RETHINKING AN INDIGENOUS CAPABILITY

by Air Chief Marshal Sir Brian Burridge

Brian Burridge was Commander-in-Chief of UK's Strike Command from 2003 to 2006 and is now Senior Military Advisor at Finmeccanica. Here he discusses the importance of rethinking the UK's indigenous defence industrial capability before more critical capability and technology migrates offshore, and states five key considerations.

The MoD's 2005 Defence Industrial Strategy (DIS) was emphatic on the need to make clear which industrial capabilities need to be located onshore – if not, industry will make individual, investment-led decisions, and the indigenous capability crucial to national security would disappear. Little progress has been made and the UK's industrial landscape has since had to adjust to offshore buys of armoured vehicles and helicopters. Equally, pressure on public finance means that the competitive base in the UK is becoming ever more fragile: the reducing number of programmes makes it increasingly difficult to sustain industrial capabilities in a diminishing market. The forthcoming Strategic Defence Review must therefore include a forensic analysis of the UK's indigenous capability requirement, because the creation of yet more uncertainty would have only one result: yet more critical capability and technology would migrate offshore, never to return.

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Setting aside aspects such as the preservation of a competitive domestic marketplace, the commercial drivers for global businesses when assessing investment decisions and the danger of the preservation of onshore capability being seen by others as protectionism, what are the key policy aspects that need to be considered by MoD in assessing indigenous capability requirements? There are probably five principal considerations.

Knowledge of Performance and Capability

First, as an aspect of operational risk management, commanders must have access to knowledge on the true performance and capability of a weapon system. This is a critical aspect in determining the degree of risk faced by personnel in combat. Obvious and topical examples are being presented by the Joint Strike Fighter (JSF). It must be possible to validate the stealth signature of an individual aircraft or the pre-flight messages that arm the EW system if commanders are to be in a position to deduce operational employment at an appropriate level of risk. These aspects are a clear requirement in the heat of battle, but are also vital in a more strategic sense in deriving the tactics, techniques and procedures that provide the basis of operational employment. Such facets need to be under national control and represent true operational sovereignty.

Intellectual Property

Secondly, in planning for and engaging in combat, the UK makes heavy reliance on Urgent Operational Requirements. For speed of implementation, this approach relies on priority and unfettered access to industrial capability, plus the Testing and Evaluation process by which to provide operational employment clearances. While off-the-shelf acquisition from foreign suppliers may include niche roles for UK companies, it is unlikely that the necessary intellectual property would reside onshore in such cases, certainly at system level. Again, the heat of battle is the wrong time at which to find out that 'assured offshore access' has unexpected limitations such as those arising from unpredicted political constraints or third-party export regulatory regimes.

Obsolescence and Safety

Thirdly, in a TLCM world, optimal capability insertion, obsolescence mitigation and the stewardship of safety are best served by an onshore Design Authorised Organisation (to use the new lexicon). In a post-Haddon-Cave environment, through-life risk management of combat aircraft and other complex platforms calls for the constant engagement of the manufacturer on the grounds that it is they who have the relevant design knowledge and expertise; own the intellectual property; in many cases have responsibility for maintenance support; and have the necessary skills. In the past, cases where the original equipment manufacturer was located offshore led to the creation of onshore 'sister' Design Authorities as in the case of the Hercules C-130K involving Marshall Aerospace, and the Apache involving AgustaWestland. But it becomes progressively more difficult to preserve the related design and engineering capability in an environment where orders for new platforms are few and far between. Support contracts alone do not generally represent a sufficient catalyst to retain these core skills.

Science and Technology

Fourthly, operational sovereignty over certain aspects of science and technology provides strategic resilience. An active research community represents a window on the world and acts as early warning of what is happening in the scientific arena in far-off places. The resulting analysis might identify such developments as a potential threat and stimulate the need to start the research ball rolling at home. More particularly, the ability to accelerate research and pull through the technology into battle-winning capability

AW101 Mk3A helicopter of the Royal Air Force. It is vital, but has become progressively more difficult to preserve the related design and engineering capability in an environment where orders for new platforms are few and far between. Support contracts alone do not generally represent a sufficient catalyst to retain these core skills [Finmeccanica]

has proved decisive in the past, particularly in the area of infrared detection and targeting. In some cases, the exploitation of a key technology requires security of supply of raw materials such as Gallium Arsenide. Without the knowledge and understanding that the research community brings, the requirement to make such strategic judgements would pass unnoticed.

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EU Procurement Directive

Finally, the new EU Defence and Security Procurement Directive is in the process of being transposed into UK law. One of the catalysts for the creation of the Directive was the propensity of some European Member States to operate protectionist policies and procure defence equipment non-competitively from national suppliers, claiming what used to be known as an Article 296 exemption on the grounds of national security. The new Directive enshrines the same provision under Article 346 but, this time, governments will be required to demonstrate a policy audit trail that justifies their playing the national security card. In other words, governments will need to think ahead, plan for their indigenous capability requirements and publish in a transparent way the underpinning rationale. Pulling a rabbit out of the hat in the dock of the European Court would not provide a defence.

Five Principal Considerations

So, the issue of indigenous capability was deemed to have been an issue of strategic importance five years ago as the Defence Industrial Strategy was in its gestation. With parts of the UK defence industrial base now at, or much closer to, critical mass, the issue is even more pressing. In approaching the Strategic Defence Review, the MoD must identify the extent of sovereign industrial capability that should be retained in the UK, with the associated approach to ensure its sustainability. The associated analysis must include:

- An agreed understanding of what suite of capabilities are key in delivering priority military effect.
- A comprehensive appreciation of the options to access those capabilities, including the near-, medium- and long-term technology implications associated with their delivery.
- An assessment of the risks associated with obtaining access to those capabilities, and retaining it with both timeliness and persistence through-life.
- A value-for-money determination of whether the associated costs and risks to delivery are such that this is best achieved through onshore or offshore sourcing, or an appropriate mix of the two.
- The impact of committing resources to provide the agreed level of support and underpinning industrial expertise and capacity to ensure the through-life sustainment of the capability. ■

F-35 Joint Strike Fighter (JSF) in flight: commanders must have access to knowledge of the true performance and capability of a weapon system. This is a critical aspect in determining the degree of risk faced by personnel in combat. Will UK have the access necessary? [Finmeccanica]