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Report on the Seventh International Law Enforcement Forum

MINIMAL FORCE OPTIONS

and Less-Lethal Technologies

Bramshill, UK- October 2009

POLICING MAJOR PUBLIC EVENTS

Employing Technology, Minimal Force and Less-Lethal Options



NIJ



NPIA

National Policing
Improvement Agency





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Acknowledgements



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The Seventh International Law Enforcement Forum on Minimal Force Options was co-hosted by the National Institute of Justice (NIJ), The Association of Chief Police Officers (ACPO) and the National Policing Improvement Agency (UK). 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 Bramshill, UK on October 13th and 14th, 2009.



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: INLDT@PSU.EDU.



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 Scientific Development Branch) 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

This year's Forum at Bramshill in the UK brought together persons 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 policing for large scale public events.



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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-guessed 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 generally 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 2009 Forum addressed issues related to best practices in technology support, crowd control and management, terrorist threats and media management related to large scale public event operations.

Delegates from represented countries, disciplines and police departments also examined less-lethal weapons (LLW) and issues in as part of a scenario-based review on Day 2. There were four distinct workshop sessions in which the delegates participated:

- Technology Support during Major Events;
- Crowd Management Issues;
- Less-Lethal Response to Terrorist Threats;
- Proactive Media Management for Major Events;

The major recommendations are:

1. **Unmanned Aerial Vehicles (UAVs).** 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 .

- 2. Exploiting Open Source Information.** 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. This information obtainable routinely through internet sites can be quickly filtered, analyzed and assessed by a trained intelligence analyst and add significant value to law enforcement operations. 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.
- 3. New Communications Technologies.** 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.
- 4. Mutual Aid Agreements.** 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.
- 5. Operational Guidance.** Law enforcement agencies often have standing policies 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.
- 6. 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.

- 7. Enhanced Policing Capability at Major Events.** 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.
- 8. Unanticipated Threat Scenarios.** 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.
- 9. 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.
- 10. Communicating the Choice of Policing Model.** 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.

- 11. Community Consultative Groups.** 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.
- 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.
- 13. The Use of Common Terminology.** 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.

Introduction

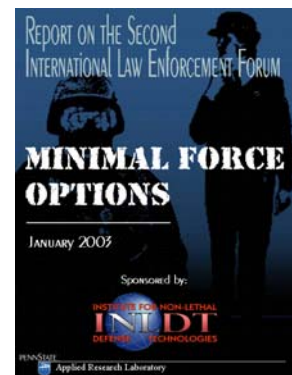
Background

In 1999, the Pennsylvania State University (Penn State) and the Los Angeles Sheriff's Department hosted the International Commission on Policing in Northern Ireland, chaired by Mr. Chris Patten. It was evident that the issues associated with acceptable and effective less-lethal technologies would benefit from a meeting of subject matter experts.

The following year a meeting took place in the margins of a Jane's conference on Less-Lethal Weapons held in Edinburgh Scotland between Dr. John Leathers (Penn State) and Colin Burrows QPM, the Head of Operations of the then Royal Ulster Constabulary who was key note speaker at the conference. It was agreed that there would be merit in bringing together a number of Police practitioners and policy developers who were interested in rethinking and progressing less-lethal options from across the UK and North America. As a result of the efforts of a small group, a large amount of work establishing the structure, identifying the Advisory Board, and creating the workshop format was accomplished, and the plans and coordination for an initial meeting were completed.

Subsequently, the meeting was facilitated by Colonel Andy Mazzara USMC (Ret) of the Applied Research Laboratory and held at Penn State in April of 2001. The meeting brought together a small group of US and UK personnel who had been active in researching and developing issues in respect of police use of less-lethal technologies. Penn State had already been involved with the US military program through its Institute for Non-Lethal Defense Technologies (<http://www.nldt.org>) and had developed meaningful contacts with US Law enforcement. This meeting served to confirm the value of international cooperation, which had a law enforcement focus, on the use of less-lethal technologies and to work through principles associated with minimal force options and to capture common operational needs and the concept an International Law Enforcement Forum on Minimal Force Options (ILEF) was born.

The second meeting of the ILEF group also held at Penn State was conducted in October 2002. A number of issues that required some action were identified. The more urgent of these included the development of a less-lethal weapon/technology database, the development of an injury database, the characterization of operational needs and the development of standards for development, testing, and training. Shortly after this second meeting of ILEF, the UK Steering Group chaired by the Northern Ireland Office, in consultation



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with the Association of Chief Police Officers (ACPO), issued its Phase 3 Report (December 2002) on the Patten Commission Recommendations 69 and 70, relating to public order equipment. This report included a summary of the ILEF meeting and its recommendations. The 4th report of the UK steering group likewise referenced ILEF and its ongoing work to develop international standards for testing and training.

This work was taking place in parallel with a UK-wide program involving the Home Office, MoD, and ACPO which was coordinated by the Northern Ireland Office to take forward Recommendations 69 and 70 of the International Commission on Policing in Northern Ireland relating to the research and development of less-lethal options. Shortly after this second meeting of ILEF, the UK Steering Group issued its Phase 3 Report (December 2002). This program set out in the report was in the introduction by the UK Government Minister as being *more detailed and more wide-ranging than any other* highlighted the international importance of ILEF and included a summary of the ILEF meeting and its recommendations. The 4th report of the UK Steering Group likewise referenced ILEF and its ongoing work to develop international standards for testing and training.

It was of note therefore that the 2004 ILEF meeting (Third ILEF) held in the UK and hosted by the Association of Chief Police Officers and the Police Scientific Development Branch, included policymakers, researchers, and medical experts versed in various aspects of less-lethal technologies, their applications and their effects. The delegates examined gaps in capabilities and medical assessments, information sharing, and the development of common standards for less-lethal weapons development, testing, training and use. The event included a consultative session with research and evaluation organizations, police oversight bodies, academic and political research groups, government departments and non-governmental organizations (NGOs). It was important in promoting engagement between practitioners, interest groups, and other non-government actors and provided an opportunity for a greater appreciation of the issues and concerns surrounding the use of less-lethal technologies.



Under the auspices of ILEF, a delegation from the UK visited Washington in the week commencing August 16, 2004 to discuss various matters relating to less-lethal technologies. One of the main objectives was to peer review the approach and methodology used by the UK Steering Group on alternative approaches to the management of conflict and development of less-lethal weapons with the assistance of Penn State and key American ILEF personnel. The peer review concluded that the UK's structured approach needed to serve as the foundation for approaches on an international basis. It was acknowledged that ILEF had an important role to play in assisting the development of best practice and in the assessment of new technologies. It noted the importance of information sharing continued in this regard and that

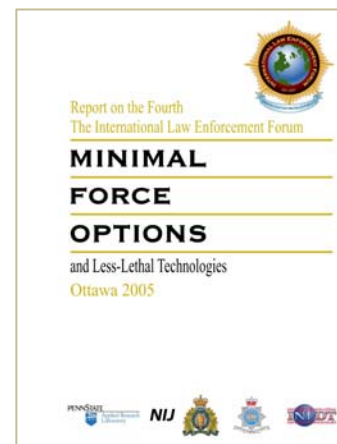
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the peer review process had demonstrated the utility of having a resource pool of subject matter experts upon whom it could call.

The 2005 International Law Enforcement Forum on Minimal Force Options (Fourth ILEF), hosted by the Royal Canadian Mounted Police in Ottawa, brought together persons involved in the development, use and monitoring of less-lethal technologies and included representatives from the United Kingdom (UK), the United States (US), Canada, New Zealand, and Sweden. The participants included senior practitioners, researchers, and medical experts versed in various aspects of less-lethal technologies, their applications and their effects. The delegates examined gaps in capabilities and medical assessments and the development of common standards for less-lethal weapons development, testing, training and use. The ILEF delegates had the opportunity to attend and participate in a consultative forum with manufacturers and distributors of less-lethal weapons. This consultative event was important in promoting engagement, between practitioners, law enforcement associations, manufacturers and distributors.

The 2006 International Law Enforcement Forum (Fifth ILEF) was locally hosted by the Washington, DC Metropolitan Police in Fairfax, Virginia. The Forum once again brought together persons involved in the development, use and monitoring of less-lethal technologies and included representatives from the United Kingdom (UK), the United States (US), Canada, New Zealand, and Sweden. Delegates examined best practices in controlling aggressive individuals, maintaining public order, conducted energy devices and less-lethal applications and issues in counter-terrorism.

The sixth International Law Enforcement Forum in 2008 was held in Orlando, Florida. The Forum was used to focus on the response using less-lethal technologies to terrorist events. Delegates from Canada, the United States and the United Kingdom were joined by military professionals from the three countries who provided updates on technologies and tactics used to counter terrorist actions. Additionally, information was provided by senior officials involved with recent school safety/active shooter incidents. There were a total of eight different breakout sessions which extended the discussions and developed additional recommendations outlined in the last report.



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Proceedings

The Seventh International Law Enforcement Forum on Minimal Force Options was held in the United Kingdom on October 13th and 14th of 2009 and was hosted by the UK's National Policing Improvements Agency (NPIA) at the UK's Police Staff College on the grounds of the old 17th Century Bramshill House an hour outside London. The Forum once again brought together persons involved in the development, use and monitoring of less-lethal technologies and included representatives from the United Kingdom (UK), the United States (US), Canada, Sweden and New Zealand. Delegates examined the integration of less-lethal technologies and use of force in large scale public events. The specific objectives of the 2009 Forum were to:

- Examine issues surrounding tactics, policies, training, and incident management and technology limitations related to police support to large scale public events;
- Examine the relevance of less-lethal options and the strategic, tactical and policy considerations when deploying police officers at major public events;
- Examine the media management and communications issues with respect to the deployment of less-lethal weapons at events where there are large crowds at a public venue;
- Examine the public order issues in dealing with potentially hostile crowds or terrorist threats that threaten public order, aggressive individual control or isolation, crowd containment or dispersal, officer and public safety and minimizing the potential for escalation;
- Examine the policy, training and incident management impacts as well as the technical effectiveness concerns and medical/psychological issues surrounding the use of less-lethal technologies at major events;
- Identify and discuss the basic requirements for employing conducted energy devices (CEDs) in support of public order scenarios;
- Examine the tactics, policies, training, and incident management issues that need to be considered relative to employing less-lethal devices in response to a critical incident or terrorist threat;
- Examine the use of emerging less-lethal technologies in support of operations associated with lawful protests, processions or parades, large size sporting events;
- Identify and discuss the issues in relation to policy, tactics, training, arrest, and post-incident management regarding less-lethal technologies;



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- Describe and discuss the “top 3” equipment or technology issues when operating in and around large scale public events;
- Examine the relevance of current weaponry and tactical training for officers when placed in large scale or volatile public order scenarios;
- Examine the utility or relevance of less-lethal technologies in the aftermath of a critical incident involving large crowds; and
- Discuss media considerations “before, during and after” major public events and how they might assist in generating favorable coverage of less-lethal technology employment.

Workshop Presentations – Day 1

The ILEF workshop took place at the British Police Staff College in Bramshill, UK on October 13th and 14th, 2009. It began with an introduction and overview by Andy Mazzara, Executive Director of ILEF, and opening remarks that set the tone for the Workshop provided the chair of the ILEF Advisory Board, Mr. Colin Burrows, QPM. The Forum was also honored to have special remarks made by Ms. Kristina Rose, the Acting Director of the National Institute of Justice (NIJ). Her remarks were conveyed by video previously recorded. Canada, New Zealand, the United States and the United Kingdom each provided the group an update on less-lethal weapon initiatives.

Opening Remarks. Colin Burrows opened up the 2009 Workshop by welcoming all the attendees and expressing our appreciation to the hosting organization, the UK’s National Policing Improvement Agency. He called attention to the beautiful surroundings at Bramshill, the home of the British Police Staff College. He also extended a special word of thanks to the Association of Chief Police Officers (ACPO) for their continued support.

Colin Burrows welcomed all of the participants and in particular those who had made this year’s ILEF event possible including Penn State, the National Institute of Justice, The UK’s Association of Chief Police Officers (ACPO) and the National Police Improvement Agency (NPIA). He also extended a special word of thanks to Chief Constable Peter Neyroud the Chief Executive of the NPIA for his support of ILEF and in particular making available the facilities at the UK Police Staff College at Bramshill.

He then utilized the setting of historic 17th Century Bramshill mansion house built in the reign of James 1 as the basis for his introductory presentation which was illustrated with Powerpoint.

Colin took the opportunity to provide delegates with an overview of the historic events which had taken place in Britain in the 17th century, their importance, and their contribution to the new world in the Americas. In



The 17th Century Mansion set in rolling parkland of Hampshire, England has been used as the centre for higher police training in the United Kingdom since the 1950's. It is a grade 1 listed Jacobean mansion, set in an estate of 300 acres.

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particular he emphasised tension between power of the State and rights of the citizen which are as important now as they were then. Using Powerpoint slides he reminded delegates of some of the key events which were taking place at that time.

These included the

- Threat of Terrorism – the Gunpowder Plot to kill not only King James, but also everyone sitting in the Houses of Parliament at the same time, as James was there when he opened Parliament on November 5th, 1605.
- Religious conflict and political shifts within Britain
- Rapid expansion of knowledge, information, exploration and trade
- The opening up of the new world in the Americas
- The exporting of the principles of freedoms and rights of the citizen against arbitrary authority and unchecked power of the State

In considering the theme of this year's ILEF which was the *Policing of Large Scale Events*, Colin asked how we balance those hard earned freedoms which were at the centre of our concept of democratic rights and the response of agencies responsible for policing events and minimizing risk.

Reminding delegates that when the first would-be settlers set sail from England for Jamestown, Virginia in December 1606, their charter granted by James 1 guaranteed that the New World colonists "*shall have and enjoy all liberties, franchises and immunities to all intents and purposes as if they had been abiding and borne within this our realm of England.*"

The Great Charter of 1215 signed reluctantly by the King at "the point of the sword" is widely acknowledged with influencing the *Declaration of Independence of the United States*. It is reflected in other rights-based documents which have been incorporated into the domestic law of our respective nations in instruments and statutes such as the

- International Convention on Human Rights 1948
- European Convention of Human Rights 1950
- The Canadian Human Rights Act 1977
- The New Zealand Human Rights Act 1993
- UK Human Rights Act 1998

Colin presented in graphic form a rights-based approach to handling large scale events in which the rights of demonstrators and counter-protest groups were based on assessments of community and officer safety and that each of these issues and proposed police action would be reviewed against:

- Issues of Equality
- Human Rights



President and Chair of the Commission on Human Rights, Eleanor Roosevelt, looking at the Universal Declaration of Human Rights in Spanish

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- Health and Safety
- Community Impact

Colin argued that ultimately the appropriateness of police strategy, tactics and reaction would be judged not only in the legislative system but in the Court of Public Opinion and it was there that the legitimacy and future shape of our policing and law enforcement bodies would ultimately be determined.

He suggested, that traditionally it was the enforcement model of determining what the police thought best which determined the way in which potential street conflict would be handled and risks minimized that was predominate in police policy and practice. While this may work in a homogenous society where the protest group had little support it was unlikely to work in multi-cultural modern society where authoritarian legitimacy was more balanced.

Utilizing photographs of public disorder from across the world Colin focused attention on the commonality of the violent disorder, the risks posed to officers who became isolated, the 'us' and 'them' nature of responding to crowd disorder, and the power of the media not only dependent on the well-placed report and photo journalist but also on the citizen, protestor, rioter or observer with the cell phone camera and direct access to social web sites.

Colin concluded his introduction with a reminder of the risks and tragedies that can shape and affect the lives of all involved using an example from modern Greece where there had been nationwide protest, civil unrest and the inevitable clashes with the police. Newspaper reports were referring to the social and economic undercurrents which give rise to demonstrators referring to themselves the "*€700 generation*" in recognition of the wage they expect their degrees to get them.

However, it was one tragic incident that caused the serious rioting which spread across several countries as result of an isolated incident when one of two officers in a police patrol car got caught up in the disorder and discharged his handgun resulting in the tragic death of 15-year-old Alexandros Grigoropoulos.

In the rioting that followed it was reported that Greek police reportedly began to run out of teargas after a week of riots. As a consequence of the shooting, the two officers were suspended. Following an initial investigation, the two officers involved were remanded pending trial for the shooting of the teenager. One of the policemen was charged with murder and the other as an accomplice.

Colin suggested that we should all take note and that it was important the police had training and equipment including less-lethal weaponry. However this should not only be available to tactical firearms and public order officers but also should include routine patrol officers who inadvertently get caught



up in incidents. If we do not get the balance right, there will continue to be incidents such as the death of Alexandros Grigoropoulos.

It is therefore timely and useful to consider against what criteria success or failure would be judged when such human tragedies occurred. Would it be:

- the efficiency of our strategic and tactical command and control and tactical preparedness, or
- the extent to which we attempted to balance and facilitate the rights and safety of protestor, counter-protester, police officers with those who also live in, work and visit the area where the event is taking place?



It was therefore very important that we consider in the presentations and workshops, the whole issues of a rights, as opposed to a tactical superiority, based approach to management of conflict and police intervention

Mr. Burrows called everyone's attention to the history that involved not only Bramshill House, but all of policing from a UK perspective. Starting back with the Magna Carta and its implications for modern day law, Colin tied together the evolutionary aspects of the concepts of human rights through the ages, in Europe, the U.S. and in Canada. He then connected human rights to the court of public opinion and challenged the audience to consider various components that went along with human rights, such as equality, community impact, and health and safety. After walking the group through the Grecian foundations for inalienable rights and freedoms, he brought us up to the current day and times.

Colin highlighted riots and protests over recent years that had turned ugly in Greece, the USA, Canada and the United Kingdom. It was the interface of police action to ensure public order with the inalienable rights of each citizen as individuals and as groups that should drive our discussions over the following two days.

ACPO Welcome. Chief Constable Ian Arundale of the Dyfed-Powys Police and a senior member of both ACPO and the ILEF Advisory Board started by also welcoming all the attendees to the Sixth ILEF Workshop.



Ian Arundale, Chief Constable of Dyfed-Powys Police, is the ACPO lead of the UK's Conflict Management Programme and a member of the ILEF Advisory Board.

Reiterating on behalf of ACPO the welcome to the international delegates, Chief Constable Ian Arundale stressed the strategic importance of ILEF. He highlighted that the transfer of information, ideas and ways of working from different parts of the world is the very life blood of forums such as ILEF. Simply stated Ian asserted that ILEF's importance was that *none of us are as bright as all of us together* and that ILEF's bringing together of policy makers,

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scientist key operational personnel and other subject matter experts represented a significant opportunity to address contemporary issues.

Picking up on the remarks made by Colin Burrows, Ian explained that in his view we are faced with identical policing challenges in democracies the world over. There is a danger that we overemphasise the differing legal frameworks in which we operate. While acknowledging that the UK Human Rights Act that affects the UK is different to the rights enshrined within the Constitution of the United States, Ian asked whether they were really that different, suggesting that the nuances were no more than subtle variations on a theme.

He stressed that protesters living in and around London preparing their response to the G20 meeting held in early 2009 did not recognise these subtle differences in framework any more than those protesters living in and around Pittsburgh preparing their own response to the very next G20 meeting held recently.

He pointed out that the challenge for the law enforcement community was not to provide an equal policing response from one part of the same country to the other but to provide a commensurate response from one continent to another.

Ian also stressed the importance of maintaining the values of the democratic societies that we live in. The press in all of our countries is a key part of those values we hold true regarding freedom of speech. Whilst we sometimes wish that they didn't broadcast certain stories or take part in particular campaigns, they help us solve more problems than they create. It would be helpful if they were viewed as a critical friend and a source to mine for the purposes of this forum rather than a necessary evil.

Leadership, good or bad, in the face of the media can galvanise our staff and community members or expose our weaknesses ruthlessly. To not engage with the media at all must be the ultimate folly.

The proactive use of technology during major events offers an area that could yield significant returns for us over the course of today and tomorrow. Ian emphasised that we really are limited only by the limits of our imagination. Whilst existing technologies can be considered as part of our submissions, we must all think beyond those policing boundaries into other areas of life where technology is used. Delegates were then reminded of a Henry Ford quote, "If I'd have asked people what they wanted, they would have said faster horses."

For those that have found themselves at the sharp end of command on a regular basis there are questions to which we do not always have reliable and timely answers.

- Where are my resources right now?
- What specialist skills do I still have at my disposal within the available workforce?

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- Within this crowd, how do my commanders on the ground identify agent provocateurs within a largely compliant and peaceful public?
- What threats are emerging within the group of protesters?

Ian emphasised the danger that we view ‘the crowd’ as an assembled mass of people with a common goal or purpose, that they are somehow a highly organised group with defined objectives. Crowd management as a term, was he suggested an anomaly. He stressed that we must learn to deal with individuals within a crowd, people with individual and discreet needs. In this context Ian suggested that delegates pay close attention to what Chief Superintendent Gary White from the Police Service of Northern Ireland has to say on this matter in the presentation he would be making later in the day.

Noting that the final breakout session deals with the less-lethal response to terrorist threats at major events, Ian warned against the temptation to dismiss the use of less-lethal technologies when dealing with what appears to be the clear and present danger that is posed by a terror threat.

It was important that areas such as the developments in emerging technologies was considered by ILEF. For example, did the emergence of directed energy devices used by the military offer an additional option to law enforcement?

Ian then set out some of the major achievements which had occurred in the UK since ILEF was last convened. These included a new national Manual of Guidance on the Management, Command and Deployment of Armed Officers. The document is now more strategic in approach as it is designed to enable our staffs during deployments and not to inhibit. He then extended his personal thanks to Assistant Chief Constable Simon Chesterman, who led the work on the new manual along with Colin Burrows (consultant editor) and Superintendent Charlie Hill.

Commander Bob Broadhurst has also been responsible for the formulation of a new Personal Safety Manual which will soon be available in electronic format. The manual provides a comprehensive menu of tactical options and guidance for officers.

Ian also explained that the UK are at the early stages of developing a ‘Use of Force Reporting System’. At the present time, there is a comprehensive database which records the use of Taser on each and every occasion. He emphasised that the database has been invaluable in making the case to Government ministers that technologies such as Taser is an effective less-lethal option. The information is currently collected by the Home Office Scientific Development Branch and Ian extended a public thanks to Graham Smith and his team back in Saint Albans for the excellent work in support of UK policing.

Concluding his welcome, Chief Constable Ian Arundale reminded delegates that when managing crowds (a common theme at this year’s event) *that*

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police find themselves treading a constant tightrope between the rights of those involved in protest and those who attempt to go about their daily business.

He urged delegates to be innovative, good humoured and active within their group and bring to the group their best professional and personal judgement.

Acting Director, NIJ Video Address. Ms. Kristina Rose introduced herself as the Acting Director of the National Institute of Justice and welcomed everyone to the ILEF workshop. She first acknowledged the tremendous support being provided by the National Policing Improvements Agency and its head, Chief Constable Peter Neyroud. She went on to recognize the Association of Chief Police Officers, the Royal Canadian Mounted Police, and the Canadian Association of Chief Police Officers. Ms. Rose went on to emphasize the fine work that ILEF had done in the area of less-lethal technologies and minimal force options since 2001. She stated that there has been obvious and steady growth of the use of less-lethal devices around the world in use in confrontations with aggressive individuals and hostile crowds alike.



Ms. Rose continued to call attention to the challenges of the deaths associated with Taser® in the U.S. over the last few years. She stated that U.S. Law Enforcement was committed to reducing the incidents of death or serious injury to suspects while ensuring the safety of our police officers. An example was provided of the Police Executive Research Forum's research to assess the impact of Taser use on injuries to law enforcement officers and to suspects. They (PERF) looked at thousands of incidents over four years focusing on seven agencies that employed Taser in comparison to six agencies that do not use the weapon. Injuries to officers declined 70% at agencies that used the devices and injuries to suspects declined 40%. Ms. Rose then mentioned the NIJ Blue Ribbon Panel interim report that was recently published which saw no indication of a high risk of death, or injury, from Taser for healthy individuals. However, other groups may be at higher risk.

Ms. Rose closed by saying the ILEF fills an important need for professional discourse about emerging less-lethal technologies. Drawing on the expertise in many nations, ILEF has become a vital source of shared information. She encouraged the open exchange of ideas and experiences to minimize the risk to lawbreakers, innocent bystanders and our own police officers at upcoming events such as G20 summits, papal visits, WTO Meetings, Olympic Games and other large sporting events. NIJ will continue to support the important work of ILEF.

INTERNATIONAL PRESENTATIONS

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Canada: Steve Palmer, Director, Canadian Police Research Centre (CPRC).

Steve began by talking about progress his center has made since the last ILEF. They had moved forward in multiple areas since the last report. He highlighted the collaboration and work of Christine Hall in the Use of Force area focusing on individual and situational characteristics and the risk of sudden death in police restraint scenarios. Steve indicated that some of the work had been published and more was due out soon. It was clear that this work was assisting on improving the understanding in different organizations of the use of force interactions for the police services. The CPRC was partnered in this effort with NIJ.



Continuing on, it was explained that the CPRC has an ongoing effort and partnership with the Ecole Nationale de Police du Quebec, Force Science (ENPQ) to create a bilingual “Lexique” for common use of force terminology. This Lexique would be used to translate CPRC, ENPQ and other documents for improved effectiveness in court. The end document (Lexique) will help eliminate inaccurate translations and inconsistency in terminology which will improve the quality of the presentations made in the courtroom. Steve also mentioned that there was another study underway to assess the current ability within Canadian police services to collect adequate/sufficient data with regard to in-custody deaths. There was also a consideration of holding an information-sharing forum based loosely on a United Kingdom model, if the interest and value was evident.

Mr. Palmer then went on to present several training-related initiatives. Among them were the Advanced Technical CBRNE (Chemical-Biological-Radiological-Nuclear-Explosive) Training Program for explosive technicians. This new set of four courses would cover dismantling techniques, live applications and technology transfer exercises, RF controlled devices and countermeasures, and live agent training. Also in the area of training, a project was underway in cooperation with Canadian Forces and multiple police agencies to fully develop an Immersive Reflexive Engagement Trainer (IRET) which would provide very realistic yet inexpensive tactical simulation in a multi-screen, 270° virtual environment. In addition to the primary/first site design and assembly, 6-8 additional sites would be constructed which would ultimately allow for multi-location training exercises.



Steve then outlined the three-phase assessment of the Taser eXtended Range Electronic Projectile (XREP) that was being done in cooperation with NIJ and the UK’s Home Office Science and Development Branch (HOSDB). HOSDB had

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funded the first phase of this systematic evaluation of the performance and various physical properties of the XREP. The performance attributes to be assessed included accuracy, precision and risk of injury. The results of the joint effort would prove useful to both Canadian and international law enforcement.

He finished by summarizing some of their related work in developing an unmanned aerial vehicle operator's course that would significantly increase the number of trained and licensed operators, the identification of a recommended equipment list for Canadian first responders, the validation of a remote detection model for better locating cannabis (marijuana) growing operations, and a comprehensive study of SCBA (Self-Contained Breathing Apparatus) air management for improved effectiveness of emergency services personnel being done in conjunction with the U.S. Technical Support Working Group (TSWG).

United Kingdom: Graham Smith, Home Office Science and Development Branch (UK). Graham started off by mentioning the high degree of cooperation between his organization, the Canadian Police Research Centre (Mr. Steve Palmer), and the National Institute of Justice (Mr. Joe Cecconi). He stated that understanding of how each country approached similar issues or problems provided additional insight for the others as to how best to address some issues. He then went on to his formal presentation where he described the Home Office Science Development Branch (HOSDB) highlighting its independence and from where it received (and did not receive) its funding. The HOSDB has no commercial interests or any requirement to generate income.

Mr. Smith then talked about incapacitant sprays and the background and history of the use of these sprays in the UK. The HOSDB has done an incapacitant spray comparison which allows them to explain the differences in use and effect of various sprays for increased law enforcement understanding of best employment practices.

Graham indicated that the X26 is the Taser used almost exclusively in the UK, since it was first introduced in 2003. The initial use was only by firearms officers, and it has since expanded out to specially trained officers, not necessarily firearms officers, operating under strict guidelines in areas of



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extreme violence. The UK HOSDB has also established a national database that supports both the police and an independent medical panels. Every use of Taser is recorded in that database. Typical employment starts out at 6 metres down to 3-4 metres.

The Attenuating Energy Projectile (AEP) is in use by all police services in the UK since 2005. It was a replacement for the previously used baton rounds that had been employed in Northern Ireland. It essentially allows for the extended range deployment of a more accurate, safer less-lethal projectile out to 40 metres. The typical range is more like 25 metres with optimum effect at 20 metres.

There are now six (6) water cannons with ranges out to 40 metres all in the Police Services of Northern Ireland (PSNI). All the technologies mentioned to this point have had independent medical assessments to ensure their safe use in policing operations.



There has been an operational capability gap identified at ranges beyond 20 metres where the other technologies seem to have minimal effect. At the longer ranges, there seems to be a need for a more specific physiological effect. Among the technologies being explored is the Discriminating Irritant Projectile (DIP) which uses a chemical irritant (CS powder) and which was conceptually demonstrated in November (2009). It is fired from the same delivery system as the AEP. It is anticipated that the munitions will be available to police in 2011 and will have a effective operating range beyond 40 metres.

Additionally, the UK is investigating expanded use of electricity through the Extended Range Electronic Projectile (XREP). This is a joint project with the Canadians and NIJ and a new assessment is planned for this winter (2009-2010). The X3 Taser is also under consideration. The X3 has the ability to hold three cartridges providing added capability to the user and a slightly extended range (10m). Directed energy concepts in general are being evaluated as possible future tools for law enforcement. Some of this research may be based on what the military is using or developing. A smaller version (man-portable) of the millimeter wave RF devices (US: ADS) might have some potential considering the adjustable range and focus.

Graham then walked the group through the UK methodology for acquiring a new capability or weapon or munitions. He emphasized the independent

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review by a medical panel as critical to the successful development and eventual employment of new systems.

Mr. Smith concluded with several slides highlighting the review and assessment of Taser employments across the UK through the collected data in the national database. He spoke to the various types of employment that were observed, the barb locations, the repeat cycling uses, and the incidents of unsuccessful Taser employments. Drive-stun (direct contact) employments were also assessed. During the evaluation period, an analysis of officer perceptions was accomplished for the firing distance compared against the 1st firing of successful discharges indicating that the optimum employment ranges between 1-3 metres. Graham suggested that the barb separation very likely had a direct correlation to the perception of effectiveness. He then did a cross-comparison of selected data between the UK's 14-month assessment and the US Bozeman Study (36 months). The results showed comparable data with similar results providing some validation to the UK evaluation. The primary difference was the higher use of the Taser in the drive-stun mode in the US, which was something the UK would look more closely at and consider.

Mr. Smith then closed with mention of the joint effort (with US and Canada) to develop a comprehensive TASER testing approach to be able to evaluate if the TASER is performing to manufacturer's specifications. This was an excellent example how international cooperation has paid dividends to all of those involved with the ILEF.

At this point, Graham asked Steve Palmer to round out the issue of Taser testing explaining where the joint group is and where it might go in terms of identifying an internationally-accepted testing methodology. Steve discussed the process pursued over a 2-year period that was used, the variables and tolerances that were considered (Ohm resistance, measured power outputs, pulses, etc.), and the performance characteristics that were examined. The protocols and test methods need to be standardized for both industry and the government with improved transparency for the sharing of data. Steve then presented a more technical explanation of the testing approach the Canadians had started to settle on for evaluating conducted energy device (CED) performance.





United States of America: Joe Cecconi, Program Manager, National Institute of Justice (US). Joe explained that about two years ago NIJ started looking at in-custody deaths. A panel of eight medical examiners was brought together along with a cardiologist and toxicologist. An interim report was published in June of 2008 setting out where the assessment was and where it might be headed. The interim report indicated that the final report would be available by the end of 2009 through the NIJ website. The report stated there was no conclusive medical evidence that there is a high risk of serious injury or death from the effects of CEDs if used consistent with proper policies and procedures. Further, there is no evidence of increased risk of cardiac dysrhythmia when used on healthy adults. CED technologies may be a contributor to the stress when stress is an issue and related to cause of death determination. Essentially, when compared to other policing methods or technologies (OC, physical struggle), there is no increased risk involved with employing CEDs. Another issue they reviewed was Excited Delirium, or ED. It was highlighted that in trying to subdue a suspect in a state of excited delirium, if a fatality occurred, the use of the CED was not necessarily a direct contributor beyond the stresses induced by the ED itself. The report went on to indicate that the safety margins currently assigned to CEDs may not be applicable to small children, those with heart disease, elderly, pregnant or other “at risk” individuals. For these circumstances as well as for incidents involving repeated exposures, the panel said there was not enough data yet to make an informed assessment, and that caution should be used by law enforcement.

Mr. Cecconi then provided the Forum his own definition of “less-lethal,” which was slightly different than others promoted over the past several years. He stated that less-lethal technologies were “devices that produced results when compared to deadly weapons that reduced the probability of a bad outcome for police, bystanders and suspects.” This very broad look at less-lethal devices would allow the conceptual consideration of any device that produced an effect less than that of a firearm, or other lethal weapon as a less-lethal device.

Joe Cecconi then described the NIJ Incident Monitoring Program which started from a general discussion about doing modeling and simulation of incidents involving less-lethal devices that required human data input. He referred to it as the “Second Chance” project. He and others saw that when less-lethal incidents occurred there was a commensurate spending of more money. There were situations where injuries were involved, medical assistance was

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required, and a bad outcome was converted to a good outcome. NIJ went to Dr. Bozeman (Wake Forest) who in turn went out to 8-10 states and started collecting data on less-lethal-involved incidents. Dr. Bozeman's group of researchers were experienced in uncovering and obtaining the right data needed from both law enforcement and from medical sources. In addition to policing organizations, they went to the medical and emergency professionals who were on the scene of the incidents and had a separate data base of information. Especially for in-custody deaths, the result was that they were now able to start putting together the bigger picture to achieve a better understanding of what was going on, and with more detail.

Mr. Cecconi then reviewed some of the results from other data base research and analyses they had recently completed. He suggested that the type of information and insight gleaned from such efforts also served as an "early warning" for areas of concern for new weapons that might be introduced to the field in the future.

Joe Cecconi then discussed the in-custody death surveillance program which he stated was actually a retrospective look and various incidents using the existing model for both less-lethal devices and body armor. He then spoke at some length about the research on body armor incidents and stated that most of the injuries reviewed were found to be minor. However, medical treatment was not always the best due to the lack of understanding by medical professionals as to how best to treat blunt impact injuries. Body armor studies also found that psychological trauma was not being adequately addressed for either the officers or their families.

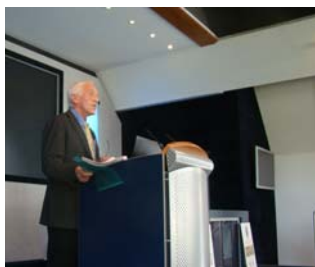
Mr. Cecconi then talked about some of NIJ's work with directed energy. He highlighted the military's development of the Active Denial System (ADS) and how for law enforcement there is an operational need/challenge to get something into the field that had a minimal range of 50 feet that was useable. He went on to suggest that the effect should be evident in under a second of exposure which is a departure from the military's ADS capability. NIJ has started two programs. One based on an infrared (IR) device, and one on a non-IR device, both in the 95 GHz range. The system would illuminate the top 1 millimeter of the skin surface which is just enough to excite the nerve ending. He showed a video clip of individuals in a vehicle that were reacting to exposure to the millimeter wave energy, demonstrating the potential effect. He then called attention to the reflex response (shutting the eyes, turning the head) which is what he believed was the primary objective of



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pursuing this technology. NIJ is also looking at higher energy densities which create such a reflex action. The military is developing a weapon that generates a “repel” response which NIJ was not comfortable with. Joe felt that the “bee sting or burn” sensation provided the best opportunity to achieve the reflex reaction. He pointed out however that there were no residual markings on the individuals which might actually prove problematic for the court system if there is no way to verify or contend a claim of abuse by a suspect.

Mr. Cecconi said that we (US) had an exemption from the Chemical Warfare Convention (CWC) which allowed for law enforcement to employ what he termed “advanced riot control agents (ARCAs).” These might eventually include anesthetic type agents which would be useful in a number of different scenarios.



New Zealand: John Rivers, New Zealand National Police. Superintendent Rivers started his talk describing his organization and how it was structured to collect and analyze use-of-force data from across the country. His job is one of management oversight, and his office is responsible for providing assurance and strategic advice on the various operational aspects of policing including tactics and techniques for the employment of less-lethal devices. His objective in his job is to ensure a safe transition from current state to future state of policing in New Zealand. John emphasized the New Zealand Police’s reliance on information coming from overseas, particularly ACPO (UK) and Canada, as well as other international policing organizations.

The NZP have 5500 uniformed front-line responders which is essentially 60% of the total force. He then began recapping the Taser evaluation that occurred in New Zealand from September 2006 to August 2007. The statistics he presented highlighted 114 incidents. Of the 114 incidents, only 19 actually involved a discharge of energy from the weapon. The other 95 incident reports resulted from 95 deployments involving presentation, laser painting, or arcing.

Since the Taser “Trial”, NZ Police Commissioner approved the use of the Taser across the organization with a sense of beneficial interactions with international policing organizations, especially Canada and Australia. The phasing in of Taser began with the re-introduction of the weapon to those districts that participated in the trial and had the trained operators. During

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the initial 9-month period following re-introduction, there were 86 incidents where the Taser was only discharged six (6) times. As of May 2009, there was a government budget announcement of a \$10M procurement spread across a three-year period that would purchase and put into operation 733 Tasers, all with the Tasercam capability. It is the belief of NZ police and government that the Tasercam further emphasizes police accountability and transparency.

Throughout the organizational roll-out of Taser, there were three primary objectives. They were to 1) carefully manage the new Taser technology, 2) build a backframe of computer/software support to both the Taser and Tasercam, and 3) effectively train 3,500 staff throughout the NZP.

Superintendent Rivers then went on to describe the current policing operating environment across New Zealand and the extent to which individuals suffering a mental illness or are part of a minority were over-represented in typical use-of-force situations. A 6-month analysis was conducted during 2008 of 363 weapons-related incidents. The two most employed responses were OC spray (36.7%) and empty hand tactics (21%). The NZP experienced a 70% effectiveness rate with OC spray when employed between 1 and 3 meters. Police firearms were actually deployed to incidents 230 times across the nation, where 152 times they were actually “presented”. These statistics supported an average of 25 firearm presentations per month.

Superintendent Rivers finished by reviewing the Tactical Options Deployment Review that had been conducted in New Zealand. The overarching objectives of the Review were to reduce the likelihood and the level of harm to both the public and the police, as well as to build public confidence in the police use of various tactical options. Ultimately, this study was intended to both improve police effectiveness in responding to weapons-involved incidents while assessing scenarios when less-lethal weapons options might be reasonable choices for deployment. One result of the Review would be a modification to the present training for NZ Police by adopting a 3-tier model for first and second responders as well as other staff.

All of the discussion to this point pointed toward an NZP monitoring and evaluation process for use-of-force which would include data capture, analysis and interpretation, public availability and an continuing research program to enable an ongoing strategic review of tactical options, equipment and training.

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FEATURED PRESENTATIONS

Chief Constable Meredydd Hughes QPM, South Yorkshire Police. Colin Burrows introduced Chief Constable Hughes from the South Yorkshire Police who then provided an overview of the Olympic and Paralympic Games security from a national perspective. The Chief Constable first provided a sense of the scope of the Games which spanned a 64 day period, more than 30 venues, 14,000 athletes, 200 countries participating, 6,000 coaches and officials, 24,000 media, and over 9 million ticket sales. In the years leading up to the games, over 200,000 construction workers were involved. This is to be the first Games in an international city set against a backdrop of a severe terrorist threat.



Chief Constable Hughes emphasized the expansive media coverage of the Games and how anything that happens across the UK will likely be considered an “Olympic-related event” during the period of the competition. Regardless of the scale of whatever happens, the international media attention will tend to raise the security events in terms of perceived proportions. This is something that is understood, accepted and planned for.

Chief Constable Hughes briefly described the various locations where the games were to be held. He highlighted the 200,000 spectators anticipated on the water in addition to those on the land. Among the issues not yet sorted out are all the legal issues as to who controls all the in-land waters.

Having reviewed the various UK venues for the Games, Chief Constable Hughes explained the responsibilities from top to bottom of the organization for security. As the second in command of policing preparations, CC Hughes highlighted that since the Olympic Games are scheduled to take place predominantly in London, the London Metropolitan Police Services Commander was designated to head up the overall planning and preparations. The Metropolitan Police and the MPS Commissioner represent the host security organization and would have primacy in terms of support decisions. He then outlined the various roles and responsibilities of the different individuals and organizations from the Home Secretary who oversees all internal policing through the Senior Responsible Officer of the Office of Security and Counter-Terrorism to the Olympic Policing Coordination Team of which he was the assigned deputy. He also explained the relationships within the London Organizing Committee of the Olympic Games

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(LOCOG) where a former senior police chief supervises the overall security during the Games themselves. Forty-three chief constables are also being consulted in respect of the security plans to include the choice of something close to a common uniform as possible during the period of the Games.

Chief Constable Hughes discussed the executive level tendency to avoid risk that drives the planning and preparations, regardless of the reality or imminence of any terrorist threat. It was evident through the presentation that there was considerable experience already resident among the policing organizations in dealing with wide-spread, large scale public events.

With a £600 million (M) budget and a back-up contingency fund of an additional £223M, a significant portion of these budgets is expected to support policing staffing and operational costs. These monies are exclusively for “external” police matters and operations. Expenses involved with internal (in venue) security matters will be paid for under separate budgets belonging to LOCOG or Olympic Delivery Authority. He mentioned that all these funds are in addition to “business as usual” counter-terrorism funds which continue to support such operations throughout the UK, and total in excess of £3B.

The UK employs a Risk Register that assists in assessing strategic risk. The risks include terrorist activity, public order matters, organized crime and non-malicious hazards such as weather or illness. Chief Constable Hughes expressed an opinion that public unrest or protests events would likely take much of the attention of the police services. Additionally, in the period leading up to the games and the large amount of construction going on at numerous venues, there were some human trafficking concerns that would need to be monitored and addressed as necessary.

The key elements were outlined for the overall strategic framework. This included the threat level to always be considered as “severe.” They are routinely planning for a high threat level. New equipment, tactics and strategies will not be tested during the Games. Existing equipment, tactics and strategies that have been tried and tested will be employed. They want only well-established and well-understood methodologies and technologies to be used. There is also a need that core services and responsiveness be maintained across the country to ensure that local communities continue to receive the appropriate policing services to which they are accustomed. All policing of this large scale international event will be conducted within the current constitutional framework.

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Chief Constable Hughes then went through the five strategic objectives that were the underpinning of the UK's Counter-Terrorism Strategy. They include: 1) protect, 2) prepare, 3) identify and disrupt, 4) command, control, plan and resource, and 5) engage. Special emphasis for the games was being placed on the challenge of #4 – command and control.

a major challenge in keeping the Games safe and secure from a policing perspective was to provide the necessary leadership to ensure everyone was moving in the same direction, as opposed to the possibility of individuals and organizations going off on their own. He then described what “success” would mean for the Games. First among the objectives was a safe, orderly, and fun experience for all the participants, spectators, and others associated with the Olympic Games. Additionally, quick and effective management of incidents was an absolute requirement along with disrupting or uncovering plans or attempts by terrorist or organized crime groups. Ultimately, success in this area will enhance the UK's international reputation for safety and security which might very well translate into future economic returns for the UK.

CC Hughes then summarized the progress thus far on the various plans and preparations. The strategic framework was developed and in place. He pointed to the excellent working relationships developing between and among numerous police services and specialist groups. The extensive communications process and information network were still in the process of being developed but were on track.

Finally, in summation Chief Constable Hughes reminded everyone that this was an Olympic sporting event meant to be fun, competitive, and a showcase for the host nation. There was a set schedule ahead and good progress was being made on all fronts. There were some questions regarding security during the construction phase which Chief Constable Hughes addressed about on and off-site considerations for screening workers and monitoring the work being completed.

Chief Superintendent Gary White, Police Services Northern Ireland. Chief Superintendent Gary White started by highlighting his 28 years of experience in Northern Ireland in dealing with terrorism and violent protest in Belfast. He stated up front that the least lethal “technology” available for dealing with these policing events is talking and engaging protestors in such a way that

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there is a reduced need to employ equipment or technologies. The title of his presentation is “Changing Mindsets, Policing Protests.” He reminded the audience that these were confrontations between citizens who were protesting and citizens who happened to be police, fellow countrymen.

Public order policing starts with trying to avoid using force and less-lethal weapons/technologies, if at all. Most of the UK use of force investigations involved the police who employ weapons or technologies with negative results. Chief Superintendent White went on to explain at length from his personal experiences not only working in North Belfast, but also in working with other international police organizations in South America (Bolivia) and Sri Lanka that often times the police-protestor relationship becomes unnecessarily adversarial, and that tactics and strategies employed are too technology-centric. In Bolivia, their crowd control experiences involved their military killing a lot of individuals of whom many were police. Their tactics were quite limited and all based on technology. Their “technology” was centered on firing CS munitions from all sorts of delivery systems including from helicopters. Chief Superintendent White and his colleagues spent much time instructing the Bolivian police not on “how to fight” the protestors, but rather how to work in such a way so that they would not need to fight.



Gary stated that he had spoken at ACPO human rights conference and focused on the subject of changing mindsets. His presentation on Changing Mindsets is based on a previous presentation he made to many senior police commanders when he was requested to provide a different perspective on crowd control and public order. A fellow presenter at that time talked about tactics against the “enemy,” and the battle to win the war. This is not a “war”. This is everyday policing. These individuals are not an enemy. We are citizens wearing police uniforms trying to maintain public safety and order for fellow citizens. The more we can make it like everyday policing, the better off everyone will be. If we put out of business all these scientists and engineers who are making these technologies for us, then that may define success.

It does not take a very computer-savvy individual long to find a wide range of websites, photos and posters speaking out forcefully against police brutality on the internet. Obviously, many of the images are extreme and not very typical. They are most likely not a widely-accepted view of police. However, the images do speak to an undercurrent of extreme views that is out there in the public domain. The danger is that if we do start to believe that these images are a common perception, do police then begin to embrace the idea

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that they are “fighting an enemy” requiring the use of more aggressive tactics?

In trying to address this potentially emerging mindset, UK public order policing uses a Conflict Management Model, a circular model that starts with information and intelligence which leads into threat assessment and action plans. Depending on how one viewed protests and protestors, your approach to managing and responding to the event would be altered. Gary stated that they pride ourselves in the UK on neighborhood and community policing. However, understanding that the community is not a homogeneous group is an important part of developing the proper mindset to best plan for an event.

Gary made the point that the press or Media cannot be controlled. Therefore efforts should not be made to try to do that, but you can ensure that they are properly informed. They are in the business of selling controversy to the public. If we work to bring in the press early on into the process such as during the planning and preparation phase, then the press coverage will deal with what the police are facing. The press do not come to work with the expressed intention of trying to undermine the police.

He then went on to talk about the Marching Season in Northern Ireland where one side wants to celebrate their heritage and traditions, and the other side is not so inclined. He talked about a specific incident of protest set up by the Provisional IRA where the “sit-down” protest involved not teenagers and 20 year-olds, but men in their thirties. Chief Superintendent White reviewed the idea of a hands-off approach to dealing with such an event, and how using the press to assist in “managing” the event and moving the protestors. If the press had been handled in such a way where they were separated and corralled, the end result of the protest might very well have been very negative coverage in the papers the following morning. This was a small example of how working with the Media can be turned to an advantage for police.

The next issue he presented had to do with the legal aspects of crowd management. Gary made reference to a comment made by a very high profile human rights lawyer in the UK just prior to a major public protest event during which the lawyer was reported to have said, “You give an officer a uniform and a shield, and he thinks he has to smack someone.” Perhaps, he just trying to be controversial and provocative, or more worryingly, did he really believe this? If this is representative of the legal mindset in this country, then it indicates that there is a lot of work yet to be done in the

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public domain. The lawyer's solution to this issue as he saw it was to impose upon the police to a policy of 2-year rotational assignments to public order units. This was in Gary's opinion the wrong response. Such policing units require individuals with significant experience in large scale protests and public order events.

The last topical area of his presentation in terms of changing mindsets was the police themselves. Within police organizations, they sometimes view protestors as less-than-desirable individuals and would just as well have nothing to do with them. Police sometimes get frustrated with human rights lawyers because they are told that protest rights is something needed to be embraced in our society. Gary stressed that it is important to find the right balance between a right to protest and the requirements for public order. In large scale protests, many citizens are inconvenienced, there are significant expenses involved, and police are pulled away from addressing other criminal activities. It leads many police to more easily consider protests as a bad thing.

The whole idea of protests in a democracy is something everyone can and should cherish, and something which many police officers across the UK agree with. So when these issues arise, there needs to be careful consideration of the totality of the issue before determining what is right, and what is wrong. Gary went on to discuss the UK's Human Rights Act and how it has caused more challenges for policing across the UK. The UK Police Services had many worries at the outset thinking that this Act would prevent them from doing their traditional job as police. That didn't happen, and policing goes on. The Human Rights Act just provides the UK a framework under which the balance between protest and policing can be accomplished. This is part of the changing of mindsets.

In closing, Chief Superintendent White told a short story to highlight his earlier points. At the sit-down protest previously discussed which ended successfully, within the next 24-hours a large number of police officers were seriously injured in another related protest that turned ugly. The point being that policing doesn't just work for isolated, single events. It is an ongoing challenge on a day-to-day, week-to-week basis. He made a comparison of policing with refereeing a football match and the diversity of opinion of the calls that might be made, some for, some against. Continuing the sports analogy, Chief Superintendent White compared the need for change and sustained effort to the Heavyweight World Championship Title match in Zaire between a 30+ year old Muhammad Ali against George Foreman (24 years

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old). Foreman was bigger, stronger, and younger than Ali. In the first few rounds Ali didn't throw a punch while Foreman was aggressive. Muhammad Ali took all the blows essentially knowing he could not go toe-to-toe with the stronger Foreman. During the 4th and 5th rounds of the fight, Ali switched from that early strategy to a more aggressive posture as the fight went on and Foreman tired. Ali eventually re-gained the Heavyweight Title which until that time no one over thirty years old had ever done. It was obvious to everyone who saw the match that Ali was not just a boxer, he was a thinker as well. The moral of the story being, if you're going to fight, it is probably to your advantage to spend some time thinking about what's ahead, if you really expect to improve your chances of "winning."

Commander Bob Broadhurst, QPM Operational Commander London's G20.

Commander Bob Broadhurst provided delegates with an insightful, reflective look into the policing operation and events surrounding the April 2009 G20 event held in London which was code named Operation Glencoe. He titled his presentation: *The Black Swan, G20 and the impact of the highly improbable*. This was due in part to the fact that the event was overshadowed by the death of Ian Tomlinson, who tragically collapsed and died near one of the protests on the first evening of the event.



While it subsequently emerged that Mr Tomlinson, a newspaper seller, was not involved in the protests, and was walking home when he was caught up in the demonstration. The circumstances were not originally known when he appeared to collapse and die near a police cordon. It was only subsequently that video footage appeared which showed him a short time earlier being apparently struck by a baton and then pushed to the ground. He was seen moving away after the incident but was found collapsed 100 metres away.

The death of Mr Thomilson increased tension, dominated media coverage of the event, and became the subject of a long running investigation conducted by the Independent Police Complaints Commission.

The London G20, or more specifically, the death of Ian Tomlinson, risked being a Black Swan phenomenon in that principles underpinning decades of public order policing practice and procedures could be fundamentally changed as a result of the G20 protests. However, Commander Broadhurst also stated that there was a need for real debate on the way in which protests were policed

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and on how peaceful protest was facilitated even where such peaceful protests involved protestors breaking the law.

Although policing of G20 was similar to the policing provisions put in place for any protest or major event, it was characterized by the extensive security operations planned to support world leaders who formed the G20. However with more world leaders attending than originally anticipated, at times it seemed more like G30, or G40.

Commander Broadhurst explained that Operation Glencoe was the largest security operation mounted by the Metropolitan Police for many years and had to be planned in just a three month period. It encapsulated a number of events including the arrival and movement of 48 protected principals, including the first overseas visit of the new President of the United States of America, as well as the policing of various demonstrations and protests.

It was a complex operation, planned and deployed against a terrorist threat level of *Severe* and with the potential for large-scale disorder. The potential for attack or disruption by international terrorists, domestic extremists or attention seekers was real and caused concern in the City and within government.

The Summit took place without disruption and the protests were policed with limited damage. However, it was the death of Mr Tomlinson, which dominated the media and this death together with other images of public order policing overshadowed all the good work which had taken place.

Allegations of excessive use of force by police to ensure public order were also investigated by the Independent Police Complaints Commission, and Her Majesty's Inspector of Constabulary (HMIC) undertook a review of the Operation.

The HMIC Report - *Adapting to Protest* was initially published on 7 July 2009 and revised in June 2010¹.



¹ Subsequently HMIC produced a report entitled *Adapting to Protest - Nurturing the British Model of Policing*. In the report HMIC warn that winning public order through tactics that appear to be unfair, aggressive or inconsistent risks losing public consent by damaging the reputation of the police service and individual officers alike. The report stresses that the principles of the traditional British model are well suited to handling the highly-charged, high-profile events that have challenged conventional public

The review was conducted at the request of the Commissioner of the Metropolitan Police Service and looked at the policing methods used in April 2009 during the G20 Summit in London.

The report made a number of immediate recommendations, including that police:

- Facilitate peaceful protest
- Improve dialogue with protest groups where possible
- Improve communication with the public
- Moderate impact of containment when used
- Improve training to equip officers to deal with the full spectrum of protest activity
- Wear clear identification at all times , and that
- National guidance on the policing of protest needs overhauling by ACPO.

The full HMIC report can be viewed at:

http://www.hmic.gov.uk/SiteCollectionDocuments/PPR/PPR_20090706-1.pdf

order policing tactics, training and leadership in recent years, compared with others on offer internationally.

Workshop Presentations – Day 2

Deborah Glass, UK Independent Police Complaints Commission. Ms. Deborah Glass explained the role of the Independent Police Complaints Commission which investigates the most serious complaints and allegations of misconduct against the police in England and Wales. The powers of IPCC investigators center on the ability to exercise the ‘Powers of Constable’ in investigations conducted independently of the police. This include the authority to require production of relevant material, and entry into police premises

Deborah stressed that the IPCC role extended beyond investigations to what she referred to as a *guardianship role* which included feedback to police forces at both the local and national level. With respect to police use of force and firearms, recent issues identified included:

- Armed officers dealing with individuals who had clear mental health issues
- Situations in which *subject-provoked* or *subject-precipitated shootings* occurred
- Concerns over the penetration of certain ammunition

It was explained that a multi-agency committee exists to disseminate and promote learning across the police service based on IPCC recommendations arising from investigations. The purpose was to encourage forces to ask *Could it happen here* and to share best practices.

Explaining the background of less-lethal weapons (LLWs) in the UK, it was explained how until 2001 baton rounds whilst available as a contingency across the UK had been only used in Northern Ireland and mainly for use in public order situations. However, following several high profile fatal shootings in 2001 in England, there was pressure to introduce LLWs in England and Wales. The weapons introduced included the L21 Baton Round (2001) and its successor the Attenuating Energy Projectile (2005).

As an aside Deborah suggested that those responsible for naming products should also consider not just how the police service and official bodies might view a particular name or designation of a product but the terminology which the press and the public would use when describing that product. Stressing



that the press and public will in the absence of a easily remembered and understood name for the product will resort to using old but recognized terminology such as baton rounds or plastic bullets.

She highlighted that the use of LLWs didn't always go smoothly and referenced a case in England where a weapon allegedly failed to discharge when the trigger was depressed and as a result officers resorted to using conventional firearms with fatal consequence. The incident highlighted the need for not only good design but also higher levels of training and user confidence in the weapon system.

Deborah stated that there had been 10 cases involving the use of the AEP impact rounds referred to the IPCC in the last 18 months and all had been returned to the local forces for investigation as there were no significant concerns identified.

With respect to Taser, this technology was introduced into the UK two years after police forces were given approval to use the Impact Rounds. She stressed the cautious and phased way in which it was introduced under Home Office approval and ACPO Guidance, with a carefully structured and monitored trial commencing in April 2003 in five police forces, followed by evaluation before extension to all forces. From the outset, ACPO had decided to restrict the use of Taser to officers already trained in firearms for use when deployed to incidents or operations where the criteria for the issue of firearms were met and such an authority had been granted.

More recently, approval had been given to extending the issue of Taser beyond firearms officers to other Tactical Officer (specially trained) Units. The IPCC attitude to this extension was reflected in their qualified public statement which was shown to the conference:

IPCC to monitor complaints from non-firearms officers' Taser use

The IPCC supports a gradual and monitored extension of the use of Tasers.

Taser does not give police officers a risk-free cure-all when tackling violent incidents. We recognise that in dealing with such situations the police do not have a safe option, and all the equipment available to them carries risks....

Training of officers will be key to managing those risks. Those forces in which Taser is being used also have an important responsibility to explain to their

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public the circumstances in which Taser might be deployed, and that people have a right to complain if they feel the use of force was excessive.

The use of Taser also carries the risk of misuse, and the public will rightly be concerned about this. So we have requested all forces participating in the trial to refer all complaints from the public about the use of Taser to us....

When initially approved for use by firearms officers in August every Taser employment was big news. However, over time reporting was moderated. Newspaper headlines, such as those *Police who used Taser on Veteran, 89, Cleared*, often belied the reality of what actually happened. As in this case where police had used Taser to prevent the gentleman who was attempting to cut his own throat, but the IPCC eventually ruled that: "Officers have made a difficult decision in order to preserve the life of [the gentleman] and protect the public."

Overall, the IPCC considered that most uses of Taser in the UK were lawful and proportionate and in keeping with ACPO guidance.

Referring to new LLWs which were on the horizon, Deborah referred to the Discriminating Energy Projectile (a mid range 37 mm projectile using a payload of micronized CS) being developed for the UK police service. As presently described she considered this to be an appropriate development, she also mentioned XREP Taser. However, Deborah stressed that it was clear that this product still required considerable evaluation.

The public and media concerns with respect to technologies such as Taser and other LLWs in the UK were affected not only by reaction to events which occurred in the UK, but also from international events. In particular she referred events in the U.S. as the "Mood Music from across the Pond." This came not only from international Human Rights organizations, but also from images captured on mobile phones and posted on web sites. It would be important that the police services in the UK listened to the mood music and took action where appropriate to learn the lessons which could be gained from international experience.

Captain Josh Ederheimer, Washington DC Metropolitan Police. Captain Ederheimer started his talk by providing background on how he came to pull together the use of force data and trends that form the basis for his

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presentation, and what the state of the use of force is currently in the United States. The title of his presentation was “Trends in Police Use of Force and Conduct: A U.S. Perspective.” He mentioned as well how the use of lethal force is an integral part of the employment concept of less-lethal force in the U.S. He highlighted up front some key statistics relative to the use of force showing that in the United States 18,661 police officers had been killed in the line of duty as of the date of the presentation. In 2008, 133 officers died on duty, and as of October 2009, there were 96 law enforcement officer line of duty deaths of which 37 were gun-related (officers shot and killed). That number (37) is up about 10% over the previous year. However, overall deaths of police officers (total including gun-related deaths) are now down.

Looking beyond line of duty deaths at the statistics on officer assaults across the nation, the data from 2006 and recent reports suggest that the number seems significant. Of the over 58,600 assaults, at least 15,704 required some sort of hospitalization or treatment. The rate of assault is 11.08 for every 100 police officers. The U.S. saw more police officers killed in the last two years by gunfire and more assaulted than previous years. So this spoke to the emerging mindset of police in the U.S. with regard to use-of-force incidents.

Just through the past spring and summer, the United States has seen 14 officers killed in incidents involving multiple officer injuries and deaths. Captain Ederheimer then turned the spotlight on 5 major incidents during 2009 (Jersey City, Pittsburgh, Oakland, Okaloosa and Seminole counties in Florida). Even since the presentation was put together, there were two additional shootings of officers in Georgetown, Delaware and Winston-Salem, North Carolina. These shootings represent a continuing trend of multiple police assaults and shootings across the United States and will ultimately affect management decisions as these departments move forward.



Another observation has to do with mistaken identity (Blue-on-Blue) shootings which apply to off-duty and plainclothes officers primarily, but also as a result of poorly executed tactics where uniformed officers have shot fellow officers (friendly fire). Just last month in Charleston, West Virginia on a traffic stop, an officer was shot to death by other officers who were called there to assist. Police executives across the U.S. have had to focus on this issue along with others involved with use-of-force. To address this, various departments across the Nation now train to improve the immediate recognition of other police officers. What may be needed is a universal police signal, which has not yet been in use in the U.S. There also needs to be an

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increase in the use of highly reflective clothing worn by police. Unfortunately, in the U.S. primarily firemen wear such equipment. Consequently, police in the U.S. feel adverse to wearing highly reflective clothing because they feel it makes them more of a target, not less.

Captain Ederheimer went on to state that the current economy has had a real, and specific impact on the increased aggressiveness toward police in the United States. “Suicide by cop” is a trend that is being closely monitored. Recent professional journals have linked 1/3 of all police shootings recently to “suicide by cop” incidents. Overall, these aspects of policing have been seen to contribute to the general increase in aggressiveness toward police officers. In a case in Massachusetts, an individual, Professor Henry Louis Gates Jr., was confronted in his own home by local police investigating reports of a break-in and the responding officers were confronted with verbal and physical abuse ending in the arrest of the professor. President Obama became engaged because of the racial make-up of the individuals involved. The President indicated that the police officers “acted stupidly” which then ignited a firestorm across the U.S. This incident highlighted the issue of disrespect and aggressiveness being seen across the country, but ultimately did little to address the underlying causes.

The issue of civility, or the lack thereof, has been a growing undertone or background influence throughout many different parts of American society. This type of environment along with other situations involving cross-border violence by drug cartels, ultimate fighting championships (UFC), and possibly even war across the globe, all seem to make individual citizens more aggressive, or at least believe it is ok to be more, and more, aggressive towards police.

Captain Ederheimer went on discussing the impact of the deteriorating U.S. economy on law enforcement stating that 63% of agencies across the country were planning budget cuts. How significant is this? Since law enforcement cuts are not very common over time, this percentage reflects the seriousness of the downturn in the nation’s economy. Among the cuts, there was less overtime, more hiring freezes, and additional layoffs or furloughs. Additionally, technology, training and past practices such as “take-home cars” were being affected by the budget cuts. The cutbacks have become more than what normally would be expected and quite seriously impacting the various departments’ abilities to get the job done. Finally, the economy has also had a negative effect on crime patterns across the U.S., where increases



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in certain types of crime have been seen to directly impact the use-of-force incidents.

Captain Ederheimer then briefed the group on other related trends in U.S. law enforcement ranging from the proliferation of patrol rifles to the increased use of video cameras and social networking. The U.S. is seeing on a more frequent basis the routine employment of rifles for police going on patrol. Many of these weapons are being received from the military who may be disposing of them as no longer needed. Captain Ederheimer discussed the impact of the added weaponry on community relations and the opposition in many places to more heavily armed police (i.e. patrol rifles). The bottom line is that there is a growing need for more sensible policies with regard to the increased need for weapons on the street.

He then went on to mention of the increased shooting of dogs across the country, the general increase in the number of rounds (ammunition) fired, the rise in the number of officers involved with multiple shootings, and the general “militarization” of law enforcement in the U.S. After reviewing the trend towards more activists elected as officials and the emphasis being added to civil rights and related investigations, Captain Ederheimer spoke to other emerging trends involving equipment namely body armor, Tasers and emerging technologies such as less-lethal weapons and munitions. His final points centered on new policies that were being tested for law enforcement across the country including firing at fleeing vehicles, generally holding officers more accountable, and the role of reserve police.



Sergeant A. J. DeAndrea, Arvada Police Department (US). Sergeant DeAndrea, as the entry team leader at the Columbine High School shooting incident, provided a presentation titled “The Evolution of Active Shooter Response: From Columbine High School to Platte Canyon High School, and Youth with a Mission (YWAM).” Sgt DeAndrea set the stage by emphasizing that he was just a working level police officer who does a routine police job. “Any Given Day” was the underlying theme of his presentation meaning that on any given day a police officer can walk into an active shooter situation and be called upon to confront violence. As a police officer, you are either at the wrong place or the right place depending on your perspective, at the wrong time. Perspective comes from where a person sits and Sgt DeAndrea had the fortune to have been part of three active shooting incidents in a school environment over a relatively short period of time. He started by calling our

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attention to comments made earlier in the workshop, namely by Colin Burrows (“We need to look at the past and the present”) and Chief Constable Ian Arundale (“We need to be thinkers and think outside the box”).

His objective was to make his presentation thought-provoking and get the audience to think outside the box. The shooters at Columbine were intent on making their attack a “big event.” They planned on killing a large number of students and hopefully several police officers at Columbine on that fateful day. New shooters today are already planning and thinking how they can make their assault, a little bigger, or a little more newsworthy. How will we deal with these future events? He discussed how the police established the perimeter around the school, and how the scenario developed to a point where the active shooters ended up committing suicide.

He then showed a video clip of the Platte Canyon High School shooting which focused on the one victim, Emily Keyes, the young woman who lost her life, September 27th, 2006. He went on to explain the sequence of events and to describe what happened during the Platte Canyon High School shooting. As with Columbine High School, he was part of the response team. Emily’s death is memorialized for all those on his police force and embodied in the wrist bands that he passed out at the workshop. Her loss of life will not be in vain, but will serve as a remembrance for those who must deal with such challenges in the future.

Sgt DeAndrea indicated that his talk was about where we have come from, and where we’re going in relation to active shooters in schools. So many people believe that “it could never happen here.” At Columbine, 13 dead and 21 injured were unacceptable to the American public. From the time of the first 911 call, at 1123 that day, the first officers were on the scene within minutes. The school resource officer was the first to become engaged with the shooters. The first SWAT team on the scene was an “ad hoc” unit that was put together at the site. A key lesson learned was that whoever is there first must confront the shooter immediately. This is the only way to make a difference. When Sgt DeAndrea’s team arrived and proceeded through the school, it eventually would receive criticism for the amount of time it took the team to make its way through the building. He then asked the group a somewhat rhetorical question, “Are we really prepared? Have we really thought through all that we should to meet the next challenge to save lives?”



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In 2006 at Platte Canyon, Sgt DeAndrea said they felt prepared this time. The local department had taken this potential threat seriously and had trained and planned for just such an incident. The 911 call came in at 1136, and the first armed officer was on the scene and at the door of the school at 1139, 3 minutes. SWAT was activated at 1141. The situation grew from a shooting event to a barricaded hostage situation. He then talked briefly about the value of “take home” cars with the resulting ability to more quickly respond, expressing the understanding that this may be a luxury for those jurisdictions with budget issues. The best solution in many such scenarios is to eliminate the person causing the harm the quickest way possible, whether that means surrender or taking the person down. At Platte Canyon, the suspect had barricaded himself and the police attempted to start negotiations. By the time the SWAT arrived, the suspect had stop talking, refusing to negotiate. The police maintained hope of talking him out, or at least talking out the hostage. Emily was the hero that day. She was the lifeline, the line of communications, between the police and the suspect. She was sexually assaulted and eventually killed as the police entered. The police came to believe they might be facing a double homicide-suicide situation. A deadline came and a decision had to be made. If they had had direct communications with the suspect, there might have been additional options. They may have been able to talk the suspect through the deadline. He had indicated he had 4 pounds of explosive on him and threatened to kill himself, the hostages and blow up the school. In the 3.7 seconds from the time of the explosive breach, the suspect was able to shoot Emily and shoot himself. There is no doubt that lives can be saved by an aggressive, prepared and quick response, on any given day.

Sergeant DeAndrea then went on to describe the third incident involving an active shooter with which he was involved. It happened December 9th, 2007, at Youth With A Mission (YWAM), a missionary school in city of Arvada. There were three feet of snow on the ground, the result of a very recent blizzard. The first officer was on the scene within one minute of the call. He just happened to be in close proximity to the school. It was believed that it was the siren of the first officer’s vehicle which was heard and which triggered the shooting by the suspect. The police have since developed “active shooter packages” which are always on hand and at the ready. The SWAT team responded within 4 minutes of the first 911 call, and deployed immediately evacuating the initial victims who were shot. Unfortunately, four were shot that night, two died. There were another 100 potential victims inside the building. The suspect was forced from the structure and the area by the

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courageous actions of a young woman who was eventually killed, and the fact that the first officer and the SWAT team were so quickly on the scene. The suspect actually escaped, armed with an assault weapon and made his way to another location, a church where he shot and killed others.

Sgt DeAndrea talked repeatedly about living and breathing SWAT techniques and training in whatever form it can take. Training is critical, and should be constant, realistic as possible and take into consideration every potential contingency to the extent possible.

Sgt DeAndrea was questioned about the extent of the explosives that were present at Columbine. The questioner raised the idea that the amount of explosives present raised a number of parallels to terrorist threats his Nation and the world were facing today. Sgt DeAndrea responded that, yes, there were a great deal of explosives that had been brought in and were a potential threat. However, none of it was in the end detonated. John Gnagey (NTOA Executive Director) made several comments about the increased interaction and closer working relationships between bomb squads and SWAT teams across the country in numerous jurisdictions. Sgt DeAndrea confirmed the closer working relationship between the bomb squads and technicians and the tactical operations. Sgt Dan Murphy mentioned that the two organizations do come at the same problems a little differently. He stated that explosives in schools are not a new phenomena since there are recorded historical events going back to the 1930's. Sgt Murphy said that while a bomb squad would approach a volatile, potentially explosive, situation where there were explosives present and possibly active shooting with very real caution, SWAT teams do not have that luxury and must "run to the sound of the guns." So the fact that they work with a different view of operations must be carefully integrated and coordinated across organizational lines.

Andy Mazzara raised the specter of operational anesthetics and whether any of these scenarios heard today, or any others that the group might be aware of, might call for further research and exploration of the technology referred to as operational anesthetics, or calmatives as the military calls them. Is there any operational value or benefit to those present who had experience with SWAT and/or tactical operations? The response tended towards the positive. Yes, there is a need to develop such technology. The Beslan and Moscow (Drubrovka) Theater incidents were mentioned and discussed. There was mention of how the military may have looked at it some time ago, but the public was probably not yet ready for it. There seems a reluctance to talk



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about it, but that its potential versus the possible risks involved is obvious. Andy reminded everyone of a meeting several years back when an FBI Hostage Rescue Team (HRT) commander said he was interested in a gas or chemical that would just put everyone down on the floor, allowing the HRT to then come in and separate the good guys from the bad. The concept seems simple, but the technology itself and the associated logistics remain somewhat challenging, if not problematic. Continued study seems called for. Colin Burrows challenged everyone to examine and consider the various levels of risk involved with this (anesthetics) and other less-lethal technologies compared to the benefits in scenarios such as hostage situations and other possible scenarios as the group transitioned into its breakout sessions that afternoon.

Major Ron Hartman, Springfield Police Department (Missouri). Major Hartman stepped in for Major Steve Ijames who was originally scheduled to speak, but was called away at the last moment. Major Hartman of the Springfield Police Department, who has done a lot of teaching for NTOA and IACP, presented “TASER Challenges in America: Laying the Pre-Event Foundation for Effective Performance *Beyond the Street.*” He told everyone where Springfield was located, in the “middle” of the United States. SPD has a little over 300 officers and he is in charge of their Patrol Division. He explained how they started off with impact munitions as their less-lethal weapons until Taser came along. He started by identifying the various Taser devices that were in common use by U.S. Law Enforcement and indicated that they had served American police well to this point. Ron suggested that the decision to employ the Taser, or not, was probably the hardest part of use of this technology. He mentioned that Taser incidents make their way into the news and often force police departments to re-examine their policies and procedures, occasionally causing changes in these areas.



Major Hartman mentioned that many of the individuals police deal with now are self-medicated, mentally ill, or generally “pain-averse.” This causes a decrease in the effectiveness of resistance control techniques from the past and increases the value of devices such as the Taser which do not rely on pain avoidance (impact projectiles or pepper spray). A highly pain tolerant person will not be controlled with some of the older techniques. He stated that while Tasers and other electronic control devices are being used around the world by police in increasing numbers, the data shows, or at least strongly

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suggests, that this technology outperforms all other control measures. He went on to discuss how the Taser has become a fairly common aspect of civil litigation, and how that litigation seldom addresses the device or technology itself. Instead, it usually focuses on the manner with which it was deployed, or the unintended consequences that resulted from its use.

In recent years, the focus has shifted from the technology to factors such as “fall down” training. Policies have also been modified in various locations to provide officers guidance on how to deal with suspects who may be in an elevated position or at risk of falling and injuring themselves, possibly resulting in death or serious injury. Major Hartman then talked to the fact that the more common concern should not be elevated falls, but rather falling down during more routine police-suspect interactions. Some of this can be addressed again through policy and training. Factors such as momentum, gravity, and conscious and unconscious human response to stimulus must all be taken into account. An individual’s ability, or inability, to break his own fall is something that needs to be considered during such interactions. The International Association of Chiefs of Police (IACP) and others have recognized the “fall down risk” and have published proposed policy revisions to address this as recently as 2005. In the end, the officer must learn to balance the risk of potential effects from the use of a particular less-lethal device, and the decision to use it. It’s about accepting the possible injury outcome.

The second issue related to Tasers and electronic control devices was the probe contact with vital areas of the body (eyes, head, groin). Even though there is that risk if the probe hits such a part of the body, this can not deter the officer if the need to use the device is warranted. The focus here must be on marksmanship and operational guidance. Dynamic training, role playing and “force on force” training all can help improve the effectiveness of the employment of these devices. As an outgrowth of this issue, police departments and agencies which in the past have considered the use justification for OC pepper spray and Taser to be the same, now must consider differentiating between justification and the decision to use the different weapons. The potential risks from OC and Taser are not the same, and the decision to use one or the other must be made with this in mind.

The third issue involved the drive-stun application of these devices. This type of technique has become the main focus of a vast majority of abuse complaints. Major Hartman indicated that it may be relatively easy to address by limiting the authorization for “cartridge off” use, and focusing on custody



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rather than coercion scenarios. He then reviewed a \$2,400,000 award case for a drive-stun death which occurred in southern Missouri.

The fourth issue had to do with what he referred to as “special groups.” This included young, old, frail and pregnant. Since it is often extremely hard to justify the use of Taser against suspects in these categories, everyone would be better served by limiting such cases whenever and wherever possible. You don’t want an officer in the field to feel or believe it’s ok to use Taser on everybody. He also talked about an ‘early warning’ system within the police department where an individual officer would be flagged for further review if in tracking incidents the officer was noted to have employed a Taser more than three times in a specified period (few months) of time.

Major Hartman went on to emphasize that in officer-suspect interactions involving a Taser or electronic control device that it must be taught that the officer should “energize” the subject the least number of times, and no longer than necessary, to take him into custody. He also mentioned that sometimes conflict of interest, or even the appearance of conflict of interest, that arises when law enforcement officers and officials have an undue, real or perceived, relationship with the manufacturer of these devices. This aspect will always come up in court cases and will diminish effective prosecution when it calls into question the credibility of the officer involved.

The last area of concern or issue involving electronic control devices was the need to emphasize the full use of the Taser technical capabilities including the data and camera information downloads. This information must be routinely, both randomly and post-deployment, downloaded by first-line supervisors and the officers must be held to strict accountability for every employment of the weapon.

Ms. Mary Beth Buchanan, US Attorney – Western Pennsylvania & Commander Scott Schubert, Pittsburgh Police Department. Commander Schubert and Ms. Buchanan combined to provide a two-person presentation to the Workshop on the G20 Pittsburgh Summit 2009. The presentation started with a description of the city and surrounding area. Pittsburgh is a city of 344,00 citizens in an area of 55 square miles at the confluence of three sizeable rivers (Allegheny, Ohio and Monongahela). The Police Department has 877 sworn officers. Pittsburgh has been the city of numerous sports championships that has been transformed from an American urban center for



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the steel industry to one of thriving business, medical and academic institutions. Ms. Buchanan went on to explain the timeframe the city faced as it was selected by President Obama to host the G20 Summit in late May, and the actual Summit itself took place only 4 months later (93 days to plan). It was declared a National Special Security Event which meant the Secret Service eventually took overall charge of the security environment, with oversight by the Department of Homeland Security.

The designation as a National Special Security Event (NSSE) made it more challenging by the fact that those in charge were not present or available at the outset of planning. Eventually, the Secret Service did designate a local officer, Commander Schubert, as the co-chair of security for the event. The primary goal was safety. The safety of police officers and the public was foremost. One of the early challenges was the fact that everyone regardless of their responsibilities with relation to safety and security had to “stay in their lane.” This applied to the numerous civil agencies that had a role or an interest in planning for this event from airport and airspace security to traffic and transportation.

The keys to success were clearly identifiable and started with intelligence sharing. Funding was an issue at the start since there was no specifically allocated funding for the event. All the training that needed to be done, and all the external police agencies that had to be coordinated, were not funded creating an immediate budget concern. In addition to over 400 Pittsburgh officers dedicated to the event, another 800 officers were brought in from outside the jurisdiction. The National Guard was also employed. In the end, Pittsburgh had over 3700 police officers, and 1800 other augmentation personnel, on hand to support the event.

The police went to 12 hour shifts just before the event. The identification of who the protesters were, where they were staying, and how they intended to operate was critical. The police made it a point to let all the protest groups know who they were (the police), and what the ‘rules’ were. Commander Schubert outlined the different field forces that were employed to include bicycles and mounted patrols, SWAT, and protester device extraction teams. He talked briefly about some of the equipment and technology they procured including the LRAD (Long Range Acoustic Device). Transportation and support vehicles were another challenge requiring the Police Department to rent an additional 100 vehicles and ensure coordination of transportation requirements.

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Ms. Buchanan talked about the impact of late notification that they would receive funding. It caused delays for other police departments who were ready and able to provide support, but could not because they did not have sufficient budgets to participate. Eventually, they did receive information about funding and things started to fall into place. She discussed the issues of Federal and non-federal deputization. Traffic and routing plans were drawn and coordinated. On the legal side, coordination had to occur with state and Federal counterparts. This included the U.S. Attorney's Office (Chair), Secret Service, FBI, U.S. Coast Guard, U.S. Army and many others as well from the city and county. The overall mission of the U.S. Attorney's Office was defined as "coordinate(ing) interagency responsibilities regarding arrest, jurisdiction, prosecution and litigation, as well as address(ing) the First Amendment protection of potential demonstrators."

Ms. Buchanan outlined the actual location where the Summit took place vis-a-vis the area where the protesters were able to demonstrate. She discussed the reasons and rationale for the location which would allow the protesters sufficient "access." The U.S. Attorney's Office met with the groups in advance and sorted out what exactly each of the groups wanted. That allowed the Attorney's Office to determine what latitude they could provide the various groups. All reasonable requests were considered. The issue of what happened upon arrest, where they were to be taken, and how they would be processed were also determined well in advance.



The key from Commander Schubert's perspective was that this early involvement, consideration and interaction with the protest groups "took the wind out of their sails." This minimized the actual problems as the G20 event got under way. He then talked about the training involved to prepare officers for the event, and the significant cost involved. The best practices from around the world were reviewed and incorporated into a three-phase training program for the officers. Many of the officers had never experienced anything like this before, so the training was critical. In the end, not a single officer injury occurred, which was for the most part attributed to their pre-event training. Police leaders also went through the training.

This event did a lot to bring the Pittsburgh Police Department together. Earlier in the year, the Department had lost 3 officers and preparing and training for the G20 event caused the coming together of the police as they all focused on making this a successful security operation. Efforts had been made to bring in experienced officers from London Metropolitan Police as

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well as others from Washington DC, all of whom had worked safety and security for similar summits. There was a good deal of sharing of information and lessons learned.

The actual Summit itself, September 23rd – 25th (2009), saw a total of 190 arrests. During the planning phase the Pittsburgh Police and others involved estimated that as many as 800-1200 arrests might occur. Commander Schubert then described the various areas of operations from the bridges to the downtown area to the Lawrenceville and Oakland areas. One of the lessons learned according to Ms. Buchanan had to do with the University of Pittsburgh. In hindsight, a better and earlier information exchange with the university officials and students might have assisted in further reducing the number of incidents and arrests.

One of the objectives of the police was to “overwhelm” the protesters and demonstrators with sheer numbers. Also, a higher visibility of the police forces involved was considered to be important. It became clear that for some of the protest groups, especially the anarchists, that they would spin off smaller groups who would move through other downtown areas and look for opportunities to cause commotion and property damage (break windows, other damages). The LRAD system was used effectively to communicate with and deter the protest groups, including the splinter groups. Commander Schubert then went on to explain how the LRAD was employed. Ms. Buchanan commented that the LRAD just looks “intimidating.” Commander Schubert played a video that showed how the LRAD used aversive tones and projected messages to disrupt the movement and plans of the splinter groups. He also described how OC vapor, CS and smoke were employed as well to effect control over the groups in some areas. Ms. Buchanan emphasized that the police operation was purposely intended not to look like a military action.

Commander Schubert then wrapped up the presentation reviewing the tactical deployment kit bags that the police used, identifying the various equipment, munitions and devices they contained. Anyone who picked up and tried to throw anything back towards the police were fired upon by the “grenadiers” with the less-lethal munitions (sock rounds, bean bags). This produced positive results as the protesters realized the extent of the police control over security for the event. Only the incident commander could authorize the use of CS gas. There remained after the G20 event several ongoing inquiries and investigation concerning the use of force, LRAD, and planning that are all being dealt with accordingly. The end result as the

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Summit came to a close was that minimal arrests, injuries and damage (\$50,000) occurred and the overall G20 Summit was considered a success!





Workshop Syndicate (Breakout) Sessions - Major Issues, Discussions and Recommendations

After completing an ILEF overview and briefings on the first day, the group participated in four breakout sessions. These sessions addressed Proactive Technology Support during Major Events, Crowd Management Issues, Less-Lethal Response to Terrorist Threats, and Proactive Media Management for Less-Lethal Use in Major Events

On the second day of the workshop, the four separate breakout groups addressed these same topical areas, but discussed them in the context of a provided scenario, the World Economic Recovery Day Scenario, a fictitious event: "October 15, 2010 has been declared World Economic Recovery Day. It will be a national holiday in most countries to allow maximum attendance at the events. Both outdoor and indoor events will be staged in most capital cities around the world, and include conferences and major trade exhibitions involving small business and major manufacturers. Media coverage will be extensive, not all of it positive. The emerging patterns of celebration, protests, and policing methods and tactics will be showcased by the media in real time. The policing objectives for World Economic Recovery Day are to:

- Ensure public safety
- Ensure safe and free movement of people to the main events
- Maintain security and public order
- Facilitate peaceful and lawful protest
- Counter all threats from terrorist or anarchist groups

There is early intelligence that anarchists, anti-democracy and anti-government groups are planning coordinated international action similar to what was seen at G20 and WTO meetings. The indicators are that the protests will be large and organized. Protest marches, demonstrations and alternative "celebrations" are being submitted for permits to the local civil authorities. There has also been some low level indicators of potential "home-grown" terrorist activity, yet very undefined."

Each group focused on a different set of questions, then addressed others as time permitted. Additionally, each was asked to discuss what should be transmitted to manufacturers with regard to less-lethal technologies deployed in support of large scale, major public events. Detailed summaries of these workshop session discussions appear in the sections that follow.

WORKSHOP BREAKOUT GROUP 1:

Proactive Technology Support during Major Events

Graham Smith, UK (Moderator)

The purpose of this session, led by Mr. Graham Smith of the Home Office Science and Development Branch (HOSDB) was to examine the potential for support and assistance in the planning and execution of major large scale public events at all operational levels that might be realized by the proactive inclusion of emerging technologies.

The Proactive Technology Support for Major Events discussion began with a brief introduction by Graham Smith. There was a generalized presentation of the more recent technology advances in support of policing and law enforcement. The discussion focused on major large scale public events and the planning and execution in support of such events. The group then reviewed new technologies that might be best used to assist command and management functions for large events. There was attention drawn to the fact that currently available technology, equipment and systems that were already in the field were “tried” and tested. Police organizations needed to ensure first that they were making the most of existing systems before looking for technological advances.



Understanding Capability Gaps

The Breakout Group then worked to identify barriers or obstacles to success for the introduction and employment of new technologies. Among the areas of interest to the group was the proper identification of capability gaps and operational needs that needed to be addressed. This aspect of policing large scale public events is easier said than actually accomplished. Once the “gaps” are identified and understood for a particular police force, then several possible ways to address those gap (operational needs) need to be deliberately considered. Among the potential solutions, a police organization might look at improving, expanding, or otherwise changing the training of its police in dealing with overly aggressive individuals or large-sized crowds.

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Next, tactics and departmental policies should be reviewed and evaluated for modification. Consideration then should be given to review and maybe change the staffing or manpower needed to address the need operationally. Finally, as a last consideration, new technology would be included in the discussion. Since acquiring technology or new systems to introduce into the field is a timely and costly venture, it must be the last option to address the problem at hand.

The group then went on to discuss the top equipment priorities and issues within their respective organization specifically as they might apply to policing of large scale public events. The experience across the group was significant and the issues they identified essentially pointed to improvements needed in intelligence and information gathering to ensure that the leadership had a more comprehensive understanding of the “big picture” and could respond in a more agile and effective manner to a dynamic and rapidly changing situation. Many police commanders can receive an overabundance of unfiltered information that often times can do little more than make a complex situation more complex. The better management of information processed through effective filters which allow the commanders to concentrate on critical elements of information is important to successful command and control. If the information being organized and analyzed does not directly relate to the decisions that need to be made, it should not be pushed upon the command structure.

Recommendations

Breakout Group 1 closed with identifying several recommended areas for further study and discussion. Among those identified were:

- **Unmanned Aerial Vehicles (UAVs).** 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 . There are a growing number of platforms and a wide range of capabilities available in the commercial marketplace. Some of these should include:
 - ✓ More comprehensive intelligence gathering capabilities in smaller and less expensive “packages” or platforms. This would include mostly overhead video imagery obtained by small miniature cameras carried by lightweight platforms;

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- ✓ More user-friendly remote control devices that allow a larger number of operators to be quickly and easily trained at controlling unmanned systems;
 - ✓ The ability of many systems now to capture and transmit higher quality images from a small unmanned system back to a command vehicle or command post;
 - ✓ A growing capability to add modular enhancements to a single platform that allows a police department to “mix and match” capabilities depending on their budget or their operational needs. Some of these capabilities might include infrared imagery, audio/acoustic detection, chemical agent sensing, and others.
- **Exploiting Open Source Information.** Police departments need to be in a 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. This information obtainable routinely through internet sites can be quickly filtered, analyzed and assessed by a trained intelligence analyst and add significant value to law enforcement operations. 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.
- **New Communications Technologies.** 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. Additionally, the fact that criminals and terrorists are often very capable of exploiting communications means, even at times using them to trigger actions or remote detonations, there need to be an improved capability for law enforcement that more effectively intercepts, deceives or jams RF communications within localized areas. Issues remain with these technologies in terms of regulatory agencies and obtaining approvals necessary to operate especially in densely populated areas.

WORKSHOP BREAKOUT GROUP 2:

Crowd Management Issues

Joel Johnston, Canada (Moderator)



The purpose of this session, led by Staff Sergeant Joel Johnston of the Vancouver Police Department seconded to the Justice Institute of British Columbia where he concentrated on Use of Force Policy was to look at various aspects (weaponry, training, policy constraints, and special conditions) affecting the more effective policing of large crowds.

Breakout Group 2 looked at *Crowd Management Issues* which began with a lead introduction by S/Sgt Johnston of the Vancouver Police Department. S/Sgt Johnston highlights the major public events that his organization in Canada had been challenged to police. He spoke at some length about the upcoming Olympic security preparations and the anticipated (or observed) issues surrounding similar events where a large active crowd was present.

Initial Review of Crowd Management Issues

Group 2 was able to work its way through the first of the three prioritized questions. The first of which dealt with the officer on patrol and what he/she might be equipped with that was relevant to policing major events and potentially hostile crowds. For the average patrolling officer, the Group believed they were adequately equipped for their immediate needs and trained to use the tools provided them. The equipment in a general kit are relevant to normal, everyday needs but might prove inadequate in any sizeable crowd management situation. Working with crowds requires specialized training, detailed operational guidance and often times different or advanced technological capabilities. In crowd management situations, first line supervisors are critical. That first level supervisor, along with the individual police officer in the ranks, must have a solid grasp of the various application of force options available at their level within their organization, i.e. a full understanding and ability to execute the approved operational guidance.

Mutual Aid and Command and Control

In large scale, volatile public order scenarios, considerable attention must be paid to the training, doctrine, emphasis and approach to use of force for all patrol officers as well as specialists who are “joined up” for the event. Mutual aid agreements exist and work fairly well in many instances. The actual degree of success of a mutual aid agreement will depend on the extent for which the supporting organizations were involved in the planning and trained. The command structure is best served by ensuring that the missions are properly assigned to the various units based on their training and equipment capabilities. The upper reaches of the command structure within the larger organization also need to be properly trained and experienced if the situation is to be successfully managed. The United Kingdom’s Gold/Silver/Bronze system of command and control seems to make mutual aid easier due in part to the broader understanding across the force of what it means and how it works. In addition to any improvements to command and control system, the political will to ensure public order and safety for a particular major event throughout the organizational structure from top (especially) to bottom is key to success. This was witnessed during the G-20 Summit in Pittsburgh.

Breakout Group 2 discussed the most effective means for dispersing rioting crowds and reviewed the employment of tear smoke (CS), long range acoustic devices, and various police riot formations. There was extended discussion of the use of water cannons (part of the Northern Ireland experience), the United Kingdom’s new Attenuating Energy Projectile (AEP) which had been designed to reduce the risk of serious injury in the event of inadvertent head or upper chest strikes, and other approaches that would lead to more discriminating use of technologies and techniques as they might be applied to large, active crowds.

World Economic Recovery Day Scenario

Breakout Group 2 worked to identify the training, tactics, policy, legal and medical crowd management issues as they related to visitors, participants and general spectators. They considered how the police would contain or disperse aggressive and/or violent demonstrators, then focused on the specific deployment of less-lethal technologies and the tactical officers who might be equipped and operating with such equipment.

Although for the scenario in question the commander's guidance was considered by the Group to be insufficient in detail, it remained critical that early engagement with crowd management was key to accomplishing the assigned mission. The Group discussed methods of splitting the crowd by organizing areas of interest such as vendors, entertainment, large screen TVs, the availability of alcohol and early screening of participants to ensure the identification of anticipated trouble-makers. The crowd was not homogenous, which is typical of most crowd situations. It is important that the crowd be "educated" by letting them know early on what are and what are not acceptable actions or activities. Simple systems can be employed to account for the language barriers, and the media can also be useful in this regard by being included in the planning stages. Many police organizations found it helpful to have early meetings with various interest groups while requiring permits for their participation in the event. Again, informing the groups of the boundaries and limitations and encouraging them to police themselves and their members are often constructive. Another aspect of this approach includes the identification and separation by distance of groups that have a history of aggression towards each other.

Containing and Dispersing Crowds

This part of the session involved fairly extensive discussion of pre-event planning and preparation. It was noted that large crowds (and many small ones) can be described as 1) lawful and peaceful, or 2) unlawful and peaceful, or 3) unlawful and violent. Containment is a labor intensive activity. The most challenge is for the front line police officers who over time will naturally experience a decline in their individual tolerance for what is happening to them or others around them. It is important for supervisors up the line to be constantly alert to this and to establish an effective rotation (mandatory) policy for all the officers in direct contact with the crowd.

Other ideas that were viewed as positive by the group included a large show of friendly force, a designated reserve, constant attention to improving situational awareness up and down the command structure (as well for the front line police), the identification of critical "targets", and pre-event training particularly involving operational guidance for the augmenting agencies. There was mentioned that in certain scenarios the police may not want the crowd to disperse for other public safety reasons.

Less-Lethal Deployment

Breakout Group 2 went on to review and discuss the implications of deploying less-lethal munitions, devices, and technologies in support of major public events. The discussion initially centered around discriminating technologies in relation to non-discriminating ones and the issues associated with each. A side note was made that in the area that the crowd is expected to be physically present or may move through, some pre-event clean-up is often helpful to eliminate or minimize the availability of “weapons of opportunity.” There was some discussion of operational guidance and the factors that needed to be considered during the planning phase such as concerns for unintended contamination resulting from tear gas or other agents that might be employed, the potential for the loss of business during the period of the protest or event, and also the release authority level necessary and appropriate for deciding to use or not use certain devices.

They continued the discussion on less-lethal options which covered a wide range of technologies and techniques from lighting, to video recorders and employing specialized teams (drag litters, bookings). A layered approach to introducing various less-lethal technologies into a particular scenario suggested starting with acoustics (communications), then the use of lights and helmet cameras, and eventually taggants. All these might be planned for in advance of more physical or aggressive actions on the part of law enforcement. Many of the experiences in Pittsburgh for the G20 Summit that was conducted there in September 2009 provided an excellent source of lessons learned for the Group.

Recommendations

- **Mutual Aid Agreements.** 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.
- **Operational Guidance.** Law enforcement agencies often have standing policies 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.

- **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 much more than weaponry and includes a whole range of less-lethal options which include tactics, techniques, training and policies. Using the media or social networking might be considered minimal force options as well. The idea that something has to be “fired” at a targeted individual or crowd is a fairly narrow understanding of minimal force. 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.

WORKSHOP BREAKOUT GROUP 3:

Less-Lethal Response to Terrorist Threats at Major Events

Joshua Ederheimer, US (Moderator)

The purpose of this session, led by Captain Josh Ederheimer of the Washington Metropolitan Police Department (WMPD) was to explore the practicality and utility of less-lethal responses in the context of a terrorist attack or event.



Terrorist threats in and around large scale public events are a significant issue for police. This session for Breakout Group 3 wrestled with this topic over two days and explored various aspects of dealing with this from both a less-lethal and other related, but more aggressive, approaches. The *Less-Lethal Response to Terrorist Threats at Major Events* discussion focused on a series of seven questions. The initial issue dealt with the employment of snipers in response to a potential threat. The Group discussed the major constraints facing a police organization when needing to deploy sniper teams to support a major public event. There were a number of concerns. First, the perception by the crowd itself of the presence or visibility of a sniper or sniper teams. There are also issues that involve reactive or sympathetic responses to gunfire should the sniper be required to fire. In a scenario where a sniper actually is deployed and uses his weapon, there would need to be well-informed and well-coordinated police throughout the environment to ensure against other police drawing their weapons and the increasing risk of “friendly” fire, or blue-on-blue firings. Additionally, for even well-trained and expert sniper teams, the lines of sight and distance to the potential target, especially if it is moving, need to be thought through well in advance. The presence of a large, active crowd only serves to further complicate this aspect of policing at a major event.

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Policy/Command and Tactical Issues

The next related issue centered on policy, command and tactical issues surrounding the employment of firearms and/or sniper teams in response to potential terrorist threats at a major event. Obviously, the basic nature and scope of the threat has to be accurately assessed. This is only possible with good intelligence. Questions concerning the threat have to be answered to the extent possible. Are chemical agents involved or anticipated? Might there be multiple shooters? Are Improvised Explosive Devices (IEDs) or suicide bombers expected? Is there an expectation of secondary attacks on first responders? Once the command structure is convinced that it is a viable threat, the entire chain of command must be fully informed and “on the same sheet.” The operational guidance must also be clearly defined and well-understood. As mentioned earlier, location of fields of fire and lines of sight need to be fully considered.

The crowd can not be forgotten or overlooked. The “what if” questions concerning the possible response or reaction by the crowd must be reviewed. This is where the media might be helpful in getting the word out in advance, or even during and after an incident. Another issue: Where can the police move the crowd, and how? This thinking must be accomplished as much as possible before the event, and communicated throughout the organization so that all levels of the organization have an understanding of what their role might be.

Are Less-Lethal Options Viable?

The next issue dealt with the value-added, if any, of less-lethal devices to possible terrorist event planning or response. Again, it was agreed that the nature of the threat would have a lot to do with the viability of employing any less-lethal devices. This led to a discussion of whether or not there might be a cultural aversion to using a less-lethal device in a traditionally deadly force scenario. The discussion that followed highlighted several key advantages if the situation could be resolved or addressed with less-lethal weapons. One point that was made was the ability after the event to debrief a suspect and gather additional intelligence. This may be even more critical if the event involves multiple attacks or shooters. Also, employing less-lethal technologies might avoid the idea of martyrdom (from a terrorist perspective) and minimize the impact on the crowd or innocent bystanders that might be

present (collateral damage). The employment though of less-lethal options must be able, if required, to cause immediate incapacitating effect. This was emphasized several times in the discussion. Additionally, the employment of less-lethal weapons absolutely must have a lethal back-up in support. The inclusion of less-lethal options does also allow for the early assessment of intent and determination of the suspect and those around him or her. As was learned after the Moscow Theater incident, there must also be consideration given during the planning phase for logistics, specifically aftercare and treatment (triage) for injured police, suspects and bystanders.

As the Group finished up the first session, certain less-lethal technologies were directly mentioned including directed energy devices that might be used for more controlled crowd dispersal, conducted energy devices for specific violent individual control or incapacitation, cell phone disruption technology, or even acoustic disruption for negating vocal communications in an area. The terrorist scenarios that seem most likely to consider less-lethal options might be the bomber or hostage situation where an operational anesthetic agent might be planned for in advance.

Breakout Group 3 then moved interestingly into a dialogue about what the terrorists might be planning or capable of doing that we have not fully thought through from a policing perspective. Some of the ideas proffered included the use by terrorists of unmanned systems and remote controlled devices (beyond IEDs), the targeting of drinking water sources, the employment of electromagnetic pulse technology, the attack of law enforcement communications, the use of everyday hazardous materials as weapons in crowds and underground (subway) rail systems, the potential for diversionary tactics to draw law enforcement away from intended targets, and the employment of vehicle stopping systems against first responder trucks and armored vehicles. There were no specific solutions identified during the discussion, mostly due to time constraints, but the Group felt it important that law enforcement organizations begin considering these possibilities as real and emerging threats.

World Economic Recovery Day Scenario

Breakout Group 3 continued on Day 2 to talk about the limitations and constraints as well as the capability enhancement through less-lethal options within the context of the given scenario. One of the issues that surfaced was the need for proximity to the target or suspect for much of the current less-

lethal technologies. This characteristic of existing systems needs to be improved ensuring greater stand-off capability for future systems. Additionally, the ongoing need for immediate incapacitation and the element of surprise remains important to policing. The environmental effects of weather (temperature, wind) are still not clear and well-understood.

For many scenarios involving large crowds, the less-lethal choice may not be discriminating enough between the intended target and the bystanders. Of course, depending on the nature of the terrorist threat, the level and extent of the response will be determined. Deadly force remains a preferred response when it is legally reasonable in the absence of sufficient intelligence that the threat is one against which less-lethal options may make more sense.

The final hour of the discussion for Breakout Group 3 covered a wide range of possible less-lethal responses to primary and other more peripheral aspects of the major public event scenario for Day 2. As on Day 1, unanticipated threats and subset scenarios where multiple and/or combined actions from terrorists might challenge police capabilities over a wider geographic location or through multiple or diversionary attacks was discussed. The overloading or over-extension of police or emergency services, or the drawing of police into ambushes raised considerable concerns within the group,. There was also discussion of cyber-terrorist actions or what might be termed “proxy-bombers,” and other unforeseen threats that might draw the attention of law enforcement while a separate attack is accomplished at an alternative (or primary) location.

Recommendations

- **Enhanced Policing Capability at Major Events.** 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. These should include:
 - ✓ More comprehensive capabilities to fuse intelligence and tactical information throughout the organization and across organization to better assess the threats;
 - ✓ More broadly-accepted and tried operational guidance that include extensive employment methods for less-lethal options;

- ✓ The identification of a conflict management model (with extensive less-lethal components) that is widely viewed across international law enforcement as effective and proven in a broad range of major event scenarios;
 - ✓ Less-lethal weapons should be considered complementary tools to deadly force in a team's tactical response kit, but may be held at strategic checkpoints and locations.
- **Unanticipated Threat Scenarios.** 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.
- **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.

WORKSHOP BREAKOUT GROUP 4:

Proactive Media Management for Less-Lethal Use in Major Events

Richard Lewis, UK (Moderator)

The purpose of this session, led by Inspector Richard Lewis of the Dyfed-Powys Constabulary was to investigate and discuss different approaches to managing media relations for large scale public events where the potential employment of less-lethal devices was likely.



Working hard to keep the public informed as to the planned or required actions before, during and after a major event, is critical to public acceptability of policing methods and results. It also grows in importance if an unintended consequence occurs, or a positive outcome is not achieved, as a result of direct action by the police. Breakout Group 4 under the leadership of Inspector Richard Lewis explored current techniques and ideas for dealing more effectively with the Media, and explored new approaches or unique methods that have proven successful in other jurisdictions. The Group went on to discuss several focus questions that ranged from how police should be dressed and equipped for an event to how best to prepare the public in advance of a major event. It was evident early on in the discussion that effective education of the public is critical and that the Media plays a key role in accomplishing that objective. In addition to including consideration of generational gaps within the larger demographic of the population that might be better informed through the mainstream Media about an upcoming event and the possibility of related police actions, both preemptive and reactive, law enforcement agencies and organizations also need to look at other avenues to deliver their “message.”

Getting the Message Out

To get the message out early and often is important. However, the person or persons delivering the message is equally important and must be carefully considered. The information must be undeniably true and accurate, and the

language used must be clear, concise and consistent. The terminology that is employed must be common usage that is not subject to gross misinterpretation or easily misunderstood. The social networking outlets such as Twitter and Facebook (and others) must be fully exploited by law enforcement. Prepared material that reinforces a general positive theme and outlines the objective to achieve positive outcomes must be readied well in advance and staffed through numerous reviews both in and outside the police force.

The Day 2 discussions continued this theme and discussed how information such as the methods of policing might be communicated to the public in a way that serves a positive purpose without jeopardizing the police operational plans for response to terrorist actions or organized crowd violence. The idea of working more extensively with community consultative groups was suggested and many in the group felt that this was a good step forward as a part of an overall approach.

Communications Strategies

Breakout Group 4 also talked about other related communications strategies including tactical and strategic communications, and the need for a “crisis communications” plan. Such a plan would ensure that standard terminology was established and well-understood throughout the organization, and supporting or mutual aid organizations. It is important that the proper balance is struck between the exercise of “power” by the police and the safety needs of the public. In an effective and proactive approach to communications, it is often found to be a good practice to have a pre-planned public information concept that includes general statements and information that can be used at several levels of command within the police organization and includes a fairly extensive listing of expected questions and suggested answers for use by command representatives.

Recommendations

- **Communicating the Choice of Policing Model.** 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 is advocated. As the police understand the threat to public

order and public safety for an upcoming event and then determine the policing model to be used to help ensure the safety of the population the general aspects releasable to the public should be transmitted through a number of different media. 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.

- **Community Consultative Groups.** 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. If these groups can ‘self-police” or in some other way assist law enforcement in its objective of public safety while still getting their message out, the more chance that there will be a positive outcome experienced by all concerned. ILEF again may include best practice experiences and observations from international law enforcement agencies in this area.
- **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.
- **The Use of Common Terminology.** 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.

Summary and Conclusions

The 2009 Forum addressed many issues related to best practices in large scale, major public events where public order and public safety were paramount. The major recommendations resulting from the breakout and plenary session discussions are:

- 1. Unmanned Aerial Vehicles (UAVs).** 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 .
- 2. Exploiting Open Source Information.** Police departments need to be in a 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. This information obtainable routinely through internet sites can be quickly filtered, analyzed and assessed by a trained intelligence analyst and add significant value to law enforcement operations. 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.
- 3. New Communications Technologies.** 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.
- 4. Mutual Aid Agreements.** 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.
- 5. Operational Guidance.** Law enforcement agencies often have standing policies and rules for the use of force. These are usually the basis for

specially crafted operational guidance for 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 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

- 6. 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 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.
- 7. Enhanced Policing Capability at Major Events.** 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.
- 8. Unanticipated Threat Scenarios.** 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.
- 9. 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.

- 10. Communicating the Choice of Policing Model.** 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 is 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.
- 11. Community Consultative Groups.** 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.
- 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.
- 13. The Use of Common Terminology.** 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.



Appendix A – Agenda

Tuesday, 13 October 2009 (Day 1)

- 0930-0940 Welcome - Burrows, Chairman, ILEF Advisory Board (UK)
- 0940-1000 Introduction/ Overview – Andy Mazzara, ILEF Executive Director,
- 1000-1030 Special Address: Chief Constable Ian Arundale, Dyfed-Powys Police
- 1030-1040 Video Welcome - Ms. Kristina Rose, Acting Director, NIJ (US)
- 1040-1100 BREAK
- 1100-1230 International Presentations: Less-Lethal Weapons Overview
- Canada, Mr. *Steve Palmer, CPRC*
 - United Kingdom, Mr. *Graham Smith, HOSDB*
 - United States, Mr. *Joe Ceconi, NIJ*
 - New Zealand, Superintendent *John Rivers, NZP*
- 1230-1330 LUNCH – Introduction to Breakout Sessions by Andy Mazzara
- 1330-1400 2012 Olympic Challenge – Chief Constable Meredydd Hughes
QPM South Yorkshire Police
- 1400-1430 Policing Events, Managing Conflicts – Chief Superintendent Gary
White, PSNI
- 1430-1500 Policing Large Events in Major Cities – Commander Bob
Broadhurst, QPM London MPS
- 1500-1630 Workshop Breakout Sessions
- 1 – Technology Support during Major Events – Smith, UK/*Villa, US*
 - 2 – Crowd Management Issues – Johnston, Canada/*Kenny, US*
 - 3 – LLs for Terrorist Threats at Major Events – *Ederheimer, US*
 - 4 – Media Management – Lewis, UK/*Stuart, Canada*
- 1645-1715 BREAK
- 1715-1800 Plenary Session (Group Reports & Discussion) e
- 1800-1815 Day 1 Summary and Conclusion – *Colin Burrows*
- 1900-2200 ILEF Workshop Dinner (NPIA Host), Bramshill’s Dining Hall
- Speaker: Barrister John Beggs, QC



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Wednesday, 14 October 2009 (Day 2)

0830-0845	Day 2 Welcome – Colin Burrows
0845-0930	Less-Lethal Oversight – Deborah Glass, UK Independent Police Complaints Commission
0930-1015	Trends in Use of Force in US – Josh Ederheimer, Washington MPD
1015-1045	Special US Address: Columbine & Platte Canyon School Shootings A.J. DeAndrea, Arvada PD
1045-1100	BREAK
1100-1215	<u>Special International Presentations:</u> <i>G20 Observations & Lessons Learned – Commander Scott Schubert, Pittsburgh PD SWAT</i> <i>2010 Winter Olympics Security Update – Joel Johnston, S/Sgt Vancouver Police Department (CAN)</i> <i>Taser Use and Misuse in the U.S. - Ron Hartman, Springfield Missouri PD (retired)</i>
1215-1300	LUNCH
1300-1530	<u>Workshop Breakout Sessions/Scenario-Driven</u> 1 – Technology Support during Major Events – Smith, UK/Villa, US 2 – Crowd Management Issues – Johnston, Canada/Kenny, US 3 – LLs for Terrorist Threats at Major Events – Ederheimer, US 4 – Media Management – Lewis, UK/Stuart, Canada
1530-1630	BREAK
1630-1715	Plenary Session (Group Reports & Discussion)
1715-1730	Workshop Closing Comments – Colin Burrows

Appendix B – Focus Questions

Session 1: Proactive Technology Support during Major Events

1. In terms of planning for major events in what ways would could technology assist you in terms of strategic threat analysis and contingency planning?
2. In terms of live time (real time) command of operations at the strategic level what technologies could assist you in terms of knowing where your resources were, threats and issues that officers were confronting?
3. In terms of equipment and technology support what would your shopping list include (and why) to assist you in terms of developing and putting in place:
 - a. Controlled and free movement of a) the public, b) those involved in lawful processions/parades
 - b. The facilitation of lawful protest groups.
 - c. An intervention capability to separate crowds and opposing groups
 - d. The ability to Locate and Identify subversive individuals who pose a specific threat to life
 - e. Rapid deployment of tactical support groups to flash points.
 - f. Systems to contain or disperse groups
 - g. Systems to effectively conveying information to participants, key stakeholders and aggressors in live time.
4. Name and discuss your top 3 equipment and/or technology issues as they relate to operating in and around major public events?
5. What are the most useful and effective less-lethal munitions or devices that are currently being used in support of large scale public events? Can they be improved? How?

Session 2: Crowd Management Issues

1. Is the weaponry and tactical training given to officers for patrol duties (Batons, Taser, incapacitant spray and handguns) relevant when they are placed in large scale and volatile public order scenarios and what if any constraints or special conditions should be placed on officers in the carriage and use of these when deployed at major events.
2. Is the training, doctrine, emphasis and approach to the use of patrol officers and other specialist tactical officers 'joined up' when officers from different disciplines (Patrol officers public order teams and Tactical Firearms Groups) are deployed to major events and if not what issues should be considered.
3. What are the three most effective technologies for:
 - a. Dispersing rioting crowds
 - b. Protecting an area of property from a violent and hostile crowd.

- c. Preventing an aggressive/violent individual within a crowd from throwing a petrol bomb/potentially life threatening missile
4. Given the developments in less-lethal directed energy systems (which soon may be available to the police market), what does the group consider the appropriate capability for such devices for anti-personnel use by special weapons-type teams or response teams to critical incidents involving large crowds and terrorist activity?
5. What policy and medical issues do the technologies identified in response to questions at 3 and 4 above present.
6. Is there a role for less-lethal munitions or devices in the aftermath of a critical incident involving large crowds? Describe the situation and the possible less-lethal responses, and why?

Session 3: Less-Lethal Response to Terrorist Threats at Major Events

1. Identify the major constraints in deploying a sniper or conventional firearms options at a large scale major event where there are r crowds present even when there exists a clear and present danger that would justify such a deployment
2. What, policy, command and tactical issues would you consider in deploying a sniper or conventional firearms response.
3. What value added do less-lethal devices, munitions and/or technologies bring to policing response in a situations where it is believed there may be a terrorist threat.
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 terroristic threats at large public venues? Can you describe scenarios where very lethal, terrorist activity is a possibility and less-lethal options might be a serious consideration? Which specific munitions, devices or technologies would be appropriate for employment?
5. Can less-lethal technologies be employed in situations directly countering lethal capabilities of a terrorist nature, such as suicide bombers, IEDs, toxic chemical or sniper activity? If not, why not? If so, what might they be, and why should they be included in planning?
6. What potential weapons or actions by terrorists at large public events are we NOT considering, but might one day be problematic? What minimal force options would police have to deal with such scenarios?
7. Describe potential threats from air and sea/water-borne attacks at large scale public events. What less-lethal systems or tools are available, or might be needed, to counter such threats? Why?

Session 4: Proactive Media management for Less-Lethal Use in Major Events

1. With respect to large crowd control scenarios (G20), what tactics, policies, training, and incident management issues relative to less-lethal and minimal force options need to be considered, and conveyed to the public? Are there any specific examples of good practice or problematic use that we can share?

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2. What should be the key deterrent of how police are dressed and equipped at major events, The group should consider this in relation to threat assessment, Health and Safety, community confidence and relations as well as accountability and post incident investigation.
3. Recognizing that there is always the potential for an untoward incident (misuse, secondary or unforeseen consequence) relating to the deployment of an LLW
 - a. what are the advantages and risks of having a prepared material on the technology for showing to the media or investigative authorities following such an incident?
 - b. In terms Policy, Technical, Medical and Operational information should be included in such prepared material.
4. In the context of large, urban-based sporting or political events, identify the issues which should be addressed in preparing the public and the media for the potential employment of less-lethal devices.
5. What 'own goals' does law enforcement and promoters of LLW make in the way they address LLWs especially following untoward incidents involving their uses.
6. How can the media be more effectively "used" to generate more favourable coverage of employing less-lethal technologies? Has your jurisdiction had any lessons learned (positive or negative) from dealing with the media on such issues of CEDs, impact rounds, tear smoke/incapacitant spray, water cannons, or other LL devices? What were they?
7. Discuss "before, during and after" media considerations or factors that should be included in large scale public event planning that would include the employment of less-lethal options.
8. How useful (or not) are the emerging "media" of texting, Twitter, Facebook or other public communication modes? Does it matter, in terms of media coverage, to concentrate on one or two media (newspaper, TV) at the neglect of others, or should there be a balance of some sort? What does your jurisdiction do? What do you recommend?

Appendix C – Workshop Attendees

Mr. Massimo Annati	Ministry of Defence/Navy Italy
Mr. Ulf Arborelius	Military/Police Research Sweden
Chief Constable Ian Arundale	Dyfed-Powys Police United Kingdom
Mr. Colin Ashe	Northern Ireland Office United Kingdom
Ms. Gail Barbour	Northern Ireland Office United Kingdom
Commander Bob Broadhurst	London Metropolitan Police Service United Kingdom
Ms. Amanda Brooks	Penn State University United States
Mr. Colin Burrows QPM	Chairman, ILEF Advisory Board United Kingdom
Mr. Pierre-Antoine Cassar	Gendarmerie France
Mr. Joe Cecconi	National Institute of Justice United States
Asst CC Simon Chesterman	West Mercia Constabulary United Kingdom
Ms. Sarah Croft	Home Office United Kingdom
Mr. Paul Davies	Police Federation England Wales United Kingdom
Ms. Anna Dawson	National Policing Improvement Agency United Kingdom
Sgt A. J. DeAndrea	Arvada Police Department (Colorado) United States
Mr. Christian DeCock	Ministry of Defence Belgium
Chief Inspector Billy Dodds	Police Service of Northern Ireland United Kingdom
Assistant Chief Joshua Ederheimer	Metropolitan DC Police Department United States
Chief Inspector Mark Evan	National Policing Improvement Agency United Kingdom
Sergeant Fred Farris	Lenexa Police Department (KS) United States
Sgt Joe Fiumara	Lake Havasu Police Department (AZ) United States
Mr. Giorgio Giaimo	Police Division/Peacekeeping United Nations/Italy
Ms. Deborah Glass	Independent Police Complaints Commissioner United Kingdom

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Executive Director John Gnagey	National Tactical Officers Association United States
Capt Alan Goldberg	Montgomery County Dept of Police (MD) United States
Deputy Chief Thomas Graham	New York City Police Department (NY) United States
Dr. Christine Hall	Canadian Police Research Centre Canada
Major Ron Hartman	Springfield Police Department (Missouri) United States
Cmdr Sid Heal (Ret)	Los Angeles Sheriff's Department (CA) United States
Detective Sgt Randy Henning	Durham Regional Police Service Canada
Mr. Alan Hepper	Ministry of Defence United Kingdom
Superintendent Charles Hill	West Mercia Constabulary United Kingdom
Mr. Martin Hubbard	Ministry of Defence United Kingdom
Chief Constable Meredydd Hughes	South Yorkshire Constabulary United Kingdom
Mr. David Humair	Armasuisse Switzerland
Det Chief Supt Simon Hutchison	Police Service of Northern Ireland United Kingdom
Staff Sergeant Joel Johnston	Justice Institute of British Columbia (BC) Canada
Mr. Timothy Jones	Bureau of Alcohol, Tobacco and Firearms United States
Mr. Jorma Jussila	Police Technical Centre Finland
Chief Tom Kaye	Owen Sound Police (CACP) Canada
Dr. John Kenny (Commander, USN Ret)	The Pennsylvania State University United States
Mr. Don Kester	Pima County Sheriff's Department (AZ) United States
Mr. Al Lama	Home Office United Kingdom
Mr. Andrew Lane	Ministry of Defence United Kingdom
Mr. Chris Lawrence	Canadian Police Research Centre Canada
Dr. John Leathers	The Pennsylvania State University United States
Sergeant Marc LeFebvre	Royal Canadian Mounted Police Canada
Inspector Richard Lewis	Dyfed-Powys Police United Kingdom

*Institute for Non-Lethal Defense Technologies
Applied Research Laboratory
The Pennsylvania State University*

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Lt Ron Locke	Sarasota County Sheriff's Office United States
Major Ali Mack	Ministry of Defence United Kingdom
Mr. John Martin	Ministry of Defence United Kingdom
Colonel Andrew Mazzara (USMC Ret)	The Pennsylvania State University United States
Ms. Rosa Mazzei	West Mercia Constabulary United Kingdom
Ms. Doreen McClintock	Northern Ireland Office United Kingdom
Mr. Steven McCourt	Northern Ireland Office United Kingdom
Chief Inspector Andy Mellows	Home Office United Kingdom
Sgt Brian Muller	Los Angeles Sheriff's Department (CA) United States
Sgt Dan Murphy	Arlington Police Department (VA) United States
Chris Myers	Seattle Police Department (WA) United States
Inspector Steve Neil	Northumbria Police United Kingdom
Mr. Helmut Oppenheim	Ministry of Defence Austria
Cdr Bob Osborne	Los Angeles Sheriff's Department (WA) United States
Mr. Steve Palmer	Canadian Police Research Centre Canada
Mr. Christian Papaleontiou	Home Office United Kingdom
Ms. Sharon Pring	West Mercia Constabulary United Kingdom
Mr. Simon Reindl	Ministry of Defence – WTD 52 Germany
Mr. Charles Reynolds	Dover Police Department (NH) United States
Mr. Alan Robinson	Ministry of Defence United Kingdom
Superintendent John Rivers	New Zealand Police - Wellington New Zealand
Mr. Mark Ruglys	Ministry of Defence United Kingdom
Detective Sergeant Peter Russell	Police Service of Northern Ireland United Kingdom
Lt Dan Savage	Grand Rapids Police Department (MI) United States
Ms. Sarah Severn	Home Office United Kingdom
Director Steve Shelow	Police Services Penn State University (PA) United States

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Deputy Chief Constable Sue Sim	Northumbria Police United Kingdom
Mr. Graham Smith	Home Office Scientific Development Branch United Kingdom
Sergeant Bruce Stuart	Royal Canadian Mounted Police Canada
Colonel Ulf Sundberg	Swedish Defence Research Agency Sweden
Inspector Nick Sutcliffe	London Metropolitan Police Service United Kingdom
Mr. Matthew Symons	Home Office Scientific Development Branch United Kingdom
Assistant Chief Mike Villa	Tukwila Police Department (WA) United States
Mr. Ingo Weiser	Austrian Technologies Austria
Chief Superintendent Gary White	Police Service of Northern Ireland United Kingdom
Mr. Don Whitson	Fort Collins Police Department (CO) United States
Mr. Simon Zavad	Ministry of Defence United Kingdom

Appendix D – Speaker Biographical Sketches



John Beggs QC

John is a barrister who acts for the police over a wide range of practice areas including defending civil claims, judicial reviews, inquests, misconduct cases, employment cases and general operational advice. He has a particular expertise defending police forces and officers in all kinds of litigation arising from police shootings and public order incidents. Prior to 'taking silk' (i.e. being appointed Queen's Counsel) in March 2009, he had been ranked the top police junior barrister in the two independent legal directories (*Chambers and Partners* and *Legal 500*) for the previous 6 years.



**Commander Bob Broadhurst QPM
London Metropolitan Police Service**

Commander Bob Broadhurst has 32 years service with the Metropolitan Police Service and has spent his whole career in uniform, mainly in South-East London. He was the Borough Commander at Sutton for four years and the deputy at Lambeth for one year. He was the Link Commander for South East London for four years, having overall responsibility for the eight Boroughs in that area, until he was appointed Commander 'Public Order and Pan London Operational Support' in July 2006.

An experienced Hostage Negotiator, he was the Negotiator Team Leader at the Afghan Airlines hi-jack at Stansted Airport, and the Gold Commander at the Hackney Siege, the longest siege in the UK. He is a frequent speaker at National Siege Management courses and has given inputs to the FBI Crisis Negotiator Course in Quantico, USA.

Bob has been commanding public order events since 1990 and has been involved in many large-scale demonstrations during that time. He currently commands ceremonial events such as Trooping the Colour and the State Opening of Parliament, and was the Gold Commander for the Wedding of the Prince of Wales and the Duchess of Cornwall. He was in charge of policing for the Tour de France in 2007 and the Olympic Torch in 2008 as they passed through London. He is currently taking the lead on operational planning for the 2012 Olympics.

Commander Broadhurst was awarded the Queen's Police Medal in the 2005 Birthday Honours.



Mary Beth Buchanan, United States Attorney
United States Attorney's Office, Western District of
Pennsylvania

Mary Beth Buchanan is the United States Attorney for the Western District of Pennsylvania. She was appointed by President George W. Bush on September 5, 2001, and confirmed by the United States Senate on September 14, 2001. Ms. Buchanan is the first woman in Pennsylvania's history to be Presidentially appointed to this position. As United States Attorney, Ms. Buchanan oversees the prosecution of all federal crimes, and the litigation of civil matters in which the federal government has an interest, throughout the twenty-five counties in Western Pennsylvania.

From November 2006 through December 2007, Ms. Buchanan served as the Acting Director for the Department of Justice's Office on Violence Against Women. This Office, based in Washington, DC, administers financial and technical assistance to communities nationwide that are creating programs, policies and practices aimed at ending domestic violence, dating violence, sexual assault and stalking, and provides leadership in developing the nation's capacity to reduce violence against women through implementation of the Violence Against Women Act.

At the request of the Attorney General, Ms. Buchanan also served from June 2004 until June 2005 as the Director of the Executive Office for United States Attorneys. This Washington D.C.-based office provides administrative support to the 94 United States Attorneys' Offices nationwide.

Between April 2003 and May 2004, Ms. Buchanan served as chair of Attorney General John Ashcroft's Advisory

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Committee of United States Attorneys. This Committee counsels the Attorney General on law enforcement issues and plays an integral role in setting Department of Justice policy. From February 2002 to 2004, she served on an Advisory Committee to the United States Sentencing Commission, which was established to study the effectiveness of the Federal Sentencing Guidelines for organizations.

Prior to her appointment as United States Attorney, Ms. Buchanan was an Assistant United States Attorney in the Western District of Pennsylvania. From 1988 to 1992 she served in the Civil Division, representing the United States in civil litigation matters. From 1992-2001, Ms. Buchanan served in the Criminal Division, representing the United States in the prosecution of both financial and violent crimes. While an Assistant United States Attorney, Ms. Buchanan was the supervising attorney for the Financial Crimes Task Force of Southwestern Pennsylvania, acted as the District's Violence Against Women Act Coordinator, and was instrumental in the formation of the Western Pennsylvania Crimes Against Children Task Force.

She is a 1984 graduate of California University of Pennsylvania, and a 1987 graduate of the University of Pittsburgh School of Law.



Colin Burrows QPM: BA: M.Phil.

Colin Burrows joined the Royal Ulster Constabulary in 1971 and retired as the *Acting* Assistant Chief Constable, in the Police Service of Northern Ireland, in 2002 having completed 31 years service. He was awarded the Queens Police Medal in 1991. In 1992, he gained a Master of Philosophy degree, the title of his thesis was 'The Use of Lethal Force by Police'. His career included a four year secondment to Police (now Home Office) Scientific Development Branch (1992-96), advising on operational issues and the use of technology. Throughout much of his service, he worked closely with the UK's Association of Chief Police Officers (ACPO) in the development of concepts and procedures related to the policing of 'critical incidents'.

Upon retirement from the police service he was appointed as a 'Specialist Advisor' to the United Kingdom Government's Steering Group on *Alternative Approaches to the Management of Conflict and Development of Less-lethal options*. This programme has been described by a Government Minister as being more detailed and wide-ranging than any other. He remains a specialist member of this group in his role as specialist adviser to the Northern Ireland Office.

He was a member of the original writing team for the Home Office Codes of Practice on the Use of Firearms and Less-lethal Weapons published in 2003. He was also the consultant editor for the ACPO Manual of Guidance on the Management, Command and Deployment of Armed Officers published in 2009.

The consultancy service which he runs provides operational review, policy support and training, to Government departments, policing and other organisations involved with managing conflict and responding to violent situations.

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Colin has authored numerous papers and articles and is regularly called upon to provide expert review and evidence in judicial proceedings. He is also chair of the International Law Enforcement Forum on Minimal Force Options.



NIJ

Office of Science & Technology

Joe Cecconi BEEE

He is a Senior Scientist managing the Directed Energy Research Program which includes the Less-Lethal and Pursuit Management Portfolios at NIJ. Currently, the programs' main goal is to provide state and local law enforcement and correctional personnel with new Less-lethal devices that are inherently safer and to verify the characteristics of existing devices.

Back in 2002, he identified ADS [a large DoD Non-Lethal technology] as extremely useful to law enforcement if it was made more portable. He developed the initial trade-off study and prepared the initial prototype requirements document which funded technology that supported the scaling of that technology into a portable system. At this time, small demonstration versions are available to sample its effects.

He has funded human studies in training personnel by performing pre- and post- medical evaluations on volunteers. He has also piloted new programs which expand the collection and review of Less-lethal incidents by identifying a unique class of medical personnel to assess incidents where Less-lethal devices were used. Medical personnel review these incidents and assess humans injuries of suspects involved in either bad outcomes or acceptable outcomes. The panel was recently asked to expand their review to the introduction of new Less-lethal device, by assessing the risk benefit trade-off due to the device's introduction. If the pilot is successful, the Less-lethal community could have a new framework for introducing new Less-lethal devices as well as an outline of capturing and reviewing those incidents in real time, independent of the vendor.

Before joining NIJ, he was both a principal investigator or manager for research and development programs for the Drug Enforcement Administration at its Engineering Facility, Federal Bureau of Investigation at the Engineering Research Facility,

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The Pennsylvania State University*

and U.S. Department of Defense at the Army Research Labs. At these locations, he developed complete systems from conception to fielding. His formal training is as an Electronics Engineer, specializing in radio frequency (RF), optical, digital signal processing, and computer systems.



Sergeant A.J. DeAndrea
**Arvada Police Department/
Jefferson County Regional SWAT**

Sergeant A.J. DeAndrea is a 16 year veteran of the Arvada, Colorado Police Department. He is currently assigned to patrol and serves as the Team Leader for the Jefferson County Regional SWAT Team, which he has been a member of for the last 13 years.

Sergeant DeAndrea is a certified Explosive Breacher, Master Less-lethal Instructor and a Colorado POST certified instructor for the Jefferson County Law Enforcement Training Academy and the Red Rocks Community College Law Enforcement Academy. He teaches Officer Survival, Building Searches, Rapid and Immediate Deployment (RAID), SWAT, Defensive Tactics and Firearms as well as many other disciplines. A.J. attended the University of Colorado in Boulder and has a Bachelor of Arts.

Sergeant DeAndrea has received 5 Medals for Valor, 2 Medals for Distinguished Service, 2 Medals for Meritorious Service, 2 unit citations and numerous commendations. In 2006/2007 and 2007/2008 A.J. was honored as the "Police Officer of the Year" through the Primo Awards. In 2007 he also received an Honorable Mention for Police Officer of the Year through the International Association of Chiefs of Police and Parade Magazine.

Sergeant DeAndrea was an Entry Team Leader at Columbine High School and a Team Leader during the Bulldozer Incident in Granby, CO. Sgt. DeAndrea helped devise and execute the tactical plan for the Hostage Rescue at Platte Canyon High School in September, 2006. Again in 2006 he was the Team

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Leader during an Officer Rescue where over thirty rounds were fired. The officer was rescued without injury while the suspect was shot by SWAT. Most recently Sergeant DeAndrea was the Patrol Supervisor and Entry Team Leader during the Youth With a Mission (YWAM) shootings. This was an active shooting at a youth mission training center where four young adults were shot, two of which died.



Joshua A. Ederheimer
Captain, Washington DC Metropolitan Police Department

Joshua A. Ederheimer is a Captain with the Metropolitan Police Department (MPD) of the District of Columbia. He currently commands the Second Police District's operational support teams, which include the Narcotics, Tactical, Auto Theft, Missing Person, and Hit and Run investigative units. Additionally, he is responsible for the District's cellblock operations and various administrative functions, as well as uniformed patrol services in the northern part of the District. The Second District is the largest of the Department's Districts, and its more than 350 officers patrol diverse neighborhoods that include numerous residential and commercial areas, universities, and a significant number of international embassies and consulates.

Captain Ederheimer joined the MPD in 1985, and steadily moved through the ranks. As a member of the MPD, he served in a variety of areas including patrol, investigations, and administration. Captain Ederheimer reengineered numerous agency processes, and developed and led several divisions that emerged as national models. Notable during his tenure were several units that he developed or reengineered and subsequently commanded, including the Civil Rights and Force Investigations Division, Public Housing Division, and Environmental Crimes Division.

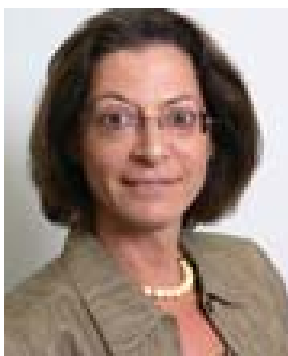
Captain Ederheimer left the MPD in 2004 to become Director of the Police Executive Research Forum's (PERF) Center on Force & Accountability (CFA) in Washington, D.C. As founding Director of the CFA, Captain Ederheimer developed the center in order to provide guidance to law enforcement organizations—nationally and abroad—on police use of force, accountability, and management issues. He led both federally and privately supported national police initiatives and provided technical assistance to law enforcement agencies on various critical

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topics. In 2007, Captain Ederheimer returned to the MPD to serve in the administration of newly appointed Chief of Police Cathy L. Lanier. He led Chief Lanier's transition team, and later was appointed as Director of Training.

Captain Ederheimer serves on several professional boards. He was appointed to the District of Columbia Police Standards and Training Board by D.C. Mayor Adrian Fenty, and was appointed by Chief Lanier to the District of Columbia Police Foundation Board of Directors. He currently serves on the Board of Directors of the National Law Enforcement Officer's Memorial Fund, where he was appointed by PERF Executive Director Chuck Wexler, and on the Board of the International Law Enforcement Forum.

Captain Ederheimer has written extensively, and published and edited numerous books, publications, and technical reports. He is also an adjunct professor in the School of Public Affairs at American University's Department of Law, Justice, and Society, where he has taught both graduate and undergraduate courses. He holds a bachelor's degree in Justice from American University, and a master's degree in Management and Leadership from Johns Hopkins University.



Deborah Glass
Deputy Chair
UK Independent Police Complaints Commission

Having qualified as a lawyer in Melbourne, Australia, Deborah Glass practiced there before joining a US investment bank in Switzerland. Joining the Hong Kong Securities and Futures Commission at its inception in 1989, she was instrumental in raising standards for the investment management industry, later becoming Senior Director.

Upon moving to London in 1998 she was Chief Executive of the Investment Management Regulatory Organisation until the completion of its merger with the Financial Service Authority. Subsequently she was appointed to the Police Complaints Authority, of which she was a member from 2001 to 2004. In 2004 she was appointed to the Independent Police Complaints Commission which replaced the PCA and in 2008 was appointed as Deputy Chair. She was an Independent Custody Visitor to police stations in her west London borough from 1999 to 2005, chairing the local panel for two years.

Deborah is the IPCC Commissioner directly responsible for the Metropolitan Police Service and City of London Police, and as Deputy Chair, carries oversight responsibility for south-east and northern forces.

She also carries lead Commission policy responsibility for counter terrorism, firearms and less-lethal options, and represents the IPCC on the ACPO Working Group on Armed Policing and the ACPO Conflict Management and Strategic Firearms Portfolio Meeting. In February 2006, in pursuit of greater understanding of the issues affecting the police service, she successfully completed the Firearms Gold Commanders Course.



Chief Constable Meredydd Hughes QPM South Yorkshire

Meredydd Hughes joined the South Wales Constabulary in 1979, on leaving university. Whilst predominately serving in uniform operational duties at all levels, he has also worked as the Force Crime Prevention Officer; as an authorised firearms officer; as an IT project manager and on secondment to the HMIC at the Home Office.

Transfer to West Yorkshire Police in 1995 as a Superintendent saw him take up the post of Divisional Commander in the Calder Valley. This was followed by two years as the Commander of the Operational Support Division, where he was responsible for units as diverse as the Air Support Unit, Search and Firearms Teams, and the Mounted Section. During this time he was also Silver Commander at Leeds United FC, and led cross-border operations and major firearms incidents.

Promoted in 1999 to Assistant Chief Constable in Greater Manchester Police, he initially took responsibility for IT, Criminal Justice, and Communications. In September 2000, he took charge of the Uniform Operations Portfolio, and in that role led the policing of numerous public order and major sporting events, including two England football internationals, and commanded the successful planning and delivery of the Commonwealth Games.

He was promoted to Deputy Chief Constable in South Yorkshire in September 2002 and to Chief Constable in September 2004. Nationally, he plays the leading role for ACPO in the Uniformed Operations Business Area and is ACPO Vice Chair for support to the Olympic Games 2012. He was awarded the Queen's Police Medal in the 2006 New Year Honours. Off duty, his hobbies include rock climbing and mountaineering, running, and mountain biking.



Staff Sergeant Joel Johnston – Vancouver Police Department

Joel Johnston is a 25 year police veteran of the Vancouver Police Department. He has served as a Patrol Officer, Beat Officer in Vancouver's notorious "Downtown Eastside", Gaoler, Traffic Enforcement Officer, Fitness Coordinator, Control Tactics Coordinator, Emergency Response Team – Team Leader, Training Coordinator, and Officer-in-Charge, He is currently seconded to the Ministry of Public Safety & Solicitor General as the Provincial Use of Force and Municipal Emergency Response Teams Coordinator in British Columbia, Canada

An Economics graduate of Simon Fraser University, he has recently completed both Penn State University's Less-lethal Weapons Program and Minnesota State University's Force Science Institute Use of Force Analyst Program. Joel was a 1983 draft selection into the Canadian Football League and holds a third degree black belt in traditional Shotokan Karate.

Joel has extensive experience in Crowd Control / Public Order as the founding member of the Vancouver Police Department's Crowd Control Unit in 1993 and has been involved in numerous crowd control incidents, including a number of high-profile incidents. He served as a Squad Leader and Trainer with the Crowd Control Unit until leaving in 1998 moving to the Emergency Response Team where he actively supervised and participated in over 400 tactical operations in the Lower Mainland of British Columbia from armed barricaded subjects, warrant services, shadow details – high-risk takedowns, to hostage rescues. He served in the Command Room as a Tactical Liaison Officer on numerous critical incidents.

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Joel has been certified as a subject-matter expert witness in use of force and emergency response in British Columbia, Alberta, Manitoba and Quebec and has provided testimony in Provincial Court, Superior Court, Supreme Court, Inquests, Public Inquiries and Commissions since 1994. He is certified as an Instructor-Trainer in many defensive/control tactics systems, firearms, and less-lethal weapons systems. He has been published in numerous North American law enforcement publications including: the NTOA Tactical Edge; POLICE – The Law Officer’s Magazine; Blue Line Magazine – Canada’s National Law Enforcement Magazine; the RCMP Gazette; among others over the past 14 years and has been a primary presenter/instructor at numerous national and international law enforcement conferences and forums since 1993.

Interests include freeride mountain biking, advocacy, trail building and maintenance, field & box lacrosse, downhill skiing, martial arts, and... yes, cooking (because he likes to eat!). He recently won a gold medal at the 2009 World Police & Fire Games in downhill mountain biking.



Col Andrew F. Mazzara, USMC (Ret)
Director, Institute for Non-Lethal Defense Technologies
The Pennsylvania State University

Colonel Mazzara graduated from the United States Naval Academy, Annapolis, in 1971 and was commissioned a 2nd Lieutenant in the United States Marine Corps. Following training as a Marine artillery officer at Fort Sill, Oklahoma, he served throughout his career as an artillery officer commanding artillery units at every level from battery to regiment. He commanded 5th Battalion, 10th Marines during Operation DESERT STORM. In staff assignments, Colonel Mazzara worked in program management for research and development for the Marine Corps focused on command and control systems and non-lethal technologies. He was assigned as a logistics officer on two occasions, including service as the Assistant Chief of Staff, G-4, for the 3rd Marine Division. He served as the commander of Marine recruiting in New Jersey, Commanding Officer of the 12th Marine Regiment in Okinawa, Japan, and was assigned to the U.S. Central Command in charge of regional security planning in the Arabian Gulf and East Africa. Colonel Mazzara's final tour on active duty was as the first Director, Joint Non-Lethal Weapons Program, Quantico, Virginia where he retired in March 1999.

He is today the Director for the Institute for Non-Lethal Defense Technologies and the Department of Justice's Weapons & Protective Systems Technologies Center at the Pennsylvania State University's Applied Research Laboratory. The Institute and Center focus research activities on directed energy, security, non-lethal, and counter-terrorism technologies in support of both the military and law enforcement communities. He is also the Executive Director of the International Law Enforcement Forum (ILEF). Colonel Mazzara has a Bachelor of Science in Aerospace Engineering, a Master of Science in Systems Management from the University of Southern California, and is a graduate of both the U.S. Marine Corps Command and Staff College and the U.S. Army War College.

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**Chief Constable Peter Neyroud
Chief Executive, National Policing Improvement Agency**

Peter was Chief Constable of Thames Valley from 2002 until 2006.

He has an Honours Degree in Modern History from Oriel College, Oxford University, an MSc in Professional Studies (Crime and Policing) and diplomas in Applied Criminology and Business Excellence.

A police officer since joining Hampshire Constabulary in 1980, Peter Neyroud rose through the ranks there to become Detective Superintendent with responsibility for intelligence, covert operations and drug strategy.

He was appointed Assistant Chief Constable of West Mercia Constabulary in 1998, reached Deputy Chief Constable two years later and was awarded the Queen's Police Medal for Services to Police in 2004.



Superintendent John Rivers
New Zealand Police

Manager of Operational Services at Police National Headquarters, Wellington, New Zealand. 35 years policing experience has included expansive involvement in front line command roles, operational audit programmes, project management and critical response management (including off-shore command experience in Thailand and the Solomon Islands).

Significant experience and achievement has been accrued in areas additional to operational command; such as extending the tactical options available to front line responders, the strategic monitoring and evaluation of use of force, strategic stake holder management and community engagement programmes.



Scott E. Schubert
Commander, Bureau of Police
City of Pittsburgh, Pennsylvania

Commander Scott E. Schubert is a 16-year veteran of the City of Pittsburgh Bureau of Police. Prior to being promoted to Commander in January 2007, he served a variety of assignments as a Patrolman, Detective, Sergeant and Lieutenant. During that time he was responsible for assignments in patrol, investigations, homeland security and special events. He is currently assigned to the Zone Six /Special Deployment Division (SDD) and is responsible for the oversight of 120 officers and supervisors. Zone Six is responsible for law enforcement operations in 15 neighborhoods located in the city's West End and SDD consists of seven city-wide support units that provide specially trained and equipped officers: Traffic Division, Collision Investigation Unit, Commercial Vehicle Enforcement Unit, SWAT, River Rescue, Graffiti Task Force and the Street Response Unit.

Commander Schubert has extensive knowledge in special events planning and homeland security-related topics and was responsible for the planning and coordination of the 2006 Major League Baseball All-Star Game, 2006 and 2009 Pittsburgh Steelers Super Bowl celebrations and victory parades, and the 2009 Pittsburgh Penguins Stanley Cup celebrations and victory parade. He was selected by the United States Secret Service to serve as the co-coordinator for the 2009 G-20 Summit that was held in Pittsburgh on September 24-25.

Commander Schubert is currently enrolled at Point Park University, and is due to graduate in December of 2009 with a Masters Degree in Criminal Justice. He also holds a Bachelors Degree in Law Enforcement from Point Park

University, is a 2005 graduate of the Police Executive Research Forum's Senior Management Institute for Police (SMIP) in Boston, Massachusetts, and is a 2002 graduate of the Northwestern University School of Police Staff and Command. He is a past President and Historian of the Pennsylvania State Division of the International Association for Identification, and a member of the International Association for Identification. His interests include history, police memorabilia, outdoor activities, and spending time with his family.



Graham Smith, Manager
Firearms and Protective Equipment
Home Office Scientific Development Branch, UK

Graham is the manager of the Firearms and Protective Equipment (FPE) section of the Home Office Scientific Development Branch (HOSDB), a core department of the UK Government's Home Office. FPE carry out and co-ordinate work for the UK police service and the Home Office on Police Firearms, Ammunition, Protective Equipment, Body Armour and Less-lethal Weaponry. The group has the responsibility of ensuring that less-lethal weaponry used by the UK police meets their Operational Requirements, it also currently manages the monitoring and coordination of a national database on the use of TASER.

Graham is a chartered physicist and has worked for the Home Office since 1987, initially managing projects within the Explosives and Weapons Detection Group. This Group develops standards and equipment for use in aviation security and specialist security search and was responsible for developing the standards currently used in UK airports. In 1998 Graham moved across to the Firearms and Protective Equipment Section, initially to manage the Less-lethal Weaponry Programme. In 1999 he took over the management of the whole section. Following an intensive programme of work that started in 2000 the Weaponry Programme oversaw the technical assessment and implementation of a number of less-lethal options for the police that resulted in the introduction of the L21A1 as a support to firearms officers in 2001 and the trial of the TASER M26 in 2003. Since that time the programme has continued to support the extension of use of TASER and

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continues to assess emerging technologies against the ACPO Operational requirements.

Graham is currently a member of the Association of Chief Police Officers Conflict Management Portfolio and the working groups on Armed Policing and Self-defence, Arrest and Restraint. He is also a member of the inter-departmental Less-lethal Weaponry Steering Committee chaired by the Home Office. He is also a member of the European Working Group on Non-Lethal Weapons and the International Law Enforcement Forum.



Chief Superintendent Gary White

Police Service of Northern Ireland

Chief Superintendent Gary White is currently Head of Operations Branch within PSNI. This is a new post within the Service, it was formed by amalgamating various operational support functions under one command, including Public Order, Roads Policing, Armed Response, Close Protection and Operational Policy. In his previous role Mr White was the District Commander for North & West Belfast.

The majority of Chief Superintendent White's service has been in operational roles. He has a considerable experience of various law enforcement strategies and techniques, especially in the areas of public order, policing a divided community, counter terrorist patrolling, joint police and military operations and community policing.

Within the area of planning for and dealing with public disorder, his experience has been recognised within PSNI and beyond. He regularly lectures on the National Advanced Public Order Commander's Course. .

Recently Mr White was appointed as the Chair of the ACPO (Public Order) Human Rights Sub Group.

Since 2005, Mr White has been involved in an FCO sponsored project in Bolivia assisting the Police Service and the Military to develop their Public Order capability.

He has also been involved in providing assistance in Community Policing to the Bolivian, Sri Lankan and Iraqi Police Services.

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Appendix E – Status of Previous Workshop Recommendations

Number	Title Description	Status Remarks
2002-01	Develop a Less-Lethal Database Create a task force or working group to reach consensus on approaches to creating a coordinated retrospective and prospective database on operational uses.	OPEN HOSDB database structure complete; Looking for new host
2001-02	Develop an Injury Database Create a working group to develop an international 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 facilitate the collection of data on injuries.	HOLD No progress; Complex jurisdictional difference and liability issues; Reopen later.
2002-03	Define Operational Needs Establish a small core group that puts numbers to measurable (time, distance, and space) parameters that define operational needs.	CLOSED Initial effort completed. Absorbed by 2004-01.
2002-04	Develop Standards for Testing and Training 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.	CLOSED Absorbed by 2004-04.
2002-05	Conduct Independent Assessments There is a continuing need for independent 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.	CLOSED ILEF Position Statement. No action required.

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2002-06	<p>Designate a National/International Less-Lethal Weapons Center for Testing and Training</p> <p>Establish a Center for research, development, 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.</p>	<p>CLOSED</p> <p>ILEF Position Statement.</p> <p>No action required.</p>
2004-01	<p>Development of Operational Requirements</p> <p>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.</p>	<p>CLOSED</p> <p>Ongoing.</p> <p>Absorbed by 2005-10.</p>
2004-02	<p>Articulate Operational Requirements to Manufacturers</p> <p>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.</p>	<p>CLOSED</p> <p>Meeting held with manufacturers and EORG document presented (2002-03) at ILEF 2005 in Ottawa.</p> <p>Absorbed by 2005-10.</p>
2004-03	<p>Terminology Standardization</p> <p>That the EORG develop standard definitions for life threatening, serious injury, and other less-lethal medical terminology.</p>	<p>CLOSED</p> <p>Absorbed by 2005-01.</p>
2004-04	<p>ILEF Standards</p> <p>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 incapacitation in some form and establishing or defining levels of effectiveness, recognizing that human variability will always be a challenge.</p>	<p>OPEN</p> <p>Initial document presented to manufacturers at ILEF 2005 in Ottawa.</p> <p>Published at ILEF website.</p> <p>New effort beginning 2008.</p>

2004-05	Identify Desired Effects and Outcomes 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.	OPEN Ongoing.
2004-06	Describe and Provide Measures of Effectiveness 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.	OPEN Ongoing. Some NIJ funded work completed by Penn State which adapts the NATO SAS-035 MOE Framework to US law enforcement. Used by NIJ Less-Lethal Technology Working Group (TWG) beginning 2008.
2004-07	Incorporate Psychological Criteria into Operational Requirements 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.	CLOSED Completed.
2004-08	Sharing of Information & Data Exchange There is a need to encourage the sharing of 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.	CLOSED Ongoing. Web site operational. Database structure complete and online. Absorbed by 2005-05.
2004-09	Notification of Program Testing and Sharing Information on Operational Trials It is important for the professional user community to endeavor to ensure that colleagues are aware of ongoing and future conflict management tests and experimentation. This will reduce the duplicative efforts and perhaps encourage a wider acceptance of developed solutions through open and ongoing peer review.	OPEN Ongoing. Methods for using ILEF website for notification are being explored. Penn State might absorb HOSDB database at ILEF website.

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2004-10	Medical Data Access	OPEN
	Conduct an investigation into, and seek support for, appropriate methods to obtain accurate and comprehensive medical data related to less-lethal effects and injuries. Consider an approach that might include a “firewall” that provides researchers only anonymous identifiers. There is some precedent for this in the area of corrections (prisons).	Ongoing. No progress.
2004-11	Literature Review	CLOSED
	That members of ILEF (perhaps as a continued EORG task) conduct a literature review to compile a 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.	Completed. Absorbed by 2005-01.
2004-12	Develop/Adapt Injury Model	OPEN
	Conduct a thorough literature review to identify potential models and their characteristics which make them appropriate for less-lethal injuries. Select a number of these and validate them with actual injury data. Over time, these models could be modified to better suit less-lethal systems.	No progress. Unfunded project work.
2004-13	Conflict Management	CLOSED
	Conflict Management should be viewed holistically 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.	ILEF Position. No action required.
2004-14	Develop and promote ILEF	OPEN
	The Forum requires some strategic planning and funding arrangements to ensure that it continues to provide a mechanism not only for sharing information but promoting concepts, requirements and best practice in relation to less-lethal options to the international law enforcement community. One of the first steps in this process is the development of a 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.	Ongoing. Vision, Mission, and Objectives completed. Other planning actions ongoing.

2005-01	Less-Lethal Technology Taxonomy ILEF should develop and publish a classification (taxonomy) of less-lethal technologies. This should include developing definitions and terms that 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).	OPEN EORG began work. Only minor structural issues remain.
2005-02	Testing Standards 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.	OPEN
2005-03	Use of Force Reporting, Review and Investigation 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.	OPEN Also identified by NIJ TWG in 2008
2005-04	Less-Lethal Review and Oversight Expertise 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.	OPEN Working. Put at ILEF Website with appropriate permission.
2005-05	Less-Lethal Information Sharing ILEF should explore protocols for sharing human 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 an information resource. Members should encourage their agencies and governments to participate in data exchange through this and other data resources (such as NTOA).	OPEN Website needs overhaul; Need to transition DB to Penn State host/control; Promotion efforts strategies ongoing; Funding problematic.
2005-06	Development Protocol 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.	OPEN No progress.

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2005-07	Technology Assessment Template ILEF should document existing less-lethal ‘capability sets’ which meet the published ILEF Operational requirement.	CLOSED Deleted.
2005-08	Decision Framework 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.	OPEN No progress.
2005-09	Training Guidelines 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.	OPEN No progress.
2005-10	Operational Requirements 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).	OPEN Ongoing.
2005-11	Technology Development Framework 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.	OPEN No progress.
2006-01	Testing Repeatability 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.	OPEN Add to testing standards (2005-02)

2006-02	<p>Policy Consulting</p> <p>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 can be effectively addressed.</p>	<p>OPEN</p> <p>Begin with email to manufacturers from ILEF Board;</p> <p>Need routine follow-up/contact.</p>
2006-03	<p>Operational Requirement – Individuals</p> <p>ILEF should communicate to manufacturers the operational requirement for systems that will immediately incapacitate or gain compliance of individual terrorists and other aggressive individuals. Some of the ideal system requirements would include the ability to engage subjects distance (>25m) with 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.</p>	<p>OPEN</p> <p>Begin with email to manufacturers from ILEF Board;</p> <p>Need routine follow-up/contact.</p>
2006-04	<p>Operational Requirement – Crowds</p> <p>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.</p>	<p>OPEN</p> <p>Begin with email to manufacturers from ILEF Board;</p> <p>Need routine follow-up/contact.</p>
2006-05	<p>Chemical Irritant Projectile Research</p> <p>ILEF should encourage and support research on chemical irritant projectiles focused on examining policy issues and strategic considerations as well as 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.</p>	<p>OPEN</p> <p>ILEF request to US DoJ and US DoD is pending.</p>
2006-06	<p>Conducted Energy Device (CED) Research</p> <p>ILEF should encourage and support continued research in the area of CED biological effects to bring 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 contributing to the eventual development and acceptance of medical standards internationally.</p>	<p>OPEN</p> <p>Exclusive research under way and ongoing:</p> <p>Includes US for DOJ and DOD (Penn State & Wake Forest);</p> <p>Canadian studies ongoing;</p> <p>UK studies largely complete.</p>

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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.	
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 incapacitation. 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.
2008-05	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.	

2008-07	LLW Requirement for Acoustic Devices Acoustic devices must be capable of achieving the 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 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.	OPEN US Military technology; US DOJ investigating/monitoring
2008-08	CED Standards 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.	OPEN major initiative has been underway for some time and continues towards an international test protocol
2008-09	Long-Term CED Effects Study ILEF should encourage NIJ, HOSDB and CPRC to conduct extended (long term study) research that would identify and monitor a sample population for indication of any long term effects from CED exposure.	OPEN US DoD continues to explore this topic
2008-10	CED High Risk Population 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.	OPEN
2008-11	CED Research Review 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.	OPEN
2008-12	Pursuit Policy Guidelines ILEF should work with NTOA, ACPO and other associations on developing and refining recommended pursuit policy guidelines to reflect specific environments and scenarios.	OPEN

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2008-13	Pursuit Command and Control	OPEN
	<p>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.</p>	
2008-14	Cooperative Technologies	OPEN
	<p>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.</p>	<p>WPSTC Pursuit Management TWG continues to explore these technologies</p>
2008-15	Video (CCTV) Mapping	OPEN
	<p>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.</p>	
2008-16	Incident Command SOP	OPEN
	<p>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 adoption to federal funding.</p>	



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