

Winter Season 2021/2022

De-icing Operations

Airside Operations



Winter Season 2021/2022

Seasonal Aircraft De-Icing Plan



Luftfahrzeugenteisungsplan Frankfurt/Main ***Wintersaison 2021/2022***

Die Inhalte des Dokuments werden fortlaufend durch eine Arbeitsgruppe, bestehend aus Mitgliedern der relevanten Bereiche der Fraport AG, der FRA-Vorfeldkontrolle GmbH, der Deutschen Flugsicherung GmbH (DFS) und NICE Aircraft Services & Support GmbH überprüft, angepasst und weiterentwickelt.

Der Luftfahrzeugenteisungsplan Frankfurt/Main wird zur Referenz ebenfalls in englischer Version veröffentlicht.

Das verbindliche Dokument wird vor jeder Wintersaison durch die Fraport AG in deutscher Sprache veröffentlicht.

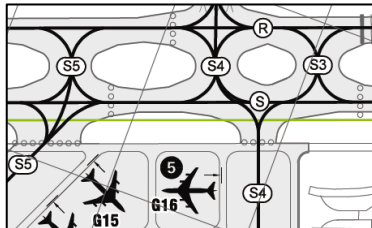
Frankfurt Aircraft Deicing Plan ***Winter Season 2021/2022***

The contents of this plan are continuously reviewed, updated and developed by a working group consisting of members from the relevant departments of Fraport AG, FRA-Apron Control GmbH, German ATC (Deutsche Flugsicherung GmbH - DFS), NICE Aircraft Services & Support GmbH.

The English Version of the Aircraft Deicing Plan is for reference purposes only. The binding document will be published in the German language before the beginning of every Winter Season by Fraport AG.

This version replaces all previously valid versions. All new additions and changes to the previously valid version are underlined.

- Chapter 11: Procedures for the De-Icing of Aircraft
- EDDF 2-5 Aerodrome Chart
- EDDF 2-9 Aerodrome Ground Movement Chart



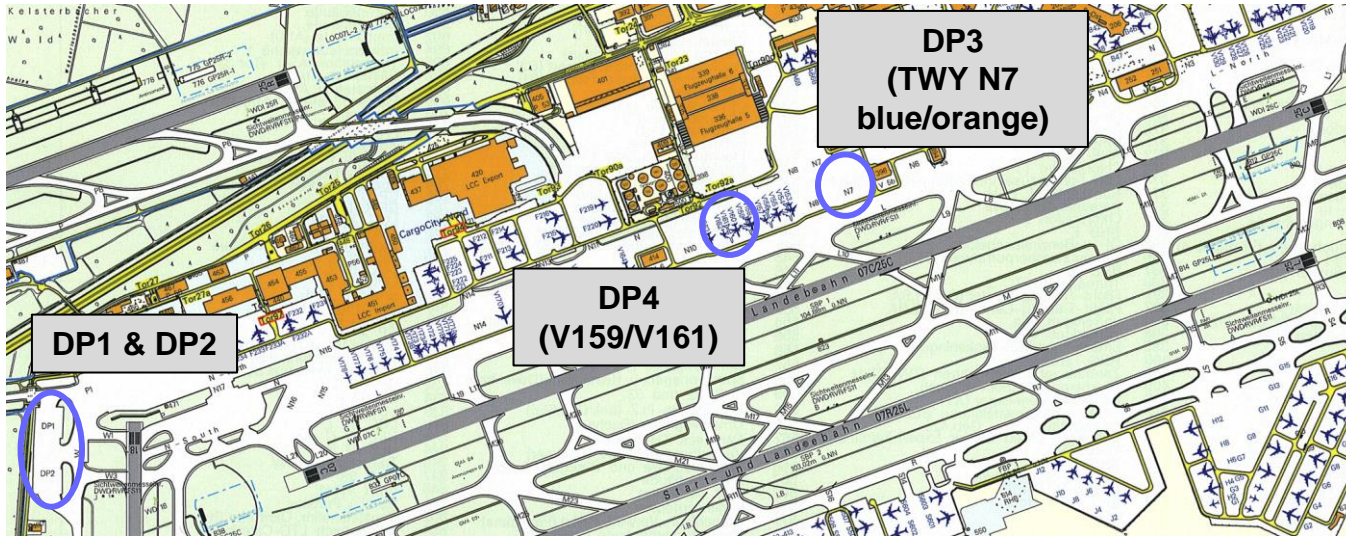
CAT IIIa and CAT IIIb (MNM RVR 75 m) approved. (EDDF AD 1.1)
TWY edge lights not shown.

- 1 Service road; in use under CAT I operational condition only.
- 2 De-icing Pad West (DPW)
 - Includes DP1 & DP2
 - DP2 East and DP2 West max. Code C
 - Pilot stop aircraft on De-icing Pad in eyeline with holding point marking/lights
 - After De-icing intersection take-off out of TWY W3 is required
- 3 4 5 Other areas for additional de-icing
 - Designators are published in the seasonal Frankfurt aircraft de-icing plan
 - Taxi instructions to the respective area for aircraft de-icing are given by apron control
 - Within the area for de-icing aircraft will be guided to the exact de-icing position by a marshaller. Adhere to the instructions given by the marshaller.

[illegible]

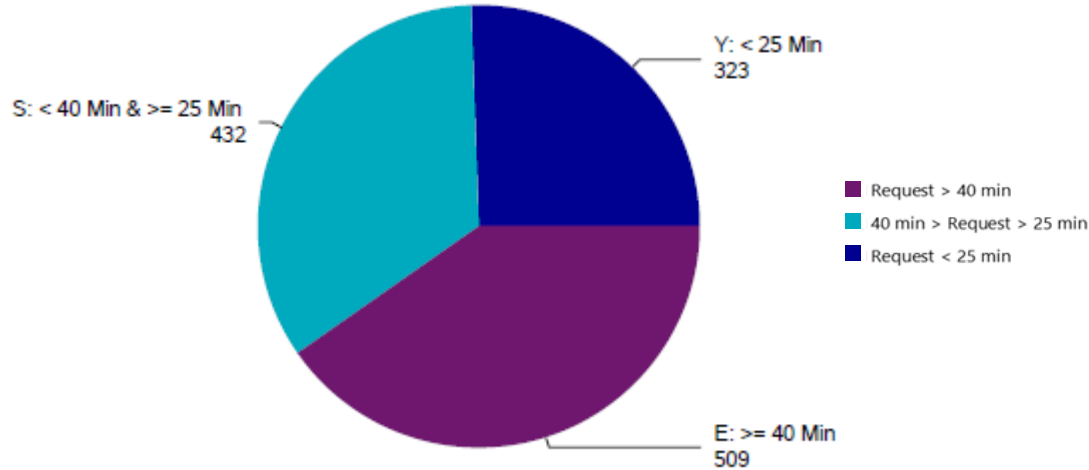
Aircraft De-Icing Pads

De-Icing Pads (DPD) for Remote De-Icing (ICE = R)



DP1	DP2E	DP2C	DP2W	DP3	DP4	DP5
Code F	Code C	Code F	Code C	Code C	Code E (2-Strahler)	Code C

Airport CDM@FRA „De-Icing request“



De-Icing Request ($ICE=E$)

VHF: 121.985 MHz „Frankfurt De-Icing“
Tel.: (0 69) 6 90 – 3 05 60

ACARS (Data-Link)
Technical infrastructure needed!

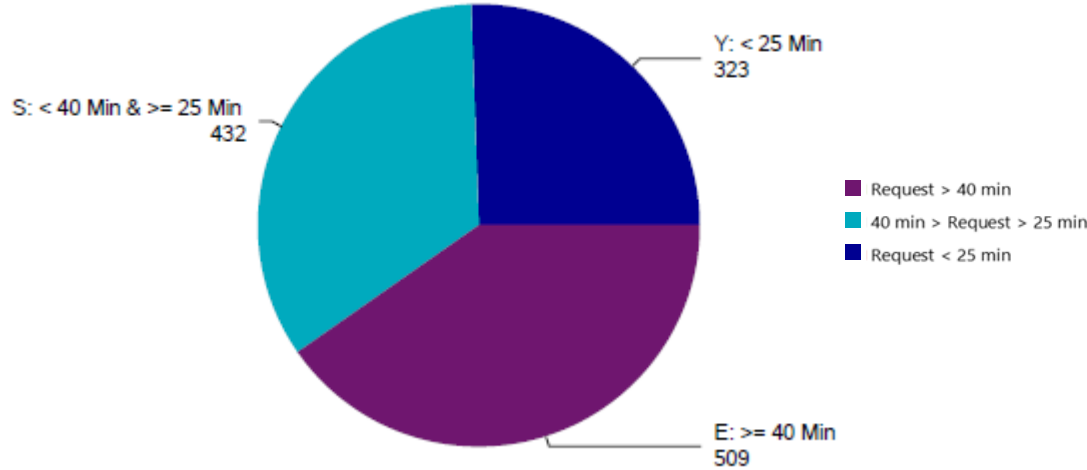


De-Icing Request ($ICE = E$):

Due to the influence that aircraft de-icing has on the sequencing process it is highly advised to request aircraft de-icing at the latest **“TOBT – 40 minutes”** (which is the time that the TSAT is published).

Airport CDM@FRA

„De-Icing request“



De-Icing Request ($ICE=E$)

VHF: 121.985 MHz „Frankfurt De-Icing“
Tel.: (0 69) 6 90 – 3 05 60

ACARS (Data-Link)
Technical infrastructure needed!



De-Icing Request ($ICE = E$):

Due to the influence that aircraft de-icing has on the sequencing process it is highly advised to request aircraft de-icing at the latest **“TOBT – 40 minutes”** (which is the time that the TSAT is published).

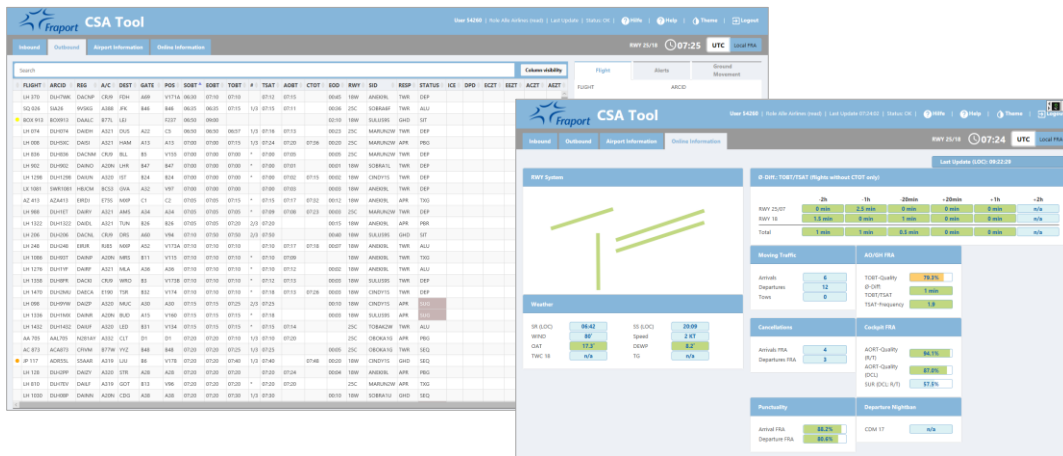
Airport CDM@FRA

„Data exchange & Information Sharing“



Information tools:

- CSA-Tool flight details incl. de-icing data
- CSA-Tool Airport Information (e.g. SNOWTAM or Snow Removal)
- CSA-Tool Online Information (e.g. Delays, current de-icing or pads opened)
- A-VDGS: De-Ice on Position – ECZT 1030 / De-Ice on Pad - DPW



Airport CDM@FRA

„CSA Tool – De-Icing display Data“



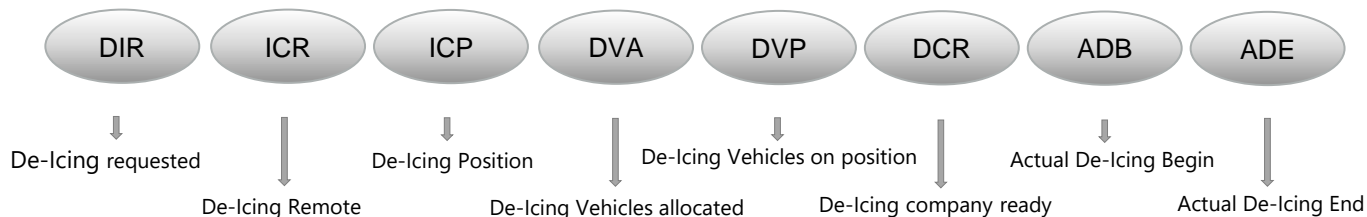
Fraport CSA Tool User 54260 | Role Alle Airlines (read) | Last Update 12:04

Inbound Outbound Airport Information Online Information

Search Column visibility

FLIGHT	ARCID	REG	A/C	DEST	GATE	POS	SOBT	EOBT	TOBT	#	TSAT	AOBT	CTOT	EOD	RWY	SID	RESP	STATUS	ICE	DPD	ECZT	EEZT	ACZT	AEZT
LH 694	DLH694	DAISI	A321	TLV	C13	C13	12:00	12:00	12:00	*	12:15		12:34	00:15	18W	CINDY1S	GHD	RDY						
LH 908	DLH7MA	DAINO	A20N	LHR	B27	B27	12:00	12:00	11:55	1/3	12:05			00:05	25C	OBOKA1M	APR	ICR	R	DP1				
LH 960	DLH8VU	DAISB	A321	GLA	Z21	A21	12:00	12:00	12:00	*	12:15			00:15	25C	OBOKA2W	GHD	DOP						
DE 2454	CFG454	DABUZ	B763	YVR	B43	B43	12:05	12:05	12:05	*	12:25			00:20	25C	MARUN5F	BGB							
LH 478	DLH478	DAIFE	A343	YUL	B23	B23	12:05	12:05	12:05		12:25			00:20	25C	OBOKA1M	GHD	ICR	R	DP3				
LH 736	DLH736	DAIFD	A343	NGO	C15	C15	12:05	12:05	12:05		12:16			00:11	25C	MARUN2W	DOP							
LH 850	DLH8RL	DAIZW	A320	HEL	A24	A24	12:05	12:05	12:05	*	12:05		12:20		25C	TOBAK2W	GHD	DOP						
LH 882	DLH882	DAIUD	A320	TLL	A52	V163	12:05	12:05	12:05	*	12:05		12:18		25C	TOBAK2W	GHD	ICP	P					
LH 1134	DLH22H	DAISC	A321	BCN	A38	A38	12:05	12:05	12:15	1/3	12:15		12:30	00:10	18W	ANEK19L	GHD	SEQ						
LH 1480	DLH3FF	DAIBJ	A319	VCE	A34	A34	12:05	12:05	12:05	*	12:19		12:34	00:14	18W	CINDY1S	GHD	DOP						
SU 2301	AFL2301	VQBCM	A320	SVO	E6	E6	12:05	12:05	12:05	*	12:10		12:30	00:05	18W	SULUS9S	GHD	BGB						

ICE status



De-Icing@FRA

Position De-Icing



ECZT

EDIT

ACZT

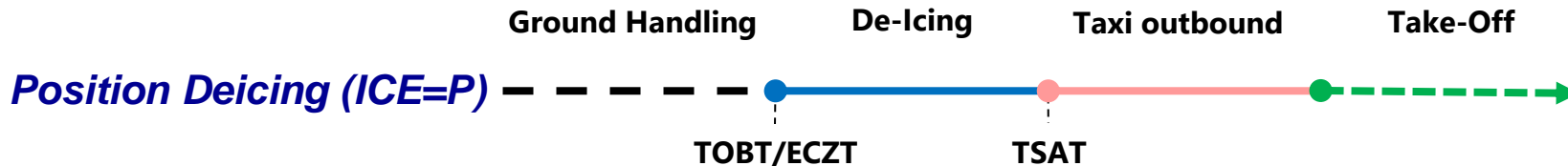
AEZT

TSAT=De-Icing end

Exception: regulated

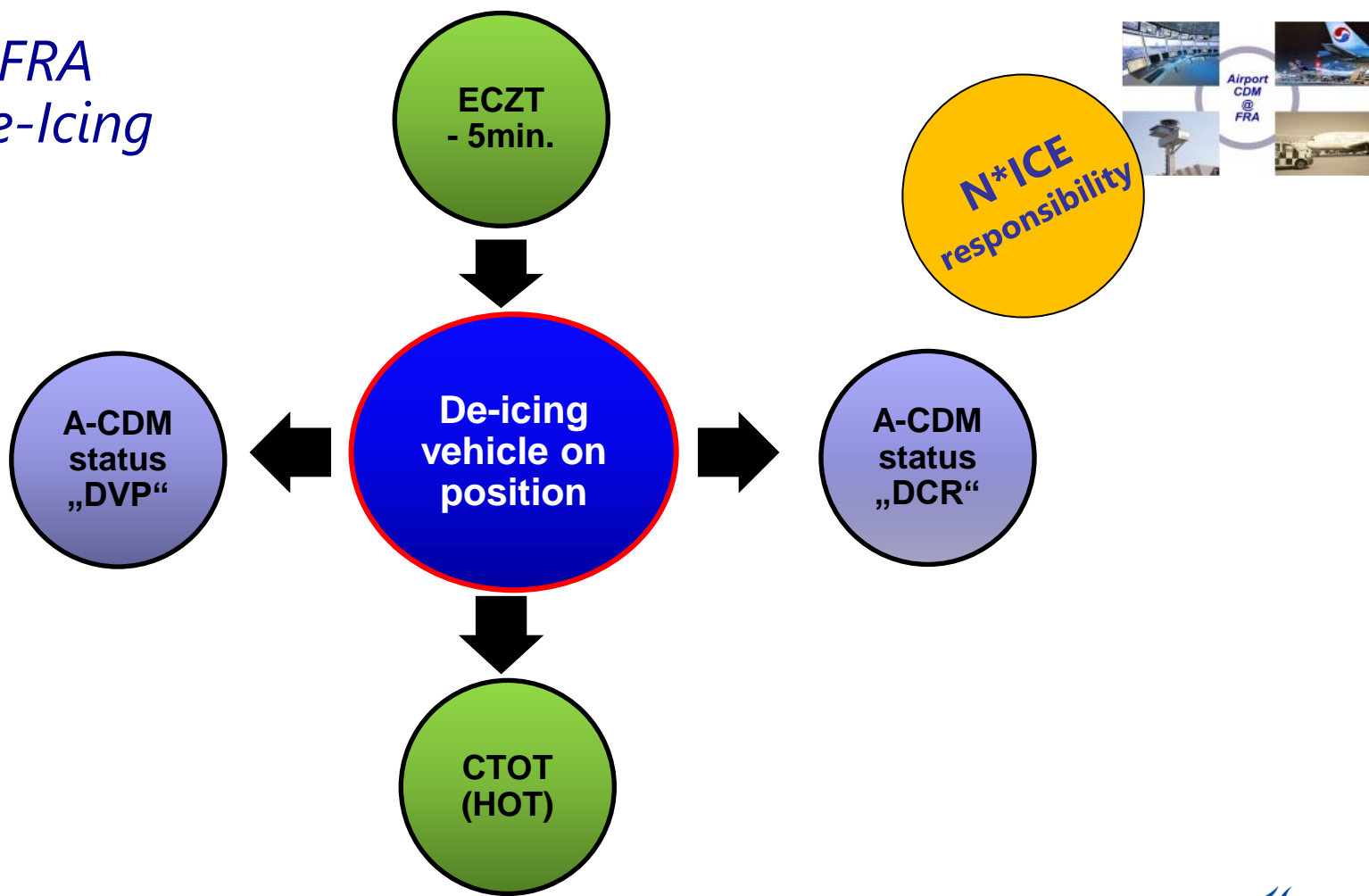
flight with CTOT!

***Pilot: „REQUEST START-
UP AFTER DE-ICING“***



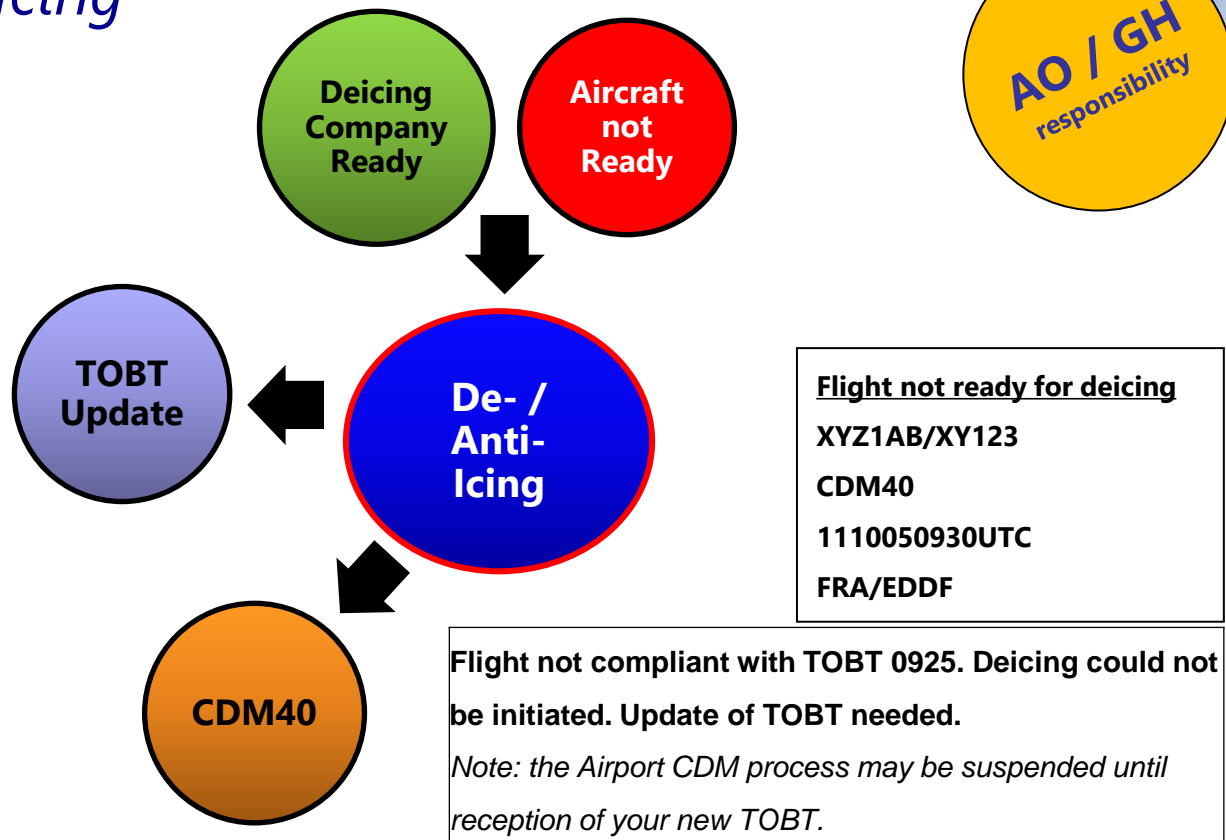
De-Icing@FRA

Position De-Icing



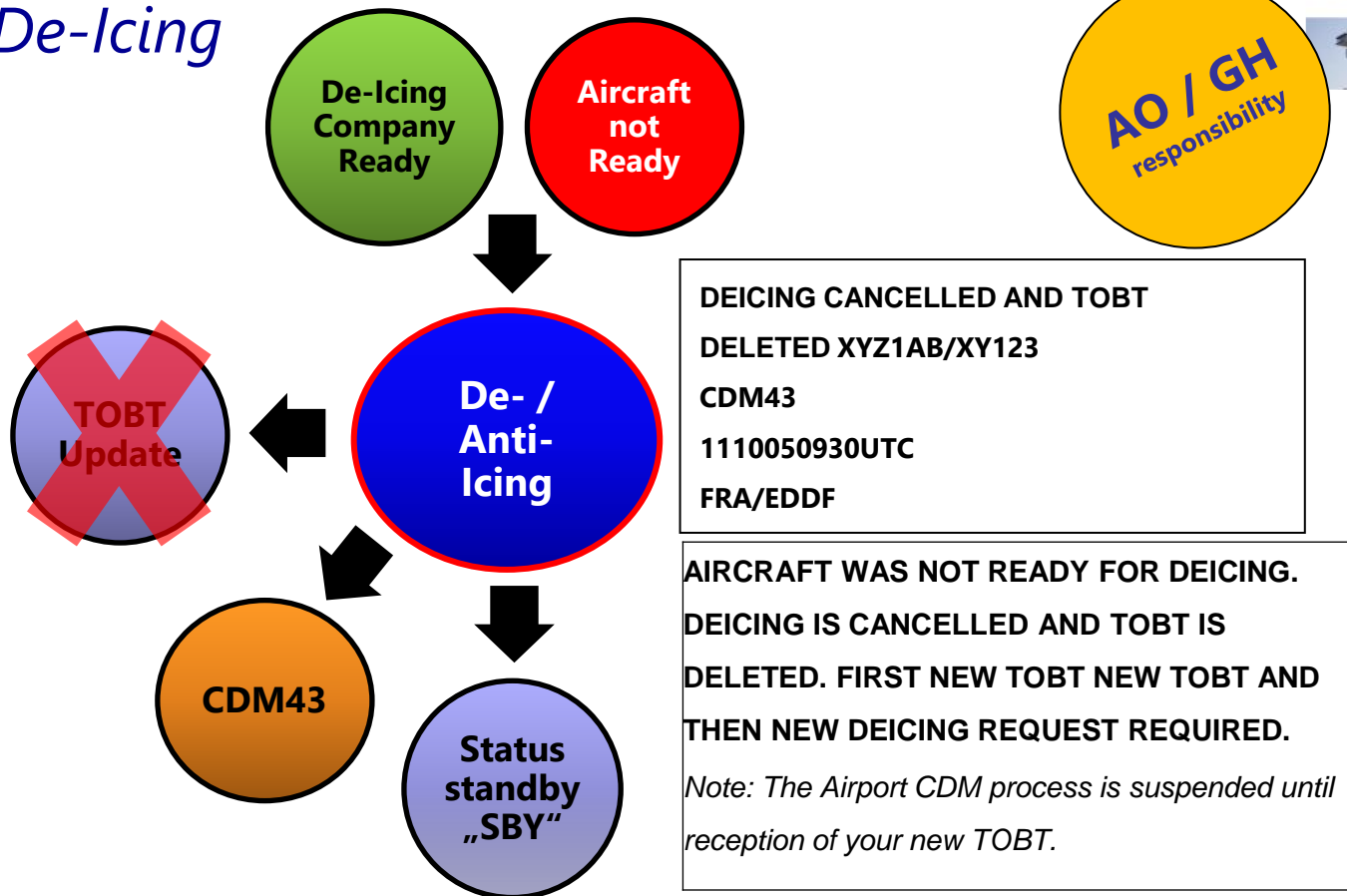
De-Icing@FRA

Position De-Icing



De-Icing@FRA

Position De-Icing



De-Icing@FRA

Remote-Deicing



Ground Handling

Taxi outbound

De-Icing

Take-Off

Remote De-Icing (ICE=R)



TOBT / TSAT

Pilot: „REQUEST START-UP FOR REMOTE DE-ICING“

ECZT will not be published – display of ACZT / AEZT

Operation Mode "simplified sequencing"

AVIATION WORLD EXPRESS (AWE) + CSA-Tool - Airport Information



Activation A-CDM Operations Mode "simplified sequencing"

DUE TO SNOWFALL OR HIGH DEICING DEMAND THE FOLLOWING PROCEDURES ARE IN USE UNTIL FURTHER NOTICE.

A SIMPLIFIED SEQUENCING IS USED FOR THE PLANNING OF DEICING AND ALLOCATION OF A DEICING LOCATION.

START-UP PROCEDURE ACCORDING TO TSAT IS STILL VALID. START-UP CLEARANCE VIA DATALINK IS NOT POSSIBLE (CHECK ATIS).

PLEASE BE ADVISED, THAT THE TSAT MAY BE DELETED FOR FLIGHTS WITH STATUS "DE-ICING REQUESTED".

THE INFORMATION TO PILOTS IN THIS CASE WILL BE: "YOU ARE LISTED FOR DE-ICING, WAIT FOR DE-ICING LOCATION"

AS SOON AS TARGET TIMES FOR YOUR FLIGHT ARE AVAILABLE, THE TSAT IS PUBLISHED AGAIN.

WE WOULD LIKE TO REMIND YOU, THAT IT IS MANDATORY TO UPDATE THE TOBT.

PLEASE MAKE SURE THAT YOUR COCKPIT IS INFORMED ABOUT ACTIVATION AND PURPOSE OF THIS OPERATIONS MODE!

WE WILL INFORM YOU UPON RESUMPTION OF NORMAL A-CDM OPERATION.

Operation Mode "A-CDM Emergency Mode"

AVIATION WORLD EXPRESS (AWE) + CSA-Tool - Airport Information



Activation A-CDM Emergency Mode

DUE TO SYSTEM DISTURBANCE OR IRREGULAR OPERATIONS FOLLOWING A-CDM PROCEDURES ARE IN USE UNTIL FURTHER NOTICE:

START-UP PROCEDURE ACCORDING TO TSAT IS STILL VALID. START-UP CLEARANCE VIA DATALINK IS NOT POSSIBLE (CHECK ATIS).

TSAT CALCULATION AND DEICING PLANNING BASED ON SIMPLIFIED PRE-DEPARTURE SEQUENCE

FOR FLIGHTS WITH DEICING, DEICING SEQUENCE IS BASED ON TOBT. TSAT FOR REGULATED FLIGHTS IS BASED ON CTOT.

PLEASE BE ADVISED, THAT THE TSAT MAY BE DELETED FOR FLIGHTS WITH STATUS "DEICING REQUESTED".

THE INFORMATION TO PILOTS IN THIS CASE WILL BE: "YOU ARE LISTED FOR DE-ICING, WAIT FOR DE-ICING LOACTION."

AS SOON AS TARGET TIMES FOR YOUR FLIGHT ARE AVAILABLE, THE TSAT IS PUBLISHED AGAIN.

FOR FLIGHTS WITHOUT DEICING:

- TSAT = TOBT FOR NON-REGULATED FLIGHTS
- TSAT = CTOT-EXOT FOR REGULATED FLIGHTS

WE WOULD LIKE TO REMIND YOU, THAT IT IS MANDATORY TO UPDATE THE TOBT.

WE WILL INFORM YOU UPON RESUMPTION OF NORMAL A-CDM OPERATIONS.

Operation Mode "Start-Up procedure according to TSAT is suspended"

AVIATION WORLD EXPRESS (AWE) + CSA-Tool - Airport Information



Start-Up procedure according to TSAT is suspended

DUE TO NON-RELIABLE QUALITY OF TARGET TIMES FOR DEPARTURE CLEARANCE, „**START-UP PROCEDURE ACCORDING TO TSAT**“ IS SUSPENDED.

PILOTS REQUEST START-UP CLEARANCE VIA R/T WHEN ACTUALLY READY.

DATALINK REQUEST FOR DEPARTURE CLEARANCE MIGHT NOT BE POSSIBLE (CHECK ATIS).

WE WOULD LIKE TO REMIND YOU, THAT IT IS MANDATORY TO UPDATE THE TOBT.

WE WILL INFORM YOU, WHEN "START-UP PROCEDURE ACCORDING TO TSAT" IS VALID AGAIN.

Your Flight – Your Contribution

Requirements for punctual de-icing:

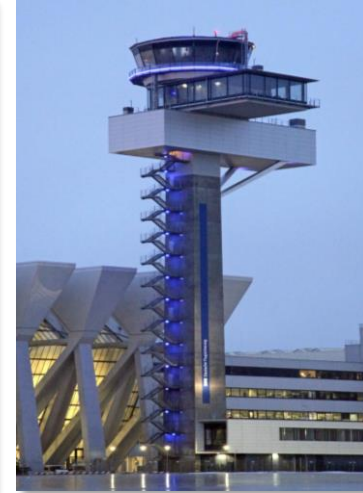
- Timely de-icing request...
- Valid TOBT as a forecast of...

... "Aircraft ready for De-Icing"



Summary

- We need process reliability:
 - early de-icing request
 - **high quality of TOBT at all times**
- Transparency and exchange of information support decision making.
- **We all get better predictability and stability of processes during winter operations.**
- **One question remains: How strong is a winter event really?!**



***Adverse Conditions
Chaotic Situation
Severe Disruption***



Airport CDM@FRA

We gladly support you!



Service

- Requests concerning specific flights
 - -> We need flight number and date of flight
- Aircraft Operator Performance Report
 - -> For Airlines and staff responsible for TOBT
- Registration for CSA Tool and changes of TOBT Responsibility
- Customized consulting and training
- Registration of A-CDM Alert email addresses
- Procedure documents and information
- Documents and training material
- Actual information



<https://cdm.frankfurt-airport.com>

A wide-angle photograph of an airport tarmac at sunset. The sky is a mix of orange, pink, and purple. In the foreground, a runway with green lights leads towards the center. In the middle ground, a large white airplane with "STAN AL" and a red circular logo on its tail is parked. Other smaller aircraft and ground service vehicles are visible. The airport terminal and control tower are in the background, illuminated by lights.

Gute Reise!
We make it happen