



House of Commons
Committee of Public Accounts

Ministry of Defence: Major Projects Report 2007

Thirty-third Report of
Session 2007–08

*Report, together with formal minutes, oral and
written evidence*

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The Committee of Public Accounts

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Committee staff

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Summary

The Major Projects Report 2007 provides information on the time, cost and performance of 20 of the Ministry of Defence's largest military equipment projects where the main investment decision has been taken, as well as the top ten projects in the earlier Assessment Phase.

As in the Major Projects Report 2006, the Ministry of Defence (the Department) has primarily reduced the forecast costs for its top 20 projects by reallocating expenditure to other projects or budget lines. In 2007, it has reallocated £609 million, making a total of over £1 billion reallocated over the last two years. The Department's rationale for continuing to reallocate budgets and expenditure is that it allows it to measure better the performance of individual teams in controlling their project costs, and to identify separately the costs of maintaining United Kingdom shipyards in accordance with the *Defence Industrial Strategy White Paper*.

Although the principle of allocating costs to those best placed to manage them is sensible for accountancy purposes, many of the same project teams continue to be responsible for the transferred budgets. In addition, there may not be a cost reduction for defence spending as a whole, and the Department may have to forego activities, which it otherwise could have afforded. And such transfers mean that the forecast costs reported to Parliament do not give the full picture of the expenditure required to bring equipment into military service as they fail to include training and logistics support costs.

The Department has estimated it needs to make payments amounting to £305 million to sustain the ship building industry. The Department does not have any mechanism to check whether it is getting value for money from such payments. The onshore defence industry also needs an order for two new aircraft carriers. The contract date slipped, along with the decision on the preferred design on the new medium weight armoured vehicles for the Army. Such delays to address short-term funding deficits can lead to higher costs throughout the life of individual projects.

Over the years, the Department has not made sufficient improvements to deliver major military equipments to time, budget and quality. It needs to change the culture amongst its own staff and the industry from one of a 'conspiracy of optimism' to one of greater realism, providing adequate incentives to its staff to deliver genuine savings and make them properly accountable for their performance.

On the basis of the annual Report from the Comptroller and Auditor General,¹ we took evidence from the Department on allocating expenditure outside the boundaries of the Major Projects Report; achieving value for money from procurement strategies; and improving performance against cost, time and quality boundaries.

Conclusions and recommendations

- 1. Since April 2005, the Department has reduced the forecast cost of procuring its major military equipment projects by transferring almost £1 billion to other projects or budget lines.** The Department should address the fundamental causes of the rising costs rather than dealing with problems by simply transferring costs and budgets internally.
- 2. By continuing to transfer costs outside the boundaries of the Major Projects Report, the Department is not providing Parliament with the full picture on the cost of individual military equipment projects.** The metrics that the Department develops for measuring its performance on acquisition for future Major Projects Reports should provide a comprehensive picture of the cost of bringing the equipment into service. For example, the Report should cover the cost of acquiring and supporting the equipment and of providing training for personnel to use it.
- 3. Some of the transfers were not budgeted for and do not represent real savings.** The Department could not provide concrete examples of the impact of these transfers on other areas of Defence spending. For each of the reallocations over the last two years, the Department should provide the Committee with a full statement of the effect of the cost transfer on the other budget holders, including the activities they have had to forego, and/or the compensating efficiencies they have made.
- 4. The Department is spending £305 million to maintain the United Kingdom's shipbuilding industry in line with the *Defence Industrial Strategy White Paper*, but has not developed metrics to assess whether it is getting value for money from these payments.** The Department should develop clear statements of what successful outcomes from the expenditure would be and how it plans to measure progress towards what are long-term aspirations.
- 5. The future viability of the United Kingdom's shipbuilding industry rests on the procurement of the new aircraft carriers, and after five and a half years the Department has only just signed the contract.** Past experience shows that delaying projects leads to increased costs in the long run. The Department and the Treasury need to look carefully at experience on the Future Aircraft Carrier project and identify specific lessons which they can apply on forthcoming projects to prevent such potentially damaging delays.
- 6. The Department is ordering fewer munitions for the Guided Multiple Launch Rocket System and transferring a budget of £165 million to the Indirect Fire Precision Attack project to fund alternative munitions.** There is no guarantee that the Indirect Precision Fire Attack project will be approved as currently envisaged, and so there is a risk that frontline troops will go short of equipment. The Department should develop a robust methodology which, as a minimum, should cover analysis of operational requirements, technical risk and likelihood of timely delivery. This would allow it to demonstrate to the Committee the cost-effectiveness of this and future transfers between projects.

7. **There are a wide range of factors leading to cost and time overruns on defence projects, and despite numerous reforms to working practices, the Department seems unable to bring about lasting improvements.** The Department should conduct an in-depth analysis of the way previous change programmes and initiatives were implemented to understand why they failed to deliver, as well as identify how to secure and sustain the necessary improvements in performance.

1 Reallocation of costs outside the boundaries of the Major Projects Report

1. The Major Projects Report 2007 provides information on the time, cost and performance of 20 of the Ministry of Defence's largest military equipment projects, where the main investment decision has been taken, and the top 10 projects in the earlier Assessment Phase.

2. The current total forecast procurement costs for the 19 largest military equipment projects (excluding the Typhoon aircraft) is £28 billion.² This is an increase of 11% compared with the 'most likely' cost when the main investment decision was taken. The Department is struggling to afford all the equipment it wants to buy and is juggling its budgets as a result. For the second year running, the Department has limited cost increases on its major projects by reallocating expenditure, and sometimes the associated budget, to other areas of Defence spending. In 2006–07, over £600 million was transferred to different budget lines (**Figure 1**). The Department believes that this reallocation of responsibility for costs will lead to projects being managed better and make measuring performance easier.³

3. As some of these reallocations do not represent real savings, they will inevitably impact on other areas of Defence spending. In its Treasury Minute response on the Major Projects Report 2006, the Department agreed it would take steps to identify the impact on other areas of defence where costs are transferred out of the Major Projects Report.⁴ The Department has not been able to provide concrete examples whereby the opportunity costs of such transfers are quantified. Instead, it cited:

- its well-established planning process, through which it balances its acquisition programme within the given budget, including identifying savings that can be made and how their impact can be controlled across all the major military equipment projects on an ongoing basis; and
- Capability Audits and Balance of Investment Reviews, through which the Department seeks to absorb the costs from the Major Projects Report by reducing investment within the wider equipment and support programme.⁵

4. If no reallocations had taken place, the cost of the Major Projects would be £1 billion more than reported in 2007. While the Department has not claimed these reallocations as savings, they are masking cost increases on projects, in particular, because, in many cases, the money is being managed by the same project teams. This process may help for accounting purposes, for example, in ensuring the total cost of the asset in construction can

2 C&AG's Report, para 2. The Typhoon aircraft is excluded from the analysis of costs as the information is commercially sensitive.

3 Qq 1, 20–22

4 Treasury Minute on the Forty-sixth Report from the Committee of Public Accounts 2006–2007, Cm 7275

5 Qq 2–3, 6, 45–46, 70; Ev 15

be easily identified, but after two years, the Department should have identified all the incorrectly allocated budgets and re-assigned them to the appropriate managers.⁶

Figure 1: In 2006–07, £609 million was transferred to be managed either corporately or by other projects and budget holders

PROJECT	EXPLANATION	TOTAL COST TRANSFERRED (£M)	MANAGED BY
Transfer of costs to other budgets			
Support Vehicle	Warranty costs, previously included within the Demonstration and Manufacture phase budget, have been re-categorised to the in-service budget.	-64	The same project team in a different budget line
Sting Ray torpedo	Modifications to the torpedo and conversion costs have been recognised as separate programmes.	-7	The same project team in a different budget line
Transfer of costs to other programmes			
Guided Multiple Launch Rocket System	Funding transferred to the Indirect Fire Precision Attack programme, which is in the Assessment Phase project population (Appendix 2).	-165	Different project team which as yet has no approval for the expenditure
Precision Guided Bomb	Reduction reflects the transfer of integration costs to the corresponding aircraft. These projects are currently outside the Major Projects population ¹ .	-67	Tornado and Typhoon project teams
Falcon communications system	Costs associated with the Vehicle Military Engineering Programme transferred to Joint Electronic Surveillance Integrated Project Team. ²	-1	Different project team
Measures in line with the Defence Industrial Strategy			
Astute Class Submarine	Costs of maintaining a sovereign submarine build capability removed from programme.	-227	The same project team in a different budget line
Type 45 Destroyer	Additional costs, caused by a move of ship build from Barrow to the Clyde.	-78	The same project team in a different budget line
TOTAL 2006–07		-609	
TOTAL 2005–06		-448	
MAJOR PROJECTS REPORTS 2006 AND 2007		-1,057	

Note 1: Typhoon Future Capabilities Programme will be in the Major Projects population for 2007–08

Note 2: This expenditure does not fall within the Major Projects Report population

Source: C&AG's Report, Figure 5, page 13

5. The Major Projects Report 2007 does not provide sufficient information for the Department to be held properly accountable for its expenditure. As a result of the Department reallocating money outside the Major Projects Report boundaries, the cost of the project as reported does not provide Parliament with the full picture of the cost of bringing the equipment into military service. The Department's approach can be likened to an individual only budgeting for the cost of buying a car, and not thinking about the additional initial expenses of being able to use it, or the on-going costs of keeping it on the road. Thus, costs associated with training and logistics are not included within the Department's forecast costs for major projects. Proposed revisions to the format of the Major Projects Report present the Department with the opportunity to correct these omissions and provide us not only with information on the cost of building and procuring the asset, but also making it usable by frontline service personnel.⁷

7 Qq 34, 73–78, 80

2 Informed decision making by the Department to deliver value for money

6. The Government requires certain critical defence technologies and industries to be located in the United Kingdom.⁸ The Department buys submarines and warships infrequently and in small quantities, and so £305 million of the money reallocated to other budget lines in the Major Projects Report 2007 relates to maintaining United Kingdom shipyards. The Department does not have measures in place to assess whether it is getting value for money from these payments to sustain the shipbuilding industry or, if in applying the principles of the White Paper, *Defence Industrial Strategy*, it is maximising economic benefit to the UK from defence expenditure.⁹

7. All of the crucial decisions on projects are linked to the ten-year forward budgets of the Department's 2008 Planning Round, which still is not finalised. The Department does not have enough money to fund all it wants to procure. It appears unwilling, however, to take decisions to help make the new or relevant projects affordable, for example, by cutting projects that no longer completely address the military threats that the United Kingdom faces, or are many years late. Until the key decisions on resourcing are taken, publication of the *Defence Industrial Strategy 2.0* will be delayed.¹⁰

8. The future viability of the United Kingdom shipbuilding industry rests on the contract for the Royal Navy's new aircraft carriers, as these provide a significant steady stream of work. The Alliance procurement strategy, a co-operative relationship between the Department and key contractors and/or suppliers on a project such as BAE Systems and Thales UK, was announced as early as January 2003, but additional participants were required. By July 2007, BAE Systems and VT Group agreed to form a joint venture to build the ships, and to modernise and manage the reduction in staff and shipyards after the peak in the next decade. At the time of our hearing, some 43 weeks later, the Department was close to the point where a contract could be placed and eventually the contract was signed by the Department and the industry on 3 July 2008. Past experience shows that delaying projects leads to increased costs in the long-term.¹¹

9. The Department has delayed making decisions and announcements on other key military equipment projects. The concept for a new, medium weight armoured vehicles fleet, known as the Future Rapid Effect System, was drawn up in 2001. A decision on the preferred design was expected in November 2007, after competitive equipment trials. Due to the slow progress on this project and experience on deployments, the Army's immediate need for increased protection against improvised explosive devices and mines has been met by additional expenditure to procure foreign vehicles such as the Mastiff, and by upgrading the British Warrior Infantry Fighting Vehicle.¹²

8 Ministry of Defence, *Defence Industrial Strategy*, Cm 6697, December 2005

9 Qq 18, 53, 55–57, 113

10 Qq 7–8, 40, 42–44, 46, 50–52, 58

11 Qq 12–16; C&AG's Report, Volume II, page 170; Volume I, page 23

12 Qq 9–11; C&AG's Report, Volume II, page 178

10. In 2005, the Department's review of the Guided Multiple Launch Rocket System showed higher than predicted levels of accuracy. The Department reduced the quantity of long-range surface to surface rockets to be procured from 6,500 to 4,080. It now believes 1,488 rockets will be sufficient for current operations. Rather than purchasing the remaining munitions, the Department will use a separate project to examine the potential to develop other weapons that can provide this military capability. The Department has, therefore, transferred a budget of £165 million to the Indirect Fire Precision Attack project. It is sensible that the Department is able to make trade-offs between projects to provide the best military response to a threat, reduce overlap and minimise obsolescence. However, the delivery date for the weapons must not be compromised by the fact that the Department has not completed its assessments to determine the types and the balance of munitions required. Frontline troops must not go short of equipment because the Department is not yet in a position to approve the main investment decision for the Indirect Fire Precision Attack project.¹³

13 Qq 4, 83–85, 89–90, 92–93, 95–96, 98; C&AG's Report, Volume I, page 4; Volume II, page 63

3 Addressing the underlying causes of problems on projects

11. This Committee and its predecessors have examined the problems of cost and time overruns with defence projects on a regular basis. **Figure 2** summarises some of the main areas of current concern and the occasions in the past when we have drawn attention to them. In response, the Department has advised us of a number of reforms to working practices, and of more precise implementation of existing practices. Such remedies have clearly not proved adequate to secure the necessary improvements.

Figure 2: References to areas of current concern made in previous Committee Reports

CONCERN	COMMITTEE OF PUBLIC ACCOUNTS REPORT REFERENCE	ISSUE
Expenditure outside the Major Projects Report	Major Projects Report 1994 44 th Report, HC 487, 1994–95	The variation between a Parliamentary Answer on the overspend on Typhoon and that reported in the Major Projects Report was due to the difference in the cost baseline.
	Major Projects Report 1998 33 rd Report, HC 247, 1999–2000	The Department continued to make basic errors in estimating programme costs, such as missing £2 million Value Added Tax payments. Accounting changes also had a significant affect on forecast costs, such as on the Typhoon programme where an extra £259 million had been included for research and the costs of using testing facilities. Traditionally these costs were not included in project approvals but they will be capitalised under Resource Accounting and Budgeting.
	Major Projects Report 2003 43 rd Report, HC 383, 2003–04	The metrics for measuring performance should cover the management of expenditure on the equipment throughout its service life and disposal, not just the acquisition phase.
Cancellation	Major Projects Report 1994 44 th Report, HC 487, 1994–95	All of the projects that had gone seriously over their forecast delivery dates had been considered for abandonment, usually on the basis of what it would cost to go on from the position the Department had reached, compared with what it would cost for an alternative.
	Major Projects Report 2000 5 th Report, HC 368, 2001–02	The Department believed it acts quickly once it has decided to withdraw from programmes. However, the time taken to reach the decision itself on the Common New Generation Frigate programme and Bowman was too long given the track record of problems. The Armed Services would not receive, when originally planned, the capabilities which these equipments would have provided.
	Major Projects Report 2003 43 rd Report, HC 383, 2003–04	In a number of cases the Department and industry made poor decisions and committed to unrealistic programmes. Given the scale of the problems, and because the Armed Forces still needed the capabilities provided by the Astute submarine and Nimrod aircraft, the Department adopted the “least bad” option and re-negotiated these contracts.
	Major Projects Report 2004 3 rd Report, HC 410, 2005–06	It was likely that the Department would have to cancel or delay projects to compensate for the substantial cost overruns, and that the Armed Forces would either not get or have to wait longer for the new equipment they need. There was little evidence to show that projects were in fact cancelled or changed when they breach the highest and latest approved parameters for costs or in-service dates.

Opportunity costs	Major Projects Report 1998 33 rd Report, HC 247, 1999–2000	Once programmes start to slip the trend continued and past delays were not recovered. Project slippage can impact directly on the Armed Forces' operational capability. Delay costs money through running on or modifying old equipments and extra administration. The Department had not established a realistic defence acquisition programme or managed projects properly, and there were opportunity cost penalties to other parts of Defence.
	Major Projects Report 2005 50 th Report, HC 889, 2005–06	Some of the latest capability cuts were short-term expediencies which could result in an erosion of core defence capability or in higher costs throughout the life of individual projects.
Measuring the benefit of Defence expenditure	Major Projects Report 2005 50 th Report, HC 889, 2005–06	The <i>Defence Industrial Strategy</i> aims to promote a sustainable and globally competitive defence manufacturing sector but the Department has not traditionally quantified or measured the wider benefits of its procurement expenditure.
Variations caused by technical factors	Major Projects Report 1994 44 th Report, HC 487, 1994–95	Over one-third of all in-service date delay was due to unforeseen technical difficulties for the contractors performing the work, even though the Department was satisfied with the level of expertise available to them for projects.
	Major Projects Report 1997 1 st Report, HC 101, 1998–99	There was a clear relationship between how well a project was technically specified and the outcome in terms of cost and timeliness of delivery. Project management should be judged against the number of specification changes. Programme and specification changes were major causes of cost increase as the Department had a tendency to introduce late modifications to projects.
Staff accountability	Major Projects Report 1997 1 st Report, HC 101, 1998–99	The need to improve the quality of financial forecasting, information and accounting should be reflected in personal and organisational objectives, and hence contribute to the internal accountability of Departmental staff.
	Major Projects Report 2003 43 rd Report, HC 383, 2003–04	The Department should provide a clearer account of exactly how Senior Responsible Owners would fit into the procurement system.
	Major Projects Report 2004 3 rd Report, HC 410, 2005–06	The Department's performance in procuring defence equipment was woeful and £4.8 billion of cost overruns recorded in the Major Projects Reports 2003 and 2004 would put further pressure on an already tightly-stretched defence budget. The Department was unable even to follow its own, broadly sensible, procurement rules and to all appearances no-one was ever held responsible for these failures. The careers of those involved remain unaffected.
Over-optimistic estimates	Major Projects Report 1994 44 th Report, HC 487, 1994–95	Half of the total cost overrun on projects was due to over-optimistic cost estimates or the method for calculating inflation on contracts.
	Major Projects Report 1997 1 st Report, HC 101, 1998–99	Unrealistic initial estimates of project costs and timescales led to overruns, which were then likely to result in further cost increases and delays across a range of projects.
	Major Projects Report 2006 46 th Report, HC 295, 2006–07	The Department generally made investment decisions without an expert independent assessor's examination of the technical, financial and commercial maturity of the major projects and the likelihood they will deliver military benefits anticipated and so projects were based upon inaccurate forecasts.

Source: NAO summaries of previous Committee Reports

12. We recognise that procuring complex and cutting-edge defence equipment often entails unavoidable technical risks, and that accurate advanced specification and estimating time and cost for large and novel projects are no easy tasks. The Department's emphasis on 'de-risking', so that it does not take the main investment decision until sufficient work has been done to understand the technical aspects of projects, is commendable. In addition, the scale of time and cost overruns due to technical factors is showing signs of reducing on the projects approved since 2004. However, while better designed procurement strategies may be contributing to this improvement, technical problems tend to arise after the sixth year of a project, and particularly during trials, and the newest projects have not reached this stage.¹⁴

13. The Department needs to address the systemic weaknesses that lie behind cost increases and time delays. There is a 'conspiracy of optimism' in the project teams and industry which also extends to the leadership of the Department, who often appear willing to accept an estimate that is the nearest match to the available resources.¹⁵ There is a perception that equipment can be brought into service at a lower price, but with little hard evidence to support such an assumption. For example, the original budget for the Landing Ship Dock (Auxiliary) project has been proved to be wholly unrealistic—the final cost was some 80% higher than the initial contract of £332 million. Historical trend analysis, using costs of similar past projects and those of other nations, showed the price of £589 million for the four ships to be within the expected likely range.¹⁶

14. It is not enough for the Department to build up skills, such as licensed project managers, and to require independent review of cost estimates to manage and militate against problems on acquisition projects. The Department must also change its culture. Teams must be given incentives to deliver genuine cost reductions, such as allowing them the opportunity to re-invest a portion of the savings in additional upgrades, rather than losing their budget to other, poorly controlled projects.

15. The Department claims to have learned from its experience on the Bowman project and identified Senior Responsible Owners for some of the 20 projects in the Major Projects Report. However, there is just one Senior Responsible Owner who is full time in the role: overseeing the Carrier Strike capability which includes both the Joint Combat Aircraft and the Future Aircraft Carrier (one of the ten Assessment Phase projects) Projects. It is disappointing that, on some projects, the Department has chosen only to rebadge existing posts of Programme or Project Sponsors, rather than enhance the roles. The Department's structure is such that there are multiple parties with an interest in an equipment project, and without sufficient authority, time and resources to devote to the task, these Programme or Project Sponsors will not be able to deliver military capability any more successfully than existing project leaders.¹⁷

14 Qq 36, 82, 108–111

15 Qq 81, 118

16 Qq 118–119; C&AG's Report, Volume III, page 12

17 Qq 120–123

Formal Minutes

Monday 2 June 2008

Members present:

Mr Edward Leigh, in the Chair.

Mr Richard Bacon

Paul Burstow

Mr Philip Dunne

Mr Nigel Griffiths

Mr Austin Mitchell

Mr Don Touhig

Phil Wilson

Draft Report (*Ministry of Defence: Major Projects Report 2007*), proposed by the Chairman, brought up and read.

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

Paragraphs 1 to 15 read and agreed to.

Resolved, That the Report be the Thirty-third 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.

[Adjourned till Wednesday 4 June at 3.30 pm.]

Witnesses

Monday 17 March 2008

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Sir Bill Jeffrey KCB, Permanent Under Secretary, **General Sir Kevin O'Donoghue, KCB, CBE**, Chief of Defence Material, and **Lieutenant General Andrew Figgures, CBE**, Deputy Chief of the Defence Staff (Equipment Capability), Ministry of Defence

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List of written evidence

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Third Report	Building for the future: Sustainable construction and refurbishment on the government estate	HC 174 (Cm 7323)
Fourth Report	Environment Agency: Building and maintaining river and coastal flood defences in England	HC 175 (Cm 7323)
Fifth Report	Evasion of Vehicle Excise Duty	HC 227
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Seventh Report	Excess Votes 2006–07	HC 299
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Oral evidence

Taken before the Committee of Public Accounts

on Monday 17 March 2008

Members present

Mr Edward Leigh, in the Chair

Mr Richard Bacon
Nigel Griffiths
Keith Hill

Mr Austin Mitchell
Mr Don Touhig

Mr Tim Burr, Comptroller and Auditor General, and **Mr Jim Rickleton**, Assistant Auditor General, National Audit Office, gave evidence.

Mr Marius Gallaher, Alternate Treasury Officer of Accounts, HM Treasury, gave evidence.

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL MAJOR PROJECTS REPORT (HC98-1)

Witnesses: **Sir Bill Jeffrey, KCB**, Permanent Under Secretary, **General Sir Kevin O'Donoghue, KCB, CBE**, Chief of Defence Materiel, and **Lieutenant General Andrew Figgures, CBE**, Deputy Chief of the Defence Staff (Equipment Capability), Ministry of Defence, gave evidence.

Q1 Chairman: We are looking at the *Major Projects Report 2007*, which looks at the Ministry of Defence's procurement record in the year ended March 2007. We welcome back Sir Bill Jeffrey, General Sir Kevin O'Donoghue and Lieutenant General Andrew Figgures. You are all very welcome to what is obviously a very important annual session that we have on procurement in the Ministry of Defence. You will recall, Sir Bill, that we had some tough things to say in our last Report about project spend and transfer to a different budget line, and we might look at this at the start of this session, if you do not mind, by looking at page 13, figure 5 of the Comptroller's Report. It tells us that in 2006–07 £609 million was transferred to be managed either corporately or by other projects and budget-holders. We see down at the bottom there that the best part of £1 billion has been transferred to different budget lines. Why have so many projects dealt with these problems simply by transferring across rather than addressing the fundamental concerns that this Committee has been raising again and again with the Ministry of Defence over many years?

Sir Bill Jeffrey: The first thing to say, Chairman, is that we are trying to address these fundamental concerns, and I hope we will come to that in the course of this session as well. On the issue of transferring costs from one budget to another, it is something about which we need to make a judgment when we are compiling a report of this sort, and there is always a judgment to be made about where costs most appropriately lie. All I can say is that in the movements of money from one side of the ledger to the other, as it were, that are revealed by this Report, we are very much in agreement with the National Audit Office. We would not pretend for a moment that they all constitute savings—far from it. In many cases we have to find other ways of meeting this expenditure. Principally, what you see in table 5

is a reflection of what in accounting terms seems to us, and the National Audit Office, is the right place to allocate these—

Q2 Chairman: I am very anxious that we should not accept this argument as simply an accountancy issue. There are definite issues that have to be tackled on the ground. If £1 billion worth of costs is not attributed, that is £1 billion of other things you cannot do. In the Treasury minute you gave us last year we focused on this very point, and you told us in that Treasury response to our Major Projects Report 2006 that you would take steps to identify the impact on the other areas of defence where costs were transferred out of the Major Projects Report. I would like to know what concrete progress you have made on this, Sir Bill, since you accepted our recommendation—our recommendation, which you accepted.

Sir Bill Jeffrey: Certainly, through our planning process, which is going on now in relation to 2008, we are constantly looking at the programme. We have had to identify right across the programme savings that we can make and ways in which the impact of this can be managed within the budget that we have, so it is an ongoing process.

Q3 Chairman: That is a complete non-answer. What I would like you to tell me is this. We have £1 billion of extra costs that are not attributed. What has been cut; what has not been done? Can you tell me?

Sir Bill Jeffrey: I cannot at this stage, Chairman.

Q4 Chairman: This is not satisfactory because we made this recommendation a long time ago and you accepted it; and what you are saying, frankly, is that you are still working on it. We are talking about £1 billion worth of defence procurement that has been transferred between budget lines. We would like to know the actual impact of this on other areas

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of your spending or on a particular project. You must know what is going on! General Figgures, can you help us, or General O'Donoghue?

Lieutenant General Andrew Figgures: Chairman, if we take a specific example, for instance the Guided Multiple Launch Rocket System (GMLRS), which we spoke about last year; this provides a capability for precision attack at range that also our Indirect Fire Precision Attack Programme (IFPAP) addresses, although we might, through the IFPA programme, address it in a different way or have a complementary capability such as a loitering munition. What we have here is a rocket that fires 70 kilometres and can hit a target with great accuracy; we can also fire a munition that can stay in the air, and again address a target with great accuracy. We are now carrying out work, as part of the assessment phase of the Indirect Fire Precision Attack Programme to see what the balance between those two munitions should be in order to provide the necessary capability. So we are preventing overlap, excessive redundancy—although in all capabilities one requires some redundancy—and we have grouped the money as part of an overall capability package. It could be that we do save some money once we get to make our proposition for main gate and the final investment decision.

Q5 Chairman: That is a specific project.

Lieutenant General Andrew Figgures: Yes.

Q6 Chairman: There may be a justification for it and it is very easy for you to home in on one specific project, but I am not sure that you have answered the generic question that I put to Sir Bill. If Sir Bill cannot answer it now, I am very happy to accept a note when you have had the time . . .

Sir Bill Jeffrey: I will offer it, Chairman, but can I make two points? The first is that the specific project that General Figgures refers to is an example of a more general case, which is that some of these changes of classification do not involve increased expenditure; they are simply judgments—and the Guided Multiple Launch Rocket Programme is a good example—of what is the most sensible place to allocate the expenditure. Some do reflect pressures on our costs. We had the spending review settlement last summer and we have since then been working on the whole programme through our planning round to assess how best to meet the pressures that the spending review 2007 left us with. I will happily provide the Committee with a note¹

Q7 Chairman: Thank you very much, Sir Bill. If we look at figure 1, as a useful aide memoire to the Major Project Report summary of post main gate projects—let us look at Nimrod, shall we? This is now £3.5 billion over budget, seven and a half years late: is it still good value for money?

Sir Bill Jeffrey: It is certainly a project that, if you look back into the past, has had a very difficult history. I think we feel it is still an important

capability. It provides maritime patrol anti-surface warfare, reconnaissance, search and rescue capability—

Q8 Chairman: I am sure its capabilities are useful. It is seven and a half years late. It is based on a Comet airframe that is half a century old. You have reduced numbers from 21 to 12 and it is costing £3.5 billion and seven and a half years late: I do not doubt that its good capability; what I doubt is that it is good value for money. We are not a defence committee; we are a value for money committee.

Sir Bill Jeffrey: I think a judgment has to be made at the end of this, and the value for money which it represents. At the stage that we are at now, with the major discussions with BAE Systems a year or so in the past—we now have a settled programme which we are physically implementing because we have reached the point in it where it is more sensible to deliver the aircraft.

Q9 Chairman: We will come back to that later if people wish to ask more questions about Nimrod. Let us look now at the new armoured fighting vehicle, which is mentioned on page 178 in volume 2—it is in there because it is in its early stages, I think. Obviously, there is an overriding operational need for this kind of capability, but can you tell us why it is taking so long to meet this need?

Sir Bill Jeffrey: This is the so-called FRES project.

Q10 Chairman: It starts on page 177, the Future Rapid Effect System.

Sir Bill Jeffrey: This is a project which will, in time, produce a new generation of armoured fighting vehicles for the Army. It has taken a while. The concept phase was some years ago, which started in 2001, and took, we would concede, longer than it should. It has now been moving substantially more rapidly in the last few years. We have selected a so-called “systems of systems integrator” to integrate the armoured vehicles into all the technology that will surround them. We are well through identifying a utility vehicle design and we are in the process of selecting a utility vehicle integrator.

Q11 Chairman: Why has it taken so long to provide an urgent operational need?

Lieutenant General Andrew Figgures: If I may, Mr Chairman, there are two aspects to it. The immediate urgent operational need, I believe we have met through a number of urgent operational requirements, not least the Mastiff, seen in service, Ridgeback, and the upgrading of the 430 series, which has provided us with the necessary capability to conduct operations today and provide the necessary level of survivability to our soldiers both in Iraq and Afghanistan. The Future Rapid Effect System is both a replacement programme and a means of enabling the Army to deploy more rapidly in support of its focused intervention operations and peace-keeping. Why has it taken so long? Since we started looking at the Future Rapid Effect System, the operational context in which we have been operating has changed significantly, not least the

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development—I think we have noted before both in this Committee and others how the nature of improvised explosive devices, off-route mines, have advanced such that the levels of protection that we might have anticipated in 2002 and early 2003 we have had to upgrade. As a consequence, we have had to develop the requirement for this particular family of vehicles, and I think it would have been inappropriate to have forced into service a vehicle that was incapable of providing the necessary levels of survival for our soldiers. So whilst you may say that it has taken us some time, it is a bit like Abraham Lincoln and cutting down the tree: if I had six hours to cut down a tree, I would spend five hours sharpening the axe so that at least I did it in the timeframe. Previously we said that de-risking the requirement and de-risking the solution pays dividends in the longer term.

Q12 Chairman: That seems a very fair answer. Can we ask you now about the aircraft carrier: when will the announcement be made as to when the contract will be placed?

Sir Bill Jeffrey: The best answer I can give to that, Chairman, is as soon as possible.

Q13 Chairman: That is not a very satisfactory answer because we know that by July of this year agreement was reached, was it not? We know that everything is in place. All that is not in place is that your Treasury masters have not yet given you the money. This has been delayed and delayed and delayed, and you are still not in a position to tell this Committee when the contract will be placed.

Sir Bill Jeffrey: The discussions are still going on with the carrier alliance and within Government. I think we are getting close to the point where the contract will be placed.

Q14 Chairman: Weeks, days, months, years?

Sir Bill Jeffrey: Just at the moment these are continuing discussions and it is better for me not to try to put a date on it.

Q15 Chairman: We have had a memorandum from you on the joint venture with BAE and Vosper Thornycroft, have we not? Our whole shipbuilding capability depends on this aircraft carrier contract, does it not? Are you not endangering the future of our shipbuilding industry by delaying this announcement?

Sir Bill Jeffrey: We certainly need to make this announcement as early as we can because it will be in the interests of the joint venture and indeed of us as customers that the industry should have the confidence that will enable them to move ahead and form the joint venture.

Q16 Chairman: So you accept the importance of this, and the announcement is imminent, is it?

Sir Bill Jeffrey: I would not use the word “imminent” myself, Chairman, but—

Q17 Chairman: When we get asked to vote on our Blackberries for a division, the division is either imminent or shortly—is yours a shortly or imminent announcement?

Sir Bill Jeffrey: More shortly than imminent.

Q18 Chairman: That is probably the best we are going to get. Paragraph 2.15 is quite an important little paragraph, there, buried—if I can find it: “Currently it is difficult for the Department to assess whether it is getting best value for money for Defence as a whole through the Defence Industrial Strategy”. When are we going to get this in place so that we are getting value for money to sustain the shipbuilding industry?

Sir Bill Jeffrey: I think we have made quite significant progress in that direction in the last year or so, because if you look back to the point rather more than two years ago when the *Defence Industrial Strategy* was published, we knew then and the industry knew in their hearts that there was an over provision in the defence shipbuilding industry. Over a period we have tried to influence them—and in the end these are judgments that only the industry itself can make—towards restructuring. The moves towards the joint venture, the establishment of the Babcock enterprise in the South West—we are moving towards a manifestly more affordable maritime sector, and that will in time, because there is quite a bit of business around short-term at least and short term in this business means over quite a number of years, will provide better value for money for us.

Q19 Chairman: The Astute Programme was also dealt with in the Treasury Minute, PAC conclusion number 4, and we have had all sorts of problems with Astute. In general, are you sharpening up your axe for our future nuclear capability? Have you got the skills in place given the problems that we have seen with Astute?

Lieutenant General Andrew Figgures: In terms of the requirements, yes, we have sharpened the axe for that. It is not my part of ship, to quote a nautical metaphor—in terms of the supply side I defer to General Kevin for that, if that were appropriate.

General Sir Kevin O'Donoghue: I think the Astute Programme is heading in the right direction now. As you say, there were some difficulties in the past. It has been recovered and I think it is an impressive programme. The first one is in the water, as you know, and we will go to sea around the turn of the calendar year.

Q20 Mr Touhig: Sir Bill, I am slightly confused about how your department operates the budget reallocation process. The Report tells us that the MoD uses budget reallocations so that it can measure the performance of individual project teams in controlling their costs. Is that correct?

Sir Bill Jeffrey: That is part of what is going on when costs are moved in the way that is described in this Report, yes.

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Q21 Mr Touhig: So you reallocate budgets and expenditure to see whether they can be managed better in a new budget line; but the new budget line is often managed by the same people, the same project team, as it shows us on Figure 5.

Sir Bill Jeffrey: Yes, it is.

Q22 Mr Touhig: So why?

Sir Bill Jeffrey: It is about more than the person who manages the budget. If you take the most obvious example, which is the movement of Astute costs of £227 million associated with maintaining the submarine build capability issue that the Chairman has just referred to, and the Type 45 costs incurred in the move from Barrow to Clyde—in both of these cases the judgment that was made was that these were essentially the costs that fall to us by virtue of the fact that we are supporting a maritime defence industry and that they were better managed in a separate budget. As it happens, in our present structure that involves the same people, but it still makes quite good accounting sense, and although I note what the Chairman said at the beginning about there being more to this than accounting, that is what has been driving us in this case.

General Sir Kevin O'Donoghue: There are two points, if I may. A particularly good example is the SUV transfer of costs. Before we formed DE&S the DPA would have had the money both to procure the equipment and for through life support. That would then have moved to the DLO. This is just moving the warranty costs, which should be in the in-service budget, into the right place. Because we formed DE&S, we now have one project team.

Q23 Mr Touhig: Right, but the Report tells us that an objective I—and Sir Bill corrected me slightly and said it is just one of the objectives—is to measure the performance of individual project teams, but you have the same project team handling the same amount of money.

General Sir Kevin O'Donoghue: Yes, we have, but it is easier to separate out in-service costs and procurement costs into two different budget lines.

Q24 Mr Touhig: And because you have got this new budget line, and that is outside the scope of the Major Projects Report, the reallocation then appears as a cost reduction, which is outside the Report then.

Sir Bill Jeffrey: It does for the purposes of this Report. As I said to the Chairman at the beginning, there is no sense in which we are coming to this Committee and saying these costs just disappear; of course they do not; we need to find them somewhere.

Q25 Mr Touhig: I note, Sir Bill, from your CV that you are not a member of the Magic Circle so it is not a conjuring trick, but it does seem a con trick!

Sir Bill Jeffrey: Well, it may seem that way, Mr Touhig. I simply come back to the fact that in the preparation of this Report there was a discussion with the NAO about where it would be sensible to allocate these costs, and the conclusion was that it would be better to do it in the way we have done.

I also agree with the NAO's assessment in the Report that it is unlikely that there will be significant movements of this sort—to that extent anyway—in the future.

Q26 Mr Touhig: I just find this is misleading Parliament. You have got a budget head; you are moving it between different groups and you have the same people managing it; and it is presented as if it is a cost reduction, but it is not!

Sir Bill Jeffrey: It is not being presented as a cost reduction. We certainly do not see it that way in the cases I have quoted, which are about the costs essentially of sustaining the maritime industrial base. We have never for a moment suggested that it is a reduction in costs.

Q27 Mr Touhig: The Report certainly indicates that you consider there are sizeable cost reductions on specific projects and a modest overall overspend.

Sir Bill Jeffrey: It is not—I certainly do not see it as—

Q28 Mr Touhig: In the two years 2005–07 there was a £1 billion expenditure on major projects which you simply took out and re-designated. If you had not done that, what would have been the financial state of these major projects—severely in trouble, yes?

Sir Bill Jeffrey: The actual headline figures in the Major Projects Report would have been different. The Committee may want to come on to this, but one of the suggestions that (I hope with NAO support) we have made, is that we might in the future change the coverage of this Report to capture more than it does at the moment. The other point I would like to make is that some of these are cost increases that of course arose, and the view taken was that it was sensible to attribute them to—

Q29 Mr Touhig: But £1 billion over two years, Sir Bill!

Sir Bill Jeffrey: By no means all of the billion. The examples we touched on earlier such as the Guided Multiple Launch Rocket System took costs out of one programme and put them into another.

Q30 Mr Touhig: Page 13, figure 5, shows £1 billion over two years that you have reallocated. The Report, Sir Bill, accuses your department of masking the impact of other costs increases on projects. The Oxford English Dictionary says “mask” is: “to disguise something under an assumed outward show”. Why do you think the NAO laid that charge against your department?

Sir Bill Jeffrey: The NAO can speak for themselves, but it was on their advice that we classified this—

Q31 Mr Touhig: You agreed the Report, Sir Bill!

Sir Bill Jeffrey: Yes.²

Q32 Mr Touhig: I am sure they will speak for themselves, but you agreed the Report.

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Sir Bill Jeffrey: I took the use of the word “mask” in its conventional sense to mean—

Q33 Mr Touhig: What is not conventional about the Oxford English Dictionary interpretation of the verb “mask”—“to disguise something under an assumed outward show”?

Sir Bill Jeffrey: All I can say, Mr Touhig, is that there was no intention on the department’s part to give a misleading impression.

Q34 Mr Touhig: What you have done, Sir Bill, is re-classify hundreds of millions of pounds of expenditure so that it falls outside the Major Projects Report, have you not?

Sir Bill Jeffrey: Not if you imply that we were doing it in order for it to fall outside the Major Projects Report. It has been re-classified but, as I said, in most cases we perfectly acknowledge that it is still expenditure that has to be managed.

Q35 Mr Touhig: The Report also tells us that your department’s poor performance and financial management has necessitated an amount of—this exercise of annual—this exercise of “juggling budgets” as they described it. Again, the Oxford English Dictionary says that the verb “juggle” is to: “practise magic, practise trickery, a juggling, tossing and catching a number of objects continuously or entertainment.” It is not terribly entertaining just reallocating a large sum of money from the Major Projects Report as if to disguise it!

Sir Bill Jeffrey: In some ways I wish the management of the defence budget was as easy as the word “juggling” would imply. We have to make choices about priorities within it. These choices do involve sometimes the movement of money from one budget head to another. What I would resist very strongly is the suggestion that in some sense the figures have been fiddled by moving these amounts from one budget to the other; it has been done because, in consultation with the NAO, it seemed the correct accountancy attribution.³

Q36 Mr Touhig: Can you show us, Sir Bill, evidence that the department is genuinely controlling costs better and not simply shifting money between budget heads?

Sir Bill Jeffrey: If you look elsewhere in the Report, the NAO comments that there are signs that the impact of technical problems is reducing. They comment that we are choosing acquisition strategies for projects that are most appropriate to fit their individual circumstances and have a better understanding of the risks involved. They describe us as becoming a more intelligent customer. In the end, managing the cost of these large defence projects was always going to be difficult, but our sense is that over time we are getting better at it.

Q37 Mr Touhig: At page 10, paragraph 1.2 they tell us that the budget reallocation may not result in any real cost reductions at all.

Sir Bill Jeffrey: That is true in the terms in which it is expressed, but that was not its purpose; its purpose was to get the expenditure in the right parts of the budget.

Q38 Mr Touhig: The overall impression I have, Sir Bill, is that a very large amount of money, £1 billion over two years, has simply been reallocated under another budget head; it takes it out of the Major Projects group, and therefore it gives the impression that you are not in any financial difficulties, which you are in the Major Projects, and if you had not reallocated that £1 billion, what would have been the state of the Major Projects?

Lieutenant General Andrew Figgures: If I may help here, Mr Touhig, part of my job is the planning of capability. I did give that example of the Guided Multi Launch Rocket System, but the same could be taken, say, of the Precision Guided Bomb or perhaps the Beyond Visual Range Air-to-Air Missile, in that it is appropriate to allocate money to a particular capability and therefore a particular solution to meet that capability. In balancing the budget as I produce it, it therefore is appropriate to shift money from one place to another, not as some financial engineering exercise but as a means of delivering the appropriate capability at the right time, and as far as we are able to, to best value so that we get the best bang for the buck. If you were to say to me, “you cannot move any money out of the Major Project Report projects” you would hobble me and prevent me doing my job in terms of serving our people in the field.

Q39 Mr Touhig: I would not want to do that at all, because I do commend your commitment and that of the whole department in that respect, but I come back to the point I made to Sir Bill earlier. The Report says that what you are doing is masking the impact of other cost increases on projects. If that is not playing around with mirrors, conjuring tricks or con tricks, I do not know what it is! It could not be more specific. I have never seen a Report that accused a department of masking—

Sir Bill Jeffrey: I do not take the NAO to be using the word “masking” in the derogatory way that you do; and if they had done, I think I would probably have objected to it. As this is put—it is transparently obvious what we were doing. It is not just playing with the figures in order to produce a result.

Q40 Mr Touhig: I am not clear where you consider you get your definition “masking” from. The author of the *Defence Industrial Strategy* has gone; has the strategy gone with him?

Sir Bill Jeffrey: No, it certainly has not. We are still entirely driven by the thinking in the *Defence Industrial Strategy*. There is a plan which Ministers intend to deliver on a little later in the year to publish a revised version of that strategy. The thinking behind it, the combination of a clearer, more open relationship with the industry, greater transparency about requirements, a greater clarity about what

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needs to be onshore and what does not, more emphasis on through-life capability, more emphasis, where it makes sense, on—

Q41 Mr Touhig: I appreciate that indeed and welcome it—

Sir Bill Jeffrey: That is very much where we are.

Q42 Mr Touhig: One of the objectives was transforming industries by signalling the MoD's future requirements and driving improved efficiency and overhead reductions. We were promised *Defence Industrial Strategy* version 2 within two years and we are now over that. When do you expect the published version 2 of the *Defence Industrial Strategy*?

Sir Bill Jeffrey: I would expect it to be a little later this year. We were talking earlier about the planning round that was still going on in relation to our expenditure position—

Q43 Mr Touhig: You cannot put a date on it, Sir Bill?

Sir Bill Jeffrey: We had a discussion with industry towards the end of last year. It was clear from these discussions that the industry itself would welcome deferring any re-issue of the *Defence Industrial Strategy* until the key decisions on resourcing had been taken. The very strong signal we got was that they would not want a premature publication on the second anniversary that might be affected by decisions on the overall programme which had at that stage not yet been taken.

Q44 Mr Touhig: It makes absolute sense but you are actually tied totally, are you not, because you are still waiting to know how much money you can spend, which is why you cannot progress the strategy?

Sir Bill Jeffrey: We know how much money we have to spend; we are still in the process of taking decisions about where to spend it.

Q45 Mr Mitchell: Don Touhig called it conjuring, what has happened, this transfer to other accounts, and actually it is worthy of Enron at its best because you are shifting it around in a way so as to disguise the total expenditure. If it is transferred to other projects, as the £1 billion is, what happens to the other activities financed by those budgets? What are you foregoing from the budgets to which it is transferred?

Sir Bill Jeffrey: As I said earlier, Mr Mitchell, we have a budget that emerges from last year's comprehensive spending review. We have a number of financial pressures that we need to tighter manage within these budgets. Sometimes there are reductions but more generally there are increases in pressure. Among the increases in financial pressure are those arising from these budgets that are described in this Report. Ministers have to take decisions about where to set priorities within that. If you will forgive me, I would strongly resist the

Enron comparison, because this is an entirely transparent allocation of money from one budget to another; it is not intended to mislead.

Q46 Mr Mitchell: It is entirely honourable too but it is very confusing for people who are looking at these. There is not a total saving and you have not really answered the question of what is cut back, because you must be cutting back other projects to maintain projects that may be outdated.

Sir Bill Jeffrey: Let us remember that in the Major Projects Review exercise we are addressing on the cost side of the equation as opposed to the timeliness side, the lifetime estimated costs of the project, so we are talking about expenditure pressures that, as a result of these increases, will build up over a period of time, and we just have to manage these within our normal financial budgeting process.

Q47 Mr Mitchell: Because you got the initial budget expenditure estimates wrong!

Sir Bill Jeffrey: Well, sometimes—sometimes these decisions simply reflect a rational allocation of expenditure.

Q48 Mr Mitchell: In paragraph 3, page 5, the department's rationale for continuing to reallocate budgets and expenditure is to better measure the performance of individual teams in controlling their project costs. I do not get that. The same teams are continuing to manage it when it is transferred to other budgets, are they not?

Sir Bill Jeffrey: It is a point we touched on earlier. I perfectly agree that it is the same team, but a lot of accounting is making sure that costs are highlighted; indeed, in earlier sessions with this Committee you have often been quite critical of the fact that the department has not been very good at bringing together in the right place cost information that will enable it to judge accurately the cost of activities. What is entailed here, in many cases, is, for example, bringing together the costs associated with the Maritime Industrial Strategy. To take that example, the NAO itself, in paragraph 1.2 of the Report, remarked that those costs which contribute to this year's largest reallocation are more appropriately overseen at the corporate level. I do not want to labour the point, but we are making a judgment here which very much has the support of the NAO.

Q49 Mr Mitchell: You are still measuring the performance of that team in the total expenditure, not just the part that is left on the old budget!

General Sir Kevin O'Donoghue: Can I offer a thought? If you take Barrow as an example, if we left all the overheads associated with Barrow within the MPR for the Astute Programme the overheads would be huge when we need to maintain some of the infrastructure that we are maintaining there is for the successor programme. That is the reason for putting it in a different budget line. At the moment there is no successor programme, not in my area; so the only team to manage it properly is the Astute team, but it is a separate issue.

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Sir Bill Jeffrey: It would be quite misleading to attribute these costs essentially associated with having a submarine build facility tied in to the Astute—

Q50 Mr Mitchell: At what point do you say, “This has gone on for so long; this technology is now outdated” and you have to call a halt to it?

Sir Bill Jeffrey: Which technology—sorry?

Q51 Mr Mitchell: I do not know which particular project it applies to but there must be projects that are delayed and whose costs have been shifted to other projects where the technology is becoming outdated. At what point do you review the effectiveness and usefulness of that technology and that project?

General Sir Kevin O’Donoghue: With all due respect, that is a different issue. That is done in conjunction—between the equipment capability area and my area. We need to remember there are twenty projects here.

Q52 Mr Mitchell: We are not continuing to finance something that is outdated?

General Sir Kevin O’Donoghue: No.

Q53 Mr Mitchell: The next reason for moving budgets around in this kind of fashion is to distinguish the costs of maintaining defence-critical industrial capability.

General Sir Kevin O’Donoghue: Yes.

Q54 Mr Mitchell: You are feeding your staff to the defence capability industry to keep it going and keep it happy, which is a fairly unique concept, is it not? If the Government put government business and government money transfers through the Post Office to keep the Post Office alive, that would be the same sort of thing, would it not? This must be the only section of Government that is doing this, keeping a sector alive by feeding it projects.

Sir Bill Jeffrey: To some extent, Mr Mitchell, it is a consequence of the—

Q55 Mr Mitchell: My colleague says “agriculture”. We disagree on that. It does mean that there is a commitment there to—they are your masters, in a sense because they can come to you and say, “We need to keep this going”.

Sir Bill Jeffrey: I do not think I agree with that last point. It is certainly the case that one of the consequences of the *Defence Industrial Strategy*, which in my view was correctly lauded, is that we are much clearer than we may have been in the past about the fact that if a nuclear submarine building capability in this country is regarded as essential, then in the end we are going to end up sustaining it. It would be better to have the kind of active discussions with industry that we have been having,

Q56 Mr Mitchell: Probably, if you were an old-fashioned person like me you would nationalise the lot—and then you are sustaining Government money in Government projects, which is a payment

back to the government, but we will leave that aside as a kind of emotional spasm! How does it work? Do they come to you and say, “I am a defence industrial complex; I have got this brilliant idea for a ray which will remove the uniforms, armour and clothes of any soldiers on the other side” and you say, “Yes, we must have it to keep you going”. How does it work? Do the ideas come from you or from the complex?

Sir Bill Jeffrey: This is not a question of sustaining industry for the sake of doing so. In the case of the maritime sector what the *Defence Industrial Strategy* was premised on was, first of all, that we were in the course of awarding quite significant contracts for shipbuilding in the military sector to the British shipbuilding industry. Secondly, in one very significant respect, namely the nuclear submarine sector, we were likely to be dependent on the indigenous submarine building capability for some time. Thirdly, when the bulge of business that we are providing for the maritime sector had run out in whatever, five, 10 or 15 years’ time, the chances were that because modern platforms were intended to last for longer that the industry would need to adjust itself to deal with all levels of business, and that is why—

Q57 Mr Mitchell: We are not in the situation of the Americans, with a powerful defence industry which exports things all the way round the world. We do not have that, but it does still put you at their mercy in the sense that you cannot be too keen to cut the costs because you endanger the existence of the *Defence Industrial Strategy*.

Sir Bill Jeffrey: What it does is place on us the responsibility to negotiate hard as good deals as we can with that industry and to have a very open relationship with them in which it is well understood that our purpose is to drive down costs over time, because otherwise we will not be able to afford the business.

Q58 Mr Mitchell: Why do we have this rigmarole of transferring costs to other budgets? Would it not be simpler to cut back the technology as costs are increased so that you are getting a less technologically advanced product, but at the same time cost you bargained for in the first place? Is that not a sensible way of approaching it? Are we not ending up with over elaborate technology?

Lieutenant General Andrew Figgures: You appreciate, Mr Mitchell, that the balance of requirement and supply is a very delicate balance. There is no point in being supplied with something that does not meet the requirement; that is just a waste of money. However, there is a risk attached with meeting the requirement because very often the business we are in requires high levels of technology, and whether it is in software development or in defensive aid suites—whatever it is, we tend to have to operate at the upper end of the envelope.

Q59 Mr Mitchell: You might have a certain number of destroyers and yet you are happy to cut back on that number because the technology is getting more expensive and they are over elaborate and delayed

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Lieutenant General Andrew Figgures: We strike a balance between requirement, which is driven by the threat, and, as time moves on the threat increases—

Q60 Mr Mitchell: Or changes.

Lieutenant General Andrew Figgures: Or changes. Generally, it becomes more testing in that anybody sees what capability we deploy and they look to produce counters for it. So we have to make a judgment of how many platforms we have and how capable those platforms are. The Type 45 is a very good example of the radar, which we have developed, which is hugely capable, has got great potential in it; and by linking it with a co-operative engagement capability, we get better capability out of those platforms than we would have done if they were not linked together. There is a balance between the obvious hardware and all the inter connectivity of the sensors, the communications and our means of fighting.

Q61 Mr Mitchell: I accept that, but the likes of me would rather have more platforms—

Lieutenant General Andrew Figgures: Not if the platforms are not any good!

Q62 Mr Bacon: I would like to ask you about figure 4, which says in relation to Barrow: “Psychologists are working with the existing teams to improve communication and management styles. Further improvement in relationships between the workforce and management should lead to productivity gains. Although more expensive in the short term, these initiatives are expected to have long-term benefits on costs . . .” Are we really reading here that relationships between management and the workforce were so bad that you have had to ship in a job lot of psychologists?

Sir Bill Jeffrey: I would say—and Sir Kevin may want to add to this—that—

Q63 Mr Bacon: Sir Kevin Tebbit retired—I am afraid you are the one—

Sir Bill Jeffrey: The renegotiation of the Astute contract a year or so ago has certainly led to better working relationships with us and BAE Systems and the supply chain.

Q64 Mr Bacon: What about the psychologists?

Sir Bill Jeffrey: The psychologists I think are employed by BAE Systems.

Q65 Mr Bacon: How many of them are there?

Sir Bill Jeffrey: I do not know.⁴

General Sir Kevin O’Donoghue: I can ask BAE Systems. All I can say is that the workforce and the working environment at Barrow is very impressive. I said it earlier. The new shipyard management has—

Q66 Mr Bacon: It looks as though they have literally turned things upside down.

General Sir Kevin O’Donoghue: They have indeed.

Q67 Mr Bacon: Why did they not do that earlier? What is it about turning a boat on its end that makes it easier to construct it?

General Sir Kevin O’Donoghue: It is so that instead of trying to fit pipework up there, you can fit it there; it is much quicker.

Q68 Mr Bacon: Has no-one thought of this before?

General Sir Kevin O’Donoghue: The Americans thought of it about six months before and started six to 12 months before and we shifted that way of doing business over into BAE Systems.

Q69 Mr Bacon: I would like to come on to the question of thinking about things before, and this question of reallocating the budget. You did it in the last financial year where there was a transfer of £609 million, and the preceding one, which we looked at last year, when there was a transfer of £448 million. Did you do it in prior years?

Sir Bill Jeffrey: I am not aware of shifts of that sort in prior years, although we had better check because it is—

Q70 Mr Bacon: The NAO tells me you did not and I do not remember this coming up at the Major Projects Report hearings before now. If it is such a good idea, why has it only dawned on you now that you should be transferring these costs in order to: “better measure how individual teams are performing and to distinguish costs of maintaining critical industrial capability”? Why have you only thought about it now?

Sir Bill Jeffrey: I think it probably reflects something you touched on in this Committee a number of times in the past, which is more emphasis on thinking hard about the structure of the accounts and how best to allocate money in order to get a good overall picture of what it is actually being spent on.

Q71 Mr Bacon: Never before now, in all the years the NAO has been doing this, has someone come up with the idea that perhaps you should be transferring very significant sums of money from one budget heading to another and out of—coincidentally—out of Major Projects Report: it has never been brought up before!

Sir Bill Jeffrey: To my knowledge, no.

Q72 Mr Bacon: Can you tell me if there are any occasions when money has been transferred into the ambit of the Major Projects Report? (I do not know why the guy behind is smiling but it is probably because the reason is not an edifying one!)

Sir Bill Jeffrey: Not to my knowledge. We can check.⁵

⁴ *Note by witness:* For the past two years, BAES (Submarine Solutions) have been employing, on an occasional consultancy basis, six psychologists to provide business support to wider team working and leadership development activities.

⁵ *Note by witness:* There is one example in Major Projects Report 2007 where costs have been transferred into the ambit of the report. This is a transfer of £344 million from Advanced Jet Trainer to United Kingdom Military Flying Training System (Holistic) in the pre-Main Gate population.

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Q73 Mr Bacon: The fact is that they have been transferred across now because you have a very urgent focus on keeping within project costs given come what may through classification. That is the real reason, is it not?

Sir Bill Jeffrey: It really is not. As I said in response to Mr Touhig's questions, it is a pretty transparent device that we were using—

Q74 Mr Bacon: It is transparent masking—it is a new one on me!

Sir Bill Jeffrey: I do not think that has been part of our thinking at all. What it does highlight though is the partial coverage of the Major Projects Review approach. In the interests of providing a fuller account for the Committee—

Q75 Mr Bacon: A proper whole life account.

Sir Bill Jeffrey: We have proposed the arrangements we have.

Q76 Mr Bacon: One of the Generals talked about the support vehicle and the warranty costs—that is you, Sir Kevin. The support vehicle, which I prefer to call “the lorry” has support warranty costs of £64 million. Are there any other examples of warranty costs that are still inside the Major Projects ambit at all?

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

Q77 Mr Bacon: None at all?

General Sir Kevin O'Donoghue: No, the answer is that I do not know.

Q78 Mr Bacon: You do not know! If there were any at all, then the question would arise: why have they also not been—

General Sir Kevin O'Donoghue: I suspect they have gone across. It would in the past have gone across to the DLO at the right time.

Q79 Mr Bacon: I would like to ask about the measuring. It says, apart from distinguishing the support of the industrial capability or the military capability—the main reason given in paragraph 1.2 is: “to better measure how individual teams are performing”. Presumably, you have metrics that enable you to better measure how individual teams are performing?

General Sir Kevin O'Donoghue: Absolutely correct.

Q80 Mr Bacon: Going down the right-hand side, first of all the lorry, with the £64 million, then the Sting Ray Torpedo, and then the Guided Multiple Launch Rocket System. I am just going through those with the same project team so that you have a like-with-like comparison—you are comparing apples with apples. In each of those five cases, which total £541 million of the £609 million—so 89% of the total—what have you found by measuring the way in which the performance has improved?

General Sir Kevin O'Donoghue: What we are able to do is make sure the amount of money allocated to initial acquisition has been spent on initial

acquisition and is not getting confused with the warranty costs or various other upgrades that should more properly be taken separately.

Q81 Mr Bacon: I was not asking about what you are able to do; I was asking about the phrase: “to better measure”. If you have metrics in order to better measure, presumably those metrics told you something: what have they told you?

General Sir Kevin O'Donoghue: We are getting a lot better at it. We know earlier where projects are likely to go off the rail. We are able to track them earlier. My predecessor set up the Project Rehabilitation Unit, and we can now put that into a project and bring it back on to track over spending.

Q82 Mr Bacon: You bring me neatly on to the next question I was going to ask, which is about figure 12, technical factors that arise during the life of a project. It states there that technical factors typically arise in year six, and in paragraph 1.15 it is stated: “While the timing of technical problems is similar on newer projects, the scale of delay is showing signs of reducing.” The MoD says it approaches that with caution because many of the newer projects have not reached the six or eight-year point yet. What is it about these technical problems that are coming relatively late in the day that surely should be sorted out by better design work and investment earlier on?

General Sir Kevin O'Donoghue: There are two answers to that; the first is, absolutely: when you rush at a project and rush at setting the main gate, without going through the assessment phase and the development, you are likely to be masking technical problems, and those will need to be sorted out before you agree to go to a production run. The more de-risking you can do early on, the less likely you are to have technical problems. Then, at the end of a project, of course—and the Astute or Type 45, with complex ships and complex air platforms—once they start doing their sea trials or their flight trials, then you will inevitably get technical issues coming up at the end of the project. The main thing is to do de-risking earlier on in the project to get those technical issues resolved.

Q83 Mr Bacon: I would like to ask you about the Guided Multiple Launch Rocket System in figure 6 where it says: “Existing Operational Analysis indicates that a total of 4,080 rockets are required.” So far, you have only bought 1,488 rockets. Can you say how many of these rockets have been used of the ones that you have bought and how effective they have proved?

Lieutenant General Andrew Figures: I cannot say precisely how many we have used, but we may give you a note on that. How effective have they proved to be? They proved to be extremely effective and this time last year I made the point that originally, when we did the analysis to determine how many we should buy, we were of the view that their accuracy would be a function not necessarily directly linear but nevertheless a function of range. We found, because these are guided by GPS, that we are able to achieve much higher levels of accuracy; and whereas

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in the past one might have had to fire three to gain the necessary effect on the target, we have been able to fire one; and that has achieved the appropriate effect. They now have the nickname in Afghanistan of the “long-range sniper” so this has been a great success.⁶

Q84 Mr Bacon: I heard they had been very successful too. That begs the question, when are you going to get the others that your analysis has indicated, because the decision to go ahead with the Indirect Fire Precision Attack Project has not yet been taken.

Lieutenant General Andrew Figgures: No, it has not, but I go back to my previous answer: we need to strike a balance in the light of the performance of this particular munition against the performance of the indirect precision fire munition. We do not want to over ensure, but we do need to have sufficient, so it is a piece of work, the assessment phase referred to by the Chief of Defence Materiel in terms of determining what that outcome should be. It is part of the risk-reduction process that we carry out.

Q85 Mr Bacon: When will you know?

General Sir Kevin O’Donoghue: There is also sometimes merit in not buying things too soon and storing. Storage has costs and shelf life sometimes means you have to write them off at the end. There is merit in buying a smaller number, keeping the production line going and taking advantage of upgrades and an increase of improvement in accuracy as they go forward.

Sir Bill Jeffrey: What is happening is two things. As General Figgures says, these weapons are more effective than we expected and we can probably manage with fewer of them. The other is that for the kind of reason that Kevin O’Donoghue has just given, it makes quite a bit of sense to place our provision for acquiring more of them in the wider context of the Indirect fire Precision Attack Programme, where we can weigh the advantage they would bring us against the advantage that other kinds of weapons would.

Q86 Mr Bacon: It sounds as though the advantage these bring to you is very significant.

Sir Bill Jeffrey: Yes.

Q87 Nigel Griffiths: I want to cover the Light Anti-Armour Weapon, the Guided Multiple Launch Rocket System and the Bowman communication system. Figure 9 highlights something that seems to be symptomatic in certain MoD projects. That is that the next generation of anti-armour weapon is supposed to be off-the-shelf, but it is enhanced, which I am sure adds to the cost. It is supposed to be a light anti-armour weapon, but it is for a type of both heavy and light armoured vehicles. Is that the reason why it failed its design qualification tests?

General Sir Kevin O’Donoghue: It is light because it does not weigh too much to carry. It is a man portable weapon for taking out armour.

Q88 Nigel Griffiths: Thank you for that clarification.

General Sir Kevin O’Donoghue: There is a technical issue and it is to do with fusing, and it will be resolved. We do not need it at the moment. We will need it in the future, but we do not need it at the moment. We have something that is perfectly adequate for using in current operations. This is a capability we will need in the future and is worth persevering.

Q89 Nigel Griffiths: On the Guided Multiple Launch Rocket System, to follow up a previous question, what is the immediate requirement for that? Is it 654 or the 156?

Sir Bill Jeffrey: Our view is that the numbers we are working on at the moment reflect the immediate requirement.

Lieutenant General Andrew Figgures: The numbers we have meet the immediate requirement. We have arrangements in place so that we can buy replacements, so those which we are using on operations we are replacing to ensure that we do not have a shortfall there, but I go back to the point that we have a piece of work to do to strike the balance between the GMLRS and the Indirect Fire Precision Attack munitions.

Q90 Nigel Griffiths: In terms of the contract then that we have got for the former, if the Indirect Fire Precision Attack Programme comes ahead of schedule, how committed are we to spending and procurement from the supplier of what will then be the slightly redundant Guided Multiple Launch Rocket System?

Lieutenant General Andrew Figgures: Because we have not bought as many as we first thought, we now have the flexibility in the programme to strike that balance, so we anticipate buying more of GMLRS. That would be bought—is sufficient for operations. We will make a judgment. As the Chief of Defence Materiel said, there is a merit in staggering these buys such that you can exploit the possibility of technology—

Q91 Nigel Griffiths: I am assured of that, yes, but the question really is: are you going to pay for them whether you have to buy them or not?

Lieutenant General Andrew Figgures: No.

Sir Bill Jeffrey: In financial terms this is a very tight contract, so the delays we have been seeing do not have significant cost implications.

Q92 Nigel Griffiths: The existing operational analysis that a total of 4,080 rockets are required—is that out of date now?

Lieutenant General Andrew Figgures: That was the analysis that was extant at the time of the original procurement of the GMLRS. It will be developed further as a result of the Indirect Fire Precision

⁶ *Note by witness:* Current expenditure of rockets in theatre is approximately 12 a month since deployment, and a total of 86 have been fired (as at 25 March 2008). The rockets have proved extremely effective; being accurate within a few metres, and have predictable collateral damage characteristics.

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Attack capability development. It is part of the piece of work we are doing to work out what the balance of munitions is going to be.

Q93 Nigel Griffiths: Are the 4,080 rockets for both systems?

Lieutenant General Andrew Figgures: No, it is not. That was the original assessment for the GMLRS.

Q94 Nigel Griffiths: If it is less than that, we will pay proportionately less for that system.

Lieutenant General Andrew Figgures: Yes.

Q95 Nigel Griffiths: The approval costs have been exceeded on the Indirect Fire Precision Attack Programme; is that right? That is page 20, figure 6A.

General Sir Kevin O'Donoghue: We are not at main gate yet with that one. We are during the assessment phase so we are not there yet.

Q96 Nigel Griffiths: So the approval costs have not been finalised, or committed, or not spent yet obviously.

Lieutenant General Andrew Figgures: The approval here states that it relates only to the first stage of the assessment phase, so this is the work which reduces the technical risk in the Indirect Fire Precision Attack and it also funds the analysis to determine numbers.

Sir Bill Jeffrey: The only costs that have so far been approved are the £24 million approved at the initial gate for the preliminary assessment phase.

Q97 Nigel Griffiths: Do you have an assessment of how much is likely to be left over from the 4,080 rockets, the balance that you may not need?

Lieutenant General Andrew Figgures: We have not got the 4,000.

General Sir Kevin O'Donoghue: That work has not yet been done.

Q98 Nigel Griffiths: You have a bid in that is costing the 4,080, as part of the costing programme, is it?

Lieutenant General Andrew Figgures: We have made an assumption about what we are going to spend on that overall capability. Once we have done the assessment phase, which determines the numbers of the respective type of munitions, we will allocate funding to those munitions, and then the Chief of Defence Materiel will procure them. In my plan there is a resource envelope that underpins this capability.

Q99 Nigel Griffiths: The Bowman communication system, which I well remember from 10 years ago in this Committee, when was it started?

Sir Bill Jeffrey: It depends what you mean by started.

Q100 Nigel Griffiths: I think it succeeded Clansman.

Sir Bill Jeffrey: The in-service date was March 2004. It has been gradually rolled out across the Army since then.

Q101 Nigel Griffiths: But by the time it came in, it was some years late?

Sir Bill Jeffrey: It was, and indeed this Committee, I think before you joined it, or rejoined it, Mr Griffiths, had a hearing on that procurement, and there was a period during which we had to recontract because the initial contract was not satisfactory.

Q102 Nigel Griffiths: So figure 23 on page 32, which shows a zero delay, that is a zero delay in what?

Sir Bill Jeffrey: That is a zero delay, I think, within the year that the MPR 07 study is addressing, and there has been no further delay during that period, but it is a project which was much delayed earlier in its life.

Q103 Nigel Griffiths: So basically, the clock was reset?

Sir Bill Jeffrey: It is not so much the clock being reset as the way in which the MPR process works, that each year we look at the change in cost and timeliness within that year.

Q104 Nigel Griffiths: So on figure 21, where it shows a 6% cost variation since approval, that is not since the original approval in the 1990s, is it?

Sir Bill Jeffrey: No.⁷

Q105 Nigel Griffiths: It has doubled and doubled again in cost.

Lieutenant General Figgures: This particular means of meeting the capability requirement I do not think was approved until September 2001, when, following a competition, GDUK was given the contract. So I think in measuring how much things cost, until we have been to the Investment Approvals Board for the main investment decision, it would be wrong to make a judgment about cost increase. It is only when we have made the main investment decision, and the Approvals Board have given their authority for us to continue, that you can measure the cost. Prior to that, there was an allocation—it was felt it might cost something in the region of, but there was a degree of variation, because of course we did not really understand what the nature of this capability was going to be. We did not really understand in the mid 1990s that you could have a Tactical Internet. We did not understand that you would be able to achieve all the situational awareness that we have been able to achieve from Bowman today.

Q106 Nigel Griffiths: Absolutely. I mean, if I remember rightly, the price paid for not understanding that was to hamstring our fighting forces with a rather out of date walkie-talkie system.

Lieutenant General Figgures: Not agreed that it was a rather out of date walkie-talkie system, it was combat net radio which had capacity capable and necessary for the time, but it was not satisfactory for the 21st century, so we had to replace it.

⁷ Note by witness: The 6% variation shown in Figure 21 of the Report represents the forecast overrun against the "most likely" cost at Main Gate approved for Bowman

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Q107 Nigel Griffiths: I take it you are telling the Committee the Bowman system is the system we need now?

Sir Bill Jeffrey: Very much so.

Q108 Nigel Griffiths: So how do you react to the summary in paragraph 1.18 that it is at risk?

Sir Bill Jeffrey: One of the key user requirements, if I remember rightly, is described as being at risk, but I do not think it impacts significantly on the roll-out of Bowman.

General Sir Kevin O'Donoghue: Can I offer a thought there? The latest package, the latest upgrade to Bowman, called number 5, should be being rolled out fairly quickly, and it needs trialling. That trial cannot take place because the brigades that would have been trialling it are deployed, and agreement between HO Land and myself is that we will delay that. That is not an equipment issue, that is a commitment issue.⁸

Chairman: Thank you, Mr Griffiths. Your last questioner is Mr Keith Hill.

Q109 Keith Hill: Thank you, Chairman. In contrast to Mr Griffiths, I want to ask several rather broad questions, and the first is: is my impression right that the general history of defence infrastructure development has been characterised by cost and time overruns, and if that is the case, why should that be?

Sir Bill Jeffrey: I think it is the experience of all defence departments in all advanced countries that acquiring these normally leading-edge, technologically sophisticated pieces of equipment is subject to cost and time overruns. I mean, we are all in the business of trying to minimise these, trying to build the skills of our staff, trying to adapt our procedures; as my colleagues have been saying earlier, more intensively assessing at the early stage in order that we can reduce risk, and in order that we can minimise the likelihood that the thing will in the end slip in time and cost as so many of these projects have in the past. As we were touching on earlier, in one paragraph of the Report, the NAO detects signs that the impact of technical problems is reducing. We would agree, but we need to be cautious about that, because it tends to be some way into the life of the project before they become evident, but we feel we are gradually getting better at controlling those.

Q110 Keith Hill: You anticipate my second question by your reference to experience in similar countries. It is the case, is it, that these kind of slippages in time and in cost are experienced across the board by our allies and indeed in other countries, as far as we can tell? Perhaps we could have one or two examples of that.

⁸ *Note by witness:* Large-scale trials of the latest capability increment (Bowman CIP5) were affected by the high tempo of operations. Despite this, the trials were successfully conducted in 2007 and the roll-out to the front line has since begun. However, in light of operational pressures, a decision has been taken to extend the roll-out process. This decision was taken with the agreement of the user.

Sir Bill Jeffrey: Indeed, we can certainly supply the Committee with a note on that.⁹ We tend, in international surveys of this kind, to come out rather better than most, in fact, but we know we still have a problem, we know that we still need to work very hard to improve our internal capability, and our ability to ensure that the industry delivers in the way that we want it to. But internationally, I think it is fair to say, Kevin, is it not, that other countries struggle with the same issues?

General Sir Kevin O'Donoghue: An example might be the C-17, the American aircraft, which had quite a tortuous run early on in its life, very complex aircraft, new aircraft; it is now an absolutely outstanding aircraft, but they took the time and the money to get it right. May I offer just three thoughts on time slippage? I believe there are three basic reasons for slippage in time. One is because the technology is more of a challenge than we thought it was, and what we need to do about that is derisk these programmes before we actually go to main gate on some of them.

Q111 Keith Hill: What do you mean by derisk them?

General Sir Kevin O'Donoghue: By sorting out what the technology is, by holding trials, by spending more money upfront before we commit to a production run, taking the risk of technological surprises out of it; so that is one area. The second area, and A400M is a very good example, is international collaboration, where actually, there is not a lot that we can do about slippages when you are collaborating internationally on a project. Still worth collaborating internationally, because the prices are very much less than if we were trying to do it all on our own. The third area for slippage is a deliberate decision; the fifth package for Bowman, that I was talking to Mr Griffiths about, is an example, where because the brigades are committed on operations, we have made a conscious decision that that particular programme would slip. So I think there are a number of different reasons for time slippage. I would accept there are occasions where it slips because we have not gripped the project, and there are always examples of that, which is what I need to do something about.

Q112 Keith Hill: Thank you actually for that answer, I think there are all sorts of things that if we had time, we would like to follow up in that, but let me just follow up on this point about, as it were, international collaboration. Am I right in thinking that for strategic reasons, and perhaps also from time to time for narrower political considerations, that we tend to place orders with British companies?

General Sir Kevin O'Donoghue: Yes.

Q113 Keith Hill: What are the strategic reasons for doing that?

General Sir Kevin O'Donoghue: I believe we are one of the most open defence procurement organisations around the world. We are happy to buy in most cases

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where the capability can be got at the best value for money. There are not that many occasions when we say, "No, we will only buy British".

Sir Bill Jeffrey: If I might just add, Mr Hill, the caricature that one sometimes hears of the defence industrial strategy is that it was principally a means of in some sense protecting British industry. What tends to be forgotten is that the underpinning principle is that we are driven by what will provide the best capability and equipment for the military, and that in the end is what matters. If that means, in a competitive environment, going elsewhere, then subject to the exceptions that are mentioned in the strategy, we are perfectly ready to go elsewhere, and that is not true of every country in the world.

Q114 Keith Hill: Forgive me, but in glancing through the list of the 20 major projects, what I was not able to pick out was how many of those are actually done by overseas companies rather than British companies.

Sir Bill Jeffrey: There are some, if you take—I mean, some companies, these days, in the defence sector, of course they are international companies, most of them are, but in terms of companies that did not originate in the UK, Kevin O'Donoghue has just mentioned the A400M project, which is principally being delivered by EADS. We talked about Bowman earlier, which has essentially been delivered by General Dynamics, which is an American company. So it is a mixed picture, although particularly in relation to the big platforms, like destroyers and submarines, for reasons that are explained in the strategy, we tend to go to the indigenous industry.

Q115 Keith Hill: Are there requirements of our defence forces which are absolutely unique and quite distinctive from those of other countries?

Lieutenant General Figgures: Should I take that up? Clearly, we would be—yes, if you will indulge me, I am not sure that I wish to get into specifics of requirements that are unique to ourselves, and which are not shared by other countries, and why would I say that? Well, because, of course, we may have identified something that others have not, and therefore, we would not wish to expose an advantage that we have. But for example, the lightweight anti-tank weapon, the Javelin, there we had a military off-the-shelf procurement, but we changed the command launch unit, the means by which—you put the missile on the command launch unit, you peer through the sight, you observe the target and you fire. We felt that in order to make this more effective, and to get the balance right in the battle group, that we needed to improve our ability to see at range. So we improved the capability of the thermal imaging sight, and it is interesting that the work that we did with the contractor has now been picked up by the United States. So that was a very good example of exploiting a military off-the-shelf capability where our requirement actually was accepted as the most cost-effective.

Q116 Keith Hill: That is very interesting. In terms of learning from other countries, how do you measure and do you attempt to measure the relative merits of defence equipment, for example performance of a British-built tank *vis-a-vis* a French, US or German tank, for example?

Lieutenant General Figgures: We did quite a lot of work in preparation for the Defence Industrial Strategy, and I think if you look back there, under the science and technology piece, you see a graph which illustrates the technological lead of the United States, United Kingdom, France, China and so on. What it does illustrate is that investment in research and investment in development gives you a lead; you have to invest about 20 years out in the research side and about five years out in the development side to maintain that lead. Underpinning that was an assessment of individual equipments, so we looked at, say, all the tanks in the world, made judgments of their effectiveness, determined when the research and development had been put in place, and we were able to therefore make judgments about the effectiveness *vis-a-vis* other nations.

Q117 Keith Hill: I am hurrying you up because I only have one minute left. But presumably, you systematically do monitor the performance of others and seek to learn from their experiences, and you would purchase if necessary?

Lieutenant General Figgures: Yes, if there was something that met the capability requirement and all other aspects were equal—

Q118 Keith Hill: I am sorry to interrupt you, I know you want to come in, Sir Bill, but I just have one final and rather nasty question to lower the tone of our exchanges over the last nine minutes. How do you react to the suggestion that MoD usually underestimates the likely cost and timescale of projects in order to make them more palatable to politicians, the public and perhaps the Treasury?

Sir Bill Jeffrey: I think there is what some people who are more familiar with this area than I am would describe sometimes as a conspiracy of optimism, in the sense that it suits the supplier, the customer and indeed the eventual user to assume that things will come in at lower prices than would otherwise be the case. I think we have learnt from that. If you take the other example, the LSD(A), which is the subject of a separate Report which is part of these papers, that is a very good example of us ending up spending on the project what a comparative analysis by the NAO suggests is what we ought to have spent on it anyway, but starting off by thinking that it was going to be substantially cheaper than it turned out to be. What we need to do, through the derisking work that the General referred to, is get smarter and smarter at being realistic about costs, and devising deals with our suppliers that tie them in as effectively as we can tie them in, in the knowledge that we cannot in the end completely transfer the risk to them.

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Keith Hill: Thank you for that frank and very fair answer. Chairman?

Q119 Chairman: Thank you, I just have one question. I think we should ask you about The Landing Ship Dock (Auxiliary) Project, volume III. If we look at page 9, figure 3, this is an absolute catalogue of errors, is it not, General O'Donoghue? Can you give us an assurance that this sort of thing will not happen again, what we saw with Swan Hunter?

General Sir Kevin O'Donoghue: Yes, and the Permanent Under-Secretary has really just said it, what went wrong there was we did not apply smart procurement. Smart procurement is all about hands-off but eyes-on, and we took our hands off and I think we took our eyes off it as well. In the end, I think we got four ships at about the right price, according to the NAO's analysis, but you are absolutely right, the lessons learned from that were learned hard, but have been taken on board.

Chairman: They will not happen again, good. I think Mr Bacon has a question on this.

Q120 Mr Bacon: Yes, on the Landing Ship, thank you, Chairman. In Appendix Two on page 15 of this particular mini-book, there is reference to not only actions that led to the problems, but also "How things are done now". Can you, going through each of those "How things are done now", identify specific quantified benefits from the fact that things are done in a different way now?

Sir Bill Jeffrey: Not in the sense that I could answer this question here and now with a figure, but if you look at "How things are done now", it covers the whole agenda that we three and others in the Department are trying to pursue, to build up skills with things like licensing of project managers; to require independent review of cost estimates, which would have prevented the LSD(A) case, I suspect; to require something called historical trend analysis, what do these sorts of projects normally cost, what does history suggest they should cost, as a mandatory requirement; and within the DE&S to have an investment board which approves these projects before they even come to the centre of the MoD. It is hard to say all of this effort produces a specific figure at the end, but we are confident that we are on the right track, and that we are making it significantly less likely than LSD(A) type cases will occur in future.

Q121 Mr Bacon: One more question quickly: one of the actions that led to the problems is defined as project management: at the outset, the Department and industry did not adequately control the project. That reminds me of the Bowman project, where there was no senior responsible owner at all. Can you tell us whether all the top 20 projects now have their own SRO?

General Sir Kevin O'Donoghue: Yes.

Q122 Mr Bacon: Is he or she dedicated solely in each case to the task of being the SRO for that project?

General Sir Kevin O'Donoghue: Not necessarily. On the very big ones, like carrier strike, the answer is yes.

Q123 Mr Bacon: If possible you could send us a note and specify where it is full-time, where it is part-time, and what they are doing with the rest of their time or what the percentage split in their time is.

General Sir Kevin O'Donoghue: Of course.¹⁰

Sir Bill Jeffrey: We will provide that sort of note. The thing I would ask the Committee to remember is that an important element in selecting the SRO, who is often someone in Andrew Figures' area, is to find someone who is best placed to bring the whole thing together across the Department, and articulate the customer requirement, and indeed relate to the project team as well, and that may well be somebody, if it is somebody sufficiently senior, who has other responsibilities as well.

Mr Bacon: Thank you.

Q124 Chairman: Well, General O'Donoghue, it says that on 2 April 2007, you became the first Chief of Defence Materiel, combining the Defence Logistics Organisation with the Defence Procurements Agency. You are responsible for a staggering responsibility. It includes responsibility for MoD assets worth £76 billion and an annual operating budget of £16 billion, and your hobby, apparently, is tending a vegetable patch. I am sure there is a philosophical point to see which is more enjoyable, but seriously, do you want to say a word before we end about how things are shaping up in your new job?

General Sir Kevin O'Donoghue: It is shaping up extremely well. It is one part of the defence acquisition change programme, it is a very key part of it, but there are other changes as well. Really, what underlies it is that Peter Spencer and I, as CDL before I became CDM, were coming together as closely as we could, but we got to the point where Through Life Capability Management, Through Life Equipment Management was difficult, and we now have the ability where we have the procurement cost and the Through Life cost in one budget, in one organisation. We now have the ability for the first time really to spend more on something perhaps upfront because it is going to be much cheaper throughout its life. There are some examples where

¹⁰ *Note by witness:* All of the 20 MPR projects have a formally appointed SRO or a designated person who fulfils the equivalent role as Programme or Project Sponsor or Owner. As the Permanent Secretary said in response to Question 123, in common with practice elsewhere in Government (and consistent with OGC guidance), the person appointed is normally a sufficiently senior figure well placed by virtue of their position in the organisation to oversee the programme or project in all its aspects, and it is generally not a full-time role. The only full-time SRO covers the Carrier Strike programme, including the Joint Combat Aircraft and Future Aircraft Carrier.

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we have done that already. That really is the first occasion where we can really get into Through Life Equipment Management. What General Figgures does is then take that and add it to his Through Life Capability Management by adding all the other defence lines of development, trade, people, infrastructure and so on. So it is a golden opportunity; if we can seize this, this will make a huge difference.

Q125 Chairman: It is going to make a difference to the sort of questions that Keith Hill was asking you.

General Sir Kevin O'Donoghue: Oh yes, a huge difference.

Sir Bill Jeffrey: We are not going to abolish cost overruns and slippage, but we must reduce it them further very significantly, and I think we are capable of doing so.

Q126 Chairman: So next year, when we return to this, we will not just have another £1 billion juggled in the balance sheets, we are going to see some real improvement, are we? Right, well, you are not answering, that is probably a good point to end.

Sir Bill Jeffrey: I hope you will see a real improvement. I do not accept the premise of the first part of the question.

Chairman: Thank you very much, that concludes our hearing.

 Supplementary memorandum submitted by the Ministry of Defence

Questions 4–7 (Mr Edward Leigh): *Transfer of £1 billion worth of defence procurement between budget lines*

The principle applied to the transfer of costs from the projects listed was to ensure that the costs were allocated in such a way that the performance of individual project teams in controlling direct project costs could be effectively monitored and measured, for example in maintaining Defence critical industrial capability, in accordance with the Defence Industrial Strategy. Where costs have been transferred to other equipment and support budgets we have sought to absorb the impact across the wider equipment and support programme (some 600 project lines) by managing them within the context of the Department's Planning Round process. In each Planning Round cost growth is addressed (as well as the introduction of new capabilities and priorities) across the whole equipment procurement and support programme.

Capability Audits and Balance of Investment reviews identify where opportunities exist for the Department to make choices on how to re-balance the equipment and support programme, taking into account current pressures such as operations and the need to deliver Defence priorities. It also allows the Department to review its priorities and seek to absorb the transfer of costs from the MPR community within the headroom generated across the wider equipment and support programme. Investment can then be reduced (or indeed increased) accordingly in areas of capability and support, with least impact on current outputs and operations to accommodate these costs; we are not able to identify specific reductions relating to specific transfers, and the related impacts, as they are dealt with across the whole plan.

Question 110 (Keith Hill): *It is the case, is it, that these kind of slippages in time and in cost are experienced across the board by our allies and indeed in other countries, as far as we can tell? Perhaps we could have one or two examples of that*

Comparison of MoD performance in terms of time and cost to that of our allies and indeed other countries is difficult as the fundamental assumptions underpinning the project can be difficult to establish or vary significantly. The baseline for a like for like comparison is therefore difficult to establish. Nevertheless, a number of studies and benchmarking exercises over the past few years have confirmed that in general terms the MoD compares favourably in its overall acquisition performance compared to International Counterparts. Following the Committee of Public Accounts hearing on Major Projects Report 2006 a specific comparison of cost history of nuclear attack submarine construction in the United Kingdom compared to the United States of America was provided. This confirmed that despite cost overruns on the Astute Class submarine the forecast outturn was below the trend line four comparable submarine projects.

Although a comparison of individual projects on a like for like basis remains difficult a number of studies and benchmarking exercises have focused on a more generic assessment of performance. These include:

- The former Defence Procurement Agency (DPA) undertook an annual assessment of how good Project Management Capability was compared to other project management organisations, including the Australian Department of Defence, by applying the Human Systems Ltd Corporate Practice Assessment. The DPA scored highly in terms of its approach, coming second overall in the entire network and ranked ninth overall for its deployment. Overall the DPA ranked in the top quartile of participants. This assessment will continue for Defence Equipment & Support.
- Work by HVR Consulting Services Limited in 2005, at the request of the Department, to scrutinise cost and time estimates for 22 major programmes, using information from the Major Projects Report 2004, and comparing this to outcomes in other nations and historic Departmental projects.

Thirteen of the projects scrutinised were forecasting to deliver at or below the cost forecasts produced by the model, and 21 projects were expected to deliver ahead of the schedule determined from analysis of comparable programmes.

- The RAND report—Why has the cost of Navy Ships Risen?/a macroscopic examination of the trends in US Navy ship costs over the past decades published in 2006 stated that the cost of US nuclear attack submarines was \$2.427 billion. This figure was also quoted by the Electric Boat President John Casey during a briefing in June 2006. A generic exchange rate for that period would make the cost of each boat some £1.403 billion. Current projections suggest that in steady state production ASTUTE will outturn below £1 billion per hull.
- In 2005 John Dowdy of McKinsey & Company and Megan Schwartz of University College London's Defence Engineering Group published a comparison between the US and UK. This set out to compare performance of 20 major projects spanning the last decade with the sample constructed to yield a small number of comparable programmes in each major project category. The analysis of the sample by Dowdy & Schwartz showed that the US has suffered four times greater cost overruns than those experienced in the UK, with an average 29% increase in the US, versus 8% in the UK, as measured by unit costs versus original approval. In schedule performance the average delay for the sample was 46% for the UK and 41% for the US, although the US analysis was based on less data. The US result was also significantly influenced by delays on one programme/the V22. With this removed average schedule overrun reduced to 23%. The article did, however, acknowledge that a direct comparison was difficult.
- The United States Government Accountability Office (GAO) carries out an annual assessment of selected defence programmes and although, as highlighted earlier, it is not sensible to make any direct comparison the most recent report, published 31st March 2008 shows that for the 95 programmes assessed total acquisition costs increased 26% from first estimates and the average schedule delay in delivering Initial Capabilities was 21 months.

Questions 30 and 35: *Comments from Ministry of Defence and Mr Don Touhig*

Response to question 30 from the Ministry of Defence:

Mr Touhig stated that: “The Report, Sir Bill, accuses your department of masking the impact of other costs increases on projects.” The NAO Report agreed by the MOD did not contain the word “mask”.

Response to the Ministry of Defence's comment from Mr Don Touhig:

The source of this remark was the Members brief for the meeting, which stated: ‘By transferring money out of the costs as reported in the Major Projects Report, the Department is masking the impact of other cost increases on projects’.

Response to question 35 from the Ministry of Defence:

Mr Touhig stated that: “The Report also tells us that your department's poor performance and financial management has necessitated an amount of—this exercise of annual—this exercise of “juggling budgets” as they described it.” The NAO Report agreed by the MOD contained no reference to “juggling budgets”, “juggling” or “juggle”.

Response to the Ministry of Defence's comment from Mr Don Touhig:

The source of this remark was the Members brief for the meeting, which stated: ‘The Department's poor performance on financial management has necessitated this now annual exercise of juggling budgets’.
