



CM-0803 — Reduction of spurious TCAS RA (Resolution Advisory) and automation of RA maneuver

Existing airborne collision avoidance systems (ACAS) triggers resolution advisories when a collision risk is predicted. False alerts can be caused by aircraft correctly climbing or descending to a cleared flight level close to the level occupied by another aircraft. This can reduce the system's safety benefits and make air traffic control operations more complex. ICAO has recommended new altitude capture laws that automatically reduce the vertical rate at the approach to the selected flight level, reducing unnecessary traffic advisories.

TCAS II is combined with Autoflight systems (Auto Pilot (automatic control of aircraft) or Flight Director (display of commands to assist the flight crew in controlling the aircraft)) in order to provide vertical speed guidance using TCAS II RA target vertical speeds. This would be an automatic manoeuvre if the autopilot is on (or a manual manoeuvre through flight director cues if autopilot is off). Monitoring can be ensured through a separate vertical speed indicator display; the pilot can override the automatic system if required.

Rationale The objective is to reduce spurious TCAS RA in level traffic configuration and to automate the TCAS RA with a simple procedure that minimizes the deviation from the initial trajectory and leaves the aircraft in a safe configuration after 'clear of conflict'.

Forecast V3 end date -

Benefits start date (IOC) 31-12-2011

Full benefits date (FOC) 31-12-2017

Current Maturity Level V3 finalised

Solution Data Quality Index -

Current Maturity Phase R&D Finalised

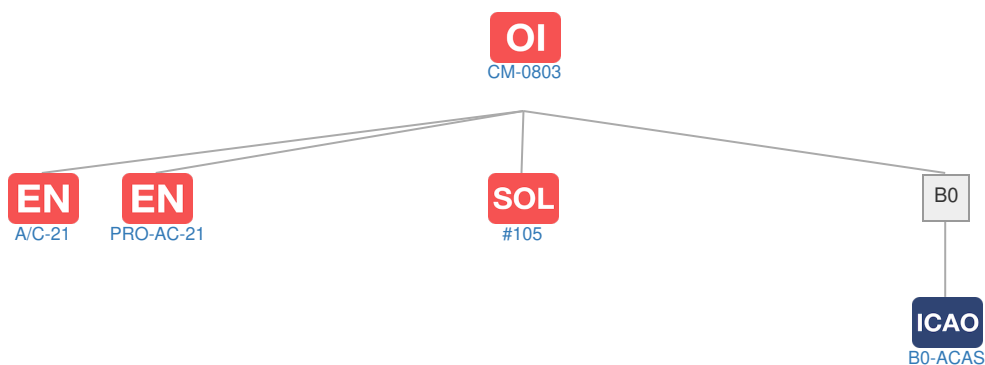
Scope Network

Release R1

PCP Status -

Context

Related Elements



EN Enablers

Code	Dates																										
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
CM-0803																											
A/C-21																											
PRO-AC-21																											

OI Dependent OI Steps

Relationship	Code	Title	Related Elements
Has successor	CM-0808-a	Improved Collision Avoidance for commercial air transport in standard operations (ACAS Xa)	SOL OI EN DS ICAO
Has successor	CM-0808-u	Collision Avoidance for Remotely Piloted Aircraft	SOL OI DS ICAO

SOL SESAR Solutions

Code	Title	Program	Related Elements
#105	Enhanced Airborne Collision Avoidance System (ACAS)	SESAR1	OI DS EOC ICAO

PCP Elements: No associated data

Implementation Objectives: No associated data

ICAO ICAO Block Modules

Designator	Title	Related Elements
B0		
B0-ACAS	ACAS Improvements	SOL OI OBJ