12/30/83

#### National Criminal Justice Reference Service



This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504.

Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U. S. Department of Justice.

National Institute of Justice United States Department of Justice Washington, D. C. 20531

- C.C. and the second ----1 ch 5 -



# **CRIME STOPPERS** CATALOG

# REFERENCE GUIDE

RESEARCH INFORMATION AND TECHNICAL ASSISTANCE AVAILABLE FROM FEDERAL RESEARCH LABORATORIES TO ASSIST LOCAL GOVERNMENT PUBLIC SAFETY FUNCTIONS



## SOUTHWEST INNOVATION GROUP INC.

Anahelm Civic Center Suite 220 200 South Anahelm Boulevard Anahelm, CA 92805

Research information and technical assistance available from Federal Research Laboratories to assist local government public safety functions.

Some of the materials incorporated in this work were developed with the financial support of the National Science Foundation, Grant No. ISP-7917656, through:

> SOUTHWEST INNOVATION GROUP, INC. ANAHEIM CIVIC CENTER Anaheim, CA 92805

200 South Anaheim Blvd., Suite 220

However, any opinions, findings, conclusions or recommendations expressed herein are those of the authors and do not necessarily reflect the views of the National Science Foundation or the Southwest Innovation Group.

The Southwest Innovation Group, Inc., is a non-profit corporation established for the purpose of encouraging technology transfer and innovation among participating local governments in Arizona, California, and Nevada. For further information, call (714) 999-5153.

U.S. Department of Justice National Institute of Justice 83218

This document has been reproduced exactly as received from the Inis document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of

Permission to reproduce this copyrighted material has been granted by Southwest Innovation Group, Inc.

Further reproduction outside of the NCJRS system requires permis

to the National Criminal Justice Reference Service (NCJRS).

CRIME STOPPERS CATALOG

April 1982

### NCJRS

#### MAY 17 1982

А

#### ACQUISITIONS

REFERENCE GUIDE

11

to

Prepared by Allan Sjoholm & Associates

All rights for reproduction of this publication reserved to Southwest Innovation Group. April 1982

SIG is a non-profit corporation governed by a Board of Trustees from the following public agencies in California, Arizona, and Nevada: Anaheim, CA

SIG is financially supported by these agencies and the National Science Foundation for the purpose of transferring technology and advancing research among local governments to help them improve local government services. For more information, call (714) 999-5153.

#### A WORD ABOUT SIG

Ţ\$

Q

Burbank, CA Carson City, NV Costa Mesa, CA Garden Grove, CA Hayward, CA Irvine, CA LaHabra, CA Orange, CA Palm Springs, CA Pasadena, CA Phoenix, AZ Pima County, AZ Santa Clara, CA Santa Maria, CA Scottsdale, AZ Sunnyvale, CA Ventura, CA



# TABLE OF CONTENTS

	Page
	. <u>1</u>
RIES AND CONTACTS	5
Investigation	9
on	9
otection	9
armament	10
Alarms	10
Analyses	10
ations	11
ized Fuel Dispensing	17
poratory Personnel Training	17
Planning	18
	23
pping Techniques	24
***************************************	24
Vapor Detectors	26
	27
entification	29
S	
nges	30 30
Science	31
이 생활이 있는 것 것 같은 것이 있는 것이 가지 않는 것 같은 것 같	<u> Э</u> Т

		Page	
20.	Guns	32	
21.	Handcuffs	33	
22.	Hazardous Wastes	34	
23.	Intrusion Alarm Systems	34	
24.	Less-Lethal Weapons	36	
25.	Lighting	38	
26.	Materials Identification	38	
27.	Night Vision Devices	38	
28.	Personal Alarms	40	
29.	Personnel	41	
30.	Personnel Detection	42	
31.	Photography	43	
32.	Physical Security Systems	45	
33.	Protective Clothing	49	
34.	Records Management	51	
35.	Research	51	
36.	Riot Control	52	
37.	Security Consultants	53	
38.	Tunnel Detection	53	
39.	Vehicles	53	
40.	Water Surveillance	57	
41.	Weapon Detectors	57	
42.	Other	58	

The Southwest Innovation Group in cooperation with the Federal Laboratory Consortium (FLC) and its participating labs is pleased to provide to local governments this catalog of technical expertise and resource information pertinent to local government public safety functions. The FLC is composed of approximately 200 of the largest Federal government research and development laboratories and centers. These laboratories and centers represent eleven Federal agencies including the Departments of Defense, Health and Human Services, Transportation, Energy, Interior, Justice, and Commerce, as well as the Tennessee Valley Authority, the Environmental Protection Agency, the National Aeronautics and Space Administration, and the Department of Agriculture. The FLC represents a large national investment in scientific facilities, equipment capabilities and experience through its member agencies and laboratories. These laboratories represent an important source of technology that, when properly mobilized, can assist in the solutions to many of our nation's problems.

How to Use This Publication This publication provides a reference guide which shows subject areas of potential interest and the Federal lab the reader can contact for additional information. It has been designed and prepared for the specific use of local law enforcement officials.

#### INTRODUCTION

Contained in this catalog are a very wide range of resources that can be made available to local law enforcement officials. There are 32 laboratories represented, 42 subject areas, and 208 individual items. The nature of the possible support includes publications, consultant expertise, training courses, technical data and information, and loan of specialized equipment. It is hoped that utilization of this report will help to open productive channels of communication between the FLC laboratories with their available resources, and the intended user community of local law enforcement officials.

2

The user can call the individual listed under the item that he/she is interested in, or, in the event of a problem, the Technology Transfer Representative of the laboratory identified in the preceding section of the catalog.

In the Far West Region of the FLC, additional assistance may be obtained from the following:

Mr. George F. Linsteadt FLC Secretariat Naval Weapons Center Code 3803 China Lake, CA 93555 (714) 939-2305/2575

Dr. Gerald T. Richards Far West Regional Coordinator Lawrence Livermore Laboratory University of California P. O. Box 808 L404 Livermore, CA 94550 (415) 422-6416 In some cases the reader may want SIG to assist them in making a contact with a Federal Lab and since SIG staff has worked with the labs on numerous occasions, it could assist in obtaining information for a local government agency. Acknowledgments

Sjoholm & Associates u has himself served as Federal Laboratory and County of San Diego. All FLC member la laboratories who respo along with their Techn section of the report. During the gather

During the gathering of data and preparation of the report, close coordination was maintained with Mr. George F. Linsteadt, FLC Secretariat, Dr. Gerald T. Richards, Far West Region Coordinator, and Mr. William A. Barr, Public Safety Technical Specialty Coordinator.

Many of the reports and standards contained in our listing came from the Law Enforcement Standards Laboratory (LESL) which is a part of the National Institute of Justice (NIJ) and its Technology Assessment Program. The NIJ in turn is under the National Bureau of Standards of the U.S. Department of Commerce. LESL and NIJ work in cooperation with the International Association of Chiefs of Police (IACP) in a continuing program in which selected items are tested by independent

Information for this publication was obtained by Allan Sjoholm & Associates under contract with SIG. Mr. Sjoholm has himself served as a Technology Transfer Coordinator in a Federal Laboratory and as Science Advisor to the City and County of San Diego.

All FLC member laboratories were surveyed. Those laboratories who responded by submitting material are listed along with their Technology Transfer Coordinator in the next section of the report. 3

testing laboratories. The complete test results are published by the IACP Technology Assessment Program Information Center (TAPIC) and they are the sponsors of the work. New publications are constantly under development and many are frequently updated. The users should be aware of the need to check accordingly. As many publications as possible are listed in this catalog for ready reference purposes; however, the SIG Program Office will keep abreast of additions and changes and should be called upon for that purpose.

There are many subject areas included; however, if a specific requirement is not covered, the reader should still contact the SIG Program Office which will then submit a direct request for assistance to the FLC to determine if needed help is available.

By publishing this catalog the Southwest Innovation Group hopes to provide the means and opportunity for local law enforcement officials to draw upon new and different sources of technical assistance to help them in the high priority task of combating crime. Crime is a problem of prime concern for all citizens, and all available resources should be brought to bear on it. Hopefully, this publication is a positive step in that direction.

Leslie R. White President Southwest Innovation Group

PARTICIPATING LABORATORIES

#### AND

TECHNOLOGY TRANSFER COORDINATORS



## **COORDINATORS**

#### Dr. Arthur Guenther (505) 844-9856/8561

Mr. Bruce C. Huguelet Building 362, Room E209 (312) 972-3064 Technology Transfer Manager

Dr. H. J. Matsuguma (201) 328-2210 Building 407

Dr. N. Slagg (201) 328-6150 Building 3022

Mr. S. Kaye (201) 328-4604 Building 3022

Dr. Donald O. Egner Technology Transfer Coordinator Director Attn: DRXHE-CC (301) 278-3245/4687

Mr. David W. Seitz Technology Transfer Coordinator Director AMMR Attn: DRX MR-PP (617) 923-5527

Ms. Margaret Bogosian Patent Counsel Technology Utilization Officer Building 460 (516) 282-7338

Mr. Kenneth R. Kothe Director, Programs and Resources (703) 664-4812

Mr. James Woodall Tech. Advisor to the Director Building 12, ANA-1A (609) 641-8200 X-2658

#### Laboratories

Federal Bureau of Investigation Department of Justice FBI Laboratery FBI Academy Quantico, VA 22135

Forest Serv\_je USDA Equipment Development Center Missoula, MT 59801

Forest Service USDA Equipment Development Center San Dimas, CA 91773

Harry Diamond Laboratory 2800 Powder Mill Road Adelphi, MD 20783

Lawrence Berkeley Laboratory University of California Berkeley, CA 94720

Lawrence Livermore National Laboratory P. O. Box 808 Livermore, CA 94556

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NASA Ames Research Center Moffett Field, CA 94035

NASA Langley Research Center Hampton, VA 23665

#### Coordinators

Dr. Eugene Rieder (703) 640-6131

Mr. Farnum M. Burbank USDA/FS P. O. Box 2417 Washington, D. C. 20013 (703) 235-8114

Mr. Farnum M. Burbank USDA/FS P. O. Box 2417 Washington, D. C. 20013 (703) 235-8114

Mr. Clifford Lanham Code DELHD-TT (202) 394-2296

Mr. Robert J. Morris Building 930, Room 309 (415) 486-6502

Dr. Gerald T. Richards P. O. Box 808 L-404 (415) 422-6416

Mr. Robert G. Purrington, Fire Chief P. O. Box 5505, 2-384 (415) 422-5241

Mr. Lawrence K. Eliason Chief, LESL Building 221, Room B157 (301) 921-3161

Mr. Stan Miller New Technology Representative (415) 965-6471

Mr. Lester J. Rose Technology Utilization and Applications Program Office (804) 827-3281

#### Laboratories

NASA Lewis Research Center 21000 Brookpark Road Cleveland, OH 44135

National Bureau of Standards A402 Administration Building Washington, D. C. 20234

Naval Civil Engineering Laboratory Port Hueneme, CA 93043

Naval Health Research Center P. O. Box 85122 San Diego, CA 92138

Naval Ocean Systems Center San Diego, CA 92152

Naval Surface Weapons Center White Oak, Silver Spring, MD 20910



#### Coordinators

Mr. Harrison Allen, Jr. Technology Utilization Officer (216) 433-4000 X-422

Mr. James Wyckoff (301) 921-3814

Mr. James F. Jenkins Lo3C (805) 982-4070

Mr. Gary Cook General Engineer Military Projects Division

LCDR. John C. Ferguson Technology Transfer Officer (714) 225-2061

Mr. Walt Perkins Code 013(B) (714) 225-7455

Mr. C. W. Lufcy. Electromagnetics Branch Chief (R43) (202) 394-2725

Mr. D. L. Love Chief Electric - Optics Branch Code (R42) (202) 394-1974

Mr. P. W. Hesse Nuclear Branch Chief Code R41 (202) 394-2267

Dr. Sherman Gee Code D-21 Technology Transfer Coordinator (202) 394-1505

#### Laboratories

Naval Underwater Systems Center New London, CT 06320

Naval Weapons Center China Lake, CA 93555

Navy Personnel Research and Development Center San Diego, CA 92152

Night Vision and Electro-Optics Laboratory Fort Belvoir, VA 22060

Oak Ridge National Laboratory TU/C P. O. Box X Oak Ridge, TN 37830

Rome Air Development Center/IRRA Griffess AFB, NY 13441

U. S. Army Atmospheric Sciences Laboratory White Sands Missile Range NM 88002

U. S. Army Mobility Equipment Research & Development Command Fort Belvoir, VA 22060

U. S. Army Natick Research and Development Command Natick, Mass. 01760 Coordinators

Mr. Michael Ahrens Head, Office of Special Programs Development Code 0702, Building 80T (203) 447-4908

Mr. George Linsteadt Head, R&D, Technology Utilization (714) 939-2305/2575

Mr. Harold H. Rosen Code 303 (714) 225-7450/7286

Mr. Richard W. Fulton (703) 664-5605

. .

Mr. Donald Jared (615) 574-4193

Capt. Joe Nelson, USAF (315) 330-7672

Mr. David Pierce Technology Transfer Coordinator Code RADC-DOT (315) 330-2973

Mr. Robert E. Northrop, Jr. DELAS-DP (505) 678-5236

Ms. Margaret C. Harrisson Industrial Liaison Specialist Office of the Special Assistant for Science & Technology (703) 664-1068

Mr. Nick Montanarelli Chief of Program Management Division FEL ATTN: DRDNA-WA (617) 633-5172 **SUBJECT AREAS** 

## SUBJECT AREAS

#### ACCIDENT INVESTIGATION 1.

a. Expertise in investigating accidents and related events.

### 2. AMMUNITION

a. Report on evaluation of police handgun ammunition

### **3. ARMOR PROTECTION**

- a. Information and expertise in armor materials for personnel and vehicular protection. Special expertise in the areas of transparent armor and composite armor systems.
- b. Publication containing results of tests of body armor designed to measure the garment's resistance to bullets from the most frequer", used handguns and from "everal other less common firearms.

## **POINTS OF CONTACT**

Lawrence Livermore National Laboratory University of California Livermore, CA 94550 Contact: Mr. Robert G. Purrington, Fire Chief LLNL-P.O. Box 5505 L-384 Livermore, CA 94550 (415) 422-5241

LESP-RPT-0101.01, Oct 1975, "An Evaluation of Police Handgun Ammunition," Summary Report.

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Army Materials and Mechanics Research Ctr. Watertown, MA. 02172 Contact: Mr. David W. Seitz Technology Transfer Coordinator Director, AMMR, Attn: DRX MR-PP (617) 923-5527

"Police Body Armor Testing and Summary of Performance Testing Data." Equipment Technology Center Technology Research Division Bureau of Operations and Research International Association of Chiefs of Police

Gaithersburg, MD 20760

1978 plus supplements. Sponsored by Technology Assessment Program Information Center (TAPIC) and National Institute of Justice (NIJ).

#### 4. BOMB DISARMAMENT

(Врани уливну сулати у Бурустании портование портование у развородно сулати и у ургания состание у узбание изу Правили состание состание и правилист и на состание состание портование состание и правили состание состание на Правили состание состание и правилист и на состание состание портование состание и правили с состание состание н

a. Publication on standards for x-ray systems for bomb disarmament.

FLC Labs - Points of Contact

10

NILECJ-STD-0603.00, June 1975, "X-ray Systems for Bomb Disarmament," (GPO: Stock No. 027-000-00343-5, price 45 cents.)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### 5. BURGLAR ALARMS

a. Report on mechanically activated switches for burglar alarm systems.

b. Publication on standards for magnetic switches for burglar alarm systems.

c. Publication on standards for mercury switches for burglar alarm systems.

NILECJ-STD-0302.00 May 1974, "Mechanically Actuated Switches for Burglar Alarm Systems."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0301.00 March 1974, "Magnetic Switches for Burglar Alarm Systems." (NTIS: PB-231 32317; PC A03)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0303.00 May 1974, "Mercury" Switches for Burglar Alarm Systems." (NTIS: PB-238 790/OST, PC A02, MP A011).

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### 6. CHEMICAL ANALYSIS

a. Expertise in chemical analysis for fires and accidents.

Lawrence Livermore National Laboratory University of California Livermore, CA 94550 Contact: Mr. Robert G. Purrington Fire Chief, LLNL-P.O. Box 5505 L-384 Livermore, CA 94550 (415) 422-5241

#### Subject Areas

## 7. COMMUNICATIONS

a. Report on batteries used with law enforcement communications equipment (comparison).

- b. Report on batteries used with law enforcement communications equipment (charging).
- c. Report on voice privacy equipment for law enforcement systems.

d. Report on law enforcement communications equipment technical terms and definitions.

#### FLC Labs - Points of Contact

LESP-RPT-0201.00 May 1972, "Batteries Used with Law Enforcement Communications Equipment: Comparison and Performance Characteristics." (NTIS: PB-221 47517; PC A03, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0202.00 June 1973, "Batteries Used with Law Enforcement Communication Equipment: Charges and Charging Techniques." (NTIS: PB-221 475/7; PC A03, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0204.00 May 1974, "Voice Privacy Equipment for Law Enforcement Communications Systems." (NTIS: PB-242 053/7ST; PC A03, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0203.00 June 1973, "Technical Terms and Definitions Used with Law Enforcement Communications Equipment (Radio Antennas, Transmitters, and Receivers). (NTIS: PB 221 438/5; PC A06, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

- e. Report or repeaters for law enforcement communications systems.
- f. Expertise to leview specifications, take field measurements, recommend antenna layout, and recommend equipment to local fire and police departments for communications.
- q. Technical expertise in writing and developing specifications for communications systems.
- h. Publication on standards for FM repeater systems.
- i. Publication on standards for body-worn FM transmitters.
- j. Publication on standards for microphone cable assemblies for mobile FM transceivers.

#### FLC Labs - Points of Contact

LESP-RPT-0206.00 Oct 1974, "Repeaters for Law Enforcement Communication Systems." (NTIS: PB-242 012/3ST; PC A02, MF A01)

12

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Naval Underwater Systems Center New London, CT 06320 Contact: Mr. Michael C. Ahrens Head Office of Special Programs Development Code 0702, Building 80T (203) 447-4908

Naval Weapons Center China Lake, CA 93555 Contact: Mr. George F. Linsteadt Head IR&D/Technology Utilization (714) 939-2305/2575

NILECJ-STD-0213.00 Nov 1977, "FM Repeater Systems." (NTIS: PB-277 323/2ST)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0214.00 Dec 1978, "Body-Worn FM Transmitters." (GPO: Stock No. 027-000-00711-2, price \$1.20)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NIJ Standard - 0217.00 Aug 1980, "Microphone Cable Assemblies for Mobile FM Transceivers." (GPO: Stock No. 027-000-01031-8, price \$1.25)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### Subject Areas

- k. Publication containing results of tests of 26 personal FM radio transceivers as compared to minimum performance requirements specified by National Institute of Justice law enforcement equipment standards.
- 1. Publication on standards for continuous signalcontrolled selective signaling.
- m. Publication on standards for fixed and base station FM transmitters.
- n. Publication of standards for mobile FM transmitters.
- o. New publication of standards for fixed and base station antennas (now in press).

#### FLC Labs - Points of Contact

"Police Personal FM Transceivers Report,

Volume I, Executive Summary." Sep 1981.

International Association of Chiefs of

Sponsored by Technology Assessment

National Institute of Justice (NIJ)

Program Information Center (TAPIC) and

Police

Eleven Firstfield Road

Gaithersburg, MD 20878

NIJ Standard-0219.00 Aug 1980, "Continuous Signal-Controlled Selective Signaling." (GPO: Stock No. 027-000-01041-5, price \$1.75)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0201.00 Sep 1974, "Fixed and Base Station FM Transmitters." (NTIS: PB-255 870/8ST)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0202.00 Oct 1974, "Mobile FM Transmitters." (NTIS: PB-241 607/1ST PC A02, MF A01)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NIJ Standard-0204-01, "Fixed and Base Station Antennas."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

- p. Publication on standards for mobile antennas.
- q. Publication on standards for RF coaxial cable assemblies for mobile transceivers.
- r. Publication on batteries for personal/portable transceivers.
- s. Publication on standards for mobile FM receivers.
- t. Publication on standards FM receivers.
- u. Expertise in development of requirement definition and design of proposed city-wide emergency command and control Communications system.

#### FLC Labs - Points of Contact

NILECJ-STD-0205.00 May 1974, "Mobile Antennas."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0212.00 Sep 1975, "RF Coaxial Cable Assemblies for Mobile Transceivers."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0211.00 Jun 1975, "Batteries for Personal/Portable Transceivers." (NTIS: PB 251-594/8ST; PC A02, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0207.00 Jun 1975, "Mobile FM Receivers."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0206.00 Sep 1975, "Fixed and for fixed and base station Base Station FM Receivers." (GPO: Stock No. 027-000-00358-3, price 55 cents. NTIS: PB-255 906/OST; PC A02, MF A01)

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

System Analyses and Computer Modeling (Contractor, Contact/Contractor, TEF 514, Case Nos. 103399, 103400, 11/78) Jet Propulsion Laboratory Contact: Mr. Stan Miller New Technology Representative NASA Ames Research Center Moffet Field, CA 94035 (415) 965-6471

14

#### Subject Areas

- v. Information about flat cable interconnection/ termination components used in manufacturing voice communication such as mobile systems used by police departments.
- w. Report on digital data transmission tests on voice channels.
- x. Report on digital communications techniques and equipment for law enforcement use.
- y. Guide on voice scramblers for law enforcement agencies.

z. Guide on communication systems.

## FLC Labs - Points of Contact

a series and a series of the series of the

Flat Conductor Cable Connector Survey (TB/TSP, TEF 535, Cases Nos, 92532, 93278, 10/78)

Contact:

Mr. Stan Miller New Technology Representative NASA Ames Research Center Moffet Field, CA 94035

NBS Special Publication 480-19 Jul 1977, "Digital Data Transmission Tests on Voice Channels." (NTIS: PB-270 280/1ST; PC A04, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS-GCR-81-356, Dec 1981, "Digital Communications Techniques and Equipment for Law Enforcement Use."

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-8 Dec 1976, "A Guide to Voice Scramblers for Law Enforcement Agencies." (NTIS: PB-264 668/5ST; PC A03, MF A01)

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-12, Jan 1979, "Communication Systems Guide." (GPO: Stock No. 003-003-020125)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

aa. Technical information about the development of special optical/ infrared sensor technology and equipment for surveillance and communications applications.

bb. Information about strategic and tactical secure communications systems and equipment.

cc. Technical information about new developments for high data rate communication, surveillance and signal processing systems.

dd. Information on research to compare the immunity of fiber optic and wire systems and components to the electromagnetic pulse resulting from the detonation of nuclear weapons.

#### FLC Labs - Points of Contact

16

Naval Ocean Systems Center San Diego, CA 92152

Contacts: Mr. N. R. Ortwein (714) 225-7824

Dr. K. Bromley (714) 225-7028

Mr. M. A. Monahan (714) 225-7991

Naval Ocean Systems Center San Diego, CA 92152

Contacts: Mr. S. W. Dargis (714) 225-2831

Mr. D. C. Jacobson (714) 225-2831

Mr. J. J. Wilson (714) 225-2831

Naval Ocean Systems Center San Diego, CA 92152

Contacts: Dr. D. L. Lile (714) 225-6591

> Mr. H. H. Wieden (714) 225-6591

Naval Ocean Systems Center San Diego, CA 92152

Contacts: R. A. Greenwell (714) 225-2221

> G. Kosmos R. A. Kochanski

## Subject Areas

## 8. COMPUTERIZED FUEL DISPENSING

a. Report of a computerized fuel dispensing system developed for the New York City Police Department. The new dispensing system results in cost savings by halting the unauthorized dispensing of gasoline and eliminating significant man years of labor attributed to pump attendants.

## 9. CRIME LABORATORY PERSONNEL TRAINING

a. Scientific courses available to crime laboratory personnel in the following areas:

Forensic Chromatography Basic Chromatography Practical High Pressure Liquid Chromatography for Forensic Chemists Biochemical Methods in Bloodstain Analysis Advanced Bloodstain Analysis In-Service Sex Determination from a Bloodstain Laboratory Analysis in Arson Matters

#### FLC Labs - Points of Contact

ու հարցերությունը՝ հետևաներությունը՝ չուներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետև Հայտնությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևանե Հայտնությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևաներությունը՝ հետևան

"New York City Police Department Automated Fuel Monitoring System, Vol. I -Overview." William J. McGrath, Margaret M. McNamara, NOSC Tech Report 6567-1, Oct 1981. Naval Underwater Systems Center New London, CT 06320 Contact:

Mr. Michael Ahren Head Office of Special Programs Development Code 0702, Building 80T (203) 447-4908

Federal Bureau of Investigation Department of Justice FBI Laboratory FBI Academy Quantico, VA 22135 Contact: Dr. Eugene Rieder (703) 640-6131

б.

#### **10. DISASTER PLANNING**

a. Information about a battery-powered communications system, sufficiently compact to be packed in a briefcase container which can send and receive signals over great distances by means of satellite relay. Intended for use in emergency situation where power failure disrupts conventional communications.

b. Information and expertise in determining radiological hazards of radiation sources to man and his environment including the distribution occurrence of natural and man-made radioactive compounds. Areas include radiation shielding, radiochemical and atomic detection techniques for material and chemical analyses. All aspects of radiation covered.

#### FLC Labs - Points of Contact

18

NASA Spinoff 1979, P 99.

NASA Langley Research Center Hampton, VA 23665

Contact: Mr. Lester Rose Technology Utilization and Applications Office (804) 827-3281

Naval Surface Weapons Center White Oak Silver Spring MD 20910

Contact: Mr. P. W. Hesse Nuclear Branch Chief Code R41 (202) 394-2267

#### Subject Areas

c. Report on an operational "An Operational System for Constructing system for constructing Fireline with Explosives." ED&T20004 fire line with explosives. Explosives for fireline construction, Jun 1975. Forest Service, USDA Equipment Development Center Missoula, MT 59801 d. Report on the use of "Water Gel Explosives for Building Fire water gel explosives for Line." Jul 1978, ED&T 2697 building fire line. Forest Service, USDA Equipment Development Center Missoula, MT 59801 e. Report on grenade "Field Evaluation, M-79 Grenade Launcher." launcher for remote ED&T 1710 Fire and Line Holding Devices, ignition of forest fuels Feb 1973. for hazard reduction. Forest Service, USDA Equipment Development Center Missoula, MT 59801 NASA Spinoff 1977, P 82. electronic lighting system designed for NASA Langley Research Center emergency and supple-Hampton, VA 23665 mental use. Advantages Contact: are extremely high, Mr. Lester Rose light output with very Technology Utilization and Applilow energy drain, cations Office compactness, light weight (804) 827-3281 and high reliability. NASA Spinoff 81, P 72 availability of special suits and protective NASA Langley Research Center clothing for fire Hampton, VA 23665 fighting personnel where Contact: workers are exposed to Mr. Lester Rose high heat and such Technology Utilization and Applicahazards as steam and hot tions Office liquids. (804) 827-3281

- f. Information about an
- g. Information about

#### FLC Labs - Points of Contact

- h. Resources for nuclear emergency search team.
- i. Information on the development of computer programs on portable desk top computers to graphically depict downwind hazard corridors resulting from the accidental release of toxic chemicals.
- j. Information about a plastic coating that makes fabrics flameand abrasion-resistant and is sealed to the fabric by heat. The coating produces flexible, lightweight, impermeable fabrics that are firesafe and can withstand rough use.
- k. Fire test laboratory and training.

16-

1. Report on psychological deterrents to nuclear theft.

#### FLC Labs - Points of Contact

20

Lawrence Livermore National Laboratory University of California Livermore, CA 94550 Contact: Mr. Robert G. Purrington, Fire Chief LLNL-P.O. Box 5505 L-384 Livermore, CA 94550 (415) 422-5241

Department of the Army U.S. Army Atmospheric Sciences Laboratory White Sands Missile Range, NM 88002

Contact: Mr. Carl Wright (505) 678-3504

"Flame-Retardant Coating," Lyndon B. Johnson Space Center, Houston, TX Contact: Mr. Stan Miller New Technology Representative NASA Ames Research Center Moffet Field, CA 94035. (415) 965-6471

Lawrence Livermore National Laboratory University of California Livermore, CA 94550 Contact: Mr. Robert G. Purrington, Fire Chief LLNL-P.O. Box 5505 L-384 Livermore, CA 94550 (415) 422-5241

NBSIR 80-2038, Jun 1980, "Psychological Deterrents to Nuclear Theft: An Updated literature review and bibliography."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

## m. Information about the continuous floating,

modular bridge with integral super-structure Contact: and floating supports capable of supporting 60-ton loads in normal crossings in currents up to 8 ft. per second and 80-ton loads under controlled conditions. These Ribbon Bridges were used in recovery operations for Air Florida Flight 90 which crashed into the 14th Street Bridge, Washington, D. C. The abbreviated bridge formed a causeway for everyone and everything being transferred from ship to shore.

Subject Areas

- n. A number of "National Nuclear Corporation" hand-held, battery powered, personnel/ vehicle Special Nuclear Material search and survey monitors are available on a limited basis. Items are similar to detectors used by the Illinois State Police. Training in the use of equipment could be made locally available.
- ο. Information on research efforts to determine the feasibility of using electromagnetic (EM) energy to thaw frozen blood products for clinical use.

#### FLC Labs - Points of Contact

U. S. Army Mobility Equipment Research Ribbon Bridge which is a and Development Command Fort Belvoir, VA 22060 Mr. Marvin Wilkins Bridge Division, Marine and Bridge Laboratory ATTN: DRDME-MD (703) 664-5326 Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439 Contact: Mr. Bruce C. Huguelet Technology Transfer Manager Building 362, Room E209 (312) 972-3064 Naval Ocean Systems Center San Diego, CA 92152 Contacts: Dr. W. T. Rasmussen (714) 225-6471 Ms. N. L. Campbell (714) 225-6542

الأراب الأرباب المراقب أنافي والمحافظ المرابطين والمحمد والوريس ويهوهون والمراس والمحموص ومحود فتعرف فالمحاف

p. Information on research to automate various medical systems, i.e., automated interpretation of electrocardiograms and automated cardiac catherization systems.

Information on research concerned with the developing of technology necessary to provide teleoperator systems operators with on-thescene "presence" at remote hazardous locations. Situations where such systems might provide the operator with a safe on-the-scene presence include emergency rescue and repair and handling of nuclear biological and chemical materials.

r. Information on research to develop a remote medical diagnosis system for effective medical data transfer that would include patient records, test results, electrocardiograms, patient images, x-ray images, heart lung sounds and verbal information.

s. Information on research to develop an underwater vehicle technology for the inspection of pipelines, oil and gas structures, drill platforms and the like by means of unmanned free-swimming submersibles.

#### FLC Labs - Points of Contact

Naval Ocean Systems Center San Diego, CA 92152

Contacts: Dr. W. T. Rasmussen (714) 225-6471

Mr. I. N. Stevens (714) 225-6542

Naval Ocean Systems Center San Diego, CA 92152

Contacts: D. C. Smith (808) 254-4434 (H1)

F. P. Armogida (808) 254-4406 (Hl)

J. K. Katayma (808) 254-4400

Naval Ocean Systems Center San Diego, CA 92152

Contacts: Dr. W. T. Rasmussen (714) 225-6471

I. Stevens (714) 225-6542

Mr. P. D. Hayes (714) 225-6542

Naval Ocean Systems Center San Diego, CA 92152

Contact: Mr. P. J. Heckman (714) 225-6686

## 22

#### Subject Areas

## 11. DRUGS

- Publication on standards for chemical spot test kits for preliminary identification of drugs of abuse.
- b. Publication on color test Reagents/Kits for preliminary identification of drugs of abuse.
- c. Standards on evidential breath testers for alcohol content.

d. Standards on calibrating units for breath alcohol testers.

e. Expertise on the impact of alcohol abuse on health and perform-ance.

#### FLC Labs - Points of Contact

ndards NILECJ-STD-0604.00 Dec 1978, "Chemical Spot Test Kits for Preliminary Identification of Drugs of Abuse." drugs (GPO: Stock No. 027-000-00730-9, price \$1.10)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C.20234

r NIJ Standard-0605.00 Jul 1981, "Color for Test Reagents/Kits for Preliminary ica- Identification of Drugs of Abuse." use. (GPO: Stock No. 027-000-01116-1, price \$2.00)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

tial 38FR30459 Nov 1973, "Evidential Breath Testers for Alcohol Content." (Federal Register, Vol. 38, No. 212 PP 30459-30463, Nov 5, 1973.)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

ating 40FR36167 Aug 1975, "Calibrating Units cohol for Breath Alcohol Testers." (Federal Register, Vol. 40, No. 161, PP 36167-36171, Aug 19, 1975)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

Naval Health Research Center P. O. Box 85122 San Diego, CA 92138 Contact: LCDR John C. Ferguson Technology Transfer Officer (714) 225-2061

- f. New test report under preparation on narcotic test kits.
- g. Report on the hazard of benzidine to Criminal Justice personnel.
- h. Report on Breath Alcohol Sampling Simulator (BASS) for qualification testing of breath alcohol measurement devices.

#### FLC Labs - Points of Contact

Sponsored by Technology Assessment Program Information Center (TAPIC) and National Institute of Justice (NIJ)

24

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-21 May 1977, "The Hazard of Benzidine to Criminal Justice Personnel." (NTIS: PB-267 611/2ST; PC A02, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-41 Jul 1981, "Breath Alcohol Sampling Simulator (BASS) for Qualification Listing of Breath Alcohol Measurement Devices." (GPO: Stock No. 003-003-62336-1)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### **12. EAVESDROPPING TECHNIQUES**

a. Report on electronic eavesdropping techniques and equipment LESP-RPT-0207.00 Sep 1975, "Electronic Eavesdropping Techniques and Equipment."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### 13. EQUIPMENT

a. Report on patrol cars.

NBS Special Publication 480-7 Jun 1977. LEAA Police Equipment Survey of 1972, Vol. VII: "Patrol Cars." (GPO: Stock No. 003-003-01766-3, price \$2.40. NTIS: COM-74-11011/5; PC A07, MF A01)

Subject Areas

b. Report on body armor and confiscated weapons.

c. Report on alarms, security equipment and surveillance equipment.

d. Report on sirens and emergency warning lights.

e. Report on communications equipment and supplies.

#### FLC Labs - Points of Contact

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-6 Jun 1977. LEAA Police Equipment Survey of 1972, Vol. VI: "Body Armor and Confiscated Weapons." (GPO: Stock No. 003-003-01748-5, price \$2.20. NTIS: COM-74-11010/7; PC A06, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-4, Jun 1977. LEAA Police Equipment Survey of 1972, Vol. IV: "Alarms, Security Equipment Surveillance Equipment." (GPO: Stock No. 003-003-01745-1, price \$2.75. NTIS: COM-74-11771/4SL; PC A07, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-3, Jun 1977. LEAA Police Equipment Survey of 1972, Vol. III: "Sirens and Emergency Warning Lights." (GPO: Stock No. 003-003-01744-2, price \$2.50. NTIS: COM-74-11609/9; PC A07, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-2, Jun 1977. LEAA Police Equipment Survey of 1972, Vol. II: "Communications Equipment and Supplies." (GPO: Stock No. 003-003-01723-0, price \$2.75. NTIS: COM-74-10950/5; PC A08, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

and the second second second states and the second second second second second second second second second second

f. Report on standards and priorities for police equipment.

#### FLC Labs - Points of Contact

26

NBS Special Publication 480-1, Jun 1977. LEAA Police Department Survey of 1972, Vol. I: "The Need for Standards -Priorities for Police Equipment." (GPO: Stock No. 003-003-01722-1, price \$3.00. NTIS: COM-74-11767/2SL; PC Al0 MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

g. Information on development of standards for equipment that is used by the law enforcement community which serve as the basis for the cost-effective purchase of such equipment. The areas of communication systems, security systems, forensic science, weapons, and protective equipment are included.

h. Report on security equipment.

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234 Contact: Lawrence K. Eliason, Chief, LESL National Bureau of Standards Building 221, Room B157 Washington, D. C. 20234 (301) 921-3161

NBS Special Publication 480-35 Nov 1978, "Catalog of Security Equipment." (NTIS: PB-253-263)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

#### 14. EXPLOSIVE VAPOR DETECTORS

a. Report on a trace vapor generator for testing explosive vapor detectors. LESP-RPT-0604.00 Mar 1977, "A Trace Vapor Generator for Testing Explosive Vapor Detectors." (GPO: Stock No. 027-000-00453-9, price 65 cents.)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

#### Subject Areas

#### **15. EXPLOSIVES**

a. Identification and detection through sophisticated ins mental analysis o and unknown U.S. foreign explosive routine and speci analysis can be un taken on both bull samples and micros residues from exp sives. Training of forensic scientist environmentalists provided in the an of explosives, and response support provided to federa state, and local enforcement and intelligence offic Expert testimony a provided together advice and assista in the tagging and handling of explos

b. Development, simula and analyses of exp sions generated by conventional explose dusts, fuel-air mix etc. Hazards analy of explosive substa processes and opera National military r tory of data and eq ment on sensitivity properties, and per ance testing of hig explosives, propell and pyrotechnics.

#### FLC Labs - Points of Contact

d tru- f known and s. Both alized nder-	Contact: Dr. H. J. Matsuguma Army Armament R&D Command Building 407 Dover, N.J. 07801 (201) 328-2210
scopic lo- of ts and	
nalysis 1 rapid	
al, Law	
cials. also with ance safe sives.	
ation plo-	Army Armament R&D Command Dover, N.J. 07801
sives, xture, yses ances, ations. reposi- quip- Y, rform- gh lants	Contact: Dr. N. Slagg Building 3022 (201) 328-6150

c. A national technical information and analysis center on chemical explosives, their application in munitions/ weapons systems, their manufacturing technology, and related areas. This center is backed by a professional staff of about 120 practicing scientists and engineers who bring expertise to the various facets of the subject and by almost a century of accumulated experience and technology that has been developed on-site.

d. Paper on perfluorocarbon vapor tagging of blasting cap detonators.

e. Paper on the detection of perfluorinated taggants in electric blasting caps.

Ó

#### FLC Labs - Points of Contact

Army Armament R&D Command Dover, N.J. 07801 Contact: Mr. S. Kave Building 3022 (201) 328-4604

"Perfluorocarbon Vapor Tagging of Blasting Cap Detonators," Oct 1978. (U.S. patent 4, 256, 038, R. Dietz, Department of Energy and Environment, Brookhaven National Laboratory. Access available through the U.S. Department of Energy, Counsel's Office, via R. Marchick, esq., U.S. DOE, Washington, D. C. Contact: James Munson, ORTA, Building 475

Brookhaven National Laboratory Upton, N.Y. 11973 (516) 282-2019

"Detection of Perfluorinated Taggants in Electric Blasting Caps by Electronic Capture Monitors." Dietz, Goodrich, COTE, Oct 1978. Contact: J James S. Munson ORTA, Building 475 Brookhaven National Laboratory Upton, N.Y. 11973 (516) 282-2019



13 ....

#### Subject Areas

f. Expertise in research and development into explosive detection systems for civil air transportation.

- g. Information about soft fabric bag designed to contain blasts from explosive nuts and other pyrotechnic devices.
- h. Report on hydrocarbon vapor standards for performance evaluation of combustible gas detectors.

#### 16. FACIAL IDEN'SIFICATION

a. Report on image quality criterion for identification of faces.



#### FLC Labs - Points of Contact

Federal Aviation Administration Atlantic City, N.J. 08405 Contacts: Mr. Chris Seher, ACT 420 Research & Development Assistant Program Manager TAA Tech Center Atlantic City Airport, N.J. 08405 (609) 641-8200 X-3787 or 2506 Mr. Theo Tsacoomis, ACS 200 Program Manager FAA Headquarters Washington, D. C. (703) 426-8490

"Soft Container for Explosive Nuts." Lyndon B. Johnson Space Center Houston, TX Contact: Mr. Stan Miller New Technology Representative NASA Ames Research Center Moffet Field, CA 94035 (415) 965-6471

NBS Special Publication 480-43 Oct 1981, "Hydrocarbon Vapor Standards for Performance Evaluation of Combustible Gas Detectors." (GPO: Stock No. 003 - 003 - 02371 - 0)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0303.00 May 1974, "Image Quality Criterion for Identification of Faces." (NTIS: PB-238 855/1ST; MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### 17. FACILITIES

a. Life cycle costing of law enforcement facilities.

LESP-RPT-0801.00 Oct 1974, "Life Cycle Costing Techniques Applicable to Law Enforcement Facilities." (NTIS: PB-241 829/1ST; PC A02, MF A01)

FLC Labs - Points of Contact

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

- b. Report on law enforcement facilities -planning, design, construction.
- NBS Technical Note 859, Nov 1975, "Literature Search: Law Enforcement Facilities--Planning, Design, Construction." (NTIS: PB-248 647/OST; PC A10, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### 18. FIRING RANGES

a. Publication on standards for hearing protectors for use on firing ranges.

NILECJ-STD-0102.00 Mar 1973, "Hearing Protectors for Use on Firing Ranges." (NTIS: PB-228 670/6; PC A02, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

b. Report on the reduction of airborne lead in indoor firing ranges by using modified ammunition.

NBS Special Publication 480-26 Nov 1977, "The Reduction of Mirborne Lead in Indoor Firing Ranges by Using Modified Ammunition, " (NTIS: PB-275 062/8ST; PC A03, MF A(1)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234



30

#### Subject Areas

C. Guide on hearing protectors for use on firing ranges.

- d. Training is available on a limited basis for M-16 rifles with semi and automatic capabilities.
- The Multiple Integrated e. Laser Engagement System (MILES) is available for a few months of the year. Device can be attached to the M-16 rifle, service revolver and 12 guage shotgun. Device is a training tool to simulate actual combat conditions, indicating hits and near misses by the use of an individually worn sensor system. Ideal for "shoot/don't shoot" situations, movement under fire, range training and other police type scenarios.

## **19. FORENSIC SCIENCE**

Technical expertise a. and a facility for conducting neutron activation analysis to accurately identify components and amount in a sample of unknown composition.

#### FLC Labs - Points of Contact

NILECJ-GUIDE-0101.00 Apr 1976, "Selection Guide to Hearing Protectors for Use on Firing Ranges." (GPO: Stock No. 027 - 000 - 00427 - 0)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439 Contact: Mr. Bruce Huguelet Building 362, Room E209 Technology Transfer Manager (312) 972-3064

Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439

> Contact: Mr. Bruce Huguelet Building 362, Room E209 Technology Transfer Manager (312) 972-3064

Contact: Frank Asaro 70-103 Lawrence Berkeley Laboratory Berkeley, CA 94720 (415) 486-5433

b. Report on collections of forensic science materials.

c. Report on forensic utility of visible features of auto headlight glass.

#### FLC Labs - Points of Contact

32

LESP-RPT-0601.00 Feb 1977, "Standard Reference Collections of Forensic Science Materials: Status and Needs." (GPO: Stock No. 027-000-00444-0, price \$1.55)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

"Auto Headlight Glass: Visible Features of Forensic Utility." NBS Special Publication, Feb 1978. (GPO: Stock No. 003-003-01857-1, price \$3.00. NTIS: PB-279 053/3ST, PC A07, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

#### 20. GUNS

a. Report on handguns and handgun ammunition. NBS Special Publication 480-4 Jun 1977 LEAA Police Equipment Survey of 1972, VOL. V: "Handguns and Handgun Ammunition." (GPO: Stock No. 003-003-01747-7, price \$2.20. NTIS: COM-74-11239/2, PC A06, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

b. Information on process for restoring the onceobliterated serial number of a revolver. The process employs cavitation rather than chemical etching.

STY.

NASA Spinoff 1979, p 55. NASA Langley Research Center Hampton, VA 23665 Contact: Mr. Lester Rose Technology Utilization and Applications Office (804) 827-3281

#### Subject Areas

c. Handbook on results research on the tec niques of the crimi investigator in the performance of seri number restoration The handbook is primarily focused use on handguns but can apply to any of which have markings which have been ob. erated intentional. or unintentionally All known methods a compared, gun metal categorized and optimum methods for individual metals are described.

## 21. HANDCUFFS

- a. Publication on standards for metallic handcuffs. (New report under preparation.)
- b. Report on handcuff improvements.

#### FLC Labs - Points of Contact

s of ch- inal	"Handbook of Methods for the Restoration of Obliterated Serial Numbers." Richard Trepton, NASA CR-135322
e	
ial •	NASA Lewis Research Center 21000 Brookpark Road Cleveland, OH 44135
for	Contact:
t	Mr. Harrison Allen, Jr.
bjects	Technology Utilization Officer
s	(216) 433-4000 X-42
lit-	
ly	
•	
are	
ls	
-	· · · · · · · · · · · · · · · · · · ·
r	
are	

NILECJ-STD-0307.00 Oct 1974, "Metallic Handcuffs." (GPO: Stock No. 027-000-00292, price 65 cents)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBSIR 80-1989 Apr 1980, "A Study of Handcuff Improvements."

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234 ¢,

FLC Labs - Points of Contact

Army Armament R&D Command

Dr. H. J. Matsuguma

Dover, N.J. 07801

Building 407

(201) 328-2210

Contact:

34

22. HAZARDOUS WASTES

n na series and a series of the series of

> a. Identification and detection through sophisticated instrumental analysis of known and unknown U.S. and foreign hazardous wastes. Both routine and specialized analyses can be undertaken on both bulk samples and microscopic residues from pollutants. Expert testimony also provided, together with advice and assistance in the clean-up and disposal of hazardous wastes and deposits.

## 23. INTRUSION ALARM SYSTEMS

a. Report on terms and definitions for intrusion alarm systems. LESP-RPT-0305.00 Oct 1974, "Terms and Definitions for Intrusion Alarm Systems." (NTIS: PB-255 872/4ST; PC A02 MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234



systems.

#### FLC Labs - Points of Contact

Oak Ridge National Laboratory TU/C P. O. Box X Oak Ridge, TN 37830 Contact: Mr. Donald Jared (615) 574-4193 "Acoustic Emission Intrusion Detector" Number 300 Contact: Mr. H. T. Kite Oak Ridge Y-12 Plant Union Carbide Corp. - Nuclear Division P. O. Box X Oak Ridge, TN 37830 (615) 483-8611 X-35328 NIJ Standard - 0319.00 Aug 1980, "Metallic Window Foil for Intrusion Alarm Systems." (GPO: Stock No. 027-000-01010-5, price \$1.25) Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234 NILECJ-STD-0308.00 Mar 1977, "Sound Sensing Units for Intrusion Alarm Systems." (GPO: Stock No. 027-000-00452-1, price 45 cents) Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234 NBS Special Publication 480-34 Aug 1978, "Test Method for the Evaluation of Metallic Window Foil for Intrusion Alarm Systems." (NTIS: PB-285 118) Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

- f. Report on intruder detection using trace constituent analyses.
- g. Guide on selection and application guide to commercial intrusion alarm systems.
- h. Technical information about the Facilities Intrusion Detection System (FIDS) which is a standardized system used to protect secure areas from unauthorized access and/or unauthorized removal of protected items.

## 24. LESS-LETHAL WEAPONS

- a. Technical expertise devoted to supporting law enforcement with prime emphasis on lesslethal weapons.
- b. Technical memorandum on the evaluation of different lesslethal weapons.

#### FLC Labs - Points of Contact

NBSIR 78-1510 May 1979, "Intruder Detection Using Trace Constituent Analyses."

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-14 Aug 1979, "Selection and Application Guide to Commercial Intrusion Alarm Systems." (NTIS: PB-300-604)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

U. S. Army Mobility Equipment Research & Development Command Fort Belvoir, VA 22060 Contact: Mr. Albert R. Zushin Physical Security Equipment Division Counter Surveillance/Counter Intrusion Laboratory ATTN: DRDME-X1 (703) 664-4081

Donald O. Egner Director, USA Human Engineering Laboratory ATTN: DRXHE-CC (Mr. D. Egner) Aberdeen Proving Ground, MD 21005 (301) 278-3245/4687

"The Evaluation of Less-Lethal Weapons," Dec 1977, AMC M S Code 612716-H700011, Dec 1977 Donald O. Egner (301) 278-3245/4687

U. S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005

#### 36

#### Subject Areas

al de la servicie de la

- c. Technical memorandum on Los Angeles County Less-Lethal Task Force.
- d. Technical memorandum on testing the Modi-Pac Round, the No. 4 Lead-Shot Round, and the Flying Baton.
- e. Technical memorandum on testing and evaluation of chemical weapons.
- f. Technical memorandum on modeling for lesslethal chemical devices.
- g. Technical memorandum on scenarios for evaluating less-lethal weapons.
- h. Technical memorandum on modeling for lesslethal electrical devices.

#### FLC Labs - Points of Contact

"Los Angeles County District Attorney's Less-Lethal Weapons Task Force," Jun 1976. AMCMS Code 690000-22.11, 079, Burton S. Katz, Donald O. Egner. U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005 "Weapon Performance Testing and Analysis: The Modi-Pac Round, The No. 4 Lead -Shot Round, and the Flying Baton," Technical Memo 4-76 - Brenda K. Thein, Donald O. Egner, Ellsworth B. Shank. Jan 1976 U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005 "Testing and Evaluation of Chemical Weapons." Technical Memo 21-75, Aug 1975, Donald O. Egner and Donald Campbell. AMCMS Code 960000 U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005 "Modeling for Less-Lethal Chemical Devices." Technical Memo 2-76, Jan 1976, Donald O. Egner and Donald Campbell. U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005 "Standard Scenarios for the Less-Lethal Weapons Evaluation Model." Technical Memo 20-75, Aug 1975, AMCMS Code 690000 Donald O. Egner and Ellsworth B. Shank U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005 "Modeling for Less-Lethal Electrical Devices." Technical Memo 3-76, Jan 1976, Donald O. Egner and Larry W. Williams. U.S. Army Human Engineering Laboratory Aberdeen Proving Ground, MD 21005

#### FLC Labs - Points of Contact

38

#### 25. LIGHTING

- a. Information about high intensity lighting products used by fire and police departments in security and emergency situations.
- Report on security lighting for nuclear weapons storage sites.

High Intensity Arc Radiation (Personnel Contractor, TEF 561, Case No. 109327 6/80) Contact: Mr. Stan Miller New Technology Representative NASA Ames Research Center Moffet Field, CA 94035 (415) 965-6471

NBS Special Publication 480-27 Nov 1977, "Security Lighting for Nuclear Weapons Storage Sites: A Literature Review and Bibliography." (NTIS: PB-274 998/4ST; PC A03, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

#### 26. MATERIALS IDENTIFICATION

a. Paper on a technique for the identification of the origin of materials, or the determination of whether specific evidence are of the same origin. "Characterization of Materials by Means of Neutron Activation Analysis." Edward Sayre, Chemistry Department, Brookhaven National Laboratory Contact: James S. Munson ORTA Building 475 Brookhaven National Laboratory

Upton, N.Y. 11973 (516) 282-2019

#### **27. NIGHT VISION DEVICES**

a. Report on evaluating the image quality of objective lenses for night viewing devices. LESP-RPT-0304.00 May 1974, "Simplified Procedures for Evaluating the Image Quality of Objective Lenses for Night Vision Devices." (NTIS: PB-238 567/2ST, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

#### Subject Areas

- b. Report on image quality criteria for passive night vision systems.
- c. Report on testing procedure for night vision devices.
- d. Report on forward looking infrared (FLIR) system for night helicopter operations.
- e. Report on night helicopter operations Containing information for flight crews on training and night vision goggles.
- f. Training guide for helicopter night flying for use of night vision goggles.
- g. Publication on standards for passive, first generation night vision devices.

#### FLC Labs - Points of Contact

an an search a bha ann an suir an suir an suir ann an suir an Annar ann ann Annar Marigennach annachtaire an suir suir Starach an an suir an suir an suir an suir an suir an s

lity LESP-RPT-0301.00 Jun 1974, "Survey of ve Image Quality Criteria for Passive 5. Night Vision Devices."

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0302.00 Jul 1974, "Test Procedures for Night Vision Devices." (NTIS: PB-255 902/9ST; PC A03, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

"Night Helicopter Operations," Jul 1975.

ns. Equipment Development Center San Dimas, CA 91773

i- "Night Helicopter Operations," Aug 1975.

ion Forest Service USDA Equipment Development Center San Dimas, CA 91773

> "Helicopter Night Flying - Flight Training for Use of Night Vision Goggles," Apr 1977, M07757 1801

Forest Service USDA Equipment Development Center San Dimas, CA 91773

NILECJ-STD-0304.00 Jun 1975, "Passive, First Generation Night Vision Devices." (GPO: Stock No. 027-000-00325-7 price 30 cents)

> Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C.20234

- h. Publication on standards for active night vision devices.
- i. Short-term assistance is available for image intensification, thermal, or infrared devices as well as for low powered laser devices used for accurately determining ranges. Demonstrations of various devices may also be arranged.
- j. "Star-tron Mk 303A Passive Night Vision Systems available on a minimum loan basis. System is hand-held and can be mounted on the M-16 rifle. A limited amount of training can be made available.

#### FLC Labs - Points of Contact

NILECJ-STD-0305.00 Jun 1975, "Active Night Vision Devices."

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

40

Night Vision and Electro-Optics Laboratory Fort Belvoir, VA 22060 Contact: Mr. Richard W. Fulton Technology Transfer Agent (703) 664-5605

Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439 Contact: Mr. Bruce C. Huguelet Building 362, Room E209 Technology Transfer Manager (312) 972-3064

#### 28. PERSONAL ALARMS

a. Information about a silent sentry communications alarm network. Its principal elements are a pearshaped signaling device working on ultrasonic signals, and a system of receivers interconnected with a constantly monitored master console. For use in correctional institutions, court houses, industrial facilities and public buildings.

NASA Spinoff 1980, P 76.

NASA Langley Pesearch Center Hampton, VA 23665 Contact: Mr. Lester Rose Technology Utilization and Applications Office (804) 827-3281

#### Subject Areas

## 29. PERSONNEL

a. Report on anthropometry of law enforcement officers.

- Expertise in the design and development of recruiter selection instruments.
- c. Expertise in developing objective strength and stamina requirements demanded by occupational tasks.
- d. Expertise in assimilation and utilization of women and minority personnel.
- e. Expertise in developing physical security job requirements relating to the performance efficiency and reliability of the guard force.

#### FLC Labs - Points of Contact

LESP-RPT-0701.00 Dec 1976, "Anthropometry of Law Enforcement Officers." (GPO: Stock No. 027-000-00458-0 Price \$3.30. NTIS: ADA-017 066/2ST; PC A12, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

esign Navy Personnel Research and Development Center San Diego, CA 92152 Contact: Mr. Harold H. Rosen Code 303 (714) 225-7450/7286

ping Navy Personnel Research and Development and Center s San Diego, CA 92152 Contact: Mr. Harold H. Rosen Code 303 (714) 225-7450/7286

Ia-Navy Personnel Research and Development Center San Diego, CA 92152 Contact: Mr. Harold H. Rosen Code 303 (714) 225-7450/7286

Ding Navy Personnel Research and Development Center San Diego, CA 92152 Contact: Mr. Harold H. Rosen Code 303 (714) 225-7450/7286

ار جمیر در در <sup>ای</sup> اصحاف از محمد میشود به ماند که موجود میرد. میرود از موجود از معروف از معاور ماند و که است. در از محمد میرود از معاوم از معاور میرود میرود میرود میرود از معاور میرود از معاور میرود از معاور میرود میرود میرو

#### FLC Labs - Points of Contact

42

#### **30. PERSONNEL DETECTION**

a. Technical support available in techniques and experience with various experimental and production systems. Included are sensors and systems for detection and classification of intruders such as:

> Buried cable sensors Fence mounted sensors Infrared mosaic imagery cameras Electronic techniques for intruder classification Look-up sensors for low altitude aircraft.

- b. Information and expertise on advanced electromagnetic techniques and sensors for detecting, locating and classifying targets. Research and development concerning generation, propagation, and detection of ultraviolet, visible and infrared portions of the electromagnetic spectrum.
- c. Electromagnetic, infrared, and optical detection expertise and equipment available for use in personnel detection.
- d. Expertise in area of infra-red detection.

Rome Air Development Center/IRRA Griffess AFB New York, NY 13441 Contact: Capt. Joe Nelson, USAF (315) 330-7672

Naval Surface Weapons Center White Oak Silver Spring, MC 20910 Contact: Mr. C. W. Lufcy Code R43 Electromagnetics Branch Chief (202) 394-2725 Mr. D. L. Love Code R42 Electro-Optics Branch Chief (202) 394-1974

Naval Weapons Center China Lake, CA 93555 Contact: Mr. George F. Linsteadt Head, IR&D/Technology Utilization Code 3803 (714) 939-2305/2575

Air Force Weapons Laboratory AFWL/SUR Kirtland AFB, NM 87117 Contact: Ms. Margaret Putnam AFW1 STINFO Officer (505) 844-4293



d. Expertise in accident photography.

#### FLC Labs - Points of Contact

LESP-RPT-0307.00 Oct 1975, "Photographic Terms and Definitions." (GPO: Stock No. used in law enforcement. 027-000-00373-7, Price \$2.00)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Department of the Army U.S. Army Engineer Topographic Laboratories Fort Belvoir, VA 22060 Contact: Mr. Kenneth R. Kothe Director, Programs and Resources (703) 664-4812

LESP-RPT-0310.00 Feb 1977, "A Simple Test for Evaluating the Spectral Responsivity of Monochrome Television Cameras." (GPO: Stock No. 027-000-00445-8, Price 80 cents)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Lawrence Livermore National Laboratory University of California Livermore, CA 94550 Contact: Mr. Robert G. Purrington, Fire Chief LLNL-P. O. Box 5505 L-384 Livermore, CA 94550

(415) 422-5241

## Subject Areas e. Report on image quality of monochrome television cameras. f. Report on juror response to prerecorded videotape trials. g. Report on transfer of monochrome video information from magnetic tape to motion picture film for archival storage. h. Guide on selection and application guide to fixed surveillance cameras. PC A03, MF A01) i. Guide on selection and application of police photographic equipment.

j. Loan of photographic equipment including standard cameras (35mm), binocular cameras, movie cameras, and a complete video-tape system.

#### FLC Labs - Points of Contact

NBS Special Publication 480-25 Oct 1977, "Image Quality of Monochrome Television Cameras." (NTIS: PB-273 117/2ST PC A02, MF A01)

Law Enforcement Standard Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-30, Jun 1979, "Juror Response to Prerecorded Videotape Trials." (NTIS: PB-297 642)

Law Enforcement Standard Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-31 May 1978, "Transfer of Monochrome Video Information from Magnetic Tape to Motion Picture Film for Archival Storage." (NTIS: PB-281 929)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-GUIDE-0301.00 Dec 1974, "Selection and Application Guide to Fixed Surveillance Cameras." (NTIS: PB-241 830/9ST;

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-23 Aug 1980, "Selection and Application Guide to Police Photographic Equipment." (NTIS: PB-81-103301)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439 Contact: Mr. Bruce C. Huguelet Technology Transfer Manager Building 362, Room E209 (312) 972-3064

Subject Areas

## 32. PHYSICAL SECURITY SYSTEMS

- for physical security of window units.
- b. Publication on standards for physical security of door assemblies and components.
- c. Publication on standards for physical security of sliding glass door units.
- d. Technical data sheet on high security hasps.

e. Technical data sheet on prevention of forced entry.

44

Section 1

The state

- C 197

ann and

to some initial

The same the

a. 77

Dave Sel

#### FLC Labs - Points of Contact

a. Publication on standards NIJ Standard-0316.00 Aug 1980, "Physical Security of Window Units." (GPO: Stock No. 027-000-01018-1, Price \$1.50)

ne provinské předstale skulter skulterie s složenské politik politik zaklete s politik politik storovec provin

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NILECJ-STD-0306.00 May 1976, "Physical Security of Door Assemblies and Components." (GPO: Stock No. 027-000-00402-4, Price 85 cents)

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NIJ Standard-0318.00 Aug 1980, "Physical Security of Sliding Glass Door Units." (GPO: Stock No. 027-000-01039-3, Price \$1.50)

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

"High Security Hasps for Naval Environments." Technical Data Sheet 76-08R, Dec 1977

> Naval Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Mr. Ken Gray Code L64 (805) 982-5927/4284

"Prevention of Forced Entry." Technical Data Sheet 81-07, Aug 1981.

Naval Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Ms. Bettye Keame Code L64 (805) 982-5927

- f. Technical data sheet on reducing damage to roof drainage downspouts caused by vandalism.
- g. Technical data sheet on reinforcement system for chain-link gates.

- h. Technical data sheet on key operated security locks and hasps.
- i. Technical data sheet on locks for use in achieving physical security.
- j. Report on terms and definitions for door and window security.

#### FLC Labs - Points of Contact

"Roof Drainage Down Spouts." Technical Data Sheet 80-035, Dec 1980.

Naval Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Mr. Gary Cook L64 (805) 982-5927/4284

"Reinforcement System for Chain-link Gates." Technical Data Sheet 78-40R, May 1979.

Naval Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Mr. Ken Gray Code L64 (805) 982-5927/4284

"Key-Operated Security Locks and Hasps." Technical Data Sheet 77-07R, May 1979.

Naval Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Mr. Ken Gray Code L64 (805) 982-5927/4284

"Physical Security at Facilities." Technical Data Sheet 76-14, Oct 1976.

Civil Engineering Laboratory Port Hueneme, CA 93043 Contact: Mr. Ken Gray Code L64 (805) 982-5927

NBS Special Publication 480-22 May 1977, "Terms and Definitions for Door and Window Security." (NTIS: PB-267 869/ 6ST; PC A02, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

46

 Report on vigilance research and nuclear security: critical review and potential applications to security guard performance.

Subject Areas

behavioral science

in physical security.

k. Report on role of

#### FLC Labs - Points of Contact

المنافع المحافظ والمحافظ المحاف المحاف المحافيات المحافية المحافية المحافية المحافية المحافية والمحافية المحافية محافية المحافية ال

NBS Special Publication 480-24, Nov 1977, "The Role of Behavioral Science in Physical Security, Proceedings of the First Annual Symposium, April 29-30, 1976." (NTIS: PB-275 540/357; PC A06, MF A01)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-32 Jun 1978, "The Role of Behavioral Science in Physical Security. Proceedings of the Second Annual Symposium, March 23-24, 1977." (NTIS: PB-283 927)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-38, Dec 1979, "The Role of Behavioral Science in Physical Security. Proceedings of the Third Annual Symposium, May 2-4, 1978." (NTIS: PB80-148661)

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBSIR 81-2207R, Feb 1981, "The Role of Behavioral Science in Physical Security. Proceedings of the Fourth Annual Symposium, July 25-26, 1979."

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234

NBS-GCR-80-201 Jun 1980, "Vigilance Research and Nuclear Security: Critical Review and Potential Applications to Security Guard Performance."

Law Enforcement Standards Laboratory(LESL) National Bureau of Standards Washington, D. C. 20234 .

m. Technical information about Covert Duress Alarm System (CDS) which is an advanced approach in the area of physical protection and represents an essential component of an effective quard response capability. Tested at Livermore and Sandia National Laboratories.

- n. Technical expertise and information about the design and operation of the electronic security systems employed at the 1980 Winter Olympics at Lake Placid, New York.
- o. Technical consultation on hardware and software of security radar for bases and installations. Further development of systems can be accomplished for local agencies if funding is provided.
- p. Variety of devices, tools, and expert consultants to assist on any area pertaining to locking devices.

FLC Labs - Points of Contact

48

U. S. Army Mobility Equipment Research & Development Command Fort Belvoir, VA 22060 Contact: Mr. Robert Reich Components Branch Physical Security Equipment Division CS/Cl Laboratory ATTN: DRDME-X1 (703) 664-5584

U.S. Army Mobility Equipment Research & Development Command Fort Belvoir, VA 22060 Contact: Colonel Cornell, Project Manager Physical Security Equipment USAMERADCOM ATTN: DRME-PSE (703) 664-5794

Harry Diamond Laboratories 2800 Powder Mill Road Adelphi, MD 20783 Contact: Mr. Clifford Lanham (202) 394-2296

Argonne National Laboratory 9700 So. Cass Avenue Argonne, IL 60439 Contact: Mr. Bruce C. Huquelet Technology Transfer Manager Building 362, Room E209 (312) 972-3064

Subject Areas

## **33. PROTECTIVE CLOTHING**

- a. Report on standards for ballistic resistant protective materials in press.
- b. Information about improved protective gear for fire fighters against heat, flame, moisture, impact, and penetration.
- C. Information about a high-impact face mask for possible use by riot-control police.
- Information about a d. ballistic sport coat of a 3-button, single breasted commercial type made by a custom clothing manufacturer and available in a variety of sizes and colors.
- e. Information about a ballistic raincoat of a single breasted fly front, split shoulder quarter lined type with convertible collar, two inside pockets and outside diagonal welts. Available in all sizes and lengths in tan or black.

#### FLC Labs - Points of Contact

NIJ Standard-0108.00, "Ballistic Resistant Protective Materials."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

"Improved Clothing for Fire Fighters." Marshall Space Flight Center, AL Contact: Mr. Stan Miller New Technology Representative

NASA Ames Research Center Moffett Field. CA 94035 (415) 965-6471

"Lightweight Face Mask," LAR-12803. Langley Research Center Hampton, VA 23665 Contact: Mr. Lester J. Rose Technology Utilization and Applications Program Office  $(80\overline{4})$  827-3281

U.S. Army Natick Research and Development Command Natick, MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer ATTN: DRDNA (617) 633-5446

U.S. Army Natick Research and Development Command Natick, MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer ATTN: DRDNA (617) 633-5446

a da en el como de la companya de la En esta de la companya de la company

- f. Information about front and back inserts for body protection to be worn with body armour vest or separately.
- g. Information about an over-the-head type undergarment for small arms protection with tails for tucking into the trousers and removable back and front 9-ply ballistic protective inserts.
- h. Information about an over-the-head type undergarment designed for Drug Enforcement Administration female agents. Available in 8 sizes and should fit most female law enforcement personnel.
- i. Information about a raid jacket of a single breasted, hip length design developed to provide small arms penetration protection. Available in 4 sizes to fit most law enforcement personnel.

#### FLC Labs - Points of Contact

50

U.S. Army Natick Research and Development Command Natick. MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer AT'IN: DRDNA (617) 633-5446

U.S. Army Natick Research and Development Command Natick, MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer ATTN: DRDNA (617) 633-5446

U.S. Army Natick Research and Development Command Natick, MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer ATTN: DRDNA (617) 633--5446

U.S. Army Natick Research and Development Command Natick, MASS 01760 Contact: Mr. Anthony Pingiaro Clothing Designer ATTN: DRDNA (617) 633-5446

#### Subject Areas

## 34. RECORDS MANAGEMENT

- a. Information on a video file for law enforcement. With this computerized system the actual document is recorded, complete with photos and graphic material, and a picture of the document is available instantly.
- b. Information about the design and operation of an image capture and analysis system developed for high-speed document scanning. This project is supporting the U.S. Postal System in achieving an electronic message service capability.

### 35. RESEARCH

- Information about ona. going research projects in the following areas:
  - The Evaluation of Selected Genetically Controlled Polymorphic Enzymes and Proteins Present in Human Blood for Bloodstain Individualization
  - Detection of ABO Blood Group Substances in Hair
  - An Assessment of the Applicability of Isoelectric Focusing to Routine Bloodstain Analysis

#### FLC Labs - Points of Contact

المراجع المراجع المراجع المراجع المراجع المراجع والمراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع

51

NASA Spinoff 1977, P 77.

NASA Langley Research Center Hampton, VA 23665 Contact: Mr. Lester Rose Technology Utilization and Applications Office (804) 827-3281

Naval Ocean Systems Center San Diego, CA 92152 Contacts: Mr. F. C. Martin (714) 225-7980

Mr. L. A. Wise (714) 225-2742

Mr. R. W. Basinger (714) 225-2742

Federal Bureau of Investigation Department of Justice FBI Laboratory FBI Academy Quantico, VA 22135 Contact: Dr. Eugene Rieder (703) 640-6131

FLC Labs - Points of Contact

52

Sex Determination of Forcibly Removed Hairs by Means of Chromosome Staining Assessment of Use of PGM Subtyping by Electrophoresis on Agarose Gel in Routine Forensic Analysis Assessment of the Applicability of Electrophoretic Analysis on Agarose Gel of Carbonic Anhydrase and Peptidase As Forensic Tools Seminal Plasma Specific Antibody Development of HPLC System for Steroids Separation Analysis of Explosives by Ion Chromatography Analysis of Explosive Residues by Ion Chromatography Detection of Cyanide and Its Reaction Products in Human Tissues by Ion Chromatography Survey of Analytical Methods in Grease and Oil Analysis: Use of Liquid and Gas Chromatography.

#### 36. RIOT CONTROL

a. Publication on standards for portable ballistic shields.

b. New test report under preparation on riot and crash helmets.

NILECJ-STD-0103.00 May 1974, "Portable Ballistic Shields." (NTIS: PB-238 604/3ST; PC A02)

Law Enforcement Standards Laboratory (LES National Bureau of Standards Washington, D. C. 20234

Sponsored by Technology Assessment Program Information Center (TAPIC), National Institute of Justice (NIJ)

Law Enforcement Standards Laboratory (LI National Bureau of Standards Washington, D. C. 20234

#### Subject Areas

M-17 protective mas C. (qas masks) availab to loan on an emerge basis. Masks are fo the protection agai riot-control agents Cannot be used for atmospheres or oxyge starved atmospheres Training is available by appointment.

#### **37. SECURITY CONSULTANTS**

a. Directory of security consultants.

#### **TUNNEL DETECTION** 38.

a. Expertise and information on new hardware developments for detection of cavities and voids.

## **39. VEHICLES**

a. Report on terms and definitions used for police cars.

#### FLC Labs - Points of Contact

sks	Argonne National Laboratory
ole	9700 So. Cass Avenue
gency	Argonne, IL 60439
Eor	Contact:
inst	Mr. Bruce C. Huguelet
5	Building 362, Room E209
toxic	Technology Transfer Manager
jen-	(312) 972-3064
5.	

LESP-RPT-0309.00 Oct 1975, "Directory of Security Consultants."

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

U.S. Army Mobility Equipment Research & Development Command Fort Belvoir, VA 22060 Contact: Mr. Frank Tremain Sensors & Surveillance Division Counter Surveillance/Counter Intrusion Laboratory ATTN: DRME-XS (703) 664-5876

LESP-RPT-0401.00 May 1974, "Terms and Definitions for Police Patrol Cars." (NTIS: PB-238 312/OST; PC A02, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

b. Report on state of the art of police patrol cars.

- c. Information about an emergency lighting system with an extendable mast for the rooftop of emergency vehicles. Beacon visible for several miles and most are retractable.
- d. Report on review of emergency vehicle warning devices.

e. Report on emergency vehicle sirens.

f. Report on automatic vehicle location techniques.

FLC Labs - Points of Contact

54

LESP-RPT-0403.00 Jul 1975, "The Police Patrol Car: State of the Art." (GPO: Stock No. 027-000-00345-1, Price \$1.10) (NTIS: PB-249 774/1ST; PC A04, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NASA Spinoff 1980, P 79.

NASA Langley Research Center Hampton, VA 23665 Contact: Mr. Lester Rose Technology Utilization and Applications Office (804) 827-3281

LESP-RPT-0501.00 May 1972, "Emergency Vehicle Warning Devices: Interim Review of the State of the Art Relative to Performance Standards." (NTIS: PB-211 938; PC A05, MF A01)

Law Enforcement Standards Laboratory (IESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0502.00 Sep 1974, "Summary Report on Emergency Vehicle Sirens."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

LESP-RPT-0205.00 Sep 1974. "Automatic Vehicle Location Techniques for Law Enforcement Use."

Law Enforcement Standards Laboratory (LESI) National Bureau of Standards Washington, D. C. 20234

Subject Areas

q. Report on state of the art of emergency vehicle warning lights.

h. Report on investigation of the high speed hazards of steel belted radial tires on police patrol cars.

i. Report on the economic efficiency of acquisition, operation and disposition of police patrol cars.

j. Report on the development and testing of a highly directional dual-mode electronic sirer.

#### FLC Labs - Points of Contact

"Emergency Vehicle Warning Lights -

State of the Art." NBS Special Publication 480-16 Sep 1978. (GPO: Stock No. 003-003-01901-1, Price \$3.50. NTIS: PB-289-723)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

"Report on an Investigation of the High Speed Hazards of Steel Belted Radial Tires on Police Patrol Cars." NBS Special Publication 480-18, June 1977 (GPO: Stock No. 003-003-01786-8, Price \$1.60. NTIS: PB 268 511/3ST; PC A03, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

"The Police Patrol Car: Economic Efficiency in Acquisition, Operation, and Disposition." (GPO: Stock No. 003-003-01837-6, Price \$3.00. NTIS: PB-257 466/3ST; PC Al0, MF A01, NBS Special Publication 480-15, April 1978.

> Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-28 Feb 1978, "The Development and Testing of a Highly Directional Dual-Mode Electronic Siren." (NTIS: PB-280 618)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### k. Report on some psychophysical tests of the conspicuities of emergency vehicle warning lights.

Subject Areas

- 1. Report on emergency vehicle warning systems.
- m. Report on methods of suppressing automotive interference.

n. Report on field strength measurements of speed measuring radar units.

o. Report on the characterization of auto headlights glass by refractive index and density.

2,3

FLC Labs - Points of Contact

56

NBS Special Publication 480-36 Jul 1979, "Some Psychophysical Tests of the Conspicuities of Emergency Vehicle Warning Lights." (GPO: Stock No. 003-003-02085-1)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-37 May 1981, "Emergency Vehicle Warning Systems." (NTIS: PB81-219396)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBS Special Publication 480-44 Dec 1981, "Methods of Suppressing Automotive Interference."

Law Enforcement Standards Laboratory (LESL) National Barcau of Standards Washington, D. C. 20234

NBSIR 81-2225 May 1981, "Field Strength Measurement of Speed Measuring Radar Units."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

NBSIR 81-2286 Oct 1981, "The Characterization of Auto Headlights Glass by Refractive Index and Density."

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

#### Subject Areas

p. Guide on high speed patrol car tires.

## 40. WATER SURVEILLANCE

- a. Equipment and expertise to apprehend poachers. Now in use on the Columbia River. Includes night vision devices, underwater detection devices, surveillance craft, and underwater monitoring. With modifications for locale, this technology could prove useful in monitoring the oyster, shrimp, clam and lobster industries as well as for salmon.
- b. Information about the use of pigeons for the over-the-water search phase of at sea rescues. The probability of detection was increased by a factor of 2.4 during sea trials.

## **41. WEAPON DETECTION**

a. Report on tests of hand-held metal weapons detectors.

#### FLC Labs - Points of Contact

NBS Special Publication 480-33 Jul 1979, "Guide to High Speed Patrol Car Tires." (NTIS: PB-298 273)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

Naval Underwater Systems Center New London Laboratory New London, CT 06320 Contact: Mr. Michael C. Ahrens Code 0702 Head, Office of Special Programs Development (203) 447 - 4908

Naval Ocean Systems Center San Diego, CA 92152 Contacts: Mr. J. V. Simmons (808) 254-4439 (H1)

> Dr. J. M. Stallard (808) 254-4377 (H1)

LESP-RPT-0603.00 Mar 1977, "Tests of Hand-Held Metal Weapon Detectors." (GPO: Stock No. 027-000-00454-7, price 35 cents)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234



for hand-held metal detectors for use in weapons detection.

Subject Areas

for walk-through metal

detectors for use in weapons detection.

c. Publication on standards

d. A number of "electro Search," hand-held, metal detector's of the hairpin loop type and powered by two, 9volt batteries. Could be loaned on an emergency basis. Training in the use and care of the equipment could be made locally available.

#### 42. OTHER

a. Directory of law enforcement and criminal justice associations and research centers. NBS Special Publication 480-20 March 1978, "Directory of Law Enforcement and Criminal Justice Associations and Research Centers," (NTIS: PB-279 246/ 3ST; PC A04, MF A01)

Law Enforcement Standards Laboratory (LESL) National Bureau of Standards Washington, D. C. 20234

b. Report on survey of clothing requirements for uniformed law enforcement officers.





