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IRISH AVIATION AUTHORITY

07 November 2023

Senator Gerry Horkan
Leas-Chathaoirleach
Joint Committee on Transport and Communications
Leinster House
Dublin 2
D02 XR20

By email only

Your ref: JCTC-i-1073

Reference: Flightpaths at Dublin Airport

Dear Senator Horkan,

I refer to your letter dated 25th October 2023 and the request for the IAA to submit our observations.

Specifically in relation to flightpaths, the Irish Aviation Authority (IAA) is the safety regulatory body with responsibility for the certification and oversight of Air Traffic Management/ Air navigation Services (ATM/ANS services), aerodromes services and flight operations at aerodromes including the flightpaths (instrument flight procedures) referred to as standard instrument departures (SIDs) and standard instrument arrivals (STARs).

The IAA approves regulatory compliant submissions for instrument flight procedures from certified organisations such as daa and AirNAV Ireland. Any changes to the SIDS and STARS, including the missed approaches, at Dublin Airport would be subject to a safety management process and submission to the IAA for approval.

The report appended to your correspondence *'Dublin Airport North Runway - A problem that can be solved'* (Version 2.0 2023-08-09) outlines a number of proposed changes to the already approved instrument procedures. Changes such as those outlined in the report would normally be submitted by the aerodrome operator or its agent (Air NAV Ireland) to the IAA through established safety management processes. A submission would include a detailed safety case which would demonstrate:

- How the change complied with regulatory safety requirement.
- How any hazards associated with the change were identified.
- How the risk associated with these hazards was calculated and mitigated to ensure safety tolerability is maintained.
- The safety effects the change has on effected aviation stakeholders, such as adjacent aerodromes, ATM/ANS service providers, etc.

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- Other technical evidence related to procedures, equipment, personal competencies etc.

In the absence of a detailed regulatory submission from a certified organisation, the IAA can only make high level observations in respect of the proposals outlined below:

- ***“Proposed: 28R straight to 1.9 nautical miles, then right turn 10 degrees to the right and climb on this track”.***

This proposal relates to the two parallel runways being operated simultaneously for independent departures only with no arriving traffic, however, this scenario would have very limited application at Dublin airport. Currently, simultaneous independent departure mode is not in operation at Dublin Airport.

To provide for segregated simultaneous operations (arrivals and departures) on the parallel runways at Dublin airport, any submission would need to demonstrate that nominal departure track diverged immediately after take-off by at least 30 degrees from the missed approach track of the adjacent approach.

For simultaneous departures and arrivals, this recommendation may be an option in the scenario of dependant runway operations, whereby the north and south runways are effectively considered as one runway with consequent impacts on capacity and traffic flow on the runways.

- ***“Proposed: 28L missed approach to fly to the DAP VOR (end of the runway) and turn 30 degrees left. Climb continuously to 4000ft”.***

In principle, the missed approach procedure for 28L could turn left to ensure a divergence of at least 30 degrees from aircraft departing on runway 28R which continue straight ahead. As outlined earlier, any proposal for a change to the related SIDs and STARs would need to be accompanied by a safety case identifying all hazards and mitigations, including the impact on adjacent aerodromes and airspace, including military airspace.

- ***“Proposed: No turns before 10 nautical miles from the airfield or 5000ft”.***

EU regulations do not provide for the simultaneous use of parallel runways where aircraft track straight ahead to 10 nautical miles. There are provisions for simultaneous independent departures to track straight ahead to 2 nautical miles, but strict criteria must be met. Currently Dublin Airport does not operate simultaneous independent departure modes.

- ***“Proposed: Southbound aircraft depart south runway always”.***

This is a matter for the airport operator to determine operational use and efficiency of its runways. Increased use of 28L for departures may then require increased use of 28R for simultaneous arrivals.

- **“Additional recommendations”**

- ***Use full length of the runway as standard.***

Use of RWY 28 R from taxiways N1 or N2 for departures is already permitted. It is likely that shifting the majority of departures to taxiway N1 (full length) would have negative impacts on the Regulation (EU) 2019/317 environmental indicator taxi-out times, as the distance to line up on the runway is longer than a take-off from taxiway N2.

- ***“Maximum 5kt tailwind for departures”***

Currently 10 knots is the maximum tailwind component for the runways in use at Dublin airport. This tailwind component value of 10 knots was the subject of change management processes and was initiated at the Dublin Airport Operations Planning Group (DAOPG), which is an operational stakeholder forum.

One of the argued benefits of using the 10-knot value was a reduction in aircraft flying past the easterly runway thresholds to position for the westerly runway thresholds, thus reducing the CO₂ and non-CO₂ emission footprint of the aircraft.

- ***“Make the default 250kts below 10,000ft mandatory (ATC keeps overriding this)”***

Regulation (EU) 2017/373 does not mandate a speed restriction for Instrument Flight Rules aircraft above FL 100 (10,000 feet) in Class C airspace. This Regulation provides for air traffic services to, in order to facilitate a safe and orderly flow of traffic, instruct aircraft to adjust speed in a specified manner. These speed adjustments are, as far as practicable, limited to those necessary to establish and/or maintain a desired separation minimum or spacing.

Pursuant to this Regulation the aircraft category C and D departure procedures for RWY 28L specify a maximum speed limitation of 290 knots above FL 100 (10,000 feet) for four waypoints on the flight information region boundary between Ireland and the UK. Additionally, AIP Ireland specifies that below FL 100 (10,000 feet) the maximum indicated airspeed is 250 Knots or less. However, these speeds may be varied by air traffic services to facilitate a safe and orderly flow of air traffic.

- ***“No ATC deviation from the published route below 5000ft”***

Regulation (EU) 2017/373 provides for air traffic services to have the flexibility to “direct aircraft off published routes” as necessary in order to improve

airspace utilisation, reduce delays, provide for direct routings and more optimum flight profiles, as well as to enhance safety.

Any submission to limit this regulatory flexibility would require a robust safety argument that provided evidence of an equivalent safety level. It may also require approval from the EU as a deviation from the published EU regulation requirements.

- **“Penalty for airlines deviating from speed / track (standard across Europe)”**

Any penalties that might be considered should be cognisant of the principle of a just culture. Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014, defines a “just culture” as a culture in which frontline operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated.

At this juncture, in line with the EU ‘just culture’ principle, the IAA does not see a requirement for specific penalty to any airline for noncompliance with speeds and track keeping at Dublin airport.

If you require further information on the IAA’s observations, please do not hesitate to contact me.

Yours sincerely,



Declan Fitzpatrick
Chief Executive
Irish Aviation Authority