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National Audit Office

# The Red Dragon project

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## Summary

1 Red Dragon was a project between the Ministry of Defence (MoD) and the Welsh Authorities<sup>1</sup> for the development of the St Athan site in South Wales. The original plan comprised the following elements, with a cost of some £134 million excluding payments from the Welsh Authorities to MoD:

- the construction of a state-of-the-art aircraft maintenance facility (super-hangar) able to accommodate up to 48 Tornado jets for the Defence Aviation and Repair Agency (DARA), costing £107 million;
- the rationalisation of MoD's requirement for infrastructure at St Athan, at a cost of some £5 million; and
- the acquisition of a premium head lease on 725 acres of the St Athan site by the Welsh Authorities and redevelopment of the site, with a view to securing DARA's continued presence and developing an aerospace park in the longer-term, at a cost to the Welsh Authorities of £34 million (of which £12 million was paid to MoD for the land and airfield).

Work on site preparation for the super-hangar commenced in February 2003. In March 2003 MoD signed an agreement with the Welsh Development Agency, which committed MoD to the rationalisation of the site and the land deal. The super-hangar was finished to approved time and budget by December 2004 and in the following month DARA began to move into its new repair facility.

2 Meanwhile, in January 2003, MoD commissioned a strategic review of aircraft support<sup>2</sup>, which reported in July. The findings of this End-to-End Logistics Review eventually led to announcements in March and September 2004 that DARA's fast jet repair business for

the Harrier jump jet and Tornado bomber at St Athan would close and the repair work would be moved to one main operating base for each fleet. These announcements undermined the Red Dragon project. In November 2005 MoD announced that all DARA St Athan's fast jet repair business would close by April 2007, so the super-hangar was no longer needed for its intended purpose.

3 Our examination of the Red Dragon project considered whether MoD and the Welsh Authorities worked well together to secure a good outcome from expenditure on the St Athan site. Our detailed methods are set out in Appendix 1.

4 We found that MoD and the Welsh Authorities did not work together sufficiently closely throughout the Red Dragon project, although there were examples of effective collaboration to address key issues of shared MoD and WDA interest. MoD and the Welsh Authorities had significantly differing perspectives on the longer term prospects for the St Athan site, because the transaction was initially regarded as commercial in nature, rather than as a joint project between two Government bodies. This basis for the project resulted in MoD and the Welsh Authorities being unsighted on the other's key assumptions on DARA's viability for commercial repair work. MoD's decision to transfer fast jet repair to frontline Royal Air Force bases was based on the prospect of greater savings for defence than those which would flow from St Athan rationalisation but the Welsh Authorities were not told as early as they might have been about the likely impact of proposed changes to the way in which fast jets were repaired. As a result of MoD's decision, neither MoD nor the Welsh Authorities have achieved the benefits intended from the Red Dragon project, although there are plans underway to use the site and the facilities for defence training and a smaller than intended aerospace park. Our specific findings are set out in the following paragraphs.

1 The Welsh Development Agency and the Welsh Assembly Government are collectively referred to in this Report as the Welsh Authorities. In April 2006, the Welsh Development Agency was merged into the Welsh Assembly Government.

2 *Streamlining End to End Air and Land Logistics*, Ministry of Defence, 1 July 2003.



- 5 There was no common purpose for the Red Dragon project though MoD and the Welsh Authorities had complementary objectives for the site.
- a MoD's objective for the project was to make its fast jet repair activity more efficient. By setting up DARA as a Trading Fund, MoD intended that DARA compete with industry for previous MoD business and hence become more competitive as a result. Construction of the super-hangar gave DARA the best prospect to be more competitive through rationalising its estate and allowing more efficient repair under one roof.
  - b The Welsh Authorities' objective for the project was economic development in this part of South Wales. They wanted to safeguard DARA jobs and the South Wales aerospace cluster leading in the longer-term to the development of an aerospace park.
  - c Both parties agreed that their objectives were complementary and that they would both benefit from expenditure on the St Athan site which would improve DARA's competitiveness. MoD's objective of efficient aircraft repair, however, was only complementary to the Welsh Authorities' objectives as long as DARA St Athan remained the best option for fast jet repair.
- 6 MoD and the Welsh Authorities did not have a shared understanding about the assumptions underpinning their respective decisions on the future of the St Athan site.
- a MoD and the Welsh Authorities produced separate business cases and investment appraisals on which to base their decisions.
  - b MoD estimated savings from the Red Dragon project of £263 million over 15 years, compared with savings in the region of £40 million if DARA St Athan were run down as military aircraft fleets were retired from service.
- c The Welsh Authorities estimated that they could create up to 4,000 jobs over 15 years if they developed an aerospace park at St Athan. They commissioned economic and market appraisals showing that such a project could generate a positive return over 25 years. Because they were buying land and assets at market value, their financial exposure would be limited, although recovery of their expenditure in a worst case scenario would depend on the successful sale of the site leases, and resale of the additional land purchased outside of the St Athan site.
  - d The Welsh Authorities' plans for the aerospace park revolved around DARA as an anchor tenant which they expected would be in a position to undertake both military and civil aircraft repair. For MoD, the reason for DARA undertaking civil aircraft repair would have been to increase efficiency and reduce overhead costs, hence making UK military repair cheaper. Indeed, MoD's investment appraisal for the Red Dragon project made no reference to civil aircraft repair. Sufficient flexibility was included in the design of the super-hangar to enable DARA to increase the rate of repair of fast jets if needed in support of military operations, and to accommodate large military aircraft and therefore equivalent-sized civil aircraft. The Welsh Authorities did not have access to DARA's business plans to assess the likelihood of DARA securing future work.
  - e Given that MoD would continue to face pressure to reduce its logistics support costs, it wished to retain flexibility concerning use of the St Athan site should the assumptions in the Red Dragon business case change. In July 2002 it secured an option under which it could require the Welsh Authorities to purchase an interest in the super-hangar after five years. MoD had calculated that the efficiency savings achieved by the five year break point would outweigh its expenditure. Subsequently, and just before the final approval for Red Dragon, MoD commissioned a wider review of aircraft support which could have a longer term impact on DARA St Athan.

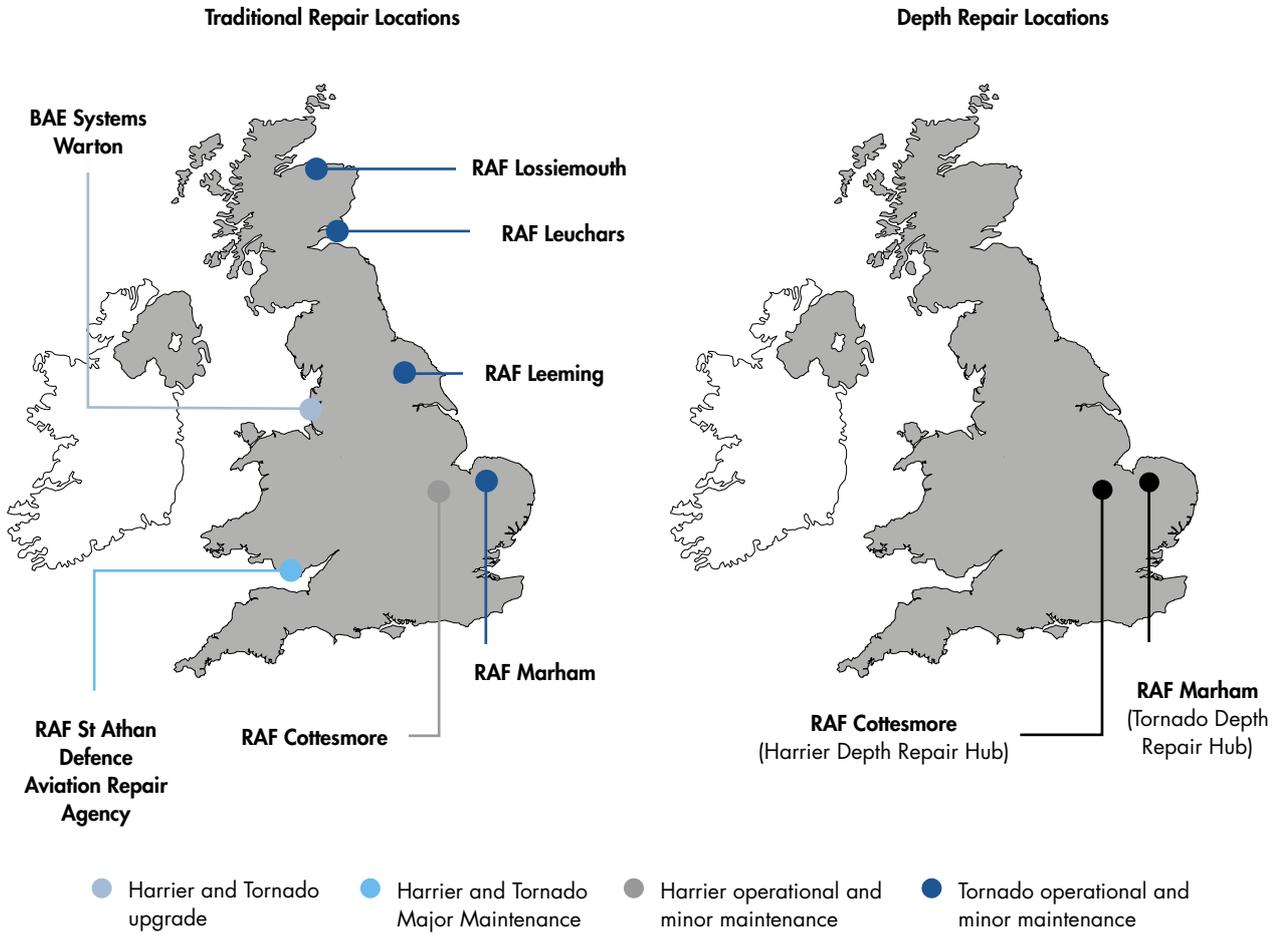


- f The Welsh Authorities recognised the risk that MoD could close DARA's fast jets business after five years, but considered that MoD's financial commitment was such that it would not do so. They did not interpret the five year break point as implying that MoD had calculated it could exit without financial loss, although this was the case. Instead, they took verbal assurances from MoD officials, as well as comfort from the Minister's announcement in July 2002 that work would commence on the super-hangar later in the year, as evidence of MoD's commitment to the Red Dragon project.
- 7 MoD's vision for defence aircraft support was evolving when the commitment to St Athan was made.
- a In making the decision to invest in St Athan, MoD had yet to reconcile its position on the right balance of logistics support for the RAF between provision at RAF bases, DARA and industry.
  - b MoD itself had not decided whether it would need to award DARA some aircraft repair contracts after April 2004 to meet a strategic need, to protect security interests or maintain alternative capacity.
  - c DARA was assuming that it would win all its previous Royal Air Force fast jet business, which would enable it, as some of these aircraft were retired from 2011-12, to secure other new military repair contracts.
  - d MoD found it difficult to reconcile effectively its roles as owner of DARA, where it had to support the business, and its role as principal purchaser of military aircraft repair services, where the imperative was to achieve the most efficient support for aircraft. The need to deliver efficiency savings in the short-term meant MoD did not assess the financial impact of delaying the super-hangar.
- 8 MoD's decision to transfer fast jet repair away from St Athan was based on the prospect of greater savings for defence, but the Welsh Authorities were not told about the impact as early as they might have been.
- a MoD closed the Red Dragon deal before the recommendations of the review of rotary and fixed-wing aircraft support were published.
  - b The outcome of the review was a recommendation – subject to further work – to transfer repair to main military operating bases on the basis that each aircraft fleet would be maintained at a single location (**Figure 1 overleaf**). The review estimated that this rationalisation would save the Royal Air Force in excess of £150 million a year, the majority of which would come from the fast jet fleets, compared with average savings of around £18 million a year from Red Dragon.
  - c MoD told the Welsh Authorities that the further work following the review could lead to the rationalisation of repair for each aircraft fleet, either at frontline bases or at DARA. But it was made less clear than it might have been that, even if the further work resulted in fast jet work remaining at St Athan, there would be a significant reduction in the number of civilian jobs there. Once MoD had taken the decision to transfer fast jet repair away from St Athan it informed the Welsh Authorities, and subsequently announced that it would work with them to explore alternative uses for the site.



# 1 Map showing the location of MoD and industry facilities to repair fast jets and how they were rationalised

In the past the repair and overhaul of fast jets was conducted at four levels, at numerous dispersed locations. From 2004 this was changed to two organisations at a reduced number of RAF bases.



Source: National Audit Office



9 The originally intended benefits of the Red Dragon project have not been realised, but joint working has been, and is being, undertaken to secure a viable future for the St Athan site, centred around defence training. Significant cost savings have separately been made in fast jets support by transferring repair to main Royal Air Force operating bases.

- a The net cost to the taxpayer of the Red Dragon project is in the region of £113 million. MoD and the Welsh Authorities will have spent some £134 million directly on the Red Dragon over the life of the project, excluding the payments from the Welsh Authorities to MoD totalling £12 million. Although there is some uncertainty around the figures, MoD has achieved efficiency savings from the Red Dragon project of around £57 million compared with an anticipated £263 million, and there have been costs of £36 million for redundancy, removal and reorganisation of its other tenants at the site. The Welsh Authorities have achieved rental income of around £0.6 million from non-MoD tenants located at the site.
- b Both parties have assets which may have significant value on the open market in the future. The super-hangar could generate up to £60 million for MoD, based on rental income between 2005 and 2018. The Welsh Authorities have acquired land and buildings (most of it suitable for development) with an estimated value of around £44 million after infrastructure costs. The super-hangar and a substantial proportion of the St Athan site are expected to be used eventually for the Defence Training Academy from 2013.
- c MoD has not realised the anticipated efficiency savings from the Red Dragon project. However, it has reduced the costs of contracts for logistics support for fast jets by around £1.4 billion over a six year period from April 2001<sup>3</sup> by transferring repair to main Royal Air Force operating bases. These savings significantly outweigh the expenditure of £107 million on the construction of the super-hangar and the costs of the early closure of DARA's fast jets business at St Athan.
- d The Welsh Authorities have not realised the intended benefits from their investment. Following MoD's decision to transfer the bulk of DARA's expected workload away from the St Athan site, around 1,900 DARA jobs have been lost. As a result of MoD's decision, the Welsh Authorities reviewed their immediate plans for the aerospace park. They focused in the short term on letting existing buildings and supporting efforts to attract the Defence Training

Academy to the St Athan site, while continuing their marketing and developing revised plans for the aerospace park.

- e The Welsh Authorities and MoD have cooperated on marketing the St Athan site but have attracted only four companies which have continued to be located there, with just 45 jobs. Nevertheless, the Welsh Authorities expect significant economic benefits from the Defence Training Academy at St Athan. Based on estimates from the consortium that is developing the Academy, they believe as many as 5,500 jobs could be created on site and in the wider economy, although around a third of the posts are likely to be filled by people relocating from elsewhere in the UK. They also expect that the Defence Training Academy will provide an impetus for current plans for an aerospace park, potentially creating around 2,000 additional jobs in the smaller area of land that is now available.

## Recommendations

10 MoD and the Welsh Authorities had complementary objectives but did not have a common purpose for the Red Dragon project. They concentrated on formal procurement and the contracts for the super-hangar and site rationalisation. They did not develop a sufficiently strong, long-term relationship and were reactive when problems arose.

For large, complex projects crossing organisational and devolved boundaries, government departments and agencies should develop mutual objectives, problem resolution processes, key performance indicators and an ethos of openness and information sharing. This 'partnering' approach should be underpinned by a formal project document to align objectives, which expresses intended business outcomes and sets out the principles and attitudes that will characterise the arrangement. The project should be run by an integrated project team with a mixture of staff from the parties, with clear roles and responsibilities and agreed operating practices using a shared risk register, dataset and assumptions. The project should be overseen by a formal 'strategic' steering group, with senior engagement from all parties.

11 There was no integrated and coherent strategy for military aircraft support when MoD committed to the Red Dragon project.

In reviewing business cases for major investment, departments should identify all relevant business interests lying within their responsibility. They should prioritise and as far as possible align those interests before decisions are taken or commitments made.