



National Audit Office

MINISTRY OF DEFENCE
Major Projects Report 2007

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comprising of –

Ministry of Defence: Major Projects Report 2007 Project Summary Sheets
HC 98-II, Session 2007-2008

The Landing Ship Dock (Auxiliary) Project HC 98-III, Session 2007-2008

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SUMMARY

1 The Major Projects Report 2007 covers cost, time and performance data for military equipment projects in the year ended 31 March 2007. We examined¹ 20 of the largest projects (**detailed in Figure 1 on page 6**), where the main investment decision has been taken by the Ministry of Defence (the Department); and ten projects still in the Assessment Phase (detailed in Appendix 2).

Seven projects are new to this year's Report.² Detailed Summary Sheets for each of the 30 Projects are in Volume II of this Report. There have been significant developments of Parliamentary interest on a project that appeared in the Major Projects Report until 2002-03, the Landing Ship Dock (Auxiliary)³ and our detailed findings are in Volume III.

¹ Our methodology is described in Appendix 1.

² The Merlin Mk 1 helicopter Capability Sustainment Programme and the Soothsayer communications project are new in the post-investment decision population as well as the Falcon (Communications System) and Watchkeeper (Unmanned Air Vehicle) projects, which have previously featured as Assessment Phase projects. The Frigates and Destroyers Programme for networking of sensors and shared identical air picture, which appeared in the Major Projects Report 2005, returns to the Assessment Phase population. The Maritime Airborne Surveillance and Control project (surveillance and battle management capability) and Search and Rescue Helicopter project are included for the first time in the Assessment Phase project population.

³ Vessels for the deployment of troops, vehicles and equipment directly into operational areas.

Overall the Department is in a similar position to the Major Projects Report 2006 for forecast cost and performance, but there continue to be time delays

2 The current total forecast cost for the 19⁴ largest projects is £28 billion, an increase of 11 per cent compared with the 'most likely' (budgeted) cost when the main investment decision was taken. The Department expects ten projects to deliver within their 'most likely' cost, and was again pro-active in limiting potential in-year cost increases, with 13 projects showing a fall in their forecast costs, and one project reporting no change. Progress on a small number of older projects has been of concern in the past, and there has been significant net cost growth in-year in the production of the Type 45 Destroyer (£354 million) and the Astute Class Submarine (£142 million).

3 As in the Major Projects Report 2006 the Department has reduced the forecast costs of its projects by reducing quantities of equipments and re-assessing requirements (£81 million; £226 million over two years) and by re-allocating expenditure to other projects or budget lines (£609 million, making a total of over £1 billion over two years). The Department's rationale for continuing to re-allocate budgets and expenditure is to better measure the performance of individual teams in controlling their project costs and to distinguish the costs of maintaining defence-critical industrial capability in accordance with the Defence Industrial Strategy, which are more appropriately overseen at a corporate level. This year, the largest component (£305 million) relates to maintaining industrial capacity and capability in line with the Maritime Industrial Strategy (Paragraph 8 to 12). We would not expect to see this level of re-allocation in existing projects in future reports.

4 Although the principle of allocating budgets to those best placed to manage them is sensible and results in savings to the individual projects, many of the same project teams continue to be responsible for the transferred budgets. For example, the budget relating to warranty costs of £64 million for the Support Vehicles project was re-categorised as In-Service costs, but this is still being managed by the same project team. This is not a saving to Defence as a whole.

5 Two equipments, the Guided Multiple Launch Rocket System and Sting Ray torpedo, met their Sponsor's⁵ agreed definition of In-Service during 2006-07, bringing the total number of projects covered by the Report that are In-Service to six.⁶ For the remaining equipments the Department predicts no additional slippage on eight projects and that five may be delayed further. The total in-year slippage was 38 months, compared to 33 months in the Major Projects Report 2006.

6 The Department still expects to meet all the Key User Requirements on 17 of the 20 largest projects. Key User Requirements are selected because they are critical to the successful employment of the equipment; however mission needs may change because of changes in the threat. Key User Requirements are therefore subject to continual review. Seven projects have identified risks to the delivery of one or more of their Key User Requirements (12 in total) as at 31 March 2007, and the Department is taking mitigating action to address these.

7 In the Major Projects Report 2006 we explained that by focusing on initial procurement activities, the Report in its current form does not give a complete account of the Department's performance in delivering capability throughout the life of an equipment. As a result we have been working with the Department to develop the Report to provide a clearer representation of equipment acquisition performance, including a view on sustaining capability once it has been introduced. The original intention was that a revised format would be submitted to the Committee of Public Accounts for its approval in spring 2007, but this has now slipped to late 2007. The reason for this slippage is that the changes will be the most significant revision to the Major Projects Report in over 20 years. It is important that the measures fully reflect evolving acquisition practices and are consistent with other metrics the Department is in the process of developing. The Department aims to deliver a first report in the revised format in 2009.

⁴ One project, the Typhoon aircraft, is excluded from the analysis of costs as the information is commercially sensitive.

⁵ In previous Major Projects Reports the Sponsor was known as the Customer. The Sponsor is responsible for leading the capability change planning process and identifying the equipment and support requirements to optimise the UK's Defence capability within allocated resources. In doing so the Equipment Capability Customer acts as the Sponsor for new and enhanced equipment and support programmes.

⁶ The Typhoon aircraft, Bowman communications system, Brimstone anti-armour weapon and C-Vehicle (rough terrain engineer vehicles) were in-Service as at 31 March 2006.

1 Major Projects Report Summary of Post Main Gate Projects

Project	Description	In-year change on costs to completion	In-year change on In-Service Date	In-year change in Key User Requirements	Current forecast cost to completion (£m)
A400M	Heavy transport aircraft	+13	0	No change	2,629
Astute Class Submarine	Attack submarine	+142	-1	No change	3,798
Beyond Visual Range Air-to-Air Missile (Meteor)	Air-to-air missile	-36	0	No change	1,168
Bowman	Data and voice communication radios	-10		No change	2,009
Brimstone	Anti-armour weapon	-1		No change	899
C Vehicle Capability	Rough terrain engineer vehicles and material handling equipment	0		No change	703
Falcon	Deployable communication system	-13	0	No change	292
Guided Multiple Launch Rocket System	Global positioning system guided rockets	-172	-1	No change	91
Joint Combat Aircraft	Fighter/attack aircraft	-58		No change	1,858
Merlin Mk 1 Capability Sustainment Programme	Update of helicopter weapon system avionics	-5	0	No change	832
Next Generation Light Anti-Armour Weapon	Short range anti-armour weapon	+4	+12	No change	318
Nimrod Maritime Reconnaissance and Attack Mk4	Reconnaissance and attack patrol aircraft	-16	0	No change	3,500
Precision Guided Bomb	All weather/24 hour general purpose precision bomb	-67	0	No change	277
Soothsayer	Integrated land electronic warfare system	-2	+4	No change	195
Sting Ray Life Extension and Capability Upgrade	Life extended and enhanced lightweight torpedo	-12	+1	No change	577
Support Vehicle	Cargo and recovery vehicles and trailers	-75	0	No change	1,263
Terrier	Armoured engineering vehicle	+3	+12	No change	299
Type 45 Destroyer	Anti-air warfare destroyer	+354	+11	No change	6,464
Typhoon	Fighter aircraft	Commercially sensitive		No change	Commercially sensitive
Watchkeeper	All weather/24 hour intelligence, surveillance and reconnaissance capability	-6	0	No change	901

Source: National Audit Office

Budgeted cost to completion at Approval (£m)	Current forecast In-Service Date	Expected In-Service Date at Approval	Key Developments in 2006-07
2,628	March 2011	February 2009	
2,578	November 2008	June 2005	Significant in-year cost growth. Revised contract arrangement agreed.
1,240	August 2013	September 2011	
1,898	Met In-Service Date March 2004	March 2004	
814	Met In-Service Date March 2005	September 2001	
674	Met In-Service Date March 2006	October 2005	Key User Requirement for availability of spares 'at risk'.
307	June 2010	June 2010	First year that progress on project is reported.
319	Met In-Service Date March 2007	March 2007	Funding for majority of rockets transferred to another programme. Project In-Service following revision of definition. Three Key User Requirements 'at risk'.
2,034		In-Service Date not yet approved	Memorandum Of Understanding for Production Sustainment and Follow-On Development signed.
837	February 2014	February 2014	First year that progress on project is reported.
377	July 2008	November 2006	Delay due to need for further firing trials.
2,813	September 2010	April 2003	
339	September 2007	June 2007	
142	February 2008	December 2006	First year that progress on project is reported.
727		December 2002	Project met In-Service Date definition in June 2006.
1,367	February 2008	September 2005	
295	September 2009	September 2008	Delay due to problems integrating Bowman communications system.
5,000	November 2010	May 2007	New contract agreed but significant cost growth and delay to In-Service Date.
16,671	Met In-Service Date June 2003	December 1998	
907	June 2010	June 2010	First year that progress on project is reported.

There have been some important developments on projects as a result of the Maritime Industrial Strategy

8 This year, the Department has identified costs totalling £305 million on two projects, the Type 45 Destroyer and the Astute Class Submarine, which relate to maintaining industrial capacity and capability in line with the Defence Industrial Strategy. These costs have been re-allocated to separate budget lines within the Department's Equipment Plan and in light of this we undertook a high-level review of the progress being made in implementing the Maritime Industrial Strategy.

9 We found that the Department has made progress against its stated aims in the Maritime Industrial Strategy. It has identified the key ship and submarine building capabilities it needs to maintain in the United Kingdom, and quantified the core workload necessary to retain the key skills of the workforce in both the sectors. For the surface ship sector the Department will underwrite a core workload, which will enable Industry to plan the necessary rationalisation and long term transformation required to meet this capacity level. We recommend that Forward work plans for the nuclear sub-surface build programme should be shared with Industry, even with the proviso that they may change, because it would create more certainty and would similarly enable companies to plan for the longer term.

10 Contracts are being revised to incentivise Industry to reduce costs and improve its record on delivery of major equipments. The predicted improvements as a result of the new arrangements for the production of surface ships and the Astute Class Submarine are dependent on continued commitment, innovation and strong leadership from both the Department and Industry.

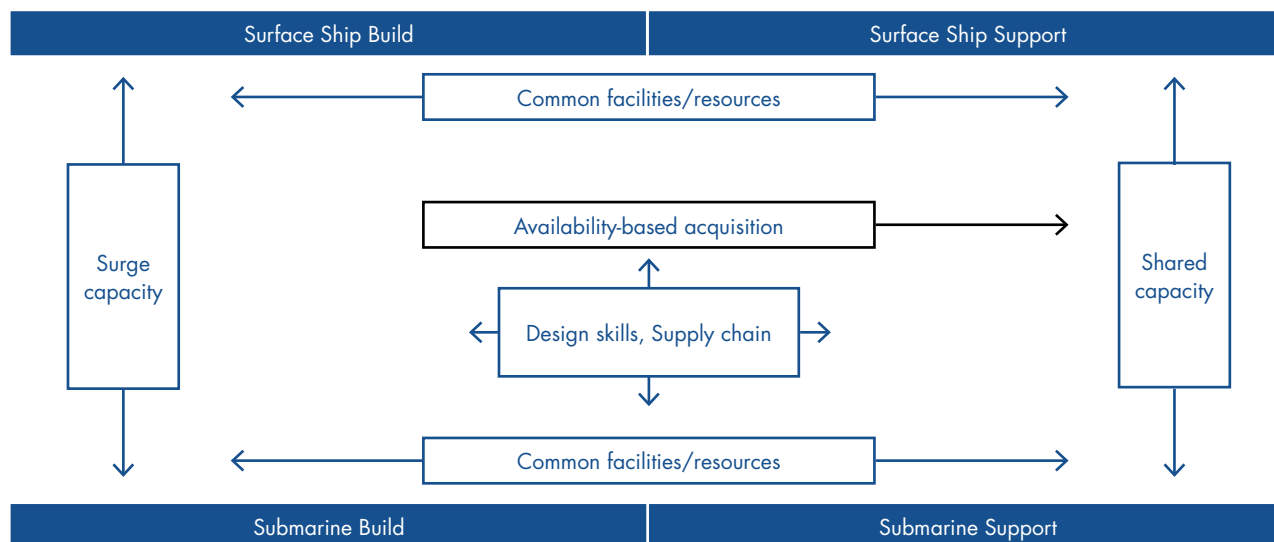
11 Restructuring of Industry, which was identified as a priority in the Maritime Industrial Strategy, is now underway, although it has taken longer than initially envisaged in the surface ship sector. **Figure 2** summaries the Department's plans and its progress against them.

12 Currently the Department collates its data on the cost of implementing individual policies and decisions made as the result of the Defence Industrial Strategy but could not provide us with an overall picture. The system for consolidating the full cost of rationalising and sustaining the Defence industrial base is immature and differences in the way costs are identified in the Planning Round make analysis over time difficult. We recommend that the Department establishes a framework with which it can measure value for money to Defence as a whole, so that it can determine the cost-effectiveness of investment in sustaining the maritime industrial base.

2 Currently the maritime sector is characterised by limited sharing of resources and facilities between the Surface Ship and Submarine sectors, and between build and support

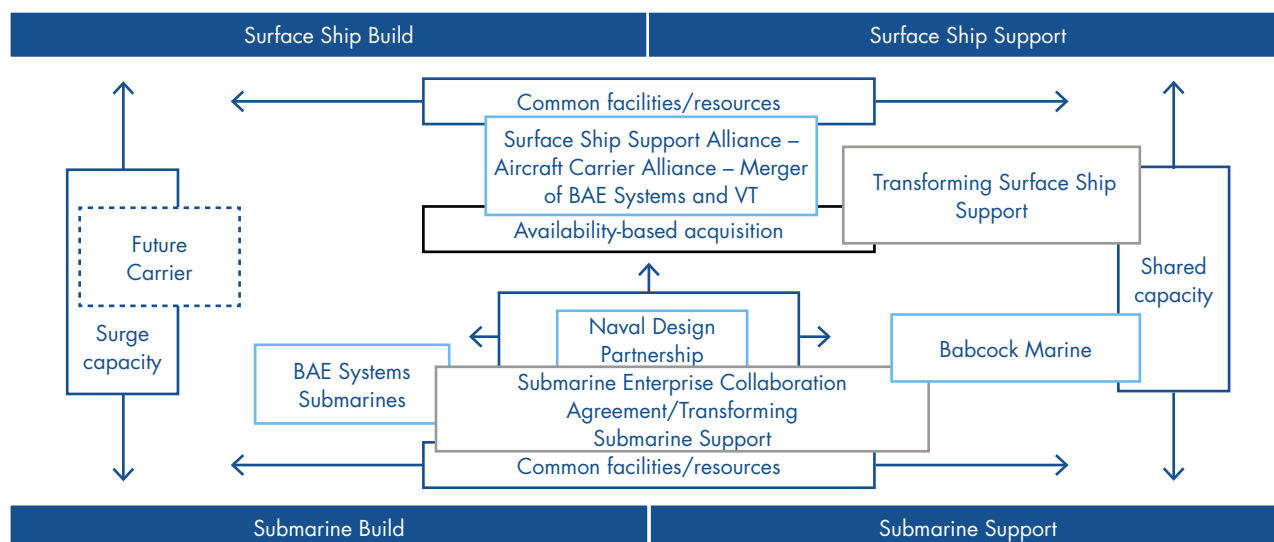
The long-term aim

Through its Maritime Industrial Strategy initiatives, the Department is aiming to transform the sector, so that maritime industry resources and facilities are shared across Submarines and Surface Ships, and across build and support. The intention is to remove excess capacity, which should lead to significant efficiency gains.



The Department is making good progress towards achieving these aims

All elements of the Maritime Industrial Strategy are being progressed, with some almost complete. The Department is confident this will lead to a new business model for the maritime sector.



- Departmental and industrial resources and facilities
- Departmental initiatives
- Departmental equipment project
- Industrial joint ventures and rationalisation
- Contracts whereby the Department pays for assets to be available for use rather than for repair and spares

Source: National Audit Office