

Supporting
European
Aviation



ICAO A-CDM workshop

Milestones Approach – Airport view

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NETWORK
MANAGER



Collaborative Management of Flight Updates

**Variable Taxi
Time
Calculation**

**Collaborative
Pre-Departure
Sequencing**

**CDM in Adverse
Conditions**

Milestone Approach

Airport CDM Information Sharing

Principle



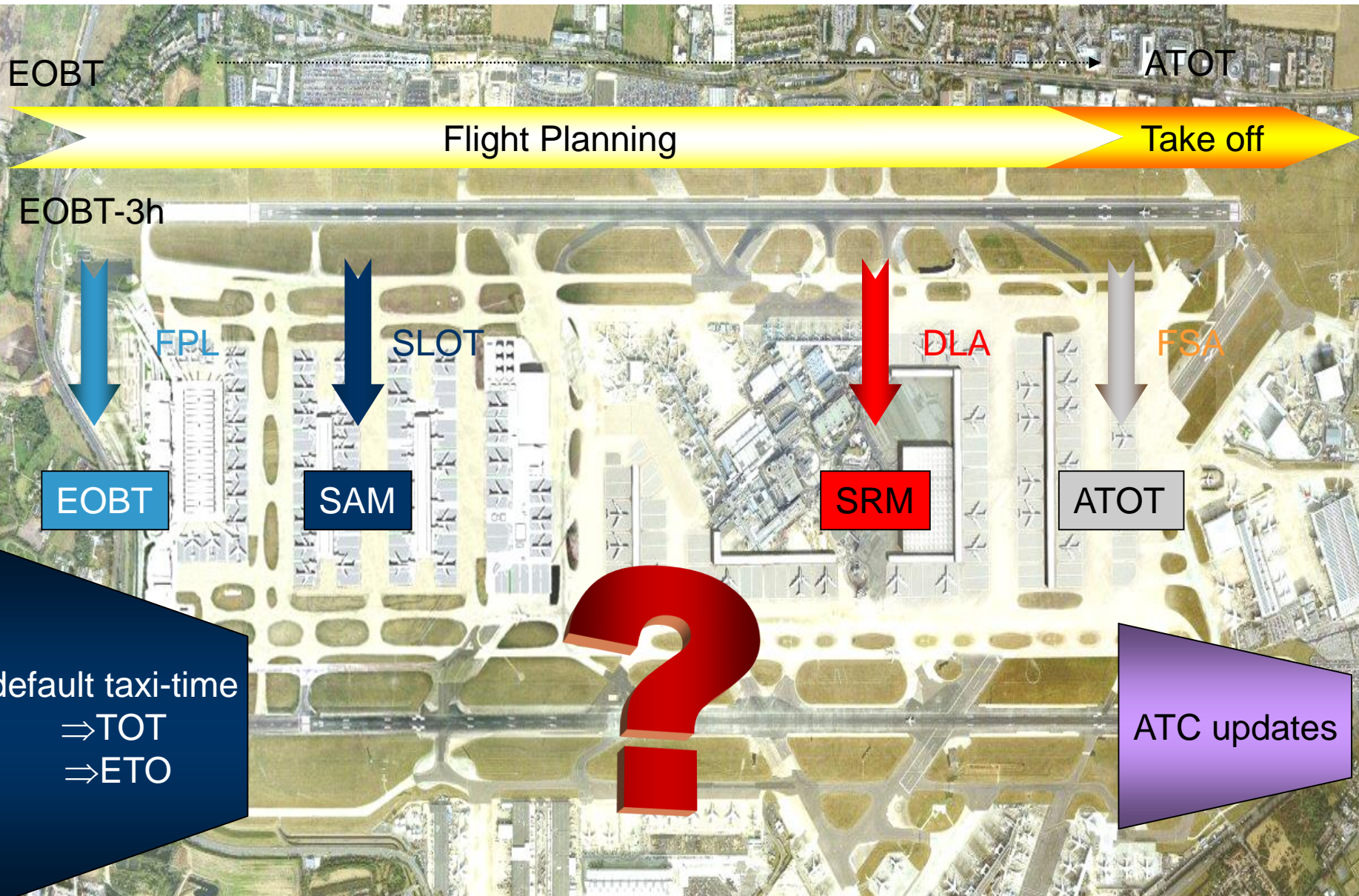
Foundation for Airport CDM

The **right**
information

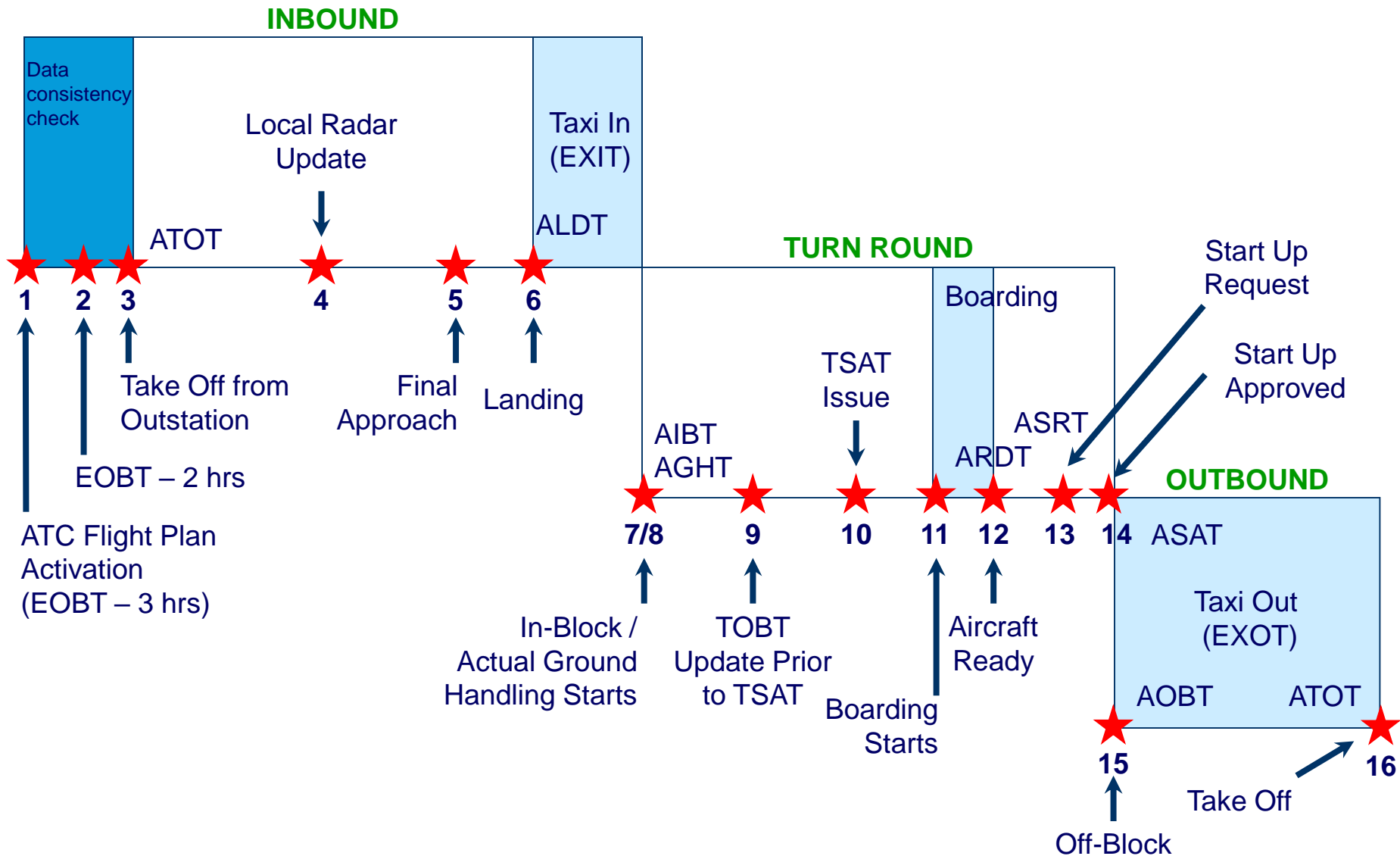
To the **right**
people

At the **right**
time

Non - CDM airport - Departure Planning



Airport CDM Generic Milestones



Milestone 2 - (EGLL EOBT 1950)



ETOT/TTOT/CTOT
Mark appropriate fields as
REGULATED

1750hrs @ EOBT -2hrs

Update of flight info + SIT1

CTOT = 2030

T-DPI-t can be sent at
anytime after an E-DPI
when TOBT is known
[whether automatically or
manually generated]

Milestone 3 - (EGLL EOBT 1950)



ELDT, EIBT, TOBT
and TTOT updated

1800hrs

Take Off from Outstation

(ATOT – Munich
FUM gives ELDT & ETO final
route point)

T-DPI-t if update
changes TTOT by +/-
5 mins or more.

Milestone 4 - (EGLL EOBT 1950)



ELDT, EIBT, TOBT
and TTOT updated

1840hrs

Local Radar Update

More accurate than FUM
[i.e. - can include holding]

T-DPI-t if update
changes TTOT by +/-
5 mins or more.

Milestone 5 - (EGLL EOBT 1950)



ELDT, EIBT, TOBT
and TTOT updated

*Trigger for G/H services
etc to attend stand/gate*

1900hrs

Final Approach

T-DPI-t if update
changes TTOT by +/-
5 mins or more.

Milestone 6 - (EGLL EOBT 1950)



ELDT changes to ALDT,
EIBT, TOBT and TTOT
updated

*Updates to G/H & Stand & Gate
Management – possible conflicts
resolved*

1905hrs

Landing

ALDT

EXIT 5 minutes = EIBT 1910

T-DPI-t if update changes
TTOT by +/-5 mins or more.

Milestone 7 - (EGLL EOBT 1950)



EIBT changes to AIBT

TOBT and TTOT updated

*[if TOBT is auto calc the GH has 2 options –
1/ TOBT is good – do nothing
2/ Manual update TOBT]*

1910hrs

In Block

AIBT

T-DPI-t if update changes TTOT by +/-5 mins or more.

Milestone 8 - (EGLL EOBT 1950)



ETTT/TOBT, TTOT
updated

*- ACGH used if aircraft is
long term parked*

1910hrs

Ground Handling starts

ACGT

MTTT 50mins

T-DPI-t if update
changes TTOT by +/-
5 mins or more.

Milestone 9 - (EGLL EOBT 1950)



Target OffBlock Time (TOBT)

CX 064 - 752SA

SOBT: 08:55 EOBT: 08:55 CTOT:
TOBT: TSAT: COM:
RMT: 9 RDY: 0 TXT: 9 DCT: 0

All Times in UTC !!!

TOBT (date): 0206
TOBT (time):
Remote Holding:

Ok Delete TOBT New Search

Process is triggered by –
a TOBT update.

*There is no need to confirm an
existing TOBT if it has been
manually modified before.*

1930hrs

Target Off-Block Time

TOBT Update before TSAT

(TOBT=2000hrs)

This process is constantly
applicable in the CDM Platform
as soon as a TOBT is available.

*The confirmed TOBT prior to TSAT
has a special status, where AO/GH
check the quality of TOBT before
TSAT issue.*

Milestone 10 - (EGLL EOBT 1950)



NR	MAS	CSN	TSAT	TOBT	CTOT	SID	MDI	EOBT
1	<	BAG82C	06:28	06:26*		GIV		06:30
2	<	GVI081	06:30	06:30		GIV		06:30
3	*	DLH828	06:35	06:35*		GIV		06:35
4	-	SVR1121	06:40	06:40*		RID		06:40
5	*	BUS1531	06:42	06:40		EVI	07:01	06:40
6	*	LGL9722	06:56	06:55		RID		06:55
7	>	DLH1372	06:55	06:55		RID		06:55
8	-	DLH040	07:01	07:00*		MIQ		07:00
9	*	DLH9EH	07:03	07:03		ANK		07:00
10	-	DLH6UX	07:10	07:05*		MIQ		07:05
11	-	DLH1YK	07:05	07:05*		MIQ		07:05
12	-	LTU414	07:12	07:10*	07:40	GIV		07:00
13	-	DLH8UJ	07:15	07:10*		MIQ		07:10
14	-	DLH362	07:14	07:10*		MIQ		07:10
15	-	DLH92X		07:15*		GIV		07:15
16	-	DLH7AJ		07:15*		GIV		07:15
17	-	DAT56V		07:20*		GIV		07:20
18	-	DLH55P				GIV		07:05
19	-	DLH23C				ANK		07:05
20	-	DLH8PP				GIV		07:15
21	-	DLH4KJ				ANK		07:05
22	-	DLH967				GIV		07:20
23	-	DLH8FF				GIV		07:20
24	-	DLH97K				GIV		07:20
25	-	DLH7PL				MIQ		07:20

To inform all relevant partners that a TSAT that has been allocated to the flight.

Also a check whether the number of TOBT updates exceeds a tolerance defined locally, after TSAT has been issued

1940hrs

Target Start up time issue

(TSAT=2011hrs)

T-DPI-s is sent for non regulated flights

Also the first point where a REA T-DPI-s can be seen [T-DPI-s which shows TTOT before the STW.

Milestone 11 - (EGLL EOBT 1950)



Informs all relevant Airport CDM Partners of Actual Start Boarding Time (ASBT).

It also acts as a check whether boarding starts in time to respect TOBT and inform the AO/GH in case TOBT needs to be updated.

1940hrs

Boarding starts

Milestone 12 - (EGLL EOBT **1950**)



Informs Partners of Actual Ready Time (ARDT) - that the aircraft is ready for start up / push-back.

TOBT updates normally end unless there is a last minute / on-board technical fault.

1958hrs

Aircraft Ready

ARDT

(Doors closed ready to move)

Milestone 13 - (EGLL EOBT **1950**)



Inform when ASRT occurs. If the start up request is not made by TSAT + 5mins then TSAT and/or TOBT are removed.

The AO/GH is informed that no start up has been requested and they must update TOBT.

2010hrs

Start up Clearance request

ASRT

T-DPI-s sent for regulated flights,

From 10mins prior to TSAT this allows for possible last minute CTOT improvements.

Milestone 14 - (EGLL EOBT 1950)



Aircraft has received start up approval / push-back clearance.

Check if ASAT is in accordance to TSAT & alert when no start up has been granted. The flight will be re-sequenced.

2011hrs

Start up approved

ASAT

(ATC issue push back clearance)

A-DPI may be sent,

e.g on action in EFPS [pending to active]

Note - this DPI message is also sent from an Advanced ATC Tower airport.

Milestone 15 - (EGLL EOBT **1950**)



2012hrs

Actual Off-Block Time

AOBT

(EXOT = 18 minutes)

A-DPI may be sent,

e.g when the actual off-block event is detected through either ASMGCS or manual intervention.

Milestone 16 - (EGLL EOBT 1950)



An airborne message is generated and the flight is removed from the departure sequence.

This process is triggered by Tower FDPS, A-SMGCS / Radar detection or ACARS.

2030hrs

Actual Take Off Time

ATOT

(CTOT = 2030)

FSA is sent

General considerations – DPI's



C-DPI can be sent at any point until ATOT data [e.g FSA] is received.

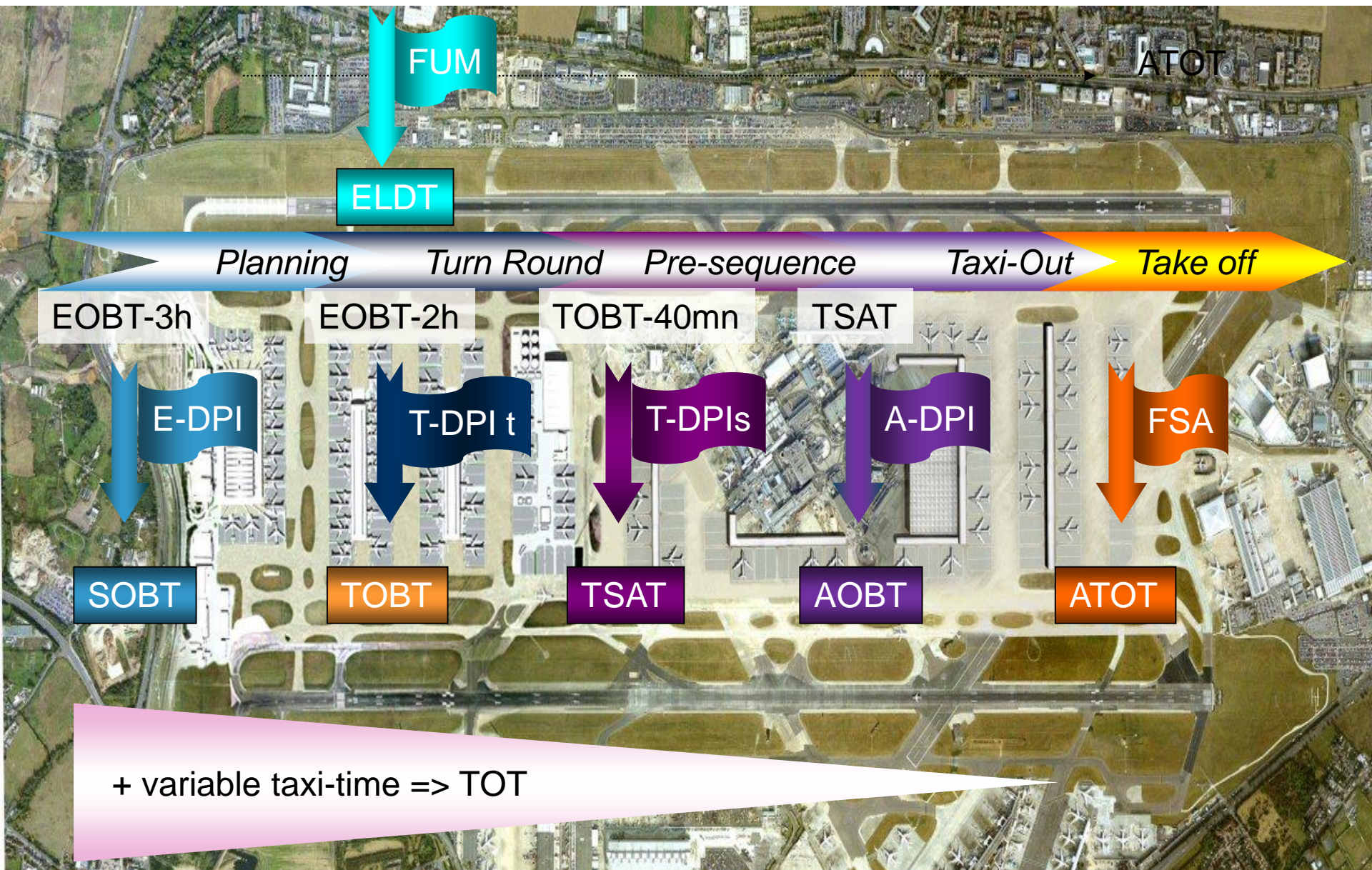
The effect is to suspend the flight – it does not cancel it.

No DPI's are accepted after ATOT data [e.g FSA] received.

System to System messages but can be erroneously generated –

e.g Wrong flight moved in EFPS moving from pending to active list, moving back will generate a C-DPI.

Complete – departure planning information



Thank you

