

# Lesson in protection

Araldo Ltd Director John Reeve outlines what can be learned from the advancements in armour that have helped improve the survivability of UK forces...

**O**perations in Iraq and Afghanistan have brought home to the nation the importance of physical protection to the deployed force. Preparation for the wrong war, a highly innovative enemy, lack of experience in high intensity counterinsurgency operations and the progressive impact of squeezed funding on the land programme all conspired to expose the frailties of the army's personal protection equipment and armoured vehicles.

Since 2005 there has been an incredible deployment of new capability that has significantly enhanced the survivability of our forces and saved many lives as a result. Delivery of this capability has seen colossal advancement in armour technology and the design of armoured vehicles. The small and tight-knit armour community in both government and industry delivered when it was most needed. Whilst technology will continue to advance, there are some enduring lessons that should not be forgotten.

**Lesson 1:** Physical protection is primarily a national business because it involves a deep knowledge of the enemy threat and the national approach to dealing with it. This type of information is classified, which means that technical responsibility resides within government as well as in industry and there must be an unusually close relationship between the two. Whilst import and export of technology is important, the core knowledge and capability must reside in the UK.

**Lesson 2:** The Physical Protection Group in DSTL is a national treasure. The knowledge, expertise, professionalism and commitment of those within it are without parallel. The breadth and depth of their experience developed over many years is not easily recreated – it must be managed carefully and nurtured.

**Lesson 3:** Normal rules of competition should not apply. Cooperation and knowledge transfer between government scientists and industry is essential and wholly appropriate in this context. Given the nature of the business, imperative trumps the perception of commercial purity. It should be emphasised that business is wholly proper, but one cannot go to open competition when it is only possible to describe the rules to a select few.

**Lesson 4:** Survivability is generally not well understood. Given the nature of its elements, this is perhaps not a

bad thing, but it does present problems, particularly in procurement. Procurement staff should be aware of what they do not know and actively seek the right guidance from the experts.

**Lesson 5:** Vehicle survivability is a complex subject and many factors impact on it. Decisions made early on in vehicle design can and frequently do constrain the capability thereafter. Requirements may need to be specific in order to aid procurement, but they must be set in the context of uncertainty rather than certainty.

**Lesson 6:** Growth potential in terms of weight and power should be prerequisites of all future vehicle requirements. The enemy will exploit weaknesses that require platforms to be modified; this generally requires the addition of armour and electronic systems.

**Lesson 7:** In a high-threat environment, personal protection really matters. The army was caught flat-footed in this area and was saved by rapid technical development, manufacture and fielding of new capabilities. A continued and properly funded technical development programme would be an invaluable low-cost insurance policy, allowing rapid delivery of the next generation of equipment as and when required.

**Lesson 8:** With close cooperation between capability managers, government experts, procurement staff and industry, it is possible to move at great pace. Enemy action has provided the impetus in recent years. Moving forward, we must find a way to maintain the impetus and focus if we are to stay ahead of the enemy.

## Conclusion

The challenge for the department is to continue the pace and success of the wartime survivability technology development and procurement programmes. If the challenge is to be met, the department must overcome its natural tendency to rely on process rather than a clear capability strategy, well-targeted research objectives and the expertise of those who know best.

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