

Class values

GW: Could you describe the evolution from Chemical Corps as it has been and how it has evolved into the new concept – the Future Modular Force

TS: The Modular Force is a subject unto itself. The Chemical Corps has had their landscape change, and all of our experts in our units and on staffs are now referred to as CBRN specialists. If you'd have looked at our previous organisational table you'd have found a Chemical specialist or Chemical officer; now you find a CBRN specialist/officer. That is indicative of the fact that we are stretching to confront the full range of hazards that are confronting our nation, anywhere from Polonium to toxic industrial hazards-- the full spectrum. As for the future of Modular Force, we actually moved to modular before the Army as a whole did. One of our shortcomings of our units in the Chemical Corps was that they were either single or dual-purpose. This made them easy to train and equip, but when it came time for a conflict they had to go through this massive task organisation where we would take a platoon out of this company and one out of that company and we would form a hybrid unit that would have recce, decon, bio detection, smoke, etc and we became good at that. Then somebody said, "Why don't we just task organise, as we find ourselves task organising for conflict?", so our Chemical Corps modularisation effort builds companies that are already tailored the way the commanders want. So you will find recce and decon in one or recce and bio surveillance and identification in another. We think we have built a force structure that is immediately useful upon landing on the ground.

GW: This move away from single discipline, like Chemical Officer, to

Brigadier General Thomas Spoehr, Commandant of the US Army Chemical School, talks to Gwyn Winfield about preparing the warfighter to face the new threat

multi-discipline must impose a serious training burden. Especially when these people need to be soldiers too; it is no good having a CBRN specialist that can't remember which is the business end of the gun.

TS: It is a huge challenge and we are only given a finite amount of time within the training base to do that. To deal with this we have begun to think about individual self development while they are out with their units. To that end, at the end of this month we will debut a distance learning course called Basic Chemistry. This isn't basic chemistry like you'd get in high school, it is basic in an applied way; electrons, photons and neutrons but also the next stage of why do some decontaminants work well and others not so well? You stated the problem well – it is a huge challenge to be proficient in all those tasks and retain your military skills proficiency.

GW: As well as working on "core skills" such as Basic Chemistry you are also working on some newer areas, such as your WMD elimination capability. How is that developing?

TS: We discovered some shortcomings in our ability of our general-purpose forces to arrive at a site and make an assessment of whether that area has WMD or CBRN items. There might be a strategic interest, and we lacked the ability in our GP forces to make those assessments. What we were able to do was prove some negatives; we could say that those drums, test tubes, etc do not contain GD, VX, mustard, or blood agents as that is what the government-

issued detection gear could tell you, but what it could not tell you was what it was and whether it posed a threat to the commander and his forces. We have turned that around and we are in the process of fielding a much improved detection capability to units within the Army. Every Brigade Combat Team (BCT) in the Army will include a CBRN recce platoon and we have never had recce integrated down to the BCT level. Each BCT will have this recce platoon and it will either be equipped with two Strykers – the most capable NBC recce vehicle that the world has ever known – or, if they are an infantry type and less heavy, then they will have dismounted gear, government-issued classified equipment, like ACADA and ICAM, but also some Commercial Off the Shelf equipment involving the latest developments in Raman spectroscopy – things like that.

GW: There has also been a change in threat, from the Cold War scenario of a shell that goes "hiss" rather than "bang", to the current situation where they might go into a laboratory and not know if it was a meth lab, WMD lab or something benign. We require a lot more low-level intel work than was inside the traditional Chemical Corps remit.

TS: You are exactly right. Those skills were focused on the traditional nuclear weapons, large bio threats and traditional chemical. If it wasn't inside that skill set then it either wasn't a threat or we couldn't tell you what it was. That capability has proved to be inadequate; we got a hint of this in Bosnia where we would go to a factory

BIOLOGICAL AGENT IDENTIFICATION

FIRST RESPONDERS - MILITARY - SECURITY



RESULTS IN 30 MINUTES

Proven Tools, Accurate Results— Better Decisions.

Suspicious powder calls happen more frequently than we'd like. New technology now allows you to know for certain what you are dealing with. **No more "guess and wait"** while potential victims worry. In less than 30 minutes you can **know for certain** what you are dealing with or more importantly, what you are NOT dealing with.

Gain an Edge on Detection with the RAZOR® Instrument

- + Tests for Anthrax, Plague, Smallpox, Avian Influenza, Tularemia, E. coli and other agents*
- + Technology currently used by National Guard CSTs
- + Recently declassified by the U.S. DOD and is now available for Hazmat teams and other emergency response units
- + Analyze up to 12 unknown pathogens in less than 30 minutes
- + Firefighter-friendly, easy push-button use
- + Proven accurate and reliable by the U.S. DOD, Australian Defense Ministry and the Royal Canadian Mounted Police (RCMP)



The RAZOR Instrument
with rugged case

Stop by our exhibition stand
#5:35 for a live demo and to
learn more about this
cutting-edge technology!

*Check web site for available tests.



Innovative solutions for pathogen identification and DNA research

390 Wakara Way, Salt Lake City, Utah 84108, USA | 1-800-735-6544 | www.idahotech.com

The new NASCAP Repeater Unit

Extending the range of your detection capability



NASCAP is a networked remote reporting and warning system that enhances your deployment of chemical agent point detectors across a broad range of operational requirements. Now available with radio repeater unit for use over extended distances. Please see our CAPABILITY PROFILE in this issue.

For further information please contact:

Argon Electronics LLP

Tel: +44 (0)1582 491616

Fax: +44 (0)1582 492780

E-mail: sales@argonelectronics.com

www.argonelectronics.com

ARGON
ELECTRONICS

Visit Argon at the 9th International Symposium on Protection Against Chemical and Biological Warfare Agents
Swedish Exhibition and Congress Hall, Gothenburg, Sweden, 22-25 May 2007

and want to bivouac but there would be drums in the facility and the commander wanted to know whether it would be safe to be within a mile of this facility and we couldn't provide it. It was a wake-up call that showed what we did wasn't enough for the force.

GW: It is not just the threats that have changed and increased but also the number and the variety of units involved and their demands. Units such as the CBRNE Emergency Response Force Package (CERFP)...

TS: There is a Chemical Corps company within every CERFP; and it is the Chemical Corps that has the responsibility to publish the necessary doctrine and train those people to go into units to do the mission – and in the case of CERFP it is consequence management. We have started to place much more emphasis on consequence management training for the people who come here; we train them and certify them in hazmat, for example, and that never used to be done. We provide training and scenarios on domestic situations where there is no hostile threat present and then one where there is a hostile threat to mitigate a situation, where there are people trying to do you harm. One thing I am very proud of is our new Lt. Terry CBRN Training Responder Facility, and we intend to cut the ribbon in June 2007. It is a state-of-the-art facility, primarily designed to train people in consequence management; it has mock-ups of buildings (post office, warehouse, etc), it has tunnels, caves, places that are designed to deal with dressing out in Level A, and fully instrumented areas so you can get a great training environment.

GW: When you talk about tunnels and caves it makes me think of the work that other agencies do in tight spaces, like Urban Search and Rescue. Does this makes you look to the Fire Service, for example, for some of tactics and doctrine on things like IPE?

TS: Yes. The sewers and caves were designed to meet the standards for



BG Spoehr, seen here 2nd left, is the new Commandant of Fort Leonard Wood ©DoD

confined space training in which our fire fighters in the US are required to certify their skills. It is a balancing act, as some people get so excited about the tactics, skills and procedures needed to deal with the homeland that you almost need to pull that back a little bit and say that those are important but you need to retain your proficiency in warfighting tasks. So not only do we need to speak to fire fighters and civil responders in the US but we need to be just as confident in our skills overseas working with commanders and hostile situations.

GW: It is difficult to present them with a template for consequence management as it is a different skill set for what you need to do in Iraq, on a similar operation, as what you need to do in Conus. The standards, procedures, kit and training within their first responders cannot approach US ones. So how do you get them to set the balance and train for it?

TS: It is a challenge. I sat in a briefing with a class that was trying to digest this. We have begun to insert it in our normal exercises, which used to be "You are this division, you are going to be attacked, how do you respond?" We now say "Assess these sensitive sites" or "You are in a different part of the battlefield, there has been a chemical release, and the mayor has asked for your help, so help him and his town react to this". Watching our students respond to these challenges you can actually see their minds being stretched; it is a wonderful thing to watch. I'd like to say that our

doctrine and all the enablers are firm and we are prepared, but we are also learning things as we go as a school. All of our training exercises have simultaneous things like passive defence, people exploiting sensitive sites and consequence management all at the same time. One of the big lessons that we got out of Iraq is that in one province you could be in an all-out shooting war, and then the next province over the mayor or governor needs a helping hand for his police or fire department and we have to do it all.

GW: With this new territory comes new roles such as mass decon, which has never been thought of as a military task before...

TS: The Army has had a love/hate relationship with support to the homeland. In recent years we have placed it at the top of the list, but ten years ago it would not have been thought that our mission was to support the homeland. Chemical Corps Soldiers need to be able to interact professionally with a fire fighter or mayor and speak the language of the incident commander; these are things that we have to learn. The great thing is how people are just eating it up. You always think that you are overburdening people, but we have not reached the limit yet, and I don't see us suffering in terms of supporting the conventional fight.

GW: It isn't just the tactical skills that are needed, but the strategic ones, like

Class values

leader-development. How do you develop that for these changing scenarios?

TS: It is very difficult and the Army leadership is pressuring all the schools to train statesman at the lowest level. They talk about the “strategic corporal”, and we are not at that level yet, but we are making a huge effort to train the “strategic lieutenant” and the “Strategic sergeant first class”. I talk to them and I tell them I have seen a Chemical Company given the responsibility to be the mayor of an area of Baghdad, and when I tell the students that they need to be the person that interfaces with the local sheik or headmen then the juices turn on and they realise how much the Army is going to ask of them; not just to be proficient in their tasks, but also to be an officer that is able to think out of the box and mediate disputes between two tribes or factions.

GW: There is also the legacy of Iraqi munitions; 500-odd have been found since March 2003 and there may still be more out there. Is it a consideration that even though the threat agent might not have been stored properly and become retarded that it’s potential is still out there?

TS: We are in constant contact with the people at the multinational HQ in Iraq and what you described as threats they continue to find – Desert Storm era munitions on a frequent basis. It doesn’t get a lot of press. You’re right that when the Iraqis produced their nerve agent, for example, it wasn’t very pure, and has become less pure over time, but it still represents a viable threat that if someone adapted correctly it could cause us great harm. We talk about the appearance of chlorine, but really it is the re-appearance of chlorine from World War One. We have looked at what is facing people, in terms of the chemical threat, and the skills that we teach people for nerve and blister are just as applicable to a chlorine attack. What we are seeing is an adaptive enemy who is actively exploring new

ways to cause harm and this is just another means that he is exploring. My response to these developments is to ensure people are going overseas with the right equipment and tasks and that they can protect themselves from CBRN threats. We talk with the folks in Baghdad all the time to make sure we don’t take our eye of that ball.

GW: How do you take someone who has trained for Iraq, with all its charms, and fit them into the preparation for a homeland attack, with agencies that are trained to an equally high level? Presumably this involved some form of culture shock...

TS: The best we can do is our exercises, and the situations we put to people at the Chemical School are all working towards that dilemma. So no longer do we teach people the answer is that if you don’t know, call your higher HQ. We stress using your common sense, going with an 85 per cent solution and doing something versus doing nothing. I was struck by the first time I went out to Iraq and I was talking to the Corps Chemical Officer and he was telling me he had been out to see the Minister for Science and Technology (MOST). This Colonel told me he and the Minister were engaged in daily discussions about how to rid Iraq of some of the legacy things, like old, orphaned radiation sources that had been looted, wrecked X ray machine sources, etc, and how they could go about getting control and then moving them to somewhere where they can’t hurt then populace. I was just struck because we don’t teach the skills needed to conduct discussions with a Minister of a foreign country! I was amazed how well these people were doing that; you just need to point them in the right direction and they will amaze you with how well they do.

GW: It is hard to imagine a syllabus that had Applied Chemistry next to International Statesmanship!

TS: Exactly! I get out there and I speak to them and they tell me that today they were talking to the Office of the

Secretary of Defence, the National Security Council and I was like “Wow! I am very impressed!”

GW: Perhaps one of the best promoters of confidence, and something some European countries swear by, is live-agent training. It provides confidence in both kit and procedures. It happened during the Cold War but how do you ensure that it remains relevant?

TS: I will confirm what you just said. It is one thing telling a class that your Automatic Chemical Agent Detector Alarm (ACADA) is going to work, but there is nothing like the situation where a drop of nerve agent is put on a vehicle and from ten feet away the ACADA goes off. There is nothing like it for teaching confidence in the equipment but also that you are in the suit and you are fine! It is magical thing to see.

It used to be that we would go into our Chemical Defence Training facility, do a quick exercise on detection and decontamination of chemical agents and we would leave straight after. We have broadened it enormously and now we treat the chemical defence training facility as a sensitive site and before they go we tell them “This building might contain CBR agents. Develop a plan and deliver it in process, go in, execute it and come out and tell us what you found”. So they do that and we give them blueprints and we treat it just like a suspect lab; they follow the safety procedures and we might have put some things in there like a radiological source and we see how they adapt.

GW: Closing Thoughts?

TS: I really appreciate the opportunity to share some thoughts with your readers. The US Chemical Corps has over 21,000 committed professionals, evenly spread over the active, Army Reserve and Army National Guard components. As you stated at the start, the landscape is changing, and the US Army Chemical Corps is changing with it.