



House of Commons
Defence Committee

Defence Equipment 2008

Tenth Report of Session 2007–08

Report, together with formal minutes, oral and written evidence

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The Defence Committee

The Defence Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Ministry of Defence and its associated public bodies.

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Summary

Last April the Defence Procurement Agency and the Defence Logistics Organisation merged to form Defence Equipment and Support (DE&S). The aim of the merger was to create an integrated equipment and support organisation. At the time of the merger, DE&S had some 29,000 staff and a budget of £16 billion—43% of the defence budget.

The merger was a major undertaking made more challenging by the need to support operations in Iraq and Afghanistan and was achieved to the planned timetable. DE&S staff must be commended for the speed at which they have delivered urgently needed equipment into these two operational theatres.

While we agree that the merger should improve the through life management planning of equipment, it is too early to judge whether it and other elements of the Defence Acquisition Change Programme are delivering the expected benefits. The planned streamlining of DE&S, which will see the number of staff reduced by 27% by 2012, will need to be carefully managed to ensure that the best staff are retained and the services provided to our Armed Forces are not adversely affected.

It is vital that DE&S has a highly skilled workforce. We find it inexplicable that the number of DE&S staff is to be substantially reduced when staff are currently so busy that they have insufficient time to attend the training and upskilling courses they need.

The Defence Procurement Agency met all its Key Targets in 2005-06 and 2006-07. DE&S took over these targets for 2007-08, but does not expect to meet the Key Target relating to programme slippage. Seven of the largest equipment programmes which featured in the Major Projects Report 2007 have experienced in-service date slippage in 2007-08 totalling some 6.5 years. Once again, the MoD has failed to control slippage on key equipment programmes. We are concerned that the MoD only now acknowledges that it needs to include in the project management skills of its staff the ability to examine critically a contractor's programme schedule and consider whether it is credible.

We find it a matter of concern that the MoD considers that it has no control over time slippage on international equipment programmes. The MoD needs to identify why this is the case and what steps it can take to improve its control.

As at the end of March 2007, the Astute submarine, Type 45 destroyer and Nimrod MRA4 aircraft programmes were together forecast to cost some £2.9 billion more than the Approved Cost. The combined in-service date slippage for these three programmes was 166 months—almost 14 years.

The Nimrod MRA4 programme has experienced further cost growth of some £100 million in 2007-08, bringing the total forecast cost growth on this programme to £787 million or 28% of the Approved Cost. The programme has also experienced further slippage in 2007-08 which now totals 92 months, some 7.5 years. The new Minister for Defence Equipment and Support needs to look closely at this programme to assess whether it is ever likely to deliver the capability that our Armed Forces require within the timescale needed. If it does

not, the MoD should withdraw from this programme.

Last July, the Secretary of State for Defence announced that the MoD would be placing orders for two aircraft carriers to enter service in 2014 and 2016. The manufacture contract has still not been signed and the MoD could not tell us why. Further delays to signing the contract run the risk of slippage to the forecast in-service dates and cost increases.

We were disappointed to learn that Joint Strike Fighter (JSF) aircraft will not be available to operate from the first new aircraft carrier when it is due in service in 2014. The MoD plans to keep the Harrier GR9 aircraft in service until around 2018 and to operate these aircraft from the new carriers. The MoD originally planned to buy up to 150 JSF aircraft. We would expect the number of JSF aircraft to be determined by what the UK needs for its defence capability.

The Planning Round 2008, which the MoD is currently working on, is considered more challenging than the Planning Round 2007. All equipment programmes are being examined. Cuts or delays are expected to some of the major equipment programmes.

The MoD needs to take the difficult decisions which will lead to a realistic and affordable Equipment Programme. This may well mean cutting whole equipment programmes, rather than just delaying orders or making cuts to the number of platforms ordered across a range of equipment programmes. A realistic Equipment Programme will give confidence to our Armed Forces that the equipment programmes that remain will be delivered in the numbers and to the timescale required, and will also allow industry to make informed investment decisions.

1 Introduction

1. The Defence Committee has undertaken regular inquiries into defence equipment procurement and the performance of the Defence Procurement Agency (DPA). In June 2006, the MoD announced that the DPA and the Defence Logistics Organisation (DLO) were to merge on 2 April 2007 to create a new integrated procurement and support organisation called Defence Equipment and Support (DE&S). In our *Defence Procurement 2006* report, published on 8 December 2006, we examined the performance of the DPA, the progress of a selection of equipment programmes, and how the planned merger was progressing.¹

2. The merger of the DPA and the DLO took place on 2 April 2007 and, at this date, DE&S had some 29,000 staff and a budget of some £16 billion—43% of the defence budget.² General Sir Kevin O'Donoghue, Chief of Defence Logistics,³ was appointed as the first Chief of Defence Materiel (CDM), the head of DE&S. In this inquiry, we examined the first year of DE&S operation, current and future issues facing DE&S, and the progress on a selection of key equipment programmes.

3. We held an oral evidence session on 29 January 2008 with General Sir Kevin O'Donoghue, David Gould, Chief Operating Officer, and Lieutenant General Dick Applegate, Chief of Materiel (Land). We received written evidence from the MoD, the Council for National Parks, the Society of British Aerospace Companies (SBAC), and Prospect Bicester Area. We are grateful to all those who contributed to our inquiry including our specialist advisers.

1 Defence Committee, First Report of Session 2006-07, *Defence Procurement 2006*, HC 56

2 *DE&S in brief*, April 2007

3 Head of the Defence Logistics Organisation

2 The first year of DE&S operation

Background to the merger

4. The Defence Industrial Strategy⁴ (DIS), published in December 2005 acknowledged that changes were required to improve the MoD's acquisition performance. During our inquiry into the MoD Annual Report and Accounts 2004-05, MoD's Permanent Secretary, Bill Jeffrey⁵, told the Committee that "there is a project which I instituted myself shortly after I arrived in which we will be looking hard at the way in which the procurement function operates, how it is structured, how the processes work, and looking at ways in which we can generally make it work better".⁶

5. The report of the review commissioned by the Permanent Secretary was published in June 2006—"Enabling Acquisition Change: An examination of the Ministry of Defence's ability to undertake Through Life Capability Management"—usually referred to as the Enabling Acquisition Change (EAC) report. The review examined "how the MoD's current structures, organisation, processes, cultures and behaviours support, encourage, hinder or obstruct its ability to deliver Through Life Capability Management (TLCM)".⁷ The report defined TLCM as:

An approach to the acquisition and in-service management of military capability in which every aspect of new and existing military capability is planned and managed coherently across all Defence Lines of Development⁸ from cradle to grave.⁹

6. The EAC report made several important recommendations, one of which was that the Defence Procurement Agency (DPA) and the Defence Logistics Organisation (DLO) should be merged to create Defence Equipment and Support (DE&S), an integrated equipment and support organisation.

Defence Committee's examination of the progress of the merger

7. We examined the progress of the merger of the DPA and DLO—to form DE&S—in our Defence Procurement 2006 inquiry. The Chief of Defence Procurement, head of the DPA, told us that the merger was being managed as a project with four phases:

- Phase 1 was to define what the organisation would look like and set out in broad principles how it would operate. It was completed at the end of September 2006 on time.

4 Ministry of Defence, *Defence Industrial Strategy*, Cm 6697

5 In the 2008 New Years Honours, Mr Jeffrey was appointed Knight Commander of the Order of the Bath (KCB)

6 Defence Committee, Sixth Report of Session 2005-06, *Ministry of Defence Annual Report and Accounts 2004-05*, HC 822, Q 31

7 Enabling Acquisition Change report, para 2.1

8 The Lines of Development are Concepts & Doctrine, Equipment, Force Structure, Manpower, Training, and Sustainability (including Infrastructure).

9 Enabling Acquisition Change report, para 2.2

- Phase 2 had begun and included defining in outline what "two star board members" would be expected to deliver and the changes needed in their areas to deliver the targets set. The completion date for this Phase was the end of December 2006.
- Phase 3 was to commence after Phase 2 had been completed. Phase 3 was the next level of detailed work of engaging with the workforce in a much more detailed way to explain what it meant for them. The completion date for this Phase was 1 April 2007. The new organisation was to vest on 2 April 2007.
- Phase 4 was the first year of operation of the new organisation. During this first year "there will then be the first of the post-project evaluations to take a look to see to what extent the organisation is going to be delivering what is needed and then to be prepared to make any further adjustments at the end of the first year".¹⁰

8. In our *Defence Procurement 2006*¹¹ report, published in December 2006, we examined a range of issues relating to the merger including: how the merger was being managed; measuring the performance of the new organisation; training of staff; staff reductions and collocation; efficiency savings; and status and scrutiny of the new organisation. The Government Response¹² to our report was published in February 2006.

9. We also examined the progress of the merger in our *The Defence Industrial Strategy: update*¹³ report, published in February 2007. We focused in particular on the issue of the training of staff in the new organisation. The Government Response¹⁴ to this report was published in April 2007.

Progress made since the merger

Overall assessment of progress

10. In its memorandum to this inquiry the MoD provided an overview of the progress made since we last reported on the merger. The DPA and DLO merged on 2 April 2007, concluding Phase 3 of the project. The memorandum states that DE&S continues to deliver its core outputs, with support to current and future operations remaining its highest priority. The memorandum states that:

Post-launch, DE&S has remained on the 'front foot', driving its key business priorities hard.... Establishing DE&S as a 'fit for purpose' organisation at its launch was a major milestone, but we are now focusing on optimisation (Phase 4) to ensure it is properly sized and shaped.¹⁵

10 HC (2006–07) 56, para 23

11 HC (2006–07) 56

12 HC (2006–07) 318

13 Defence Committee, Sixth Report of Session 2006–07, *The Defence Industrial Strategy: update*, HC 177

14 Defence Committee, Eighth Special Report of Session 2006–07, *The Defence Industrial Strategy: update: Government Response to the Committee's Sixth Report of Session 2006–07*, HC 481

15 Ev 27

11. In its memorandum to this inquiry, the Society of British Aerospace Companies (SBAC) provided an overview of the progress of the merger:

Merging the DPA and DLO was intended to eliminate barriers between provision of equipment and in-service support, while creating greater consistency in the interface with industry. While it is too early to assess whether these objectives have been realised, the task of bringing the two sizeable organisations together was effectively handled by MoD. Although industry was apprehensive about the magnitude of internal reorganisation required, the merger did not appear to distract MoD officials from ongoing business.¹⁶

12. The Chief of Defence Materiel (CDM) considered that progress since the merger had been “remarkably good”. He said “bits of the structure are coming together quicker than others”, as the elements already at Abbey Wood, Bristol, could come together more quickly than those elements coming from Andover. The through life capability planning process was coming together and was beginning to be adopted throughout the department. There had been good progress in terms of upskilling staffing and pulling together the working practices of the two organisations. CDM noted that the DPA and the DLO were two different organisations which were “steadily coming together”.¹⁷

13. We asked where progress had not been as good as CDM would have liked. He said that he thought the new organisation should have been further ahead with through life management planning. The other area was the upskilling of staff where, because they had been extremely busy, it had not been possible to release staff for training and upskilling to the extent that he would have wished.¹⁸ CDM told us that, because DE&S staff were supporting two major operations, this had “brought us together quicker than it might otherwise have done”.¹⁹

14. The merger of the Defence Procurement Agency and the Defence Logistics Organisation was a major undertaking made more challenging by the need to support two major operations. We commend the Chief of Defence Materiel and his staff for ensuring that the merger was achieved to the timetable set and for the progress achieved in the first year of operation of the Defence Equipment and Support organisation.

Defence Acquisition Change Programme

15. The Defence Acquisition Change Programme (DACP) is a single coherent acquisition reform programme. Established in the summer of 2006, it has been initiated to deliver structural, organisation, process, culture and behavioural change to facilitate good Through Life Capability Management, identified in the DIS and the recommendations from the EAC report. The Defence Acquisition Change Programme has ten workstreams which are set out in Table 1.

16 Ev 25

17 Q 2

18 Q 3

19 Q 2

Table 1: The ten workstreams underpinning the Defence Acquisition Change Programme

<p>1. Acquisition Operating Framework (AOF)—development of structured guidance and instruction of the “what” and the “why” of acquisition doctrine.</p> <p>2. Approvals & Scrutiny—more focused scrutiny of major projects and understanding the true costs of buying and supporting equipment.</p> <p>3. Governance—strengthening governance within acquisition.</p> <p>4. An Integrated Procurement and Support Organisation—merging the DPA and DLO to form a single organisation (Defence Equipment and Support—DE&S) with a mission “to equip and support our Armed Forces for operations now and in the future”.</p> <p>5. People, Skills and Behaviour—finding new and better ways of developing the right people, equipped with the right skills, to key posts at the right time.</p> <p>6. Planning Process—alignment of the different planning horizons of the Equipment Plan and Short Term Plan by introducing a 10 year view of defence costs. Enabling the Sponsor (Equipment Capability Customer) and Front Line Commands TLBs (User) to programme support costs.</p> <p>7. Relations with Industry—improving our commercial skills and developing the way we work together with industry.</p> <p>8. Research & Development—bringing the full benefit of science, innovation and technology to bear as a integral part of Acquisition.</p> <p>9. Targets and Performance Management—the creation of a set of metrics by which we can judge performance of through life acquisition.</p> <p>10. Through Life Capability Management—how we generate the Equipment and Support investment plan based on decisions that consider all Lines of Development, Defence Strategic Guidance and the capacity and capability of Industry. Unity of purpose in acquisition.²⁰</p>

Source: MoD

16. We asked what progress had been made in implementing the DACP. CDM considered that it was “moving along quite well”. He emphasised that the merger of the DPA and the DLO was “a big part” of the DACP, but that the other strands were also important and if not implemented would limit the effectiveness of DE&S. CDM considered that one of the most important strands was:

the budgetary planning process and the whole business of having a 10-year budget with equipment and support for that equipment not yet in service held by the equipment capability community and, as for equipment that is in service, for the first four years to be held by the front line command.

CDM said that this change had put the money where the priorities and decisions needed to be made. CDM did not own the support budget any more “except that I am given money in year and told by the front line commands where their priorities are”.²¹

20 ‘Frequently asked questions about the Defence Acquisition Change Programme’ (from the MoD website)

21 Q 39

17. We asked if there were any issues delaying the DACP. CDM said that one of the strands was to produce an affordable and balanced budget “and that will be a challenge”.²²

18. One of the workstreams covers Targets and Performance Management, and “the creation of a set of metrics by which we can judge performance of through life acquisition”. CDM said that the metrics needed to be in place in April 2008. However, the setting of the metrics was a challenge as the aim of the new metrics was to measure through life capability. The metrics were being trialled to see if it was possible to “develop something that is meaningful in the way of a through life capability measure”.²³ We return to the issue of measuring and reporting performance later in our report (paragraphs 99–106).

19. One of the benefits expected to be delivered from the DACP is “capability delivered more quickly”.²⁴ CDM said that Lord Drayson, the former Minister for Defence Equipment and Support, had set a challenge for the MoD to reduce the acquisition time, particularly the Demonstration and Manufacture phase, by 50%. CDM had resisted a cut in the earlier Assessment phase because for very complex highly technical projects “you need a longer Assessment phase....to de-risk before you move to Demonstration and Manufacture”. He said that they were looking at ways to reduce the Demonstration and Manufacture phase by 50% and part of that was much quicker decision making within the MoD.²⁵ We sought an example of a project where the MoD was seeking to reduce the acquisition time. David Gould, DE&S Chief Operating Officer, said that on the FRES programme:

rather than seek to develop an entirely new vehicle from scratch we are taking existing designs and finding out how much further development needs to be done, so the amount of work that needs to be done at the D&M phase is the minimum necessary to get to the initial upgrading capability, not the complete redevelopment of an entirely new design. That is one way of cutting into the time taken up.²⁶

We examine the progress on the FRES programme later in our report (paragraphs 137–147).

20. We note that the MoD considers that reasonable progress has been made in implementing the Defence Acquisition Change Programme. A key benefit expected to be delivered from this programme is to deliver defence capability more quickly. The former Minister for Defence Equipment and Support set a challenge of reducing the acquisition time for defence equipment by 50%. In its response to our report, we expect the MoD to set out what specific action it is taking to meet this challenge, how it is measuring its performance in reducing acquisition time, and when it expects to be acquiring equipment in a timescale which meets the challenge. Similarly, we expect the MoD to provide us with details of the progress it has made in producing an affordable

22 Q 40

23 Q 42

24 ‘Frequently asked questions about the Defence Acquisition Change Programme’ (from the MoD website)

25 Q 43

26 Q 44

and balanced budget and in creating a set of metrics by which through life acquisition performance can be judged.

Through Life Capability Management

21. The National Audit Office (NAO) report *Ministry of Defence: Through-Life Management* states that:

Historically, the functions of requirement definition, procurement management and through-life support have been organisationally separated.... which makes it difficult to get the right balance between risk, cost, performance and through-life support. [MoD's Strategic Defence Review 1998]

The Strategic Defence Review launched what have become known as the Smart Acquisition reforms, aimed at faster, cheaper and better acquisition and support of equipment. At the heart of Smart Acquisition is a change to integrated management of the delivery of all aspects of capability, from identification of the need for the capability to its disposal. This approach is known as Through-Life Management.²⁷

22. In its memorandum to this inquiry the MoD provides the following information on Through Life Capability Management:

We have introduced Through Life Capability Management, which considers a much wider range of options for meeting new capability needs, examining both new and in-service equipment solutions, exploring opportunities and implications across all Defence Lines of Development, while considering capability delivery on a much longer term programme basis. Success in finding the best capability solution demands a greater unity of purpose and collective responsibility from all involved, often beyond their specific areas of financial or programme responsibility. This activity is led by the Sponsor (the Equipment Capability Customer) through an improved capability planning process. A new Capability Management Group and Capability Planning Group regime is in operation, using consistent processes and structures. Each group brings together key MoD stakeholders. Through Life Capability Management was established in April 2007 and has been embedded throughout the year.²⁸

23. The DE&S Business Strategy, April 2007, states that:

The DE&S priority within SO3 [Strategic Objective 3] will be Through Life Management. Through Life Management Plans [TLMPs] at programme and project level will lie at the heart of managing our business, implementing the vision of the Defence Industrial Strategy [DIS] and transforming our relationship with industry.... During 2007/08 we will develop improved through life costings using simple models, to support through life decisions.²⁹

27 National Audit Office, Ministry of Defence, *Through-Life Management*, HC 698, Session 2002-03, p 1

28 Ev 31

29 DE&S Business Strategy, April 2007, para 3.9

TLMPs will specifically define the acquisition strategy for the initial purchase, contractual support arrangements, and the mechanisms for delivering technology insertion as and when required.³⁰

24. We asked CDM what benefits were expected from Through Life Capability Management. He explained that TLCM brought together all the lines of development: doctrine, manpower and training, not just equipment and equipment support. In the past the MoD had:

bought things, supported them when they have come into service, thought about the manpower needed, the doctrine, and the infrastructure to house whatever it is in a not very coherent way.... by and large it had not been done very coherently. Through life capability planning and management will bring all that together in a plan owned by DCDS(EC)³¹ and directors of equipment capability and managed by the IPT [Integrated Project Team].³²

25. Mr Gould said that “if we also look at training, doctrine use and so forth we shall also make sure that we get the benefit out of the equipment in military terms more quickly”.³³ CDM considered that TLCM should not lead to the MoD wasting money “by buying something that is too big for the garages or we do not have soldiers trained for it”. He emphasised that it was a “matter of coherence”.³⁴ A lack of coherence on the Apache attack helicopter acquisition resulted in the helicopters being stored in hangars as there were no trained pilots. We asked if this scenario could happen again. Lieutenant General Applegate, Chief of Materiel (Land), considered that the chances of it happening again were greatly reduced. CDM said that it “should not happen by default”.³⁵

26. Mr Gould considered that another key benefit of Through Life Capability Management and Through Life Management Plans was the ability to invest upfront in equipment that will be cheaper and easier to maintain and “subsequently to modify and improve throughout its life”. He said that if there was not a through life approach “you do not have a mechanism for doing that trade which says you should invest early for long-term benefits”.³⁶ Lieutenant General Applegate added that from a user’s perspective, “we cannot have confidence that we will be able to grow [the equipment] incrementally if there is no plan in place”.³⁷

27. We note that Through Life Capability Management should lead to the MoD getting the benefit from defence equipment more quickly by focusing attention on issues such as doctrine and training rather than just equipment and equipment support. We

30 DE&S Business Strategy, April 2007, para 3.10

31 Deputy Chief of Staff (Equipment Capability)

32 Q 61

33 Q 62

34 Q 62

35 Q 63

36 Q 62

37 Q 62

welcome the MoD's assurance that this approach should greatly reduce the chances of the sort of problems seen on the Apache helicopter programme.

28. The DPA and the DLO had tried to implement through life management planning of equipment and its support through life. However, with an Integrated Project Team (IPT) dealing with equipment acquisition in Abbey Wood, Bristol, and a support IPT in another part of the country, this had been a challenge. CDM told us that the merger and “sorting out the budgets” was enabling through life management planning to become embedded.³⁸ He considered that all programmes needed a Through Life Management Plan, but the level of detail in the plan would vary. A complex programme, such as the Future Carrier, would need a more detailed plan than a small project.³⁹

29. We asked what industry's role was in running through life management programmes. CDM did not see industry running the MoD's through life management programmes, as he saw them being done jointly. He told us that once a preferred bidder had been selected for a programme the project teams of the DE&S and the preferred bidder should be co-located and, once the contract was signed, the teams should be merged. The Through Life Management Plan would then be held jointly.⁴⁰

30. We note that the MoD considers that the merger of the Defence Procurement Agency and the Defence Logistics Organisation should improve through life management planning and ensure that it becomes embedded in the new organisation. We agree. In its response to our report, we expect the MoD to set out what proportion of its equipment programmes currently have through life management plans of an acceptable standard and when it expects such plans to be in place for all its programmes.

DE&S staff skills

31. In our report *The Defence Industrial Strategy: update* we concluded that:

Improving the skills of MoD staff, particularly commercial and technical skills, will be crucial to ensuring that the expected benefits from the DIS are delivered. The MoD is seeking to address skills gaps through training or external recruitment. The appointment of the first MoD Commercial Director is welcome, but he must be given the resources needed to develop the commercial skills of MoD staff.⁴¹

The Government Response to that report states that “a comprehensive programme to enhance commercial skills through training and promote increased professionalism is being implemented. Resources to deliver this are being identified”.⁴²

32. Strategic Objective 2 in the DE&S Business Strategy, April 2007, covers staff skills:

38 Q 64

39 Q 68

40 Q 69

41 HC (2006–07) 177, para 56

42 HC (2006–07) 481, para 15

Develop and sustain a highly professional workforce characterised by strong leadership and a commitment to performance management and personal development in support of business needs”.⁴³

The Business Strategy provides further details on Strategic Objective 2:

Within SO2 [Strategic Objective 2] we will prioritise development of People, Leadership and Performance Management. DE&S will undergo major change through collocation and will deliver the manpower reduction previously planned for the DPA and DLO. We will manage skills and experience in order to provide improved output with a smaller organisation. We place high priority on achieving a better trained and qualified workforce, with the highest standards of professionalism and diversity, through outstanding performance-centred leadership and focused workforce planning.⁴⁴

We will pursue a programme with specific targets to close gaps in five key skill families—finance, commercial, project management, logistics and engineering.⁴⁵

33. In its memorandum to this inquiry the MoD provided details of the activities to “upskill” DE&S staff. DE&S staff have a target of completing a minimum of six training days in financial year 2007-08. A further target of four training days has been set for staff in the key acquisition disciplines of: Commercial; Finance; Programme and Project Management; Engineering; and Logistics. The memorandum states that while the majority of training will be completed by making better use of existing training opportunities, a dedicated upskilling project budget has been established:

to fund additional specific strategic interventions in the 5 key skill areas. In-year, £6.6 million has been allocated for this requirement. This funding complements the additional investment of some £5.5 million that is being made through the DACP upskilling programme on the development of new training and education for staff across the acquisition community. This gives a total investment of just over £12 million in acquisition skills development.⁴⁶

While the £12 million investment in acquisition skills development is to be welcomed, it is less than £500 for each member of DE&S staff.

34. During our inquiry into the Ministry of Defence Annual Report and Accounts 2006-07, the MoD Permanent Secretary, Bill Jeffrey, told us that DE&S was becoming more capable and that he was optimistic that the MoD would carry on improving in this area. However, he acknowledged that “it turns a great deal on the issue... of skills. We have some very highly skilled staff involved in this but we need to make sure that they are all at that level. It is certainly something we are giving attention to”.⁴⁷

43 DE&S Business Strategy, April 2007, p 3

44 Ibid, para 3.6

45 Ibid, para 3.7

46 Ev 27-28

47 Defence Committee, Fifth Report of Session 2007-08, *Ministry of Defence Annual Report and Accounts 2006-07*, HC 61, Q 100

35. We asked CDM if the skills audit had been completed and whether any gaps had been identified. He said that the skills audit had not been completed, although they were a long way towards completing it. The audit of financial and commercial skills had been completed and the number of posts needed to be filled with “professional people” and the level those staff need to be at was known and DE&S was “upskilling those people”. The target of 50% of DE&S finance staff being qualified accountants would be achieved by the end of 2007-08.⁴⁸

36. For Project Management posts, DE&S would not achieve 50% of posts filled by staff with Project Management licences. As at December 2007, 246 Project Management licences had been issued against a target of 325 by 31 March 2008.⁴⁹ CDM thought that by the end of 2007-08, DE&S should have about “320 qualified people”. He said that before DE&S was formed the MoD was not training people specifically in project management. Prior to the merger the DPA and DLO boards agreed that a project management programme should be put in place.⁵⁰ Mr Gould acknowledged that training and upskilling of staff involved in project management were important. However, he said that:

You can teach people the techniques of project management; you can send them off on courses.... but the fully-fledged manager comes only with a lot of domain experience and scars.⁵¹

37. The area where less progress had been made was inventory management and logistics where CDM said “we have barely started”. Courses had been set up at the Defence Academy in Shrivenham and the first courses had been run. He acknowledged that “people are enthusiastic about them, but we shall not have the skills up to the level needed”.⁵² CDM assured us that he had ring-fenced the money for these courses.⁵³

38. Engineering skills remained an issue, as engineers were in short supply and it took a long time to train a chartered engineer, but DE&S was seeking to make progress in this area. In addition to the five key skill areas DE&S was also seeking to increase skills in three other areas: Integrated Logistics Support; Human Resources and Sustainable Development. DE&S was to start upskilling staff who worked in these areas.⁵⁴

39. CDM told us that while they had made “huge inroads into upskilling” it had not been possible to release staff for training and upskilling to the extent he had wished because they had been very busy.⁵⁵ He said that he had ring-fenced funding for upskilling.⁵⁶

40. Many of the skills which DE&S require are very marketable. We asked if DE&S had a reward structure that was flexible enough to retain staff with the right skills and

48 Q 32

49 Ev 28

50 Q 33

51 Q 227

52 Q 33

53 Q 38

54 Q 33

55 Q 3

56 Q 5

professional qualifications. CDM told us that it did not. The Personnel Director in DE&S was examining this issue, but it was not something that CDM could address within DE&S as it was “either department-wide or perhaps civil service-wide”.⁵⁷

41. DE&S expects to spend £110 million on consultancy support in 2007-08 to fill posts where it does not currently have the required skills in house.⁵⁸

42. **It is crucial that DE&S has a highly skilled workforce, particularly in areas such as engineering, project management, logistics, finance and commerce. DE&S appears to have made some progress in upskilling staff in a number of these areas. However, its skills audit needs to be completed as soon as possible. We note that training and upskilling had not progressed as quickly as hoped because staff had been too busy to be released. We believe that it is probably the intention within DE&S that, once the current tempo of operations and the need to support them reduces, staff should be given adequate time to undertake the required training and upskilling. We are not satisfied that so important a programme can wait for such an eventuality. We consider that it is inexplicable for the MoD both to be reducing the numbers of staff and to be telling those that remain that there is no time to train them. Every week that passes without staff adequately skilled and equipped to do their vital jobs has the potential of damaging the work that they do and the projects they are running. We call on the MoD in its response to this report to set out what urgent actions it will put in train to overcome the constraints on training and upskilling caused by the high operational tempo. While we note that the Chief of Defence Materiel has ringfenced funding for training and upskilling, this is of little value if staff have insufficient time to take advantage of it.**

43. **The upskilling and training of DE&S staff in specialist skills, such as project management, will be crucial to the future effectiveness of DE&S. However, it will be some time before these staff will have the broad experience that can only be gained from using their training on a range of programmes. DE&S needs to identify the key posts where good experience in the various specialist skills is required now, and develop a strategy for drawing in such experienced staff from outside DE&S.**

44. **We were unable to visit DE&S at Abbey Wood, Bristol. We remain concerned about the skills mix made available to DE&S. We will want to explore further the whole question of skills generation and development in DE&S in a future report.**

45. **It is vitally important that DE&S can recruit and retain staff with the skills that match those in industry. To do so, DE&S has to have a reward structure that makes it an attractive employer to professionals in areas such as project management and systems engineering. In its response to our report, we expect the MoD to set out the progress it is making to introduce a more flexible reward structure and the barriers that are hindering its efforts to do so.**

57 Q 34

58 Ev 40

Supporting operations and recuperation

46. The DE&S Business Strategy, April 2007, states that:

Support to current and future operations will remain our highest priority. This includes all aspects of support, from delivery of logistics and Urgent Operational Requirements to current operations through to the management of investment projects supporting future activity.⁵⁹

47. Up until December 2007, 796 Urgent Operational Requirements (UORs) had been approved to a value of £2.4 billion. A total of 219 UORs were approved in 2006-07 (124 for Afghanistan and 95 for Iraq) at a value of £793 million.⁶⁰ We have examined the MoD's performance in delivering UORs in several of our inquiries. In our *Defence Procurement 2006* we concluded that:

The Defence Procurement Agency is to be congratulated for its performance, to date, in procuring Urgent Operational Requirements for UK Forces deployed on operations. We consider that there are some important lessons which can be learned from the procurement of Urgent Operational Requirements and applied to mainstream equipment procurement, and we expect the MoD to ensure that this is done.⁶¹

48. Supporting current operations was CDM's main concern because it "is our primary aim and that is where things will go wrong and, if they are to go wrong, they will have the greatest impact".⁶² We asked what the feedback had been from the military customer. CDM said that commanders in theatre were very supportive. The feedback from one senior Army officer was that he had never been in a theatre of operations where he had seen so much new and outstanding kit coming through.⁶³

49. The UOR process has generally been a success story. However, there have been many reports in the media claiming that our Armed Forces on operations had not always received what they had requested. Lieutenant General Applegate explained the process of articulating the requirement identified in theatre and getting this approved for UOR funding. Once this was done, the MoD had to go into the market to see what was available. He emphasised that the lead time for some of these requirements was significant.⁶⁴ He said that:

there is a time lag... even for things like heavy machine guns and general purpose machine guns which one might think would be common. For a heavy machine gun there is a six-month lag; for a general purpose machine gun there is a 12-month lag in the market place because it is not there.⁶⁵

59 DE&S Business Strategy, April 2007, para 2.2

60 Ev 31

61 HC (2006-07) 56, para 77

62 Qq 6-7

63 Q 9

64 Qq 209-210

65 Q 212

The MoD had received a lot of support from the US to bring the Mastiff vehicle in on an accelerated timescale.⁶⁶

50. The UOR process has delivered substantial amounts of vital equipment to our Armed Forces operating in Afghanistan and Iraq. We commend DE&S for the speed at which it is getting urgently needed equipment into theatre, the procurement of Mastiff vehicles being a good example of this.

51. We asked about the funding for supporting equipment procured as UORs. Lieutenant General Applegate said that:

At the moment the funding we have is enough to keep them for the period of a UOR; in other words, the UORs last for a year and you must make a decision then as to whether to bring them into the core programme, that is, find new money or get rid of them.⁶⁷

He told us that some of the UORs had been brought into the core programme and that “some of the decisions this year are about what else we should bring into the core programme”.⁶⁸ Mr Gould added that if UORs were brought back into the core programme, it came out of the Equipment Programme and was “separate from and additional to the £2.4 billion”.⁶⁹

52. Following our evidence session the MoD provided us with updated information on UORs. As at January 2008, the total cost of UORs approved for Afghanistan and Iraq was over £3 billion. The MoD explained that equipment procured through the UOR procedure was brought into the core defence programme, usually at the end of an operation, if it was “judged that there is an enduring requirement for the capability and that it is cost-effective to retain it”. To date, the MoD had brought into the core equipment programme 44 UORs which originally cost some £230 million. The MoD told us that:

Bringing a UOR into core does not cost anything or require money to be taken from other equipment programmes—the only impact on MoD budgets is the future support and disposal costs for the capabilities. To date, UOR approvals have had no impact on the forward programme of equipment.

The MoD said that there has been no reluctance to approve UORs and the Treasury continued to pay for 100% of “up front UOR costs”.⁷⁰

53. We examined support for operations in our *UK land operations in Iraq 2007* report. One of the concerns raised in our report was:

that equipment returning from operational theatres—whether it was procured through the routine acquisition process or as UORs—will require substantial

66 Q 212

67 Q 199

68 Q 200

69 Q 202

70 Ev 40

expenditure to repair, refurbish, support and store, and it appears that no provision has been made for this in the MoD's budget.⁷¹

54. The Government Response to this report states that:

In order to maintain equipment capability and avoid degeneration, we may repair and overhaul military vehicles used on operations more often than would routinely have been planned for in through-life costing assumptions. But the precise impact of activity on current operations and the subsequent costs of recuperation to a balanced force are complex issues, which depend on a range of factors. We have therefore initiated a substantial study to provide a detailed assessment of these issues, including the costs relating to operational usage, which will help to inform future equipment and financial planning.⁷²

55. We asked whether the recuperation of equipment would be funded as a cost of operation or whether it came out of the core budget. Lieutenant General Applegate said that:

Some of that funding does come out of contingency funding in order to maintain it. I am less sanguine about the cost of recuperation... in other words, at a time when we do not need that equipment on the operation, or the operation is closing down, or we are trying to reconstitute a reserve, is there sufficient money to prepare for a contingency task in five years' time? That is an issue which the department is looking at in this [Planning] round.⁷³

56. We note that the MoD has initiated a study to assess the impact of current operations on equipment, such as vehicles, and the subsequent costs of recuperation. We see the costs of recuperation as a cost of operation to be funded from the Reserve and not from the defence budget which is already under substantial pressure. In its response to our report, we expect the MoD to set out the terms of reference for this study and, once the study is completed, to provide us with a copy of it.

Performance against Key Targets

57. We examined defence procurement issues in our report *Ministry of Defence Annual Report and Accounts 2006-07* and we noted that:

the latest Annual Report and Accounts state that for the second year running the MoD “met or exceeded its Public Service Agreement targets for equipment procurement, despite them being more demanding than those for 2005–06”, and that the Defence Procurement Agency met all its Key Targets in 2006–07 for the second consecutive year. The Defence Procurement Agency and the Defence

71 Defence Committee, First Report of Session 2007-08, *UK land operations in Iraq 2007*, HC 110, para 72

72 Defence Committee, Second Special Report of Session 2007-08, *UK land operations in Iraq 2007: Government Response to the Committee's First Report of Session 2007-08*, HC 352, para 22

73 Q 213

Logistics Organisation merged on 1 April 2007 to form Defence Equipment and Support. We hope that the new organisation will maintain this momentum.⁷⁴

58. In the report we examined the MoD's assessment of its expected performance in 2007-08 against PSA Target 6—"to deliver the Equipment Programme to cost and time". The MoD's Autumn Performance Report 2007 assessed PSA Target 6 as "likely to be partly met".⁷⁵ In 2007-08, the Nimrod MRA4 aircraft programme was experiencing forecast cost increases and the Type 45 destroyer and A400M transport aircraft programmes had experienced further in-service date slippage.⁷⁶

59. At the evidence session for our Defence Equipment 2008 inquiry, we asked if DE&S would meet the former DPA Key Targets for 2007-08. CDM told us that:

We will meet the cost and performance targets but I do think we will meet the time target.⁷⁷

60. The major project showing cost growth in 2007-08 was Nimrod MRA4.⁷⁸ We examine the progress of this programme later in our report (paragraphs 124–130). Another major project where the MoD had some concern about cost growth was the BVRAAM⁷⁹ air-to-air missile. Mr Gould explained that:

The risks there are not so much technical—because the missile programme itself is going quite well—as production costs. We are signed up for production but the other nations⁸⁰ are not. At the moment they do or do not sign up for production that will have a major effect on the production costs of the missile.

There was also some concern regarding the integration cost of Typhoon and "whether or not the Italians come into that programme will have an effect on that budget".⁸¹

61. On slippage, CDM confirmed that the position in 2007-08 would be worse than the position in 2006-07. He said there were three reasons for slippage:

- "the programme is not going as fast as we thought it would, and that might be for technical reasons or whatever;
- the second big factor is that it is an international project over which we really have no control. A very good example is A400M and Typhoon. We do not have control over the time of delivery;
- the third matter is those areas where we have chosen for one reason or another not to bring something in when we thought we would. Meteor-BVRAAM is a very

74 HC (2007–08) 61, para 61

75 Ministry of Defence, *Autumn Performance Report 2007-08*

76 *Ibid*, paras 64-66

77 Q 77

78 Q 89

79 Beyond Visual Range Air to Air Missile

80 BVRAAM is a collaborative programme involving France, Germany, Italy, Spain, Sweden and the UK

81 Q 91

good example of that. For operational reasons we do not need to bring that in when we originally said we did.”⁸²

62. Following our evidence session the MoD provided us with details of the major equipment projects experiencing in-service date slippage in 2007-08. As at the end of January 2008, of the 20 largest equipment projects which featured in the Major Projects Report 2007, seven of the 20 projects had reached their in-service date. The Joint Strike Fighter⁸³ does not have an approved in-service date.⁸⁴ Of the remaining 12 projects, seven were reporting in-year in-service date slippage. Details of the in-service date slippage experienced by these seven projects in 2007-08 are set out in Table 2.

Table 2: In-service date slippage experienced by major equipment projects in 2007-08

Project	In-Service Date slippage reported in MPR 2007⁸⁵ Months	In-Service Date slippage experienced in 2007-08 Months
A400M Transport aircraft	+15	+9
Nimrod MRA4 Maritime patrol aircraft	+89	+3
Soothsayer Integrated Land Electronic Warfare system	+8	+4
Watchkeeper Unmanned Air Vehicle	-8	+7
Terrier Armoured earthmoving vehicle	+9	+27
Next Generation Light Anti-Armour Weapon Man-portable short-range anti-armour weapon	+12	+15
Precision Guided Bomb	-3	+12

Source: MoD⁸⁶

63. The seven major projects in Table 2 experienced a total of 77 months in-service date slippage in 2007-08—some 6.5 years. Total forecast in-service date slippage on the Nimrod MRA4 programme now exceeds 90 months (7.5 years) and the total forecast in-service date slippage for A400M is now two years. The in-service date slippage is not just limited to the older so-called “toxic legacy” projects, but is also being experienced by newer projects. The Terrier armoured earthmoving vehicle experienced forecast in-service date slippage in

82 Qq 105-106

83 Referred to as the Joint Combat Aircraft programme in the Major Projects Report

84 The “tailored Demonstration Main Gate” noted but did not approve an in-service date

85 National Audit Office, *Major Projects Report 2007 Project Summary Sheets*, HC 98-II Session 2007-2008

86 Ev 42

2007-08 of over two years and is now forecast to be three years later than the Approved in-service date.

64. We are disappointed to learn that DE&S is unlikely to meet its Key Target relating to programme slippage in 2007-08. Seven of the largest equipment programmes which featured in the Major Projects Report 2007 have experienced in-service date slippage in 2007-08 totalling some 6.5 years. Once again, the MoD has failed to control slippage on key equipment programmes. In its response to our report, we look to the MoD to provide an explanation of the in-service date slippage on each of the major projects in terms of the three reasons for such slippage set out by the Chief of Defence Materiel in evidence to us; and we expect the MoD to set out the specific actions being taken to limit further programme slippage.

65. We are concerned to hear that the MoD has little control over time slippage on international equipment programmes, given that many of the MoD's equipment programmes including Typhoon and the Joint Strike Fighter are international programmes. We call on the MoD to set out in its response to this report what conclusions it draws from this problem about the nature of international programmes, what steps it has taken in the past to limit these disadvantages and the extent to which these steps have been successful.

66. The NAO Major Projects Report 2007 was published on 30 November 2007 and examined "cost, time and performance data for military equipment projects in the year ended 31 March 2007". The NAO's overall conclusion relating to in-year cost increases on the 20 largest defence equipment projects was that:

The Department... was again pro-active in limiting potential in-year cost increases, with 13 projects showing a fall in their forecast costs, and one reporting no change.... As in the Major Projects Report 2006 the Department has reduced the forecast costs of its projects by reducing quantities of equipments and re-assessing requirements (£81 million; £226 million over two years) and by re-allocating expenditure to other projects or budget lines (£609 million, making a total of over £1 billion over two years). The Department's rationale for continuing to re-allocate budgets and expenditure is to better measure the performance of individual teams in controlling their project costs and to distinguish the costs of maintaining defence-critical industrial capability in accordance with the Defence Industrial Strategy, which are more appropriately overseen at a corporate level. This year, the largest component (£305 million) relates to maintaining industrial capacity and capability in line with the Maritime Industrial Strategy. We would not expect this level of re-allocation in existing projects in future reports.⁸⁷

67. In our Defence Equipment 2006 report we highlighted similar concerns and concluded that:

While cost growth on defence equipment projects in 2005-06 was below the target, we have concerns that the main reason for this was reduction in the quantity of equipment ordered. Trade-offs between cost, time and performance are part of the

Smart Acquisition process, but we expect our Armed Forces to receive equipment in the numbers required and with the capability to do the task required of it. Meeting Key Targets should not be given priority over meeting the requirements of our Armed Forces.⁸⁸

68. We note that in 2006-07 the MoD reduced the forecast costs of major equipment programmes by reducing quantities of equipments, reassessing requirements and by re-allocating expenditure to other equipment programmes or budget lines. In its Major Projects Report 2007 the NAO expressed concerns about this approach and did not expect to see “this level of re-allocation in existing projects in future reports”. We share the NAO’s concern. In reporting its performance against the Key Target relating to cost growth in 2007-08, we do not expect to see the MoD shifting expenditure between different budget lines to give the impression of good cost control on equipment programmes. We plan to follow this up to check that the MoD has not done so.

3 Current and future issues

Business Strategy 2008-12 and “Blueprint”

69. On 18 January 2008 the MoD announced that the Chief of Defence Materiel had written to all staff in DE&S to set out the “organisation’s strategic direction and priorities in a Business Strategy 2008-12 and a Blueprint for what DE&S will look like and how it will operate in 2012”. CDM told DE&S staff that he believed that staff must work together to embed changes over the coming years, and to continue to find even more ways to improve how DE&S does business to meet the inevitable challenges that will arise. This included the need to further improve the service to its customers whilst delivering value for money to the taxpayer.⁸⁹

70. Detailed plans had been developed by “cluster leaders” for how each part of DE&S would contribute to achieving the “Blueprint”. These plans were aimed at improving how DE&S did its business and enabling people to do their jobs better. DE&S had created a team under its Director General Change, “to manage the coherent delivery of these plans within a single change programme, PACE—Performance, Agility, Confidence and Efficiency”. The ultimate goal from these plans is for DE&S:

to be a more effective organisation, capable of achieving its mission of equipping and supporting our armed forces for operations, now and in the future.⁹⁰

Shape and size of DE&S

71. The DE&S “BLUEPRINT: The Future Operating Model” sets out future changes to the size of the new organisation:

It is difficult to exactly predict the size of the future organisation. Estimating a precise number at this stage would not only go against the principle of delivering greater efficiency through continuously striving for ever greater effectiveness, but would presume the outcome of further work that will need to look at the capability we need in DE&S, what tasks can better be undertaken elsewhere, including in industry, and whether tasks need to be undertaken at all. Indications at this stage from initiatives aimed at improving how we do business and doing business differently, are that DE&S in 2012 is likely to employ around 20,000 people.⁹¹

Table 3 sets out the number of personnel in post before the formation of DE&S, the number in post during the first year of DE&S operation, and the forecast number in post in the future.

89 Ministry of Defence website, *Defence News*, 18 January 2008, “Chief of Defence Materiel launches Business Strategy and Blueprint”

90 Ibid

91 DE&S BLUEPRINT: The Future Operating Model, 18 January 2008, p 12

Table 3: Number of DE&S personnel in post prior to the merger, during the first year of operation, and the forecast number in post in the future

Date	Number of personnel
September 2006 Personnel in the DPA and the DLO prior to the formation of DE&S	28,669
2 April 2007 Formation of DE&S	27,512
1 December 2007	26,345
March 2008 DE&S Manpower Control Total	27,650
2012 Forecast in the DE&S BLUEPRINT	20,000

Source: MoD⁹²

72. The number of DE&S personnel is forecast to reduce by some 27% by 2012 compared with the number of personnel in post when the DE&S was formed on 2 April 2007. The scale of the reduction is similar to the “streamlining” exercise of the MoD Head Office in London. On 23 October 2007, the MoD announced that Head Office staff were to be cut by 25% with the loss of 1,000 civilian jobs and 300 military posts. The MoD expected to be more agile and better able to respond to the needs of those on operations once the “streamlining” exercise of the Head Office had been implemented.⁹³ We examined issues about the “streamlining” exercise in our report *Ministry of Defence Annual Report and Accounts 2006-07* published on 28 January 2008.⁹⁴

73. We were interested to understand how the reduction in DE&S personnel would be achieved without impacting on its work, and how DE&S would retain the personnel with the skills it needed. CDM acknowledged that this was a “big challenge”. He did not believe that it could be achieved by money and that it must be done “by motivating people, so it is a matter of leadership and management”.⁹⁵

74. We asked what impact the planned reduction of personnel in the MoD Head Office would have on DE&S. CDM thought the relationship between MoD Head Office and DE&S would be stronger. He said that the whole point of the MoD streamlining was “not just to take out 25% of staff but to make it more effective”. He expected that the approval and decision making process in the MoD Head Office would be quicker. CDM added that:

There is a danger that some of the things currently done in the main building will move into DE&S. I do not have a problem with that at all, if that is the right thing to do, provided the resources to do it come with it.⁹⁶

92 Ev 27

93 Ministry of Defence website, *Defence News*, 23 October 2007, “Streamlining the MoD’s Head Office”

94 Defence Committee, Fifth Report of Session 2007-08, *Ministry of Defence Annual Report and Accounts 2006-07*, HC 61, paras 129-142

95 Q 20

96 Q 28

75. We sought further explanation on how fewer personnel would be more effective. CDM said that the merger of the DPA and the DLO had “pulled in two sets of processes”, such as the assurance processes. As a result, there was some duplication and by reducing the processes and the number of staff involved the processes were more streamlined and the decision-making quicker.⁹⁷

76. CDM told us that a lot of the jobs in DE&S would go because, as the MoD moved to contracting for availability, “a lot of the transactional work that we currently do in-house will move to industry”. He said that as more partnering arrangements are formed, work undertaken in DE&S would move across to industry which was better placed to do it. He thought that DE&S would “finish up with a higher skilled and paid workforce but a smaller one”.⁹⁸ CDM acknowledged that:

It is unsettling people. We will come down to some 20,000 people over four years. People need to know who is staying, who is going and who will have early release. There is a degree of uncertainty in some areas.⁹⁹

77. We note that, as with the MoD Head Office, DE&S is to be streamlined with the loss of some 7,500 staff—27% of its workforce—by 2012. As with the streamlining of the MoD Head Office, we remain to be convinced that improved economy, agility and responsiveness will follow from the reduction in staff. We look to the MoD to provide adequate support for those DE&S staff who are to lose their jobs. The MoD must monitor closely staff morale during the streamlining of DE&S and ensure that it continues to deliver the services which our Armed Forces require.

78. Given the planned reduction in the number of DE&S personnel, we asked whether there was enough room for the whole organisation to be based at Abbey Wood in the future. CDM said that it was not possible to get 20,000 people into Abbey Wood and this was not the intention as some DE&S staff needed to be at the naval bases and airfields. However, by 2012, the plan was that all DE&S personnel who “are office-bound and who do not need to be somewhere else” would be based in Abbey Wood.¹⁰⁰ CDM said that the planned reduction in personnel could release a number of sites currently occupied by DE&S.¹⁰¹

79. On 7 March 2008 the Minister for Defence Equipment and Support wrote to our Chairman about the planned reduction in DE&S staff and informed him that the reduction:

would enable DE&S to fulfil the strategic intent of consolidating more business at Abbey Wood, Bristol by 2012. Subject to departmental approval and Trades Union consultation later this summer it is proposed that DE&S would withdraw completely from Ensleigh, Brampton, Andover North and Wyton by 2012, with the majority of the activities transferring to Abbey Wood. This would be in addition to extant plans

97 Q 29

98 Q 47

99 Q 191

100 Q 26

101 Q 27

for DE&S to withdraw from Foxhill, Andover South and Caversfield. Every support and assistance will be offered to staff affected by this decision to ensure that disruption to their work and home life is minimised.

The MoD is to review the overall impact on the Defence Estate as a whole and the future use of the sites vacated by DE&S.¹⁰²

New approaches to contracting

80. CDM expected that some of the reduction in DE&S staff would result from the MoD moving to contracting for availability (paragraph 76). He explained that this approach pushed back onto the manufacturer of equipment the “risk of unreliable equipment”. The rationale for this approach was that when the “cost of not repairing something falls on the contractor he repairs it very fast”. It had been recognised that the financial risk usually ended up back with the MoD and the operational risk always had to remain with the MoD. However, CDM believed that the risk of unreliable equipment was one that could be pushed back onto the manufacturer.¹⁰³

81. CDM provided an example of this approach at Rolls-Royce, in Filton near Bristol, where:

They have a military engine operations room across the end of which is a big sign for the Rolls-Royce workforce to see—we contract for availability of engines—which says “Remember! Spares are now a cost, not a profit”.¹⁰⁴

Mr Gould said that another example was the patrol vessel HMS Clyde. The MoD had not bought the vessel from Vosper Thornycroft but was buying from them “five years’ worth of ship time”.¹⁰⁵

82. Military equipment acquired by DE&S must be reliable and available for use by our Armed Forces. We note that the MoD is seeking to push back onto the manufacturer the risk of unreliable equipment by contracting for availability. We consider this to be a promising approach and we look to the MoD to evaluate whether these new arrangements deliver the expected benefits in terms of improved availability and, if so, to consider how they might be used more widely.

Comprehensive Spending Review 2007 and Planning Round

83. The Secretary of State for Defence announced the overall outcome of the Comprehensive Spending Review (CSR) settlement for defence in a Statement to the House on 25 July 2007.¹⁰⁶ The *2007 Pre-Budget Report and Comprehensive Spending*

102 Ev 42

103 Q 59

104 Ibid

105 Q 62

106 HC Deb, 25 July 2007, Col 865

*Review*¹⁰⁷ published in October 2007 provided further details on the CSR settlement for defence.

84. We examined the CSR settlement for defence in our inquiry into the Ministry of Defence Annual Report and Accounts 2006-07. MoD's Permanent Secretary, Bill Jeffrey, told us in November 2007 that:

what we will be doing is taking the spending review outcome as the starting point, looking at where the pressures are in the programme—and there undoubtedly are some—and trying to put together the sort of advice that our ministers will need in order to set priorities and ultimately to set budgets for the next three years.¹⁰⁸

He expected that there would need to be reductions in some areas.¹⁰⁹

85. On the issue of the equipment programme, he told us that:

our ministers would very much like a programme which is, if anything, more focused on the kinds of equipment requirements that come out of current operations like protected armoured vehicles, helicopters et cetera. It would be extremely surprising if the process we are going through did not lead to a consideration of that.¹¹⁰

86. We asked the Permanent Secretary whether the advice to Ministers would specify which equipment programmes should be cut. He confirmed that they would “certainly be looking at the equipment programme” and said that “my guess is that we will have to make some quite difficult decisions”.¹¹¹

The Equipment Programme

87. We asked CDM whether the current Planning Round was different from other Planning Rounds. He said that it was the first time “we are looking at an equipment and equipment support budget”. In the past the equipment plan had been separate from the equipment support plan. He considered that the bringing together of the two had enabled the MoD to be more realistic about the costings.¹¹²

88. CDM thought that the scale of the difficulty this year was different¹¹³ and that it was “a greater challenge this year than it was in 2007”.¹¹⁴ He recalled that in the late 1970s “we had

107 HM Treasury, *Meeting the aspirations of the British people, 2007 Pre-Budget Report and Comprehensive Spending Review*, Cm 7227

108 HC (2007–08) 61, Q 13

109 *Ibid*, Q 14

110 *Ibid*, Q 27

111 *Ibid*, Q 28

112 Q 14

113 Q 16

114 Q 18

some pretty challenging times”.¹¹⁵ Mr Gould also considered that the current Planning Round was particularly challenging:

The Chairman specifically asked whether this was as serious as we had ever known it at least in recent years. To that I would say yes, although my memory goes back to the 1970s as well and I can think of times when maybe it was worse.¹¹⁶

89. In its response to our report, we expect the MoD to set out the reasons why the current Planning Round is so challenging given the real terms increases to defence expenditure set out in the Comprehensive Spending Review 2007.

90. On the process which was underway, CDM said that:

We are not yet at the end of the planning round.... There are always difficult decisions to make in planning rounds.... our aspirations are much greater than the budget ever allows us to achieve, so there are always difficult decisions to be made.¹¹⁷

91. CDM thought that there would be cuts or delays to some of the major equipment programmes, but did not know what these would be.¹¹⁸ All the equipment programmes were being examined as to “whether the profile of the programming is right”.¹¹⁹ He was not closely involved in the planning round, but was closely involved in providing costs and options.¹²⁰ He believed that recommendations would be put to ministers in late February or in March.¹²¹

92. Mr Gould acknowledged that the uncertainty over the equipment programme was bound to delay investment by industry.¹²² CDM said that he thought:

industry would say it would like to see an affordable programme and fewer projects properly funded, if that is what it takes, than a lot of projects not properly funded.¹²³

He added that he did not think that the MoD “have had a properly affordable programme for many years”.¹²⁴

93. The Equipment Programme also includes key programmes that are in the Assessment Phase and yet to pass through Main Gate—the main investment decision. An example of such a programme is Military Afloat Reach and Sustainability (MARS), which is to provide the logistic support requirement of the future Royal Navy and sea-based support to deployed forces. The Approved cost for the MARS Assessment Phase is £44 million. The

115 Q 19

116 Q 150

117 Q 10

118 Q 11

119 Q 157

120 Q 143

121 Q 12

122 Q 195

123 Q 192

124 Q 193

MoD's memorandum to our inquiry states that the selection of a Preferred Bidder for MARS Fleet Tankers and the seeking of approval for Main Gate is expected in 2009. There have been reports that key programmes currently in the Assessment Phase, and programmes such as Future Lynx,¹²⁵ may be cancelled or delayed. This would lead to a reduction in the future capability of our Armed Forces and a substantial loss of public money already spent on these programmes.

94. We note that the MoD is preparing advice to Ministers about the defence budget for the three years 2008-09 to 2010-11 and that the MoD acknowledges that there are likely to be cuts or delays to projects in the Equipment Programme. The MoD needs to take the difficult decisions which will lead to a realistic and affordable Equipment Programme. This may well mean cutting whole equipment programmes, rather than just delaying orders or making cuts to the number of platforms ordered across a range of equipment programmes. While it is the natural inclination of all governments and departments to avoid bad news by "moving programmes to the right" rather than by cutting out an entire capability which has many supporters, such an approach can cause in the long run more financial and operational damage than confronting the perennial problem of an over-ambitious Equipment Programme. A realistic Equipment Programme will give confidence to our Armed Forces that the equipment programmes that remain will be delivered in the numbers and to the timescale required, and will also allow industry to make informed investment decisions. This is an issue we plan to return to.

Efficiency and Value for Money

95. The *2007 Pre-Budget Report and Comprehensive Spending Review* states that the resources set out in the CSR will be accompanied by value for money reforms generating "annual net cash-releasing savings of £2.7 billion by 2010-11, building on savings of £2.8 billion during the 2004 Spending Review period".¹²⁶ The initiatives in the CSR 2007 period to deliver the value for money savings include:

the merger of the Defence Logistics Organisation and the Defence Procurement Agency to form Defence Equipment and Support. This will contribute towards generating annual net cash-releasing savings of £253 million by 2010-11.¹²⁷

96. We sought further details of the savings expected from the merger. The MoD told us that:

Although there are no specific additional efficiency targets resulting from the DLO/DPA merger, the post merger change programme is designed to deliver the DE&S contribution to the Central Enabling Services (CES) efficiency targets as well as meeting its primary aim of greater efficiency through continuously striving for

125 In June 2006 the MoD signed a Strategic Partnering Agreement with AgustaWestland and a contract to build future Lynx helicopters.

126 HM Treasury, *Meeting the aspirations of the British people, 2007 Pre-Budget Report and Comprehensive Spending Review*, Cm 7227, para D8.5

127 Ibid

ever greater effectiveness. The benefits will be achieved through streamlining the organisation and transforming how business is conducted.¹²⁸

Under the new Administrative Cost Regime and as part of the associated CES targets, DE&S budgets already assume cost savings of 5% per annum over the next three years. These savings are in addition to the major efficiency initiatives already delivered by the DLO and DPA.¹²⁹

97. The MoD expects that there will be savings “downstream”, particularly in overheads, as most of DE&S business is collocated in the Bath and Bristol area.¹³⁰

98. We note that the merger of the DPA and DLO will contribute to generating annual net cash-releasing savings of some £250 million by 2010-11 and that there will be further savings in the future as most of DE&S business is collocated in the Bath and Bristol area.

Measuring and reporting performance

Measuring performance

99. In our *Defence Procurement 2006* report we examined how the performance of DE&S would be measured. We were pleased to learn that there would be new targets to measure performance relating to managing equipment on a through-life basis and a new target covering how quickly DE&S responded to the needs of our Armed Forces. We expected the MoD to continue to monitor its performance at procuring equipment to time, cost and quality, and for the performance data to be published on an annual basis. Otherwise, there was a risk that poor procurement performance could be buried in long-term project management data.¹³¹ The Government Response to our report stated that:

We will continue to monitor performance of procuring equipment to time, cost and performance within the new Defence Equipment & Support organisation. In FY 2007/08 acquisition performance will be reported externally against the extant Departmental Public Service Agreement. The current Comprehensive Spending Review negotiation will determine the Departmental performance targets post 2007-08. The Major Projects Report will also continue and we are currently examining how this might evolve to reflect more appropriately the management of projects and capability on a through-life basis.¹³²

100. In its memorandum to our Defence Equipment 2008 inquiry, the MoD provided an update on how the performance of DE&S would be measured and reported. The initial set of targets established for DE&S for the first year seek to reflect the broader nature of its mission—to equip and support our Armed Forces for operations now and in the future.

128 Ev 30

129 Ibid

130 Ev 40

131 HC (2006–07) 56, paras 25-26

132 HC (2006–07) 318, para 10

There are new targets covering delivery of equipment into theatre and “satisfying Urgent Operational Requirements”. These targets exist alongside other targets including the former DPA targets covering the delivery of new equipment to performance, cost and time. DE&S has also established internal measures related to the development of its staff, including upskilling to “meet the challenge of a more joined up approach to Through Life Capability Management”.¹³³

101. We asked the MoD if DE&S’ achievements against its new performance targets would be validated by the NAO. We were surprised to learn that the MoD had no plans for:

DE&S new performance targets to be validated by the NAO. As the key measures will contribute to wider Departmental performance, they will be reviewed by the Defence Management Board. This will inform both the Department’s Annual Report and Accounts and the Public Service Agreement results.¹³⁴

102. We are concerned to learn that the new performance targets for DE&S will not be validated by the NAO, as was the case for the Key Targets of the DPA, now merged with the DLO to form DE&S. Independent validation of reported performance against Key Targets provides Parliament with assurance that the reported performance is accurate. In its response to our report, we expect the MoD to set out the reasons why it has no plans for the targets to be validated by the NAO and how independent validation will be achieved.

103. DE&S is involved in a benchmarking programme with its allies to identify its relative performance in the key area of delivering equipment into theatre and opportunities to improve its performance.¹³⁵ **We note that the MoD is benchmarking its performance against its allies in delivering equipment into theatre. We consider this to be a useful exercise and, given our on-going interest in current operations, look to the MoD to inform us of the results and the lessons identified.**

Reporting and parliamentary scrutiny

104. In our *Defence Procurement 2006* report we examined how the performance of the DE&S would be reported. We were concerned that, as DE&S would not have agency status, its activities would lose transparency. We recommended that DE&S publish an annual report so as to allow proper public accountability, and parliamentary scrutiny in particular.¹³⁶ The Government Response to our report stated that:

The activities and performance of DE&S will be fully reported on as part of the MoD Annual Report and Accounts. In addition, the annual Major Projects Report to Parliament will continue to cover major aspects of DE&S business.¹³⁷

133 Ev 29

134 Ibid

135 Ibid

136 HC (2006–07) 56, para 38

137 HC (2006–07) 318, para 14

105. In its memorandum to our Defence Equipment 2008 inquiry, the MoD provided us with an update with regard to the Major Projects Report:

Proposals for the evolution of the MPR to provide Parliament with a broader view of the Department's acquisition performance developed in conjunction with the NAO, have been submitted to the Committee of Public Accounts.¹³⁸

106. We note that the Major Projects Report is to be revised to provide a broader view of equipment acquisition. However, we remain concerned that the revised Major Projects Report may not provide visibility of the performance of programmes against their acquisition targets covering time, cost and performance, and that poor performance against these targets might be difficult to identify within the broader view provided. In its response to our report, we expect the MoD to provide us with a summary of the key changes expected to the Major Projects Report, the categories of equipment programmes that will be covered, and when the revised format is likely to be approved. We also expect the MoD to continue to provide the key information in respect of the performance of individual programmes.

Defence Agencies and Trading Funds

107. The Defence Storage and Distribution Agency (DSDA) remains the one Defence Agency within DE&S. We asked CDM about the future plans for DSDA. He did not know whether DSDA would continue as an agency. He said that the reason DSDA was the only agency to survive within DE&S was that it was "what was agreed and announced by ministers when we launched.... the Future Defence Supply Chain Initiative under the change programme".¹³⁹

108. On 22 May 2007, the MoD announced that a new defence support group would be created by merging "ABRO,¹⁴⁰ retained DARA¹⁴¹ business units and certain other defence support facilities". The new support group, operating as a Trading Fund, is to begin operating by April 2008.¹⁴² Mr Gould provided the following overview of the changes from the ABRO and DARA merger:

DARA is made up of three elements: the fixed wing engine part which is at St Athan, that is, engines in large aircraft; the helicopter bit in Fleetlands and in Almondbank, Perth; and the avionic repair part of that at Sealand. The avionic parts, which have a good deal of commonality with some of the work that is done in the Army Base Repair Organisation, which is already a Trading Fund, will be put together. They will become a single Trading Fund agency. The large aircraft part at St Athan will disappear with the large aircraft anyway.... That will just die a natural death. The rotary wing and component rotary wing repair organisation is being considered for sale. Therefore, it is not an amalgamation of the whole thing. What is being

138 Ev 30

139 Q 217

140 Army Base Repair Organisation

141 Defence Aviation Repair Agency

142 HC Deb, 22 May 2007, Cols 67WS–68WS

amalgamated is the component avionics repair facility at Sealand with ABRO which does quite a lot of similar work.¹⁴³

109. Mr Gould confirmed that the merged organisation will continue as a Trading Fund.¹⁴⁴ DE&S will be its main customer. He said that one of the reasons for keeping ABRO as a Trading Fund was that, because it is a government-owned company, it made it easier to deploy its staff overseas “and into operations and so forth”.¹⁴⁵

143 Q 219

144 Q 220

145 Q 221

4 Progress on key programmes

Overview

110. In the current Parliament we have examined the progress on a number of key defence equipment programmes. For some key programmes we have undertaken specific inquiries, such as our inquiries into the Future Carrier and Joint Combat Aircraft programmes¹⁴⁶, and into the Future Rapid Effect System (FRES) programme¹⁴⁷. We have also examined the progress on key programmes as part of wider inquiries, such as Defence Procurement 2006¹⁴⁸ and Ministry of Defence Annual Report and Accounts 2006-07¹⁴⁹. In our Defence Equipment 2008 inquiry we examined the progress on seven key programmes: Astute submarine; Type 45 destroyer; Nimrod MRA4 aircraft; A400M transport aircraft; FRES; Future Carrier; and Joint Strike Fighter (JSF).

111. The National Audit Office's *Major Projects Report 2007*¹⁵⁰, published in November 2007, sets out how the 20 largest equipment programmes have performed against their Approved Cost and Approved In-Service Date (ISD) for the year ended 31 March 2007. The performance of the seven key programmes which we focused on in this inquiry, against their Approved Cost and Approved ISD, as reported in the Major Projects Report (MPR) 2007, is set out in Table 4.

146 HC (2005–06) 554

147 Defence Committee, Seventh Report of Session 2006-07, *The Army's requirement for armoured vehicles: the FRES programme*, HC 511

148 HC (2006–07) 56

149 HC (2007–08) 61

150 National Audit Office, *Major Projects Report 2007*, HC 98-I Session 2007-2008 and National Audit Office, *Major Projects Report 2007 Project Summary Sheets*, HC 98-II Session 2007-2008

Table 4: Performance of key programmes against their Approved Cost and In-Service Date (ISD)

Project	Approved Cost at Main Gate		Current Forecast Cost		Variation		Approved ISD at Main Gate		Current Forecast ISD		Variation	
	£ million	£ million	£ million	£ million	£ million	£ million					Months	Months
Astute submarine	2,578	3,798		+1,220			June 2005	November 2008			+41	
Type 45 destroyer	5,475	6,464		+989			November 2007	November 2010			+36	
Nimrod MRA4	2,813	3,500		+687			April 2003	September 2010			+89	
A400M	2,744	2,629		-115			December 2009	March 2011			+15	
FRES	The project is pre-Main Gate											
Future Carrier	The project is pre-Main Gate ¹⁵¹											
JSF	2,236	1,858		-378			MPR 2007 states that "The tailored Demonstration Main Gate noted but did not approve ISD"					

Source: National Audit Office

151 Main Gate approval was announced on 25 July 2007, after the period covered by the Major Projects Report 2007. The Approved Cost at Main Gate was £3.9 billion and the Approved ISD for the two carriers was 2014 and 2016

Recent Committee coverage of key programmes

112. Prior to this inquiry, we last examined the Astute submarine and Type 45 destroyer programmes in our report *Ministry of Defence Annual Report and Accounts 2006-07*, published in January 2008¹⁵². We were concerned to learn that both programmes had experienced substantial forecast cost increases since MPR 2006.

113. The Astute submarine programme had experienced a forecast cost increase of £142 million and the Type 45 destroyer programme had experienced a forecast cost increase of £354 million.¹⁵³ Bill Jeffrey told us that the forecast cost increases experienced since MPR 2006 were a result of “some further efforts by the teams concerned with BAE Systems in particular to understand the cost base of Astute and to identify with them ways of resourcing the Type 45 programme more efficiently”.¹⁵⁴ He said that the MoD had re-negotiated the contracts on these programmes on a “more fixed price basis” and he believed that the costs on both programmes were “now more under control”.¹⁵⁵

114. The Type 45 destroyer programme had also slipped a further 11 months since MPR 2006 and was forecast to enter service three years later than the in-service date approved at Main Gate.¹⁵⁶ In our Ministry of Defence Annual Report and Accounts 2006-07 inquiry, the MoD told us that it had sought to place the programme on “a more stable footing” and had worked with the contractor on a “significant re-orientation programme focused on risk quantification and incentivising delivery”.¹⁵⁷

Astute submarine

115. The MoD memorandum to our Defence Equipment 2008 inquiry provided an update on the Astute programme. The current forecast cost and ISD were the same as those in MPR 2007. Recent key events on the programme have included:

- Construction on the programme has been optimised to a “22 month drumbeat” which is the “optimum approach to sustain the industrial base and enable a smooth progression to the construction of the successor submarine programme”. This drumbeat is “based on a 7 boat Astute programme, subject to affordability”.
- A contract was placed in May 2007 to start initial construction on Boat 4.
- ASTUTE was launched from Barrow in June 2007 and is “due to enter service in 2009”.
- In August 2007, while “undergoing testing on Astute (Boat 1), power was lost to a lubricant oil pump which caused damage to the Turbo Generator bearings”. Final repairs are expected by Spring 2008 and the costs of these are to be agreed by BAE

152 HC (2007–08) 61

153 Ibid, p 23

154 Ibid, Q 96

155 Ibid, para 59

156 Ibid, Q 97

157 Ibid, Ev 34

SYSTEMS and the MoD once the repairs have been completed. ASTUTE is scheduled to be delivered by the contract date of November 2008.¹⁵⁸

116. In terms of the number of Astute submarines that would be ordered, Mr Gould said that the MoD had let contracts for three submarines and “we have a fourth where initial contracts are already being placed”.¹⁵⁹ He confirmed that the MoD could afford the fourth boat.¹⁶⁰ He added that:

We have a design for cost reduction contract and long lead items on the reactors for the fifth boat. We need to keep going at that rhythm to use the Astute learning to build into the successor programme to make sure we do not lose those skills and collective memory as we go though.¹⁶¹

117. The target number of Astute submarines was seven.¹⁶² CDM confirmed that the Astute programme was, as with other equipment programmes, part of the current “analysis.... to see whether the profile of the programming is right”.¹⁶³ On 27 February 2008 the Minister for the Armed Forces confirmed that it remained the MoD’s plan to order seven Astute submarines.¹⁶⁴

118. We have taken a close interest in the prices of the individual boats ordered. The MoD has agreed price for boats 1, 2 and 3, but did not have an agreed price for boat 4 because it was undertaking “a design for cost reduction programme”.¹⁶⁵ We would expect the price of boat 3 to be lower than boat 2 and asked the MoD if this was the case. Mr Gould considered that the prices for boats 2 and 3 were “fairly comparable in price”.¹⁶⁶ Following the evidence session the MoD provided us with details on the prices of Astute boats 2 and 3:

Compared on a like for like basis, the target price for Boat 3 (Artful) is some £37M less than the target price for Boat 2 (Ambush).¹⁶⁷

119. The MoD considered that the problems on the Astute submarine programme were a consequence of not having ordered a submarine for 10 years and moving from designing submarines based “on doing a physical scale model of the whole boat to using computer-aided design”.¹⁶⁸ The MoD had learned a number of lessons from the Astute submarine programme. These were:

158 Ev 32-33

159 Q 76

160 Q 124

161 Q 76

162 Q 154

163 Qq 155-157

164 HC Deb, 27 February 2008, Col 1576W

165 Q 120

166 Q 121

167 Ev 40

168 Q 123

- “if you are to undertake something you have not done for a long time and you are to change the whole technique by which you do it you should not try to fix the price until you know much better what you are doing. The key to containing submarine pricing in future is, first, to design for cost reduction.”
- “it is such a specialised industry that you need to keep doing it. If you do not keep ordering submarines at a certain drumbeat you will inject cost into future boats because you have to go back up the learning curve.”¹⁶⁹

120. We note that the MoD has identified key lessons from the problems experienced to date on the Astute submarine programme. We consider it vital that these lessons are taken into account when the MoD acquires the successor to the current Vanguard class submarines and look to the MoD, in its response to our report, to set out how it plans to ensure this is done.

Type 45 destroyer

121. The MoD memorandum to our Defence Equipment 2008 inquiry showed no change to the current forecast cost and ISD reported in MPR 2007 for the Type 45 programme. Recent key events on the programme have included:

- In August 2007, “Treasury signed off revised costs and revised contract for Type 45 ships 1-6 let with industry”.
- In August 2007, “Initial Sea Trials were successfully completed” on the First in Class Type 45 destroyer.
- In November 2007, the third Type 45 destroyer was launched.¹⁷⁰

122. The Type 45 destroyer is a planned class of eight ships, but approval, so far, has only been given for six ships.¹⁷¹ We asked how many Type 45 destroyers the MoD could afford. Mr Gould said that six had been ordered, but “anything beyond that is subject to the review process now going on”.¹⁷² He told us the price difference between ships in the Type 45 programme was because labour and materials had changed over time.¹⁷³ The MoD had not changed the specification for the Type 45 destroyer.¹⁷⁴

123. The Type 45 destroyer programme experienced a further forecast cost increase of £354 million and a further 11 month time slippage during 2006-07. We note that the MoD did not change the specification for the Type 45 destroyer, so this was not the reason for the further forecast cost growth and time slippage. In its response to our report, we expect the MoD to set out the key lessons identified from this programme

169 Q 123

170 Ev 34-35

171 National Audit Office, *Major Projects Report 2007 Project Summary Sheets*, HC 98-II Session 2007-2008, p 143

172 Q 129

173 Q 127

174 Q 128

and to provide us with an update on how the programme is currently performing against its Approved Cost and In-Service Date.

Nimrod MRA4

124. The Ministry of Defence Autumn Performance Report 2007-08 states that the “major programme showing cost growth at present continues to be Nimrod [MRA4]”.¹⁷⁵ At the evidence session for our inquiry into the Ministry of Defence Annual Report and Accounts 2006-07, Bill Jeffrey told us that the cost growth on the Nimrod MRA4 programme was the “one significant area that we are having to attend to now”.¹⁷⁶ In our report *Ministry of Defence Annual Report and Accounts 2006-07*, we recommended that the MoD undertake a review of the Nimrod MRA4 programme “in order to ensure that best value for money is achieved in maintaining this important capability, both in quality and quantity of platforms”.¹⁷⁷

125. At the evidence session for our Defence Equipment 2008 inquiry we asked why the Nimrod MRA4 programme was experiencing further problems. Mr Gould told us that:

We have something which usually happens on aircraft programmes, that is, an overlap of production with flight trials. As you know, we have let the production contract for MRA4. The flight trials are going well but what happens is that you finally discover some things that need subsequent modification as you go through the production programme. There has been a problem of pitch on the aircraft, which is not unusual; it happened also on the MRA2, but the MRA4 has much bigger wings and more powerful engines.... That accounts for about half of the cost growth referred to in the interim report. The other half is the cost of converting the three trial aircraft..... The total we are talking about is £100 million, which is just a little less than three % of the total programme cost.¹⁷⁸

126. **Since the DE&S Chief Operating Officer, Mr Gould, told us that the problems being experienced on the Nimrod MRA4 programme were not considered unusual, that they had been experienced on the MRA2 programme and that “it was predictable”, we are deeply concerned that they nevertheless seem to have come as such a surprise to the MoD. His comment that, until the prototype had been built, “that is the first time you can test it against reality” may be true, but for the MoD to have failed to have provided for the risk turning into reality cannot in the circumstances be excused by the suggestion that “it would have been a low probability”. We accept his contention that, because of the long gap between the MRA2 conversion programme and the MRA4 programme, some 20 years, the experience from the earlier programme had been lost, but we are disappointed that this had not been recognised at a much earlier stage of the programme.**¹⁷⁹

175 Ministry of Defence, *Autumn Performance Report 2007-08*

176 HC (2007-08) 61, Q 97

177 Ibid, para 63

178 Q 78

179 Qq 79, 85

127. The MoD had examined the scope for acquiring a different aircraft “in about 2003 when there was a major crisis in the Nimrod programme”. The MoD could not find a substitute at that time and “made the decision across government to continue with the Nimrod programme”.¹⁸⁰ Mr Gould said that most other countries use the “P3 which is a Lockheed Orion aircraft”. The P3 was a contender, but did not have the endurance of Nimrod.¹⁸¹ Regarding the age of the MRA4 aircraft, Mr Gould told us that most of the aircraft was new, such as the wings, engines and undercarriage. The fuselage was not new.¹⁸²

128. The Nimrod programme has experienced further slippage in 2007-08 of 3 months. The total forecast in-service date slippage on the programme is now 92 months, some 7.5 years.¹⁸³

129. At the end of 2006-07, the Nimrod MRA4 programme had experienced a forecast cost increase of some £687 million, almost 25% greater than the approved cost, and has experienced further cost growth in 2007-08 of some £100 million. Given the huge cost growth seen on this programme, we are concerned that the MoD does not appear very alarmed by the additional cost growth in 2007-08, referring to it as “just a little less than three per cent of the total programme cost”. The programme has also experienced further slippage in 2007-08 which now totals 92 months, some 7.5 years.

130. In our report on the Ministry of Defence Annual Report and Accounts 2006-07 we recommended that the MoD undertake a review of the Nimrod MRA4 programme in order to ensure that best value for money is achieved in maintaining this important capability, both in quality and quantity of platforms. This is a programme that has been beset by one problem after another and neither the MoD nor the contractor appears to be able to get a grip on it. We hope that the new Minister for Defence Equipment and Support will look closely at this programme and consider whether it is ever likely to deliver the capability our Armed Forces require in the timescale needed. If it is not the MoD should withdraw from the programme.

A400M

131. We examined the progress on the A400M transport aircraft programme in our *Strategic Lift* report, published in July 2007.¹⁸⁴ The programme had experienced ISD slippage of 15 months which had required the lives of C-130K Hercules aircraft to be extended.¹⁸⁵ During our inquiry into the MoD Annual Report and Accounts 2006-07, the MoD provided us with an update on the A400M programme. The MoD acknowledged that the announcement by Airbus, the contractor for A400M, that initial deliveries are likely to be delayed by between 6 to 12 months “has placed the UK’s In-Service Date of March 2011.... at significant risk”. The MoD was working with Airbus to examine the scope

180 Q 97

181 Q 98

182 Qq 99-101

183 Ev 42

184 Defence Committee, Eleventh Report of Session 2006-07, *Strategic Lift*, HC 462

185 *Ibid*, paras 74-77

for “schedule recovery”.¹⁸⁶ In our report on the MoD Annual Report and Accounts 2006-07, we recommended that the MoD undertake “a review of the A400M programme given the problems experienced to date”.¹⁸⁷

132. In our Defence Equipment 2008 inquiry we asked about the latest forecast in-service date for the A400M programme. Mr Gould told us that “the latest in-service date that we currently predict is July 2011”.¹⁸⁸ The programme had experienced a further 4 months slippage since the position in MPR 2007 and was now expected to enter service some 19 months later than the original approved ISD. Mr Gould said that the MoD lost a year “because the German Government took a year to sign the MOU and so no work was done”. He considered that the UK was fortunate because it is not taking “the first aircraft off the line”.¹⁸⁹ He added that Airbus:

have missed the milestone for starting assembly of the first aircraft and have had delays on the engine programme, so both of those things will combine to delay the programme, but it will not be a one-for-one delay of a year; it will be less than that for us because we take subsequent aircraft.¹⁹⁰

133. Following the evidence session, the MoD provided us with an update on the A400M programme. The programme has experienced a further five months slippage during 2007-08, bringing the total in-year slippage to nine months. The total forecast in-service date slippage for A400M is now two years.¹⁹¹

134. We asked whether it would have been better and cheaper to have increased the C-17 and Hercules aircraft fleets rather than acquire A400M aircraft.¹⁹² CDM emphasised that, while the C-17 is a strategic aircraft, the A400M “will be tactical as well as strategic”. Mr Gould considered that the A400M will be a “very good aircraft” for the requirement,¹⁹³ but acknowledged that:

It is very challenging because you are trying to get something that is in between Hercules and the C-17 at a price which is closer to Hercules.¹⁹⁴

He told us that he thought we should “take a very cautious view of the time it will take to complete flight trials on A400M” as it was “an extremely challenging programme”.¹⁹⁵

135. It is disappointing that the in-service date on the A400M transport aircraft programme has slipped a further nine months in 2007-08 and it is now expected to enter service some two years later than the original approved in-service date. As we

186 HC (2007–08) 61, para 66

187 *Ibid*, para 67

188 Q 107

189 *Ibid*

190 *Ibid*

191 Ev 42

192 Q 108

193 Q 110

194 Q 111

195 Q 88

recommended in our report on the Ministry of Defence Annual Report and Accounts 2006-07, we look to the MoD to work closely with the contractor for this programme to reduce the risk of any further delays and, where possible, to identify ways to recover some of the forecast slippage.

136. DE&S has a “project rehabilitation unit” which is moved from project to project and has undertaken a review of A400M.¹⁹⁶ **We recommend that in its response to our report, the MoD sets out the key findings of the review of the A400M programme undertaken by the DE&S project rehabilitation unit.**

FRES

137. We examined the progress on the Future Rapid Effect System (FRES) programme in our report *The Army’s requirement for armoured vehicles: the FRES programme*, published in February 2007.¹⁹⁷ In our FRES report we examined the issue of the ISD for the FRES Utility variant and noted that “over the years, Ministers and MoD officials have provided us with different target ISDs for FRES that have moved progressively into the future”. In May 2004, the then Minister for Defence Procurement (Lord Bach) told our predecessors that he expected that the Utility variant of FRES would be in-service in 2009.¹⁹⁸ In our report we acknowledged:

the increased rigour that Lord Drayson’s¹⁹⁹ leadership has brought to the MoD’s procurement process and note the reasons he gives for not announcing the ISD for FRES before it has passed its Main Gate review.²⁰⁰

138. In its memorandum to our Defence Equipment 2008 inquiry, the MoD states that:

Real progress has been made on FRES. Implementation of the FRES competitive Acquisition Strategy is being driven hard to ensure we deliver, as early as possible, a FRES capability that meets the Army’s needs through life.²⁰¹

139. The MoD memorandum provides the following update on the FRES programme:

- June 2007—the Minister for Defence Equipment and Support announced the three vehicle designs selected to take part in the Utility Vehicle (UV) Trials (the UV Design Competition). The vehicles were VBCI (Nexter), Piranha Evolution (GD (UK)), and Boxer (ARTEC).
- September 2007—Herbert Smith appointed to provide legal advice to the FRES Integrated Project Team “to ensure that the MoD receives strong legal, intellectual property and alliancing advice”.

196 Q 107

197 HC (2006-07) 159

198 Ibid, paras 75–76

199 The former Minister for Defence Equipment and Support

200 HC (2006-07) 159, para 85

201 Ev 35

- October 2007—the MoD announces that the Thales (UK) and Boeing team have been selected as the preferred bidder for the “System of Systems Integrator (SOSI)”.
- November 2007—Industry responses to “Pre-qualification questionnaire for the UV Integrator role received by FRES IPT and assessment under way”.
- November 2007—the Minister for Defence Equipment and Support “announced the outcome of the UV Design trials. UV Trials completed on schedule in September 2007, producing a recommendation based primarily on technical considerations. Review of commercial implications of the three competing designs launched”.²⁰²

140. The MoD memorandum lists the following forthcoming events:

- January 2008—Award of contract for the initial phase of SOSI support to the FRES programme.
- 2008—Announce the one preferred UV Design to be taken forward to the next stage of the FRES UV programme.
- 2008—Selection of one or more UV Integrators to proceed to the next stage.²⁰³

141. The MoD expected the decision on the UV design to be announced “very soon”.²⁰⁴ Lieutenant General Applegate told us that “we have made the recommendation to invest in that and push forward aggressively”.²⁰⁵ We sought confirmation that the UV design that has been recommended was the Army’s preferred option. Lieutenant General Applegate said it was. He added that:

The reason is that we briefed the Army accordingly, with appropriate caveats as to names and things like that, about what we had found in the various trials and the implications of the analysis we had done in terms of issues such as timeliness, the ability to grow though life, levels of protection and confidence in the nature of the company.

He emphasised that the Army had been “heavily engaged throughout”.²⁰⁶

142. We note that the Army, as the front line user, has been closely involved in the process of identifying the preferred FRES Utility Vehicle design and that the design which has been recommended is the Army’s preferred option.

143. The advantages of acquiring equipment off-the-shelf, or as close to off-the-shelf as it was possible to get, have been recognised by the MoD from the UOR process. We asked whether there was an argument for the MoD acquiring a vehicle to meet the FRES UV requirement off-the-shelf rather than a developmental vehicle which was likely to involve

202 Ev 35-36

203 Ev 36

204 Q 181

205 Q 189

206 Q 184

greater cost. Lieutenant General Applegate said there was not, as if the MoD “pulled something off the production line today”, it would need to spend a substantial amount of money to meet “the conditions of today”.²⁰⁷ He told us that the MoD currently spends around £650,000 per vehicle to put it into theatre in order to equip it to the standard needed.²⁰⁸ We sought further explanation as to why the MoD would not be better off getting the best available vehicle now. Lieutenant General Applegate told us that:

What we have done is to identify what we believe is the best available developmental vehicle in the market place that has a future. The alternative is to buy something that is basically a cul-de-sac and goes nowhere; it cannot be upgraded and cannot meet the threats over time. We believe that we have now identified that particular preferred design for the utility vehicle and we are confident that in conducting what is an aggressive programme to deal with some of the technological risks to produce something as early as we know the Army wishes will provide a level of capability that is far in excess of what we have today in order to meet those threats and, importantly, that it would have growth.²⁰⁹

He considered that acquiring a vehicle off-the-shelf would be a “bad decision” as such a vehicle would have a very limited life. The Army tended to keep vehicles for a long time and to increase their capability over time, and to try and do this with an off-the-shelf vehicle was considered to be “a recipe for disaster”.²¹⁰

144. We note that the FRES Utility Vehicle design which has been recommended is a “developmental vehicle” and that the MoD considers that this is the best option as it can be upgraded and its capability increased over time. We also note that the MoD considers that acquiring an “off-the-shelf” vehicle would not provide scope for increasing capability and would have a very limited life. While we recognise that these are strong arguments for acquiring a developmental vehicle for the FRES Utility Vehicle, such an option is also likely to involve higher costs and increased risks to the in-service date because of unforeseen problems during the further development. If the recommended design is approved, the MoD needs to ensure that it identifies the key risks on the programme and how these are to be managed.

145. We sought clarification on the roles of the SOSI. Lieutenant General Applegate explained that the MoD had not been very good in the past at developing people with the necessary skills “and to think about the way a variety of individual equipments come together and interact with one other”. He said that the FRES programme involves a number of vehicles with multiple roles and the MoD needed the expertise to consider how best to integrate common solutions throughout those roles. In the short term the MoD needed:

207 Qq 185-186

208 Q 186

209 Q 187

210 Ibid

the System of Systems Integrator to give that overview and provide us with specialist expertise to manage the complex mix of individual requirements.²¹¹

General Applegate added that one of the tasks which the SOSI would undertake was to “bring those skills back into the Ministry of Defence so we become better at this over time”.²¹²

146. It has been widely reported that Lord Drayson, the former Minister for Defence Equipment and Support, wanted to achieve an In-Service Date for the UV variant of FRES of 2012. In its memorandum to our FRES inquiry, General Dynamics told us that Lord Drayson “has stated that the aspiration for the FRES Utility Variant IOC [Initial Operating Capability] is 2012.” However, in response to a question about the FRES ISD, the Minister for the Armed Forces, on 18 February 2008, said that in-service dates are not normally set until the main investment decision [Main Gate].²¹³ **We find it an issue of concern that the MoD appears to be at an advanced stage with regard to selecting the FRES Utility Vehicle design yet has still to clarify what the planned In-Service Date is. In its response to our report, we expect the MoD to provide clarification on this matter.**

147. In our report *UK land operations in Iraq 2007*, published in December 2007, we examined equipment issues including the procurement of armoured vehicles. The MoD had procured 100 Mastiff armoured vehicles for deployment to Iraq and Afghanistan as well as an additional 38 Vector patrol vehicles. It had also up-armoured 70 FV430 MK3 Bulldog tracked vehicles. On 8 October 2007, the Prime Minister announced the purchase of 140 Mastiffs for use in both Iraq and Afghanistan.²¹⁴ **In its response to our report we expect the MoD to set out how many Mastiff vehicles are being procured for operations in Iraq and Afghanistan, how the acquisition of armoured vehicles for these two operations impacts on the FRES requirement, and how the MoD plans to use these vehicles when they return from current operations.**

Future Carrier and Joint Strike Fighter programmes

148. We examined the progress on the Future Carrier and Joint Strike Fighter programmes in our *Future Carrier and Joint Combat Aircraft Programmes* report, published in December 2005.²¹⁵ The MoD’s memorandum to that inquiry noted that “the target in-service dates for the two future aircraft carriers remain unchanged at 2012 and 2015”.²¹⁶ The Joint Strike Fighter will operate from both the new aircraft carriers and land bases.²¹⁷ In the NAO’s Major Projects Report 2004, the estimated ISD for JSF was given as “2012 to coincide with the first of the new aircraft carriers (CVF) entering service”.²¹⁸ In our inquiry into the Future Carrier and Joint Combat Aircraft Programmes, the MoD told us that the

211 Q 182

212 Ibid

213 HC Deb, 18 February 2008, Col 99W

214 HC (2007–08) 110, para 67

215 HC (2005–06) 554

216 Ibid, Ev 43

217 Ibid, Ev 40

218 National Audit Office, *Major Projects Report 2004 Project Summary Sheets*, HC 1159-II, Session 2003-2004, p 49

ISD for JSF would be set when the main investment decision (Main Gate) had been taken and that its “previously announced planning assumptions based on an ISD of 2014 have not been changed”.²¹⁹ In our report we concluded that:

We are concerned that the In-Service Date for the JSF has slipped from 2012 to 2014, some two years after the first carrier was originally expected to come into service. It is essential that the In-Service Dates for the CVF and JCA programmes match. If not, the UK could be left with new carriers without new aircraft to operate from them, or new aircraft with no new carriers to operate from.²²⁰

149. We examined the progress on the Future Carrier and JSF programmes in our *The Defence Industrial Strategy*²²¹ report, published in May 2006, and our *Defence Procurement 2006*²²² report, published in December 2006. We examined the Future Carrier and JSF programmes again in our report *The Defence Industrial Strategy: update*²²³, published in February 2007. In the latter report, we expressed our disappointment that the required restructuring of the surface ship industry had “not taken place and that this has delayed the main investment decision on the Future Carriers”.²²⁴ We welcomed the signing of the Memorandum of Understanding covering production, sustainment and follow-on development for the JSF programme, and the assurances obtained by Lord Drayson, the former Minister for Defence Equipment and Support, that the UK will get all the technology transfer it requires to operate the JSF independently.²²⁵

Future Carrier

150. On 25 July 2007, the Secretary of State for Defence announced the overall outcome of the Comprehensive Spending Review 2007 settlement for defence. He told the House that the MoD would be placing orders for two 65,000 tonne aircraft carriers which were expected to enter service in 2014 and 2016 and “will sustain and create some 10,000 jobs across the UK”.²²⁶ On 27 February 2008, the Minister for the Armed Forces confirmed that the planned in-service dates for the two carriers had not changed.²²⁷

151. The MoD memorandum for our Defence Equipment 2008 inquiry provides the following update on the Future Carrier programme:

- 25 July 2007—The final Main Gate approval was announced to move into the Manufacture Phase. The approved cost for the programme at Main Gate was £3.9 billion and the approved in-service dates for the two carriers were 2014 and 2016.

219 HC (2005–06) 554, Ev 41

220 Ibid, para 90

221 Defence Committee, Seventh Report of Session 2005–06, *The Defence Industrial Strategy*, HC 824, paras 30–34 and 97–99

222 HC (2006–07) 56, paras 49–65

223 Defence Committee, Sixth Report of Session 2006–07, *The Defence Industrial Strategy: update*, HC 177, paras 15–20 and 81–87

224 Ibid, para 19

225 Ibid, para 86

226 HC Deb, 25 July 2007, Col 865–866

227 HC Deb, 27 February 2008, Col 1576W

- 25 July 2007—BAE Systems and VT Group entered into a legally binding Framework Agreement to establish a Joint Venture (JV). “BAE Systems, VT and the MoD also signed a Heads of Terms which set out the intended role of this JV in the CVF programme. At the same time the three parties signed a non binding Heads of Terms on the planned Terms of Business Agreement (ToBA) MoD intends to conclude with the JV in relation to the future surface warship programme”.
- Future Carrier Long Lead items were contracted for over the latter part of 2007.
- As part of the process towards the JV formation, a legally binding Side Letter of Assurance was signed with the two companies on 11 January 2008 in support of the ToBA.
- Placement of the Manufacture Contract was expected in the next 6 months, subject to legal formation of the JV.²²⁸

152. In a Written Answer of 7 January 2008, the Secretary of State for Defence said that:

we have committed to placing an order for two future carriers. Contracts will be placed with the industrial participants in the Aircraft Carrier Alliance delivering the project, when the joint venture between BAE Systems and VT Group has completed the necessary approvals to allow it to receive a contract. This process is nearing completion.²²⁹

Joint Venture

153. We asked CDM why the Manufacture contract for the Future Carriers had not yet been signed. He told us that the MoD was “not quite ready to sign the contract” as there were some commercial issues with the Joint Venture (JV). He added that the JV needed “to be set up and that is rolling at the moment”.²³⁰ Mr Gould said that the JV had not been formed and the MoD did not, therefore, have a body to contract with.²³¹ We asked whether this was the only reason for not signing the Manufacture contract. CDM said “that is the issue”.²³² We pressed further and asked again whether the only thing stopping the Future Carrier contract being signed was the JV deal between BAE Systems and VT. CDM told us:

That is my understanding. I suspected you might ask this question and talked to the commercial people this morning.²³³

154. Later in the evidence session CDM said that:

228 Ev 33

229 HC Deb, 7 January 2008, Col 20W

230 Q 114

231 Q 144

232 Q 115

233 Q 118

What I thought I said was that there were some commercial issues in which the Defence Commercial Director was still engaged, and one of those is the Joint Venture.²³⁴

155. We asked what the commercial issues were. CDM told us that he did not know and “could not answer it”.²³⁵ We were surprised to hear that he did not know given that this was such a key programme. We asked if it suited CDM not to let the contract now. He said “no, it is not me”.²³⁶ We asked if it suited the MoD not to let the contract now. He said “no”.²³⁷ We asked what the impasse was about. CDM told us that “we do not know”.²³⁸

156. Mr Gould summarised the position on the JV, which the MoD has to approve,²³⁹ as follows:

We have been encouraging them to form a Joint Venture, so not to approve it would be pretty perverse. What they have been asking for is a side letter from us which gives them some comfort, because obviously the Joint Venture in effect is a delayed sale. Therefore, if BAE Systems guarantees a price it needs some statement about future work. It has had that letter; it has been signed and sent to them, so there should now be no impediment to pretty quick progress on the formation of the venture and contracting for the ships.²⁴⁰

He expected the creation of the JV to be “fairly imminent”.²⁴¹

157. On the same day as the oral evidence session for our Defence Equipment 2008 inquiry, the Scottish Affairs Committee held an oral evidence session for its inquiry into employment and skills for the defence industry in Scotland. One of the witnesses for this oral evidence session was Nigel Stewart, Commercial and New Business Director, BAE Systems. He was asked about the JV on the Future Carrier programme and told the Scottish Affairs Committee that:

In terms of where we are at, the talks are at a very advanced stage and we are really just awaiting now confirmation from the Government of the signature and the timing of the CVF contract, assuming it is on the terms as currently agreed.²⁴²

158. On 2 February 2008 the Minister for the Armed Forces wrote to John Bercow MP about the Future Carrier programme. The letter, which has been placed in the Library of the House, states that:

234 Q 136

235 Q 137

236 Q 139

237 Q 140

238 Q 141

239 Q 145

240 Q 146

241 Q 153

242 Scottish Affairs Committee, uncorrected transcript of oral evidence taken on 29 January 2008, Q 42

As recently as 11 January we agreed a Side Letter with the companies, BAES and VT, giving assurances relating to our future intention which is a major step in the process underway to allow the Joint Venture (JV) to stand up as a legal entity which will permit the Carrier to go ahead.

159. When we held our oral evidence session on 29 January 2008, the Manufacture contract for the Future Carriers had yet to be signed. We find it a cause of concern that the MoD did not seem to know what was holding up the signing of the Manufacture contract. It appears that the formation of the Joint Venture between BAE Systems and VT was a factor behind the delay, but the MoD's view on why this had not happened did not appear to match that of industry.

160. CDM did not know if the Manufacture contract had not been let because the required funding was not available. He said that “the planning round is not in my hands”.²⁴³ Mr Gould considered that this Planning Round was as serious as he had known in recent years and “that is not an atmosphere in which it is easy to take big decisions on commitments”. However, the Defence Management Board had looked at this proposal and “said that it was a good one”.²⁴⁴ If there were delays to the Future Carrier programme, there would be additional costs from running on the current Invincible class aircraft carriers. However, Mr Gould considered that “the additional amount you pay just on labour and materials for delay and dislocation in the carrier programme would outweigh that several fold”.²⁴⁵

161. Mr Gould is leaving DE&S on 28 March 2008.²⁴⁶ He told us that he would be disappointed if the Manufacture contract for the Future Carriers had not been signed before he left and was confident that it would be.²⁴⁷

162. We note that the MoD expects the Manufacture contract for the Future Carriers to be signed by the end of March 2008. We found unsatisfactory the responses from the MoD on the reasons for delay in signing the contract. We think it likely that much of the cause relates to the current difficulties in the Planning Round, but there must come a point where delays in letting the contract will affect the programme schedule and the expected in-service dates of 2014 and 2016. Further delays are also likely to lead to increased costs on the programme. We plan to monitor this closely.

163. We also call on the MoD to set out what roles the two Future Carriers will perform when they come into service and what capabilities these expensive ships will give us that could not be provided in other ways. Since the 1998 Strategic Defence Review there have been reductions in the number of current and planned surface ships, such as the Type 45 destroyer. We therefore look to the MoD to confirm that the two new carriers will have sufficient protection to undertake the roles expected of them while not removing from other tasks the naval cover that the country will continue to need.

243 Q 143

244 Q 150

245 Q 177

246 Ev 40

247 Qq 151-152

Costs

164. The approved procurement cost for the Future Carrier programme is £3.9 billion.²⁴⁸ The MoD expects that, as a result of the investment made to date and the incentive arrangements that will be put in place, the programme can be delivered under £3.9 billion. Mr Gould said that “both sides understand that this is a realistic possibility and it is not wishful thinking”.²⁴⁹

165. A press article in January 2008 reported that BAE Systems and VT Group had proposed a cost-cutting plan to keep the Future Carrier programme on track. The article claimed that this followed an informal request from the MoD to industry to find ways to slowing spending on the carriers and that the MoD was looking for overall savings of some £200 million on the programme over the next two years.²⁵⁰

166. We note that the MoD expects the Future Carrier programme to be delivered below the approved cost of £3.9 billion as a result of the incentive arrangements that it plans to put in place. While it is important to acquire the two carriers within the Approved Cost, the MoD must also take account of the through-life costs of the carriers which will be many times greater than the acquisition costs. The MoD needs to make the necessary investment when acquiring the carriers so that substantial savings through-life will be delivered. In its response to our report, we expect the MoD to set out the forecast through-life costs of the two carriers and how its investment to date in the programme is expected to reduce the through-life costs.

Restructuring of the surface ship sector

167. The MoD was “very happy” with how the restructuring of the UK surface ship sector was being managed. Mr Gould told us “that is the whole point about the Joint Venture”. The MoD had used the Future Carrier and Type 45 destroyer programmes to bring about a complete restructuring and a “recapitalisation of the warship-building industry”.²⁵¹ **We note that the MoD is content with how the restructuring of the UK surface ship sector is progressing. This is an issue which we plan to monitor closely.**

168. On 11 February 2008 the MoD announced the start of an investment programme to modify the dockyard at Rosyth where final assembly of the two carriers is to take place. A £35 million contract was signed by Babcock Engineering Services with “Glasgow-based subcontractors Edmund Nuttall Limited to modify the docks in order to accommodate the building of the carriers and widen its direct entrance”. The total investment in Rosyth is expected to be about £50 million.²⁵² **We note that a contract to upgrade Rosyth dockyard, where the final assembly of the two aircraft carriers will take place, has been signed.**

248 Ev 33

249 Q 148

250 “MoD offered £100m saving on carriers”, *Financial Times*, 21 January 2008

251 Q 131

252 Ministry of Defence website, *Defence News*, 11 February 2008, “£35m contract allows assembly of Navy Super Carriers”

Joint Strike Fighter

Cost

169. The Major Projects Report 2007 states that, as at 31 March 2007, £965 million had been spent on the JSF programme. A Unit Production Cost (UPC) is not provided in MPR 2007 as UPC “approval will be sought as part of MG [Main Gate] UK production approval”.²⁵³

170. In our Future Carrier and Joint Combat Aircraft Programmes inquiry, the MoD told us that “we anticipate buying up to 150 STOVL [Short Take Off and Vertical Landing] variants of the Joint Strike Fighter”.²⁵⁴ In our Defence Equipment 2008 inquiry we asked what the target number of Joint Strike Fighters was. CDM said “it depends on what they cost”.²⁵⁵ The MoD did not yet know the unit cost or support costs for the JSF and CDM considered that “it would be foolish of me to suggest a number without knowing the price”.²⁵⁶ He confirmed that, if the US ordered fewer JSF aircraft than originally planned, this might affect the number of JSF aircraft the UK could afford because the unit cost would increase.²⁵⁷ CDM did not know how big a risk this was. He added that:

We have the advantage that we have not signed up for x aircraft but to be part of the programme.... because the United States is buying so many we can pull off aircraft from the production line as we need them, so there is more flexibility in that respect.²⁵⁸

171. We probed further on the issue of the price of JSF aircraft and how this would affect how many JSF aircraft the MoD would acquire. We asked CDM for an outline figure. He told us that:

I cannot say.... We need to see the unit cost and then judgments will need to be made. Do we buy the number we first thought of for that price or fewer? Do we take money from a different programme?²⁵⁹

Mr Gould said that for comparable programmes to the JSF, such as the F18 programme, production cost growth of 20-30% had been typical. However, he had seen no evidence of that happening at the moment on the JSF programme.²⁶⁰

172. The MoD expects to have 36 JSF aircraft on each aircraft carrier.²⁶¹ We asked if the MoD could afford 36 JSF aircraft. Mr Gould was confident that the MoD could afford that

253 National Audit Office, *Major Projects Report 2007 Project Summary Sheets*, HC 98-II, Session 2007-2008, p 75

254 Defence Committee, Second Report of Session 2005-06, *Future Carrier and Joint Combat Aircraft Programmes*, HC 554, Ev 42

255 Q 158

256 Q 159

257 Q 160

258 Q 161

259 Q 169

260 Q 171

261 Q 172

number, but noted that there “would be an additional number for training, attrition and so forth”.²⁶² We asked if the original figure of 150 JSF aircraft was “cloud cuckoo land”. CDM told us that he was “not sure we need to decide on a number now”.²⁶³

173. We asked if the MoD had a figure for how many JSF aircraft were needed for what the UK required for its defence capability. CDM confirmed that the MoD had a figure.²⁶⁴ We pressed CDM on what the number was. He said that:

The Chairman asked me how many we would buy and the answer is that it depends on the cost.... We are at an early stage in the programme. The Royal Navy knows what it would like, as do all the services. This is all a balance. Requirement, minimum requirement, cost and other programmes are all intermeshed, and that is the work that is going on at the moment.²⁶⁵

Mr Gould added that “the figure of 150 is the one we still have in mind” and that the “great opportunity with JCA²⁶⁶ is that we do not have to make up our mind on the total at the start”.²⁶⁷

174. We acknowledge that cost has to be a factor in determining the procurement of major equipment, but we would expect the number of JSF aircraft to be primarily determined by what the UK needs for its defence capability. In its response to our report, we look to the MoD to set out the different roles which JSF aircraft will be required to undertake and how many aircraft will be required to fulfil each of these roles.

175. We note that the MoD considers that one of the benefits of the JSF programme is that it does not have to decide on the number of JSF aircraft it will acquire “at the start”. While we acknowledge that UK participation in the programme provides this flexibility, we are surprised that the MoD does not consider it an issue that it does not know how many JSF aircraft it requires because it is “at an early stage in the programme”. We take issue with the term “early stage”, as the MoD has already spent in the order of £1 billion on the JSF programme and the first aircraft carrier, which the JSF aircraft will operate from, is expected to enter service in 2014—just six years away.

In-service date

176. Given our previous concerns about the in-service date for the JSF, we asked if the MoD was confident that JSF aircraft would be available to operate from the new aircraft carriers when they entered service in 2014 and 2016. Mr Gould told us that he was not confident that would be the case and that the MoD:

262 Q 173

263 Q 175

264 Q 178

265 Q 179

266 The Joint Strike Fighter was selected to meet the requirement for Joint Combat Aircraft (JCA)

267 Q 180

plan to use the [Harrier] GR9 on the first of the carriers.... we will not have a carrier's worth of fully productionised, trained and equipped JSFs in 2014.... we plan to operate only Joint Strike Fighters from carriers when we have enough JSFs to do that.²⁶⁸

177. The MoD plans to keep the Harrier GR9 in service until around 2018.²⁶⁹ Mr Gould said that he did not think the Harrier GR9 aircraft were being run on beyond what was planned and that the MoD “always planned to use them in that way”.²⁷⁰

178. The acquisition of two new aircraft carriers and Joint Strike Fighter (JSF) aircraft to operate from them will provide the core elements of the MoD's 'Carrier Strike' capability. We are disappointed and concerned to learn that JSF aircraft will not be available to operate from the first new aircraft carrier which, on current plans, is expected to enter service in 2014. We recommend that, in its response to our report, the MoD sets out the reasons why JSF aircraft will not be available to operate from the first new aircraft carrier when it enters service and the latest estimate of when sufficient JSF aircraft will be available to operate from both carriers.

179. We note that Harrier GR9 aircraft are to be operated from the first new aircraft carrier and that these aircraft will remain in-service until around 2018. We look to the MoD to undertake an assessment of how the 'Carrier Strike' capability would be maintained if JSF aircraft were not available to operate from the two aircraft carriers in 2018 when the Harrier GR9 goes out of service.

Wider lessons

Programme contingency

180. During our examination of the progress on the Nimrod MRA4 programme, we asked whether a contingency had been built into the estimated cost of the programme. Mr Gould explained that a contingency was always built into a project, but, if that was done for every single risk identified, the MoD would be criticised “for coming in under budget on all of the projects and wasting resources which could have been used for something else”.²⁷¹ In our view, what a large contingency did was create a realistic defence procurement programme. Mr Gould considered that the contingency should only include the risks that you believe “are the most likely outcome in the project” as, if you included a contingency covering every single risk, including those that were unlikely to emerge, “you will over-egg the contingency”.²⁷²

181. We asked if there was a case for having a general procurement contingency. Mr Gould agreed that there was a case and said that some of the contingencies for “projects in the future are held centrally” by the Deputy Chief of Staff (Equipment Capability) “our

268 Qq 162-163, 165

269 Q 164

270 Q 166

271 Q 81

272 Q 84

customer, rather than as part of the project cost”.²⁷³ CDM added that the MoD did not yet have a general procurement contingency, but considered that the “right way to do it is to hold it centrally in the equipment capability area rather than down at project level”.²⁷⁴ The MoD did not yet have the money for a general procurement contingency, but it “will be part of PR08 [Planning Round 2008]”.²⁷⁵

182. We consider that there is a strong case for having a general procurement contingency held centrally by the Equipment Capability customer rather than at the individual equipment project level. We look to the MoD, in its response to our report, to set out what consideration it has given to a general procurement contingency and whether and how it plans to introduce such a system.

Controlling slippage

183. The Astute submarine, Type 45 destroyer and Nimrod MRA4 aircraft programmes have experienced substantial in-service date slippage. In the Major Projects Report 2007, the total in-service date slippage for these three programmes was 166 months, some 14 years. The A400M programme has also experienced slippage and JSF aircraft will not be available to operate from the first of the new aircraft carriers, which is expected to enter service in 2014. We asked what the MoD was doing to control the in-service slippage seen on equipment programmes and the lessons that had been learned. Mr Gould considered that “time has a different characteristic from performance and cost” as:

Performance and cost can be bound contractually and legally. You can say that you will not make a milestone payment until a certain level of performance has been demonstrated and so on. You can certainly make the schedule contractually binding, but you cannot make it obey the laws of physics if it does not want to. The laws of physics have their results towards the end of a programme, because you find difficulty in a programme... when you begin to do your system test and you cannot do that until you have a prototype on which to do it. What it means is that you are carrying not so much risk but a degree of uncertainty into quite a late stage of a complex technological project.²⁷⁶

184. Mr Gould said that one of the things the MoD was now putting back into project management skills, and it needed to do more, was the requirement “to pay critical attention to the contractor’s schedule and consider whether it is really credible”. He considered that MoD staff needed the ability “to look at a schedule with as much skill as the contractor”.²⁷⁷

185. Substantial in-service date slippage on major equipment programmes has often been a result of over-optimistic estimates by contractors of the likely programme schedule. It is, therefore, worrying to learn that the MoD only now acknowledges that it

273 Q 102

274 Q 103

275 Q 104

276 Q 113

277 Ibid

needs to include in the project management skills of its staff the ability to examine a contractor's programme schedule and consider whether it is credible. In its response to our report, we look to the MoD to set out how it plans to up-skill its staff working in defence acquisition, so that they are able to examine critically the estimates provided by contractors both in relation to a programme's schedule and cost.

186. A technique being introduced by the MoD on equipment projects is Earned Value Management (EVM). Mr Gould explained that this technique:

requires you to prepare a very detailed work breakdown; it is a schedule broken down into work packages. That allows you to measure on a weekly basis exactly what progress is being made on a project so you can predict problems early on. Therefore, you know you have control and shared data.²⁷⁸

187. EVM is used in the United States on equipment projects as it is a requirement of the Department of Defense. The MoD is now using the technique on the Astute submarine and Nimrod MRA4 programmes and plans to use it on all equipment projects. Mr Gould told us that the MoD will not make a Main Gate decision unless the contractor has convinced it that it has “in place and are sharing with us the management tools—the EVM techniques and others—that we need so they can demonstrate progress”.²⁷⁹

188. We note that the MoD is introducing techniques, such as Earned Value Management, to improve its visibility of the progress on equipment programmes and to identify potential problems as early as possible. We look to the MoD to assess whether the expected benefits are delivered by such techniques and, where they have been, to ensure that they are adopted on other programmes. We also expect the MoD to learn from the experience of the US Department of Defense in using Earned Value Management, such as on the Joint Strike Fighter programme.

189. There is often a substantial time-lag between the date an equipment meets its in-service date and the date when the equipment can be operated by the Armed Forces. For example, Typhoon achieved its in-service date, defined as the date of delivery of the first aircraft to the RAF, in June 2003.²⁸⁰ However, the first operational squadron of Typhoon aircraft was formed on 31 March 2006.²⁸¹ Mr Gould said that the MoD would be focusing more:

on the lines of development²⁸² as well as training rather than the kit and testing it so that we look not just at ISD but initial and full operating capability and work to those schedules. What is now happening on projects is that when we have enough system performance we start to train the crews, soldiers or whoever even though there is still

278 Ibid

279 Ibid

280 National Audit Office, *Major Projects Report 2007*, HC 98-II Session 2007-2008, p 159

281 Ibid, p 153

282 The Lines of Development are Concepts & Doctrine, Equipment, Force Structure, Manpower, Training, and Sustainability (including Infrastructure)

some development to be done so they can effect the final stage of development and become familiar with the system and get it into service quicker.²⁸³

190. We note that the MoD is paying more attention to the date at which equipment can deliver initial and full operating capability, rather than just the in-service date. Starting the training of the users of equipment, even where there is some further development work to be completed on an equipment programme, should allow the equipment to enter operational service more quickly.

Change control

191. One of the criticisms that we have often heard from industry is that the MoD changes the requirements and specifications of the equipment it has ordered. These changes lead to increased costs. CDM acknowledged that there was “requirement creep... and customers, in this instance front line commanders, will often change their minds”. He said that the MoD needed to be fairly rigorous about this, although it might arise because the threat had changed.²⁸⁴

192. We asked how the MoD was addressing the issue of requirement creep. CDM’s view was that there was a good case for having equipment “that is 80% right now”, with an open architecture that could be built on incrementally as changes occurred.²⁸⁵ The approach which the MoD was seeking to drive forward now was to:

have an open architecture with incremental upgrading and innovation to be added as required either by the threat or as research and technology develop something much better.²⁸⁶

Mr Gould stressed the need for “good change control” as a fundamental of good project management.²⁸⁷ He said that good change control started with having a “really good common understanding on both sides as to the project outcome that is expected”.²⁸⁸

193. Cost increases on equipment programmes have often arisen from ‘requirement creep’—additions and changes to the specification of equipment already ordered. We note that the MoD is seeking to address this by acquiring equipment which meets the vast majority—around 80%—of the military customer’s requirement, but which also has an ‘open architecture’ allowing incremental upgrading and innovation to be added later. This appears to be a sensible approach, but DE&S must ensure that staff who work in project management have sufficient training in key skills such as good change control.

283 Q 113

284 Q 48

285 Q 49

286 Q 50

287 Ibid

288 Q 54

Conclusions and recommendations

Progress made since the merger

1. The merger of the Defence Procurement Agency and the Defence Logistics Organisation was a major undertaking made more challenging by the need to support two major operations. We commend the Chief of Defence Materiel and his staff for ensuring that the merger was achieved to the timetable set and for the progress achieved in the first year of operation of the Defence Equipment and Support organisation. (Paragraph 14)
2. We note that the MoD considers that reasonable progress has been made in implementing the Defence Acquisition Change Programme. A key benefit expected to be delivered from this programme is to deliver defence capability more quickly. The former Minister for Defence Equipment and Support set a challenge of reducing the acquisition time for defence equipment by 50%. In its response to our report, we expect the MoD to set out what specific action it is taking to meet this challenge, how it is measuring its performance in reducing acquisition time, and when it expects to be acquiring equipment in a timescale which meets the challenge. Similarly, we expect the MoD to provide us with details of the progress it has made in producing an affordable and balanced budget and in creating a set of metrics by which through life acquisition performance can be judged. (Paragraph 20)
3. We note that Through Life Capability Management should lead to the MoD getting the benefit from defence equipment more quickly by focusing attention on issues such as doctrine and training rather than just equipment and equipment support. We welcome the MoD's assurance that this approach should greatly reduce the chances of the sort of problems seen on the Apache helicopter programme. (Paragraph 27)
4. We note that the MoD considers that the merger of the Defence Procurement Agency and the Defence Logistics Organisation should improve through life management planning and ensure that it becomes embedded in the new organisation. We agree. In its response to our report, we expect the MoD to set out what proportion of its equipment programmes currently have through life management plans of an acceptable standard and when it expects such plans to be in place for all its programmes. (Paragraph 30)
5. It is crucial that DE&S has a highly skilled workforce, particularly in areas such as engineering, project management, logistics, finance and commerce. DE&S appears to have made some progress in upskilling staff in a number of these areas. However, its skills audit needs to be completed as soon as possible. We note that training and upskilling had not progressed as quickly as hoped because staff had been too busy to be released. We believe that it is probably the intention within DE&S that, once the current tempo of operations and the need to support them reduces, staff should be given adequate time to undertake the required training and upskilling. We are not satisfied that so important a programme can wait for such an eventuality. We consider that it is inexplicable for the MoD both to be reducing the numbers of staff

and to be telling those that remain that there is no time to train them. Every week that passes without staff adequately skilled and equipped to do their vital jobs has the potential of damaging the work that they do and the projects they are running. We call on the MoD in its response to this report to set out what urgent actions it will put in train to overcome the constraints on training and upskilling caused by the high operational tempo. While we note that the Chief of Defence Materiel has ringfenced funding for training and upskilling, this is of little value if staff have insufficient time to take advantage of it. (Paragraph 42)

6. The upskilling and training of DE&S staff in specialist skills, such as project management, will be crucial to the future effectiveness of DE&S. However, it will be some time before these staff will have the broad experience that can only be gained from using their training on a range of programmes. DE&S needs to identify the key posts where good experience in the various specialist skills is required now, and develop a strategy for drawing in such experienced staff from outside DE&S. (Paragraph 43)
7. We were unable to visit DE&S at Abbey Wood, Bristol. We remain concerned about the skills mix made available to DE&S. We will want to explore further the whole question of skills generation and development in DE&S in a future report. (Paragraph 44)
8. It is vitally important that DE&S can recruit and retain staff with the skills that match those in industry. To do so, DE&S has to have a reward structure that makes it an attractive employer to professionals in areas such as project management and systems engineering. In its response to our report, we expect the MoD to set out the progress it is making to introduce a more flexible reward structure and the barriers that are hindering its efforts to do so. (Paragraph 45)
9. The UOR process has delivered substantial amounts of vital equipment to our Armed Forces operating in Afghanistan and Iraq. We commend DE&S for the speed at which it is getting urgently needed equipment into theatre, the procurement of Mastiff vehicles being a good example of this. (Paragraph 50)
10. We note that the MoD has initiated a study to assess the impact of current operations on equipment, such as vehicles, and the subsequent costs of recuperation. We see the costs of recuperation as a cost of operation to be funded from the Reserve and not from the defence budget which is already under substantial pressure. In its response to our report, we expect the MoD to set out the terms of reference for this study and, once the study is completed, to provide us with a copy of it. (Paragraph 56)

Performance against Key Targets

11. We are disappointed to learn that DE&S is unlikely to meet its Key Target relating to programme slippage in 2007-08. Seven of the largest equipment programmes which featured in the Major Projects Report 2007 have experienced in-service date slippage in 2007-08 totalling some 6.5 years. Once again, the MoD has failed to control slippage on key equipment programmes. In its response to our report, we look to the MoD to provide an explanation of the in-service date slippage on each of the major

projects in terms of the three reasons for such slippage set out by the chief of materiel in evidence to us; and we expect the MoD to set out the specific actions being taken to limit further programme slippage. (Paragraph 64)

12. We are concerned to hear that the MoD has little control over time slippage on international equipment programmes, given that many of the MoD's equipment programmes including Typhoon and the Joint Strike Fighter are international programmes. We call on the MoD to set out in its response to this report what conclusions it draws from this problem about the nature of international programmes, what steps it has taken in the past to limit these disadvantages and the extent to which these steps have been successful. (Paragraph 65)
13. We note that in 2006-07 the MoD reduced the forecast costs of major equipment programmes by reducing quantities of equipments, reassessing requirements and by re-allocating expenditure to other equipment programmes or budget lines. In its Major Projects Report 2007 the NAO expressed concerns about this approach and did not expect to see "this level of re-allocation in existing projects in future reports". We share the NAO's concern. In reporting its performance against the Key Target relating to cost growth in 2007-08, we do not expect to see the MoD shifting expenditure between different budget lines to give the impression of good cost control on equipment programmes. We plan to follow this up to check that the MoD has not done so. (Paragraph 68)

Business Strategy 2008-12 and "Blueprint"

14. We note that, as with the MoD Head Office, DE&S is to be streamlined with the loss of some 7,500 staff—27% of its workforce—by 2012. As with the streamlining of the MoD Head Office, we remain to be convinced that improved economy, agility and responsiveness will follow from the reduction in staff. We look to the MoD to provide adequate support for those DE&S staff who are to lose their jobs. The MoD must monitor closely staff morale during the streamlining of DE&S and ensure that it continues to deliver the services which our Armed Forces require. (Paragraph 77)

New approaches to contracting

15. Military equipment acquired by DE&S must be reliable and available for use by our Armed Forces. We note that the MoD is seeking to push back onto the manufacturer the risk of unreliable equipment by contracting for availability. We consider this to be a promising approach and we look to the MoD to evaluate whether these new arrangements deliver the expected benefits in terms of improved availability and, if so, to consider how they might be used more widely. (Paragraph 82)

Comprehensive Spending Review 2007 and Planning Round

16. In its response to our report, we expect the MoD to set out the reasons why the current Planning Round is so challenging given the real terms increases to defence expenditure set out in the Comprehensive Spending Review 2007. (Paragraph 89)

17. We note that the MoD is preparing advice to Ministers about the defence budget for the three years 2008-09 to 2010-11 and that the MoD acknowledges that there are likely to be cuts or delays to projects in the Equipment Programme. The MoD needs to take the difficult decisions which will lead to a realistic and affordable Equipment Programme. This may well mean cutting whole equipment programmes, rather than just delaying orders or making cuts to the number of platforms ordered across a range of equipment programmes. While it is the natural inclination of all governments and departments to avoid bad news by “moving programmes to the right” rather than by cutting out an entire capability which has many supporters, such an approach can cause in the long run more financial and operational damage than confronting the perennial problem of an over-ambitious Equipment Programme. A realistic Equipment Programme will give confidence to our Armed Forces that the equipment programmes that remain will be delivered in the numbers and to the timescale required, and will also allow industry to make informed investment decisions. This is an issue we plan to return to. (Paragraph 94)
18. We note that the merger of the DPA and DLO will contribute to generating annual net cash-releasing savings of some £250 million by 2010-11 and that there will be further savings in the future as most of DE&S business is collocated in the Bath and Bristol area. (Paragraph 98)

Measuring and reporting performance

19. We are concerned to learn that the new performance targets for DE&S will not be validated by the NAO, as was the case for the Key Targets of the DPA, now merged with the DLO to form DE&S. Independent validation of reported performance against Key Targets provides Parliament with assurance that the reported performance is accurate. In its response to our report, we expect the MoD to set out the reasons why it has no plans for the targets to be validated by the NAO and how independent validation will be achieved. (Paragraph 102)
20. We note that the MoD is benchmarking its performance against its allies in delivering equipment into theatre. We consider this to be a useful exercise and, given our on-going interest in current operations, look to the MoD to inform us of the results and the lessons identified. (Paragraph 103)
21. We note that the Major Projects Report is to be revised to provide a broader view of equipment acquisition. However, we remain concerned that the revised Major Projects Report may not provide visibility of the performance of programmes against their acquisition targets covering time, cost and performance, and that poor performance against these targets might be difficult to identify within the broader view provided. In its response to our report, we expect the MoD to provide us with a summary of the key changes expected to the Major Projects Report, the categories of equipment programmes that will be covered, and when the revised format is likely to be approved. We also expect the MoD to continue to provide the key information in respect of the performance of individual programmes. (Paragraph 106)

Astute submarine

22. We note that the MoD has identified key lessons from the problems experienced to date on the Astute submarine programme. We consider it vital that these lessons are taken into account when the MoD acquires the successor to the current Vanguard class submarines and look to the MoD, in its response to our report, to set out how it plans to ensure this is done. (Paragraph 120)

Type 45 destroyer

23. The Type 45 destroyer programme experienced a further forecast cost increase of £354 million and a further 11 month time slippage during 2006-07. We note that the MoD did not change the specification for the Type 45 destroyer, so this was not the reason for the further forecast cost growth and time slippage. In its response to our report, we expect the MoD to set out the key lessons identified from this programme and to provide us with an update on how the programme is currently performing against its Approved Cost and In-Service Date. (Paragraph 123)

Nimrod MRA4

24. Since the DE&S Chief Operating Officer, Mr Gould, told us that the problems being experienced on the Nimrod MRA4 programme were not considered unusual, that they had been experienced on the MRA2 programme and that “it was predictable”, we are deeply concerned that they nevertheless seem to have come as such a surprise to the MoD. His comment that, until the prototype had been built, “that is the first time you can test it against reality” may be true, but for the MoD to have failed to have provided for the risk turning into reality cannot in the circumstance be excused by the suggestion that “it would have been a low probability”. We accept his contention that, because of the long gap between the MRA2 conversion programme and the MRA4 programme, some 20 years, the experience from the earlier programme had been lost, but we are disappointed that this had not been recognised at a much earlier stage of the programme. (Paragraph 126)
25. At the end of 2006-07, the Nimrod MRA4 programme had experienced a forecast cost increase of some £687 million, almost 25% greater than the approved cost, and has experienced further cost growth in 2007-08 of some £100 million. Given the huge cost growth seen on this programme, we are concerned that the MoD does not appear very alarmed by the additional cost growth in 2007-08, referring to it as “just a little less than three per cent of the total programme cost”. The programme has also experienced further slippage in 2007-08 which now totals 92 months, some 7.5 years. (Paragraph 129)
26. In our report on the Ministry of Defence Annual Report and Accounts 2006-07 we recommended that the MoD undertake a review of the Nimrod MRA4 programme in order to ensure that best value for money is achieved in maintaining this important capability, both in quality and quantity of platforms. This is a programme that has been beset by one problem after another and neither the MoD nor the contractor appears to be able to get a grip on it. We hope that the new Minister for Defence Equipment and Support will look closely at this programme and consider

whether it is ever likely to deliver the capability our Armed Forces require in the timescale needed. If it is not the MoD should withdraw from the programme. (Paragraph 130)

A400M

27. It is disappointing that the in-service date on the A400M transport aircraft programme has slipped a further nine months in 2007-08 and it is now expected to enter service some two years later than the original approved in-service date. As we recommended in our report on the Ministry of Defence Annual Report and Accounts 2006-07, we look to the MoD to work closely with the contractor for this programme to reduce the risk of any further delays and, where possible, to identify ways to recover some of the forecast slippage (Paragraph 135)
28. We recommend that in its response to our report, the MoD sets out the key findings of the review of the A400M programme undertaken by the DE&S project rehabilitation unit (Paragraph 136)

FRES

29. We note that the Army, as the front line user, has been closely involved in the process of identifying the preferred FRES Utility Vehicle design and that the design which has been recommended is the Army's preferred option. (Paragraph 142)
30. We note that the FRES Utility Vehicle design which has been recommended is a "developmental vehicle" and that the MoD considers that this is the best option as it can be upgraded and its capability increased over time. We also note that the MoD considers that acquiring an "off-the-shelf" vehicle would not provide scope for increasing capability and would have a very limited life. While we recognise that these are strong arguments for acquiring a developmental vehicle for the FRES Utility Vehicle, such an option is also likely to involve higher costs and increased risks to the in-service date because of unforeseen problems during the further development. If the recommended design is approved, the MoD needs to ensure that it identifies the key risks on the programme and how these are to be managed. (Paragraph 144)
31. We find it an issue of concern that the MoD appears to be at an advanced stage with regard to selecting the FRES Utility Vehicle design yet has still to clarify what the planned In-Service Date is. In its response to our report, we expect the MoD to provide clarification on this matter. (Paragraph 146)
32. In its response to our report we expect the MoD to set out how many Mastiff vehicles are being procured for operations in Iraq and Afghanistan, how the acquisition of armoured vehicles for these two operations impacts on the FRES requirement, and how the MoD plans to use these vehicles when they return from current operations. (Paragraph 147)

Future Carrier and Joint Strike Fighter programmes

33. When we held our oral evidence session on 29 January 2008, the Manufacture contract for the Future Carriers had yet to be signed. We find it a cause of concern that the MoD did not seem to know what was holding up the signing of the Manufacture contract. It appears that the formation of the Joint Venture between BAE Systems and VT was a factor behind the delay, but the MoD's view on why this had not happened did not appear to match that of industry (Paragraph 159)
34. We note that the MoD expects the Manufacture contract for the Future Carriers to be signed by the end of March 2008. We found unsatisfactory the responses from the MoD on the reasons for delay in signing the contract. We think it likely that much of the cause relates to the current difficulties in the Planning Round, but there must come a point where delays in letting the contract will affect the programme schedule and the expected in-service dates of 2014 and 2016. Further delays are also likely to lead to increased costs on the programme. We plan to monitor this closely. (Paragraph 162)
35. We also call on the MoD to set out what roles the two Future Carriers will perform when they come into service and what capabilities these expensive ships will give us that could not be provided in other ways. Since the 1998 Strategic Defence Review there have been reductions in the number of current and planned surface ships, such as the Type 45 destroyer. We therefore look to the MoD to confirm that the two new carriers will have sufficient protection to undertake the roles expected of them while not removing from other tasks the naval cover that the country will continue to need. (Paragraph 163)
36. We note that the MoD expects the Future Carrier programme to be delivered below the approved cost of £3.9 billion as a result of the incentive arrangements that it plans to put in place. While it is important to acquire the two carriers within the Approved Cost, the MoD must also take account of the through-life costs of the carriers which will be many times greater than the acquisition costs. The MoD needs to make the necessary investment when acquiring the carriers so that substantial savings through-life will be delivered. In its response to our report, we expect the MoD to set out the forecast through-life costs of the two carriers and how its investment to date in the programme is expected to reduce the through-life costs. (Paragraph 166)
37. We note that the MoD is content with how the restructuring of the UK surface ship sector is progressing. This is an issue which we plan to monitor closely. (Paragraph 167)
38. We note that a contract to upgrade Rosyth dockyard, where the final assembly of the two aircraft carriers will take place, has been signed. (Paragraph 168)
39. We acknowledge that cost has to be a factor in determining the procurement of major equipment, but we would expect the number of JSF aircraft to be primarily determined by what the UK needs for its defence capability. In its response to our report, we look to the MoD to set out the different roles which JSF aircraft will be required to undertake and how many aircraft will be required to fulfil each of these roles. (Paragraph 174)

40. We note that the MoD considers that one of the benefits of the JSF programme is that it does not have to decide on the number of JSF aircraft it will acquire “at the start”. While we acknowledge that UK participation in the programme provides this flexibility, we are surprised that the MoD does not consider it an issue that it does not know how many JSF aircraft it requires because it is “at an early stage in the programme”. We take issue with the term “early stage”, as the MoD has already spent in the order of £1 billion on the JSF programme and the first aircraft carrier, which the JSF aircraft will operate from, is expected to enter service in 2014—just six years away. (Paragraph 175)
41. The acquisition of two new aircraft carriers and Joint Strike Fighter (JSF) aircraft to operate from them will provide the core elements of the MoD’s ‘Carrier Strike’ capability. We are disappointed and concerned to learn that JSF aircraft will not be available to operate from the first new aircraft carrier which, on current plans, is expected to enter service in 2014. We recommend that, in its response to our report, the MoD sets out the reasons why JSF aircraft will not be available to operate from the first new aircraft carrier when it enters service and the latest estimate of when sufficient JSF aircraft will be available to operate from both carriers. (Paragraph 178)
42. We note that Harrier GR9 aircraft are to be operated from the first new aircraft carrier and that these aircraft will remain in-service until around 2018. We look to the MoD to undertake an assessment of how the ‘Carrier Strike’ capability would be maintained if JSF aircraft were not available to operate from the two aircraft carriers in 2018 when the Harrier GR9 goes out of service. (Paragraph 179)

Wider lessons

43. We consider that there is a strong case for having a general procurement contingency held centrally by the Equipment Capability customer rather than at the individual equipment project level. We look to the MoD, in its response to our report, to set out what consideration it has given to a general procurement contingency and whether and how it plans to introduce such a system. (Paragraph 182)
44. Substantial in-service date slippage on major equipment programmes has often been a result of over-optimistic estimates by contractors of the likely programme schedule. It is, therefore, worrying to learn that the MoD only now acknowledges that it needs to include in the project management skills of its staff the ability to examine a contractor’s programme schedule and consider whether it is credible. In its response to our report, we look to the MoD to set out how it plans to up-skill its staff working in defence acquisition, so that they are able to examine critically the estimates provided by contractors both in relation to a programme’s schedule and cost (Paragraph 185)
45. We note that the MoD is introducing techniques, such as Earned Value Management, to improve its visibility of the progress on equipment programmes and to identify potential problems as early as possible. We look to the MoD to assess whether the expected benefits are delivered by such techniques and, where they have been, to ensure that they are adopted on other programmes. We also expect the MoD

to learn from the experience of the US Department of Defense in using Earned Value Management, such as on the Joint Strike Fighter programme. (Paragraph 188)

46. We note that the MoD is paying more attention to the date at which equipment can deliver initial and full operating capability, rather than just the in-service date. Starting the training of the users of equipment, even where there is some further development work to be completed on an equipment programme, should allow the equipment to enter operational service more quickly. (Paragraph 190)
47. Cost increases on equipment programmes have often arisen from ‘requirement creep’—additions and changes to the specification of equipment already ordered. We note that the MoD is seeking to address this by acquiring equipment which meets the vast majority—around 80%—of the military customer’s requirement, but which also has an ‘open architecture’ allowing incremental upgrading and innovation to be added later. This appears to be a sensible approach, but DE&S must ensure that staff who work in project management have sufficient training in key skills such as good change control. (Paragraph 193)

Annex: List of Abbreviations

AoF	Acquisition Operating Framework
BVRAAM	Beyond Visual Range Air to Air Missile
CDM	Chief of Defence Materiel
CSR	Comprehensive Spending Review
CVF	Future Aircraft Carrier (Carrier Vessel Future)
DACP	Defence Acquisition Change Programme
DE&S	Defence Equipment and Support
DIS	Defence Industrial Strategy
DLO	Defence Logistics Organisation
DPA	Defence Procurement Agency
DSDA	Defence Storage and Distribution Agency
D&M	Demonstration and Manufacture
EAC	Enabling Acquisition Change
EVM	Earned Value Management
FRES	Future Rapid Effect System
IPT	Integrated Project Team
ISD	In-Service Date
JCA	Joint Combat Aircraft
JSF	Joint Strike Fighter
JV	Joint Venture
MoD	Ministry of Defence
MOU	Memorandum of Understanding
MPR	Major Projects Report
NAO	National Audit Office
PACE	Performance, Agility, Confidence and Efficiency
SBAC	Society of British Aerospace Companies
SO	Strategic Objective

SOSI	System of Systems Integrator
STOVL	Short Take Off and Vertical Landing
TLB	Top Level Budget
TLCM	Through Life Capability Management
TLMP	Through Life Management Plan
ToBA	Terms of Business Agreement
UK	United Kingdom
UOR	Urgent Operational Requirement
UV	Utility Vehicle

Formal minutes

Tuesday 11 March 2008

Members present:

Mr James Arbuthnot, in the Chair

Mr David S Borrow

Mr David Crausby

Linda Gilroy

Mr David Hamilton

Mr Mike Hancock

Mr Dai Havard

Mr Bernard Jenkin

Mr Brian Jenkins

Mr Kevan Jones

Robert Key

Richard Younger-Ross

Draft Report (*Defence Equipment 2008*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 193 read and agreed to.

Annex (List of abbreviations) and Summary agreed to.

Resolved, That the Report be the Tenth Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Written evidence was ordered to be reported to the House for printing with the Report, together with written evidence reported and ordered to be published on 15 January.

[Adjourned till Tuesday 18 March at 10.00 am.]

Witnesses

Tuesday 29 January 2008

Page

General Sir Kevin O'Donoghue KCB CBE, Chief of Defence Materiel, **David Gould CB**, Chief Operating Officer, and **Lieutenant General Dick Applegate OBE**, Chief of Materiel (Land), Defence Equipment and Support, Ministry of Defence Ev 1

List of written evidence

1	Council for National Parks	Ev 24
2	Society of British Aerospace Companies (SBAC)	Ev 25
3	Ministry of Defence	Ev 26, Ev 40, Ev 42
4	Prospect Bicester Area	Ev 39

List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2005–06

First Report	Armed Forces Bill	HC 747 (HC 1021)
Second Report	Future Carrier and Joint Combat Aircraft Programmes	HC 554 (HC 926)
Third Report	Delivering Front Line Capability to the RAF	HC 557 (HC 1000)
Fourth Report	Costs of peace-keeping in Iraq and Afghanistan: Spring Supplementary Estimate 2005–06	HC 980 (HC 1136)
Fifth Report	The UK deployment to Afghanistan	HC 558 (HC 1211)
Sixth Report	Ministry of Defence Annual Report and Accounts 2004–05	HC 822 (HC 1293)
Seventh Report	The Defence Industrial Strategy	HC 824 (HC 1488)
Eighth Report	The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context	HC 986 (HC 1558)
Ninth Report	Ministry of Defence Main Estimates 2006–07	HC 1366 (HC 1601)
Tenth Report	The work of the Met Office	HC 823 (HC 1602)
Eleventh Report	Educating Service Children	HC 1054 (HC 58)
Twelfth Report	Strategic Export Controls: Annual Report for 2004, Quarterly Reports for 2005, Licensing Policy and Parliamentary Scrutiny	HC 873 (Cm 6954)
Thirteenth Report	UK Operations in Iraq	HC 1241 (HC 1603)
Fourteenth Report	Armed Forces Bill: proposal for a Service Complaints Commissioner	HC 1711 (HC 180)

Session 2006–07

First Report	Defence Procurement 2006	HC 56 (HC 318)
Second Report	Ministry of Defence Annual Report and Accounts 2005–06	HC 57 (HC 376)
Third Report	Costs of operations in Iraq and Afghanistan: Winter Supplementary Estimate 2006–07	HC 129 (HC 317)
Fourth Report	The Future of the UK's Strategic Nuclear Deterrent: the Manufacturing and Skills Base	HC 59 (HC 304)
Fifth Report	The work of the Committee in 2005 and 2006	HC 233 (HC 344)
Sixth Report	The Defence Industrial Strategy: update	HC 177 (HC 481)
Seventh Report	The Army's requirement for armoured vehicles: the FRES programme	HC 159 (HC 511)
Eighth Report	The work of the Defence Science and Technology Laboratory and the funding of defence research	HC 84 (HC 512)
Ninth Report	The Future of the UK's Strategic Nuclear Deterrent: the White Paper	HC 225–I and –II (HC 551)
Tenth Report	Cost of military operations: Spring Supplementary Estimate 2006–07	HC 379 (HC 558)

Eleventh Report	Strategic Lift	HC 462 (<i>HC1025</i>)
Twelfth Report	Ministry of Defence Main Estimates 2007–08	HC 835 (<i>HC 1026</i>)
Thirteenth Report	UK operations in Afghanistan	HC 408 (<i>HC 1024</i>)
Fourteenth Report	Strategic Export Controls: 2007 Review	HC 117 (<i>Cm 7260</i>)
Fifteenth Report	The work of Defence Estates	HC 535 (<i>HC 109</i>)

Session 2007–08

First Report	UK land operations in Iraq 2007	HC 110 (<i>HC 352</i>)
Second Report	Costs of operations in Iraq and Afghanistan: Winter Supplementary Estimate 2007–08	HC 138
Third Report	UK/US Defence Trade Cooperation Treaty	HC 107 (<i>HC 375</i>)
Fourth Report	The Iran hostages incident: the lessons learned	HC 181
Fifth Report	Ministry of Defence Annual Report and Accounts 2006–07	HC 61
Sixth Report	The work of the Committee in 2007	HC 274
Seventh Report	Medical care for the Armed Forces	HC 327
Eighth Report	Operational costs in Afghanistan and Iraq: Spring Supplementary Estimate 2007–08	HC 400
Ninth Report	The future of NATO and European defence	HC 111

Oral evidence

Taken before the Defence Committee

on Tuesday 29 January 2008

Members present

Mr James Arbuthnot, in the Chair

Mr Mike Hancock
Mr Dai Havard
Mr Adam Holloway
Mr Bernard Jenkin

Mr Brian Jenkins
Robert Key
John Smith
Richard Younger-Ross

Witnesses: **General Sir Kevin O'Donoghue KCB CBE**, Chief of Defence Materiel, **David Gould CB**, Chief Operating Officer, and **Lieutenant General Dick Applegate OBE**, Chief of Materiel (Land), Defence Equipment and Support, Ministry of Defence, gave evidence.

Q1 Chairman: General O'Donoghue, I welcome you and your team to our evidence session on the DE&S. We meant to visit you last week. I regret that parliamentary business meant we had to stay here. We recognise that this mucked you about considerably, for which we apologise. We shall do our best not to do it again, but the vagaries of the parliamentary timetable are strange. We shall do our best to come back as soon as we can. We are conducting an inquiry into DE&S. This is something that we have been meaning to do for some time. You are supporting two major operations in Iraq and Afghanistan and have provided equipment in pretty rapid time for those two operations. That is something for which you deserve congratulations. We have a lot of ground to cover. I wonder whether my colleagues on the Committee can be as brief as possible in their questions and perhaps the witnesses can be as concise but full in their replies. We shall then be able to cover the ground. General O'Donoghue, will you please introduce your team?

General Sir Kevin O'Donoghue: Thank you very much. I am delighted to be here and I would also be delighted if you could come back to Abbey Wood when that is suitable. On my left is David Gould, Chief Operating Officer, who will pick up some of the detail on projects both on equipment procurement and through life performance. On my right is General Dick Applegate, Chief of Materiel (Land), who will pick up any detailed questions you have about support of current operations.

Q2 Chairman: Your department has been in existence for 10 months. What has been the progress following the merger?

General Sir Kevin O'Donoghue: Progress has been remarkably good. Going back to the second half of 2006 I and Peter Spencer, who was then CDP, put quite a lot of intellectual effort into what the new organisation should look like. We held workshops with the two stars in the spring of 2007, but it was not really until 2 April of that year that we were able to start to pull the two together. I think we have achieved the high-level strategic requirement and

processes which are needed based very much on the analysis that Peter and I did. What functions would the new organisation have to deliver? What were the processes, hence what was its structure? That is the basis of DE&S. As to what we have achieved in the past 10 months, bits of the structure are coming together quicker than others. Some of them are in Abbey Wood and can come together quicker than elements of IPTs that are moving from Andover. The through life capability planning process is coming together and is beginning to be adopted throughout the department as the way to do business in the future. In DE&S through life management planning is well under way. We have certainly taken a big bite into upskilling our people. We have sorted out the skills we need and upskilled those people who need it because of gaps in professionalism in the organisation. We have also taken a huge step to pull together the two working practices, if you like the two cultures. I am not however too fond of the word "culture". We were two different organisations and we are steadily coming together. You mentioned that we were supporting two particular and quite difficult campaigns. Funnily enough, the fact we are supporting those two campaigns has brought us together quicker than it might otherwise have done.

Q3 Chairman: That is the good side of the story. What do you say are the things where progress has not been as good as you would have liked?

General Sir Kevin O'Donoghue: I think we should have been further ahead with through life management planning. We have through life management plans. All the programmes have plans. The big programmes have detailed plans; the smaller ones have summaries. I do not think we are as far down the route as I would have liked by making sure we support equipment through life by using those plans with industry and the front line. That is one area where I do not think we are as far ahead as we should have been. The other area is upskilling. We made huge inroads into upskilling. Had it not for the fact that people are working very hard across big

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chunks of the organisation perhaps we would have been able to release people for training and upskilling to a greater extent than we have.

Q4 Mr Holloway: Is one of things you are doing less well the fact that you simply do not have the cash to fund all the programmes?

General Sir Kevin O'Donoghue: No. The upskilling is more a question of giving people time off from busy jobs.

Q5 Mr Holloway: I am referring to your overall problem: you do not have enough cash?

General Sir Kevin O'Donoghue: No. I am given a certain amount of cash and am told what my outputs are to be. I have ring-fenced the cash for upskilling.

Q6 Chairman: I think the question was slightly different. To put it a different way, what keeps you awake at night?

General Sir Kevin O'Donoghue: Current operations keep me awake at night.

Q7 Chairman: Why?

General Sir Kevin O'Donoghue: Because that is our primary aim and that is where things will go wrong and, if they are to go wrong, they will have the greatest impact.

Q8 Chairman: You said that the current operations had helped you come together?

General Sir Kevin O'Donoghue: I believe they have. There is an imperative to support current operations, which I believe has brought us closer together with people from the DPA—I do not like to say “the old DPA”—and produce UORs, as people from the DLO have been planning and supporting them to get them to theatre. That was what forced us together.

Q9 Chairman: What has been the feedback from your customer about how well you are doing?

General Sir Kevin O'Donoghue: Commanders in theatre are very supportive. It was Jonathan Shaw in Iraq who said that he had never been in a theatre of operations where he had seen so much new and outstanding kit coming through. We are now beginning to get equipment through within six months of deployment. I believe that our customers on deployed operations are content.

Q10 Mr Jenkin: We all know that priority has been given to the front line and we have been impressed by what is getting through. But we also know that the three-year spending round is a very tight settlement for the Ministry of Defence and that if the priority is the front line considerable savings will have to be made out of future programmes. That is what we want to focus upon at this point. How will you make your programme fit? We all know about the procurement bow wave and the tendency to delay main gate and contract dates in order to keep cash flow within Treasury limits. One official told me

off the record that it was no longer about cheese-paring and salami-slicing; it was now a matter of looking at whole programmes. Can you give us any indication of the process in which you are involved at the moment to make future programmes fit within the budgets allocated to you?

General Sir Kevin O'Donoghue: The process we are in, which is the same one we go through every two years, is one that looks at all the programmes. We are not yet at the end of the planning round. Everybody always says that it is the worst planning round ever, but it is progressive every year. There are always difficult decisions to make in planning rounds. As you rightly said, our aspirations are much greater than the budget ever allows us to achieve, so there are always difficult decisions to be made.

Q11 Mr Jenkin: You have 19 major projects and you do not anticipate delaying or cutting any of them?

General Sir Kevin O'Donoghue: I suspect that we will have to, but which they are and quite what they will be I do not know. We are in the middle of a planning round.

Q12 Mr Hancock: When would you expect that decision to be finalised?

General Sir Kevin O'Donoghue: I believe that recommendations will be put to ministers later next month or in March.

Q13 Mr Jenkin: You have told me something quite important. You are looking at all the major projects and you may cut or delay any of them?

General Sir Kevin O'Donoghue: We always look at all major projects.

Q14 Chairman: Do you say that this planning round is different from other planning rounds in which you have been involved in terms of the scale of potential delays or cuts you have to face?

General Sir Kevin O'Donoghue: It is certainly different from any other planning round in which I have been involved because for the first time we are looking at an equipment and equipment support budget. You will remember that in the past the equipment plan was always quite separate from the equipment support plan. I believe that what we have been able to do this year is to have much more realistic costings by bringing the two together.

Q15 Chairman: That is a difference?

General Sir Kevin O'Donoghue: That is a huge difference, and part of the difficulty we are in is that we now have more realistic costings.

Q16 Chairman: To return to the question I asked, is the scale of your difficulty different?

General Sir Kevin O'Donoghue: Yes, it probably is.

Q17 Chairman: Are you able to quantify that?

General Sir Kevin O'Donoghue: I cannot. We are in the middle of a planning round.

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Q18 Chairman: Is it different because it is worse or better? I have to ask that for clarity of the record.

General Sir Kevin O'Donoghue: I think it is a greater challenge this year than it was in 2007.

Q19 Chairman: Can you ever remember it being as much of a challenge as it is today?

General Sir Kevin O'Donoghue: Yes. When I was an MA back in the late 1970s we had some pretty challenging times.

Chairman: We shall come back to some of these issues in our detailed questions. We now want to go into the size and shape of your department.

Q20 Mr Hancock: Let me start with your own organisation. You have given a commitment that by 2012, four years from now, you will have reduced manpower levels from 29,000 to about 20,000. How will that be achieved? How can you be absolutely sure that in achieving the target you do not lose the people you most need to retain because the ones who may go off are easily employable elsewhere? How will that work out?

General Sir Kevin O'Donoghue: To answer the second part of the question first, you are absolutely right that it is a big challenge. How do you retain and motivate the people you want while other people are leaving? I do not believe that can be done with money given the way we operate; it must be done by motivating people, so it is a matter of leadership and management. As far as concerns reducing size, we started with 29,000 and we are now just under 27,000. We put the strategic intent and outlined where we needed to be in output terms to all the two stars and asked them how many people they needed. Using all the levers available to them under the new construct and HR delegations, how many people did they need to deliver their outputs and what was their profile over the next four years? That was how we finished up with something of the order of 20,000.

Q21 Mr Hancock: Do you think that in the end it will lead to your having to buy in short-term contract staff to cover some of the holes that might have been made by losing so many?

General Sir Kevin O'Donoghue: I believe that when in some areas we do buy in expertise it is not because of numerical holes but holes in professional expertise. For example, my DG Commercial and DGHR are from the outside and we need to bring in people. While the process of upskilling is going on so we can get our own people up to the required level of professional skill we need to buy in some expertise. In some areas we just do not have the expertise anyway. We would not want it in-house because it is unique and we might just want to buy it in for a week, a year or whatever it is.

Q22 Chairman: Arising out of that, is your DG Commercial Amyas Morse?

General Sir Kevin O'Donoghue: No; it is Les Mosco who is two star and he is located at the other end of the motorway. He is my DG Commercial, as opposed to the Defence Commercial Director who is Amyas Morse.

Q23 Chairman: What sort of support staff does your DG Commercial have?

General Sir Kevin O'Donoghue: Numerically?

Q24 Chairman: Yes.

Mr Gould: There are about 900 commercial staff spread right across various project teams.

Q25 Chairman: What sort of commercial experience does that staff have?

Mr Gould: Most of them are, if I may put it this way, home-grown commercial officers so they will have training from the Institute of Purchasing and so forth. They will have commercial qualifications. Most of them—there are some exceptions—will have spent their lives as civil service commercial officers rather than coming in from outside.

Q26 Mr Hancock: As to the size of the organisation, what are your plans for reducing the number of sites you occupy? Will there be enough room to locate the whole organisation eventually at Abbey Wood?

General Sir Kevin O'Donoghue: No. We will not get 20,000 people into Abbey Wood, and we would not want to anyway given the big numbers of the organisation, the naval bases, airfields and so on. The intention is that by 2012 all those people who are office-bound and who do not need to be somewhere else specifically because that is where their job is will be in Abbey Wood.

Q27 Mr Hancock: Would that release a number of sites that you solely occupy, or are there sites that you share with others at the moment?

General Sir Kevin O'Donoghue: It could do. As an example, Chief of Defence Intelligence is moving into Wyton behind us, so the whole estates plot moves round.

Q28 Mr Hancock: What about your relationship with MoD centrally? Their plan is to reduce their staffing by 25% over a period similar to yours. Will that have a consequential effect on your ability to deal with them and have the same ongoing relationship, or will it be weakened by that?

General Sir Kevin O'Donoghue: I think it will be stronger. The whole point of MoD streamlining is not just to take out 25% of staff but to make it more effective, and I believe the permanent under-secretary has accepted that fewer people can be more effective. In that sense I think that we should get through the approval and decision-making process quicker. There is a danger that some of the things currently done in the main building will move into DE&S. I do not have a problem with that at all, if that is the right thing to do, provided the resources to do it come with it.

Q29 Chairman: Can you talk us through the concept of fewer people being more effective?

General Sir Kevin O'Donoghue: There are some examples. If I may talk about DE&S where I have a greater understanding, we put together two big organisations. We pulled in two sets of processes. For example, the DPA and DLO had assurance processes and we put them together. It has become very clunky and we need to think out that process and in so doing there is some duplication of numbers. By reducing the process and hence the numbers we can make the process itself much more streamlined and the decision-making much quicker.

Q30 Chairman: How do you ensure that you lose the people you want to lose and not the people you want to keep?

General Sir Kevin O'Donoghue: This is very much a line management business. It is for leadership and management to persuade those whom we really want to keep that life in Abbey Wood is good and this is what everybody wants. Once I can see people wanting to move out of main building down to the other end of the motorway I shall know that we are beginning to have a degree of success.

Q31 John Smith: Of course, all of this is nonsense if we do not have the right skills?

General Sir Kevin O'Donoghue: Absolutely.

Q32 John Smith: In your introduction you referred quite rightly to upskilling the workforce in the newly-formed department. With through life management capability and long-term private sector partnership, which is what we are now embracing, it is successful in the private sector precisely because, as scarce as they are, they have other very important skills, especially commercial lawyers. Have you completed your skills audit, and what gaps if any have you identified within the department?

General Sir Kevin O'Donoghue: We have not completed the skills audit but we are a long way towards it. In financial and commercial we have completed that audit. Both DG Finance and DG Commercial know the number of posts that they need to fill with professional people and at what level those people need to be. We are upskilling those people. We shall achieve the 50% target in both areas by the end of this year.

Q33 John Smith: The original target date was March 2008?

General Sir Kevin O'Donoghue: I meant that we shall achieve it by the end of the financial year. We shall not achieve 50% in project management but then we were not training people specifically in project management before DE&S was formed; or just as it was being formed the DPA and DLO boards agreed that we should put a programme in place. But by the end of March 2008 I think we should have about 320 qualified people—I cannot remember the exact figure but it is in the memorandum—in project management. We have barely started inventory management and the logistics side. Courses have

been set up in the Defence Academy in Shrivenham and they look good. The first courses have been run and people are enthusiastic about them, but we shall not have the skills up to the level needed. Engineers are in short supply. It takes quite a long time to train a chartered engineer, so we are progressing with that. Next year we shall continue with the five areas that I have been talking about and embark on another three areas: integrated logistics support; HR and sustainable development. We shall start to upskill the people who work in those particular disciplines. The answer to your question is: no, not by a long way, but I think we have taken a big chunk out of it and we now have it running and pointing in the right direction.

Q34 John Smith: Are you satisfied that your reward structure is flexible enough to recruit and retain the right type of skill and professional?

General Sir Kevin O'Donoghue: No, it is not. That is something in which the personnel director is engaged; it is not something I can do within DE&S. It needs to be either department-wide or perhaps civil service-wide. I do not believe that we have the right rewards. I should like to be able to pay people for their professional qualification when they are in posts that require that professional qualification.

Q35 John Smith: To pick up Mr Hancock's question, exactly how much are you spending on consultants?

General Sir Kevin O'Donoghue: I do not know. I would have to come back to you specifically on that.

Q36 Chairman: Could you come back to us on that point?

General Sir Kevin O'Donoghue: Yes.¹

Q37 John Smith: I should like to know the amounts and also the proportion of the total wage bill.

General Sir Kevin O'Donoghue: Of course.

Q38 Chairman: As to the courses in Shrivenham to which you referred, are you confident that they will be funded next year?

General Sir Kevin O'Donoghue: I fund them and I have ring-fenced the money.

Q39 Richard Younger-Ross: What progress are you making in the implementation of the Defence Acquisition Change Programme?

General Sir Kevin O'Donoghue: I think it is moving along quite well. The merger between DPA and DLO is a big part of the Defence Acquisition Change Programme, but the other work strands are very important. Without the other work strands all the good things that I think we can do by merging DPA and DLO will not be nearly as effective. The other work strands are the budgetary planning process and the whole business of having a 10-year budget with equipment and support for that equipment not yet in service held by the equipment

¹ See Ev 40.

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capability community and, as for equipment that is in service, for the first four years to be held by the front line command. That has put money where priorities and decisions need to be made. I do not own the support budget any more except that I am given money in year and told by the front line commands what their priorities are. That is one really important strand and if you wish I can go on to talk about the others.

Q40 Richard Younger-Ross: You seem very pleased with its progress. Is there anything that delays it or holds up any part of it?

General Sir Kevin O'Donoghue: One of the strands was to produce an affordable and balanced budget and that will be a challenge, as I think the permanent under-secretary said.

Q41 Richard Younger-Ross: One of the targets for performance management is the creation of a set of metrics. Have those been set?

General Sir Kevin O'Donoghue: We are setting them.

Q42 Richard Younger-Ross: By when do you expect that to be done?

General Sir Kevin O'Donoghue: We need something in place by the start of next year. The challenge was to move from input to output metrics. How do we measure through life capability? How do we persuade this Committee and others that we are delivering through life capability in the way we say we are? It is those sorts of metrics that we are now putting in place. We shall trial them between now and 1 April and see whether we can develop something that is meaningful in the way of a through life capability measure.

Q43 Richard Younger-Ross: Not only are you being asked for through life capability but the change programme is meant to deliver capability more quickly?

General Sir Kevin O'Donoghue: Yes. The challenge placed on me by Lord Drayson—it was placed on the department because there are more players than just DE&S—was to reduce acquisition time, particularly the demonstration and manufacture bit of it, by 50%. The CADMID cycle is that the concept phase is the concept phase. As to the assessment phase, I have always resisted an arbitrary cut in time because I think that for some very complex and highly technical projects you need a longer assessment phase; you need to de-risk before you move to demonstration and manufacture. But we are looking at ways to reduce the demonstration and manufacturing phase by 50%. Part of it is much quicker decision-making within MoD.

Q44 Richard Younger-Ross: You used the words “looking at”. Are there any examples you can give to assure us that this is happening?

General Sir Kevin O'Donoghue: FRES is quite a good example of reduced timescales.

Mr Gould: To give a specific example emerging from FRES, what we have done with the demonstration trials—the so-called trials of truth—is that rather than seek to develop an entirely new vehicle from scratch we are taking existing designs and finding out how much further development needs to be done, so the amount of work that needs to be done at the D&M phase is the minimum necessary to get to the initial upgrading capability, not the complete redevelopment of an entirely new design. That is one way of cutting into the time taken up.

Q45 Robert Key: Before we get any deeper into detail I want to ask you about the philosophy of where you think you are going. What do you believe the Ministry of Defence wants? Does it want fewer people in your organisation or to spend less money on that organisation?

General Sir Kevin O'Donoghue: It is very clear that the government-wide target is a reduction in the cost of overheads and that is the administrative cost regime laid upon all departments.

Q46 Robert Key: If any organisation is told to reduce the cost of people it can do it in two ways: it can lose a large number of people who are not paid very much or a small number of people at the top who are paid more. Which are you doing?

General Sir Kevin O'Donoghue: It will be both. This is not a downward pressure on numbers. How many people do you need to deliver your outputs?

Q47 Robert Key: Are you relying upon being able to buy in consultants for the expensive jobs and losing more of the people who would be there if you did not have to engage those consultants?

General Sir Kevin O'Donoghue: A lot of the jobs will go because as we move to contracting for availability a lot of the transactional work that we currently do in-house will move to industry. As we form these partnering arrangements quite a lot of the work done will move across to industry which is better placed to do it. I think we shall finish up with a higher skilled and paid workforce but a smaller one.

Q48 Mr Hancock: One of the criticisms we have often had from industry is that the customer can choose the changes and expectation of the particular equipment it has sought to obtain. What will you do to overcome the issue of the goal posts being continually moved by the customer who demands changes and costs go up mainly, as manufacturers tell us, because the process is not clear from day one?

General Sir Kevin O'Donoghue: Perhaps I may separate that into two. You are absolutely right that there is requirement creep, as it is called, and customers, in this instance front line commands, will often change their minds. That is something about which we need to be fairly rigorous, unless it arises because the threat or security aspect has changed. A very good example perhaps is electronic counter-measures where the threat continually changes and the reaction by industry working through the project

teams has been outstanding. ECM equipment is continually being altered to meet changing threats. We need to become much more agile.

Q49 Mr Hancock: But in some instances it has prevented much needed equipment coming into service, has it not?

General Sir Kevin O'Donoghue: You may be right, but there is always a balance. Do you want something that is 80% right now—this is my view—with an open architecture that you can build on incrementally as changes occur?

Q50 Mr Hancock: I would settle for that, but we have not done it in the past?

General Sir Kevin O'Donoghue: We have not always done so, but the line we are driving forward now is to have an open architecture with incremental upgrading and innovation to be added as required either by the threat or as research and technology develop something much better.

Lieutenant General Applegate: In addition to guaranteeing operational focus within the organisation I work in the other direction to make sure that they are part of the team and understand the consequences of some of the decisions and the requirements they set. We want to make sure they are involved in the trading process and understand the cost of some of the things they would like to have. I am there to make sure they are realistic and pragmatic. In a way, it is a matter of weighing up the various competing demands of those in the front line, particularly those on operations, those in the equipment customer community in London who set the requirement and those in DE&S. One of the roles of the Chief of Materiel is to span all of those to try to make sure that we do not have an “us and them” approach. We shall come back to FRES later, but part of the role we have been playing is to make sure there is absolute realism, that hard decisions are faced and that adequate briefing is given so there is a greater understanding of the technological background and proper cost implications, not keeping them at arm's length and saying, “Well, that is our specialist business. You just tell us what you want.” Fundamentally, that is one of the roles that we as Chief of Materiel have in dealing with each of the front line services.

Mr Gould: A fundamental of good project management is good change of control. What you need to do is use the assessment phase to do the trading process to which General Applegate referred and ensure there is a common understanding between ourselves, suppliers and customers about the level of capability following the assessment phase investigations which will be pursued in the initial development and production standard. I think you will find that our clients in the Armed Forces, the users, are prepared to do that kind of bargaining provided they can see in a long-term project that there is a growth path to insert capability changes as you go through life in the future. The key to the whole thing is good change control. The kind of thing to which Mr Hancock

refers happens when you do not exercise good change control inside the project and that is where both we and industry suffer the uncontrolled change to which reference has been made. It is a fundamental of good project discipline that that is carried out, working with the customer and supplier to make sure it is done properly.

Q51 Chairman: There was a time when smart acquisition was the Holy Grail. Do you say that defence acquisition change has taken its place?

Mr Gould: I do not believe in holy grails for project management; other people may do so. If I were to write a book on the subject it would be called *No Golden Bullets* or something like that.

Q52 Mr Hancock: Is it a change for you, Mr Gould?

Mr Gould: No, it is not, but I have learnt a lot over the years, believe me. It comes down to the discipline of good project management. The change programme can provide you with the right atmosphere, surroundings and conditions, but fundamentally it is good project and good programme management that gets you the right result. There is no magic formula. There are some really good disciplines. I have here a 10-point card which I am very happy to share with the Committee.

Q53 Chairman: What is the top point on that 10-point card?

Mr Gould: The top point is that we lay down the foundations of success early. Hindsight is a wonderful thing, but for most projects that get into difficulties you can look back and say that that was all foreseeable if only more attention had been paid to it right at the start and people had not given in to the temptation to compromise, ignore a difficulty and pretend something could be done quickly when it could not be. I think the most difficult thing is to retain that sense of objectivity and realism in the programme but at the same time not lose the ambition.

Q54 Richard Younger-Ross: My background is architecture which is a form of project management. The one bit I learnt as the defining point is that if you did not get the brief right everything else would fall apart. A very good example is defence procurement where the brief keeps changing.

Mr Gould: Fundamentally, one talks about good change control, but that starts with having a really good common understanding on both sides as to the project outcome that is expected, the brief if you like.

Q55 Chairman: May we please have copies of your card?

Mr Gould: You may indeed.²

Q56 Chairman: Who else has it?

Mr Gould: It is available on the acquisition operating framework, so anybody who has access to the defence intranet can obtain it.

² See Ev 40.

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Q57 Mr Jenkin: Did you give it to the new minister?
Mr Gould: I am not sure that I have yet, but I will make sure that is done.

Q58 Chairman: I am sure she will look forward to it.
Mr Gould: I have certainly discussed it with her, but I shall make sure she has one.

Q59 Mr Jenkins: I had the opportunity to see Lord Drayson a couple of weeks ago. He took time off from racing his biofuel cars round circuits in America and so on. He said that one of the big differences between what he is doing now and the defence side is that if in the afternoon a Formula 1 car suffered a broken strut when going round a track it would be photographed, downloaded to the manufacturer, the alterations would be discussed, the part would be made, flown out to the circuit, fitted on the car and the car would be on the track next morning. He does not expect the defence industry to achieve that pace in the near future but there is a marked difference in terms of how long it takes for it to get to that dealer and produce an enhanced strut, or even get round to seeing the one that is broken. As to Through Life Capability Management, would you like to explain to the Committee what benefits you expect from this approach?

General Sir Kevin O'Donoghue: Perhaps I may first comment on your initial statement. The way we achieve what Lord Drayson describes is through contracting for availability. When the cost of not repairing something falls on the contractor he repairs it very fast. A good example may be Rolls-Royce at Filton near Bristol. They have a military engine operations room across the end of which is a big sign for the Rolls-Royce workforce to see—we contract for availability of engines—which says “Remember! Spares are now a cost, not a profit”. Harrier is another very good example. Under the old way of doing business if something was wrong with a Harrier photographs were taken, reports were written and it was sent back to BAE Systems and perhaps some time later a view would be taken. Now there is a BAE Systems engineer on site and he has to be available within two hours. He may still say that it is not airworthy, but at least a decision is made very quickly. That is because we are pushing back onto the manufacture the risk of unreliable equipment. Risks arise in a number of ways. Financial risk seems to migrate back to the biggest player, which is ourselves; operational risk will always stay with us, but I do believe that the risk of unreliable equipment is one we must push back onto the manufacturer.

Q60 Mr Jenkins: Therefore, things are getting better?

General Sir Kevin O'Donoghue: They are certainly better.

Q61 Mr Jenkins: Can you tell us what the benefits are of through life capability management?

General Sir Kevin O'Donoghue: Through life capability management is all about bringing together all the lines of development: doctrine, manpower and training, not just equipment and equipment support. If we go down the through life capability management route properly the equipment capability area—the main building—will pull together those various strands and take account of all of them when making decisions about capability. In the past we have bought things, supported them when they have come into service, thought about the manpower needed, the doctrine, and the infrastructure to house whatever it is in a not very coherent way. There are some good examples from the past, but by and large it has not been done very coherently. Through life capability planning and management will bring all of that together in a plan owned by DCDS(EC) and directors of equipment capability and managed by the IPT.

Q62 Mr Jenkins: So, what is the benefit?

General Sir Kevin O'Donoghue: The benefit is that we are not wasting money by buying something that is too big for the garages or we do not have soldiers trained for it, that is, buying something that comes into service next year and we have not trained the soldiers to be ready to operate it at the same time. It is a matter of coherence.

Mr Gould: An example is the patrol vessel HMS Clyde which we have not bought from Vosper Thornycroft. We are buying from them five years' worth of ship time. What Paul Lester at VT says is that he believes the cost of building that ship to make it reliable so he can meet the terms of the contract is probably in the region of 5% higher than it would be to sell ship time. One of the big benefits of Through Life Capability Management and through life management plans for projects is the ability to invest upfront in something that will be cheaper and easier to maintain and subsequently to modify and improve throughout its life. When you do not have a through life approach you do not have a mechanism for doing that trade which says you should invest early for long-term benefits. We also plan with our suppliers how to provide support. Therefore, on the A400 aircraft which I am sure we will return to even before the first one has been built we are looking at what arrangement we shall put in place to support and maintain that aircraft through its life rather than doing it as an add-on later in the programme. In terms of total equipment plan even for that there is an enormous benefit to come. If we also look at training, doctrine, use and so forth we shall also make sure that we get the benefit out of the equipment in military terms more quickly than we can by doing all these things sequentially which was what tended to happen.

Lieutenant General Applegate: I think that from a user's perspective we cannot have confidence that we will be able to grow incrementally if there is no plan in place. Therefore, it would be difficult for me to say to the front line user he should trust us because what he is getting is only the first step and later on there will be improvements. He may ask me to prove it or

show him how we have prepared for that. Do we have a technology road map which will identify where it is possible to introduce that? Is the electronic architecture capable of enabling that to be brought in? Do we have the necessary skills? Is the relationship with the industrial sector right or does the industrial sector even exist to do it? What do I have to do in order to confirm the requirement and when I might want it? What difficult choices might I have to make about whether to invest in the upkeep of a particular system or its replacement? I think that through life management planning is fundamental to the development of improved trust between members of the defence team rather than something which in the past was too adversarial.

Q63 Mr Jenkins: Therefore, something like the acquisition of Apache helicopters some of which were placed into a big hangar and somebody was paid £24 million to wipe the dust off them and keep them maintained because we had not trained the pilots could never happen again?

Lieutenant General Applegate: I would hope the chances of it happening again are hugely reduced, but I never say "never". Unfortunately, the world has a tendency to surprise one.

General Sir Kevin O'Donoghue: It should not happen by default. In future we shall know and make decisions on what we want to do.

Q64 Mr Jenkins: This was a great idea which came up in the defence review of 1998. Why has it taken so long to get it imbedded in the MoD?

General Sir Kevin O'Donoghue: I think the defence review in 1998 referred to through life equipment planning and management. That was what the DPA and DLO attempted to do. I do not believe that it concerned the whole capability or all the defence lines of development. DPA and DLO were trying to do through life management planning of the equipment and its support through life, with some success in some areas. A very good example is special projects and those have been through life IPTs for a long time. With the best will in the world, with an acquisition IPT in Abbey Wood and a support IPT in Wyton for aircraft or Andover for vehicles, to create that through life equipment plan was quite a challenge. That has been enabled by putting together the two organisations and sorting out the budgets.

Q65 Mr Jenkins: I am glad you have gone to budgets. Do you have in mind a programme that has not gone down this route and one that has? What are the financial benefits, or any other benefits, of going down this route? Can you give an example of where it has paid off?

Mr Gould: An example of a programme that has not gone down this route is Apache. You have referred to a very good example of what happens when you do not do a proper through life plan and get the brief right at the early stage of procurement. The pressure was to spend the money to get the aircraft and then the rest of the problems could be sorted out later. That might be the right decision but it has a

consequence. If you do that you know what the consequence is. A good example of through life planning and technology management, production, logistics support and constant technology refresh in response to threat changes in the area of special projects is electronic counter-measures to which General O'Donoghue referred earlier. All of that derived from work in Northern Ireland. By having a constant stream of technology work and refresh we were then able to make adjustments and do modifications or build new systems to cope with threats that emerge very rapidly in today's operations. If you do not have that long background of technology management and planning how do you manage the equipments, distribute them and get the information into the equipments that make them effective on the day? If we did not pay attention to that all through life we would not be able to do what we are doing today. Therefore, today's through life success depends on long-term equipment and technology planning from the past. I would say exactly the same thing about nuclear, biological and in particular chemical protection equipment which is a good example. What we are able to do today is the result of a very long-term technology programme that also produces projects in future.

Q66 Mr Holloway: To pay up front to support the kit in the future sounds absolutely marvellous, but how on earth are you supposed to do that when most of your budgetary considerations are short term and everything is rather over-heated? By way of example, the carriers cost £3.9 billion. Is that the through life cost?

General Sir Kevin O'Donoghue: No.

Mr Gould: That is the demonstration and manufacturing cost.

Q67 Mr Holloway: Is what you have been talking about for the past five minutes more an aspiration than what you are actually doing?

General Sir Kevin O'Donoghue: It is an aspiration in that the Defence Acquisition Change Programme started 10 months ago, but the offshore patrol vessel (OPV) referred to earlier is a very good example of this. We need to instil this in everything we do as we go forward and to recover some of the programmes already in existence is quite difficult.

Mr Gould: But DE&S has a very detailed through life management plan to go with it.

Q68 Mr Jenkins: I understand that you are discussing methodology here and how systems work. While I appreciate that a big and complex programme needs this device do all programmes require it? Where is the cut-off point? When do you decide that it is not suitable for a particular programme?

General Sir Kevin O'Donoghue: In my view all programmes need a through life management plan. The detail of that plan will vary. If it is a big, complex project, for example the carriers, it will need a

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detailed plan; if it is a small project it still needs a through life management plan but it could be relatively simple.

Q69 Mr Jenkins: The MoD is now moving on to “improved through life costings using simple models, to support through life decisions”. When will the improved models be developed? When will they be implemented and used? If we are to look at through life costings with the use of these models, which programmes will they be and how much do you see going towards the original manufacturer to maintain the through life programme on our behalf under the defence industry strategy approach that you are now developing? How do you see it developing?

General Sir Kevin O'Donoghue: If I may answer the second point first, I do not see industry running our through life management programmes; I see them being done jointly. To go back to the start of a project where you are competing for a particular programme, we will have our project team and each competitor will have his project team. As soon as you go to the preferred bidder you should co-locate those project teams so that geographically they are in the same place. As soon as you sign up to a contract you should merge those teams into a joint team. The through life management plan will then be held jointly. Industry has a big part to play in it; it is not something that you hold at arm's length from industry.

Q70 Mr Jenkins: Therefore, in future as far as the first part is concerned you do not envisage the transfer of some of these functions and therefore the nuclei of the bodies in the MoD into industry?

General Sir Kevin O'Donoghue: Not those functions, no.

Q71 Mr Jenkins: That is not part of the plan?

General Sir Kevin O'Donoghue: No.

Q72 Mr Jenkins: Does the structure and expertise you get depend on the nature and amount of the programme? If you cut the programme will it have an effect on the size and cost of the team?

General Sir Kevin O'Donoghue: Yes.

Q73 Mr Jenkins: Therefore, if there were eight Type 45 destroyers on the books but we had placed orders for only six would it have implications for the viability of the team?

General Sir Kevin O'Donoghue: I am sorry; I did not understand. No. You change the numbers from eight to six. You have a through life management plan and you know when you will insert technology and when various things have to be changed either for reasons of obsolescence or to upgrade because of the threat. If you doing it to eight instead of six the cash numbers will be different but the plan in words will be the same.

Q74 Mr Jenkins: If we have the carriers and the nuclear submarine replacement on the books and you hope to do this for both big projects how do you get the manpower and skills required in place, or what plans do you have to put it in place?

General Sir Kevin O'Donoghue: Some of the skills we need to draw in from outside. As far as the successor programme is concerned there are not many places to draw nuclear engineers from outside. We need to train our own, and we are doing that. We are drawing in people and looking at universities that produce nuclear graduates, but some programmes come out like the carriers and other programmes diminish; they are either in steady state or the equipment is coming out of service and people can move across.

Mr Gould: They are quite different. As you know, in the case of the carriers we have built an alliance of a number of companies to do that programme because it must be thought of as something that we do perhaps once every 50 years. It is not a continuous programme. This country has never built a 65,000-tonne warship, so it is quite unusual. We have a core team comprised of DE&S direct employees, both service and civilian engineers, but added to those most of the design work is being done by alliance partners. The production engineering work will be done by people in the shipyards which will have to augment their people while they do that phase of the project. But as one goes through the manufacturing phase into final assembly and introduction into service those numbers will diminish. We will have a small core team that continues and around that alliance partners will change over time. Submarine building, whether it is for SSNs or SSBs—ballistic firing or attack submarines—is a specialised business both for us and industry. It includes not just nuclear engineers but engineers who have familiarity with and main knowledge of submarine building. It is quite unlike anything else. In that area I have to plan on the basis that we will keep a group of submarine people in the cluster—the people who build all the submarines—at pretty much a constant level. That will be a group of several hundred people who have long-term expertise, memory and training and new people will come in; and the same is true in industry. They need to keep a core workforce of about 3,500 at Barrow which is our specialised yard. It must be tuned to that; you cannot allow it to vary too much or you will literally forget how to build a submarine and when you start to try to do it again you get into big trouble.

Q75 Chairman: That depends on orders, does it not?

Mr Gould: It does. You take a very big risk if you have erratic submarine orders.

Q76 Chairman: You do not know what the orders will be, do you?

Mr Gould: But I have a very good plan. We now have three contracts on the Astute class; we have a fourth where initial contracts are already being placed. We have a design for cost reduction contract and long lead items on the reactors for the fifth boat. We need

to keep going at that rhythm to use the Astute learning to build into the successor programme to make sure we do not lose those skills and collective memory as we go through.

Q77 Robert Key: I want to turn to costs. In our report on the MoD annual report and accounts published yesterday we noted that the Defence Procurement Agency had met all its key targets in 2006/07 for the second consecutive year, which was very good news. Do you expect that the DE&S will meet the former DPA targets for 2007/08?

General Sir Kevin O'Donoghue: We will meet the cost and performance targets but I do not think we will meet the time target, for which there are good reasons that I can go into if you wish.

Q78 Robert Key: The MoD Autumn Performance Report stated that the major programme showing cost growth at present continued to be Nimrod MRA4. What is going on with that programme?

Mr Gould: We have something which usually happens on aircraft programmes, that is, an overlap of production with flight trials. As you know, we have let the production contract for MRA4. The flight trials are going well but what happens is that you finally discover some things that need subsequent modification as you go through the production programme. There has been a problem of pitch on the aircraft, which is not unusual; it happened also on the MRA2, but the MRA4 has much bigger wings and more powerful engines. We cannot solve it in the same way and so we will have to make a stability modification on the production aircraft to deal with that problem. That accounts for about half of the cost growth referred to in the interim report. The other half is the cost of converting the three trial aircraft. There are three prototype aircraft doing the trials and the plan is to convert those to the production standard. The total we are talking about is £100 million which is just a little less than 3% of the total programme cost.

Q79 Chairman: You say it is not unusual. If it happened with the earlier version this was predictable?

Mr Gould: It was predictable, but you cannot do any kind of system or flight trial test, or the test of any sophisticated equipment, until you have built the prototype; that is the first time you can test it against reality. I am quite sure that all sorts of simulations, wind tunnel tests or anything else you can think of were gone through in this programme and the problem was not identified at that point. Therefore, although it occurred on the MRA2 it would have been a low probability. Unfortunately, low probability but high impact risks occur during testing.

Q80 Robert Key: I recall that that happened also with the Hercules upgrade?

Mr Gould: That was much more difficult. Lockheed had a number of very significant problems on that programme.

Q81 Chairman: Therefore, no contingency has been built in for this happening?

Mr Gould: A contingency is always built into a project, but if we did that for every single risk that we identified in terms of time and money you would criticise me for coming in under budget on all of the projects and wasting resources which could have been used for something else.

Q82 Chairman: When did we last criticise you for coming in under budget?

Mr Gould: You never have.

Q83 Chairman: Because you have never done it?

Mr Gould: On the original Trident programme, yes, I did. We had a very large contingency in there, but if you fund a very large contingency it takes money away from other projects that you are doing.

Q84 Chairman: Surely, what a large contingency does is create a realistic defence procurement programme?

Mr Gould: I would say you should put into the contingency a sum that budgets and funds in time and money for the risks that you believe are the most likely outcome in the project. That is really the definition of what we call the P50. If you put in every single risk, including those that you think are unlikely to emerge, you will over-egg the contingency.

Q85 Chairman: This one being not usual; it had happened before?

Mr Gould: It happened before on the MRA2 but not during the wind tunnel trials on the MRA4. How much collective memory is there? How long a gap was there between the MRA2 conversion programme and the MRA4? It was something in the region of 20 years. It would not be surprising if some of that experience was lost.

Q86 Mr Jenkin: Do you think that the Airbus consortium is in possession of this wisdom? It is producing what will be a production aircraft *ab initio*; there will be no trials before it starts to produce it.

Mr Gould: Are you referring to the A400?

Q87 Mr Jenkin: I refer to the A400M.

Mr Gould: There will certainly be flight trials.

Q88 Mr Jenkin: I appreciate that it will do flight trials but it will be with a production aircraft. Do you think we should build in a bit of extra contingency for see-sawing, yawing and pitching?

Mr Gould: I think we should take a very cautious view of the time it will take to complete flight trials on A400. It is an extremely challenging programme. The one most like it in my view is the American C17 programme which is now extremely successful and we are doing very well with it but, my goodness, it went through problems to bring it to where it is today.

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Q89 Robert Key: Which other major projects are sharing cost growth in this financial year?

Mr Gould: Cost growth is Nimrod.

Q90 Robert Key: Where are you making the largest contingencies for major projects this year?

Mr Gould: In terms of time?

Q91 Robert Key: In terms of money.

Mr Gould: There is one other major project about which I have some concern in money terms and that is the BVRAAM Meteor air-to-air missile. The risks there are not so much technical—because the missile programme itself is going quite well—as production costs. We are signed up for production but the other nations are not. At the moment they do or do not sign up for production that will have a major effect on the production costs of the missile. The uncertainty about that is a concern. Again, as to the integration cost of Typhoon, whether or not the Italians come into that programme will have an effect on that budget.

Q92 Robert Key: It is quite difficult to get a handle on some of these things. For example, the current cost forecasts for Typhoon are restricted. Why is that so?

General Sir Kevin O'Donoghue: I shall be very happy to offer the Committee a closed brief on Typhoon, but for commercial reasons it would be quite difficult to talk about it in open session.

Q93 Chairman: We would be happy to have a closed brief, but are you not able to answer the question put by Robert Key?

General Sir Kevin O'Donoghue: Not about the cost, no.

Q94 Robert Key: In principle, why is the cost restricted?

General Sir Kevin O'Donoghue: Because we are in the middle of commercial negotiations.

Q95 Robert Key: With whom?

General Sir Kevin O'Donoghue: With Eurofighter.

Q96 Robert Key: In that case I may be able to help. There has been a report this week in the German press of a letter from Eurofighter GmbH to the German Defence Ministry saying that the bill for the Eurofighter will increase by about €10 billion more than expected, of which Britain's share of additional spending will be €5.8 billion because of certain systems and other modernisation programmes put into the procurement process. Is that right?

General Sir Kevin O'Donoghue: I am not happy to say any more. I am happy to say it privately.

Robert Key: Is it not extraordinary that we can get this information from Germany but our own Ministry of Defence cannot provide it? That is why I seek clarification.

Chairman: You have offered us a private briefing and we will take you up on it. This is obviously a matter of key concern to this Committee no doubt as well as to you.

Q97 Mr Holloway: I am fairly ignorant about the whole Nimrod programme, but are we not constantly reinforcing failure? Is there an argument even at this stage for thinking about a completely different platform?

Mr Gould: We went through this in very great detail in about 2003 when there was a major crisis in the Nimrod programme. There was an open question at that point as to whether we should continue with it or just stop it and it should not go anywhere. One of the questions we asked was: if we did not go with the Nimrod what aircraft would we go with? We could not find a substitute at that time. It is quite a specialised design because it is not just a flying platform that sucks up information and you take a civil aircraft and put some kit in it like a Boeing AWACS or something like that. It is an aircraft with a bomb bay and it does tactical flying to be able to deliver its torpedoes and ordnance in the right place at the right time. To take a civil aircraft design and turn it into a tactical military aeroplane is a pretty hard call. At that time we looked at it very carefully and could not find an alternative way to go and eventually we made the decision across government to continue with the Nimrod programme. At this stage we do not have the pitch problem but we have to make a modification to ensure it does not recur on the production aircraft. The production, flight trial and mission system programmes are going very well.

Q98 Chairman: But other countries struggle by without Nimrods?

Mr Gould: They certainly have struggled. Most other countries that have this use something called the P3 which is a Lockheed Orion aircraft. That was a contender, but it does not have the endurance of Nimrod. Indeed, the Americans are moving to the multi-role maritime aircraft and have been struggling for about 15 years to try to find a way to move from the P3 design to something more capable.

Q99 Mr Holloway: It just seems bizarre to be doing this to a rotting old 1950s aircraft?

Mr Gould: Most of it is new.

Q100 Mr Holloway: Not the one that I went on recently, although maybe the electronic gizmos are new.

Mr Gould: The wings, engines and undercarriage are new.

Q101 Robert Key: The airframe is not.

Mr Gould: The fuselage is not.

Q102 Mr Jenkins: Is there a case for having a general procurement contingency rather than just an inflated budget because we have underestimated the contingencies on different programmes?

Mr Gould: I agree that there is. Indeed, some of the contingencies for projects in the future are held centrally by DCS Equipment Capability, General Figgures, our customer, rather than as part of the project cost.

Q103 Mr Jenkin: Does that prove sufficient?

General Sir Kevin O'Donoghue: We do not have one yet.

Mr Gould: The answer is no because we do not have a balanced programme.

General Sir Kevin O'Donoghue: But the right way to do it is to hold it centrally in the equipment capability area rather than down at project level.

Q104 Mr Jenkin: But you do not yet have approval for that?

General Sir Kevin O'Donoghue: We do not have the money for it yet, and it will be part of PRO8 as we go forward.

Q105 Mr Jenkin: As to slippage, for which you cannot have a general contingency, MPRO7 was worse than MPRO6. Will MPRO8 be worse than MPRO7?

General Sir Kevin O'Donoghue: Yes.

Q106 Mr Jenkin: To what do you attribute the major slippage?

General Sir Kevin O'Donoghue: I shall ask Mr Gould to pick up the specifics, but there are really three reasons for it. One is that there is slippage; the programme is not going as fast as we thought it would, and that might be for technical reasons or whatever. The second big factor is that it is an international project over which we really have no control. A very good example is A400M and Typhoon. We do not have control over the time of delivery. The third matter is those areas where we have chosen for one reason or another not to bring something in when we first thought we would. Meteor—BVRAAM is a very good example of that. For operational reasons we do not need to bring that in when we originally said we did. I will not go into more details, but there was a conscious decision to bring in something late.

Mr Gould: We have already talked about the A400.

Q107 Mr Jenkin: Perhaps I may ask a question about A400M. What is the latest cause of slippage and what is the latest in-service date?

Mr Gould: The latest in-service date that we currently predict is July 2011. The original approval was December 2009. We lost a year because the German Government took a year to sign the MOU and so no work was done. The lesson there is: do not sign up to an in-service date until the German Government has signed the MOU. I have something called the project rehabilitation unit which is a kind of special force that I move around from project to project. It has made a review of A400. To some degree we are fortunate because we are not taking the first aircraft off the line. The initial customers, the French, will be the ones who are most hit by the

production delay. They have missed the milestone for starting assembly of the first aircraft and have had delays on the engine programme, so both of those things will combine to delay the programme, but it will not be a one-for-one delay of a year; it will be less than that for us because we take subsequent aircraft.

Q108 Mr Jenkin: Can we say that in retrospect it would have been cheaper and better to stick with C17s and Hercules?

Mr Gould: It depends on how many C17s you buy.

Q109 Mr Jenkin: But in terms of the cost of transporting a cubic foot per mile over the lifetime of the aircraft is that not so?

Mr Gould: Not necessarily. The C17 is an enormously expensive aeroplane both to operate and to buy.

Q110 Mr Jenkin: But presumably the unit cost per cubic foot is lower than that for a Hercules because it is a much bigger aircraft?

Mr Gould: If you fill it up on every journey that is true, but it is unlikely that you will do that every time.

General Sir Kevin O'Donoghue: The C17 is really a strategic aircraft. The A400M will be tactical as well as strategic.

Mr Gould: You would have had to buy more Hercules which would not have the carrying capacity of the A400. Therefore, the A400 will be a very good aircraft for the requirement. The other day I heard somebody from Airbus say that it is technically more challenging than the A380. They will get there.

Q111 Chairman: Do you say that buying the A400M was a large industrial project to keep wing manufacture in this country?

Mr Gould: There was certainly a lot of industrial pressure to do that, but practically in terms of cost per flying hour it will be a very good aircraft. It is very challenging because you are trying to get something that is in between Hercules and the C17 at a price which is closer to Hercules.

Q112 Mr Jenkin: On slippage generally, what is your master plan to reduce and contain it so it becomes predictable? Of course slippage also increases cost.

Mr Gould: It does not always increase cost. It increases cost if you need to keep older items in service; it can increase Treasury interest on capital charges.

Q113 Mr Jenkin: But what is the plan to stop this happening?

Mr Gould: I come back to my first point about laying down the conditions for success early. Time has a different characteristic from performance and cost. Performance and cost can be bound contractually and legally. You can say that you will not make a milestone payment until a certain level of performance has been demonstrated and so on. You

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can certainly make the schedule contractually binding, but you cannot make it obey the laws of physics if it does not want to. The laws of physics have their results towards the end of a programme, because you find difficulty in a programme—it is not always the case, and not for the A400 currently—when you begin to do your system test and you cannot do that until you have a prototype on which to do it. What it means is that you are carrying not so much risk but a degree of uncertainty into quite a late stage of a complex technological project. The question is: how on earth do you deal with that both contractually and in terms of setting an ISD? We used to do that by having something called a confidential policy date, which is exactly what it means. It was something we kept to ourselves and we did not share with the contractors what we really thought they would achieve. We cannot do that nowadays, but it made us pay a lot of critical attention to the manufacturers' schedule. One of the things we are now putting back into project management skills—we need to do more—is the requirement to pay critical attention to the contractor's schedule and consider whether it is really credible. I know of contractors who are told by their own technical advisers that the test schedule ought to be 40 weeks and the management says it should be 25 because that is where the profit forecast comes in. We have to stop that kind of thing happening. We need to be ambitious but to have the ability to look at a schedule with as much skill as the contractor and say it is not credible. The other technique we are introducing on all category A, B and C projects—we need to do it increasingly wherever we work—is called Earned Value Management. When that is well done it requires you to prepare a very detailed work breakdown; it is a schedule broken down into work packages. That allows you to measure on a weekly basis exactly what progress is being made on a project so you can predict problems early on. Therefore, you know you have control and shared data. We are now doing that on Nimrod and we are doing it on Astute. It happens on all American-based projects because the DOD requires that. Increasingly, we shall apply it to all of ours. I did a random survey the other day. I conducted a lecture more or less on the question just asked me for all our project managers. There were 200 of them in our lecture theatre. I asked how many of them had been on an EVM course. I was pleased to see that on a rough show of hands about 90% had done that work. The critical matter is that we will not go to a main gate decision on a project unless the contractor and supplier have convinced us they have in place and are sharing with us the management tools—the EVM techniques and others—that we need so they can demonstrate progress. We shall also focus much more on the lines of development as well as training rather than the kit and testing it so that we look not just at ISD but initial and full operating capability and work to those schedules. What is now happening on projects is that when we have enough system performance we start to train the crews, soldiers or whoever even though there is still some

development to be done so they can effect the final stage of development and become familiar with the system and get it into service quicker. That is my list of recipes to deal with that.

Chairman: Let us move to the question of carriers.

Q114 Mr Hancock: Six months ago the secretary of state said we were ready to go and the contract was about to be signed. Why has it not been signed?

General Sir Kevin O'Donoghue: We are not quite ready to sign the contract. There are some commercial issues with the joint venture. The BAE Systems and VT joint venture needs to be set up and that is rolling at the moment.

Q115 Mr Hancock: But is that the only reason?

General Sir Kevin O'Donoghue: That is the issue.

Q116 Mr Hancock: Why do they not share that view? Why do BAE Systems and VT say that is the problem?

General Sir Kevin O'Donoghue: I do not know what it is they are saying.

Q117 Mr Hancock: They say it is nothing to do with them and it is an internal MoD matter. What else could it be?

General Sir Kevin O'Donoghue: They need to set up the joint venture.

Q118 Mr Hancock: Therefore, the only thing that stops the carrier contract being signed is nothing to do with the brass; it is simply the joint venture deal between BAE Systems and VT?

General Sir Kevin O'Donoghue: That is my understanding. I suspected you might ask this question and talked to the commercial people this morning.

Q119 Mr Hancock: Do we now have an agreed price?

General Sir Kevin O'Donoghue: Yes, as I understand it; it is £3.9 billion.

Q120 Mr Hancock: That is the first time we have heard it and so that is good news. On the Astute programme, is there now an agreed price for boats 3 and 4? Have we accepted the price of boat 2?

Mr Gould: We have an agreed price of boats 1, 2 and 3. We do not have a fully agreed price for boat 4 because, as I mentioned earlier, we are doing a design for cost reduction programme. We are trying to bring down that cost, but we have an agreed price envelope.

Q121 Mr Hancock: Do we now have an agreed price for boat 3 which is considerably less than the price for boat 2? We were led to believe that the price for boat 1 would always be colossal but we have learnt the lessons and boat 2 would be a bit expensive but after that they would all be cheaper?

Mr Gould: I shall have to come back to the Committee on whether boat 3 is cheaper than boat 2. They are fairly comparable in price.³

Q122 Robert Key: We know, because the French have said so publicly, that boat 3 will be more expensive than the English costings.

Mr Gould: You are talking about the carriers; I am referring to Astute.

Q123 Mr Hancock: What lessons have you learnt from the appalling cost overruns on Astute, boats 1 and 2, and, for that matter, the Type 45s? How will you put those lessons into the carrier contract?

Mr Gould: What it boils down to is that the problem on Astute was not having ordered a submarine for 10 years and trying to move from the old way of designing submarines based on doing a physical scale model of the whole boat to using computer-aided design. Therefore, it is a matter of doing no physical scale model but just a computer simulation of the design and turning that into the manufacturing drawings. Most of the cost that emerged on Astute 1 was the cost of rebuilding an industry which in some ways had forgotten many of the skills involved in submarine construction and was moving into the area of computer-aided design on submarines which had never been done before in this country. Lesson one is that if you are to undertake something you have not done for a long time and you are to change the whole technique by which you do it you should not try to fix the price until you know much better what you are doing. The key to containing submarine pricing in future is, first, to design for cost reduction. One of the reasons for price escalation on submarines is that something like 70% of the cost of a submarine comes in through the dockyard gate, not the dockyard itself. We have not changed the design of the reactor and propulsion system on submarines fundamentally since we first got into the nuclear-powered submarine business. What it means is that the component cost over time goes up because things that made sense for people to build in the 1970s do not make economic sense today. Part of the answer is to make those design changes that give you a better through life cost for the boat. Second, it is such a specialised industry that you need to keep doing it. If you do not keep ordering submarines at a certain drumbeat you will inject cost into future boats because you have to go back up the learning curve.

Q124 Mr Hancock: Can we afford the fourth boat?
Mr Gould: Yes.

Q125 Mr Hancock: It is 25 years since we built a carrier. Will we have similar problems?

Mr Gould: And we have never built a warship of that size. If we come back to the question about the Type 45, fundamentally what happened was that the price was fixed while the design was still very immature. What we used to do with complex warships was to

build a first of class almost on a cost-plus basis. You knew what you were doing before you tried to fix the price of the subsequent ships. In effect that is what we have done with the Type 45.

Q126 Mr Hancock: If that is the case why is not the last boat now being built the same price as the second boat?

Mr Gould: Submarines?

Q127 Mr Hancock: Type 45. Why is there a difference in price between the second and fifth boats?

Mr Gould: There will be a difference in price simply because time, labour and materials change over time.

Q128 Mr Hancock: Is that the only difference? The specification does not change dramatically?

Mr Gould: We have not changed the specification.

Q129 Mr Hancock: That was the other reason we were given for cost overruns. How many Types 45s can we afford to build now?

Mr Gould: At the moment we have six ordered; anything beyond that is subject to the review process now going on.

Q130 Mr Hancock: That is half of what we intended to have, is it not?

Mr Gould: Yes.

Q131 Mr Hancock: On Lord Drayson's last visit he said that to build these carriers the one thing one had to have was the manufacturing side in agreement on the way to build surface ships; they should all sign up to it. It is really the reconstruction of the ship-building sector. Are you happy that that is being managed?

Mr Gould: I am very happy that that is being managed, and that is the whole point about the joint venture. We have used the carrier programme and the lessons from the Type 45 programme to bring about in effect a complete restructuring and subsequently a recapitalisation of the warship-building industry which in the past was blighted by the fact that individual yards would try to undercut and fight each other rather than work together.

Q132 Mr Hancock: What is the thinking inside the MoD? You are happy that the restructuring has taken place; you have an agreed price. You have agreed to build the two ships and the French have agreed to build the third. What on earth is the motive for BAE Systems and Vospers not to get their joint venture organised, because the longer it goes on the less they will make out of it if there is a fixed price for these boats? What is their motivation in delaying this?

Mr Gould: We have an incentive price, not a fixed price.

³ See Ev 40.

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Q133 Mr Hancock: But the incentive price must be in our hands. If they take another six months to agree a joint venture surely the incentive for us is to reduce what they will get.

Mr Gould: We have agreement on these things but as I speak we do not have a legally binding contract.

Q134 Mr Hancock: What are they playing for? Do they hope to get more out of it?

Mr Gould: I do not believe so.

Q135 Mr Hancock: Are they squeezing you on the price?

Mr Gould: I think we are very close to being ready to go.

Q136 Mr Hancock: But it is mind-boggling, is it not? Here you have industry demanding a decision on these ships and you tell us that as far as the MoD is concerned the only impediment now is industry not making this agreement?

General Sir Kevin O'Donoghue: I do not think that was quite what I said. What I thought I said was that there were some commercial issues in which the Defence Commercial Director was still engaged, and one of those is the joint venture.

Q137 Mr Hancock: What are the others?

General Sir Kevin O'Donoghue: I do not know; I could not answer it.

Mr Hancock: I think that this Committee and Parliament are entitled to know because in terms of jobs lots of people, including those I represent, are crying out for this order so their futures are assured for the 10 or 15 years they were promised; and the Royal Navy is also entitled to know.

Q138 Chairman: I am a little surprised that you do not know what they are. This is a key programme for the capability of the defence of the country. Would it surprise you to learn that industry tends to say that its joint venture is ready to go and all it is waiting for is the order? In essence you are saying that your order is ready to go and all you are waiting for is the joint venture. Somebody has to move at some stage?

General Sir Kevin O'Donoghue: I think you are right.
Chairman: Is that going to be you?

Q139 Mr Hancock: Does it suit you not to have the contract let now?

General Sir Kevin O'Donoghue: No, it is not me.

Q140 Mr Hancock: Does it suit the MoD for this contract not to be let now?

General Sir Kevin O'Donoghue: No.

Q141 Mr Hancock: What is the impasse about?

General Sir Kevin O'Donoghue: We do not know.

Q142 Chairman: General O'Donoghue, I am afraid we do not understand these answers. Can you help us?

General Sir Kevin O'Donoghue: There is a commercial process to go through and it has taken a number of months up until now. The side letter to the joint venture was signed after Christmas, so that is ready to go. Debate is being had between our commercial staff in the main building and the alliance and joint venture.

Q143 Mr Jenkin: Is it possible that it is simply being held up because the cash is not there, or delaying the order will help the cash flow of the Ministry of Defence in the short term?

General Sir Kevin O'Donoghue: I genuinely do not know. The planning round is not in my hands. What we and the IPTs are doing in the planning round is to provide much more detailed costs than we have ever been able to do from the centre. That is where I sit at the moment. I am not closely involved in the planning round. I am closely involved in providing costs and options but not the planning round.

Q144 Robert Key: Mr Gould explained that one of the reasons for increases in cost was the inevitable rise in the cost of labour and materials, but in the memorandum that the Ministry of Defence has provided to the Committee for this inquiry it is pointed out in the table that the original main gate approval cost in 2005 was £3.9 billion and the forecast this year, which I note is not restricted, is £3.9 billion. There is no increase in those years. Is this part of the bone of contention? Is this not fairyland?

Mr Gould: That is because the timescale for building the ships has not changed between those two things, so the labour and materials bills does not change. The fact of the matter is that as we speak the joint venture has not been formed and we do not have that body with whom we can contract.

Q145 Mr Jenkin: Does that require Ministry of Defence approval?

Mr Gould: It does require approval.

Q146 Mr Jenkin: Do you think that may be the problem?

Mr Gould: I do not believe that is the problem. We have been encouraging them to form a joint venture, so not to approve it would be pretty perverse. What they have been asking for is a side letter from us which gives them some comfort, because obviously the joint venture in effect is a delayed sale. Therefore, if BAE Systems guarantees a price it needs some statement about future work. It has had that letter; it has been signed and sent to them, so there should now be no impediment to pretty quick progress on the formation of the venture and contracting for the ships.

Q147 Mr Jenkin: It sounds like a stand off.

Mr Gould: No, it is not.

Q148 Mr Hancock: It is not unreasonable to ask when you would reasonably expect to be able to tell industry that this is now to be signed. The way this

contract has been handled and the to-ing an fro-ing is not a good example of the new regime and I think industry will look rather reluctantly at the way this been handled for good news in the future?

Mr Gould: To come back to your original question about how we shall not have on the carriers what happened on the Type 45, I think this is a pretty good example. We have spent quite a long time and in excess of £400 million to make sure that with the carrier alliance we have a common understanding and expectation as to the design, what is involved in manufacturing it and what are the industrial arrangements for it so that when looking at the £3.9 billion and the incentive arrangements—because we hope to do better than that as we go through the project—both sides understand that this is a realistic possibility and it is not wishful thinking. We have already ordered some of the long-lead materials for the ships. For example, the steel has already been ordered from Corus because it is a good thing to do in the current state of the market. We are not standing still; we are making progress.

Q149 Chairman: General O'Donoghue said in answer to Bernard Jenkin, who asked if it was possible this had arisen because you did not have the money, that he did not know.

General Sir Kevin O'Donoghue: You are absolutely correct.

Q150 Chairman: Would you give the same answer?

Mr Gould: Is it possible because we do not have the money? Clearly, I would not give the answer that we do not have the money, but the fact is that we are going through a review of the programme of the nature we talked about earlier. The Chairman specifically asked whether this was as serious as we had ever known it at least in recent years. To that I would say yes, although my memory goes back to the 1970s as well and I can think of times when maybe it was worse. That is not an atmosphere in which it is easy to take big decisions on commitments, but when the Defence Management Board looked at this proposal it said that it was a good one.

Mr Hancock: The simple question is: when do you expect to be in a position to get the contract signed? Mr Gould, what is your best guess based on your 30 years' experience of the good and bad times in the MoD?

Q151 Chairman: Will you get it through before you go?

Mr Gould: I would be very disappointed if I did not.

Q152 Chairman: Do you think you will?

Mr Gould: Yes.

Q153 Mr Holloway: In that case this is not a convenient stand off whereby until you do a contract they cannot legally do a joint venture?

Mr Gould: No. They can legally do a joint venture today if they can. I would expect this to be fairly imminent. When I go is fairly well known, so that gives you the timescale.⁴

Q154 Mr Jenkin: What is the target number of Astutes?

Mr Gould: Seven.

Q155 Mr Jenkin: But like everything else that is presumably in the melting pot? I am not trying to catch you out. It is not a special category?

Mr Gould: It is not.

Q156 Mr Jenkins: I do not understand the phrase "in the melting pot". I understand "re-profiling". By this plan I anticipate that somebody will sit down and look at all the projects and re-profile them, for example something should have greater priority because we need it or something else can be pushed back because it is not needed at the present time. The outcome will be the same level of expenditure but a re-ordering of the projects within that expenditure. That kind of re-profiling is the subject of an annual assessment in any good company. Is that what you see?

General Sir Kevin O'Donoghue: That is exactly where we are at the moment and we are coming to the end of it.

Q157 Mr Jenkins: Therefore, it is not a matter of everything sitting on the table and it being decided what is put into the pot and what is pulled out of it; it is more sophisticated than that?

General Sir Kevin O'Donoghue: It is an analysis of the all the programmes to see whether the profile of the programming is right. That is why I cannot tell you why; we are where we are.

Q158 Chairman: What is the target number of joint strike fighters?

General Sir Kevin O'Donoghue: It depends on what they cost.

Q159 Chairman: Are you happy with the programme at the moment?

General Sir Kevin O'Donoghue: I think so. The first CTOL version of the Joint Strike Fighter, not the STOVL version, has flown. We do not yet know the unit or support costs, which is why I answered the question you first asked the way I did. It would be foolish of me to suggest a number without knowing the price.

Q160 Mr Jenkin: If the United States ordered fewer than it anticipated at the outset—there appears to be such a possibility—would that affect how many we could afford to buy, because obviously the unit cost would go up?

General Sir Kevin O'Donoghue: It would certainly be a factor that would have to be taken into account.

⁴ See Ev 40.

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Q161 Mr Jenkin: How big a risk do you think it is?

General Sir Kevin O'Donoghue: I do not know. We have the advantage that we have not signed up for *x* aircraft but to be part of the programme. We can buy these aircraft off the production line as we need them. Unlike most aircraft where to keep the production line open you buy a certain number and then stick some into a shed somewhere because they are the attrition reserve and so on, here because the United States is buying so many we can pull off aircraft from the production line as we need them, so there is more flexibility in that respect.

Q162 Chairman: Are you confident that they will be available to fly off the aircraft carriers in 2014 and 2016 when they come into service?

Mr Gould: I am not confident that that will be the case. We plan to use the GR9 on the first of the carriers.

Q163 Chairman: When was that announced?

Mr Gould: We will not have a carrier's worth of fully productionised, trained and equipped JSFs in 2014.

Q164 Chairman: For how long do you expect to be using GR9s?

Mr Gould: Currently, we plan to keep them in service until 2018 or something like that.

Q165 Mr Jenkins: As always, you choose your words very carefully. You say you do not plan to have a full commitment of Joint Strike Fighters. Do you intend to mix aircraft?

Mr Gould: I meant I did not expect that the joint strike fighter programme would be physically able to provide us with a wing's worth of Joint Strike Fighters in 2014. We plan to operate only Joint Strike Fighters from carriers when we have enough JSFs to do that.

Q166 Chairman: What are the costs involved in running on GR9s?

Mr Gould: I do not think we are running them beyond where we planned. We always planned to use them in that way.

Q167 Chairman: Is any consideration being given to marinising Typhoon?

Mr Gould: No.

Q168 Chairman: If that was ever plan B, is that now out the window?

General Sir Kevin O'Donoghue: It is very much on the back burner.

Mr Gould: I do not think it would be plan B; it would be further down the alphabet.

Q169 Richard Younger-Ross: As to the Joint Strike Fighter, you said that the number would be determined by cost. Can you give a percentage? Will it be half the number if the cost is so much? What is the ballpark figure? What sort of variation in percentage are you talking about?

General Sir Kevin O'Donoghue: I cannot say. We just do not know what the unit cost is. We need to see the unit cost and then judgments will need to be made. Do we buy the number we first thought of for that price or fewer? Do we take money from a different programme?

Q170 Richard Younger-Ross: What percentage variation are you looking at in terms of cost?

General Sir Kevin O'Donoghue: I am not sure at the moment because I do not know the unit price.

Q171 Richard Younger-Ross: Therefore, it could be double the cost?

General Sir Kevin O'Donoghue: I very much doubt it.

Mr Gould: All we can do at this stage is look at comparable programmes in the past. Looking at where the Joint Strike Fighter is today, what happened on the F18 at an equivalent stage? What was the production cost growth? Typically, at equivalent stages a 20 or 30% increase in cost has been known to happen, but at the moment I have no evidence that that will happen on the Joint Strike Fighter.

Q172 Richard Younger-Ross: We have two aircraft carriers. What is the number of aircraft you expect to have on them, if you can afford them?

General Sir Kevin O'Donoghue: Thirty-five or 36.

Q173 Richard Younger-Ross: But you do not know whether or not we can afford 36?

Mr Gould: We can certainly afford that number, but there would be an additional number for training, attrition and so forth.

Q174 Chairman: The original figure was 150?

General Sir Kevin O'Donoghue: Yes.

Q175 Chairman: That is cloud cuckoo land, is it not?

General Sir Kevin O'Donoghue: I do not think we need to make a decision on that. Because the production line will run on we can buy the number we need, which presumably will be the 36 to man one aircraft carrier plus the training and so on and buy others as and when we need them. I am not sure we need to decide on a number now.

Q176 Mr Jenkins: I had no intention of going down this route but it is fascinating in that we have the prospect of the first carrier having no Joint Strike Fighters to land on its deck. Do we plan to have the second carrier within the four wing? What sort of drumbeat do you anticipate in getting the Joint Strike Fighters? At what rate will we get them and what will be the level of training? When can we get the second one up? I know that this is all speculation given the time ahead and the cost, but somebody must have sat down and drawn up a plan. Is there any chance of our having a look at that outline plan with regard to the rate at which you expect these items to be delivered and when the aircraft carriers

will have their full complement? Is there any point in our having an aircraft carrier if we have nothing to land on it?

General Sir Kevin O'Donoghue: We will fly the GR9.

Q177 Mr Jenkin: Would it not be cheaper to run the existing aircraft carriers if we are just to carry on with GR9?

General Sir Kevin O'Donoghue: No.

Mr Gould: We come to the point about the size of ship you build once every 50 years. We have now built up the supply chain that gives us the opportunity to build those ships in that timescale. If you delay building those ships you have to pay a bit extra to run on the Invincible class, but the additional amount you pay just on labour and materials for delay and dislocation in the carrier programme would outweigh that several fold.

Q178 John Smith: You say that the number of joint strike fighters will be determined by how much they eventually are. Surely, the number of Joint Strike Fighters should be determined by what we need for our defence capability and the fact that GR9s will go out of service by 2016 or 2018. You must have a figure which is what we need for this country's defence?

General Sir Kevin O'Donoghue: Yes.

Q179 John Smith: What is it?

General Sir Kevin O'Donoghue: The Chairman asked me how many we would buy and the answer is that it depends on the cost. You would point a finger at me if I signed up to something without knowing how much it would cost. We are at an early stage in the programme. The Royal Navy knows what it would like, as do all the services. This is all a balance. Requirement, minimum requirement, cost and other programmes are all intermeshed, and that is the work that is going on at the moment.

Q180 John Smith: You must still have some numbers in mind in terms of what capability you predict in the next 10 years?

Mr Gould: The figure of 150 is the one we still have in mind, but when we get to the Main Gate, which we have not got to on JCA, that will be the time when we start to determine what the production numbers are. The great opportunity with JCA is that we do not have to make up our mind on the total at the start.

Chairman: I think we ought to move on because we must still cover FRES as well as other matters.

Q181 Mr Holloway: The design of the utility vehicle has not yet been chosen, but I think you held trials in the summer. When is it likely to be announced?

General Sir Kevin O'Donoghue: Very soon.

Mr Gould: A recommendation has been made.

Q182 Mr Holloway: The MoD memorandum refers to a System of Systems Integrator and "one or more UV Integrators". What are the integrators going to do, and could it become more difficult if you have too many?

Lieutenant General Applegate: As to the System of Systems Integrator, if we go back to some of the past weaknesses we have not been very good at developing people with the necessary skills and to think about the way a variety of individual equipments come together and interact with one another—in other words, a system of systems—in order to exploit those to maximum advantage. Similarly, because we have a number of vehicles with multiple roles we need the necessary expertise to consider how best to integrate common solutions throughout those roles, where that is appropriate, and what might be, for example, common electronic architecture, making sure we have the appropriate inclusion of technology to drive down the whole life cost. There are some skills that we are not particularly good at and so in the short term we need the System of Systems Integrator to give that overview and provide us with specialist expertise to manage the complex mix of individual requirements and look across the technology so we have the many strands of technology that we require not simply to bring in the individual equipments but to do the upgrades through life that we talked about earlier. There are some quite specialised skills in that area and there are not many around. That is the reason we have asked for the system of systems integrator to support us in this work. It is not a lead systems integrator as the Americans have with the future combat system because we have learned the lessons from that particular programme. With the lead systems integrator there was effectively a hand off to that LSI to conduct the activity on behalf of government. It is the SOSI as part of the internal alliance, the core team, which supports us in our work. The System of Systems Integrator is also there not to continue to be the experts for ever and keep us in ignorance, but one of the tasks placed upon it is to bring those skills back into the Ministry of Defence so we become better at this over time.

Q183 Mr Holloway: We were told that the Army, the front line as it were, would have an input into this. Can you take us through what input it has had so far and also confirm that the Army's preferred option is the one that you will be announcing?

Lieutenant General Applegate: To start with the second part, the Army has been involved throughout this and supports the design decision.

Q184 Mr Holloway: But is that the Army's preferred option? Did it support it?

Lieutenant General Applegate: Yes. The reason is that we briefed the Army accordingly, with appropriate caveats as to names and things like that, about what we had found in the various trials and

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the implications of the analysis we had done in terms of issues such as timeliness, the ability to grow through life, levels of protection and confidence in the nature of the company. How has that been done? Clearly, there are Army people within the project team. On the assessment panels there have been representatives from both the Army in London, if I may put it in those terms, and also the front line user. They have scored on those assessment panels and have been fully involved in all of that technical work. The analysis was then taken to the executive committee of the Army Board which was briefed over a number of hours on the outcomes that we found. It was posed a series of questions and asked whether it agreed with the recommendations and to clarify some of its priorities. That work was then taken forward and formed part of the recommendation of the way forward. There was a lot of engagement. In the case of FRES over the most recent period the user has been very much involved as part of the team, understanding the cost of some of the requirements and being willing to trade where it made sense once the evidence was provided. Evidence of that would be the way in which we step back from the C130 requirement in terms of the ability of the vehicle to sit in a C130 because, to be frank, it was not technically feasible to do that considering the levels of protection we would wish to have. I hope that gives you the answer. It has been heavily engaged throughout.

Q185 Mr Holloway: General O'Donoghue talked about the joint strike fighter pulling stuff off an existing US production line. Is there an argument even at this stage to scrap the FRES project as it is currently configured and buy the best available thing off the open market at the time and not in such huge quantities and at such gigantic cost?

Lieutenant General Applegate: No.

Q186 Mr Holloway: Why not?

Lieutenant General Applegate: Basically, because if we pulled something off the production line today we would be spending a huge amount of money to upgrade it to meet the conditions of today. For example, the Americans have found huge problems with the LAV3 that has been used in the past in upgrading it in order to make it relevant for today's missions. We also spend somewhere in the region of £650,000 per vehicle that we put into the operational theatre in order to equip it with new armour, communications and electronic counter-measures simply to bring it up to the standard of today. That is the reason we have taken the pragmatic course of looking at something that we believe is capable of being developed into the system and can grow through life. If we were to buy off the shelf a combat vehicle rather than a protected vehicle such as the Mastiff, which is another matter you may have in mind, there would be nothing in the market place to meet that particular need for the Army considering the range of missions that it has to complete.

Q187 Mr Holloway: Notwithstanding your comments about adapting it through its life, you are buying something now against a range of threats as yet unknown which tries to do absolutely everything. Surely, given the gigantic cost of this I still do not understand why you would not be better off getting the best available thing at the time in specific numbers?

Lieutenant General Applegate: What we have done is to identify what we believe is the best available developmental vehicle in the market place that has a future. The alternative is to buy something that is basically a cul-de-sac and goes nowhere; it cannot be upgraded and cannot meet the threats over time. We believe that we have now identified that particular preferred design for the utility vehicle and we are confident that in conducting what is an aggressive programme to deal with some of the technological risks to produce something as early as we know the Army wishes which will provide a level of capability that is far in excess of what we have today in order to meet those threats and, importantly, that it would have growth. If we bought something now literally off the shelf effectively we would have to shoe-horn in, as we do on UORs at the moment, a series of sub-components in a very poor fashion and it would have very limited life, so it would be a bad decision. The Army is quite convinced about that, and there is a decision as to whether you literally buy off the shelf, assuming there is the ability to ramp up production, or have something that gives the Army confidence will grow through life. We must have that confidence if we are to grow. One of the things we have noted with the current range of vehicles is that we tend to have them for a long time and increase their capability over time. We also have tended to increase their weight, their demand for power, the levels of protection and the other elements we put on them. To try to do that with an off-the-shelf system at the moment would be a recipe for disaster. We and the Army are content with that.

Q188 Chairman: General Applegate, rather meanly towards the end of last year I congratulated David Gould on down selecting from three to three. You may already have dealt with this and I have missed it. When will you make a decision?

Lieutenant General Applegate: With regard to the design?

Q189 Chairman: Yes.

Lieutenant General Applegate: It is imminent. We have made the recommendation to invest in that and push forward aggressively.

Q190 Chairman: Is there any truth in the stories over the weekend that when we are buying American-armoured vehicles we are being placed in the back of the queue?

Lieutenant General Applegate: No. I have a very good relationship with my American colleagues and they have provided us access through their joint allocations board in order to meet our needs.

Q191 Chairman: General O'Donoghue, you have painted a pretty bleak picture of life in your area of work at the moment. It is an area of uncertainty. As all these reviews take place how is that uncertainty affecting the people who work for you?

General Sir Kevin O'Donoghue: I had not intended to paint a bleak picture. I think it is rather exciting at the moment and there is a golden opportunity to move forward, which is what we are doing. It is unsettling people. We will come down to some 20,000 people over four years. People need to know who is staying, who is going and who will have early release. There is a degree of uncertainty in some areas and in others which support current operations people are very busy and working hard. They have seized it and are going for it, which is very impressive.

Q192 Chairman: As to uncertainty over the equipment programme, how is industry reacting to that?

General Sir Kevin O'Donoghue: I think industry would say it would like to see an affordable programme and fewer projects properly funded, if that is what it takes, than a lot of projects not properly funded. I have heard industry say that at gatherings. Industry would like us to settle the programme and we know that we go through this every two years. They are just waiting to see what comes out the other end.

Q193 Chairman: So, what they want in that respect they have never had?

General Sir Kevin O'Donoghue: I do not think we have had a properly affordable programme for many years.

Q194 Chairman: What are you doing about that?

General Sir Kevin O'Donoghue: This is PRO8 and the planning round that we are going through at the moment.

Q195 Chairman: Is there a sense that industry is delaying investment because of the uncertainty over the programmes?

General Sir Kevin O'Donoghue: I do not know.

Mr Gould: I think it is bound to do so. This will not be fixed until it sees the certainty of something coming through. It is very patchy across different sectors. Where we have been able to put in place good partnering arrangements we see signs of investment particularly in people. Industry has the same problems with skilling, upskilling and retaining skills that we have. Very often the same sorts of skills are in short supply. Therefore, when industry invests in people, which we see when partnering arrangements are in place, that is good, but clearly investment in infrastructure and technology can take place in industry only if it can see an outlet in the market for that. If it sees growth in a certain sector of the market—UAV is a case in point—private investment goes in because it is dependent not just on the MoD. If it is investment

that is dependent on just the MoD it will happen only when industry sees decisions coming out from the department.

Q196 Mr Jenkins: I do not see the bleak role that the Chairman sees; I see a challenging and exciting one. One aspect on the industry side—I recall this from a previous existence—was that when it came for an order you would say it would have its research and development costs over the run of the order. I would say, no, it will not; it will be paid upfront because it will not get the run of the order. Is it true that in the past we had to pay the research and developments costs of programmes that we knew were short, cut or were never implemented? It cost us a lot of money for the security and stability that industry required?

Mr Gould: It is probably wrong to try to characterise the whole of industry in one sentence. Different parts of industry behave very differently. One matter I have looked at carefully over recent years is what proportion of the free cash in a company, if you like its profit, is ploughed back into the industry in terms of R&D. In some companies you see figures like 10% or more. I am sorry to say that in some of the very big ones you see figures of 2% or less. A lot depends on where these companies are in the supply chain. If you are to compete and get yourself into the supply chain of BAE Systems, Lockheed or whatever it is you have to spend money on R&D to improve your products. Therefore, mid-size companies tend to have a better record on R&D spending than the very big ones. I find that disappointing. One thing that we are trying to do, particularly through my colleague Paul Stein who is now the Science, Innovation and Technology Director in the MoD, is to see whether we can use not just our research budget but the way we commission research to get a better result in terms of both pull-through and the participation of companies that are good at innovating in the defence programme. Defence Enterprise Gateways as they are called try to set up clusters of good practice involving big as well as small companies centred perhaps on a university or a technology centre to improve the process. That is quite encouraging. Ultimately, what people spend on R&D will depend on how they perceive the market conditions. If the market conditions are not good or they are uncertain it will be very hard for R&D directors to get money out of finance directors, just as it is inside the MoD.

Chairman: Let us turn to urgent operational requirements (UORs).

Q197 Mr Jenkin: General Applegate, I want to ask about lessons learned. Obviously, you have been a great success story and I shall turn to you in a moment. First, I want to ask about the technicality of this. The memorandum says that the total number of UORs until December 2007 was 796 and the cost was £2.6 billion. Is that since the start of Afghanistan and Iraq?

Mr Gould: Yes, of that order.

Q198 Mr Jenkin: Is the £2.4 billion the capital cost of those UORs or does it represent the lifetime cost?

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Lieutenant General Applegate: Clearly, the problem with UORs is that their life is quite short. Although there are many benefits in the UOR process, which we should exploit—I know the Committee has looked at this—there are some significant shortfalls especially where one is fighting long campaigns.

Q199 Mr Jenkin: If you buy Mastiffs they will outlast the campaign, will they not?

Lieutenant General Applegate: At the moment the funding we have is enough to keep them for the period of a UOR; in other words, the UORs last for a year and you must make a decision then as to whether to bring them into the core programme, that is, find new money or get rid of them.

Q200 Mr Jenkin: Therefore, none of the £2.4 billion has yet been brought into the core programme?

Lieutenant General Applegate: Elements of it have been and some of the decisions this year are about what else we should bring into the core programme.

Q201 Mr Jenkin: Can you quantify how much of that £2.4 billion has been brought in?

Lieutenant General Applegate: At the moment I could not.

Q202 Mr Jenkin: Would you give us those figures?

Mr Gould: The £2.4 billion is what we have spent on UORs and sustaining them in the theatre of operations. If we bring them back into the core programme it comes out of the ESP and it will be separate from and additional to the £2.4 billion.

Q203 Mr Jenkin: After 2003 and the invasion of Iraq there was a sense that the UOR programmes in 2003 had an impact on 2004 and 2005. Can you quantify that? If we asked you to provide figures on that would you be able to do that?

Lieutenant General Applegate: Can you describe what you mean by “impact”?

Q204 Mr Jenkin: There were items of equipment which were then brought into the core programme. The money had to be found out of the core programme to fund those, and presumably that money had to come out of other programmes.

Lieutenant General Applegate: We will have to get back to you with regard to the detailed figures.⁵

Q205 Mr Jenkin: But in terms of the £2.4 billion there must be quite a lot that will come out of future programmes?

Lieutenant General Applegate: In terms of planning for 2008, one of the decisions that Andrew Figgures as DCDSEC has to make is which of those capabilities he wishes to bring back in because a new standard has now been set. How can that money be found within the programme to do so?

Q206 Mr Jenkin: But would it be true to say that a good deal of the reluctance to approve UORs is because a lot of the big ticket items would have an impact on the forward programme and therefore it is very difficult to justify that expense?

General Sir Kevin O'Donoghue: There has been no reluctance to approve UORs.

Q207 Mr Jenkin: Even the saga of the helicopters was protracted.

General Sir Kevin O'Donoghue: That was a requirement issue. There has been no reluctance to approve UOR funding.

Q208 Mr Jenkin: That is a very important assurance and we take it very seriously, particularly as you are wearing uniforms. Perhaps you would prepare a note on those figures which would be extremely useful. CDP said that there were “some very powerful lessons” to learn from the UOR experience, procuring off the shelf as close as possible, making sure the frontline user was involved in the decision and undertaking procurement in an incremental way. I am not quite sure what that means. Do you think we have learned these lessons, and are there further ones to learn?

Lieutenant General Applegate: Certainly from my perspective, yes. To go back to some of the things we have said today in regard to FRES, the close involvement in routine programmes of the user in a way that we did not adopt in the past is directly the sort of relationship one sees in UORs. We see a process whereby we draw those sorts of behaviours into our main programmes. There is a sense of urgency and purpose because of support of operations throughout the whole organisation, which I think is refreshing and acts as a focus for people and clearly a catalyst for changed behaviours. I certainly see close team activity involving the user and industry coming out of UORs which applies more widely. I think that “incremental growth” goes back to the business of what we have now called the threshold level which is good enough for the initial operating capability with confidence of how it grows over time, putting in new technology as the threat emerges or as it becomes more mature or affordable. We see that taking place, and FRES is another good example of that. As to the comment about buying as close to off the shelf as possible, I go back to the comments I made about FRES. The issue is that it is not a complete off-the-shelf item; it is something that we can develop. What we have not done is the development *ab initio* of a brand new armoured vehicle; rather, we have taken a pragmatic stance in order to identify a solution that we can develop to meet our needs. All of those things are beginning to lap over, quite rightly, into our main programmes.

Q209 Mr Jenkin: Why do we still hear so many stories—perhaps they are simply got up by the media—from people who say that they want this and that but they have been told they cannot have it?

⁵ See Ev 40.

Lieutenant General Applegate: Do you mean on operations?

Q210 Mr Jenkin: Yes. You must have had that experience yourself.

Lieutenant General Applegate: Yes. I was a particularly impatient commanding officer who did not get anything and who sat on top of a mountain outside Sarajevo where nothing came through. To an extent that scarred me. There is a certain impatience within the organisation to deliver what is needed on the front line. I think that if you asked the question 18 months ago in relation to Afghanistan when initially Three Para went through and there was deployment into the platoon houses, to an extent we were surprised and the nature of the campaign took a direction that we had not predicted. What one then tries to do is play catch-up. The first thing we need to do is develop a pattern for the campaign. What is really needed to get the requirement articulated by those in theatre to say what they need? Clearly, that comes from the individual soldier, but the views of each individual soldier have to be analysed in theatre and turned into a requirement. It goes through the Permanent Joint Headquarters and is then confirmed and UOR money is given. Once we have done that we have to go into the market place and try to find these things. I was interested in Lord Drayson's comment about motor racing in dealing not only with an agile industrial sector but one which clearly had sufficient capacity. The lead time for some of these equipments is significant.

Q211 Mr Jenkin: As an example, there was reluctance to put foam in the wings of Hercules. That was a logistical and not a cost problem.

Lieutenant General Applegate: You know more about that than I do.

Mr Gould: You have to take an aircraft out of service.

Q212 Mr Jenkin: You are still trying to meet that requirement?

Mr Gould: We are still trying to use them, so it is quite a challenge.

Lieutenant General Applegate: The point I am trying to make is that there is a time lag first in defining the requirement and then going to industry even for things like heavy machine guns and general purpose machine guns which one might think would be common. For a heavy machine gun there is a six-month lag; for a general purpose machine gun there is a 12-month lag in the market place because it is just not there. As to the Mastiff, I remember well that in pushing that through we required a lot of support from our US colleagues in order to provide us with favourable conditions in order to bring it in on an accelerated timescale.

Q213 Mr Jenkin: The problem is that the equipment in theatre is designed to last a certain life and that is very quickly trashed by the sheer use of it. How do

we fund that? Can that be UOR-ed? Is that not a cost of operation and is it fully funded as such, or does that have to come out of the core budget?

Lieutenant General Applegate: Some of that funding does come out of contingency funding in order to maintain it. I am less sanguine about the cost of recuperation, as we call it; in other words, at a time when we do not need that equipment on the operation, or the operation is closing down, or we are trying to reconstitute a reserve, is there sufficient money to prepare for a contingency task in five years' time? That is an issue which the department is looking at in this round.

Q214 Mr Jenkin: Should not 16 Brigade have more than six WIMIKs for its training?

Lieutenant General Applegate: It should have a larger training fleet, but part of the problem initially—this is not the case now—was that the Treasury did not approve elements for training and attrition.⁶

Q215 Mr Jenkin: That does not come out of your core budget?

Lieutenant General Applegate: No. Now that we have a more stable campaign in Afghanistan—more like TELIC—the department is working out what should be the equipment table with which to conduct operations. We now have a better idea of the pattern of operations and what is needed for success. Because of some of the shortages for training we may have to bring back some of that equipment to ensure we train people properly before they go to theatre.

Q216 Mr Holloway: The Army has been using a gigantic amount of ammunition in Afghanistan. Every six months it doubles. For example, for the Apaches the requirement has been 81,000 30mm rounds. Is this huge use causing a problem in your supply chain?

General Sir Kevin O'Donoghue: No. We are able to get the ammunition. A lot of it comes from BAE Systems Royal Ordnance which this year will produce over 200 million rounds of small arms ammunition for us.

Chairman: We have a couple of questions to ask finally of Mr Gould. Before we do that, we shall write to you about a few questions because we have not really had time to reach them today.

Q217 John Smith: I should like to deal with the defence agencies. We turn to a somewhat more mundane subject. Why are you retaining the DSDA as an agency within the new department, and will it continue as an agency?

General Sir Kevin O'Donoghue: The answer is that I do not know whether it will continue as an agency. The reason it was the only agency to survive into

⁶ *Note by Witness:* The Treasury has not, until recently, been asked to approve UOR funding and training and attrition increments, and that agreement to such funding (which includes training and attrition increments for WMIK) was given by HM Treasury as soon as MoD sought it.

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DE&S is that that was what was agreed and announced by ministers when we launched FDSCI, the Future Defence Supply Chain Initiative under the change programme.

Q218 John Smith: It was there before and as part of the rationalisation you will continue to look at it?
General Sir Kevin O'Donoghue: Indeed.

Q219 John Smith: Why was there a change of mind on the Defence Aviation Repair Agency which was to be abolished on 1 April 2007 but will now be merged with ABRO to create a super-agency with Trading Fund status? That is a complete about-turn in government policy.

General Sir Kevin O'Donoghue: I do not know whether we intended to abolish it.

Mr Gould: As I am sure you know, the DARA is made up of three elements: the fixed wing engine part which is at St Athan, that is, engines in large aircraft; the helicopter bit in Fleetlands and in Almondbank, Perth; and the avionic repair part of that at Sealand. The avionic parts, which have a good deal of commonality with some of the work that is done in the Army Base Repair Organisation, which is already a Trading Fund, will be put together. They will become a single Trading Fund agency. The large aircraft part at St Athan will disappear with the large aircraft anyway, maybe even before I disappear with FSTA being done. That will just die a natural death. The rotary wing and component rotary wing repair organisation is being considered for sale. Therefore, it is not an amalgamation of the whole thing. What is being amalgamated is the component avionic repair facility at Sealand with ABRO which does quite a lot of similar work.

Q220 John Smith: Will that continue as a Trading Fund?

Mr Gould: Yes.

Q221 John Smith: The IPTs or the department will be its main customer for the newly-formed Trading Fund?

Mr Gould: It will not be its only customer but it will be the main one. That is the main reason for having it. One of the reasons for keeping ABRO as a Trading Fund is the fact that because it is a government-owned company it is quite easy to deploy people overseas and into operations and so forth. With a private company it is much more difficult to do it.

Q222 John Smith: You referred to consideration of the sale of the rotary wing/helicopter deep repair and maintenance business. Given the pressure we are under on the front line in Afghanistan in terms of maintaining helicopters in theatre, to which this Committee has referred, do you think it is a wise move to consider the sale of the entire deep repair and maintenance of three principal platforms which have been delivered to date to the front line without any major difficulty? We have placed enormous pressure on aircraft service and the component

supplier. Do you think that to sell it to a relatively small Canadian company called Vector which does not have a track record in this field at this particular time is an unnecessary risk to the support of these aircraft?

Mr Gould: I do not want to speculate on the final decision to sell or to whom it might be sold. Vector has shown interest in it.

Q223 John Smith: That is the only company to show an interest in it?

Mr Gould: Others have but I do not want to get into it because I am not right on top of the sale process; I am not the person who is conducting it. Is it a sensible thing to do in general? I think the answer is yes. We are already heavily dependent on commercial suppliers, Boeing, AgustaWestland and others, for deep support for aircraft. We do not deploy the deep maintenance and repair people forward into theatre. That is done by the REME basically or the RAF. Therefore, for maintaining aircraft in theatre RAF and Army technicians are the key. To make sure we get availability of aircraft so we can deploy them in theatre we are moving to availability contracts based on a partnering arrangement with AgustaWestland or with Boeing for Chinook. Our degree of industrial dependency is increasing and we find that availability contracting is a better way to get the right number of aircraft ready to deploy into theatre than the mixed arrangements we currently have. Therefore, in principle I think it is a perfectly sensible thing to do, but I stress that a final decision has not yet been made.

Q224 John Smith: Is it not the case that these are larger principally British or British-based companies which have a track record in servicing our front line aircraft? If Vector, a Canadian-based company, purchases the rotary wing and component business from DARA it will double in size as a company. I just flag it up. I think there are implications in terms of maintaining front line availability.

Mr Gould: Any final decision to sell will have to take all those things into account, and certainly one of them will be: do not move any of these things without our agreement.

Q225 Mr Holloway: Why can we not support more Apaches in theatre? There is no shortage of Apaches. Is there a shortage of support?

Lieutenant General Applegate: At the moment the hours for Apaches are pushing up really well at the moment. Remember that the Apache was brought into service several years early and we had a problem over the support package. Currently, the stress is in people in terms of sufficient maintainers and the trading of the parts, not the aircraft or the spare parts.

Q226 Chairman: Mr Gould, this is probably your last appearance here which will be a sadness for the Committee and probably a joy for you. As you sail off into the sunset what would be your greatest

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triumph in recent years in your job? What would be your greatest regret? What is currently your greatest hope?

Mr Gould: Wow! I shall not point to a particular project as the greatest triumph. If in 2012, say, we have managed to launch an aircraft carrier and it is floating somewhere on the Firth of Forth, albeit not in service, or we have a company's worth of FRES utility vehicles operating in Afghanistan, or we have completed a set of negotiations on the Typhoon tranche III, or we have made a lot of progress on the future capability of Typhoon and it fully exploits its potential in its air-to-ground as well as the air-to-air role, I will say that I have put in place a lot of the matters that made those things happen. Therefore, if they finally succeed I shall be happy. What I can tick off now is that when I started this job a minister had fairly recently said something along the lines, "We do not have an industrial policy for defence and we are proud of it."

Q227 Chairman: It was not me, was it?

Mr Gould: No, and I would not have reminded you if it was. Since then we have an industrial policy, which I wrote. We have an industrial strategy, most of which I wrote. Most of the ideas were mine but with a lot of encouragement from Lord Drayson without whom it would not have happened. That has had an enormous effect on the ownership of the industry. If you look at the amount of inward investment in the UK defence industry in the past 10 years it is phenomenal and that can be only to our benefit because in this country we have created a market that has been attractive for inward investors. I hope that will continue. It has also enabled us to move on. I know well, like and admire Peter Levene, for whom I worked, and he did a great deal of good. We had a winning formula but took it too far. I talked earlier about the Type 45 contract and others like it where we said there should be competition that could be used to fix everything. You then find that you have not done a first of class; you have set parameters without knowing what you are doing. You have pushed people into a situation where they almost buy contracts and bet the firm and it ends in tears. I believe that to move to a point where you use

competition but only in a way that satisfies and meets market conditions, and it make sense so to do—the industrial strategy does that—is a great step. The biggest regret—I hope I have dealt with it—is that I did not spot earlier, not that the DPA had forgotten how to do project management—a lot of people did know how to do it and were still doing it—but that they had not made it a fundamental and total core skill to train people through life. You can teach people the techniques of project management; you can send them off on courses—the first course I did in the MoD a long time ago was on project management, and I have probably forgotten most of it—but the fully-fledged manager comes only with a lot of domain experience and scars. If you want to apply good project management to a submarine build programme you also need people who have familiarity with and main knowledge of the submarine world and so on. Therefore, probably my biggest regret is that I did not pay more attention to it earlier, did not pick it up inside the DPA—it is being done now—and insist on it more vociferously, and perhaps I would then have had even more arguments with the MoD personnel director than I have had.

Q228 Mr Holloway: What do you plan to do next?

Mr Gould: I am not allowed to accept any offers at the moment because I am still under contract to the MoD. I do not plan to retire to retire. I believe I have some skills and knowledge that are useful to other people and hope to be able to use them.

Q229 Chairman: This has been an absolutely fascinating session. While you are under severe constraints because of the process you are going through you have done your utmost to try to get round them and be as open as possible, and for that we are most grateful.

General Sir Kevin O'Donoghue: I apologise if we ducked the issue on occasions. As you say, we are in the middle of a planning round and the programme will be made affordable. That is the purpose of planning rounds, but where we are at the moment is quite difficult.

Chairman: Thank you.

Memorandum from the Council for National Parks

1. The Council for National Parks (CNP) welcomes the opportunity to submit written evidence to the Committee's inquiry into defence equipment. CNP is the national charity that works to protect and enhance the National Parks of England and Wales, and areas that merit National Park status, and promote understanding and quiet enjoyment of them for the benefit of all.

2. The Ministry of Defence and Defence Estates have a statutory duty¹ to have regard to National Park purposes. The government has clarified that National Park purposes should be recognised as "an essential consideration" in reaching decisions or undertaking activities that have an impact on the Parks.²

¹ Section 11A of the 1949 National Parks and Access to the Countryside Act, as amended by Section 62 of the 1995 Environment Act.

² Duties on relevant authorities to have regard to the purposes of National Parks, AONBs and the Norfolk and Suffolk Broads, Defra guidance note 2005.

3. It is essential that a thorough assessment of the potential environmental impacts of new weapons is undertaken before any decisions are made on where training with those weapons might take place. This should help to identify the most appropriate location for training with new weapon systems, rather than basing such decisions on logistical requirements, which currently appears to be the case.

4. CNP welcomes the Project Orientated Environmental Management System (POEMS), which aims to manage the environmental performance and liabilities of equipment and services throughout the acquisition process. We suggest that this should be extended to include an assessment of the potential environmental impacts of training with new weapon systems, and that this should include a specific assessment of any potential implications for National Parks, in view of the statutory duty referred to in paragraph 2.

5. The training with the heavy artillery systems AS90 and Multi Launch Rocket Systems at the Otterburn Training Area is a good example of where an assessment of the environmental impacts of training with new weapons systems should have been undertaken prior to and in order to inform the decision on where to train with them. Due to the nature of these weapons systems, training with them at Otterburn required major infrastructure works in a National Park, including the widening of 40km of road, building of 46 new gun spurs, creation of 28km of new tracks, the building of technical observation points, bridge refurbishment and replacement and building a new central maintenance and accommodation depot. These developments had a significant adverse impact on the National Park, which could have been avoided had an environmental assessment taken place prior to the decision on where to train with these weapon systems. This could also have resulted in significant cost savings, as the two lengthy public inquiries into training with these weapons at Otterburn could have been avoided or reduced in scope.

6. It is of concern that the MoD has resisted complying with the policies which apply to its operations in National Parks. Under Department of Environment Circular 12/96, Environmental Act 1995, Part III: National Parks, a formal environmental impact assessment is required for: "*new, renewed or intensified use of land within the National Parks for defence purposes*". However, the MoD does not appear to consider that any of its training constitutes new, renewed or intensified use of land. This includes cases where prima facie evidence exists to the contrary, for example for newly procured weapon systems such as the Apache helicopter, or for renewals of existing training, such as the proposed renewal of the licence for training from the Duchy of Cornwall on Dartmoor.

7. In conclusion, it is vital that the environmental impacts of training with new weapon systems are assessed prior to making decisions on where to train with them. In 1998, when the MoD procured the Apache helicopter, CNP wrote to the then Secretary of State for Defence calling for an Environmental Impact Assessment to be carried out for training with this new weapon. This would have enabled environmental impacts to be identified at an early stage, adverse impacts avoided and any residual impacts mitigated. Such a sequential approach to identifying environmental impacts is widely accepted as best practice. However, this did not take place and subsequent training with Apache has had an adverse impact on tranquillity and has generated concerns about potential harm to ground-nesting birds.

8. We hope that this submission is helpful to the Committee. Please do not hesitate to contact me should you require clarification of any of the above or any further information.

11 October 2007

Memorandum from the Society of British Aerospace Companies (SBAC)

1. SBAC is the UK's national trade association representing companies supplying civil air transport, aerospace defence, homeland security and space markets. Together with its regional partners, SBAC represents over 2,600 companies across the UK supply chain, assisting them in developing new business globally, facilitating innovation and competitiveness and providing regulatory services in technical standards and accreditation.

2. SBAC welcomes the opportunity to contribute to the House of Commons Defence Committee inquiry into defence equipment, focusing on the last year of the Defence Procurement Agency (DPA) and the development of Defence Equipment & Support (DE&S).

3. The April 2007 merging of the DPA and Defence Logistics Organisation (DLO) to create DE&S flowed from the Enabling Acquisition Change Report which launched the Enabling Acquisition Change Programme. It represented one of the key steps, at the strategic level, in the implementation of the Defence Industrial Strategy (DIS).

4. Industry broadly supported the conclusions of the Enabling Acquisition Change Report and endorsed MoD's objective to manage programmes on a through life basis to help better ensure the effective performance of the Ministry's acquisition plans. In particular, the establishment of DE&S was welcomed as an opportunity to embed the proper practices (based on the Defence Values for Acquisition) in the customer organisation and to develop a joined up approach in dealing with procurement, support and the through life approach.

5. Merging the DPA and DLO was intended to eliminate barriers between provision of equipment and in-service support, while creating greater consistency in the interface with industry. While it is too early to assess whether these objectives have been realised, the task of bringing the two sizeable organisations together was effectively handled by MoD. Although industry was apprehensive about the magnitude of internal reorganisation required, the merger did not appear to distract MOD officials from ongoing business. Those delays that did occur in procurement decisions were largely attributable to pressures on MoD's programme budget.

6. The new DE&S is charged with equipping and supporting the UK's armed forces for current and future operations. It acquires and supports through life, including disposal, equipment and services ranging from ships, aircraft, vehicles and weapons, to electronic systems and information systems. In so doing it is ascribed a challengingly wide range of responsibilities and its expenditure represents over 40% of the defence budget.

7. While it is too early to assess the impact of DE&S' creation, the DIS process, of which the establishment of DE&S is a part, has had the effect of improving industry working relationships with MoD. It is the continued positive development of this relationship that should be the priority for MoD as it reviews DIS. DIS v2.0 should not detract from, but rather reinvigorate, the implementation of the original Strategy and there is more to be done, particularly at the operational level, to transform the vision of DIS into a workable reality. MoD's DIS v2.0 engagement plan offers the opportunity for implementation strategies to be properly discussed and coordinated with industry to ensure that they are effective.

8. A key priority for DIS v2.0 should be to clarify how through life capability management will be achieved—a principal concern for DE&S. The Sustained Surface Combatant Capability and Sustained Armoured Vehicle Capability pathfinders have, for example, made progress but MoD must ensure this work is taken forward. Long-term partnering agreements were a significant element of the original DIS but of five partnering agreements foreseen (rotary wing, fixed wing, AFVs, submarines and complex weapons) only one has been brought to conclusion to-date. MoD provision of some guiding principles for partnering would be helpful in showing what partnering relationships should look like and might also help speed up the MoD's internal processes for addressing sectoral partnering arrangements. The implications of long-term partnering for the industrial supply chain also need to be examined to ensure that the competitiveness of UK industry continues to improve under these arrangements.

9. Industry would recommend that the effectiveness of DE&S should be reviewed again, once it has had the time to settle down as an organisation and a greater proportion of the original objectives of DIS have been achieved. Industry would welcome playing a part in that review.

12 October 2007

Memorandum from the Ministry of Defence

Q1. *The DPA Annual Report reports a 0% in-year cost growth for 2006-07 (Key Target 3) although the foreword to the Report notes that Key Target 3 was "consistently classified as red throughout most of the year". What specific measures were taken, and on what programmes, to ensure the Target was met?*

Risk of cost growth on a number of programmes was identified during the early part of 2006-07 and was correctly reflected in the relevant performance reports. Plans were put in place to address this. Where practicable, and in line with one of the key principles of Smart Acquisition, we sought to trade cost, time and performance to keep within the limits of our budget. We also maintained the principle established as part of the Departmental review during 2005-06, and supported by the National Audit Office (NAO), of identifying and re-allocating costs and budgets to those best placed to manage them. The measures taken included the reallocation of costs relating to sustainment of industrial infrastructure for production of submarines from the Astute project line to one related to the Maritime Industrial Strategy; the removal of similar costs from the Type 45 programme related to surface ship shipyard rationalisation; a reduction in the planned number of missiles for the Type 45 programme; transfer of the platform integration costs for the Precision Guided Bomb to the Typhoon programme to achieve more efficient management of weapons integration in line with other improvements to the capability of the aircraft; the transfer of spares costs for the Support Vehicle to the support budget instead of the acquisition budget; and a reduction in the number of training simulators for the A400 programme as part of a plan to utilise training assets more efficiently. Moreover, the planned quantity of Guided Multiple Launch Rocket System rockets was reduced pending a further assessment of requirements within the context of the overall procurement of precision munitions. Delivering these plans resulted in an overall in-year reduction in cost to completion of the Key Target population of £25 million.

Q2. The Committee of Public Accounts' report on the Major Projects Report 2006 (Forty-sixth Report of Session 2006–07) states that, during 2005–06, MoD undertook a review of the 20 post-Main Gate projects and reduced the costs of these projects by £781million. Did the MoD undertake a similar review during 2006–07 and, if so, what were the results? If cost reductions were identified in 2006–07, how were these achieved?

Building on the specific reviews undertaken in 2005–06, a routine process of senior leader reviews of major programmes was established to manage the risks to the delivery of performance, cost and time parameters. To mitigate these risks, opportunities to trade both within the particular programme or the wider project population were identified. Overall, in the Major Projects Report (MPR) 2007, cost reductions of £989 million have been identified. As detailed in the response to question 1 these were achieved by re-evaluating quantities of equipment required and re-assessing project requirements. In addition, we continued to apply the principle established in 2005–06 of ensuring costs and budgets were allocated to those best placed to manage them. This resulted in a reduction of £609 million. The NAO acknowledged that this was justified. At no time has this been claimed as an overall saving to the MoD.

Q3. What progress has been made in relation to Phases 3 and 4 of the project to merge the DPA and DLO?

DPA and DLO merged on 2 April 2007 to create an integrated equipment and support organisation, Defence Equipment & Support (DE&S), concluding Phase 3 of the merger project. Post-launch, DE&S has remained on the “front foot”, driving its key business priorities hard.

We continue to deliver our core outputs, with support to current and future operations remaining our highest priority. This includes all aspects of support, from delivery of logistics and Urgent Operational Requirements (UORs) to current operations through to the management of investment projects supporting future activity.

Establishing DE&S as a “fit for purpose” organisation at its launch was a major milestone, but we are now focussing on optimisation (Phase 4) to ensure it is properly sized and shaped. This work has been combined with the future development of DE&S to create a single change programme—PACE (Performance, Agility, Confidence, Efficiency)—and is being taken forward under a single change framework against a Blueprint for a more agile organisation, which delivers support to operations more effectively while reducing the cost of doing business and delivering outcomes that further build confidence in DE&S. The Blueprint was issued to Trades Unions for consultation on 18 January and published internally to DE&S staff. Work is already progressing on understanding which activities, functions and skills are key to output delivery, and how the emerging changes from the Defence Acquisition Change Programme (DACP) can be fully embedded in DE&S processes and ways of working. Another important part of the PACE programme will be work examining the potential benefits of “Flexible Resourcing”. This is an approach that is widely used in both the public and private sector for maximising the utility and utilisation of people and their skills within project and service delivery organisations. Three pilots to examine the potential benefits of Flexible Resourcing approaches to DE&S will commence in January 2008 and complete in the Spring. If successful, the pilots will be followed by a wider roll-out of Flexible Resourcing across DE&S beginning later in 2008.

Q4. How many DE&S staff will be in post at the end of September 2007 and how many are expected to be in post as at the end of March 2008. What progress has been made in collocating DLO staff in the Bristol and Bath area?

There were 26,345 personnel in DE&S as at 1 December 2007. This consisted of 20,064 civilian and 6,281 military personnel.

In September 2006, prior to the formation of DE&S, the total figure for DPA and DLO was 28,669. Following the merger of DPA and DLO on 2 April 2007 and the formation of DE&S, this figure had reduced to 27,512. As stated above it is currently 26,345.

The DE&S Manpower Control Total (MCT) for the financial year ending March 2008 is 27,650.

The collocation of DE&S staff to the Bristol and Bath area is underway. Phase 1 included the refurbishment of two buildings purchased next to Abbey Wood main site to become “Neighbourhood 5”. The first team to relocate moved from Andover on 3 September 2007, beginning a steady programme of moves from Andover to the “acquisition hub” in Bristol/Bath. Acquisition staff will be collocated in the Bristol/Bath area from Andover, Caversfield and Wyton.

Phase 2 of Collocation will, subject to Main Gate approval later this year, include the further expansion of Neighbourhood 5, through construction of additional office buildings as well as the continuation of moves of staff to the South West.

Staff at Sapphire House, Telford will not now relocate to the South West. On 11 December, Minister(DES) gave approval for the internal MoD transfer of provisioning and procurement activities, and the staff who carry out these activities, to ABRO/DARA during 2008–09.

Q5. *What progress has been made by the project to improve staff skills in DE&S? What progress has been made to address the skills gaps which have been identified (such as commercial, financial and project management skills)? What level of investment has been committed to addressing the skills gaps?*

An upskilling programme began at the launch of DE&S with the aim of developing a stronger professional skills base in the organisation. The focus on skills development was reinforced by the setting of a target for all staff to complete a minimum of six training days in financial year 2007–08. Further targets may be set for 2008–09. The training can be job-related, personal development or mandatory training. A further target of four training days has been set for staff in the key acquisition disciplines of Commercial, Finance, Programme and Project Management, Engineering and Logistics. The need to develop skills in these areas was reinforced by the DE&S skills survey conducted at the end of 2006.

Whilst the majority of training will be completed by making better use of existing training opportunities, a dedicated upskilling project budget has been established to fund additional specific strategic interventions in the 5 key skill areas. In-year, £6.6 million has been allocated for this requirement. This funding complements the additional investment of some £5.5 million that is being made through the DACP upskilling programme on the development of new training and education for staff across the acquisition community. This gives a total investment of just over £12 million in acquisition skills development.

Within the five key skill areas, the programme aims to:

- Build capability for the future by increasing the in-take on engineering technician apprenticeships, graduate engineering and accountancy training schemes.
- Increase the level of professional qualifications (eg CIMA, ILS PG Cert, APMP/APM (PQ), and CIPS).
- Support continuous professional development (CPD) through the delivery of CPD events.

Key aspects of the programme include:

Project and Programme Management—Project management licences, which are linked to Association of Project Management qualifications, are being rolled out across DE&S. As at December 2007, 246 Project Management licences had been issued. The target is 325 by 31 March 2008.

Finance—Over 40% of staff in DE&S finance professional posts are qualified accountants and it is expected that the target of 50% will be achieved by the end of 2007–08. To improve the future position, funding has been allocated to increase the number of graduates joining the Training Accountant Development Scheme (TADS) each year and to fund existing employees on the Corporate Accounting Training Scheme (CATS). 18 graduates joined the TAD Scheme in September 2007, and seven DE&S employees were selected in July to join CATS. In addition, 29 individuals have been provided with funding to undertake the Association of Accounting Technicians (AAT) training.

Commercial—Over 60% of DE&S commercial professional posts are filled by individuals with the relevant Chartered Institute of Purchasing and Supply (CIPS) qualification. This figure is expected to increase to 65% by the end of 2007–08. An additional target of 80% of Commercial Directors with MCIPS by March 2008 has also been set. DE&S Director General Commercial and the Defence Commercial Director have engaged with CIPS to determine how this can best be achieved.

Logistics—To address skills gaps within the logistics area, a new five day Supply Chain Management course for middle and senior logistics managers, which examines “best practice” in respect of procurement, contracting, inventory management, logistics and supply chain management within the Defence supply/support chain, is being delivered. The DACP upskilling programme has also developed an Integrated Logistics Support e-learning course that is available to all staff to improve awareness of the discipline.

Engineering—Systems Engineering, an essential skill needed by the whole of the acquisition community, including Project Managers, Commercial Managers, Scrutineers, Requirements Managers and Technical staff, was recognised as a weakness within the DE&S skills survey. A series of presentations/courses, based around the systems engineering functional competency framework, are being run by the Defence Academy to address this requirement. In addition, individuals are being encouraged to register with their professional institutes to become chartered engineers, incorporated engineers and engineering technicians and to undertake continuous professional development. Over £200k has been allocated to individuals to support attainment of professional engineering qualifications.

Further funding, totalling £40.9 million, is available in future years to continue the upskilling work. As a clearer picture of the skills required across DE&S emerges as a result of the Performance, Agility, Confidence and Efficiency (PACE) programme and skills gaps are identified, the focus of the upskilling project will evolve to address these requirements.

As well as investing in the development of functional skills, in October 2007 DE&S launched a new high potential leadership development programme (the Aspire programme) specifically for the Acquisition community, and will put in place a DE&S leadership development strategy in April 2008.

Finally, a review is underway into the Role of the Military in Acquisition (ROMIA). This review will include identification of acquisition posts which need to be filled by Military personnel to utilise specific military skills including those obtained through recent operational experience.

Q6. How are DE&S staff held accountable for their results and what changes have been introduced to ensure there is a real focus on outcomes in the new organisation?

The Defence Values for Acquisition placed an emphasis on delivery against a range of Departmental objectives and priorities. This emphasis is reflected by the DE&S Main Board, which includes four Non Executive Directors to provide an external perspective and independent challenge to the Board. It is the DE&S Main Board that sets the strategic direction and priorities of DE&S, which then flow down through the organisation to be reflected within Team plans and, ultimately, alignment with individual objectives and priorities. As a feature of the organisation's Governance structure, a People Board, reporting to the Main Board, sits to provide the strategic direction of HR policies within DE&S and ensure that alignment of DE&S objectives and priorities is translated into personnel policies that focus on outcomes. The DE&S mission recognises that support to operations is its highest priority.

In aligning individual objectives with the MoD's Departmental objectives, the current pay system and specifically annual performance pay awards are targeted, and success measured, at an individual level in achieving the challenging business objectives set. Poor performers, or those who do not achieve the objectives set, do not receive a bonus. This focus permeates the organisation's performance management regime, which emphasises accountability for delivering results whether in direct relation to Urgent Operational Requirements (UORs) in support of operational theatres or in the myriad of other DE&S outputs.

In addition to aligning performance related pay with achievement of specific, challenging objectives, DE&S is piloting a wide range of specific Reward and Recognition strategies to further enhance and link improvements in business performance with the effectiveness, and hence efficiency, of Business Units and Teams, as well as that of the individual. These include a High Performance Package that seeks to reward team leaders for achieving exceptional business results with a blend of financial and non financial incentives together with a "Rate the Leader" scheme that is being developed to strengthen leadership within the organisation. Where appropriate, active career management intervention is undertaken to manage personnel; this includes developing means of identifying "potential" high performers and succession planning for key areas, for example in Project Management and, conversely, taking prompt and positive action to manage poor performance which ultimately can lead to dismissal. There is also a programme aimed at improving line managers' skills in these areas. In parallel, DE&S is sponsoring a MoD wide Talent Development Scheme (ASPIRE) that seeks to identify and develop the leaders required in the Defence Acquisition community of the future. This developing scheme embraces civilian, military and industry personnel in seeking to provide a partnership approach within the MoD and maximising the contributions that this blend of experience and culture can bring to future acquisition.

Q7. What progress has been made to develop new performance targets for DE&S, in particular, new targets covering through-life capability management and the speed at which DE&S responds to the needs of the Armed Forces? Will DE&S's achievements against new performance targets be validated by the NAO?

The initial set of targets established for DE&S in the first year seek to reflect the broader nature of the mission—"To Equip and Support our Armed Forces for operations now and in the future". Support to current operations is a key focus with targets established against delivery of equipment into theatre and satisfying Urgent Operational Requirements. These exist alongside measurement of support to the Front Line Commands in their preparations for Operations and the former DPA measures of delivering new capability to performance cost and time. We have also established internal measures related to development of our people, including upskilling to meet the challenge of a more joined up approach to Through Life Capability Management. We are building on these as part of the wider Defence Acquisition Change Programme to ensure they fully reflect DE&S's significant contribution to Through Life Capability Management recognising that it encompasses a wide range of Departmental components across all lines of development and therefore must be a pan-Departmental solution.

We are involved in a benchmarking programme with allies to identify our relative performance in the key area of delivering equipment into theatre in an effort to identify opportunities to improve our performance in this area.

There are no plans for DE&S new performance targets to be validated by the NAO. As the key measures will contribute to wider Departmental performance, they will be reviewed by the Defence Management Board. This will inform both the Department's Annual Report and Accounts and the Public Service Agreement results.

The measures in place for the Departmental Public Service Agreement for procurement agreed in Spending Review 2004, of which 2007-08 is the last year, are subject to validation by the NAO. These cover performance, cost and time of Category A—C projects that have passed their major investment decision but not yet achieved their In Service Date.

Q8. *The MoD Annual Report and Accounts 2006-07 reports that equipment acquisition targets were met, but the DLO did not meet its target to deliver 98% [94.9% delivered] of logistic support for funded levels of readiness and funded support to enable force generation within planned readiness times (page 136). What lessons have been identified in relation to this area and how are they been applied in the new organisation?*

The former DLO targets were based around ensuring our forces were ready for operations with the appropriate levels of contingency in place. Inevitably, supporting two concurrent medium scale operations (Afghanistan and Iraq), and some 30 smaller operations around the world had an impact on delivering readiness levels as priorities changed accordingly.

Over this period, we have continued to provide new equipment, delivered UORs whilst continuing to develop and deliver new approaches to supporting existing capability, as well as meeting the efficiency targets placed upon the Department. We prioritise our efforts to meet the needs of operations. Effectiveness in our ability to do this whilst minimising the impact on our contribution to generating readiness, is a key lesson. Whilst acknowledging that the target was missed, when viewed in the context of the overall operational picture, that should be viewed as an understandable, if regrettable, consequence.

Q9. *How will DE&S report on its achievements against its performance targets and its financial performance? Will the annual Major Projects Report to Parliament continue and, if so, what aspects of DE&S activity will it cover?*

DE&S achievement of targets and financial performance will be reported as part of the MoD's Annual Report and Accounts. These Departmental targets will be supported by internal measures which will seek to focus activity on delivering efficient and effective through-life capability management across the complete life cycle of equipment. The Major Projects Report (MPR) by MoD to Parliament will continue. Proposals for the evolution of the MPR to provide Parliament with a broader view of the Department's acquisition performance, developed in conjunction with the NAO, have been submitted to the Committee of Public Accounts.

Q10. *What efficiency gains are expected to be delivered from the merger of the DPA and DLO and over what timescale? Are these efficiency gains in addition to the existing efficiency targets set for the DPA and DLO?*

Although there are no specific additional efficiency targets resulting from the DLO/DPA merger, the post merger change programme is designed to deliver the DE&S contribution to the Central Enabling Services (CES) efficiency targets as well as meeting its primary aim of greater efficiency through continuously striving for ever greater effectiveness. The benefits will be achieved through streamlining the organisation and transforming how business is conducted.

Under the new Administrative Cost Regime and as part of the associated CES targets, DE&S budgets already assume cost savings of 5% per annum over the next three years. These savings are in addition to the major efficiency initiatives already delivered by the DLO and DPA.

In the DLO, there was a coordinated programme that was designed to improve effectiveness and therefore deliver efficiency. *The DLO's Strategic Goal (the merger of the three single-service logistics organisation to provide a more effective and coherent logistics service to the front line commands) delivered efficiencies of £1.2 billion by 1 April 2007. In addition to this and the CES efficiencies noted above, further reductions are already included in the DE&S programme; these amount to £116 million by 1 April 2008 (largely Spending Review 04) and £165 million by 1 April 2011 (STP 07). Other main achievements were:*

- *The Logistics End to End initiative, taking forward logistics initiatives across defence organisational boundaries, from "factory to foxhole" (by FY 06/07 achieved a cumulative £114 million).*
- *Procurement Reform, managing expenditure from a supplier perspective and ensuring coherent procurement strategies (by FY 06/07 achieved a cumulative £144 million).*

In the DPA, efficiency was treated differently and monitored using three key performance indicators designed to monitor and improve the timeliness of asset deliveries, as well the cost of procuring and delivering these assets. The Agency Accounts for last year show the following achievements against these key performance indicators.

	2004-05		2005-06		2006-07	
	Target	Outturn	Target	Outturn	Target	Outturn
Asset turnover (months)	< 70	59	< 83	72	< 52	49
Assets delivered per £ of op costs (£)	> 10.72	14.36	> 13.20	15.23	> 15.44	18.11
Assets procured per £ of op costs (£)	> 16.23	19.13	> 23.16	23.83	> 18.01	20.26

Q11. *What progress has been made in implementing the other changes (in addition to the DPA and DLO merger, and staff skills and training) set out in the Enabling Acquisition Change report, such as the recommendations relating to the “Planning Process” and “Approvals and Scrutiny”?*

The Defence Acquisition Change Programme was established to deliver the recommendations of the Enabling Acquisition Change (EAC) report. A great deal of progress has been made within the Department; delivering significant organisational and process improvements, as well as a programme to upskill our acquisition people and develop the behaviours articulated in the Defence Values for Acquisition. The EAC report contained 44 recommendations, the vast majority of which have been fully delivered, with the remainder in the process of being completed and embedded.

A new departmental planning process brings together previously separate plans for equipment and equipment support. Planning Round 08 is significantly different from previous years. Responsibility for programming equipment support costs has transferred from the DLO to the Sponsor and the Front Line TLB, thereby aligning programming responsibility with those organisations that have the ultimate responsibility for delivering coherent future equipment capability (the Sponsor) and for integrating the Defence Lines of Development to deliver military capability (the User). Equipment support resources are being programmed in detail over 10 years. The Front Line Commands programme the costs of support for in-service equipment for Years 1–4, and the Sponsor programmes the costs of support of all new equipment and for in-service equipment over Years 5–10.

We have introduced Through Life Capability Management, which considers a much wider range of options for meeting new capability needs, examining both new and in-service equipment solutions, exploring opportunities and implications across all Defence Lines of Development, while considering capability delivery on a much longer term programme basis. Success in finding the best capability solution demands a greater unity of purpose and collective responsibility from all involved, often beyond their specific areas of financial or programme responsibility. This activity is led by the Sponsor (the Equipment Capability Customer) through an improved capability planning process. A new Capability Management Group and Capability Planning Group regime is in operation, using consistent processes and structures. Each group brings together key MoD stakeholders. Through Life Capability Management was established in April 2007 and has been embedded throughout the year.

The People, Skills and Behaviours workstream of the DACP has been taking forward work to develop the skills of our people in acquisition (both within and outside DE&S). A range of training courses has been, and is being, developed to address skills shortages in the commercial, programme/project management, integrated logistics support and through life capability management areas (see Question 5). The Defence Values for Acquisition are being reflected in the annual objectives of people across the acquisition community, and work is underway to develop arrangements to link the payment of annual bonuses to demonstration of these behaviours (see Question 6). The DACP has established a programme of audits to monitor the behaviours of key acquisition individuals and groups and, through the identification of good practice and highlighting of deficiencies, we will continue to embed the behavioural changes. It is acknowledged that these behavioural changes will only deliver the more constructive, less adversarial relationships with industry if they are matched by similar behavioural changes within industry. Industry engagement is being led by the Human Resources Sub-Group of the National Defence Industries Council (NDIC).

A revised, streamlined scrutiny and approvals process has been developed and is being applied progressively to projects. The new process builds on best practice and introduces a new “Central Scrutiny and Approvals Staff” team, consisting of representatives from all scrutiny branches. These teams will facilitate a more co-ordinated approach to scrutiny and, through ongoing engagement with both Directorate of Equipment Capability (DEC) and IPT staff, help to ensure that there is clarity on the information required at each decision point. A small number of pilot projects have already been identified and are using this revised process.

Having largely delivered the recommendations of the Enabling Acquisition Change report, the DACP is continuing work to embed these changes. The DACP is now working together with industry, primarily, but not exclusively, through the NDIC Sub-Groups, to develop a defence acquisition system that is more responsive to the requirements of the front line and provides better value for money for the taxpayer, while reducing costs for industry. New, challenging objectives have been agreed to build upon the good work done to date, focused on delivery of an affordable equipment and support plan, reducing uncertainty for MoD and industry. This is a key enabler, alongside process improvement and the development of alternative approaches to acquisition, to the achievement of a significant reduction in acquisition cycle times. The objective is to halve the time it takes from Main Gate to delivery of capability to the front line. The process improvement necessary to achieve this would reduce the cost of doing business for both parties.

Q12. *How many UORs have been approved in the current financial year? What is the value of the UORs approved in the current financial year? Which operations do these UORs relate to?*

As the UOR process is used to address the theatre-specific needs associated with our current deployments in Iraq and Afghanistan, much information on specific UORs remains operationally sensitive and we do not comment in detail on individual items of equipment or in year approvals. However, a very considerable proportion of the equipment procured using the UOR process is for Force Protection, including a world-class system of new combat body armour; protection upgrades to vehicles on operations, and a fleet of new Protected Patrol Vehicles to supplement the vehicles already in theatre. Over £1 billion of Force Protection UORs have been approved for operations in Afghanistan and Iraq since 2003 in response to the specific conditions and changing threat in theatre. Up until December 2007, 796 UORs had been approved to a value of £2.4 billion. A total of 219 UORs were approved in 2006/07 (124 for Afghanistan and 95 for Iraq) at a value of £793 million.

Q13. *The Committee would be grateful for a note setting out how the Government plans to replicate the service provided by DESO when responsibility for defence trade promotion is moved to UK Trade and Investment. The note should include details of the timescale for implementing the changes announced on 25 July 2007.*

The Chief of Defence Materiel is not responsible for the Defence Export Services Organisation (DESO) or for policy on defence export promotion.

The Secretary of State for Business, Enterprise and Regulatory Reform in a statement to the House on 11 December (Hansard, Columns 16–17WS) announced the arrangements under which responsibility for defence trade promotion would transfer from DESO in the Ministry of Defence to UK Trade and Investment.

Work to achieve the transfer on 1 April is progressing well in line with the implementation plan.

Q14. *The Committee would be grateful for a short progress report on the following equipment programmes:*

- Astute submarine.
- Future Carrier.
- Joint Strike Fighter (JSF).
- Chinook Mk 3 helicopter.
- Type 45 Destroyer.
- Typhoon.
- Future Rapid Effect System (FRES).
- Military Afloat Reach and Sustainability (MARS).

For the above programmes which have passed Main Gate, the progress report to include:

- The Current Forecast Cost (against Approved Cost at Main Gate).
- The Current Forecast In-Service Date (against Approved In-Service Date at Main Gate).

For each of the programmes, the progress report to include:

- A summary of the key events/decisions since the Committee last examined the programme³ and the key events/decisions expected in the near future (next six months).

For the progress report on the Future Carrier, the report should set out how the Royal Navy plans to maintain a carrier strike capability until the new carriers enter service in 2014 and 2016.

For the progress report on the JSF programme, the report should include the MoD's assessment of how the arrangements (set out in the MoU covering production, sustainment and follow-on development and the unpublished supplement) to ensure that the UK will get all the technology transfer it requires to operate the JSF independently are working out in practice.

³ The Astute submarine, Future Carrier, JSF and Chinook Mk 3 helicopter programmes were examined in the Committee's *Defence Procurement 2006* report (First Report of Session 2006–07) published on 8 December 2006. The Astute submarine, Future Carrier, JSF, Type 45 Destroyer and Typhoon programmes were examined in the Committee's *The Defence Industrial Strategy: update* report (Sixth Report of Session 2006–07) published on 15 February 2007. The FRES programme was examined in the Committee's *The Army's requirement for armoured vehicles: the FRES programme report* (Seventh Report of Session 2006–07) published on 21 February 2007.

ASTUTE

	<i>Original MG Approval (90%)</i>	<i>Current Forecast (50%)</i>	<i>Difference</i>
Cost (£m)	2,578*	3,798	+ 1,220
ISD	June 05	November 08	+ 41 (Months)

* Approval only given at 50% confidence level

Key Events/Decisions since last Review (October 2006)

- Construction on the Astute class submarine has now been optimised to a 22 month drumbeat, which is the optimum approach to sustain the industrial base and enable a smooth progression to the construction of the successor submarine programme. This drumbeat is based on a 7 boat Astute programme, subject to affordability.
- In May 2007 a contract was placed to start initial construction on Boat 4 (AUDACIOUS), which covers initial build work until March 2008, when it is intended to place a contract extension to cover construction until March 2009, before subsuming this into a whole boat contract. This strategy will ensure that the ongoing design and cost reduction requirements are fully captured and incentivised.
- Review Notes covering a re-submission of Boats 1–3 (reasons for, and extent of, cost growth), and seeking permission to commence work on Boat 4 were approved by the Treasury in May 2007.
- ASTUTE was launched from BAES in June 2007 from Barrow and is due to enter service in 2009.
- The building of the Astute Class is crucial to sustaining the industrial capability necessary to design and build the successor deterrent. The revised drumbeat of 22 months provides optimal integration with the Successor Deterrent Programme. MoD acknowledged the need to maintain the key supplier base for the Astute and Successor programmes in the DIS. There are a number of lessons from the Astute programme which we will apply, particularly the potential benefits of the Design for Cost Reduction programme for Boat 4, which covers procurement, production and design initiatives that are being managed and worked on collaboratively by BAES and MoD.
- In August 2007, while undergoing testing on Astute (Boat 1), power was lost to a lubricant oil pump which caused damage to the Turbo Generator bearings. A full investigation has been conducted into the incident. MoD agreed that an in-situ repair would be the best way to repair the damage and final repairs are expected by Spring 2008, which will not delay the planned undocking of ASTUTE in readiness for the final phase of trials at Barrow, prior to departure for Sea Trials. ASTUTE is scheduled to be delivered by the contract date of November 2008.
Costs will be agreed between MoD and BAES once all repairs have been completed.
- ASTUTE successfully completed weapon discharge trials in September 2007 and Trim & Basin dives in November 2007.

Key Events/Decisions expected in the next six months

- ASTUTE has now returned to the Devonshire Dock Hall for fitting-out work and Core load (fuelling). ASTUTE is expected to leave Barrow in August 2008.

FUTURE CARRIER

	<i>Original MG Approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	3,900	3,900	—
ISD	2014 & 2016	2014 & 2016	

Key events/decisions since HCDC Report on CVF in December 2005

- 14 December 2005—As part of the incremental Main Gate the announcement was made to move into the Demonstration Phase.
- 6 March 2006—The UK/French co-operation Memorandum of Undertaking was signed.
- 25 July 2007—The final Main Gate approval was announced to move into the Manufacture Phase.
- 25 July 2007—BAE Systems & VT Group entered into a legally binding Framework Agreement to establish a Joint venture (JV). BAE Systems, VT and the MoD also signed a Heads of Terms which set out the intended role of this JV in the CVF programme. At the same time the three parties signed a non binding Heads of Terms on the planned Terms of Business Agreement (ToBA) MoD intends to conclude with the JV in relation to the future surface warship programme.

- CVF Long Lead items were contracted for over the latter part of 2007. The first contract with Selex Communications was signed on 1 October 2007. As part of the process towards the Joint Venture formation, a legally binding Side Letter of assurance was signed with the two companies on 11 January 08 in support of the ToBA.

Key Events/Decisions expected in the next six months

- Placement of the Manufacture Contract subject to legal formation of the Joint Venture.

How the carrier strike capability will be maintained until the new carriers enter service in 2014 and 2016

The current Maritime Strike capability is provided by the CVS Class carriers with Harrier GR9 and Sea King ASaC embarked. This capability will be sustained until the Future Carriers enter service, in 2014 and 2016. On current plans CVF01 will be in service before the last of the CVS carriers, ILLUSTRIOUS, goes out of service (2015), with CVF02 coming into service the year after. This ensures continuity of a maritime strike platform at all times.

Carrier Strike is a future Joint Force capability comprising Joint Combat Aircraft (JCA), the two new aircraft carriers (CVF) and a Maritime Airborne Surveillance and Control (MASC) component, supported by associated enablers. Combined, these components represent a step change in capability, and providing this capability includes managing the transition from the CVS to the CVF and Harriers to JCA.

JOINT STRIKE FIGHTER

	<i>Original MG Approval (90%)</i>	<i>Current Forecast (50%)</i>	<i>Difference</i>
Cost (£m)	2,236	1,858	- 378
ISD	ISD will not be set until MG is approved for the delivery of the aircraft to the UK.		

Key events/decisions since December 2006

- Signature of the Joint Strike Fighter (JSF) Production, Sustainment and Follow-On (PSFD) MoU in December 2006.
- First flight of the first development CTOL JSF achieved in December 2006.

Key Events/Decisions expected

- First flight of the first development STOVL JSF in May 2008.

Progress on Production, Sustainment and Follow-On (PSFD) Arrangements

The UK continues to work closely with the US to secure the commitments it requires with regards to operational sovereignty. Progress is being made in this area by the UK's inclusion in the JSF Operational Test and Evaluation (OT&E) development planning, continued presence and increased access of UK SME's within the JSF programme in the USA and proposals to increase the level of access to JSF information for UK Industry.

CHINOOK MK3 HELICOPTER

	<i>Original MG Approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	90.1*	90.1*	Nil
ISD	September 2009*	September 2009*	Nil

* Estimates are at 50% confidence

Key events/decisions

- March 2007—announcement of the cancellation of the Chinook Mk3 Fix-to-Field programme and conversion of the aircraft to the Support Helicopter role to make the helicopters available to operations as quickly as possible.
- August 2007—launch of Phase 1 to commence design work, procure long lead items, conclude aircraft characterisation flight trials and prepare robust proposal for the full programme.
- December 2007—Main Gate investment decision for the full programme and signature of the contract with Boeing (£62 million).

- These helicopters will deliver a significant boost to the UK's operational heavy lift helicopter fleet. Chinooks are a key battle-winning capability. The first helicopters are expected to be operational in 2009. The eight converted Chinook will join the existing fleet of 40 RAF Chinook helicopters and will be based at RAF Odiham in Hampshire.

TYPE 45 DESTROYER

	<i>Original MG Approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	5,475	6,464	+ 989
ISD	November 2007	November 2010	+ 36 months

Key events/decisions since February 2007

- May 2007—revised commercial arrangements agreed with BAES/conclusion of contract negotiations. Price of Type 45 ships 1—6 in place, increased incentive for completion of programme.
- July 2007—The first Type 45 vessel, Daring, undertook Initial Sea Trials.
- August 2007—Treasury signed off revised costs and revised contract for Type 45 ships 1—6 let with industry. This is a major achievement, providing a firm boundary around the programme risks of this hugely complex and demanding programme and which will put in place incentives for industry to deliver. As such, the revised contract should provide a very positive foundation on which to deliver the Type 45 programme.
- August 2007—Initial Sea Trials were successfully completed on Daring. While a number of teething problems were highlighted, this is to be expected on the first sea trial of the First in Class of a ship of the complexity of the Type 45.
- November 2007—The third Type 45 in the Class, Diamond, was launched.

Key Events/Decisions expected in the next six months

- Continue to exploit ways of joint working with BAES through Strategic Programme Board with aim of identifying opportunities and ways to resource the programme more efficiently and effectively.
- Dragon (4th in Class) is due to be launched in November 2008.
- Daring's second sea trials are currently expected to take place in April, with the third set in August/September. First sea trials for Dauntless (2nd in Class) are currently expected to take place in September.

TYPHOON

	<i>Original MG Approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	16,671	Restricted	Restricted
ISD	December 1998	June 2003	+ 54 months

Key events/decisions since February 2007

- A contract was signed in March 2007 to provide Typhoon aircraft with an advanced Air-to-Surface capability from 2011. This will complement the initial Air-to-Surface capability that is due to be available from 2008.
- Stand-up of second operational squadron (11 Sqn) at RAF Coningsby in March 2007.
- Typhoon took on its first operational role by assuming responsibility for Quick Reaction Alert (South) in July 2007.
- The Government of Saudi Arabia reached agreement with the UK Government in September 2007 to purchase 72 Eurofighter Typhoon aircraft.
- The return of the initial Request for Quotation response from the Eurofighter industry consortia for Tranche 3 in December 2007.
- Air Defence Operational Employment Date in January 2008.

Key Events/Decisions expected in the next six months

- Tranche 2 Type Acceptance in April 2008, prior to delivery of first Tranche 2 aircraft in late Summer 2008.
- Multi-Role Operational Employment Date in July 2008.

FUTURE RAPID EFFECT SYSTEM (FRES)

	<i>Original MG approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	N/A	N/A	N/A
ISD	N/A	N/A	N/A

Key events/decisions since February 2007

Real progress has been made on FRES. Implementation of the FRES competitive Acquisition Strategy is being driven hard to ensure we deliver, as early as possible, a FRES capability that meets the Army's needs through life. Specific achievements include:

- June 2007—Min(DES) announced the three vehicle designs selected to take part in the Utility Vehicle (UV) Trials (the UV Design Competition). They are VBCI (Nexter), Piranha Evolution (GD (UK)) and Boxer (ARTEC).
- September 2007—Herbert Smith appointed to provide legal advice to FRES IPT to ensure to the MoD receives strong legal, intellectual property and alliancing advice. This appointment reflects the importance of having access to the best possible legal advice to achieve the FRES DIS objectives in full.
- October 2007—Competition to select the System of Systems Integrator successfully completed. Min(DES) announced the selection of the Thales (UK) and Boeing team as the preferred bidder on 5 October 2007—2 months ahead of schedule.
- November 2007—Industry responses to Pre-qualification questionnaire for the UV Integrator role received by FRES IPT and assessment under way.
- November 2007—Min (DES) announced the outcome of the UV Design trials. UV Trials completed on schedule in September 2007, producing a recommendation based primarily on technical considerations. Review of commercial implications of the three competing designs launched.

Forthcoming key events/decisions

- January 2008—Award of contract for the initial phase of SOSI support to the FRES programme.
- 2008—Announce the one preferred UV Design to be taken forward to the next stage of the FRES UV programme.
- Selection of 1 or more UV Integrators to proceed to the next stage.

MILITARY AFLOAT REACH AND SUSTAINABILITY (MARS)

	<i>Original MG approval</i>	<i>Current Forecast</i>	<i>Difference</i>
Cost (£m)	N/A	N/A	N/A
ISD	N/A	N/A	N/A

Key events/decisions since Initial Gate approval (July 2005)

- July 2005—entry into Assessment Phase announced via Written Ministerial Statement. The Procurement Strategy at the time was the formation of an Alliance, comprising the MoD, an Integrator, a Design, Outfit and Build Alliance Partner (DOBAP) and a Through Life Support Partner (TLSP).
- February 2006—3 companies (Amec, Raytheon and KBR) selected to compete for the role of Integrator for the MARS project. This was announced via Written Ministerial Statement.
- May 2007—Min (DES) approved a decision to rethink the Procurement Strategy to take account of changing market conditions and the opportunities generated by the delivery of the DIS.
- June 2007—The MARS IPT wrote to the three Potential Integrators, formally informing them that the Integrator competition had been discontinued.
- October 2007—Industry Day held to inform the supply chain on the Fleet Tanker requirement and provide a general programme update.

- December 2007—Following Min(DES) approval, advert placed in the Official Journal of the European Union (OJEU) seeking expressions of interest from companies who may wish to compete for the design and build elements of the MARS Fleet Tanker programme.

Key Events/Decisions expected in the next six months

- 2009—Preferred Bidder selected for MARS Fleet Tankers and approval sought for Main Gate Business Case.

Q15. *The MoD Annual Report and Accounts 2006–07 (page 342) states that Networked Enabled Capability (NEC) “will enable the MoD to operate more effectively in the future strategic environment by more efficient sharing and exploitation of information within the UK Armed Forces and with our coalition partners”. The Committee would be grateful for a note setting out:*

- *The key programmes (in-Service or currently being acquired) which will deliver NEC and their expected cost.*
- *The key challenges to exploiting the benefits offered by NEC and how these are being addressed.*
- *MoD’s timetable for reaching the different “NEC Maturity States” [JSP 777 Edn 1 defines three NEC Maturity States].*
- *How the MoD is co-ordinating its overall programme to deliver NEC with its coalition partners.”*

The requirement for NEC is not a DE&S responsibility; the lead within the MoD is the Equipment Capability community. The Department adopts a long-term and holistic approach to NEC. Equipment programmes are only part of the picture: how we organise our business is as important to delivering NEC as the underlying equipment technologies. It would therefore be helpful to consider the key challenges for NEC before looking at the main programmes.

Key Challenges

The following are considered as the most significant issues but the list is by no means exhaustive.

Organisational Change. Whilst the technical complexities of NEC are important, organisational change to realise the benefits of NEC requires major effort in a number of areas, for example, comprehensive staff training, reviews of the size and shape of headquarters and a project to update our Ways of Working are underway. At the practitioner level, new Tactics, Techniques and Procedures are being written, and a series of tests, trials and demonstrations are being run to enable the potential of NEC to be fully exploited.

Information Assurance. This covers a wide spectrum, from confidence that information can be trusted to protecting our systems from attack. Work is in hand to create an overall architecture, with some aspects already developed. There is, for example, a policy on how Computer Network Defence should be conducted and an initiative to provide assured reference data.

How to Share Information. The demands of security or “need to know” can conflict with the “need to share” approach implicit in NEC. Security remains essential but a new approach to security architectures and seamless information sharing are being investigated together with methodologies to simplify networks and hence reduce interfaces.

Providing the Network. Investment in network capability has to be balanced against other demands on the Defence budget. Equally, there is no point in providing information systems infrastructure and communications bearers if commensurate investment in applications and other network users cannot be made. Getting this balance right is addressed in the regular planning rounds the Department undertakes to review the forward Defence programme to make sure that we continue to spend money on the right priorities. A particular case is the issue of linking the business space and battlespace where for example there is a need to provide a restricted level bearer solution for logistics command and control reaching into the deployed environment. We are looking carefully at how to improve the position in order to avoid legacy system run-on costs, reduced efficiencies and a fragmented capability.

Urgent Operational Requirements (UORs). Some UORs that have been delivered to support current operations by their nature make a significant contribution to NEC in theatre. For example the Hermes 450 Unmanned Air Vehicle, improvements to Logistics Information Systems and capabilities for the Operational Intelligence Support Group highlight the breadth of such UORs. While support to operations is our priority, there is a potential tension which needs to be managed between the short term, operation specific capability being acquired and our longer term, more measured plans.

Key Programmes

By definition, almost all equipment capabilities contribute to and/or benefit from NEC. However, we currently estimate that nearly 60% of the current 500 or so projects in the equipment plan could be described as significant contributors in some way to NEC. The following list illustrates the range of the more prominent examples.

Defence Information Infrastructure (DII)—This network is being rolled out in the fixed sites in UK. An initial capability has been approved to extend to deployed HQs at a cost of some £370 million for delivery in 2008–09. An initial top secret capability is being considered for deployment shortly afterwards. Decisions have not yet been made on the remaining requirement for deployed, fixed and top secret capability.

FALCON—This will provide a modern high capacity communications network principally for deployed land operations. Increments A and C have been approved at a combined cost of some £250 million with ISDs in the 2010–11 timescale. Increments B and D remain under consideration and no decisions have been made.

Skynet 5—This is a military satellite communication service provided under PFI arrangements. Costs are around £200 million per annum until around 2020. The first two satellites of this system have been launched.

Bowman CIP—The Bowman Combat Infrastructure Platform (CIP) secure tactical radio and information system is already in service. A capability upgrade, Bowman CIP 5, was trialled late last year and the results are currently being analysed. Bowman CIP is a £2.4 billion programme and brings major capability improvements to situational awareness, communications and operational tempo.

Multi-National Information Sharing (MNIS)—This is an incremental programme to deliver effective operational interoperability between nations with a priority for command and control applications, initially with the US.

Tactical Data Links—Multiple programmes using technology such as Link 16 that contribute to overall capability for tactical command and control.

DABINETT—This programme is currently in the concept phase and intends to deliver a system of systems to address our future Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) requirements. DABINETT aims to address two distinct but related capability gaps—the ability to undertake deep and persistent surveillance of the battlefield and the ability to manage the intelligence cycle efficiently from end to end. Given its wide scope, DABINETT plans to adopt a programme approach with individual projects or groups of projects managed within an overall programme framework. Delivery is likely to be incremental and include a combination of existing and future platforms and sensors, support centres and links to intelligence systems.

NEC Maturity States

The Department set out a broad framework for taking NEC forward in Joint Services Publication (JSP) 777 over two years ago. This is an area of particularly fast moving ideas and technology and as the JSP 777 foreword says, “We live in a world where change is . . . fundamental”. The passage of time has confirmed that the logic that underpins NEC remains sound but has also highlighted the need to update the initial timelines used in Part II. This work is in hand with the aim of bringing a greater degree of objectivity to the process of describing the maturity states and setting milestones. The initial state definition will accordingly be adjusted to reflect progress made to date. On this basis, we currently expect the first initial state milestone to be set at 2012, the second milestone for the beginning of the transitional state milestone at 2017 with the mature state yet to be fully defined. A 3-Star Senior Responsible Owner has been appointed in recognition of the significance of NEC as a Defence priority.

Co-ordination with Coalition Partners

The Department expends significant effort engaging with its coalition partners to ensure that as much coherence as possible is obtained with key allies. While this is a complex area and staying exactly in step with other nations is neither achievable nor desirable, key dependencies have been identified. In order to address core interoperability concerns that sit at the heart of NEC, we engage actively in the following fora:

The Interoperability Commission (IOC). The IOC is the key UK-US senior official level bilateral forum that addresses operational and technical interoperability. Fourteen UK-US “tiger teams” meet regularly to progress interoperability across the whole C4ISTAR domain.

Bilateral Meetings. These include for example meetings with Australia to progress pan-environment military harmonisation.

Combined Communications Electronics Board. This addresses communications policy, interoperability and publications amongst the 5-Eyes member countries to “enable interoperable C4 capabilities that make warfighters more effective in Coalition Operations”. Working Groups cover all communications and information systems aspects and outputs are harmonized with those of NATO wherever possible.

National Armaments Directors (NADs). The NADs of France, Germany, Italy, the UK and the United States supervise a number of working groups which address NEC issues such as coalition combat identification, research and technology projects and future UAV operational concepts.

NATO. NATO has a full sub-committee structure under the NATO C3 Board that covers all aspects of C4ISTAR.

23 October 2007

Memorandum from Prospect Bicester Area

Whilst possibly not being direct evidence and, we note, already past the deadline for submissions, I write to express concerns of staff caught up in DE&S plans for relocation.

There are three major areas which we believe should be examined by the Defence Committee:

1. INVESTMENT APPROVAL

We believe that the Investment Appraisal for DE&S Relocation is fundamentally flawed inasmuch as there is only one comparator against the “do nothing” option. In essence, so long as the figures show a potential saving, the Investment Approval Board has no other yardstick for comparative costings and must therefore be obliged to approve the proposal. We are sure you will appreciate that there is always going to be a degree of fluidity about figures projected 25 years forward so a claimed saving IRO £200 million over 25 years is by no means as certain as it might appear. Neither is it a significant sum in the context of £16 billion expenditure per year. The Committee may be in a position to seek greater detail.

From a worm’s eye view, it is extremely difficult to understand how the very high cost (based on capitation costs IRO £50K per person) of relocating thousands of staff could ever be recovered by business efficiencies. Additionally, even if it can be recovered, does it stand up as a worthwhile investment in consideration of other Budget challenges faced by the Department? There is no shortfall in DE&S whilst Service accommodation, medical care and compensation for injury have all been recently highlighted as areas where Defence is guilty of underspending for decades.

2. RISK

The proposal to relocate DE&S is deeply unpopular from a staff perspective. People simply do not wish to tear up their family and social roots in order to follow their jobs to the high cost of living Bath/Bristol area. Similar initiatives in other Departments have seen mass resignations resulting in serious shortfalls of staff in the new area. We believe that much the same picture will be true for Defence and early indications agree. Not only is there a risk of non-transfer of staff, the available pool of people and skills in the Bath/Bristol area is already exhausted, posing severe challenges for recruitment of replacements. Commercial, Technical, Inventory and Finance specialists are employed in large numbers within DE&S; even when recruited, there will be a significant training challenge for the organisation to bring new recruits “up to speed”.

The risk is clear, potential disruption of front line support arising from lack of suitably trained staff. Mitigation measures do not seem to have been considered in any depth but, again, the Committee may be in a position to seek further detail.

3. BUSINESS CHANGE

In the midst of the Relocation turmoil, DE&S is also engaging in a program of massive business change as foreshadowed by Richard Brooks’ publication of “Setting the People Agenda to Increase Business Effectiveness in the First Year of Operation”. The program, whilst still in formative stages, is certain to lead to ground-breaking changes to the way DE&S does its business over the next few years. We are likely to see large numbers (thousands) of staff “savings” arising from full implementation of the ideas put forward and the continued sharpening of focus on the decider role for DE&S. How then can it make sense to relocate thousands of staff in parallel (or slightly prior) to such a far-reaching initiative? Many of the relocations are certain to be wasteful because there just will not be the numbers of jobs available in the end-state DE&S organisation. No sensible business organisation would attempt such huge challenges in tandem, nor would shareholders accept the costs of unnecessary relocation. Common sense demands that Business Change on this scale is completed before any relocation but no such considerations appear to have been made. The Committee may be able to discover more. In closing, I should point out that there has been a degree of consideration for some of the higher profile procurement projects. PECOC, for example, has been ring-fenced to prevent relocation challenges from interfering with the project. However, the combined risks of

unsuccessful relocation and unsuccessful business change pose a powerful threat to the entire DE&S business and therefore to continuity of support to the front line. The waste of public money associated with the venture is, we believe, actually a secondary consideration.

16 October 2007

Supplementary memorandum from the Ministry of Defence

(i) *The amount that DE&S expects to spend in the current financial year on consultants to fill posts where it does not have the required skills in-house (Q 35-36).*

DE&S expects to spend £110 million on consultancy support in financial year 2007/08 to fill posts where it does not currently have the required skills in-house. This figure includes all consultancy support where DE&S currently lacks the relevant skills in-house.

(ii) *15 of the “10-point” cards referred to by Mr Gould (Q 52-55).*

To be forwarded separately by the MoD HCDC Liaison Officer.

(iii) *The price of Astute boats 2 and 3 (to establish if boat 3 was lower in price than boat 2) (Q 121).*

Compared on a like for like basis, the target price for Boat 3 (Artful) is some £37 million less than the target price for Boat 2 (Ambush). Boats 2&3 were priced at outturn economic conditions for work up to 31 March 2005; and at 2005 economic conditions for work from 01 April 2005.

(iv) *The date when Mr Gould is leaving DE&S / MoD (Q 153).*

28 March 2008

(v) *The number of UORs (and how much of the £2.4 billion spent on UORs they represent) which have been “brought into the core programme” and the forecast cost of supporting them (Q 200-204, Q208).*

The £2.4 billion figure relates to UOR approval costs, as opposed to actual spend, which was stated during the Evidence Session. As of Jan 08, the approval total for Operations HERRICK and TELIC is over £3 billion.

When approved, a UOR has no fixed life—the capability is procured and is used in theatre for as long as necessary. All support costs are paid for by the Reserve through the normal Net Additional Cost of Military Operations funding arrangements. This cost is in addition to the cost of the UOR.

Equipment procured through UOR procedures is brought into the core defence programme when, usually at the end of the operation concerned, it is judged that there is an enduring requirement for the capability and that it is cost-effective to retain it. Since operations in Iraq and Afghanistan continue, we have not so far taken a significant number of UORs into our core programme.

Bringing a UOR into core does not cost anything or require money to be taken from other equipment programmes—the only impact on MoD budgets is the future support and disposal costs for the capabilities. To date, UOR approvals have had no impact on the forward programme of equipment. There is no reluctance to approve UORs and the Treasury continue to pay for 100% of up front UOR costs.

To date, MoD has brought into the core equipment programme 44 UORs which originally cost some £230 million. Support costs for these capabilities are not held centrally and have been subsumed into the wider cost of supporting defence equipment and therefore cannot be given individually.

MoD routinely reviews UORs to determine whether they warrant being brought into core.

(vi) *The Comprehensive Spending Review 2007 states that the merger of the DPA and the DLO will “contribute towards generating annual net cash-releasing savings of £253 million by 2010-11”. In which areas of DE&S will these savings be delivered? How will DE&S ensure that the services it currently provides, particularly in supporting operations, will not be affected as a consequence of delivering these savings?*

The merger of DPA and DLO was not based on making financial savings, but on greater effectiveness. There will be savings downstream, particularly in overheads, as we collocate most of our business in the Bath/Bristol area. Our PACE (Performance, Agility, Confidence and Efficiency) change programme is designed to ensure that the future DE&S operating model can deliver the programme in the most optimum way. The figure of £253 million savings relates to logistics efficiency, created through continuous improvement in the delivery of support to front line forces.

(vii) *What are the key changes to DE&S that will be seen in the period covered by the Business Strategy 2008-12? What benefits are expected from these changes and over what timescale will they be delivered?*

By 2012, DE&S aims to be more skilled, more agile, more effective at managing performance through-life and with high stakeholder confidence in our delivery. This effectiveness will be delivered through the PACE programme. Key changes to DE&S over this period include:

—*Better management of our people*—by 2012, the greater effectiveness with which DE&S will operate will enable our workforce to reduce, through a combination of already planned reductions, natural wastage and an early release scheme, from its current size of around 27,000 to around 20,000. Although fewer in number, this workforce will be more highly skilled, have greater opportunities to develop their abilities, consider DE&S to be a rewarding place to work and be proud of their contribution to front line military capability. Our workforce will be characterised by easy and flexible movement of personnel within DE&S, as well as between DE&S and the wider Civil Service and private sector. This will allow us to respond to our immediate and future business needs, as well as gain access to high calibre individuals with broad experience. We will be able to identify potential future leaders at an early stage of their career and develop them in a way that allows them and us to benefit from their talent. To help us achieve this, we will be implementing a succession planning and talent management regime by the end of 2007-08 and carrying the benefits of this regime forward throughout the period.

—*Better commercial practice*—implementation of the Defence Industrial Strategy will help us develop a clear understanding of the priorities and needs of industry, underpinned by an understanding of industry's cost base, through greater transparency on commercial business—including accurate industry expectations of the future equipment and support programme. Risk will be managed with industry and not be assigned between MoD and industry until it has been quantified and all parties agree where it is best held. Contracts will be simple, standardised and clearly enforceable, and will ensure that the equipment and support provided by industry reflects our commitment to contributing to Departmental targets on Sustainable Development.

—*Improving the way we manage our information*—from 2008-09, we plan to develop and implement a new Management Information System (MIS) that will simplify the performance reporting process enabling information to be input once and used many times to produce a single suite of information available to stakeholders across acquisition. This will enable better and timelier management of our outputs. We will work with industry to develop robust whole life costs, and use these figures to improve decision making. By 2010-11, we will have improved our management of corporate knowledge enabling us to spread information and best practice whilst minimising the amount of data we hold.

—*Flexible Resourcing*—will allow us to manage our people and utilise our skills and resources more effectively by better workforce planning and deployment of our staff according to our business needs. This will help us deliver “business as usual” more effectively and efficiently. Flexible Resourcing—a better means to plan for forward workload and deploy staff resources to deliver it—will be introduced on a phased basis throughout DE&S from 2008.

—*Process Improvement Framework*—we will produce a high level process model for DE&S, set against the future operating model of the organisation and its role within Defence Acquisition. It will address ownership and governance of processes and develop a methodology for sustained improvement in process effectiveness. The framework is currently being piloted and will be applied to all DE&S processes on a phased basis throughout 2008-09.

—*Service Tasking and Resourcing*—the development of a framework to guide decisions on how best to provide DE&S corporate services. This will draw on leading practice, ensure coherency with other Departmental service provisions and reduce our costs without compromising effectiveness. This framework will be rolled out on a phased basis throughout 2008-09.

—*Cluster Construct*—the development of a framework to help individual business areas develop their best shape as DE&S evolves—for example to take account of developments in Through Life Capability Management. This framework will be introduced on a phased basis throughout 2008-09.

Other key principles that define our future operating framework are:

- improving the reputation of DE&S amongst its stakeholders;
- a light but effective governance framework enabling collective effort to deliver business results;
- DE&S DG business areas becoming key operating centres for the organisation with the authority, resources and flexibility needed to deliver their business outputs;
- changing the boundary between DE&S and Industry, with less shadowing and more joint-working;
- shortened acquisition cycle times and improved agility and responsiveness from a clear focus on “time to market”.

Many of these changes cannot be delivered by DE&S acting in isolation, but rather as a vital part of a larger “Team Defence” including the Head Office, User, Sponsor, technology community and industry.

(viii) Which of the 20 largest equipment projects are experiencing in-service date slippage in the current financial year and, for those projects experiencing slippage, what is the scale of the slippage (in months)?

As at 31st January 2008 of the 20 largest equipment projects reported in Major Projects Report 2007 seven of the 20 projects had reached their In-Service dates—Typhoon, Bowman, Brimstone, C-Vehicle, Guided Multiple Launch Rocket System and Stingray Torpedo. The Joint Combat Aircraft does not have an approved In Service Date at this point.

7 projects are currently reporting slippage in year (A400M (9 months), NIMROD MRA4 (3 months), Soothsayer (4 months), Watchkeeper (7 months) Terrier (27 months) Next Generation Light Anti-Armour Weapon (15 months) and Precision Guided Bomb (12 months).

Work continues to mitigate the impact of forecast slippage and the final position at year end will be reflected in the Major Projects Report and the Departmental Public Service Agreement target.

3 March 2007

Letter to the Chairman from the Minister for Defence Equipment and Support

As part of a continuing drive towards business improvement, I have agreed to the launch of the PACE (Performance Agility Confidence and Efficiency) change programme within Defence Equipment and Support (DE&S).

This strategic initiative is the continuation of work, which began with the merger of the Defence Logistics Organisation (DLO) and the Defence Procurement Agency (DPA), to define the future business model for DE&S. PACE is an effectiveness driven exercise based on a realistic assessment of skills, numbers and capabilities required to deliver our forward plan to improve support to the frontline. Current estimates suggest that DE&S is likely to employ around 20,000 by 2012 which would allow us to support the requirements of the Comprehensive Spending Review (CSR) 07 which seeks to focus defence spending to the front line.

This reduction would enable DE&S to fulfil the strategic intent of consolidating more business at Abbey Wood, Bristol by 2012. Subject to departmental approval and Trades Union consultation later this summer it is proposed that DE&S would withdraw completely from Ensleigh, Brampton, Andover North and Wyton by 2012, with the majority of the activities transferring to Abbey Wood. This would be in addition to extant plans for DE&S to withdraw from Foxhill, Andover South and Caversfield. Every support and assistance will be offered to staff affected by this decision to ensure that disruption to their work and home life is minimised.

The overall impact on the Defence Estate as a whole and the future use of the sites vacated by DE&S would be reviewed and alternative defence uses sought. Project HYPERION at Andover and Project PRIDE at Wyton are already in train. They may be affected by the implications of the PACE programme but we will ensure that these projects are taken forward coherently with DE&S estates plans as they are developed and refined.

Staff are being informed of this proposal today and we will continue to work closely with the Trades Unions on these issues. Continued support for operations now and in the future remains paramount.

The Rt Hon Baroness Ann Taylor PC

7 March 2008
