

Myths and misses #2

All you need's a glove

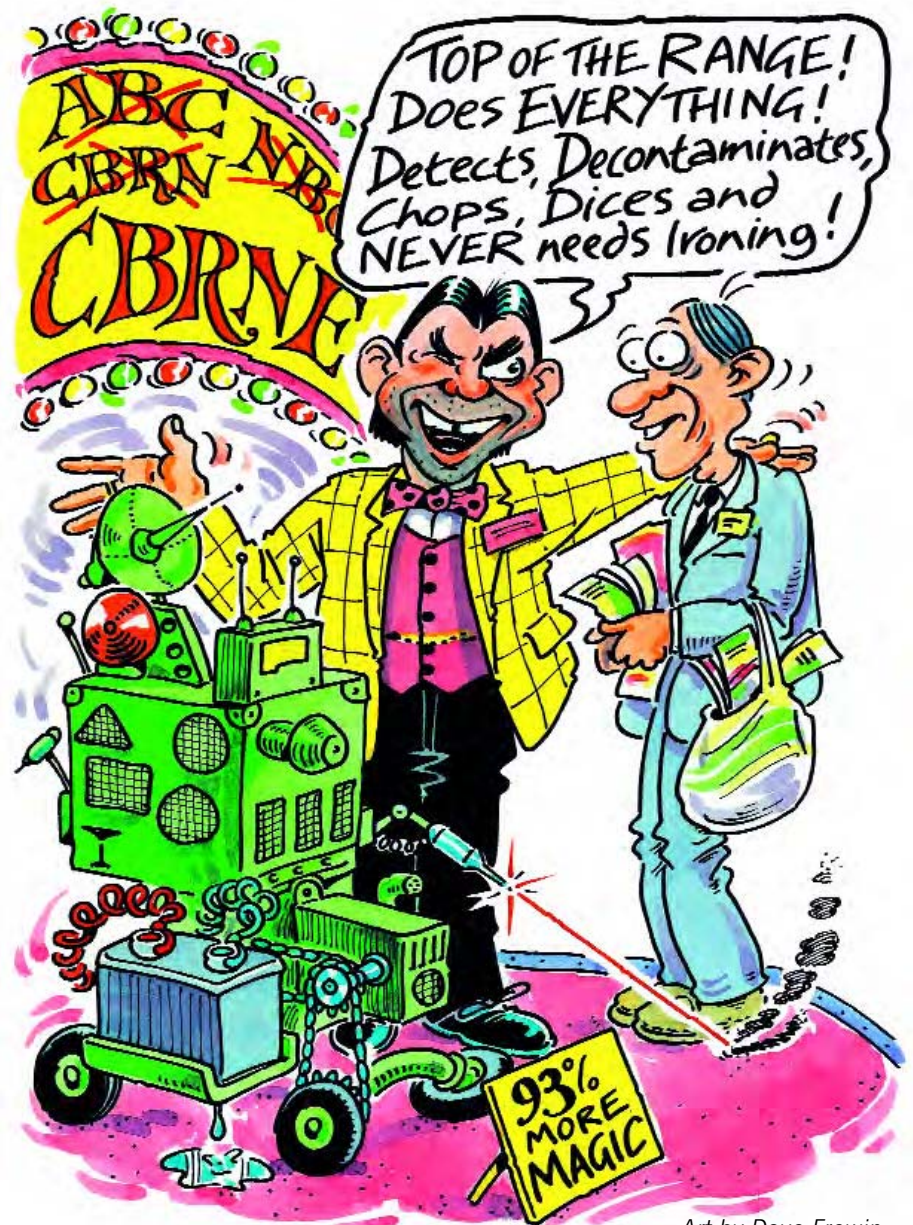
In the second of four articles, Lieutenant-Colonel Rick Barker dispels some common misconceptions about CBRN Defence

This column focuses on a popular belief that there is a shortcut to establishing a sound defence against CBRN attacks – a silver bullet or a panacea. Faced with limited budgets, overwhelming challenges and perhaps persuasive marketeers, procurers of CBRN defence equipment sometimes fall prey to the siren song of an easy fix.

I spent the years 1999-2001 in the US helping to develop the operational procedures for ballistic missile defence (BMD). While I thought the technical basis for BMD was viable, I felt BMD would merely deny the adversary his most expensive and technically challenging means of attack. One senior general debated this contention with an intriguing counterpoint: "There is no point building a fence around only three sides of your house".

The same logic applies to CBRN defence. If we fail to attend to all five of the enabling components – detection, identification and monitoring; warning and reporting; physical protection; hazard management; and medical counter-measures and support – we leave an Achilles heels that could be our downfall.

Should we purchase CBRN defensive equipment without previously establishing what we wish to achieve, what threats we expect to face and a thorough concept of how to



Art by Dave Frewin

employ it, we run the real risk of spending a great deal of money to acquire capabilities that we might be unable to use effectively.

Anyone who has attended a CBRN trade show has surely seen an occasional glassy-eyed browser, new to CBRN, sent on a limited budget to

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acquire some capability and now standing before a smooth-talking salesman. He hears the expert extol the virtues of his product and gains the impression that all he really needs to do his job is procure this widget or that gizmo. While both buyer and seller might have the best of intentions, this practice can lead buyers to acquire sensors without associated warning and reporting systems or decontamination systems without the means to assess when safe levels have been reached, and so on.

Even worse is procuring a storeroom full of shiny new equipment without training for its potential users, without spares and consumables and without compatibility with other types or equipment. This might be the exception rather than the rule but, in an era when allies and partners recognise the need to be able to work together, it can and should be avoided.

If there is one basic element of CBRN defence, it is probably the gas mask (not the glove, as the musical sub-title suggests). It protects the respiratory system from almost everything we are likely to encounter, but it still falls well short of qualifying as the panacea of CBRN defence. It

does not, for instance, protect people from substances that work through the skin, and humans remain susceptible to other hazards that can enter the body through cuts and abrasions. Further, it is but an element of CBRN defence, far short of the system-of-systems that most CBRN practitioners strive for.

CBRN response is normally a co-operative effort by some combination of military, governmental, emergency services and industrial teams. Knowing which of these will participate in a response and what capabilities they will bring to the situation are important factors in scoping the problem and identifying roles. A deliberate planning process can lay the framework to avoid pitfalls and point towards an optimal, affordable CBRN defensive system. The first step is to define the operating environment and what the tasks within it will be.

A good threat analysis serves to further limit the problem space and enable development of a realistic concept of operations. The result of this process is a firm understanding of required capabilities. By comparing these requirements against existing capabilities, one can pinpoint the

deficiencies that must be met and thereby prioritise needs.

While this prescription is aimed at those who procure CBRN defensive equipment, there is a role for the purveyors as well. They should engage their customers with a view to helping them design a complete CBRN solution. If they cannot offer a full range of equipment, they should consider collaborating with other suppliers to accomplish the same objectives – that is, offering a system-of-systems approach. They should also strive to adhere to military and/or commercial standards, to facilitate interfaces with current and future acquisitions and to promote interoperability among operators at various levels.

It is misleading to say: “All you need is a gas mask”, and undeniably so to suggest the same for a CBRN glove (as I did in the sub-title), but we can all fall victim to the lure of glossy brochures, impressive technical specifications and knowledgeable marketeers. By doing our homework beforehand, however, we can embark on CBRN shopping sprees, not seeking a panacea, but with confidence that we will get the products that best meet our requirements.



'Into the Lions Den! If you are not sure what your requirements are, then prepare to meet a lot of people who do!'
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