



# AOP21 — Wake Turbulence Separations for Arrivals based on Static Aircraft Characteristics (S-PWS-A)

This objective represents optimisation of the ICAO wake turbulence separation classes by use of longitudinal wake turbulence static pair-wise separation minima on arrivals (S-PWS-A), applicable in all operating conditions.

S-PWS-A is the efficient aircraft type pairwise wake separation rules for final approach consisting of both the 96 x 96 aircraft type based wake separation minima (for the most common aircraft types in ECAC area) and the twenty wake category (20-CAT) based wake separation minima for arrival pairs involving all the remaining aircraft types. This allows reduction of separation minima for most aircraft pairs, enabling runway throughput increase compared to ICAO scheme, whilst maintaining acceptable levels of safety.

The S-PWS-A is applied using a separation delivery tool, where the pairwise separations will be used as input into the separation delivery tool.

S-PWS-A requires the Optimised Runway Delivery (ORD) tool to be integrated at CWP and the wind measurement or forecast on the final approach path.

This objective targets capacity constrained runways during high intensity runway operations and applies to very large, large and possibly medium airports.

*NOTE: This is an "Initial" objective to provide advance notice to stakeholders. Some aspects of the objective require further validation.*

*NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.*

<b>Edition</b>	2022
<b>Stakeholders</b>	Air Navigation Service Provider / International Organisations and Regional Bodies
<b>Type</b>	SESAR
<b>Scope</b>	Airport
<b>Status</b>	Initial

## Context

### Related Elements



## Applicability Area(s) and Timescales

**Applicability Area:** See list of airports in MP Level 3 Implementation Plan - Annexes  
(Not yet defined)

Timescales	From	By	Applicable to
IOC used for Analytics functioning only - not for implementation planning	01-01-2020	-	
FOC used for Analytics functioning only - not for implementation planning	-	31-12-2030	

## Links to ATM Master Plan Level 2

### **OI** Operational Improvement Steps

Code	Title	IOC	FOC	Related Elements
AO-0306	Wake Turbulence Separations (for Arrivals) based on Static Aircraft Characteristics	31-12-2025	31-08-2030	<b>SOL</b> <b>OI</b> <b>EN</b> <b>DS</b> <b>ICAO</b>

### **SOL** Links to SESAR Solutions

Code	Title	Program	Related Elements
No record found			

### **PCP** Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

**ICAO** ICAO Block Modules: No associated data

## References

### Applicable legislation

None

### Applicable ICAO Annexes and other references

None

### Deployment Programme 2022

-

### Operating Environments

-

## Expected Performance Benefits

<b>Safety</b>	Safety maintained while increasing capacity
<b>Capacity</b>	Increased airport capacity
<b>Operational efficiency</b>	-
<b>Cost efficiency</b>	-
<b>Environment</b>	-
<b>Security</b>	-

## Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
ASP01	Install ATC tool to support static pair-wise wake separation on final approach			
ASP02	Adapt ATC system (AMAN) to support static pair-wise wake separation on final approach			
ASP03	Develop procedures for application of static pair-wise wake separation on final approach			
ASP04	Safety Assessment			
ASP05	Training			
ASP06	System in use			
INT01	Regulatory provisions (AMC) for static pair-wise wake separation minima			

## Supporting Material

Title	Related SLoAs
No record found	

## Consultation & Approval

<b>Working Arrangement in charge</b>	-
<b>Outline description approved in</b>	-
<b>Latest objective review at expert level</b>	-
<b>Commitment Decision Body</b>	-
<b>Objective approved/endorsed in</b>	-
<b>Latest change to objective approved/endorsed in</b>	-