

RFI 77 Noise measures - Existing, Planned and New

MEASURE ID	Measure Description	Existing Measure in place in 2018	Existing measure in NAP, in place by 2025	Measure Taken forward in application	New measure with Relevant Action Application
Reduction of Noise at Source (NS)					
NS-1	Promote quieter aircraft through incentives such as FlyQuiet programmes. This programme is expected to be in place by 2022.	x	✓	✓	x
NS-2	Work with airline partners to introduce quieter aircraft, particularly at night, including consideration of incentives. Approaches to incentives under development and expected to be in place by 2022.	x	✓	✓	x
Noise Abatement (NA) Operating Procedures					
NA-1	<i>2-Runway Preferential Runway Programme</i> – Intent of measure is to utilise whenever possible the runways that enable aircraft to avoid noise-sensitive areas during the initial departure and final approach phases of flight. Runway 10 or Runway 28 is the required runway between 0600 and 2300HR local time when the crosswind component is 20KT or less. Runway 28 will be the preferential runway when the tailwind component is 10KT or less and braking action is assessed as good. Aircraft will be required to use these runways except when operational reasons dictate otherwise. If the crosswind component on Runway 10 or Runway 28 is greater than 20KT, Runway 16 or Runway 34 may become the active runway. If the forecast crosswind component on Runway 10 or 28 is greater than 20KT, Runway 16 or 34 may become the active runway. The use of Runway 16-34 will be kept to an absolute minimum subject to operational conditions. Runways will be prioritised for noise abatement purposes between 2300 and 0600HR local time, subject to the same wind calculation method and values as used between 0600 and 2300HR local time. When weather conditions and flight movements permit, runway usage will be prioritised as follows: Arrivals: #1 (Runway 10), #2 (Runway 16), #3 (Runway 28), #4 (Runway 34); Departures: #1 (Runway 28), #2 (Runway 34), #3 (Runway 10), #4 (Runway 16).	✓	x	x	x
NA-2	<i>2-Runway Noise Preferential Routes (NPRs) or Environmental Noise Corridors and Track Keeping</i> – Intent is to minimise disruption by routing aircraft away from built-up areas, where possible. Unless directed otherwise by IAA-ATC, all aircraft taking off from Dublin Airport are required to follow specific NPRs. To minimise impact, NPRs are designed to avoid overflight of built-up areas, where possible. An NPR is a path or corridor (1.8 kilometres at its widest point) that aircraft follow from take-off until being directed by IAA-ATC onto their main air traffic routes, typically at 3,000 feet altitude above mean sea level. Aircraft flying inside the NPR corridor are considered to be flying on-track. departures from all runways (except easterly departures on the existing Runway 10-28 must maintain course straight out for 5 nautical miles (1 nautical mile = 1,852 metres) after take-off before commencing a turn, unless otherwise cleared by IAA-ATC. Easterly departures on the existing southern runway must maintain course straight out for 5 nautical miles before commencing a turn to the north, or to 6 nautical miles before commencing turn to the south. Once an aircraft reaches the end of the NPR, or at an altitude of 3,000 feet, IAA-ATC will turn it onto a more direct heading to its destination. IAA-ATC can turn aircraft off NPRs below 3,000 feet for safety reasons, for example to avoid storms.	✓	x	x	x
NA-3	<i>Noise Abatement Departure Procedures (NADP) Climb Profile</i> – Based on noise-abatement departure climb guidance contained in the ICAO's Procedures for Air Navigation Services Aircraft Operations Document 8168 Volume 1, Flight Procedures Appendix to Chapter 3 – NADP2, with thrust cutback at 1,500 feet.	✓	✓	✓	x
NA-4	<i>Visual Approach</i> – Jet aircraft (Cat C/D) on visual approach to Runways 28, 10, 16, and 34 must join final approach no closer than 6 nautical miles from touchdown. Aircraft must follow a descent path that will not result in being at any time lower than the approach path, which would otherwise be followed using the ILS glide path.	✓	✓	✓	x
NA-5	<i>Continuous Descent Approach (CDA)</i> – Operates a CDA that reduces the noise experienced on the ground by reducing the overall thrust required during the initial descent and keeping aircraft at higher altitudes for a longer period of time.	✓	✓	✓	x
NA-6	<i>Continuous Climb Operations</i> - continuous climb operation along a standard departure procedure is intended to limit interruption of the climb profile to cruise altitude and reduces the noise experienced on the ground caused by thrust levels required to keep aircraft level and increases distance from noise-sensitive areas between an aircraft and receptor as soon as possible.	✓	✓	✓	x
NA-7	<i>Reverse Thrust</i> – Reverse thrust is used to aid the deceleration of aircraft on landing using the aircraft's engines. This should not be used at night, unless required for safety reasons.	✓	✓	✓	x
NA-8	<i>Engine Ground Running</i> – Engine test runs are not permitted between 2000HRs and 0700HRs. All aircraft types may undertake testing between 0900 and 2000HRs, and only aircraft up to Code C may undertake engine testing between 0700 and 0900HRs.	✓	✓	✓	x
NA-9	<i>Monitor and Report</i> – Sustain noise operating procedures through monitoring.	Partial	✓	✓	x
NA-10	<i>3-Runway Noise Preferential Routes (NPRs) or Environmental Corridors (ECs) and Track Keeping</i> – Intent is to minimise disruption by routing aircraft away from built-up areas, where possible. Unless directed otherwise by IAA-ATC, all aircraft taking off from Dublin Airport are required to follow specific NPRs. To minimise impact, NPRs are designed to avoid overflight of built-up areas, where possible. An NPR is a path or corridor (1.8 kilometres at its widest point) that aircraft follow from take-off until being directed by IAA-ATC onto their main air traffic routes, typically at 3,000 feet altitude above mean sea level. Aircraft flying inside the NPR corridor are considered to be flying on-track. The preferred departure flight path NPR is straight out on the South Runway and divergence paths of 30-degrees and 75-degrees for the North Runway for westerly flow and straight out on the South Runway and a divergent path of 15-degrees for easterly flow.	x	x	✓	x
NA-11	<i>3-Runway Preferential Runway Programme</i> – Intent of measure is to utilise whenever possible the runways that enable aircraft to avoid noise-sensitive areas during the initial departure and final approach phases of flight. From 06:00 to 23:59: When winds are westerly, Runway 28L shall be preferred for arriving aircraft. Either Runway 28L or 28R shall be used for departing aircraft as determined by air traffic control. When winds are easterly, either Runway 10L or 10R as determined by air traffic control shall be preferred for arriving aircraft. Runway 10R shall be preferred for departing aircraft. From 00:00 to 5:59: Limit take-off or landings to South Runway (Runway 10L-28R) except in cases of safety, maintenance considerations, exceptional air traffic conditions, adverse weather, technical faults in air traffic control systems or declared emergencies at other airports or where Runway 10R-28L length is required for a specific aircraft type.	x	x	x	✓

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Land Use (LU) Planning and Management					
LU-1	<i>Land Use Compatibility Management Framework</i> – The land use and planning frameworks include the Fingal County Council’s (FCC’s) County Development Plan 2017–2023 (Variation No. 1) and the Dublin Airport 2020 Local Area Plan (LAP), which defines four airport noise zones and the associated objective of each zone along with an indication of the potential noise exposure from movements at Dublin Airport. The zones are based on potential noise exposure levels ($L_{Aeq,16hr}$ and L_{night} levels) due to the airport using either the new northern or existing southern runway for arrivals or departures. The noise zoning system has been developed with the overarching objective to balance the potential impact of aircraft noise from the Airport on both external and internal noise amenity. This allows larger development which may be brought forward in the vicinity of the Airport’s flight paths to be identified and considered as part of the planning process. The focus of the noise zones is to ensure compatibility of residential development and ensuring compatibility with pertinent standards and guidance in relation to planning and noise	✓	✓	✓	✗
LU-2	<i>Land Use Compatibility Management Review</i> – Keep under review land-use policies in relation to aircraft noise through the review of existing land-use planning frameworks in so far as they relate to Dublin Airport.	✓	✓	✓	✗
LU-3	<i>Encroachment Management</i> – Monitor noise encroachment associated with Dublin Airport to ensure airport noise policy is appropriately informed through land-use planning frameworks in so far as they relate to Dublin Airport.	✓	✓	✓	✗
LU-4	<i>Sound Insulation (HSIP)</i> – Voluntary to households that qualify by being located within the 2016 63 dB $L_{Aeq,16hr}$ noise contour.	✓	✗	✗	✗
LU-5	<i>Sound Insulation (RNSI)</i> – Voluntary to households that qualify by being located within the 2022 63 dB $L_{Aeq,16hr}$ noise contour. All properties to be completed by the time North Runway is operational.	✗	✓	✓	✗
LU-6	<i>Voluntary Dwelling Purchase Scheme</i> – Approved in 2016, this measure provides voluntary acquisition of eligible dwellings. Eligibility for the scheme is based on the predicted 69 dB $L_{Aeq,16hr}$ contour. This is the noise threshold for participation in the voluntary scheme. The scheme is completely voluntary and places no obligation on any resident to participate. Offers to purchase will include a 30 percent premium on the current market value of the residence. Property valuations will be based on current movements at Dublin Airport and accordingly valuations will not be affected by the new runway. The scheme will remain available for three years after North Runway is operational (2025).	✓	✓	✓	✗
LU-7	<i>Voluntary School Sound Insulation</i> - voluntary noise insulation of schools for all schools and registered pre-schools predicted to fall within the contour of 60 dB $L_{Aeq,16hr}$. The scheme is designed to ensure that maximum noise limits within the classrooms and school buildings generally shall not exceed 45 dB $L_{Aeq,8hr}$ (a typical school day).	✗	✓	✓	✗
LU-8	<i>Night-time Sound Insulation Grant Programme</i> – A grant programme for households that qualify by being located in areas with forecast noise exposure greater L_{night} 55 dB OR exposed to a noise level of greater than L_{night} 50dB in the first of the relevant action arising from an increase in noise of at least 9dB noise compared with the permitted operation in that same year.	✗	✗	✗	✓
Operating Restrictions (OR)					
OR-1	Crosswind runway (16-34) shall be restricted to essential occasional use on completion of the new runway in accordance with Objective DA03 of the Fingal County Development Plan, 2005-2011. ‘Essential’ use shall be interpreted as use when required by international regulations for safety reasons.	✗	✓	✗	✓
OR-2	Runway 10L-28R “No Use” Limit: This measure is intended to ensure that noise levels forecast to occur in 2025 meet the cNAO Runway 10L-28R shall not be used for take-off or landing between 00:00 hours and 05:59 hours (except in cases of safety, maintenance considerations, exceptional air traffic conditions, adverse weather, technical faults in air traffic control systems or declared emergencies at other airports or where Runway 10R-28L length is required for a specific aircraft type). Due to historic and forecast low demand, this restriction is not expected to impact Dublin Airport capacity and efficiency, the European aviation system and the economy.	✗	✗	✗	✓
OR-3	Quota Count: This measure is intended to ensure that noise levels forecast to occur in 2025 meet the cNAO. The proposed quota count is based on an Annual Night Quota (ANQ) count of 7,990 between 23:30 to 06:00 (Night Quota Period) to be applied for each year from the opening of the North Runway to 2025	✗	✗	✗	✓
Monitoring and Community Engagement (CE)					
CE-1	<i>Stakeholder Engagement</i> – Participate in regular meetings with the Dublin Airport Environment Working Group (DAEWG) and Community Liaison Group (CLG).	✓	✓	✓	✗
CE-2	<i>Community Engagement Programme</i> – Includes newsletters and various programmes that support the local community in the form of initiatives and funds.	✓	✓	✓	✗
CE-3	<i>Noise and Flight Track Monitoring System</i> – Enables the analysis of aircraft movements to assess whether they are operating within defined corridors. The primary objective of the Noise and Flight Track Monitoring System is to gather information on aircraft approach and departure routes and resultant noise levels at several key locations. This information is used by daa to respond to any complaints relating to aircraft noise. Continue to promote enhancements of the system to include near live-flight reporting and appropriate additional fixed and/or mobile noise monitoring terminals.	✓	✓	✓	✗
CE-4	<i>Noise Complaint Management Systems</i> – Process and respond to all aviation-related noise complaints in a timely manner.	✓	✓	✓	✗
CE-5	<i>Relevant Action Noise Reporting Framework</i> - noise reporting associated with compliance with NAO and measures proposed	✗	✗	✗	✓