Inspector Scott Sheppard, Officer In Charge of Explosives Disposal and Technology Section at the Royal Canadian Mounted Police, tells Gwyn Winfield about their preparation for the Winter Olympics

Welcome to Science Town

GW: We last spoke to the Royal Canadian Mounted Police (RCMP) three years ago. What has improved since then? Where have you seen the most effort?
SS: From the RCMP's point of view there has been a slow and steady progression in terms of what we are doing within the CBRNE world. Since I have been here, and this is largely because it is operationally driven, I have looked more at applying science and technology assets to real-world applications and problems as opposed to technical development for its own sake. We are fortunate in this country to have a long-standing history of innovation and development, especially within the RCMP – the CBRN Research and Technology Initiative (CRTI) and the Centre for Security Science have helped champion that – but it was getting to the point where our technical capability was almost exceeding our operational requirements.

Research and development can be all-consuming and it can take your eye off the target, which is what is going on in the community, what is going on from an investigator's angle and what we are called on to do. So, while it is all well and good to say you have this gadget that can do this, or a new ability to do something no one even cares about outside of the CBRN world, you need to apply it to a meaningful investigation or outcome. Then the strategic level can stand up and say, "That is of some benefit to us," or they will not. We have been looking at how we integrate ourselves more effectively into investigations, ensuring we are on the left side of an investigation, rather than the right. I am loath to use "left of boom" as it is so over used – but we are looking at being proactive and pre-emptive in our strategy. We have also used this as a focus of some of our training activities with our key partner, the Canadian Joint Incident Response Unit (CJIRU).

GW: There is a need to keep CBRN bedded with regular police work and the 60 per cent threat – to stop it being "special". One of the ways is through clandestine (clan) drug labs, or explosives investigations. Do you see pollination from these clan labs and bomb factories? Does that have an impact on your CBRN work or do you keep them separate?
SS: They are intertwined. What we saw over the years, before improvised explosives evolved to the state they are now, was when the regular members entered a crime scene – when they saw a clan lab – they defaulted to "This is another drug operation," and in most cases it was. They would have their own investigators come in and deal with it, not necessarily members of a CBRNE team. Fast forward ten years, and when members go in they are see a clan lab they are inclined to think, in the absence of any other info, that it could be a IED lab as a drug lab. What we are seeing is that the default is as much to bring in CBRNE to help solve some of these problems, rather than just a clan lab approach. The clan lab folk are still busy and engaged but investigators are more mindful, in the absence of any other information, that there is always the possibility it could be an IED lab, and we are seeing a marked increase in people dabbling in improvised explosives.

GW: It is a loaded issue. Some like the inclusion of clan labs into CBRN as it gets them used to detectors, PPE, etc and it keeps them in the commander's eye. But it could also be a bad thing, it gets them out of the CBRN mindset, stops them being specialists and makes them a narcotics asset. Do you see this as a beneficial relationship or something to be careful of?
SS: There are always going to be issues in keeping the various groups in the proper lanes of investigations. For our part we have a pretty good relationship with the various clan labs teams across the country. They are highly skilled – largely because they have such a large body of work – and through the awareness training we have done they are tuned into the fact that it might be more than a clan lab. These people are so skilled, and they have such a high

Close cooperation for the Olympics will be essential ©RCMP

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volume, that when they see something that is off-centre they are quick to identify that and they know what their role is and won't hesitate to give us a call. There are no problems; it just means that the people in that line of work need to be more aware.

GW: When we spoke to John Bureaux (*CBRNe World* Winter 2006) one of the things that he was proud of was bio. Three years ago the bio detection capability you possessed put you in the very top tier of responders worldwide. What are the plans for bio-detection now?
SS: Specifically within bio we are exceptionally proud of the standard we have been able to achieve and in what RCMP members are able to perform in terms of sample collection and analysis. Capabilities range from simple hand-held assays up to PCR, and we would not have been able to do that without a great deal of work from Public Health Agency of Canada (PHAC) and particularly Dr Steven Jones, who has been a champion of moving the programme along. Since we are a large country, and our responders are spread out, they need independence and a certain skill set that enables them to do something. By virtue of the distance between where an event might happen and the National Microbiological Lab, it will take a lot of time before they can provide a positive or negative result.

What we have done – and the Public Health agency has been instrumental in this – is develop a basic and advanced level responder within the bio framework, to the point that the members are as advanced as anywhere else in the world. We are not trying to teach police officers to become biologists – it is much easier to teach a biologist to be a police officer! The idea is that, in the time we are given, we will take the best possible samples we can and perform the best analysis we can, and the best way to do that is not just to perform a task but also to understand and appreciate what you are doing. So we get right down to a "Bio 101" and people have a fundamental understanding of what they are doing. It is not just a thing they are putting on a swab and putting in a container – they have an appreciation of what they are doing. Our reach-back is almost immediate as, with our satellite linkup, we can do some gram staining, have a look at the staining under the microscope and a biologists in our national lab in Winnipeg can be looking at it at the same time – in real time – and providing their opinion. That is something we validate every couple of months and do proficiency exercises to the satisfaction of the biologists in Dr Jones' lab. They have been doing amazing things for us for some time. They have designed courses as well as exercises, and we are always getting requests from other agencies to be part of that. We have a way to go but we will stop short of trying to turn police officers into biologists.

GW: Is the training they do part of a recognised qualification which adds to career development? Do they receive a certificate?
SS: There is certainly a proficiency test, and at the end of the training successful candidates receive a certificate. It is difficult to quantify the course content; Dr Steven Jones puts a lot of elements of first and second year biology into a two-week course. It is very concentrated and he jokes he could probably get a university credit for it. We are not concerned about that end; it is an internal process for us and we know when people have gone through that training and have a passing grade they are good to go.

GW: You have the Winter Olympics in February 2010. How big a driver for C-IED and CBRN has this been? Can it be treated as business as usual – as the UK insists on for their 2012 Olympics? Or has it been treated as a major event for which you need specific requirements, and once these have been evaluated you must go through a process of covering capability gaps?
SS: I suppose it is a little of both, though it does initially seem to be naive to think of it as business as usual. We will have 10,000 international media scrutinising every activity in Vancouver and Whistler alone during the 2010 Olympics – both what is happening in the sports and what *they* might perceive as an interesting story. A CBRNE event would certainly be an interesting story! Things won't be normal in that sense – there will be a solid expectation from the event organisers that the security being offered through the RCMP will not only provide a safe and secure games but that the

RCMP officers go through a wide variety of training, including live agent, to prepare them for their role ©RCMP

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security measures taken will effectively allow the games to run unhindered and without incident. It means we have a lot of forward thinking to do; the idea that an event or facility might be shut down for one to two hours is not acceptable. I don't think we would want to plan our activities in such a way that it is business as usual. We have to react quicker than we would if it was happening in British Columbia, so our posturing and state of readiness will have to be at a very high level – we will be like a bunch of steel springs ready to release if something should happen. Not only is it a high-level event with a number of VIPs, important athletes and visitors to the area, we want the games to be successful with as little impact as possible. So if we can go through the entire Olympics without people even knowing we were there, or aware of our goings on, then it will be a complete success.

GW: How will the event itself be commanded? You have the Integrated Security Unit but who will take precedence out of the Vancouver Police and the RCMP?

SS: The Integrated Security Unit (ISU) falls under the responsibility of the RCMP, as well as Vancouver City Police, West Vancouver Police and elements of the Canadian Forces; there is a shared responsibility in terms of providing an integrated security function. As far as the command and control within the event itself, it is going to follow the same Bronze, Silver, Gold command structure you see in the UK. Most of the CBRNE assets will be scattered at strategic locations across the city and Whistler, and there will be a high degree of flexibility in terms of how they roll out their response. The decision-making ability will be driven down to the lowest possible level, and that equates to a more timely response, so we are fortunate to have some highly skilled people. We will have a number of these teams around and they will fall within the realm of the Silver commander, but because they are subject matter experts themselves it will be more a reporting relationship in terms of information rather than command and control. It is also important to point out that elements of CJIRU will be embedded within our structure as well. While we rely on them for Decon and Medical support, we also employ them in support of other detection activities as well. Although CJIRU still has its own internal command structure, we have really gone a long ways in the past two to three years to integrate our activities.

GW: Will Vancouver Police do certain areas or sports and RCMP others? Or will Vancouver handle an incident and then, once it gets to a certain scale, it is handed off to the RCMP? Will you pool assets centrally and pull them as appropriate or have force packets deployed in the provinces?

SS: Generally speaking if it is anything to do with a venue it falls under the ISU, which is essentially the RCMP's responsibility. If it occurs outside of a venue then police have jurisdiction; it might be West Vancouver, Delta Police, etc, but as soon as it impacts on a venue then it is ISU/RCMP responsibility. If it were necessary, because we are going to have considerable assets in the area, and there was an event that was not happening within a venue, and the police required assistance, then we would come out the same as we would any day of the week and provide whatever response they required, linking up with them and providing a co-ordinated effort to solve the problem.

GW: In terms of consequence management, do you have an integrated C4i system where you have a common operating picture and visibility of all assets, or does that information remain in silos?

SS: Everyone from the various agencies will have a chair, and they are going to be in the ISU, so we will have fairly decent visibility of the other groups and their activities. When it comes to what we are planning with our CBRN cell, there will be myself and the people from other disciplines – chemical, biological and radiological – who can provide expert guidance to me on some of the scienced based decisions that need to be made. The beauty of it is that once an event turns a corner, and we have to deal with the consequences, they are already up to speed with what is happening and can provide that assistance to the members of the consequence management teams. If it turns the corner and we are dealing with the consequences of a radiological event, for example, then I have someone from Health Canada, or someone from within the Federal Radiation Assessment Team that deals with consequence management as well as providing me support, so they can go off and work in their own way and co-ordinate those activities. I therefore do not have to brief them in what has gone on, as they have been involved from the very beginning

GW: Assuming we stick to this three-year cycle and next speak again in 2012, what do you think we will see? How will the force have evolved?

SS: It is hard to say. Right now I am excited about the level of support we are getting from the scientific community. You often hear the term "whole-of-government approach" for special events, so over the past couple of years -- using the Olympics as a catalyst-- we have been able to use scientific reach-back in a far more meaningful way; we have brought these experts on board from different departments in government, either from physics or biology or chemistry. They have formed this scientific cluster and they have invested a considerable amount of time and finances, in conjunction with CRTI and the Centre for Security Science, in developing the mobile labs. We have come up with what we call "Science Town," and when the national team deploys, Science Town is an element of that. We have immediate scientific reach-back, and not just reach-back in terms of consulting with them; they have their equipment with them and are able to do the required level of analysis in an immediate timeframe and at an exceptional level. I hope that, once the Olympics is over and we head towards G8 and the North American leaders summit we will see that mature and refine so we can figure out the bumps in the road and what needs to change. I can see that becoming a more mature relationship, where the areas of responsibility are better understood and we have a better idea of what others are trying to achieve. I am a true believer in this whole-of-government approach; I just hope we can sustain it because, when things slow down and these events go over the horizon, things can change. Our big effort will be maintaining and improving that, rather than forgetting about it once these major events are over.