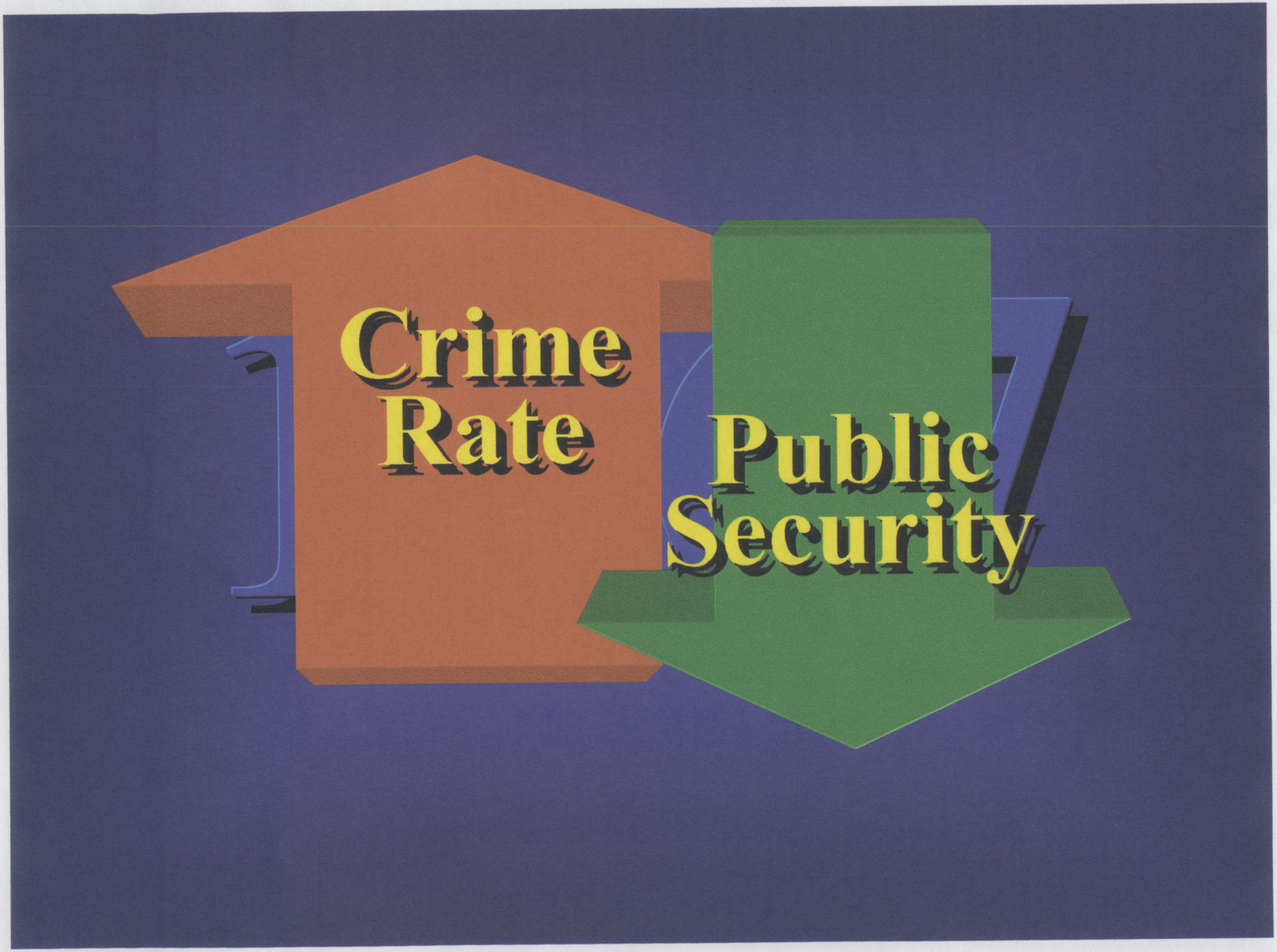
Office of Law Enforcement Standards
(OLES)

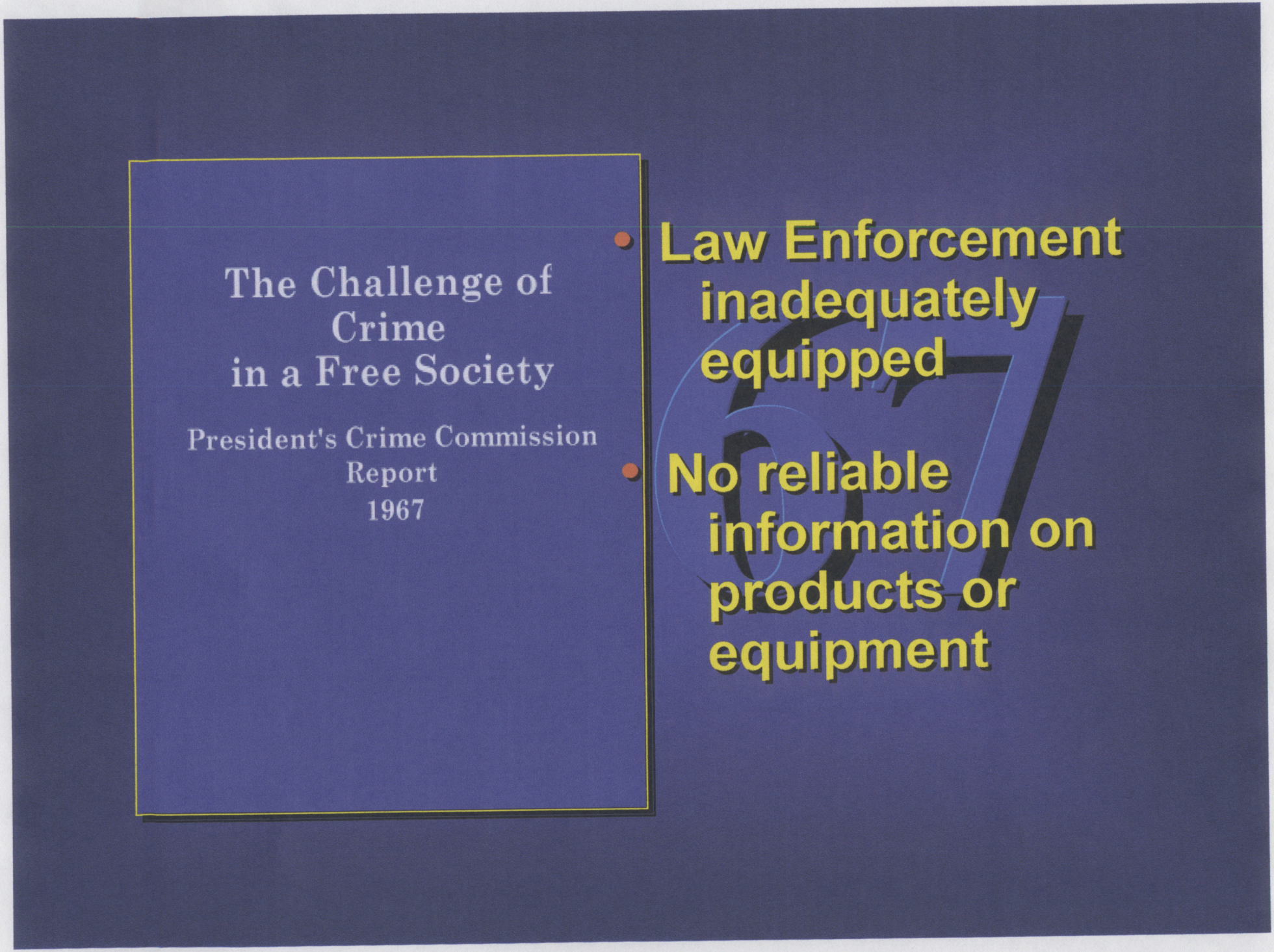
Introduction & Overview

A presentation for the
NIOSH/SBCCOM Public Meetings
18-20 June 2002

Office of Law Enforcement Standards

NIST


Crime Rate
Public Security


The Challenge of Crime in a Free Society
President's Crime Commission Report
1967
Law Enforcement inadequately equipped
No reliable information on products or equipment
67


100% Relia
$ $ $ $ $
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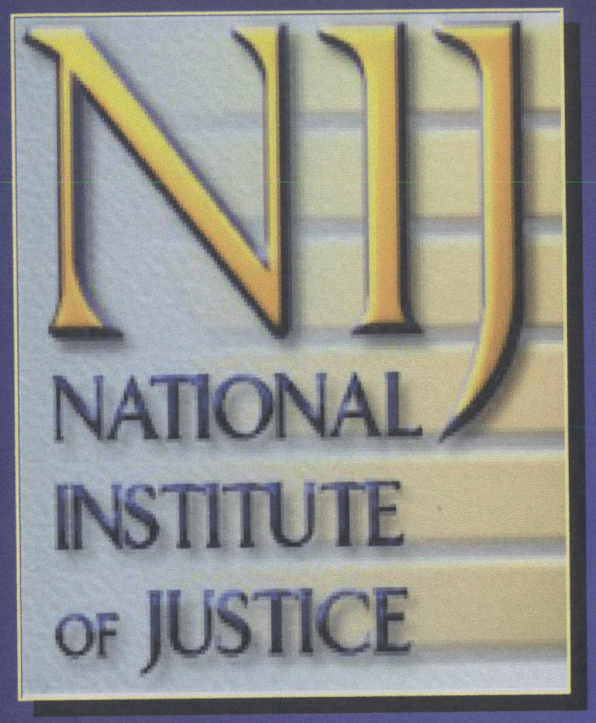
Safest
$ $ $ $ $


NIJ
NATIONAL
INSTITUTE
OF JUSTICE
NIST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OF JUSTICE


OFFICE OF LAW ENFORCEMENT STANDARDS
OLES

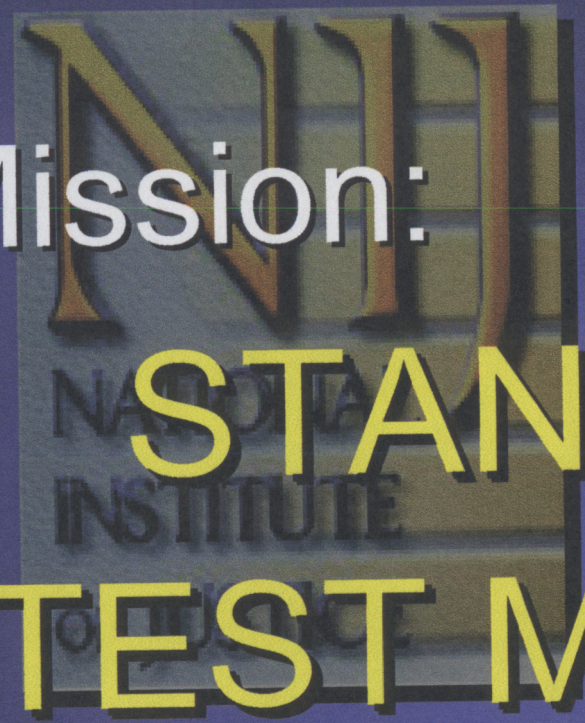
- Matrix management organization
- Help identify needs
- Design projects to meet needs
- Find ways to get projects done

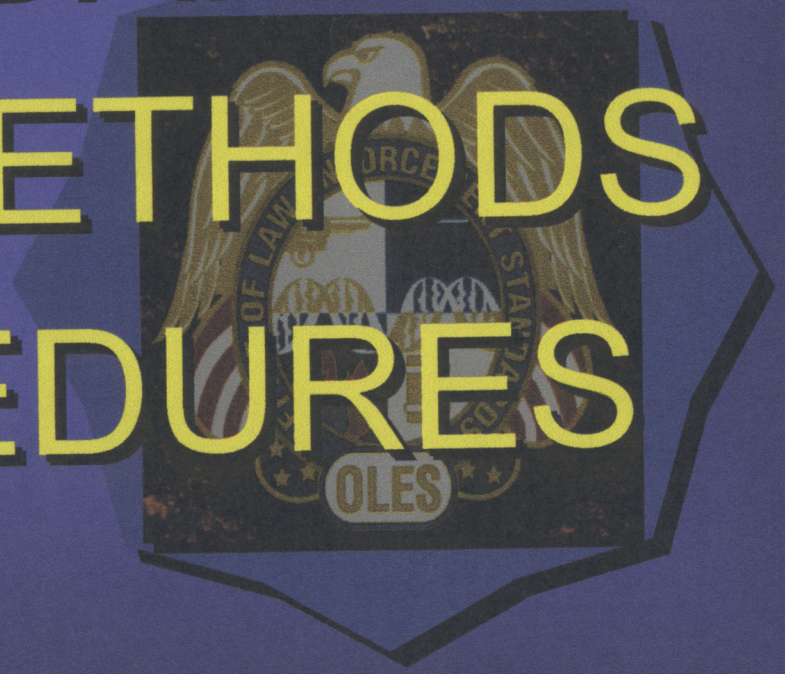
Office of Law Enforcement Standards (OLES)

- Chemical Systems and Materials
- Weapons and Protective Systems
- Detection, Inspection and Enforcement Technologies
- Forensic Sciences
- Critical Incident Technologies
- Public Safety Communications Standards

Mission:

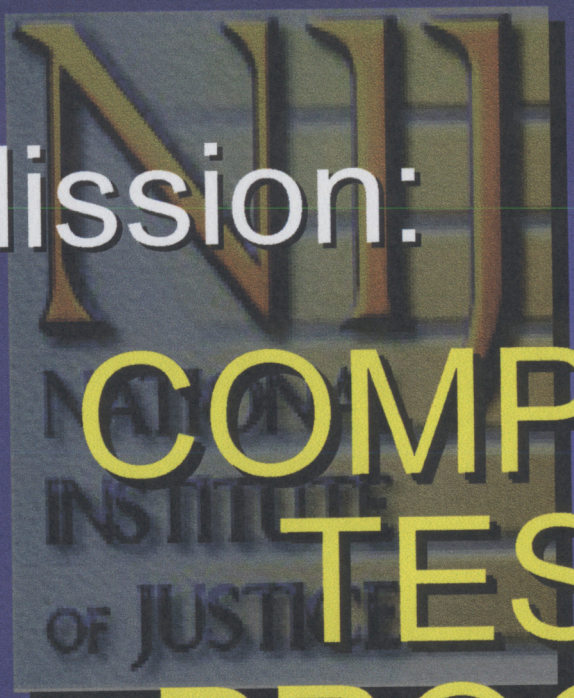
STANDARDS
TEST METHODS
PROCEDURES

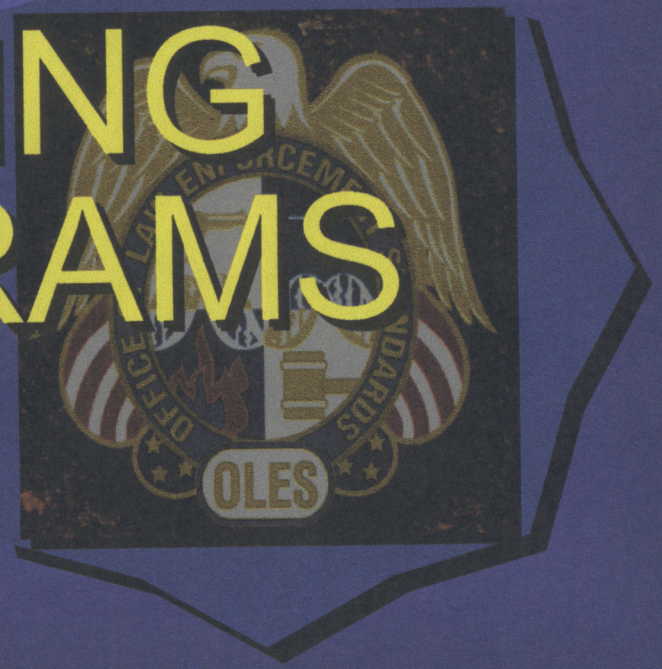




Mission:

COMPLIANCE TESTING PROGRAMS

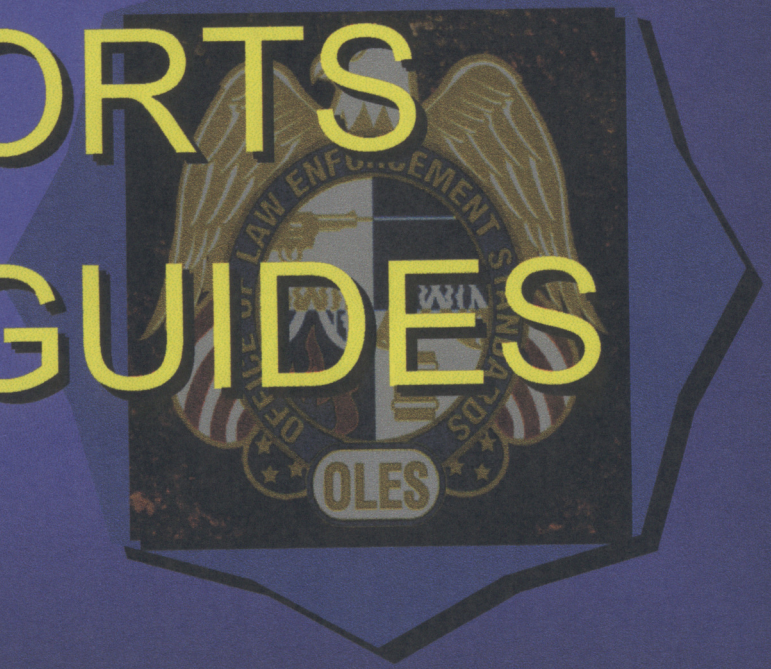


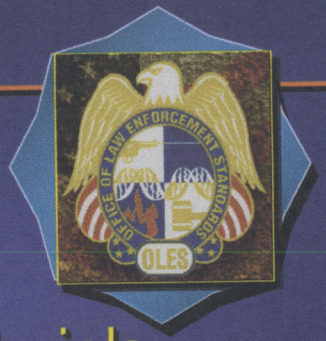


Mission:

TECHNICAL REPORTS

USER GUIDES

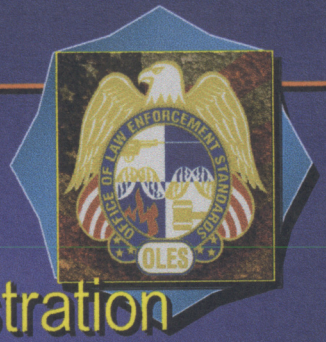




- American Society for Testing & Materials
- Armor & Protective Systems Working Group
- Bureau of Alcohol, Tobacco & Firearms
- Department of Defense
- DOD, Computer Forensics Laboratory
- DOJ, Office of Domestic Preparedness
- Federal Aviation Administration
- Federal Bureau of Investigation

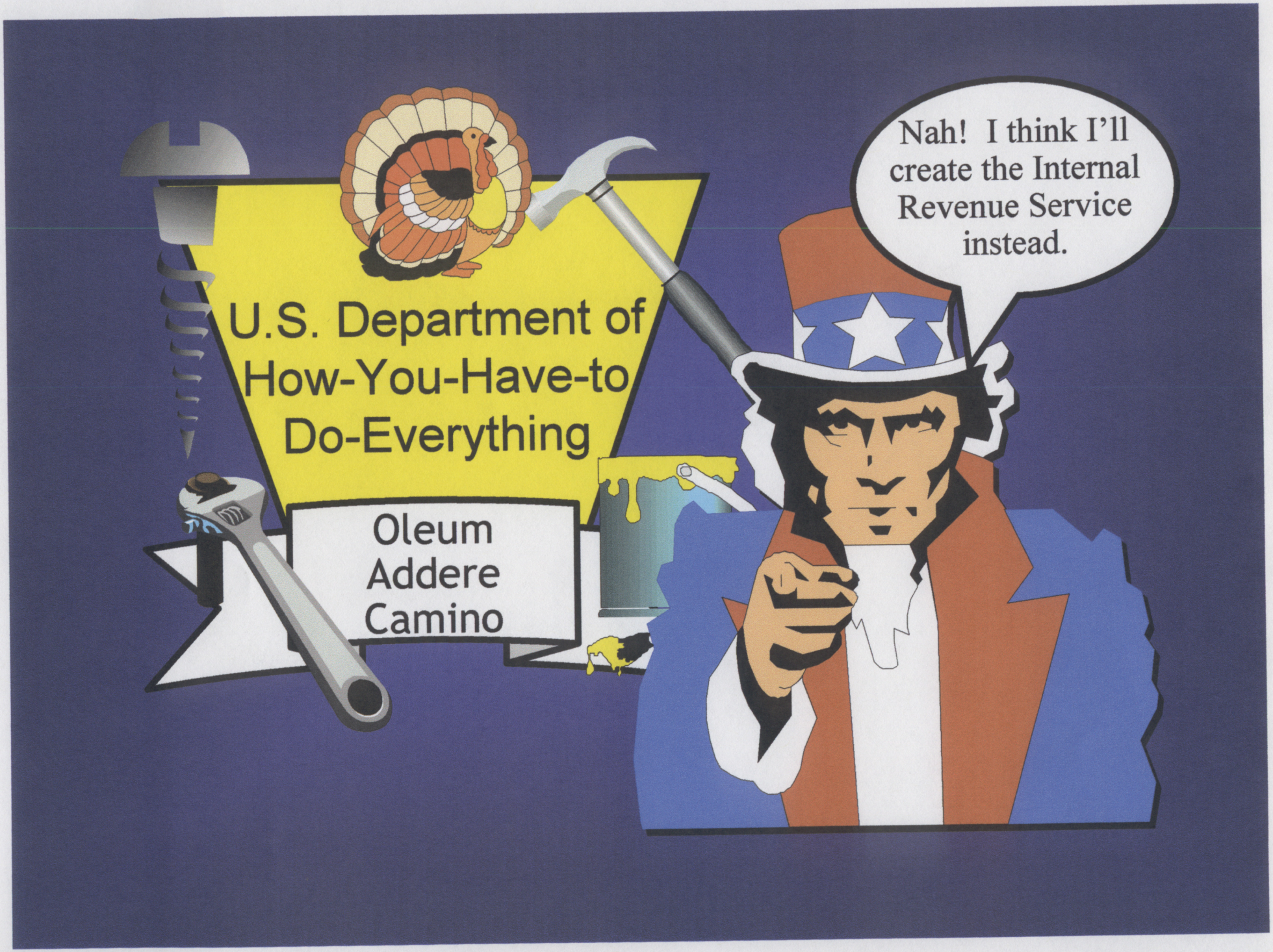
- Institute for Telecommunication Sciences, Telecommunications & Information Administration
- InterAgency Board for Equipment Standardization & InterOperability
- National Cybercrime Training Partnership
- National Fire Protection Association
- National Institute for Occupational Safety & Health
- National Institute of Justice
- NIST Measurements & Standards Laboratories

PARTNERS



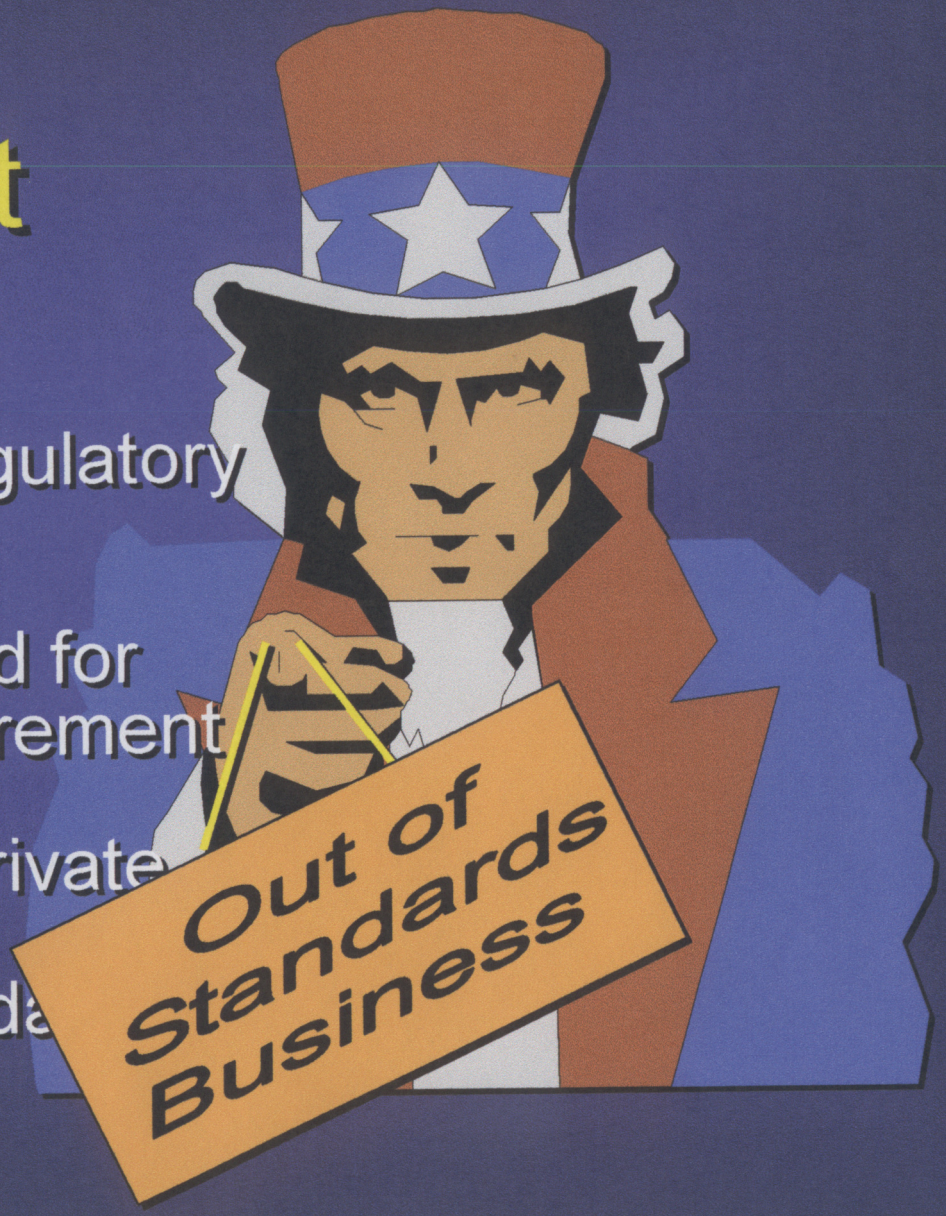
PARTNERS

- Occupational Safety & Health Administration
- Police Scientific Development Branch, U.K.
- Royal Canadian Mounted Police
- Technical Support Working Group
- United States Army (SBCCOM)
- United States Secret Service
- University of Utah, Center for Human Toxicology
- University of Virginia
- White House Office of Science and Technology Policy


U.S. Department of
How-You-Have-to
Do-Everything
Oleum
Addere
Camino
Nah! I think I'll create the Internal Revenue Service instead.

Federal Government Standards

- Thousands for regulatory and military use
- New ones created for every new requirement
- Often duplicate private sector voluntary consensus standa



National Technology Transfer and Advancement Act

- Federal agencies must use voluntary consensus standards
- Federal agencies participate in process


ANSI
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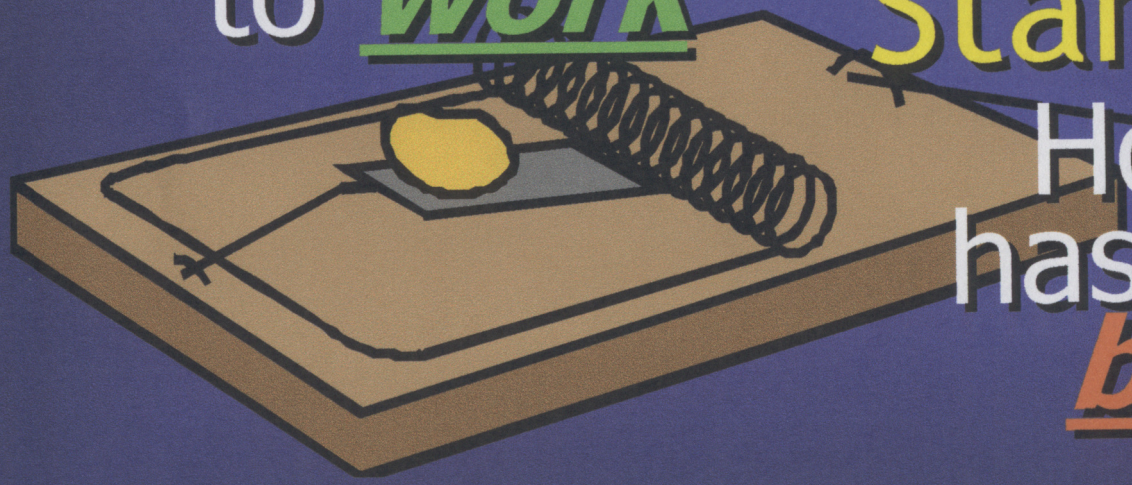
NATIONAL INSTITUTE JUSTICE
State & Local Agencies
Federal Agencies
DoD
OFFICE OF LAW ENFORCEMENT STANDARDS
OLES
Other Standards Organizations
ASTM


Minimum
performance
standards

Performance Standards

How well it has to ***work***



Design Standards

How it has to be ***built***


"Out of Many, One"
Local, State, and Federal Standardization and InterOperability
IAB
THE INTERAGENCY
SEL

"Most commodity SubGroups have realized that all equipment that falls in the individual equipment categories will not provide suitable levels of field performance."

1999 IAB Annual Report

STANDARDS COORDINATION COMMITTEE

NFPA® INTERNATIONAL

NIOSH

- Committee's Executive Agent
- Arbiter, Coordinator & Administrator

CBRNE Equipment Standards
TECHNICAL CHALLENGES

- Existing standards inadequate hybrids of industrial/military standards
- CBRNE agents different from industrial hazards
- Domestic incidents different from battlefield situations

CBRNE Equipment Standards
TECHNICAL CHALLENGES

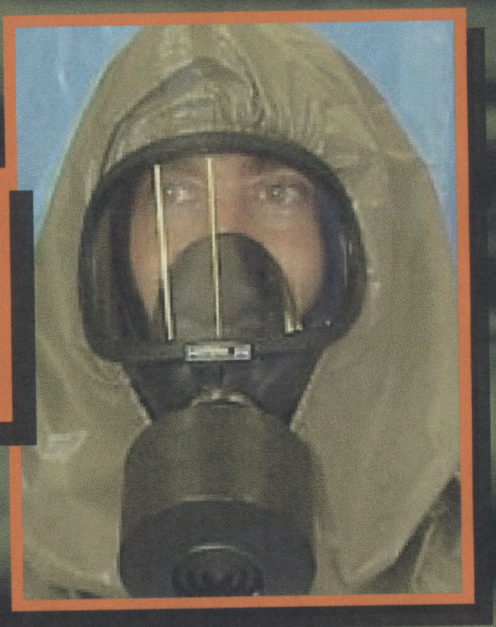
- Specific threats and exposures not characterized
- Systematic identification and measurement lacking
- Some necessary detection technologies unavailable

CBRNE Equipment Standards

PRIORITY

Standards for Personal Protection Equipment (PPE)

Standards for CBRNE Respiratory Devices



National Institute for Occupational Safety & Health

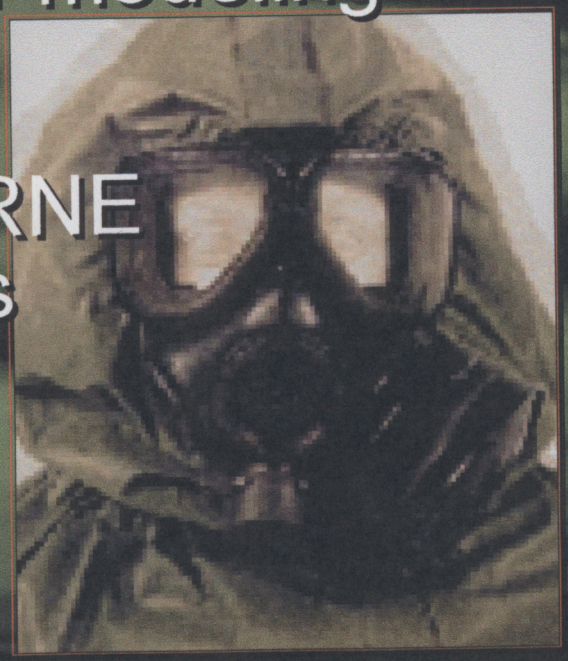
- Lead technical role

U.S. Army Soldier Biological Chemical Command

- Supports NIOSH's efforts

Team Achievements

- Identification of specific respiratory hazard exposures
- Computer-based tool for modeling CBRNE attacks
- Analysis of existing CBRNE respiratory standards
- First CBRNE respirator certification standard



CBRNE Equipment User Guides

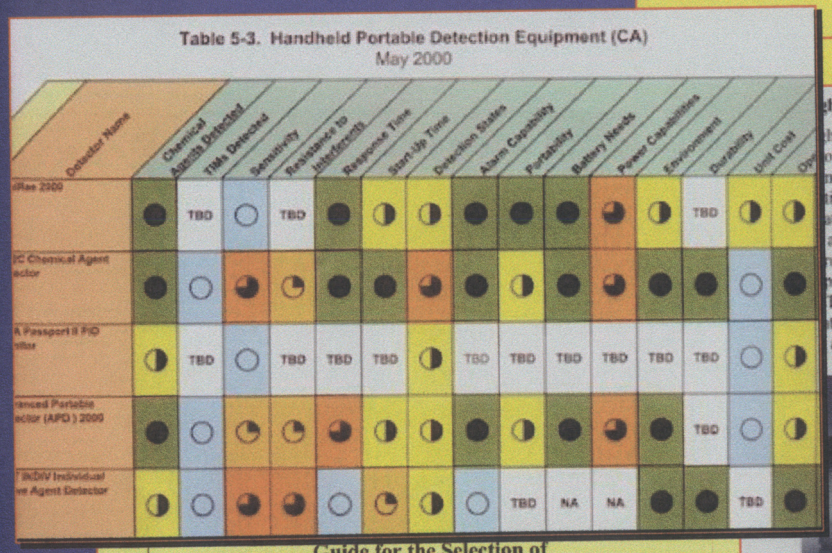


Table 5-3. Handheld Portable Detection Equipment (CA)
May 2000

Detector Name	Chemical Agents Detected	TIMs Detected	Sensitivity	Resistance to Interferents	Response Time	Start-Up Time	Detection States	Alarm Capability	Portability	Battery Needs	Power Capabilities	Environment	Durability	Unit Cost	Operation
iRae 2000	●	TBD	○	TBD	●	◑	◑	●	●	●	◕	◑	TBD	◑	◑
IC Chemical Agent ector	●	○	◕	◔	●	●	◕	●	◑	●	◕	●	●	○	●
A Passport II PID nitor	◑	TBD	○	TBD	TBD	TBD	◑	TBD	TBD	TBD	TBD	TBD	TBD	○	◑
anced Portable ector (APD) 2000	●	○	◔	◔	◕	◑	◑	●	◑	●	◕	●	TBD	○	◑
ChemRAE Individual ve Agent Detector	◑	○	◕	◕	○	◔	◑	○	TBD	NA	NA	●	●	TBD	●

Guide for the Selection of
Chemical Agent and Toxic Industrial Material
Detection Equipment for Emergency First Responders

NIJ Guide 100-00

Volume I
June 2000

h Performance Liquid Chromatography (HPLC)

h performance liquid chromatography is most useful in the detection and
on of larger molecular weight chemical agents such as BZ or LSD, and in the
nd identification of biological agents. With HPLC, those compounds that do not
ilize can be analyzed without undergoing chemical derivatization. HPLC
ation is available from a variety of vendors such as Hewlett Packard, Perkin-Elmer,
and Varian, and is shown in Figures 3-15, 3-16, 3-17, and 3-18. As with GCs,
ruments can be equipped with a variety of detectors such as ultraviolet–visible
pectrometers, mass spectrometers, fluorescence spectrometers, and electrochemical
Two limitations to the fielding of HPLCs and their detectors are the need for power
ts (120V house current) and high purity solvents. Currently there is no portable
available.

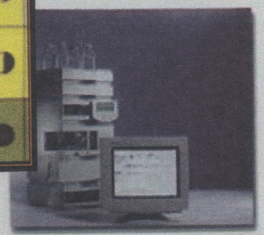


Figure 3-15. Hewlett Packard HP1000 HPLC System

Figure 3-16. Perkin-Elmer Turbo LC Plus HPLC System

Figure 3-17. Shimadzu LC-10 HPLC System

Figure 3-18. Varian ProStar Analytical HPLC System

CBRNE Equipment Standards

PROGRAM EXPANSION

- CB Detection
- Decontamination
- Radiological, Nuclear and Explosives

NFPA® INTERNATIONAL

CUM SCIENTIA DEFENDIMUS SBCCOM

NIOSH

NIJ NATIONAL INSTITUTE OF JUSTICE

NIST

stan′•dard *(n.)*

a conspicuous object (as a banner) carried at the top of a pole and used to mark a rallying point, especially in battle, or to serve as an emblem.

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