



# AO-0306 — Wake Turbulence Separations (for Arrivals) 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 arrivals, applicable in all operating conditions. The specification is based on the comparison of wake generation and wake resistance between aircraft types, using aircraft type characteristics, to align on reference pairs considered as acceptable baseline. 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. This means that each category may cover a wide range of different sized aircraft, what leads to over-conservative separations in many cases, and so 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)** 31-12-2025

**Full benefits date (FOC)** 31-08-2030

**Current Maturity Level** V2 finalised

**Solution Data Quality Index** -

**Current Maturity Phase** R&D

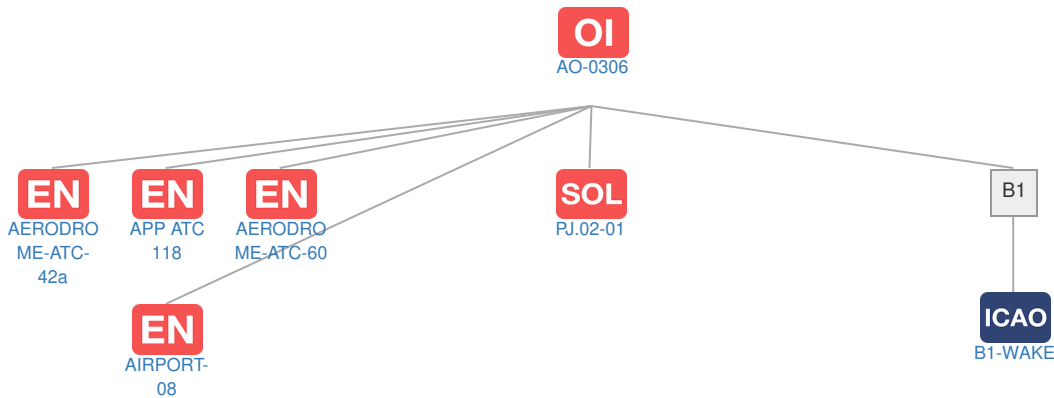
**Scope** -

**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-0306																											
AERODROME-ATC-42a						▲			V4	V5	IOC - FOC																
APP ATC 118						▲			V4	V5	IOC - FOC																
AERODROME-ATC-60						▲																					
AIRPORT-08						▲			V4	V5	IOC - FOC																

## OI Dependent OI Steps

Relationship	Code	Title	Related Elements
Has predecessor	AO-0328	Optimised Runway Delivery on Final Approach	SOL OI EN DS ICAO
Has successor	AO-0307	Wake Turbulence separations (for arrivals) 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 Elements: No associated data

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