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Report on the Eighth International Law Enforcement Forum

MINIMAL FORCE OPTIONS

and Less-Lethal Technologies

New Westminster, Canada – May 2011 Hosted by the Justice Institute of British Columbia

Strategic Threats and Critical Incident Response













Report Editor Colonel Andrew F. Mazzara USMC (Ret)

Acknowledgements

The delegates of the 2011 International Law Enforcement Forum wish to thank Chief Constable James Chu and his staff of the Vancouver Police Department and Inspector Frank Ciaccia and his staff at the Justice Institute of British Columbia (JIBC) for their gracious hospitality. ILEF hosted the main dinner at the scenic Diamond Alumni Centre on the Simon Fraser University campus. As always, delegates thank Ms. Amanda Brooks for her continuing superb administrative support to both the Workshop and report development.

The Eighth International Law Enforcement Forum on Minimal Force Options was co-hosted by The Pennsylvania State University, The Association of Chief Police Officers (ACPO - UK) and the Justice Institute of British Columbia. The forum was organized and conducted by the Institute for Non-Lethal Defense Technologies (INLDT) of The Pennsylvania State University. The workshop was held in New Westminster, Canada May 10th through 12th, 2011.

It remains our view that the pursuit of minimal force and less-lethal options, the policy and legal aspects of developing and employing such technology, and the surrounding debates, should be conducted openly and on the basis of informed scientific and medical assessment set against clearly articulated operational requirements by professionals who have experience in policy, command, operational theaters of use and tactical deployment.

The content of this report is not intended to represent any policy and/or official position of ILEF, police organizations, research agencies, The Pennsylvania State University, the governments of the delegates in attendance, or any of their affiliated agencies. Although the conclusions and recommendations are based upon a general consensus of the participants, they do not necessarily reflect the views of all of the participants and/or the agencies which they represent.

COMMENTS PERTAINING TO THIS REPORT ARE INVITED AND SHOULD BE FORWARDED BY POST TO THE DIRECTOR, INSTITUTE FOR NON-LETHAL DEFENSE TECHNOLOGIES, APPLIED RESEARCH LABORATORY, THE PENNSYLVANIA STATE UNIVERSITY, P.O. BOX 30, STATE COLLEGE, PA 16804-0030 OR BY ELECTRONIC MAIL TO: <u>INLDT@PSU.EDU</u>.





Preface

The first two meetings of the International Law Enforcement Forum (ILEF) on Minimal Force Options held at The Pennsylvania State University in April 2001 and October 2002 were extremely successful in focusing on less-lethal weapons (LLW) and minimal force concepts, technologies and deployment at the expert practitioner level.

The United Kingdom's Police Scientific Development Branch (now the Home Office Centre for Applied Science & Technology) hosted the third meeting of ILEF in February 2004 on behalf of the UK government's steering group on less-lethal technologies. The event included a consultative forum with research and evaluation organizations, police oversight bodies, academic and political research groups, government departments and non-governmental organizations (NGOs).

The Royal Canadian Mounted Police (RCMP) hosted the fourth meeting of the Forum in 2005. This 2005 Forum included a day dedicated to discussion with less-lethal manufacturers and distributors. The fifth meeting of the Forum was conducted in Fairfax, Virginia and was hosted by the NIJ, Penn State, and the Washington, DC Metropolitan Police Department who provided an informative tour and information briefing in their state-of-the-art command center. The 2008 ILEF Workshop was co-hosted by the National Institute of Justice, the National Tactical Officers Association (NTOA) and the Orange County Sheriff's Office in Orlando, Florida. In 2009, the ILEF Workshop was hosted by the Association of Chief Police Officers (ACPO) and conducted at the Bramshill Manor outside London, the home of the British Police Academy

This year's Forum at the Justice Institute of British Coulmbia in New Westminster, Canada once again brought together professionals involved in the development, use and monitoring of less-lethal technologies and included representatives from the United Kingdom (UK), Ireland, the United States (US), Canada, New Zealand, and representatives from the European Working Group on Non-Lethal Weapons. Delegates examined the integration of less-lethal technologies and use of force in addressing serious strategic threats and critical incidents.



Participation in this forum, as in previous years, was by invitation and assembled internationally recognized subject matter experts, chiefly practitioners from law enforcement, together with technical and medical experts and those with specific interest in policy development primarily from the United Kingdom, Canada, and the United States.

This report is a summary of the Forum discussions, the associated conclusions, and recommendations for further work derived from the sessions. The forum makes specific recommendations in relation to best practices in employing technology in support of major events, crowd management issues, response to possible terrorist threats at such events and how best to conduct media relations and operations at these venues.



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Executive Summary

From an international perspective, policing is found to be very similar regardless of what country or nation performing the functions. Individual agencies and police services find themselves challenged by similar issues and often come to similar solutions or conclusions. Police are often called upon to confront difficult and physically and mentally demanding situations where they are required to respond rapidly and appropriately. The circumstances might be confronting a violent or aggressive individual, maintaining public order, or dealing with terrorists. The officer often are required to make quick decisions that are long after second-quessed and critiqued. They must observe the potential threat, evaluate risks to persons and property, consider consequences of any action or inaction, determine the appropriate response, and respond with the proportionate level of force - time scales often measured in fractions of a second can mean the difference between life and death. It is the conviction of ILEF that less-lethal technologies and minimal force options provide officers with a capability of a variety of force options which can de-escalate violent situations, enable effective resolution, and in certain circumstances reduce the need to resort to lethal force. While aenerally there are different views regarding the role of these devices and related techniques, when operating in such ambiguous and uncertain situations, there are often many more similarities in approach.

The 2011 Forum addressed issues related to best practices in strategic threats and critical incident responses which once again involved practitioners' approaches, operational management concepts, responses to terrorist threats and media management related to large scale public event operations. It was a great opportunity to review the recent successes experienced by Canadian Law Enforcement in the providing of security at the Winter Olympics in Vancouver, British Columbia. We were honored to have Chief Constable Jim Chu of the Vancouver Police Department provide a leadership perspective on the Games and their involvement in the overall safety and security.

Delegates from the represented countries, police departments/agencies, and scientific disciplines and research organizations also examined minimal force options that included less-lethal (LL) technologies and issues as they related to the four topical themes. There were four distinct workshop sessions in which the delegates participated:

- Standardising and Codifying the Introduction and Use of New Technologies
- Hosting and Coordinating Major Public Events
- LLWs: The Moral Obligation and Economic Realities
- Behavioral Threat Assessment and Active Shooters

The major recommendations, which are detailed in the breakout session section of this report, fell into the following general categories and are summarized here:

- 1. Develop a General Framework for Introduction of New Less-Lethal Technologies. Those involved in the scientific and engineering support to the law enforcement community must work to gain support for the new technologies both domestically and internationally. They must ensure that the policing operational requirements are widely known to industry. Independent testing (separate of manufacturers) must be accomplished. Finally, there needs to be a continued effort to share data and information between nations.
- 2. Ensure More Active Coordination for Major Public Events. The Group considering this issue focused on two areas: Preventing crime and civil disorder at these events, and developing policing capabilities in general, but yet specifically for major events. In the first instance, the recommendations were provided in a set of none (9) requirements, ranging from understanding to shaping and influencing the event. They also advocated for the more active engagement of community and event leaders. In the area of policing capabilities, the Group recommended four (4) stages which included identifying operational requirements and needs. They also stated that specific solutions to those needs and new tactics and techniques should be aggressively made a part of training.
- 3. Address the Moral Obligations and Economics of Less-Lethal Technologies. The recommendations fell into six general areas which included education of police leadership and the public, both domestically and internationally. It also identified the need to integrate minimal force options into risk management, and again, advocated the active sharing of resources and information across police services.
- 4. Embrace Behavioral Threat Assessment to Preempt and Prevent Active Shooter Incidents. The recommendations in this area centered on more effective communications among all the key stakeholders (educators, police, parents, administrators). The Group also went on to support the concept of school resource officers, more expansive behavioral modeling and profiling, improved school safety planning and training, and proactive Media relationships.

Introduction

Background

The origin of the International Law Enforcement Forum can be traced to the 1999 when the Independent Commission on Policing in Northern Ireland attended a meeting hosted by the Los Angeles Sheriff's Department and the Pennsylvania State University. The Commission consisting of international experts in policing reform was chaired by The Right Honourable Mr. Chris Patten who had been appointed by the UK Government. Mr Patten, a former UK government Minister and more latterly the former Governor of Hong Kong. From 1998 to 1999, The Independent Commission on Policing for Northern Ireland, better known as the Patten Commission, created as a result of the 1998 Belfast Agreement. In 1999, the Commission produced its report, entitled *A New Beginning: Policing in Northern Ireland* (this report led to the renaming of the Royal Ulster Constabulary as the Police Service of Northern Ireland and in major changes in the policing oversight structure, made major recommendations in respect of all areas of policing). At the meeting in Los Angeles, it became evident that the development and use of less-lethal technologies, as well as, minimum force options for police, was an issue of international concern and under investment in terms of research that could benefit from the advice of various subject matter experts.

The need for such a Forum was again recognized the following year at a Jane's conference on Less-Lethal Weapons in Edinburgh, Scotland. In a meeting between then-Royal Ulster Constabulary's Colin Burrows QPM, Head of Operations, who was also working with the UK's Association of Chief Police Officers on issues associated with use of force, firearms and les lethal weapons, and Penn State's Dr. John Leathers, it was agreed that there would be merit in bringing together UK and North American police practitioners and policy makers to rethink and promote effective and acceptable less-lethal and minimum force options.

A small group established an advisory group, as well as, planned and coordinated the initial meeting. This meeting was further facilitated by Marine Corps Colonel Andy Mazzara USMC (Retired), head of the Institute for Non-Lethal Defense Technologies (<u>http://www.nldt.org</u>) at the Applied Research Laboratory at Penn State University. Through this Institute, Penn State supported the Joint Non-lethal Weapons Directorate within the U.S. Department of Defense, as well as, developed and maintained contacts with U.S. Law enforcement.

In April 2001, a small group of U.S. and UK personnel, active in researching and developing police use of less-lethal technologies, gathered at Penn State University. This meeting confirmed the need for sharing best practices, working through principles associated with minimal force options and capturing common operational requirements. It was here that the International Law Enforcement Forum on Minimal Force Options came into being.

In October 2002, the International Law Enforcement Forum convened again at Penn State University. It identified several requirements, the more urgent being:

- Development of a less-lethal weapon/technology database
- Development of an injury database
- Characterization of operational needs
- Development of standards for development, testing, and training

These recommendations had an impact. Shortly after this meeting, a summary of the Forum's proceedings and recommendations were included in the December 2002, Phase Three Report on Recommendations 69 and 70 (Patten Report) on public order equipment, by the UK Steering Group chaired by the Northern Ireland Office, consulting with the Association of Chief Police Officers. The report set out a related program by the UK Government which was more detailed and more wide-ranging than any other, and in doing so, it highlighted the importance of the International Law Enforcement Forum.

The UK steering group's fourth report also referenced International Law Enforcement Forum and its ongoing work to develop international standards for testing and training. This work also paralleled another program and involved the UK's Home Office, Ministry of Defence, and Association of Chief Police Officers, coordinated by the Northern Ireland Office, pursuing Recommendations 69 and 70 relating to the research and development of less-lethal options.

In 2004, the International Law Enforcement Forum's third meeting was held in the UK, hosted by the Association of Chief Police Officers and the Police Scientific Development Branch. Delegates were those with expertise in less-lethal technologies, their applications and their effects. This included law enforcement practitioners, as well as, policymakers, researchers, and medical experts. Together, they examined requirements regarding:

- Capabilities
- Medical assessments
- Information sharing
- Common standards for less-lethal weapons development, testing, training and use

The 2004 meeting also held a session with research and evaluation organizations, police oversight bodies, academic and political research groups, government departments and non-governmental organizations. The resulting engagement promoted a greater appreciation for the issues and concerns surrounding the use of less-lethal technologies.

Under the auspices of International Law Enforcement Forum, a delegation from the UK visited Washington, DC in August 2004 to discuss matters on less-lethal technologies. An objective was to peer-review the UK Steering Group's alternative approaches to conflict management and less-lethal weapons development. This was done with assistance from Penn State University and key American personnel

within the International Law Enforcement Forum. This peer-review concluded that the UK's approach should serve as the basis for an international approach to conflict management and less-lethal weapons development. Additionally, this peer-review demonstrated the utility of the Forum's network of subject matter experts who could readily:

- Share information
- Develop best practices
- Assess new technologies

In 2005, the fourth meeting of the International Law Enforcement Forum was hosted by the Royal Canadian Mounted Police in Ottawa. It brought together those involved in the development, use, monitoring and policy formulation related to less-lethal technologies. This included representatives from the UK, U.S., Canada, New Zealand, and Sweden. Delegates pursued recommendations advanced in the previous meeting. They also engaged in sessions with manufacturers and distributors of less-lethal weapons, promoting a greater understanding in this area between public and private sectors.

In 2006, the International Law Enforcement Forum conducted its fifth meeting in the Washington, DC area, hosted by the Washington DC Metropolitan Police in Fairfax, Virginia, with representatives from all previously mentioned countries. Delegates examined best practices for:

- Controlling aggressive individuals
- Maintaining public order
- Conducted energy devices and less-lethal applications
- Counter-terrorism issues

In 2008, the sixth International Law Enforcement Forum was held in Orlando, Florida, focused on lesslethal technologies in terrorist events. Forum delegates were joined by military professionals from Canada, the UK and U.S., who provided updates on technologies and tactics used in counter-terrorist actions. Also, senior officials involved with recent school safety and active shooter incidents provided related updates. These and other subjects were discussed in eight breakout sessions, resulting in recommendations provided in the Forum's report.

The Seventh International Law Enforcement Forum was held in the UK, hosted by the National Policing Improvements Agency (NPIA) at the Police Staff College in Bramshill. The meeting once again brought together experts in less-lethal technologies and minimum force options from the previously mentioned countries. This forum examined issues relating to the policing of large-scale public events, as well as, the relevance of less-lethal technologies and minimum force options to them. The Forum's recommendations were again provided in its report.

Benefits - International Law Enforcement Forum: The Value-Added

In its 9 May 2011 meeting, the ILEF Advisory Board determined the following to be the Forum's valueadded to the international law enforcement community:

Providing a Forum for Best Practices: While law enforcement agencies are autonomous entities, they face common problems. ILEF provides a "strategic window," allowing participants to view other agencies and nations' best practices, which would otherwise remain stove-piped.

Advancing Appropriate and Effective Minimal Force Options: Such force is ILEF's foremost focus. It is key to preserving human rights and maintaining public respect in democracies, as well as, in countries undergoing political change. After Irish law enforcement changed the aiming point for less lethal baton rounds from center of chest to belt buckle, ILEF participants proposed the same for US agencies, reducing fatalities.

Promoting Commonality: Law enforcement agencies face threats, greater than their internal capabilities, as evidenced by 9/11, Mumbai attacks, and repeated active shooters in the UK and US. Addressing these threats requires external reinforcements, necessitating common understandings, terms and practices, which ILEF pursues and promotes.

Meeting a Need: While nations' militaries have long used frameworks and forums to share best practices, the same did not exist previously for nation's law enforcement agencies. ILEF enables such information sharing. To date, no comparative international forum exists.

Model for Others: Since ILEF's inception, the Canadian Law Enforcement Forum has been established, enabling information sharing across Canada's jurisdictional boundaries. An effort has been made to establish a similar forum among law enforcement agencies in Latin America.

Network of Experts: ILEF enables participants to access other agencies' expertise in several areas: tactics, operations, intelligence, policies, medicine, command and control and technologies.

Open Examination of Issues: ILEF is not aligned with a particular agency. It also maintains an informal process. Thus, participants are able to more freely address issues, with emphasis on reduced parochialism.

Multi-level and Interdisciplinary Review of Issues: ILEF participants include police practitioners, policy makers, scientists, engineers, researchers, and medical personnel. Together, they examine complex, multi-faceted issues, in pursuit of multi-disciplinary approaches.

Proceedings

International Law Enforcement Forum, Day One

Welcome: Strategic Threats & Critical Incident Response – The Challenge, presented by Colin Burrows, Chair, International Law Enforcement Forum: "We are very grateful to the hosting organizations, the Justice Institute of British Columbia and the Vancouver Police Department," stated Mr. Burrows. "We are also grateful to those who had made this year's Forum possible, to include The Pennsylvania State University, U.S. National Institute of Justice, and the UK's Association of Chief Police Officers."

"It is particularly fitting to meet in Vancouver," further stated Mr. Burrows. Very real support and contributions were made by Canadian Law enforcement agencies, to include the Canadian Police Research Centre, Canadian Chief of Police Association, Royal Canadian Mounted Police (RCMP), and Canadian law enforcement departments. Notably, Sergeant Joel Johnston of the Vancouver Police Department and RCMP Sergeant Bruce Stewart did much to make this meeting possible. The International Law Enforcement Forum also benefited from medical input from Canadian researcher and emergency physician, Dr. Christine Hall. Additionally, "it is very important that we capture the experience and lessons gained by the Vancouver Police in their policing of the 2010 Olympic and Paralympics Winter Games," stated Mr. Burrows.



Mr. Burrows reflected on his arrival at Vancouver's International Airport. A waterfall flows through the airport, with a walkway marked by totem poles and bronze sculptures. Its impressive architecture serves as a gateway to the British Columbian experience. It is a place of outstanding natural beauty, surrounding a modern, multicultural, thriving metropolis, with all its challenges for law enforcement.

"In walking through the airport, I and others also replay the images vividly captured on closed circuit TV of the "Tasing" of Robert Dziekański in October 2007," stated Mr. Burrows. The debate surrounding his death and the report of Braidwood Commissions of Inquiry had an impact far beyond Canada. The ongoing debates and speculation about the cause of death, appropriateness of the action, the lessons learned still play out, not just for the RCMP and Canadian police officers, but for others across the world. "We do indeed live in a global village," stated Mr. Burrows.

Robert Dziekański's death highlighted the reality that a less-lethal use of force option can have fatal consequences, as well as, can become a critical incident itself. This is a reality which those of us in law

enforcement have laboured with from the start. There is a need to look for the underlying causes of deaths, explore and understand medical conditions which increase risk, and understand the issues associated with less-lethal weapons' effectiveness and limitations.

The importance of the International Law Enforcement is that it brings together professionals from a broad range of backgrounds -- medical, legal, policy, operations, and science and technology -- to address difficult questions relating to use of force, particularly less-lethal options. "We embrace the opportunity, not just to network, but to contribute," stated Mr. Burrows.

This conference sought to address *Strategic Threats & Critical Incident Response – The Challenge.* "When the title was considered, no one foresaw the recent international event, in which special operations resulted in Osama Bin Laden's death," stated Mr. Burrows. Issues associated with such operations lay outside the remit of the Forum, and, of course, are not associated with less-lethal force. However, the issues associated with operational responses, made in the presence of real and present danger and with consequences, are ones which law enforcement officers meet daily. For law enforcement, there is a parallel in the media-dominating image of the U.S. president and his national security team in the White House Situation Room, May 1, 2011.



The expressions, emotions evoked and mood reflect the reality of what took place in that room. "Is it very different in terms of what law enforcement officers experience in a command room when a fatality occurs," asked Mr. Burrows. "And what of the response?"

- President Barack Obama: "We Got him"
- Canadian Prime Minister Stephen Harper, speaking here in British Columbia said: "Canada receives the news of the death of Osama bin Laden with sober satisfaction"
- United Kingdom Prime Minister, David Cameron went further, stating, "I think the operation was completely justified, lawful and right"

In their writings on policing, Peter Scharf and Arnold Binder point out that use of lethal force is both

bewildering and awesome in its consequence. That is true, whether a foreseeable outcome results from use of lethal force, or an unintended consequence comes from less-lethal use.

"I have interviewed well over one hundred officers and military personnel who had taken a life in their duties," stated Mr. Burrows. "Whilst circumstances varied greatly for each, taking a life was a lifechanging experience. Use of force also goes way beyond that of pure legality. It must be in keeping with Prime Minister Cameron's words: 'justified, lawful and right.' Rightness of an action is determined by the extent to which the officer(s), police department and community consider the action to be appropriate. The pillars of acceptability and effectiveness are central to the work of the International Law Enforcement Forum."

Mr. Burrows further stated, "It is in this context that it is important that we discuss issues related to lesslethal options and how they might be used to meet strategic threats and respond to critical incidents. Part of the challenge is to understand and articulate the context in which police use force. This challenge also entails being aware of emerging and existing less-lethal technology and weapon systems."

This year's Forum also focused on promoting common standards for testing and evaluation, identifying medical implications, and risks associated with using certain categories of less-lethal technologies. "It was this Forum that provided an opportunity to pursue common approaches to less-lethal technology and use, which were evidenced-based and international peer-reviewed," stated Mr. Burrows. This was done utilising Forum membership which is multi-disciplinary and varied in background.

Additionally, this year's Forum, again, engaged human rights groups, established to help protect, promote and safeguard rights for vulnerable groups. As in previous years, proceedings, findings and recommendation are published to ensure they are internationally available.

In addessing such issues, stated Mr. Burrows, "We keep in mind the words of the 17th century French philosopher, Blaise Pascal: 'Law, without force, is impotent."At the same time, we must keep in mind that, 'force without guidance and control is promiscuous and dangerous,' as I once said."

"Law, without force, is impotent" --'<u>Blaise</u>Pascal ^{17th} Century "Force without guidance and control is promiscuous and dangerous" -- Colin Burrows 1992

"The International Law Enforcement Forum has a unique opportunity to influence the guidance and control measures written for officers, equipped with less-lethal weapons," stated Mr. Burrows. "This sharing of experiences and critical thinking help minimise, to the greatest extent possible, loss of life and trauma for all involved. Such work is of immense value in protecting our citizens and officers."

Host force address -- Policing the 2010 Winter Olympics by Chief Constable Jim Chu, Vancouver Police Department: Vancouver became the largest metropolitan area to host the Winter Olympics, with an unprecedented number of athletes, officials, and spectators. During this 15-day event, public protests and celebrations also occurred in the Vancouver area. Yet, "there were actually no incidents of note," said Chief Constable Chu. "There are three things I'll cover," as he also stated, "One is protection of the athletes and venues...but more time (will be spent) on the policing of the protests, as well as policing the Olympic celebrations."

Protecting Athletes and Venues: This was the primary responsibility of the Royal Canadian Mounted Police, or RCMP, Canada's national police force. It formed the Integrated Security Unit, consisting of not only RCMP, but also personnel from other organizations, such as the Vancouver police. The Unit also worked with the Canadian Armed Forces, which aided security, particularly for Nordic events in the backcountry.

The Unit provided security for competition venues, key personnel and several Olympic-related sites. Security commanders were designated for venues. For example, a Vancouver police officer commanded security for the curling rink and events, with a Royal Canadian Mounted Police officer, second-in-charge. For such venues as the hockey stadium and ski hills, the Unit created airport-style screening checkpoints for staff and spectators and set up perimeter detection systems and closed-circuit television cameras. The Unit also was responsible for athlete transportation security and internationally protected persons. Additionally, the Unit oversaw security at the athletes' villages, media center, and Vancouver International Airport.

More than 6,000 police officers, 4,500 private security personnel, and 4,000 Canadian military provided Olympic security, costing about \$540 million.

Policing Protests: This was the responsibility of the Vancouver Police Department. "It is very important to learn from past experiences, especially when things don't go well," stated Chief Constable Chu. "In Vancouver, we have had our share of problem events," referring to the 1997 Vancouver Asia Pacific Economic Conference. The Vancouver police also learned from others' experiences, such as the World Trade Organization's 1999 meeting where nearby protests turned into the "Battle in Seattle," as well as the 2001 Quebec City Summit of the Americas riots.

In these cases, "police were battling the protesters" commented Chief Constable Chu. "The focus became not the event itself, but the clash between the protesters and the police." Instead, the Vancouver police support the right to protest, in keeping with the Canadian Constitution, guaranteeing freedom of assembly, thought, religion, and expression. "Overall, the VPD has a strong track record of facilitating lawful protests," stated Chief Constable Chu, with approximately three protests per week occurring in Vancouver.

Signs of coming protests were seen well in advance of the Winter Olympics. Because of their reported costs, some "protesters were very vocal, and very much against the Winter Olympics," stated Chief Constable Chu, showing up at the unveiling of the Olympic clock, which timed down the games' start,

still years away. At City Hall's raising of Olympic flags, protestors shouted down a children's choir and stole the flags the next day, challenging authorities via the internet to find them. Additionally, media, as well as, police intelligence reported that other activists "wanted to use the Olympics as a platform to highlight their causes," Chief Constable Chu pointed out.

"During the lead-up to the games," Chief Constable Chu said, "activist groups in Vancouver made public accusations that Vancouver police would cleanse the city and suppress dissent by:

- Sweeping the streets clear of the mentally ill and poor people,
- Kidnapping homeless people and shipping them out of town,
- Kicking in doors to take signs critical of the Olympics
- Beating and arresting protesters."

"Anything that we did, or didn't announce, was seized upon by the activists as an example of how the police were going to suppress civil rights." As Chief Constable Chu also said, "To counter these allegations, senior police officers from the VPD and the ISU went on public record and met with these groups to reiterate that the right to protest, which is guaranteed under Canadian law, would be upheld by the police and that no special measures to sweep the streets would occur. The activist groups remained relentless with their condemnations of the police, and the news media reported on these criticisms."

"It is really important as police not to demonize protesters," stated Chief Constable Chu. In a video of a protest group, he pointed out an individual who was the high scoring basketball player at Chief Constable Chu's high school. "I got to know him over the years. His wife actually coached my daughter in softball. She is a professor of theology at the University of British Columbia."

"The point I'm drawing here is this," emphasized Chief Constable Chu, "there are many people who believe they can change the world, they can change society for the better by protesting. They believe in peaceful protest. They think they are Rosa Parks on a bus in Alabama. They think they are Martin Luther King or Mahatma Gandhi." He also added, "yes, we do have anarchists. We have them in our crowds and they are intent on committing destruction and they want violence. But, the majority of the people think they are changing the world."

On the day of the opening ceremony, February 12, 2010, a protest group of 2,000 assembled at the art gallery in downtown Vancouver. "This crowd meandered its way through the city streets," according to Chief Constable Chu. "One of the leaders told us, at a certain street he was going back to the art gallery. We thought, 'what a relief,' but, instead of going west, he went east, right to the opening ceremony." This was where buses were unloading VIPs such as Governor Arnold Schwarzenegger, Vice President Joe Biden, and others, all arriving for the opening ceremony.

As the protest group got closer to the opening ceremony, "we said we've got to hold some ground," stated Chief Constable Chu. "A preplanned decision was made that the opening ceremony would not be

interrupted. The proverbial 'line in the sand' was drawn on the street outside the stadium filled with 60,000 spectators and athletes."



Vancouver Police "line in the sand" at the Winter Olympics opening http://www.flickr.com/photos/nobarriersphotography/4353979015/sizes/m/in/photostream/

Police took a low key approach to this line. "The protesters were stopped by 350 officers from the VPD and the ISU/RCMP," explained Chief Constable Chu, "who locked arms and would not let the crowd move closer to the stadium. They were backed by officers on horseback and arrest teams. The CCU (Crowd Control Unit) commander deployed his officers in soft hats without face shields." This deployment was the commander's decision, based on intelligence "that if you fight them the first night, you will fight them the rest of the Olympic games."

"This large crowd surged several times," said Chief Constable Chu, "but the police line held."

The group's composition became apparent. Many sought peaceful expression of personal beliefs, to include Native Indian elders, seniors against poverty, and environmentalists. There were also about 100 anarchists and criminals, wearing masks – termed "Black Bloc" technique -- making identification difficult. Anarchists spat on frontline officers, threw barricades and tried to incite group violence by shouting, "The police are beating the elders!"

These officers, however, demonstrated "a tremendous amount of restraint," Chief Constable Chu commented. This was also reported by 53-year-old, protestor, Shena Meadowcroft, who opposed government spending on the Olympics. In her email to the Chief Constable, she stated:

"I myself spent the better part of an hour or more face-to-face with several police officers. I will never forget how extraordinarily well I was treated by them. I wish that I could personally thank each and every one of the police officers who showed the utmost concern to my well-being that

night. I was continually offered an opportunity to leave, and when I expressed my need to remain where I was, my needs were respected. Even while there was intense pushing and shoving on both sides, several of the officers kept asking me if I was OK.

Your officers were continuously insulted and spat upon, screamed at. At no time did I see any of them respond with anything but civility and politeness. What I can say is that no one deserves the continual berating and harassment, obscenities and personal attacks that these officers were subject to that night."

"The night ended peacefully," Chief Constable Chu emphasized. "There was only one arrest; no protesters were injured, although two police officers had minor injuries. The news media reported on the exceptional restraint shown by the police."

While this was good enough for legitimate protesters, "that wasn't good enough for the anarchists," stated Chief Constable Chu. Twelve hours later, a smaller group of masked anarchists initiated the "heart attack" march, intended to clog Vancouver's streets by damaging cars, smashing windows, and harassing personnel. This time the Vancouver police' Crowd Control Unit deployed with batons, face shields, and lethal force options, and made arrests.



"Heart attack" marchers confronted by Vancouver Police, February 13, 2010 http://www2.macleans.ca/2010/02/13/cops-divide-protesters-and-conquer-them/

"That was the turning point of the Olympics," according to the Chief Constable. "Because of the restraint that we exercised, and because of public sentiment saying these criminals are engaging in destruction on the streets of Vancouver, public opinion swung way over on the side of the Vancouver Police Department. We were getting accolades." Chief Constable Chu further stated, "from that point on, the media shifted over to the athletes..."

Policing Olympic Celebrations: This was also the responsibility of the Vancouver Police Department, which again learned from past experiences.

"In Vancouver, we've had problems with sports celebrations," said Chief Constable Chu, referring to the riots that occurred when Vancouver Canucks hockey team made the 1994 Stanley Cup play-offs. Then a sergeant in charge of a patrol team, Chief Constable Chu related: "I could see windows being smashed. I could see fights. I could see assaults. I could see public drinking. We do not have enough officers to deal with the situation." He also stated, "in those days, the thinking was the Crowd Control Unit, the riot squad, would hide away in the church basement. When the riot broke out, that's when you would bring them out and deal with the situation, of course, after it all broke loose." Also, "part of policing celebratory crows relates to our entertainment district," Chief Constable Chu went on, referring to the area around Vancouver's Granville Street. "When it first opened up and added liquor seats, it was fight night. It was a real problem for Vancouver police to handle."

For celebrations occurring in the Granville's Entertainment District during the Winter Olympics, "We adopted a 'head them off at the pass' strategy," commented Chief Constable Chu. Police were at all transit points leading into the area and seizing any liquor being carried into the area. "If you were friendly, we would dump it out," stated Chief Constable Chu. "If you were obnoxious, you would get a ticket and possibly arrested for being drunk in public. Also, police secured authorization for liquor stores to close on certain nights to prevent personnel from replenishing liquor.



Canadian hockey fans celebrate Canada's 3 -2 overtime gold medal hockey victory at the corner of Robson and Granville Streets in downtown Vancouver. (http://sports.ca.msn.com/olympics/article.aspx?cp-documentid=23555947)

Police officers moved through crowds using a "meet and greet" strategy, proactively and positively influencing behaviors. Officers also posed for pictures with individuals and families. These police actions continued through the last day of the Olympics, when Canada's team won the gold medal for hockey. "I've never seen a crowd like that," Chief Constable Chu said. Celebrations lasted from three o'clock in the afternoon, until five o'clock the next morning. Yet, the only incident occurred at 4:30 the next

morning when police arrested a drunken individual who went through the plate window of a convenience store.

Major Lessons Learned During the Games: These were summarized by Chief Constable Chu:

- Ensure clear division of responsibility: This was done by the Integrated Security Unit for the Olympics' many and often overlapping events, issues and assets.
- Don't give protesters reason to hate police: Legitimate protests have helped address injustices. Thus, police should facilitate freedom of expression and arrest only when criminal acts occur.
- Create balanced crowd dynamics: Encouraging people of all ages and backgrounds to participate in events can make hooliganism look inappropriate, as well as, help police it.
- Training is critical: This was seen in the patience and discipline of the Vancouver Police Crowd Control Unit's on the opening night, which became the turning point in policing the games.
- Discourage festival seating: This is seating for special performers. It results in frustrated concertgoers not gaining admission and police providing security inside and outside the venue.
- Meet and greet people: This was done by police, making eye contact with visitors in Vancouver's entertainment district and using a relaxed approach to calm situations.
- Prepare for unexpected: The VPD and the ISU were able shift resources to meet emergent needs because police agencies anticipated changing dynamics and were able to work together.
- Set reasonable boundaries on behavior: This occurred with consuming liquor in public areas. Balance between enforcement and warnings can keep a crowd in check and create goodwill.
- Lead your staff: Leaders must see situations firsthand. Police also must see their leaders. Fatigue and impatience were a concern, and frequent sightings of leaders helped morale.

For more information on Vancouver Police Department's efforts during the 2010 Winter Olympics see "An Olympic Medal for Policing: Lessons and Experiences from the Vancouver 2010 Winter Olympics" by Chief Constable Jim Chu, *The Police Chief*, September 2010,

http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=2198&is sue_id=92010

INTERNATIONAL PRESENTATIONS ON LESS-LETHAL TECHNOLOGIES

Canada Technology Update from Canadian Police Research Centre Update by Steve Palmer: Steve Palmer began by saying this was his third address to ILEF, during which he has provided updates on what is being done at the Canadian Police Research Centre. He referred to the recent successes of the Vancouver Police Department during the Winter Olympics and stated that recently Canada was judged to be the "2nd happiest country in the world." He jokingly attempted to explain that title and the reasons for their happiness. Mr. Palmer's talk then centered around Canada, the Canadian Police Research Centre (CPRC), their projects and possible opportunities going forward for collaboration.

The CPRC has been operating for over 30 years always with a goal of harnessing technologies and knowledge for the benefit of the police, fire and emergency medical services in Canada. While the organization started in 1979, it became a formal program in 2007, given a budget, and became part of the Defense Research Development Canada in close partnership with Public Safety Canada. Mr. Palmer talked about the broad mandate they had to identify and provide the best equipment, and best information, for the supported communities.

Mr. Palmer talked about the many challenges facing the Centre which were characterized by a large breadth of technologies for which unfortunately there was not a large depth of expertise. He stated how necessary it was to develop and encourage the necessary researchers to join and become part of their organization. He spoke as to how when new researchers did begin work, they were often surprised by the "newness" of most of their work, and often stayed on because of that.

Mr. Palmer explained how the Public Safety Sector in Canada was divided into police, fire and emergency medical services. He then described each of the services and the challenges they faced with operating in often sparsely-populated wide-open spaces across country. For a population of over 35 million, Canada had 230 police services divided among 10 provinces and 3 territories. They had 3500 fire services of which most were volunteer organizations. Canada also had roughly 30,000 professionals working in the emergency medical services. Across the country, their police services ranged from some of the largest departments in North America to very small, rural ones.

He then continued to talk specifically about some of the project work that CPRC was involved in. Addressing the questions, "Are we there yet?" and, "Where is there?", Mr. Palmer described their efforts in the area of less-lethal weapons, namely conducted energy weapons (CEWs), or Tasers as many call them, that have been going on for the better part of a decade. Their focus has been on testing procedures, medical characteristics and long-term analysis of test data and trends. This very significant imitative for the Centre has worked to better understand an effective approval process and obtain more insight into the life cycle characteristics of these technologies. He used the example of the recent incident at the Vancouver airport to suggest that the Centre (and others) needed to get a handle on these type of incidents and how best to respond.

Mr. Palmer then talked at length about the CEW test procedure development and the series of meetings with key people and other organizations concerning the best approach to testing these CEW devices in

comparison to what the manufacturer has stated. He then discussed their work evaluating the new XRep device. He emphasized the collaboration with the Home Office (Graham Smith) and NIJ (Joe Ceconni) in determining the best methods for evaluation. He then went on to discuss the threats and risks facing law enforcement in this area of technologies.

CPRC has also been very involved with protective equipment, including soft body armor testing, in conjunction with numerous police services, and the U.S. CPRC is working to understand and characterize the degradation of performance relative to the age of the vests. The results have been surprising in that there does not appear to be a lot of degradation regardless of the age of the vest. Manufacturers tend to focus on the 5-year mark for vest replacement. There was an analysis of fibers in the vest after repeated impacts. This evaluation was done with the support of NIST (U.S. National Institute for Standards and Testing). Again, there did not appear to be significant trends or concerns with vest safety. They are continuing to evaluate the long-term effects of varying aspects of age on vest protective qualities, including as much field data as they can obtain. Canine vests are also being assessed for several different environments.

Mr. Palmer describe their work with Dr. Christine Hall (Vancouver) on the outcomes of use of force which is based on several years of field data. Injury levels, suspect behavior, the influence and effect of drugs and alcohol are all being studied and assessed in order to provide the police services the best possible information to better perform their jobs. Mr. Palmer emphasized again the value of international cooperation and collaboration between the U.S., Canada and the UK evidenced in and supported by events such as the ILEF workshop.

Mr. Palmer stated that they were using simulation models to analyze intersection clearance for the RCMP and other police services in support of pursuit operations. He talked about unmanned aerial vehicles and their efforts to develop practices and procedures to ensure proper licensing and operations. In some of the other collaborative efforts, Mr. Palmer explained their work with dazzling lasers drawing on information from both the UK and U.S. Their interest is in the resulting legislative actions in other countries to regulate these technologies. He closed by promoting the North American Technologies Demonstration (NATD) schedule for the following October in Ottawa which was a bilateral event and would showcase various less-lethal weapons and devices.

UK Technology and Tactics Update from Home Office Scientific Development Branch by Graham Smith: Mr. Graham Smith explained that his intention was to provide an update on one particular lesslethal weapon in the UK, but he wished to first review what HOSDB (Home Office Science Development Branch) was and what they do. He mentioned that he has been involved with several other less-lethal systems that have all been developed over the lifespan of ILEF. Mr. Smith himself has been an active ILEF participant since its start in 2001. He stated that the UK found ILEF very helpful in the development of guidelines for the use of these systems in the UK drawing on the experience with their use in other countries. The HOSDB recently changed its name to the Home Office Centre for Applied Science and Technologies (HOCAST). They are an independent organization within the government that has no commercial interests. The results of their work are therefore impartial and objective.

Mr. Smith then began reviewing incapacitant sprays. Every officer in the UK carries an incapacitant spray, either PAVA or CS, which is up to the discretion of the local police authority. It is HOCAST's responsibility to provide the police services with information relative to cross-contamination. They also assess the spray's ability to discriminate, their durability, and other aspects of the device so that they can ensure the police that they will work as expected in the field. The 2nd weapon system is the Taser X26 for which they supported the introduction. While they do not have a standard, they did numerous tests to ensure the weapons were ready for use across the UK. Although they do not have a standard, they do have a test protocol which they can use if their is a death or unexpected event with regard to employing the device.

The third weapon system that Mr. Smith presented was the AEP (Attenuating Energy Projectile) which is only used by firearms officers (10-12,000) in the UK. He then showed a short video before explaining how the munitions have been used over the previous 6 years. The objective was to make this particular less-lethal weapon safer and more effective. Attention was placed on the accuracy and consistency of firing the AEP to ensure against hitting the target in areas where there is more risk of serious injury or death, "designed to save lives, not take lives." To support its introduction, it was peered review by ILEF. Mr. Smith then showed several demographics relative to its use comparing it to Taser use. AEP works out to 20 metres and beyond as opposed to the much shorter 21 feet restriction of the Taser. The data demonstrated the ability to achieve successful outcomes with the round in several different scenarios from both an effectiveness and injury analysis.

Mr. Smith closed with a description of several specific incidents, the first involving a suspect with a firearm who was taken down with the AEP which saved the individual's life since a lethal weapon was close to being employed to resolve the situation. The 2nd incident involved several calls concerning a possible "suicide by cop" event developing. The individual was walking toward a news agent and there was an increasing threat to the public. From about 10 metres, the man was hit by the AEP, falling to the ground. The man thought he had been shot, and the situation was successfully resolved without deadly force. Finally, a third incident also showed how the AEP was employed effectively allowing the incident to be successfully resolved without the suspect or anyone else becoming a fatality. He thanked ILEF for the significant help provided over the year for the effective introduction of new systems into the UK police services.

Update on Taser XREP by Dr. Cindy Bir, Wayne State University: This less-lethal munition was recently released by Taser International. It is a 12 gauge projectile, which, according to Taser, can be fired by a shotgun to a range of 100 feet (30.48 meters), and upon impacting an individual, produces a Taser-like, neuro muscular incapacitation for a 20-second duration. (See http://www.taser.com/products/military/taser-xrep).



XREP Projectile, with stabilizing fins and electrodes deployed after launch (from http://www.taser.com/products/military/taser-xrep)



XREP breaks into two tethered parts (from Bir Brief)

Unlike a hand-held Taser, though, the XREP is wireless/untethered and a self-contained projectile. The projectile's nose has four barbed electrodes that attach to the body upon impact. Also upon impact, the projectile breaks into two parts. One is the nose assemble, which is attached to the individual. The other part is the projectile's chassis, which is tethered to the nose. The charge can be delivered across the nose assembly's electrodes. It also may be delivered via the nose assembly's electrodes and rearward barbs. Additionally, as the chassis falls away, six electrodes automatically deploy and may deliver the charge over a greater body mass.

Researchers at Wayne State University are characterizing the XREP as the result of a tripartite agreement by:

- Canadian Police Research Centre
- United Kingdom's Home Office Scientific Development Branch
- United States' National Institute of Justice



All fired rounds were fired using a computer controlled, laser-sighted X12 in a gun vise. (From Bir brief)

At the time of the forum, the XREP characterization was in progress and reported by Dr. Bir as follows:

In Flight Aerodynamics: Using high speed video – 20,000 f/p/s -- pitch and spin rates were measured at the muzzle, as well as, at 5, 7.5, 10, 12, 15 and 20 meters. Velocities had been measured at 3, 8, 13 and 18 meters.

Accuracy and Precision: A circle of precision as been determined, using 40 rounds, fired at ranges of 5, 10, 15 and 20 meters (ten at each distance). Velocities were recorded two meters from targets.

Risk of Blunt Trauma: This has been done, firing 10 rounds at a mechanical model of human ribs, at a range of ten meters. These tests measured rib deflection, with results matched to previously established injury criteria.

Training Rounds: Circle of precision has been measured, firing 5, 10, 15 and 20 meters (ten at each distance). Velocities were measured at two meters from the targets.

Risk of Penetration: This has been assessed, firing ten rounds at ranges of two and five meters. Penetration risks were determined against a target with foam plus chamois and ordnance gelatin.

The electrical output, the durability of the round, the affects of temperature on accurac, and the chracateristics of the Cholla electrode deployments are still to be dtermined during follow-on research.

U.S. Technology Update from National Institute of Justice, by LTC Edward Hughes, U.S. Army (Retired): This was presented for NIJ's Mr. Joe Cecconi by Lieutenant Colonel Ed Hughes from Pennsylvania State University's Institute for Non-Lethal Defense Technologies. This presentation summary was also based on transcript of Mr. Cecconi's same program brief to Human Effects Advisory Panel (HEAP) on Less-lethal Incident Monitoring System, 27 April 2011.

As background, the National Institute of Justice is the U.S. Department of Justice's research, development and evaluation agency, dedicated to improving knowledge and understanding of crime

and justice issues through science. NIJ provides objective and independent knowledge and tools to reduce crime and promote justice, particularly at the state and local levels. (For more information on NIJ see http://www.nij.gov/about/welcome.htm) Within in NIJ, is the Office of Science and Technology, in which Mr. Joe Cecconi serves as the less-lethal program manager and Senior Scientist, Directed Energy Research Programs.

The goal of NIJ's Less-lethal program is to reduce bad outcomes. As Mr. Cecconi has previously stated, "anything that reduces the probability of a bad outcome for police, bystanders, suspects is something I want to research." The program specifically views less-lethal systems as "devices which when compared to firearms, reduce the probability of a bad outcome for police, bystanders and suspects."

NIJs less-lethal research seeks to reduce bad outcomes by addressing two major questions:

- "Are we learning from our experiences?" as Mr. Cecconi has often stated. This research collects information on less-lethal incidents that have occurred.
- "What programs should we put in place to improve outcomes?" The answer is informed, to some degree, by research addressing the above question.

To address "are we learning from our experiences," NIJ implemented a pilot program called the "Lesslethal Incident Monitoring System" in 2005. It is based on other U.S. federal agencies investigation of incidents after-the-fact. For example, the U.S. National Traffic Safety Board investigates airline and train accidents to determine the causes so as to prevent them in the future.

The Less-lethal Incident Monitoring System involves law enforcement agencies, at selected locations across the U.S., collecting data on field uses of conducted energy devices, like Taser, as well as, less-lethal kinetic energy munitions. The number of agencies has varied between 6-8 and are considered representative of law enforcement across the U.S.. The data is forwarded to the system's center at Wake Forest University, where it is entered in a searchable database and analyzed. The overall process is reviewed by the Less-lethal Technologies Medical and Scientific Advisory Panel at Wayne State University in Detroit, Michigan.

The Less-Lethal Incident Monitoring System is helping NIJ and others learn from these experiences. Specifically, it is addressing, in part, the question stated by Mr. Cecconi: "What happens to the human when less-lethal (device) is used in the general population?" Previously, research had assessed less-lethal devices in animal tests and on human volunteers. However, as Mr. Cecconi had previously stated, "We wanted to get into the general population and find out how the general population reacted, as opposed to the 90 percent male that you typically find in these training programs."

At the time of the Forum, May 2011, the Less-Lethal Incident Monitoring System had collected over 2,000 reports on field uses of conducted energy devices and less-lethal kinetic energy munitions. Analysis has found that of all reported uses of less-lethal kinetic energy munitions, about 75 percent resulted in minor injuries and about 25 percent caused major injuries. Of all reported uses of conducted energy devices, almost 80 percent resulted in no injuries and a little over 20 percent caused only minor

injuries. Additionally, one study found that none of the reported uses of conducted energy devices resulted in a fatal dysrhythmia.

Additionally, the Less-Lethal Incident Monitoring System has helped address the question previously stated by Mr. Cecconi, "What treatment can we provide?" Specifically, it contributed to the paper, "What Evaluations Are Needed in Emergency Department Patients after a Tazer Device Activation" by Drs. Gary M. Vilke, Theodore C. Chan and William P. Bozeman, approved by the American Academy of Emergency Medicine Board of Directors, July 12 2010.

NIJ is requesting additional funding to continue the Less-lethal Incident Monitoring System.

"How do you introduce a new (less-lethal) device in the community?" is a question the NIJ is also addressing, as Mr. Cecconi has stated. NIJ has defined a process for this introduction, which is essentially as follows:

- Determining requirements for a less-lethal capability
- Finding a potential solution
- Funding development and testing of the solution
- Developing the solution
- Evaluating the solution for operational suitability
- Commercializing the solution
- Providing guidance and standards to agencies adopting the device



Another initiative aiding the introduction of new less-lethal devices is *A Guidebook for Less-lethal Devices: Planning for, Selecting, and Implementing Technology Solutions,* published March 2010. It provides law enforcement and corrections agencies with "considerations when acquiring such devices to meet operational needs." Specifically, it provides an overview of less-lethal technologies and a framework for program development. The publication was developed for NIJ by the Weapons & Protective Technology Center at the Pennsylvania State University.

Relevant to the introduction of new less-lethal devices, NIJ aided the installment of the Assault Intervention Device in Los Angeles Sheriff's

Department correctional facility. "We had the opportunity of, basically, repackaging the Active Denial System, a Department of Defense system," as Mr. Cecconi previously had stated. This system projects millimeter waves that rapidly heat skin, causing personnel to be repelled. Within the correctional facility, the Assault Intervention Device would be used to help stop fights. The repackaged system underwent extensive review for injury risks. Correctional personnel also were trained to operate the system.



Assault Intervention Device The system's use is pending approval by the U.S. Federal Communications Commission

NIJ also recently sponsored an examination of "Excited Delirium," believed related to chronic drug abuse and/or mental illness. This syndrome has come to characterize personnel who are naked, with high body temperatures, and acting agitated and destructive. Police report such individuals as being unresponsive to verbal directions. Attempts to restrain them have been met with seemingly superhuman resistance and some individuals have suddenly died during or after these struggles. Yet, skeptics argue that excited delirium can be used as an excuse for police brutality. A panel of experts was formed to assess excited delirium and sudden in-custody deaths. It also examined existing protocols, and identified research which might help mitigate this phenomenon. In brief, this panel provided indicators of excited delirium and recommended the following responses:

- Identify, observe, record, and communicate the indicators related to this syndrome handle primarily as a medical emergency.
- Control and/or restrain subject as soon as possible to reduce risks related to a prolonged struggle.
- Administer sedation as soon as possible. Consider calming measures. Remove unnecessary stimuli where possible, including lights/sirens.
- Transport -- take to hospital as soon as possible for full medical assessment and/or treatment.

European Working Group Summary and Swedish Technology Update from the Karolinska Institutet by Ulf Sundberg: Colonel Sundberg began by correcting the opening remarks that he was going to be presenting the work of the European Working Group (EWG). His presentation was also going to be talking about what Sweden had been doing in the area of non-lethal weapons and technologies. Mr. Sundberg stated that he no longer worked directly for the Swedish Defence Research Institute (FOI), but rather the Karolinska Institutet (KI), which is considered among the top 10 ranked medical research universities in the world. He spent 40 years as an artillery officer before he retired in 2000 and worked as a research advisor to the FOI. When he retired a second time from FOI, he started his work as a research advisor at KI.

It was during his time in active service with the Swedish Defense Research Institute that, in 1996, they first came in contact with the concept of non-lethal weapons and began to study them. It was about that time, that he met Dr. Klaus Thiel and after discussions about cooperative research, the idea of the

European Working Group became a reality. Now the organizations has representatives from Portugal, Italy, the UK, Netherlands, Germany, Switzerland, Sweden, Finland and Russia. Within a week of this workshop the European Working Group will hold its 6th symposium in Germany. They had done well to hold a symposium every 2nd year since it's inception.

In Sweden recently, they experienced their first suicide bomber. Fortunately, he was not very good, and there was no damage. Every year, Swedish police have seen 4 or 5 police firings that have killed emotionally disturbed individuals. The police have been asking for some time for additional tools or devices besides handguns to do their jobs more effectively. There are increased calls for better devices.

Their research focus in Sweden is on the human body and the direction they have been steering has been towards high power microwave (HPM) and blunt impact effects. Colonel Sundberg continued to present the various non-lethal weapons research efforts commenting that there was considerable exchange at the international level of test data and information concerning human effects. This was good. This type of exchange and initiative is not new, just a continued search for the truth.

Colonel Sundberg discussed Swedish efforts to better understand the effectiveness of various systems at both minimum and maximum ranges. He also said that their work continues to explore how best to simulate or model the human body. Some of the Swedish blunt impact testing of 40mm munitions, which are common to both the military and law enforcement, have been on pigs. They have also tested 65mm guns for which the focus was the heart.



Swedish researchers at the Karolinska Institutet doing blunt impact research on swine

Col Sundberg made an aside concerning their testing of body armor very similar to what Canada (Mr. Steve Palmer) had done. There were ongoing studies as the quality of the existing body armor as it was worn and aged. The results were also similar.

For their studies of the heart subjected to 40mm impacts, the tests indicated some changes in heart rate and arterial pressure. However, it did not appear from the testing that there was any significant effect or cause of physical damage or heart injuries. He said there were ways to better understand how to reduce or minimize the risks through the use of an artificial chest (model). backface impact forces could be measured. They were also considering use of a larger torso model that had been used in Canada.

Colonel Sundberg went on to explain their interest in and work investigating HPM which began shortly after the Active Denial System became public. He stated that Sweden was actively engaged with European partners, namely Spain and Italy, in the common development of military equipment, which included microwave technology. They have used older air radar systems to conduct testing on rats and have, so far, not identified any dangerous changes in cell structure. They are beginning to look more closely at genes.

Finally, in addition to the HPM studies, Sweden has been doing a careful analysis of blunt impact traumatic brain injury. Colonel Sundberg stated that in modern warfare, so many of the more serious injuries are to the head. He said they continue to study these injuries and ways to reduce them.

New Zealand Police Use of Force and Less-Lethal Tactical Options Initiative by Superintendent John Rivers: Superintendent Rivers began by emphasizing the importance of ILEF from a New Zealand Police perspective as well as the value they obtained from their relationship with the UK Home Office Scientific Development Branch (HOSDB). He stated that in his presentation he would be spending less time on science and more time on policing. He wanted to distinguish at the beginning the differences between the strategic and operational levels in New Zealand. In this regard, Superintendent Rivers mentioned that over the recent past New Zealand had devoted a lot of time and resources to updating strategic level capabilities, acquiring some very important and new systems.

The downside, as Superintendent Rivers pointed out, is the increased bureaucracy that accompanies this high level strategic capability build. This he says has taken away attention from the operational, or front-line, supervisors. The current thinking at the highest levels appears to be along the lines of "maximization of safety and minimization of risk" which has had a direct and not always positive effect on operational policing.

Superintendent Rivers went on to say that New Zealand Police (NZP) have put great emphasis on learning from other international police actions and decisions, such as the Braidwood Report from Canada. He then continued on reviewing several use of force issues which may have been adversely affected by top level prioritization. Moving to the efforts within NZP to enhance operational capabilities, he discussed several programs that ranged from risk assessment, command and control, less-lethal weaponry and firearms to police vehicles and lessons learned.

Superintendent Rivers described the benefits that accrued to the police from these various capability enhancement programs. He talked specifically about the need to build public trust and confidence. He covered efforts within the NZP to develop a more proactive community and stakeholder engagement

approach. He also spoke about the importance of evidence-based decision-making for both strategic and operational policing.

The formation of the Police Tactical Options Community Reference Group was explained by Rivers. He stated that it represented the police as well as civil rights and mental health groups. The establishment of this Reference Group provided the Police Commissioner what seemed to the public to be a "voice of reason" to support decisions that were ultimately made.

He then shifted focus to the impact of mental illness on community safety and how it is not just a police challenge, but a medical and social services issue as well. Superintendent Rivers stated that the mental health infrastructure in NZ was insufficient and incapable of monitoring and addressing the entire problem. As a result mentally ill persons were victimized when police are introduced into a situation that is really a mental health issue.

After reviewing several recent, key policing statistics, he highlighted the importance of communications. He then went on to discuss the subject of Use of Force in New Zealand from a best practices and accountability perspective. Again mental health issues seemed to rise up in significance when considering the problem and its associated corrective action and response for the police.

Superintendent Rivers summarized his presentation with continued emphasis on use of force statistics and the challenge of policing behaviors which are driven by mental illness. He specifically stated the need for a central repository for lessons learned at all levels. he closed his talk with some thoughts on police firearms access and availability, and the need for "old-style" techniques such as cordon and contain.

Governance of Less-Lethal Weapons – A UK Perspective by Chief Constable Ian Arundale, Dyfed-Powys Police: Chief Constable (CC) Arundale opened his presentation with a short film which highlighted some of the challenges UK police faced over the last 18 months. This included rioting in Northern Ireland, major events in England, and two active shooter situations, one in Cumbria and the other in Northumbria.

Mr. Arundale noted that over the past year and a half, several interesting challenges have developed for UK policing and relate to new and emerging trends involved with right wing demonstrations, soldiers returning from Iraq and Afghanistan, as well as activity by anti-war protests by Muslim fundamentalist groups. Introducing the main part of his presentation, Mr. Arundale indicated that he would present two very different active shooter incidents and discuss how the mental health issues involved were dealt with by both the police and the Media. He would also highlight how the agencies involved were guiding and manipulating the unfolding events (or not), often within a very collapsed period of time.

Chief Constable Arundale spoke first of the 2nd of June 2010 shooting spree, by a taxi driver, Derrick Bird. The series of attacks began in mid-morning (1000) in Lamplugh and moved to three different communities, sparking a major manhunt by the Cumbria Constabulary, with eventual support from Civil

Nuclear Constabulary officers. The victims included fellow taxi drivers, friends and relatives, and some he just came in contact with. There were 23 actual primary victims of which 12 were killed, and 11 considered attempted murders. The police had little time to respond or to get involved. Bird, a 52-year-old local taxi driver with financial problems, was later found dead in a forested area, having abandoned his vehicle in the village of Boot. Two weapons, a .22 rim fire rifle and a shotgun, that appeared to have been used in the shootings were recovered. Both weapons were lawfully held which is not unusual in the UK in these type incidents. There were 30 different crime scenes investigated, and police confirmed it was the worst shooting incident in Britain since the Dunblane massacre of 1996, in which 18 people died.

More often than not, these type incidents in the UK (and other countries) occur in the more quiet, more law-abiding, and less-equipped, communities, such as Cumbria County. The area was very rural, not very diverse, relatively affluent and with quite a poor road network. To the police's advantage, there was also a very large nuclear power plant operating in the area.

CC Arundale attempted to put the shooting in context indicating that such shootings are extremely rare in the UK. One would have to go back to 1996 to the Dunblane (Scotland) Massacre where 43-year old Thomas Hamilton went on a rampage killing 16 children, 1 adult and himself. That event had a tremendous and lasting effect in the UK where as a result all handguns, except for police, were banned including those for sporting purposes.

Then he described the 1987 shooting spree by Michael Ryan in Hungerford where 16 people were killed including his mother, and 15 other were injured. Again, this occurred in a very quiet community where no one would normally expect such a thing to happen. This shooting also caused several major changes in law and practice involving firearms.

Chief Constable Arundale went on to explain that there are lawfully held firearms across the UK, but no where near the magnitude of what is found in the U.S. There are actually very few instances where criminally held firearms are used. He then brought the audience back to the Derrick Bird incident reviewing the timeline and sequence of events on the 2nd of June 2010. Bird had shot his brother early in the morning but the police were not aware of the shooting. It was not until about 1000 when he killed the family solicitor that the police became engaged. Even as events unfolded, the police found themselves with little time to react and become more involved.

Ultimately, according to CC Arundale, over 40 armed officers, not all similarly trained or equipped, became involved with searching for Bird, supported by the CNC officers as well as several off-duty police officers. The subject was seen twice by police, but they were not in a position to intervene. The entire incident as presented by Chief Constable Arundale lasted all of two hours with the subject travelling almost 45 miles before shooting himself. Despite the remoteness of the location, the Media descended on the area and some actually became involved in trying to find the shooter.

After the event, the post investigation and review focused the police on two major lessons. One was communications and command and control. This resulted from the challenges they found in directing

police officers and units to the right places at the right times. Secondly, the issue of the role of other agencies and organizations was called into question. This has now become a national debate as to whether emergency medical services personnel can or should put themselves at risk in responding to a deadly situation. There is, as Chief Arundale pointed out, a completely different mindset between the police and those supporting them.

One of the other results of the Cumbria rampage is the efforts now by UK police to work towards all police services being trained and equipped in the same fashion, to the same level. In addition, planning for a Mumbai-style attack in the future, the UK police services according to Chief Constable Arundale, need to carefully review the emerging roles of other agencies and supporting organizations.

Less than a month after the Cumbria shooting, in July (2010), in northeast England, an incident occurred with an individual by the name of Raoul Moat. Moat was, as Chief Constable Arundale explained, a bouncer, a character, a recently released criminal, and not a good person. He had threatened his girlfriend to the point where she told him she was dating a police officer, just to protect herself, or so she thought.

After a short sentence in prison for assault, Moat was released on July 1st, and immediately acquired a sawed off shotgun and shot three people. Then over a period of the next nine days, he continued his shooting rampage, at one point shooting a police officer in the face permanently blinding him. Moat had surprisingly made his plans known in prison as well as on social media, laying out what he was going to do upon his release.

This shooting spree ended on July 10th with Moat surrounded pointing a shotgun at himself, which ultimately discharged killing him. The police on the scene employed the XRep twice despite the fact that it did not have organizational approval, there had been no training, and the UK trials had not yet been completed. During the post-event investigation and review, it became apparent that even if many controls for its employment are in place (or not), if a weapon is available in such extreme cases, there is a high likelihood that it will be used, rightly or wrongly.

The post investigation was continuing at the time of the workshop and Chief Constable Arundale believed there was a possibility that additional charges might be yet levied against some of the police involved. Additionally, once again the Media involvement was excessive to the point that some were combing the countryside looking to find (and interview?) the suspect.

Clearly for the law enforcement community in the UK, there were numerous questions as to the advisability of using less-lethal options in situations where an individual is threatening suicide. Chief Constable Arundale posed the question, "How do we manage the tacticians and practitioners who think they have the answer in their hands?" When, in fact, they may not foresee the problems that might result.

Chief Constable Arundale closed by reiterating the importance of ILEF and how the presentations, questions and discussions all contributed to the progress made in addressing these new, emerging issues.

International Law Enforcement Forum, Day Two

Day Two Welcome: Colin Burrows

Minimal Force Options: A Medical Perspective & Update, presented by Dr. William Bozeman: "We want to talk about the relative risks of several force options," stated Dr. Bozeman. Referring to minimal force options, such as Taser, he further stated, "There is misinformation out there. There are people with agendas out there." He also stated, "the things I want to talk about are evidenced-based," referring to several recent studies on the field use of minimal force options, to include less-lethal devices.

On recent major study was "The Effect of Less-Lethal Weapons on Injuries in Police Use-of-Force Events," by Dr.s John M. McDonald, Robert Kaminski and Michael R. Smith, published in the *American Journal of Public Health*, December 2009. This study was based on 12 agencies, covering a nine-year period, with more than 24,000 use of force events. "The biggest that I am aware of in the world," stated Dr. Bozeman, referring to the study's magnitude.



How safe? (http://topics.nytimes.com/topics/reference/timestopics/subjects/s/stun_guns/inde x.html)

This study assessed three categories of

force: physical force, Oleoresin Capsicum or OC spray, and conducted energy weapons/Tasers. For the overall 24,000 events, the study determined that the average injury rate for suspects was between 20-30 percent, stated Dr. Bozeman, and for officers it was "something like 12-14 percent." The study further found the following regarding these categories of force:

Physical Force: This encompassed 13,668 events, in which hands-on contact was made, and/or impact weapons, like batons, were used. Compared to average injury rate for the total 24,000 use of force events, suspects' injury risks were 56 percent higher, while officer injury risks were 349 percent higher.

OC spray: This encompassed 5,723 events. Compared to the overall average injury rates for 24,000 events, suspect injury risks were 69 percent lower, while officer injury risks were 58 percent higher than the overall average. "So, considerably safer for the suspect, still somewhat risky for the officer," stated Dr. Bozeman, referring to OC injury rates, relative to those of physical force.

Conducted Energy Weapons: This encompassed 5,437 events. Compared to the overall average injury rates for 24,000 events, suspect injury risks were 65 percent, while the officer risk was at

the average. "Strictly from a safety perspective, this is the safest for the suspect and the officer," stated Dr. Bozeman, depending on the situation.

Several studies have also recently assessed conducted energy weapon/Taser for their risk of death. These included the following:

UK-based Study: Supported by the Home Office Scientific Development Branch, which tracked 1,330 conducted energy weapon uses over a four-year period.

U.S. Multicenter Study: This was based on data collected by the Less-Lethal Incident Monitoring System, sponsored by the U.S. National Institute of Justice. It tracked 1,201 conducted energy weapon uses over a three-year period. The study's findings were published.

Seattle-based Study: Tracked 1,101 conducted energy weapon uses, over a six-year period. The study's findings were published.

Dallas-based Study: Tracked 426 conducted energy uses over a 2-3 year period.

"The important thing about all of these studies is they all tracked a denominator. They checked every single time they used a Taser on someone," stated Dr. Bozeman. "We tallied up over a 4,000 (4,046) conducted energy weapon uses. How many people died in those studies that tracked every single use? Zero." "There were zero deaths out of 4,046 uses," further stated Dr. Bozeman. "We are 95 percent sure that the death rate after Taser use cannot be greater than 0.09 percent. Does that mean it's a zero? Absolutely not." He further qualified this statement. "The Taser can make you fall down, and if you fall down, you can bump your head, and often that has happened," stated Dr. Bozeman. "People can die from that." Additionally, he stated, "It can kill you by being at risk for myocardial infarction," commonly known as a heart attack. "The question is how likely is that," asked Dr. Bozeman. "The benefit far outweighs the risk, although the risk is not zero."



Findings of U.S.-multicenter study on injury risks associated with Taser uses, published in <u>Annals</u> of <u>Emergency Medicine</u> (From slide 10 in Bozeman brief)

Some of these studies also categorized injuries resulting from conducted energy weapon/Taser uses. The U.S. multicenter study assessed mild and significant injuries, based on data collected by the Lesslethal Incident Monitoring System. As mentioned, this system collected data on 1,201 conducted energy weapon/Taser uses by selected police services, mandating use of force investigations. A physician reviewed police and medical records, categorizing any injuries. "Mild injuries were something you could manage at home," commented Dr. Bozeman. "Moderate and severe injuries (grouped as significant injuries) would put you in the hospital, and/or give you long-term disability, or create a threat to your life."

Based on the data, the multicenter study tallied injuries in these categories from the 1,201 conducted energy weapon/Taser uses. "No injuries or mild injuries occurred in 99.75 percent of cases," stated Dr. Bozeman. "The bottom line was a 99.75 percent chance of mild injuries or no injuries at all. That leaves the remainder for significant injuries, which might put you in the hospital or even kill you. That 0.25 percent at translates to three cases out of 1,201." Dr. Bozeman described these three significant injury cases: "One was kind of questionable, a muscle breakdown issue. Two were head bumps." As he further stated regarding this study, "There were no deaths related to conducted energy weapons."

The Seattle study assessed, to some degree, injuries from the 1,101 conducted energy weapon/Taser uses. It found that eight subjects, or 0.7 percent were in the hospital. However, "they didn't characterize that very well," Dr. Bozeman continued. "They were admitted more for restraint related trauma. As a doctor, I'm not sure what that is."

Other studies, again assessing minimal force options from a medical perspective, are ongoing. "We are about to publish the first series of pediatric (age 17 or under) Taser uses. There has been a lot of talk about high risk groups," said Dr. Bozeman. "There is no evidence to demonstrate that any of those high risk groups are, in fact, in greater risk of injuries due to these weapons." Another study is assessing the risks of less-lethal kinetic impact munitions.

Lastly, plans for the Less-Lethal Incident Monitored System were addressed. "We are recruiting more sites," stated Dr. Bozeman, referring to the expansion of this U.S. nationwide network. "We are also considering adding other technologies as they show up."

Sudden In-Custody Death: Excited Delirium presented by Dr. Christine Hall: In Victoria, British Columbia, multiple 9-11 calls reported a "crazy guy," banging on doors and screaming, "they are going to kill me." He was a 40 year-old, Caucasian, chronic cocaine user, who was high, agitated and had run five kilometers, paranoid that someone was after him. Two police officers responded, and used a simple arm bar takedown on the individual, handcuffing him. He immediately went into cardiopulmonary arrest. The officers rendered compression CPR until arrival of requested emergency medical service.

The individual died in police custody. Such deaths are termed, "sudden in-custody deaths," implying that a person, not arrested or charged with a crime, unexpectedly dies in police custody. Such deaths have occurred across police services, and while some have blamed a particular form of restraint – vascular neck restraint, pepper spray, Taser, and others – sudden deaths have occurred regardless of restraints.

These deaths are "hugely criticized," stated Dr. Hall, and the "justice system and public want a single cause-answer," as to why it occurred. "You touched him last," referring to police, is often unfortunately considered the answer. The result may be an "officer is jammed up for 5-7 years, first with IA (internal affairs), then with the inquest, then the criminal trial," Dr. Hall said.

The individual mentioned also showed signs of a syndrome increasingly referred to as "excited delirium," which is often associated with in-custody deaths. "There is a lot of debate and controversies" associated with excited delirium," emphasized Dr. Hall. Some say, "it is a convenient excuse made up by police to explain police brutality. You hear that all the time."

However, "Police agencies did not make this up," stated Dr. Hall. "Delirium is defined in every medical text book." It is found in the *Merck Manual* on medicine, which has a chapter on delirium. Delirium is also repeatedly reflected in the medical coding system, developed by the World Health Organization. Additionally, the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, "talks about delirium with agitation." And, recently, physicians participating in the American College of Emergency Physicians' Excited Delirium Task Force, published, "Excited Delirium Syndrome (ExDS): Defining Based on a Review of the Literature," in the *Journal of Emergency Medicine*. The article states that "ExDS is a real syndrome," said Dr. Hall.



Photo by M.D. Sztajnkrycer, MD, PhD. Several personnel try to restrain an acutely agitated patient. (EMS World, April 2005)

Further, excited delirium is defined "a state of altered level of consciousness with impairment of cognition and perception,"

stated Dr. Hall. And while delirium is a spectrum of behaviors, with the quiet, delirious behavior at one end, excited delirium is at the other end, exemplified by agitated, incoherent, combative behavior. Also, excited delirium "is not a diagnosis of its own; rather, it is "an underlying disorder" of something else, commented Dr. Hall. The signs of ExDS, while often summed up as, "naked and crazy," are as follows:

- Extremely aggressive or violent behavior
- Constant or near constant physical behavior
- Unresponsive to police presence
- Attracted to glass and reflections, attempting destruction
- Attracted to bright lights and loud sounds
- Naked or inadequately clothed
- Hot to the touch and attempted self cooling
- Profuse sweating
- Rapid breathing
- Keening unintelligible, animal-like noises

- Extremely intolerant of pain
- Excessive and seemingly disproportionate strength
- Untiring despite heavy exertion

Some possible reasons for excited delirium are:

Psychiatric illness: "Acute schizophrenia or other psychotic illnesses come occasionally with what we call 'positive symptoms,' stated Dr. Hall, "auditory and visual hallucinations, lots of paranoia, lots of agitation and violent combative behaviour."

Drugs: Several are attributed to causing excited delirium: cocaine, methamphetamine, and PCP. The latest is MDPV, or methylenedioxypyrovalerone. It is sold as a new bath salt. "What you want to know about this is methamphetamine lasts for three days," Dr. Hall pointed out. "You buy them in tobacco shops, little bath salt packages to sooth your feet. But, really what you do is take it home, and you snort it, you eat it, or you shoot it." Also, other drugs attributed to causing excited delirium are Gravol[®] (Dramamine), Benadryl[®], TCA anti-depressants. "All generate a state of agitation with delirium, when they are taken in massive quantities," stated Dr. Hall.

Metabolic disorders: These include insulin shock, severe hypoglycemia and alcohol withdrawal.

Intracerebral Events: These include intra-cerebral hemorrhaging and encephalitis.

However, referring to these possible reasons for excited delirium and police, Dr. Hall stated, "Do you care about this list? No, nor would I argue, should you." Rather, police should realize that an individual demonstrating such behavior maybe in "acute medical crisis and he doesn't need to go to cells. He needs to go to the hospital."

Ongoing epidemiology studies may help communities understand and address excited delirium. The incidence of excited delirium is not known, as the previously mentioned article in *Journal of Emergency Medicine*, pointed out. There is no database of cases. "There also is no database in North America on sudden custody deaths," explained Dr. Hall. "From a research point of view that's staggering." Thus, it is difficult to quantify the occurrence of excited delirium/sudden in-custody deaths relative to all uses of force; define risk groups; improve treatments; and address public criticisms regarding police use of force.

One such initiative ongoing in Calgary is the previously mentioned study called RESTRAINT (<u>Risk of Events in Subjects That Resist</u>: prospective <u>Assessment of Incidence and Nature of ouTcomes</u>). It is collecting data on police use of force, involving risk of injury to officers or subjects. This includes data on all modes of force. "It is not a Taser study," emphasized Dr. Hall. Collection includes data on the subject's characteristics at the time, such as "known/suspected alcohol," "known/suspected psych history," as well as, signs of excited delirium. Additionally, collection includes any injuries or deaths. Police collect these data, using a one page, computerized form, immediately after a use of force incident.

RESTRAINT Use of Force Data Collection Form	
OFFICE USE ONLY Study ID Transcribed By	Transcribed Date (DD/MM/YY)
Incident Date (DD/MM/YY) Gender OU	Age C U Number of Officers Required C U
Known/Suspected Weapon Alcohol or Drug Related Assault Domestic Violence Theft/Robbery/B & E Vehicle Related Disturbance/Mischief Other Mental Health Act Unknown Subject Weapon Knife/Blade Weapon of Opportunity Gun Bat/Stick Unknown Method of Restraint (check all that apply) Hobble/Leg St Physical (i.e. Leg Sweep) Y C N C U Firearm Ready	
Stuns & Strikes Y N U Firearm Pointe Handcuffs Y N U Firearm Fired	ed ○ Y ○ N ○ U Neck Restraint ○ Y ○ N ○ U ○ Y ○ N ○ U □ Other ○ U
CEW OY ON OU CEW Illumination Only OY ON OU Total # Cycles Drive Stun U Total # Cycles Probe U	
CEW Location Serial # of Each CEW Used # Drive stuns (per weapon) # Probes (per weapon) Serial # of Each CEW Used # Drive stuns (per weapon) # Probes (per weapon) Divesting Divesting # Drive stuns (per weapon) Divesting Divesting Divesting Divesting Divesting Divesting	How Long Did It Take to Gain Control of Subject <1 min ○1-5 min ○6-15 min ○16-30 min ○>30 min ○Unknown How Long After Control Gained Did Subject Continue Struggle <1 min ○1-5 min ○6-15 min ○16-30 min ○>30 min ○Unknown Final Position of Subject Once Control Gained ○ Prone If Prone, Any Weight on Back/Shoulder ○ Y ○ N ○ U ○ Side-lying ○ Face-up ○ Other □ ○ Sitting ○ Standing ○ Unknown Behavior Once in Police Vehicle ○ ○ Paacefu/(Compliant ○ Nore Noor/Windows/Plexiglass ○ Attempting to Kick out Windows/Doors ○ Verbally Abusive/Noncompliant ○ Not Given/Unknown Subject Injuries ○ None Mild (bruise/scrape) ○ More Significant (Req. Assessment) ○ Unknown
Subject transported from scene to Transport vehicle District Office Police Arrest Processing Unit/Cells EMS Hospital Self Medical Examiner None Released Unknown	Was EMS Activated? Y N U Hospital Transport Y N U Subject Required Hospital Transport Y N U If YES Transport for Psych Assess Y N U Transport for Injury Assess Y N U If NO Assessed by EMS and Released to Police Y N U Pronounced Dead at Scene Y N U
Report # DOB (DD/MM/YY) If Taken to Hospital, Which (XXX or XXX) If Treated by EMS, Approx Time (24 HRS)	

Police use of force form in the Calgary RESTRAINT study

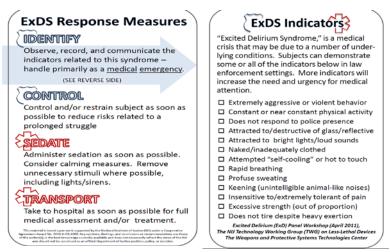
The RESTRAINT study is already yielding findings. Calgary has accounted for 1.8 million police interactions with the public in just less than three years. During this period, police used force 1,269 times, which is less than .1 percent of the total 1.8 million police interactions with the public. Of these 1,269 use of force incidents, the Calgary RESTRAINT study found that:

• Males were involved in 1,140 or 87.9 percent of the incidents.

- Individuals suspected of emotional disturbance were involved in 307, or 24.1 percent of incidents.
- Individuals suspected of drug intoxication were involved 394 or 31.0 percent of incidents.
- Individuals suspected of alcohol intoxication were involved in 810 or 63.8 percent of incidents.
- Individuals with violent and extremely aggressive behaviour were involved in 837 or 66 percent of incidents.
- Individuals with no signs of excited delirium were involved in 655 or 51.6 percent of incidents.
- Individuals with weapons were involved in 56 or 4.5 percent of incidents.
- The average number of police officers involved in a use of force was 1.47.

Of these 1,269 use of force incidents, the RESTRAINT study showed that 614, or 48.4 percent, of the incidents involved individuals exhibiting one or more signs of excited delirium. However, the study also found that 37 or 2.9 percent of the incidents involved individuals with six or more signs of excited delirium. Of those, 15 had nine or ten signs. The "more features (signs) equals more urgency," stated Dr. Hall. If a subject shows a multitude of these signs, "it is not going to go well," stated Dr. Hall. "The one death in our cohort in the three years of study was one of these guys," indicated Dr. Hall, referring to an individual with all signs of excited delirium.

Based on these findings, Dr. Hall concluded, "about three percent of the time when you use force, someone will have six or more of these features." She further recommended each police service collect data on use of force, making available the Calgary RESTRAINT form.



Recommended pocket card for recognizing and treating excited delirium.

Also, the results from an Excited Delirium Workshop sponsored by the U.S. National Institute of Justice may help communities address excited delirium. To help police recognize exciteddelirium, the Penn State University Workshop recommended a pocket-sized card, listing the previously mentioned signs of

excited delirium. To help treat excited delirium, the Workshop recommended the pocket-size card prescribe the following procedures and responsibilities:

- Identify Individuals with Excited Delirium: Done mostly by police. In doing so, they observe, record, and communicate the individual's signs, handling primarily as a medical emergency.
- Control the Individuals for Quick Handoff to Medics: Done by police. They control and/or restrain as fast as possible to reduce risks related to a prolonged struggle and physical exertion.
- Sedate the Individual: Done by Medics as soon as possible. Additionally, unnecessary stimuli, including lights/sirens, should be minimized if possible.
- Transport the Individual to a Medical Facility: Done by medics as soon as possible for medical assessment and/or treatment.

Excited Delirium: Canadian Operational Views presented by Sergeant Joel Johnston, Vancouver Police Department: "I will talk about the operational side of excited delirium syndrome," stated Sergeant Johnson, "and perhaps some of the issues that stand in the way of us implementing the best practices around how to deal with that in British Columbia and perhaps across Canada."

"In retrospect, as a young police officer," stated Sergeant Johnston, "several individuals we encountered in policing in the 1990s likely had excited delirium. We saw things like high, high levels of resistance; incredible strength; extremely destructive behavior; attraction to and breaking glass, particularly car windshields. A lot of the time, it was tied to cocaine use, but other drug use as well. Certainly, mental illness was a factor." As Sergeant Johnston further stated, "we didn't know to call it excited delirium." Rather, it was preceded by terms like, "Cocaine Psychosis," "Acute Exhaustive Mania," and "Agitated Delirium."



The practical challenge of excited delirium became increasingly apparent in policing. In May

Vancouver's downtown eastside – "A Petri dish for excited delirium," stated Sergeant Johnston (From Johnston brief, slide 2)

2002, police were called when Benny Robert Matson, armed with a knife, was in street confrontation. Police chased Matson, who was eventually grounded by multiple police officers. "Matson was so resistive and so strong he lifts five officers off him at one point," stated Sergeant Johnston. "After a protracted struggle, Matson suddenly went quiet and suffered cardiac arrest, dying on the scene." It was found that Matson suffered from mental illness and had alcohol & THC in his system. However, "Officers

(were) criticized for using physical force to control Matson instead of using the conducted energy weapon," which one officer had.

Police were criticized for doing the opposite in June 2004. Robert Bagnell, who suffered from mental illness, was destroying his room in a Vancouver rooming house, and had barricaded his door. Police responded, and, through the door, talked to Bagnell, who later did not respond. After a fire alarm sounded and smoke billowed up the stairs, officers forcibly entered, struggled with Bagnell, and twice used a conducted energy weapon in "Drive stun" on him. Bagnell went into distress. An on-scene paramedic was unable to revive Bagnell, who went into cardiac arrest. "Officers were criticized for using CEW to control Bagnell instead of using physical control," stated Sergeant Johnston.

The term, "excited delirium," was eventually but slowly accepted. In the mid-1990s, the American Society of Law Enforcement Trainers and others began talking about excited delirium and how to deal with it. And, in 1996, the Vancouver Police Department developed and delivered its first training sessions on excited delirium awareness.

In British Columbia, excited delirium training received more emphasis in the 2004 report by the British Columbia Office of the Police Complaints Commission:

"The phenomena of excited delirium still appears to be under-recognized in the policing community. Although relatively rare, changes in patterns of drug abuse make it likely officers will encounter victims of excited delirium more frequently. Therefore, we are recommending the creation of a standardized lesson plan/course training standard for excited delirium by the Justice Institute of British Columbia. This training is to be delivered to all recruits as well as all inservice members, regardless of rank, in the province."

A recent poll indicated that the following Canadian police services conduct excited delirium training:

- Calgary Police Service
- Edmonton Police Service
- Halifax Regional Police
- Ontario Police College
- Ontario Provincial Police
- Royal Canadian Mounted Police
- Vancouver Police Department

This training includes instruction on policies and awareness regarding excited delirium, as well as, scenarios that must be resolved according to policy and protocols. Many jurisdictions have implemented mandatory "crisis intervention and de-escalation" training for dealing with "agitated" and/or mentally ill subjects.

There are consistencies in this training. Trainees are taught that excited delirium is a potentially severe medical problem masquerading as a police call, indicated by a collection of signs and symptoms; the greater the number of signs and symptoms, the greater the possibility of excited delirium. Trainees are instructed to transition to a medical response as soon as possible, but that the individual must be restrained before treatment can be provided. Additionally, trainees are taught that while excited delirium is not always fatal, those deaths that have occurred, can usually be attributed to several factors, and medical examiners have cited the cause of death as excited delirium.

Still, "in Canada, the term and phenomenon of ExDS (excited delirium syndrome) remain controversial," stated Sergeant Johnston. "Many activist organizations tout it as being a term 'made up by police to cover-up excessive force and in-custody deaths." He further stated, there is "no shortage of contrarian experts willing to appear before the courts and inquiries." Sergeant Johnston provided the example of a British Columbia psychiatric expert, who was quoted as saying, "excited delirium is not a valid medical or psychiatric diagnosis. In my view it provides a convenient post-mortem explanation for in-custody deaths, where physical and mechanical restraints and conducted energy weapons were employed... It's being used more and more frequently in an attempt to automatically absolve law enforcement from any and all responsibility for their involvement in sudden in-custody deaths.""

"The phenomenon of ExDS has been fraught with political controversy," Sergeant Johnston also stated, "especially since the 2008 Braidwood Commission of Inquiry." The head of this inquiry, Justice Thomas Braidwood, was quoted as saying:

"'It is, in my view, not helpful to characterize people displaying these behaviours as suffering from 'excited delirium.' Doing so implies that 'excited delirium' is a medical condition or diagnosis, when mental health professionals uniformly reject that suggestion.'"

"Some jurisdictions refuse to acknowledge excited delirium and purposefully exclude it from training materials, citing the above opinion," stated Sergeant Johnston. "There remains varying levels of awareness of excited delirium syndrome among operational law enforcement/ corrections personnel."

Attempts are being made to incorporate the features of excited delirium into National and Provincial Subject Behaviour-Officer Response Reporting Standards. "This may save lives by making police officers more alive to the condition so that they can make better-informed decisions in how to deal with the problem they are facing," emphasized Sergeant Johnston.

In his final comments on excited delirium, Sergeant Johnston stated, "We must stop focusing on the wrong issues in order to deal effectively with the issue of sudden in-custody death." He further stated, "We must acknowledge that these are medical calls – we must re-frame how we look at these and realize that medics need to be the primary responders with police there to provide support." Additionally, he stated, "We must stop blaming weapons and tactics and instead put comprehensive protocols in place." Such a protocol, concluded Sergeant Johnston, was developed in the U.S. National Institute of Justice's Excited Delirium Workshop conducted by Penn State University.

Excited Delirium: A U.S. Operational View presented by Sergeant Tom Burns, Seattle Police Department: For some time, "suspects have been dying in custody for unexplained reasons," stated Sergeant Burns. "In 1982, Dr. Donald T. Reay first blamed Neck Restraints for unexplained suspect death. Police Tactics were changed but the death rate did not."

In December 1998, a partially naked, 35-year Michael Ealy, was running in a Seattle street, swinging his arms wildly at cars. After police arrived, Ealy accepted ambulance transport for medical/ psychiatric evaluation. While en route, Ealy went into a rage, struggling for a prolonged period with paramedics and police, the latter using pepper spray. Ely died at the hospital. Police were blamed for the death, and three years of litigation ensued.

In-custody deaths have also occurred after Taser uses. Referring to police who had taken custody of an individual who then suddenly died, the attitude is "You touched him last," commented Sergeant Burns. Moreover, the "media is selling this as a problem with police tactics."

To help address such issues, the Seattle Police Department's Force Options Research Group continually reviews and establishes best practices for use of force, particularly for less-lethal options. In doing so, the Group eventually focused on individuals with "excited delirium," as in the case with Michael Ealy.

Police were increasingly encountering personnel who were naked, or inadequately clothed, with very high body temperatures, and acting in an agitated and destructive manner, such as smashing glass and/or windshields. When directed to stop, the individuals were unresponsive, and police attempts to restrain them were met with seemingly superhuman resistance. Often, three or more officers – dubbed the "Polyester Pile" – were required to subdue such individuals. During the struggle, or shortly afterwards, some individuals suddenly died. In the aftermath, police underwent intense investigations, as well as, public scrutiny and criticism.



Police encounter naked, sweaty individual, yelling about animals on his skin (from Burns brief, video in slide 17)

Based on police experiences, as well as, analysis of videos shared with other police departments, the Seattle police noticed individuals with excited delirium demonstrating the following signs:

- Naked
- Sweaty
- Bizarre/Aggressive behavior
- Violence towards others

- High pain threshold
- Exceptional strength
- Paranoid

The Seattle police also determined what it called the "Period of Peril," referring to when individuals with excited delirium were at greatest risk of dying. They characterized this period by the following:

- Struggle stops
- Subject appears calm
- Adrenaline levels drop
- Potassium and acid levels remain high without counteracting effect of adrenaline
- Officers don't immediately recognize condition
- Without immediate medical intervention, death is highly likely.

Moreover, Seattle police began developing measures to address excited delirium cases. Initially, the Force Options Research Group outlined the Taser's role in dealing with excited delirium incidents. Police also realized that excited delirium required an immediate medical response. As a result, a protocol was established in which Seattle police and emergency medical personnel intervened and treat excited delirium cases. Essentially, this protocol is executed as follows:

First Responders Recognize Excited Delirium Signs: First responders – police, dispatchers, and paramedics -- are trained to recognize the signs of excited delirium. Those on the scene assess from a relatively safe distance. If they suspect an excited delirium case, they call for police back up and paramedics. They also attempt to deescalate the situation. When receiving calls, dispatchers are trained to ask key guestions to determine if an individual is exhibiting signs of excited delirium. Dispatchers also may relay critical information to police responding to the incident.



Dispatchers – key in initial assessment and response to excited delirium (from Burns brief, slide 19)

Police and Paramedics Respond: If an excited delirium case is suspected, dispatchers will contact fire department paramedics per established local procedures/protocols. Together, they determine if a joint police and paramedic response is necessary.

Police Work to Rapidly Control the Individual: This is a prelude to treatment. "Without restraint, treatment is not possible," stated Sergeant Burns. Ideally, control is accomplished when paramedics are on scene and can subsequently begin treatment. However, control may need to be done sooner if

individuals are at risk of serious injury. This control should be achieved quickly, avoiding a prolonged struggle. "The longer the fight, the greater chance of lethality," said Sergeant Burns. Once the individual has been restrained, breathing should be monitored and facilitated. "Assign someone to watch and monitor subject's face," explained Sergeant Burns. If needed and paramedics are not on scene, police should render CPR, removing handcuffs on the individuals before initiating.

Paramedics Treat the Individual: "Medics assess as soon as possible, and consider chemical restraint". This implies sedation. Police may have to assist paramedics by holding the individual. During this treatment, emergency medical personnel also conduct audio recordings. These help "paint a full picture" of the event, according to Sergeant Burns.

Paramedics Transport Individual to a Medical Facility: This is done for follow-on medical treatment and evaluation, rather than transporting the individual to a detention facility.

The Seattle police make a concerted effort to document excited delirium cases. In addition to collecting any pictures and video, they also complete a computer-based, "Excited Delirium Incident Report Content Checklist." Using it, officers document any demonstrated signs of excited delirium, particularly "hyperthermia (overheating)," which is regarded as a major indicator of the syndrome. The medical response is also documented. This computer-based documentation serves as a "training and evaluation tool," said Sergeant Burns. It also aids forensics in the event an individual dies, helping determine the cause of death.

Seattle's protocol has achieved some successes. Sergeant Burns cited two individuals surviving excited delirium after being treated as prescribed by the Seattle protocol. Seattle's protocol was also used in the development of a similar recommended treatment during the Excited Delirium Workshop, sponsored by the U.S. National Institute of Justice. This recommended treatment was later addressed by Dr. Christine Hall.

Emerging Trends and Issues in Policing presented by Chief Inspector Richard Lewis, Dyfed-Powys Police: Chief Inspector Lewis, provided a detailed and informative overview of the five months he spent in the United States, last year, on a Fulbright Scholarship with Penn State University looking at Community Engagement prior and post critical incidents involving a Conducted Energy Device (CED, usually a death.

In his opening remarks he took the opportunity to thanks all those who made the research possible and in particular his Chief Constable Mr Ian Arundale for his support, both moral and financial, Col. Andy Mazzara who agreed to host the study at Penn State and who provided key contacts across the USA of law enforcement agencies who would be prepared to work with him.

He then provided a graphic Powerpoint video which showed all the places visited and the geographical spread of his research across the US and comparisons he made with the UK approach to CED usage. While highlighting that no two organisations that he visited were the same are the same, it was also clear that each had different approaches to CED usage. This including how they referred to and

described these devices which in both the media and policy documents are often referred to by the brand name Taser. He also asserted with authority that the points he would make were true of the majority of departments and agencies that he visited.

The main issue he wanted to explore in the U.S. related to the accountability and the community engagement issues relating to police use of force and in particular CEDs and the impact felt by law enforcement agencies and communities following a death in close proximity to a CED exposure. The organisations visited deliberately included small, medium and large size agencies in both urban and less urban environments in the east, west and central areas of the country.

The main aim of the presentation was to highlight both good practice and areas that could be improved upon in CED usage. He asserted that in the frequently contentious business of policing there can be few issues that make for more stimulating discussion than the deployment of Conducted Energy Devices/ Tasers. Whilst the discussion on policing and its future is mostly concentrated within police stations and a minority of individuals with an interest, CEDs generate far more attention than other equally deserving topics.

Chief Inspector Lewis observed that, "Scrutiny on what the police do and how we do it has never felt fiercer and so focus on the areas that attract media headlines is inevitable." The dynamic nature of 24 hour news channels and the emergence of 'citizen journalists' each carrying 3G telephones with recording capability, allows people sitting at home in armchairs to become instant judge and jury members on police action at the scene of an incident within minutes of the event occurring In very simple terms, the agencies that do well clearly have very good relationships with their communities and those that do less well had poor relationships. Some of the key components that were common amongst high performing departments included these issues:

- Training in the use of CEDs
- Community Engagement
- Accountability (use of force reporting/collection, published figures, comprehensive use of force database)
- Training of officers in dealing with issue of Mental Health
- Use of force evidence that's collected.

Highlighting that he had witnesses some excellent training in places such as Seattle and smaller departments in the New York area, he contrasted this with the lack of training provided to those officers in departments who do not carry CEDs. He noted that the general level of knowledge amongst officers not trained in CEDs was poor on both sides of the Atlantic. Richard then provided an 8 minute video clip from an interview with an officer from his own department who does not carry a CED: the officer was his brother who had been a police officer for two years, holds a university degree and had been a teacher for nearly a decade prior to embarking on a career in law enforcement. Introducing the video Chief Inspector Lewis observed, "What we have here is a bright guy who works in the busiest station in our department, he has one of the highest arrest rates, is 6' tall, weighs 220 pounds and simply put, the

guy on the shift that you call for in a public order situation. The department that he and I work for is the highest performing one in England and Wales in many of the key criteria used to measure performance. The answers that you'll hear from him are very typical of the answers I heard both on this side of the Atlantic."

Some of the key points Chief Inspector Lewis drew out using the video clip were:

- The lack of understanding of the language used 'CED' what the heck is that?
- The lack of understanding on how electricity functions.
- The almost total lack of understanding on CEDs capability.
- The lack of training afforded to the vast majority of officers on the device.

Following the showing of the clip the Chief Inspector made the following point, "I understand the reluctance to call the CED by its brand name and there are good reasons for doing this. There are others on the market. However, officers know it as a Taser and we need to be cognisant of the fact. This is also the case when we talk to the public about this issue. I never saw a headline in a paper which said "CED usage saves family from raging man." "Taser usage saves family from raging man" is far more likely."

It can be easy to be blasé about the lack of knowledge from officers and members of the public on how the CED and indeed electricity more generally actually works. As a group of individuals here today who by definition have an interest in less lethal technology and therefore CEDs. We all have an understanding, if only the basics of how CEDs work. It would be remiss of us to expect all officers share that interest, especially if they are not trained in its use. They know CEDs work and that's all they feel that they need to know. To illustrate this point Chief Inspector Lewis made comparison that with Poly-Paraphenylene Terephthalamide and asked how many people knew what that was? However, use the trade name 'Kevlar' and both officers and the public know the material you are referring to. He went on to state, "I have no idea how Kevlar works and frankly don't care. I know it stops certain kinds of rounds and that's good enough for me. The point that I hope that I've made is that none of us are experts in everything and don't need to be. I'm not making a judgement call on whether we stop calling it a CED but raise it as an interesting point."

The Chief Inspector went on to say that given the proliferation of CEDs all officers should be trained to have at least the basic understanding of how electricity functions. He then reviewed some of the discussion at a PERF (Police Executive Research Forum) meeting on the use of Taser that was conducted the previous spring in Philadelphia. The public is extremely wary of incidents involving multiple exposures to Taser. He stated that they can certainly be justified on some occasions, but what cannot be justified is a lack of training that causes such incidents to occur. He highlighted that starting from early in 2012, all officers in the UK will receive a basic level of training.

Referring to his research in North America and the UK, Chief Inspector discussed the fact that many officers seemed confused as to whether or not they could touch a suspect undergoing a Taser exposure. He then said that there were also public perception issues about multiple exposures that might be at the cause of unintended fatalities. He also highlighted that while 'tasing someone 2 or 3 times' will not likely

cause death, the public is of the mind that this situation is problematic. That likely needs to be addressed at the local and national levels.

The Chief Inspector specifically talked about his observations in Seattle which he contended had an excellent training program. However, the capture of use of force data and the report statements required of the officers after an incident are areas that requires improvement, not only Seattle, but in most agencies. More training is required in this area as well.

In the next part of his presentation, Chief Inspector Lewis quoted a 2005 article on Exploring *the Challenges of Police Use of Force*, that said, "One of the most important factors influencing reactions to use of force is the level of trust that has been cultivated between law enforcement agency and the community before an incident occurs." He went on to state the importance in Seattle of the community being involved in the decision to continue to employ Tasers. He indicated that if a Chief can stand before the cameras and state that decision to employ CEDs was taken jointly with the community, it is both significant and impactive, for the police needs as well as those of the community. Both are key in this regard.

Chief Inspector Lewis then showed a video clip of a Taser incident at a Philadelphia baseball game where the Philadelphia police eventually opened an investigation to determine the "proper use of equipment" during the event. The Chief (Ramsey) defended the officer's use of the Taser to stop the fan who had decided to run across the field during the game. Unfortunately there were some conflicting statements made to the press which pointed to a need for better internal communications. One law enforcement official indicated that this event was a great selling tool for the use of Taser because within moments of the Taser exposure, the individual jumped to his feet and waved to the crowd.

Chief Inspector Lewis then highlighted community engagement with local community groups and the value of proactive interaction with these groups. He described briefly the demographics of the groups and of those who are being tased which he observed in and outside the UK. The point he was making went to the intelligent use of statistics and demographics to better anticipate future problems. In addition, this type of information needs to be pushed back to the community so that they can also be better informed, generating better understanding and support.

He talked briefly about those situations (14% of all Taser-associated events) where the suspect was found to have a lethal weapon (gun, knife) and how the officers had not been adequately prepared and trained to deal with such situations. As a result of studying the statistics as they were collected and analyzed, the police department initiated new training for the transition of officers from less-lethal (Taser) to lethal force when necessary.

Finally, Chief Inspector Lewis focused on the mental health issue and how it impacts policing, and specifically on the employment of CEDs. Introducing this section, he highlighted that mental health was also a major issues for those who were responsible for dealing with violence in custody environments where CEDs might be used. He highlighted the following statement from Sir Martin Narey, "Since the late 1980s the proportion of the prison population who show signs of mental illness has risen seven fold.

For them care in the community has become care in custody." (From "The Mental Health of Prisoners: A thematic review of the care and support of prisoners with mental health needs," Her Majesty's Inspector of Prisons, October 2007.)

The Chief Inspector then summarized two separate incidents involving suspects suffering from mental illness, and the police response to a situation using CEDs. Whether or not the incident could have been resolved without employing CEDs is unclear. However, the public response to the incident was certainly an issue for the police departments involved. He advocated scenario-based training which he felt was invaluable. He closed by saying we have to win the hearts and minds of the public and generate good will among the supported community. The risks involved with employing the Taser cannot always be determined in advance, but negative outcomes can cause significant damage to the reputation of the department within their supported community. He encouraged the active and effective use of the use of force database to the benefit of the department for both training and operations.

International Law Enforcement Forum, Day Three

Perspectives from Beyond the Policing Community: As a practice, the International Law Enforcement Forum invites individuals and organizations outside the police community to address issues of interest to police. Such external views and input accomplish several things. They contribute to more balanced police views, as well as, make known facets of an issue that police may not have been aware. Such external views also help give police a sense of what may be publicly supportable, as well as, objectionable, and thus improve problem-solving. As Forum participant, Dr. Christine Hall, stated, "Two-way communication aimed at problem-solving is welcome." For these reasons, external views are welcome and sought.

One issue addressed in a Forum breakout session was "standardising and codifying the introduction and use of new technologies." To get an external view of this issue, Ms. Abi Dymond of the Omega Research Foundation based in London was invited to address "Developing Standards and Guidelines for Use of Less-Lethal Equipment --The Human Rights Perspective." In so doing, Ms. Dymond provided insights on the need for such standards and guidelines, not only in developed nations, but also in developing nations, where abuses and misuses of less-lethal technologies have occurred.

Another issue of concern is the interaction between police and persons with disabilities. Increasingly, police are becoming the first-responders in situations involving personnel with physical, as well as, mental disabilities. To help inform such interactions, the Forum invited Mr. Kirk O'Brien of the Tourette Syndrome Foundation of Canada to address, "Dealing with Tourette Syndrome in Policing." Additionally, Dr. Sylvia Raschke of the British Columbia Institute of Technology was invited to address the "Health and Safety of Persons with Disabilities Interacting with Law Enforcement."

Each of these presenters, not only defined the issues at hand, but, moreover, provided recommendations for consideration.

Developing Standards and Guidelines for Use of Less-lethal Equipment -- The Human Rights Perspective, presented by Ms. Abi Dymond, Omega Research Foundation, Manchester, UK: "I am a research associate," stated Ms. Dymond. "What I want to do is explain the Omega Research Foundation and what we do, and then talk about one particular project that we are working on. It aims to develop standards and guidelines for the appropriate use of less-lethal equipment and restraint technologies in a law enforcement and correctional setting, coming at this very much from a human right's perspective."

Established in 1990, Omega Research Foundation researches military, security and police technologies, primarily focused on their manufacture, trade and use. Specifically, the foundation does the following:

• Monitors the international military, security and police trade in the pursuit of transparency and accountability.

• Provides campaigning organisations with timely and accurate case study information to lobby for tougher controls on international military, security and police transfers

- Works with Non-governmental organisational and media agencies to expose companies and governments that flout regulations on transfers of arms and security equipment
- Provides torture survivor support groups with the information that allows them to seek legal redress from the companies producing such equipment.

"We also look at trade to countries of concern," stated Ms. Dymond. "For an example, we have done a lot of work recently looking at the protests in the Middle East, looking at where they got some of that equipment from."

'We also look at ways that less-lethal and restraint technologies are used around the world," stated Ms. Dymond, "say in developing countries, where the guidelines for use and the standards might be quite different. We look at examples of best practice, but look particularly at cases of misuse, or abuse, with a view to being able to point out general patterns that may be problematic with different types of technologies." She further stated, "We have done quite a lot of work on introducing stronger standards for ...controls on the transfer of equipment that can be used for torture and causing inhumane and degrading treatment, or other kinds of human rights abuses."

"We are currently working on one particular project which aims to generate a set of standards around appropriate use of a range of less-lethal and restraint technologies," stated Ms. Dymond. The reason for this project is that international law has basic principles for human rights, such as the treatment of prisoners. However, these principles "haven't been updated, and haven't kept pace with the changing technologies in this field," stated Ms. Dymond.

"Basically, this project aims to look at one way in which we could operationalize international standards and principles and align them to today's policing contexts," Ms. Dymond went on to say. We are "looking at it from one particular perspective, obviously the perspective of a human rights nongovernmental organisation."

She further stated, we are "also hoping to consult with the audience more broadly and law enforcement officials, who bring perhaps a different perspective, the perspective of the officer on the street. You actually get into situations where you are using such equipment and have to make split-second decisions."

"We also aim to add value, not just focusing on the less-lethal equipment, but also focusing on the restraint technologies and focusing on such technologies' use, not only in a policing context, but also in detention situations, as well."

"To talk a little bit about the methodology for this project, we came up with a framework to analyze a cross-section of commonly used policing technologies, say everything from electrical shock devices to

chemical irritants, to kinetic impact type devices," stated Ms. Dymond. These along with their technical characteristics were assessed "against the spirit and underlying principles of the international standards," Ms. Dymond then said. "We then combine that with the medical findings that are out there, as to the different risks posed by different pieces of equipment."

"We also used our expertise in analyzing patterns of abuse and patterns of misuse," Ms. Dymond then states. We then looked "to see what kinds of devices were considered by trade regulations, to either be inherently cruel, inhumane or degrading, or pose a severe risk of human rights abuse." She further stated, "In doing this, we obviously realized that there are no perfect technologies. All technology types will raise different issues, different advantages and different risks, from a human right's perspective."

"We came up with several sets of results. . . The first category was equipment that we would consider inherently unsuitable for use in a law enforcement context, because of the inherent nature of that kind of equipment ...say the stun-belt type technologies," commented Ms. Dymond. "They impose additional restraints, and additional force above the minimal that is necessary to meet the intended law enforcement objective."

In categorizing these technologies, the findings of international human rights bodies, like the United Nations Committee Against Torture, were also taken into account. Such bodies found that some devices were "inherently, by their very design, cruel, inhumane and degrading," stated Ms. Dymond. "In this category, we would also put equipment like stun batons, and stun shields, which may not be widely used by law enforcement agencies in the West, but we've seen them used quite widely in certain regions and certain developing countries."

"For example, in the recent protests in Yemen, one of the pieces of equipment they were using was electrical shock batons," stated Ms. Dymond. "These types of equipment are placed in these categories, because, on the one hand, such electrical shock-type technologies don't really have many advantages over the Taser-type technologies, in terms of incapacitating benefits. On the other hand, they do pose a

severe risk of human rights abuses."

"In this category, we would also include devices like spiked batons, which again aren't typically used in the West at all, but have been used in China by their police officers," said Ms Dymond. "Spiked batons we would consider to have no legitimate law enforcement purposes over and above non-spiked batons."

"There was another class of equipment, which was not necessarily unsuitable or inappropriate, but could potentially be, depending upon the design issues or the



Spiked Baton (<u>http://www.clearwisdom.net/emh/articles/2004/9/27/52843.html</u>)

technical limitations of the equipment in question," said Ms. Dymond, further citing an example. "In 2008, protests occurred in Thailand and Thai authorities used chemical irritant, and teargas grenades to help disperse the crowds. But, these were Chinesemade teargas grenades, and because the explosives were set too high for teargas grenades, they ended up exploding and killing two of the protesters, and seriously injuring several others."

"It is issues with equipment like that, that we would say point toward the need for robust testing and selection procedures for any type of less-lethal equipment, to ensure it that equipment isn't excessively injurious."

"Some of our recommendations include basing selection on need and operational gaps, instead of looking at the market and seeing what's out there," stated Ms. Dymond, and also, "carrying out independent testing of equipment instead of just relying on the manufacturer's word." Referring to this independent testing, she went on to say, "it does not happen as much in developing countries, where resources are more limited."



Thailand http://www.aljazeera.com/news/asiapacific/2008/10/2008101442444396619.html

"There needs to be a standards-based approach to the adoption of less-lethal and restraint technologies, whereby set criteria is spelled out for requirements in terms of accuracy, reliability, medical risks, medical impact associated with the equipment," stated Ms. Dymond. "Then there must be independent testing to verify the extent to which the equipment can meet those standards. Equipment that does not meet those standards, fails to be adopted."

"We would call for small scale piloting for equipment that is being considered for adoption, with the results of that piloting fed back, to inform if more testing is needed. Ms. Dymond further stated, "And, once the equipment has been rolled out more broadly, we are obviously looking to have a monitoring processes, so we can capture the advantages and the disadvantages of the equipment, and whether officers are following the guidelines for use of the equipment. This also enables us to track better the medical implications of different types of less-lethal technologies."

"We would also like all equipment in general to have robust guidelines for its use, backed up with some strong accountability mechanisms for the officers that deploy it," stated Ms. Dymond. These proposed guidelines are summarized as follows:

- Ensuring police officers are trained to think of only using certain types of less-lethal weapons, in the same way that they look at lethal weapons
- Treating every application of a weapon, whether a Taser or chemical irritant, as a separate use of force and justified independently
- Giving warnings, when possible, prior to using less-lethal technologies

Additionally, Ms. Dymond stated, "we would have a preference for the more targetable types of chemical irritants devices, which minimize the risk of hitting uninvolved persons...this is partly based on some of the abuse and misuse in developing countries, in particular, in the recent protests in Libya, where we saw the protesters getting shot in the head and killed with teargas canisters."

"I'm going to use this forum, and hopefully make contact to follow up and get some kind of reaction to the work we are doing," concluded Ms. Dymond, "and also how this work can help the International Law Enforcement Forum in setting its own standards for the selection and testing of less-lethal technologies."

For more information on the Omega Research Foundation see: http://www.omegaresearchfoundation.org/

Dealing with Tourette Syndrome in Policing, presented by Mr. Kirk O'Brien of the Tourette Syndrome Foundation of Canada: "In my personal life, I am the director of wealth services at BMO Harris Private Banking," stated Mr. Kirk O'Brien. He stated also, "I sit on the national board of directors at the Tourette Syndrome of Canada. I am an executive. I chair their marketing committee."

"I bring a very unique perspective to this forum," Mr. O'Brien said. "I come from a family background of policing. I come from two generations. My father and my father's brother were Royal Canadian Mounted Police. My grandfather was chief of police at Port Hope. So that's in the blood."

Mr. O'Brien further stated, "I have a 14-year-old son with Tourette Syndrome and ADHD (Attention Deficit Hyperactivity Disorder), Matt." He then said, "I have an 11-year-old daughter with an anxiety disorder and OCD (obsessive compulsive disorders) tendencies, which is actually even more of a challenge than Matt and his tics."

"What is Tourette Syndrome?" posed Mr. O'Brien. "It is a neurological or a neural chemical disorder, characterized by tics ... Tics are involuntary movements and sounds. The Hollywood version we have all come to know through the media is Coprolalia, which only exists in 10-15 percent of people affected by Tourette Syndrome," Mr. O'Brien said, referring to involuntary swearing and outbursts. "It's not the Tourette we know. It's not what manifests itself in most of our families. Most everything we see is milder."

"The tics manifest themselves under stress, under certain environments, but they don't when there is hyper-focus," stated Mr. O'Brien, referring to intense concentration. He related the example of Dr. Mort Doran, a thoracic surgeon at the University of Calgary and airplane pilot, who also has Tourette Syndrome. "He does not tick when he is cutting. He does not tick when he is flying." He further stated, "There are a lot of undiagnosed tic disorders in society, like uncle Bob who went like that," Mr. O'Brien stated, making a head gesture. "Maybe he had TS, maybe he didn't. The guy who always clears his throat in conversation, and has for years. It might be TS."

"The associated conditions that come with Tourette Syndrome," explained Mr. O'Brien, may be obsession. There are other associated conditions, like bipolar disorder and depression. Mr. O'Brien also addressed associated compulsive behaviors, such as adult Attention Deficit Hyperactivity Disorder and executive dysfunction. "You're starting to hear a lot about that in the media...They have been married once or twice. They have probably been through a breakdown with a lot of stress."

"We don't know what causes it," said Mr. O'Brien, referring to Tourette Syndrome. "There is no cure. There are some treatments, although, nothing specific to Tourette. There are treatments for other tic disorders, and other involuntary stuff, and it often goes hand-in-hand with treatments around ADHD, or OCD, or bipolar, or other co-morbid disorders, and many of those work against themselves."

"How does this intersect with you?" asked Mr. O'Brien, referring to police possibly interacting with Tourette Syndrome. He initially provided an example of obsession associated with Tourette Syndrome. "If I'm sitting next to Abi (Ms Dymond from Omega Research Foundation) and I can't help but touch her hair, I just have to touch her hair. Is that assault? I don't know. It is up to you guys to make that decision in a moment."

"We all joke, how many times have the cops been to your place," Mr. O'Brien said, referring to conversations with other families with Tourette Syndrome. "There is a lot of yelling in TS families...When you get a 14-year-old boy going through puberty, he is trying all day in class to suppress his tics, because the girls don't like it. And, he gets bullied over it. He gets home and he starts to tic because he has had a rough day. He can't focus on his homework because of the ADHD. Now, it is 10 O'clock and you are trying to get him into bed and he loses it. The yelling starts. The neighbors have heard too much, too many times."

"So you are at the door and you have been called to that domestic dispute," stated Mr. O'Brien, referring to police answering the call. "The family is already under stress. The dad is already kind of freaked out. You can see how Tourette could escalate into a critical incident."

Mr. O'Brien also modified this scenario. "It might just be a broken home...We have a very high rate of marital breakdown. We have problems with a diagnosis at age seven with a little boy, and the dad saying, 'not my boy.' So, a lot of marital breakdown. A lot of marital strife."

A video of an individual, named Mandeep, who has Coprolalia, the more extreme repetitive tics, was shown to the forum. "That gives you a fairly powerful introduction to what is at one end of our spectrum," stated Mr. O'Brien. "I'm going to ask you to think about what your people, or you, go through encountering him, and what he goes through in real life, and how this could turn into the very questions that are being addressed here today."



Mandeep Sanghera lives with severe Tourette Syndrome and other behavioural disorders that make everyday tasks challenging. from http://xavierpopdoestiff.com/tiff11/mandeep/

He described a scenario. "Mandeep is in a crowd. Let's say something is really important to him. Let's say the Canucks (hockey team) win. He decides he is going to go out and hit the streets and party with the rest of the crowd, and they get a little out of control. He just happens to be the loud one nearby." Mr. O'Brien further stated, the "use of force question" arises.

Again, another scenario was mentioned. "The 14-year-old at school that is constantly getting bullied, and then has finally lost it. What does "lose it" mean? I would hope and pray that "lose it" does not mean something such as an active shooter."

"It could intersect with you passively," said Mr. O'Brien, referring to routine police encounters with individuals with Tourette Syndrome. "You pull some guy over like that." Referring to individuals with Tourette Syndrome and their escalating behavior in certain situations, Mr. O'Brien stated, "We don't understand how a rational de-escalation, that logically makes sense to us, maybe isn't going to be. We don't understand why they don't think out things logically in advance."

"Is the officer (supposed to be) a child psychiatrist?" asked Mr. O'Brien. "No way. We put too much on officers now. It's awareness and understanding."

Referring to the efforts of Tourette Syndrome Foundation of Canada, Mr. O'Brien stated, "We are working hard around the awareness and tolerance. We are working hard around education. I am having conversations with PRTC (Pacific Region Training Centre of the RCMP) about including this in some police training. And, we are trying to educate."

"To get specific here around the non-lethal," stated Mr. Obrien, "we are very interested, when these critical incidents occur and when there is escalation, in having non-lethal force available."

"I think because of my background and the perspectives I bring," further stated Mr. Obrien, "I certainly can understand and appreciate when lethal force is required. I certainly don't want to say to any of you,

here, that I am not a supporter of that, because there is a time, there is a place, and there is a decision that has to be made in the heat of the moment, to protect lives and save people.

"But, there is also my other perspective of my kid. What if he is on the other end of it? And, you have to balance that. I know many of you are parents as well, and would have the same thought. We are very interested in seeing progress there."

"I think the question to you," said O'Brien referring to police, "is going to be, how do we as an organization better prepare you and your people, without an expectation that anybody has got to be a psychologist, or psychiatrist?" Finally, Mr. O'Brien asked, "how do we better educate the public around this, so that some of the things that trigger and drive the intolerance, and trigger and drive some of the social problems, can be de- escalated."

For more information see Tourette Syndrome Foundation of Canada at <u>http://www.tourette.ca/</u>

Health and Safety of Persons with Disabilities Interacting with Law Enforcement, presented by Dr. Sylvia Raschke of the British Columbia Institute of Technology: "The project that I want to present to you today is relevant to what we're talking about," stated Dr. Raschke. Essentially, it examined interactions between police and persons with those physical disabilities, having symptoms similar to drug and alcohol intoxication. Such disabilities include head injuries, Parkinson's disease, Tourette Syndrome and more. Dr. Raschke also stated that the selected physical disabilities "do not have cognitive or mental health components layered on top of them." The project was a collaborative effort by the Justice Institute of British Columbia and the British Columbia Institute of Technology.

"The goals and objectives of this project," stated Dr. Raschke, "were to identify the strategies, which if implemented, could provide a basis for a better understanding between persons with physical disabilities and police." They also included "improving the safety and relevant being of those disabled persons."



G14-575718 [RM] © www.visualphotos.com <u>http://www.visualphotos.com/image/1x7026997/</u> police department open house disabled man

The project's methodology was described by Dr. Raschke. Initially, it determined signs of intoxication. "We started with discussions with various police municipal departments and the Royal Canadian Mounted Police," stated Dr. Raschke. "Officers were either connected to the drug recognition expert program, or were with traffic enforcement. Through these discussions we were able to work to get a clear list physical signs and symptoms that are associated with the uses of various classes of drugs." She also stated, "we were fortunate enough to come up on a drug symptom matrix developed by Vancouver Police Department."

The next step matched intoxication signs with disabilities having similar symptoms. This was done by health care researchers at the British Columbia Institute of Technology. The resulting list was reviewed and finalized by a physiatrist, a medical doctor specializing in disabilities and rehabilitation. "Finally, we did a web search to see what other jurisdictions have done with respect to the subject," stated Dr. Raschke. "We identified several bodies of work ... though none of them were related to physical disabilities."

The list of disability symptoms and matching intoxication signs was used in three focus groups, conducted in February-March 2010. These three focus groups consisted of the following:

- Nine experienced police officers, all who lecture at the Justice Institute of British Columbia. "In their words, they were sort of in the third stage of their careers," stated Dr. Raschke, "mature officers who make balanced decisions."
- Twenty-one police recruits at the Justice Institute of British Columbia, who were in the first stage of policing, "idealistic, young, naïve police officers who want to change the world." Again, Dr. Raschke emphasized, "Those are the words of the police officers." (second stage was described as "cynical and tend to be quite down on things")
- Sixteen attendees who "represented a wide range of persons with physical disabilities," stated Dr. Raschke. "In addition, there were representatives from some advocacy groups, such as British Columbia Rehab, and the Richmond Disabilities Association."

These focus groups examined interactions between police and persons with disabilities having symptoms similar to intoxication. "The results from all three focus groups were then reviewed by myself and a colleague at British Columbia Institute Technology who does disability related research," stated Dr. Raschke. "The results were grouped into themes to see what common ground and differences there were, primarily between the policing groups and the disability group." Based on these findings, the following specific areas were addressed with associated recommendations provided:

Common Understandings between Police and Disability Groups: All groups agreed on the following, regarding interactions between police and persons with disabilities:

Importance of Communications and Education: These "out front are essential to good outcomes," stated Dr. Raschke. "When the disability group was asked how they might be able to play a role in educating police officers to best interact with them, one of the first things they asked was, 'would the police be interested in having some information on what resources are available in the community, and how to tap into them?' They added that they would be interested in working together with the police to help provide the information."

Knowing Where to Take Someone for Help: "This was brought up independently by both communities," said Dr. Raschke, referring to police and disabilities focus groups. "One of the biggest frustrations that

officers reported was not knowing where to get persons in distress to the help they really needed," stated Dr. Raschke. "At least in the lower mainland of British Columbia, the only option they often have is to take a person to a hospital emergency room, only to see the person back on the street a few hours later, since there are not enough hospital beds to admit that person."

Fear of Injury: "Persons with disabilities worry about getting hurt all the time by anybody, whether it's police or healthcare workers or their family," Dr. Raschke stated. "At the same time, police worry about hurting a person with a disability if they have to physically interact with them."

Context of the Interaction: Both communities "agreed that the context in which an interaction takes place is crucial for what happens next," according to Dr. Raschke.

Divergent Views of Police and Disability Groups: There are related concerns, trust, and expectations.

Differing Concerns when Interacting: These are as follows:

- Disabled Persons Concerns: "Persons with physical disability spoke about being mistaken for being drunk every time they go out in public, along with the fear and embarrassment about being singled out in a public setting for how they look, act, or speak", explained Dr. Raschke. "This is what I call the invisible context."
- Police Concerns: "This is in direct tension to what a police officer needs, when they are in that first contact situation. They need to assess the situation and move on, often for the safety of the person with a disability, or for public safety reasons," stated Dr. Raschke.

Differences in Trust: All groups acknowledged trust is needed for effective communications. However, differing life experiences of police and disabled persons can make trusting each other difficult.

- Where Disabled Persons are Coming From: "The disability group spoke about not being trusted by any members of the public," stated Dr. Raschke. "They are often asked to leave a place of business, simply because of how they look, walk, or speak."
- Where Police are Coming From: "Conversely, their everyday challenge is determining who is lying and who is not, because they hear a lot of lies," stated Dr. Raschke. "This has to be done in a high-stress, high-risk situations, where they have little time to process information and reach decisions."

Differing Expectations Regarding What Happens after First Contact: While police and disabled persons agree that context of interaction is important, the two communities have differing expectations regarding what happens after first contact.

- What Disabled Persons Expect to Happen after First Contact: "There is an acute embarrassment and stress that goes with having to explain what is essentially a private medical condition, publicly," Dr. Raschke said. "A number of persons with disabilities strongly stated that they would like police officers to provide them with a private, quiet place, where they can then disclose their medical condition."
- What Police Expect to Happen after First Contact: "Police on the other hand would like a person to quickly self-identify, or explain that their situation, so they can move on," stated Dr. Raschke. "They don't always have the luxury or the time to find a quiet place away from the crowd to have that conversation."

Recommendations: "In the focus groups, for the most part, it was understood that the solution to a complex challenge would require that both sides take responsibility of the situation and engage in good communication," stated Dr. Raschke. "It was in this discussion that a number of good suggestions were generated." The recommendations generally fell into the following categories:

Police Training and Education: Examples of some of the recommendations addressed by Dr. Raschke included:

- Bringing persons with disabilities to speak about their experiences and the invisible context.
- Having persons with disabilities participate in scenario-based training.
- Having some recruits experience disabilities as subjects in scenario-based training." This might include "having them wear earplugs, being confined to a wheelchair, or wearing a brace.
- Work with groups such as the British Columbia Association for the Disabled in developing educational materials
- Finalize the symptom matrix for persons with physical disabilities and distribute to police departments and recruits



Birmingham UK's Paraplegic Constable Rob Pedley has a first-hand understanding of physical disability (from <u>http://www.dailymail.co.uk/news/article-2041450/Confined-wheelchair-plucky-PC-Rob-stays-line-fight-</u> <u>crime.html#ixzz1lpY9VeJu</u>)

Inform Disabled Persons of Rights, Responsibilities and Policing Capabilities: This should be done by psychiatrists and disability groups, with help from police services. The disabled persons' focus group wanted "more information on what a police officer can and cannot request of them; how to respond to a police officer when approached; and what limitations are placed on police officers," stated Dr. Raschke. They also wanted to know more about police capabilities. "In British Columbia, the municipal police officers do not get first aid training for operational issues, (yet) a lot of the persons with disabilities assume that police officers get first aid training," said Dr. Raschke. "And, they wanted to hear more about the police perspective of context and trust."

Fast Identification of Physical Disability: "Both the police and disability groups brought up the idea," Dr. Raschke went on to explain. "Ideas ranged from an identity card, to classification on drivers license, to medical alert bracelets." Such identification could include personal information on a person's condition, contact phone numbers, and where to take that person in a crisis situation. "This is not a far stretch from initiatives that have already been implemented by the Alzheimer's community and that have been successful, locally," stated Dr. Raschke.

A final thought was offered by Dr. Raschke. "Proportionally, there are far more good news stories than bad news stories. That starts with our own disabilities focus group. A lot of stories came up about police encounters that were great ones, from police clearing a crowd so a person with disability could get through, to one case where a police officer pushed a person in an electric wheelchair with a battery that had gone dead for several blocks. If anybody is ever pushed a wheelchair with a battery, that is an incredible task. That's not easy to do."

Referring to such instances, Dr. Raschke further stated, "but they don't end up in the news. The next time that something goes wrong, we should never forget, there are many, many more times where things go right."

Concluding Remarks Presented by Dr. Christine Hall: "Individuals at high risk of death and injury deserve to be identified," said Dr. Hall. There should also be understanding and consideration for them. Referring to the individual with the extreme form of Tourette Syndrome in the video shown by Mr. O'Brien, Dr. Hall further stated, "I am struck by Mandeep's situation. The simple act of going to the grocery store, for him, must be devastating."

While protecting and serving such individuals is a goal of society, it faces challenges often outside the police community. "Scientifically sound findings are disregarded in favor of embracing myth and conjecture," stated Dr. Hall, and "ongoing squabbles limit the ability to identify and intervene." As she further stated, "Perception overrides reality."

"Two way communications aimed at problem solving is welcome," stated Dr. Hall. Such communication occurred in addressing interactions between police and persons with disabilities. There should also be a "healthy discussion of best practices." However, as Dr. Hall also stated, "debate should not be allowed to determine whether someone lives."

Workshop Sessions

<u>General</u>

At each International Law Enforcement Forum workshop, participants are divided into groups to assess issues and provide recommendations for them. The participants are assigned to groups based on their backgrounds, ensuring diverse expertise. These groups were comprised of law enforcement practitioners, policy makers, and researchers. This methodology enables a group to examine various aspects of a complex issue, as well as, develop a comprehensive solution for it. In doing so, it also allows participants to learn of other organizations' best practices regarding a particular issue and consider them for their own agencies.

For this International Law Enforcement Forum workshop, participants were divided into four groups, each with facilitators. These groups were tasked with addressing the following issues:

- Standardising and codifying the introduction and use of new technologies
- Hosting and coordinating major public events
- LLWs: the moral obligation and economic realities
- Behavioral threat assessment and active shooters

The groups also were given questions to help focus discussions with respect to that issue. After these discussions, facilitators presented each groups' findings in a plenary session. These group discussions and presentations were conducted over a two-day period, with different personnel assigned to the groups on the second day. The following summarizes the group's discussions and presentations on these issues.

Group 1: Standardising and Codifying the Introduction and Use of New Less-Lethal Technologies, presented by Mr. Graham Smith: The challenge is to do this more efficiently, as well as, synergistically than presently. At the moment, "Everybody is doing their own thing," stated Mr Smith. Each police service separately introduces new less-lethal technologies. The problem was exemplified by one group participant from the U.S.: "We have 17,600 different opinions," referring to the number of police services in the U.S.. Often, each agency "reinvents the wheel" as another group participant stated.

There may be several reasons for this problem. To some degree, police services "don't trust" other services, noted Mr. Smith. Also, "'standards' can mean a lot of different things," stated one group participant. Depending on the organization, a standard may be interpreted as an operational requirement, a testing requirement or a manufacturing requirement. Additionally, less-lethal technologies are a relatively new field, and thus standards and codification for their general introduction have yet to be developed.

In terms of introducing less-lethal technologies, "the worst practice is to just listen to the manufacturers, take their advice and go out and use it, and believe everything they are saying," stated Mr. Smith. "A lot of times we are getting equipment in need of a purpose," stated one group participant. "Manufacturers are always coming to the agencies themselves and saying we have this device. Right or wrong, some of these police departments are putting ten, or thirty thousand, of them out there to try it on the street, and that's how it gets tested."

This approach to introducing less-lethal technologies – relying solely on manufacturers' claims -- has had consequences, as several group participants pointed out. "We got sued a lot after the World Trade Organization (riots)," stated one group participant in the Seattle Police Department, "I called up the manufacturers and said, 'this is the wound we are seeing people show up with. Is this indicative of your round?' All the major manufacturers said, 'we don't know. We don't do human testing.'" Also one group participant pointed out that Taser has proven itself effective repeatedly. However, had its introduction followed standards, agencies would likely have done less "damage control," resulting from its unintended consequences.

The best practice would be to have bioeffects research guide the introduction of less-lethal technologies. "Everybody has a desire to know two things before deploying a different round," stated one group participant, "is it going to be effective and what injuries are possible." Determining these requires bioeffects research. Ideally, this research would more effectively support a less-lethal system's development. It would also inform these systems' employment, enabling their tactics that could ultimatelymaximize effectiveness and minimize injury risks.

Another best practice would be introducing less-lethal technologies with a very controlled approach. This was done with Taser in the UK. "We introduced that in a very controlled manner, in just five forces, using it in a very, very controlled way with a type test," stated Mr. Smith. The U.S. Department of Defense also introduces systems in a controlled way, conducting a "military utility assessment," as group facilitator, Lieutenant Colonel Ed Hughes U.S. Army (Retired), pointed out.

This controlled introduction should be monitored, which includes collecting data on the introduction. "The idea is to have a number of controlled cohorts and make sure everybody is doing everything in the same way and you're getting this information coming back in a quicker time," stated Mr. Smith. "You can identify problems and either correct them, or say, no we're not going to use this."

For example, the U.S. Food and Drug Administration monitors and collects data on a new drug, pointed out one group participant, also a physician. "When we have a new drug, you have to go through a shepherded series of steps, demonstrating first the safety of this drug," stated the physician. "Then, the manufacturer has to demonstrate efficacy... (and) then an independent body of experts says, you've met these two hurdles, and it appears to be a reasonable thing. Now, you can do a limited sort of field trial and show us the results before you can use this medicine generally." As he further stated, "you still have to do post-marketing surveillance for complications and problems."

As another example, the U.S. National Institute of Justice has set up the Less-Lethal Incident Monitoring System to collect data on the field uses of less-lethal, blunt impact munitions and Tasers in selected cities.

In summary, the group recommended the following for introducing less-lethal technologies:

Develop/expand a Generic Framework for Introducing Less-Lethal Technologies: This framework "must be applicable to all technologies that we think about now, but also new ones coming in the future," stated Mr. Smith. "So, it must be loose enough to cover everything." This framework should address:

- Effects
- Injury Potential
- Reliability
- Whole System Approach (device, policy, training)

"This framework is more of a principle than a standard. It's not something that the International Law Enforcement Forum is trying to impose, or pontificate about," stated Mr. Smith. This framework should be developed and expanded, using the electronic operations requirement group, which is an e-mail-based group, established by the International Law Enforcement Forum. The group should "draw on varying areas of expertise to inform the various parts of the framework, whether it's the technical part, the operational part. You'll need different inputs," stated Mr. Smith. (NOTE: John Kenny produced a framework for developing and fielding effective non-lethal weapons in DoD, entitled Establishing a Framework to Determine Non-lethal Weapon Effectiveness, 28 September 2007)

Gain Support for this Framework for Introducing Less-lethal Technologies: "If we do put together this international framework, there must be buy-in from countries or organizations that are going to use it," stated Mr. Smith. They must "recognize what the International Law Enforcement Forum is doing," Mr. Smith went on, "otherwise, you're wasting your time."

Make Operational Requirements Widely Known to Industry: "The operational requirement," according to Mr. Smith, "must be open to all. We don't want to be in bed with one company. All companies must have an equal opportunity to see the requirements and be able to develop them and put products forward."

Conduct Independent Testing: "Don't take the manufacturers word. Validate it," stated Mr. Smith. "Any testing needs to be independent," emphasized Mr. Smith. This should be done by trusted agents, to determine less-lethal technologies' performance under varying conditions and thus their limitations.

Monitor Newly Fielded Less-Lethal Technologies: "You have an operational test, or a trial. You need to monitor that very carefully, to make sure that the information coming back informs further testing guidelines and how the device is used,"as pointed out by Graham Smith. This monitoring should continue after fielding. Examples of monitoring systems that might be considered are the U.S. National Institute of Justice's Less-lethal Incident Monitoring System, as well as, Calgary Police Service's

RESTRAINT (<u>Risk of Events in Subjects That Resist</u>: prospective <u>A</u>ssessment of <u>Incidence and Nature of ou<u>T</u>comes \underline{N} </u>

Share Information between Agencies and Nations: "We are being pushed to do more with less money, and this forum gives us the benefit to do that, if we are sharing each other's resources," stated Mr. Smith. The International Law Enforcement Forum should be used to share information between agencies and nations' development, testing and fielding of less-lethal technologies.

Group 2: Hosting and coordinating major public events, presented by Sergeant Bruce Stuart: Essentially, group two focused on two major areas:

- Preventing crime and civil disorder in major public events
- Developing policing capabilities for public events and general use

Preventing Crime and Civil Disorder in Major Public Events: This should be the goal in policing. Its achievement greatly depends on anticipating such possibilities, and taking preemptive actions to "head them off at the pass," stated Sergeant Stuart, referencing Vancouver's Chief Constable Jim Chu comments on policing the Winter Olympics. This prevention should include the following:

<u>Understand the Event</u>: Anticipate the nature, time, locations, and volatility of an upcoming event. For example, "the most common riot in the United States is the celebratory riot," stated one group participant. "The celebratory riot is probably the most predictable." They occur in readily anticipated areas like near sports arenas or entertainment districts, as mentioned by Chief Constable Chu. "The highest intensity is right after the event," stated the same group participant, "and it drops off dramatically unless they have another event, for instance a parade." Protests, as another example, may occur before an election, peaking just before, or in association with other public events, such as the Olympics. Also, "if you've got somebody incensed enough to have a demonstration, you've got somebody incensed enough to have a counter demonstration," emphasized the same group participant. Thus, police will likely have to consider competing protests.

<u>Gather Intelligence</u>: Signs of coming protests were seen well in advance of the 2010 Winter Olympics. Police will benefit from watching for such signs, as well as, gathering intelligence from contacts within protest groups. "One thing our team overlooks is social media -- Facebook, Twitter – (you can) find out where they're meeting, who's bringing what," one group participant pointed out. "Don't overlook the Internet and social media. It's all there if you know where to look." (NOTE: see ILEF Paper on Flash Disorders)

<u>Set Boundaries and Rules of Engagement</u>: "Know what your limits are. Know what your boundaries are," stated Sergeant Stuart, "Inevitably, you have to have a "line in the sand" for public events. These limits apply to the location and potential movement of a public event. Key facilities, as well as, the community should be protected. "In Toronto, a break off (protest) group ended up in areas where you had people on Saturday afternoon shopping," stated Sergeant Stuart. "You had civilians who were all of a sudden caught in the middle of it." Boundaries also should be set for behavior. "You have to decide ahead of

time what behavior is going to trigger a response," stated one group participant, "if you let that go on too long, you are going to get violence and destruction." These boundaries should be set well before the event and known within the police service.

Engage Group Leaders and the Community: "If you have a protest group that you are aware of, speak to them beforehand. Set up some guidelines," stated Sergeant Stuart. As an example, some Canadian Police Services have created Community Relations Groups, or CRGs, to engage with public organizations. This engagement should be done before, as well as, during the event. "If a protest sparked up," stated Sergeant Stuart, "the CRG would go in and speak to them (protest leaders) immediately. They (CRG) were able to get an idea of what they had in front of them, and set some ground rules with those quick, rapidly evolving, small little protests." Also, the community should have an idea of what it can expect. "Get messages out to the community," stated Sergeant Stuart, "Get the community involved right from the "get go."



Member of Community Relations Group in downtown Toronto during G20 Protests, June 26, 2010 (From:<u>http://www.flickr.com/photos/salty_soul/4737272792/si</u> <u>zes/m/in/set-72157624364550156/</u>)

<u>Search and Sanitize the Event Area</u>: When event areas are known, "It's easier for us if we've got people already sanitizing that area, making it safe and secure for all going to facilitate a peaceful protest," stated one group participant. "Sometimes you uncover weapons of opportunity, and other intel to be obtained from that." As he further stated, "the notion of intelligence gathering should carry on through and after the event." Such intelligence may indicate future activities.

<u>Shape/Influence in the Event</u>: This should be done as early as possible, rather than solely reacting to criminal acts and crisis. Referencing UK's University of Reading's studies, one participant stated, "There are actually three stages of going from a crowd to a mob...The best chance for intervention is the first phase, the gathering phase. There are several ways that might be done:

- Police Interactions with the Crowd: This, again, was exemplified by the Vancouver Police. At the beginning of events like fireworks displays and outdoor concerts, groups of police move through and interact with a crowd, as Sergeant Stuart pointed out.
- Multimedia Communications: At such events, the Vancouver Police also hand out stickers with the Vancouver Police seal, pictures of their public order team, and a statement, "enjoy being part of the crowd, but above all be yourself." Such messaging is intended to prevent the contagion effect in a crowd. Additionally, messages like, "'You need to stay away from this area, you need to move here,' may be delivered through acoustic devices like the LRAD (Long Range Acoustic Device," stated Sergeant Stuart. And, as mentioned, units like Calgary Police's

Community Relations Groups may move into the crowd and communicate face-to-face with protest leaders.

- Camera Coverage of the Crowd: "At the beginning, the use of cameras is important. It may work as a deterrent," said Sergeant Stuart, referring to the potential for deterring criminal behavior. "Taking pictures is going to help you later for making arrests," as he also stated.
- Police Insertion and Extraction Teams: In the event an individual's behavior crosses a boundary, "then you go in and make a very high visibility arrest," stated one group participant, "you set the tone and the bar." This should be done by a police team that is inserted into the crowd to extract and arrest such individuals.
- Consider Malodorants to Deny Areas and Separate Groups: "Malodorants give off a noxious smell so that people aren't going to want to be near the area," stated Sergeant Stuart. "There are a number of different ways to use them." Conceivably, they might be used to keep a crowd away from a treasured landmark. Also, it might be possible "to place malodorants on specific officers, so they could walk through the crowds, and began to splinter off and separate the groups," according to Sergeant Stuart.

<u>Decentralize Skill Sets and Equipment</u>: "Do not have everything with your SWAT teams," stated Sergeant Stuart. "If your (other) officers don't understand them, they don't know how to use them, and they are only tied to one group. If something goes sideways you are not going to have the ability to employ them." As he further stated, "make sure that your less-lethals, your skills and your equipment are distributed throughout your organization, and not tied to one specific area."

Establish Responsibilities for Command Levels: An example is the UK's use of bronze, silver, gold levels. "you empower your people at the bronze level, on scene, to make decisions," stated Sergeant Stuart. "The people at the gold or silver levels should be at a higher level...They are looking more strategically ahead, not worrying about the small things down below."

<u>Rely on all Levels to Contribute to Situation</u> <u>Awareness</u>: "Command by camera" refers to decisions made by officers, solely viewing closed-circuit TV. "You don't always get the full picture from a camera," stated Stuart. "You need somebody down on the ground to help better paint that picture about what's going on to give proper perspective."



Police officers view closed circuit TV in the Central Communications Command Center for London's Metropolitan Police <u>http://cosmiclog.msnbc.msn.com/ news/2007/07/02/4350220-tv-vs-terror</u>

Developing Policing Capabilities in General: The group addressed the question, how can technologies assist in policing major public events. However, policing cannot just focus on technology. Rather, technology is integral to an overarching capability, consisting also of tactics, techniques and training. The more important question is how can required capabilities be developed, not just for policing public events, but policing in general? "It is not a matter of having manufacturers come to us with their wares and say, 'Hey, what do you think?'" stated Sergeant Stuart. Such capabilities should result from a deliberate process, with the following recommended stages: (NOTE: See Establishing a Framework to Determine Non-lethal Weapon Effectiveness)

<u>Determine Operational Requirements</u>: This may be done using any of the following:

- Evidenced-Based Approach: This determines a need, based on documented cases and data. For example, use of force reports might enable determination of operational requirements. As Sergeant Stuart pointed out, "We can take those reports and we can garner a bunch of data from it."
- Scenario-based Approach: This examines, "developed scenarios or previous scenarios that we have had," stated Sergeant Stuart. "You go through different scenarios. You change the situational factors, the characteristics, the time of day, the weather. You will have different requirements for each one and you'll come up with a master list."
- Emergent Needs: These may not have been determined by the above approaches, but are requested by police commanders.

<u>Determine Solutions for Needs</u>: "Once you have that list of operational requirements, then you go out and either build your technology, or look at technology that fits those," stated Sergeant Stuart. "Sometimes it is the simple things," as he further stated, referring to possible solutions. For example, police tape may be sufficient to prevent people from entering an area, depending on the circumstances. Needs might also be met by other low cost solutions, such as changing policies, tactics or procedures. However, if need requires a new technology, police should relate the operations requirements to scientists and engineers for development.

<u>Develop Tactics and Techniques for the Technology's Use</u>: "Tactics and techniques are the nucleus," stated Sergeant Stuart. Together, the tactics, techniques and technology make up a concept of operation. It should be determined by police and developers working together.

<u>Introduce the Capability in a Controlled and Experimental Manner</u>: "Do not use equipment just for the big day," stated Sergeant Stuart, referring to first time use in a major public event. "It needs to be properly integrated first," into an organization.

Group 3: Less-lethal Systems – The Moral Obligations and Economic Realities, presented by Officer Don Whitson: "We were looking at the moral obligations of employing less-lethals," stated Officer Whitson. This obligation stems from the oath that law enforcement officers take. "We are sworn to protect life," said one group participant. This belief was echoed by others. "I have a moral obligation to do everything reasonably possible that will either deter or distract, before I absolutely have to disrupt an activity, whether it is criminal or otherwise, in the interest of public or officer safety," stated another group participant.

Using the minimum amount force needed for policing is also seen as a moral and legal obligation. In New Zealand, the use of force is governed by the principles that "it is reasonable, necessary and proportional," stated Officer Whitson, quoting New Zealand Police Superintendent John Rivers. "In the United States, we use reasonable, necessary and appropriate," offered Officer Whitson. "It is based on our case law."

"These tools give us an option, where we no longer have to use just lethal force," stated one group participant, referring to less-lethals. Another group participant said, "We have used gas. We have used Taser. We have used OC spray. They are all effective means, if they are employed responsibly and under direction." Additionally, a third group participant emphasized, "I would agree with every one you have named. I would also add the ARWEN ("Anti Riot Weapon Enfield," blunt impact munition) and the beanbag (round)." As this last group participant, along with others, also agreed, "Our moral obligation is to have those options available."

However, this moral obligation is often in conflict with other realities. There is a lack of understanding regarding less-lethals and their the extet of their moral obligation within some commands. "As it goes higher up the chain, superiors are more disconnected; that seems to be where a great deal of the

breakdown comes," stated Officer Whitson. "The end users can want some particular type of technology, but unless you get the command and top echelon on board, it probably isn't going to happen."

In some communities, there is also lack of knowledge and trust within the public. Three weeks prior to the workshop, "a Swedish professor in criminology ... said on television that Taser is a dangerous tool," according to one group participant. "The public is already distrusting of police in general, specifically about Tasers and less-lethal weapons," stated Officer Whitson. "If the public doesn't trust what we are doing, then we can have the best tool in the world and it's still not going to find favor, and they won't have an appetite for us using that particular device."

In some countries, policy makers have inhibited the police use of Tasers. An example is the fallout from Canada's Braidwood Inquiry of a 2007 death that followed Taser use by the Royal Canadian



http://electronicvillage.blogspot.com/2009/05/taserrelated-deaths-in-united-states.html

Mounted Police. "Since the Braidwood inquiry," stated one group participant, "all of our stats have gone from so many deployments of CEW (conducted energy weapons), to draw-and-display." Additionally, Officer Whitson stated, "a result of the Braidwood inquiry is that their (Canada's) constables are very reluctant to carry the Taser for fear that they will be prosecuted for a crime."

Also, less-lethal systems also have a cost which competes with other budget priorities. There is the cost of the system or device itself. "As example, an X26 (Taser) is running, without accoutrements, about \$800, stated Officer Whitson. "Then you go up to Canada, it goes to \$1,400, and if you want one with a camera on it in New Zealand, then it is \$2,400." He also stated that any less-lethal device "is an entire system that needs to be supported; that has an economic reality to it." This includes both logistics, and training officers to make them proficient in the use of the device, which is a major cost, as well.

The other competing priorities were exemplified by the Toronto Police Service's budget. "At least 92 percent of our budget is directed to staff wages and pensionable benefits. That leaves about eight percent of the budget for equipment" stated one group participant. "I go back to the notion of having to procure, to test, to train, to recertify and to support throughout its life cycle."

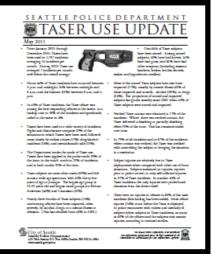
Additionally, some police services cannot afford the same less-lethal capabilities that others can. "The Canadians, particularly on the western coast are very well trained and very well-funded," stated Officer Whitson. "That is not universal across Canada, nor is it universal across the United States."

To help meet this moral obligation regarding less-lethals, the group made the following recommendations:

Educate Commanders and Senior Administrators: "We are having to go back and re-educate the command level," said Officer Whitson. "The blinders have gone on so much with the budgetary thing

right now, that I continually have to go back to this moral obligation and remind the deputy," stated one group participant. "I, just this past week, had to beg and plead for C\$20,000 for training cartridges for requalification this year for CEW use, and it was a battle. It went down the philosophical road of 'remember this is why we are doing this." The same has been done in the European Union, stated Officer Whitson, "where they have carried that back to their oath and said, 'now, in order for us to carry out that mandate, we are really requiring you to give us those tools."

Educate the Public: "Instead of doing damage control, we have to be a little more proactive," stated Officer Whitson. "We should tell a story on the front end, as opposed to trying to justify it on the back end." He also said, "we are doing a disservice to ourselves, on occasion, by not giving out good information, and also by not giving out any information at all. Our silence invites



Seattle Police Department's public report on Taser use

(http://www.seattle.gov/police/publications/special/ TaserUseUpdate0511.p)

the media to make up whatever they like about a situation. It typically will be one that is more sensational than the event itself."

Demonstrate Due Diligence Prior to Fielding Less-Lethal Systems: This has three major components:

- <u>Base Less-lethal System Development and Acquisition on Operational Requirements</u>: "Look at a real operational need, don't just get sucked into the sexiest thing on the market, yet it probably doesn't fill an operational gap."
- <u>Research and Develop More Thoroughly</u>: There is a need for more discipline and more rigor in the research and development of those tools before we put them out into the field. Don't just rely on manufacturers claims.
- <u>Train and Educate Officers</u>: The moral obligation includes the proper training and proper mindset for end-users.

Advocate Less-lethals as Part of Risk Management: This helps address the problem of commanders and administrators narrowly focusing on the cost of less-lethals. Rather, their acquisition and use should be viewed as potentially reducing the risk of litigations and inquiries. As Officer Whitson asked, "Can you afford not to have less-lethal when you have to go through the costs of shooting investigations?"

Share Resources and Information Across Police Services: This helps reduce less-lethals costs, which are prohibitive for some services. There is some advantage to pooling our resources. Thus, the following measures are recommended:

- <u>Establish Common Standards</u>: Standardize these less-lethal tools, and the technology and testing protocols, so police officers wouldn't have to go out and redo them every time through every agency. Right now, it is more of a shotgun approach
- <u>Conduct Combined Testing</u>: "It is impractical for our one agency to compel the rigor for testing and evaluation of one particular system," stated Officer Whitson.
- <u>Reinstitute and Use the Electronic Exchange</u>: This should be done by the International Law Enforcement Forum, enabling an exchange of information across police services and nations. It could aid development of common standards for less-lethals, as well as, sharing of information on less-lethal products, testing and use.

Educate Internationally: The sharing of information across international boundaries – through the electronic email exchange and other means -- can help educate on policy and technology, relating to less-lethals, as well as, help drive acceptance.

Group 4: Behavioral Threat Assessment and Active Shooters, presented by Mr. John Gnagey and Chief Inspector Andy John: "We had a terrible year in 2010 as far as active shooters in the States," said one group participant. "We had about 34 incidents. So, it's almost three a month. Four of them were school shootings." This group examined ways to anticipate and possibly prevent such incidents.

Quoting a study, one group member pointed out that an individual goes through stages of fantasy and planning before becoming an active shooter. "How do you pick up that he is going through those stages before it is too late?" the group participant asked. He further described the steps to stop them:

- Connect in advance, so people can provide information in the first place.
- Have a system or mechanism in place to sift through that information.
- Have a valid threat assessment matrix which allows the collection of information, and provides an analysis at the other end, that makes someone likely or less likely to become an active shooter.
- Develop a legal or mental health framework to deal with them effectively.

There are some countries in Europe, "who do this really effectively," stated the same group participant. "The Germans have stopped active shooters, particularly in schools. The Finnish have as well. They have created whole departments that just do the Facebook thing." As he further stated, "They've got funding for it and they've got mechanisms in place and they've got lots of detectives who can get information. And, they are successful at it."

However, as this participant and others pointed out, each of these steps faces varying hurdles in other countries, such as Canada, UK and U.S. Regarding information sharing between police and schools in the

U.S., Mr. Gnagey stated, "There are legislative barriers in some states and communities that won't allow schools to do that."

There are models and means for predicting violent behavior, but there are challenges to using the results. The U.S. Secret Service has developed a behavior threat assessment model. Ontario Police service also uses a model to predict spousal abuse, called the "Ontario Domestic Assault Risk Assessment." Some corporations' human resources departments have models for predicting employees' disruptive behavior. Referring to behavior threat assessment models, one group participant stated, "We have them. However, the models aren't going to yield you any hard, concrete evidence." This problem was echoed by group participants from Canada, UK and U.S.



Virginia Tech shooter Cho Seung-Hui in video mailed to NBC news (from http://news.bbc.co.uk/2/hi/in_pictures/6571075.stm)

Profiling can be used to identify behavior threats. According to one group memebr, "I have about 175 cases of active shooters in America, and when I look at the school shooters, there are always indicators that are behavioral-based." He went on to state, "I would argue that those red flags to the trained observer are there." However, the ability to do such profiling is becoming a lost art as result of police answering more calls for service, rather than getting out and talking to people in the neighborhood and businesses, as was pointed out by more than one group member.

Additionally, a group participant stated, "What do you do when you identify them (potential subjects)?" An active shooter is likely to have mental health issues. However, as group participants from Canada and the U.S. pointed out, there is not a good mental health framework for dealing with such subjects. "We have had massive deinstitutionalization in America, where all but ten states have gotten rid of all their large mental institutions," stated one group member. In Canada, "there is no in-patient standard for treatment," stated another group participant, also a physician. "So, you are remanding someone for treatment that doesn't exist, and that is illegal."

To help deal with this situation and anticipate active shooters, the group recommended the following:

Establish Mechanisms Between Organizations and Police for Communicating Threats: As Mr Gnagey stated, police should "develop formal/informal relationship with the schools, with the administrations, the businesses, to where they are not uncomfortable with saying, 'Joe Smith (student) out here is doing something that is not quite right." Also, anonymous reporting programs like "Crime Stoppers" could be used to share information.

Use School Resource Officers: These are police officers specifically assigned to schools. "The school resource officer for us – especially when you are dealing with threat assessments for school shootings – has been invaluable. The officers in the school have been a total success," stated one group participant. "There isn't a day that goes by that there isn't a mental evaluation done on a student," as he further stated. "There is no way of measuring how many school shootings we have prevented." Another group participant stated, "When the counselors and principals trust the police, that is the only thing that is going to prevent it (school shootings) ...I think the school resource officer is the best money spent to address this issue."

Use Behavior Threat Assessment Models to Train Police and School Personnel: While it is difficult for police to intervene based on a model's results, behavior threat assessment



Douglas County, Colorado Sheriff's Office School Resource Officer with Douglas High School students (from http://www.douglasconvsheriff.com/userpages/School-Resource.aspx)

models do have value. They can help train police to profile behavior of a potential active shooter. They

also can be used to educate schools, when possible, on what has been learned statistically. Such models can aid schools' behavioral threat assessments, which are now mandated by some states in the wake of the Virginia Tech University shooting.

Develop and Improve Models and Profiling: This might be done through "relationships with academic institutions to help via research grants and graduate students," stated Chief Inspector John. "There may be some opportunities there, which could be fairly low cost."

Assist Schools in Planning for Active Shooters: "A lot of schools in the United States don't have a contingency plan for an active shooter," stated Mr. Gnagey.

Plan and Train for a Multi-Jurisdictional Police Response: "Don't wait for an incident to happen before you start speaking to your partners in other organizations," stated Chief Inspector John. Rather, a multi-jurisdictional response should be anticipated and the following done before an incident:

- Conduct multi-jurisdictional planning, establishing command authorities, responsibilities and response procedures
- Establish an agreement for a multi-jurisdictional response
- Conduct scenario-based training exercises involving all jurisdictions
- Develop personal relationships with counterparts in all jurisdictions involved
- Exchange information regarding any changes to the response

Plan and Train with Emergency Medical and Fire Services: The need to establish procedures for these services was seen in the Cumbria shooting spree (June 2010) in the UK. During the incident, emergency medical personnel were restricted from the incident scene by their senior manager. One alternative procedure was described by a group participant, "Once a shooter has been isolated or neutralized, we declare the zone from 'hot' to 'warm' ...we realize there could possibly be another shooter...we have our paramedics that are our standard ambulance crews, don body armour and helmet. They are labeled 'Rescue Task Force.' It's two paramedics, two police officers. They go into the warm zone and conduct triage."

Develop a Good Relationship with Local Media Prior to an Incident: "The media are 24/7 beasts that need feeding. It is not a case that the law enforcement can ignore the media," said Chief Inspector John. "Help them obtain the information they need." He went on to say, "Probably, one of the best ways around that is to involve and educate the media, particularly on a local basis, around some of the new and less-lethal options that we currently use, so, they have a better understanding of why we use those particular tactics." Additionally, he stated, "meet with the media prior to a major incident. If there is a preplanned incident, then there may be opportunities in order to develop mutually agreed ground rules and a strategy for managing the media."



Appendix A – Agenda

Tuesday, 10 May 2011 (Day 1)

0730-0830	Breakfast (On your own/Hotel)
0800-0830	Registration at JIBC Conference Auditorium
0830-0840 University)	Introduction and Overview – Andy Mazzara, Executive Director, ILEF (US – Penn State
0840-0850	Welcome by Inspector Frank Ciaccia, Director of the JIBC - BC Police Academy
0850-0910 Challenge	Welcome by Colin Burrows, Chair: Strategic Threats & Critical Incident Response – The
0910-1015	Host Force Welcome Address: Chief Constable Jim Chu, Vancouver Police Department
1015-1030	BREAK – Refreshments provided
1030-1230	International Presentations: Less-Lethal Technology Overview
	Canada: Canadian Police Research Centre Update – Steve Palmer, CPRC
	United Kingdom: UK Technology and Tactics Update – Graham Smith, HOSDB
	United States: US Technology (National NIJ Centers) Update – LTC Ed Hughes USA RET
	European Working Group Summary – Col Ulf Sundberg, Karolinska Institutet
	New Zealand: Use of Force and LLW Tactical Options Initiative – John Rivers, NZP
1230-1330	LUNCH – Introduction to Breakout Sessions by Andy Mazzara
1330-1415	Chief Constable Ian Arundale QPM, Dyfed-Powys Police: Governance of LLWs – a UK Perspective
1415-1600	Workshop Breakout Sessions
	1 – Standardising and Codifying the Introduction and Use of New Technologies
	2 – Hosting and Coordinating Major Public Events
	3 – LLWs: The Moral Obligation and Economic Realities
	4 – Behavioral Threat Assessment and Active Shooters
1600-1630	BREAK (Reporting Out Preparation)
1630-1715	Plenary Session (Group Reports & Discussion) – JIBC Conference Auditorium

- 1715-1745 Day 1 Summary and Conclusion *Colin Burrows*
- 1800 Depart for ILEF Dinner (Location TBD)
- 1830-2100 ILEF Workshop Dinner: Invited Speaker Dr. Rick Parent, SFU Police Studies

Wednesday, 11 May 2011 (Day 2)

0730-0830	Breakfast (On your own/Hotel)
0830-0845	Day 2 Welcome – Colin Burrows
0845-1000	Minimal Force Options Medical Perspectives/Update – Drs. Christine Hall, Bill Bozeman
1000-1015	BREAK
1015-1115	Excited Delirium: Operational Views: Sgts Tom Burns (Seattle PD)/Joel Johnston (Vancouver PD)
1115-1200	Emerging Trends and Issues in Policing – Chief Inspector Richard Lewis, Dyfed-Powys Police (UK)
1200-1300	LUNCH (JIBC)
1330-1530	Workshop Breakout Sessions
	1 – Standardising and Codifying the Introduction and Use of New Technologies
	2 – Hosting and Coordinating Major Public Events
	3 – LLWs: The Moral Obligation and Economic Realities
	4 – Behavioral Threat Assessment and Active Shooters
1530-1630	BREAK (Reporting Out Preparations)
1630-1715	Plenary Session (Group Reports & Discussion)
1715-1730	Day 2 Closing Comments – Colin Burrows
1800	Free Time

Thursday, 12 May 2011 (Day 3)

0730-0830	Breakfast (On your own/Hotel)
0830-0845	Day 3 Welcome – Colin Burrows
0845-1000	Introductions of Civil Liberties/Mental Health Organizations Panel (10-20 minutes each)
1000-1015	BREAK
1015-1100	Continued Introductions of Panel Members
1100-1230	Facilitated Panel Discussion/Questions & Answer Session:
	Excessive Force issues, Large Scale Protests Turned Violent, Counter-terrorism vs. Civil Rights
1230-1330	LUNCH
1330	Workshop Concluding Comments/Summary – Colin Burrows
1400	Workshop adjourns
1430-1530	Advisory Board "Hot Wash"

Appendix B – Focus Questions

Session 1: Standardising and Codifying the Introduction of New Technologies

- 1. Where are we and where do you think we need to go in terms of test standards for less-lethal munitions and technologies?
- 2. Do you have observations regarding the best and worst practices concerning how to (or how not to) introduce new technologies into the field?
- 3. Would you like to see more testing, or less testing, of new quipment before it is introduced? Why? Different testing? What type of testing or what results do you (or your management/community) need to make it "easier" to procure the device?
- 4. In terms of equipment and technology support what would be your two biggest complaints? Why? If the vendor has it right, what are the things they are doing to support your mission?
- 5. Name and discuss your top 3 equipment and/or technology issues from an operations perspective as they relate to operating in and around major public events?
- 6. What have been the least useful and effective less-lethal munitions or devices currently being used in support of large scale public events? Can they be improved? How?
- 7. What are the most useful and effective less-lethal munitions or devices currently being used in support of large scale public events? Can they be improved? How?
- 8. What technology/medical issues need to be considered in respect of design, operational guidance and after care in respect of emotional and mentally distressed subjects and other vulnerable groups?
- 9. What are the benefits of an international approach to codifying the testing or standards for introducing new equipment to the force? Why? If a device had to go through testing (a few months to a year delay for device or human tests), would you go without the device, or buy it anyway? Why?
- 10. How might ILEF better support the international policing community by promoting internationallyaccepted test protocols or standards? How do we get from here to there?
- 11. How involved should the manufacturers be with regards to new equipment/munitions testing? What can be done differently than your organization is currently doing?

- 12. Do you believe your management, your community, or the public would believe less-lethal devices would be safer if there were specific testing standards for each device? Why do you think they would be safer?
- 13. Are there options or approaches used in your department to ensure adequate eye protection (laser light risks) for officers?
- 14. Please discuss the issue of weapons management and accountability to include issue, maintenance, age, wear, and software recording/audit trail for usage. How does your organization, agency or department handle this?

Session 2: Hosting and Coordinating Major Public Events

- 1. How can police best prevent crime and civil disorder through early intervention on site to disrupt those indicating clear criminal intent?
- 2. Can technology (LL options) assist in reducing opportunities to attack or damage identified treasured or iconic sites (I.e. enhanced police shields plus barriers)?
- 3. How can technologies assist in containment to better isolate/filter problematic groups and individuals from peaceful protestors?
- 4. How can you more effectively separate and move away and protect the peaceful, or more vulnerable, from an emerging disorder situation?
- 5. When and how is best to intervene once a violent disorder situation has manifested itself?
- 6. What are the best tactics and technologies to intervene, control and stop a violent disorder situation from growing out of control?
- 7. How can police better communicate with different groups (and subgroups) within a larger crowd using modern communications technologies and means?
- 8. How can we ensure that command communications are appropriately responsive in fast-moving and complex situations?
- 9. Is your present command structure/organization best suited for dynamic situations requiring greater speed of decisions? Why, or why not? What changes would you make?
- 10. How can minimal force options and LL technologies be more effectively employed in an agile manner to better protect the public as well as private and public property?
- 11. Are there optimal or more effective less-lethal or other tactical options for police officers facing threats such as firearms, petrol or blast bombs, masonry and laser lights at the height of serious public order situations?

Session 3: LLWs – Moral Obligations and Economic Realities

- 1. What exactly do we mean by the term "moral obligations" as it relates to the employment of lesslethal weapons and technologies?
- 2. What are the general economic realities for your policing organisation in terms of acquiring and deploying Less Lethal Technologies? Are they getting better or worse? What do they mean in the larger sense and how are they impacting operations?
- 3. In an era of constrained budgets for training, as well as operations, how best might LL technologies be used to maintain or improve operational capabilities?
- 4. Of the available less-lethal technologies either in inventory for your jurisdiction or obtainable with advance planning, which are potentially best suited for dealing with large scale public events? What are some of the social acceptability issues? What has your organization done to address or mitigate potential public/social/moral concerns in your jurisdiction?
- 5. Does employing minimal force options/LL technologies cost the organization more or less for major public events? What are the primary driving cost factors that might come into play?
- 6. In an economic environment where budget cuts are mandatory and all spending must be prioritized and linked to agreed operational outcomes, are there specific "connecting points" to operational outcomes which would justify spend less-lethal technologies and munitions? What are the major budget issues for day-to-day routine policing?
- 7. What have we learned about public concerns and acceptance, or lack thereof, for conducted energy devices?
- 8. Have any cost-benefit analyses been done by police organizations into the introduction and employment of the Taser[®], or other CEDs? If so, what did that analysis show? If not, what are some of the cost factors to be considered in such an analysis (officer/bystander/suspect injuries, cost of weapons, cost of munitions, cost of training)?

Session 4: Behavior Threat Assessment and Active Shooters

- 1. Has your organization explored specific behavioral threat assessment models or programs? If so, how have they been received within the organization and the local community, and how have they worked so far?
- 2. Has profiling been used and effective in early identification of potential threats within the community, the city or for a specific major public event? Why, why not?
- 3. How can a police organization best coordinate several (or numerous) law enforcement responses resulting from mutual aid cutting across several jurisdictions?
- 4. What are the roles and lessons learned for unarmed/non-SWAT(risk-adverse support) personnel in active shooter scenarios? Do you have recommendations this area?
- 5. Has your organization employed psychologists or profilers to help the department better respond to a potential threat or active shooter scenario? How has that worked out?
- 6. Discuss "before, during and after" media considerations or factors that should be included in situations involving behavioural threats to public safety, active shooters, or coordinated attacks that could include the employment of less-lethal options (or not)?.
- 7. Where time permits, what issues need to be addressed in the handover from initial responders and those in initial command to specialist teams and dedicated critical incident commanders?
- 8. What practical difficulties exist in managing this if the incident is still ongoing and the subject(s) is continuing the shooting spree.
- 9. What issues in respect of containment and joint agency working need to be developed e.g. fire and ambulance and casualty evacuation?
- 10. In an incident which is not confined to specific building/defined location but involves an active shooter(s) on the move what challenges will be faced by control room staff in effectively monitor and coordinate all the resources both tasked and self deploying form their own and neighbouring agencies and what good practice issues can you identify?

Appendix C – Workshop Attendees

Sergeant Tim Antcil	Royal Canadian Mounted Police Canada
Chief Constable Ian Arundale	Dyfed-Powys Police United Kingdom
Dr. Cindy Bir	Wayne State University United States
Dr. William Bozeman	Wake Forest University United States
Sergeant Tom Burns	Seattle Police Department United States
Ms. Amanda Brooks	Penn State University United States
Mr. Colin Burrows QPM	Chairman, ILEF Advisory Board United Kingdom
Sheriff J. (Al) Cannon	Charleston County Sheriff's Dept (SC) United States
Mr. Joe Cecconi	National Institute of Justice United States
Corporal Suki Dhillon	Royal Canadian Mounted Police Canada
Inspector Jamie Ewatski	Port Moody Police Canada
Sergeant Brad Fawcett	Vancouver Police Department Canada
Captain Joe Fiumara	Lake Havasu City Police Dept (AZ) United States
Deputy Chief Mike Frederico	Toronto Police Service Canada
Executive Director John Gnagey	National Tactical Officers Association United States
Mr. Christian DeCock	Ministry of Defence Belgium
Chief Inspector Billy Dodds	Police Service of Northern Ireland United Kingdom
Mr. Andy Gray	National Policing Improvement Agency United Kingdom
Mr. Mark Griffin	Penn State University United States
Captain Alan Goldberg	Montgomery County Police (MD) United States
Dr. Christine Hall	Canadian Police Research Centre Canada
Cmdr Sid Heal (Ret)	Los Angeles Sheriff's Department (CA) United States

Ms. Gabi Hoffmann	Ministry of Public Safety and Solicitor Canada
LTC Ed Hughes USA (RET)	Penn State University United States
Inspector Jeff Hunter	Royal Canadian Mounted Police Canada
Mr. Martin Hubbard	Ministry of Defence (Dstl) United Kingdom
Staff Sergeant Mike Ingles	Royal Canadian Mounted Police Canada
Mr. David Humair	Armasuisse Switzerland
Chief Inspector Andrew John	Dyfed-Powys Police United Kingdom
Staff Sergeant Joel Johnston	Justice Institute of British Columbia Canada
Staff Sergeant John Kelsall	Ontario Provincial Police Canada
Staff Sergeant Jeff Ketola	Royal Canadian Mounted Police Canada
Ms. Vesna Knezevic	Public Safety Canada (Public Policy Dir)
Sergeant Jeremy Lane	Abbotsford Police Department Canada
Dr. John Leathers	Pennsylvania State University United States
Sergeant Marc LeFebvre	Royal Canadian Mounted Police Canada
Inspector Richard Lewis	Dyfed-Powys Police United Kingdom
Commander Bob Lewis	Collier County Sheriff's Dept (FL) United States
LtCol Tom Linn USMC(Ret)	LinnWrite Associates United States
Lieutenant Ron Locke	Sarasota County Sheriff's Office United States
Dr. Daniel Longhurst	National Institute of Justice United States/United Kingdom
Colonel Andrew Mazzara USMC (Ret)	Pennsylvania State University United States
Director Jim Mancell	Sheriff Academy, JIBC Canada
Mr. Roy Marshall	Police Services Northern Ireland United Kingdom
Constable Mike Massine	Victoria Police Department Canada
Sergeant Gary Meissner	Toronto Police Department Canada
Chief Inspector Andy Mellows	Home Office United Kingdom

Sergeant Clive Milligan	Vancouver Police Deaprtment Canada
Sergeant Don Mitchell	Port Moody Police Canada
Det. Supt. Gareth Morton	Police Service Northen Ireland United Kingdom
Sergeant Brian Muller	Los Angeles Sheriff's Department (CA) United States
Sergeant Dan Murphy	Arlington Police Department (VA) United States
Chris Myers	Seattle Police Department (WA) United States
Constable Chris Nicholson	Abbotsford Police Department Canada
Mr. Kevin Nicholson	National Policing Improvement Agency United Kingdom
Sergeant Howard Olson	Abbotsford Police Department Canada
Mr. Steve Palmer	Canadian Police Research Centre Canada
Dr. Rick Parent	Simon Fraser University Canada
Staff Sergeant George Preston	Royal Canadian Mounted Police Canada
Ms. Cassy Robinson	National Institute of Justice United States
Superintendent John Rivers	New Zealand Police - Wellington New Zealand
Mr. Al Rosa	British Columbia Sheriff Services Canada
Ms. Lisa Sabourin	Ministry of Community Safety and Correctional Services Canada
Lieutenant Dan Savage	Grand Rapids Police Department (MI) United States
Director Steve Shelow	Police Services Penn State University United States
Mr. Graham Smith	Home Office Scientific Development Branch United Kingdom
Deputy Sheriff Donald Sparks	British Columbia Sheriff Services (JIBC) Canada
Staff Sergeant Joel Spindor	New Westminster Police Canada
Superintendent Hugh Stevenson	Ontario Provincial Police Canada
Sergeant Bruce Stuart	Royal Canadian Mounted Police Canada
Colonel Ulf Sundberg	Karolinska Institutet Sweden

Staff Sergeant Chris Thompson	Port Moody police
0	Canada
Staff Sergeant Mike Tillotson	Calgary Police Service
0	Canada
Assistant Chief Mike Villa	Tukwila Police Department (WA)
	United States
Inspector Steve Wade	Royal Canadian Mouned Police
·	Canada
Superintendent Dave Walsh	Royal Canadian Mounted Police
	Canada
Constable Cliff Watson	Victoria Police Department
	Canada
Lieutenant Mike Weippert	Seminole County Sheriff's Office (FL)
	United States
Sergeant Don Whitson	Fort Collins Police Department (CO)
5	United States
Ms. Donna Wood	Canadian Police Research Centre
	Canada
Mr. Rick Wyant	Washington State Patrol (Crime Lab)
	United Štates

Appendix D – Status of Previous Workshop Recommendations

Number	Title	Status
	Description	Remarks
2002-01	Develop a Less-Lethal Database	OPEN
	Create a task force or working group to reach consensus on approaches to creating a coordinated	HOSDB database somewhat dormant;
	retrospective and prospective database on operational uses.	Looking for new host
2001-02	Develop an Injury Database	HOLD
	Create a working group to develop an international	No progress;
	approach to the recording of injury effects of less- lethal weapon usage. This would include the adoption of an agreed upon scoring system, such as that exemplified by the Abbreviated Injury Scale (AIS), to	Complex jurisdictional difference and liability issues;
	facilitate the collection of data on injuries.	Reopen later.
2002-03	Define Operational Needs	CLOSED
	Establish a small core group that puts numbers to	Initial effort completed.
	measurable (time, distance, and space) parameters that define operational needs.	Absorbed by 2004-01.
2002-04	Develop Standards for Testing and Training	CLOSED
	There is a need to develop and routinely review international standards for both testing and training of less-lethal weapons. This will require resource investment from federal, state, and local law enforcement activities; law enforcement associations and organizations; less-lethal technology manufacturers and distributors, and researchers.	Absorbed by 2004-04.
2002-05	Conduct Independent Assessments	CLOSED
	There is a continuing need for independent	ILEF Position Statement.
	assessment of the tools and tactics associated with the issues of less-lethal and minimal force option concepts, technologies, and deployment. Periodic assessments conducted by non-biased experts will assist the law enforcement community in developing meaningful concepts of operations with less-lethal applications.	Being done unilaterally.

2002-06	Designate a National/International Less-Lethal Weapons Center for Testing and Training	CLOSED
	Establish a Center for research, development,	ILEF Position Statement.
	independent testing, and training for Less-Lethal technologies. The Center would serve as a focal point for examining technologies, tactics and public policy issues related to the deployment of less-lethal weapons.	Penn State's WPSTC.
2004-01	Development of Operational Requirements	CLOSED
	The work on developing Operational Requirements for less-lethal weapons, and consensus across the international law enforcement community, is considered a high priority. The work initiated by the Electronic Operational Requirements Group (EORG) following ILEF 2002 should continue. The group should also address issues associated with measurements of effectiveness.	Ongoing. Absorbed by 2005-10.
2004-02	Articulate Operational Requirements to	CLOSED
	Manufacturers There is a need to create a mechanism to communicate the agreed international Operational Requirements being developed by EORG to bodies such as the International Chiefs of Police and particularly with manufacturers. One option was for ILEF to harness the support of the International Association of Chiefs of Police. It would then be able to articulate and communicate the 'model' international law enforcement operational requirements to manufacturers and suppliers and for law enforcement to begin to drive technology development in this field.	Meeting held with manufacturers and EORG document presented (2002-03) at ILEF 2005 in Ottawa. Absorbed by 2005-10.
2004-03	Terminology Standardization	CLOSED
	That the EORG develop standard definitions for life threatening, serious injury, and other less-lethal medical terminology.	Absorbed by 2005-01.
2004-04	ILEF Standards	OPEN
	That the EORG (Electronic Operational Requirements Group) develop a comprehensive set of standards for review by all ILEF members, then, publish these documents for external/peer review by practitioners, industry, and professional organizations. These standards should consider including levels of	Initial document presented to manufacturers at ILEF 2005 in Ottawa. Published at ILEF
	incapacitation in some form and establishing or defining levels of effectiveness, recognizing that human variability will always be a challenge.	website. New effort beginning 2008.

2004-05	Identify Desired Effects and Outcomes	OPEN
	There is a need to formulate an operational statement of desired effects/outcomes of less-lethal weapons. There should be as much clarity as possible as to what a particular device does, or does not do. There is a need to appreciate that there are different interpretations influenced often by departmental doctrine and historical issues.	Ongoing.
2004-06	Describe and Provide Measures of Effectiveness	OPEN
	There is a need to link descriptions of effectiveness with measures of effectiveness. The group was made aware of work commenced in the UK under the auspices of the Patten/ACPO Steering Group to identify effectiveness criteria for less-lethal devices. A summary of the emerging approach is provided in the Steering Groups Phase 4 Report. The integration of these descriptions with the type of measures described by Syndicate 2 (Determining Effectiveness and Injury Potential) could enable effectiveness criteria to be better articulated and measured.	Ongoing. Some NIJ funded work completed by Penn State which adapts the NATO SAS-035 MOE Frame- work to US law enforcement. Used by NIJ Less-Lethal Technology Working Group (TWG) beginning 2008.
2004-07	Incorporate Psychological Criteria into Operational Requirements	CLOSED Completed.
	There is a need to identify and understand the psychological elements of aggressive behavior in conflict situations and ensure that the development of less-lethal weapons includes design factors intended to operate on both the physical and psychological level.	completed.
2004-08	Sharing of Information & Data Exchange	CLOSED
	There is a need to encourage the sharing of	Ongoing.
	information between military and law enforcement agencies and across international boundaries. The database should leverage the abundance of open source data that is available on the internet.	Web site operational. Database structure complete and online.
		Absorbed by 2005-05.

2004-09	Notification of Program Testing and Sharing Information on Operational Trials	OPEN
		Ongoing.
	It is important for the professional user community to endeavor to ensure that colleagues are aware of	Methods for using ILEF website for notification
	ongoing and future conflict management tests and experimentation. This will reduce the duplicative	are being explored.
	efforts and perhaps encourage a wider acceptance of	Penn State might absorb
	developed solutions through open and ongoing peer review.	HOSDB database at ILEF website.
2004-10	Medical Data Access	OPEN
	Conduct an investigation into, and seek support for,	Ongoing.
	appropriate methods to obtain accurate and	No progress.
	comprehensive medical data related to less-lethal effects and injuries. Consider an approach that might include a "firewall" that provides researchers only	Provacy issues in US.
	anonymous identifiers. There is some precedent for this in the area of corrections (prisons).	
2004-11	Literature Review	CLOSED
	That members of ILEF (perhaps as a continued EORG	Completed.
	task) conduct a literature review to compile a	Absorbed by 2005-01.
	comprehensive international terminology list, identify new terms (e.g., pain compliance), and	
	address/resolve discrepancies with regard to	
	definitions so that a common vernacular for discussing less-lethal systems could be progressed.	
2004-12	Develop/Adapt Injury Model	OPEN
	Conduct a thorough literature review to identify	No progress.
	potential models and their characteristics which make them appropriate for less-lethal injuries. Select a	Unfunded project work.
	number of these and validate them with actual injury	US DoD pursuing.
	data. Over time, these models could be modified to better suit less-lethal systems.	
2004-13	Conflict Management	CLOSED
	Conflict Management should be viewed holistically	ILEF Position.
	rather than in a manner that isolates segments	ILEF Position. No action required.
	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event planning, negotiation, less-lethal technologies, or	
	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event	
	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event planning, negotiation, less-lethal technologies, or lethal force – should be viewed as a component that	
2004-14	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event planning, negotiation, less-lethal technologies, or lethal force – should be viewed as a component that must consider the potential contribution of the other	
2004-14	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event planning, negotiation, less-lethal technologies, or lethal force – should be viewed as a component that must consider the potential contribution of the other components to best address a particular situation. Develop and promote ILEF The Forum requires some strategic planning and	No action required.
004-14	rather than in a manner that isolates segments independently for examination or application. Each aspect of conflict management – be it pre-event planning, negotiation, less-lethal technologies, or lethal force – should be viewed as a component that must consider the potential contribution of the other components to best address a particular situation. Develop and promote ILEF	No action required.

	but promoting concepts, requirements and best practice in relation to less-lethal options to the	Objectives completed.
	international law enforcement community. One of the first steps in this process is the development of a	Other planning actions ongoing.
	collective vision for the Forum, crafting a concise mission statement, and outlining clear and obtainable objectives. This might be accomplished within the framework of the protected side of the ILEF website as a project.	Developed "Benefits" Statement in this report.
2005-01	Less-Lethal Technology Taxonomy	OPEN
	ILEF should develop and publish a classification (taxonomy) of less-lethal technologies. This should include developing definitions and terms that	EORG began work. Only minor structural issues remain.
	promote a clearer understanding of what should be considered as effects, effectiveness and issues which effect tactical outcome. Also includes terms from 2004-03 (e.g., life-threatening, serious injury).	This project can be completed with minimal effort. See 2009-13 below.
2005-02	Testing Standards	OPEN
	ILEF should explore the potential for publishing a common framework document addressing standards for testing less-lethal weapons. This should include a paper setting out current 'test house' arrangements and the potential for further development. In part, extends 2004-04.	
2005-03	Use of Force Reporting, Review and Investigation	OPEN
	Standards ILEF should identify essential criteria to be included in use-of-force (UOF) reporting and review with a view toward ultimately developing common international standards for use-of-force reporting, review and investigation. In part, extends 2004-04.	Also identified by NIJ TWG in 2008
2005-04	Less-Lethal Review and Oversight Expertise	OPEN
	ILEF should develop, maintain and publish a listing of persons from its membership with acknowledged expertise in associated fields that are recognized and/or accredited by their profession.	Working. Put at ILEF Website with appropriate permission.
2005-05	Less-Lethal Information Sharing	OPEN
	ILEF should explore protocols for sharing human effects and incident databases with manufacturers in	Website still needs overhaul;
	effects and incident databases with manufacturers in order to assist in improving these systems or their manufacturing processes. The database created by the HOSDB for ILEF members should be promoted as	
	effects and incident databases with manufacturers in order to assist in improving these systems or their manufacturing processes. The database created by	overhaul; Need to transition DB to

	as NTOA).	
2005-06	Development Protocol	OPEN
	A structured program should be developed by the ILEF Advisory Board to review with manufacturers on a collective non-commercial basis the potential for less- lethal technologies to be developed against published operational requirements.	No progress.
2005-07	Technology Assessment Template	CLOSED
	ILEF should document existing less-lethal 'capability sets' which meet the published ILEF Operational requirement.	Deleted.
2005-08	Decision Framework	OPEN
	ILEF should develop a framework outlining and highlighting relevant material to assist leaders in articulating needs, assessing the feasibility, acceptability, and risk and making decisions. The RCMP Incident Management Information Model (IMIM) in Canada is a good start point to begin to achieve a common "use of force" language.	No progress.
2005-09	Training Guidelines	OPEN
	That ILEF explore the development and publication of a set of guidelines that describe training requirements for those who are in command of situations where less-lethal technologies may be used with an emphasis on situational or scenario-based training. That ILEF promote and encourage joint efforts and liaison between military and law enforcement as well as local, regional and national agencies toward the development and employment of protocols and training.	No progress.
2005-10	Operational Requirements	OPEN
	That ILEF invite response from manufacturers to the Less-Lethal Operational Requirements Document, which has now been published. This also advances recommendations on operational needs clarification (2002-03) and developing/articulating operational requirements (2004-01/02).	Ongoing.
2005-11	Technology Development Framework	OPEN
	ILEF should lead an effort to develop a general framework for the development of less-lethal weapons that includes the responsibilities of the user, the developer, the manufacturer, a peer review process and government-based oversight organization.	No progress.

2006-01	Testing Repeatability	OPEN
	ILEF should encourage manufacturers to consider "repeatability" as an important aspect of test design for their systems. Testing should be readily verifiable by independent researchers replicating manufacturer testing.	Add to testing standards (2005-02)
2006-02	Policy Consulting	OPEN
	ILEF should encourage manufacturers to consider consulting upper level law enforcement early in development in order that the potential impacts on policy, public acceptance and incident management	Begin with email to manufacturers from ILEF Board; Need routine follow-
	can be effectively addressed.	up/contact.
2006-03	Operational Requirement – Individuals	OPEN
	ILEF should communicate to manufacturers the operational requirement for systems that will immediately incapacitate or gain compliance of	Begin with email to manufacturers from ILEF Board;
	individual terrorists and other aggressive individuals. Some of the ideal system requirements would include the ability to engage subjects distance (>25m) with	Need routine follow- up/contact.
	precision, no injury to the suspect, no lasting contamination, no long-term effects, no cross- contamination, reusable and easily re-loadable, weather resistant and small enough to be easily carried.	Should be reconsidered in 2013 and beyond.
2006-04	Operational Requirement – Crowds	OPEN
	ILEF should encourage and support research into technologies and methods to identify and selectively target anarchists in crowds and others that mean to create havoc and incite riot. The system itself would require an ability to safely and effectively strike subjects at ranges that exceed "missile" throwing range.	Begin with email to manufacturers from ILEF Board;
		Need routine follow- up/contact. Pending.
2006-05	Chemical Irritant Projectile Research	OPEN
	ILEF should encourage and support research on chemical irritant projectiles focused on examining policy issues and strategic considerations as well as	ILEF request to US DoJ and US DoD is pending.
	exploring and documenting best practices, techniques, and training procedures. Technical research might center on creating more synergistic effects by leveraging the benefits of chemical irritants and the projectile delivery means, while mitigating the drawbacks of each.	No work through 2013.
2006-06	Conducted Energy Device (CED) Research	OPEN

	research in the area of CED biological effects to bring	way and ongoing:
	clarity to the issues surrounding "associated deaths" and more fully understand CED effects and how they might interact with some pre-existing biological conditions. This research should have the objective of	Includes US for DOJ and DOD (Penn State & Wake Forest);
	contributing to the eventual development and acceptance of medical standards internationally.	US & Canadian studies ongoing; UK studies largely complete.
2008-01	Less-Lethal Tools in Active Shooter Situations	OPEN
	The ILEF should work with the NTOA and other organizations to ensure the integration of less-lethal considerations into Active Shooter tactical planning.	
2008-02	Active Shooter Response Training	OPEN
	Police departments should evaluate the concept of training officers to deploy in one and two person contact teams. Police departments should continue to work with schools and institutions in preparation for an active shooter scenario.	Ongoing and active by jurisdiction.
2008-03	LLW Requirement for Active Shooter Situations	OPEN
	Manufacturers and government entities tasked with technology R&D should continue to research and develop complementary tools that will assist in the rapid intervention of an active shooter incident. ILEF should forward less-lethal technology requirement to NIJ, HOSDB and CPRC.	Begin with email to manufacturers from ILEF Board; Need routine follow- up/contact.
2008-04	LLW Requirement for Critical Incidents	OPEN
	Manufacturers and government entities tasked with technology R&D should work to design LLW technologies capable of being delivered across greater distances with the capability for variable periods of	Begin with email to manufacturers from ILEF Board; Need routine follow-
	incapacitation. ILEF should forward less-lethal technology requirement to NIJ, HOSDB and CPRC.	up/contact.
2008-05	Weapon Recognition System	OPEN
	Manufacturers and government entities tasked with technology R&D should work to design weapon recognition systems to enable deployment of LLW technologies. ILEF should forward this less-lethal technology requirement to NIJ, HOSDB and CPRC.	ILEF request to US DoJ and US DoD is pending.
2008-06	Community Engagement	OPEN
	ILEF should encourage members and affiliated agencies to promote and exercise community engagement as this builds community confidence and trust in many aspects of policing from use-of-force issues to intelligence gathering.	Ongoing and active by jurisdiction.

2008-07	LLW Requirement for Acoustic Devices	OPEN
	Acoustic devices must be capable of achieving the	US Military technology;
	desired effect such as delivering intelligible voice commands and deterrence at the desired range. The device must be safe for both the operator and target	US DOJ investigating/monitoring
	alike and must also be fiscally viable. Some additional requirements are that the device be modular, portable and scalable to accommodate a wide range of constraints (e.g., size, weight, power requirements, etc.). ILEF should forward less-lethal technology requirement to NIJ, HOSDB and CPRC.	Penn State has developed several prototype systems for DoD.
2008-08	CED Standards	OPEN
	ILEF should promote and participate in the development of standards for CEDs in terms of performance, test protocols and independent testing groups to verify these technical standards for Law Enforcement.	major initiative has beer underway for some time and continues towards an international test protocol
2008-09	Long-Term CED Effects Study	OPEN
	ILEF should encourage NIJ, HOSDB and CPRC to conduct extended (long term study) research that	US DoD continues to explore this topic
	would identify and monitor a sample population for indication of any long term effects from CED exposure.	Penn State continues to work for DoD in this area.
2008-10	CED High Risk Population	OPEN
	ILEF should encourage NIJ, HOSDB and CPRC to continue and expand research to determine if any group within the general population is more vulnerable to CED exposure than others.	
2008-11	CED Research Review	OPEN
	ILEF should encourage NIJ, HOSDB and CPRC to conduct a comprehensive (perhaps cooperative) review of the body of medical and engineering research that has been accomplished with a goal of providing the community a report that compiles the results into layman's terminology in any easy to understand format.	
2008-12	Pursuit Policy Guidelines	OPEN
	ILEF should work with NTOA, ACPO and other associations on developing and refining recommended pursuit policy guidelines to reflect specific environments and scenarios.	Penn State developing Pursuit Management Task Force Update Report (2013)

2008-13	Pursuit Command and Control	OPEN
	Jurisdictions must be aware of the danger associated with overloading the officer during a pursuit – too much gear and too much information to process equals much higher risk. ILEF should encourage NIJ, HOSDB and CPRC to conduct a cooperative examination of best practices regarding command and control for pursuit management in order to develop recommended standard techniques and procedures that give the pursuing officer a better ability to focus on his pursuit TTPs.	
2008-14	Cooperative Technologies	OPEN
	That ILEF encourage NIJ, HOSDB and CPRC establish common objective system requirements and work with manufacturers to ensure that emerging cooperative technologies 1) Do not damage auto electrical systems; 2) Allow police to control the vehicle (stop or slow it down); 3) Allow a suspect the ability to bring the vehicle to a controlled stop; 4) Provide police with positive identification of the target vehicle; and 5) Provide a unit modular capability.	WPSTC Pursuit Management TWG continues to explore these technologies
2008-15	Video (CCTV) Mapping	OPEN
	Police command knowledge of, and ultimately access to, commercial and security CCTVs in their jurisdiction can markedly improve situational awareness for critical incident management. Imaging/camera systems in particular are important as they can provide real-time information collection, analysis, and threat assessment that will enable more effective command decisions. ILEF should encourage DHS, NIJ, HOSDB and CPRC to facilitate video mapping for local jurisdictions.	
2008-16	Incident Command SOP	OPEN
	Incident command procedures are more standardized in the UK than in the US/Canada. ILEF should encourage NIJ and CPRC to conduct a cooperative review of best practices and develop more standardized (and perhaps common to or consistent with UK) guidelines for equipment and procedures. These could be proliferated in the US by tying their	Not currently being pursued (2013).

2009-01	Unmanned Aerial Vehicles (UAVs)	OPEN
	The ILEF should work with the NTOA and other law enforcement organizations to explore the operational need and technological requirements for police departments to fully exploit the use of overhead intelligence collection.	Not currently being pursued (2013). May see more activity as technology rises in visbility.
2009-02	Exploiting Open Source Information	OPEN
	Police departments need to be in position to exploit and use the tremendous amount of information readily available through public sources and in the public domain in order to ensure public safety. ILEF along with other professional organizations and associations need to include open source information exploitation as one of the "minimal force options" in future studies or workshops.	
2009-03	New Communications Technologies	OPEN
	Specialized radios, cell phones, and other information sharing devices (tablets) that work within the broader communications environment can and should be explored by law enforcement. ILEF can assist in this regard by making up-to-date information on radio frequency (RF) communications more readily available to workshop participants.	Not currently being pursued (2013). Needs addtl attention in follow- on workshops.
2009-04	Mutual Aid Agreements	OPEN
	Although this aspect of policing large scale public events might only be peripherally related to minimal force options, it remains critical to a well-prepared and coordinated effort to ensure public safety and public order, especially in larger venues (urban settings) or larger events. ILEF members should consider developing a number of successfully used templates for mutual aid agreements that might be shared among the participants and their parent organizations.	

2009-05 **Operational Guidance**

OPEN

OPEN

(2012)

Some forward

movement on this with

the Flash Disorder paper

that was published.

Law enforcement agencies often have standing polices and rules for the use of force. These often inform the situation in which police may use force while policing major public events. This is a key "lessons learned" aspect of large scale operations and should be captured and shared with other police departments and agencies, both nationally and internationally. ILEF is urged to initiate an effort to gather samples of operational guidance for major public events that were considered very effective. This would serve as a "best practices" source to be made available to any and all organizations who use ILEF.

Not currently being pursued (2013) due to lack of staff. Will continue to be a desired future task.

2009-06 Expanding LL Technology Options

Keeping the concept of minimal force options in mind, it is important for the larger law enforcement community to recognize that less-lethal "stuff" is a much more than weaponry and includes a whole range of less-lethal options which include tactics, techniques, training and policies. It is recommended that ILEF continue to emphasize the expanded concept of minimal force options beyond the physical employment of weapons and munitions. This can be done through the propagation of concept papers and professional articles which detail many of the ideas that were discussed in this breakout session.

2009-07 Enhanced Policing Capability at Major Events OPEN ILEF should work with the NTOA and other organizations who support law enforcement organizations internationally to help ensure law enforcement has sufficient tools to address emerging threats including those involving terrorism. Continues as an ILEF workshop topic and through routine exchanges between members/organizations.

2009-08 Unanticipated Threat Scenarios

OPEN

OPEN

Police departments should integrate more extensive and "out-of-the-box" threat scenarios into their planning and training. These threats previously not considered as serious or viable should be re-evaluated in light of international, national and regional intelligence reports. Less-lethal response should be considered and included where and when appropriate. ILEF might assist by conducting a separate workshop or meeting on this topic.

Conducting a separate workshop will be a function of interest, time (schedule) and funding through 2013-2014.

2009-09 LLW Responses to Terrorist Actions

Government and government-funded research activities need to explore and evaluate emerging technologies that will be better suited to responding to potential terrorist threats at major events. These might include, but not be limited to, technologies providing greater stand-off delivery capability, more aggressive communications disruption, more immediate effects when employed against targets, and the ability to discriminate more effectively individual targets when embedded in large crowds while minimizing collateral effects on innocent bystanders.

2009-10 Communicating the Choice of Policing Model OPEN

The importance of early and frequent communications to the public in advance of a major public event cannot be overstated. The concept of "No Surprises" and the development of a human rights-based framework for policing public order events are advocated. ILEF could best serve the international law enforcement community if it was to identify, collect and publish a best practices guide of police-to-public communications.

Developing a "Best Practices" document on this and other topics is a high priority task for future attention (2013).

2009-11 Community Consultative Groups

OPEN

OPEN

In many large scale public events, the identity of protest groups and other groups with a history of violence or property destruction is known in advance. These groups along with other locally based community organizations of influence should be contacted and consulted to ensure they do not misinterpret or misunderstand police intentions during the event. ILEF again may include best practice experiences and observations from international law enforcement agencies in this area.

Developing a "Best Practices" document on this and other topics is a high priority task for future attention (2013).

2009-12 A Joint and Crisis Communications Strategy

In line with the overall discussion in this area, another area where a collection and distribution of best practices and lessons learned might be of considerable value is the area where specialized communications requirements are addressed by police organizations in support of major public events. ILEF can help with this. This may merely constitute a sub-component of the best practices documentation mentioned above, or stand on its own.

Developing a "Best Practices" document on this and other topics is a high priority task for future attention (2013).

2009-13 The Use of Common Terminology

OPEN

This issue has been around a long time. It increases in visibility in major public events, especially as mutual aid agreements come into play and other external supporting organizations enter into the operating environment. In an even broader sense, internationally it is useful that all the law enforcement professionals involved with the dialogue on a particular topic fully understand each other and what they are hearing. Seemingly simple terms such as incapacitation or disorientation can vary significantly in meaning depending on the country, or even in different police jurisdictions in the same country. ILEF needs to continue its efforts to build a broadly accepted taxonomy and glossary of terms that have an "international" understanding and use.

ILEF MFO taxonomy project will be re-started during 2013.

