

THE ELECTION'S OVER: NOW FOR THE HARD BIT

As we have been saying in recent issues, the unaffordable defence programme has now to be tackled. This will not be easy, but unless the new Government harmonises commitments and budget – and quickly – the defence programme will become increasingly unaffordable, as ‘frictional costs’ and other factors reduce the true amount spent on defence.

In this section, the RUSI Acquisition Focus identifies some major issues that will have to be resolved within defence equipment acquisition, including reform at the top of the MoD, management of complexity, MoD’s relationship with industry and improving the early stages of acquisition. In our returning ‘contention’ section, our six experts each look at one major issue which has to be solved – MoD research, future consequences of today’s decisions, the UK’s indigenous defence industrial capability, a comprehensive approach to the maritime world, an integrated acquisition system and the need to ring-fence the equipment programme. Dr Ted Bromund argues that acquisition reform on its own is not enough, while Professor David Kirkpatrick refines Bernard Gray’s figures on the size of ‘frictional costs’.

Under New Management

by *the RUSI Acquisition Focus*

The RUSI Acquisition Focus was set up in February 2006 to provide expert, objective views on aspects of defence equipment acquisition. Its deliberations are published three times a year in RUSI Defence Systems. In this its thirteenth paper, the group examine ways in which the Government could make the improvements that would stop the defence equipment plan repeatedly overheating.

The members of the RUSI Acquisition Focus are: John Weston (Chairman), Tim Banfield (NAO), Bob Barton (member of NDIC TLMC strategy group, BAE Systems), Vice Admiral (retd) Sir Jeremy Blackham (formerly EADS UK President, now independent defence commentator), Sir Brian Burridge (Senior Military Adviser, Finmeccanica), Hugh Colver (Public Affairs consultant, formerly MoD and BAE Systems), John Dowdy (Director, McKinsey), Professor Christopher Elliott (GD UK), Graham Jordan (formerly S&T Director, MoD), Gerry Paulus (Managing Director, SVGC Ltd), Major General (retd) Bill Robins (formerly DGICS, MoD), Professor Trevor Taylor (Cranfield University and Professorial Fellow at RUSI), Bill Kincaid (Editor RUSI Defence Systems)

Previous articles from this group have discussed the challenges of managing the Ministry of Defence with its extensive and demanding procurement programmes. Although many of the reforms pursued over the past few years have made small improvements, there has been no radical breakthrough to transform performance and delivery: major projects especially

tend to be marked by delays and unanticipated cost increases. The new Government, under a Secretary of State with five years’ experience in the shadow post, needs to think about a radically different approach, particularly in view of the stringent restrictions on expenditure which are now inevitable. Cuts in real defence expenditure, as well as in cash spending, appear more likely than not, although actual defence resource levels for 2011 will not be set for six months or so. Without reforms, the defence procurement plan will continue to cause problems and hinder the efficient and effective management of the defence budget.

Reforming the Top of the MoD

In our view, reform must start with the creation of a team that takes collective responsibility for matching the priorities of defence to the resources available, including striking the right balance between equipment, manpower and the overhead expenditures associated with a department of state and the headquarters of the Armed Forces. To date, neither the Joint Capabilities Board, the Investment Approvals Board nor the Defence Board have filled this role well, although it is encouraging that equipment issues are now being handled by a sub-group of the Defence Board that does not include the single-Service chiefs. The implication is that the Chief and Vice Chief of the Defence Staff should have greater responsibility for weighing, synthesising and representing the views of the single-Service chiefs at the highest levels of the MoD.

One specific issue needing attention is the management of those acquisitions which have few passionate advocates in the single Services but which are key to operational success. Joint Enablers, particularly networks and information issues, are the Cinderella of military capability. It was notable that recently, in a significant complex acquisition affecting all three Services but driven by two of them, the needs of the third were hardly considered. More specifically, the network issues were judged by both key Services to be low risk and well managed but were considered to be high risk and in need of attention by the network authorities themselves. Only by forcing high-level attention on these 'boring but important' issues will we bring capability building to the level of maturity needed. Issues involving networks are now being addressed by the newly formed Network Capability Authority but the general issue of Joint Enablers is a much wider one and requires increased Defence Board sensitivity to a lot more than the passionate advocacy of the single-Service chiefs. Arguably in the past helicopter acquisition suffered from lack of Air Force and even Army enthusiasm for spending large sums of money on something as mundane as transport. Networks and communications capabilities should not suffer a similar experience.

The new top team must have sufficient power to generate decisions and clear recommendations to Ministers on the competing demands of the single Services, and it must be tough enough to face up to difficult choices. Programmes will need to be cancelled or reduced in scope, and defence policy and strategy will likely need to be changed in order to fit commitments into available resources. Also a ruthless approach to the overhead structure of the Department and the Armed Forces will probably also be needed, something that the Conservative Party indicated during the election campaign it was ready to adopt. But the guidance (endorsed in the Haddon-Cave report) that cuts and related changes in process should be accompanied by thorough risk analysis and management should not be overlooked.

Closer Relations with Industry

Reform must encompass both contracting and broader relations with industry. The MoD needs flexibility to modify the procurement programme in the face of changing priorities while maintaining affordability. This will require a move away from long-term, fixed-price contracts to more innovative and flexible contracting which better aligns the interests of suppliers with those of the MoD.

Engaging industry effectively at the front-end of the acquisition cycle has been fraught with problems involving, not least, intellectual property rights and concerns about unfair advantage and partiality impacting on the fairness of subsequent competitions. Yet a true understanding of cost drivers, how they can be controlled, and what might be alternative, more affordable options demand the intelligent use of, and consultation with, suppliers. Traditional ways of seeking industry's advice have generally failed to give

a clear view of risk and options: requests for information, invitations to tender and bids will never provide an effective answer to the 'conspiracy of optimism' challenge. In a dialogue where admitting what you cannot do is highly likely to count against you, 'economies with the truth' will always be a strong temptation. A more collaborative approach is needed – but that runs counter to historical acquisition practice. A slavish use of competition where it is clearly an inappropriate mechanism is bad for all parties, customer and supplier. The 'must win' mentality can easily dominate, especially when there is a diminished supply base and long intervals between orders with desperate suppliers driving for the contract that will keep them in business.

It seems unlikely that the 5% of development and procurement cost that the Gray report recently noted as prevailing in the MoD represents a sufficient amount for multi-year, high-cost projects

The MoD has changed its policy significantly towards more cooperative relations with industry and has endorsed partnering, particularly after contract signature. In some fields, including complex weapons, there has been real progress. Our concern is that across MoD as a whole, culture and behaviour may lag behind policy, with project officials falling back on the simple philosophy that they are highly unlikely to be criticised internally if they opt for a competitive approach, regardless of how appropriate it is for the circumstance. Setting up Partnerships is hard: there are many examples which illustrate the difficulties, such as the current Naval Design Partnership (NDP). The NDP is very innovative but is experiencing commercial and practical problems – being innovative in the use of partnerships requires both a cultural shift and skills enhancements. Some of our industrial contacts also perceive that the officials tend to play down partnering if a situation becomes difficult and partnering is not seen as directly supporting the MoD interest.

Improving the Early Stages of Acquisition

There is a long history of inadequacies in the requirements management area of MOD: too prescriptive, too definitive, not enough capability thinking, insufficient understanding of what is possible and what drives cost, and so on. Successive attempts to refine and tune this process, particularly getting the right level of expenditure pre-Main Gate to adequately understand the risks and opportunities, have failed to bring about any sustained change. The National Audit Office (NAO) asserted as long ago as its 2005 Major Projects Report that there should be no fixed formula in terms of spending to de-risk projects.

The point when a project is mature enough for the main investment decision to be taken will look very different from one project to another dependent upon the perceived benefits of progressing the project quickly albeit with a greater level of recognised uncertainty and risk. The Department should clarify what is required to demonstrate maturity for different types of project. This definition should include: a clear statement of required best practice; an articulation of the treatment of risk; and appropriate ranges of cost and time estimates that are acceptable in the circumstances of individual projects. It is then for the Department to manage varying levels of risk and identified benefit on both the individual projects and at the aggregate level through its Equipment Programme.

It seems unlikely that the 5% of development and procurement cost that the Gray report recently noted as prevailing in the MoD represents a sufficient amount for multi-year, high-cost projects, especially in the light of the financial dominance of such elements in the equipment programme. However, we are clear that any change to spending more before the main decision point would also mean a re-structuring of the MoD's finances with less use being made of capital expenditure and more being devoted to non-capitalised expenditure. The Ministry's accounting rules and practice mean that only expenditure after Main Gate, when there should be significant confidence that long-term benefit will be gained, can be taken from Capital Defence Expenditure Limits.

It is a truism of Systems Engineering that, as each stage of a project lifecycle is passed, specific errors and problems cause an order of magnitude increase in cost to put things right. But arguably the real problem is 'who pays?'. Those who own the front-end of delivery do not own the back-end and so problems baked in at the outset are eventually 'someone else's concerns' – and someone else's budget (or overspend!).

We have seen from the very successful Pathfinders (set up in the wake of the Defence Industrial Strategy or DIS) that concerns about engaging industry early in the process are quite unfounded. More than 10 primes were engaged in the Pathfinders, and the resulting outputs have stood the test of time. More importantly they took considerable cost out of procurements and provided a basis for forward management of the acquisition. The Type 26 in particular has evolved directly, as part of a balanced combatant solution, from the S2C2 Pathfinder work. So the lesson is clear: let us find ways to engage industry as early as possible to achieve a practical level of early de-risking and perspectives that can only aid mutual understanding.

Managing Complexity

Moving forward from requirements, and to be specific about what 'complexity' entails, today's MoD is sometimes seeking to effectively integrate technologically and financially the eight lines of development (Training, Equipment, People,

Infrastructure, Doctrine, Organisation, Information and Logistics) and most of the seven elements in the Defence Capabilities Framework (Prepare, Project, Inform, Command, Operate, Protect and Sustain) within a single platform.

The critical success factors in managing such complexity can often be the quality of programme management and System (of systems) Engineering, both areas where the MoD's internal resources are limited. As an exemplar of this problem one only has to look at major platform procurement where the mission systems assumptions are subjugated by the platform considerations. Carrier Strike is a complex capability delivery, requiring a high level of programme and systems competence, yet the current Senior Responsible Owner (SRO) approach fails to support the SRO adequately or to recognise the advantage which can be gained from an effective and properly staffed programme management team. It is already clear that there are assumptions being made about the use of bandwidth, the interconnectivity and the interoperation of mission systems which cannot be realised in practice – and these problems may remain 'unknown unknowns' to those currently involved unless programme management is made more effective. An effective and competent systems team under committed Programme Management would seem essential to ensure the smooth delivery of this large, complex capability.

The attempt to establish a Systems of Systems integrator on FRES was another example of a poor answer to the problem of needing 'content rich' advice on a future acquisition plan to meet a capability. Having spent many months and several million pounds of industry (bid) funding (not to mention the MOD expenditure on ITTs, negotiations, assessments etc) the concept was abandoned. All of this expenditure impacted defence inflation, was again a very poor use of industry, with a dubious competition and a failure to use existing alternative vehicles, such as a Pathfinder approach or Niteworks (the latter was arguably set up to avoid such wastage of effort and money).

Conclusion

This all constitutes a major management challenge, requiring strong political and military leadership. As we see it, the MoD needs to reform its top-of-the-shop structures to ensure the implementation of a strong Defence-wide vision, which embraces single-Service views without being distorted by an approach based on the survival of individual programmes. The Department needs to change its modes of operation to allow its overhead structures to be right-sized; to move to more integrated, less confrontational and more flexible ways of working with industry throughout the acquisition cycle; and to build its programme management and Systems Engineering capabilities so as to provide a chance that it will keep control of and shape the complexities inherent in the equipment-centric (but not equipment-only) projects which it defines. Without significant advances in this broad area, current problems of over-commitment are likely to recur. ■