Ministry of Defence

Major Projects Report 2004

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 1159-I Session 2003-2004: 10 November 2004

This volume has been published alongside a second volume containing the Project Summary Sheets for the 20 post-Main Gate and 10 pre-Main Gate projects included in this year's report -

Ministry of Defence: Major Projects Report 2004 - Project Summary Sheets, HC 1159-II, Session 2003-04.

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executive summary

1 The Ministry of Defence (the Department) has reported to Parliament on its progress in procuring major defence equipment every year since 1984. Prior to 1991, much of the data submitted to Parliament was classified and, hence, our analyses of the key themes and trends were not published. The Major Projects Report 2004 is the thirteenth that we have published since the level of classification was reduced.

2 The Major Projects Report 2004 covers cost, time and performance data for projects in the year ended 31 March 2004. We examined 30 defence equipment projects; 20 of the largest post-Main Gate projects (where the main investment decision to proceed had been taken by the Department) and ten projects still in the assessment phase. Seven projects are new to the Major Projects Report, three in the main phase of procurement and four in the assessment phase.

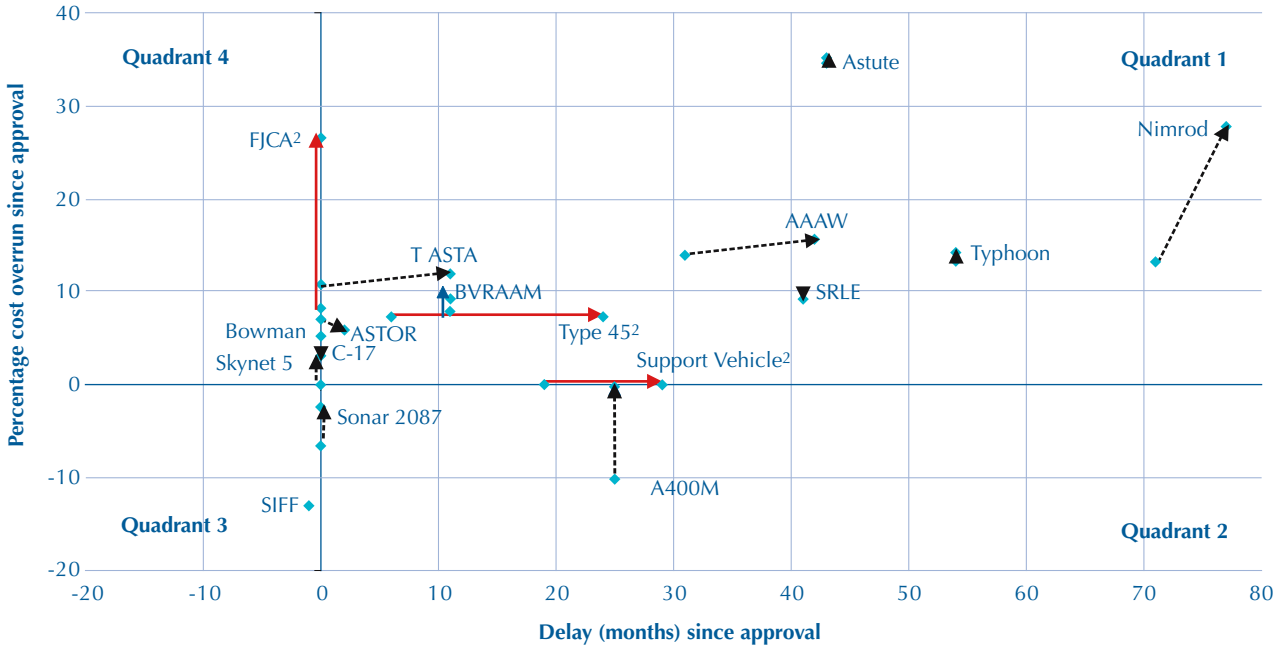
3 The Department expects its top 20 equipment projects will meet Key User Requirements but at a cost of £50 billion, some 14 per cent higher than the expected cost of £44 billion when the projects were approved. In the last year, forecast costs have increased by £1.7 billion, a four per cent increase, and projects have been delayed by an average of three months. The costs in the Major Projects Report are presented on a Resource Accounting and Budgeting basis, including interest on capital charges which will usually increase if there are delays. The £1.7 billion cost increase in the Major Projects Report 2004 includes £530 million of interest on capital, which is linked to the average three month delay on projects. **Figure 1** summarises cost and time performance changes in the last year on the top 20 projects.

4 As recent Major Projects Reports have shown, there is little evidence that project performance has improved in recent years, although there are examples of successful projects such as the C-17 aircraft and the Successor Identification Friend or Foe system. However, many of the projects begun under Smart Acquisition have not consistently applied the principles designed to underpin improvement in project performance. Consequently, we expect there to continue to be problems emerging on existing projects in future and it may be some years before any trend towards continuously improved performance on newer projects becomes apparent. The inconsistent application of the sensible acquisition principles enshrined in Smart Acquisition means that the split between Smart projects and older legacy projects is no longer a relevant distinction. For this reason, this and future Reports will focus on the Department's success in continuously improving its procurement performance.

5 Many of the difficulties arose from failure to spend sufficient time and resources in the assessment phase and failing to provide appropriate mitigation plans for the potential risks. As a result, unrealistic expectations have been set at Main Gate. Projects less than halfway through their procurement are already expected to be delivered later or to cost more than approved. It is of particular concern that the 15 most recent projects are progressing rapidly towards their 'not to be exceeded' approvals and six have already breached them.

1 Analysis of project cost and time variance and movement since the Major Projects Report 2003

*Of the projects which are common to the Major Projects Reports of 2003 and 2004, there have been further large cost increases and delays in the last year.**

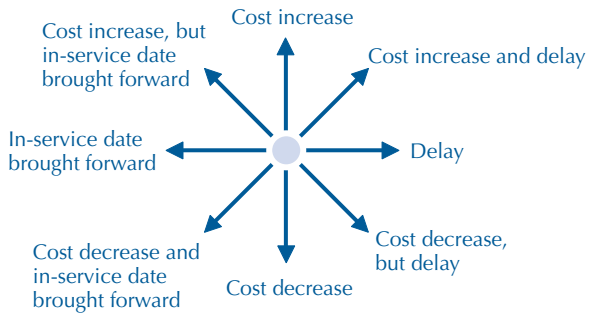


Key:

AAAW - Advanced Air-Launched Anti-Armour Weapon
ASTOR - Airborne Stand-Off Radar
BVRAAM - Beyond Visual Range Air-to-Air Missile
FJCA - Future Joint Combat Aircraft
SRLE - Sting Ray Life Extension
SIFF - Successor Identification Friend or Foe
T ASTA - Typhoon Aircrew Synthetic Training Aids

NOTES

1 The direction of the arrows indicate the following:



2 Three of the projects do not have both cost and time parameters (indicated in red). Future Joint Combat Aircraft does not yet have an approved in-service date, therefore only its cost increase has been plotted. Costs on Support Vehicle are commercially sensitive, therefore only its delay has been plotted. Costs on Type 45 are commercially sensitive. The delay has been plotted from a starting point of the March 2003 position.

Source: National Audit Office

6 The Department is aware of these issues and is striving to improve acquisition performance. Sir Peter Spencer, the Chief of Defence Procurement, completed his review of the performance of the Defence Procurement Agency in implementing Smart Acquisition in January 2004. The review confirmed that the principles underpinning Smart Acquisition were sound but were not being consistently applied. The Department has introduced a continuous improvement programme to address the issues raised by the review, addressing skills, performance management, project review and assurance, financial management, commercial and supplier development, and joint working within the Department. Further details of these improvements, and how they will be measured, are set out in **Boxes 2 and 3** (pages 18 to 19). They came into effect on 1 April 2004. A particular issue raised by the review was that many parties are involved in the successful delivery of military equipment and that the Department must act more corporately to improve acquisition performance. To ensure this, the Department has established a Ministerial group to see that wider issues and necessary improvements, identified by the review, are given sufficient priority.

7 The Defence White Paper and the outcome of the 2004 Spending Review will have a major impact on the procurement of defence equipment. In the White Paper, the Government re-evaluated its strategic defence priorities in the light of current and future threats and demands. The Department has since identified the changes needed to force structures, planning assumptions and to the provision of capability of which the procurement of defence equipment forms a part. In July 2004, the Secretary of State for Defence made a statement about the need to transform the Armed Forces to deal with the challenges of the 21st Century. The Statement detailed changes to the Defence Equipment Programme which included continued commitment to many of the major projects but announced reductions in the required numbers of Nimrod MRA Mark 4 aircraft and Type 45 destroyers. There are likely to be further changes to the equipment programme.

8 We have also examined important developments on the delivery of the Carrier Strike capability. The Department has adopted relevant measures to manage the delivery of the capability, specifically:

- The Department has extended the assessment phase for the Future Aircraft Carrier to allow for additional design work, risk-identification and to ensure that the contractual and industrial arrangements create the best opportunity for a successful acquisition.
- On the Future Joint Combat Aircraft, the Department has allocated additional funding to reduce risk and cover studies on its integration with the Future Aircraft Carrier. Separately, a problem on meeting weight targets was identified, but this has not increased the Department's costs because, under the Memorandum of Understanding, the Department's contribution is capped.

Conclusions

The prime objective of the defence procurement community is the delivery of military capability. For this delivery to be effective, there must be certainty as to when equipment will be ready for service and control of the costs. If not, capability gaps may result and some capabilities may have to be foregone or delayed to compensate for rising costs.

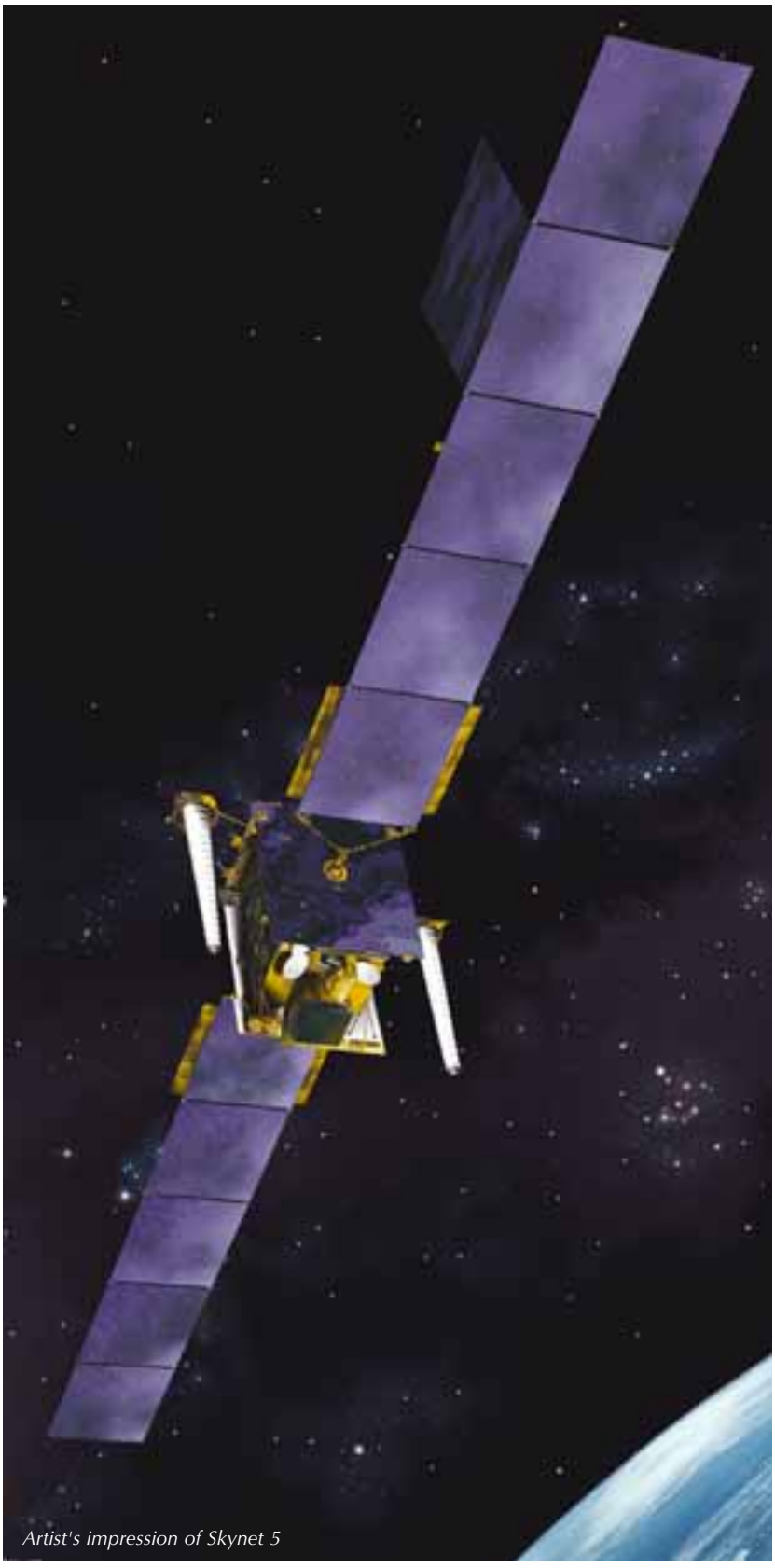
The project performance recorded in the Major Projects Report 2003 was among the most disappointing in the history of the Report. The majority of the problems related to four older projects, but there were also worrying signs that the performance of newer projects begun since the introduction of Smart Acquisition was starting to deteriorate. Many of the problems on these newer projects were caused by the failure to apply consistently the sensible principles underpinning Smart Acquisition in both the way the projects were planned and have subsequently been progressed. The Department recognises these problems and the new Chief of Defence Procurement, Sir Peter Spencer, is seeking from April 2004 to apply Smart Acquisition principles, as modified by his review, more consistently.

Applying the sensible principles which underpin Smart Acquisition by the Defence Procurement Agency will not be sufficient on its own to deliver more successful project outcomes. Other parts of the Department also play a central role in successfully planning for and co-ordinating the delivery of new equipment capabilities. Over the last two years we have been working with the Department and industry to identify these broader success factors and are conducting a range of studies to identify good practices which, taken together with the other work which the Department has in hand, can help to improve acquisition performance continuously.

Typhoon

Light Forces Anti-Tank Guided Weapon System

Artist's impression of an Astute Class submarine



Artist's impression of Skynet 5

Bowman

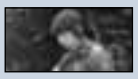
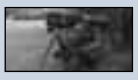
Problems continue to emerge on defence equipment projects and barriers remain to improving acquisition performance

- The structure of our data analysis has evolved
- Key User Requirements are expected to be met, but there have been major cost and time overruns
  - In the last year, forecast costs have increased by £1.7 billion
  - Projects have slipped by an average of three months in the last year
  - Key User Requirements are expected to be met
- The principles of good procurement are not being consistently applied
  - Smart Acquisition principles have been successfully applied on some projects
  - Not all projects have applied sensible acquisition principles, resulting in cost increases or delays
  - Projects are going wrong soon after the main investment decision is made
- The Department is trying to improve acquisition performance
  - Various changes to the acquisition process have been introduced in the last year
  - The Department is taking steps to act more corporately to improve acquisition performance

Artist's impression of an Astute Class submarine

Figure 2 overleaf

2 Major Projects Report 2004 summary of post-Main Gate projects

Project	Description	Basis of Approval: Smart	Basis of Approval: Legacy	In-year change on costs to completion (£millions)	In-year change on in-service date (months)	In-year change on Key User Requirements	Current Forecast Costs to completion (£millions)	Most Likely Costs to completion at Approval (£millions)	Current Forecast In-service date	Most Likely In-service date at Approval
 A400M	Heavy transport aircraft	✔		+258	0	No change	2,619	2,628	March 2011	February 2009
 Advanced Air Launched Anti-Armour Weapon (AAAW), also known as Brimstone	Anti-armour missile		✔	+14	+11	No change	941	814	March 2005	September 2001
 Airborne Stand-Off Radar (ASTOR)	Long-range surveillance and targeting system		✔	-10	+2	No change	968	914	November 2005	June 2005
 Astute Class Submarine	Attack submarine		✔	+10	0	No change	3,484	2,578	January 2009	June 2005
 Bowman	Tactical voice and data communications system	✔		-1	Met in-service date in March 2004	No change	1,991	1,893	March 2004	March 2004
 Beyond Visual Range Air-to-Air Missile (BVRAAM), also known as Meteor	Air-to-Air missile	✔		+17	0	No change	1,355	1,240	August 2012	September 2011
 C-17 (Short Term Strategic Airlift)	Heavy transport aircraft	✔		-2	Met in-service date in September 2001	No change	769	746	September 2001	September 2001
 Combat, Infrastructure & Platform BISA (CIP)	Bowman-related software and hardware systems	✔		-3	+4	No change	340	343	July 2004	March 2004
 Future Joint Combat Aircraft (FJCA)	Fighter/attack aircraft	✔		+372	In-service date not yet approved	No change	2,573	2,034	In-service date not yet approved	In-service date not yet approved
 Light Forces Anti-Tank Guided Weapon System (LFATGWS)	Anti-armour firepower system	✔		+3	0	No change	318	315	November 2005	November 2005
 Nimrod Maritime Reconnaissance and Attack Mk4	Reconnaissance and attack patrol aircraft		✔	+408	+6	No change	3,593	2,813	September 2009	April 2003
 Next Generation Light Anti-Armour Weapon (NLAW)	Short range anti-armour weapon	✔		-22	0	No change	355	377	November 2006	November 2006
 Successor Identification Friend or Foe (SIFF)	Identification Friend or Foe system, allowing swift and accurate identification of friendly forces	Smart for Cost	Legacy for Time	0	Met in-service date in March 2004	No change	464	534	March 2004	April 2004
 Skynet 5	Satellite communications systems	✔		+96	0	No change	2,775	2,679	February 2005	February 2005
 Sonar 2087	Sonar system for detection of submarines	✔		+15	0	No change	357	366	May 2006	May 2006
 Sting Ray Torpedo Life Extension	Life extension and capability-enhancement for Sting Ray Lightweight Torpedo	Smart for Cost	Legacy for Time	-4	0	No change	794	727	May 2006	December 2002
 Support Vehicle (Cargo & Recovery)	Cargo and recovery vehicles, and trailers	✔		Commercially sensitive	+10	Missed two	Commercially sensitive	Commercially sensitive	February 2008	April 2006
 Type 45 Destroyer	Anti-Air warfare Destroyer	✔		Commercially sensitive	+18	No change	Commercially sensitive	5,000	May 2009	May 2007
 Typhoon, formerly known as Eurofighter	Fighter aircraft		✔	+130	Met in-service date in June 2003	No change	19,014	16,671	June 2003	December 1998
 Typhoon Aircrew Synthetic Training Aids (ASTA)	Ground-based aircrew training equipment for Typhoon	✔		+2	+11	No change	207	185	May 2005	June 2004

NOTE
There has been an accounting change in the last year (see paragraph 1.7 for further details) which means that cost estimates cannot be directly compared to those published in previous reports. All cost estimates in previous years, as well as costs set at approval, have been rebased in this report to allow a direct comparison.