

GW: Since we last spoke the major change has been the emergence of the chlorine IED threat. This tended to focus people's attention on chemical defence, and some politicians worldwide clearly thought the world had come to an end. How do you stop that knee-jerk reaction to a current threat hijacking funds and taking over the long-term programme?

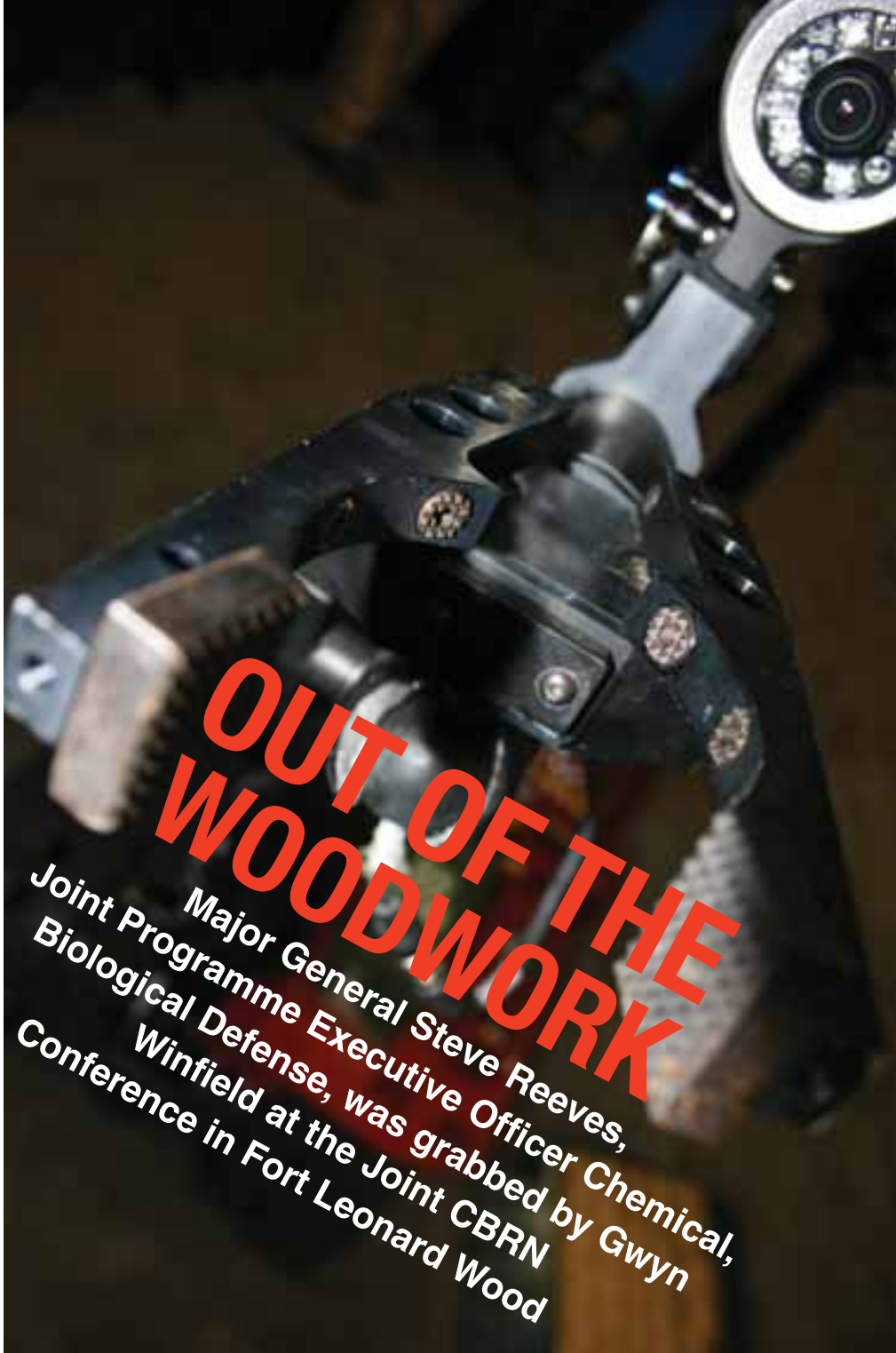
SR: The positive thing about the chlorine attacks is that we already have the capability to defend against that. So while there might be some argument that we have reached the threshold – and that other chemical agents might be next – there is an equally valid argument that says this is a target of opportunity; they are using what is available and they take advantage of this. This isn't a threat in the long term for derailing any of our efforts, but it is certainly part of the environment we need to deal with.

GW: Is this the culmination of the toxic industrial chemical (TIC) threat that the military has been worried about? That now they have crossed the Rubicon there may well be other chemicals they can get their hands on? Is the counter-insurgent chemical threat something we can bolt on – something that the current, in-service systems can deal with, or is this something that is not a military threat to US forces?

SR: The full-spectrum threat from TICs to next-generation agents is something we have anticipated for the last five years and built into our requirements process, our training process – the school here opened a new training facility to deal with TICs – and it has been built into our materiel plan. Have we had to put some band aids out there right away to deal with TICs and TIMs? You bet. The good news is there was plenty of industrial base that were already looking at these types of incident that we could rapidly use to get that capability out into the field.

GW: It is also part of a general change in emphasis, something we have seen with the creation of 20th Support, the expanded use of IEDs. Does this have an impact on JPEO CBD, that you have units that need to be good at detecting explosives as well as chemicals, so why don't we bring that element in as well? (Convolutd. Can you re-phrase?)

SR: Absolutely. That is built into the thought process and the requirement process



Gotcha! UGVs are becoming more prevalent in CBRN procurement

GW: Could we see this appear in a more proactive form of CBRNe procurement?

SR: We have already been involved at that at a technology level. As you are trying to detect a chemical – whether the chemical that you have detected is part of an explosive device or part of a chemical weapon – it is the same base technology. We have been sharing that with the IED taskforce

GW: The other problems is that issues such as the band aids and ongoing operations soak up money and make future

next-generation work, like some of the technology demonstrators, difficult as money has been placed elsewhere?

SR: It has been our approach for the last three to four years to make sure we have supplemental funding that comes in to take care of those immediacies. So it really hasn't diverted much from the S&T programme, and to the contrary we have put more into the S&T programme.

GW: Things like the Transformational Medical Technologies Initiative (TMTI) and other future technology are needed in current operations. Is there the demand to

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spin things in as quickly as possible to make life easier in Iraq, or are you still relying on technology readiness?

SR: On the materiel side, we have an established process to rapidly field equipment. We go through an abbreviated process to get even a 60 per cent solution out to the field as quickly as possible. The medical side is a little more challenging as we will not put any medical countermeasures into the field that don't go through the Food and Drug Administration (FDA), as that ensures what we are putting out here is pure, safe and potent medical countermeasures – we will not take any risks with that.

GW: The role of military forces continues to evolve and take on support to the civil authority CBRNe roles that aren't necessarily warfighting. Do we see equipment for these sorts of roles trickling through, or does military ownership of the equipment become another reason for civil forces not to do it?

SR: It is part of the warfight, and there are a couple of reasons for that. We have realised for the past five years that we need interoperability with the civil authority; we are looking at common standards that have been established by DHS and they have adopted many of the military standards as common standards for civil authority. Secondly, we have the same issues – we are trying to identify what a substance is, whether it is dangerous and what we can do about it. Thirdly, we look at the civil-military interoperability requirement that we have as part of our homeland defence mission – that is what drives a number of things we are trying to develop and it drives our larger requirements.

GW: Through projects such as Guardian and the Weapons of Mass Destruction Civil Support Teams, do you get a good insight into the workings of the civil forces?

Is it unified enough to allow you to get concepts of operation that

you can plan against?

SR: There is a lot of feedback and good information on the civil side that we can use and vice versa. One of the things we do is use the national standards for certifying hazmat response, and we use those civil standards to certify our civil support teams; that is part of the process and it means a great deal of interoperability. A new training facility has opened up here in Fort Leonard Wood – the Terry facility. That is certified by fire fighters, and we see our standards as part of what we do in the homeland defence arena.

GW: Every time I come to this exhibition I see more UGVs, both in terms of vendors and technology demonstrators. But I have yet to see them move into mainstream CBRN procurement. Is that down to funds, a lack of technology readiness or a lack of concept of operations?

SR: There is an unmanned ground vehicle requirement that comes in with the lightweight system we are building for the Marine Corps. It is just a matter of time and

it is going through the procurement process – it goes through final assessment this fall. We have used UGVs for special applications, such as the 20th Support Command, and there will be a continuing need for UGVs. But you need to look at what your tactics, techniques and procedures require, and whether or not that particular capability is needed in individual units. As we look at our brigade combat teams, and some of the requirements that they have for recce, then that may ultimately become a requirement.

GW: You have been working on your “holster” concept (which would be a way of sharing common components among different detectors, cutting down on training, logistics and space). UGVs would seem to be a vanguard for that, as they are used to plug and play on their EOD work. Is this the logical first extension?

SR: Absolutely. Frankly, the interface is not that difficult, and in the JPEO exhibition you can see a range of UGVs we are using.

GW: In terms of the holster generally, is the progress on that something you can go into detail on?

SR: We are looking at that for the next three to five years. It fills a whole variety of concepts where we are trying to reduce the number of individual items that we have to carry. We have leveraged some of our more mature technology, such as mass spectrometry, some of our IMS tech and more importantly we want to get to the net-centric approach where we can share that info not only with the immediate command but also up and down the line.

GW: The holster concept is suited to man-portable equipment, and part of the problem of TICs is likely to be loiter time needed for effective recce and monitoring in an unsafe environment. Will this be something that will transition to a UGV; a move to a light role team/handheld-type concept or a further up-armouring – and attendant

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Full beam! JPEO CBD is trying to get equipment into Iraq as quickly as possible

OUT OF THE WOODWORK

loss of capability – in existing monitoring platforms?

SR: The UGV will be applicable in a lot of the urban environments and you would certainly want to put a machine in harms way, rather than a person. The advantage of the recon systems is for the higher levels of identification and the higher levels of confidence in the result.

GW: Could this be something that we give to stand-off? Has stand-off proven itself yet, and does it holds the promise that it did 3-5 years ago?

SR: I think stand-off holds the promise. The challenge is whether it is an active or passive capability. Frankly we are going to wind up in a dual mode, where we have the passive for surveillance, to give us an indication that there is an issue that we need to look at, and then we can find out with the active mode – which will give us a high level of confidence – what that particular vapour might be.

GW: Could it be that we move to an all-sensors approach, where we cue things like thermal imaging, image intensification or cameras, before we cue CBRN sensors?

SR: We look at things like the ability to use a thermal imager to give us that general indication that there might be something out there, but the problem lies in needing to identify what it is out there. Frankly I think we are going to have to go there, because to try and do that at any kind of range is likely to be inaccurate.



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General Reeves' 'Holster' concept is getting closer to maturity

The chlorine attacks in Iraq refocused attention onto the JPEO



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