Vereinigung Cockpit

POSITION
WAKE TURBULENCE SEPARATION



25.03.2026

Summary

VC accepts measures to reduce wake turbulence separation minima, provided that flight safety remains the overriding priority and that the measures are methodically based on internationally recognised scientific research.

Introduction

With air traffic becoming ever denser worldwide and increasingly concentrated at large airports, wake turbulence separation has a major influence on traffic throughput at these airports. One approach to increasing throughput, and thus airport capacity, is to reduce wake turbulence separation for arriving and departing aircraft.

Recommendation

VC accepts the development of procedures and systems that enable a safe reduction of wake turbulence separation, provided the following requirements are met:

1. General

1.1 Flight safety has the highest priority when considering a possible reduction of wake turbulence separation in order to increase capacity.

1.2 Internationally recognised research (completed or ongoing) provides a sound basis for reducing separation minima. All open questions on this subject should be satisfactorily resolved before separation criteria are reduced. An equivalent level of safety can be demonstrated, for example, by a risk assessment.

1.3 The wake turbulence separation standard that reflects the latest scientific findings should always be applied (e.g. RECAT-EU[1] instead of the initially established ICAO wake turbulence categories[2]).

1.4 A combination of different wake turbulence separation standards[3] should be avoided.

1.5 As a matter of principle, there should be no intentional flight into wake turbulence.

2. Airborne Wake Turbulence Warning Systems

2.1 Ground-based systems will be required for the planned, anticipatory use of future wake turbulence warning systems. Nevertheless, VC believes that airborne systems should also be developed to provide crews with decision support for avoiding wake turbulence encounters.

[1] "RECAT-EU" – European Wake Turbulence Categorisation and Separation Minima on Approach and Departure, Edition 2.0, EUROCONTROL, December 2024.
[2] In accordance with ICAO Doc 4444 (PANS-ATM), 4.9.1.1, 5.8.2.1, 5.8.3.1 and 8.7.3.5.
[3] E.g. with the aim of applying, for each aircraft pairing, whichever standard permits the smallest separation.

3. Ground-Based Wake Turbulence Warning Systems

3.1 If reduced wake turbulence separation is introduced on the basis of prediction models, a monitoring system should additionally be introduced that is capable of locating any wake vortices present and tracking their direction of movement, intensity and lifetime.

3.2 Prediction and monitoring systems should be able to monitor the entire airspace in which reduced wake turbulence separation is applied. This airspace is not limited to the final approach but explicitly includes the entire approach area and, where applicable, the departure area.

3.3 The systems to be developed should be capable of generating, in real time, a vertical profile of temperature, wind direction and wind speed in increments of no more than 1,000 ft, in order to predict the expected horizontal and vertical displacement of a wake vortex and its expected lifetime.