



National Audit Office

**REPORT BY THE
COMPTROLLER AND
AUDITOR GENERAL**

**HC 1657
SESSION 2010–2012
29 NOVEMBER 2011**

Ministry of Defence

Carrier Strike: Supplementary Report

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The Comptroller and Auditor General explained to the Committee of Public Accounts during his pre-appointment hearing (11 February 2009) that the Carrier is the only defence project where his level of engagement as a former official of the Ministry of Defence raised the prospect of a conflict of interest. The C&AG therefore put in place arrangements to enable the review of the Carrier to be conducted without his engagement. The review was led by Martin Sinclair, the Assistant Auditor General for Defence, reporting to Michael Whitehouse, the NAO's Chief Operating Officer. Sir Andrew Likierman, the Chairman of the NAO, oversaw the arrangements to ensure they were fully independent.



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Ministry of Defence

Carrier Strike: Supplementary Report

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Amyas Morse
Comptroller and
Auditor General

National Audit Office

25 November 2011

Having had access to the relevant papers, we can now conclude that the strategic policy decision to re-focus investment in both the carriers and the linked combat aircraft was well informed.

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This report can be found on the National Audit Office website at www.nao.org.uk/carrier2-2011

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Summary

1 The core of Carrier Strike capability¹ comprises aircraft carriers and the aircraft that operate from them. The 1998 Strategic Defence Review committed to procuring “two larger, more versatile, carriers capable of carrying a more powerful force, including a future carrier-borne aircraft to replace the Harrier”. In 2002, the Ministry of Defence selected the Short Take-Off and Vertical Landing (STOVL) version of the United States-led Joint Strike Fighter (JSF) as the preferred aircraft to replace the Harrier. The policy decisions in the 2010 Strategic Defence and Security Review have significantly affected the delivery of Carrier Strike and the role it will be expected to fulfil over the next 50 years. In July 2011, we published a report² examining whether the strategic decision to re-focus investment in both the carriers and the linked combat aircraft was well informed, and whether the Ministry of Defence has plans to cost-effectively deliver the Carrier Strike capability now required.

Access to Cabinet Office papers

2 The 2010 Strategic Defence and Security Review was different to previous reviews which were run largely by the Ministry of Defence and covered only defence-related issues. The Review was cross-departmental. Leadership rested with the newly formed National Security Council, a Cabinet Committee chaired by the Prime Minister. The key Strategic Defence and Security Review policy decisions relating to Carrier Strike were taken by this Committee. In preparing our July 2011 report we saw the Ministry of Defence’s submissions to the National Security Secretariat in the Cabinet Office. But, despite several requests, we were not given access to the documentation held by the National Security Secretariat. We considered that access to this documentation would help us to form a view on whether the policy decisions taken by the National Security Council were well informed or how the Accounting Officer for defence was able to reach a strategic judgement on the value for money of the Carrier Strike decision.

3 Following concerns raised by the Committee of Public Accounts and in Parliament more generally, on 5 September 2011, the Secretary to the Cabinet and Head of the Home Civil Service wrote to us agreeing that we should have access to the four key National Security Council papers relating to the Strategic Defence and Security Review decisions on Carrier Strike.³

¹ The Ministry of Defence defines the principal role for Carrier Strike as being to provide an expeditionary offensive air capability to contribute to focused intervention, power projection and peace enforcement operations.
² Comptroller and Auditor General, *Ministry of Defence: Carrier Strike*, Session 2010–2012, HC 1092, National Audit Office, 7 July 2011.
³ The papers were relevant extracts from the briefings prepared by the National Security Secretariat for the National Security Council meetings on 28 September and 7 October 2010 and the minutes of these two meetings.

4 The National Audit Act 1983 provides for the Comptroller and Auditor General to have a right of access to all such documents as he may reasonably require for carrying out value for money examinations. By convention the Comptroller and Auditor General does not have an automatic right of access to policy papers (including policy focused Cabinet Committee papers) and historically in cases where the Comptroller and Auditor General has needed to understand the policy intention in order to reach a judgement on value for money, access to policy papers has been discussed on a case-by-case basis. In his letter, the Secretary to the Cabinet and Head of the Home Civil Service reaffirmed this general principle.

5 On the basis of the evidence from the four key National Security Council papers we were given access to, this short report sets out how the cost, affordability, military capability and industrial implications of the Carrier Strike options were synthesised to support the National Security Council deliberations. It does not examine any other developments relevant to Carrier Strike which have happened since July 2011.

Conclusion

6 As a result of our review of the National Security Council papers we have revisited the relevant part of our value for money conclusion. For the sake of clarity our complete value for money conclusion is set out in **Box 1** overleaf. The key change is that, having had access to the relevant papers, we can now conclude that the strategic policy decision to re-focus investment in both the carriers and the linked combat aircraft was well informed. It will only become apparent whether the Ministry of Defence can secure value for money in implementing the strategic policy decision when it fully develops and costs detailed delivery plans to support robust investment decisions, probably in late 2012.

7 The briefing papers prepared by the National Security Secretariat set out a range of options for the future of Carrier Strike. The papers examined the implications for affordability, military capability and interoperability with allies of each option and were supported by detailed analyses of the industrial implications and the choice between retaining Harrier or Tornado aircraft. A key decision was around commitment to the Joint Strike Fighter which had the most radical capability implications and would have the greatest impact on budget projections.

8 The briefings were concise and clear and the data supporting the analyses was consistent with that which we had previously examined in the Ministry of Defence. The minutes of the key National Security Council meetings record that the relevant issues were discussed and the implications of each assessed.

Box 1

National Audit Office Value for Money Conclusion on Carrier Strike

The Strategic Defence and Security Review was conducted over a period of five months. Relatively early on during the Review, the National Security Strategy provided a policy baseline against which to plan future force structures. The Review was conducted in parallel with the Spending Review and the likely level of funding was only agreed at the end of the process. The Ministry of Defence, therefore, had to identify, cost and prioritise alternative capability options in an environment of considerable uncertainty. In our view, this is not an ideal situation in which to have to take strategic decisions – including those relating to Carrier Strike.

The outcome of the Strategic Defence and Security Review affects Carrier Strike in two ways, both of which could adversely affect the achievement of value for money. First, the Review is unaffordable unless there is a real terms increase in defence funding in the latter half of the decade. We are worried that the continuing difficulties the Ministry of Defence is facing in balancing its budget leaves Carrier Strike vulnerable to further changes in strategic direction as a result of broader corporate decisions taken to address this generic problem.

Second, the Review decision radically changed the Carrier Strike concept and introduced a decade-long capability gap. The Carrier Strike decision was part of a wider set of strategic decisions on force structures and affordability. We do not question the merits of this policy judgement and note that it was taken on an informed basis which could have given the Accounting Officer for defence confidence that the overall strategic direction was sound and could offer value for money.

As we look forward, taking these two elements together, we are deeply concerned, however, about the risks to the achievement of value for money on what were previously relatively mature projects with understood risks and funded mitigation plans. The Strategic Defence and Security Review decision introduced significant levels of technical, cost and schedule uncertainty, thinking on the way the carriers will be used in operation is still evolving and there are major risks reconstituting Carrier Strike capability after a decade without it. We note that the Ministry of Defence will not have matured its understanding of the consequences of implementing the Review decision until two years after it was taken. At that point, it will more fully understand whether it has been able to develop delivery plans to enable it to achieve value for money from an investment in Carrier Strike which will significantly exceed £10 billion.

Part One

National Security Council consideration of the Strategic Defence and Security Review

1.1 The National Security Council considered Carrier Strike at two key meetings on 28 September 2010 and 7 October 2010. We have now seen the Carrier Strike related briefing papers prepared for these meetings by the National Security Secretariat and relevant extracts from the minutes of the meetings. The following paragraphs:

- set out the areas discussed at the 28 September meeting and key actions flowing from the meeting; (paragraphs 1.2-1.3);
- explain how the key factors influencing decisions were briefed to National Security Council members ahead of its final meeting on 7 October and the options which were presented to them (paragraphs 1.4-1.13); and
- how the final decision on Carrier Strike was taken (paragraphs 1.14-1.15).

The 28 September meeting

1.2 The National Security Council meeting on 28 September 2010 included detailed discussions about alternative courses of action on Carrier Strike and the factors which would influence a final decision. Key considerations were the military requirement for aircraft carriers, the degree to which protecting the industrial base should be a constraint in decisions on Carrier Strike, whether to retain Harrier or Tornado fast jet aircraft and the risk of loss of continuity in Carrier Strike capability if Harrier was retired. The briefing papers prepared by the National Security Secretariat were consistent with the analysis undertaken by that point in the preparation of the Strategic Defence and Security Review by the Ministry of Defence. The analysis is detailed in Part Two of our July 2011 report and we have not repeated it here.

1.3 Given the stage of the Strategic Defence and Security Review and the uncertainty about the level of funding likely to be available for defence as part of the parallel Comprehensive Spending Round negotiations, the National Security Council did not make any firm decisions at the meeting. However, it did direct that the Ministry of Defence should undertake further analysis to support its subsequent discussions. In particular, the Ministry of Defence was asked to develop rapidly an option based on

building one carrier fitted with a catapult and the carrier variant of JSF to be procured which, among other things, would enhance interoperability with French ships and aircraft. The Ministry of Defence was also asked to examine options to bring forward work on another warship, the Future Surface Combatant, to substitute for the second carrier, and to look at options to sell the second carrier.

The 7 October meeting

1.4 The National Security Secretariat briefing prepared for the final National Security Council meeting on 7 October put forward four options (summarised in **Figure 1**). For each it analysed the financial (over both the four-year Comprehensive Spending Review and the ten-year Ministry of Defence planning cycle), military capability, interoperability (notably with the United States and France) and industrial implications. The briefings offered some comparison between the options and highlighted that the single biggest influence, particularly on affordability, was the commitment to procure the JSF.

1.5 The options are not all identical to those recorded in Figure 4 of our July 2011 report based on the information available in the Ministry of Defence. However, where there are differences they are not significant. Rather they reflect alternative presentations of possible permutations of the choices facing the National Security Council as a result of the complex web of interrelated factors affecting Carrier Strike. For example, choices of which type of fast jet to retain. The minutes of the 7 October meeting show that the alternative choices were discussed.

1.6 The financial data and analysis in the National Security Secretariat briefing is consistent with that prepared by the Ministry of Defence and which we covered in Part Two of our July 2011 report. However, in a number of important areas likely to be key discriminators in any decision, the National Security Secretariat prepared further briefings, particularly around the wider economic factors, which we had not seen in the papers held by the Ministry of Defence. This analysis, particularly on the industrial implications of alternative choices, addresses an area of weakness highlighted in our July 2011 report. The briefing therefore offered a sounder basis for the National Security Council to make strategic judgement on the future commitment to Carrier Strike.

1.7 The following paragraphs set out the key aspects of the additional National Security Secretariat briefing. Some of the underlying analysis remains sensitive, particularly for commercial reasons, and we do not make reference to it.

Figure 1

Overview of options prepared for the National Security Council meeting on 7 October 2010

	Impacts	Savings years 1–4 (£m)	Savings years 1–10 (£m)
National Security Secretariat options			
Option 1			
Complete two carriers	Operational (neutral)	1,172	4,504
Operate one and hold one at extended readiness ¹	Industrial (neutral)		
Reduce and delay STOVL JSF	Interoperability with allies (positive)		
Retain existing Harrier and carriers to ensure continuous Carrier Strike capability			
Option 2			
Complete one carrier and fit with catapults and arrestor gear	Operational (negative)	102	2,314
Buy reduced number of carrier variant of JSF	Industrial (neutral)		
Cancel second carrier and buy alternative shipping from BAE Systems	Interoperability with allies positive)		
Retain existing Harrier and carriers to ensure continuous Carrier Strike capability			
Option 3			
Complete one carrier and store it	Operational (negative)	1,029	5,224
Cancel second carrier and buy alternative shipping from BAE Systems	Industrial (negative)		
Retire current carriers/Harrier	Interoperability with allies (negative)		
Retain Tornado			
Suspend JSF acquisition			
Retain amphibious shipping			
Option 4			
Complete both carriers and store	Operational (negative)	1,849	6,834
Retire current carriers/Harrier	Industrial (negative)		
Retain Tornado	Interoperability with allies (negative)		
Suspend JSF acquisition			
Retain amphibious shipping			
Option presented by Secretary of State for Defence (prepared by Ministry of Defence officials)			
Build both carriers, one to extended readiness, one converted to fly carrier variant JSF	Operational (negative over next decade then negative for carrier, positive for JSF)	1,079	2,564
Delete Harriers	Industrial (neutral)		
Delay carrier variant JSF	Interoperability with allies (positive)		

NOTE

1 There is no definition of 'extended readiness' but at best it means the capability cannot be regenerated at less than a year's notice, although it may take longer.

Source: National Audit Office analysis of National Security Council Secretariat papers

Reduction in the number of fast jet fleets

1.8 Affordability constraints meant that as part of the Strategic Defence and Security Review, one of either the existing Tornado or Harrier fast jet fleets would have to be retired. The choice was discussed in both National Security Council meetings and the National Security Secretariat briefings clearly set out the implications of either choice. In terms of overall contribution to United Kingdom fast jet capability and operations in Afghanistan, Tornado was assessed as more capable. Harrier would be the preferred choice if a continuous Carrier Strike capability was maintained and would better support the immediate establishment of a UK-French Maritime task force. Retiring Tornado would save £380 million less than Harrier over the four-year Comprehensive Spending Review period but £620 million more over ten years.

Industrial considerations

1.9 The National Security Secretariat briefing focused on the industrial implications of alternative choices for both the military aircraft and warship-building sectors.

1.10 Joint Strike Fighter. United Kingdom industry has a significant stake in each JSF built and will participate in support and upgrade work at a similar rate. The National Security Secretariat briefing drew on an analysis prepared by an independent economist which estimated the United Kingdom industrial stake to be worth over £100 billion over next 45 years, with United Kingdom employment benefit of around 25,000 jobs and tax revenues of approximately £10 billion.

1.11 The briefing also discussed a range of issues which remain diplomatically and commercially sensitive. Overall, the National Security Council was made aware of the implications of changing order numbers and timing. Possible alternatives which could help sustain the United Kingdom military aerospace technological basis were also examined. For example, one alternative was greater investment in Unmanned Air Vehicles.

1.12 Shipbuilding. The briefing built on the Ministry of Defence's analysis of the implications of cancelling one or both of the carriers and of whether there were alternatives which could fill the gap which would be left in the long-term Terms of Business Agreement which the Ministry of Defence had signed with BAE Systems in July 2009. The issue is explored in detail in our earlier Report (paragraphs 1.15-1.18 and paragraphs 2.17-2.18). The briefing also explored in greater detail whether there were potential sales opportunities to export one or both of the carriers or to build alternative ships for potential export. The briefing concluded that this was not a reliable planning assumption.

1.13 A key additional analysis was to quantify the potential employment impact of a decision to cancel the carriers. If both carriers were cancelled it was estimated some 10,000 jobs could be lost. Even with substitute work from other warship-building activities it was estimated 2-3,000 jobs could be lost. In addition to these jobs, over 100 material and service contracts worth some £1.25 billion had already been placed on the carrier project and these would also be adversely affected.

The final decision on Carrier Strike

1.14 The minutes of the 7 October National Security Council meeting show no firm conclusion was reached on Carrier Strike but record that after a presentation from officials and a discussion there was a further short discussion involving Ministers only. The minutes recognised that a final decision on Force Structure issues would need to be taken in the context of the wider Comprehensive Spending Review settlement for defence.

1.15 There were no further minuted decisions on Carrier Strike. The National Security Secretariat told us that decisions were taken as the Comprehensive Spending Review was finalised and drafts of the Strategic Defence and Security Review were iterated and approved around Government. Various emails and other papers we have seen in the Ministry of Defence corroborate this explanation.

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