

SESAAR		Initial							APT	
AOP22		Minimum pair separations based on RSP								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

Minimum Pair Separations Based on Required Surveillance Performance (RSP)" in support of a reduction of the in-trail minimum Radar Separation focus to provide a direct positive impact on runway throughput (capacity, efficiency and resilience).

The runway capacity and in particular the runway throughput resilience in moderate, strong and very strong headwind conditions on the straight-in approach to the runway landing threshold are improved thanks to the implementation of Minimum radar separations based upon required surveillance performance implying the application (by ATC) of a non-wake turbulence separation down to 2 NM for arrivals on final approach, based upon required surveillance performance.

This minimum radar separation could be applied when separation is not constrained by wake turbulence, either because of favourable weather conditions (e.g. cross wind) or simply when the pair-wise wake turbulence separation is less than the MRS.

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

NOTE: The SLoAs listed in this document should be addressed to air navigation service providers as well as to airport operators. This is due to the fact that some airports operate their own ground control units for specific areas of responsibility at the airport. Airport operators providing air traffic control services qualify as ANSPs and are therefore covered by the ASP SLoAs. It is up to each implementer to check and select what is relevant to them, depending on local areas of responsibilities

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.

Applicability Area(s) & Timescale(s)

Applicability Area (Not yet defined)	See list of airports in MP Level 3 Implementation Plan - Annexes		
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IOC used for Analytics functioning only - not for implementation planning	01/01/2020		
FOC used for Analytics functioning only - not for implementation planning		31/12/2030	

References

European ATM Master Plan

OI step -	[AO-0309]-Minimum Radar Separations based upon Required Surveillance Performance (RSP)								
	Enablers -	APP ATC 120	APP ATC 159	CTE-S01	CTE-S01a ATC02.8, ATC12.1	CTE-S02	CTE-S02a	METEO-03	METEO-04b
		PRO-257	REG-0526						
Legend:	WXYZ-001	Covered by SLoA(s) in this objective		WXYZ-002 zzz	Covered by SLoA(s) in another objective Objective covering the enabler		WXYZ-003	Not covered in the Implementation Plan	

Applicable legislation

-none-

Essential Operational Changes

Airport and TMA performance

SESAAR Solution

PJ.02-03 - Minimum-Pair separations based on RSP
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AOP22	Minimum pair separations based on RSP
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ICAO GANP - ASBUs

- none -	
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Deployment Programme

- none -	
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European Plan for Aviation Safety

- none -	
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Operating Environments

Airport
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
AOP22-ASP01	Approach ATC system updated for Minimum Separation Based on Required Surveillance Performance (separation delivery)		
AOP22-ASP02	Develop ATC Procedure to apply spacing minimum down to 2 NM		
AOP22-ASP03	Safety Assessment		
AOP22-ASP04	Training		
AOP22-ASP05	System in use		
AOP22-INT01	Regulatory provisions for Minimum-Pair separations based on RSP (Required Surveillance Performance)		

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives

Expected Performance Benefits

Safety:	Safety maintained while increasing capacity
Capacity:	Increased airport capacity
Operational Efficiency:	-
Cost Efficiency:	-
Environment:	-
Security:	-

Detailed SLoA Descriptions

AOP22-ASP01	Approach ATC system updated for Minimum Separation Based on Required Surveillance Performance (separation delivery)	From:	By:
		-	-
Action by:	ANS Providers		
Description & purpose:	Approach ATC system updated to provide the ATCO with: - visual assistance of the minimum separation to be applied (Target Display Indicator), - automated alerting of conflicts when this minima is violated (whilst avoiding false alerts during the use of non-wake turbulence pairwise separation).		
ATM Master Plan relationship:	[APP ATC 159]-Approach ATC system updated for Minimum Separation Based on Required Surveillance Performance (separation delivery)		
Finalisation criteria:	1 - Approach ATC system installed		
AOP22-ASP02	Develop ATC Procedure to apply spacing minimum down to 2 NM	From:	By:
		-	-
Action by:	ANS Providers		
Description & purpose:	Develop ATC Procedure to apply spacing minimum down to 2 NM		
ATM Master Plan relationship:	[PRO-257]-ATC Procedure to apply spacing minimum down to 2 NM		
Finalisation criteria:	1 - The procedure is implemented		
AOP22-ASP03	Safety Assessment	From:	By:
		-	-

AOP22		Minimum pair separations based on RSP	
Action by:	ANS Providers		
Description & purpose:	A safety assessment of the changes shall be developed in coordination and synchronisation with all concerned stakeholders. This safety assessment shall be delivered to the competent authority.		
Finalisation criteria:	1 - Safety assessment has been developed and delivered to the competent authority		
AOP22-ASP04	Training	From:	By:
		-	-
Action by:	ANS Providers		
Description & purpose:	Train the air traffic controller minimum pair separations based on SRP		
Finalisation criteria:	1 - Training has been performed		
AOP22-ASP05	System in use	From:	By:
		-	-
Action by:	ANS Providers		
Description & purpose:	Once the systems have been updated, safety assessment delivered and accepted, training has been completed, the system is in operational use.		
Finalisation criteria:	1 - system has been put into service		
AOP22-INT01	Regulatory provisions for Minimum-Pair separations based on RSP (Required Surveillance Performance)	From:	By:
		-	-
Action by:	EASA		
Description & purpose:	Regulatory provisions (produced by the competent regulatory authority) that relate to the minimum of separation minima to apply to cope with surveillance performance. These regulatory provisions consist in defining minimum requirements for allowing 2.0NM minimum radar separation for both arrivals and departures operations. "Regulatory provisions" refers here to advice from the regulatory authorities on the acceptability of a safety case supporting an ATM rule modification.		
ATM Master Plan relationship:	[REG-0526]-Regulatory provisions for Minimum-Pair separations based on RSP (Required Surveillance Performance)		
Finalisation criteria:	1 - Regulatory provisions have been published		

