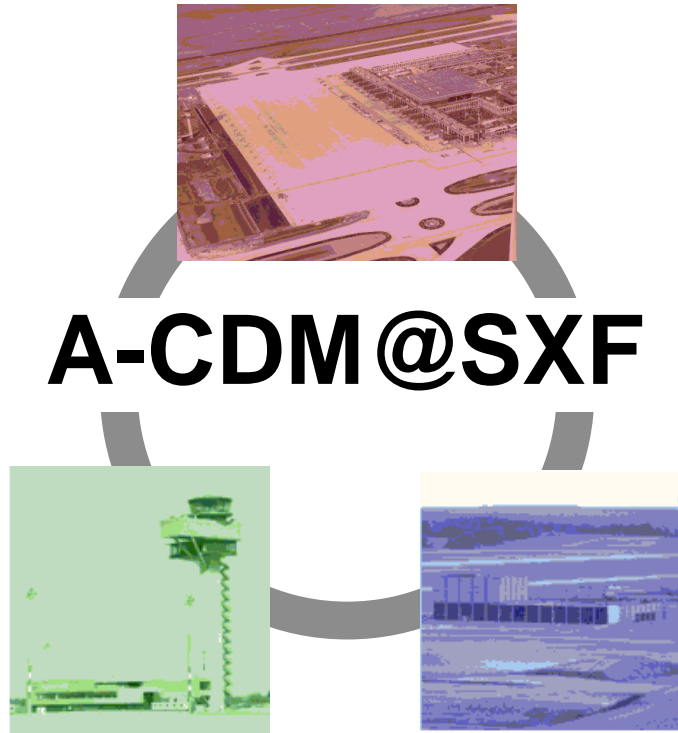


Airport CDM		German
Brief Description		Harmonisation

# AIRPORT COLLABORATIVE DECISION MAKING



## AIRPORT CDM at Berlin Schönefeld AIRPORT (SXF)

Brief Description/Process Description  
*English*



Co-financed by the European Union  
Trans-European Transport Network (TEN-T)

*„The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein.“*



---

## Airport CDM@SXF

---

Version: 3.0  
Author: Airport CDM Team BER  
Date: 13.06.2016

Number of pages: 39



## Airport CDM@SXF

### Table of contents:

1. General.....	5
1.1. Purpose of the document.....	5
1.2. General, definition and partners.....	5
1.3. Objectives of Airport CDM .....	6
1.4. Coordination with the NMOC .....	6
1.5. Main characteristics of the procedure .....	7
1.5.1 Transparency of the process .....	7
1.5.2 Airport CDM is a common operational process .....	7
1.5.3 Combination of the day of operations and schedule planning .....	8
1.5.4 Feasibility of the turn-round process .....	8
1.5.5 Usage of Target off Block Time as the target time for „Aircraft Ready“ .....	9
1.5.6 Usage of the “Variable Taxi Times” .....	9
1.5.7 Introduction of the „Target Start Up Approval Time“ .....	10
1.5.8 Start Up and Pushback.....	10
1.5.9 „Linking the airport into the network“ .....	11
2. Procedure.....	12
2.1. Procedure overview .....	12
2.2. Correlation of flight information .....	13
2.2.1. Airport Slot discrepancy.....	13
2.2.2. Airport slot missing .....	13
2.2.3. Points of contact.....	13
2.2.4. Early DPI – data exchange with the NMOC .....	14
2.2.5. Target-DPI - data exchange with the NMOC.....	15
2.2.6. Flight Update Message (FUM) – data exchange with the NMOC .....	16
2.2.7. Airport CDM Alerts possible.....	16
2.3. Target Off Block Time (TOBT) .....	17
2.3.1. Automatically generated TOBT .....	17
2.3.2. Person responsible for the TOBT.....	18
2.3.3. TOBT input and adjustment .....	18
2.3.4. Deviations between TOBT and EOBT.....	18
2.3.5. TOBT deletion .....	19
2.3.6. Cancel-DPI – Data exchange with NMOC .....	19
2.3.7. TOBT in case of a change of aircraft .....	19
2.3.8. TOBT reporting channels.....	20
2.3.9. Potential Airport CDM Alerts .....	21
2.4. Target Start Up Approval Time - TSAT .....	22



**Airport CDM@SXF**

2.4.1.	Publication of the TSAT .....	22
2.4.2.	TSAT reporting channels .....	23
2.4.3.	Target-DPI „Sequenced“– data exchange with the NMOC .....	24
2.4.4.	Example of TSAT and DPI generation .....	25
2.4.5.	Changes within the sequence .....	25
2.4.6.	TOBT and TSAT handling in extreme situations .....	25
2.4.7.	Potential Airport CDM Alerts .....	25
2.5.	De-icing .....	26
2.5.1.	Remote de-icing .....	26
2.6.	Start-Up and Push-Back .....	27
2.6.1.	Datalink Clearance - DCL .....	27
2.6.2.	ATC-DPI (A-DPI) – data exchange with the NMOC .....	28
3.	Common Situational Awareness / Information Sharing.....	29
3.1.	CSA Tool .....	29
3.2.	Dialog „AOE“ .....	30
3.3.	Display system of the NMOC - CHMI .....	31
3.3.1.	CHMI flight list .....	31
3.3.2.	CHMI flight data .....	32
3.3.3.	CHMI operational log .....	32
3.4.	Airport CDM alerting .....	33
3.4.1.	Contact address and information .....	33
3.4.2.	General aviation flights .....	33
3.4.3.	Airport CDM alert messages .....	33
4.	Publication .....	39
4.1.	Aeronautical Information Publication (AIP).....	39
4.2.	Airport User Regulations (FBO) .....	39
5.	Persons in charge of the process/points of contact .....	39



## Airport CDM@SXF

### 1. General

#### 1.1. Purpose of the document

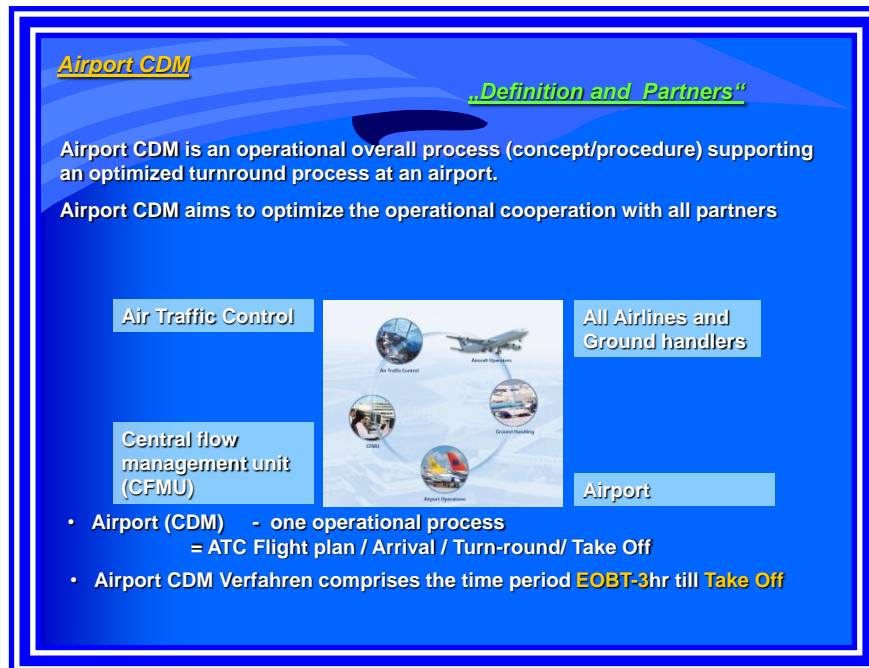
This document describes the Airport Collaborative Decision Making (CDM) procedure at Berlin Schönefeld Airport (SXF) and is to be understood and used as a basis for the different partners, such as ground handling agents and airlines.

Together with the publications about Airport CDM (Aeronautical Information Publication – AIP – Germany and the airport user regulations FBO), this document is to ensure that Airport CDM at SXF airport is handled in an optimal way in the interest of all partners.

This version becomes valid at implementation SXF. This document, will replace 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 SXF airport. It covers the period of time between the estimated off-block time (EOBT) minus 3h 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 SXF 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“.



---

## Airport CDM@SXF

---

### 1.3. Objectives of Airport CDM

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

Airports can be integrated into the European air traffic management (ATM) network through the exchange of reliable estimated arrival and departure times between Airport CDM and the Network Management Operations Center (NMOC).

Airport CDM optimises operational cooperation between the following partners:

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

### 1.4. Coordination with the NMOC

Due to a fully automated data exchange with the 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 Deutsche Flugsicherung GmbH (DFS) and the NMOC remain the same.

Furthermore, all estimated departure times are automatically transmitted to the 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. The NMOC determines and allocates the CTOT on the basis of these estimated departure times (DPI).

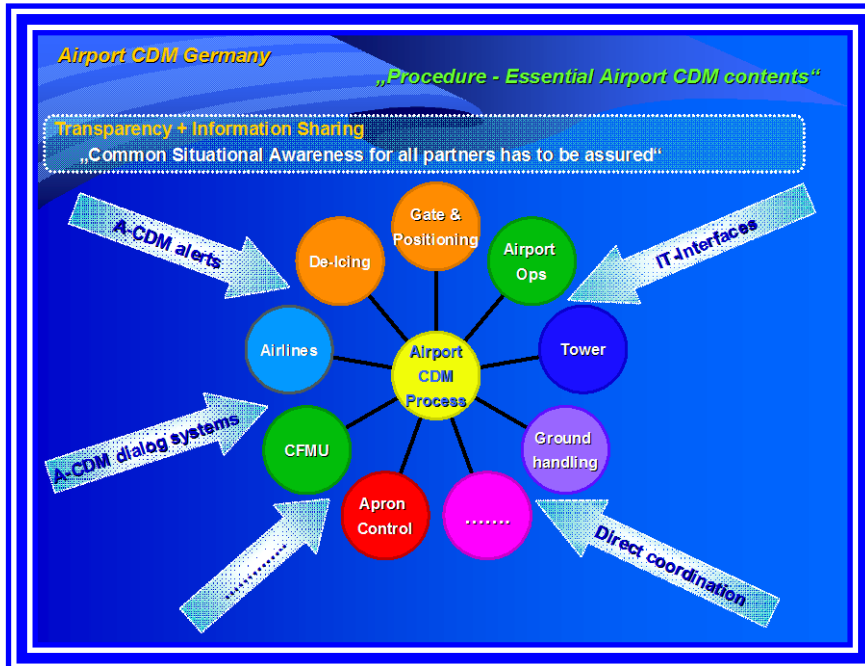


## Airport CDM@SXF

### 1.5. Main characteristics of the procedure

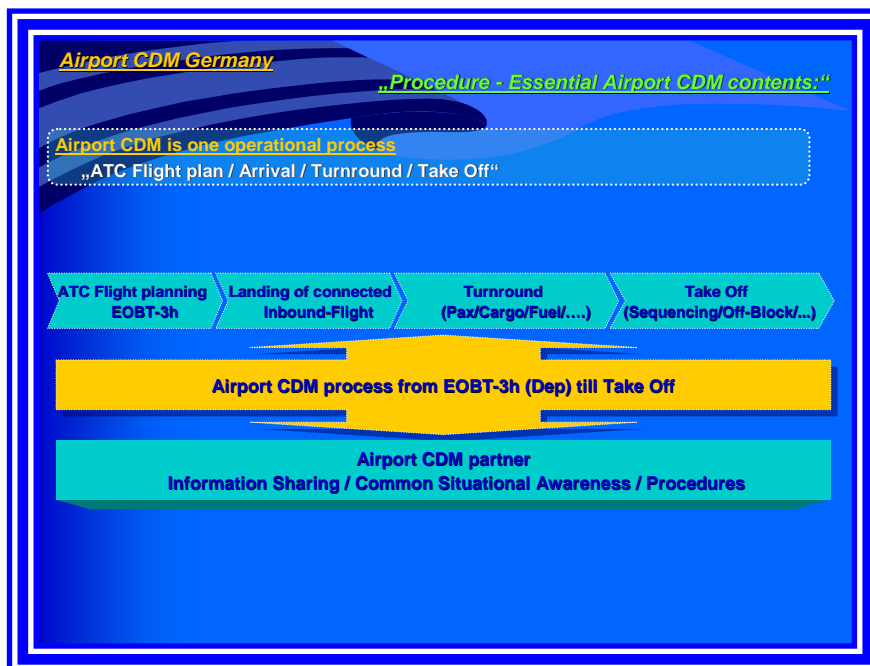
#### 1.5.1 Transparency of the process

Common situational awareness is guaranteed for all partners



#### 1.5.2 Airport CDM is a common operational process

ATC flight plan / landing / turn-round process / take-off









**Airport CDM@SXF**

**1.5.5 Usage of Target off Block Time as the target time for „Aircraft Ready“**

The target off block time (TOBT) is the essential contribution of the airline to the airport CDM process.

TOBT= Airline commitment



**1.5.6 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

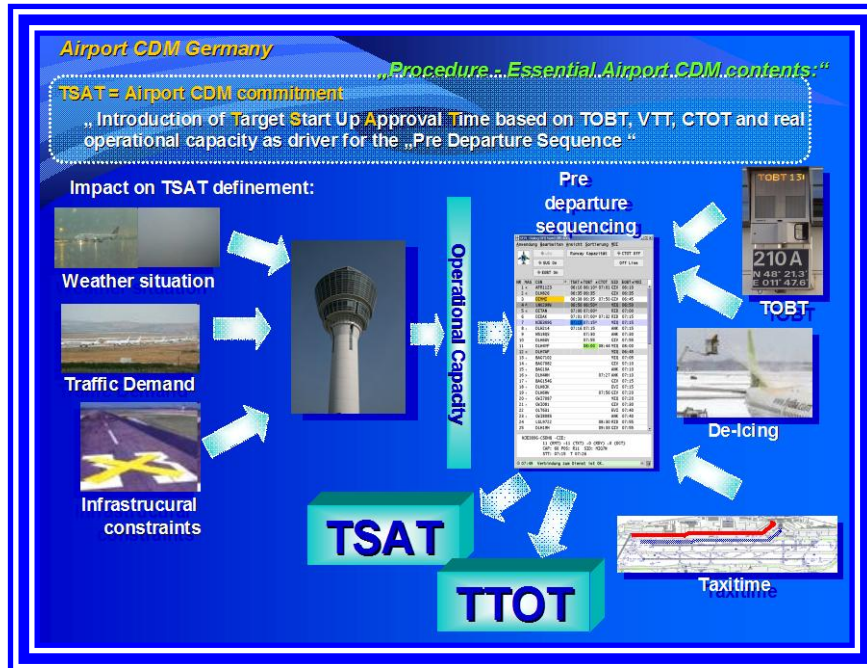


**Airport CDM@SXF**

**1.5.7 Introduction of the „Target Start Up Approval Time“**

The target start up approval time (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



**1.5.8 Start Up and Pushback**

Start-up approvals/push-back clearances are issued taking into account the TOBT and TSAT.

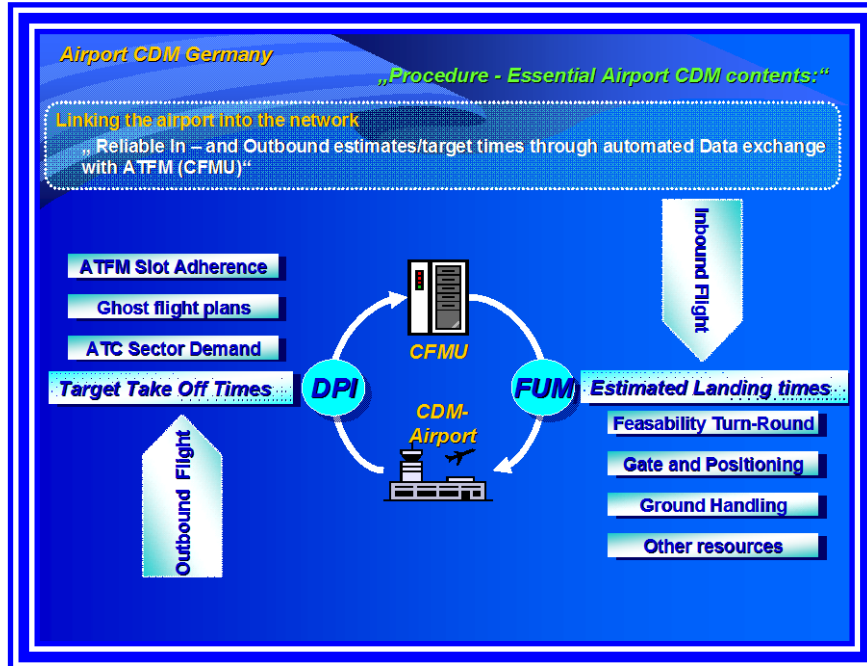




## Airport CDM@SXF

### 1.5.9 „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)



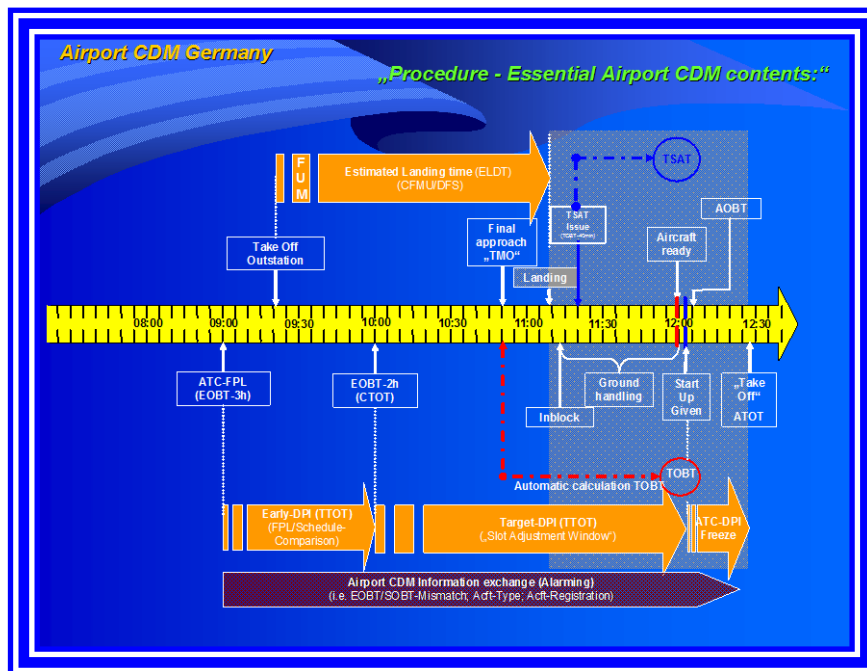


## Airport CDM@SXF

### 2. Procedure

#### 2.1. Procedure overview

This chart depicts the scope of the Airport CDM procedure at SXF 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 Push Back** – section 2.6





## Airport CDM@SXF

### 2.2.4. Early DPI – data exchange with the NMOC

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

Flights with an E-DPI are marked in the 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 090105**  
**-TAXITIME 0019**  
**-TTOT 1844**  
**-SOBT 1825**  
**-SID CHIEM4S**  
**-ARCTYP A320**  
**-REG DAIPU**  
**-IFPLID 99774423**  
**-ORGN EDDBYDYA**

Combination of different flight Information  
1. Early DPI towards CFMU



## Airport CDM@SXF

### 2.2.5. Target-DPI - data exchange with the 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 the NMOC in the same way as the E-DPI.

The T-DPI is used to transmit a Target Take-Off Time (TTOT) to the 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 the NMOC.

#### Example of a Target DPI:

- TITLE DPI
- DPISTATUS TARGET
- ARCID DLH3354
- ADEP EDDB
- ADES LTBA
- EOBT 1825
- EOBD 090105
- TAXITIME 0019
- TTOT 1844
- SID CHIEM4S
- ARCTYP A320
- REG DAIPU
- IFPLID 99774423
- ORGN EDDBYDYA

Combination of different flight Information  
1. Target DPI towards CFMU



## Airport CDM@SXF

### 2.2.6. Flight Update Message (FUM) – data exchange with the NMOC

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

- estimated landing time (ELDT) minus 3h
- modification of the ELDT by 5min 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 estimated in block time (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).

### 2.2.7. Airport CDM Alerts possible

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

<u>CDM01</u>	<u>No Airport Slot available, or Slot already correlated</u>
<u>CDM02</u>	<u>SOBT vs EOBT discrepancy</u>
<u>CDM03</u>	<u>Aircraft Type discrepancy</u>
<u>CDM04</u>	<u>Registration discrepancy</u>
<u>CDM05</u>	<u>First Destination Discrepancy</u>
<u>CDM07</u>	<u>EIBT+MTTT Discrepancy with EOBT</u>
<u>CDM07a</u>	<u>EIBT+MTTT Discrepancy with TOBT</u>
<u>CDM08</u>	<u>EOBT Compliance Alert</u>
<u>CDM13</u>	<u>No ATC Flight Plan Available</u>

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

Combination of different flight Information  
Inbound information and Alerting





## Airport CDM@SXF

### 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 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 for push-back 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

At fixed times, a TOBT for the linked outbound flight is generated automatically.

The earliest time for the publication of the automatically generated TOBT is ELDT -30min. or EOBT -90min., whichever arrives later.

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:  $EIBT + MTTT > EOBT$
- TOBT for flights with a CTOT only: if: TOBT + EXOT is before or inside the Slot Tolerance Window

If the TOBT is not automatically generated, it has to be entered by the person responsible for the TOBT as described in section 2.3.3.

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 at ELDT-30min. or EOBT-90min., whichever arrives later.

Target Off Block Time - TOBT  
Definition and automatic generation



## Airport CDM@SXF

### 2.3.2. Person responsible for the TOBT

Airlines have to ensure:

- the nomination of one person responsible for the TOBT,
- the communication with the relevant airline (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 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.

### 2.3.3. 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-100min.
- 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
- the entered TOBT has to deviate from itself by at least more than 5min

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 15min, the airline has to initiate an additional delay message (DLA, CHG). This new EOBT has to be based on the last TOBT.



## Airport CDM@SXF

### 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.

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

### 2.3.6. Cancel-DPI – Data exchange with NMOC

As soon as the TOBT for a flight is deleted, a C-DPI message is transmitted to the NMOC. The flight is no longer subject to the special handling process for flights from CDM airports. Then the CTOT is issued on the basis of the flight plan data available at the NMOC until a new DPI (triggered by the new TOBT input) is available for the flight.

**-TITLE DPI**  
**-DPISTATUS CNL**  
**-ARCID DLH3354**  
**-ADEP EDDB**  
**-EOBT 1825**  
**-EOBD 090105**  
**-REASON TOTUNKOWN**  
**-ADES LTBA**  
**-IFPLID 99774423**  
**-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.

Target Off Block Time - TOBT  
Deletion / Cancel DPI / Change of aircraft



## Airport CDM@SXF

---

### 2.3.8. TOBT reporting channels

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

- AOE – Airport Operational Extranet
- AODB – Airport Operational Data Base
- TFDPS – Tower Flight Data Processing System
- Airport Control Center (ACC)
- Interfaces from AO/GH

#### For general aviation flights:

- The CDM process is obligatory for all IFR-Flights. The concerning cockpit crews or the assigned ground handling agent is obligated to enter, update and check the TOBT at any time.

Target Off Block Time - TOBT  
Reporting channels



## Airport CDM@SXF

---

### 2.3.9. 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
- CDM11a           Flight not compliant with TOBT for deicing
- CDM14            Automatic TOBT Generation not possible

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

Target Off Block Time - TOBT  
Alerting



## Airport CDM@SXF

### 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 the flights with a calculated TSAT.

#### 2.4.1. Publication of the TSAT

The TSAT is published 40min prior to the valid 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 Intervall (MDI)
- Variable taxi time
- Parking position
- Runway in use
- Landing direction
- Aircraft de-icing (only onstand-de-icing)

Target Start Up Approval Time – TSAT  
Definition and calculation



## Airport CDM@SXF

### 2.4.2. TSAT reporting channels

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

- AOE – Airport Operational Extranet
- AODB – Airport Operational Data Base
- TFDPS – Tower Flight Data Processing System
- Airport Control Center (ACC)

TSAT or changes of the TSAT will be reported by the person responsible for the TOBT to the Flight Crew/pilot.

Target Start Up Approval Time – TSAT  
Reporting channels and changes



## Airport CDM@SXF

### 2.4.3. Target-DPI „Sequenced“ – data exchange with the NMOC

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

Flights for which a T-DPI message with the status "sequenced" has been transmitted have a particular 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 on; otherwise the T-DPI (s) for regulated flights is issued at the actual start-up time (ASAT).

The transmission of a "Ready" message is no longer required for regulated flights with the T-DPI "Sequenced" (an additional T-DPI can be generated manually if necessary).

The CTOT is adjusted to the local 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 the NMOC.

Examples of the target DPI (status sequenced):

- TITLE DPI
- DPISTATUS SEQ
- ARCID DLH3354
- ADEP EDDB
- ADES LTBA
- EOBT 1825
- EOBD 090105
- TAXITIME 0019
- TTOT 1844
- SID CHIEM4S
- ARCTYP A320
- REG DAIPU
- IFPLID 99774423
- ORGN EDDBYDYA

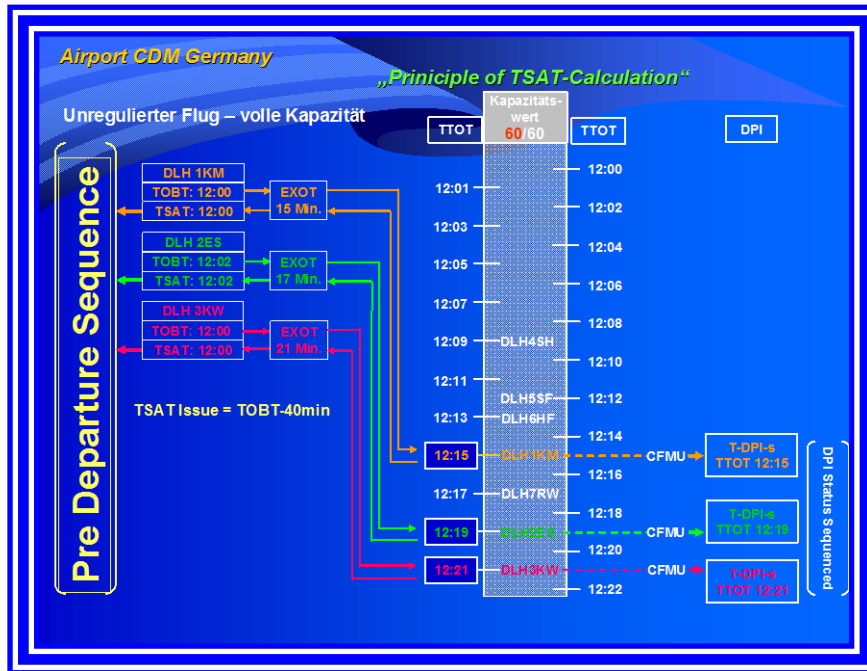
Target Start Up Approval Time – TSAT  
Target DPI „Sequenced“ towards CFMU





**Airport CDM@SXF**

**2.4.4. Example of TSAT and DPI generation**



Target Start Up Approval Time – TSAT  
Example of Pre Departure Sequencing / change/ adverse situations / alerting

**2.4.5. Changes within the sequence**

After the TSAT has been calculated, flights within the area of responsibility of a person responsible for the TOBT can be switched. Flights with CTOT cannot be switched. If flights have a CTOT, it must be assured that these flights can still stick to the slot after the sequence change.

**2.4.6. TOBT and TSAT handling in extreme situations**

If the TOBT and the TSAT deviate from each other by more than 90min, the ground handling process has to be completed before the TOBT. This does not apply to passenger boarding. Passenger boarding has to be completed latest at TSAT -60 min.

**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
- CDM12          TSAT Not Respected by ATC

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



## Airport CDM@SXF

### 2.5. De-icing

#### 2.5.1. De-icing on position

In the case of an apron de-icing, the aircraft has to be ready for de-icing at TOBT. It must have been de-iced at TSAT.

#### 2.5.2. Remote de-icing

Aircraft de-icing times must not be taken into account for the calculation of the TOBT, because de-icing request and the approximately de-icing period will be the basis for the calculation of the TSAT. Therefore de-icing should be requested as early as possible.

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

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

**-TITLE DPI  
-DPISTATUS SEQ  
-ARCID DLH3354  
-ADEP Eddb  
-ADES LTBA  
-EOBT 1825  
-EOBD 090105  
-TAXITIME 0019  
-TTOT 1844  
-SID CHIEM4S  
-ARCTYP A320  
-REG DAIPU  
-IFPLID 99774423  
-DEPSTATUS DEICING  
-ORGN EDDBYDYA**

Aircraft De-Icing



**Airport CDM@SXF**

**2.6. Start-Up and Push-Back**

Start-up (actual start up approval time - ASAT) and push-back (actual off block time - AOBT) clearances are issued taking into account the TOBT and TSAT. The following rules shall apply:

- The aircraft has to be ready for start-up and/or remote de-icing at TOBT.
- in principle the timeframe for start-up approval and en-route clearance is TSAT +/- 5min
  - The pilot should request start-up approval and en-route clearance TSAT +/- 5min.
  - *Schönefeld GROUND* issues the 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 *Schönefeld GROUND* has to be informed. Otherwise the 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 the start-up approval and en-route clearance by Clearance Delivery).

**„Start Up approved TSAT <hh:mm>“**

The push-back/taxi clearance has to be requested at TSAT +/-5 min.

Example:

*Airport CDM Germany*  
*„Datalink Departure Clearance“*

DCL including Start Up approval and en route clearance	DCL only with en route clearance
QU QKSZMEKS .MUCDFYA 110454 CLD AN D-AHFZ/MA 767A - /MUCDFYA.DC1/CLD 0454 070311 EDDM PDC 001 HLF111 CLRD TO LPFR OFF 26L VIA AMPEG1S SQUAWK 3553 ADT MDI NEXT FREQ 121.775 AT IS D STARTUP APPROVED TSAT 05:00	QU QKSZMEKS .MUCDFYA 110818 CLD AN D-ACPQ/MA 891A - /MUCDFYA.DC1/CLD 0818 070311 EDDM PDC 001 DLH06M CLRD TO LFBO OFF 08R VIA AMPEG1E SQUAWK 3545 ADT MDI NEXT FREQ 121.725 AT IS J STANDBY ON 121.725 FOR STARTUP TSAT 08:30

**Start Up and Push Back  
Datalink Departure Clearance – DCL - / Remote Holding**



## Airport CDM@SXF

### 2.6.2. ATC-DPI (A-DPI) – data exchange with the NMOC

At the Actual Off-Block Time an A-DPI will be sent to NMOC. The “slot adjustment window” is closed and the CTOT can no longer be changed automatically by NMOC.

#### Beispiel ATC DPI

-TITLE DPI  
-DPISTATUS ATC  
-ARCID DLH3354  
-ADEP EDDB  
-ADES LTBA  
-EOBT 1825  
-EOBD 090105  
-TAXITIME 0019  
-TTOT 1844  
-SID CHIEM4S  
-ARCTYP A320  
-REG DAIPU  
-IFPLID 99774423  
-ORGN EDDBYDYA

Actual Off Block  
1. ATC DPI towards CFMU



## Airport CDM@SXF

### 3. Common Situational Awareness / Information Sharing

Transparency for all partners involved is the basis for conducting the Airport CDM process. IT interfaces, dialogue systems, alert messages, data exchange with the NMOC, telephone coordination etc. ensure common situational awareness.

#### 3.1. CSA Tool

The Access to the CSA Tool (AOE) can be ordered by the handling agents and airlines from the FBB. The training is being organized by the FBB.

F	St.	ARCID	ADES	SOBT	EOBT	TOBT	#	TSAT	Prio	AOBT	RTOT	STOT	TTOT	CTOT	POS	TYP	REG	RWY	RMH	VA	SID	DPI	Zu.	Rotation	MM
●	RDY	LOT356	EPGD	1815	1755						1807	1807			C2	E170			<input type="checkbox"/>	PP		TDP		LOT355	●●●●●●●●●●
●	SBY	KLM1701	EHAM	1130	1029									1144	V155	E190	25R		<input type="checkbox"/>	PC	SULUS5S	CDP	GHD	KLM1701	●●●●●●●●●●
●	SUG	KLM1702	EHAM	1140	1146						1203	1320	1700		C8	E190	25R		<input type="checkbox"/>	PC	SULUS4S	SDP	APR	KLM1702	●●●●●●●●●●
●	SUG	KLM1703	EHAM	1230	1211									1700	V170	E190	25R		<input type="checkbox"/>	PC	SULUS4S	SDP	APR	KLM1703	●●●●●●●●●●
●	SUG	KLM1704	EHAM	1400	1350						1359	1520	1700		S404	E190	25R		<input type="checkbox"/>	PC	SULUS4S	SDP	APR	KLM1704	●●●●●●●●●●
●	SUG	KLM1705	EHAM	1410	1359						1411	1648	1700		W11	E190	25R		<input type="checkbox"/>	PC	SULUS4S	SDP	APR		●●●●●●●●●●

Status	Zeitstempel	TTOT	Regel	Beschreibung
S	03.12.10 1636	03.12.10 1648	20	
S	03.12.10 1515	03.12.10 1527	19	
T	03.12.10 1515	03.12.10 1411	55	
E	03.12.10 1515	03.12.10 1411	54	

```

-DPISTATUS SEQ
-ARCID KLM1705
-ADEP EDDF
-ADES EHAM
-EOBT 1259
-EOBD 101203
-TAXITIME 0012
-TTOT 1548
-SID SULUS4S
-ARCTYP E190
-ORGN EDDFYDYD
    
```



**Airport CDM@SXF**

**3.2. Dialog „AOE“**

The complete sequence can be monitored in a browser of the Web-application for Sequence-Planning (AOE).

The dialog AOE is available at SXF airport (Ground Handling Agent), or remote (Airline OCC).

Dependant to access permission the user has the possibility to get detailed flight informations to assigned flights, to put in or change TOBT and to apply for Remote Holding.

AO/GH can request the internetdialog “AOE” from FBB free of cost.

Example AOE view of the sequence:

The screenshot displays the AOE (Sequence-Planning) web application interface. At the top, there is a navigation bar with options like 'Aktion', 'Bearbeiten', 'Anwendungen', 'Hilfe', and 'Dienste'. Below this is a search bar with a 'Suchen' button. The main area is a 'Flight Grid' table with columns for flight details and status. A red 'Muster' watermark is overlaid on the grid. Below the grid, there are three detailed panels: 'Ankunft' (Arrival), 'Flugzeug' (Aircraft), and 'Abflug' (Departure). The 'Ankunft' panel shows flight AB 8873 with details like call sign, status, and arrival times. The 'Flugzeug' panel shows aircraft registration A320 and position (HOLD). The 'Abflug' panel shows departure details like gate, time, and status. At the bottom, there is a status bar with 'online' and '10:48 local'.



**Airport CDM@SXF**

**3.3. Display system of the 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 (collaboration human machine interface - CHMI).

Access to the NMOC CHMI can be requested from Eurocontrol online:

[www.eurocontrol.int](http://www.eurocontrol.int)

**3.3.1. CHMI flight list**

The flight list contains information on:

- TTOT
- transmitted DPI type
- IFPS inconsistencies
- EOBT inconsistencies
- „Ready status“

**„Eurocontrol CHMI – Flight list“**

AD EDDM D Flight List at 30-10-37 / ATFCM

TFC Type: Traffic Load | Where: Aerodrome | Compare: Requested Demand

Legend: Last sent DPI message = Target Take Off Time + DPI type:  
 10:00e = Early DPI  
 10:00t = Target DPI Target  
 10:00s = Target DPI Sequenced  
 10:00a = ATC DPI  
 c = Cancel DPI (TTOT unknown)

FLIGHT	STA	ARC/DI	ATYP	ADEP	ADRS	D	T	ARF	TOBT	U	E/CTOT	X	F	S	N	A/TTOT	DPI	
10:00A		E145	ED08	EF20	A	370	09:50	10:35C	c	I	10:20A							
10:24A	BER390	B738	ED08	LEAL	A	370	09:40	10:30C	c	I	10:24A							
10:26A	GW149	A319	ED08	ED08	A	280	10:10	10:35C	c	I	10:26A							
10:26A	EW170	A320	ED08	L793	A	370	09:55	10:31C	c	I	10:26A							
10:20A	BER190	B738	ED08	LEFA	A	370	09:45	10:35C	c	I	10:20A							
10:28A	BER190	B772	ED08	KIAD	A	360	09:40	10:30C	c	I	10:28A							
10:30A	1U	KLM1794	E190	ESAM	A	240	10:15	10:31E	c	I	10:30A							
10:31A	BER77	B712	ED08	SG06	A	240	10:10	10:35C	c	I	10:31A							
10:31A	EW170	A319	ED08	EULL	A	380	09:55	10:34C	c	I	10:31A							
10:33A	BER463	A319	ED08	ED08	A	300	10:20	10:36E	c	I	10:33A							
10:33A	EZ7499	A319	ED08	ED08	A	380	09:50	10:35C	c	I	10:33A							
10:36A	EW170	A343	ED08	BER1	A	390	10:00	10:41C	c	I	10:36A							
10:37E	D09240	B60	ED08	ET1E	I	080	10:20	10:37E	M	I	c							
10:39A	A332	ED08	ED08	ED08	T	410	10:10	10:36C	F	I	10:39A							
10:39A	BER328	A320	ED08	E507	T	280	10:10	10:36E	F	I	10:39A							
10:39E	D09242	B60	ED08	ET1E	I	080	10:25	10:39E	M	I	10:39E							
10:42A	1F	DL414	A333	ED08	CVUL	T	380	09:50	10:42C	F	I	10:42A						
10:46A	IFE1085	A320	ED08	ED08	T	280	10:10	10:46A	F	I	10:46A							
10:48A	TAL907	B772	ED08	ED08	T	380	09:50	10:50E	F	I	10:48A							
10:54A	ANC307	A319	ED08	ED08	T	280	10:10	10:54E	F	I	10:54A							
10:56A	DL178C	A772	ED08	ED08	T	440	10:10	10:56E	F	I	10:56A							
11:05C	1F	DL101	A332	ED08	T	410	10:10	11:05C	M	I	11:05C							
11:09C	TAF557	A319	ED08	ED08	T	280	10:10	11:09C	M	I	11:09C							
11:11C	DL101	A319	ED08	ED08	T	280	10:10	11:11C	M	I	11:11C							
11:14A	BER900	B619	ED08	ED08	T	280	10:10	11:14E	F	I	11:14A							
11:15C	BER900	B619	ED08	ED08	T	280	10:10	11:15C	M	I	11:15C							
11:16A	1F	DL101	A320	ED08	T	410	10:10	11:16A	F	I	11:16A							
11:17A	VL0514	ATP	ED08	ED08	T	280	10:10	11:17E	F	I	11:17A							
11:18C	BER991	A320	ED08	ED08	T	240	10:50	11:18C	M	I	11:18C							
11:20C	AR132	A321	ED08	ED08	T	321	11:05	11:20C	M	I	11:20C							
11:20E	1U	SPB647	B738	ED08	L793	T	360	11:05	11:20E	F	I	11:20E						

IFPS Discrepancy in red (Aof Typ/Registration)

Ready status due to T-DPI s

Route: NO412F360 ANKER Y104 HANOR UL132 RENKI/NO411F370 UL132 BOELA UT705 CHO UL730 DEZIR



## Airport CDM@SXF

### 3.3.2. CHMI flight data

Details on the Airport CDM data exchange are given for selecting individual flights from "Flight Data" (directly or from the flight list).

**Airport CDM Germany**  
„Eurocontrol CHMI – Flight data window“

AC SDM258 Flight Data at 30-10:45 / ATFCM

IOED: 30-10-2010 10:15  
ARCID: SDMSB ADEP EDDM ADES ULLI

AO: SDM Aircraft Type: A319 Registration Mark: CEQPT DIRSWY  
OPR AO: SDM Initial RFL: 370 RVR  
FPL Origin

Time  
Last EOBT: 30-10-10 Prop CTOT: Resp By: Flight Type: IFPL Late Flr: M  
ETOT: 10:23 EET: 137 ETA: 12:39 Exempt Flight: N Late Update: M  
CTOT: 11:15 Tail: 13 CTA: 13:31 RFI: Y TIS: 5  
ATOT: Actual Taxi: 13 ATA: REA: Y TRS: 20

Airport  
Status: Targeted AO Target TOT: 10:23 TW: [11:10,11:25]  
SID: EGG5 Aircraft Type: A319 Registration Mark: VQBAQ (1)  
No Slot Before: 10:2

Route  
NO455F370 EGG5 R871 DOKEU UP733 RMI UP 94 GOMED R801 RUSNE UR90 940S1110 B170 KE

Regulation  
FLS Resp By: RFP Resp By: Regulation: FCN: Ref Location  
Rerouting Ref: Skt Tol W: EPT30 AS EFWT  
EPE30 AS EFWT  
Delay: 52

IFPS inconsistencies in red

DPI Status

DPI TTOT

Flight Data query finished with success

### 3.3.3. CHMI operational log

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

**Airport CDM Germany**  
„Eurocontrol CHMI – Operational Log“

AC DAL903 Operational Log at 30-10:51 / ATFCM

IOED: 30-10-2010 09:40 From: Thu 29 Jul 2010 at 00:00  
ARCID: UAL903 ADEP EDDM ULLI Sat 31 Jul 2010 at 00:00

T	Stamp	Spool Type
A	30-05:21:43	IM FPL
A	30-05:28:00	IM DPT
A	30-05:40:00	IM S4E
A	30-07:40:03	IM DPT
A	30-08:13:39	IM DPT
A	30-09:15:48	IM DPT
A	30-09:34:10	IM SID_INFO_CHANGE
A	30-09:34:10	IM DPT
A	30-10:03:37	IM DPT
A	30-10:20:07	IM DPT
A	30-10:20:25	IM FSA
A	30-10:25	IM NEW_PREDICTION
A	30-10:31:56	IM AIRBORNE_REPORT_CHANGE
A	30-10:31:56	IM DPT
A	30-10:31:56	IM REPORT_DISCARDED
A	30-10:31:41	IM FSA
A	30-10:33:02	IM NEW_PREDICTION
A	30-10:34:02	IM NEW_PREDICTION
A	30-10:34:02	IM NEW_PREDICTION

TACT\_ID: 32 Correspondent: EDDMYDVE @AFIN  
@PPL\_ID: @PLOG\_ID:

Received From: EDDMYDVE @AFIN. Est. Xmit at: 10/07/30 06:40:00. Message description: -TITLE DPT  
-DPTFA US EARLY  
-ARCID DAL903  
-ADEP EDDM  
-ADES KIAD  
-ROBT 0940  
-ROBD 100730  
-TACTIMS 0013  
-TTOT 0953  
-ROBT 0940  
-SID MI068  
-ARCTYP B772  
-REG N7810A  
-ORGN EDDMYDVE

Selektierte Meldung

Darstellung aller gesendeten und empfangenen Meldungen

Flight Operational Log query finished with success





---

**Airport CDM@SXF**

---

**3.4. 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.

**3.4.1. 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.

**3.4.2. 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).

**3.4.3. Airport CDM alert messages****CDM01 “No Airport Slot available, or Slot already correlated”**

*DLH1AB/LH123*

*CDM01*

*1002171200UTC*

*SXF/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*

*1002171200UTC*

*SXF/EDDB (IATA/ICAO Location Indicator)*

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

*IMMEDIATE UPDATE OF AIRPORT SLOT OR ATC FLIGHT PLAN EOBT NEEDED.*



---

## Airport CDM@SXF

---

### **CDM03 “Aircraft Type discrepancy”**

DLH1AB/LH123

CDM03

1002171200UTC

SXF/EDDB (IATA/ICAO Location Indicator)

AIRCRAFT TYPE INCONSISTENCY BETWEEN ATC FLIGHT PLAN <ARCTYP>  
AND AIRPORT DATABASE <TYP>.

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

1002171200UTC

SXF/EDDB (IATA/ICAO Location Indicator)

AIRCRAFT REGISTRATION INCONSISTENCY BETWEEN ATC FLIGHT PLAN  
<REG> AND AIRPORT DATABASE <REG>.

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

1002171200UTC

SXF/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.



---

**Airport CDM@SXF**

---

*NOTE: PLEASE CLARIFY WITH AIRPORT TRAFFIC OPERATION CENTER TEL:  
+49 30 6091 5106.*

**CDM06 "Non-Airborne Alert"**

*DLH1AB/LH123*

*CDM06*

*1002171200UTC*

*SXF/EDDB (IATA/ICAO Location Indicator)*

*NO INFORMATION THAT INBOUND FLIGHT IS AIRBORNE, EIBT 1200 MIGHT  
NOT BE RESPECTED.*

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

**CDM07 "EIBT + MTTT discrepancy with EOBT"**

*DLH1AB/LH123*

*CDM07*

*1002171200UTC*

*SXF/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*

*1002171200UTC*

*SXF/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.*



## Airport CDM@SXF

---

### **CDM08** “EOBT Compliance Alert”

DLH1AB/LH123

CDM08

1002171200UTC

SXF/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.

### **CDM09** “Boarding Not Started”

DLH1AB/LH123

CDM09

1002171200UTC

SXF/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

1002171200UTC

SXF/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.



## Airport CDM@SXF

---

### **CDM11 "Flight not compliant with TOBT / TSAT"**

DLH1AB/LH123

CDM11

1002171200UTC

SXF/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.

### **CDM11a "Flight not compliant with TOBT for deicing"**

DLH1AB/LH123

CDM11a

1002171200UTC

SXF/EDDB (IATA/ICAO Location Indicator)

FLIGHT NOT COMPLIANT WITH TOBT 1300. DEICING COULD NOT BE INITIATED.

UPDATE OF TOBT NEEDED.

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

### **CDM12 "TSAT Not Respected by ATC"**

DLH1AB/LH123

CDM12

1002171200UTC

SXF/EDDB (IATA/ICAO Location Indicator)

AT TSAT 1300 + 5 MINUTES AIRCRAFT HAS NOT BEEN GRANTED START UP OR PUSHBACK.

THIS FLIGHT NEEDS TO BE RESEQUENCED.



## Airport CDM@SXF

---

### **CDM13 “No ATC Flight Plan Available”**

*NO ARCID/LH123*

*CDM13*

*1002171200UTC*

*SXF/EDDB (IATA/ICAO Location Indicator)*

*THE ATC FLIGHT PLAN IS NOT AVAILABLE.*

*SUBMISSION OF NEW ATC FLIGHT PLAN NEEDED.*

*NOTE: ATC FPL <ARCID> HAS BEEN CANCELLED AND THE AIRPORT CDM PROCESS IS SUSPENDED.*

### **CDM14 “Automatic TOBT Generation not possible”**

*DLH1AB/LH123*

*CDM14*

*1002171200UTC*

*SXF/EDDB (IATA/ICAO Location Indicator)*

*THE TOBT COULD NOT BE AUTOMATICALLY GENERATED BECAUSE IT DOES NOT MATCH WITH THE ASSOCIATED CTOT 1330.*

*MANUAL INPUT OF TOBT REQUIRED.*

*NOTE: THE AIRPORT CDM PROCESS IS SUSPENDED until reception of your rectification.*



## Airport CDM@SXF

---

### 4. Publication

#### 4.1. Aeronautical Information Publication (AIP)

The Airport CDM procedure at SXF Airport will be published in the German Aeronautical Information Publication, volume II, AD2-EDDB, AD 2, "Local Traffic Regulations".

#### 4.2. Airport User Regulations (FBO)

The Airport CDM procedure at SXF Airport will be published in the airport user regulations FBO.

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

Projectmailadress:	a-cdm@berlin-airport.de
Boris Breug (FBB)	boris.breug@berlin-airport.de
Florian Witusch (FBB)	florian.witusch@berlin-airport.de
Roman Glöckner (DFS)	roman.gloeckner@dfs.de
Hendrik Wendler (DFS)	hendrik.wendler@dfs.de