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U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE
PROJECT REVIEW FORM

GRANT/CONTRACT #:

94-IJ-CX-0008

GRANT/CONTRACT TITLE:

Less Than Lethal Weapons
Technology and Policy
Liability Task Group

GRANTEE/CONTRACTOR NAME AND ADDRESS:

Burkhalter Associates, Inc.
800 Conneticut Ave, NW
Suite 700

PROJECT DIRECTOR AND ADDRESS:

E.A. Burkhalter
(202) 857-0191
(Same as Grantee)

FUNDING LEVEL THIS PHASE:
\$125,402

TOTAL LEVEL:
Same

PROJECT PERIOD THIS PHASE:

12/01/93-09/31/94

TOTAL PERIOD:

Same

TITLE AND AUTHOR

DATE SUBMITTED

1. "Less Than Lethal Weapons Technology
and Policy Liability"

1/20/95

2.

3.

4.

FROM

TO

1. David G. Boyd

12/01/93

present

FROM

TO

2.

3.

FROM

TO

NAME AND TITLE

1.

2.

3.

Dr. Raymond Downs

3.

2.

4.

PROJECT REVIEWER:

David G. Boyd

DATE:

DIVISION DIRECTOR:

OFFICE DIRECTOR:

David G. Boyd, NIJ/OST

DATE:

DATE:

(CONTINUED ON REVERSE)



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OUTSIDE REVIEWERS

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STAFF REVIEWERS

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OFFICE DIRECTOR:
David G. Boyd, NIJ/OST

DATE:

(CONTINUED ON REVERSE)

January 15, 1995

BURKHALTER ASSOCIATES, INC.

NIJ LESS-THAN-LETHAL LIABILITY

TASK GROUP AND LIABILITY ASSESSMENT PROJECT

FINAL REPORT

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ACQUISITIONS

A. The NIJ Less-Than-Lethal (LTL) Weapons Technology and Policy Assessment Project expanded the support provided to the National Institute of Justice Science and Technology Division during this initial project period, in significant part by the creation of the Liability Task Group and Assessment Project. The Liability Task Group and Liability Assessment Project supported the Weapons Technology and Policy Assessment Project by defining and addressing issues relating to civil law liability that may arise out of the use and deployment of LTL technologies by law enforcement and corrections agencies, to recommend whether to pursue development of the LTL technologies in light of identified liability issues and to determine how law enforcement agencies and/or officers can deploy LTL technologies with the least risk of civil law liability.

Burkhalter Associates, Inc. (BAI), in creating the Liability Task Group, enlisted members of the Technology and Policy Assessment Project to lead the project. Admiral Burkhalter assigned James H. Falk, Sr. as the Chairman of the Task Group.

B. The Task Group members during the initial project period included:

**U.S. Department of Justice
National Institute of Justice**

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Vice Admiral E.A. Burkhalter, Jr.

President of Burkhalter Associates, Inc., and
Chairman of the NIJ Less-Than-Lethal (LTL)
Weapons Technology and Policy Assessment
Project.

James H. Falk, Sr., Chairman

Former White House Domestic Counsel and
Partner of The Falk Law Firm.

Professor Stephen A. Saltzburg

Professor of law and evidence at the George
Washington University - National Law Center.

Honorable Benjamin L. Brown

General Counsel - National Institute of
Municipal Law Officers and retired Judge.

Elliot B. Spector

Partner of Sack, Spector and Barrett and
Member of the Legal Officers Section of the
International Association of Chiefs of Police.

Michael R. Santos

General Counsel to the City of Overland Park,
Kansas, and Member of the Legal Officers
Section of the International Association of
Chiefs of Police.

Robert Cansler

Chief of Police for the City of Concord, North
Carolina Police Department.

Mary Claire McNaught

General Counsel to the City of Winston-Salem,
North Carolina, and Member of the Legal
Officers Section of the International
Association of Chiefs of Police.

C. In addition, various officials from the Department of Justice attended and participated in Task Group meetings on an *ex officio* basis, including:

Don Nicholson	DOJ/Criminal Division
Rich Mahler	DOJ/Torts Branch
Sal D'Alessio	DOJ/Torts Branch
Olga Trujillo	DOJ/Office of Justice Programs
Scott Kirkpatrick	DOJ/Office of Justice Programs
Chris Wetherington	DOJ/Office of Justice Programs
David Boyd	DOJ/Director - Science and Technology Division, National Institute of Justice (NIJ)
Carol Petrie	DOJ/Acting Director - NIJ
Jeremy Travis	DOJ/Director - NIJ
Ray Downs	DOJ/Visiting Scientist to NIJ

Officials from the Department of Justice who attended the Task Group meetings were valuable contributors to the scope and breadth of the Task Group discussions and dialogue.

D. The Task Group served in an advisory capacity to the Burkhalter Panel, which was created to oversee the LTL Weapons

Technology and Policy Assessment Project. The Burkhalter Panel, in conjunction with the National Institute of Justice's (NIJ) Technology Assessment Program Advisory Council's (TAPAC's) LTL Committee, was responsible for assessing LTL weapons technologies for law enforcement, and identifying LTL technologies available for transfer from military applications to U.S. law enforcement agencies. In turn, the Burkhalter Panel requested that the Liability Task Group review certain LTL technologies in order to assess the potential risk of civil law liability surrounding the deployment of the technology. The Task Group formally submitted all of its recommendations to the Burkhalter Panel. The Task Group was asked to provide the following support to the Burkhalter Panel:

1. Identify a framework to examine and assess the civil law liability for emerging LTL technologies;
2. Assess the legal liability posed by LTL related technologies developed in the Defense, Intelligence and Private Sector arenas and being considered by the Burkhalter Panel and NIJ LTL program;
3. Recommend courses of action for law enforcement agencies that would reduce the liability associated with the utilization of examined technologies, including the necessity and nature of training for officers in the effective and safe use of the technology;

4. Provide recommendations to the Burkhalter Panel concerning the feasibility of particular technologies in light of perceived liability issues and concerns;

5. Provide to the Burkhalter Panel written assessments and recommendations on the various technologies evaluated and considered;

6. Identify training and orientation issues peculiar to each technology evaluated. Participate in the development of appropriate training routines and manuals for officers to be written by the Technology Assessment Program Information Center (TAPIC) for distribution to the law enforcement community on specific technologies;

7. Provide to the Burkhalter Panel written assessments and recommendations on the various technologies evaluated and considered from the standpoint of a liability analysis, risk of liability assessment, and worst case scenario;

8. Address the liability issues raised by the use of particular technologies in the context of routine patrol officer patrols, crowd control, prison disturbances, and hostage situations; and

9. Define methodologies that the law enforcement community can or should undertake to reduce the risk of liability associated with the deployment of a particular LTL weapon.

E. The Task Group engaged in various activities during this project period, December 1993 through September 1994, which supported the NIJ technology initiative by addressing liability issues regarding the development and fielding of law enforcement technologies including the following:

1. In December 1993, the Chairman asked the executive assistant to the panel, John M. Falk, to review and update where necessary, the project report entitled, "Less-Than- Lethal Weapons: A Civil Law Liability Review," authored by Neal Miller of the Institute for Law and Justice. John Falk, with the assistance of Professor Roger Groot of Washington and Lee University School of Law, supplemented available research concerning actions against state and local governments in the area of excessive force.

2. On January 18, 1994, the Task Group held its first meeting, which was attended by all panel members. The meeting addressed generally the role and tasks for the group, as well as beginning its review of the first LTL technology for consideration, Oleoresin Capsicum (OC). Mr. David Boyd of NIJ and Mr. John Granfield, retired Fairfax County Chief of Police and current Program Manager for the Comparative Mace Study, International Association of Chiefs of Police (IACP), briefed the Task Group on the technology.

a. Messrs. Boyd and Granfield answered specific questions concerning LTL technologies in general and OC Spray in particular, its properties and effects, its manufacture, its use by law enforcement, and related benefits and limitations of the product. The Task Group was provided with background data that has been collected on general and specific issues relating to OC Spray to date and also informational materials that have been published by NIJ and IACP on OC Spray products.

b. The Task Group discussed and examined cases in which OC Spray was alleged to have caused injury and/or death to a suspect after being sprayed with OC by law enforcement officers. The Task Group identified numerous legal and policy issues associated with the deployment and use of OC Spray. Research undertaken by the staff supporting the Task Group revealed that case precedent involving mace or chemical tear gas can be instructive by analogy relative to consideration of excessive force issues.

c. The Task Group agreed upon preliminary recommendations, and agreed that it should await the results of the NIJ Baltimore County Survey, the final report from Dr. Petty and Chief Granfield, and the FBI Risk Assessment. The Task Group also re-emphasized the importance that agencies using OC Spray

adequately train officers and provide specific directions on aftercare for the apprehended subject.

d. The Task Group outlined a preliminary set of issues for further examination at future meetings. However, the Task Group noted that further research is needed in order to effectively make recommendations regarding possible liability issues. Some of this research regarding OC Spray is currently under way in the two studies referenced above. The Task Group has also noted the need to define particular terms of reference (e.g., "ineffective" use of OC Spray versus "effective" use). Listed below, in random order, are issues that the Task Group believes warrant further examination and consideration by the Task Group:

- A model for law enforcement procurement that shifts the burden of liability to the manufacturer.
- OC Spray canister testing after its use in a disputed circumstance.
- Accurate measurement of OC Spray's active ingredients.
- State and local liability; individual officer liability.
- Medical issues, such as proximate cause of injury or death, that will be compensable to a plaintiff.
- Flammability of certain alcohol-based OC Spray product carriers, and appropriateness of OC Spray's use in different situations.
- Is there a level of exposure to OC Spray that could become critical or cause injury?
- Police agency policy and use-of-force guidelines.

- Control strategies.
- "Manufacturer-certified" training courses and training requirements.
- Training guidelines that examine appropriateness of use, necessity of warnings prior to application, decontamination procedures, incident documentation, and possible sanctions for indiscriminate use.
- Criteria for agency suspensions of an LTL technology.
- Officer decisions to spray or not to spray an individual based on physiognomy, i.e., an individual's temperament and character.
- Manufacturer product warnings (such as using the product against someone who has certain physiological problems).
- Integrity and accuracy of information obtained from manufacturers.

Stream v. Mist
Alcohol v. Other Solvents
Pure OC Spray v. OC Spray CS CN Mixtures

- Officer's interpretation of policy in choosing lethal versus non-lethal weapons in a confrontation. Will this situation create any additional threshold decision-making for the officer. Will it increase an agency's risk of being liable for a negligent act by the officer? Will it change current theories of liability and negligence?
- Countermeasures (law enforcement's ability to counter the same technology being deployed against law enforcement).
- Product marketing -- false or misleading advertising relative to product endorsement by federal, state or local agencies.
- Variations in carrier systems, propellants, and product concentrations.
- Instances in which OC Spray is not 100 percent "effective."

- OC Spray's placement on the use-of-force continuum.
- Brandishment of OC Spray. Where does the officer draw the line in terms of using deadly force? Is mere brandishment a basis for reasonableness to use deadly force?
- The appropriateness of rules for training programs.
- Quality control of OC Spray. Who should most appropriately develop standards?
- Manufacturer representations (e.g., mis-labeling) and standards.
- "Mom and Pop" production and variation in standards of OC Spray.
- Instances in which OC Spray should or should not be used.
- Number of bursts/multiple OC Spray applications.
- Appropriateness of continuing and periodic refresher training.
- The duty to consider alternative products/liability.
- Potential for hydraulic needle injury from stream sprays to the eye.
- After care and treatment of subjects sprayed with OC.
- Liability from exposure to third parties
- State and Federal Regulatory compliance/impediments

3. On March 2, 1994, the Task Group held its second meeting, which continued the examination of OC Spray. The Task Group provided input to NIJ LTL relative to the Petty/Granfield OC Medical Study that was underway to examine the relationship of OC

Spray to nineteen death cases where OC was in some measure present, and the Task Group looked forward to receiving the final report of findings. The Task Group considered the issue of positional asphyxia and the possibility of developing devices that can prevent this syndrome or occurrence and encouraged the Burkhalter Panel and NIJ LTL to further examine this syndrome.

a. The Task Group was asked by Marc Caplan of the Technology Assessment Program Information Center (TAPIC) for support in addressing issues concerning a Utah State Highway Patrol controversy over the exposure of OC Spray on officers in training. The Task Group agreed to examine further the issues surrounding OSHA compliance in the area of officer training, and review the development of the Utah State matter. The Task Group identified potential issues that may develop with respect to officers either required or given an option to being sprayed with OC as a part of field training.

b. The Task Group recommended that the increasing variety of OC products on the market, with different delivery systems, different active OC levels, different mixtures of OC and chemical mace, and widely different manufacturing quality standards be examined carefully by the Burkhalter Panel and NIJ LTL Project.

c. The Task Group, while awaiting further information through the Baltimore County Survey, the Petty/Granfield Study and the FBI Risk Assessment, recognized the importance and value of OC Spray to law enforcement, and the desire of state and local law enforcement to have validation from an authoritative source that OC Spray is safe .

d. The Task Group then began its examination and consideration of Sticky Foam and Aqueous Foams as an LTL technology for possible use in the field by law enforcement agencies. Mr. David Boyd and Dr. Ray Downs, a visiting fellow of NIJ, introduced the historical use of Sticky Foam and Aqueous Foam and the manner in which NIJ envisions how these materials could be deployed for law enforcement purposes. The Task Group received preliminary data upon which to begin its review and understanding of the substance and its applications.

4. James H. Falk, Sr., David Boyd, Professor Saltzburg, Professor Groot, James Wise, Robert Greenberg and John Falk met to discuss other LTL technologies to be examined by the Task Group, and discussed the primary areas of civil law liability research undertaken to date, as well as the areas where further research and assessment should be focused.

5. On May 4, 1994, the Task Group convened its third panel meeting. The Task Group discussed the need to track OC Spray-related law suits filed against law enforcement agencies/officers. The Task Group assigned John Falk to compile all available information, which will serve to support NIJ's LTL efforts, on such lawsuits filed. The Task Group discussed the fact that certain federal agencies were examining whether or not their agency should regulate the sale, distribution, manufacture or use of OC Spray.

a. The Task Group agreed that research should be undertaken that examines the potential for law suits stemming from an officer or a law enforcement agency choosing a less-than-lethal response rather than a lethal response, and vice versa. Mr. Boyd of NIJ and representatives from Sandia National Laboratories briefed the Task Group on the existence and application of Sticky Foam and Aqueous Foam. Sandia personnel gave a series of presentations on Sticky Foam and Aqueous Foam related to their material components, toxicological considerations, material deployment, as well as material deactivation and clean-up. A representative of the Florida Department of Corrections also discussed recent joint exercises undertaken with the Sandia National Laboratories concerning the use of Sticky Foam in the correctional setting.

b. The Task Group reached a preliminary conclusion that the use of sticky foam in law enforcement or correctional settings is not cost effective considering the potential for liability involved in its deployment. A preliminary assessment of civil law liability issues surrounding the deployment of Sticky Foam was presented to the Burkhalter Panel. The Task Group, on a preliminary basis, believed that Aqueous Foam may have some applications for law enforcement missions without significant risk of liability.

6. The Task Group became aware that the staff of the House Armed Services Committee was developing a strategy to hold hearings on the civilian/military agency relationship as it relates to less-than-lethal weapons technology, and that ARPA was seeking support from within DOD and the Justice Department to be formally involved with this law enforcement initiative. Mr. James H. Falk and other Task Force members were asked by Admiral Burkhalter for support in developing a strategy that would facilitate intergovernmental coordination as it relates to the LTL project, as well as support for Mr. Boyd's presentation to certain Congressional committees.

7. The Task Group was asked by Admiral Burkhalter to provide support and assistance in preparing for the NIJ "National Conference for Law Enforcement Technology for the 21st Century,"

including organizational input to structure of the panel break-out discussion topics. Task Group members and staff met informally on several occasions to support this Conference which took place on 20-22 June 1994.

a. Several members of the Liability Task Group, including VADM E.A. Burkhalter, Jr., James H. Falk, Sr., Mr. Robert Cansler, the Honorable Benjamin Brown, and Professor Stephen Saltzberg, were asked to participate on certain panels during the Conference. Conference participation by panel members enabled attendees to better understand the role of the Liability Task Group and learn of the Task Group's activities with respect to the technologies reviewed at the first three Task Group meetings. Participation of Task Group members in industry panels supported the NIJ mission by addressing a variety of liability issues facing the law enforcement community and private industry related to the introduction and deployment of new technologies.

8. The Chairman initiated research tasks related to excessive force cases involving Oleoresin Capsicum, mace, and related chemical/OC mixed sprays. The research relative to Oleoresin Capsicum generally focused on the following areas: Training and Policies; Product Components; Manufacturing Integrity; Medical and Toxicological Issues; Role of OC on the Force Continuum; Police Officer Decision Making; State and Federal

Regulatory Issues; and, Third Party Bystanders in order to assess civil law liability.

a. Research was performed with respect to the burden of proof and burden of persuasion in the presentation of evidence in cases involving allegations of excessive force. The Chairman also initiated preliminary research directed towards cases involving positional asphyxia, microwave radiation, and high speed pursuit incidents in the context of civil law liability surrounding such technologies in routine police officer patrols, crowd control, prison disturbances and hostage situations.

b. Additional legal research was conducted concerning the broad subject of excessive force complaints that provided any legal precedent by way of directly concerning a technology being examined, a component of a technology being examined, and/or providing guidance through analogy. All legal research undertaken sought to update and expand where necessary the project report entitled "Less-Than-Lethal Weapons: A Civil Law Liability Review" authored by Neal Miller of the Institute for Law and Justice.

c. The Task Group staff also examined legal issues surrounding the use of advanced technologies that enable law enforcement to visually inspect homes, automobiles, and persons. The Chairman determined that the Task Group would begin to address

the deployment of microwave devices in the area of high speed pursuit situations. The Chairman therefore requested that research be undertaken to determine the existence of medical and scientific research concerning health or medical assessments based upon the intended or unintended exposure of humans to microwave radiation. Research was also undertaken to determine the extent of existing litigation involving exposure of humans to microwave radiation. The above identified research was distributed to the Task Group at the Fourth Task Group meeting.

9. As a result of the first three meetings, the Task Group, through James H. Falk, Sr., provided preliminary recommendations to the Burkhalter Panel concerning the viability of OC Spray, Sticky Foam, and Aqueous Foam, in light of perceived liability issues and concerns.

10. On September 7, 1994 the Task Group initiated its Fourth Meeting, with the attendance of Mr. Jeremy Travis the newly installed Director of the National Institute of Justice. The Fourth Meeting briefly reviewed the technologies examined to date, for the benefit of Director Travis. Director Travis expressed his appreciation for the service of the Task Group members, and applauded the valuable role that the Task Group was playing in NIJ's LTL project. The Task Group then began its examination of microwave technologies through a presentation from Mr. Boyd, which

described the various technologies that the NIJ has examined to address the high speed automobile chase and the ability to disable or stop such vehicles.

a. The Task Group discussed generally the scope and breadth of civil law liability that face state and local law enforcement agencies annually as a result of high speed chase confrontations and accidents, as well as consideration of civil law liability surrounding the deployment of microwave technologies that could include actions alleging bodily injury due to exposure from microwave radiation.

b. As a result of NIJ's creation of the Burkhalter Panel and, in turn, the Liability Task Group, NIJ has become widely recognized throughout the federal government as a critical resource for information in the area of applying advanced technologies to law enforcement missions. This was evidenced by the U.S. Immigration and Naturalization Service request to participate in the Fourth Task Group meeting because of its interest in the deployment of low level energy microwave technology to stop automobiles at border patrol points of entry. Accordingly, INS presented microwave technology that it was considering together with the applications envisioned. In addition to the Task Group Members and regular guests, the following personnel attended this meeting:

Mr. Gary S. Messina,	Acting Executive Associate Commissioner - INS
Mr. Stephen A. Schroffel,	Director - Research and Development - INS
Peter Anderson, Esq.,	Associate General Counsel - INS
Mr. Jeffrey A. Harsanyi,	Research and Development - I.N.S
Mr. Steven A. Rickman,	Acting Deputy Assistant Commissioner - INS
Dr. Edward P. Scannell,	Team Leader - Radio Frequency Effect Branch - U.S. Army Research Laboratories
Dr. Edward Brown,	Chief, Special Projects Office - Director's Staff - U.S. Army Research Laboratories

c. Based in large part on the presentations of Mr. David Boyd, Dr. Edward P. Scannell and Dr. Edward Brown, the Task Group was able to intelligently assess the deployment of existing microwave technology based upon federal laboratory experience, actual experimental information and test data, and field experience not only from NIJ, but the U.S. Army and INS. This level of technological understanding and awareness enabled the Task Group to more fully and capably examine and assess the risks of liability, and steps that could be taken to minimize liability if the technology were deployed.

d. The Task Group determined that on a preliminary basis it did not appear that microwave technologies could be

effectively deployed by state and local law enforcement agencies to address high speed automobile chases, due primarily to issues of cost and the need to further refine the technology for general law enforcement missions. The Task Group was also informed that the prospective cost of a mobile microwave unit that could be mounted on a police cruiser would be prohibitive and difficult to aim, control or minimize the effects of the microwave. Also, the Task Group learned that the state and local agencies could not use such technologies near airports, radio or television stations or telephone relay stations.

e. The Task Group also considered the issues of property damage to automobiles subjected to microwave radiation, and the effects upon bystander automobiles and/or persons. The available scientific and medical data presented to the Task Group indicated that low level energy microwave radiation does not pose serious short or long term risks of bodily injury to humans. The Task Group identified other potential issues, such as environmental liability, prior E.P.A. approval, OSHA considerations, issues of public acceptance, and issues of National Security that should be carefully considered.

11. Through encouraging the INS to participate in the Task Group meetings, Burkhalter Associates continued to support NIJ by establishing NIJ as the central federal agency for LTL

technologies and transitioning existing federal research and development to law enforcement applications. In fact, officials from the INS and the U.S. Border Patrol have contacted the Burkhalter Panel to request assistance in gathering background information and source research relative to the use of OC Spray by Border Patrol and INS officers.

12. The Liability Task Group, through James Wise, Executive Director to the Task Group, was able to fully coordinate the Task Group's activities with the NIJ LTL Weapons Technology and Policy panel. This coordination ensured that the Burkhalter Panel was able to secure the maximum utilization of the Liability Task Group's activities as it examined particular LTL technologies.