AO-0323 — Wake Turbulence Separations (for Departures) based on Static Aircraft Characteristics

Optimization of the ICAO wake turbulence separation classes by use of longitudinal wake turbulence static pair-wise separation (S-PWS) minima on departures for the initial common departure path from the runway, applicable in all operating conditions. The specification is based on the comparison of wake generation and wake resistance between aircraft types, to reference pairs considered as acceptable baseline for wake turbulence risk, and using aircraft type characteristics. This allows reduction of separation minima for most aircraft pairs, enabling runway throughput increase compared to ICAO scheme, whilst maintaining acceptable levels of safety.

Rationale The demand is high for airport capacity and efficiency at some European airports, and in particular for increased runway throughput.
Today's ICAO separations are based on certificated Maximum Take Off Mass (MTOM) and it includes three categories (i.e. HEAVY, MEDIUM or LIGHT) allocating all aircraft into one of them. Because the separations are defined based on the worst case in each category, this leads to over separation in many instances resulting in and a loss of runway throughput. Using knowledge gained with RECAT-EU development and refined analysis supported additional operational data, further optimization is possible.

Forecast V3 end date 31-08-2019

Benefits start date (IOC) -

Full benefits date (FOC) -

Current Maturity Level V2 finalised

Solution Data Quality Index -

Current Maturity Phase R&D

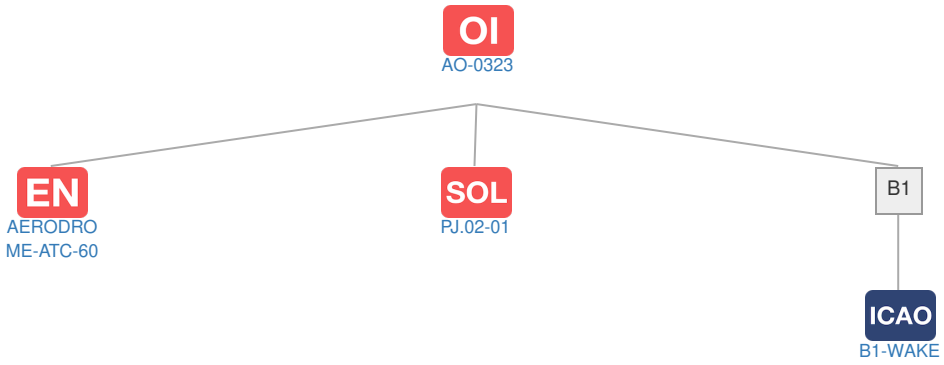
Scope -

Release R9

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
AO-0323	
→ AERODROME-ATC-60	▲

OI Dependent OI Steps

Relationship	Code	Title	Related Elements
Has predecessor	AO-0329	Optimised Separation Delivery for Departure	SOL OI EN DS ICAO
Has successor	AO-0324	Wake Turbulence separations (for departures) based on Dynamic Aircraft Characteristics	OI EN ICAO

SOL SESAR Solutions

Code	Title	Program	Related Elements
PJ.02-01	Wake Turbulence Separation Optimization	SESAR 2020 Wave 1	SOL PJ OI DS EOC ICAO

PCP PCP Elements: No associated data

OBJ Implementation Objectives: No associated data

ICAO ICAO Block Modules

Designator	Title	Related Elements
B1		
B1-WAKE	Increased Runway Throughput through Dynamic Wake Turbulence Separation	SOL OI PCP