TS-0103 — Controlled Time of Arrival (CTA) in medium 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.
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 may be used by the ground system in determining the CTA (e.g. 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 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 may be used in support of the operation. When possible, the downlink of on-board 4D trajectory data is 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) 31-12-2022

Full benefits date (FOC) 31-12-2026

Current Maturity Level V3

Solution Data Quality Index -

Current Maturity Phase R&D

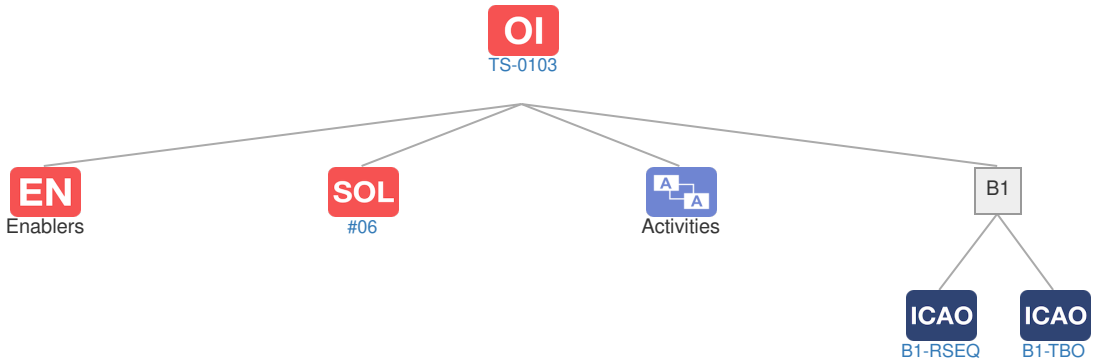
Scope -

Release R5

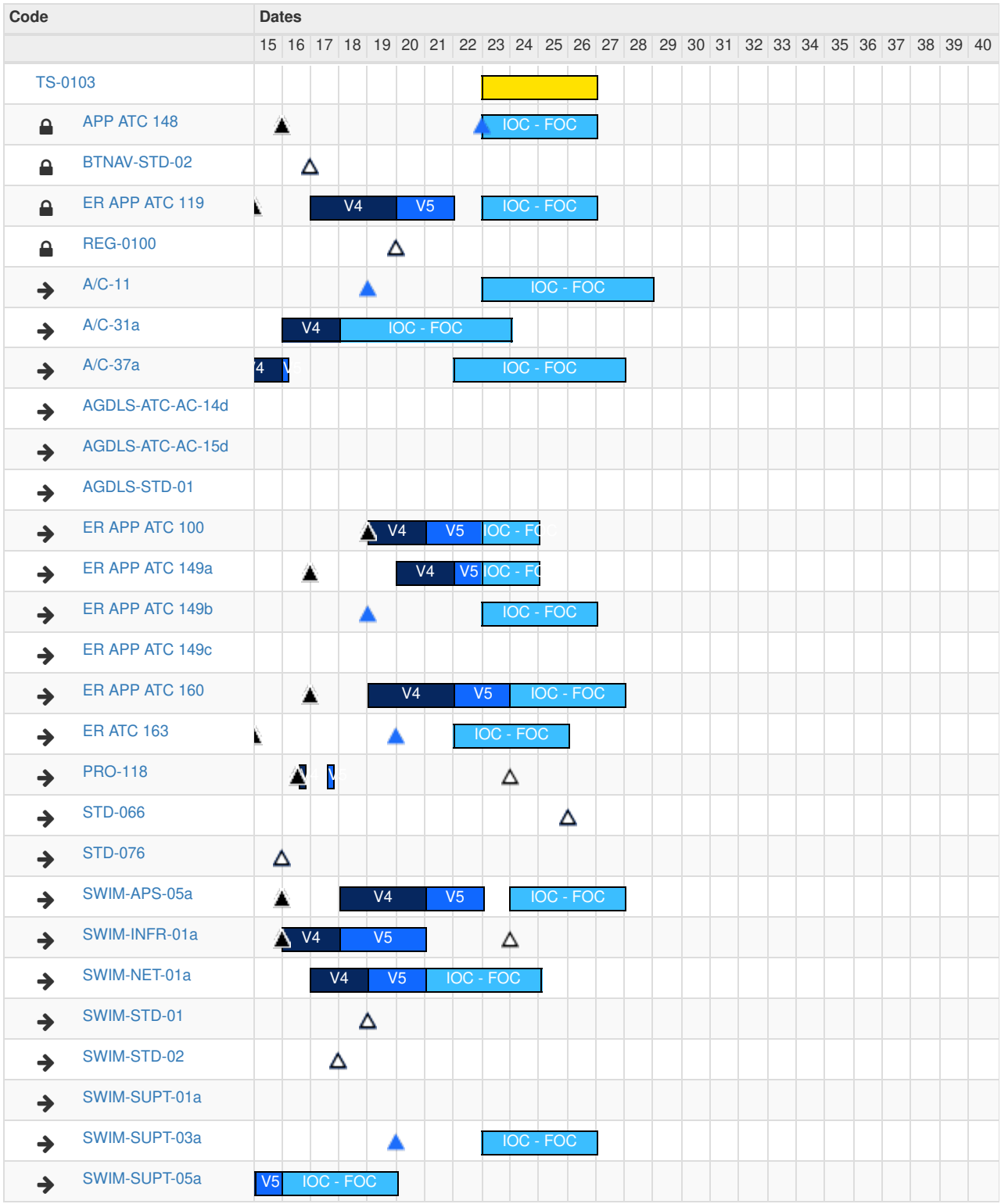
PCP Status -

Context

Related Elements



EN Enablers



OI Dependent OI Steps

Relationship	Code	Title	Related Elements
Has successor	TS-0109	Controlled Time of Arrival (CTA) in high density/complexity environment	SOL OI EN DS ICAO

SESAR Solutions

Code	Title	Program	Related Elements
#06	Controlled Time of Arrival (CTA) in Medium density / medium complexity environment	SESAR1	SOL OI DS EOC ICAO

PCP Elements: No associated data

Implementation Objectives: No associated data

ICAO Block Modules

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