

Annex J2: International Precedents for Turning the Missed Approach

Summary

Dublin Airport is an outlier among major European airports with parallel runways. Five comparable airports achieve the required 30-degree divergence between departure and missed approach tracks by turning the missed approach, not the departure. Dublin is the only major European parallel-runway airport that forces departures to turn over residential areas to achieve this divergence.

The Regulatory Requirement

EU Regulation 2017/373 (ATM/ANS) and ICAO Document 9643 require that, for segregated parallel operations, the nominal departure track must diverge by at least 30 degrees from the missed approach track of the adjacent approach. Critically, neither the EU regulation nor the ICAO document specifies which procedure must turn. The IAA confirmed this in its report of 13 May 2025 (FOI 2025.122): "the missed approach track can also diverge from the departure track by 30 degrees and meet the requirement."

The Five Precedent Airports

London Heathrow (EGLL)

Parallel runways 27L/27R. Missed approach procedures turn away from the departure tracks, allowing departures to follow noise-preferential routes. Heathrow handles approximately 80 million passengers annually across two runways with this configuration.

London Gatwick (EGKK)

Single main runway (26L/08R) with a standby runway (26R/08L). Gatwick achieves 48 million annual passengers on a single runway. The missed approach is designed to turn away from departure traffic. Gatwick has projected it could handle 75 million or more passengers using dependent mode operations on a second parallel runway (which would require moving the existing standby runway by approximately 12 metres to meet regulatory spacing).

Amsterdam Schiphol (EHAM)

Multiple parallel runway pairs. Missed approach procedures are designed to turn away from departure tracks on adjacent parallel runways. Schiphol handles approximately 62 million passengers annually.

Berlin Brandenburg (EDDB)

Parallel runways 25L/25R. Missed approach procedures turn away from departure tracks to achieve the required divergence, allowing straight-ahead or near-straight departures. Berlin opened in 2020 as a modern parallel-runway airport.

Brussels Zaventem (EBBR)

Parallel runways 25L/25R. Missed approach procedures are turned to achieve divergence from departure tracks. Brussels handles approximately 26 million passengers annually.

Dublin's Design Choice

At Dublin Airport, AirNav Ireland chose to turn the departure (28R) rather than the missed approach (28L) to achieve the required 30-degree divergence. This design decision was made during the 2021 "final safety review," when AirNav discovered for the first time that the ICAO 9643 divergence requirement applied. AirNav, which had never operated a parallel runway airport, was unaware of this requirement throughout the EIS process (2004-2005) and the consultation process (2016).

The consequence: every departure from the North Runway turns 30 to 86 degrees over residential communities instead of following the straight-ahead route assessed in the 2007 EIS and consulted on in 2016.

The NRTG Proposal

NRTG's proposal is to turn the 28L missed approach 30 degrees left (south) over industrial and quarry land, rather than forcing 28R departures to turn right over residential areas. This would:

- Restore departures to a near-straight track consistent with the approved EIS route
- Eliminate the safety conflict between 28R departures and the 28L missed approach
- Remove approximately 30,000 residents from unnecessary overflight
- Potentially increase airport capacity by enabling simultaneous dual departures

The proposal has been simulator-tested on all aircraft types at Dublin. AirNav's own consultant (ASAP, an Italian ANSP) confirmed that "higher climb gradient is feasible under ICAO Doc 8168." ATC screenshots from Dublin operations show controllers already turning 28L missed approaches south in practice, demonstrating feasibility, but this occurs reactively rather than by published procedure design.

The AltMoC Pathway

An Alternative Means of Compliance (AltMoC) pathway exists under EU regulations for situations where the standard 30-degree divergence is not achieved. The IAA confirmed (May 2025) that it "is aware of a limited number of examples in the EU where an AltMoC has been approved in respect of IFPs for segregated parallel operations which do not diverge by 30 degrees" and that it "is available to work with stakeholders, where helpful and appropriate, in relation to the assessment and approval process for any potential AltMoC."

Neither daa nor AirNav has submitted an AltMoC proposal.

Significance

The international precedent evidence demonstrates that the NRTG proposal is not novel or untested. It is standard practice at major European parallel-runway airports. Dublin's current design, which forces departures over residential areas, is the exception rather than the norm. A solution exists that would resolve the environmental, safety, and planning compliance issues simultaneously, at zero infrastructure cost. The failure to implement it is a governance failure, not a technical constraint.

Sources

- FOI 2025.122: IAA Report on North Runway IFPs (13 May 2025), Paul Kennedy, Head of Aviation Infrastructure
- FOI 2025.122: AirNav Ireland Briefing Note to Department of Transport (13 May 2025)

- NRTG Technical Proposal V9 (August 2023), including international airport procedure analysis
- AirNav AIE response (7 July 2025): confirmed no modelling or technical assessments conducted
- IAA CEO Fitzpatrick submission to Joint Committee on Transport (7 November 2023)