NATIONAL INSTITUTE OF JUSTICE (NIJ) CENTER REQUIREMENTS DEFINITION, TECHNICAL ASSISTANCE, AND ANALYSIS

L-3 Communications Analytics Corporation

AIR FORCE RESEARCH LABORATORY
INFORMATION DIRECTORATE
ROME RESEARCH SITE
ROME, NEW YORK

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APPROVED:

ERIC C. JONES
Project Engineer

FOR THE DIRECTOR:

JOSEPH CAMERA, Chief
Information & Intelligence Exploitation Division
Information Directorate

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6. AUTHOR(S)
Frederick K. Frantz

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
L-3 Communications Analytics Corporation

1300-B Floyd Avenue

Rome New York 13440-4615

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Air Force Research Laboratory/IFEA

32 Hanger Road

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AFRL Project Engineer: Eric C. Jones/IFEA/(315) 330-4410/ Eric.Jones@rl.af.mil

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13. ABSTRACT *(Maximum 200 Words)*

The mission of the National Law Enforcement and Corrections Technology Center – Northeast Region (NLECTC-NE), in conjunction with the Air Force Research Laboratory/Information Directorate (AFRL/IF), is to facilitate the identification, development, and adoption of new products and technologies specifically designed for law enforcement, corrections, and other criminal justice applications. The current technology thrust areas for the Northeast Region are Concealed Weapons Detection, Secure Communications, Computer Forensics, Information Management, AGILE, and various technical assistance projects. This report outlines the major accomplishments of the NLECTC-NE under the L-3 Analytics Task Ordering Contract (TOC), and identifies on-going technology efforts. These accomplishments include outreach activities, scientific and engineering assistance, AGILE development and technology demonstration activities, cyber crime initiatives, and Integrated Border Enforcement Teams (IBET) technology support.

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The mission of the National Law Enforcement and Corrections Technology Center–Northeast (NLECTC-NE) Region, in conjunction with the Air Force Research Laboratory/Information Directorate (AFRL/IF), is to facilitate the identification, development, and adoption of new products and technologies specifically designed for law enforcement, corrections, and other criminal justice applications. The current technology thrust areas for the Northeast Region are Concealed Weapons Detection, Secure Communications, Communications Interoperability, Timeline Analysis, Computer Forensics, Audio/Video Processing, Information Management, Automatic Speaker Recognition, Automatic Language Translation and Facial Recognition.

The NLECTC-NE Center is located in Central New York at the Air Force Research Laboratory/Information Directorate (AFRL/IF) in Rome, NY. L-3 Communications Analytics Corporation (L-3 Analytics), Dolphin Technology, Inc., and New York State Technology Enterprise Corporation (NYSTEC) support the management of the Center under contract. The Team consists of L-3 Analytics, Dolphin, and NYSTEC personnel and will henceforth be referred to as the L-3 Analytics Team or the Team. This report outlines the major accomplishments of the NLECTC-NE under the L-3 Communications Analytics, Inc., Task Ordering Contract (TOC). Activities of the L-3 Analytics Team described in this report are divided into four sections: outreach activities, scientific and engineering assistance activities, and two special projects. The technical focus of the special projects are interoperability (the AGILE project) and cybercrime.

2. OUTREACH ACTIVITIES

Part of the mission of the Center is to publicize the activities and the services of the NLECTC system to the state and local law enforcement and corrections community. This is accomplished by presentations at key conferences and meetings, by conducting demonstrations of technologies at Tech Fairs, and by working with an advisory council.

2.1 PRESENTATIONS, CONFERENCES, AND SYMPOSIA

The Team conducted a number of outreach activities including presentations and attendance at regional and national law enforcement and corrections conferences and seminars. The following is a list of the conferences and meetings supported:

DATE	CONFERENCE	LOCATION
May 2001	Border Research and Technology Center Regional Advisory Council Meeting	Burlington, VT
May 2001	Defense Logistics Agency's Annual Law Enforcement Support Office Conference	Williamsburg, VA
August 2001	CWD Program Review	San Diego, CA
August 2001	American Correctional Association 131st Congress	Philadelphia, PA
August 2001	Conference of the Fraternal Order of Police	Phoenix, AZ

DATE	CONFERENCE	LOCATION
September 2001	New York State Sheriff's Association Corrections Supervisors Training Conference	Albany, NY
September 2001	Public Safety Wireless Network Symposium	Annapolis, MD
October 2001	Workshop at the International Association of Chiefs of Police Annual Convention	Toronto, Canada
November 2001	Correctional and Youth Services Conference	Saratoga Springs, New York.
February 2002	Technology Display for the Solicitor General of Canada	Cornwall, ON

2.2   TECHNOLOGY DEMONSTRATIONS

The Team was activitely involved in demonstrating new technologies as part of the outreach to the law enforcement, corrections, and public safety community. The following is a list of the events in which the Team conducted technology demonstrations:

DATE	CONFERENCE	LOCATION
July 2001	Congressional Tech Fair	Washington, DC
July 2001	Rensselaer County, NY law enforcement personnel	Rome, NY

2.3   NLECTC-NE ADVISORY COUNCIL

The NLECTC-NE Advisory Council is composed of law enforcement and corrections practitioners from each of the sixteen states in the Northeast region. Their mission is to provide prioritization of requirements, address state and local issues, and to support interfaces with the law enforcement and corrections community within each state. The Council meets semi-annually within the various states in the Northeast region and the L-3 Analytics team fully supports each meeting, including the planning and coordinating of sites, agendas, travel arrangements and guest speakers.

Regional Advisory Council Meetings were held in Rome, NY on the 13-14 of November 2001, and in New York City on 26-27 March 2002.


3.   SCIENTIFIC AND ENGINEERING ASSISTANCE

3.1   TECHNOLOGY ASSISTANCE EFFORTS

Scientific and Engineering assistance was provided to several public safety agencies in the general area of communication and information technology. Assistance ranged from simple responses to

questions, to more detailed studies, analyses, and on-site visits. Activities that required analysis and/or site visits were conducted on behalf of the following agencies:

- *Madison County (NY)*—Provided assistance in identifying near-term affordable activities that could be implemented to improve the performance of their radio system while they continue efforts to secure funding for a full system upgrade.

- *Rensselaer County (NY) Sheriff's Department*—Reviewed a vendor proposal to implement a mobile data system using the existing infrastructure of their voice radio system. Assistance included an inspection of the radio system infrastructure and generation of propagation models to confirm the vendor's coverage analysis. An example of the propagation results is included in Figure 1.

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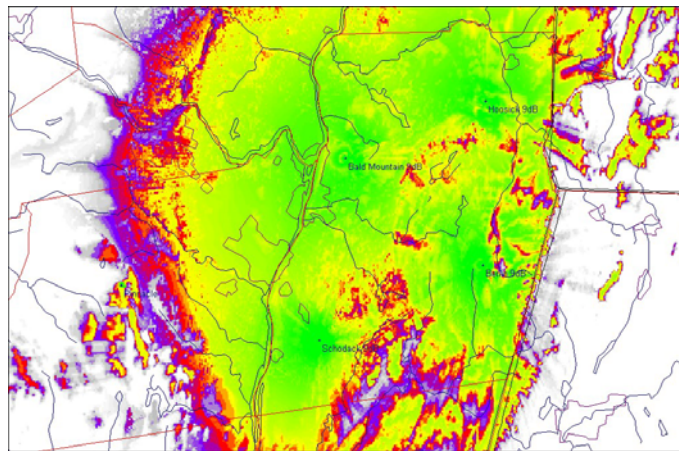
Figure 1. Proposed Mobile Data System Signal Strength (Okumura Model)

- *McLean County (IL) Consolidated Communications Board*—Provided strategic recommendations on whether to replace their existing radio system or upgrade it to meet performance specifications. Activities included review of existing studies, on-site visit, and a final presentation of recommendations to the Board. The following NLECTC-NE Report was generated as a part of this assistance activity:

    ❖ *Technology Analysis and Assessment: McClean County, Illinois Consolidated Communications Radio System, NLECTC-NE Report 02-100.*

- *Methuen (MA)*—Began an assessment of the information technology needs of the public safety agencies in Methuen.

- *West Chester (PA) Police Department*—Provided recommendations on their procurement approach for a new radio system.

- *Texas*—Assisted in the development of a database for maintaining information on the inventory of communications assets of public safety agencies throughout the state.

- *Utica (NY) Police Department*—Performed research regarding mobile data to address their problem of sharing voice and data on their 800MHz radio and are looking for alternatives such as their VHF infrastructure or a cell phone carrier.

- *New York State Department of Environmental Conservation*—Reviewed Computer Aided Dispatch and Records Management Needs documentation.

- *Vermont Department of Public Safety*—Provided information on co-location site interference between public safety radio (460Mhz) and HDTV broadcast transmitter.

- *Paris (TN) Police Department*—Provided recommendations on lower-cost alternatives to their current data network.

- *Oneida Indian Nation Police Department*—Provided information on lessons learned from the CNY-LEN project regarding mobile data and some of the pitfalls regarding throughput and performance expectations of mobile systems.

- *New York State Police Bureau of Criminal Investigation*—Identified information technology requirements and developed an information sharing concept of operations. In addition, the Team monitored the work of General Dynamics (funded under the ARIES II program) in conducting an assessment of intelligence information needs.

3.2   OTHER SCIENTIFIC AND ENGINEERING ASSISTANCE EFFORTS

General technical support to the NLECTC-NE has been provided, including compilation of reports for the National Institute of Justice (NIJ), conference and meeting coordination, maintenance of the Northeast website, and grant assistance. There were 480 requests for information received by the NLECTC-NE. These included Commercialization Assistance, Equipment Acquisition Assistance, Requests for Information & Publications Assistance, Standards and Testing, Technology Assistance (SEAS), Technology Demonstrations/Introductions, and Training Assistance (Capacity Building).

3.3   OPERATIONAL EVALUATION

Technical support was provided to the New York State (NYS) Department of Correctional Services (DoCS) Product Evaluation Committee (PEC). The PEC evaluates new products to be procured by the NYS DoCS system or facilities. Information coordination was provided for the PEC by tracking product evaluations in other states to facilitate information exchange and provide technical advice on products under evaluation.

Based on participation with the NYSDOCS PEC, the L-3 Analytics Team helped facilitate the creation of an eleven state regional product evaluation organization called the Northeast Technology and Product Assessment Committee (NTPAC). L-3 Analytics provided technical support and participated in their quarterly meetings.

The Team also supported the Federal Aviation Administration in evaluation of technology for concealed weapon detection (the SecureScan 2000 magnatometer), and in a separate evaluation of the RadarVision 2000 Through-the-Wall surveillance system.

3.4   CAPACITY BUILDING

The Team participated in a number of events that were intended to enhance the ability of law enforcement and corrections agencies to apply new technologies to address their requirements. The Team supported the following activities:

- *Rochester Project*—Organized a seminar for law enforcement and public safety representatives on a variety of cybercrime topics including "Securing Digital Evidence", "Insider Threat", and "Legal Issues for Digital Evidence".

- Forensic crime scene training for the Mid Atlantic Great Lakes Organized Crime Law Enforcement Network (MAGLOCLEN).

- *Executive Technology Briefs*—Short (two-page) summaries were written on key communications topics such as Interoperability, Radio Spectrum, and Crossband Repeaters.

3.5   1033 PROGRAM SUPPORT

Assistance with the 1033 Federal Surplus Property Program was given to the following agencies:

Erie County, NY Sheriff's Department

Rhode Island Corrections Department

Hempstead, NY Police Department

New York Police Department Disorder Control Unit

Queens County, NY District Attorney's Office

Ithaca NY Police Dept.

Cayuga County, NY Sheriff's Department

Ulster County, NY Sheriff's Department

Canastota, NY Police Department

Olmstead County, MN Sheriff's Office

Livingston County, NY Sheriff's Department

Norway, ME Police Department

Franklin County, NY Sheriff's Department

New York City Department of Environmental Protection Police

Syracuse, NY Police Department

Michigan State Coordinator's Office

Maryland State Coordinator's Office

Albany County, NY Sheriff's Department

Connecticut State Coordinator's Office

Hot Springs, NC Police Dept.

Vermont State Coordinator's Office

Essex County, NY Sheriff's Deppartment

U.S. Secret Service

U.S. Immigration and Naturalization Service

Johnstown, NY Police Department

SUNY Morrisville, NY Police Department

Middletown, NY Police Department

Burton, MI Police Department

Rome, NY Police Department

Newport, VT City Police Department

Windsor, VT Police Department

Franklin County, VT Sheriff Department (St. Albans, VT)

Scottville, MI Police Department

Albion, MI Deartment of Public Safety

Minnesota State Coordinator's Office

Woodhaven, MI Police Department

Prarie du Chien, WI Police Department

Oscoda, MI Police Department

Lorain Cunty, OH Sheriff's Department

New York Police Department - School Safety Division

Massachusetts Department of Corrections

3.6   SCHOOL SECURITY

The Team continued providing support to various agencies in the area of school safety. Staff met with the Utica, NY Public School Superintendent to provide information on Office of Juvenile Justice and Deliquency Prevention (OJJDP) grants and invite participation in an OJJDP teleconferences on the grants.

Team personnel traveled to the Madison Park Technical-Vocational High School in Boston, MA to observe the progress made on the security upgrades previously installed, which included cameras, a digital storage system, and *CEIA* metal detectors.

The Team continues to work with the New York Police Department School Safety Division in following up and documenting the final results of the concealed weapons detection operational evaluation conducted in 2000.

The Team responded to a request from the Oneida Co. NY Board of Cooperative Educational Services for information on obtaining aerial mapping and geographic data for their schools as part of a security project.

4.   ADVANCED GENERATION INTEROPERABILITY FOR LAW ENFORCEMENT

The Advanced Generation of Interoperability for Law Enforcement (AGILE) program is a major commitment by the National Institute of Justice (NIJ) to address the issues of interoperability that hampers effective and efficient cooperation among multiple law enforcement and other public safety agencies. Interoperability issues appear in various ways: communications systems which cannot support inter-agency communications, information that is not accessible by all agencies who need it, and open case and suspect information maintained by one agency that is unknown by other agencies working on related cases. The AGILE program is a broad-based set of activities to address the varied aspects of the interoperability challenge, organized into three major thrust areas:

- Research, development, test, and evaluation (RDT&E);

- Standards identification, development, and adoption; and

- Outreach and technical assistance.

A key component of the AGILE RDT&E thrust area is an Operational Test Bed (OTB) in a public safety environment to integrate, test, and evaluate technologies that can contribute to addressing interoperability needs. For the OTB, candidate technology solutions to specific interoperability requirements are categorized and evaluated to address key issues of voice over-the-air interoperability, data transmission interoperability, data sharing, and data analysis. The evaluations include quantitative performance measurements as well as qualitative evaluations of the impact of the technology on law enforcement agency operations.

4.1   OPERATIONAL TEST BED—ALEXANDRIA

The Operational Test Bed—Alexandria (OTB-A), is an operational evaluation of an ACU-1000 Intelligent Interconnect unit for linking together disparate radio communications systems. The initial testbed included the U.S. Park Police, Washington Metropolitan Area Transit Authority Police, and the Metropolitan (DC) Police Department as partners with the Alexandria Virginia Police Department in evaluating the ACU-1000 in an operational setting.

The ACU-1000 saw its first emergency operational use on 17 May 2001. There was an attempted abduction of a female jogger on a bike path in Alexandria, VA. During the search for the suspect, the

United States Park Police (USPP) helicopter and three ground units responded to assist. Alexandria Police Department (APD) units had a communications link with the USPP helicopter since it is equipped with an 800 MHz radio; however, they could not communicate with the ground units (two of which were K-9 officers assisting). The ACU-1000 was set up to establish a cross-band link between APD and USPP on tactical frequencies and the link remained active for approximately forty-five minutes. While an arrest was not made in the case, the cross-band link provided a valuable communication link between the APD and USPP ground officers.

The initial success of the system led to participation of additional agencies. The Maryland State Police low-band antenna was permanently installed on the roof of the Alexandria Police Department. Field testing was conducted of the interface to the Prince George's County (MD) Police Department and APD and the United States Park Police. Various conversations were conducted between each of the agencies.

The operational evaluation was then extended to include a new technology for communications: Voice over Internet Protocol. Two NXU-2 devices were obtained on loan from JPS Communications to provide a Voice over IP (VoIP) interface to the ACU-1000. The NXU-2 devices were installed at the ACU-1000 in the APD Public Safety Building and an off-site office. The devices allow remote control of the ACU-1000 and remote audio interface with the device over the Alexandria city local area network (LAN) using VoIP technology. In order to avoid disrupting activity on the city's LAN, a DSL line was installed both sites, allowing the ACU-1000 to be accessed over the Internet for demonstration purposes.

The system was to be used to support security for the planned International Monetary Fund (IMF) meeting planned for late September 2001, in Washington, DC. Team personnel participated in a number of meetings to plan for the event. The plan was to use the ACU-1000 switch at APD in much the same as it was during the Bush Inauguration—in standby in the event of a disaster.

On 11-12 September 2001, Team members reacted to the terrorist attack on the Pentagon. The ACU-1000 was activated, and at the FBI's request, a new simplex frequency was programmed into one of the radios. A test of the ACU-1000 to reach the FBI's Washington Field Office on this new channel was conducted, and the signal was loud and clear. However, no requests to link agencies were received. Channels were monitored, including PMARS, and were able to provide additional information to APD dispatchers.

Subsequent to the attack on the Pentagon, the Council of Governments (COG) in the Washington metropolitan area began an initiative to improve the level of communications interoperability among their public safety agencies. Based on the recommendations of members of the participating agencies of the OTB-A, the COG adopted a plan that would expand the initial OTB-A Gateway system and use that system as the model for additional sites deployed in the region. The Team then designed, procured, and installed an expanded version of the Gateway System, including a second ACU-1000, additional radios including VHF low-band radios, additional antennas, cables, and so on. The equipment racks with ACU-1000 and radios is shown in Figure 2.

Figure 2. Expanded Gateway System

The ACU-1000 was also activated and used to coordinate the activities of multiple agencies during National Police Week. Many of the activities involved transporting officers from out of the area, and the ACU-1000 was used to facilitate coordination among multiple agencies.

The following document was generated describing the activities and results of the activities associated with the Operational Test Bed—Alexandria:

- *Operational Test Bed—Alexandria Communications Interoperability Gateway Subsystem Operational Test Document, AGILE Report No. TE-00-04.*

4.2   CAPWIN SUPPORT

Part of the AGILE effort included support of the Capital Wireless Information Network (CapWIN) project. The goal of CapWIN is to deploy a wireless information infrastructure in the metropolitan Washington (DC) area to support transportation and public safety information exchange requirements. Team member support to the project included assisting in requirements definition for the data switch and assisting in the technical evaluation of vendor proposals for deploying the data switch.

4.3   RAPID IMAGE DISSEMINATION FOR MISSING AND EXPLOITED CHILDREN

The Rapid Image Dissemination (RID) software was originally designed to facilitate the rapid dissemination of pictures in missing children cases, and was evaluated by the Alexandria Police Department Youth Division (APD YD) to post pictures of runaways. For example, a parental abduction resulted in the creation of missing person's flyers using the RID system. L-3 Analytics personnel assisted the APD YD to configure their software to print the posters over the network and redesigned some of the RID posters at the request of APD Staff.

4.4 **SECURE COMMUNICATIONS INTEROPERABILITY OPERATIONAL EVALUATION**

The objective of this operational evaluation was to (a) demonstrate and evaluate use of ACU-1000 in situations that require secure communications; and (b) identify technical and operational requirements for interoperability among local, state, and federal agencies in situations that require secure communications. Under this activity, the NLECTC-NE is assisting the Syracuse Police Department in configuring and deploying an ACU-1000, which they purchased for both general incident management as well as counter narcotic task force operations. The counter narcotics application requires that communications be encrypted.

As part of the Secure Communications Interoperability Operational Evaluation, the AGILE project team worked with the Syracuse Police Department (SPD). SPD purchased an ACU-1000 Intelligent Interconnect unit along with four radios. The AGILE project team integrated the ACU-1000 and radios were integrated. Integration included fabricating cables to connect the ACU-1000 and the MCS-2000 radios, mounting the radios on the shelves of the equipment rack, and programming the radios. The AGILE team also integrated a custom power distribution system that allows the ACU-1000 and radios to be run completely off of AC or DC power. The ACU-1000 was then delivered to the Syracuse Police Department and initial functional testing was performed on the VHF/UHF radio links. The unit is shown in Figure 3.

Figure 3. Syracuse Interoperability Unit

The ACU-1000 unit was first used operationally (using unencrypted communications) to support the Ultimate Fishing Challenge held on Onondaga Lake. The unit was installed at the temporary command center established in a fire department located north of the lake. In addition to the VHF and UHF radios mounted in the unit, an 800 MHz radio was attached to the unit to interface with the New York State Police helicopter that was supporting the activity. Bush Electronics, which maintains an 800 MHz radio system for public safety agencies in Onondaga County, provided an interface cable to an 800 MHz radio that was used. During the first day's events the ACU-1000 performed as expected. However, once the State Police's helicopter was airborne, the rotary blades interfered with the clarity of the communications. With a few minor adjustments to the settings in the ACU-1000, that problem was rectified. All participating law enforcement agencies were extremely pleased with the ACU-1000's performance. Syracuse Police Department staff commented on the unit's ease of use. After the AGILE team provided a short tutorial on the unit, the Syracuse Police Department staffs were able to make their own adjustments through the graphical computer interface to the ACU-1000 settings to better optimize the crossband communications.

The Syracuse Police Department ordered a cable needed to load the encryption keys for the radios mounted in their ACU-1000. Once loaded, the AGILE team and representatives of the SPD conducted field tests on the unit using encrypted communications. Audio quality for DVP-DVP transmission was good with no apparent degradation. Parameters for the DSP-1 interface cards were optimized for performance with encrypted communications.

As an outgrowth of this activity, the SPD began to consider the possibility of using an ACU-1000 to link various city agencies. The AGILE team met with Syracuse Police Department and representatives of the City of Syracuse Budget Office to discuss applicability of an ACU-1000 to addressing their interdepartmental communications needs. This was followed by a demonstration of the ACU-1000 for the Syracuse Police Department Chief, the Syracuse City Budget office, and city department heads. The purpose of the demonstration was to introduce the ACU-1000 as a candidate technology for providing interdepartmental communications at a lower cost than the Nextel phones currently being used. AGILE team members developed a questionnaire to collect information on each department's radio system and interoperability requirements. The questionnaire was forwarded to Syracuse Police Department for distribution to the city departments. The results of the survey were then entered into a Microsoft Access database and analyzed to determine the potential value of a crossband device.

The following document was generated describing the activities and results of the activities associated with the secure communications interoperability operational evaluation:

- *Secure Communications Interoperability Operational Evaluation, AGILE Report No. TE-02-01.*

4.5   SOFTWARE DEFINED RADIO REQUIREMENTS ASSESSMENT

The L-3 Analytics Team began working to define public safety requirements for software defined radios, a new technology for building radio systems. The first step was creation of a group that could represent the public safety community. Thus NIJ, through the National Public Safety Telecommunications Council (NPSTC), formed a working group comprised of public safety representatives to work with technology developers as well as regulatory and standards bodies to represent the interests and concerns of the public safety community in the technical area of software defined radios. One such organization is the Software Defined Radio (SDR) Forum. The SDR Forum is an international, nonprofit organization dedicated to the development, deployment, and use of SDR technologies for advanced wireless systems. In May 2002, the National Public Safety Telecommunications Council became an active member of the SDR Forum. The Team provided technical support to the NPSTC SDR Working Group and facilitated several meetings that led to the NPSTC membership in the SDR Forum.

4.6 INTEROPERABILITY ASSISTANCE

The Team provided assistance to agencies specifically looking at interoperability issues. Among the projects are the following:

- *Gahanna OH*—Work began in response to a request for communications interoperability technical assistance from the Director of Emergency Communication, Gahanna, Ohio. Several teleconferences were held to obtain information on the current system and the interoperability requirements. The Team also reviewed a report from a 1999 study that provided further detail on the interoperability requirements.

- *Texas Radio Inventory Survey Tool*—The Team assisted in defining requirements and reviewing the database design of a database tool developed by the NLECTC-Rocky Mountain (RM) to allow the Sheriff's Association of Texas to compile information on their radio system assets.

4.7 OUTREACH

The Team conducted a number of outreach activities including presentations, and attendance at regional and national law enforcement and corrections conferences and seminars. The following is a list of the conferences and meetings supported:

DATE	CONFERENCE	LOCATION
May 2001	IACP Law Enforcement Information Management Conference	Plano, TX
June 2001	Public Safety Wireless Network Symposium	Minneapolis, MN
July 2001	National Association of Property Recovery Investigators	Nashville, TN
December 2001	National Conference of State Legislatures	Washington, DC
January 2002	Sheriff's Association of Texas	Austin, TX
January 2002	Project North Star Integrated Border Enforcement Teams Workshop	Niagara Falls, ON
February 2002	Texas Department of Emergency Management Conference	Austin, TX
April 2002	Texas Fire Officer's Convention	Corpus Christi, TX
April 2002	Texas Police Chief's Conference	San Antonio, TX
April 2002	International Wireless Communications Exposition	Las Vegas, NV
May 2002	APCO East Conference	Greensboro, NC

The Team also developed an Interoperability Resource CD-ROM, containing a number of technical documents and videos developed by all members of the AGILE Project Team. A total of 16,000 CDs were printed and distributed to law enforcement and public safety personnel.

4.8   TECHNOLOGY DEMONSTRATIONS

Interoperability technology demonstrations were also conducted as part of the effort to introduce technology to the law enforcement and public safety community. Some demonstrations were conducted on-site at the Operational Test Bed—Alexandria (OTB-A) in Alexandria, VA. Others were conducted at various sites around the country.

DATE	AGENCIES	LOCATION
July 2001	FBI	OTB-A
August 2001	APCO International Annual Conference	Salt Lake City, UT
August 2001	Metropolitan (DC) Police Department	OTB-A
October 2001	Federal Emergency Management Agency	OTB-A
November 2001	Public Safety Wireless Network	OTB-A
November 2001	NLECTC-NE Regional Advisory Council	Rome, NY
December 2001	National Conference of State Legislatures	Washington, DC
December 2001	City of Syracuse Agencies	Syracuse, NY
January 2002	Sheriff's Association of Texas	Austin, TX
January 2002	Project North Star Integrated Border Enforcement Teams Workshop	Niagara Falls, ON
February 2002	Texas Department of Emergency Management Conference	Austin, TX
February 2002	Congressional Staff for Cong. Harmon (CA)	OTB-A
February 2002	Texas Dept. of Public Safety	OTB-A
March 2002	NLECTC-NE Regional Advisory Council	New York, NY
April 2002	Texas Fire Officer's Convention	Corpus Christi, TX
April 2002	Texas Police Chief's Conference	San Antonio, TX
April 2002	International Wireless Communications Exposition	Las Vegas, NV

DATE	AGENCIES	LOCATION
May 2002	Syracuse Police Dept. and NIJ staff	Syracuse, NY
May 2002	HazMat Exercise	New London, CT
May 2002	IACP LEIM	Westminster, CO

5. CYBER CRIME INITIATIVES

The CyberCrime program involved a multi-faceted approach to supporting the law enforcement community, including further support for cybercrime coalitions, evaluation of candidate software tools, development of technical materials, and outreach activities. A key element of the program, the Cyber Science Laboratory/Research Center, was opened at Air Force Research Laboratory (AFRL) on 27 September 2001. This Center will become a clearinghouse for electronic crime information.

5.1 COALITIONS

Coalition activities included participation with the New York Electronic Crimes Task Force. NYECTF activities included briefing the US Treasury Secretary on the NLECTC-NE Electronic Crime Program and its relationship with the NYECTF. The issue of technology deployment vs. policy and resources in combating cyber crime was discussed. Team personnel participated in quarterly meetings of the NYECTF, and began transitioning lessons learned to other similar Task Forces, including the California High Tech Crime Task Force and the New England Electronic Crimes Task Force.

A New York State Cybercrime Summit was planned. Planning activities included identifying Working Group Chairs from the academia, law enforcement and private sector communities.

The Steering Group for the Consortium for Infrastructure Protection was another coalition supported under this effort. A major objective of this Consortium is to deal with state and local information infrastructure requirements. This coalition includes AFRL, the State University of New York Institute for Technology (SUNY IT), and Utica College. Recommendations for the NLECTC-NE Electronic Crime Intern Program were obtained in conjunction with this group (see Section 5.5).

Meetings were also held with SUNY Research Foundation to plan their participation in the Information Assurance Center of Excellence and support to the NLECTC-NE Electronic Crime Intern Program (see Section 5.5).

5.1.1 Response to the September 11 Attacks

The attacks on September 11, 2001, completely destroyed the 7 World Trade Center building, home of the U.S. Secret Service NY Field Office and the New York Electronic Crime Task Force (NYECTF). As part of the ongoing partnership between the NLECTC-NE and the NYECTF, Team personnel worked to assist the NYECTF to restore their operating capability in a timely fashion. The Team worked to facilitate donations, loans, surplus military distribution, or procurement of the following items for the NYECTF:

➢ Laptop computers.

➢ Printer, copier, and fax machine.

- ➢ ImageMasster unit.

- ➢ SafeBack Disk Imaging software.

- ➢ EnCase software dongles.

- ➢ Dell PowerVault 110T tape backup unit.

- ➢ NYECTF electronic membership organizational chart.

- ➢ HP OfficeJet V40 unit (printer/scanner/fax/copier) and a ScanJet 3300 scanner.

- ➢ Air conditioning units.

- ➢ Safes.

5.2   EVALUATION OF CANDIDATE SOFTWARE TOOLS

Several software tools were reviewed and evaluated for applicability to meeting law enforcement requirements for combating cybercrime. These tools included:

- ➢ The Synthesis Information from Forensics Investigations (SI-FI).

- ➢ StegoWatch.

- ➢ Digital Evidence Time Stamping (DETS).

- ➢ Forensic Analysis Collection System (FACS).

- ➢ Mobile Forensics Platform.

Some of these tools were among the twenty (20) tools demonstrated at the Computer Forensics Experiment II (CFX-II) at the State University of New York in Marcy, New York. The workshop was an interactive computer forensic tools expo for the defense and law enforcement community. The event was Webcast, and a CD of highlights of the Webcast was compiled and distributed to law enforcement personnel.

5.3   DEVELOPMENT OF TECHNICAL MATERIALS

A CD was produced with presentations and agenda highlights of the "Information Assurance and e-crime Workshop Series: Opportunities for Public, Private and Academic Partnerships in Information Assurance and e-crime". The CD was then distributed to various law enforcement agencies and personnel.

Work began on developing documentation of recent case histories for a lessons learned/best practices guide in conjunction with the Electronic Crimes Task Force.

A Web-based environment was also developed to provide information and resources that could be accessed by the law enforcement community.

Staff participated in the Technical Working Group for Examination of Electronic Evidence, which is developing a booklet focusing on the examination of digital evidence.

The Team worked with Special Agents from the U.S. Secret Service NYECTF to document three cases that the agents worked. The cases involved telecommunications fraud, identity theft, and network cracking.

5.4   OUTREACH

A web-based environment for the Northeast Center with regard to cybercrime and computer forensics was developed. Activities included gathering of electronic resources and development of web pages.

DATE	CONFERENCE	LOCATION
June 2001	AFCEA Information Superiority Conference	Clinton, NY
June 2001	Rochester Project 2001	Rochester, NY
July 2001	New York Electronic Crimes Task Force	New York, NY
July 2001	Opening of the Regional Computer Forensics Laboratory—Western New York	Buffalo, NY
August 2001	Mid-Atlantic Great Lakes Organized Crime Law Enforcement Network (MAGLOCLEN) Forensic Crime Scene Training	Saratoga, NY
August 2001	Digital Forensic Research Workshop	Rome, NY
August 2001	Rensselaer County, NY District Attorney's Conference	Troy, NY
August 2001	Defense Security Systems	Rome, NY
September 2001	High Technology Crime Investigation Association's International Training Conference	Long Beach, CA
September 2001	New York State Sheriff's Association	Saratoga, NY
November 2001	Air Force Scientific Advisory Board	Rome, NY
January 2002	NYS Office of Security	Rome, NY
April 2002	TechnoSecurity Conference	Myrtle Beach, SC
April 2002	South Carolina Law Enforcement Division "State of the State in Computer Crime"	Columbia, SC
April 2002	CyberCrime/CyberTerrorism Summit	Princeton, NJ
May 2002	NIJ Conference	Albuquerque, NM
May 2002	Syracuse University Center for System Assurance Conference	Syracuse, NY

5.5   INTERN PROGRAM

The Team worked with the State University of New York Institute of Technology (SUNY IT) and Utica College to establish an intern program for college students studying economic crime and information security to gain work experience in their field.

6.   INTEGRATED BORDER ENFORCEMENT TEAMS (IBET) TECHNOLOGY SUPPORT

At the request of the Law Enforcement Coordinator of the U.S. Attorney's Office for the Northern District of New York, NLECTC-NE staff began providing technology assistance to the Integrated Border Enforcement Teams (IBETs) being formed among U.S. and Canadian law enforcement agencies, particularly in the wake of the September 11 attacks. An initial meeting was held in Massena, New York, with representatives of the U.S. Border Patrol, U.S. Customs, Royal Canadian Mounted Police, and the U.S. Attorney's Office for the Northern District of New York, New York State Police, and Cornwall Community Policing. The trip also included a site visit to areas along the St. Lawrence River along the New York-Ontario border. The purpose of the meeting was to identify in broad terms the technology areas that the NLECTC-NE could address. Four major areas were identified:

- Radio Communications;

- GIS/mapping;

- Law enforcement technologies; and

- Intelligence analysis.

Working groups were formed to address each of these technology areas.

Subsequent meetings were held in Rome, New York, and Syracuse, New York. At each meeting key technologies were briefed and demonstrated, and breakout sessions were held for each working group. The Radio Communications Working Group developed a Statement of Requirements to define the key technology areas for investigation.

NLECTC-NE personnel also provided demonstrations and information at a Project North Star meeting in Niagara Falls, ON, and a tech fair in Cornwall, ON.

7.   FUTURE OUTLOOK

The vast majority of NLECTC-NE's efforts are ongoing. Technical and administrative support will continue to be provided under newly awarded contracts.