



**DECISION ON THE SCHEDULING STATUS OF DUBLIN  
AIRPORT FROM THE START OF WINTER 2007**

in accordance with the provisions of Council Regulation (EEC) No.  
95/93 as amended by Regulation (EC) 793/2004  
on Common Rules for the Allocation of Slots at Community Airports

**Commission Paper CP3/2007**

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## TABLE OF CONTENTS

1.	BACKGROUND .....	3
1.1	Legislative basis.....	3
1.2	Terminology .....	3
1.3	History .....	4
1.4	Legal Challenge .....	6
2.	THE 2006 CAPACITY ANALYSIS .....	7
2.1	Terminal Capacity .....	7
2.1.1	Summer 2007 and after .....	7
2.1.2	Scope to overcome Terminal capacity shortfall.....	8
2.2	Stand Availability .....	9
2.2.1	Winter 2007 and after .....	9
2.2.2	Scope to overcome Stand shortfall .....	9
2.3	Runway capacity .....	9
2.3.1	Winter 2007 and after .....	10
2.3.2	Scope to overcome Runway shortfall .....	10
2.4	Consultants' Conclusions & Recommendations .....	10
3.	CONSULTATION WITH INTERESTED PARTIES.....	11
3.1	General .....	11
3.2	Terminal Capacity .....	13
3.2.1	Summer 2007 and after .....	13
3.2.2	Scope to overcome Terminal shortfall .....	14
3.3	Stand Availability .....	15
3.3.1	Winter 2007 and after .....	15
3.3.2	Scope to overcome Stand shortfall .....	15
3.4	Runway capacity .....	16
3.4.1	Winter 2007 and after .....	16
3.4.2	Scope to overcome Runway shortfall .....	16
3.5	Conclusions.....	17
4.	STATUTORY GROUNDS FOR AN AIRPORT BEING DESIGNATED AS COORDINATED .....	18
5.	GROUND FOR DECISION ON COORDINATION .....	21
5.1	Grounds for Commission Decision for Winter 2007 and After .....	22
6.	APPENDIX.....	29
6.1	Appendix I - Executive Summary of Jacobs Report.....	29
6.2	Appendix II – Conclusions and Recommendations of Jacobs Report .....	33

## **1. BACKGROUND**

### **1.1 Legislative basis**

Under Section 8 of the Aviation Regulation Act, 2001<sup>1</sup> ("the Act"), the Commission for Aviation Regulation ("the Commission") is the designated competent authority in Ireland for the purposes of Council Regulation (EEC) 95/93 as amended<sup>2</sup> ("the Regulation"), other than performing the functions of a coordinator. Following its statutory establishment in February 2001 the Commission is responsible for the designation, if necessary, of Irish airports as schedules facilitated or coordinated and subsequent appointment of a schedules facilitator or coordinator as a result of such a designation.

### **1.2 Terminology**

Since the passage of the Act, terminology in relation to scheduling has been amended by the EC Regulation of 2004 (793 of 2004) and the original terms of:

- (i) "coordinated" changed to "schedules facilitated," and
- (ii) "fully coordinated" changed to "coordinated".

Similarly, by virtue of the time period to which reference must necessarily be made in this Decision, references to the Dublin Airport Authority (DAA) shall also comprehend Aer Rianta and vice versa where appropriate. For clarity, therefore, terms used in this decision are those in current use.

Reference is made in this Decision to the 'wishlist'. This is the pattern of traffic after schedule adjustments recommended by the coordinator or facilitator in order to fit within the airport's declared capacities and, in the case of a schedules facilitated airport, before any instances of airlines declining to make the schedule adjustment. In peak periods, the coordinator's (or schedules facilitator's) wishlist is lower than the airlines' original schedules submissions because of the re-scheduling of flights out of the peak.

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<sup>1</sup> The Aviation Regulation Act, 2001, as amended by the State Airports Act, 2004, and the Aviation Act, 2006.

<sup>2</sup> Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports. (OJ L 14, 22.1.1993), as amended by Regulation (EC) No 793/2004 of the European Parliament and of the Council of 21 April 2004.

### **1.3 History**

In late 1999, the DAA submitted a request to the then Minister for Transport to designate Dublin Airport as coordinated. Under the provisions of the Regulation as they then stood, an airport could be classified as schedules facilitated provided the principles of transparency, neutrality and non-discrimination were met. There was no specific requirement to undertake any particular form of analysis in order to designate a Community airport as schedules facilitated provided the principles cited above were not transgressed. As a first step, the Minister decided in 2000 to designate the airport as schedules facilitated and the firm of Airport Co-ordination Limited (ACL) was appointed to undertake the role of schedules facilitator following a public tender process.

Subsequently, in November 2000, in order to assess the request to designate the airport as coordinated, the Minister engaged the firm of SH&E to undertake an in-depth assessment of capacity of Dublin Airport. By the time SH&E produced its final Report, the Commission was formally established and so it fell to the Commission to progress matters from that point. In accordance with the requirements of the Regulation, the Commission engaged in a consultation process by publishing a Consultation Paper along with the SH&E Report in May 2001. Following that process and in light of the findings of the SH&E Report, the Commission published a decision in October 2002 which stated that there were not sufficient grounds at that time to designate Dublin airport as coordinated. In summary the SH&E Report concluded: "it appears, at least on paper, that there should just be sufficient capacity available to delay a designation of [co-ordination] for a small number of years. This view is based on our belief that improvements will be implemented in [certain] areas". The report also noted, "the most critical element in the airport system currently appears to be availability of stands, especially contact stands."

The next relevant event was the request by the DAA to the Commission in September 2002, which sought a change in designation for Dublin Airport from schedules facilitated to coordinated. On foot of that request, the Commission through the engagement of a consultant undertook a review of the issues raised. On foot of that review it was concluded in May 2003 that full coordination was not warranted at that time, however the Commission committed to reviewing the coordination status of Dublin Airport in early 2004.

Arising from that commitment, the Commission engaged Alan Stratford and Associates ("ASA") in April 2004 to carry out a thorough capacity assessment.

At the time of the finalisation of the 2004 assessment,<sup>3</sup> the capacity of the airport was evaluated at some 18-22 million passengers per annum. The two main Dublin-based air carriers opposed, whereas the airport operator favoured, the introduction of a coordinated scheduling regime. The consultants considered that the airport did not have, and should not have, an unacceptable level of congestion, provided the terminal scheduling constraints were retained, and that airlines maintained their acceptance rate of flight time changes when proposed by the schedules facilitator. On that particular basis the study recommended that voluntary schedules facilitation continue for another three years. However, the consultants clearly emphasised that the voluntary schedules facilitation could be compromised if:

- (i) airlines reduced their compliance with the voluntary scheduling regime; or
- (ii) there was to be a change in the Shannon stopover rule for transatlantic flights.

In light of those findings, the Commission published its decision in October 2004 which concluded that while there were not sufficient grounds at that time, to change the designation status of Dublin Airport, that decision would be re-visited and Dublin Airport would be designated as coordinated if either of two scenarios cited in the ASA Report arose, and either scenario shown to have significant implications for the ability of the airport to cater for current or planned traffic and/or compromise the efficiency of existing arrangements.

At the time of publication of the decision, the Commission stated that it would continue to monitor the capacity situation at Dublin Airport and would, in particular, monitor whether either of the two scenarios identified in the decision were taking place.

In view of the findings of the monitoring which took place between October 2004 and late April 2005 – findings which showed a doubling in the number of failures to comply with voluntary schedule adjustments for Summer 2005 as compared to Summer 2004 – the Commission announced that given the implications for operations at Dublin Airport, it had decided to designate Dublin Airport as coordinated as and from Summer 2006.

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<sup>3</sup> "Dublin Airport Capacity Study – Final Report", Alan Stratford and Associates, July 2004.

#### **1.4 Legal Challenge**

The decision was subsequently challenged by one carrier at Dublin Airport and, following a Judicial Review, the High Court, in its July 2006 Judgement, found that the Commission's April 2005 decision was insufficiently supported by the 2004 capacity analysis. Consequently, Dublin Airport reverted to schedules facilitated status in July 2006.

On application by the Commission, the Supreme Court granted leave to appeal the Judgement of the High Court and that appeal remains pending.

In the light of the findings of the Court regarding the historic nature of the capacity analysis which grounded the Commission's decision in April 2005 and given the importance to airport operations of having the appropriate designation at Dublin Airport, the Commission undertook a new capacity assessment of Dublin Airport, to be carried out in full conformity with the requirements of Article 3 of the Regulation, and which would inform its decision on the appropriate future scheduling status of Dublin Airport.

## **2. THE 2006 CAPACITY ANALYSIS**

Following an open tender process in accordance with EU public procurement requirements, the Commission appointed the firm of Leigh Fisher Associates – now known as Jacobs Consulting UK Limited – to undertake an independent analysis at Dublin Airport of current and future capacity of the airport in accordance with the provisions of Article 3 of the Regulation.

The capacity analysis (“the Jacobs Report”) was published by the Commission on 11 December 2006. The Commission would like to take this opportunity of thanking those persons who assisted Jacobs Consultancy in the conduct of the capacity analysis

As that Report has received wide circulation and is a public document, it has not been attached to this Decision. However, for ease of reference the Report’s Executive Summary and Conclusions and Recommendations are attached as Appendix I and II respectively to this Decision.

This section of the document summarises the consultants’ conclusions separately for the Terminal, the aircraft parking Stands, and the Runway.

### **2.1 Terminal Capacity**

The adequacy of Terminal capacity was examined by the consultants for the entire period from 2007 up to the opening of Terminal 2, which is scheduled for end of 2009.

#### **2.1.1 Summer 2007 and after**

The consultants found material evidence of current congestion in the Terminal.

The departures concourse at Dublin Airport is significantly congested. In the Summer 2006 peak morning period of 3 a.m. to 8 a.m., assessing demand with reference to an average allowance of 2 square-metres of space per person, the capacity of the departures concourse was reached for 82% of the peak period.<sup>4</sup>

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<sup>4</sup> Jacobs Report, page 25.

A Service Level Agreement (SLA) provides that passengers should not queue at the security points for more than 7 minutes on average. However, at security point A, queues exceeded this standard for 34% of the peak 3-hour period in summer 2006.<sup>5</sup> The consultants also concluded that in 2007 queues could exceed 15 minutes for 80% of the peak 3-hour period.<sup>6</sup>

At the immigration facility in the arrivals area, the consultants note that forecast queues "are well in excess of typical standards"<sup>7</sup> and that "immigration queues at pier A are likely to exceed current capacity in Summer 2007"<sup>8</sup>.

Although each of these aspects of congestion gives rise to delays, and possibly serious delays, the consultants concluded that the proposed capacity enhancements to the Terminal "would appear to provide sufficient capacity for the terminal to handle [at an acceptable level of service] the predicted peak passenger demand through to 2010"<sup>9</sup> provided there was careful management of aspects of the Terminal.

#### 2.1.2 Scope to overcome Terminal capacity shortfall

Although the consultants did not consider that capacity limitations in the Terminal warranted an immediate change to the scheduling status of Dublin Airport, their report made certain suggestions to improve capacity.<sup>10</sup> They proposed:

- switching air carriers between blocks ('islands') of check-in desks (page 30);
- re-location of airline ticket sales desks (page 31);
- the introduction of a 'one-way' flow of passengers through the departures concourse (page 30);
- improvements to signage (page 30);
- active direction of passengers to the less busy security point, use of an overspill area, and the possibility of centralising security (page 33); and
- the improvement of the processing at the Immigration Service area by the creation of a dedicated route for domestic flights (page 38).

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<sup>5</sup> Jacobs Report, page 16.

<sup>6</sup> Jacobs Report, page 32.

<sup>7</sup> Jacobs Report, page 39.

<sup>8</sup> Jacobs Report, page 39.

<sup>9</sup> Jacobs Report, pages ii and iii.

<sup>10</sup> Jacobs report, principally in section 3.6.2 (c).

The consultants recognised that not all of these improvements might be capable of implementation in the short term.

## **2.2 Stand Availability**

The consultants' assessment of the adequacy of aircraft parking Stands is summarised below for the Winter 2007 period and after.

### **2.2.1 Winter 2007 and after**

The report states that "the number of stands available in Winter 2007 will not meet peak demand requirements ... it is concluded that current stand availability will be significantly compromised from Winter 2007"<sup>11</sup>.

In addition, the kind of stands that will be available is set to change with the closure of Pier C (arising from the construction of T2 prior to Pier E being fully opened): "between 40% and 50% of stands are likely to be remote"<sup>12</sup> requiring bussing of passengers to and from the Terminal.

### **2.2.2 Scope to overcome Stand shortfall**

It was suggested that a centralised bussing service would maximise efficiency,<sup>13</sup> An alternative investment plan to the DAA's – involving retention of Pier C and the building alongside it of a new pier (similar to Pier D) – was put to the consultants, but they judged it "unlikely to provide a short-term solution to the forthcoming stand availability constraints"<sup>14</sup> and would involve the demolition of certain cargo, catering and other facilities.

## **2.3 Runway capacity**

The consultants' conclusions on the adequacy of the capacity of the runway are summarised below for the Winter 2007 period and after.

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<sup>11</sup> Jacobs Report, page iii.

<sup>12</sup> Jacobs Report, page 53.

<sup>13</sup> Jacobs Report, section 4.6.

<sup>14</sup> Jacobs Report, page 54.

### 2.3.1 Winter 2007 and after

The consultants state: "due to the asymmetry of arrivals and departures in the peak morning schedule and reduced stand availability, additional peak services beyond those in the summer 2007 wishlist will increase apron delays and average runway delays above the currently agreed 10 minute delay criteria."<sup>15</sup>

"It is therefore recommended that Dublin airport be designated as schedules co-ordinated from the winter 2007 season due to insufficient airport runway and apron capacity during peak times."<sup>16</sup>

### 2.3.2 Scope to overcome Runway shortfall

The possible scope to increase the capacity of the runway was considered.<sup>17</sup> Two measures were suggested: a reduction in ATC aircraft-separation rules, and/or the construction of an additional rapid exit runway, taxiway and holding area. These steps could permit an additional two runway movements per hour, the consultants suggested.

## **2.4 Consultants' Conclusions & Recommendations**

The Jacobs Report determined that there were shortfalls in capacity on both the runway and the apron, such that additional peak services above the Summer 2007 wishlist [adjusted schedule] will increase apron delays and runway delays above the average of 10 minutes that has been agreed by the airport's Coordination Committee<sup>18</sup>.

The Jacobs Report recommended that "Dublin Airport be designated as [coordinated] from the Winter 2007 season due to insufficient airport runway and apron capacity during peak times"<sup>19</sup>;

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<sup>15</sup> Jacobs Report, page iv.

<sup>16</sup> Jacobs Report, page iv.

<sup>17</sup> Jacobs Report, section 5.5.

<sup>18</sup> Membership of the ACC includes the airport operator and the airlines using the airport regularly.

<sup>19</sup> Jacobs Report, page iv.

### 3. CONSULTATION WITH INTERESTED PARTIES

Following publication of the Jacob's Report, and prior to reaching its decision on the future scheduling status of Dublin Airport, the Commission, on 8 December 2006, initiated a consultation process with all interested parties on the capacity situation at Dublin Airport, as required under Article 3.4 of the Regulation.

This section of the document summarises the views of the firms that responded to the Commission's invitation to comment on the Jacobs capacity study. The full text of the substantive submissions may be found on the Commission's website.<sup>20</sup>

#### 3.1 General

Strong support for the consultants' recommendation, for a change in the scheduling status of Dublin Airport, was expressed by a number of airlines (**Aer Lingus, Lufthansa, Monarch Airlines, and CityJet**) and also by ACL and the DAA.

Trenchant opposition to coordination was articulated by Ryanair, which faulted the quality of the consultants' work, along with their methodology and data and the process by which they had gathered and assessed the views of airport users.<sup>21</sup>

**ACL** stated that, in its professional opinion and experience, "the Jacobs capacity review is a thorough and robust analysis of the capacity situation at Dublin Airport".<sup>22</sup>

The **DAA** described the Jacobs report as a "convincing argument" for the re-designation of Dublin Airport as co-ordinated,<sup>23</sup> and noted that as of January 2007 "almost 5% of the schedule for Summer 2007 does not have approved operating times".<sup>24</sup> The DAA envisaged traffic at Dublin Airport increasing by

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<sup>20</sup> [http://www.aviationreg.ie/Slot\\_Allocation\\_Documents\\_Submission\\_on\\_Dublin\\_Airport-Capacity\\_Analysis\\_2007.HTML](http://www.aviationreg.ie/Slot_Allocation_Documents_Submission_on_Dublin_Airport-Capacity_Analysis_2007.HTML)

<sup>21</sup> Ryanair submission, cover letter, 5 January 2007.

<sup>22</sup> ACL response to consultation on the capacity of Dublin Airport, page 1.

<sup>23</sup> DAA submission to Commission for Aviation Regulation, cover letter, 5 January 2007.

<sup>24</sup> DAA submission, page 4.

some 24% in the two-year period 2005 to 2007 and argued that it could only cope with such a step-increase in traffic with the aid of coordination.<sup>25</sup>

The DAA further argued that the consultants' evaluation of the capacity of the airport had if anything tended to over-estimate capacity, insofar as its assessment was made with reference to the 'wishlist' of airlines. But, the DAA felt that, in the absence of coordination, actual demand for airport facilities would be significantly higher than the 'wishlist' [adjusted schedule]. The DAA considered that airline demand for airport facilities can only be held down to 'wishlist' levels by the introduction of coordination; the DAA described the period of voluntary slot facilitation by airlines with the coordinator's requests to reschedule services (such as Summer 2005) as "clearly ineffective".<sup>26</sup>

**Ryanair** submitted that the process followed by Jacobs Consultancy has been faulty with, in its view, insufficient consultation and discussion with Ryanair, and with users generally, in particular regarding the outputs of the consultants' model.<sup>27</sup>

Ryanair considered that the consultants had not shown – as required by the Regulation for a change of designation – that any capacity shortfalls would be such as to cause significant delays. In addition, Ryanair maintained that, also contrary to the Regulation, the consultants had "fail[ed] to establish that there are no possibilities of overcoming the problems".<sup>28</sup>

Ryanair faulted the consultants' application of annual average traffic growth rates to Summer 2006 peak demand, given that traffic growth at the peak could be slower than average traffic growth. Ryanair also maintained that the consultants had failed to "correctly assess the true apron and runway capacity".<sup>29</sup> Ryanair considered a "fundamental flaw"<sup>30</sup> in the report to be the absence of more detailed analysis of why the passenger traffic was lower in 2006 than in 2005 (at the airport's 30<sup>th</sup> busiest hour) given that this might have been due, not to the

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<sup>25</sup> DAA submission, page 6.

<sup>26</sup> DAA submission, section 8, page 22.

<sup>27</sup> Dublin Airport Capacity Review – Comments prepared by York Aviation on behalf of Ryanair.

<sup>28</sup> Ryanair submission, cover letter, 5 January 2007.

<sup>29</sup> Ryanair submission, cover letter, 5 January 2007.

<sup>30</sup> Ryanair submission, section 3.2.1.

introduction of coordination in that season, but rather to a structural shift in traffic.

Different views were put forward in relation to the timing of a decision from the Commission.

Except for Ryanair, the **other parties** making submissions favoured a Commission decision in time to allow for its implementation for the Summer 2007 season. **ACL** urged the Commission to make its decision on the scheduling status of Dublin airport as soon as possible and ideally before the industry slot return deadline of 31 January 2007. **Ryanair**, however, wished that the Jacobs report be amended to reflect what Ryanair saw as its shortcomings, and for the amended outputs to be the subject of a (third<sup>31</sup>) round of consultation with users, with a further subsequent consultation on possible actions to resolve any capacity shortfalls.<sup>32</sup>

### **3.2 Terminal Capacity**

The comments on the Jacobs Report's assessment of Terminal capacity are summarised below.

#### **3.2.1 Summer 2007 and after**

Based on the schedules submitted to it by airlines, in its role as the schedules facilitator at Dublin Airport, **ACL** argued that demand for terminal facilities would be significantly in excess of Terminal capacity. **ACL** further argued that, since the 2006 data that were the starting point of the Jacobs Consultancy study, were derived from a period when co-ordination was in force<sup>33</sup>, the consultants'

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<sup>31</sup> During its work for the Commission, Jacobs Consultancy consulted with users, and the Commission also held a round of consultation with users and interested parties following publication of the Jacobs report.

<sup>32</sup> Ryanair submission, para 1.1.2 refers to a necessary additional "two stages" of consultation not having taken place.

<sup>33</sup> Prior to the decision of the High Court of July 2006.

conclusions as to the adequacy of Terminal capacity would only apply under co-ordination.<sup>34</sup>

The **DAA** noted that the Terminal capacity levels computed by the consultants depended on three uncertain assumptions concerning Ryanair: the airline to move to the new check-in facility (Area 14); 35% of its passengers to use web check-in by March 2007; and the company to open its check-in desks up to 3 hours before flight departure.<sup>35</sup> The DAA considered that similar doubt attached to the assumption that the immigration desks would be fully staffed.<sup>36</sup>

In regard to the departure security points and the arrivals immigration points, the DAA argued that coordination, by delivering a more predictable schedule, would allow the DAA to manage queuing and reduce passenger delays.<sup>37</sup>

**Ryanair's** submission to the Commission contained a very lengthy critique of the passenger terminal capacity portion of the consultancy report.<sup>38</sup> In summary, Ryanair criticised:

- the lack, in some cases, of an explicit treatment of the link between capacity and delays;
- the appropriateness of the service standards used by the consultants;
- the inputs used and the outputs generated in the consultants' statistical model;
- the level of detail provided as to the consultants' calculations;
- the consultants' estimates of the scope for improved Terminal capacity.

### 3.2.2 Scope to overcome Terminal shortfall

**ACL** argued that the excess demand for Terminal facilities would not be amenable to resolution by voluntary cooperation between air carriers.<sup>39</sup>

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<sup>34</sup> ACL response, page 5; see Figure 2, which shows how the peak departing passenger numbers could be substantially higher without coordination i.e. without the rescheduling of some flights out of the peak.

<sup>35</sup> DAA submission, page 9.

<sup>36</sup> DAA submission, page 13.

<sup>37</sup> DAA submission, pages 11 and 12.

<sup>38</sup> Ryanair submission, section 4.

<sup>39</sup> ACL submission, page 2.

The **DAA** considered that the impact of the consultants' proposals to improve Terminal capacity would be marginal.<sup>40</sup>

**Ryanair** claimed that, contrary to the requirements of the Regulation, the consultants had failed to consider the possibilities for adding to Terminal capacity.<sup>41</sup>

### **3.3 Stand Availability**

The comments on the Jacobs Report's assessment of Stand availability are summarised below.

#### 3.3.1 Winter 2007 and after

**ACL** concurred with the consultants that there would be insufficient stand demand particularly during 2007-2010 when T2 would be constructed.

The **IAA** considered that during the construction of T2, the greater use of remote stands cause delays because of the need to tow aircraft as well as to bus passengers.<sup>42</sup>

#### 3.3.2 Scope to overcome Stand shortfall

York Aviation, in its submission on behalf of **Ryanair**, asked whether demand from "East European airlines and charter aircraft ... should be discouraged".<sup>43</sup>

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<sup>40</sup> DAA submission, page 8.

<sup>41</sup> Ryanair submission, cover letter, 5 January 2007.

<sup>42</sup> IAA submission, page 3.

<sup>43</sup> Ryanair submission, para 5.6.

### 3.4 Runway capacity

The comments on the Jacobs Report's assessment of Runway capacity are summarised below.

#### 3.4.1 Winter 2007 and after

**Ryanair** denied that runway traffic above the 2007 wishlist [adjusted schedule] would automatically lead to unacceptable increases in delays "when there is significant scope for ATC improvements, improvements in pilot response times, potential to modify [systems] as well as provide capacity enhancing infrastructure improvements to the runway"<sup>44</sup> and tactical use of runway 11/29.<sup>45</sup>

The **IAA** disagreed with the Jacobs Report that the taxiway system at Dublin Airport would not act as a capacity constraint.<sup>46</sup>

#### 3.4.2 Scope to overcome Runway shortfall

**ACL** agreed with the consultants that runway capacity could be increased eventually by some two movements per hour but not in the short term and that such an improvement would in any case be insufficient to meet current or forecast demand.

Regarding the possible measures to improve runway capacity proposed by the consultants, the **DAA** maintained that the Irish Aviation Authority would not be changing its aircraft separation rules nor would an additional taxiway be in place.

The **IAA** submission noted that ATC agreement to a maximum runway capacity of 47 aircraft per hour was on the understanding that an effective system of schedules management would be in place for the busy summer period. Regarding reduced separation, the IAA stated that it has no plans to change the current procedure<sup>47</sup> and so that there was no prospect of changed ATC rules overcoming runway capacity shortfalls in the short term.

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<sup>44</sup> Ryanair submission, para 6.9.

<sup>45</sup> Ryanair submission, para 6.10.

<sup>46</sup> IAA submission, page 3.

<sup>47</sup> IAA submission, page 3.

### 3.5 Conclusions

**Aer Lingus** broadly supported the consultants' conclusions; expressed the view that "peak runway demand exceeded supply"; supported a move to co-ordinated status, and indicated that a change in scheduling status is "imperative".<sup>48</sup> **Lufthansa** expressed support for a move to coordinated status.<sup>49</sup> **Monarch Airlines** agreed with the Jacobs Report's conclusions, and recommended that Dublin Airport should be coordinated as soon as possible. **CityJet** considered it "essential" that the airport be coordinated.

The **IAA** stated that it believed that "the introduction of coordinated status at Dublin Airport is necessary for the 2007 summer season to effectively manage the capacity constraints and to assist us with reducing delays."<sup>50</sup>

**ACL** agreed with the consultants' conclusion that Dublin Airport be designated as co-ordinated. ACL urged the Commission to make its decision on the scheduling status of Dublin Airport as soon as possible.

The **DAA** described the consultants' conclusions as "very convincing" and judged a change of scheduling status to be "essential".<sup>51</sup>

**Ryanair** proposed instead that the Commission arrange that "users [be] properly consulted regarding what action can be taken to avoid the need for a change in the coordination status."<sup>52</sup>

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<sup>48</sup> Aer Lingus' letter to Commission, January 2007.

<sup>49</sup> Lufthansa correspondence to Commission, January 2007.

<sup>50</sup> IAA submission, page 2.

<sup>51</sup> DAA submission to Commission for Aviation Regulation, page 3.

<sup>52</sup> Ryanair submission, cover letter, 5 January 2007.

#### **4. STATUTORY GROUNDS FOR AN AIRPORT BEING DESIGNATED AS COORDINATED**

The conditions to apply to airport coordination are set out in Article 3 of the Regulation and the Commission has had close regard to these conditions in reaching its decision.

Article 3.1.b of the Regulation stipulates that a *"Member State shall not designate an airport as coordinated save in accordance with the provisions of paragraph 3"*.

Paragraph 3 of the Regulation is, for ease of reference, reproduced below.

3. The Member State responsible shall ensure that a thorough capacity analysis is carried out at an airport with no designation status or at a schedules facilitated airport by the managing body of that airport or by any other competent body when that Member State considers it necessary, or within six months:

(i) following a written request from air carriers representing more than half of the operations at an airport or from the managing body of the airport when either considers that capacity is insufficient for actual or planned operations at certain periods; or

(ii) upon request from the Commission, in particular where an airport is in reality accessible only for air carriers that have been allocated slots or where air carriers and in particular new entrants encounter serious problems in securing landing and take off possibilities at the airport in question.

This analysis, based on commonly recognised methods, shall determine any shortfall in capacity, taking into account environmental constraints at the airport in question. The analysis shall consider the possibilities of overcoming such shortfall through new or modified infrastructure, operational changes, or any other change, and the time frame envisaged to resolve the problems. It shall be updated if paragraph 5 has been invoked, or when there are changes at the airport influencing significantly its capacity and capacity usage. Both the analysis and the method used shall be made available to the parties having requested the analysis and, upon request, to other interested parties. The analysis shall be communicated to the Commission at the same time."

Article 3.3 of the Regulation states that: -

*the Member State responsible shall ensure that a thorough capacity analysis is carried out at an airport with no designation status or at a scheduled facilitated airport by the managing body of that airport or by any other competent body when that Member State considers it necessary, or within six months.*

The Commission, as the competent authority in Ireland for the purposes of the Regulation, considered it necessary in the light of the uncertainty stemming from the Judgement of the High Court, that a new capacity analysis be carried out at Dublin Airport, therefore the other sub criteria relating to requests from the managing body of the airport or the users or the European Commission did not apply in this instance.

*"This analysis, based on commonly recognised methods, shall determine any shortfall in capacity, taking into account environmental constraints at the airport in question. "*

The chosen consultants, Jacobs Consulting, have extensive experience in capacity measurement and analysis and their analysis was completed using commonly recognised methods. The analysis showed a shortfall in capacity. As there are currently no environmental constraints at Dublin Airport, this is not an issue.

*"The analysis shall consider the possibilities of overcoming such shortfall through new or modified infrastructure, operational changes, or any other change, and the time frame envisaged to resolve the problems."*

The shortfalls identified in the Jacobs report relate to stand availability and runway capacity and while there are medium term plans to address the infrastructural shortfall as part of the airport's longer term capital programme, the full benefit will not be seen until about 2012. The Jacobs Report made a large number of proposals for operational and other changes to overcome capacity shortfalls.

In relation to infrastructural changes, the Report also noted that small increases in peak capacity may be achievable by the provision of a bypass taxiway, an expanded holding area and an additional Rapid Exit Taxiway. However, the

capacity enhancements that these would offer will not be deliverable in the short term, even if a decision were to be taken now to sanction all three elements.

*"Both the analysis and the method used shall be made available to the parties having requested the analysis and, upon request, to other interested parties"*

As stated earlier, the Commission initiated the capacity analysis, there was therefore no requesting party per se, however, the final Report was published by the Commission, it was sent to Irish Carriers operating at Dublin Airport, the Airport Operators Committee (AOC) and the DAA and was made freely available to all other parties. The capacity analysis was in addition made available to the European Commission.

Ryanair considered that the issues it has raised would need to be addressed prior to a Commission decision on the slot-scheduling regime at Dublin Airport. Ryanair sought a meeting with the Commission on these matters. The Commission met with Ryanair and its representatives on 22 January 2007 in order to allow the airline an opportunity to clarify the points raised in its submission. A summary of the views presented by Ryanair at that meeting will be made available by the Commission on its website shortly.

Therefore, in the Commission's view, in reaching its decision, it has taken into consideration all the relevant conditions leading to a possible change of scheduling designation.

The Commission does not consider that Ryanair's proposal for further consultation is either necessary or appropriate nor that it would elicit any further views from users that have not been aired previously.

## 5. GROUNDS FOR DECISION ON COORDINATION

The Jacobs Report defines the capacity of the airport as being the Summer 2007 wishlist [adjusted schedule]. Peak services additional to the Summer 2007 wishlist could arise in two ways:

1. In Winter 2007 and afterwards because of traffic growth at a time, in particular, of reduced stand capacity;
2. In Summer 2007 if actual traffic exceeded the Summer 2007 wishlist.

Therefore, the Commission has addressed the issues in respect of the two periods:

- Summer 2007 and
- Winter 2007 and after

separately and has set out the basis for the decisions in a separate manner. This report contains the Commission's decision in respect of Winter 2007 and after; the Commission's decision for the Summer 2007 scheduling period is contained in Commission Paper CP2/2007.

Paragraph 5 of Article 3 of the Regulation provides that an airport shall not be coordinated unless:

- a. Capacity shortfalls are of "such a serious nature that significant delays cannot be avoided at the airport", and
- b. There are "no possibilities of resolving these problems in the short term"

Ryanair's submission to the Commission criticised the process followed by Jacobs Consultancy on the following basis:

- Limited/no engagement with users on input assumptions, future demand and modelled output

Jacobs Consultancy has reported in detail on the extensive consultations held with Ryanair in the period (5 October to 29 November, 2006) leading up to the finalisation of the capacity analysis. These consultations included correspondence from Jacobs relating to input assumptions and specifically invited comments and data. Similarly, extensive consultation was carried out from early October to 26 November 2006 with the aim of seeking and facilitating input by all other

interested parties, i.e. DAA, IAA, other carriers serving Dublin, the Department of Transport, and Groundhandlers. The Jacobs Report at Appendix A sets out in greater detail, the full extent of all consultations offered to interested parties in the preparation of the capacity analysis.

- No consultation with Coordination Committee in accordance with Article 5 of the EC Regulation

In the Commission's view, Article 5 of the Regulation has no specific application in the current circumstances as the functions of a Coordination Committee specified in Article 5 only relate to a coordinated airport and Dublin Airport was schedules facilitated at the time of Jacobs Consultancy's work.

### **5.1 Grounds for Commission Decision for Winter 2007 and After**

#### **(i) Conclusions of Jacobs Report: Capacity Shortfall at the Airport in Winter 2007 and after**

The Jacobs Report determined that there were shortfalls in capacity on both the runway and the apron, such that additional peak services beyond the Summer 2007 wishlist [adjusted schedule] would increase average delays above 10 minutes which is the maximum average delay period currently deemed to be acceptable by the Airport Coordinating Committee.

The Jacobs Report considered possibilities for resolving the runway and apron capacity shortfalls<sup>53</sup>; the Report found that, in respect of stands, the possibilities were "unlikely to provide a short-term solution to the forthcoming stand availability constraints"<sup>54</sup>; in regard to the runway, the Report found that two additional runway movements might be achievable in the peak under certain circumstances but that these seemed "unlikely to be deliverable in the short term"<sup>55</sup>.

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<sup>53</sup> See, in particular, sections 4.6 and 5.5 of the Jacobs Report.

<sup>54</sup> Jacobs Report, page 54.

<sup>55</sup> Jacobs Report, page 71.

(ii) **Significant Delays due to Capacity shortfall at Dublin Airport during Winter 2007 and after.**

Specifically to investigate the impact on delays of additional morning peak-period departures, sensitivity tests were carried out by NATS for the DAA and by Jacobs Consultancy for the Commission.<sup>56</sup>

Both sets of tests illustrate the effect which additional flight movements in excess of the wishlist would have on increasing average delay times<sup>57</sup>. The Jacobs sensitivity tests show that during the morning peak period, specified numbers of additional movements, in excess of the wishlist would have the following effects on the average delays:

- four additional departures<sup>58</sup> would, according to results of the Jacobs tests, increase the average delay by another seven minutes;
- six additional departures<sup>59</sup> would increase the average delay by 11 minutes; and
- 10 additional departures<sup>60</sup> would increase the average delay by 12 minutes.

In considering what constitutes “significant delays” the Commission regarded it appropriate to look beyond the average delays caused by such additional movements during this period, to the actual delays which would be experienced by individual flights. Analysis of the Jacobs sensitivity tests showed that at the 90<sup>th</sup> percentile (that is, from the 9<sup>th</sup> flight onwards, out of a sample of 10 consecutive flights), delays under the three Jacobs sensitivity tests (which involved adding between 4 and 10 additional movements during this peak period) would total from 32 to 45 minutes. This means that out of every 10 flights during this peak period, one will experience delays upwards of 32 - 45 minutes depending upon the number of additional movements during the period in excess of the wishlist. Given that an additional 10 flight movements in this three-hour

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<sup>56</sup> Jacobs Report section 5.4.1 and, in particular, Table 24 and Figures 15-18.

<sup>57</sup> The runway simulations by NATS found that a single additional flight in the hour commencing 0500 would raise the average delay by 3 minutes and two additional flights during that hour would add 5.5 minutes to the average delay.

<sup>58</sup> One each in the hour beginning 0500 and 0700 and two in the hour beginning 0600.

<sup>59</sup> Two in the hour beginning 0500, three in 0600 and one in 0700.

<sup>60</sup> Three in the hour beginning 0500, five in 0600, and two in 0700.

period will give rise to one out of every ten flights experiencing delays in excess of 45 minutes, the Commission considers that such delays constitute “significant delays”.

The Commission considers on the basis of the information contained in the Jacobs sensitivity tests and the NATS tests that, without coordination, “significant delays” will be experienced at Dublin Airport during the Winter 2007 scheduling season and after.

(iii) **Submissions Received**

The submissions received by the Commission on the Jacobs Report expressed, with one exception, strong support for the consultants’ recommendation for a change in the scheduling status of Dublin Airport (Aer Lingus, Lufthansa, Monarch Airlines, CityJet, IAA, ACL and the DAA). Some submissions considered that the Report underestimated demand because the base-year (2006) traffic pattern had incorporated coordination and because the Summer 2007 wishlist would require airline cooperation with the schedules facilitated proposed schedule.

Insofar as contents of these submissions disagreed with the findings of the Jacobs Report, it was primarily to suggest that airport capacity had been overestimated and thus that the case for moving to coordination was stronger than had been advised to the Commission by Jacobs Consultancy.

Regarding the capacity assessment by Jacobs Consultancy, Ryanair made a number of specific criticisms:

- Ryanair considered that the consultants had not shown (as required by the Regulation for a change of designation) that any capacity shortfalls would be such as to cause significant delays.<sup>61</sup> Specifically, Ryanair argued runway traffic above the 2007 wishlist would not automatically lead to unacceptable increases in delays “when there is significant scope for ATC improvements, improvements in pilot response times, potential to modify [systems] as well as provide capacity enhancing infrastructure improvements to the runway”<sup>62</sup> and tactical use of runway 11/29.<sup>63</sup>

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<sup>61</sup> Ryanair Submission, cover letter, 5 January 2007, page 1.

<sup>62</sup> Ryanair submission, para 6.9.

The Commission has rejected this criticism on the grounds that the Jacobs recommendation of coordination is explicit in terms of the impact on delay: "additional peak services beyond those in the Summer 2007 wishlist will increase apron delays and average runway delays above the currently agreed 10 minute delay criterion"<sup>64</sup>.

In regard to the measures to resolve runway capacity shortfalls, the Jacobs Report considered that these were unlikely to provide a short-term solution.<sup>65</sup>

- Ryanair maintained that, contrary to the Regulation, the consultants had "fail[ed] to consider whether there are possibilities to overcome any identified problems".<sup>66</sup>

The Commission has rejected this criticism on the grounds that, inter alia, in sections 3.6.2(c), 4.6 and 5.5, the Jacobs Report considers possibilities to overcome the identified capacity problems.

- Ryanair argued that the Jacobs Report has used an inappropriate standard for judging the appropriateness of queue lengths and other forms of delay at Dublin Airport. In its submission, Ryanair speaks of the scope for 'stretching' the capacity of the Terminal 'way beyond' its current levels<sup>67</sup> such that, with adaptations, the present Terminal could handle "at least 30 [million passengers per annum] and probably more".<sup>68</sup> In this context, Ryanair argues that the colour-coding system used by Jacobs Consultancy to indicate pressure on facilities should only move from 'green' to 'yellow' at "near 100% of available capacity" (rather than 50% usage) and from 'yellow' to 'red' only "when the facility is genuinely saturated".<sup>69</sup>

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<sup>63</sup> Ryanair submission, para 6.10.

<sup>64</sup> Jacobs Report, page iv.

<sup>65</sup> Jacobs Report, pages 54 and 71.

<sup>66</sup> Ryanair submission, cover letter, 5 January 2007, page 2.

<sup>67</sup> Ryanair submission; example are paragraphs 3.2.2.

<sup>68</sup> Ryanair submission, para 4.6.1.

<sup>69</sup> Ryanair submission, para 4.4.3.

The Commission has rejected this representation on the following grounds. It is very clear from the submissions that the Commission has received from the parties to the consultation that different airport users aim for different service standards at Dublin Airport. Thus, on the basis of a relatively low ambition for service quality, Dublin Airport today might be judged not to be so capacity constrained as to produce 'serious delays', and vice versa.

The Commission accepts Ryanair's characterisation of service standards judgements as "subjective"<sup>70</sup> and, in that regard, believes that the decision on the scheduling regime for Dublin Airport should reflect – in a one-terminal, one main runway airport – the service standard (including average delays) desired generally by airport users, rather than the standard of a single – albeit the largest – airline user.

It should also be noted that the consultants' recommendation, that coordination be introduced at Dublin Airport for Winter 2007 and after, does not rely on the consultants' estimate of the capacity of the passenger Terminal (which was considered to provide sufficient capacity to handle the predicted peak passenger demand until the opening of T2). Therefore a still-higher estimate of capacity – as argued for in Ryanair's submission – would not change the consultants' advice to the Commission.

- Ryanair also argued that the Jacobs Report had recommended a change to coordination "at an earlier stage than is in fact required"<sup>71</sup> because the Report relied on the application of annual rates of traffic growth to peak Summer 2006 demand, whereas the peak traffic growth rate could be expected to be slower than the average traffic growth rate.

The Commission has not accepted this objection to the Jacobs Report finding because the Commission considers that in assessing the adequacy of the airport's capacity, the Jacobs Report has balanced a number of elements that, on their own, would tend to work in opposite directions.

For example, as noted by Ryanair, the peak passenger demand forecast was based on the application of forecast annual traffic growth rates to the summer 2006 peak passenger traffic pattern.

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<sup>70</sup> Ryanair submission, para 4.1.1.

<sup>71</sup> Ryanair submission, para 1.2.2.

But, as noted by other parties, the following assumptions would have tended to operate in the opposite direction: use of the DAA's centreline traffic forecast, although the traffic has in recent years been more rapid than this forecast; and use of the Summer 2006 peak traffic pattern, when the schedule was fixed under coordination and thus included some redistribution of traffic out of the busiest periods of the day.

- Ryanair further maintained that the consultants had failed to "correctly assess the true apron and runway capacity"<sup>72</sup> because it was not based on a complete busy-day flight schedule for future years, itself drawing upon a full assessment of route development, fleet mix, and expected market developments.<sup>73</sup> Ryanair also argued that a different investment plan could be carried out while retaining aircraft stands at a high level.<sup>74</sup>

The Commission has not accepted Ryanair's representation. The Commission is not aware of any reason why a 'thorough capacity analysis having regard to commonly recognised methods' should be interpreted, in line with Ryanair's view, as requiring that consideration be given to airport capacity under alternative and hypothetical investment plans (to the airport operators'), nor why standard methods should require the production of a complete busy-day flight schedule for future years. For instance, neither of the capacity assessments carried out in the past for the Commission employed such approaches.

#### (iv) **Decision**

Following its consideration of the Jacobs Report, and its consideration of all of the submissions received following the publication of that Report, the Commission has accepted the Jacobs Report as the capacity analysis required under the Regulation and also has accepted the Report's conclusions and recommendations.

The Jacobs Report recommended that Dublin Airport be designated as coordinated from the start of the Winter 2007 season due to insufficient airport runway and apron capacity during peak times. The Commission has concluded

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<sup>72</sup> Ryanair submission, cover letter, 5 January 2007.

<sup>73</sup> Ryanair submission, pages 1 and 2.

<sup>74</sup> Ryanair submission, para 1.3.1.

that the capacity problems at Dublin Airport would be such as to produce "significant delays", and that such problems cannot be resolved in the short term.

In accordance with the provisions of Article 3 of Council Regulation (EEC) No. 95/93, as amended by Regulation (EC) No. 793/2004, the Commission hereby designates Dublin Airport as coordinated with effect from the start of the Winter 2007 scheduling season.

Commission for Aviation Regulation

13 February 2007

## 6. APPENDIX

### 6.1 Appendix I - Executive Summary of Jacobs Report

#### EXECUTIVE SUMMARY

Jacobs Consultancy UK Limited, formerly known as Leigh Fisher Associates, has been retained by the Commission for Aviation Regulation (the Commission) to undertake an independent assessment of current and future capacity at Dublin Airport. The ultimate purpose of the capacity assessment is to assist the Commission by informing further their decision on the appropriate scheduling status at the Dublin airport, in accordance with the provisions of Article 3.3 of Council Regulation (EEC) No. 95/93 as amended by Regulation (EC) No. 793/2004 of the European Parliament and of the Council.

#### APPROACH

The evaluation largely considers the period 2007-2010 or up to 27.4mppa. Although reference is made to subsequent years, the addition of significant additional capacity through the development of Terminal 2 (2009) and a parallel runway (circa 2012) will mitigate against any continued delays of significance. It is recommended that a capacity review is undertaken once the additional capacity from Terminal 2 and the parallel runway is operational, to re-assess the appropriate scheduling regime at the airport.

The capacity assessment has focused on three key elements of the Dublin airport system:

- passenger terminal
- apron stands
- runway/taxiway system.

Although landside access and airspace have not been assessed, it is noted that no significant landside or airspace capacity issues have been uncovered in the analysis or consultation that might influence a decision on the appropriate slot coordination regime at the airport. If there were to be a shortfall in kerbside capacity it is reasonable to expect that it could be appropriately managed to mitigate the impact. Furthermore, it is worth noting that the introduction of coordination would have a negligible effect on kerbside demand patterns and behaviour.

An extensive consultation exercise has been conducted during the assessment and summarised in Section 1 and Appendix A. Personal interviews, including with the individual representatives of the Dublin Airport Authority (DAA), Dublin Coordination Committee, Department of Transport, Irish Aviation Authority, Air Traffic Control, National Air traffic Services (NATS) and the main based carriers at the airport, were conducted. Discussions were also held with Airport Coordination Limited (ACL), who are currently responsible for schedules facilitation at Dublin airport. Issues of concern have been discussed with each party in endeavouring to understand current and future demand and capacity issues. The consultation has attempted to identify opportunities for mitigating any identified capacity issues and enhancements in operating flexibility. In addition the Airline Operators Committee was offered the opportunity to engage, directly contribute to the study and provide input and assumptions.

In determining appropriate assumptions for the analysis, a list of specific data requests was sent to the DAA and Airport Coordination Limited (ACL). Furthermore during the consultation exercise, consultees were asked for specific demand, operational and survey data that could strengthen the analysis.

## **EVALUATION CRITERIA**

As set out in Section 2, the traffic forecasts for the airport have been reviewed and under the 'Centreline Case', passenger traffic is forecast to rise from an estimated 20.4 million passengers per annum (mppa) in 2006 to 24.7mppa by 2010 which is an average growth rate of 4.9% per annum. It is noted that based on current trends, DAA expect demand to be significantly higher than forecast for 2006, currently estimated at 21.2mppa. Although updated forecasts are being prepared they were not available at the time of writing, although throughput in 2007 is expected to be 22.8mppa. This implies that the demand is running approximately one year ahead of the current centreline forecasts, in other words 24.7mppa is likely to be achieved in 2009. Air Transport Movements (ATM's) are only forecast to rise by an average of 1.9% over the same period largely due to increasing load factors. It is also pointed out that in assessing the capacity of the airport system, the peak hour demand, rather than the annual total is the key determinant. As such the analysis has reviewed busy hour data from Summer 2006, which therefore fully reflects the higher than expected traffic in Summer 2006.

An actual summer 2006 schedule, using a day representative of 'typical' operations, was used to assess the terminal and runway analysis. The Typical Peak Hour passenger (TPHP) flow in the schedule is broadly consistent with a 30<sup>th</sup> busiest hour and provides a robust basis for assessing terminal performance against service level standards.

DAA have provided queue time service level standards which has been supplemented by IATA defined levels of service where necessary. Given that demand represents the 30<sup>th</sup> busy hour, an equivalent to level of service 'C' has been used as a capacity criteria. If the level of service drops below 'C' then a facility has been considered to either be approaching or over capacity, depending on the length of time and number of passengers affected. Future year TPHP has been assumed to grow in line with total passenger forecasts. Given that over recent years the TPHP has grown at a lower rate due to larger increases in off-peak demand, this can be considered a conservative basis for the terminal assessment.

## **TERMINAL CAPACITY**

As set out in Section 3, Terminal capacity has been assessed through the use of a proven simulation model, ARRIVE-DEPART. A summer 2006 base case schedule has been used to calibrate the model against available survey data. Based on the 'shape' of the demand curve, maximum capacities for passenger processing facilities have been derived. The maximum capacities have then been assessed against the busy hour demand profile to quantify the potential passenger level of service for 2007-2010. Using DAA and IATA standards, an assessment has been made as to whether a facility is under, approaching or over capacity.

The results show that, despite likely localised congestion at security and immigration in Summer 2007, the check-in and security capacity enhancements proposed in 2007 and 2008 by DAA would appear to provide

sufficient capacity for the terminal to handle the predicted peak passenger demand through to 2010, but that congestion at security will require careful management in order to operate effectively in 2007 and 2008. It is noted that although immigration is very sensitive to short peaks in demand, the proposed centralisation of immigration in 2008 will improve processing efficiency and provide sufficient capacity through to 2010. Solutions to capacity constraint at immigration and security have been proposed.

Whilst there are circulation issues on the departures concourse, peak hour circulation can be improved through pro-active management of passenger flow to and from check-in, changes in airline check-in policy and a potential re-allocation of check-in desks within the concourse areas.

It is therefore concluded that despite likely localised issues in Summer 2007, based on the forecasts for passenger demand and the developments proposed by DAA, the passenger terminal system should be able to operate at an acceptable level of service through to the opening of Terminal 2.

## **STAND AVAILABILITY**

It is evident from the existing apron layout and stand allocation, as shown in Section 4, that Dublin airport is currently approaching stand capacity during the overnight period. However, there would appear to be only sufficient stands to accommodate current predicted wishlist<sup>1</sup> demand in summer 2007. However, during Summer 2007 contingency stands are likely to be required to accommodate scheduled aircraft at peak, and therefore stand allocation will require careful management at peak times. Due to works associated with the construction of Terminal 2, the number of stands available in winter 2007 will not meet peak demand requirements. Although additional remote stands are proposed in 2008-2010 to meet demand, there appears to be no contingency provided and the resultant increase in bussing will reduce the operational efficiency of airport operations. In addition to the difficulties likely to be caused by the construction of Terminal 2, there is also a risk that remedial pavement works may be required.

Taken together it is concluded that current stand availability will be significantly compromised from Winter 2007. In conjunction with the increased reliance on bussing and the potential for operational constraints with the construction of Terminal 2, additional demand beyond Summer 2007 will increase aircraft delay and exacerbate congestion in the cul-de-sacs.

## **RUNWAY CAPACITY**

NATS have assessed and confirmed the ability of runway 10/28 to handle the summer 2007 demand with average delays of less than the 10 minute criterion assumed from summer 2007. As shown in Section 5, a VisSim model of the runway and feeder taxiways has been constructed to investigate the capacity of the runway under a range of parameters, rather than just test current conditions. A base case model has been developed and calibrated against the HERMES model used by NATS.

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<sup>1</sup> In managing airline schedule requests, the appointed facilitator ACL, looks to voluntarily agree a schedule, defined as the wishlist, that provides a more balanced distribution of daily departures and arrivals within the capacity thresholds of the airport.

The modelling has confirmed the peak movement capacity of the runway as declared by NATS for summer 2007 and shown that additional peak movements lead to an exponential increase, not just in average but peak and 90 percentile delays. The key reason for the delay is the asymmetrical nature of the peak hour demand which constrains the effective capacity of the runway in this period.

An additional 2 movements per hour could allow the runway to handle a small increment in peak demand over the Summer 2007 peak hour wishlist. The VisSim modelling has shown that such small increases in peak capacity, *may* be achievable either through :

- ATC adopting reduced 1Nm landing clearances; or
- Additional airfield infrastructure, such as previous DAA proposals for a bypass taxiway, an expanded holding point and an additional RET.

We understand that DAA is currently assessing the business case for the apron enhancements, but it is clear that no improvements are likely by Summer 2007 and therefore will not provide any short-term solution to the peak period capacity constraint.

Whilst the development of Terminal 2 mitigates any potential future terminal capacity shortfall, the additional stands provided cannot be optimally used until the parallel runway is completed. It is therefore recommended that the development programmes for Terminal 2 and the parallel runway are reviewed and closely coordinated to ensure that additional stand and runway capacity is delivered as soon as possible.

## **CONCLUSION**

Due to the asymmetry of arrivals and departures in the peak morning schedule and reduced stand availability, additional peak services beyond those in the Summer 2007 wishlist will increase apron delays and average runway delays above the currently agreed 10 minute delay criterion. It is therefore recommended that Dublin Airport be designated as coordinated from the Winter 2007 season due to insufficient airport runway and apron capacity during peak times.

As shown in Section 6, evidence on prior activity patterns from recent seasons suggests that outturn peak demand would be greater than assumed in the current Summer 2007 wishlist. It is therefore recommended that schedules coordination at Dublin Airport also be strongly considered for the Summer 2007 season, as the airport will be at the capacity of its airfield infrastructure and there appears to be no operational contingency provided. Coordinated status for Summer 2007 would help to ensure that capacity constraints are effectively managed and fair access to available slots is provided.

Based on the analysis conducted, runway and stand constraints mean that the airport will not be able to cater for additional peak services until the proposed parallel runway has been completed and additional stands provided, although this is not to say that additional demand cannot be accommodated outside the peak hours. It is therefore recommended, that the appropriate scheduling status of the airport is reviewed again once the planned additional stand and runway capacity are operational.

## 6.2 Appendix II – Conclusions and Recommendations of Jacobs Report

### 7 CONCLUSIONS AND RECOMMENDATIONS

This report has considered the ability of the current and proposed airport infrastructure to accommodate the projected increases in demand over the period 2007-2012. Beyond 2009 the proposed introduction of Terminal 2 will negate any issues concerned with terminal capacity and increase stand capacity, whilst the proposed development of the parallel runway in 2012 will provide additional runway capacity.

In assessing whether the airport should be designated as coordinated, the capacity of the terminal, stands, taxiway and runway have been reviewed. However, in determining whether the coordination status at the airport should be changed, there are two key issues to consider:

- Does demand exceed capacity such that significant delays cannot be avoided at the airport
- Can solutions be developed to effectively resolve identified problems in the short term

In summary, the following has been concluded from the analysis:

#### Terminal

- With the infrastructure enhancements proposed in 2007 and 2008 by DAA, there would appear on balance to be sufficient system capacity for the terminal to handle up to 24.7mppa at a reasonable level of service.
- There are likely to be capacity issues that justify active management and temporary facilities on the concourses, at security and Pier A immigration during Summer 2007.
- Whilst there are circulation issues on the departures concourse, peak hour congestion could be mitigated through active management, changes in airline check-in policy and a potential re-allocation of check-in desks within the concourse areas.

#### Stands

- The airport appears to only have sufficient stand capacity to handle the Summer 2007 wishlist
- It appears that by the winter 2007 season, the demand for stands at Dublin Airport will exceed the supply of stands.
- With the proposed stand re-allocations associated with the development of Terminal 2, the lack of availability of contact stands will be a significant constraint on demand in 2008 and beyond.
- The reliance on remote stands and bussing, and the disruption caused by the construction (and potential pavement works) are likely to lead to unacceptable levels of delay and congestion.

#### Runway

- The capacity of the runway is largely as declared by NATS for summer 2007 and sufficient to accommodate the summer 2007 schedule wishlist.
- Significant investment in additional taxiway infrastructure and improvements in ATC procedures may potentially yield a small increase in current declared peak capacity. However, the

economic case for such investment has not been sanctioned by the DAA or the airlines at the time of writing and seems unlikely to be deliverable in the short term.

- Given the asymmetry of arrivals and departures in the morning peak, additional peak demand beyond that set out in the Summer 2007 wishlist will significantly increase runway-based delays.

Due to the asymmetry of arrivals and departures in the peak morning schedule and reduced stand availability, additional peak services beyond those in the Summer 2007 wishlist will increase apron delays and average runway delays above the currently agreed 10 minute delay criterion. It is therefore recommended that Dublin Airport be designated as coordinated from the Winter 2007 season due to insufficient airport runway and apron capacity during peak times.

As shown in Section 6, evidence on prior activity patterns from recent seasons suggests that outturn peak demand would be greater than assumed in the current Summer 2007 wishlist. It is therefore recommended that schedules coordination at Dublin Airport also be strongly considered for the Summer 2007 season, as the airport will be at the capacity of its airfield infrastructure and there appears to be no operational contingency provided. Coordinated status for Summer 2007 would help to ensure that capacity constraints are effectively managed and fair access to available slots is provided.

Based on the analysis conducted, runway and stand constraints mean that the airport will not be able to cater for additional peak services until the proposed parallel runway has been completed and additional stands provided, although this is not to say that additional demand cannot be accommodated outside the peak hours. It is therefore recommended, that the appropriate scheduling status of the airport is reviewed again once the planned additional stand and runway capacity are operational.