH123

CDM07

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

EIBT 1300 OF INBOUND DLH1AX/LH122 + MTTT 0030 IS NOT CONSISTENT WITH
OUTBOUND ATC FLIGHT PLAN EOBT 1300.

CHECK OUTBOUND FLIGHT AND ATC FLIGHT PLAN AND UPDATE IF REQUIRED.

NOTE: THIS IS AN ADVISORY ALERT ONLY AND THIS FLIGHT REQUIRES
MONITORING AS THE OUTBOUND FLIGHT MAYBE DELAYED.

CDM07a “EIBT + MTTT discrepancy with TOBT”

DLH1AB/LH123

CDM07a

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

EIBT 1300 OF INBOUND DLH1AX/LH122 + MTTT 0030 IS NOT CONSISTENT WITH
OUTBOUND TOBT 1300.

CHECK OUTBOUND FLIGHT AND TOBT AND UPDATE IF REQUIRED.

NOTE: THIS IS AN ADVISORY ALERT ONLY AND THIS FLIGHT REQUIRES
MONITORING AS THE OUTBOUND FLIGHT MAYBE DELAYED.

CDM08 “EOBT Compliance Alert”

DLH1AB/LH123

CDM08

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

RECEIVED TOBT 1300 IS OUT OF ATC FLIGHT PLAN EOBT 1230 TOLERANCE
WINDOW. IMMEDIATE UPDATE OF ATC FLIGHT PLAN EOBT NEEDED.

NOTE: EOBT AND TOBT SHALL NOT DIFFER BY MORE THAN 15 MINUTES. THE
AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START UP /
PUSHBACK CLEARANCE MAY NOT BE GRANTED UNTIL DISCREPANCY IS
RESOLVED.

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CDM09 “Boarding Not Started”

DLH1AB/LH123

CDM09

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

AT TOBT 1300 - 10 MINUTES BOARDING WAS NOT INITIATED.

UPDATE TOBT IF NEEDED.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START UP / PUSHBACK CLEARANCE MAY NOT BE GRANTED.

CDM10 “TOBT Rejected or Deleted”

DLH1AB/LH123

CDM10

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

TOBT 1300 WAS REJECTED OR DELETED.

NEW TOBT REQUIRED.

NOTE: THE AIRPORT CDM PROCESS IS SUSPENDED UNTIL RECEPTION OF YOUR RECTIFICATION.

CDM11 “Flight not compliant with TOBT / TSAT”

DLH1AB/LH123

CDM11

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

FLIGHT NOT COMPLIANT WITH TOBT 1300 / TSAT 1300.

THIS FLIGHT WILL BE RE-SEQUENCED ON RECEIPT OF NEW TOBT.

NOTE: THE AIRPORT CDM PROCESS MAY BE SUSPENDED UNTIL RECEPTION OF YOUR NEW TOBT.

CDM13 “No ATC Flight Plan Available”

NO ARCID/LH123

CDM13

1702171200UTC

BER/EDDB (IATA/ICAO Location Indicator)

THE ATC FLIGHT PLAN IS NOT AVAILABLE.

SUBMISSION OF NEW ATC FLIGHT PLAN NEEDED.

NOTE: ATC FPL DLH1AB HAS BEEN CANCELLED AND THE AIRPORT CDM PROCESS IS SUSPENDED.

CDM15 “TOBT within Night Flying Restriction”

Airport CDM at Berlin-Brandenburg Airport

DLH1AB/LH123
CDM15
1702171200UTC
BER/EDDB (IATA/ICAO Location Indicator)
TOBT 2215 UTC AT OR BEYOND 2200 LOCAL.
BE AWARE OF NIGHT FLYING RESTRICTION.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START-UP AND / OR TAKE-OFF WILL NOT BE GRANTED WITHOUT NIGHT FLYING PERMISSION.

CDM16 “TSAT within Night Flying Restriction”

DLH1AB/LH123
CDM16
1702171200UTC
BER/EDDB (IATA/ICAO Location Indicator)
TSAT 2215 UTC BEYOND 2200 LOCAL.
BE AWARE OF NIGHT FLYING RESTRICTION.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START-UP AND / OR TAKE-OFF WILL NOT BE GRANTED WITHOUT NIGHT FLYING PERMISSION.

CDM17 “TTOT within Night Flying Restriction”

DLH1AB/LH123
CDM17
1702171200UTC
BER/EDDB (IATA/ICAO Location Indicator)
TTOT 2230 UTC BEYOND 2200 LOCAL.
BE AWARE OF NIGHT FLYING RESTRICTION.

NOTE: THE AIRPORT CDM PROCESS WILL NOT BE SUSPENDED BUT START-UP AND / OR TAKE-OFF WILL NOT BE GRANTED WITHOUT NIGHT FLYING PERMISSION.

Airport CDM at Berlin-Brandenburg Airport

4. Publication

4.1. Aeronautical Information Publication (AIP)

The Airport CDM procedure at BERLIN BRANDENBURG AIRPORT will be published in the German Aeronautical Information Publication, volume II, AD2-EDDB, AD 2.20 "Local Traffic Regulations".

4.2. Airport User Regulations

The Airport CDM procedure at BERLIN BRANDENBURG AIRPORT will be published in the Aerodrome Manual, section E7 attachment 4.

5. Persons in charge of the process/points of contact

For questions concerning the procedure:

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For questions concerning IT:

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