Draft Decision on Winter 2018 Slot Coordination Parameters at Dublin Airport

Commission Paper 6/2018

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Commission for Aviation Regulation

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1. Executive Summary

1.1 The Commission for Aviation Regulation, as the authority charged with declaring coordination parameters at coordinated Irish Airports, herein sets outs our Draft Decision on the parameters for the Winter 2018 scheduling season at Dublin Airport. The Winter 2018 season spans from 28 October 2018 to 30 March 2019.

1.2 The Commission received advice from the Coordination Committee to adjust various coordination parameters. The advice is published alongside this document. Our Draft Decision is to amend the parameters in line with the advice received.

1.3 There were a number of demand led changes proposed with respect to the hourly movement limits on the runway; collectively this set of changes is referred to as the Winter 2018 (W18) Wishlist. Taking the W17 declaration as a baseline, the W18 Wishlist proposes to add one departure in each of the two morning peak hours, and to rebalance between arrivals and departures in the late morning hours. It also proposes to increase the total allowed movements (arrivals and departures) in four hours across the day, for a total of seven extra movements.

1.4 Our airfield simulation consultants, Helios, have assessed the likely effect of implementing the W18 Wishlist, relative to rolling forward the W17 limits, on a busy day in Winter 2018. The assessment demonstrated that implementing the W18 Wishlist would not cause any significant deterioration in key airfield metrics, such as taxi out times or ground delay. We have also considered modelling work conducted by NATS and ARUP for Dublin Airport, together with all other evidence which was presented to us.

1.5 The proposal includes increasing the limits on the number of departing passengers in each of Terminals 1 and 2 to 3,700, from 3,375 and 3,450 respectively, and increasing the limits on arriving passengers in Terminal 1 from 3,390 to 3,550. No change is proposed for the Terminal 2 arrivals limit, which is 3,050. This proposal would see the winter limits for the terminals brought in line with those in place for the current summer season (Summer 2018).

1.6 No changes are for the referral limits which relate to Terminal 2 Check-in desks and US Preclearance. We propose to discontinue the referral limit on Terminal 2 morning arrivals. We propose to maintain the allocation based, hard limit on stands.

1.7 This draft decision follows engagement over the past number of months between stakeholders. This includes consultation between the Commission, Helios and industry on the simulation modelling being carried out. In addition, there has been extensive engagement and sharing of information between members of the Coordination Committee in arriving at their advice for the Commission. The Coordination Committee comprises Dublin Airport, the Irish Aviation Authority and airlines operating at Dublin Airport. The Commission attends meetings of the Committee in which the coordination parameters are discussed.

1.8 Alongside this paper we have published the following supporting documents:

- Advice received from the Coordination Committee
- Simulation modelling results from the work undertaken by Helios

1.9 References to times or hours are in UTC 24 hour format. As this is a winter declaration, UTC matches local time. Where a reference is made to a particular hour, such as the 0500 hour, this refers to a time period of one hour from the stated time. To give an example, the 0500 hour spans from 5 am to 6 am local time.

1.10 This is a consultation paper and we welcome the views of interested parties on this draft decision.[1] Responses to this paper should be evidence based. They should be titled "Response to draft W18 Declaration of Slot Parameters" and sent by email to info@aviationreg.ie or by post to: Commission for Aviation Regulation, 3rd Floor, Alexandra House, Earlsfort Terrace, Dublin D02 W773.

1.11 The deadline for responses to this consultation is **5pm, 26 April 2018.**

[1] Respondents should be aware that we are subject to the provisions of the Freedom of Information legislation. Ordinarily we place all submissions received on our website. We may include the information contained in submissions in reports and elsewhere as required. If a submission contains confidential material, it should be clearly marked as confidential and a redacted version suitable for publication should also be provided. We do not edit submissions. Any party making a submission has sole responsibility for its contents and indemnifies us in relation to any loss or damage of whatever nature and howsoever arising suffered by us as a result of publishing or disseminating the information contained within the submission.

2. Background

Legislation

2.1 Section 8(1) of the Aviation Regulation Act, 2001, states that the Commission is the competent authority in Ireland for the purposes of Council Regulation (EEC) No. 95/93, as amended by Regulation (EC) No 793/2004 ("the Slot Allocation Regulations"). The Commission is therefore responsible for:

- The designation of the Coordination status of Irish airports.
- Appointing a qualified schedules facilitator or coordinator, as appropriate, at airports which have been designated as Schedules Facilitated or Coordinated.
- The declaration of coordination parameters at Coordinated airports, taking into account relevant technical, operational, and environmental constraints.

2.2 Dublin Airport is designated as Coordinated by the Commission; Airport Coordination Limited (ACL) is the appointed coordinator. No other airport in Ireland has been designated as either Schedules Facilitated or Coordinated.

2.3 Under Regulation No. 95/93, one of the roles of the Coordination Committee is to advise on appropriate coordination parameters.

2.4 Article 6(3) of the Slot Allocation Regulations details the required interaction between the Commission and the Coordination Committee:

"*The determination of the parameters and the methodology used as well as any changes thereto shall be discussed in detail within the coordination committee with a view to increasing the capacity and number of slots available for allocation, before a final decision on the parameters for slot allocation is taken. All relevant documents shall be made available on request to interested parties.*"

2.5 Subsequent sections of this paper detail how this requirement was met by the Commission.

Winter 2018 Coordination Committee Process

2.6 In 2017, the Commission appointed Helios to build and validate fast time simulation models of both the airfield and the passenger terminal buildings. To help inform our decision on the parameters for Winter 2018, we asked Helios to coordinate a potential flight schedule on a busy day in Winter 18 ("the W18 Schedule") according to both the proposed Winter 18 and the current Winter 17 runway limits, simulate both flight schedules using the airfield model, and compare the results. Comparisons were provided between simulated taxi times, ground delay and runway holding delay.

2.7 The W18 Schedule was based on the flight schedule which operated on 17 November 2017, "the W17 Design Day". This day was selected as representative of a typical busy, but not absolute peak, day in Winter 2017. Assumptions regarding traffic growth were then made by ACL in conjunction with Dublin Airport, based on airline submissions to ACL where available. These assumptions were used to generate both the W18 schedule and the demand led W18

Wishlist.[2] Finally, the Commission requested that an additional 9 aircraft movements be added to the W18 Schedule in the peak morning departure hours, such that these two hours (0600 and 0700) are full to limits proposed under the W18 Wishlist.

2.8 In January 2018, Helios consulted with Coordination Committee members to obtain views on capacity constraints and other issues ahead of Winter 18. The runway occupancy times (ROTs) were subsequently adjusted in the model to reflect those observed in winter conditions. Helios circulated draft results to the Committee on 15 March, timed to fit with the Committee's W18 Pre-meeting on 21 March. Feedback from members focused on the general performance of the model, rather than making any specific adjustments. Therefore, to put the model performance in context, Helios simulated actual operations which occurred on the Winter 17 Design Day, and compared it to actual data from that day. This final set of results was circulated on 28 March, ahead of the W18 Committee Meeting on 4 April. Helios attended both the Pre-meeting and the Meeting to present its results and take questions from members.

2.9 Dublin Airport circulated various pieces of analysis and modelling results to Committee members on 15 March, ahead of the Pre-meeting, namely:

- Simulation modelling carried out for Dublin Airport by NATS in relation to runway holding delay with the proposed W18 runway limits in place.
- Simulation modelling carried out for Dublin Airport by ARUP which compared the W17 Design Day with both the W18 schedule and an alternative Winter 18 schedule, without the 9 extra movements in the morning departure peak requested by the Commission.
- An update on performance during Winter 2017, current/prospective projects to enhance capacity, and projects which may be under construction during Winter 2018.
- An update from ACL, the Dublin coordinator, containing an overview of Winter 2017 and looking ahead to the demand profile for Summer 2018.
- Proposed coordination parameters for Winter 2018.

2.10 On 30 March, updated versions of these documents were circulated, based on any action items arising from the Pre-meeting. No other Committee member circulated any material or proposals.

Coordination Committee Advice on Parameters for Winter 2018

2.11 At the Committee Meeting on 4 April, votes were cast to finalise the advice to the Commission on coordination parameters for Winter 2018. Voting rights for Committee members are set out in the Coordination Committee Constitution. A set number of votes are allocated to Dublin Airport and the IAA, with the rest shared out among other members present at the meeting based on the number of movements flown at Dublin in the preceding year. Tables 2.1 and 2.2 summarise the voting with regard to the runway limits and other limits respectively.

[2] In this context, the Wishlist for a given season is a term used to collectively describe a set of proposed demand-led changes to the runway limits which were in place during the previous corresponding season.

Table 2.1: Committee votes in favour of W18 Wishlist

Member	Number of votes	In Favour	Against
Aer Lingus	250	✓	
Cityjet	21	*	
Dublin Airport	40	✓	
IAA	20	✓	
Norwegian	7	✓	
Ryanair	318	✓	
Stobart	88	*	
Total	**744**	**656**	**0**

Source: Coordination Committee

**Expressed partial support for the W18 Wishlist, so votes were considered for each hour. Overall, they were considered to be neither in favour nor opposed to the W18 Wishlist. For more details see the advice from the Coordination Committee.*

2.12 Based on the voting rights, the advice of the Committee is therefore to implement the W18 Wishlist to the Winter 17 limits, in order to derive the runway limits for Winter 2018. Section 3 sets out the full list of amendments under this Wishlist.

2.13 CityJet supported most elements of the Wishlist but opposed the changes to both departures and totals in the 0700 hour. Stobart Air opposed the changes to the 0600 and 1100 hours. All other changes were fully supported by Committee members. Those who opposed the changes did not provide reasons for so doing.

2.14 The Committee also voted on the terminal, stand and referral parameters as proposed by Dublin Airport. It was proposed that hourly terminal limits would be brought in line with those declared for Summer 18. The declared capacity for departures would therefore increase from 3,375 in Terminal 1 and 3,450 in Terminal 2 to 3,700 in both terminals, and the 2-hourly limit would no longer apply. For arrivals, it was proposed to increase the hourly capacity in Terminal 1 from 3,390 to 3,550, leaving Terminal 2 unchanged. Dublin Airport further proposed that the stand parameter would remain unchanged as a hard constraint, while the referral parameters relating to Terminal 2 check-in desks and US Preclearance should remain in place. Votes were cast as follows:

Table 2.2: Committee votes in favour of the proposed terminal, stand, and referral limits

Member	Number of votes	Terminal	Stands	Referrals
Aer Lingus	250	✓	✓	✓
Cityjet	21	✓	✓	✓
Dublin Airport	40	✓	✓	✓
IAA	20	-	-	-
Norwegian	7	✓	✓	✓
Ryanair	318	✓*	✓	✓
Stobart	88	✓	✓	✓
In Favour		**724**	**724**	**724**
Opposed		**0**	**0**	**0**

Source: Coordination Committee

**Ryanair supported the increase, but stated that it believed the limits on Terminal 1 should be increased further.*

2.15 The advice of the Committee is therefore to implement the terminal, stands, and referral

parameters as proposed. The IAA abstained from this vote, as is their normal practice for decisions on limits other than the runway.

2.16 The formal advice from the Committee is published alongside this paper.

3. Airfield Coordination Parameters

3.1 The Commission's draft decision is to amend the runway limits in accordance with the W18 Wishlist.

Table 3.1: Proposed changes to runway limits from Winter 2017, termed the W18 Wishlist

Hour (UTC/local)	Departures	Arrivals	Totals
0600	+1		
0700	+1		+2
0900	-2	+2	
1000			+2
1100	+1	-1	
1600			+2
1900			+1

3.2 We propose to retain the stand parameter as a hard constraint.

Helios Airfield Modelling

3.3 Using the aforementioned W18 Schedule, Helios assessed the expected effect on the airfield of a decision to increase the runway limits in line with the W18 Wishlist, compared to maintaining the W17 limits. The assessment takes the form of a comparison of taxi-out times, taxi-in times, ground delay for both arriving and departing aircraft, and runway holding delay. Results are summarised in Table 3.2; for further details see the report from Helios published alongside this document. Taxi out time is the key airfield metric for the purposes of this assessment; departure ground delay is closely related to taxi out time.

3.4 Thus, on a representative busy day, and in a high growth scenario for Winter 18 (5% growth in movements from the W17 Design Day), Helios summarised the difference between these two potential decisions. As noted previously, we asked for 9 further movements to be added to the original Winter 18 Schedule across the 0600 and 0700 hours; this was to ensure that the modelling would test out the potential effect on the morning peak of increasing the runway limits in line with the W18 Wishlist. The W18 Schedule used by Helios has a total of 31 new movements relative to the W17 Design Day schedule.

3.5 It should be noted that if growth does not materialise to the extent envisaged, the delay related metrics would be lower than set out by Helios. The modelling assumes Runway 28 only is active; this is the most frequently used runway and thus is used for setting the declared runway capacity. Depending on weather conditions, dual runway operations on Runways 28 and 34 are possible on some mornings. This allows the first wave of departures to depart more efficiently, however given that it currently only occurs roughly 50% of the time it has not been included in Helios' modelling.

3.6 Although the model underwent a thorough validation process in 2017 to ensure that it was replicating actual operations with sufficient accuracy, a number of Committee members asked for a comparison between simulated and actual data from the W17 Design Day.[3] This

[3] See the original validation document here: https://www.aviationreg.ie/_fileupload/s18/Helios_Airside_Validation.pdf

comparison was included in Helios' final assessment. The model very closely replicated the actual observed data for both arrivals and departure, as well as runway throughput. In terms of a daily average, the difference between actual and simulated data for taxi-out time was 4 seconds, while for taxi-in time it was 12 seconds. Given the close match in these outputs, it is our view that no significant airfield capacity affecting element has been omitted from the model.

3.7 Taxi-out time measures the time elapsed from the aircraft coming off blocks until it crosses the runway stop bar to begin its take-off roll. Taxi-in time is measured from when an arriving aircraft vacates the runway safety area, until it comes on blocks. Ground delay is the accumulation of all delay experienced while taxiing in or out, i.e. all components of taxi time other than unimpeded taxi-time.[4] The difference column in Table 3.2 shows the increase in the various metrics from implementing the W18 Wishlist (whether positive or negative).

Table 3.2: Maintaining the W17 Limits compared to implementing the W18 Wishlist

Metric (minutes and seconds)	Period	W17 Limits	W18 Wishlist	Difference
Taxi-out time	Daily average	13:18	13:07	-00:11
Taxi-out time	Peak	22:07	22:55	00:48
Taxi-in time	Daily average	06:25	06:31	00:06
Taxi-in time	Peak	07:38	07:57	00:19
Departure ground delay	Daily average	04:21	04:15	-00:06
Arrival ground delay	Daily average	00:19	00:24	00:05

3.8 We would summarise the Helios results as follows:

- The comparison between actual and simulated data from the W17 Design Day again demonstrates that the model is very closely replicating actual operations. Thus, it provides a sound basis upon which to base a decision on the W18 runway limits.

- Averaging across the full day, there is very little effect on the airfield metrics resulting from increasing the runway limits in line with the W18 Wishlist.

- Implementing the W18 Wishlist would lead to a 48 second increase in the peak taxi-out time experienced by departing aircraft during the morning departure peak. This is caused by the additional permitted departure movement in both the 0600 and 0700 hours, together with two additional total movements in the 0700 hour.

- If the W18 Wishlist is not implemented, these movements would be shifted out of the morning departure peak hours into shoulder hours (0500 and 0800). This leads to increased taxi out time in these shoulder hours.

NATS runway modelling

3.9 As has occurred in previous seasons, Dublin Airport commissioned NATS to assess the impact of the changes in runway parameters proposed under the W18 Wishlist. It is important to note that the purpose of the NATS assessment is different to that of the airfield modelling carried out by Helios. NATS assess whether the runway alone is capable of delivering a theoretical

[4] These are the metrics as defined by Helios. Some variation may apply in how others define these metrics.

schedule, whereby the traffic in each hour fills the proposed total runway limits, without breaching a 10-minute runway holding delay criterion. The main difference is that Helios' assessment includes modelling of the runway, taxiways and stands whereas NATS assesses the runway only.

3.10 In practice, slots could not be allocated such that the runway limits are completely filled due to the hard constraint on stands.

3.11 NATS modelled the W18 Wishlist runway parameters and the 10 minute delay criterion was not breached under single runway operations off Runway 28, the runway off which we declare capacity.

3.12 For information purposes, NATS also modelled Runway 10 operations and a weighted average of Runways 28 and 10 (weighted 80:20 to reflect usage of these runways). The weighted average did not breach the 10 minute delay criterion; on Runway 10 the threshold was breached by less than 1 minute in the early afternoon.

ARUP Modelling

3.13 Dublin Airport commissioned ARUP to carry out simulation modelling using Dublin Airport's own simulation model. This model is broadly similar to that developed by Helios. ARUP simulated the W17 Design Day flight schedule, and compared it with the initial W18 flight schedule (i.e. the W18 Schedule before additional movements were added in the morning peak at the request of the Commission). The assessment draws a comparison between the W17 baseline schedule and a W18 schedule composed of the W17 baseline schedule with 22 new movements added.

3.14 Where there was overlap between the ARUP and Helios modelling, the two sets of results were very similar, providing further evidence that both models were well validated and accurate.

3.15 This comparison may be useful for putting in context the expected effects on the airfield resulting from more modest growth than assumed for the flight schedule used by Helios, relative to no growth at all. However, we do not see that it is particularly relevant for the purposes of making a decision on the proposed limits, when only 1 of the 22 movements added would not fit within the existing W17 limits. We agree that it is not practicable or sensible to fully saturate the runway limits when drawing up a flight schedule for use in an airfield model. However, in order to test out some key proposed increases to the limits, it is necessary to use a flight schedule which actually makes use of these increases.

On Time Performance (OTP), Delay and Taxi-out Times in Winter 2017

3.16 Taxi-out times were broadly in line with Winter 2016; during the morning departure peak, taxi-out times to Runway 28 from the southern half of the airport were largely consistent with Winter 2016, while those from the northern half increased by roughly 1-2 minutes. There were no significant differences in taxi-out times across the different piers or apron areas.

3.17 Relative to Winter 2016, On Time Performance has remained largely constant in Winter 2017 (excluding the snow events in March 2018), both across the day as a whole and within different times of day. This has been achieved despite growth in passenger numbers of approximately 5%, thanks to the efforts of a range of stakeholders. We further note that there

has been a significant fall in departure delay[5] attributed to Dublin Airport (delay codes 87 and 89). This has fallen by 17% from Winter 2016.[6]

Potential Capacity Enhancements or Diminutions in Winter 2018

3.18 There are a number of Programme of Airport Campus Enhancement (PACE) projects which may be under construction and/or operational for the Winter 18 Season.[7] As in previous winter seasons, Dublin Airport has assured us that these projects would be carefully phased to minimise operational disruption. Projects are phased around delivering the flight schedule; that is, the first priority is maintaining the operational performance of the flight schedule, with works fitted in around this.

3.19 Airport Collaborative Decision Making (A-CDM) is expected to be fully operational for Winter 2018, which would lead to improved information sharing among stakeholders. This should translate into improved operational efficiency. The Helios modelling does not take into account any such improvement, given that it has been validated based on a day without A-CDM in place.

Draft decision - Airfield

3.20 The Commission's draft decision is to amend the runway coordination parameters in accordance with the W18 Wishlist, as advised by the Coordination Committee.[8]

3.21 The W18 Wishlist is demand led; it is intended to adjust the limits to better fit the demand profile, as well incrementally increase them in certain hours. These increases are also demand led. It is therefore in the broader interests of all stakeholders for us to implement these limits, provided that they are feasible and that a corresponding flight schedule can be operated without adding significant delay.

3.22 The evidence demonstrates that the proposed changes are feasible. The proposed decision to alter the limits is based on the following factors:

- The Coordination Committee has advised us to increase the runway capacity as proposed.
- The Helios assessment shows that the direct effect of the proposed Winter 2018 limits relative to rolling forward the Winter 2017 limits is likely to be limited, with overall delay across the day roughly averaging out in both scenarios. Peak departure delay is likely to increase by approximately 40 seconds under the Winter 2018 limits, while maintaining the Winter 2017 limits would shift this delay into the adjoining shoulder hours.
- The NATS assessment shows that the runway can handle the additional movements without breaching the 10-minute runway holding delay criterion.
- The IAA ANSP supports the amendments.

[6] Includes November to February only, to allow for direct comparability. OTP delay, rather than simulation delay.
[7] See Draft Decision on PACE for further details: https://www.aviationreg.ie/_fileupload/PACE%20Draft%20Decision/2018-02-20%20Draft%20Decision%20final%20draft.pdf

- OTP and taxi-out time statistics in Winter 2017 have been maintained or improved from Winter 2016 despite the increase in traffic.

- Dublin Airport has noted that projects due to be under construction will have little or no overall operational effect.

3.23 Where demand for stands exceeds supply, movements are referred to Dublin Airport for detailed assessment. If the issue cannot be resolved, a slot will not be allocated.

4. Terminal Parameters

4.1 Our draft decision is 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. We propose to maintain the referral parameters on Terminal 2 check-in desks and US Preclearance. These changes were supported by the Coordination Committee. They would bring the Winter 2018 limits in line with the Summer 2018 limits, which we declared in 2017.

Proposed Parameters – Dublin Airport

4.2 The following changes were proposed by Dublin Airport to the Winter 2017 coordination parameters for the terminals:

- Increase the hourly limit for departing passengers to 3,700 for both Terminal 1 and Terminal 2.
- Remove the 2-hour rolling limit for departures in both terminals.
- Increase the hourly limit for arriving passengers in Terminal 1 to 3,550.

It also proposed retaining the hourly limit for arriving passengers in Terminal 2 of 3,050.

Table 4.1: Departure and Arrivals- Rolling Hour Limits

	Winter 2017				Winter 2018 Proposal	
	Departures Hourly Limits	2 Hour Limit	Arrivals Hourly Limits		Departures Hourly Limits	Arrivals Hourly Limits
Terminal 1	3375	5400	3390		3700	3550
Terminal 2	3450	5040	3050		3700	3050

Hourly limit rolled every 10 minutes.

Proposed Referral Limits – Dublin Airport

4.3 Referral limits are not hard coordination parameters. If a proposed operation hits a referral limit, it is referred to the airport to attempt to find a workable solution.

4.4 The airport proposed retaining the referral parameter for Terminal 2 check-in desks 1-28 (Terminal 2 operators excluding Aer Lingus) – where demand exceeds 28 desks.

4.5 It recommended retaining the referral for US Preclearance, which applies to any new flights, or time changes to pre-existing flights, intending to use this facility.

4.6 In Winter 2017 there was a referral flag for Terminal 2 arrivals, from 0630 to 1130, of 1,500 passengers per rolling hour. It is proposed that this is dropped; it was already dropped ahead of Summer 2018.

Proposed Parameters – Other parties

4.7 No other party, except for Dublin Airport, made concrete proposals on changes to the coordination parameters for terminal buildings.

Dublin Airport Terminal Capacity

4.8 As part of our decision on the Summer 2018 limits, the Commission assessed the processing capacity of the different PTB processors with reference to the proposed Summer 2018 limits, and determined that the proposals were feasible.[9] Given that the current proposal is to bring the Winter 2018 limits in line with Summer 2018, we would refer back to that analysis and draw the same conclusion.

4.9 The Commission has recently published a report which we commissioned from Helios. The purpose of this report is to fully assess the capacity of Dublin Airport. It contains detailed analysis of the overall Passenger Terminal Building (PTB) capacity. In broad terms, it can be concluded from the Helios report that:

- For Terminal 2, the Summer 2018 limits (and therefore the proposed Winter 2018 limits) are appropriate.
- For Terminal 1, the processing ability of the facilities would allow for higher limits to be declared, namely 4,600 for departures and 4,100 for arrivals. However, based on the simulation of passenger flow through the Pier 1/Pier 2 Immigration process, this arrivals limit would result in a significant quality of service issue in the late evening. The issue, which relates to wait times and space per passenger, is currently experienced on certain days; any further increase in passengers through this facility could exacerbate the situation.
- The referral limits relating to US Preclearance and Terminal 2 check-in desks should be maintained.
- The 2 hour rolling limit on departing passengers and the referral limit on Terminal 2 morning arrivals are not necessary.

4.10 With the exception of Terminal 1 passenger processing, the advice from the Coordination Committee on Winter 2018 and the report by Helios are therefore aligned. Helios advise that the departure capacity for this terminal could actually be increased further to 4,600, without significant quality of service implications. Helios further advise that the arrivals processors in Terminal 1 could handle 4,100 passengers, with the proviso that more passengers could worsen the quality of service experienced by passengers on busy evenings. Finally, it notes that additional capacity should be released incrementally.

Load Factors

4.11 For the purposes of assessing a slot request against the PTB limits, a load factor of 85% is currently assumed for scheduled flights. There was no proposal to change this during the Committee meetings. In reality, load factors have been significantly higher than this at Dublin during recent seasons; the actual load factors vary by operator to a certain extent.

Draft Decision

4.12 Our Draft Decision is to follow the advice of the Committee by implementing the terminal limits proposed by Dublin Airport. We are not proposing to further increase the Terminal 1 limits, given the quality of service issue identified by Helios in relation to arrivals, and given

[9] https://www.aviationreg.ie/_fileupload/s18/Decision%20Summer%202018%20Coordination%20Parameters(1).pdf

the following factors:

- The assumed load factors of 85% are not a realistic reflection of the current situation. When actual load factors are higher than assumed load factors, it results in more passengers presenting than assumed when assessing against the limits, meaning that the effective limit is higher than the declared limit. For example, a declared capacity of 3,700 combined with assumed load factors of 85% is analogous to a declared capacity of 4,135 if instead the assumed load factor is 95%.
- A limit of 3,700 on Terminal 1 departures is unlikely to be a constraining factor, relative to the runway limits, during Winter 2018. During the peak departure hour with 35 departures, and with the 85% load factor assumption in place, we estimate that the peak rolling hour required Terminal 1 capacity would be around 3,000. Thus, no change in this parameter is required for Winter 2018.

4.13 Our view is that the Committee should consider incrementally increasing the Terminal 1 departure limit ahead of the Summer 2019 Season, while also assessing how assumed load factors might more accurately reflect reality.

4.14 We follow the advice of both the Coordination Committee and Helios in maintaining the US Preclearance and Terminal 2 check-in desk referral parameters only.

5. Appendix 1: Draft Decision on Coordination Parameters at Dublin Airport for IATA Winter 2018 Season

The Commission for Aviation Regulation proposes the following scheduling limits for the Winter 2018 season.

Runway Scheduling Parameters:

Runway Hourly Limits			
Time UTC	Arrivals Limit	Departures Limit	Total Limit
0000	23	23	32
0100	23	23	32
0200	23	23	32
0300	23	23	32
0400	23	23	32
0500	23	25	32
0600	23	**35**	40
0700	21	**30**	**39**
0800	25	23	44
0900	**24**	**25**	42
1000	23	24	**40**
1100	**28**	**26**	48
1200	26	28	46
1300	24	27	43
1400	24	24	40
1500	23	27	43
1600	24	25	**46**
1700	24	27	46
1800	24	26	43
1900	23	24	**38**
2000	24	24	39
2100	25	23	39
2200	29	23	39
2300	23	23	32
Totals	**575**	**604**	**939**

Maximum number of movements per 10 minute period	
Maximum Total	9
Maximum Arrivals	6
Maximum Departures	6*

*Exception – Maximum Departure Limit is 7 movements at 0500, 0510, 0520, 0530, 0540, 0550 UTC.

Passenger Terminal Parameters:

	Departures Hourly Limit	Arrivals Hourly Limit
Terminal 1	3,700	3,550
Terminal 2	3,700	3,050

Notes:

1) The hourly limit for passengers is rolled every 10 minutes.
2) Load factors of 85% and 95% are applied to Scheduled and Charter services respectively.

Stand Parameters:

	GA	**Non-Turnaround**			**Turnaround Stands**								**All**
	LAB	APC	W.A.	Total	5G	P1	P2	P3	P4	S.A	Triangle	Total	Total
Contact						23	10	11	19			61	61
Remote	12	13	23	36	14				1	9	5	31	79
All	12	13	23	36	14	23	10	11	20	9	5	92	140

Note: Stands defined based on ICAO Code B and C size.

Area	**Constraint**
Stands	Where demand for stands exceeds supply based on coordination allocation, flights to be referred to Dublin Airport for detailed assessment.

Referral Parameters:

Area	**Flag**
T2 Check-in Desks 1-28 (T2 Operators excluding EI)	Demand exceeds 28 desks
US Preclearance	New flights and schedule changes