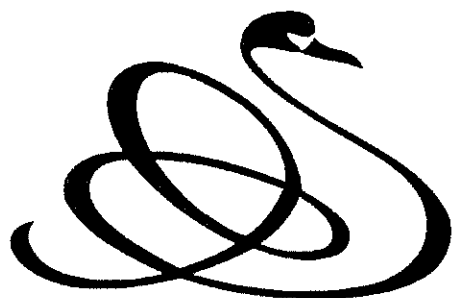


APPENDIX A

CAPACITY ASSESSMENT T1 (30mppa)

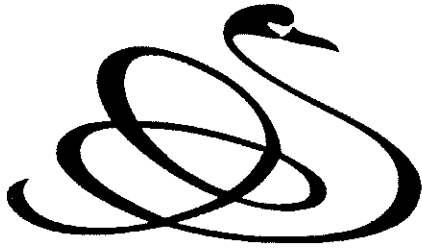


York Aviation

RYANAIR

DUBLIN AIRPORT T1 CAPACITY ASSESSMENT

July 2009



York Aviation

Originated by: Niall Gunn

Dated: 25th June 2009

Final Review by: Louise Congdon ...

Dated: 8th July 2009

RYANAIR
DUBLIN AIRPORT T1 CAPACITY ASSESSMENT

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1 INTRODUCTION

- 1.1 York Aviation LLP (YAL) has been appointed by Ryanair to provide an assessment of the capacity of T1 at Dublin Airport (DUB) in the context of these changing dynamics within the industry and, in particular with key airline segments at DUB, to provide an objective opinion as to what the capacity of T1 is now In the light of current operating practices and its future potential capacity given increases in airline efficiency.
- 1.2 This report sets out a summary of our assessment of the capacity of T1 at DUB. We have structured our report as follows:
- Introduction and Background in **Section 1**;
 - Overview and Current Declarations in **Section 2**;
 - Changing Dynamics in **Section 3**;
 - Dublin Airport T1 Description in **Section 4**;
 - Methodology in **Section 5**;
 - Check-in and Circulation in **Section 6**;
 - Security in **Section 7**;
 - Departure Areas and Piers in **Section 8**;
 - Immigration in **Section 9**;
 - Baggage Reclaim in **Section 10**;
 - Customs and Arrivals Hall in **Section 11**;
 - T1 Capacity Conclusions and Recommendations in **Section 12**.
- 1.3 York Aviation has extensive experience of the assessment of airport capacity and development of passenger terminals and is well placed to provide this objective assessment, informed by simulation modelling.

2 EXECUTIVE SUMMARY

- 2.1 In this report, we have presented evidence from our high level assessment of the capacity of DUB T1, which demonstrates that the terminal is capable of handling up to 30 mppa given changes to the way in which airlines process their passengers.
- 2.2 This is substantively higher than the 20 mppa capacity estimated by DAA and higher than the 23.5 mppa handled without substantive congestion in 2008.
- 2.3 The principal drivers that enable significantly more passengers to be handled through existing infrastructure relate to two key changes in the dynamics of airline operations at DUB. These are the increasing proportion of passengers that are using self service and on-line check-in, and the reduction in the number of hold bags per passenger.
- 2.4 Aer Lingus and a number of other carriers at Dublin have self service kiosks available and virtually all carriers, are increasingly offering on-line check-in. For example, Ryanair will be 100% on-line check-in from October 2009. As a result, there is a significant reduction in the demand for check-in desks. We estimate that at present the requirement is for no more than 59% of the available desks to be used and that 30 mppa could be accommodated on no more than 74% of the available desk capacity. As a result the effective check-in capacity of T1 exceeds 42 mppa.
- 2.5 The reduction in the number of passengers using conventional check-in both reduces the dwell time of passengers in the departures land side area, previously identified by DAA as the limiting capacity constraint on the use of T1, as well as freeing up space within the DUB T1 where desks are unused in the check-in area for general circulation and for queuing space in front of the security channels. We consider that the capacity of the security channels exceeds 4,700 passengers per hour and is sufficient to accommodate 30 mppa, provided the area is fully staffed and effective queue management is in operation.

- 2.6 The reduction in hold baggage demand also materially reduces the loading on the outbound baggage system and the number of baggage reclaim belts required, enhancing the capacity capability of these areas. We expect the volume of hold bags at 30 mppa to be only 2% higher than was handled in 2007 when the airport accommodated 23.3 mppa. In terms of baggage reclaim capacity, this means that only 9 out of 10 reclaim units will be required to handle up to 30 mppa.
- 2.7 DAA, in its assessment of the capacity of DUB T1, has identified check-in circulation and baggage reclaim as the primary constraints on the hourly throughput of passengers. The changes which we have identified address both these concerns and remove these as constraints.
- 2.8 Our assessment also demonstrates that current declared hourly capacity for arrival passengers will suffice for an annual throughput of 30 mppa and that the current declared hourly capacity for departures can be increased to accommodate a 30 mppa throughput, provided that optimum manpower resource is available at the correct time within the security channels.
- 2.9 DAA must also ensure that sufficient manpower resource is available at the immigration channels in order that this operation does not become a constraint on growth.

3 BACKGROUND TO THE CURRENT DECLARED HOURLY CAPACITY

- 3.1 The current hourly capacities for T1 at Dublin Airport are set by DAA as 4,050 passengers per hour for departures and 4,380 passengers per hour for arrivals for slot coordination purposes¹.
- 3.2 In setting these limits, DAA cites particular facilities as being the limiting factors determining the available capacity, namely circulation space within the check-in hall, baggage reclaim capacity and the greeters' area in the arrivals hall.
- 3.3 Other key facilities such as check-in, security, boarding gates, immigration and customs have been assessed by DAA as being capable of handling a higher hourly flow rate of passengers and thus are not limitations on the declared capacity at present.
- 3.4 In setting the declared capacity, DAA has also claimed that T1 has an effective annual throughput limit of just 20 mppa. However, in recent years, the throughput of DUB has reached 23.5 mppa in 2008 without severe congestion being experienced and indicates a potential reservoir of spare capacity based on the operating characteristics in that year. This is well in above the 20 mppa annual limit claimed by DAA based on historic operating practices.
- 3.5 In assessing the capacity of T1, we have taken as the start point for our consideration, the facilities identified by DAA as being the limiting factors in assessing the hourly capacity of the terminal. However, we have also taken into account the changing operational practices of the airlines, which are already resulting in increased efficiency in the use of terminal facilities, as well as the capacity of the other facilities impacting on the passenger flow as these are all material to assessing the true maximum capacity of DUB T1.

¹ DAA Dublin Terminal 1 Winter 08 – Preliminary Capacity Assessment report presented to DAA Coordination Committee by ARUP.

4 CHANGING DYNAMICS

- 4.1 Civil aviation has always been a dynamic industry, with changes in the way it operates constantly being introduced. Some changes occur slowly in a more evolutionary manner. Other changes can be swift and in some cases have a major and immediate impact on the way the industry functions. Many of these changes impact on airport facilities and operations.
- 4.2 There are three significant dynamics affecting the use of terminal facilities at DUB. The first is the rapid change in the way passengers check-in. The second is a reduction in the number of hold bags being carried by passengers and increased enforcement of cabin baggage regulations. These changes are being introduced across the industry and, in this sense, could be considered to be global. The third dynamic at DUB is the composition of the traffic and the shape of the traffic forecasts going forward. Whilst some aspects of the changes to the DUB traffic composition are occurring elsewhere, there are also DUB specific effects which impact on capacity utilisation.

Check-in Dynamics

- 4.3 The rapid shift towards self service and on-line check-in is likely to continue, not only for short haul point to point airlines but also for long haul and full service carriers. Already most carriers offer on-line check-in and many offer self service check-in kiosks at the airport. Whilst many of these carriers continue to offer standard check-in, the demand being placed on standard check-in resources is diminishing rapidly.
- 4.4 Increasingly, the primary function at standard check-in desks is to provide a baggage drop facility for passengers already checked in on-line or at self service kiosks to deposit their hold baggage. Hence, the quantity of standard check-in desks required overall is reducing.

- 4.5 The prospect that carriers will shift away from the use of standard check-in desks is very real. Already many that offer self service desks proactively encourage their passengers to use these and only utilise standard desks for baggage drop. At DUB, four carriers have self service check-in kiosks; Aer Lingus, Air France, British Midland and SAS. From October 2009, Ryanair will require all passengers to check-in on-line across its entire network, with desks only being used for baggage drop².
- 4.6 As a consequence, the demands being placed on check-in facilities within the check-in hall will diminish. This will be particularly prevalent in the short term with short haul operations. It can be expected that some of these changes will apply increasingly to long haul operations as well. The passenger market is embracing these changes. For example at DUB already over 50% of Ryanair passengers are checking in on-line. An increasing number of other carriers are providing an on-line check-in service in response to market demands and in an effort to remain competitive.
- 4.7 As a consequence of fewer passengers requiring to physically check-in at the airport, the numbers of passengers present in and around the check-in area is reducing and will continue to reduce dramatically resulting in proportionally less space being required in these areas for the same overall passenger throughput. This will contribute greatly to alleviating DAA's identified constraint on terminal capacity, namely landside departures circulation as we discuss further in Section 7.

² This report does not yet factor in the implications of any further change in the operational policy towards hold baggage.

- 4.15 Although DAA has forecast significant growth in the proportion of long haul operations at DUB, we consider that real growth in this type of service may be materially less than anticipated as airlines are again consolidating such operations on their major hubs. As a consequence, demand from wide bodied aircraft activity at DUB will grow more modestly than anticipated by DAA, even when the global market recovers. This is material to the assessment of future demands on baggage related facilities as short haul passengers have materially fewer hold bags than long haul passengers. If long haul demand growth is restricted then for any given annual passenger throughput, the proportion of bags per passenger may be expected to be lower than we have indicated in Table 4.1. This has further implications for the use of physical capacity.

5 DUBLIN AIRPORT T1 DESCRIPTION

- 5.1 In this section, we set out a brief description of the general layout of T1 to assist with our assessment of specific facilities in later sections of this report.
- 5.2 DUB T1 is set out over four principal levels. The passenger flows are contained primarily over two levels, the ground floor for arrivals and the first floor for departures. There is a lower ground floor and an upper mezzanine second floor.
- 5.3 The departing passenger flow on the first floor comprises two main entrances at the front of the terminal from the drop off roadways and car parks leading in to the check-in hall that occupies the full width of the terminal building. Here, most of the check-in facilities are located; the remainder occupying part of the lower ground floor in Area 14.
- 5.4 From the check-in hall, there is access to land side catering facilities arranged in a food court layout on the upper second floor mezzanine.
- 5.5 There are two security channels located at opposite ends of the check-in hall leading through to the airside departure area. Here, beyond security, are the primary airside retail and catering facilities, recently expanded with the opening of the new T1X development, which has provided additional retail and catering outlets.
- 5.6 From the airside departure area there are three piers, A, B and D⁴. Each of the piers has further retail and catering outlets available to passengers in the pier gate areas. All gate areas have seating and in the central airside departure area there is very little non-catering seating provided.
- 5.7 Departing passengers at DUB, once checked in whether on-line or at the airport, pass through the check-in area and generally proceed immediately to the security channels. There are few landside facilities for passengers.

⁴ Pier C has been taken out of use to make way for T2.

Mppa	Year	Average Bags per Passenger	Total Hold Bags
23.3	2007	0.86	20.0m
21	2009	0.68	14.3m
27		0.68	18.4m
30		0.68	20.4m
Source: York Aviation			

4.12 As can be seen from Table 4.1, the expected number of hold bags being handled in 2009 is 29% lower in 2009 than in 2007. Even with growth in annual passenger demand up to 30 mppa, the number of hold bags requiring to be processed remains virtually the same as in 2007, without taking into account any further reductions in the proportion of bags being checked in.

DUB Traffic Forecast Dynamics

4.13 By the second half of 2008, the global down turn in traffic had begun to impact on the throughput at DUB, with only 23.55 mppa handled in the year compared to the original expectation for 2008 being 23.8 mppa. For 2009, the latest forecast by DAA is for only 21 mppa³ to be handled in 2009, which represents a significant drop of around 11% over the 2008 throughput. It is expected to be some years before demand exceeds 23 mppa again.

4.14 By the time DUB needs to handle 23.5 mppa again, we expect the dynamics of check-in and hold baggage changes to have matured across the industry, especially in short haul sector. As a result, the demands being placed on the DUB T1 check-in hall, reclaim hall and associated baggage handling infrastructure and activities will be radically different from those experienced when the use of the airport peaked previously. Hence, these elements within the T1 capacity system will be capable of handling more passengers on an hourly or annual basis than had previously been envisaged by DAA in its previous capacity assessments.

³ From the DAPF09-04 forecast.

Hold and Cabin Baggage Dynamics

- 4.8 The quantity of hold baggage being carried by passengers is reducing, particularly within the short haul sector. A combination of an increase in short break trips and levying of airline charges for hold bags is resulting in a steady decline in the hold bag/pax ratio. For example, Ryanair currently has a ratio of only 0.3 bags per passenger at DUB and this is expected to reduce further. Ryanair is also enforcing a strict one item only of hand luggage per passenger within the aircraft cabin, with the result that there has not been a corresponding increase in baggage items being taken through security by Ryanair passengers as the numbers of hold bags have reduced. There is evidence that other carriers are also enforcing stricter controls on the numbers of cabin baggage items and, with more carriers introducing hold baggage charges, reductions in hold baggage will become more wide spread.
- 4.9 The advantages to airlines from reductions in cabin and hold baggage include reduced aircraft weight leading to lower fuel burn and cost savings, which are then reflected in lower and more competitive air fares. There is also time saved during the loading, unloading and turn round of flights, improving punctuality.
- 4.10 This trend towards the reduction of hold baggage will further reduce the loading on bag drop facilities within check-in halls and hence the number of check-in desks required for a baggage drop service will decline. This trend will also reduce the loading placed on baggage reclaim facilities resulting in the potential for frequent allocation of several flights to the same belt.
- 4.11 In **Table 4.1**, we set out the implications of this change on the expected number of hold bags at DUB for given levels of passenger throughput. We have taken account of the decrease in Ryanair hold bags per passenger from 0.8 in 2007 to 0.3 in 2009 and assumed 0.9 hold bags per passenger for other airlines. We have conservatively assumed no further decline in these proportions. As a result, we may understate the actual annual passenger throughput which is possible through baggage related facilities in future years.

- 5.8 Once airside, passengers are exposed to the airside retail and catering offer before proceeding to their pier and departure gate. The majority of passenger holding space is located in the piers and, from our observations most passengers proceed to the pier areas directly, with those who wish to first making use of the retail and catering facilities. Our observations suggest that the majority of passengers' available airside dwell time is spent within these pier zones.
- 5.9 Most of the departure gates are at this first floor level within the piers. The exception being the 'US Pre-Clearance' gates in the Pier B satellite, which are located on the ground floor, bussing gates located on the ground floor between piers A and D, and the departure gates in the Temporary Forward Lounge (TFL) located at ground floor level at the far end of Pier D. The TFL, originally provided during the construction period of Pier D, remains in use to provide additional departure gates available in the Pier D area.
- 5.10 The arriving passenger flow is located on the ground floor, except for the bridge link between Pier D and the terminal. Arriving passengers are segregated from departing passengers and enter the piers at the ground level. Passengers pass through one of two immigration facilities, one located on the ground floor of Pier B servicing passengers from Pier B gates, the other located at the corner of the main T1 foot print close to the junction with Piers A and D servicing passengers from both these piers. The Pier A/D immigration facility is underutilised.
- 5.11 From each of the immigration halls passengers then enter the baggage reclaim hall that runs the full width of the terminal building. Domestic passengers do not pass through the immigration channels but enter the baggage reclaim hall directly. From here, passengers pass through the customs channels and exit in to the arrivals/greeters hall.
- 5.12 Passengers then exit to the pick up roadways, car parks and public transport bus and coach areas.
- 5.13 The overall layout and organisation of the DUB T1 passenger flow is quite typical of a large two level passenger terminal, despite having four levels, with principal landside departing and arriving passenger activity separated across each level.

6 METHODOLOGY

- 6.1 We have approached our assessment of the T1 capacity by undertaking a high level simulation of the passenger flow through the terminal using the NAPA⁵ model. We first selected a schedule for Friday 10th July 2009 taken from an OAG⁶ database as representative of a typical busy period at 21 mppa. We have also used an historic schedule for a July Friday in 2007 taken from OAG to represent busy hour demand in that year. We then created two additional schedules to replicate busy hour demand for a 27 mppa and a 30 mppa throughput in order to test the capacity of the T1 facilities in the light of the changing dynamics of the industry described in Section 4.
- 6.2 We have focussed our assessment on the relevant daily peak periods for each year/annual throughput. We have built our future year schedules by assuming the shape of demand over the day does not change and added movements into the relevant peak periods. This takes no account of potential runway capacity constraints which may limit the growth in peak period demand until a second runway is operational. We have, hence, assessed terminal capacity on an unconstrained basis.
- 6.3 The arrival passenger peak at DUB is the mid/late evening period of the day, driven largely by the size of the based fleet of short haul flights operated principally by Aer Lingus and Ryanair, which overnight at DUB ready for departures during the slot 1 period the following morning. We focussed our growth of arrival traffic at this time to create the 27 mppa and 30 mppa schedules on the basis that daily profile of demand will retain its current shape as traffic first recovers to 2007/2008 levels and then grows.

⁵ NAPA: A computer simulation model that replicates dynamic, (e.g. check-in), and static, (e.g. waiting/seating areas), within a passenger terminal for an arrival and a departure flight schedule providing an indication of the length of queues and the numbers of passengers accumulating at each facility.

⁶ OAG: Official Airline Guide.

- 6.4 It is the morning slot 1 period, circa 06:00 to 08:00, which drives the departure passenger peak. This, too, is made up primarily of based short haul flights by Aer Lingus and Ryanair; although there are also departures by other scheduled and charter carriers during this period. Also impacting on the general peak morning period within the terminal are passengers associated with some of the long haul flights at DUB as some passengers on these flights will arrive at the terminal and check-in during the 06:00 period and beyond for flights departing in the 09:00 hour and later. Long haul passengers generally report for check-in at airports much earlier ahead of the departure time compared to those travelling on short haul flights.
- 6.5 As these time periods represent the critical loading on the terminal, our schedule building for the 27 mppa and 30 mppa tests has focussed only on these peak periods and the additional flights added to the July 2009 schedule comprise based short haul arrivals during the mid/late evening arrival peak, and a mix of based short haul departures and charters during the slot 1 departure peak as well as some additional long haul activity departing during the 09:00 to 11:00 period. We would nonetheless expect the airport profile to become less peaky as overall demand grows as it becomes viable to operate more flights in off-peak periods.
- 6.6 We have applied typical load factors⁷ for a busy day for the DUB traffic profile to obtain data on passenger loadings. These are 85% for all Ryanair flights, 75% for all Aer Lingus flights, 95% for all charter flights and 80% for all other short and long haul flights⁸.
- 6.7 We have used these schedules, and the busy hour loading derived from them, to assess the adequacy of capacity, taking into account how changes in the way passengers and bags are processed will impact on hourly capacity.
- 6.8 Comparing our assessment of busy day demand with the hourly capacity declared by DAA gives rise to a number of questions which we need to address in our modelling.

⁷ Load factor values used agreed with Ryanair.

⁸ It should be noted that these load factors are higher than year round averages to reflect a busy period

- 6.9 In support of the simulation work and our assessment of capacity, we spent time observing some of the peak period activity at DUB T1 on the 11th and 12th June 2009.
- 6.10 Based on these observations, we have built a high level simulation model using NAPA in order to gauge to what extent each key facility is able to handle the busy hour throughput at the specified annual demand levels. We go onto discuss each of the key facilities in the following sections of this report. For each, we express the performance differentials of the 27 mppa and 30 mppa schedules against the S2009 simulation results. In cases where we believe there are alternative ways of managing a facility's operation to enhance performance, we have set these out.
- 6.11 We go on to summarize our recommendations and conclusions in Section 14.

7 CHECK-IN AND CIRCULATION

- 7.1 Currently there are 164 check-in desks arranged in 14 aisles at DUB T1, including the 24 desks in the basement Area 14. There are also 49 self-service kiosks, 38 of these with Aer Lingus and the remaining 11 being with three other carriers, Air France, British Midland and SAS.
- 7.2 The check-in allocation plan prepared by DAA for the week 15th to 21st May 2009 indicates a peak demand on Saturday and Sunday for 96 desks with a smaller number required during the rest of the week. This represents only 59% of the total desks available; leaving a surplus of 41% of desks. The allocation also has some desks allocated on each aisle which in turn leaves empty desks on each aisle.
- 7.3 Whilst the demand for desks may be higher in the peak summer period, we would not expect this to grow pro-rata to passenger demand as growth will come from higher load factors as much as from additional flights requiring additional desks. Our assessment is that, even at peak summer passenger levels, there will still be a substantial number of desks unused.
- 7.4 Our simulation test for S2009 based on a typical busy week in July confirmed that a similar number of check-in desks would be required in the busy period. Our test also suggested that there was around 50% spare capacity at the self service kiosks based on the assumed proportion of passengers using such kiosks of 30% of passengers on Aer Lingus and other airlines using such kiosks based on 2009 proportions. We have assumed the same proportion for our 27 mppa and 30 mppa scenarios.
- 7.5 Clearly, at 2009 levels of throughput, there is a massive over supply of check-in capacity.

- 7.6 Compared to 2009, our simulation of the 2007 schedule assumed less use of self service kiosks and a much lower proportion of Ryanair passengers using on-line check-in. As a consequence, more passengers used the check-in area than do today. Even so, our assessment is that in 2007, the requirement for desks was around 128, representing 78% of the supply, leaving a surplus of 22% of desks. It should be noted that our finding is not inconsistent with that of William Hynes & Associated Ltd for the CAR in 2005 when that assessed the check-in desk capacity as being sufficient to handle 27.65 mppa, even on the basis of high proportionate use of conventional check-in desks at that time.
- 7.7 The changed dynamics at DUB check-in in just two years has, thus, reduced the equivalent requirement for check-in desks from 78% of the current supply to just 58.5%. We summarise these results and those for the passenger growth scenarios in **Table 7.1**.

Table 7.1: DUB T1 % of Check-in Desks Required					
Mppa	Year	No. Check-in Desks Available	No. Check-in Desks Required	% Required	% Surplus
23.3 mppa	2007	164	128	78%	22%
21.0 mppa	2009	164	96	59%	41%
27 mppa		164	119	73%	17%
30 mppa		164	122	74%	16%
Source: York Aviation					

- 7.8 Our 27 mppa test increased the numbers of check-in desks required by 24% over 2009. This would still only represent 119 desks out of a supply of 164; less than 73% of the supply and still less than that required in 2007. However, this assumed current patterns of desk use as set out in Section 4. More likely there will be a continued reduction in the number of baggage drop desks required by Ryanair and it is reasonable to assume that other carriers will have higher proportions of passengers either using self service kiosks or to have checked-in on-line. Our 27 mppa test only showed a small increase in the demand for self service kiosks, which may be an underestimate as we did not assume that any additional carriers would be using them. Hence, the check-in hall at T1 will have ample spare capacity to handle substantially more than 27 mppa.

- 7.9 Our 30 mppa test increased the number of check-in desks required to only 122, or just over 74% of the supply. This, too, is less than the 2007 demand. There was little difference in the demand being placed on self service desks. For 30 mppa, there remains a massive over supply of check-in capacity even on the basis of current patterns of desk usage.
- 7.10 The results from the simulation tests, set out above, illustrate that the changing dynamics, with increasing proportions of passengers using on-line and self service check-in, are reducing the demand for check-in desks significantly and so, in effect, are contributing to an increase in the effective numbers of annual passengers through the terminal being handled per available desk. As the trends in check-in activity outlined in Section 4 continue, this will only increase the numbers of desks left vacant in T1 over time. Clearly, the check-in processing capacity at T1 is far in excess of what might be required and will be able to handle well in excess of a 30 mppa throughput. Our assessment is that the check-in capacity is well in excess of the 4,763 passengers per hour that we have modelled in our 30 mppa scenario and may exceed 6,000 passengers per hour taking into account how airlines now handle their passengers.
- 7.11 This is consistent with the findings of the William Hynes study of 2005. His assessment that the check-in hall had a capacity of 27.65 mppa was based on a significantly lower proportion of passengers using kiosks and/or internet check-in. Assuming that in 2005, no more than 20% of passengers were by-passing check-in, the capacity of the desks was equivalent to 22.1 mppa passengers actually using the check-in desks. On the basis of our assessment that, once Ryanair move to 100% online check-in, with 30% of passengers using a bag drop, and assuming 30% of other airlines' passengers using kiosks or on line check-in, the proportion of passengers using check-in desks will fall to just over 50%. The capacity of check-in facilities on this basis would be equivalent to 42.5 mppa.

- 7.12 However, it is not check-in desk capacity itself but the circulation space around the desks that DAA assessed as being the limit on throughput at T1. To the extent that fewer passengers are physically checking in at the airport, and with the use of kiosks, this will actually reduce both the number of passengers spending time in this area and the length of time which they spend queuing. This will reduce the loading on this circulation area, meaning that for a given hourly passenger demand, there will be less people in the area or, put the other way round, the space available will be capable of accommodating a higher hourly throughput of passengers through the terminal. The very fact that Ryanair will be giving up a substantial number of check-in desks will free up additional space for passenger circulation.
- 7.13 To the extent that there remain any congestion bottlenecks for passengers passing through this space as a consequence of the physical layout, in our opinion, a quick fix would be to rationalize how the check-in hall is used. This could be achieved through the closure of some check-in aisles and removal of desks and feeder belts at the eastern end of each line of desks leaving the baggage collection infrastructure below the floor in place.
- 7.14 From our observations, we noted that the circulatory issues were caused less by the check-in activity itself than the general flow from the main doors to security or to Area 14 check-in hall on the lower ground floor. Area 14 is signposted to use vertical circulation at the far north end of the check-in hall and most passengers enter the building at the southern most entry door opposite the car park. This results in all the passengers having to traverse almost the full length of the hall. This could be easily rectified by improved signage internally and externally to the building and some use of the southern vertical circulation core to direct passengers to the ground level at an earlier point.
- 7.15 The other key issue was access to security, with the main area of congestion occurring in front of security zone A, adjacent to check-in aisles 10, 11, 12 and 13. In the light of the massive surplus of check-in desks, an option would be to close aisles 11 and 12 to check-in altogether and free up all the space between these two aisles for access to security zone A.

- 7.16 The other security zone B is around half the size of zone A and the demand from passengers to access it is proportionally less. As a result, the peak access to this zone was being adequately contained within the immediate area and there did not appear to be a clash with any check-in activity around aisles 1, 2, 3 and 4. If such congestion were to occur here than due to the massive surplus of check-in capacity it might be possible to remove desks closest to security zone B.
- 7.17 Another option to remove congestion bottlenecks within the area would be to provide passengers with flight check-in status information on banks of monitors immediately in front of them as they enter the building at each door so that they have the opportunity of orientating themselves on entry to the check-in hall rather than gravitate towards the central area to read the large flight status board. Some passengers where moving towards this central area first only to then discover they needed to go back on themselves to reach the correct part of the hall. Better sited information displays would help reduce the amount of duplicated circulation activity and consequent congestion.
- 7.18 To summarize, our tests indicate that, in terms of check-in capacity, DUB T1 can handle significantly in excess of 30 mppa. There are measures that can be taken to generate clear circulation spaces in front of the security entry zones by reallocating check-in demand including closure and removal of some of the excess supply of desks. There are also measures that could be taken to redirect some of the general circulation or reduce some of the duplicated movement that sometimes occurs. These changes are already relieving congestion and, with further reductions in the numbers of passengers requiring conventional check-in, will remove the landside departures circulation area as a capacity constraint on T1 at DUB.

8 SECURITY

- 8.1 Whilst DAA has not identified security as being a limitation on T1 capacity, it has assessed the capacity at around 4,600 passengers per hour compared to the declared hourly capacity of 4,050 passengers per hour. There are currently two security channels A and B, with 11 and 6 X-rays respectively, along with supporting AMD and entry and search facilities. We have considered the processing capability of these channels relevant to the assessment of T1 capacity using the NAPA model.
- 8.2 In a 2006 study, DAA assessed the securing throughput as defined by a processing capacity of 389 pax per x-ray per hour. This would provide a combined capability of 6,613 pax per hour. However, we recognise that since 2006, changes in the security regime in 2007 have impacted on processing rates. We consider a reasonable assumption at present to be a processing capability of around 280 pax per hour per x-ray⁹. On this basis the combined hourly throughput of the two search areas would be more than 4,700 passengers could be achieved. This is broadly consistent with DAA's own assessment of the capacity of these facilities.
- 8.3 In Table 8.1, we set out the hourly demand which we have modelled for each of our scenarios compared with the available outbound security capacity.

Table 8.1: DUB T1 Hourly Departing Passenger and Security Capacity			
Mppa	Year	Busy Hour Passenger Demand	Hourly Capacity
23.3 mppa	2007	4,044	4,700
21.0 mppa	2009	3,818	4,700
27 mppa		4,550	4,700
30 mppa		4,763	4,700

⁹ This is broadly consistent with DAA's planning capacity of 510 passengers per archway metal detector per hour according to the 2009 Indecon/Jacobs study for the CAR and the basis upon which DAA has declared capacity. We note that the Indecon/Jacobs study cites a lower average value but this is inconsistent with the other capacity studies produced by DAA to the Coordination Committee.

Source: York Aviation

- 8.4 Our assessment is that available hourly capacity through the security search areas is sufficient to support an annual throughput of around 30 mppa.
- 8.5 Another key component of the security operation is the queuing space at the entry to the channels. We note from the Ryanair Security Log for the week 15th to 21st May that queues sometimes spill out in to the check-in area. The log suggests that on occasions this has been the equivalent of a further 50% beyond that contained in the queuing channels. During our observations of activity on site on June 12th 2009, the entry circulation areas for both channels were full at around 05:50 AM. The queuing in front of zone B was contained within the available barriers. In front of zone A, the queues were contained within the barriers although some of these occupied parts of the area between check-in aisles 10 and 11. As suggested in Section 7, if check-in activity was removed from aisles 10 and 11, the security queues could be easily contained.
- 8.6 A more significant issue is that we understand that even when all 17 X-rays have been nominally open, they have not been staffed up to 100% and hence have been operating at less than full capacity. As a consequence, this has contributed to the length of and duration of passenger queues seen at peak times. It is not entirely clear from the log the extent to which the queues are a function of staff shortages rather than physical capacity.
- 8.7 Even when these queues arise, we also observed that both queues moved steadily and were not stationary and that, by around 06:15, had largely dispersed and reduced to the initial two channels at security zone B and contained within the initial set of permanent entry channels at security zone A. We noted from the Ryanair log that in both cases all 17 security X-ray machines were open at around 06:00. The critical capacity issue is not the physical length of the queue, particularly in the light of the available spare space in which it can be contained, but the speed with which passengers are processed. From our observations, this is linked directly to the availability of a full complement of staff in the peak periods.

8.8 We observed passenger demand at security building up rapidly to its c.06:00 peak from around 05:35/05:40. However, if the equipment is not fully staffed to meet the level of demand by circa 05:35/05:40, there will be an accelerated build up of a queue by the machines are fully operational, which will then take longer to clear than if all channels are open ahead of the peak passenger build up. An option worth exploring is for DAA to facilitate a more dynamic opening of security channels to be available ahead of peak demand each day rather than perhaps the 'just in time' practice that is common at many airports. This would enable DUB T1 to respond more efficiently to demand at the security channels. We believe that had DAA been providing staff ahead of the build up in queues then congestion would have been eliminated at current demand levels leaving a reserve of spare capacity for growth.

8.9 Assuming that efficient queue management and better practice in opening up of security channels was adopted, our assessment is that the 17 channels should be able to process at least 4,700 passengers per hour and are capable of supporting 30 mppa if efficiently managed. If, in practice, more security processing capacity is required, surplus floor area within the check-in hall, as a consequence of the substantially reduced demand for check-in desk facilities, could be utilised to provide additional AMD and X-ray lanes to handle well in excess of 4,700 passengers per hour.

9 TERMINAL AIRSIDE

- 9.1 As outlined in Section 5, our observations suggest that at DUB T1 passengers choose to spend the major part of their available dwell time airside of security and, that provided they know which gate they are departing from, will on completion of any retail and catering use in the main central area choose to complete their available dwell time within the pier gate areas. This greater pier gate dwell time is, in part, encouraged by a limit on the number of non-catering related seats available in the central area.
- 9.2 Our observations of gate dwell times and associated boarding operations provided evidence of some passengers reaching their gate area up to 90 minutes before departure, often ahead of passengers for the preceding departure from the same gate. However, in the majority of cases our observations indicated that around 50-60% of the flight load were present around 60 to 50 minutes before departure and that at least 80% were typically present at the gate by the time boarding commenced. This did vary from airline to airline with Ryanair, in general, having a higher % present at the start of boarding. There was also clear evidence of passengers choosing to dwell in the central area responding to the 'go to gate' and 'boarding' messages on the screens.
- 9.3 In practice, the passenger dwell time pattern at DUB means that little terminal space is required beyond security other than to access retail and catering. The primary operational function of such space is to provide and access route to the piers and additional retail and catering facilities are provided in the piers, where there is adequate space for passengers.
- 9.4 Given the way in which passengers use the T1 at DUB, airside departure space in the terminal is a conduit to the piers and will not present a limitation on capacity under any of our scenarios up to and including 30 mppa.

10 IMMIGRATION

10.1 There are four components that influence activity at Immigration:

- Overall peak passenger demand;
- The split of this demand between EU and non-EU passport holders;
- Numbers of available immigration desks;
- Numbers of available immigration officers.

10.2 As outlined in Section 5, there are two immigration channels at DUB T1, one serving arrivals at Pier B and the other serving arrivals for both Piers A and D.

10.3 From our observations, at no time did there appear to be a shortage of desks in total. EU processing was speedy and queues when they occurred were fast moving. The only noticeable issue was during the morning peak period for non-EU arrivals from long haul flights where for example at the Pier A and D immigration hall a lengthy queue quickly formed in connection with a US carrier arrival on Pier D caused by a shortage of immigration staff. DAA customer service staff managed the queue adequately and the queue did move steadily. This served as notice that the ability for DUB to speedily react to and manage non-EU demand going forward as traffic grows will be vital.

10.4 Our scenario tests assumed that all the immigration officer resource required would be available to staff the required numbers of channels. On that basis, we identified no shortfall in the number of immigration desks to handle any of our modelled scenarios, assuming they are adequately staffed.

10.5 At 27 mppa, we did show a particular increase in non-EU demand over 2009 during the morning peak period when in particular long haul arrivals are concentrated. The only noticeable increase was for EU arrivals during the mid/late evening period. However, the number of desks required was below that during the morning peak periods.

- 10.6 The 30 mppa test showed slightly increased demand in the EU mid/late evening peak compared to current levels. However, this was still well inside the number of desks currently being used in the morning. However, at 30 mppa, the morning non-EU peak increased by 30%. This was still within the capacity of the desks but would require additional immigration officers to be available, compared to today, to ensure that excessive queuing did not arise.
- 10.7 In our judgment, there are sufficient immigration desks overall to manage a throughput in excess of 30 mppa. Available queuing space in front of the desks, whilst less than at other airports, ought not to be an issue with regards to EU passport holders that form the substantive majority of the DUB throughput, provided there is sufficient immigration officer resource available to quickly open up desks when demand arises. The key is the ability for this resource to be turned on quickly for the non-EU flow as well which, whilst steady and in manageable numbers for most flight arrivals, does generate a concentrated demand from certain flight types depending on its origin.

11 BAGGAGE RECLAIM

- 11.1 The single baggage reclaim hall in DUB T1 has 10 reclaim belts. In practice, long haul scheduled flights are allocated a single belt each and generally short haul flights will double up on the same belt, with occasionally three flights being allocated to the same belt simultaneously.
- 11.2 DAA has stated that baggage reclaim is a limiting factor on the capacity declaration for arriving passengers. Based on our assessment of busy hour arrivals demand at 30 mppa of 4,290 passengers per hour, this is within the declared arrivals capacity set by DAA of 4,380 arriving passengers per hour. This immediately suggests that more than 30 mppa could be handled.
- 11.3 However, reclaim capacity is also about the numbers of arriving flights that need allocating to a belt simultaneously and the numbers of passengers dwelling within the hall, waiting for baggage.
- 11.4 Two factors influence the dwell time for passengers. Firstly, the proportion of passengers on a flight which have hold baggage to collect and, secondly, the time they have to wait at the belt. We have already discussed the reduction on the numbers of hold bags being carried by passengers in Section 4, in particular on short haul flights and especially with Ryanair. Clearly the proportion of passengers with hold baggage does vary from destination to destination. Our judgment is that the general overall trend in the proportion of passengers carrying baggage, certainly for short haul destinations, will continue downwards. We expect the number of passengers per flight waiting for bags in the reclaim hall to, on average, reduce over time. This will, for short haul flights at least, increase the opportunities, if required, to allocate multiple flights to the same belt and increase the utilisation of capacity.

- 11.5 In terms of the waiting time for passengers at the belt, this is related to the time it takes for the first bags to be delivered and then how long it takes for all bags to be delivered for each flight. We observed a number of arrivals in the T1 reclaim hall and the first bag was generally on the belt at around 12 minutes after arrivals for the short haul flights, and 13 to 14 minutes for a long haul flight with containerised baggage. These times compare favourably with current industry standards at large busy airports. Indeed, we witnessed one Ryanair arrival where the first bags were arriving on the belt before the first passenger had arrived. With this profile of baggage delivery times, the wait time for the first bag appears to be good and does not itself act as a source of delay and congestion within the hall.
- 11.6 The next consideration is the number of belts likely to be required. Our tests identify the number of reclaim belts required at the peak as set out in Table 11.1.

Table 11.1: DUB T1 No. of Baggage Reclaim Belts Required			
	Scenarios	Required Belts	Belts Available
23.3	2007	10	10
21	2009	8	10
27	27 mppa	9	10
30	30 mppa	9	10
Source: York Aviation			

- 11.7 For the 2007 test, when the ratio of bags per passenger ratios was higher than today, all 10 belts were required. This is partly driven by the numbers of flights but also by the higher number of passengers per flight with a hold bag to collect, reducing the opportunities to allocate multiple flights to the same belt. In 2005, William Hynes identified that the baggage reclaim capacity might limit the overall capacity of the terminal to 18.67 mppa. However, the reduction in hold baggage volumes since then fundamentally alters the requirement for baggage reclaim devices. We have assessed the requirement from first principles, taking into account both the number of simultaneous flight arrivals and the expected number of bags per flight.
- 11.8 The S2009 test shows the number of belts required reduced to 8 out of the 10, although in practice the much reduced numbers of passengers with bags on the majority of flights would facilitate more doubling up of flights would reduce this number further.

11.9 The 27 mppa test shows an increased number of 9 belts required compared to 2009 and the 30 mppa test is the same, with 9 of the 10 belts being required. However, in both cases, this is less than the number of belts available, indicating spare capacity in the Baggage Reclaim Hall even at 30 mppa.

12 CUSTOMS AND ARRIVALS HALL

- 12.1 The customs channels do not appear to pose any capacity issues. The nature of customs surveillance has altered over the years at airports towards one of an intelligence based service where specific passengers may be monitored and where they are targeting specific flights. Random searching still takes place but is generally numerically less than in the past. In our judgment the current customs channels at DUB T1 will be able to handle much higher throughputs than so far experienced.
- 12.2 The third key facility identified as a pinch point by DAA is the greeters' area at the exit from arrivals, the limitation being derived primarily from the shape of the area, although large, and its juxtaposition to the exit doors from arrivals and to the kerb side.
- 12.3 In our experience, as dwell times in this area are generally very short for passengers, although there may be a build up of meeters and greeters prior to some flights. The overall area of the hall should not pose a capacity limit on the terminal, indeed we know of no other airport where capacity for meeters and greeters is taken as a limiting factor to overall capacity. Any congestion problems arising from the layout should be capable of management. In any event, we do not predict hourly passenger demand levels even at 30 mppa in excess of the capacity declared for this area by DAA. It should be noted that William Hynes for the CAR assessed the capacity of this area as over 46 mppa in 2005.

13 T1 CAPACITY CONCLUSIONS AND RECOMMENDATIONS

- 13.1 It is our considered opinion that, due to the dynamic changes within the airline industry supported by the way that the passenger demand is responding to and embracing these changes, the capacity assessments made by DAA for DUB T1 are outdated and do not reflect the current pattern of operations.
- 13.2 Notwithstanding the current traffic downturn, we also believe that the extent of long haul growth at DUB will be more modest than DAA has hitherto forecast and, as such, the demands that these operations and passengers will place on the peak periods within the terminal will be less pronounced than anticipated by DAA.
- 13.3 DAA has claimed that, although T1 handled 23.5 mppa comfortably in 2008, the effective capacity of the terminal is only 20 mppa at acceptable levels of service. Our assessment has demonstrated that this is a substantial underestimate as the limiting factors assessed by DAA will no longer be the relevant limiting factors, having regard to the continued substantial reduction in the use of check-in processing capacity and the reductions in bag/pax ratios.
- 13.4 As we have suggested, these present opportunities for DUB to reorganise the check-in desk allocations and so provide more circulation space generally within the check-in hall and also to better accommodate queuing at the entries to the security channels.
- 13.5 The reductions in bags per passenger will also enable a higher number of passengers and flights per hour to be handled at the baggage reclaim.
- 13.6 These changes in the industry dynamics would then remove the two principal limitations on T1 capacity claimed by DAA, namely check-in circulation space and baggage reclaim. Based on our assessment, capacity across all elements of the terminal would appear to be in excess of 30 mppa.

- 13.7 The ability to realise such a throughput would be enhanced further due to a slowdown in the growth of DUB long haul operations, freeing up more space in T1 on average per passenger and per flight. Overall, on balance, the remaining mix of traffic at T1 would have a higher load factor and higher average frequency and shorter turn round than previously envisaged by DAA, so enabling a higher throughput per hour to be achieved as well as annually.
- 13.8 The ability to raise the T1 throughput to around 30 mppa can be achieved without any substantive spend on infrastructure. Improved terminal management procedures, in addition to changes in the allocation and use of check-in desks, such as proactive passenger management and security channel operations, could potentially enable even higher passenger volumes to be processed through the terminal at little cost. It is possible that some additional security equipment might be required to facilitate higher passenger throughput but this can easily be accommodated within the terminal space available.

14 KEY FINDINGS

14.1 In this section, we highlight the 'Key Findings' from our assessment of the capacity of DUB T1. These are:

- the changing dynamic of airline operations is resulting in reduced numbers of hold bags per passenger from around 0.86 bags per pax in 2007 to 0.68 bags per pax in 2009;
- this reduction is attributed principally to the changes by Ryanair but, in future, it may be expected that reductions by other carriers will also take place reducing the ratio further;
- the changing dynamic has resulted in a significant increase in the numbers of passengers using self service kiosks and on-line check-in;
- reduced numbers of hold bags and the increased use of self service and on-line check-in is reducing significantly the numbers of check-in desks required with the surplus at 2009 being 41% of available capacity and the predicted surplus at 20 mppa being 26%;
- these changes also reduce the numbers of passengers occupying the check-in hall for check-in purposes and present opportunities to create additional useable circulation space in this area;
- the changes also reduce the demand for baggage reclaim capacity with the numbers of belts being required from 10 in 2007 to 8 in 2009 and only 9 at 30 mppa;
- the capacity of other elements of the terminal is more than adequate for 30 mppa, provided that outbound security and inbound immigration areas are optimally resourced and that effective queue management is in place;
- the changing dynamics of passenger and baggage processing and demand effectively address the two key capacity pinch points, check-in circulation and baggage reclaim, asserted by DAA;
- we assess the capacity of DUB T1 as being substantively higher than the 23.5 mppa handled in 2008 and as being at least 30 mppa.

14.2 We summarise a number of key capacity metrics in **Table 14.1** overleaf.

Table 14.1: DUB T1 Summary of Key Capacity Metrics				
Annual Throughput (mppa)	23.3	21	27	30
Year	2007	2009		
Departures				
Busy Hour Demand	4,044	38,18	4,550	4,783
Check-in				
Desk Available	164	164	164	164
Desks Required	128	96	119	122
Security				
Hourly Capacity		4,700	4,700+	4,700+
Airside Departures				
Hourly Capacity	Adequate	Adequate	Adequate	Adequate
Assessed Capacity (pax/hr)	4,050	4,700	4,700+	4,700+
Arrivals				
Busy Hour Demand	3,802	3,150	4,045	4,290
Baggage Reclaim				
Belts Available	10	10	10	10
Belts Required	10	8	9	9
Greeters' Hall				
Hourly Capacity	Adequate	Adequate	Adequate	Adequate
Assessed Capacity (pax/hr)	4,380	4,380+	4,380+	4,380+

Source: York Aviation

14.3 Table 14.1 illustrates that, even assuming conservatively that there is no change to the current proportions of passengers using self service or on-line check-in, and that the current bags per passenger ratio remains constant:

- there is a significant surplus capacity at check-in;
- the numbers of hold bags to be handled at 30 mppa is only slightly higher than in 2007;
- the current numbers of baggage reclaims will be adequate and
- the capacity of fully resourced security channels will also handle 30 mppa.

APPENDIX B

**PROJECT BY PROJECT CAPEX RECONCILIATION
2006-2009**

Code	General Project	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAAs, as previous price cap too high
CIP9.018	Boiler House Replacement/District Heating	2.16	5.08	2.92	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP5.013	Retail Refurbishments	4.37	6.16	1.79	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP9.016	Voice & Data Comms Corridors	2.92	3.46	0.54	Cost overrun, no consultation	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP6.014	Ground Power Pier B	0.90	1.19	0.29	Cost overrun, no consultation	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP6.033	Water Monitoring Equipment	0.26	0.54	0.28	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP2.010	Refurbish West end Cloghan Hse	0.11	0.22	0.11	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP4.008	Rapid Intervention Fire Tender (RIFT)	0.51	0.54	0.03	Cost overrun, no consultation	-	Only "allowed" into RAB	Only "allowed" into RAB	Only to be based on "allowed"	No
CIP4.011	Refurbish & Replace PT 14&15 Lifts	0.43	0.43	-	On budget	-	Yes	No	No	No
CIP4.006	Escalator 6	0.22	0.22	-	On budget	-	Yes	No	No	No
CIP5.015	Holiday Shop Revamp	0.12	0.11	0.01	Project overpriced	0.01	"Outturn" allowed in	Yes	Yes	Yes
CIP4.015	Replacement 2 Lifts PT17_PT18	0.13	0.11	0.02	Project overpriced	0.02	"Outturn" allowed in	Yes	Yes	Yes
CIP5.025	Perfumery Revamp	0.35	0.32	0.02	Project overpriced	0.02	"Outturn" allowed in	Yes	Yes	Yes
CIP5.017	Vehicles Warehouse Centre	0.02	-	0.02	Project did not happen	0.02	No	Yes	Yes	Yes
CIP5.008	Pier A Breakroom	0.02	-	0.02	Project did not happen	0.02	No	Yes	Yes	Yes
CIP3.022	Upgrade Castlemoate House Phase 1	0.25	0.22	0.03	Project overpriced	0.03	"Outturn" allowed in	Yes	Yes	Yes
CIP3.015	External Roads	1.34	1.30	0.04	Project overpriced	0.04	"Outturn" allowed in	Yes	Yes	Yes
CIP6.005	Airfield Lighting Control System	0.80	0.76	0.04	Project overpriced	0.04	"Outturn" allowed in	Yes	Yes	Yes
CIP5.002	CCTV Commercial	0.04	-	0.04	Project did not happen	0.04	No	Yes	Yes	Yes
CIP4.010	Refurbishment A Complex Lifts	0.40	0.32	0.08	Project overpriced	0.08	"Outturn" allowed in	Yes	Yes	Yes
CIP1.008	MSCP Upgrade Phase 1	0.84	0.76	0.09	Project overpriced	0.09	"Outturn" allowed in	Yes	Yes	Yes
CIP6.004	Airfield Equipment Upgrade	0.30	0.22	0.09	Project overpriced	0.09	"Outturn" allowed in	Yes	Yes	Yes
CIP5.034	Retail - local projects	0.74	0.65	0.09	Project overpriced	0.09	"Outturn" allowed in	Yes	Yes	Yes
CIP5.012	Pier B Travel Value Refurbishment	1.72	1.62	0.10	Project overpriced	0.10	"Outturn" allowed in	Yes	Yes	Yes
CIP5.035	Mezz Catering Dublin	0.11	-	0.11	Project did not happen	0.11	No	Yes	Yes	Yes
CIP5.018	Street Intersection	1.65	1.51	0.14	Project overpriced	0.14	"Outturn" allowed in	Yes	Yes	Yes
CIP6.012	Air Monitoring System	0.41	0.22	0.19	Project overpriced	0.19	"Outturn" allowed in	Yes	Yes	Yes
CIP4.003	Baggage Reclaim Carousels	1.30	1.08	0.22	Project overpriced	0.22	"Outturn" allowed in	Yes	Yes	Yes
CIP2.007	Office accommodation	1.08	0.86	0.22	Project overpriced	0.22	"Outturn" allowed in	Yes	Yes	Yes
CIP3.014	Remaining Perimeter Fence	0.78	0.43	0.35	Project overpriced	0.35	"Outturn" allowed in	Yes	Yes	Yes
CIP1.001	Additional works Harristown Car Park	0.36	-	0.36	Project did not happen	0.36	No	Yes	Yes	Yes
CIP6.025	Repl Centreline Lights 10/28	0.43	-	0.43	Project did not happen	0.43	No	Yes	Yes	Yes
CIP3.028	Waste Recycling Units	0.59	-	0.59	Project did not happen	0.59	No	Yes	Yes	Yes
CIP6.045	Cargo - Shortterm Solutions	0.61	-	0.61	Project did not happen	0.61	No	Yes	Yes	Yes
CIP4.016	Replacement of Standby Generator at Main Terminal	0.81	-	0.81	Project did not happen	0.81	No	Yes	Yes	Yes
CIP8.004	M&E Maintenance	-	-	-	Project linked to Annex 4	-	See Annex 4	No	No	No
CIP4.029	Taxiway Centreline Lighting	1.70	-	1.70	Project did not happen	1.70	No	Yes	Yes	Yes
CIP4.013	Repl Air-Handling Syst Pier B	2.57	0.32	2.25	Project overpriced	2.25	"Outturn" allowed in	Yes	Yes	Yes
CIP8.007	Fire	-	-	-	Project linked to Annex 4	-	See Annex 4	Yes	Yes	Yes
CIP8.006	Airport Police & Security	-	-	-	Project linked to Annex 4	-	See Annex 4	Yes	Yes	Yes
CIP8.005	Airside operations	-	-	-	Project linked to Annex 4	-	See Annex 4	Yes	Yes	Yes
TOTAL		31.35	28.65	2.71		8.67				Yes

CAR Intends allowing

17.40 CAR - and incorrect calculation based on its own figures

Report

Code	Other Capacity	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP8.008	IT / AIT	62.46	55.89	6.57	Project overpriced	6.57	"Outurn" allowed in (see Annex 4)	Yes	Yes	Yes
CIP7.025	Central Immigration - Pier A&D	7.78	10.27	2.49	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP1.012	3000 Additional Spaces Harrisstown Ph 1	2.51	4.11	1.60	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP6.037	Runway 10/28 Stopbars	1.81	2.84	1.03	Significant cost overrun, no consultation,	0.466	As per DACC submission reduce by €466	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP1.003	Convert Site Compound to staff Car Park	0.18	0.65	0.46	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP7.034	Area 14	16.22	16.65	0.43	Cost overrun, no consultation	14.10	Redundant Asset - remove 47/50 years from RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP1.007	Passenger Links (travelator to Atrium)	1.07	1.30	0.22	Cost overrun, no consultation	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP3.012	New Taxi Holding Area	0.11	0.32	0.22	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP1.002	Car Parking Equipment	3.23	3.24	0.02	Cost overrun, no consultation	1.438	As per DACC submission reduce by €1,438.37	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP5.005	Landlord provision to Book Stores	0.14	0.11	0.03	Project overpriced	0.03	"Outurn" allowed in	Yes	Yes	Yes
CIP5.009	Pier A New Bar	0.05	-	0.05	Project did not happen	0.05	No	Yes	Yes	Yes
CIP4.007	New Chiller BOI Departures Fir.	0.22	0.11	0.11	Project overpriced	0.11	"Outurn" allowed in	Yes	Yes	Yes
CIP1.009	Upgrade Eastlands To Planning Compliance	0.15	-	0.15	Project did not happen	0.15	No	Yes	Yes	Yes
CIP6.041	MV Alteration	3.32	3.14	0.19	Project overpriced	0.19	"Outurn" allowed in	Yes	Yes	Yes
CIP5.001	Landside Restaurant	1.91	1.62	0.28	Project overpriced	0.28	"Outurn" allowed in	Yes	Yes	Yes
CIP1.013	2500 Additional Spaces Harrisstown Ph 2	2.57	2.27	0.30	Project overpriced	0.30	"Outurn" allowed in	Yes	Yes	Yes
CIP1.011	Upgrade Eastlands To Permanent Status	5.22	4.76	0.46	Project overpriced	0.46	"Outurn" allowed in	Yes	Yes	Yes
CIP7.001	Airbridge #2	0.72	0.22	0.51	Project overpriced	0.51	"Outurn" allowed in	Yes	Yes	Yes
CIP3.032	Temporary Passenger Waiting Area	0.54	-	0.54	Project did not happen	0.54	No	Yes	Yes	Yes
CIP7.023	Executive Jet Terminal - West	0.54	-	0.54	Project did not happen	0.54	No	Yes	Yes	Yes
CIP5.036	External Retail Delivery Facility - Excludes sortation equipment	5.41	-	5.41	Project did not happen	5.41	Being carried forward - should	Yes	Yes	Yes
CIP8.003	Airport Development	-	-	24.66	Project did not happen	-	No	Yes	Yes	Yes
	TOTAL	101.40	107.46	6.06		31.14				

CAR Intends allowing

1.10

Code	Pier D	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
	Pier D	93.37	124.90	31.60	Significant cost overrun, no consultation,	- 30.92	As per DACC submission only allow 662.45m	Only to be based on "allowed"	Only to be based on "allowed"	No
	TOTAL	93.37	124.90	31.60		- 30.92				
CAR Intends allowing										
				15.70			62 from 124.9			

Code	Runway Fees	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP6.018	Parallel Runway Fees	8.04	4.76	- 3.29	Project overpriced	- 6.29	As per DACC submission reduce by 68.29m	Yes	Yes	Yes
	TOTAL	8.04	4.76	- 3.29		- 6.29				
CAR Intends allowing										
				- 3.30						

Code	T1X	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP7.002	Terminal 1 Extension	59.22	53.84	- 5.38	Project to be NPV Neutral	- 59.22	Not allowed - supposed to be NPV neutral	None	None	None
	TOTAL	59.22	53.84	- 5.38		- 59.22				
CAR Intends allowing										
				59.20						

Code	T2 Associated Project	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP2.006	Car Hire Facilities Eastlands (was Dardislow)	13.05	26.05	13.01	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP9.003	Utilities Diversions, excl. T2	4.43	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	Only "allowed" into RAB- No consultation	Only to be based on "allowed"-No consultation	Only to be based on "allowed"-No consultation	No
CIP9.014	Surface Water Quality Attenuation System	2.59	8.97	6.38	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP8.010	Programme Fees	13.83	17.51	3.69	Significant cost overrun, no consultation,	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP9.005	Electricity Distribution System Enhancements, MV (10KV)	7.46	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	Only "allowed" into RAB- No consultation	Only to be based on "allowed"-No consultation	Only to be based on "allowed"-No consultation	No
CIP9.015	Surface Water Quantity Attenuation System	2.59	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	Only "allowed" into RAB- No consultation	Only to be based on "allowed"-No consultation	Only to be based on "allowed"-No consultation	No
CIP7.027	Customs & Border Protection	22.49	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	Only "allowed" into RAB- No consultation	Only to be based on "allowed"-No consultation	Only to be based on "allowed"-No consultation	No
CIP9.007	Potable Water Storage & Service Pipe Upgrade	4.54	5.30	0.76	Cost overrun, no consultation	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP3.005	Bus Park Entrance & Exit Road	2.40	2.59	0.19	Cost overrun, no consultation	-	Only "allowed" into RAB	Only to be based on "allowed"	Only to be based on "allowed"	No
CIP3.009	Internal Campus Roads - Excluding Western Approach	11.35	11.35	-	On budget	-	Yes	No	No	No
CIP9.004	Electricity Distribution System Enhancements, HV (38 KV and 110KV)	11.14	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	[]	"Outurn" allowed in	Yes	Yes	Yes
CIP9.006	Gas Distribution System Enhancement	2.05	1.62	0.43	Project overpriced	-	"Outurn" allowed in	Yes	Yes	Yes
CIP9.001	Utilities Consultancy Services	1.08	0.11	0.97	Project overpriced	-	"Outurn" allowed in	Yes	Yes	Yes
CIP1.010	Staff Car park Relocations	1.21	-	1.21	Project did not happen	-	No	Yes	Yes	Yes
CIP9.009	Non-potable Water Storage	1.62	-	1.62	Project did not happen	-	No	Yes	Yes	Yes
CIP9.010	Fire Hydrant Distribution System	1.62	-	1.62	Project did not happen	-	No	Yes	Yes	Yes
CIP9.011	Sprinklers Distribution System	1.62	-	1.62	Project did not happen	-	No	Yes	Yes	Yes
CIP9.013	Surface Water Drainage System Enhancements	2.59	-	2.59	Project did not happen	-	No	Yes	Yes	Yes
CIP9.008	Potable Water Distribution System Enhancements	4.54	1.41	3.14	Project overpriced	-	"Outurn" allowed in	Yes	Yes	Yes
CIP9.012	Foul Water Drainage System Enhancements	4.32	0.76	3.57	Project overpriced	-	"Outurn" allowed in	Yes	Yes	Yes
CIP7.028	Temporary Forward Lounge - P2	6.49	2.49	4.00	Project overpriced	-	"Outurn" allowed in	Yes	Yes	Yes
CIP1.006	MSCP Short-term Car-Parking	29.68	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	As per DACC reduce by €22.6m	Yes	Yes	Yes
	TOTAL	152.70	166.02	13.32		-	Nothing in there yet			Yes

CAR Intends allowing

-20.77 to be adjusted downward to the confidential items in this column

Code	T2 Main	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP7.030	Terminal 2 Projects	629.28	656.00	26.72	Very Serious cost overrun. No consultation. Should not be allowed into RAB - WHY is it confidential? - should be explained to users	-	T2 is not required - T1 has capacity for 30million pax	Yes	Yes	Yes
TOTAL		629.28	656.00	26.72						

CAR Intends allowing

672.4

Code	Other Project	Allowed	Outturn	Difference	Ryanair submission	Ryanair RAB adj	Allowed into RAB	Depreciation chg returned to users	Return on RAB to be returned to users	Interest on Return charged to DAA, as previous price cap too high
CIP8.013	Section 49 Contributions	-	18.59	18.59	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP2.011	South Apron Village	-	4.00	4.00	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP4.020	T1 Life Safety Improvements	-	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	No	No	No	No
CIP7.325	CHP Upgrade	-	1.62	1.62	Not planned - No consultation, at DAA's risk	-	No	No	No	No
Commonf	Tenant Office Refurbs	-	1.41	1.41	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP8.014	Masterplanning	-	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	No	No	No	No
CIP6.044	Cargo - Longterm solution	-	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	No	No	No	No
Churchl	Church Lands	-	[]	[]	WHY IS THIS CONFIDENTIAL? No Consultation	-	No	No	No	No
CIP4.021	TBG Upgrade	-	0.43	0.43	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP9.017	Fuel Hydrant System	-	0.43	0.43	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP8.012	Consultancy Fees	-	0.32	0.32	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP16.020	Blast Fence	-	0.22	0.22	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP8.011	Consultancy Fees	-	0.22	0.22	Not planned - No consultation, at DAA's risk	-	No	No	No	No
CIP9.019	Cuckoo Culvert	-	0.22	0.22	Not planned - No consultation, at DAA's risk	-	No	No	No	No
TOTAL		-	33.30	33.30						
CAR Intends allowing						29.30				
CAR's adjustment to RAB						736.00				
Plus										
Head office Interim review						13.9				
CAR's adjustment to RAB						736.0				
Box 2 adj as per Appeal Panel						11.3				
CIP 2006-2009						355.8				
Opening RAB @ 1.1.06						673.1				
Less Indexed Depreciation						204.1				
Opening RAB 2010 if T2 trigger met						1,563.4				
Opening RAB 2010 if T2 trigger not met						891.0				
USER APPROVED REASONABLE RAB						167.27				

Very Serious cost overrun. No consultation. Should not be allowed into RAB - WHY is it confidential? - should be explained to users

T2 is not required - T1 has capacity for 30million pax

(As per CAR Draft Determination) Possibly adjusted considering Adjustments above

APPENDIX C

CIP 2010 - 2014

CIP 2010-2014

122. DACC finds it astounding that in the current economic climate, with the urgent need to reduce the costs of operating at Dublin Airport that DAA could even contemplate proposing a capital investment programme over the period 2010-2014 amounting to some €745 million, on top of the previous investment programme of €1.2 billion over the 4 year period 2006-2009. This flies in the face of economic reality. The fact that €353 million of projects was proposed to be triggered, subject to demand, does not take away from the lack of realism in the Capital Investment Programme (CIP) proposed by DAA.
123. DAA did not consult with users prior to the publication of the CIP. Users had made clear that any discussions had to be framed by reference to a business plan for reducing costs and recovering traffic growth at Dublin Airport¹. Rather the CIP document was published by the CAR prior to the first Capex Consultation Meeting on 18th March and without any consultation with users having taken place.
124. The CIP Document is itself inadequate as it does not provide the information which the CAR had indicated should be provided (see paragraph 43 above) to allow meaningful consultation to take place. Specifically, DAA's proposals were presented without a clear statement of the business need they are designed to meet, the alternatives considered and the full costs and benefits of each of the alternatives. In summary, there was simply no business case justification provided for projects. Without clear explanation of the need for a project and the costs and benefits to users of such a project being undertaken, it is virtually impossible for users to challenge schemes proposed by DAA. This is not effective consultation.
125. In the light of the failings in the CIP document, DACC set out clearly its requirements in terms of additional information project by project through correspondence with the CAR (see Annex A). Despite numerous requests for information at Capex Consultation Meetings and by correspondence following the meetings as set out in Annex A, the CAR has failed to ensure that DAA has provided sufficient information to users to allow them to understand the business case for the majority of capital projects proposed for the period 2010-2014. DAA's has failed to provide sufficient information for meaningful consultation to take place consistent with the CAR's stated requirements as set out in paragraph 29 above.
126. In particular, given that many of the projects relate to replacement of existing assets, DAA has not provided evidence to demonstrate that replacement is more cost effective than ongoing maintenance, although this was promised at the Capex Consultation Meeting on 8th April 2009². On this basis, the business case for carrying out many of the replacement projects has not been transparently made.
127. DACC set out preliminary views on the capex which users considered was required over the period to 2014 by letter to the CAR on 22nd May 2009. It was also made clear where users had insufficient information to be able to comment meaningfully, with the onus being on DAA to demonstrate to users that there was a business case for investment. Except in so far as information became available during the Capex Consultation Meeting on 29th May 2009, no further justification has been provided by DAA, despite promises made at consultation meetings that further information would be provided. Nor does the Draft Determination set out transparently the basis upon which the CAR has decided to allow capital development schemes to enter the RAB in the next regulatory period against the express wish of users.

¹ Letter to Declan Collier 6th April 2009.

² Transcript page 10, line 22.

128. We summarise the requirements of users, as set out on 22nd May, and the proposals of the CAR in **Annex D**. The CAR proposes to allow €198.2 million to enter the RAB in the next regulatory period, with a further €337.8 million of projects subject to triggers. DACC does not consider that the trigger projects will be required at all prior to 2014 (we discuss triggers below) and assesses the user requirements for projects to amount to no more than €67.3 million over the period.
129. We now consider each project in turn in the order set out in the Draft Determination, commenting on the adequacy of information, and whether users consider the project or level of expenditure justified on the basis of information made available, including that within the Draft Determination:
130. Airport Operations
- *CIP8.001 Operations* – DACC considers that, taking into account that passenger demand to use Dublin Airport will not reach 2008 levels until at least 2014, general expenditure on airport development and operations can be contained to €20 million over the period. In the first instance, DACC notes that €5 million of DAA's spending is assumed to be on operational alterations to T2³. This is a T2 over-spend and should be dealt with accordingly at the next regulatory period. Other items of expenditure planned by DAA under this heading include Collaborative Decision Making, replacement of CCTVs, airport operational computing systems, which are not supported by users. At the Capex Consultation Meeting on 29th May, it was revealed that Dublin Airport alone has 900 computer terminals for 900 daily logins⁴ which, taking into account shift work, would seem to be excessive. Further reductions can therefore be made to the amount of expenditure required and DACC proposes €4 million a year as sufficient given the low volumes of passengers over the regulatory period.
 - *CIP8.008 Corporate IT* – the proposed level of expenditure was justified on the basis of large savings in opex costs, referred to in paragraph 70 above and in improving efficiency. None of these claims can be verified by evidence of opex savings. Furthermore, it was confirmed at the Capex Consultation Meeting on 29th May that costs under the heading Corporate IT cover Shannon and Cork as well as Dublin⁵. This does not appear to have been taken into account by Booz & Co⁶. DACC considers that in the absence of demand growth at Dublin and in the light of planned reductions in staff, costs of Corporate IT can be contained to €2 million over the regulatory period.
 - *CIP2.017 Hangar Maintenance* – DACC agrees with the CAR that the case for this investment is not made. At the Capex Consultation Meeting on 8th April 2009, DAA failed to provide any evidence that there was demand for these hangars to be refurbished or that there would be incremental commercial income as a result of this expenditure. DAA has failed to provide supporting evidence on the need for this expenditure.
131. The CAR proposes to allow €49 million under this heading whereas DACC considers that €22 million will be sufficient to meet reasonable user requirements in the circumstance where passenger volumes will be below those previously handled and general wear and tear on systems will be less.

³ Booz & Co Report , Page 47.

⁴ Transcript page 139, line 22.

⁵ Ibid, page 149, line 22.

⁶ Booz & Co Report, Page 48.

132. Airport Infrastructure – Landside Infrastructure

- *CIP 3.035 Internal Secondary Campus Roads Upgrade* – this item was not discussed at any of the Capex Consultation Meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. DACC considers that the business case for this investment has not been made and the expenditure has to be disallowed following the CAR's consultation guidelines as no supporting justification has been given.
- *CIP3.033 Sealing Bridge Deck etc* – this item was not discussed at any of the Capex Consultation meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. However, DACC recognises that need to maintain critical structures such as the drop-off roadway. No information was presented regarding alternatives and DACC considers that, in the absence of a specific business case for the proposed level of investment, a reduced specification scheme should be adopted for a cost allowance of €2.5 million.
- *CIP3.012 Taxi Holding Area* – this item was not discussed at any of the Capex Consultation meetings so there has been no consultation with users meaning that prima facie the cost should be disallowed. DAA proposes to add twice as much capacity as it states is required and, if T2 becomes operational, additional taxi rank space will be provided. In the absence of passenger growth at Dublin Airport, there is no justification for this scheme at this time.
- *CIP1.016 Refurbishment of Multistorey Car Park* - this item was not discussed at any of the Capex Consultation Meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. DACC considers that in the current economic climate and the need to reduce costs this refurbishment scheme can be deferred. In any event, it is not clear that this scheme can be undertaken without undue disruption until the new MSCP is built (see below).
- *CIP3.034 External Roads Upgrade* - this item was not discussed at any of the Capex Consultation Meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. DACC considers that in the current economic climate and the need to reduce costs this refurbishment scheme can be deferred.
- *CIP3.014 Upgrade Airside/Landside Perimeter Fence* - this item was not discussed at any of the Capex Consultation Meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. DACC considers that in the current economic climate and the need to reduce costs this refurbishment scheme can be deferred.
- *CIP8.300 Metro and GTC Design Fees* – this item was discussed at the Capex Consultation Meeting on 22nd April 2009. DACC considers that fees relating to the provision of the Metro at the Airport should be met by the Metro and charged to the eventual users of that service. The CAR was asked at that meeting to investigate the legality of the costs associated with the Metro being charged to airport users⁷. There is no evidence provided in the Draft Determination that the CAR has investigated this matter as it promised to do so the costs should be disallowed.

⁷ Transcript page 84, line 22

- *CIP2.008 Maintenance of Listed Buildings* - this item was not discussed at any of the Capex Consultation Meetings and no supporting justification has been given meaning that prima facie the costs should be disallowed. However, DACC recognises that DAA does have legal liabilities in this area and considers that in the current economic climate and the need to reduce costs this item should be subject to a cap on costs at 50% of that proposed by DAA at €250,000.

133. The CAR proposes to allow the full €23 million requested by DAA under this heading without challenge or scrutiny as to whether the expenditure is actually required in the next regulatory period. DACC considers that a minimal care and maintenance program of €3.75 million is sufficient in the light of the downturn in demand.

134. Airport Infrastructure – Plant and Equipment

- *CIP4.017 Upgrade HBS Dublin Airport* – DACC agrees with the CAR that this project should be subject to a trigger, with costs only allowed when European legislation requiring equipment to be upgraded is enacted into Irish law. However, DACC does not accept DAA's estimated cost for this project of €10.8 million as the reductions in the volumes of hold baggage at Dublin Airport, in particular using T1, will mean that fewer machines will be required than included within DAA's cost plan. DACC believes that redundant equipment in Area 14 can be reused after T2 becomes operational. The CAR has acknowledged the potential for fewer machines to be required at paragraph 9.46 of the Draft Determination.
- *CIP4.014 Replace CHP2* – In response to a question from DACC, DAA provided information on 29th April 2009 claiming that the new CHP would reduce energy costs and pay for itself over 4 years⁸. DACC accepts this expenditure subject to the CAR providing transparent verification that the asserted cost savings have been passed through into the opex estimates provided by DAA.

135. DACC broadly concurs with the approach being taken by the CAR under this heading.

136. Airport Infrastructure - Utilities

- *CIP9.024 Fuel Farm Redevelopment* – this project was discussed at the Capex Consultation Meeting on 6th May 2009. It became clear that the asserted benefits from the provision of an Into-Plane facility as part of the development would not be passed through to users by way of reduced costs⁹. DACC agrees with the CAR that the cost of this element of the scheme proposed by DAA should be omitted. Based on the evidence presented by DAA at this meeting, DACC believes that there is no requirement for 3 additional storage tanks and that 2 additional tanks would be sufficient to meet user requirements, as was made clear at the Capex Consultation Meeting on 6th May 2009¹⁰. DACC, therefore, indicated that an acceptable level of investment to meet users' requirements would be €12 million. DACC also notes that Booz & Co assessed DAA's costs as 8% too high so there may be scope for further cost savings against this €12 million.¹¹

⁸ 290409 CIP Information for Users, page 16.

⁹ Transcript page 114, line 27.

¹⁰ Transcript pages 112 and 113.

¹¹ Booz & Co Report, page 55.

- *CIP9.019 Cuckoo Culvert Capacity* – this project was discussed at the Capex Consultation Meeting on 29th May 2009. DACC considers that DAA has not made the case that it needs both to upgrade the existing culvert and provide a duplicate new culvert to deal with contaminated run-off. On the basis of information provided at that meeting, DACC considers that the requirement can be adequately dealt with by providing a separation tank at a cost of €2.4 million, based on costs set out in CP9.022, and upgrading the existing culvert at a cost of €5 million, making a total cost allowance for this project of €7.4 million compared to the full €11 million which the CAR proposes to allow.
- *CIP9.022 Airfield Pollution Control and CP9.021 Airfield Drainage Upgrade* – these projects were discussed at the Capex Consultation Meeting on 29th May 2009¹². DAA has not provided sufficient justification that these works are statutorily required and not connected to future development projects such as the Northern Runway or Airport City. DACC considers that these projects are not required at the present time based on the information presented by DAA.
- *CIP9.023 Fuel Hydrant System Ph 1* – this project was discussed at the Capex Consultation Meeting on 6th May 2009. DAA has not provided evidence to support the claimed operational benefits of the scheme nor adequately explained why the investment is not being undertaken by the fuel companies. In fact, it was confirmed at the meeting that the fuel companies had declined to finance this investment¹³ (and the increase in fuel tanks) presumably as they do not consider them to be financially viable. DACC does not agree with the CAR that this should be a trigger project and considers that DAA has yet to make out a business case for this investment.
- *CIP9.020 MV Network Renewal* - this item was not discussed at any of the Capex Consultation Meetings but DACC understands that the justification is partly related to the plan for a new control tower. As no business case has been presented for the new control tower, this expenditure should be disallowed.

137. The CAR proposes to allow €41.9 million of DAA's estimated costs of €58.8 million under this heading, with a further €6 million subject to a trigger relating to the provision of a fuel hydrant on Pier E. DACC considers that justifiable expenditure, to meet user needs under this heading, amounts to no more than €19.4 million.

138. Piers and Terminals

- *CIP7.032 T1 Passenger Processing Enhancement* – this project was discussed at the Capex Consultation Meeting on 22nd April 2009. In the light of the reduced demand in T1, particularly following the opening of T2, users were not persuaded of the business case for this project¹⁴. DAA failed to demonstrate that the asserted opex cost savings were real or that projected increases in retail revenues could be delivered. DACC agrees with the CAR that this project is not required in the forthcoming regulatory period.
- *CIP7.035 Pier B Connectivity* – this project was discussed at the Capex Consultation Meeting on 22nd April 2009. DACC believes that this project was a DAA oversight and should have been part of the T2 Project. The omission of this project as a consequence of errors on the part of DAA means that users should not be liable for the over-spend. The costs of this project should not be allowed.

¹² Transcript page 76.

¹³ Transcript page 93, line 26.

¹⁴ Transcript page 131, line 13.

- *CIP7.030 T2 Completion* – DACC considers these costs to be over-spending against the original T2 budget. As such, DACC agrees with the CAR that they should not be allowed in the forthcoming regulatory period.
- *CIP7.018 New Pier Design Fees* – this project was discussed at the Capex Consultation Meeting on 22nd April 2009. DACC requested to see DAA's gating analysis in order that users could consider when there might be a requirement for the provision of further pier capacity at Dublin Airport. Although DAA promised to provide this, no meaningful gating analysis for future years was ever provided to users as part of the consultation process. On the basis of reasonable forecasts of demand, DACC does not consider that this project will be triggered in the forthcoming regulatory period (see comments on triggers below).
- *CIP7.036 T1 Safety Life System* – this project was discussed at the Capex Consultation Meeting on 29th May 2009 and it was confirmed that DAA had not yet prepared a detailed scheme and costs for these works¹⁵. DACC recognises the need to maintain essential safety systems in T1 but considers that the costs should be contained to a budget of €2.4 million in the forthcoming regulatory period, consistent with the amount proposed to be allowed by the CAR.

139. The CAR proposes to allow €2.4 million into the RAB in the forthcoming regulatory period under this heading and this is supported by users. We discuss triggers below.

140. Revenue Projects - Retail

- *CIP5.013 Retail Refurbishment* – this project was discussed at the Capex Consultation Meeting on 22nd April 2009. DAA provided further information on T1 retail spending linked to past refurbishment schemes on 8th May 2009. It would appear from this data that previous retail refurbishment schemes have yielded no more than €0.26 per passenger and, on this basis, DAA's estimated costs of €16.8 million would not payback over the life of the investment, particularly given the expectation that 40% of passenger demand will transfer to T2. The CAR has not set out transparently the basis upon which it proposes to allow €8.8 million in the next period¹⁶. Given that the CAR does not project any increase in retail revenue per passenger during the period, it is inconsistent to allow this expenditure. It is not clear that this scheme will generate any incremental spend per passenger over and above that asserted for T1X. In any event, DACC considers that, to the extent this is to allow more branded retailing, the fit out costs would normally be met directly by the retailers. The business case has not been made for any of this investment to be allowed.

¹⁵ Transcript page 172, line 16.

¹⁶ Draft Determination, paragraph 9.54

141. Revenue Projects - Revenue

- *CIP1.006 MSCP* – this project was discussed at the Capex Consultation Meeting on 22nd April 2009. Further information regarding car parking revenues was provided on 8th May 2009. Based on this further information disclosed, even if DAA achieved 100% occupancy of the car park throughout its life at DAA's average revenue per car parking space, the scheme would not achieve a positive rate of return over its life. Although DAA asserted at the meeting that the combined scheme with the hotel (being funded externally) showed a positive rate of return, insufficient information was made available to users to verify this¹⁷. In particular, it was not clear whether income from the hotel was intended to be used to enable lower car parking charges or whether it was net incremental. DACC notes that the CAR projects no real increase in car parking revenues per passenger so DACC supports the CAR's decision to exclude the costs of this development from the RAB at the present time.

However, DACC believes firmly that car parks are part of the airport product and that costs and revenues should be retained within the single till, subject to the business case being made that the expenditure is beneficial to users. DAA has been unable to demonstrate this transparently for this particular project, given the high costs involved, and in the light of the downturn in demand. The costs should be disallowed until the business case is clearly made.

DACC is also of the view that the costs already allowed for a new MSCP in the 2007 Interim Review should be excluded from the RAB and this would represent a further adjustment to the allowable T2 related costs as indicated in paragraph 116 above.

- *CIP2.018 Cargo Distribution Centre* – this project was not discussed at any of the Capex Consultation Meetings and DAA has not presented any business case for the provision of such a distribution centre. Basic information such as a forecast for cargo tonnage growth is not available for Dublin Airport and no supporting evidence has been provided as to the revenues to be generated by this project. The only justification given for this project appears to be the requirement to relocate cargo activities to make way for other development. In which case, the requirement for this project needs to be assessed by reference to the benefits deriving from the other (unspecified) project unless the business case can be made by reference to incremental revenues exceeding the costs of relocation. DACC believes that this development may be a relocation consequential upon the construction of T2 and that the costs should be considered as a further T2 overspend. In the absence of a specific business case in the terms set out by the CAR (see paragraph 43 above), these costs should be disallowed.
- *CIP2.019 Retail Logistics Centre* - this project was not discussed at any of the Capex Consultation Meetings and DAA has not presented any business case for the provision of such a logistic centre. DACC requested information in relation to incremental retail revenues deriving from this project or operational cost savings so that it could assess the value to users but this information was not provided. On this basis, the business case for this project has not been demonstrated and the costs should be disallowed.

¹⁷ Transcript page 11, line 26.

- *CIP2.014 DAA Office Accommodation, CIP2.015 DAA Tenant Accommodation, CIP2.016 DAA Tenant Accommodation Piers* – these accommodation projects were discussed at the Capex Consultation Meeting on 29th May 2009. In all cases, DAA was unable to provide any estimate of incremental rental income which would be earned as a result of this expenditure. The CAR agreed at this meeting that if the benefit could not be demonstrated then the expenditure should not be allowed¹⁸ but indicated that such information would be set out transparently in the Draft Determination so that users could see the costs and benefits of any capex which was proposed to be allowed¹⁹. This is clearly not the case as the Draft Determination does not contain any assessment of the business case for individual capital schemes.

As DACC highlighted at the meeting, tenants are leaving the airport as a consequence of excessive rental levels and available ramp accommodation on Pier D has not been taken up due to excessive rents being sought by DAA. Given the planned reduction in DAA staff numbers, there does not appear any basis for a business case for spending money on DAA's own accommodation and DAA was unable to demonstrate asserted efficiency gains would result in operational cost savings. In the absence of any clear demonstration of either incremental rental income or operational cost savings, the CAR is wrong to allow even part of this expenditure as the business case has not been transparently demonstrated.

142. Overall the CAR proposes to allow €28 million of expenditure on so-called revenue generating projects to enter the RAB in the next regulatory period. DACC considers that, on the evidence made available by both DAA and the CAR, there is no case for any of this expenditure to be allowed into the RAB as the benefits to users have not been transparently set out.
143. The Draft Determination raises the question of whether DAA should be allowed to proceed with some commercial investments at its own risk, with costs and revenues taken outside the single till. In order to evaluate the implications of this, DACC requires information regarding the level at which the price cap would be set on a dual till basis. On the basis of the information currently available, DACC considers that the single till regulatory model should continue to be adopted and projects only proceeded with when it can be clearly demonstrated that the benefits to users outweigh the costs. This should apply to all projects, whether revenue generating or not, which serve the needs of passengers, airlines and other users. This would include any development within the main terminal campus area, including hotels.
144. However, DACC agrees that all costs and revenues associated with Dublin Airport City should be taken outside of the single till as this appears to be pure property speculation. As indicated above, DACC is concerned to ensure that all historic costs, including land and management time are removed from the RAB and historic costs and any recovery of and/or return on these amounts returned to users. The CAR's proposal²⁰ not to clawback any operating costs incurred over the period 2006-2009 is not acceptable. It has not transparently verified that users have not been charged for time expended on this project.

¹⁸ Transcript page 22, line 4.

¹⁹ Transcript page 28, line 22.

²⁰ Draft Determination, paragraph 11.12.

145. Stands and Airfield

- *CIP6.051 North Runway Construction Works and CIP6.018 North Runway Fees* – DACC agrees that, in principle, all works associated with new runway construction should be subject to an appropriate trigger (see below). However, DACC does not accept that the scheme proposed by DAA is the optimum scheme to meet the needs of users. In the first instance, DAA has been unable to substantiate the requirement for a longer runway²¹ (3,660m) other than by reference to vague expressions of interest by airlines which presently do not operate to Dublin. DACC cannot see any case for considering a longer runway than that for which DAA has planning approval, resulting in a saving of €60 million on the capital costs of €305 million proposed by DAA.

Furthermore, based on information disclosed by DAA on 21st May 2009, DACC considers that refurbishment of Runway 11/29 at a cost of €4.5 million would provide sufficient incremental capacity to meet demand for the foreseeable future as it would potentially provide 30 movements per hour additional capacity for smaller aircraft types compared to 43 with the parallel runway option at a cost of €305 million as proposed by DAA. DAA has not demonstrated that reopening Runway 11/29 to increase runway capacity in the short to medium term is not a viable option.

DACC considers that before any decisions are taken as to which runway development scheme should be implemented, there will need to be substantial consultation with users to demonstrate which is the optimum scheme to meet user requirements, taking account of the projected profile of demand to use Dublin Airport at the time decisions are being taken.

DACC does not accept that design fees of €4.2 million should be allowed at this stage as the timing of the requirement for detailed design is some years away and therefore should be subject to a composite trigger related to the timing when the runway is required. DACC also considers that the fee costs will be materially below those proposed by DAA or allowed by the CAR if either Runway 11/29 is refurbished or the existing runway proposal is implemented at 3,110m, accepting that there will be some costs incurred in seeking to lift the movement restrictions as part of the planning approval.

- *CIP6.053 Engine Test Facility and CIP6.009 Design Fees* – DACC accepts the requirement for the relocation of the Engine Test Facility in the event of it being determined that construction the North Runway 10/28 is the optimum solution. DACC notes that the CAR proposes to allow only €9.5 million compared to the €13.8 million proposed by DAA. However, DACC considers that further consideration will need to be given to the actual costs when a location and scheme has been chosen. It would be inappropriate to commit to a particular option at this stage, as DAA accepted at the Capex Consultation Meeting of 6th May 2009²² when it indicated that the location and costs would not be determined until after the expenditure of the design fees. In the light of the uncertainty regarding the timing of the new runway, DACC considers that both the design fees and the actual cost of constructing a new engine test facility should be subject to triggers and disallowed at this stage.

²¹ Transcript 6th May 2009, page 46.

²² Transcript page 24, line 21

- *CIP6.019 North Runway House Buy Out* – DACC agrees with the CAR that this expenditure should only be allowed subject to a trigger related to the timing of the new north runway. However, the CAR has not explained why any trigger would automatically allow the maximum potential cost of house purchases²³ to enter the RAB. As these properties are not required to enable the runway to be constructed and reflect a voluntary purchase scheme for properties affected by noise from any new runway, there is no case for costs to enter the RAB until such time as the runway configuration is determined and householders actually sell such properties. The CAR does not justify in the Draft Determination why it takes a different view as to the costs to be allowed than its own consultants, Booz & Co, who recommended a maximum allowance of €3.8 million. The CAR's decision to allow €25.4 million to enter the RAB subject to the runway trigger being reached is irrational.
- *CIP2.009 New Control Tower Facilitation Works* – this project was discussed at the Capex Consultation Meeting on 6th May 2009. DAA deferred to IAA in terms of the business case for a new control tower but DACC pointed out that the concern appeared to relate to buildings constructed by DAA which obscured the view to the proposed new runway location²⁴. DACC considers that these costs should not be allowed until the need for the new control tower has been clearly set out by IAA and that, in any event, the costs should be triggered related to the new north runway, provided the case has been made at that time.
- *CIP6.017 Overlay Runway 10/28* – at the Capex Consultation Meeting on 8th April 2009. Subsequently users were provided with a copy of the Feasibility Study which set out four options for refurbishing the existing runway. DAA proposed to implement the most expensive of these options as a cost of €23 million to increase the life of the runway by 15-20 years. However, users noted that the remaining life of the existing runway is 4-6 years and that a lower cost option at €7 million would extend the life of the runway by 6-8 years. Given the expectation that a second runway will be provided within this timeframe, and that this would enable full reconstruction with less operational disruption and at a lower cost, users expressed a preference for this lower cost option. Information provided subsequently on 21st May 2009 suggested that continuing the current practice of patching might well be the most cost effective option of all. Nonetheless, DACC is pleased that the CAR has accepted this recommendation from users to proceed with a lower cost overlay solution.
- *CIP6.047 New Apron Development* – this project was discussed at the Capex Consultation Meeting on 6th May 2009. DACC agrees with the CAR that this should be a trigger project, subject to demand. Based on current traffic growth expectations at Dublin over the period to 2014, DACC does not consider that the development will be required. DAA indicated that it has not updated its analysis of stand requirements based on new traffic forecasts²⁵ so a decision on the scope, cost and timing of this project now would be premature.

²³ Booz & Co Report, page 34.

²⁴ Transcript page 80, line 25.

²⁵ Capex Consultation Meeting 22nd April 2009 Transcript page 65

- *CIP6.052 Central Apron Reconstruction Works* – this project was discussed at the Capex Consultation Meeting on 8th April 2009. Users asked for an analysis of the extent of apron repairs and patching which had been undertaken in the area proposed for reconstruction and the level of operational disruption arising in order to understand the risks attaching to undertaking a smaller area of works²⁶. Information received on 21st May 2009 suggested that the extent of operational disruption from emergency repair works was relatively low. Hence users believe strongly that the scope of the programme could be reduced in the next regulatory period and the works phased over a longer period, with an appropriate cost allowance being limited to €9 million rather than the €13.8 million which the CAR proposes to allow.
 - *CIP6.054 Taxiway Centreline Lights* - this project was discussed at the Capex Consultation Meeting on 29th May 2009. DACC considers that DAA did not set out clearly why this project was required at the present time and is pleased that the CAR has disallowed this expenditure.
 - *CIP6.055 B7 Taxiway Overlay* - this project was discussed at the Capex Consultation Meeting on 29th May 2009. Users are not persuaded that a full overlay is immediately required and considers that an interim solution at a cost of €800,000 will suffice until a decision is taken regarding the new North Runway. This would allow a full overlay to be undertaken at a lower cost and with less operational disruption. DACC does not consider that the case for allowing expenditure of €2.8 million has been made.
 - *CIP6.056 Apron Road Reconstruction* – this project was not discussed at any Capex Consultation Meeting. Users do not consider that the case has been made for the reconstruction of the whole road system and consider that an allowance of €500,000 is sufficient for the forthcoming regulatory period. The CAR has not set out in the Draft Determination why it considers that €2.8 million should be allowed.
 - *CIP6.057 Airfield Generator Replacement* - this project was not discussed at any Capex Consultation Meeting. However, users accept that this project could be safety critical, although it would have assisted if DAA had set out clearly the risk of failure. DACC agrees that a cost of €500,000 should be allowed into the RAB.
146. Overall the CAR proposes to allow €30 million of expenditure in this category to enter the RAB in the forthcoming regulatory period, with a further €314 million subject to triggers. We comment further on triggers below. DACC believes that no more than €17.8 million should be allowed automatically and does not believe that there will be a case for expenditure on trigger projects by 2014, based on current demand projections.
147. DACC believes that DAA has made excessive allowance for project contingency within its CIP and takes comfort that Booz & Co have re-examined these allowances. DACC does not accept that it is reasonable to allow programme contingency on top of project contingency as there should be sufficient contingency allowance across the totality of all projects to allow DAA to manage within the overall project allowances. The fact that DAA managed its previous capital programme overall at below the estimated cost²⁷ is evidence that there has been padding in the overall costs. DACC accepts that there are some overall programme management and contingency costs, over and above the specific design and management fees allowed project by project. DACC considers that these can be managed within an overall total of 2% of allowed project costs.

²⁶ Transcript pages 70-72

²⁷ Draft Determination, Table 9.5

148. On this basis, DACC assesses that a user driven capital programme at Dublin Airport over the period 2010-2014 would amount to no more than €66.7 million. We have adjusted the Ready Reckoner to reflect that amount.

Project Triggers

149. Project triggers were discussed at the Capex Consultation Meeting on 6th May 2009. As a general principle, DACC believes that the proposed trigger projects have not been fully specified at this stage, such that it would be inappropriate to propose specific additions to the price cap should a trigger be reached. For example, the CAR proposes that €0.07 be added to the price cap when the legal requirement to upgrade HBS in T1 is confirmed. Yet the CAR acknowledges at paragraph 9.46 of the Draft Determination that the scale of costs is not yet known. Hence, it is wrong to set out a precise adjustment to the price cap until the requirement is known and the costs confirmed.
150. In terms of the triggers for projects related to the Northern Runway and New Apron Development, these were extensively discussed at the Capex Consultation Meeting on 6th May 2009. DAA had proposed triggers which were broad brush in nature, such as availability of spare slots and taxi times from push back. Both of these are merely first indications and would not replace a detailed runway capacity analysis to determine when the new runway would be required. This was made clear at the Meeting by DACC²⁸. DACC accepted, however, that such triggers could be used as a basis for when detailed discussions should begin between DAA and its users regarding the precise timing and specification of the projects. The CAR proposes to replace DAA's triggers by a simple passenger threshold of 23.5 mppa. DACC considers that this is similarly too broad brush a measure and that reaching that trigger should merely initiate a detailed discussion between DAA and its users informed by a detailed runway capacity analysis. DACC does not consider it appropriate to automatically allow an increase in the price cap at this point, not least as the scope of the project has not been agreed and there may be substantially cheaper alternatives to meeting the requirement to increase runway capacity as explained above.
151. There are similar concerns relating to the trigger proposed for new apron development in that it is not clear on what basis the assessment of 10 spare stands in a peak week will be made. It is possible for there to be less than 10 spare stands in a peak week due aircraft technical problems, overseas ATC issues or other matters not connected with capacity at Dublin Airport. Hence, as with the runway, DACC considers that reaching the trigger as defined by either DAA or the CAR should not trigger allowance of the costs into the RAB but a more detailed discussion between DAA and its users as to the precise timing and scale of project required. As such it would be inappropriate to make a definitive determination as to the amount to be added to the price cap at this stage.
152. In relation to the fuel hydrant, DACC does not consider that the case has been made that users will realise efficiency benefits from the provision of a hydrant on Pier E. This was discussed extensively at the Capex Consultation Meeting on 6th May 2009. Users were promised further information on the business case for this project²⁹ but this information was not forthcoming in terms of the benefits to users. There should be no automatic trigger related to the costs of this project until the business case for the expenditure has been made to users.

²⁸ Transcript pages 22-31.

²⁹ Transcript page 131, line 20

153. In summary, DACC believes that further discussion will be required to scope the precise triggers for these projects and the scale and cost of project which meets user needs. Therefore, DACC rejects the concept that an increase of €1.08 on the price cap should be triggered automatically as a consequence of secondary measures of the timing when certain capacity enhancements should be required.
154. There is also an issue with the assumption that the CAR makes that allowed (non-triggered) capex will be phased evenly over the 5 years of the regulatory period. Given the decline in traffic at Dublin Airport, it would appear more likely that expenditure will be back loaded towards the end of the period. This would have the effect of further reducing the price cap, although we have not made that adjustment in our calculations.

Dublin Airport Capex Requirements 2010-2014

Ref	Description	DAA Driver	DAA Cost	DACC Categorisation	User Requirements	Maintenance covered by Indexed Depreciation	Trigger	DACC Comment	Log of Requests for Info from DAA during April and May	Allowed by DAA	Allowed by CAR
	Stands and airfield			S - Support for Investment proceeding as envisaged SR - Support for Investment, subject to some changes O - Opposition to the Investment OP - Opposition to investment as currently presented or subject to trigger						Not triggered	Triggered
CIP2.000	Control Tower Facilitation Works	Capacity	€1,400,000	OP	€0	Yes	Not Justified. Either capacity related: if linked to provision of a new runway or only required if higher buildings are built by the DAA. CAR to check with IAA when required - trigger dependent.	Information on justification for Control Tower Project sought by letter to CAR 16.4.09. DAA to be decided to provide and referred to IAA. Not Provided.		€1,400,000	
CIP6.047	New Apron Development	Capacity	€22,700,000	OP	€0	Yes	Not required in period. New apron north of Pier D, not needed in next 5 years as demand unlikely to be greater than 2008 levels.	Gating analysis to support timing of need requested by letter to CAR 16.4.09 and at meeting 6.5.09. Information received 21.5.09 being analysed. Inadequate information Provided.			€22,700,000
CIP6.009	Engine Testing Facility fees only	Safety/ Compliance	€400,000	OP	€0	Yes	Not required in period. Associated with new runway should be triggered. DACC open to discussion on triggers.	Information provided at meeting 6.5.09		€200,000	
CIP6.017	Overlay Runway 1028	Repair/ Replace	€23,000,000	SR	€7,000,000	No	Overpriced. The current runway's remaining life is 4-6 years. By spending €7m (alternative 1 from DAA report), it will extend the life by 10 years. The new runway will be opened then and it will be cheaper to do more substantial work (no night time working required).	Trade off between costs of repair under a do minimum option and details of cost and impact of slab replacements requested in meeting 8.4.09 and by letter to CAR 16.4.09. Inadequate information Provided.		€7,000,000	
CIP6.018	North Runway Fees	Capacity	€4,200,000	OP	€0	Yes	Not Justified. Not required in period due to downturn in demand. Costs of new application should be lower if the same 3,110m runway. Costs associated with new runway should be triggered. DACC open to discussion on triggers.	Justification for proposed new longer runway scheme requested at meeting 6.5.09. Inadequate information Provided.			€28,400,000
CIP6.019	North Runway house buy-out	Capacity	€8,000,000	OP	€0	Yes	Not Justified. Costs should be lower assuming 3,110m runway but not if runway 1129. Associated with new runway should be triggered. DACC open to discussion on triggers.				
CIP6.051	North Runway Construction works	Capacity	€305,000,000	OP	€0	Yes	Need for new runway should be triggered. The longer 3,660m runway is not required. If 3,110m then DAA state cost is €70 million less at €255 million. DACC preference for reinstatement of 1129 at a cost of €4.55m (information disposed 21.5.09) as adequate to meet needs of users. Not Justified.	Information requested regarding historic slab replacements as a basis for determining future spend requested at meeting 8.4.09. Information received 21.5.09 being analysed. Inadequate information Provided.			€255,000,000
CIP6.052	Central apron reconstruction	Repair/ Replace	€15,000,000	SR	€9,000,000	No	Overpriced/Not Justified. Further info required to verify extent of apron requiring urgent repairs. The quantity of reconstruction proposed by DAA is excessive. An allowance of €5m is a generous considering current economic climate.			€13,800,000	
CIP6.053	Engine Testing Facility		€13,800,000	OP	€0	Yes	Not required in period. This is related to the new runway and should be subject to a trigger. Users accept that this needs to be moved but do not accept cost estimate at this stage.	Information provided at meeting 6.5.09			€9,500,000

Ref	Description	DAA Driver	DAA Cost	DACC Categorisation	User Requirements	Maintenance covered by Induced Depreciation	Trigger	DACC Comment	Log of Requests for info from DAA during April and May	Allowed by CAR
CIP6.054	Taxway C L lights and associated stop bars on runway 16/34	Safety/Compliance	€ 6,300,000	O	€ 0	No	ICAO Recommendation only, it is not economic climate. Should be deferred until affordable.	Justification for project requested by letter to CAR 16/4/09. Not Provided.	€ 0	
CIP6.055	BT Taxway Overlay	Repair/Replace	€ 3,000,000	O	€ 800,000	Yes	Useful life of this asset was 4-5 years and will be extended due to downtime in traffic. Option 3 will extend life by 5-6 years and is sufficient until new runway is in place when full repair can be undertaken at lower cost with daytime working.	Information on options provided at meeting 29/5/09	€ 2,800,000	
CIP6.056	Apron Road Reconstruction	Repair/Replace	€ 1,800,000	SR	€ 900,000	Yes	Case not made for whole road to be replaced, given some areas have been replaced already. Reduced scope of work proposed reflecting current economic climate.	Costs and risks associated with lower cost alternatives requested by letter to CAR 16/4/09. Not Provided.	€ 1,800,000	
CIP6.057	Airfield Generator replacement	Repair/Replace	€ 500,000	S	€ 500,000	Yes	Accepted (however risk of failure not clearly set out)	Information about alternatives and costs requested by letter to CAR 16/4/09. Not Provided	€ 500,000	
	Sub-Total Piers and Terminals		€ 405,100,000		€ 17,800,000				€ 30,300,000	€ 314,000,000
CIP7.018	New Pier Design Fees	Capacity	€ 7,000,000	OP	€ 0	Yes	Not required in particular - justified. Given downtime in traffic, extension to pier not required in period. Need for design expenditure should be triggered. Fees should be based on pier to be extended, which will depend on user requirements.	Meeting analysis requested at meeting 22/4/09 to ascertain timing of requirement. Information received 21/5/09 being analysed. Inadequate information Provided.		€ 7,000,000
CIP7.030	Terminal 2 Completion - CIP declared	Capacity	€ 10,000,000	O	€ 0	No	DAA Liability. Total T2 cost is greater than CIP 2008/9 (allowing for inflation) which is a cost overrun at DAA's risk. No justification for additional expenditure to be incurred in 2010.	Reconciliation of project costs to budget requested by letter to CAR 16/4/09. Not Provided	€ 0	
CIP7.032	T1 Passenger Processing Enhancements	Cost Reduction	€ 16,000,000	O	€ 0	No	Not required. Would result in unacceptable passenger walking distances and risk of flight delays. Existing security areas adequate for reduced passenger volumes. Commercial revenue and opex benefits not proven.	Basis of asserted incremental revenues and opex cost savings requested at meeting 22/4/09. Not Provided.	€ 0	
CIP7.035	Pier B Connectivity		€ 11,000,000	O	€ 0	No	DAA Liability. T2 Cost overrun and DAA liability as omitted from project in error. Users should not pay additionally.	Meeting analysis requested at meeting 22/4/09 to ascertain timing of requirement. Information received 21/5/09 being analysed. Inadequate information Provided.	€ 0	
CIP7.036	T1 Life Safety Safety (sic) System Upgrade	Safety/Compliance	€ 5,000,000	O	€ 2,400,000	No	Not justified. Cost allowance too high in current market circumstances. DAA has not yet prepared detailed costs. DACC propose phased implementation to reflect affordability with a reduced cost allowed in the period based on historic spend.	Costs and benefits of alternatives requested by letter to CAR 16/4/09. Information provided at meeting 29/5/09 did not provide sufficient cost justification.	€ 2,400,000	
	Sub-Total		€ 49,000,000		€ 2,400,000				€ 2,400,000	€ 7,000,000

Ref	Description	DAA Driver	DAA Cost	DACC Categorisation	User Requirements	Maintenance covered by Indexed Depreciation	Trigger	DACC Comment	Log of Requests for Info from DAA during April and May	Allowed by CAR
	Airport Infrastructure									
	Airport Operations									
CIP2.017	Hanger Maintenance	Repair/ Replace	€ 4,200,000	O	€ 0	Yes	No	Not required. Repair has asked to purchase this hanger. The repairs will not be required if the DAA sell the DAA to indicate if they are going to sell or not and exclude this item if so. If no tenant is interested then no need for expenditure, is an estimate of income in Commercial Revenues?	Income estimates in the current market requested at meeting 8.4.09. Provided. Not	€ 0
CIP8.001	Operations	Repair/ Replace	€ 40,000,000	SR	€ 20,000,000	Yes	No	Overpriced/Not Justified. Replacement of AOS systems, CCTV upgrade, Enhancement of airport camera ducting, Integration Broker, Replace FAS system - spend reasoning set out for only €12.0m. There appears to be some double counting of items with IT & IT, airfield maintenance, fire etc. Previous spend cannot be reconciled to previous CIP. In current economic circumstances, suggest pro-rata allowance of €4 m per annum for all. AOS System not supported by users at present.	Justification of costs requested by letter to CAR 16.4.09. Inadequate information Provided.	€ 40,000,000
CIP8.008	Corporate IT	Repair/ Replace	€ 10,700,000	SR	€ 2,000,000	Yes	No	Overpriced/Not Justified. €21.3m allowed in previous RAB but DAA said they only spent €9.8m. Remove urgent €11.5 million from opening RAB and allow €2m due to economic climate unless assessed cost and efficiency savings, such as the reduction of €5m in airport police overtime, can be verified as not beneficial to the single bill. Increase of 5% in starting unacceptable in current economic climate. Excess provision of 700 PCs for Dublin Airport, Corporate IT costs need to be apportioned to Shannon and Cork.	Justification of costs requested by letter to CAR 16.4.09. Information provided at meeting 29.5.09 only set out partial information about potential benefits.	€ 9,000,000
	Landside Infrastructure									
CIP1.018	Refurbishment of existing MSCP - Blocks A,B & C	Repair/ Replace	€ 3,000,000	OP	€ 0	Yes	Yes	Not Required. This is not critical in current economic circumstances. It would cause too much disruption before new MSCP is opened in any event.	Information on relationship of project to new MSCP requested by letter to CAR 16.4.09. Not Provided.	€ 3,000,000
CIP2.008	Maintenance of listed properties	Safety/Compliance	€ 500,000	SR	€ 250,000	Yes	No	Overpriced. Given the current economic climate the full amount of expenditure in CIP is not substantiated, a lower level is more appropriate excluding refurbishment - refurbishment not safety.	Clear statement of requirement and cost justification requested by letter to CAR 16.4.09. Not Provided.	€ 500,000.00
CIP3.012	New Taxi Holding area	Capacity	€ 4,000,000	OP	€ 0	No	No	Not Justified. The current capacity is 140. DAA say that there is additional demand for 180 vehicles. DAA want capacity to be 450 which does not relate to demand and there will be less need for additional holding area once the new rank on T2 opens so the case has not been made.	Justification for project requested by letter to CAR 16.4.09. Not Provided.	€ 4,000,000
CIP3.014	Upgrade Airside / Landside Perimeter Fence	Safety/Compliance	€ 2,000,000	SR	€ 1,000,000	Yes	No	Overpriced. €720,960 allowed in previous CIP out of total project estimate of €2m. DAA said only €517,529 spent. Allow remainder of €1m to complete works. Full amount not required as some works are related to lifter projects which have been deferred.	Justification for project requested by letter to CAR 16.4.09. Not Provided.	€ 2,000,000
CIP3.033	Repairs to Departures Road - Sealing bridge deck, repairs & resurfacing.	Repair/ Replace	€ 4,300,000	SR	€ 2,500,000	Yes	No	Overpriced. Airlines accept work needs to be done but should be lower cost option in the current economic circumstances.	Costs for alternatives requested by letter to CAR 16.4.09. Not Provided.	€ 4,300,000
CIP3.034	External Roads upgrade	Repair/ Replace	€ 2,200,000	OP	€ 0	Yes	No	Not Justified. Not critical in current economic circumstances, defer.	Justification for the scale of project requested by letter to CAR 16.4.09. Not Provided.	€ 2,200,000

Ref	Description	DAA Driver	DAA Cost	DACC Categrisation	User Requirements	Maintenance covered by Indexed Depreciation	Trigger	DACC Comment	Log of Request for Info from DAA during April and May Justification for the scale of project requested by letter 18.4.09.	Allowed by CAR
CIP3.033	Kilena Secondary Campus Roads upgrade	Repair/ Replace	€ 5,000,000	OP	€ 0	Yes	No	Not justified. Not critical in current economic circumstances, defer.	Not Provided.	€ 5,000,000
CIP3.300	Metro and GTC Design Fees	Capacity	€ 2,000,000	O	€ 0		No	These fees should be paid by Metro. DACC asked the CAR to check whether these can be passed back to Metro.	CAR asked to establish whether costs can be passed to Metro by letter 18.4.09. Not Provided.	€ 2,000,000
	<i>Plant & equipment</i>									
CIP4.014	Replace CHP 2	Repair/ Replace	€ 3,300,000	SR	€ 3,300,000	Yes	No	Accepted but DAA requested to provide energy cost savings data to demonstrate benefits will be passed through into Opex.	Information to verify asserted Opex cost savings requested by letter to CAR 18.4.09. Not Provided.	€ 3,300,000
CIP4.017	Upgrade HBS Dublin	Safety/Compliance	€ 10,800,000	SR	€ 0		Yes	Not Justified/Overpriced. Only required if new EU directive, not yet passed so should be triggered. Cost and options not justified.	Information requested to support proposed scope of project and costs by letter to CAR 18.4.09. Inadequate Information Provided.	€ 10,800,000
	<i>Utilities</i>									
CIP3.019	Divert and Increase Cuckoo Culvert capacity	Safety/Compliance	€ 11,000,000	SR	€ 7,400,000		No	Overpriced. Airlines agree that this issue should be dealt with on the basis of upgrading the existing culvert (€2.4m) and installing separation tank (CIP3.022) (€5m). Local Area Plan links drainage works to the achievement of a 30 mppa airport so other works can be deferred.	Information requested on costs of alternative options by letter to CAR 18.4.09. No information provided on options at meeting 29.4.09.	€ 11,000,000
CIP3.020	NV Network Renewal Works A	Repair/ Replace	€ 2,500,000	OP	€ 0	Yes	Yes	Not Justified. Linked to re-location of control tower above, works potentially absorptive.	Detail of alternatives, including trade off with maintenance, requested by letter to CAR 18.4.09. Not Provided.	€ 2,500,000
CIP3.021	Airfield Drainage upgrade (3km)	Capacity	€ 3,000,000	OP	€ 0			Not Justified/Overpriced. Work is not a priority in current economic climate. Local Area Plan links drainage works to the achievement of a 30 mppa airport so other works can be deferred.	Detail of alternatives, including trade off with maintenance, requested by letter to CAR 18.4.09. Insufficient information on cost trade-offs. Not Provided.	€ 3,000,000
CIP3.022	Airfield Pollution Control	Safety/Compliance	€ 7,500,000	SR	€ 0			Not Justified/Overpriced. Works should be phased to within affordability limits see CIP3.019 above. Local Area Plan links drainage works to the achievement of a 30 mppa airport so other works can be deferred.	Detail of alternatives, including trade off with maintenance, requested by letter to CAR 18.4.09. Not Provided.	€ 7,500,000
CIP3.023	Fuel Hydrant System phase 1		€ 6,000,000	OP	€ 0			Not required. Not likely to be required given downturn in demand	Justification for this project by reference to use of stands on P18.4.09. Not Provided.	€ 6,000,000
CIP3.024	Fuel Farm Redevelopment	Capacity	€ 28,800,000	SR	€ 12,000,000		No	Overpriced. Users agree that 2 additional tanks are required to increase the no of days storage fuel on site, however, the "top-plane" filling points are not required as the cost savings will not be passed to airlines.	Operational cost savings to fuel companies requested at meeting 6.5.09. Information supplied 21.5.09 would suggest airside intake facility would not pay back in 50 years even if full savings passed through to airlines.	€ 17,800,000
	Sub-Total		€ 158,800,000		€ 48,250,000					€ 117,200,000
										€ 16,800,000

Ref	Description Revenue Projects	DAA Driver	DAA Cost	DACC Categorisation	User Requirements	Maintenance covered by Indexed Depreciation	Trigger	DACC Comment	Log of Requests for Info from DAA during April and May	Allowed by CAR
CIP2.013	Retail Refurbishments	Repair/ Replace	€ 16,800,000	0	€ 0		No	Not Justified/DAA Liability. Based on previous DAA refurbishments which appear on DAA figures to have generated incremental retail income of c.€0.26 per passenger, scheme would not generate a positive payback over the 5 year life given the transfer of c.40% of passengers to T2.	Details of anticipated incremental revenues per passenger requested by letter to CAR 1.5.09. Inadequate information Provided.	€ 8,800,000
CIP1.006	MSCP	Capacity	€ 40,500,000	0	€ 0		Yes	Not Justified. Given downturn in passenger numbers, there is no short term need for additional car parking spaces. Taking DAA's average revenue per space, the scheme would not generate a positive return over the life of the project, even if all spaces were occupied from day 1, which does not seem likely in the current market. Should be deferred until demand warrants and reduced in scale/cost to achieve a positive return.	Detailed car parking and income projections requested by letter to CAR 1.5.09. Not Provided.	€ 0
CIP2.014	DAA Office Accommodation	Repair/ Replace	€ 2,500,000	0	€ 0	Yes	No	Not Justified. DAA are making 400 staff redundant - there should be surplus accommodation available - not a clear requirement for new tenant accommodation (see CIP2.015).	Justification for expenditure requested by letter to CAR 16.4.09. Not Provided.	€ 0
CIP2.015	DAA Tenant Accommodation	Cost Reduction	€ 5,000,000	0	€ 0	Yes	No	Not Justified. Major tenants such as DHL, Citijet and Aer Arann have moved off-site because of excessive rentals. No information supplied about expected take up of accommodation or potential tenants. DAA has not made a proper case for this in current economic and market circumstances.	Justification for expenditure requested by letter to CAR 16.4.09. Not Provided.	€ 0
CIP2.016	DAA Tenant Accommodation - Plans - GSH		€ 3,000,000	0	€ 0	Yes		Not Justified. What tenants require this accommodation, given excessive tenants? Some tenants have moved out. DAA has not made a proper case for this.	Justification for expenditure requested by letter to CAR 16.4.09. Not Provided.	€ 3,000,000
CIP2.018	Cargo Distribution Centre	Repair/ Replace	€ 14,300,000	0	€ 0		No	Not Justified/DAA Liability. Not clear if this is T2 enabling works due to Pier E taking cargo apron. No cargo forecasts have been presented to justify this expenditure. Case not made in current economic climate.	Justification for project by reference to T2 and to cargo demand projections requested by letter to CAR 16.4.09. Not Provided.	€ 13,100,000
CIP2.019	Retail Logistics Centre	Capacity	€ 3,100,000	0	€ 0		No	Not Justified. The case, by way of incremental retail income or other cost savings, has not made for this expenditure in current economic climate.	Costs and benefits of alternatives requested by letter to CAR 16.4.09. Not Provided.	€ 3,100,000
	Sub-Total		€ 85,200,000		€ 0					€ 28,000,000
										€ 0

Ref	Description	DAA Driver	DAA Cost	DACC Categorisation	User Requirements	Maintenance covered by Indexed Depreciation	Trigger	DACC Comment	Log of Requests for info from DAA during April and May	Allowed by CAR
	Programme Delivery									
	Reduction in project contingency allowed				-£ 3,432,500			Given reduced scale of programme and defined nature of the projects, reduce project contingency allowances by 5%. CAR to check mathematical errors in calculation of project by project contingency allowance, e.g. the claimed 18% for HBS.	Justification for project and programme contingency requested by letter to CAR 16.4.09. Not Provided.	
CIP8.100	Programme Contingency	Capacity	£ 27,000,000	0	£ 0		No	Omit. Double counting of project contingency.		£ 15,800,000
CIP8.200	Programme Management (DU)	Capacity	£ 30,000,000	0	£ 1,482,175		No	Reduced programme should be capable of management at 2% of estimated costs. There should be no double counting of costs. Fees included within each project. Capitalisation of DAA staff costs needs to be made clear so as to ensure no double counting with Opex.	Justification for programme management costs, in particular capitalisation of staff costs, requested by letter to CAR 16.4.09. Not Provided.	£ 4,500,000
	Sub-Total		£ 57,000,000		-£ 1,940,325					£ 20,300,000
	Grand Total		£ 747,100,000		£ 66,709,675					£ 198,200,000
										£ 337,800,000

APPENDIX D

INDECON/JACOBS OPEX ANALYSIS

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The CAR devotes minimal consideration to the subject of opex, relying instead on a biased non-independent, cursory and inadequate analysis by Indecon/Jacobs, who have admitted that they (a) accepted data provided by DAA, which (b) in turn accepted “union opposition” as a legitimate excuse for inefficiency and (c) failed to take into account any of the stated views or requirements of users. The CAR has failed to take sufficient account of the views of users and no determination should be reached based on the incomplete, unreliable and non-corroborated data contained in the Indecon/Jacobs report.

The CAR has failed in its statutory duty to further the reasonable requirements of users in its refusal to allow opex consultation as requested by users and also in its cursory treatment of opex.

p4 The CAR failed to require that these “consultants” met with the airline users at Dublin Airport. This omission is extraordinary. The CAR is aware that even the UK CAA (whose regulation of the BAA airports was criticised as inadequate a failure) required their opex consultants to meet with users on at least three occasions during the course of their price regulation of Stansted. Ryanair submits that the airline users have considerably greater competence than CAR’s consultants in assessing airport operational costs.

Ryanair submits that the DAA’s “corporate costs” should be excluded from the analysis of Dublin Airport opex. If any such costs are to be included, Ryanair submits that these costs should be rigorously analysed and verified by the CAR otherwise the DAA are incentivised to engage in regulatory gaming by allocating costs related to other activities (such as ARI, Dublin Airport City, Cork and Shannon airport opex) unrelated to Dublin Airport through its Head Office cost centre.

The CAR’s consultants have incorrectly allocated 90% of corporate costs to Dublin Airport when CAR says that Dublin accounts for 78% of total DAA traffic. The opex report combines 100% of the Corporate cost base with Dublin Airport costs, but incorrectly claims that Dublin accounts for “around 90% of total corporate costs” with no evidence provided to support such a claim.

p8 The thesis presented on this page relies entirely on “CRI Airport Statistics” and “DAA”. These sources are not independent, are not reliable and are not an acceptable basis for analysis.

The CAR has failed to verify the data sources for indexed historical operating costs per passenger, and has failed to disclose how it carries out this verification. Ryanair submits that if one accepts the validity of Gatwick, Manchester and Birmingham comparisons, then it would be instructive to compare actual prices against the price cap compared in the draft determination.

p10 The report on Page 10 confirms that “a complete breakdown has not been provided” (by DAA) but suggests that of the 500 staff increase, less than half resulted from an increase in security standards. Ryanair submits that it is absurd to

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justify increases in 2004 by reference to security events in 2006, some two years later. The report confirms that this increase continued through 2007 and 2008 during which no new security restrictions were imposed. It is completely unacceptable (and unreliable) for this report to rely only on “discussion with DAA”

as a justification for an increase in cleaning and passenger terminal staff of 123 full time equivalents. Even these conclusions are qualified by the phrase “it appears”. “It appears” to Ryanair and other users that this Indecon/Jacobs analysis is subjective, unreliable and worthless.

The Indecon/Jacobs analysis should have obtained (but failed to) a detailed breakdown of increases in security and other headcount numbers.

p11 Indecon/Jacobs claim that “it might be expected that these cost areas (non staff) would be relatively static in the context of increased passenger numbers”. However they then go on to excuse DAA’s lack of cost control with further subjective speculation e.g. “professional fees which may well be [our emphasis] related to the planning of Terminal 2”.

p13 The Report excuses cost increases “as a result of severe congestion in the terminal”. However, the report provides no evidence to support this claim. Throughout this period less than 60% of the check-in capacity of the airport was allocated, demonstrating that such congestion as existed was in fact caused by unnecessary check-in infrastructure and inadequate staffing of security points arising from poor rostering. The report simply accepts DAA unverified claims of “congestion” at face value. The report also fails to identify the dramatic impact of increased web check-in usage on reducing the demand for check in desk capacity at Dublin Airport.

There is no evidence that “several areas of cost increased as a result of severe congestion in the terminal” There is no evidence that Indecon/Jacobs used any capacity assessment or user consultation to verify this fictional analysis.

p15 The consultants have selected 2008 as a base year. This unexplained decision prejudices the entire report since even DAA have recently confirmed that savings in the order of €40 million per annum are achievable relative to 2008. Ryanair submits that this reduced cost figure should be the starting point. The CAR accept and include this claim in its efficiency assessment at Dublin Airport. It is not possible to follow the Indecon/Jacobs analysis as it is confirmed to be adjusted on a subjective and speculative basis “where we feel it is appropriate”.

p16 The report refers to a “DAA financial projections document” as its sole source. The CAR has failed to provide users with a copy of this “DAA Financial Projections document” which remains unverified by users who have not been consulted on it.

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p18 Again, the number of staff in each area is hidden, preventing users from consulting or making meaningful comment. No justification other than “confidentiality reasons” is provided for this redaction. It is noteworthy that the difference in the headcount under Fire Service for comparator airports varies by over 17%. It is not clear against which comparator airport DAA’s headcount is “considered reasonable”. Neither is it demonstrated that the staffing levels in either of the comparator airports are reasonable. If the headcount in comparator airport 2 is reasonable, then the headcount in comparator airport 1 must be unreasonable as it is 17% greater.

The identities of comparator airport 1 and 2 should be disclosed by the CAR and the CAR should explain the 17% difference in headcount between each of the comparator airports.

The statement that the Airport Police headcount is “believed to be reasonable” should be explained and justified. Why are users being denied transparency in the FTE number for Airport Police and why is it “believed to be reasonable”?

p19 An average capacity of 400 per WTMD is accepted exclusively on the basis of “DAA advice”. It is unacceptable that no evidence is provided that an actual assessment was carried out. Using a capacity per WTMD which is 21% lower than DAA’s planning capacity is not acceptable to users as a basis for calculation.

p20 The report assumes a 39 hour working week. The Indecon/Jacobs / CAR should use a 40 hour working week.

The report claims that “a multiplier of 1.6 would be appropriate” to take into account holidays, sickness and training. Yet no explanation is provided to users as to where this multiplier of 1.6 comes from. It appears to users to be excessive. It is inconceivable that any more than 10% of the staff would be on leave at any one time, no more than 2% of the staff should be absent at any one time (Ryanair standard) and holidays should not represent more than 10% of staff time, generating a multiplier of no greater than 1.22. Accordingly, Ryanair submits that that 1.22 is the correct multiplier. The CAR should explain why an excessive multiplier of 1.6 is simply “invented” by Indecon/Jacobs analysis.

On the basis of this unexplained and inefficient multiplier, the report claims that Dublin staffing is “on the low side”. Indecon/Jacobs/CAR should (but have failed to) use data supplied by users to both DAA and to the CAR, demonstrating that queuing and congestion only occurs where security search units are unmanned at certain times which the report later confirms is a result of DAA concessions to trade union vested interests and intransigence.

Again, it is impossible for users to properly assess the reports conclusions as the actual multiplier and actual FTEs are redacted for unexplained, unjustified and unreasonable “confidentiality purposes”. How can users be asked to pay for opex which they are denied sight of for spurious confidentiality reasons when the DAA

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as a monopoly has no competitors and so no exposure to a breach of this mythical confidentiality.

p21 DAA management claim that a centralisation of security units within Terminal 1 “would be costly from a capex perspective and difficult to implement”. Yet in an extraordinary act of contradiction elsewhere, DAA have proposed just such a costly, in their capex plan.

The report confirms that shift pattern changes which would deliver efficiencies “would not be acceptable from a union perspective”. The report simply accepts the DAA’s acceptance of a trade union veto on efficiencies to the detriment of users and consumers. It is wrong to conclude that “current manning of security is broadly reasonable” given the repeated and lengthy delays caused by the failure of DAA to man the required number of units at the requisite time simply because it upsets the vested interests of trade unions. These delays have been verified by recent media reports, complaints and evidence of security logs recorded by Ryanair. It is not acceptable to users that Indecon/Jacobs and the DAA claim that security manning is reasonable, when realisable efficiencies are not being implemented.

The DAA have confirmed that 22 security staff were transferred from the T1 security unit to carry out “security functions” within the T2 building site. If current manning levels are “reasonable”, then the removal of 22 security staff from this facility is unreasonable and users are being forced to pay for a T1 service which is undermanned, while at the same time paying for T2 security when T2 is not even in use. This fails to meet the reasonable requirements of users.

The CAR should (but has failed) to confirm how the costs associated with recent staff transfers from T1 security to the T2 project have been treated and specifically whether or not these costs have been excluded from T1 opex, and an equivalent adjustment has been made to the T2 capex or opex programme, in order to avoid double charging of T1 users.

p22 Dublin security staffing is compared with those of unidentified comparator airports. The staff per million passengers in this range of comparator airports varies considerably, up to threefold. Again, unverified DAA figures are redacted and so users are denied transparency and prevented from making informed comment or consultation.

Ryanair submits that the range of comparator airports is too broad and the CAR should (but has failed to) disclose to users whether it is against Airport 3 (with 18 staff per million passengers) or Airport 4 (with 48 staff per million passengers).

In summary, the Indecon/Jacobs report on security efficiency is based on a formula which uses WTMD capacity some 21% more than that declared by DAA, uses a working week lower than a normal 40 hour week used by airport users and uses a multiplier of 1.6 which is an unexplained 0.4 (or approx 33%) higher than

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is reasonable. This report is unreliable and rendered useless to users by its passive acceptance of a union veto on efficiency or cost improvements, and is rendered defective by its claimed comparison with unidentified comparator airports with an almost threefold difference in efficiency to conclude that DAA provides a “reasonable” level of efficiency. Ryanair submits that this conclusion is subjective, unreliable and worthlessly defective.

RETAIL

p23 Indecon/Jacobs confirm that the primary reason for DAA’s in-sourcing of retail operations is that DAA (Aer Rianta) is a long standing concessionaire in overseas markets and claims to be able to share favourable procurement margins and expertise beyond its Dublin business. The report fails to provide any analysis or evidence to support the claim that “favourable procurements margins” are secured by the DAA.

The CAR should (but has failed to) disclose the average retail margin in the insourced retail activities at Dublin Airport and show how these margins compare with comparator operators in order to verify the DAA claims.

The CAR has failed to indicate what is the nexus of DAA (Aer Rianta) to Dublin Airport and what is the role of ARI in the procurement and supply of goods to Dublin Airport. Without such clarity, the CAR has failed to eliminate the likelihood of regulatory gaming in inter-group pricing between ARI and the DAA.

The report confirms that roster patters are not aligned with passenger throughput, but fails to propose efficiency savings. The CAR cannot compare Dublin Airport with comparator airports as the Dublin figures are hidden. The assessment against comparator airports is again further rendered meaningless by the fact that there is a wide variation between the comparator airports and the report fails to specify which of the comparator airports it identifies as having a reasonable cost.

The report wrongly accepts that Terminal 1 is congested, when T1 traffic is considerably below its conservative capacity limits. The report fails to identify that the occasional long queues are caused by DAA rostering inefficiencies and failure to properly staff security units at the right times and obstructions caused by unnecessary check in infrastructure (see independent Capacity Assessment attached).

p26 The report confirms that Dublin’s costs “appear very high”. There is no justification to use the word “appear” as the report later confirms that the costs of in-sourced resources are “much higher” than outsourced costs. The report wrongly accepts the false claim that Terminal 1 is congested as a basis for excusing DAA inefficiencies and high costs.

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The CAR's draft determination rewards DAA mis-management by fostering inefficient and expensive in-sourced activities. This does not meet the reasonable interests of users nor does it meet the interests of efficient and economic development of the airport. These inefficiencies should not be imposed on users and should be excluded by the CAR from opex.

The CAR has failed to benchmark DAA cleaning opex against the available costs associated with outsourced cleaning at Dublin Airport.

Users require that the income and expenditure associated with in-sourced activities be removed from the opex and furthermore that commercial revenues in these areas be replaced with concession income as many other leading airport operators have outsourced these activities..

The report fails to provide any evidence to substantiate the absurd and subjective claim that "very high" cleaning costs are associated with terminal congestion. The report confirms that cleaning costs are "very high" and it is inappropriate to accept such spurious justifications for high costs being imposed on users.

It is cheaper to use outsourced cleaning, however in order to substantiate this claim the cost per square meter comparative for in-sourced and out-sourced cleaning should be identified and made available by the CAR.

The CAR should (but has failed to) disclose the percentage by which in-sourced cleaning is more expensive than out-sourced cleaning.

Ryanair submits that users should not be required to pay for the cost of DAA's inefficient and "very high" cost in-sourced activities when outsourcing is more efficient and will provide lower costs for the DAA and users.

TERMINAL STAFF

p28 The variation between comparator airports is so wide as to render comparison meaningless. The CAR fails to specify the degree to which Dublin performs against either of the comparator airports.

A false claim that these staffing levels "arise from congestion" is presented but not supported by and justification or evidence .

COMMERCIAL

p29 The report provides comparators but does not provide the comparable DAA figure. The report fails to explain what actual functions with regard to "property management, development and strategy" are carried out.

The report and the CAR fail to disclose the number of FTEs in the Commercial department of the DAA, however a potential reduction of up to "12 FTEs" suggests that current users are again paying higher charges for the DAA's

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inefficiency. It has been confirmed at CIP user consultation meetings (and recorded on transcript) that major tenants have in fact vacated Dublin Airport over the past four years and that new tenancies largely relate to the relocation of DAA staff, the justification for a “Commercial Department” is questionable and not addressed in the report.

AIRPORT MANAGEMENT HEAD OFFICE

p30 The report confirms that “100% of the corporate function is included in the cost base for review”. This review relates to Dublin Airport and it is wrong that Indecon/ Jacobs includes excess costs (i.e. costs not related to Dublin Airport) in this report.

p31 All 39 of the staffing tables for Dublin Airport are hidden from users. This denies users any ability to make informed comment or consult on these figures or costs. Again, this secrecy is for unjustified and unexplained “confidentiality reasons”.

The CAR should (but fails to) disclose Dublin Head Office and Dublin Airport management figures.

The CAR has failed to explain how has the proximity of each of these positions to the Dublin Airport “nexus” been established.

The CAR should (but fails to) provide users with the redacted figures in order to facilitate users analysis, informed comment and consultation.

The CAR and Indecon/Jacobs have failed to assess if comparator airport 2 is a reasonable benchmark, and if so, on what basis?

p32 The report confirms that there is a “lack of clarity on exact scope of roles”. Users believe that if there is a lack of clarity on the exact scope of roles at management level this is in itself another indicator of inefficiency and excess which fails to meet the reasonable requirements of users. Until there is clarity, then these costs should be excluded from the Dublin Airport cost base.

The DAA Head Office incorporates a “staff nursery”. While this may be laudable, forcing users to pay these costs cannot be in the interests of the economic and efficient development of the airport neither can it meet the reasonable requirements of users. DAA staff who use these facilities should pay for their own childcare costs, and should not expect the users of Dublin Airport to pay for something that is clearly not an aeronautical or commercial activity.

The report identifies “a high underlying level of non-management staff” but fails to identify the purpose of or cost of these staff. The report further confirms but fail to explain “a very significant staff complement”. The report suggests that 70 FTEs could be removed from head office staff and would still leave the DAA with twice the complement of Head Office staff at comparator airport 2. The report fails to explain why the DAA staff complement should remain 100% higher than a

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comparator airport or how this could meet the reasonable requirements of users or promote the economic and efficient development of the airport. The CAR should (but has failed to) apply an efficiency factor to reduce the DAA's excessive staffing level to the level of efficient comparator airports.

The report further identifies that existing staffing levels are three times higher than another comparator airport. This raises the question as to the adequacy of opex analysis in the previous review.

Ryanair submits that the CAR should (but has failed to) explain why Dublin Airport users have been forced in previous determinations to pay for excessive airport management and head office headcount number and costs when these have now been identified as three times higher than more efficient comparator airports.

EXOGENOUS COSTS - RENTS, RATES, INSURANCE AND ENERGY

p33 If these costs are truly exogenous and beyond the control of DAA, then it follows that there is no basis or justification for redacting these figures for "confidentiality purposes". Again, the acceptance by the CAR this unjustified redaction demonstrates a clear bias in favour of DAA (i.e. regulatory capture) to the detriment of the reasonable requirements of users.

The analysis is fatally flawed because it excludes any estimate of T2 costs or any analysis of the drivers behind T2 costs. The report forecasts 4% price rises in costs without any justification. Users might reasonably expect a reduction in costs as energy prices have fallen dramatically in recent months. The cursory nature of the report is demonstrated by the repeated use of qualifying phrases such as "appear" and "seems". The report confirms that there has been a "massive rise" in energy costs and also confirms that they have not been "clearly explained".

It is a breach of its statutory obligation for the CAR to passively accept without question a report where the results are unclear as a result of DAA's failure to explain price rises to your consultants.

The CAR should (but has failed to) insist that the DAA clearly explain the massive rises in energy costs and provide this information to users openly and transparently.

OTHER COSTS

p35 Again, all DAA costs are redacted for unexplained and unjustified "confidentiality reasons" rendering it impossible for users to make informed comment or consult on them.

Ryanair submits that the CAR should (but has failed to) confirm from whom the report "understands" that a significant contributor to the current level of costs is the current CAR review, together with the Terminal 2 tender process. Neither of these unverified costs should be imposed on users who are already forced to

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undertake their own costs in an effort to secure adequate information from DAA or necessary assistance from the CAR in securing this information.

SUMMARY

p36 The information provided on this page is rendered meaningless to users by the blanked out figures. The Indecon/Jacobs conclusions are undermined and rendered meaningless by the DAA's announcement that they can secure up to €40 million worth of payroll savings involving 500 voluntary job cuts (1st July 2009). This target represents a 21% reduction below the Indecon/Jacobs "conservative case".

p37 We note that DAA have provided Indecon/Jacobs and the CAR with opex projections for Terminal 2. These projections should (but have not) been made available to users who have been denied any opportunity to make informed decisions as to the merits of occupying Terminal 2 which in turn will affect the date on which Terminal 2 becomes operational.

p40 This slide purports to compare DAA estimates with Indecon/Jacobs estimates. However, all DAA figures are redacted. What is clear however is that even the most conservative Indecon/Jacobs case is some €94 million higher than the DAA's own public targets.

The report's analysis against passenger traffic (Page 45) is fundamentally flawed in that it fails to deal with Terminal 2 which may, or may not, take a share of this traffic. Much of Indecon/Jacobs report formally links anticipated opex requirements with passenger traffic. It is contrary to the reasonable requirements of users that users should be expected to fund a further step change in opex, simply because some traffic is relocated to T2. The report at least anchors opex costs at a particular level and confirms that, should passenger traffic decline in Terminal 1, then the users of Terminal 1 should expect a corresponding reduction in opex costs. The CAR draft determination fails to make any provision for this eventuality.

The CAR should (but has failed to) confirm that operating costs assigned to the remaining users of Terminal 1 will reduce in line with passenger traffic should other operators decide to move traffic to Terminal 2.

The CAR should (but has failed to) confirm that users of Terminal 1 will not be required to fund additional operating costs, as yet unspecified, arising from other users decision to move into Terminal 2.

p47 The report provides an interesting benchmarking comparison between airports by claiming to take account of core airport activities only and excluding ground handling, car park, retail facilities, hotels etc. from costs. The report fails to table the costs they have assumed for this purpose thereby rendering the comparison meaningless.

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The CAR should provide users with the data assumed by Indecon/Jacobs to develop the “core airport” model.

The Indecon/Jacobs report concludes that passengers per employee were below average and staff costs per passenger were above average against a benchmark sample of airports. Users believe that the inefficiencies passively accepted by Indecon/Jacobs as part of their assessment strongly suggests that DAA’s performance is considerably worse than that estimated by the report. Only with access to the information as requested (and to date denied) above can users make fully informed comment and/or consult.

APPENDIX E

DAA COST SAVINGS CLAIM (*IRN 1/7/09*)



Articles

News - IRN 25 - 01/07/2009

DAA & unions close in on cost savings, but more to do

BRIAN SHEEHAN

Management at the DAA and trade unions look to be closing in on a cost reduction agreement estimated at between €35m to €40m worth of payroll savings, which could mean as many as 500 voluntary job cuts, a pay freeze and changes in terms and conditions.

In return for agreeing such draconian measures, workers might gain from a suggested 'golden share' arrangement (a form of bonus), while some of the cuts could be made up of rationalisation at senior management and board level.

It is believed that between €3-5m could be saved if the management and boards between DAA's three airports were streamlined, for example, by having one chief executive and one board.

The bulk of the cost saving, however, would come from the unionised workforce, starting with a pay pause that would run until the end of 2010 at least (management wants a freeze until end 2012). A likely compromise is agreement on the shorter pause, with a built in formal review.

TERMINAL TWO – BIG PICTURE?

For trade unions there is a wider consideration at play. They would have a preference for DAA securing the contract to operate Dublin Airport's new Terminal Two. If they fail to agree cost cuts, however, then the company might not be in as strong a position to compete against some non-union competitors. Should a large non-union operation secure the Terminal Two operation, this would have the potential to rebound on unionised employments across all three main airports.

The unions would like some form of 'golden share', or bonus, that would mean no increase in wage costs, but would only be payable in event of agreed profit targets being reached. Meanwhile, it is believed that the pause could save DAA around €13m annually.

The biggest potential saving, however, would come from a headcount reduction, which would equate to 375 'full time equivalent' (FTE) posts. This could mean up to 500 voluntary redundancies, although the actual final figure is likely to be short of this. A severance plan, which has been marginally changed from one discussed a month ago, looks close to agreement and is based on a revised 6.75 weeks' pay per of service formula (see next page for details)

Further savings may be made by altering roster arrangements and by changes in sick pay schemes, agreement on overtime efficiencies – all giving around €5m in savings. Agreement on such changes, and extra flexibilities, could lead to further knock-on efficiencies, which would mean a total of €10m in relation to these headings.

Should these measures not achieve the desired €40m in savings annually, the changes in existing terms and conditions at what would be lesser terms would be revisited. This would surely raise the spectre of actual pay cuts, an area that the trade unions want to avoid.

SEVERANCE TERMS

The revised severance offer will apply to those staff with more than two years service and with more than two years to go before normal retirement age. The details as set out in the company's offer are as follows:

1. Basic package of 6.75 weeks pay per year of service (including statutory redundancy and payment in lieu of notice if applicable). Subject to an overall maximum of 140 weeks basic pay.
2. For staff with between two and three years the payment will be €10,000. This will be pro-rated for those working less than full-time hours.
3. As an alternative to option 1, for staff with between 3 and 10 years service, a minimum payment of €5,000 per year of service will apply, subject to a maximum of €50,000 and a minimum of €30,000 and all figures pro-rata for those working less than full-time hours.
4. Due to the prohibitive nature of the current pension strain costs associated with the IAS pension scheme, it will not be possible to let staff retire early and to grant early retirement under that scheme. However, the following will apply as an alternative to 1, 2 and 3 above for those over 50 years of age at their date of exit and who have attained at least 15 years continuous service at that time:

50-54: Lump sum of one years' basic pay and an ex-gratia pension of n/60ths of basic pay to age 65. (n = complete years of continuous service subject to a maximum of 20)

55-59: Lump sum of two years' salary and an ex gratia pension of n/60ths of basic pay to age 65. (n = complete years of continuous service subject to a maximum of 20)

60-63: Lump sum of one and half years' pay and an ex gratia pension of n/60ths of basic pay to age 65. (n = complete years of continuous service subject to a maximum of 20). Provided the total amount (i.e. lump sum and total of annual ex gratia pensions)) does not exceed half the amount of basic salary which would otherwise be payable to normal retirement age. This limitation applies to options 1, 2 and 3 as well as option 4.

Age	Total Maximum
60	130 weeks
61	104 weeks
62	78 weeks
63	52 weeks
64	26 weeks
65	0 weeks

(All inclusive of statutory)

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