DUBLIN AIRPORT
"Response to Draft Decision on Slot Coordination Parameters for Summer 2018"
22 September 2017

Executive Summary

Dublin Airport welcomes the opportunity to respond to the Draft Decision on Slot Coordination Parameters for Summer 2017.

The Commission for Aviation Regulation (CAR), by virtue of Section 8(1) of the Aviation Regulation Act, 2001, is the competent authority in Ireland for the purposes of Council Regulation (EEC) No.95/93 (as amended) on common rules for the allocation of slots at Community Airports other than the function of the coordinator. Article 6 of the Slot Regulations states that, at a coordinated airport, the member state responsible shall ensure the determination of the parameters for slot allocation twice yearly, while taking account of all relevant technical, operational and environmental constraints as well as any changes thereto.

Article 5 of the Slot Regulation sets out the tasks of the Coordination Committee[1] which include making proposals concerning or advising the member state on:
- the possibilities for increasing the capacity of the airport determined in accordance with Article 3 or for improving its usage;
- the coordination parameters to be determined in accordance with Article 6;
- all questions relating to the capacity of the airport.

Dublin Airport proposed several changes to the Coordination Parameters for the Summer 2018 (S18) scheduling season to its Coordination Committee in August 2018. This proposal included increases to runway and terminal capacity limits. The proposal was modelled by Dublin Airport using our own simulation modelling capabilities and was subsequently shared with Helios, the capacity consultants appointed by CAR, to inform their modelling.   All modelling results were shared with the Coordination Committee and were used to agree the Committee's advice to CAR. The Committee agreed to support the increases in Runway and Terminal Capacity by majority vote.

CAR has set out its Draft Decision which is to:

1. Amend the runway coordination parameters in accordance with the final proposal from the Coordination Committee.
2. Retain the stand parameter as a hard constraint.
3. Amend the terminal coordination parameters in line with the proposals of Dublin Airport and the advice of the Coordination Committee. The main changes are, increased departure limits for both terminals to 3,700 passengers per hour and to increase arrival limits in Terminal 1 only to 3,550 passengers per hour.
4. Retain the referral limits for US Preclearance (CBP) and T2 Check-in.

Dublin Airport fully supports this decision. Our proposal for extra capacity is strongly demand led, with new and existing customers requesting access to infrastructure. There is limited slot availability throughout the day and targeted incremental capacity is key to improving access and increasing choice for consumers at desired times.   We believe these changes will provide current airlines with an opportunity to optimise their current slot portfolio and furthermore release capacity for new operators and services.

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[1] Membership of the Coordination Committee comprises Dublin Airport, the Irish Aviation Authority and airlines operating at Dublin Airport. While membership is open to all airlines operating at the airport, the following participated in the Summer 2018 process: Aer Lingus, British Airways, CityJet, Norwegian, Ryanair and Stobart Air.

We are mindful of aggressive capacity releases at other airports and we support a targeted and prudent policy of releasing capacity in incremental steps, in response to demand requirements, whilst maintaining our high levels of service quality. Our view is summarised below:

1. The proposed changes to the runway scheduling limits represent a targeted, incremental release of capacity. The impact of these changes on runway throughput has been modelled by NATS, the Airport's Runway Capacity consultants. The impact on the airfield has been modelled by the airport using in-house expertise. The results of both models support the release of extra runway capacity without incurring delays that exceed the relevant criterion assessed. We therefore endorse the proposed runway coordination parameters.
2. We support retaining the stand parameter as a hard constraint and referring to the airport for detailed assessment where demand exceeds supply.
3. The limiting factor in both terminals for the arrivals journey is the immigration process and for the departures journey it is the security screening process. Dublin Airport has modelled the impact of changes to the terminal coordination parameters for arriving and departing passengers. Results show that the increased capacity will have a minimal impact on the service levels experienced by passengers. We therefore support the proposed terminal coordination parameters.
4. We support CAR's decision to retain the T2 check in and US Preclearance referral parameters.

Background

Since 2010, total passenger traffic at Dublin Airport has risen by over 50%. European and UK passenger traffic has increased by 48%. Transatlantic traffic grew by 94%, due to increased services to the USA and Canada. Our traffic to other international destinations has increased by a massive 190%. This growth is due to an increase in both destination choice and the frequency of flights from existing and new airlines (of which there are 42 in total). These airlines fly to over 180 destinations across five continents, with more than 200,000 non-stop scheduled flights in operation per year, and over 2,200 departing flights per week during the busy summer season.

In 2016, our passenger numbers increased by 10% to reach nearly 28 million individual trips. It is expected that passenger numbers in 2017 will increase to more than 29 million. This increase is part of a steady upward trend over a number of years.

The airport is a primary contributor to Ireland having one of the highest connectivity levels on the continent relative to the size of its economy. This connectivity is critical to the economic development of Ireland, including trade, tourism, FDI and business location decisions.

Dublin Airport Coordination Parameters Proposal

In developing its coordination parameter proposal, Dublin Airport took several factors into account. These included:
- Market intelligence from airlines regarding their growth plans including preferred slot times to suit their network connectivity and aircraft size;
- Existing levels of slot utilisation and identification of time periods where airlines would experience difficulties obtaining slots;
- Summer 2017 performance including queue times, taxi times and on-time performance;
- Infrastructural projects that would be delivered in advance of the S18 season;
- Infrastructural projects that would be ongoing during the S18 season.

We developed a forecast schedule for 2018 based on our growth projections and market intelligence. This was used to complete our own capacity assessment of the terminal and airfield facilities that would be in place for summer 2018. It identified where demand could be accommodated within the existing coordination parameters and time periods where incremental

increases would be required. This forecast schedule was shared with Helios and used to inform its own modelling for S18.

Our capacity assessment indicated a need to adjust the runway scheduling limits as follows:

Time (UTC)	Arrivals	Departures	Totals
0500		+1	
0600		+1	
0800	+2	-4	+1
0900	+1		+2
1100			+1
1200		+1	
1500		+1	+1
1600		+1	
1700			+2
2200	+2		

The runway scheduling limits have been adjusted to match the forecast profile of demand in each hour, rebalancing the preference between arrivals and departures and increasing the total number of movements where necessary.

These changes to the scheduling limits were modelled by our Runway Capacity Consultants, NATS. Assessment was made of the delays during single runway mixed mode operations for Runway 28, Runway 10 and a weighted average of the two based on operational performance for Summer 2017. In assessing the changes, the delays for the proposed changes were evaluated against a maximum 10-minute delay criterion which was not exceeded for the peak average arrival or departure delays for Runway 28 operations.

Members of the Coordination Committee have previously expressed a desire for Dublin Airport to complete a full airfield simulation model to aid in the decision-making process for the release of runway capacity. It held the view that this modelling should consider the various complexities associated with the airfield operations such as stand allocation rules, requirements for towing aircraft and remote operations. We completed this modelling and shared the results to the Coordination Committee at its meeting on 17th August 2017. We believe the results from this airfield model supports our proposed changes to the runway scheduling limits for 2018.

Airfield Coordination Parameters

Whilst Dublin Airport has completed its own runway and airfield modelling to support our proposed changes to the coordination parameters, we have also worked closely with Helios, the Capacity Consultants appointed by CAR as they have developed their airfield simulation model.

The validation process for the airfield model was comprehensive and involved close collaboration with Helios to ensure the modelling results were representative of traffic at Dublin Airport. We note that Helios' additional analysis has shown the delay associated with growing demand coordinated to the existing S17 limits and demonstrated that introducing the proposed S18 limits only marginally increases the departure delay profile in the peak periods (1-2 mins) and it is negligible across the day. Their supporting analysis on Runway 10 has shown similar trends. This helps isolate and understand the impact on delay of changing the runway hourly limits, compared to what is already permissible within the existing limits.

Dublin Airport provided CAR and airlines with data showing actual on-time performance (OTP) and taxi-out times for S17. We agree with observations by CAR that following the deterioration in OTP in Summer 2016, this trend has not continued into Summer 2017 despite significant traffic growth over the same period. We also agree that there are no large differences in OTP across different areas of

the airfield. Our data shows that taxi-out times have improved relative to Summer 2016, which we would attribute to the introduction of a triple lane taxiway on the north of the airfield and to the reopening of the Taxiway Z (Zulu) on the South Apron.

Terminal Coordination Parameters

We used our 2018 forecast schedule to model the journeys of arriving and departing passengers through both terminals to understand the demand at key processors e.g. Security Screening, CBP, Immigration etc. This was to ensure the proposed hourly capacities are achievable and do not represent a material reduction in level of service passengers for passengers.

We conducted extensive data collection to support our simulation modelling capabilities. This data includes:
- show-up profiles to check-in, security screening, gates
- transaction times
- queuing times

This data is used to calculate the capacity of each processing facility.

Helios completed a simulation model of both terminals using our forecast schedule and modelling input data. For the terminal model, they have assumed that all facilities are fully staffed and flights are operating with a 100% load factor. The model results show that Summer 2018 can be services by the available terminal infrastructure for arrivals and departures

We agree with CAR's draft decision to increase the hourly limit for departing passengers to 3,700 in both terminals and the hourly limit for arriving passengers in Terminal 1 to 3,550.

Referral Limits

We support CAR's decision to retain the referral limits for T2 Check-in and US Preclearance (CBP). Referral limits are preferable to hard limits in both these areas because they allow for the discussion of possible solutions including; time-changes, introduction of new technologies, or in the case of CBP post clearing. We agree that this approach leads to a more optimal solution for Dublin Airport, airlines and passengers when compared to the alternative of refusing a slot.

Conclusion

CAR has relied on a large body of evidence to reach its draft decision. This includes results from simulation models completed by Helios, Dublin Airport and NATS to assess a range of scenarios related to the proposed changes in coordination parameters. Each set of results supported the proposed changes. CAR has also considered evidence provided by Dublin Airport on current performance metrics of the airfield and terminals and the physical processing capabilities of key processors.

There has been an extensive process of engagement and sharing of information over many months between CAR, Dublin Airport and other members of the Coordination Committee. The determination of the coordination parameters and the methodology used have been presented to the Coordination Committee and discussed in detail in accordance with Article 6(3) of the Slot Regulation. The Committee's formal advice to the Commission was to accept the coordination parameters proposed.

Given the above Dublin Airport supports CAR's Draft Decision on Coordination Parameters for Summer 2018.