



Dublin Airport Authority Submission to the Commission for Aviation Regulation

On

The Dublin Airport Capacity Review
carried out by Jacobs Consulting in
December 2006.

5th January 2007

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1 Introduction

Dublin Airport Authority (DAA) welcomes the opportunity to participate in the consultation on the Dublin Airport Capacity Review carried out by Jacobs Consulting.

The following submission sets out the DAA views in relation to the report and in particular to the report conclusions.

2 DAA Position

Dublin Airport Position:

DAA's position is that Winter 2007 is not soon enough for Dublin Airport to be designated as coordinated. Coordination is required at Dublin Airport from the start of the Summer 2007 season (25/03/07).

Coordination is essential to ensure that an effective system of schedule management is in place. Coordination ensures that the capacity declaration, as agreed by operators at Dublin Airport, can be effectively managed to minimise delay and allow fair access to slots for all operators.

Schedules facilitation has failed at Dublin Airport; Coordination is a prerequisite for the effective management of the Summer 2007 schedule and it will safeguard fairness in the allocation of slots for all airlines. Without coordination there will be significant periods of congestion and disruption to the smooth operation of the airport.

Dublin Airport will have the following significant capacity constraints for the Summer 2007 season:

- Runway demand significantly exceeds capacity in the peak hours.
- Stand demand exceeds available capacity by around 20%.
- Essential airside works will significantly affect access to/from Runway & Stands.

- Departures concourse is subject to regular congestion, with space standards falling and dwell time increasing.
- Check-in area is close to capacity with web check-in targets not being achieved.
- Changes to security procedures had a negative affect on passenger processing times and increased queuing in the area.
- Immigration processing is already at capacity.

In addition to the capacity constraints outlined above, the following points will also add pressure at Dublin Airport for Summer 2007:

- There has been a substantial increase in the airline based fleet at Dublin and traffic is running one year ahead of schedule.
- In the 2-year period 2006 to the end of 2007, passenger traffic is expected to increase by 4.5 million passengers.
- Possible changes to the US bilateral agreement and the Canadian bilateral agreement to allow greater access to Dublin Airport would increase demand.
- There is a possibility that a new carrier will start up long haul flights from the Middle East in Summer 2007 increasing demand further.
- More than 10 new aircraft will be based at Dublin Airport, compared to Summer 2006.
- At this stage, almost 5% of the schedule for Summer 2007 does not have approved operating times. Failure to secure operating times will lead to breaches in agreed capacity limits resulting in delays at Dublin Airport.
- The base for future years' busy days is a typical busy day in 2006, this busy day is a coordinated day, so all future busy day schedules have been evaluated from a constrained base. This will underestimate the peaking in Summer 2007 if the airport is not coordinated.

Coordination is required for Summer 2007.

3 Capacity Declaration for the Summer 2007 Season

In early August 2006, ACL assessed the likely demand for runway and terminal capacity in the Summer 2007 season (see Appendix A). The assessment anticipated significant excess demand for the runway in several peak hours. In particular, departures demand in the 0500 UTC hour (0600 local time) was expected to be 45 departures per hour. As stated in the Jacob's report this is 19 movements per hour higher than Summer 2006 capacity and in excess of the peak-hour departures capacity of any similar airport in ACL's experience (e.g. Gatwick or Stansted). This unconstrained demand for departures in this hour translates in to **a demand of 6000 departing passengers per hour**. This is **48%**

higher than the available declared capacity of 4050 passengers per hour, even including the additional capacity associated with the new check-in area 14.

From this picture of demand, ACL developed a more constrained but challenging 'wishlist' requirement of capacity for Dublin Airport for Summer 2007 based upon the stated assumption that an effective process of schedule coordination would be in place to enforce these limits and to smooth demand peaks to operationally practical levels. This 'wishlist' for runway and terminal capacity, if satisfied, with an effective process of schedule coordination in place, would facilitate well the management of the schedule for the Summer 2007 season.

ACL distributed this scheduling limits 'wishlist' to the Executive of the Dublin Airport Coordination Committee Group and Dublin Airport established a group to primarily discuss the capacity requirements for Summer 2007. The members of this group were DAA, IAA, Aer Lingus, Ryanair, Aer Arann, Cityjet, Lufthansa, Monarch Airlines, Aviajet, ACL and they represent all the main parties involved in operations at Dublin Airport. Dublin Airport contracted runway capacity consultants – NATS, and terminal consultants - Arup to reassess capacity in light of the planned developments. This group met twice and the results were presented with regards to how capacity at Dublin Airport would satisfy the 'wishlist' capacity. There was full agreement from this group that the capacity 'wishlist' should be adopted as the declared capacity limits for the Dublin Airport coordinator to work to for the Summer 2007 season.

The Dublin Airport Coordination Committee formally agreed with these limits on the 4th October for the Summer 2007 season.

At the Coordination Committee meeting the IAA re-emphasised that coordination was required to deliver the runway capacity figures agreed and advised that breaches in capacity would have a highly adverse effect on delays.

The Dublin Airport scheduling limits were agreed by the Coordination Committee through extensive consultation on the understanding that an effective process of schedule coordination is in place for Summer 2007.

4 Demand Context

4.1 Traffic Forecasts

Jacobs Report states:

"DAA provided centreline airport demand forecasts for the period 2006-2010.....which are set out in Table 1 below, showing a compound annual growth rate (CAGR) of 4.9% for passengers and 1.9% for air transport

movements. However, it is noted that based on current trends, DAA expect demand to be significantly higher than forecast in 2006, currently estimated at 21.2mppa. This implies that demand is running ahead of the forecasts by about one year and that 24.7mppa may be achieved by 2009”.

“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”.

Dublin Airport Position:

The growth in passenger traffic at Dublin Airport continues to exceed expectations due to step changes in capacity by based airlines. In the 2-year period 2005 to 2007, passenger traffic is expected to increase by more than 4 million passengers. This 24% growth needs to be managed in a planned environment and the designation of Dublin Airport as coordinated is an essential requirement for this.

The DAA acknowledges the critical importance of the peak hour when assessing the capacity of the airport system. However, it is important to clarify the significance of the forecast figures, since these highlight the continuous growth expected over the next 4 years. Considering the lack of major new airport capacity until 2009/2010, it is vital that this growth is managed in such a way as to mitigate as much as possible the effects on service standards for all users.

The current official Dublin Airport Forecast was produced in April 2006. That forecast was reviewed in December 2006. It should be noted that the exogenous variables are fundamentally unchanged as the indications are that the Irish and world economies continue to have a positive outlook. The differences are instead due to accelerated growth over the last year, due to the significant addition of capacity at short notice.

Over the last 3 years, Dublin Airport has experienced very strong growth in passengers, growing by 8% in both 2004 and 2005 and by a further 15% in 2006 (i.e. 2.7m passengers). All the indications are that this strong growth will continue into 2007. Because of this, traffic growth is now over a year ahead of where we expected to be in early 2006.

The main reasons why the current traffic levels are higher than the DAA Passenger Forecast produced in the first third of 2006 are as follows:

- Ryanair and Aer Lingus deployed significant extra capacity in 2006 compared to 2005 through the use of larger aircraft and additional based aircraft. The effect of this level of additional capacity was more positive than expected as load factors decreased only moderately and there were few route withdrawals compared to the number of new services.

-
- Subsequent to the completion of the forecast in April 2006, further substantial incremental increases in based fleet numbers were announced as airlines finalised their plans for 2007.
 - Ryanair will add a further 4 new aircraft between the November 2006 and February 2007.
 - Aer Lingus will add 2 long haul and 2 short haul aircraft in Summer 2007.
 - Both airlines have submitted further aircraft applications for Summer 2007.
 - US carriers increased long haul capacity in 2006 and continue to add capacity in 2007.
 - The rising fuel price has not had an appreciable effect on demand in 2006 and it has decreased in recent months.

Thus the base for 2007 now appears to be substantially higher than that which appeared likely in March 2006. While some route consolidation may follow this period of substantial growth, the economic indicators are positive, population growth continues and a change in the Irish-US transatlantic arrangements, which will benefit Dublin Airport, is still likely. Thus DAA expects passenger growth to continue in the 2008-2010 period. Indeed, several carriers have suggested that they will continue their fleet expansion plans throughout this period.

There will be continuous pressure on Dublin Airport to cope with this growth and the coordinated status of Dublin will have a very significant effect on its ability to cope with this pressure.

5 Terminal Capacity

5.1 Departures Concourse:

Jacobs Report states:

“...the concourse will be congested at certain times and may become critical on the busiest days of the summer period.....subject to crowding on regular occasions throughout the peak summer season.....During the peak period the space per person in the pre-check-in circulation area drops to below 2.3m² for 36% of the time. Under the parameters set out in this report, the circulation space should be declared at capacity if the space requirements are not met for more than 20% of the peak period’

Dublin Airport Position:

The departures concourse is at capacity during peak periods. The addition of any further flights, over and beyond the numbers agreed by the Coordination Committee during the peak periods, will lead to an unacceptable deterioration in the level of service for passengers. The potential improvements suggested by Jacobs may marginally improve the flow of passengers on the concourse, but they do not address the increase in demand during the peak hours. Coordination will ensure that those operators who have fairly secured slots during this peak period, according to the internationally agreed IATA process will not be delayed by other operators who choose to push in front of them with no approved scheduled departure or arrival time.

- During the summer months congestion on the departures concourse will become critical as passengers numbers for 2007 are expected to grow by a further 1.7 million.
- The report shows that currently between 0300 and 0700 hours the space per person drops to below the 2.3m² recommended by Jacobs, for 36% of the time. This represents IATA Level of Service D and based upon Jacobs report “the circulation space should be declared at capacity if the space requirements are not met for more than 20% of the period”. This facility is therefore considered to be over capacity. In Summer 2007 this position will deteriorate further if the schedule is not coordinated.



Dublin Airport commissions an independent research company to undertake an annual survey to monitor the dwell times of passengers at the airport. Since 2002, overall passenger dwell times at the airport have increased from an average of 110 minutes to an average of 147 minutes per passenger. The dwell time pre-security has increased from 47 minutes in 2003 to 57 minutes in 2006. This clearly identifies how much earlier passengers are arriving at the airport, prior to check-in desks opening, resulting in increases in the departures concourse population. There is no evidence that this trend is reversing, even with the introduction of self-service kiosks and internet check-in to date and coordination is required to avoid frequent congestion occurring on the departures concourse.

5.2 Check-in:

Jacobs Report states:

1. *'...the current check-in hall is close to available check-in desk capacity.....any additional capacity beyond 2006 will be supplied by Area 14....'*
2. *'.....In order to significantly increase the capacity of check-in desks through the introduction of web check-in, Ryanair would need to move to an automated check-in system.....'*

Dublin Airport Position:

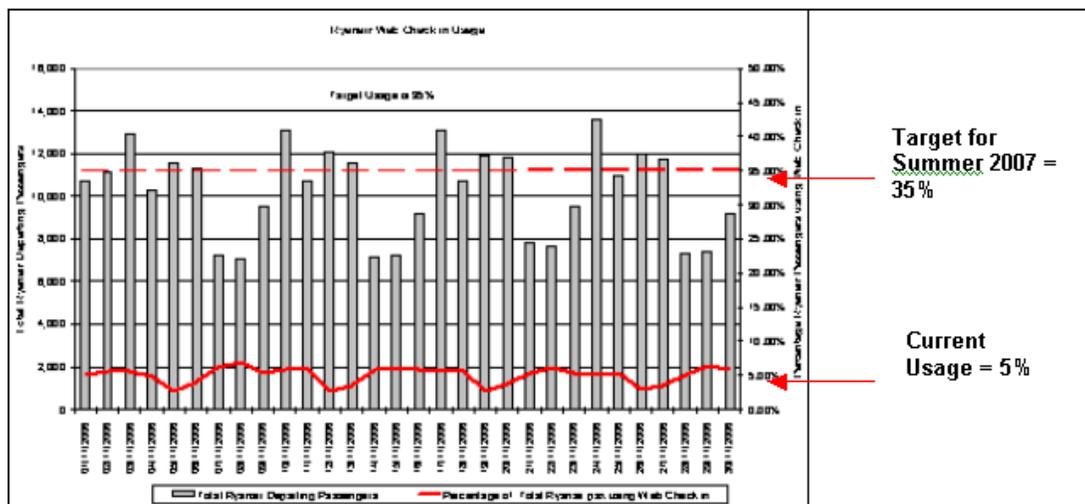
1. As check-in is currently close to capacity, increases in check-in capacity rely heavily on Ryanair operating from Check-in Area 14.
2. Jacobs's assessment of additional capacity in this area is based entirely upon a target of 35% of Ryanair passengers using web check-in for Summer 2007. With less than 3 months until the start of the season Ryanair has only 5% web check-in usage and it is unlikely that it will reach its 35% target by March 2007. This will put further pressure on the check-in area. There is no evidence that Ryanair will open all its check-in desks 3 hours before departure.

Coordination is necessary for Summer 2007 to effectively manage the check-in operation.

- For Check-in Area 14, the report examines various scenarios for different users of the area. Jacobs have demonstrated that **additional capacity is effectively only available using Scenario 2**.

Requirements for Scenario 2 assume:

- (a) 35% of Ryanair passengers will use web check-in, bypass the check-in area and go straight to security. However, the uptake of web check-in by Ryanair passengers has been low and has captured less than 5% of departing passengers since July 2006 (see chart below). To achieve the passenger throughput envisioned in Scenario 2 this would need to increase to 35% in less than 3 months. **There is no evidence that this target can be achieved.**



- (b) This scenario assumes that Ryanair automate their check-in processes. Currently, Ryanair has not started automated operations at Dublin.
 - (c) This scenario also assumes that Ryanair agrees to open all of its check-in desks 3 hours before departure. There is no evidence that Ryanair plans to do so in check-in area 14.
- Jacobs assume that all passengers “dwelling pre and post check-in” are accommodated in Check-in Area 14. This assumption is flawed. Passengers using Web Check-in will not use Check-in Area 14, but will instead proceed to the security search areas via the main departures concourse, thus further congesting and adding to the number of passengers circulating in this area.



Data from the 2006 Dwell Time Survey shows that 76% of passengers travelling on charter flights arrive at the airport at least 2 hours prior to the scheduled time of departure, compared to 31% passengers on European scheduled flights. Desks for charter flights regularly open earlier to

accommodate this passenger arrival profile. This puts extra pressure on the check-in desk allocation. As a result, last summer, some of the US carriers requested additional check-in desks but these requests could not be facilitated due to a lack of available desks.

5.3 Security:

Jacobs Report states:

“Large queues are likely to result on peak days during the summer 2007 period.....Congestion at security will require careful management in order to operate effectively in 2007...”

Dublin Airport Position:

Dublin Airport has analysed the security search process and will implement a plan for process improvement in this area. This will allow Dublin Airport to deliver security screening resources to the declared capacity levels, as agreed at the Dublin Airport Coordination Committee. However, the security search area is clearly sensitive to any changes in procedure and processing. The impact of the new EU regulations regarding the carrying of liquids will be felt keenly during the summer season as charter traffic increases. There is uncertainty over potential changes that may be made to security regulations. Any changes will take in excess of a month to settle in. **Coordination for Summer 2007 is essential to reduce the frequency of large queues during peak hours and during peak days.**

- Processing capacity levels within the security areas are particularly susceptible to any changes in procedure or regulation. Previous changes to the security screening requirements have had a negative impact on processing times at security. In 2005, changes to procedures requiring passengers to remove shoes and belts before being processed resulted in large queues with a subsequent fall in service level standards. Surety of

the schedule to agreed capacity limits is required to facilitate the planning of resources to minimize the impact of any change in processing requirements. Coordination will provide this.

- On November 6th 2006 new European wide security measures were introduced in the security areas. The report states that the impact of these measures will be greatly felt during the summer season – “ *Large queues are likely to result on peak days during the summer period*”. Table 9 in the report shows that for Area B the queue times will exceed 15 minutes for 82% of the time during the peak 3 hour period with the new security protocols.
- Carefully monitored queue management alone, with no element of schedule control, cannot be the solution to managing the security process. Schedules Facilitated status would mean that airlines would have access to the peak hour with little notice required. How can any carefully balanced resource be planned and operated successfully on this basis?
- In 2007 a new regulation will be implemented limiting the size of cabin baggage allowed. This has further potential to increase processing times.

5.4 Immigration:

Jacobs Report states:

‘The forecast queues at immigration are well in excess of typical standards and it is noted that service times may be improved if the schedule was managed to ensure that additional arrival flights are not added to the peak.....Immigration queues at Pier A are likely to exceed current capacity in Summer 2007.’

Dublin Airport Position:

The Immigration process is already at capacity. The schedule must therefore be effectively managed so that additional flights are not added at the peak. There will be a considerable adverse impact on service levels if this is not the case. **Coordination for Summer 2007 is essential to ensure that additional arrival flights are not allowed to operate during the peak periods, over and above those carriers who have obtained fairly allocated slots.**

- The report states clearly that for 2006, the Immigration process at Pier A is already at capacity. During peak periods in 2006, passengers were forced

to wait for over 15 minutes to clear immigration and the total population in the queue could reach 366 passengers despite the limitations on queuing space. This congestion was widely reported in the media, ref sample press cuttings below:

Irish Times 01/08/06 **Irish Herald 18/07/06** **Irish New 18/07/06**

**Anger at
passport
queues
at Dublin
airport**

**Airport chaos as delays
at immigration take toll**

Travellers' 90-minute wait

- For Summer 2007, Jacobs states that queue times at Pier A Immigration will increase to 20 minutes during the peak periods. This contrasts with the agreement of the Dublin Airport Coordination Committee that the maximum wait time should be 10 minutes, in line with IATA recommendations.
- There is no benefit in providing a dedicated route for CTA passengers, as suggested within the Jacobs report as they are processed in the same way as other EU passengers.
- Immigration capacity is sensitive to changes in procedure or processing. Any increase in processing rates will have a highly detrimental impact on queue lengths and queue times. Jacobs show that if processing times were to increase by 1 second per passenger queue times would regularly exceed 15 minutes and would even reach 30 minutes. This clearly demonstrates how sensitive this area is to delays caused by additional traffic. Indeed, Jacobs note that over a six-hour period between 0700 and 1300 hours the total amount of passengers queuing could exceed 300 passengers, for approximately 1.7 hours, and the peak number of passengers could reach 595 passengers during the peak time.



- Jacobs also clearly note that immigration processing capacity is sensitive to manning of available facilities. The report assumes that required staffing levels will be met. However, **there has been no firm commitment from the GNIB regarding future staffing levels.** This

area is not under the control of Dublin Airport and there is no contingency

available if the required number of Immigration desks in Pier A for example, are not manned. Dublin Airport has consistently provided more booths and processing points than the GNIB has staff available. It has been staffing levels that have been the main constraint for arriving passengers at Dublin Airport.

6 Stand Availability

6.1 Stand Demand exceeds the capacity available

Jacobs report states:

'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.'

Dublin Airport Position:

The number of stands required by aircraft at Dublin Airport clearly exceeds the number of parking stands available for **both** the Summer 2007 and the Winter 2007 seasons. **Dublin Airport could be up to 14 stands short during Summer 2007.** Coordination is therefore essential to effectively manage available resources for Summer 2007.

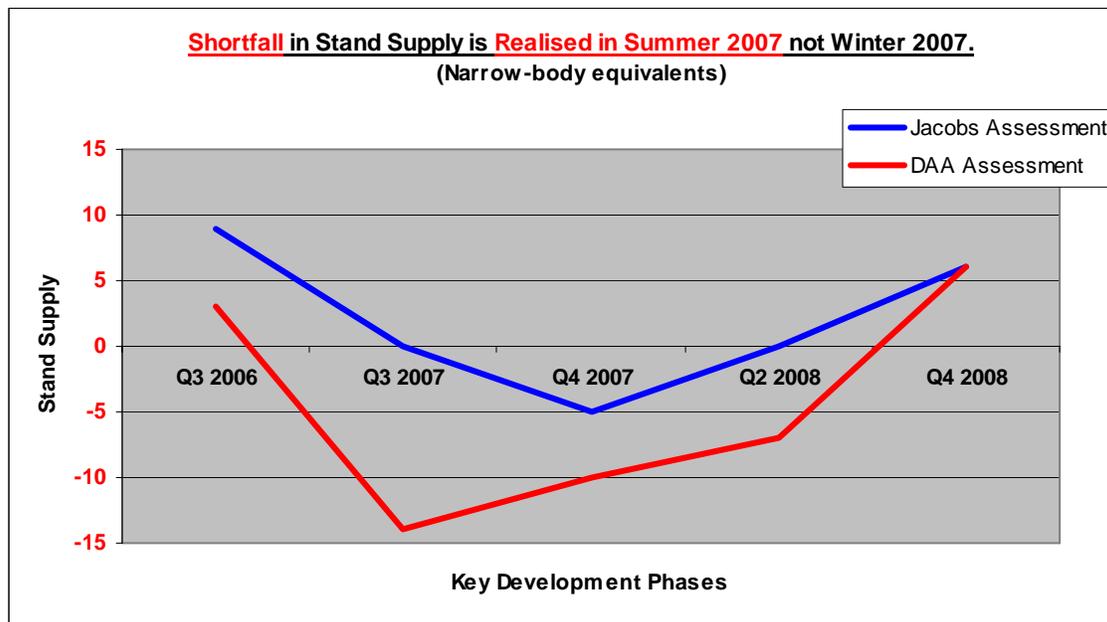
- DAA calculates stand supply during Q3 2006 as 72 stands¹. On a regular basis during the summer, overnight stand availability ranged from between only 2 and 5 stands available, for example on 28th July only 2 stands remained unoccupied:
- It should be noted that not all of the remaining available stands on the dates listed above could accommodate the full spectrum of narrow-body aircraft types. In this respect, the level of demand experienced during the Summer 2006 season caused significant concern in term of the airport's ability to accommodate any additional activity arising from day to day activities, or changes to an airlines aircraft type. In fact, stand shortage on

¹ Narrow body equivalents, including the '100' stands but excluding stand 36 MARS and 39A.

- occasions became so critical that aircraft had to be moved into hangars to free up stands.
- The addition of more than 10 new based aircraft (over summer 2006) will substantially reduce the number of stand available every day during the summer months. During Summer 2006, Ryanair's based aircraft fleet consisted of 15 aircraft and Aer Lingus 21 aircraft. DAA has been advised by these two carriers that their overnight fleets will increase up to 25 and 23 aircraft respectively for the Summer 2007 scheduling season. This puts increasing pressure on stand demand. The current Summer 2007 schedule also includes a new Air Portugal service 'overnighting' at Dublin.
 - In terms of available stand supply for the Summer 2007 season, the total number of stands available² will be 69, a reduction of 3. The demand however, currently based on the latest Summer 2007 schedule listing is for a minimum of 73 stands and this is based on only 21 Ryanair based aircraft at Dublin. However, if we assume 25 based aircraft for Ryanair as advised, the demand rises by 4 to 77. This does not take into account provision for stand-by aircraft, business aviation aircraft and any additions beyond the S07 'wishlist'. Accommodating these would require a further minimum of 5 stands giving a **total Summer 2007 demand of approximately 83 stands compared to an availability of 69 stands available³** (+20% required). The chart below illustrates the surplus/shortfall over key development phases. **It is important to note that the shortfall commences in Q2 2007; this is the beginning of the Summer 2007 schedule.**

² DAA assumes for the peak overnight stand supply, a stand should be available from at least midnight through to approximately 0600hrs (local) as there is little or no aircraft turnaround activity requiring stands during this period except cargo movements.

³ Dublin Airport will probably close runway 11/29 to accommodate aircraft parking for summer 2007



Dublin Airport could be up to 14 stands short at the start of the Summer 2007 season. Coordination is therefore essential to effectively manage available resources for Summer 2007.

6.2 Stand deficit in Summer 2007 season.

Jacobs report states:

“Dublin Airport be designated as coordinated from the Winter 2007 season due to insufficient airport runway and apron capacity during peak times. 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 cul-de-sacs.”

Dublin Airport Position:

Dublin Airport strongly contends that the scenario described above will actually be realised at the start of the Summer 2007 season in addition to the Winter 2007, for the following reasons:

- Stand demand will significantly exceed supply
- Airline demand for contact stands, and in particular for the first wave of departures will result in delays and congestion, as aircraft have to be towed from a remote to a contact stand. **Without coordination this cannot be managed efficiently.**
- Extra demand is possible with the amendment of the Irish-US and Irish-Canadian bilateral agreements.
- Extra demand is likely from Ryanair as they may base up to 25 aircraft in Summer 2007 at Dublin

7 Runway Capacity

7.1 Peak Movement Capacity of the Runway

Jacobs Report states:

'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 the average delay but peak and 90 percentile delays.'

Dublin Airport Position:

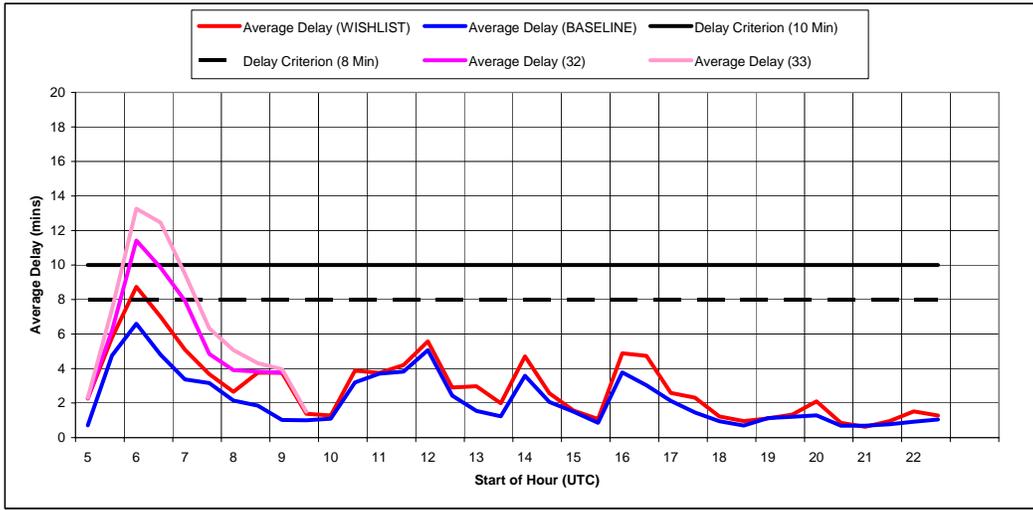
The runway at Dublin airport is at capacity in the peak hours. All members of the Dublin Airport Coordination Committee have agreed that no more flights should be added to the peak departures hour. Delays will exceed the agreed 10-minute delay criterion if any extra departures are added. Delays will be experienced by all operators.

The IAA has agreed to increased runway limits for Summer 2007 only on the basis that an effective system of schedule management is in place. When all parties to the capacity declaration at Dublin have been consulted and agreed to these limits, it is not acceptable to the DAA for the Commission for Aviation Regulation to endorse operations in excess of these limits through the continuation of a voluntary system of slot allocation.

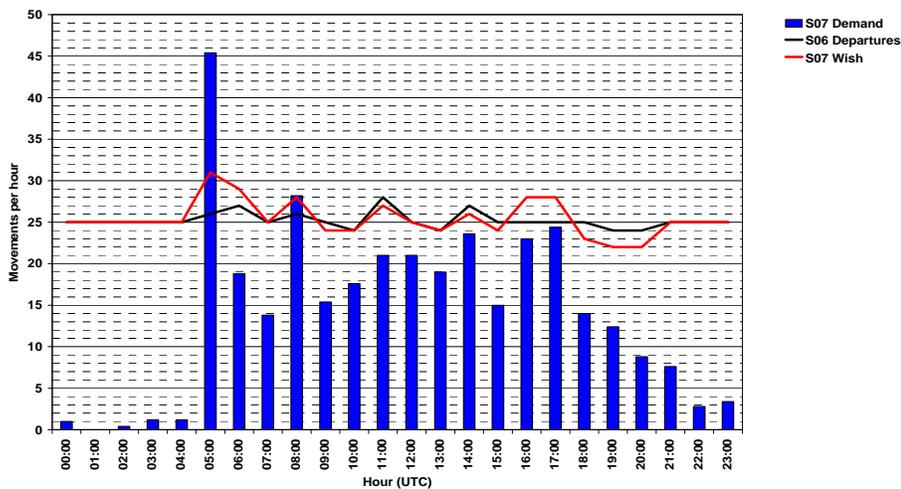
Coordination is essential for Summer 2007 to effectively and fairly manage the flow of aircraft movements at Dublin Airport.

Evaluation of Peak Movement Capacity

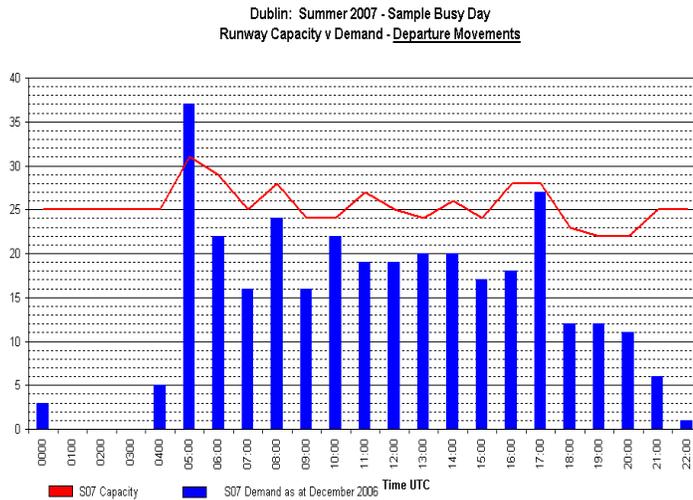
- NATS has evaluated the peak hour capacity for departing flights in the 0500 UTC hour is 31 departures. This is assessed against the 10-minute delay criterion, as agreed by the Dublin Airport Coordination Committee. When one single extra departure is added to the peak hour the average departure delay increases to over 11 minutes. When two extra departures are added, the average departure delay increases to over 13 minutes, as shown in the chart below:



- In August 2006, ACL advised that they anticipated significant excess demand for the runway during several peak hours, (see chart below). **Departures demand in the 0500 UTC hour is expected to be 45 departures per hour.** This is 19 movements per hour higher than the Summer 2006 capacity and in excess of the peak-hour departures capacity for any similar airport in ACL's experience (e.g., Gatwick or Stansted). NATS evaluated the simulated delay of accommodating these 45 departures. **The average departure delay increases to 37 minutes and it takes until midday until the delay can be recovered to a level within the agreed delay criterion on 10 minutes.**



- In December 2006, the actual excess demand has changed from an expected 45 departures per hour to an expected 36 departures (see chart below). The average delay for 36 departures while not computed by NATS could reasonably be expected to be in excess of 20 minutes. This exceeds the 10-minute delay criterion agreed by the Dublin Airport Coordination Committee.



7.2 Runway Capacity Delay

Jacobs Report states:

'...the NATS Summer 2006 report, indicates that the HERMES model may underestimate the delay by over 2 minutes.....'

Dublin Airport Position:

At peak capacity, runway delays may be even higher than the 10-minute delay criterion as agreed with the operators at Dublin. For example in the 0500hrs UTC average delay could exceed 12 minutes with 31 departing flights. This could happen even when airlines are fully compliant with the coordination process. If there is unacceptable delay for the first wave of departures at Dublin there will be delay implications throughout the day for this reason alone. Coordination for the summer 2007 season is essential to manage the schedule within the agreed delay level.

7.3 Potential for increased Runway Capacity

Jacobs Report states:

'An additional 2 extra movements per hour could allow the runway to handle a small increment in peak demand.....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.

Whilst proposals for additional bypass taxiway, RETs and holding areas may slightly increase the peak runway capacity, the infrastructure could not be delivered by summer 2007.'

Dublin Airport Position:

The IAA advise that internationally agreed criteria requires final landing clearance be issued at no later than 2 Nm. The IAA will not be adopting 1Nm landing clearances at Dublin Airport for Summer 2007, as this would contravene all current ICAO standards.

The provision of extra runway infrastructure is currently the subject of a full consultation exercise. If this investment is supported by the airlines it will be progressed, however it will not be in place for Summer 2007.

In conclusion, no additional runway capacity can be made available for Summer 2007 by either adopting 1Nm landing clearances or the provision of extra runway infrastructure.

Coordination is required to effectively manage this shortfall in capacity for the summer 2007 season.

Jacobs Report states:

'...additional demand leads to an exponential increase in capacity related runway delays.....as such we conclude that any demand in excess of the Summer 2007 wishlist will lead to a significant increase in runway related capacity delays and the short term peak capacity of the runway can reasonably be considered to be equivalent to the peak demand in the Summer 2007 wishlist'.

Dublin Airport Position:

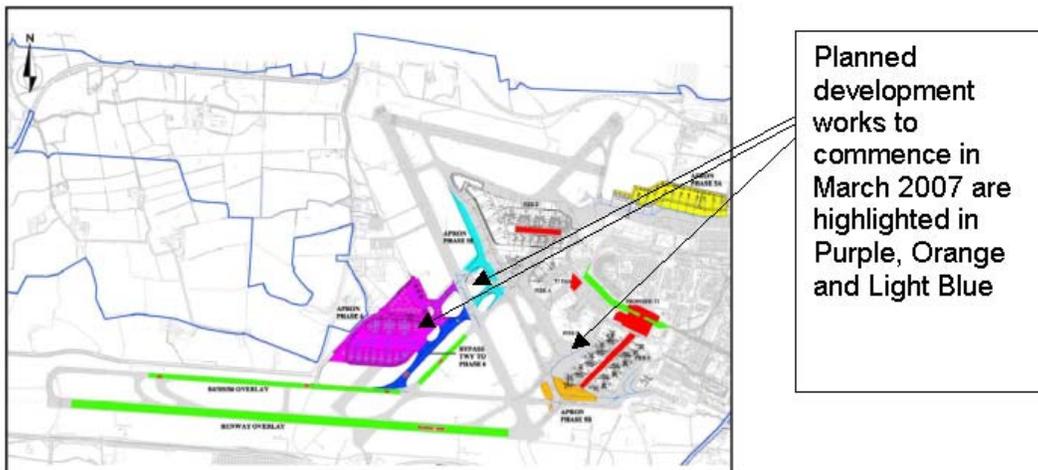
Demand is in excess of the Summer 2007 'wishlist' and if it is not controlled a significant increase in runway related capacity delays will result.

This delay will exceed the 10- minute delay criterion and has been proven by NATS.

The Dublin Airport Coordination Committee has agreed that delay should not exceed 10 minutes. Effective measures are required to ensure that operators comply with the agreed capacity declaration. This effective measure must be the designation of Dublin Airport as a coordinated airport for the Summer 2007 season.

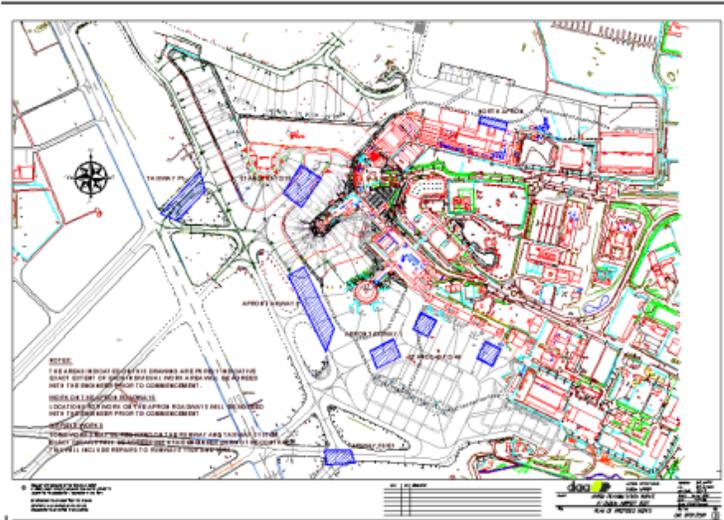
7.5 Airside Works Planned for Summer 2007

7.5.1 It should also be noted that the following **significant airside capacity enhancing development works are planned to commence in March 2007, the beginning of the Summer 2007 schedule**, These works will affect the flow of aircraft to and from the runway. Dublin Airport, in conjunction with the IAA will have to carefully plan and manage traffic flows to avoid peaking and increased delays. Coordination of the schedule for Summer 2007 is essential in providing effective management of traffic flow to and from the runway.



7.5.2 In conjunction with the planned capacity development works there are essential apron rehabilitation works planned for 2,600 square metres of apron during 2007. The location of this work is outlined in blue below and once again these works will **inevitably affect the flow of aircraft to and from the runway**

for the **Summer 2007** season. Coordination of the schedule for Summer 2007 will assist in providing effective management of traffic flow to and from the runway.



Apron Rehabilitation works planned 2007 are highlighted in Blue

8 Coordination Status

8.1 Schedules Facilitated v Coordinated status

Jacobs Report states:

'It is also useful to consider the prior activity patterns in previous years as to a guide to whether the voluntary schedules facilitation process can be effective in constraining demand to a capacity threshold.....'

Dublin Airport Position:

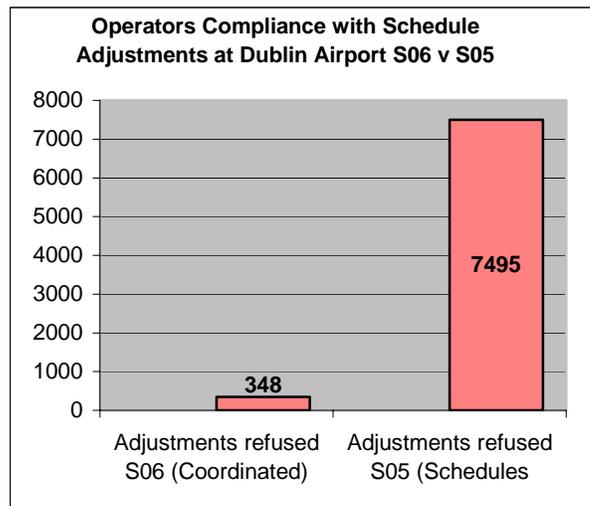
Prior activity patterns at Dublin Airport confirm that the voluntary schedules facilitation process was clearly ineffective in constraining demand to agreed capacity limits as approved by the Dublin Airport Coordination Committee. There is no reason whatsoever to believe that this situation has not changed.

Schedules Facilitation has not worked at Dublin Airport. Coordination is essential to fairly allocate slots, to reduce delays and minimise congestion at Dublin Airport.

A total of 7,495 schedule adjustments were not accepted by airlines during Summer 2005, when Dublin Airport was schedules facilitated. **This represented approximately 6.8% of the total schedule.**

Only 348 schedule adjustments were not accepted in Summer 2006 when Dublin Airport was effectively coordinated, this represented approximately 0.3% of the schedule.

Schedules Facilitation has not worked at Dublin Airport. Coordination is essential to fairly allocate slots, to reduce delays and minimise congestion at Dublin Airport.



Dublin Airport handled 2.7 million extra passengers in 2006; this 15% increase in passengers was managed effectively as the airport status had effectively been coordinated. It is not practical to expect Dublin Airport to facilitate an extra 1.7 million passengers in 2007 to agreed service levels, without designation of the airport as Coordinated

8.2 Dublin Airport is full at Peak Periods

Jacobs Report states:

.....for summer 2007 despite increased capacity declaration limits, it is increasingly difficult to effectively schedule additional peak movements.....the peak runway demand has been shown to be at capacity for Summer 2007....if the current schedules facilitation process is not successful in voluntarily constraining peak period demand to that set out in the summer 2007 wishlist, then runway delays will increase beyond current criteria.

Dublin Airport Position:

It is agreed by Jacobs, NATS, Dublin Airport and the Dublin Airport Coordination Committee that the runway is at capacity during peak demand and furthermore it is recognised that demand is exceeding capacity during peak periods.

It has been shown for Summer 2005 that the schedules facilitation process was not successful in voluntarily constraining peak period demand to capacity limits agreed by the Dublin Airport Coordination Committee. Conversely the impact of coordination for Summer 2006 was successful in constraining peak demand to capacity limits agreed by the Dublin Airport Coordination Committee.

Coordination is necessary to facilitate demand to agreed capacity limits.

8.3 Airlines support Coordination to safeguard fairness

Jacobs Report states:

'Most of the airlines expressed the view that, despite reservations, they would potentially support a change in status if the capacity assessment supported the case..... to safeguard continued fairness in the future allocation of slots.'

Dublin Airport Position:

Airlines who do not accept schedule adjustments gain an unfair advantage over their competitors and cause delay for compliant operators.

In 2005, when Dublin Airport was schedules facilitated, there were 7,495 occasions when operators refused schedule adjustments gaining an unfair competitive advantage. In 2006, when Dublin Airport was effectively coordinated, there were only 348 occasions when operators refused schedule adjustments to gain an unfair competitive advantage.

Coordination works at Dublin Airport, it safeguards fairness in the allocation of slots for airlines and is a prerequisite for the effective management of the schedule for Summer 2007.

9 DAA Conclusions and Recommendations

In conclusion, the DAA regards the designation of Dublin Airport as Coordinated, in accordance with the provisions of Article 3.4 of Regulation 95/93, as amended by Regulation 793/2004 as **essential from the start of the Summer 2007 season**.

It is not possible to provide the efficiencies required to facilitate the journeys of some 23 million passengers within the current facilities available.

Dublin Airport is Ireland's premier gateway airport. It expects to welcome some 23 million passengers during 2007, around 1.7 million passengers more than in 2006. It is operationally impractical to achieve this level of passenger throughput, whilst maintaining a safe and efficient level of service if airlines are free to schedule their services at any time of their choosing, with only the minimum of notice. Previous operation of the voluntary system of control by the airlines at Dublin Airport clearly failed to work.

It has been clearly demonstrated that many more carriers wish to operate during the peak periods than can be facilitated within the available runway and terminal capacity. This not only reduces the level of access to facilities for those operators who have fairly applied for peak time operations, it subjects all passengers to longer queues, greater congestion and a poor overall experience of Ireland.

In addition to this general growth in demand, Dublin Airport will also be facing the following challenges during Summer 2007:

- 4 new Ryanair based aircraft, with 2 additional aircraft likely for summer 2007 following the slot return deadline
- 4 new Aer Lingus based aircraft
- Increased US carrier long haul capacity
- Likely change in the Irish-US and Irish-Canadian transatlantic bilaterals, stimulating further transatlantic traffic.
- The start of the largest development programme in the airport's history
- Airside works affecting the access to runway and stands
- Additional changes to security search protocols

All parties at the airport have invested considerable time and effort to establish and jointly agree the levels of capacity appropriate to operations at Dublin during Summer 2007. It is unacceptable to the DAA to exceed these safe and practicable levels by allowing a 'free for all' approach to schedules management.

Jacobs has clearly demonstrated within its report that insufficient runway capacity exists to meet demand above the declared levels. It is also clear that levels of demand exceed these limits and therefore, it is essential that the airport's coordinator be allowed to manage the available capacity fairly and effectively, according to international standards.

Dublin Airport must therefore be designated as Coordinated with effect from the Summer 2007 season.

Appendix A



DUBLIN SUMMER 2007 SCHEDULING LIMITS WISHLIST

ACL, as the appointed coordinator of Dublin Airport, has assessed the likely demand for runway and terminal capacity in the Summer 2007 season. The analysis is based on Summer 2006 capacity utilisation plus services commencing in Winter 2006/07 that will operate on a year-round basis and other known Summer 2007 demand.

Runway

Overall, we anticipate significant excess demand for the runway in several peak hours.

Departures demand (Fig 1) in the 05:00 UTC hour (06:00 local time) is expected to be 45 departures per hour. This is 19 movements per hour higher than Summer 2006 capacity and in excess of the peak-hour departures capacity of any similar airport in ACL's experience (e.g., Gatwick or Stansted). Therefore, ACL's wishlist asks for more modest increases of +5 in the 05:00 hour and +2 in the 06:00 hour. Greater utilisation of existing capacity in the 04:00 UTC hour is also assumed.

This spreading of demand is assumed to occur through an effective process of schedule coordination.

Arrivals demand (Fig 2) is generally less peaky than on departures, but additional capacity is requested particularly in the 20:00 – 21:59 UTC period to facilitate the return of Dublin-based aircraft in the evening.

Total runway demand significantly exceeds capacity in the 05:00, 08:00 and 16:00 UTC hours, and we are seeking capacity increases around each of these times.

Table 1: ACL Runway Capacity Wishlist

	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
S06Arr	23	23	21	24	23	23	27	23	24	26	22	24	24	23	24	25	25	24	23
Change	0	0	-1	-2	-1	0	-1	0	0	0	-1	1	0	-1	-2	2	3	0	
S07 Arr	23	23	20	22	22	23	26	23	24	26	22	23	25	23	23	23	27	27	23
S06 Dep	25	26	27	25	26	25	24	28	25	24	27	25	25	25	25	24	24	25	25
Change	0	5	2	0	2	-1	0	-1	0	-1	-1	3	3	-2	-2	-2	0	0	
S07 Dep	25	31	29	25	28	24	24	27	25	24	26	24	28	28	23	22	22	25	25
S06 Tot	32	34	38	46	40	38	45	45	41	41	43	38	45	42	38	39	39	36	32
Change	0	6	2	-5	5	3	-1	-1	3	3	0	-1	2	2	-1	-2	0	0	0
S07 Tot	32	40	40	41	45	41	44	44	44	44	43	37	47	44	37	37	39	36	32

Figure 1: Runway Departure Capacity v Demand

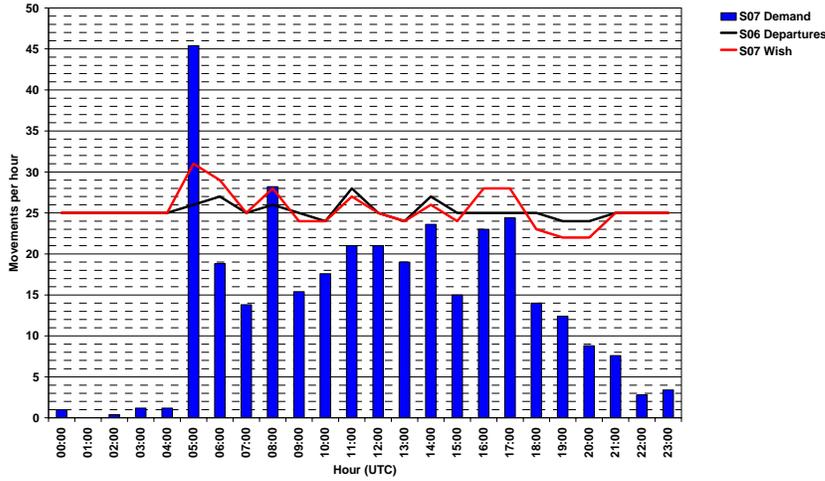


Figure 2: Runway Arrival Capacity v Demand

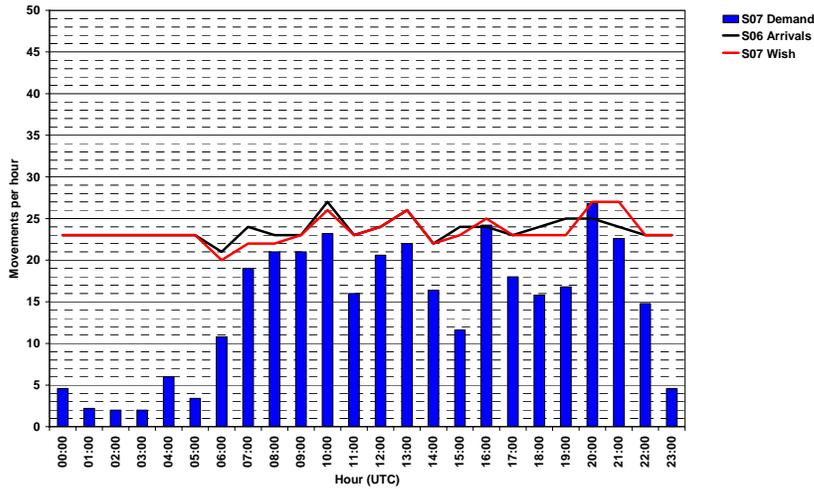
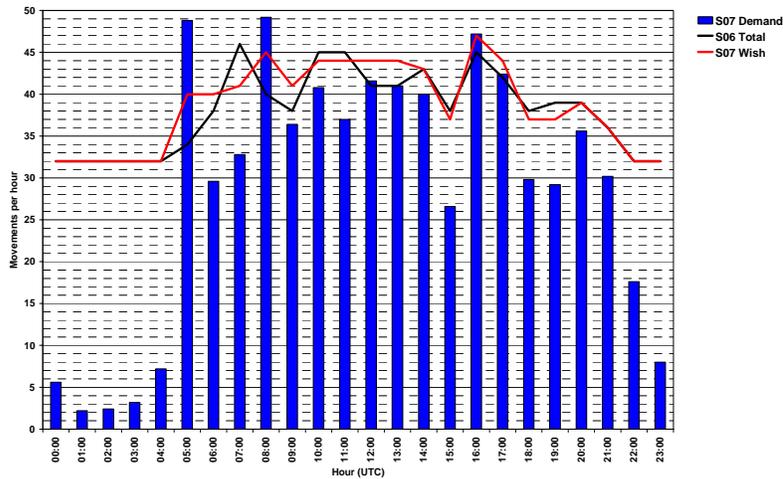


Figure 3: Runway Total Capacity v Demand



Terminal

Analyses of terminal demand are based on runway demand and the expected average aircraft size (by hour). A load factor of 80% has been assumed. The pattern of demand is based on weekday services. Traffic patterns are somewhat different on the weekends, so different peak periods may be experienced.

The departures capacity of the Dublin terminal increases from 3250 pph to 3850 pph with effect from January 2007. This reflects the additional capacity provided by the Area 14 Check-in development. ACL assumes, as a minimum, that this capacity increase is carried through into the Summer 2007 season.

Unconstrained departures demand (ie, assuming the 45 departures per hour runway demand were met) would be about 6000 pph (Fig 4). However, assuming that the airport is constrained by its runway capacity reduces this peak hour terminal demand to just over 4000 pph.

ACL would like the DAA to consider the possibility flexing the terminal capacity to better meet this level of throughput, at least in the peak hours.

The arrivals passenger demand (Fig 5) exceeds the current capacity of 3000 pph in the 20:00 UTC hour, where it is 3500 pph, and is at capacity in the adjacent 21:00 UTC hour. These periods correspond to the requests for new runway capacity at these times.

Again ACL would like the DAA to consider the possibility flexing the terminal capacity to better meet this level of throughput, at least in the peak hours.

Summary

In summary, ACL expects Dublin Airport to be primarily constrained by its runway capacity from Summer 2007. This differs from previous seasons when terminal capacity constraints were predominant.

Capacity increases are requested to meet known demand. Actual demand could exceed these levels.

The wishlist assumes that an effective process of schedule coordination is in place to smooth demand peaks to realistic levels.

Figure 4: Terminal Departures Capacity v Demand

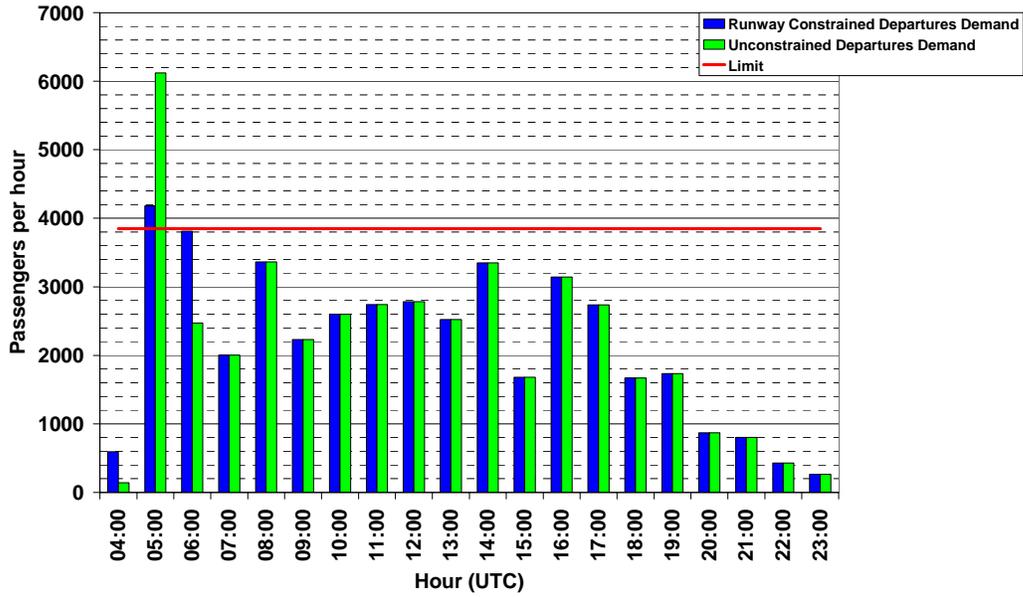


Figure 5: Terminal Arrivals Capacity v Demand

