

# Lack of Clarity, Urgency and Resources

by *Sir Robert Hayman-Joyce*

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Compared to buying ships or aircraft, buying light armoured fighting vehicles (LAFV) can be as simple as buying a private car: plenty of designs on the shelf, and you can change it easily if operational needs change. This class of vehicle is comparatively unsophisticated and unit prices are one or even two orders of magnitude less than ships and aircraft. LAFVs can be, and need to be, tailored closely and quickly to their operating environment. The other side of that coin is that requirements too can change, quickly making an otherwise sensible armoured vehicle procurement look short-sighted and wasteful.

## Characteristics of LAFV Design

Characteristics of LAFV design for the Cold War were enduring because the threat was unchanged for decades. Design parameters for fighting on the North German Plain required low silhouette, firepower to defeat Soviet BMPs, mainly tracked for mobility and agility, good frontal protection at the expense of floor protection, and high priority on the CBRN threat. Strategic mobility was not a priority, so weight was not a design driver.

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Although TRACER was conceived at about the time of the fall of the Soviet Union, there was no new guidance, until the SDR of 1998, as to the direction military planning should take. The Gulf War of 1991, far from indicating this new direction, had actually reinforced the Army's Cold War design imperatives, in particular highlighting the vulnerability of CVR(T) to conventional attack.

Thus the requirements for light AFVs in the mid-90s were not based on new military doctrine. One new parameter, however, was to prove the undoing of TRACER: the prime need to transport a light fighting vehicle in a C130 aircraft to support an air-landed contingent that had as its task the securing of an airhead.

## US and South African Directions

Given the impossibility of meeting all the Army's requirements within this weight constraint (some 19 tonnes) senior officers at that time pinned their hopes on the emergence of new technologies. The TRACER programme duly explored a number of options but demonstrated that the costs, risks and time delays of incorporating untried technologies were unacceptable. TRACER was about to be cancelled, but was given a lease of life by attempting to link development into the parallel US Future Scout programme. The aim was to capitalise on US technology that we could not afford to develop ourselves.

This change caused an upheaval in industry and was immensely unpopular. Had we appreciated then the far-reaching ambition of the US programme we should have realised that the UK was trying to play in a different league. When the US party pulled out of the joint venture, the UK programme was left high and dry and was cancelled. The LAFV procurement policy had stalled with nothing to show for the time and money invested. It is a sobering thought that had TRACER gone into production it is unlikely to have been well-suited to current operations in Afghanistan.

In contrast to US and UK Cold War thinking, Dr Vernon Joynt was pioneering the design of mine-resistant vehicles in South Africa in the late 1970s for operations in Angola and Mozambique. On our first official visit to South Africa, we met what to us Cold War warriors were grotesque monsters: high off the ground, wheeled, unwieldy and ponderous. They were, however, highly effective in that operational environment, particularly against the mine threat, as Dr Joynt convincingly demonstrated during our visit. Vehicles based on Dr Joynt's proven ideas are now deployed to support UK (and US) current operations courtesy of the Americans, who in the late 1990s saw the value of developing the South African designs.

## Funding for LAFV

In the mid-1990s new capital ships and aircraft were seen to be essential needs for the armed forces of the future, and funds were locked in for decades ahead. The need to replace the Army's LAFV fleet was secondary. Funding for the Future Rapid Effect System (FRES) that had emerged

as the successor to TRACER was 'pushed to the right' in successive annual reviews. Partly this was because the then current fleet of Warriors, CVR(T) and FV432 could, with some essential upgrading, trundle on without major operational penalty; there was at that time no pressing operational requirement for wholesale replacement, so programmes like the Multi Role Armoured Vehicle (MRAV) could take their time. But of equal importance is the fact that, over the years, there has been no coherent and successful advocacy within the Army for a fleet replacement strategy.

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The MRAV illustrates the point. Following strong political direction from the governments of the three major European nations, we were to develop and manufacture a European solution to replace the 40-year-old FV432 and similar vehicles in the French and German inventories. The French, however, had their own ideas at the military-industry level and stalled attempts to sign up to a common programme for many months, delaying the whole process by well over a year. Eventually it became clear that they would procure a domestically manufactured armoured vehicle, and had planned to do so all along.

Meanwhile, in spite of the difficulties and extra costs of developing a vehicle to meet the often divergent needs of three armies and three national industries (the Dutch had now come on board), Boxer prototypes had been made. It was at this stage that the MoD woke up to the realisation that the requirement that they had long since agreed to had given birth to a monster vehicle weighing over 32 tonnes. The UK promptly cancelled the requirement, leaving the Germans and the Dutch to offer it to us later as a solution to FRES.

#### **The MoD Procurement System**

It is difficult in this respect to avoid comment on the MoD procurement process. Leaving on one side these Urgent Operational Requirements for the campaigns in Iraq and Afghanistan, the focus on 'conventional' procurement of LAFVs has come under criticism for indecision and waste from several quarters.

Much of this derives from the departure from the procurement cycle that was agreed in the late 1990s under the now-dated title of Smart Procurement. It bears repeating. The procurement cycle was designed progressively to reduce risk to the point that industry and government could with reasonable confidence contract (competitively or not) to deliver to time, cost and requirement. The key to the process design is the willingness to spend money in the Assessment Phase. Together the user community, MoD and industry should use this time and money to explore technology, refine the requirement, agree trade-offs and be prepared to cancel unpromising lines of technological development.

If the Assessment Phase is to work, there has to be *inter alia*: willingness to commit substantial resources early in the programme cycle; confidence in the MoD procurement staff that they will be supported when tough decisions have to be made; clarity about issues such as intellectual property or the politics of international cooperation; and experience and domain knowledge in those people responsible for the procurement. It is instructive to compare the attempts over the last decade to acquire LAFVs to this procurement blueprint.

#### **Future Policy**

The problem of providing the Army with an optimum mix of LAFVs will not go away. Should the priority be to retain a fleet designed primarily to meet our current priorities in Afghanistan? Or should the future fleet be based on a potential confrontation with the more 'conventional' enemy that we had planned for in the 50 years from 1945?

We return to the point that LAFVs are widely available and comparatively unsophisticated: witness the ability of a small UK engineering company that, within 15 months, from scratch designed and developed to prototype stage a vehicle to meet the Afghan requirement. The MoD has demonstrated its ability to quickly acquire armoured vehicles for the specialist roles in Iraq and Afghanistan. But logistical coherence is losing out to expedience. We should be prepared to discard vehicles if keeping them becomes a long-term logistic burden.

Future LAFV procurement policy could build on the principle of specialist procurement to meet specific needs as a mainstream process, maintaining a nucleus of types for configuration control and training. As noted earlier TRACER, had we been locked in to the programme today, is not likely to have been suitable for current operations. We need to develop a flexible response to changing requirements. We need to think 'outside the box' and secure political backing for radical solutions.

In whichever direction the Strategic Review points, the hope is that the procurement policy for a future LAFV fleet, based firmly on sound procurement principles, will have the clarity, urgency and resources that it has so far manifestly lacked. ■