
20th November 2009



DAA Response to Booz and Co Report on Operating Expenditure

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Introduction

This document presents the Dublin Airport Authority's (DAA) response to the Commission for Aviation Regulation's (the Commission's) request to interested parties to give views on:

- the Booz and Co report "Dublin Airport Terminal 2 Operating Cost Assessment"; and
- how the Commission should treat it in making its final determination on airport charges

In replying, DAA requests that the Commission pay due regard to the company's previous formal submissions – its response to the Issues Paper dated 18th December 2008, the suite of documentation provided as part of its Regulatory Proposition on 8th April 2009 and the documentation provided in response to the draft determination on 7th August 2009.

DAA would like to note that given the timeline, it has necessarily focused its response on what it believes are the key areas of importance. As a result, lack of commentary in respect of a particular point should not be interpreted as agreement with same.

The views presented in this document are summarised as follows:

- The Commission should follow the approach proposed in the draft decision and pass through the market assessment of the costs associated with the T2 contract at the appropriate time.
- In the meantime, DAA does not object to the use of a **credible** indicator for T2 costs for the purposes of making the decision on the price cap as long as this would ultimately be replaced by the actual costs. This will protect users and the regulated entity in the case where the Commission's assessment is proven by the market to be inaccurate.
- It is clear that the Booz report is not a credible source of reference for either the costs of operating T2 or the impact of T2 on costs for existing facilities costs because it features:
 - fundamental errors
 - inappropriate assumptions
 - unsubstantiated assertions
 - areas where inadequate information is provided to enable clear understanding of the outcomes
- The Commission has had available to it since April 2009, the DAA assessment of the costs associated with T2 and the implications for T1. Successive Appeal Panels have noted that the Commission should not set aside DAA submissions without due cause. In this context, the DAA figures should be used for the purposes of assessing the impact of opening T2 on the price cap.
- The mothballing scenarios incorporated in the Booz report appear, from the consultant's own assessment, to be inherently unworkable. The implementation of the proposals would not be in keeping with Government policy or the recent Ministerial Direction to the Commission re the development of T2 as quickly as possible. The scenarios should therefore be set aside.

The Commission's Process is Inappropriate and does not allow for proper consideration of the issues at stake

The Booz report which extends to 127 pages is notable in that it contains neither an executive summary, nor a conclusion or recommendations section. Furthermore the implications of this analysis for the assessment for the price cap or the financeability of DAA is not referred to in the text, nor has the Commission incorporated such an assessment in the short cover note (CN2/2009) that accompanies the publication. The Commission has merely presented a detailed analytical report "*for comment*" out of context and invited parties to give their views on how the Commission should treat it in making its final determination on airport charges. DAA would have anticipated that, given the short timescales involved, the Commission would have made efforts to provide such important context for interested parties. This could have been achieved by, for example, updating the financial model provided with the draft determination for the Commission's interpretation of the Booz outputs so that a full understanding of the impact might be assessed and deliberated on. These significant deficiencies make it impossible to identify precisely the implications of the report for the determination process and render it extremely difficult to comprehensively consider and comment on the report within the time allowed. The Commission's approach is inconsistent with its statutory duty to carry out its duties in a transparent manner.

DAA wishes to record its objection to the late and unanticipated publication of this lengthy and detailed document as part of the regulatory process and the short timescale allowed for the preparation of submissions in response to it. The Commission was unable to confirm to DAA as late as end October whether or not it intended to publish any additional materials in this regard. However, having confirmed its intention on November 4th to make a publication on 9th November, the report was in fact prematurely released on 6th November. This illustrates the manifest lack of effective planning in the Commission's approach to this assessment and to their management of the entire determination timetable¹. DAA also wishes to record its concerns regarding the Commission's stated intention to finalise the determination within one week of receiving responses to this publication, notwithstanding the risk this poses for the integrity of its process and the implication that it will have already formed its conclusions or will pay scant regard to respondents' views. The reference on page 4 of the Booz report to "*the Commission needs to make a Determination during December 2009*" and to the requirement to allow time for stakeholders to review "*a new Draft Determination*" adds further unnecessary confusion to an already uncertain timeline.

The T2 Facilities Management Tender

DAA believes that the Commission's decision to "second guess" the market by making its own assessment of the implications for operating costs of the opening of T2 and publishing the details of that assessment, is inequitable, does not properly reflect the requirements of users and will ultimately not be in their best interests as it will not deliver the most economically efficient outcome. Given that the T2 tender process will be subject to the full rigours of open market competition there is no justification for imposing additional regulatory constraints on the process. Though the Booz report offers one view of an efficient operator

¹ Changes to the schedule have been a recurring feature of the Commission's approach to this determination, often with little advance communication. For example, the draft determination was originally scheduled for publication in May but was not released until mid June; the final determination was originally scheduled for publication in September, then the date moved to October, and now "late November".

at T2, this view is based on incorrect assumptions and unsubstantiated benchmark data as outlined in further detail later in this document.

Since 2005 it has been a matter of public record that Government policy was to facilitate the development of T2 and to ensure maximum efficiency and cost effectiveness at the facility. As part of this strategy the Government announced that an open tender competition, managed by an independent expert panel, would select an operator for the new Terminal with the tender for the operation awarded on the basis of “the most economically advantageous proposition as judged by the independent expert panel”². As advised to the Commission by the Consortium with responsibility for managing the competition on behalf of the Minister for Transport, a Periodic Indicative Notice (PIN) was issued on 29th July 2009 to commence this process.

At the time of the draft Determination, the Commission appeared to have applied sound economic principles and taken on board Government policy as it indicated its intention to allow the costs associated with the outcome of the T2 facilities management competition to be passed through when the contract with the service provider was agreed. In essence it had agreed that the competitive market would decide the efficient cost. This would be in keeping with the Commission’s statutory objectives and was welcomed by DAA and the Consortium in responses to the draft decision. In particular, the Consortium noted that “*to second guess the market would be an unreasonable approach*”³.

However, in the intervening period a change in direction was made by the Commission which resulted in it assigning its own consultants – Booz and Co - to undertake a review of T2 opex. The Commission has indicated that this decision was made following receipt of submissions made in response to the draft decision. DAA has reviewed the responses published on the Commission’s website. Of the 22 submissions made, just 2⁴ requested that the Commission adopt a specific assessment of T2 costs as part of the final decision rather than passing through the outcome of the tender process when it was known. In this context, it is incomprehensible that at this late stage in both the procurement and determination processes the Commission would set aside long expressed Government policy, economic principles and procurement law. The Commission must exercise independence and objectivity in making its decisions. Merely because two respondents suggested this action is insufficient on its own for the Commission to take it on board in the absence of objective reasoning as to why it is appropriate to do so.

The Commission has intervened without apparent consideration of the potentially distorting effects its actions would have for the tender process. This stance is not shared by the Commission’s own consultants who have acknowledged on page 115 of their report that in their own view material contained in the report “*could jeopardise the legality of the T2 operations tender process*”. This point is further elaborated upon later in this submission.

The Appropriate Basis for Analysis

DAA provided the Commission with its assessment of the operating costs of T2 and the implications for T1 in April 2009. Despite our extensive experience of running airports both in Ireland and overseas we knew that any assessment would be a best estimate only. Indeed, the Commission’s consultants also recognise this and concede early in the report that

² <http://www.transport.ie/viewitem.asp?id=6658&lang=ENG&loc=1850>

³ http://www.aviationreg.ie/_fileupload/2009-08-04_Goodbody_consortium_response_DD.pdf

⁴ Ryanair and DACC (of which Ryanair is a central member)

*“operating cost estimation for new terminals carries inherent uncertainties”*⁵. Against this background, DAA, in its submission to the Commission in April 2009, adopted a manifestly reasonable approach to its assessment of T2 opex and its implications for T1. Specifically, DAA’s exercise took current/actual operating costs as a base and incorporated a reasonable assumption to allow for the outcome of the tender.

Despite the information available to it, and with no evidence of any assessment thereof to determine its efficacy, five months later the Commission asked Booz to investigate the implications for operating costs of opening T2. It is unclear to DAA why the Commission elected to engage consultants to undertake a further costly desktop analysis of potential costs when it had DAA’s available to it for internal review and when the prospect of a market test of the efficient cost was imminent.

DAA notes that the Appeal Panel (in 2008) provided specific guidance to the Commission on the use of expert reports when making price cap determinations. In particular, the Appeal Panel made clear that, in principle, the Commission should not accept the views of its own consultants that are contrary to those of DAA without good reason⁶. In line with these findings DAA believes that such good reasons could only be established via a thorough analysis of the reasons for difference and only if the approach of DAA can be shown to be inferior to that of other consultants or otherwise inadequate. In particular, where DAA has acted in accordance with best practice and on the basis of robust analyses - but industry standards or expert opinion allows for more than one view - it would be manifestly prejudicial to DAA (as the regulated entity) if the Commission were to adopt a differing approach (which resulted in a less favourable outcome) without demonstrating good reason why the approach followed by DAA should be set aside. Based on the above, the Commission must not (in its final determination) simply adopt the assessment of Booz rather than the assessment of DAA. Given the existence of a Booz assessment and a DAA assessment, the Commission must – clearly and transparently – state why it adopts a particular assessment.

Approach to T1

Given that there is already an existing cost base and structure in T1, it would have been anticipated that rather than conduct a desktop exercise of its own, Booz would have had a detailed engagement with DAA regarding prospective alternative management structures prior to detailing them in their report. Indeed in its response to the draft Determination, DAA recommended that the Commission engage with DAA to better assess the expected adjustments in T1 costs on the opening of T2. We also noted that the cursory nature by which the costs of existing facilities were examined by the Commission’s consultants Indecon Jacobs (IJ) and illustrated that their “preliminary findings” did not provide a robust basis for concluding on this issue without further detailed engagement.

For the avoidance of doubt, DAA is not maintaining that it will require the same resources in T1 after T2 opening as before it – we have already provided the Commission with our estimate of the impact in this regard. Ultimately, however, DAA had just one meeting with

⁵ Booz report, page 7

⁶ According to the Appeal Panel (which considered an external report on the sizing of T2): *“The Commission ... must state clearly and transparently what it regards as the appropriate size of T2. In this respect it is the Panel’s view that it is not sufficient for the Commission to simply state that it adopts its consultants views over the views of the DAA. It must state why this is so”* Decision of the Aviation Appeal Panel in relation to DAA’s appeal of the 2005 Interim Determination (23 December 2008), page 85.

Booz during the preparation of its report and no discussion was engaged in regarding the implications for T1 costs. This is a clear indictment of the Booz approach to assessing the implications for T1 which has resulted in a report that is not soundly based.

In undertaking its analysis of the implications for T1, Booz has claimed that it has used as its base the figures incorporated in the Commission's draft determination. However, the figures used by Booz are in many instances different to those incorporated in the Commission's draft determination model⁷ and no clarity is provided on their provenance. Combined with inaccuracies and inconsistencies in the document, this makes it virtually impossible to identify the precise quantum of reductions in FTEs and costs that Booz are proposing for T1 in this report (though it appears from a preliminary analysis that the reductions assumed are significantly higher than those incorporated in DAA's projections). This heightens the risks for DAA's financeability were the Commission to rely on the Booz report as part of the final decision.

Even if the starting point of the Booz analysis could be reconciled, for example to an earlier draft or incomplete version of the T1 cost assessment produced in advance of the draft decision, it should be noted that it would be relying on an inherently flawed analysis undertaken for the Commission by IJ. DAA provided a detailed rebuttal of the methodology, assumptions and conclusions reached by IJ as part of its response to the Draft Determination on 7th August⁸. It is extremely worrying that in the intervening 3.5 months, these fundamental flaws have not been explained or otherwise addressed and no apparent changes have been made to address the serious deficiencies highlighted by DAA. Booz has compounded the deficiencies in the original assessment of T1 opex by not only using this as the base for its evaluation, but incorporating further deficiencies in its own analysis as detailed later in this report. As a consequence, DAA does not accept that the Booz assessment is appropriate and it should not be relied upon by the Commission in making its final Determination.

Notwithstanding our view that the Booz report is not a credible basis on which to base the Commission's decisions regarding T2 opex and its implications for T1, its legal and/or industrial relations consequences must be comprehensively addressed if it is to be relied upon as part of the finalisation of the determination.

Assessment of the Booz Report

Booz were appointed by the Commission in early September 2009, allowing two months for the analysis to be conducted. At a meeting with DAA on 22nd September Booz acknowledged that they were working to an extremely challenging timescale, a matter of some concern to DAA in light of the scale and nature of the project.

It is unsurprising therefore, that despite the short timeline afforded for review we have identified in the Booz report a significant number of:

- fundamental errors in the analysis
- inappropriate assumptions
- unsubstantiated assertions
- gaps in the analysis
- areas where inadequate information is provided to enable clear understanding of the outcomes

⁷ Examples of the differences are included in Appendix 1.

⁸ http://www.aviationreg.ie/_fileupload/2009-08-07_DAA_Part2_response_DD.pdf

A assessment of the report's content is presented in Appendix 1. These deficiencies could possibly have been addressed by Booz if the time allowed by the Commission was more reasonable. Scarce DAA resources have been diverted and the already short timeline for developing responses was eaten into while we attempted to identify the many inaccuracies and their implications. Ultimately, DAA submits that the extent of the mistakes and misapprehensions incorporated in the document critically undermines the credibility of the report for inclusion in the final decision – either in relation to the operating costs associated with T2 itself or the implications of its opening for operating costs in T1. It would defy logic and common sense were the Commission to adapt these estimates rather than the outcome of a competitive tender.

DAA's key issues of concerns regarding the report are as follows:

- Core assumptions are, in a number of instances, incorrect, incorrectly attributed, unsubstantiated or are not followed through into the detail of the document. For example, the Report has assumed that all passengers will present for Security Screening exactly as predicted every day of the year, based on the analysis of a single quiet and a single busy week, despite the unpredictable nature of airport operations, both in terms of day to day deviations from plan and larger unexpected events, e.g. significant weather, security alerts. Any efficient operator will require sufficient contingency to ensure that it can continue to deliver the specified service standards on a daily basis. There is no evidence that the Report has made any allowance for this requirement. This is clearly a false assumption. (See also comments re pages 10, 23, 30, 34, 82, 92)
- Booz assumptions with regard to existing facilities, while stated to be consistent with the draft determination, are in fact in many instances different to those applied by the Commission (see comments re pages 30,36,81,83) and no rationale is supplied to support the change in approach. This undermines the credibility of the report and at a minimum makes it difficult to understand the detail and to analyse its implications.
- There are numerous instances of inaccurate calculations in the report. For example:
 - One eighth of the area to be cleaned has been excluded from the analysis due to inaccurate calculation (see comments re pg 47)
 - The number of staff required for 24/7 coverage is underestimated by up to 25% in a number of sections (see comments re pgs 45, 52)
 - Assumed increases in energy prices are not accurately incorporated into the figures; the impact of this error alone is to understate the cost of gas in 2014 by a factor of up to 50%⁹ using Booz own price and consumption estimates (see comments re pg 66)
 - The errors above in the computation of energy costs are further compounded by the use of an incorrect measure of the area of T2, which is understated by 7,000 sqm.
- There are some significant omissions from the calculations for example:
 - The critical baggage management function¹⁰ is simply not included in the assessment
 - Any operator appointed for T2 will need to mobilise and train their staff over a number of months in order to be ready to deliver the specified service standards from day 1 of operations in T2. DAA will have to pay for the cost of this

⁹ Lack of transparency regarding inflation assumptions makes it difficult to accurately assess the impact

¹⁰ Estimated by DAA to require ■ FTEs in T2 in 2011

- mobilisation phase as part of the overall costs of outsourcing in T2. The Report ignores such costs
- Payroll costs for the Operational Readiness and Transition team have been omitted
 - The Report highlights the risk associated with any new terminal with unproven processes and a new operator¹¹. Although this gives rise to a need to adopt a cautious approach to opening, particularly in relation to staffing and achievement of service levels, to ensure a smooth transition process with minimal impact on passengers and other T2 users, there is no evidence that any allowance has been built in for the additional costs associated with this approach in the Report. This results in an underestimation of the likely costs.
- There are a number of internal inconsistencies in the document. For example
 - There is an assumption mentioned a number of times in the Report that there will be minimal job demarcation in T2, particularly in relation to the outsourced services. Despite this implied level of flexibility, a large number of distinct roles are specified in the Report where each role would appear to have an associated and different pay scale. This number of distinct pay scales would either have the practical effect of creating de facto job demarcation, with less flexible work practices and higher staffing numbers as a result, or will increase the risk that staff who perform multiple roles will migrate over time to the highest applicable salary, with higher overall payroll costs. Though a level of job demarcation currently exists in T1 it would be more reasonable to assume that an independent operator, would seek to retain a more flexible work force.
 - Cost uplifts for pension, PRSI and shift premiums are applied inconsistently (see comments re pgs 31,35,46,50)
 - FTE assumptions are also inconsistently applied (see comments re pg 49,91)
 - There is a lack of transparency regarding the source of assumptions made or the benchmarks alluded to. Cost information for the purposes of benchmarking does not appear to have regard to the specifics of DAA's operating model. The report does not include a methodology for verifying information sources; there is no evidence of the controls that were implemented in respect of the context/type of information used in compiling the report. This makes it difficult to judge whether the methodology is soundly based (see comments re pages 23, 33, 46). Indeed, the disclaimer on page 1 states that "if the information provided to us by such sources or obtained from secondary sources proves to be incorrect, the conclusions stated in our report could also be incorrect". The disclaimer also states that if any of the assumptions prove to be incorrect, actual results could vary from those projected and that third parties should not rely on the findings of the Report and should do their own due diligence. Given that so many variables have been highlighted that could affect the findings of the Report, it is clear that CAR cannot base a Determination on its findings.
 - The approach to management and supervision is inconsistent across the document. For example, no supervisory staff have been allocated to Passenger Operations. Also, in the event of DAA not securing the tender, no consideration appears to have been given to the fact that in a large outsourcing arrangement of this type, it is always necessary to have complementary management structures within the Contractor and the Contracting Authority to allow for an appropriate level of operations management, contract management and oversight. Ultimately all such costs need to be accounted for. The costs of the dual management structures should however be offset by efficiencies and

¹¹ Page 7, Booz report

lower costs from an external market or in the alternative, greater efficiencies in management structure may form part of the competitive advantage of the internal benchmark. The Booz report makes the unrealistic assumption that the lower management costs of retaining services internally can be combined with the lower cost base that might be provided by an external operator. Again this is likely to mean that costs are underestimated in the report.

- The Booz report makes no apparent effort to consider the service quality implications of its recommendations. This is surprising given the Commission's indications in the current regulatory process that it is minded to introduce penalties if DAA fails to meet service quality standards which are based, in certain cases, upon existing SLAs. The Commission must act consistently across the various strands of its regulatory determination and satisfy itself that operating expenditure allowances are sufficient for DAA to meet any service quality targets which the Commission subsequently imposes. To do otherwise would represent a failure of the Commission to enable Dublin Airport to operate and develop in a sustainable and financially viable manner. As the Commission has not confirmed what exactly is to be implemented in the forthcoming regulatory period, DAA has considered the implications of the Booz analysis for the Commission's service quality proposals as outlined in its draft Determination, and has made specific comment in the relevant sections of Appendix 1.
- Booz states that "underpinning our work programme is the principle of determining the costs that an efficient operator would incur". The Booz definition of an efficient operator is one that "drives down costs in every area". However it would appear from the analysis that Booz has, in fact, assumed that the operator will start at the efficiency frontier. This is a wholly inappropriate assumption given that this is a new terminal with unproven processes and a new operator. Despite all best efforts there are undoubtedly going to be difficulties in operation for the first few years until the contract beds in. In this context the costs in the early years of the Booz assessment are likely to be significantly understated. The Booz definition is also simplistic. Operators will not drive costs down in isolation - impact on service standards, or quality of the product will also be taken into account.

The Scenarios

Booz set out in an Appendix the results of their "preliminary findings" regarding two alternative scenarios that they were requested to analyse by the Commission namely

- Scenario 2: Mothballing T2 until traffic or other factors justify its operation
- Scenario 3: Partial use of Terminal 2 with the operation of airside and Pier E facilities but with the mothballing of landside, check-in security and arrival areas

DAA considers scenarios two and three to be inappropriate in the context of the current consideration of T2 operating costs. Longstanding Government policy, reiterated in the Ministerial Direction dated 27th October 2009, clearly directs the Commission to ensure that DAA is enabled (in a financially viable manner) to develop T2 as quickly as possible in accordance with the Aviation Action Plan of May 2005. This direction makes clear that the development of T2 is of strategic national importance to Ireland so as to promote international air links and facilitate the recently enacted Aviation (Preclearance) Act 2009. It is inconceivable that the Commission could be in compliance with this direction if it imposed a decision which would fail to allow DAA to be remunerated for the incurred costs of operating T2 as originally scheduled. In accordance with this direction, the Commission

should not pursue an investigation into scenarios that are contrary to current Government policy and can only be hypothetical.

In any event even the preliminary assessment of the scenarios by Booz indicates that they are not soundly based and so there is no requirement for further consideration of them. The Booz report contains nothing to suggest that the scenarios would deliver a more efficient outcome for Dublin Airport and its users. In contrast, Booz has identified on page 126 that the “*significant and material*” cost implications associated with the potential implementation of these scenarios would outweigh any cost savings and notes that further analysis would be required to determine whether any cost savings could be generated as a result of their implementation. Furthermore, as set out in Appendix 1 to this document, DAA believes significant additional capex would be required to implement Scenario 3 in particular. In this context it is difficult to understand the Commission’s motivation in incorporating the Appendix, particularly given the Booz reference on page 115 of their report that “*there is a risk that revealing Scenarios 2 & 3 to the market could jeopardise the legality of the T2 operations tender process*”.

DAA was not afforded an opportunity to discuss these additional options in detail with either the Commission or its consultants Booz. The scenarios were simply referenced as part of a high level discussion which took place between Booz & Co and DAA during the meeting of the 22nd September 2009 and DAA confirmed that no plans had been considered or developed that were consistent with these scenarios. DAA did indicate that Scenario 3 was, in our opinion, an impractical and unworkable suggestion. At that meeting Booz were unable to articulate how it was envisaged the scenarios might operate in practice and indicated that they were very broad suggestions without any detailed understanding of how they might work. Therefore, it is a matter of some surprise that Booz felt capable of illustrating the scenarios in sufficient detail to Aer Lingus, such that the airline could satisfy itself that Scenario three would appear to meet its “operational requirements” and on that basis be of interest to it¹². DAA will not accept responsibility for the manner in which this matter was communicated to the airlines or for rectifying the situation when it becomes apparent that it in fact does not meet their operational requirements.

It is a matter of some concern that the moth-balling scenarios have been introduced so late in this process. In DAA’s view the Commission will be unable to make a properly reasoned determination on either of the proposals. Given that the scenarios were not part of the draft determination, DAA considers that, in order to incorporate either scenario in its final determination, the Commission would be required to both issue a revised draft determination and allow sufficient time for comments to be received and taken on board. In light of the fact that little over one month remains until the expiry of the existing price-cap, there is insufficient time in order for the Commission to conduct a proper consultation on either scenario. If the Commission were to take a final determination incorporating either scenario, this procedural irregularity could potentially undermine the credibility of the determination

Conclusion and Recommendations

DAA believes that the most appropriate course of action to address the deficiencies in the Commission’s approach is as follows:

1. The Commission should follow the proposals in the draft decision and pass through the market assessment of the costs associated with the T2 contract at the appropriate time.

¹² This is particularly perplexing given that page 9 of the Booz report records that the meetings with DAA and Aer Lingus took place on the same date – 22nd September 2009

2. In the meantime, DAA does not object to the use of a credible indicator for T2 costs for the purposes of making the decision on the price cap as long as this would ultimately be replaced by the actual costs¹³. This will protect users and the regulated entity in the case where the Commission's assessment is proven by the market to be inaccurate.
3. Given the difficulties highlighted, it is clear that the Booz report is not a credible source of reference for either the costs of operating T2 or the impact of T2 on costs for existing facilities costs. The Commission has had available to it since April 2009, the DAA assessment of the costs associated with T2 and the implications for T1. Successive Appeal Panels have noted that the Commission should not set aside DAA submissions without due cause. In this context, the DAA figures should be used for the purposes of assessing the impact of opening T2 on the price cap.
4. The scenarios incorporated in the Booz report appear, from the consultant's own assessment, to be inherently unworkable. The implementation of the proposals would not be in keeping with Government policy or the recent Ministerial Direction to the Commission re the development of T2 as quickly as possible. The scenarios should therefore be set aside.

¹³ This would be in line with the DACC suggestion that the Determination could be adjusted when the full costs of the tender competition are known.

Appendix 1 – Assessment of Booz Report

Issue/Page Reference	Quote/Point at Issue	DAA Comment
Disclaimer (page 1)	<p>"if the information provided to us by such sources or obtained from secondary sources proves to be incorrect, the conclusions stated in our report could also be incorrect"</p> <p>"if any (assumptions) prove incorrect, actual results could vary from those we have projected"</p>	<p>Given that so many variables have been highlighted that could affect the findings of the Report, it is clear that CAR cannot base a Determination on its findings.</p>
Booz Understanding (page 4)	<p>The Commission needs to make a determination during December 2009, with sufficient time during November for stakeholders to review the new Draft Determination</p>	<p>This does not align with the schedule for the review on the Commission's website. The lack of clarity regarding the Commission's timeline and process for the short time remaining in the review period is unhelpful.</p>
Terms of Reference (page 4)	<p>CAR also required consideration of two "mothballing scenarios"</p>	<p>The clear limitations of these scenarios means that there is no valid option other than to proceed as Booz was instructed by the Commission "on the basis of T2 being fully operational" and we welcome the Commission's acceptance of this.</p>
Approaches (page 7)	<p>A combination of approaches was used to establish efficient operating costs</p>	<p>The limitations and difficulties associated with making assessments based on benchmarks are set out in detail by Booz on this page. Given that the deficiencies in adopting such an approach have been acknowledged up front it is surprising that:</p> <ul style="list-style-type: none"> • No evidence is provided to illustrate how the consultants have acted to address the pitfalls identified. For example it is not evident: <ul style="list-style-type: none"> ○ How FTEs were de-consolidated from the available benchmark data to isolate functions relevant to T2 ○ How the unique layout of T2 has been taken into account ○ What has been done to reduce the margin of error related to the use of data

		<p>from non-Irish airports</p> <ul style="list-style-type: none"> ○ How local purchasing power adjustments have been applied to salary figures ○ How relative differences in minimum wage and other labour structures between UK and Ireland have been allowed for in the salary figures ○ What level of operational risk has been assumed in applying the level of staffing recommended <ul style="list-style-type: none"> ● Elsewhere in the document Booz has proceeded to utilise the flawed approach e.g. unidentified airports with, in some cases, substantially different characteristics from DAA are used as comparators (see pg 72) ● The combination of these uncertainties indicates a high level of risk associated with the analysis, yet there appears to be no risk factor or contingency applied. ● No evidence is provided in relation to any other approaches utilised by Booz to establish the efficient operating costs for T2.
Operational Insights (page 10)	Working assumption that Aer Lingus and the transatlantic carriers would occupy T2.	In its response to a request for information DAA also advised the Commission on 8 th October 2009 as follows: <i>“Discussions are continuing with carriers who have expressed an interest in being located in T2, therefore T2 tenant listing may evolve in the period prior to full opening of the terminal”</i>
Operational insights (page 10)	“Current equipment contracts kept short to open this up to T2 facilities management bidders”	This is not an accurate statement. In line with the Government mandate, DAA did not enter into long term service agreements with T2 equipment suppliers in order that the market could decide the appropriate way to manage this requirement
Airport Users Issues (page 11)	“DACC experience with DAA-specified out-sourced services (e.g. PRM provider) is negative”	The statement has not been substantiated and we do not accept it. Where issues are raised they have been investigated and perceived delays are in fact within the SLA. The PRM service provider is an international operator and also had the lowest costs in the procurement process. Ryanair stated at the time that their experience of the service provider elsewhere was a positive one. The costs are also amongst the lowest vis a vis our peer airports.
Operating expenditure structure (Page 13)	Campus wide activities & costs	Non-Staff costs – the following costs are campus wide and not just Terminal <ul style="list-style-type: none"> ○ Rates ○ Energy ○ Technology ○ Insurance ○ All admin costs
Staff Costs %	Staff costs as a percentage of	The significance of this information to the Booz analysis is not evident, as it gives no

(page 14)	total opex for UK airports	indication of services covered, service quality, relative cost of services etc. The inference is that outsourcing is more efficient than insourcing, though the benchmark work undertaken by the Commission's other opex consultants Indecon Jacobs does not support this.
Fixed and variable (page 15)	Rates, Insurance, Energy and Regulatory levy described as "exogenous to Commission's model"	All opex is incorporated into the building blocks in the Commission's model
2009 Pax traffic (page 17)	20m in 2009 attributed to DAA	█ is the only update submitted to the Commission in recent times. The impact of this assumption on Booz analysis unclear
Traffic (page 20)	20m figure for 2009	This figure is not robust. Booz appear to have taken the month to peak month ratio in 2008 to generate traffic in the Sept to Dec period in 2009. This will not generate a figure of 20m. DAA's current estimate is for c █ passengers in 2009.
Traffic (page 20)	Use of CAR's pax forecast per Draft Determination	Draft Determination ("DD") estimated 21m in 2009 but this appears to have been changed to reflect the 20m mentioned earlier as latest forecast. Impact of this not being reflected in future passenger numbers is unclear. The 2010-2014 forecast figures are the same as CAR's previous DD forecast figures. However the juxtaposition of the "actual" and forecast numbers implies an increase from 20m in 2009 to 20.7m pax in 2010, (compared to a reduction of 21m to 20.7m in the DD), without any evidence to support.
Assumptions (Page 22)	Assumption that management and retail staff move between terminals	Booz proceed to estimate payroll for T2 on the basis of market rates rather than taking account of existing payroll rates. This is inconsistent as the two assumptions cannot be reconciled. Either <ul style="list-style-type: none"> flexibility of operation between terminals (and therefore most efficient staffing levels) can be maintained at existing pay levels OR differing wages rates in can apply in the 2 Terminals but they have to apply to different staff (giving rise to higher total staffing numbers) It is unrealistic to assume both can be achieved.
Traffic (page 23)	Airlines transferring to T2	This assumption is incorrectly attributed to DAA and does not accord with the working assumption provided by DAA to the Commission on 8 th October 2009.
Traffic (page 23)	"All other airlines will continue to operate from T1"	This assumption is incorrectly attributed to DAA. In response to a request for information DAA also advised as follows: " <i>Discussions are continuing with carriers who have expressed an interest in being located in T2, therefore T2 tenant listing may evolve in the period prior to full opening of the terminal</i> ".

Traffic (page 23)	“Transfer traffic will continue to make up a very small percentage of the total traffic (0.3% in Summer 2009)”	<p>No evidence is supplied to support this assumption and we do not accept its veracity. Our surveys indicate that 6% of departing passengers are transfer passengers and it is likely that the proportion in T2 will be higher due to the nature of services and the airlines located there.</p> <p>It may be that Booz has confused transfer and transit passengers – there are significant differences between them as is evident from the definitions applied by DAA viz:</p> <ul style="list-style-type: none"> • Transfer Passenger means a passenger who arrives on one flight, who departs aboard a different flight number to another airport (other than the airport of origin). Transfer Passengers may or may not have one ticket for both flights. • Transit Passenger means a Passenger who arrives in and departs from an airport on the same flight number and aircraft. Passengers who change aircraft because of technical or operational issues but continue on a flight with the same flight number are still counted as transit passengers.
Staffing (page 23)	“Queue management staff will not be required once T2 has bedded in and T1 congestion dissipated”	This assumption is incorrectly attributed to DAA. DAA anticipates reductions in CSA’s as a result of reduced congestion, including for queue management duties, but does not anticipate that there will be no requirement for this activity.
Operations (page 23)	Security Central Search operating hours will be 03.00 to 01.00 as per T1	Inconsistent with resourcing assumptions for passenger search on page 34
T2 Infrastructure (page 23)	“No additional car parking facilities will be constructed opposite T2 within this determination period”	This assumption is incorrectly attributed to DAA. DAA noted the Commission’s position with respect to the new MSCP/hotel project in the draft decision and indicated that a final decision regarding the project would not be made until the determination outcome was known – specifically the Commission’s decisions on capex allowances and the treatment of car parking relative to the single till. Has Booz had advance notice of a decision by the Commission on this point? If it is the case that the Commission accepts DAA’s submissions that an allowance should be made for the new MSCP in the final decision, it must ensure that opex costs are appropriate for the additional infrastructure.
T2 Infrastructure (page 23)	One directional link between Pier B and T2/Pier E	It is not clear what implication this assumption has on the cost model
Daily Traffic	“Busy week” and “quiet week”	<ul style="list-style-type: none"> • Clarification required on the selection criteria used for the “busy week” and “quiet

Volumes (page 24)		<p>week”.</p> <ul style="list-style-type: none"> • Clarification required on whether the graphs have been produced on the basis of an average flow for the weeks considered or a particular day in those weeks. • It appears from an initial review that Booz has derived its hourly flow assessment on a clock hour basis. This methodology tends to artificially “flatten” the peaks. As indicated to the Commission on a number of previous occasions¹⁴, it is more robust to adopt a rolling hour assessment. This would result in c.300 additional passengers per hour in the peak compared to the Booz assessment and has significant implications for the resourcing assessments made.
T2 Costs (page 26)	Costs for 2011	Typographical error - total figures incorrect
Passenger Operations definition (page 27)	Omission of Baggage Management	<p>Baggage management not included in list of functions incorporated in passenger operations. This critical function appears to have been completely overlooked by Booz (they have taken into account baggage maintenance but not management and control of the system itself). FTEs and costs are understated as a result.</p> <p>As demonstrated to the Commission on a recent site visit, baggage management is a crucial component of systems availability. The Commission has proposed the introduction of a penalty based regime relating to the baggage system. It cannot reasonably impose such a regime without allowing DAA the resources to meet the prescribed standards.</p>
Passenger Operations (page 28)	Operating characteristics	<ul style="list-style-type: none"> • It is not evident where or if provision has been made for shift supervision/management in passenger operations. If so clarification required re which line item they are incorporated in; if not costs and FTEs are understated. • The basis for the assumption that these shifts are sufficient to man trolley operations is not provided and we do not accept that it is correct. For example is it based on trolley usage statistics for flight categories/route groups? It is important to note in this context, that it will require 2/3 staff at each shift to load/unload the paternoster lifts. • The basis for the assumption that a two shift pattern for taxi management will manage forecast traffic patterns is not provided. DAA does not believe this is achievable.

¹⁴ DAA Review of High Level Analysis of DAA’s Investment Plans by IMR, 9th March 2007; DAA Response to Draft Determination, 21st June 2007

		<ul style="list-style-type: none"> It is not clear how an information service will be provided to passengers at night e.g. delayed flights past closing time of desks. The resource calculation methodology for CIP/events/lounges does not appear to reflect the fact that these facilities are independent of each other geographically.
Passenger Operations (page 29)	FTE Requirement calculations	Method for calculating operational FTE appears to be inconsistent Method for calculating both 16/7 and 24/7 coverage also inconsistent across the various sub functions, as well as being inconsistent across Passenger Operations, Maintenance and Cleaning departments
Elasticity assumption (page 30)	Elasticity of 0.63 for some sub functions	Inconsistent with CAR's assumption for Terminal Staff in DD. Definition of Terminal Staff per DAA, and therefore CAR, as CAR used DAA's 2008 actuals as base, differs from Booz categorisations
Costs per FTE (page 31)	3% overtime assumption	Driver or source for the overtime assumption not provided. Appears unrealistic given the flexibility required.
Costs per FTE (page 31)	18% shift premium	Not clear if the Sunday premium required by law is incorporated here. If not then % is understated. Clarification required as to inconsistency with 19% shift allowance applied to repairs and maintenance staff
Costs per FTE (page 31)	Average cost per FTE €34,797	It is not evident how this figure was arrived at – it is neither a simple average of cost per FTE nor total cost divided by total FTEs
Costs per FTE (page 31)	Wage rates per staff category	Inconsistent with the assumption that there are no demarcated work practices within the passenger operations function as outlined in the first bullet on page 32.
Costs per FTE (page 31)	Operations Control Staff	Uplift in basic market salary to cost per FTE inconsistent with similar salary bases in cleaning
Costs per FTE (page 31)	Market Salary Data Sources	<ul style="list-style-type: none"> It is not clear how the market salary sources were applied. It is stated that the list is non-exhaustive – this lacks transparency. A full list of sources relied upon in developing the costs should be supplied. Unsubstantiated decision to limit the comparator airport set to a single UK facility. The relevance of a 2004 IBEC study on shift premia to a 2010 operation is unclear.
Forecast costs per annum (page 32)	“The bottom up construction of Passenger Operations...does not presume demarcated working practices”	No clarification as to whether a lack of staff demarcation is assumed to apply across all functional areas within passenger operations or across the terminal. In the event of the latter, no evidence in support of this occurring in any airport
Forecast costs per	“A proportion of the training	It is not clear where allowance has been made for this budget or how much has been

annum (page 32)	budget would be spent on staff development and upskilling”	allocated. Clarification required.
Forecast costs per annum (page 32)	“Changes in security protocols could have an impact on resources assisting in passenger security preparation”	This does not appear to have been accounted for in the assessment.
Passenger Operations FTE's (page 29)	“Includes allowance for absence, leave and sickness” (page 29) “FTE numbers were generated with an allowance of 20% for leave, sickness, training and offline activity.” (page 32)	The numbers on page 29 do not align with this intention. FTE numbers have been calculated on the basis of a 18.48% allowance for leave etc, not 20% as stated. Clarification required.
Security Configuration (page 33)	Assumptions	Clarification required re the basis for the following assumptions: <ul style="list-style-type: none"> • use of 2D vs. conventional boarding cards • rejection rate on x-ray trays/bags • level of manning for the boarding card inspection points • how the staffing requirement for transfer search differs from central search
Security (page 34)	Security Workload Drivers	Clarification required on the basis for the assumption that 2 trays per passenger is appropriate to passenger / airline profile in T2 Clarification required on the queuing standard used - how many minutes assumed? Clarification required on the assumption that WTMD demand is driven by 400 pax per hour.
Security (page 34)	Resourcing Assumptions: 0330-0400 to 2200 typically	Inconsistent with operational assumptions on page 23
Transfer Search (page 34)	Requirement for 18hr average operational day	Given that a significant number of transfer passengers arrive on early morning flights between 5am and 6am, the likely operational day would be closer to 20hours if the Booz reference to late night flights is also to be accommodated.
Security Resourcing Assumptions (page 34)	Security Workload Driver: “Queuing time for Passenger Search as appropriate for IATA Standard C facility”	The Commission has indicated that security queue dwell times are likely to become the subject of penalties in the event of service levels falling below a certain standard. Booz has given no indication that the Commission’s proposed standard has been factored into its opex projections. A review of IATA’s “Airport Development Reference

		Manual 9 th Edition” gives no indication as to what exactly constitutes an appropriate security queue wait time consistent with a Level C facility. The Commission must confirm that, if it is minded to use Booz’s estimates, they are sufficient to allow DAA to meet any service quality targets imposed in the forthcoming regulatory period.
Security Resourcing Assumptions (page 34)	“Rosters to be sufficiently flexible to meet prescribed standards <i>within reasonable boundaries</i> ”	In the absence of any clarifying text, it must be interpreted from this that Booz has built an assumption that prescribed standards will not always be met into its opex forecasts. DAA cannot be penalised for failing to meet service standards if the Commission does not allow DAA the required resources to meet these standards.
Security Costs (page 35)	18% shift premium	Not clear if the Sunday premium required by law is incorporated in the 18% shift premium assumed. If not then % is understated. Clarification required as to inconsistency with 19% shift allowance applied to repairs and maintenance staff.
Elasticity assumption (page 36)	Elasticity of 0.64 on passenger search	<ul style="list-style-type: none"> • This assumption is inconsistent with CAR’s DD assumption of 1.0. • The assumption is also inconsistent with the comment in box on the right hand side of the page, which gives the reason for the application of 0.64 as being that 64% of total Airport security resources relate to departing pax search. As this analysis identifies the passenger search numbers separately from static posts, an elasticity of 1 should be applied, not 0.64. • The use of the stated elasticity underestimates the FTEs/costs required.
Methodology for Determining ASU FTEs (page 37)	Use of sample winter and summer weeks	The report does not state which dates were used for the sample summer week / sample busy day and sample winter week / sample quiet day and how this was concluded to be representative. What other model weeks / days were used in the calculation?
Modelling assumptions (page 38)	Workload Drivers	Please clarify how appropriate cover is provided for hand searches in the event that only one x-ray is open at a particular WTMD
Implications for Rostering (page 40)	“Part time staff would not incur overtime payments until they had completed more than 40 hours working”	This assumption is not reasonable as part time workers cannot be treated less favourably than their full time counterparts. For example, if a part-time employee who normally works a 4hr shift, works 2 additional hours that day – then only basic pay applies for the additional two hours worked. However if the person works 10 hrs in total in one day then the hours up to 8 are paid at a basic rate and the additional 2 hours are paid at an overtime rate (similar to the overtime premium that would apply in the case of a full time employee who worked more than an 8 hr day). This is the case even if the employee ultimately stays

		within the average working week.
Bottom up Assessment (page 41)	Appear to have assumed 6mths each for Winter/Summer	Correct Summer/Winter split for calculating FTE's for the year is 7/5 – Booz approach results in underestimation of FTE's by c.3 (a difference of 2%). It is likely that this assumption impacts FTE projections by Booz in other areas to a similar extent. Clarification required on the assumed differences in profile between different days of the week.
Bottom up Assessment (page 41)	Staff Requirement appears to omit trainers	It is not clear whether an allowance has been made for trainers. If so clarification required re which line item they are incorporated in; if not costs and FTEs are understated.
Bottom up Assessment (page 41)	Management Staff	Explanation required on the breakdown of management staff and how that number of people can cover the number of roles listed
Security Operations Conclusions (page 42)	“Rostering practices are assumed to incorporate best practice with no legacy work methods”	Unclear whether the implications for industrial relations of this assumption have been considered by Booz.
Security Operations Conclusions (page 42)	“Management practices will be both thorough and flexible, designed to deliver high quality human resource management with a clear focus on service delivery”	Clarification required on how this has been translated into actual assumptions in modelling the staffing requirement
Security Operations Conclusions (page 42)	“The operator will be able to deploy resources in a facility with no congestion/facility design overheads and equivalent ‘best in class’ security equipment”	It is inconsistent and poor regulatory practice for the Commission’s consultants to lower operating expenditure allowed due to DAA’s investment in suitable facilities while in parallel the Commission penalises DAA for providing those facilities via innovations such as the ‘Two Box Approach’ for the remuneration of T2.
Repairs & Maintenance (page 43)	T2 Facilities	Incorrect - there appears to be some mis-interpretation of data provided by DAA: <ul style="list-style-type: none"> • There are 6 travellers in T2/Pier E not 2 as stated • There are 19 airbridges on Pier E, not 11 as stated • There are 272 front of house and 112 back of house toilets, not 164 as stated It will be important to make the appropriate adjustments for cleaning and maintenance to reflect the higher number of actual facilities in the building than has been assumed

		by Booz.
Maintenance P(44)	Airport maintenance is to ensure upkeep & repair of terminal facilities & specialist equipment “according to service level targets set forth by management”	Booz has given no indication as to what these service level targets were envisaged when calculating opex forecasts. In particular no indication is given as to the level of baggage systems availability is factored into Booz’s calculations. Given the Commission’s indication that baggage system availability may become the subject of penalty rebates, the Commission must ensure that Booz’s estimates will be sufficient for DAA to meet any standards imposed in the forthcoming regulatory period.
Maintenance P(44)	Flight Information Display System (FIDS) Maintenance	The Commission has indicated that DAA may be subject to penalty rebates if passenger satisfaction with flight information displays falls below a certain threshold. The Commission must ensure that Booz has specifically allowed DAA sufficient maintenance resources to meet any requirement it subsequently imposes.
Maintenance (page 45)	In house maintenance team	No reference has been made to resources required for maintenance administration and stores management in this document. If they have been omitted costs are understated; if included please identify where.
Maintenance (page 45)	“4 persons to provide one person continuous cover over 24 hour period”	It is not possible to provide a 24/7 cover with just four people. Approach is inconsistent with allowances elsewhere for similar cover.
T2 and Pier E Maintenance Team (Page 45)	Footnote assumption that a significant number of FTE’s identified by DAA for Maintenance of Landside Facilities can be covered in the other roles listed.	The assumption that Landside Facilities relates to maintenance of the landside facilities is an unfounded assumption, made without fully investigating the facts. Booz did not request details of the roles and responsibilities associated with these FTEs (as it did in a number of other areas). If it had done so it would have realised that it is not valid to assume that the FTE requirement for landside facilities can be covered within the other roles in the Maintenance department. In the context of T2, the FTE’s required in this area are primarily for the purposes of traffic marshalling, which, as previously highlighted, Booz have assumed is within Passenger operations. Assuming the sub functions of “General Forecourt Management” and “Taxi Queue Marshalling” relate to this activity, due to the inaccurate calculations of required FTEs, the requirement in this area has been understated (see comment re page 29)
Forecast Maintenance staff costs (page 46)	References relied upon are not transparent	A full list of sources for salaries is not provided. The applicability of the Brightwater Salary Survey not justified Clarification required re the airports included in the airport benchmark
Forecast Maintenance staff costs (page 46)	Lack of transparency in assumptions	Justification required re the correlation between maintenance services and passenger growth. It is unclear whether this elasticity factor has been applied to all roles equally, or if applied equally to reactive and planned maintenance. Clarification required.

Cleaning Cost Estimation (page 46)	Lack of transparency in assumptions	<ul style="list-style-type: none"> Detailed assumptions behind the costs is required given that there is no data available from other airport contracts Clarification required on which two UK airports have been used to inform the review of cleaning costs Justification required re the relevance of BCIS benchmarks to determining salary level in Dublin
Cleaning Services (page 47)	“Pest control is assumed to be undertaken more efficiently by a specialised contractor”	Given than DAA currently operate pest control services for the campus with ██████ people, it is highly unlikely that this service can be delivered more efficiently by an outsourced specialist operator. Unclear where costs for pest control have been incorporated in the report – clarification required.
Cleaning services (page 47)	“DAA will operate 1,700sqm retail space”	Assumption inconsistent with stated assumption on page 23 and with information supplied by DAA
Cleaning Area (page 48)	Cleaning area of 80,000 sqm incorrect	The 66,000sqm for operational areas already excludes all commercial (including retail), therefore instead of reducing this amount by non-DAA commercial areas (a double reduction), it should actually be increased to include DAA retail space. Therefore the total space should be 66k + 23k + 1.4k = 90.4k sqm (10k higher than that used by Booz).
Cleaning services (page 48)	“WC and shower facilities make up c.2,200sqm of the cleaning area”	Incorrect. WC / shower facilities make up c.2700 sqm.
Cleaning services (page 48)	“We have reviewed the list of equipment being procured to support cleaning activities”	No equipment has been procured to support cleaning activities. This is being left to the judgement of the market. Unclear whether an allowance has been made for the cost of this equipment.
Cleaning FTE’s (Page 49)	20% allowance for leave, sickness and training	It is not apparent that this allowance has been included in Night staff or window cleaners. FTE’s are understated as a result
Cleaning FTE’s (Page 49)	Staff Positions	DAA does not understand how the totals in these tables have been arrived at. Calculations appear incorrect.
Cleaning FTEs (page 49)	Booz analysis of cleaning staff requirement	It is not clear which FTEs are responsible for stores and delivery of stock to stores and responding to reactive cleaning requests. If these activities have been omitted costs may be understated; if included please identify where.
Cleaning FTEs (page 49)	Other Cleaning Staff Positions	It is not apparent how the total numbers in the table have been derived - the figures do not appear to add correctly

Cleaning FTEs (page 49)	Other Cleaning Staff Positions	Note inconsistency in assumption regarding FTEs required to give 24x7 cover vs assumptions in maintenance and passenger operations for similar cover. 5 assumed here; 4 elsewhere.
Salaries for cleaning staff (page 50)	“Shift allowances paid to Daytime staff”	No such allowance appears to have been applied to the basic salary.
Salaries for cleaning staff (page 50)	Number of queries and comments to be addressed on the figures as presented	<ul style="list-style-type: none"> • 19% appears to have been applied to Window cleaners basic – not sure whether shift allowance or other (PRSI pension etc) – either way – not allowing for all uplifts required • PRSI, pension etc uplift does not appear to have been applied to salaries for night time cleaners • Clarification required as to why only night time staff are receiving a shift premium • Clarification required as to why no overtime is built in to any of these roles (with possible exception of window cleaning) - inconsistent with assumptions in other areas • The assumption that staff can be rotated between day and night time working when roles have demarcated salary structures is unrealistic • Clarification required as to why the uplift for the average across the cleaning category is 15% though 7.2% must be allowed for pensions and 10.75% for PRSI even before any allowance for shift payments
Salaries for cleaning staff (page 50)	“Cleaning staff assumed to be above minimum wage due to....higher reliability and quality required; and security background checks to be complete”	<ul style="list-style-type: none"> • DAA welcomes Booz’s recognition of the requirement of airport operators to hire quality staff to ensure service standards are maintained. However, DAA is unsure why Booz has not applied the same reasoning to other areas of airport operations- in particular areas such as security screening, where quality and reliability of staff is of paramount importance. In addition, if Booz has not made a similar allowance for retail staff then the Commission must consider the inevitable adverse impact this will have upon DAA’s ability to generate additional commercial revenues in the forthcoming determination periods. • The Commission has indicated that DAA is likely to face penalty rebates in the forthcoming regulatory period conditional upon passenger satisfaction with ‘staff courtesy and helpfulness’ as well as overall satisfaction with the airport. If the Commission is not minded to allow DAA the resources to maintain existing standards, then it cannot reasonably impose such penalties

<p>Airport management (page 51)</p>	<p>"Supervision of facilities management contracts"</p>	<p>This FM contract is envisaged to be one of the largest outsourcing arrangements of its type in Ireland. It is expected to require significant senior resources in order to manage delivery of the services to the specified standards. A reference to a supervisory requirement significantly understates this role.</p> <p>Because both the FM supplier and DAA need to actively manage this contract on an operational and a contractual level, it will be necessary to have mirrored management structures in both organisations. This is a necessary overhead in order to achieve the efficiencies / flexibility delivered by outsourcing. It is not apparent that this consideration has been incorporated into the cost analysis.</p>
<p>Team Structure (page 52)</p>	<p>Issues relating to structure of management Team</p>	<p>Insufficient FTEs included for 2010 as full management team should be put in place on commencement of ORAT to minimise risks around opening of T2</p> <p>Specialist audit and IT functions are required to ensure service level delivery on a contract of this nature - it is unclear to us which roles on the organisation chart fulfil these functions. If these activities have been omitted costs may be understated Therefore this needs to be verified</p> <p>Reference to 4 Duty managers requires clarification as per previous comments re the assumption that 24/7 cover can be delivered on the basis of such resourcing.</p>
<p>Team Roles (page 53)</p>	<p>Definition and requirements for specific roles not correct</p>	<p>The role of Head of Terminal is wider than that of contracts manager therefore a requirement for two positions is anticipated – a head of terminal and a contracts manager</p> <p>Two managers working Monday-Friday will be insufficient to audit the full scope of contracted services in line with service level agreements. Indeed, there will also be a requirement for administrative resources to support these managers which are not reflected in the Booz assessment.</p>
<p>Team Roles (Page 53)</p>	<p>FTEs & Roles assigned to T2 are inadequate</p>	<p>The resources and team roles outlined by Booz are more ‘supervisory’ than ‘managerial’ and while allowing the continued basic daily functioning of the facility, do not allow scope for activities such as process improvement, value-adding projects or any strategic forward thinking. In practice this means that managerial resources assigned to T2 are inadequate.</p> <p>Booz has compounded this deficiency by reducing managerial resources in T1 on the assumption that this was being dealt with in T2.</p>

Management Costs (Page 54)	“Based on our internal knowledge we selected comparable airport data on airport terminal management”	Booz’s ‘internal knowledge’ extended to three airports, only one of which was comparable in terms of passenger numbers, with 20 million passengers per annum. (The other airports had 3 and 6 million passengers respectively). This does not represent a compelling base for the assessment. Should the Commission choose to take its consultant’s figures instead of the DAA’s reasoned estimates, it must justify transparently the rationale for that decision, as per previous Appeal Panel findings.
Management Costs (Page 55)	Derivation of management and support costs is unclear	It is unclear as to the different weightings given to the different roles included in the assessment of management and support costs Clarification required as to the assumptions being used in relation to the payment of overtime and the number of persons working on a shift basis
Retail operating hours (page 56)	“Retail operations from 5am to 9pm, 7 days per week”.	Shops will open at 4am and will operate until at least 10pm. DAA Retail also has a policy of remaining open until the last duty free flight departs if later than 10pm. This will have a consequential increase in costs compared to the Booz assumption. Again Booz appear to be assuming inappropriately that everything will operate according to schedule at all times.
Comparator data (page 56)	“Number of staff per square meter of floor space is based on international shopping centre data”.	Comparator data regards staff per square meter of floor has to reflect peaks and troughs of passenger flows and, thus, shopping centres are not an appropriate benchmark. Furthermore, the product mix is very different (e.g. clothes stores would be considerably more space hungry than duty free shops) and shopping centres would typically have shorter trading hours. Airport retail is focussed on a self service operation which has been proven to significantly increase sales. However this style of retail requires a higher staff allocation than is allowed for in Department stores and in the Booz analysis to guard against the risk of pilferage.
Trading peak times (page 58)	“Peak passenger numbers are 6am, steady between 9am and 6pm, falling away after 6pm, suggesting some morning part-time shifts could be used effectively”.	There will be a 2 nd peak wave in T2 from 10am to noon – this will reflect transatlantic and long haul departure times. This will place a requirement for mid morning shift start times given that early morning shifts will require break times and decreases the effectiveness of any morning part-time shifts.

Non-Staff costs T2 (page 61)	Totals not correct	2010 actually totals to 15,408,322 2011 actually totals to 20,404,405 Unclear whether the individual cost headings are stated incorrectly or the totals are summed incorrectly and how this error is manifested in the overall conclusions. Also figures for Other Overheads and Travel & subsistence appear to have been transposed in error for 2011 but there is no breakdown given for these costs
Non Payroll repairs and maintenance for T2 (Page 62)	Derivation and assumptions re specific costs are unclear No explanation for variable rate of increase in maintenance costs	<ul style="list-style-type: none"> • T2 Energy centre assumed to be maintained under a separate budget line in the Booz analysis. There is no reference to the energy centre elsewhere in the document. • Clarification required re what is included in the estimate of €4.3m for repairs and maintenance • There are no details provided in relation to the rationale used for determining the contingency provision <p>Clarification required re the treatment of the above cost elements.</p> <p>The overall estimate for maintenance costs appears to be increasing at variable rates over the course of the period. It is not clear as to the factors determining this increase however it would appear the contingency %'s assumed are not included.</p>
Non Payroll repairs and maintenance for T2 (Page 62)	Inappropriate use of UK airport comparators	There are no details provided as to the UK contracts which were used in deriving comparative cost information, it is unlikely that these contracts are appropriate comparators given that the majority of UK airports manage contracts based on input based specifications and they do not include any risk premium for unexpected costs
Rates (page 63)	“anticipated to be passed through outside of the price determination”	Incorrect, all costs included in Commission’s model
Rates (page 63)	Total rates forecast	As was included in the forecasts submitted to CAR, additional rates for T2 retail of c. █████ p.a. should also be included and are not reflected in the Booz analysis.
Assumed future energy prices (page 65)	ARUP 2006 Forecasts for Energy Consumption	The ARUP energy consumption figures referred to are from a very early design stage. For example the Baggage System, which consumes significant amounts of energy was not designed at that point. DAA has had a number of exchanges with the Commission and its consultants regarding the methodology used for estimating energy costs in support of our submission.
Assumed future energy prices	CIBSE TM46: 2008 Energy Benchmarks Category 25	<ul style="list-style-type: none"> • As Category 25 is Public waiting or circulation, and Category 26 is terminal it is

(page 65)	Terminals	<p>unclear if incorrect category benchmark has been used.</p> <ul style="list-style-type: none"> • Should be noted that Terminal in this context is described as “Regional Transport Terminal with concourse” and therefore does not allow for the additional requirements in terms of area and complexity of an International Terminal • The benchmark referred to does not adequately take account of the extended operating hours of T2. • There is provision within the TM46 & TM47 methodology to develop a composite benchmark for a multiuse building, to take account of all the various business types e.g. retail, catering, bars and offices within such a building. The businesses operating within a terminal would have higher individual benchmarks than the benchmark used by Booz. • A case can also be made for excluding energy used for equipment such as airbridges, ground power, floodlighting and large server/data centres, from benchmark calculations.
Energy (page 65)	Area assumed 91,000 sqm	Incorrect. Energy for non operational areas ignored – floor area assumed should be the full 98,000 sqm of Terminal plus Pier, particularly as Booz subsequently assume recharges re non-operational areas on page 66
Assumed future energy prices (page 66)	Forecast Energy Costs at T2	<p>The stated assumptions re price increases have not been applied in the calculations on Page 66. The costs allowed are understated by up to 50% as a result (Lack of transparency regarding inflation assumptions makes it difficult to accurately assess the impact). It is important that this be amended and carried through to the overall cost assessment.</p> <p>Even given the assumptions on consumption and pricing it is not possible to arrive at the energy figure for 2010 included in the table. This may be as a result of whatever price increase has been assumed between 2009 and 2010, however, this information is not provided in the report.</p>
Assumed future energy prices (page 66)	Energy recharged	A 30% Recharge assumption may be appropriate for an airport campus (such as the quoted Manchester Airport and existing facilities at Dublin) but not for a standalone terminal & pier. DAA believes that recharging for Gas in this case will be negligible, while recharging for electricity may be between 15 & 20%. The existing average recharge of 30% includes recharge for tenant buildings external to Terminal 1 which is the main driver of the recharge, therefore inappropriate to apply this % to T2. The area assumed to be non DAA commercial activities clearly does not support a 30% recharge assumption. DAA stated at the meeting on 22 nd September that the forecast

		<p>recharge of energy in Dublin Airport was significantly lower than that for existing facilities; however this has not been reflected in Booz analysis.</p> <p>In any case as energy cost was calculated on the basis of the operational area only it is inconsistent to assume recharge of costs not included in that calculation.</p>
Technology Operating Costs for T2 (page 67)	“Software and hardware support contracts were not entered into by DAA when new technology equipment was purchased for T2 so as to ensure that the most competitive market rates could be achieved by T2’s eventual operator”.	Incorrect representation. Support costs are not expected to form part of the facilities management contract, and therefore consideration of same is not the reason why DAA did not enter into support contracts at time of contracting for purchase of T2 technology. The main reason is the intention to ‘bundle’ support for the two Terminals in an effort to gain the most competitive price possible.
Technology Operating Costs for T2 (page 68)	No justification provided for Booz’s estimate	Despite illustrating that airport technology costs can vary substantially, Booz offers absolutely no evidence as to how it derived a costing for T2 Operating Costs, other than that ‘a review’ was conducted. Should the Commission choose to take its consultant’s figures instead of the DAA’s reasoned estimates, it must justify transparently the rationale for that decision, as per the latest Appeal Panel finding.
Non Payroll Cleaning (page 70)	Breakdown for cleaning materials and service costs	<p>Clarification required in relation to the following</p> <ul style="list-style-type: none"> • Breakdown of cleaning costs included • Whether consumables are being included as cleaning materials. • The assumptions for capital or rental costs associated with cleaning machinery • The source and use in the calculations of the figure €15 per sqm for cleaning and consumables, particularly given this figure is significantly lower than that reflected in the benchmarks used in the Indecon Jacobs report
Professional Fees (page 72)	Use of the 2.2m pax airport as a comparator	Clarification required in relation to the use of 2.2 million pax airport as an appropriate comparator and how expenditure at this airport has been used to derive the figure of €570,000
Other Overheads (page 73)	Breakdown of other overhead costs	Clarification required in relation to how the total figures here relate to the cost categories included in the table on page 61
Minor operational costs (page 74)	Forecast Other Payroll Costs at T2	<ul style="list-style-type: none"> • No mention of employee related costs or travel and subsistence, however page 61 with the table showing 2010 & 2011 costs includes them

		<ul style="list-style-type: none"> No combination of the costs on page 61 adds up to the figure on this page In 2010 the sum of the activities mentioned in the text of this page (i.e. Marketing, Telephone print & stationery) plus Employee Related overhead and Travel & subsistence is €372,192 in the table on pg 61; whereas here (assuming this is what is supposed to be covered here) the figure is €272,043 There are similar anomalies in the figures for 2011
Minor operational costs (page 74)	Booz's methodology is flawed	Booz examined 3 other comparator airports (unidentified but presumably the 3 referenced previously with 3, 6 and 20 mppa respectively). The average % of opex devoted towards administration and marketing was multiplied by the proportion of traffic going to T2 (40%) to derive a fictitious percentage which DAA should be allowed for these costs. This does not represent a compelling base for the assessment. Should the Commission choose to take its consultant's figures instead of the DAA's reasoned estimates, it must justify transparently the rationale for that decision, as per the latest Appeal Panel finding.
Operational readiness costs (page 78)	Once off costs of €2.15m in 2010	<p>During the ORAT period there will be a focus on operational testing, training/familiarisation and trialling in order to ensure an efficient and effective opening of this facility. Transition arrangements will be prepared and agreed with all of the stakeholders. All 3rd party, commercial/catering fit outs and remaining DAA fit outs/FF&E will be carried out during this period. A significant period post Practical Completion will be taken up with snagging. The ORAT Team will coordinate all of these activities.</p> <p>The allowance referred to by Booz on this page relates to non-staff costs, however payroll costs associated with the operational readiness team (who have already been in place for the last 6 months) have been omitted. DAA has assumed a [REDACTED]</p>
FTE's T2 (page 80)	Inconsistent with detailed pages	<p>Following categories not consistent with the detail in the pages which follow:-</p> <p>For 2011 FTE's</p> <ul style="list-style-type: none"> Cleaning – 208 in table; 204 in detail (no detail for 2010) Commercial – 34 in table; combined with HO in detail to give a total of 238 (2010 - 35/250) Retail – 199 in table; 177 in detail (2010 – 224/253)
Opex in T1 (page 80)	Booz has identified opportunities to reduce FTEs	In its draft decision the Commission indicated that it would remunerate redundancy costs relating to the opening of T2. There is no evidence that this cost has been

	in T1.	reflected in the Booz analysis.
Key assumptions (page 81)	“The base for Terminal T1 FTEs is as per CAR’s draft determination of airport charges at Dublin Airport”	<p>This is not correct. The figures are not consistent with the Draft Determination.</p> <ul style="list-style-type: none"> • Examples in 2011:- <ul style="list-style-type: none"> ○ Cleaning, Maintenance & Terminals – CAR DD 621 Booz DD 622 ○ Management & Commercial – CAR DD 92 Booz DD 91 ○ Other costs – CAR DD 108 Booz DD 112 ○ Head Office – CAR DD 191 Booz DD 204 • Overall Booz DD figures higher by 16 FTE’s the CAR’s actual DD <p>It may be that Booz used the figures produced by Indecon Jacobs. However, the Commission amended some of the assumptions in the Indecon Jacobs report for the draft determination. This impacts the Booz analysis in terms of it’s accuracy, comparability and the reliability of it’s conclusions. Key differences:</p> <ul style="list-style-type: none"> • Indecon applied its identified efficiencies to FTE’s across the full regulatory period, the Commission applied them to the first three years • Indecon assumed a real wage increase, the Commission assumed none. • Indecon’s analysis included re categorising some areas to improve comparability with Benchmarks, however the Commissions base of DAA’s actual 2008 does not coincide with this, therefore Booz output, which appears to be based on Indecon’s categorisation of sub-functions is neither consistent with DAA’s or CAR’s. Example Terminals – landside facilities included in Terminals by Booz (and Indecon), but included in Terminals in CAR’s DD and DAA’s figures
Standalone assessment explanations (page 82)	Sub functions	<p>As Commission used DAA’s 2008 actuals as its starting point in the draft determination, Landside services (presumed to equate to DAA’s landside facilities) were not included in Terminal category. However Baggage management is included in Terminals but is not reflected here. The categorisation appears to be taken from the Indecon Jacobs report, which although the basis for the Commissions assumed efficiencies, is not comparable to the categorisation actually used by CAR, which coincides with DAA’s.</p> <p>DAA made it clear to Booz that Landside services were not included in the Terminals category but baggage management was in reply to queries 3, 6 & 7 of its info request of 15th Oct.</p>

		<ul style="list-style-type: none"> • Extract from reply to Q3: “The subgroups under Terminal are as follows:- <ul style="list-style-type: none"> ○ Terminal Manager ○ Trolleys ○ Info/CSA’s ○ Telephone Exchange ○ Baggage Management ○ Customer Service Mngt ○ Terminal Service Office ○ Executive Lounges ○ Duty Managers” • Extract from reply to Q6 - “...Taxi queue marshalling (part of the landside facilities functions) and gardening are included within Maintenance, not Terminals.” • Extract from reply to Q7 – “The ■ FTE’s include Terminal Control, Customer Care, Trolley management and Baggage management. They do not incorporate taxi queue management which is a landside facilities function.” <p>Assumption that landside services includes Baggage Services is therefore incorrect for reasons clearly indicated above</p>
T1 Terminals Sub functions (page 83)	Sub functions	2011 breakdown of CAR’s DD – not consistent with Terminals per DAA which was basis of CAR’s DD. See points re Pg 82 above
Terminal costs (page 84)	Sub function breakdown does not match DAA’s due to “several variations in categorisation of Terminal sub functions between DAA responses to the Draft Determination and responses to our own queries”	<p>DAA does not accept that Booz’ sub-function breakdown will not match DAA’s for this reason, given the clarifications supplied by DAA (see comment re pg 82 above). DAA replied to all queries received from Booz, if there was any confusion, this should have been raised prior to publication.</p> <p>[The totals of 196 in both 2010 and 2011 not consistent with CAR’s figures</p> <ul style="list-style-type: none"> • CAR incl Effic 209/205 • CAR incl scale 194/193]
APFS FTE’s (page 87)	2008/2009 Totals	<p>Total 2008 of 668 is an actual figure –Booz appears to have made a retrospective adjustment in error.</p> <p>Source of 638 figure for 2009 is unknown. Not compatible with information provide to the Commission by DAA.</p>

APFS FTE elasticities (page 88)	Elasticity 0.52 ASU only	The assumed reduction of 126 ASU's in T1 following the opening of T2, has rebased the figures consistent with the reduced passenger levels, therefore to assume a reduced elasticity of 0.52 (ASU only) does not appear consistent with this approach. Starting with a rebased figure should allow application of same elasticity across the two terminals.
T2 cleaning assumptions (page 90)	Apparent inconsistency	Assumptions states "No changes to salaries are anticipated", however Methodology states "A revised cost/FTE was established for T1 cleaning staff" – these statements appear contradictory.
Cleaning FTE (page 91)	Inconsistencies and errors of calculation	<ul style="list-style-type: none"> • Source of breakdown by staff category "2011 CAR" unclear. Not communicated in either the CAR DD or in the Indecon Jacobs report – in fact Indecon Jacobs assessed cleaning on an overall cost per pax and cost per sqm basis and made no reference to categories of staff • The total of 204.6 inconsistent with summary on pg 80 of 208 • Reduction to Mngt/Admin/Supvr applied incorrectly <ul style="list-style-type: none"> ○ Applied reduction of 16% on the basis of reductions in Day & Night staff (appear to have summed the reductions in these staff as opposed to more accurately calculating the % reduction to total day & night staff) Should have applied a max of 9% - ie. Equivalent to the total reduction of 18 Day & night staff from a base of 199. ○ Also state reduction only to Supervisor staff and not mngt & admin element, therefore would expected reduction to be less than 16%, but in fact equates to a reduction of 16.67% ○ Overall based on two errors highlighted here would expect to see a reduction of less than 1 FTE to Mngt/Admin/Supervisors • Given the limited extent of glass in the TBG a reduction of 8% in window cleaning as a result of its closure seems excessive. • Total of 230 (attributed as CAR DD) is not actually the sum of the breakdown provided. The breakdown totals to 225.92 • The total of 230 in 2011 is inconsistent with CAR's figures (further exacerbated by total not being correct) effectively gap CAR V Booz before reductions is c.21 FTE's, effectively meaning the reduction from DD levels to Booz revised level is actually 32) <ul style="list-style-type: none"> ○ CAR incl Effic 237 ○ CAR incl scale 237

Apt Mngt (page 92)	“A reduction of 4 management FTE’s...is expected once the development work associated with T2 is complete in 2011”	This assumption is incorrect. All FTE’s directly involved in the development of T2 are currently being capitalised and therefore are not reflected in the FTE opex base. Also, any reduction in existing airport management is inconsistent with the T2 management roles assumptions as highlighted in comment re page 52 above.
Commercial & Head Office (page 93)	Inconsistencies in presentation	<ul style="list-style-type: none"> • In consistency between this presentation and that on pg 80 (which identifies Commercial separate to Head Office) makes it difficult to analyse the data • Not clear whether head office non payroll has been addressed anywhere in the document as pages are not consistent
Commercial & Head Office (page 93)	“Expected that the highest cost roles within the Commercial category were related to the T2 development and therefore this is where the greatest savings would be made”	<ul style="list-style-type: none"> • No basis is provided to support this conclusion – there is no role within the Commercial Dept exclusively devoted to the T2 development. • Even if roles were directly associated with T2 there is nothing to support the assumption that the highest cost roles in Commercial are related to T2. • In any case higher cost roles do not generally get overtime for additional workload such as that resulting from T2 development • Overall, the assumption re potential savings is not valid.
FTE reduction in T1 (page 94)	“We assume a 30% reduction in FTE requirement at T1 post opening of T2 given retail re-allocations and reduced footfall”.	As stated in page 94, the current T1 FTE numbers includes “buying, warehousing and logistics activities”. The numbers also include administration support. Therefore to apply a 30% reduction in FTE numbers that includes the above back-office support whilst not reallocating such back-office support in the T2 numbers is incorrect methodology. Costs are understated as a result.
Retail FTEs (page 94)	Retail FTE’s not consistent with those in table on pg 80	<ul style="list-style-type: none"> • FTE’s 2010: here 253; table on page 80 shows 224 • FTEs 2011: here 177; table on page 80 shows 199
Repairs & Maintenance T1 (Page 97)	“Areas understood to be mothballed or demolished include Temporary Boarding gates and Area 14”	Inconsistent with assumption on page 23 that “No areas within T1 will be closed once T2 opens” (except TBG) It appears that c.600k reduction has been associated with closure of TBG and Area 14. This seems excessive given that it refers to a relatively new facility and a temporary one.
Rates (page 98)	“passed through outside of the determination”	Incorrect – all costs to be included in the Commission’s financial model
Energy costs (page 99)	Annual increase allowed of 12% 2010, 8% 2011, and 4% thereafter	The forecast energy costs in the table appear to assume only 3% p.a. every year. Forecasts for energy costs indicate increases as much as 50% over the next couple of years
CUTE operating	Assumptions and analysis of	Booz did not “sense check” its assumptions with DAA. As a result they are

costs for T1 (page 103)	CUTE costs	inappropriate and the level of cost reductions indicated are not realistic. The Booz assumption that a re-organisation could be effected in the check-in hall is inconsistent with the Commission's indication in the draft decision that it will disallow the capex required to pursue this project. The option of re-negotiating the contract with the CUTE provider will provide little cost return, as the equipment is leased over a fixed 5 yr contract. The support aspect could potentially be recouped but this is linked to call volumes, not equipment installed – so savings are likely to be negligible.
CUTE operating costs for T1 (page 103)	“Comparison with available data from other airports suggests that the overall cost per desk and per passenger is high”.	This statement is unsupported by evidence and DAA does not accept its veracity. The CUTE contract in Dublin Airport started in 2007 following a competitive tender. Ultra Electronics were chosen [REDACTED] as they were not only the most competitively advantageous supplier but they were also the lowest cost supplier [REDACTED] It was well recognised in the industry (across Europe in particular) that the 2007 CUTE contract placed at Dublin Airport was a very competitive deal, [REDACTED] It should also be pointed out that the system has been expanded since 2007 in areas such as Area 14 and Pier D, and all of those expansions have been achieved at very competitive rates using a framework agreement that was bid as part of the original contract. It is this same framework agreement that has delivered all CUTE equipment for T2 at a rate similar to the forecast figures that Booz term as ‘reasonable’ in their T2 CUTE section on page 71.
CUTE (page 103)	Reference to closure of area 14	Inconsistent with assumption on page 23 that “No areas within T1 will be closed once T2 opens” (except TBG)
Summary T2 (page 107)	Costs V detail	<ul style="list-style-type: none"> • Nonpayroll figures not consistent with the sum of figures in detailed pgs • Without knowing the inflation assumptions used by Booz it is difficult to review the Operating expenditure per passenger graph.
Summary T1 (page 108)	Costs V detail	The Booz Staff and Non-Staff cost graph has figures inconsistent with the detail pages. Clarification required on exactly what costs are being reflected here.
Scenarios (page 111)	Publication of Scenario's	<ul style="list-style-type: none"> • Given the Ministerial direction dated late October it is difficult to understand why the Commission proceeded with publishing details on the alternative scenarios • If the Commission is minded to impose such a scenario upon DAA it must be mindful of the corresponding impact upon service quality for users. In particular the Commission must not impose a penalty regime relating to contact stand availability if it is to simultaneously deny DAA the resources with which to meet any

		<p>prescribed target level by mothballing Pier E.</p> <ul style="list-style-type: none"> It is also difficult to understand why the scenarios were published given Booz’s statement on page 4 “CAR also required consideration of two ‘mothballing’ scenarios, the result of which is included as an Appendix to this document. On the basis of this, CAR requested Booz to proceed on the basis of T2 being fully operational with 40% of Dublin Airport’s traffic”. This suggests the scenarios are no longer being considered by the Commission; therefore there was no reason to include them in the document.
(page 114)	“T2 was designed to accommodate 15mppa”	This is not correct. T2 was designed to accommodate c.11.4m passengers. The capacity will increase to c.15mmpa when T2 Phase 2 is built ¹⁵ .
Scenario 3 (page 123)	Scenario 3 considers using only T2 airside and Pier E, with landside check-in, security and arrivals areas being mothballed.	<ul style="list-style-type: none"> No mention is made of how passengers could clear immigration upon arrival into Pier E or how segregation could be achieved to return passengers to T1. At a minimum DAA anticipate the following capital development infrastructure would be required: <ul style="list-style-type: none"> Provide additional GNIB kiosks in Pier C from current 6 to 14 (increase of 8 to mirror what we have in T2). In fact the current 6 are due to be removed shortly. Provide additional queuing space in Pier C GNIB to process the expected volume of passengers using Pier E Provide pax lifts post Pier C GNIB Provide clear and intuitive wayfinding, as this journey involves 3 level changes All the above would be difficult to provide in the space available in this area. It would be unlikely that CBP authorities would transfer their operation to the Pier in the absence of a full CBP operation. Significant costs would be incurred with controlling access to T2 airside areas. The systems issues with regard to Scenario 3 are immense. The key one being the impact on the management and control of integrated life safety systems.
Scenario 3 Rates Costs (page 123)	“Rates likely to be assessed on usable space”	Not consistent with point in Scenario 2 that rates based on whether “occupiable”, as this scenario assumed to have T2 fully commissioned before being ‘mothballed’.

¹⁵ “Terminal 2 - Gateway 2 Report”, ARUP, provided as supporting document 2 to CIP 2006-2009

