

PCP		Removed							EU+	
FCM07		Calculated Take-off Time (CTOT) to Target Times for ATFCM Purposes								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

## Subject matter and scope

Target times (TT) shall be applied to selected flights for ATFCM purposes to manage ATFCM at the point of congestion rather than only at departure. Where available, the target times of arrival (TTA) shall be derived from the Airport Operations Plan (AOP). TTAs shall be used to support airport arrival sequencing processes in the en-route phase.

NM's systems shall be able to adjust CTOTs based on refined and agreed TTAs at the destination airport; TTAs shall be integrated into the AOP for subsequent refinement of the NOP.

Flight data processing systems may need to be adapted in order to process downlinked trajectory data (ADS-C EPP).

In a first step, NM system will transmit calculated target times (TT) at the most penalising regulation reference point in addition to calculated take-off times (CTOT) to all concerned users of CTOT. Those users should be able to manage this new feature and potential system upgrades should be foreseen

**NOTE:** This is an "Initial" objective to provide advance notice to stakeholders. Some aspects of the objective require further validation.

**NOTE FOR MILITARY AUTHORITIES:** It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

## Applicability Area(s) & Timescale(s)

<b>Applicability Area</b>				
<b>Timescales:</b>		<b>From:</b>	<b>By:</b>	<b>Applicable to:</b>
Initial operational capability		01/01/2017		Applicability Area
Full operational capability			01/01/2022	Applicability Area

## References

### European ATM Master Plan

OI step -	<a href="#">[DCB-0208]-DCB in a trajectory management context</a>									
	Enablers -	AOC-ATM-11	AOC-ATM-13	AOC-ATM-20	ER APP ATC 17	NIMS-21a	NIMS-38	SWIM-APS-03a	SWIM-APS-04a	
		SWIM-INFR-05a	SWIM-NET-01a							

Legend:	WXYZ-001	Covered by SLoA(s) in this objective	WXYZ-002 zzz	Covered by SLoA(s) in another objective Objective covering the enabler	WXYZ-003	Not covered in the Implementation Plan
---------	----------	--------------------------------------	-----------------	---	----------	--

### Applicable legislation

Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project
--

### Essential Operational Changes

- none -
----------

### SESAR Solution

#18 - CTOT and TTA
--------------------

### ICAO GANP - ASBUs

NOPS-B1/9	Target Times for ATFM purposes
-----------	--------------------------------

### Deployment Programme

- none -
----------

### European Plan for Aviation Safety

<b>FCM07</b>	<b>Calculated Take-off Time (CTOT) to Target Times for ATFCM Purposes</b>
--------------	---

- none -	
----------	--

## Operating Environments

En-Route
Network
Terminal Airspace

## Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
<b>FCM07-ASP01</b>	Adapt ATM/ATFCM systems to enable the Target Times extraction and presentation to relevant operational personnel	01/01/2017	01/01/2022
<b>FCM07-ASP02</b>	Implement procedures and processes in support of Target Time sharing	01/01/2017	01/01/2022
<b>FCM07-ASP03</b>	Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-ASP04</b>	Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-APO01</b>	Adapt airport systems, as required, to support reconciled target times for ATFCM and arrival sequencing	01/01/2019	01/01/2022
<b>FCM07-APO02</b>	Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-USE01</b>	Adapt systems at airspace users' operations centers to enable Target Times extraction and distribution	01/01/2017	01/01/2022
<b>FCM07-USE02</b>	Implement procedures and processes to adhere to TTs, to the extent possible	01/01/2017	01/01/2022
<b>FCM07-USE03</b>	Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-USE04</b>	Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-NM01</b>	Adapt NM systems to support Target Time sharing	01/01/2017	01/01/2022
<b>FCM07-NM02</b>	Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022
<b>FCM07-NM03</b>	Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes	01/01/2019	01/01/2022

Description of finalised and deleted SLoAs is available on the eATM Portal @ [https://www.eatmportal.eu/working/depl/essip\\_objectives](https://www.eatmportal.eu/working/depl/essip_objectives)

## Expected Performance Benefits

<b>Safety:</b>	-
<b>Capacity:</b>	The involvement in TT generation of local actors has a positive impact on capacity and delay reduction.
<b>Operational Efficiency:</b>	Reduced flight time in TMA leading to an optimised flight arrival management in the TMA. Reduction of holdings along with radar vectoring, with positive impact on fuel burn.
<b>Cost Efficiency:</b>	-
<b>Environment:</b>	-
<b>Security:</b>	-

## Detailed SLoA Descriptions

<b>FCM07-ASP01</b>	<b>Adapt ATM/ATFCM systems to enable the Target Times extraction and presentation to relevant operational personnel</b>	<b>From:</b> 01/01/2017	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Adapt ATM and ATFCM systems, as required, to extract the Target Times (TTs) for specific flights for management and presentation of TTs to the ATC planner for info purposes in accordance with local ATM/ATFCM procedures to be developed.		
<b>Supporting material(s):</b>	EUROCONTROL - ATFCM Users Manual - Edition 20.0 Url : <a href="https://www.eurocontrol.int/publication/atfcm-users-manual">https://www.eurocontrol.int/publication/atfcm-users-manual</a>		
<b>Finalisation criteria:</b>	1 - ATM/ATFCM systems adapted to enable Target Times extraction and presentation to relevant operational staff.		
<b>FCM07-ASP02</b>	<b>Implement procedures and processes in support of Target Time sharing</b>	<b>From:</b> 01/01/2017	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		

<b>FCM07</b>	<b>Calculated Take-off Time (CTOT) to Target Times for ATFCM Purposes</b>		
--------------	---	--	--

<b>Description &amp; purpose:</b>	Develop and deploy the ATC/ATFCM procedures to handle Target Times.		
<b>Supporting material(s):</b>	EUROCONTROL - ATFCM Users Manual - Edition 20.0 Url : <a href="https://www.eurocontrol.int/publication/atfcm-users-manual">https://www.eurocontrol.int/publication/atfcm-users-manual</a>		
<b>Finalisation criteria:</b>	1 - ATC/ATFCM procedures for handling Target Times are implemented.		
<b>FCM07-ASP03</b>	<b>Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		
<b>ATM Master Plan relationship:</b>	<a href="#">[NIMS-46]-Integrated local DCB working position</a>		
<b>Finalisation criteria:</b>	1 - Systems have been adapted.		
<b>FCM07-ASP04</b>	<b>Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		
<b>Finalisation criteria:</b>	1 - Procedures have been implemented.		
<b>FCM07-APO01</b>	<b>Adapt airport systems, as required, to support reconciled target times for ATFCM and arrival sequencing</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>Airport Operators</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		
<b>Finalisation criteria:</b>	1 - Systems have been adapted.		
<b>FCM07-APO02</b>	<b>Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>Airport Operators</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		
<b>Finalisation criteria:</b>	1 - Procedures have been implemented.		
<b>FCM07-USE01</b>	<b>Adapt systems at airspace users' operations centers to enable Target Times extraction and distribution</b>	<b>From:</b> 01/01/2017	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>Airspace Users</b>		
<b>Description &amp; purpose:</b>	Adapt systems of airspace users' operations centers to enable Target Times extraction and distribution.		
<b>Supporting material(s):</b>	EUROCONTROL - ATFCM Users Manual - Edition 20.0 Url : <a href="https://www.eurocontrol.int/publication/atfcm-users-manual">https://www.eurocontrol.int/publication/atfcm-users-manual</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[NIMS-46]-Integrated local DCB working position</a>		
<b>Finalisation criteria:</b>	1 - Airspace users' systems at operations centers have been adapted.		
<b>FCM07-USE02</b>	<b>Implement procedures and processes to adhere to TTs, to the extent possible</b>	<b>From:</b> 01/01/2017	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Develop and implement Pilot procedures for handling Target Times.		
<b>Supporting material(s):</b>	EUROCONTROL - ATFCM Users Manual - Edition 20.0 Url : <a href="https://www.eurocontrol.int/publication/atfcm-users-manual">https://www.eurocontrol.int/publication/atfcm-users-manual</a>		
<b>Finalisation criteria:</b>	1 - Pilot procedures for handling Target Times are implemented.		
<b>FCM07-USE03</b>	<b>Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>Airspace Users</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		
<b>ATM Master Plan relationship:</b>	<a href="#">[NIMS-46]-Integrated local DCB working position</a>		
<b>Finalisation criteria:</b>	1 - Systems have been adapted.		
<b>FCM07-USE04</b>	<b>Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes</b>	<b>From:</b> 01/01/2019	<b>By:</b> 01/01/2022
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	To be developed in ESSIP 2017.		

FCM07	Calculated Take-off Time (CTOT) to Target Times for ATFCM Purposes		
Finalisation criteria:	1 - Procedures have been implemented.		
FCM07-NM01	Adapt NM systems to support Target Time sharing	From:	By:
		01/01/2017	01/01/2022
Action by:	NM		
Description & purpose:	From March 2016, NM started to provide the Target Times related to the most penalised regulation as part of the Slot Allocation Message (SAM). This message is sent at the earliest 2 hours before the last received EOBT (Estimated Off-Block Time), together with CTOT (Calculated Take-Off Times). The message is sent to ATSUs concerned by the flight and to the airline's Flight Operations Center.		
Supporting material(s):	EUROCONTROL - ATFCM Users Manual - Edition 20.0 Url : <a href="https://www.eurocontrol.int/publication/atfcm-users-manual">https://www.eurocontrol.int/publication/atfcm-users-manual</a>		
ATM Master Plan relationship:	<a href="#">[NIMS-21a]-Initial Flight Planning management enhanced to support 4D for Step 1</a> <a href="#">[NIMS-38]-Calculation and dissemination of the TTO &amp; TTA</a>		
Finalisation criteria:	1 - NM systems adapted to disseminate TTs to concerned stakeholders.		
FCM07-NM02	Adapt systems to support Calculated Take-off Time to Target Times for ATFCM purposes	From:	By:
		01/01/2019	01/01/2022
Action by:	NM		
Description & purpose:	To be developed in ESSIP 2017.		
ATM Master Plan relationship:	<a href="#">[NIMS-21a]-Initial Flight Planning management enhanced to support 4D for Step 1</a> <a href="#">[NIMS-38]-Calculation and dissemination of the TTO &amp; TTA</a> <a href="#">[NIMS-46]-Integrated local DCB working position</a>		
Finalisation criteria:	1 - Systems have been adapted.		
FCM07-NM03	Implement procedures and processes in support of Calculated Take-off Time to Target Times for ATFCM purposes	From:	By:
		01/01/2019	01/01/2022
Action by:	NM		
Description & purpose:	To be developed in ESSIP 2017.		
Finalisation criteria:	1 - Procedures have been implemented.		

