

**NATS (En Route) plc price control review for Control Period 3  
2011-2015**

**CAA Policy Update**

**February 2009**

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## 1. Introduction

- 1.1 On 31 October 2008 the CAA published an initial consultation paper which set the scene for the review of the price controls applying to NATS (En Route) plc (NERL) for 2011-2015, the third price control period (CP3). The paper provided context on the legal framework for economic regulation of UK air traffic services and on NERL's recent performance against the projections made at the CP2 review. It highlighted the further analysis that the CAA intended to undertake, including (though not confined to) robust comparisons of NERL's performance against other air navigation service providers in Europe, in order better to understand the relative efficiency of and scope for improvement in NERL's cost effectiveness in the next regulatory period. The CAA consulted on how the review should be conducted and specifically on whether there was sufficient support for a new approach with a greater central role for NERL's consultation with its airline customers on key strategic issues. Finally, the CAA discussed a number of issues relating to the scope of the price control, the implications of the proposed new Single European Skies II legislation (SES II), and its proposed approach to the regulation of the financing of NERL.
- 1.2 The CAA asked for written comments on the consultation paper by 9 January 2009. It received 10 written responses from bmi, British Airways, easyJet, IATA, London City Airport, London Luton Airport, NERL, Prospect & PCS, Ryanair and Virgin Atlantic. Copies of the full responses can be found on the CAA's website.

### Purpose and structure of this document

- 1.3 This document provides:
- a summary of the responses to the CAA's consultation paper on the issues discussed in the consultation paper. (Some of the responses included comments on areas of the CP3 review beyond those discussed in the consultation paper. Those comments are not summarised in this document, but the CAA will take them into account during the review); and
  - following an assessment of the responses, the CAA's current position on the issues discussed in the consultation paper. In respect of some issues the CAA is yet to adopt a firm policy position and is open to further evidence and argument in relation to these points (and more generally on any other issue regarding the price control).
- 1.4 This document is structured as follows. **Chapter 2** sets out the CAA's considered approach to the CP3 review taking into account user responses to the CAA's proposal that Customer Consultation should play a central role. **Chapter 3** describes the CAA's plan of work for the scrutiny of NERL's plans and the benchmarking of costs and efficiency. **Chapter 4** provides an update

of the CAA's proposals on various topics related to the scope of the price control. **Chapter 5** contains an update of the CAA's assessment of the interaction between the CP3 review and the SES II regime. Finally, **Chapter 6** deals with the regulatory finance framework and **Chapter 7** provides an initial estimate of NERL's cost of capital for the purpose of informing Customer Consultation.

- 1.5 Although this document is not intended primarily as a basis for consultation, the CAA would nevertheless be happy to receive comments on it, in particular on the issues addressed in **Chapter 4** (scope), **Chapter 6** (regulatory finance) and **Chapter 7** (cost of capital). Any comments should be sent, if possible, by email to [natsreview@caa.co.uk](mailto:natsreview@caa.co.uk) or, alternatively, to:

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### Timetable for the review

- 1.6 Paragraphs 1.11 and 1.12 of the CAA's October 2008 consultation paper set out two alternative timetables for the review dependent on the approach that was decided upon for the conduct of the review. As discussed in Chapter 2 the CAA considers that there is sufficient user support to adopt for planning purposes the Customer Consultation approach to strategic issues alongside detailed CAA scrutiny of defined NERL activities and costs. The current timetable for the review under this approach is therefore as follows:

|                       |   |
|-----------------------|---|
| 18 February 2009      | CAA statement on structure and conduct of review and current views on the scope of the price control, the overall price control 'architecture', regulatory finance and cost of capital. |
| Summer 2009           | Update on progress of NERL-airlines customer consultation, plus results of parallel CAA scrutiny of aspects of NATS' business plan  |
| Autumn 2009           | Outputs from customer consultation submitted to CAA   |
| January/February 2010 | CAA publishes initial price control proposals for consultation  |
| July 2010             | CAA issues final proposals  |
| August 2010           | Hearings with parties   |
| September 2010        | CAA decision  |
| 1 January 2011        | Eurocontrol price cap comes into effect   |
| 1 April 2011          | Oceanic price cap comes into effect   |

### CAA contact

- 1.7 If you have any questions on this document please contact Daniel Storey on 020 7453 6270 or by e-mail to [daniel.storey@caa.co.uk](mailto:daniel.storey@caa.co.uk).

## **2. Approach to CP3 review**

### **Summary**

2.1 This chapter discusses the CAA's approach to the structure and conduct of the CP3 price control review. It summarises the consultation responses received on this issue. In light of these, the CAA sets out its proposals for the conduct of the price review. The CAA confirms its previously proposed approach in which the central strategic core of the review would be conducted through customer consultations between NERL and its airline users, the results of which would inform the CAA's regulatory proposals at the latter stages of the review. As a complement to this customer consultation, the CAA sets out in chapter 3 its plans for the thorough scrutiny by the CAA of NERL's business plan and cost efficiency, to inform both the NERL-airline consultations and, ultimately, the CAA's own regulatory decision-making.

### **CAA proposals**

2.2 In its October 2008 consultation paper, the CAA described alternative approaches which the CAA had developed for the conduct of the CP3 review. Building on discussions earlier in 2008 with NERL and its airline users, the CAA set out (for consultation) the option of customer consultation, led by NERL with CAA oversight, to provide the strategic core of the regulatory review, through which airlines would be able to influence key aspects of NERL's business plan and ultimately inform the CAA's own decision-making. The CAA considered that such a development could provide airlines with a practical opportunity for timely and cost-effective engagement in the regulatory review, with the continued protection of parallel CAA scrutiny of NERL's efficiency, and adequate time in the latter stages of the review for full CAA-led consultation on the CAA's emerging analysis and proposals, informed where possible by the earlier process of customer consultation with NERL.

2.3 The CAA recognised that such an approach would require the positive engagement of a sufficient number of airline users, representing a substantial proportion of NERL's customer base by value, for the outcomes of such a customer consultation approach to carry weight in the CAA's regulatory assessment. The CAA therefore also consulted on an alternative approach, very similar to that adopted at the last review in 2003-2005, under which the CAA itself would lead all analysis and consultation with NERL, airlines and other interested parties. The CAA indicated that it would decide between these approaches based on its assessment (in early 2009) of likely airline engagement, and of NERL's ability to maintain the confidence of airlines and the CAA in the proposed customer consultation process.

## Responses to consultation

### *bmi*

2.4 bmi supported the proposed customer consultation approach, as this would promote direct engagement between NERL and its customers in seeking agreement over CP3 regulation. bmi had a number of caveats to this general support, as follows:

- airlines must be given the right to appeal the assumptions (used by NERL in consultations) early on in the review process if they appear to be materially wrong;
- consultation would be facilitated by concise, transparent and timely production of documents, including the NERL baseline business plan;
- consultation should establish a forum for 'true discussion' of the contents of NERL's plans, and for these plans to be put under some scrutiny, to be accepted or rejected. NERL should come to the consultations with this in mind. Only if NERL considered it absolutely imperative to retain certain investments in spite of airlines' objections, should such items be 'parked' for subsequent regulatory judgement;
- the CAA should be prepared to step in to mediate and to resolve any impasse which may develop, so that the customer consultation process could continue;
- NERL should provide additional information as requested by the airlines in a timely fashion; and
- bmi considered that the CAA should adopt a 'tough line' in reviewing the spending plans of NERL alongside the outcome of the NERL-airlines consultation, given the lasting impact of the current economic downturn on airlines' businesses.

### *British Airways*

2.5 British Airways (BA) identified some risks with the CAA's proposed Customer Consultation model, but nevertheless considered this to be the preferred approach, given its potential. It considered that the framework put forward by the CAA was a good basis for developing customer involvement in the CP3 review.

2.6 BA suggested a number of modifications which in its view would guard against risks and secure benefits:

- decision-making should not be too back-loaded in the CP3 review;
- CAA should have active engagement with airlines and NATS throughout

the review;

- final decision documents, reflecting prior customer consultation, should be absolutely clear, specific, and avoid ambiguities which could subsequently be exploited by NATS;
- CAA should nominate individual CAA representatives for each NATS-airlines consultation work stream (even if they do not attend all meetings);
- the overarching Customer Consultation Working Group should include a CAA representative, and BA was open to the inclusion of an independent chairman;
- there should be 'gateways' / checkpoints throughout the customer consultation, at which nominated CAA representatives could be called upon to try to resolve any outstanding issues between NATS and airlines;
- Customer Consultation should be economically and efficiently timetabled, with a focus on the airlines' limited individual and collective resources versus those available to NATS to deploy; and
- support for a CAA assessment of the progress of Customer Consultation, with the option to terminate and revert to a traditional regulator-led price review if irreconcilable problems emerged in the NATS-airlines dialogue.

2.7 With regard to the agenda for consultation, BA suggested the following: performance metrics including costs, fuel, delays, meeting project and growth milestones, staffing resilience, operational resilience, capacity and growth, key programmes, strategic roadmap, bonus/neutral/penalty targets. For CAA scrutiny, BA suggested the CAA focus on the level of resources required to deliver the agreed capacity and service plan, the cost of capital, the regulatory asset base (RAB), and the final levels of charges.

### *easyJet*

2.8 Notwithstanding its negative experiences of Constructive Engagement between airport and airlines in the recent price reviews at BAA's London airports, easyJet recognised the benefits of open dialogue between suppliers and customers. In principle, it preferred the customer consultation approach, as outlined by the CAA. It welcomed the parallel scrutiny programme by the CAA, to inform the price review, and the series of safeguards proposed to promote effective consultation.

2.9 easyJet questioned how the CAA could effectively ensure productive behaviour by NERL and airlines within bilateral consultations if it proposed not to attend such meetings. It also considered that the CAA should be more willing to step into the customer consultation process to act as facilitator for particularly tricky issues, rather than hold back and take an 'all or nothing'

stance. It welcomed the proposed use of CAA guidelines on behavioural standards, to encourage effective consultation by NERL

- 2.10 In terms of scope of the customer consultations, easyJet considered that airlines should have oversight of NERL's operating expenditure (opex): this was a very significant part of NERL's cost base, and essential for understanding the consequences of the service and capacity issues being debated. Subject to this, easyJet agreed with the CAA's suggested scope of customer consultation topics. It noted, though, that NERL's business plan should clearly include costs and benefits of proposed investments.
- 2.11 easyJet was concerned that the period January to July 2010 would be insufficient for the CAA to reassess any issues on which the outputs from customer consultation have been materially less substantial than expected, and insufficient basis for informing regulatory proposals.

### *Ryanair*

- 2.12 Ryanair indicated that it was in favour of customer consultation with NATS as part of the CP3 review. It urged the CAA to ensure that NATS did not repeat what Ryanair termed 'consultation abuses' that (in its view) BAA had engaged in during the recent airport reviews.
- 2.13 Ryanair's main specific suggestions as to the conduct of consultation were as follows:
- the scope should be high level, covering the essential components of traffic forecasting, opex projections and planned efficiencies, capital expenditure (capex) (which should be 'SESAR compliant'), and service performance targets and rebates;
  - discussions should be under an independent chairman, appointed by the Competition Commission and funded by NATS; and
  - each airline's representative should be at an appropriate level to be able to speak with authority for the airline.
- 2.14 As to the approach to the CP3 review more generally, Ryanair made the following key points:
- the CAA should consult closely with any interested NATS customers. In doing so, it should take account of the potentially differing interests between those airlines which are shareholders in NATS, and those which are only NATS' customers;
  - the price review should introduce regulatory mechanisms to ensure that NATS achieves its SES II targets, including a 50 per cent reduction in ATC costs per flight;

- Ryanair was particularly concerned that NATS be incentivised / regulated to deliver sufficient capacity to meet customers' projected demands.

### *Virgin Atlantic*

- 2.15 Overall, Virgin was supportive of the proposed scope of the CP3 review, but had reservations about the CAA's proposals for Customer Consultation. Virgin considered that CAA had over-stated the drawbacks of the 'traditional' approach to price reviews, by reference to CP2, and conversely over-stated the relative benefits of consultation between the regulated company and its customers, by reference to Constructive Engagement at the BAA airports.
- 2.16 Virgin considered that, while there may be benefit in developing a greater role for NERL/airline consultation to inform the outcome of CP3 review, this should not be at the cost of a diminution in the CAA's involvement. It considered that the CAA should maintain a strong presence throughout. It also considered that the separation of issues between NATS-airlines consultation on the one hand and CAA scrutiny on the other could derail consultation, given the inevitable links between these two strands.
- 2.17 Virgin made the following suggestions for the Customer Consultation process:
- while guidelines on consultation behaviour which NERL should adhere to were welcome, the CAA should spell out more clearly how it would monitor and enforce such guidelines;
  - it would be 'paramount' that the CAA be present at all meetings of the Customer Consultation Working Group and other sub-groups, where deemed necessary by NERL and/or the airlines. Such engagement by the CAA would ensure that NERL 'behaved well' in consultation, that timetables for discussion and information sharing were adhered to, and would allow better understanding of the issues by the CAA;
  - Virgin cautioned against the proliferation of topic-specific sub-groups, which risked diluting the airlines' limited resources versus NATS' comprehensive coverage. Virgin suggested that this risk could be addressed through the CCWG having CAA representation and NERL funding for two airline representatives to attend all CCWG and sub group meetings;
  - recognising that an airline withdrawing from Customer Consultation would lose its 'voice' in that particular forum, nevertheless the CAA should reconfirm that, in its own regulatory consultations, it would give the same due regard to all responses from all interested parties;
  - Virgin was concerned that the timetable was such as to constrain the CAA significantly in its ability to revert to a full traditional price review in

the event that customer consultation processes were failing to deliver sufficiently for the completion of the CP3 review.

Subject to these caveats, notably CAA direct involvement from the outset, Virgin was prepared to support the proposed Customer Consultation process.

### *IATA*

- 2.18 IATA raised a number of practical concerns about the ability of airlines, individually and collectively, to devote the right level and amount of resource to the proposed customer consultation process, noting the additional resources which NERL would be deploying. It questioned whether the CAA's suggested approach was, in fact, much different from current engagement with NERL in various fora, and therefore whether the additional effort required would be worth the likely results. IATA also highlighted concerns about the experience of airlines during the Constructive Engagement process at BAA's London airports in recent price control reviews.
- 2.19 Notwithstanding these concerns, IATA did support the customer-led approach, on the basis that the CAA will be directly involved in the NATS consultation with airlines to retain the ability to revert to a regulator-led approach in sufficient time, if necessary. IATA also considered that the CAA should retain responsibility for the key issues of business risk and efficiency, including the cost of capital and regulatory finance.

### *Prospect and PCS*

- 2.20 Prospect and PCS (the unions representing a range of NATS employees) made a joint submission, in which they broadly welcomed the more proactive approach by NATS to engaging with its customers on a number of issues. They noted the need for sufficient participation by airline users to make such a process worthwhile, and that such airline involvement might be difficult in the current economic climate. They noted that there was a strong case for customer engagement with NERL's business, which would help ensure customers were aware of the challenges posed in delivering effective ATM services and the need for a long term strategic approach to business planning.

### *NERL*

- 2.21 NERL supported the CAA's proposals for the overall approach to the CP3 review and, within that, the Customer Consultation strand. It made the following suggested modifications and enhancements:
- the CAA should provide more clarity on what it would view as the success criteria for Customer Consultation;
  - milestones and deliverables should be clearly established at the outset;

- the CAA should set out a clear mandate for the NERL-airlines process, to give it appropriate legal status;
- the process should be jointly chaired by NERL and an airlines' representative; and
- the CAA should monitor progress on a regular basis, through receiving briefing after each working group meeting from NERL and an airline representative, along with papers and minutes from the meeting.

### **CAA assessment and revised proposals**

2.22 Having reviewed the responses received to consultation, the CAA considers that there is adequate airline support for the CAA's proposed approach to the conduct of the CP3 review, and within that to going ahead with the Customer Consultation process. The CAA reiterates its overall objectives from this approach:

- to enable the CAA to set price controls on NERL for the CP3 period which are as well informed as possible about users' future requirements for service, capacity, resilience and cost efficiency;
- to enable airline users to understand as fully as possible NERL's plans for CP3 and to provide airlines with an opportunity to engage with NERL on developing these plans before their submission to the CAA;
- to enable NERL to conduct a comprehensive and structured consultation with its airline users to inform the development of its CP3 business plan before submission to the CAA;
- to provide a forum in which NERL and its airline users could seek to reach agreement on aspects of the CP3 plans and, to the extent that this is not possible, to provide the CAA with a clear view of the positions of each party.

2.23 It is clear, though, that all airlines and NERL itself would welcome greater direct involvement from the CAA in the process, as well as some greater clarity at the outset about the objectives and the 'rules of the game'.

2.24 The CAA agrees with this general proposition for greater clarity as to regulatory process and the involvement of the regulator. It sets out below a number of modifications to the customer consultation process which the CAA considers should address, at heart, the key concerns identified by several airlines. These do not, however, go as far as the direct involvement as a matter of routine of the CAA in NERL-airlines consultations. The CAA continues to believe that such close involvement would be likely to alter the dynamics of the dialogue adversely, resulting in substantially less useful outputs to inform the CAA's statutory task of setting price controls on NERL.

## 2.25 In light of the above, the CAA has decided on the following:

- to initiate the proposed customer consultation process between NERL and its airline users, with the objective of better informing the CAA's own regulatory decision-making in 2010 on the price control to be set then for NERL in the CP3 period;
- to issue a mandate to NERL and its airline users which articulates the legal context for the customer consultation process, the scope of NERL activities under review, the strategic questions for discussion, the framework of the CP3 review as a whole within which customer consultation will take place, the duties and responsibilities of the regulator, NERL and the airline users which participate in the customer consultation, the CAA's expectations as to the behaviours of NERL and its airline users in such consultations, and the CAA's use of consultation material. (The CAA is currently finalising the text of this mandate, and will aim to issue it to NERL and thence its customers by the end of February 2009);
- to request that NERL initiate discussions with airline representatives as soon as possible regarding the appointment of joint chairs (or a mutually agreeable independent chair) of the Customer Consultation Working Group. The CAA would expect to see this settled as soon as possible, as an essential precursor to the customer consultation approach proceeding. If it appears to the CAA that inadequate progress has been made in this area by Easter, then the CAA would have to reconsider whether the basis for proceeding with the customer consultation approach is likely to meet its objectives and the options for proceeding with a traditional regulator-led approach to the CP3 review;
- to request that NERL develop and then reach agreement with its airline users by the end of March on a code of conduct for the Customer Consultation Working Group: this should include practical ways of working consistent with the resources available on the airline side whilst ensuring that the necessary ground is covered;
- to ensure that the CAA is adequately informed of the progress in and the substance of discussions between NERL and airlines (not least for purposes of taking back the reins should that be necessary), the CAA requests that NERL supply to the CAA all papers, submissions, and data provided to the Customer Consultation Working Group, and minutes and actions arising from meetings of this group, contemporaneous to the airlines receiving this information;
- to enable the CAA to take a fully-informed view of the progress of and prospects for customer consultation, the CAA would conduct one 'mid-term' review in June/July 2009, at which it would seek both written views from NERL and airline participants and oral briefings from each side

(separately and jointly) as to progress and prospects. This approach balances the need to give the consultation adequate time to make progress while keeping open the possibility of the Customer Consultation reversion to the CAA should it not do so;

- to enable any party to raise any concerns about the conduct of the customer consultation process at any time, the CAA will maintain an 'open door' policy with respect to the views of the parties on this issue. The CAA will decide how best to respond to any issues raised in light of the specific concerns and the context of the customer consultation process at the time.

2.26 With regard to the concerns of some airlines that opex issues should be part of the customer consultation agenda, and the concerns of others that airlines may not have adequate resource to engage effectively with detailed information from NERL, the CAA proposes to lead the scrutiny of NERL's operating cost base itself, and to feed results of this analysis into the customer consultation process during summer 2009 – the CAA's plans in this regard are set out in chapter 3 to this document, including in respect of ANSP benchmarking stakeholder workshops to assist in informing this work.

2.27 The CAA would also expect NERL:

- to set out to the CAA and to its airline users its recent opex performance, explaining outturns by reference to the projections made at the CP2 price control review and to factors subsequent which have caused any divergences; and
- to set out its projections for opex in CP3 at a level of detail and disaggregation, with sufficient explanation of opex drivers, to enable airlines to reach an informed view on how incremental changes in capacity, service levels, planned resilience would be likely to affect NERL's projections of opex.

2.28 In conducting Customer Consultation, the CAA would encourage both NERL and its airline users to bear in mind the statutory duties which the CAA will operate within in reaching its regulatory decisions. In particular, NERL and the airlines should be mindful of the interests of passengers and other end-users of air transport services, and should endeavour to identify how the CP3 plans would meet end-users' needs. Direct engagement by the CCWG with passenger representative groups may assist in this regard.

2.29 The CAA considers that the proposed customer consultation, specified and monitored as above, should provide valuable opportunities for airline users to engage actively with NERL in the coming months to shape the key inputs to the CP3 price review. It should also provide sufficient incentives and discipline on NERL to participate constructively in this process.



### **3. CAA scrutiny of NERL's cost base**

#### **Summary**

- 3.1 This chapter discusses the CAA's proposed approach to scrutinising NERL's business plan during 2009, including the use of benchmarking and other analytical techniques to support the CAA's assessment. It summarises and assesses the consultation responses received on this issue. In light of these, the CAA sets out details of its proposed work plan to scrutinise NERL's cost base to inform both customer consultations in 2009 and, subsequently, the CAA's own regulatory decision-making.

#### **CAA proposals**

- 3.2 In its October 2008 consultation paper, the CAA described the issues surrounding the benchmarking of NERL including the approach adopted to benchmarking NERL's cost performance at the last review; and developments since the conclusion of the CP2 review. The CAA also set out its current views, for consultation, on its proposed approach to using benchmarking data and analysis to inform the process and conclusions of the CP3 review.
- 3.3 The CAA considered that to derive the most informative and useful results, benchmarking would require leadership from the regulator in terms of commissioning and publishing evidence and analysis. The CAA was therefore not minded to remit this topic to NERL and its airline customers for consultation. Instead, the CAA proposed to conduct its own assessment of available benchmarking data, supported where necessary by technical consultants. The aim of such a regulator-led project would be to inform dialogue by providing robust and transparent evidence to feed into broader consultation and discussions on NERL's current relative efficiency and scope for future improvements.
- 3.4 In summary, the CAA proposed two complementary strands of benchmarking analysis both to be led by the CAA:
- a top-down benchmarking analysis of NERL against other major ANSPs which would draw heavily on the Eurocontrol Performance Review Unit data; and
  - a detailed bottom-up scrutiny of NERL's efficiency covering a range of specific items in NERL's cost base including through cross-industry competition where feasible, along with broader cross-industry comparisons of NERL's productivity trends compared with other privatised utilities.
- 3.5 The CAA invited interested parties to comment on the potential usefulness of benchmark analysis to inform the CP3 price control review, and on the CAA's

proposed approach to developing analysis of the available European data on comparative ANSP performance.

- 3.6 A number of respondents to the October 2008 consultation document offered comments on the potential usefulness of benchmark analysis to inform the CP3 price control. A summary of the key points is set out below.

### **Responses to consultation**

#### *bmi*

- 3.7 bmi considered that benchmarking against European ANSPs, which it assessed to be inefficient due in part to Eurocontrol's full cost recovery mechanism, would yield little value to the price control review for NERL.

#### *British Airways*

- 3.8 British Airways (BA) considered benchmarking to be a very useful tool and stated that any benchmarking within Europe should be based upon the PRU data and could be extended to include comparisons of other essential elements e.g. manpower and productivity, investments, and trajectory management. BA considered that there are a number of other European Terminal Manoeuvring Areas (TMAs) that would make excellent comparators to NERL including German airspace (Frankfurt), Madrid, Amsterdam, Zurich/Geneva. BA also suggested that in order to benchmark against TMA's which offer equal complexity and demand, it could be useful to look at non-European hubs similar to the UK e.g. NYC: JFK/EWR.

#### *easyJet*

- 3.9 easyJet considered that benchmarking should be used to compare measured performance with established best practice – whether this is within a firm, an industry or the wider economy (the latter, in easyJet's view, being the most 'high powered') and in this way, to establish appropriate benchmarks for applying incentive regulation. In this context, easyJet considered that it is unclear whether any of the industry comparators identified by the CAA were appropriate, or indeed, whether any appropriate comparators exist. easyJet considered that for this reason, the PRU data should be treated with caution.
- 3.10 easyJet considered that while the use of benchmarking may be supported in principle and while the information it provides may be useful, it would be inappropriate to incorporate this into a RAB-based structure. easyJet noted that there are a number of physical characteristics that may serve to make like-for-like comparisons difficult.

#### *Ryanair*

- 3.11 Ryanair noted that additional data collection might be useful provided that the CAA uses it. Ryanair urged the CAA to address the fact that NERL's charges

are too high compared with the European average and that its service delivery is poor. Ryanair also commented that benchmarking NERL against its peers would be of limited benefit as most European ANSPs are also inefficient and high cost operators. Ryanair felt that comparison with best practice across a broad range of industries would be significantly more useful because NERL (as a regulated monopoly) should be required to be the industry leader in efficiency and cost effectiveness and CP3 must contain terms, which ensure this is the case.

#### *Virgin Atlantic*

- 3.12 Virgin Atlantic stated that it supports the use of benchmarking analysis wherever possible as this will better inform the CAA's understanding of achievable efficiency parameters and will increase the robustness and validity of the CAA's decision. Virgin considered that benchmarking should not be constrained to comparisons with the practices of other (monopoly) air traffic control providers. Virgin suggested that in many areas, e.g. IT, benchmarking against other industries would provide a highly valuable source of information to assist the regulator's decision. Virgin also supported the proposal that the CAA should lead the benchmarking analysis on the grounds that it has the resources and expertise required. However, the CAA should be mindful that airlines were knowledgeable and experienced purchasers of air traffic service from other providers. Virgin welcomed the CAA's recognition that benchmarking should be carried out early in the review to avoid dramatic shifts in expectations.

#### *IATA*

- 3.13 IATA was in full support of the CAA's aim of drawing on the widest range of relevant information available for the efficiency scrutiny of NERL's business plan and projections for CP3. In this regard, IATA stated that it highly valued the work and outputs of the PRU analysis. IATA considered that unit rates should continue to be closely scrutinised against the background that airlines operating in an increasingly competitive and de-regulated business will naturally seek to choose the least-cost routings when possible. IATA said that comparisons with European ANSPs should recognise that they worked within a full cost recovery system, which provided little incentive for improved efficiency. IATA was aware that parts of NERL's airspace were complex, but noted that reports by the European Performance Review Commission on ANSPs had indicated that it was less complex than Belgocontrol and no more complex than Swiss Skyguide and German DFS. IATA also noted that although complexity impacted ATCO productivity, operational costs were only 20 per cent of the total, while other support costs were 80 per cent.

#### *Prospect and PCS*

- 3.14 Prospect / PCS welcomed the early thinking of the CAA and agreed that the approach taken should be robust recognising the very specific demands and

challenges attached to providing ATM services in airspace as complex and congested as that of the UK. Prospect / PCS agreed that the simple use of the unit rate was misleading and that benchmark analysis should be developed that all stakeholders can have confidence in. Prospect / PCS argued that without this approach, there is a danger that stakeholders will put forward figures and analysis that best serve their arguments rather than being a considered objective approach. Prospect / PCS drew attention to the need for 'comparability' including ensuring that comparisons are made or adjusted to achieve a like for like and consistent outcome.

### *NERL*

3.15 NERL welcomed the CAA's early thinking on the use of benchmarking in the CP3 review but noted the limitations of using ANSP unit rates as a direct indicator of relative efficiency, given that they include costs other than those directly relating to the ANSP and are based on weight and distance. NERL also suggested that the following principles should be used to ensure that any benchmarking analysis is credible, robust and fit-for-purpose:

- comparability - making sure that comparisons are on a like-for-like basis, adjusting for factors that influence costs such as size, traffic complexity, the cost of living/taxation, seasonal variation in traffic flows and differences in accounting practices (including the demarcation between en route and terminal services). Benchmarking analysis should also recognise the safety regulatory restrictions based on the working hours of operational staff;
- proportionality - identifying the key areas for review and how they should be reviewed, so that effort is concentrated on the major cost areas;
- best practice - using respected and credible data sources; in particular, NERL considered that the data and expertise held by the PRU would provide a good data source; and
- achievability - recommendations resulting from the analysis should be practical and achievable in the context of running an ANSP, rather than theoretical and not focused on providing value to customers.

3.16 NERL confirmed its willingness to co-operate fully with the benchmarking analysis.

### **CAA assessment**

3.17 In general, respondents were supportive of the CAA's proposed approach to benchmarking. There was a range of views on whether the CAA should place more emphasis on the PRU benchmarking data or make use of more general comparisons against other industries.

- 3.18 Several respondents suggested that benchmarking specific processes e.g. IT against other industries may be particularly valuable in providing insight into NERL's relative efficiency. The CAA concurs that this type of comparison should be used to inform its assessment of NERL's cost base. Further details of the proposed approach in this area are set out in the section below.
- 3.19 Some respondents drew attention to the characteristics of ATS that may serve to make like-for-like comparisons difficult. The CAA considers that all types of benchmarking have certain limitations as regards the availability and comparability of data and caution, therefore, has to be exercised in interpreting the results. The CAA's proposed approach is to take an overall view of the results from a wide range of studies and to consider their implications for NERL's business as a whole.
- 3.20 In relation to the benchmarking based on the PRU data, the CAA proposes to proceed with a detailed top-down study of NERL compared to other relevant ANSPs as outlined in the October 2008 document. Further details of the proposed approach are set out in the section below. The CAA notes the argument made by some stakeholders that it may be valid to benchmark NERL's performance against TMA's, which offer equal complexity and demand and will consider how far this is possible as it develops the top-down benchmarking.
- 3.21 Overall, the CAA welcomes the broad support for its proposed assessment and considers that it is advantageous to compile a broad range of evidence upon which judgements can be formed rather than relying on a single piece of evidence. For that reason the CAA intends to proceed with the proposed two-pronged, top-down and bottom-up, approach to compiling benchmark evidence. The CAA sets out below an update on its plans for compiling this evidence.

### **CAA approach**

- 3.22 As indicated in Chapter 2, the CAA will combine the evidence emerging from the customer consultation with its own complementary assessment of other aspects of NERL's costs and revenues. In particular, it will review the scope and depth of coverage of the outputs from customer consultation, to assess what further analysis, scrutiny and/or consultation with the parties it may need to instigate to fill any gaps in the evidence base for the price control review.
- 3.23 In addition to assimilating the outputs from the customer consultation, the CAA proposes to undertake its own detailed review of NERL's business plan. This is likely to include the CAA undertaking a process of familiarisation with the plan, understanding in detail NERL's assumptions on each regulatory building block, assessing general trends and comparing NERL's CP3 projections against historic performance. Additionally, the CAA proposes to

augment its own analysis by examining certain areas of NERL's business in greater detail through independent benchmarking analysis.

- 3.24 The CAA has commissioned a study to explore how Eurocontrol's Performance Review Unit data on relative performance of ANSPs can assist in understanding NERL's underlying cost performance. The CAA considers that top down benchmarking against other major ANSPs requires a different type of expertise from benchmarking of generic functions or broader cross-industry comparisons of NERL's productivity trends compared with other privatised utilities. Familiarity with the PRU database and the nature of ANS provision is likely to be important.
- 3.25 The CAA proposes a study with two phases. The first phase will consider the available analyses and data and develop the required programme of detailed analysis. The second phase will involve conducting the analysis and deriving the results. As part of this study, the CAA proposes to facilitate workshops towards the end of each phase at which the CAA, NERL and other interested users can obtain feedback on the emerging approaches and results.
- 3.26 The CAA proposes that the analysis should focus in depth on the larger ANSPs which are most comparable to NERL rather than cross sectional comparisons with the full set of European ANSPs.

#### *Bottom-up benchmarking*

- 3.27 In addition to the top-down benchmarking described above, the CAA has commissioned (or in some cases is shortly to commission) a number of independent scrutiny studies on a range of NERL's operating costs, including:
- (i) A wide-ranging independent benchmarking exercise of NERL's staff costs that will compare unit costs across a number of different functions. Where relevant, the survey will draw upon data and results available from existing data sources. The study will examine for each major staff category and level the current and forecast wage rates and other employment costs, benchmarked against relevant comparator data from local / regional / national labour markets. The study will also consider absence and turnover rates as well as use of overtime and shift working and the impact of these factors on overall employment costs.
  - (ii) An assessment of the efficiency and effectiveness of NERL's corporate functions (to be defined in detail but likely to include, Finance, Facilities, IT, HR, and communications). The study will consider the existing data sources including the CANSO HR metrics survey, the PwC finance benchmarking results and evidence from the Gartner IT metrics. The study will build upon these reports, through a combination of desk-top review complemented, where

appropriate, with additional in-depth scrutiny and benchmarking to form an overall view on the cost effectiveness with which NERL undertakes its back office functions. In some areas e.g. IT, the comparator data may not be of sufficient breadth and depth in which case the consultants would need to apply judgement and use less quantitative measures to form their views on the scope for efficiency.

- (iii) A detailed independent scrutiny of NERL's allocation of costs and revenues. The objective of this study is to ensure that NERL's accounting policies are consistent with best practice observed in other regulated sectors, the outputs in the NERL business plan and represent an appropriate allocation between price controlled and non-price controlled businesses.

3.28 The selection of these studies was informed by the comments made in response to the consultation and the CAA's preliminary review of NERL's cost base which revealed that staff costs are by some way the largest component of NERL's operating cost (nearly two thirds). In addition, the CAA considers that a study that examines all back-office costs can inform general judgments about the scope for efficiency improvements across NERL's business. In relation to cost allocation, the CAA considers that there are a number of sensitivities around the allocation of costs between operating and capital expenditure as well as the treatment of inter-company costs and revenues between NERL and other parts of the NATS group that merit detailed expert review.

3.29 The CAA notes that NERL has advised the CAA of recent reforms to NERL's pension arrangements, the objectives of which are to enable NERL to manage better the future costs and risks of its pension liabilities. NERL has also advised that it believes a material increase to the rate at which it funds its pension scheme is now inevitable, mainly as a result of the deterioration in market conditions affecting the funding position of the scheme and the funding requirements stemming from pensions legislation. This will increase NERL's ongoing costs in CP2 and in turn will lead to higher costs in CP3. The CAA will examine the evidence on the current and projected costs of NERL's pension scheme, and will obtain specialist advice in doing so as needs be.

3.30 The CAA notes that NERL has also recently advised the CAA of a significant programme to reduce the long term operating cost base of the company. NERL has told the CAA that this is aimed at responding to the current economic recession and at benefiting customers in pricing in CP3, and in future control periods. The CAA expects these savings to be reflected in NERL's plan for Customer Consultation, and will assess these as part of its overall scrutiny.

3.31 In addition to consultancy-led projects described above, training costs have been identified by some stakeholders as an area that the CAA may wish to

scrutinise in further detail. The CAA has therefore requested that NERL prepare a report (by end April 2009) setting out full details of the approach it takes to staff training (particularly operational staff). This report will include details of policies and procedures, projected expenditure over CP3 compared to actual expenditure in previous years, analysis of drop-out rates and analysis of how NERL's training is calibrated to be consistent with relevant safety guidelines. In light of NERL's submission, the CAA will consider whether and how these costs should be scrutinised further.

- 3.32 The studies described above have not been designed to cover every aspect of NERL's business, rather they were selected to examine a relatively large sample of NERL's costs, benchmarking, where possible, against leading practice observed in relevant comparators. The overall objective of this work-stream (together with the top-down work) is to compile a body of evidence on operating costs, which will help the CAA and other interested parties to form an overall view on the scope for NERL to improve its efficiency over the five-year period.

#### *Capital expenditure*

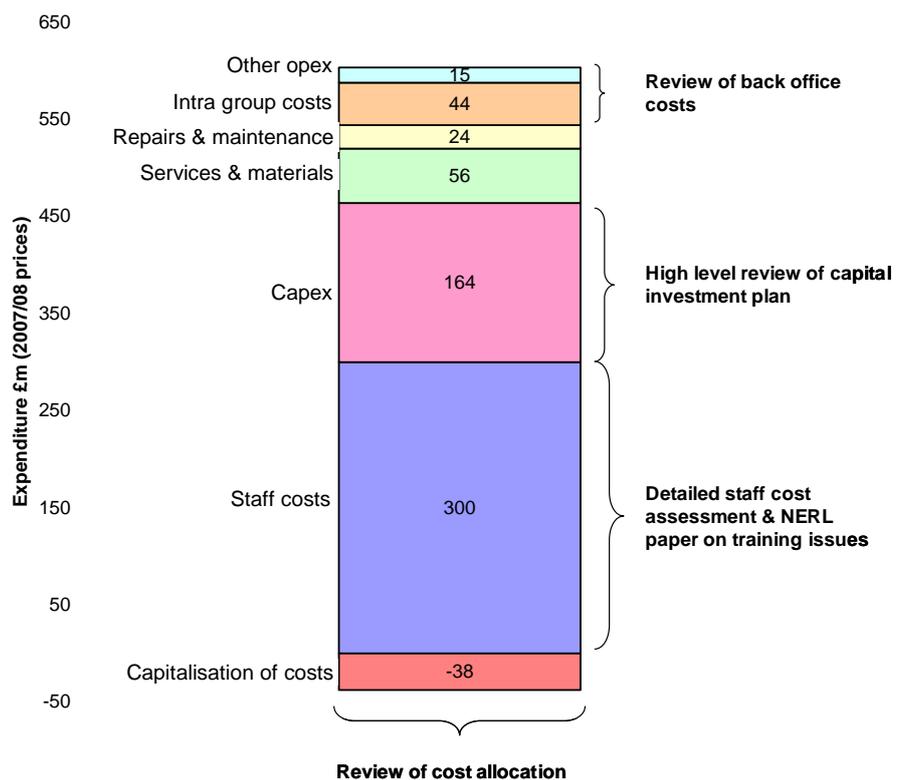
- 3.33 In order to scrutinise NERL's capital investment, the CAA proposes to commission a three stage review of the NERL investment plan which would involve the consultants:
- (i) forming a view on NERL's current and prospective ability to delivery investment projects efficiently and effectively, taking account of NERL's performance to date in CP2 in putting in place strengthened programme and project management and the results of these actions, including through reviewing a sample of recently completed and ongoing projects in detail to examine the extent to which NERL is completing projects on time and to budget and absorbing the lessons from its previous experience. The intention of this first part of the review would be to provide an early indication to the CAA and to interested parties of any pressing concerns with NERL's capital investment management approach and to identify issues which the CAA may wish to consider in further detail or to remit specifically to the customer consultation process to consider. The results of this first stage would be delivered in mid summer to the NERL and airlines, in order to inform ongoing customer consultations (and subsequently, the CAA's own regulatory assessments);
  - (ii) working with NERL to obtain a detailed understanding of the investment plan for CP3 which emerges over 2009 from customer consultation; and
  - (iii) conducting a risk assessment of NERL's plan and providing advice on costs/benefits of any alternative investment plan scenarios. These second and third stages would be conducted in the 4<sup>th</sup> quarter of

2009, drawing on the results of customer consultation and informing the CAA's own regulatory proposals for price control of NERL in CP3.

## Summary

3.34 For illustrative purposes, Figure 3-1 below sets out an indication of the scope of the studies proposed above relative to NERL's 2005/06<sup>1</sup> operating and capital expenditure base.

**Figure 3-1 Proposed scrutiny programme and NERL cost base**



3.35 The CAA intends to publish the preliminary outputs and first stage reports (where relevant) from these studies in summer 2009.

<sup>1</sup> 2005/06 is the latest year for which NERL has published disaggregated data in this form in its regulatory accounts.



## 4. Scope of price control

### Summary

- 4.1 This chapter discusses the questions on the scope of the NERL price controls which were raised by the CAA in its October 2008 consultation document. These in turn reflected the CAA's own assessment of market developments and the relevant arrangements for the provision of air navigation services, as well as discussion of issues raised by NERL with regard to potential changes to the scope of the price controls or to the factors to be taken into account in determining them.
- 4.2 In light of the consultation responses received, which the CAA summarises and assesses in this chapter, the CAA sets out its current views on each of the scope topics on which it consulted. At this relatively early stage in the price control review, these views are necessarily provisional, but they should provide a basis for NERL and the airlines to embark on the customer consultation process within clear guidance from the CAA on the scope of the price control. The CAA remains open to further evidence and views from any party on the CAA's assessment and provisional views reached on each topic (and on any other issue regarding the scope of price regulation). The CAA would expect to set out its firm views on the scope of the NERL controls in its initial price control proposals, scheduled to be issued for consultation in early 2010.

### Introduction

- 4.3 For ease of presentation, this chapter is organised by topic (as raised in the October 2008 consultation paper), with the CAA's original proposals and consultation responses summarised, before the CAA sets out its current assessment and views.
- 4.4 For ease of reference, the CAA's descriptions of the current price controls and regulatory tills are reproduced below.

### *Price controls*

- 4.5 There are currently two direct price controls specified in the NERL licence:
- Condition 21 limits Eurocontrol route charges and London Approach Charges by way of a cap on the aggregated revenue that can be derived from these services when added together; and
  - Condition 22 sets a simple price cap on Oceanic charges.
- 4.6 The London Approach charge was added to the price controls for CP2. It had not been subject to price control in CP1 although it was part of the

licensed business and had been included in the charging till for setting the CP1 price control.

### *Tills*

- 4.7 In setting price control conditions for CP2, all the costs of NERL were split into two component charging tills. The individual services in each till are set out schematically in Figure 4-1 below. The Oceanic till was relatively straightforward in that it related solely to the Oceanic service. The charging till for the Eurocontrol and London Approach services was based on the costs and revenues of all the services provided in UK airspace (known as UK Air Traffic Services or UKATS) under the en route licence. This included the contract with the MoD, North Sea Helicopters, and other services permitted under the licence which were part of the charging till but not directly price regulated. The costs also included allocations and cross charges for some activities which were actually performed by other companies in the group to support these en route activities and were offset by revenues for services provided to other parts of the group.

**Figure 4-1 Price control tills**

| NERL                  |   |              |                       |                |
|-----------------------|---|--------------|-----------------------|----------------|
| Oceanic Till          | UK Air Traffic Services Till                  |              |                       |                |
| Oceanic Price Control | Eurocontrol & London Approach Revenue Control | MoD Contract | North Sea Helicopters | Other Services |

### **Eurocontrol charges**

#### *CAA proposals*

- 4.8 The CAA proposed that NERL's Eurocontrol en route business should remain under price or revenue cap, as a natural monopoly.

#### *Consultation responses*

- 4.9 There was universal support from airline respondents (British Airways, bmi, easyJet, Ryanair, Virgin Atlantic, and IATA) for the continuation of price controls on the monopoly en route business covered by Eurocontrol charges. A number of airlines (bmi, easyJet, Virgin, IATA) suggested that the current mechanism by which the volume risk (of outturn traffic varying from the projections on which the price control is based) is shared between NERL and airline users through automatic changes to price caps, should itself be altered. These airlines suggested that given NERL's recovery from financial distress after September 2001, and the airlines' own current financial difficulties, the price control should be modified to place more, or all, of the volume risk onto NERL.

- 4.10 Prospect / PCS supported retention of volume risk sharing, which it considered had benefited users by £19 million over the traffic upturn in the period 2006-2008, net of the downturn projected for 2009.
- 4.11 NERL assumed the continuation of price controls on the Eurocontrol business. It argued strongly for retention of volume risk sharing as part of the price control design.

*CAA assessment and updated proposals*

- 4.12 The CAA notes the universal support for continued price controls on Eurocontrol en route charges. It also notes the divided views on the balance of demand risk which NERL should bear through such price controls, with airlines generally against retaining the existing volume risk-sharing mechanism in the current price control design, and with NERL and its unions in favour. The CAA considers that the argument of some airlines to place more demand risk on NERL through the price control is somewhat partial - there is no explicit recognition that any move to reduce the current degree of volume risk-sharing would be likely to increase the systematic risk borne by NERL and therefore the cost of capital. Parts of some airlines' arguments appear to be inconsistent in places, for example, in arguing for NERL to take all the volume risk on the downside, but retain none of the volume gains on the upside. Again, such a price control mechanism could be expected to skew the distribution of financial returns to NERL's investors adversely, which would need to be reflected in the cost of capital.
- 4.13 In light of the above, the CAA confirms its intention of retaining the price controls on NERL Eurocontrol charges. It is also minded to retain a volume risk-sharing mechanism similar to that embodied in the current price control design. This mechanism is part of a wider package of price control conditions, incentives, and policy frameworks, including the regulatory finance framework, which need to be considered in the round against the CAA's statutory duties. Any material shift away from volume risk sharing to all traffic risk being borne by NERL would need to be accompanied by a reassessment of the financial risk to the business, and hence a higher cost of capital. The CAA is not minded to go down that road, with the resulting higher charges to users. This is because the CAA considers that such a mechanism has provided in CP2 and would continue to provide in CP3 an efficient and equitable means of providing stability and robustness to NERL's finances, to cope with traffic variations compared to projections. Notwithstanding NERL's improved financial performance and robustness in CP2 compared to CP1, its capital base is still relatively narrow and it remains exposed to significant operational gearing. Given the centrality of the continuation of NERL services and capacity provision to the UK and European aviation sector, the CAA considers that the volume risk sharing mechanism is an important element in the economic regulation of NERL which provides some degree of financial stability for NERL, to the benefit of

users, while retaining incentives to operating cost efficiency. Therefore the CAA considers that such an approach is best calculated to meet its statutory duties.

- 4.14 With regard to concerns about the baseline around which volume risk is measured and shared, airline concerns about how the base forecasts are set are best addressed through NERL-airlines consultation in the first instance. The CAA considers that this process should provide the right level of information exchange and debate to enable airlines to scrutinise and challenge where necessary NERL's forecasts. Ultimately, it would be for the CAA to set the baseline traffic forecast against which volume risk sharing would be calibrated.

## **London Approach**

### *CAA proposals*

- 4.15 The CAA indicated that it was not inclined to bring Luton and London City approach services into the scope of the London Approach service in the Licence and hence within the London Approach price control, on the grounds that there did not appear to be any material benefits in doing so, set against the moderate direct costs of change. The CAA did see merit in rebalancing charges between Eurocontrol and London Approach, to reflect costs better in charges (and such rebalancing is open to NERL currently within CP2). The CAA proposed to keep London Approach charges separate from the current structure of Eurocontrol en route charges, but indicated that there could be scope to combine the London Approach with a new London-centred portion of UK en route services in any wider restructuring of charging zones.

### *Consultation responses*

- 4.16 BA agreed that a separate London Approach charge should continue but believed the approach services for Luton and London City should also be brought within this price regulated scope (subject to further analysis of the costs and impacts). BA was also open to the possibility of reconfiguring the boundaries of London Approach and Eurocontrol en route to create a broader charging zone of more complex airspace, including the current London Approach. BA disagreed with use of maximum take-off weight (MTOW) as the parameter used to determine the London Approach charge. It considered that moving to a combination of cost reflective London Approach charges based on the MTOW parameter would lead to cross-subsidy from UK London based long-haul airlines to UK and overseas short haul carriers. BA argued that the CAA should consider how approach charges are dealt with across Europe. The CAA should not discard option 1 (continue with current cost allocations) and option 3 (conflate London Approach into Eurocontrol charging zones). BA would prefer a modulation of en route charges for complex airspace, and more equitable recovery from all aircraft in the TMA.

- 4.17 bmi agreed with the CAA that the London Approach service should remain subject to the discipline of price control. It supported the merger of the London Approach cost base with that of the Eurocontrol en route service, leading to a single price controlled charge. bmi considered that this would provide a 'level playing field' with the air navigation services elsewhere in Europe, several of which operated airspace as complex as that around London. Although the separate charges would be merged, bmi considered that there would be merit in NERL providing visibility to users of the costs of the London Approach versus the element of the charge within the overall en route charge. bmi were opposed to the creation of a separate higher charge for London TMA, as this would introduce differential charging, reducing the extent of the EU level playing field.
- 4.18 IATA was concerned that the London Approach charge is cross-subsidised by en route services, and preferred cost-based charges. It considered that it would be helpful to have CAA views on the London Approach costs and charges. It agreed that there was no strong case for bringing Luton and London City approach services into the regulation of London Approach. Any move to create a higher charge London TMA should only be in concert with similar zones elsewhere in Europe, on grounds of competition between airlines.
- 4.19 easyJet and Ryanair both supported the CAA's proposals for no change to the boundary of regulation in respect of Luton and London City approach services, as did Luton Airport Limited. London City Airport, by contrast, stated that it supported the incorporation of London City's approach radar (known as Thames radar) into the NERL charging arrangements for London Approach. Its support appeared to be conditional upon an assurance received from NERL that such a change would lead to no reduction in airspace capacity for London City.
- 4.20 NERL agreed with the continued regulation of London Approach. It argued for inclusion of Luton and London City approach services into the regulated scope of London Approach, as this would provide operational coordination, coordination on the development of future airspace management, and equity for customers, by ensuring that competing airlines at the five major London airports would be charged on the same basis for approach services within the TMA. With regard to the CAA's argument that extending the London Approach regulatory scope could serve to reduce the ability of Luton and/or London City to seek alternative competitive suppliers to NERL in future, NERL considered that such contestability for complex approach services was more theoretical than practical. It argued that, conversely, by integrating approach services within the London Approach, Luton and London City would be left with a simpler and more contestable tower service. NERL also considered that the administrative cost of change would not be high.

- 4.21 Prospect/PCS considered that Luton and London City approach services should be brought within London Approach regulation, for operational coordination and future development benefits.

*CAA assessment and updated proposals*

- 4.22 With regard to the scope of the regulated London Approach, the CAA notes that views are polarised. The NERL and union arguments for extending the scope of regulation appear to be based on operational benefits from fully integrated approach services across the whole of the London area. In the CAA's view, these arguments have not articulated clearly how the current scope of the Licence, where approach services at Luton and London City are not included within London Approach or the price controls applying to the London Approach service, prevents or inhibits the operational benefits cited.
- 4.23 In light of this, the CAA considers that the evidence presented to date in favour of change does not look compelling. The CAA is therefore minded to proceed with the scope of both the London Approach service and the price control applied to it as currently defined. The CAA remains open to further evidence and views from the parties which might explain more clearly than hitherto in what ways the current boundary of services in the Licence or the price control reduces, in practice, the benefits from coordination across the London terminal area in operations and development of future systems and services.
- 4.24 With regard to the balance of costs and charges between London Approach and Eurocontrol en route, within the single price control till for NERL's Eurocontrol and London Approach services combined, the CAA notes the strong arguments from IATA for reduction in cross-subsidy from en route to London Approach customers, and that this was supported to some degree by BA. NERL accepted the case for rebalancing charges but appeared to be cautious about moving too rapidly in this direction and sought CAA guidance on the matter.
- 4.25 The CAA endorses a proposed rebalancing of charges between Eurocontrol en route and London Approach. This was explicitly allowed for within the CP2 price control design (through applying only one control to the total of Eurocontrol and London Approach charges), in which the CAA specified that any changes to charging structures should only reduce the extent of under-recovery of London Approach costs from its charges. In the first instance, the CAA would expect NERL to consult with airline users on a proposal for CP3 which demonstrably meets the requirements under the Single European Sky (SES) Charging Regulation to recover full costs and to adopt the specified weight-based formula. As the required implementation date for this charging regulation is 1 Jan 2010 (itself a derogation from an earlier deadline) and as there are no constraints within the CP2 price cap which would stand in the way of NERL rebalancing its charges between Eurocontrol en route and London Approach, the CAA supports the timely restructuring of charges by

NERL, in consultation with users, to bring its London Approach charge demonstrably within the parameters specified by the SES charging regulation. The CAA does not consider that such a change could or should be deferred to the start of CP3 on 1 Jan 2011.

## **Oceanic**

### *CAA proposals*

- 4.26 The CAA proposed that there should remain a separate price control for Oceanic as a monopoly service.

### *Consultation responses*

- 4.27 There was near universal support for the continuation of a separate price control for NERL's Oceanic services. IATA considered that the CAA should conduct some basic benchmarking to inform its efficiency assessment of this part of NERL's business. It argued that, as charges are per flight, there was no need for volume or revenue risk sharing. British Airways suggested that the price control should incentivise airlines to use data-link. Ryanair considered that the CAA had presented insufficient information on which to form a view.

### *CAA assessment and updated proposals*

- 4.28 The CAA confirms its intention to retain two separate price caps for (i) Oceanic and (ii) the two UK services (Eurocontrol en route and London Approach) combined. With regard to benchmarking, CAA confirms its intention to explore the scope for meaningful benchmarking between NERL Oceanic business and other comparable ANSPs.

## **Ministry of Defence**

### *CAA proposals*

- 4.29 The CAA proposed to continue to include the costs and revenues of NERL's contract with MoD for the provision of ANS services and facilities in NERL's cost projections for the purposes of setting price controls.

### *Consultation responses*

- 4.30 There were no specific responses on this issue.

### *CAA assessment and updated proposals*

- 4.31 The CAA confirms its intention to include the costs and revenues of NERL's contract with MoD for the provision of ANS services and facilities in NERL's cost projections for the purposes of setting price controls.

## North Sea Helicopters

### *CAA proposals*

- 4.32 The CAA proposed to continue with North Sea Helicopter services not being subject to any price control, but with the costs and revenues of such (excluding services within the East Shetland Basin which are outside the scope of the Licence) continuing to be included in NERL's single till for the purposes of deriving price regulated en route charges.

### *Consultation responses*

- 4.33 There was general support among those who expressed an opinion for maintaining the current regulatory approach to North Sea Helicopters, i.e. outside direct price regulation, but within the single till on which Eurocontrol en route and London Approach charges are based. IATA, bmi, easyJet and Ryanair considered that users of the North Sea Helicopter should bear charges which cover the costs of service provision, and noted that the cost reflectivity of the NSH services was not apparent from the material presented by the CAA. The CAA received no responses from helicopter operators themselves, despite drawing their attention to the CAA's consultation document.

### *CAA assessment and updated proposals*

- 4.34 In light of the general support for the status quo, the CAA is minded to continue with the current regulatory approach to North Sea Helicopters. The CAA will seek further evidence from NERL, to be shared with users, on the extent to which projections of revenues from NSH services in CP3 reflect the costs correctly attributed to these services.

## Additional business limits

### *CAA proposals*

- 4.35 The CAA indicated that it might need to reconsider the current limit (3 per cent of en route turnover) on revenues from business conducted by NERL beyond that directly permitted by the Licence, particularly to allow for commercial arrangements that may be appropriate to the development of NERL's role in Europe.

### *Consultation responses*

- 4.36 NERL thought it might be appropriate to revisit the 3 per cent limit. It said the limit had been introduced to ensure that NERL would not divert assets away from the provision of core and specified services, but there were now sufficient other licence controls to ensure that NERL continued to be financially stable and maintained a high service level. There were no other direct comments on this proposition. Some respondents argued for NERL to

have sufficient flexibility to achieve the potential benefits from Functional Airspace Blocks (FABs).

#### *CAA assessment and updated proposals*

- 4.37 The CAA would look favourably on any case from NERL seeking to broaden the definition of permitted activities and/or relax the 3 per cent limit on other business, where such a change could enable demonstrable improvements in one or more of: safety, efficiency, service delivery, operational resilience. This issue is discussed further below in the context of Functional Airspace Blocks.

### **Single European Sky Air Traffic Management Research (SESAR) programme**

#### *CAA proposals*

- 4.38 The CAA proposed that NERL's work as part of the SESAR Joint Undertaking (SJU) be conducted by the regulated business and recovered through Eurocontrol charges. The CAA proposed that NERL should be incentivised through the CP3 price control to manage the costs and risks of its participation in the SJU. As to the SJU costs incurred by NERL in CP2 (to date and projected), the CAA was not inclined to roll forward these relatively small costs for recovery in CP3.

#### *Consultation responses*

- 4.39 BA considered that the CAA should understand how other European ANSPs were funding contributions to SESAR, in order to avoid the situation where users are charged twice. Also, there was a need to avoid *de facto* subsidy by the UK to ANSPs which have not conducted the relevant development work. The CAA should consider all the options for alternative finance for SESAR. BA argued for clarification of what would happen if the project were to generate subsequent income to NATS. There needed to be detailed reporting of NERL's SESAR work to generate confidence among users. BA suggested that NERL's expenditure on the SJU should be mainly treated as opex. There were risks that NERL's non-SJU programme may change as a result of the SJU's own work programme; BA argued that this interaction needed to be carefully managed to allow participation in decision making by users.
- 4.40 bmi agreed that the recovery of SJU costs from Eurocontrol charges was justified, up to a point, given that the benefits of the SESAR programme would flow to users. bmi expressed concern about the control of SJU costs and recommended that NERL should be incentivised through the price control to endeavour to control costs, by not allowing SU cost over-runs to be passed through to users. bmi considered that SJU costs should be managed as opex, with current and ongoing incentives to efficiency, rather than allowing cost over-runs to be rolled into capex which would lead to charge increases in future.

- 4.41 easyJet supported SESAR, but did not agree that users should be exposed to the risks of open-ended cost escalation and the recovery of such cost over-runs from users. easyJet considered that NERL should be remunerated on the basis of demonstrated benefits delivered. The capitalisation of SESAR development costs should depend on the timing of benefits. Ryanair argued that NERL should not recover work for SESAR through user charges, and such costs should not be capitalised, as this would expose users to the risk of double charging. It thought that none of the risks for SJU should be reflected in the price control.
- 4.42 Virgin Atlantic was supportive of the CAA's proposed approach, particularly the management of the relationship between NERL and SESAR. It agreed that NERL's SESAR costs should be remunerated through user charges, but there needed to be safeguards so as to prevent double charging and ensure that any subsequent financial benefits to NERL from its participation in the SJU would be passed back to users. Virgin considered that the risk of participation in the SJU should be placed on NERL.
- 4.43 IATA fully supported the SESAR programme. As all ANSP members have agreed to align their own plans with this EU master-plan, then there should be no significant additional costs, nor any additional R&D activity done as 'in kind' payment, which were not already programmed within individual ANSPs' own investment plans. IATA considered that there needed to be robust safeguards on risk to users of SJU project management and future payments for any assets developed through SJU. Its view was that there was no case for rolling forward SESAR costs incurred in CP2 for recovery in CP3. IATA sought assurance that any revenues to NERL from SESAR would be passed back to users.
- 4.44 NERL argued that any SESAR work not funded by the SJU should be recovered through the en route charge. As regards how best to manage the financial risk to NERL and its users from SESAR costs, NERL supported a middle ground approach to capex and opex, whereby: accounting capital expenditure incurred by NERL as part of the SESAR programme would enter the regulated asset base with an allowable return; and any project operating expenditure should be covered by regulated charges, with the potential for increases or decreases if costs widen or fall beyond certain parameters. NERL also argued for a pass through for additional unforeseen SESAR (and EGNOS<sup>2</sup>) costs. NERL argued that such an approach would avoid perverse incentives to boost the original budget to cover contingency risk, or to stop work on a project because of budget shortfall, and that it would mirror the approach to cost classification and regulatory incentives that would apply if NERL were to develop the SESAR capabilities solely within the UK under the current CP2 model.

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<sup>2</sup> European Geostationary Navigation Overlay Service, a satellite based system which augments the positional accuracy achieved via other satellite positioning systems

- 4.45 Prospect / PCS agreed with NERL that costs incurred which were not funded through the SJU contribution should be recovered through the en route charge, and any additional costs should be treated as cost pass through.

*CAA assessment and updated proposals*

- 4.46 The CAA notes that there was broad airline support for NERL to participate in the SJU and for it to align its own development plans with those of SESAR as a whole, but some concern about the financial risks to users of allowing NERL simply to pass through costs in charges. Also, users expressed concern about the scope for double charging where NERL costs were capitalised or expensed as opex and then NERL were to pay a licence fee for use of the resulting SJU asset. Subject to that, there appeared to be some airline support for the 'middle way' suggested by the CAA, for the capitalisation of those SJU costs which would be capitalised if they were NERL UK project costs, and treating the rest as opex. NERL and the unions sought the protection of a cost pass through for all such opex. Those airlines which commented were opposed to the rolling forward of the CP2 costs incurred to date by NERL for SESAR participation into CP3.
- 4.47 The CAA considers that, fundamentally, there is a trade off in the regulatory treatment of the costs which might be attributable to or incurred by NERL in the course of the SESAR programme. If SJU costs were treated entirely as any other opex item, then this would provide strong incentives to efficiency by NERL, but poor temporal matching of benefits (likely to emerge beyond CP3) and charges (incurred by users in CP3). If on the other hand, costs were treated as capex, then there would be significantly weaker direct financial incentives on NERL to efficiency and economy but good temporal matching of benefits and charges (users would pay for assets developed over time largely only once they were brought into service). Some airlines appear favour the latter approach, at least in part (e.g. BA), and some (e.g. easyJet) the former.
- 4.48 The CAA confirms its intention to place incentives on NERL through the CP3 price control to create an appropriate combination of incentives and flexibility to encourage NERL to seek economy and efficiency in the costs associated with SESAR, which would ultimately be funded by users through regulated charges. In particular, for CP3 the CAA proposes to treat NERL's costs arising from its membership of the SJU and its participation in the SESAR project as follows:
- NERL would be required to produce annually a rolling five year projection of NERL's activities, costs and revenues associated with SJU/SESAR, with detailed budgets for the coming two years, explanation of variances from previous projections, and to consult users on such. This would provide to users and to the CAA a clear picture of the flows of cash and work now and in future to provide evidence that NERL was recovering costs only once.

- NERL would be required to account for SJU/SESAR costs in regulatory terms as if the project were a UK-based NERL project, i.e. capitalisation of project costs where appropriate under IFRS accounting rules, opex treatment for rest.
  - NERL should identify projections for SJU/SESAR opex and capitalised project costs in its CP3 business plan projections and, ultimately, the CAA would identify what it considered to be reasonable projections of such costs in its own price control proposals.
  - Variations in such opex during CP3 would be treated as other opex, i.e. subject to RPI-X efficiency, with NERL bearing cost over-runs in the form of lower than projected returns, and benefiting within the five-year control period from any reductions in outturn opex versus projections made in setting the price control. Capitalised project costs would be treated as other capex, i.e. subject to recovery of all direct costs and capital charges, with regulated charges varying up and down for any equivalent variances of outturn capex versus projections made in setting the price control.
  - The CAA is not currently minded to create any other cost pass through mechanisms for NERL's SJU/SESAR costs, but is willing to consider this issue further, in light of further evidence about the likely future costs to NERL of SJU/SESAR participation.
- 4.49 With regard to the costs incurred to date by NERL on SJU participation, the CAA is not minded to include CP2 costs at the currently projected levels, which are very low relative to overall costs, into the cost projections on which the CP3 price cap will be set.
- 4.50 With regard to any revenues generated from the intellectual property rights (stemming from NERL's investments) which are subsequently licensed or transferred to other European ANSPs or to the SJU itself, the CAA would expect to see such revenues accounted for transparently within the UK ATS single till. This would provide some offset against the costs of regulated en route and London Approach services, and would serve to moderate future charges via the operation of the single till.

## **Functional Airspace Blocks (FABs)**

### *CAA proposals*

- 4.51 The CAA noted the current and prospective developments of FABs involving NERL, which had the potential to deliver operational benefits and cost efficiencies to users. The CAA considered that the current arrangements of cross-charging for services outside the UK Flight Information Region (FIR) and vice versa should provide adequate flexibility for NERL to contract with FAB partners and for the relevant costs and revenues associated with the

provision of UK air traffic services to be reflected in the CP3 price control. The CAA recognised that it may need to exclude NERL revenue from FABs from the existing 3 per cent turnover limit on unregulated activities.

#### *Consultation responses*

- 4.52 Most airlines agreed that the CP3 price control should provide adequate flexibility for NERL to achieve the benefits for users from FABs. IATA considered that the CAA's proposals should provide adequate flexibility for cost savings from FABs to be realised in CP3 and beyond. IATA was concerned, though, about the lack of ambition and scope of any FAB to contribute to significant cost savings and efficiency benefits. BA, easyJet and Virgin Atlantic agreed that the CAA's approach represented a workable approach. Virgin added that, given the absence of any firm proposals for fundamental change, it was not necessary to consider structural changes in the price control framework now. Ryanair considered that FABs should be operated by a single service provider that would charge users directly.
- 4.53 Prospect/PCS noted that the impact of FABs was still uncertain. They considered that CP3 arrangements needed to give NERL adequate certainty for long term planning and investment.
- 4.54 NERL emphasised that the CP3 regulatory framework and licence conditions should be sufficiently flexible to deal with any further evolution of FABs. It requested that the CAA be clear about the criteria by which to judge whether the implications for the structure of regulation due to changes as a result of FAB developments would be sufficient to reopen the CP3 price control.

#### *CAA assessment and updated proposals*

- 4.55 The CAA confirms its intention to provide adequate flexibility for NERL within the CP3 price control and licence conditions to enable and encourage NERL to seek to achieve operational and cost efficiency benefits for users from the current UK/Irish FAB and any other FABs in which NERL may participate in future. The CAA considers that the basic framework of the price control, its scope, and the treatment of costs and revenues for services contracted in and out by NERL together provide much of that flexibility.
- 4.56 The CAA is willing to make changes to the definition of and/or limits on permitted business to allow for significantly greater activity by NERL outside of the UK en route business as part of the UK/Irish FAB and, prospectively, any other FAB which NERL may join in future. Such changes could entail either raising the 3 per cent limit and/or reclassifying NERL activity under the FAB as outside the definition of 'any other business'. The CAA is currently minded to adopt the latter approach, as this would allow for a clearly defined carve out from the normal 3 per cent limit for specific FAB purposes. To the extent that NERL's participation in the SJU could in future lead to revenue flows back to NERL, as well as to costs incurred by NERL, then such activity

and revenues could also be given a specific carve out from the 3 per cent limit.

- 4.57 Given the paucity of information at this stage in the price control review about the potential scale and impact of future FAB developments, the CAA is not minded to provide at this stage of the CP3 review explicit assurance to NERL on the as yet unspecified circumstances arising from FAB development which might affect NERL's costs, revenues and activities.

### **Incentive pricing of services**

#### *CAA proposals*

- 4.58 The CAA was supportive in principle of incentive-based pricing. It indicated that it was unlikely to oppose price differentiation based on costs.

#### *Consultation responses*

- 4.59 Some airlines were opposed to the concept of incentive pricing, which they considered was ineffective in altering airlines' demands for use of highly congested airspace. Others were supportive of incentives on airlines to introduce new technology/operational practices which, collectively, could improve airspace operations.

#### *CAA assessment and updated proposals*

- 4.60 The CAA reaffirms its earlier support in principle for NERL to have the flexibility to modify price structures to encourage airline responses – whether through changed operations or technology adoption - which can be shown to be likely to deliver benefits overall to NERL users in terms of safety, efficiency, resilience, environment.

### **Force Majeure – London Olympics 2012**

#### *CAA proposals*

- 4.61 The CAA was not inclined to limit the scope of the price control or any aspect of any incentive mechanism for the period of the London Olympic Games in 2012.

#### *Consultation responses*

- 4.62 All of the airlines which responded agreed with the CAA's proposal that there was no case, on the evidence presented, for any relaxation of the CP3 price control for the Olympic period.
- 4.63 NERL did not agree with the CAA's preliminary view that the impact on NERL's costs or delay performance arising from the increased traffic envisaged throughout the period of the Olympics and Paralympics is likely to

be limited. It noted the experience of other host countries, which faced a material increase in traffic, and the likely increase in complexity of air movements, and hence controller workload, arising from heightened security requirements and an increase in business jet traffic. NERL argued that the cost impact would outweigh the additional revenues received from additional traffic.

#### *CAA assessment and updated proposals*

- 4.64 The CAA reaffirms that it is not minded to limit the scope of the price control or any aspect of any incentive mechanism for the period leading up to and including the 2012 London Olympic and Paralympic Games. It would be willing to assess and incorporate evidence on the likely impact of Olympic-related traffic on NERL's overall traffic, charge revenues and costs, in reaching the CAA's proposals for NERL's CP3 price control.

### **Core and specified services**

#### *CAA proposals*

- 4.65 The CAA noted that it and NERL were currently giving further thought to definition of core and specified services, with the aim of providing greater clarity to NERL and its users on what NERL could be expected to provide under its licence.

#### *Consultation responses*

- 4.66 NERL commented on the cost implications for NERL arising from any required airspace change proposals arising from development of a new runway at Stansted and/or Heathrow, or possibly Gatwick in future, or arising from change in ownership at some BAA airports. NERL envisages that the scale, and hence the cost, of public consultation on necessary airspace change proposals would be very significant. It noted that its expenditure on the Terminal Control North airspace change consultation had already cost NERL close to £1 million. The costs of consulting on airspace changes required as a result of a new runway in London would be likely to be significantly higher. Therefore, NERL believed that it was unreasonable for it to bear the full risk for the cost of consultation, and suggested that these costs should be borne by the CAA.

#### *CAA assessment and updated proposals*

- 4.67 With regard to costs of airspace change consultations, CAA considers that NERL is best placed to manage the costs and risk of these, which fall within the ambit of its activities that are authorised by the licence. The CAA reaffirmed this longstanding position in its recent submission to the House of

Commons Transport Select Committee's current inquiry in UK airspace, where the CAA stated<sup>3</sup>:

"Notwithstanding the need to consider the environmental benefit, airspace changes are normally initiated when safety, demand or capacity require it. Whilst anybody can initiate an airspace change, in most cases the requirement for such a change originates from Commercial Air Transport needs and the CAA principally believes that changes will be initiated by an aerodrome operator, an Air Navigation Service Provider, or a combination of the two, to meet this commercial demand. Consequently, it is entirely appropriate that the airspace user community should fund changes as they are initiated to meet their requirements."

The CAA considers that the costs of airspace change consultations should be treated like any other opex item, for which a projection of the efficient level of expenditure is incorporated within the CAA's assessment of the CP3 price control.

- 4.68 With regard to the definition of specified services, the Department for Transport (which is responsible for ensuring UK compliance with relevant EC legislation) and the CAA have, independently of the CP3 review, been exploring with NERL the extent to which its services and charges are consistent with the requirements of the EC Charging Regulation (No. 1794/2006), which lays down a common charging scheme for air navigation services. In particular, under Article 9 certain types of service are exempt from the payment of en route charges while Member States have discretion to exempt other defined categories.
- 4.69 One criterion that distinguishes between those flights which are exempt and those that are not is related to whether the flight concerned is operating under Instrument Flight Rules (IFR) or Visual Flight Rules (VFR). Only the smallest aircraft operating under IFR are exempt from en route charges and the DfT has agreed to reimburse NERL the costs associated with providing a service to such aircraft.
- 4.70 So far as VFR flights are concerned, these are generally exempt from en route charges and consequently, the costs of the services provided by NERL to such flights ought to be excluded from the en route cost base consistently with the EC Charging Regulation. These costs are potentially identifiable where the relevant service is provided exclusively for the benefit of VFR flights. However, NERL currently provides a range of services under its air traffic services licence that can be used by VFR traffic to a greater or lesser degree and which also benefit, directly or indirectly, IFR traffic. Some of these services are individually specified in the Licence (mainly under the Specified Services in Schedule 4) while others are provided under the

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<sup>3</sup> Transport Committee inquiry into the use of airspace, Memorandum by the Civil Aviation Authority, October 2008, paragraph 52

umbrella of the Core Services in the Licence. The DfT has been considering whether the costs of these services should be in the en route cost base on the grounds that they are core elements in the overall Air Traffic Management structure within the UK and are designed to protect aircraft both within and outside controlled airspace. This review could result in proposals that the costs of certain services provided by NERL that are not currently within the en route cost base should be incorporated. If so, the CAA is ready, as part of the CP3 review, to consider requests, with supporting evidence, to allow the costs of such services for the purposes of setting the price control. The CAA's decision as to their treatment within the price control will be governed by its duties under section 2 of the Transport Act 2000.

## **New NERL products**

### *CAA proposals*

- 4.71 The CAA set out its view that new products would be allowed under the NERL licence (condition 5), without falling into the turnover or assets limit on other business. The CAA indicated that it was broadly supportive of NERL bringing forward differentiated services which better met users' needs. The CAA had not yet formed views on need for regulatory incentives and/or constraints on new product offerings by NERL.

### *Consultation responses*

- 4.72 BA considered that NERL should be incentivised to move forward with as yet unplanned developments, but was concerned about the risk of NERL reprioritising its planned developments to pursue new opportunities. This risk could be mitigated by a clear roadmap of user priorities. If NERL pursued developments outside user priorities then it should do so outside the CP3 cost allowance and should be able to retain the revenues outside the price control. BA supported price incentives to influence user behaviours to adopt technology or equipment. It agreed with the CAA analysis that there was a risk from enhanced services, in that users could end up paying twice and the basic service could be compromised. But due to the diverse needs of users, BA would support the ability of NERL to develop enhanced services as options for users.
- 4.73 easyJet considered that NERL's pricing structure for products and services should not be used to incentivise customer behaviour, but only to reflect NERL's cost base. It noted that charges based on the MTOW parameter discouraged larger aircraft. easyJet considered that any disincentive to innovate came from the RAB-based approach to price regulation, but nevertheless NERL did face incentives to generate additional revenue within each five-year control period.
- 4.74 Ryanair argued that the CAA should ensure that CP3 incentivises good behaviour by NATS and not incentives on users. Ryanair made a number of

suggestions for incentives/constraints on NERL's overall performance, including: targets variable by month; maximum delay limits, with no user charges if these were exceeded; emphasis on delays caused by NERL staff absences affecting the first daily wave of flights, and those affecting peak summer traffic; NERL to pay compensation under EU Regulation 261 resulting from delays or flight cancellations due to staff shortages/service failures. Ryanair considered that, with regard to new products, R&D spend should only be on SESAR-compliant projects.

- 4.75 IATA did not support price differentiation unless demonstrably cost-related and supporting better use of airspace capacity. It considered that peak charging typically had negligible impact on congestion.
- 4.76 NERL argued that it currently faced insufficient incentives to introduce new products. It noted that it was willing to work with CAA to put in place measures to protect customers from any double counting of charges and returns.
- 4.77 Prospect/PCS considered that NERL should not be penalised where it was able to develop products and services in line with customers' needs.

#### *CAA assessment and updated proposals*

- 4.78 As with the issue of incentive pricing (discussed above), the CAA notes that there was some support for pricing signals to encourage good behaviour by airlines, to the ultimate benefit of all. Most airlines were, however, more focused on using the CP3 review to place broader and stronger financial incentives on NERL itself to deliver better service. BA was the strongest proponent of innovation in products and services by NERL, provided that this was supported by users, and was part of an overall development plan on which it had consulted users. BA also appeared to support the concept of new products being developed at NERL's cost and risk outside the regulatory single till, with revenues similarly unregulated under the En route or Oceanic price cap. NERL provided no additional evidence or detailed in support of its earlier claims that the current price control regime disincentivised development of new products.
- 4.79 In light of the above, the CAA reaffirms its previous support in principle for product and service differentiation where NERL can demonstrate that such could add value to users and would not detract from core services for the majority of users. The CAA would be willing to discuss with NERL any specific proposals which it may have for accounting for new product development costs and revenues, with the aim of enabling product and service innovation to the benefit of users of new products and without detriment to users of core En route and Oceanic services. The CAA's starting presumption would be that:
- NERL's cost base should be sized to deliver its defined core products

and services (including planned contributions to SESAR/SJU and the UK/Irish FAB);

- the net additional revenues associated with any new products would be treated as unregulated revenue streams within the single En route single till; and
- there would be no provision within the CP3 price control projections made for the putative additional costs of any new products, and no putative revenues projected from such products.

## **New costs to NERL**

### *CAA proposals*

4.80 The CAA indicated that it would need to consider further the treatment of potentially much higher costs to NERL than hitherto of radio spectrum licences, which might arise from Ofcom's current consultation on proposals to introduce incentive pricing to spectrum used by the aviation and maritime sectors.

### *Consultation responses*

4.81 IATA was concerned that NERL might be allowed to treat any extra spectrum charges as an automatic cost pass through. IATA supported CAA's CP2 policy of leaving NERL with a positive incentive to minimise spectrum charging costs as a result of Ofcom proposals. On a broader point relating to the interaction between the CAA and NERL on a range of price control scope and cost issues, Ryanair considered that CAA should ensure that discussion of scope and incentives did not lead to 'regulatory gaming' on the part of NERL.

4.82 NERL identified and discussed a number of scope issues which it considered had not been adequately covered so far by CAA, a number of which (Olympics, costs of airspace change, 3 per cent limit on other business) have been discussed above. Other issues raised by NERL were:

- mechanisms for mitigating pensions cost risks;
- spectrum costs, where NERL suggested a cost pass-through; and
- the prospects for UK deflation in retail prices, which led NERL to suggest a 'collar' be introduced used for RPI in the RPI-X price control formula so that the RPI factor used is always non-negative.

4.83 Prospect/PCS raised a general concern that an overly stringent approach to economic regulation in CP3 would have a negative impact on NERL's staff and (with recent reforms to pensions and redundancy terms) could increase the risk of industrial action leading to adverse impacts on service delivery.

Prospect/PCS considered that there should be some safeguard against the impact of a negative RPI, as the delivery requirement and conditions of NERL's licence would limit NERL's ability to respond in a deflationary environment.

#### *CAA assessment and updated proposals*

- 4.84 With regard to spectrum charges, the CAA notes that Ofcom's consultation with the aviation industry on the phased introduction of administrative incentive prices for certain types of radio spectrum used for aviation (including the bands used for NERL's radars) has identified significant concerns from the sector. In light of this, Ofcom has protracted the consultation and implementation timetable. In December 2008 Ofcom stated: "We have no plans to change the fees for VHF communications channels before April 2010 at the earliest, and we will give stakeholders as much notice as possible of any specific changes. We will provide further information on the next steps we plan in this area in spring 2009. We do not expect fees for radar and aeronautical navigation aids to be subject to any change related to this policy until some time after 2010. There will be a further full consultation before any changes are made to these fees, including an impact assessment."
- 4.85 It thus appears to the CAA that materially increased spectrum charges are unlikely to be levied on NERL during CP2, but that there remains the prospect that such charges would be imposed early in CP3. It also appears possible, but not likely, that the CAA and NERL will have clear visibility of such spectrum charges by the end of the CP3 review in 2010. The CAA will consider further the treatment of potentially significantly higher costs to NERL of radio spectrum licences in CP3, in light of information as it emerges from Ofcom's ongoing policy development and consultation. The CAA sees no case at present for developing a cost pass through mechanism for such costs.
- 4.86 With regard to NERL's concerns regarding the risks of higher than projected pension costs emerging during CP3, the CAA will consider this issue in its scrutiny of NERL's business plan and cost projections (as discussed in chapter 3).
- 4.87 With regard to Prospect/PCS comments as to the impact of 'overly stringent' economic regulation on staff morale at NERL and hence their propensity to take industrial action, the CAA would expect NERL, as any other good employer, to manage its relations with its employees and their representatives, recognising the economic context within which the company and its employees operate. NERL should also do so in such a way that it can provide efficient air traffic services consistently with its statutory duties as a licence holder. NERL is under a statutory obligation under section 8 of the Transport Act 2000, *inter alia*, "to secure that a safe system for the provision

of authorised air traffic services in respect of the licensed area is provided, developed and maintained”.

- 4.88 With regard to NERL and Prospect/PCS comments about the implications of deflation and the effect of an RPI-X price control, the CAA will consider this issue further in its analysis of the NERL cost base.



## 5. Interaction between EU Single European Sky II and CP3 Review

### Summary

5.1 This chapter discusses the Single European Sky II (SES II) proposals published by the European Commission in June 2008, and examines the links to the NERL CP3 process. It summarises the consultation responses received on this issue. It also reports on latest developments in the evolution of the SES II proposals in EU political fora. The CAA sets out its updated current assessment in light of consultation and EU developments.

### CAA proposals

5.2 In its October 2008 consultation paper, the CAA set out its view that the existing performance framework for NERL, updated and augmented where necessary through the CP3 review, would make the UK well placed to deal with the SES II performance framework for en-route services, when it enters into force. The CAA considered that there would be merit in exploring further during the CP3 review the scope for broadening the performance targets in the NERL Licence to encompass flight efficiency and perhaps broader measures of environmental impact, related to aircraft emissions.

5.3 In terms of overall approach, the CAA intended to seek, as far as possible, to anticipate the scope of the performance standards in SES II and to ensure that regulatory incentives covered all the key performance areas as part of the price control conditions set for CP3. The CAA's goal would be to submit the CP3 performance targets and projections as a central part of the UK's contribution to SES II performance for the five years 2011-2015. It was possible, though, that the outcome of the SES II performance setting process could require more, broader or higher performance targets to be placed on NERL. The CAA intended also to consider, therefore, as part of the CP3 review, the potential change mechanisms which may need to be embedded in the CP3 settlement in order to have the ability to change certain performance parameters during CP3, were that needed to bring the UK into alignment with SES II requirements.

### Responses to consultation

#### *British Airways*

5.4 British Airways supported the CAA's proposed option ii, of anticipating as far as possible the SES II performance requirements in the CP3 review. It noted that NERL is currently the only European ANSP with binding targets and full formal regulation, and BA did not wish to see requirements on NERL developed through the CP3 review becoming diluted via the SES II process. BA expected that performance requirements on NERL set as part of the CP3 review would be significantly more stringent than those which might emerge

from the SES II process. As such, BA did not anticipate the need for reopening or amending the CP3 price control to align these controls with SES II requirements. It expected the CAA to 'ringfence' the key performance standards required of NERL during CP3.

#### *easyJet*

- 5.5 easyJet agreed that CAA should include a change control mechanism by which CP3 performance measures could be revised to come into line with any higher SES II performance requirements (although easyJet noted the uncertainty about whether EU states would in fact reach agreement and implement such in the timeframe under consideration). In light of the current uncertainty regarding SES II implementation, easyJet argued for the CAA to develop the CP3 price control with UK objectives foremost, albeit with provision for change within period if need be. It did not support the options of 'second guessing' the outcomes of SES II, or of altering the CP3 dates to align with an as yet uncertain EU timetable.

#### *Ryanair*

- 5.6 Ryanair encouraged the CAA to concentrate on regulating NERL to improve current performance to the benefit of users, without trying to second-guess future EU requirements. It considered that the CP3 price control should contain mechanisms to ensure that NERL achieves the SES II targets (when set), delivers sufficient capacity to meet users' needs, and delivers a 50 per cent reduction in ATC costs per flight. Ryanair also commented under this heading on the need for NERL's research and development effort to be solely focused on SESAR-compliant projects, and that NERL should only invest in new systems which provide quantifiable benefit to users.

#### *Virgin Atlantic*

- 5.7 Virgin Atlantic accepted the CAA's approach of anticipating as far as possible the SES II requirements in the CP3 review. It considered, though, that there should be protection for users in any licence modifications necessary to align CP3 controls with SES II: changes should only be made to bring NERL into compliance with the SES II performance standards, and not to dilute standards set by the CAA as part of the UK regulation of NERL.

#### *IATA*

- 5.8 IATA fully supported the introduction of the SES II performance framework, in particular the binding targets. It would expect NERL, as the only fully commercial ANSP subject to independent economic regulation, to be set performance targets by the CAA somewhat more challenging and robust than those that apply to other European ANSPs operating under less stringent full cost recovery regimes.

*Prospect and PCS*

- 5.9 The two unions expressed concern about the potential impact of dual regulation, given the fundamental differences between regulation of NERL and of other European ANSPs. Prospect and PCS considered that NERL could face more stringent and contradictory regulatory requirements from UK and EU authorities.

*NERL*

- 5.10 NERL set out its full support for the new SES II performance framework which should deliver benefits to users across the EU. It noted, however, that considerable uncertainty remained at present about the detail of the implementation. It agreed with the CAA's assessment that the UK's existing system of incentive regulation made it well placed to respond to the new SES II performance framework, and it shared the CAA's objective of effectively submitting the NERL CP3 metrics and targets as a substantial element of the UK En route SES II performance plan.
- 5.11 NERL considered, however, that there could be greater divergence between the current UK system and the SES II framework than the CAA had assumed, which could make interaction between the two regulatory processes more complex. NERL highlighted possible divergences in a number of areas:
- NERL suggested that the scope of SES II is broader than NERL's En route and London Approach services, encompassing 'gate-to-gate' services including terminal and airport services. The UK's National Performance Plan (to be drawn up by the CAA) would thus have to cover other providers of ATM services as well as NERL, and NERL suggested it would have to give consideration to the impact of other players (e.g. airport operators, airspace users in setting airport capacity declarations).
  - Functional Airspace Blocks create the potential for performance measures to be set at the FAB level, above the individual national targets. NERL considered that this could become a significant factor during the CP3 period, presenting opportunities for significant efficiency gains which may not be incentivised through a UK-only measurement.
  - Potential differences in coverage of key performance areas could emerge, notably where performance metrics are still immature and lack historical data (e.g. environment, flight efficiency). Such measures might best be used for performance reporting, rather than as incentive targets during CP3. NERL also cautioned against applying regulatory financial incentives on safety performance. Overall, NERL did not consider it feasible for the CP3 review to ensure that NERL faces regulatory incentives in all of the SES II Key Performance Areas.

- Potential differences in Key Performance Indicator definitions could arise, for example in delay performance, where the CP2 measure applying to NERL differs significantly from the EU Performance Review Commission measure of average summer ATFM delay per flight.

5.12 Overall, NERL considered that, while the CP3 review process should as far as possible anticipate the SES II Performance Framework, there were still significant uncertainties about how the latter would develop and be implemented. As such, it would be prudent to build into CP3 a mechanism to enable aspects of the price control to be re-adjusted, given clear pre-defined triggers and boundaries.

### **Update on SES II**

5.13 Since the launch of the Commission proposals in late June 2008, the SES II dossier has made good progress in the European Council and Parliament processes. The UK strongly supports the development of a performance-based approach to ATM, and a General Agreement was reached among all Member States at the December Transport Council. Since then, discussions have been ongoing between Council, Parliament and the Commission, with a view to reaching a final political agreement on SES II in the Spring. It is expected that there would then be a period of perhaps 18 months to 2 years in which detailed Implementing Rules for the Performance Scheme would be developed and agreed.

### **CAA assessment and revised proposals**

5.14 There was general support for the CAA's overall proposition that it should aim to use the CP3 price control review to anticipate as far as possible and ensure consistency with the future requirements on NERL arising from the SES II Performance Framework. The CAA confirms that this remains its intention, subject to the overriding requirements on the CAA to fulfil its statutory objectives in its regulation of NERL under the terms and conditions of the licence. The CAA considers the UK should continue working actively to influence the shape and implementation of the SES II Performance Framework, to the benefit of UK airspace users:

- by actively promoting the UK's incentive-based approach to regulation of NERL; and
- by developing an appropriate suite of performance reporting and incentive measures for CP3 which align so far as possible with the emerging scope of the SES II regime.

The CAA will continue to work closely with Government and others to ensure UK influence is brought to bear.

- 5.15 The CAA also recognises that airline users were concerned that any such alignment between UK and EU level regulation did not lead to any dilution of the former, and that efforts to bring the two into line did not detract from perhaps more immediate priorities of incentivising better delay and cost performance by NERL under its UK licence obligations. The CAA notes these concerns. It proposes to meet them by providing users with the opportunity, through the Customer Consultation process, to shape the performance metrics and incentives to which NERL should respond during CP3. Thereafter, the CAA will consult on an appropriate suite of performance incentives, informed by the outcome of Customer Consultation and the emerging picture on SES II implementation. It is not the CAA's intention to dilute the prospective array of incentives on NERL in order to achieve 'lowest common denominator' alignment with what might be required under the SES II Performance Framework.
- 5.16 With regard to the issue raised by Ryanair, that the price review should introduce regulatory mechanisms to ensure that NERL achieves its SES II targets, including a 50 per cent reduction in ATC costs per flight, the CAA notes that the SES II performance targets for cost reduction and other dimensions have not yet been set. The target of a 50 per cent reduction in the costs to airspace users of ATC services was expressed by the European Commission as part of the overall objectives for the SESAR programme and the resulting European ATM system for 2020.
- 5.17 The CAA notes NERL's overall concern about the potential degree of divergence between CP3 and SES II requirements for en-route service provision. The primary means for addressing such divergence would be the CAA's proposal to develop a change control mechanism, with associated regulatory policy statements to give guidance on its application. This would enable the CAA to re-open certain aspects of the CP3 price control decision during CP3 as need be in order to achieve compliance with the SES II Performance Framework as then implemented.
- 5.18 With regard to the other issues raised by NERL, the CAA's current views are as follows:
- SES II scope beyond NERL: The SES II performance framework is expected to relate primarily to the provision of air navigation services (ANS) and network management functions. SES II will require the National Supervisory Authority (the CAA in the UK) to draw together a national performance plan encompassing relevant performance metrics, and taking into account the differing requirements of UK en-route services, terminal services and network management functions. This plan will include, but go beyond, services provided by NERL.
  - FAB performance targets: The SES II proposals envisage either national or FAB level performance plans, sitting beneath, but consistent with, Community-wide performance targets. In the UK, we envisage the

performance plan being drawn together on a national basis. To the extent that in due course FABs enable different or more ambitious targets, these could be reflected, most likely (given the current state of FAB development) in the run-up to CP4.

- Potential divergences in Key Performance Areas and Indicators: as noted above, the CAA will develop an appropriate suite of performance measures for NERL for CP3, taking account of the views of airline users and NERL, recognising the maturity and reliability of performance measures, and acting in accordance with the CAA's statutory duties. In that latter respect, safety will remain the CAA's paramount objective. In the first instance, the CAA will expect NERL and its airline users to explore further any gaps and tensions between existing CP2 performance measures and those measures used currently for performance reporting at EU level, with the aim of seeking to narrow such gaps by reform to NERL and/or SES II performance measures. The CAA would then expect to use this evidence in negotiation with European partners in seeking to reach alignment between the UK's CP3 regulation of NERL and the SES II regime.

## 6. Regulating NERL's financial arrangements

### Introduction

6.1 The October Consultation document set out the possible approaches to regulating finance. In light of the responses to the consultation document, this chapter sets out a proposed approach to regulating finance. It is structured as follows:

- a summary of the consultation proposals;
- a summary of the responses; and
- an assessment of the issues; and
- a suggested approach.

### CAA's consultation proposals

#### *Objectives for regulating finance*

6.2 The October Consultation set out two objectives to consider when regulating finance:

- efficient financing (which can ultimately feed through in the form of lower prices); and
- at the same time ensuring that the financial structure is sufficiently robust so as not to place investment, the operation of the business and/or service quality at undue risk.

#### *Broad policy approaches to regulating finance*

6.3 The October Consultation set out two broad policy approaches to regulating finance. The first approach is to intervene to prescribe (or limit) the financial arrangements that the company should adopt, and to enforce this through the licence. Under this approach, appropriate financial structures are secured through licence conditions that prohibit the regulated company (either directly or indirectly, via affiliates or parent companies) from entering into financial arrangements that would undermine the financial robustness of the regulated business.

6.4 Alternatively, it is possible to focus economic regulation on price, service and investment, and give the regulated company the discretion to determine its financial structure. Under such an approach, economic regulation would involve applying financial incentives on the delivery of service and investment outputs, with penalties (or bonuses) for under - or out - performance. The CAA has taken this approach in regulating Heathrow and Gatwick.

*Assessing the alternative approaches for NERL*

- 6.5 The October Consultation set out significant advantages associated with continuing pro-actively to regulate NERL's financing. This would be consistent with the essential nature of the services provided by NERL, and the relatively high risk of service disruption in the event of financial failure. These features serve to distinguish NERL from airports and – to some extent – other utilities.

*Proposed high-level policy approach for CP3*

- 6.6 On the basis that the CAA would continue pro-actively to regulate NERL's financing via prescriptive conditions in its licence, the October Consultation invited views on what if any changes should be made to the existing licence regime.

**Summary of Responses***Objectives for regulating finance*

- 6.7 All parties acknowledged that the two objectives (efficient financing and ensuring financial robustness) as set out in the October Consultation were appropriate and important dimensions of the regime.
- 6.8 Most of the responses (NERL, BA, IATA, Prospect/PCS) noted that more weight should be placed on ensuring the financial structure is sufficiently robust so as not to place at risk the investment programme, the operation of the business or the delivery of service quality to the airlines. Furthermore, NERL noted that the Airline Group is a consortium of airlines whose financial performance is positively correlated to NERL's. Therefore, if NERL is facing financial distress then it is likely that the airlines will be in a similar position.
- 6.9 Ryanair noted that both objectives of regulating finance were important, but efficient finance should not override CAA's duties to the user. Benefits of efficient financing should be used to provide a better service not simply increased returns for NERL.
- 6.10 easyJet noted that the two objectives of efficient financing and a robust financial structure are addressed through different mechanisms within the price control; the first through an appropriate regulated cost of capital and the second through appropriate licence conditions and/or regulatory incentives. So whilst these are both important, it did not appear that they needed to be balanced in quite the manner the consultation seemed to suggest. easyJet also observed that NERL could not be allowed to fail through poor financing arrangements; however, this should not preclude the CAA from making appropriate decisions regarding the regulated cost of capital.

*Broad policy approaches to regulating finance*

- 6.11 NERL stated that it believed incentives were a relatively blunt instrument and lack the same efficacy as regulation through licence conditions and that there were limits to the strength of financial incentives.
- 6.12 Ryanair noted that regulating finance was important but not the primary focus, and that the CAA should concentrate on regulating price, service and investment. Ryanair also noted that the CAA must have regard to the potential impact on users if the service provided is put at risk. If, therefore, the licence regime needs to be more robust to protect users interests, the CAA should make the necessary changes to it.
- 6.13 easyJet noted that it did not see any obvious alternatives to appropriate incentives and/or licence conditions to ensure that NERL remains appropriately financially structured.
- 6.14 Prospect/PCS noted that an effective balance needs to be struck between the two arrangements. Prospect/PCS would be concerned if incentive and penalty arrangements impacted upon day-to-day operational decisions that in any way impinged on safety. Prospect/PCS believes that the licence arrangements in place are sufficient.

*Assessing the alternative approaches for NERL*

- 6.15 easyJet said that it did not agree with all the CAA's arguments as to why NERL was different from airports. However, because of the particular risks associated with a failure of NERL and the potential for an administrator to cease operations (due to a relatively low capital intensity), easyJet agreed with the CAA's view that its financial structure should be directly regulated by licence conditions.
- 6.16 In view of the high risk and costs for users from any failure by NATS to provide their essential and monopoly service, IATA noted that it would generally agree with the CAA approach of regulation through licence conditions. IATA would expect full consultation on any proposals to change or dilute existing conditions.

*Proposed high-level policy approach for CP3*

- 6.17 Respondents generally did not call for change. NERL stated that the current arrangements were adequate and that no additional reform was required. Ryanair stated the CAA should continue pro-actively to regulate NERL's financial arrangements. easyJet did not see any need to change the existing licensing regime in terms of NERL's financing, assuming that it was fit for purpose. However, it remains interested in the issue and looks forward to future consultation.

- 6.18 BA noted that the arguments in the consultation document for continuing pro-actively to regulate were entirely based on the prevention of licensees to financial failure. BA noted that this in itself should not be a reason for pro-active regulation given the nature of the business and the licence renewal mechanism. The fundamental idea of having licence conditions was to provide a mechanism for regulating a provider of a service. Pro-active enforcement of the licence conditions should therefore also be fundamental rather than a passive regulation. Any changes to the licence regime should reflect more accurately the passengers' priorities.
- 6.19 BA noted that requiring NATS to achieve continuous improvement in service quality levels, along with demonstrably improving cost efficiency, should be the primary goals. The cost of capital was one small element of the review, though could be seen as an indicator of the efficiency of NATS as a business.

### **CAA's assessment**

#### *Objectives for regulating finance*

- 6.20 The CAA agrees that there are two objectives for regulating finance - efficiency and robustness - but accepts that the relationship between the two is not simply a trade-off. For any given level of risk borne by the company (around price, service and investment), it can finance its activities at a more or less efficient cost. Moreover, a key objective of regulation is to incentivise efficient financing.
- 6.21 The general thrust of responses is that airlines – and NERL – want a reasonably robust business. The financial structure needs to be efficient given the desired level of robustness. The CAA will take this into account in regulating NERL's financial arrangements.

#### *Broad policy approaches to regulating finance*

- 6.22 Given a desired level of robustness, there was general agreement that, as set out by the CAA in October, there are two approaches to achieving it:
- to regulate price, service & investment in a way that protects consumers from the risks of unduly high leverage, whilst leaving regulated company/owners the discretion to decide how they are financed; or
  - to regulate finance directly.
- 6.23 On further reflection, the CAA recognises that within the second option there is a spectrum of approaches ranging from:
- prescribing financial arrangements, or imposing specific constraints (e.g. maintenance of credit ratings); through to

- providing financial incentives to maintain appropriate financial robustness. These would rely on the ability to define, measure and calibrate appropriate measures of robustness.

### *Assessing the alternative approaches for NERL*

- 6.24 Against this background, the first question to consider is which approach to adopt: should the CAA regulate price, service & investment whilst letting the regulated business take decisions on (and bear the associated risk of) financing or – alternatively – should it directly intervene to prescribe the financial robustness of the business (as now)?
- 6.25 In considering this question, there are a number of factors to take into account. In order to focus regulation on price, service and investment whilst leaving financing to the regulated company and its owners, there needs to be, at the limit, a credible preparedness on the part of the regulator (and the Government) ultimately to let the business fail, i.e. fall into administration whilst at the same time leaving the ‘regulatory contract’<sup>4</sup> unchanged.
- 6.26 It is not clear, however, that in the circumstances in which NERL operates that it would be appropriate to adopt such an approach. In particular:
- NERL’s en-route business is an essential, monopoly service that, by international agreement, the UK Government is obliged to provide;
  - NERL’s failure would have a significant and widespread impact on the UK and European aviation industry; and
  - NERL’s en-route business is relatively labour intensive. This means that its short term costs and revenues are relatively closely aligned, bringing into question whether an administrator would have an economic incentive to maintain operations in the event that the business ran into financial difficulty.
- 6.27 On the other hand, NERL is subject to special administration arrangements. These would oblige continuity of service in the event of financial failure. However, compared to other regulated sectors, there appears to be more chance that maintaining continuing of supply would come at a significant price to users. This is for a number of reasons: the CAA’s statutory duty to secure that licence holders will not find it unduly difficult to finance activities authorised by their licences; and NERL’s relatively small capital base itself means that any Government action, e.g. to acquire the business in distress, would be relatively inexpensive compared to the public policy objectives such action might fulfil. It also important to bear in mind the history of the Composite Solution (when the price control was revisited as part of a package of measures to alleviate unsustainable financial arrangements).

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<sup>4</sup> By the term ‘regulatory contract’ the CAA means the terms on which the regulated company is expected to offer services and make investments.

While based on very specific circumstances, this episode serves to illustrate how, in practice, an alternative package of measures was preferred to putting NERL into special administration, inevitably conditioning expectations as to how similar circumstances would be managed in future. Accordingly, the combination of circumstances (as outlined in paragraph 6.26) - that argue against allowing NERL to fail - are not necessarily addressed by Special Administration.

- 6.28 Furthermore, there is a market perception that NATS would not be allowed to fail. This is noted explicitly in easyJet's response and also by some of the credit rating agencies. The credit rating agencies' assessment methodology for NERL includes an enhancement for the potential for extraordinary support from Government in the event of an economic or financial stress scenario. This takes into account the strategic importance of NERL as provider of essential air traffic services and the precedent of prior government support for example through the Composite Solution.
- 6.29 Against this background, an incentive based regime is unlikely to be an effective mechanism of regulating NERL's financial arrangements because the necessary threat that the CAA would – in extremis – allow NERL to enter Special Administration with no change to the regulatory contract, may not be realistic. In summary, therefore, because of the essential nature of the services provided by NERL and the relatively high risk of service disruption in the event of financial failure, the CAA statutory duties and the licence conditions, (including those introduced following evidenced by the Composite Solution), it is proposed that the CAA should continue to regulate pro-actively the financial arrangements of the company.

#### *Proposed high-level policy approach for CP3*

- 6.30 This approach is broadly consistent with CP2, and the provisional cost of capital and, in particular the provisional asset beta, has been estimated assuming the approach to CP3 is broadly the same as CP2. But, the CAA wants to be sure licence conditions are framed in a way that best meets its duties. In particular, that requirements and incentives align to ensure that financial robustness is maintained.
- 6.31 To facilitate the regulation of financial robustness, the CAA therefore proposes:
- to give further consideration to how robustness can be defined and measured;
  - to consider how to incentivise robust financial arrangements and/or prevent arrangements which are not sufficiently robust; and
  - bearing in mind that it is not always possible to measure robustness, to consider the need to retain an overarching, general protection.

6.32 These three issues are discussed below.

#### Definition of robustness and choice of metrics

6.33 A natural starting point for considering how best to measure robustness is to consider the various measures that credit rating agencies use to assess the credit-worthiness of the company including gearing, interest cover and other financial ratios. The credit rating agencies play an important role in assessing risk from the perspective of lenders, and therefore their experience can help to indicate how robustness might best be measured.

6.34 However, it is important to note that credit-worthiness, in this context, is the ability to pay interest and repay capital on time. Credit ratings, in other words, assess the company from the perspective of the lender. The CAA, by contrast, is interested in assessing the robustness of the company from the perspective of the consumer. This means assessing whether the business has the wherewithal to continue to deliver service and investment in a range of different scenarios. While there may be some common ground, this means that measures of credit-worthiness used by credit rating agencies may not necessarily be directly relevant. For example, consumers want a financial structure to be resilient to traffic variations, *after* interest payments have been made. Lenders (and credit rating agencies) are more concerned with whether interest is sufficiently covered and less concerned about the position of the company once interest has been covered.

6.35 Against this background, the CAA would expect to give further consideration to the kind of metrics that reflect risks to users. Such measures might include measures of the extent to which price, service and investment are resilient to unforeseen changes in circumstances, i.e. how much resilience the business has to changes in any cost (including interest) and traffic conditions, and how that affects the company's ability to discharge its service and investment obligations. Measures of 'gearing' (eg net debt to RAB) might be better suited to this task.

#### Incentivising robustness

6.36 Whatever metrics are used there is a choice as to whether they should be absolute requirements, i.e. the prevention of undesirable financial arrangements, or whether they should be tied to the price control so as to permit, but deter undesirable behaviour. The CAA tends to favour the latter approach as it would allow NERL more flexibility, and could perhaps be calibrated in a way that broadly reflects users' preference for robust financial arrangements, while, for example, allowing high leverage on a temporary basis if necessary.

6.37 On this basis – and assuming gearing was an appropriate metric - it may, for example, be appropriate to introduce mechanisms to discourage NERL (or a new owner) from exercising its discretion to gear up. In designing such a

mechanism, it would be important to give careful consideration to the extent to which gearing up could present an opportunity:

- to reduce potentially the systematic risk exposure of the company (and its owners) given the difficulties, in practice, of the regulator allowing the company to fail, as described above; and
- to reduce Corporation Tax (within period) as a result of the tax shield on increased interest payments.

6.38 Such mechanism or mechanisms would need to be carefully researched and calibrated to buttress the current arrangements designed to promote robust financial arrangements (whilst applying the minimum restrictions necessary).

#### General measures

6.39 As noted above, however, because robustness cannot be measured by a single or combination of metrics, this approach cannot be relied upon exclusively. The CAA would, therefore, expect to continue to impose general licence condition requiring the maintenance of robust financial arrangements. It would also expect to continue to impose a licence condition requiring the maintenance of the ring fence around NERL alongside many of the other requirements presently set out in Condition 5 of NERL's licence.

#### Summary of current thinking

6.40 The CAA's early stage thinking, on which it invites views, is as follows:

- the licence conditions should include a general duty on NERL to maintain a robust financial structure;
- the licence conditions should continue to include ring-fencing and all the related conditions;
- in terms of regulating financial robustness on specific measurable metrics, whether the emphasis should shift away from measures used by lenders to assess credit worthiness to metrics that reflect the resilience of the company's service and investment obligations to risk; and
- how best to discourage the adoption of undesirably high leverage that could jeopardise its operation or investment, which would be focused on maintaining a sufficient 'equity buffer'.

6.41 The CAA will continue to explore the issues raised in this chapter, and expects to set out its proposals later in the year as part of its initial proposals.

## 7. Allowed returns

### Introduction

7.1 The October Consultation document set out the possible approaches to estimating the allowed returns and sought the views of interested parties. In light of the responses to the consultation document, this chapter sets out a first estimate of the allowed return that parties may wish to use as part of Customer Consultation, better to assess the costs of investment and the relativity of operating and capital expenditure solutions. The chapter is structured as follows:

- a summary of the consultation proposals;
- a summary of the responses;
- an assessment of the issues; and
- an estimate of the allowed return for the purposes of Customer Consultation.

### CAA consultation proposals

#### *The overall approach*

7.2 The October Consultation noted that the CAA proposed using the Capital Asset Pricing Model (or CAPM) as the principal basis for setting allowed returns in the CP3 review.

#### *Developments from the Heathrow and Gatwick reviews*

7.3 The October Consultation noted the approach taken by the Commission in its Heathrow and Gatwick recommendations on the risk-free rate, the market cost of equity, the way in which it analysed beta, and the debt beta and sought the views of interest parties on the applicability of these to CP3.

#### *Initial thoughts on the approach to CP3*

7.4 The October Consultation provided some provisional views and invited comments on gearing, cost of equity, taxation and the cost of debt.

### Summary of Responses

#### *The overall approach*

7.5 In response to the consultation there was broad support for the CAPM as the preferred methodology, subject to recognition of its shortcomings and, where possible, crosschecking the inputs and output of the CAPM with other models. NERL noted that an underlying assumption of the CAPM is that

expected returns are systematically distributed. Given the nature of the risks that NERL faces, this assumption might not hold true and therefore the CAPM might underestimate the cost of equity.

- 7.6 NERL also noted that the alternatives to the CAPM, such as the Arbitrage Pricing Model (APT) and Fama French (FF) and variations on FF have yet to be fully tested in the regulatory context. NERL noted that the CAA should sense-check the CAPM with the Dividend Growth Model (DGM).

*Developments from the Heathrow and Gatwick reviews and initial thoughts on the approach to CP3*

- 7.7 IATA generally agreed that the CAA approach to the market equity risk premium, analysis of beta and the non-zero debt beta will be a relevant consideration in the CP3 review, and with the CAA's initial thoughts on the cost of capital. IATA recognised that there is considerable financial uncertainty currently as a result of the economic recession, but notes that the review is looking at price caps from 2011.

- 7.8 NERL submitted a paper by NERA its economic advisors on the cost of capital, (published on the CAA website). Table 7-1 sets out NERA's estimate of the cost of capital and that used in the CP2 price caps

**Table 7-1 NERL's estimate of WACC for CP3 and CP2 WACC**

| Per cent<br>(except where stated) | CP3   |       | CP2         |       |
|-----------------------------------|-------|-------|-------------|-------|
|                                   | Low   | High  | Low         | High  |
| Gearing                           | 60    | 60    | 64          | 64    |
| Pre-tax cost of debt              | 4.50  | 4.50  | 3.90        | 3.90  |
| Risk-free rate                    | 2.50  | 2.50  | 2.50        | 2.50  |
| Market return                     | 7.90  | 7.90  | 6.00        | 7.50  |
| Equity risk premium               | 5.40  | 5.40  | 3.50        | 5.00  |
| Asset beta (number)               | 0.50  | 0.60  | 0.60        | 0.60  |
| Equity beta (number)              | 1.25  | 1.50  | 1.67        | 1.67  |
| Post tax cost of equity           | 9.25  | 10.60 | 8.33        | 10.83 |
| Taxation                          | 35    | 35    | 11          | 11    |
| Pre tax cost of equity            | 14.23 | 16.31 | 9.36        | 12.17 |
| Pre tax real WACC                 | 8.39  | 9.22  | 5.87        | 6.88  |
| <b>Point estimate</b>             | -     |       | <b>6.75</b> |       |

*Source: NERA submission*

- 7.9 NERA suggested that index-linked gilts are a downward biased estimator of the risk-free rate and that in the current unprecedented and volatile market conditions a risk-free rate of 2 per cent, which appears to have been determined by looking selectively at short-term trends, is completely inappropriate. NERA suggested, instead, that the risk-free rate could be more accurately estimated using swap rates and that on this basis the risk-free rate is in the region of 2.5 per cent.

- 7.10 NERA noted that its review of the latest academic evidence on the ERP suggested that the majority of academic opinion supports the use of arithmetic averages of historical returns as the basis for estimating the equity risk premium. NERA concluded on an estimate of the ERP of 5.4 per cent based on the arithmetic average of 108 years of historical returns data, consistent also with a forward-looking dividend growth model.
- 7.11 NERA noted that it had undertaken an in-depth assessment of NERL's beta based on a detailed relative risk analysis which compared NERL to other regulated UK sectors such as water, energy networks, telecoms and airports. It noted that this work suggested an asset beta in the range of 0.5 to 0.6, and the CAA should have regard to whether risk has changed since CP2. The CAA should only set a different asset beta if there is compelling evidence that systematic risk has changed.
- 7.12 NERL strongly disagreed with both the use of a debt beta and any pre-emption of the outcome of an analysis of a debt beta.
- 7.13 NERA estimated the real cost of existing debt to be 3.7 per cent for CP3 including transaction fees and pre-funding costs. It estimated that the real cost of debt which will need to be raised in CP3 to be 6.5 per cent including transaction fees and pre-funding costs. Combining these cost estimates of existing debt and new debt in a weighting of 70:30, gave a weighted average real cost of debt of 4.5 per cent. The weighting is dependent on the forecast level of capital expenditure.
- 7.14 NERL estimated that gearing will average 60 per cent in CP3 and the effective tax rate will be 35 per cent.
- 7.15 Some respondents were also keen to place the cost of capital in perspective. BA noted that requiring NATS to achieve continuous improvement in service quality levels, along with demonstrably improving cost efficiency should be the primary goals. Cost of capital is one small element of the review, and can be seen as an indicator of the efficiency of NATS as a business.
- 7.16 Ryanair stated that it is important that the CAA does not lose sight of its statutory duties to users in dealing with these technical financial issues; the CAA must have regard in any decisions on the cost of capital to the impact on the price to the user. Ryanair noted that it believes NATS to be one of the most expensive providers of ATS in Europe and the level of service provision is poor. Ryanair noted that it therefore expects all of the CAA's regulatory considerations in determining NATS cost of capital should be ultimately reflected in lower prices and more efficient service to users.

### **CAA assessment**

- 7.17 The regulatory allowed return is an important component in determining the NERL's prices. The CAA is expressing an initial view on cost of capital,

earlier in the process than the CAA might have otherwise done, because the CAA believes that it can be a valuable input into Customer Consultation by enabling the parties better to value the options and issues under discussion. Because the CAA is forming an initial view early in the process, the CAA plans to undertake further analysis and will update the estimate for additional information, evidence and submissions later in the process. Therefore, the cost of capital used in the price determination may well be different, either higher or lower, than the initial view.

7.18 The timing of this initial view has two implications for the estimate of the allowed return:

- first, the CAA is not required to, nor could it, come to a definitive view at this stage. The CAA will analyse further the submissions received and gather more evidence as required. Furthermore, given current financial markets the CAA has to be very cautious in placing weight on market evidence from the last few months. It may be that markets remain volatile when the CAA does have to reach a definitive view, but it would at least have an additional year's worth of data on which to base estimates;
- second, in 'pricing' incremental capital expenditure options for Customer Consultation the appropriate cost of capital would be the incremental (or marginal) cost of capital in contrast to the average cost of capital used in price cap calculations. The marginal WACC will differ from the average WACC when the cost of new finance materially differs from the cost of existing finance, where the incremental project is to be financed with a different mix of finance, or where the effective tax rate on the incremental project differs from that of the existing business. The CAA notes that an estimate of the marginal WACC places more weight on forward looking components of WACC such as new debt and forecast tax on new projects which involve a greater degree of regulatory judgement. This is further discussed in paragraph 7.51.

7.19 Because NERL remains a relatively labour-intensive business, the returns generated by the allowed return make up a smaller proportion of the cost base than is the case with regulated UK airports and utilities which are generally more capital intensive. This lower level of capital intensity has two effects. First, the price is less sensitive to the estimate of the regulatory cost of capital. Second, it produces thinner operating profit margins,<sup>5</sup> and thus the profitability (and financial robustness) of NERL is more sensitive to a reduction in volumes and therefore revenues. This has implications for the risk faced by NERL, and therefore the beta, as discussed in paragraph 7.29 *et seq.*

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<sup>5</sup> For example, operating profit divided by revenues

*Estimating the allowed return for CP2*

7.20 For CP2, the CAA set a cost of capital of 6.75 per cent (on a pre-tax real basis). This estimate was taken from a range of 5.9 to 6.9 per cent, estimated by the CAA's advisers, PwC. The range was derived from a standard CAPM approach, with each individual parameter estimated as follows:

- risk-free rate: analysis of nominal and real rates for 10 year UK Government bonds and regulatory precedent, with a suggested figure of 2.5 per cent real, placing some weight on historical yields;
- equity risk premium: a wide range of evidence was considered including: regulatory precedent; ex-post assessments based on long-run historical figures (arithmetic and geometric basis); and ex-ante estimates from surveys of investor expectations. This resulted in a relatively wide suggested range of 3.0 to 6.0 per cent, which the CAA subsequently narrowed to 3.5 to 5.0 per cent;
- equity beta: analysis of regulatory precedent and relevant comparators (utilities, airports and airlines with particular reference to BAA, Railtrack and BT) used to produce an asset beta estimate for NATS. This estimate was then re-levered to the projected gearing level;
- cost of debt: based on actual projected debt costs during CP2, reflecting embedded debt costs, and costs linked to new facilities set up by the company for future funding;
- gearing: based on average projected gearing of the company across the period (64 per cent); and
- taxation: estimate of the projected effective tax rate that the company was expected to face during CP2. At 11 per cent, this was significantly lower than the then statutory corporation tax of 30 per cent. However, the CAA recognised in its documentation that the effective tax rate could be expected to rise above the statutory rate in CP3, with potentially significant implications for the pre-tax cost of capital in CP3.

**Estimating the allowed return for CP3**

7.21 The allowed return is based on a forward-looking estimate of NERL's cost of capital. The cost of capital is a weighted average of two components: the cost of equity ( $K_e$ ); and the cost of debt ( $K_d$ ), where the weightings (gearing or  $g$ ) reflect the relative importance of each type of financing in a firm's capital structure.

**Equation 7-1: WACC**

$$WACC = K_d \cdot g + K_e \cdot (1 - g)$$

- 7.22 The cost of debt is directly measurable for many firms in the UK economy. The cost of equity, by contrast, cannot be directly observed and the CAA has instead used the CAPM, which relates the cost of equity to the risk-free rate, the expected return on the market portfolio, and a firm-specific measure of investors' exposure to systematic risk (beta):
- 7.23 CAPM was used by the CAA to derive a cost of equity component of an allowed return for NERL in previous control periods and for airports. There are other methods of estimating the cost of capital but for the purpose of estimating an initial cost of capital at this stage in the process the CAPM alone has been used.
- 7.24 The CAA acknowledges the shortcomings of the CAPM, particularly in its application to NERL where company specific parameters that underpin the CAPM approach (e.g. aspects of the cost of equity) are not generally observable. The CAA also recognises that the Competition Commission's recommendations to the CAA for the designated airports and a study by the Joint Regulators Group<sup>6</sup> concluded that the CAPM has clear theoretical foundations and, after considering alternative approaches, could not identify an obvious alternative for deriving the cost of capital.
- 7.25 The CAA is therefore minded to use the CAPM as the primary tool for estimating the cost of equity, but sense-checked against other models, where appropriate.

### Cost of Equity

- 7.26 Of the components to CAPM, two are generic in nature and not specific to NERL. Both the CAA, and the Competition Commission in its recommendations to the CAA, have recently undertaken very detailed reviews of the cost of capital at the three London Airports. Given the short time that has passed since this work, the CAA has not sought to replicate the work on generic factors and principles where there is a read-across. For the purpose of an initial estimate for Customer Consultation, the CAA is minded to use the recent estimates from the Commission on these components:
- the risk-free rate of return (2 per cent); and
  - the market return (5-7 per cent).
- 7.27 The CAA notes NERA's suggested derivation of the risk-free rate from swap rates and its submission of evidence of the equity risk premium (ERP) and the market return. The CAA will assess this alongside other evidence before publishing its initial proposals. However, for the purpose of arriving at an indicative WACC for Customer Consultation, the working assumption is that the market return is in the range of 5 per cent to 7 per cent, and combined

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<sup>6</sup> Smithers & Co (2003), A Study into Certain Aspects of the Cost of Capital for Regulated Utilities in the UK, February

with the risk-free rate assumption of 2.0 per cent this gives an ERP of 3 per cent to 5 per cent.

7.28 Estimates of the other components of the CAPM relate specifically to NERL. These include:

- the equity beta;
- the cost of debt;
- gearing of the regulated company; and
- the treatment of tax.

## Beta

### *Asset beta*

7.29 The beta of NERL is a measure of risk faced by investors in NERL relative to a more general market portfolio. For CP2, the asset beta was initially estimated to be in the range of 0.5 to 0.6. In its final price determination the CAA took a point estimate at the top of this range (0.6), which equated to a geared (or equity) beta of 1.67.

7.30 The CAA commissioned First Economics to provide an initial estimate of the asset beta. This work, published as a supporting paper, provisionally concludes that the appropriate range for the asset beta is 0.5 to 0.6. The asset beta reflects the degree of systematic risk facing the company including the CAA's approach to regulating NERL's finance. First Economics' work assumes that the CAA's approach to regulating NERL's financial arrangements in CP3 is unchanged from CP2. Chapter 6 considered the CAA's approach to CP3; any changes may affect the asset beta and will be considered for the initial proposals.

7.31 In this case, coincidence of estimates by NERA (paragraph 7.11) and First Economics does not mean agreement on underlying methodology. While both have concluded that the asset beta is in the range 0.5 - 0.6 they have used different debt beta assumptions. First Economics used a debt beta of 0.1, while NERA has excluded the effects of a debt beta from its re-gearing calculations. If First Economics had not used a debt beta it would have arrived at a lower estimate of NERL's asset beta.<sup>7,8</sup> On a like-for-like basis the First Economics estimate is probably in the region of 0.05 lower than NERA's estimate.

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<sup>7</sup> For example, equity beta of 1.50 and gearing of 70 per cent, a debt beta of 0.1 would result in an asset beta of 0.52. Using a debt beta of zero would result in an asset beta of 0.45.

<sup>8</sup> This also highlights the importance of a consistent approach to using a debt beta when estimating NERL's asset beta from equity beta proxy companies and when estimating NERL's equity beta from its estimated asset beta.

- 7.32 The CAA needs to re-gear the asset beta (which, by definition, is estimated on the basis of no debt) to an equity beta (the geared beta). This is to reflect the greater share of the asset's systematic risk that equity bears.

#### *Debt beta*

- 7.33 The debt beta reflects the systematic risk that accrues to debt holders (and therefore not equity) as the company increases its gearing.<sup>9</sup> If the debt beta assumed is too low then as the asset beta is transformed into an equity beta the systematic risk that accrues to equity may be over-estimated, because it assumes that none of the systematic risk is transferred to debt.<sup>10</sup>
- 7.34 The CAA notes NERL's objections to the use of a debt beta (paragraph 7.12). The CAA notes that using a debt beta for the purpose of arriving at an indicative WACC does not pre-empt the analysis the CAA intends to undertake when considering its appropriateness and estimation for the price determination.
- 7.35 For the purpose on an indicative WACC, and consistent with the approach to airports, the working assumption for debt beta is 0.1. Combined with an asset beta of 0.5 to 0.6 and gearing of 60 per cent, the equity beta is estimated to be 1.10 to 1.35.

#### **Cost of debt**

- 7.36 For CP2, the CAA estimated the cost of the two components of NERL's debt; existing debt and new issuance during CP2. The existing debt estimate was based on actual debt costs and new debt assumed to cost the prevailing market rate for A-rated debt. This gave a weighted average real cost of debt of 3.9 per cent.

#### *Existing debt*

- 7.37 Most of NERL's existing debt is in the form of £600 million amortising bonds that have a nominal coupon of 5.25 per cent, with the remainder being in the form of a revolving bank facility based on a margin over LIBOR. The revolving facility matures in November 2012 (approximately 18 months into CP3). A significant proportion of NERL's debt financing requirements in CP3 will be met by existing amortising bonds. The cost of these existing bonds does not appear out of line with the benchmark index yields around the time that the debt was issued. The CAA therefore believes it is appropriate provisionally to include existing debt within the weighted average cost of debt.

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<sup>9</sup> The debt beta is important when re-gearing equity betas between two substantially different gearing levels. If the difference between the two levels of gearing is small, then so is the impact of the debt beta

<sup>10</sup> The CAA does not use CAPM for estimating the cost of debt because the CAA has actual data available. The CAA therefore does not use the debt beta assumption for estimating the cost of debt.

### *New debt*

- 7.38 NERA's estimate of the cost of new debt to be raised in CP3 appears high (6.5 per cent, paragraph 7.13), and as it is based on recent evidence from markets which are in a volatile state it may not be a good indicator of the cost of new debt in CP3. For instance, LIBOR has reduced significantly since NERA undertook its analysis in November.<sup>11</sup>
- 7.39 The forecast level of capital expenditure will be a key driver of the forecast mix of existing and new debt during CP3. All other things being equal, the higher the level of forecast capital expenditure the greater the need to raise new debt and therefore the greater the proportion of new debt in the forecast debt portfolio.
- 7.40 Forecasting the cost of new debt requires judgement, and even more so in light of current market conditions. Fortunately, there is no need to form a definitive view at this stage. However, for the purposes of Customer Consultation, the CAA is minded provisionally to assume a real, all-in cost of new debt of 4.5 per cent. The CAA would, however, expect to revisit this issue later in the price control review process.

### *Weighted average cost of debt*

- 7.41 Combining the cost of new debt assumption with NERA's estimate of the cost of existing debt and its forecast ratio of existing debt to new debt the CAA has estimated a weighted average cost of debt of 3.94 per cent. For the purpose of arriving at an indicative WACC for Customer Consultation, this figure is spuriously precise; the CAA's working assumption for the cost of debt is therefore 4 per cent.

### **Gearing**

- 7.42 For CP2, the CAA's gearing assumption was 64 per cent. This was based on forecast actual gearing for CP2, but averaged over the five years in a NPV neutral way. Applying the same principles to NERL's current forecast of debt levels for CP3 produces an average in the region of 60 per cent. For the purpose of arriving at an indicative WACC for Customer Consultation, the working assumption is that gearing is 60 per cent.

### **Tax**

- 7.43 Consistent with CP2, the CAA is minded to use an effective tax rate to uplift the cost of equity. The deferred tax charge is excluded from the rate and only included when it crystallises (i.e. becomes part of the current tax charge). The approach should be consistent with the other building blocks, and is based on the regulatory profit and the cost of debt assumptions in the

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<sup>11</sup> For example, 6 month LIBOR was 2.30 per cent (6/2/09) compared to 4.05 per cent (28/11/08) and 6.40 per cent (30/9/08).

cost of capital. An average tax rate is calculated, and hence the same cost of capital for each year within CP3, thus avoiding fluctuations in the annual returns within the control period.

7.44 However, at this stage of the work the CAA has yet to form views on the various building blocks for CP3 and, therefore, is unable definitively to assess the appropriate effective tax rate. The CAA has, therefore, adopted for the purposes of an indicative WACC, the effective tax rate derived from the financial model supplied by NERL. NERL's forecast effective tax rate for CP3 is significantly higher than for CP2, as a result of the difference between its forecasts of capital allowances for tax purposes and regulatory depreciation.

7.45 For the purpose of arriving at an indicative WACC for Customer Consultation, the working assumption is an effective tax rate of 35 per cent. The CAA will, however, continue to assess the evidence and further understand the differences between the effective rate and the statutory rate. Once the CAA has formed provisional views on the building block assumptions for CP3 the CAA will update the tax estimation.

### Summary of cost of capital estimates

7.46 Table 7-2 draws together the individual components estimates and calculates a WACC range.

**Table 7-2 Indicative WACC estimate**

| Per cent<br>(except where stated) | CP3 – initial estimate |       | CP2 – final determination |       |
|-----------------------------------|------------------------|-------|---------------------------|-------|
|                                   | Low                    | High  | Low                       | High  |
| Gearing                           | 60                     | 60    | 64                        | 64    |
| Pre-tax cost of debt              | 4.00                   | 4.00  | 3.90                      | 3.90  |
| Risk-free rate                    | 2.00                   | 2.00  | 2.50                      | 2.50  |
| Market return                     | 5.00                   | 7.00  | 6.00                      | 7.50  |
| Equity risk premium               | 3.00                   | 5.00  | 3.50                      | 5.00  |
| Asset beta (number)               | 0.50                   | 0.60  | 0.60                      | 0.60  |
| Debt beta (number)                | 0.10                   | 0.10  | n/a                       | n/a   |
| Equity beta (number)              | 1.10                   | 1.35  | 1.67                      | 1.67  |
| Post tax cost of equity           | 5.30                   | 8.75  | 8.33                      | 10.83 |
| Taxation                          | 35                     | 35    | 11                        | 11    |
| Pre tax cost of equity            | 8.15                   | 13.46 | 9.36                      | 12.17 |
| Pre tax real WACC                 | 5.66                   | 7.78  | 5.87                      | 6.88  |
| <b>Point estimate</b>             | <b>7</b>               |       | <b>6.75</b>               |       |

7.47 Combining the estimates for the individual component of the WACC, the CAA estimates that the WACC is within the range 5.66 per cent to 7.78 per cent. This compares to 5.87 per cent to 6.88 per cent for the CP2 price determination.

7.48 The CAA has compared the working assumption for Customer Consultation for CP3 with the CP2 price determination. For the lower end of the WACC

range, the effect of the forecast increased effective tax rate has been more than offset by the impact of reductions in the market return, the asset beta and the debt beta. At the high end of the range, the effect of the increased forecast tax rate has only partially been offset by reductions in the market return and the use of a debt beta.

- 7.49 Selecting a point within the range requires regulatory judgement, and would take into account judgements reached on the other building blocks. When choosing a point from a range, regulators have generally balanced the risks (and cost) of over charging customers (from a WACC that is too high) with the risks (and costs) of the company not undertaking capital investment (because the WACC is too low). This has generally resulted in regulators choosing a WACC in the upper half of the range. The risk and costs of underinvestment will depend upon the investment that is planned to be undertaken in CP3, on which the CAA's views will be informed by Customer Consultation. Given this uncertainty, for the purpose of arriving at an indicative WACC for Customer Consultation, the CAA proposes a working assumption of 7 per cent, being the nearest whole number to the mid point of the range.
- 7.50 This provisional estimate of the cost of capital has been undertaken earlier in the process than previous price determinations. The CAA will continue to assess the cost of capital before coming to a final view later in the process. Therefore, there is a reasonable chance that, following further submissions, analysis and evidence, the allowed return for CP3 will be higher or lower than 7 per cent. It would, therefore, be sensible for any financial modelling of capital expenditure options as part of Customer Consultation to include sensitivities around the 7 per cent figure.

### **Marginal cost of capital**

- 7.51 Table 7-2 shows the average WACC which is appropriate when estimating the allowed return on historical investment and a fixed forecast capital expenditure plan. However, when considering costing incremental capital expenditure it may be more useful to use an incremental or marginal WACC. The CAA has undertaken an exercise to estimate the marginal cost of capital, and has concluded that it is unlikely to be materially different to the average WACC, given the offsetting effects of a lower marginal tax rate and a higher marginal cost of debt.

### **Financeability**

- 7.52 Analysis of financeability takes into account all building block assumptions used in the price cap calculation. At this stage of the process the CAA has not sought, nor is it possible, to undertake a 'financeability test'.

## **Initial Proposals**

- 7.53 As noted in this chapter the initial working assumptions for the risk-free rate, the equity risk premium and the debt beta are based on the Commission's recent Stansted Airport recommendations to the CAA. The CAA intends to undertake analysis of all components of the cost of capital and develop its estimate of the allowed returns for the initial proposals later this year.

## Annex A Glossary of Terms

|               |  |
|---------------|--|
| ACE           | ANSP cost effectiveness working group  |
| Airprox       | Air proximity hazards  |
| Airline Group | A consortium of seven UK airlines that holds a 42 per cent shareholding in NATS  |
| ANS           | Air navigation services  |
| ANSP          | Air navigation service provider  |
| APT           | Arbitrage pricing theory   |
| ATC           | Air traffic control  |
| ATCO          | Air traffic controller   |
| ATFM          | Air traffic flow management  |
| ATM           | Air traffic management   |
| BA            | British Airways  |
| CAA           | Civil Aviation Authority   |
| Capex         | Capital expenditure  |
| CAPM          | Capital asset pricing model  |
| CANSO         | Civil Air Navigation Services Organisation   |
| CCWG          | Customer consultation working group  |
| CP1           | First Eurocontrol price control period 2001-2005   |
| CP2           | Second Eurocontrol price control period 2006-2010  |
| CP3           | Third Eurocontrol price control period 2011-2015   |
| CP4           | Fourth Eurocontrol price control period 2016-2020  |
| CRCO          | Central route charges office of Eurocontrol  |
| CSU           | Chargeable Service Unit – the basic unit for Eurocontrol charges   |
| DGM           | Dividend growth model (a model for estimating the cost of equity)  |
| EASA          | European Aviation Safety Agency  |
| ECAC          | European Civil Aviation Conference   |
| EGNOS         | European Geostationary Navigation Overlay Service  |
| ERP           | Equity risk premium  |
| FAB           | Functional airspace block  |
| FF            | Fama French (a multi factor model for estimating the cost of equity)   |
| FIR           | Flight information region  |
| GCD           | Great Circle distance  |
| HLG           | High Level Group – European body established to advise the European Commission on the future of the European aviation regulation framework |
| IAA           | Irish Aviation Authority   |
| IATA          | International Air Transport Association  |
| ICAO          | International Civil Aviation Organisation  |
| iFACTS        | Initial Future Areas Control Tools Support – new tools to assist controllers   |
| IFR           | Instrument flight rules  |
| IFRS          | International financial reporting standards  |

|        |  |
|--------|--|
| ILG    | Index-linked gilts   |
| IR     | Implementing rules for Single European Sky   |
| KPA    | Key performance areas  |
| KPI    | Key performance indicators   |
| LIBOR  | London inter-bank offered rate   |
| MoD    | Ministry of Defence  |
| MTOW   | Maximum take-off weight  |
| NATS   | National Air Traffic Services  |
| NERA   | National Economics Research Associates   |
| NERL   | NATS (En Route) plc – the licensed business of NATS  |
| NSA    | National supervisory authority   |
| NSH    | North Sea helicopters  |
| NSL    | NATS Services Ltd – the unlicensed business of NATS  |
| NPV    | Net present value  |
| Ofcom  | Office of Communications   |
| OPA    | Operational Partnership Agreement – arrangements by which NATS consults with its customers on operational issues |
| Opex   | Operating expenditure  |
| PCS    | Public and Commercial Services Union   |
| PPP    | Public Private Partnership   |
| PRB    | Performance Review Body  |
| PRC    | Performance Review Commission of Eurocontrol   |
| PRR    | Performance Review Report  |
| PRU    | Performance Review Unit  |
| PwC    | PricewaterhouseCoopers   |
| RAB    | Regulatory asset base  |
| RFR    | Risk free rate   |
| RPI    | Retail price index   |
| SAATS  | Shanwick Automated Air Traffic System  |
| SES    | Single European Sky  |
| SES II | Single European Sky Second Package   |
| SESAME | Single European Sky implementation programme   |
| SESAR  | Single European Sky Air Traffic Management Research programme  |
| SIP    | NATS' Service and Investment Plan  |
| SJU    | SESAR joint undertaking  |
| SPA    | Safety Partnership Agreement - arrangements by which NATS consults with its customers on safety issues           |
| TC     | London Terminal Control situated at Swanwick   |
| TMA    | Terminal manoeuvring area  |
| UKATS  | United Kingdom Air Traffic Service   |
| VFR    | Visual flight rules  |

|      |                                  |
|------|----------------------------------|
| VHF  | Very high frequency              |
| WACC | Weighted average cost of capital |