DUBLIN AIRPORT
"Response to Draft Decision on Summer 2020 Coordination Parameters at Dublin Airport"
18 September 2019

Executive Summary

Dublin Airport welcomes the opportunity to respond to the Draft Decision on Slot Coordination Parameters for Summer 2020.

The Commission for Aviation Regulation ('the Commission'), 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 a number of changes to the Coordination Parameters for the Summer 2020 scheduling season to its Coordination Committee in August 2019. This proposal included increases to runway capacity limits, as well as rebalancing of runway capacity limits, whilst proposing no changes to the existing Summer 2019 terminal limits. The proposal was modelled by Dublin Airport using simulation modelling consultants, while the commission also appointed their own consultants. All modelling results were shared with the Coordination Committee and the results showed that the ten-minute delay criterion was not exceeded on Runway 28 and that the increased capacity is unlikely to have a major impact on average daily departure taxi out times.

The Commission has set out its Draft Decision which is:
- Relative to the Summer 2019 runway limits, increase the Total movement cap by 1 in the hours 0800, 1100, 1400, 1500 and 1800 hours and reduce the Total movement cap by 1 in the 0700 hour. This is a net increase of 4 Totals.
- Relative to the Summer 2019 runway limits, increase the Departures cap by 1 in the hours 1400 hour.
- Maintain the existing hard parameter on stands, and referral parameters on Terminal 2 Check-in desks and US Preclearance.

Dublin Airport welcomes and supports a targeted prudent policy of releasing capacity in response to demand requirements, whilst maintaining service quality and operational integrity. Dublin Airport's view is summarised below:

1. The proposed changes to the runway scheduling limits represent a targeted release of capacity. The impact of these changes on runway throughput has been modelled by NATS, Dublin Airport's Runway Capacity consultants. The impact on the airfield has been modelled by Arup. The results of both models support the rebalancing of capacity as well as the release of extra runway capacity without incurring delays that exceed the relevant criterion assessed. The modelling undertaken by Helios (Commission's consultant) verified both NATS

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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 2020 process: Ryanair, Aer Lingus, Stobart Air, British Airways, Lufthansa, CityJet, BA City Flyer, Air France, United Airlines, Emirates Turkish Airlines, TUI and Iberia Express.

and Arup's view results. Dublin Airport therefore endorse the proposed increase of runway coordination parameters.

2. Dublin Airport support retaining the stand parameter as a hard constraint and referring to the airport for detailed assessment where demand exceeds supply.

3. Dublin Airport also support the Commission's draft decision to retain the T2 check in and US Preclearance referral parameters.

In the 2020-20204 airport charges draft determination, the Commission have forecasted growth of c. 3% in 2020. While Dublin Airport believe this is unachievable, the release of 0.4% capacity on the runway is critical to growth.

Dublin Airport Coordination Parameters Proposal

The consultation process commences with airlines and operators submitting their demand requirements to the Slot Co-ordinator (ACL) for the forthcoming season. ACL aggregated the demand requests and advised the Committee in late July that to facilitate this demand for Summer 2020, the declared runway capacity would need to increase by an additional 17 daily movements on Summer 2019.
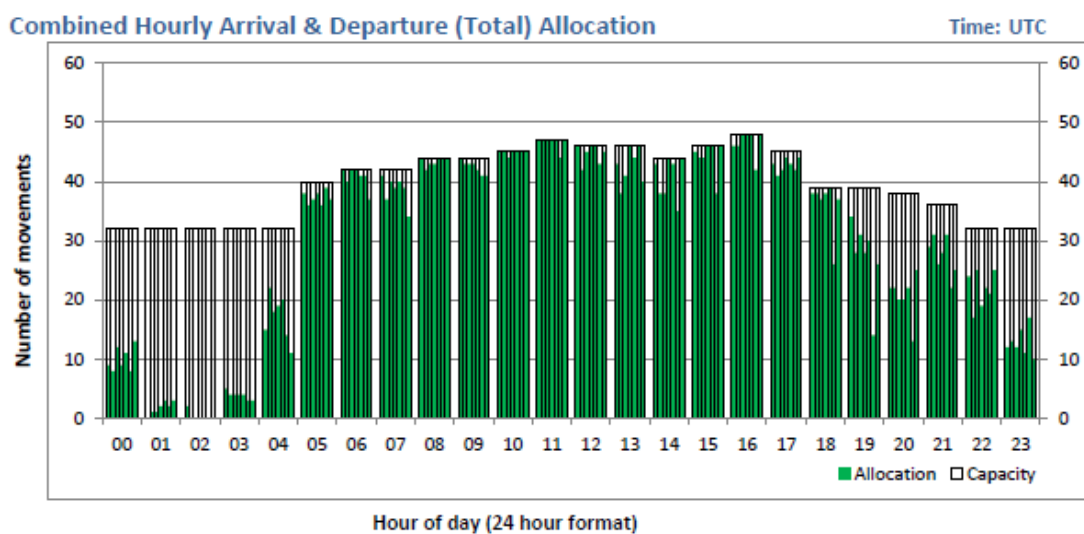
Dublin Airport is responsible for producing a proposed set of runway capacity changes for analysis and consultation by the Committee (the 'Wishlist'). The 'Wishlist' is developed under the balanced approach of (a) attempting to facilitate the operator's demand requirements and (b) ensuring that the operational integrity and efficiency of the airport is maintained.

In developing its coordination parameter proposal, Dublin Airport's analysis focussed on a holistic view of historical runway/airfield performance and also looked forward to the projects being undertaken to improve airfield performance for Summer 2020. These included:

- Market intelligence from airlines regarding their growth plans including preferred slot times to suit their network connectivity and aircraft size;

- Demand indicated in the wishlist by airlines to ACL;

- Existing levels of slot utilisation and identification of time periods where airlines would experience difficulties obtaining slots;

- Summer 2019 performance including queue times, taxi times and on-time performance (OTP);

- Infrastructural improvements that would be delivered in advance of the Summer 2020 season:

  - Aircraft docking guidance and CCTV across all contact stands
  - FEGP on Piers 1, 3 and 4
  - Fuel hydrants on Piers 1 and 4
  - Pier 2 Underpass widened for usage by all GSE
  - West Apron Surface Crossing for all GSE usage
  - Additional stand capacity on the West and North Aprons
  - Stages 1 and 2 of Runway 16/34 rehabilitation
  - Pier 1&2 Immigration Hall expansion

- There are also a number of infrastructure improvements (subject to regulatory approvals) that are expected to be on site:
  - Stage 3 of Runway 16/34 rehabilitation
  - Apron 5H
  - Runway 10 Line-ups

- Elements of the Critical Taxiway Programme

- Runway 16/34 to be inoperative for the peak season (late May-Sept); no dual runway operations available

- Reduced ATC separation initiatives considered _**not**_ to be in operation. Although if this was implemented, it would have a beneficial impact on airfield performance.

- A-CDM will be in 24/7 operation – i.e. fully commissioned and approved by Eurocontrol

- Summer 2019 recorded new daily passenger and movement total

For information, the graph below represents a typical busy week in the Summer 2019 season. Each green line represents the days of the week within each hour.

Combined Hourly Arrival & Departure (Total) Allocation — Time: UTC. Number of movements vs Hour of day (24 hour format). Legend: ■ Allocation □ Capacity

With due regard for the above considerations, Dublin Airport recommend a risk-averse runway capacity declaration for Summer 2020 with a heavy bias towards operational resilience over capacity increases. Dublin Airport did not believe it was prudent to declare 17 additional daily movements required to support the airline demand. Within this demand was the requirements for five additional departure movements in the 0500-UTC hour. As runway 16/34 will not be available from late May to September, there are no changes proposed to capacity for the critical first wave.

The following 'Wishlist' was presented to the Committee for evaluation and consideration:

- A rebalancing of capacity between the 0700 and 0800 UTC hours; -1 total movement in the 0700 hour and +1 movement in the 0800 hour (net zero total movement change);

- 1 additional total movement in the UTC hours: 1100, 1400, 1500 and 1800 and 1 additional movement for the 1400 departure limit;

- In total, 4 additional daily peak runway movements (+0.4% increase on Summer 2019);

- No change to the max hourly totals for departures, arrivals or the combined mix (stays at a maximum total of 48 hourly movements in the 1600 UTC hour).

A forecast schedule was developed for Summer 2020 having considered the proposed increases. This was used to complete a capacity assessment of the terminal and airfield facilities that would be in place for Summer 2020. It identified where demand could be accommodated within the existing

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coordination parameters and time periods where incremental increases would be required. The runway scheduling limits were adjusted to match the forecast profile of demand in each hour, rebalancing and increasing the number of movements where necessary. This forecast schedule was shared with ARUP, NATS and Helios and was used to inform the Summer 2020 simulation modelling.

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. This modelling was completed, and the results were shared with the Coordination Committee at its meeting on 21st August 2019 and in advance of this date to allow time for review. These modelling results support the proposed changes to the Summer 2020 runway scheduling limits.

Dublin Airport Summer 2019 Performance

Summer 2019 had a growth of 2.6% in movements versus Summer 2018 (April to August). This increase in movements had a minimal impact on the key performance indicators used to measure airfield performance:

- Summer 2019 departure OTP was < 1% lower than Summer 2018 at the corresponding stage;
- Summer 2019 arrival OTP is in line with Summer 2018 at the corresponding stage;
- Delay minutes have remained flat year-on-year from April to August;
- Summer 2019 average daily taxi-out time has had a negligible increase of 43 seconds versus Summer 2018 at the corresponding stage (Runway 28 in use; 1.8% increase in movements on S18);
- No change to the max average taxi-out time versus Summer 2018 (flat at 21 mins);
- Summer 2019 average taxi-in time increase of 38 seconds compared to Summer 2018 at the corresponding stage

Airfield Coordination Parameters

This 'Wishlist' has been extensively analysed by three separate, independent experts: NATS and ARUP (on behalf of Dublin Airport) and Helios (on behalf of the Commission for Aviation Regulation). The simulation assessments focus on ramp, airfield, runway and airspace efficiency. Below is a summary of the various modelling results for the Summer 2020 proposals:

- NATS Report: the 10-minute delay criterion was not exceeded for arrivals or departures on Runway 28 in the Baseline or Wishlist 1

- ARUP Report:
  - No discernible difference in taxi-in time for the periods under consideration for arrival slot changes;
  - Slot shift from 0700-0800 UTC and new slot at 1800 UTC has negligible impact on the average taxi-out time;
  - Proposed new slot at 1100 UTC generates up to 2 additional mins of taxi out time. Additional 2 slots at 1400 and 1500 UTC generates up to 4 additional minutes of taxi-out time during these time periods.

- Helios Report:

- No material impact on taxi-out times on average across the day;
- No material impact on first wave departures, and consequently no material impact on the peak daily taxi-out time.
- Increased taxi-out time in the 1500 hour, with the difference peaking at 2 minutes within that hour;
- A reduced redistribution effect; i.e. with the newly available totals, we expect that this will reduce the pressure on adjoining hours to a certain extent. In the simulation, this can be observed particularly in the 1400 and 1900 hours;
- No significant changes for arriving aircraft.

Dublin Airport have provided the Commission and airlines data showing actual on-time performance and taxi-out times for Summer 2019. Dublin Airport also welcome the Commission's recognition that OTP is driven by a wide range of factors controlled by several stakeholders, including the airport, airlines, ground handlers and air traffic control.

Dublin Airport will work on a phasing plan for all projects that will take place during the Summer 2020 season to minimise disruption to scheduled operations (section 3.31 in Draft Decision on Summer 2020 Coordination)

Dublin Airport welcome the commission's reference to "initiatives ongoing to reduce aircraft separations on the runway, both Departure-Departure and Arrival-Departure-Arrival separations. These changes would lead to more efficient use of the existing infrastructure. However, given that none of these improvements are confirmed to be in place, we have not relied on them either for the modelling carried out by Helios or in this Draft Decision. Should there be any reduction in place during Summer 2020, this will provide resilience and improve airfield performance rather than providing increased capacity." (section 3.36 in Draft Decision on Summer 2020 Coordination) Also, although the modelling that took place has not assumed any improvement from A-CDM, Dublin Airport would like to note the agreement with the commission that A-CDM being in place is intended to allow for improved real-time decision making which is expected to lead to improved efficiency and flow on the airfield.

Terminal Coordination Parameters

Dublin Airport used the Summer 2020 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 for passengers.

Extensive data collection was conducted to support the simulation modelling capabilities. This data included:
- show-up profiles to check-in, security screening, gates
- baggage per passenger rates
- transaction times
- queuing times

This data was used to calculate the capacity of each processing facility. Based on the results of this modelling exercise Dublin Airport proposed retaining the current Terminal Coordination Parameters with support of the coordination committee.

Referral Limits

Dublin Airport support the Commission's decision to retain the referral limits for Terminal 2 Check-in and US Preclearance (CBP) and the hard referral limit for stands. Referral limits are preferable to hard limits in Terminal 2 Check-in and CBP because they allow for the discussion of possible

solutions including time-changes, introduction of new technologies or in the case of CBP post clearing. Dublin Airport believe that this approach leads to a better optimised solution for all key stakeholders (airport & airline) and passengers when compared to the alternative of refusing a slot.

Airport Charges Draft Determination

In the Draft Determination, the Commission have set Dublin Airport a passenger growth target of c. 3% for 2020. Dublin Airport believe that this is an unachievable target due to severe runway capacity and other infrastructure constraints. It is imperative that this 0.4% of additional runway capacity is released in Summer 2020 to enable Dublin Airport to grow, albeit substantially under the target set out in the draft determination.

Conclusion

The Commission has relied on a large body of evidence to reach its draft decision. This includes results from simulation models completed by Helios, Arup and NATS to assess a range of scenarios related to the proposed changes in coordination parameters. Each set of results supports the proposed changes.

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.

Dublin Airport concurs with the Commission that the advice of the committee is not in line with the criteria that the 10 min runway holding delay is an appropriate threshold beyond which capacity should not be released, given Dublin Airport's proposal does not reach this limit.

In summary, it is the view of the aerodrome operator that the proposal to increase the runway capacity declaration for Summer 2020 does not affect established processes, procedures and services as required under Commission Regulation (EU) No 139/2014 Subpart D, given the proposed declaration increase of 0.4%, spread evenly across the operating day and outside of the first wave.

Given the above Dublin Airport supports the Commission's Draft Decision on Coordination Parameters for Summer 2020 in relation to increasing capacity.