



# TS-0109 — Controlled Time of Arrival (CTA) in high density/complexity environment

The CTA (Controlled Time of Arrival) is an ATM imposed time constraint on a defined point associated with an arrival runway, using airborne capabilities to improve arrival management.

Use of CTA in high density/high complexity environments is enabled through the use of improved automation and advanced support tools.

When a time constraint is needed for a flight, the ground system may calculate a CTA as part of the arrival management process, and then it may be proposed to the flight for achievement by avionics within required accuracy.

Airborne information will be used by the ground system in determining the CTA (ETA min/max) and in monitoring the implementation of the CTA.

**Rationale** Respecting the ideal of constraining the flight only when needed, the CTA exploits airborne and ground capabilities in the implementation of arrival flows. It does this by allowing the aircraft to self-manage its profile to a known time constraint thus enhancing a flight's time predictability over the constraint point and its flight efficiency to that constraint. Datalink exchange between flight crew and controller and the downlink of on-board 4D trajectory data will be used in CTA determination. (Link to AUO-0302-A and IS-0303-A). Environmental sustainability is subsequently improved by the enhanced efficiency of the CTA flight and by time/delay management being conducted from an earlier stage of flight until the constraint point.

**Forecast V3 end date** -

**Benefits start date (IOC)** 31-12-2023

**Full benefits date (FOC)** 31-12-2028

**Current Maturity Level** V1 finalised

**Solution Data Quality Index** -

**Current Maturity Phase** R&D

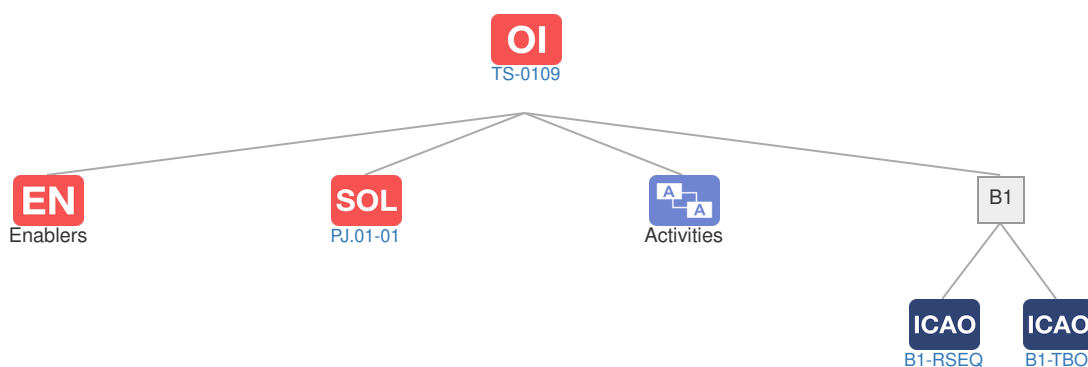
**Scope** Synchronised

**Release** R7

**PCP Status** -

## Context

### Related Elements





**PCP** PCP Elements: No associated data

**OBJ** Implementation Objectives: No associated data

**ICAO** ICAO Block Modules

Designator	Title	Related Elements
B1		
B1-RSEQ	Improved Airport operations through Departure, Surface and Arrival Management	<b>SOL</b> <b>OI</b> <b>OBJ</b> <b>PCP</b>
B1-TBO	Improved Traffic Synchronisation and Initial Trajectory-Based Operation.	<b>SOL</b> <b>OI</b> <b>PCP</b>