

The Debate: FRES – Size and Weight

The acquisition strategy of future armoured vehicles for the UK Army has been a strangely fractured story over the last 30 years, and we shall return to the subject in our February edition. Meanwhile, the debate doesn't stop. Here the Editor of the Asian Military Review asks why the requirement for C-130 lift has now been jettisoned.

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It was with some interest that I received the news that the MoD is to trial three vehicles with a view to fulfilling the 'FRES utility variant'.

My opinions on the Future Rapid Effect System (FRES) were published in the Summer 2004 edition of *RUSI Defence Systems*. The basic premise of my article was to suggest that if the FRES programme was less ambitious, in some of its aspirations, we would be able to gain a solution fairly easily and quickly.

What appears conveniently overlooked is that the dropping of the C-130 requirement puts us back to the point where it is legitimate to ask why we withdrew from MRV and why, given our experience and knowledge, the ability to deploy using C-130 was cited as being a requirement in the first place. FRES was a size- and weight-driven concept (medium force?). If it was not, then there was simply no need for all the agonising.

Deployment by C-130 was central to the original FRES concept, as was the idea of the vehicle having an improved or lighter logistic footprint compared to the CR2, Warrior battle group or combat team. As I noted in my article, forgoing the C-130 design constraint left you free to deploy Warrior FV-510 size and weight vehicles by C-17 or A-400M, so arguably there was no need for FRES! For example, I believe MRV Boxer is 32,000kg while the MoD website quotes Warrior at 24,500kg.

My original article contended that the design constraint of C-130 and/

or ISO containerisation and/or CH-47 underslung loading, presented some real possibilities to reduce vehicle logistic footprint, while increasing operational and tactical manoeuvre capability. Obviously there was some attendant risk. However, the maturing of technologies such as remote weapons stations (RWS) and active protection systems (APS) now, arguably, mitigate a good part of that risk.

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So, what changed?

I find the excuse of 'recent operational experience' to be entirely invalid, and even incredible. Nothing we see in terms of current threat, in Iraq, Afghanistan and even the Lebanon, is new. The threat characteristics of systems such as RPG-7/29 and a wide variety of IEDs were all well known and well understood long before the FRES programme in 2003. If anyone was in any doubt, a quick study of Middle Eastern, South Asian and African conflicts would have more than amply filled in the blanks. Thirty years of Northern Ireland may have even provided some clues. It did not need a crystal ball to extrapolate these threats into their more serious and highly likely iterations. Even

the use of explosively formed projectile, in IEDs, was seen as early as 1979. The original levels of CVR-T type protection were always going to come up short. Would it be unfair to say that the British Army is now actually facing the threats that previous decisions must have deemed unlikely, despite the wealth of evidence?

To summarise, the most challenging, yet still achievable, aspects of FRES were the C-130 design constraint (as specified in MIL-HDBK-1791), the more intriguing choice of ISO containerisation and/or an all up weight of less than 11,300kg that would have enabled CH-47 lift.

The only reason to have a FRES programme was to 'raise the bar' in terms of gaining greater operational effectiveness and logistic efficiency, the potential of which is amply demonstrated by the ATV-P Viking, which by all accounts is performing well in an environment it was never meant to experience.

Freed from the original constraints, the requirements are arguably no longer for a Future Rapid Effect System, but rather a replacement vehicle with much increased levels of protection, with all the attendant high weight, and thus logistic burden, this could entail. I suggest this is provably indicated by the choice of the three trials vehicles.

Those of us who have been vocal and sceptical about the FRES programme attracted a good deal of criticism from those associated with it. In light of the current decisions and developments it would be good, from a learning and doctrinal viewpoint, to know why we were deemed to be so wrong at the time. ■