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Dear Kieran

ACL RESPONSE TO CONSULTATION ON THE CAPACITY OF DUBLIN AIRPORT

Airport Coordination Ltd (ACL) welcomes the opportunity to comment on the Jacobs Consultancy *Dublin Airport Capacity Review* of 6 December 2006.

ACL has acted as the schedules facilitator and coordinator of Dublin Airport since its appointment by the Irish Government in 1999. It has undertaken its duties independently and in a neutral, transparent and non-discriminatory manner as required by the EU Slot Regulation¹. ACL is also the coordinator of the UK's four coordinated airports and provides a schedule facilitation and data collection service at a further 13 airports in the UK and Ireland.

During its involvement at Dublin Airport, ACL has actively participated in the airport's Coordination Committee and capacity meetings, drawing upon its experience of busy airports in the UK like Gatwick and Stansted to share 'best practice' and help to maximise capacity and make best use of Dublin Airport's facilities.

ACL managed Dublin Airport's transition from 'Schedules Facilitated' to 'Coordinated' status for the Summer 2006 season following the CAR's decision to designate the airport as coordinated, and managed its reversion to facilitated status following the decision by the High Court.

Coordination Status

In ACL's professional opinion and experience, the Jacobs capacity review is a thorough and robust analysis of the capacity situation at Dublin Airport. It validates the runway and terminal capacities declared by DAA, after consultation with the airport's Coordination Committee, and highlights shortfall in stand capacity expected during the construction of Terminal 2 and Pier E.

ACL agrees with the consultant's conclusion that the airport should be designated as 'Coordinated' and believes that this designation should be made for the Summer 2007 season.

In ACL's view, the Jacobs study somewhat underestimates current levels of demand at peak times, as it does not fully account for the benefits of coordination during Summer 2006. It is

¹ Council Regulation (EEC) 95/93 as amended by Regulation 793/2004

ACL's view, based on schedule data submitted by airlines, that unconstrained demand currently exceeds capacity to a greater degree than suggested by the Jacobs study.

Demand for Summer 2007 is significantly in excess of both runway and terminal capacity. Experience of past seasons at Dublin Airport has demonstrated to ACL that such excess demand is not '*...amenable to resolution by voluntary cooperation between air carriers...*' as required at a schedules facilitated airport². Without coordination, unacceptable levels of congestion and delay are to be expected during the Summer 2007 season. ACL does not believe that deferring coordination until the Winter 2007/08 season is justified.

Under normal circumstances, the designation of an airport as 'Coordinated' at this stage in the coordination process (after the initial coordination of the season) should be avoided. However, Dublin Airport was coordinated for the Summer 2006 season and air carriers were aware at the time of making their Summer 2007 schedule submissions that the CAR was in the process of revisiting the question of the airport's designation following the decision by the High Court.

Therefore, the designation of Dublin as 'Coordinated' at this stage in the coordination process is feasible, but should be made as soon as possible and ideally before the industry slot return deadline of 31 January 2007.

ACL's specific comments on the Jacob's study and data supporting its view that the Dublin Airport should be coordinated for the Summer 2007 season are contained in the annex to this letter.

ACL is happy for the contents of its response to be shared with interested parties.

Yours sincerely



James Cole
Director of Coordination

² Council Regulation (EEC) 95/93 as amended by Regulation 793/2004, Article 2(i): '*schedules facilitated airport*' shall mean an airport where there is potential for congestion at some periods of the day, week or year which is amenable to resolution by voluntary cooperation between air carriers and where a schedules facilitator has been appointed to facilitate the operations of air carriers operating services of intending to operate services at that airport.

ANNEX: COMMENTS ON THE JACOBS CAPACITY REVIEW

1. Runway Capacity

The Jacobs study undertook VisSim modelling of Dublin's runway capacity to validate analyses undertaken by NATS in support of the Summer 2007 seasonal capacity declaration process.

The main capacity-constrained period at Dublin Airport corresponds to the first wave of departures of aircraft based at the airport. For Summer 2007, capacity for morning departures was increased by 7 movements in order to accommodate as much airline demand as possible. The 0500 UTC hour capacity was increased to 31 departures (+5) and the 0600 UTC hour was increased to 29 departures (+2).

During the Summer 2007 capacity review, NATS performed delay sensitivity simulations with 32 or 33 departures in the 0500 UTC hour. Figure 1 show the results of this analysis and demonstrates that additional movements at this time would result in delays in excess of the agreed 10 minute delay criterion³. Jacobs independently examined the impact of extra departures around this time and concluded that they would result in an exponential increase in delays in excess of the agreed standard.

For Summer 2007, ACL received requests for up to **36 departures in the 0500 UTC hour**, an extra 5 movements above the capacity agreed by the Coordination Committee and 10 movements higher than Summer 2006 experience.

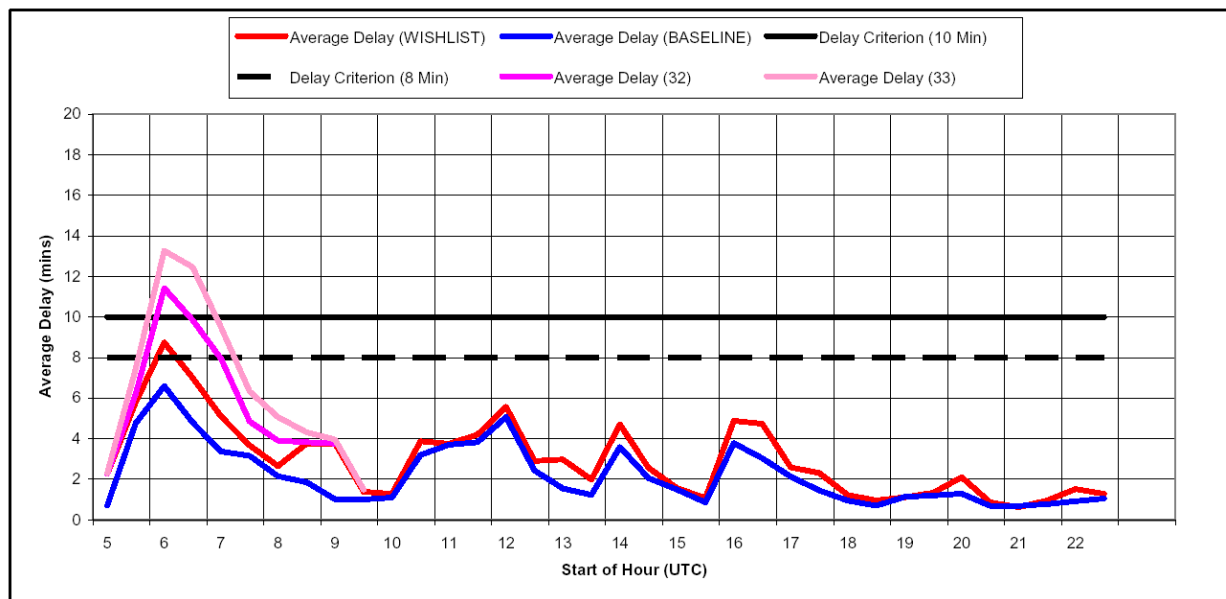
The Jacobs study also identified opportunities to increase the capacity of Dublin's existing runway by about 2 movements per hour, based on improvements in the time required for each arrival-departure-arrival movement sequence, using Gatwick as a 'best in class' benchmark. They identified measures to achieve this improvement, including the construction of new runway exits and taxiway infrastructure and improvements in ATC and pilot performance.

ACL shares the view that improvements in runway capacity should be continuously sought. An eventual improvement of 2 movements per hour does not appear unrealistic. Indeed, between 1999 and 2007 capacity was increased from 38 movements per hour to a busy period average of 44 movements per hour. This was achieved through a consultative process of season capacity review meetings by the airport's Coordination Committee.

The potential runway capacity increases identified by Jacobs cannot be achieved in the short term, and are in any case insufficient to meet current or forecast demand.

³ Prior to Summer 2007, Dublin Airport assessed capacity against an 8 minute delay criterion. For Summer 2007 the Coordination Committee unanimously agreed to increase this to 10 minutes in order to maximise the airport's declared capacity. A 10 minute criterion is also used at Heathrow, Gatwick, Stansted and Manchester airports.

Figure 1: Runway Departure Delay – Sensitivity Analysis
Modelling of Summer 2007 departure delays



Source: NATS

Explanation of Figure 1:

The Baseline (blue) is the pattern of delay based on Summer 2006 capacities. The Wishlist (red) shows the effect of the capacity changes agreed for Summer 2007, which include increasing the 0500 hour to 31 (+5) and the 0600 hour to 29 (+2). The sensitivities (dark and light pink) show the effect of increasing the 0500 hour capacity further to 32 or 33 departures. This demonstrates that additional movements would result in delays in excess of the agree 10 minute criterion.

2. Stand Capacity

The Jacobs study highlights that there will be insufficient stand capacity to meet unconstrained demand, particularly in the medium term (2007 – 2010) during the construction of Terminal 2 and Pier E. This reinforces the need for effective coordination to manage demand, and also highlights the need for DAA to carefully phase the developments in order to minimise any disruption to the existing operations.

3. Terminal Capacity

The terminal capacities declared by DAA were increased in 2007 as a result of the Check-in Area 14 development and other efforts to accommodate airline demand. Departing passenger capacity was increased from 3250 pph to 4050 pph, and arrival capacity was increased from 3000 pph to 3550 pph.

The Jacobs study broadly supports capacities at the levels declared by DAA. It identifies several scenarios, based on the occupancy and use of Area 14, the take-up of web check-in and other variables, which could affect the potential capacity of the facilities.

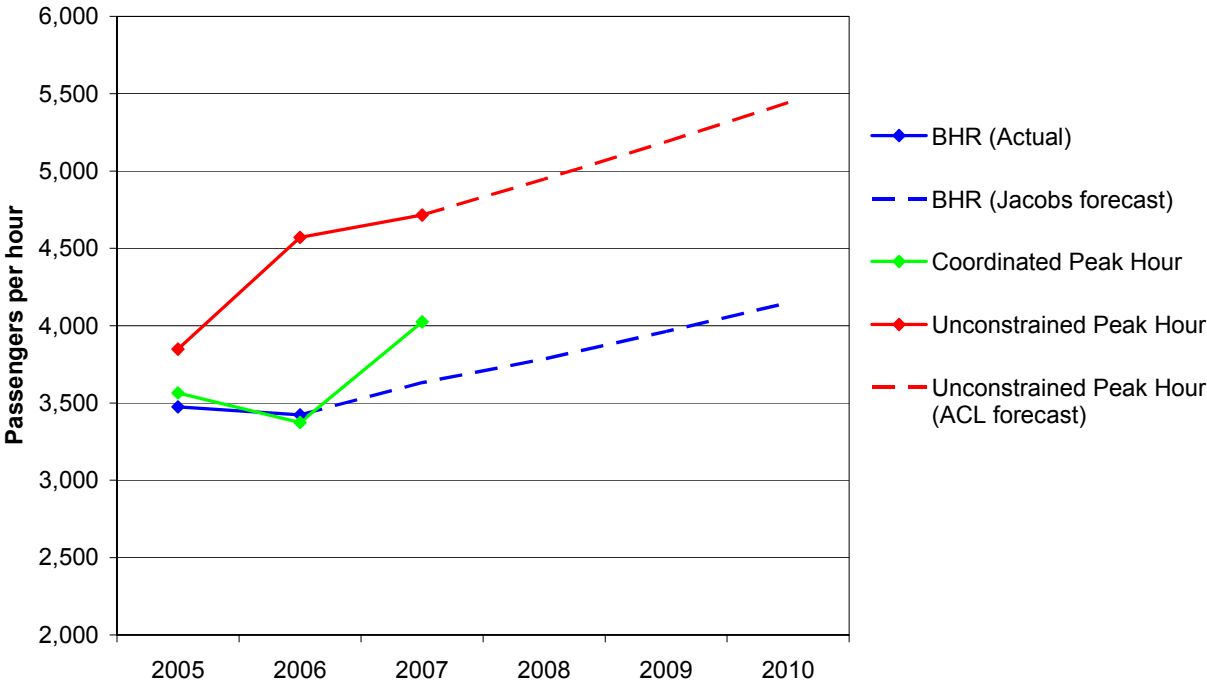
The Jacobs study examines the adequacy of the Dublin terminal facilities against forecasts of the Busy Hour Rate (BHR) demand. However, Jacobs use 2006 actual data as the baseline of their forecast, which reflects a period when the airport was coordinated.

Figure 2 shows the actual departing BHRs and the Jacobs forecast to 2010, plotted against the coordinated and unconstrained peak hours in the ACL schedules (see Figures 3a and b also). Data for 2005 and 2006 shows a close correlation between the Coordinated Peak Hour and the actual BHR. Without coordination, the 2006 unconstrained BHR would have been about 4,500 departing passengers per hour, 30% higher than the actual level of 3,423 pph. By 2010 the unconstrained BHR could be expected to grow to around 5,500 pph (applying the same growth rates assumed by Jacobs).

Jacobs most optimistic capacity assessment (assuming Ryanair occupancy of Area 14 with 35% web check-in) gave a potential check-in and concourse capacity of 4,577 pph. This is just sufficient to meet 2006 unconstrained demand and inadequate from 2007 onwards.

Therefore, the conclusion reached by Jacobs 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 2⁴ is only valid in the context of a coordinated airport.

Figure 2: Departing Passenger Busy Hour Rates



⁴ Jacobs Consultancy *Dublin Airport Capacity Review (6 December 2006)*, Executive Summary, Page iii

Figure 3a: Departing Passenger Profile – Unconstrained Demand
 Summer season typical day

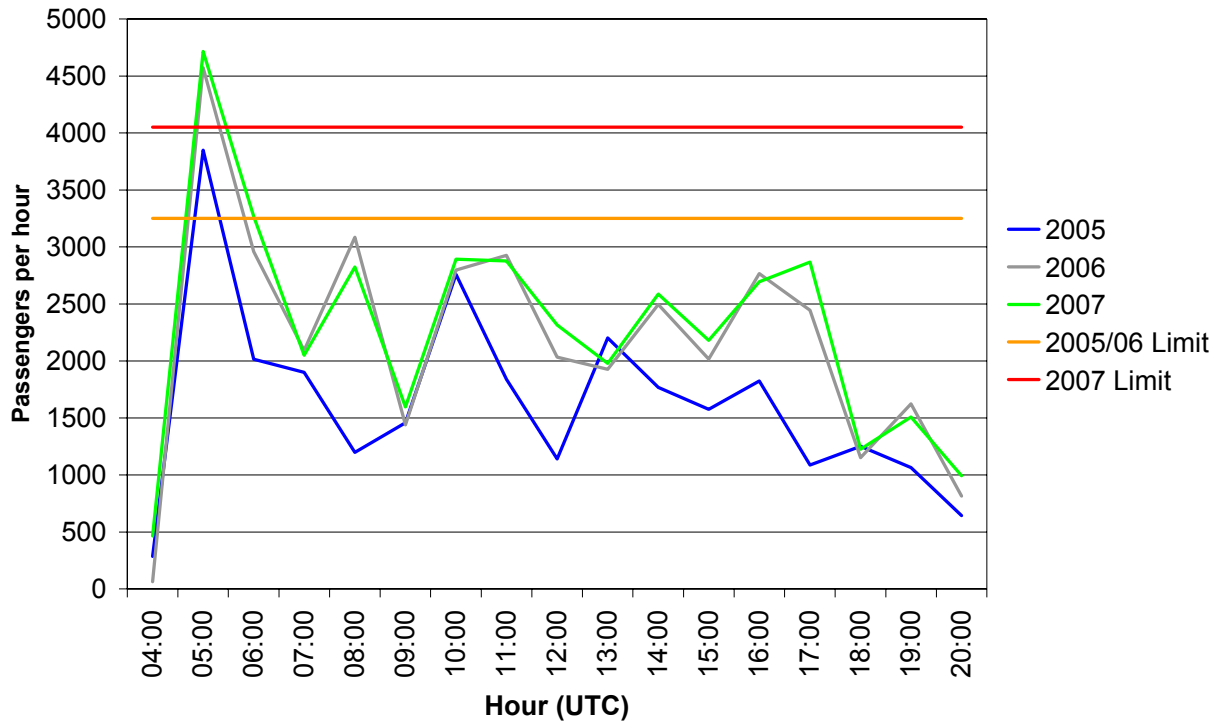
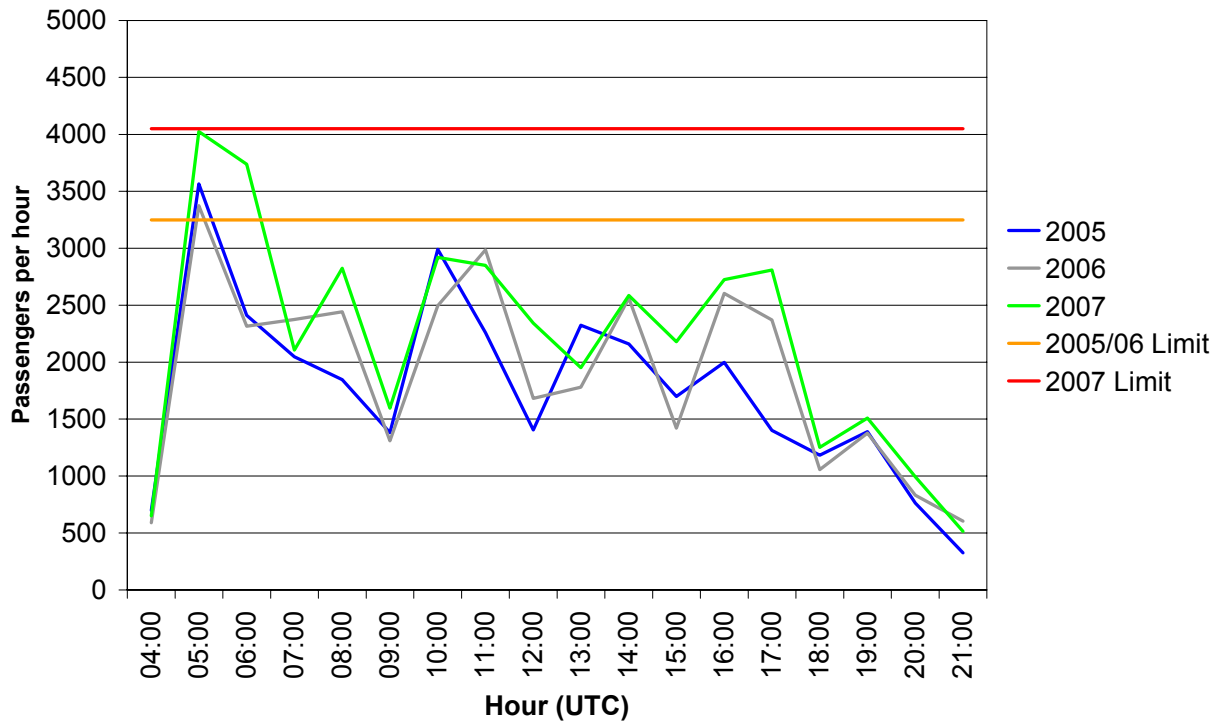


Figure 3b: Departing Passenger Profile – After Schedule Adjustments
 Summer season typical day



4. Schedule Adjustments and Voluntary Cooperation

The proportion of flights that could be accommodated at their requested times, and the cause of any adjustment, are detailed in Table 1 below for the Summer 2006 and 2007 season. In the busiest hour, 0500 UTC, over 20% of demand could not be accommodated at the times the airlines require.

The additional terminal capacity declared by DAA for 2007, following the Check-in Area 14 development, has reduced the number of terminal capacity issues at Dublin. The runway capacity is now the dominant scheduling constraint. Between 2006 and 2007, the proportion of schedule adjustments necessary as a result of terminal capacity issues fell from 65% to 15% while the proportion of runway capacity issues increased from 35% to 85% of the scheduling problems. The runway can be expected to remain the dominant constraint on demand at Dublin Airport until the construction of a second parallel runway.

ACL's experience is that this degree of schedule adjustment required to remain within agreed capacity levels (and acceptable levels of delay) cannot be achieved through voluntary cooperation between air carriers.

Figure 4 shows the degree of cooperation with the system of voluntary schedule adjustment prior to Dublin's designation as 'Coordinated' for Summer 2006. It shows that cooperation was never better than 50% and that the system of schedule facilitation had broken down in Summer 2005. There is no reason to expect a greater level of cooperation in the future when demand continues to grow ahead of available capacity.

Table 1: Schedule Adjustments by Requested Hour

Requested Hour (UTC)	SUMMER 2006			SUMMER 2007		
	Request OK	Adjusted due to:		Request OK	Adjusted due to:	
		Runway	Terminal		Runway	Terminal
0400	100%	0%	0%	100%	0%	0%
0500	76%	5%	19%	79%	19%	2%
0600	88%	0%	12%	88%	7%	6%
0700	92%	6%	2%	99%	1%	1%
0800	94%	1%	5%	96%	4%	0%
0900	92%	4%	3%	100%	0%	0%
1000	85%	2%	13%	100%	0%	0%
1100	97%	3%	0%	95%	5%	0%
1200	100%	0%	0%	96%	4%	0%
1300	100%	0%	0%	98%	2%	0%
1400	97%	3%	0%	99%	1%	0%
1500	96%	4%	0%	100%	0%	0%
1600	100%	0%	0%	94%	6%	0%
1700	97%	3%	0%	97%	3%	0%
1800	99%	1%	0%	100%	0%	0%
1900	97%	3%	0%	100%	0%	0%
2000	94%	0%	6%	98%	0%	2%
2100	93%	0%	7%	98%	1%	1%
2200	100%	0%	0%	99%	1%	0%
2300	100%	0%	0%	100%	0%	0%
Total	94%	2%	4%	96%	3%	1%

Figure 4: Schedule Adjustment Summary
Summer seasons 2003 to 2005

