



Consultancy support for CP3

NERL revenue and cost allocation study

Reference 1387 (Services Order 6)

03 September 2009

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Glossary

The following terms are used in this report.

Term	Definition
ABC	Activity Based Costing
The Act	Transport Act 2000
ATCO	Air traffic controller
ATSA	Air traffic service assistant
Blended Driver	A driver that is an amalgamation of two or more allocation drivers
CAA	Civil Aviation Authority
CP2	Control Period 2, which runs from 2006 to 2010
CP3	Control Period 3, which runs from 2011 to 2015
Deloitte	Deloitte & Touche LLP
ICA	Intercompany service agreement
IFRSs	International Financial Reporting Standards
KPMG	KPMG LLP
KPMG CP2 Cost Allocation Reports	Together, the KPMG reports "NATS – Cost allocation review, Summary final report", 22 November 2004 and "NATS – Cost allocation review – Phase 2, Final report in summary format" 24 May 2005
KPMG 2007 Report	KPMG's report "General ledger, cost allocation & income review. Final", 27 September 2007
MAS (A)	The British Army's Management Accounting Service (Army)
MoD	Ministry of Defence
MSA	Management service agreement

NERL	NATS (En Route) plc
NERL Service Lines	Collectively, Oceanic, Eurocontrol, London Approach, MoD Contract, North Sea Helicopters, NERL Services to NSL and Other External
NSL	NATS (Services) Limited
NIBS	NATS Integrated Business System
RAB	Regulatory Asset Base
RAGs	Regulatory Accounting Guidelines
UEL	Useful Economic Life
UKATS	UK Air Traffic Service
UKATS Service Lines	The NERL Services Lines excluding Oceanic

Section 1

Executive summary

Introduction

- 1.1 The Civil Aviation Authority (“CAA”) is performing a review of the costs, efficiency and business plans of NATS (En Route) plc (“NERL”), as an input into setting the third price control for NERL (“CP3”). As part of this process, the CAA has engaged LECG to review NERL’s cost and revenue allocation processes.
- 1.2 We have been asked to consider whether NERL’s cost and revenue allocation processes are effectively implemented and whether the CAA can rely on the information provided for the forthcoming price control review. In particular, the CAA has asked us to consider:
- whether NERL allocates costs and revenues between its price controlled businesses and the rest of the NATS group in accordance with current regulatory accounting guidelines;
 - the approach NERL adopts to allocating costs between operating and capital expenditure when applying international accounting standards; and
 - the cost drivers applied by NERL to allocate costs and revenues.
- 1.3 Our full terms of reference are set out from paragraph 2.16.
- 1.4 In fulfilling the remit, LECG’s focus has been on the CAA’s core requirement of whether NERL’s cost allocation is fit for purpose - which LECG finds it is.

The cost allocation system

- 1.5 Since the last price control, NERL has implemented a new cost allocation system. The NATS Integrated Business System (“NIBS”) performs most of the cost allocation process. In general, we believe that the system is much improved. An overview of NIBS is provided in Section 3.
- 1.6 Our conclusions on the new system are as follows:
- the overall process used to generate NERL’s regulatory submissions is not a fully integrated process, though the vast majority of the process is contained within NIBS;
 - the current process addresses most of the recommendations made by KPMG in 2005 and hence the overall process has improved;¹
 - the CAA can take comfort about the robustness of NIBS given its wider financial purpose and the reviews of other independent consultants and NERL’s auditors.

¹ Some of the recommendations KPMG made following their reviews conducted in 2004 & 2005 are no longer relevant, as the legacy systems have been replaced.

- 1.7 Overall, we believe that the new system is fit for purpose, in terms of allocating NERL's statutory accounting revenues and costs to different NERL service lines, under the current regulatory arrangements.
- 1.8 The new system addresses most of the recommendations that were made by KPMG in 2005. For example, it now allocates statutory accounting depreciation using an activity based costing ("ABC") approach. However, the current system does not meet all of KPMG's recommendations. In particular, the current approach to allocating capital expenditure appears to be similar to the approach that existed in 2005. We discuss this point further in Section 5.
- 1.9 NIBS is at the heart of NERL's cost and revenue allocation process. The primary purpose of NIBS is to support the NERL business, rather than to generate only regulatory submissions. We believe that this is a helpful development.
- 1.10 We consider that the cost allocation process has improved. NIBS has a very large number of activity codes (i.e. over 3,000) used to disaggregate costs and a large number of drivers (i.e. around 125) to allocate the costs assigned to these activity codes. Such a detailed approach to cost allocation should improve the allocation of costs.
- 1.11 This conclusion is supported by KPMG in its 2007 review. KPMG concludes that the move to SAP is a major step forward for the cost allocation process due to increased transparency and increased control. The replacement of the Metify ABC system has reduced complexity and the reliance on key staff to use and maintain the system.²
- 1.12 However, it is also the case that a detailed approach makes it more difficult to audit the resulting allocations. In general, the risk is that if implemented poorly (e.g. if the wrong cost driver has been assigned to cost activity) there may not be an improvement in cost reflectivity. We discuss our findings in this area in sections 4 and 6.
- 1.13 Notwithstanding the above, comfort can be taken about the robustness of NIBS given:
- its role in the organisation. Given that the system is used for a range of purposes, including statutory accounting, performance management and forecasting, the system has a range of controls to ensure the accuracy of the data. It is also used by more people, and therefore the outputs are more likely to be challenged by the users of the information, which will result in more feedback on the appropriateness of the cost allocations. In our experience, having one system is better than having multiple systems; and
 - the reviews of other independent consultants (e.g. KPMG, Deloitte and the British Army's Management Accounting Service (Army) ("MAS (A)")) give some assurance on the system. NIBS generated the financial statements for 2007/08 and 2008/09, and these, in the opinion of the independent auditors (Deloitte), gave a true and fair view of the state of NERL's affairs. The MAS (A) recommended that the gainshare certificate for 2007/08 be endorsed. We understand that this gainshare certificate was based on information from NIBS. Finally, in their 2007 report, KPMG concluded that NIBS was a *"major step forward for the cost allocation process"* and that its approach *"represent[s] a fair and justifiable allocation of costs"*.²

² KPMG's report "General ledger, cost allocation & income review. Final", 27 September 2007, page 2.

Cost allocation incentives

- 1.14 We have investigated whether there are incentives to misallocate costs between services lines, based on the regulatory framework. Hypothetically, there may be risks that costs could be misallocated (e.g. between the Oceanic and UK Air Traffic Service (“UKATS”) businesses and between the Eurocontrol and London Approach service lines). Where NERL is a party to intercompany services, we have investigated whether NERL (as a service recipient) bears too great a cost or (as a service provider) receives too small an income. This concern stems from the possibility that it may be easier to recover costs from customers in a regulated business such as NERL than in a competitive business such as NATS (Services) Limited (“NSL”).
- 1.15 However, under the present regulatory framework, we do not believe that there are significant incentives to misallocate costs. With respect to the allocation of costs between Oceanic and UKATS, we understand from NERL that there is considerable operational separation between the Oceanic and UKATS businesses. This lowers the level of resource sharing and the need to allocate costs to the two businesses (i.e. a higher proportion of cost is allocated directly between the businesses).
- 1.16 With respect to the allocation of costs between Eurocontrol and London Approach, there is considerable resource sharing between service lines.³ All other things being equal, this increases the risk of cost misallocation, although we are not aware of any incentive for NERL to bias the allocation of costs between these service lines, as both service lines are part of the UKATS single till. The impact of any misallocation between these service lines is bounded by the relative discretion NERL has in splitting the UKATS revenue cap between Eurocontrol and London Approach.

Intercompany agreements

- 1.17 There are two types of intercompany agreements. MSAs relate to common services (such as board, HR, finance department functions, etc), which are used across the group. ICAs relate to operational services that are provided by one statutory entity to another but which could be sourced from outside the group. NERL is both a provider and recipient of services provided under MSAs and ICAs (i.e. it receives both intercompany revenues and charges).
- 1.18 NERL’s intercompany revenue and charges equate to a small percentage of total revenue and charges. Hence, any misallocation, if it occurred, would have a small impact on NERL (and, ultimately, the allocation of revenue and costs across NERL’s service lines).
- 1.19 We traced the support relating to MSAs through to NERL’s Service Lines’ profit & loss accounts. For MSAs provided by NATS Limited, we were unable to agree the level of charges allocated to NERL. NERL explained the reasons for the differences we found. Based on the available evidence, these explanations appeared reasonable.
- 1.20 We reviewed NERL’s allocation of MSA charges between NERL and NSL. In general, we believe that the allocation of MSA costs is appropriate and fit for purpose.

³ Around 72% of costs in 2008/09, by value, of the Eurocontrol service line are shared with the London Approach service line. Around 96% of the costs in 2008/09, by value, of the London Approach service line are shared with Eurocontrol service line. “Service lines by activity 090429 revised 090603 (2).xls”.

- 1.21 ICA charges are made between statutory entities, not between service lines. Since ICAs are bilateral, they do not require any cost allocation – that is, the costs are allocated directly to the statutory entity. As such, all other things being equal, the risk of misallocation between businesses is reduced.
- 1.22 The charge for each ICA is equal to either the market price for the particular service or the cost of providing the service plus a margin of [REDACTED]. We have reviewed NERL’s stated policy and it is consistent with the Regulatory Accounting Guidelines (“RAGs”). The decision on whether to allow any mark-up on allocated and directly charged costs is ultimately one of policy. We recognise that the CAA is not bound by regulatory precedent. However, there is strong regulatory precedent to support the exclusion of mark-ups. A mark-up of [REDACTED] than available comparators, though on the grounds of materiality appears broadly acceptable (especially given there is no mark-up on MSA costs).
- 1.23 We were unable to reconcile the charges contained in a sample of the agreement documents to a schedule of ICAs relating to NERL. We observed that discrepancies between the ICA documents and the charges recorded in NIBS were common but (for the sample we reviewed) immaterial. NERL has provided reasons for these discrepancies.⁴ Based on the available evidence, these explanations appeared reasonable.
- 1.24 Our findings are set out in more detail in Section 4.

Treatment of capital expenditure

- 1.25 The CAA asked us to review whether NERL’s capitalisation policy had changed over time⁵ and/or was due to change over CP3. To the extent that the capitalisation policy had changed, the CAA requested that we consider whether this has a material impact on NERL’s level of capitalised expenditure and hence on the overall level of allowed costs. The CAA also requested that we examine how NERL’s capital expenditure was allocated between the regulatory asset bases of the Oceanic and UKATS businesses, and to consider whether this allocation was consistent with NERL’s approach to allocating operating costs (in particular, depreciation charges). Our findings are set out in detail in Section 5.
- 1.26 NERL are expecting to spend lower amounts on capital expenditure in proportion to operating expenditure compared with CP2 to date. This suggests that expenditure is not increasingly being classified as capital expenditure.
- 1.27 NERL will adopt (as required by the accounting standards) the revised version of the international accounting standard IAS 23, “*Borrowing costs*”, from the financial year 2009/10, for statutory accounting purposes. Under the existing version of the standard, entities can elect whether or not to capitalise borrowing costs. The borrowing costs of NERL are not currently capitalised. Under the revised version, borrowing costs must be capitalised for statutory accounting purposes.
- 1.28 If interest (i.e. financing) costs were also capitalised within the RAB then this could lead to NERL being compensated for financing costs twice. That is, once through higher operating costs generated by depreciation on the capitalised interest, and once through the allowed

⁴ NERL explained that the discrepancies related to, for example, variances caused by changes to actual inflation, variances in travel related expenses, etc.

⁵ We understand that NERL’s capitalisation policy has remained unchanged since the introduction of FRS 15.

return on the asset base. It is a policy decision for the CAA to decide whether to allow interest to be capitalised in the RAB. However, our recommendation is that capitalised interest should not be included within the RAB. NERL has confirmed that it has not included capitalised interest in its CP3 regulatory submissions.

Allocation of NERL's revenue and operating expenditure

- 1.29 We have reviewed NERL's revenue allocation methodology. NERL's revenues are aggregated in NIBS by nominal code and then allocated exclusively to a single service line. Based on our review we believe the risk of revenue misallocation within NIBS is low
- 1.30 We have considered the robustness of the allocation percentages used to allocate NERL costs. Our general observation is that the support for driver input data is poor in places. In general, this will make it harder for NERL to ensure the files are accurately stated. We also believe that it will make it harder for NERL to update the drivers.⁶ This need not imply the files contain errors, but it does make it harder to verify the data.
- 1.31 To test the accuracy of the data, we performed a high-level review of the driver support files. We have found issues in nine out of the ten support files we have reviewed. That is a high discrepancy rate. In response to our findings, NERL indicated that of the fifteen workstation based drivers used to allocate NERL's costs (which collectively allocate around 50% of 2008/09 total costs), two should no longer be used and five currently have incorrect allocation percentages. NERL has calculated the impact on London Approach of correcting for this in 2009/10.⁷ We consider this difference to be material and, on this basis, we believe the existing cost allocations can be improved.
- 1.32 In light of the above, the CAA has requested that we perform some additional review work on NERL's updated workstation drivers. This work is on going and, once it is completed, we will issue a supplemental report of our findings to the CAA.
- 1.33 Our primary recommendation with respect to driver input data is that NERL should perform a full review of all the driver support files to ensure that all inputs are accurate and up to date. Going forward, NERL should consider improving its driver support files. In line with best practice, we recommend that any new support files should: i) be easy to follow, review and audit; ii) have explicit links to the primary evidence on which they are based; and iii) be reviewed and updated on a regular (at least annual) basis.
- 1.34 We have also considered the appropriateness of the drivers selected to allocate costs. The most common drivers relate to workstations or to turnover. In general, we accept the use of workstations as a driver when there is a causal relation between the cost and the driver.
- 1.35 Turnover is used to allocate common costs when a causally linked driver cannot be identified. In our report, we outline reasons why we do not believe this is a suitable approach, partly because revenues for London Approach and Eurocontrol are not set on a cost reflective basis. We believe that EPMU would be a more appropriate basis to allocate

⁶ This could be why the allocation percentages of those drivers used in 2007/08 and in 2008/09 have not been updated: see paragraph 6.31.

⁷ NERL has calculated the impact on London Approach of correcting for this is to reduce costs by £5.3m (i.e. 21.4%) in 2009/10. NERL considers that a corresponding change to the London Approach cost allocation in 2008/09 (and relevant prior periods in CP2) would not have materially altered the cost-reflectivity and level of charges. LECG has not investigated the accuracy of NERL's statement.

common costs. There is considerable regulatory precedent to support this recommendation. We acknowledge that the CAA considered this issue as part of the airports review. The CAA concluded that a change to EPMU for BAA was not required.

- 1.36 We have considered the drivers used to allocate a sample of activity codes. Our sample covered 46.7% of NERL costs, by value. We found that 16 of the 48 activity codes we reviewed (representing 29.8% of the 2008/09 value of the entire sample) had allocation drivers that could be improved. NERL also agreed that the selection of drivers could be improved.⁸
- 1.37 Table 1-1 below summarises how cost allocations change in 2008/09 when we replace turnover drivers with EPMU drivers and revise the 16 inappropriate activity codes found within our sample review, making no allowance for possible data input issues summarised above.
- 1.38 Our evidence suggests that in the context of the existing regulatory framework, the impact of our recommendations is small. In particular, these changes would produce a 4.3% (£1.0m) increase in the costs allocated to the Oceanic business, and a 0.2% (£1.0m) reduction in the costs allocated to the UKATS business (which is regulated under a single till).

Table 1-1: Impact of the allocation of 2008/09 costs⁹ of LECG driver selection recommendations

£m unless otherwise stated	Oceanic	Eurocontrol	London Approach	MoD contract	North Sea Helicopters	NERL services to NSL	Other external	Not assigned	Total
Existing allocation	22.3	408.5	23.5	█	█	█	█	0.1	515.8
Updated allocation	23.3	409.4	23.6	█	█	█	█	0.1	515.8
Difference	1.0	1.0	0.2	(0.3)	0.4	(2.6)	0.4	0.0	0.0
% difference	4.3%	0.2%	0.7%	█	█	█	█	29.6%	0.0%

Source: "Service lines by activity 090429 revised 090603 (2).xls" and LECG analysis

⁸ "Questions 090604 with LECG response v2 NERL RESPONSE.xls"

⁹ The information contained in this table is stated on a nominal basis. The information contained in all table in this reports is also stated on a nominal basis, unless otherwise stated.

Summary of findings and recommendations for CP3

- 1.39 We believe that the system of revenue and cost allocation currently used by NERL represents a significant improvement on the system that existed at the start of CP2. With the exception of our findings with regard to workstation-based drivers, we believe, based on the work we have performed, that the current system is fit for purpose under the existing regulatory approach.
- 1.40 Workstation drivers collectively allocate around 50% of NERL's 2008/09 costs. Our review revealed that certain workstation-based drivers should no longer be used and that the allocation percentages of others are incorrect. NERL has calculated the impact on London Approach of correcting for this in 2009/10.¹⁰ We consider this difference to be material and, on this basis, we believe the existing cost allocations can be improved.
- 1.41 In light of the above, the CAA has requested that we perform additional review work on NERL's updated workstation drivers. This work is on going and, once it is completed, we will issue a supplemental report of our findings to the CAA.
- 1.42 We have identified a number of detailed changes that could be made to enhance the improvements that NERL has made in recent years. Most of the improvements we recommend are unlikely to have a material impact under the existing regulatory approach. Whether or not these recommendations should be taken forward will depend upon the CAA's requirements on NERL, NERL's own plans and an assessment of the benefits that such changes will yield relative to the costs of implementing them. These recommendations are summarised in the relevant sections of this report.
- 1.43 We understand that NERL plans to undertake a detailed review of its choice of cost drivers as part of the business planning process leading to the finalisation of the revised business plan to be submitted to the CAA in December 2009. We also understand that in the longer term NERL plans to make further improvements to its processes.
- 1.44 In the longer term, we encourage NERL to consider our recommendation to convert its allocation system into a fully integrated system, so that it can produce all financial statements and regulatory submissions, with reduced manual intervention. We also encourage NERL to improve the quality of its driver support files. These recommendations are explained further below, and in the more detailed sections that follow.

¹⁰ NERL has calculated the impact on London Approach of correcting for this is to reduce costs by £5.3m (i.e. 21.4%) in 2009/10. NERL considers that a corresponding change to the London Approach cost allocation in 2008/09 (and relevant prior periods in CP2) would not have materially altered the cost-reflectivity and level of charges. LECG has not investigated the accuracy of NERL's statement.

Section 2

Introduction and scope of work

Introduction

- 2.1 The CAA is performing a review of the costs, efficiency and business plans of NERL, as an input into setting the third price control for NERL.¹¹ As part of this process, the CAA has engaged LECG to review NERL's cost and revenue allocation processes.
- 2.2 In this section, we provide context to the work we have been asked to perform. First, we provide a summary of NATS. We briefly summarise how NERL is regulated. We then summarise our terms of reference and provide an overview of LECG.
- 2.3 We then provide a schematic that summarises our approach to performing this review. Our full approach is explained in more detail in our proposal to the CAA. We expand on our approach throughout this report, as appropriate.
- 2.4 In this section, we also summarise the information we have relied upon and comment on its quality. We also outline certain limitations to the work we have undertaken.
- 2.5 At the end of this section, we provide an overview to the structure of this report.

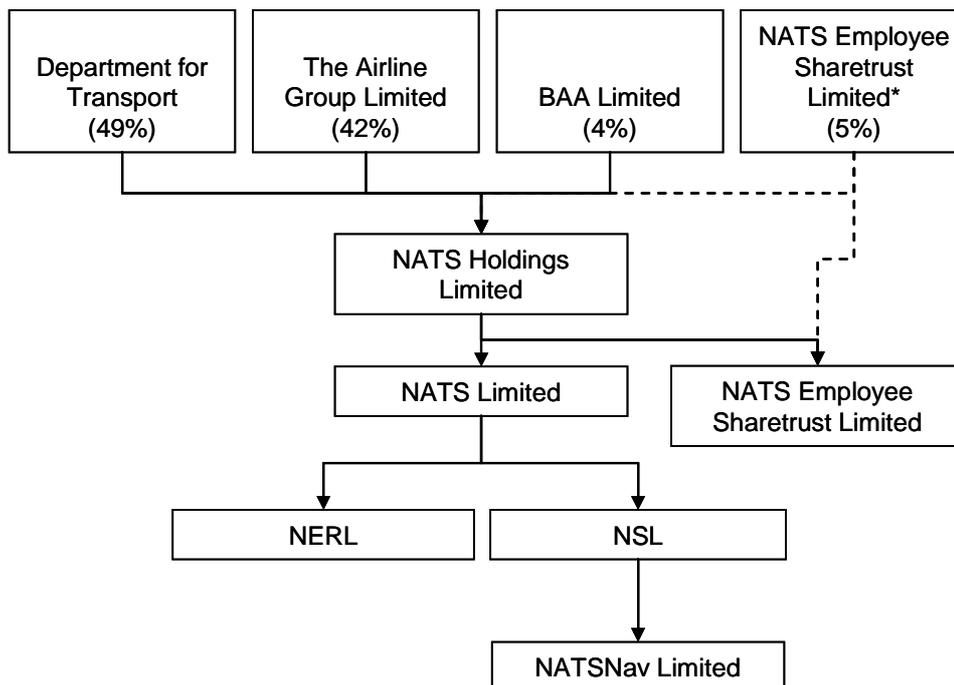
Overview of NATS

- 2.6 NATS operates UK and North Atlantic en route air traffic control services through its regulated subsidiary, NERL. It provides additional airport air traffic control and other commercial services through its subsidiary, NSL.¹² A summary of the NATS' group structure is set out in the figure below.

¹¹ CP3 runs from 1 January 2011 through to 31 December 2015 for NERL's Eurocontrol business and 1 April 2011 through to 31 March 2016 for NERL's Oceanic business. The prior control period, Control Period 2 ("CP2"), runs from 1 January 2006 to 31 December 2010 for Eurocontrol and 31 March 2011 for Oceanic.

¹² NATS Holdings Limited, Annual Report and Accounts 2008, page 22.

Figure 2.1: NATS' ownership and corporate structure



* Held on trust

Source: "Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study", 28 April 2009, slide 5.

2.7 For internal reporting purposes, NERL reports under a number of different service lines. We summarise the principal activity performed by each service line below:

- Oceanic provides, *inter alia*, the air traffic control function for the Shanwick area of international airspace;
- Eurocontrol provides, *inter alia*, en route air traffic services for non-military aircraft flying in UK airspace;
- London Approach provides, *inter alia*, the terminal approach service for Heathrow, Gatwick and Stansted;¹³
- MoD Contract provides a number of services for the Ministry of Defence ("MoD"), including surveillance services from NERL's assets, navigation aids, and centre facilities and systems;
- North Sea Helicopters provides air traffic control services to helicopters travelling to and from the North Sea oil rigs;
- NERL Services to NSL performs all of the services covered by intercompany agreements with NSL. These services include, for example, the approach control service for London Luton airport; and
- Other External, which covers the other activities that NERL is permitted to carry out under Condition 5 of NERL's Licence. It comprises NERL's direct sales to external

¹³ This service line is not responsible for the terminal approach service to London Luton and London City airports. NSL is contracted to provide this service to these airports.

customers and includes NERL's site sharing and onward routed radar services. The Licence limits (i.e. caps) these other activities to 3% of the combined turnover of the En-route businesses.¹⁴

- 2.8 We understand that there is a multi faceted relationship between NERL and MoD to ensure that a common body of airspace works in an effective and flexible way for civil and military users. NERL and the MoD operate a joint and integrated approach to air traffic management between civil and military sectors, at the heart of which are co-located military and civil controllers in each of NERL's air traffic centres. NERL provides services covering the provision of surveillance services from its assets (e.g. primary and secondary radars), navigation aids, and centre facilities and systems. Conversely, the MoD provides some services to civilian flights operating in uncontrolled airspace.¹⁵
- 2.9 In the remainder of this report, we refer to the above listed service lines collectively as the "NERL Service Lines". All of the NERL Service Lines other than Oceanic relate to the provision of UK Air Traffic Service ("UKATS"). We refer to UKATS related service lines collectively as the "UKATS Service Lines".
- 2.10 NSL's principal activities relate to the provision of airport air traffic services at UK and overseas airports, and the sale of its expertise and capabilities to UK and overseas customers.¹⁶ The latter includes air traffic consultancy, training services and airport data management.

Overview of the economic regulation of NERL

- 2.11 The CAA is responsible for the economic regulation of NERL. The CAA separately regulates NERL's Oceanic business and elements of the UKATS business. The Oceanic business is subject to a price cap form of regulation. The regulated elements of the UKATS business relate to the Eurocontrol and London Approach service lines¹⁷, and these are subject to a revenue cap form of regulation. Eurocontrol and London Approach are regulated under a single till approach, which takes into account the costs and revenues of all UKATS Service Lines.
- 2.12 The allowable revenue under the UKATS revenue cap is split between the Eurocontrol and London Approach service lines. We understand that currently the determination of this split is at NERL's discretion, subject to the condition that the revenue allocated to the London Approach service line does not result in materially lower cost recovery from one year to the next. We understand that, historically, the London Approach service line charge has not recovered sufficient revenue to cover its fully allocated costs. This might imply, under certain cost tests, that London Approach is cross subsidised by Eurocontrol. We understand that the CAA has considered whether to amend the regulation of UKATS to generate a more cost reflective charge for London Approach services.

¹⁴ "Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study", 28 April 2009, slide 12. Licence Condition 5(12).

¹⁵ "CP3 price control review for NERL – CAA consultation", October 2008, pages 59 to 60.

¹⁶ "NATS (Services) Limited Financial Statements for the year ended 31 March 2008", page 1.

¹⁷ The North Sea Helicopters service is also a regulated service under the NERL licence. We understand, however, that the charges set in relation to this are not subject to direct regulation.

- 2.13 We have investigated whether there are incentives to misallocate costs between services lines, based on the regulatory framework. Hypothetically, there may be risks that costs could be misallocated (e.g. between the Oceanic and UKATS) businesses and between the Eurocontrol and London Approach service lines). Where NERL is a party to intercompany services, we have investigated whether NERL (as a service recipient) bears too great a cost or (as a service provider) receives too small an income. This concern stems from the possibility that it may be easier to recover costs from customers in a regulated business such as NERL than in a competitive business such as NSL.
- 2.14 However, under the present regulatory framework, we do not believe that there are significant incentives to misallocate costs. With respect to the allocation of costs between Oceanic and UKATS, we understand from NERL that there is considerable operational separation between the Oceanic and UKATS businesses. This lowers the level of resource sharing and the need to allocate costs between the two businesses (i.e. a higher proportion of cost is allocated directly between the businesses).
- 2.15 With respect to the allocation of costs between Eurocontrol and London Approach, there is considerable resource sharing between service lines.¹⁸ All other things being equal, this increases the risk of cost misallocation, although we are not aware of any incentive for NERL to bias the allocation of costs between these service lines, as both service lines are part of the UKATS single till. The impact of any misallocation between these service lines is bounded by the relative discretion NERL has in splitting the UKATS revenue cap between Eurocontrol and London Approach.

Terms of reference

- 2.16 LECG's terms of reference are set out in the CAA's Terms of Reference 13/03/2009 Ref. 1387 (Services Order 6). These terms of reference are summarised below.

"The CAA is seeking advice on whether NERL's cost and revenue allocation processes are effectively implemented and thus provide an appropriate basis on which the CAA can rely during the forthcoming price control review. In particular, the CAA is seeking advice in the following areas:

- *a review of NERL's cost and revenue allocation policies, focusing in particular on:*
 - *whether NERL allocates costs and revenues between its price controlled businesses and the rest of the NATS group in accordance with current regulatory accounting guidelines;*
 - *the approach NERL adopts to allocating costs between operating and capital expenditure when applying international accounting standards;*
- *a review of the cost drivers and any other factors applied by NERL to allocate costs and revenues between price-regulated and other relevant parts of the group, judged against current regulatory accounting guidelines*

¹⁸ Around 72% of costs in 2008/09, by value, of the Eurocontrol service line are shared with the London Approach service line. Around 96% of the costs in 2008/09, by value, of the London Approach service line are shared with Eurocontrol service line. "Service lines by activity 090429 revised 090603 (2).xls".

and, where applicable, recognised accounting and commercial best practice and against the CAA's statutory duties governing its price control regulation.

The advice must include conclusions on the reliance which the CAA should place on NERL's cost and revenue allocation process as a basis on which to set the CP3 price control. Where relevant, the Contractor must make recommendations for any adjustments that the CAA may wish to consider to its price cap modelling in light of the findings.

This study will contribute to a wider suite of studies which together are designed to examine the projected costs of NERL's 2009 business plan and provide a robust evidence base to inform the CAA in setting the CP3 price cap."

- 2.17 Part of the above instructions request that we provide "a review of... the approach NERL adopts to allocating costs between operating and capital expenditure when applying international accounting standards". Specifically, the CAA asked us to review whether NERL's capitalisation policy had changed over time and/or was due to change over CP3. To the extent that the capitalisation policy has changed, the CAA requested us to consider whether this has a material impact on NERL's level of capitalised expenditure and hence on the overall level of allowed costs. The CAA also requested that we examine how NERL's capital expenditure is allocated between the regulatory asset bases ("RAB") of the Oceanic and UKATS businesses, and to consider whether this allocation is consistent with NERL's approach to allocating operating costs (in particular, depreciation charges).

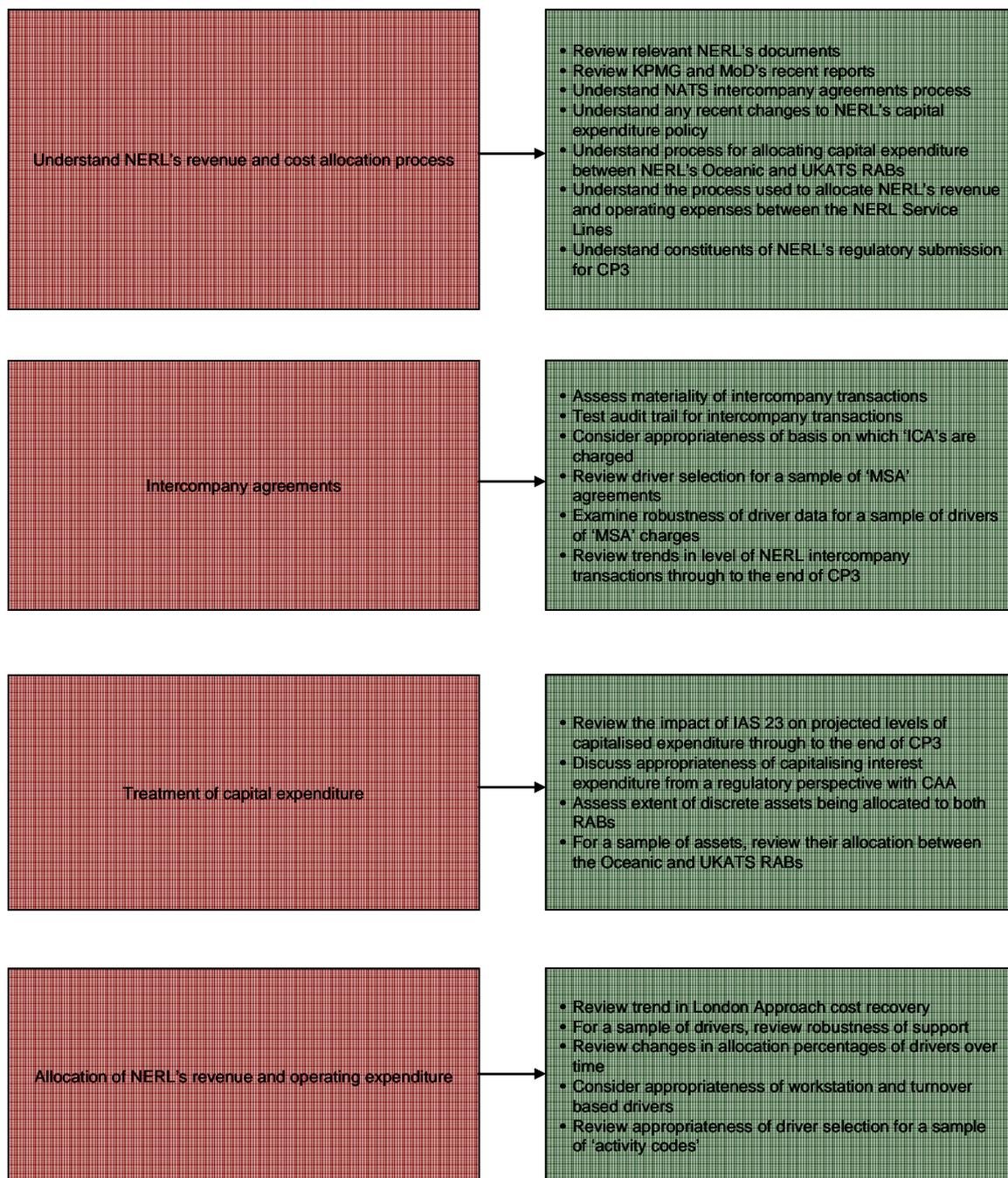
LECG overview

- 2.18 LECG is a global expert services firm that provides objective economic and financial analysis to law firms, businesses, industry regulators and government agencies. LECG specialises in regulation, litigation, arbitration, competition policy, valuation, intellectual property, transfer pricing and management consultancy. We have considerable expertise across regulated industries including aviation, transport, water, energy and utilities, telecommunications, financial services and postal services.
- 2.19 LECG has 31 offices globally and earned revenues of around \$335 million in 2008. We have over 800 professionals. In Europe, we have offices in Brussels, London, Madrid, Milan, Paris and Toulouse. In the UK, we have around 80 full time professional staff comprising of accountants, economists, statisticians, MBAs, and industry experts, including former partners and directors from the world's largest accounting firms specialising in regulation, litigation support and valuation. We also have around 40 affiliates including business school professors and leading academic experts, who provide additional expertise and capability.
- 2.20 Within our regulation practice, we provide advice to governments, regulators and regulated businesses on public policy in the financial services, post, communications, media, transport and energy and utilities sectors. We address issues relating to market design, price controls, liberalisation, separation, efficiency and regulatory reporting as well as cost and revenue allocation.

LECG approach to performing this review

2.21 Our approach is summarised in the diagram below.

Figure 2.2: LECG approach



Source: LECG

2.22 We provided further information on our approach in our proposal. In each section that follows, we describe in more detail certain additional elements of our approach.

2.23 We have performed our review on a sample basis.¹⁹ Our conclusions are based on the output of the sample we have taken. Had we taken a larger sample, our conclusions may have differed. In light of our review, the CAA needs to consider whether further review work should to be performed.

2.24 Our review work has focused on costs in 2008/09. Although we have reviewed revenue and cost allocations in every year from 2008/09 through to the end of CP3, the extent of our review work has been greater for 2008/09. Our conclusions on 2008/09 apply to future years in CP3.

Information used

2.25 LECG has relied on the information provided by NERL and the CAA. This is normal in reviews of this nature. We summarise the key sources of information on which we have relied below.

Information Sources

2.26 The findings presented in this report are based largely on our review and consideration of the information obtained from NERL. The following are the key documents on which LECG has relied:²⁰

- “Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study”, 28 April 2009;
- KPMG’s report “NATS – Cost allocation review – Phase 2, Final report in summary format”, dated 24 May 2005;
- KPMG’s report “NATS – Cost allocation review, Summary final report”, 22 November 2004;
- “NATS (En route) Plc regulatory accounting guidelines”;
- “NATS (En route) Plc financial statements for the year ended 31 March 2009”;
- “NATS (En route) Plc regulatory accounts 2008/09”;
- “Management Accounts by Service line Plan (8.1).xls”;
- “17-1 Management Accounts by Service line 0809 final.xls”;
- “17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls”;
- “Service lines by activity 090429 revised 090603 (2) [sent 120609].xls”; and
- “Business Plan by Service Line (1 11).xls”.

Information process and quality

2.27 During our review, we worked with the CAA to gather the information necessary to complete our agreed scope of work. In so doing, we sought to ensure that all information requests

¹⁹ The size of our sample is discussed in sections 4 to 6.

²⁰ A complete list of NERL submissions is included in Appendix 1.

were made on a timely and reasonable basis, prioritised and documented. We sought to agree the timing of NERL's responses in advance.

2.28 We provide observations on the quality of the information throughout the report.

Limitations

2.29 In performing our work and producing this report, LECG has reviewed the internal consistency of data supplied to us by NERL. However, nothing in this report should be taken to imply that we have conducted any procedures or investigations in an attempt to verify or confirm, by means of reviewing source documentation or processes, the accuracy of the data underlying NERL's cost accounting systems or other supplementary information. Our work does not constitute an audit.

2.30 LECG has written this report solely for the use of the CAA. We are aware that the CAA may rely in part on our findings, as set out in this report, in its determination of the forthcoming price control of NERL. We are also aware that the findings of this report may be made available publicly by the CAA.

Structure of this report

2.31 The rest of our report is set out as follows:

- in Section 3 we summarise the revenue and cost allocation process that generates NERL's regulatory submissions;
- in Section 4 we consider how costs and revenues covered by NATS' intercompany agreements are allocated between statutory entities, including NERL;
- in Section 5 we discuss NERL's treatment of capital expenditure; and
- in Section 6 we discuss NERL's allocation of revenue and operating expenses.

Section 3

NERL's revenue and cost allocation process

Introduction

- 3.1 In this section, we summarise the revenue and cost allocation process that generates the regulatory submissions for NERL. The table below provides a summary of the allocations generated by the NERL revenue and cost allocation process in 2008/09.

Table 3-1: 2008/09 NERL revenue and cost allocation by NERL Service Line

£m	Oceanic	Eurocontrol	London Approach	MoD Contract	North Sea Helicopters	NERL Services to NSL	Other external	Total
Inter-company income	0.0	0.0	0.0	0.0	0.0	16.0	0.0	16.0
Other income	23.5	523.5	8.4	44.9	7.3	0.0	3.5	611.1
Total income	23.5	523.5	8.4	44.9	7.3	16.0	3.5	627.1
Statutory Depreciation	(2.8)	(62.2)	(2.7)	■	■	■	■	(77.6)
Inter-company costs	(0.6)	(19.1)	(0.7)	■	■	■	■	(26.7)
Other operating costs	(19.0)	(327.1)	(20.1)	■	■	■	■	(411.3)
Total Operating Costs	(22.3)	(408.4)	(23.5)	■	■	■	■	(515.6)
Operating Profit	1.2	115.2	(15.0)	■	■	■	■	111.4

Source: "17-1 Management Accounts by Service line 0809 final.xls"

- 3.2 The table above contains statutory accounting information, which has been prepared in accordance with international financial reporting standards ("IFRS") and NERL's internal reporting policies. The regulatory submissions for NERL are prepared in accordance with its

RAGs. Although the regulatory submissions are largely derived from the statutory accounting information²¹, there are differences between statutory and regulatory accounts.²² We understand that the differences between the two accounting bases relate to:

- depreciation. The depreciation amount in the statutory profit & loss account for 2008/09 is £79.7m (15.5% of operating costs),²³ whilst in the regulatory performance statement it is £129.5m (23.8% of total costs).²⁴ For the avoidance of doubt, differences between the statutory and regulatory depreciation figures do not indicate that either figure is incorrect. We also note here that regulatory depreciation is determined by the CAA, not NERL;
- intangible assets and goodwill. The statutory balance sheet reports values for goodwill and intangible assets²⁵ and the profit and loss account reports charges for amortisation and impairments on these.²⁶ The regulatory accounts exclude goodwill and any associated amortisation or impairment on it;²⁷
- pension costs. We understand that the charge²⁸ in the statutory profit & loss account for pension costs is calculated in accordance with IAS 19 ('Employee Benefits'). The charge²⁹ in the regulatory accounts is a cash based pension cost of NERL for the period;³⁰
- profit and loss on the disposal of assets. The statutory profit & loss account reports amounts for any profit and loss on the disposal of assets.³¹ We understand for

²¹ "NATS (En route) Plc regulatory accounting guidelines", Issue 8, paragraph 5.4.

²² "The Regulatory Accounts are separate from the statutory financial statements of the Company and have not been prepared wholly under the basis of International Financial Reporting Standards". Source: "NATS (En Route) Plc regulatory accounts 2008/2009", page 4.

²³ $14.5\% = 79.7 / 515.7$. See the financial statements for the year ended 31 March 2009 of NERL, page 24.

²⁴ $23.8\% = (126.5 + 3.0) / (522.3 + 22.3)$. See "NATS (En route) Plc regulatory accounting guidelines", page 6. NERL has stated that depreciation on the UKATS RAB is not allocated between the UKATS Service Lines within the regulatory submissions for NERL (see "09 07 17 Information request tracker v1.xls").

²⁵ This value is £465.2m (= 351.0 + 114.2) in 2008/09, which represents 41.6% (= 465.2 / 1,117.9) of NERL's non-current assets. See the financial statements for the year ended 31 March 2009 of NERL, page 25.

²⁶ The value of these charges in 2008/09 was, respectively, £8.2m and £0.1m. Together they represented 1.6% (= (8.2 + 0.1) / 515.7) of NERL's operating costs in that year. See the financial statements for the year ended 31 March 2009 of NERL, pages 24 and 36.

²⁷ "NATS (En route) Plc regulatory accounting guidelines", Issue 8, paragraph 5.3.

²⁸ This value is £44.1m in 2008/09, which represents 8.6% (= 44.1 / 515.7) of NERL's total costs on a statutory accounting basis. See the financial statements for the year ended 31 March 2009 of NERL, pages 24 and 37.

²⁹ This value is £33.2m in 2008/09, which represents 6.1% (= (31.6 + 1.6) / (522.3 + 22.3)) of NERL's total costs on a regulatory accounting basis.

³⁰ "NATS (En route) Plc regulatory accounting guidelines", Issue 8, page 9.

³¹ In 2008/09, the profit on disposal of non-current assets was £0.8m, which represented 0.7% (= 0.8 / 111.4) of NERL's operating profits in that year. See the financial statements for the year ended 31 March 2009 of NERL, page 24.

regulatory purposes, however, that “[t]he disposal of assets is dealt with through the Regulatory Asset Base (RAB), rather than in the performance statement”,³² and

- deferred grants. The statutory profit & loss account reports amounts for the use of grants³³, whilst we understand that the regulatory accounts do not.³⁴

3.3 Our study of the revenue and cost allocation process for NERL has entailed an examination of the allocations underpinning Table 3-1 above.³⁵ The CAA will need to ensure that the information that we have reviewed is consistent with the information it has been provided (or will be provided) for price control purposes.

3.4 In this section, we provide an overview of the key elements of the process for allocating NERL’s costs and generating statutory and regulatory information. We then summarise the concerns and recommendations raised by KPMG in their review of the NERL cost allocation system (as existed in 2004 & 2005) for CP2.³⁶ We then discuss whether these issues apply to the current system.

Summary of process for allocating NERL’s revenues and costs

3.5 We summarise our understanding of the process for generating NERL’s regulatory submissions in the figure below.

³² “NATS (En route) Plc regulatory accounting guidelines”, Issue 8, note 3, first bullet point.

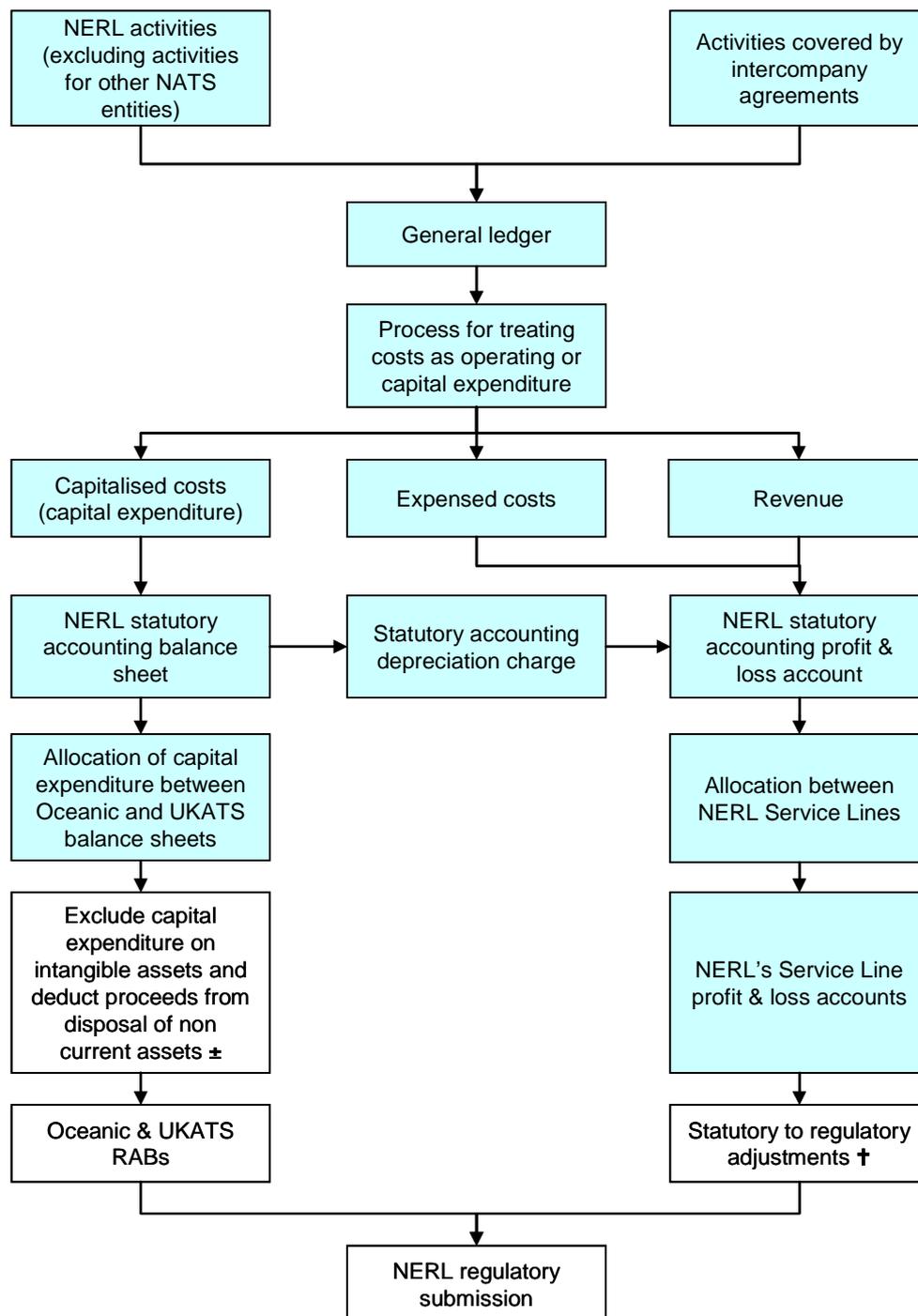
³³ “Government grants relating to the purchase of property, plant and equipment and Ministry of Defence (MoD) contributions received prior to 1 April 2001 are treated as deferred income which is credited to the income statement by equal annual instalments over the expected useful lives of the related assets” (Financial statements for the year ended 31 March 2009 of NERL, page 36). The 2008/09 amount income for deferred grants was £2.1m, representing 0.4% (= 2.1 / 515.7) of operating costs.

³⁴ “25 Reconciliation of Reg to Stat accounts.xls”.

³⁵ For the avoidance of doubt, we have not sought to audit or review the opening level of NERL’s costs and revenues.

³⁶ “NATS – Cost allocation review – Phase 2, Final report in summary format”, KPMG, 24 May 2005, page 7.

Figure 3.1: NERL's process for generating regulatory submission



± "25 Reconciliation of Reg to Stat accounts.xls"

† The statutory to regulatory adjustments relate to the replacement of statutory depreciation with regulatory depreciation, the removal of any impairment or amortisation of goodwill, the replacement of the statutory accounting pension charge with the corresponding cash cost for staff joining after 01/01/2006 and the CAA's assumed cash cost for other staff, the removal of profit or loss on the disposal of non current assets, and the removal of amounts for deferred grants.

Source: LECG

- 3.6 NIBS performs most of the cost allocation process. For all of the boxes shaded in the figure above, NIBS performs the mechanical calculations and/or holds the relevant information. However, the entire process does not occur within NIBS (i.e. the allocation of capital expenditure between the RABs and statutory to regulatory accounting adjustments).

Key elements of the revenue and cost allocation process for NERL

- 3.7 The key aspects of the revenue and cost allocation process for NERL can be broken down into the following components:

- NIBS;
- intercompany agreements;
- the process for treating costs as operating or capital expenditure;
- the allocation of NERL's capital expenditure between Oceanic and UKATS;
- the allocation of NERL's costs and revenues between the NERL Service Lines;
- the regulatory submissions.

- 3.8 We provide an overview of each of these elements in turn below.

NATS Integrated Business System (NIBS)

- 3.9 NIBS is an integrated enterprise resource planning system run on an SAP platform.³⁷ It is used across NATS to provide the following systems.³⁸

- financial reporting and transaction processing;
- business planning;
- HR and payroll;
- operational resource management;
- activity management;
- people management; and
- asset life cycle management.

- 3.10 For the purposes of our review, we are primarily concerned with NIBS' role as a financial reporting and business planning system. The financial reporting system is responsible for recording historical financial information. The business planning system is responsible for recording budget financial information (i.e. forecast information).³⁹

³⁷ Generally, an enterprise resource planning system is defined as a company-wide software system used to manage and coordinate all the resources, information, and functions of a business from shared data stores.

³⁸ "Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study", 28 April 2009, slide 23.

³⁹ NERL usually sets budgets for the five years on an annual basis. For the most recent budgeting round, NERL extended its budgeting horizon to cover the entire CP3 period. NERL's budgets are set at the same detailed level at which actual revenues and costs are allocated across NERL's Service Lines.

- 3.11 The NIBS financial reporting and business planning systems operate in accordance with statutory accounting principles. The systems are used for the normal running of the business.

NIBS' financial reporting and business planning systems

- 3.12 Each transaction entered in the general ledger account is ascribed a nominal code and an activity code, which allows financial information to be aggregated on either of these dimensions. As discussed later, the nominal and activity codes are important tags for allocating costs and revenues to the NERL Service Lines.
- 3.13 The nominal code indicates to which financial statement caption (e.g. revenue, cost of sales, etc) the transaction relates. An example of a nominal code would be '470526', which relates to European Commission Research Projects Income.⁴⁰
- 3.14 The activity code indicates the operational activity to which the transaction relates (e.g. the provision of the blue watch area air traffic control service for the London area control centre team stationed at Swanwick).
- 3.15 Each activity code contains a reference to four different activity characteristics. These activity characteristics, which have a hierarchical order, relate to:⁴¹
- operation (Level 1);
 - site (Level 2);
 - system / watch (Level 3); and
 - work package (Level 4).
- 3.16 An example of an activity code is B0128/LA/WA/S16.⁴¹ The backslashes contained in the code separate the different activity characteristics. 'B0128' (a 'level 1' characteristic) denotes the operational services delivered at the London area control centre. 'LA' (a 'level 2' characteristic) denotes the section of the Swanwick site where the London area control centre team are located. 'WA' (a 'level 3' characteristic) denotes the blue watch area control shift. 'S16' (a 'level 4' characteristic) denotes the provision of operational activities, which we understand to be air traffic control services.

Independent reviews of NIBS financial reporting and business planning systems

- 3.17 The NIBS system was introduced in stages, predominantly between 2006 and 2007.⁴² As such, it was not reviewed by KPMG in their November 2004⁴³ and May 2005⁴⁴ cost allocation reviews for CP2 (together the "KPMG CP2 Cost Allocation Reports"). Since its

⁴⁰ "Income Map (2).xls".

⁴¹ "Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study", 28 April 2009, slide 29.

⁴² "Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study", 28 April 2009, slide 23. Although this slide notes that some elements of NIBS existed at the time of the KPMG CP2 Cost Allocation Reviews, NIBS did not perform cost allocation at that point. We understand this was performed on system known as Metify. See "NATS – Cost allocation review, Summary final report", KPMG, 22 November 2004, page 13.

⁴³ "NATS – Cost allocation review, Summary final report", KPMG, 22 November 2004.

⁴⁴ "NATS – Cost allocation review – Phase 2, Final report in summary format", KPMG 24 May 2005.

introduction, NIBS and/or the outputs it generates have been reviewed by three independent third parties.

- 3.18 First, it has been reviewed by KPMG in 2007 for a study commissioned by NERL (the “KPMG 2007 Report”).⁴⁵ The KPMG 2007 Report related to a review of the general ledger, cost allocation, and income forecasting. The stated scope of the cost allocation review was:⁴⁶

“This review examined the extent to which:

- *the issues and recommendations arising within the previous KPMG benchmarking review have been implemented;*
- *existing approaches to cost allocation represent a fair and justifiable allocation of costs to customers and contracts;*
- *existing policies and procedures relating to cost allocation are appropriate for the post SAP implementation.”*

- 3.19 KPMG’s stated findings were:⁴⁷

“Cost allocation

- *The move to SAP is a major step forward for the cost allocation process due to:*
 - *increased transparency as the system now clearly shows service lines and their group maintenance, cost drivers, driver types and WBS to cost drivers mapping;*
 - *increased control with SAP exception reports being available and a comprehensive audit trail;*
 - *replacement of the Metify ABC system, it’s complexity and reliance on key staff to use and maintain.*

Previous recommendations

- *We found that the 4 main recommendations from the previous KPMG review in 2004⁴⁸ have largely been implemented, i.e.:*
 1. *Provide a simpler and more transparent ABC model;*
 2. *Provide the CAA with enhanced information for the ABC model, including unit costs;*
 3. *Include depreciation in the ABC model;*
 4. *Carry out a further review of ABC in 2005.*

⁴⁵ “General ledger, cost allocation & income review. Final”, KPMG, 27 September 2007.

⁴⁶ KPMG 2007 Report, page 5.

⁴⁷ KPMG 2007 Report, page 2.

⁴⁸ KPMG’s 2005 follow up report also contained recommendations (discussed later in this section), which differ to those contained in its 2004 report. We are unaware as to why the KPMG 2007 Report refers to the recommendations of the 2004 report, as opposed to the 2005 report.

Approaches represent a fair and justifiable allocation of costs

- *Based on the approach adopted and our sample check, we are content that the cost drivers being used to allocated [sic] costs to service lines, and hence customers, are reasonable and equitable. However, we noted that no accountabilities have been consistently defined for the costs of each service line, therefore there has not been a definitive validation of the total costs of each service line under the new model since it was launched in April 2007.*

Policies and procedures relating [sic] are appropriate for the post SAP implementation

- *Whilst drivers have been assigned to all activities, and these appear reasonable at present, there is no defined process for making changes to drivers. This process will need to be developed in consultation with the Business Data Management team to ensure consistency in the management of SAP master data across NATS*
- *Similarly in the fixed assets area, whilst all assets are allocated to end activities, there is no process in place for these to be adjusted as asset utilisations change over time. This should form part of the new asset management process, and again will need to be agreed with the Business Data Management team.”*

- 3.20 Based on these findings, the CAA should take some comfort on the robustness of NIBS to allocate costs. We understand that two of the recommendations made by KPMG have already been addressed by NERL. NERL has already developed a system of reporting accountabilities⁴⁹ and a process for making changes to cost drivers.⁵⁰ NERL has not yet introduced a process for updating the allocation of fixed assets to activities over time in circumstances where assets' utilisations change.
- 3.21 The second independent party to have reviewed aspects of NIBS is MAS (A), as part of their review of the annual gainshare certificate generated in accordance with the MoD's contract with NERL. We understand that the gainshare certificate is the mechanism by which cost savings in the delivery of the MoD contract service are shared between NERL and the MoD.
- 3.22 The stated scope of MAS (A)' review for the 2007/08 financial year was:⁵¹

⁴⁹ These responsibilities are set out in detail in section 4 of the file “NP040118 Service _ Product Line Allocation.pdf”. For brevity, we have not reproduced these responsibilities in this report. However, the division of responsibilities stated in the file appear reasonable.

⁵⁰ This process is set out in section 5 of the file “NP040118 Service _ Product Line Allocation.pdf”. The process appears reasonable. However, LECG has not performed any work to determine whether this process has been effectively implemented.

⁵¹ “MoD Audit Report 2007 08.pdf”, page 1. We understand from NERL that, at the time of our writing this report, the gainshare certificate for the 2008/09 financial year was not available

- a. *An assessment of the impact of changes to NATS accounting methodologies and processes for the audit period.*
- b. *An audit of NATS statutory accounts at the financial year-end with a specific remit to investigate and agree the method of allocating costs to the MOD contract.*
- c. *A validation of the annual gainshare certificate.”*

3.23 NIBS was used to generate the allocation of costs to the MoD Contract service line, and we understand that this formed the basis of the 2007/08 gainshare certificate.⁵² Based on their review, MAS (A) recommended that:

*“the FMARS IPT [Future Military Area Radar Services Integrated Project Team] endorses the gainshare certificate for FY 2007/08”.*⁵³

3.24 The CAA can take comfort that the process that generates the MoD Contract service line cost allocation is robust. Although this process is the same as that which generates cost allocations for all the NERL Service Lines, it should be noted that MAS (A)’ review did not cover the allocation of costs to NERL Service Lines (i.e. it only related to the MoD Contract service line).

3.25 NERL’s auditors, Deloitte & Touche LLP (“Deloitte”), may also have reviewed aspects of NIBS. NIBS was used to generate the consolidated financial statements of NERL for the financial years 2007/08 and 2008/09. Deloitte will have conducted their audit to enable them to provide an opinion on whether the financial statements give a true and fair view of NERL. NERL’s financial statements include information on:

- the level of intercompany income and expense (and hence intercompany trading);
- the level of capitalised expenditure and the split of this between the UK and North Atlantic air traffic service segments for segmental reporting; and
- the split of revenue and operating expenditure between the UK and North Atlantic air service segments for segmental reporting.

3.26 Deloitte’s stated opinion on NERL’s 2007/08 and 2008/09 financial statements is that they give a true and fair view. The CAA may take comfort that NIBS, which generated the aforementioned financial information, is robust.

Intercompany agreements

3.27 NERL’s intercompany agreements fall into two categories: MSAs and ICAs.

3.28 MSAs cover common services (e.g. board, HR, finance department functions, etc) that are used across the group.

3.29 ICAs relate to operational services that are provided by one statutory entity to another but which in principle could be sourced from outside the group. An example of a service

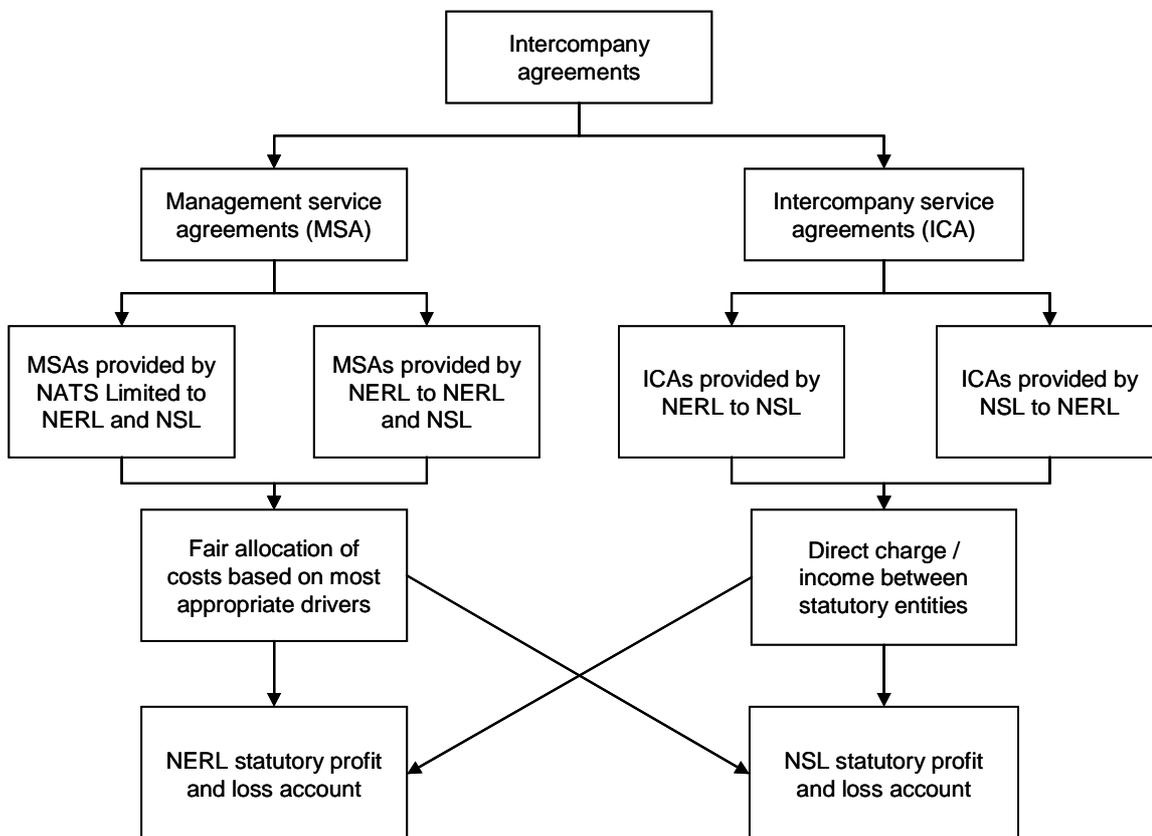
⁵² The KPMG 2007 Report states: “Some existing contractual agreements with NATS’ customers (eg the contract between NATS and the Ministry of Defence) require NATS to maintain an open and transparent cost allocation, such that customers can evaluate allocations on an “open book” basis and share in any cost savings arising from efficiency savings in overhead and other allocated costs”, page 5.

⁵³ “MoD Audit Report 2007 08.pdf”, page 2. Text in square brackets added for clarification purposes.

provided under an ICA is the approach control service for London Luton airport, which is provided by NERL to NSL.⁵⁴

3.30 The figure below provides an overview of the NATS' intercompany arrangements.

Figure 3.2: Overview of intercompany arrangements



Source: LECG

3.31 NERL is both a recipient and provider of services covered by intercompany agreements (i.e. both MSAs and ICAs). Table 3-2 below shows the 2008/09 intercompany revenue and charges for NERL, split by ICAs and MSAs.

Table 3-2: NERL's 2008/09 intercompany revenue and charges

Type of intercompany agreement	Intercompany revenue (£m)	Intercompany charges (£m)
ICA	■	■
MSA	■	■
Total	16.0	26.7

Source: "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls".

⁵⁴ The financial statements for the year ended 31 March 2008 of NERL, note 2, page 27.

3.32 Overall, the level of intercompany revenue and costs is relatively immaterial, respectively representing 2.5% of NERL's total revenues (as per the statutory accounts) and 5.2% of NERL's total operating costs in 2008/09.

Management Service Agreements (MSAs)

3.33 MSAs (and their corresponding charges) are between statutory entities, not service lines.⁵⁵ The services covered by MSAs are provided by either NATS Limited or NERL.⁵⁶

3.34 Services provided under MSAs by NATS Limited in 2008/09 were:⁵⁷

- safety assurance and improvement;
- health and safety;
- the board function;
- facilities management;
- finance; and
- group wide insurance.

3.35 Services provided under MSAs by NERL in 2008/09 were⁵⁸:

- information technology;
- human resources;
- occupational health;
- managing corporate direction and strategy;
- business performance;
- corporate communications;
- finance; and
- facilities management.

3.36 An overview of these services is provided in Appendix 2.

3.37 The services provided under the MSAs are used across the group. However, the services are only charged to either NERL or NSL. These are the most significant subsidiaries, together accounting for 99.9% of NATS Holding Limited's external revenue in 2007/08.⁵⁹

⁵⁵ Once a charge (income) is debited (credited) to the service user (service provider), this charge (income) will be allocated to the service lines of the statutory entity. For NERL, this occurs via the approach discussed later in this section under the heading 'Allocation of NERL's profit & loss account between NERL Service Lines'.

⁵⁶ In our experience, when common services are provided to various statutory entities within a group, these are often provided by a non-trading statutory entity (which, in the case of NATS, would be an entity such as NATS Limited). We asked NERL why NERL (a trading statutory entity) provided some common services. NERL stated rationale is that it is operationally more efficient for NERL to provide the services.

⁵⁷ 'MSA NATS to NERL_NSL sign-off 080709.xls'

⁵⁸ '17-5 MSA NERL to NSL sign-off 080709 inc allocations.xls'

- 3.38 MSA costs are apportioned between NERL and NSL using “*the most appropriate drivers for the activities*” to achieve “*a fair allocation of cost*”.⁶⁰ The table below sets out the share of MSA costs allocated by different drivers.

Table 3-3: Share of MSA costs allocated by different drivers

Allocation driver	% of MSA amount allocated by driver
Number of IT customer accounts	42.8%
Turnover + Air traffic controller FTEs + Directly attributable costs	15.0%
Turnover	12.9%
NERL/NSL FTEs (Air traffic controller) + (Air Traffic Service Assistant)	5.9%
Other drivers	23.5%

Source: "MSA NATS to NERL_NSL sign-off 080709.xls", "17-5 MSA NERL to NSL sign-off 080709.xls", "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c.xls)", and "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc"

- 3.39 The process for selecting cost drivers between statutory entities is the same as that used for selecting drivers to allocate the NERL costs to the NERL Service Lines. Of course, the MSA drivers apportion costs only to NERL and NSL (rather than to the NERL Service Lines). The process used to select drivers is discussed in more detail later in this section.

Intercompany Service Agreements

- 3.40 ICA charges are also made between statutory entities (i.e. not between service lines).⁶¹ Since ICAs are bilateral, they do not require any cost allocation (that is the costs are allocated directly to the statutory entity).
- 3.41 For the vast majority of NERL’s ICAs, the counterparty statutory entity is NSL.⁶² For some ICAs, NERL is the provider of the service, for others it is the recipient.
- 3.42 We understand that the charge for ICAs is equal to the observable market price for the particular service or, where this is not available, the cost⁶³ of providing the service plus a margin of [REDACTED]. Concerning this margin, NERL stated:⁶⁴

⁵⁹ The consolidated group accounts for NATS Holding Limited for the year ending 31 March 2008. Note 30 states that the group’s “principle subsidiaries” are NATS Limited, NERL, NSL, NATSNav Limited and NATS Employee Sharetrust Limited.

⁶⁰ “MSA NATS to NERL_NSL sign-off 080709.xls” and “MSA NERL to NSL sign-off 080709.xls”.

⁶¹ Once a charge (income) is debited (credited) to the service user (service provider), this charge (income) will be allocated to the service lines of the statutory entity. For NERL, this occurs via the processes discussed in the section ‘Allocation of NERL’s profit & loss account between NERL Service Lines’ later in this section.

⁶² [REDACTED]

⁶³ These costs are captured in specific cost centres in NIBS.

⁶⁴ “09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc”.

“NATS has sought to apply a mark-up that meets the transfer pricing requirements of both HMRC and the licence. Both require arm’s length transactions on normal commercial terms”

- 3.43 The table below summarises the percentage (by value) of NERL’s ICAs charged by market price and on a cost plus basis.

Table 3-4: Basis on which NERL’s ICAs are charged

	Total charges (£m)	Percentage (by value) based on	
		Market price	Cost plus
NERL to NSL	■	■	■
NERL to NATSNav	■	■	■
NSL to NERL	■	■	■

Source: “Questions following 090611.xls”

Process for treating cost as operating or capital expenditure

- 3.44 NERL distinguishes operating and capital expenditure in accordance with IFRS. One of the responsibilities of NATS auditors is to provide an opinion on whether the financial statements of NATS companies have been prepared in accordance with IFRS. In the independent auditors’ report accompanying NERL’s 2008/09 financial statements, Deloitte stated “...*the financial statements give a true and fair view, in accordance with IFRS*”.⁶⁵
- 3.45 We understand that, as required under IFRS, NERL will be adopting the revised version of IAS 23 (‘Borrowing Costs’) for the first time in the financial year 2009/10. Under this revised version, companies must capitalise borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying assets as part of the cost of that asset. Previously, companies could elect whether or not to capitalise borrowing costs. To date, NERL has not capitalised these costs. We discuss the impact of this policy change in Section 5.

The allocation of NERL’s capital expenditure between the Oceanic and UKATS RABs

- 3.46 NERL develops balance sheets for the Oceanic and UKATS (i.e. the UKATS balance sheet is not disaggregated between Service Lines) businesses for management accounting purposes.⁶⁶ We understand that the expenditure capitalised on either balance sheet is also capitalised in the corresponding RAB for regulatory accounting purposes.⁶⁷

⁶⁵ “NATS (En Route) plc financial statements for the year ended 31 March 2009”, page 23.

⁶⁶ This is different to how NERL reports profit & loss accounts for the NERL Service Lines for management purposes. For each NERL Service Line, a separate profit & loss account is reported.

⁶⁷ An inflation adjustment is, however, applied to the amount capitalised in the regulatory accounts to restate capital expenditure based on year-end prices, as opposed to the nominal historical price. See “Questions 090625.xls”, worksheet ‘1. Capex Reconciliation’. This is why the capital expenditure amounts in the regulatory and statutory accounts differ slightly.

- 3.47 To report separate balance sheets for Oceanic and UKATS, NERL's capital expenditure is allocated between the two regulated areas. The allocation is based upon a senior asset manager's assessment of the expected use that Oceanic and UKATS will make of an asset. This assessment is made at the point at which construction of the asset commences.
- 3.48 The process by which capital expenditure is allocated between the Oceanic and UKATS balance sheets is different to the process by which revenues and operating costs (including the depreciation from the assets generated by the capital expenditure) are allocated between the Oceanic and the UKATS service lines. The process is set out in 3.49 below.

The allocation of NERL's profit & loss account between the NERL Service Lines

- 3.49 NERL generates separate profit & loss accounts for each of the NERL Service Lines for management accounting purposes. NERL allocates NERL's revenues and costs to the NERL Service Lines using different processes within NIBS. Costs are assigned to each activity code.⁶⁸ An allocation driver is then selected for each activity code to allocate costs across the NERL Service Lines.⁶⁹ The appropriateness of the driver is reviewed on an annual basis by a manager with responsibility for the activity code.⁷⁰
- 3.50 The number of activity codes allocated by a driver varies significantly. For example, the driver B0A31⁷¹ allocates 711 activity codes. Over 90 unique drivers, however, allocate a single activity code.⁷²
- 3.51 Depending on the driver selected, an activity code's costs can either be allocated across a number of service lines or can be allocated exclusively to one service line. Approximately, 81% of NERL's 2008/09 costs (by value) were allocated across a number of service lines, with 19% allocated exclusively to one service line.⁷³
- 3.52 Around 125 unique drivers⁷⁴ were used to allocate NERL's 2008/09 costs. The table below shows the percentage of 2008/09 NERL costs allocated by the top 10 drivers and, collectively, all other drivers.

⁶⁸ See paragraph 3.14.

⁶⁹ The process by which a driver is selected is set out on page 10 of the file "NP040118 Service _ Product Line Allocation.pdf". The process appears to be appropriate.

⁷⁰ "NMS: NATS-Wide, Service/Product Line Apportionment", April 2009, page 4.

⁷¹ The description for this driver is "workstations NATS-wide site" (see B0A31.xls).

⁷² This figure is derived from "Service lines by activity 090429 revised 090603 (2) [sent 120609].xls".

⁷³ This figure is derived from "Service lines by activity 090429 revised 090603 (2) [sent 120609].xls".

⁷⁴ This figure is derived from "Service lines by activity 090429 revised 090603 (2).xls".

Table 3-5: Percentage of 2008/09 NERL costs allocated by top 10 drivers

Driver code	Driver description	% of 2008/09 NERL costs allocated by driver ⁷⁵
BWS01	Workstations Civil Consol LACC	22.4%
B0100	Eurocontrol 100%	14.2%
BIN07	Turnover - NERL Excl NSL and NS Helis	10.8%
B0A31	Workstations NERL-wide site	10.2%
B0A33	Workstations LACC / LJAO	4.8%
BWS02	Workstations Consol Swanwick site	4.8%
BIN02	Turnover - NERL Total External	3.6%
B0A96	Workstations Non-Oceanic NERL-wide	2.6%
B0A87	Share of NERL Turnover (Overhead)	2.4%
BIS01	Information Solutions - Turnover_CustAcs	2.4%
N/A	All 114 other drivers	21.9%

Source: "Service lines by activity 090429 revised 090603 (2).xls"

- 3.53 Revenues are allocated by aggregating them by nominal code⁷⁶ and then assigning an allocation driver to each code. All of the drivers applied to revenues allocate the revenue stream exclusively to one service line.

Regulatory submission

- 3.54 Based on our discussions with NERL, we understand that NERL's regulatory submissions for CP3 are principally made up of:

- the regulatory accounts for 2009/10 (by September 2010);
- the inputs contained within a financial model to be provided to the CAA (updated during 2010); and
- a final revised version of the NERL business plan (by March 2010).

- 3.55 Our study of NERL's revenue and cost allocation processes has entailed an examination of the allocations⁷⁷ underpinning Table 3-1. The CAA will need to ensure that the information that we have reviewed is consistent with the information it has been provided (or will be provided) for price control purposes.

⁷⁵ The totals do not sum to 100.0% due to rounding.

⁷⁶ See paragraph 3.13. NERL's revenues for 2008/09 were aggregated under 23 separate nominal codes. See "Income Map (2).xls".

⁷⁷ For the avoidance of doubt, we have not sought to audit or review the opening level of NERL's costs and revenues.

Matters raised in the KPMG CP2 Cost Allocation Reports

- 3.56 In this subsection, we summarise the concerns and recommendations raised by KPMG in their reviews of the NERL cost allocation system, as it existed in 2004 and 2005. We then discuss whether we consider these apply to NERL's current process.
- 3.57 In their November 2004 report, KPMG raised a number of concerns with the NERL cost allocation system that existed at that time. These concerns lead to KPMG to state:⁷⁸
- "...KPMG are unable, at this point, to provide the CAA with assurance that the current NATS ABC system or the CAP [Cost Allocation Process] provide appropriate and meaningful Service line costing."*
- 3.58 Subsequent to this, NERL made several changes to their system. KPMG reviewed these changes and, based on this, stated:⁷⁹
- "Subject to the introduction of enhanced reporting beyond that currently required and improved capital update processes, KPMG can give the CAA the assurance that the current NATS ABC and CAP provide an appropriate and meaningful service line costing as a basis for price control regulation."*
- 3.59 NERL's current revenue and cost allocation process is considerably different to the process that existed at the time of KPMG's CP2 Cost Allocation Reviews. Therefore, KPMG's conclusions from these reviews cannot be extrapolated to the current system.
- 3.60 Notwithstanding this, comfort might be taken from the fact (as shown below) that the relative cost allocation generated by the system that existed in 2004/05 is relatively similar to that generated by the current system for 2008/09.

Table 3-6: Comparison of relative cost allocations in 2004/05 and 2008/09

	Oceanic	Eurocontrol	London Approach	MoD contract	North Sea Helicopters	NERL services to NSL	Other external
2004/05	4.2%	84.8%	2.0%	■	■	■	■
2008/09	4.3%	79.2%	4.6%	■	■	■	■

Source: "Management Accounts by Service Line 0405 (1 2).xls" and "17-1 Management Accounts by Service line 0809 final.xls".

- 3.61 The relative allocation of costs between the Oceanic Service Line and the UKATS Services Lines is very similar, being (respectively) 4.2% and 95.8% in 2004/05, and 4.3% and 95.7% in 2008/09.

⁷⁸ "NATS – Cost allocation review, Summary final report", 22 November 2004, page 5. Text in square brackets added for clarification purposes.

⁷⁹ "NATS – Cost allocation review – Phase 2, Final report in summary format", 24 May 2005, page 5.

3.62 In their May 2005 report, KPMG made some recommendations for the development of the NERL cost allocation system and we investigated whether NERL's current process addresses these⁸⁰. KPMG stated:

"... in order to provide the regulator with a solution that specifically addresses its needs, we also recommend action to enhance the current systems and methods as follows:

- *NATS needs to provide the CAA with enhanced output from its ABC model including the unit cost information beyond that currently required. This information should be provided to the regulator on an ongoing basis for benchmarking purposes.*
- *For the capital allocation system, NATS should update its current capital allocation update processes as soon as is practical depending on the limitations of its current systems.*
- *In the medium term KPMG believe that NATS should incorporate depreciation into the ABC systems."*

3.63 Dealing with each point in turn, we understand that the regulatory output generated from NERL's current process is not materially different to that generated by NERL's 2005 process. In particular, we understand that unit cost information is not produced in NIBS. Therefore, KPMG's recommendation appears not to be met. We understand, however, that NERL separately provides unit cost information to Eurocontrol's performance review unit for the purposes of European air navigation service provider benchmarking.⁸¹ We further understand that Eurocontrol publishes unit cost information on European air navigation service providers, including NERL.

3.64 Next, the capital allocation system that NERL currently uses is materially the same as that used in 2005. Therefore, this recommendation appears not to be met. We discuss the capital allocation system in more detail in Section 5 of this report.

3.65 Lastly, NERL's current system (NIBS) does allocate statutory accounting depreciation costs to the NERL Service Lines using an activity based costing ('ABC') approach. Therefore, this recommendation has been met.⁸²

⁸⁰ Earlier in this section we referred to the finding of the KPMG 2007 Report. In this report, KPMG stated "[w]e found that the 4 main recommendations from the previous KPMG review in 2004 have largely been implemented" (page 2). It is not clear to us why KPMG referred to their review in 2004, when they conducted a follow up review in 2005. The findings and recommendations contained in the 2005 review were different to those from the 2004 review. We have considered whether the recommendations contained in the 2005 review have been addressed.

⁸¹ Eurocontrol is the European organisation for the safety of air navigation (for the avoidance of doubt, it is distinct from the Eurocontrol Service Line within NERL). According to its website, "Eurocontrol's mission is to harmonise and integrate air navigation services in Europe, aiming at the creation of a uniform air traffic management (ATM) system for civil and military users, in order to achieve the safe, secure, orderly, expeditious and economic flow of traffic throughout Europe, while minimising adverse environmental impact". See http://www.eurocontrol.int/corporate/public/standard_page/org_mission.html. The central route charges office runs a "cost-recovery system that funds air navigation facilities and services and supports Air Traffic Management developments". See (http://www.eurocontrol.int/crco/public/subsite_homepage/homepage.html).

⁸² As noted earlier, NERL have stated that depreciation on the UKATS RAB is not allocated between the UKATS Service Lines in the regulatory submissions for NERL. Therefore, KPMG's recommendation for the allocation of depreciation does not apply to regulatory depreciation.

Conclusions

- 3.66 Since the last price control, NERL has implemented a new cost allocation system. NIBS performs most of the cost allocation process. In general, we believe that the system is much improved.
- 3.67 Our conclusions on the new system are as follows:
- the overall process used to generate NERL's regulatory submissions is not a fully integrated process, though the vast majority of the process is contained within NIBS;
 - the current process addresses most of the recommendations made by KPMG in 2005 and hence the overall process can be said to have improved;⁸³
 - the CAA can take comfort about the robustness of NIBS given its wider financial purpose and the reviews of other independent consultants.
- 3.68 Overall, we believe that the new system it is fit for purpose, in terms of allocating NERL's statutory accounting revenues and costs to different NERL service lines, under the current regulatory arrangements.
- 3.69 The overall process used to generate NERL's regulatory submission is not fully integrated. In general, this could increase the risk of transposition errors and other inconsistencies, which could undermine the reliability of the process. Whilst the majority of the cost and revenue allocation calculations occur within NIBS, the statutory to regulatory adjustments noted in Figure 3.1 occur in a series of off line spreadsheets. Having different cost allocation processes for capital expenditure and statutory depreciation could also increase the risk that allocations are not made on a consistent basis.⁸⁴ We understand that NERL has processes to minimise these risks.⁸⁵
- 3.70 We understand that certain inputs to the financial model provided to the CAA (one of the key regulatory submissions⁸⁶) are manually updated, rather than automatically linked to the information on which they are based. We have not reviewed the controls that NERL may have in place to prevent transposition errors between different sets of financial information. We understand that there is a complex relationship between the financial model and NIBS, and that this makes automating the process more difficult and expensive. We also understand that the financial model has been independently reviewed and that the findings of this review have been made available to the CAA.
- 3.71 We recommend that NERL should consider whether NIBS could be extended into a fully integrated system in the longer term, so that it can produce all financial statements and regulatory submissions, with reduced manual intervention.
- 3.72 The new system addresses most of the recommendations that were made by KPMG in 2005. For example, it now allocates statutory accounting depreciation using an ABC approach. However, the current system does not meet all of KPMG's recommendations. In

⁸³ Some of the recommendations KPMG made following their reviews conducted in 2004 & 2005 are no longer relevant, as the legacy systems have been replaced.

⁸⁴ We review this issue further in Section 5.

⁸⁵ We understand that NERL's processes to minimise the risks of manual error include an independent external financial audit by Deloitte.

⁸⁶ See paragraph 3.54.

particular, the current approach to allocating capital expenditure appears to be similar to the approach that existed in 2005. We discuss this point further in Section 5.

- 3.73 NIBS is at the heart of NERL's cost and revenue allocation process. The primary purpose of NIBS is to support the NERL business, rather than to generate only regulatory submissions. We believe that this is a helpful development.
- 3.74 We consider that the cost allocation process has improved. NIBS has a very large number of activity codes (i.e. over 3,000) used to disaggregate costs and a large number of drivers (i.e. around 125) to allocate the costs assigned to these activity codes. Such a detailed approach to cost allocation should improve the allocation of costs.
- 3.75 This conclusion is supported by KPMG in its 2007 review. KPMG concludes that the move to SAP is a major step forward for the cost allocation process due to increased transparency and increased control. The replacement of the Metify ABC system has reduced complexity and the reliance on key staff to use and maintain the system.⁸⁷
- 3.76 However, it is also the case that a detailed approach makes it more difficult to audit the resulting allocations. In general, the risk is that if implemented poorly (e.g. if the wrong cost driver has been assigned to cost activity) there may not be an improvement in cost reflectivity. We discuss our findings in this area in sections 4 and 6.
- 3.77 Notwithstanding the above, comfort can be taken about the robustness of NIBS given:
- its role in the organisation. Given that the system is used for a range of purposes, including statutory accounting, performance management and forecasting, the system has a range of controls to ensure the accuracy of the data. It is also used by more people, and therefore the outputs are more likely to be challenged by the users of the information, which will result in more feedback on the appropriateness of the cost allocations. In our experience, having one system is better than having multiple systems; and
 - the reviews of other independent consultants (e.g. KPMG, Deloitte and MAS (A)) give some assurance on the system. NIBS generated the financial statements for 2007/08 and 2008/09, and these, in the opinion of the independent auditors (Deloitte), gave a true and fair view of the state of NERL's affairs. The MAS (A) recommended that the gainshare certificate for 2007/08 be endorsed. We understand that this gainshare certificate was based on information from NIBS. Finally, in their 2007 report, KPMG concluded that NIBS was a "*major step forward for the cost allocation process*" and that its approach "*represent[s] a fair and justifiable allocation of costs*".²

⁸⁷ KPMG's report "General ledger, cost allocation & income review. Final", 27 September 2007, page 2.

Section 4

Intercompany agreements

Introduction

- 4.1 In this section, we consider how costs and revenues covered by intercompany agreements are allocated between statutory entities. This allocation differs from the allocation of costs and revenues to Services Lines within NERL.⁸⁸
- 4.2 Intercompany agreements fall into two categories: MSAs and ICAs.
- 4.3 MSAs relate to common services (such as board, HR, finance department functions, etc) which are used across the group.
- 4.4 ICAs relate to operational services that are provided by one statutory entity to another but which in principle could be sourced from outside the group. An example of a service provided under an ICA is the approach control service for London Luton airport, which is provided by NERL to NSL.⁸⁹
- 4.5 NERL is both a provider and recipient of services provided under MSAs and ICAs (i.e. it receives both intercompany revenues and charges).
- 4.6 The table below shows the level of NERL intercompany revenues and charges over time, both in absolute terms and as a percentage of total revenue or operating costs.

⁸⁸ Section 6 discusses the allocation of costs and revenues within NERL.

⁸⁹ The financial statements for the year ended 31 March 2008 of NERL, note 2, page 27.

Table 4-1: NERL intercompany income and charges

£m unless otherwise stated	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Income from ICAs	████	████	████	████	████	████	████	████	████
Income from MSAs ^{90 91}	████	████	████	████	████	████	████	████	████
Intercompany income as % of total NERL income	2.2%	2.5%	2.5%	2.7%	2.5%	2.5%	2.6%	2.6%	2.6%
Charges from ICAs	████	████	████	████	████	████	████	████	████
Charges from MSAs ⁹²	████	████	████	████	████	████	████	████	████
Intercompany charges as % of total NERL operating costs ⁹³	9.2%	5.2%	4.9%	5.0%	5.2%	5.4%	4.7%	4.7%	4.6%

Source: "Management Accounts by Service line Plan (8.1).xls", "17-1 Management Accounts by Service line 0809 final.xls", "Inter_Company NSL charges to NERL BPlan.xls", "NATS MSA charges Plan to end CP3 (6.1).xls", "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls"

4.7 NERL's intercompany revenue and charges are small in relation to total revenue and total costs. As such, the impact of any misallocation of intercompany costs or revenue to NERL (and, ultimately, the NERL Service Lines) would be small.

4.8 In this section, we discuss our review of the intercompany agreements that relate to NERL. We discuss MSAs and ICAs in turn.

⁹⁰ The spreadsheet "Inter_Company NERL charges to NSL BPlan.xls" contains agreements that are not labelled as either MSAs or ICAs. As these do not record an ICA agreement number, we have included them within the MSA figures for 2009/10 onwards.

⁹¹ MSA income of █████ from "20-1 MSA NERL to NSL 0708 and Plan.xls". Income from ICAs for 2007/08 calculated as balancing figure of total intercompany income from "Management Accounts by Service Line 0708 (1 2).xls" of █████ less MSA income.

⁹² For 2007/08, we have calculated the ICA charge by subtracting the MSA charge from the total intercompany charges provided in the 2007/08 management accounts (██████████).

⁹³ Concerning the reduction in the level of intercompany charges between 2007/08 and 2008/09, NERL stated, "The reduction in charges from MSAs between 2007/08 and 2008/09 is as a result of an internal re-organisation that took place in the year. Following this, a number of staff supporting services whose primary objective is to support the NERL business have been seconded to NERL by NATS. The staff and related non-staff costs associated with these services were therefore borne directly by NERL rather than recovered by NATS through Inter-company recharges, as in the prior year. To the extent that seconded staff also provided services to NSL, NERL recovered the costs of these services through an appropriate recharge" ('09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc').

Management Service Agreements

4.9 The services covered by MSAs are provided by either NATS Limited or NERL to other parts of the NATS group. The costs of all MSAs are allocated between NERL and NSL.

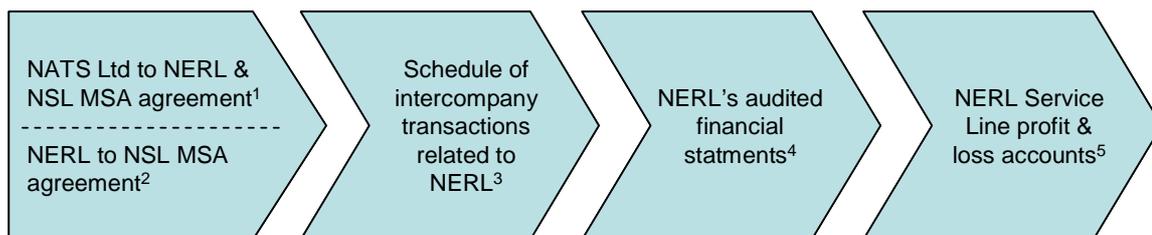
4.10 With respect to MSAs we have considered:

- whether the MSA agreements provided to us reconcile with NERL's Service Lines profit & loss accounts;
- the appropriateness of MSA services being charged to businesses at cost;
- the appropriateness of the drivers used to allocate MSA charges; and
- the impact of using alternative drivers.

Reconciliation of MSA agreements to the NERL Service Lines' profit & loss accounts

4.11 We tested whether we could trace the charge in the MSA agreement documents through to the NERL Service Lines profit & loss accounts for 2008/09. The audit trail for this exercise is set out in the figure below.

Figure 4-1: Audit trail for MSAs



1 "MSA NATS to NERL_NSL sign-off 080709.xls"

2 "17-5 MSA NERL to NSL sign-off 080709 inc allocations.xls"

3 "7-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls"

4 NATS (En Route) plc financial statements for the year ended 31 March 2009

5 "17-1 Management Accounts by Service line 0809 final.xls"

Source: LECG

4.12 We were able to follow the audit trail from the schedule of intercompany transactions related to NERL through to the NERL Service Lines' profit & loss accounts.

4.13 We found that the agreements relating to MSAs provided by NERL⁹⁴ were consistent with the schedule of intercompany transactions. This was not the case for the agreements relating to MSAs provided by NATS Limited.⁹⁵

4.14 In response to this NERL stated:⁹⁶

⁹⁴ "17-5 MSA NERL to NSL sign-off 080709 inc allocations.xls".

⁹⁵ "MSA NATS to NERL_NSL sign-off 080709.xls".

⁹⁶ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

“NATS’ agrees its MSA charges on an annual basis as part of its business planning process.

The NATS to NERL/NSL charges are based on agreed allocation percentages rather than values.

During the year the actual charges are derived by applying these agreed percentages to the actual costs incurred. Thus ensuring that all NATS costs are fully allocated between NERL and NSL.

As such the two schedules supplied to LECG (Planned amounts underpinning the agreement of the percentage allocations vs. actual MSA charges) will not agree.”

- 4.15 We have not been provided with full supporting evidence to confirm that this explanation accounts for the differences we observed. We note, however, that the explanation appears reasonable.

Appropriateness of MSA services being charged at cost

- 4.16 MSA services are charged at cost. We have considered whether a mark up should be applied when recharging common services between statutory entities within the group. Arguments can be made in support of either practice. Whilst the CAA is not bound by regulatory precedent, we note that standards prevailing in the UK water, energy and postal sectors would support the exclusion of mark-ups. Therefore, we consider that the absence of a mark up on MSA costs is appropriate.⁹⁷

Appropriateness of the drivers used to allocate MSA charges

- 4.17 MSA costs are apportioned between NERL and NSL using *“the most appropriate drivers for the activities”* in order to achieve *“a fair allocation of cost”*.⁹⁸ The table below sets out the share of MSA costs allocated by the various drivers.

⁹⁷ For further discussion on the applicability of mark-ups see Section 8 of LECG’s *“Review of BAA’s revenue and cost allocation process”* December 2006.

⁹⁸ “MSA NATS to NERL_NSL sign-off 080709.xls” and “17-5 MSA NERL to NSL sign-off 080709 inc allocations.xls”

Table 4-2: Share of MSA costs allocated by different drivers

Allocation driver	% of MSA amount allocated by driver
Number of IT customer accounts	42.8%
Turnover + Air traffic controller FTEs + Directly attributable costs	15.0%
Turnover	12.9%
NERL/NSL FTEs (Air traffic controller) + (Air Traffic Service Assistant)	5.9%
Other drivers	23.5%

Source: "MSA NATS to NERL_NSL sign-off 080709.xls", "17-5 MSA NERL to NSL sign-off 080709.xls", "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls", and "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

4.18 The top four drivers allocate approximately 75% of MSA charges. We have focused our review on these drivers. We first discuss the use of Blended Drivers. We then discuss the conceptual appropriateness of using number of IT customer accounts, turnover and the number of air traffic controllers ("ATCO") plus air traffic service assistants ("ATSA") as drivers of common costs.

Use of a Blended Driver

4.19 The 'Turnover + Air traffic controller FTEs + Directly attributable costs' driver is a Blended Driver, which is used to allocate group insurance costs.⁹⁹ None of NERL's other MSA transactions are allocated using a Blended Driver.

4.20 NERL's rationale for using this driver is that group insurance costs cover policies, which are: i) relevant to the whole group; or ii) for particular statutory entities. NERL considers that it is appropriate to allocate the costs of the former type of policies using a general driver (such as turnover or number of ATCOs & ATSAs¹⁰⁰) and to allocate the costs of the latter type directly to the relevant statutory entity. To achieve this NERL has used a Blended Driver.¹⁰¹ NERL stated that Blended Drivers are:¹⁰²

⁹⁹ "MSA NATS to NERL_NSL sign-off 080709.xls", "detailed schedule" worksheet, row 52.

¹⁰⁰ Concerning why two 'general' drivers (i.e. turnover and the number of ATCOs & ATSAs) are used to allocate insurance costs, NERL stated that "[t]he use of these manpower drivers relates to the proportion of insurance cost where the risk is directly attributable to operational staff whereas the turnover drivers are used where the insurance risks are generally company wide." (09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc). We have not considered whether this is appropriate but we note that the NERL/NSL allocation percentages are similar. They are respectively, 80.1%:19.9% and 75.1%:24.9%.

¹⁰¹ We understand that the driver is a weighted average of the drivers that make it up. We have not, seen the calculation supporting the derivation of the percentages associated with it (i.e. 87.4% to NERL and 12.6% to NSL. See "MSA NATS to NERL_NSL sign-off 080709.xls". This split is comparable to the split that would have resulted by using a simple turnover driver. However, the higher allocation of costs to NERL suggests more direct insurance costs have been allocated to NERL.

¹⁰² "09 08 27 NERL Comments on NATS report MASTER 27 August 2009.doc".

“an efficient trade-off between developing specific drivers for each of the 3,000 activity codes used and the desire for transparency...”

[C]reating more activities would increase complexity and process inefficiency, leading to an inferior system.”

4.21 We believe it is appropriate to use a driver that best reflects causality (which is what the blended driver tries to do). However, the use of a blended driver lacks transparency (i.e. we have not seen the supporting calculations for the blended driver) and they are more difficult to update over time.

4.22 In the longer term, we consider that it would be more transparent if group insurance costs were disaggregated into costs that could be allocated using a single driver. We further consider that such a change would be in keeping with NIBS in general (i.e. in terms of transparency and its level of disaggregation).

4.23 Based on the information we have reviewed, we do not believe the use of a blended driver would lead to a material misallocation of costs.

Appropriateness of number of IT customer accounts, turnover and number of ATCOs plus ATSAs as drivers of common costs

4.24 As mentioned above, MSA costs are common costs, which generally – because of their nature - cannot be charged directly to any particular segment of the business. It is considered best practice, if possible, to allocate indirect costs (such as common costs) using a driver which is causally related to the generation of the cost. An example of this might be allocating HR costs based on the number of staff. Often, however, it is not possible to find a causally related driver to allocate common costs and some other driver has to be used.

4.25 In the absence of a causally related driver, there are a number of ways to allocate common costs. The most commonly used include:

- **Relative output method:** Common costs are attributed to services in proportion to their share of the total output of the firm. The use of this method is only possible when all outputs can be expressed in terms of a common physical unit. We are not aware of a common physical unit that covers all of the outputs generated by NERL and NSL;
- **Revenue method:** Common costs are attributed to services in proportion to their share of the company's revenues. NERL has adopted this method in many instances. Regulators do not generally favour this method. For example, Ofwat, states in its regulatory accounting guidelines that distributing charges to group companies on the basis of profitability or turnover will not provide a proxy for activity, and apportionment on this basis should be avoided;
- **Ramsey pricing:** Common costs should be allocated based on relative demand elasticities. Hence, products facing inelastic demand will have a higher proportion of common costs allocated to them. The idea is that consumers with more inelastic demand for particular products should pay a higher price for these products. The Competition Commission rejected the Ramsey-based approach in its mobile call

termination charges inquiry because it considered the approach to be inconsistent with the cost causation principle;¹⁰³ and

- **EPMU:** Under this method, common costs (which have no casual link with the activities of NERL and NSL) would be allocated in the same proportion to NERL and NSL as their share of total directly and indirectly attributable costs.

4.26 Each method discussed above has its own merits and not one represents best practice for every industry or business. Consequently, the use of any of the methods in allocating MSA costs may be justified. In order to assess the most applicable approach for NERL, we have reviewed the approaches adopted in other UK regulated sectors.

4.27 Postcomm, the UK postal regulator, believes that EPMU is the most appropriate approach to distributing common costs. Postcomm recognises that EPMU has been adopted by other regulators in price control reviews, including Ofgem and Ofcom, and has been accepted by the Competition Commission.¹⁰⁴ In addition, Article 14 (3) of the EU Postal Directive states:

“when neither direct nor indirect measures of cost allocation can be found, the cost category shall be allocated on the basis of a general allocator computed by using the ratio of all expenses directly or indirectly assigned or allocated, on the one hand, to each of the reserved services and, on the other hand, to the other services.”¹⁰⁵

4.28 Whilst Article 14 (3) may be open to significant interpretation, it appears to imply that all costs which have been correctly classified as joint or common should be allocated using the EPMU methodology.

4.29 Andersen was engaged by Ofgem to review Transco’s cost allocation methodology in relation to Ofgem’s conclusions on cost allocation for Transco and British Gas Trading (“BGT”).¹⁰⁶ Andersen concluded that a Direct Cost allocation method (i.e. EPMU) should be adopted for support costs (e.g. Corporate Recharges, Property & Governance, Strategy, Finance, etc). Ofgem accepted this recommendation.

4.30 Additionally, Ofcom, the UK telecoms regulator stated in its review of the wholesale mobile voice call termination market that the use of an EPMU for common costs achieves a more appropriate balance between practicality and efficiency than the Ramsey method. Ofcom considered that provided the common costs to be recovered are small and/or demand elasticities are not readily identified, then the use of an EPMU approach is suitable. Ofcom’s view was in line with the Competition Commission mobiles inquiry of 2001 that reached similar conclusions.¹⁰⁷

¹⁰³ “Vodafone, O2, Orange and T-Mobile: Reports on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile networks”, Competition Commission, paragraph 2.515, 2003.

¹⁰⁴ “Royal Mail’s revised Proposals for Size Based Pricing (“Pricing in Proportion)”, paragraph 4.20, April 2005.

¹⁰⁵ Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service.

¹⁰⁶ “Report on Transco’s operating costs for the 2002/03 to 2006/07 Price Control Period, Final Report”, Andersen, 7 September 2001.

¹⁰⁷ “Equi-proportional mark-ups: regulatory precedents”, Oxera, 1 July 2005.

4.31 Concerning the use of EPMU, NERL stated:¹⁰⁸

“NERL believes that attempting to artificially identify directly attributable costs would make EPMU less transparent than using the current turnover driver basis”

4.32 We do not agree with NERL’s view on EPMU, especially given the broad regulatory precedent supporting the method.

4.33 Around 75% of MSA costs are allocated using the number of IT customer accounts, turnover or the number of ATCOs and ATSAs. The table below shows the drivers used to allocate the various MSA costs.

¹⁰⁸ “09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc”.

Table 4-3: Drivers used to allocate the costs of functions covered by MSAs

Function	Allocation driver(s)	2008/09 Planned Cost (£'000)
Insurance	Turnover + ACTO FTEs + Directly attributable costs	■
Safety assurance and improvement	NERL/NSL ATC FTE (ATCO+ATSA)	■
Business Performance	Turnover	■
NATS Ltd. Employee costs	Turnover	■
Managing corporate direction & strategy	Estimate of executive time	■
Health & Safety	Turnover	■
Facilities Management	Turnover	■
Financial Consolidation, Treasury & Tax	Turnover and various ¹⁰⁹	■
Board	Turnover and various ¹¹⁰	■
Human resources	Various ¹¹¹	■
Corporate Communications	Various ¹¹²	■
Information Technology	Number of IT customer accounts ¹¹³	■
Finance	Various ¹¹⁴	■
Occupational Health	Various ¹¹⁵	■
Total		■

Source: "MSA NATS to NERL_NSL sign-off 080709.xls", "17-5 MSA NERL to NSL sign-off 080709.xls", "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls". ,and "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

¹⁰⁹ Around 72.6% of the costs of providing this function are allocated by turnover and the remaining 27.4% are allocated on the amount of time taken to deliver the services to NERL and NSL

¹¹⁰ Around 46.3% of the costs of providing this function are allocated by turnover and the remaining 53.7% by a percentage split between NERL and NSL as agreed by the audit committee.

¹¹¹ Approximately 74.9% of the costs of this function are allocated based on FTEs in NERL and NSL, 18.0% on the split of security between NERL and NSL and 7.1% is allocated 100% to NSL.

¹¹² Based on an agreed split of communications services between NERL and NSL, the majority of which is based on the number of FTEs.

¹¹³ We understand that a small portion of IT costs are allocated using other drivers.

¹¹⁴ Based on an agreed split of finance services between NERL and NSL, which consists of a mixture of costs and capital expenditure, staff numbers and the amount of invoices raised in each business.

¹¹⁵ 100% allocated to NSL.

- 4.34 In the remainder of this subsection, we review NERL's rationale for the use of these drivers.
- 4.35 We have reviewed a sample of the "Various" drivers noted in the table above. In most places NERL appears to have based the driver on causality (as, for example, is the case with the Human Resources function). We have also reviewed the number of IT customer accounts and 'NERL/NSL ATC FTE (ATCO+ATSA)' drivers. We believe that they have been used appropriately.
- 4.36 With respect to the other drivers, we believe that best practice would be to allocate common costs using a driver, which is causally related to the generation of the cost. We understand that NERL has used turnover and the number of ATCOs & ATSAs in the absence of causally related drivers. We understand that NERL has used these drivers because they provide a proxy of the ultimate service provided to NERL customers (and it is this service which ultimately generates the need for the common functions).
- 4.37 We consider that there are practical drawbacks associated with both of these drivers. Using turnover as a driver introduces a circularity, which could bias the allocation. The circularity arises because, under its regulatory framework, NERL's turnover is a function of its costs, which include the MSA costs allocated to it. If the allocation of the MSA costs to NERL is a function of turnover then circularity arises. In addition, if turnover is not cost reflective (i.e. there is an element of cross subsidy between businesses), then this may also bias the allocation of costs.
- 4.38 NERL has stated that the number of ATCOs & ATSAs are used as a driver where there is a direct causal link between the number of such staff and the cost of the MSA function.¹¹⁶ We have not examined whether there is a direct causal link but we have seen no evidence that there is not. To the extent that such a link exists, we consider that the use of such drivers is appropriate.
- 4.39 Based on the above, we consider that the MSA allocation may be improved by using alternative drivers. In the next subsection, we consider possible alternative drivers.

Impact of using alternative drivers

- 4.40 Based on the information available to us and our experience of working with regulators and companies on other cost allocation projects, we have considered whether any of the functions covered by MSAs could be allocated by a better, more causally linked driver. For functions where we could not identify a specific causally linked driver, we have considered what a common alternative driver might be.
- 4.41 Having reviewed the drivers used for various functions covered by MSAs, we consider that a better driver for allocating the costs of the health & safety function would be the number of full time equivalents ("FTE") of NERL and NSL. Currently, these costs are allocated based on turnover. NERL has agreed a better driver could be selected, but have argued that FM costs by site may be a more accurate driver (i.e. the direct cost of providing the service is by building rather than by person).
- 4.42 For all the functions, other than health & safety, we have considered what a common alternative driver might be. As explained above there is a wide range of different methods that can be used to allocate common costs and based on precedents from other regulated

¹¹⁶ '09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc'

industries, we believe that the most equitable alternative basis for allocating MSA costs is on an EPMU basis.

- 4.43 Based on the indicative analysis that we performed, we found that the impact of the changes to MSA drivers that we might consider making was immaterial, particularly in the context of NERL's total revenues (£627.1m) and operating costs (£515.7m).¹¹⁷
- 4.44 For consistency with our wider recommendations (see section 6), NERL might considering revising the allocation of MSA charges such that: i) health & safety is allocated in accordance with the number of FTEs or NERL's alternative suggestion; and ii) all functions currently allocated based on turnover are allocated on an EPMU driver.

Intercompany Agreements

- 4.45 ICAs relate to operational services that are provided by one statutory entity to another but which in principle could be sourced from outside the group. ICA charges are made between statutory entities, not between service lines. Since ICAs are bilateral, they do not require any cost allocation – that is the costs are allocated directly to the statutory entity. As such, the risk of misallocation between businesses is reduced, though there is still a risk that the level of the charge may be incorrect.
- 4.46 Hence, we have considered how NERL sets the level of ICA charges. We have also traced a sample of ICAs charges from their supporting documentation through to the profit & loss accounts for each of NERL's Service Lines.

Appropriateness of basis on which ICAs are charged

- 4.47 The charge for each ICA is equal to either the market price for the particular service or the cost of providing the service plus a margin of [REDACTED]
- 4.48 We understand that market prices are based on publicly available information and that NERL retains documentary support for each market price. For market-based prices where NERL is effectively setting the price, NERL keeps a price list covering prices charged to both NSL and external customers. We have not reviewed this supporting documentation due to the level of these costs (i.e. they are relatively immaterial).

NERL method for determining the basis on which to set an ICA charge

- 4.49 The table below summarises the percentage (by value) of NERL's ICAs charged on the two bases.

¹¹⁷ "NATS (En Route) plc financial statements for the year ended 31 March 2009", page 24.

Table 4-4: Basis on which NERL's ICAs are charged

	Total charges (£m)	Percentage (by value) based on	
		Market price	Cost plus [REDACTED]
NERL to NSL	[REDACTED]	[REDACTED]	[REDACTED]
NERL to NATSNav	[REDACTED]	[REDACTED]	[REDACTED]
NSL to NERL	[REDACTED]	[REDACTED]	[REDACTED]

Source: "Questions following 090611.xls"

4.50 The majority of ICAs (by value) are priced based on a cost plus approach. This probably reflects the absence of observable market prices for the many of the services covered by ICAs.¹¹⁸

4.51 The RAGs indicate that the two bases used by NERL are permissible but that, where possible and appropriate, a market price should be used:¹¹⁹

"In the case of services traded between NERL and other group companies, these are carried out at an agreed price. Inter company prices are set by reference to market prices where such prices exist and are appropriate, and otherwise by reference to the costs of the activities performed..."

4.52 We have reviewed NERL stated policy and it is consistent with the RAGs.¹²⁰

Appropriateness of [REDACTED] margin used for cost plus pricing

4.53 Concerning the use of the [REDACTED] margin, NERL stated the following:¹²¹

"NATS has sought to apply a mark-up that meets the transfer pricing requirements of both HMRC and the licence. Both require arm's length transactions on normal commercial terms. In ensuring the former, NATS sought advice from its auditors who confirmed that it is normal to include a margin of this nature to these transactions. The margin was set at [REDACTED], which NATS considered reasonable taking these factors into account."

4.54 In the context of setting a price control, it is important to ensure that allowable costs are set at an appropriate and efficiently incurred level. To the extent that costs are being incurred in one part of the business and then allocated to another, it is particularly important to consider the impact of mark-ups (either as a cost or as income) on the overall cost base and hence the revenue requirements of each regulated business.

4.55 A number of reasons can be advanced in support of applying mark-ups. Transfer pricing is one reason. Another is consistency through time. NERL is required to maintain an arm's length commercial relationship with NSL, and as such maintains a policy of mark ups. The

¹¹⁸ That is, some ICAs are highly specialised / specific to air traffic control.

¹¹⁹ NATS (En Route) Plc regulatory accounting guidelines, annex 5, paragraph 1.3 (a).

¹²⁰ "21-3 NERL's Intercompany Pricing Policy.doc".

¹²¹ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

process of applying mark-ups has been in place for many years. Mark-ups, therefore, have been incorporated in previous price controls set by the CAA.¹²² Consistency is also required between types of charges. We note for example that MSA are charged with no cost mark-up.

- 4.56 The decision on whether to allow any mark-up on allocated and directly charged costs for regulatory purposes is ultimately one of policy. We recognise that CAA is not bound by regulatory precedent (either that from other sectors or the positions and policies it has adopted in previous price control reviews).¹²³ There is strong regulatory precedent to support the exclusion of mark-ups. The standards prevailing in the UK water, energy and postal sectors would support the exclusion of mark-ups.¹²⁴
- 4.57 During our review of BAA's cost allocation process, we were asked to review the mark-up applied to certain department costs, which was set at 7.5%. We concluded that the application of a 7.5% mark up to the costs to which it is applied by BAA appeared to be broadly acceptable.¹²⁵ A mark-up of [REDACTED] than BAA's mark-up policy, though on the grounds of materiality appears broadly acceptable (especially given there is no mark-up on MSA costs).

Tracing ICA charges from supporting documentation through to the profit and loss accounts for the NERL Service Lines

- 4.58 ICA charges are agreed between the two parties to the ICA and documented in formal agreements. We requested a sample of four¹²⁶ (out of 50¹²⁷) ICAs, which were then selected and provided by NERL. We tested whether we could trace the charge in the ICA agreement document through to NERL's Service Line profit & loss accounts for 2008/09.
- 4.59 The audit trail for this exercise is set out in the figure below.

¹²² For further discussion on the applicability of mark-ups see Section 8 of LECG's "Review of BAA's revenue and cost allocation process" December 2006.

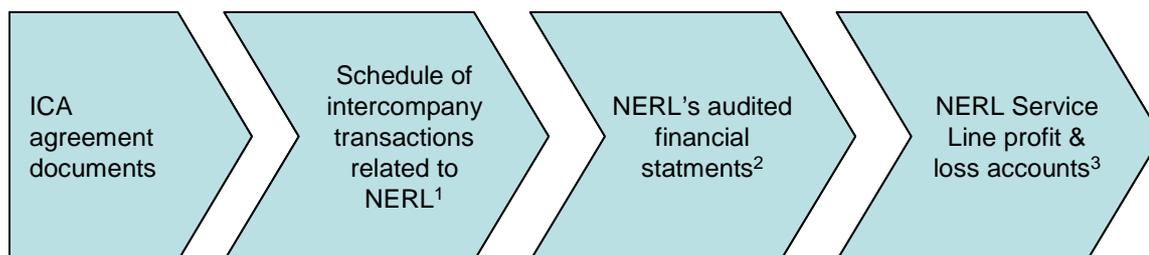
¹²³ Consistency is one of the five key principles originally devised by the Better Regulation Task Force in 1997, and subsequently endorsed by Government and adopted by the European Commission.

¹²⁴ For further discussion on the applicability of mark-ups see Section 8 of LECG's "Review of BAA's revenue and cost allocation process" December 2006.

¹²⁵ "Review of BAA's revenue and cost allocation process", LECG, December 2006, paragraph 8.72.

¹²⁶ We were provided with a fourth agreement (agreement number 100114) but the services covered by this agreement had not commenced by the end of the 2008/09 and so there was no charge for this in 2008/09.

¹²⁷ "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls"

Figure 4-2: Audit trail for ICAs

1 "7-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls"

2 NATS (En Route) plc financial statements for the year ended 31 March 2009

3 "17-1 Management Accounts by Service line 0809 final.xls"

Source: LECG

4.60 We were able to follow the audit trail from the schedule of intercompany transactions related to NERL through to NERL's Service Line profit & loss accounts. However, we were unable to reconcile the charges contained in the agreement documents to the schedule of ICAs related to NERL. The table below summarises the discrepancies we observed.

Table 4-5: Discrepancies between ICA agreements and NERL's 2008/09 ICA income and charges

Agreement number	2008/09 NERL income (charge) amount (£) stated in		Percentage difference between A & B
	ICA agreement (A)	schedule of ICAs related to NERL (B)	
100133	749,331	733,200	(2.2%)
100102	352,775	364,902	3.4%
300008	(1,820,000)	(1,819,987)	0.0%
Total	(717,894)	(721,885)	(0.6%)

Source: "Omissions 090609 Point 4.xls" and "17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls", "100133_20081202155448.pdf", "100102_20081202154928.pdf" and "300008_20081202155448.pdf".

4.61 In response to the discrepancies shown in Table 4-5, NERL stated that the charges for agreements 100102 and 30008 are correct and that the differences related to factors such as "incidental T&RE charged across at cost" and higher inflation adjustments.¹²⁸ In the absence of evidence to the contrary, this appears reasonable.

4.62 Concerning agreement 100133, NERL stated:¹²⁸

¹²⁸ 'Omissions 090609 Point 4.xls'

“The original agreement was calculated in November 2007 using the business plan assumed RPI rate. In July 2008 the agreement was revised to take account of a higher RPI rate but the monthly charge was not updated to reflect this change. i.e. NSL has been undercharged by £16.1k for the 2008/09 year.

Our new processes, which provide a single finance focal point and a single contract authoriser, will ensure improved management and control of ICAs and avoid similar incidents in future”

- 4.63 Given the discrepancies noted above, we asked NERL to provide us with a further sample of ICA agreements to review. We selected the sample at random. The results of our review are in the table below.

Table 4-6: Discrepancies between ICA agreements and NERL's 2008/09 ICA income and charges

Agreement number	2008/09 NERL income (charge) amount (£) stated in		Percentage difference between A & B
	ICA agreement (A)	schedule of ICAs related to NERL (B)	
100062	(2,351,586)	(2,370,000)	(0.8%)
100109	1,011,050	1,000,036	1.1%
100113	985,601	985,601	0.0%
100146	1,333,000	1,332,721	0.0%
100148	1,529,000	1,528,800	0.0%
100153	4,651,000	4,544,346	2.3%
Total	7,158,065	7,021,504	1.9%

Source: “17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c) .xls”, “12-8 NERL 100109_ .pdf”, “12-8 NERL 100113_ .pdf”, “12-8 NERL 100146_ .pdf”, “12-8 NERL 100148_ .pdf”, “12-8 NSL 100153_ .pdf”, and “12-8 NSL 100162_ .pdf”.

- 4.64 We also identified discrepancies in the second sample. In relation to all of the agreements in Table 4-6 other than agreement number 100153, NERL stated the following:¹²⁹

“The inconsistencies can be explained as follows:

Change to the RPI assumption between agreement and charge – incorrectly charged

Small T&RE costs relating to the work – not anticipated – correctly charged

Immaterial rounding differences”

- 4.65 In the absence of evidence to the contrary, this appears reasonable.

- 4.66 In relation to agreement number 100153, NERL stated the following:¹²⁹

¹²⁹ '09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc'

“Agreement 100153 – On further investigation the difference relates to the provision of [REDACTED] – row 14 on the ‘NERL Ico charges’ of the ‘Inter_Company_Agreement_Register_Final_200809.xls’¹³⁰ file, i.e. there is no discrepancy for this item.”

- 4.67 If an allowance is made for the aforementioned amount, the discrepancy reduces from being £106,654¹³¹ lower than in the agreement documentation to being £81 lower.¹³²
- 4.68 Based on our review, we observe that discrepancies between the ICA documents and the charges recorded in NIBS are common but (for the sample we reviewed) any difference appears to be immaterial, once NERL’s explanations are taken into account.

Conclusions

- 4.69 There are two types of intercompany agreements. MSAs relate to common services (such as board, HR, finance department functions, etc), which are used across the group. ICAs relate to operational services that are provided by one statutory entity to another but which could be sourced from outside the group. NERL is both a provider and recipient of services provided under MSAs and ICAs (i.e. it receives both intercompany revenues and charges).
- 4.70 NERL’s intercompany revenue and charges equate to a small percentage of total revenue and charges. Hence, any misallocation, if it occurred, would have an immaterial impact on NERL (and, ultimately, the allocation of revenue and costs across NERL’s service lines).
- 4.71 We traced the support relating to MSAs through to NERL’s Service Lines profit & loss accounts. For MSAs provided by NATS Limited, we were unable to agree the level of charges allocated to NERL. However, NERL explained the reasons for the differences we found. Based on the available evidence, these explanations appeared reasonable.
- 4.72 We reviewed NERL’s allocation of MSA charges between NERL and NSL. In general, we believe that the allocation of MSA costs is appropriate, at least on the grounds of materiality, and fit for purpose. For consistency with our wider recommendations, however, NERL might considering revising the allocation of MSA charges such that: i) health & safety is allocated in accordance with the number of FTEs or an alternative driver if it can be supported; and ii) all functions currently allocated on the basis of turnover are allocated on an EPMU basis.
- 4.73 ICA charges are made between statutory entities, not between service lines. Since ICAs are bilateral, they do not require any cost allocation – that is the costs are allocated directly to the statutory entity. As such, all other things being equal, the risk of misallocation between businesses is reduced.
- 4.74 The charge for each ICA is equal to either the market price for the particular service or the cost of providing the service plus a margin of [REDACTED]. We have reviewed NERL’s stated policy and it is consistent with the RAGs. The decision on whether to allow any mark-up on allocated and directly charged costs is ultimately one of policy. We recognise that the CAA is not bound by regulatory precedent. However, there is strong regulatory precedent to support

¹³⁰ We understand that the file that NERL are referring to is ‘Inter_Company_Agreement_Register_Final_200809 (1 3c) VRHO.xls’.

¹³¹ = 4,651,000 – 4,544,346.

¹³² = - 106,654 + 106,573. The figure of £106,573 is contained in ‘Inter_Company_Agreement_Register_Final_200809 (1 3c) VRHO.xls’.

the exclusion of mark-ups. A mark-up of [REDACTED] than available comparators, though on the grounds of materiality appears broadly acceptable (especially given there is no mark-up on MSA costs).

- 4.75 We were unable to reconcile the charges contained in a sample of the agreement documents to a schedule of ICAs relating to NERL. We observed that discrepancies between the ICA documents and the charges recorded in NIBS were common but (for the sample we reviewed) immaterial. NERL has provided reasons for these discrepancies.¹³³ Based on the available evidence, these explanations appeared reasonable.

¹³³ NERL explained that the discrepancies related to, for example, variances caused by changes to actual inflation, variances in travel related expenses, etc.

Section 5

Treatment of capital expenditure

Introduction

- 5.1 In this section, we discuss NERL's treatment of capital expenditure. We first discuss NERL's accounting policy with respect to capital expenditure and the impact that an impending change in its accounting policy will have on the level of capital expenditure through to the end of CP3. We then discuss the allocation of NERL's capital expenditure between its Oceanic and UKATS businesses.
- 5.2 In the below table, we set out the ratio of NERL's historical capital expenditure costs to operating costs.

Table 5-1: Historical capital expenditure 2004/05 to 2008/09

£m	2004/05	2005/06	2006/07	2007/08	2008/09	Average
Ratio of total capital to total operating expenditure ^{134, 135}	0.35	0.44	0.36	0.32	0.33	0.36

Source: NERL management accounts 2004/05 to 2008/09¹³⁶ and NATS (En route) plc regulatory accounts 2004/05 to 2008/09.

- 5.3 Apart from in 2005/06, the ratio of capital expenditure to total operating costs has remained largely constant.
- 5.4 In the table below, we set out the ratio of NERL's capital expenditure cost to operating costs from 2008/09 through to 2015/16.

¹³⁴ The capital expenditure amounts used in the ratios for this table are those contained in the regulatory accounts. Regulatory capital expenditure amount differ from the statutory accounting equivalent as the former is subject to an inflation adjustment to convert the amount from nominal historical prices into year end prices. The scale of this difference is small: in 2008/09 it was 1.68% (See "Questions 090625.xls").

¹³⁵ The operating expenditure amounts used in the ratios for this table are taken from the statutory accounts.

¹³⁶ The NERL management accounts 2004/05 to 2008/09 comprises: "17-1 Management Accounts by Service line 0809 final.xls", "Management Accounts by Service line 07/08 (1 2).xls", "Management Accounts by Service line 06/07 (1 2).xls", "Management Accounts by Service line 05/06 (1 2).xls", "Management Accounts by Service line 04/05 (1 2).xls".

Table 5-2: Comparison of NERL capital expenditure and operating costs

£m	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Average
Ratio of total capital to total operating expenditure ¹³⁷	0.33	0.30	0.27	0.35	0.37	0.28	0.25	0.24	0.30

Source: "Questions 090625.xls", "Management Accounts by Service line Plan (8.1).xls", "17-1 Management Accounts by Service line 0809 final.xls", and "Level 4 Capex (7.2).xls", NATS (En route) plc regulatory accounts 2007/08.

- 5.5 Through to the end of CP3 (Table 5-2), NERL are expecting to spend lower amounts on capital expenditure in proportion to operating expenditure compared with CP2 to date (Table 5-1). This might suggest that expenditure is not increasingly being classified as capital expenditure.

Accounting policy changes

- 5.6 We understand that NERL will adopt the revised version of the international accounting standard IAS 23, "Borrowing costs", from the financial year 2009/10. The standard states:

"borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalised as part of that asset".

- 5.7 Under the existing version of the standard, entities can elect whether or not to capitalise borrowing costs. The borrowing costs of NERL are not currently capitalised.
- 5.8 From 2009/10, the borrowing costs of NERL will be capitalised in capital expenditure for statutory accounting purposes. NERL has advised us that the capital expenditure amounts in the NERL projections it has provided in the CP3 regulatory submissions to date do not include amounts for capitalised interest.
- 5.9 We have been asked to consider whether capitalising interest would be appropriate for regulatory purposes. Under the RPI-X mechanism used to regulate the UKATS and Oceanic businesses, the CAA allows NERL a regulated income that covers efficiently incurred operating costs and capital expenditure plus a fair return on capital investments. This return includes the cost of financing capital expenditure.
- 5.10 If interest (i.e. financing) costs are capitalised within the RAB, then this could lead to NERL being compensated for financing costs twice; once through higher operating costs generated by depreciation on the capitalised interest, and again through the allowed return on the asset base.
- 5.11 Whether the CAA will allow interest costs to be capitalised (in accordance with the revised IAS 23) for regulatory purposes is a policy decision. However, our recommendation is that capitalised interest should not be included within the RAB. NERL has confirmed that it has not included capitalised interest in its CP3 regulatory submissions.

¹³⁷ The capital expenditure amounts used in the ratios within this table are taken recorded from NIBS projections. They do not reconcile with the amounts recorded in the regulatory accounts for 2008/09 (see Table 5-1 above), though the difference is small.

Allocation of capital expenditure between Oceanic and UKATS

- 5.12 NERL's capital expenditure is allocated between the balance sheets of the Oceanic service line and to UKATS (i.e. not at a Service Line level). The amount capitalised on each balance sheet is also capitalised into the regulatory asset base.¹³⁸
- 5.13 The process by which capital expenditure is allocated between the Oceanic and UKATS entities is different to the process by which revenues and operating costs (including depreciation) are allocated within NERL. This increases the scope for inconsistency between the allocation of capital expenditure on the one hand, and the allocation of depreciation on the other.
- 5.14 NERL has stated that capital expenditure is allocated based upon a senior asset manager's assessment of the expected use that Oceanic and UKATS will make of an asset.¹³⁹ This assessment is made at the point at which construction of the asset commences.
- 5.15 The allocation of revenue and operating expenditure (and hence depreciation) is based on allocation drivers. The appropriateness of each driver is reviewed on an annual basis.¹⁴⁰
- 5.16 We discussed the appropriateness of NERL's approach to capital expenditure allocation with NERL. NERL agreed that the approach was less rigorous than that used to allocate revenues and operating costs (and hence depreciation) within NERL.¹⁴¹
- 5.17 NERL considers that if the more rigorous approach were to be adopted then it would not lead to a significantly different allocation of capital expenditure between UKATS and Oceanic. NERL's rationale is that all but a small proportion of assets relate exclusively to either UKATS or Oceanic and for these assets the senior asset manager's assessment should allocate capital expenditure exclusively to one or other of UKATS and Oceanic.¹⁴² Under NERL's current allocation of 2008/09 capital expenditure, 92.3%¹⁴³ of capital expenditure by value is allocated exclusively to either UKATS or Oceanic.
- 5.18 In light of the above, we have examined the impact on the allocation of capital expenditure if it were to be allocated in the same manner as the depreciation. The results of our findings are set out below:

¹³⁸ An inflation adjustment is applied to the amount capitalised in the regulatory accounts to restate capital expenditure to year-end prices. This explains why capital expenditure in the regulatory and statutory accounts differs slightly.

¹³⁹ "Minutes of meeting 110609 annotated.doc".

¹⁴⁰ "NMS: NATS-Wide, Service/Product Line Apportionment", April 2009, page 4.

¹⁴¹ "Minutes of meeting 110609 annotated.doc".

¹⁴² "Minutes of meeting 110609 annotated.doc".

¹⁴³ "Level 4 Capex (7.2).xls"

Table 5-3: 2007/08 capital expenditure allocation by engineer allocation and by subsequent 2008/09 depreciation allocation

£ms (unless otherwise stated)	UKATS	Oceanic
Existing capital expenditure allocation (A)	118.0	1.1
Capital expenditure allocation if allocated in accordance with depreciation allocation (B)	117.6	1.5
Difference (A – B)	0.4	(0.4)
Percentage difference ((A – B) / A)	0.3%	(34.9%)

Source: "Questions following 090611 with LECG response.xls"

- 5.19 The difference in the capital expenditure allocation under the two allocation approaches is small in absolute terms, but large in relative terms for Oceanic.
- 5.20 We recommend that NERL performs an equivalent analysis to that contained in Table 5-3 but for all of the assets contained in the Oceanic and UKATS regulatory asset bases in 2008/09. From this, NERL can determine whether any material inconsistencies exist when the analysis is extended to all assets. We suspect that any inconsistencies will continue to be small in absolute terms. In the longer term, we recommend that NERL updates the process used to allocate NERL's capital expenditure to make it consistent with the approach used to allocate depreciation (and other operating costs).
- 5.21 Potentially related to the above, KPMG recommended changes to NERL's system that existed in 2004 & 2005 for allocating capital expenditure:¹⁴⁴
- "KPMG believes that NATS should adopt a different update policy for capital allocation to ensure that they adequately reflect resource consumption. In our opinion, there are two necessary key changes: initially an asset's allocation to service line should be set, where practical, on the basis of the driver over the lifetime of the assets; and this allocation should be subject to regular review to ensure that the allocation remains appropriate to ongoing resource consumption."*
- 5.22 We understand that the NERL's current system of allocating capital expenditure is the same as the system that existed when KPMG performed their reviews in 2004 & 2005.

¹⁴⁴ "NATS – Cost allocation review – Phase 2, Final report in summary format", 24th May 2005, page 19. In the version of the KPMG report that we possess, it is not possible to discern certain words. In the above quote, we cannot discern the text which is underlined. In these instances, the recorded text is our understanding of what was stated.

Conclusions

- 5.23 The CAA asked us to review whether NERL's capitalisation policy had changed over time¹⁴⁵ and/or was due to change over CP3. To the extent that the capitalisation policy had changed, the CAA requested that we consider whether this has a material impact on NERL's level of capitalised expenditure and hence on the overall level of allowed costs. The CAA also requested that we examine how NERL's capital expenditure was allocated between the regulatory asset bases of the Oceanic and UKATS businesses, and to consider whether this allocation was consistent with NERL's approach to allocating operating costs (in particular, depreciation charges).
- 5.24 NERL are expecting to spend lower amounts on capital expenditure in proportion to operating expenditure compared with CP2 to date. This suggests that expenditure is not increasingly being classified as capital expenditure.
- 5.25 NERL will adopt (as required by the accounting standards) the revised version of the international accounting standard IAS 23, "*Borrowing costs*", from the financial year 2009/10, for statutory accounting purposes. Under the existing version of the standard, entities can elect whether or not to capitalise borrowing costs. The borrowing costs of NERL are not currently capitalised. Under the revised version, borrowing costs must be capitalised for statutory accounting purposes.
- 5.26 If interest (i.e. financing) costs were also capitalised within the RAB then this could lead to NERL being compensated for financing costs twice. That is, once through higher operating costs generated by depreciation on the capitalised interest, and once through the allowed return on the asset base. It is a policy decision for the CAA to decide whether to allow interest to be capitalised in the RAB. However, our recommendation is that capitalised interest should not be included within the RAB. NERL has confirmed that it did not intend to include capitalised interest in its regulatory submissions.
- 5.27 We have reviewed the current approach to allocating NERL's capital expenditure between the UKATS and Oceanic businesses. This approach is different to the approach used to allocate the depreciation charge on the assets generated by capital expenditure. We have found that there are inconsistencies between these allocation methods, which in 2008/09 result in small differences in allocation in value terms for a sample of assets. It is unclear which allocation method (i.e. the one for capital or the one for depreciation) is superior – as both have advantages and disadvantages.
- 5.28 We recommend that NERL performs an equivalent analysis to that contained in Table 5-3 but for all of the assets contained in the Oceanic and UKATS regulatory asset bases in 2008/09. From this, NERL can determine whether any material inconsistencies exist when the analysis is extended to all assets. We suspect that any inconsistencies will continue to be small in absolute terms. In the longer term, we recommend that NERL updates the process used to allocate NERL's capital expenditure to make it consistent with the approach used to allocate depreciation (and other operating costs).

¹⁴⁵ We understand that NERL's capitalisation policy has remained unchanged since the introduction of FRS 15.

Section 6

Allocation of NERL's revenue and operating expenditure

Introduction

- 6.1 This section summarises our review of how NERL allocates NERL's revenues and costs to the NERL Service Lines. Costs are allocated by aggregating them by activity code.¹⁴⁶ An allocation driver is assigned to each activity code. Costs are allocated to NERL's Service Lines using the assigned drivers.
- 6.2 NERL's 2008/09 costs were aggregated into over 3,000 unique activity codes, which were individually allocated using approximate 125 different drivers. Approximately, 81% of NERL's 2008/09 costs (by value) are allocated across more than one service line. The remaining 19% of costs are allocated exclusively (i.e. directly) to a single service line.¹⁴⁷
- 6.3 Revenues are allocated by first aggregating them by nominal code.¹⁴⁸ Revenues are then allocated exclusively (i.e. directly) to individual service lines.
- 6.4 In this section, we first discuss our review of NERL's revenue allocation process. We then discuss our review of NERL's cost allocation process. Our review of cost allocations includes a review of the driver percentages that have been used and a review of the appropriateness of the drivers selected to allocate costs.
- 6.5 The focus of our work has been on the 2008/09 allocation (see paragraph 2.24). However, we have also considered the allocation through to the end of CP3.

Review of revenue allocation

- 6.6 NERL's principal sources of revenue are from:
- charges for UK non-military en route and London Approach air traffic control services (as provided by the Eurocontrol and London Approach Service Lines). We understand that the charges from the UK en-route service is received from the Central Route Charges Office of Eurocontrol¹⁴⁹ but that the charges for the London Approach service are recovered directly from the airlines;¹⁵⁰

¹⁴⁶ See paragraph 3.14.

¹⁴⁷ These figures are derived from "Service lines by activity 090429 revised 090603 (2).xls".

¹⁴⁸ See paragraph 3.13. NERL's revenues for 2008/09 were aggregated under 23 separate nominal codes. See "Income Map (2).xls".

¹⁴⁹ Eurocontrol is the European organisation for the safety of air navigation (for the avoidance of doubt, it is distinct from the Eurocontrol Service Line within NERL). According to its website, "*Eurocontrol's mission is to harmonise and integrate air navigation services in Europe, aiming at the creation of a*

- the MoD contract;
- charges relating to the air traffic control function for the Shanwick area of international airspace (as provided by the Oceanic service line). We understand that these charges are recovered directly from the airlines;
- NSL, in return for services provided under MSAs and ICAs; and
- helicopter operators providing services to North Sea oil rigs. We understand this revenue is recovered directly from the helicopter operators.

6.7 The table below shows the allocation of NERL's revenues in 2008/09.

Table 6-1: 2008/09 NERL revenue allocation by NERL Service Line

£m	Oceanic	Eurocontrol	London Approach	MoD contract	North Sea Helicopters	NERL services to NSL	Other external	Total
Inter-company revenue	0.0	0.0	0.0	0.0	0.0	16.0	0.0	16.0
Other revenue	23.5	523.5	8.4	44.9	7.3	0.0	3.5	611.1
Total income	23.5	523.5	8.4	44.9	7.3	16.0	3.5	627.1

Source: "17-1 Management Accounts by Service line 0809 final.xls".

6.8 NERL's revenues are aggregated in NIBS by nominal code and then allocated exclusively to a single service line. For example, revenue recorded against nominal code 410405 ('MoD Shared Facilities') is allocated exclusively to the MoD contract service line. NERL directly allocates revenues because all of NERL's services are provided by individual service lines. There are no jointly provided services. Consequently, the risk of revenue misallocation within NIBS is low.

Review of cost driver allocation percentages

6.9 The table below shows the percentage of NERL's 2008/09 costs allocated by the top 10 drivers and, collectively, all other drivers.

uniform air traffic management (ATM) system for civil and military users, in order to achieve the safe, secure, orderly, expeditious and economic flow of traffic throughout Europe, while minimising adverse environmental impact". See http://www.eurocontrol.int/corporate/public/standard_page/org_mission.html. The central route charges office runs a "cost-recovery system that funds air navigation facilities and services and supports Air Traffic Management developments". See (http://www.eurocontrol.int/crco/public/subsite_homepage/homepage.html).

¹⁵⁰ '09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc'

Table 6-2: Percentage of 2008/09 NERL costs allocated by top 10 drivers

Driver code	Driver description	% of 2008/09 NERL costs allocated by driver ¹⁵¹
BWS01	Workstations Civil Consol LACC	22.4%
B0100	Eurocontrol 100%	14.2%
BIN07	Turnover - NERL Excl NSL and NS Helis	10.8%
B0A31	Workstations NERL-wide site	10.2%
B0A33	Workstations LACC / LJAO	4.8%
BWS02	Workstations Consol Swanwick site	4.8%
BIN02	Turnover - NERL Total External	3.6%
B0A96	Workstations Non-Oceanic NERL-wide	2.6%
B0A87	Share of NERL Turnover (Overhead)	2.4%
BIS01	Information Solutions - Turnover_CustAcS	2.4%
N/A	All 114 other drivers	21.9%

Source: 'Service lines by activity 090429 revised 090603 (2).xls'

6.10 We have considered the robustness of the allocation percentages used to allocate NERL costs. In doing so, we performed the following strands of work, *inter alia*:

- we reviewed the support for the drivers' allocation percentages and tested whether the percentages contained in the support matched the percentages used in NIBS;
- we examined the standard of evidence to support the derived driver percentages;
- we compared the allocation percentages for the various workstation drivers against each other to test whether the drivers had been sourced from the same information; and
- we examined whether drivers' allocation percentages changed between 2007/08 and the end of CP3.

6.11 We discuss each area in turn below.

Review of support for the drivers' allocation percentages

6.12 Each driver has a driver support file, which is in the format of an excel spreadsheet. The spreadsheet documents the basis on which the driver's allocation percentages are calculated. The spreadsheet contains a level of detail behind the driver allocation percentages that are calculated. For example, for the driver BOA31 ('Workstations NATS-wide site'), the spreadsheet contains the number of workstations used by the different NERL Service Lines.¹⁵²

¹⁵¹ The totals do not sum to 100.0% due to rounding.

¹⁵² "BOA31.xls".

- 6.13 In reviewing the spreadsheet support files we performed the following work:
- we considered whether the spreadsheets were well structured and transparent;
 - had sufficient notes to explain the nature of the calculations and the sources of inputs; and
 - had checks and controls to ensure data contained in the spreadsheets were consistent.
- 6.14 In addition, we tested whether the percentages contained in the support files matched the percentages used in NIBS. We did this for the top 10 drivers listed in Table 6-2 above. In all cases, we found that the percentages matched subject to some immaterial differences relating to rounding.¹⁵³
- 6.15 Unfortunately, the driver support files do not provide a link back to a primary source and so it is impossible to test whether the data contained in the driver support files are incorrect. NERL acknowledges that further work is required in this area and is recounting workstation drivers in order to update its December plan submission.
- 6.16 Our general observations about the driver support files are that they are very hard to follow and therefore hard to audit. In particular:
- they do not follow a standard format;
 - they are not clearly organised;
 - they contain a mixture of hard coded numbers, calculations and links to external files;¹⁵⁴ and
 - they do not explicitly tie to a primary source (as mentioned above).
- 6.17 We believe that it makes it harder for NERL to ensure the files are accurately stated, contain consistent input data, and harder to update over time. It need not imply the files contain errors, but it does make it harder to audit the data.
- 6.18 To test whether we have any concerns with the accuracy of the data, we have performed a high level review of the driver support files to test whether the calculations appear appropriate and whether the data they contain is consistent with other information we have been provided.
- 6.19 In the table below, we provide our observations.

Table 6-3: Comments on driver support files of the top 10 drivers

Driver code	Driver description	Comments on standard of evidence
BWS01	Workstations Civil Consol LACC	The driver support is based on a physical count of workstations that took place in 2007. This data could be out of date. We consider it best practice to update driver support information on an annual basis. ¹⁵⁵

¹⁵³ "09 07 10 Information request tracker v1.xls", cell D70.

¹⁵⁴ We have not reviewed copies of these external files.

¹⁵⁵ In response to this, NERL stated, "[t]here is no evidence that not updating a workstation driver count leads to a material misstatement" ('09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc'). NERL also "[a]greed that best practice is to count on an annual

B0100	100% Eurocontrol	No driver support file exists (or is necessary) since driver allocates 100% costs to Eurocontrol.
BIN07	Turnover - NERL Excl NSL and NS Helis	We understand that this driver is based on planned 2008/09 turnover. The planned turnover contained in this file differs from the planned turnover we have seen in another file. ¹⁵⁶ NERL stated that differences in the planned turnover amount relates to the inclusion of 'Other Eurocontrol' income and that "[a]s such the total NERL income is correct and there is no impact of any potential correction for UKATS/Oceanic or London Approach". ¹⁵⁷ In the absence of evidence to the contrary, this appears reasonable.
B0A31	Workstations NERL- wide site	The driver support is based on a physical count of workstations that took place in 2007. We consider it best practice to update driver support information on an annual basis. ¹⁵⁵ The allocation is based on the total number of civil domestic & military workstations (NATS-wide site) of 283. ¹⁵⁸ This is inconsistent with the corresponding number of 286 quoted in another file. ¹⁵⁹ Given the inconsistency we have observed, it is possible that the data on which this driver has been calculated is incorrect.
B0A33 ¹⁶⁰	Workstations Swanwick site	The driver support is based on a physical count of workstations that took place in 2007. We consider it best practice to update driver support information on an annual basis. ¹⁵⁵
BWS02	Workstations Consol Swanwick site	The driver support is based on a physical count of workstations that took place in 2007. We consider it best practice to update driver support information on an annual basis. ¹⁵⁵ This driver includes a 'manual military adjustment' ¹⁶¹ that has the effect of increasing the Eurocontrol allocation percentage and the allocation to all other service lines. NERL has stated that this adjustment is incorrect and should be removed. Furthermore, as noted elsewhere in this table, some of the workstation numbers that feed into the derivation of BWS02 are inconsistent with the equivalent numbers contained in the support for drivers B0A31 and B0A96. The allocation percentages of this driver will have been biased by one error (possibly more given the aforementioned inconsistency) and are incorrect.
BIN02	Turnover - NERL Total External	We understand that this driver is based on planned 2008/09 turnover. The planned turnover amount contained in this file is different from the planned turnover amount we have seen in another file, as noted above. Given the inconsistency we have observed, it is possible that the data on which this driver has been calculated is incorrect.

basis as evidenced by our process documentation which requires an update for the annual business planning round'. As noted in the table, the driver support is based on a physical count that took place in 2007.

¹⁵⁶ For instance, the plan turnover amount for Eurocontrol cited in the file "BIN07.xls" is £532,839,324.88, whilst in the file "Turnover comparison (7.4) revised 090713.xls" it is £529,761,528.12.

¹⁵⁷ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

¹⁵⁸ This is the value of the formulae denominators in cells G19:K19 of worksheet 'Ratios' within 'B0A31.xls'.

¹⁵⁹ See 'BWS working papers.xls', worksheet 'Ratios New', cell E55.

¹⁶⁰ NERL informed us that driver 'BOA33' is the same as driver 'BOA32' and that the source documentation for both is contained within the file 'BOA32.xls'.

¹⁶¹ See 'BWS working papers.xls', worksheet 'Ratios New', row 39.

		The driver support is based on a physical count of workstations that took place in 2007. We consider it best practice to update driver support information on an annual basis. ¹⁵⁵
B0A96	Workstations Non-Oceanic NERL-wide	The allocation is derived from a figure for the total number of civil domestic & military workstations excluding those for Oceanic (NATS-wide site) of 273. ¹⁶² This is inconsistent with the corresponding number (276) in another file. ¹⁶³ Given the inconsistency we have observed, it is possible that the data on which this driver has been calculated is incorrect.
B0A87	NERL Turnover (Overhead)	We understand that this driver is supposed to be based on the 2008/09 planned turnover amount. NERL has informed us that the data is incorrectly based on the 2007/08 planned turnover amount. ¹⁶⁴ NERL has further advised that the 2007/08 Eurocontrol planned turnover amount contained in this file is itself wrong – being “~ £5m lower than the published plan”. In addition to the above, we have noticed that the planned 2007/08 turnover amount for the MoD service line contained in this file is different from plan amount in another file. ¹⁶⁵ The allocation percentages of this driver are based on data from the wrong year and which also contain at least one error (and possibly more given the aforementioned inconsistency).
BIS01	Information Solutions - Turnover_ CustAcs	We understand that this driver is based on plan 2008/09 turnover. However, the plan turnover amount contained in this file is different from plan turnover amount we have seen in another file. ¹⁶⁶ Given the inconsistency we have observed, it is possible that the data on which this driver has been calculated is incorrect.

Source: Driver support files¹⁶⁷.

- 6.20 We have identified a range of issues with the support files (e.g. source data being out of date, data inconsistencies, and errors). In places, it took NERL a number of submissions to confirm the reason for these issues. We consider that this confirms our assertion above that it is hard for NERL to ensure the files are accurately stated.¹⁶⁸
- 6.21 Given that we have found potential issues in nine of the ten support files we reviewed, it is likely that additional issues would be found in the untested support files.
- 6.22 We have tried to assess the materiality of the issues we have identified. For example, we found that the drivers based on planned turnover used source data that was not consistent

¹⁶² This is the value of the formulae denominators in cells E20:I20 of worksheet ‘Ratios’ within “B0A96 v2.xls”.

¹⁶³ “BWS working papers.xls”, worksheet ‘Ratios New’, cell E59.

¹⁶⁴ “Questions 090604 with LECG response v2 NERL RESPONSE.xls”.

¹⁶⁵ In response to this, NERL stated “[w]e accept that this driver was based on 2007/08 plan data which is materially different to 2008/09 plan data. However there will be no regulatory impact if this driver is updated for 2008/09 values as this driver does not allocate any cost to the Oceanic service line” (“09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc”).

¹⁶⁶ For instance, the plan turnover amount for Eurocontrol cited in the file ‘BIS01.xls’ is £532,839,324.88, whilst in the file ‘Turnover comparison (7.4).xls’ it is £530,396,486.56.

¹⁶⁷ The driver support files for the top 10 2008/09 cost drivers comprise: “BWS working papers.xls”, “BIN07.xls”, “B0A31.xls”, “B0A33.pdf”, “BIN02.xls”, “B0A96 v2.xls”, “B0A87.xls” and “BIS01.xls”.

¹⁶⁸ In response to this, NERL stated, “external reviews suggest the ‘system’ (of data and drivers) is acceptable” (“09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc”).

with another file (i.e. "Turnover comparison (7.4).xls") provided to us. For activity codes allocated by turnover-based drivers, we examined the impact on their cost allocation of calculating the driver percentages from the plan turnover information contained in "Turnover comparison (7.4).xls". We found that the impact of this was material enough to warrant further investigation. In response, NERL advised us¹⁶⁹ that the amounts contained within the file "Turnover comparison (7.4).xls" were incorrect and they provided us with a revised file.¹⁷⁰ Having reviewed the revised file, we note that the amounts it contains for plan 2008/09 turnover still differ from those in driver support files for the turnover-based drivers.¹⁷¹ However, the impact is immaterial. A key point, however, is that it raises the concern of the underlying accuracy of the data.

- 6.23 In response to our observations relating to workstation-based drivers listed in Table 6-3, NERL advised us that the current allocation percentages for the following workstation based drivers are incorrect: BWS01, B0A31, BWS02, B0A96, and B0A99.¹⁷² NERL also advised us that workstation-based drivers B0A97 and B0A34 should no longer be used and that "*the most likely replacement drivers*"¹⁷³ would be, respectively, BWS01 and BWS02.¹⁷⁴
- 6.24 NERL has provided revised allocation percentages for workstation based drivers BWS01, B0A31, BWS02, B0A96, and B0A99. They have also calculated the impact on the 2008/09 London Approach cost allocation of updating these allocation percentages. We have not reviewed the robustness of either the revised allocation percentages or the indicative impact calculation.¹⁷⁵ NERL calculates the impact of these changes alone would decrease the costs allocated to London Approach in 2009/10 by £5.3m (a decrease of 21.4%¹⁷⁶ on the existing cost allocation to London Approach). This change is material. NERL considers that a corresponding change to the London Approach cost allocation in 2008/09 (and relevant prior periods in CP2) would not have materially altered the cost-reflectivity and level of charges. LECG has not investigated the accuracy of NERL's statement.
- 6.25 More generally, we discussed our concerns over the adequacy of the support for driver allocation percentages with NERL. NERL agreed this it was not as robust as it could be and stated that it intended to improve this in the future. NERL stated, however, that the absence of adequate support was not an indication that driver allocation percentages were necessarily incorrect.¹⁷⁷
- 6.26 We have found issues in nine out of the ten support files we have reviewed. That is a high proportion. In response to our findings, NERL have advised that of the fifteen workstation

¹⁶⁹ See email from NERL to LECG, sent on 17 July 2009.

¹⁷⁰ "Turnover comparison (7.4) revised 090713.xls".

¹⁷¹ For instance, the plan turnover amount for Eurocontrol contained in "Turnover comparison (7.4) revised 090713.xls" is £529,761,528.12, whilst in the file in the file 'BIS01.xls' it is £532,839,324.88.

¹⁷² "16-1 Question 10 analysis.xls".

¹⁷³ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

¹⁷⁴ NERL also stated that the replacement of drivers B0A97 and B0A34 "*would need to be approved and validated through our normal allocation change process /annual review of the business plan*".

¹⁷⁵ On high-level inspection, however, the impact calculation does not allow for the change to the allocation percentages of driver B0A99. We are unsure why this is the case and this appears to us to be an oversight.

¹⁷⁶ Calculated as 5.3 / 24.8

¹⁷⁷ "Minutes of meeting 040609 annotated.doc".

based drivers used to allocate NERL's costs (which collectively allocate approximately 50% of 2008/09 total costs), two should no longer be used and five currently have incorrect allocation percentages.

- 6.27 In light of the above, the CAA has requested that we perform some additional review work on NERL updated workstation drivers. This work is on going and, once it is completed, we will issue a supplemental report of our findings to the CAA. Furthermore, in response to the findings concerning workstation-based drivers, NERL state that they are "*putting a review process in place to provide robust driver allocations to support our revised business plan to be delivered to the CAA in December*".¹⁷⁸
- 6.28 Our primary recommendation with respect to driver input data is that NERL should perform a full review of all the driver support files to ensure that all inputs are accurate and up to date. Going forward, NERL should consider generating new driver support files. Any new files should: i) be easy to follow, review and audit; ii) have explicit links to the primary evidence on which they are based; and iii) be reviewed and updated on a regular (at least annual) basis.

Changes in driver allocation percentages between 2007/08 and the end of CP3

- 6.29 NERL annually updates the allocation percentages of the drivers used to allocate NERL's historical costs. However, NERL uses constant allocation percentages in its projections (i.e. the 2008/09 percentages are used in the projections through to the end of CP3).
- 6.30 We reviewed whether the allocation percentages for the drivers change between 2008/09 and 2015/16, and we found that they did not change.
- 6.31 On further review, we observed that none of the drivers in 2007/08 and 2008/09 had their allocation percentages updated. NERL stated:¹⁷⁹
- "The service line review process is a relatively new one which is still 'bedding in'. It will become more robust in terms of review and challenge in the future. Taking this into account alongside our assumption that drivers do not change materially over time we are content that the observation that the drivers have not changed between 2007/08 and 2008/09 has not lead to material mis-statement in terms of cost allocation"*
- 6.32 In support of the assumption that drivers do not change materially over time, NERL stated that they are "*an infrastructure business with a relatively predictable and stable revenue stream*".¹⁸⁰ In the absence of evidence to the contrary, this appears reasonable.
- 6.33 In projecting costs, we consider that it would be more appropriate to allow allocation percentages to change over time.¹⁸¹ It seems plausible that drivers might change in the 7 years between 2008/09 and 2015/16.¹⁸²

¹⁷⁸ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

¹⁷⁹ "09 07 10 Information request tracker v1.xls".

¹⁸⁰ "09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc".

¹⁸¹ We made the same recommendation in the review we performed for the CAA in 2006 on BAA's revenue and cost allocation process.

¹⁸² Possibly related to this, we note that it is stated within NERL's financial statements for the year ended 31 March 2009 that "*[t]he company is undertaking a significant capital investment programme to*

- 6.34 NERL consider that whilst it may be more robust to have separate forecast allocation percentages for each year of the projections, the allocation percentages would not change materially over time because NERL is a materially 'steady-state' business.
- 6.35 We believe that the CAA will be well placed to confirm this assertion given its wider knowledge of NERL's plans over CP3.

Review of cost driver selection

- 6.36 We have considered the appropriateness of the drivers selected to allocate costs. As a starting point, we first discuss the appropriateness of workstation and turnover based drivers, which together allocate over 70.0% of NERL 2008/09 costs. We then discuss our sample review of the appropriateness of the drivers used to allocate costs in 2008/09. Finally, we discuss whether the cost drivers selected for activity codes are revised following 2008/09 (i.e. the drivers change over time).

Appropriateness of workstation and turnover based drivers

- 6.37 The most common drivers used for allocating NERL costs are related either to the number of workstations or to turnover. Workstation based drivers¹⁸³ allocate 51.3%¹⁸⁴ of NERL's 2008/09 costs, by value, whilst turnover based drivers¹⁸⁵ allocate 22.0%.¹⁸⁴

- 6.38 Concerning the use of workstation drivers, NERL stated:¹⁸⁶

"Workstation based drivers are selected because they are considered to be directly causally related to the costs within the activities they allocate. Generally these relate more to costs which are directly attributable to the deliver [sic] of operations within the business."

- 6.39 In general, we believe that it is appropriate to allocate certain types of costs by the number of workstations. We consider this further later in this section.

- 6.40 Concerning the use of turnover based drivers, NERL stated:¹⁸⁶

"Turnover based drivers are selected as the most appropriate method for allocating costs across NERL's service lines in cases where there is no more direct driver which is causally related to the costs within the activities they allocate."

- 6.41 Where a causally linked driver cannot be identified, we consider that turnover based drivers should not be used to allocate costs. This is for two reasons. First, London Approach's turnover is set below historical cost and Eurocontrol's turnover is set above historical cost.¹⁸⁷

upgrade existing air traffic control infrastructure and to rationalise the number of air traffic control centres" (page 34).

¹⁸³ The workstation-based drivers are BWS01, B0A31, B0A33, BWS02, B0A96, B0A35, B0A99, B0A32, B0A97, B0A34, BWS03, BWS05, BWS12, BWS13 and B0A98.

¹⁸⁴ "Service lines by activity 090429 revised 090603 (2) [sent 120609].xls".

¹⁸⁵ The turnover based drivers are: BIN07, BIN02, B0A87, BIS01, BIN01, BIN08, BIN13, B107A, BIN03, BIN 09, BIN 10 and BIN04.

¹⁸⁶ "09 07 17 Information request tracker v1.xls".

¹⁸⁷ This is the corollary of the London Approach turnover being too low, since the UKATS revenue cap is split between Eurocontrol and London Approach.

As a result, turnover based drivers will allocate a lower amount of costs to London Approach and a higher amount to Eurocontrol.

- 6.42 A second issue relates to circularity. The permitted Oceanic charge and the UKATS revenue cap are each a function of each regulated entity's own costs. When turnover is used to allocate costs between the regulated entities, these costs become a function of turnover.
- 6.43 We believe that EPMU would be a more appropriate basis to allocate common costs.^{188, 189} EPMU drivers do not have the same flaws as turnover based drivers. Furthermore, as noted in paragraphs 4.27 to 4.30 there is considerable regulatory precedent in support of EPMU drivers.

Appropriateness of the 2008/09 driver selection

- 6.44 NERL's 2008/09 costs are aggregated into over 3,000 unique activity codes. It would be impractical to review the appropriateness of the driver selected for each activity code. To enhance the efficiency of our review, we investigated whether it was feasible to review the cost drivers used to allocate groups of activity codes (e.g. with a common level 1 characteristic¹⁹⁰). NERL advised that it was not meaningful to perform a review on this basis, since activity codes with a common level 1 characteristic will often be allocated by a large number of drivers,¹⁹¹ and that the appropriateness of drivers had to be assessed at the level of the individual activity codes. We therefore conducted our review at the activity code level on a sample basis.¹⁹²

Sample selection

- 6.45 Our aim when selecting our sample was to include high value activity codes which collectively related to 45%, by value, of NERL's 2008/09 costs. We achieved this by selecting a random sample from the following sub samples:
- activities with the largest Level 1 characteristics. We selected activity codes from the following large Level 1 codes B0128, B0004, B0040, B0123, B0033, B0109, B0131, B0023, B0147, B0292, B0295;¹⁹³
 - activities that were allocated exclusively to a single service line;
 - depreciation related activities; and
 - activities which are allocated using turnover-based drivers.

¹⁸⁸ Where a particular turnover driver allocates, for example, costs between Eurocontrol, London Approach and MoD contract, this should be replaced with an EPMU driver that allocates costs to the same service lines rather than to all the NERL Service Lines.

¹⁸⁹ See paragraph 4.31 for NERL's view on the use of EPMU.

¹⁹⁰ See paragraph 3.15.

¹⁹¹ The activity codes that have the level 1 characteristic 'B0004', for instance, are allocated by 28 different allocation drivers.

¹⁹² A sample approach is consistent with the approach adopted by KPMG for the KPMG CP2 Cost Allocation Reports and the KPMG 2007 Report.

¹⁹³ The characteristics denote, respectively, the Operation Service Delivery at Swanwick, Asset Management – NERL, Manage NATS estates, General finance, HR policy, compliance and best practice, NERL Business Centre, PC – ScACC Operations, Delivery of ATC training – ab initio, ATC Support at Swanwick, Asset op-Nwide Serv, Asset Op – IES. See "Service lines by activity 090429 revised 090603 (2) (sent 120609).xls".

- 6.46 Collectively, our sample covered 48 different activity codes and 46.7% of NERL costs, by value.¹⁹⁴ We selected costs with the largest (by value) Level 1 characteristics because this helped us to achieve the highest cost coverage by value from the smallest number of codes. Our random sample covered 15 separate activity codes, which represented 31.6%¹⁹⁵ of NERL's 2008/09 costs.
- 6.47 The second of our listed sub samples relates to activity codes that are allocated exclusively to one service line. Our random sample covered 14 separate activity codes, which represented 18.9%¹⁹⁶ of NERL's 2008/09 costs.
- 6.48 One of the key improvements to the NERL cost allocation system since the KPMG CP2 Cost Allocation Reviews relates to depreciation charges, which are now allocated using an ABC approach. In light of this change, we considered it was appropriate to review the drivers used to allocate depreciation. Our random sample covered 15 separate activity codes, which represented 15.3%¹⁹⁷ of NERL's 2008/09 costs.
- 6.49 Turnover based drivers are used in the absence of a driver which is causally linked to the cost being allocated. We believe that it might be more appropriate to replace these drivers with EPMU drivers. It is of course possible that the existing turnover based drivers allocate costs to the wrong service lines. Although this may also be the case with other allocation drivers, we often find that less care is taken to the allocation of costs for which a causally linked driver cannot be identified. For instance, it may not be appropriate to allocate such costs across all Service Lines – rather it might be appropriate to allocate them across a subset of Service Lines. Our random sample covered 13 separate activity codes, which represented 22.1%¹⁹⁸ of NERL's 2008/09 costs.

Findings from our review

- 6.50 We performed the following work. We considered the rationale put forward by NERL in support of each tested driver. Where possible we considered how other regulated industries had allocated similar costs. Finally, where it was not obvious that the right driver had been selected, we asked NERL further questions to support their rationale.
- 6.51 In all but one instance where an activity code was allocated directly to a service line, we found no problems with NERL's stated rationale. However, 16 of the 48 activity codes we reviewed (representing 29.8% of the 2008/09 value of the entire sample) had allocation drivers that could be improved. NERL agreed that the selection of these drivers could be improved.
- 6.52 In many instances, our findings were based on observing inconsistencies between related activity codes. For example, we observed that the activity codes for the delivery of Eurocontrol Watches 5 and 2 (codes B0128/LA/W5/S16 and B0128/LA/W2/S16,

¹⁹⁴ For their May 2005 report, KPMG examined "*the allocations of 73 cost centres amounting to £270 million (59%)*" of operating costs excluding depreciation, and "*reviewed a sample of 98 assets that account for £51.6m (65%) of the total depreciation charge of £80m*" (quotes taken from pages 12 and 16, respectively, of KPMG's report 'NATS – Cost Allocation review – Phase 2, Final report in summary format', dated 24 May 2005).

¹⁹⁵ This figure is derived from "Service lines by activity 090429 revised 090603 (2).xls".

¹⁹⁶ This figure is derived from 'Service lines by activity 090429 revised 090603 (2) [sent 120609].xls'

¹⁹⁷ This figure is derived from 'Service lines by activity 090429 revised 090603 (2) [sent 120609].xls'

¹⁹⁸ This figure is derived from 'Service lines by activity 090429 revised 090603 (2) [sent 120609].xls'

respectively) used a different driver (Workstations Civil Consol LACC) to the driver (100% Eurocontrol) used to allocate the activity code for the delivery of Eurocontrol watch B (B0131/PK/WB/S16). After discussing this with NERL, we initially agreed that all of these codes should be allocated using the allocation driver '100% Eurocontrol'.¹⁹⁹

6.53 NERL has subsequently questioned the appropriateness of the '100% Eurocontrol' driver, stating that it could distort the allocation of costs. We understand that NERL plan to undertake a detailed review of its cost drivers as part of the business planning process leading to the finalisation of the revised business plan to be submitted to the CAA in December 2009. The appropriateness of the revised drivers can be considered at that time.

6.54 The table below lists our findings and suggested changes.²⁰⁰ As noted, we have recommended that all turnover-based drivers should be replaced with EPMU drivers. In the table below, we only list those activity codes where we consider that their existing turnover based drivers allocate an element of costs to the wrong service lines.

¹⁹⁹ 'Questions 090604 with LECG response v2 NERL RESPONSE.xls'

²⁰⁰ For brevity, this table does not provide our rationale for our change to the recommended driver. This is given in an expanded table in Appendix 3.

Table 6-4: Activity codes for which a more appropriate allocation driver exists

Activity code	Activity description ²⁰¹	2008/09 Cost Amount (£m)	NERL driver	LECG recommended driver
B0128/LA/W5/S16	Delivery of operational Eurocontrol watch '5' at Swanwick. Largely people costs.	■	Workstations Civil Consol LACC	100% Eurocontrol
B0128/LA/W2/S16	Delivery of operational Eurocontrol watch '2' at Swanwick. Largely people costs.	■	Workstations Civil Consol LACC	100% Eurocontrol
B0033/XX/XX/R42/7340	Relocation costs relating to the relocation of staff from West Drayton to Swanwick following West Drayton closure	■	NERL Turnover (Overhead)	'Workstations Consol Swanwick site'.
B0040/CT/BG/B10	Facilities Management costs for the CTC building	■	Workstations NERL-wide site	EPMU – All NERL Service Lines except NERL services to NSL
B0295/XX/XX/A16	Engineering support to Infrastructure assets	■	Workstations NERL-wide site	EPMU – All NERL Service Lines
B0142/XX/XX/R32	Regulatory affairs	■	Turnover - NERL Excl NSL and NS Helis	EPMU – All NERL Service Lines except NERL services to NSL
B0040/CT/BG/B12	Provide facilities management - NATS	■	Turnover - NERL Excl NSL and NS Helis	EPMU – All NERL Service Lines except NERL services to NSL
B0004/CT/B1/A13	Depreciation of CTC building fixtures & fitting	■	Turnover - Eurocontrol, MoD, Oceanic	EPMU – All NERL Service Lines except NERL services to NSL
B0109/XX/MG/F41	Financial Management	■	Turnover - Eurocontrol, MoD, Oceanic	EPMU – All NERL Service Lines

²⁰¹ "Questions 090604 with LECG response v2 NERL RESPONSE.xls"

B0033/XX/XX/R42/7330	West Drayton to CTC Group moves	■	NERL Turnover (Overhead)	'Workstations Consol Swanwick site'.
B0033/XX/XX/H10/2	Pensions – mainly external costs relating to the provision of external advice for the pension review	■	Turnover - NERL Excl NSL and NS Helis	EPMU – All NERL Service Lines
B0109/XX/MG/R40	Relocation costs relating to general moves (e.g. career development)	■	Turnover - NERL Excl NSL and NS Helis	EPMU – All NERL Service Lines
B0004/CT/T2/A13	Depreciation of non-operational IT software (e.g. SAP)	■	Workstations NERI-wide site	EPMU – All NERL Service Lines
B0004/LT/NS/A13	Depreciation of operational computer systems (NAS)	■	100% Eurocontrol	Workstations Non-Oceanic NATS-wide
B0004/LA/S2/A13	Depreciation of operational computer systems at Swanwick	■	Workstations LACC / LJAO	EPMU – All NERL Service Lines except NERL services to NSL and Oceanic
B0004/LA/VC/A13	Depreciation of voice comms equipment (VCCS) at Swanwick	■	Workstations Swanwick site	EPMU – All NERL Service Lines except NERL services to NSL and Oceanic

Source: 'Service lines by activity 090429 revised 090603 (2).xls' and LECG analysis.

6.55 For the sampled activities, the table below shows the impact of our suggested changes on the allocation of costs (for those sampled activities only).

Table 6-5: Comparison of the overall 2008/09 cost allocation of our sample under different driver selections²⁰²

£m	Oceanic	Eurocontrol	London Approach	MoD contract	North Sea Helicopters	NERL services to NSL	Other external	NERL Total
NERL's existing driver selection (A)	5.6	200.9	8.3	■	■	■	■	241.0
Driver selection updated for LECG recommendations (B)	5.8	203.6	5.6	■	■	■	■	241.0
Difference (C = A – B)	0.2	2.7	(2.7)	■	■	■	■	n/a
Percentage difference (C / A)	4.3%	1.3%	(31.9%)	■	■	■	■	0.0%

Source: 'Service lines by activity 090429 revised 090603 (2).xls' and LECG analysis.

6.56 The impact of the recommended driver changes on the cost allocation of our sample of activity codes is material for the allocation of costs across UKATS Service Lines. Notwithstanding this, however, we consider that - in the context of the existing regulatory framework - the impacts of our recommendations are small.

6.57 We understand that NERL plan to undertake a detailed review of its choice of cost drivers as part of the business planning process leading to the finalisation of the revised business plan to be submitted to the CAA in December 2009.

Appropriateness of changes to the driver selection following 2008/09

6.58 NERL's cost projections through to the end of CP3 are made at the activity code level. Broadly speaking, the activity codes contained in NERL's projections are the same as those that exist in 2008/09. Projected costs are allocated in the same way as actual costs. That is, an allocation driver is applied to each activity code. At an activity code level, NERL's default approach is to use the same driver over CP3 (i.e. the choice of driver does not change year to year).

6.59 There are a number of instances where NERL has changed the allocation driver of an activity code during the projection horizon.²⁰³ We understand that such changes are made

²⁰² For the avoidance of doubt, this table only reflects the impact of the driver changes to the 16 activity codes listed in Table 6-4. It does not reflect the impact of moving from revenue based drivers to EPMU drivers (beyond those changes listed in Table 6-4), nor does it reflect any changes to the allocation driver percentages that may be required (see earlier in this section).

when NERL foresees a change in the activities covered by an activity code. For example, the driver applied to the costs of administering and managing air traffic control staff at Prestwick²⁰⁴ changes between 2008/09 and 2009/10. The driver changes because of the transfer of the Manchester air traffic control staff to the Prestwick site.

- 6.60 This seems to be a sensible approach.
- 6.61 We have examined the rationale for changes to the driver for a sample of activity codes. We identified that 103 activity codes (covering 4.0% of NERL's 2009/10 costs) had their driver altered between 2008/09 and 2009/10, and 25 activity codes (covering 1.4% of NERL's 2009/10 costs) had their driver altered subsequent to 2009/10. The random sample we selected to review covered 13 different activity codes, which represented over 65%, by value, of the activity codes that had a change in driver.
- 6.62 For the activity codes within our sample, we considered the rationale put forward by NERL. Where the reason for the revision was not clear, we asked for additional supporting information.
- 6.63 The table below lists all of the activity codes for which we considered the revised allocation driver was inappropriate.²⁰⁵ NERL have stated that the revisions to allocation drivers used for these activity codes should be revisited going forward.

²⁰³ This happens with 128 activity codes, which collectively represented 4.4% of NERL's 2009/10 costs.

²⁰⁴ Activity code B0117/PK/MG/M10.

²⁰⁵ Table source: "Service lines by activity 090429 revised 090603 (2).xls' and LECG analysis."

Table 6-6: Activity codes for which a more appropriate allocation driver exists

Activity code	Activity description ²⁰⁶	2009/10 Cost (£m)	Driver used in 2008/09	Amended driver used in projections	LECG recommended driver to be used in projections
B0004/CT/S1/A13	Depreciation of engineering assets - primarily training system for London Terminal control	■	Workstations Non-Oceanic NERL-wide	Workstations NERL-wide site	Workstations Non-Oceanic NERL-wide
B0040/DC/BG/B12	Facilities management for the training college at Hurn	■	Operational ATCO FTE	Mgt Svces FM Hurn	Operational ATCO FTE
B0004/XX/NS/A13	Depreciation of Engineering assets - primarily some National Airspace System NAS build + Code Callsign Distribution System CCDS	■	Workstations Civil LTCC	Workstations NERL-wide site	Workstations Civil LTCC
B0004/XX/NS/A35/A	Management and development of the National Airspace System NAS	■	Workstations Civil LTCC	Workstations NERL-wide site	Workstations Civil LTCC
L4322/IT/AT/T21/A B	iFACTS (Interim Future Area Control Tools Support) development project	■	Workstations Civil Consol LACC	Fixed Asset Depreciation Driver	Workstations Civil Consol LACC
B0004/CT/WO/A13	Depreciation of engineering equipment at Swanwick - primarily Electronic Switching System ESS + Workstations contingency	■	Workstations Civil Consol LACC	Workstations NERL-wide site	Workstations Civil Consol LACC
B0004/LH/S1/A13	Depreciation of Lowther Hill radar	■	Prestwick Work Station - Non-Oceanic	Workstations NERL-wide site	Prestwick Work Station - Non-Oceanic
B0004/LA/B3/A13	Depreciation of the lighting control system - Area Control room @ Swanwick	■	Workstations Civil Consol LACC	Workstations NERL-wide site	Workstations Civil Consol LACC

²⁰⁶ See '13 Questions 090611 with LECG response.xls

6.64 The table below shows the impact of our findings on the 13 sampled activity codes.

Table 6-7: Impact of the allocation of 2009/10 costs of our sample activity codes from LECG proposed revision to allocation drivers

£m unless otherwise stated	Oceanic	Euro-control	London Approach	MoD control	North Sea Helicopters	NERL services to NSL	Other external	Total
Existing allocation (A)	0.5	9.6	1.6	■	■	■	■	15.2
Allocation revised for LECG recommendations (B)	0.4	9.5	2.6	■	■	■	■	15.2
Difference (C = B – A)	(0.1)	(0.1)	1.0	■	■	■	■	n/a
% difference C / A	(26.6%)	(0.6%)	60.8%	■	■	■	■	0.0%

Source: "Business Plan by Service Line (1 11)v2.xls"

6.65 The impact of the recommended driver changes on the cost allocation of our sample of activity codes is, in absolute terms, immaterial. In addition, only a small number of activity codes change drivers following 2008/09. Therefore, the overall risk of any material misallocation relating to these changes is likely to be small.

6.66 We understand that NERL plan to undertake a detailed review of its choice of cost drivers as part of the business planning process leading to the finalisation of the revised business plan to be submitted to the CAA in December 2009.

Conclusions

6.67 We have reviewed NERL's revenue allocation methodology. NERL's revenues are aggregated in NIBS by nominal code and then allocated exclusively to a single service line. Based on our review we believe the risk of revenue misallocation within NIBS is low

6.68 We have considered the robustness of the allocation percentages used to allocate NERL costs. Our general observation is that the support for driver input data is poor in places. In general, this will make it harder for NERL to ensure the files are accurately stated. We also believe that it will make it harder for NERL to update the drivers.²⁰⁷ This need not imply the files contain errors, but it does make it harder to verify the data.

²⁰⁷ This could be why the allocation percentages of those drivers used in 2007/08 and in 2008/09 have not been updated: see paragraph 6.31.

- 6.69 To test the accuracy of the data, we performed a high-level review of the driver support files. We have found issues in nine out of the ten support files we have reviewed. That is a high discrepancy rate. In response to our findings, NERL indicated that of the fifteen workstation based drivers used to allocate NERL's costs (which collectively allocate around 50% of 2008/09 total costs), two should no longer be used and five currently have incorrect allocation percentages. NERL has calculated that the impact on London Approach of correcting for this is to reduce costs by £5.3m (i.e. 21.4%) in 2009/10. We consider this difference to be material and, on this basis, we believe the existing cost allocations can be improved. NERL considers that a corresponding change to the London Approach cost allocation in 2008/09 (and relevant prior periods in CP2) would not have materially altered the cost-reflectivity and level of charges. LECG has not investigated the accuracy of NERL's statement.
- 6.70 In light of the above, the CAA has requested that we perform some additional review work on NERL's updated workstation drivers. This work is on going and, once it is completed, we will issue a supplemental report of our findings to the CAA.
- 6.71 Our primary recommendation with respect to driver input data is that NERL should perform a full review of all the driver support files to ensure that all inputs are accurate and up to date. Going forward, NERL should consider improving its driver support files. In line with best practice, we recommend that any new support files should: i) be easy to follow, review and audit; ii) have explicit links to the primary evidence on which they are based; and iii) be reviewed and updated on a regular (at least annual) basis.
- 6.72 NERL uses constant allocation percentages in its projections (i.e. over CP3). NERL considers that whilst it may be more robust to have separate forecast allocation percentages for each year of its projections, the allocation percentages would not change materially over time because NERL is a materially 'steady-state' business. We believe that the CAA will be well placed to confirm this assertion given its wider knowledge of NERL's plans over CP3.
- 6.73 We have considered the appropriateness of the drivers selected to allocate costs. The most common drivers relate to workstations or to turnover. In general, we accept the use of using workstations as a driver when there is a causal relation between the cost and the driver.
- 6.74 Turnover is used to allocate common costs when a causally linked driver cannot be identified. In our report, we outline reasons why we do not believe this is a suitable approach, partly because revenues for London Approach and Eurocontrol are not set on a cost reflective basis. We believe that EPMU would be a more appropriate basis to allocate common costs. There is considerable regulatory precedent to support this recommendation. We acknowledge that the CAA considered this issue as part of the airports review. The CAA concluded that a change to EPMU was not required.
- 6.75 We have considered the drivers used to allocate a sample of activity codes. Our sample covered 46.7% of NERL costs, by value. We found that 16 of the 48 activity codes we reviewed (representing 29.8% of the 2008/09 value of the entire sample) had allocation drivers that could be improved. NERL also agreed that the selection of drivers could be improved.²⁰⁸
- 6.76 Table 6-8 below summarises how cost allocations change in 2008/09 when we replace turnover drivers with EPMU drivers and revise the 16 activity codes found within our sample

²⁰⁸ "Questions 090604 with LECG response v2 NERL RESPONSE.xls"

review for which the allocation driver could be improved, making no allowance for possible data input issues summarised above.

- 6.77 Our evidence suggests that in the context of the existing regulatory framework, the impact of our recommendations is small. In particular, these changes would produce a 4.3% increase in the costs allocated to the Oceanic business, and a 0.2% reduction in the costs allocated to the UKATS business (which is regulated under a single till).

Table 6-8: Impact of the allocation of 2008/09 costs of LECG driver selection recommendations

£m unless otherwise stated	Oceanic	Euro-control	London Approach	MoD control	North Sea Helicopters	NERL services to NSL	Other external	Not assigned	Total
Existing allocation	22.3	408.5	23.5	■	■	■	■	0.1	515.8
Updated allocation	23.3	409.4	23.6	■	■	■	■	0.1	515.8
% difference	4.3%	0.2%	0.7%	■	■	■	■	29.6%	0.0%

Source: "Service lines by activity 090429 revised 090603 (2).xls" and LECG analysis

Appendix 1

Information provided by NERL

- 1.1 The findings presented in this report are based largely on our review and consideration of the information obtained from NERL. The following are the key documents on which LECG has relied:

Presentations and reports from NERL

- Introduction to NATS (En Route) plc. Presentation for LECG – Cost Allocation Study, 28 April 2009
- CP3BaselinePlan_final.pdf

Third party reports

- KPMG's report NATS – Cost allocation review – Phase 2, Final report in summary format, dated 24 May 2005
- KPMG's report NATS – Cost allocation review, Summary final report, 22 November 2004
- KPMG's report General ledger, cost allocation & income review. Final, 27 September 2007
- MoD Audit Report 2007 08.pdf
- CP3 price control review for NERL – CAA consultation, October 2008
- LECG report Review of BAA's revenue and cost allocation process, December 2006

NERL regulatory and statutory accounts

- NATS Consolidated Group accounts for the year ended 31 March 2008
- NATS Consolidated Group accounts for the year ended 31 March 2009
- NATS Holdings Limited, Annual Report and Accounts 2008
- NATS (En route) Plc regulatory accounting guidelines
- NERL financial statements for the year ended 31 March 2008
- NERL financial statements for the year ended 31 March 2009
- NATS (Services) Limited Financial Statements for the year ended 31 March 2008
- NATS (En route) plc regulatory accounts 2004/05 to 2008/09

Management accounting information

- Management Accounts by Service line Plan (8.1).xls

- 17-1 Management Accounts by Service line 0809 final.xls
- Management Accounts by Service line 07/08 (1 2).xls
- Management Accounts by Service line 06/07 (1 2).xls
- Management Accounts by Service line 05/06 (1 2).xls
- Management Accounts by Service line 04/05 (1 2).xls

Intercompany charges information

- MSA NATS to NERL_NSL sign-off 080709.xls
- 17-5 MSA NERL to NSL sign-off 080709 inc allocations.xls
- 17-4 Inter_Company_Agreement_Register_Final_200809 (1.3c).xls
- Inter_Company NSL charges to NERL BPlan.xls
- NATS MSA charges Plan to end CP3 (6.1).xls
- 100133_20081202155448.pdf
- 100102_20081202154928.pdf
- 300008_- [REDACTED].pdf

Minutes from meetings and responses to queries

- Questions following 090611.xls
- Questions 090625.xls
- Questions 090611 with LECG response.xls
- 13 Questions 090611 with LECG response.xls
- Omissions 090609 Point 4.xls
- Minutes of meeting 110609.doc
- Minutes of meeting 040609 annotated.doc
- Questions following 090611 with LECG response.xls
- 09 07 10 Information request tracker v1.xls

Driver allocation

- B0A31.xls
- BOA32.xls
- B0A96 v2.xls
- BIS01.xls
- B0A87.xls
- BIN02.xls
- B0A33.pdf

- BIN07.xls
- BWS working papers.xls
- Service lines by activity 090429 revised 090603 (2).xls

Third party reports concerning EPMU

- Royal Mail's revised Proposals for Size Based Pricing ("Pricing in Proportion), April 2005.
- Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service.
- Report on Transco's operating costs for the 2002/03 to 2006/07 Price Control Period, Final Report, Andersen, 7 September 2001.
- Equi-proportional mark-ups: regulatory precedents, Oxera, 1 July 2005.

Various other

- 'Air traffic services licence for NATS (En route) Plc'
- Income Map (2).xls
- NP040118 Service _ Product Line Allocation.pdf
- IAS23 Impact v3.xls
- NMS: NATS-Wide, Service/Product Line Apportionment, April 2009
- Level 4 Capex (7.2).xls
- <http://www.hm-treasury.gov.uk/d/200905forecomp.pdf>
- NP040118 Service _ Product Line Allocation.pdf
- Turnover comparison (7.4).xls
- 09 07 31 NERL Detailed Comments on LECG Cost Allocation Draft.doc
- 09 08 12 Further NERL Detailed Comments on LECG Cost Allocation SECOND Draft (2).doc

Appendix 2

Overview of MSA services

2.1 Services provided under MSAs by NATS Limited in 2008/09 are described in more detail in the following table.

Table A2.1: Services provided by NATS Ltd under MSAs

Support function	Activities performed by function
Safety assurance and improvement (group wide)	Administration and management of safety teams; Managing Safety Regulation Group Relationship for NATS; Provide safety assurance, improvement, strategy development, investigation, analysis and support; Safety management development; External and internal safety activity; Training course delivery; Local projects; and Divisional management.
Health & Safety (group wide)	Managing health and safety; Audit & Inspection to agreed schedule; 3rd Party independent inspections of air and water samples; Fire Management Plans; Statutory inspections of lifting equipment; and Accident Reportline services.
The board function	Co-ordination and review of Board papers and minutes; Timely and accurate distribution of committee and Board papers and minutes; Arrangement of AGM with all applicable paperwork in place including advance notifications; Internal audit; and Managing corporate direction and strategy.
Facilities management	Rent, Rates and Service Charges; and Total Facilities Management Service (cleaning, fabric maintenance etc).
Finance	Monthly management accounts (excludes management accounting for NSL); Support to business planning; Investment decisions; Financial modelling; Financial accounting; Financial consultancy; Tax advice; and Treasury and cash management;
Group-wide insurance	Obtain and maintain group-wide insurance cover.

Source: "MSA NATS to NERL sign-off 080709.xls"

2.2 Services provided under MSAs by NERL in 2008/09 include the following:

Table A2.2: Services provided by NERL under MSAs

Support function	Activities performed by function
Information Technology	Support and maintenance of non-operational IT desktop systems, networks, servers and non-operational software.
Human resources	Compensation and benefits; Personal development; Service operation and technology; Admin and management; Non ATCO resourcing and recruitment; ATC recruitment and selection; and Security.
Occupational health	Medical provision.
Managing corporate direction and strategy	NERL executive management: setting NERL strategy, objectives and targets; Monitoring of business performance and risks; and NATS Group strategy and direction.
Business Performance	Maintenance of enterprise-wide risk management process; Expert advice relating to risk management policy; Provision and maintenance of NATS risk management tool; Provision of monthly analysis of NSL risk environment; Provision of quality compliance; and Provision of NIBS business procedures.
Corporate communications	The NATS communication team – internal and external communications.
Finance	Accounts; Employee payments; and Cashiers.
Facilities management	Administration and management of Osborne House – rent, rates and service charges; and Total facilities management.

Source: "17-5 MSA NERL to NSL sign-off 080709.xls"

Appendix 3

Activity codes for which a more appropriate allocation driver exists

Activity code	Activity description	2008/09 Cost amount (£m)	NERL driver	LECG recommended driver	Rationale of LECG recommendation
B0128/LA/W5/S16	Delivery of operational Eurocontrol watch "5" at Swanwick. Largely people costs.	■	Workstations Civil Consol LACC (BWS01)	100% Eurocontrol (B0100)	Watch '5' provides purely area civil control support and no support to other NERL service lines; therefore, costs should be 100% Eurocontrol.
B0128/LA/W2/S16	Delivery of operational watch "2" at Swanwick. Largely people costs.	■	Workstations Civil Consol LACC (BWS01)	100% Eurocontrol (B0100)	Watch '2' provides purely area civil control support and no support to other NERL service lines; therefore, costs should be 100% Eurocontrol.
B0109/XX/MG/I51	Charges from NATS. Some I/Co charges from NSL – notably Aeronautical Information Service (AIS).	■	Turnover – NERL total external (BIN02)	EPMU – All NERL Service Lines	Turnover based drivers are inappropriate (see Section 4). FTE allocation would not be appropriate within NERL, therefore EPMU would be a reasonable alternative driver.
B0033/XX/XX/R42/7340	Staff relocation costs from West Drayton to Swanwick following West Drayton closure.	■	NERL turnover (overhead) (B0A87)	Workstations consol Swanwick site (BWS02)	As West Drayton was historically the London Air Traffic Control centre, London Approach should take a share of these costs.

B0040/CT/BG/B10	Facilities management costs for the CTC building.	■	Workstations NATS-wide site (B0A31)	EPMU – All NERL Service Lines except NERL services to NSL	As this building provides services to the whole of NERL, some costs should also be allocated to North Sea Helis. As workstation based drivers do not allocate to NSH, EPMU would provide the most reasonable alternative driver.
B0295/XX/XX/A16	Engineering support to infrastructure assets.	■	Workstations NATS-wide (B0A31)	EPMU – All NERL Service Lines	This engineering support relates to maintenance work on comms, navigational and surveillance equipment across the country. A portion should be charged to NSH for radars on the east coast which provide data for the service. Workstation based drivers do not allocate costs to NSH, therefore EPMU should be used.
B0142/XX/XX/R32	Regulatory affairs	■	Turnover – NERL Excl NSL and NS Helis (BIN07)	EPMU – All NERL Service Lines except NERL services to NSL	A share should be allocated to NSH as it is regulated. As NSL is not regulated, EPMU excluding NERL services to NSL should be used.
B0040/CT/BG/B12	Provide facilities management – NATS.	■	Turnover – NERL Excl NSL and NS Helis (BIN07)	EPMU – All NERL Service Lines except NERL services to NSL	CTC building, services all of NERL. BIN07 does not allocate costs to NSH, and therefore it should receive a portion of the cost.
B0004/CT/B1/A13	Depreciation of CTC building fittings and fixtures.	■	Turnover – Eurocontrol, MoD, Oceanic (BIN01)	EPMU – All NERL Service Lines except NERL services to NSL	Again, this relates to the CTC building and costs should be apportioned to NSH as well. BIN01 does not allocate to NSH.
B0109/XX/MG/F41	Financial management.	■	Turnover – Eurocontrol, MoD, Oceanic (BIN01)	EPMU – All NERL Service Lines	This relates to allocation of finance overhead time between service lines. BIN01 is a turnover based driver and some costs should be allocated to London Approach, NSH and NERL services to NSL. We consider EPMU to be the most appropriate alternative driver.
B0033/XX/XX/R42/7330	West Drayton to CTC Group moves.	■	NERL turnover (overhead) (B0A87)	Workstations consol Swanwick site (BWS02)	West Drayton was historically the London Air Traffic Control centre, London Approach should take a share of these costs.

B0033/XX/XX/H10/2	Pensions – mainly external costs relating to the provision of external advice for the pension review.	█	Turnover – NERL Excl NSL and NS Helis (BIN07)	EPMU – All NERL Service Lines	As this cost is Group-wide a driver should be used that also allocates to NSH and NERL services to NSL.
B0109/XX/MG/R40	Relocation costs relating to general moves e.g. career development.	█	Turnover – NERL Excl NSL and NS Helis (BIN07)	EPMU – All NERL Service Lines	As this cost is Group-wide a driver should be used that also allocates to NSH and NERL services to NSL.
B0004/CT/T2/A13	Depreciation of non-operational IT software (e.g. SAP).	█	Workstations NATS-wide site (B0A31)	EPMU – All NERL Service Lines	SAP systems are also used in NSH and other external services. B0A31 does not allocate to these.
B0004/LT/NS/A13	Depreciation of operational computer systems (NAS).	█	100% Eurocontrol (B0100)	Workstations Non-Oceanic NATS-wide (B0A96)	The operational computer system is used by Eurocontrol, London Approach, MoD and NERL services to NSL. A 100% Eurocontrol driver is inappropriate and one that allocates to all these services should be used.
B0004/LA/S2/A13	Depreciation of operational computer systems at Swanwick.	█	Workstations LACC/LJAO (B0A33)	EPMU – All NERL Service Lines except NERL services to NSL and Oceanic	Current driver only allocates to Eurocontrol and MoD. Allocation should also include London Approach and NSH as these use these systems.
B0004/LA/VC/A13	Depreciation of voice comms (VCCS) at Swanwick.	█	Workstations Swanwick site (B0A32)	EPMU – All NERL Service Lines except NERL services to NSL and Oceanic	Current driver only allocates to Eurocontrol and MoD. Allocation should also include London Approach and NSH as these use this equipment.

Source: "Questions 090604 with LECG response v2 NERL RESPONSE & LECG response.xls."

Appendix 4 Activity codes for which a more appropriate allocation driver exists

Activity code	Activity description ²⁰⁹	2009/10 Cost Amount (£m)	Driver used in 2008/09	Amended driver used in projections	LECG recommended driver to be used in projections	Rationale of LECG recommendation
B0004/CT/S1/A13	Depreciation of engineering assets - primarily training system for London Terminal control	■	Workstations Non-Oceanic NERL-wide	Workstations NERL-wide site	Workstations Non-Oceanic NERL-wide	There should be no charge to Oceanic for this service, therefore NERL-wide is inappropriate.
B0040/DC/BG/B12	Facilities management for the training college at Hurn	■	Operational ATCO FTE	Mgt Svces FM Hurn	Operational ATCO FTE	There should be a charge to Oceanic for this service.
B0004/XX/NS/A13	Depreciation of Engineering assets - primarily some National Airspace System NAS build + Code Callsign Distribution System CCDS	■	Workstations Civil LTCC	Workstations NERL-wide site	Workstations Civil LTCC	Oceanic and MoD do not use NAS, therefore the amended driver for projections to NERL-wide is incorrect.

²⁰⁹ See "13 Questions 090611 with LECG response.xls".

B0004/XX/N S/A35/A	Management and development of the National Airspace System NAS	■	Workstations Civil LTCC	Workstations NERL-wide site	Workstations Civil LTCC	As above, Oceanic and MoD do not use NAS, therefore the amended driver for projections to NERL-wide is incorrect.
L4322/IT/AT/ T21/AB	iFACTS (Interim Future Area Control Tools Support) development project	■	Workstations Civil Consol LACC	Fixed Asset Depreciation Driver	Workstations Civil Consol LACC	The 2008/09 driver used allocates some cost to the London Approach, therefore it is more appropriate.
B0004/CT/W O/A13	Depreciation of engineering equipment at Swanwick - primarily Electronic Switching System ESS + Workstations contingency	■	Workstations Civil Consol LACC	Workstations NERL-wide site	Workstations Civil Consol LACC	ESS/workstation contingency is used by all of NERL primary services. Planned amended driver is incorrect - these assets don't deliver any benefit to Oceanic
B0004/LH/S1 /A13	Depreciation of Lowther Hill radar	■	Prestwick Work Station - Non-Oceanic	Workstations NERL-wide site	Prestwick Work Station - Non-Oceanic	This radar is used solely by civil services provided at Prestwick. NERL-wide driver is therefore inappropriate.
B0004/LA/B3 /A13	Depreciation of the lighting control system - Area Control room @ Swanwick	■	Workstations Civil Consol LACC	Workstations NERL-wide site	Workstations Civil Consol LACC	NERL have stated that the 2008/09 driver is more accurate. ²¹⁰

Source: "Service lines by activity 090429 revised 090603 (2) [sent 120609].xls" and LECG analysis.

²¹⁰ See "13 Questions 090611 with LECG response.xls".